

6.4-1 Radiated Spurious Emissions – Pursuant 47 CFR 2.1053, 2.107, 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:

$$\text{Spurious attenuation in dB} = 43 + 10 \log_{10} (P)$$

(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 (U516) 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.

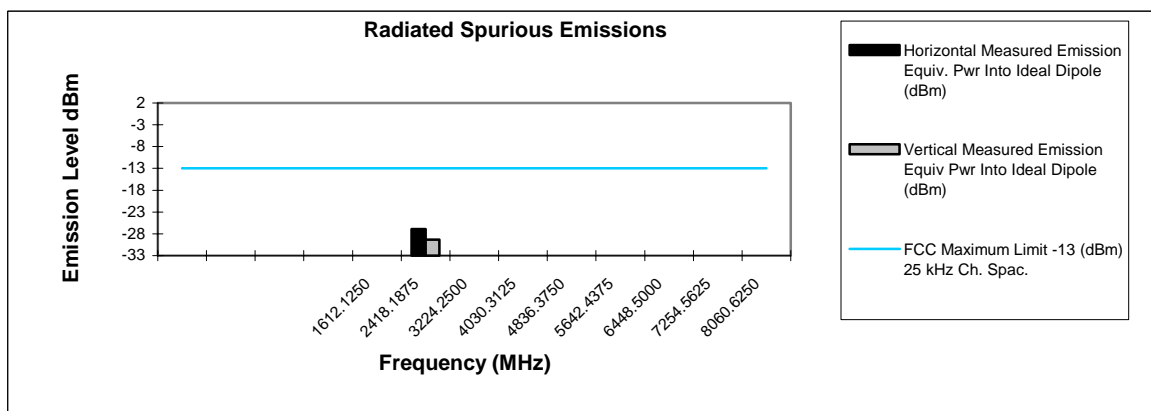
Data is presented for both primary source and alternate source Power Amplifier (U516).

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: i305 (Maximum Power Setting)

806.0625 MHz		Channel Spacing 25KHZ		S/N 364ADN003Y
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	-26.93	-29.35
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	*	*



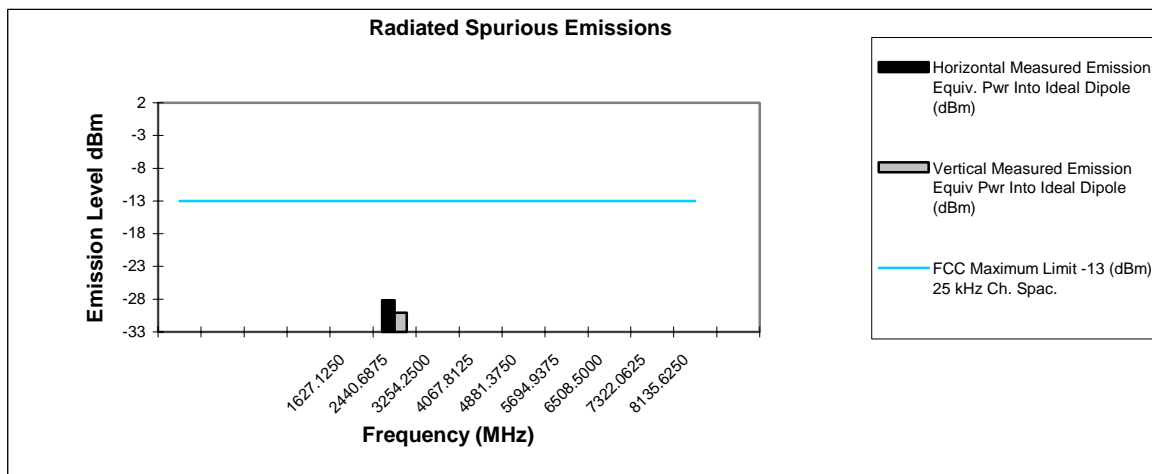
Notes:

- * Indicates the spurious emission could not be detected due to noise limitations or ambients.
- Each emission reported reflects the highest absolute level at each harmonic at maximum power.
- The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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 August 8, 2003
FCC Registration: 91932 / Industry Canada: IC3679

Transmitter Radiated Spurious Emissions: i305 (Maximum power)

813.5625 MHz		Channel Spacing 25KHZ S/N 364ADN003Y		
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	-28.16	-30.05
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	*	*



