


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: May 2, 2007
UST Project: 07-0087
Customer: Cirronet
Model: WIT2410T

Frequency (GHz)	20 dB Bandwidth (MHz)	MAXIMUM FCC LIMIT (MHz)
2.40189	0.525	1.0
2.43556	0.525	1.0
2.46968	0.525	1.0

Tester Signature: 

Name: Gersop Riera

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

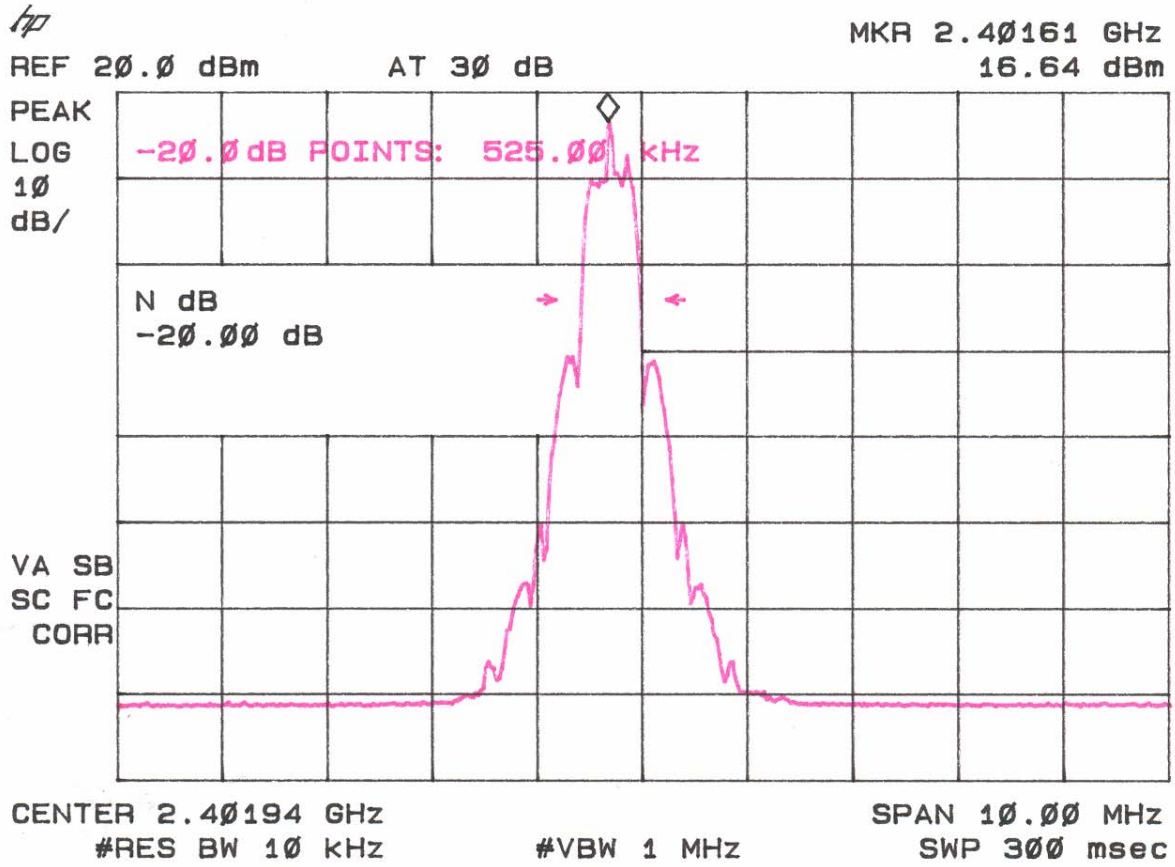


Figure 7b.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Mid

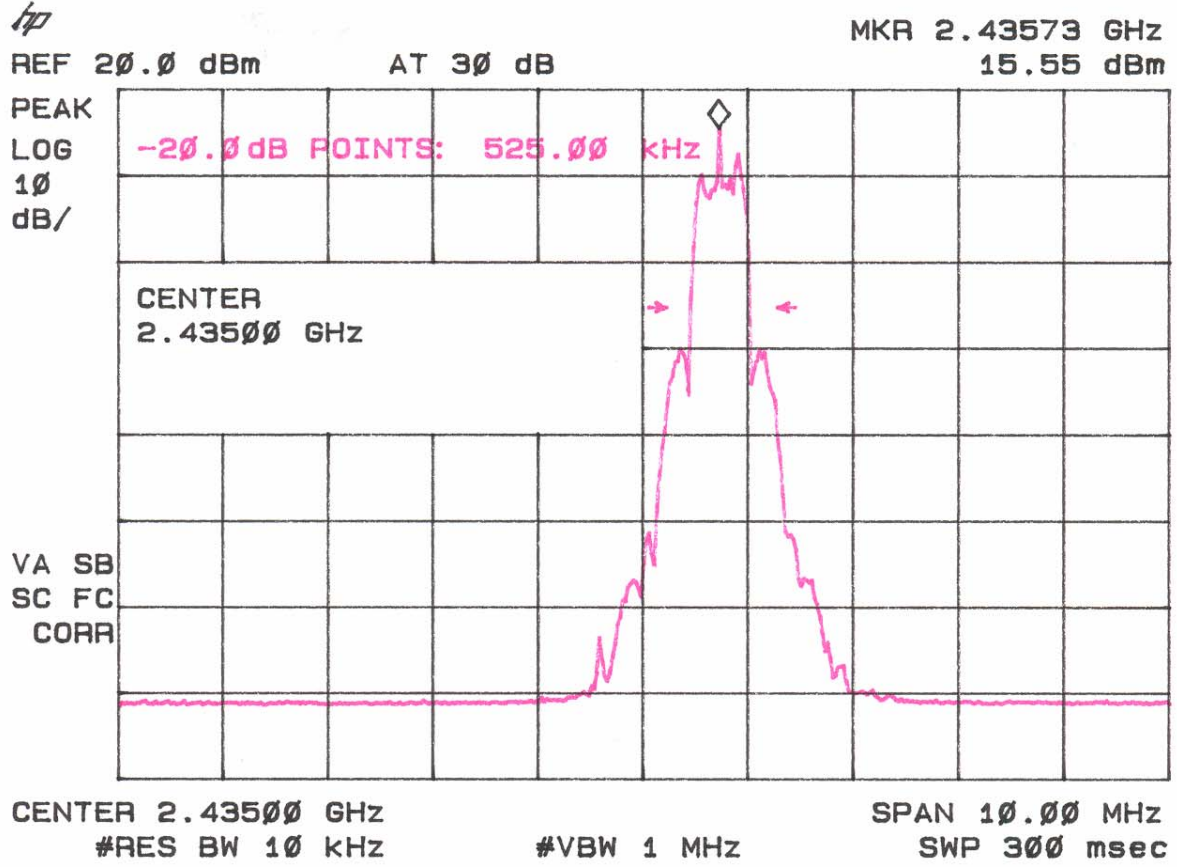
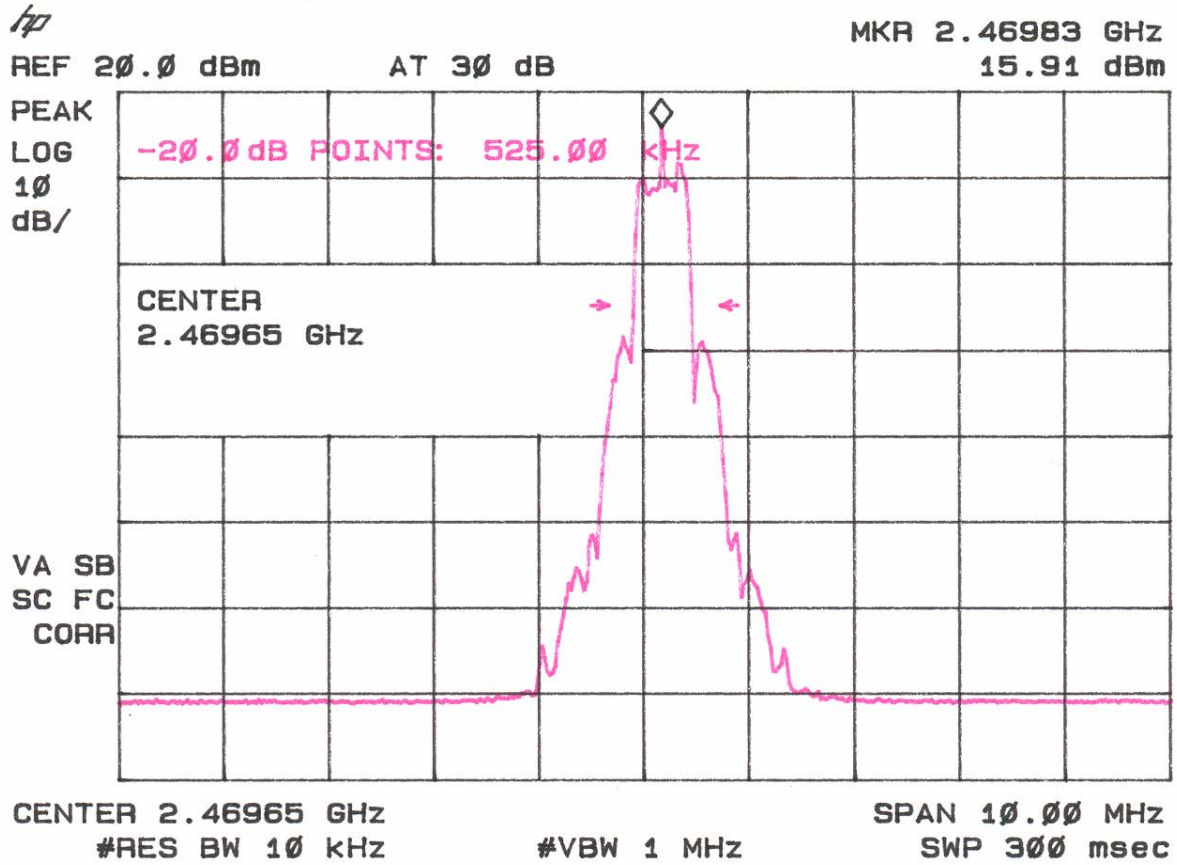


