

**Table 4t. PEAK RADIATED SPURIOUS EMISSIONS (Mid)
Dipole Antenna**

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Dipole Antenna-Mid Channel			Client:	Cirronet		
AT	Project:	05-0311	Class:	Peak	Model:	WIT2410G		
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2435.75	-22.5	2hn3mh	84.5	31.7	645159.8			PK
4871.88	-48.9	2hn3mh	58.1	5.7	1550.0	5000.0	10.2	PK
7307.6	-48.0	2hn3mh	59.0	10.9	3097.9	5000.0	4.2	PK**
9742.22	-65.0	2hn3mh	42.1	13.5	596.7	64516.0	40.7	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 ((-48.9 + 5.7 + 107)/20) = 1550.0

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: Austin Thompson

Figure 4t – 1
Peak Radiated Spurious Emission 15.247(c) Fundamental Mid – Dipole Antenna

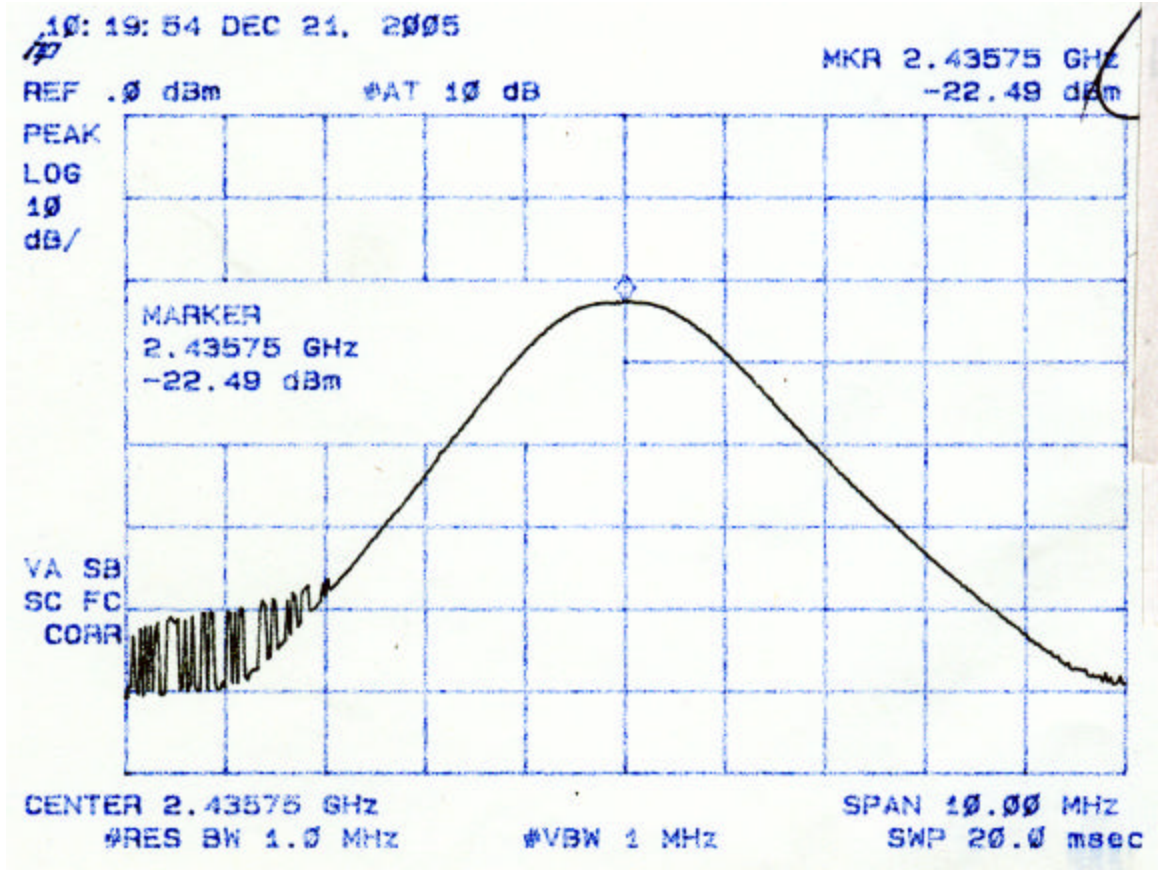


Figure 4t - 2
Peak Radiated Spurious Emission 15.247(c) Mid -
Dipole Antenna

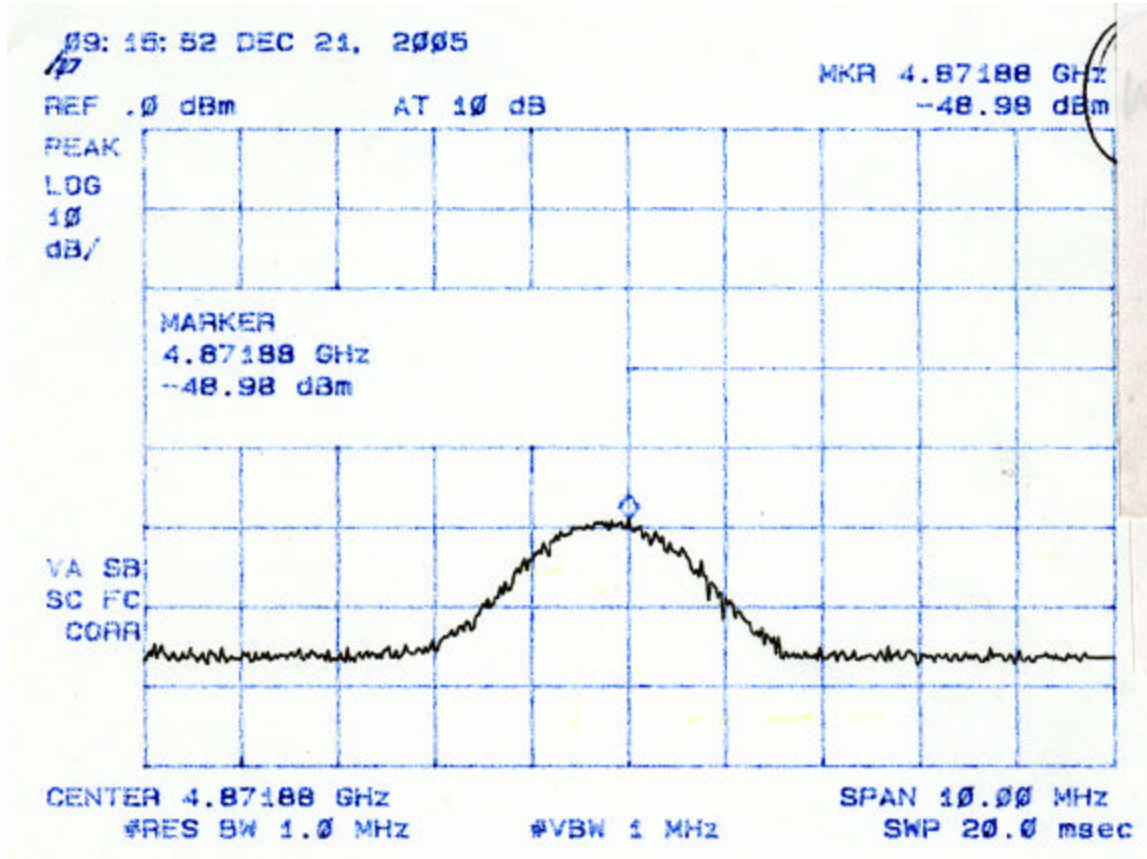


Figure 4t - 3
Peak Radiated Spurious Emission 15.247(c) Mid -
Dipole Antenna

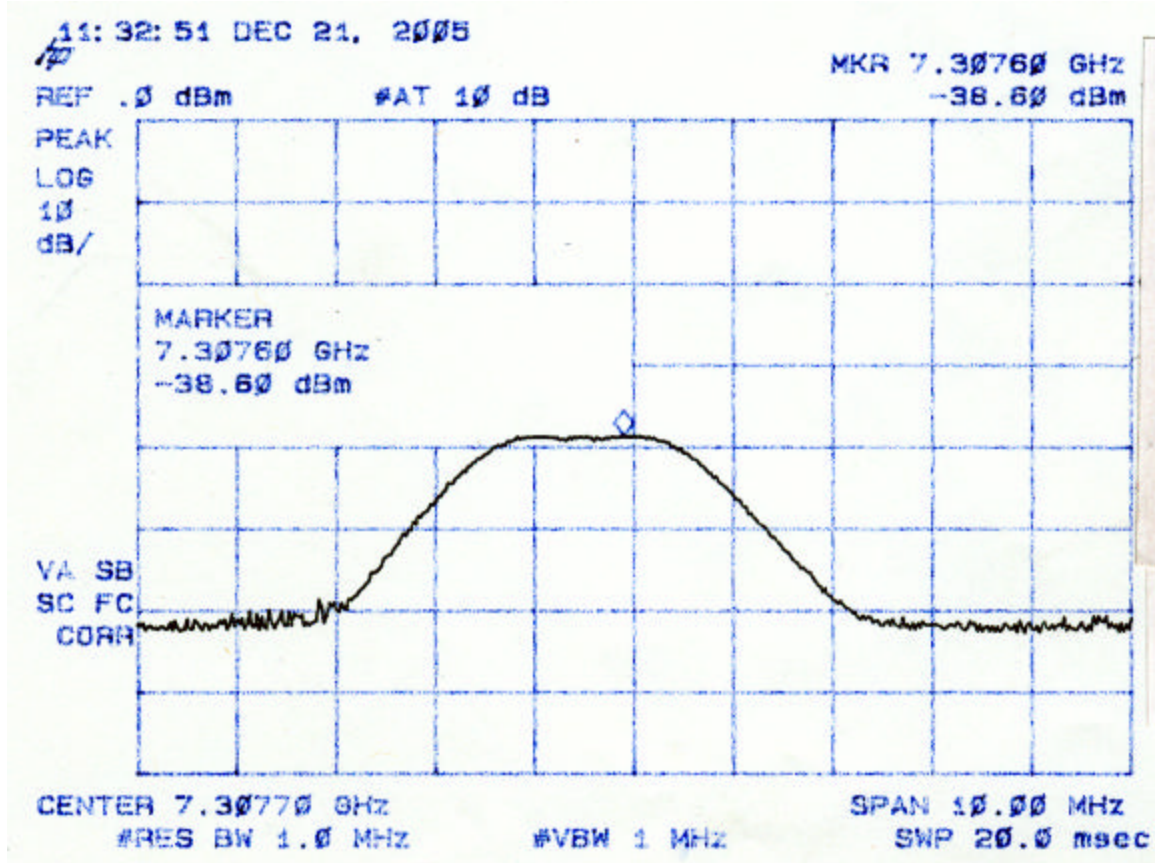
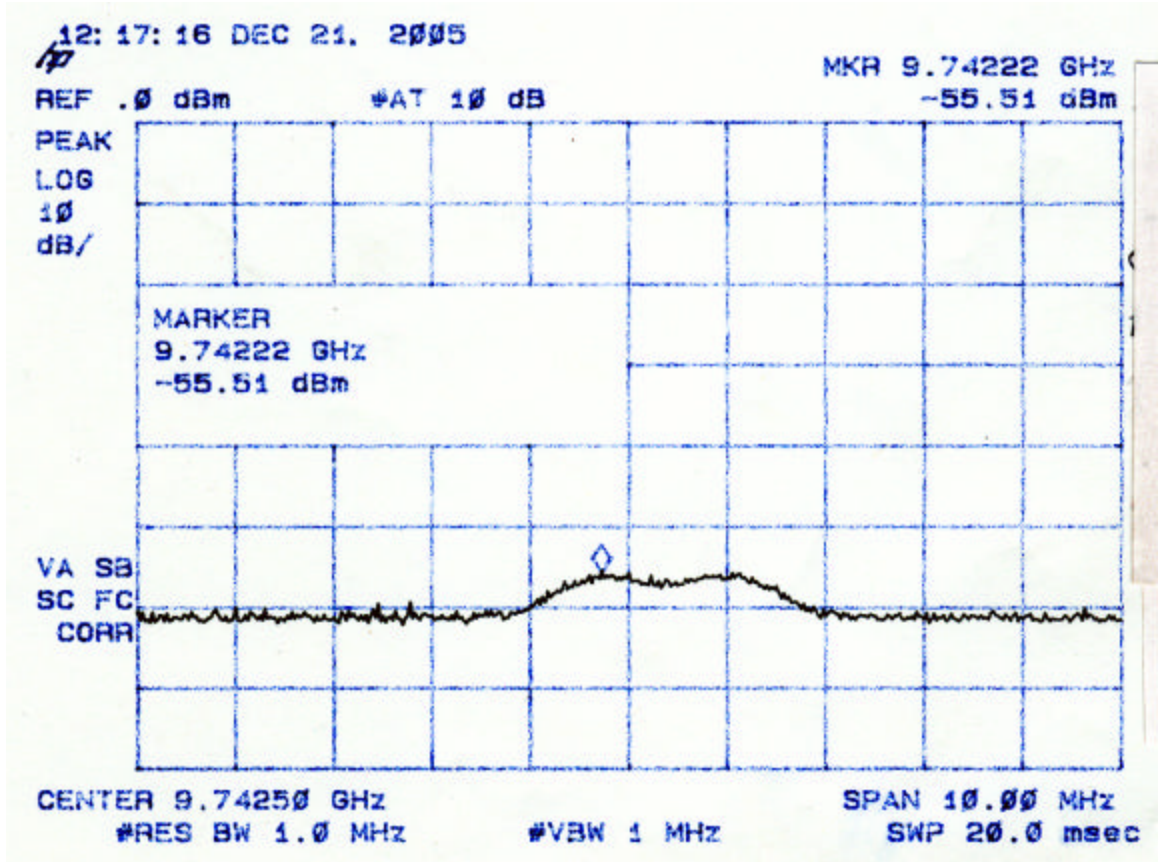