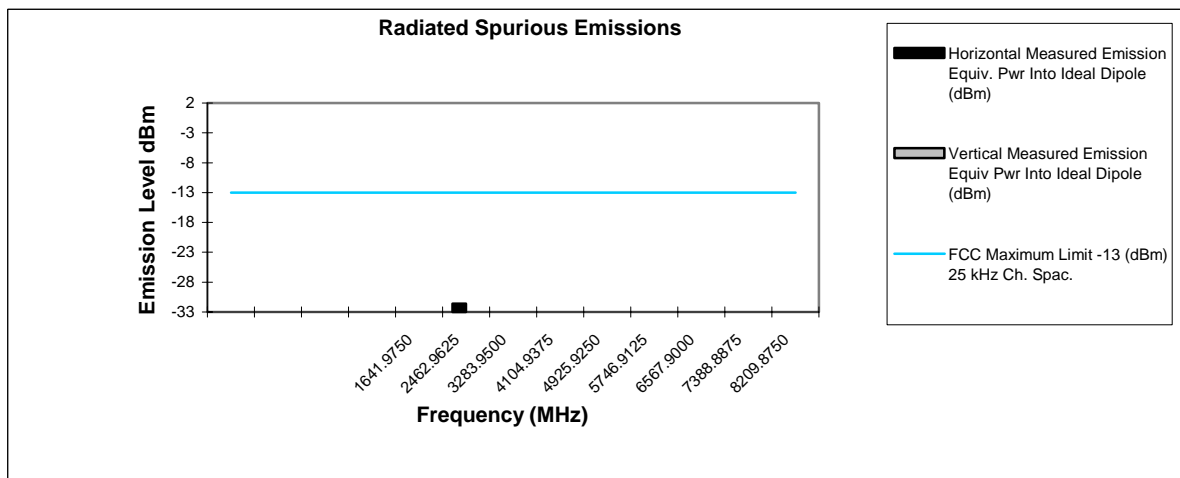
Notes:

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- Each emission reported reflects the highest absolute level at each harmonic at maximum power.
- The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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Transmitter Radiated Spurious Emissions: i305 (Maximum power)

820.9875	MHz	Channel Spacing 25KHZ	S/N 364ADN003Y
Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)
		-13	
		-13	
		-13	
		-13	
2XFund	1641.9750	-13	*
3XFund	2462.9625	-13	-31.61
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	*



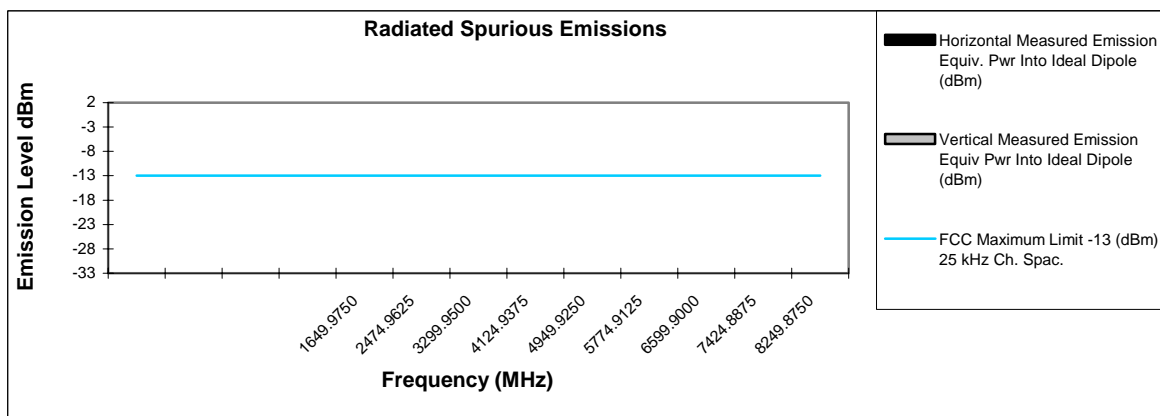
Notes:

- * Indicates the spurious emission could not be detected due to noise limitations or ambients.
- Each emission reported reflects the highest absolute level at each harmonic at maximum power.
- The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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Transmitter Radiated Spurious Emissions:i305 (Maximum power)

