

Figure 4b
Peak Radiated Spurious Emission 15.247(c) Mid – Parabolic Dish

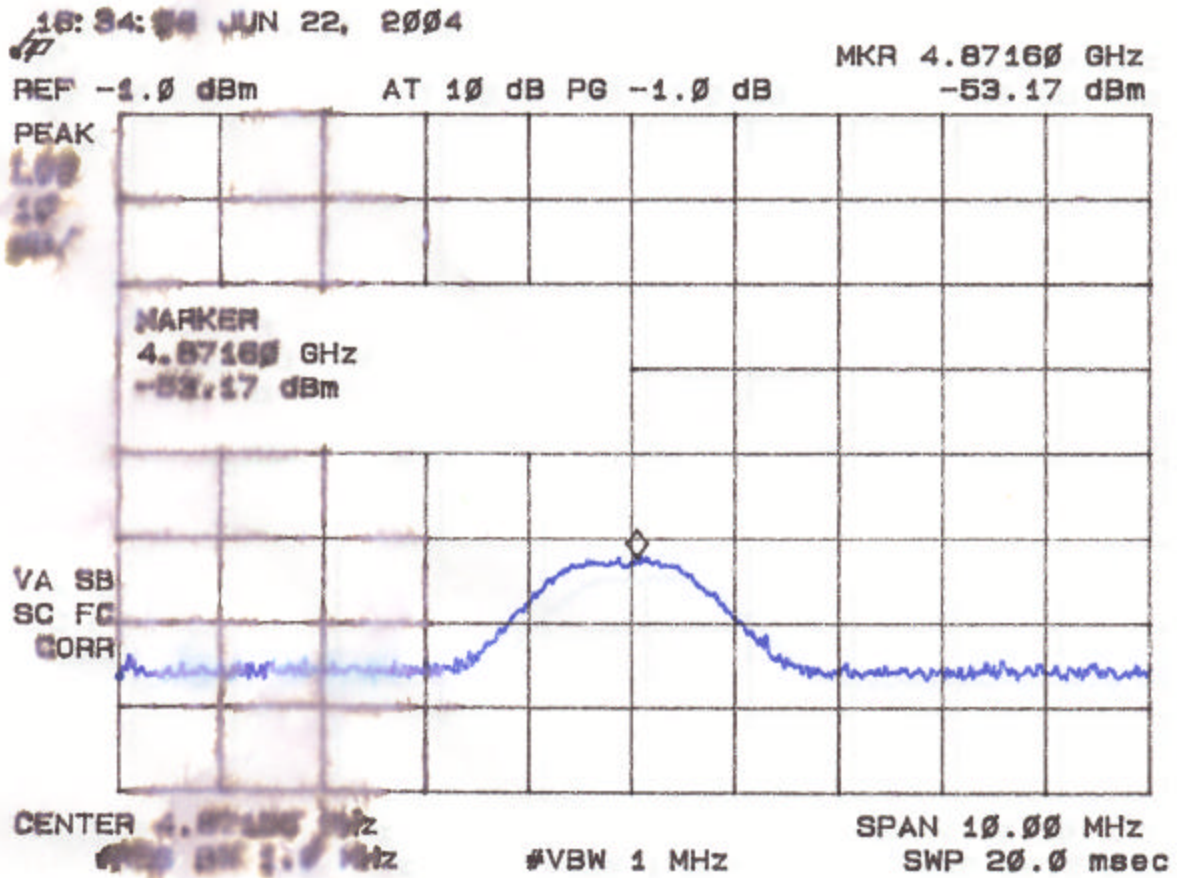


Figure 4c
Peak Radiated Spurious Emission 15.247(c) High – Parabolic Dish

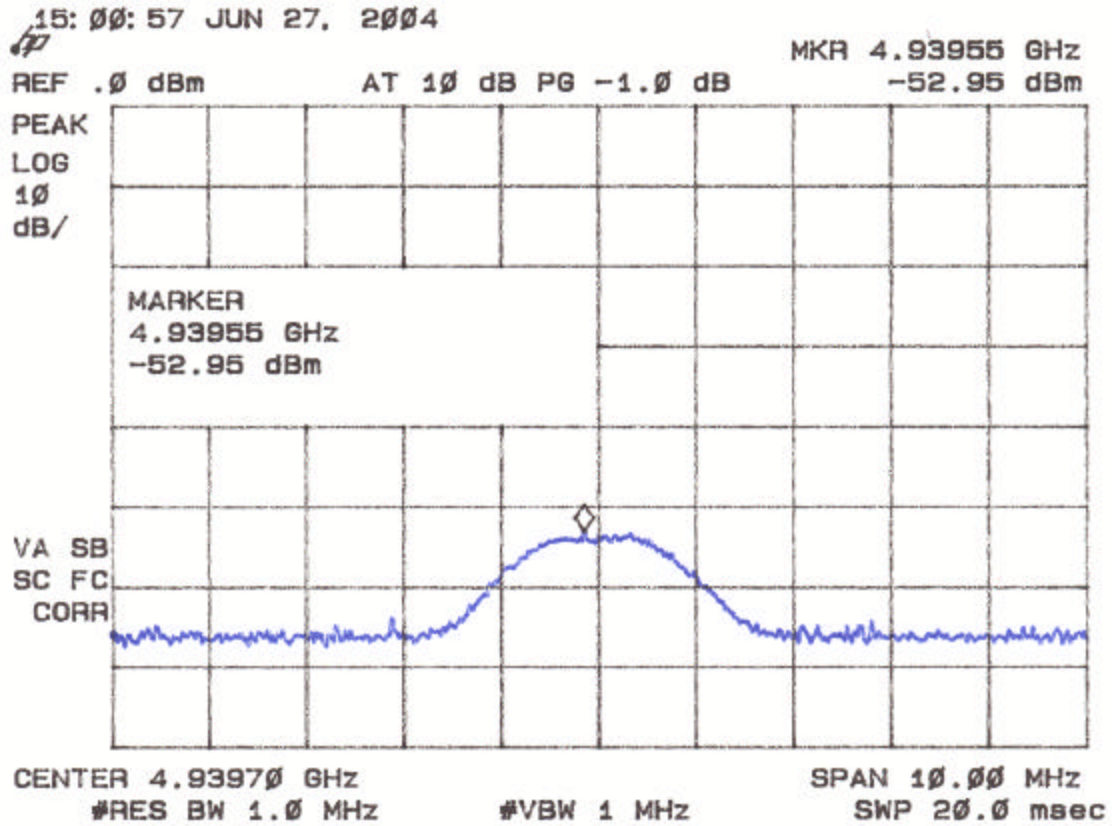


Table 4d. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Dipole Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4.80343	-47.16	4.9	1748.0	5000.0	8.13*

Table 4e. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Dipole Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4.87151	-57.0	5.3	580.1	5000.0	17.71*

Table 4f. PEAK RADIATED SPURIOUS EMISSIONS (High)
Dipole Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4.93949	-58.29	5.6	515.2	5000.0	18.47*

* - Data corrected by 1 dB for loss of high pass filter

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-47.16 + 4.9 + 107)/20) = 1748.0

