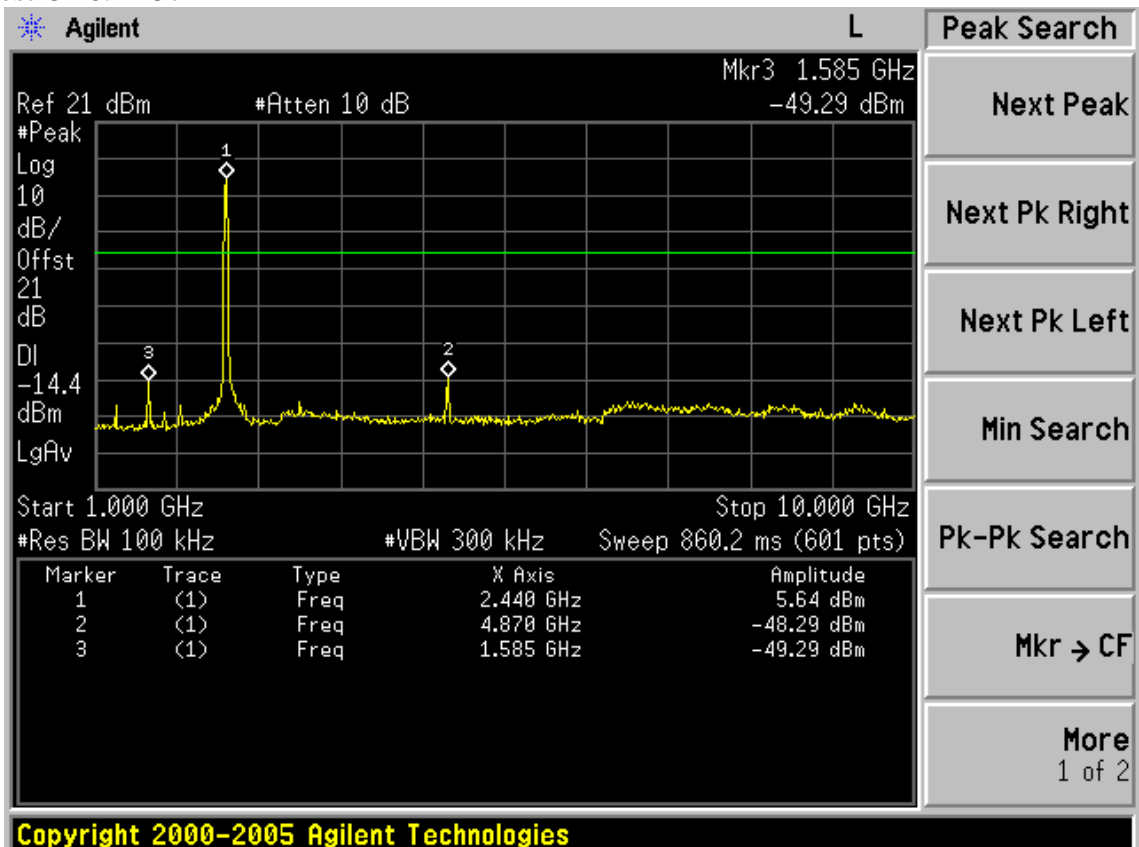
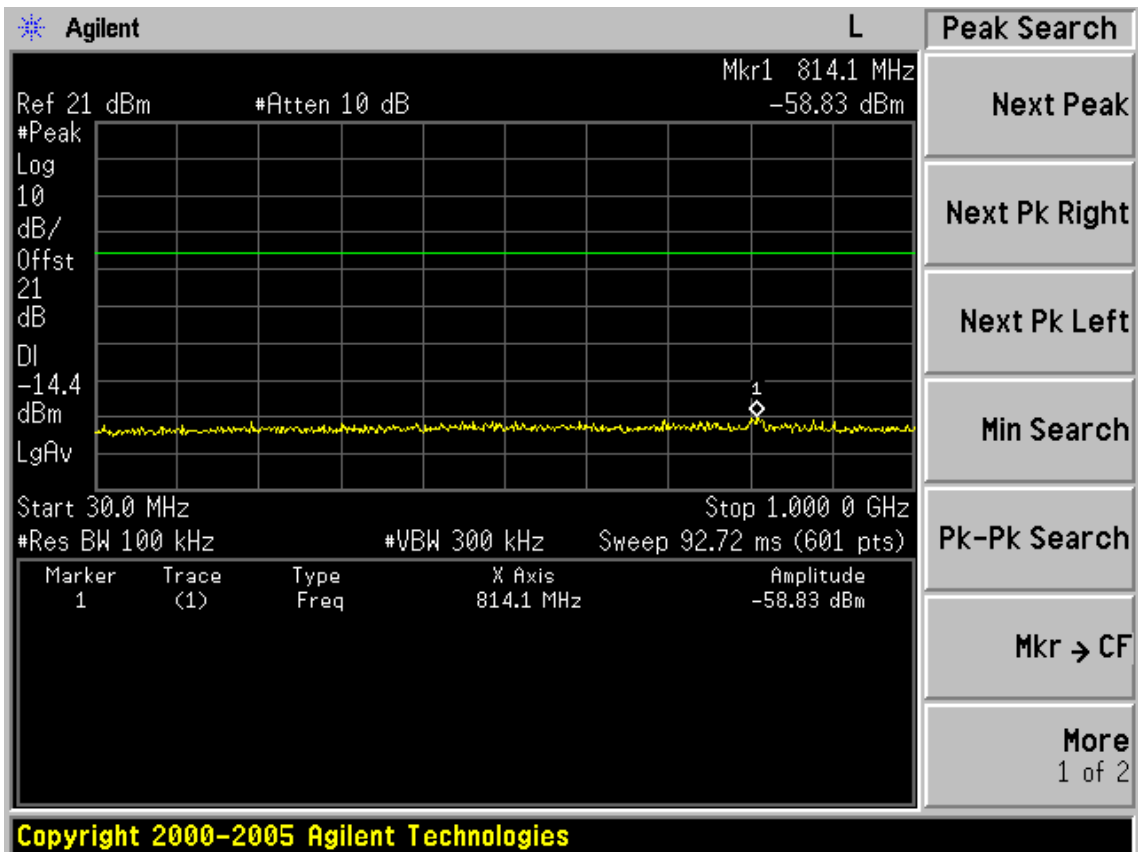
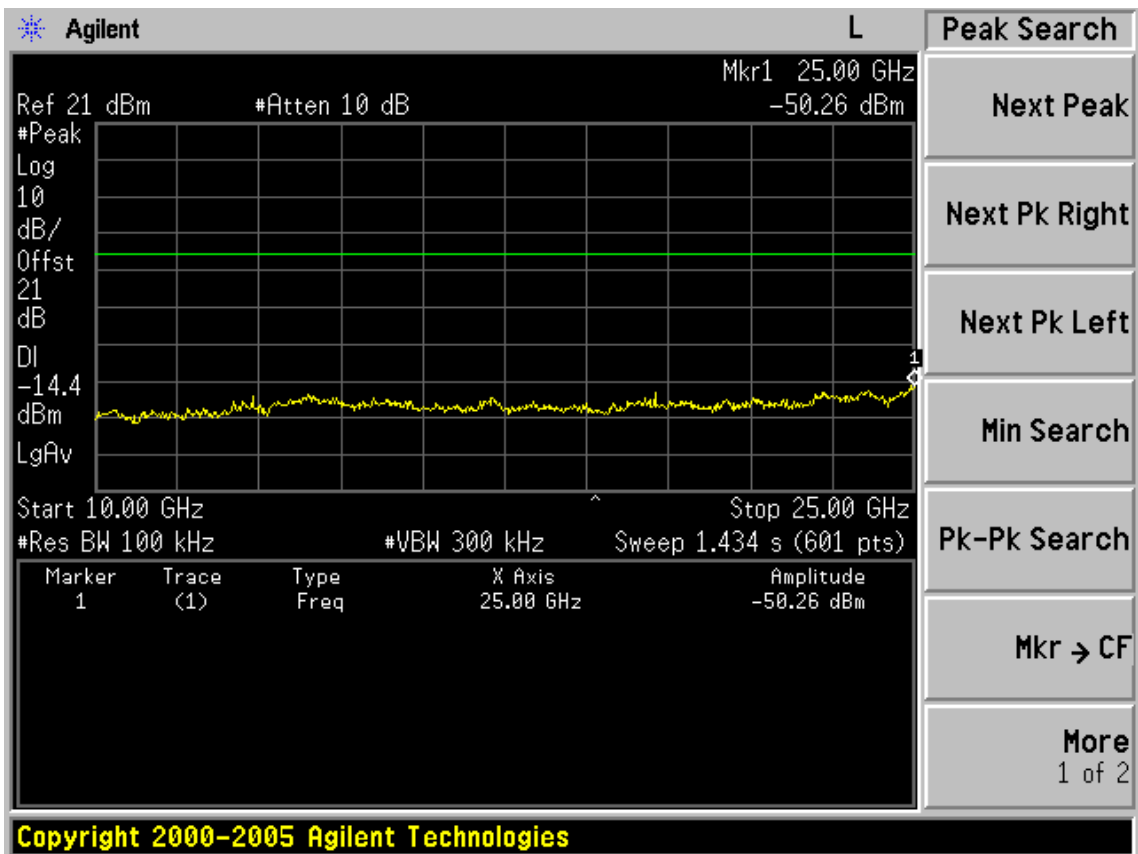
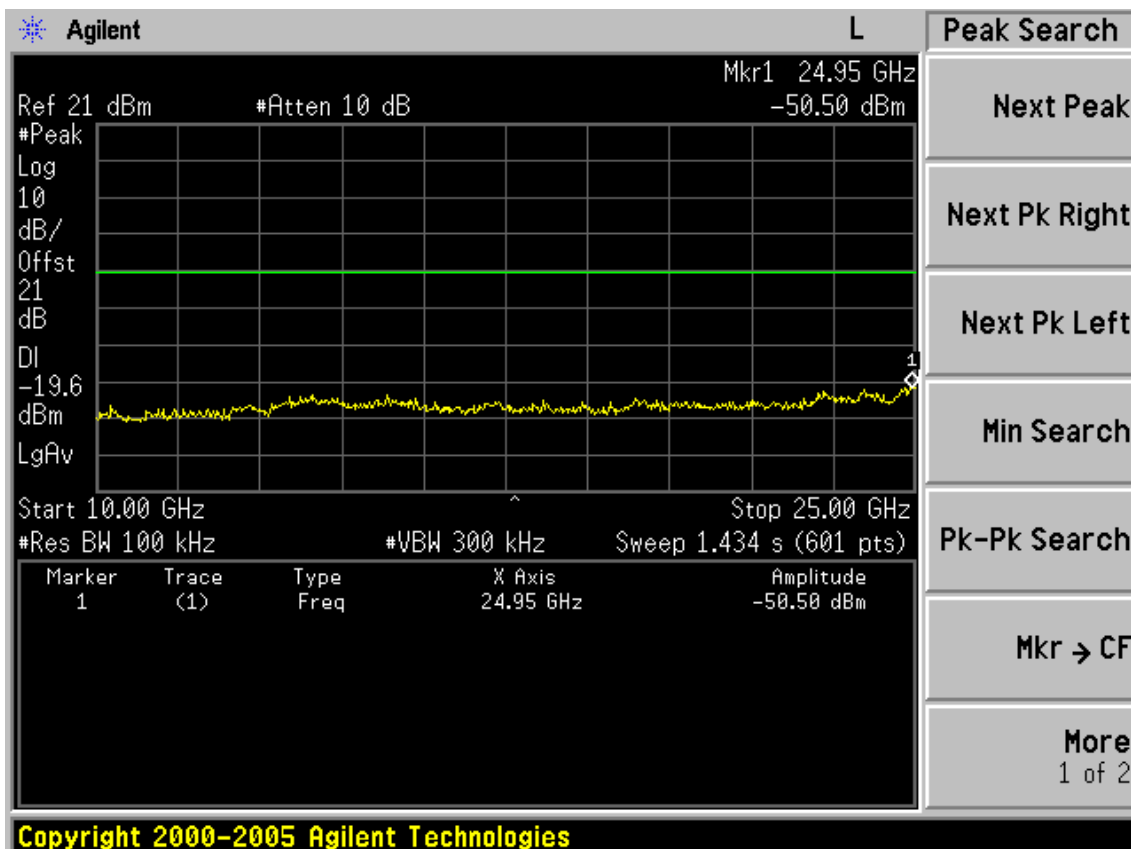
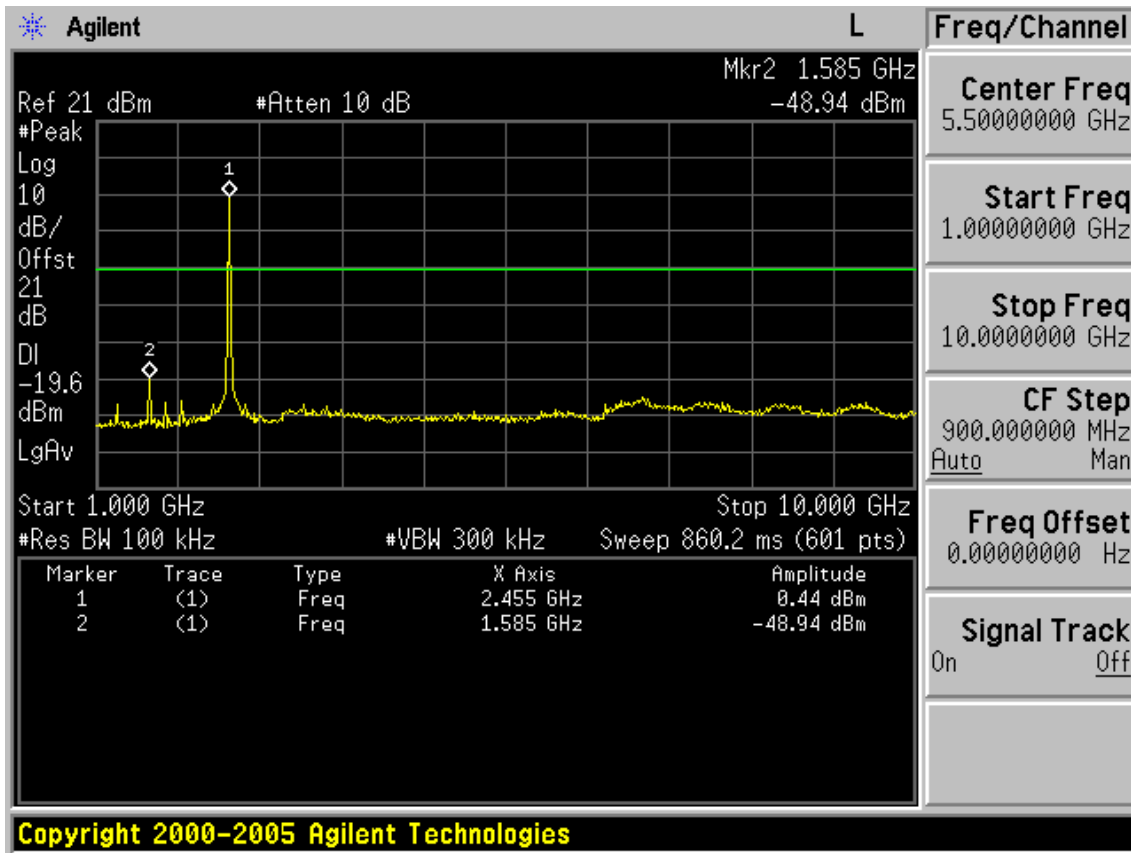


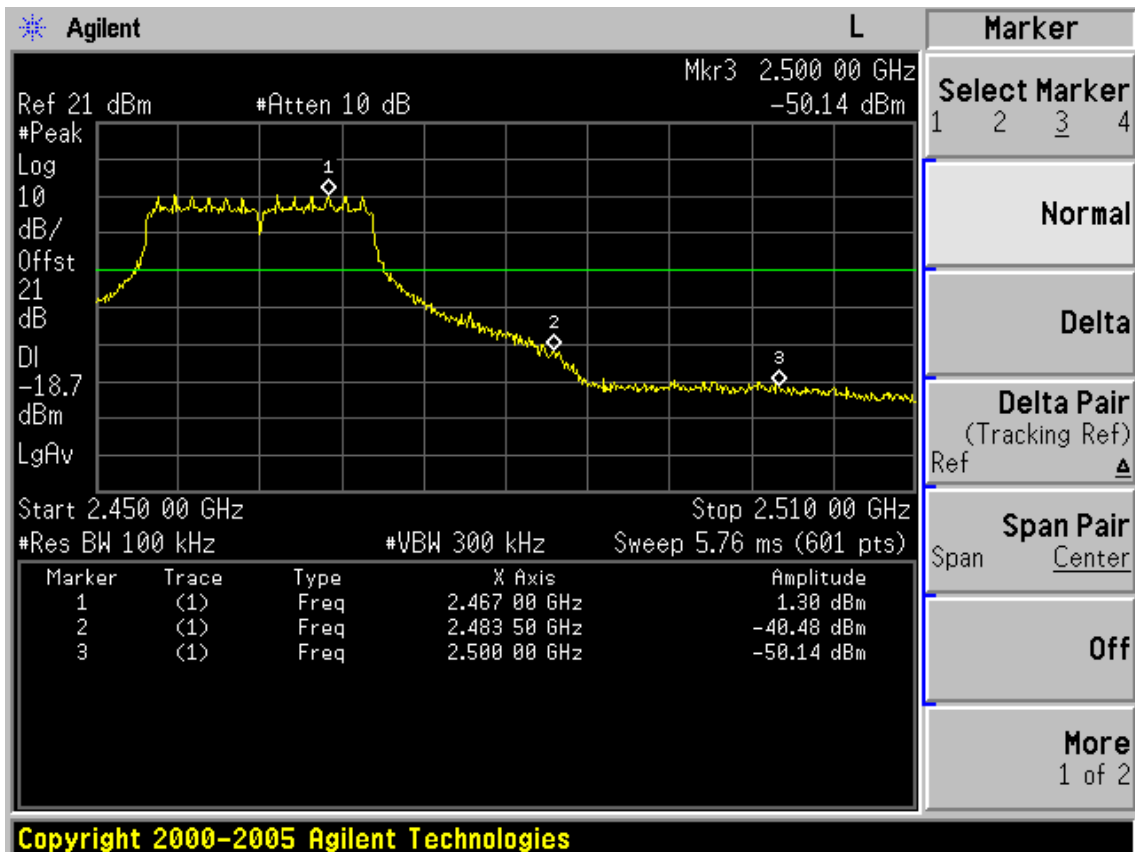
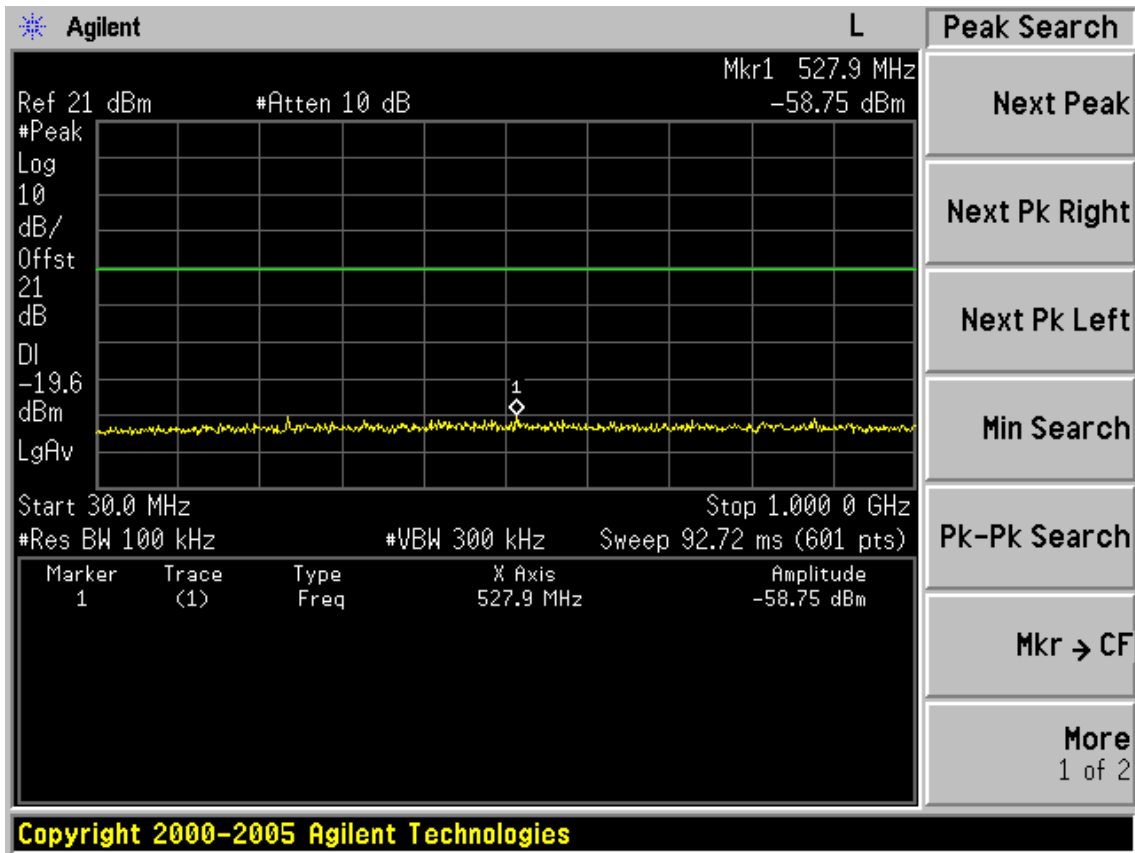
Test CH6: 2437MHz





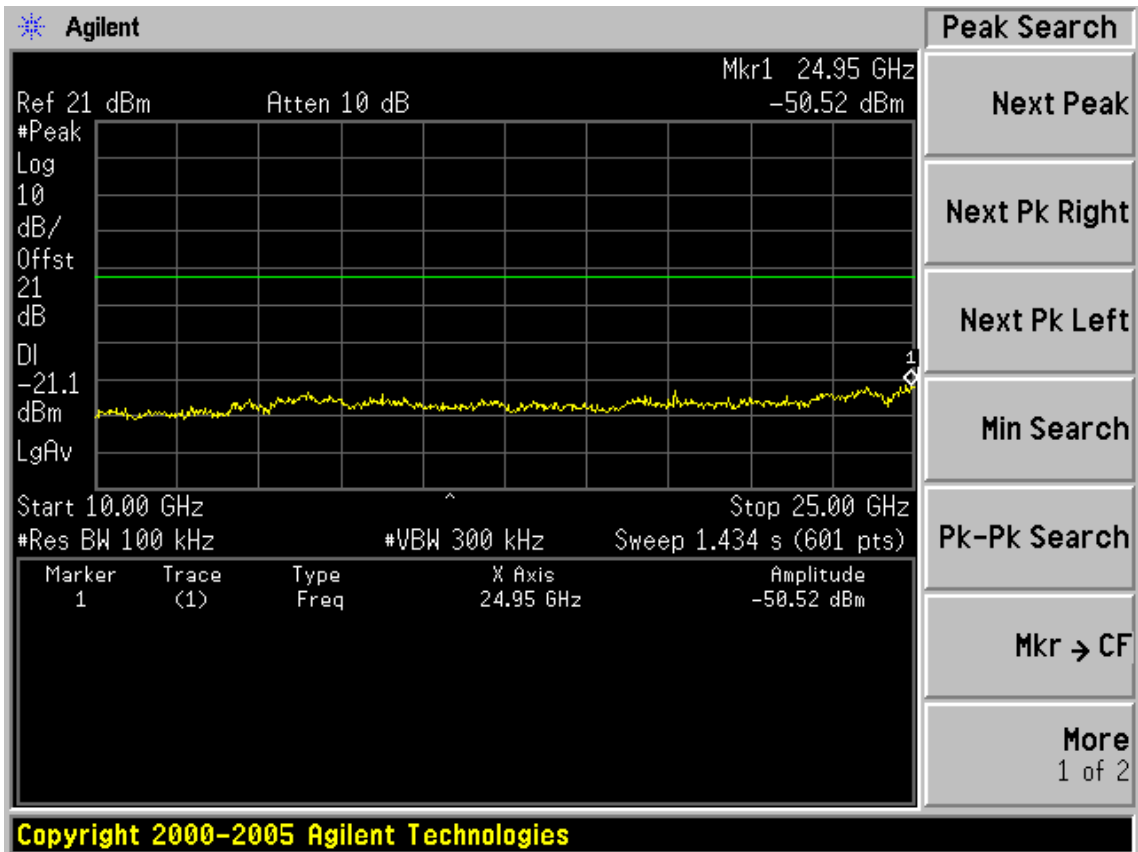
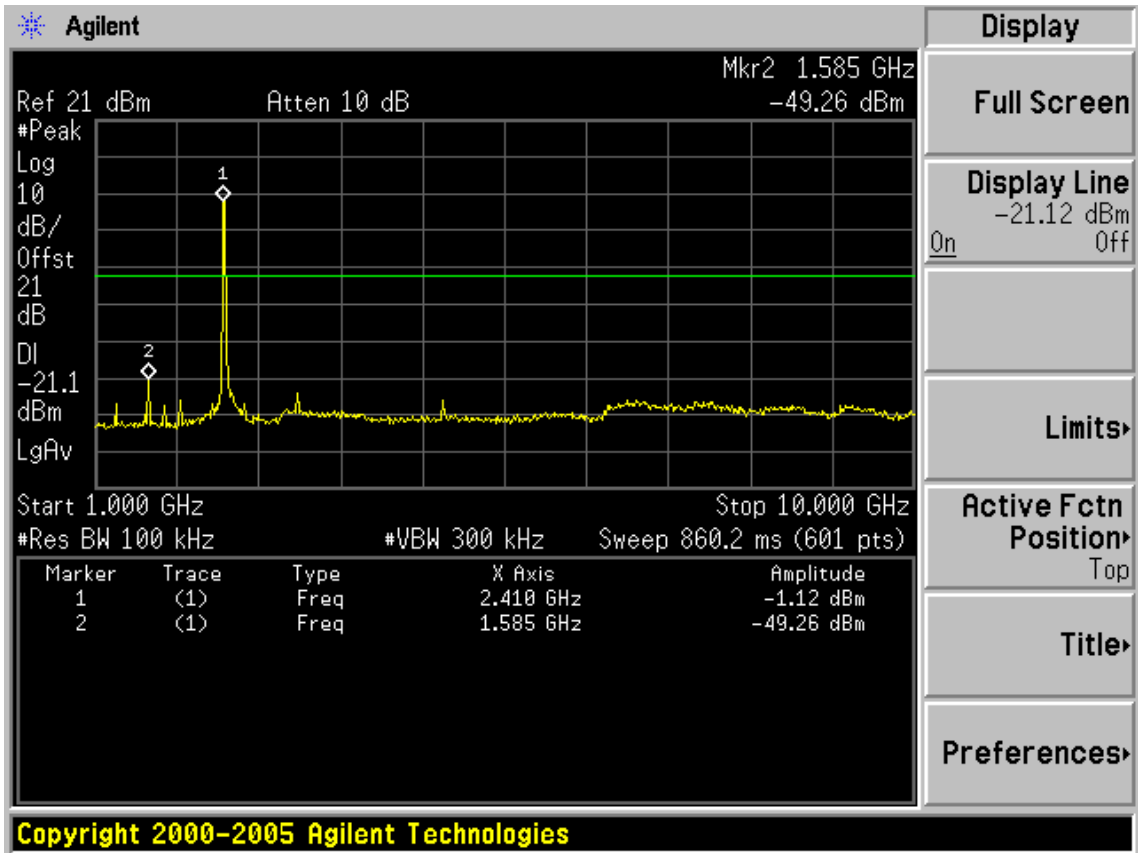
Test CH11: 2462MHz

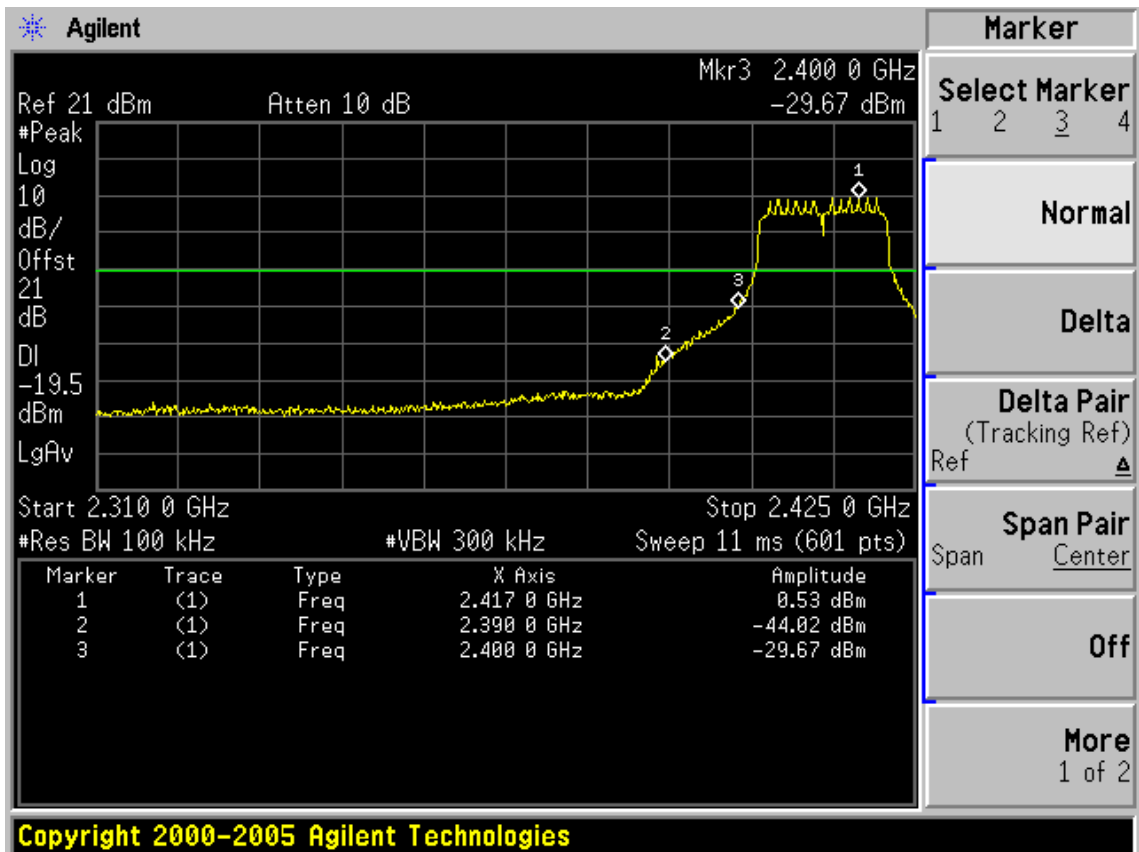
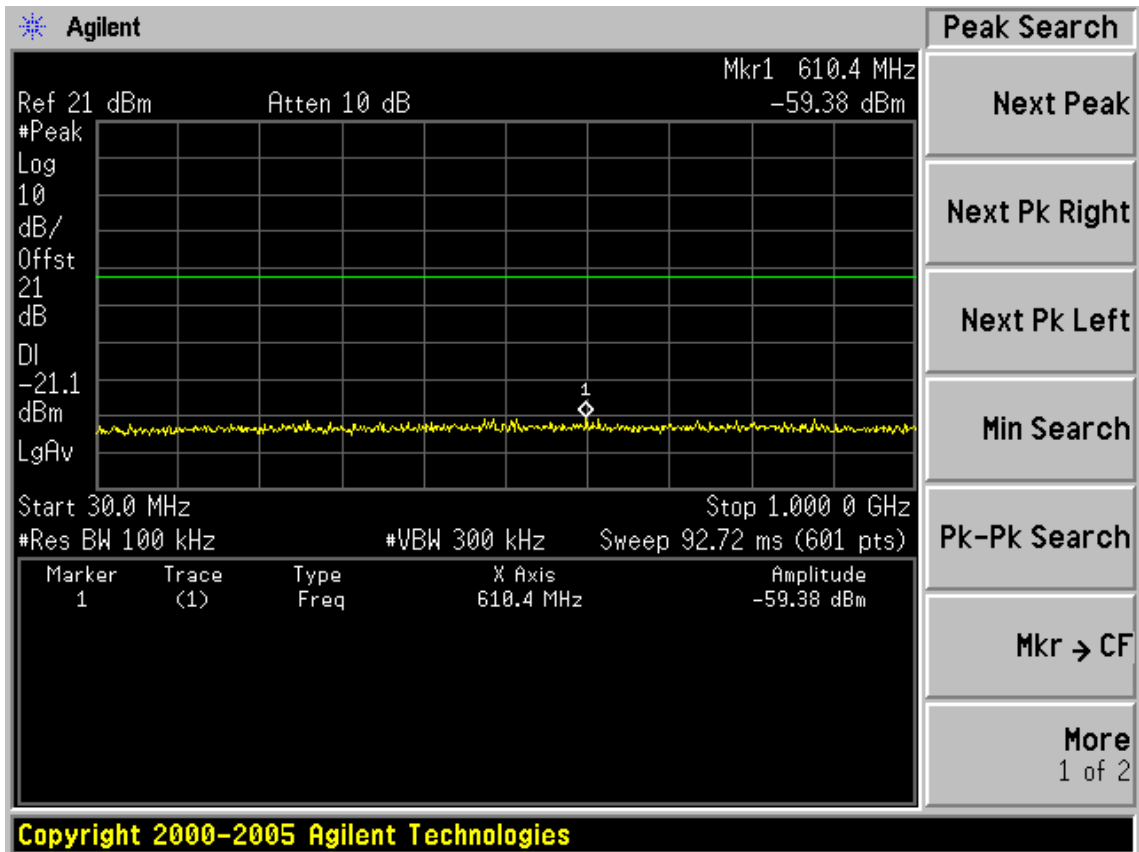




