Underwriters Laboratories Inc.
1285 Walt Whitman Rd.
Melville, NY 11747

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(631) 271-6200

| | |
|---|---|
| Job Number: | 740133 |
| File Number: | MC8319 |
| Date: | 17 Dec 07 |
| Model: | M812 |
| FCC ID: | VJS-M812 |

# Electromagnetic Compatibility Test Report

## For

# Altec Lansing Technologies

# Test Report Details

| | |
|---|---|
| Tests Performed By: | **Underwriters Laboratories Inc.<br>1285 Walt Whitman Rd.<br>Melville, NY 11747** |
| Tests Performed For: | **Altec Lansing Technologies<br>P. O. Box 277<br>Milford, PA 18337** |
| Applicant Contact:<br>Phone:<br>E-mail: | **STEVE BACHO<br>570-296-1310<br>STEVE.BACHO@ALTECLANSING.COM** |
| Test Report Date: | **17 Dec 07** |
| Product Type: | **Wireless Speaker System** |
| Product standards | **FCC Part 15, Subpart C, 15.247** |
| Model Number: | **M812** |
| Sample Serial Number: | **Prototype** |
| EUT Category: | **Digital Transmitter** |
| Testing Start Date: | **19 July 07** |
| Date Testing Complete: | **16 Dec 07** |
| **Overall Results:** | **Compliant** |

# Report Directory

Report Revision History

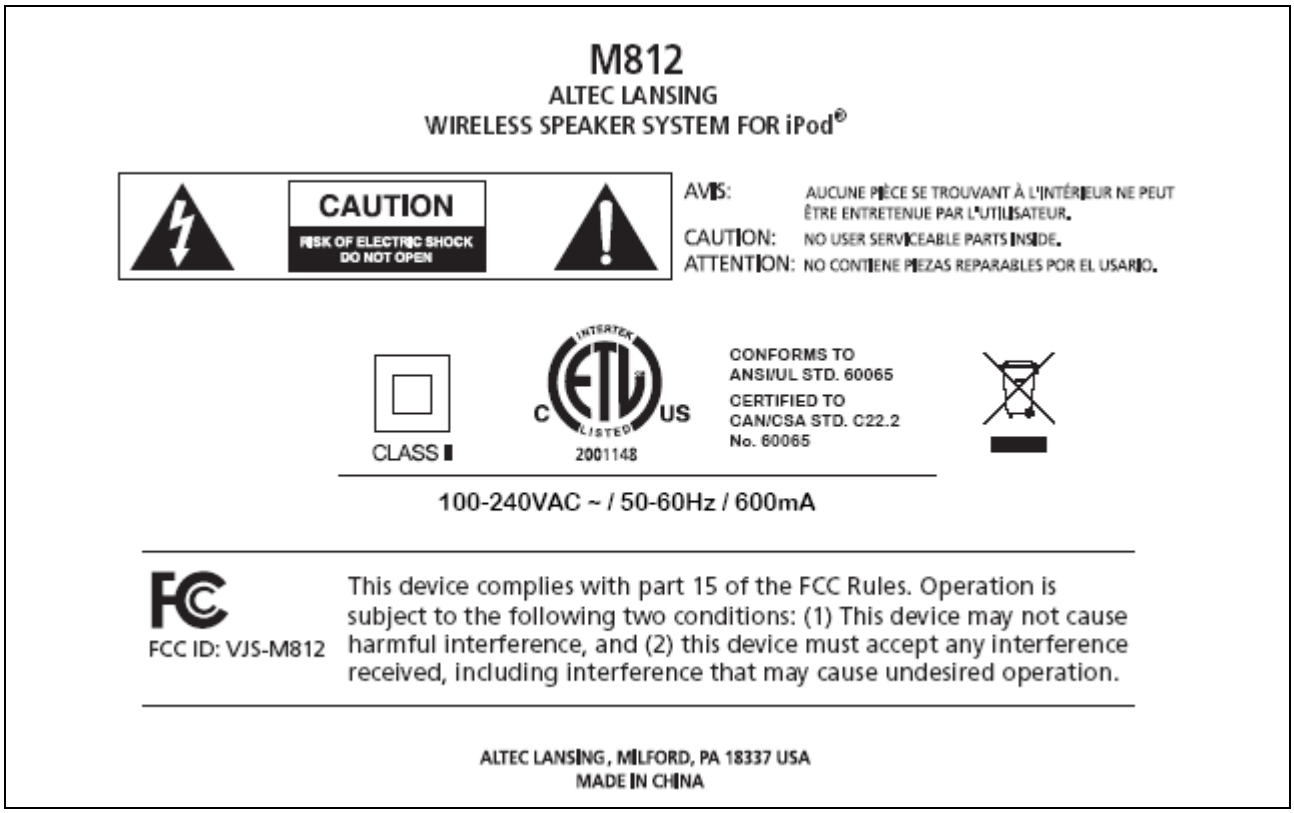
| Revision Date | Description | Revised By | Revision Reviewed By |
|---|---|---|---|
| None | - | - | - |

# 1.0 G E N E R A L - Product Description

## 1.1 Equipment Description

The M812 is a high performance speaker and transmitter base combination that allows you to connect and wirelessly listen to most iPods, FM radio stations and auxiliary audio sources.

## 1.2 Equipment Marking Plate



### 1.3 Device Configuration During Test

#### 1.3.1 Equipment Used During Test:

| Use | Product Type | Manufacturer | Model | Comments |
|---|---|---|---|---|
| **EUT** | Speaker System | Altec Lansing Technologies | M812 | Consists of a Transmitter Base and a Wireless Speaker |
| **AE** | MP3 Player | Apple | iPod | None |
| **AE** | Laptop | IBM | 2373T64 | None |

Note: **EUT** - Equipment Under Test, **AE** - Auxiliary/Associated Equipment, or **SIM** - Simulator (Not Subjected to Test)

#### 1.3.2 Input/Output Ports:

| Port # | Name | Type* | Cable Max. >3m (Y/N) | Cable Shielded (Y/N) | Comments |
|---|---|---|---|---|---|
| 0 | Enclosure | N/E | — | — | None |
| 1 | Mains | AC | N | N | None |
| 2 | Aux | I/O | N | N | None |

Note:
AC = AC Power Port DC = DC Power Port N/E = Non-Electrical
I/O = Signal Input or Output Port (Not Involved in Process Control)
TP = Telecommunication Ports

### 1.3.3 EUT Internal Operating Frequencies:

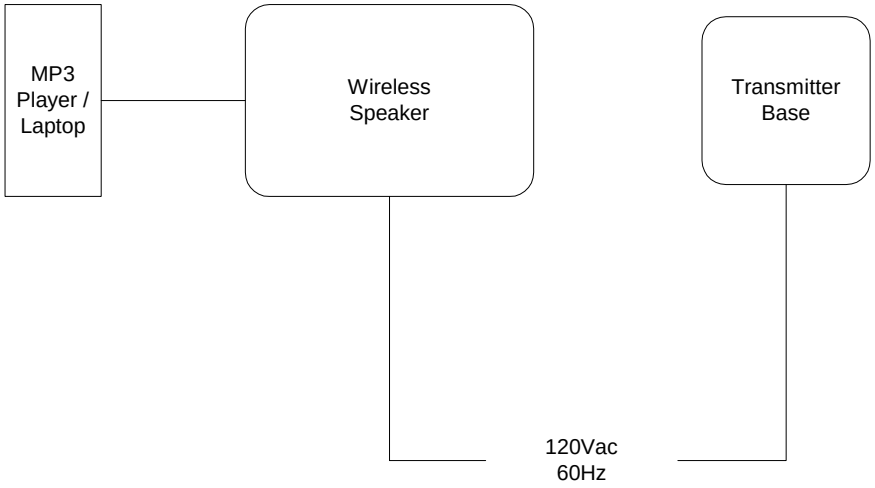
| Frequency (MHz) | Description |
|---|---|
| 2400-2483.5 | Fundamental<br>(3 RF Channels are used in this band) |

### 1.3.4 Power Interface:

| Mode # /Rated | Voltage (V) | Current (A) | Power (W) | Frequency (DC/AC-Hz) | Phases (#) | Comments |
|---|---|---|---|---|---|---|
| Rated | 100-240Vac | 0.6 | - | 50-60Hz | Single Phase | Transmitter Base & Wireless Speaker |
| 1 | 120Vac | - | - | 60Hz | Single Phase | Transmitter Base & Wireless Speaker |

### 1.4 Block Diagram:

The diagram below illustrates the configuration of the equipment above.




### 1.5 EUT Configurations

| Mode # | Description |
|---|---|
| 1 | Wireless speaker and transmitter base independently powered from 120Vac/60Hz source. MP3 player or laptop connected to the base as an audio source. It was determined from preliminary measurements that connecting an audio source via Aux connection, as opposed to docked, produced the worse case conditions. It was in this configuration that all testing was performed. |

## 1.6 EUT Operation Modes

| Mode # | Description |
|---|---|
| 1 | Transmitter Base operating on Channel 1 (2412MHz) |
| 2 | Transmitter Base operating on Channel 2 (2436MHz) |
| 3 | Transmitter Base operating on Channel 3 (2463MHz) |
| 4 | Wireless Speaker operating on Channel 1 (2412MHz) |
| 5 | Wireless Speaker operating on Channel 2 (2436MHz) |
| 6 | Wireless Speaker operating on Channel 3 (2463MHz) |
| 7 | Transmitter Base operating in Receive Mode |
| 8 | Wireless Speaker operating in Receive Mode |

## 2.0 Summary

The tests listed in the Summary of Testing section of this report have been performed and the results recorded by Underwriters Laboratories Inc. in accordance with the procedures stated in each test requirement and specification. The applicant determined the list of tests performed were applicable to the Equipment Under Test. As a result, the subject product has been verified to comply or not comply as noted in the Summary of Testing with each test specification. The test results relate only to the items tested.

### 2.1 Deviations from standard test methods

None

### 2.2 Device Modifications Necessary for Compliance

For Radiated Emissions:

- Added ferrite (Fair-Rite Part Number: 0443164151, or equivalent) to power cable of the wireless speaker. See photo for details.

## 2.3 Reference Standards

| Standard Number | Standard Name | Standard Date |
|---|---|---|
| FCC Part 15, Subpart C, 15.247 | Code of Federal Regulations, Part 15, Radio Frequency Devices | 2007 |
| Publication Number 558074 | FCC OET KBD Publication – New Guidance on Measurements for Digital Transmission Systems in Section 15.247 | 2007 |

## 2.4 Results Summary

This product is considered Class B

| Requirement – Test | Result (Compliant / Non-Compliant)* |
|---|---|
| 15.207 Conducted Emissions - Mains | Compliant |
| 15.247 ERP | Compliant |
| 15.247 Output Power | Compliant |
| 15.247 Power Spectral Density | Compliant |
| 15.215 Bandedge Measurements | Compliant |
| 15.247 Occupied Bandwidth | Compliant |
| 15.209 Radiated Emissions | Compliant |
| 15.205 Restricted Band Radiated Emissions | Compliant |
| 1.1307 Maximum Permissible Exposure | Compliant |

Test Engineer:

Mike Antola (Ext.23053)
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Reviewer:

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Senior Staff Engineer
International EMC Services
Conformity Assessment Services

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## 3.0 Calibration of Equipment Used for Measurement

All test equipment and test accessories are calibrated on a regular basis. The maximum time between calibrations is one year or the manufacturers' recommendation, whichever is less.

All test equipment calibrations are traceable to the National Institute of Standards and Technology (NIST); therefore, all test data recorded in this report is traceable to NIST.

## 4.0 EMISSIONS TEST RESULTS

The emissions tests were performed according to following regulations:

---------- United States ----------

| | |
|---|---|
| Code of Federal Regulations Title 47 | Part 15, Radio Frequency Devices |

Unless specified otherwise in the individual Methods, the tests shall be conducted under the following ambient conditions. Confirmation of these conditions shall be verified at the time the test is conducted.

| | | | | | |
|---|---|---|---|---|---|
| Ambient Temperature, °C | 22.5 ± 2.5 | Relative Humidity, % | 45 ± 15 | Barometric Pressure, mBar | 950 ± 150 |

### 4.1 Test Conditions and Results – Mains Terminal – Conducted Emissions

| | | | |
|---|---|---|---|
| Test Description | Measurements were made on a ground plane. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN. | | |
| Basic Standard | | FCC Part 15, Subpart C, 15.207 | |
| UL LPG | | 80-EM-S0026 | |
| | | Frequency range on each side of line | Measurement Point |
| Fully configured sample scanned over the following frequency range | | 150kHz to 30MHz | Mains |
| **Limits** | | | |
| Frequency (MHz) | Limit (dBµV) | | |
| | Quasi-Peak | | Average |
| 0.15-0.5 | 66 to 56 | | 56 to 46 |
| 0.5-5 | 56 | | 46 |
| 5-30 | 60 | | 50 |
| Supplementary information: None | | | |

**Table 1 Conducted Emissions EUT Configuration Settings**

| Power Interface Mode # | EUT Configurations Mode # | EUT Operation Mode # |
|---|---|---|
| 1 | 1 | 1-6 |
| Supplementary information: None | | |

**Table 2 Conducted Emissions Test Equipment**

| Test Equipment Used | | | |
|---|---|---|---|
| Description | Manufacturer | Model | Identifier |
| Conducted Emissions – GP 1 | | | |
| Spectrum Analyzer | Agilent | E7402A | ME5B-123 |
| LISN | Solar | 9252-50-R-24-BNC | ME5A-636 |
| LISN | EMCO | 3825/2R | ME5-790 |
| Switch Driver | HP | 11713A | 44397 |
| RF Switch Box | UL | 4 | 44404 |
| Measurement Software | UL | Version 9.3 | 44736 |
| Temp/Humidity/ Pressure Meter | Cole Parmer | 99760-00 | 43734 |

**Figure 1 Test Setup for Conducted Emissions**

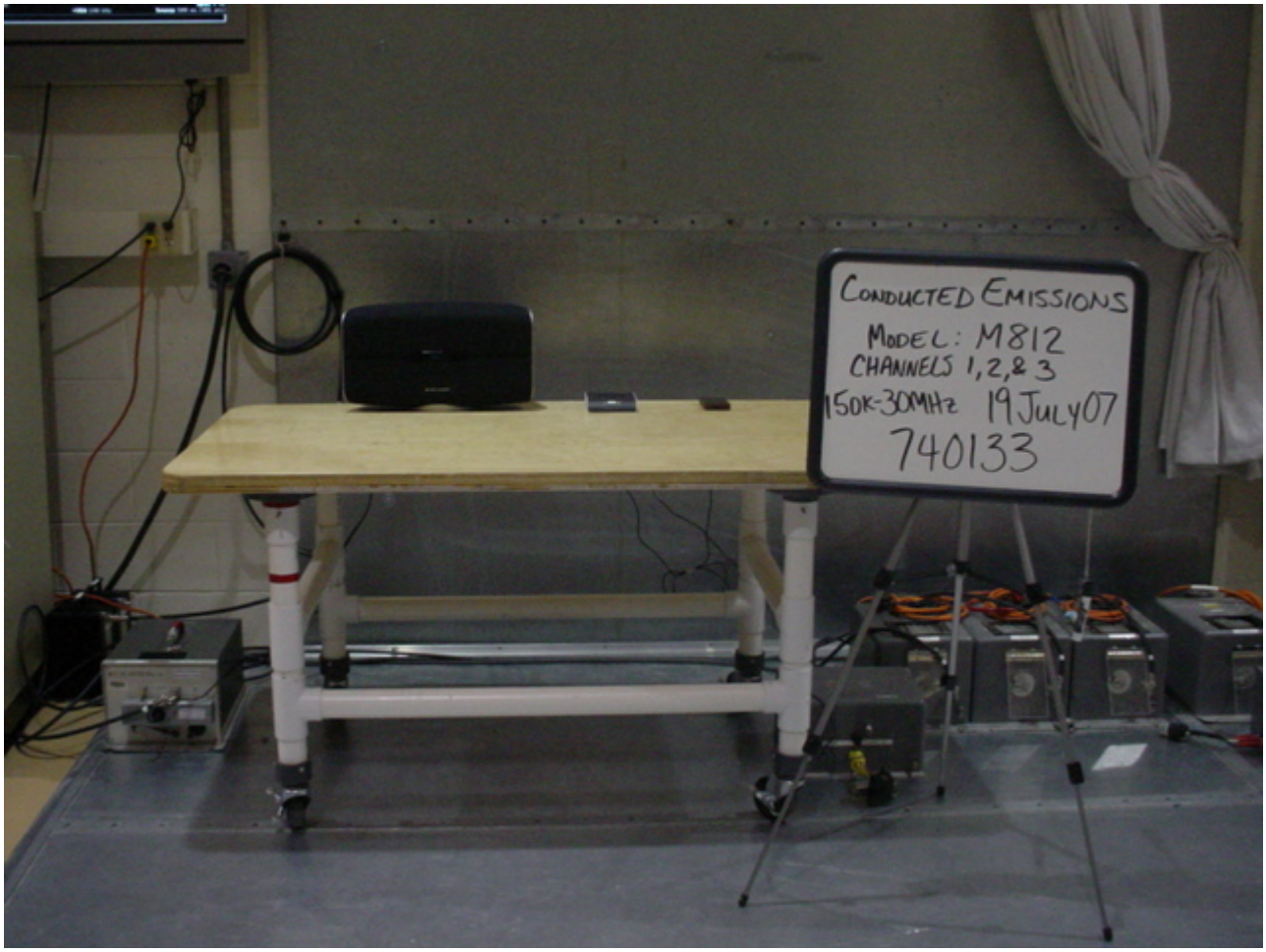


**Figure 2 Conducted Emissions Graph**

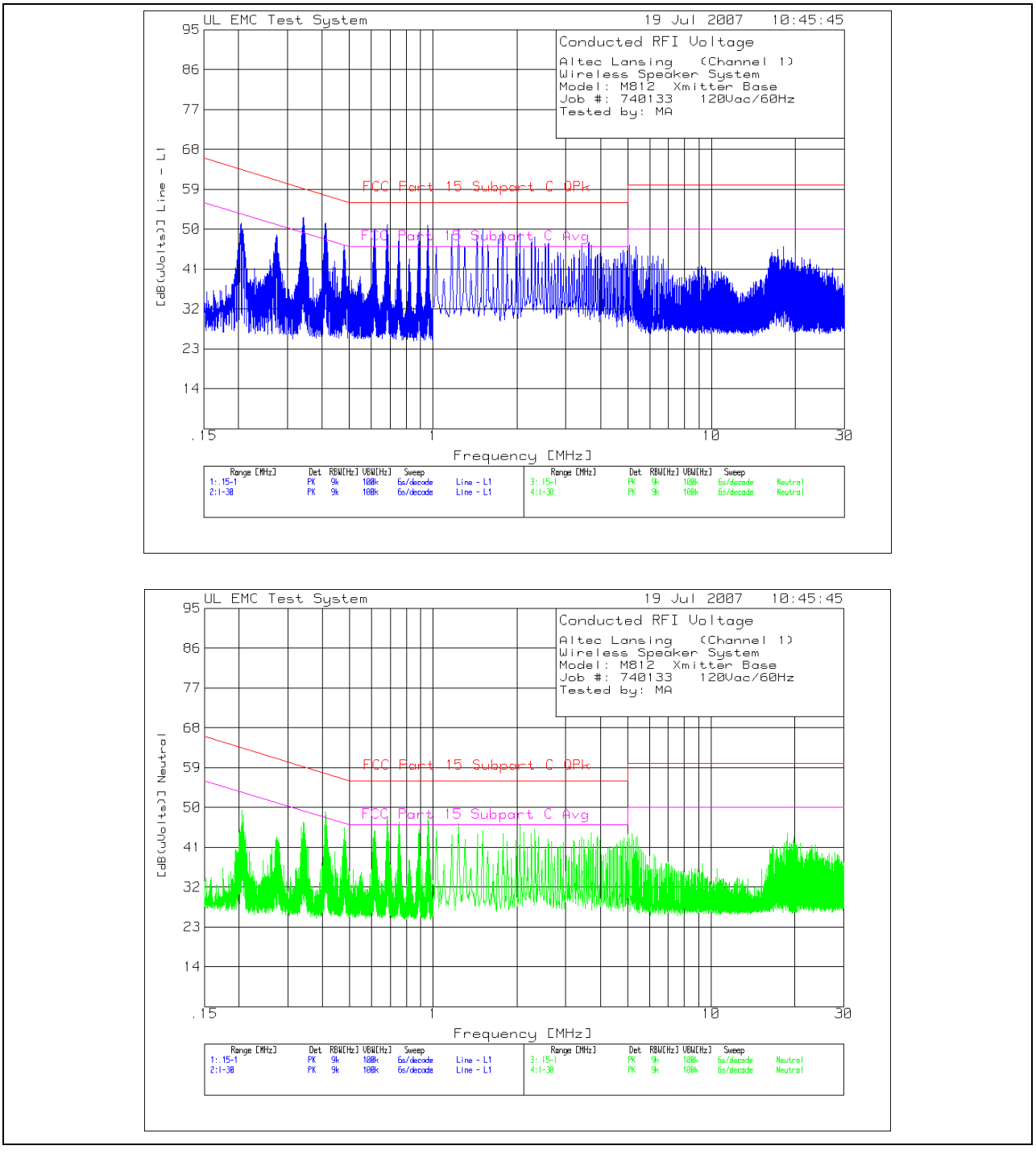


**Table 3 Conducted Emissions Data Points**

Altec Lansing (Channel 1)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | | |
| 1 | .95887 | 40.59 pk | 10.3 | 0 | 50.89 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -5.11 | 4.89 | - | - | - | - |
| 2 | .88911 | 38.97 pk | 10.3 | 0 | 49.27 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.73 | 3.27 | - | - | - | - |
| 3 | .82254 | 32.94 pk | 10.4 | 0 | 43.34 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.66 | -2.66 | - | - | - | - |
| 4 | .75278 | 37.12 pk | 10.4 | 0 | 47.52 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.48 | 1.52 | - | - | - | - |
| 5 | .68366 | 40.58 pk | 10.4 | 0 | 50.98 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -5.02 | 4.98 | - | - | - | - |
| 6 | .61645 | 39.49 pk | 10.4 | 0 | 49.89 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.11 | 3.89 | - | - | - | - |
| 7 | .47906 | 35.92 pk | 10.5 | 0 | 46.42 | 56.4 | 46.4 | - | - | - | - |
| | | | | Margin [dB] | | -9.98 | .02 | - | - | - | - |
| 8 | .41185 | 40.73 pk | 10.6 | 0 | 51.33 | 57.6 | 47.6 | - | - | - | - |
| | | | | Margin [dB] | | -6.27 | 3.73 | - | - | - | - |
| 9 | .34252 | 42.05 pk | 10.7 | 0 | 52.75 | 59.1 | 49.1 | - | - | - | - |
| | | | | Margin [dB] | | -6.35 | 3.65 | - | - | - | - |
| 10 | .27403 | 37.8 pk | 10.9 | 0 | 48.7 | 61 | 51 | - | - | - | - |
| | | | | Margin [dB] | | -12.3 | -2.3 | - | - | - | - |
| 11 | .20555 | 39.92 pk | 11.4 | 0 | 51.32 | 63.4 | 53.4 | - | - | - | - |
| | | | | Margin [dB] | | -12.08 | -2.08 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | | |
| 12 | 1.23148 | 39.62 pk | 10.3 | 0 | 49.92 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.08 | 3.92 | - | - | - | - |
| 13 | 1.50636 | 39.53 pk | 10.3 | 0 | 49.83 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.17 | 3.83 | - | - | - | - |
| 14 | 1.77401 | 39.28 pk | 10.3 | 0 | 49.58 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.42 | 3.58 | - | - | - | - |
| 15 | 2.32377 | 37.75 pk | 10.4 | 0 | 48.15 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.85 | 2.15 | - | - | - | - |
| 16 | 2.59865 | 36.55 pk | 10.4 | 0 | 46.95 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.05 | .95 | - | - | - | - |
| 17 | 3.62584 | 36.62 pk | 10.4 | 0 | 47.02 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.98 | 1.02 | - | - | - | - |
| 18 | 4.79771 | 34.82 pk | 10.5 | 0 | 45.32 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.68 | -.68 | - | - | - | - |
| Neutral .15 - 1MHz | | | | | | | | | | | |
| 19 | .9559 | 37.54 pk | 10.3 | 0 | 47.84 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.16 | 1.84 | - | - | - | - |
| 20 | .88954 | 34.68 pk | 10.3 | 0 | 44.98 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.02 | -1.02 | - | - | - | - |
| 21 | .75278 | 36.3 pk | 10.4 | 0 | 46.7 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.3 | .7 | - | - | - | - |
| 22 | .68557 | 37.7 pk | 10.4 | 0 | 48.1 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.9 | 2.1 | - | - | - | - |
| 23 | .61592 | 34.36 pk | 10.4 | 0 | 44.76 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.24 | -1.24 | - | - | - | - |
| 24 | .47906 | 34.96 pk | 10.5 | 0 | 45.46 | 56.4 | 46.4 | - | - | - | - |
| | | | | Margin [dB] | | -10.94 | -.94 | - | - | - | - |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | .41015 | 38.48 pk | 10.6 | 0 | 49.08 | 57.6 | 47.6 | - | - | - | - |
| | | | | Margin [dB] | | -8.52 | 1.48 | - | - | - | - |
| 26 | .34146 | 36.04 pk | 10.7 | 0 | 46.74 | 59.2 | 49.2 | - | - | - | - |
| | | | | Margin [dB] | | -12.46 | -2.46 | - | - | - | - |
| 27 | .27467 | 32.48 pk | 10.9 | 0 | 43.38 | 61 | 51 | - | - | - | - |
| | | | | Margin [dB] | | -17.62 | -7.62 | - | - | - | - |
| 28 | .20449 | 37.91 pk | 11.4 | 0 | 49.31 | 63.4 | 53.4 | - | - | - | - |
| | | | | Margin [dB] | | -14.09 | -4.09 | - | - | - | - |
| Neutral 1 - 30MHz ---------- | | | | | | | | | | | |
| 29 | 1.02894 | 34.37 pk | 10.3 | 0 | 44.67 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.33 | -1.33 | - | - | - | - |
| 30 | 1.23148 | 36.06 pk | 10.3 | 0 | 46.36 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.64 | .36 | - | - | - | - |
| 31 | 1.50636 | 34.49 pk | 10.3 | 0 | 44.79 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.21 | -1.21 | - | - | - | - |
| 32 | 2.04889 | 35.84 pk | 10.4 | 0 | 46.24 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.76 | .24 | - | - | - | - |
| 33 | 3.69095 | 33.81 pk | 10.4 | 0 | 44.21 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.79 | -1.79 | - | - | - | - |
| 34 | 5.00025 | 33.41 pk | 10.5 | 0 | 43.91 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -16.09 | -6.09 | - | - | - | - |