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: David P. Blethen

Name: David Blethen

Figure 4d
Peak Radiated Spurious Emission 15.247(c) Low - Dipole Antenna

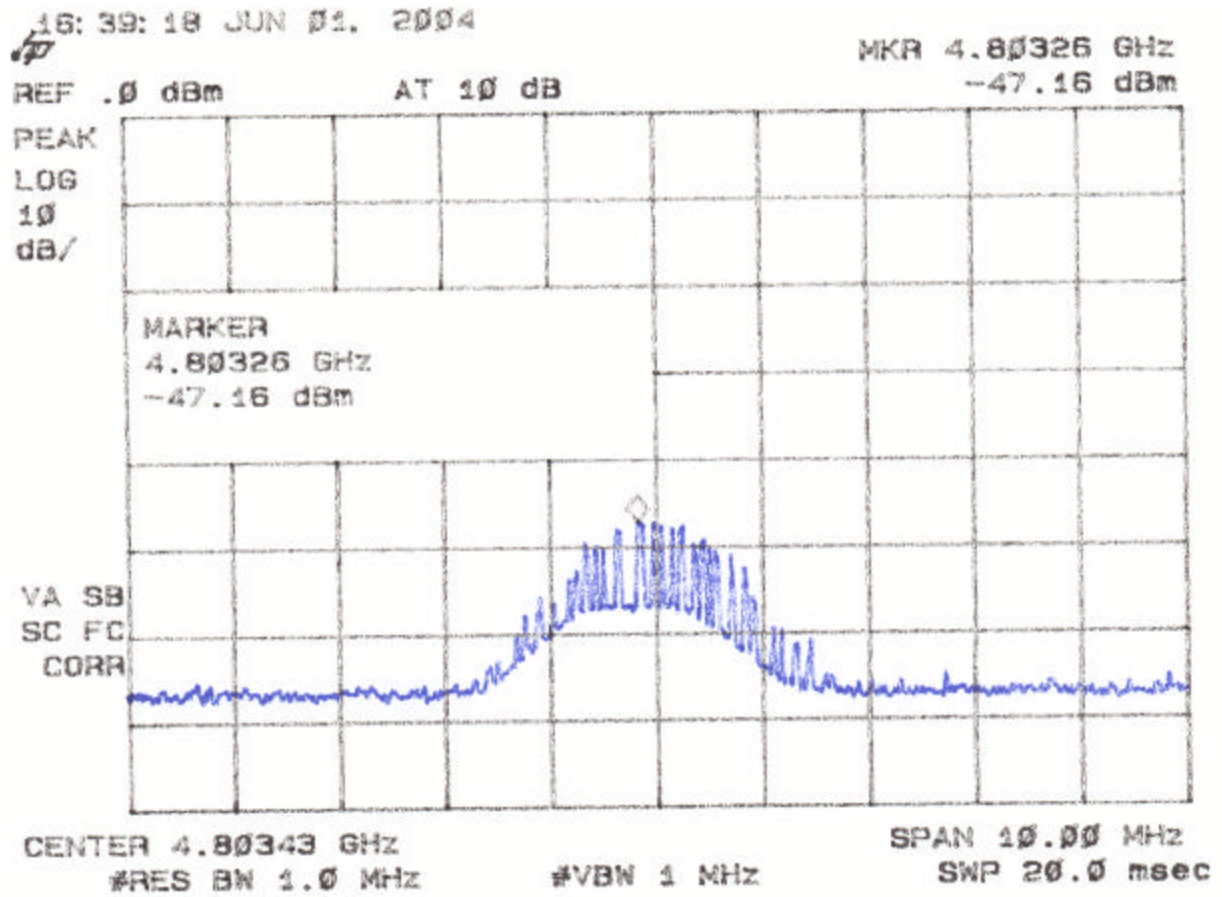


Figure 4e
Peak Radiated Spurious Emission 15.247(c) Mid - Dipole Antenna

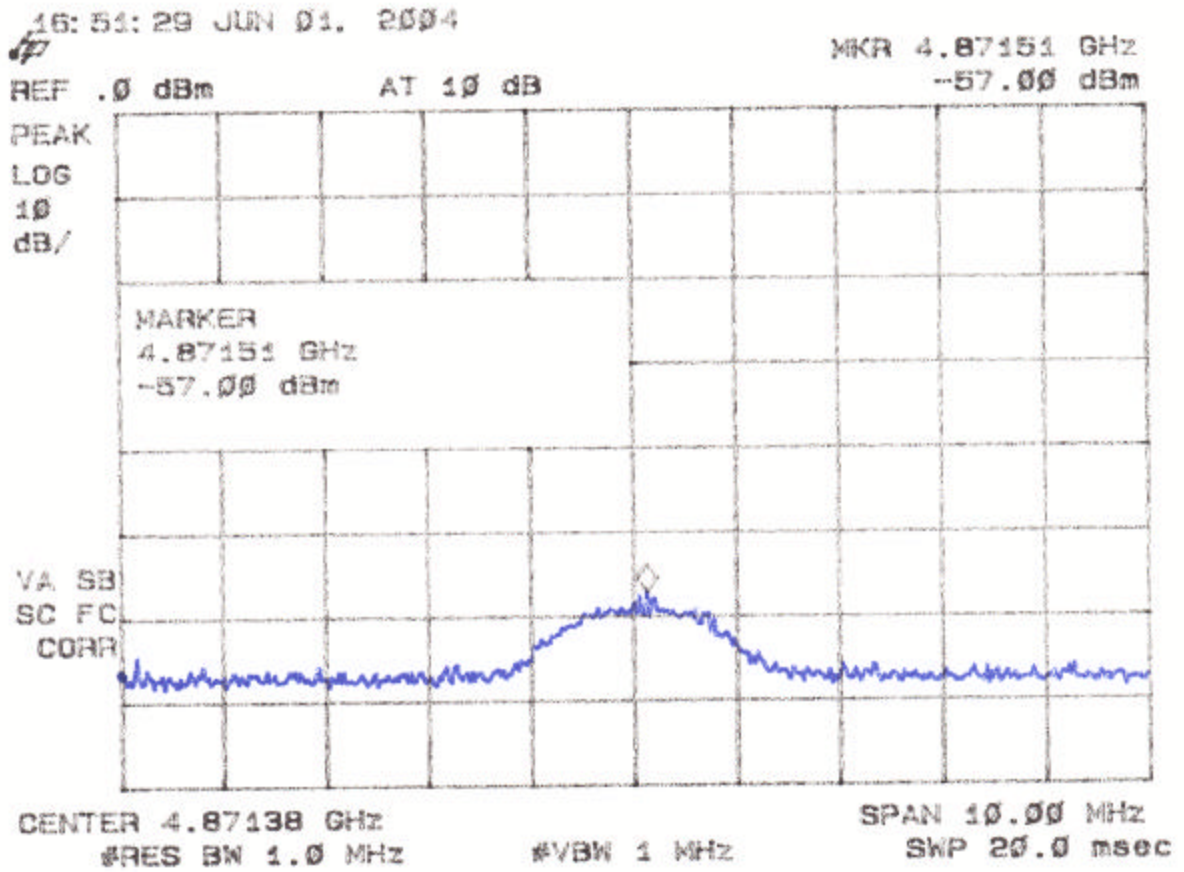


Figure 4f
Peak Radiated Spurious Emission 15.247(c) High- Dipole Antenna

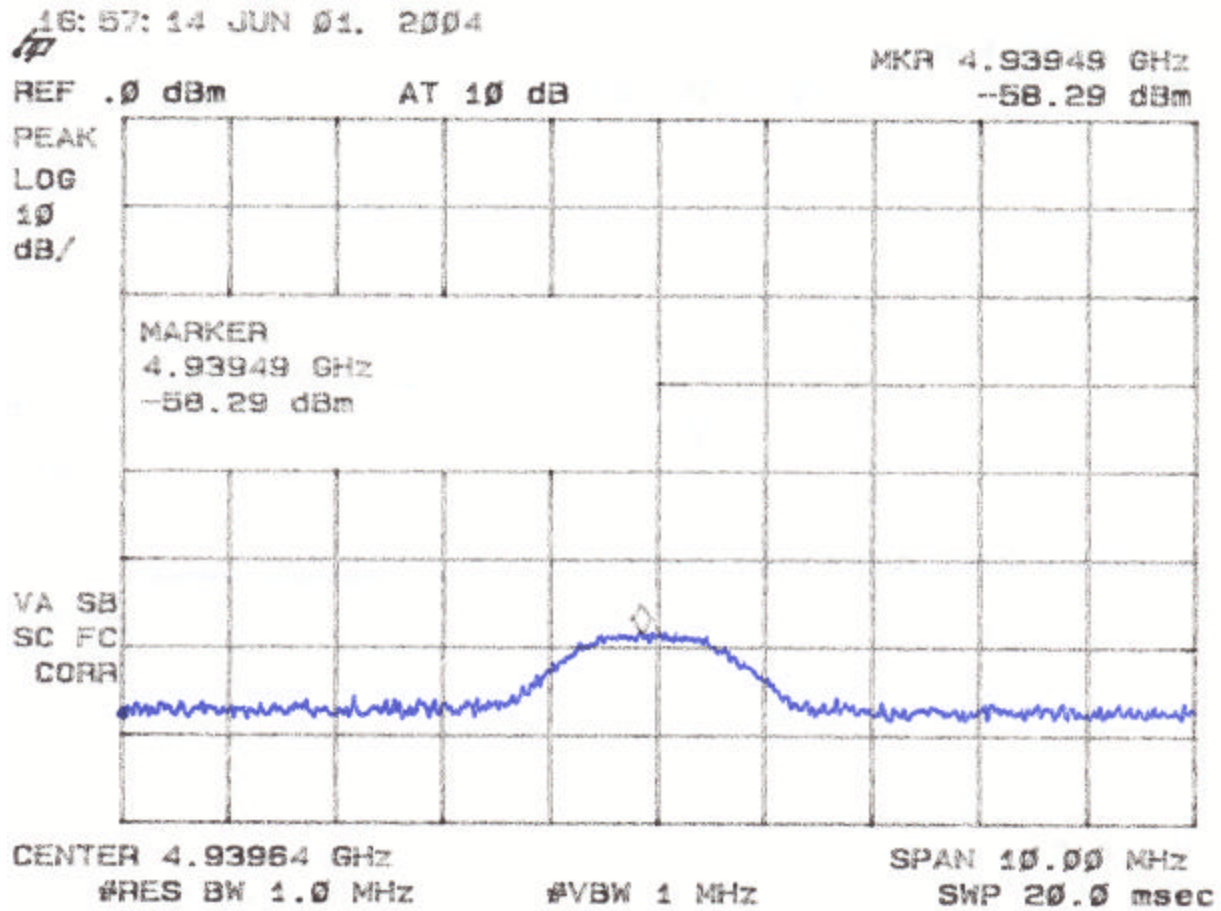


Table 4g. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Omni Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4h. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Omni Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4i. PEAK RADIATED SPURIOUS EMISSIONS (High)
Omni Antenna

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester
Signature:  **Name:** David Blethen

Table 4j. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Yagi Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4k. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Yagi Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4l. PEAK RADIATED SPURIOUS EMISSIONS (High)
Yagi Antenna

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester
 Signature:  Name: David Blethen

Table 4m. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Corner Reflector Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4n. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Corner Reflector

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4o. PEAK RADIATED SPURIOUS EMISSIONS (High)
Corner Reflector

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester

Signature:  **Name:** David Blethen

Table 4p. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Patch Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4q. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Patch Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 4r. PEAK RADIATED SPURIOUS EMISSIONS (High)
Patch Antenna

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester
Signature:  Name: David Blethen

Table 4s. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Stub Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
2401.78	-28.23	31.9	341613.7	-	-
4803.5	-55.24*	5.8	756.3	5000.0	16.4
7204.5	-42.92**	9.8	4967.0	34161.4	16.7

Table 4t. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Stub Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4871.2	-58.10*	6.05	558.9	5000.0	19.3
7307.6	-46.42**	9.88	3335.4	5000.0	3.5

Table 4u. PEAK RADIATED SPURIOUS EMISSIONS (High)
Stub Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4943.9	-56.59*	6.28	683.4	5000.0	17.3
7409.5	-49.54**	9.92	2339.9	5000.0	6.6

* - Data corrected by 1 dB for loss of high pass filter

** - Data conversion from 1 meter to 3 meters = +8.54

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog $((-55.24 + 6.0 + 107)/20)$ = 756.3

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: David P. Blethen

Name: David Blethen

Figure 4s(1)
Peak Radiated Spurious Emission 15.247(c) Low - Stub Antenna 2nd Harmonic

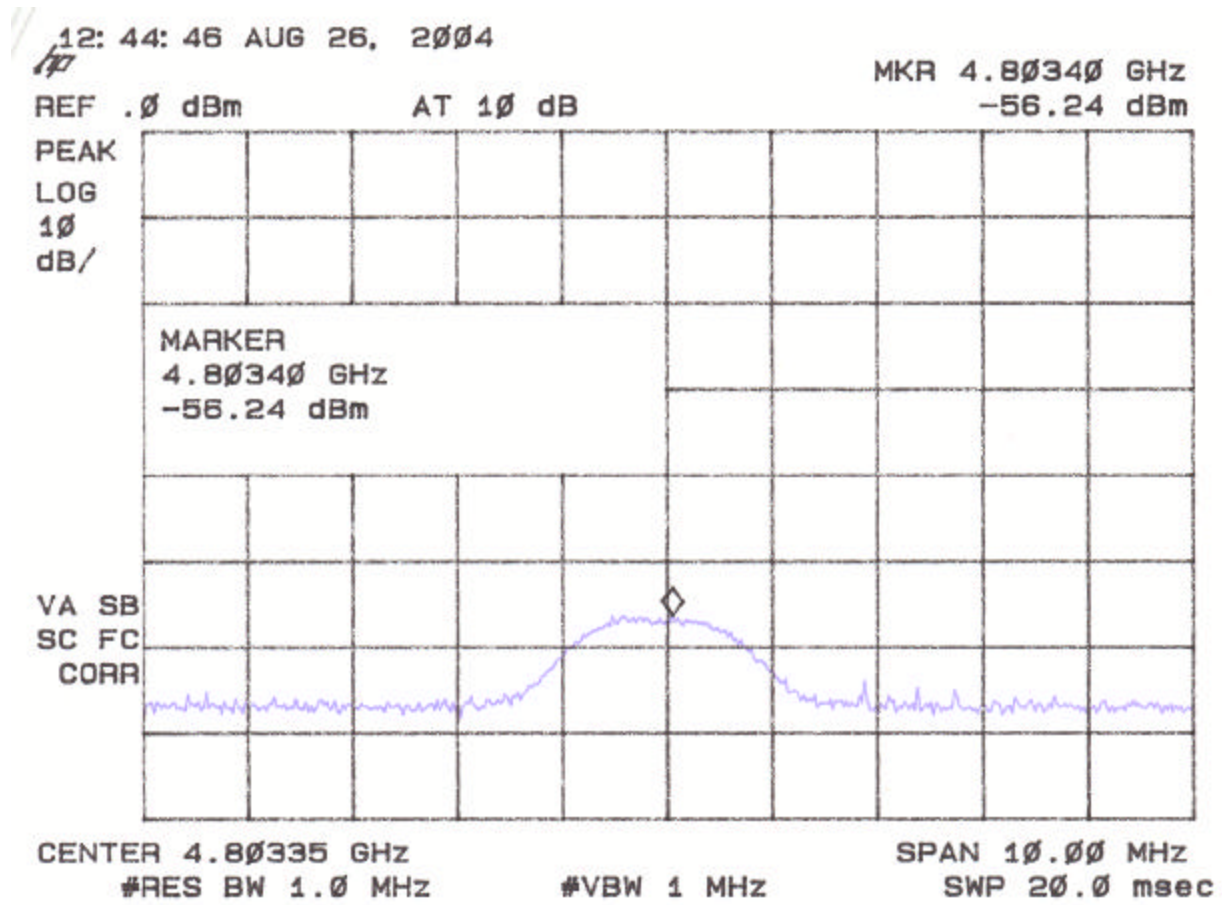


Figure 4s(2)
Peak Radiated Spurious Emission 15.247(c) Low - Stub Antenna 3rd Harmonic

