

2.7 Peak Radiated Spurious Emission in the Frequency Range 30-25000 MHz (FCC Section 15.247(c))

The EUT was hop-stopped and when possible placed into a continuous transmit mode of operation. A preliminary scan was performed on the EUT to determine frequencies that were caused by the transmitter portion of the product. Significant emissions that fell within restricted bands were then measured on an OAT's site. Radiated measurements below 1 GHz were tested with a RBW = 120 kHz. Radiated measurements above 1 GHz were measured using a RBW = VBW = 1 MHz. The results of peak radiated spurious emissions falling within restricted bands are given in Table 4a – 4e and Figure 4a – Figure 4u.

**Table 4a. PEAK RADIATED SPURIOUS EMISSIONS (Low)
Parabolic Dish Antenna**

Radiated Emissions								
Test By:	Test:	Spurious Emissions-Parabolic Antenna-Low Channel			Client:	Cirronet		
	Project:	06-0003		Class:	B	Model:	WIT2450	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
WIT 2450		2HN3mH	Model : SAS-571		S/N 605	Yes	01 APR 05	
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n
(MHz)	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	(dB)	/ QP
2400.56	-8.8	2HN3mH	98.2	31.6	3099177.9			PK
4801.85	-46.5	2HN3mH	60.5	5.4	1981.2	5000.0	8.0	PK
7202.62	-51.7	2HN3mH	55.3	10.7	1996.2	309917.8	43.8	PK**
9604.36	-46.6	2HN3mH	60.4	13.3	4843.5	309917.8	36.1	PK **

Data corrected by 0.1 dB for loss of high pass filter, except to fundamental

** Conversion from 1 meter to 3 meters = -9.54 dB

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-46.5 + 5.4 + 107)/20) = 1981.2

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Figure 4a - 1
Peak Radiated Spurious Emission 15.247(c) Fundamental Low – Parabolic Dish