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Altec Lansing (Channel 1)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .4161 | 38.11 qp | 10.6 | 0 | 48.71 | 57.5 | 47.5 | - | - | - | - |
| | | | Margin [dB]: | | -8.79 | 1.21 | - | - | - | - |
| .45323 | 34.83 qp | 10.5 | 0 | 45.33 | 56.8 | 46.8 | - | - | - | - |
| | | | Margin [dB]: | | -11.47 | -1.47 | - | - | - | - |
| .44423 | 40.42 qp | 10.5 | 0 | 50.92 | 57 | 47 | - | - | - | - |
| | | | Margin [dB]: | | -6.08 | 3.92 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

Altec Lansing (Channel 1)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .95887 | 26.35 ave | 10.3 | 0 | 36.65 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.35 | -9.35 | - | - | - | - |
| .88911 | 25.38 ave | 10.3 | 0 | 35.68 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.32 | -10.32 | - | - | - | - |
| .82254 | 16.34 ave | 10.4 | 0 | 26.74 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.26 | -19.26 | - | - | - | - |
| .75278 | 23.2 ave | 10.4 | 0 | 33.6 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.4 | -12.4 | - | - | - | - |
| .68366 | 26.7 ave | 10.4 | 0 | 37.1 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -18.9 | -8.9 | - | - | - | - |
| .61645 | 25.62 ave | 10.4 | 0 | 36.02 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.98 | -9.98 | - | - | - | - |
| .47906 | 22.75 ave | 10.5 | 0 | 33.25 | 56.4 | 46.4 | - | - | - | - |
| | | | Margin [dB]: | | -23.15 | -13.15 | - | - | - | - |
| .41185 | 27.26 ave | 10.6 | 0 | 37.86 | 57.6 | 47.6 | - | - | - | - |
| | | | Margin [dB]: | | -19.74 | -9.74 | - | - | - | - |
| .34252 | 27.3 ave | 10.7 | 0 | 38 | 59.1 | 49.1 | - | - | - | - |
| | | | Margin [dB]: | | -21.1 | -11.1 | - | - | - | - |
| .27403 | 21.07 ave | 10.9 | 0 | 31.97 | 61 | 51 | - | - | - | - |
| | | | Margin [dB]: | | -29.03 | -19.03 | - | - | - | - |
| .20555 | 25.53 ave | 11.4 | 0 | 36.93 | 63.4 | 53.4 | - | - | - | - |
| | | | Margin [dB]: | | -26.47 | -16.47 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | |
| 1.23148 | 25.77 ave | 10.3 | 0 | 36.07 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.93 | -9.93 | - | - | - | - |
| 1.50636 | 24.83 ave | 10.3 | 0 | 35.13 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.87 | -10.87 | - | - | - | - |
| 1.77401 | 24.22 ave | 10.3 | 0 | 34.52 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.48 | -11.48 | - | - | - | - |
| 2.32377 | 25.14 ave | 10.4 | 0 | 35.54 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.46 | -10.46 | - | - | - | - |
| 2.59865 | 24.35 ave | 10.4 | 0 | 34.75 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.25 | -11.25 | - | - | - | - |
| 3.62584 | 24.39 ave | 10.4 | 0 | 34.79 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.21 | -11.21 | - | - | - | - |
| 4.79771 | 22.67 ave | 10.5 | 0 | 33.17 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.83 | -12.83 | - | - | - | - |
| Neutral .15 - 1MHz | | | | | | | | | | |
| .9559 | 17.59 ave | 10.3 | 0 | 27.89 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -28.11 | -18.11 | - | - | - | - |
| .88954 | 15.33 ave | 10.3 | 0 | 25.63 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.37 | -20.37 | - | - | - | - |
| .75278 | 16.01 ave | 10.4 | 0 | 26.41 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.59 | -19.59 | - | - | - | - |
| .68557 | 17.73 ave | 10.4 | 0 | 28.13 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -27.87 | -17.87 | - | - | - | - |
| .61592 | 15.95 ave | 10.4 | 0 | 26.35 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.65 | -19.65 | - | - | - | - |
| .47906 | 15.05 ave | 10.5 | 0 | 25.55 | 56.4 | 46.4 | - | - | - | - |
| | | | Margin [dB]: | | -30.85 | -20.85 | - | - | - | - |
| .41015 | 18.38 ave | 10.6 | 0 | 28.98 | 57.6 | 47.6 | - | - | - | - |
| | | | Margin [dB]: | | -28.62 | -18.62 | - | - | - | - |
| .34146 | 17.98 ave | 10.7 | 0 | 28.68 | 59.2 | 49.2 | - | - | - | - |
| | | | Margin [dB]: | | -30.52 | -20.52 | - | - | - | - |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| .27467 | 14.35 ave | 10.9 | 0 | 25.25 | 61 | 51 | - | - | - | - |
| | | | Margin [dB]: | | -35.75 | -25.75 | - | - | - | - |
| .20449 | 16.98 ave | 11.4 | 0 | 28.38 | 63.4 | 53.4 | - | - | - | - |
| | | | Margin [dB]: | | -35.02 | -25.02 | - | - | - | - |
| Neutral 1 - 30MHz | | | | | | | | | | |
| 1.0299 | 15.44 ave | 10.3 | 0 | 25.74 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.26 | -20.26 | - | - | - | - |
| 1.23148 | 16.78 ave | 10.3 | 0 | 27.08 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -28.92 | -18.92 | - | - | - | - |
| 1.50636 | 15.93 ave | 10.3 | 0 | 26.23 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.77 | -19.77 | - | - | - | - |
| 2.04889 | 15.56 ave | 10.4 | 0 | 25.96 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.04 | -20.04 | - | - | - | - |
| 3.69095 | 16.1 ave | 10.4 | 0 | 26.5 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.5 | -19.5 | - | - | - | - |
| 5.00025 | 12.14 ave | 10.5 | 0 | 22.64 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -37.36 | -27.36 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

**Figure 3 Conducted Emissions Graph**

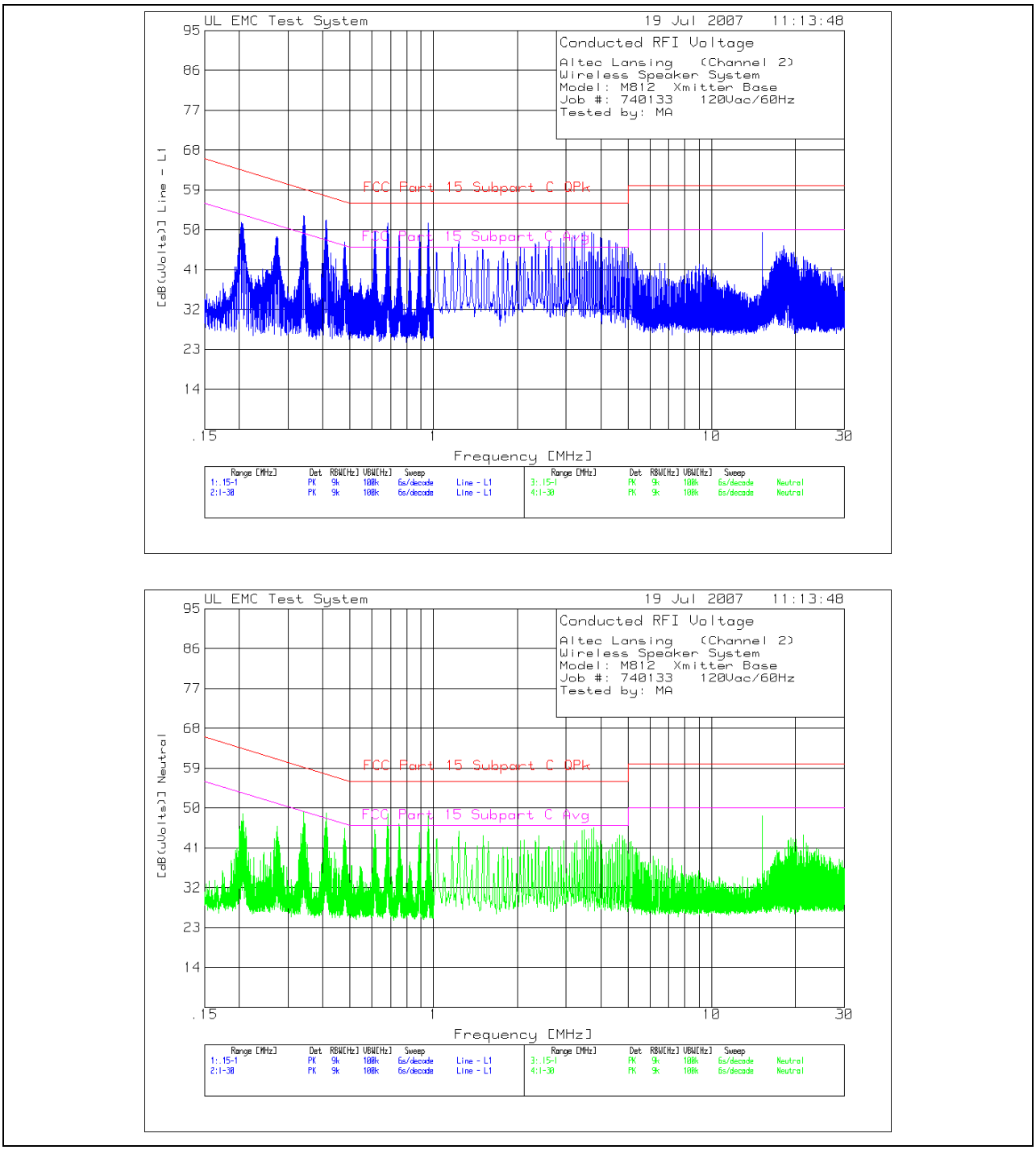


**Table 4 Conducted Emissions Data Points**

Altec Lansing (Channel 2)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | | |
| 1 | .9576 | 41.24 pk | 10.3 | 0 | 51.54 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -4.46 | 5.54 | - | - | - | - |
| 2 | .88975 | 38.6 pk | 10.3 | 0 | 48.9 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.1 | 2.9 | - | - | - | - |
| 3 | .82084 | 32.64 pk | 10.4 | 0 | 43.04 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.96 | -2.96 | - | - | - | - |
| 4 | .75257 | 38.24 pk | 10.4 | 0 | 48.64 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.36 | 2.64 | - | - | - | - |
| 5 | .68366 | 41.08 pk | 10.4 | 0 | 51.48 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -4.52 | 5.48 | - | - | - | - |
| 6 | .61497 | 39.3 pk | 10.4 | 0 | 49.7 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.3 | 3.7 | - | - | - | - |
| 7 | .47927 | 36.75 pk | 10.5 | 0 | 47.25 | 56.4 | 46.4 | - | - | - | - |
| | | | | Margin [dB] | | -9.15 | .85 | - | - | - | - |
| 8 | .41058 | 41.55 pk | 10.6 | 0 | 52.15 | 57.6 | 47.6 | - | - | - | - |
| | | | | Margin [dB] | | -5.45 | 4.55 | - | - | - | - |
| 9 | .34167 | 42.41 pk | 10.7 | 0 | 53.11 | 59.2 | 49.2 | - | - | - | - |
| | | | | Margin [dB] | | -6.09 | 3.91 | - | - | - | - |
| 10 | .27382 | 37.52 pk | 10.9 | 0 | 48.42 | 61 | 51 | - | - | - | - |
| | | | | Margin [dB] | | -12.58 | -2.58 | - | - | - | - |
| 11 | .20428 | 40.35 pk | 11.4 | 0 | 51.75 | 63.4 | 53.4 | - | - | - | - |
| | | | | Margin [dB] | | -11.65 | -1.65 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | | |
| 12 | 1.23148 | 37.12 pk | 10.3 | 0 | 47.42 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.58 | 1.42 | - | - | - | - |
| 13 | 1.49913 | 35.22 pk | 10.3 | 0 | 45.52 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.48 | -.48 | - | - | - | - |
| 14 | 1.78124 | 34.87 pk | 10.3 | 0 | 45.17 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.83 | -.83 | - | - | - | - |
| 15 | 2.04889 | 35.65 pk | 10.4 | 0 | 46.05 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.95 | .05 | - | - | - | - |
| 16 | 2.38888 | 36.84 pk | 10.4 | 0 | 47.24 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.76 | 1.24 | - | - | - | - |
| 17 | 2.87354 | 37.6 pk | 10.4 | 0 | 48 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8 | 2 | - | - | - | - |
| 18 | 3.48117 | 39.21 pk | 10.4 | 0 | 49.61 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.39 | 3.61 | - | - | - | - |
| 19 | 3.96583 | 37.8 pk | 10.4 | 0 | 48.2 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.8 | 2.2 | - | - | - | - |
| 20 | 4.51559 | 36.63 pk | 10.5 | 0 | 47.13 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.87 | 1.13 | - | - | - | - |
| 21 | 4.78324 | 35.65 pk | 10.5 | 0 | 46.15 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.85 | .15 | - | - | - | - |
| 22 | 15.21427 | 38.44 pk | 11 | 0 | 49.44 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -10.56 | -.56 | - | - | - | - |
| 23 | 18.06436 | 35.62 pk | 10.8 | 0 | 46.42 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -13.58 | -3.58 | - | - | - | - |
| 24 | 19.72811 | 33.97 pk | 10.9 | 0 | 44.87 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.13 | -5.13 | - | - | - | - |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Neutral .15 - 1MHz ---------- | | | | | | | | | | |
| 25 | .95823 | 38 pk | 10.3 | 0 | 48.3 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -7.7 | 2.3 | - | - | - |
| 26 | .8889 | 34.2 pk | 10.3 | 0 | 44.5 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -11.5 | -1.5 | - | - | - |
| 27 | .75109 | 35.94 pk | 10.4 | 0 | 46.34 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -9.66 | .34 | - | - | - |
| 28 | .68387 | 38.38 pk | 10.4 | 0 | 48.78 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -7.22 | 2.78 | - | - | - |
| 29 | .61454 | 34.76 pk | 10.4 | 0 | 45.16 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -10.84 | -.84 | - | - | - |
| 30 | .47906 | 34.94 pk | 10.5 | 0 | 45.44 | 56.4 | 46.4 | - | - | - |
| | | | | Margin [dB] | | -10.96 | -.96 | - | - | - |
| 31 | .41121 | 38.23 pk | 10.6 | 0 | 48.83 | 57.6 | 47.6 | - | - | - |
| | | | | Margin [dB] | | -8.77 | 1.23 | - | - | - |
| 32 | .34125 | 38.34 pk | 10.7 | 0 | 49.04 | 59.2 | 49.2 | - | - | - |
| | | | | Margin [dB] | | -10.16 | -.16 | - | - | - |
| 33 | .20576 | 37.34 pk | 11.4 | 0 | 48.74 | 63.4 | 53.4 | - | - | - |
| | | | | Margin [dB] | | -14.66 | -4.66 | - | - | - |
| Neutral 1 - 30MHz ---------- | | | | | | | | | | |
| 34 | 1.02894 | 32.84 pk | 10.3 | 0 | 43.14 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -12.86 | -2.86 | - | - | - |
| 35 | 1.23148 | 34.42 pk | 10.3 | 0 | 44.72 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -11.28 | -1.28 | - | - | - |
| 36 | 1.77401 | 30.89 pk | 10.3 | 0 | 41.19 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -14.81 | -4.81 | - | - | - |
| 37 | 2.38888 | 33.38 pk | 10.4 | 0 | 43.78 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -12.22 | -2.22 | - | - | - |
| 38 | 3.21352 | 31.74 pk | 10.4 | 0 | 42.14 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -13.86 | -3.86 | - | - | - |
| 39 | 4.58069 | 32.62 pk | 10.4 | 0 | 43.02 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -12.98 | -2.98 | - | - | - |
| 40 | 4.92068 | 31.48 pk | 10.5 | 0 | 41.98 | 56 | 46 | - | - | - |
| | | | | Margin [dB] | | -14.02 | -4.02 | - | - | - |
| 41 | 15.2215 | 37.34 pk | 10.9 | 0 | 48.24 | 60 | 50 | - | - | - |
| | | | | Margin [dB] | | -11.76 | -1.76 | - | - | - |
| 42 | 18.889 | 31.95 pk | 10.8 | 0 | 42.75 | 60 | 50 | - | - | - |
| | | | | Margin [dB] | | -17.25 | -7.25 | - | - | - |
| 43 | 21.37017 | 32.57 pk | 11.3 | 0 | 43.87 | 60 | 50 | - | - | - |
| | | | | Margin [dB] | | -16.13 | -6.13 | - | - | - |

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Altec Lansing (Channel 2)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .95775 | 38.04 qp | 10.3 | 0 | 48.34 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -7.66 | 2.34 | - | - | - | - |
| .68438 | 38.16 qp | 10.4 | 0 | 48.56 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -7.44 | 2.56 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

Altec Lansing (Channel 2)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .9576 | 26.48 ave | 10.3 | 0 | 36.78 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.22 | -9.22 | - | - | - | - |
| .88975 | 24.6 ave | 10.3 | 0 | 34.9 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.1 | -11.1 | - | - | - | - |
| .82084 | 15.17 ave | 10.4 | 0 | 25.57 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.43 | -20.43 | - | - | - | - |
| .75257 | 24.04 ave | 10.4 | 0 | 34.44 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.56 | -11.56 | - | - | - | - |
| .68366 | 26.32 ave | 10.4 | 0 | 36.72 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.28 | -9.28 | - | - | - | - |
| .61497 | 25.15 ave | 10.4 | 0 | 35.55 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.45 | -10.45 | - | - | - | - |
| .47927 | 23.13 ave | 10.5 | 0 | 33.63 | 56.4 | 46.4 | - | - | - | - |
| | | | Margin [dB]: | | -22.77 | -12.77 | - | - | - | - |
| .41058 | 27.01 ave | 10.6 | 0 | 37.61 | 57.6 | 47.6 | - | - | - | - |
| | | | Margin [dB]: | | -19.99 | -9.99 | - | - | - | - |
| .34167 | 27.11 ave | 10.7 | 0 | 37.81 | 59.2 | 49.2 | - | - | - | - |
| | | | Margin [dB]: | | -21.39 | -11.39 | - | - | - | - |
| .27382 | 21.32 ave | 10.9 | 0 | 32.22 | 61 | 51 | - | - | - | - |
| | | | Margin [dB]: | | -28.78 | -18.78 | - | - | - | - |
| .20428 | 25.52 ave | 11.4 | 0 | 36.92 | 63.4 | 53.4 | - | - | - | - |
| | | | Margin [dB]: | | -26.48 | -16.48 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | |
| 1.23148 | 25.79 ave | 10.3 | 0 | 36.09 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.91 | -9.91 | - | - | - | - |
| 1.49913 | 24.84 ave | 10.3 | 0 | 35.14 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.86 | -10.86 | - | - | - | - |
| 1.78124 | 24 ave | 10.3 | 0 | 34.3 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.7 | -11.7 | - | - | - | - |
| 2.04889 | 24.77 ave | 10.4 | 0 | 35.17 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.83 | -10.83 | - | - | - | - |
| 2.38888 | 23.28 ave | 10.4 | 0 | 33.68 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.32 | -12.32 | - | - | - | - |
| 2.87354 | 22.57 ave | 10.4 | 0 | 32.97 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -23.03 | -13.03 | - | - | - | - |
| 3.48117 | 23.41 ave | 10.4 | 0 | 33.81 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.19 | -12.19 | - | - | - | - |
| 3.96583 | 22.74 ave | 10.4 | 0 | 33.14 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.86 | -12.86 | - | - | - | - |
| 4.51559 | 22.68 ave | 10.5 | 0 | 33.18 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.82 | -12.82 | - | - | - | - |
| 4.78324 | 23.15 ave | 10.5 | 0 | 33.65 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.35 | -12.35 | - | - | - | - |
| 15.21427 | 28.35 ave | 11 | 0 | 39.35 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -20.65 | -10.65 | - | - | - | - |
| 18.06436 | 15.23 ave | 10.8 | 0 | 26.03 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -33.97 | -23.97 | - | - | - | - |
| 19.72811 | 10.76 ave | 10.9 | 0 | 21.66 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -38.34 | -28.34 | - | - | - | - |
| Neutral .15 - 1MHz | | | | | | | | | | |
| .95823 | 17.5 ave | 10.3 | 0 | 27.8 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -28.2 | -18.2 | - | - | - | - |
| .8889 | 15.13 ave | 10.3 | 0 | 25.43 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.57 | -20.57 | - | - | - | - |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| .75109 | 16.24 ave | 10.4 | 0 | 26.64 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.36 | -19.36 | - | - | - | - |
| .68387 | 17.66 ave | 10.4 | 0 | 28.06 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -27.94 | -17.94 | - | - | - | - |
| .61454 | 15.7 ave | 10.4 | 0 | 26.1 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.9 | -19.9 | - | - | - | - |
| .47906 | 15.32 ave | 10.5 | 0 | 25.82 | 56.4 | 46.4 | - | - | - | - |
| | | | Margin [dB]: | | -30.58 | -20.58 | - | - | - | - |
| .41121 | 18.47 ave | 10.6 | 0 | 29.07 | 57.6 | 47.6 | - | - | - | - |
| | | | Margin [dB]: | | -28.53 | -18.53 | - | - | - | - |
| .34125 | 17.62 ave | 10.7 | 0 | 28.32 | 59.2 | 49.2 | - | - | - | - |
| | | | Margin [dB]: | | -30.88 | -20.88 | - | - | - | - |
| .20576 | 17.02 ave | 11.4 | 0 | 28.42 | 63.4 | 53.4 | - | - | - | - |
| | | | Margin [dB]: | | -34.98 | -24.98 | - | - | - | - |
| Neutral 1 - 30MHz | | | | | | | | | | |
| 1.0299 | 15.68 ave | 10.3 | 0 | 25.98 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.02 | -20.02 | - | - | - | - |
| 1.23148 | 16.72 ave | 10.3 | 0 | 27.02 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -28.98 | -18.98 | - | - | - | - |
| 1.77401 | 14.79 ave | 10.3 | 0 | 25.09 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.91 | -20.91 | - | - | - | - |
| 2.38888 | 15.61 ave | 10.4 | 0 | 26.01 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.99 | -19.99 | - | - | - | - |
| 3.21352 | 14.84 ave | 10.4 | 0 | 25.24 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.76 | -20.76 | - | - | - | - |
| 4.58069 | 15.35 ave | 10.4 | 0 | 25.75 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.25 | -20.25 | - | - | - | - |
| 4.92068 | 12.94 ave | 10.5 | 0 | 23.44 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -32.56 | -22.56 | - | - | - | - |
| 15.2215 | 34.73 ave | 10.9 | 0 | 45.63 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -14.37 | -4.37 | - | - | - | - |
| 18.889 | 6.17 ave | 10.8 | 0 | 16.97 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -43.03 | -33.03 | - | - | - | - |
| 21.37017 | 5.26 ave | 11.3 | 0 | 16.56 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -43.44 | -33.44 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