824.9875 MHz		Channel Spacing 25KHZ S/N 364ADN003Y		
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	*	*



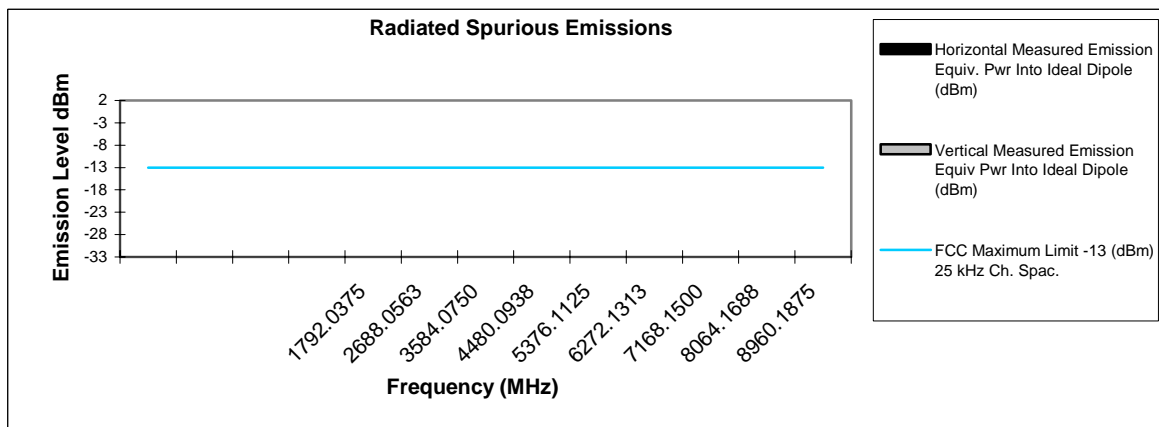
Notes:

1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
2. Each emission reported reflects the highest absolute level at each harmonic at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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 August 28, 2003
FCC Registration: 91932 / Industry Canada: IC3679

Transmitter Radiated Spurious Emissions:i305 (Maximum power)

896.01875	MHz	Channel Spacing 25KHZ	S/N 364ADN003Y
Spur	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	Horizontal 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	*



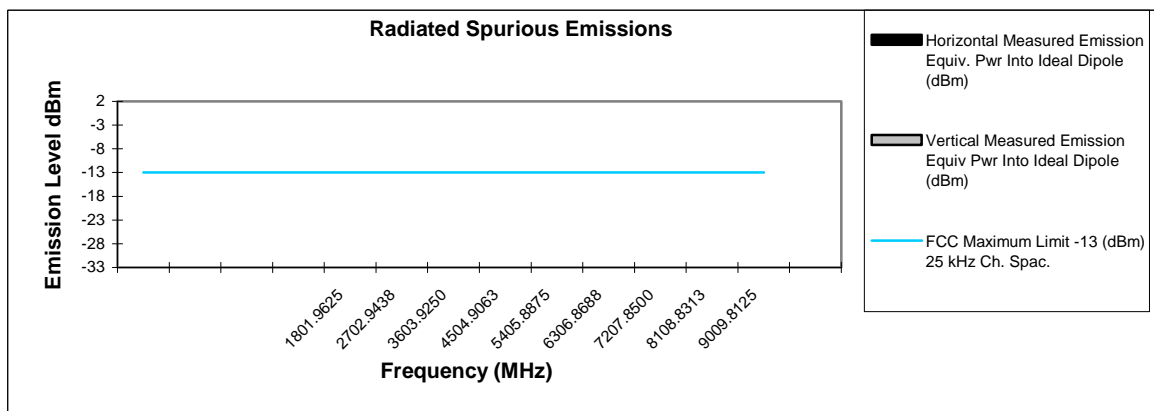
Notes:

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2. Each emission reported reflects the highest absolute level at each harmonic at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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Transmitter Radiated Spurious Emissions: i305 (Maximum Power Setting)

900.98125 MHz		Channel Spacing 25KHZ		S/N 364ADN003Y	
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	*	*	



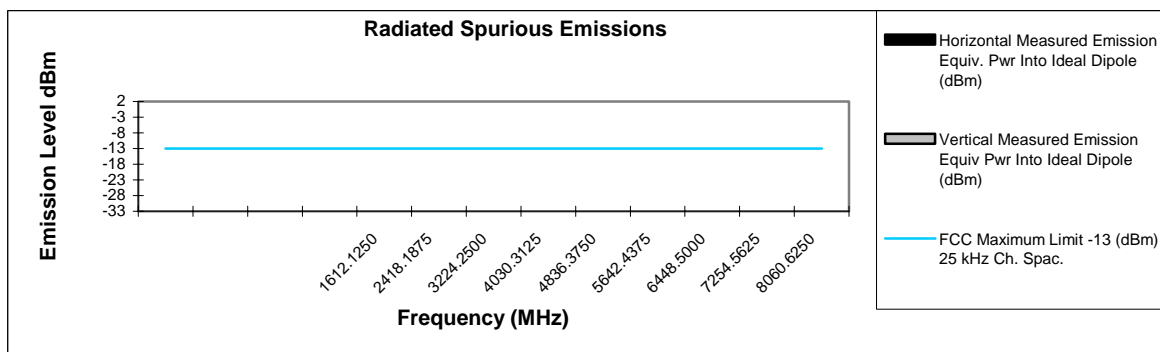
Notes:

