

Applicant: Meteor Communications Corporation

FCC ID: BIB6100000-01

## **EXHIBIT 9**

### **TEST REPORT FOR PART 90**

**EMC Test Report**  
**Radiated Spurious and Harmonic Emissions**

**Certification - Part 90**

**For**

**FCC ID: BIB6100000-01**

**Model: MCC-6100**

**Software Defined Radio**

Prepared on Behalf of

**Meteor Communications, Corporation**

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By

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July 18, 2005

## Radiated Spurious and Harmonic Emission Test Report

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Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

FCC ID:	BIB6100000-01
Applicant:	Meteor Communications, Corporation
Model:	MCC-6100
Minimum Standard Specified:	Part 90.210 = 43+10log (PO) dB
Test Results:	Equipment complies with standard
Authorization Procedure:	Part 2.1053
Test Equipment Set Up:	See photos and block diagram in Appendix A
Frequency Range Observed:	30 to 445.00 MHz
Test Frequencies:	44.50 MHz
Power Output:	100 Watt Conducted
Spurious Limit = 43 + 10Log (PO) =	-63.00 dB (-13 dBm)
Test date: 6/21/2005	Location: OATS Fluke Park II Everett, WA

### Low Band VHF 39 – 50 MHz

#### Discussion

The field strength of the radiated spurious emissions and harmonics was measured at 3 meters EUT to antenna distance using 120 kHz RBW and 300 kHz VBW. The transmitter output of the MCC-6100 was terminated into a 50 ohm coaxial termination. All of the measured spurious levels reported on the following page are more than 20 dB below the spurious limit.

Emissions attenuated by 20 dB or more below the limit need not be reported according to Part 2.1051.

The two highest level harmonic emissions observed were then re-measured with the signal substitution method and the level reported on page 5.

Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

### Low Band VHF 39 – 50 MHz

FCC ID: BIB6100000-01

Applicant: Meteor Communications, Corporation

Model: MCC-6100

Frequency Range: 30 to 445.0 MHz

Test Date: 6/21/2005

**NOTE:** EUT set to 100 Watt power output, intermittent transmit mode via test software. 19.2 kB data

RADIATED HARMONIC AND SPURIOUS EMISSIONS									
Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horz.	Peak or Average Detector	Antenna Factor dB	Cable loss dB	Int. SA Amp Gain	Corrected Reading dBuV/m	Corrected Reading dBm	Margin dB below -13dBm LIMIT
Fo- 44.50									
89.0	35.23	V	Peak	12.1	1.83	inc	49.16	-57.84	44.84
89.0	31.91	H	Peak	12.1	1.83	inc	45.84	-61.16	48.16
133.5	50.11	V	Peak	8.6	2.18	inc	60.89	-46.11	33.11
133.5*	51.73	H	Peak	8.6	2.18	inc	62.51	-44.49	31.49
178.0	50.11	V	Peak	10.1	2.50	inc	62.71	-44.29	31.29
178.0*	50.94	H	Peak	10.1	2.50	inc	63.54	-43.46	30.46
222.5	40.08	V	Peak	11.6	2.83	inc	54.51	-52.49	39.49
222.5	45.19	H	Peak	11.6	2.83	inc	59.62	-47.38	34.38
267.0	33.86	V	Peak	12.6	3.15	inc	49.61	-57.39	44.39
267.0	38.44	H	Peak	12.6	3.15	inc	54.19	-52.81	39.81
311.5	35.54	V	Peak	14.4	3.46	inc	53.40	-53.60	40.60
311.5	44.19	H	Peak	14.4	3.46	inc	62.05	-44.95	31.95
356.0	35.19	V	Peak	15.5	3.60	inc	54.29	-52.71	39.71
356.0	33.07	H	Peak	15.2	3.60	inc	51.87	-55.13	42.13
400.5	25.85	V	Peak	16.1	3.87	inc	45.82	-61.18	48.18
400.5	24.84	H	Peak	16.1	3.87	inc	44.81	-62.19	49.19
445.0	< 18.08	V	Peak	17.1	4.07	inc	39.25	-67.75	54.75
445.0	< 18.36	H	Peak	17.1	4.07	inc	39.53	-67.47	54.47

**NOTE:**

- 1.) The MCC-6100, Low Band VHF transmitter output was terminated in to a non-radiating load per TIA-603B 2.2.12.2(c).
- \* 2.) The two highest level radiated spurious emissions observed above, 3FO, 4FO (hi-lighted in Red), were re-tested using signal substitution and are reported on the page following.