**Figure 4 Conducted Emissions Graph**

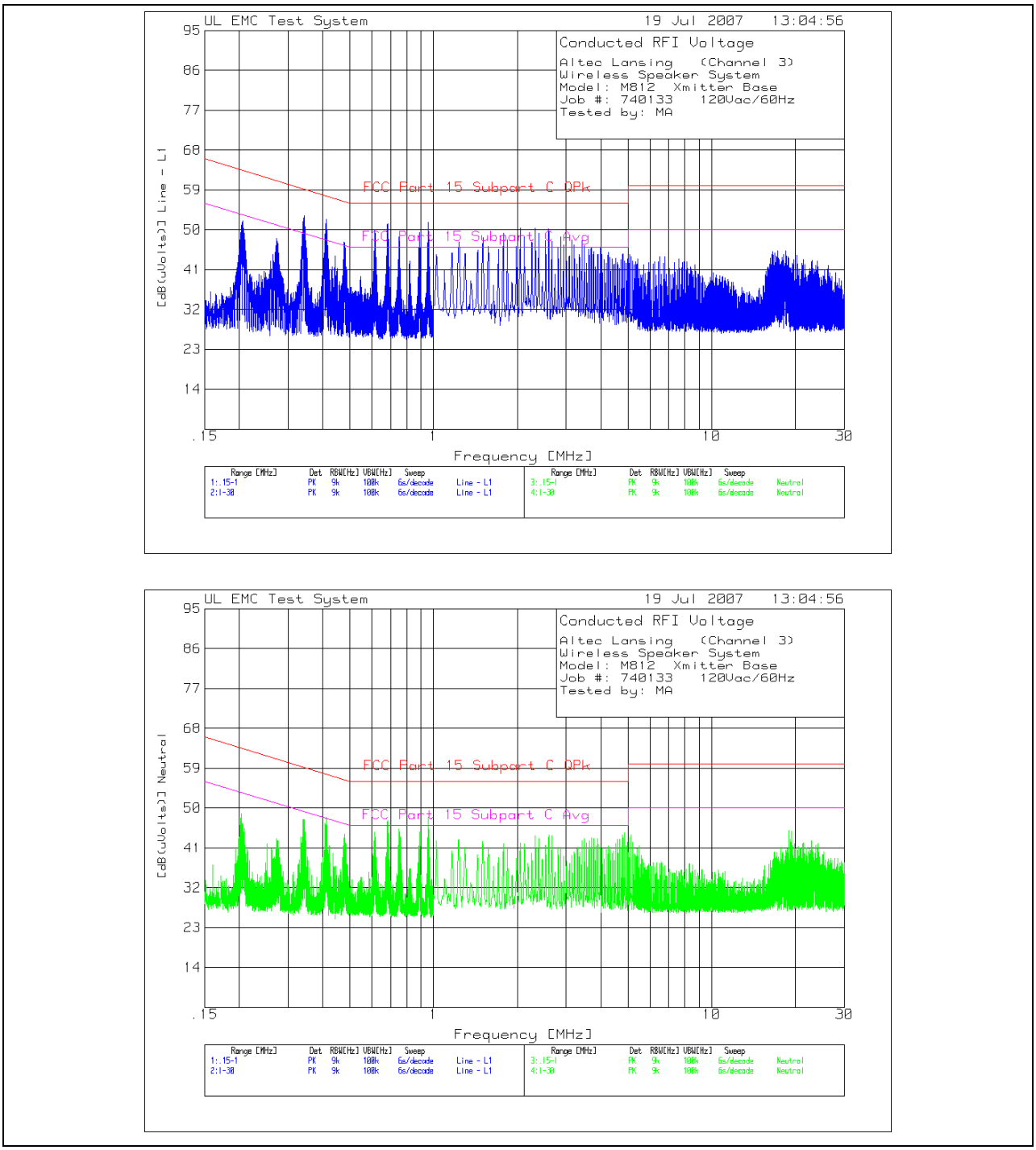


**Table 5 Conducted Emissions Data Points**

Altec Lansing (Channel 3)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | | |
| 1 | .95802 | 41.47 pk | 10.3 | 0 | 51.77 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -4.23 | 5.77 | - | - | - | - |
| 2 | .88932 | 39.06 pk | 10.3 | 0 | 49.36 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.64 | 3.36 | - | - | - | - |
| 3 | .82042 | 32.48 pk | 10.4 | 0 | 42.88 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -13.12 | -3.12 | - | - | - | - |
| 4 | .75109 | 37.54 pk | 10.4 | 0 | 47.94 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.06 | 1.94 | - | - | - | - |
| 5 | .68409 | 40.91 pk | 10.4 | 0 | 51.31 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -4.69 | 5.31 | - | - | - | - |
| 6 | .61475 | 39.59 pk | 10.4 | 0 | 49.99 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.01 | 3.99 | - | - | - | - |
| 7 | .47715 | 36.7 pk | 10.5 | 0 | 47.2 | 56.4 | 46.4 | - | - | - | - |
| | | | | Margin [dB] | | -9.2 | .8 | - | - | - | - |
| 8 | .41058 | 41.75 pk | 10.6 | 0 | 52.35 | 57.6 | 47.6 | - | - | - | - |
| | | | | Margin [dB] | | -5.25 | 4.75 | - | - | - | - |
| 9 | .34252 | 42.51 pk | 10.7 | 0 | 53.21 | 59.1 | 49.1 | - | - | - | - |
| | | | | Margin [dB] | | -5.89 | 4.11 | - | - | - | - |
| 10 | .27234 | 37.12 pk | 10.9 | 0 | 48.02 | 61 | 51 | - | - | - | - |
| | | | | Margin [dB] | | -12.98 | -2.98 | - | - | - | - |
| 11 | .20576 | 40.55 pk | 11.4 | 0 | 51.95 | 63.4 | 53.4 | - | - | - | - |
| | | | | Margin [dB] | | -11.45 | -1.45 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | | |
| 12 | 1.23148 | 37.01 pk | 10.3 | 0 | 47.31 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.69 | 1.31 | - | - | - | - |
| 13 | 1.0217 | 34.16 pk | 10.3 | 0 | 44.46 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.54 | -1.54 | - | - | - | - |
| 14 | 1.50636 | 37.88 pk | 10.3 | 0 | 48.18 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.82 | 2.18 | - | - | - | - |
| 15 | 1.78124 | 38.89 pk | 10.3 | 0 | 49.19 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.81 | 3.19 | - | - | - | - |
| 16 | 2.04889 | 40.01 pk | 10.4 | 0 | 50.41 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -5.59 | 4.41 | - | - | - | - |
| 17 | 2.25143 | 36.8 pk | 10.4 | 0 | 47.2 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.8 | 1.2 | - | - | - | - |
| 18 | 2.32377 | 40.04 pk | 10.4 | 0 | 50.44 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -5.56 | 4.44 | - | - | - | - |
| 19 | 2.59142 | 39.84 pk | 10.4 | 0 | 50.24 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -5.76 | 4.24 | - | - | - | - |
| 20 | 2.8663 | 38.03 pk | 10.4 | 0 | 48.43 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.57 | 2.43 | - | - | - | - |
| 21 | 4.24071 | 34.35 pk | 10.5 | 0 | 44.85 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.15 | -1.15 | - | - | - | - |
| 22 | 3.41606 | 37.16 pk | 10.4 | 0 | 47.56 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.44 | 1.56 | - | - | - | - |
| 23 | 3.96583 | 35.6 pk | 10.4 | 0 | 46 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10 | 0 | - | - | - | - |
| 24 | 4.79047 | 34.02 pk | 10.5 | 0 | 44.52 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.48 | -1.48 | - | - | - | - |
| 25 | 16.55251 | 34.26 pk | 10.9 | 0 | 45.16 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -14.84 | -4.84 | - | - | - | - |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Neutral .15 - 1MHz ---------- | | | | | | | | | | | |
| 26 | .20428 | 37.31 pk | 11.4 | 0 | 48.71 | 63.4 | 53.4 | - | - | - | - |
| | | | | Margin [dB] | | -14.69 | -4.69 | - | - | - | - |
| 27 | .27319 | 32.27 pk | 10.9 | 0 | 43.17 | 61 | 51 | - | - | - | - |
| | | | | Margin [dB] | | -17.83 | -7.83 | - | - | - | - |
| 28 | .33849 | 36.63 pk | 10.7 | 0 | 47.33 | 59.2 | 49.2 | - | - | - | - |
| | | | | Margin [dB] | | -11.87 | -1.87 | - | - | - | - |
| 29 | .41121 | 37.23 pk | 10.6 | 0 | 47.83 | 57.6 | 47.6 | - | - | - | - |
| | | | | Margin [dB] | | -9.77 | .23 | - | - | - | - |
| 30 | .48012 | 33.65 pk | 10.5 | 0 | 44.15 | 56.3 | 46.3 | - | - | - | - |
| | | | | Margin [dB] | | -12.15 | -2.15 | - | - | - | - |
| 31 | .61603 | 34.18 pk | 10.4 | 0 | 44.58 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.42 | -1.42 | - | - | - | - |
| 32 | .68578 | 36.88 pk | 10.4 | 0 | 47.28 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.72 | 1.28 | - | - | - | - |
| 33 | .75193 | 34.86 pk | 10.4 | 0 | 45.26 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.74 | -.74 | - | - | - | - |
| 34 | .88742 | 34.36 pk | 10.3 | 0 | 44.66 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.34 | -1.34 | - | - | - | - |
| 35 | .95781 | 37.55 pk | 10.3 | 0 | 47.85 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.15 | 1.85 | - | - | - | - |
| Neutral 1 - 30MHz ---------- | | | | | | | | | | | |
| 36 | 1.0217 | 32.25 pk | 10.3 | 0 | 42.55 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -13.45 | -3.45 | - | - | - | - |
| 37 | 1.23148 | 32.58 pk | 10.3 | 0 | 42.88 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -13.12 | -3.12 | - | - | - | - |
| 38 | 1.49913 | 32.12 pk | 10.3 | 0 | 42.42 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -13.58 | -3.58 | - | - | - | - |
| 39 | 2.04889 | 31.74 pk | 10.4 | 0 | 42.14 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -13.86 | -3.86 | - | - | - | - |
| 40 | 2.59865 | 33.51 pk | 10.4 | 0 | 43.91 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.09 | -2.09 | - | - | - | - |
| 41 | 3.4884 | 32.65 pk | 10.4 | 0 | 43.05 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.95 | -2.95 | - | - | - | - |
| 42 | 4.78324 | 33.52 pk | 10.4 | 0 | 43.92 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.08 | -2.08 | - | - | - | - |
| 43 | 18.88177 | 34.08 pk | 10.8 | 0 | 44.88 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.12 | -5.12 | - | - | - | - |

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Altec Lansing (Channel 3)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .9574 | 38.52 qp | 10.3 | 0 | 48.82 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -7.18 | 2.82 | - | - | - | - |
| .68411 | 38.67 qp | 10.4 | 0 | 49.07 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -6.93 | 3.07 | - | - | - | - |
| .41006 | 39.07 qp | 10.6 | 0 | 49.67 | 57.6 | 47.6 | - | - | - | - |
| | | | Margin [dB]: | | -7.93 | 2.07 | - | - | - | - |
| .34189 | 40.02 qp | 10.7 | 0 | 50.72 | 59.2 | 49.2 | - | - | - | - |
| | | | Margin [dB]: | | -8.48 | 1.52 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | |
| 2.05143 | 37.56 qp | 10.4 | 0 | 47.96 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -8.04 | 1.96 | - | - | - | - |
| 2.32452 | 37.56 qp | 10.4 | 0 | 47.96 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -8.04 | 1.96 | - | - | - | - |
| 2.5989 | 37.36 qp | 10.4 | 0 | 47.76 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -8.24 | 1.76 | - | - | | |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

Altec Lansing (Channel 3)
Wireless Speaker System
Model: M812 Xmitter Base
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .95802 | 26.67 ave | 10.3 | 0 | 36.97 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.03 | -9.03 | - | - | - | - |
| .88932 | 24.87 ave | 10.3 | 0 | 35.17 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.83 | -10.83 | - | - | - | - |
| .82042 | 15.12 ave | 10.4 | 0 | 25.52 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.48 | -20.48 | - | - | - | - |
| .75109 | 24.06 ave | 10.4 | 0 | 34.46 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.54 | -11.54 | - | - | - | - |
| .68409 | 26.91 ave | 10.4 | 0 | 37.31 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -18.69 | -8.69 | - | - | - | - |
| .61475 | 25.6 ave | 10.4 | 0 | 36 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20 | -10 | - | - | - | - |
| .47715 | 23.15 ave | 10.5 | 0 | 33.65 | 56.4 | 46.4 | - | - | - | - |
| | | | Margin [dB]: | | -22.75 | -12.75 | - | - | - | - |
| .41058 | 27.46 ave | 10.6 | 0 | 38.06 | 57.6 | 47.6 | - | - | - | - |
| | | | Margin [dB]: | | -19.54 | -9.54 | - | - | - | - |
| .34252 | 27.43 ave | 10.7 | 0 | 38.13 | 59.1 | 49.1 | - | - | - | - |
| | | | Margin [dB]: | | -20.97 | -10.97 | - | - | - | - |
| .27234 | 21.07 ave | 10.9 | 0 | 31.97 | 61 | 51 | - | - | - | - |
| | | | Margin [dB]: | | -29.03 | -19.03 | - | - | - | - |
| .20576 | 25.77 ave | 11.4 | 0 | 37.17 | 63.4 | 53.4 | - | - | - | - |
| | | | Margin [dB]: | | -26.23 | -16.23 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | |
| 1.23148 | 25.79 ave | 10.3 | 0 | 36.09 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -19.91 | -9.91 | - | - | - | - |
| 1.0299 | 23.37 ave | 10.3 | 0 | 33.67 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.33 | -12.33 | - | - | - | - |
| 1.50636 | 24.92 ave | 10.3 | 0 | 35.22 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.78 | -10.78 | - | - | - | - |
| 1.78124 | 24.5 ave | 10.3 | 0 | 34.8 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.2 | -11.2 | - | - | - | - |
| 2.04889 | 25.09 ave | 10.4 | 0 | 35.49 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.51 | -10.51 | - | - | - | - |
| 2.25143 | 22.97 ave | 10.4 | 0 | 33.37 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.63 | -12.63 | - | - | - | - |
| 2.32377 | 25.49 ave | 10.4 | 0 | 35.89 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.11 | -10.11 | - | - | - | - |
| 2.59142 | 24.96 ave | 10.4 | 0 | 35.36 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.64 | -10.64 | - | - | - | - |
| 2.8663 | 22.36 ave | 10.4 | 0 | 32.76 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -23.24 | -13.24 | - | - | - | - |
| 4.24071 | 22.7 ave | 10.5 | 0 | 33.2 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.8 | -12.8 | - | - | - | - |
| 3.41606 | 25.14 ave | 10.4 | 0 | 35.54 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -20.46 | -10.46 | - | - | - | - |
| 3.96583 | 22.97 ave | 10.4 | 0 | 33.37 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -22.63 | -12.63 | - | - | - | - |
| 4.79047 | 23.64 ave | 10.5 | 0 | 34.14 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -21.86 | -11.86 | - | - | - | - |
| 16.55251 | 18.13 ave | 10.9 | 0 | 29.03 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -30.97 | -20.97 | - | - | - | - |
| Neutral .15 - 1MHz | | | | | | | | | | |
| .20428 | 17.05 ave | 11.4 | 0 | 28.45 | 63.4 | 53.4 | - | - | - | - |
| | | | Margin [dB]: | | -34.95 | -24.95 | - | - | - | - |

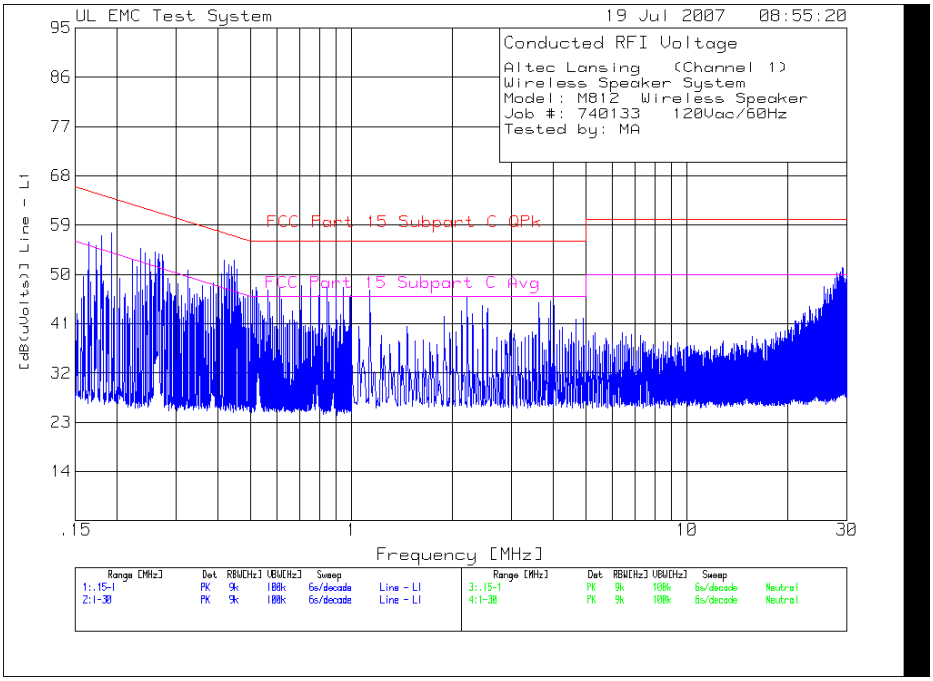
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| .27319 | 14.29 ave | 10.9 | 0 | 25.19 | 61 | 51 | - | - | - | - |
| | | | Margin [dB]: | | -35.81 | -25.81 | - | - | - | - |
| .33849 | 17.66 ave | 10.7 | 0 | 28.36 | 59.2 | 49.2 | - | - | - | - |
| | | | Margin [dB]: | | -30.84 | -20.84 | - | - | - | - |
| .41121 | 18.48 ave | 10.6 | 0 | 29.08 | 57.6 | 47.6 | - | - | - | - |
| | | | Margin [dB]: | | -28.52 | -18.52 | - | - | - | - |
| .48012 | 15.15 ave | 10.5 | 0 | 25.65 | 56.3 | 46.3 | - | - | - | - |
| | | | Margin [dB]: | | -30.65 | -20.65 | - | - | - | - |
| .61603 | 15.64 ave | 10.4 | 0 | 26.04 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.96 | -19.96 | - | - | - | - |
| .68578 | 17.6 ave | 10.4 | 0 | 28 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -28 | -18 | - | - | - | - |
| .75193 | 16.12 ave | 10.4 | 0 | 26.52 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.48 | -19.48 | - | - | - | - |
| .88742 | 15.08 ave | 10.3 | 0 | 25.38 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.62 | -20.62 | - | - | - | - |
| .95781 | 17.41 ave | 10.3 | 0 | 27.71 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -28.29 | -18.29 | - | - | - | - |
| Neutral 1 - 30MHz | | | | | | | | | | |
| 1.0299 | 15.28 ave | 10.3 | 0 | 25.58 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.42 | -20.42 | - | - | - | - |
| 1.23148 | 16.88 ave | 10.3 | 0 | 27.18 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -28.82 | -18.82 | - | - | - | - |
| 1.49913 | 16 ave | 10.3 | 0 | 26.3 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.7 | -19.7 | - | - | - | - |
| 2.04889 | 15.77 ave | 10.4 | 0 | 26.17 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.83 | -19.83 | - | - | - | - |
| 2.59865 | 16.14 ave | 10.4 | 0 | 26.54 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -29.46 | -19.46 | - | - | - | - |
| 3.4884 | 15.43 ave | 10.4 | 0 | 25.83 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.17 | -20.17 | - | - | - | - |
| 4.78324 | 15.27 ave | 10.4 | 0 | 25.67 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.33 | -20.33 | - | - | - | - |
| 18.88177 | 7.54 ave | 10.8 | 0 | 18.34 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -41.66 | -31.66 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

**Figure 5 Conducted Emissions Graph**



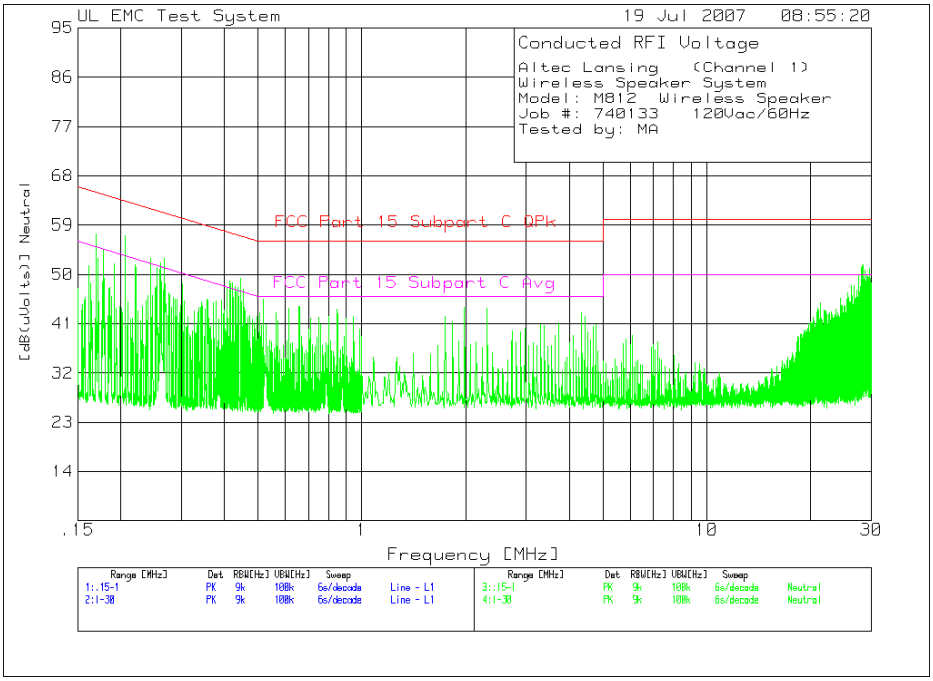



**Table 6 Conducted Emissions Data Points**

Altec Lansing (Channel 1)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | | |
| 1 | .19241 | 46.09 pk | 11.5 | 0 | 57.59 | 63.9 | 53.9 | - | - | - | - |
| | | | | Margin [dB] | | -6.31 | 3.69 | - | - | - | - |
| 2 | .17905 | 45.37 pk | 11.7 | 0 | 57.07 | 64.5 | 54.5 | - | - | - | - |
| | | | | Margin [dB] | | -7.43 | 2.57 | - | - | - | - |
| 3 | .16399 | 44 pk | 11.9 | 0 | 55.9 | 65.3 | 55.3 | - | - | - | - |
| | | | | Margin [dB] | | -9.4 | .6 | - | - | - | - |
| 4 | .22209 | 41.59 pk | 11.2 | 0 | 52.79 | 62.7 | 52.7 | - | - | - | - |
| | | | | Margin [dB] | | -9.91 | .09 | - | - | - | - |
| 5 | .23502 | 43.67 pk | 11.1 | 0 | 54.77 | 62.3 | 52.3 | - | - | - | - |
| | | | | Margin [dB] | | -7.53 | 2.47 | - | - | - | - |
| 6 | .25919 | 43.04 pk | 11 | 0 | 54.04 | 61.5 | 51.5 | - | - | - | - |
| | | | | Margin [dB] | | -7.46 | 2.54 | - | - | - | - |
| 7 | .27319 | 42.64 pk | 10.9 | 0 | 53.54 | 61 | 51 | - | - | - | - |
| | | | | Margin [dB] | | -7.46 | 2.54 | - | - | - | - |
| 8 | .32471 | 40.12 pk | 10.7 | 0 | 50.82 | 59.6 | 49.6 | - | - | - | - |
| | | | | Margin [dB] | | -8.78 | 1.22 | - | - | - | - |
| 9 | .35863 | 37.3 pk | 10.6 | 0 | 47.9 | 58.8 | 48.8 | - | - | - | - |
| | | | | Margin [dB] | | -10.9 | -.9 | - | - | - | - |
| 10 | .38641 | 37.92 pk | 10.6 | 0 | 48.52 | 58.1 | 48.1 | - | - | - | - |
| | | | | Margin [dB] | | -9.58 | .42 | - | - | - | - |
| 11 | .4163 | 42.02 pk | 10.6 | 0 | 52.62 | 57.5 | 47.5 | - | - | - | - |
| | | | | Margin [dB] | | -4.88 | 5.12 | - | - | - | - |
| 12 | .45425 | 40.46 pk | 10.5 | 0 | 50.96 | 56.8 | 46.8 | - | - | - | - |
| | | | | Margin [dB] | | -5.84 | 4.16 | - | - | - | - |
| 13 | .44577 | 42.17 pk | 10.5 | 0 | 52.67 | 57 | 47 | - | - | - | - |
| | | | | Margin [dB] | | -4.33 | 5.67 | - | - | - | - |
| 14 | .51298 | 35.44 pk | 10.5 | 0 | 45.94 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.06 | -.06 | - | - | - | - |
| 15 | .56366 | 36.69 pk | 10.4 | 0 | 47.09 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.91 | 1.09 | - | - | - | - |
| 16 | .61051 | 37.2 pk | 10.4 | 0 | 47.6 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.4 | 1.6 | - | - | - | - |
| 17 | .70932 | 37.61 pk | 10.4 | 0 | 48.01 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.99 | 2.01 | - | - | - | - |
| 18 | .75384 | 37.84 pk | 10.4 | 0 | 48.24 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.76 | 2.24 | - | - | - | - |
| 19 | .80452 | 36.8 pk | 10.4 | 0 | 47.2 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.8 | 1.2 | - | - | - | - |
| 20 | .84586 | 37.2 pk | 10.4 | 0 | 47.6 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.4 | 1.6 | - | - | - | - |
| 21 | .89717 | 37.05 pk | 10.3 | 0 | 47.35 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.65 | 1.35 | - | - | - | - |
| 22 | .94212 | 37.24 pk | 10.3 | 0 | 47.54 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.46 | 1.54 | - | - | - | - |
| 23 | .98643 | 35.45 pk | 10.3 | 0 | 45.75 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.25 | -.25 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | | |
| 24 | 1.13021 | 36.8 pk | 10.3 | 0 | 47.1 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.9 | 1.1 | - | - | - | - |
| 25 | 2.20803 | 35.36 pk | 10.4 | 0 | 45.76 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.24 | -.24 | - | - | - | - |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 2.45398 | 33.97 pk | 10.4 | 0 | 44.37 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.63 | -1.63 | - | - | - | - |
| 27 | 3.61861 | 34.42 pk | 10.4 | 0 | 44.82 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.18 | -1.18 | - | - | - | - |
| 28 | 29.89873 | 38.28 pk | 11.1 | 0 | 49.38 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -10.62 | -.62 | - | - | - | - |
| 29 | 29.08132 | 40.22 pk | 11.1 | 0 | 51.32 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -8.68 | 1.32 | - | - | - | - |
| 30 | 27.99626 | 39.12 pk | 11.1 | 0 | 50.22 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -9.78 | .22 | - | - | - | - |
| 31 | 26.25293 | 36.32 pk | 11 | 0 | 47.32 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -12.68 | -2.68 | - | - | - | - |
| 32 | 25.67423 | 36.82 pk | 11 | 0 | 47.82 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -12.18 | -2.18 | - | - | - | - |