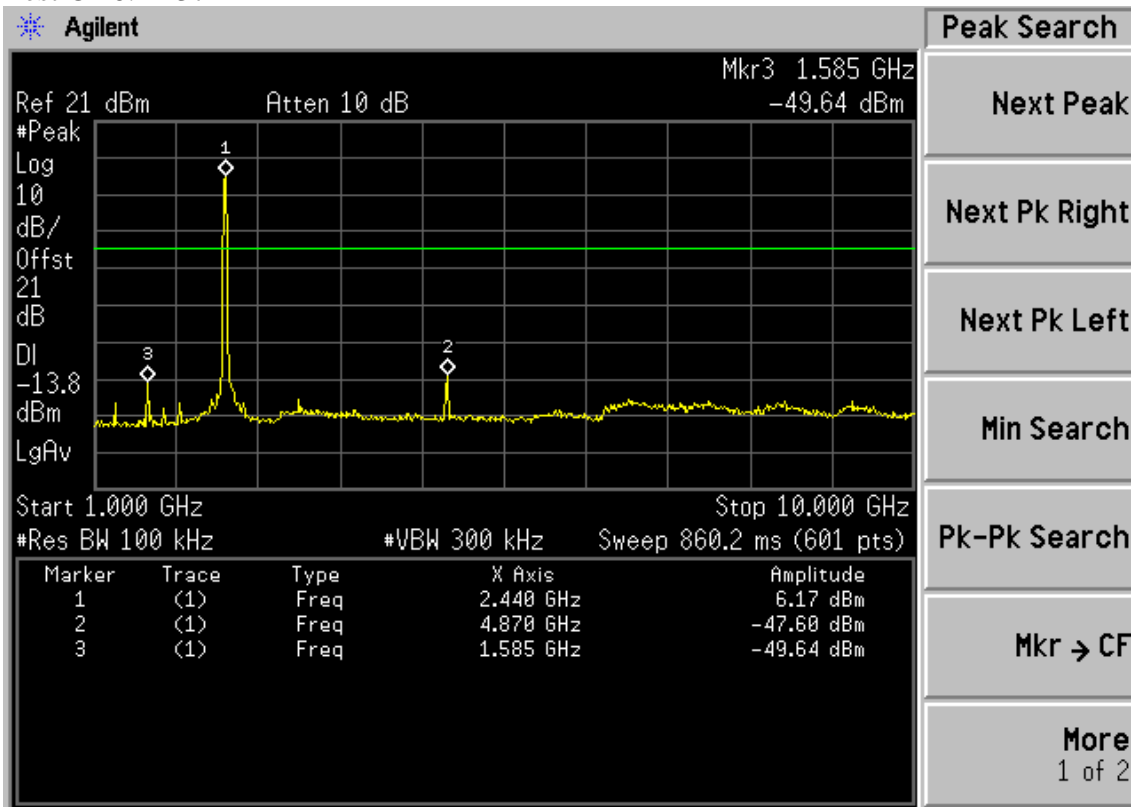
Test Mode: IEEE 802.11n HT20 TX

Test CH1: 2412

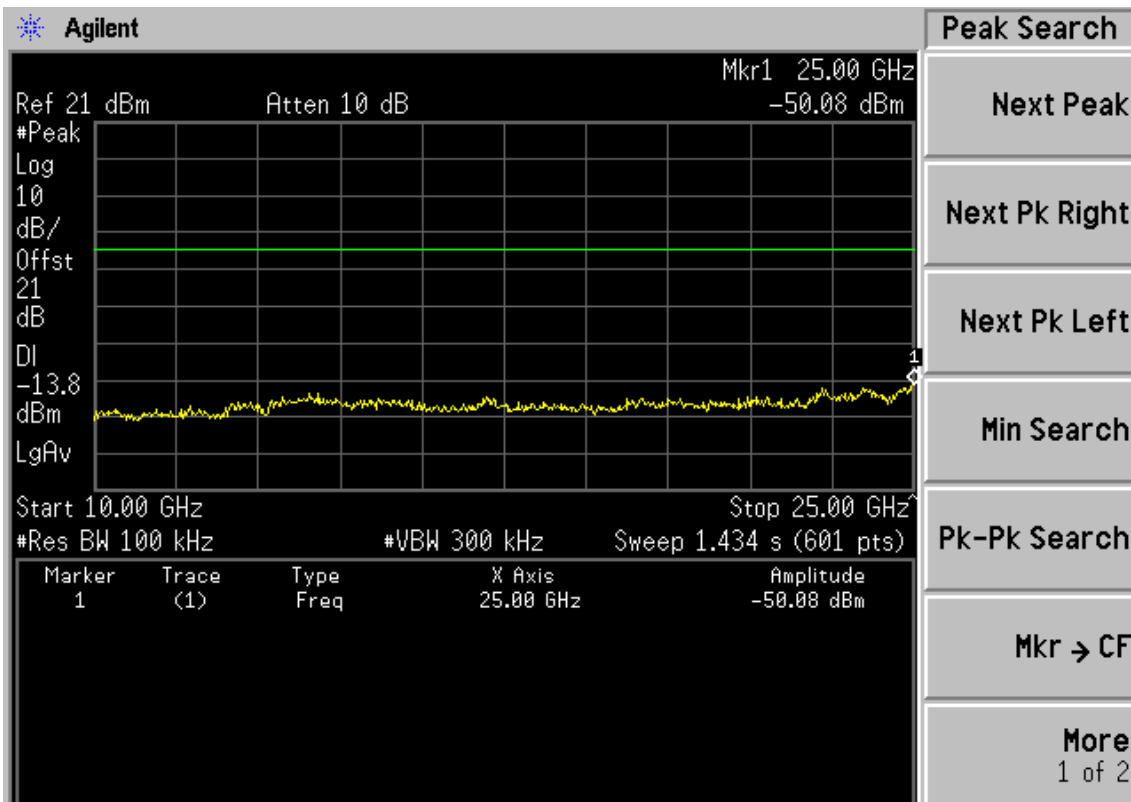




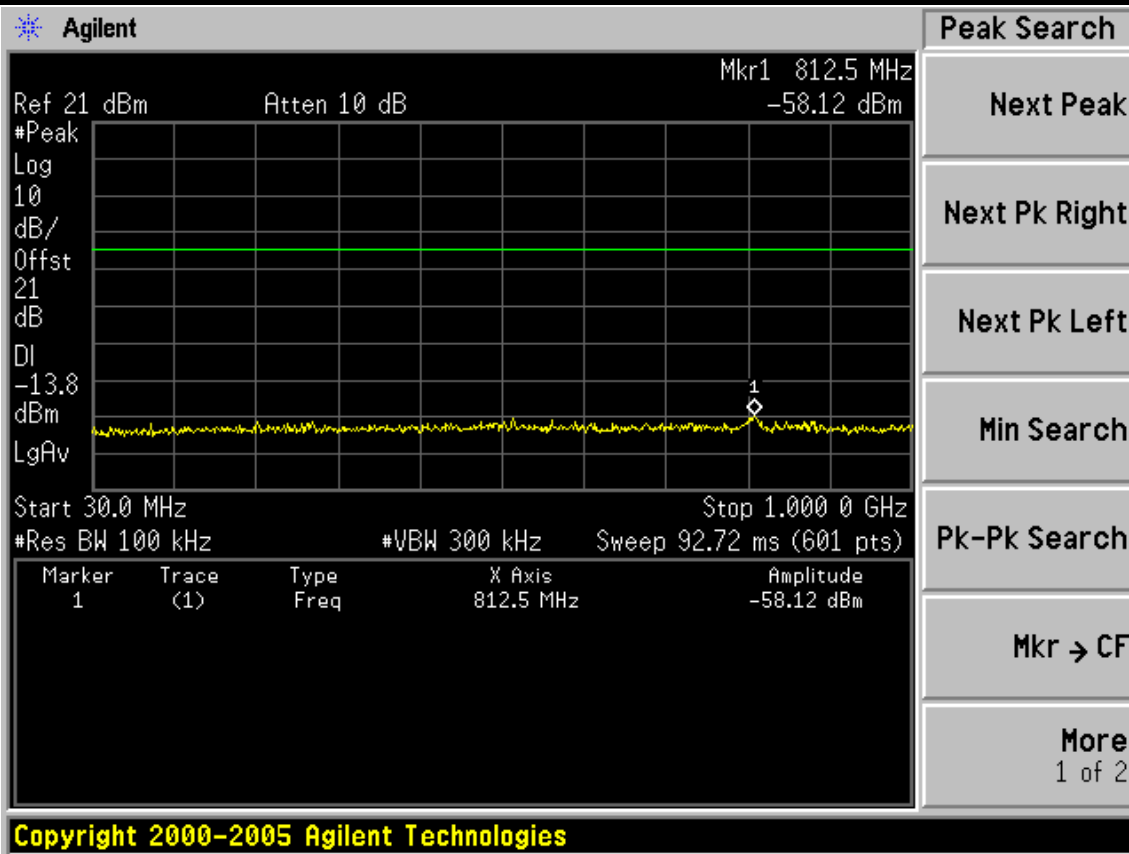
Test CH6: 2437MHz



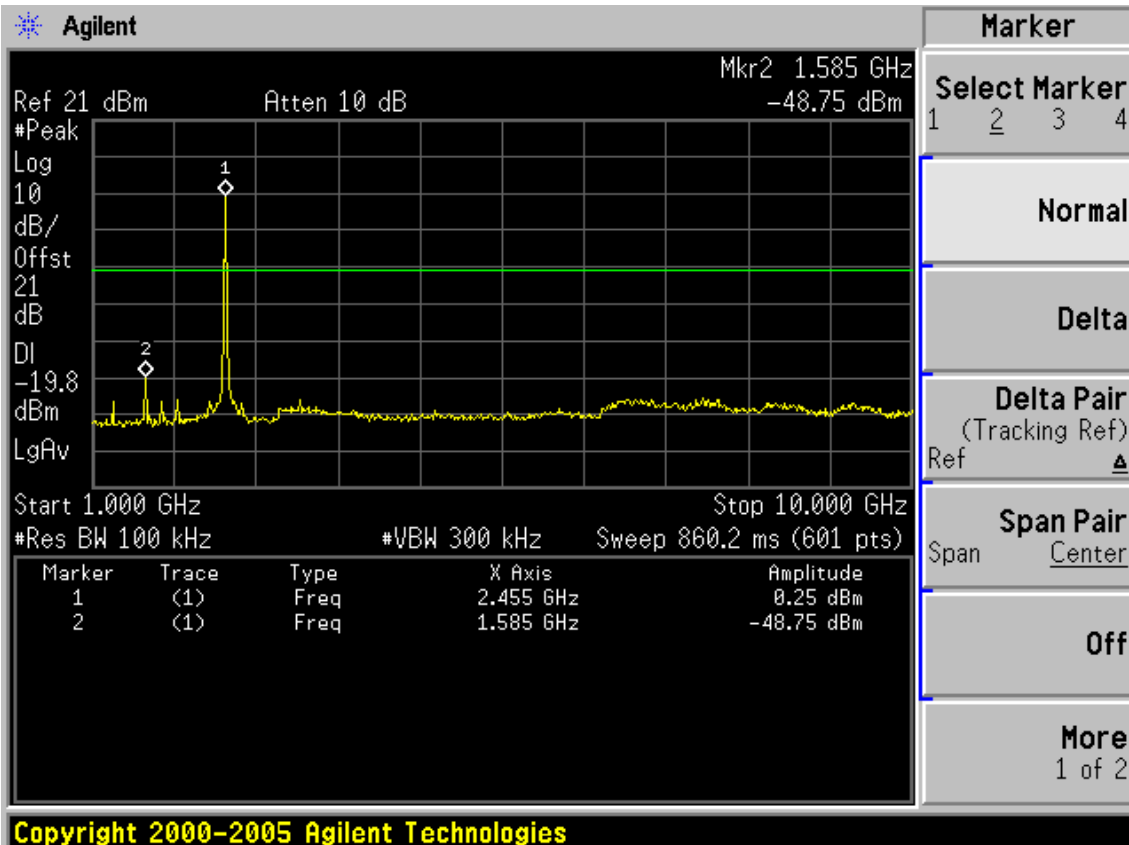
Copyright 2000-2005 Agilent Technologies

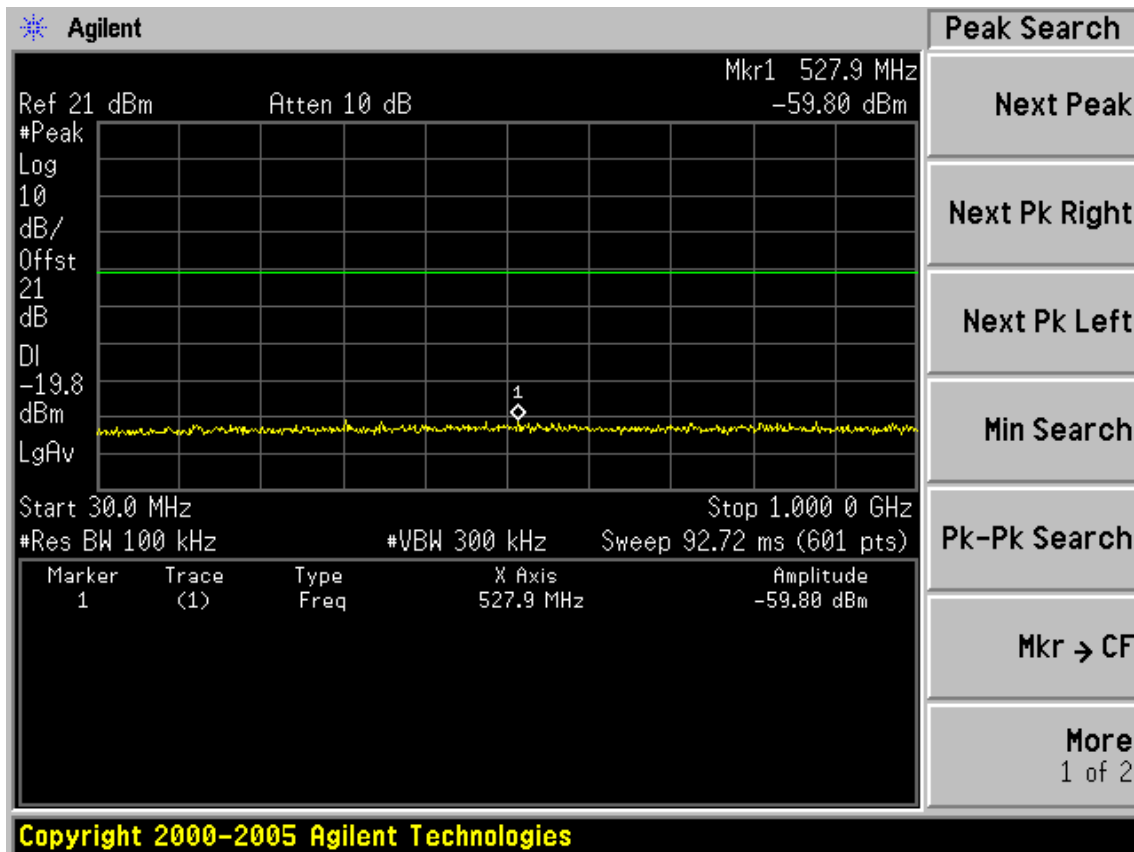
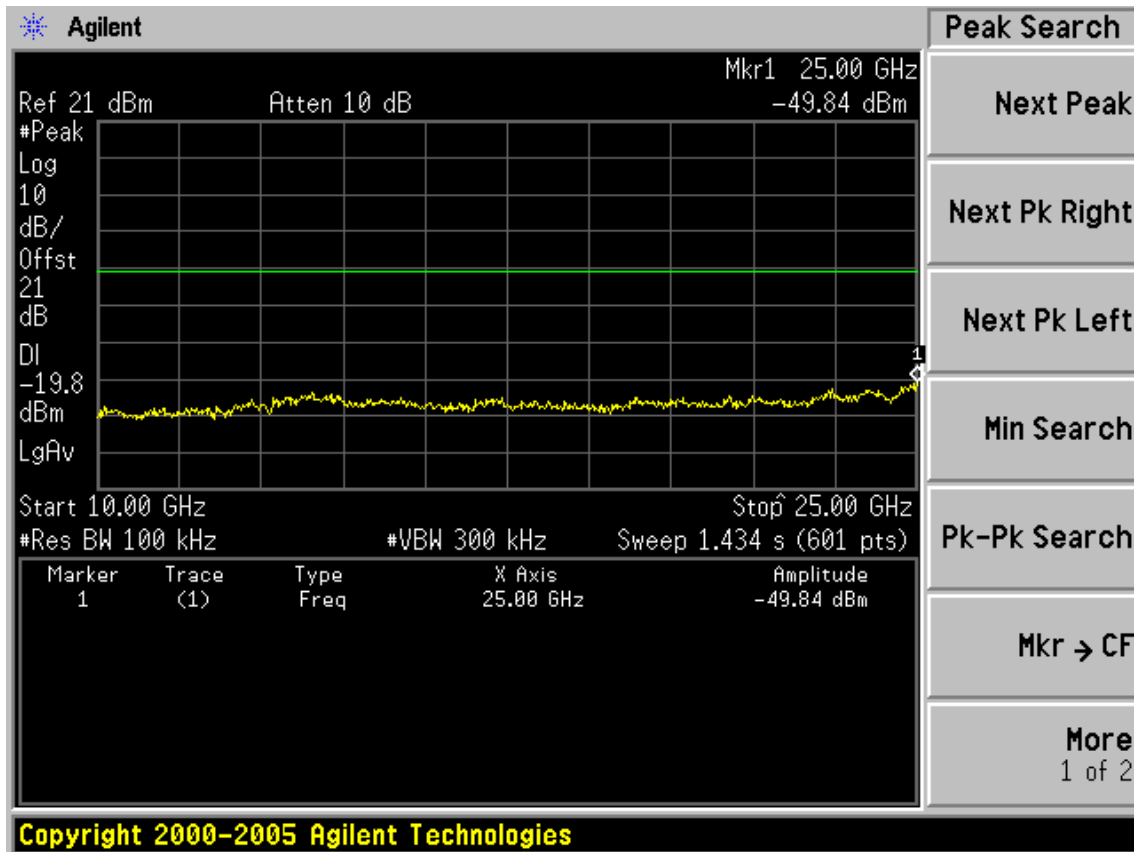


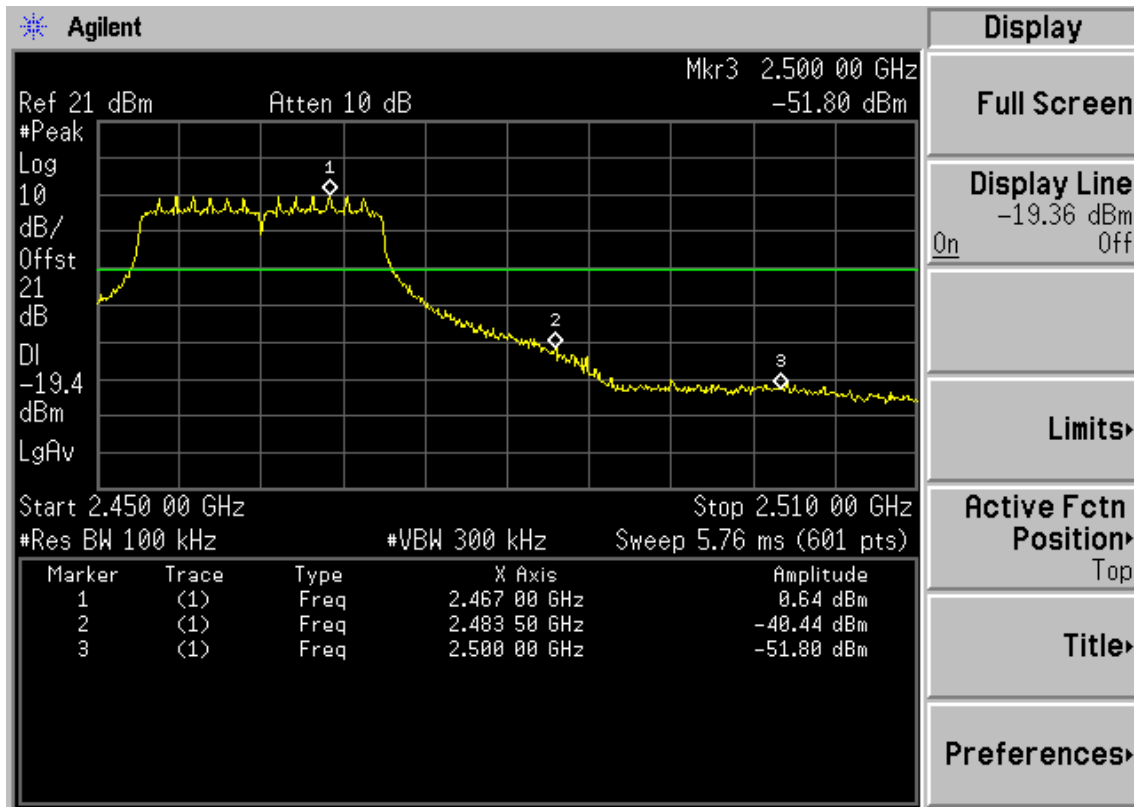
Copyright 2000-2005 Agilent Technologies



Test CH11: 2462MHz



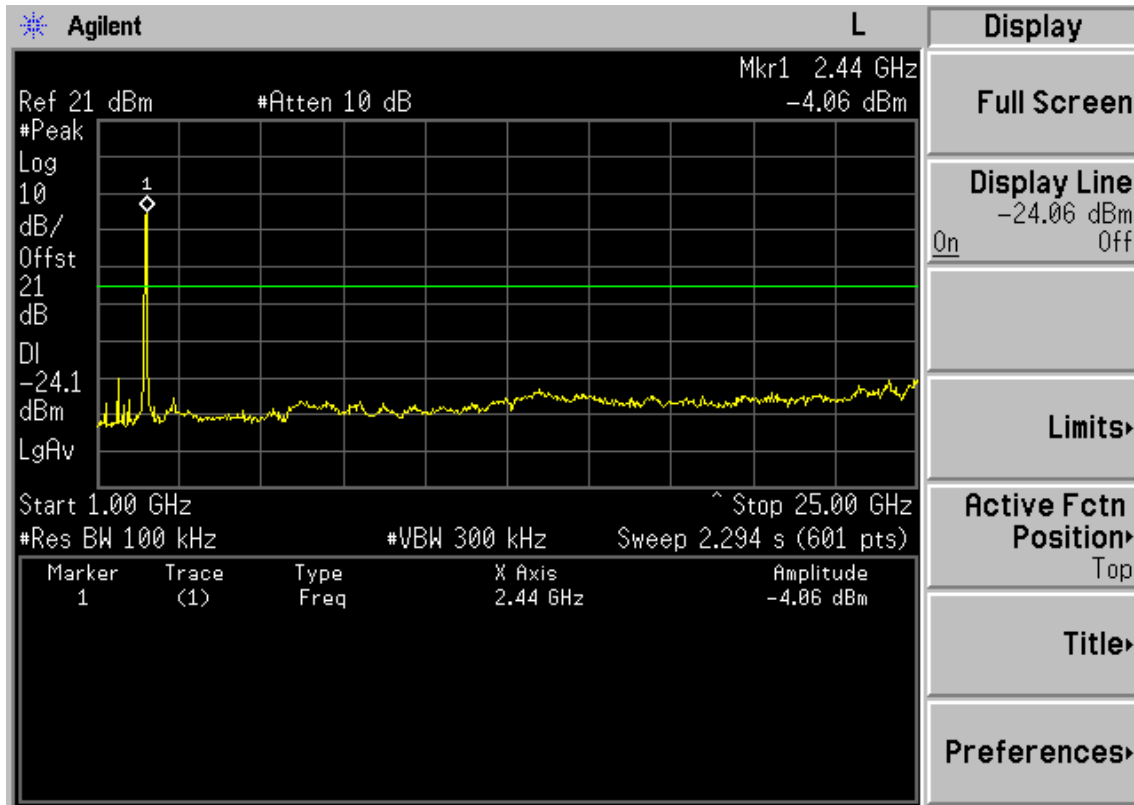




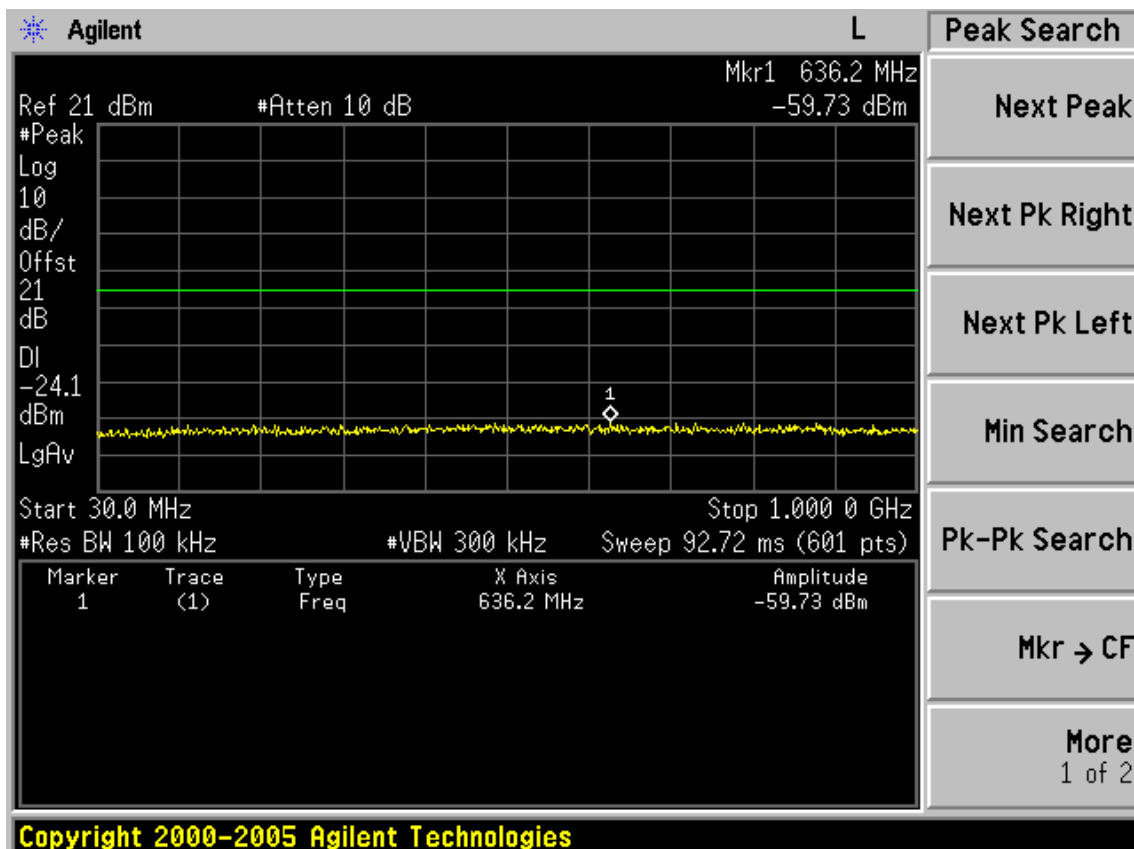
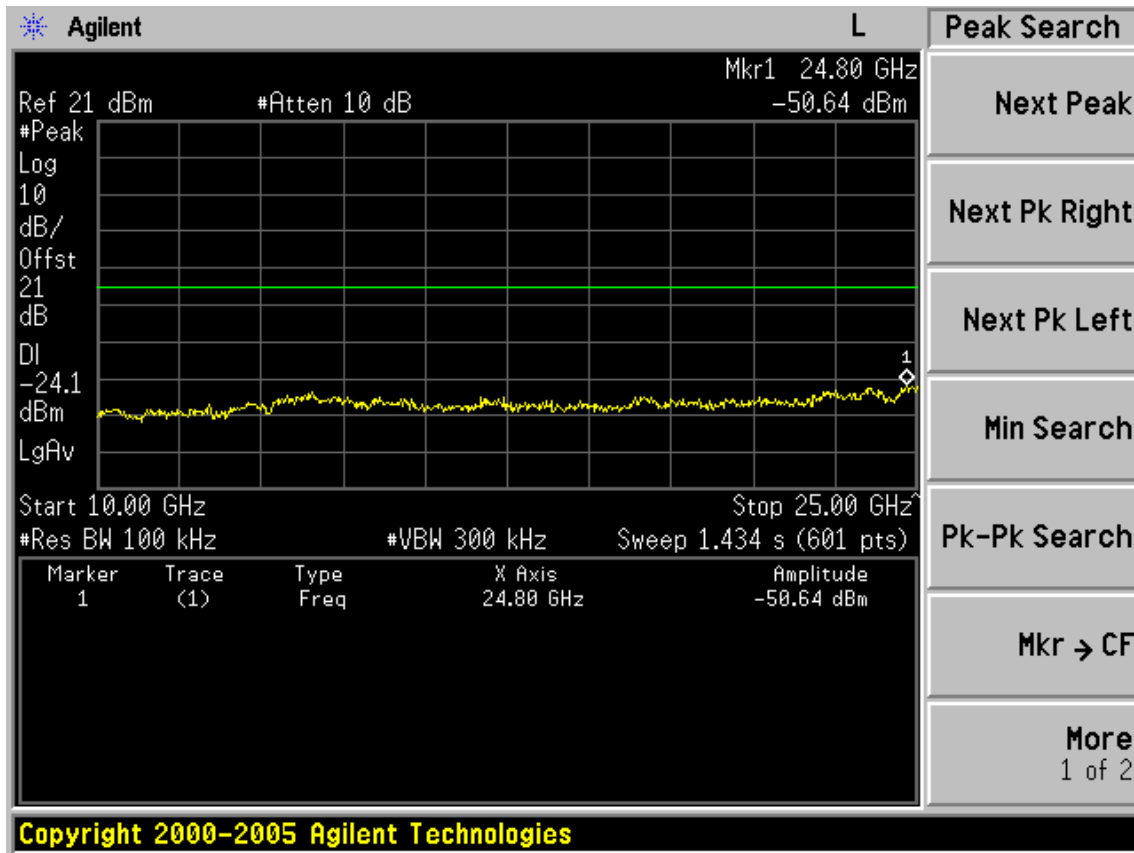
Copyright 2000-2005 Agilent Technologies

