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Guide for the Selection of Communication Equipment for Emergency First Responders

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Guide for the Selection of Communication Equipment for Emergency First Responders

NIJ Guide 104-00, Volume II

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FOREWORD

The Office of Law Enforcement Standards (OLES) of the National Institute of Standards and Technology (NIST) furnishes technical support to the National Institute of Justice (NIJ) program to support law enforcement and criminal justice in the United States. OLES's function is to develop standards and conduct research that will assist law enforcement and criminal justice agencies in the selection and procurement of quality equipment.

OLES is: (1) subjecting existing equipment to laboratory testing and evaluation, and (2) conducting research leading to the development of several series of documents, including national standards, user guides, and technical reports.

This document covers research conducted by OLES under the sponsorship of NIJ. Additional reports as well as other documents are being issued under the OLES program in the areas of protective clothing and equipment, communications systems, emergency equipment, investigative aids, security systems, vehicles, weapons, and analytical techniques and standard reference materials used by the forensic community.

Technical comments and suggestions concerning this guide are invited from all interested parties. They may be addressed to the Office of Law Enforcement Standards, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8102, Gaithersburg, MD 20899-8102.

Sarah V. Hart, Director
National Institute of Justice

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COMMONLY USED SYMBOLS AND ABBREVIATIONS

| | | | | | |
|------|----------------------|--------|---------------------|------|---------------------|
| A | ampere | h | hour | oz | ounce |
| ac | alternating current | hf | high frequency | o.d. | outside diameter |
| AM | amplitude modulation | Hz | hertz | Ω | ohm |
| cd | candela | i.d. | inside diameter | p. | page |
| cm | centimeter | in | inch | Pa | pascal |
| CP | chemically pure | IR | infrared | pe | probable error |
| c/s | cycle per second | J | joule | pp. | pages |
| d | day | L | lambert | ppm | parts per million |
| dB | decibel | L | liter | qt | quart |
| dc | direct current | lb | pound | rad | radian |
| °C | degree Celsius | lbf | pound-force | rh | relative humidity |
| °F | degree Fahrenheit | lbf·in | pound-force inch | s | second |
| dia | diameter | lm | lumen | SD | standard deviation |
| emf | electromotive force | ln | logarithm (base e) | sec. | Section |
| eq | equation | log | logarithm (base 10) | SWR | standing wave ratio |
| F | farad | M | molar | uhf | ultrahigh frequency |
| fc | footcandle | m | meter | UV | ultraviolet |
| fig. | Figure | μ | micron | V | volt |
| FM | frequency modulation | min | minute | vhf | very high frequency |
| ft | foot | mm | millimeter | W | watt |
| ft/s | foot per second | mph | miles per hour | N | newton |
| g | acceleration | m/s | meter per second | λ | wavelength |
| g | gram | mo | month | wk | week |
| gal | gallon | N·m | newton meter | wt | weight |
| gr | grain | nm | nanometer | yr | year |
| H | henry | No. | number | | |

area=unit² (e.g., ft², in², etc.); volume=unit³ (e.g., ft³, m³, etc.)

ACRONYMS SPECIFIC TO THIS DOCUMENT

| | | | |
|-------|-------------------------------------------------------|-------|-------------------------------|
| APCO | Association of Public Safety Communications Officials | NiMH | Nickel Metal Hydride |
| CB | Citizens Band | PCS | Personal Communication System |
| EDACS | Enhanced Digital Access Communications Systems | PMR | Private Mobile Radio |
| GHz | Gigahertz | PTT | Push-to-Talk |
| I.S. | Intrinsically Safe | RF | Radio Frequency |
| LMR | Land Mobile Radios | SMR | Shared Mobile Radio |
| LTR | Logic Trunked Radio | TETRA | Terrestrial Trunked Radio |
| MHz | Megahertz | VOX | Voice Operated Switch |
| NiCad | Nickel Cadmium | | |

DEFINITIONS SPECIFIC TO THIS DOCUMENT

| | |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CDMA | Code Division Multiple Access is a method of subdividing a band to permit access to the same frequency for multiple users. |
| TMDA | Time Division Multiple Access is a method of subdividing a band to permit access to the same frequency for multiple users. |
| ISM Bands | Nonlicensed/nonexclusive frequency bands for Industrial, Scientific, and Medical applications. Frequency bands (902 MHz to 928 MHz, 2.40 GHz to 2.483 GHz) set aside for low-power devices (also referred to as “Part 15” devices). |
| DSSS | Direct Sequence and Spread Spectrum (an RF transmission scheme to permit multiple, coordinated users to operate in the same band). |
| FHSS | Frequency Hopping and Spread Spectrum (an RF transmission scheme to permit multiple, coordinated users to operate in the same band). |
| Duplex | Real or perceived simultaneous transmit and receive. |
| Half-duplex | Continuous receive of all transmitted information and a transmit frequency/time slot/code shared with others. |

PREFIXES
(See ASTM E380)

| | | | |
|-------|---------------------|----|--------------------|
| d | deci (10^{-1}) | da | deka (10) |
| c | centi (10^{-2}) | h | hecto (10^2) |
| m | milli (10^{-3}) | k | kilo (10^3) |
| μ | micro (10^{-6}) | M | mega (10^6) |
| n | nano (10^{-9}) | G | giga (10^9) |
| p | pico (10^{-12}) | T | tera (10^{12}) |

Temperature: $T_{\text{°C}} = (T_{\text{°F}} - 32) \times 5/9$

COMMON CONVERSIONS

| | |
|----------------------------------------------|-------------------------------------|
| 0.30480 m = 1 ft | 4.448222 N = 1 lbf |
| 25.4 mm = 1 in | 1.355818 J = 1 ft·lbf |
| 0.4535924 kg = 1 lb | 0.1129848 N m = 1 lbf·in |
| 0.06479891 g = 1 gr | 14.59390 N/m = 1 lbf/ft |
| 0.9463529 L = 1 qt | 6894.757 Pa = 1 lbf/in ² |
| 3600000 J = 1 kW·hr | 1.609344 km/h = 1 mph |
| psi = mm of Hg x (1.9339×10^{-2}) | |
| mm of Hg = psi x 51.71 | |

Temperature: $T_{\text{°F}} = (T_{\text{°C}} \times 9/5) + 32$

ABOUT THIS GUIDE

The National Institute of Justice is the focal point for providing support to State and local law enforcement agencies in the development of counterterrorism technology and standards, including technological needs for chemical and biological defense. In recognizing the needs of State and local emergency first responders, the Office of Law Enforcement Standards (OLES) at the National Institute of Standards and Technology (NIST), supported by the National Institute of Justice (NIJ), the Technical Support Working Group (TSWG), the U.S. Army Soldier and Biological Chemical Command, and the Interagency Board for Equipment Standardization and Interoperability (IAB), is developing chemical and biological defense equipment guides. These guides will focus on chemical and biological equipment in areas of detection, personal protection, decontamination, and communication. This guide focuses specifically on communication equipment and was developed to assist the emergency first responder community in the evaluation and purchase of communication equipment that can be used in conjunction with chemical and biological protective clothing and respiratory equipment.

The long range plans include these goals: (1) subject existing communication equipment to laboratory testing and evaluation against a specified protocol, and (2) conduct research leading to the development of a series of documents, including national standards, user guides, and technical reports. It is anticipated that the testing, evaluation, and research processes will take several years to complete; therefore, the National Institute of Justice has developed this initial guide for the emergency first responder community to facilitate their evaluation and purchase of communication equipment.

In conjunction with this program, additional guides, as well as other documents, are being issued in the areas of chemical agent and toxic industrial material detection equipment, biological agent detection equipment, decontamination equipment, and personal protective equipment.

This specific work is Volume II of the *Guide for the Selection of Communication Equipment for Emergency First Responders*. It contains the information data sheets that were used to support the communication equipment evaluation detailed in Volume I. The compilation of data in Volume II is the result of the merger of several data acquisition methods used independently by NIST and TSWG.

The information contained in this guide has been obtained primarily through literature searches and market surveys. The vendors were contacted during the preparation of this guide to ensure data accuracy. In addition, the information contains test data obtained from other sources (e.g., Department of Defense) if available. It should be noted that the purpose of this guide is not to make recommendations about which equipment should be purchased, but to provide to the reader with information available from vendors so commercially available equipment can be compared and contrasted. *Reference herein to any specific commercial products, processes, or services by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government. The information and statements contained in this guide shall not be used for the purposes of advertising, nor to imply the endorsement or recommendation of the United States Government.*

With respect to information provided in this guide, neither the United States Government nor any of its employees make any warranty, expressed or implied, including but not limited to the warranties of merchantability and fitness for a particular purpose. Further, neither the United States Government nor any of its employees assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product or process disclosed.

Technical comments, suggestions, and product updates are encouraged from interested parties. They may be addressed to the Office of Law Enforcement Standards, National Institute of Standards and Technology, 100 Bureau Drive, Stop 8102, Gaithersburg, MD 20899–8102. It is anticipated that this guide will be updated periodically.

Questions relating to the specific devices included in this document should be addressed directly to the proponent agencies or the equipment manufacturers. Contact information for each equipment item included in this guide can be found in this volume (vol. II).

1. INTRODUCTION

This guide includes information that is intended to assist the emergency first responder community in the selection of communication equipment for different applications. This specific work, Volume II of the *Guide for the Selection of Communication Equipment for Emergency First Responders*, includes manufacturer-supplied details on the 181 communication equipment items that are referenced in Volume I.

The *Guide for the Selection of Communication Equipment for Emergency First Responders* includes information intended to be useful to the emergency first responder community in the selection of communication equipment that can be used in conjunction with chemical and biological protective clothing and respiratory equipment. Due to the large number of communication equipment items (radios) identified for the guide, the guide is separated into two volumes. Volume I serves as the selection tool while Volume II serves as a repository for the communication equipment data sheets.

This specific work represents Volume II of the *Guide for the Selection of Communication Equipment for Emergency First Responders*. Volume II includes three sections and five appendices. Section 1 is the introduction. Section 2 discusses the market survey (preliminary work) that was conducted to identify the 181 commercially available communication equipment items. Section 3 provides a description of the 43 data fields that were identified for providing information relating to the equipment. Appendix A lists the reference used in developing this document. Appendix B sequentially indexes the communication equipment by detector identification number and includes the manufacturers. Appendix C alphabetically indexes the communication equipment by the equipment names. Appendix D alphabetically indexes the communication equipment by the manufacturer names. Appendix E contains the data sheets for each item of communication equipment.

2. IDENTIFICATION OF COMMUNICATION EQUIPMENT

An extensive market survey was conducted to identify commercially available communication equipment. This market survey included the identification of new equipment and interaction with numerous equipment vendors. Section 2.1 provides the identification of new equipment, and section 2.2 provides a summary of information obtained through interfacing with the vendors.

2.1 Identification of New Equipment

A variety of sources were utilized to identify commercially available communication equipment, including a Commerce Business Daily (CBD) Announcement, literature searches, database searches, Internet searches, technical conferences, technical contacts, and amateur radio hobbyists. These techniques resulted in the identification of 181 communication equipment items.

2.2 Vendor Contact

Vendors were contacted to obtain additional product information, as well as to finalize their specific equipment data for inclusion in the guide. An initial contact occurred in June 2000, asking for detailed information from manufacturers and vendors. Each vendor received a facsimile or an electronic mail message that contained the data sheets for their specific equipment item(s) and the definitions that were used to create the data sheets. The vendors were given three weeks to review the information.

A second contact was made during October 2000. Each vendor again received a facsimile or an electronic mail message that contained the data sheets for their specific equipment item(s), the selection factors that were developed to assist with the selection and purchase of the most appropriate equipment, and the results of the evaluation of the communication equipment against the selection factors. The vendors were asked to review the data sheets and tables for completeness and accuracy of the incorporated data.

3. DATA FIELDS

Appendix E serves as a compendium of commercially available communication equipment. Each of the identified 181 communication equipment items is detailed within appendix E. Forty-three data fields, as defined in this section, were used for providing information relating to the communication equipment. It is important to note that these data fields were developed using input from the emergency responder community.

The data fields are organized into six categories:

- General.
- Operational parameters.
- Physical parameters.
- Available accessories.
- Logistical parameters.
- Special requirements.

The remainder of this section defines each of the 43 data fields by category.

3.1 General Category

The General Category includes the following 12 data fields:

1. Equipment name.
2. ID #.
3. Model number(s).
4. Technology.
5. Secure communication capability.
6. Availability.
7. Frequency range.
8. Number of personnel supported by system.
9. Geographic coverage.
10. Current user(s).
11. Manufacturer.
12. Source.

Each of these data fields is defined in more detail in the remainder of this section.

3.1.1 Name

The Name data field is used to identify the name of the equipment.

3.1.2 ID

The ID # data field is for identification purposes only.

3.1.3 Model Number(s)

The Model Number(s) data field includes the model identification number for the piece of equipment.

3.1.4 Technology

The Technology data field identifies whether the unit is part of a conventional, trunked, or hard-wired radio system.

3.1.5 Secure Communication Capability

The Secure Communication Capability data field identifies whether an encryption module is available to prevent sensitive radio traffic from being monitored by the media or general public.

3.1.6 Availability

Availability refers to how readily available a piece of equipment is (e.g., how long it takes to receive equipment upon purchasing) or the availability status of the equipment (e.g., commercial availability).

3.1.7 Frequency Range

The Frequency Range data field identifies the public service band used (not applicable to hard wire systems).

3.1.8 Number of Personnel Supported by System

The Number of Personnel Supported by System data field indicates the number of people that can use the system.

3.1.9 Geographic Coverage

The Geographic Coverage data field identifies how large an area can be covered by the system (square miles for radio, linear feet for hard line). Line of sight (the distance that transmission can occur in a clear area with no repeater) is an important consideration for this data field.

3.1.10 Current User(s)

The Current User data field is used to identify organizations that are currently using the equipment/radio system, and the number of organizations using equipment/radio system in North America.

3.1.11 Manufacturer

The Manufacturer data field contains the name of the company that developed the piece of equipment and includes the address, telephone number, and point of contact (POC).

3.1.12 Source

The Source data field indicates where the equipment information was obtained. Potential sources include past market surveys and Internet Web sites.

3.2 Operational Parameters Category

The Operational Parameters Category includes the following four data fields:

1. Number of channels.
2. Transmitter power output levels.
3. Battery options.
4. Battery recharging options.

Each of these data fields is defined in more detail in the remainder of this section.

3.2.1 Number of Channels

The Number of Channels data field indicates the maximum number of channels on which a unit can be programmed to operate.

3.2.2 Transmitter Output Power Levels

The Transmitter Output Power Levels data field specifies the number and magnitude of discreet transmitter power output levels.

This selection factor rates the transmitter power output. For portable radios, too high an output power leads to a shortened battery use cycle before the battery needs to be changed or recharged. Too low an output can put the life of the responder in jeopardy, as the signal may not be able to be picked up by the repeater or other receiver. This does not apply to mobile radios or repeaters, however, because they have a higher output and an external power source.

3.2.3 Battery Options

The Battery Options data field identifies the types of batteries that are available for the unit. Some examples are NiCad, NiMH, and alkaline batteries.

3.2.4 Battery Recharging Options

The Battery Recharging Options data field identifies whether such options as individual chargers, bank charging stations, rapid charging stations, or vehicular charging are available for the unit.

3.3 Physical Parameters Category

The Physical Parameters Category includes the following four data fields:

1. Size.
2. Weight.
3. Power requirements.
4. External power.

Each of these data fields is defined in more detail in the remainder of this section.

3.3.1 Size

The Size data field provides the external dimensions of the equipment.

3.3.2 Weight

The Weight data field indicates the total weight of the equipment (radio and battery).

3.3.3 Power Requirements

The Power Requirements data field refers to the battery voltage and current drain of the equipment.

3.3.4 External Power

The External Power data field indicates whether there is a jack for external power or if a battery eliminator is used.

3.4 Available Accessories

The Available Accessories category includes the following four data fields:

1. Speaker-microphone.
2. Carrying case.
3. Battery eliminators.
4. Vehicle adapters.

Each of these data fields is defined in more detail in the remainder of this section.

3.4.1 Speaker-Microphone

The Speaker-Microphone data field indicates types of speaker-microphones available, such as conventional, separate ear canal speaker-throat microphone combination, ear canal speaker-microphone, separate ear canal speaker-lapel microphone, voice-activated talk switch, remote switch, etc. This field also specifies whether the speaker-microphones have a screw-in connection or plug-in connection.

3.4.2 Carrying Case

The Carrying Case data field identifies the types of carries that are available, such as belt loop and suspender pouch carriers.

3.4.3 Battery Eliminator

The Battery Eliminator data field indicates whether the manufacturer has battery eliminators available or if they must be obtained from a third party manufacturer.

3.4.4 Vehicular Adapter

The Vehicular Adapter data field indicates whether vehicular adapters are available that allow units to be used with an external antenna, an external power, etc., while charging the unit's battery.

3.5 Logistical Parameters Category

The Logistical Parameters Category includes the following 10 data fields:

1. Programming.
2. Repairs.
3. Decontamination.
4. Durability/ruggedness.
5. Environmental conditions.
6. Unit cost.
7. Battery cycle life.
8. Rapid charge battery cycle life.
9. Maintenance cost.
10. Interface capability.

Each of these data fields is defined in more detail in the remainder of this section.

3.5.1 Programming

The Programming data field indicates if the individual radios are programmed at a service facility and whether they can be field and user-programmed.

3.5.2 Repairs

The Repairs data field indicates if the radios can be repaired at the local dealer and/or service facility or if they must be returned to a national service depot.

3.5.3 Decontamination

The Decontamination data field identifies the process, such as thermal, chemical, or physical, by which the communication equipment can be decontaminated.

3.5.4 Durability/Ruggedness

The Durability/Ruggedness data field describes how rugged the equipment is (i.e., how well the equipment can take brutally rough handling and still operate) and indicates if ruggedness data can be shown.

3.5.5 Environmental Conditions

The Environmental Conditions data field specifies the temperature and humidity range that the equipment is designed to operate in without compromising the efficiency or effectiveness of the radio. This field also indicates if ruggedized versions of the equipment are available for inclement weather or extreme conditions.

3.5.6 Unit Cost

The Unit Cost data field is the cost of the equipment, including all consumables and support equipment.

This selection factor rates the unit cost of the radio equipment. This factor, in conjunction with other selection factors, can help decide if a radio will be deemed suitable for disposal after use, suitable for special uses only, or suitable for all uses.

3.5.7 Battery Cycle Life

The Battery Cycle Life data field refers to how many normal charge/discharge cycles the batteries are rated for.

3.5.8 Rapid Charge Battery Cycle Life

The Rapid Charge Battery Cycle Life refers to how many rapid charge/discharge cycles the batteries are rated for.

3.5.9 Maintenance Cost

The Maintenance Cost is the cost to maintain and operate the equipment. This cost will be based on equipment usage rates.

3.5.10 Interface Capability

The Interface Capability data field indicates whether the communication equipment has the ability to interface with personal protection, communication, or decontamination equipment. This includes network capability, hard wire capability, RF communication, etc.

3.6 Special Requirements Category

The Special Requirements Category includes the following nine data fields:

1. Operator skills required.
2. Operator training required.
3. Training available.
4. Manuals available.
5. Applicable regulations.
6. Support equipment.
7. Warranty.
8. Mil Spec/Mil-Std ratings.
9. Inherently safe.

Each of these data fields is defined in more detail in the remainder of this section.

3.6.1 Operator Skills Required

The Operator Skills Required data field describes the educational level training necessary to execute the required basic maintenance activities, such as changing batteries and radio programming.

3.6.2 Operator Training Requirements

The Operator Training Requirements data field refers to the amount of time required for the operator to become proficient in using the radio equipment.

3.6.3 Training Available

The Training Available data field indicates if there is training available from the manufacturer.

3.6.4 Manuals Available

The Manuals Available data field describes the type of manuals available from the manufacturer; for example, a user manual or a service manual.

3.6.5 Applicable Regulations

The Applicable Regulations data field refers to government and/or safety regulations that may apply to the RF exposure of first responders.

3.6.6 Support Equipment

The Support Equipment data field lists additional equipment required to operate the chosen units/system. This may include computers, programming interfaces, and programming cables.

3.6.7 Warranty

The Warranty data field refers to how long a piece of equipment would be guaranteed by the manufacturer.

3.6.8 Mil Spec/Mil-Std Ratings

The Mil Spec/Mil-Std data field indicates if the equipment meets Mil Spec C, D, and E requirements, if it meets the requirements for driving in the rain, and if it meets any additional Mil Spec Ratings.

3.6.9 Intrinsically Safe

The Intrinsically Safe data field indicates if the equipment has been certified intrinsically safe by Factory Mutual, or if a version of the equipment is available with this rating.

APPENDIX A—REFERENCES

APPENDIX A—REFERENCES

1. Andy Ibbetson, *Domestic Preparedness Program in Defense of Weapons of Mass Destruction Report on Communication Equipment*, CON-SPACE Communication Inc., October 26, 1999.

**APPENDIX B—INDEX BY COMMUNICATION EQUIPMENT
IDENTIFICATION NUMBER**

Index by Communication Equipment Identification Number

| <i>ID #</i> | <i>Communication Equipment Name</i> | <i>Manufacturer</i> | <i>Page E- #</i> |
|-------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------|
| 1 | C-AT; AWIS Portable Radio | Communications-Applied Technology, Reston, Virginia | 1 |
| 2 | C-AT; DWIS Portable Repeater System | Communications-Applied Technology, Reston, Virginia | 3 |
| 3 | C-AT+B171; QB Series: QB-3S, QB-3S/IS/ QB-3R Portable Radios | Communications-Applied Technology, Reston, Virginia | 5 |
| 4 | C-AT; QB Series Repeater; Portable Repeater Systems | Communications-Applied Technology, Reston, Virginia | 7 |
| 5 | ComNet Ericsson EDACS™ LPE-200™ Portable 800 MHz, 900 MHz | Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | 9 |
| 6 | ComNet Ericsson EDACS™ M-RK™ Aegis™ Portable VHF, UHF, 800 MHz, M-RK I | Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | 11 |
| 7 | ComNet Ericsson EDACS™ M-RK™ Aegis™ Portable VHF, UHF, 800 MHz, M-RK II | Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | 13 |
| 8 | ComNet Ericsson EDACS™ M-RK™ Aegis™ SCAN Portable VHF, UHF, 800 MHz | Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | 15 |
| 9 | ComNet Ericsson Jaguar™ 700P, 800 MHz | Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | 17 |
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| 30 | EFJohnson Auris Digital Repeater/Basestation; RS-5604 (Single Channel)/5614 (Dual Channel) - UHF | EFJohnson/Transcrypt, Waseca, Minnesota | 59 |
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| EFJohnson Auris Digital Repeater; RS-5601-VHF Single Channel | EFJohnson/Transcrypt, Waseca, Minnesota | 27 | 53 |
| EFJohnson Auris Digital Repeater; RS-5611-VHF Dual Channel | EFJohnson/Transcrypt, Waseca, Minnesota | 28 | 55 |
| EFJohnson Auris Repeater; RS–5604 (Single Channel)/5614 (Dual Channel) - UHF | EFJohnson/Transcrypt, Waseca, Minnesota | 31 | 61 |
| EFJohnson Transceiver, Portable; 77xx-800 MHz | EFJohnson/Transcrypt, Waseca, Minnesota | 32 | 63 |
| EFJohnson Transceiver, Portable; 98xx-800 MHz | EFJohnson/Transcrypt, Waseca, Minnesota | 33 | 65 |
| EFJohnson Transceiver, Portable; 501x-VHF | EFJohnson/Transcrypt, Waseca, Minnesota | 34 | 67 |
| EFJohnson Transceiver, Portable; 504x-UHF | EFJohnson/Transcrypt, Waseca, Minnesota | 35 | 69 |
| EFJohnson Transceiver, Portable; 508x-800 MHz | EFJohnson/Transcrypt, Waseca, Minnesota | 36 | 71 |
| EFJohnson Transceiver; 531x-VHF | EFJohnson/Transcrypt, Waseca, Minnesota | 37 | 73 |
| EFJohnson Transceiver; 538x-800 MHz | EFJohnson/Transcrypt, Waseca, Minnesota | 38 | 75 |
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| Icom UHF Transceiver, Portable; IC-F40LT Land Use IC-F40M/IC-F40LT Marine Version | ICOM America Inc., Bellevue, Washington | 52 | 103 |
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| Icom VHF Transceiver, Portable; IC-F3S | ICOM America Inc., Bellevue, Washington | 40 | 79 |
| Icom VHF Transceiver, Portable; IC-F3GT/IC-F3GTS | ICOM America Inc., Bellevue, Washington | 41 | 81 |
| Icom VHF Transceiver, Portable; IC-F30GS/IC-F30GT | ICOM America Inc., Bellevue, Washington | 49 | 97 |
| Icom VHF Transceiver, Portable; IC-F30LT Land Use, IC-F30LT Marine Version | ICOM America Inc., Bellevue, Washington | 50 | 99 |
| Kenwood 800/900 MHz FM Transceiver; TK-480 and TK-80 NPSPAC | Kenwood Communications Corp., Long Beach, California | 82 | 163 |
| Kenwood 800/900 MHz FM Transceiver; TK-481 | Kenwood Communications Corp., Long Beach, California | 83 | 165 |
| Kenwood Compact Synthesized FM Mobile Radio; TK-760G | Kenwood Communications Corp., Long Beach, California | 59 | 117 |
| Kenwood Compact Synthesized FM Mobile Radio; TK-860G | Kenwood Communications Corp., Long Beach, California | 60 | 119 |
| Kenwood Compact Synthesized FM Mobile Radio; TK-762G | Kenwood Communications Corp., Long Beach, California | 61 | 121 |
| Kenwood Compact Synthesized FM Mobile Radio; TK-862G | Kenwood Communications Corp., Long Beach, California | 62 | 123 |
| Kenwood Compact Synthesized FM Mobile Radio; TK-760H | Kenwood Communications Corp., Long Beach, California | 63 | 125 |

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| Kenwood Compact Synthesized FM Mobile Radio; TK-762H | Kenwood Communications Corp., Long Beach, California | 65 | 129 |
| Kenwood Compact Synthesized FM Mobile Radio; TK-862H | Kenwood Communications Corp., Long Beach, California | 66 | 131 |
| Kenwood Public Safety Mobile FM Radios; TK-690H | Kenwood Communications Corp., Long Beach, California | 67 | 133 |
| Kenwood Public Safety Mobile FM Radios; TK-790 | Kenwood Communications Corp., Long Beach, California | 68 | 135 |
| Kenwood Public Safety Mobile FM Radios; TK-790H | Kenwood Communications Corp., Long Beach, California | 69 | 137 |
| Kenwood Public Safety Mobile FM Radios; TK-890 | Kenwood Communications Corp., Long Beach, California | 70 | 139 |
| Kenwood Public Safety Mobile FM Radios; TK-890H | Kenwood Communications Corp., Long Beach, California | 71 | 141 |
| Kenwood Synthesized FM Portable Radio; TK-260/G | Kenwood Communications Corp., Long Beach, California | 55 | 109 |
| Kenwood Synthesized FM Portable Radio; TK-270/G | Kenwood Communications Corp., Long Beach, California | 56 | 111 |
| Kenwood Synthesized FM Portable Radio; TK-360/G | Kenwood Communications Corp., Long Beach, California | 57 | 113 |
| Kenwood Synthesized FM Portable Radio; TK-370/G | Kenwood Communications Corp., Long Beach, California | 58 | 115 |
| Kenwood Synthesized FM Portable Radio/Trunked System; TK-280 | Kenwood Communications Corp., Long Beach, California | 80 | 159 |
| Kenwood Synthesized FM Portable Radio/Trunked System; TK-380 | Kenwood Communications Corp., Long Beach, California | 81 | 161 |
| Kenwood Transceiver, Portable; TK-2100 | Kenwood Communications Corp., Long Beach, California | 74 | 147 |
| Kenwood Transceiver, Portable; TK-3100 | Kenwood Communications Corp., Long Beach, California | 75 | 149 |
| Kenwood Transceiver, Portable; TK-3101 | Kenwood Communications Corp., Long Beach, California | 76 | 151 |
| Kenwood Trunked Compact Mobile Radio; TK-980 | Kenwood Communications Corp., Long Beach, California | 85 | 169 |

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| Kenwood Trunked Compact Mobile Radio; TK-981 | Kenwood Communications Corp., Long Beach, California | 86 | 171 |
| Kenwood Trunked Mobile Radio; TK-980 NSPAC | Kenwood Communications Corp., Long Beach, California | 79 | 157 |
| Kenwood Trunked Portable Radios; TK-930HDK2 NSPAC | Kenwood Communications Corp., Long Beach, California | 84 | 167 |
| Kenwood UHF Fm Transceivers; TK-390 | Kenwood Communications Corp., Long Beach, California | 78 | 155 |
| Kenwood UHF Repeater; TKR-820 | Kenwood Communications Corp., Long Beach, California | 89 | 177 |
| Kenwood VHF Base Transceiver; TKB-720 | Kenwood Communications Corp., Long Beach, California | 87 | 173 |
| Kenwood VHF Fm Transceivers; TK-290 | Kenwood Communications Corp., Long Beach, California | 77 | 153 |
| Kenwood VHF/UHF Mobile Radio; TK-780 | Kenwood Communications Corp., Long Beach, California | 72 | 143 |
| Kenwood VHF/UHF Mobile Radio; TK-880 | Kenwood Communications Corp., Long Beach, California | 73 | 145 |
| Kenwood VHF/UHF Repeater; TKR-720 | Kenwood Communications Corp., Long Beach, California | 88 | 175 |
| Maxon Scanning Transceiver; SM-2000 Series | Topaz 3, LLC, Kansas City, Missouri | 139 | 277 |
| Maxon Scanning Transceiver; SM-4000 Series | Topaz 3, LLC, Kansas City, Missouri | 140 | 279 |
| Maxon UHF Transceiver, Portable; SP-150U | Topaz 3, LLC, Kansas City, Missouri | 145 | 289 |
| Maxon VHF/UHF RF Link Module; SD-125 | Topaz 3, LLC, Kansas City, Missouri | 138 | 275 |
| Maxon VHF/UHF Transceiver, Portable; SP-120 | Topaz 3, LLC, Kansas City, Missouri | 141 | 281 |
| Maxon VHF/UHF Transceiver, Portable; SP-130/SP-140 | Topaz 3, LLC, Kansas City, Missouri | 142 | 283 |
| Maxon VHF/UHF Transceiver, Portable; SP-200 | Topaz 3, LLC, Kansas City, Missouri | 143 | 285 |
| Maxon VHF/UHF Transceiver, Portable; SP-300 | Topaz 3, LLC, Kansas City, Missouri | 144 | 287 |

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| Motorola Astro Transceiver, Portable; Saber 1 | Motorola USA, Schaumburg, Illinois | 90 | 178 |
| Motorola Astro Transceiver, Portable; Saber 2 | Motorola USA, Schaumburg, Illinois | 91 | 181 |
| Motorola Astro Transceiver, Portable; Saber 3 | Motorola USA, Schaumburg, Illinois | 92 | 183 |
| Motorola Astro Transceiver, Portable; XTS 3000 Model 1 | Motorola USA, Schaumburg, Illinois | 93 | 185 |
| Motorola Astro Transceiver, Portable; XTS 3000 Model 2 | Motorola USA, Schaumburg, Illinois | 94 | 187 |
| Motorola Astro Transceiver, Portable; XTS 3000 Model 3 | Motorola USA, Schaumburg, Illinois | 95 | 189 |
| Motorola Astro Transceiver, Portable; XTS 3000R Series Models 1, 2, & 3 | Motorola USA, Schaumburg, Illinois | 96 | 191 |
| Motorola Dual Mode Mobile; MCS 2000 Mobile Model II | Motorola USA, Schaumburg, Illinois | 97 | 193 |
| Motorola Dual Mode Mobile; MCS 2000 Mobile Model II | Motorola USA, Schaumburg, Illinois | 98 | 195 |
| Motorola Dual Mode Mobile; MCS 2000 Mobile Model III | Motorola USA, Schaumburg, Illinois | 99 | 197 |
| Motorola Portable Repeater; Portable Repeater 2 | Motorola USA, Schaumburg, Illinois | 117 | 233 |
| Motorola Station/Repeater; QUANTAR | Motorola USA, Schaumburg, Illinois | 115 | 229 |
| Motorola Station/Repeater; QUANTRO | Motorola USA, Schaumburg, Illinois | 116 | 231 |
| Motorola Transceiver, Portable; VISAR | Motorola USA, Schaumburg, Illinois | 105 | 209 |
| Motorola Transceiver, Portable; HT 1000 | Motorola USA, Schaumburg, Illinois | 106 | 211 |
| Motorola Transceiver, Portable; JT 1000 | Motorola USA, Schaumburg, Illinois | 107 | 213 |
| Motorola Transceiver, Portable; MT 2000 VHF | Motorola USA, Schaumburg, Illinois | 108 | 215 |

