

**6a.3 Radiated Spurious Emissions -- Pursuant 47 CFR 2.1053, §2.1057, §90.210(g)(3), §90.691(a)(2)****6a.3.1 800-900 MHz SMR Bands.**FCC Limits

Per 90.210(g)(3) and 90.691(a)(2), radiated spurious emissions shall be attenuated below the maximum level of emission of the carrier frequency in accordance with the following formula:

- $43 + 10 \log_{10}(P)$   
(Thus the effective limit is  $-13 \text{ dBm}$  for any transmitter power level).

*NOTE 1: Spurious emissions are dependent on the linearity of the Power Amplifier and are independent of modulation type or TDM interleaving. Thus emissions were tested with the radio set to Quad-16QAM at both maximum and minimum radio output power settings.*

*NOTE 2: An asterisk (\*) in the data indicates the spurious emission was greater than 20 dB below the specification limit, or could not otherwise be detected due to noise limitations or ambient signal levels.*

*NOTE 3: Spurious emission levels were measured with the non-detachable antenna mounted on the radio product, as in intended use. Measurement setup is described in Exhibit 7.3.*

*NOTE 4: Spurious emissions are dependent on the linearity of the Power Amplifier (U500) and are independent of modulation type or TDM interleaving. Thus, for the Land Mobile Band, emissions were tested with the radio set to Quad-16QAM.*

*NOTE 5: Emissions resulting from intermodulation products possible due to the simultaneous operation of the Part 90 SMR and Bluetooth transmitters were investigated and those of significance are shown in the graphs below. All were compliant with the applicable Part 90 emissions requirements.*

Motorola Inc.

FCC ID: IHDT56JQ1

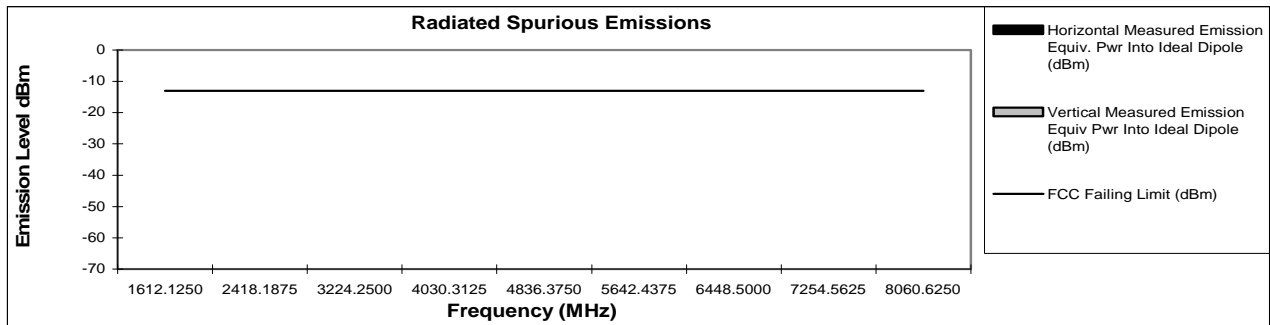
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: 0.64 Watts**

**806.0625 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1612.1250	-13	*	*
2418.1875	-13	*	*
3224.2500	-13	*	*
4030.3125	-13	*	*
4836.3750	-13	*	*
5642.4375	-13	*	*
6448.5000	-13	*	*
7254.5625	-13	*	*
8060.6250	-13	*	*



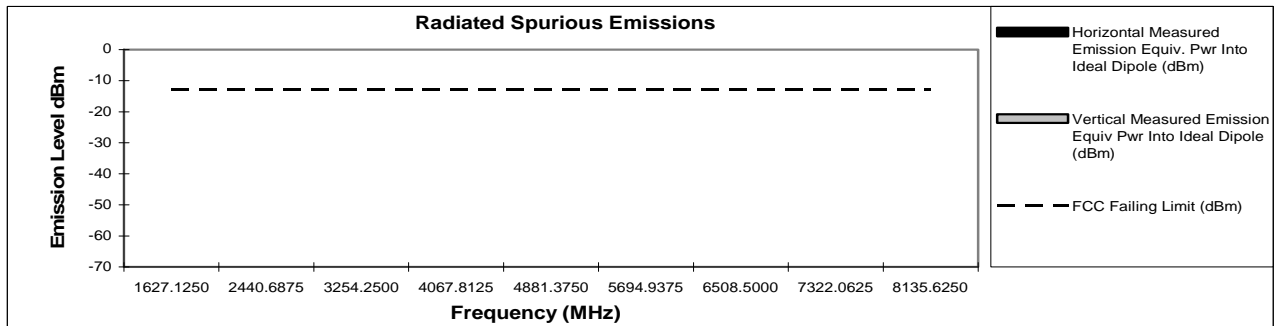
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: 0.64 Watts**