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Altec Lansing (Channel 1)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .4161 | 38.11 qp | 10.6 | 0 | 48.71 | 57.5 | 47.5 | - | - | - | - |
| | | | Margin [dB]: | | -8.79 | 1.21 | - | - | - | - |
| .45323 | 34.83 qp | 10.5 | 0 | 45.33 | 56.8 | 46.8 | - | - | - | - |
| | | | Margin [dB]: | | -11.47 | -1.47 | - | - | - | - |
| .44423 | 40.42 qp | 10.5 | 0 | 50.92 | 57 | 47 | - | - | - | - |
| | | | Margin [dB]: | | -6.08 | 3.92 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

Altec Lansing (Channel 1)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .19241 | 10.3 ave | 11.5 | 0 | 21.8 | 63.9 | 53.9 | - | - | - | - |
| | | | Margin [dB]: | | -42.1 | -32.1 | - | - | - | - |
| .17905 | 21.18 ave | 11.7 | 0 | 32.88 | 64.5 | 54.5 | - | - | - | - |
| | | | Margin [dB]: | | -31.62 | -21.62 | - | - | - | - |
| .16399 | 14.72 ave | 11.9 | 0 | 26.62 | 65.3 | 55.3 | - | - | - | - |
| | | | Margin [dB]: | | -38.68 | -28.68 | - | - | - | - |
| .22209 | 11.24 ave | 11.2 | 0 | 22.44 | 62.7 | 52.7 | - | - | - | - |
| | | | Margin [dB]: | | -40.26 | -30.26 | - | - | - | - |
| .23502 | 14.27 ave | 11.1 | 0 | 25.37 | 62.3 | 52.3 | - | - | - | - |
| | | | Margin [dB]: | | -36.93 | -26.93 | - | - | - | - |
| .25919 | 25.41 ave | 11 | 0 | 36.41 | 61.5 | 51.5 | - | - | - | - |
| | | | Margin [dB]: | | -25.09 | -15.09 | - | - | - | - |
| .27319 | 24.74 ave | 10.9 | 0 | 35.64 | 61 | 51 | - | - | - | - |
| | | | Margin [dB]: | | -25.36 | -15.36 | - | - | - | - |
| .32471 | 13.56 ave | 10.7 | 0 | 24.26 | 59.6 | 49.6 | - | - | - | - |
| | | | Margin [dB]: | | -35.34 | -25.34 | - | - | - | - |
| .35863 | 23.1 ave | 10.6 | 0 | 33.7 | 58.8 | 48.8 | - | - | - | - |
| | | | Margin [dB]: | | -25.1 | -15.1 | - | - | - | - |
| .38641 | 15.48 ave | 10.6 | 0 | 26.08 | 58.1 | 48.1 | - | - | - | - |
| | | | Margin [dB]: | | -32.02 | -22.02 | - | - | - | - |
| .4163 | 17.42 ave | 10.6 | 0 | 28.02 | 57.5 | 47.5 | - | - | - | - |
| | | | Margin [dB]: | | -29.48 | -19.48 | - | - | - | - |
| .45425 | 22.53 ave | 10.5 | 0 | 33.03 | 56.8 | 46.8 | - | - | - | - |
| | | | Margin [dB]: | | -23.77 | -13.77 | - | - | - | - |
| .44577 | 28.11 ave | 10.5 | 0 | 38.61 | 57 | 47 | - | - | - | - |
| | | | Margin [dB]: | | -18.39 | -8.39 | - | - | - | - |
| .51298 | 12.99 ave | 10.5 | 0 | 23.49 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -32.51 | -22.51 | - | - | - | - |
| .56366 | 10.03 ave | 10.4 | 0 | 20.43 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -35.57 | -25.57 | - | - | - | - |
| .61051 | 10.25 ave | 10.4 | 0 | 20.65 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -35.35 | -25.35 | - | - | - | - |
| .70932 | 7.56 ave | 10.4 | 0 | 17.96 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -38.04 | -28.04 | - | - | - | - |
| .75384 | 7.15 ave | 10.4 | 0 | 17.55 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -38.45 | -28.45 | - | - | - | - |
| .80452 | 13.28 ave | 10.4 | 0 | 23.68 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -32.32 | -22.32 | - | - | - | - |
| .84586 | 5.34 ave | 10.4 | 0 | 15.74 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -40.26 | -30.26 | - | - | - | - |
| .89717 | 12.54 ave | 10.3 | 0 | 22.84 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -33.16 | -23.16 | - | - | - | - |
| .94212 | 9.82 ave | 10.3 | 0 | 20.12 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -35.88 | -25.88 | - | - | - | - |
| .98643 | 14.31 ave | 10.3 | 0 | 24.61 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -31.39 | -21.39 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | |
| 1.13021 | 13.55 ave | 10.3 | 0 | 23.85 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -32.15 | -22.15 | - | - | - | - |
| 2.20803 | 11.47 ave | 10.4 | 0 | 21.87 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -34.13 | -24.13 | - | - | - | - |
| 2.45398 | 6.01 ave | 10.4 | 0 | 16.41 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -39.59 | -29.59 | - | - | - | - |
| 3.61861 | 6.07 ave | 10.4 | 0 | 16.47 | 56 | 46 | - | - | - | - |

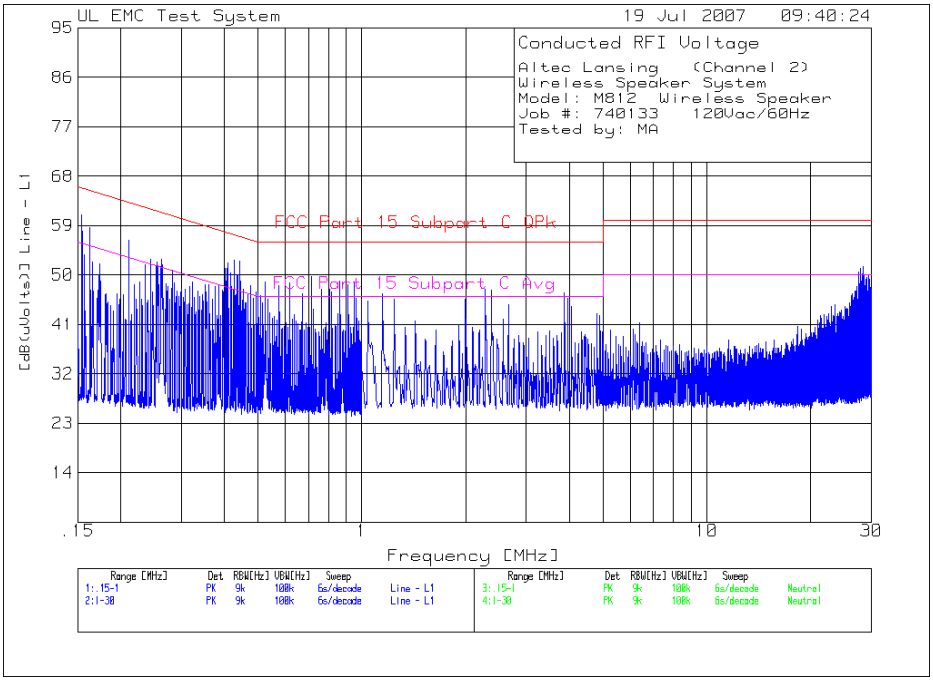
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Margin [dB]: | | -39.53 | -29.53 | - | - | - | - |
| 29.89873 | 16.71 ave | 11.1 | 0 | 27.81 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -32.19 | -22.19 | - | - | - | - |
| 29.08132 | 17.78 ave | 11.1 | 0 | 28.88 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -31.12 | -21.12 | - | - | - | - |
| 27.99626 | 15.45 ave | 11.1 | 0 | 26.55 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -33.45 | -23.45 | - | - | - | - |
| 26.25293 | 13.65 ave | 11 | 0 | 24.65 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -35.35 | -25.35 | - | - | - | - |
| 25.67423 | 13.32 ave | 11 | 0 | 24.32 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -35.68 | -25.68 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

**Figure 6 Conducted Emissions Graph**



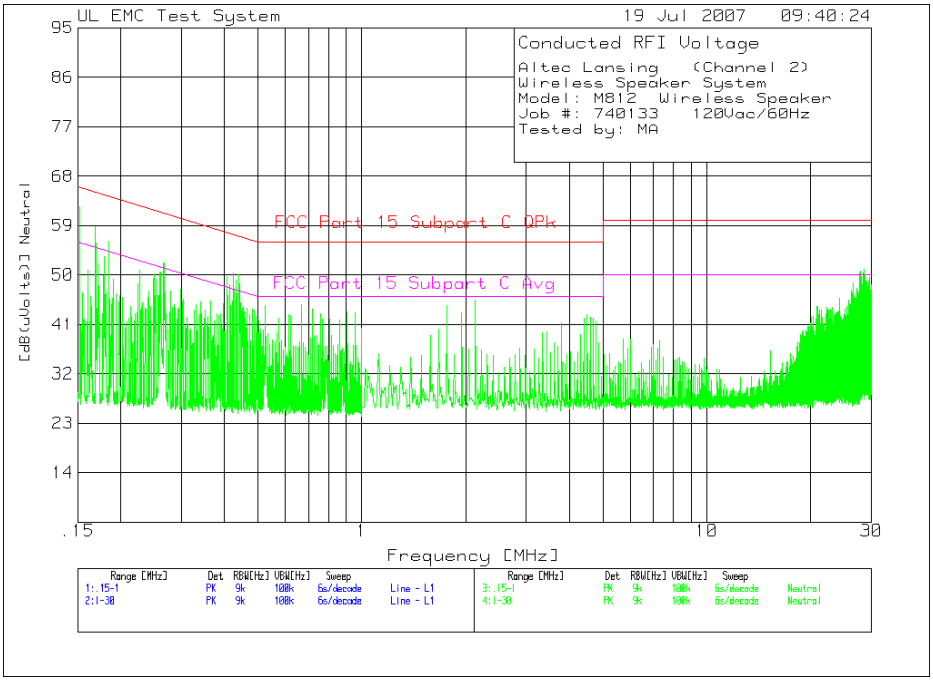



**Table 7 Conducted Emissions Data Points**

Altec Lansing (Channel 2)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | | |
| 1 | .15445 | 48.89 pk | 12 | 0 | 60.89 | 65.8 | 55.8 | - | - | - | - |
| | | | | Margin [dB] | | -4.91 | 5.09 | - | - | - | - |
| 2 | .16293 | 46.67 pk | 11.9 | 0 | 58.57 | 65.3 | 55.3 | - | - | - | - |
| | | | | Margin [dB] | | -6.73 | 3.27 | - | - | - | - |
| 3 | .21128 | 45.04 pk | 11.3 | 0 | 56.34 | 63.2 | 53.2 | - | - | - | - |
| | | | | Margin [dB] | | -6.86 | 3.14 | - | - | - | - |
| 4 | .26216 | 41.78 pk | 11 | 0 | 52.78 | 61.4 | 51.4 | - | - | - | - |
| | | | | Margin [dB] | | -8.62 | 1.38 | - | - | - | - |
| 5 | .35142 | 37.5 pk | 10.7 | 0 | 48.2 | 58.9 | 48.9 | - | - | - | - |
| | | | | Margin [dB] | | -10.7 | -.7 | - | - | - | - |
| 6 | .40803 | 41.56 pk | 10.6 | 0 | 52.16 | 57.7 | 47.7 | - | - | - | - |
| | | | | Margin [dB] | | -5.54 | 4.46 | - | - | - | - |
| 7 | .44259 | 42.07 pk | 10.5 | 0 | 52.57 | 57 | 47 | - | - | - | - |
| | | | | Margin [dB] | | -4.43 | 5.57 | - | - | - | - |
| 8 | .52465 | 38.16 pk | 10.5 | 0 | 48.66 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.34 | 2.66 | - | - | - | - |
| 9 | .57405 | 37.64 pk | 10.4 | 0 | 48.04 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.96 | 2.04 | - | - | - | - |
| 10 | .61963 | 38.12 pk | 10.4 | 0 | 48.52 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.48 | 2.52 | - | - | - | - |
| 11 | .71398 | 39.28 pk | 10.4 | 0 | 49.68 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -6.32 | 3.68 | - | - | - | - |
| 12 | .8607 | 38.55 pk | 10.4 | 0 | 48.95 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.05 | 2.95 | - | - | - | - |
| 13 | .95124 | 38.39 pk | 10.3 | 0 | 48.69 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.31 | 2.69 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | | |
| 14 | 1.0434 | 34.88 pk | 10.3 | 0 | 45.18 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.82 | -.82 | - | - | - | - |
| 15 | 1.14467 | 36.31 pk | 10.3 | 0 | 46.61 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.39 | .61 | - | - | - | - |
| 16 | 1.23871 | 35.2 pk | 10.3 | 0 | 45.5 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.5 | -.5 | - | - | - | - |
| 17 | 2.28037 | 36.93 pk | 10.4 | 0 | 47.33 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.67 | 1.33 | - | - | - | - |
| 18 | 3.86456 | 36.33 pk | 10.4 | 0 | 46.73 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.27 | .73 | - | - | - | - |
| 19 | 29.49364 | 38.79 pk | 11.1 | 0 | 49.89 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -10.11 | -.11 | - | - | - | - |
| 20 | 28.34348 | 40.47 pk | 11.1 | 0 | 51.57 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -8.43 | 1.57 | - | - | - | - |
| 21 | 27.5984 | 39.48 pk | 11 | 0 | 50.48 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -9.52 | .48 | - | - | - | - |
| 22 | 26.20953 | 35.23 pk | 11 | 0 | 46.23 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -13.77 | -3.77 | - | - | - | - |
| 23 | 25.09554 | 33.32 pk | 11 | 0 | 44.32 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.68 | -5.68 | - | - | - | - |
| 24 | 22.90372 | 33.12 pk | 11.1 | 0 | 44.22 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.78 | -5.78 | - | - | - | - |
| Neutral .15 - 1MHz | | | | | | | | | | | |
| 25 | .15212 | 50.48 pk | 12 | 0 | 62.48 | 65.9 | 55.9 | - | - | - | - |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Margin [dB] | | -3.42 | 6.58 | - | - | - | - |
| 26 | .16908 | 47.02 pk | 11.8 | 0 | 58.82 | 65 | 55 | - | - | - | - |
| | | | | Margin [dB] | | -6.18 | 3.82 | - | - | - | - |
| 27 | .18541 | 44.49 pk | 11.6 | 0 | 56.09 | 64.2 | 54.2 | - | - | - | - |
| | | | | Margin [dB] | | -8.11 | 1.89 | - | - | - | - |
| 28 | .26661 | 41.34 pk | 10.9 | 0 | 52.24 | 61.2 | 51.2 | - | - | - | - |
| | | | | Margin [dB] | | -8.96 | 1.04 | - | - | - | - |
| 29 | .40697 | 39.06 pk | 10.6 | 0 | 49.66 | 57.7 | 47.7 | - | - | - | - |
| | | | | Margin [dB] | | -8.04 | 1.96 | - | - | - | - |
| 30 | .44026 | 39.51 pk | 10.5 | 0 | 50.01 | 57.1 | 47.1 | - | - | - | - |
| | | | | Margin [dB] | | -7.09 | 2.91 | - | - | - | - |
| 31 | .6684 | 34.24 pk | 10.4 | 0 | 44.64 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.36 | -1.36 | - | - | - | - |
| 32 | .90374 | 33.01 pk | 10.3 | 0 | 43.31 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.69 | -2.69 | - | - | - | - |

Neutral 1 - 30MHz ----------

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 | 1.75954 | 34.1 pk | 10.3 | 0 | 44.4 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.6 | -1.6 | - | - | - | - |
| 34 | 2.1357 | 35.07 pk | 10.4 | 0 | 45.47 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.53 | -.53 | - | - | - | - |
| 35 | 4.50112 | 32.43 pk | 10.4 | 0 | 42.83 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -13.17 | -3.17 | - | - | - | - |
| 36 | 27.89499 | 39.66 pk | 11 | 0 | 50.66 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -9.34 | .66 | - | - | - | - |
| 37 | 26.62909 | 35.24 pk | 11 | 0 | 46.24 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -13.76 | -3.76 | - | - | - | - |
| 38 | 24.27089 | 34.82 pk | 11 | 0 | 45.82 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -14.18 | -4.18 | - | - | - | - |
| 39 | 22.38289 | 32.65 pk | 11.1 | 0 | 43.75 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -16.25 | -6.25 | - | - | - | - |
| 40 | 20.93614 | 32.62 pk | 11.6 | 0 | 44.22 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.78 | -5.78 | - | - | - | - |

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Altec Lansing (Channel 2)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .15286 | 38.9 qp | 12 | 0 | 50.9 | 65.8 | 55.8 | - | - | - | - |
| | | | Margin [dB]: | | -14.9 | -4.9 | - | - | - | - |
| .40687 | 38.32 qp | 10.6 | 0 | 48.92 | 57.7 | 47.7 | - | - | - | - |
| | | | Margin [dB]: | | -8.78 | 1.22 | - | - | - | - |
| .44109 | 38.72 qp | 10.5 | 0 | 49.22 | 57 | 47 | - | - | - | - |
| | | | Margin [dB]: | | -7.78 | 2.22 | - | - | | |
| Neutral .15 - 1MHz | | | | | | | | | | |
| .1517 | 38.15 qp | 12 | 0 | 50.15 | 65.9 | 55.9 | - | - | - | - |
| | | | Margin [dB]: | | -15.75 | -5.75 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

Altec Lansing (Channel 2)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .15445 | 10.83 ave | 12 | 0 | 22.83 | 65.8 | 55.8 | - | - | - | - |
| | | | Margin [dB]: | | -42.97 | -32.97 | - | - | - | - |
| .16293 | 16.86 ave | 11.9 | 0 | 28.76 | 65.3 | 55.3 | - | - | - | - |
| | | | Margin [dB]: | | -36.54 | -26.54 | - | - | - | - |
| .21128 | 9.92 ave | 11.3 | 0 | 21.22 | 63.2 | 53.2 | - | - | - | - |
| | | | Margin [dB]: | | -41.98 | -31.98 | - | - | - | - |
| .26216 | 28.5 ave | 11 | 0 | 39.5 | 61.4 | 51.4 | - | - | - | - |
| | | | Margin [dB]: | | -21.9 | -11.9 | - | - | - | - |
| .35142 | 21.23 ave | 10.7 | 0 | 31.93 | 58.9 | 48.9 | - | - | - | - |
| | | | Margin [dB]: | | -26.97 | -16.97 | - | - | - | - |
| .40803 | 17.28 ave | 10.6 | 0 | 27.88 | 57.7 | 47.7 | - | - | - | - |
| | | | Margin [dB]: | | -29.82 | -19.82 | - | - | - | - |
| .44259 | 26.75 ave | 10.5 | 0 | 37.25 | 57 | 47 | - | - | - | - |
| | | | Margin [dB]: | | -19.75 | -9.75 | - | - | - | - |
| .52465 | 19.63 ave | 10.5 | 0 | 30.13 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -25.87 | -15.87 | - | - | - | - |
| .57405 | 11.78 ave | 10.4 | 0 | 22.18 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -33.82 | -23.82 | - | - | - | - |
| .61963 | 13.38 ave | 10.4 | 0 | 23.78 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -32.22 | -22.22 | - | - | - | - |
| .71398 | 7.78 ave | 10.4 | 0 | 18.18 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -37.82 | -27.82 | - | - | - | - |
| .8607 | 6.27 ave | 10.4 | 0 | 16.67 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -39.33 | -29.33 | - | - | - | - |
| .95124 | 11.83 ave | 10.3 | 0 | 22.13 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -33.87 | -23.87 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | |
| 1.0434 | 15.23 ave | 10.3 | 0 | 25.53 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.47 | -20.47 | - | - | - | - |
| 1.14467 | 10.74 ave | 10.3 | 0 | 21.04 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -34.96 | -24.96 | - | - | - | - |
| 1.23871 | 13.05 ave | 10.3 | 0 | 23.35 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -32.65 | -22.65 | - | - | - | - |
| 2.28037 | 10.11 ave | 10.4 | 0 | 20.51 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -35.49 | -25.49 | - | - | - | - |
| 3.86456 | 4.77 ave | 10.4 | 0 | 15.17 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -40.83 | -30.83 | - | - | - | - |
| 29.49364 | 15.5 ave | 11.1 | 0 | 26.6 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -33.4 | -23.4 | - | - | - | - |
| 28.34348 | 16.34 ave | 11.1 | 0 | 27.44 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -32.56 | -22.56 | - | - | - | - |
| 27.5984 | 14.69 ave | 11 | 0 | 25.69 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -34.31 | -24.31 | - | - | - | - |
| 26.20953 | 11.96 ave | 11 | 0 | 22.96 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -37.04 | -27.04 | - | - | - | - |
| 25.09554 | 10.98 ave | 11 | 0 | 21.98 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -38.02 | -28.02 | - | - | - | - |
| 22.90372 | 9.01 ave | 11.1 | 0 | 20.11 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -39.89 | -29.89 | - | - | - | - |
| Neutral .15 - 1MHz | | | | | | | | | | |
| .15212 | 8.89 ave | 12 | 0 | 20.89 | 65.9 | 55.9 | - | - | - | - |
| | | | Margin [dB]: | | -45.01 | -35.01 | - | - | - | - |
| .16908 | 18.05 ave | 11.8 | 0 | 29.85 | 65 | 55 | - | - | - | - |
| | | | Margin [dB]: | | -35.15 | -25.15 | - | - | - | - |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| .18541 | 11.49 ave | 11.6 | 0 | 23.09 | 64.2 | 54.2 | - | - | - | - |
| | | | Margin [dB]: | | -41.11 | -31.11 | - | - | - | - |
| .26661 | 25.3 ave | 10.9 | 0 | 36.2 | 61.2 | 51.2 | - | - | - | - |
| | | | Margin [dB]: | | -25 | -15 | - | - | - | - |
| .40697 | 14.43 ave | 10.6 | 0 | 25.03 | 57.7 | 47.7 | - | - | - | - |
| | | | Margin [dB]: | | -32.67 | -22.67 | - | - | - | - |
| .44026 | 24.33 ave | 10.5 | 0 | 34.83 | 57.1 | 47.1 | - | - | - | - |
| | | | Margin [dB]: | | -22.27 | -12.27 | - | - | - | - |
| .6684 | 3.82 ave | 10.4 | 0 | 14.22 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -41.78 | -31.78 | - | - | - | - |
| .90374 | 2.77 ave | 10.3 | 0 | 13.07 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -42.93 | -32.93 | - | - | - | - |
| Neutral 1 - 30MHz | | | | | | | | | | |
| 1.75954 | 2.95 ave | 10.3 | 0 | 13.25 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -42.75 | -32.75 | - | - | - | - |
| 2.1357 | 1.47 ave | 10.4 | 0 | 11.87 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -44.13 | -34.13 | - | - | - | - |
| 4.50112 | -1.43 ave | 10.4 | 0 | 8.97 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -47.03 | -37.03 | - | - | - | - |
| 27.89499 | 15.02 ave | 11 | 0 | 26.02 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -33.98 | -23.98 | - | - | - | - |
| 26.62909 | 12.97 ave | 11 | 0 | 23.97 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -36.03 | -26.03 | - | - | - | - |
| 24.27089 | 11.21 ave | 11 | 0 | 22.21 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -37.79 | -27.79 | - | - | - | - |
| 22.38289 | 9.48 ave | 11.1 | 0 | 20.58 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -39.42 | -29.42 | - | - | - | - |
| 20.93614 | 8.97 ave | 11.6 | 0 | 20.57 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -39.43 | -29.43 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