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| Motorola Transceiver, Portable; MTS 2000 Model 2 | Motorola USA, Schaumburg, Illinois | 110 | 219 |
| Motorola Transceiver, Portable; MTS 2000 Model 3 | Motorola USA, Schaumburg, Illinois | 111 | 221 |
| Motorola Transceiver; Astro Digital Spectra W3 | Motorola USA, Schaumburg, Illinois | 100 | 199 |
| Motorola Transceiver; Astro Spectra W4 | Motorola USA, Schaumburg, Illinois | 101 | 201 |
| Motorola Transceiver; Astro Spectra W5 | Motorola USA, Schaumburg, Illinois | 102 | 203 |
| Motorola Transceiver; Astro Spectra W7 | Motorola USA, Schaumburg, Illinois | 103 | 205 |
| Motorola Transceiver; Astro Spectra W9 | Motorola USA, Schaumburg, Illinois | 104 | 207 |
| Motorola Trunked Portable Radio; MTX 8000 Model B3 | Motorola USA, Schaumburg, Illinois | 112 | 223 |
| Motorola Trunked Portable Radio; MTX 8000 Model B5 | Motorola USA, Schaumburg, Illinois | 113 | 225 |
| Motorola Trunked Portable Radio; MTX 8000/9000 Model B7 | Motorola USA, Schaumburg, Illinois | 114 | 227 |
| Racal Transceiver, Portable; 20 Meter MSHR | Racal Communications Inc., Rockville, Maryland | 120 | 239 |
| Racal Transceiver, Portable; Racal 25 | Racal Communications Inc., Rockville, Maryland | 121 | 241 |
| Racal Transceiver, Portable; MBITR (Multiband Inter/Intra Team Radio) | Racal Communications Inc., Rockville, Maryland | 118 | 235 |
| Racal Transceiver, Portable; MSHR (Miniature Secure Handheld Radio) | Racal Communications Inc., Rockville, Maryland | 119 | 237 |
| Relm Mobile Radio; 256NB | Relm Communication, West Melbourne, Florida | 132 | 263 |
| Relm Mobile Radios; SMV2516 | Relm Communication, West Melbourne, Florida | 136 | 271 |
| Relm Mobile Radios; SMV4016 | Relm Communication, West Melbourne, Florida | 137 | 273 |

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| Relm Portable Radios; MPU32 (UHF) | Relm Communication, West Melbourne, Florida | 134 | 267 |
| Relm Portable Radios; MPV32 (VHF) | Relm Communication, West Melbourne, Florida | 135 | 269 |
| Transportable Radio Interconnect System, TRP-1000 | JPS Communications, Inc., Raleigh, North Carolina | 54 | 106 |
| Vertex Dual Band (VHF & UHF) Transceiver, Portable; FTH-2070 | Yaesu/Vertex-Standard, Cerritos, California | 146 | 291 |
| Vertex FTL Series; FTL-1011 (VHF LowBand) | Yaesu/Vertex-Standard, Cerritos, California | 147 | 293 |
| Vertex FTL Series; FTL-1011H (VHF LowBand HiPower) | Yaesu/Vertex-Standard, Cerritos, California | 148 | 295 |
| Vertex FTL Series; FTL-2011 (VHF Highband) | Yaesu/Vertex-Standard, Cerritos, California | 149 | 297 |
| Vertex FTL Series; FTL-7011 (UHF) | Yaesu/Vertex-Standard, Cerritos, California | 150 | 299 |
| Vertex GX4800UT Mobile Transceiver | Yaesu/Vertex-Standard, Cerritos, California | 151 | 301 |
| Vertex HX Series; HX120 UHF Portable | Yaesu/Vertex-Standard, Cerritos, California | 155 | 309 |
| Vertex HX Series; HX120 VHF Portable | Yaesu/Vertex-Standard, Cerritos, California | 156 | 311 |
| Vertex HX Series; HX140 VHF Portable | Yaesu/Vertex-Standard, Cerritos, California | 157 | 313 |
| Vertex HX Series; HX381 VHF Portable | Yaesu/Vertex-Standard, Cerritos, California | 158 | 315 |
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| Vertex HX Series; HX240 VHF Portable | Yaesu/Vertex-Standard, Cerritos, California | 160 | 319 |
| Vertex HX Series; HX240 UHF Portable | Yaesu/Vertex-Standard, Cerritos, California | 161 | 321 |
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| Vertex Repeater or Base Station; VXR-7000 (VHF) | Yaesu/Vertex-Standard, Cerritos, California | 181 | 361 |
| Vertex Repeaters or Base Station; VXR-5000 (UHF) | Yaesu/Vertex-Standard, Cerritos, California | 180 | 359 |
| Vertex Repeaters; VXR-1000 (VHF) | Yaesu/Vertex-Standard, Cerritos, California | 177 | 353 |
| Vertex Repeaters; VXR-1000 (UHF) | Yaesu/Vertex-Standard, Cerritos, California | 178 | 355 |
| Vertex Repeaters; VXR-5000 (VHF) | Yaesu/Vertex-Standard, Cerritos, California | 179 | 357 |
| Vertex VX Series; VX-10V (VHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 152 | 303 |
| Vertex VX Series; VX-10U (UHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 153 | 305 |
| Vertex VX Series; VX-210V (VHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 164 | 327 |
| Vertex VX Series; VX-210U (UHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 165 | 329 |
| Vertex VX Series; VX-400V (VHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 166 | 331 |
| Vertex VX Series; VX-400U (UHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 167 | 333 |
| Vertex VX Series; VX-500 | Yaesu/Vertex-Standard, Cerritos, California | 168 | 335 |
| Vertex VX Series; VX-510LX (Low Band VHF) | Yaesu/Vertex-Standard, Cerritos, California | 169 | 337 |
| Vertex VX Series; VX-510V (VHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 170 | 339 |
| Vertex VX Series; VX-510U (UHF Model) | Yaesu/Vertex-Standard, Cerritos, California | 171 | 341 |
| Vertex VX Series; VX-2000V Mobile Radio (VHF) | Yaesu/Vertex-Standard, Cerritos, California | 172 | 343 |
| Vertex VX Series; VX-2000U Mobile Radio (UHF) | Yaesu/Vertex-Standard, Cerritos, California | 173 | 345 |

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| Vertex VX Series; VX-3000L (VHF Lowband) | Yaesu/Vertex-Standard, Cerritos, California | 174 | 347 |
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| Vertex VX Series; VX-3000U (UHF) | Yaesu/Vertex-Standard, Cerritos, California | 176 | 351 |
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| Communications-Applied Technology, Reston, Virginia | C-AT; DWIS Portable Repeater System | 2 | 3 |
| Communications-Applied Technology, Reston, Virginia | C-AT+B171; QB Series: QB-3S, QB-3S/IS/QB-3R Portable Radios | 3 | 5 |
| Communications-Applied Technology, Reston, Virginia | C-AT; QB Series Repeater; Portable Repeater Systems | 4 | 7 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson Jaguar Transceiver, Portable; Jaguar 700P, 800 MHz | 10 | 19 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson M-RK™ Analog Portable, M-RK I | 11 | 21 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson M-RK™ Analog Portable, M-RK II Scan | 13 | 25 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson Repeater; MASTR III | 14 | 27 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson Orion Mobile Radio | 15 | 29 |
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| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson Panther Transceiver, Mobile Panther 400M | 17 | 33 |
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| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson EDACS™ M-RK™ Aegis™ Portable VHF, UHF, 800 MHz, M-RK I | 6 | 11 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson EDACS™ M-RK™ Aegis™ Portable VHF, UHF, 800 MHz, M-RK II | 7 | 13 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson EDACS™ M-RK™ Aegis™ SCAN Portable VHF, UHF, 800 MHz | 8 | 15 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson M-RK™ Analog Portable, M-RK II | 12 | 23 |
| Com-Net Ericsson Critical Radio Systems, Inc., Lynchburg, Virginia | ComNet Ericsson Jaguar™ 700P, 800 MHz | 9 | 17 |
| EFJohnson/Transcrypt, Waseca, Minnesota | EFJohnson Auris Analog Base Station; RS-5601-VHF Single Channel | 26 | 51 |
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| EFJohnson/Transcrypt, Waseca, Minnesota | EFJohnson Auris Digital Repeater; RS-5611-VHF Dual Channel | 28 | 55 |
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| EFJohnson/Transcrypt, Waseca, Minnesota | EFJohnson Auris Repeater; RS-5604 (Single Channel)/5614 (Dual Channel)-UHF | 31 | 61 |
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| EFJohnson/Transcrypt, Waseca, Minnesota | EFJohnson Transceiver, Portable; 504x-UHF | 35 | 69 |
| EFJohnson/Transcrypt, Waseca, Minnesota | EFJohnson Transceiver, Portable; 508x-800 MHz | 36 | 71 |
| EFJohnson/Transcrypt, Waseca, Minnesota | EFJohnson Transceiver; 531x-VHF | 37 | 73 |
| EFJohnson/Transcrypt, Waseca, Minnesota | EFJohnson Transceiver; 538x-800 MHz | 38 | 75 |
| ICOM America Inc., Bellevue, Washington | Icom VHF Transceiver, Portable; IC-F3 | 39 | 77 |
| ICOM America Inc., Bellevue, Washington | Icom VHF Transceiver, Portable; IC-F3S | 40 | 79 |
| ICOM America Inc., Bellevue, Washington | Icom VHF Transceiver, Portable; IC-F3GT/IC-F3GTS | 41 | 81 |
| ICOM America Inc., Bellevue, Washington | Icom UHF Transceiver, Portable; IC-F4 | 42 | 83 |
| ICOM America Inc., Bellevue, Washington | Icom UHF Transceiver, Portable; IC-F4S | 43 | 85 |
| ICOM America Inc., Bellevue, Washington | Icom UHF Transceiver, Portable; IC-F4GT/IC-F4GTS | 44 | 87 |
| ICOM America Inc., Bellevue, Washington | Icom VHF Mobile Transceiver; IC-F1020 | 45 | 98 |
| ICOM America Inc., Bellevue, Washington | Icom UHF Mobile Transceiver; IC-F2020 | 46 | 91 |
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| JPS Communications, Inc., Raleigh, North Carolina | Modular Interconnect System, ACU-1000 | 53 | 105 |
| JPS Communications, Inc., Raleigh, North Carolina | Transportable Radio Interconnect System, TRP-1000 | 54 | 106 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Synthesized FM Portable Radio; TK-260/G | 55 | 109 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Synthesized FM Portable Radio; TK-270/G | 56 | 111 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Synthesized FM Portable Radio; TK-360/G | 57 | 113 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Synthesized FM Portable Radio; TK-370/G | 58 | 115 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Compact Synthesized FM Mobile Radio; TK-760G | 59 | 117 |
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| Kenwood Communications Corp., Long Beach, California | Kenwood Compact Synthesized FM Mobile Radio; TK-862G | 62 | 123 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Compact Synthesized FM Mobile Radio; TK-760H | 63 | 125 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Compact Synthesized FM Mobile Radio; TK-860H | 64 | 127 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Compact Synthesized FM Mobile Radio; TK-762H | 65 | 129 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Compact Synthesized FM Mobile Radio; TK-862H | 66 | 131 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Public Safety Mobile FM Radios; TK-690H | 67 | 133 |

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| Kenwood Communications Corp., Long Beach, California | Kenwood Public Safety Mobile FM Radios; TK-790H | 69 | 137 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Public Safety Mobile FM Radios; TK-890 | 70 | 139 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Public Safety Mobile FM Radios; TK-890H | 71 | 141 |
| Kenwood Communications Corp., Long Beach, California | Kenwood VHF/UHF Mobile Radio; TK-780 | 72 | 143 |
| Kenwood Communications Corp., Long Beach, California | Kenwood VHF/UHF Mobile Radio; TK-880 | 73 | 145 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Transceiver, Portable; TK-2100 | 74 | 147 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Transceiver, Portable; TK-3100 | 75 | 149 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Transceiver, Portable; TK-3101 | 76 | 151 |
| Kenwood Communications Corp., Long Beach, California | Kenwood VHF Fm Transceivers; TK-290 | 77 | 153 |
| Kenwood Communications Corp., Long Beach, California | Kenwood UHF Fm Transceivers; TK-390 | 78 | 155 |
| Kenwood Communications Corp., Long Beach, California | Kenwood Trunked Mobile Radio; TK-980 NSPAC | 79 | 157 |
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| Kenwood Communications Corp., Long Beach, California | Kenwood Synthesized FM Portable Radio/Trunked System; TK-380 | 81 | 161 |
| Kenwood Communications Corp., Long Beach, California | Kenwood 800/900 MHz FM Transceiver; TK-480 and TK-480 NPSPAC | 82 | 163 |
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| Kenwood Communications Corp., Long Beach, California | Kenwood Trunked Portable Radios; TK-930HDK2 NSPAC | 84 | 167 |

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| Kenwood Communications Corp., Long Beach, California | Kenwood VHF Base Transceiver; TKB-720 | 87 | 173 |
| Kenwood Communications Corp., Long Beach, California | Kenwood VHF/UHF Repeater; TKR-720 | 88 | 175 |
| Kenwood Communications Corp., Long Beach, California | Kenwood UHF Repeater; TKR-820 | 89 | 177 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver; Astro Digital Spectra W3 | 100 | 199 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver; Astro Spectra W4 | 101 | 201 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver; Astro Spectra W5 | 102 | 203 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver; Astro Spectra W7 | 103 | 205 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver; Astro Spectra W9 | 104 | 207 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver, Portable; VISAR | 105 | 209 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver, Portable; HT 1000 | 106 | 211 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver, Portable; JT 1000 | 107 | 213 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver, Portable; MT 2000 VHF | 108 | 215 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver, Portable; MTS 2000 Model 1 | 109 | 217 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver, Portable; MTS 2000 Model 2 | 110 | 219 |
| Motorola USA, Schaumburg, Illinois | Motorola Transceiver, Portable; MTS 2000 Model 3 | 111 | 221 |
| Motorola USA, Schaumburg, Illinois | Motorola Trunked Portable Radio; MTX 8000 Model B3 | 112 | 223 |

| <i>Manufacturer</i> | <i>Communication Equipment Name</i> | <i>ID #</i> | <i>Page E-#</i> |
|---------------------------------------------------|----------------------------------------------------------------------------|-------------|-----------------|
| Motorola USA, Schaumburg, Illinois | Motorola Trunked Portable Radio; MTX 8000 Model B5 | 113 | 225 |
| Motorola USA, Schaumburg, Illinois | Motorola Trunked Portable Radio; MTX 8000/9000 Model B7 | 114 | 227 |
| Motorola USA, Schaumburg, Illinois | Motorola Station/Repeater; QUANTAR | 115 | 229 |
| Motorola USA, Schaumburg, Illinois | Motorola Station/Repeater; QUANTRO | 116 | 231 |
| Motorola USA, Schaumburg, Illinois | Motorola Portable Repeater; Portable Repeater 2 | 117 | 233 |
| Motorola USA, Schaumburg, Illinois | Motorola Astro Transceiver, Portable; Saber 1 | 90 | 178 |
| Motorola USA, Schaumburg, Illinois | Motorola Astro Transceiver, Portable; Saber 2 | 91 | 181 |
| Motorola USA, Schaumburg, Illinois | Motorola Astro Transceiver, Portable; Saber 3 | 92 | 183 |
| Motorola USA, Schaumburg, Illinois | Motorola Astro Transceiver, Portable; XTS 3000 Model 1 | 93 | 185 |
| Motorola USA, Schaumburg, Illinois | Motorola Astro Transceiver, Portable; XTS 3000 Model 2 | 94 | 187 |
| Motorola USA, Schaumburg, Illinois | Motorola Astro Transceiver, Portable; XTS 3000 Model 3 | 95 | 189 |
| Motorola USA, Schaumburg, Illinois | Motorola Astro Transceiver, Portable; XTS 3000R Series Models 1, 2, & 3 | 96 | 191 |
| Motorola USA, Schaumburg, Illinois | Motorola Dual Mode Mobile; MCS 2000 Mobile Model II | 97 | 193 |
| Motorola USA, Schaumburg, Illinois | Motorola Dual Mode Mobile; MCS 2000 Mobile Model II | 98 | 195 |
| Motorola USA, Schaumburg, Illinois | Motorola Dual Mode Mobile; MCS 2000 Mobile Model III | 99 | 197 |
| Racal Communications Inc., Rockville, Maryland | Racal Transceiver, Portable; MBITR (Multiband Inter/Intra Team Radio) | 118 | 235 |
| Racal Communications Inc., Rockville, Maryland | Racal Transceiver, Portable; MSHR (Miniature Secure Handheld Radio) | 119 | 237 |
| Racal Communications Inc., Rockville, Maryland | Racal Transceiver, Portable; 20 Meter MSHR | 120 | 239 |

| <i>Manufacturer</i> | <i>Communication Equipment Name</i> | <i>ID #</i> | <i>Page E-#</i> |
|---------------------------------------------------|-------------------------------------------------------------------------------|-------------|-----------------|
| Racal Communications Inc., Rockville, Maryland | Racal Transceiver, Portable; Racal 25 | 121 | 241 |
| Relm Communication, West Melbourne, Florida | BK Base Station; EBU Series | 122 | 243 |
| Relm Communication, West Melbourne, Florida | BK Radio FM Transceiver; EMH 599 2X | 123 | 245 |
| Relm Communication, West Melbourne, Florida | BK Synthesized FM Mobile Radio; EMV | 124 | 247 |
| Relm Communication, West Melbourne, Florida | BK Synthesized FM E Series DES EPH 599, EPU 499 and EPV 499 Models | 125 | 249 |
| Relm Communication, West Melbourne, Florida | BK Synthesized FM Portable Radio; E Series, EPH 51 and 52 Models | 126 | 251 |
| Relm Communication, West Melbourne, Florida | BK Synthesized FM Portable Radio; E Series, EPI 510 Models | 127 | 253 |
| Relm Communication, West Melbourne, Florida | BK Synthesized FM Portable Radio; E Series, EPU and EPV 414 and 499 Models | 128 | 255 |
| Relm Communication, West Melbourne, Florida | BK Repeater; ERU Series | 129 | 257 |
| Relm Communication, West Melbourne, Florida | BK Radio FM Transceiver, Portable; G Series, GPH Models | 130 | 259 |
| Relm Communication, West Melbourne, Florida | BK Radio Airborne Transceiver; KFM 985 | 131 | 261 |
| Relm Communication, West Melbourne, Florida | Relm Mobile Radio; 256NB | 132 | 263 |
| Relm Communication, West Melbourne, Florida | Relm Portable Radios; MPU08 (UHF) | 133 | 265 |
| Relm Communication, West Melbourne, Florida | Relm Portable Radios; MPU32 (UHF) | 134 | 267 |
| Relm Communication, West Melbourne, Florida | Relm Portable Radios; MPV32 (VHF) | 135 | 269 |
| Relm Communication, West Melbourne, Florida | Relm Mobile Radios; SMV2516 | 136 | 271 |
| Relm Communication, West Melbourne, Florida | Relm Mobile Radios; SMV4016 | 137 | 273 |
| Topaz 3, LLC, Kansas City, Missouri | Maxon VHF/UHF RF Link Module; SD-25 | 138 | 275 |

| <i>Manufacturer</i> | <i>Communication Equipment Name</i> | <i>ID #</i> | <i>Page E-#</i> |
|------------------------------------------------|-----------------------------------------------------------------|-------------|-----------------|
| Topaz 3, LLC, Kansas City, Missouri | Maxon Scanning Transceiver; SM-2000 Series | 139 | 277 |
| Topaz 3, LLC, Kansas City, Missouri | Maxon Scanning Transceiver; SM-4000 Series | 140 | 279 |
| Topaz 3, LLC, Kansas City, Missouri | Maxon VHF/UHF Transceiver, Portable; SP-120 | 141 | 281 |
| Topaz 3, LLC, Kansas City, Missouri | Maxon VHF/UHF Transceiver, Portable; SP-130/SP-140 | 142 | 283 |
| Topaz 3, LLC, Kansas City, Missouri | Maxon VHF/UHF Transceiver, Portable; SP-200 | 143 | 285 |
| Topaz 3, LLC, Kansas City, Missouri | Maxon VHF/UHF Transceiver, Portable; SP-300 | 144 | 287 |
| Topaz 3, LLC, Kansas City, Missouri | Maxon UHF Transceiver, Portable; SP-150U | 145 | 289 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex Dual Band (VHF & UHF) Transceiver, Portable; FTH-2070 | 146 | 291 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex FTL Series; FTL-1011 (VHF LowBand) | 147 | 293 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex FTL Series; FTL-1011H (VHF LowBand HiPower) | 148 | 295 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex FTL Series; FTL-2011 (VHF Highband) | 149 | 297 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex FTL Series; FTL-7011 (UHF) | 150 | 299 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex GX4800UT Mobile Transceiver | 151 | 301 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-10V (VHF Model) | 152 | 303 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-10U (UHF Model) | 153 | 305 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-300 | 154 | 307 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX120 UHF Portable | 155 | 309 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX120 VHF Portable | 156 | 311 |

| <i>Manufacturer</i> | <i>Communication Equipment Name</i> | <i>ID #</i> | <i>Page E-#</i> |
|------------------------------------------------|----------------------------------------------------|-------------|-----------------|
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX140 VHF Portable | 157 | 313 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX381 VHF Portable | 158 | 315 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX381 UHF Portable | 159 | 317 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX240 VHF Portable | 160 | 319 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX240 UHF Portable | 161 | 321 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX482UT UHF Portable | 162 | 323 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex HX Series; HX580 Dual Protocol Hand Held | 163 | 324 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-210V (VHF Model) | 164 | 327 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-210U (UHF Model) | 165 | 329 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-400V (VHF Model) | 166 | 331 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-400U (UHF Model) | 167 | 333 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-500 | 168 | 335 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-510LX (Low Band VHF) | 169 | 337 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-510V (VHF Model) | 170 | 339 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-510U (UHF Model) | 171 | 341 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-2000V Mobile Radio (VHF) | 172 | 343 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-2000U Mobile Radio (UHF) | 173 | 345 |

| <i>Manufacturer</i> | <i>Communication Equipment Name</i> | <i>ID #</i> | <i>Page E-#</i> |
|------------------------------------------------|-----------------------------------------------------|-------------|-----------------|
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-3000L (VHF Lowband) | 174 | 347 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-3000V (VHF) | 175 | 349 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex VX Series; VX-3000U (UHF) | 176 | 351 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex Repeaters; VXR-1000 (VHF) | 177 | 353 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex Repeaters; VXR-1000 (UHF) | 178 | 355 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex Repeaters; VXR-5000 (VHF) | 179 | 357 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex Repeaters or Base Station; VXR-5000 (UHF) | 180 | 359 |
| Yaesu/Vertex-Standard, Cerritos, California | Vertex Repeater or Base Station; VXR-7000 (VHF) | 181 | 361 |

APPENDIX E—COMMUNICATION EQUIPMENT DATA SHEETS

COMMUNICATION EQUIPMENT DATA SHEETS

General

Name

*Communications-Applied Technology; AWIS
Portable Radio*

ID# 1



Model Number(s)

AWIS

Technology

Portable, Digital DSSS TOMA

Manufacturer

Communications-Applied Technology
11250-14 Roger Bacon Drive
Reston, Virginia 20190-5202
800-229-3925 (Tel)
703-481-0068 (Tel)

Secure Communication Capability

Yes, with accessory

Availability

90 d after receipt of order

Frequency Range

2400 MHz to 2483 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Hazardous materials response teams, explosive ordnance disposal teams, medical triage teams, NASA ground and flight programs, and fixed and rotary wing air crews
www.c-at.com

Source

Operational Parameters

Number of Channels

11 preprogrammed channels, 2402 channels through 2482 channels on 8 MHz increments, 5 nonoverlapping channels on 16 MHz increments, and 3 nonoverlapping channels on 24 MHz increments

Transmitter Power Output Levels

Portable radios: +17 dBm (optional +19 and +14)

Battery Options

Plug-in module battery packs (8, single-use, AA alkaline batteries, or NiMH rechargeable)

Battery Recharging Options

Portable radio: single or 4-station "smart" charger

Physical Parameters

Size

Portable radio with AA battery pack: 4 in x 9 in x 1 in

Weight

Portable: 1.8 lb (with batteries)

Power Requirements

Portable radio: 6.45 V and 300 mA

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | 10 V to 24 V or 17 V dc to 31 V dc; 115 V ac, 60 Hz; 220 V, 50 Hz |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | Yes |
| Battery Eliminators | Yes (repeater) |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Frequency, time slot, and group identifier by dip switch |
| Repairs | Manufacturer |
| Decontamination | No (portable radios worn inside PPE) |
| Durability/Ruggedness | Portable radios are installed in heavy gauge aluminum chassis with welded corners with rugged 1050 denier ballistic housings |
| Environmental Conditions | -30 °F to 120 °F |
| Unit Cost | \$2.2K portable radio |
| Battery Cycle Life | Portable radios: 6 h |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Less than \$100/yr |
| Interface Capability | Yes, LMR/cellular phone/wired intercom |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | “Plug and go” compatible and interchangeable with lightweight headsets/boom microphones for “plastic suit” work, or hearing protector headsets |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | Intrinsically Safe Class 1, Division 1, Groups C, and D (USAF Safety Directorate) |

General

Name Communications-Applied Technology; DWIS
Portable Repeater System

ID# 2



Model Number(s)

DWIS

Technology

Repeater, Digital DSSS TOMA

Manufacturer

Communications-Applied Technology
11250-14 Roger Bacon Drive
Reston, Virginia 20190-5202
800-229-3925 (Tel)
703-481-0068 (Tel)

Secure Communication Capability

Yes, with accessory

Availability

90 d after receipt of order

Frequency Range

2400 MHz to 2483 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Hazardous materials response teams, Explosive Ordnance Disposal Teams, medical triage teams, NASA ground and flight programs, and fixed and rotary wing air crews

Source

www.c-at.com

Operational Parameters

Number of Channels

11 preprogrammed channels, 2402 channels through 2482 channels on 8 MHz increments, 5 nonoverlapping channels on 16 MHz increments, and 3 nonoverlapping channels on 24 MHz increments

Transmitter Power Output Levels

Repeater: +19 dBm; portable radios

Battery Options

Plug-in module battery packs (8, single-use, AA alkaline batteries, or NiMH rechargeable), external SLA, dc, and ac

Battery Recharging Options

Repeater: built-in "smart" charger; portable radio: single or 4-station "smart" charger

Physical Parameters

Size


Repeater: 12 in x 12 in x 3.5 in
Repeater with SLA battery and charger: 13.75 in x 12 in x 3.5 in

Weight

Repeater with SLA battery and charger: 7.2 lb

| | |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | Repeater: 12 V dc, 1 A; portable radio: 6.45 V and 300 mA |
| External Power | External SLA, dc, and ac |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | Yes |
| Battery Eliminators | Yes (repeater) |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Frequency, time slot, and group identifier by dip switch |
| Repairs | Manufacturer |
| Decontamination | No (portable radios worn inside PPE) |
| Durability/Ruggedness | Portable radios are installed in heavy gauge aluminum chassis with welded corners with rugged 1050 denier ballistic housings |
| Environmental Conditions | -30 °F to 120 °F |
| Unit Cost | \$7K portable repeater |
| Battery Cycle Life | Repeaters: 4 h |
| Rapid Charge Battery Cycle Life | 2 yr |
| Maintenance Cost | Less than \$100/yr |
| Interface Capability | Yes, LMR/cellular phone/wired intercom |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | “Plug and go” compatible and interchangeable with lightweight headsets/boom microphones for “plastic suit” work, or hearing protector headsets |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

| | |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name | Communications-Applied Technology; QB Series: QB-3S, QB-3S/IS QB-3R Portable Radios |
| ID# 3 |  |
| Model Number(s) | QB-3S, QB-3S/IS/ QB-3R; QB-3 Series portable radio (shown outside PPE for visibility) |
| Technology | Portable, conventional |
| Manufacturer | Communications-Applied Technology 11250-14 Roger Bacon Drive Reston, Virginia 20190-5202 800-229-3925 (Tel) 703-481-0068 (Tel) |
| Secure Communication Capability | No |
| Availability | 90 d after receipt of order |
| Frequency Range | 150 MHz to 220 MHz |
| Number of Personnel Supported by System | Unlimited |
| Geographic Coverage | Not applicable |
| Current User(s) | Army chemical munitions storage/demilitarization sites, military and commercial nuclear power generating plants, military base and municipal hazmat teams, medical triage teams, and NASA ground and flight programs |
| Source | www.c-at.com |
| <u>Operational Parameters</u> | |
| Number of Channels | Not specified |
| Transmitter Power Output Levels | Portable radios: +17 dBm (optional +20 and +14) |
| Battery Options | NiCad or 2 9 V alkaline or 6 AA alkaline |
| Battery Recharging Options | Wall “wart” or “smart” charger |
| <u>Physical Parameters</u> | |
| Size | Not specified |
| Weight | Portable: 1.8 lb (with batteries) |
| Power Requirements | Portable radio: 6.45 V, 100 mA |
| External Power | None |
| <u>Available Accessories</u> | |
| Speaker-Microphones | No |

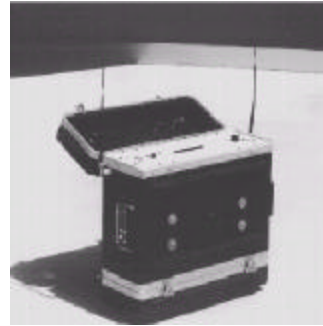
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|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Yes |
| Battery Eliminators | Yes (repeater) |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | No |
| Repairs | Manufacturer |
| Decontamination | No (portable radios worn inside PPE) |
| Durability/Ruggedness | Portable radios are installed in heavy gauge aluminum chassis with welded corners with rugged 1050 denier ballistic housings. Used in more than 100000 h of Level A entries. |
| Environmental Conditions | -30 °F to 120 °F |
| Unit Cost | \$7K portable repeater \$2K portable radio |
| Battery Cycle Life | Repeater and portable radios: 6 h |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Less than \$100/yr |
| Interface Capability | Yes, LMR/cellular phone/wired intercoms |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | “Plug and go” compatible and interchangeable with lightweight headsets/boom microphones, throat microphones for “plastic suit” work, or hearing protector headsets |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | Intrinsically Safe Versions available - Class 1, Division 1, Groups A, B, C, and D (FRMC) |

General

Name

Communications-Applied Technology; QB Series Repeater; Portable Repeater Systems

ID# 4



Model Number(s)

MDL

Technology

Repeater, conventional

Manufacturer

Communications-Applied Technology
11250-14 Roger Bacon Drive
Reston, Virginia 20190-5202
800-229-3925 (Tel)
703-481-0068 (Tel)

Secure Communication Capability

No

Availability

90 d after receipt of order

Frequency Range

150 MHz to 220 MHz

Number of Personnel Supported by System

Unlimited, 8 in duplex mode

Geographic Coverage

Not applicable

Current User(s)

Army chemical munitions storage/demilitarization sites, military and commercial nuclear power generating plants, military base and municipal hazmat teams, medical triage teams, and NASA ground and flight programs
www.c-at.com

Source

Operational Parameters

Number of Channels

Not specified

Transmitter Power Output Levels

Repeater: +20 dBm

Battery Options

SLA, external dc

Battery Recharging Options

Wall "wart" or "smart" charger

Physical Parameters

Size

Repeater: 19 in x 22 in x 10 in (transportable, molded plastic case); portable: 12 in x 4 in x 0.75 in (flexible/body-conforming)

Weight

Repeater: 35 lb (including SLA battery)

Power Requirements

Repeater: 12 V dc, 1 A

External Power

12 V dc to 24 V dc, 115 V ac 60 Hz

Available Accessories

Speaker-Microphones

No

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Yes |
| Battery Eliminators | Yes (repeater) |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | No |
| Repairs | Manufacturer |
| Decontamination | No (portable radios worn inside PPE) |
| Durability/Ruggedness | Portable radios are installed in heavy gauge aluminum chassis with welded corners with rugged, 1050 denier ballistic housings. Used in more than 100000 h of Level A entries. |
| Environmental Conditions | -30 °F to 120 °F |
| Unit Cost | \$7K portable repeater |
| Battery Cycle Life | Repeater and portable radios: 6 h |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Less than \$100/yr |
| Interface Capability | Yes, LMR/cellular phone/wired intercoms |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | “Plug and go” compatible and interchangeable with lightweight headsets/boom microphones, throat microphones for “plastic suit” work, or hearing protector headsets |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | Intrinsically Safe Versions available - Class 1, Division 1, Groups A, B, C, and D (FRMC) |

General

Name

EDACSä LPE-200ä Portable 800 MHz, 900 MHz

ID# 5



Model Number(s)

LPE-200™

Technology

Portable, conventional and trunked

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

Secure Communication Capability

Encryption available for 800 MHz only

Availability

Available

Frequency Range

800 MHz: 806 MHz to 825 MHz, 851 MHz to 870 MHz
900 MHz: 896 MHz to 901 MHz, 935 MHz to 940 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Transmission can travel 10 mi or more

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Up to 800 different trunked system/group combinations and up to 200 conventional channels

Transmitter Power Output Levels

800 MHz: 0.5 W to 3 W trunked; 1 W to 2 W talk around
900 MHz: 0.5 W to 2 W trunked; 2 W talk around

Battery Options

High and extra high capacity

Battery Recharging Options

Vehicular charger, desk and wall chargers

Physical Parameters

Size

5.7 in x 2.6 in x 1.7 in (with high capacity battery)

Weight

20.8 oz (with high capacity battery)

Power Requirements

7.5 V dc (nominal)

External Power

No

Available Accessories

Speaker-Microphones

Remote microphone, headset, and earpiece

Carrying Cases

Cases, belt loops, and swivel mounts

Battery Eliminators

Not specified

Vehicle Adapters

Has vehicle adapter

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable -
PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Shock: 1 m drop (per EIA/TIA-603)
Vibration: 5 G (per U.S. Forest Service)

Environmental Conditions

-22 °F to 140 °F
90 % @ 122 °F relative humidity

Unit Cost

Not specified

Battery Cycle Life

Battery life @ 5/5/90: high capacity battery - 8 h; low
capacity battery - 9 h

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Digital technology

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

FCC Type Acceptance No: AXATR-336-A and
AXATR-357-A2, Industry Canada (RSS-119)
287-194-340-NA, TR-357