Figure 4t – 4
Peak Radiated Spurious Emission 15.247(c) Mid –
Dipole Antenna



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

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Dipole Antenna-High Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Peak	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2469.78	-22.5	2hn3mh	84.5	31.7	648622.2			PK
4939.83	-46.2	2hn3mh	60.8	5.9	2159.5	5000.0	7.3	PK
7409.88	-47.0	2hn3mh	60.0	11.0	3537.9	5000.0	3.0	PK**
9879.85	-68.6	2hn3mh	38.4	13.6	399.4	64862.2	44.2	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 ((-46.2 + 5.9 + 107)/20) = 2159.5

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Figure 4u – 1
Peak Radiated Spurious Emission 15.247(c) Fundamental High –
Dipole Antenna

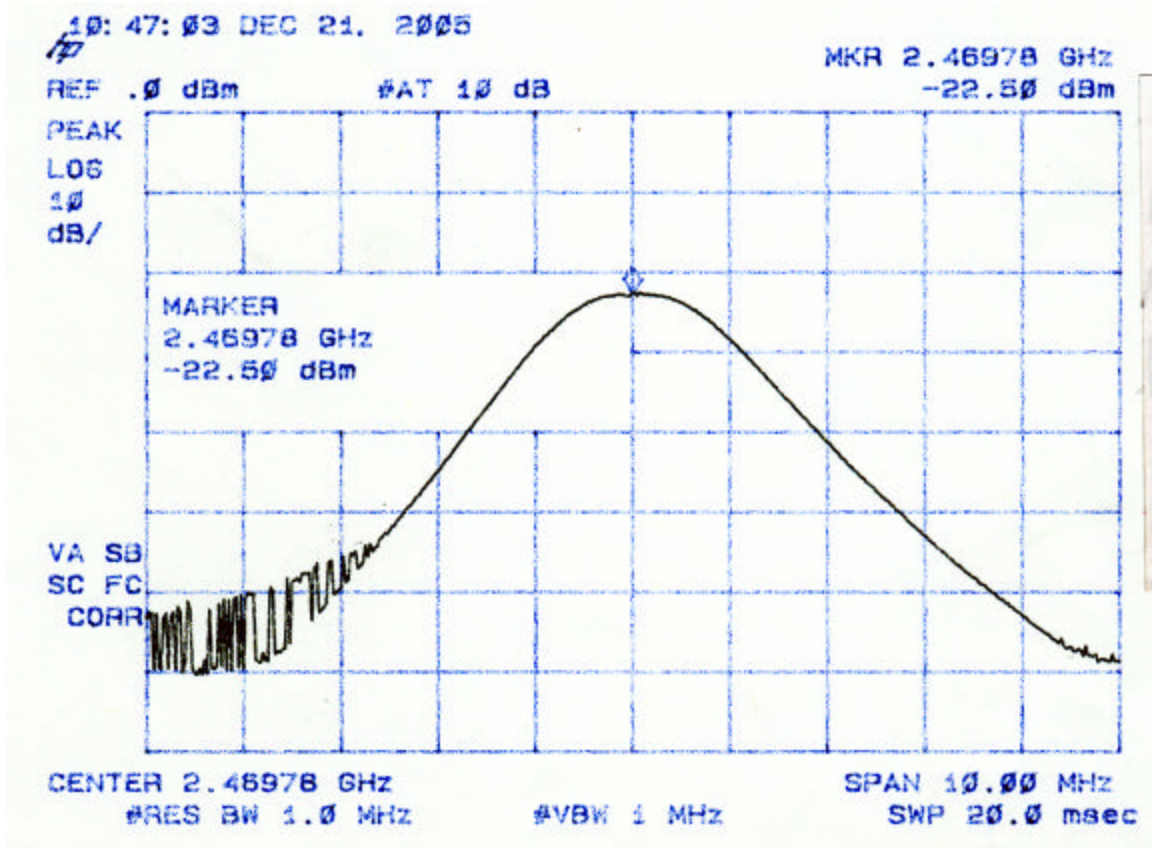


Figure 4u – 2
Peak Radiated Spurious Emission 15.247(c) High –
Dipole Antenna

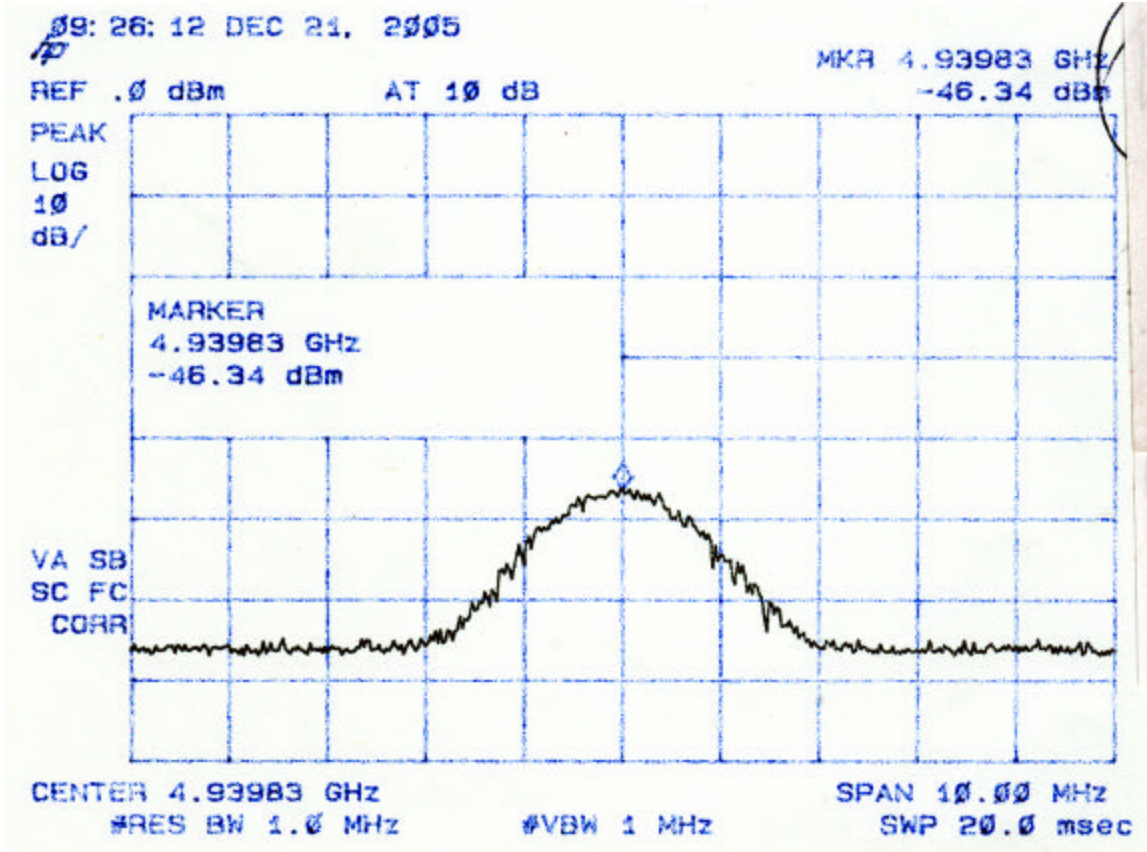


Figure 4u – 3
Peak Radiated Spurious Emission 15.247(c) High –
Dipole Antenna

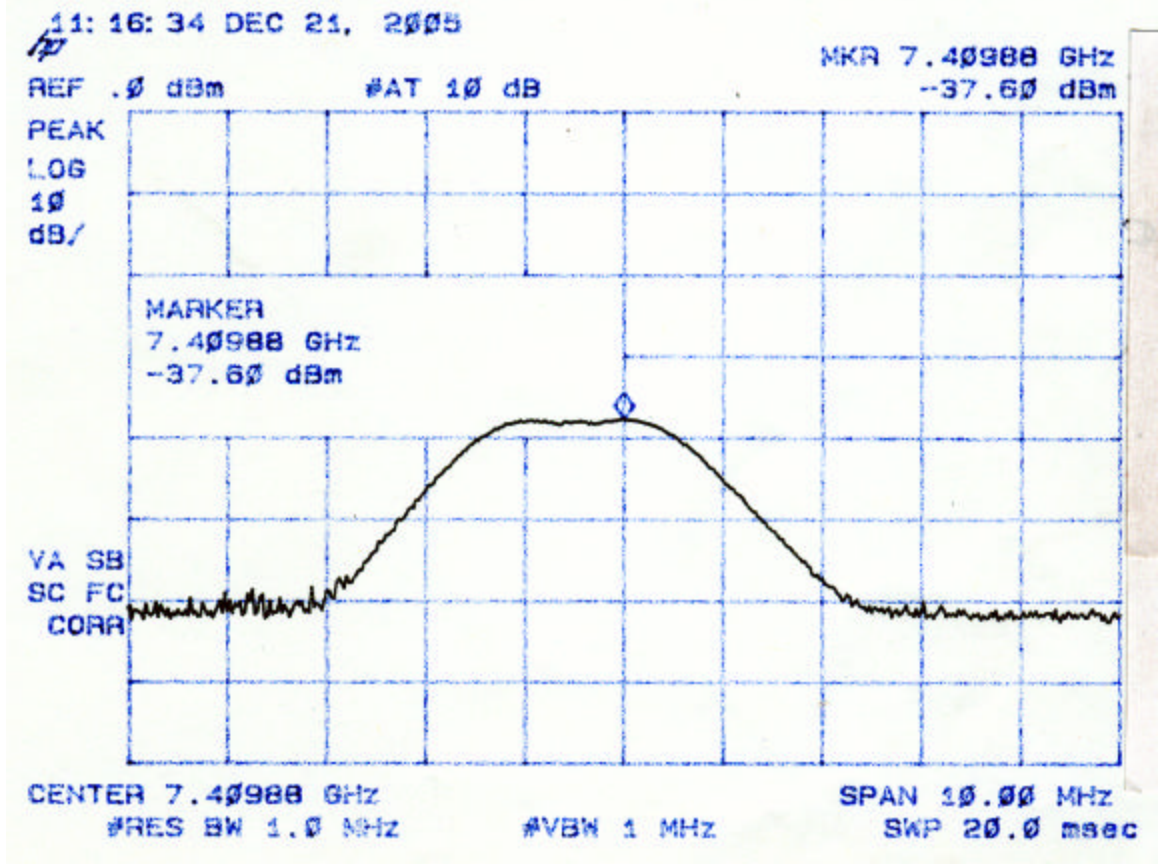
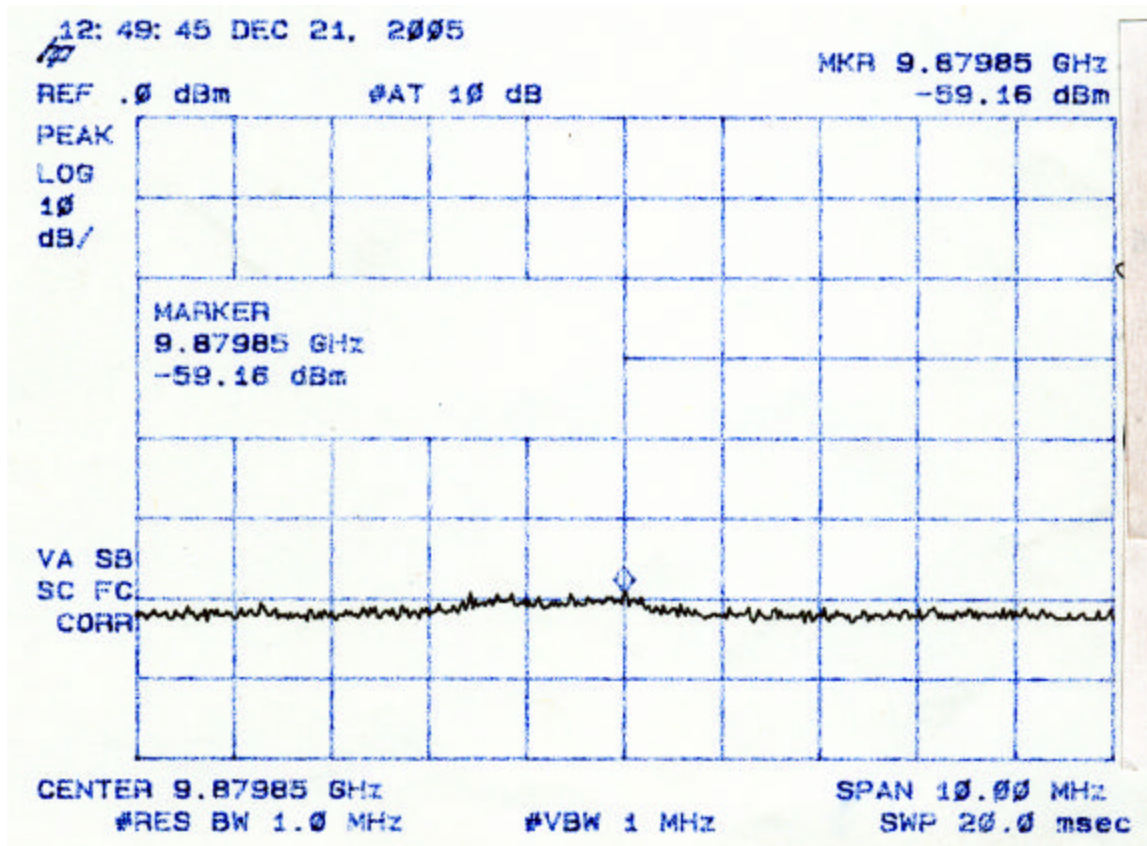


Figure 4u – 4
Peak Radiated Spurious Emission 15.247(c) High –
Dipole Antenna



2.9 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 Tables 5a – 5u.

Worst Case Transmit Duty Cycle for WIT2410G

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 WIT2410G would be transmitting the longest period during a dwell.

The worst case operating scenario is as follows:

- 1) point to point operation
(only two units communicating with each other)
- 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 radio is exactly proportioned 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 86 channels in our hop set, it takes 597ms to go through the entire hop table and repeat a transmission on the same channel. Therefore, only 4.86 ms 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:

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

Table 5a. AVERAGE RADIATED SPURIOUS EMISSIONS Low Channel
Parabolic Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Parabolic Antenna-Low Channel			Client:	Cirronet		
AT	Project:	05-0311	Class:	Average	Model:	WIT2410G		
Frequency Range	Table	Model	S/N	Valid	Calibrated:			
	2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05		
	preamp			S/N	Yes	June/30/2005		
	flex2ft			S/N	Yes	05/Dec/2005		
	flex17ft			S/N	Yes	05/Dec/2005		
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
2401.55	-34.6	2hn3mh	72.4	31.6	158974.9			AVG
4803.351	-74.3	2hn3mh	32.7	5.4	80.8	500.0	15.8	AVG
7205.45	-72.5	2hn3mh	34.5	10.7	182.1	15897.4	38.8	AVG**
9607.287	-92.5	2hn3mh	14.5	13.3	24.6	15897.4	56.2	AVG**
12008.96	-93.2	2hn3mh	13.8	18.9	43.3	500.0	21.2	AVG**

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 ((-74.3 + 5.4 + 107)/20) = 80.8
CONVERSION FROM dBm TO dBuV = 107 dB

Tester
Signature: 

Name: Austin Thompson

Table 5b. AVERAGE RADIATED SPURIOUS EMISSIONS Mid Channel
Parabolic Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Parabolic Antenna-Mid Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2435.63	-34.6	2hn3mh	72.4	31.7	160013.6			AVG
4871.838	-71.9	2hn3mh	35.1	5.7	109.5	500.0	13.2	AVG
7306.638	-74.3	2hn3mh	32.7	10.9	150.7	500.0	10.4	AVG**
9743.687	-90.2	2hn3mh	16.8	13.5	32.6	16001.4	53.8	AVG**
12179.43	-94.7	2hn3mh	12.3	19.3	37.9	500.0	22.4	AVG**

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 ((-71.9 + 5.7 + 107)/20) = 109.5
CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5c. AVERAGE RADIATED SPURIOUS EMISSIONS High Channel