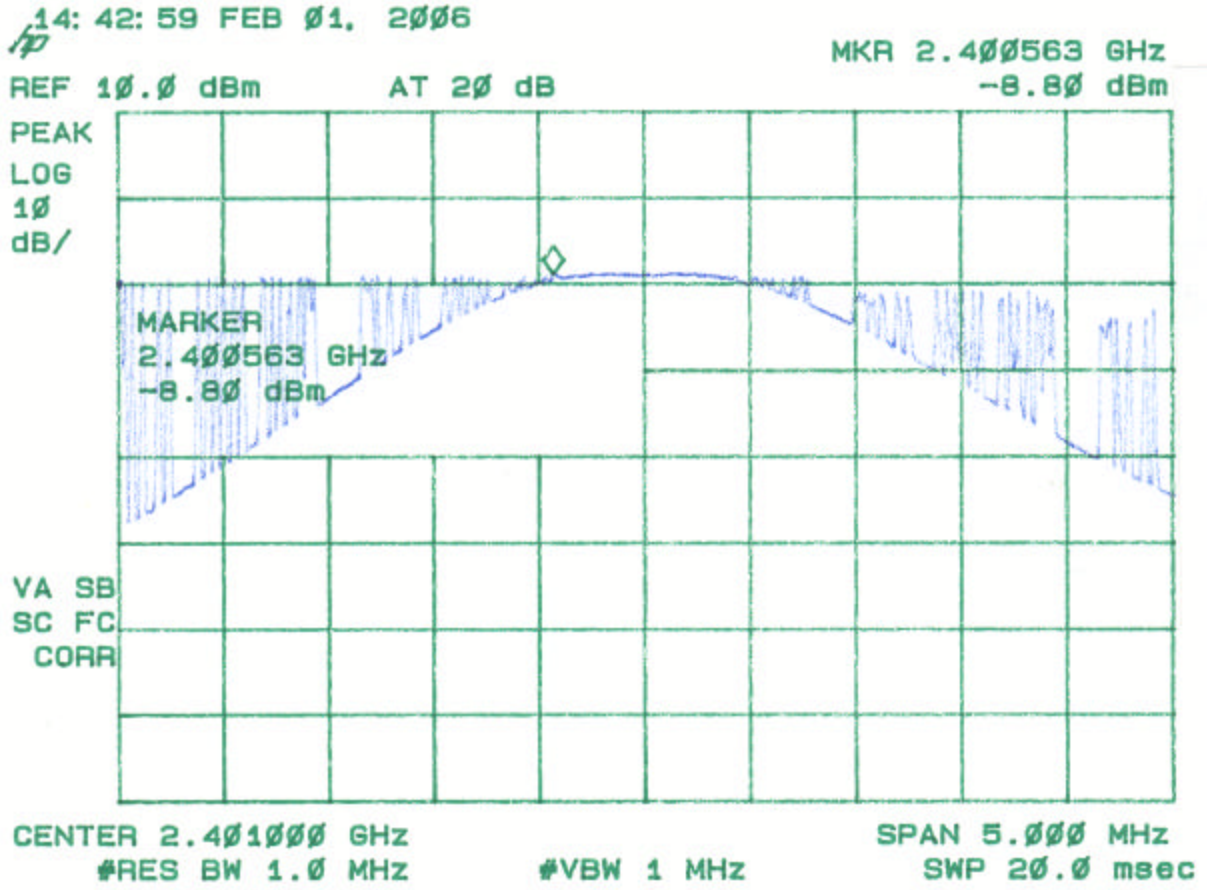


Figure 4a - 2
Peak Radiated Spurious Emission 15.247(c) Low – Parabolic Dish

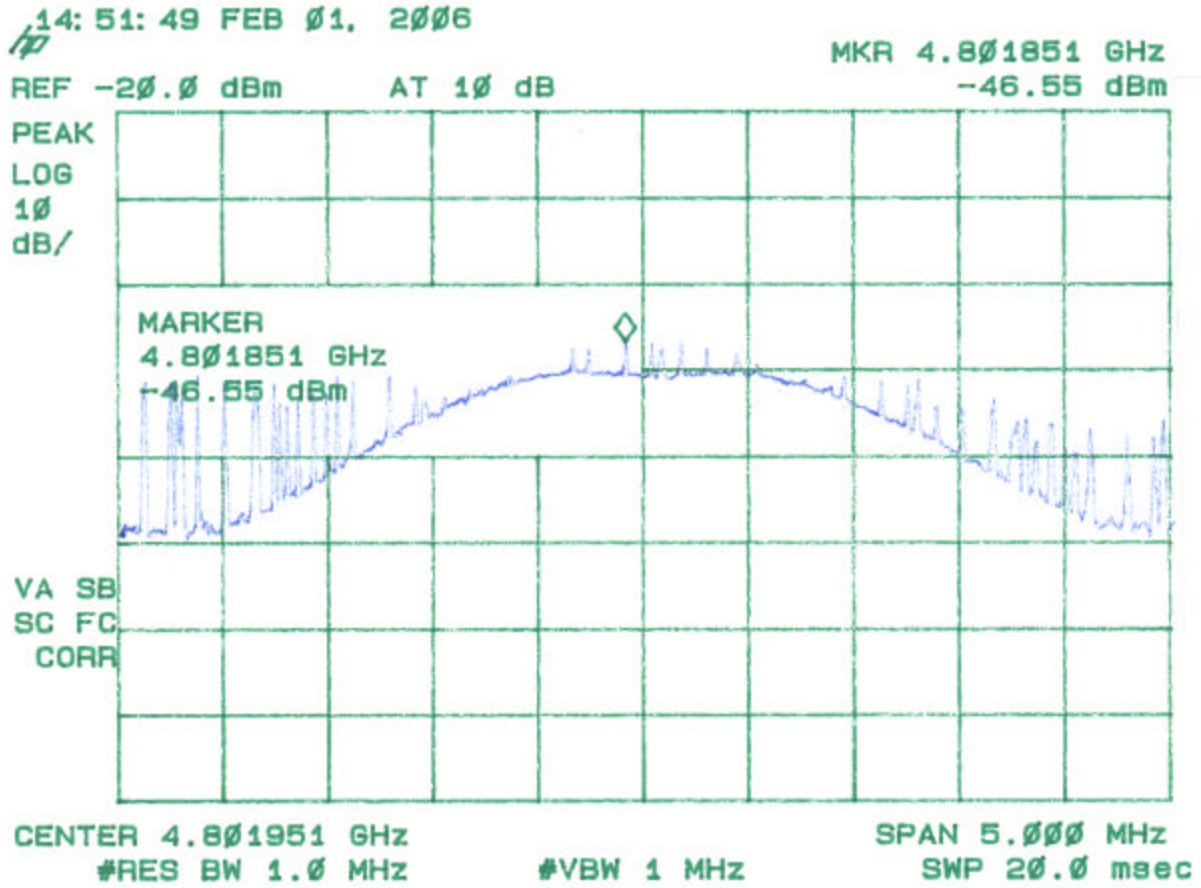


Figure 4a - 3
Peak Radiated Spurious Emission 15.247(c) Low – Parabolic Dish

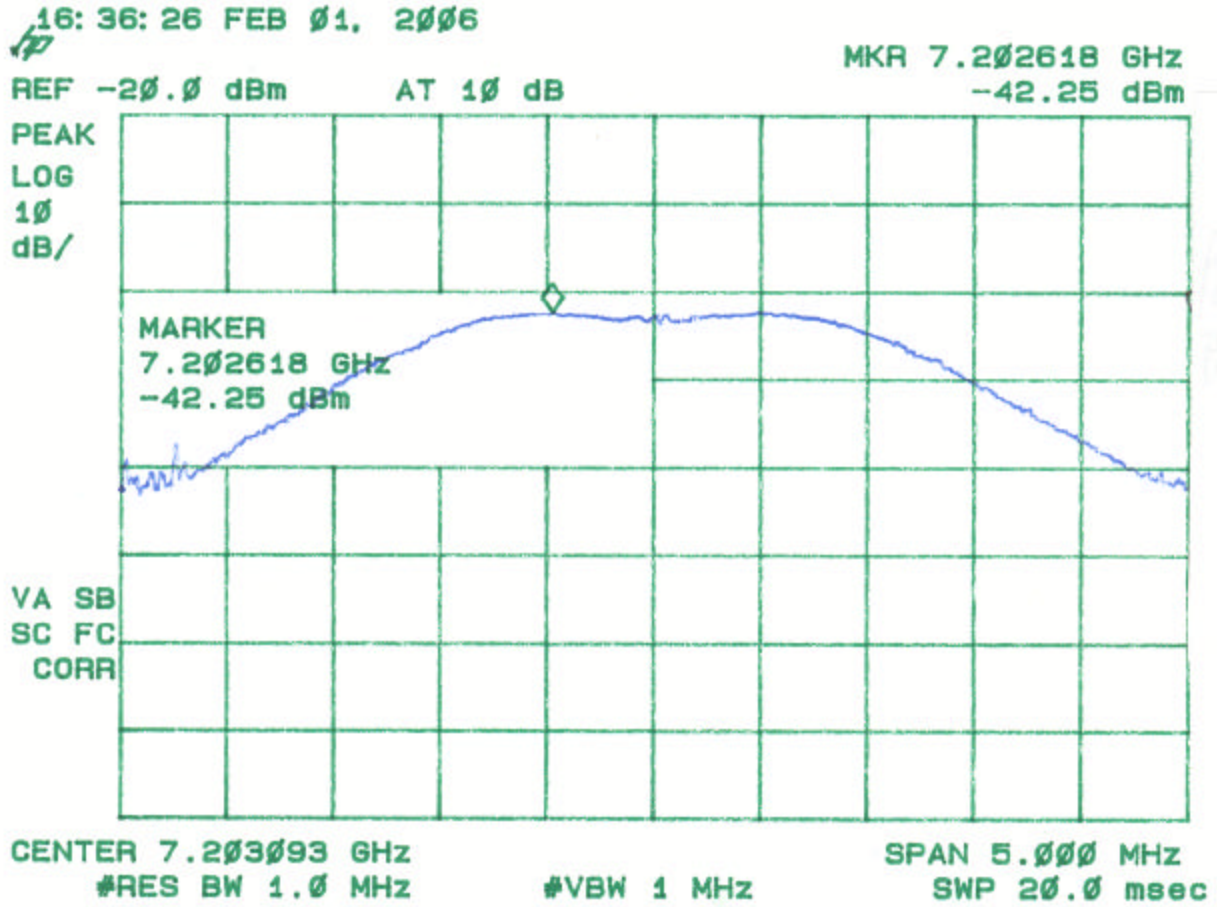
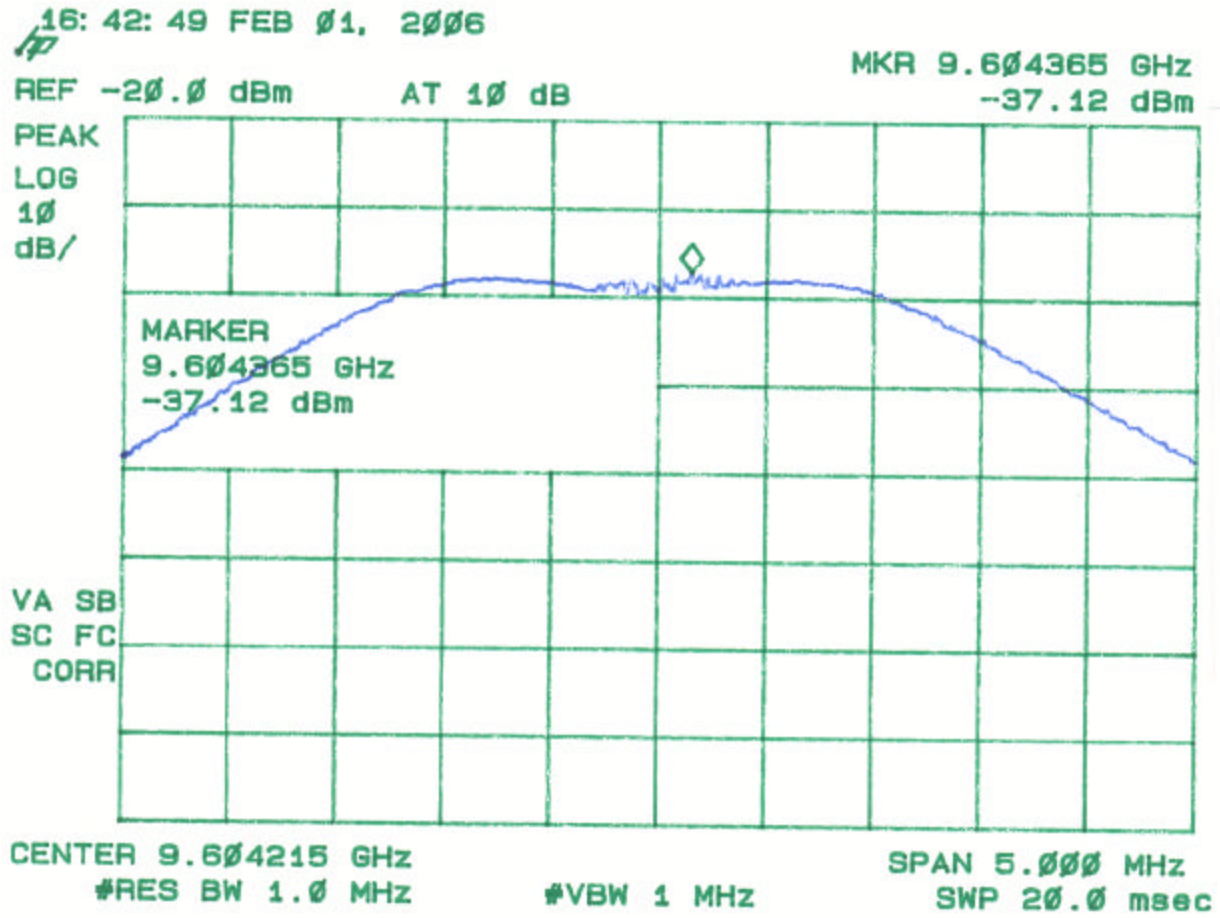