## Test - Spurious Emissions Attenuation by Signal Substitution Method

### Low Band VHF 39 – 50 MHz

Trans. Freq. & Spurious Freq.	Spectrum Analyzer Ref. Rdg. Of EUT Tx level	Di-pole Antenna Gain	Antenna Polarization	Corrected Signal Generator Output inc. cable loss	ERP	Limit ERP
MHz	(dBuV)	(dBi)	(H / V)	(dBm)	(dBm)	(dBm)
FO 44.5						
133.5	51.73	1.7	H	-38.7	-36.3	-13
178.0	50.94	2.8	H	-36.0	-33.2	-13

### Method of Measurement

During the preliminary field strength measurements the highest level spurious emissions were identified. The two highest level spurious emissions observed during the final field strength reading were re-measured to determine the Effective Radiated Power Output. The measurements were made by the Signal Substitution Method described in TIA-603-B, approved November 7, 2002.

The measurements were made as prescribed in TIA-603-B 2.2.12, Unwanted Emissions: Radiated Spurious. The EUT was set up at the OATS facility on the non-conductive turntable 3 meters from the receive antenna. The antenna height and the turntable rotation were adjusted for the maximum reading on the spectrum analyzer for each antenna polarization. Only the two highest levels of the harmonics observed are reported above.

All emissions observed were 20 dB or more below the limit.

The EUT was removed and a tuned di-pole antenna was substituted in place of the EUT. The height of this antenna was consistent with the position of the EUT. The output of the RF signal generator tuned to a particular spurious frequency was carefully adjusted along with adjustment of the receive antenna height to duplicate the reading originally observed on the Spectrum Analyzer during the field strength measurements. The Signal Generator reading was corrected for the cable loss and the gain of the substitute tuned di-pole antenna used, to obtain the power in dBm.

$$P_d \text{ (dBm)} = P_g \text{ (dBm)} - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

$P_d$  is the dipole equivalent power and  $P_g$  is the generator output power into the substitute antenna.

Measurement distance 3 meters EUT to receive antenna.

Location: Spectrum Technology Inc., Fluke Park II OATS facility

Test Date: 6/21/2005

Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

FCC ID: BIB6100000-01

Applicant: Meteor Communications, Corporation

Model: MCC-6100

Minimum Standard Specified: Part 90.210 =  $50+10\log(PO)$  dB

Test Results: Equipment complies with standard

Authorization Procedure: Part 2.1053

Test Equipment Set Up: See photos and block diagram in Exhibit 10 A

Frequency Range Observed: 30 to 1590 MHz

Test Frequencies: 159.0 MHz

Power Output: 30 Watt conducted

Spurious Limit =  $50+10\log(PO)$  dB      -64.8 dB (-20 dBm)

Test date: 6/21/2005      Location: OATS Fluke Park II Everett, WA

### High Band VHF    156 – 162.6 MHz

#### Discussion

The field strength of the radiated spurious emissions and harmonics was measured at 3 meters EUT to antenna distance using 120 kHz RBW and 300 kHz VBW below 1 GHz and 1 MHz RBW and 3 MHz VBW above. The transmitter output of the MCC-6100 was terminated into a 50 ohm coaxial termination. Except at 4FO, 477 MHz, all of the measured spurious levels reported on the following page are more than 20 dB below the spurious limit.

Emissions attenuated by 20 dB or more below the limit need not be reported according to Part 2.1051.

The two highest level harmonic emissions observed were then re-measured with the signal substitution method and the level reported on page 8.

Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

### High Band VHF 156 – 162.6 MHz

FCC ID: BIB6100000-01

Applicant: Meteor Communications, Corporation

Model: MCC-6100

Frequency Range: 30 to 1590 MHz

Test Date: 6/21/2005

**NOTE:** EUT 30 Watt power output, intermittent transmit mode set via test software, 9.6 kB max. data rate.

RADIATED HARMONIC AND SPURIOUS EMISSIONS									
Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horz.	Peak or Average Detector	Antenna Factor dB	Cable loss dB	Int. SA Amp Gain	Corrected Reading dBuV/m	Corrected Reading dBm	Margin dB below -20dBm LIMIT
<b>Fo- 159.0</b>									
229.6	<19.55	V	Peak	11.6	2.88	inc	Noise	Floor	>20
229.6	22.74	H	Peak	11.6	2.88	inc	37.22	-69.78	>20
318	50.65	V	Peak	14.6	3.50	inc	68.75	-38.75	>20
<b>318</b>	<b>51.56</b>	<b>H</b>	<b>Peak</b>	<b>14.6</b>	<b>3.50</b>	<b>inc</b>	<b>69.76</b>	<b>-37.24</b>	>20
477	52.54	V	Peak	17.7	4.23	inc	74.47	-32.53	12.53
<b>477</b>	<b>55.59</b>	<b>H</b>	<b>Peak</b>	<b>17.7</b>	<b>4.23</b>	<b>inc</b>	<b>77.52</b>	<b>-29.48</b>	<b>9.48</b>
636	30.66	V	Peak	21.0	4.84	inc	56.50	-50.50	30.50
636	34.32	H	Peak	21.0	4.84	inc	60.16	-46.84	26.84
795	23.80	V	Peak	22.2	5.54	inc	51.54	-55.46	35.46
795	23.52	H	Peak	22.2	5.54	inc	51.26	-55.74	35.74
954	<20.45	V	Peak	23.8	6.00	inc	Noise	Floor	>20
954	22.17	H	Peak	23.8	6.00	inc	51.97	-55.03	35.03
1113	<30.14	V	Peak	25.2	6.14	inc	Noise	Floor	>20
1113	<28.14	H	Peak	25.2	6.14	inc	Noise	Floor	>20
1272	<29.41	V	Peak	26.3	7.01	inc	Noise	Floor	>20
1272	<28.73	H	Peak	26.3	7.01	inc	Noise	Floor	>20
1431	<28.3	V	Peak	27.6	7.53	inc	Noise	Floor	>20
1431	<29.15	H	Peak	27.6	7.53	inc	Noise	Floor	>20
1590	<28.26	V	Peak	29.6	8.24	inc	Noise	Floor	>20
1590	<28.84	H	Peak	29.6	8.24	inc	Noise	Floor	>20

NOTE: 1.) The MCC-6100, High Band VHF transmitter output was terminated in to a non-radiating load per TIA-603B 2.2.12.2(c).

\* 2.) **The two highest level radiated spurious emissions observed above, 3FO, 4FO (hi-lighted in Red), were re-tested using signal substitution and are reported on the page following.**

## Test - Spurious Emissions Attenuation by Signal Substitution Method

### High Band VHF 156 – 162.6 MHz

Trans. Freq. & Spurious Freq.	Spectrum Analyzer Ref. Rdg. Of EUT Tx level	Di-pole Antenna Gain	Antenna Polarization	Corrected Signal Generator Output inc. cable loss	ERP	Limit ERP
MHz	(dBuV)	(dBi)	(H / V)	(dBm)	(dBm)	(dBm)
FO 159.0						
318	51.56	3.2	H	-29.2	-26	-20
477	55.59	1.5	H	-22.5	-21	-20

#### Method of Measurement

During the preliminary field strength measurements the highest level spurious emissions were identified. The two highest level spurious emissions observed during the final field strength reading were re-measured to determine the Effective Radiated Power Output. The measurements were made by the Signal Substitution Method described in TIA-603-B, approved November 7, 2002.

The measurements were made as prescribed in TIA-603-B 2.2.12, Unwanted Emissions: Radiated Spurious. The EUT was set up at the OATS facility on the non-conductive turntable 3 meters from the receive antenna. The antenna height and the turntable rotation were adjusted for the maximum reading on the spectrum analyzer for each antenna polarization. Only the two highest levels of the harmonics observed are reported above.

All emissions observed except 477 MHz were 20 dB or more below the limit.

The EUT was removed and a tuned di-pole antenna was substituted in place of the EUT. The height of this antenna was consistent with the position of the EUT. The output of the RF signal generator tuned to a particular spurious frequency was carefully adjusted along with adjustment of the receive antenna height to duplicate the reading originally observed on the Spectrum Analyzer during the field strength measurements. The Signal Generator reading was corrected for the cable loss and the gain of the substitute tuned di-pole antenna used, to obtain the power in dBm.

$$P_d \text{ (dBm)} = P_g \text{ (dBm)} - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

$P_d$  is the dipole equivalent power and  $P_g$  is the generator output power into the substitute antenna.

Measurement distance 3 meters EUT to receive antenna.