Figure 7c.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) High



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: May 2, 2007
UST Project: 07-0087
Customer: Cirronet
Model: WIT2410T

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)

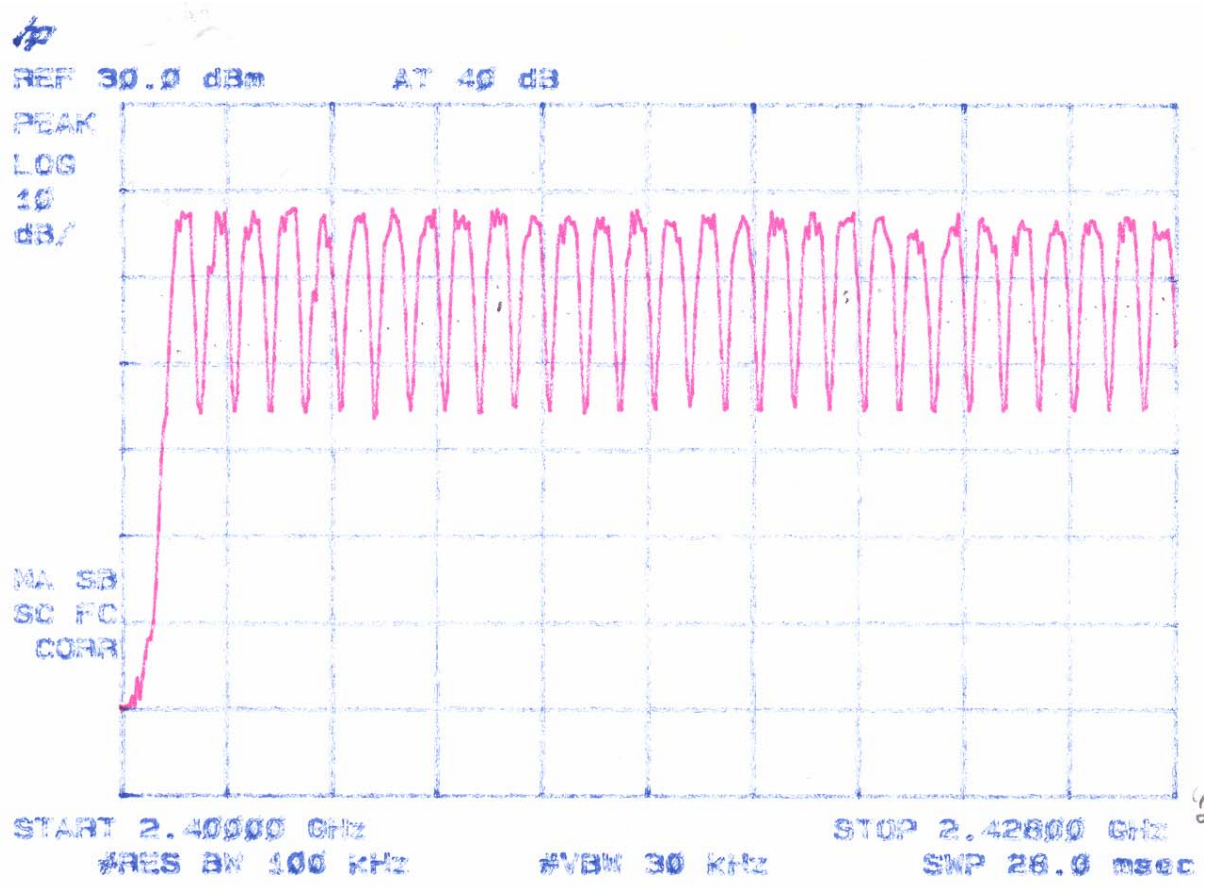


Figure 8b
Number of Hopping Channels FCC Section 15.247(a)(1)(ii)