Parabolic Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Parabolic Antenna-High Channel			Client:	Cirronet		
AT	Project:	05-0311	Class:	Average	Model:	WIT2410G		
Frequency Range	Table	Model	S/N	Valid	Calibrated:			
	2hn3mh	Model : SAS-571	S/N 605	Yes	01 APR 05			
	preamp		S/N	Yes	June/30/2005			
	flex2ft		S/N	Yes	05/Dec/2005			
	flex17ft		S/N	Yes	05/Dec/2005			
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
2469.66	-35.1	2hn3mh	71.9	31.7	152048.5			AVG
4940.1	-71.4	2hn3mh	35.6	5.9	119.2	500.0	12.5	AVG
7410.163	-75.8	2hn3mh	31.2	11.0	129.1	500.0	11.8	AVG**
9878.75	-91.3	2hn3mh	15.7	13.6	29.3	15204.9	54.3	AVG**
12350.29	-95.5	2hn3mh	11.5	19.6	36.0	500.0	22.9	AVG**

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 ((-71.4 + 5.9 + 107)/20) = 119.2
 CONVERSION FROM dBm TO dBUV = 107 dB

Tester
 Signature: 

Name: Austin Thompson

Table 5d. AVERAGE RADIATED SPURIOUS EMISSIONS Low Channel
Corner Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Corner Ant.-Low Channel			Client:	Cirronet		
A.T.	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2401.61	-44.0	2hn3mh	63.0	31.6	53868.4			AVG
4803.376	-71.2	2hn3mh	35.8	5.4	115.5	500.0	12.7	AVG
7205.438	-73.1	2hn3mh	33.9	10.7	170.6	5386.8	30.0	AVG**
9605.975	-89.9	2hn3mh	17.1	13.3	33.1	5386.8	44.2	AVG**
12007.46	-88.5	2hn3mh	18.5	18.9	74.1	500.0	16.6	AVG**
14409.13	-91.3	2hn3mh	15.7	22.8	84.8	5386.8	36.1	AVG**

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 ((-71.2 + 5.4 + 107)/20) = 115.5
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5e. AVERAGE RADIATED SPURIOUS EMISSIONS Mid Channel
Corner Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Corner Ant.-Mid Channel			Client:	Cirronet		
A.T.	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2438.76	-42.8	2hn3mh	64.2	31.7	62289.9			AVG
4871.663	-72.1	2hn3mh	34.9	5.7	107.3	500.0	13.4	AVG
7306.588	-74.3	2hn3mh	32.8	10.9	151.5	500.0	10.4	AVG**
9742.412	-90.0	2hn3mh	17.0	13.5	33.3	6229.0	45.4	AVG**
12177.9	-86.3	2hn3mh	20.7	19.3	99.4	500.0	14.0	AVG**

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 ((-72.1 + 5.7 + 107)/20) = 107.3
CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5f. AVERAGE RADIATED SPURIOUS EMISSIONS High Channel
Corner Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Corner Ant.-Hi Channel			Client:	Cirronet		
A.T.	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model	S/N	Valid	Calibrated:		
		2hn3mh	Model : SAS-571	S/N 605	Yes	01 APR 05		
		preamp		S/N	Yes	June/30/2005		
		flex2ft		S/N	Yes	05/Dec/2005		
		flex17ft		S/N	Yes	05/Dec/2005		
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
2469.66	-43.0	2hn3mh	64.0	31.7	61232.5			AVG
4939.913	-73.0	2hn3mh	34.0	5.9	99.3	500.0	14.0	AVG
7408.975	-74.5	2hn3mh	32.6	11.0	150.7	500.0	10.4	AVG**
9880.125	-89.1	2hn3mh	17.9	13.6	37.8	6123.3	44.2	AVG**
12350.24	-85.3	2hn3mh	21.7	19.6	115.8	500.0	12.7	AVG**

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 ((-73.0 + 5.9 + 107)/20) = 99.3
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5g. AVERAGE RADIATED SPURIOUS EMISSIONS Low Channel
Omni Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Omni Antenna-Low Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2401.53	-45.4	2hn3mh	61.6	31.6	45848.6			AVG
4803.48	-75.6	2hn3mh	31.4	5.4	69.5	500.0	17.1	AVG
7204.401	-68.5	2hn3mh	38.5	10.7	288.6	4584.9	24.0	AVG**
9605.889	-90.0	2hn3mh	17.0	13.3	32.8	4584.9	42.9	AVG**
12009.12	-91.3	2hn3mh	15.7	18.9	53.9	500.0	19.3	AVG**