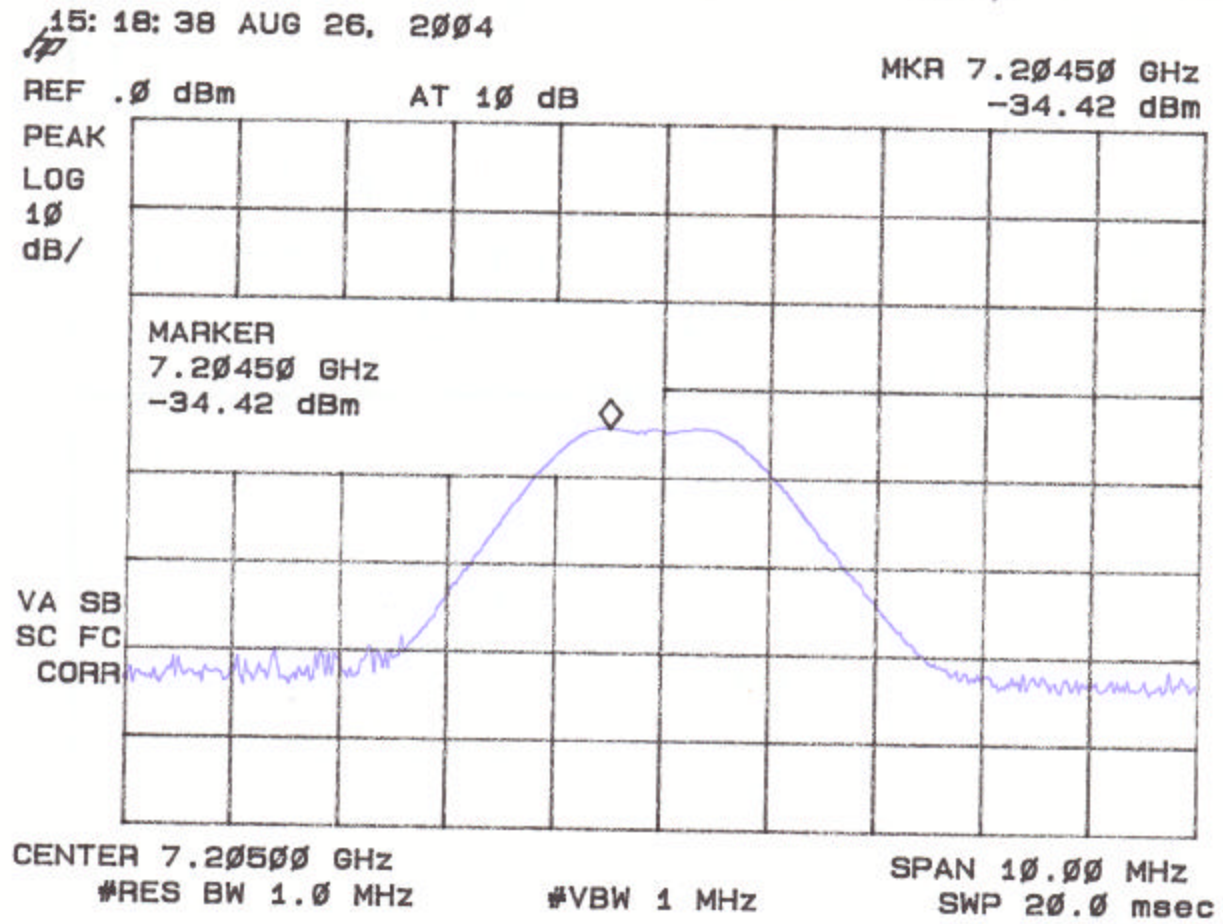


Figure 4t(1)
Peak Radiated Spurious Emission 15.247(c) Mid - Stub Antenna 2nd Harmonic

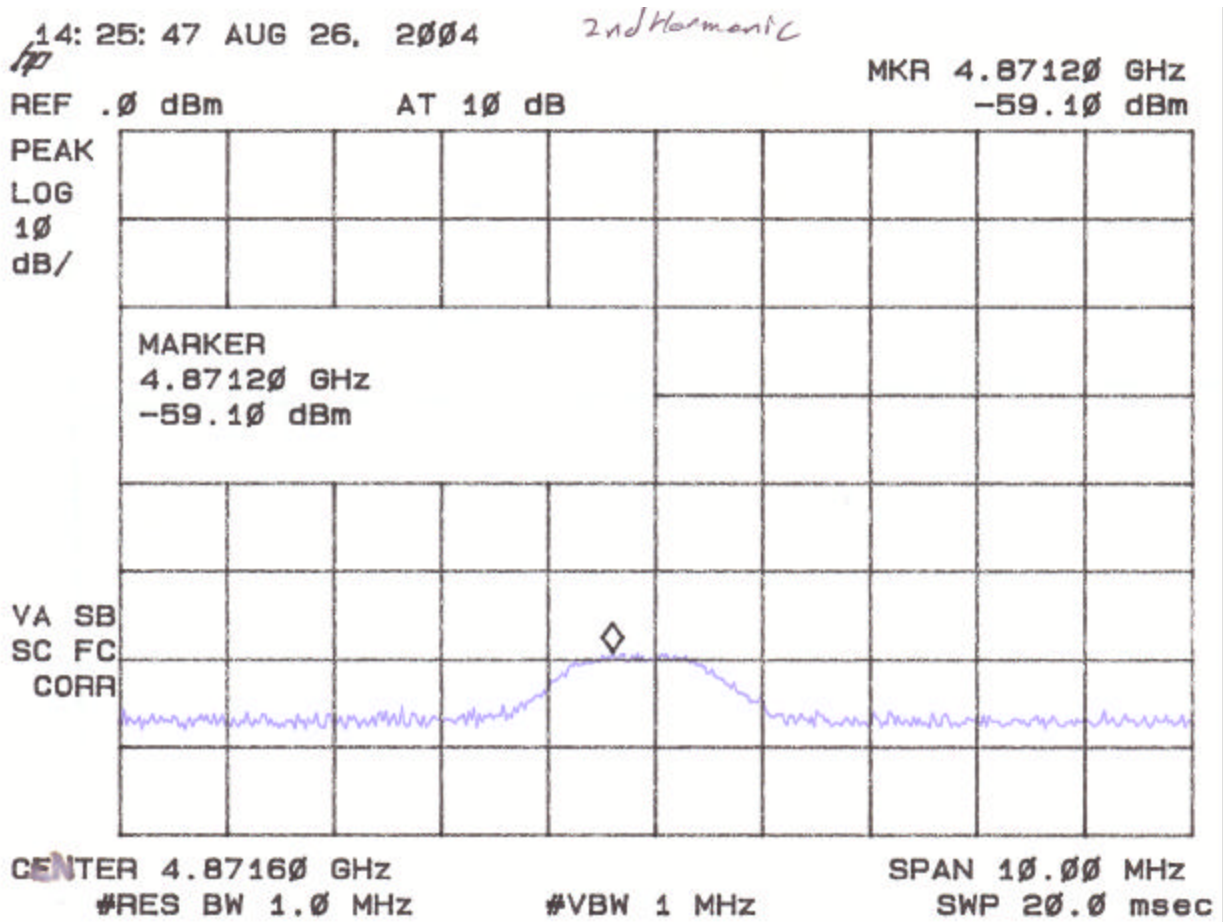


Figure 4t(2)
Peak Radiated Spurious Emission 15.247(c) Mid - Stub Antenna 3rd Harmonic

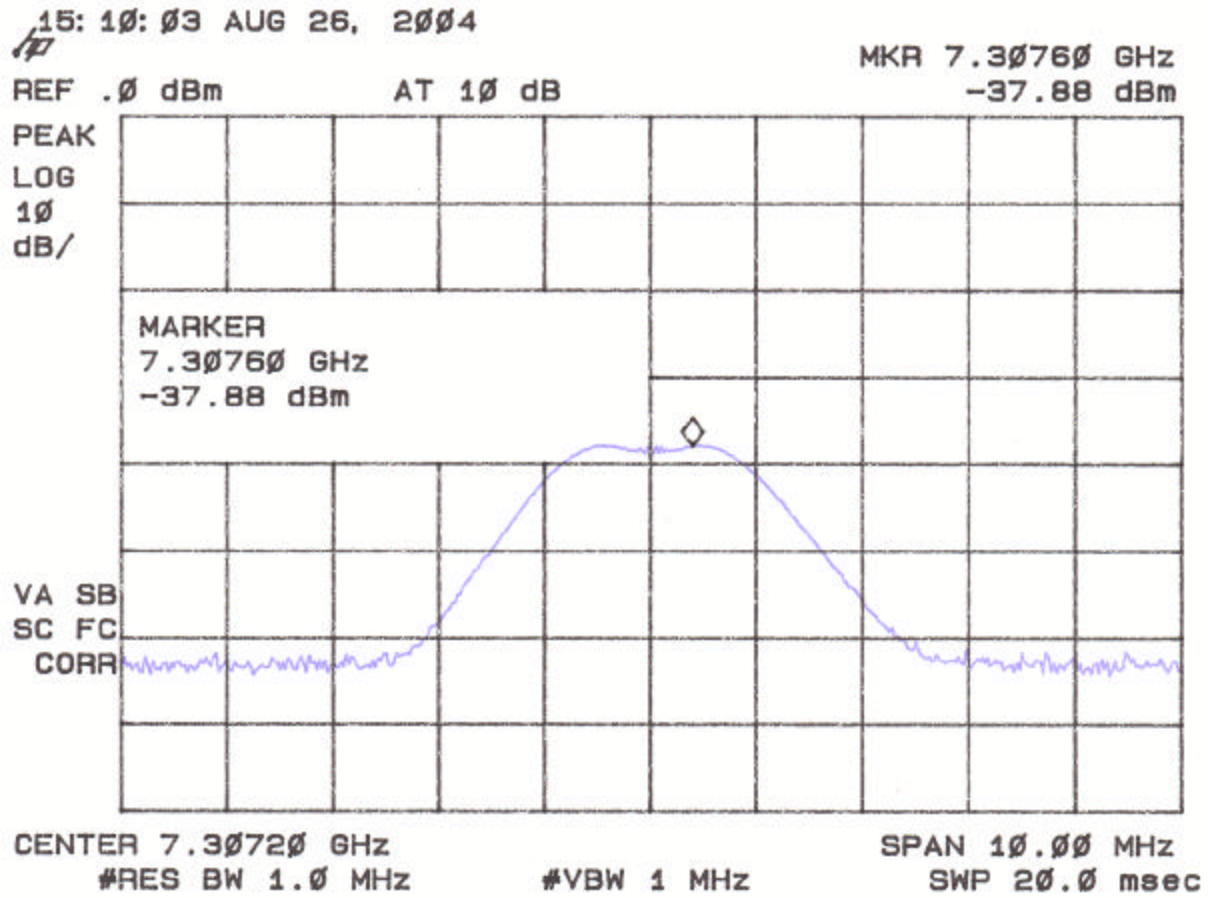


Figure 4u(1)
Peak Radiated Spurious Emission 15.247(c) High - Stub Antenna 2nd Harmonic