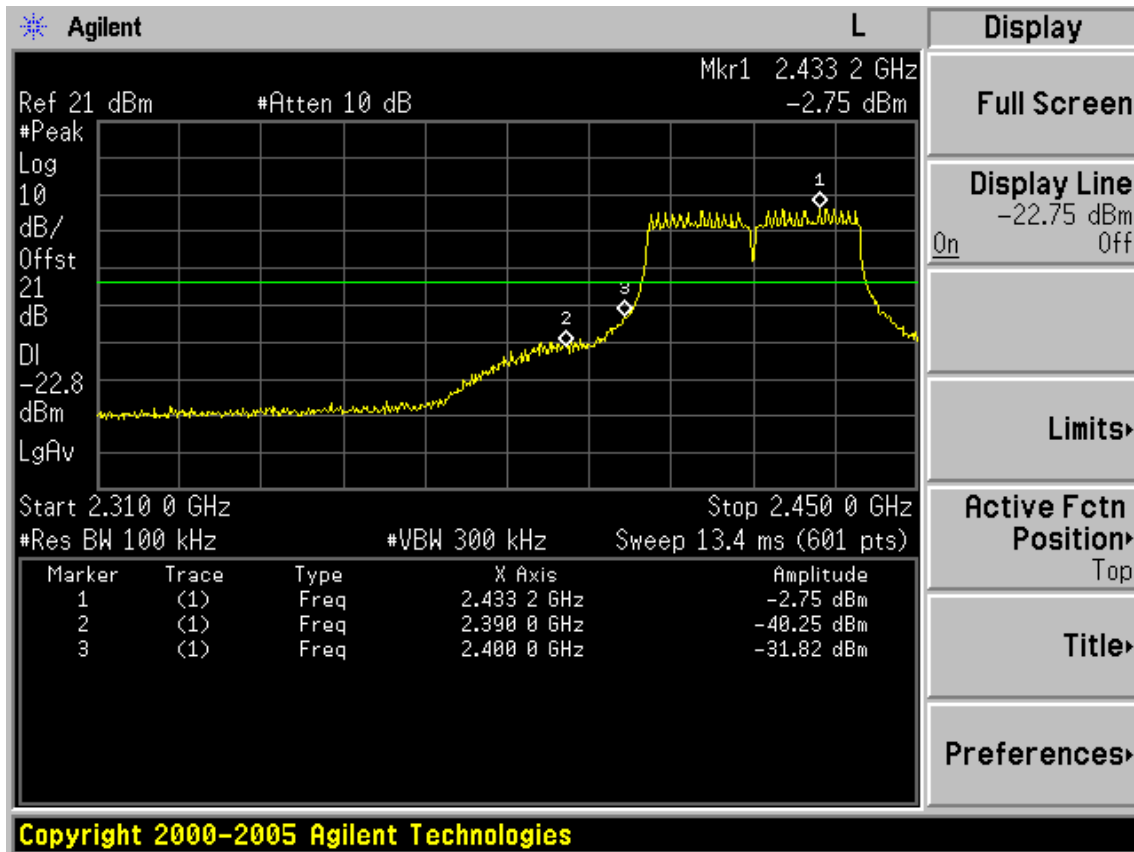
Test Mode: IEEE 802.11n HT40 TX

Test CH1: 2422MHz

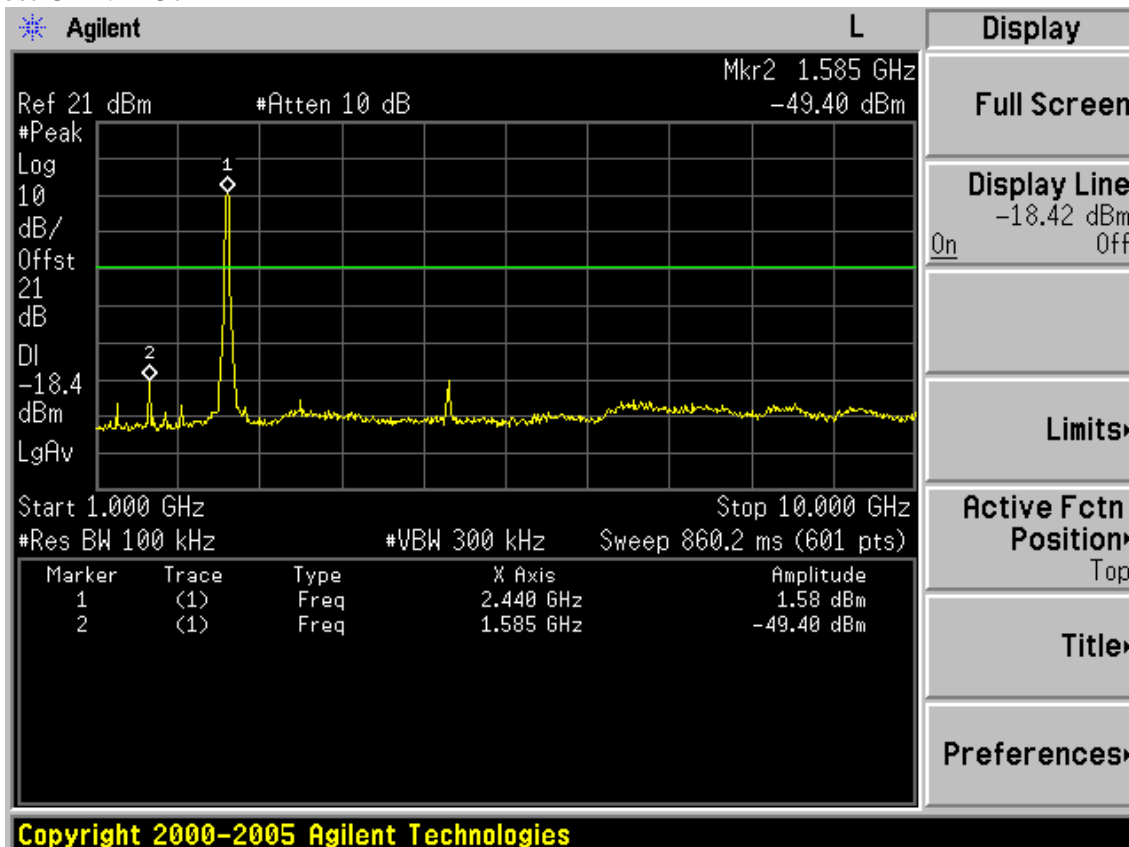


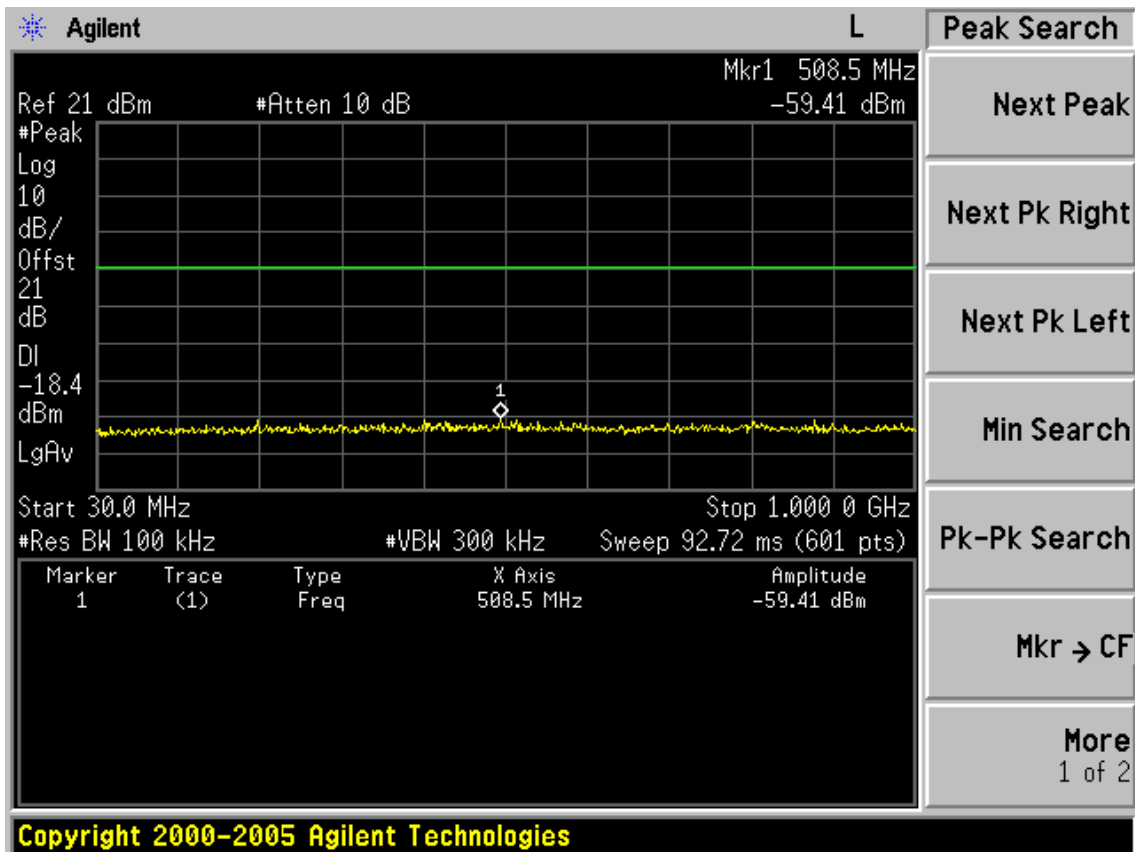
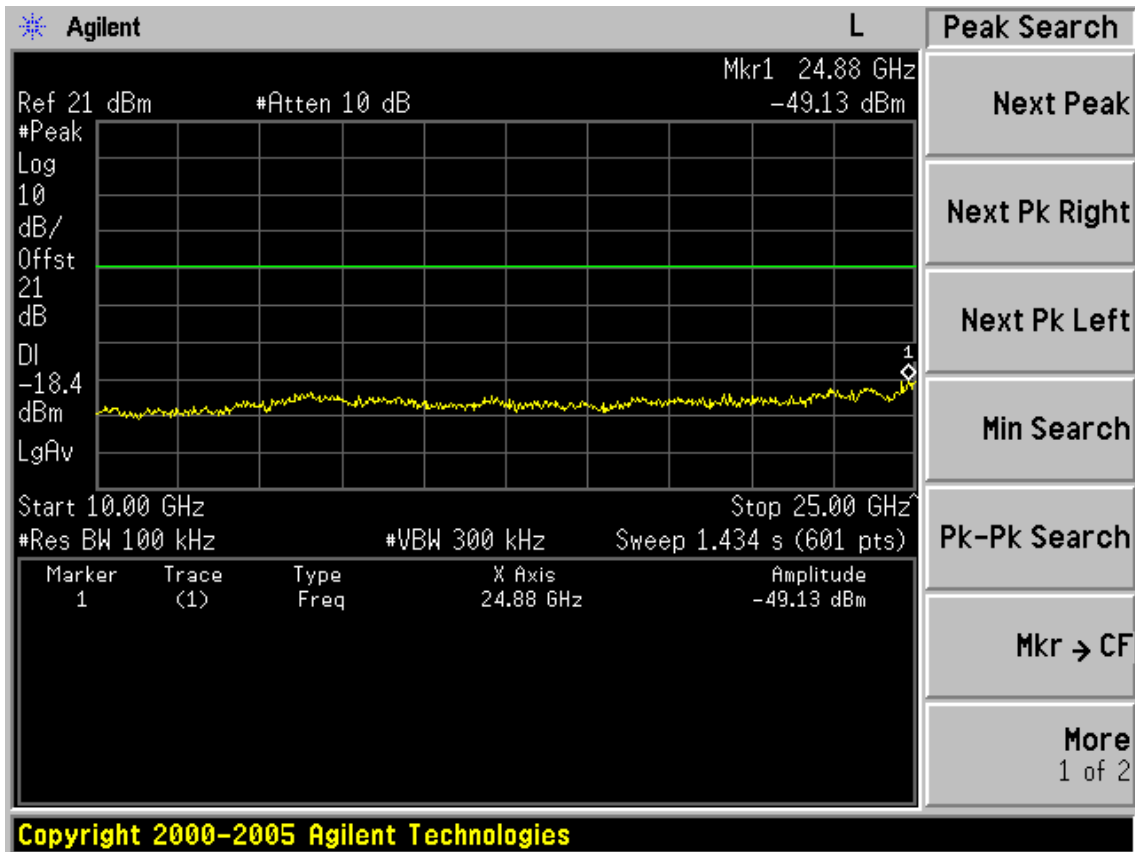
Copyright 2000-2005 Agilent Technologies



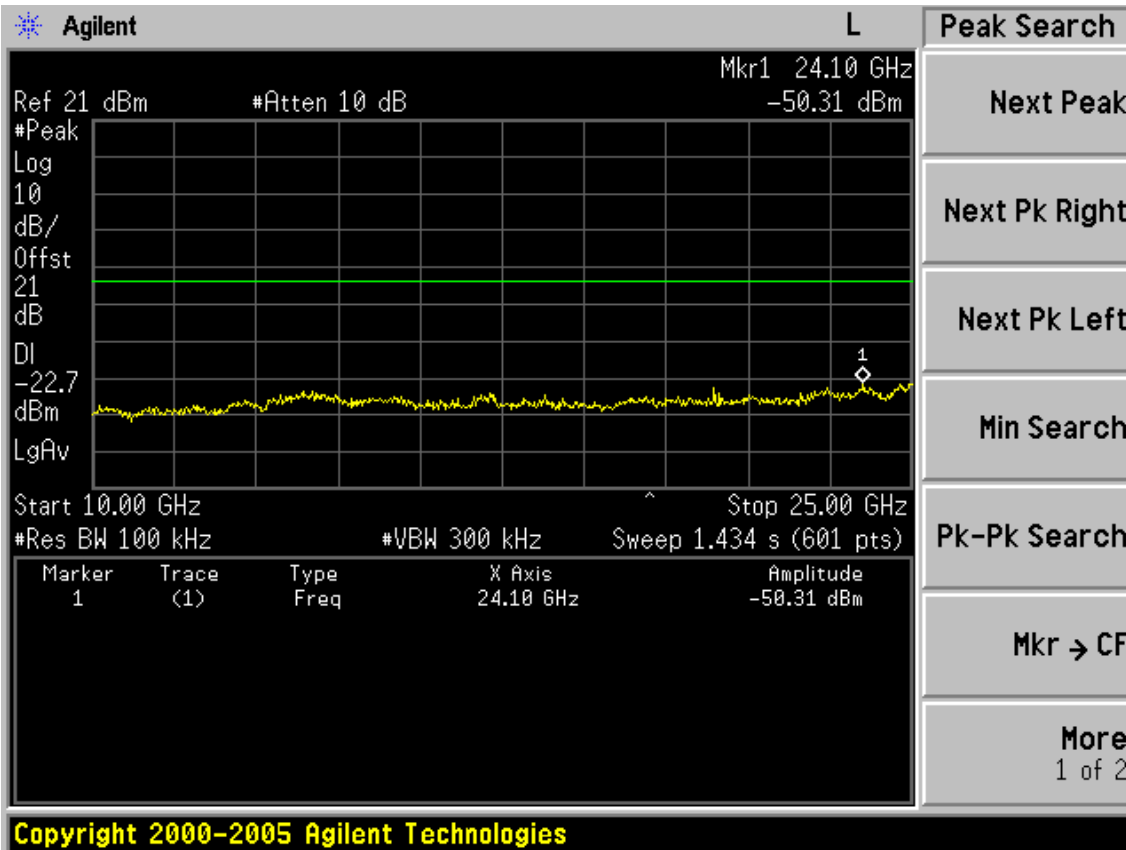
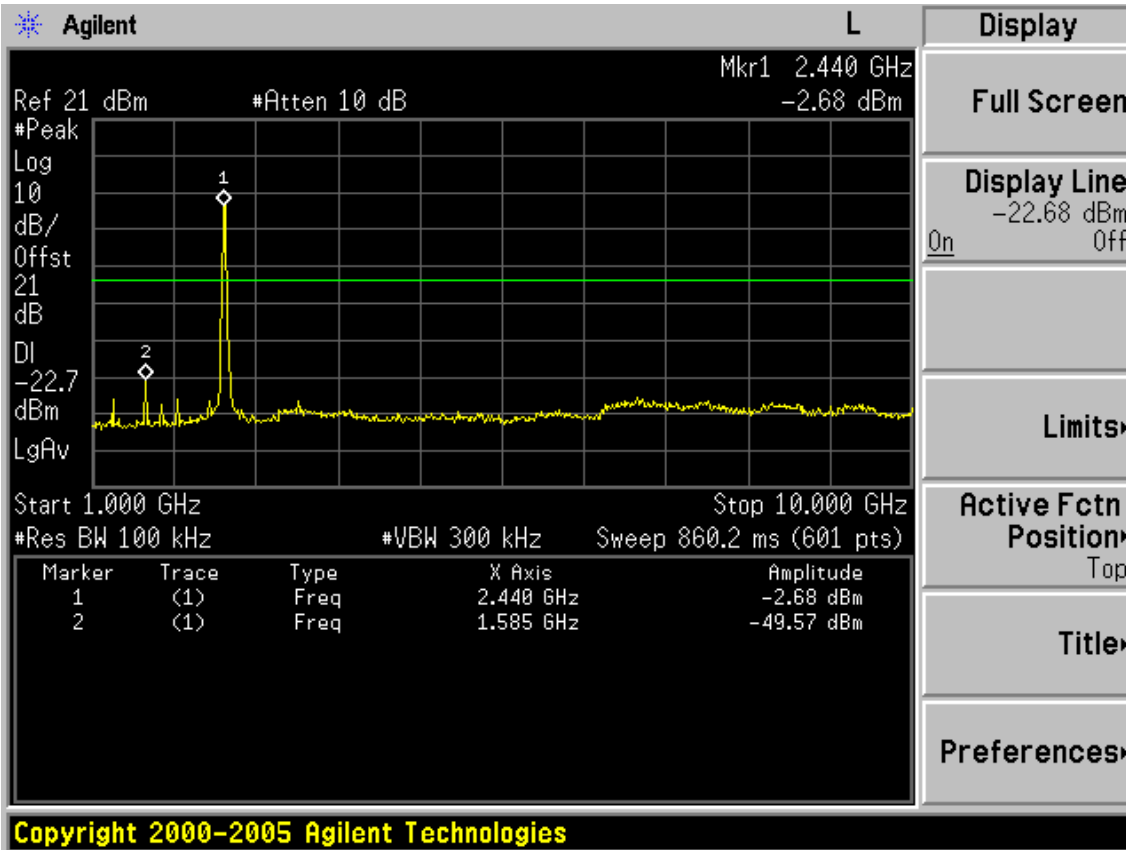


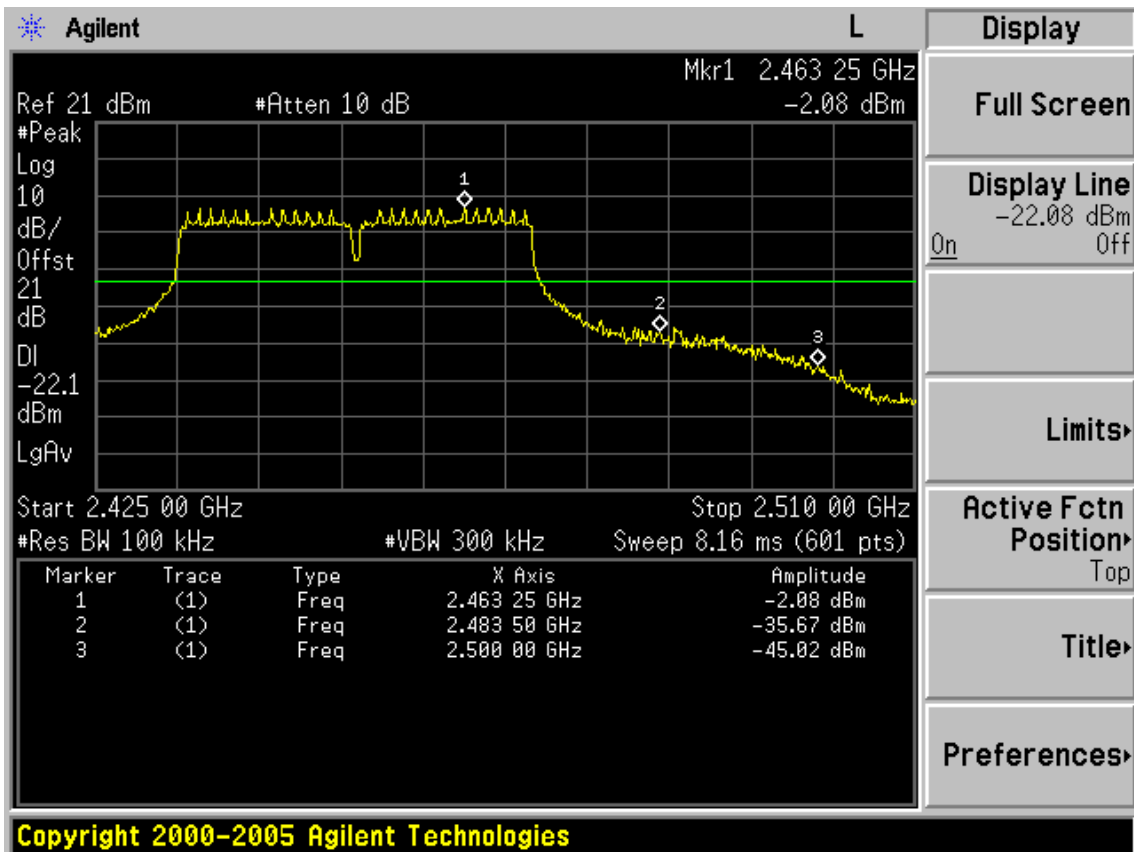
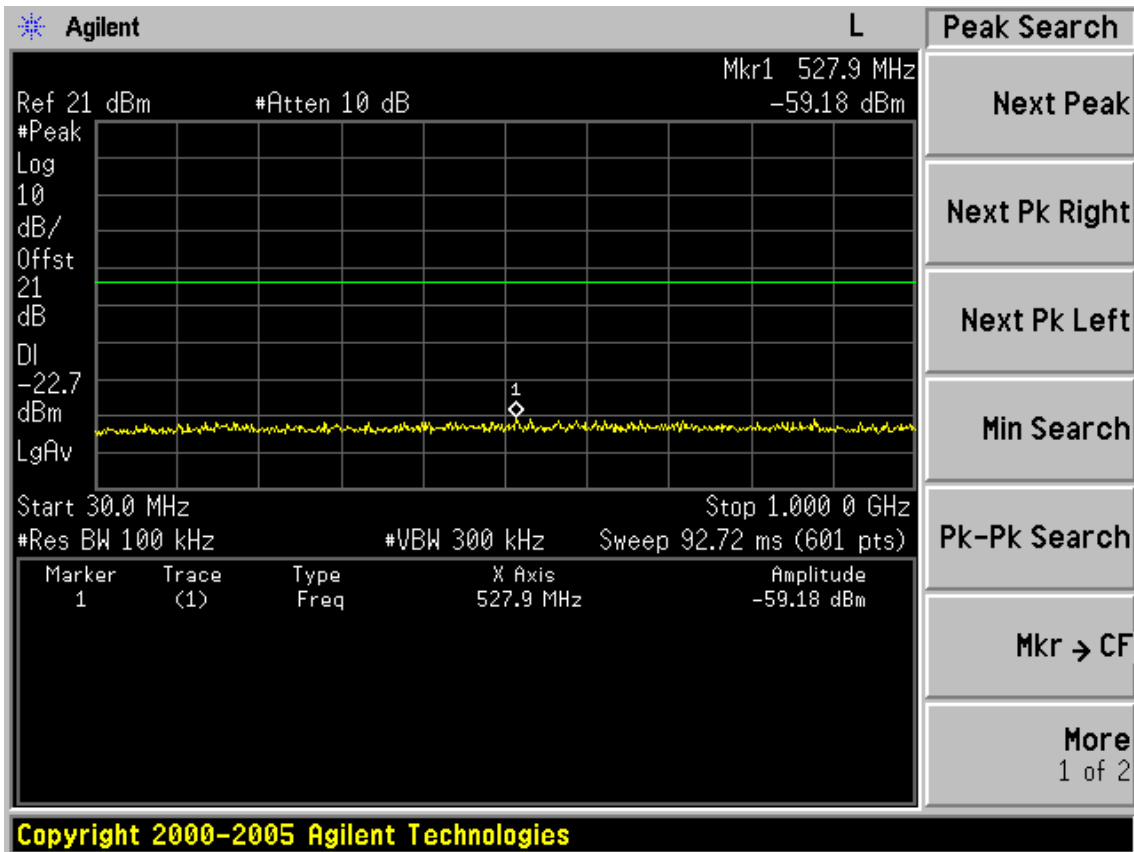
Test CH4: 2437MHz





Test CH7: 2452MHz

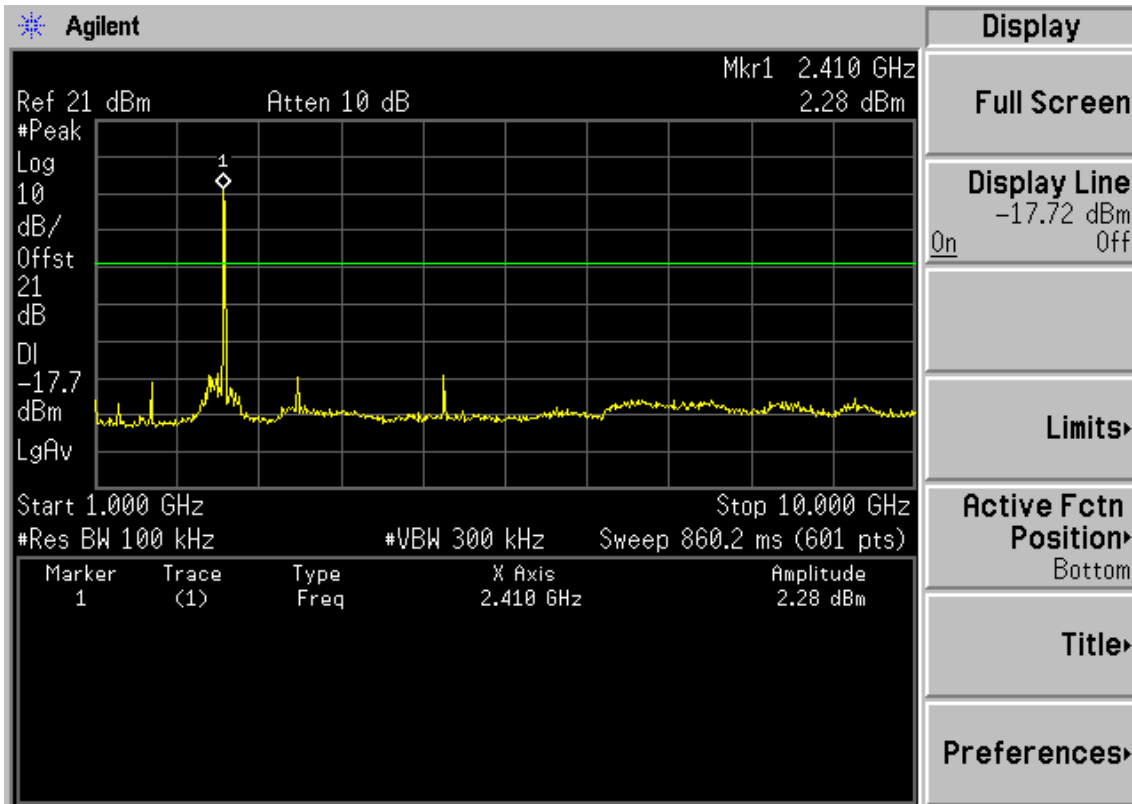




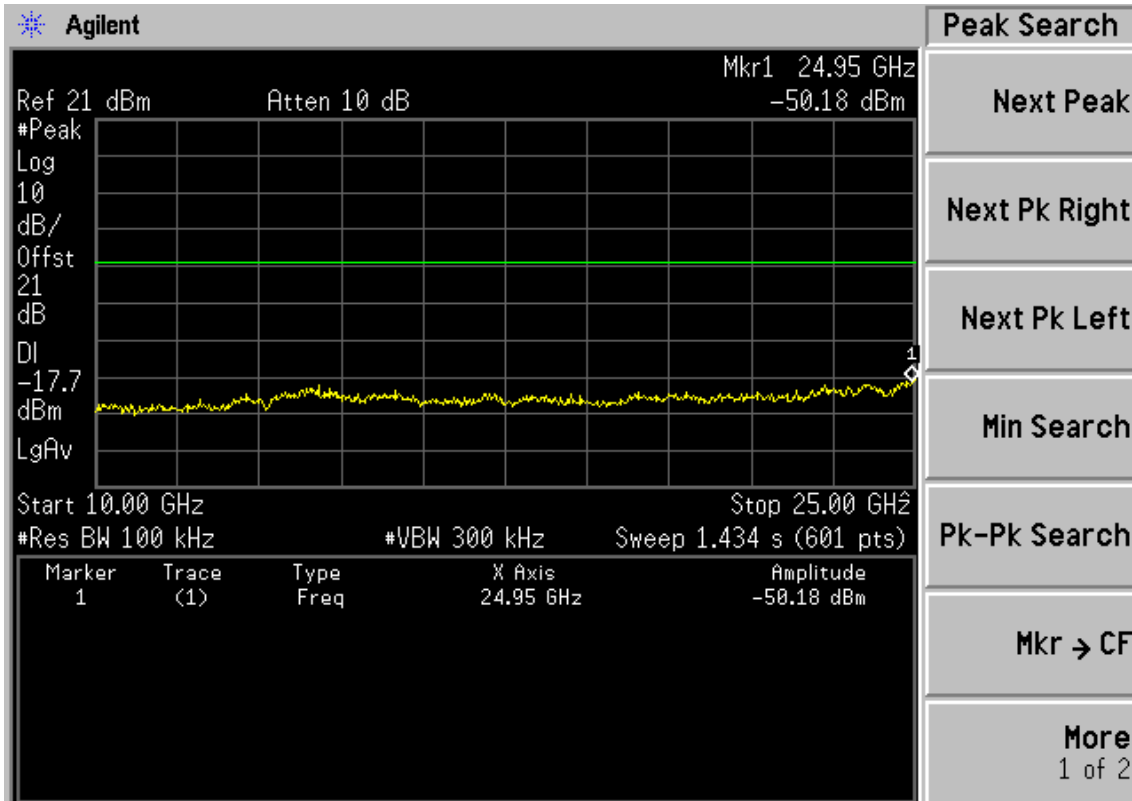
ANT 2

Test Mode: IEEE 802.11b TX

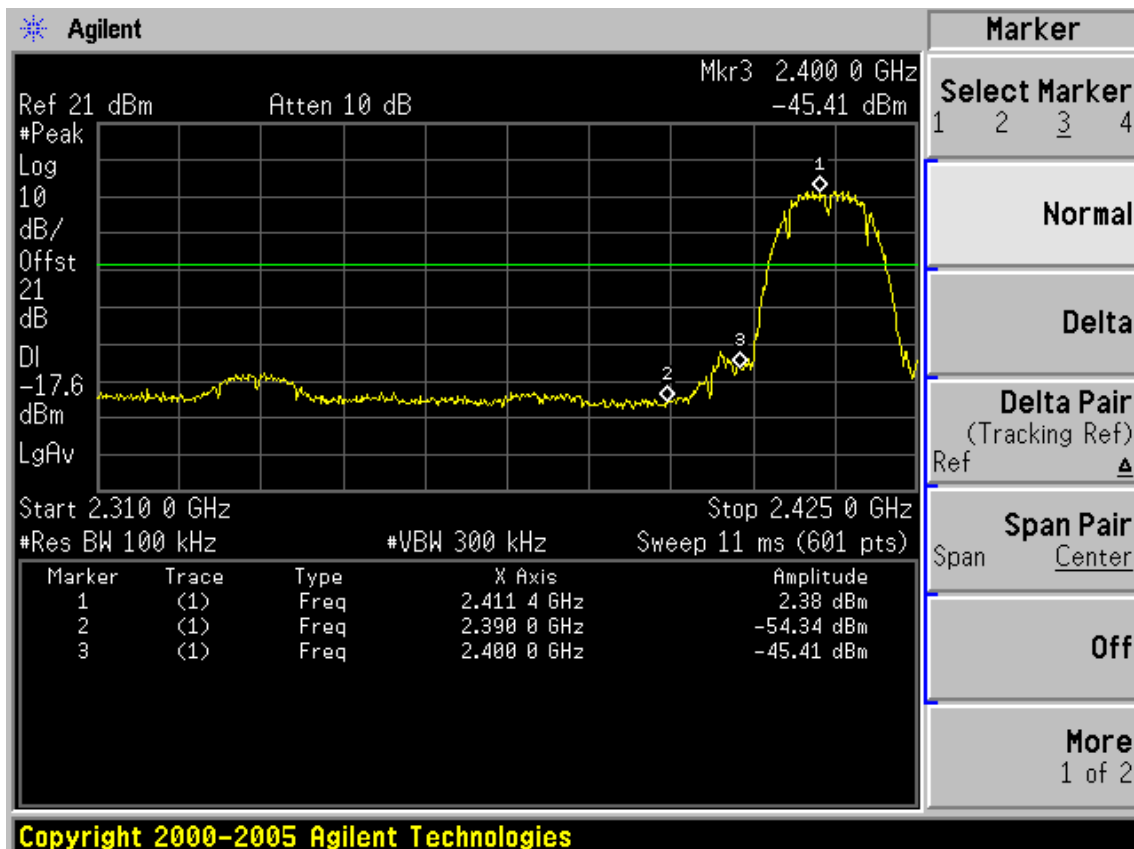
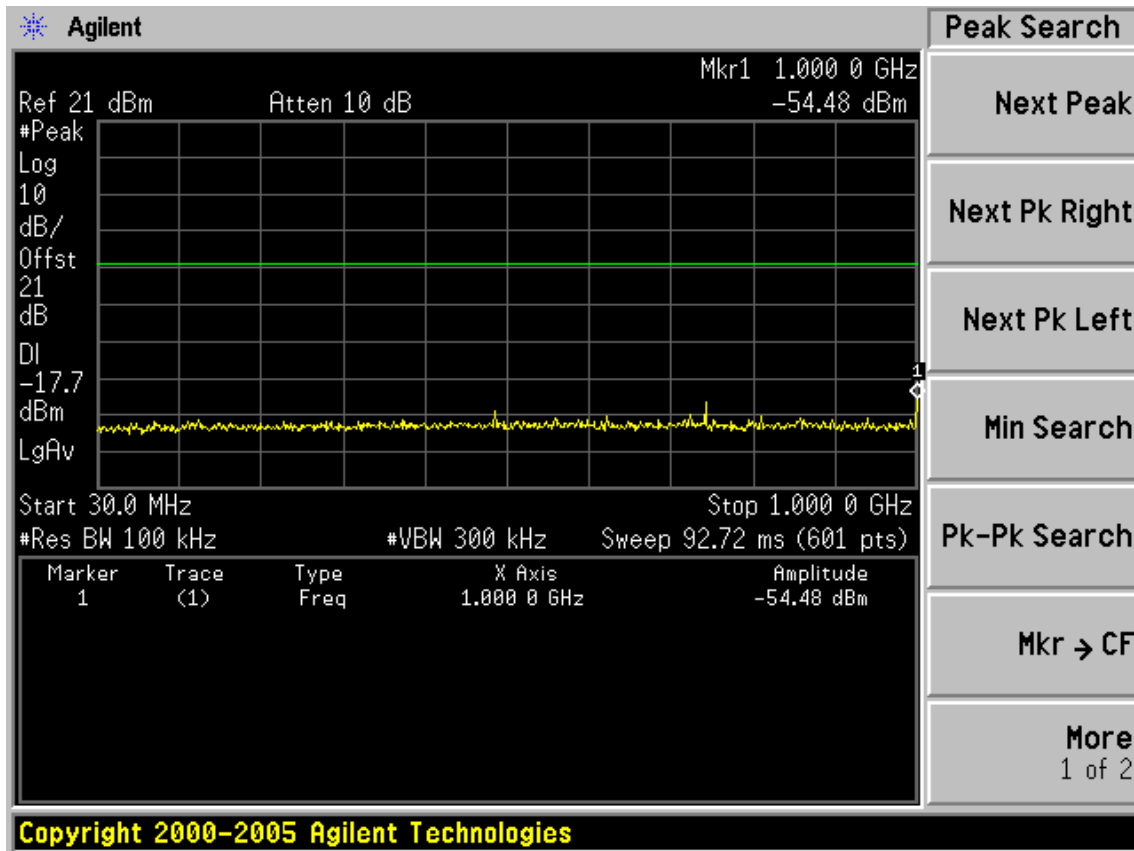
Test CH1: 2412MHz