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 ((-75.6 + 5.4 + 107)/20) = 69.5
CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: Austin Thompson

Table 5h. AVERAGE RADIATED SPURIOUS EMISSIONS Mid Channel
Omni Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Omni Antenna-Mid Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2435.71	-43.0	2hn3mh	64.0	31.7	60836.5			AVG
4871.658	-74.5	2hn3mh	32.5	5.7	81.1	500.0	15.8	AVG
7307.713	-75.7	2hn3mh	31.3	10.9	128.3	500.0	11.8	AVG**
9743.625	-90.2	2hn3mh	16.8	13.5	32.6	6083.7	45.4	AVG**
12177.93	-93.8	2hn3mh	13.2	19.3	42.0	500.0	21.5	AVG**

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 ((-74.5 + 5.7 + 107)/20) = 81.1

CONVERSION FROM dBm TO dBuV = 107 dB

Tester
Signature: 

Name: Austin Thompson

Table 5i. AVERAGE RADIATED SPURIOUS EMISSIONS High Channel
Omni Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Omni Antenna-High Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2469.73	-44.0	2hn3mh	63.0	31.7	54574.2			AVG
4939.688	-74.8	2hn3mh	32.2	5.9	80.6	500.0	15.9	AVG
7409.1	-75.2	2hn3mh	31.8	11.0	138.3	500.0	11.2	AVG**
9879.962	-92.2	2hn3mh	14.8	13.6	26.4	5457.4	46.3	AVG**
12350.2	-91.6	2hn3mh	15.4	19.6	56.3	500.0	19.0	AVG**

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 ((-74.8 + 5.9 + 107)/20) = 80.6
CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5j. AVERAGE RADIATED SPURIOUS EMISSIONS Low Channel
Large Patch Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Large Patch Ant.- Low Channel			Client:	Cirronet		
A.T.	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2401.61	-42.8	2hn3mh	64.2	31.6	61849.2			AVG
4803.575	-73.5	2hn3mh	33.5	5.4	88.6	500.0	15.0	AVG
7204.63	-75.3	2hn3mh	31.7	10.7	131.9	6184.9	33.4	AVG**
9605.75	-90.4	2hn3mh	16.6	13.3	31.3	6184.9	45.9	AVG**
12009.3	-90.6	2hn3mh	16.4	18.9	58.5	500.0	18.6	AVG**

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 ((-73.5 + 5.4 + 107)/20) = 88.6
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: _____



Name: Austin Thompson

Table 5k. AVERAGE RADIATED SPURIOUS EMISSIONS Mid Channel
Large Patch Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Large Patch Ant.- Mid Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model	S/N	Valid	Calibrated:		
		2hn3mh	Model : SAS-571	S/N 605	Yes	01 APR 05		
		preamp		S/N	Yes	June/30/2005		
		flex2ft		S/N	Yes	05/Dec/2005		
		flex17ft		S/N	Yes	05/Dec/2005		
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
2435.73	-43.0	2hn3mh	64.0	31.7	60836.6			AVG
4871.663	-71.8	2hn3mh	35.2	5.7	110.7	500.0	13.1	AVG
7307.85	-74.1	2hn3mh	32.9	10.9	154.2	6083.7	31.9	AVG**
9742.175	-93.8	2hn3mh	13.2	13.5	21.5	6083.7	49.0	AVG**
12177.85	-82.0	2hn3mh	25.0	19.3	163.6	500.0	9.7	AVG**

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 ((-71.8 + 5.7 + 107)/20) = 110.7
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester
 Signature: 

Name: Austin Thompson

Table 5I. AVERAGE RADIATED SPURIOUS EMISSIONS High Channel
Large Patch Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Large Patch Ant.- Hi Channel			Client:	Cirronet		
A.T.	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range	Table	Model		S/N	Valid	Calibrated:		
	2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05		
	preamp			S/N	Yes	June/30/2005		
	flex2ft			S/N	Yes	05/Dec/2005		
	flex17ft			S/N	Yes	05/Dec/2005		
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
2469.81	-43.4	2hn3mh	63.6	31.7	58478.3			AVG
4939.875	-69.9	2hn3mh	37.1	5.9	141.7	500.0	11.0	AVG
7409.013	-74.5	2hn3mh	32.5	11.0	149.9	5847.8	31.8	AVG**
9878.7	-93.2	2hn3mh	13.8	13.6	23.5	5847.8	47.9	AVG**
12350.04	-88.4	2hn3mh	18.6	19.6	81.4	500.0	15.8	AVG**

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 ((-69.9 + 5.9 + 107)/20) = 141.7
 CONVERSION FROM dBm TO dBUV = 107 dB

Tester

Signature: _____



Name: Austin Thompson

Table 5m. AVERAGE RADIATED SPURIOUS EMISSIONS Low Channel
Gold Whip Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Whip Antenna-Low Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2401.53	-49.0	2hn3mh	58.0	31.6	30291.9			AVG
4803.726	-70.5	2hn3mh	36.5	5.4	125.1	500.0	12.0	AVG
7205.389	-66.8	2hn3mh	40.2	10.7	351.1	3029.2	18.7	AVG**
9605.926	-85.8	2hn3mh	21.2	13.3	53.1	3029.2	35.1	AVG**
12007.4	-91.9	2hn3mh	15.1	18.9	50.6	500.0	19.9	AVG**

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 ((-70.5 + 5.4 + 107)/20) = 1251
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5n. AVERAGE RADIATED SPURIOUS EMISSIONS Mid Channel
Gold Whip Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Whip Antenna-Mid Channel			Client:	Cirronet		
AT	Project:	05-0311	Class:	Average	Model:	WIT2410G		
Frequency Range		Table	Model	S/N	Valid	Calibrated:		
		2hn3mh	Model : SAS-571	S/N 605	Yes	01 APR 05		
		preamp		S/N	Yes	June/30/2005		
		flex2ft		S/N	Yes	05/Dec/2005		
		flex17ft		S/N	Yes	05/Dec/2005		
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
2435.71	-52.2	2hn3mh	54.8	31.7	21094.3			AVG
4871.763	-79.1	2hn3mh	27.9	5.7	47.8	500.0	20.4	AVG
7307.788	-72.3	2hn3mh	34.7	10.9	189.7	500.0	8.4	AVG**
9743.639	-86.9	2hn3mh	20.1	13.5	47.7	2109.4	32.9	AVG**
12179.78	-87.5	2hn3mh	19.5	19.3	86.9	500.0	15.2	AVG**
14615.45	-90.7	2hn3mh	16.3	22.8	90.1	2109.4	27.4	AVG**

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 ((-79.1 + 5.7 + 107)/20) = 47.8
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5o. AVERAGE RADIATED SPURIOUS EMISSIONS High Channel
Gold Whip Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Whip Antenna-High Channel			Client:	Cirronet		
AT	Project:	05-0311	Class:	Average	Model:	WIT2410G		
Frequency Range	Table	Model	S/N	Valid	Calibrated:			
	2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05		
	preamp			S/N	Yes	June/30/2005		
	flex2ft			S/N	Yes	05/Dec/2005		
	flex17ft			S/N	Yes	05/Dec/2005		
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
2469.75	-54.5	2hn3mh	52.5	31.7	16292.6			AVG
4939.713	-75.2	2hn3mh	31.8	5.9	77.0	500.0	16.3	AVG
7409.313	-73.4	2hn3mh	33.6	11.0	170.1	500.0	9.4	AVG**
9878.576	-86.9	2hn3mh	20.1	13.6	48.6	1629.3	30.5	AVG**
12350.07	-90.6	2hn3mh	16.4	19.6	63.2	500.0	18.0	AVG**

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 ((-75.2 + 5.9 + 107)/20) = 77.0
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5p. AVERAGE RADIATED SPURIOUS EMISSIONS Low Channel
Yagi Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Yagi Antenna-Low Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2401.59	-43.2	2hn3mh	63.8	31.6	59065.2			AVG
4803.563	-70.9	2hn3mh	36.1	5.4	119.5	500.0	12.4	AVG
7204.476	-65.3	2hn3mh	41.7	10.7	417.2	5906.5	23.0	AVG**
9607.176	-90.6	2hn3mh	16.4	13.3	30.6	5906.5	45.7	AVG**
12007.5	-89.2	2hn3mh	17.8	18.9	68.7	500.0	17.2	AVG**

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 ((-70.9 + 5.4 + 107)/20) = 119.5
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson


Table 5q. AVERAGE RADIATED SPURIOUS EMISSIONS Mid Channel
Yagi Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Yagi Antenna-Mid Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model	S/N	Valid	Calibrated:		
		2hn3mh	Model : SAS-571	S/N 605	Yes	01 APR 05		
		preamp		S/N	Yes	June/30/2005		
		flex2ft		S/N	Yes	05/Dec/2005		
		flex17ft		S/N	Yes	05/Dec/2005		
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
2435.66	-42.1	2hn3mh	64.9	31.7	67477.7			AVG
4871.65	-69.3	2hn3mh	37.7	5.7	147.7	500.0	10.6	AVG
7306.564	-81.2	2hn3mh	25.8	10.9	68.1	500.0	17.3	AVG**
9742.387	-90.2	2hn3mh	16.8	13.5	32.6	6747.8	46.3	AVG**
12177.74	-87.5	2hn3mh	19.5	19.3	86.8	500.0	15.2	AVG**

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 ((-69.3 + 5.7 + 107)/20) = 147.7
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester
 Signature: 

Name: Austin Thompson

Table 5r. AVERAGE RADIATED SPURIOUS EMISSIONS High Channel
Yagi Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Yagi Antenna-High Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model	S/N	Valid	Calibrated:		
		2hn3mh	Model : SAS-571	S/N 605	Yes	01 APR 05		
		preamp		S/N	Yes	June/30/2005		
		flex2ft		S/N	Yes	05/Dec/2005		
		flex17ft		S/N	Yes	05/Dec/2005		
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
2470.00	-43.0	2hn3mh	64.0	31.7	61236.5			AVG
4939.85	-70.1	2hn3mh	36.9	5.9	138.5	500.0	11.2	AVG
7409.075	-75.3	2hn3mh	31.7	11.0	136.7	500.0	11.3	AVG**
9879.275	-90.7	2hn3mh	16.3	13.6	31.4	6123.7	45.8	AVG**
12350.11	-91.0	2hn3mh	16.0	19.6	60.4	500.0	18.4	AVG**

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 ((-70.1 + 5.9 + 107)/20) = 138.5
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5s. AVERAGE RADIATED SPURIOUS EMISSIONS Low Channel
Dipole Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Dipole Antenna- Low Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2401.60	-46.4	2hn3mh	60.6	31.6	40863.2			AVG
4803.48	-78.7	2hn3mh	28.3	5.4	48.7	500.0	20.2	AVG
7205.33	-73.5	2hn3mh	33.5	10.7	162.3	4086.3	28.0	AVG**
9606.02	-92.2	2hn3mh	14.8	13.3	25.4	4086.3	44.1	AVG**