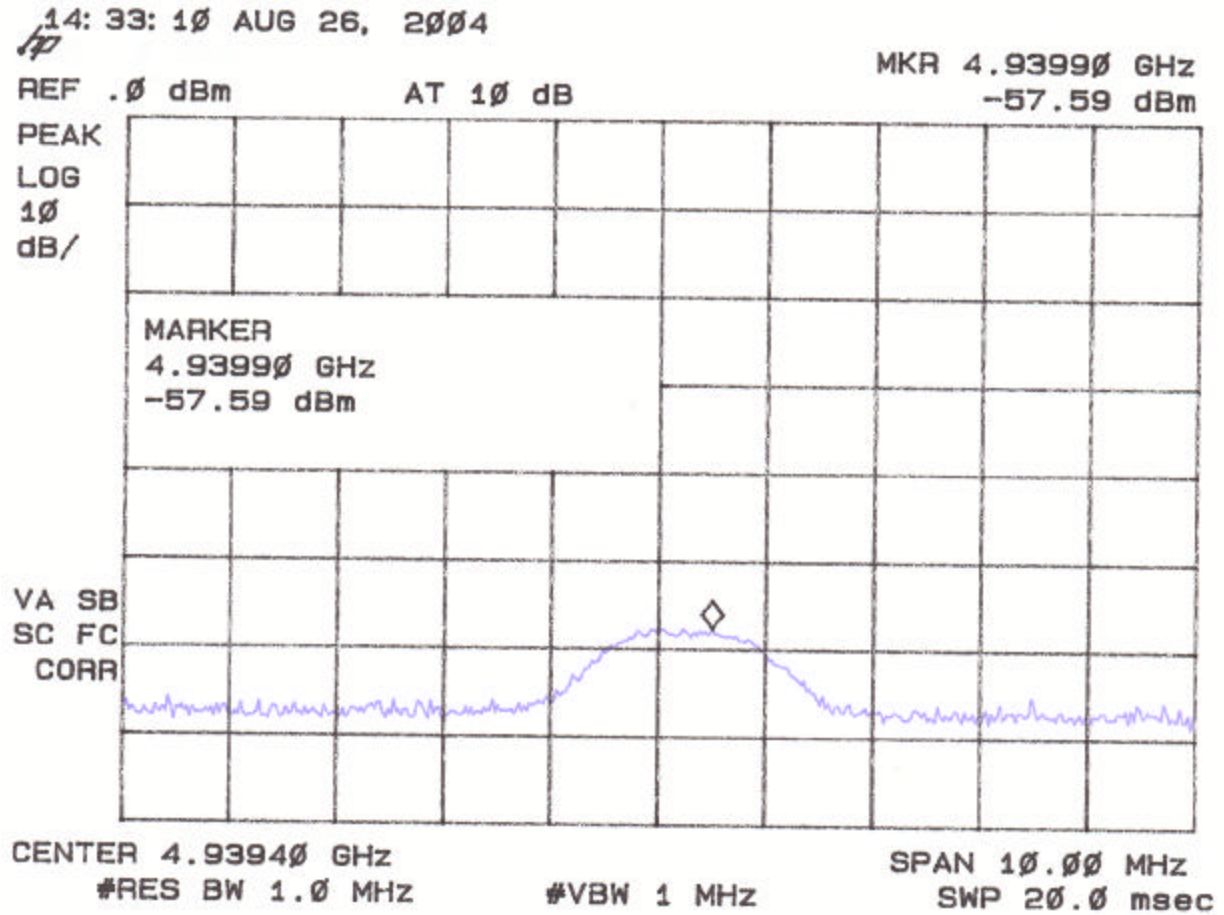


Figure 4u(2)
Peak Radiated Spurious Emission 15.247(c) High - Stub Antenna 3rd Harmonic

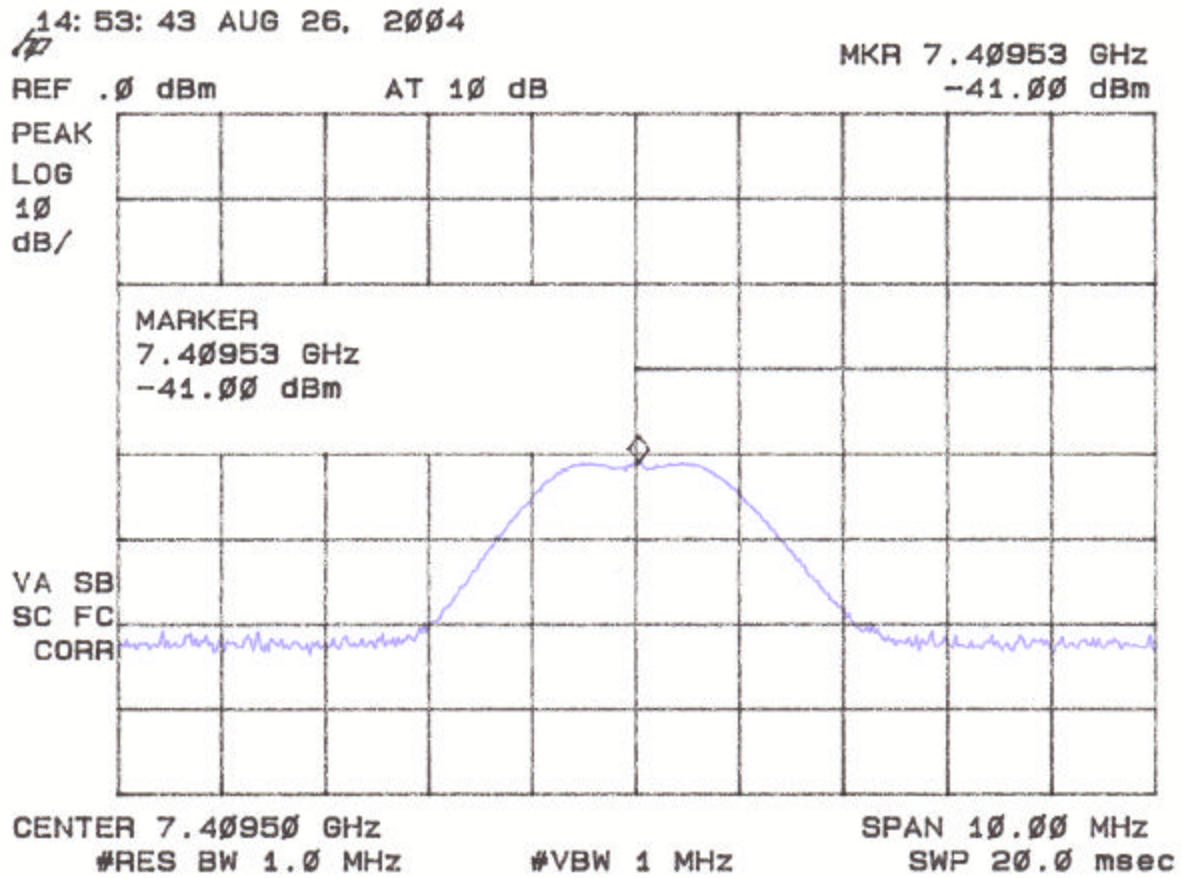


Table 4v. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Large Patch Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
2401.10	-24.15	31.90	54635.9	-	-
4803.3	-50.47*	5.8	1309.7	5000.0	11.6
7205.3	-45.79**	9.8	3569.5	54636.6	23.7

Table 4w. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Large Patch Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4871.5	-51.71*	6.05	1166.5	5000.0	12.6
7306.7	-46.30**	9.88	3381.7	5000.0	3.4

Table 4x. PEAK RADIATED SPURIOUS EMISSIONS (High)
Large Patch Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4939.98	-52.60*	6.28	1081.9	5000.0	13.3
7409.95	-45.38	9.92	3777.5	5000.0	2.4

* - Data corrected by 1 dB for loss of high pass filter

** - Data conversion from 1 meter to 3 meters = +8.54

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog $((-50.47 + 5.8 + 107)/20)$ = 11.6

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: David Blethen

Figure 4v(1)
Peak Radiated Spurious Emission 15.247(c) Low – Large Patch Antenna, 2nd Harmonic

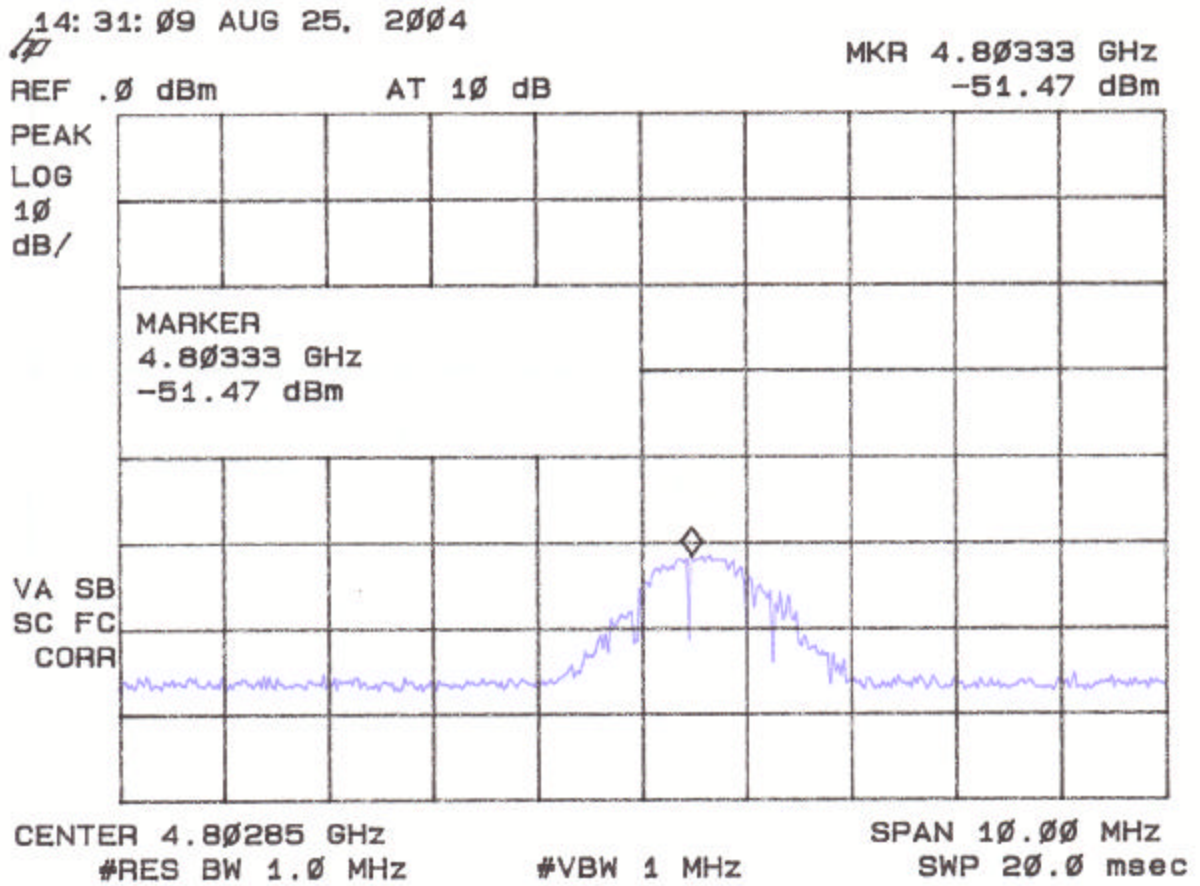


Figure 4v(2)
Peak Radiated Spurious Emission 15.247(c) Low – Large Patch Antenna, 3rd Harmonic

