

#### 6.4. Radiated Spurious Emissions -- Pursuant 47 CFR 2.1053, 2.1057, 90.210(g)(3), 90.691(a)(2)

##### 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:

Spurious attenuation in dB =  $43 + 10 \log_{10}(P)$   
(Thus the effective limit is -13 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 less than -33 dBm or could not be detected due to noise limitations or ambients.*

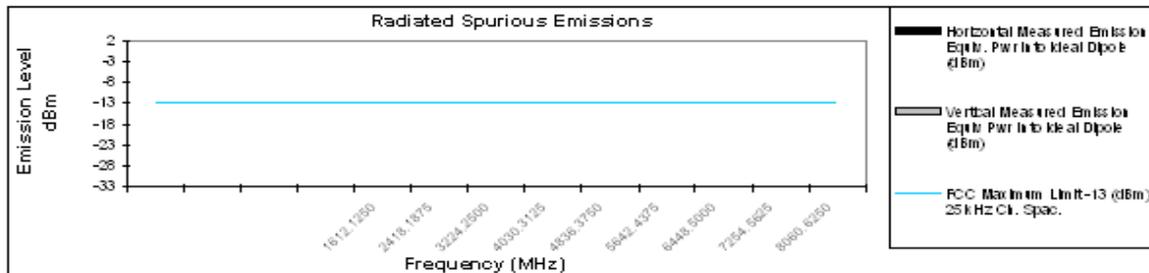
*NOTE 3: Spurious emission levels were measured with the non-detachable antenna mounted on the radio product, as in intended use. Measurement setup is described in Exhibit 7.3.*

**Transmitter Radiated Spurious Emissions: i730 Max Power**

806.0625 MHz

Channel Spacing 25KHZ S/N 364ADC01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1612.1250	-13	*	*
3XFund	2418.1875	-13	*	*
4XFund	3224.2500	-13	*	*
5XFund	4030.3125	-13	*	*
6XFund	4836.3750	-13	*	*
7XFund	5642.4375	-13	*	*
8XFund	6448.5000	-13	*	*
9XFund	7254.5625	-13	*	*
10XFund	8060.6250	-13	*	*



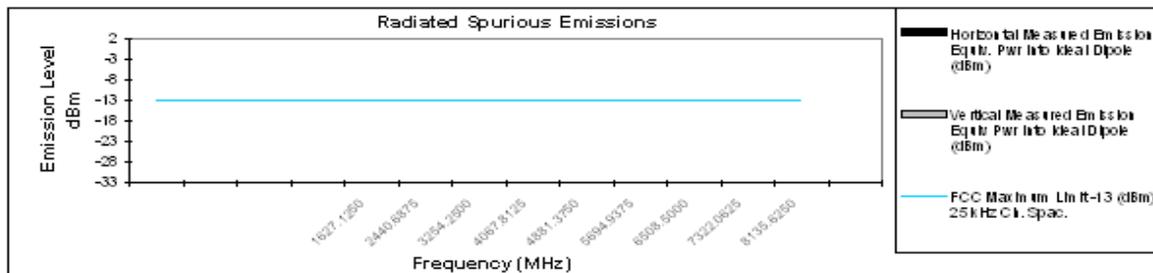
\* Indicates the spurious emission was less than -33 dBm or could not be detected due to noise limitations or ambients.

**Transmitter Radiated Spurious Emissions: i730 Max Power**

813.5625 MHz

Channel Spacing 25KHZ S/N 364ADC01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1627.1250	-13	*	*
3XFund	2440.6875	-13	*	*
4XFund	3254.2500	-13	*	*
5XFund	4067.8125	-13	*	*
6XFund	4881.3750	-13	*	*
7XFund	5694.9375	-13	*	*
8XFund	6508.5000	-13	*	*
9XFund	7322.0625	-13	*	*
10XFund	8135.6250	-13	*	*



\* Indicates the spurious emission was less than -33 dBm or 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: Frank Baader

May 16, 2003

FCC Registration: 91932 / Industry Canada: IC3679

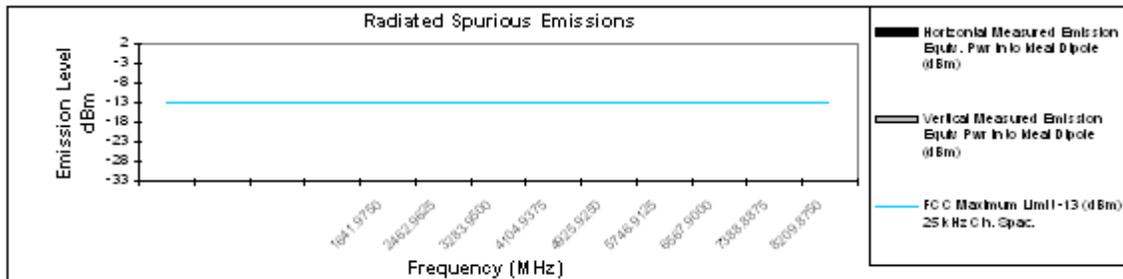
Motorola Inc.