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- Each emission reported reflects the highest absolute level at each harmonic at maximum power.
- The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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FCC Registration: 91932 / Industry Canada: IC3679

Transmitter Radiated Spurious Emissions: i305 (Minimum Power)

806.0625 MHz		Channel Spacing 25KHZ S/N 364ADN003Y		
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	*	*



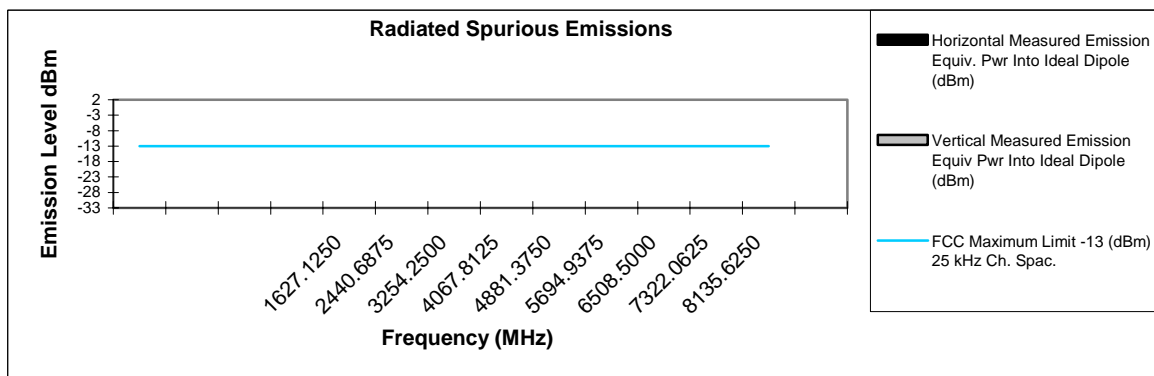
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Transmitter Radiated Spurious Emissions: i305 (Minimum Power)

813.5625 MHz		Channel Spacing 25KHZ		S/N 364ADN003Y	
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	*	*	



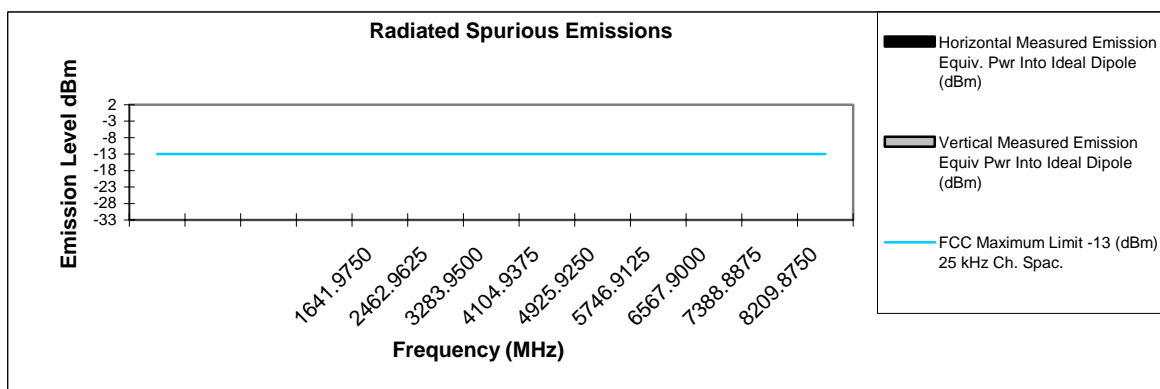
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Transmitter Radiated Spurious Emissions: i305 (Maximum Power Setting)