Figure 4a - 4
Peak Radiated Spurious Emission 15.247(c) Low – Parabolic Dish



**Table 4b. PEAK RADIATED SPURIOUS EMISSIONS (Mid)
Parabolic Dish Antenna**

Radiated Emissions								
Test By:	Test:	Spurious Emissions-Parabolic Antenna-Mid Channel			Client:	Cirronet		
	Project:	06-0003	Class:	B	Model:	WIT2450		
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
WIT 2450		2HN3mH	Model : SAS-571		S/N 605	Yes	01 APR 05	
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n
(MHz)	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	(dB)	/ QP
2432.85	-6.6	2HN3mH	100.4	31.7	4017228.5			PK
4866.07	-48.5	2HN3mH	58.5	5.7	1615.5	5000.0	9.8	PK
7299.63	-48.4	2HN3mH	58.6	10.8	2968.1	5000.0	4.5	PK **
9732.97	-47.3	2HN3mH	59.7	13.5	4547.2	401722.9	38.9	PK **
12164.12	-68.2	2HN3mH	38.8	19.2	798.6	5000.0	15.9	PK **
14598.9	-63.1	2HN3mH	43.9	22.8	2166.0	401722.9	45.4	PK **

Data corrected by 0.1 dB for loss of high pass filter, except to fundamental

** Conversion from 1 meter to 3 meters = -9.54 dB

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-48.5 + 5.7 + 107)/20) = 1615.5

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: Austin Thompson

Figure 4b - 1
Peak Radiated Spurious Emission 15.247(c) Fundamental Mid – Parabolic Dish