FCC ID:AZ489FT5824

**Figure 6-23a: Maximum Power Setting Transmitter Spurious Emissions**

**Transmitter Radiated Spurious Emissions: i730 Max Power**  
**820.9875 MHz** **Channel Spacing 25KHZ** **S/N 364ADC01ML**

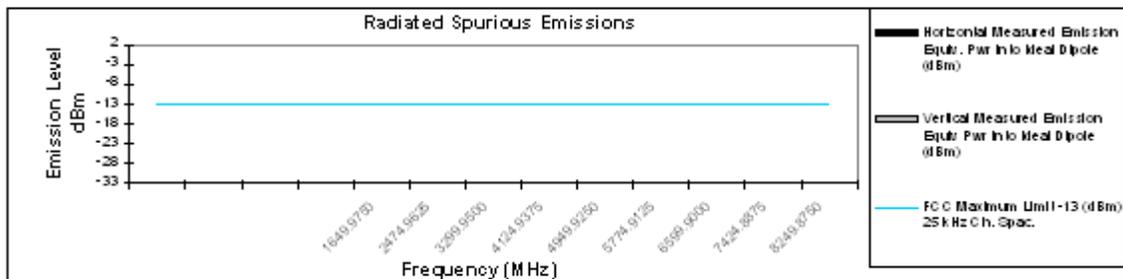
Spur	Frequency(MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1641.9750	-13	*	*
3XFund	2462.9625	-13	*	*
4XFund	3283.9500	-13	*	*
5XFund	4104.9375	-13	*	*
6XFund	4925.9250	-13	*	*
7XFund	5746.9125	-13	*	*
8XFund	6567.9000	-13	*	*
9XFund	7388.8875	-13	*	*
10XFund	8209.8750	-13	*	*



\* Indicates the spurious emission was less than -33 dBm or could not be detected due to noise limitations or ambients.

**Transmitter Radiated Spurious Emissions: i730 Max Power**  
**824.9875 MHz** **Channel Spacing 25KHZ** **S/N 364ADC01ML**

Spur	Frequency(MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1649.9750	-13	*	*
3XFund	2474.9625	-13	*	*
4XFund	3299.9500	-13	*	*
5XFund	4124.9375	-13	*	*
6XFund	4949.9250	-13	*	*
7XFund	5774.9125	-13	*	*
8XFund	6599.9000	-13	*	*
9XFund	7424.8875	-13	*	*
10XFund	8249.8750	-13	*	*



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

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May 16, 2003

**Figure 6-23b: Maximum Power Setting Transmitter Spurious Emissions**

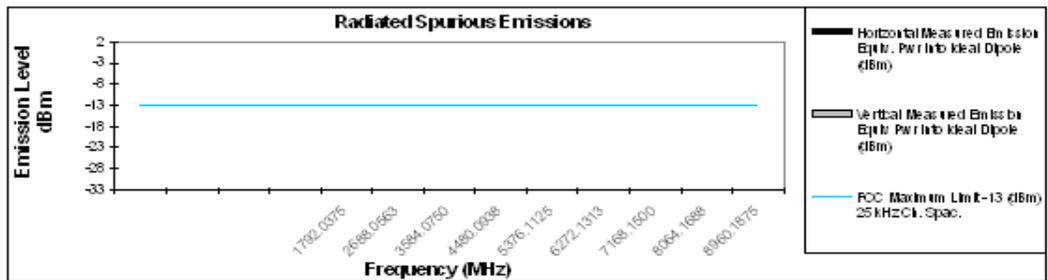
**Transmitter Radiated Spurious Emissions: i730 Max Power**

896.01875 MHz

Channel Spacing 25KHZ

S/N 364AD01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1792.0375	-13	*	*
3XFund	2688.0563	-13	*	*
4XFund	3584.0750	-13	*	*
5XFund	4480.0938	-13	*	*
6XFund	5376.1125	-13	*	*
7XFund	6272.1313	-13	*	*
8XFund	7168.1500	-13	*	*
9XFund	8064.1688	-13	*	*
10XFund	8960.1875	-13	*	*



\* Indicates the spurious emission was less than -33 dBm or could not be detected due to noise limitations or ambients.