Location: Spectrum Technology Inc., Fluke Park II OATS facility

Test Date: 6/21/2005

Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

FCC ID:	BIB6100000-01
Applicant:	Meteor Communications, Corporation
Model:	MCC-6100
Minimum Standard Specified:	Part 90.210 = 50+10log (PO) dB
Test Results:	Equipment complies with standard
Authorization Procedure:	Part 2.1053
Test Equipment Set Up:	See photos and block diagram in Exhibit 10 A
Frequency Range Observed:	30 to 8985 MHz
Test Frequencies:	898.50 MHz
Power Output:	30 Watt conducted
Spurious Limit = 50+10log (PO) dB	-64.77 dB (-20 dBm)
Test date: 6/22/2005	Location: OATS Fluke Park II Everett, WA

### UHF Band      896 – 901 MHz

#### Discussion

The field strength of the radiated spurious emissions and harmonics was measured at 3 meters EUT to antenna distance using 1 MHz RBW and 3 MHz VBW. The transmitter output of the MCC-6100 was terminated into a 50 ohm coaxial termination. All of the measured spurious levels reported on the following page are more than 20 dB below the spurious limit.

Emissions attenuated by 20 dB or more below the limit need not be reported according to Part 2.1051.

The two highest level harmonic emissions observed were then re-measured with the signal substitution method and the level reported on page 11.

Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

### UHF Band      896 – 901 MHz

FCC ID: BIB6100000-01

Applicant: Meteor Communications, Corporation

Model: MCC-6100

Frequency Range: 30 to 8985 MHz      Test Date: 6/22/2005

**NOTE:** 30 Watt power output, intermittent transmit mode set via test software, GMSK , 9600 kB max. data rate.

RADIATED HARMONIC AND SPURIOUS EMISSIONS									
Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horz.	Peak or Average Detector	Antenna Factor dB	Cable loss dB	Ext. Amp Gain	Corrected Reading dBuV/m	Corrected Reading dBm	Margin dB below -20dBm LIMIT
Fo- 898.5									
979.2	36.03	V	Peak	23.21	2.07	27.0	34.31	-72.69	52.69
979.2	36.99	H	Peak	23.21	2.07	27.0	35.27	-71.73	51.73
1797	42.10	V	Peak	26.70	2.91	24.5	47.21	-59.79	39.79
1797	38.89	H	Peak	26.70	2.91	24.5	44.00	-63.00	43.00
2696	42.06	V	Peak	28.37	3.92	22.3	52.05	-54.95	34.95
2696	39.85	H	Peak	28.37	3.92	22.3	49.84	-57.16	37.16
3594	<32.17	V	Peak	31.01	4.52	21.6	Noise	Floor	> 20
3594	<30.97	H	Peak	31.01	4.52	21.6	Noise	Floor	> 20
4492	<34.37	V	Peak	31.98	5.11	22.1	Noise	Floor	> 20
4492	<31.71	H	Peak	31.98	5.11	22.1	Noise	Floor	> 20
5391	42.06	V	Peak	34.24	5.65	24.6	57.35	-49.65	29.65
5391	42.26	H	Peak	34.24	5.65	24.6	57.55	-49.45	29.45
6290	<35.24	V	Peak	35.19	6.24	25.1	Noise	Floor	> 20
6290	<34.70	H	Peak	35.19	6.24	25.1	Noise	Floor	> 20
7188	<34.36	V	Peak	36.05	6.67	26.4	Noise	Floor	> 20
7188	<35.43	H	Peak	36.05	6.67	26.4	Noise	Floor	> 20
8086	<35.50	V	Peak	37.33	7.14	25.2	Noise	Floor	> 20
8086	<34.86	H	Peak	37.33	7.14	25.2	Noise	Floor	> 20
8985	<35.34	V	Peak	37.14	7.59	24.4	Noise	Floor	> 20
8985	<35.49	H	Peak	37.14	7.59	24.4	Noise	Floor	> 20

NOTE: 1.) The MCC-6100, UHF 896 – 901 MHz Band transmitter output was terminated in to a non-radiating load per TIA-603B 2.2.12.2(c).

\* 2.) The two highest level radiated spurious emissions observed above, 3FO, 4FO (hi-lighted in Red), were re-tested using signal substitution and are reported on the page following.