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 ((-78.7 + 5.4 + 107)/20) = 48.7
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 5t. AVERAGE RADIATED SPURIOUS EMISSIONS Mid Channel
Dipole Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Dipole Antenna-Mid Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05	
		preamp			S/N	Yes	June/30/2005	
		flex2ft			S/N	Yes	05/Dec/2005	
		flex17ft			S/N	Yes	05/Dec/2005	
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
2435.75	-48.8	2hn3mh	58.2	31.7	31200.9			AVG
4871.88	-75.2	2hn3mh	31.8	5.7	74.9	500.0	16.5	AVG
7307.6	-74.3	2hn3mh	32.7	10.9	150.7	500.0	10.4	AVG**
9742.22	-91.3	2hn3mh	15.7	13.5	28.7	3120.1	40.7	AVG**

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 ((-75.2 + 5.7 + 107)/20) = 74.9
CONVERSION FROM dBm TO dBuV = 107 dB

Tester 
Signature: _____

Name: Austin Thompson

Table 5u. AVERAGE RADIATED SPURIOUS EMISSIONS High Channel
Dipole Antenna

Radiated Spurious Emissions								
Test By:	Test:	Spurious Emissions-Dipole Antenna-High Channel			Client:	Cirronet		
AT	Project:	05-0311		Class:	Average	Model:	WIT2410G	
Frequency Range	Table	Model	S/N	Valid	Calibrated:			
	2hn3mh	Model : SAS-571		S/N 605	Yes	01 APR 05		
	preamp			S/N	Yes	June/30/2005		
	flex2ft			S/N	Yes	05/Dec/2005		
	flex17ft			S/N	Yes	05/Dec/2005		
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
2469.78	-48.8	2hn3mh	58.2	31.7	31404.5			AVG
4939.83	-72.5	2hn3mh	34.5	5.9	105.0	500.0	13.6	AVG
7409.88	-73.3	2hn3mh	33.7	11.0	172.1	500.0	9.3	AVG**
9879.85	-94.9	2hn3mh	12.1	13.6	19.3	3140.5	44.2	AVG**

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 ((-72.5 + 5.9 + 107)/20) = 105.0
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester
 Signature: 

Name: Austin Thompson

2.10 Band Edge Measurements

Band Edge measurements were made at a Low Channel and High Channel peak at highest EUT related emission outside the occupied bandwidth. A peak measurement was made of the fundamental, and the emission was measured using a peak setting. A Resolution Bandwidth of $> 1\%$ of the emission bandwidth was used. This procedure was repeated for the high channel.

The plots shown were verified to be from the worst case antenna used (Parabolic Dish), using a 17 foot, Flexco cable and Horn Antenna. No preamp was used.

The limits were derived as follows:

High Bandedge

$$5000 \text{ uV/m} = -32.02 \text{ dBm}$$

$$-33.02 \text{ dBm} - 31.88 \text{ dB (antenna factor and cable loss)} = -64.9 \text{ dBm}$$

$$-64.9 \text{ dBm} + 9.54^* \text{ dB} = -55.36 \text{ dBm limit}$$

Low Bandedge

$$-33.02 \text{ dBm} - 32.03 \text{ dB (antenna factor and cable loss)} = 65.05 \text{ dBm}$$

$$-65.05 \text{ dBm} + 9.54^* \text{ dB} = -55.51 \text{ dBm limit}$$

* -9.54 dB correction from 3m to 1m distance.

Figure 6a. Band Edge Compliance
Antenna Conducted, High Channel

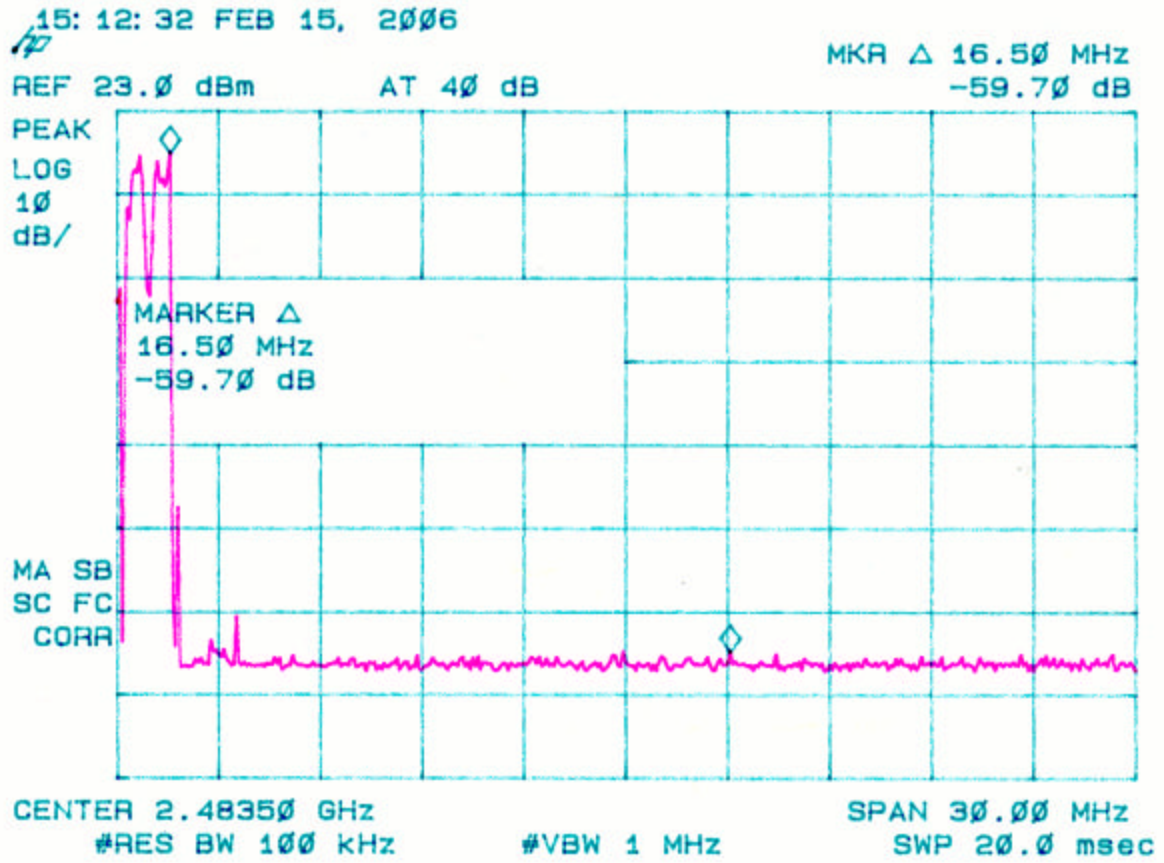


Figure 6b. Band Edge Compliance
Antenna Conducted, Low Channel

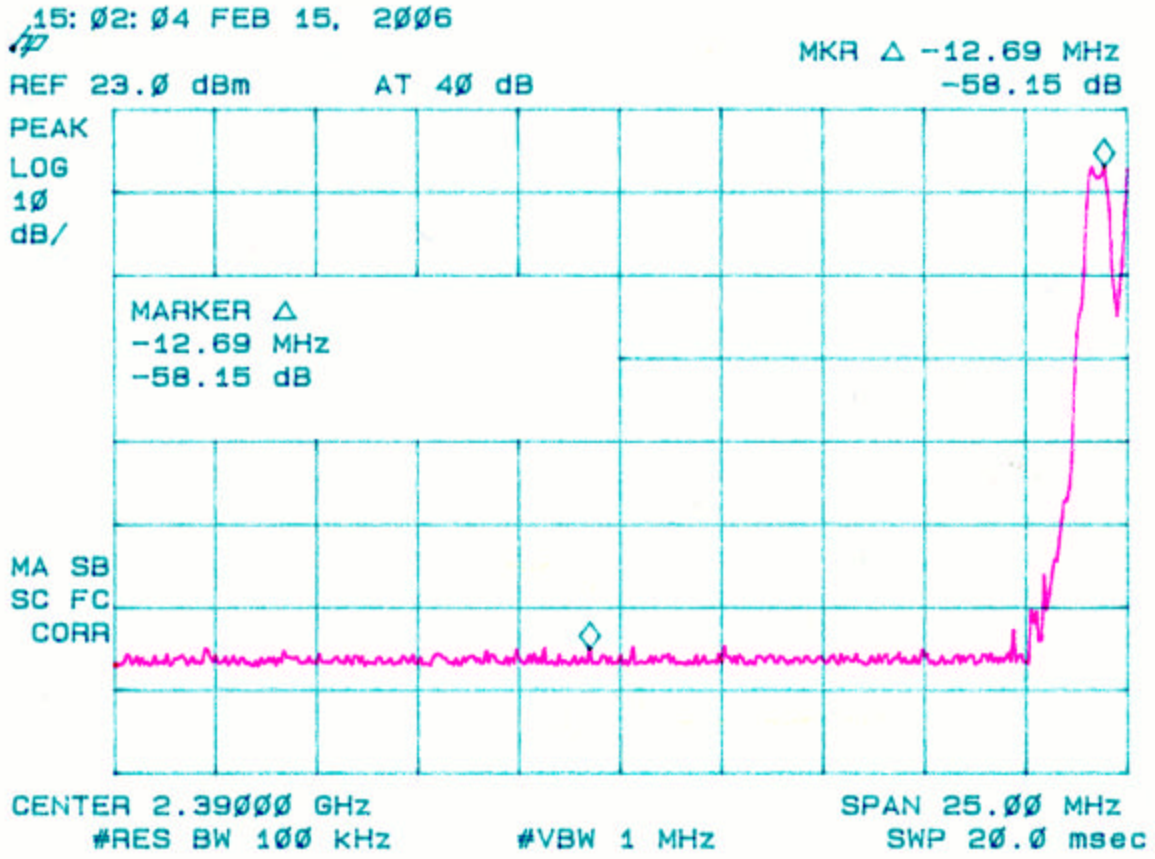
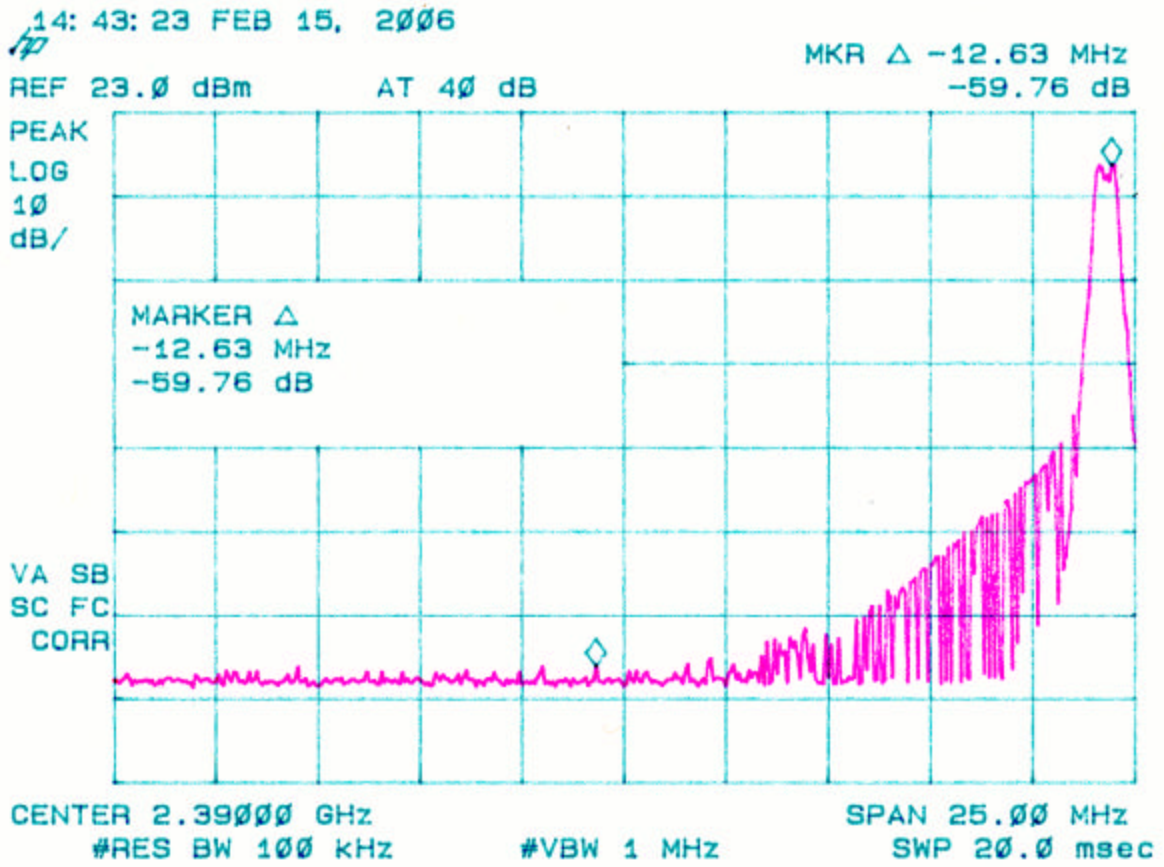