**813.5625 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1627.1250	-13	*	*
2440.6875	-13	*	*
3254.2500	-13	*	*
4067.8125	-13	*	*
4881.3750	-13	*	*
5694.9375	-13	*	*
6508.5000	-13	*	*
7322.0625	-13	*	*
8135.6250	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West  
 FCC Registration: 91932 / Industry Canada: IC109U-1

October 8, 2008

**Table 6a.2.1. Spurious emissions at 806.0625 and 813.5625 MHz**

Motorola Inc.

FCC ID: IHDT56JQ1

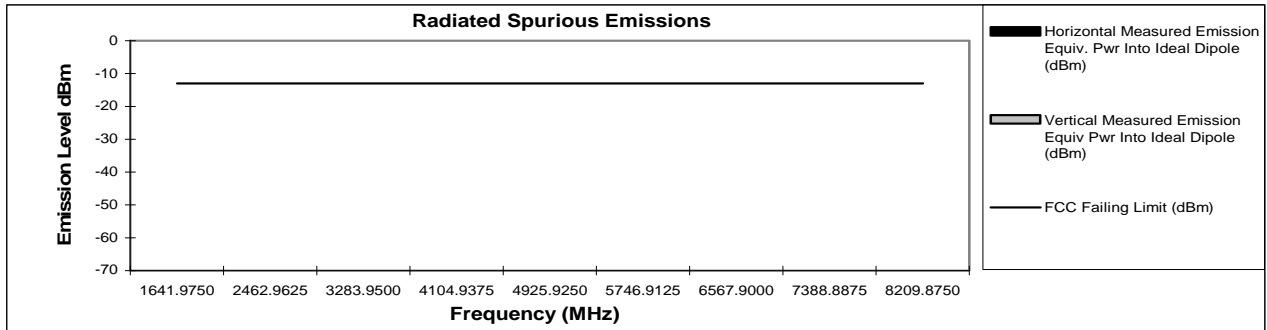
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: 0.64 Watts**

**820.9875 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1641.9750	-13	*	*
2462.9625	-13	*	*
3283.9500	-13	*	*
4104.9375	-13	*	*
4925.9250	-13	*	*
5746.9125	-13	*	*
6567.9000	-13	*	*
7388.8875	-13	*	*
8209.8750	-13	*	*



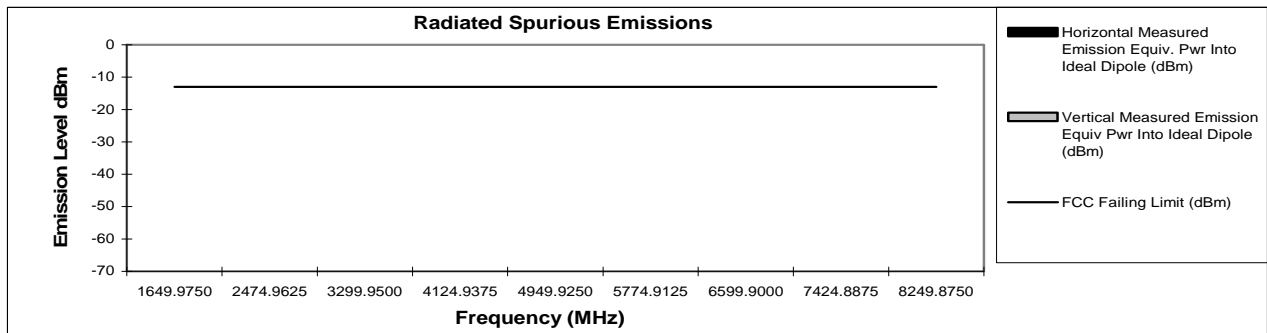
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: 0.64 Watts**

**824.9875 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1649.9750	-13	*	*
2474.9625	-13	*	*
3299.9500	-13	*	*
4124.9375	-13	*	*
4949.9250	-13	*	*
5774.9125	-13	*	*
6599.9000	-13	*	*
7424.8875	-13	*	*
8249.8750	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West  
 FCC Registration: 91932 / Industry Canada: IC109U-1

October 8, 2008

**Table 6a.2.2. Spurious emissions at 820.9875 and 824.9875 MHz**

Motorola Inc.