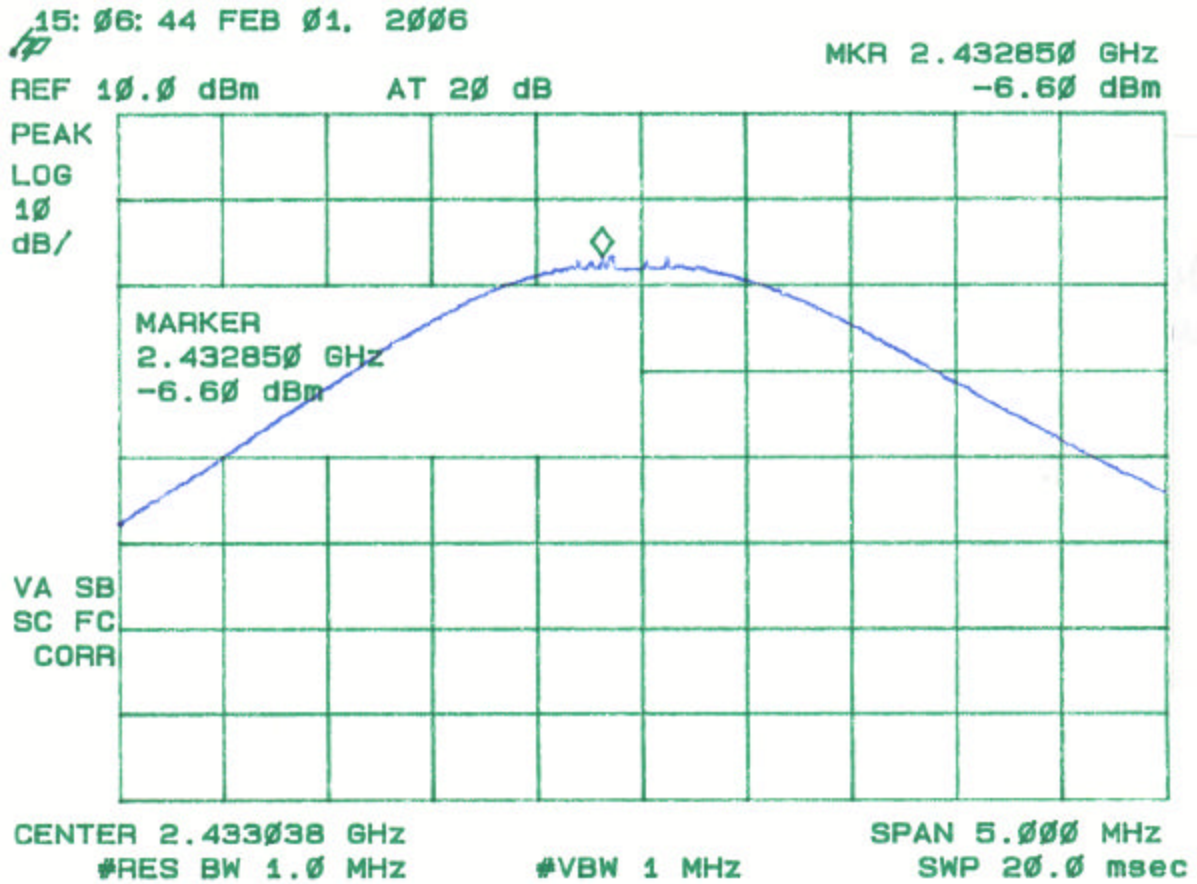


Figure 4b - 2
Peak Radiated Spurious Emission 15.247(c) Mid – Parabolic Dish

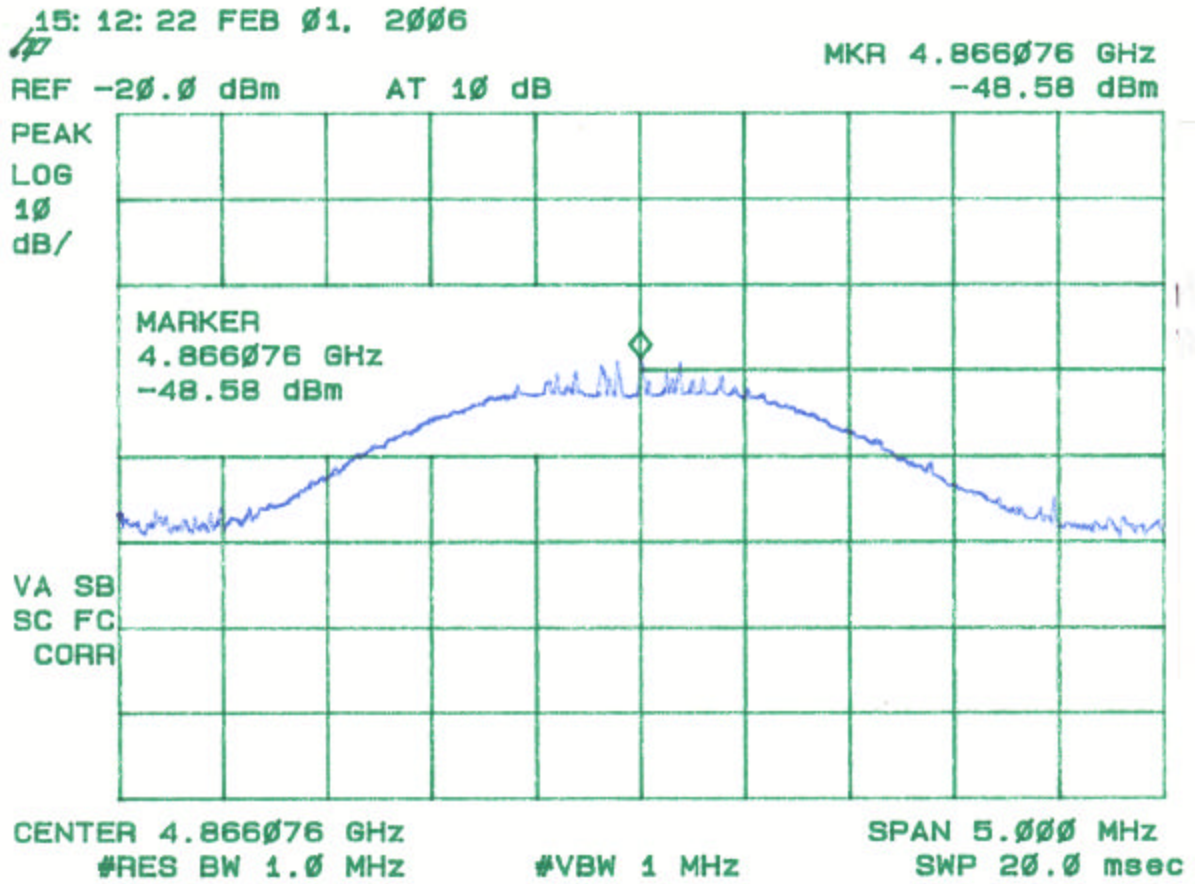


Figure 4b - 3
Peak Radiated Spurious Emission 15.247(c) Mid – Parabolic Dish

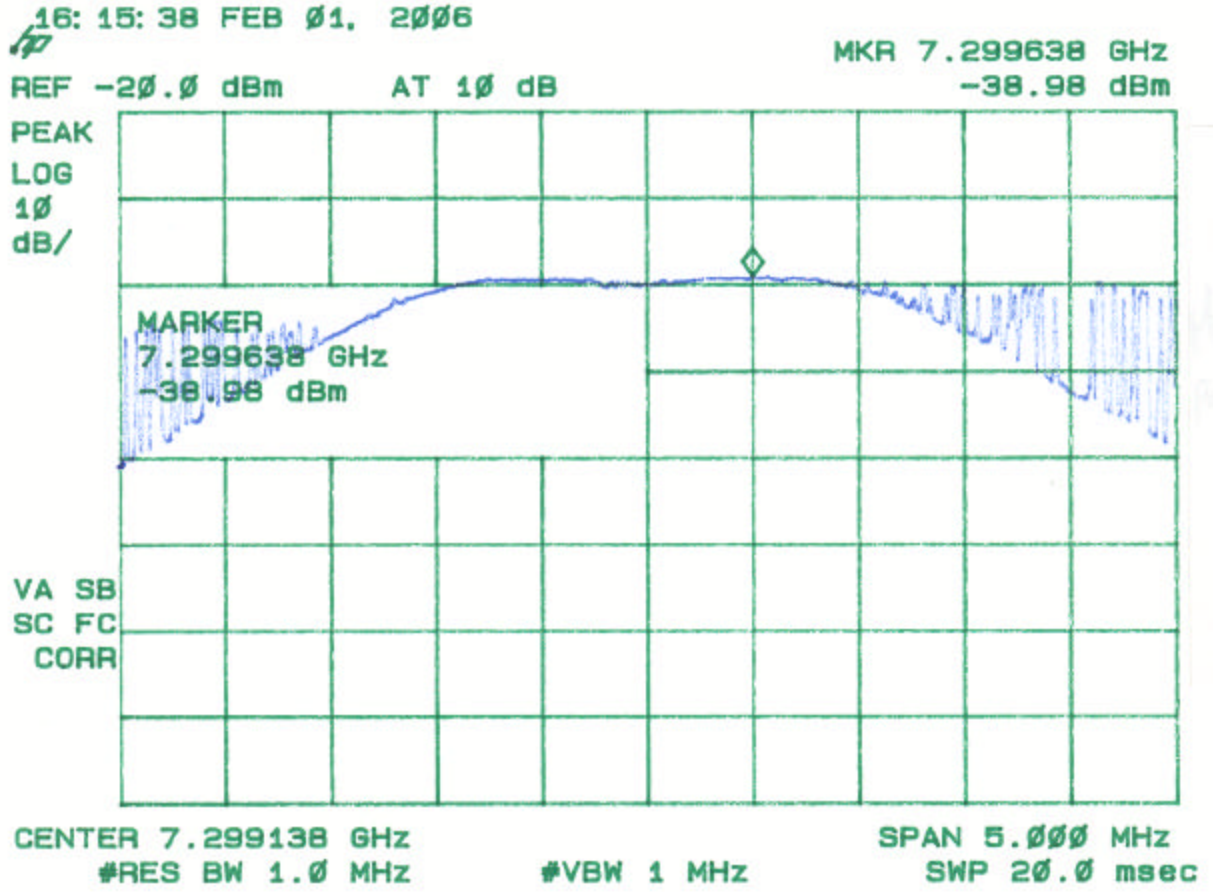