Support Equipment

Headset, earpiece, remote microphones, PC programming
software and cables, subminiature surveillance
accessories, cases, straps, belt loops and swivel mounts,
desk and wall chargers, and vehicular charger

Warranty

Not specified

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810E, equivalent to Mil-Std 810C and
Mil-Std D

Intrinsically Safe

No

General

Name

EDACSä M-RKä Aegisä Portable VHF, UHF, 800 MHz

ID# 6



Model Number(s)

M-RK I

Technology

Portable, conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

Encryption, Improved MultiBand Excitation (IMBE) vocoder, DES, Aegis™ DES, and Aegis VGE encryption are available encryption also available

Availability

Available

Frequency Range

VHF: 136 MHz to 160 MHz, 150 MHz to 174 MHz
UHF: 403 MHz to 430 MHz, 440 MHz to 470 MHz
800: 806 MHz to 824 MHz, 851 MHz to 869 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Not specified

Transmitter Power Output Levels

VHF: 0.5 W to 5 W, 0.5 W to 6 W
UHF: 0.5 W to 5 W
800: 0.5 W to 3 W

Battery Options

Medium, high, extra high capacity

Battery Recharging Options

Single and multiple unit desk-style chargers and vehicular chargers

Physical Parameters

Size

M-RK I: 7 in x 2.7 in x 1.6 in (less battery, knobs, and antenna)

Weight

M-RK I: 8.8 oz (less battery)

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.5 V dc (nominal) |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone |
| Carrying Cases | Carry case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Yes, available in standard and enhanced models |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Shock: 3 ft drop (per EIA) Vibration: 5 gravity (G) (per U.S. Forest Service) Altitude: (operational, 15000 ft; in transit, and 50000 ft) |
| Environmental Conditions | -22 °F to 140 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Not specified |
| Battery Cycle Life | Equal to or greater than 8 h |
| Rapid Charge Battery Cycle Life | No |
| Maintenance Cost | Not specified |
| Interface Capability | Aegis digital voice technology, PC programming software |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance, Industry Canada Certification, and Applicable Industry Canada Rules |
| Support Equipment | Earpiece, remote microphones, subminiature surveillance accessories, leather cases, belt loops, swivel mounts, and PC programming software and cables. Single and multiple unit desk-style chargers and two types of vehicular chargers. |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe options and accessories are pending |

General

| | |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Name | <i>EDACSä M-RKä Aegisä Portable VHF, UHF, 800 MHz</i> |
| ID# 7 | |
| Model Number(s) | M-RK II |
| Technology | Portable, conventional |
| Manufacturer | Com-Net Ericsson Critical Radio Systems, Inc. P.O. Box 2000 Lynchburg, Virginia 24501 800-431-2345 (Tel) www.com-netericsson.com |
| Secure Communication Capability | Encryption, Improved MultiBand Excitation (IMBE) vocoder, DES, Aegis™ DES, and Aegis VGE encryption are available encryption also available |
| Availability | Available |
| Frequency Range | VHF: 136 MHz to 160 MHz, 150 MHz to 174 MHz UHF: 403 MHz to 430 MHz, 440 MHz to 470 MHz 800: 806 MHz to 824 MHz, 851 MHz to 869 MHz |
| Number of Personnel Supported by System | Unlimited |
| Geographic Coverage | Not specified |
| Current User(s) | Not specified |
| Source | Com-Net Ericsson |
| <u>Operational Parameters</u> | |
| Number of Channels | Not specified |
| Transmitter Power Output Levels | VHF: 0.5 W to 5 W, 0.5 W to 6 W UHF: 0.5 W to 5 W 800: 0.5 W to 3 W |
| Battery Options | Medium, high, extra high capacity |
| Battery Recharging Options | Single and multiple unit desk-style chargers and vehicular chargers |
| <u>Physical Parameters</u> | |
| Size | M-RK II/M-RK II Scan: 4 in x 2.7 in x 1.6 in (less battery, knobs, and antenna) |
| Weight | M-RK II/M-RK II Scan: (less battery) 10 oz |



| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.5 V dc (nominal) |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone |
| Carrying Cases | Carry case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Yes, available in standard and enhanced models |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Shock: 3 ft drop (per EIA) Vibration 5 G (per U.S. Forest Service) Altitude: (operational, 15000 ft; in transit, 50000 ft) |
| Environmental Conditions | -22 °F to 140 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Not specified |
| Battery Cycle Life | Equal to or greater than 8 h |
| Rapid Charge Battery Cycle Life | No |
| Maintenance Cost | Not specified |
| Interface Capability | Aegis digital voice technology, PC programming software |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance, Industry Canada Certification, and Applicable Industry Canada Rules |
| Support Equipment | Earpiece, remote microphones, subminiature surveillance accessories, leather cases, belt loops, swivel mounts, and PC programming software and cables. Single and multiple unit desk-style chargers and two types of vehicular chargers. |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe options and accessories are pending |

General

Name

EDACSä M-RKä Aegisä Portable VHF, UHF, 800 MHz

ID# 8



Model Number(s)

M-AK II SCAN

Technology

Portable, Conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

Encryption, Improved MultiBand Excitation (IMBE) vocoder, DES, Aegis™ DES, and Aegis VGE encryption are available encryption also available

Availability

Available

Frequency Range

VHF: 136 MHz to 160 MHz, 150 MHz to 174 MHz
UHF: 403 MHz to 430 MHz, 440 MHz to 470 MHz
800: 806 MHz to 824 MHz, 851 MHz to 869 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Not specified

Transmitter Power Output Levels

VHF: 0.5 W to 5 W, 0.5 W to 6 W
UHF: 0.5 W to 5 W
800: 0.5 W to 3 W

Battery Options

Medium, high, extra high capacity

Battery Recharging Options

Single and multiple unit desk-style chargers and vehicular chargers

Physical Parameters

Size

M-RK II/M-RK II Scan: 4 in x 2.7 in x 1.6 in (less battery, knobs, and antenna)

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | M-RK II/M-RK II Scan: (less battery) 10 oz |
| Power Requirements | 7.5 V dc (nominal) |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone |
| Carrying Cases | Carry case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Yes, available in standard and enhanced models |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Shock: 3 ft drop (per EIA) Vibration 5 G (per U.S. Forest Service) Altitude: (operational, 15000 ft; in transit, 50000 ft) |
| Environmental Conditions | -22 °F to 140 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Not specified |
| Battery Cycle Life | Equal to or greater than 8 h |
| Rapid Charge Battery Cycle Life | No |
| Maintenance Cost | Not specified |
| Interface Capability | Aegis digital voice technology and PC programming software |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance, Industry Canada Certification, and Applicable Industry Canada Rules |
| Support Equipment | Earpiece, remote microphones, subminiature surveillance accessories, leather cases, belt loops, swivel mounts, and PC programming software and cables. Single and multiple unit desk-style chargers and two types of vehicular chargers. |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe options and accessories are pending |

General

Name

ProVoice ä Jaguar ä 700P, 800 MHz

ID# 9



Model Number(s)

Jaguar 700P

Technology

Portable, conventional and trunked

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

Secure Communication Capability

POC: John Hobbs
804-385-2336 (Tel)
Encryption, Improved MultiBand Excitation (IMBE) vocoder, DES, Aegis™ DES, and Aegis VGE encryption are available encryption also available

Availability

Available

Frequency Range

806 MHz to 825 MHz, 851 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Transmission can travel 10 mi or more

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Up to 200 conventional channels and up to 800 different trunked system/group combinations

Transmitter Power Output Levels

Rated RF Power: trunked 1, 3, 0.5-3 (auto mode)
Rated RF Power: talk around 1, 3

Battery Options

NiCad, NiMh

Battery Recharging Options

Desk and wall chargers

Physical Parameters

Size

6.75 in x 2.58 in x 1.79 in with battery

Weight

26 oz

Power Requirements

7.5 V dc (nominal)

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Carry case

Battery Eliminators

Not specified

Vehicle Adapters

In development

Logistical Parameters

Programming

Dealer/User (authorized)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Shock: 6 ft drop (per EIA)
Vibration 5 G (per U.S. Forest Service)
Altitude: (operational, 15000 ft; in transit, 50000 ft)

Environmental Conditions

NiCad: -22 °F to 140 °F; NiMH: 14 °F to 122 °F
90 % @ 122 °F relative humidity

Unit Cost

Not specified

Battery Cycle Life

NiCad: 9 h (5/5/90); NiMH: 11 h (5/5/90)

Rapid Charge Battery Cycle Life

No

Maintenance Cost

Not specified

Interface Capability

Yes

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

FCC Type Acceptance Number (Pending), Industry
Canada Certification Number (Pending)

Support Equipment

Headset, earpiece, speaker microphones, PC programming
software and cables, subminiature surveillance
accessories, cases, straps, belt loops and swivel mounts,
and desk and wall chargers

Warranty

Not specified

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810E

Intrinsically Safe

Intrinsically safe options and accessories are pending

General

Name

***ComNet Ericsson Jaguar Transceiver, Portable;
Jaguar 700P, 800 MHz***

ID# 10



Model Number(s)

EDACS, Jaguar 700P

Technology

Portable, conventional and trunked

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs

804-385-2336 (Tel)

Secure Communication Capability

Yes, built-in encryption security

Availability

Available

Frequency Range

806 MHz to 825 MHz, 851 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Transmission can travel 10 mi or more

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Up to 200 conventional channels

Transmitter Power Output Levels

Rated RF Power: trunked 1, 3, 0.5-3 (auto mode)
Rated RF Power: talk around 1, 3

Battery Options

NiCad, NiMh

Battery Recharging Options

Desk and wall chargers

Physical Parameters

Size

6.75 in x 2.58 in x 1.79 in with battery

Weight

26 oz

Power Requirements

7.5 V dc (nominal)

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Carry case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | In development |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Shock: 6 ft drop (per EIA) Vibration 5 G (per U.S. Forest Service) Altitude: (operational, 15,000 ft; in transit, 50000 ft) |
| Environmental Conditions | NiCad: -22 °F to 140 °F; NiMH: 14 °F to 122 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Greater than \$1K |
| Battery Cycle Life | NiCad: 9 h (5/5/90); NiMH: 11 h (5/5/90) |
| Rapid Charge Battery Cycle Life | No |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance Number (Pending), Industry Canada Certification Number (Pending) |
| Support Equipment | Headset, earpiece, speaker microphones, PC programming software and cables, subminiature surveillance accessories, cases, straps, belt loops and swivel mounts, and desk and wall chargers |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe options and accessories are pending |

General

| | |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Name | ComNet Ericsson M-RK™ Analog Portable, M-RK I |
| ID# 11 | |
| Model Number(s) | M-RK I |
| Technology | Portable, conventional and trunked |
| Manufacturer | Com-Net Ericsson Critical Radio Systems, Inc. P.O. Box 2000 Lynchburg, Virginia 24501 800-431-2345 (Tel) www.com-netericsson.com |
| Secure Communication Capability | POC: John Hobbs 804-385-2336 (Tel) |
| Availability | Yes |
| Frequency Range | Available UHF: 403 MHz to 430 MHz VHF: 136 MHz to 174 MHz 800 MHz: 806 MHz to 824 MHz, 851 MHz to 869 MHz |
| Number of Personnel Supported by System | Multiple |
| Geographic Coverage | Transmission can travel 10 miles or more |
| Current User(s) | Not specified |
| Source | Com-Net Ericsson |
| <u>Operational Parameters</u> | |
| Number of Channels | Multi-channel dependent on control system |
| Transmitter Power Output Levels | VHF: 0.5 W to 5 W, 0.5 W to 6 W UHF: 0.5 W to 5 W 800 MHz: 0.5 W to 3 W |
| Battery Options | Medium, high, and extra high |
| Battery Recharging Options | Single and multiple unit desk-style chargers and two types of vehicular chargers |
| <u>Physical Parameters</u> | |
| Size | 4 in x 2.7 in x 1.2 in (without battery) |
| Weight | 8 oz (without battery) |
| Power Requirements | 7.5 V dc |
| External Power | No |



Available Accessories

Speaker-Microphones

Remote microphone, and earpieces

Carrying Cases

Leather cases, belt loops, and swivel mounts

Battery Eliminators

Not specified

Vehicle Adapters

Yes

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable -
PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Shock: 1 m drop (per EIA/TIA-603)
Vibration: 5 G (per U.S. Forest Service)

Environmental Conditions

-22 °F to 140 °F
90 % @ 122 °F relative humidity

Unit Cost

Greater than \$500 but less than \$1K

Battery Cycle Life

Equal to or greater than 8 h

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Capable of digital communications with an adapter

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Logically positioned LCD indicators provide easy-read operation. Battery chargers, earpieces, remote microphones, subminiature surveillance accessories, leather cases, belt loops, swivel mounts, and PC programming software and cables.

Warranty

Not specified

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and
Mil Spec 810E

Intrinsically Safe

No

General

Name

**ComNet Ericsson M-RK™ Analog Portable,
M-RK II**

ID# 12



Model Number(s)

M-RK II

Technology

Portable, conventional and trunked

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

Secure Communication Capability

POC: John Hobbs

804-385-2336 (Tel)

Yes

Availability

Available

Frequency Range

UHF: 403 MHz to 430 MHz

VHF: 136 MHz to 174 MHz

800 MHz: 806 MHz to 824 MHz, 851 MHz to 869 MHz

470 MHz to 500 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Transmission can travel 10 mi or more

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Multi-channel dependent on control system

Transmitter Power Output Levels

VHF: 0.5 W to 5 W, 0.5 W to 6 W

UHF: 0.5 W to 5 W

800 MHz: 0.5 W to 3 W

Battery Options

Medium, high, and extra high

Battery Recharging Options

Single and multiple unit desk-style chargers and two types of vehicular chargers

Physical Parameters

Size

4 in x 2.7 in x 1.6 in (without battery)

Weight

10 oz (without battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones
Carrying Cases
Battery Eliminators
Vehicle Adapters

Remote microphone, and earpieces
Leather cases, belt loops, and swivel mounts
Not specified
Yes

Logistical Parameters

Programming
Repairs
Decontamination
Durability/Ruggedness

Dealer/User (authorized technician) programmable -
PC friendly
Dealer
Not specified
Shock: 1 m drop (per EIA/TIA-603)
Vibration: 5 G (per U.S. Forest Service)
Altitude: 15000 ft operational

Environmental Conditions

-22 °F to 140 °F
90 % @ 122 °F relative humidity

Unit Cost

Greater than \$K per unit

Battery Cycle Life

Greater than 8 h

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Capable of digital transmissions with an adapter

Special Requirements

Operator Skills Required
Operator Training Requirements
Training Available
Manuals Available
Applicable Regulations
Support Equipment

Average
Average
Yes
Yes
Not specified
Features a full system keypad and provides access to system and radio features including individual calls, scan, and menu select. Battery chargers, earpieces, remote microphones, subminiature surveillance accessories, leather cases, belt loops, and swivel mounts.

Warranty

Not specified

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, MIL Spec 810D, and
Mil Spec 810E

Intrinsically Safe

No

General

Name

***ComNet Ericsson M-RK™ Analog Portable,
M-RK II Scan***

ID# 13



Model Number(s)

M-RK II Scan

Technology

Portable, conventional and trunked

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

Secure Communication Capability

POC: John Hobbs

804-385-2336 (Tel)

Availability

Yes

Available

Frequency Range

UHF: 403 MHz to 430 MHz

VHF: 136 MHz to 174 MHz

800 MHz: 806 MHz to 824 MHz, 851 MHz to 869 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Transmission can travel 10 mi or more

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Multi-channel dependent on control system

Transmitter Power Output Levels

VHF: 0.5 W to 5 W, 0.5 W to 6 W

UHF: 0.5 W to 5 W

800 MHz: 0.5 W to 3 W

Battery Options

Medium, high, and extra high

Battery Recharging Options

Single and multiple unit desk-style chargers and two types of vehicular chargers

Physical Parameters

Size

4 in x 2.7 in x 1.6 in (without battery)

Weight

8 oz (without battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Remote microphone, and earpieces

Carrying Cases

Leather cases, belt loops, and swivel mounts

Battery Eliminators

Not specified

Vehicle Adapters

Yes

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable -
PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Shock: 1 m drop (per EIA/TIA-603)
Vibration: 5 G (per U.S. Forest Service)

Environmental Conditions

-22 °F to 140 °F
90 % @ 122 °F relative humidity

Unit Cost

Greater than \$1K

Battery Cycle Life

Greater than 8 h

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Capable of digital communications with an adapter

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Features a six-button keypad and provides access to scan and menu select features. A slanted dot matrix LCD can be read easily when worn on the user's hip. Battery chargers, earpieces, remote microphones, subminiature surveillance accessories, and leather cases.

Warranty

Not specified

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and
Mil Spec 810E

Intrinsically Safe

No

General

Name

ComNet Ericsson Repeater; MASTR III

ID# 14

Picture Not Available

Model Number(s)

MASTR III

Technology

Repeater, conventional or trunking

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Not specified

Transmitter Power Output Levels

9 W to 18 W

Battery Options

Limited options

Battery Recharging Options

Not specified

Physical Parameters

Size

17 in x 21 in x 7.5 in

Weight

35 lb (without cables)

Power Requirements

13.8 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Yes

Battery Eliminators

Not specified

Vehicle Adapters

Not applicable

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged use |
| Environmental Conditions | Not specified |
| Unit Cost | Greater than \$1K |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Capable of digital transmissions without an adapter |

Special Requirements

| | |
|---------------------------------------|---------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

ComNet Ericsson Orion Mobile Radio

ID# 15



Model Number(s)

Orion

Technology

VHF and UHF

Manufacturer

Mobile, conventional and trunked

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

Secure Communication Capability

POC: John Hobbs

804-385-2336 (Tel)

Encryption using either the DES or proprietary VGE algorithm

Availability

Available

Frequency Range

VHF: 136 MHz to 153 MHz, 150 MHz to 174 MHz

UHF: 403 MHz to 440 MHz, 440 MHz to 470 MHz
470 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

ComNet Ericsson

Operational Parameters

Number of Channels

EDACS System/group combinations: 800 channels and 192 conventional channels

Transmitter Power Output Levels

Watts are adjustable to 50 % of rated power

VHF: 50 W, 110 W

UHF: 40 W, 100 W (35 W, 80 W for 470 MHz to 512 MHz)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 6.9 in x 9.3 in

Weight

Not specified

Power Requirements

10.8 V dc to 16.6 V dc negative ground

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Construction: Control unit is high impact plastic transceiver is cast metal Weatherproof microphone with hookswitch |
| Environmental Conditions | -22 °F to 140 °F @ 90 % 50° relative humidity |
| Unit Cost | Greater than \$1K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Field programmable using an IBM PC |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Certified |
| Support Equipment | Remote mount kit, public address, siren and light controls, unity and gain antennas, multiple control units for single radio, multiple radios from single control head, RF pre-amplifier, internal Aegis, Aegis Encryption (wideband mode only) |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

ComNet Ericsson Repeater; Orion Transportable Repeater

ID# 16



Model Number(s)

Orion Transportable Repeater

Technology

Repeater, conventional or trunking

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs

804-385-2336 (Tel)

Secure Communication Capability

Yes, with optional accessory

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Not specified

Transmitter Power Output Levels

9 W to 18 W

Battery Options

Limited options

Battery Recharging Options

Not specified

Physical Parameters

Size

17 in x 21 in x 7.5 in

Weight

35 lb (without cables)

Power Requirements

13.8 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Yes

Battery Eliminators

Not specified

Vehicle Adapters

Not applicable

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

Not specified

Unit Cost

Greater than \$1K

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Capable of digital transmissions without an adapter

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

Not specified

Mil Spec/Mil-Std Ratings

Very durable

Intrinsically Safe

No

General

Name

ComNet Ericsson Panther Transceiver, Mobile Panther 400M

ID# 17

Picture Not Available

Model Number(s)

400M

Technology

Mobile, conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

Yes, with accessory

Availability

Available

Frequency Range

UHF: 400 MHz to 470 MHz or 450 MHz to 520 MHz
VHF: 136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

24 channels with priority scan

Transmitter Power Output Levels

Hi: 25 W; low: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.97 in x 5.90 in x 7.28 in

Weight

2.65 lb

Power Requirements

13.6 V dc \pm 20 % operating range (negative ground)

External Power

Not applicable

Available Accessories

Speaker-Microphones

External 4 W speaker

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Die-cast aluminum frame, top and bottom covers for main body. Plastic (Noryl SE1) user interface |
| Environmental Conditions | -22 °F to 140 °F 90 % @ relative humidity (maximum) |
| Unit Cost | Less than \$500 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not capable of digital transmission |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | DTMF microphone, PC programming software and cable, external 4 W speaker, accessory cable, modem, hands-free kit, noise suppression kit, scrambler, desktop power supply, and desktop microphone |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

ComNet Ericsson Panther Transceiver, Mobile Panther 600M

ID# 18

Picture Not Available

Model Number(s)

600M

Technology

Mobile, conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

Yes, with accessory

Availability

Available

Frequency Range

UHF: 400 MHz to 470 MHz or 450 MHz to 520 MHz
VHF: 136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

100 channels with priority scan

Transmitter Power Output Levels

Hi: 25 W; low: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.97 in x 5.90 in x 7.28 in

Weight

2.65 lb

Power Requirements

13.6 V dc \pm 20 % operating range (negative ground)

External Power

Not applicable

Available Accessories

Speaker-Microphones

External 4 W speaker

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Die-cast aluminum frame, top and bottom covers for main body. Plastic (Noryl SE1) user interface |
| Environmental Conditions | -22 °F to 140 °F 90 % @ relative humidity (maximum) |
| Unit Cost | Greater than \$500 but less than \$1K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not capable of digital transmission |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | DTMF microphone, PC programming software and cable, external 4 W speaker, accessory cable, modem, hands-free kit, noise suppression kit, scrambler, desktop power supply, and desktop microphone |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***ComNet Ericsson Panther Transceiver, Portable;
Panther 400P***

ID# 19

Picture Not Available

Model Number(s)

Panther 400P VHF/UHF

Technology

Portable, conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

UHF: 400 MHz to 470 MHz or 450 MHz to 520 MHz
VHF: 136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

VHF and UHF: 1 W, 2.5 W, 5 W

Battery Options

1100 mAh NiCad, 1500 mAh NiCad, 1850 mAh NiMh

Battery Recharging Options

Single unit and multi-unit rapid chargers, vehicular chargers

Physical Parameters

Size

6.1 in x 2.6 in x 1.8 in with 1000 mAh battery

Weight

11.5 oz without battery; 18.1 oz with 1100 mAh battery

Power Requirements

7.5 V dc (nominal); 6.0 V dc to 9.0 V dc (operating range)

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Heavy duty case, holster case, belt clips and strap

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not specified |
| Vehicle Adapters | Enhanced vehicular charger |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable radio built to withstand demanding use. |
| Environmental Conditions | -24 °F to 145 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Less than \$500 |
| Battery Cycle Life | 1100 mAh NiCad: 8 h (5/5/90); 1500 mAh NiCad: 10.5 h (5/5/90); 1850 mAh NiMH: 13 h (5/5/90) |
| Rapid Charge Battery Cycle Life | Single-unit and multi-unit rapid chargers |
| Maintenance Cost | Not specified |
| Interface Capability | Not capable of digital transmissions |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance Number, Applicable FCC Rules, Industry Canada Certification Number and Applicable Industry Canada Rules |
| Support Equipment | Speaker microphones, earpiece, single-unit and multi-unit rapid chargers, PC programming software and cable vehicular chargers, heavy-duty case, holster case, belt clips, and strap |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***ComNet Ericsson Panther Transceiver, Portable;
Panther 500P***

ID# 20

Picture Not Available

Model Number(s)

Panther 500P VHF/UHF

Technology

Portable, conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

UHF: 403 MHz to 440 MHz, 440 MHz to 470 MHz,
470 MHz to 512 MHz
VHF: 136 MHz to 155 MHz, 150.76 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

16 channels with priority scan

Transmitter Power Output Levels

VHF hi: 5 W, low: 1 W; UHF hi: 4 W, low: 1 W

Battery Options

High capacity and extra high capacity

Battery Recharging Options

Single unit and multi-unit rapid chargers, and vehicular chargers

Physical Parameters

Size

3.7 in x 2.5 in x 0.9 in with high capacity battery

Weight

7.2 oz with high capacity battery

Power Requirements

7.5 V dc (nominal)

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Case, belt loop, swivel mount, and strap |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC Friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard |
| Environmental Conditions | -22 °F to 140 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Greater than \$500 but less than \$1K |
| Battery Cycle Life | Equal to or greater than 8 h |
| Rapid Charge Battery Cycle Life | Single-unit and multi-unit rapid chargers |
| Maintenance Cost | Not specified |
| Interface Capability | Not capable of digital transmission |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance Number, Applicable FCC Rules, Industry Canada Certification Number and Applicable Industry Canada Rules |
| Support Equipment | Speaker microphones, earpiece, single-unit and multi-unit rapid chargers, PC programming software and cable vehicular chargers, heavy-duty case, holster case, belt clips, and strap |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***ComNet Ericsson Panther Transceiver, Portable;
Panther 600P***

ID# 21

Picture Not Available

Model Number(s)

Panther 600P VHF/UHF

Technology

Portable, conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

UHF: 400 MHz to 470 MHz, 450 MHz to 530 MHz
VHF: 136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

100 channel capacity

Transmitter Power Output Levels

VHF: 1 W, 2.5 W, 5 W
UHF: 1 W, 2.5 W, 4 W

Battery Options

1100 mAh NiCad, 1500 mAh NiCad, 1850 mAh NiMh

Battery Recharging Options

Single and multi-unit rapid chargers

Physical Parameters

Size

6.1 x 2.6 x 1.8 inches with 1000 mAh battery

Weight

11.5 oz without battery; 18.1 oz with 1100 mAh battery

Power Requirements

7.5 V dc (nominal)
6.0 V dc to 9.0 V dc (operating range)

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Heavy-duty case, holster case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Enhanced vehicular charger (adapter) |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Reliable construction, weatherproof accessory connector |
| Environmental Conditions | -24 °F to 145 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Less than \$500 |
| Battery Cycle Life | 1100 mAh NiCad: 8 h (5/5/90); 1500 mAh NiCad: 10.5 h (5/5/90); 1850 mAh NiMH: 13 h (5/5/90) |
| Rapid Charge Battery Cycle Life | Single-unit and multi-unit rapid chargers |
| Maintenance Cost | Not specified |
| Interface Capability | Versatile UDC allows users to attach a full range of accessories or connect to a PC for programming, testing, and calibration |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance, Industry Canada Certification |
| Support Equipment | Speaker microphones, earpiece, single-unit and multi-unit rapid chargers, PC programming software and cable, vehicular chargers, heavy-duty case, holster case, belt clips, and strap |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E and IP54 standards |
| Intrinsically Safe | No |

General

Name

***ComNet Ericsson Panther Transceiver, Portable;
Panther™ 625P***

ID# 22



Model Number(s)

Panther™ 625P VHF, UHF

Technology

Portable, conventional

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

Secure Communication Capability

POC: John Hobbs

804-385-2336 (Tel)

Availability

No

Available

Frequency Range

UHF: 400 MHz to 470 MHz, 450 MHz to 530 MHz

VHF: 136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Multiple

Transmitter Power Output Levels

VHF: 1 W, 2.5 W, 5 W

UHF: 1 W, 2.5 W, 4 W

Battery Options

1100 mAh NiCad, 1500 mAh NiCad, 1850 mAh NiMh

Battery Recharging Options

Single and multi-unit rapid chargers, vehicular charger

Physical Parameters

Size

6.1 in x 2.6 in x 1.8 in with 1000 mAh battery

Weight

11.5 oz without battery; 18.1 oz with 1100 mAh battery

Power Requirements

7.5 V dc (nominal)

6.0 V dc to 9.0 V dc (operating range)

External Power

No

Available Accessories

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Speaker-Microphones | Speaker microphone |
| Carrying Cases | Heavy-duty case, holster case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Built to withstand demanding use, weatherproof accessory connector |
| Environmental Conditions | -24 °F to 145 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Greater than \$500 but less than \$1K |
| Battery Cycle Life | 1100 mAh NiCad: 8 h (5/5/90); 1500 mAh NiCad: 10.5 h (5/5/90); 1850 mAh NiMH: 13 h (5/5/90) |
| Rapid Charge Battery Cycle Life | Single-unit and multi-unit rapid chargers |
| Maintenance Cost | Not specified |
| Interface Capability | Versatile UDC allows users to attach a full range of accessories or connect to a PC for programming, testing, and calibration |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance, Industry Canada Certification |
| Support Equipment | Speaker microphones, earpiece, single-unit and multi-unit rapid chargers, PC programming software and cable, vehicular chargers, heavy-duty case, holster case, belt clips, and strap |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

ProVoice ä LPE-200 ä Portable 800 MHz

ID# 23



Model Number(s)

ProVoice LPE-200™

Technology

Portable, conventional and trunked

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

Encryption, Improved MultiBand Excitation (IMBE) vocoder, DES encryption also available

Availability

Available

Frequency Range

UHF: 403 MHz to 430 MHz
VHF: 136 MHz to 174 MHz
800: 806 MHz to 824 MHz, 851 MHz to 869 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Transmission can travel 10 mi or more

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Up to 800 different trunked system/group combinations and up to 200 conventional channels

Transmitter Power Output Levels

0.5 W to 3 W trunked; 1 W to 2 W talk around

Battery Options

High and extra high capacity

Battery Recharging Options

Vehicular charger, desk and wall chargers

Physical Parameters

Size

5.7 in x 2.6 in x 1.7 in (with high capacity battery)

Weight

20.8 oz (with high capacity battery)

Power Requirements

7.5 V dc (nominal)

External Power

No

Available Accessories

Speaker-Microphones

Remote microphone, headset, earpiece

Carrying Cases

Leather cases, belt loops, swivel mounts

Battery Eliminators

Not specified

Vehicle Adapters

Has vehicle adapter

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable -
PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Shock: 1 m drop (per EIA/TIA-603)
Vibration: 5 G (per U.S. Forest Service)

Environmental Conditions

-22 °F to 140 °F
90 % @ 122 °F relative humidity

Unit Cost

Not specified

Battery Cycle Life

Battery life @ 5/5/90: high capacity battery - 8 h; low
capacity battery - 9 h

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Digital technology

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

FCC Type Acceptance No: AXATR-336-A, Industry
Canada (RSS-119) 287-194-340-NA

Support Equipment

Headset, earpiece, remote microphones, PC programming
software and cables, subminiature surveillance
accessories, cases, straps, belt loops and swivel mounts

Warranty

Not specified

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810E, equivalent Mil-Std 810C and
Mil-Std 810D

Intrinsically Safe

No

General

Name

ProVoice ä MASTRä III Base Station 800 MHz

ID# 24

Picture Not Available

Model Number(s)

MASTR III

Technology

Base station or repeater, conventional or trunking (with programmable GETC™ shelf)

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

POC: John Hobbs
804-385-2336 (Tel)

Secure Communication Capability

Encryption, Improved MultiBand Excitation (IMBE) vocoder, DES encryption also available

Availability

Available

Frequency Range

851 MHz to 870 MHz transmit (TX);
806 MHz to 825 MHz TX

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Com-Net Ericsson

Operational Parameters

Number of Channels

Up to 16

Transmitter Power Output Levels

100 W

Battery Options

13.8 V dc, 100 AH (min) standby battery source

Battery Recharging Options

Not applicable

Physical Parameters

Size

37 in x 21.5 in x 18.25 in; or 69.1 in x 23.1 in x 21 in

Weight

150 lb or 520 lb

Power Requirements

120 V ac ($\pm 20\%$); 230 V ac ($\pm 15\%$); 13.8 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Not specified

Carrying Cases

Not applicable

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged |
| Environmental Conditions | -22 °F to 140 °F 90 % @ 122 °F relative humidity |
| Unit Cost | Greater than \$1K per unit |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | The modular design makes maintenance and servicing simple and fast |
| Interface Capability | Digital communications |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Type Acceptance No: AXATR-336-A2, Industry Canada Certification No (TR-329), Industry Canada Certification No (RSS-119) |
| Support Equipment | Test handset, antenna multicoupler, 50 Hz power supply, combiner, isolator, squelch-operated relay, voice guard encryption, aegis digital, switchable channel spacing, 4800/9600 data rate, plus programmable options |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

ProVoice™ Orion™ Mobile 800 MHz

ID# 25



Model Number(s)

ProVoice™ Orion™ Mobile 800 MHz

Technology

Mobile, conventional and trunked

Manufacturer

Com-Net Ericsson Critical Radio Systems, Inc.
P.O. Box 2000
Lynchburg, Virginia 24501
800-431-2345 (Tel)
www.com-netericsson.com

Secure Communication Capability

Encryption Technique: Nonlinear product/block transformation
Algorithm type: data encryption standard (DES)

Availability

Available

Frequency Range

806 MHz to 825 MHz
851 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

ComNet Ericsson

Operational Parameters

Number of Channels

EDACS System/group combinations: 800
192 conventional channels

Transmitter Power Output Levels

Watts are adjustable to 50 % of rated power
12 W, 35 W (806 MHz to 825 MHz)
30 W (851 MHz to 870 MHz)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 6.9 in x 9.3 in radio only

Weight

Not specified

Power Requirements

10.8 V dc to 16.6 V dc negative ground

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Construction: Control unit: high impact plastic Transceiver: cast metal Weatherproof microphone with hookswitch |
| Environmental Conditions | -22 °F to 140 °F @ 90 % 50° relative humidity |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Field programmable using an IBM PC |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Certified (AXATR-318-A2 and AXATR-317-B2) Industry Canada Cert. (287-194-232 and 287-194-237) |
| Support Equipment | Remote mount kit, unity and gain antennas, adaptive multi-path pop filter (AMPF), and motorcycle kit |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***EFJohnson Auris Digital Base Station; RS-5601
VHF; Single Channel***