FCC ID: IHDT56JQ1

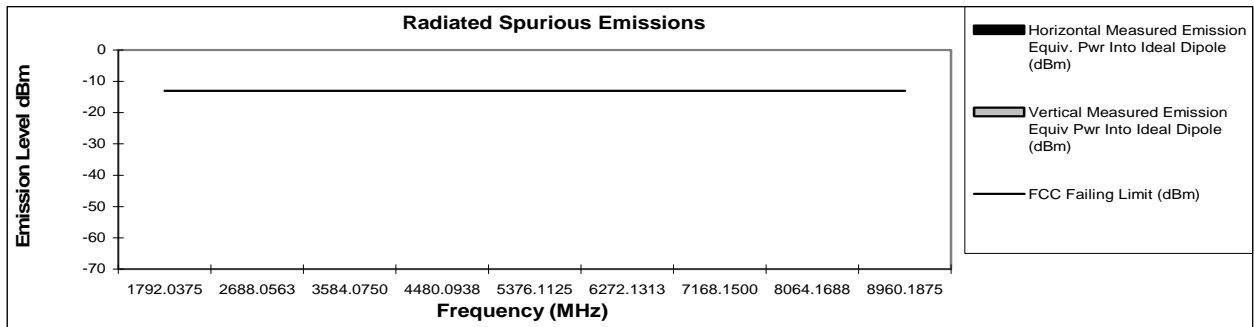
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: 0.64 Watts**

**896.01875 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)
1792.0375	-13	*	*
2688.0563	-13	*	*
3584.0750	-13	*	*
4480.0938	-13	*	*
5376.1125	-13	*	*
6272.1313	-13	*	*
7168.1500	-13	*	*
8064.1688	-13	*	*
8960.1875	-13	*	*



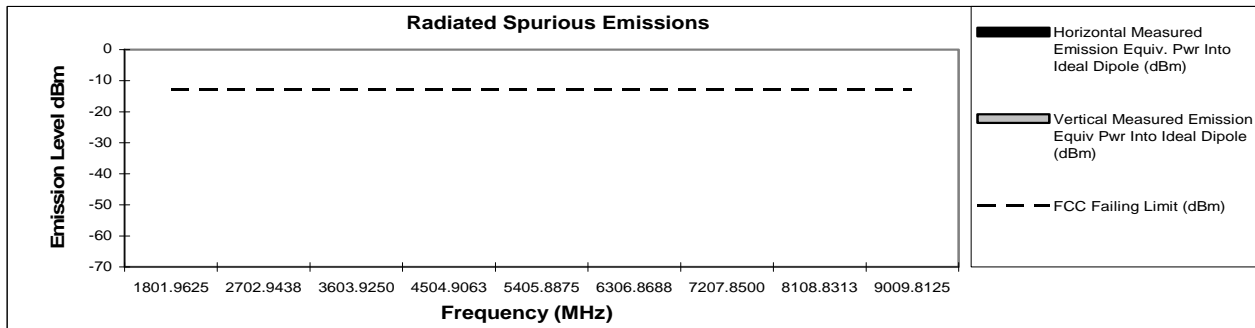
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: 0.64 Watts**

**900.98125 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)
1801.9625	-13	*	*
2702.9438	-13	*	*
3603.9250	-13	*	*
4504.9063	-13	*	*
5405.8875	-13	*	*
6306.8688	-13	*	*
7207.8500	-13	*	*
8108.8313	-13	*	*
9009.8125	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West  
 FCC Registration: 91932 / Industry Canada: IC109U-1

October 10, 2008

**Table 6a.2.3. Spurious emissions at 896.01875 and 900.98125 MHz**

Motorola Inc.