Figure 4b - 4
Peak Radiated Spurious Emission 15.247(c) Mid - Parabolic Dish

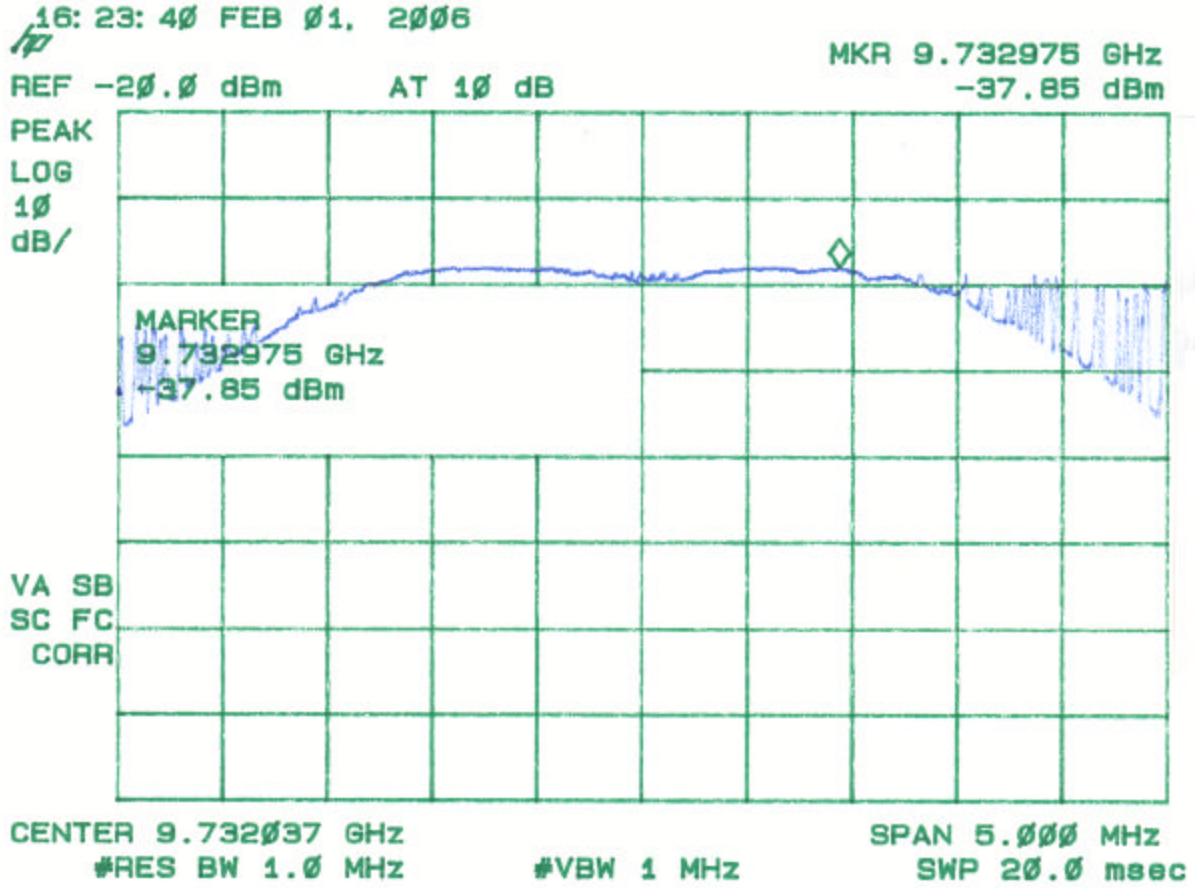


Figure 4b - 5
Peak Radiated Spurious Emission 15.247(c) Mid - Parabolic Dish

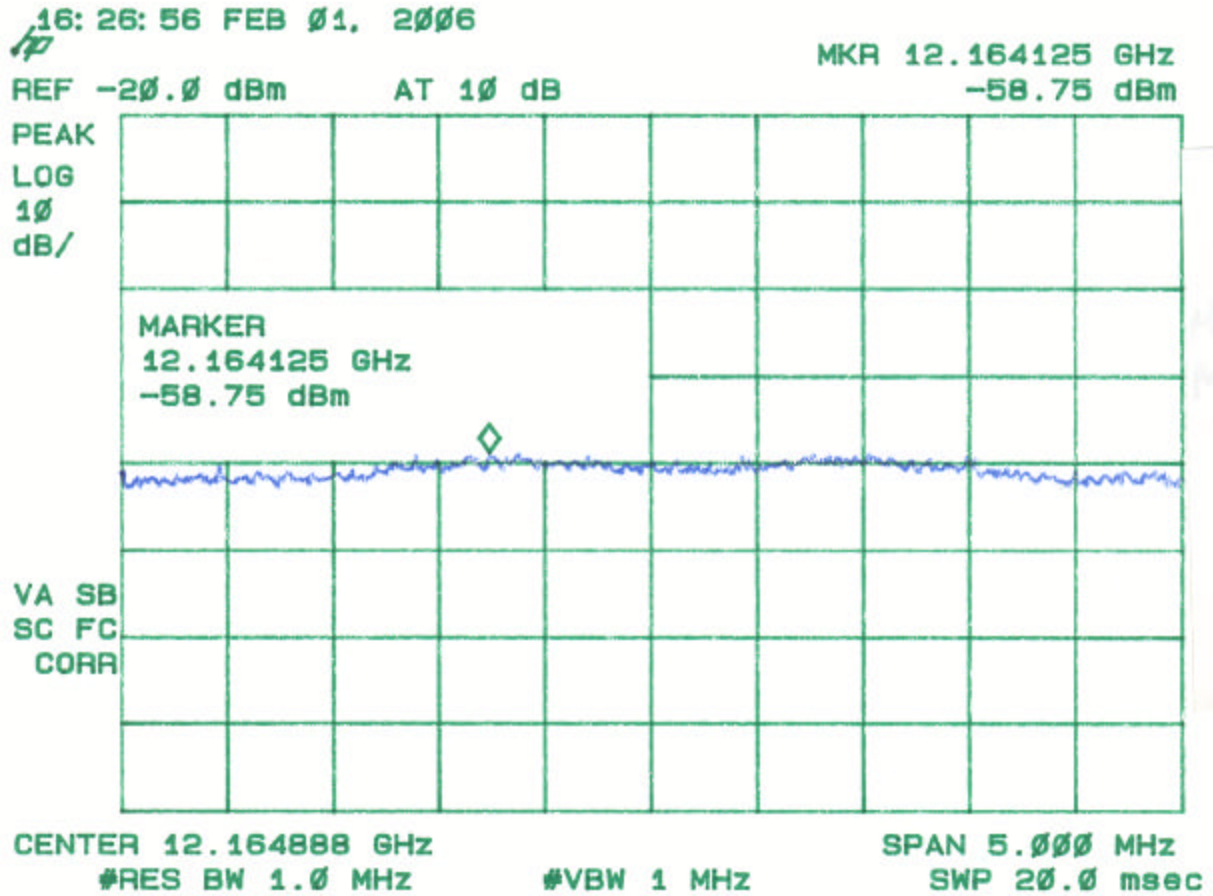
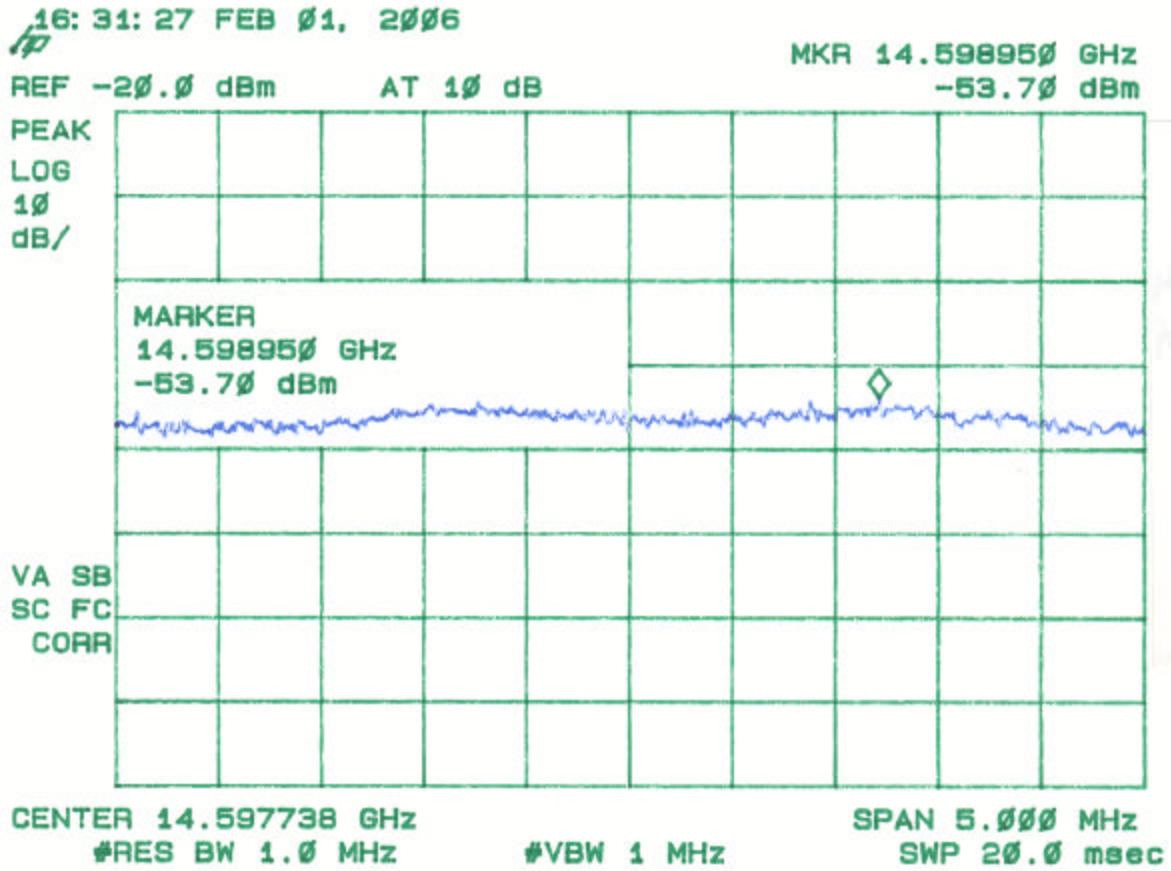