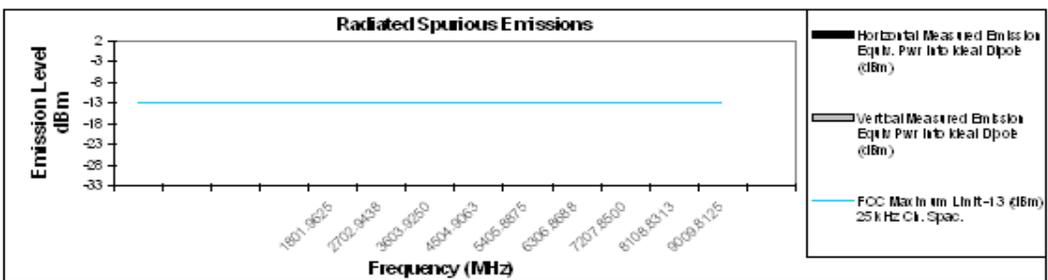
**Transmitter Radiated Spurious Emissions: i730 Max Power**

900.98125 MHz

Channel Spacing 25KHZ

S/N 364AD01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1801.9625	-13	*	*
3XFund	2702.9438	-13	*	*
4XFund	3603.9250	-13	*	*
5XFund	4504.9063	-13	*	*
6XFund	5405.8875	-13	*	*
7XFund	6306.8688	-13	*	*
8XFund	7207.8500	-13	*	*
9XFund	8108.8313	-13	*	*
10XFund	9009.8125	-13	*	*



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

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**Figure 6-24: Maximum Power Setting Transmitter Spurious Emissions**

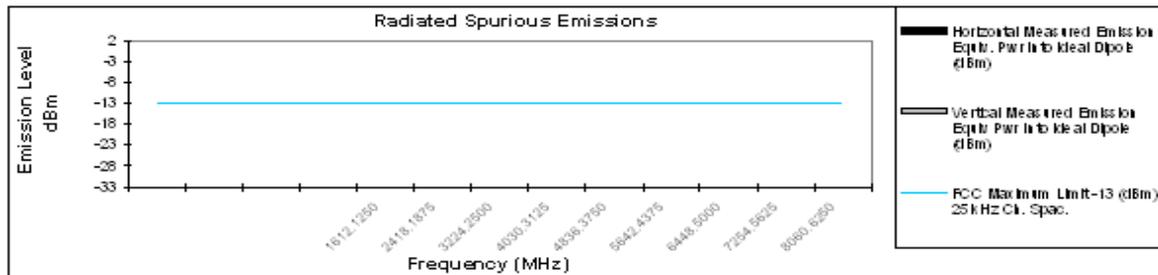
**Transmitter Radiated Spurious Emissions: i730 Min Power**

806.0625 MHz

Channel Spacing 25KHZ

S/N 364ADC01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1612.1250	-13	*	*
3XFund	2418.1875	-13	*	*
4XFund	3224.2500	-13	*	*
5XFund	4030.3125	-13	*	*
6XFund	4836.3750	-13	*	*
7XFund	5642.4375	-13	*	*
8XFund	6448.5000	-13	*	*
9XFund	7254.5625	-13	*	*
10XFund	8060.6250	-13	*	*



\* Indicates the spurious emission was less than -33 dBm or could not be detected due to noise limitations or ambients.

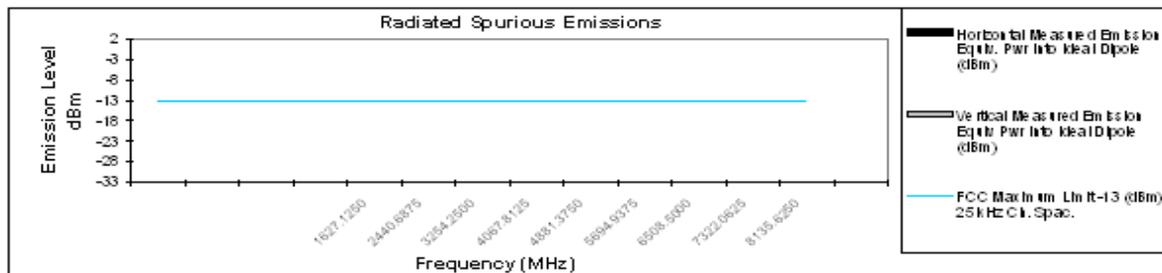
**Transmitter Radiated Spurious Emissions: i730 Min Power**