FCC ID: IHDT56JQ1

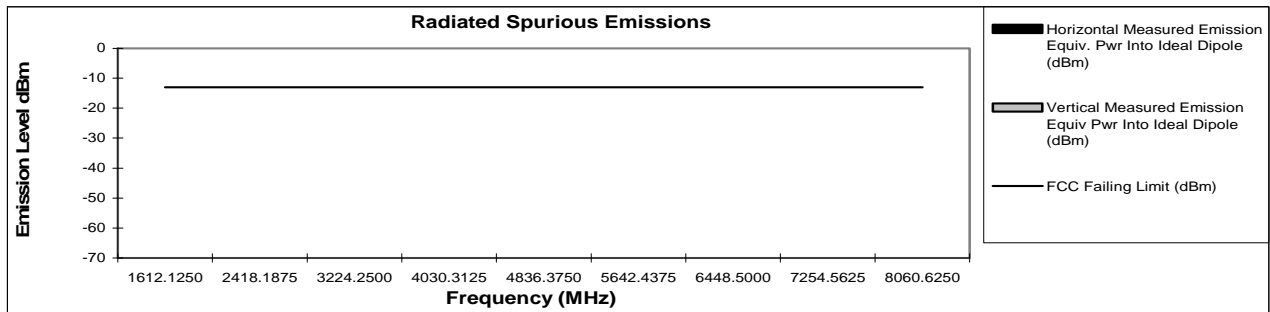
Transmit Radiated Spurious Emissions: i9

Tx Power: Cutback Watts

806.0625 MHz

Channel Spacing 25kHz | S/N 364VJQ63DG

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1612.1250	-13	*	*
2418.1875	-13	*	*
3224.2500	-13	*	*
4030.3125	-13	*	*
4836.3750	-13	*	*
5642.4375	-13	*	*
6448.5000	-13	*	*
7254.5625	-13	*	*
8060.6250	-13	*	*



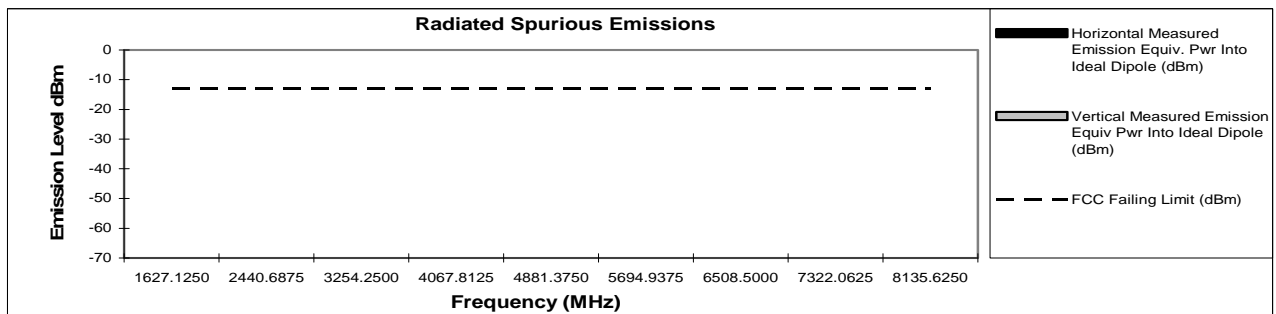
Transmit Radiated Spurious Emissions: i9

Tx Power: Cutback Watts

813.5625 MHz

Channel Spacing 25kHz | S/N 364VJQ63DG

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1627.1250	-13	*	*
2440.6875	-13	*	*
3254.2500	-13	*	*
4067.8125	-13	*	*
4881.3750	-13	*	*
5694.9375	-13	*	*
6508.5000	-13	*	*
7322.0625	-13	*	*
8135.6250	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West

October 8, 2008

FCC Registration: 91932 / Industry Canada: IC109U-1

Table 6a.2.5. Spurious emissions at 806.0625 and 813.5625 MHz (Lowest Power, – 34 dB Cutback)

Motorola Inc.