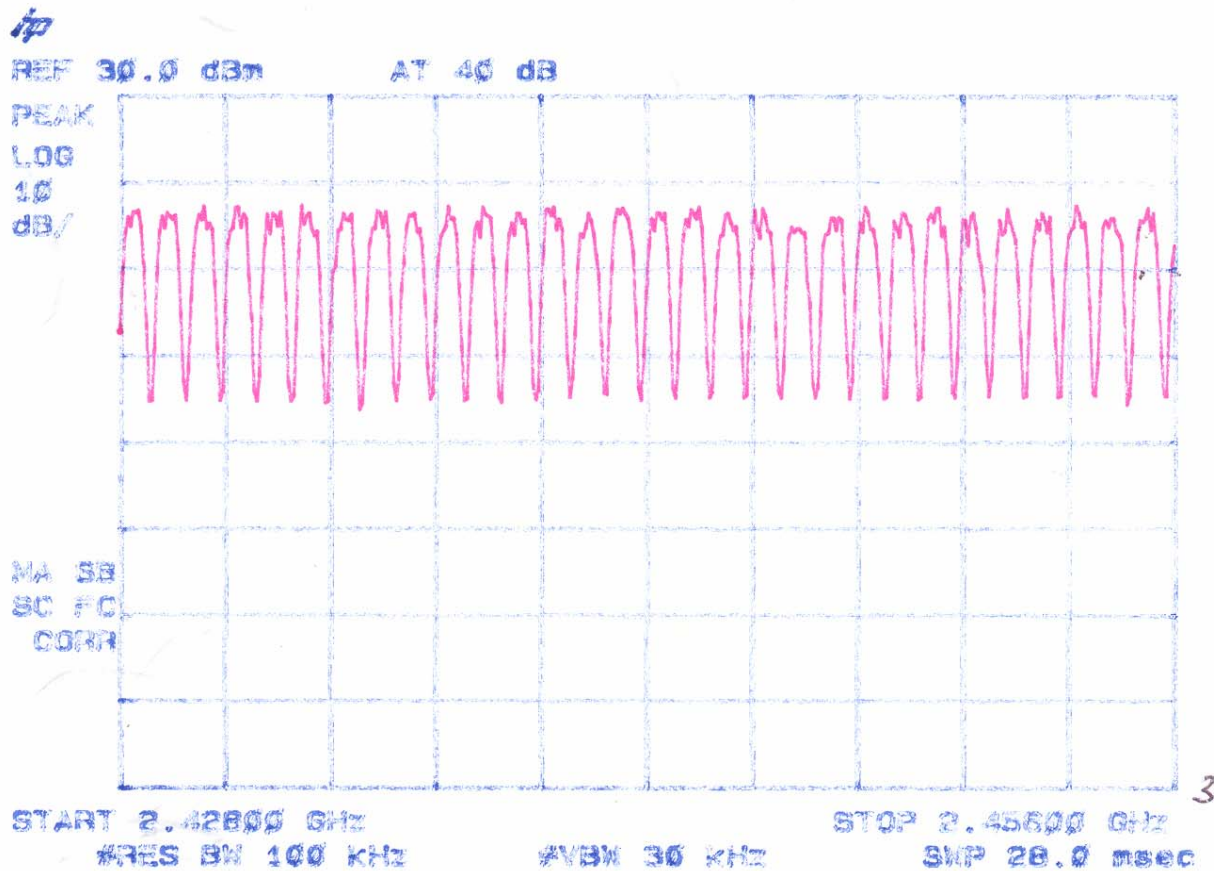