## Test - Spurious Emissions Attenuation by Signal Substitution Method

### UHF Band      896 – 901 MHz

Trans. Freq. & Spurious Freq.	Spectrum Analyzer Ref. Rdg. of EUT Tx level	Dual Ridged Guide Horn Antenna Gain	Antenna Polarization	Corrected Signal Generator Output inc. cable loss	EIRP	Limit EIRP
MHz	(dBuV)	(dBi)	(H / V)	(dBm)	(dBm)	(dBm)
FO 898.5						
1797	42.10	7.4	V	-53.55	-46.15	-20
5391	42.26	8.4	H	-52.61	-44.21	-20

### Method of Measurement

During the preliminary field strength measurements the highest level spurious emissions were identified. The two highest level spurious emissions observed during the final field strength reading were re-measured to determine the Effective Isotropic Radiated Power Output. The measurements were made by the Signal Substitution Method described in TIA-603-B, approved November 7, 2002.

The measurements were made as prescribed in TIA-603-B 2.2.12, Unwanted Emissions: Radiated Spurious. The EUT was set up at the OATS facility on the non-conductive turntable 3 meters from the receive antenna. The antenna height and the turntable rotation were adjusted for the maximum reading on the spectrum analyzer for each antenna polarization. Only the two highest levels of the harmonics observed are reported above.

All emissions observed were 20 dB or more below the limit.

The EUT was removed and a RGA-60, Dual Ridged Guide antenna was substituted in place of the EUT. The height of this antenna was consistent with the position of the EUT. The output of the RF signal generator tuned to a particular spurious frequency was carefully adjusted along with adjustment of the receive antenna height to duplicate the reading originally observed on the Spectrum Analyzer during the field strength measurements. The Signal Generator reading was corrected for the cable loss and the gain of the substitute tuned di-pole antenna used, to obtain the power in dBm.

$$P_d \text{ (dBm)} = P_g \text{ (dBm)} - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

$P_d$  is the dipole equivalent power and  $P_g$  is the generator output power into the substitute antenna.

Measurement distance 3 meters EUT to receive antenna.

Location: Spectrum Technology Inc., Fluke Park II OATS facility

Test Date: 6/22/2005

Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

FCC ID: BIB6100000-01

Applicant: Meteor Communications, Corporation

Model: MCC-6100

Minimum Standard Specified: Part 90.210 =  $50+10\log (PO)$  dB

Test Results: Equipment complies with standard

Authorization Procedure: Part 2.1053

Test Equipment Set Up: See photos and block diagram in Exhibit 10 A

Frequency Range Observed: 30 to 937.5 MHz

Test Frequencies: 937.5 MHz

Power Output: 20 Watt conducted

Spurious Limit =  $50+10\log (PO)$  dB -63 dB (-20 dBm)

Test date: 6/22/2005 Location: OATS Fluke Park II Everett, WA

### UHF Band **935 – 940 MHz**

#### Discussion

The field strength of the radiated spurious emissions and harmonics was measured at 3 meters EUT to antenna distance using 1 MHz RBW and 3 MHz VBW. The transmitter output of the MCC-6100 was terminated into a 50 ohm coaxial termination. All of the measured spurious levels reported on the following page are more than 20 dB below the spurious limit.

Emissions attenuated by 20 dB or more below the limit need not be reported according to Part 2.1051.

The two highest level harmonic emissions observed were then re-measured with the signal substitution method and the level reported on page 14.

Applicant: Meteor Communications Corporation.