ID# 26

Picture Not Available

Model Number(s)

RS-5601/11 VHF

Technology

Base station, conventional, digital

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups per rapid channel

Transmitter Power Output Levels

60 W or 125 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

19 in x 14 in x 17.4 in

Weight

50 lb

Power Requirements

120 V ac/12 V dc revert or 12 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not specified

Battery Eliminators Not applicable
Vehicle Adapters Not specified

Logistical Parameters

Programming Dealer/User (authorized technician)
Repairs Dealer
Decontamination Not specified
Durability/Ruggedness Standard Use
Environmental Conditions -22 °F to 140 °F
Unit Cost Greater than \$1K per unit
Battery Cycle Life Not applicable
Rapid Charge Battery Cycle Life Not applicable
Maintenance Cost Not specified
Interface Capability Capable of digital transmissions without an adapter

Special Requirements

Operator Skills Required Average
Operator Training Requirements Average
Training Available Yes
Manuals Available Yes
Applicable Regulations Not specified
Support Equipment Available
Warranty 1 yr with 2 yr optional
Mil Spec/Mil-Std Ratings No
Intrinsically Safe No

General

Name

***EFJohnson Auris Digital Repeater; RS-5601 VHF;
Single Channel***

ID# 27

Picture Not Available

Model Number(s)

RS-5601/11 VHF

Technology

Repeater, conventional, digital

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Capable of secure transmissions without an accessory

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels

Transmitter Power Output Levels

60 W or 125 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

19 in x 14 in x 17.4 in

Weight

50 lb

Power Requirements

12 V dc or 120 V ac/12 V dc revert

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not specified

Battery Eliminators

Not applicable

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard Use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Greater than \$1K per unit

Battery Cycle Life

Not applicable

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Capable of digital transmissions without an adapter

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr with 2 yr optional

Mil Spec/Mil-Std Ratings

No

Intrinsically Safe

No

General

Name

***EFJohnson Auris Digital Repeater; RS-5611 VHF;
Dual Channel***

ID# 28

Picture Not Available

Model Number(s)

RS-5601/11 VHF

Technology

Repeater, conventional, digital

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

512 channels; 256 channels/radio channel

Transmitter Power Output Levels

60 W or 125 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

19 in x 14 in x 17.4 in

Weight

50 lb

Power Requirements

12 V dc or 120 V ac/12 V dc revert

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not specified

Battery Eliminators

Not applicable

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard Use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Greater than \$1K per unit

Battery Cycle Life

Not applicable

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Digital compatibility

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr with 2 yr optional

Mil Spec/Mil-Std Ratings

No

Intrinsically Safe

No

General

Name

***EFJohnson Auris Digital Base Station; RS-5611
VHF; Dual Channel***

ID# 29

Picture Not Available

Model Number(s)

RS-5601/11 VHF

Technology

Base station, conventional, digital

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

512 channels, 256 channels/radio channel

Transmitter Power Output Levels

60 W or 125 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

19 in x 14 in x 17.4 in

Weight

50 lb

Power Requirements

12 V dc or 120 V ac/12 V dc revert

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not specified

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Greater than \$1K per unit

Battery Cycle Life

Not applicable

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Digital compatibility

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr with 2 yr optional

Mil Spec/Mil-Std Ratings

No

Intrinsically Safe

No

General

Name

***EFJohnson Auris Digital Repeater/Basestation;
RS-5604 (Single Channel)/5614 (Dual Channel)
UHF***

ID# 30



Model Number(s)

RS-5604/14 UHF

Technology

Repeater, conventional, digital

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Repeater only

Availability

Available

Frequency Range

403 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/radio channel

Transmitter Power Output Levels

60 W or 125 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

19 in x 14 in x 17.4 in

Weight

50 lb

Power Requirements

12 V dc or 120 V ac/120 V dc revert

External Power

Yes

Available Accessories

| | |
|----------------------------------------|-------------------------------------|
| Speaker-Microphones | Yes |
| Carrying Cases | Not specified |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Ruggedized |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Greater than \$1K per unit |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Digital communications |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

EFJohnson Auris Repeater; RS-5604 (Single Channel)/5614 (Dual Channel) UHF

ID# 31



Model Number(s)

RS-5604 UHF

Technology

Repeater, conventional

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Capable of secure transmissions without an accessory

Availability

Available

Frequency Range

Not specified

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels

Transmitter Power Output Levels

60 W or 125 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

19 in x 14 in x 17.4 in

Weight

50 lb

Power Requirements

12 V dc

External Power

Yes

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Yes |
| Carrying Cases | Not specified |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Greater than \$1K per unit |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Capable of digital transmissions without an adapter |

Special Requirements

| | |
|---------------------------------------|-------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

EFJohnson Transceiver, Portable; 77xx-800 MHz

ID# 32

Picture Not Available

Model Number(s)

77xx-800 MHz

Technology

Portable, conventional and trunked

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

806 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Talk around and repeated

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups

Transmitter Power Output Levels

3 W to 1 W

Battery Options

NiMH

Battery Recharging Options

Single unit rapid charger

Physical Parameters

Size

6.5 in x 2.2 in x 1.2 in

Weight

18 oz (with battery)

Power Requirements

7.2 V dc

External Power

No

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Leather cases, and belt clips

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Yes |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | List price starting at \$1.1K |
| Battery Cycle Life | 8 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | SmartNet/SmartZone trunking |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Part 15 and Canada Acceptance |
| Support Equipment | Chargers, leather cases, belt clips, speaker microphones, high capacity batteries, and programming accessories |
| Warranty | 0 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

EFJohnson Transceiver, Portable; 98xx-800 MHz

ID# 33

Picture Not Available

Model Number(s)

98xx-800 MHz

Technology

Portable, conventional and trunked

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

806 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Talk around and repeated

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups

Transmitter Power Output Levels

2 W to 30 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6 in x 2.1 in x 7.5 in

Weight

3.5 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | List price starting at \$1.1K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not applicable |
| Interface Capability | SmartNet/SmartZone trunking |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Part 15 and Canada Acceptance |
| Support Equipment | Remote mount, DTMF microphone, 12 W external speaker, multi-position mounting bracket, programming accessories |
| Warranty | 1 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

EFJohnson Transceiver, Portable; 501x VHF

ID# 34



Model Number(s)

501x VHF

Technology

Portable, conventional and trunked

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Talk around and repeated

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups

Transmitter Power Output Levels

1 W to 5 W

Battery Options

Two types available, NiMH

Battery Recharging Options

Single unit rapid, multi unit rapid, trickle single unit

Physical Parameters

Size

2.4 in x 8.8 in x 1.9 in (without antenna)

Weight

29 oz (with battery)

Power Requirements

7.2 V dc

External Power

No

Available Accessories

Speaker-Microphones

Yes

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Yes |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Analog list price starting at \$1.9K; P25 Digital list price starting at \$2.3K |
| Battery Cycle Life | 13 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Part 15 and Canada Acceptance |
| Support Equipment | Chargers, leather cases, belt clips, speaker microphones, high capacity batteries, and programming accessories |
| Warranty | 1 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

EFJohnson Transceiver, Portable; 504x UHF

ID# 35



Model Number(s)

504x UHF

Technology

Portable, conventional and trunked

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Project 25 encryption options
SecureNet™ encryption options

Availability

Available

Frequency Range

403 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Talk around and repeated

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups

Transmitter Power Output Levels

4 W to 1 W

Battery Options

NiMH

Battery Recharging Options

Single and multi-unit rapid chargers

Physical Parameters

Size

2.4 in x 8.8 in x 1.9 in (without antenna)

Weight

29 oz (with battery)

Power Requirements

7.2 V dc

External Power

No

Available Accessories

General

Speaker-Microphones

Speaker-microphone

Carrying Cases

Leather cases, belt clips

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use
Polycarbonate case

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Analog list price starting at \$1.9K; P25 Digital list price starting at \$2.3K

Battery Cycle Life

13 h at 5/5/90 cycle

Rapid Charge Battery Cycle Life

Single and multi-unit rapid chargers

Maintenance Cost

Not specified

Interface Capability

Digital communications; Smart Net/Smart Zone

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

FCC Part 15 and Canada Acceptance

Support Equipment

Chargers, leather cases with belt clips, speaker-microphone, high and medium capacity batteries, and programming accessories

Warranty

1 yr with 2 yr optional

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

EFJohnson Transceiver, Portable; 508x-800 MHz

ID# 36



Model Number(s)

508x-800 MHz

Technology

Portable, conventional and trunked

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

806 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Talk around and repeated

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups

Transmitter Power Output Levels

3 W to 1 W

Battery Options

NiMH

Battery Recharging Options

Single and multi-unit rapid chargers

Physical Parameters

Size

2.4 in x 8.8 in x 1.9 in (without antenna)

Weight

29 oz (with battery)

Power Requirements

7.2 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker-microphone

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Leather cases, belt clips |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use Polycarbonate case |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Analog list price starting at \$1.9K; P25 Digital list price starting at \$2.3K |
| Battery Cycle Life | 13 h at 5/5/90 Cycle |
| Rapid Charge Battery Cycle Life | Single and multi-unit rapid chargers |
| Maintenance Cost | Not specified |
| Interface Capability | Digital communications; Smart Net/Smart Zone trunking |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Part 15 and Canada Acceptance |
| Support Equipment | Chargers, leather cases with belt clips, speaker-microphone, high and medium capacity batteries, and programming accessories |
| Warranty | 1 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

EFJohnson Transceiver; 531x VHF

ID# 37



Model Number(s)

531x VHF

Technology

Mobile, conventional and trunked

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Compatibility with high-tier encrypted radio systems

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Line of site and Repeated

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups

Transmitter Power Output Levels

10 W to 50 W variable or 100 W option

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2.1 in x 7.2 in x 8.3 in

Weight

5.3 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Analog list price starting at \$2.4K; P25 Digital list price starting at \$2.8K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Digital communications, Smart Net/Smart Zone trunking |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Part 15 and Canada Acceptance |
| Support Equipment | 12 W external speaker, remote-mount conversion kit, spare control head kit, desk microphone, DTMF microphone, lockable mounting tray, and power supply |
| Warranty | 1 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

EFJohnson Transceiver; 538x-800 MHz

ID# 38



Model Number(s)

538x-800 MHz

Technology

Mobile, conventional and trunked

Manufacturer

EFJohnson
299 Johnson Ave.
P.O. Box 1249
Waseca, Minnesota 56093
507-835-6222 (Tel)
507-835-8356 (Fax)

POC: Dave Helfrich
507-835-9643 (Tel)
507-835-6283 (Fax)

Secure Communication Capability

Compatibility with high-tier encrypted radio systems

Availability

Available

Frequency Range

806 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Line of site and repeated

Current User(s)

Not specified

Source

EFJohnson

Operational Parameters

Number of Channels

256 channels/talk groups

Transmitter Power Output Levels

10 W to 50 W variable; 100 W option

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2.1 in x 7.2 in x 8.3 in

Weight

5.3 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Analog list price starting at \$2.4K; P25 Digital list price starting at \$2.8K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Digital communications; Smart Net/Smart Zone trunking |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Part 15 and Canada Acceptance |
| Support Equipment | 12 W external speaker, remote-mount conversion kit, spare control head kit, desk microphone, DTMF microphone, lockable mounting tray, and power supply |
| Warranty | 1 yr with 2 yr optional |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Icom VHF Transceiver, Portable; IC-F3

ID# 39



Model Number(s)

IC-F3

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

Secure Communication Capability

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Availability

Voice scrambler units, nonrolling type and rolling type

Frequency Range

Available

Number of Personnel Supported by System

136 MHz to 150 MHz or 146 MHz to 174 MHz

Geographic Coverage

Unlimited

Current User(s)

50+ with repeater; 12 mi line of sight

Source

U.S. Army soldier intercom

ICOM

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Battery pack (8 AA batteries); 9.6 V/700 mAh;
9.6 V/1050 mAh

Battery Recharging Options

Wall charger, desktop charger, multi-charger, and dc power charger (connected to a cigarette lighter in vehicle)

Physical Parameters

Size

2.4 in x 5.5 in x 1.5 in

Weight

13.8 oz

Power Requirements

9.6 V dc

External Power

No

Available Accessories

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Speaker-Microphones | Speaker microphone: Slim dimensions, equipped with an earphone jack and a transmit indicator; headset for hands-free operation, includes VOX, PTT, and “one-touch” PTT with a time-out timer |
| Carrying Cases | Yes |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable design features a one-piece polycarbonate front panel, aluminum die-cast frame and screw-type antenna. Radios are built to withstand demanding environments. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$360 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Rapid desktop and rapid multi-charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Chargers, battery pack, speaker-microphones, headset, belt clip, dc power cable, earphone, SmarTrunk™, and LTR Trunk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Icom VHF Transceiver, Portable; IC-F3S

ID# 40



Model Number(s)

IC-F3S

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029
POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Secure Communication Capability Availability

No

Frequency Range

136 MHz to 150 MHz or 146 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 12 mi line of sight

Current User(s)

U.S.Army soldier intercom

Source

ICOM

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Battery pack (8 AA batteries); 9.6 V/700 mAh;
9.6 V/1050 mAh

Battery Recharging Options

Wall charger, desktop charger, multi-charger, dc power charger (connected to a cigarette lighter in vehicle)

Physical Parameters

Size

2.4 in x 5.5 in x 1.5 in

Weight

13.8 oz

Power Requirements

9.6 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone: Slim dimensions, equipped with an earphone jack and a transmit indicator; headset for hands-free operation, includes VOX, PTT, and “one-touch” PTT with a time-out timer

Carrying Cases

Yes

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Rugged, dependable construction

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$360

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Rapid desktop and rapid multi-charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Minimal

Operator Training Requirements

Minimal

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Chargers, battery pack, speaker-microphones, headset, belt clip, dc power cable, earphone, SmarTrunk™, and LTR Trunk

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

Icom VHF Transceiver, Portable; IC-F3GT/IC-F3GTS

ID# 41



Model Number(s)

IC-F3GT/IC-F3GTS

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Secure Communication Capability

Yes, with optional accessory. Voice scrambler units, non-rolling type and rolling type.

Availability

Available

Frequency Range

136 MHz to 150 MHz, 146 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

10 mi

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

40 channels

Transmitter Power Output Levels

5 W 1.6 A
1 W 0.7 A

Battery Options

Batteries (6 AA)
NiCad, 7.2 V/1100 mAh
NiMH, 7.2 V/1650 mAh

Battery Recharging Options

Desktop charger, multi-charger

Physical Parameters

Size

2-1/8 in x 5-3/16 in x 1-7/16 in

Weight

13.1 oz

Power Requirements

7.2 V dc

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker-microphone equipped with an earphone jack and a transmit indicator. Headset for hands-free operation, and an earphone provides clear audio in noisy environments. |
| Carrying Cases | Leather and nylon |
| Battery Eliminators | No |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not specified |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Less than or equal to \$500 per unit |
| Battery Cycle Life | 8 h; 5/5/90 |
| Rapid Charge Battery Cycle Life | Desktop rapid charger: charging time 1.5 h to 2 h and multi-charger for rapid charging up to 6 battery packs simultaneously (charging time 1.5 h to 2 h) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Battery chargers, speaker-microphone, headset, belt clip, SmarTrunk™, and LTR Trunk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Icom UHF Transceiver, Portable; IC-F4

ID# 42



Model Number(s)

IC-F4

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

Secure Communication Capability

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)
Voice scrambler units, nonrolling type and rolling type

Availability

Available

Frequency Range

400 MHz to 430, MHz, 440 MHz to 470 MHz , 470 MHz to 500 MHz, or 490 MHz to 512 MHz to 520 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 4 W; low: 1 W

Battery Options

Battery pack (8 AA batteries); 9.6 V/700 mAh;
9.6 V/1050 mAh

Battery Recharging Options

Wall charger, desktop charger, multi-charger, and dc power charger (connected to a cigarette lighter in vehicle)

Physical Parameters

Size

2.4 in x 5.5 in x 1.5 in

Weight

13.8 oz

Power Requirements

9.6 V dc

External Power

No

Available Accessories

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Speaker-Microphones | Speaker microphone: Slim dimensions, equipped with an earphone jack and a transmit indicator; headset for hands-free operation, includes VOX, PTT, and “one-touch” PTT with a time-out timer |
| Carrying Cases | Yes |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable design features a one-piece polycarbonate front panel, aluminum die-cast frame and screw-type antenna. Radios are built to withstand demanding environments. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$392 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Rapid desktop and rapid multi-charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Chargers, battery pack, speaker-microphones, headset, belt clip, dc power cable, earphone, SmarTrunk™, and LTR Trunk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Icom UHF Transceiver, Portable; IC-F4S

ID# 43



Model Number(s)

IC-F4S

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

Secure Communication Capability

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)
No

Availability

Available

Frequency Range

400 MHz to 430 MHz or 440 MHz to 470 MHz
470 MHz to 500 MHz or 490 MHz to 512 MHz to
520 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 4 W; low: 1 W

Battery Options

Battery pack (8 AA batteries); 9.6 V/700 mAh;
9.6 V/1050 mAh

Battery Recharging Options

Wall charger, desktop charger, multi-charger, and dc power charger (connected to a cigarette lighter in vehicle)

Physical Parameters

Size

2.4 in x 5.5 in x 1.5 in

Weight

13.8 oz

Power Requirements

9.6 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone: Slim dimensions, equipped with an earphone jack and a transmit indicator; headset for hands-free operation, includes VOX, PTT, and "one-touch" PTT with a time-out timer.

Carrying Cases

Yes

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Rugged, dependable construction

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$392

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Rapid desktop and rapid multi-charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Minimal

Operator Training Requirements

Minimal

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Chargers, battery pack, speaker-microphones, headset, belt clip, dc power cable, earphone, SmarTrunk™, and LTR Trunk

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

Icom UHF Transceiver, Portable; IC-F4GT/IC-F4GTS

ID# 44



Model Number(s)

IC-F4GT/IC-F4GTS (F3GT shown)

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Secure Communication Capability

Yes, with optional accessory. Voice scrambler units, non-rolling type and rolling type.

Availability

Available

Frequency Range

400 MHz to 430 MHz, 440 MHz to 470 MHz, 470 MHz to 500 MHz, 490 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

10 mi

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

40 channels

Transmitter Power Output Levels

4 W 1.5 A

Battery Options

Batteries (6 AA)
NiCad, 7.2 V/1100 mAh
NiMH, 7.2 V/1650 mAh

Battery Recharging Options

Desktop charger, and multi-charger

Physical Parameters

Size

2-1/8 in x 5-3/16 in x 1-7/16 in

Weight

13.1 oz

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker-microphone equipped with an earphone jack and a transmit indicator. Headset for hands-free operation, and an earphone provides clear audio in noisy environments. |
| Carrying Cases | Not specified |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not specified |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Less than or equal to \$500 per unit |
| Battery Cycle Life | 8 h; 5/5/90 |
| Rapid Charge Battery Cycle Life | Desktop rapid charger: charging time 1.5 h to 2 h and multi-charger for rapid charging up to 6 battery packs simultaneously (charging time 1.5 h to 2 h) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Battery chargers, speaker-microphone, headset, belt clip, SmarTrunk™, and LTR Trunk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Icom VHF Mobile Transceiver; IC-F1020

ID# 45



Model Number(s)

IC-F1020

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 155 MHz
146 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 10 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

32 standard
160 optional

Transmitter Power Output Levels

Hi: 45 W; low: 4.5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.9 in x 2 in x 7 in

Weight

3.3 lb

Power Requirements

13.6 ± V dc (15 % negative ground)

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Can be fully decontaminated |
| Durability/Ruggedness | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E; shock and vibration |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$599 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | ACC cable (for external terminal connection), separation kit (for front panel detachment installation), external speaker, 2–tone unit, 5–tone unit, SmarTrunk II™ and Logic Board |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

ID# 46

Icom UHF Mobile Transceiver; IC-F2020



Model Number(s)

IC-F2020

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

Secure Communication Capability

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Availability

No

Frequency Range

Available

400 MHz to 430 MHz
450 MHz to 470 MHz
470 MHz to 490 MHz
490 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 10 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

32 standard, 160 optional

Transmitter Power Output Levels

Hi: 35 W; low: 2 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.9 in x 2 in x 7 in

Weight

3.3 lb

Power Requirements

13.6 ± V dc (15 % negative ground)

External Power

Not applicable

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|--------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not applicable |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$650 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | ACC cable (for external terminal connection), separation kit (for front panel detachment installation), external speaker, 2-tone unit, 5-tone unit, SmartTrunk II* and Logic Board |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Icom VHF Mobile Transceiver; IC-F320/IC-F420

ID# 47



Model Number(s)

IC-F320/IC-F420

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

Frequency range varies according to versions
IC-F320: 136 MHz to 155 MHz or 146 MHz to 174 MHz
IC-F420: 400 MHz to 430 MHz, 450 MHz to 470 MHz,
470 MHz to 490 MHz, 490 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 10 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

32 channels (16 x 2 banks)

Transmitter Power Output Levels

IC-F320: 45 W
IC-F420: 35 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 6.7 in

Weight

2.6 lb

Power Requirements

13.6 ± V dc (15 % negative ground)

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------|
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not applicable |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$379 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | 5-tone unit, SmarTrunk II* Logic Board, external speaker, ACC cable, DTMF microphone, and LTR Trunk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Icom UHF Mobile Transceiver; IC-F320S/ IC-F420S

ID# 48



Model Number(s)

IC-F320S/IC-F420S

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Secure Communication Capability

Optional voice scrambler units allow operating security

Availability

Available

Frequency Range

Frequency range varies according to versions
IC-F320: 136 MHz to 155 MHz or 146 MHz to 174 MHz
IC-F420: 400 MHz to 430 MHz, 450 MHz to 470 MHz,
470 MHz to 490 MHz, 490 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 10 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

4 channels

Transmitter Power Output Levels

IC-F320S: 45 W of RF output, adjustable through cloning-fixed power outputs of 45 W, 25 W, and 4.5 W can be adjusted through programming. IC-F420S: 35 W of RF output, adjustable through cloning-fixed power outputs of 35 W, 20 W, and 3.5 W can be adjusted through programming.

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

| | |
|----------------------------------------|--------------------------------------------------------------------------------|
| Size | 5.5 in x 1.6 in x 6.7 in |
| Weight | 2.6 lb |
| Power Requirements | 13.6 V dc (15 % negative ground) |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not specified |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$420 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | ACC cable, dc power cables, external speakers, hand microphones, and LTR Trunk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Not applicable |
| Intrinsically Safe | Not specified |

General

Name

Icom VHF Transceiver, Portable; IC-F30GS/IC-F30GT

ID# 49



Model Number(s)

IC-F30GS

IC-30FGT

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)

Secure Communication Capability

Yes, scrambling or rolling code

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

12 mi to 15 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

256 memory channels, 12 character names, up to 16 banks

Transmitter Power Output Levels

Hi: 5 W; low: dealer programmable

Battery Options

AA battery case, 1100 mAh NiCad, 1650 mAh NiMH

Battery Recharging Options

DTC charger, rapid charger, 6-unit charger, and charger adapter

Physical Parameters

Size

2.4 in x 5.5 in x 1.7 in

Weight

24 oz

Power Requirements

7.2 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Speaker microphones provide hands-free operation

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Not specified |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged construction, backlit keypad, 1550 NiMH battery standard, one-piece aluminum die-cast chassis Meets Mil-Std requirements and strict environmental standards |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Greater than \$500 but less than \$1K per unit |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Rapid desktop and multi-charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Chargers, battery pack, speaker microphone, ac adapter for use with charger, belt clip, keypad, SmarTrunk II™ Logic Board, and LTR Trunk |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

***Icom VHF Transceiver, Portable;
IC-F30LT Land Use;
IC-F30LT Marine Version***

ID# 50



Model Number(s)

IC-F30LT (Land Version) (Marine Version)

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

Secure Communication Capability

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)
(Land) Yes, simple inversion or rolling code
(Marine) Yes, with optional accessory. Voice scrambler units, nonrolling type and rolling type.

Availability

Available

Frequency Range

136 MHz to 150 MHz or 146 MHz to 174 MHz (Land Model) 156.025 MHz to 157.425 MHz (Marine Model)

Number of Personnel Supported by System

Unlimited

Geographic Coverage

(Land) 12 mi to 15 mi line of sight
(Marine) 50+ with repeater; 12 mi to 15 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

IC-F30LT: 99

Transmitter Power Output Levels

Hi: 5 W; low: dealer programmable

Battery Options

Batteries (6 AA); NiCad, 7.2 V/1100 mAh;
NiMH, 7.2 V/1650 mAh; and NiCad battery pack for intrinsically safe operation

Battery Recharging Options

Desktop charger, multi-charger

Physical Parameters

Size

2.4 in x 5.5 in x 1.7 in

Weight

24 oz

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker-microphone provides convenient, lightweight operation while hanging the transceiver on a belt |
| Carrying Cases | Yes |
| Battery Eliminators | No |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Polycarbonate case over a one-piece die-cast aluminum frame and a durable screw-base antenna ensure reliability under demanding commercial operations. Meets Mil-Std requirements and strict environmental standards. |
| Environmental Conditions | -22 °F to 140 °F Hazardous marine environments (Marine Version) |
| Unit Cost | Greater than \$500 but less than \$1K per unit |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Desktop charger for rapid charging a battery pack (charging time 2 h). Multi-charger for charging up to 6 batteries simultaneously (charging time 6 h). |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Chargers, NiCad/NiMH battery pack, speaker-microphones, ac adapter for charger, speaker-microphone, belt clip, keypad, SmarTrunk II™ Logic Board, and LTR Trunk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | (Land) Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E. (Marine) Meets Mil Spec 810C and Mil Spec 810D |
| Intrinsically Safe | Yes |

General

Name

Icom UHF Transceiver, Portable; IC-F40GS/IC-F40GT

ID# 51



IC-F40GS

IC-F40GT

Model Number(s)

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)
Yes, scrambling or rolling code

Secure Communication Capability

Availability

Available

Frequency Range

400 MHz to 430 MHz, 450 MHz to 490 MHz,
480 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 12 mi line of sight

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

256 memory channels, 12 character names, up to 16 banks

Transmitter Power Output Levels

Hi: 5 W VHF and 4 W UHF

Battery Options

AA battery case, 1100 mAh NiCad, 1650 mAh NiMH

Battery Recharging Options

DTC charger, rapid charger, 6-unit charger, and charger adapter

Physical Parameters

Size

2.4 in x 5.5 in x 1.7 in

Weight

24 oz

Power Requirements

7.2 V dc

External Power

Yes, ac and AD adapters

Available Accessories

| | |
|----------------------------|------------------------------------|
| Speaker-Microphones | Cell-phone type speaker-microphone |
| Carrying Cases | Yes |
| Battery Eliminators | No |
| Vehicle Adapters | Yes |

Logistical Parameters

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged construction, backlit keypad, 1550 NiMH battery standard, and one-piece aluminum die-cast chassis. Meets Mil-Std requirements and strict environmental standards. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Greater than \$500 but less than \$1K per unit |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Rapid desktop and multi-charger |
| Maintenance Cost | Not specified |
| Interface Capability | Data communications |

Special Requirements

| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Chargers, battery pack, speaker-microphones, ac adapter for use with charger, speaker-microphone, case, keypad, SmarTrunk II TM and Logic Board |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Pending |

General

Name

***Icom UHF Transceiver, Portable;
IC-F40LT Land Use;
IC-F40M/IC-F40LT Marine Version***

ID# 52



Model Number(s)

IC- F40LT (Land Use)
IC-F40M/IC-F40LTM (Marine Version)

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

ICOM America Inc.
Corporate Headquarters
2380 – 116th Ave., NE
P.O. Box C-90029
Bellevue, Washington 98009-9029

Secure Communication Capability

POC: Mr. Ron Spencer
425-454-8155 (Tel)
425-454-1509 (Fax)
(Land) Yes, simple inversion or rolling code.
(Marine) Yes, with optional accessory. Voice scrambler units, nonrolling type and rolling type.

Availability

Available

Frequency Range

400 MHz to 430 MHz, 430 MHz to 470 MHz,
470 MHz to 520 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

10 mi

Current User(s)

Not specified

Source

ICOM

Operational Parameters

Number of Channels

Marine: up to 83; LMR: up to 16

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Batteries (6 AA)
NiCad, 7.2 V/1100 mAh
NiCad battery pack for Intrinsically safe operation,
NiMH, 7.2 V/1650 mAh
Desktop charger, and multi-charger

Battery Recharging Options

Physical Parameters

Size

2.4 in x 5.5 in x 1.7 in

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 17.6 oz |
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker-microphone provides convenient, lightweight operation while hanging the transceiver on a belt |
| Carrying Cases | Yes |
| Battery Eliminators | No |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Polycarbonate case over a one-piece die-cast aluminum frame and a durable screw-base antenna ensure reliability under demanding commercial operations. Meets Mil-Std requirements and strict environmental standards. |
| Environmental Conditions | -22 °F to 140 °F Hazardous marine environments |
| Unit Cost | \$585 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Desktop charger for rapid charging a battery pack (charging time 2 h). Multi-charger for charging up to 6 batteries simultaneously (charging time 6 h). |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Chargers, battery pack, speaker-microphones, ac adapter for use with charger, speaker-microphone, belt clip, keypad, SmarTrunk II™ and Logic Board |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | (Land) Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E. (Marine) Meets Mil Spec 810C and Mil Spec 810D. |
| Intrinsically Safe | Yes |

General

Name

ID# 53

Modular Interconnect System, ACU-1000



Model Number(s)

ACU-1000

Technology

Interconnect
Conventional Modular Interface/Interconnect System

Manufacturer

JPS Communications, Inc.
5720M Capital Blvd.
Raleigh, North Carolina 27616
919-790-1011 (Tel)
919-790-1456 (Fax)

e-mail: jps@jps.com
<http://www.jps.com>

Secure Communication Capability

Yes

Availability

Available

Frequency Range

Each module is designed to connect to a specific communications medium (VHF/UHF radio, telephone or Satcom, HF radio, and local operator)

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

U.S. Army Corps of Engineers, and Federal Emergency Management Agency

Source

JPS Communications
<http://www.jps.com>

Operational Parameters

Number of Channels

Provides communications interoperability between HF, VHF low band, VHF high band, UHF, 800 MHz, trunking talk-groups and encrypted networks

Transmitter Power Output Levels

Not specified

Battery Options

Not specified

Battery Recharging Options

Built-in 1 A capacity battery charger

Physical Parameters

Size

5.3 in x 19 in x 11 in

Weight

Not specified

Power Requirements

115 V ac to 230 V ac
+12 V, +24 V dc to 28 V dc, or external battery

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------|
| External Power | External and internal |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | Yes |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Yes |
| Repairs | Not specified |
| Decontamination | Not specified |
| Durability/Ruggedness | HAZMAT, EMS, fire, and law enforcement use |
| Environmental Conditions | Operating: -43.6 °F to 140 °F Storage: -40 °F to 185 °F, and up to 95 % @ 131 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Yes |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Not specified |
| Operator Training Requirements | Not specified |
| Training Available | Not specified |
| Manuals Available | Not specified |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Method 516.3, Procedure VI and Mil Spec 810D, Method 514.3, and Category I |
| Intrinsically Safe | Not specified |

General

Name

***Transportable Radio Interconnect System,
TRP-1000***

ID# 54



Model Number(s)

TRP-1000

Technology

Interconnect, trunking/conventional Transportable Radio Interconnect System

Manufacturer

JPS Communications, Inc.
5720M Capital Blvd.
Raleigh, North Carolina 27616
919-790-1011 (Tel)
919-790-1456 (Fax)

e-mail: jps@jps.com
<http://www.jps.com>

Secure Communication Capability

Yes

Availability

Available

Frequency Range

Not applicable

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

U.S. Army Corps of Engineers, and Federal Emergency Management Agency

Source

JPS Communications
<http://www.jps.com>

Operational Parameters

Number of Channels

Provides communications interoperability between HF, VHF low band, VHF high band, UHF, 800 MHz, trunking talk-groups and encrypted networks

Transmitter Power Output Levels

Not specified

Battery Options

Not specified

Battery Recharging Options

Not specified

Physical Parameters

Size

Not specified

Weight

Not specified

Power Requirements

Not specified

External Power

No

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Yes |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |

Logistical Parameters

| | |
|----------------------------------------|--------------------------------------------|
| Programming | Not specified |
| Repairs | Not specified |
| Decontamination | Not specified |
| Durability/Ruggedness | HAZMAT, EMS, fire, and law enforcement use |
| Environmental Conditions | Not specified |
| Unit Cost | Not specified |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |

Special Requirements

| | |
|---------------------------------------|---------------|
| Operator Skills Required | Not specified |
| Operator Training Requirements | Not specified |
| Training Available | Not specified |
| Manuals Available | Not specified |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | Not specified |
| Mil Spec/Mil-Std Ratings | Not specified |
| Intrinsically Safe | Not specified |

General

Name

***Kenwood Synthesized FM Portable Radio;
TK-260/G***

ID# 55



Model Number(s)

TK-260/G

Technology

Portable, conventional; trunking capable with optional accessory board

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

8 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

NiCad (7.2 V, 600 mAh)
NiCad (7.2 V, 1100 mAh)

Battery Recharging Options

Regular rate charger, rapid charger, conditioning rapid battery charger, multi-charger adapter, regular rate and rapid rate vehicular charger adapter

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

Weight

14 oz with battery and antenna

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone, compact low-profile speaker microphone, earphone, headset, and lapel microphone with earphone

Carrying Cases

Leather case, swivel case adapter, swivel belt loop, and water-resistant bag

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Monocoque aluminum die-cast chassis-heat sink surrounded by polycarbonate case. Gasket seals and polyvinyl speaker cone prevent moisture penetration for wet weather use.