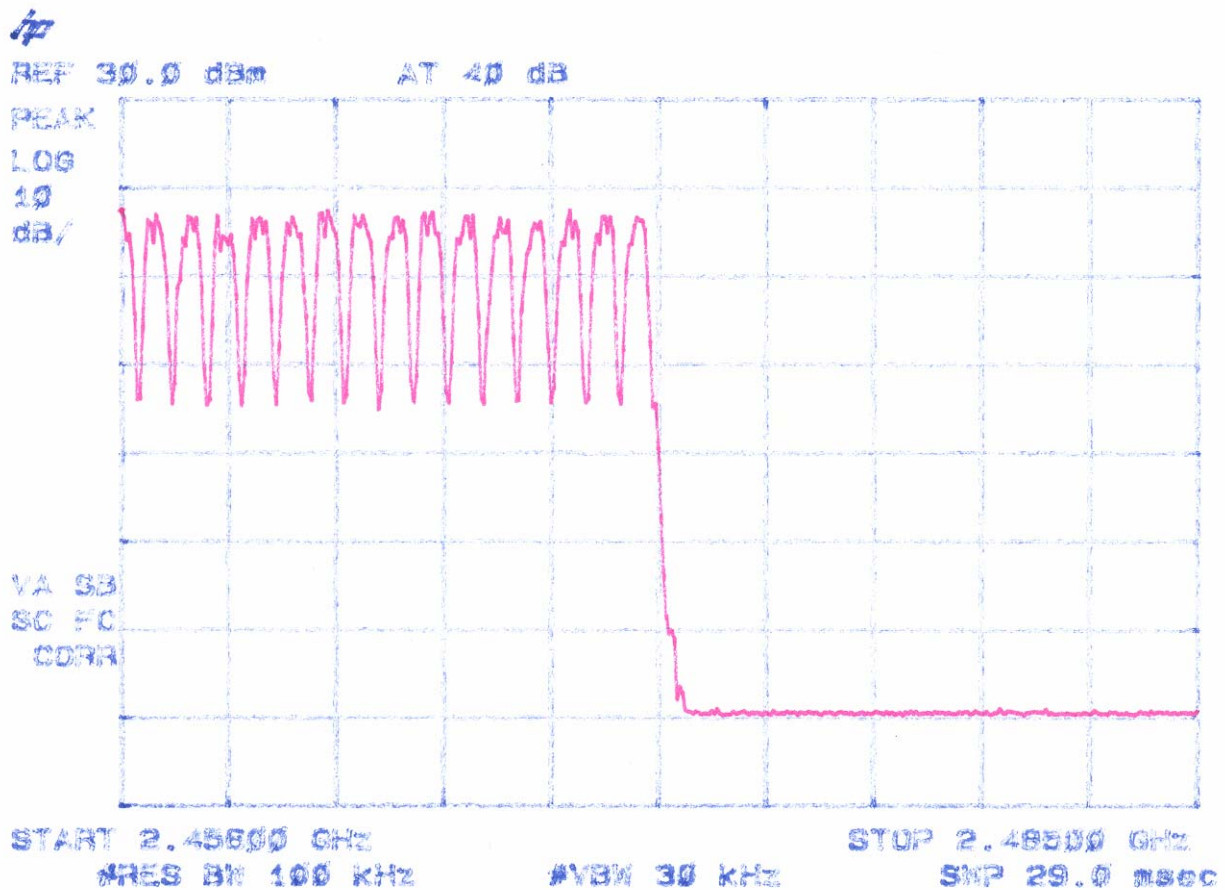