Figure 4b - 6
Peak Radiated Spurious Emission 15.247(c) Mid - Parabolic Dish



**Table 4c. PEAK RADIATED SPURIOUS EMISSIONS (High)
Parabolic Dish Antenna**

Radiated Emissions									
Test By:	Test: Spurious Emissions-Parabolic Antenna-High Channel				Client:	Cirronet			
	Project:	06-0003	Class:	B	Model:	WIT2450			
Frequency Range	Table	Model		S/N	Valid	Calibrated:			
WIT 2450		2HN3mH	Model : SAS-571		S/N 605	Yes	01 APR 05		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n	
(MHz)	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	(dB)	/ QP	
2475.29	-7.3	2HN3mH	99.7	31.7	3723480.6			PK	
4951.03	-47.6	2HN3mH	59.4	6.0	1855.0	5000.0	8.6	PK	
7426.138	-59.5	2HN3mH	47.6	11.0	850.1	5000.0	15.4	PK **	
9901.56	-47.0	2HN3mH	60.0	13.7	4816.1	372348.1	37.8	PK **	
12377.18	-65.3	2HN3mH	41.7	19.7	1170.9	5000.0	12.6	PK **	
14851.23	-61.9	2HN3mH	45.1	22.5	2406.6	372348.1	43.8	PK **	

Data corrected by 0.1 dB for loss of high pass filter, except to fundamental

** Conversion from 1 meter to 3 meters = -9.54 dB

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-47.6 + 6.0 + 107)/20) = 1855.0

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: Austin Thompson

Figure 4c - 1
Peak Radiated Spurious Emission 15.247(c) Fundamental High – Parabolic Dish