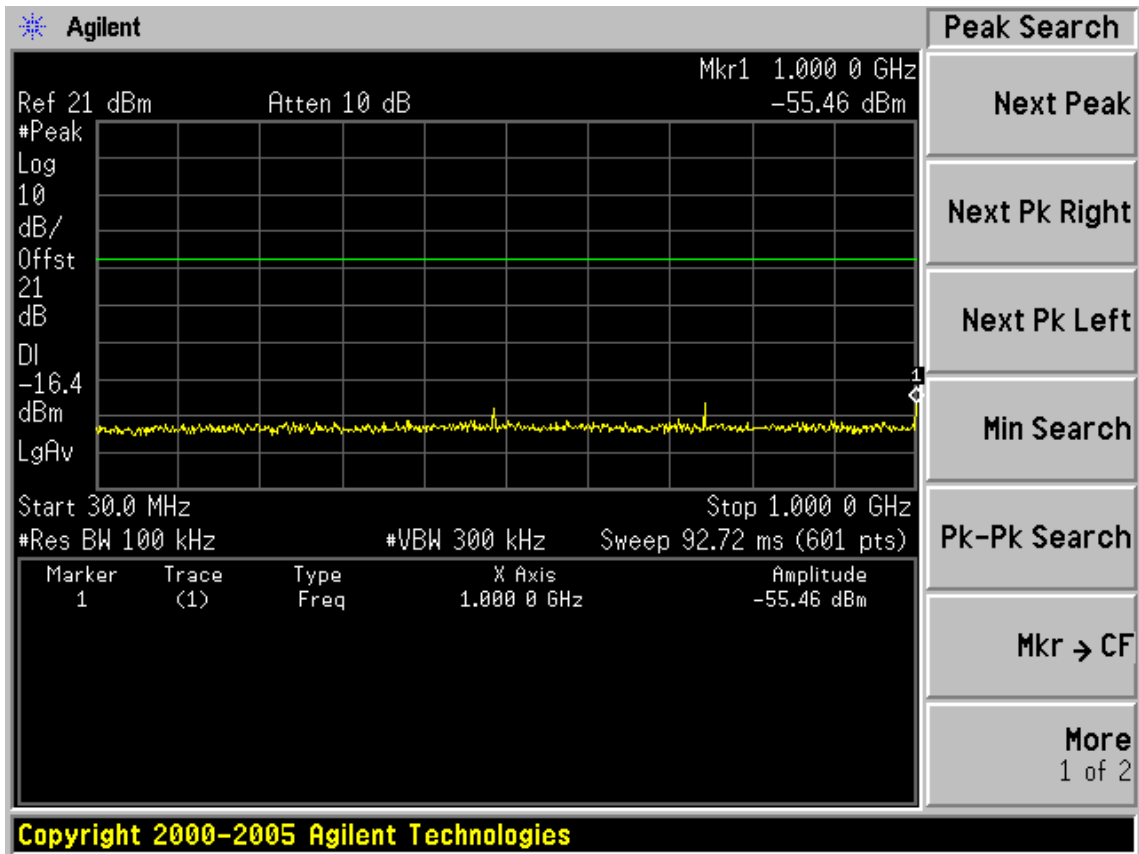


Copyright 2000-2005 Agilent Technologies

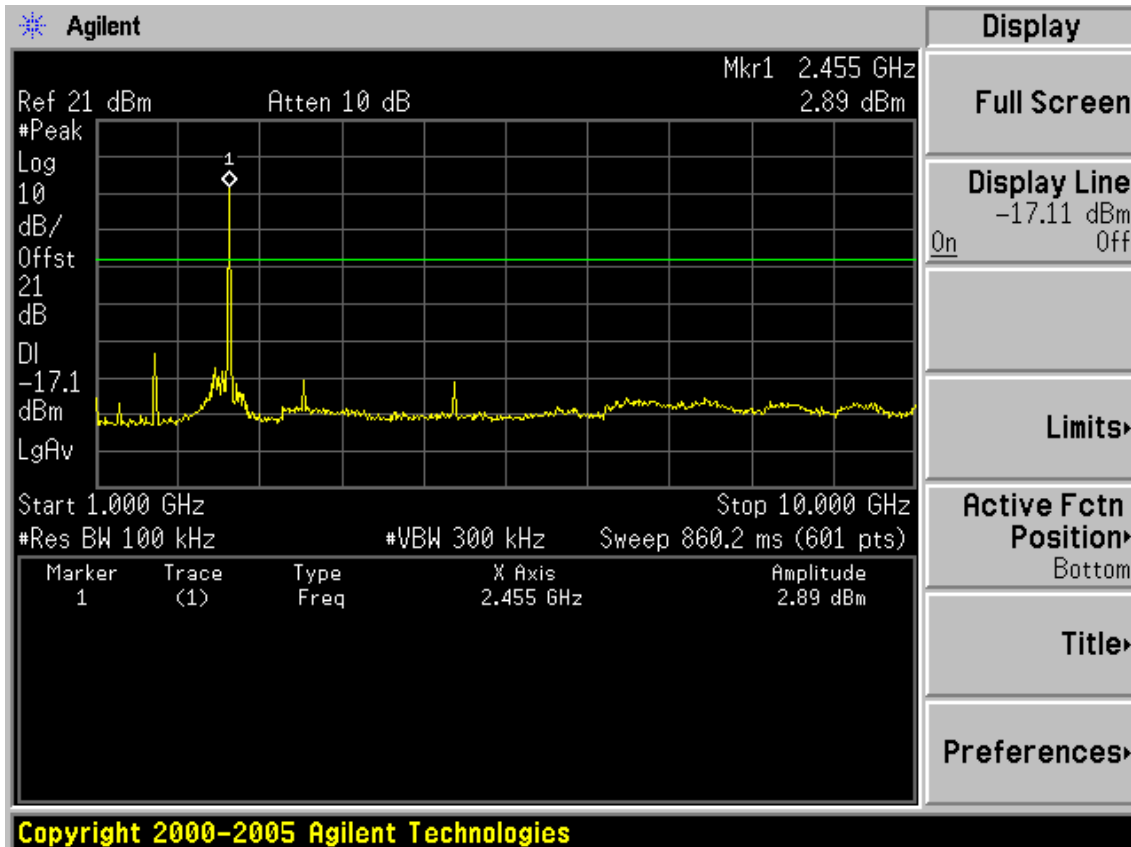


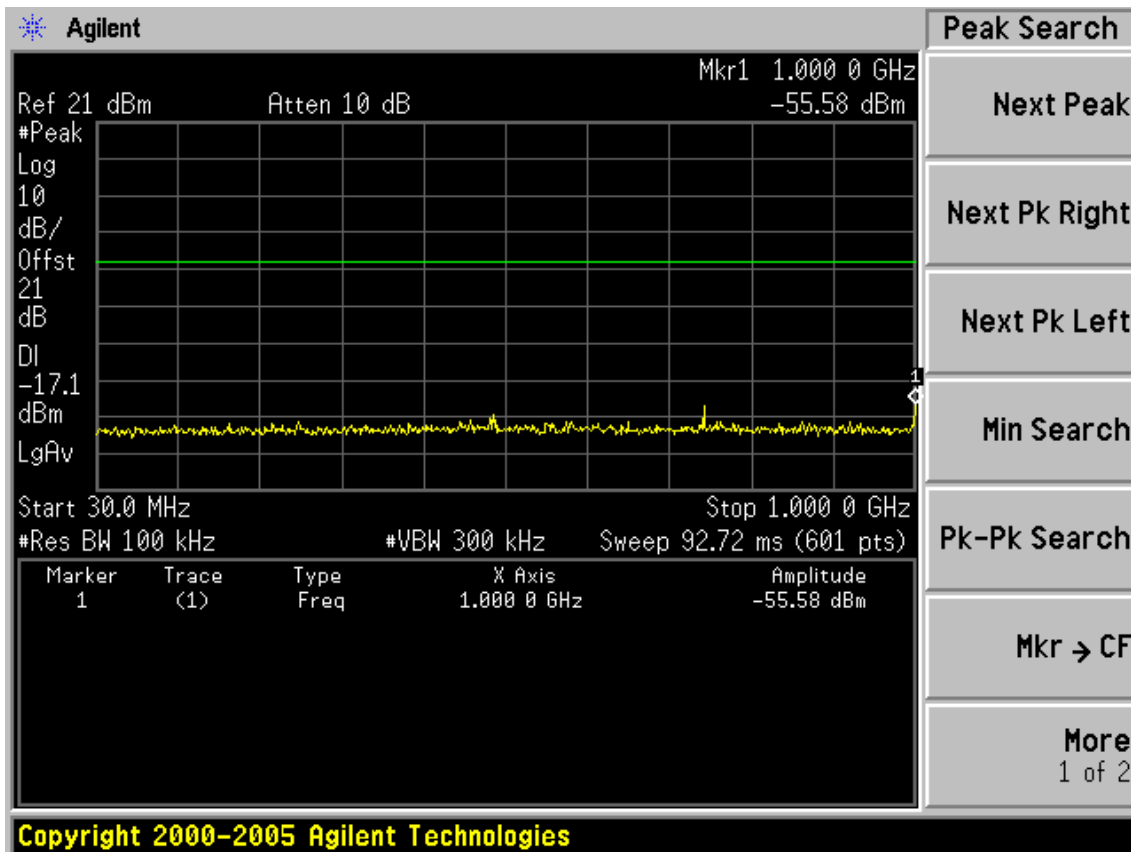
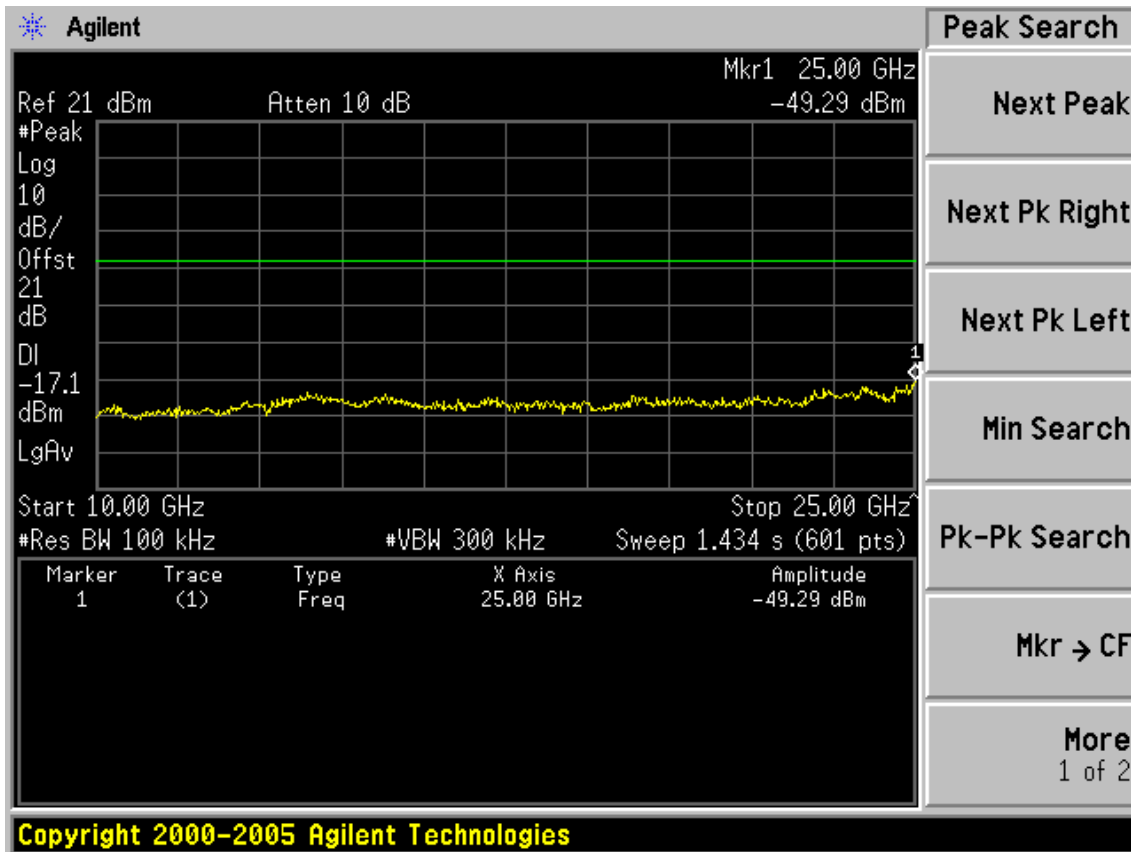
Copyright 2000-2005 Agilent Technologies

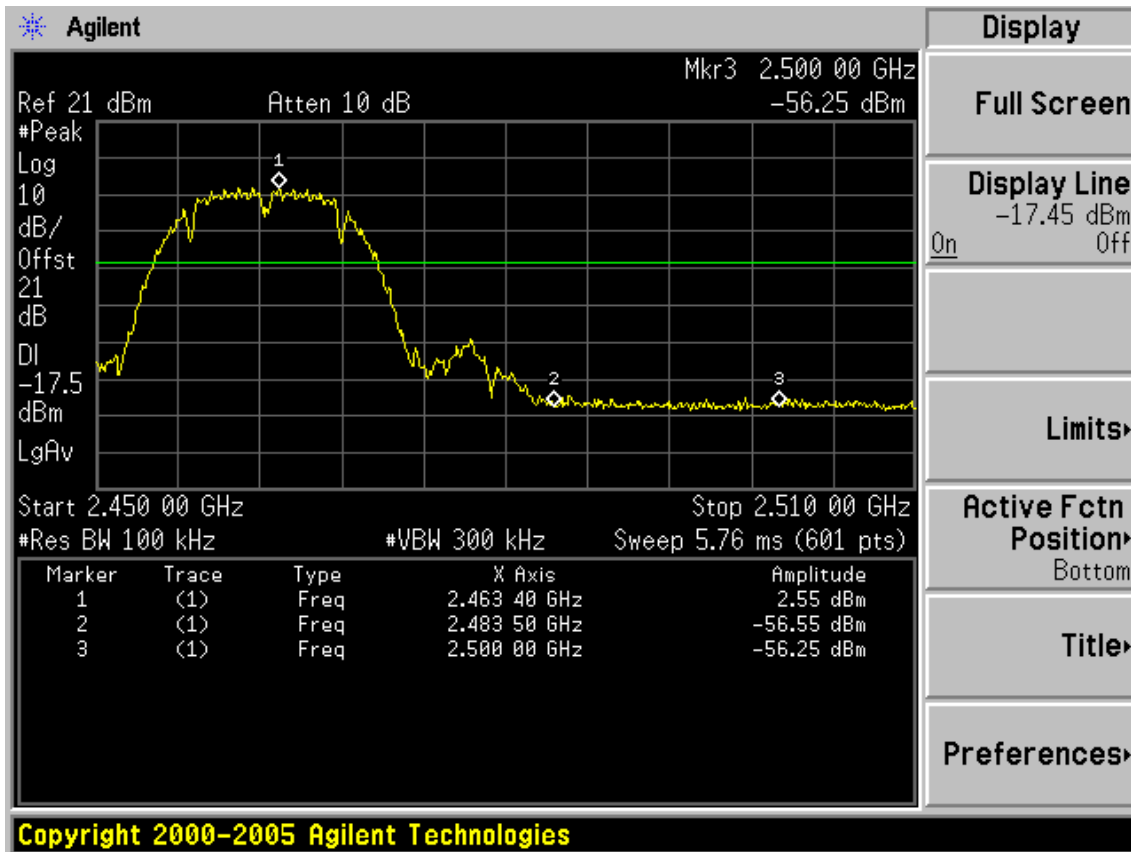




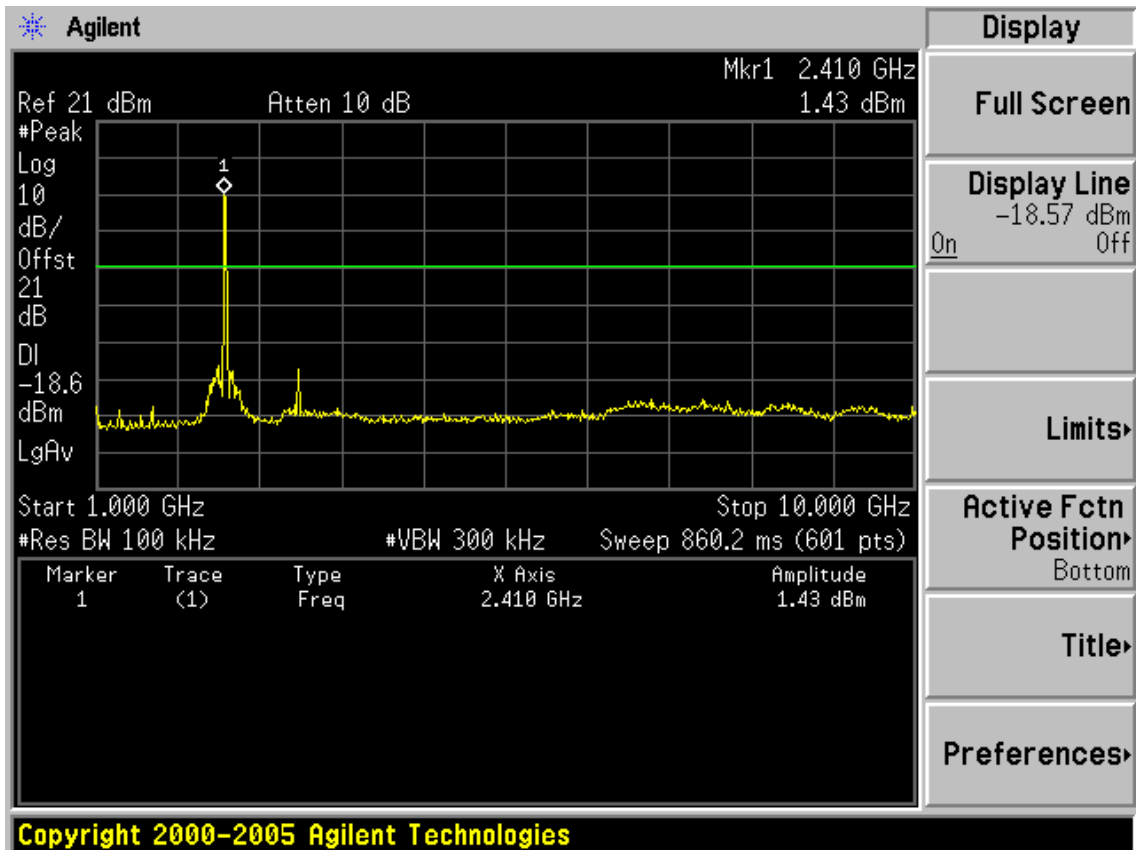
Test CH11: 2462MHz

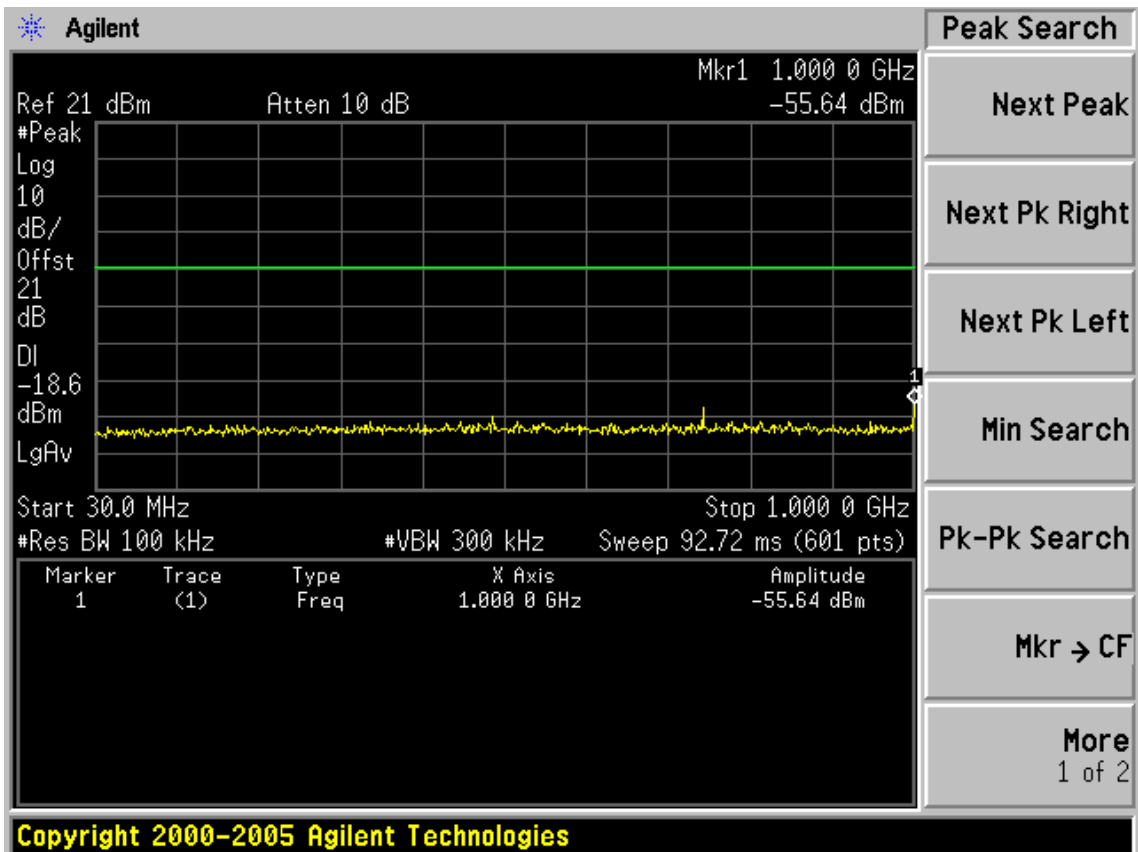
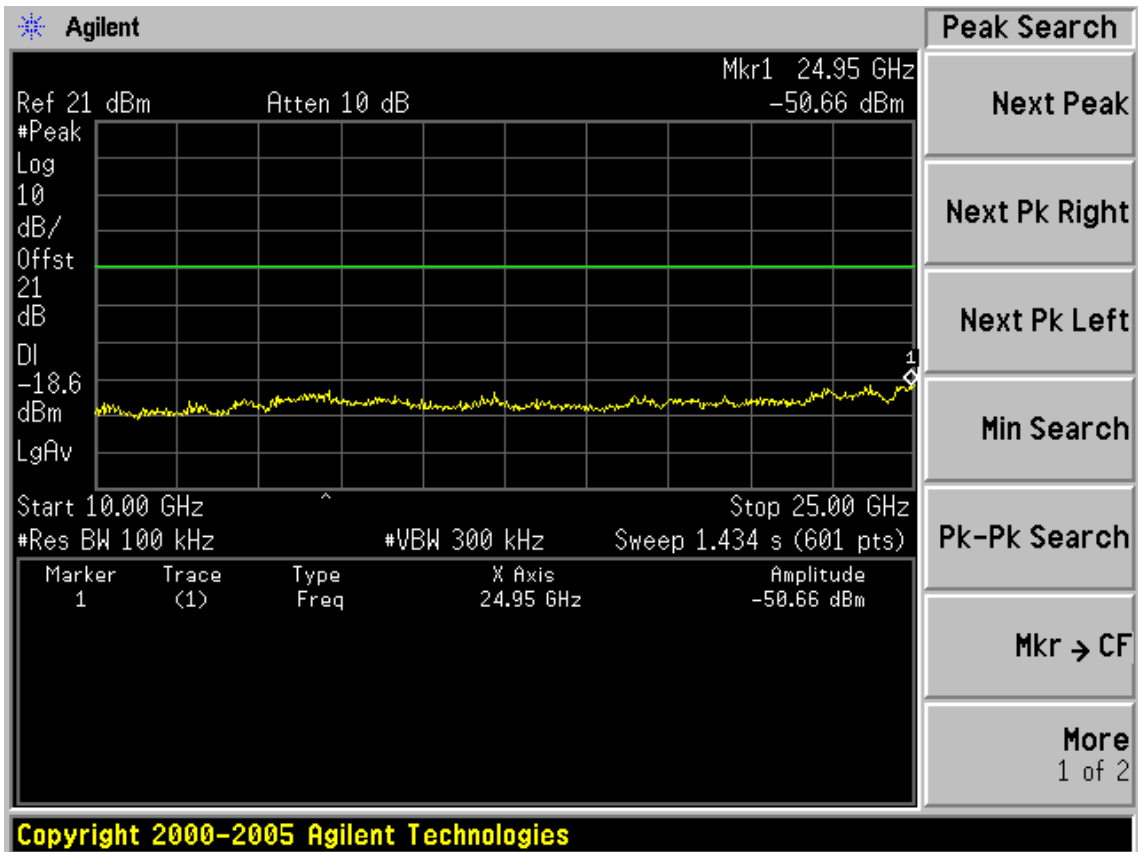


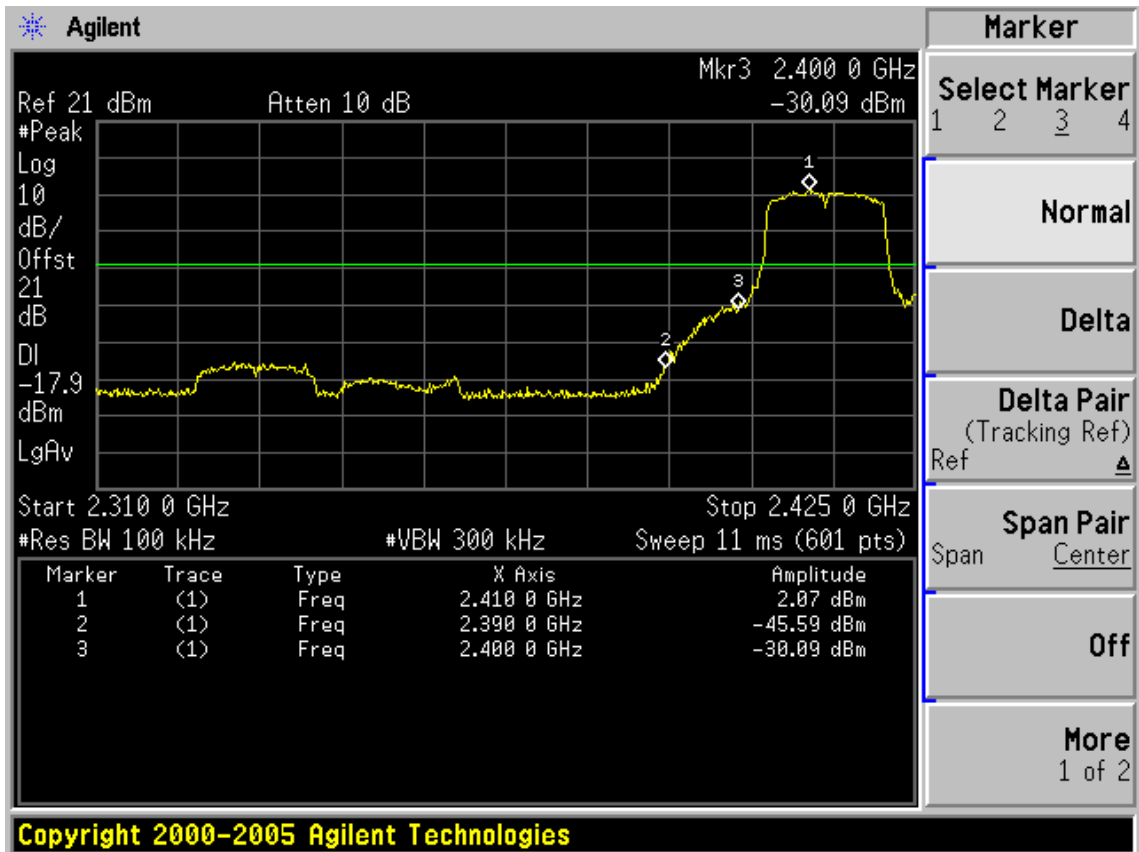




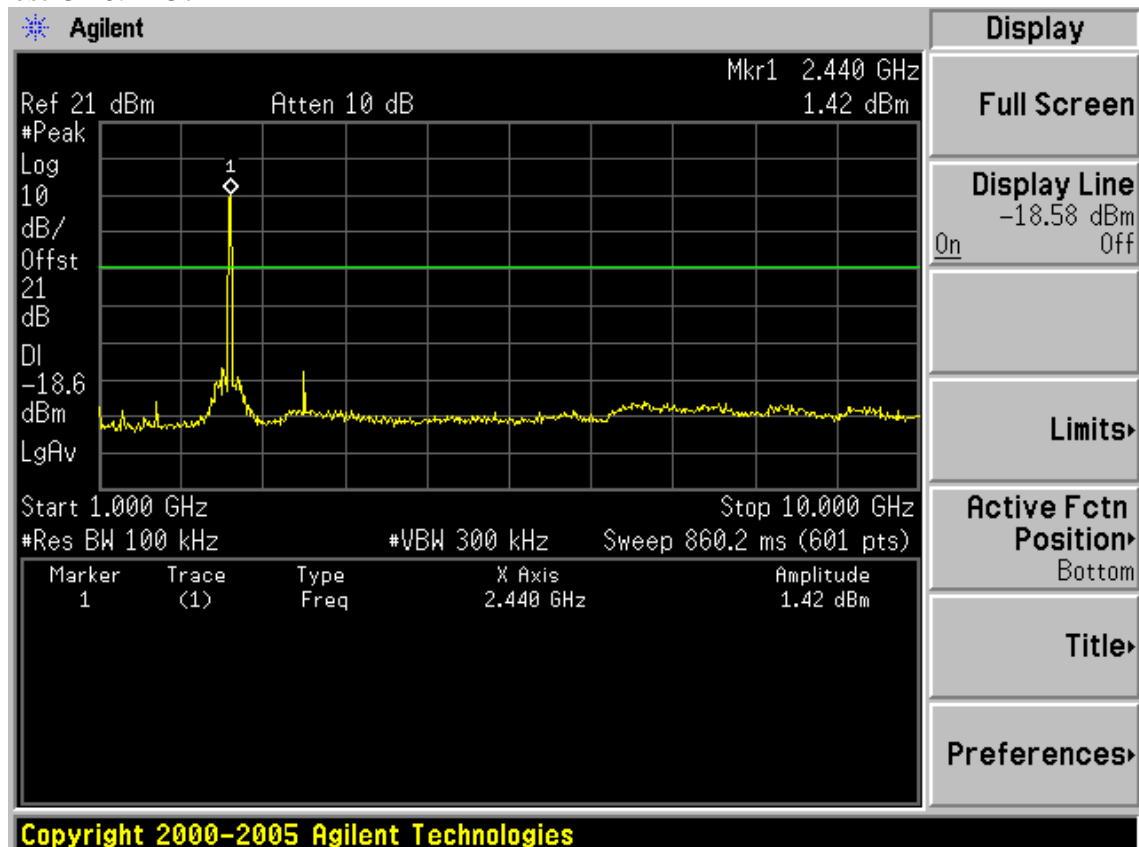
Test Mode: IEEE 802.11g TX
 Test CH1: 2412MHz

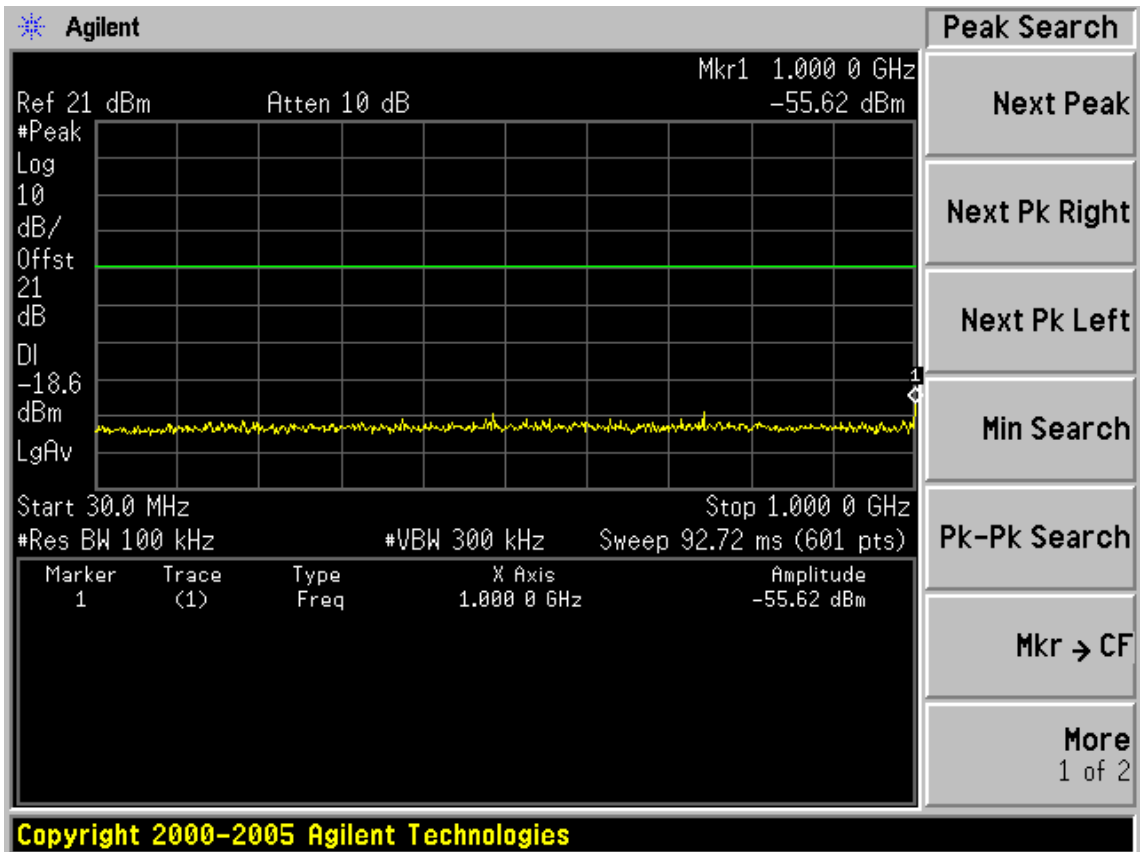
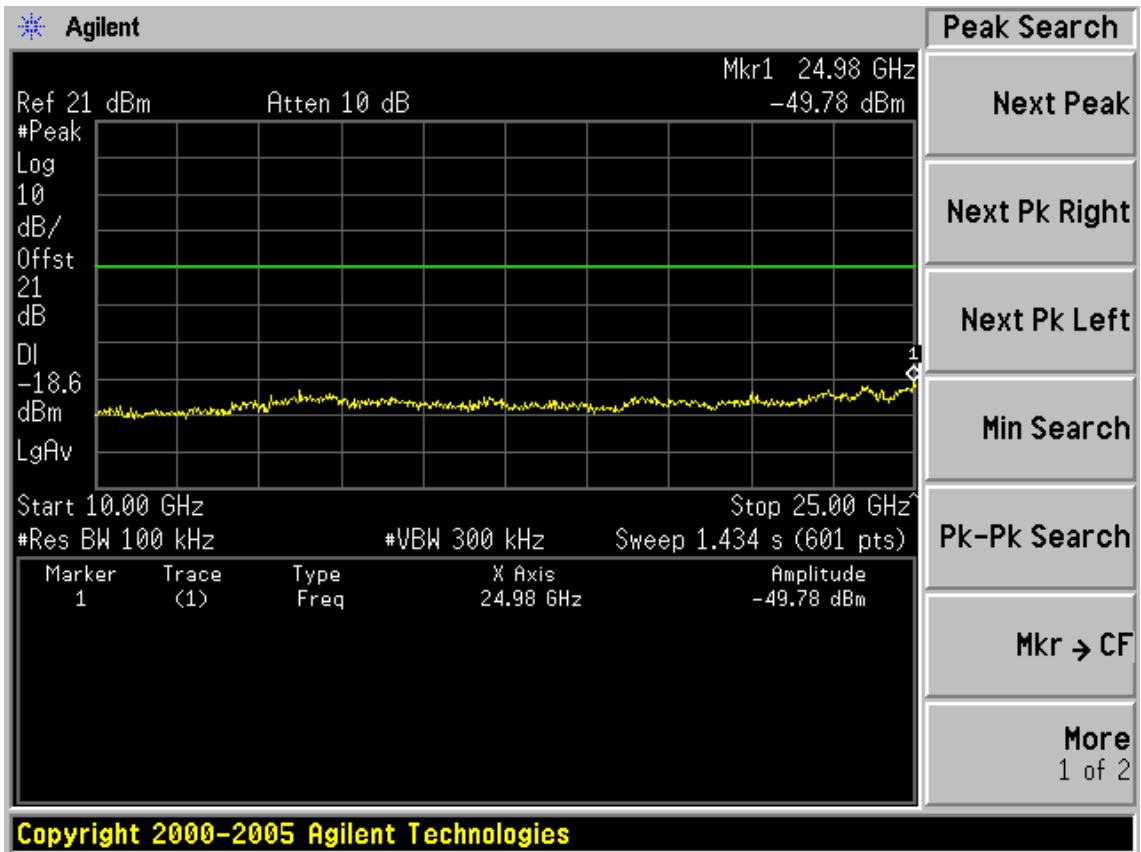