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$380

Battery Cycle Life

At least 4 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Rapid charger, conditioning rapid battery charger, and rapid rate vehicular charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Battery, battery case, chargers, microphone, earphone, coil cord, antenna, belt hook, leather case, and water-resistant bag

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

***Kenwood Synthesized FM Portable Radio;
TK-270/G***

ID# 56

Picture Not Available

Model Number(s)

TK-270/G

Technology

Portable, conventional; trunking capable with accessory

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 174 MHz
136 MHz to 150 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

128 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

AA alkaline batteries
NiCad (7.2 V, 600 mAh)
NiCad (7.2 V, 1100 mAh)

Battery Recharging Options

Six unit charger adapter, regular rate single unit desk charger, 220 V regular rate single unit desk charger, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate dc vehicular charger, and rapid rate dc vehicular charger

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

Weight

14 oz with battery and antenna

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones
Carrying Cases

Microphone and speakers, heavy duty and light duty

Heavy duty carrying case with bungi-cord, cordura nylon carrying case, water-resistant bag, and rubber protective case

Battery Eliminators
Vehicle Adapters

Not specified

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Monocoque aluminum die-cast chassis-heat sink surrounded by polycarbonate case. Gasket seals and polyvinyl speaker cone prevent moisture penetration for wet weather use.

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$465

Battery Cycle Life

At least 4 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Rapid rate single unit desk charger, rapid rate single unit battery charger with preconditioning discharge features, and rapid rate dc vehicular charger adapter

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Microphone and speakers, service related accessories, antennas, batteries and chargers, carrying accessories, and digital radio camera

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

***Kenwood Synthesized FM Portable Radio;
TK-360/G***

ID# 57



Model Number(s)

TK-360/G

Technology

Portable, conventional; trunking capable with accessory

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

450 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

8 channels

Transmitter Power Output Levels

Hi: 4 W; low: 1 W

Battery Options

NiCad (7.2 V, 600 mAh)
NiCad (7.2 V, 1100 mAh)

Battery Recharging Options

Regular rate charger, rapid charger, conditioning rapid battery charger, multi-charger adapter, regular rate and rapid rate vehicular charger adapter

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

Weight

14.4 oz

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone, compact low-profile speaker microphone, earphone, headset, and lapel microphone with earphone

Carrying Cases

Leather case, swivel case adapter, swivel belt loop, and water-resistant bag

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Monocoque aluminum die-cast chassis-heat sink surrounded by polycarbonate case. Gasket seals and polyvinyl speaker cone prevent moisture penetration for wet weather use.

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$430

Battery Cycle Life

At least 4 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Rapid charger, conditioning rapid battery charger, and rapid rate vehicular charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Battery, battery case, chargers, microphone, earphone, coil cord, antenna, belt hook, leather case, and water-resistant bag

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

***Kenwood Synthesized FM Portable Radio;
TK-370/G***

ID# 58



Model Number(s)

TK-370/G

Technology

Portable, conventional; trunking capable with accessory

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

450 MHz to 470 MHz
470 MHz to 490 MHz
490 MHz to 512 MHz
403 MHz to 430 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

128 channels

Transmitter Power Output Levels

Hi: 4 W; low: 1 W

Battery Options

AA alkaline batteries
NiCad (7.2 V, 600 mAh)
NiCad (7.2 V, 1100 mAh)

Battery Recharging Options

Six unit charger adapter, regular rate single unit desk charger, 220 V regular rate single unit desk charger, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate dc vehicular charger, and rapid rate dc vehicular charger

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

Weight

4 oz with battery and antenna

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.5 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Microphone and speakers, heavy duty and light duty |
| Carrying Cases | Heavy duty carrying case with bungi-cord, cordura nylon carrying case, water-resistant bag, and rubber protective case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Monocoque aluminum die-cast chassis-heat sink surrounded by polycarbonate case. Gasket seals and polyvinyl speaker cone prevent moisture penetration for wet weather use. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$505 |
| Battery Cycle Life | At least 4 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Rapid rate single unit desk charger, rapid rate single unit battery charger with preconditioning discharge features, and rapid rate dc vehicular charger adapter |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Microphone and speakers, service related accessories, antennas, batteries and chargers, carrying accessories, and digital radio camera |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-760G***

ID# 59



Model Number(s)

TK-760G

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 162 MHz
148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

Maximum 128 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 ± 15 % V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------|----------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Heavy-duty construction |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$489 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Mobile data ready data connection port allows voice and/or data communications using modems, MTD's and digital messaging equipment |

Special Requirements

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC ID: Type 1 and 2 FCC Compliance: Type 1 and 2 |
| Support Equipment | Switching unit, ignition sense cable, accessories connection cable, external speakers, mobile GPS, receiver, base modem unit, line noise filter, mounting case, key lock adapter, microphones, and dc power supply |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-860G***

ID# 60

Picture Not Available

Model Number(s)

TK-860G

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

450 MHz to 490 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

Maximum 128 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 ± 15 % V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Heavy-duty construction |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$519 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Mobile data ready data connection port allows voice and/or data communications using modems, MTD's and digital messaging equipment |

Special Requirements

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC ID: Type 1 and 2 FCC Compliance: Type 1 and 2 |
| Support Equipment | GPS receiver, base modem unit, line noise filter, mounting case, key lock adapter, microphones, and dc power supply |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-762G***

ID# 61



Model Number(s)

TK-762G

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 162 MHz
148 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

Maximum 8 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 V dc \pm 15 %

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meet or exceed government environmental standards covering shock, vibration, and dust for long-term durability in rough vehicle environments. Heavy-duty construction provides long-lasting field life. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$429 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Data ready connection port for MDT/modem application |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC ID: Type 1 and 2 FCC Compliance: Type 1 and 2 |
| Support Equipment | PA/HA switching unit, ignition sense cable, accessories connection cable, connection cable, external speakers, mobile GPS modem unit, base modem unit, line noise filter, mounting case, key lock adapter, microphones, and dc power supply |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-862G***

ID# 62



Model Number(s)

TK-862G

Technology

Mobile, conventional; trunking capable with optional accessory board

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

450 MHz to 490 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

Maximum 8 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 V dc \pm 15 %

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Meet or exceed government environmental standards covering shock, vibration, and dust for long-term durability in rough vehicle environments. Heavy-duty construction provides long-lasting field life.

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$459

Battery Cycle Life

Not applicable

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Data ready connection port for MDT/modem applications

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

FCC ID: Type 1 and 2
FCC Compliance: Type 1 and 2

Support Equipment

PA/HA switching unit, ignition sense cable, accessories connection cable, connection cable, external speakers, mobile GPS modem unit, base modem unit, line noise filter, mounting case, key lock adapter, microphones, and dc power supply

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-760H***

ID# 63



Model Number(s)

TK-760H

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Voice encryption-ready using voice scrambler control
(on/off & code selection)

Availability

Available

Frequency Range

148 MHz to 174 MHz
136 MHz to 156 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

32 semiduplex channels

Transmitter Power Output Levels

25 W to 45 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 6.7 in

Weight

2.2 lb

Power Requirements

13.6 ± 15 % V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die-case chassis/heat sink and rugged design meets Mil-Std specifications for shock, vibration and dust

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$549

Battery Cycle Life

Not applicable

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Mobile data-ready port for MDT/modem applications

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

FCC ID and Compliance: Type 1, 2, 3, and 4
IC Certification: Type 1 and 2
Applicable EIA/TIA Standard

Support Equipment

Hand microphone, programming disk, PA/HA unit, programming interface cable, external speaker, control station desktop microphone, line noise filter, dc power supply, ignition sense cable, accessories connection cable, and mounting case

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-860H***

ID# 64



Model Number(s)

TK-860H

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Voice encryption-ready using voice scrambler control
(on/off & code selection)

Availability

Available

Frequency Range

450 MHz to 476 MHz
470 MHz to 496 MHz
488 MHz to 512 MHz
406 MHz to 430 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

32 semiduplex channels

Transmitter Power Output Levels

25 W to 35 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 6.7 in

Weight

2.2 lb

Power Requirements

13.6 ± 15 % V dc

External Power

Yes

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Die-case chassis/heat sink and rugged design meets Mil-Std specifications for shock, vibration and dust |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$599 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Mobile data-ready port for MDT/modem applications |

Special Requirements

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Hand microphone, programming disk, PA/HA unit, programming interface cable, external speaker, control station desktop microphone, line noise filter, dc power supply, ignition sense cable, accessories connection cable, and mounting case |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-762H***

ID# 65



Model Number(s)

TK-762H

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Voice encryption-ready: easy access connection points provided

Availability

Available

Frequency Range

136 MHz to 156 MHz
148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

2 semiduplex channels

Transmitter Power Output Levels

Standard 25 W
H-Model 45 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 6.7 in

Weight

2.2 lb

Power Requirements

13.6 V dc negative ground

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Die-cast chassis/heat sink and rugged design |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$469 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Data ready connection port for MDT/Modem applications |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC ID and Compliance: Type 1, 2, 3, and 4 IC Certification: Type 1 and 2 Applicable EIA/TIA Standard |
| Support Equipment | Hand microphone, programming disk, PA/HA unit, programming interface cable, external speaker, desktop microphone, line noise filter, dc power supply, ignition sense cable, accessories connection cable, and mounting case |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Compact Synthesized FM Mobile Radio;
TK-862H***

ID# 66



Model Number(s)

TK-862HG

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Voice encryption-ready: easy access connection points provided

Availability

Available

Frequency Range

450 MHz to 476 MHz
470 MHz to 496 MHz
488 MHz to 512 MHz
406 MHz to 430 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Transportation

Source

Kenwood

Operational Parameters

Number of Channels

2 semiduplex channels

Transmitter Power Output Levels

Standard 25 W
H-Model 35 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 6.7 in

Weight

2.2 lb

Power Requirements

13.6 V dc negative ground

External Power

Not applicable

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Die-cast chassis/heat sink and rugged design |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$539 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Data ready connection port for MDT/Modem applications |

Special Requirements

| | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC ID and Compliance: Type 1, 2, 3, and 4 IC Certification: Type 1 and 2 Applicable EIA/TIA Standard |
| Support Equipment | Hand microphone, programming disk, PA/HA unit, programming interface cable, external speaker, desktop microphone, line noise filter, dc power supply, ignition sense cable, accessories connection cable, and mounting case |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Public Safety Mobile FM Radios;
TK-690H***

ID# 67

Picture Not Available

Model Number(s)

TK-690H

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control: Secure voice capabilities are available with optional scrambler modules. An internal port permits the addition of these modules to provide voice scrambling from low-level inversion to high-level encryption.

Availability

Available

Frequency Range

29.7 MHz to 37.0 MHz
35 MHz to 43 MHz
40 MHz to 50 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Public Safety Units

Source

Kenwood

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

110 adjustable to 45 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

7 in x 2.4 in x 12.9 in

Weight

7.9 lb

Power Requirements

13.4 V dc \pm 15 %

External Power

Not applicable

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Aluminum die-cast chassis heat-sink provides strength and heat dissipation, spring-action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties, making units resistant to water, dust, and other environmental conditions. Satisfies the driven rain standard. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

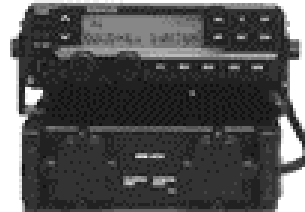
| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Experienced |
| Operator Training Requirements | Experienced |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Remote control heads and kits, remote control cables, ignition sense cable, mounting brackets, key lock adapter, external speaker, microphone, keypad microphone, desktop microphone, line filter, and dc power supply |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood Public Safety Mobile FM Radios; TK-790

ID# 68



Model Number(s)

TK-790

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 156 MHz
148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Public Safety Units

Source

Kenwood

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

110 adjustable to 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

7 in x 2.4 in x 7.7 in

Weight

5.7 lb

Power Requirements

13.6 V dc \pm 15 %

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------|----------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged Use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$730 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

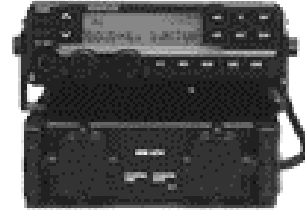
| | |
|---------------------------------------|-------------------------------------------------------|
| Operator Skills Required | Experienced |
| Operator Training Requirements | Experienced |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Public Safety Mobile FM Radios;
TK-790H***

ID# 69



Model Number(s)

TK-790H

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control: Secure voice capabilities are available with optional scrambler modules. An internal port permits the addition of these modules to provide voice scrambling from low-level inversion to high-level encryption.

Availability

Available

Frequency Range

148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Public Safety Units

Source

Kenwood

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

110 adjustable to 45 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

7 in x 2.4 in x 12.9 in

Weight

7.9 lb

Power Requirements

13.4 V dc \pm 15 %

External Power

Not applicable

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Aluminum die-cast chassis heat-sink provides strength and heat dissipation, spring-action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties, making units resistant to water, dust, and other environmental conditions. Satisfies the driven rain standard. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.2K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

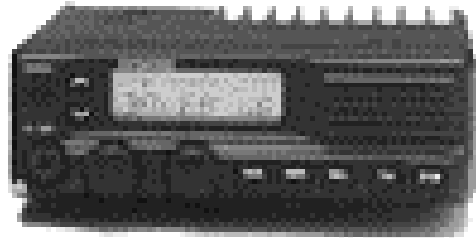
| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Experienced |
| Operator Training Requirements | Experienced |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Remote control heads and kits, remote control cables, ignition sense cable, mounting brackets, key lock adapter, external speaker, microphone, keypad microphone, desktop microphone, line filter, and dc power supply |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Kenwood Public Safety Mobile FM Radios;
TK-890***

ID# 70



Model Number(s)

TK-890

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

403 MHz to 430 MHz
450 MHz to 490 MHz
480 MHz to 512 MHz
Unlimited

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Public Safety Units

Source

Kenwood

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

40 W adjustable to 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

7 in x 2.4 in x 7.7 in

Weight

5.7 lb

Power Requirements

13.6 ± 15 % V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators Not applicable

Vehicle Adapters Not applicable

Logistical Parameters

Programming Dealer/User (authorized technician)

Repairs Dealer

Decontamination Not specified

Durability/Ruggedness Rugged use

Environmental Conditions -22 °F to 140 °F

Unit Cost \$780

Battery Cycle Life Not applicable

Rapid Charge Battery Cycle Life Not applicable

Maintenance Cost Not specified

Interface Capability Not specified

Special Requirements

Operator Skills Required Experienced

Operator Training Requirements Experienced

Training Available Yes

Manuals Available Yes

Applicable Regulations Not specified

Support Equipment Not specified

Warranty 2 yr

Mil Spec/Mil-Std Ratings Meets Mil Spec 810C, Mil Spec 810D, and
Mil Spec 810E

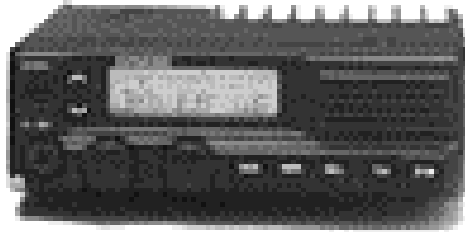
Intrinsically Safe No

General

Name

***Kenwood Public Safety Mobile FM Radios;
TK-890H***

ID# 71



Model Number(s)

TK-890H

Technology

Mobile, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control: Secure voice capabilities are available with optional scrambler modules. An internal port permits the addition of these modules to provide voice scrambling from low-level inversion to high-level encryption.

Availability

Available

Frequency Range

450 MHz to 490 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Public Safety Units

Source

Kenwood

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

40 W to 100 W (depending on the version)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

7 in x 2.4 in x 12.9 in

Weight

7.9 lb

Power Requirements

13.4 ± 15 % V dc

External Power

Not applicable

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Aluminum die-cast chassis heat-sink provides strength and heat dissipation, spring-action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties, making units resistant to water, dust, and other environmental conditions. Satisfies the driven rain standard. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.2K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Experienced |
| Operator Training Requirements | Experienced |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Remote control heads and kits, remote control cables, ignition sense cable, mounting brackets, key lock adapter, external speaker, microphone, keypad microphone, desktop microphone, line filter, and dc power supply |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood VHF/UHF Mobile Radio; TK-780

ID# 72



Model Number(s)

TK-780

Technology

Mobile, conventional and trunked

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control: An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types. The radio programming also provides both automatic and manual control for clear and coded modes

Availability

Available

Frequency Range

136 MHz to 162 MHz
146 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

Systems (trunked mode): maximum 32 channels
Groups (trunked mode): maximum 250 channels
Trunked/conventional: maximum 600/maximum 250 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 V dc \pm 15 %

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Lightweight die-cast chassis provides exceptional strength while providing natural transmit heat dissipation. Interlocking metal covers and seals lockout moisture and dust. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$580 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC ID: Type 1, 2, and 3 FCC Compliance: Type 1, 2, and 3 IC Certification: Type 1, 2, and 3 |
| Support Equipment | Microphones (desktop, mobile, mobile with keypad), ignition sense cable, accessories connector cable, external speakers, mounting case, key lock adapter, dc power supply, line noise filter, and PA/HA unit |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood VHF/UHF Mobile Radio; TK-880

ID# 73



Model Number(s)

TK-880

Technology

Mobile, conventional and trunked

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control: An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types. The radio programming also provides both automatic and manual control for clear and coded modes.

Availability

Available

Frequency Range

450 MHz to 490 MHz
485 MHz to 512 MHz
400 MHz to 430 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

Systems (trunked mode): maximum 32 channels
Groups (trunked mode): maximum 250 channels
Trunked/conventional: maximum 600/maximum 250 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 13.6 V dc \pm 15 % |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Lightweight die-cast chassis provides exceptional strength while providing natural transmit heat dissipation. Interlocking metal covers and seals lockout moisture and dust. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$600 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC ID: Type 1, 2, and 3 FCC Compliance: Type 1, 2, and 3 IC Certification: Type 1, 2, and 3 |
| Support Equipment | Microphones (desktop, mobile, mobile with keypad), ignition sense cable, accessories connector cable, external speakers, mounting case, key lock adapter, dc power supply, line noise filter, and PA/HA unit |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood Transceiver, Portable; TK-2100

ID# 74



Model Number(s)

TK-2100, ProTalk*

Technology

Portable, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 160 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 mi line of sight

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

1 or 2 channels

Transmitter Power Output Levels

2 W

Battery Options

AA alkaline, NiCad battery, extended NiCad battery

Battery Recharging Options

Six unit charger adapter, single unit desk charger (regular and rapid rate), 220 V single unit desk charger (regular and rapid rate), dc vehicular charger adapter (regular and rapid rate), and rapid rate single unit charger with pre-conditioning discharge features

Physical Parameters

Size

2.3 in x 4.9 in x 1.3 in (with battery)

Weight

11.2 oz (with battery)

Power Requirements

7.2 V dc

External Power

No

Available Accessories

Speaker-Microphones

Clip microphone with earphone, headset, earphone kit, earset with flex boom microphone and swivel earloop, single muff headset with boom microphone, palm microphone with earphone, and speaker microphone

Carrying Cases

Heavy duty carrying case, nylon case, horizontal-wear nylon case, water resistant bag, and rubber protective case

Battery Eliminators

No

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die-cast chassis, polycarbonate case, weather-sealed construction. Meets military environmental standards for light rain, humidity, dust, vibration, and shock.

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$259

Battery Cycle Life

8 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Single unit desk charger (rapid rate), 220 V single unit desk charger (rapid rate), dc vehicular charger adapter (rapid rate), and rapid rate single unit charger with pre-conditioning discharge features

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Minimal

Operator Training Requirements

Minimal

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Antennas, batteries and chargers, carrying accessories, microphone and speakers, and service related accessories

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

Kenwood Transceiver, Portable; TK-3100

ID# 75

Picture Not Available

Model Number(s)

TK-3100, ProTalk™

Technology

Portable, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

460 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 mi line of sight

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

1 or 2 channels

Transmitter Power Output Levels

2 W

Battery Options

AA alkaline, NiCad battery, extended NiCad battery

Battery Recharging Options

Six unit charger adapter, single unit desk charger (regular and rapid rate), 220 V single unit desk charger (regular and rapid rate), dc vehicular charger adapter (regular and rapid rate), and rapid rate single unit charger with pre-conditioning discharge features

Physical Parameters

Size

2.3 in x 4.9 in x 1.3 in (with battery)

Weight

11.2 oz (with battery)

Power Requirements

Not specified

External Power

No

Available Accessories

Speaker-Microphones

Clip microphone with earphone, headset, earphone kit, earset with flex boom microphone and swivel earloop, single muff headset with boom microphone, palm microphone with earphone, and speaker microphone

Carrying Cases

Heavy duty carrying case, nylon case, horizontal-wear nylon case, water resistant bag, and rubber protective case

Battery Eliminators

No

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die-cast chassis, polycarbonate case, weather-sealed construction. Meets military environmental standards for light rain, humidity, dust, vibration, shock.

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$275

Battery Cycle Life

8 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Single unit desk charger (rapid rate), 220 V single unit desk charger (rapid rate), dc vehicular charger adapter (rapid rate), and rapid rate single unit charger with pre-conditioning discharge features

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Minimal

Operator Training Requirements

Minimal

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Antennas, batteries and chargers, carrying accessories, microphone and speakers, and service related accessories

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

Kenwood Transceiver, Portable; TK-3101

ID# 76

Picture Not Available

Model Number(s)

TK-3101, FreeTalk*

Technology

Portable, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

460 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 mi line of sight

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

15 channels

Transmitter Power Output Levels

2 W

Battery Options

AA alkaline, NiCad battery, extended NiCad battery

Battery Recharging Options

Six unit charger adapter, single unit desk charger (regular and rapid rate), 220 V single unit desk charger (regular and rapid rate), dc vehicular charger adapter (regular and rapid rate), and rapid rate single unit charger with pre-conditioning discharge features

Physical Parameters

Size

2.3 in x 4.9 in x 1.3 in (with battery)

Weight

11.2 oz (with battery)

Power Requirements

Not specified

External Power

No

Available Accessories

Speaker-Microphones

Clip microphone with earphone, headset, earphone kit, earset with flex boom microphone and swivel earloop, single muff headset with boom microphone, palm microphone with earphone, and speaker microphone

Carrying Cases

Heavy duty carrying case, nylon case, horizontal-wear nylon case, water resistant bag, and rubber protective case

Battery Eliminators

No

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die-cast chassis, polycarbonate case, weather-sealed construction. Meets military environmental standards for light rain, humidity, dust, vibration, and shock.

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$292

Battery Cycle Life

8 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Single unit desk charger (rapid rate), 220 V single unit desk charger (rapid rate), dc vehicular charger adapter (rapid rate), and rapid rate single unit charger with pre-conditioning discharge features

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Minimal

Operator Training Requirements

Minimal

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Antennas, batteries and chargers, carrying accessories, microphone and speakers, and service related accessories

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

ID# 77

Kenwood VHF Fm Transceivers; TK-290



Model Number(s)

TK-290

Technology

Portable, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

5 W

Battery Options

AA alkaline batteries, NiCad battery, and NiCad intrinsically safe battery

Battery Recharging Options

Six unit charger adapter (regular and rapid rate), regular rate single unit desk charger, 220 V regular and rapid rate single unit desk charger, rapid rate single unit with pre-conditioning discharge features, and dc vehicular charger adapter (rapid and regular rate)

Physical Parameters

Size

2.3 in x 6.1 in x 1.6 in

Weight

20 oz with antenna and belt hook

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Earphone kit, palm microphone with earphone, mini lapel microphone with earphone, and heavy duty noise reduction behind the headset with noise canceling boom microphone

Carrying Cases

Heavy duty leather carrying case, cordura nylon carrying case, and rubber protective case

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die-cast chassis, weather-sealed universal connector and battery contacts use spring action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$800

Battery Cycle Life

10 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Six unit rapid rate charger, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate single unit battery charger with preconditioning discharge features, and rapid rate dc vehicular charger adapter

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Experienced

Operator Training Requirements

Experienced

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Batteries and chargers, carrying accessories, digital radio camera, microphones and speakers, and service related accessories

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

Yes

General

Name

ID# 78

Kenwood UHF Fm Transceivers; TK-390



Model Number(s)

TK-390

Technology

Portable, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

450 MHz to 490 MHz, 470 MHz to 512 MHz,
403 MHz to 430 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

4 W

Battery Options

AA alkaline batteries, NiCad battery, and NiCad intrinsically safe battery

Battery Recharging Options

Six unit charger adapter (regular and rapid rate), regular rate single unit desk charger, 220 V regular and rapid rate single unit desk charger, rapid rate single unit with pre-conditioning discharge features, and dc vehicular charger adapter (rapid and regular rate)

Physical Parameters

Size

2.3 in x 6.1 in x 1.6 in

Weight

20 oz with antenna and belt hook

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Earphone kit, palm microphone with earphone, mini lapel microphone with earphone, and heavy duty noise reduction behind the headset with noise canceling boom microphone

Carrying Cases

Heavy duty leather carrying case, cordura nylon carrying case, and rubber protective case

Battery Eliminators

Not specified

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die-cast chassis, weather-sealed universal connector and battery contacts use spring action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$850

Battery Cycle Life

10 h with 5/5/90 cycle

Rapid Charge Battery Cycle Life

Six unit rapid rate charger, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate single unit battery charger with preconditioning discharge features, and rapid rate dc vehicular charger adapter

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Experienced

Operator Training Requirements

Experienced

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Batteries and chargers, carrying accessories, digital radio camera, microphones and speakers, and service related accessories

Warranty

2 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

Yes

General

Name

Kenwood Trunked Mobile Radio; TK-980 NSPAC

ID# 79



Model Number(s)

TK-980 NSPAC

Technology

Mobile, trunked

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption/scrambler control

Availability

Available

Frequency Range

800 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

Trunked: 32 systems
Conventional: 250 channels

Transmitter Power Output Levels

15 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.5 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$634 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Control head cables, line filter, key lock adapter, control station mounting case for power supply, mobile mounting bracket, control conversion kit, microphones, keypad, dc power supply, 220 V dc power supply, mobile programming interface cable, and programming software disk |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood Synthesized FM Portable Radio/Trunked System; TK-280

ID# 80



Model Number(s)

TK-280

Technology

Portable, conventional and trunked

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control provides secure voice communications. An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types.

Availability

Available

Frequency Range

146 MHz to 174 MHz
136 MHz to 162 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

250 channels (conventional mode)
600 channels (trunked mode)

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

1100 mAh/8 h, 7.2 V dc NiCad battery, 1500 mAh/10 h, 7.2 V dc NiCad battery, intrinsically safe NiCad battery, and AA alkaline batteries

Battery Recharging Options

Six unit charger adapter, regular rate single unit desk charger, 220 V regular and rapid single unit desk charger, rapid and regular dc vehicular charger adapter, and rapid rate single unit with preconditioning discharge features

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 16 oz |
| Power Requirements | 7.5 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Earphone kit, Mil Spec noise canceling speaker microphone, 2-wire palm microphone with earphone, lapel microphone with earphone, and single muff headset with boom microphone |
| Carrying Cases | Heavy duty leather carrying case, cordura nylon carrying case, water resistant bag, and rubber protective case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Integrated elements such as the keypad membrane, gasket seals and the polypropylene speaker help prevent moisture penetration. Water resistant in wet weather. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$520 |
| Battery Cycle Life | At least 8 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Six unit charger adapter rapid rate, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate single unit with preconditioning discharge features, and rapid rate dc vehicular charger adapter |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Microphone and speakers, service related accessories, antennas, batteries and chargers, carrying accessories, and digital radio camera |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Kenwood Synthesized FM Portable Radio/Trunked System; TK-380

ID# 81



Model Number(s)

TK-380

Technology

Portable, conventional and trunked

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control provides secure voice communications. An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types.

Availability

Available

Frequency Range

403 MHz to 430 MHz
450 MHz to 490 MHz
470 MHz to 512 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

250 channels (conventional mode)
600 channels (trunked mode)

Transmitter Power Output Levels

Hi: 4 W; low: 1 W

Battery Options

1100 mAh/8 h, 7.2 V dc NiCad battery, 1500 mAh/10 h, 7.2 V dc NiCad battery, intrinsically safe NiCad battery, and AA alkaline batteries

Battery Recharging Options

Six unit charger adapter, regular rate single unit desk charger, 220 V regular and rapid single unit desk charger, rapid and regular dc vehicular charger adapter, and rapid rate single unit with preconditioning discharge features

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 16 oz |
| Power Requirements | 7.5 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Earphone kit, Mil Spec noise canceling speaker microphone, 2-wire palm microphone with earphone, lapel microphone with earphone, and single muff headset with boom microphone |
| Carrying Cases | Heavy duty leather carrying case, cordura nylon carrying case, water resistant bag, and rubber protective case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Integrated elements such as the keypad membrane, gasket seals and the polypropylene speaker help prevent moisture penetration. Water resistant in wet weather. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$570 |
| Battery Cycle Life | At least 8 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Six unit charger adapter rapid rate, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate single unit with preconditioning discharge features, and rapid rate dc vehicular charger adapter |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Microphone and speakers, service related accessories, antennas, batteries and chargers, carrying accessories, and digital radio camera |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Kenwood 800/900 MHz FM Transceiver; TK-480 and TK-480 NPSPAC

ID# 82



Model Number(s)

TK-480 and TK-480 NPSPAC

Technology

Portable, trunked system

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control for security. An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types.

Availability

Available

Frequency Range

851 MHz to 870 MHz
806 MHz to 825 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

Systems: 32
Groups: 250 per system
Channels: 486 per system

Transmitter Power Output Levels

1 W to 2.5 W

Battery Options

1100 mAh/8 h NiCad battery; 1500 mAh/10 h NiCad battery, and intrinsically safe NiCad battery

Battery Recharging Options

Six unit charger adapter (regular and rapid rate), regular rate single unit desk charger, 220 V regular and rapid rate single unit desk charger, rapid rate single unit with pre-conditioning discharge features, and dc vehicular charger adapter (rapid and regular rate)

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 16 oz |
| Power Requirements | 7.5 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Earphone kit, Mil Spec noise canceling speaker microphone, palm microphone with earphone, mini lapel microphone with earphone, and heavy duty noise reduction behind the headset with noise canceling boom microphone |
| Carrying Cases | Heavy duty leather carrying case, cordura nylon carrying case, water resistant bag, and rubber protective case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Die-cast chassis, weather-sealed universal connector and battery contacts use spring action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties. Polyvinyl keypad membrane and speaker cone prevent moisture penetration. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$640 |
| Battery Cycle Life | At least 8 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Six unit rapid rate charger, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate single unit battery charger with preconditioning discharge features, and rapid rate dc vehicular charger adapter |
| Maintenance Cost | Not specified |
| Interface Capability | Digital ANI Modules by Cimarron Technologies |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Batteries and chargers, carrying accessories, digital radio camera, microphones and speakers, and service related accessories |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Kenwood 800/900 MHz FM Transceiver; TK-481

ID# 83



Model Number(s)

TK-481

Technology

Portable, trunked system

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

Secure Communication Capability

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)
Encryption control for security. An internal port permits addition of optional modules to provide voice scrambling from low-level inversion to high-level encryption types.

Availability

Available

Frequency Range

896 MHz to 902 MHz TX
935 MHz to 941 MHz RX

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

Systems: 32
Groups: 250 per system
Channels: 486 per system

Transmitter Power Output Levels

1 W to 2.5 W

Battery Options

1100 mAh/8 h NiCad battery; 1500 mAh/10 h NiCad battery, and intrinsically safe NiCad battery

Battery Recharging Options

Six unit charger adapter (regular and rapid rate), regular rate single unit desk charger, 220 V regular and rapid rate single unit desk charger, rapid rate single unit with pre-conditioning discharge features, and dc vehicular charger adapter (rapid and regular rate)

Physical Parameters

Size

2.3 in x 5.3 in x 1.3 in

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 16 oz |
| Power Requirements | 7.5 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Earphone kit, Mil Spec noise canceling speaker microphone, palm microphone with earphone, mini lapel microphone with earphone, and heavy duty noise reduction behind the headset with noise canceling boom microphone |
| Carrying Cases | Heavy duty leather carrying case, cordura nylon carrying case, water resistant bag, and rubber protective case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Die-cast chassis, weather-sealed universal connector and battery contacts use spring action gold-alloy elements for excellent contact, conductivity and anti-corrosive properties. Polyvinyl keypad membrane and speaker cone prevent moisture penetration. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$640 |
| Battery Cycle Life | At least 8 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Six unit rapid rate charger, rapid rate single unit desk charger, 220 V rapid rate single unit desk charger, rapid rate single unit battery charger with preconditioning discharge features, and rapid rate dc vehicular charger adapter |
| Maintenance Cost | Not specified |
| Interface Capability | Digital ANI Modules by Cimarron Technologies |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Batteries and chargers, carrying accessories, digital radio camera, microphones and speakers, and service related accessories |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Optional |

General

Name

***Kenwood Trunked Portable Radios; TK-930HDK2
NSPAC***

ID# 84

Picture Not Available

Model Number(s)

TK-930HDK2 NSPAC

Technology

Portable, trunked system

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

800 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

LTR: 10 systems/200 trunked, 10 groups

Transmitter Power Output Levels

15 W to 35 W

Battery Options

Not applicable

Battery Recharging Options

None

Physical Parameters

Size

5.9 in x 2 in x 8.7 in

Weight

3.5 lb

Power Requirements

13.6 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not applicable

Battery Eliminators

No

Vehicle Adapters

Yes

Logistical Parameters

| | |
|----------------------------------------|----------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$915 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|-------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood Trunked Compact Mobile Radio; TK-980

ID# 85



Model Number(s)

TK-980

Technology

Mobile, conventional and trunked

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control: An internal port permits addition of optional modules for user-defined voice scrambling from low-level inversion to high-level encryption types. The radio programming also provides both automatic and manual control for clear and coded modes.