**Figure 7 Conducted Emissions Graph**

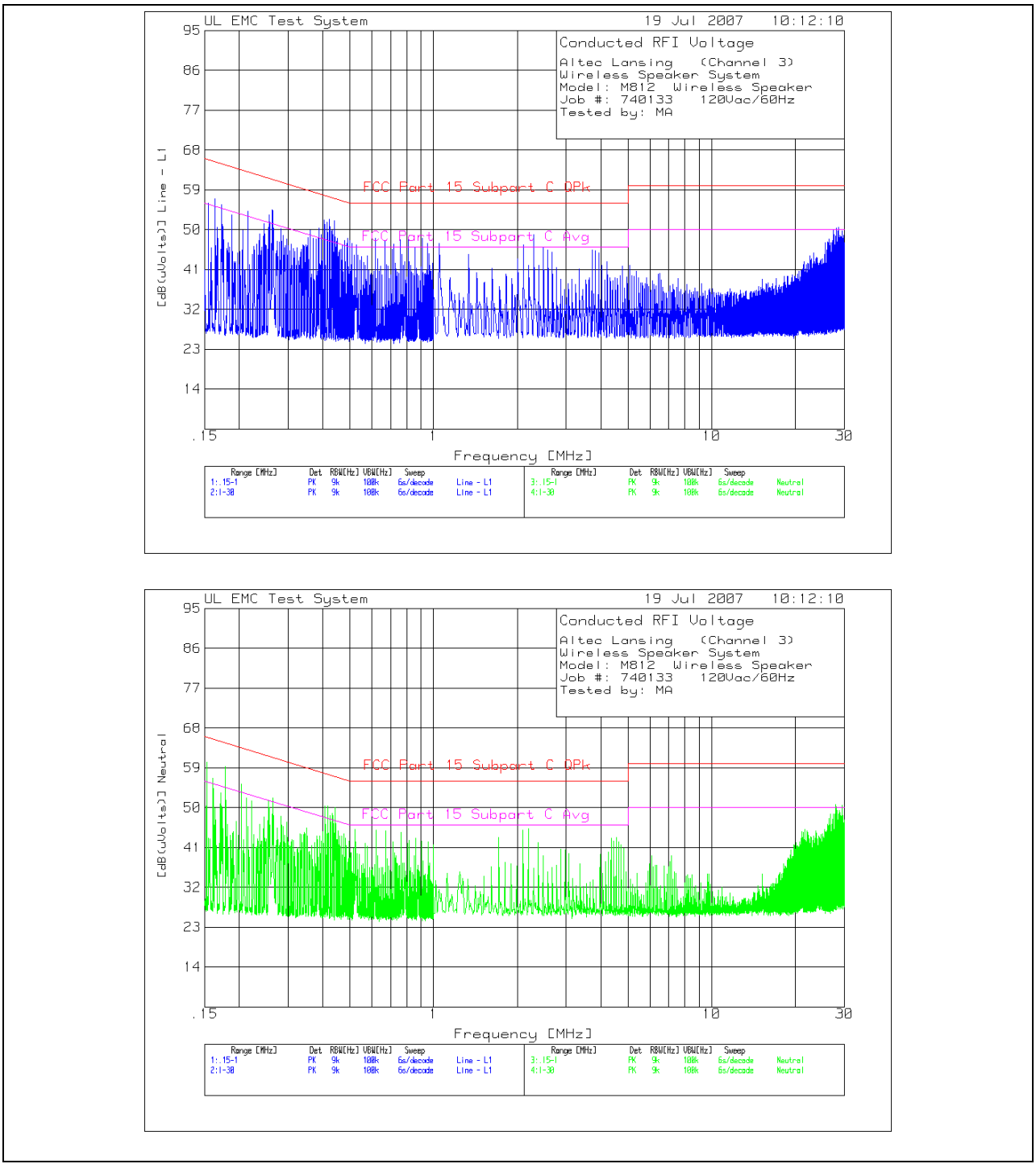


**Table 8 Conducted Emissions Data Points**

Altec Lansing (Channel 3)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | | |
| 1 | .16421 | 45.02 pk | 11.9 | 0 | 56.92 | 65.2 | 55.2 | - | - | - | - |
| | | | | Margin [dB] | | -8.28 | 1.72 | - | - | - | - |
| 2 | .1888 | 41.77 pk | 11.6 | 0 | 53.37 | 64.1 | 54.1 | - | - | - | - |
| | | | | Margin [dB] | | -10.73 | -.73 | - | - | - | - |
| 3 | .21488 | 42.82 pk | 11.3 | 0 | 54.12 | 63 | 53 | - | - | - | - |
| | | | | Margin [dB] | | -8.88 | 1.12 | - | - | - | - |
| 4 | .26322 | 43.51 pk | 11 | 0 | 54.51 | 61.3 | 51.3 | - | - | - | - |
| | | | | Margin [dB] | | -6.79 | 3.21 | - | - | - | - |
| 5 | .36096 | 39.27 pk | 10.6 | 0 | 49.87 | 58.7 | 48.7 | - | - | - | - |
| | | | | Margin [dB] | | -8.83 | 1.17 | - | - | - | - |
| 6 | .42224 | 41.84 pk | 10.5 | 0 | 52.34 | 57.4 | 47.4 | - | - | - | - |
| | | | | Margin [dB] | | -5.06 | 4.94 | - | - | - | - |
| 7 | .49178 | 37.5 pk | 10.5 | 0 | 48 | 56.1 | 46.1 | - | - | - | - |
| | | | | Margin [dB] | | -8.1 | 1.9 | - | - | - | - |
| 8 | .61878 | 37.69 pk | 10.4 | 0 | 48.09 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.91 | 2.09 | - | - | - | - |
| 9 | .7602 | 37.39 pk | 10.4 | 0 | 47.79 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -8.21 | 1.79 | - | - | - | - |
| 10 | .90925 | 37.81 pk | 10.3 | 0 | 48.11 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.89 | 2.11 | - | - | - | - |
| 11 | .81045 | 37.91 pk | 10.4 | 0 | 48.31 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.69 | 2.31 | - | - | - | - |
| 12 | .43973 | 41.47 pk | 10.5 | 0 | 51.97 | 57.1 | 47.1 | - | - | - | - |
| | | | | Margin [dB] | | -5.13 | 4.87 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | | |
| 13 | 1.05064 | 36.53 pk | 10.3 | 0 | 46.83 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.17 | .83 | - | - | - | - |
| 14 | 1.33275 | 34.09 pk | 10.3 | 0 | 44.39 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.61 | -1.61 | - | - | - | - |
| 15 | 2.09953 | 36.09 pk | 10.4 | 0 | 46.49 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.51 | .49 | - | - | - | - |
| 16 | 2.29484 | 38.53 pk | 10.4 | 0 | 48.93 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -7.07 | 2.93 | - | - | - | - |
| 17 | 2.48291 | 35.75 pk | 10.4 | 0 | 46.15 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -9.85 | .15 | - | - | - | - |
| 18 | 3.71265 | 34.95 pk | 10.4 | 0 | 45.35 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.65 | -.65 | - | - | - | - |
| 19 | 29.443 | 38.58 pk | 11.1 | 0 | 49.68 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -10.32 | -.32 | - | - | - | - |
| 20 | 28.46645 | 39.39 pk | 11.1 | 0 | 50.49 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -9.51 | .49 | - | - | - | - |
| 21 | 27.31629 | 38.8 pk | 11.1 | 0 | 49.9 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -10.1 | -.1 | - | - | - | - |
| 22 | 25.56573 | 36.07 pk | 11 | 0 | 47.07 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -12.93 | -2.93 | - | - | - | - |
| 23 | 23.22923 | 33.73 pk | 11.1 | 0 | 44.83 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.17 | -5.17 | - | - | - | - |
| 24 | 22.46969 | 32.93 pk | 11.1 | 0 | 44.03 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.97 | -5.97 | - | - | - | - |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Neutral .15 - 1MHz ---------- | | | | | | | | | | | |
| 25 | .15276 | 48.34 pk | 12 | 0 | 60.34 | 65.8 | 55.8 | - | - | - | - |
| | | | | Margin [dB] | | -5.46 | 4.54 | - | - | - | - |
| 26 | .1782 | 47.61 pk | 11.7 | 0 | 59.31 | 64.6 | 54.6 | - | - | - | - |
| | | | | Margin [dB] | | -5.29 | 4.71 | - | - | - | - |
| 27 | .20364 | 43.87 pk | 11.4 | 0 | 55.27 | 63.5 | 53.5 | - | - | - | - |
| | | | | Margin [dB] | | -8.23 | 1.77 | - | - | - | - |
| 28 | .26386 | 41.28 pk | 10.9 | 0 | 52.18 | 61.3 | 51.3 | - | - | - | - |
| | | | | Margin [dB] | | -9.12 | .88 | - | - | - | - |
| 29 | .4074 | 39.76 pk | 10.6 | 0 | 50.36 | 57.7 | 47.7 | - | - | - | - |
| | | | | Margin [dB] | | -7.34 | 2.66 | - | - | - | - |
| 30 | .44259 | 39.48 pk | 10.5 | 0 | 49.98 | 57 | 47 | - | - | - | - |
| | | | | Margin [dB] | | -7.02 | 2.98 | - | - | - | - |
| 31 | .52295 | 34.63 pk | 10.4 | 0 | 45.03 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.97 | -.97 | - | - | - | - |
| 32 | .67094 | 34.34 pk | 10.4 | 0 | 44.74 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.26 | -1.26 | - | - | - | - |
| 33 | .76572 | 34.01 pk | 10.4 | 0 | 44.41 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -11.59 | -1.59 | - | - | - | - |
| 34 | .86282 | 32.79 pk | 10.3 | 0 | 43.09 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.91 | -2.91 | - | - | - | - |
| Neutral 1 - 30MHz ---------- | | | | | | | | | | | |
| 35 | 1.71614 | 32.96 pk | 10.3 | 0 | 43.26 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.74 | -2.74 | - | - | - | - |
| 36 | 2.19356 | 34.82 pk | 10.4 | 0 | 45.22 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -10.78 | -.78 | - | - | - | - |
| 37 | 4.53729 | 32.82 pk | 10.4 | 0 | 43.22 | 56 | 46 | - | - | - | - |
| | | | | Margin [dB] | | -12.78 | -2.78 | - | - | - | - |
| 38 | 29.3996 | 39.47 pk | 11 | 0 | 50.47 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -9.53 | .47 | - | - | - | - |
| 39 | 28.80644 | 38.41 pk | 11 | 0 | 49.41 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -10.59 | -.59 | - | - | - | - |
| 40 | 27.85158 | 39.67 pk | 11 | 0 | 50.67 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -9.33 | .67 | - | - | - | - |
| 41 | 26.65079 | 37.48 pk | 11 | 0 | 48.48 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -11.52 | -1.52 | - | - | - | - |
| 42 | 24.91469 | 33.17 pk | 11 | 0 | 44.17 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.83 | -5.83 | - | - | - | - |
| 43 | 23.70666 | 33.67 pk | 11 | 0 | 44.67 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.33 | -5.33 | - | - | - | - |
| 44 | 21.94163 | 33.69 pk | 11.1 | 0 | 44.79 | 60 | 50 | - | - | - | - |
| | | | | Margin [dB] | | -15.21 | -5.21 | - | - | - | - |

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

Altec Lansing (Channel 3)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .42067 | 36.26 qp | 10.5 | 0 | 46.76 | 57.4 | 47.4 | - | - | - | - |
| | | | Margin [dB]: | | -10.64 | -.64 | - | - | | |
| .43837 | 38.29 qp | 10.5 | 0 | 48.79 | 57.1 | 47.1 | - | - | - | - |
| | | | Margin [dB]: | | -8.31 | 1.69 | - | - | | |
| Neutral .15 - 1MHz | | | | | | | | | | |
| .15124 | 38.63 qp | 12 | 0 | 50.63 | 65.9 | 55.9 | - | - | - | - |
| | | | Margin [dB]: | | -15.27 | -5.27 | - | - | - | - |
| .17688 | 38.61 qp | 11.7 | 0 | 50.31 | 64.6 | 54.6 | - | - | - | - |
| | | | Margin [dB]: | | -14.29 | -4.29 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

Altec Lansing (Channel 3)
Wireless Speaker System
Model: M812 Wireless Speaker
Job #: 740133 120Vac/60Hz
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level [dB(uVolts)] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Line - L1 .15 - 1MHz | | | | | | | | | | |
| .16421 | 16.05 ave | 11.9 | 0 | 27.95 | 65.2 | 55.2 | - | - | - | - |
| | | | Margin [dB]: | | -37.25 | -27.25 | - | - | - | - |
| .1888 | 11.35 ave | 11.6 | 0 | 22.95 | 64.1 | 54.1 | - | - | - | - |
| | | | Margin [dB]: | | -41.15 | -31.15 | - | - | - | - |
| .21488 | 10.25 ave | 11.3 | 0 | 21.55 | 63 | 53 | - | - | - | - |
| | | | Margin [dB]: | | -41.45 | -31.45 | - | - | - | - |
| .26322 | 28.78 ave | 11 | 0 | 39.78 | 61.3 | 51.3 | - | - | - | - |
| | | | Margin [dB]: | | -21.52 | -11.52 | - | - | - | - |
| .36096 | 14.86 ave | 10.6 | 0 | 25.46 | 58.7 | 48.7 | - | - | - | - |
| | | | Margin [dB]: | | -33.24 | -23.24 | - | - | - | - |
| .42224 | 19.03 ave | 10.5 | 0 | 29.53 | 57.4 | 47.4 | - | - | - | - |
| | | | Margin [dB]: | | -27.87 | -17.87 | - | - | - | - |
| .49178 | 12.54 ave | 10.5 | 0 | 23.04 | 56.1 | 46.1 | - | - | - | - |
| | | | Margin [dB]: | | -33.06 | -23.06 | - | - | - | - |
| .61878 | 13.2 ave | 10.4 | 0 | 23.6 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -32.4 | -22.4 | - | - | - | - |
| .7602 | 9.19 ave | 10.4 | 0 | 19.59 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -36.41 | -26.41 | - | - | - | - |
| .90925 | 7.02 ave | 10.3 | 0 | 17.32 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -38.68 | -28.68 | - | - | - | - |
| .81045 | 5.6 ave | 10.4 | 0 | 16 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -40 | -30 | - | - | - | - |
| .43973 | 26.63 ave | 10.5 | 0 | 37.13 | 57.1 | 47.1 | - | - | - | - |
| | | | Margin [dB]: | | -19.97 | -9.97 | - | - | - | - |
| Line - L1 1 - 30MHz | | | | | | | | | | |
| 1.05064 | 15.62 ave | 10.3 | 0 | 25.92 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -30.08 | -20.08 | - | - | - | - |
| 1.33275 | 5.47 ave | 10.3 | 0 | 15.77 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -40.23 | -30.23 | - | - | - | - |
| 2.09953 | 7.66 ave | 10.4 | 0 | 18.06 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -37.94 | -27.94 | - | - | - | - |
| 2.29484 | 10.47 ave | 10.4 | 0 | 20.87 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -35.13 | -25.13 | - | - | - | - |
| 2.48291 | 4.92 ave | 10.4 | 0 | 15.32 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -40.68 | -30.68 | - | - | - | - |
| 3.71265 | 8.74 ave | 10.4 | 0 | 19.14 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -36.86 | -26.86 | - | - | - | - |
| 29.443 | 15.4 ave | 11.1 | 0 | 26.5 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -33.5 | -23.5 | - | - | - | - |
| 28.46645 | 16.55 ave | 11.1 | 0 | 27.65 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -32.35 | -22.35 | - | - | - | - |
| 27.31629 | 13.93 ave | 11.1 | 0 | 25.03 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -34.97 | -24.97 | - | - | - | - |
| 25.56573 | 11.06 ave | 11 | 0 | 22.06 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -37.94 | -27.94 | - | - | - | - |
| 23.22923 | 8.87 ave | 11.1 | 0 | 19.97 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -40.03 | -30.03 | - | - | - | - |
| 22.46969 | 8.56 ave | 11.1 | 0 | 19.66 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -40.34 | -30.34 | - | - | - | - |
| Neutral .15 - 1MHz | | | | | | | | | | |
| .15276 | 8.41 ave | 12 | 0 | 20.41 | 65.8 | 55.8 | - | - | - | - |
| | | | Margin [dB]: | | -45.39 | -35.39 | - | - | - | - |
| .1782 | 20.13 ave | 11.7 | 0 | 31.83 | 64.6 | 54.6 | - | - | - | - |
| | | | Margin [dB]: | | -32.77 | -22.77 | - | - | - | - |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| .20364 | 9.09 ave | 11.4 | 0 | 20.49 | 63.5 | 53.5 | - | - | - | - |
| | | | Margin [dB]: | | -43.01 | -33.01 | - | - | - | - |
| .26386 | 25.43 ave | 10.9 | 0 | 36.33 | 61.3 | 51.3 | - | - | - | - |
| | | | Margin [dB]: | | -24.97 | -14.97 | - | - | - | - |
| .4074 | 14.84 ave | 10.6 | 0 | 25.44 | 57.7 | 47.7 | - | - | - | - |
| | | | Margin [dB]: | | -32.26 | -22.26 | - | - | - | - |
| .44259 | 24.32 ave | 10.5 | 0 | 34.82 | 57 | 47 | - | - | - | - |
| | | | Margin [dB]: | | -22.18 | -12.18 | - | - | - | - |
| .52295 | 19.66 ave | 10.4 | 0 | 30.06 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -25.94 | -15.94 | - | - | - | - |
| .67094 | 3.87 ave | 10.4 | 0 | 14.27 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -41.73 | -31.73 | - | - | - | - |
| .76572 | 7.41 ave | 10.4 | 0 | 17.81 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -38.19 | -28.19 | - | - | - | - |
| .86282 | 4.56 ave | 10.3 | 0 | 14.86 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -41.14 | -31.14 | - | - | - | - |
| Neutral 1 - 30MHz | | | | | | | | | | |
| 1.71614 | 1.14 ave | 10.3 | 0 | 11.44 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -44.56 | -34.56 | - | - | - | - |
| 2.19356 | 2.68 ave | 10.4 | 0 | 13.08 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -42.92 | -32.92 | - | - | - | - |
| 4.53729 | -2.37 ave | 10.4 | 0 | 8.03 | 56 | 46 | - | - | - | - |
| | | | Margin [dB]: | | -47.97 | -37.97 | - | - | - | - |
| 29.3996 | 15.73 ave | 11 | 0 | 26.73 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -33.27 | -23.27 | - | - | - | - |
| 28.80644 | 17.13 ave | 11 | 0 | 28.13 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -31.87 | -21.87 | - | - | - | - |
| 27.85158 | 15.24 ave | 11 | 0 | 26.24 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -33.76 | -23.76 | - | - | - | - |
| 26.65079 | 13.32 ave | 11 | 0 | 24.32 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -35.68 | -25.68 | - | - | - | - |
| 24.91469 | 11.27 ave | 11 | 0 | 22.27 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -37.73 | -27.73 | - | - | - | - |
| 23.70666 | 10.36 ave | 11 | 0 | 21.36 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -38.64 | -28.64 | - | - | - | - |
| 21.94163 | 9.4 ave | 11.1 | 0 | 20.5 | 60 | 50 | - | - | - | - |
| | | | Margin [dB]: | | -39.5 | -29.5 | - | - | - | - |

NOTE: "+" - Indicates an emission level in excess of the applicable limit (s).

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection

LIMIT 1: FCC Part 15 Subpart C QPk
LIMIT 2: FCC Part 15 Subpart C Avg
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

## 4.2 Test Conditions and Results – Occupied Bandwidth

| | |
|---|---|
| Test Description | Measurements were made in the laboratory environment. A Dipole (or equivalent) antenna tuned to the transmit frequency was attached to the input of a spectrum analyzer. The device was operated and the spectrum analyzer resolution bandwidth set per the appropriate standard. |
| Basic Standard | FCC Part 15, Subpart C, 15.247 |
| **Occupied Bandwidth Limits** | |
| OBW must be greater than 500kHz | |

**Table 9 Occupied Bandwidth Configuration Settings**

| Power Interface Mode # | EUT Configurations Mode # | EUT Operation Mode # |
|---|---|---|
| 1 | 1 | 1,2,3 |
| Supplementary information: None | | |

**Table 10 Occupied Bandwidth Spectrum Analyzer Settings**

| Resolution Bandwidth (MHz) | Occupied Bandwidth Requirements |
|---|---|
| 100kHz | > 500kHz |
| Supplementary information: None | |

**Table 11 Occupied Bandwidth Test Equipment**

| Test Equipment Used | | | |
|---|---|---|---|
| Description | Manufacturer | Model | Identifier |
| Spectrum Analyzer | Advantest | R3261C | ME5A-229 |
| Horn Antenna | EMCO | RGA-180 | ME5-565 |
| Temp/Humidity/ Pressure Meter | Cole Parmer | 99760-00 | 4268 |
| Measurement Software | UL | Version 9.3 | 44740 |