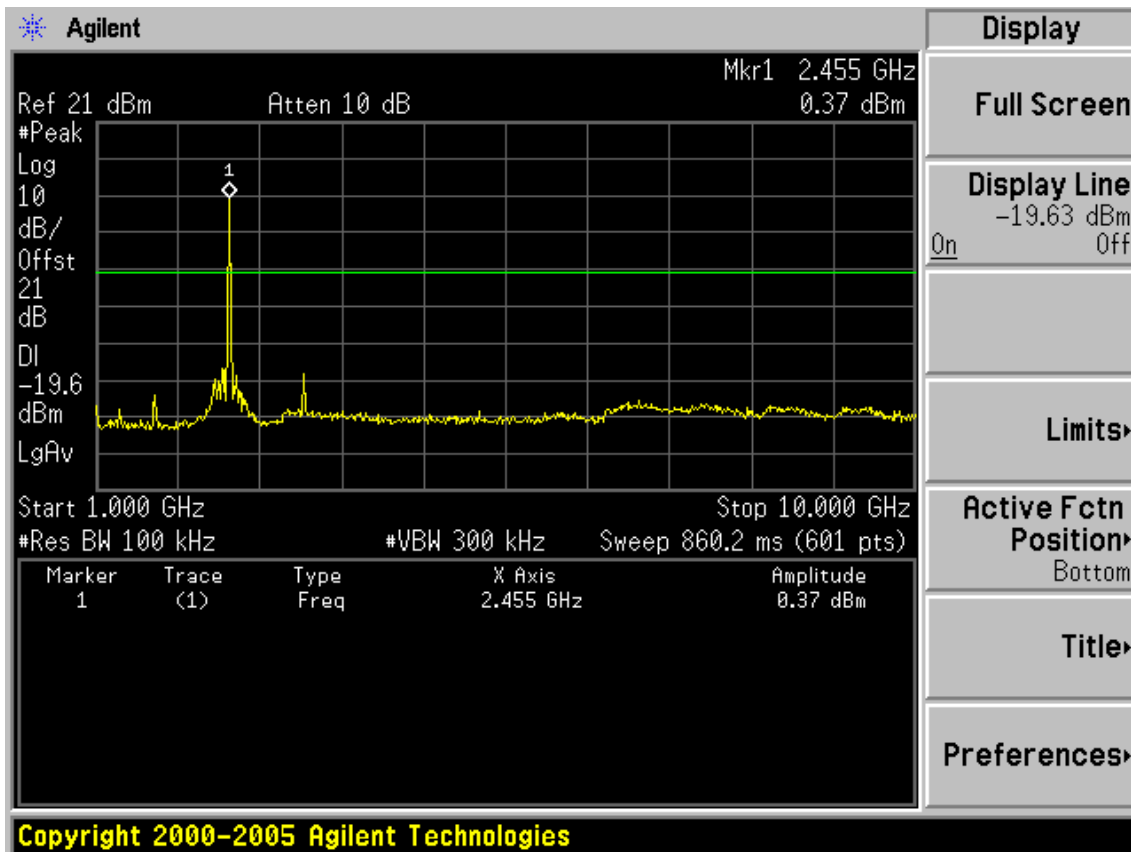
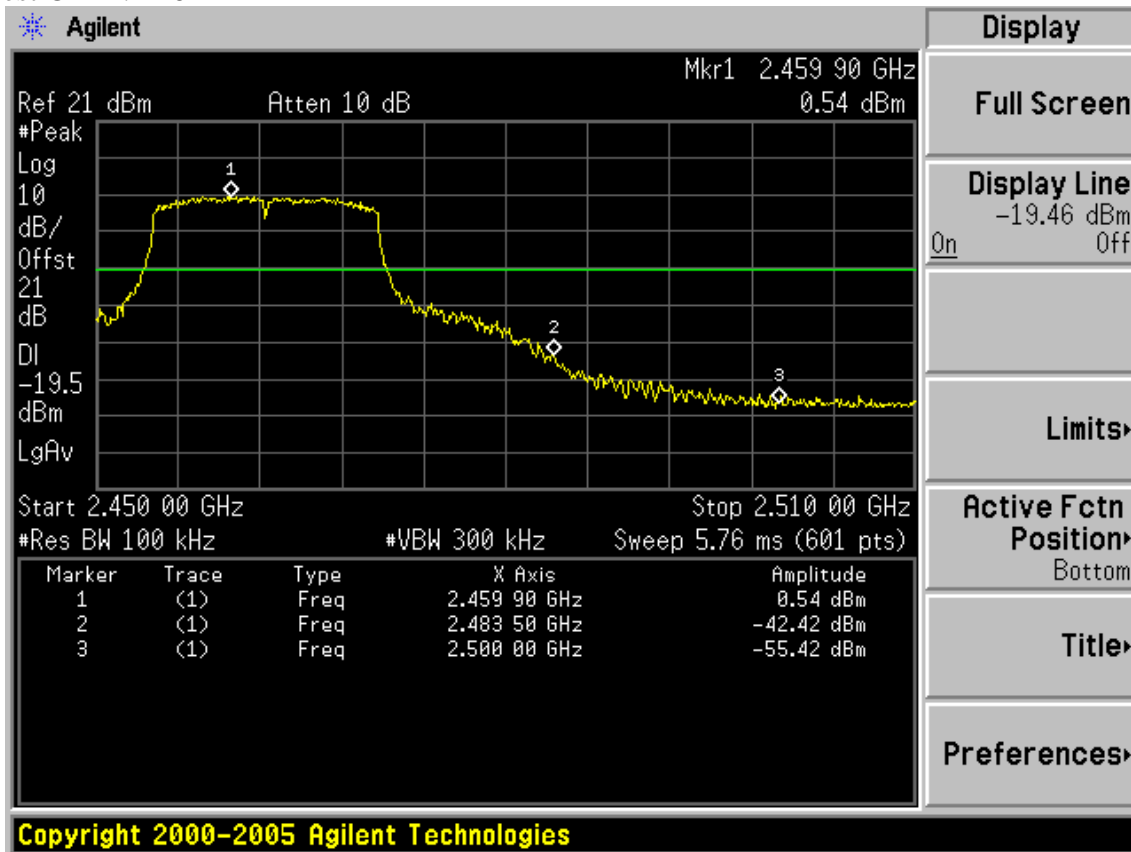


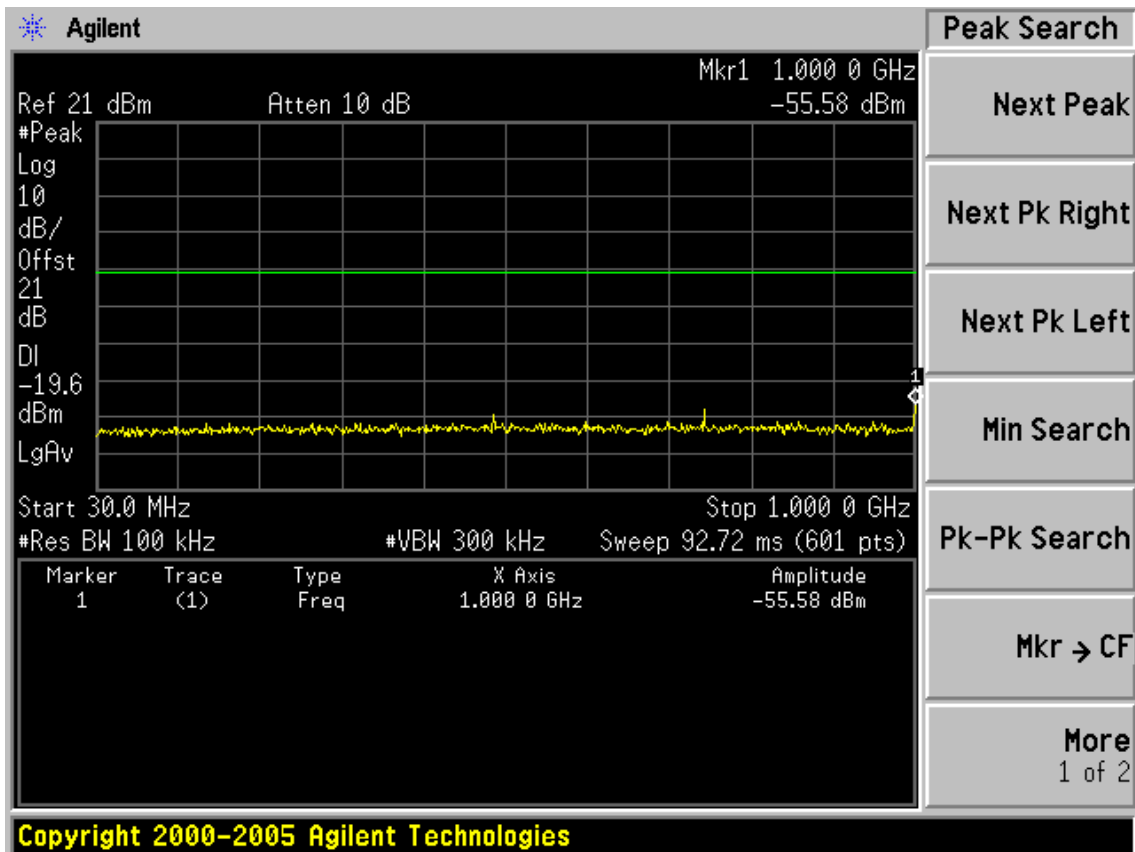
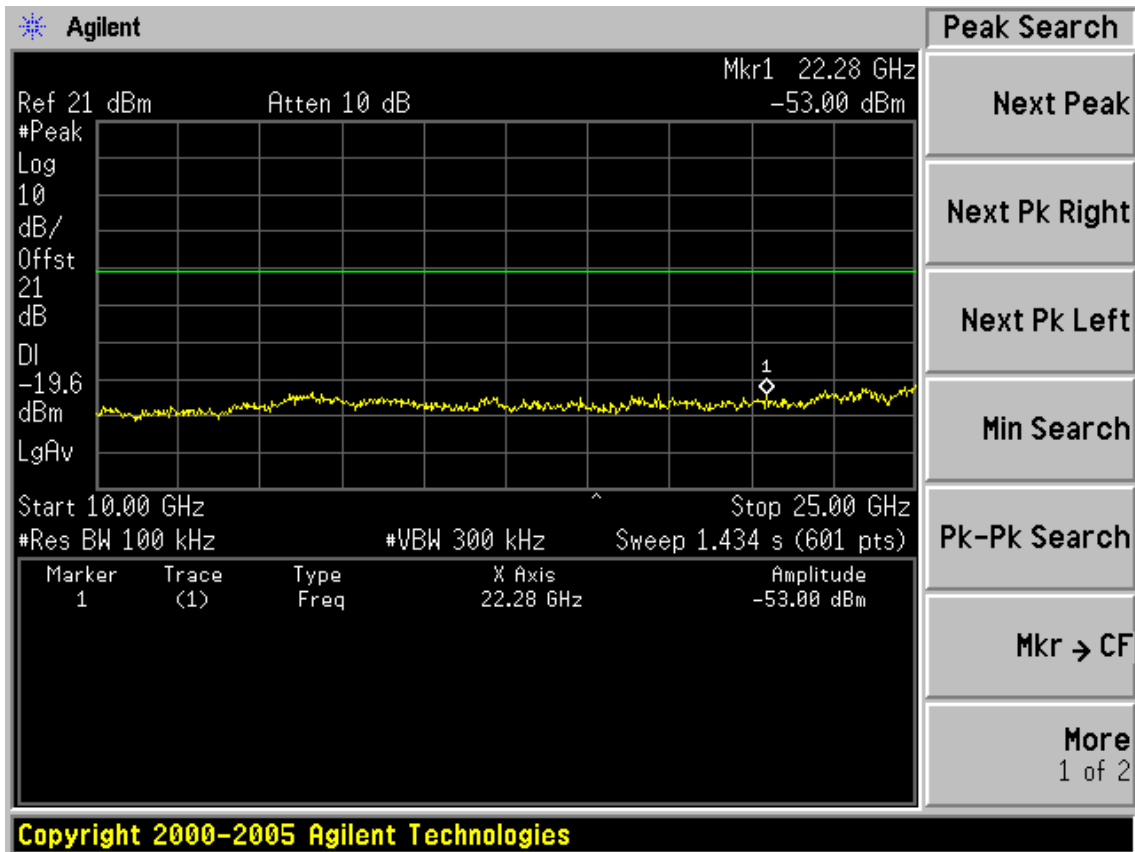
Test CH6: 2437MHz





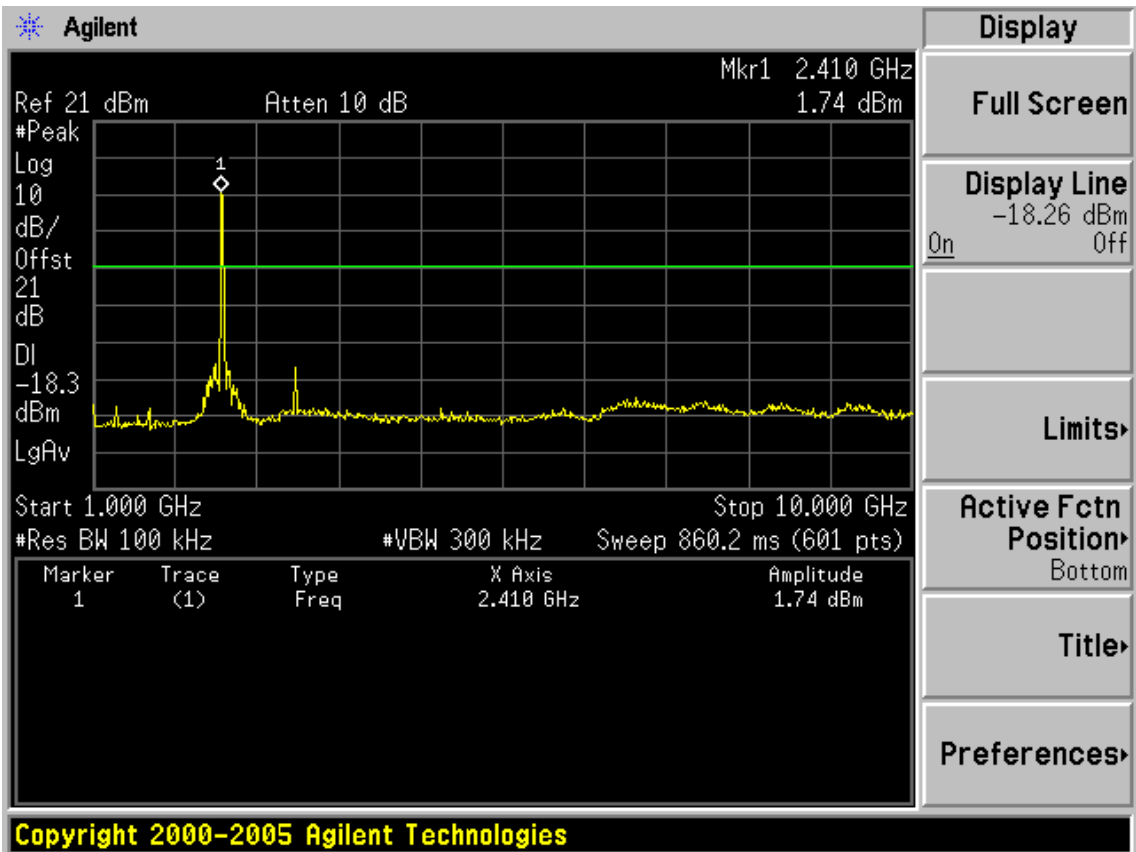
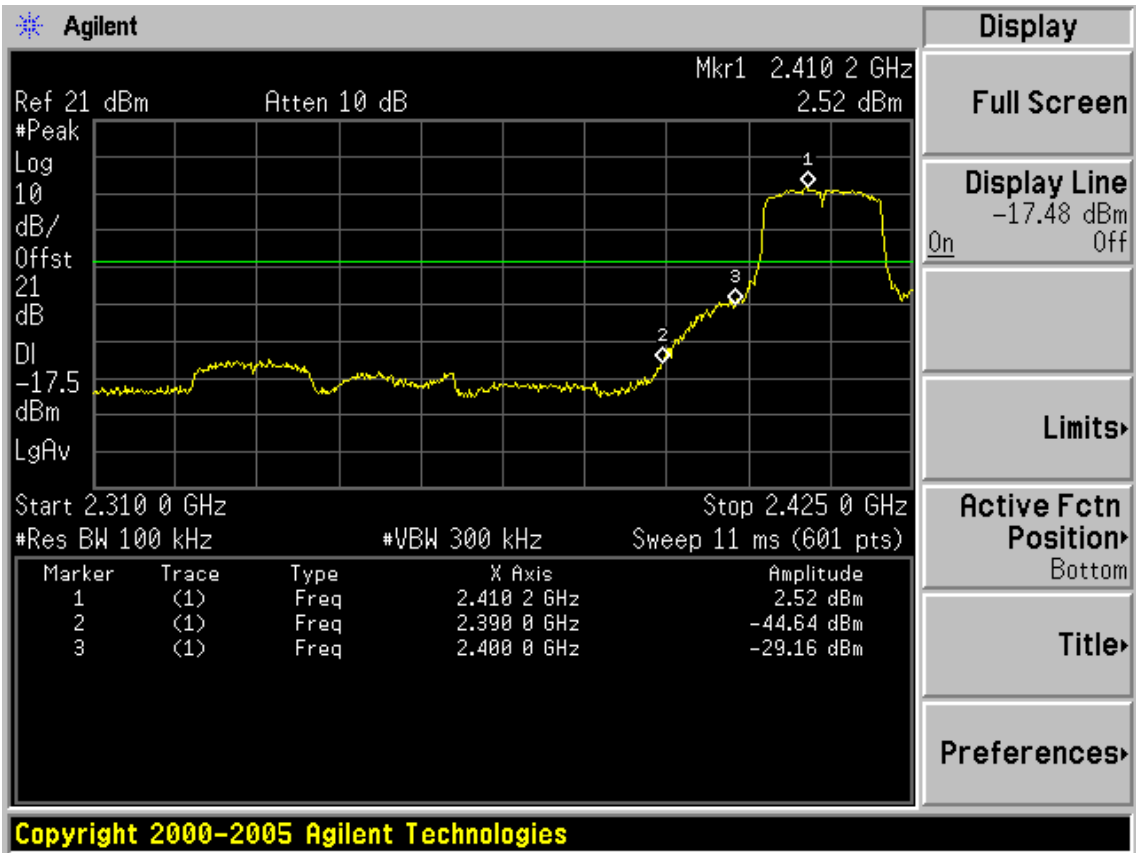
Test CH11: 2462MHz

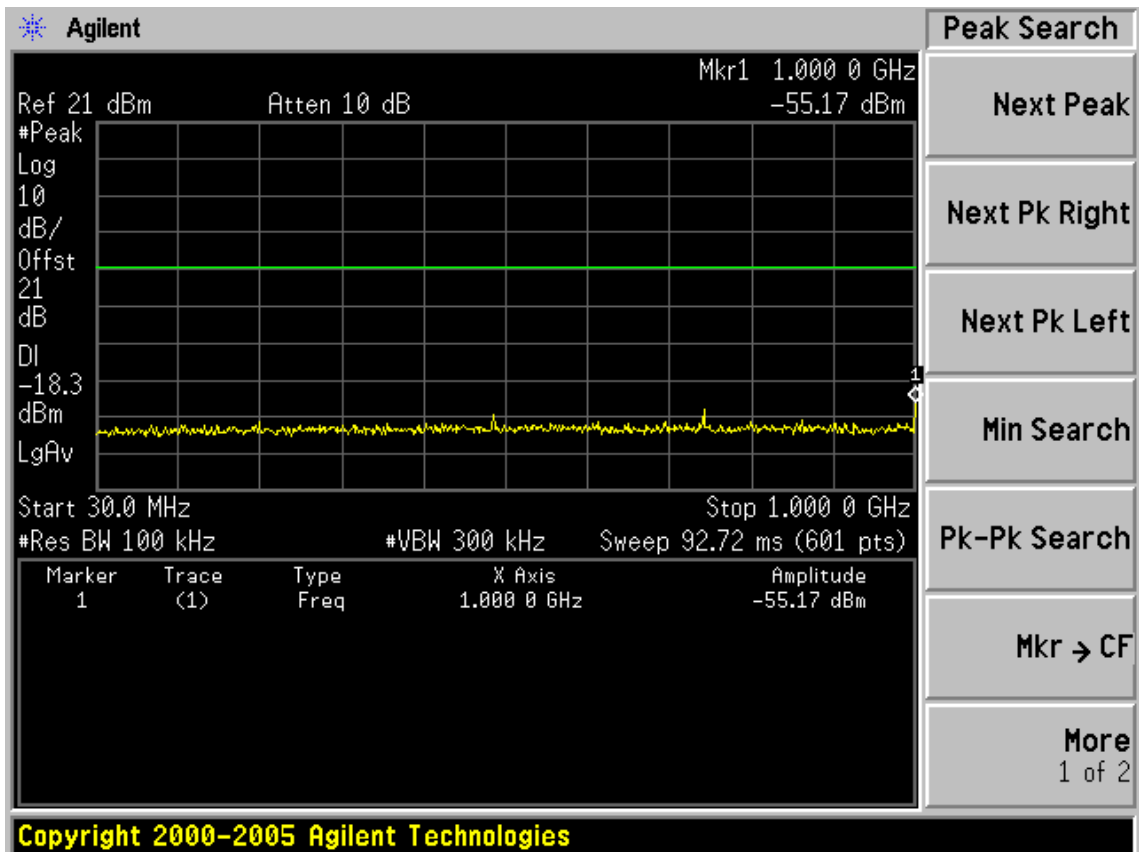
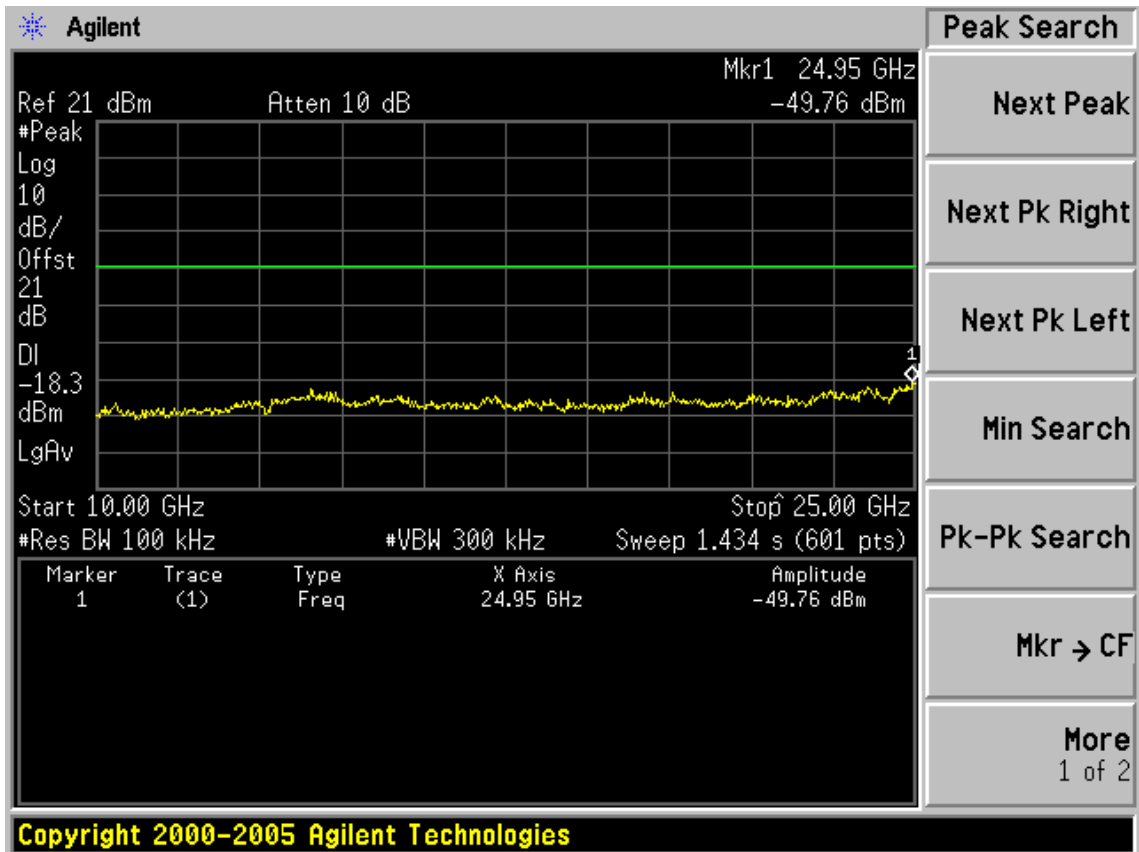




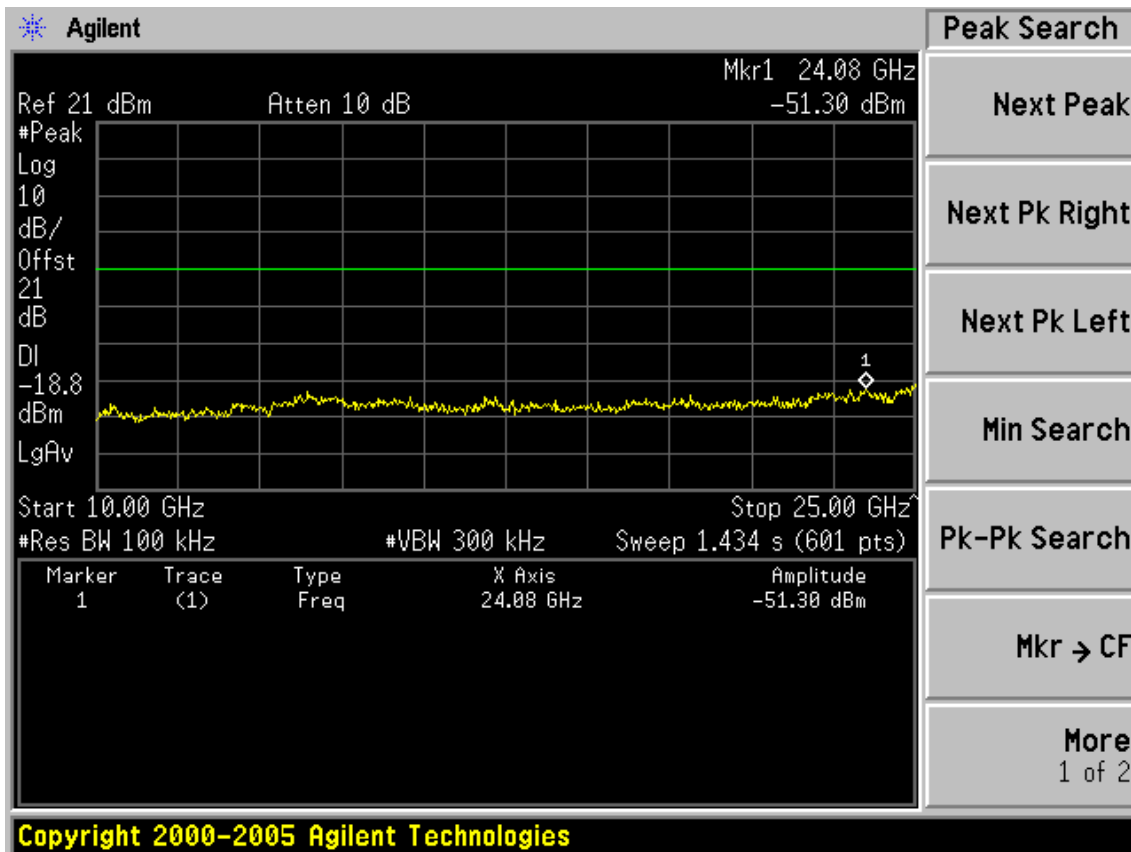
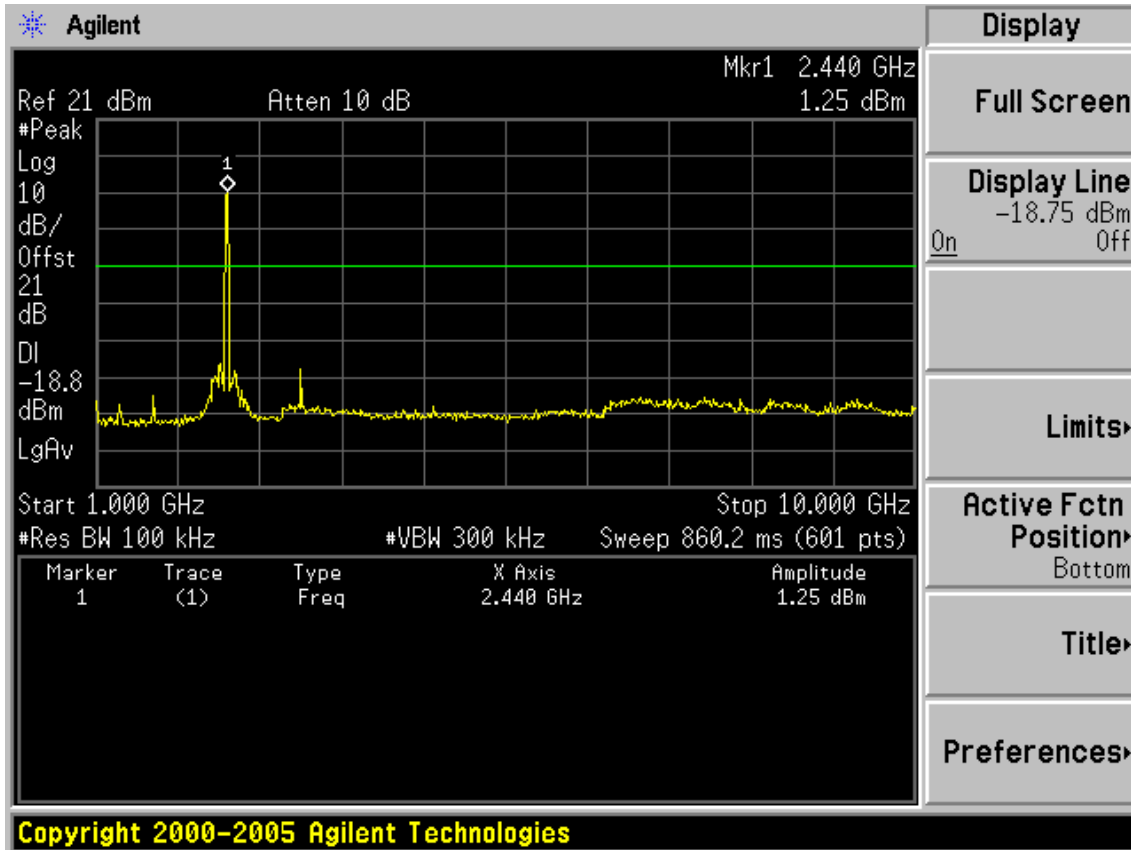
Test Mode: IEEE 802.11n HT20 TX

