# 6b.3 Radiated Spurious Emissions -- Pursuant 47 CFR 2.1053, 2.1057, and 24.133(a)(1)

#### 6b3.1 901-902 MHz Band

#### **FCC Limits**

-Per 47 CFR 24.133(a)(1), 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).

(That the checkine limit is no abilities any transmitted 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.
- 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 SMR and Bluetooth transmitters were investigated, and any of significance are shown in the graphs below. All were compliant with Part 90 emissions requirements.

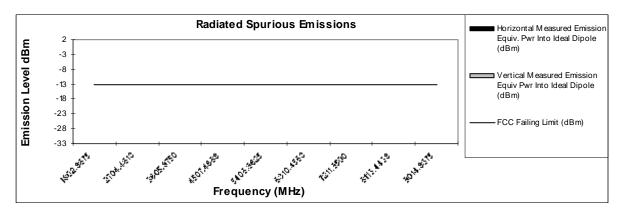
# **Transmit Radiated Spurious Emissions: i876**

### Tx Power 640 mW

### 901.49375 MHz

### Channel Spacing 25kHz | S/N 364AHG00BW

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pw r 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	*	*



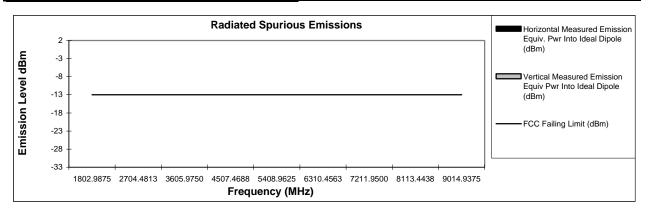
# Transmit Radiated Spurious Emissions: i876

### Tx Power in Full Cutback

901.49375 MHz

## Channel Spacing 25kHz | S/N 364AHG00BW

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	*	*



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 FCC Registration: 91932 / Industry Canada: IC3679A-1

May 10, 2007

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