**Figure 8 Test Setup for Occupied Bandwidth**

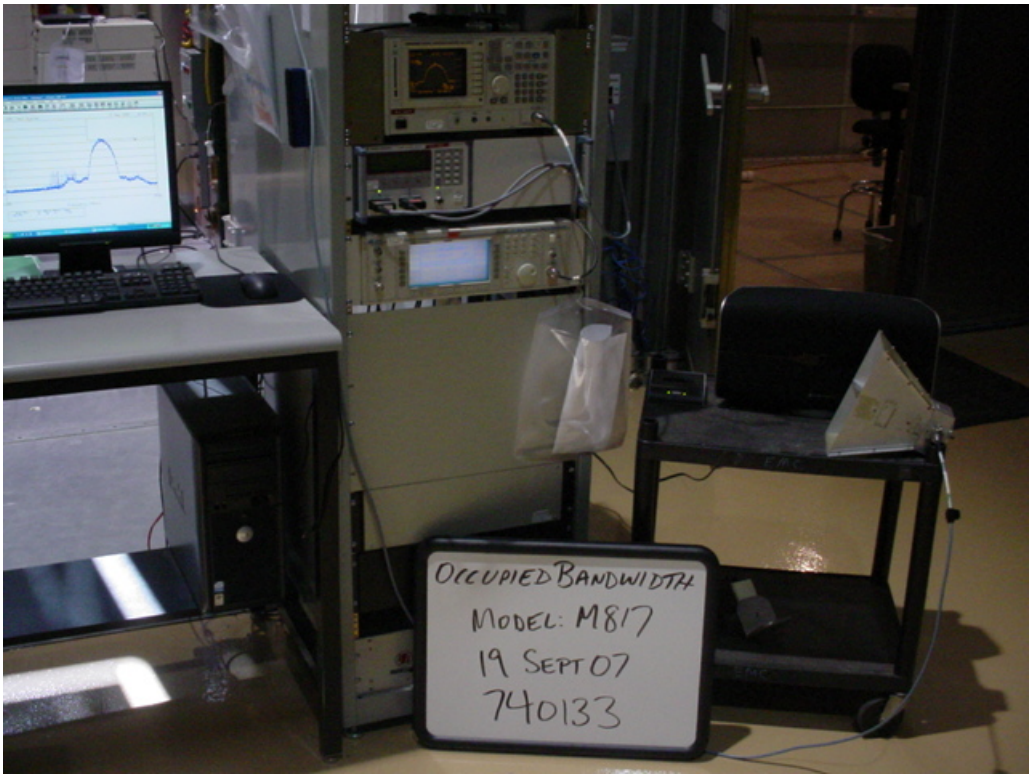


**Figure 9 Occupied Bandwidth Graph – Channel 1**

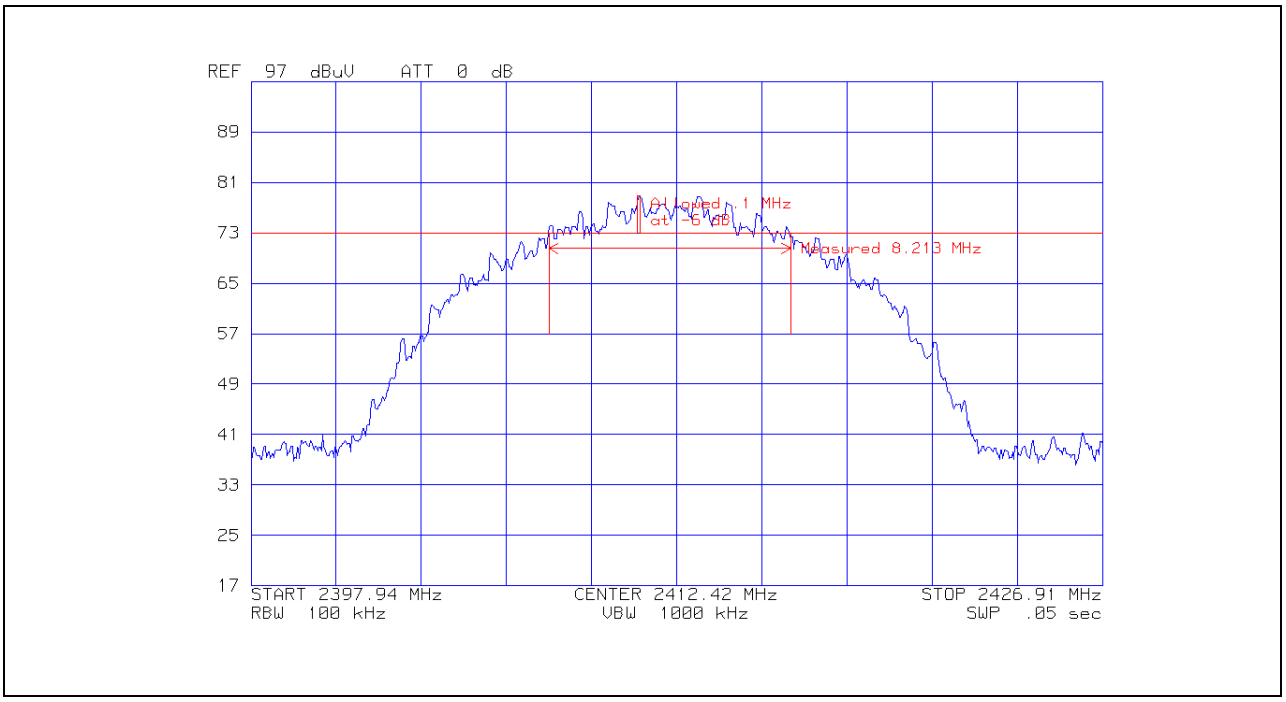



**Figure 10 Occupied Bandwidth Graph – Channel 2**

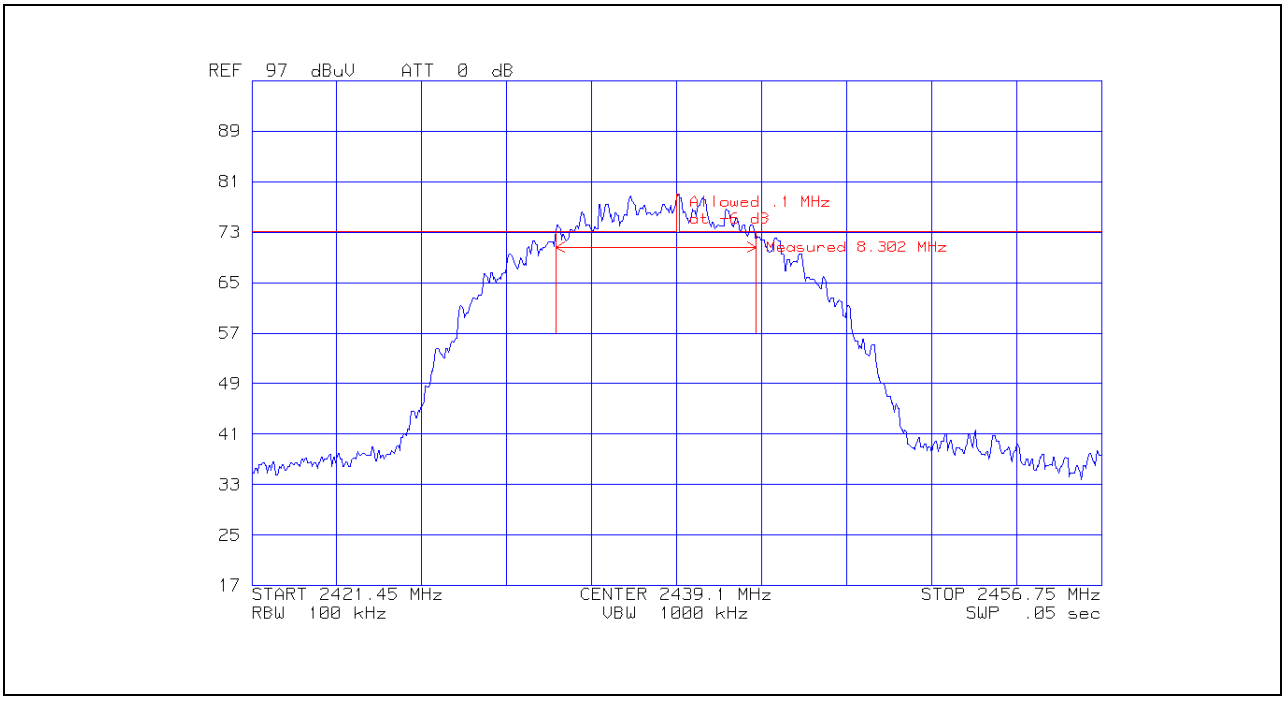
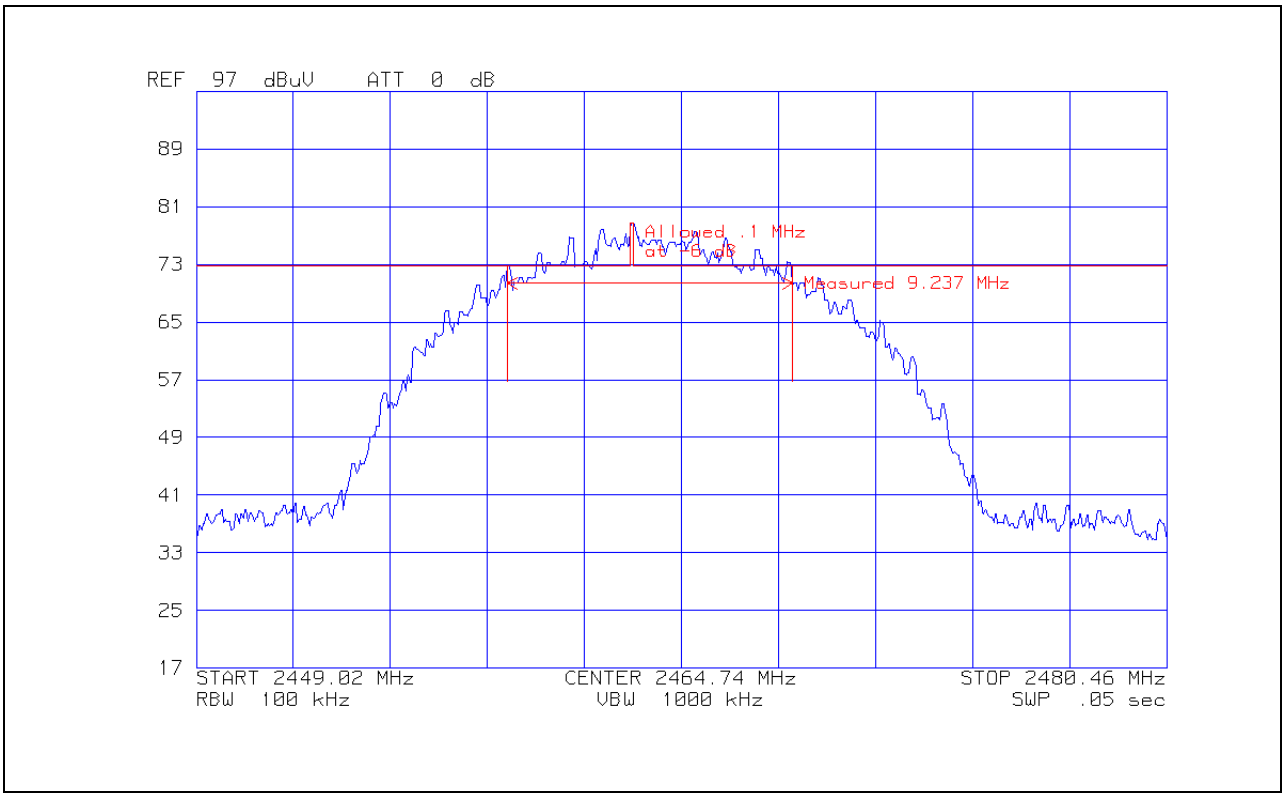


**Figure 11 Occupied Bandwidth Graph – Channel 3**



### 4.3 Test Conditions and Results – Bandedge Measurement

| | |
|---|---|
| Test Description | Conducted and radiated measurements were made for this test. Measurements were made in the laboratory environment. The transmit antenna of the EUT was attached directly to the input of a spectrum analyzer. The device was operated and the spectrum analyzer resolution bandwidth set per the appropriate standard. A plot of the spectrum analyzer display screen is produced with marker points displaying the intended signal along with the –20dB frequency and the signal strength at the bandedges. Measurements were made in a 10-meter semi-anechoic chamber that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3-meter. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in both horizontal and vertical polarities. Points were marked displaying the intended signal along with the –20dB frequency and the signal strength at the bandedges |
| Basic Standard | FCC Part 15, Subpart C, 15.247 |

| **Limits** | |
|---|---|
| **Bandedge Frequencies** | **Criteria** |
| 2400MHz | Outside OBW (low channel) |
| 2483.5MHz | Outside OBW (high channel) |

**Table 12 Bandedge Measurement Configuration Settings**

| Power Interface Mode # | EUT Configurations Mode # | EUT Operation Mode # |
|---|---|---|
| 1 | 1 | 1,3 |
| Supplementary information: None | | |

**Table 13 Bandedge Measurement Spectrum Analyzer Settings**

| Resolution Bandwidth | Video Bandwidth |
|---|---|
| 1MHz | 1MHz |
| Supplementary information: None | |

**Table 14 Bandedge Measurement Test Equipment**

| Test Equipment Used | | | |
|---|---|---|---|
| Description | Manufacturer | Model | Identifier |
| Spectrum Analyzer | Advantest | R3261C | ME5A-229 |
| EMI Receiver | Rohde & Schwarz | ESI26 | ME5B-081 |
| Preamp | HP | 8449B | 5914 |
| Horn Antenna | EMCO | RGA-180 | ME5-565 |
| 20dB Pad | MCL | BW-N20W5+ | 31618 |
| Temp/Humidity/ Pressure Meter | Cole Parmer | 99760-00 | 4268 |
| Measurement Software | UL | Version 9.3 | 44740 |

**Table 15 Radiated Bandedge Data Points – Low Channel**

```
Altec Lansing   [Channel 1]
 Wireless Speaker System
 Model: M812    Aux In Mode
 Job: 740133      120V 60Hz
 Tested By: MA

  Test     Meter     Gain/Loss  Transducer  Level  Limit:1      2       3       4       5       6
Frequency  Reading    Factor     Factor  dB[uVolts/meter]
 [MHz]     [dB(uV)]     [dB]      [dB]
================================================================================================================
Horizontal 1000 - 3000MHz
Fundamental
2411.8236  112.15 pk     -32.7     28.7      108.15  54         -       -       -       -       -
Azimuth: 268  Height:151 Horz         Margin [dB]:   54.15      -       -       -       -       -

-20dB Down Frequency
2403.8577  92.43 pk      -32.8     28.7      88.33   54         -       -       -       -       -
Azimuth: 268  Height:151 Horz         Margin [dB]:   34.33      -       -       -       -       -

Bandegdes
2400       74.91 pk      -32.8     28.7      70.81   54         -       -       -       -       -
Azimuth: 268  Height:151 Horz         Margin [dB]:   16.81      -       -       -       -       -

2390.0113  74.1 pk       -32.8     28.7      70      54         -       -       -       -       -
Azimuth: 268  Height:151 Horz         Margin [dB]:   16         -       -       -       -       -

2390.0113  54.75 ave     -32.8     28.7      50.65   54         -       -       -       -       -
Azimuth: 268  Height:151 Horz         Margin [dB]:   -3.35      -       -       -       -       -

2400       54.67 ave     -32.8     28.7      50.57   54         -       -       -       -       -
Azimuth: 268  Height:151 Horz         Margin [dB]:   -3.43      -       -       -       -       -

Vertical 1000 - 3000MHz
Fundamental
2411.8236  104.49 pk     -32.7     28.5      100.29  54         -       -       -       -       -
Azimuth: 7    Height:101 Vert         Margin [dB]:   46.29      -       -       -       -       -

-20dB Down Frequency
2403.8076  85.06 pk      -32.8     28.5      80.76   54         -       -       -       -       -
Azimuth: 7    Height:101 Vert         Margin [dB]:   26.76      -       -       -       -       -

Bandegdes
2400.0501  70.67 pk      -32.8     28.5      66.37   54         -       -       -       -       -
Azimuth: 7    Height:101 Vert         Margin [dB]:   12.37      -       -       -       -       -

2390.0301  66.27 pk      -32.8     28.5      61.97   54         -       -       -       -       -
Azimuth: 7    Height:101 Vert         Margin [dB]:   7.97       -       -       -       -       -

2390.0301  49.38 ave     -32.8     28.5      45.08   54         -       -       -       -       -
Azimuth: 7    Height:101 Vert         Margin [dB]:   -8.92      -       -       -       -       -

2400       47.97 ave     -32.8     28.5      43.67   54         -       -       -       -       -
Azimuth: 7    Height:101 Vert         Margin [dB]:   -10.33     -       -       -       -       -

LIMIT 1: FCC Part 15 Subpart C 15.209

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector
```

**Table 16 Radiated Bandedge Data Points – High Channel**

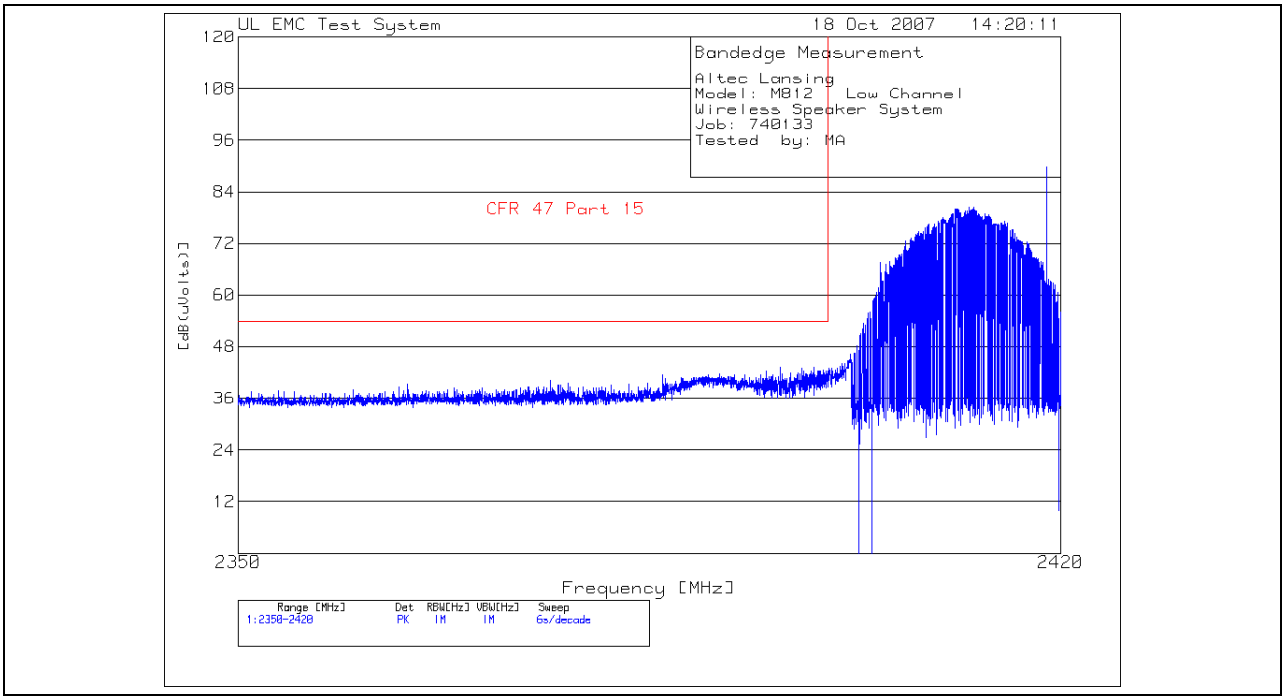
Altec Lansing [Channel 3]
Wireless Speaker System
Model: M812 Aux In Mode
Job: 740133 120V 60Hz
Tested By: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Horizontal 1000 - 3000MHz | | | | | | | | | | |
| Fundamental | | | | | | | | | | |
| 2464.0531 | 110.6 pk | -32.7 | 28.8 | 106.7 | 54 | - | - | - | - | - |
| Azimuth: 107 | Height:120 Horz | | Margin [dB]: | 52.7 | | - | - | - | - | - |
| -20dB Down Frequency | | | | | | | | | | |
| 2472.2341 | 90.15 pk | -32.7 | 28.8 | 86.25 | 54 | - | - | - | - | - |
| Azimuth: 107 | Height:120 Horz | | Margin [dB]: | 32.25 | | - | - | - | - | - |
| Bandegdes | | | | | | | | | | |
| 2483.5067 | 75.72 pk | -32.7 | 28.9 | 71.92 | 54 | - | - | - | - | - |
| Azimuth: 107 | Height:120 Horz | | Margin [dB]: | 17.92 | | - | - | - | - | - |
| 2483.5067 | 48.42 ave | -32.7 | 28.9 | 44.62 | 54 | - | - | - | - | - |
| Azimuth: 107 | Height:120 Horz | | Margin [dB]: | -9.38 | | - | - | - | - | - |
| Vertical 1000 - 3000MHz | | | | | | | | | | |
| Fundamental | | | | | | | | | | |
| 2463.9676 | 105.3 pk | -32.7 | 28.6 | 101.2 | 54 | - | - | - | - | - |
| Azimuth: 176 | Height:104 Vert | | Margin [dB]: | 47.2 | | - | - | - | - | - |
| -20dB Down Frequency | | | | | | | | | | |
| 2471.5766 | 85.86 pk | -32.7 | 28.6 | 81.76 | 54 | - | - | - | - | - |
| Azimuth: 176 | Height:104 Vert | | Margin [dB]: | 27.76 | | - | - | - | - | - |
| Bandegdes | | | | | | | | | | |
| 2483.5054 | 67.45 pk | -32.7 | 28.7 | 63.45 | 54 | - | - | - | - | - |
| Azimuth: 176 | Height:104 Vert | | Margin [dB]: | 9.45 | | - | - | - | - | - |
| 2483.5054 | 44.85 ave | -32.7 | 28.7 | 40.85 | 54 | - | - | - | - | - |
| Azimuth: 176 | Height:104 Vert | | Margin [dB]: | -13.15 | | - | - | - | - | - |

LIMIT 1: FCC Part 15 Subpart C 15.209

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

**Figure 13 Conducted Bandedge Measurement Graph – Low Channel**



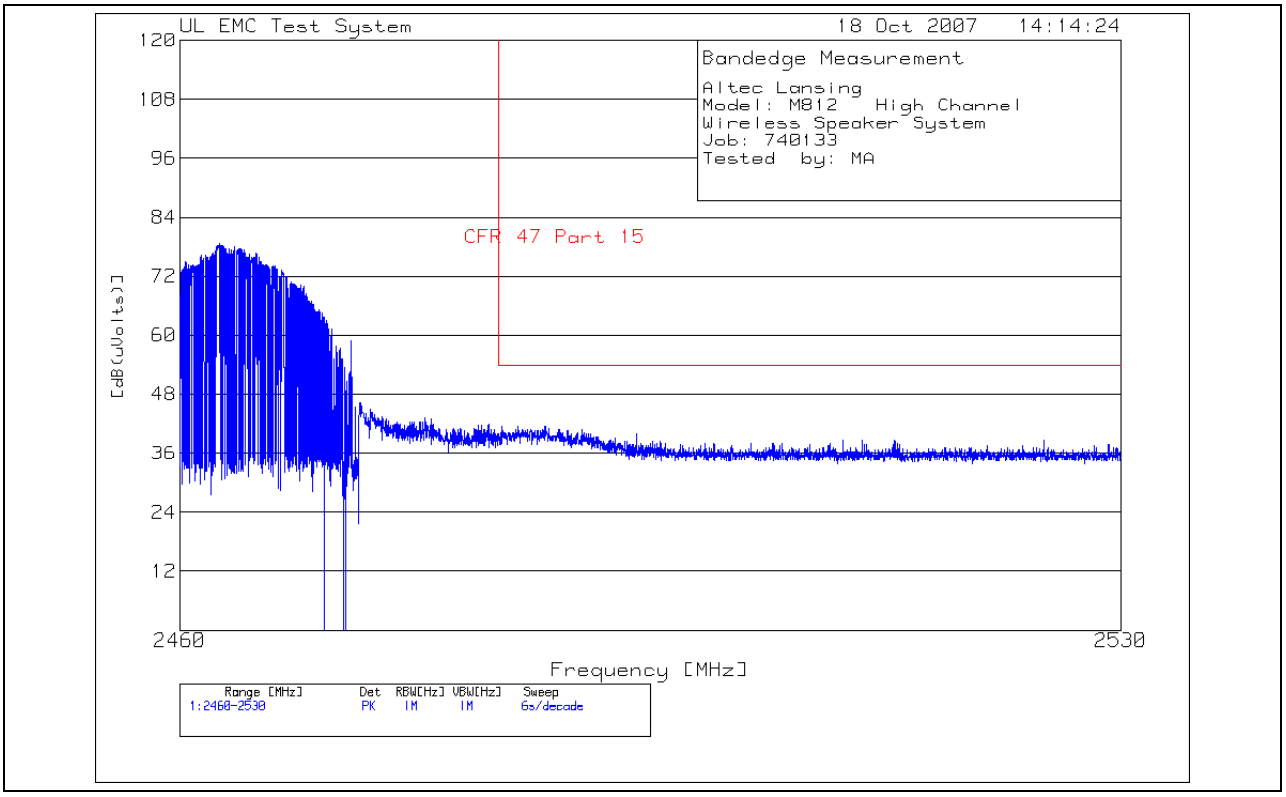

Altec Lansing
Model: M812 Low Channel
Wireless Speaker System
Job: 740133
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Attenuator Factor [dB] | Level [dB(uV)] |
|---|---|---|---|---|
| Range 1 2350 - 2420MHz | | | | |
| 1 | 2412.469 | 80.5 pk | 19.6 | 100.1 |
| 2 | 2403.878 | 59.2 pk | 19.6 | 78.8 |
| 3 | 2400.043 | 43 pk | 19.6 | 62.6 |

LIMIT 1: CFR 47 Part 15

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

**Figure 15 Conducted Bandedge Measurement Graph – High Channel**




Altec Lansing
Model: M812 High Channel
Wireless Speaker System
Job: 740133
Tested by: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Attenuator Factor [dB] | Level [dB(uV)] |
|---|---|---|---|---|
| Range 1 2460 - 2530MHz | | | | |
| 1 | 2462.887 | 78.7 pk | 19.6 | 98.3 |
| 2 | 2471.487 | 58 pk | 19.6 | 77.6 |
| 3 | 2483.453 | 40 pk | 19.6 | 59.6 |

LIMIT 1: CFR 47 Part 15

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - denotes average log detection
ave - denotes average detection
tm - Trace Math Result

**Figure 16 Radiated Bandedge Setup**

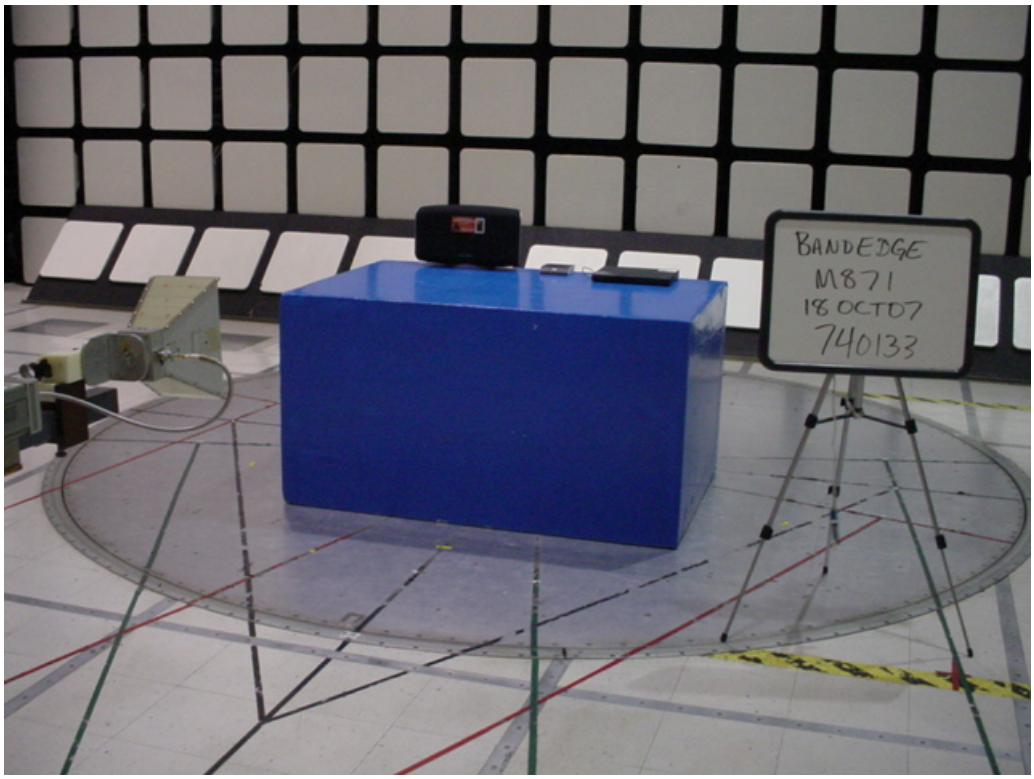


**Figure 17 Conducted Bandedge Setup Photo**

### 4.4 Test Conditions and Results – Peak Power

| | | |
|---|---|---|
| Test Description | The following measurements were performed with the output of the EUT connected to the input of the power meter. A 50-ohm, 20 dB (nominal) attenuator is located between the power meter and the EUT output connector. Measurements are performed on all three channels. | |
| Basic Standard | FCC Part 15, Subpart C, 15.209 | |
| | Frequency | Channel |
| Fully configured sample scanned over the following frequency range | 2412MHz | 1 |
| | 2436MHz | 2 |
| | 2463MHz | 3 |
| **Limits** | | |
| 1 Watt | | |