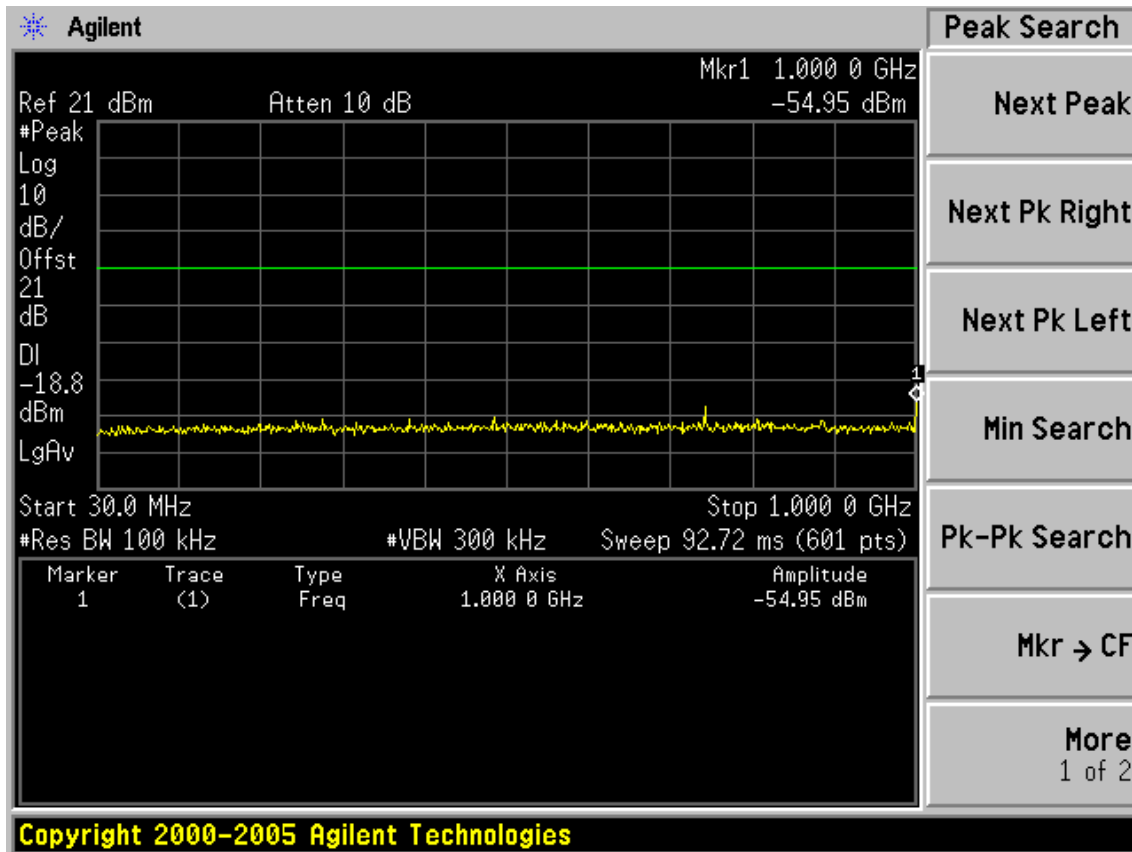
Test CH1: 2412



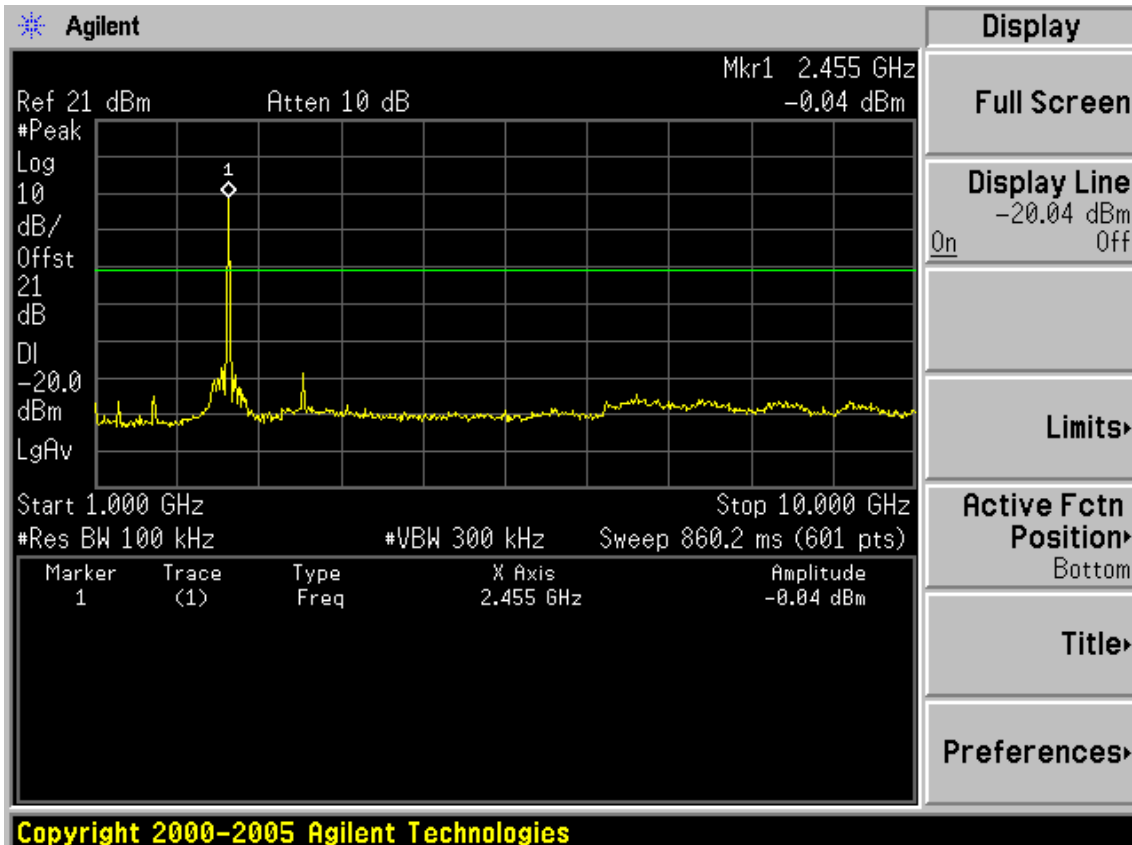


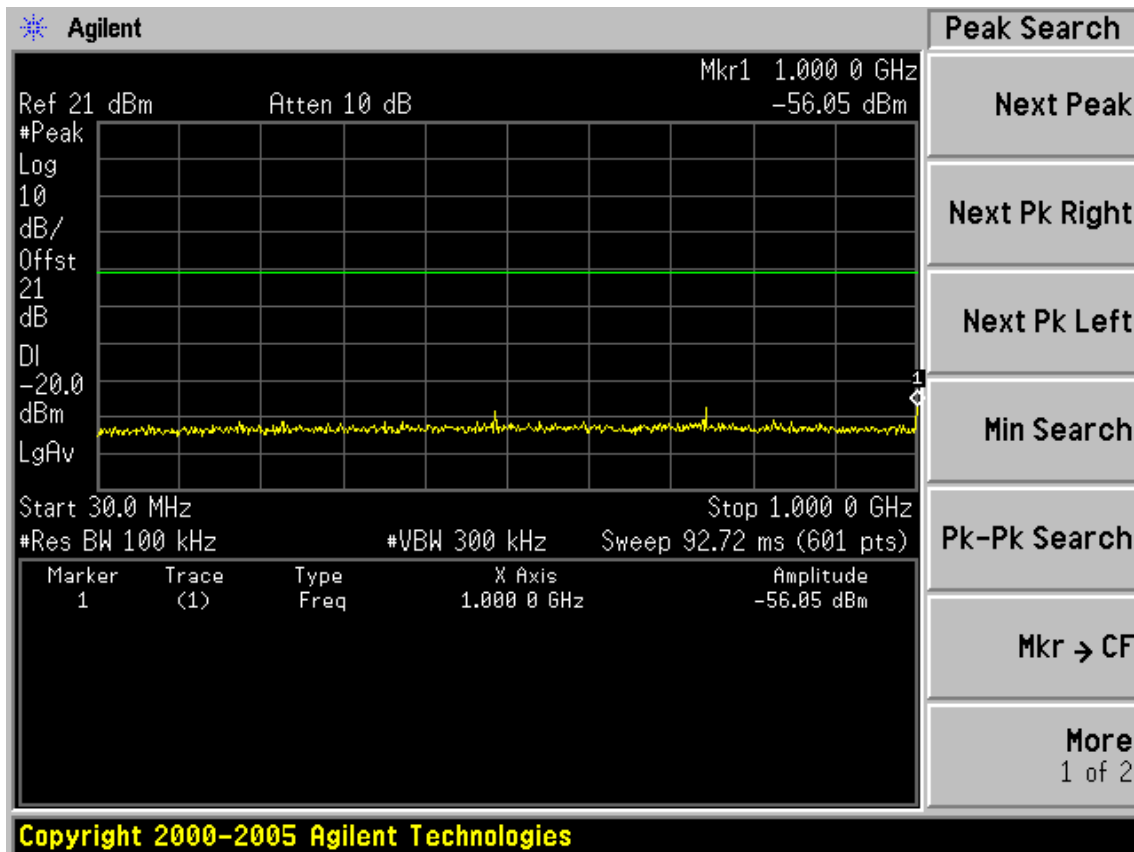
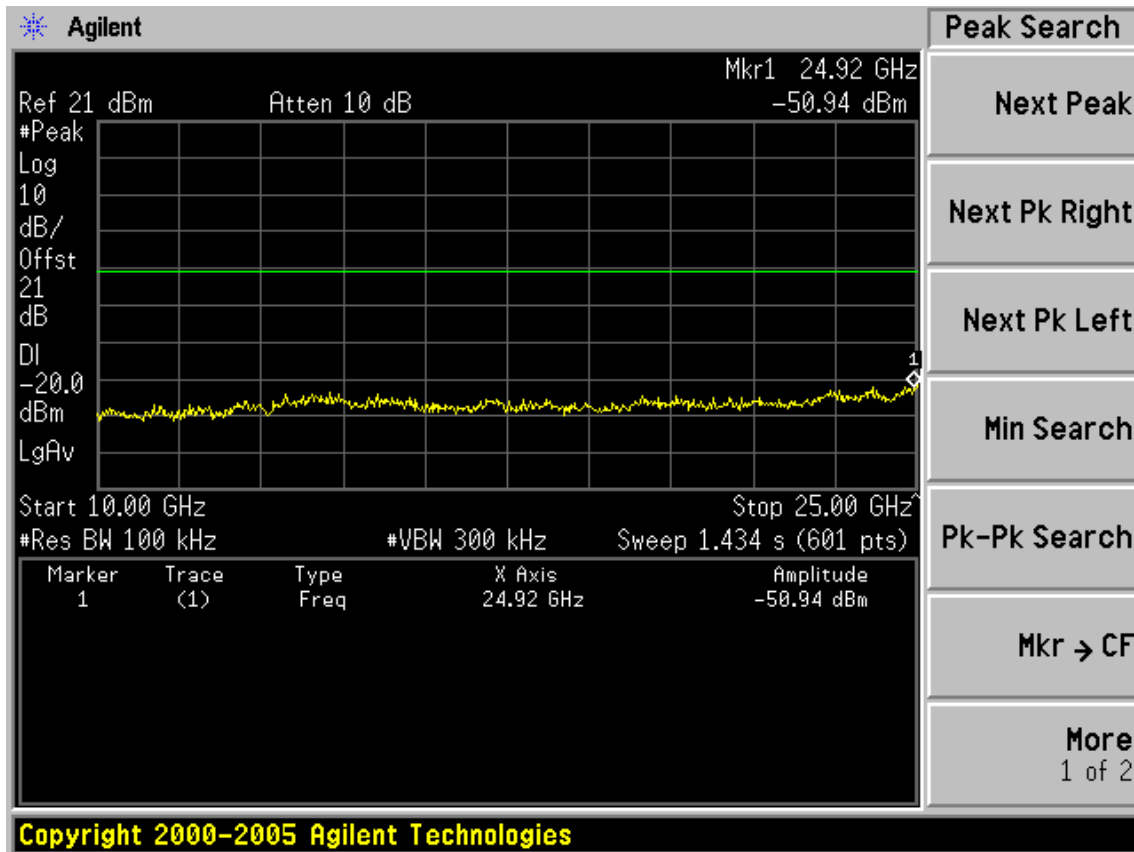
Test CH6: 2437MHz

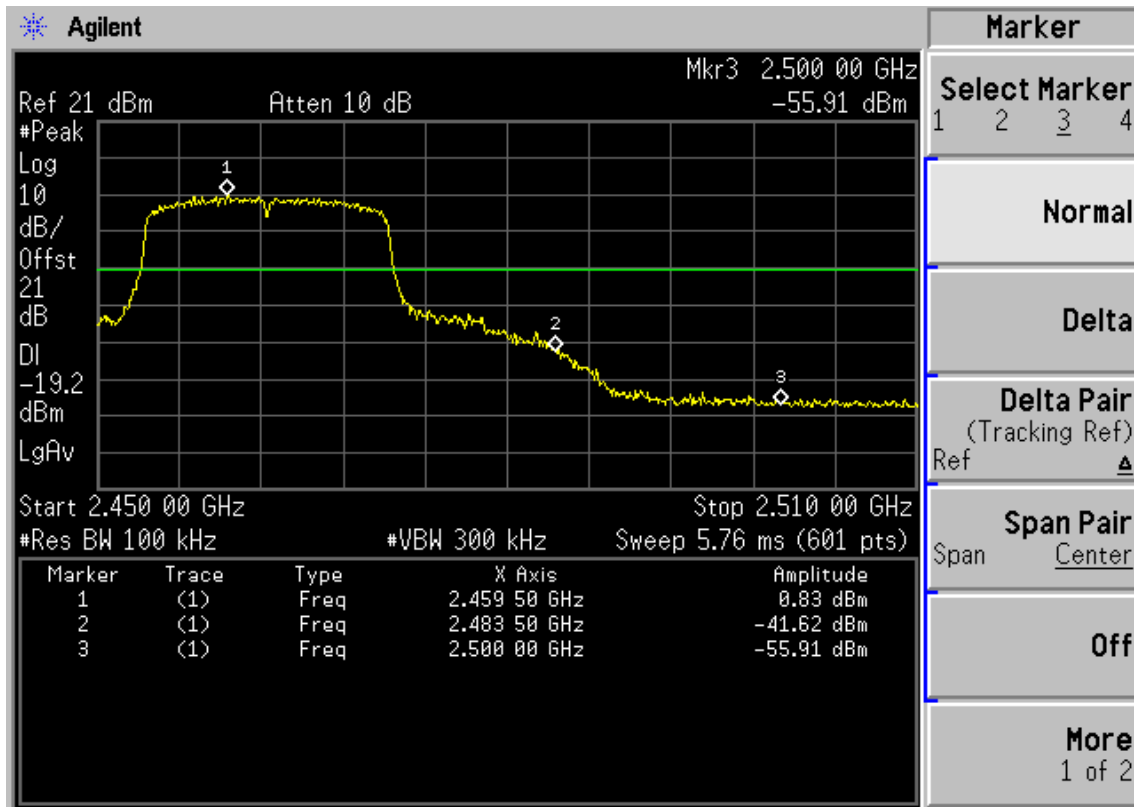




Test CH11: 2462MHz



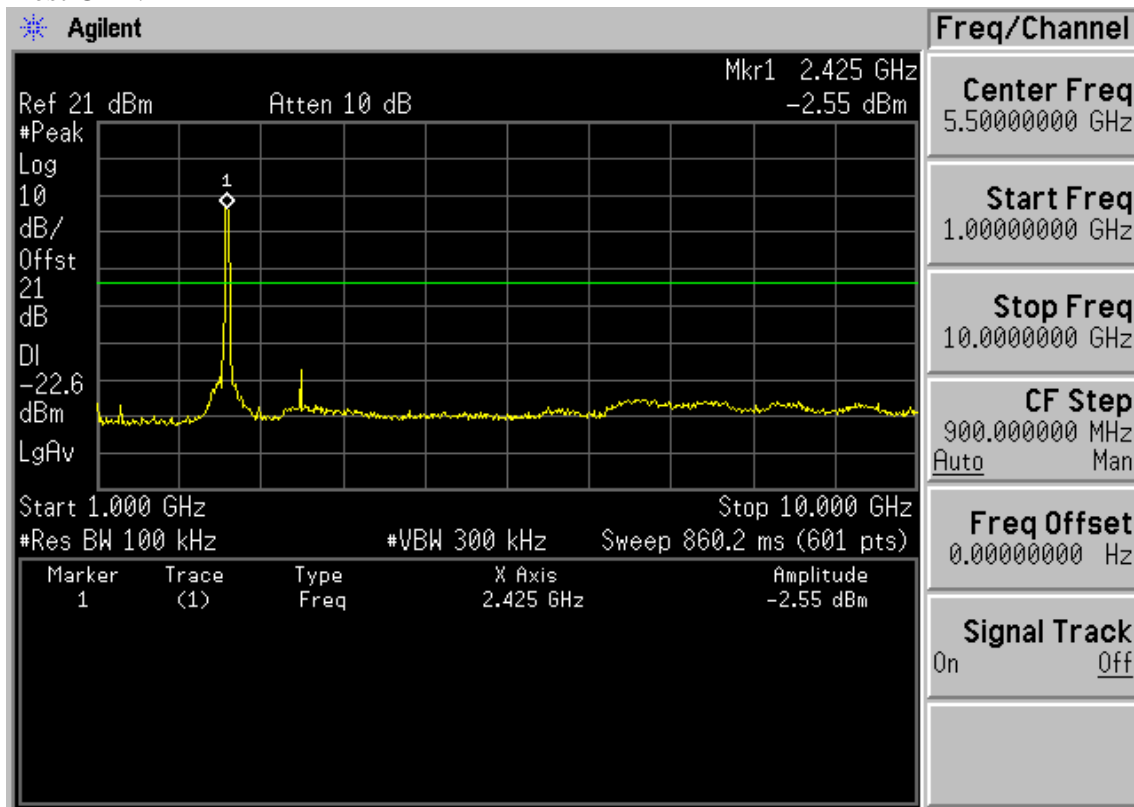




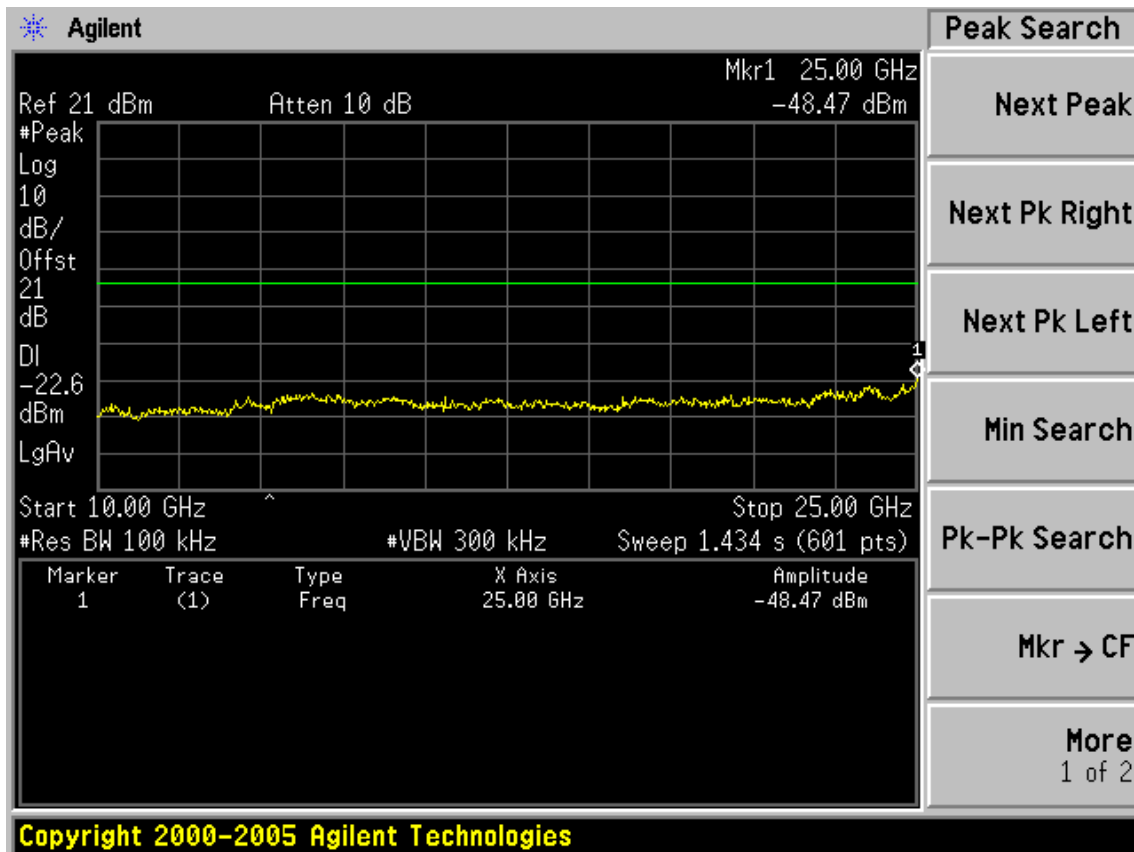
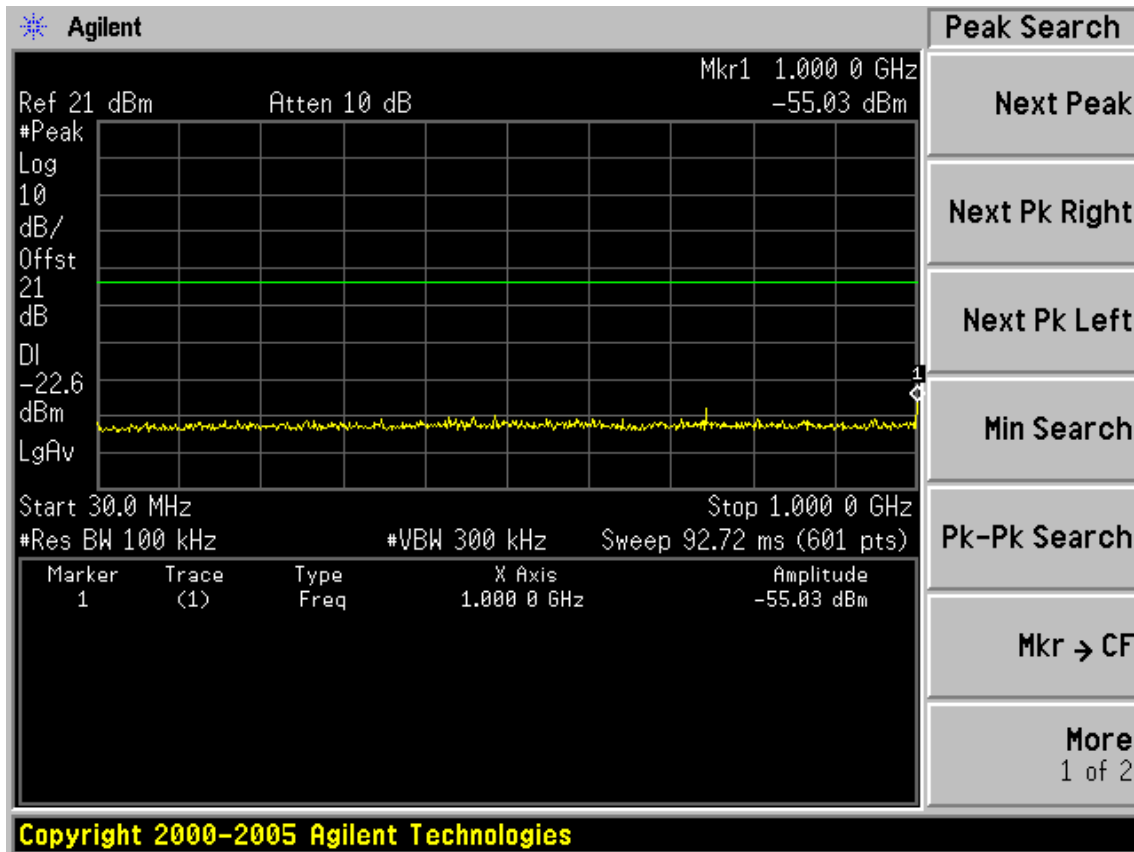
Copyright 2000-2005 Agilent Technologies

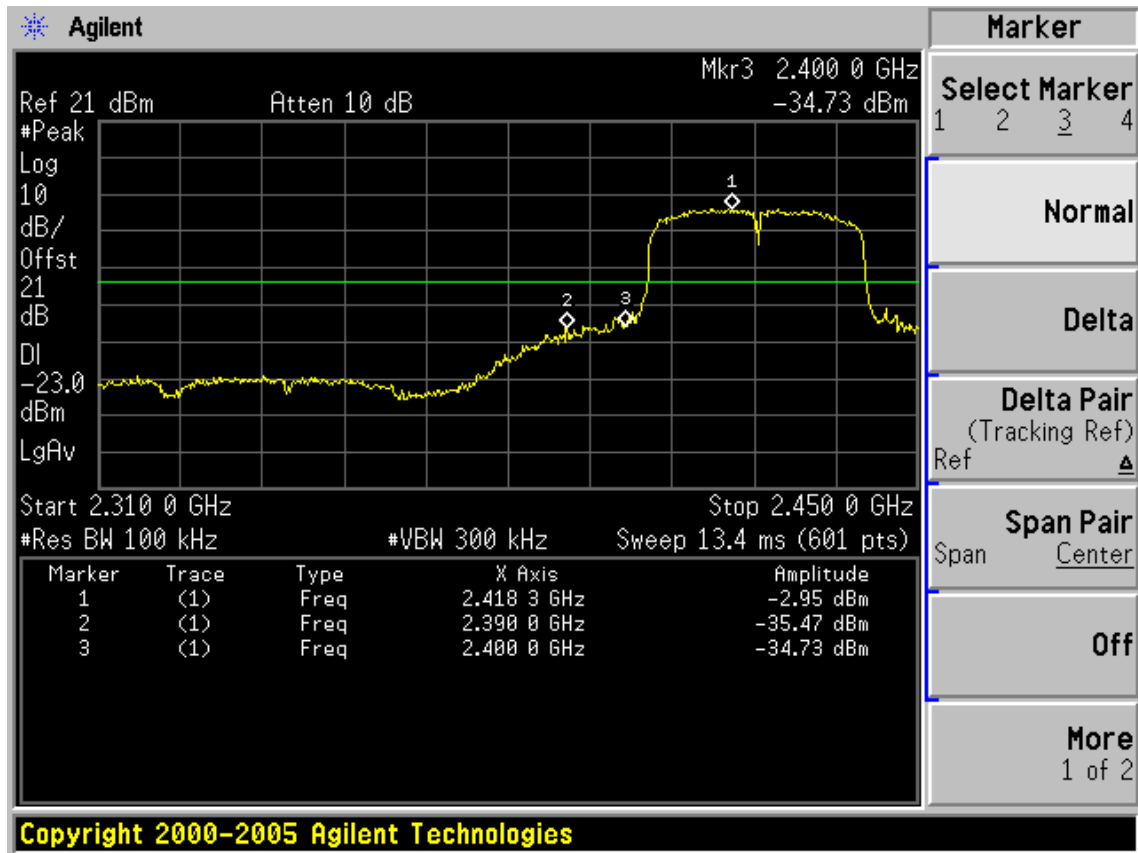
Test Mode: IEEE 802.11n HT40 TX

Test CH1: 2422MHz

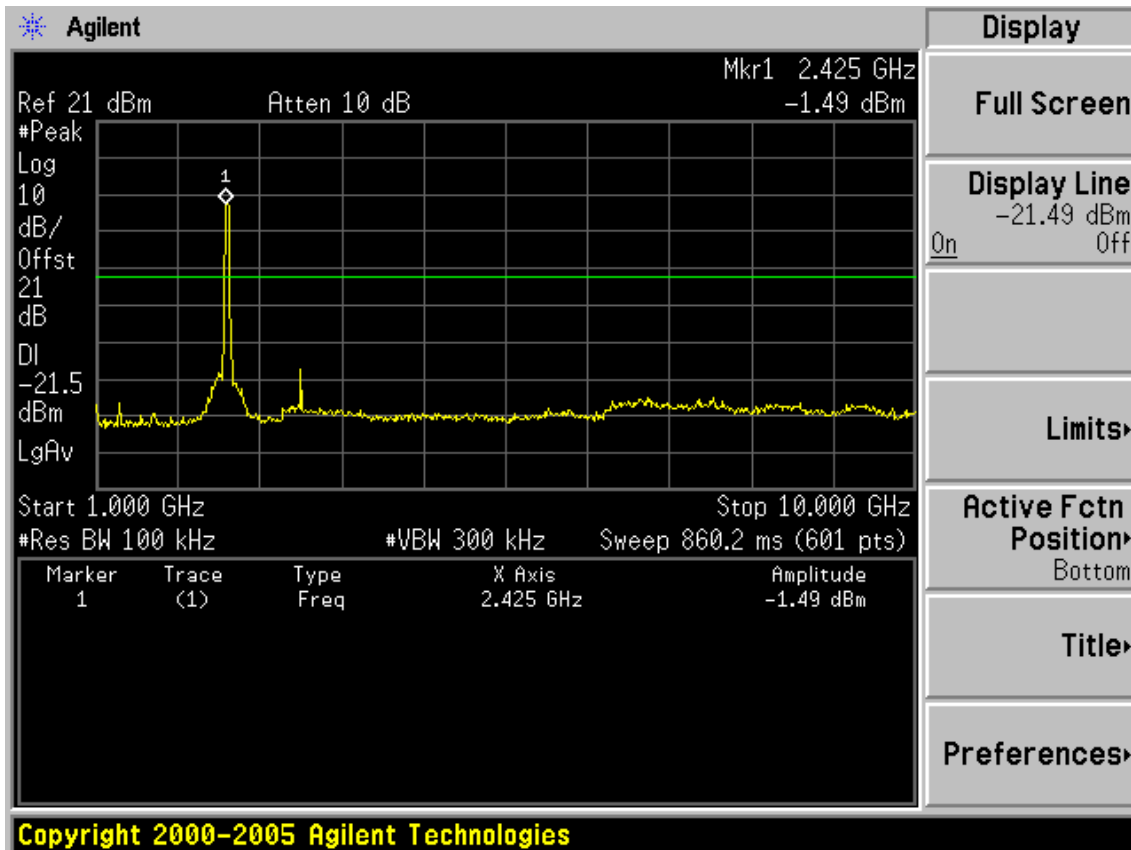


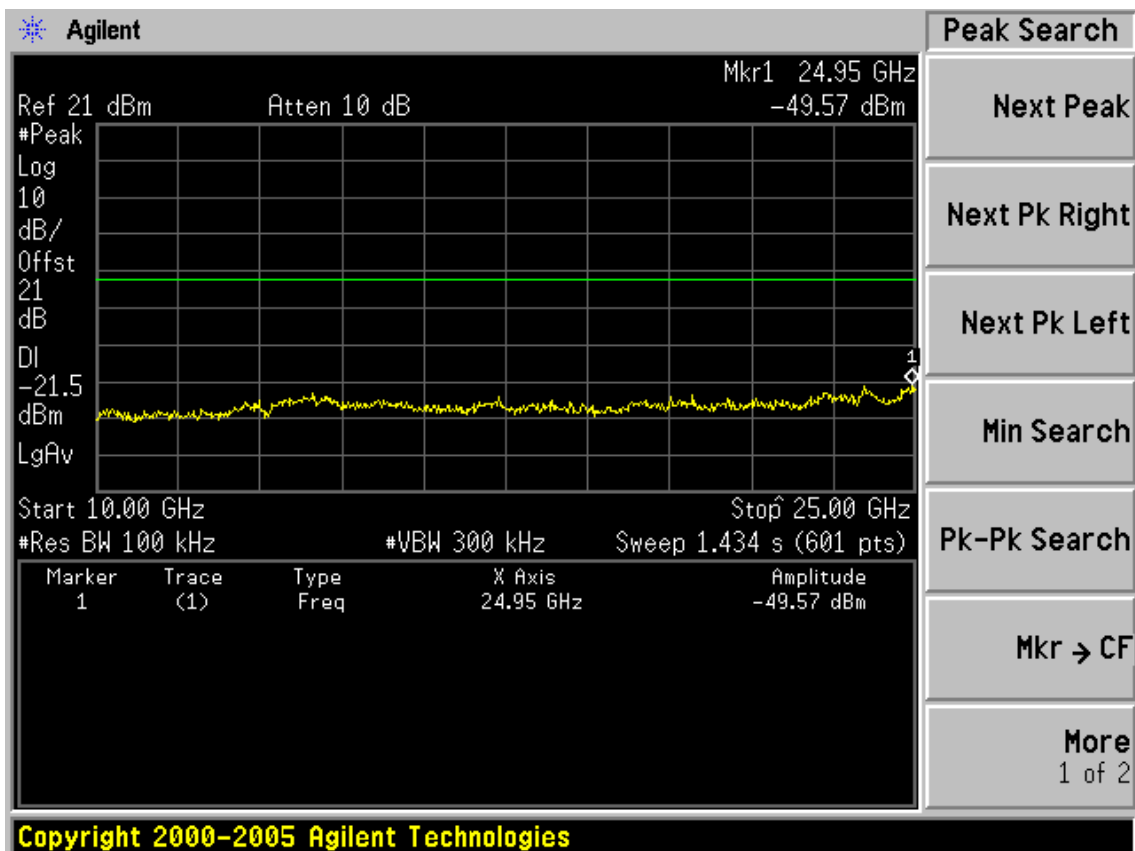
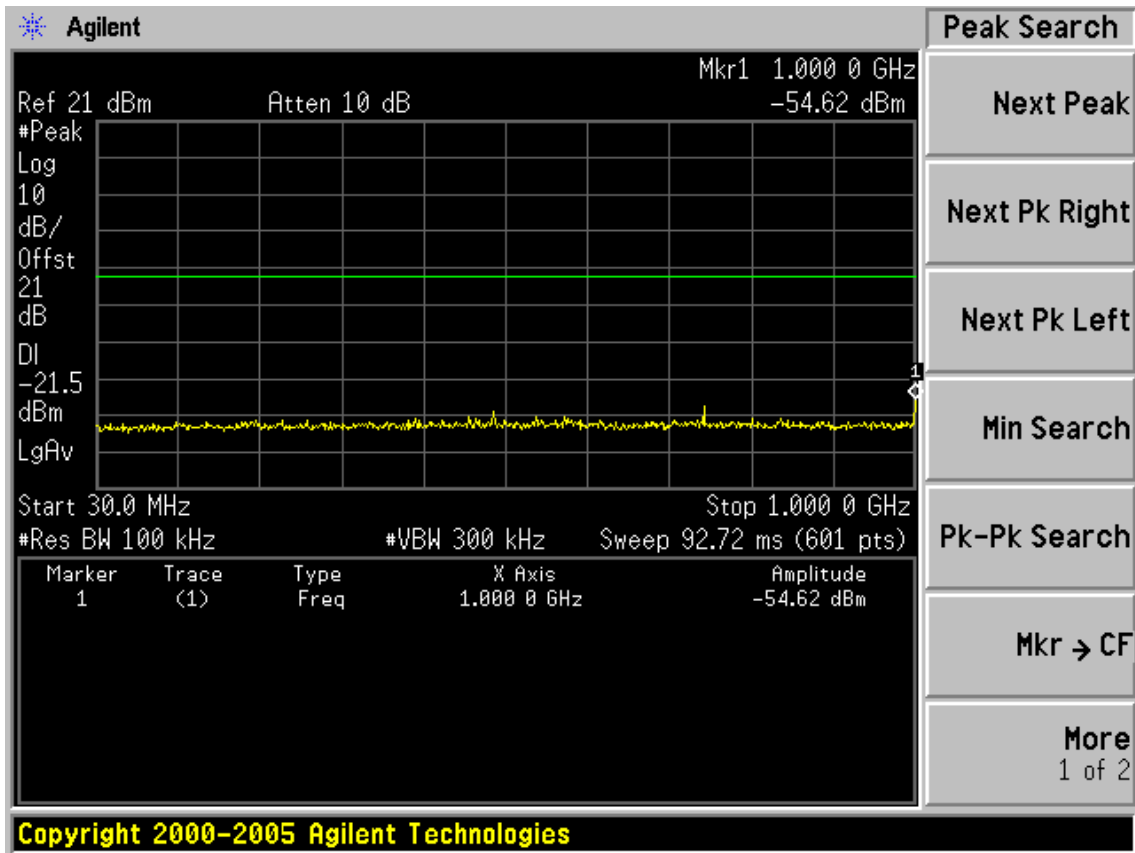
Copyright 2000-2005 Agilent Technologies