Figure 6c. Band Edge Compliance
Antenna Conducted, Low Channel



2.11 20 dB Bandwidth per FCC Section 15.247(a)(1)(ii)

The antenna port was connected to a spectrum analyzer that was set for a 50 Ω impedance with the RBW = approximately 1/100 of the manufacturers claimed RBW & VBW > RBW. The results of this test are given in Table 6 and Figure 7.

TABLE 6
20 dB Bandwidth

Test Date: February 15, 2006
UST Project: 05-0311
Customer: Cirronet
Model: WIT2410G

Frequency (GHz)	20 dB Bandwidth (MHz)	MAXIMUM FCC LIMIT (MHz)
2.40189	0.850	1.0
2.43556	0.875	1.0
2.46968	0.875	1.0

Tester Signature:  _____

Name: Austin Thompson

Figure 7a.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Low

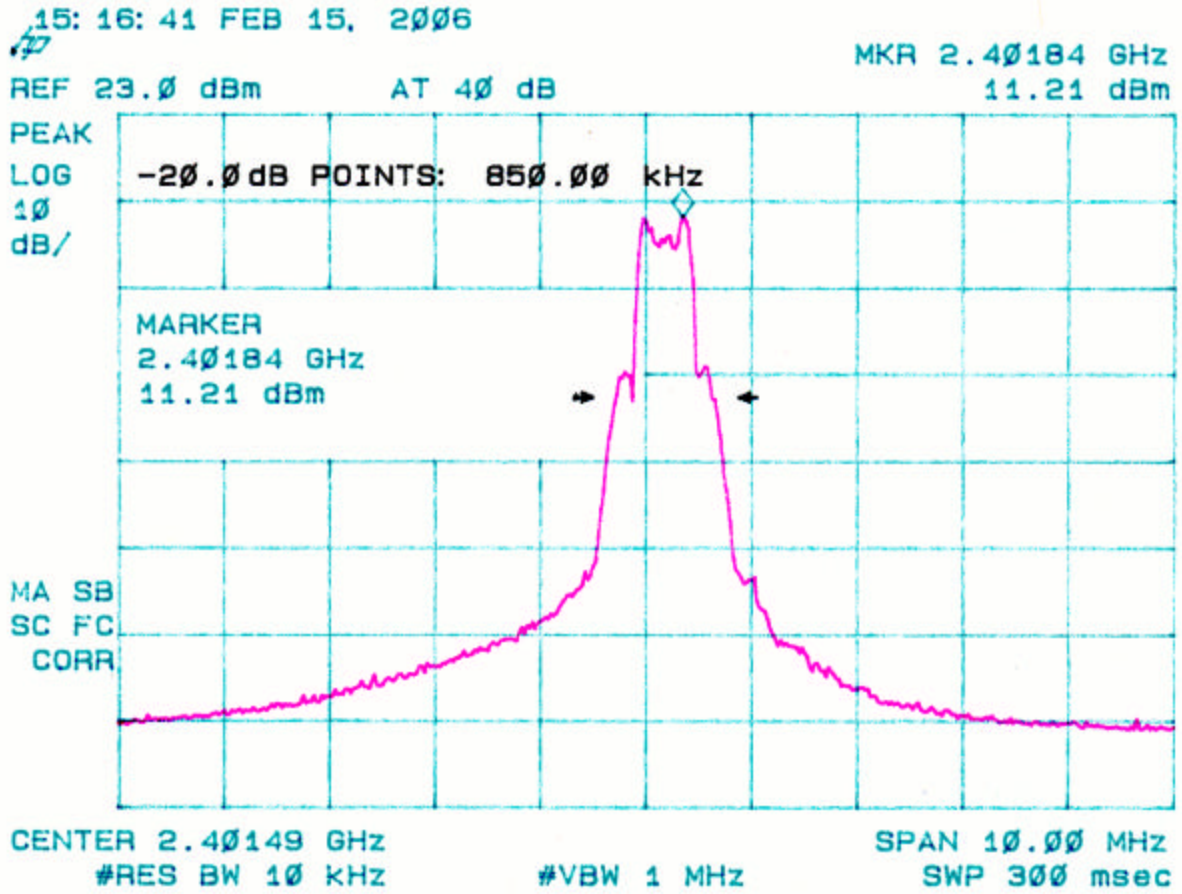


Figure 7b.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Mid

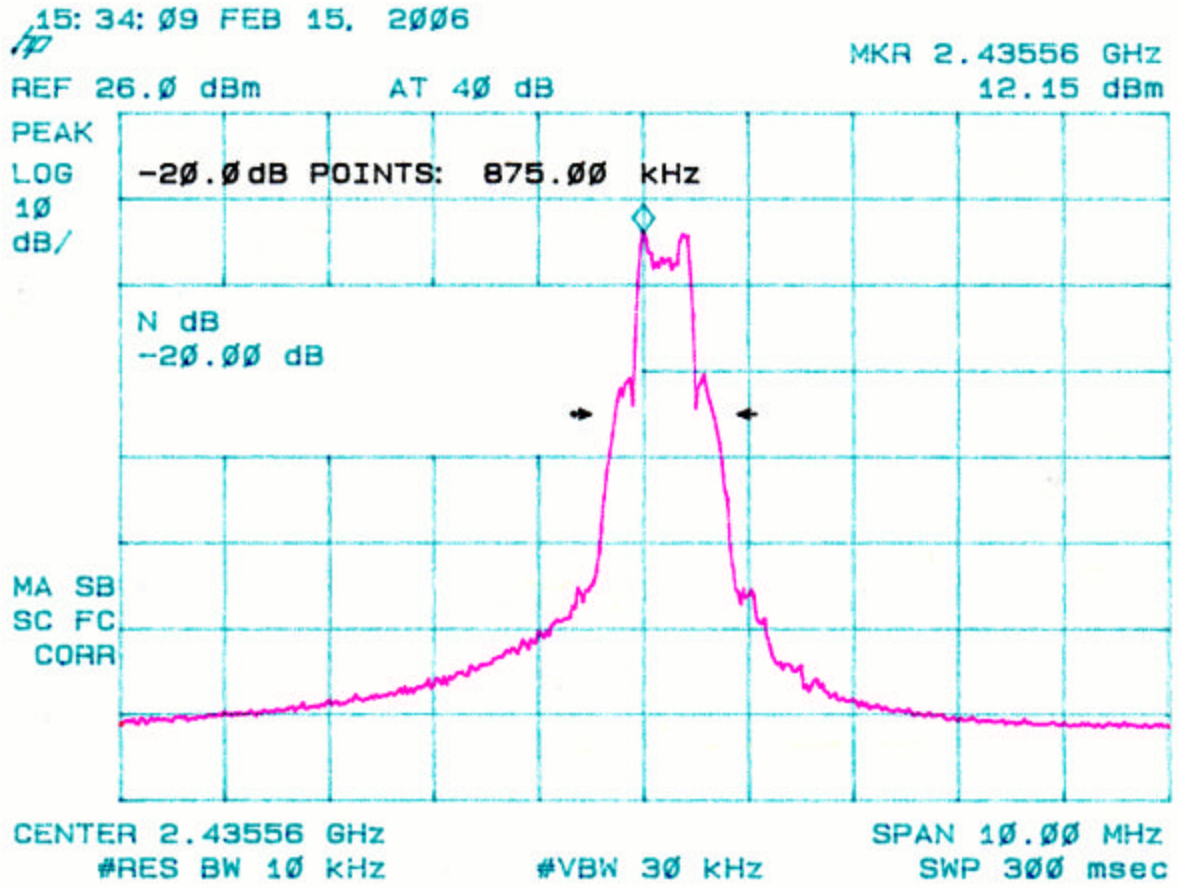
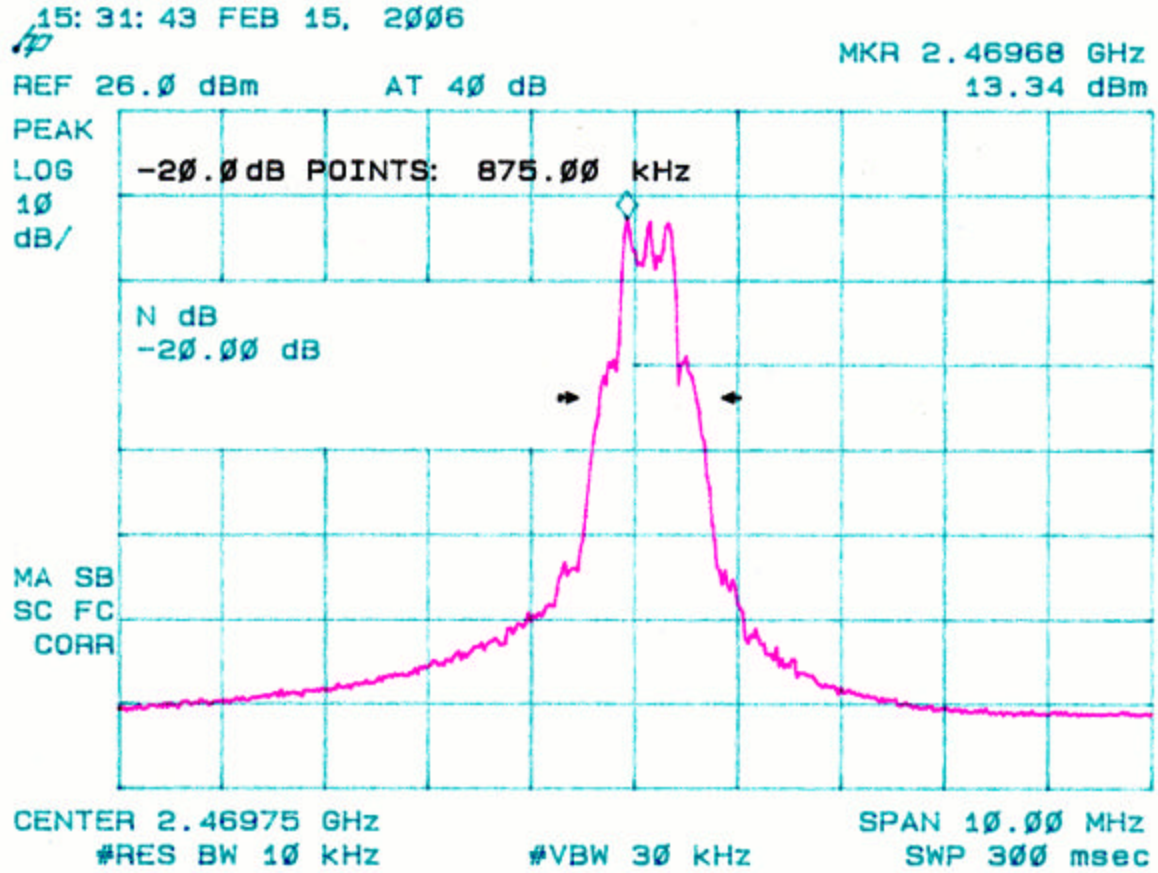


Figure 7c.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) High



2.12 Number of Hopping Channels FCC Section 15.247(a)(1)(ii)

The transmitter was placed into a typical frequency hopping mode of operation. The 2400 – 2483.5 MHz band was centered on the screen and the RBW and VBW chosen such that the individual channels could be discerned. The trace capture time was a minimum of 5 minutes.