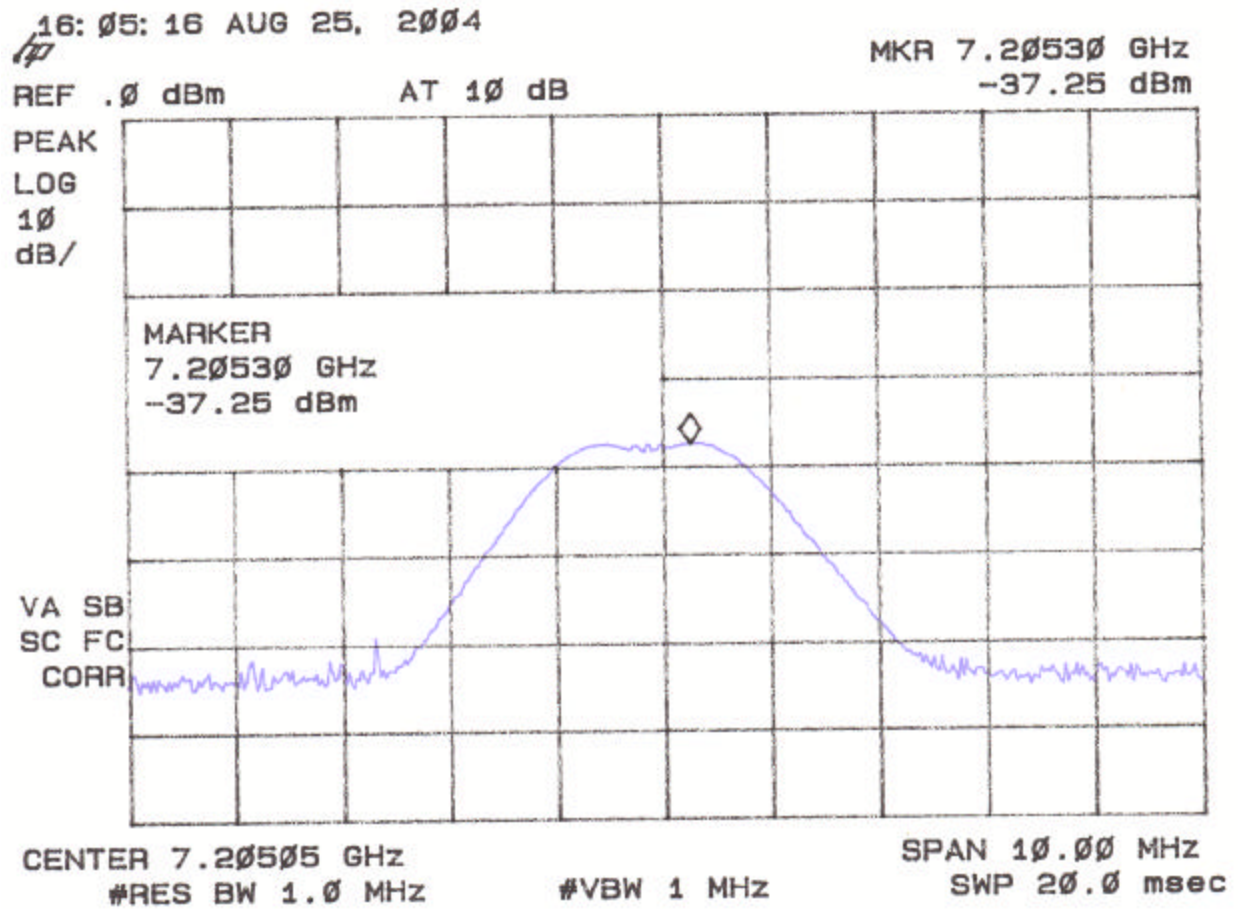


Figure 4w(1)

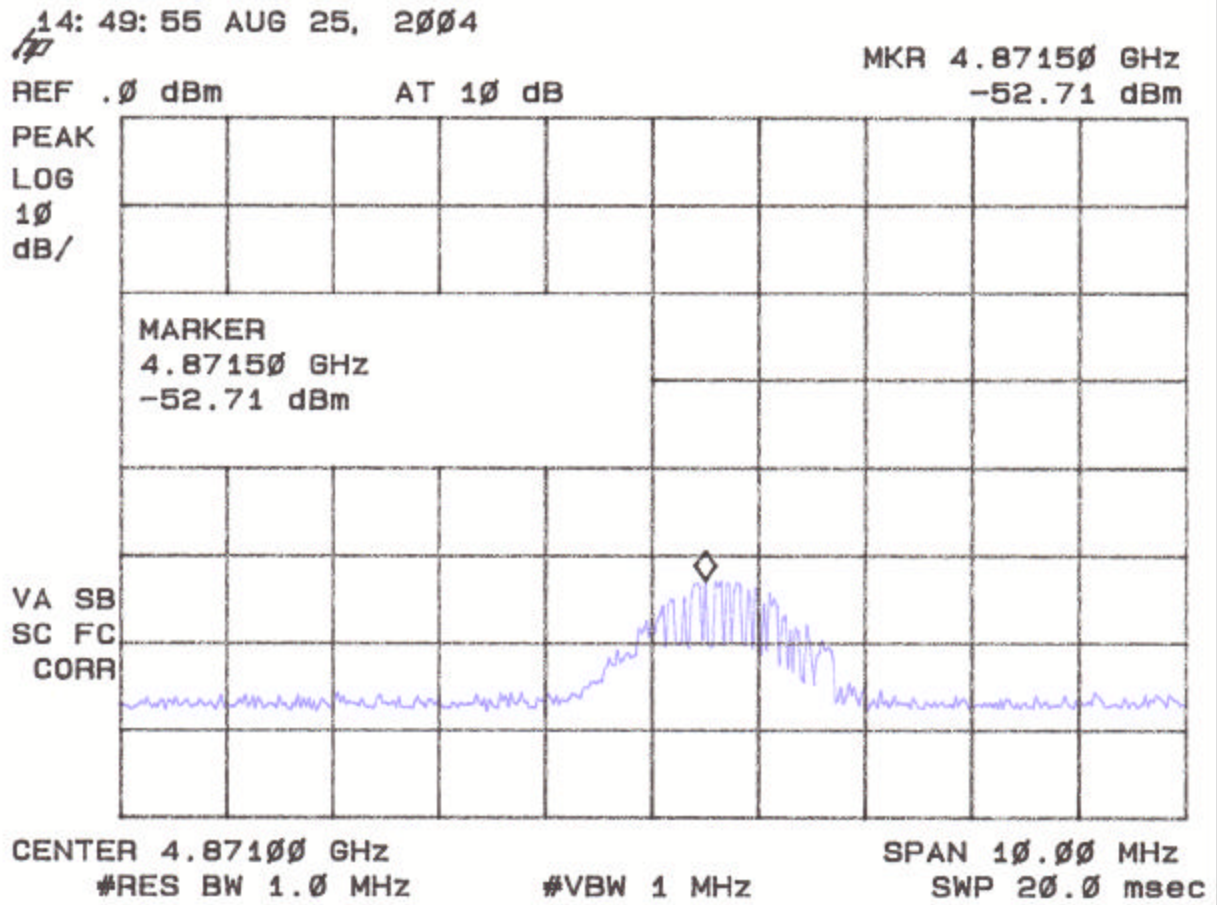
Peak Radiated Spurious Emission 15.247(c) Mid – Large Patch Antenna, 2nd Harmonic

Figure 4w(2)

Peak Radiated Spurious Emission 15.247(c) Mid – Large Patch Antenna 3rd Harmonic

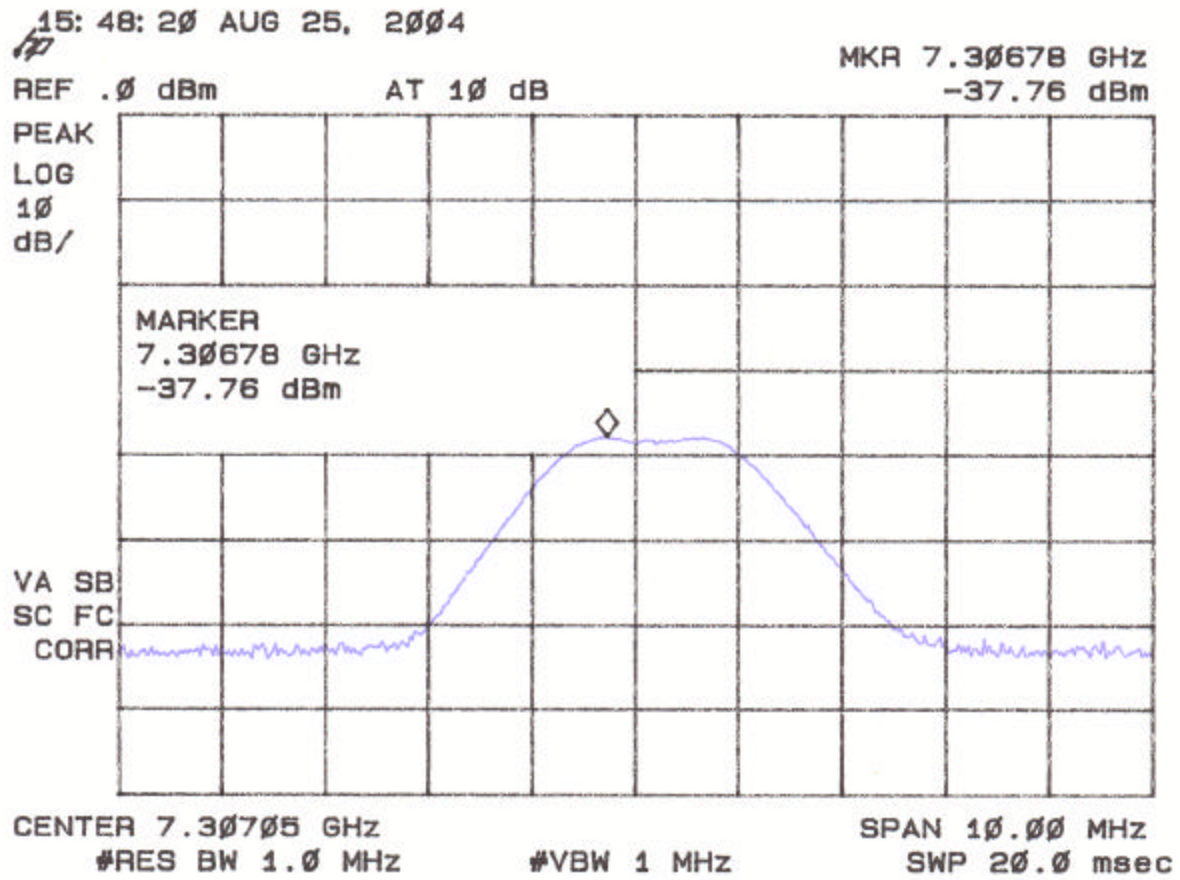


Figure 4x(1)
Peak Radiated Spurious Emission 15.247(c) High – Large Patch Antenna 2nd Harmonic