FCC ID: BIB6100000-01

## Test - Field Strength of Spurious Radiated Emissions

### UHF Band      935 – 940 MHz

FCC ID: BIB6100000-01

Applicant: Meteor Communications, Corporation

Model: MCC-6100

Frequency Range: 30 to 9375 MHz      Test Date: 6/22/2005

**NOTE:** 20 Watt power output, intermittent transmit mode set via test software, GMSK , 9600 kB max. data rate.

RADIATED HARMONIC AND SPURIOUS EMISSIONS									
Frequency GHz	Max. SA Rdg. dBu/V	Ant. Vert. or Horz.	Peak or Average Detector	Antenna Factor dB	Cable loss dB	Ext. Amp Gain	Corrected Reading dBuV/m	Corrected Reading dBm	Margin dB below -20dBm LIMIT
Fo- 937.5									
1018	39.06	V	Peak	23.21	2.07	27.0	37.34	-69.66	49.66
1018	37.00	H	Peak	23.21	2.07	27.0	35.28	-71.72	51.72
1875	38.08	V	Peak	27.15	2.93	24.5	43.66	-63.34	43.34
1875	40.63	H	Peak	27.15	2.93	24.5	46.21	-60.79	40.79
2812	31.80	V	Peak	29.93	4.43	21.9	44.26	-62.74	42.74
2812	38.02	H	Peak	29.93	4.43	21.9	50.48	-56.52	36.52
3750	33.25	V	Peak	32.45	4.60	21.6	48.70	-58.30	38.30
3750	40.26	H	Peak	32.45	4.60	21.6	55.71	-51.29	31.29
4687	41.61	V	Peak	31.98	5.25	22.1	56.74	-50.26	30.26
4687	43.23	H	Peak	31.98	5.25	22.1	58.36	-48.64	28.64
5625	41.02	V	Peak	34.24	5.79	24.6	56.45	-50.55	30.55
5625	41.64	H	Peak	34.24	5.79	24.6	57.07	-49.93	29.93
6562	<36.0	V	Peak	35.19	6.32	26.2	Noise	Floor	> 20
6562	38.14	H	Peak	35.19	6.32	26.2	53.45	-53.55	33.55
7500	<35.46	V	Peak	36.77	6.87	25.9	Noise	Floor	> 20
7500	39.44	H	Peak	36.77	6.87	25.9	57.18	-49.82	29.82
8438	<34.86	V	Peak	37.38	7.46	24.6	Noise	Floor	> 20
8438	<38.90	H	Peak	37.38	7.46	24.6	Noise	Floor	> 20
9375	<34.48	V	Peak	37.55	7.78	24.5	Noise	Floor	> 20
9375	<38.04	H	Peak	37.55	7.78	24.5	Noise	Floor	> 20

NOTE: 1.) The MCC-6100, UHF 935 – 940 MHz Band transmitter output was terminated in to a non-radiating load per TIA-603B 2.2.12.2(c).

\* 2.) The two highest level radiated spurious emissions observed above, 3FO, 4FO (hi-lighted in Red), were re-tested using signal substitution and are reported on the page following.

## Test - Spurious Emissions Attenuation by Signal Substitution Method

### UHF Band      935 – 940 MHz

Trans. Freq. & Spurious Freq.	Spectrum Analyzer Ref. Rdg. of EUT Tx level	Dual Ridged Guide Horn Antenna Gain	Antenna Polarization	Corrected Signal Generator Output inc. cable loss	EIRP	Limit EIRP
MHz	(dBuV)	(dBi)	(H / V)	(dBm)	(dBm)	(dBm)
FO 937.5						
4687	43.23	8.0	H	-49.45	-41.45	-20
5625	41.64	8.4	H	-51.12	-42.72	-20

### Method of Measurement

During the preliminary field strength measurements the highest level spurious emissions were identified. The two highest level spurious emissions observed during the final field strength reading were re-measured to determine the Effective Isotropic Radiated Power Output. The measurements were made by the Signal Substitution Method described in TIA-603-B, approved November 7, 2002.

The measurements were made as prescribed in TIA-603-B 2.2.12, Unwanted Emissions: Radiated Spurious. The EUT was set up at the OATS facility on the non-conductive turntable 3 meters from the receive antenna. The antenna height and the turntable rotation were adjusted for the maximum reading on the spectrum analyzer for each antenna polarization. Only the two highest levels of the harmonics observed are reported above.

All emissions observed were 20 dB or more below the limit.

The EUT was removed and a RGA-60, Dual Ridged Guide antenna was substituted in place of the EUT. The height of this antenna was consistent with the position of the EUT. The output of the RF signal generator tuned to a particular spurious frequency was carefully adjusted along with adjustment of the receive antenna height to duplicate the reading originally observed on the Spectrum Analyzer during the field strength measurements. The Signal Generator reading was corrected for the cable loss and the gain of the substitute tuned di-pole antenna used, to obtain the power in dBm.

$$P_d \text{ (dBm)} = P_g \text{ (dBm)} - \text{cable loss (dB)} + \text{antenna gain (dB)}$$

$P_d$  is the dipole equivalent power and  $P_g$  is the generator output power into the substitute antenna.

Measurement distance 3 meters EUT to receive antenna.

Location: Spectrum Technology Inc., Fluke Park II OATS facility

Test Date: 6/22/2005

**- End of Report -**