The results of this test are given in Table 7 and Figures 8a through 8c.

TABLE 7
NUMBER OF HOPPING CHANNELS

Test Date: February 13, 2006
UST Project: 05-0311
Customer: Cirronet
Model: WIT2410G

Number of Hopping Frequencies Measured	FCC Limit (Minimum Number of Channels)
75	75

Figure 8a
Number of Hopping Channels FCC Section 15.247(a)(1)(ii)

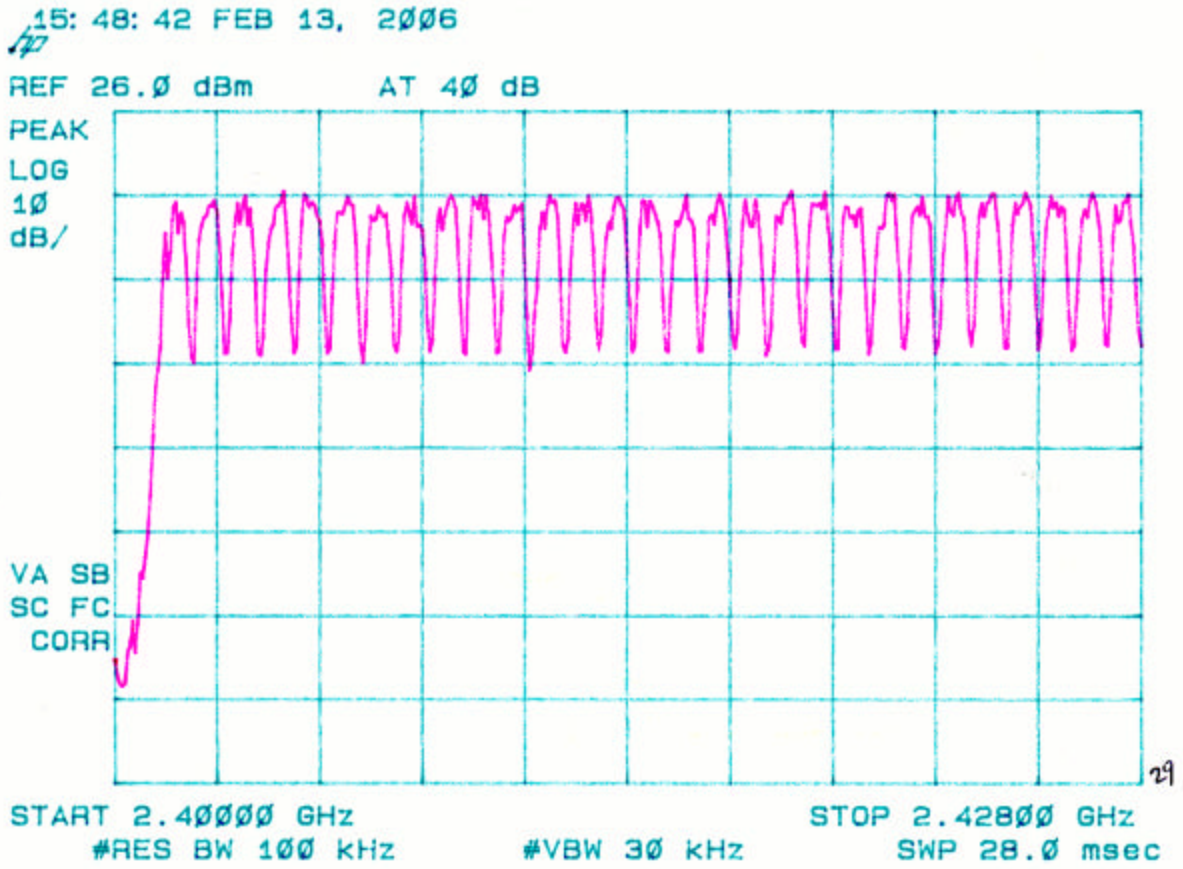


Figure 8b
Number of Hopping Channels FCC Section 15.247(a)(1)(ii)

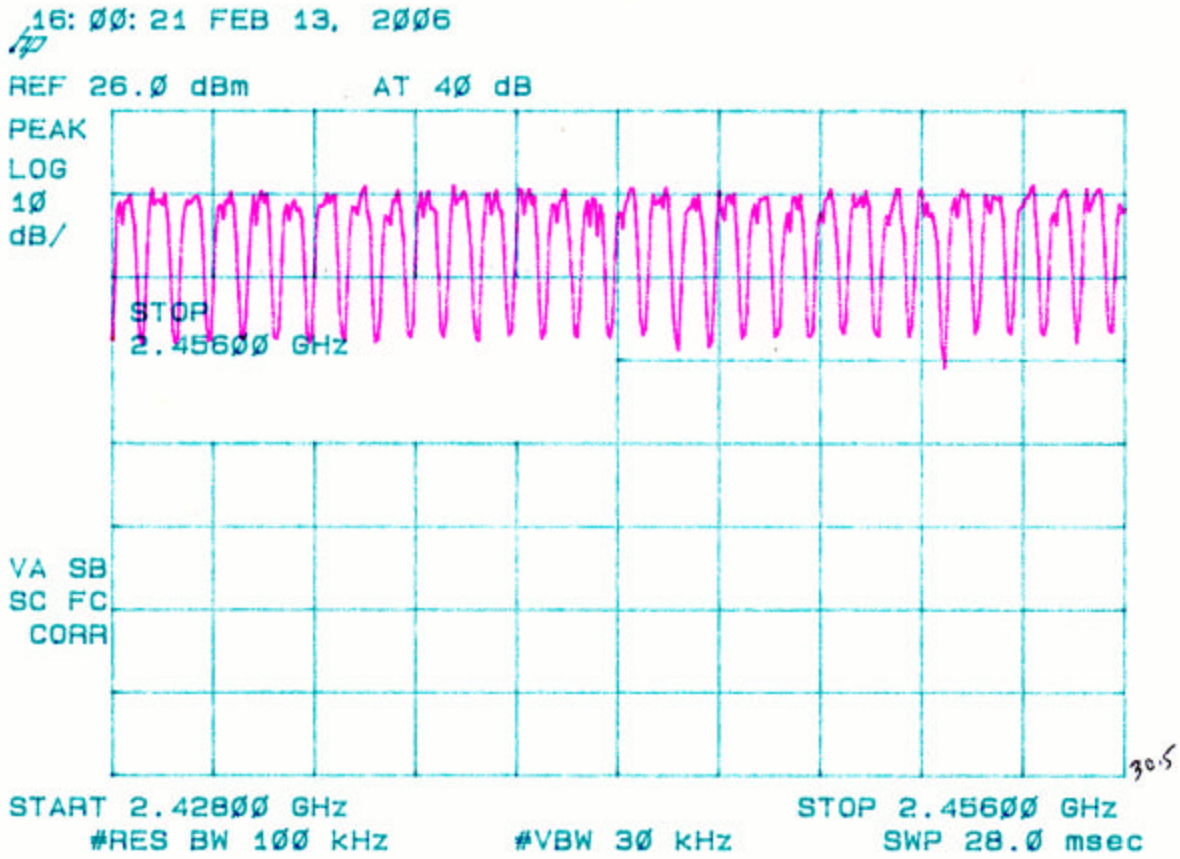
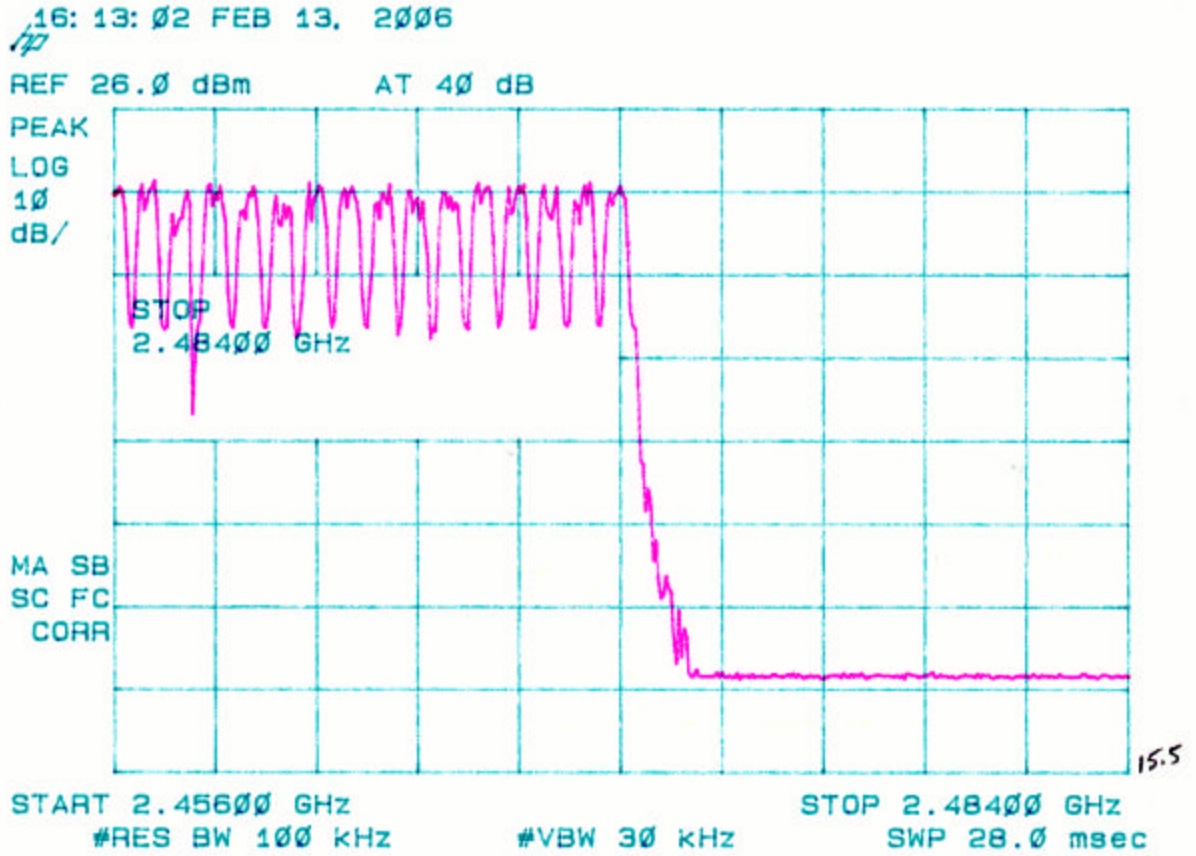


Figure 8c
Number of Hopping Channels FCC Section 15.247(a)(1)(ii)



2.13 Average Time of Occupancy per Channel FCC Section 15.247(a)(1)(ii)

Please refer to the Average Spurious Emissions portion of the report for details, and to Figure 9a-b.