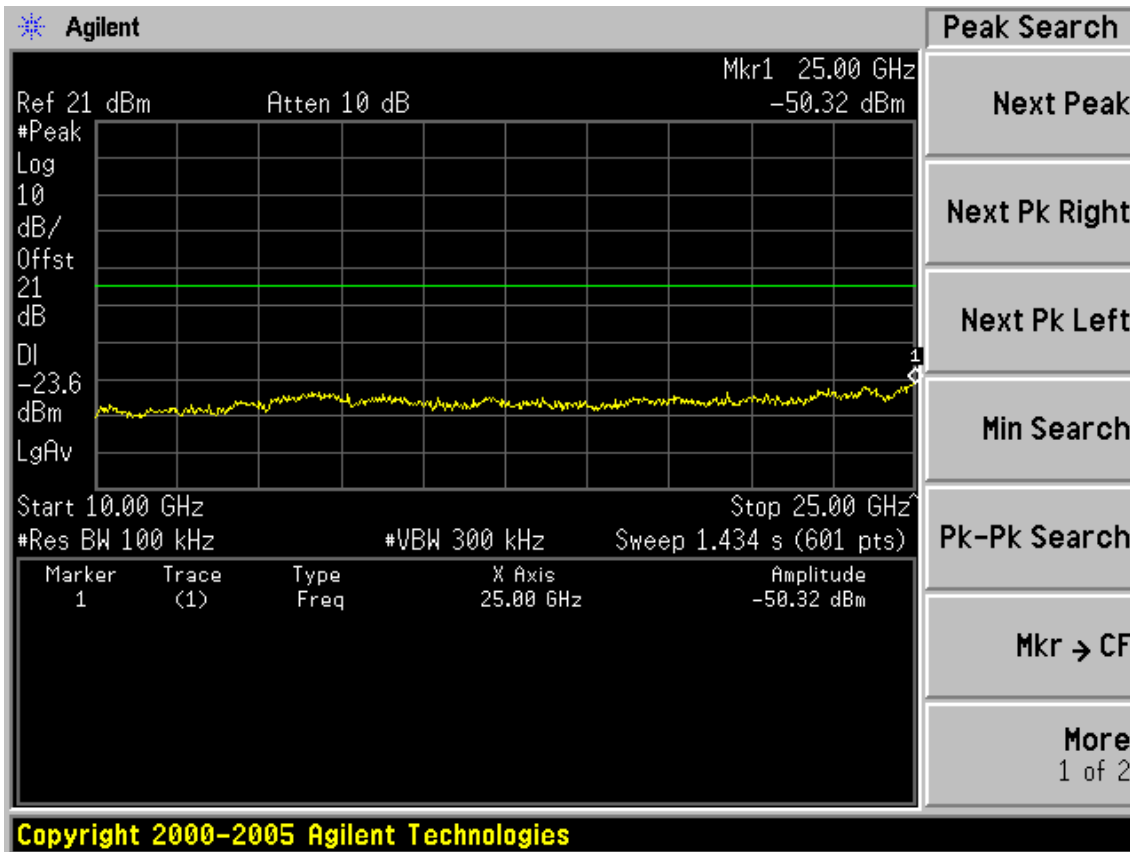




Test CH4: 2437MHz







6. BAND EDGE COMPLIANCE TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.08, 12	1 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 12	1 Year

6.2. Limit

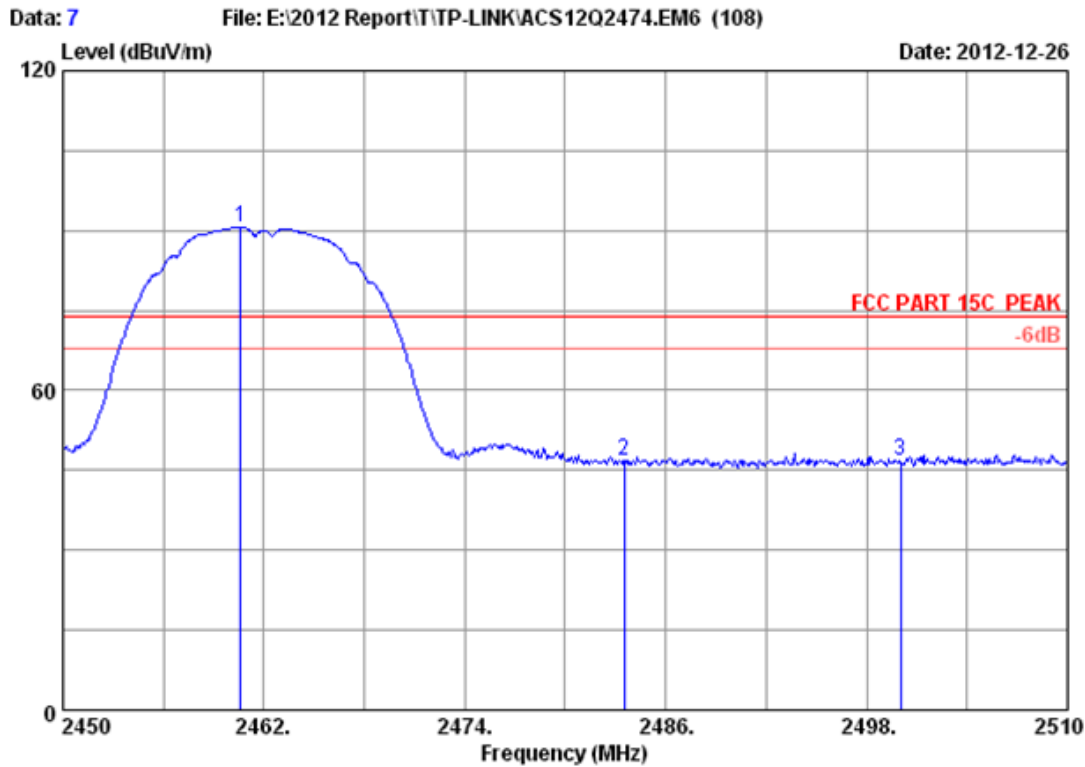
All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4. Test Results

Pass (The testing data was attached in the next pages.)

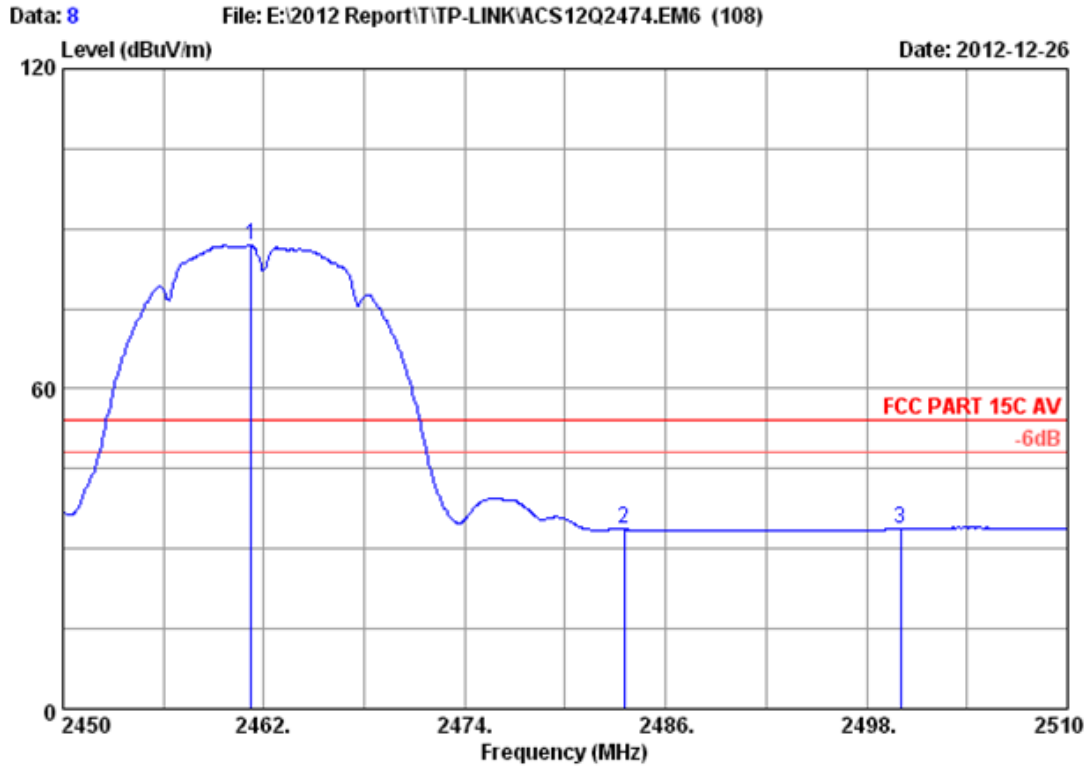


Site no. : 3m Chamber Data no. : 7
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.620	27.15	6.12	35.92	93.27	90.62	74.00	-16.62	Peak
2	2483.500	27.29	6.16	35.92	49.22	46.75	74.00	27.25	Peak
3	2500.000	27.40	6.19	35.93	49.12	46.78	74.00	27.22	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

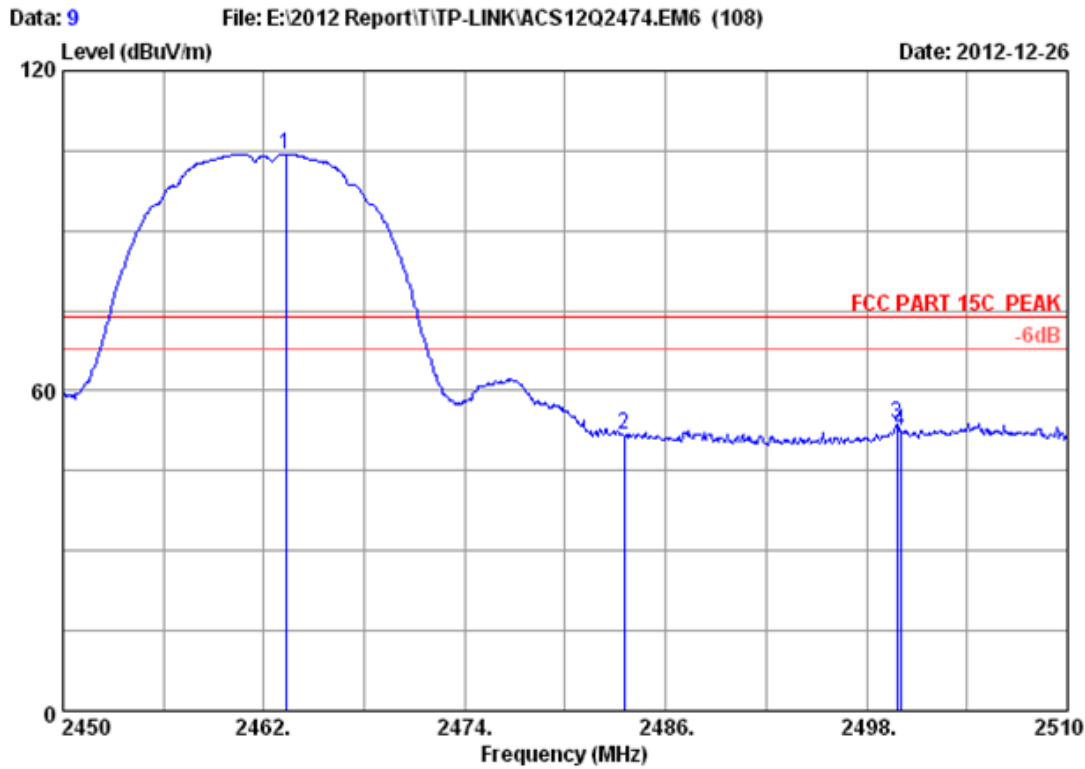


Site no. : 3m Chamber Data no. : 8
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2461.220	27.15	6.12	35.92	89.56	86.91	54.00	-32.91	Average
2	2483.500	27.29	6.16	35.92	36.13	33.66	54.00	20.34	Average
3	2500.000	27.40	6.19	35.93	36.23	33.89	54.00	20.11	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

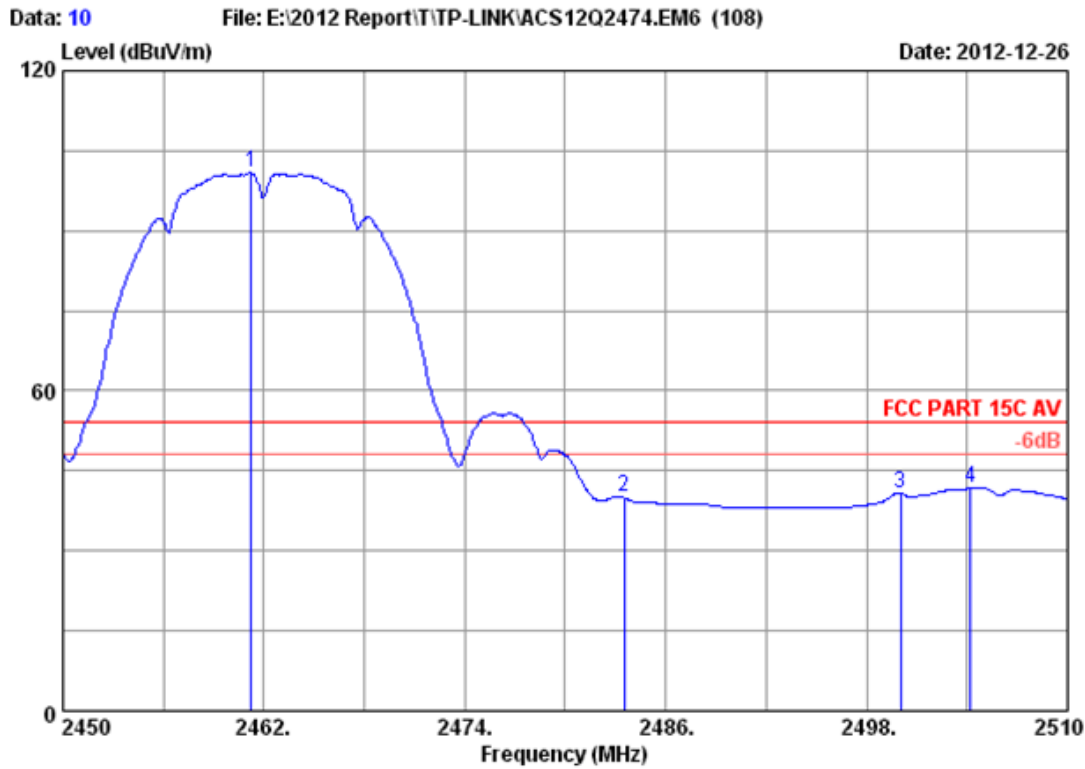


Site no. : 3m Chamber Data no. : 9
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2463.320	27.17	6.12	35.92	107.02	104.39	74.00	-30.39	Peak
2	2483.500	27.29	6.16	35.92	54.12	51.65	74.00	22.35	Peak
3	2499.800	27.40	6.19	35.92	56.27	53.94	74.00	20.06	Peak
4	2500.000	27.40	6.19	35.93	54.88	52.54	74.00	21.46	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

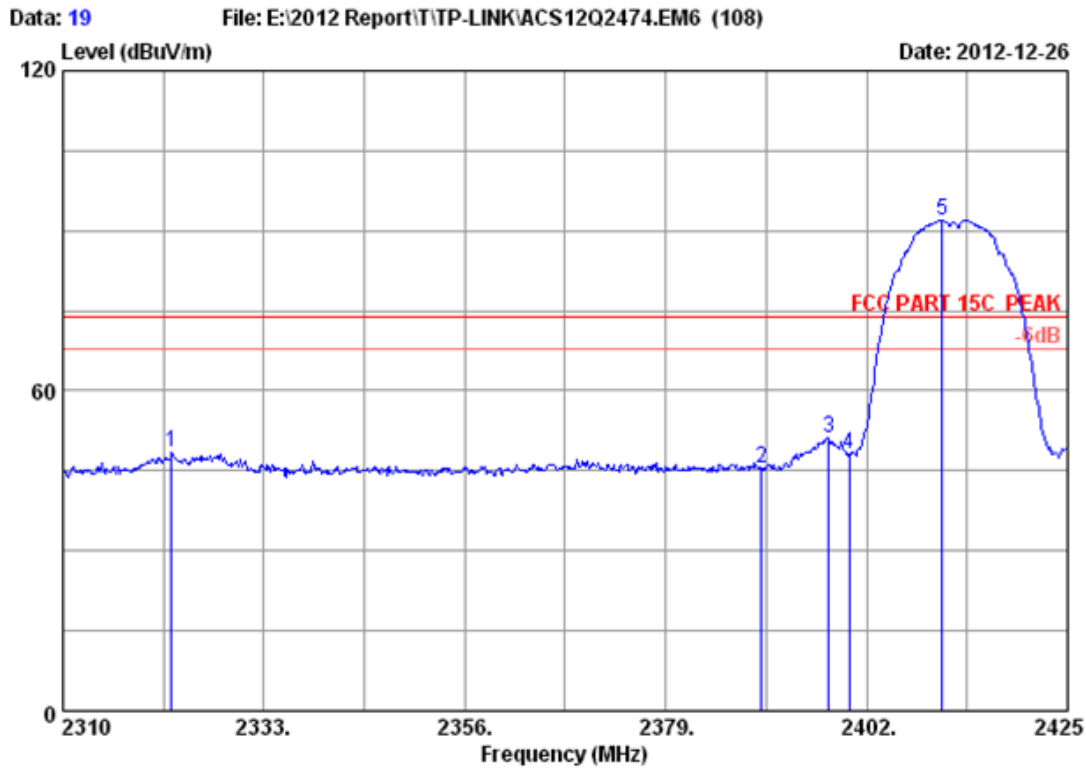


Site no. : 3m Chamber Data no. : 10
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2461.220	27.15	6.12	35.92	103.46	54.00	-46.81	Average	
2	2483.500	27.29	6.16	35.92	42.49	54.00	13.98	Average	
3	2500.000	27.40	6.19	35.93	43.15	54.00	13.19	Average	
4	2504.180	27.42	6.19	35.93	43.99	54.00	12.33	Average	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



```

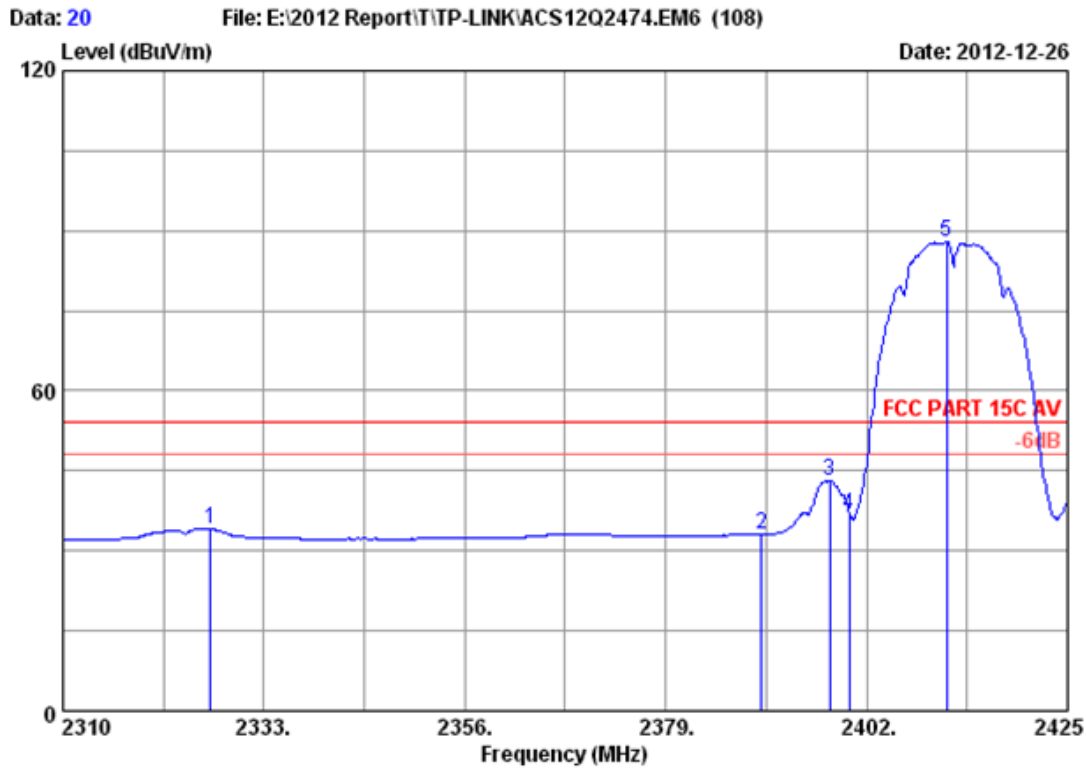
Site no.      : 3m Chamber           Data no.   : 19
Dis. / Ant.  : 3m 2012 3115 (4580)  Ant. pol. : HORIZONTAL
Limit       : FCC PART 15C PEAK
Env. / Ins.  : 23*C/54%             Engineer  : Leo-Li
EUT         : 300Mbps Wireless N Gigabit ADSL2+Modem Router
Power supply : DC 12V From Adapter input AC 120V/60Hz
Test mode    : IEEE802.11b CH 1 2412MHz Tx
M/N         : TD-W8970
:

```

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2322.420	26.26	5.88	35.92	52.11	48.33	74.00	25.67	Peak
2	2390.000	26.70	6.00	35.92	48.57	45.35	74.00	28.65	Peak
3	2397.630	26.74	6.01	35.92	54.43	51.26	74.00	22.74	Peak
4	2400.000	26.76	6.02	35.92	51.28	48.14	74.00	25.86	Peak
5	2410.625	26.83	6.04	35.92	94.96	91.91	74.00	-17.91	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

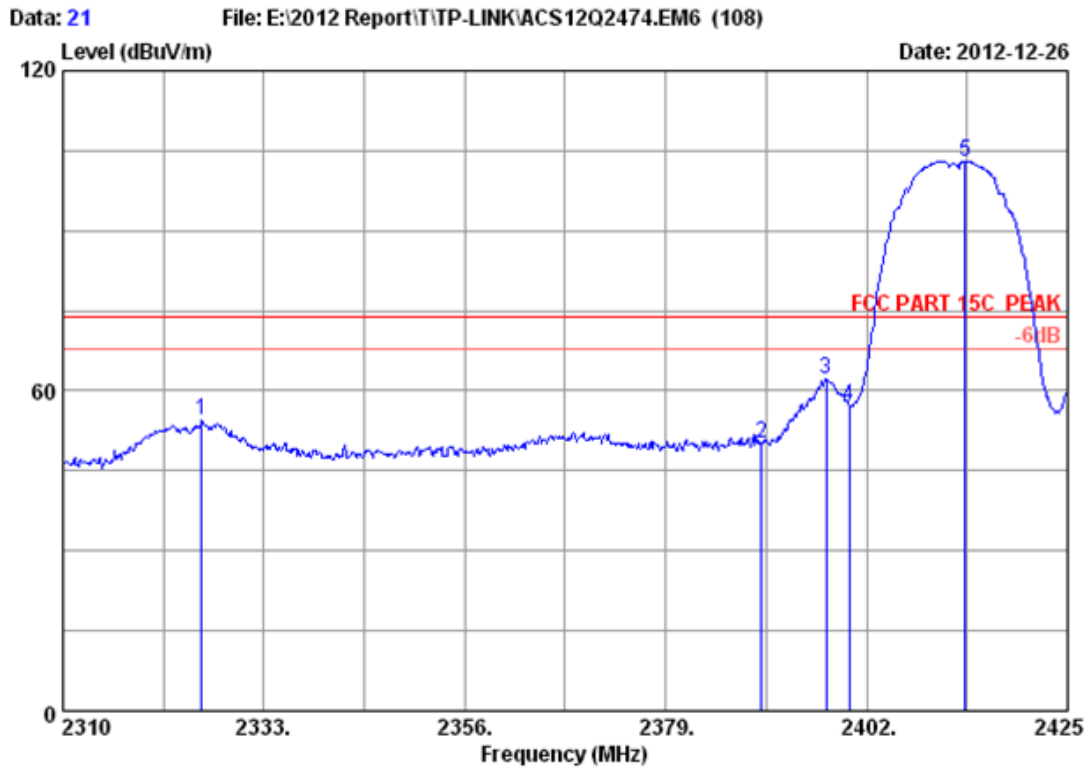


Site no. : 3m Chamber Data no. : 20
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH 1 2412MHz Tx
 M/N : TD-W8970

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2326.905	26.29	5.89	35.92	37.83	34.09	54.00	19.91	Average
2	2390.000	26.70	6.00	35.92	36.36	33.14	54.00	20.86	Average
3	2397.745	26.75	6.01	35.92	46.32	43.16	54.00	10.84	Average
4	2400.000	26.76	6.02	35.92	39.85	36.71	54.00	17.29	Average
5	2411.200	26.83	6.04	35.92	91.03	87.98	54.00	-33.98	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



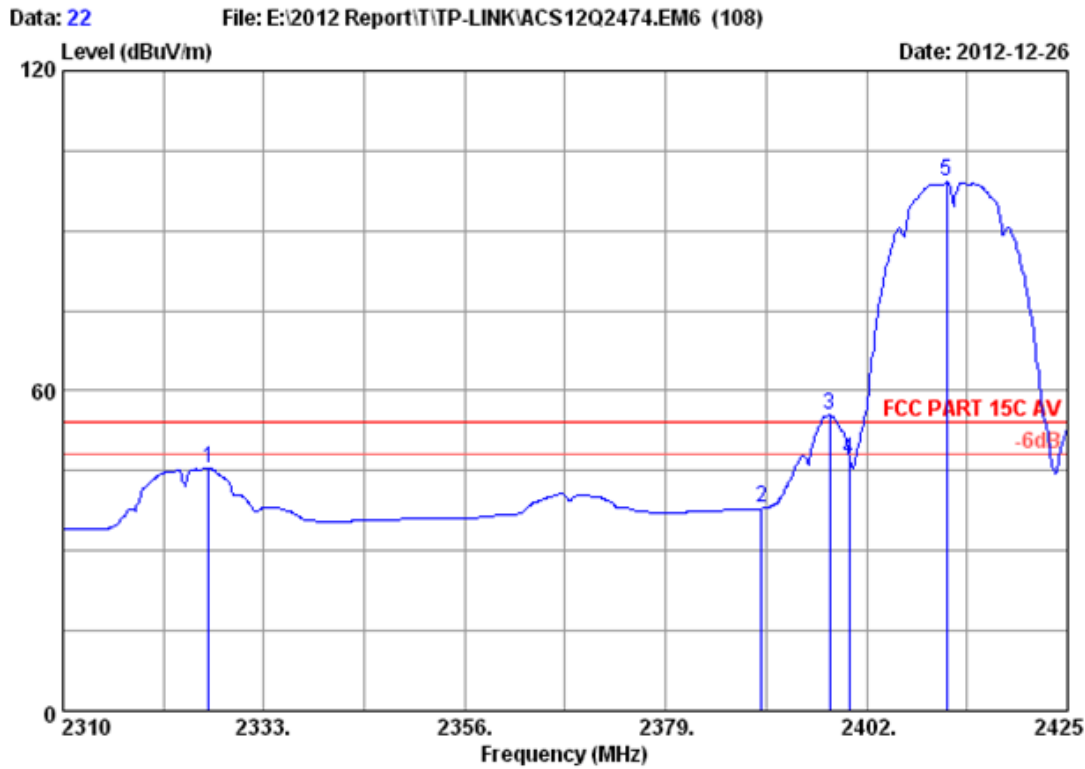
```

Site no.      : 3m Chamber                Data no.   : 21
Dis. / Ant.  : 3m 2012 3115 (4580)       Ant. pol.  : VERTICAL
Limit        : FCC PART 15C PEAK
Env. / Ins.  : 23*C/54%                  Engineer   : Leo-Li
EUT          : 300Mbps Wireless N Gigabit ADSL2+Modem Router
Power supply : DC 12V From Adapter input AC 120V/60Hz
Test mode    : IEEE802.11b CH 1 2412MHz Tx
M/N          : TD-W8970
:
  
```

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2325.870	26.29	5.89	35.92	58.06	54.32	74.00	19.68	Peak
2	2390.000	26.70	6.00	35.92	53.42	50.20	74.00	23.80	Peak
3	2397.400	26.74	6.01	35.92	65.38	62.21	74.00	11.79	Peak
4	2400.000	26.76	6.02	35.92	60.41	57.27	74.00	16.73	Peak
5	2413.270	26.84	6.04	35.92	106.11	103.07	74.00	-29.07	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

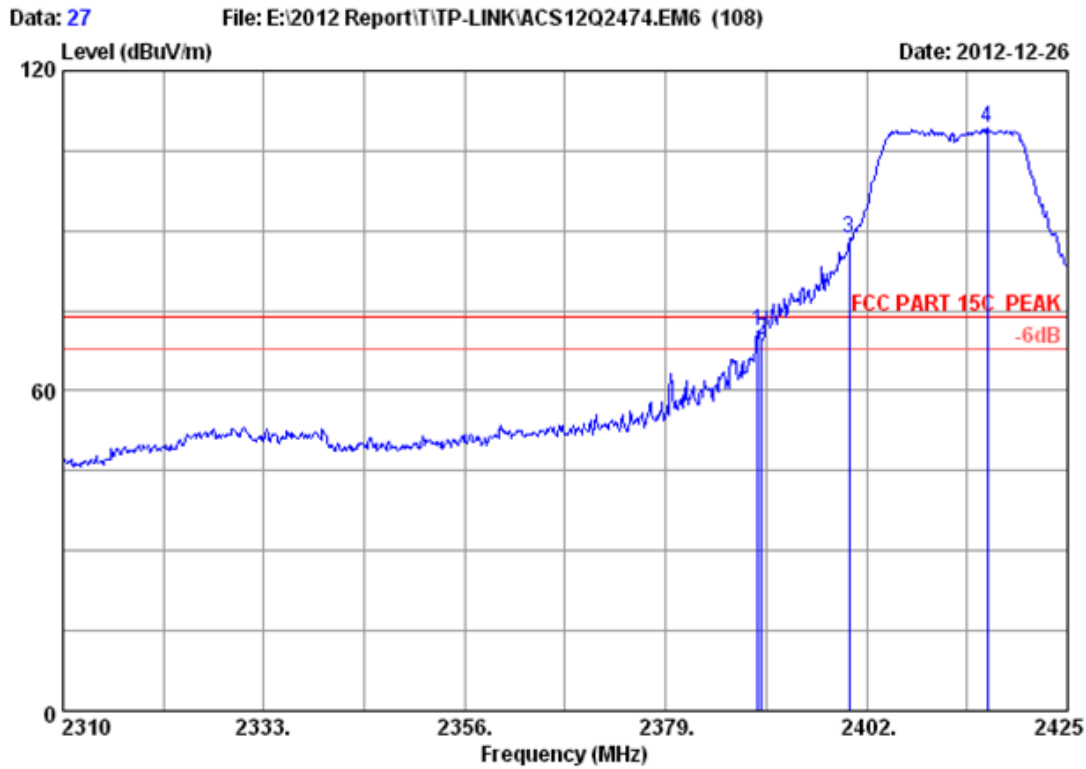


Site no. : 3m Chamber Data no. : 22
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11b CH 1 2412MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2326.675	26.29	5.89	35.92	49.23	45.49	54.00	8.51	Average
2	2390.000	26.70	6.00	35.92	41.17	37.95	54.00	16.05	Average
3	2397.745	26.75	6.01	35.92	58.51	55.35	54.00	-1.35	Average
4	2400.000	26.76	6.02	35.92	50.21	47.07	54.00	6.93	Average
5	2411.200	26.83	6.04	35.92	102.16	99.11	54.00	-45.11	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