813.5625 MHz

Channel Spacing 25KHZ

S/N 364ADC01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1627.1250	-13	*	*
3XFund	2440.6875	-13	*	*
4XFund	3254.2500	-13	*	*
5XFund	4067.8125	-13	*	*
6XFund	4881.3750	-13	*	*
7XFund	5694.9375	-13	*	*
8XFund	6508.5000	-13	*	*
9XFund	7322.0625	-13	*	*
10XFund	8135.6250	-13	*	*



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Motorola Inc.

FCC ID:AZ489FT5824

**Figure 6-25a: Minimum Power Setting Transmitter Spurious Emissions**



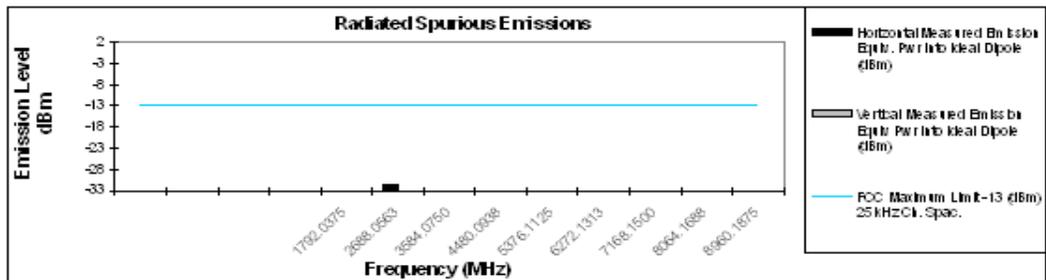
**Transmitter Radiated Spurious Emissions: i730 Min Power**

896.01875 MHz

Channel Spacing 25KHZ

S/N 364ADC01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1792.0375	-13	*	*
3XFund	2688.0563	-13	-31.63	*
4XFund	3584.0750	-13	*	*
5XFund	4480.0938	-13	*	*
6XFund	5376.1125	-13	*	*
7XFund	6272.1313	-13	*	*
8XFund	7168.1500	-13	*	*
9XFund	8064.1688	-13	*	*
10XFund	8960.1875	-13	*	*



\* Indicates the spurious emission was less than -33 dBm or could not be detected due to noise limitations or ambients.

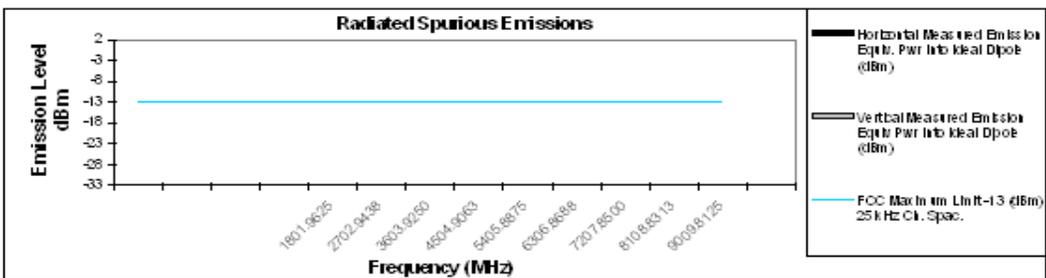
**Transmitter Radiated Spurious Emissions: i730 Min Power**

900.98125 MHz

Channel Spacing 25KHZ

S/N 364ADC01ML

Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
		-13		
		-13		
		-13		
		-13		
2XFund	1801.9625	-13	*	*
3XFund	2702.9438	-13	*	*
4XFund	3603.9250	-13	*	*
5XFund	4504.9063	-13	*	*
6XFund	5405.8875	-13	*	*
7XFund	6306.8688	-13	*	*
8XFund	7207.8500	-13	*	*
9XFund	8108.8313	-13	*	*
10XFund	9009.8125	-13	*	*



\* Indicates the spurious emission was less than -33 dBm or could not be detected due to noise limitations or ambients.

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**Figure 6-26: Minimum Power Setting Transmitter Spurious Emissions**