Figure 8c
Number of Hopping Channels FCC Section 15.247(a)(1)(ii)



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

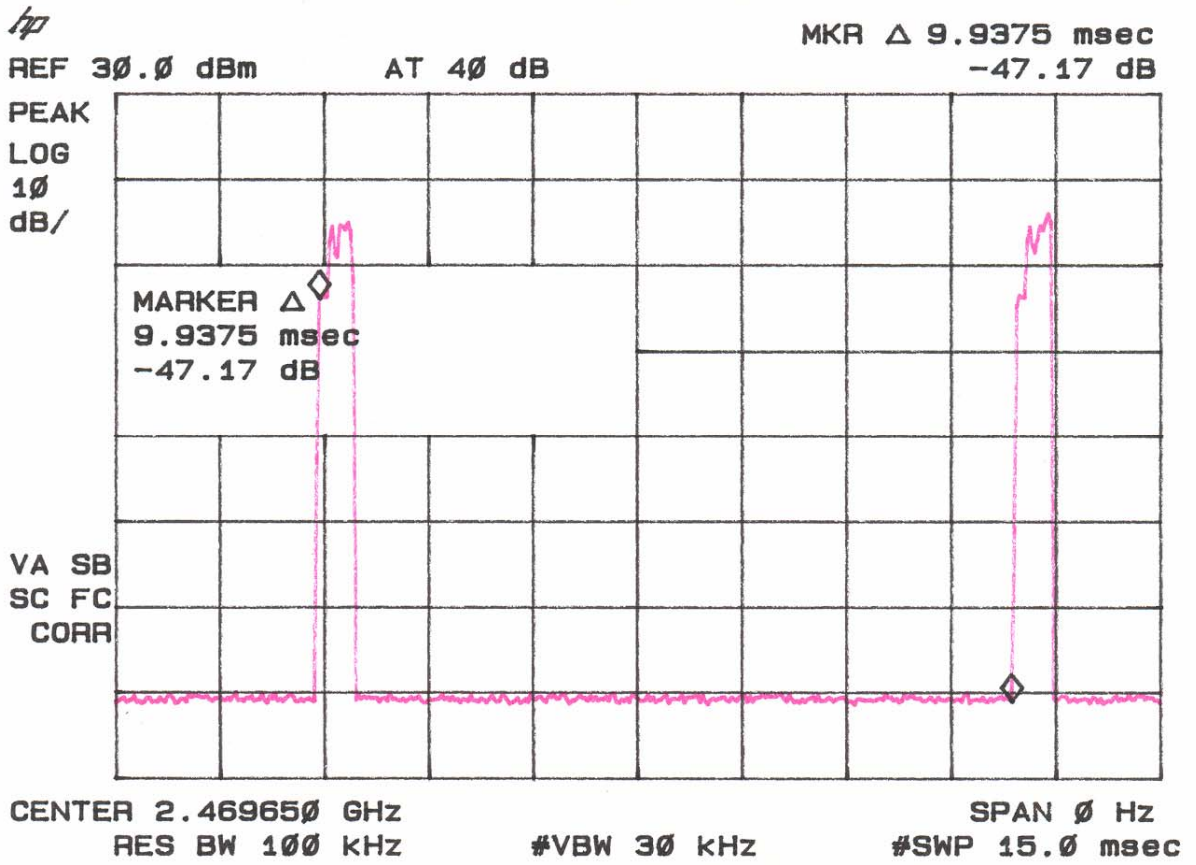
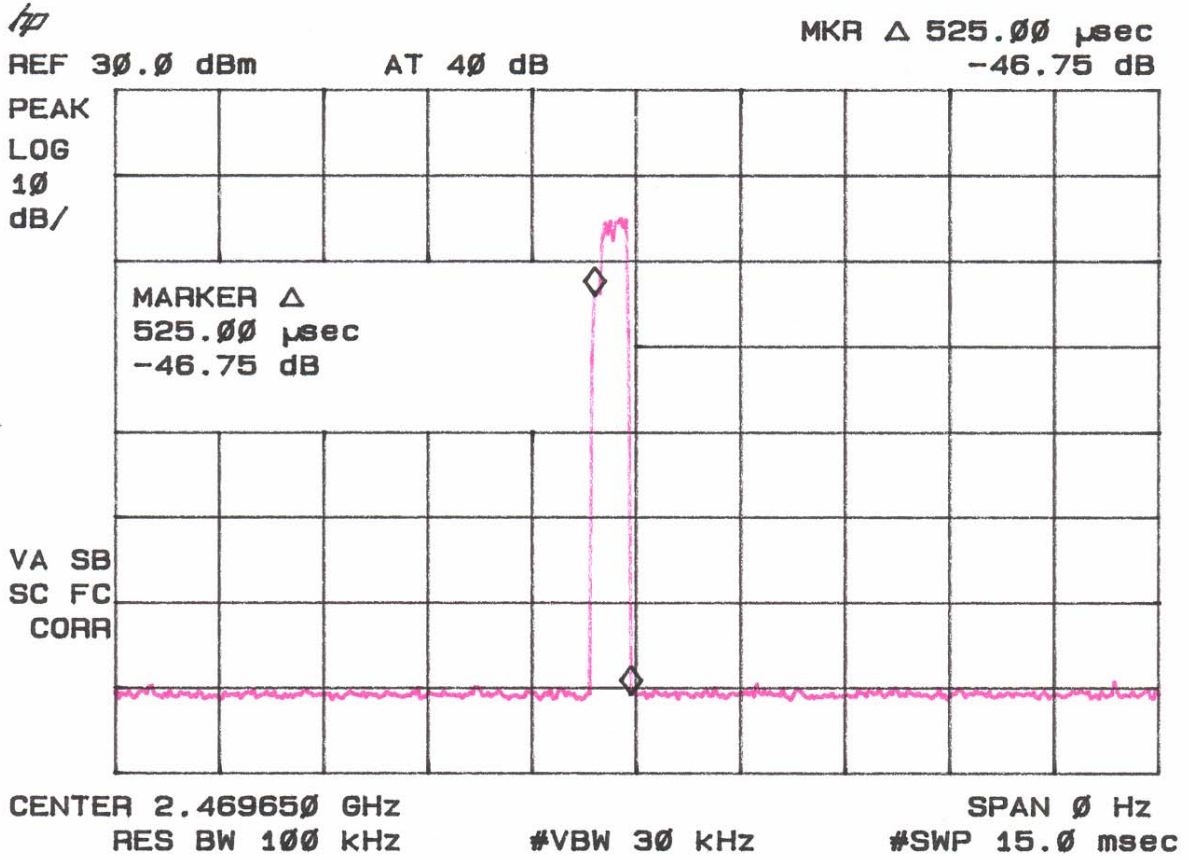


Figure 9b



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: May 10, 2007
 UST Project: 07-0087
 Customer: Cirronet
 Model: WIT2410T

(Peak vs Average Limits)