Availability

Available

Frequency Range

Type 1 851 MHz to 870 MHz RX
Type 2 806 MHz to 825 MHz TX
Type 3 851-870 MHz talk around

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

Systems: maximum 32 channels
Groups: maximum 250 channels
Channels: maximum 600

Transmitter Power Output Levels

15 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 V dc \pm 15 %

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Aluminum die-cast chassis gives strength to the unit and provides for natural heat dissipation. Interlocking metal covers and seals lockout moist and dust. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$550 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC, FCC Compliance, IC Certification |
| Support Equipment | Microphones (desktop, mobile, mobile with keypad), ignition sense cable, accessory connector cable, dc power supply, external speakers, line noise filter, mounting case, key lock adapter, and PA/HA unit |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood Trunked Compact Mobile Radio; TK-81

ID# 86



Model Number(s)

TK-981

Technology

Mobile, conventional and trunked

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

Encryption control: An internal port permits addition of optional modules for user-defined voice scrambling from low-level inversion to high-level encryption types. The radio programming also provides both automatic and manual control for clear and coded modes.

Availability

Available

Frequency Range

Type 1 935 MHz to 941 MHz RX
Type 2 896 MHz to 902 MHz TX
Type 3 935 MHz to 941 MHz talk around

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

Systems: maximum 32 channels
Groups: maximum 250 channels
Channels: maximum 600

Transmitter Power Output Levels

15 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

5.5 in x 1.6 in x 5.7 in

Weight

2.1 lb

Power Requirements

13.6 V dc \pm 15 %

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Aluminum die-cast chassis gives strength to the unit and provides for natural heat dissipation. Interlocking metal covers and seals lockout moist and dust. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$550 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC, FCC Compliance, IC Certification |
| Support Equipment | Microphones (desktop, mobile, mobile with keypad), ignition sense cable, accessory connector cable, dc power supply, external speakers, line noise filter, mounting case, key lock adapter, and PA/HA unit |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Kenwood VHF Base Transceiver; TKB-720

ID# 87



Model Number(s)

TKB-720

Technology

Base radio, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

9 to 16 channels

Transmitter Power Output Levels

20 W to 50 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

4.7 in x 13 in x 15.1 in

Weight

27.6 lb

Power Requirements

120 V ac 50 Hz/60 Hz

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

| | |
|----------------------------------------|-------------------------------------|
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Kenwood VHF/UHF Repeater; TKR-720

ID# 88

Picture Not Available

Model Number(s)

TKR-720

Technology

Repeater, conventional

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

1 channel

Transmitter Power Output Levels

15 W to 50 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

4.8 in x 13 in x 15 in

Weight

28.7 lb

Power Requirements

120 V ac 50 Hz/60 Hz

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|---------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Yes |
| Intrinsically Safe | No |

General

Name

Kenwood UHF Repeater; TKR-820

ID# 89

Picture Not Available

Model Number(s)

TKR-820

Technology

Repeater, conventional desktop repeater

Manufacturer

Kenwood Communications Corporation
P.O. Box 22745
East Dominguez St.
Long Beach, California 90801

POC: Barry Morris
800-752-0986, ext. 8280 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

406 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Kenwood

Operational Parameters

Number of Channels

1 channel

Transmitter Power Output Levels

2 W to 20 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

48 in x 13 in x 15 in

Weight

28.7 lb

Power Requirements

120 V ac 50 Hz/60 Hz

External Power

Yes

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not applicable |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|---------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Yes |
| Intrinsically Safe | No |

General

Name

Motorola Astro Transceiver, Portable; Saber 1

ID# 90



Model Number(s)

Astro Saber 1

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

**Secure Communication Capability
Availability**

Yes

Available

Frequency Range

VHF: 136 MHz to 174

UHF: 403 MHz to 470, 450 MHz to 520 MHz

800: 806 MHz to 870 MHz

**Number of Personnel Supported by
System**

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

16 channels to 32 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

1 NiCad 1000 mAh; 1 NiCad 1100 mAh; 4 NiCad 1800 mAh; 1 NiMH 1650 mAh; and 1 Lithium Ion

Battery Recharging Options

2 desktop, single unit standard charge rate chargers; 3 desktop, single unit rapid charge rate chargers; 2 multi unit rapid rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 conditioning chargers

Physical Parameters

Size

5.2 in x 2.9 in x 1.2 in (without battery)

Weight

13 oz (without battery)

Power Requirements

7.5 V dc

External Power

Yes, with optional vehicular adapter

Available Accessories

Speaker-Microphones

4 standard models available; 5 ear worn speaker microphones available

Carrying Cases

6 leather carrying cases; 4 nylon carrying cases; 1 belt clips; universal chest pack; breakaway chest pack; and universal radio pack (worn around waist)

Battery Eliminators

No

Vehicle Adapters

Yes

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$1.5K Manufacturer Suggested Retail Price (MSRP)
Contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Digital capable

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and
Mil Spec 810E

Intrinsically Safe

Yes

General

Name

Motorola Astro Transceiver, Portable; Saber 2

ID# 91



Model Number(s)

Astro Saber 2

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

POC: Ron Zeberlein
410-712-6014 (Tel)

Availability

Yes

Frequency Range

Available

Number of Personnel Supported by System

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz, 450 MHz to 520 MHz
800: 806 MHz to 870 MHz
Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

1 NiCad 1000 mAh; 1 NiCad 1100 mAh; 4 NiCad 1800 mAh; 1 NiMH 1650 mAh; and 1 Lithium Ion

Battery Recharging Options

2 desktop, single unit standard charge rate chargers; 3 desktop, single unit rapid charge rate chargers; 2 multi unit rapid rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 conditioning chargers

Physical Parameters

Size

5.2 in x 2.9 in x 1.2 in (without battery)

Weight

12.8 oz (without battery)

Power Requirements

7.5 V dc

External Power

Yes, with optional vehicular adapter

Available Accessories

Speaker-Microphones

4 standard models available; 5 ear worn speaker microphones available

Carrying Cases

6 leather carrying cases; 4 nylon carrying cases; 1 belt clips; universal chest pack; breakaway chest pack; and universal radio pack (worn around waist)

Battery Eliminators

No

Vehicle Adapters

Yes

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$1.8K MSRP

Contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Digital capable

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

Yes

General

Name

Motorola Astro Transceiver, Portable; Saber 3

ID# 92



Model Number(s)

Saber 3

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz, 450 MHz to 520 MHz
800: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

1 NiCad 1000 mAh; 1 NiCad 1100 mAh; 4 NiCad 1800 mAh; 1 NiMH 1650 mAh; and 1 Lithium Ion

Battery Recharging Options

2 desktop, single unit standard charge rate chargers; 3 desktop, single unit rapid charge rate chargers; 2 multi unit rapid rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 conditioning chargers

Physical Parameters

Size

5.2 in x 2.9 in x 1.2 in (without battery)

Weight

12.8 oz (without battery)

Power Requirements

7.5 V dc

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Yes, with optional vehicular adapter |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 4 standard models available; 5 ear worn speaker microphones available |
| Carrying Cases | 6 leather carrying cases; 4 nylon carrying cases; 1 belt clips; universal chest pack; breakaway chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | No |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$2K MSRP Contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Digital capable |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Motorola Astro Transceiver, Portable; XTS 3000 Model I

ID# 93



Model Number(s)

XTS 3000 Model I

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470, 450 MHz to 520 MHz
800: 806 MHz to 824 MHz, 851 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

16 to 48 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

3 NiCad 1500 mAh; 2 NiMH 1650 & 1800 mAh; and 1 Lithium Ion 1500 mAh

Battery Recharging Options

6 desktop, single unit rapid charge rate chargers; 4 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 2 conditioning chargers

Physical Parameters

Size

6.6 in x 2.4 in x 1.7 in (without battery)

Weight

14.4 oz (without battery)

Power Requirements

6 V dc to 9 V dc

External Power

No

Available Accessories

Speaker-Microphones

5 standard models available; 3 ear worn speaker microphones available

Carrying Cases

8 leather carrying cases; universal chest pack; and standard chest pack

Battery Eliminators

No

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Designed for ruggedness; and weather sealed universal connector

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$1.7K MSRP, add \$250 for ruggedized version (see Item # 113) and contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Digital capable

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

Motorola Astro Transceiver, Portable; XTS 3000 Model 2

ID# 94



Model Number(s)

XTS 3000 Model II

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz, 450 MHz to 520 MHz
800: 806 MHz to 824 MHz, 851 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

3 NiCad 1500 mAh; 2 NiMH 1650 & 1800 mAh; and 1 Lithium Ion 1500 mAh

Battery Recharging Options

6 desktop, single unit rapid charge rate chargers; 4 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 2 conditioning chargers

Physical Parameters

Size

6.6 in x 2.4 in x 1.7 in (without battery)

Weight

14.4 oz (without battery)

Power Requirements

6 V dc to 9 V dc

External Power

No

Available Accessories

Speaker-Microphones

5 standard models available; 3 ear worn speaker microphones available

Carrying Cases

8 leather carrying cases; universal chest pack; and standard chest pack

Battery Eliminators

No

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Designed for ruggedness; and weather sealed universal connector

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$2K MSRP, add \$250 for ruggedized version (see ID# 113), and contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Digital capable

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

Motorola Astro Transceiver, Portable; XTS 3000 Model 3

ID# 95



Model Number(s)

XTS 3000 Model III

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz, 450 MHz to 520 MHz
800: 806 MHz to 824 MHz, 851 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

3 NiCad 1500 mAh; 2 NiMH 1650 & 1800 mAh; and 1 Lithium Ion 1500 mAh

Battery Recharging Options

6 desktop, single unit rapid charge rate chargers; 4 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 2 conditioning chargers

Physical Parameters

Size

6.6 in x 2.4 in x 1.7 in (without battery)

Weight

14.4 oz (without battery)

Power Requirements

6 V dc to 9 V dc

External Power

No

Available Accessories

Speaker-Microphones

5 standard models available; 3 ear worn speaker microphones available

Carrying Cases

8 leather carrying cases; universal chest pack; and standard chest pack

Battery Eliminators

No

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Designed for ruggedness; weather sealed universal connector

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$2.4K MSRP, add \$250 for ruggedized version (see ID# 113), and contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not applicable

Maintenance Cost

Not specified

Interface Capability

Digital capable

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

Applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

No

General

Name

Motorola Astro Transceiver, Portable; XTS 3000R Series Models 1, 2, & 3

ID# 96



Model Number(s)

XTS 3000R Model 1, 2, or 3 (ruggedized versions of ID#s 96, 97, and 98)

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz, 450 MHz to 520 MHz
800: 806 MHz to 824 MHz, 851 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

Model I: 16/48 channels
Model II and Model III: 255 channels
1 W to 5 W

Transmitter Power Output Levels

Battery Options

3 NiCad 1500 mAh; 2 NiMH 1650 & 1800 mAh;
and 1 Lithium Ion 1500 mAh

Battery Recharging Options

6 desktop, single unit rapid charge rate chargers; 4 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 2 conditioning chargers

Physical Parameters

Size

6.6 in x 2.4 in x 1.7 in (without battery)

Weight

14.4 oz (without battery)

Power Requirements

6 V dc to 9 V dc

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------|
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 5 standard models available; 3 ear worn speaker microphones available |
| Carrying Cases | 8 leather carrying cases; universal chest pack; and standard chest pack |
| Battery Eliminators | No |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged, submersible (withstand up to 4 h under 6 ft of water-fresh or salt) |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Add \$250 to ID#'s 97, 98, 99 for ruggedized versions and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Digital capable |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Motorola Dual Mode Mobile; MCS 2000 Mobile Model I

ID# 97



Model Number(s)

MCS 2000 Mobile Model 1

Technology

Mobile conventional and trunked radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 512 MHz
800/900: 806 MHz to 870 MHz to 896 MHz to 941 MHz
Multiple

Number of Personnel Supported by System

Not specified

Geographic Coverage

Not specified

Current User(s)

Source

Motorola

Operational Parameters

Number of Channels

48 with optional 150 channels

Transmitter Power Output Levels

1 W to 35 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.7 in x 6.6 in x 6.3 in

Weight

3.9 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators Not applicable
Vehicle Adapters Not applicable

Logistical Parameters

Programming Dealer/User (authorized technician)
Repairs Dealer
Decontamination Not specified
Durability/Ruggedness Standard use
Environmental Conditions -22 °F to 140 °F
Unit Cost \$958 MSRP and contact dealer for discount pricing
Battery Cycle Life Not specified
Rapid Charge Battery Cycle Life Not specified
Maintenance Cost Not specified
Interface Capability No

Special Requirements

Operator Skills Required Average
Operator Training Requirements Average
Training Available Yes
Manuals Available Yes
Applicable Regulations Not specified
Support Equipment Available
Warranty 1 yr
Mil Spec/Mil-Std Ratings Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E
Intrinsically Safe Not specified

General

Name

Motorola Dual Mode Mobile; MCS 2000 Mobile Model II

ID# 98



Model Number(s)

MCS 2000 Mobile Model 2

Technology

Mobile, conventional and trunked radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 512 MHz
800/900 MHz: 806 MHz to 870 MHz to 896 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

160 with optional 250 channels

Transmitter Power Output Levels

1 W to 35 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.7 in x 6.6 in x 6.3 in

Weight

3.9 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------|----------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.3K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|-------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Motorola Dual Mode Mobile; MCS 2000 Mobile Model III

ID# 99



Model Number(s)

MCS 2000 Mobile Model 3

Technology

Mobile, conventional and trunked radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 512 MHz
800/900MHz: 806 MHz to 870 MHz to 896 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

160 with optional 250 channels

Transmitter Power Output Levels

1 W to 35 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2.3 in x 6.6 in x 11.7 in

Weight

5.5 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

| | |
|----------------------------------------|-------------------------------------------------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.6K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Motorola Transceiver; Astro Digital Spectra W3

ID# 100



Model Number(s)

Astro Digital Spectra W3

Technology

Mobile, conventional and trunked radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz,
450 MHz to 482 MHz, 482 MHz to 512 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

10 W to 110 W (35 W on 800 MHz)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 7.1 in x 2.2 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------|----------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|---------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$3K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Digital capable |

Special Requirements

| | |
|---------------------------------------|-------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Motorola Transceiver; Astro Spectra W4

ID# 101



Model Number(s)

Astro Spectra W4

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz and 482 MHz to 512 MHz
800 MHz: 806 MHz to 824 MHz and 851 MHz to
870 MHz

Number of Personnel Supported by System

One

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

128 channels

Transmitter Power Output Levels

10 W to 110 W

Battery Options

Limited options

Battery Recharging Options

Not specified

Physical Parameters

Size

2 in x 7.1 in x 2.2 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not specified

Available Accessories

Speaker-Microphones

Yes

| | |
|----------------------------|---------------|
| Carrying Cases | No |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$2.4K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|---------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Motorola Transceiver; Astro Spectra W5

ID# 102



Model Number(s)

Astro Digital Spectra W5

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz, and 482 MHz to 512 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

128 channels

Transmitter Power Output Levels

10 W to 110 W (35 W on 800 MHz)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 7.1 in x 2.2 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------|----------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$2.4K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Digital capable |

Special Requirements

| | |
|---------------------------------------|---------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Motorola Transceiver; Astro Spectra W7

ID# 103



Model Number(s)

Astro Digital Spectra W7

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz, and 482 MHz to 512 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

10 W to 110 W (35 W on 800 MHz)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 7.1 in x 2.2 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------|----------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$2.7K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Digital capable |

Special Requirements

| | |
|---------------------------------------|---------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Motorola Transceiver; Astro Spectra W9

ID# 104



Model Number(s)

Astro Digital Spectra W9

Technology

Mobile, conventional and trunked portable radio

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz
450 MHz to 482 MHz, and 482 MHz to 512 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

10 W to 110 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

3.4 in x 6.5 in x 1.7 in

Weight

6.1 lb

Power Requirements

12 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------|----------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|---------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$3K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Digital capable |

Special Requirements

| | |
|---------------------------------------|---------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Motorola Transceiver, Portable; VISAR

ID# 105



Model Number(s)

VISAR

Technology

Portable, conventional

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

VHF: 136 MHz to 178MHz
UHF: 403 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 866 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

2 NiCad 1200 mAh; 1 NiMH 600 mAh; 1 NiMH 1300 mAh; and 1 NiMH 1500 mAh

Battery Recharging Options

1 desktop, single unit standard charge rate charger; 4 desktop, dual unit rapid charge rate chargers; 16 unit rapid rate charger; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

4.1 in x 2.2 in x 0.6 in (without battery)

Weight

4.8 oz (without battery)

Power Requirements

7.5 V dc

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 1 standard model available; 3 ear worn speaker microphones available |
| Carrying Cases | 6 leather carrying cases; 2 nylon carrying cases; 1 belt clip; universal chest pack; breakaway chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Withstands rain testing; impact resistant housing, and weather resistant housing |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.1K MSRP, contact dealer for discount pricing |
| Battery Cycle Life | 4+ h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe option available |

General

Name

Motorola Transceiver, Portable; HT 1000

ID# 106



Model Number(s)

HT 1000

Technology

Portable, conventional

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 825 MHz and 851 MHz to
870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

2 channels to 16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 2000 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

3.2 oz (without battery)

Power Requirements

7.5 V dc

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 5 standard models available; 6 ear worn speaker microphones available |
| Carrying Cases | 12 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | 9 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe option available |

General

Name

Motorola Transceiver, Portable; JT 1000

ID# 107



Model Number(s)

JT 1000

Technology

Portable, conventional

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 403 MHz to 470 MHz and 450 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

1 NiCad 1200 mAh; 1 NiCad 1400 mAh;
and 1 NiMH 2000 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 1 multi unit rapid rate charger; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

7.5 V dc

External Power

Yes, with optional battery eliminator

Available Accessories

Speaker-Microphones

5 standard models available; 6 ear worn speaker microphones available

Carrying Cases

12 leather carrying cases; 2 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist)

Battery Eliminators

Yes, available from Motorola

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$1.2K MSRP and contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

Intrinsically safe option available

General

Name

Motorola Transceiver, Portable; MT 2000 VHF

ID# 108



Model Number(s)

MT 2000 Model I

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

No

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 870 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

48 channels to 160 channels (depending upon configuration)

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mAH); 4 ultra high capacity (1400 mAH) NiMH: 2 high capacity (1900 mAH and 2000 mAH)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 2 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

6 V dc to 9 V dc

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 5 standard models available and 6 ear worn speaker microphones available |
| Carrying Cases | 11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Designed for ruggedness and weather sealed universal connector |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.3K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | 8 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe option available |

General

Name

Motorola Transceiver, Portable; MTS 2000 Model I

ID# 109



Model Number(s)

MTS 2000 Model I

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800 MHz: 806 MHz to 825 MHz, 851 MHz to 870 MHz,
896 MHz to 902 MHz, and 935 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

48 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mA); 4 ultra high capacity (1400 mA) NiMH: 2 high capacity (1900 mA and 2000 mA)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 3 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

6 V dc to 9 V dc

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 3 standard models available; 6 ear worn speaker microphones available |
| Carrying Cases | 11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Designed for ruggedness and weather sealed universal connector |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.7K MSRP, contact dealer for discount pricing |
| Battery Cycle Life | 8 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe option available |

General

Name

Motorola Transceiver, Portable; MTS 2000 Model II

ID# 110



Model Number(s)

MTS 2000 Model II

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800/900 MHz: 806 MHz to 870 MHz, and 896 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mA); 4 ultra high capacity (1400 mA) NiMH: 2 high capacity (1900 mA and 2000 mA)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 3 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

11.2 oz (without battery)

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 6 V dc to 9 V dc |
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker/Microphones | 3 standard models available; 6 ear worn speaker microphones available |
| Carrying Cases | 11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Designed for ruggedness; weather sealed universal connector |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$2.1K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | 8 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe option available |

General

Name

Motorola Transceiver, Portable; MTS 2000 Model III

ID# 111



Model Number(s)

MTS 2000 Model III

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 178 MHz
UHF: 405 MHz to 470 MHz and 450 MHz to 520 MHz
800/900 MHz: 806 MHz to 870 MHz and 896 MHz to 941 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

160 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

NiCad: 4 high capacity (1200 or 1300 mAH); 4 ultra high capacity (1400 mAH) NiMH: 2 high capacity (1900 mAH and 2000 mAH)

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit regular charge rate chargers; 3 desktop, multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 4 multi units

Physical Parameters

Size

6.3 in x 2.3 in x 1.5 in (without battery)

Weight

11.2 oz (without battery)

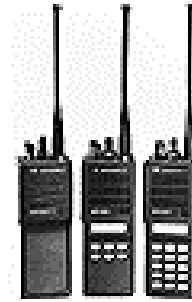
| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 6 V dc to 9 V dc |
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 3 standard models available and 6 ear worn speaker microphones available |
| Carrying Cases | 11 leather carrying cases; 1 nylon carrying case; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Designed for ruggedness; weather sealed universal connector |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$2.5K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | 8 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe option available |

General

Name

Motorola Trunked Portable Radio; MTX 8000 Model B3

ID# 112



Model Number(s)

MTX 8000 Model B3

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

851 MHz to 870 MHz (8000)
896 MHz to 941 MHz (9000)

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

4/4 or 15/10 systems/talk groups

Transmitter Power Output Levels

3 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 1900 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 0.6 in (without battery)

Weight

9.6 oz (without battery)

Power Requirements

6 V dc to 9 V dc

External Power

Yes, with optional battery eliminator

Available Accessories

Speaker-Microphones

5 standard models available; 8 ear worn speaker microphones available

Carrying Cases

12 leather carrying cases; 1 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; universal radio pack (worn around waist)

Battery Eliminators

Yes, available from Motorola

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Standard use

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$910 MSRP contact dealer for discount pricing

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

Not specified

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

Not specified

Support Equipment

Available

Warranty

1 yr

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe

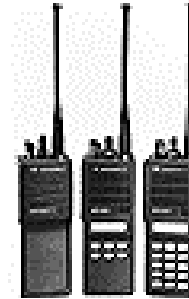
No

General

Name

Motorola Trunked Portable Radio; MTX 8000 Model B5

ID# 113



Model Number(s)

MTX 8000 Model B5

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

851 MHz to 870 MHz (8000)
896 MHz to 941 MHz (9000)

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

4/4 or 15/10 systems/talk groups

Transmitter Power Output Levels

3 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 1900 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 0.7 in (without battery)

Weight

11.2 oz (without battery)

Power Requirements

6 V dc to 9 V dc

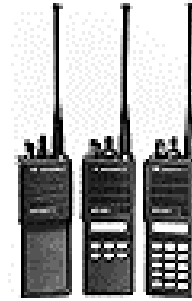
| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 5 standard models available; 8 ear worn speaker microphones available |
| Carrying Cases | 12 leather carrying cases; 1 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.1K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Motorola Trunked Portable Radio; MTX 8000/9000 Model B7

ID# 114



Model Number(s)

MTX 8000/9000 Model B7

Technology

Portable, conventional and trunked

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

851 MHz to 870 MHz (8000)
896 MHz to 941 MHz (9000)

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

4/4 or 15/10 Systems/talkgroups

Transmitter Power Output Levels

3 W

Battery Options

3 NiCad 1200 mAh; 1 NiCad 1300 mAh; 4 NiCad 1400 mAh; 1 NiMH 1900 mAh; and 1 NiMH 1900 mAh

Battery Recharging Options

7 desktop, single unit rapid charge rate chargers; 3 desktop, single unit standard charge rate chargers; 3 multi unit rapid charge rate chargers; 2 multi unit battery maintenance systems; 2 multi unit battery optimizing systems; and 5 conditioning chargers

Physical Parameters

Size

6.3 in x 2.3 in x 0.7 in (without battery)

Weight

11.2 oz (without battery)

Power Requirements

7.5 V dc

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | Yes, with optional battery eliminator |
| <u>Available Accessories</u> | |
| Speaker-Microphones | 5 standard models available; 8 ear worn speaker microphones available |
| Carrying Cases | 12 leather carrying cases; 1 nylon carrying cases; 2 belt clips; universal chest pack; breakaway chest pack; standard chest pack; and universal radio pack (worn around waist) |
| Battery Eliminators | Yes, available from Motorola |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.3K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Motorola Station/Repeater; QUANTAR

ID# 115

Picture Not Available

Model Number(s)

QUANTAR

Technology

Functions as a base station or repeater (conventional or trunking)

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 132 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz, 470 MHz to 494 MHz, and 494 MHz to 512 MHz
800/900 MHz: 806 MHz to 870 MHz and 896 MHz to 941 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

Not specified

Transmitter Power Output Levels

25 W to 125 W

Battery Options

Backup battery system available

Battery Recharging Options

Backup battery system available

Physical Parameters

Size

8.8 in x 19 in x 17 in

Weight

55 lb

Power Requirements

25 W Model: 12 V dc
100 W to 125 W Models: 24 V dc

External Power

Backup battery system available

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|----------------------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$11K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Digital capability |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | Not specified |

General

Name

Motorola Station/Repeater; QUANTRO

ID# 116

Picture Not Available

Model Number(s)

QUANTRO

Technology

Repeater, conventional or trunking base station or repeater

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 132 MHz to 174 MHz
UHF: 403 MHz to 433 MHz, 438 MHz to 470 MHz, 470 MHz to 494 MHz, and 494 MHz to 512 MHz
800/900 MHz: 806 MHz to 870 MHz and 896 MHz to 941 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

Up to 128 modes

Transmitter Power Output Levels

2 W to 20 W or 3 W to 30 W

Battery Options

Backup battery system available

Battery Recharging Options

Backup battery system available

Physical Parameters

Size

8.8 in x 19 in x 17 in

Weight

55 lb

Power Requirements

Multiple options depending on power output of transmitter

External Power

Backup battery system available

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators Not applicable
Vehicle Adapters Not applicable

Logistical Parameters

Programming Dealer/User (authorized technician)
Repairs Dealer
Decontamination Not specified
Durability/Ruggedness Standard use
Environmental Conditions -22 °F to 140 °F
Unit Cost \$11K MSRP and contact dealer for discount pricing
Battery Cycle Life Not specified
Rapid Charge Battery Cycle Life Not specified
Maintenance Cost Not specified
Interface Capability Digital capable

Special Requirements

Operator Skills Required Average
Operator Training Requirements Average
Training Available Yes
Manuals Available Yes
applicable Regulations Not specified
Support Equipment Available
Warranty 1 yr
Mil Spec/Mil-Std Ratings No
Intrinsically Safe Not specified

General

Name

Motorola Portable Repeater; Portable Repeater 2

ID# 117

Picture Not Available

Model Number(s)

Portable Repeater 2

Technology

Conventional repeater

Manufacturer

Motorola USA
1301 E. Algonquin Road
Schaumburg, Illinois 60196
800-247-2346 (Tel)

POC: Ron Zeberlein
410-712-6014 (Tel)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

VHF: 136 MHz to 174 MHz
UHF: 406 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Motorola

Operational Parameters

Number of Channels

Up to 128 modes

Transmitter Power Output Levels

2 W to 20 W or 3 W to 30 W

Battery Options

Internal emergency battery

Battery Recharging Options

Internal emergency backup battery recharger

Physical Parameters

Size

19.8 in x 13.3 in x 7.8 in

Weight

40 lb

Power Requirements

110 V ac/240 V ac or external 12 V dc

External Power

12 V dc

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

| | |
|----------------------------------------|----------------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$16K MSRP and contact dealer for discount pricing |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|---------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Racal Transceiver, Portable; MBITR (Multiband Inter/Intra Team Radio)

ID# 118



Model Number(s)

Multiband Inter/Intra Team Radio
AN/PRC-14 (V)(C)

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

Secure Communication Capability

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com
2 levels embedded: Type 1 COMSEC, commercial
COMSEC
Keyfill devices: CYZ 10 (DTD), KYK 13, KOI 18

Availability

Available

Frequency Range

30 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM/AM LOS, UHF military satellite with proper antenna

Current User(s)

U.S. SOCOM

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

100 memory preset channels

Transmitter Power Output Levels

5 levels: 0.1 W, 0.5 W, 1 W, 3 W, and 5 W (FM)
2 levels: 1 W and 5 W (AM)

Battery Options

Lithium-Ion rechargeable battery
nonrechargeable, disposable, and lithium cells

Battery Recharging Options

An ac powered single battery charger, ac/dc powered
6-way battery charger, and vehicular charger

Physical Parameters

Size

8.4 in x 2.6 in x 1.5 in (with battery)

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 30.6 oz (with battery) |
| Power Requirements | Not specified |
| External Power | 120 V ac, 240 V ac, 12 V dc via chargers |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone and audio connector is compatible with standard military audio devices |
| Carrying Cases | Radio system carrying bag |
| Battery Eliminators | SAPI accepts 1 V to 32 V |
| Vehicle Adapters | Vehicle adapter, radio holster, and radio system carrying bag |
| <u>Logistical Parameters</u> | |
| Programming | Menu selectable groups: user programmable from front panel menu, PC programmer, and radio to radio cloning |
| Repairs | Manufacturer |
| Decontamination | Not specified |
| Durability/Ruggedness | Immiscibility: 20 m maritime version and 2 m urban version |
| Environmental Conditions | -22 °F to 140 °F Humidity: 95 % noncondensing |
| Unit Cost | Not specified |
| Battery Cycle Life | >8 h with 10/10/80 cycle, 500 cycles |
| Rapid Charge Battery Cycle Life | >8 h with 10/10/80 cycle, 500 cycles |
| Maintenance Cost | 1 yr warranty |
| Interface Capability | NVG compatible, specialized headsets and audio devices mate to standard military audio connector. RF interface to FM conventional, AM, Type 1, and UHF military satellite. |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes, operator and service |
| applicable Regulations | Not specified |
| Support Equipment | Batteries, battery holder, vehicle adapter, radio holster, radio system carrying bag, battery chargers, antennas, PC programmer, programmer/data cable, and cloning cable |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Racal Transceiver, Portable; MSHR (Miniature Secure Handheld Radio)

ID# 119



Model Number(s)

Miniature Secure Handheld Radio (MSHR)

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com

Secure Communication Capability

Yes, 3 levels embedded: U.S. Type 1 COMSEC, commercial COMSEC, SBCF DES encryption keyfill devices: CYZ 10 (DTD), KYK 13, KOI 18, KVL, and Racal PCP

Availability

Commercially available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM LOS

Current User(s)

U.S. Department of Justice and U.S. Department of Defense

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

100 programmable channels

Transmitter Power Output Levels

5 levels: 0.1 W, 0.5 W, 1 W, 2 W, and 5 W

Battery Options

Rechargeable Lithium-Ion battery

Battery Recharging Options

Single 6-way and 12 V dc vehicular battery charger

Physical Parameters

Size

7 in x 2.63 in x 0.88 in (with battery)

Weight

15.5 oz with battery and antenna

Power Requirements

Not specified

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| External Power | 120 V ac, 240 V ac, 12 V dc, via chargers |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Embedded speaker and microphone, and covert harness |
| Carrying Cases | Carrying bag |
| Battery Eliminators | No |
| Vehicle Adapters | Yes |
| <u>Logistical Parameters</u> | |
| Programming | Menu driven keypad entry, PC software download, radio-to-radio cloning, and keypad lockout |
| Repairs | Manufacturer |
| Decontamination | Not specified |
| Durability/Ruggedness | Water immersible to 2 m (20 m option available) acceleration: 20 G for 11 ms |
| Environmental Conditions | -22 °F to 140 °F Humidity: 95 % noncondensing |
| Unit Cost | Not specified |
| Battery Cycle Life | 6 h @ 5/5/90 cycle, 500 cycles |
| Rapid Charge Battery Cycle Life | 6 h @ 5/5/90 cycle, 500 cycles |
| Maintenance Cost | 1 yr warranty |
| Interface Capability | Specialized headsets and audio devices wired through Racal custom side connector. RF interface to FM conventional (CTCSS, DCS), Type 1 encryption, and SBCF DES encryption. |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes, operator and service |
| applicable Regulations | Not specified |
| Support Equipment | Conforming body antenna, covert surveillance harness with wireless ear piece, carrying bag, PC programmer, data mode cable, cloning cable, key fill cable, test box, single, 6-way, and 12 V dc vehicular battery charger |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

ID# 120

Racal Transceiver, Portable; 20 Meter MSHR



Model Number(s)

20 Meter Miniature Secure Handheld Radio

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com

Secure Communication Capability

Yes, 3 levels embedded: U.S. Type 1 COMSEC, commercial COMSEC, SBCF DES encryption keyfill devices: CYZ 10 (DTD), KYK 13, KOI 18, KVL, and Racal PCP

Availability

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM LOS

Current User(s)

Navy SPECWAR, COCOM

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

100 programmable channels

Transmitter Power Output Levels

5 levels: 0.1W, 0.5 W, 1 W, 2 W, and 5 W

Battery Options

Lithium-Ion rechargeable battery

Battery Recharging Options

Single, 6-way battery, and 12 V dc vehicular charger

Physical Parameters

Size

7.3 in x 2.6 in x 1.2 in (with battery)

Weight

24.5 oz with battery and antenna

Power Requirements

Not specified

External Power

120 V ac, 240 V ac, 12 V dc via chargers

Available Accessories

Speaker-Microphones
Carrying Cases
Battery Eliminators
Vehicle Adapters

1 m submersible speaker microphone and diver headset
Carrying bag
No
Yes

Logistical Parameters

Programming
Repairs
Decontamination
Durability/Ruggedness
Environmental Conditions
Unit Cost
Battery Cycle Life
Rapid Charge Battery Cycle Life
Maintenance Cost
Interface Capability

Menu driven keypad entry, PC software download, radio-to-radio cloning, and keypad lockout
Manufacturer
Not specified
Submersible to 20 m
acceleration: 20 G for 11 ms
-22 °F to 140 °F
Humidity: 95 % noncondensing
Not specified
6 h @ 5/5/90 cycle, 500 cycles
6 h @ 5/5/90 cycle, 500 cycles
1 yr warranty
Specialized headsets and audio devices wired through Racial custom side connector. RF interface to FM conventional (CTCSS, DCS), Type 1 encryption, and SBCF DES encryption.