FCC ID: IHDT56JQ1

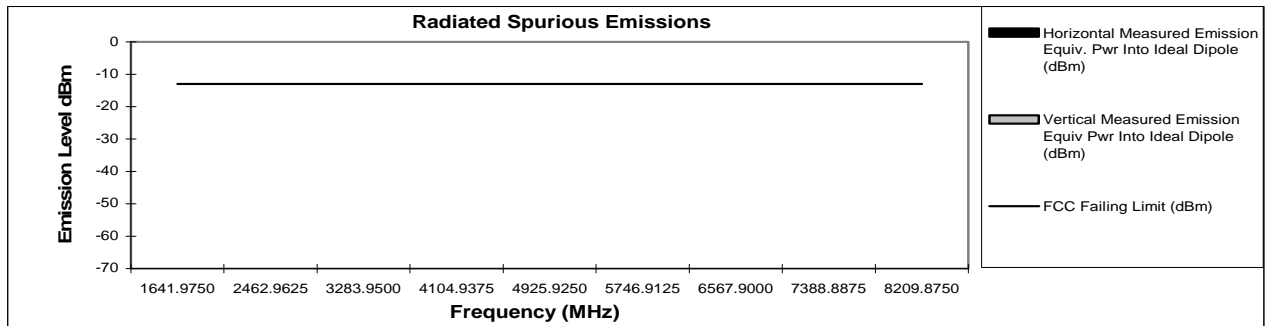
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: Cutback Watts**

**820.9875 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1641.9750	-13	*	*
2462.9625	-13	*	*
3283.9500	-13	*	*
4104.9375	-13	*	*
4925.9250	-13	*	*
5746.9125	-13	*	*
6567.9000	-13	*	*
7388.8875	-13	*	*
8209.8750	-13	*	*



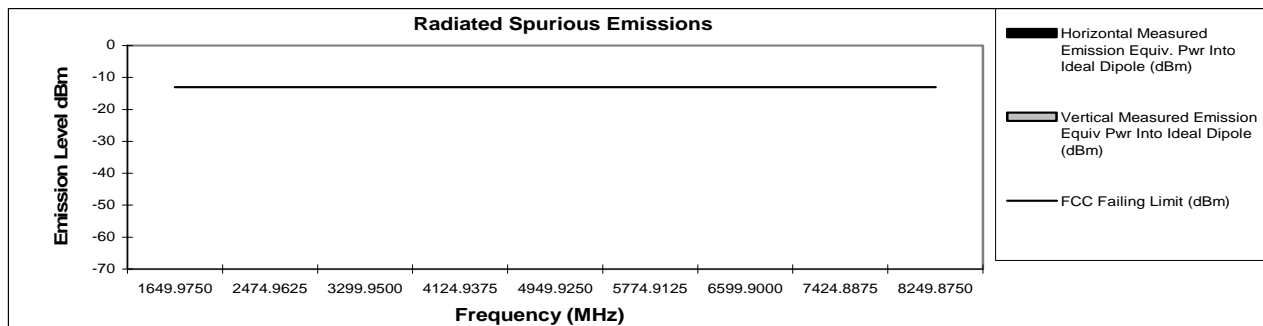
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: Cutback Watts**

**824.9875 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1649.9750	-13	*	*
2474.9625	-13	*	*
3299.9500	-13	*	*
4124.9375	-13	*	*
4949.9250	-13	*	*
5774.9125	-13	*	*
6599.9000	-13	*	*
7424.8875	-13	*	*
8249.8750	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West  
 FCC Registration: 91932 / Industry Canada: IC109U-1

October 8, 2008

**Table 6a.2.6. Spurious emissions at 820.9875 and 824.9875 MHz (Lowest Power, – 34 dB Cutback)**

Motorola Inc.

FCC ID: IHDT56JQ1

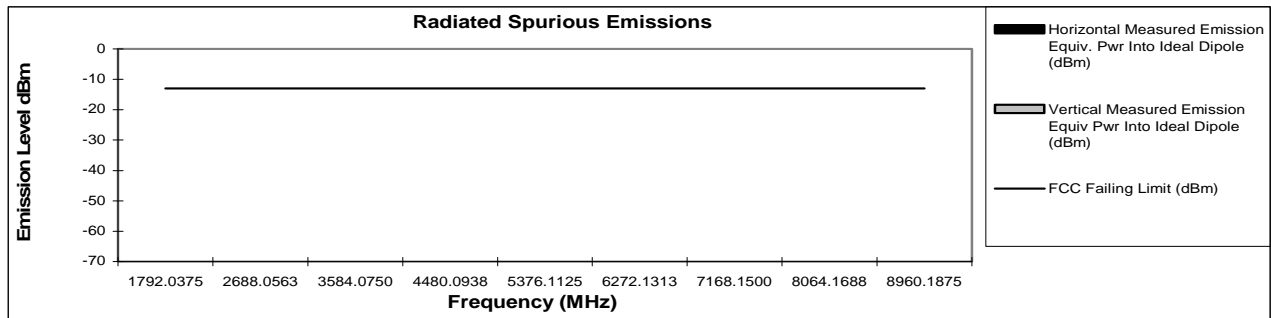
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: Cutback Watts**