Conducted Emissions										
Test By:	Test:	FCC Conducted Emissions Peak Vs. Average Phase				Client:	Cirronet			
KT	Project:	07-0087		Class:	B	Model:	WIT2410T			
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Distance /	Margin	PK	
(MHz)	(dBm)	Table	(dBuV)	(dB)	(dBuV)	(dBuV)	Polarity	(dB)	/ QP	
0.16	-56.3	LISNP	50.7	-0.2	50.6	55.6	PHASE	5.0	PK	
0.1623	-57.1	LISNP	49.9	-0.1	49.8	55.3	PHASE	5.5	PK	
0.1763	-58.5	LISNP	48.5	-0.1	48.4	54.7	PHASE	6.2	PK	
0.2051	-61.7	LISNP	45.3	-0.1	45.2	53.4	PHASE	8.2	PK	
0.5188	-73.1	LISNP	33.9	-0.1	33.8	46.0	PHASE	12.2	PK	
3.96	-66.0	LISNP	41.0	0.3	41.3	46.0	PHASE	4.7	PK	
4.69	-63.1	LISNP	43.9	0.3	44.1	46.0	PHASE	1.9	PK	
5.5	-60.2	LISNP	46.8	0.3	47.1	50.0	PHASE	2.9	PK	
6.025	-62.4	LISNP	44.7	0.3	45.0	50.0	PHASE	5.0	PK	
11.4	-69.1	LISNP	37.9	0.4	38.4	50.0	PHASE	11.6	PK	
29.78	-73.0	LISNP	34.0	0.7	34.7	50.0	PHASE	15.3	PK	

SAMPLE CALCULATIONS: 50.7 + -0.2 = 50.6 dBuV

Tester
 Signature: Kamran Talai

Name: Kamran Talai

TABLE 8b. CONDUCTED EMISSIONS DATA**CLASS B**

Test Date: May 10, 2007
 UST Project: 07-0087
 Customer: Cirronet
 Model: WIT2410T

(PK vs Average Limits)

Conducted Emissions									
Test By:	Test:	FCC Conducted Emissions Peak Vs. Average Neutral				Client:	Cirronet		
KT	Project:	07-0087		Class:	B	Model:	WIT2410T		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Distance/ Polarity	Margin	PK
(MHz)	(dBm)	Table	(dBuV)	(dB)	(dBuV)	(dBuV)		(dB)	/ QP
0.15	-54.7	LISNN	52.4	-0.2	52.1	55.8	NEUTRAL	3.6	PK
0.1614	-56.3	LISNN	50.7	-0.2	50.5	55.4	NEUTRAL	4.9	PK
0.2078	-61.4	LISNN	45.6	-0.1	45.5	53.3	NEUTRAL	7.8	PK
0.52	-73.2	LISNN	33.8	-0.1	33.7	46.0	NEUTRAL	12.3	PK
3.96	-66.0	LISNN	41.0	0.3	41.3	46.0	NEUTRAL	4.7	PK
4.7	-62.7	LISNN	44.3	0.3	44.5	46.0	NEUTRAL	1.5	PK
5.5	-60.9	LISNN	46.1	0.3	46.4	50.0	NEUTRAL	3.6	PK
6.025	-62.0	LISNN	45.0	0.3	45.3	50.0	NEUTRAL	4.7	PK
9.675	-68.4	LISNN	38.6	0.4	39.0	50.0	NEUTRAL	11.0	PK
10.25	-67.8	LISNN	39.2	0.5	39.6	50.0	NEUTRAL	10.4	PK
11.1	-67.8	LISNN	39.2	0.5	39.7	50.0	NEUTRAL	10.3	PK

SAMPLE CALCULATIONS: $52.4 + -0.2 = 52.1$ dBuV

Tester
 Signature: Kamran Talai

Name: Kamran Talai

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: May 16, 2007
 UST Project: 07-0087
 Customer: Cirronet
 Product: WIT2410T

Radiated Emissions								
Test By: GR	Test:	FCC Part 15				Client:	Cirronet	
	Project:	07-0087		Class:	B	Model:	WIT2410T	
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
No Emission seen within 20 dB of FCC Limits.								

Tester
 Signature: 

Name: Gersop Riera

**.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.