**Table 17 Peak Power Measurement Test Equipment**

| Test Equipment Used | | | |
|---|---|---|---|
| Description | Manufacturer | Model | Identifier |
| Power Meter | Rohde & Schwarz | NRVD | ME5B-081 |
| Power Meter Sensor | Rohde & Schwarz | NRVZ51 | ME5B-078 |
| 20dB Pad | MCL | BW-N20W5+ | 31618 |
| Temp/Humidity/ Pressure Meter | Cole Parmer | 99760-00 | 4268 |

**Table 18 Peak Power Data Points**

Altec Lansing
Wireless Speaker System
Model: M812 Channels 1,2,3
Job#: 740133
Tested by: MA

| Test Frequency [MHz] | Pwr Mtr Reading [dBm] | Attenuator Factor [dB] | Power Level [dBm] | Power Level [mWatts] | Limit [Watts] |
|---|---|---|---|---|---|
| Channel 1 | | | | | |
| 2412 | -20.8 | 19.6 | -1.2 | 0.76 | 1.0 |
| Channel 2 | | | | | |
| 2436 | -20.9 | 19.6 | -1.3 | 0.74 | 1.0 |
| Channel 3 | | | | | |
| 2463 | -21.8 | 19.6 | -2.2 | 0.60 | 1.0 |

### 4.5 Test Conditions and Results – Power Spectral Density

| | | |
|---|---|---|
| Test Description | The following measurements were performed with the output of the EUT connected to the input of the power meter. A 50-ohm, 20 dB (nominal) attenuator is located between the measuring receiver and the EUT output connector. Measurements are performed on all three channels. | |
| Basic Standard | FCC Part 15, Subpart C, 15.209 | |
| | Frequency | Channel |
| Fully configured sample scanned over the following frequency range | 2412MHz | 1 |
| | 2436MHz | 2 |
| | 2463MHz | 3 |
| **Limits** | | |
| 8dBm | | |

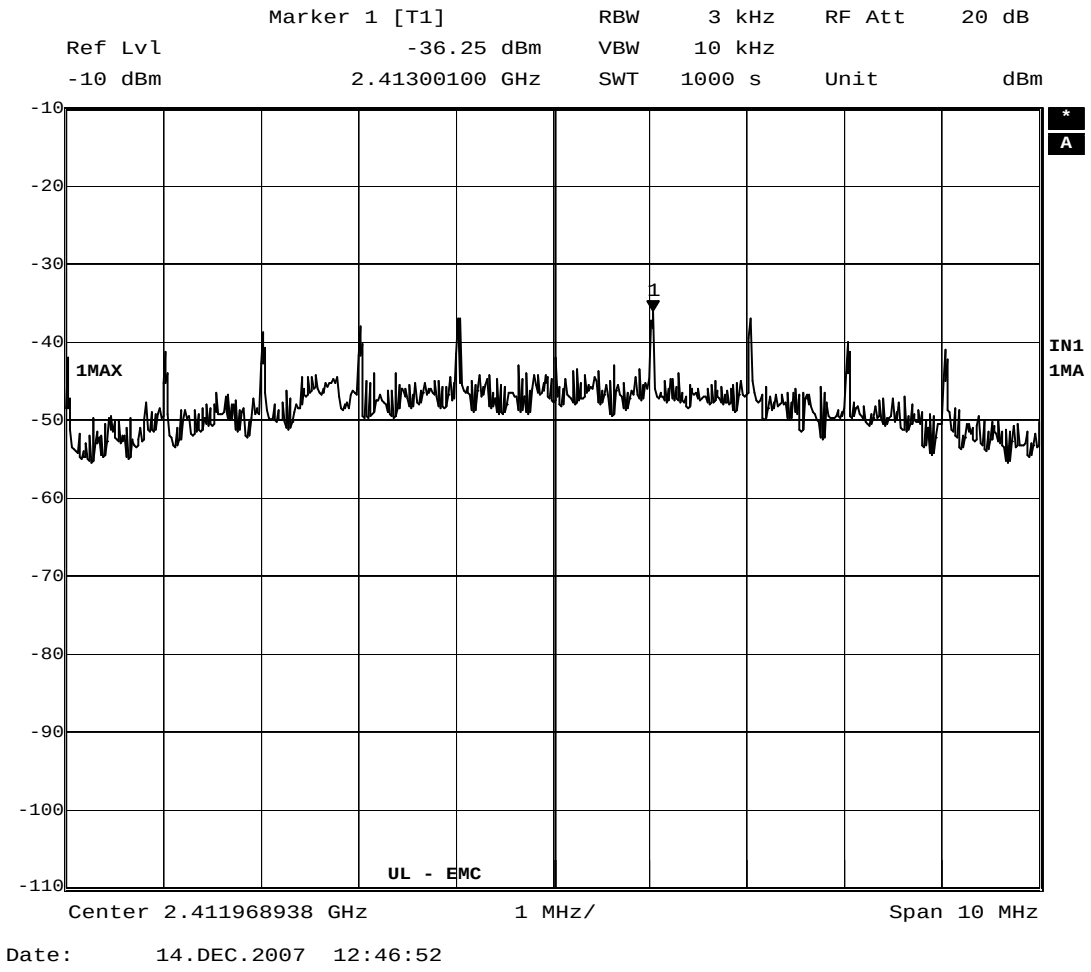
**Table 19 Power Spectral Density Measurement Spectrum Analyzer Settings**

| Resolution Bandwidth | Video Bandwidth | Sweep Time |
|---|---|---|
| 3kHz | 30kHz | 1000sec |
| Supplementary information: None | | |

**Table 20 Power Spectral Density Measurement Test Equipment**

| **Test Equipment Used** | | | |
|---|---|---|---|
| Description | Manufacturer | Model | Identifier |
| EMI Receiver | Rohde & Schwarz | ESI26 | ME5B-081 |
| 20dB Pad | MCL | BW-N20W5+ | 31618 |
| Temp/Humidity/ Pressure Meter | Cole Parmer | 99760-00 | 4268 |

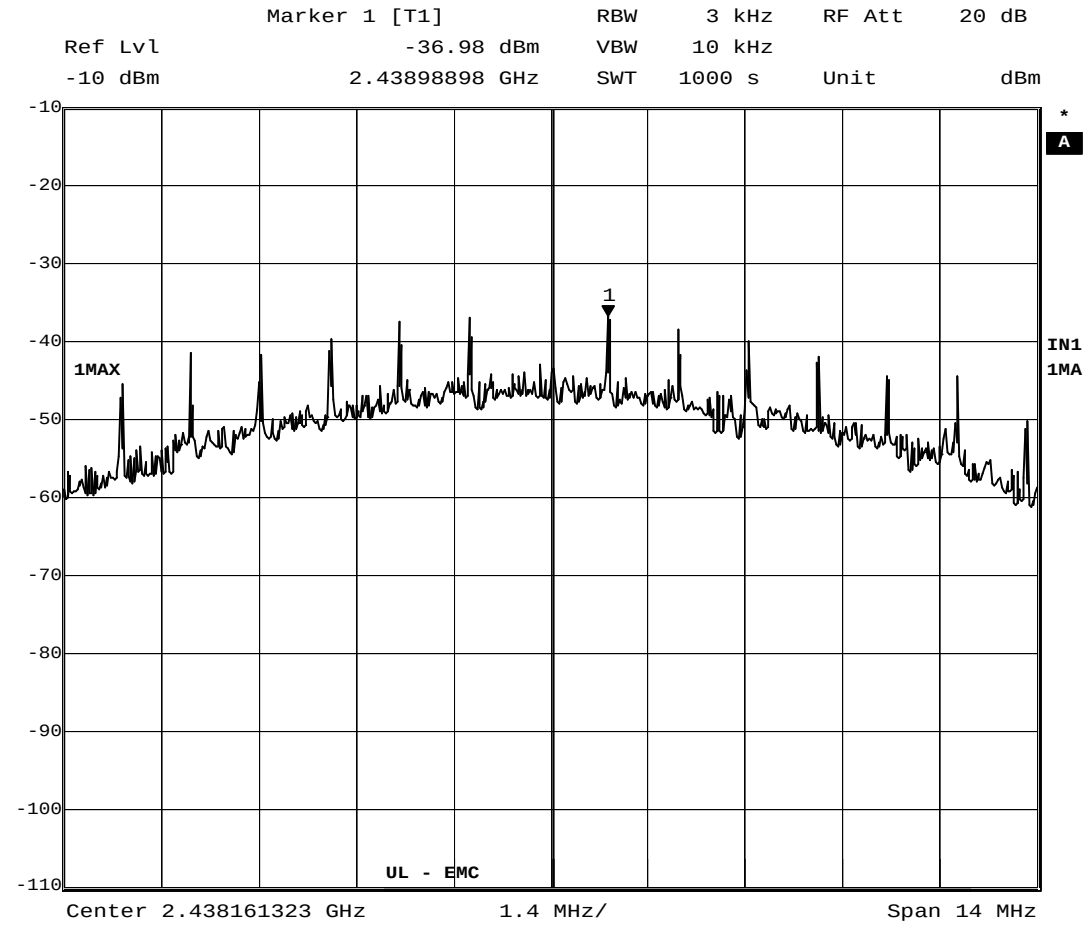
**Table 21 Power Spectral Density – Channel 1**




Altec Lansing
Wireless Speaker System
Model: M812
Job#: 740133
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dBm] | Attenuator Factor [dB] | Power Level [dBm] | Limit [dBm] |
|---|---|---|---|---|
| Channel 1 | | | | |
| 2412 | -36.25 | 19.6 | -16.65 | 8.0 |

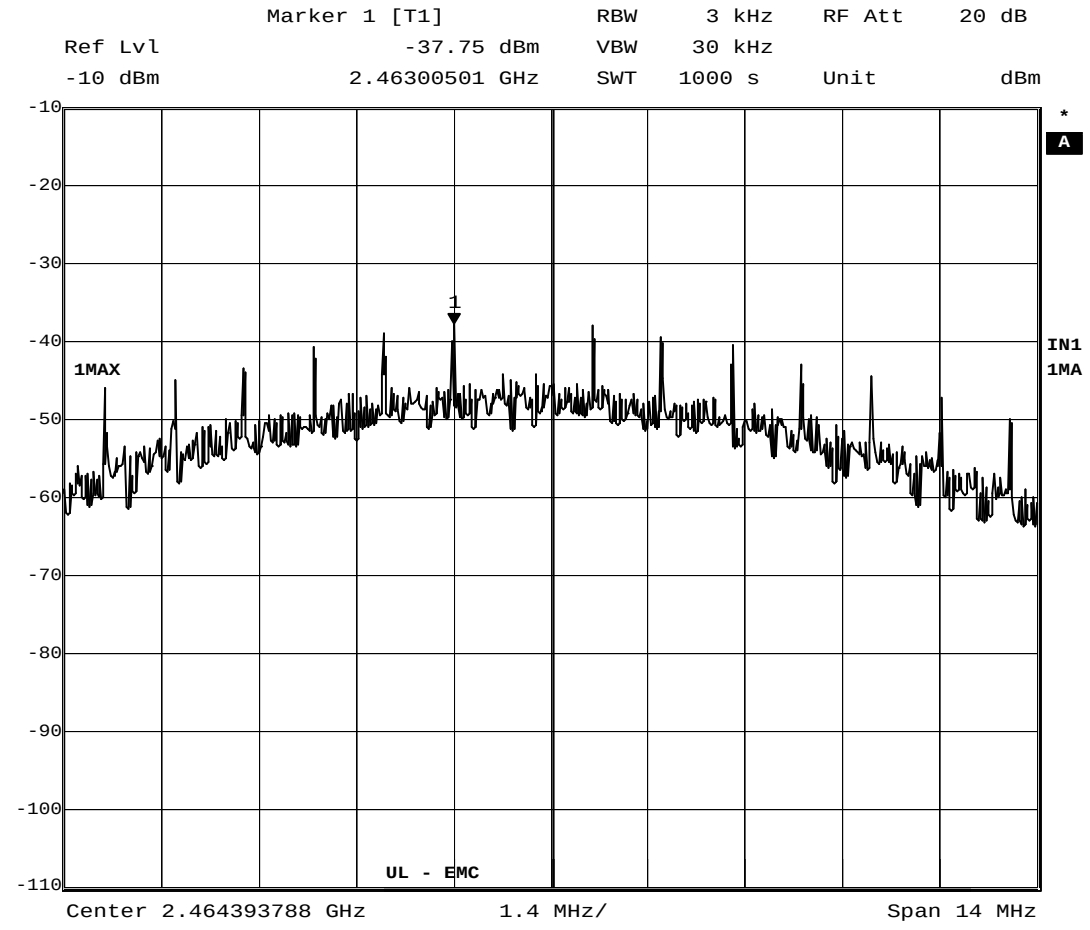
**Table 22 Power Spectral Density – Channel 2**




Altec Lansing
Wireless Speaker System
Model: M812
Job#: 740133
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dBm] | Attenuator Factor [dB] | Power Level [dBm] | Limit [dBm] |
|---|---|---|---|---|
| Channel 2 | | | | |
| 2436 | -36.98 | 19.6 | -17.38 | 8.0 |

**Table 23 Power Spectral Density – Channel 3**




Altec Lansing
Wireless Speaker System
Model: M812
Job#: 740133
Tested by: MA

| Test Frequency [MHz] | Meter Reading [dBm] | Attenuator Factor [dB] | Power Level [dBm] | Limit [dBm] |
|---|---|---|---|---|
| Channel 3 | | | | |
| 2463 | -37.75 | 19.6 | -18.15 | 8.0 |

### 4.6 Test Conditions and Results – Radiated Emissions (Receive Mode)

| | |
|---|---|
| Test Description | Measurements were made in a 10-meter semi-anechoic chamber that complies to CISPR 16/ANSI C63.4. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3-meter. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in both horizontal and vertical polarities. Final measurements (quasi-peak or average as noted) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable. |

| | | |
|---|---|---|
| Basic Standard | FCC Part 15, Subpart B | |
| UL LPG | 80-EM-S0029 | |
| | Frequency range | Measurement Point |
| Fully configured sample scanned over the following frequency range | 30MHz – 1GHz | (3 meter measurement distance) |
| | 1 – 12GHz | (3 meter measurement distance) |

**Limits - Class B**

| Frequency (MHz) | Limit (dBµV/m) | |
|---|---|---|
| | Quasi-Peak | Average |
| 30 – 88 | 40 | - |
| 88 – 216 | 43.5 | - |
| 216-960 | 46 | - |
| 960-1000 | 54 | - |
| 1000-12000 | - | 54 |

Supplementary information: None

**Table 24 Radiated Emissions EUT Configuration Settings**

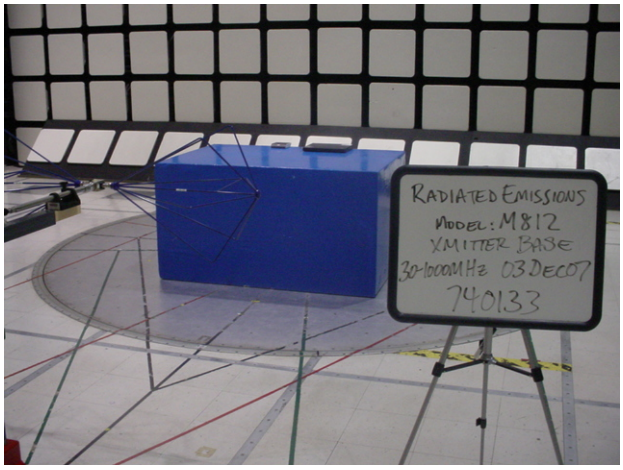
| Power Interface Mode # | EUT Configurations Mode # | EUT Operation Mode # |
|---|---|---|
| 1 | 1 | 7,8 |

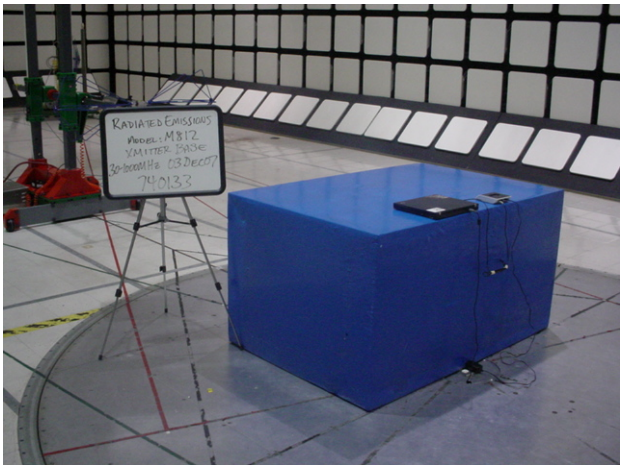
Supplementary information: None

**Table 25 Radiated Emissions Test Equipment**

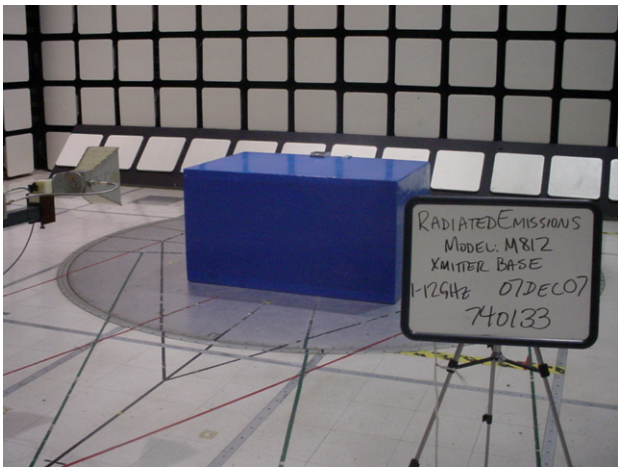
| Test Equipment Used | | | |
|---|---|---|---|
| Description | Manufacturer | Model | Identifier |
| 30-1000MHz | | | |
| EMI Receiver | Rohde & Schwarz | ESIB26 | ME5B-081 |
| Bicon Antenna | Schaffner | VBA6106A | 54 |
| Log-P Antenna | Schaffner | UPA6109 | 44067 |
| Switch Driver | HP | 11713A | ME7A-627 |
| System Controller | Sunol Sciences | SC99V | 44396 |
| Camera Controller | Panasonic | WV-CU254 | 44395 |
| RF Switch Box | UL | 1 | 44398 |
| Measurement Software | UL | Version 9.3 | 44740 |
| Temp/Humidity/ Pressure Meter | Cole Parmer | 99760-00 | 4268 |
| Above 1GHz | | | |
| EMI Receiver | Rohde & Schwarz | ESIB26 | ME5B-081 |
| Horn Antenna | EMCO | 3115 | ME5A-766 |
| Preamp (1 - 26GHz) | HP | 8449B | ME5-914 |
| Switch Driver | HP | 11713A | ME7A-627 |
| System Controller | Sunol Sciences | SC99V | 44396 |
| Camera Controller | Panasonic | WV-CU254 | 44395 |
| RF Switch Box | UL | 1 | 44398 |
| Measurement Software | UL | Version 9.3 | 44740 |
| Temp/Humidity/ Pressure Meter | Cole Parmer | 99760-00 | 4268 |

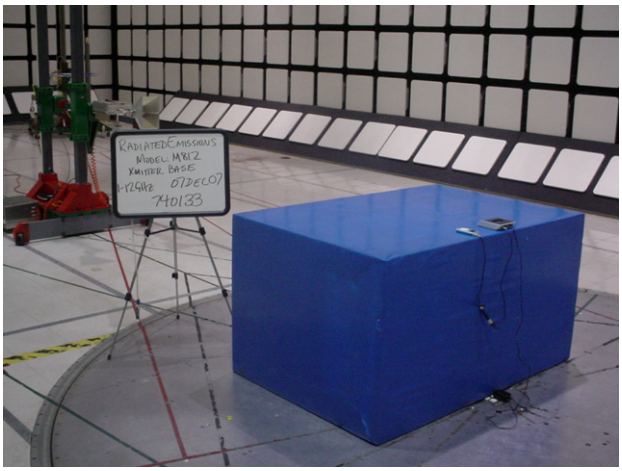
**Figure 18 Test setup for Radiated Emissions**



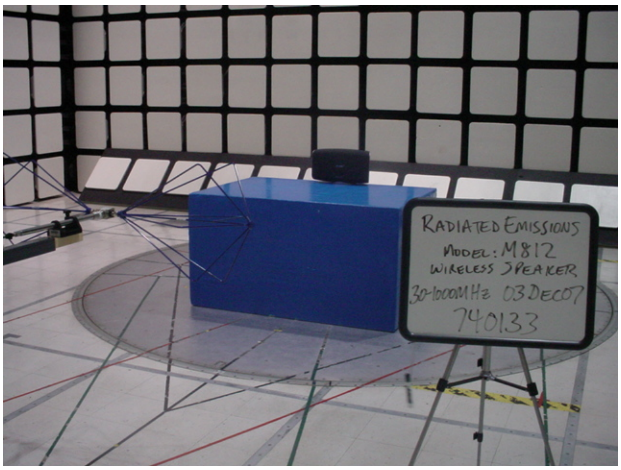

Transmitter Base 30-1000MHz

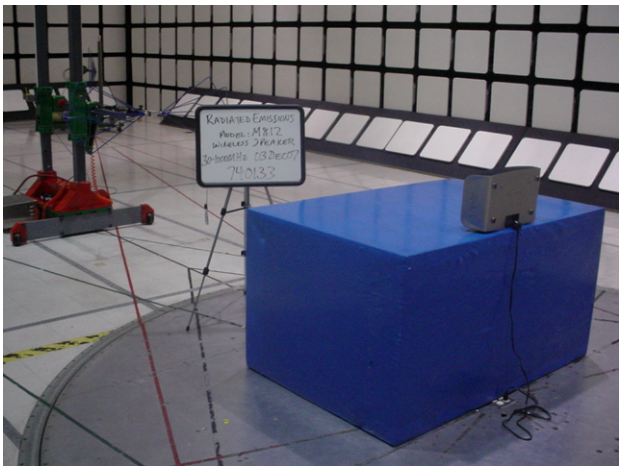


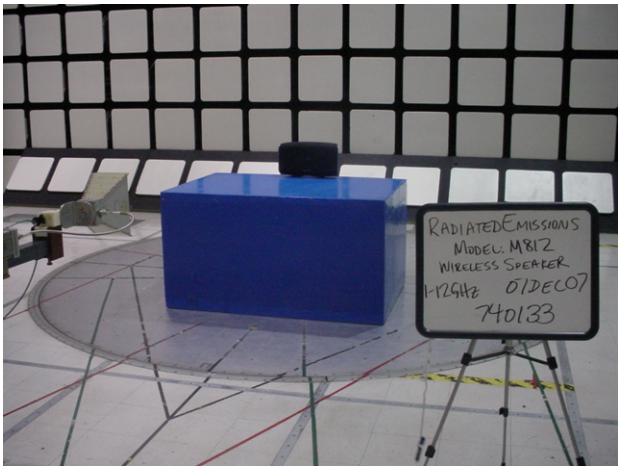

Transmitter Base 1-12GHz

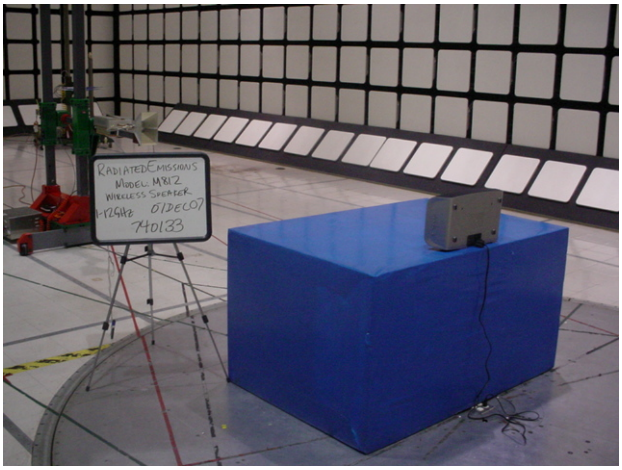
**Figure 19 Test setup for Radiated Emissions**