**896.01875 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1792.0375	-13	*	*
2688.0563	-13	*	*
3584.0750	-13	*	*
4480.0938	-13	*	*
5376.1125	-13	*	*
6272.1313	-13	*	*
7168.1500	-13	*	*
8064.1688	-13	*	*
8960.1875	-13	*	*



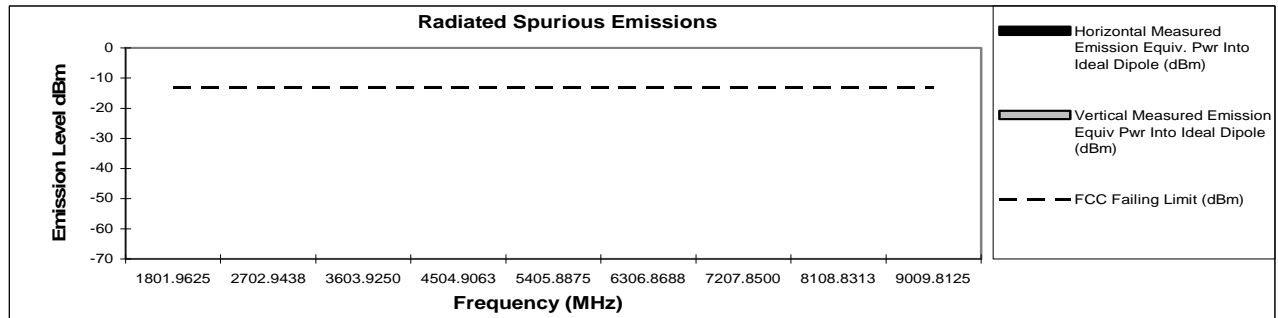
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: Cutback Watts**

**900.98125 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1801.9625	-13	*	*
2702.9438	-13	*	*
3603.9250	-13	*	*
4504.9063	-13	*	*
5405.8875	-13	*	*
6306.8688	-13	*	*
7207.8500	-13	*	*
8108.8313	-13	*	*
9009.8125	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West  
 FCC Registration: 91932 / Industry Canada: IC109U-1

October 10, 2008

**Table 6a.2.7. Spurious emissions at 896.01875 and 900.98125 MHz (Lowest Power, – 34 dB Cutback)**

**6b.3 Radiated Spurious Emissions -- Pursuant 47 CFR 2.1053, §2.1057, and §24.133(a)(1)(ii)****6b.3.1 900 MHz NBPCS Band.**FCC Limits

Per 47 CFR 24.133(a)(1), radiated spurious emissions shall be attenuated below the *lesser* of the attenuations given below:

- $43 + 10 \log_{10}(P)$  (in dBm).
- 80 dB

For this product, the applicable attenuation limit is *-13 dBm*.

*NOTE 1: Spurious emissions are dependent on the linearity of the Power Amplifier and are independent of modulation type or TDM interleaving. Thus emissions were tested with the radio set to Quad-16QAM at both maximum and minimum radio output power settings.*

*NOTE 2: An asterisk (\*) in the data indicates the spurious emission was greater than 20 dB below the specification limit, or could not otherwise be detected due to noise limitations or ambient signal levels.*

*NOTE 3: Spurious emission levels were measured with the non-detachable antenna mounted on the radio product, as in intended use. Measurement setup is described in Exhibit 7.3.*

*NOTE 4: Spurious emissions are dependent on the linearity of the Power Amplifier (U500) and are independent of modulation type or TDM interleaving. Thus, for the Land Mobile Band, emissions were tested with the radio set to Quad-16QAM.*

*NOTE 5: Emissions resulting from intermodulation products possible due to the simultaneous operation of the Part 24 NBPCS band and Bluetooth transmitters were investigated and those of significance are shown in the graphs below. All were compliant with the applicable Part 24 emissions requirements.*



Motorola Inc.