820.9875 MHz		Channel Spacing 25KHZ S/N 364ADN003Y		
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	*	*



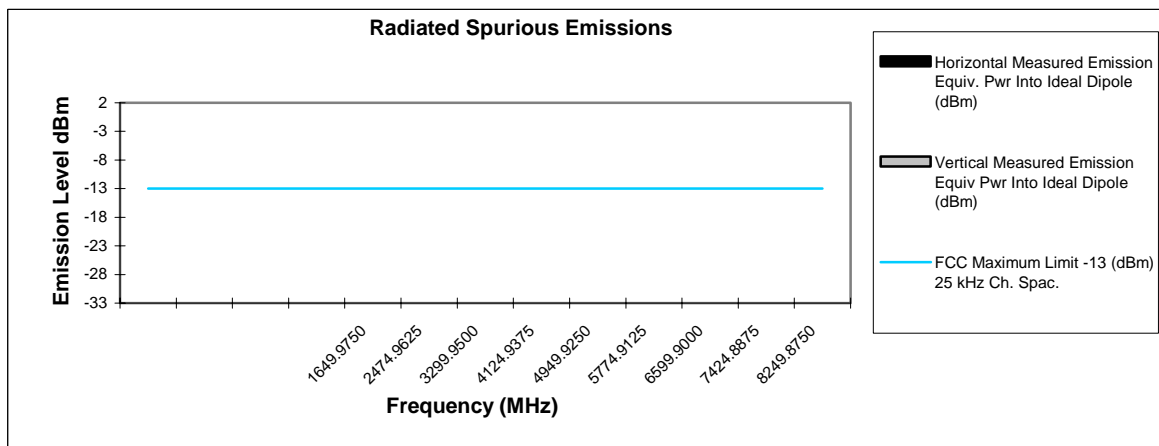
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- The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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Transmitter Radiated Spurious Emissions: i305 (Minimum Power Setting)

824.9875 MHz		Channel Spacing 25KHZ S/N 364ADN003Y		
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	*	*



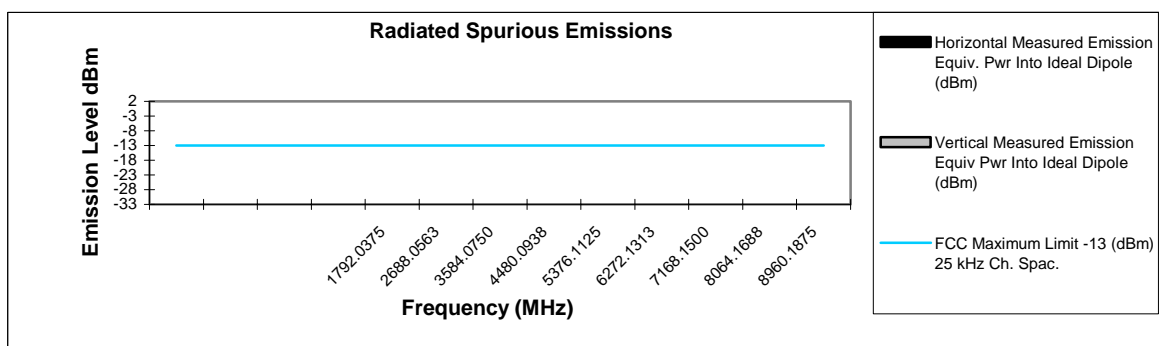
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Transmitter Radiated Spurious Emissions: i305 (Minimum Power)

896.01875 MHz		Channel Spacing 25KHZ		S/N 364ADN003Y
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	*	*



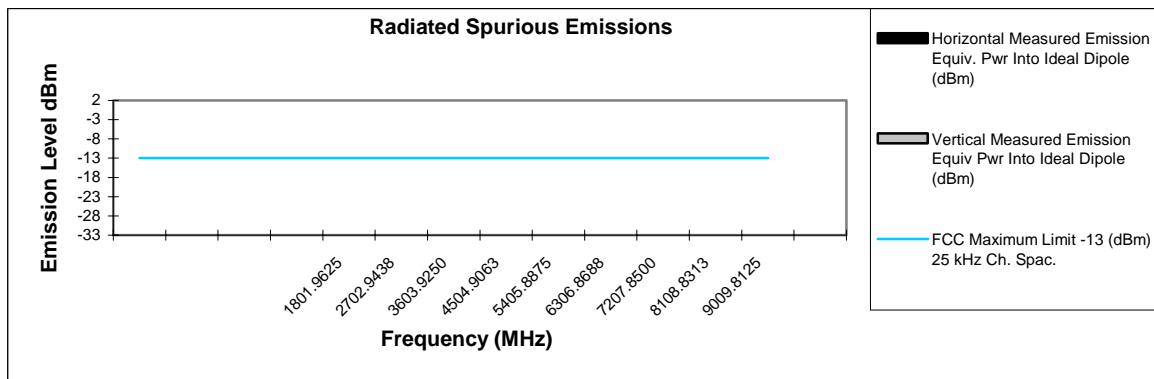
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Transmitter Radiated Spurious Emissions: i305 (Minimum power setting)

900.98125 MHz		Channel Spacing 25KHZ		S/N 364ADN003Y	
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	*	*	



Notes:

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2. Each emission reported reflects the highest absolute level at each harmonic at maximum power.
3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

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