Figure 9a

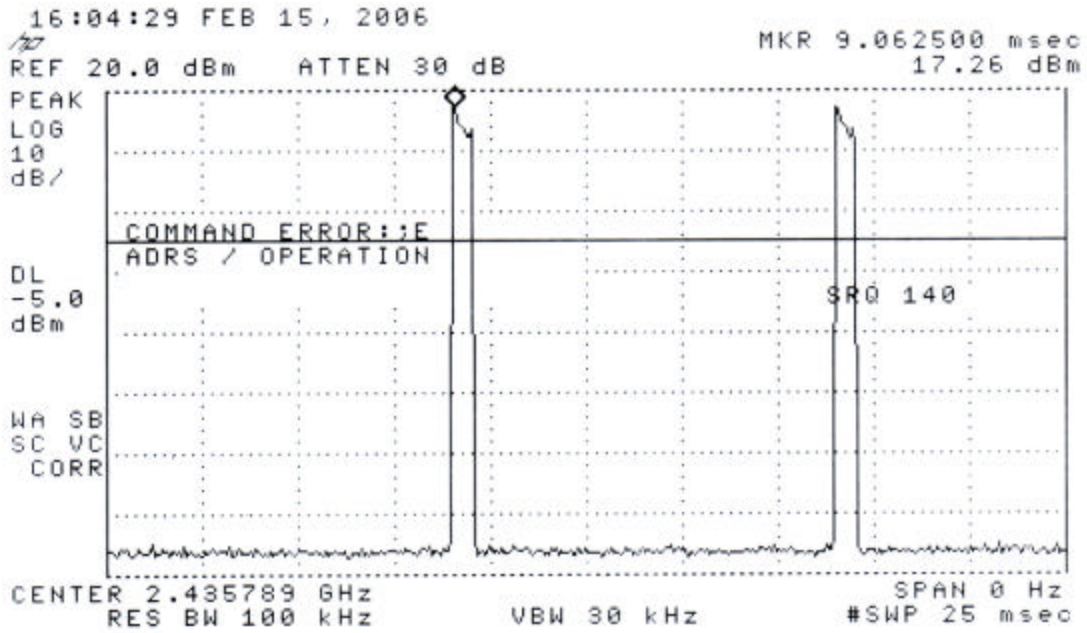
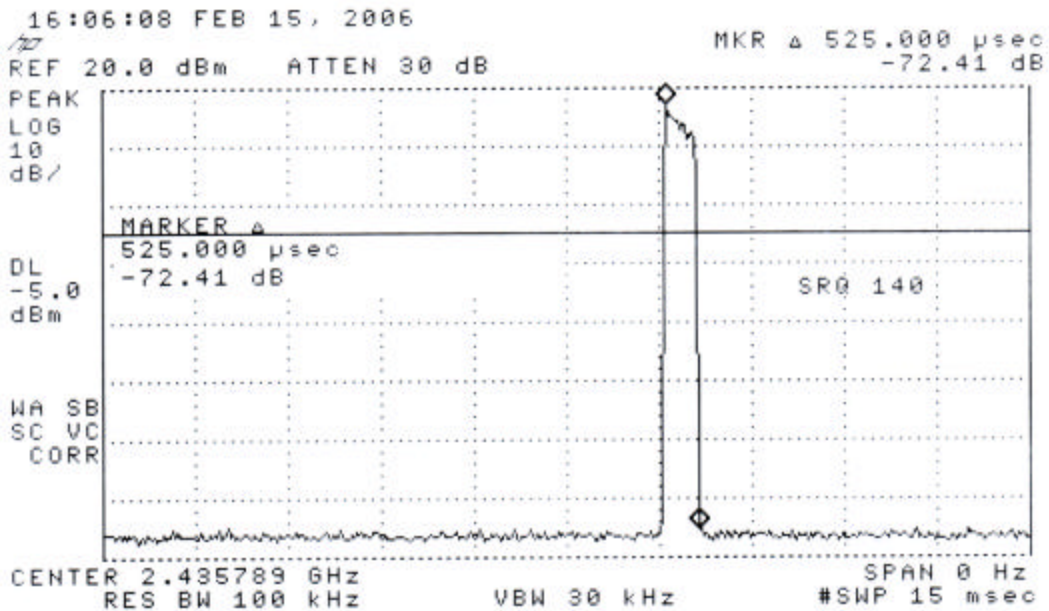


Figure 9b



2.14 Power Line Conducted Emissions for Transmitter FCC Section 15.207

The conducted voltage measurements have been carried out in accordance with FCC Section 15.207, with a spectrum analyzer connected to a LISN and the EUT placed into a continuous mode of transmit. The results are given in Tables 8a-8b.

TABLE 8a. CONDUCTED EMISSIONS DATA

CLASS B

Test Date: February 26, 2006
 UST Project: 05-0311
 Customer: Cirronet
 Model: WIT2410G

Worse Case Mode of Operaton (TX – Low channel)

(Peak/QP vs QP Limits)

Conducted Emissions								
Test By:	Test:	PK/QP vs QP Conducted Emissions				Client:	Cirronet	
AT	Project:	05-0311		Class:	B	Model:	WIT2410G	
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n
(MHz)	(dBm)	Table	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	/ QP
0.15	-43.0	LISNP	64.0	-0.2	63.8	65.8	2.0	PK
0.305	-50.0	LISNP	57.0	-0.1	56.9	60.1	3.2	PK
0.378	-59.0	LISNP	48.0	0.0	48.0	56.8	8.8	PK
0.455	-58.0	LISNP	49.0	0.0	49.0	58.3	9.3	PK
1.04	-63.0	LISNP	44.0	0.1	44.1	56.0	11.9	PK
1.19	-64.0	LISNP	43.0	0.2	43.2	56.0	12.8	PK
0.15	-47.0	LISNN	60.0	-0.2	59.8	66.0	6.2	PK
0.298	-51.0	LISNN	56.0	-0.1	55.9	60.3	4.4	PK
0.445	-59.0	LISNN	48.0	0.0	48.0	56.9	8.9	PK
1.043	-61.0	LISNN	46.0	0.1	46.1	56.0	9.9	PK
1.19	-62.0	LISNN	45.0	0.2	45.2	56.0	10.8	PK
1.788	-65.0	LISNN	42.0	0.2	42.2	56.0	13.8	PK

SAMPLE CALCULATIONS: 64.0 + -0.2 = 63.8 dBuV

Tester
 Signature: 

Name: Austin Thompson

TABLE 8b. CONDUCTED EMISSIONS DATA

CLASS B

Test Date: February 26, 2006
 UST Project: 05-0311
 Customer: Cirronet
 Model: WIT2410G

Worse Case Mode of Operaton (TX – Low channel)

(AVG vs Average Limits)

Conducted Emissions								
Test By:	Test:	AVG vs AVG Conducted Emissions				Client:	Cirronet	
AT	Project:	05-0311		Class:	B	Model:	WIT2410G	
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n
(MHz)	(dBm)	Table	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	/ QP
0.15	-60.0	LISNP	47.0	-0.2	46.8	55.8	9.0	AVG
0.305	-77.0	LISNP	30.0	-0.1	29.9	50.1	20.2	AVG
0.378	-88.1	LISNP	18.9	0.0	18.9	46.8	27.9	AVG
0.455	-75.0	LISNP	32.0	0.0	32.0	48.3	16.3	AVG
1.04	-84.0	LISNP	23.0	0.1	23.1	46.0	22.9	AVG
1.19	-85.0	LISNP	22.0	0.2	22.2	46.0	23.8	AVG
0.15	-64.0	LISNN	43.0	-0.2	42.8	56.0	13.2	AVG
0.298	-66.0	LISNN	41.0	-0.1	40.9	50.3	9.4	AVG
0.445	-72.0	LISNN	35.0	0.0	35.0	46.9	11.9	AVG
1.043	-83.0	LISNN	24.0	0.1	24.1	46.0	21.9	AVG
1.19	-83.0	LISNN	24.0	0.2	24.2	46.0	21.8	AVG
1.788	-94.6	LISNN	12.4	0.2	12.6	46.0	33.4	AVG

SAMPLE CALCULATIONS: 47.0 + -0.2 = 46.8 dBuV

Tester Signature: 

Name: Austin Thompson

2.15 Radiated Emissions for Digital Device & Receiver (47 CFR 15.109a)

Radiated emissions were evaluated from 30 to 14500 MHz while the EUT was placed into a Receive mode of operation. Measurements were made with the analyzer's bandwidth set to 120 kHz measurements made less than 1 GHz and 1 MHz for measurements made greater than or equal to 1 GHz. The results for less than 1 GHz are shown in Table 9.

**TABLE 9. RADIATED EMISSIONS DATA
(Digital Device & Receiver)**

CLASS B

Test Date: December 8, 2005
 UST Project: 05-0311
 Customer: Cirronet
 Product: WIT2410G

Radiated Emissions								
Test By:	Test:	FCC Part 15 - Permissive Change			Client:	Cirronet		
	Project:	05-0311		Class:	B	Model:	WIT-2410	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		OATS	Cable: 75ft.		S/N	Yes	1/September/2005	
		NCR3V	Model: B100		S/N 172	Yes	19/Sep/2005	
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
43.00	-92.0	NCR3V	15.0	12.1	22.6	100.0	12.9	PK = n
41.6	-92.0	NCR3V	15.0	12.2	22.8	100.0	12.8	PK = n
38	-89.0	NCR3V	18.0	12.1	32.0	100.0	9.9	PK = n
40.8	-86.0	NCR3V	21.0	12.2	45.5	100.0	6.8	QP
44.2	-86.0	NCR3V	21.0	12.1	45.1	100.0	6.9	PK = n
47.9	-87.0	NCR3V	20.0	12.0	39.7	100.0	8.0	PK = n

SAMPLE CALCULATION:
 RESULTS (uV/m @ 3m) = Antilog $((-92.0 + 12.1 + 107)/20) = 22.6$
 CONVERSION FROM dBm TO dBuV = 107 dB

Tester
 Signature: 

Name: Austin Thompson

**.2.16 Power Line Conducted Emissions for Digital Device and Receiver
FCC Section 15.107**

The conducted voltage measurements have been carried out in accordance with FCC Section 15.107, with a spectrum analyzer connected to a LISN and the EUT placed into an idle condition or a continuous mode of receive. Similar results were seen as compared to the EUT in a transmit mode of operation. **Therefore, please refer to the results as shown in Table 8.**

2.17 Channel Separation (15.247(a)(1))

The transmitter was placed into a typical frequency hopping mode of operation. The 2388 – 2488 MHz band was centered on the screen and the RBW and VBW chosen such that the individual channels could be discerned. The trace capture time was a minimum of 20msec.

Results are shown in Figure 10a.

Figure 10a