Wireless Speaker 30-1000MHz



Wireless Speaker 1-12GHz

**Figure 20 Radiated Emissions Graph**

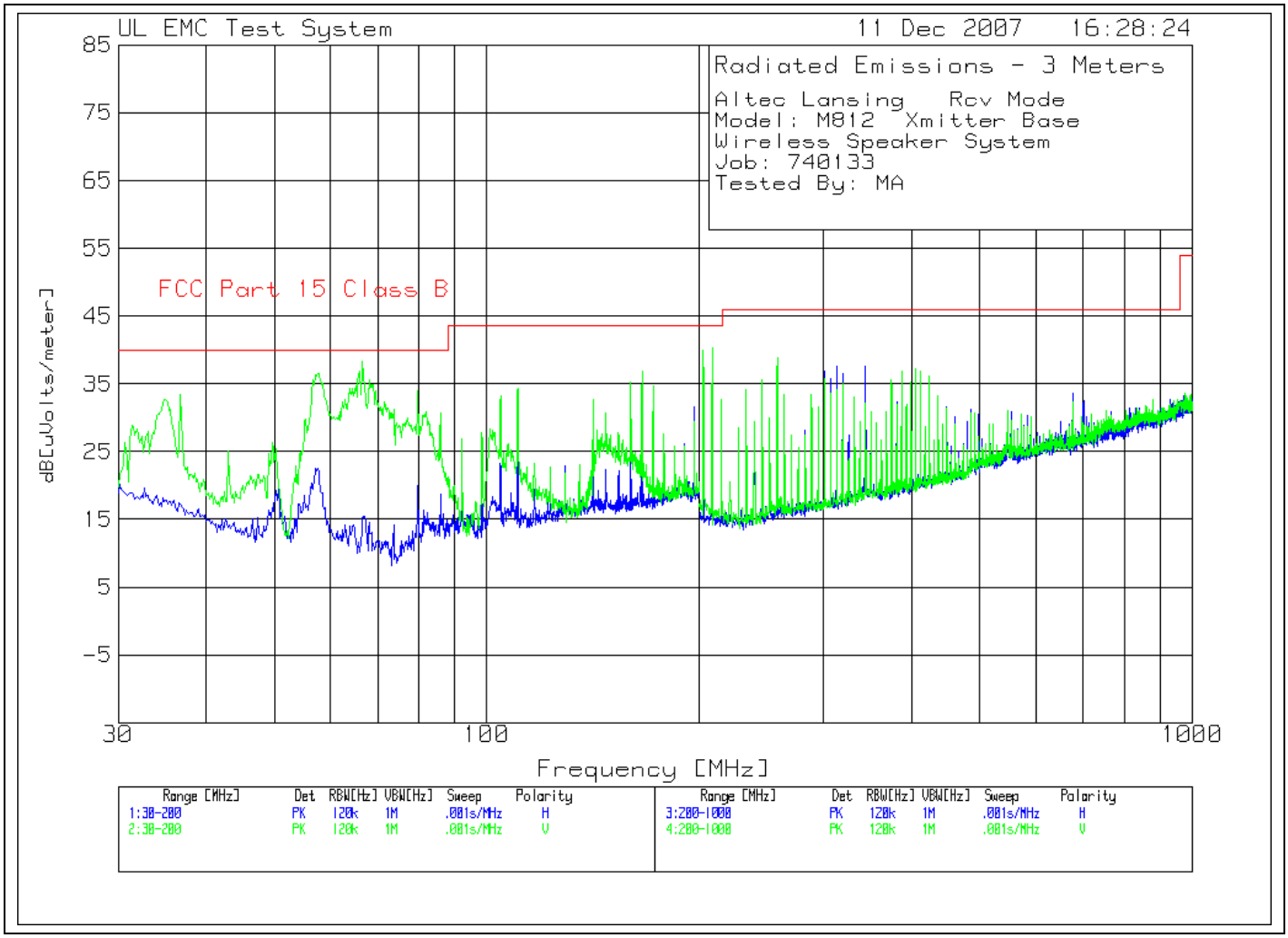


**Table 26 Radiated Emissions Data Points**

Altec Lansing Rcv Mode
Model: M812 Xmitter Base
Wireless Speaker System
Job: 740133
Tested By: MA

| Test No. | Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vertical 30 - 200MHz | | | | | | | | | | | |
| 1 | 66.5866 | 32.04 pk | .4 | 5.9 | 38.34 | 40 | - | - | - | - | - |
| | Azimuth:357 | Height:101 Vert | | Margin [dB] | | -1.66 | - | - | - | - | - |
| 2 | 57.7377 | 28.76 pk | .4 | 7.3 | 36.46 | 40 | - | - | - | - | - |
| | Azimuth:102 | Height:101 Vert | | Margin [dB] | | -3.54 | - | - | - | - | - |
| 3 | 165.966 | 20.18 pk | 1 | 15.7 | 36.88 | 43.5 | - | - | - | - | - |
| | Azimuth:65 | Height:101 Vert | | Margin [dB] | | -6.62 | - | - | - | - | - |
| 8 | 36.8068 | 18.56 pk | .2 | 14.6 | 33.36 | 40 | - | - | - | - | - |
| | Azimuth:343 | Height:101 Vert | | Margin [dB] | | -6.64 | - | - | - | - | - |
| Horizontal 200 - 1000MHz | | | | | | | | | | | |
| 7 | 313.2566 | 21.84 pk | 1.6 | 14.1 | 37.54 | 46 | - | - | - | - | - |
| | Azimuth:18 | Height:199 Horz | | Margin [dB] | | -8.46 | - | - | - | - | - |
| Vertical 200 - 1000MHz | | | | | | | | | | | |
| 4 | 208.8044 | 27.5 pk | 1.1 | 11.7 | 40.3 | 43.5 | - | - | - | - | - |
| | Azimuth:93 | Height:101 Vert | | Margin [dB] | | -3.2 | - | - | - | - | - |
| 5 | 202.4012 | 26.75 pk | 1.1 | 12.1 | 39.95 | 43.5 | - | - | - | - | - |
| | Azimuth:305 | Height:101 Vert | | Margin [dB] | | -3.55 | - | - | - | - | - |
| 6 | 258.029 | 24.23 pk | 1.4 | 13.2 | 38.83 | 46 | - | - | - | - | - |
| | Azimuth:263 | Height:101 Vert | | Margin [dB] | | -7.17 | - | - | - | - | - |

LIMIT 1: FCC Part 15 Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector

Altec Lansing Rcv Mode
Model: M812 Xmitter Base
Wireless Speaker System
Job: 740133
Tested By: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vertical 30 - 200MHz | | | | | | | | | | |
| 57.7162 | 19.24 qp | .4 | 7.3 | 26.94 | 40 | - | - | - | - | - |
| Azimuth: 282 | Height:106 Vert | | Margin [dB]: | -13.06 | | - | - | - | - | - |
| 66.515 | 24.69 qp | .4 | 5.9 | 30.99 | 40 | - | - | - | - | - |
| Azimuth: 272 | Height:104 Vert | | Margin [dB]: | -9.01 | | - | - | - | - | - |
| Vertical 200 - 1000MHz | | | | | | | | | | |
| 202.7412 | 25.25 qp | 1.1 | 12.1 | 38.45 | 43.5 | - | - | - | - | - |
| Azimuth: 17 | Height:105 Vert | | Margin [dB]: | -5.05 | | - | - | - | - | - |
| 208.8751 | 24.9 qp | 1.1 | 11.7 | 37.7 | 43.5 | - | - | - | - | - |
| Azimuth: 35 | Height:104 Vert | | Margin [dB]: | -5.8 | | - | - | - | - | - |

LIMIT 1: FCC Part 15 Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector

ave - Average detector

**Figure 21 Radiated Emissions Graph**

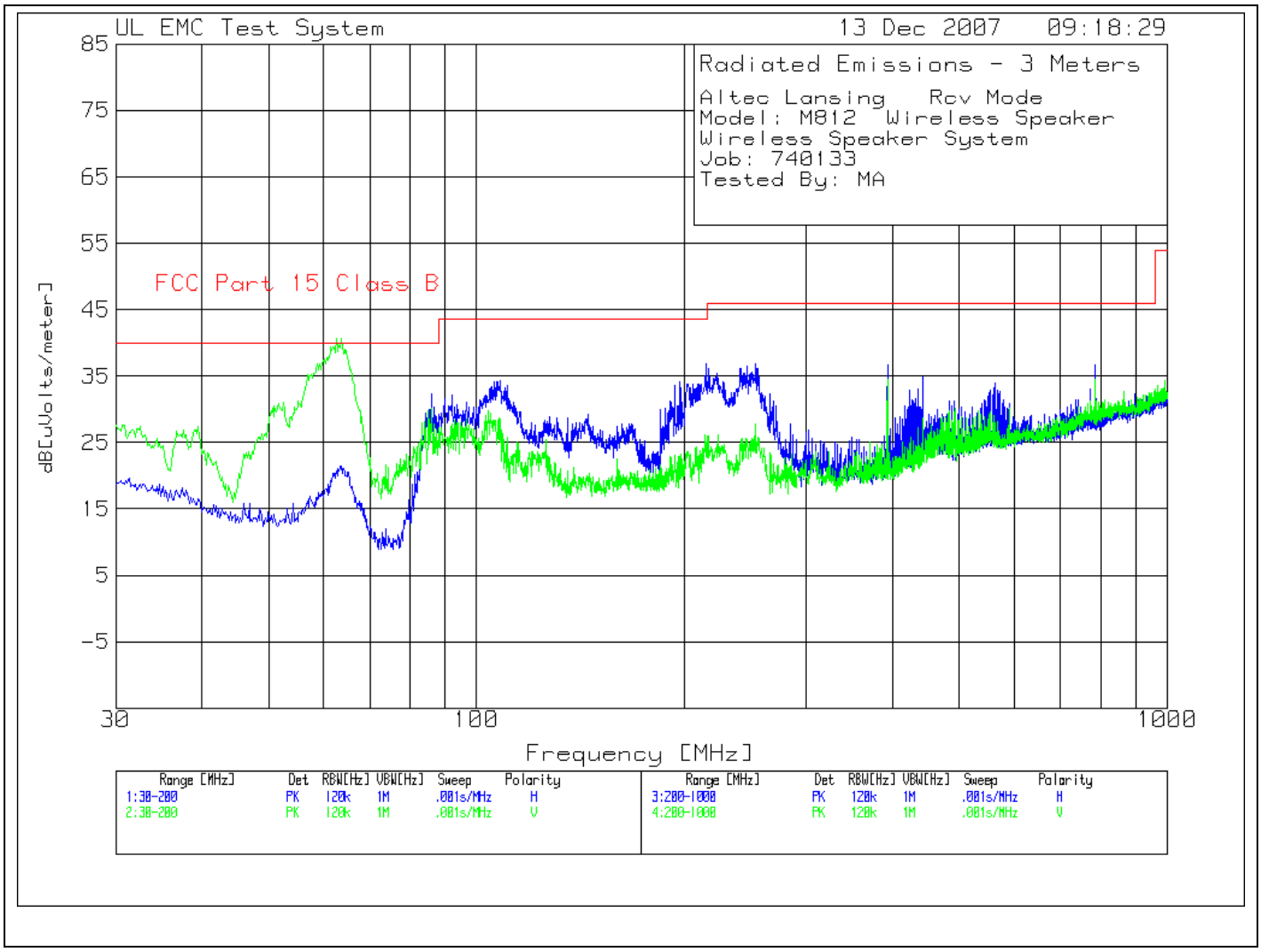


**Table 27 Radiated Emissions Data Points**

Altec Lansing Rcv Mode
Model: M812 Wireless Speaker
Wireless Speaker System
Job: 740133
Tested By: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Horizontal 30 - 200MHz | | | | | | | | | | | |
| 3 | 85.986 | 23.65 pk | .5 | 8.2 | 32.35 | 40 | - | - | - | - | - |
| | Azimuth:324 | Height:250 Horz | | Margin [dB] | | -7.65 | - | - | - | - | - |
| 4 | 108.2783 | 22.17 pk | .7 | 11.5 | 34.37 | 43.5 | - | - | - | - | - |
| | Azimuth:180 | Height:250 Horz | | Margin [dB] | | -9.13 | - | - | - | - | - |
| Vertical 30 - 200MHz | | | | | | | | | | | |
| 1 | 63.6937 | 34.17 pk | .4 | 6.2 | 40.77 | 40 | - | - | - | - | - |
| | Azimuth:136 | Height:100 Vert | | Margin [dB] | | .77 | - | - | - | - | - |
| 2 | 52.4625 | 21.59 pk | .4 | 9 | 30.99 | 40 | - | - | - | - | - |
| | Azimuth:100 | Height:100 Vert | | Margin [dB] | | -9.01 | - | - | - | - | - |
| Horizontal 200 - 1000MHz | | | | | | | | | | | |
| 5 | 214.8074 | 24 pk | 1.3 | 11.6 | 36.9 | 43.5 | - | - | - | - | - |
| | Azimuth:345 | Height:100 Horz | | Margin [dB] | | -6.6 | - | - | - | - | - |
| 6 | 246.023 | 22.79 pk | 1.3 | 12.4 | 36.49 | 46 | - | - | - | - | - |
| | Azimuth:17 | Height:100 Horz | | Margin [dB] | | -9.51 | - | - | - | - | - |
| 7 | 393.2966 | 18.65 pk | 2 | 16 | 36.65 | 46 | - | - | - | - | - |
| | Azimuth:17 | Height:300 Horz | | Margin [dB] | | -9.35 | - | - | - | - | - |

LIMIT 1: FCC Part 15 Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector

Altec Lansing Rcv Mode
Model: M812 Wireless Speaker
Wireless Speaker System
Job: 740133
Tested By: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vertical 30 - 200MHz | | | | | | | | | | |
| 64.1293 | 30.7 qp | .5 | 6.1 | 37.3 | 40 | - | - | - | - | - |
| Azimuth: 271 | Height:104 Vert | | | Margin [dB]: | -2.7 | - | - | - | - | - |

LIMIT 1: FCC Part 15 Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector

**Figure 22 Radiated Emissions Graph**

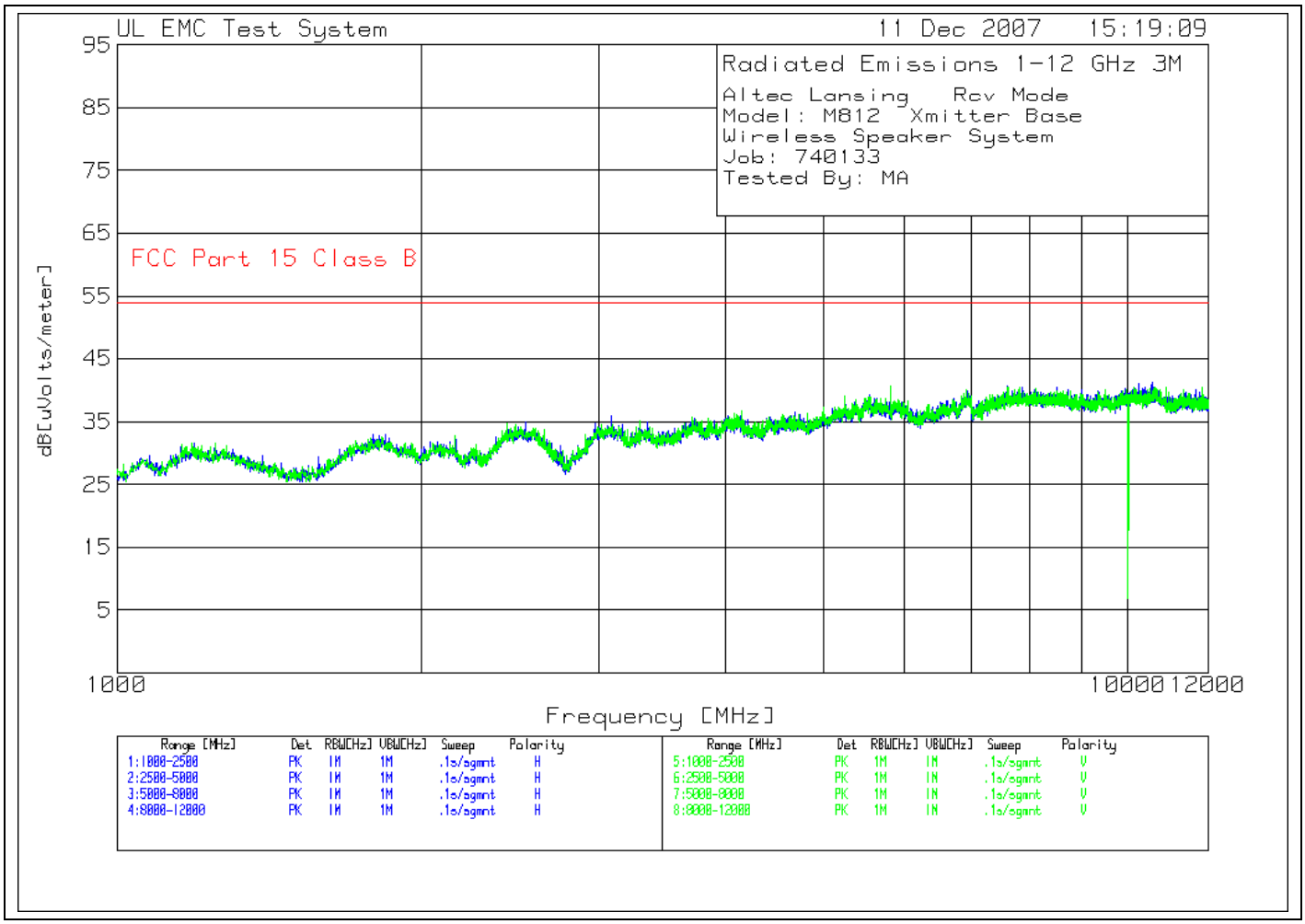


**Table 28 Radiated Emissions Data Points**

Altec Lansing Rcv Mode
Model: M812 Xmitter Base
Wireless Speaker System
Job: 740133
Tested By: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Horizontal 2500 - 5000MHz | | | | | | | | | | | |
| 6 | 4649.767 | 33.23 pk | -30.1 | 32.8 | 35.93 | 54 | - | - | - | - | - |
| | Azimuth:112 | Height:199 Horz | | Margin [dB] | | -18.07 | - | - | - | - | - |
| Horizontal 8000 - 12000MHz | | | | | | | | | | | |
| 1 | 10567.284 | 29.75 pk | -27.2 | 38.7 | 41.25 | 54 | - | - | - | - | - |
| | Azimuth:220 | Height:101 Horz | | Margin [dB] | | -12.75 | - | - | - | - | - |
| 2 | 8074.037 | 30.35 pk | -27.3 | 37.1 | 40.15 | 54 | - | - | - | - | - |
| | Azimuth:251 | Height:101 Horz | | Margin [dB] | | -13.85 | - | - | - | - | - |
| Vertical 5000 - 8000MHz | | | | | | | | | | | |
| 4 | 5822.548 | 35.02 pk | -28.7 | 34.4 | 40.72 | 54 | - | - | - | - | - |
| | Azimuth:84 | Height:199 Vert | | Margin [dB] | | -13.28 | - | - | - | - | - |
| 5 | 5240.16 | 34.67 pk | -29.4 | 33.8 | 39.07 | 54 | - | - | - | - | - |
| | Azimuth:5 | Height:101 Vert | | Margin [dB] | | -14.93 | - | - | - | - | - |
| Vertical 8000 - 12000MHz | | | | | | | | | | | |
| 3 | 10193.097 | 29.2 pk | -28 | 38.8 | 40 | 54 | - | - | - | - | - |
| | Azimuth:331 | Height:201 Vert | | Margin [dB] | | -14 | - | - | - | - | - |

LIMIT 1: FCC Part 15 Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

**Figure 23 Radiated Emissions Graph**

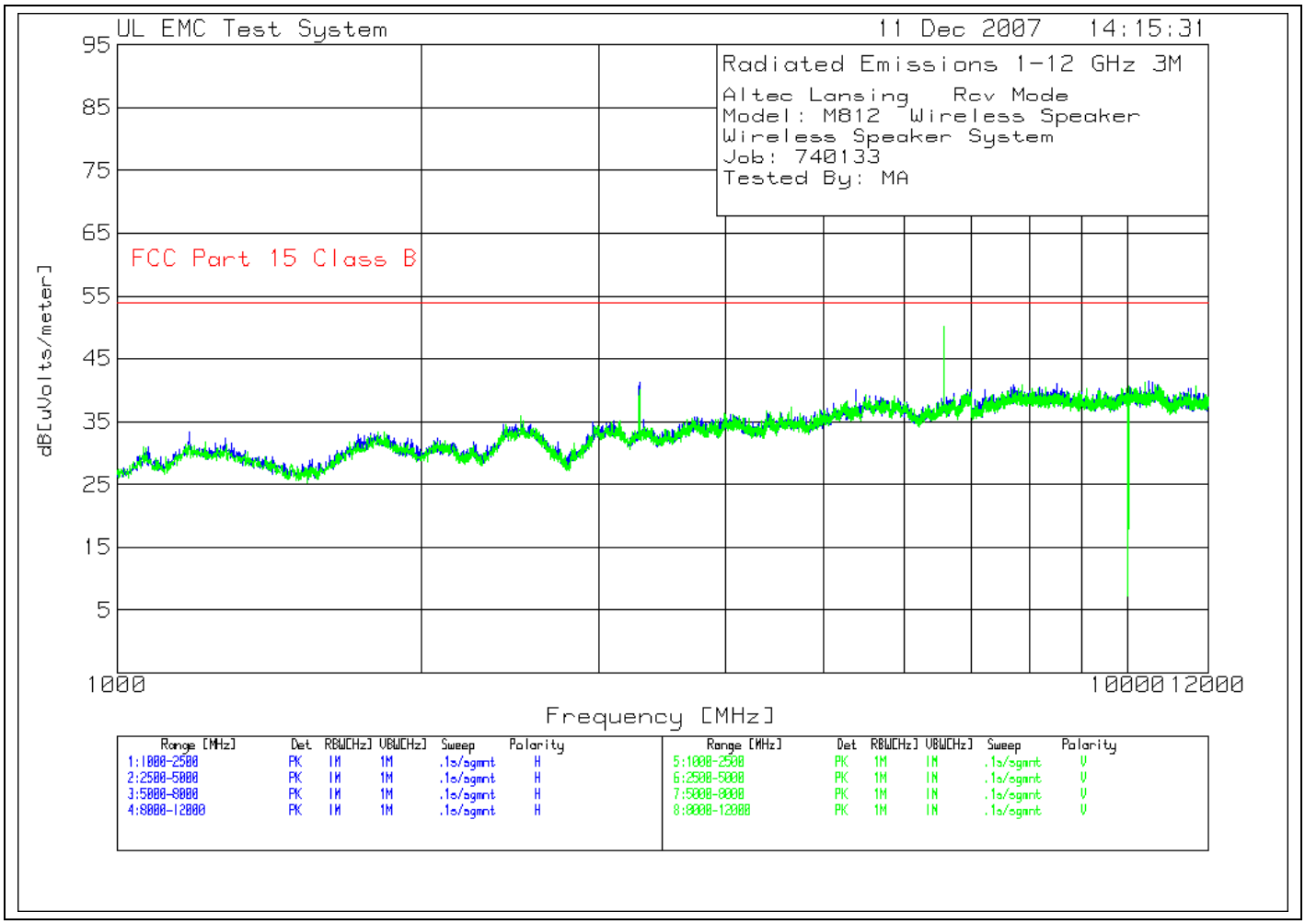


**Table 29 Radiated Emissions Data Points**

Altec Lansing Rcv Mode
Model: M812 Wireless Speaker
Wireless Speaker System
Job: 740133
Tested By: MA

| No. | Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Horizontal 2500 - 5000MHz | | | | | | | | | | | |
| 1 | 3285.524 | 42.55 pk | -32 | 30.7 | 41.25 | 54 | - | - | - | - | - |
| | Azimuth:279 | Height:100 Horz | | Margin [dB] | | -12.75 | - | - | - | - | - |
| Horizontal 5000 - 8000MHz | | | | | | | | | | | |
| 4 | 6571.047 | 40.33 pk | -28.6 | 34.7 | 46.43 | 54 | - | - | - | - | - |
| | Azimuth:357 | Height:199 Horz | | Margin [dB] | | -7.57 | - | - | - | - | - |
| 6 | 5378.252 | 35.83 pk | -29.9 | 34.1 | 40.03 | 54 | - | - | - | - | - |
| | Azimuth:353 | Height:199 Horz | | Margin [dB] | | -13.97 | - | - | - | - | - |
| Horizontal 8000 - 12000MHz | | | | | | | | | | | |
| 5 | 10479.24 | 29.9 pk | -27.1 | 38.7 | 41.5 | 54 | - | - | - | - | - |
| | Azimuth:248 | Height:101 Horz | | Margin [dB] | | -12.5 | - | - | - | - | - |
| Vertical 2500 - 5000MHz | | | | | | | | | | | |
| 2 | 3285.524 | 41.33 pk | -32 | 30.7 | 40.03 | 54 | - | - | - | - | - |
| | Azimuth:312 | Height:101 Vert | | Margin [dB] | | -13.97 | - | - | - | - | - |
| Vertical 5000 - 8000MHz | | | | | | | | | | | |
| 3 | 6571.047 | 44 pk | -28.6 | 34.7 | 50.1 | 54 | - | - | - | - | - |
| | Azimuth:331 | Height:199 Vert | | Margin [dB] | | -3.9 | - | - | - | - | - |

LIMIT 1: FCC Part 15 Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE

Altec Lansing Rcv Mode
Model: M812 Wireless Speaker
Wireless Speaker System
Job: 740133
Tested By: MA

| Test Frequency [MHz] | Meter Reading [dB(uV)] | Gain/Loss Factor [dB] | Transducer Factor [dB] | Level dB[uVolts/meter] | Limit:1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|
| Vertical 5000 - 8000MHz | | | | | | | | | | |
| 6570.6207 | 46.71 ave | -28.6 | 34.7 | 52.81 | 54 | - | - | - | - | - |
| Azimuth: 340 | Height:160 Vert | | Margin [dB]: | -1.19 | - | - | - | - | - | |

LIMIT 1: FCC Part 15 Class B
LIMIT 2: NONE
LIMIT 3: NONE
LIMIT 4: NONE
LIMIT 5: NONE
LIMIT 6: NONE

pk - Peak detector
qp - Quasi-Peak detector
av - Average detector
avlg - Average log detector
ave - Average detector