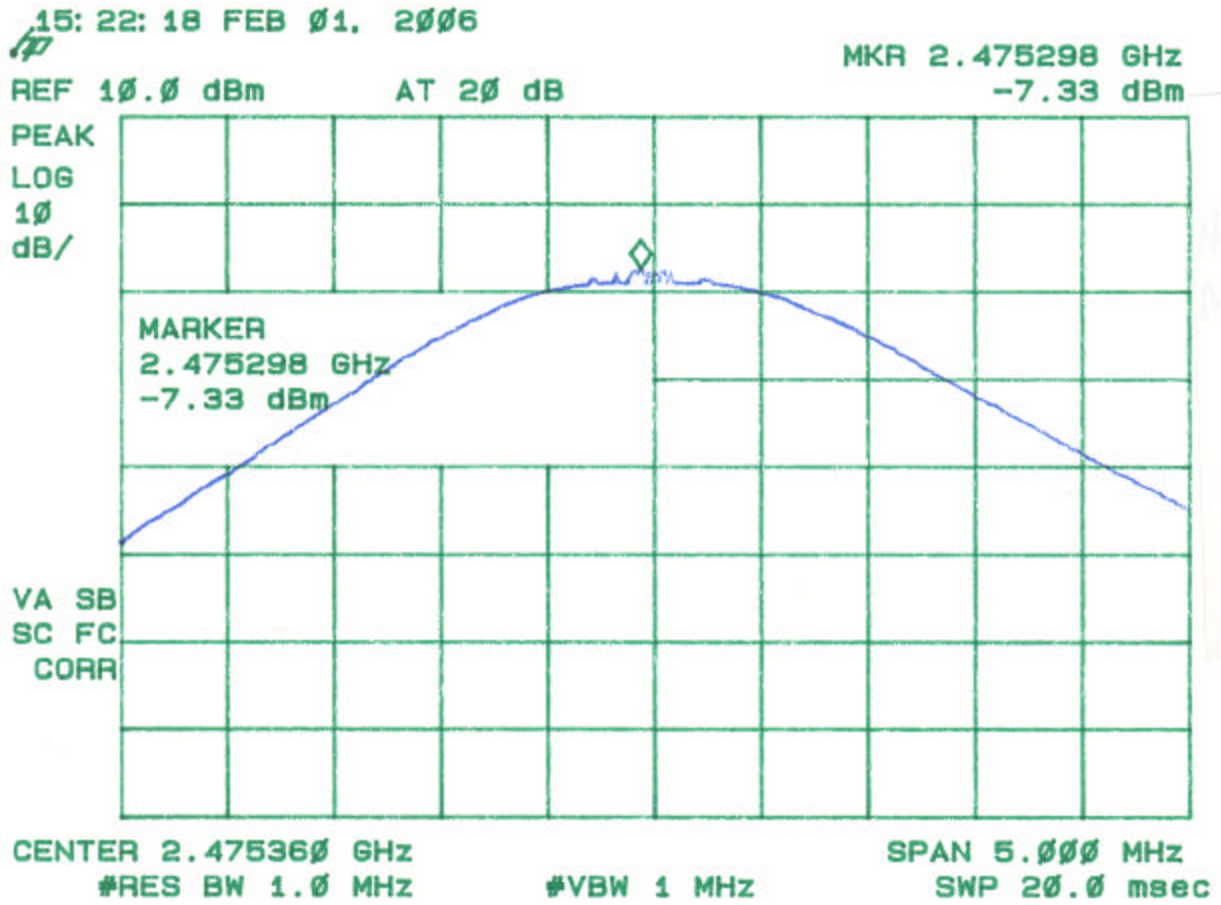


Figure 4c - 2
Peak Radiated Spurious Emission 15.247(c) High – Parabolic Dish

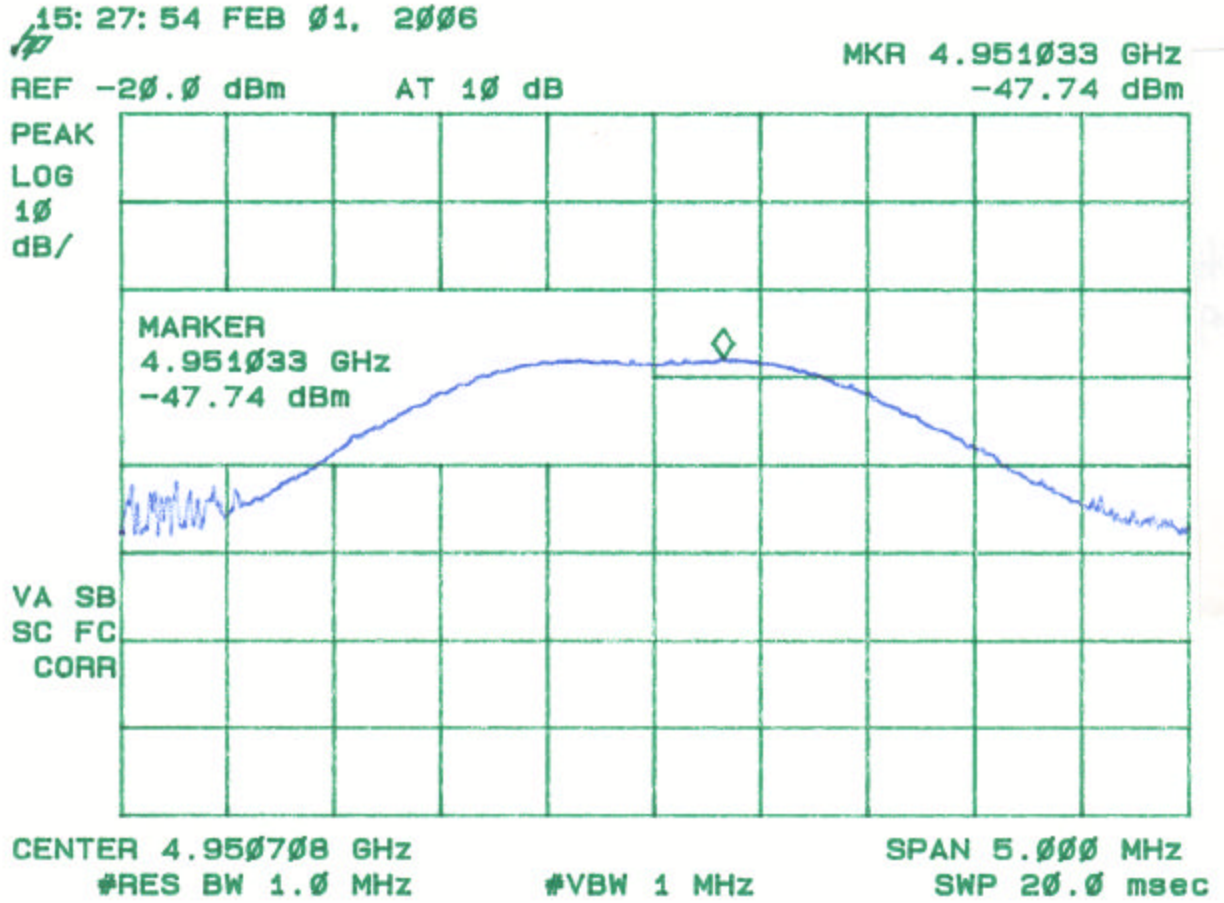


Figure 4c - 3
Peak Radiated Spurious Emission 15.247(c) High – Parabolic Dish

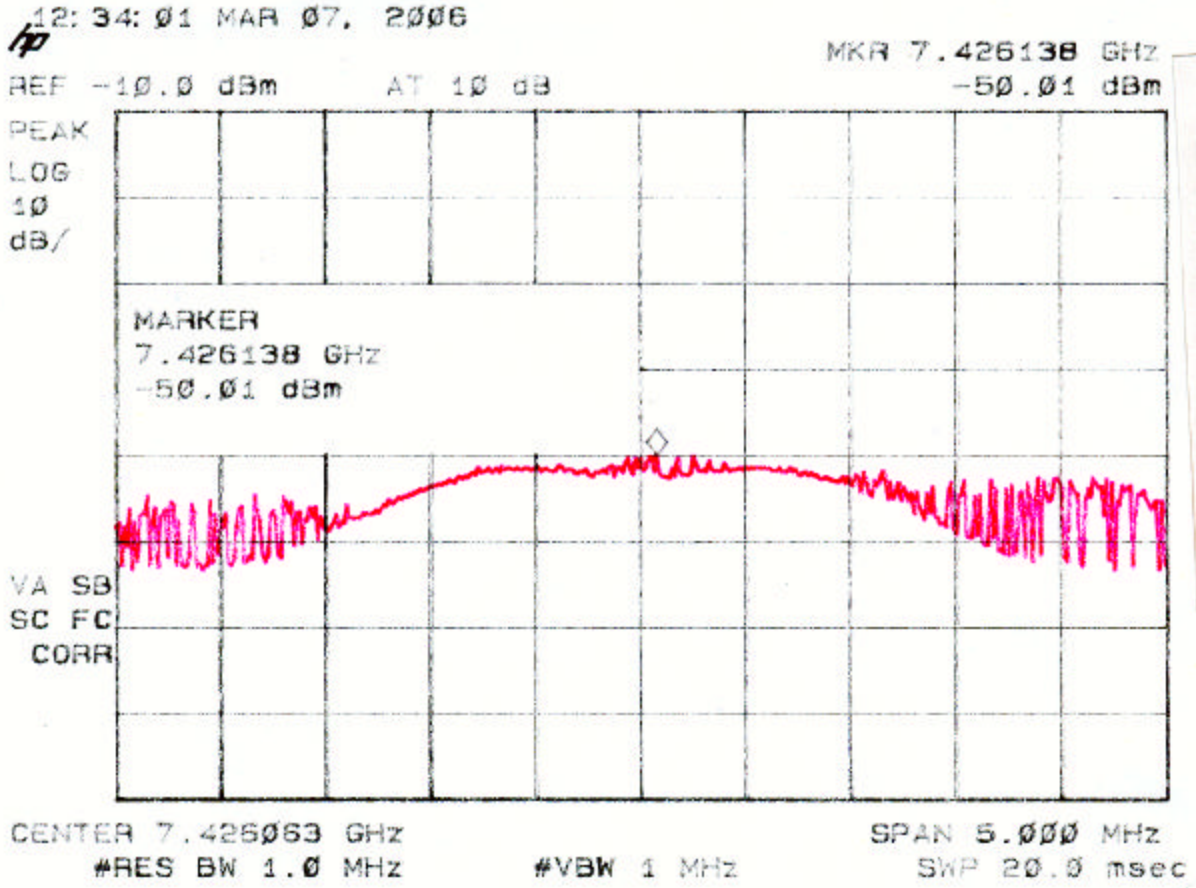


Figure 4c - 4