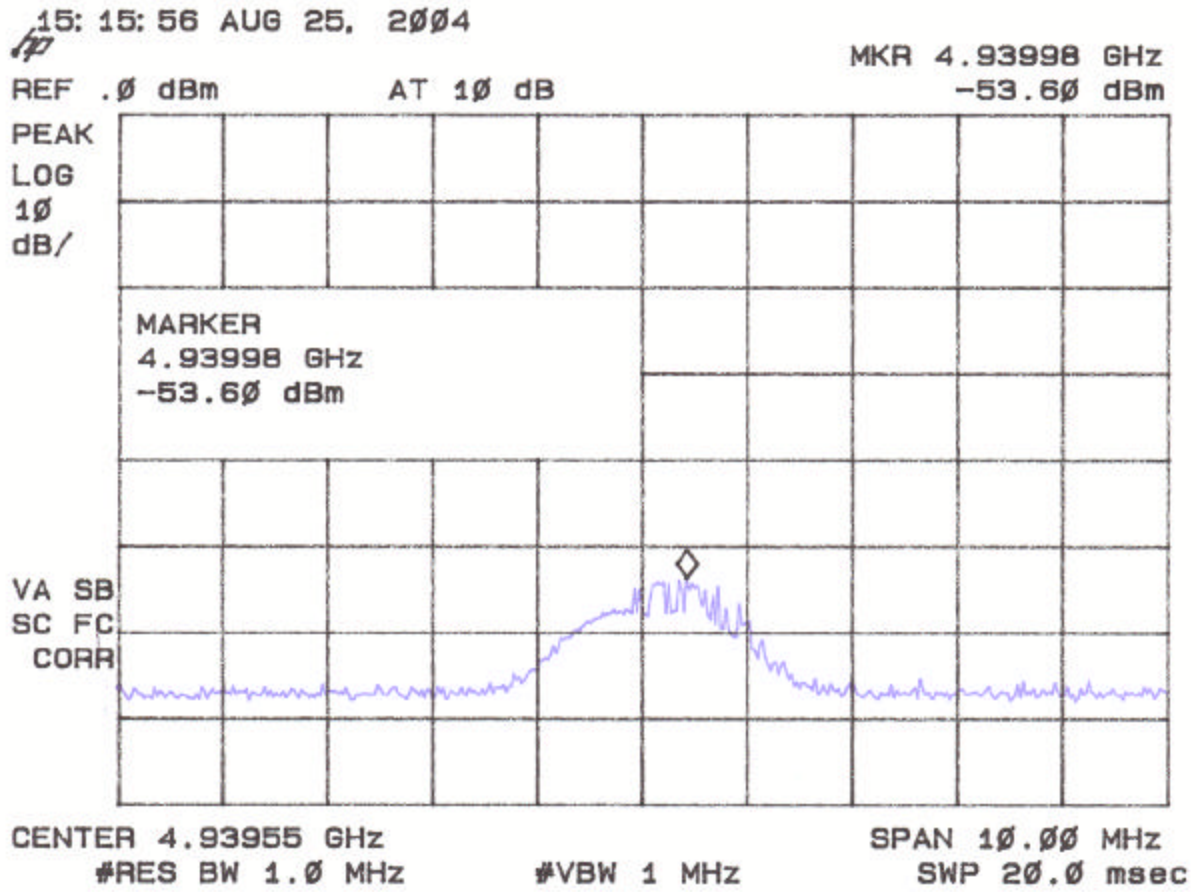


Figure 4x(2)

Peak Radiated Spurious Emission 15.247(c) High – Large Patch Antenna 3rd Harmonic

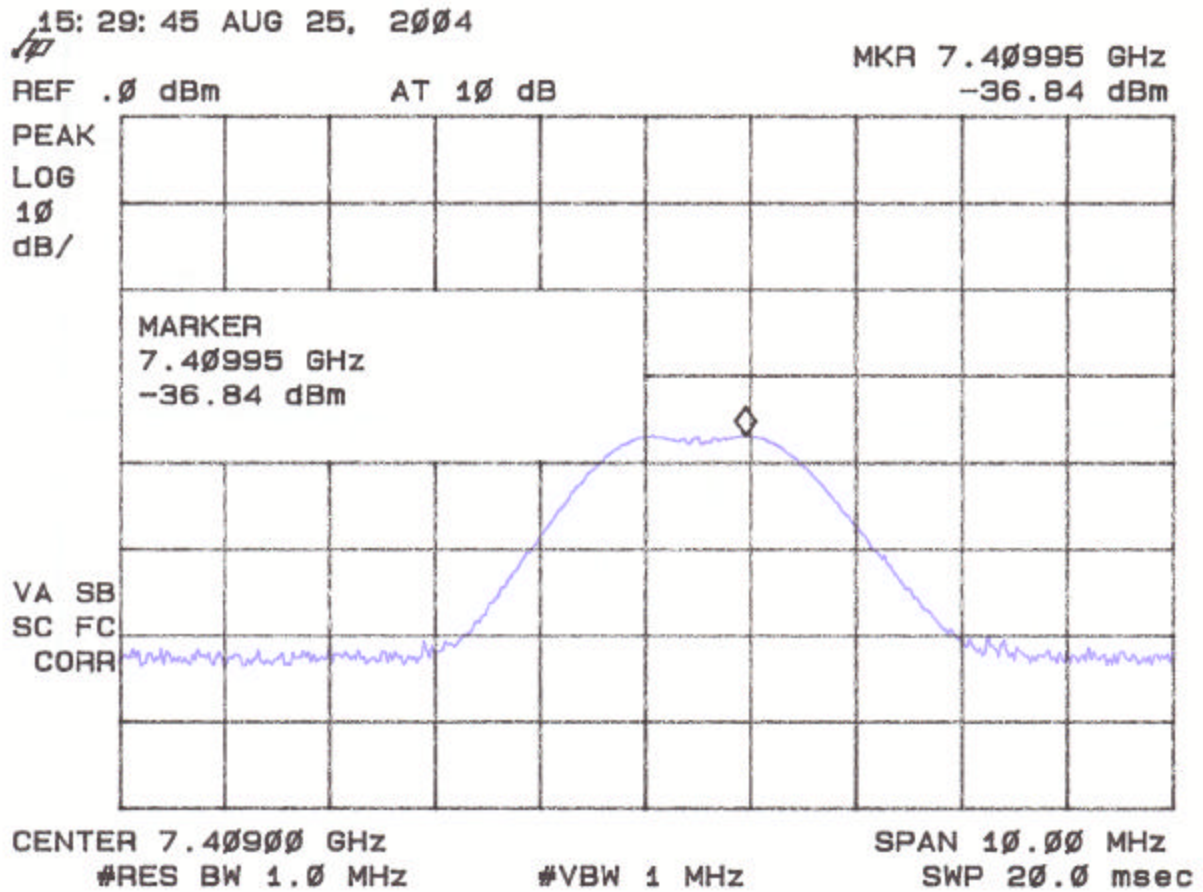


Table 4y. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Whip Gold Plate Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
2401.8	-21.5	31.9	741334.1	-	-
4803.58	-54.97*	5.8	780.2	5000.0	16.1
7205.2	-49.14**	9.8	2427.2	74133.4	29.7

Table 4z. PEAK RADIATED SPURIOUS EMISSIONS (Middle)
Whip Gold Plate Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4871.6	-56.29*	6.05	688.5	5000.0	17.2
7306.8	-46.06**	9.88	3476.5	5000.0	3.1

Table 4aa. PEAK RADIATED SPURIOUS EMISSIONS (High)
Whip Gold Plate Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4939.70	-55.09*	6.28	812.1	5000.0	15.7
7409.13	-50.16**	9.92	2178.6	5000.0	7.22

* - Data corrected by 1 dB for loss of high pass filter

** - Data conversion from 1 meter to 3 meters = +8.54

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog $((-56.97 + 5.8 + 107)/20)$ = 619.7

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: David Blethen

Figure 4y(1)
Peak Radiated Spurious Emission 15.247(c) Low – Whip Gold Plate Antenna
2nd Harmonic

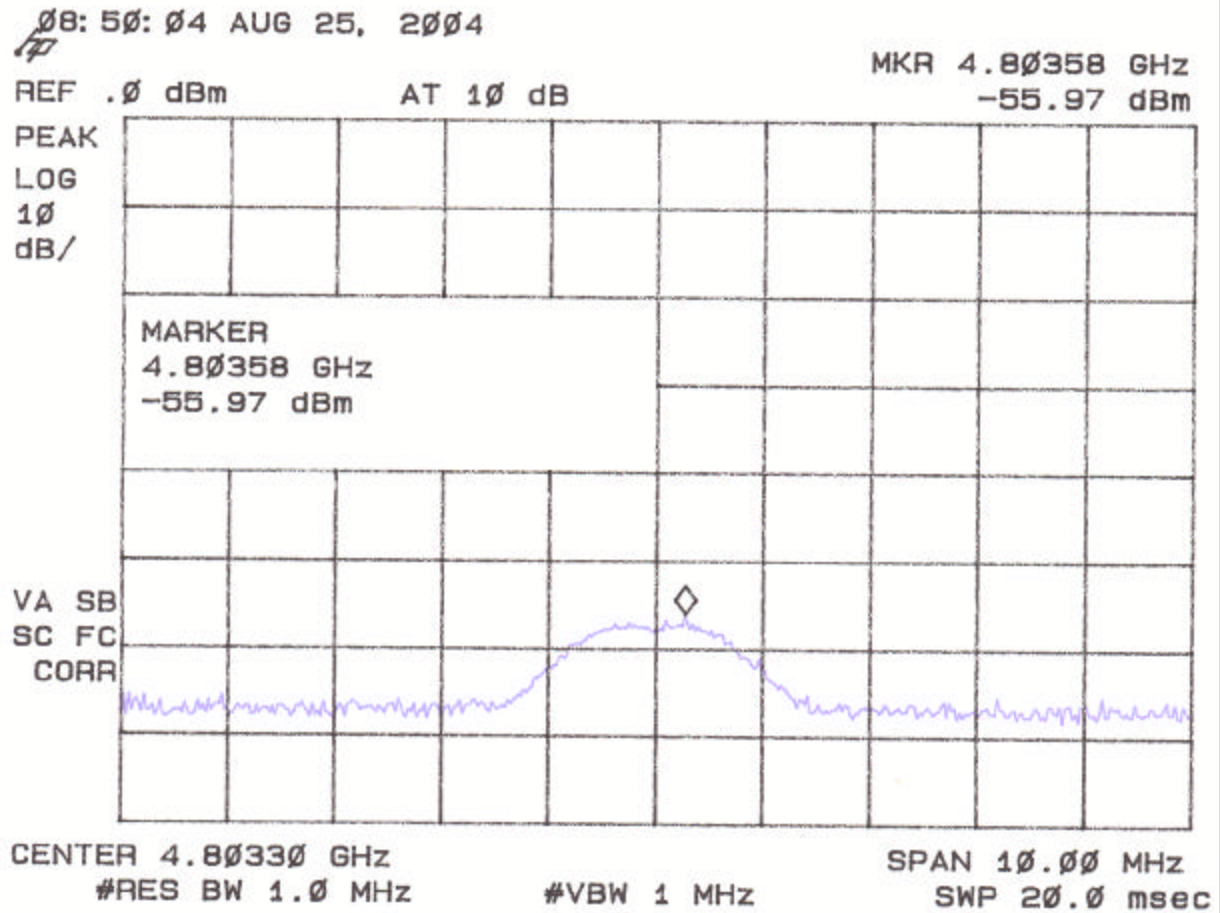


Figure 4y(2)
Peak Radiated Spurious Emission 15.247(c) Low - Whip Gold Plate Antenna
3rd Harmonic