Special Requirements

Operator Skills Required
Operator Training Requirements
Training Available
Manuals Available
applicable Regulations
Support Equipment

Average
Average
Yes
Yes, operator and service
Not specified

Warranty
Mil Spec/Mil-Std Ratings
Intrinsically Safe

20 m submersible diver headset, submersible miniature headset, 1 m submersible speaker microphone, carrying bag, PC programmer, data mode cable, cloning cable, key fill cable, test box, single, 6-way, and 12 V dc vehicular battery charger
1 yr
Meets Mil Spec 810E
No

General

Name

ID# 121

Racal Transceiver, Portable; Racal 25



Model Number(s)

Racal 25

Technology

Portable, conventional

Manufacturer

Racal Communications Inc.
5 Research Place
Rockville, Maryland 20850
301-948-4420 (Tel)
301-948-6371 (Fax)
www.racalcomm.com

POC: Steve Nichols
301-208-7654 (Tel)
steve.nichols@racalcomm.com

Secure Communication Capability

Yes, embedded; SBCF DES, OFB DES for project 25 digital channels; keyfill devices: KVL (Motorola), and Racal PC programmer

Availability

Commercially available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

5 W FM LOS

Current User(s)

U.S. Department of Justice, U.S. Department of Interior, U.S. Navy, and U.S. Army

Source

Racal Communications Inc.

Operational Parameters

Number of Channels

16 quick select via rotary channel selector
48 quick select via toggle and rotary channel selector
256 selectable from the keypad, and 16 zones of 16 channels

Transmitter Power Output Levels

5 levels: 0.1 W, 0.5 W, 1 W, 2 W, and 5 W (programmable)

Battery Options

Lithium-Ion rechargeable battery, AA alkaline cassette (requires 10 "AA" disposable batteries)

Battery Recharging Options

An ac powered single battery charger, ac powered 6-way battery charger, ac/dc powered 6-way battery charger. Vehicular charger in development.

Physical Parameters

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size | 7.8 in x 2.6 in x 1.05 in (with battery) |
| Weight | 16.7 oz |
| Power Requirements | Not specified |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Handheld speaker/microphone, surveillance harness, other headsets and audio devices via 6 pin Hirose connector |
| Carrying Cases | Nylon duty case, leather duty case, and nylon tactical carrying case |
| Battery Eliminators | Yes |
| Vehicle Adapters | In development, 40 W, 110 W |
| <u>Logistical Parameters</u> | |
| Programming | PC/cloning/front panel keyboard |
| Repairs | Manufacturer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged metal housing. Submersible to 2 m. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | >11 h @ 5/5/90 cycle, 500 cycles |
| Rapid Charge Battery Cycle Life | >11 h @ 5/5/90 cycle, 500 cycles |
| Maintenance Cost | 1 yr warranty |
| Interface Capability | Specialized headsets and audio devices mate to 6 pin Hirose connector on audio adapter. RF interface to FM conventional (CTCSS DCS), project 25 digital, DES encrypter, and simultaneous multi-mode capability. |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC type accepted and Canadian type approval |
| Support Equipment | Carrying cases, hand held speaker/microphone, battery chargers, alkaline cassette, narrowband high gain antenna, PC programmer, and cloning cable |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810E |
| Intrinsically Safe | Pending |

General

Name

BK Base Station; EBU Series

ID# 122



Model Number(s)

EBU-Series

Technology

Conventional base station

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

400 MHz to 520 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

2 channels

Transmitter Power Output Levels

30 W to 125 W

Battery Options

Not applicable

Battery Recharging Options

None

Physical Parameters

Size

19 in x 14 in x 17.3 in

Weight

50 lb to 70 lb

Power Requirements

12 V dc/24 V dc/48 V dc

External Power

No

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

No

Battery Eliminators

No

| | |
|----------------------------------------|--------------------------------------------------------------------------------|
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | U.S. Forest Service vibrations test |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Experienced |
| Operator Training Requirements | Experienced |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | No |

General

Name

BK Radio FM Transceiver; EMH 599 2X

ID# 123



Model Number(s)

EMH 599 2X

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

210 channels continuously selected or programmable for selection groups

Transmitter Power Output Levels

50 W can be turned down to 15 W for low power applications

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6 in x 9.4 in x 2.1 in

Weight

5 lb

Power Requirements

13.6 V dc to 13.8 V dc

External Power

Yes

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

| | |
|----------------------------------------|-----------------------------------------------------------------------------|
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets U.S. Forest Service vibrations and TIA/EIA-603 specifications |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.2K to \$1.4K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Mobile installation kit and choice of microphone with hang-up box |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | No |

General

Name

BK Synthesized FM Mobile Radio; EMV

ID# 124



Model Number(s)

EMV 499 0A
EMV 199 0A

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

Not specified

Availability

Available

Frequency Range

403 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

114 channels

Transmitter Power Output Levels

EMV 499 0A: 10 W to 40 W and EMV 199 0A: 1 W to 4 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6 in x 8 in x 2.1 in

Weight

8 lb

Power Requirements

13.6 V dc

External Power

No

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

| | |
|----------------------------------------|----------------------------------------------------------------------------------------|
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets U.S. Forest Service vibration and EIA RS-316B vibration and shock specifications |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.2K to \$1.4K |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Mobile installation kit and choice of microphone with hang-up box |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | No |

General

Name

***BK Synthesized FM E Series DES EPH 599,
EPU 499 and EPV 499 Models***

ID# 125



Model Number(s)

EPH

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

DES encryption keys: 3 encryption codes in memory

Availability

Available

Frequency Range

148 MHz to 174 MHz, 403 MHz to 457 MHz, and
450 MHz to 512 MHz

**Number of Personnel Supported by
System**

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

Hi: 5 W; low: 4 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH
battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac and 242 V ac
Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz (standard)

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume
switch, coiled cord, and earphone jack

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Full leather cover that fits deluxe leather holster with belt loop/swivel |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | U.S. Forest Service vibration, EIA RS-316B vibration, and shock specifications |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$2.2K to \$2.3K |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | 121 V ac dual rate desktop charger (fast-charge and trickle-charge). Charges all NiCad battery packs in 1 h or less. |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Batteries and power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling and channel options (factory installs) |
| Warranty | 2 yr (can be extended up to 5 yr) |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | Depends on battery option |

General

Name

***BK Synthesized FM Portable Radio; E Series,
EPH 51 and 52 Models***

ID# 126



Model Number(s)

EPH

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

5/2 W RF power

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac and 242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume switch, coiled cord, and earphone jack

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Full leather cover that fits deluxe leather holster with belt loop/swivel |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | U.S. Forest Service vibration and EIA RS-316B vibration and shock specifications |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$675 to \$1.2K |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | 121 V ac dual rate desktop charger (fast-charge/trickle-charge). Charges all NiCad battery packs in 1 h or less. |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Batteries and power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling and channel options (factory installs) |
| Warranty | 2 yr (can be extended up to 5 yr) |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | Depends on battery option |

General

Name

***BK Synthesized FM Portable Radio; E Series,
EPI 510 Models***

ID# 127



Model Number(s)

EPI

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

136 MHz to 160 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

Hi: 5 W; low: 2 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac and 242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz (standard)

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume switch, coiled cord, and earphone jack

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Full leather cover that fits deluxe leather holster with belt loop/swivel |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | U.S. Forest Service vibration, EIA RS-316B vibration, and shock specifications |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$800 to \$1.1K |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | 121 V ac dual rate desktop charger (fast-charge/trickle-charge). Charges all NiCad battery packs in 1 h or less. |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Batteries/power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling/channel options (factory installs) |
| Warranty | 2 yr (can be extended up to 5 yr) |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | Depends on battery option |

General

Name

BK Synthesized FM Portable Radio; E Series, EPU & EPV 414 and 499 Models

ID# 128



Model Number(s)

EPV

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

403 MHz to 457 MHz (EPV)
450 MHz to 512 MHz (EPU)

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

14 channels/210 channels

Transmitter Power Output Levels

4 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac/242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.6 in x 1.5 in x 6.6 in

Weight

20 oz

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume switch, coiled cord, and earphone jack

Carrying Cases

Full leather cover that fits deluxe leather holster with belt loop and swivel

Battery Eliminators

Not specified

Vehicle Adapters

No

Logistical Parameters

Programming

Dealer/User (authorized technician)

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

U.S. Forest Service vibrations test

Environmental Conditions

-22 °F to 140 °F

Unit Cost

\$910 to \$1.3K

Battery Cycle Life

Not specified

Rapid Charge Battery Cycle Life

121 V ac dual rate desktop charger (fast-charge and trickle-charge). Charges all NiCad battery packs in 1 h or less.

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

Not specified

Support Equipment

Batteries and power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling/channel options (factory installs)

Warranty

2 yr (can be extended up to 5 yr)

Mil Spec/Mil-Std Ratings

Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test

Intrinsically Safe

No

General

Name

BK Repeater; ERU Series

ID# 129



Model Number(s)

ERU-Series

Technology

Conventional repeater

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

400 MHz to 520 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

255 channels

Transmitter Power Output Levels

Hi: 50 W; low: 35 W RF power

Battery Options

Not applicable

Battery Recharging Options

None

Physical Parameters

Size

19 in x 3.5 in x 14.2 in

Weight

19.8 lb

Power Requirements

13.8 V dc

External Power

No

Available Accessories

Speaker-Microphones

Yes

Carrying Cases

No

Battery Eliminators

No

| | |
|----------------------------------------|-----------------------------------------------------------------------------|
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | U.S. Forest Service vibrations test |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | No |
| <u>Special Requirements</u> | |
| Operator Skills Required | Experienced |
| Operator Training Requirements | Experienced |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | No |

General

Name

BK Radio FM Transceiver, Portable; G Series, GPH Models

ID# 130



Model Number(s)

GPH21, GPH51

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

16 channels/240 channels

Transmitter Power Output Levels

5 W

Battery Options

NiCad hi-power battery, AA battery cells, and NiMH battery

Battery Recharging Options

121 V ac dual rate desktop charger, 121 V ac/242 V ac Charge Smart NiMH desktop charger

Physical Parameters

Size

2.55 in x 15 in x 6.6 in (with standard battery)

Weight

20.8 oz (with standard battery)

Power Requirements

10 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with swivel spring clip, hi/lo volume, coiled cord, and earphone jack

Carrying Cases

Leather case with belt loop (optional viewing window)

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$750 to \$1.2K |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | 121 V ac dual rate desktop charger (fast-charge/trickle-charge). Charges all NiCad battery packs in 1 h or less. |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Batteries/power supplies, microphones and speakers, charging accessories, carrying accessories, antennas, speaker microphone, and signaling/channel options (factory installs) |
| Warranty | 2 yr (can be extended up to 5 yr) |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, Mil Spec 810E, and U.S. Forest Service vibrations test |
| Intrinsically Safe | Depends on battery option |

General

Name

BK Radio Airborne Transceiver; KFM 985

ID# 131



Model Number(s)

KFM 985

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

Downband VHF: 136 MHz to 160 MHz
VHF: 148 MHz to 174 MHz
UHF: 450 MHz to 512 MHz
Downband UHF: 403 MHz to 457 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

Up to 210 channels

Transmitter Power Output Levels

VHF: 4 W
UHF: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

3 in x 5.8 in x 5.3 in

Weight

2 lb

Power Requirements

14 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|-------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | U.S. Forest Service vibrations test |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Not specified |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | U.S. Forest Service vibrations test |
| Intrinsically Safe | No |

General

Name

Relm Mobile Radio; 256NB

ID# 132

Picture Not Available

Model Number(s)

256NB

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 162 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

1 channel/16 channels

Transmitter Power Output Levels

25 W minimum

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2.75 in x 6.5 in x 10.75 in

Weight

4.4 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

Battery Eliminators

Not applicable

Vehicle Adapters

Not applicable

Logistical Parameters

| | |
|----------------------------------------|-------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not specified |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Mobile hand microphone, 5 A dc power cord, telephone handset with hookswitch, mounting bracket, DTMF encoder microphone, alternator filter, desk microphone, and external speaker |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

ID# 133

Relm Portable Radios; MPU08 (UHF)



Model Number(s)

MPU08 (UHF)

Technology

Portable

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

450 MHz to 480 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

8 channels

Transmitter Power Output Levels

4 W

Battery Options

700 mA battery
1000 mA battery

Battery Recharging Options

Desk (rapid rate), 6 unit multi-charger, and wall charger

Physical Parameters

Size

6.4 in x 2.5 in x 1.4 in

Weight

15.5 oz

Power Requirements

Not specified

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Carrying case

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Nor specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$458 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Rapid rate desk charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Battery charger, battery pack, speaker microphone, carry case, rubber antenna, 12.5 channel space conversion kit for MPV and MPU, cloning cable, and PC programming kit |
| Warranty | Individual warranty provided with each product |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

ID# 134

Relm Portable Radios; MPU32 (UHF)



Model Number(s)

MPU 32 (UHF)

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

POC: Mary Stone

Secure Communication Capability

No

Availability

Available

Frequency Range

403 MHz to 430 MHz and 450 MHz to 480 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

32 channels/64 channels, option available

Transmitter Power Output Levels

4 W

Battery Options

700 mA battery
1000 mA battery

Battery Recharging Options

Desk (rapid rate), 6 unit multi-charger, and wall charger

Physical Parameters

Size

6.4 in x 2.5 in x 1.4 in

Weight

15.5 oz

Power Requirements

10.8 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Carrying case

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$473 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Rapid rate desk charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Battery charger, battery pack, speaker microphone, carry case, rubber antenna, 12.5 channel space conversion kit for MPV and MPU, cloning cable, and PC programming kit |
| Warranty | Individual warranty provided with each product |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

ID# 135

Relm Portable Radios; MPV32 (VHF)



Model Number(s)

MPV 32 (VHF)

Technology

Portable, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

136 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

32 channels/64 channels, option available

Transmitter Power Output Levels

5 W

Battery Options

700 mA battery
1000 mA battery

Battery Recharging Options

Desk (rapid rate), 6 unit multi-charger, and wall charger

Physical Parameters

Size

6.4 in x 2.5 in x 1.4 in

Weight

15.5 oz

Power Requirements

10.8 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone

Carrying Cases

Carrying case

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$473 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Rapid rate desk charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Battery charger, battery pack, speaker microphone, carry case, rubber antenna, 12.5 channel space conversion kit for MPV and MPU, cloning cable, and PC programming kit |
| Warranty | Individual warranty provided with each product |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Relm Mobile Radios; SMV2516

ID# 136



Model Number(s)

SMV2516 UHF

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

450 MHz to 482 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

Either 16 channel or 99 channel formats with scan capability

Transmitter Power Output Levels

25 W minimum at 7 MHz
12.5 W minimum at 10 MHz

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.5 in x 5.8 in x 7 in

Weight

2.4 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Specially designed metal covers and a die-cast metal frame offer unparalleled structural durability and protection |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$550 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC Type Acceptance |
| Support Equipment | DTMF Decoder, external speaker 12 A dc power cord, mobile hand microphone, programmer desk microphone, DTMF Touch-Tone* Microphone, and two-tone sequential decoder |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Relm Mobile Radios; SMV4016

ID# 137



Model Number(s)

SMV4016 VHF

Technology

Mobile, conventional

Manufacturer

Relm Communication
7100 Technology Drive
West Melbourne, Florida 32904
321-984-1414 (Tel)
321-984-0434 (Fax)

Secure Communication Capability

POC: Mary Stone

Availability

No

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Relm

Operational Parameters

Number of Channels

Either 16 channel or 99 channel formats with scan capability

Transmitter Power Output Levels

40 W minimum at 7 MHz
20 W minimum at 10 MHz

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.5 in x 5.8 in x 7 in

Weight

2.4 lb

Power Requirements

13.6 V dc

External Power

Not applicable

Available Accessories

Speaker-Microphones

Not applicable

Carrying Cases

Not applicable

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Specially designed metal covers and a die-cast metal frame offer unparalleled structural durability and protection |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$548 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC Type Acceptance |
| Support Equipment | DTMF Decoder, external speaker 12 A dc power cord, mobile hand microphone, programmer desk microphone, DTMF Touch-Tone* Microphone, and two-tone sequential decoder |
| Warranty | 1 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Maxon VHF/UHF RF Link Module; SD-125

ID# 138



Model Number(s)

SD-125

Technology

Link (repeater), conventional RF Link Module

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

148 MHz to 174 MHz and 440 MHz to 470 MHz

Number of Personnel Supported by System

Not applicable

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

1 W to 5 W

Battery Options

Not specified

Battery Recharging Options

Not specified

Physical Parameters

Size

4.6 in x 2.4 in x 1.2 in

Weight

8 oz

Power Requirements

9 V dc to 18 V dc

External Power

No

Available Accessories

| | |
|----------------------------------------|-------------------------------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not specified |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Maxon Scanning Transceiver; SM-2000 Series

ID# 139



Model Number(s)

SM-2150 VHF
SM-2450 UHF

Technology

Mobile, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

VHF: 148 MHz to 174 MHz
UHF: 440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

UHF: 4 channels (programmable in 5 kHz steps)
VHF: 4 channels (programmable in 6.25 kHz steps)

Transmitter Power Output Levels

1 W to 3 W, low
1 W to 25 W, high

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 7 in x 6.3 in

Weight

3.4 lb (with microphone)

Power Requirements

13.8 V dc negative ground

External Power

Not applicable

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------------------|
| Programming | Dealer/User (authorized technician), programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Case material is die-cast aluminum |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC Certified and IC Certification |
| Support Equipment | Heavy duty remote speaker, heavy duty mobile microphone, base station microphone, power supply (110 V ac/220V ac, 10 A, 50 % duty), and power supply cover |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

ID# 140

Maxon Scanning Transceiver; SM-4000 Series



Model Number(s)

SM-4150 VHF
SM-4450 UHF

Technology

Mobile, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

Secure Communication Capability

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Availability

No

Available

Frequency Range

VHF: 136 MHz to 150 MHz (L)
150 MHz to 165 MHz (M)
160 MHz to 174 MHz (H)
UHF: 450 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

16 channel capability

Transmitter Power Output Levels

40 W (adjustable)

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

2 in x 6 in x 8.3 in

Weight

4.2 lb (with microphone)

Power Requirements

13.8 V dc negative ground

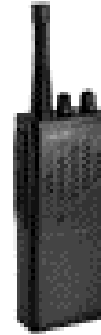
| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Case material is die-cast aluminum |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| Applicable Regulations | FCC Compliance, FCC Identifier, and IC Certification |
| Support Equipment | Heavy duty remote speaker, heavy duty mobile microphone, base station microphone, and power supply (110 V ac, 10 A, 50 % duty) |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Maxon VHF/UHF Transceiver, Portable; SP-120

ID# 141



Model Number(s)

SP-120

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

Yes; after market (Midian Electronics)
VPU II Inversion Voice Scrambler
TVS-2 Rolling Code Scrambler

Availability

Available

Frequency Range

VHF: 148 MHz to 174 MHz
UHF: 440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

4 channels

Transmitter Power Output Levels

2 W

Battery Options

NiCad 7.5V dc (with 700 mAh battery or with 1200 mAh battery)

Battery Recharging Options

6-unit gang charger (regular and rapid), dual slot/dual rate desktop charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in (with battery)

Weight

15 oz (with battery)

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | NiCad 7.5 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Deluxe speaker/microphone, ear speaker microphone, voice operated mini-VOX control and headset, and 2 wire palm microphone |
| Carrying Cases | Leather case with swivel and nylon case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Manufactured with a die-cast aluminum frame and tough-tested polycarbonate cabinet. Can work in all environments. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | > 8 h |
| Rapid Charge Battery Cycle Life | 6–unit gang rapid charger, dual slot/dual rate "smart" desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC Certified for use in USA and its possessions, and IC approved for sale in Canada |
| Support Equipment | Battery pack, VHF antenna, UHF antenna, battery chargers, speaker/microphone, palm microphone, coil-cord earphone, ear speaker microphone, leather case, and nylon case |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

***Maxon VHF/UHF Transceiver, Portable;
SP-130/SP-140***

ID# 142



Model Number(s)

SP-130/SP-140

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

Yes; after market (Midian Electronics)
VPU II Inversion Voice Scrambler
TVS-2 Rolling Code Scrambler

Availability

Available

Frequency Range

VHF: 148 MHz to 174 MHz
UHF: 440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

4 channels/16 channels programmable

Transmitter Power Output Levels

Hi: 5 W; low: 1 W programmable per channel

Battery Options

NiCad 7.5V dc

Battery Recharging Options

4-station conditioning charger (110 V/220 V), 6-unit gang charger (regular and rapid), dual slot/dual rate "smart" charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in (with battery)

Weight

16.4 oz (with battery)

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.5 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Deluxe speaker/microphone with angled connector, 2 wire palm microphone, voice operated mini VOX control and headset, and ear speaker microphone |
| Carrying Cases | Leather case with swivel and nylon case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Manufactured with a die-cast aluminum frame and tough-tested polycarbonate cabinet. Can adapt to tough work conditions like dust, vibration, and humidity. |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | > 8 h |
| Rapid Charge Battery Cycle Life | 6–unit gang rapid charger, dual slot/dual rate "smart" desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC Certified for use in USA and its possessions, and IC approved for sale in Canada |
| Support Equipment | Battery pack, VHF antenna, UHF antenna, battery chargers, speaker and microphone, palm microphone, coil-cord earphone, ear speaker microphone, leather case, and nylon case |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | SP140 Model only |

General

Name

Maxon VHF/UHF Transceiver, Portable; SP-200

ID# 143



Model Number(s)

SP-200

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

UHF: 403 MHz to 430 MHz
VHF: 136 MHz to 174 MHz
800 MHz: 806 MHz to 824 MHz and 851 MHz to 869 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

199 channel capability, up to 13 scan groups of up to 16 channels each

Transmitter Power Output Levels

1 W or 5 W \pm 10 %

Battery Options

1350 mAh Ni-MH battery

Battery Recharging Options

Rapid rate charger

Physical Parameters

Size

4.25 in x 2.31 in x 1.5 in

Weight

7.65 oz (with battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Ear bud speaker with in-line P-T-T and microphone, lapel speaker/microphone with ear jack, and ear speaker with cord

Carrying Cases

Not specified

Battery Eliminators

Not specified

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable - PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Industrial use, die cast aluminum chassis, and polycarbonate case

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Not specified

Battery Cycle Life

8 h at 5/5/90 cycle

Rapid Charge Battery Cycle Life

Rapid rate charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

FCC Certified for use in USA and its possessions, and IC approved for sale in Canada

Support Equipment

1350 mAh Ni-MH battery pack, UHF antenna, VHF antenna, rapid rate charger, speaker microphone, and cord

Warranty

2 yr

Mil Spec/Mil-Std Ratings

No

Intrinsically Safe

No

General

Name

Maxon VHF/UHF Transceiver, Portable; SP-300

ID# 144



Model Number(s)

SP-300

Technology

Portable, conventional

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

UHF: 403 MHz to 430 MHz
VHF: 136 MHz to 174 MHz
800 MHz: 806 MHz to 824 MHz and 851 MHz to 869 MHz
Unlimited

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

4 channel/16 channel models

Transmitter Power Output Levels

Hi: 5 W; low: 1 W programmable per channel

Battery Options

NiCad 7.5 V dc
Bu-MH 1350 mAh

Battery Recharging Options

6-unit gang charger, 6-unit regular and fast charger, dual slot and dual rate "smart" charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in (with battery)

Weight

16.4 oz (with battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

Speaker-Microphones

Speaker microphone with locking connector

Carrying Cases

Leather case with swivel and nylon case

Battery Eliminators

Not specified

Vehicle Adapters

Not specified

Logistical Parameters

Programming

Dealer/User (authorized technician) programmable - PC friendly

Repairs

Dealer

Decontamination

Not specified

Durability/Ruggedness

Die cast chassis, polycarbonate case, and tough industrial radio

Environmental Conditions

-22 °F to 140 °F

Unit Cost

Not specified

Battery Cycle Life

> 8 h

Rapid Charge Battery Cycle Life

6–unit gang rapid charger, dual slot /dual rate "smart" charger

Maintenance Cost

Not specified

Interface Capability

Not specified

Special Requirements

Operator Skills Required

Average

Operator Training Requirements

Average

Training Available

Yes

Manuals Available

Yes

applicable Regulations

FCC Certified for use in USA and its possessions, and IC approved for sale in Canada

Support Equipment

1350 mAh Ni-MH battery pack, UHF antenna, VHF antenna, rapid rate charger speaker microphone, and cord

Warranty

2 yr

Mil Spec/Mil-Std Ratings

No

Intrinsically Safe

No

General

Name

Maxon UHF Transceiver, Portable; SP-150U

ID# 145



Model Number(s)

SP-150U

Technology

Portable, conventional and trunked

Manufacturer

Topaz 3, LLC
10828 NW Air World Drive
Kansas City, Missouri 64153
816-891-6320 ext. 699 (Tel)
816-891-8815 (Fax)

POC: Liz Hawkins
Maxon America
800-821-7848, ext 611 (Tel)
liz.hawkins@topaz3.com

Secure Communication Capability

No

Availability

Available

Frequency Range

440 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Topaz 3, LLC

Operational Parameters

Number of Channels

16 conventional channels

Transmitter Power Output Levels

1 W to 5 W \pm 10 %

Battery Options

NiCad battery
Ni-MH battery

Battery Recharging Options

4-station conditioning charger, dual slot/dual rate "smart" desktop charger, and pedestal charger

Physical Parameters

Size

5.6 in x 2.3 in x 1.7 in

Weight

16.4 oz (with battery)

Power Requirements

7.5 V dc

External Power

No

Available Accessories

| | |
|----------------------------|-------------------------------------------------------|
| Speaker-Microphones | Speaker/microphone |
| Carrying Cases | Leather case, nylon case, and spring loaded belt clip |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |

Logistical Parameters

| | |
|----------------------------------------|---------------------------------------------|
| Programming | Dealer/User (authorized technician) |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Industrial use |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | 8 h at 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Dual slot/dual rate "smart" desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC Certified for use in USA and its possessions, and IC approved for sale in Canada |
| Support Equipment | Battery pack, UHF antenna, battery chargers, speaker and microphone, leather case, and nylon case |
| Warranty | 2 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

***Vertex Dual Band (VHF & UHF) Transceiver,
Portable; FTH-2070***

ID# 146



Model Number(s)

FTH-2070A

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

VHF: 150 MHz to 174 MHz; UHF: 409 MHz to 450 MHz,
450 MHz to 480 MHz, or 470 MHz to 490 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 2 W

Battery Options

12 V NiCad 600 mA AH or 1200 mA AH (5 W); 12 V NiCad
1000 mA AH and NiCad intrinsically safe

Battery Recharging Options

Rapid vehicular charger and desktop rapid charger

Physical Parameters

Size

2.6 in x 7.9 in x 1.7 in

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Weight | 28.8 oz |
| Power Requirements | 12 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes—heavy duty |
| Carrying Cases | Yes |
| Battery Eliminators | Yes |
| Vehicle Adapters | 6—unit multi-charger |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$1.3K |
| Battery Cycle Life | 8.1 h/7.0 h (VHF/UHF) 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Not specified |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, DTMF keypad, speaker microphone, belt swival attachment, and cables with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Vertex FTL Series; FTL-1011 (VHF LowBand)

ID# 147



Model Number(s)

FTL-1011 (VHF LowBand)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

29.7 MHz to 37 MHz
37 MHz to 50 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

60 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 2 in x 7.1 in

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 3.3 lb |
| Power Requirements | 13.8 V dc |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable chassis construction and heavy-duty heat sink |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX-Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex FTL Series; FTL-1011H (VHF LowBand HiPower)

ID# 148



Model Number(s)

FTL-1011H (VHF LowBand HiPower)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

37 MHz to 50 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

110 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 2 in x 11.6 in

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 7.9 lb |
| Power Requirements | 13.8 V dc |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable chassis construction and heavy-duty heat sink |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX-Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex FTL Series; FTL-2011 (VHF HighBand)

ID# 149



Model Number(s)

FTL-2011 (VHF Highband)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

134 MHz to 160 MHz
148 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

40 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 2 in x 7.1 in

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 3.3 lb |
| Power Requirements | 13.8 V dc |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable chassis construction and heavy-duty heat sink |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX-Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex FTL Series; FTL-7011 (UHF)

ID# 150



Model Number(s)

FTL-7011 (UHF)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Voice inversion encryption available and high security rolling code encryption

Availability

Available

Frequency Range

400 MHz to 440 MHz
450 MHz to 490 MHz
480 MHz to 512 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 24 channels, and 99 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

| | |
|---------------------------|------------------------|
| Size | 6.3 in x 2 in x 7.1 in |
| Weight | 3.3 lb |
| Power Requirements | 13.8 V dc |
| External Power | Not applicable |

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|----------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable chassis construction and heavy-duty heat sink |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |

Special Requirements

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Integrated power supply (117 V ac), integrated power supply (220 V ac to 234 V ac), voice inversion encryption, high security rolling code encryption, two-tone sequential decoder, dc line filter, microphones, external speakers, audio output option, PC based dispatch system, VX-Trunk I (II) Trunking Mobile Logic Board, remote mount kit, and radio to computer programming cable with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex GX4800UT Mobile Transceiver

ID# 151



Model Number(s)

GX4800UT UHF

Technology

Mobile and trunked system

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

450 MHz to 480 MHz and 470 MHz to 512 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

20 systems/200 groups

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1.6 in x 5.5 in x 7.1 in

Weight

Not specified

| | |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 13.6 ± 20 % V dc |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Mounted radio (mobile-car) |
| Environmental Conditions | Not specified |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | FCC (APV 0946) Industry Canada (363 195 212A) |
| Support Equipment | 7 W extension speaker, consolette base power supply, variety of microphones, data interface cable, programming hardware kit (includes software package), programming module, programming cable, and pin adapter |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Vertex VX Series; VX-10V (VHF Model)

ID# 152



Model Number(s)

VX-10V (VHF Model)

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

Secure Communication Capability

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)
Yes with optional encryption module

Availability

Available

Frequency Range

134 MHz to 160 MHz, 148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

40 channels (102 optional)

Transmitter Power Output Levels

Programmable: 5 W, 2.5 W, 1 W, and 0.1 W

Battery Options

7.2 V NiCad 1100 or 600 mA (5 W); 7.2 V NiCad 1000 mAh NiCad and intrinsically safe

Battery Recharging Options

Rapid charger, desktop rapid charger, and dual sequential rapid charger

Physical Parameters

Size

2.2 in x 3.9 in x 1.8 in

Weight

13.4 oz

| | |
|----------------------------------------|----------------------------------------------------------------------|
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes - light, medium, and heavy duty |
| Carrying Cases | Case and clip |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not specified |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$520 |
| Battery Cycle Life | 8.2 h VHF 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | 120 V ac or 240 V ac 1 h rapid chargers |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Batteries, microphones, cases, antennas, cloning cable, and software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes, optional |

General

Name

Vertex VX Series; VX-10U (UHF Model)

ID# 153



Model Number(s)

VX-10U (UHF Model)

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes, with optional encryption module

Availability

Available

Frequency Range

400 MHz to 430 MHz, 450 MHz to 485 MHz, and 485 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

40 channels (102 optional)

Transmitter Power Output Levels

Programmable: 5 W, 2.5 W, 1 W, and 0.1 W

Battery Options

7.2 V NiCad 1100 or 600 mA (5 W); .2 V NiCad 1000 mA and intrinsically safe

Battery Recharging Options

Rapid charger, desktop rapid charger, and dual sequential rapid charger

Physical Parameters

Size

2.2 in x 3.9 in x 1.8 in

| | |
|----------------------------------------|----------------------------------------------------------------------|
| Weight | 13.4 oz |
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes - light, medium, and heavy duty |
| Carrying Cases | Case and clip |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not specified |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$550 |
| Battery Cycle Life | 7.1 h UHF 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | 120 V ac or 240 V ac 1 h rapid chargers |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Batteries, microphones, cases, antennas, cloning cable, and software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes, optional |

General

Name

Vertex VX Series; VX-300

ID# 154

Picture Not Available

Model Number(s)

VX-300

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

134 MHz to 155 MHz (A)
150 MHz to 174 MHz (C)

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 5 mi

Current User(s)

U.S. Military

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

90 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1W @ 13.8 V dc

Battery Options

Rechargeable NiCad battery pack and 6 AA dry cell

Battery Recharging Options

Desktop and wall-charger

Physical Parameters

Size

2.2 in x 4.7 in x 1.4 in

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------|
| Weight | 14 oz |
| Power Requirements | 12.0 V dc |
| External Power | A dc power cable with cigarette lighter plug |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes, earpiece, speaker microphone, earpiece microphone, and VOX Headset |
| Carrying Cases | Cordura case with clip |
| Battery Eliminators | Not specified |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Meets Mil Spec 810D and Mil Spec 810E |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$335 |
| Battery Cycle Life | 10 h 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | 1 h rapid charger |
| Maintenance Cost | Not specified |
| Interface Capability | Programming cable and software |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, cables, batteries, microphones, cases, antennas, programming cable and software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810D and Mil Spec 810E |
| Intrinsically Safe | Not specified |