Peak Radiated Spurious Emission 15.247(c) High – Parabolic Dish

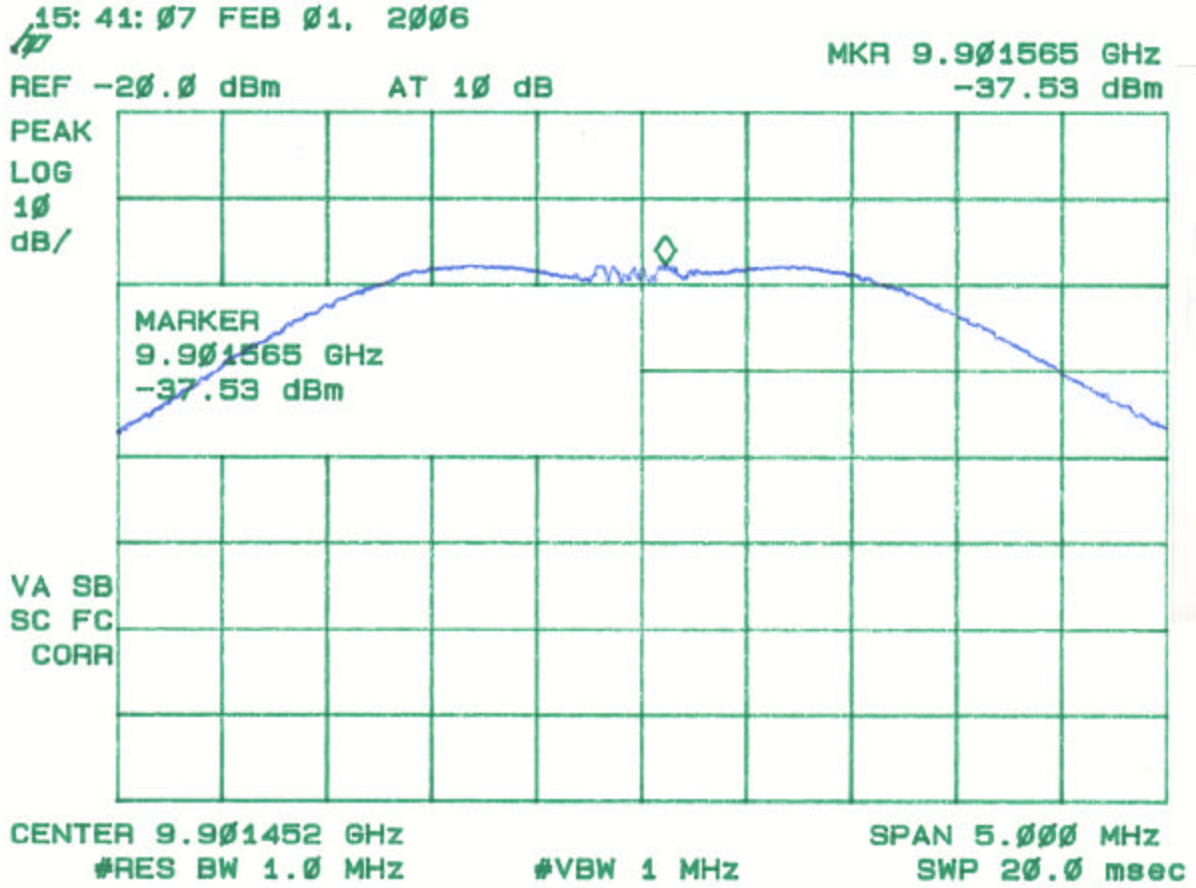


Figure 4c - 5
Peak Radiated Spurious Emission 15.247(c) High – Parabolic Dish

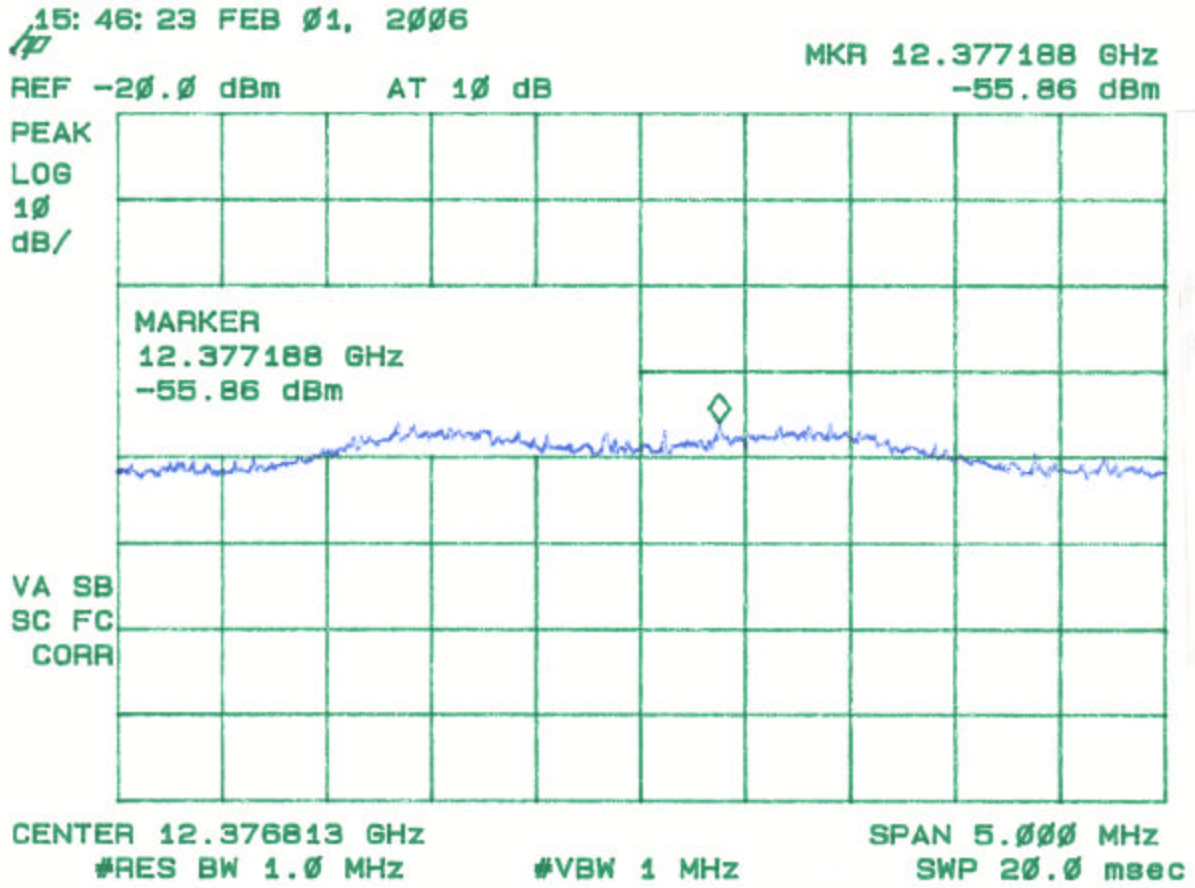


Figure 4c - 6
Peak Radiated Spurious Emission 15.247(c) High – Parabolic Dish