FCC ID: IHDT56JQ1

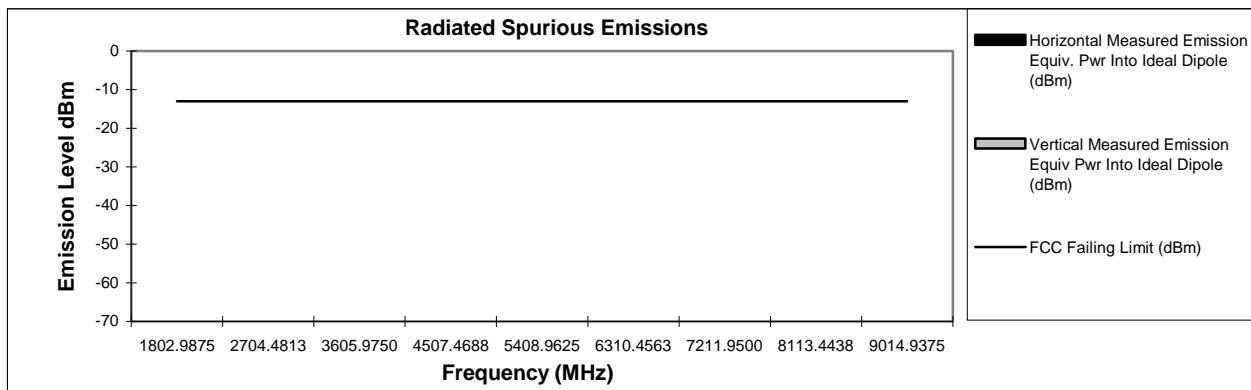
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: 0.64 Watts**

**901.49375 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1802.9875	-13	*	*
2704.4813	-13	*	*
3605.9750	-13	*	*
4507.4688	-13	*	*
5408.9625	-13	*	*
6310.4563	-13	*	*
7211.9500	-13	*	*
8113.4438	-13	*	*
9014.9375	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West

October 10, 2008

FCC Registration: 91932 / Industry Canada: IC109U-1

**Table 6b.2.1. Spurious emission at 900.49375 MHz**

Motorola Inc.

FCC ID: IHDT56JQ1

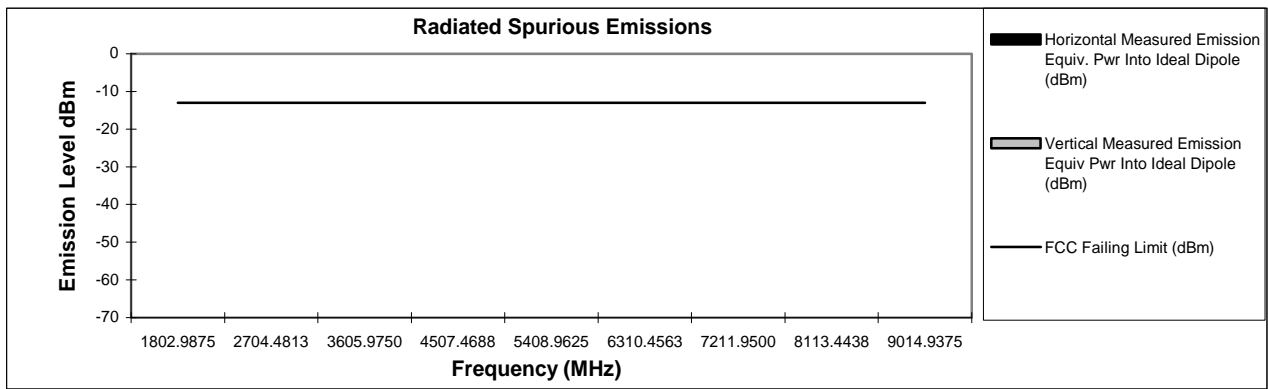
**Transmit Radiated Spurious Emissions: i9**

**Tx Power: Cutback Watts**

**901.49375 MHz**

**Channel Spacing 25kHz | S/N 364VJQ63DG**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1802.9875	-13	*	*
2704.4813	-13	*	*
3605.9750	-13	*	*
4507.4688	-13	*	*
5408.9625	-13	*	*
6310.4563	-13	*	*
7211.9500	-13	*	*
8113.4438	-13	*	*
9014.9375	-13	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Don West

October 10, 2008

FCC Registration: 91932 / Industry Canada: IC109U-1

**Table 6b.2.2. Spurious emissions at 900.49375 MHz (Lowest Power, – 34 dB Cutback)**