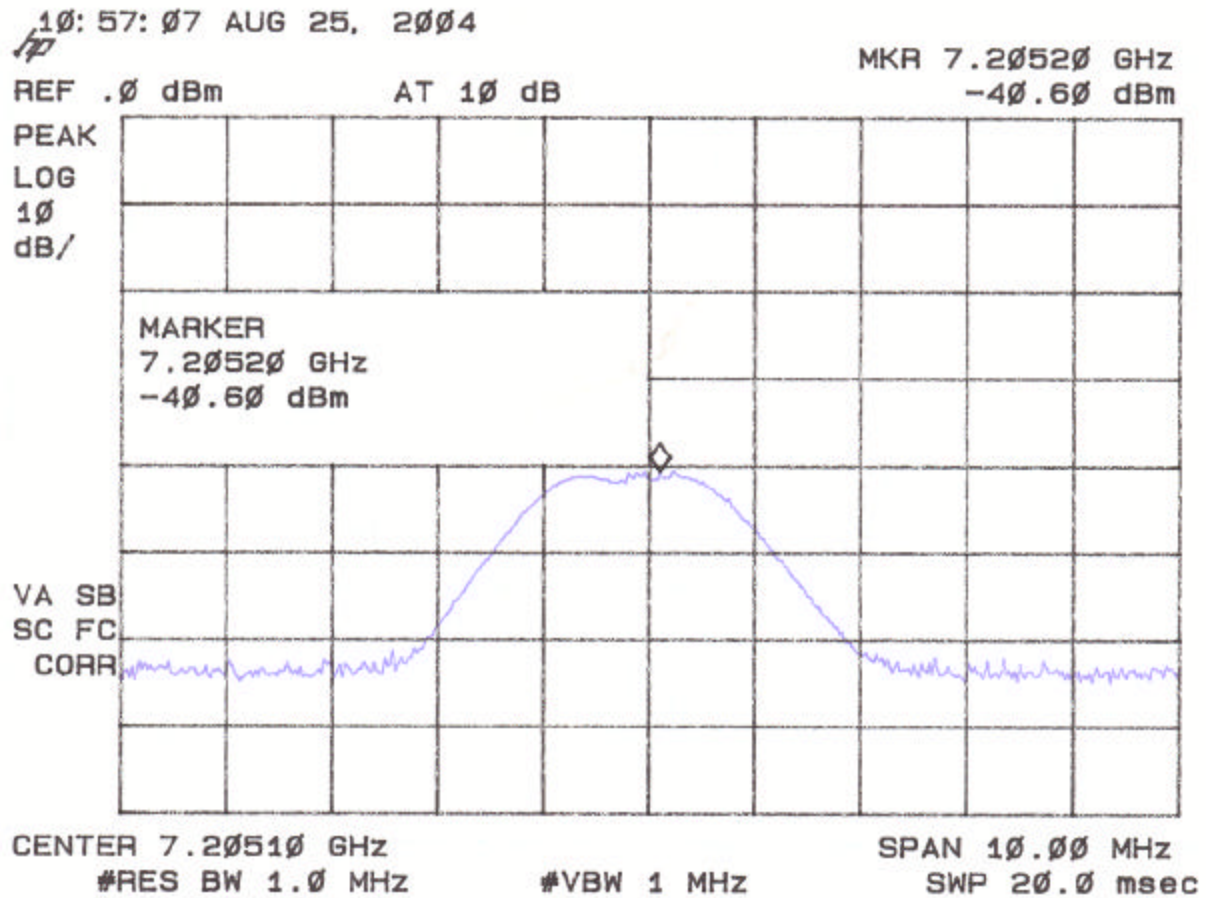


Figure 4z(1)
Peak Radiated Spurious Emission 15.247(c) Mid - Whip Gold Plate Antenna
2nd Harmonic

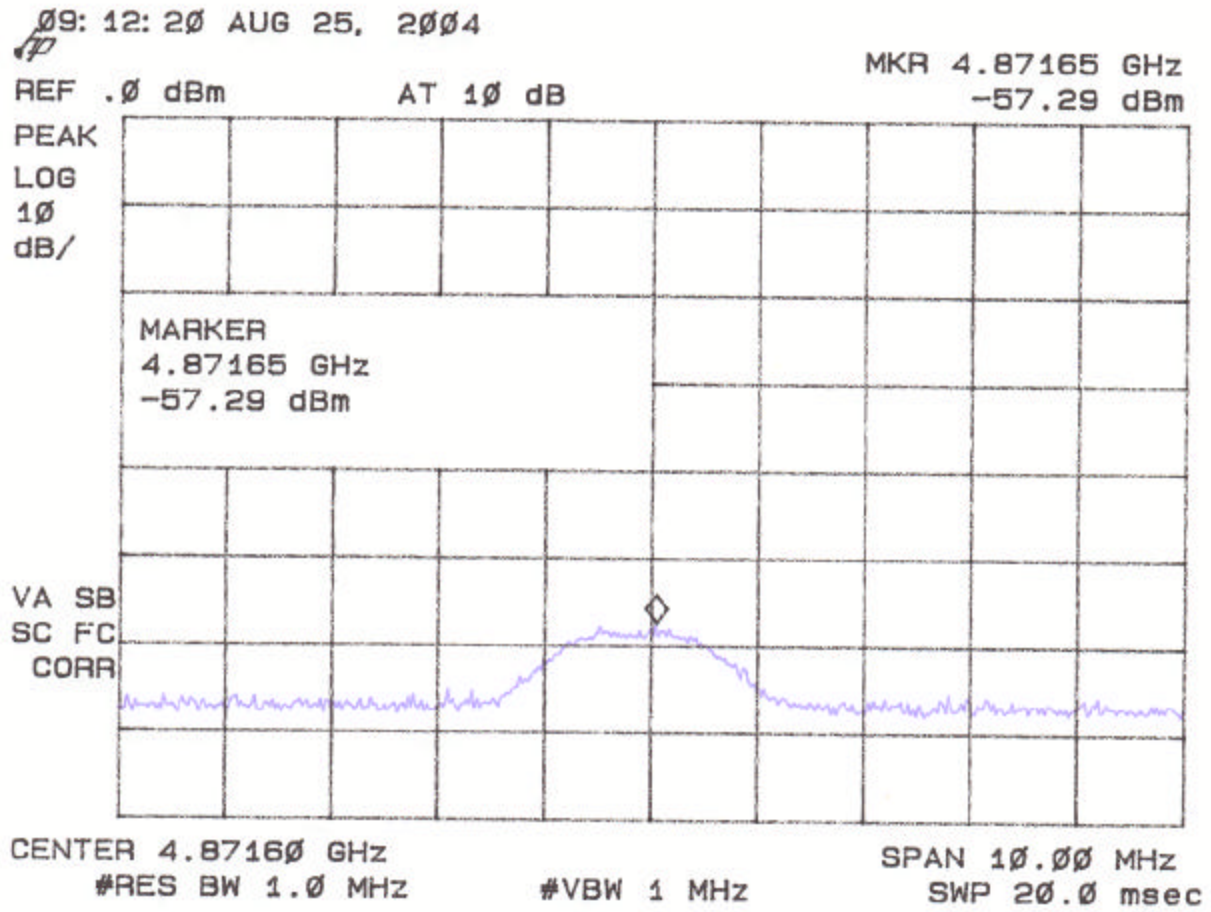


Figure 4z(2)
Peak Radiated Spurious Emission 15.247(c) Mid - Whip Gold Plate Antenna
3rd Harmonic

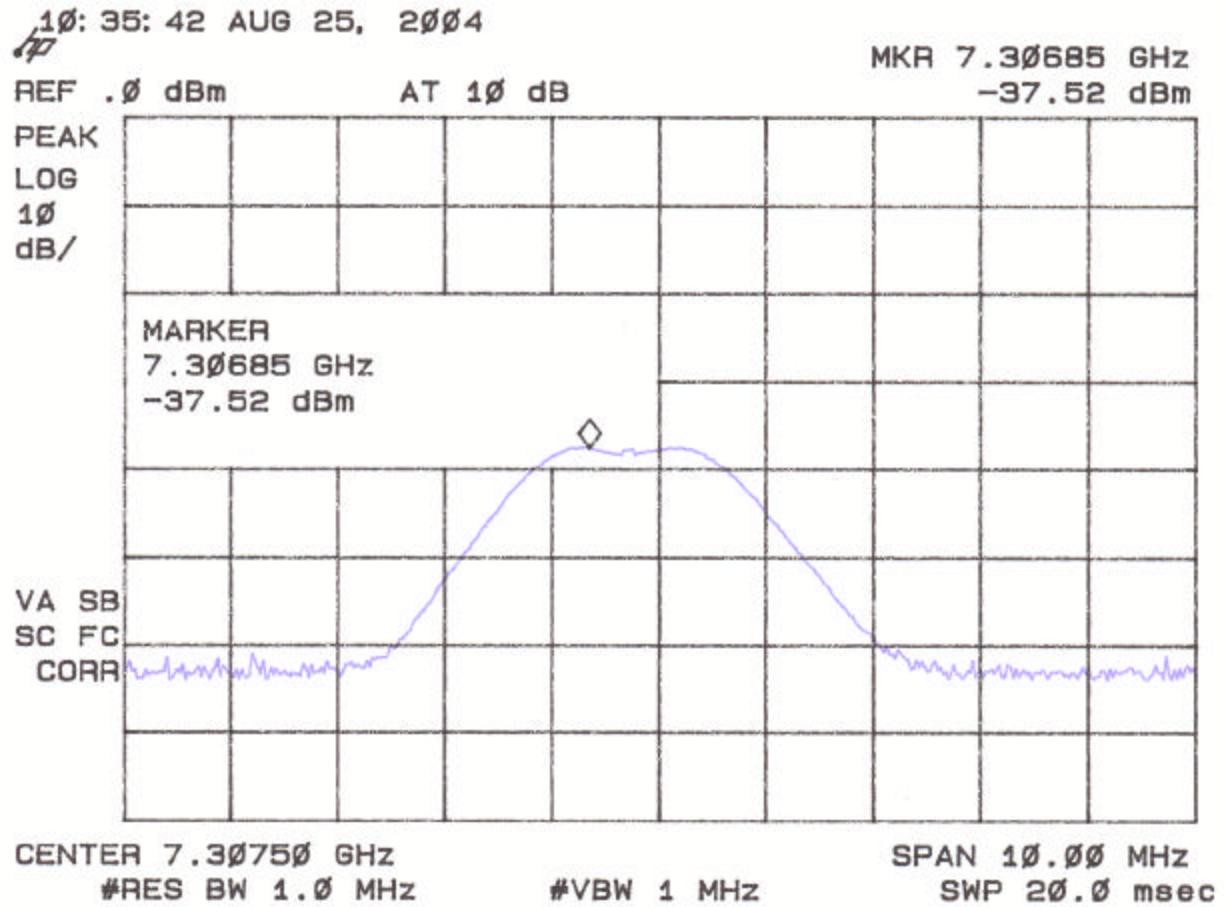


Figure 4aa(1)
Peak Radiated Spurious Emission 15.247(c) High - Whip Gold Plate Antenna
2nd Harmonic