General

Name

Vertex HX Series; HX120 UHF Portable

ID# 155



Model Number(s)

HX120 UHF Portable

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

450 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

2 channels, 4 channels, and 8 channels

Transmitter Power Output Levels

2 W

Battery Options

7.2 V 800 mAh NiCad battery and 7.2 V 1100 mAh NiCad battery

Battery Recharging Options

Desktop trickle charger

Physical Parameters

Size

5.2 in x 2.5 in x 1.5 in

Weight

12.1 oz

Power Requirements 7.2 V dc

External Power No

Available Accessories

Speaker-Microphones Speaker microphone

Carrying Cases Carrying case with clip

Battery Eliminators Yes

Vehicle Adapters Not specified

Logistical Parameters

Programming Dealer/User (authorized technician) programmable

Repairs Dealer

Decontamination Not specified

Durability/Ruggedness Not specified

Environmental Conditions -22 °F to 140 °F

Unit Cost \$337

Battery Cycle Life 10 h 5/5/90 cycle

Rapid Charge Battery Cycle Life Not specified

Maintenance Cost Not specified

Interface Capability Not specified

Special Requirements

Operator Skills Required Minimal

Operator Training Requirements Minimal

Training Available Yes

Manuals Available Yes

applicable Regulations Not specified

Support Equipment Charger, batteries, microphone, case, antenna, programming cable and software

Warranty 1 yr parts and labor

Mil Spec/Mil-Std Ratings No

Intrinsically Safe No

General

Name

Vertex HX Series; HX120 VHF Portable

ID# 156



Model Number(s)

HX120 VHF Portable

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

2 channels, 4 channels, and 8 channels

Transmitter Power Output Levels

2 W

Battery Options

7.2 V 800 mAh NiCad battery and 7.2 V 1100 mAh NiCad battery

Battery Recharging Options

Desktop trickle charger

Physical Parameters

Size

5.2 in x 2.5 in x 1.5 in

Weight

12.1 oz

Power Requirements 7.2 V dc

External Power No

Available Accessories

Speaker-Microphones Speaker microphone

Carrying Cases Carrying case with clip

Battery Eliminators Yes

Vehicle Adapters Not specified

Logistical Parameters

Programming Dealer/User (authorized technician) programmable

Repairs Dealer

Decontamination Not specified

Durability/Ruggedness Not specified

Environmental Conditions -22 °F to 140 °F

Unit Cost \$337

Battery Cycle Life 10 h 5/5/90 cycle

Rapid Charge Battery Cycle Life Not specified

Maintenance Cost Not specified

Interface Capability Not specified

Special Requirements

Operator Skills Required Minimal

Operator Training Requirements Minimal

Training Available Yes

Manuals Available Yes

applicable Regulations Not specified

Support Equipment Charger, batteries, microphone, case, antenna, programming cable and software

Warranty 1 yr parts and labor

Mil Spec/Mil-Std Ratings No

Intrinsically Safe No

General

Name

Vertex HX Series; HX140 VHF Portable

ID# 157



Model Number(s)

HX140 VHF Portable

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes (GE and Motorola type)

Availability

Available

Frequency Range

146 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

8 channels

Transmitter Power Output Levels

5 W

Battery Options

7.2 V 950 mAh NiCad battery and 7.2 V 1400 mAh NiCad battery

Battery Recharging Options

Desktop trickle charger and desktop rapid charger

Physical Parameters

Size

6.7 in x 2.4 in x 1.5 in

Weight

Not specified

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------|
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone |
| Carrying Cases | Nylon case; D-Ring swivel clip, swivel belt loop, and pager style spring action belt clip |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Heavy duty construction |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$389 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Desktop rapid charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, antennas, and programming hardware kit and software |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex HX Series; HX381 VHF Portable

ID# 158



Model Number(s)

HX381 VHF Portable

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

138 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

5 W, 4 W, and 2 W (programmable)

Battery Options

950 mAh NiCad battery, intrinsically safe and 1500 mAh NiCad battery

Battery Recharging Options

Mobile trickle charger, desktop rapid charger (120 V ac and 220 V ac/50 Hz) and 6-unit rapid charger

Physical Parameters

Size

5.5 in x 2.4 in x 1.7 in

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Weight | Not specified |
| Power Requirements | 9.6 V dc |
| External Power | A dc power cable with cigarette lighter plug |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Lapel speaker microphone; cable w/molded connector, and nonterminated (OEM) |
| Carrying Cases | Leather or Durus soft carrying case; D-ring swivel clip, swivel belt loop, pager belt clip, and slim line metal pager clip |
| Battery Eliminators | Yes |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Industrial and rugged use |
| Environmental Conditions | Unlimited |
| Unit Cost | \$515 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Desktop rapid charger (120 V ac and 220 V ac/50 Hz) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, antennas, programming hardware kit and software |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Vertex HX Series; HX381 UHF Portable

ID# 159



Model Number(s)

HX381 UHF Portable

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

400 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

5 W, 4 W, and 2 W (programmable)

Battery Options

950 mAh NiCad battery, intrinsically safe, and 1500 mAh NiCad battery

Battery Recharging Options

Mobile trickle charger; desktop rapid charger (120 V ac and 220 V ac/50 Hz), and 6-unit rapid charger

Physical Parameters

Size

5.5 in x 2.4 in x 1.7 in

Weight

Not specified

| | |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Power Requirements | 9.6 V dc |
| External Power | A dc power cable with cigarette lighter plug |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Lapel speaker microphone, cable with molded connector, and nonterminated (OEM) |
| Carrying Cases | Leather or Durus soft carrying case, D-ring swivel clip, swivel belt loop, pager belt clip, and slim line metal pager clip |
| Battery Eliminators | Yes |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Industrial and rugged use |
| Environmental Conditions | Unlimited |
| Unit Cost | \$515 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Desktop rapid charger (120 V ac and 220 V ac/50 Hz) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, and keypad |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Vertex HX Series; HX240 VHF Portable

ID# 160



Model Number(s)

HX240 VHF Portable

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

4 W

Battery Options

Alkaline battery tray (holds six AA batteries, not included);
7.2 V 700 mAh NiCad battery, (1.5 W); 12 V 600 mAh
NiCad battery (4 W); 7.2 V 1100 mAh NiCad battery (1.5
W); and 12 V 900 mAh NiCad battery (4 W)

Battery Recharging Options

Mobile trickle charger; desktop rapid charger (120 V ac
and 220 V ac/50 Hz); desktop trickle charger; and mobile
adapter

Physical Parameters

| | |
|---------------------------|----------------------------------------------|
| Size | 6.5 in x 2.5 in x 1.4 in |
| Weight | 16 oz |
| Power Requirements | 12 V dc |
| External Power | A dc power cable with cigarette lighter plug |

Available Accessories

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Speaker-Microphones | Heavy duty speaker microphone, speaker microphone, miniature speaker microphone, tie pin microphone with earphone, and headset with boom microphone |
| Carrying Cases | Leather carrying case with swivel belt loop, and mobile bracket |
| Battery Eliminators | Yes |
| Vehicle Adapters | No |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged Ability |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$435 |
| Battery Cycle Life | 8 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Desktop rapid charger (120 V ac and 220 V ac/50 Hz) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, keypad, antennas, programming cable and hardware kit, software, and 9 pin to 25 pin adapter |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Vertex HX Series; HX240 UHF Portable

ID# 161



Model Number(s)

HX240 UHF Portable

Technology

Portable, conventional

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

450 MHz to 470 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

4 W

Battery Options

Alkaline battery tray (holds six AA batteries, not included);
7.2 V 700 mAh NiCad battery, (1.5 W); 12 V 600 mAh
NiCad battery (4 W); 7.2 V 1100 mAh NiCad battery (1.5
W); and 12 V 900 mAh NiCad battery (4 W)

Battery Recharging Options

Mobile trickle charger; desktop rapid charger (120 V ac
and 220 V ac/50 Hz); desktop trickle charger; and
mobile adapter

Physical Parameters

| | |
|---------------------------|----------------------------------------------|
| Size | 6.5 in x 2.5 in x 1.4 in |
| Weight | 16 oz |
| Power Requirements | 12 V dc |
| External Power | A dc power cable with cigarette lighter plug |

Available Accessories

| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Speaker-Microphones | Heavy duty speaker microphone, speaker microphone, miniature speaker microphone, tie pin microphone with earphone, and headset with boom microphone |
| Carrying Cases | Leather carrying case with swivel belt loop, and mobile bracket |
| Battery Eliminators | Yes |
| Vehicle Adapters | No |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged ability |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$435 |
| Battery Cycle Life | 8 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Desktop rapid charger (120 V ac and 220 V ac/50 Hz) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, keypad, antennas, programming cable and hardware kit, software, and 9 pin to 25 pin adapter |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Vertex HX Series; HX482UT UHF Portable

ID# 162



Model Number(s)

HX482UT UHF Portable

Technology

Portable, conventional and trunked

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

450 MHz to 480 MHz and 470 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

10 groups/109 groups

Transmitter Power Output Levels

4 W

Battery Options

950 mAh NiCad battery and 1500 mAh NiMH battery

Battery Recharging Options

Mobile adapter, mobile trickle charger, and desk top rapid charger (120 V ac and 220 V ac/50 Hz)

Physical Parameters

Size

3.6 in x 2.3 in x 1.3 in

Weight

Not specified

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------------|
| Power Requirements | 9.6 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Earphone adapter, lapel speaker microphone, cable with molded connector, and nonterminated (OEM) |
| Carrying Cases | Leather carrying case, swivel belt loop, pager belt clip, slim line metal pager clip, and swivel belt loop |
| Battery Eliminators | No |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | Not specified |
| Unit Cost | \$675 |
| Battery Cycle Life | At least 6 h with 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Desktop rapid charger (120 V ac and 220 V ac/50 Hz) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, keypad, and antennas |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | No |
| Intrinsically Safe | No |

General

Name

Vertex HX Series; HX580 Dual Protocol Hand Held

ID# 163

Picture Not Available

Model Number(s)

HX582 Dual Protocol Hand Held

Technology

Portable, conventional and trunked

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

**Secure Communication Capability
Availability**

No

Available

Frequency Range

851 MHz to 869 MHz

**Number of Personnel Supported by
System**

Unlimited

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

10 groups/109 groups

Transmitter Power Output Levels

2 W

Battery Options

950 mAh NiCad battery and 1500 mAh NiMH battery

Battery Recharging Options

Mobile adapter, mobile trickle charger, and desk top rapid charger (120 V ac and 220 V ac/50 Hz)

Physical Parameters

Size

3.6 in x 2.3 in x 1.3 in

Weight

Not specified

Power Requirements

9.6 V dc

| | |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| External Power | In-line charger/adapter, dual mode, and to operate off car battery while charging radio |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Earphone adapter, lapel speaker microphone, cable with molded connector, and nonterminated (OEM) |
| Carrying Cases | Leather carrying case, swivel belt loop, pager belt clip, slim line metal pager clip, and swivel belt loop |
| Battery Eliminators | No |
| Vehicle Adapters | No |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Standard use |
| Environmental Conditions | Not specified |
| Unit Cost | \$675 |
| Battery Cycle Life | Not specified |
| Rapid Charge Battery Cycle Life | Desktop rapid charger (120 V ac and 220 V ac/50 Hz) |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, keypad, antennas, programming cable and hardware kit, software, and 9 pin to 25 pin adapter |
| Warranty | 3 yr parts and labor |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810 |
| Intrinsically Safe | No |

General

Name

Vertex VX Series; VX-210V (VHF Model)

ID# 164

Picture Not Available

Model Number(s)

VX-210V (VHF Model)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Alkaline (AA); 7.2 V 1100 mAh NiCad; 7.2 V 1100 mAh NiCad and intrinsically safe

Battery Recharging Options

120 V ac 1 h and 12 h desktop; 240 V ac 1 h and 12 h desktop; and wall charger

Physical Parameters

Size

2.3 in x 4.3 in x 1 in

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------|
| Weight | 12 oz |
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone and earpiece microphone |
| Carrying Cases | Leather case with belt loop and leather case with swivel |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Super rugged construction |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$340 |
| Battery Cycle Life | 8.2 h VHF 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | 13.8 V dc and 120 V ac rapid desktop charger and 230 V ac to 240 V ac rapid desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, and cases |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, 810D, and 810E |
| Intrinsically Safe | Yes |

General

Name

Vertex VX Series; VX-210U (UHF Model)

ID# 165

Picture Not Available

Model Number(s)

VX-210U (UHF Model)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

450 MHz to 485 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Alkaline (AA); 7.2 V 1100 mAh NiCad; 7.2 V 1100 mAh NiCad and intrinsically safe

Battery Recharging Options

20 V ac 1 h and 12 h desktop; 240 V ac 1hr and 12 h desktop; and wall charger

Physical Parameters

Size

2.3 in x 4.3 in x 1 in

Weight

12 oz

Power Requirements 7.2 V dc

External Power No

Available Accessories

Speaker-Microphones Speaker microphone and earpiece microphone

Carrying Cases Leather case with belt loop and leather case with swivel

Battery Eliminators Not specified

Vehicle Adapters Not specified

Logistical Parameters

Programming Dealer/User (authorized technician) programmable

Repairs Dealer

Decontamination Not specified

Durability/Ruggedness Super rugged construction

Environmental Conditions -22 °F to 140 °F

Unit Cost \$390

Battery Cycle Life 7.1 h UHF 5/5/90 cycle

Rapid Charge Battery Cycle Life 13.8 V dc and 120 V ac rapid desktop charger; and
230 V ac to 240 V ac rapid desktop charger

Maintenance Cost Not specified

Interface Capability Not specified

Special Requirements

Operator Skills Required Minimal

Operator Training Requirements Minimal

Training Available Yes

Manuals Available Yes

applicable Regulations Not specified

Support Equipment Chargers, batteries, microphones, and cases

Warranty 3 yr on transceivers and 1 yr on accessories

Mil Spec/Mil-Std Ratings Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E

Intrinsically Safe Yes

General

Name

Vertex VX Series; VX-400V (VHF Model)

ID# 166

Picture Not Available

Model Number(s)

VX-400V (VHF Model)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

134 MHz to 160 MHz, or 148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

Programmable: 5 W, 2.5 W, 1 W, and 0.1 W

Battery Options

Alkaline (AA); 7.2 V 1100 mAh NiCad; 7.2 V 1100 mAh NiCad and intrinsically safe

Battery Recharging Options

20 V ac 1 h and 12 h desktop; 240 V ac 1hr and 12 h desktop; and wall charger

Physical Parameters

Size

2.3 in x 4 in x 1 in

Weight

11.3 oz

| | |
|----------------------------------------|-------------------------------------------------------------------------|
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes, earpiece, speaker microphone, earpiece microphone, and VOX Headset |
| Carrying Cases | Leather case with belt loop and leather case with swivel |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Super rugged construction |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$507 |
| Battery Cycle Life | 8.2 h VHF 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | 120 V ac and 240 V ac rapid desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, and cases |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Vertex VX Series; VX-400U (UHF Model)

ID# 167

Picture Not Available

Model Number(s)

VX-400U (UHF Model)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

400 MHz to 430 MHz, 450 MHz to 485 MHz or 485 MHz to 512 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

Programmable: 5 W, 2.5 W, 1 W, and 0.1 W

Battery Options

Alkaline (AA); 7.2 V 1100 mAh NiCad; 7.2 V 1100 mAh NiCad and intrinsically safe

Battery Recharging Options

20 V ac 1 h and 12 h desktop; 240 V ac 1 and 12 h desktop; and wall charger

Physical Parameters

Size

2.3 in x 4 in x 1 in

| | |
|----------------------------------------|-------------------------------------------------------------------------|
| Weight | 11.3 oz |
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes, earpiece, speaker microphone, earpiece microphone, and VOX Headset |
| Carrying Cases | Leather case with belt loop and leather case with swivel |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Super rugged construction |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$537 |
| Battery Cycle Life | 7.1 h UHF 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | 120 V ac and 240 V ac rapid desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, and cases |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Yes |

General

Name

Vertex VX Series; VX-500

ID# 168

Picture Not Available

Model Number(s)

VX-500LX (Low Band VHF)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

29.7 MHz to 38 MHz or 38 MHz to 50 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 5 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Alkaline (AA); 7.2 V 1200 mAh NiCad; 7.2 V 1200 mAh NiCad and intrinsically safe

Battery Recharging Options

Rapid desktop charger (117 V ac and 220 V ac to 234 V ac), rapid vehicular charger, and overnight desktop charger (117 V ac and 220 V ac to 234 V ac)

Physical Parameters

Size

2.3 in x 5.9 in x 1.5 in

| | |
|----------------------------------------|-------------------------------------------------------------------------------------------|
| Weight | 19 oz |
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone |
| Carrying Cases | Leather or Cordura case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged cast metal housing |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | 7.8 h 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | 120 V ac and 240 V ac 1h rapid desktop charger, and rapid vehicular adapter |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, cables, batteries, microphones, cases, antennas, programming cable and software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe model available |

General

Name

Vertex VX Series; VX-510LX (Low Band VHF)

ID# 169

Picture Not Available

Model Number(s)

VX-510LX (Low Band VHF Model)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

29.7 MHz to 38 MHz or 38 MHz to 50 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 5 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Alkaline (AA); 7.2 V 1700 mAh NiCad; 7.2 V 1700 mAh NiCad and intrinsically safe

Battery Recharging Options

120 V ac and 240 V ac overnight desktop charger, 120 V ac and 240 V ac 1 h rapid desktop charger, and rapid 6-unit charger

Physical Parameters

| | |
|---------------------------|--------------------------|
| Size | 2.3 in x 5.9 in x 1.5 in |
| Weight | 20.1 oz |
| Power Requirements | 7.2 V dc |
| External Power | No |

Available Accessories

| | |
|----------------------------|------------------------------------------------------------------------------------------------------|
| Speaker-Microphones | Speaker microphone, medium duty and heavy duty with volume control |
| Carrying Cases | Leather case with belt loop, nylon case with clip, belt clip, and swivel attachment for leather case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |

Logistical Parameters

| | |
|----------------------------------------|-----------------------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged cast metal housing |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$737 |
| Battery Cycle Life | 11 h 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Rapid 6–unit multi charger; 120 V ac and 240 V ac 1 h rapid desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |

Special Requirements

| | |
|---------------------------------------|-------------------------------------------------------------------------------------------------|
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, belt clip, keypad, and programming cable with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe model available |

General

Name

Vertex VX Series; VX-510V (VHF Model)

ID# 170

Picture Not Available

Model Number(s)

VX-510V (VHF Model)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes with optional encryption module

Availability

Available

Frequency Range

148 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Alkaline (AA); 7.2 V 1700 mAh NiCad; 7.2 V 1700 mAh NiCad and intrinsically safe

Battery Recharging Options

Multiple options

Physical Parameters

Size

2.3 in x 5.9 in x 1.5 in

Weight

20.1 oz

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone, medium duty and heavy duty with volume control |
| Carrying Cases | Leather case with belt loop, nylon case with clip, belt clip, and swivel attachment for leather case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged cast metal housing |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$590 |
| Battery Cycle Life | 11 h 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Rapid 6–unit multi charger; 120 V ac and 240 V ac 1 h rapid desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, belt clip, keypad, and programming cable with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe model available |

General

Name

Vertex VX Series; VX-510U (UHF Model)

ID# 171

Picture Not Available

Model Number(s)

VX-510U (UHF Model)

Technology

Portable, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

**Secure Communication Capability
Availability**

Yes with optional encryption module
Available

Frequency Range

450 MHz to 488 MHz

**Number of Personnel Supported by
System**

Unlimited

Geographic Coverage

50+ with repeater; 3 mi line of sight

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

32 channels

Transmitter Power Output Levels

Hi: 5 W; low: 1 W

Battery Options

Alkaline (AA); 7.2 V 1700 mAh NiCad; 7.2 V 1700 mAh NiCad and intrinsically safe

Battery Recharging Options

Multiple options

Physical Parameters

Size

2.3 in x 5.9 in x 1.5 in

Weight

20.1 oz

| | |
|----------------------------------------|------------------------------------------------------------------------------------------------------|
| Power Requirements | 7.2 V dc |
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Speaker microphone, medium duty and heavy duty with volume control |
| Carrying Cases | Leather case with belt loop, nylon case with clip, belt clip, and swivel attachment for leather case |
| Battery Eliminators | Not specified |
| Vehicle Adapters | Not specified |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Rugged cast metal housing |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$590 |
| Battery Cycle Life | 11 h 5/5/90 cycle |
| Rapid Charge Battery Cycle Life | Rapid 6–unit multi charger; 120 V ac and 240 V ac 1 h rapid desktop charger |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Minimal |
| Operator Training Requirements | Minimal |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Chargers, batteries, microphones, cases, belt clip, keypad, and programming cable with software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | Intrinsically safe model available |

General

Name

Vertex VX Series; VX-2000V Mobile Radio (VHF)

ID# 172



Model Number(s)

VX-2000v Mobile Radio (VHF)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability Availability

Yes

Frequency Range

Available

134 MHz to 160 MHz
148 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels and 40 channels

Transmitter Power Output Levels

Hi: 25 W; low: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

| | |
|---------------------------|----------------------------|
| Size | 6.25 in x 1.5 in x 4.25 in |
| Weight | 30.4 oz |
| Power Requirements | 10.8 V dc to 15.6 V dc |
| External Power | Not applicable |

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|---------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable –PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Mounted radio (mobile-car) |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |

Special Requirements

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | 2–Tone Decoder Unit, 12 A power supply (117 V ac to 220 V ac), ANI unit, external speaker, plug-in dc line filter, variety of microphones, VX–Trunk II Trunking Mobile Logic Board, radio to computer programming cable, programming software, and radio to radio cloning cable |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex VX Series; VX-2000U Mobile Radio (UHF)

ID# 173



Model Number(s)

VX-2000v Mobile Radio (UHF)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

**Secure Communication Capability
Availability**

Yes

Available

Frequency Range

400 MHz to 430 MHz, 450 MHz to 480 MHz and
480 MHz to 512 MHz

**Number of Personnel Supported by
System**

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels and 40 channels

Transmitter Power Output Levels

Hi: 25 W; low: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

| | |
|---------------------------|----------------------------|
| Size | 6.25 in x 1.5 in x 4.25 in |
| Weight | 30.4 oz |
| Power Requirements | 10.8 V dc to 15.6 V dc |
| External Power | Not applicable |

Available Accessories

| | |
|----------------------------|----------------|
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |

Logistical Parameters

| | |
|----------------------------------------|----------------------------------------------------------------|
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Mounted radio (mobile-car) |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | No |

Special Requirements

| | |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | 2-Tone Decoder Unit, 12 A power supply (117 V ac to 220 V ac), ANI unit, external speaker, plug-in dc line filter, variety of microphones, VX-Trunk II Trunking Mobile Logic Board, radio to computer programming cable, programming software, and radio to radio cloning cable |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex VX Series; VX-3000L (VHF Lowband)

ID# 174



Model Number(s)

VX-3000L (VHF Lowband)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

29.7 MHz to 37 MHz
37 MHz to 50 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Public Works

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 48 channels, (120 optional) channels

Transmitter Power Output Levels

Hi: 70 W; low: 10 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 1.6 in x 6.3 in

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 3 lb |
| Power Requirements | 13.8 V dc |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Mounted radio (mobile-car) |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | 25 A power supply (117 V ac to 220 V ac), external speaker, plug-in dc line filter, microphones, VX-Trunk II Trunking Mobile Logic Board, radio to computer programming cable, and programming software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex VX Series; VX-3000V (VHF)

ID# 175



Model Number(s)

VX-3000V (VHF)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability Availability

No

Frequency Range

Available

134 MHz to 150 MHz
146 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Public Works

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 48 channels, (120 optional) channels

Transmitter Power Output Levels

Hi: 50 W; low: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 1.6 in x 6.3 in

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 3 lb |
| Power Requirements | 13.8 V dc |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Mounted radio (mobile-car) |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | 25 A power supply (117 V ac to 220 V ac), external speaker, plug-in dc line filter, microphones, VX-Trunk II Trunking Mobile Logic Board, radio to computer programming cable, and programming software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex VX Series; VX-3000U (UHF)

ID# 176



Model Number(s)

VX-3000U (UHF)

Technology

Mobile, conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

No

Availability

Available

Frequency Range

400 MHz to 460 MHz, 450 MHz to 490 MHz and 480 MHz to 512 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Public Works

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

4 channels, 48 channels, (120 optional) channels

Transmitter Power Output Levels

Hi: 40 W; low: 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

6.3 in x 1.6 in x 6.3 in

| | |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Weight | 3 lb |
| Power Requirements | 13.8 V dc |
| External Power | Not applicable |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Not applicable |
| Carrying Cases | Not applicable |
| Battery Eliminators | Not applicable |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Mounted radio (mobile-car) |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Yes |
| <u>Special Requirements</u> | |
| Operator Skills Required | Average |
| Operator Training Requirements | Average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | 25 A power supply (117 V ac to 220 V ac), external speaker, plug-in dc line filter, microphones, VX-Trunk II Trunking Mobile Logic Board, radio to computer programming cable, and programming software |
| Warranty | 3 yr on transceivers and 1 yr on accessories |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex Repeaters; VXR-1000 (VHF)

ID# 177

Picture Not Available

Model Number(s)

VXR-1000 (VHF)

Technology

Repeater, conventional Vertex mobile repeaters

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

150 MHz to 174 MHz

Number of Personnel Supported by System

One

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

0 W to 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1 in x 4.4 in x 5.4 in

Weight

14.4 oz

Power Requirements

13.8 V dc

| | |
|----------------------------------------|----------------------------------------------------------------|
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | No |
| Battery Eliminators | No |
| Vehicle Adapters | Multiple options |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable repeater |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$599 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | No |
| <u>Special Requirements</u> | |
| Operator Skills Required | Above average |
| Operator Training Requirements | Above average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 3 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

Vertex Repeaters; VXR-1000 (UHF)

ID# 178

Picture Not Available

Model Number(s)

VXR-1000 (UHF)

Technology

Repeater, conventional Vertex mobile repeaters

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

450 MHz to 470 MHz

Number of Personnel Supported by System

One

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

0 W to 5 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

1 in x 4.4 in x 5.4 in

Weight

14.4 oz

Power Requirements

13.8 V dc

| | |
|----------------------------------------|-------------------------------------------------------------------|
| External Power | No |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | No |
| Battery Eliminators | No |
| Vehicle Adapters | Multiple Options |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable Repeater |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | \$599 |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | No |
| <u>Special Requirements</u> | |
| Operator Skills Required | Above average |
| Operator Training Requirements | Above average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 3 yr |
| Mil Spec/Mil-Std Ratings | Meets Mil Spec 810C, Mil Spec 810D, and Mil Spec 810E |
| Intrinsically Safe | No |

General

Name

ID# 179

Vertex Repeaters; VXR-5000 (VHF)



Model Number(s)

VXR-5000 (VHF)

Technology

Repeater, and trunking Vertex mobile repeaters

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

No

Secure Communication Capability

Availability

Available

Frequency Range

134 MHz to 147 MHz, 146 MHz to 160 MHz, 156 MHz to 168 MHz, and 164 MHz to 174 MHz

Number of Personnel Supported by System

Multiple

Geographic Coverage

Not specified

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

8 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

14.8 in x 10.8 in x 4.3 in

Weight

26.4 lb

| | |
|----------------------------------------|----------------------------------------------------------------|
| Power Requirements | 100 V ac/117 V ac/220 V ac/235 V ac, 13.8 V dc |
| External Power | Yes |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | No |
| Battery Eliminators | No |
| Vehicle Adapters | Multiple Options |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Durable repeater |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | No |
| <u>Special Requirements</u> | |
| Operator Skills Required | Above average |
| Operator Training Requirements | Above average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 3 yr |
| Mil Spec/Mil-Std Ratings | None |
| Intrinsically Safe | No |

General

Name

Vertex Repeaters or Base Station; VXR-5000 (UHF)

ID# 180



Model Number(s)

VXR-5000 (UHF)

Technology

Conventional and trunking capable with optional accessory board

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

400 MHz to 420 MHz, 430 MHz to 450 MHz, 450 MHz to 470 MHz, 470 MHz to 490, and 490 MHz to 215 MHz
Unlimited

Number of Personnel Supported by System

Geographic Coverage

Not applicable

Current User(s)

Not specified

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

8 channels

Transmitter Power Output Levels

25 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

14.8 in x 10.8 in x 4.3 in

| | |
|----------------------------------------|----------------------------------------------------------------|
| Weight | 26.4 lb |
| Power Requirements | 100 V ac,/117 V ac/220 V ac/235 V ac, 13.8 V dc |
| External Power | Yes |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | No |
| Battery Eliminators | No |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not applicable |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | No |
| <u>Special Requirements</u> | |
| Operator Skills Required | Above average |
| Operator Training Requirements | Above average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 3 yr |
| Mil Spec/Mil-Std Ratings | None |
| Intrinsically Safe | No |

General

Name

Vertex Repeater or Base Station; VXR-7000 (VHF)

ID# 181

Picture Not Available

Model Number(s)

VXR-7000 (VHF)

Technology

Conventional, Vertex mobile base station or repeater, and optional VX-Trunk operation

Manufacturer

Yaesu/Vertex-Standard
17210 Edwards Rd.
Cerritos, California 90703
562-404-2700 (Tel)

POC: Kirk Waddell
720-344-9645 (Tel)
720-344-9647 (Fax)

Secure Communication Capability

Yes

Availability

Available

Frequency Range

136 MHz to 150 MHz and 150 MHz to 174 MHz

Number of Personnel Supported by System

Unlimited

Geographic Coverage

Not applicable

Current User(s)

Public Safety

Source

Mills' Communications Inc.
210 Pennsylvania Ave.
Westminster, MD 21157
410-876-8600 (Tel)
410-848-8600 (Tel)
410-857-8600 (Fax)

POC: Jeff Myers
millscom@cct.infi.net

Operational Parameters

Number of Channels

16 channels

Transmitter Power Output Levels

50 W

Battery Options

Not applicable

Battery Recharging Options

Not applicable

Physical Parameters

Size

4.5 in x 12.8 in x 15.4 in

Weight

22 lb

Power Requirements

13.8 V dc

| | |
|----------------------------------------|----------------------------------------------------------------|
| External Power | Yes |
| <u>Available Accessories</u> | |
| Speaker-Microphones | Yes |
| Carrying Cases | No |
| Battery Eliminators | No |
| Vehicle Adapters | Not applicable |
| <u>Logistical Parameters</u> | |
| Programming | Dealer/User (authorized technician) programmable - PC friendly |
| Repairs | Dealer |
| Decontamination | Not specified |
| Durability/Ruggedness | Not applicable |
| Environmental Conditions | -22 °F to 140 °F |
| Unit Cost | Not specified |
| Battery Cycle Life | Not applicable |
| Rapid Charge Battery Cycle Life | Not applicable |
| Maintenance Cost | Not specified |
| Interface Capability | Not specified |
| <u>Special Requirements</u> | |
| Operator Skills Required | Above average |
| Operator Training Requirements | Above average |
| Training Available | Yes |
| Manuals Available | Yes |
| applicable Regulations | Not specified |
| Support Equipment | Available |
| Warranty | 3 yr |
| Mil Spec/Mil-Std Ratings | None |
| Intrinsically Safe | No |

ABOUT THE LAW ENFORCEMENT AND CORRECTIONS STANDARDS AND TESTING PROGRAM

The Law Enforcement and Corrections Standards and Testing Program is sponsored by the Office of Science and Technology of the National Institute of Justice (NIJ), U.S. Department of Justice. The program responds to the mandate of the Justice System Improvement Act of 1979, directed NIJ to encourage research and development to improve the criminal justice system and to disseminate the results to Federal, State, and local agencies.

The Law Enforcement and Corrections Standards and Testing Program is an applied research effort that determines the technological needs of justice system agencies, sets minimum performance standards for specific devices, tests commercially available equipment against those standards, and disseminates the standards and the test results to criminal justice agencies nationally and internationally.

The program operates through:

The *Law Enforcement and Corrections Technology Advisory Council* (LECTAC), consisting of nationally recognized criminal justice practitioners from Federal, State, and local agencies, which assesses technological needs and sets priorities for research programs and items to be evaluated and tested.

The *Office of Law Enforcement Standards* (OLES) at the National Institute of Standards and Technology, which develops voluntary national performance standards for compliance testing to ensure that individual items of equipment are suitable for use by criminal justice agencies. The standards are based upon laboratory testing and evaluation of representative samples of each item of equipment to determine the key attributes, develop test methods, and establish minimum performance requirements for each essential attribute. In addition to the highly technical standards, OLES also produces technical reports and user guidelines that explain in nontechnical terms the capabilities of available equipment.

The *National Law Enforcement and Corrections Technology Center* (NLECTC), operated by a grantee, which supervises a national compliance testing program conducted by independent laboratories. The standards developed by OLES serve as performance benchmarks against which commercial equipment is measured. The facilities, personnel, and testing capabilities of the independent laboratories are evaluated by OLES prior to testing each item of equipment, and OLES helps the NLECTC staff review and analyze data. Test results are published in Equipment Performance Reports designed to help justice system procurement officials make informed purchasing decisions.

Publications are available at no charge through the National Law Enforcement and Corrections Technology Center. Some documents are also available online through the Internet/World Wide Web. To request a document or additional information, call 800-248-2742 or 301-519-5060, or write:

National Law Enforcement and Corrections Technology Center
P.O. Box 1160
Rockville, MD 20849-1160
E-Mail: asknlectc@nlectc.org
World Wide Web address: <http://www.nlectc.org>

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