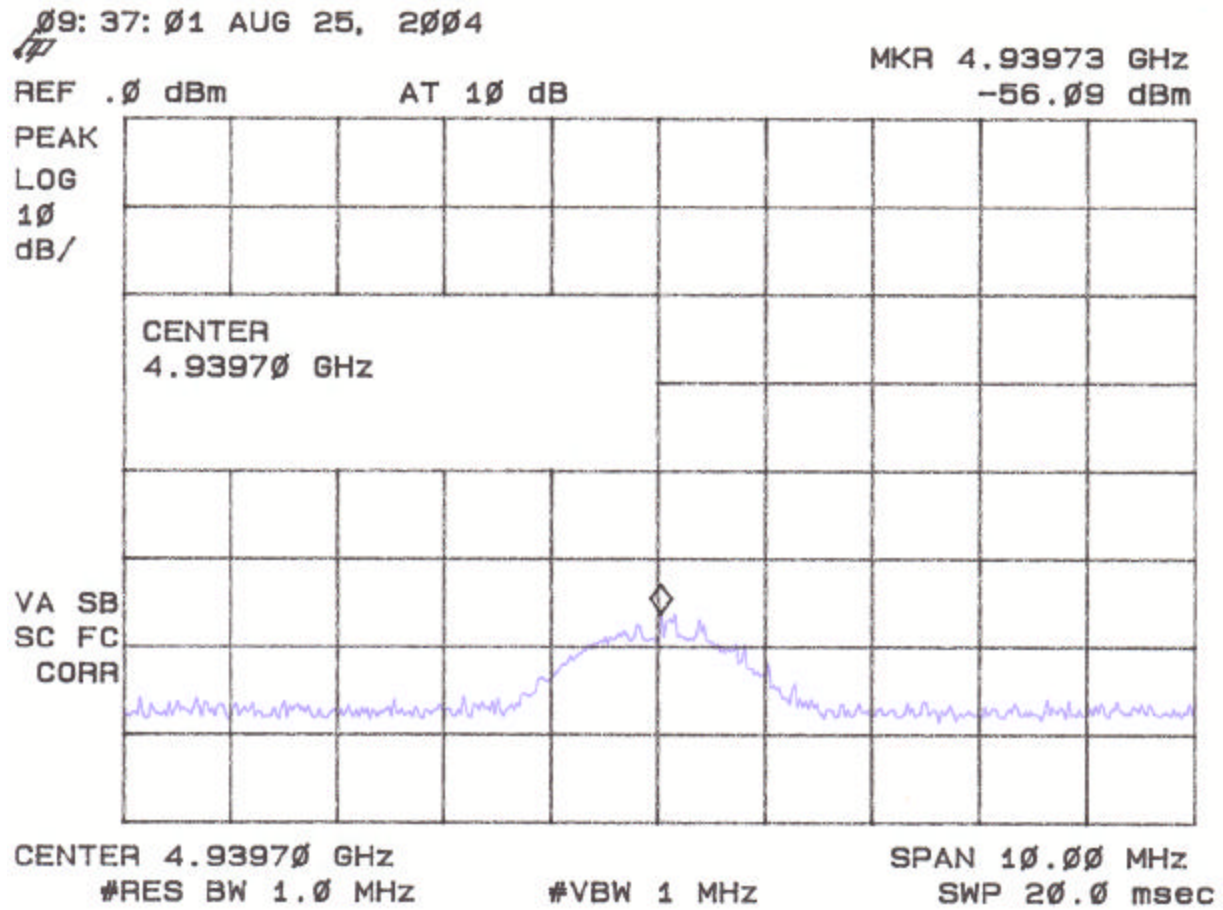
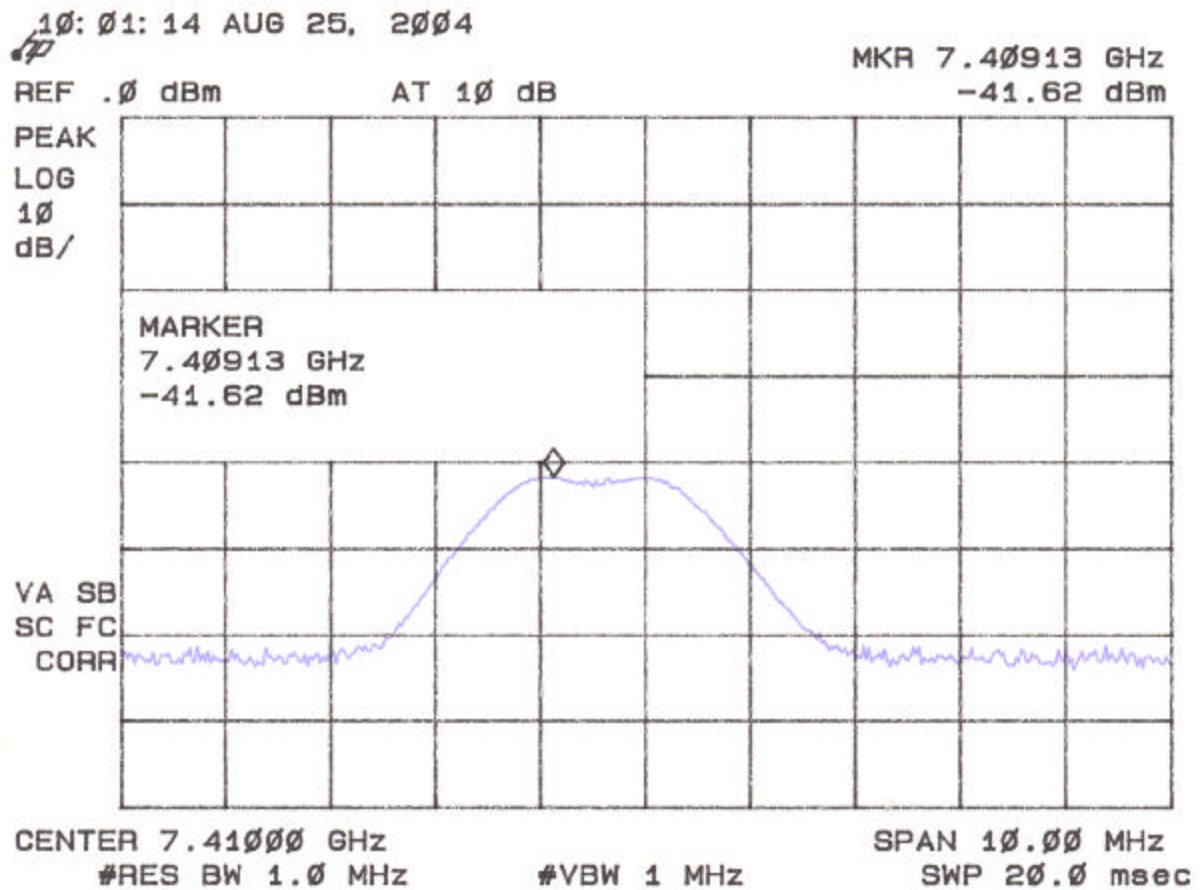


Figure 4aa(2)
Peak Radiated Spurious Emission 15.247(c) High - Whip Gold Plate Antenna
3rd Harmonic



2.8 Average Spurious Emission in the Frequency Range 30 - 25000 MHz (FCC Section 15.247(c))

The results of average radiated spurious emissions falling within restricted bands are given in Table 4a – 4d. Due to the functionality of the transmitter and the complexity of the test setup in order to measure worse case duty cycle, Cirronet Corporation provided an explanation of the worse case duty cycle of the transmitter (provided on the following pages).

Worst Case Transmit Duty Cycle for WIT2410

The duty cycle de-rating factor used in the calculation of average radiated limits (per 15.209) is described below. This factor was calculated by first determining the worst case scenario for system operation - worst case being defined as the scenario when the WIT2410 would be transmitting the longest period during a dwell.

This worst case operating scenario is as follows:

- 1) point-to-point operation
(only two units communicating with one another)
- 2) data flow is almost completely unidirectional
(that is, one radio is relaying a large amount of data to the other radio with only synchronization data being passed back the other direction)
- 3) The amount of data being fed to the sending radio is exactly portioned out to fit the maximum packet size allowable (280 bytes). The radio cannot send more than 280 bytes on a single channel – additional data must be sent on the next hop.

For this example, a remote unit is transferring a large data file to a base unit.

Maximum transmit time by Remote on a single channel:

$$= 280 \text{ bytes} * 8 \text{ bits/byte} * (1/460.8\text{Kbps}) = 4.86\text{ms}$$

The minimum hop duration for this scenario would be 6.94ms. Given that we have 75 channels in our hop set, it takes 521ms to go through the entire hop table and repeat a transmission on the same channel. Therefore, only 4.86milliseconds worth of data can be transmitted on a single channel in any 100ms time period.

The transmission duty cycle correction factor is then calculated as:

$$20 * \text{Log}_{10} (4.86\text{ms}/100\text{ms}) = \mathbf{-26.3 \text{ dB}}$$

Table 5a. AVERAGE RADIATED SPURIOUS EMISSIONS (Low)
Parabolic Dish Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4803.51	-80.97	5.0	35.4	500.0	23.0

Table 5b. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Parabolic Dish Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4871.6	-79.47	5.2	43.5	5080.0	21.2

Table 5c. AVERAGE RADIATED SPURIOUS EMISSIONS (High)
Parabolic Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4939.6	-79.25	5.5	46.2	500.0	20.7

- - Data corrected by 1 dB for loss of high pass filter

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-80.97 + 5.0 + 107)/20) = 35.4

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: David Blethen

Table 5d. AVERAGE RADIATED SPURIOUS EMISSIONS (Low)
Dipole Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN* BELOW FCC Limits (dB)
4.80343	-73.46	4.9	84.6	500.0	14.4

Table 5e. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Dipole Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN * BELOW FCC Limits (dB)
4.87151	-82.3	5.3	31.5	500.0	24.0

Table 5f. AVERAGE RADIATED SPURIOUS EMISSIONS (High)
Dipole Antenna

Freq. (GHz)	Test Data (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN * BELOW FCC Limits (dB)
4.93949	-84.59	5.6	24.9	500.0	26.1

* - Data corrected by 1 dB for loss of high pass filter

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-73.46 + 4.9 + 107)/20) = 84.6

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature:



Name: David Blethen

Table 5g. AVERAGE RADIATED SPURIOUS EMISSIONS (Low)
Omni Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 5h. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Omni Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 5i. PEAK RADIATED SPURIOUS EMISSIONS (High)
Omni Antenna

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester

Signature:



Name: David Blethen

Table 5j. AVERAGE RADIATED SPURIOUS EMISSIONS (Low)
Yagi Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 5k. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Yagi Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 5l. AVERAGE RADIATED SPURIOUS EMISSIONS (High)
Yagi Antenna

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester

Signature:  **Name:** David Blethen

**Table 5m. AVERAGE RADIATED SPURIOUS EMISSIONS (Low
Corner Reflector Antenna**

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

**Table 5n. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Corner Reflector**

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

**Table 5o. AVERAGE RADIATED SPURIOUS EMISSIONS (High)
Corner Reflector**

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester

Signature: _____



Name: David Blethen

Table 5p. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Patch Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 5q. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Patch Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Table 5r. AVERAGE RADIATED SPURIOUS EMISSIONS (High)
Patch Antenna

Freq. (GHz)	Test Data* (dBm) @3m	Amp. Gain (dB)	Antenna Factor (dB)	Cable Loss (dB)	Results (uV/m) 3m	FCC Limits (uV/m)
NO EMISSION DETECTED WITHIN 20 dB OF THE FCC LIMIT						

Note: Fundamental Transmission was confirmed for each measurement.

Tester

Signature:



Name: David Blethen

Table 5s. AVERAGE RADIATED SPURIOUS EMISSIONS (Low)
Stub Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
2401.78	-54.53	31.90	16540.0	-	-
4803.4	-81.54	5.81	36.6	500.0	22.7
7204.5	-69.22	9.84	240.5	1654.0	16.7

Table 5t. AVERAGE RADIATED SPURIOUS EMISSIONS (Middle)
Stub Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4871.2	-84.40	6.05	27.1	500.0	25.3
7307.6	-72.50	9.88	165.6	500.0	9.6

Table 5u. AVERAGE RADIATED SPURIOUS EMISSIONS (High)
Stub Antenna

Freq. (GHz)	Test Data* (dBm) @ 3m	AF + CA -AMP (dB)	Results (uV/m) 3m	FCC Limits (uV/m)	MARGIN BELOW FCC Limits (dB)
4939.9	-82.89	6.28	33.1	500.0	23.5
7409.5	-75.84	9.92	113.3	500.0	12.9

- - Data corrected by 1 dB for loss of high pass filter

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-81.54 + 5.8 + 107)/20) = 36.6

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: David Blethen