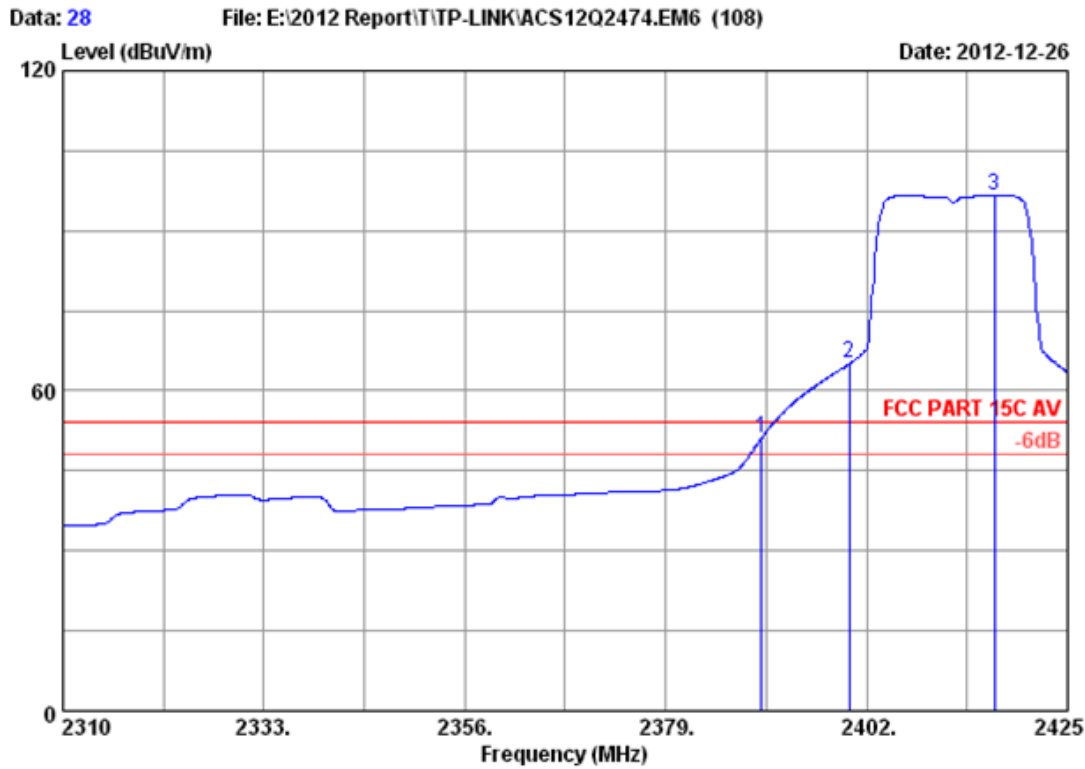
```

Site no.      : 3m Chamber           Data no.   : 27
Dis. / Ant.  : 3m 2012 3115 (4580)  Ant. pol.  : VERTICAL
Limit       : FCC PART 15C PEAK
Env. / Ins.  : 23*C/54%             Engineer   : Leo-Li
EUT         : 300Mbps Wireless N Gigabit ADSL2+Modem Router
Power supply : DC 12V From Adapter input AC 120V/60Hz
Test mode    : IEEE802.11g CH 1 2412MHz Tx
M/N         : TD-W8970
:
  
```

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2389.580	26.69	6.00	35.92	74.46	71.23	74.00	2.77	Peak
2	2390.000	26.70	6.00	35.92	72.77	69.55	74.00	4.45	Peak
3	2400.000	26.76	6.02	35.92	91.71	88.57	74.00	-14.57	Peak
4	2415.800	26.86	6.04	35.92	112.39	109.37	74.00	-35.37	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



```

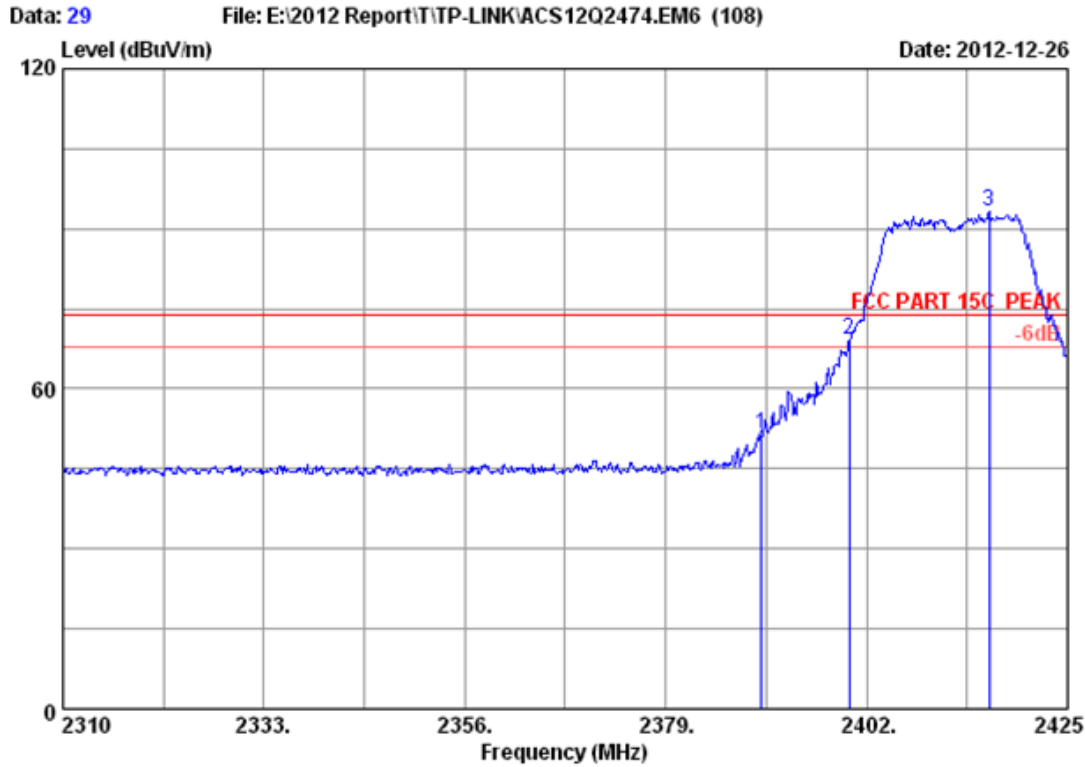
Site no.      : 3m Chamber           Data no.   : 28
Dis. / Ant.  : 3m 2012 3115 (4580)  Ant. pol. : VERTICAL
Limit        : FCC PART 15C AV
Env. / Ins.  : 23°C/54%             Engineer  : Leo-Li
EUT         : 300Mbps Wireless N Gigabit ADSL2+Modem Router
Power supply : DC 12V From Adapter input AC 120V/60Hz
Test mode    : IEEE802.11g CH 1 2412MHz Tx
M/N         : TD-W8970
:

```

	Ant. Factor	Cable loss	Amp. Factor	Reading	Emission Level	Limits	Margin	Remark	
1	2390.000	26.70	6.00	35.92	54.50	51.28	54.00	2.72	Average
2	2400.000	26.76	6.02	35.92	68.31	65.17	54.00	-11.17	Average
3	2416.605	26.87	6.05	35.92	99.62	96.62	54.00	-42.62	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



```

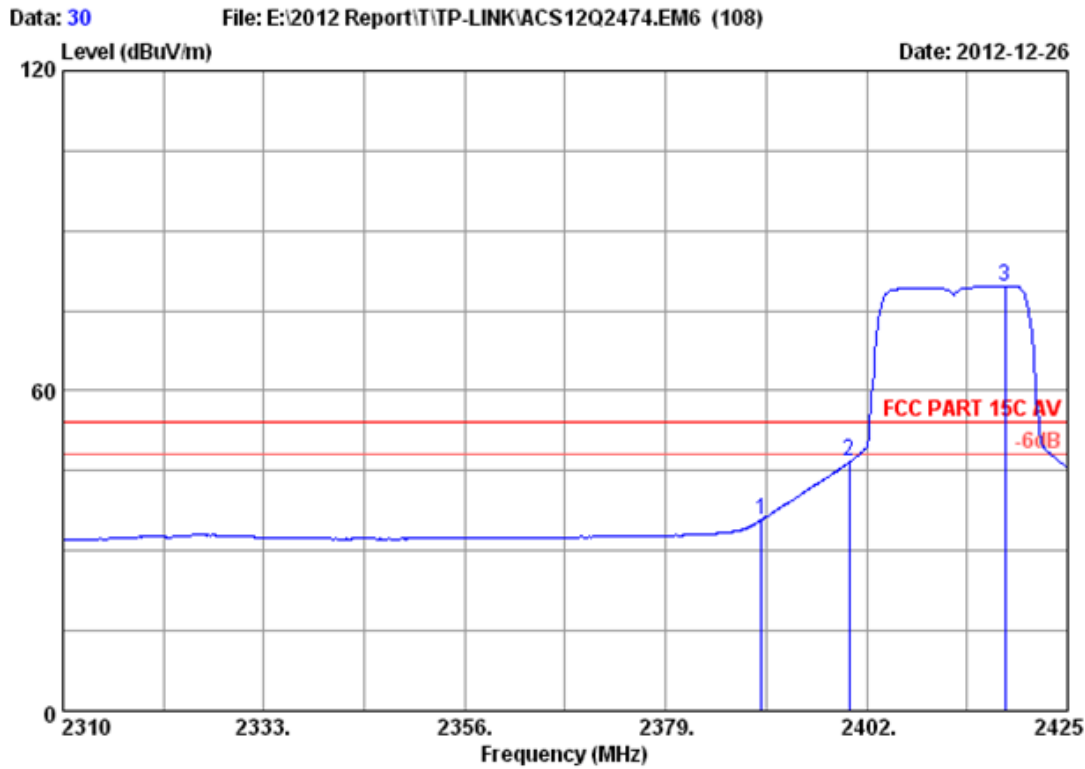
Site no.      : 3m Chamber           Data no.   : 29
Dis. / Ant.  : 3m 2012 3115 (4580)  Ant. pol.  : HORIZONTAL
Limit        : FCC PART 15C PEAK
Env. / Ins.  : 23*C/54%             Engineer   : Leo-Li
EUT          : 300Mbps Wireless N Gigabit ADSL2+Modem Router
Power supply : DC 12V From Adapter input AC 120V/60Hz
Test mode    : IEEE802.11g CH 1 2412MHz Tx
M/N          : TD-W8970
:

```

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2390.000	26.70	6.00	35.92	54.73	51.51	74.00	22.49	Peak	
2 2400.000	26.76	6.02	35.92	72.17	69.03	74.00	4.97	Peak	
3 2416.030	26.86	6.04	35.92	96.19	93.17	74.00	-19.17	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



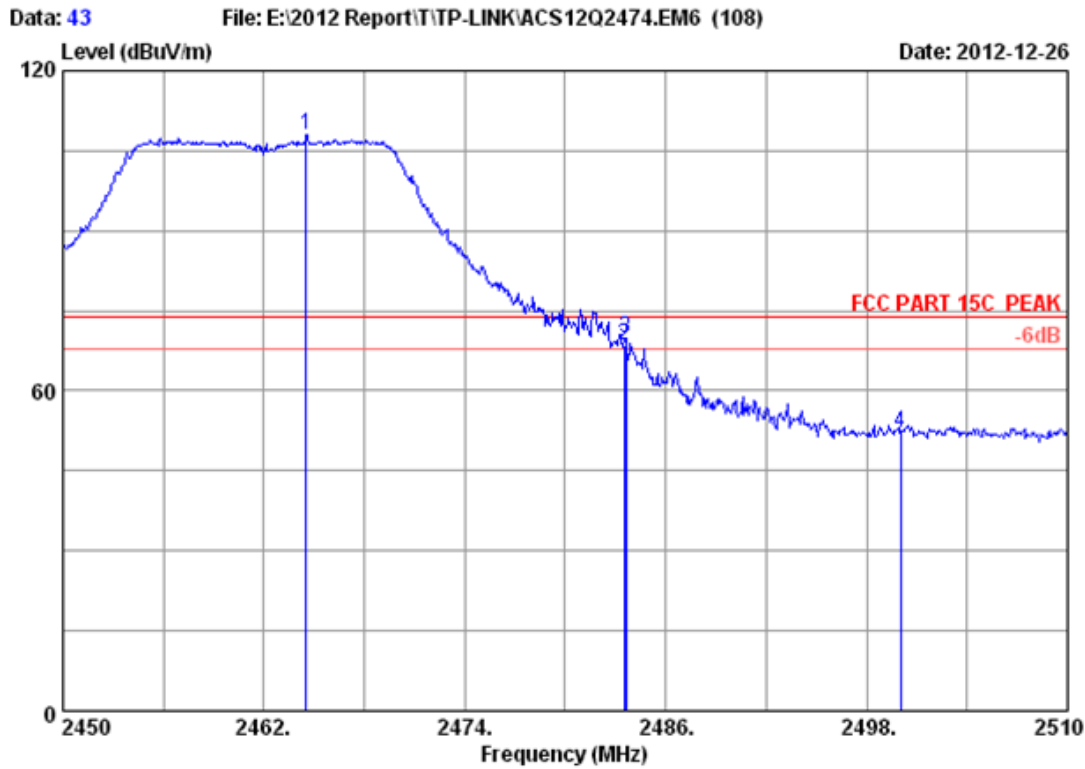
```

Site no.      : 3m Chamber           Data no.   : 30
Dis. / Ant.  : 3m 2012 3115 (4580)  Ant. pol.  : HORIZONTAL
Limit        : FCC PART 15C AV
Env. / Ins.  : 23°C/54%             Engineer   : Leo-Li
EUT          : 300Mbps Wireless N Gigabit ADSL2+Modem Router
Power supply : DC 12V From Adapter input AC 120V/60Hz
Test mode    : IEEE802.11g CH 1 2412MHz Tx
M/N          : TD-W8970
    
```

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2390.000	26.70	6.00	35.92	39.08	35.86	54.00	18.14	Average	
2 2400.000	26.76	6.02	35.92	49.80	46.66	54.00	7.34	Average	
3 2417.870	26.87	6.05	35.92	82.69	79.69	54.00	-25.69	Average	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

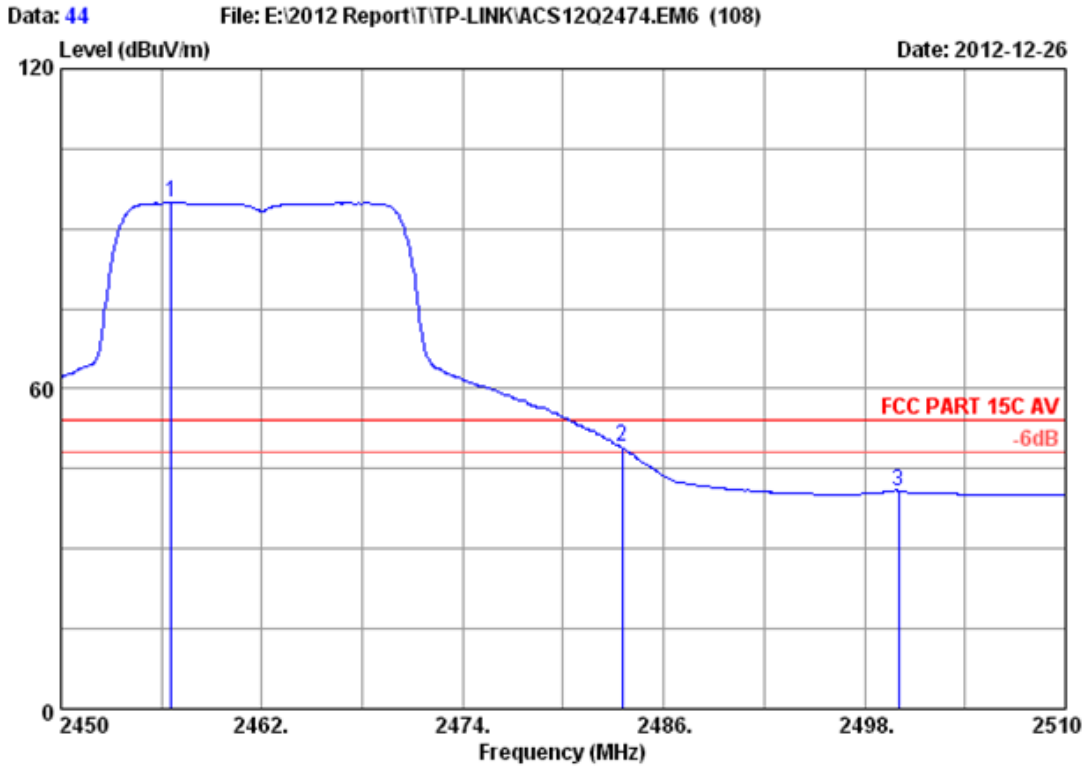


Site no. : 3m Chamber Data no. : 43
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2464.520	27.17	6.13	35.92	110.56	107.94	74.00	-33.94	Peak
2	2483.500	27.29	6.16	35.92	70.96	68.49	74.00	5.51	Peak
3	2483.600	27.30	6.16	35.92	72.45	69.99	74.00	4.01	Peak
4	2500.000	27.40	6.19	35.93	54.43	52.09	74.00	21.91	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

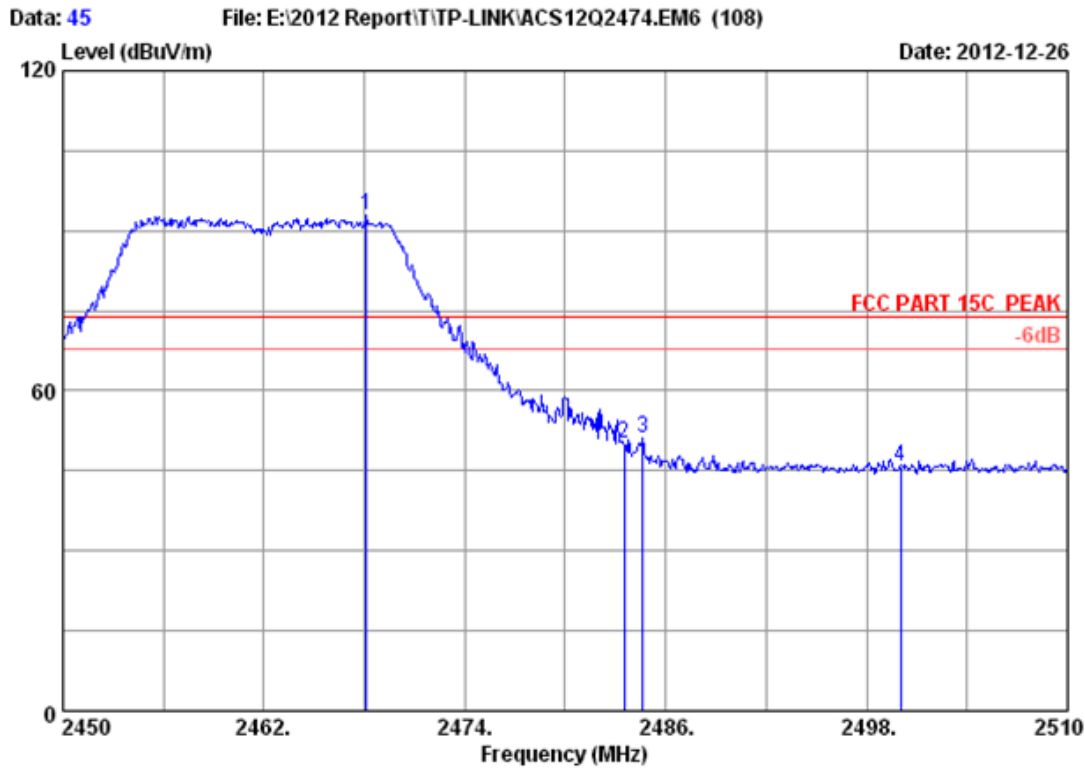


Site no. : 3m Chamber Data no. : 44
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH 11 2462MHz Tx
 M/N : TD-W8970

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2456.600	27.12	6.11	35.92	97.56	94.87	54.00	-40.87	Average
2	2483.500	27.29	6.16	35.92	51.48	49.01	54.00	4.99	Average
3	2500.000	27.40	6.19	35.93	43.28	40.94	54.00	13.06	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



```

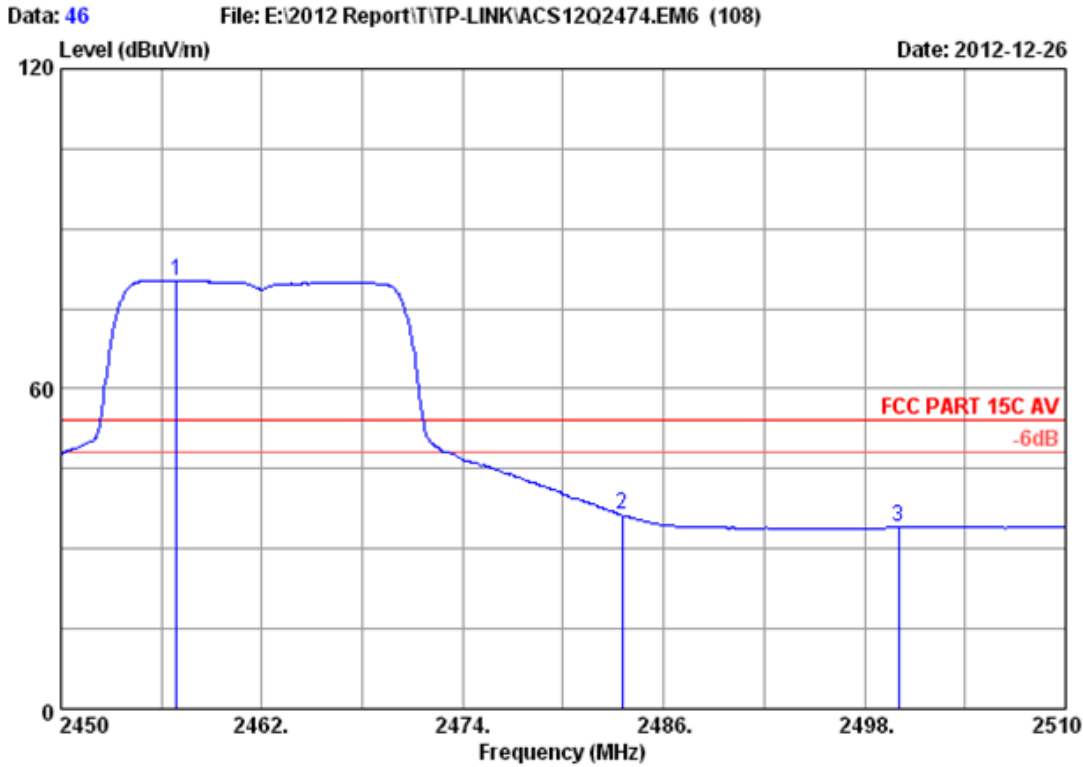
Site no.      : 3m Chamber                Data no.   : 45
Dis. / Ant.  : 3m 2012 3115 (4580)       Ant. pol.  : HORIZONTAL
Limit        : FCC PART 15C PEAK
Env. / Ins.  : 23*C/54%                  Engineer   : Leo-Li
EUT          : 300Mbps Wireless N Gigabit ADSL2+Modem Router
Power supply : DC 12V From Adapter input AC 120V/60Hz
Test mode    : IEEE802.11g CH 11 2462MHz Tx
M/N          : TD-W8970
:

```

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2468.120	27.20	6.13	35.92	95.50	92.91	74.00	-18.91	Peak	
2 2483.500	27.29	6.16	35.92	52.51	50.04	74.00	23.96	Peak	
3 2484.620	27.30	6.16	35.92	53.66	51.20	74.00	22.80	Peak	
4 2500.000	27.40	6.19	35.93	48.11	45.77	74.00	28.23	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

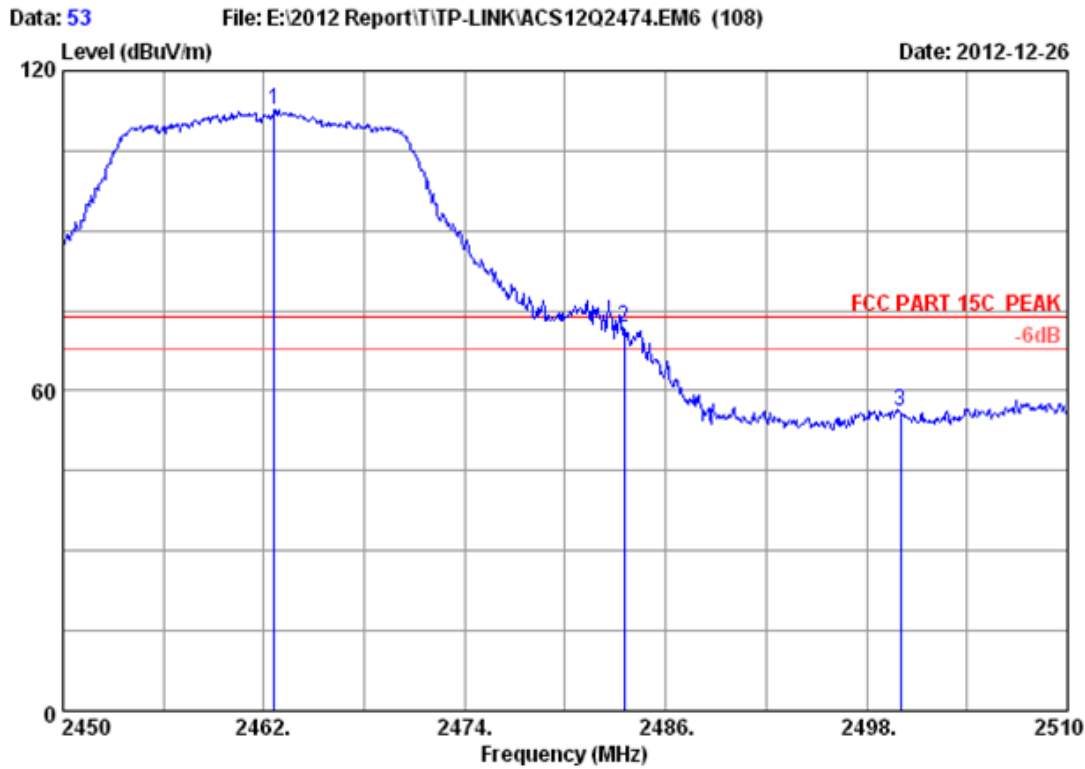


Site no. : 3m Chamber Data no. : 46
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11g CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2456.900	27.12	6.11	35.92	83.07	80.38	54.00	-26.38	Average	
2 2483.500	27.29	6.16	35.92	38.78	36.31	54.00	17.69	Average	
3 2500.000	27.40	6.19	35.93	36.38	34.04	54.00	19.96	Average	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

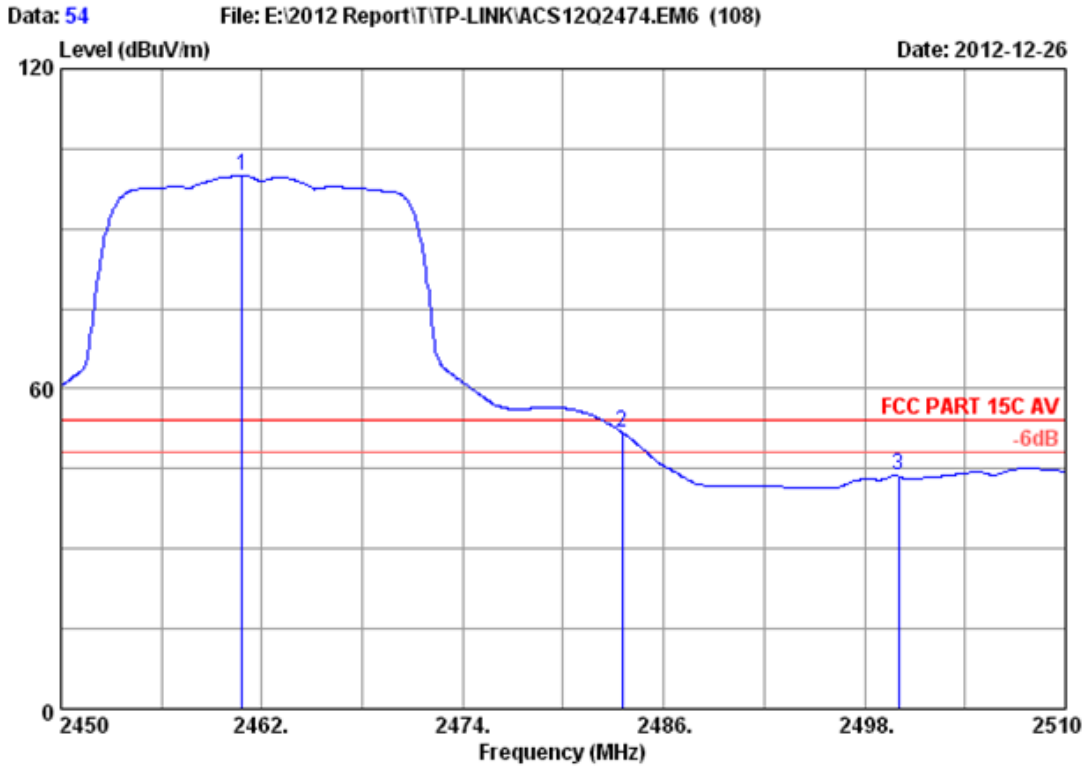


Site no. : 3m Chamber Data no. : 53
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx
 M/N : TD-W8970

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2462.600	27.16	6.12	35.92	115.25	112.61	74.00	-38.61	Peak	
2 2483.500	27.29	6.16	35.92	74.36	71.89	74.00	2.11	Peak	
3 2500.000	27.40	6.19	35.93	58.54	56.20	74.00	17.80	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

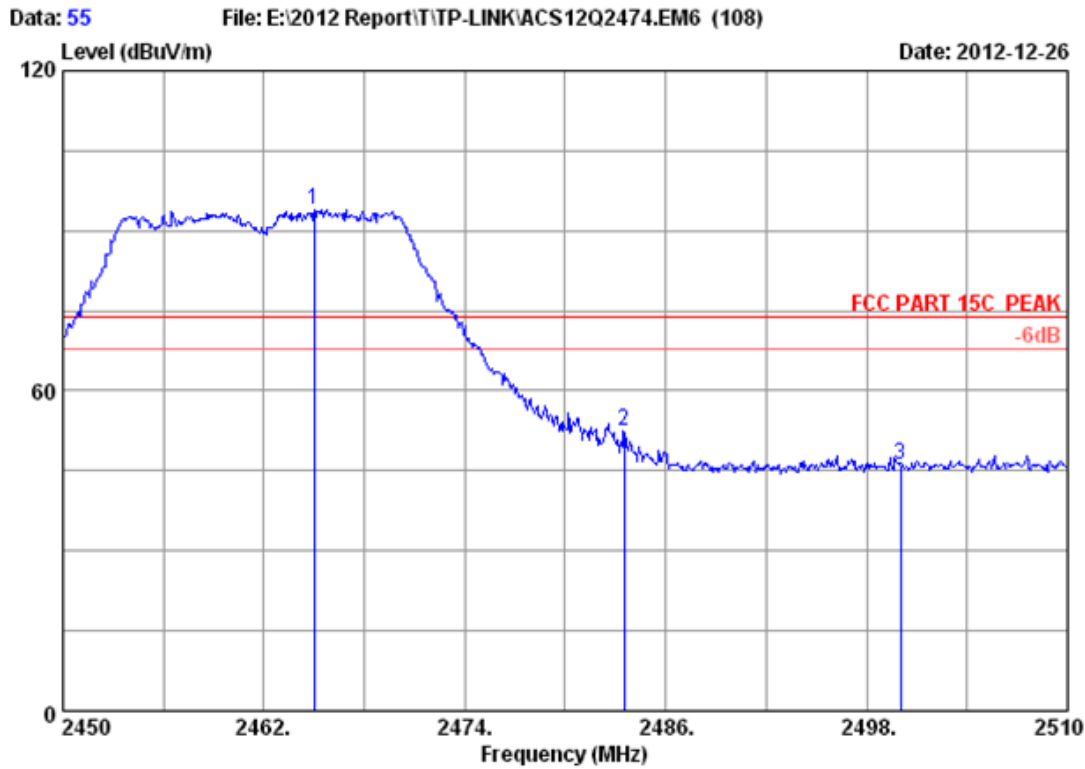


Site no. : 3m Chamber Data no. : 54
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx
 M/N : TD-W8970

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	27.15	6.12	35.92	102.62	99.97	54.00	-45.97	Average	
2	27.29	6.16	35.92	54.31	51.84	54.00	2.16	Average	
3	27.40	6.19	35.93	45.99	43.65	54.00	10.35	Average	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

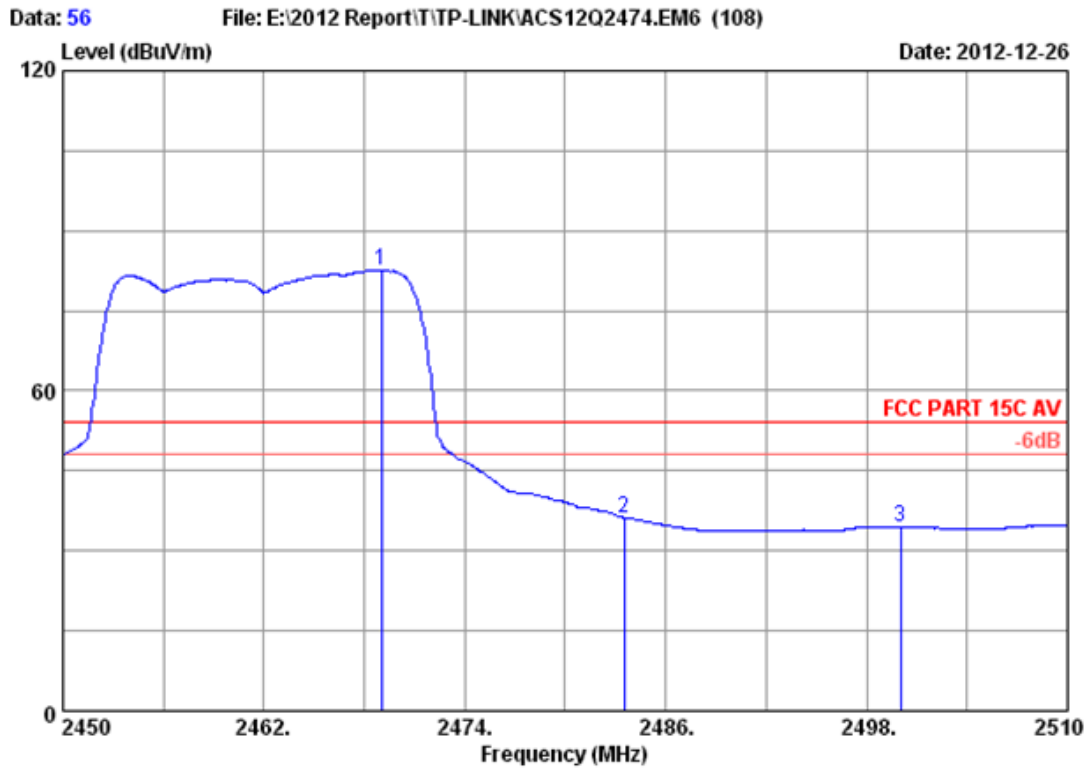


Site no. : 3m Chamber Data no. : 55
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2465.000	27.18	6.13	35.92	96.67	94.06	74.00	-20.06	Peak	
2 2483.500	27.29	6.16	35.92	54.84	52.37	74.00	21.63	Peak	
3 2500.000	27.40	6.19	35.93	48.61	46.27	74.00	27.73	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

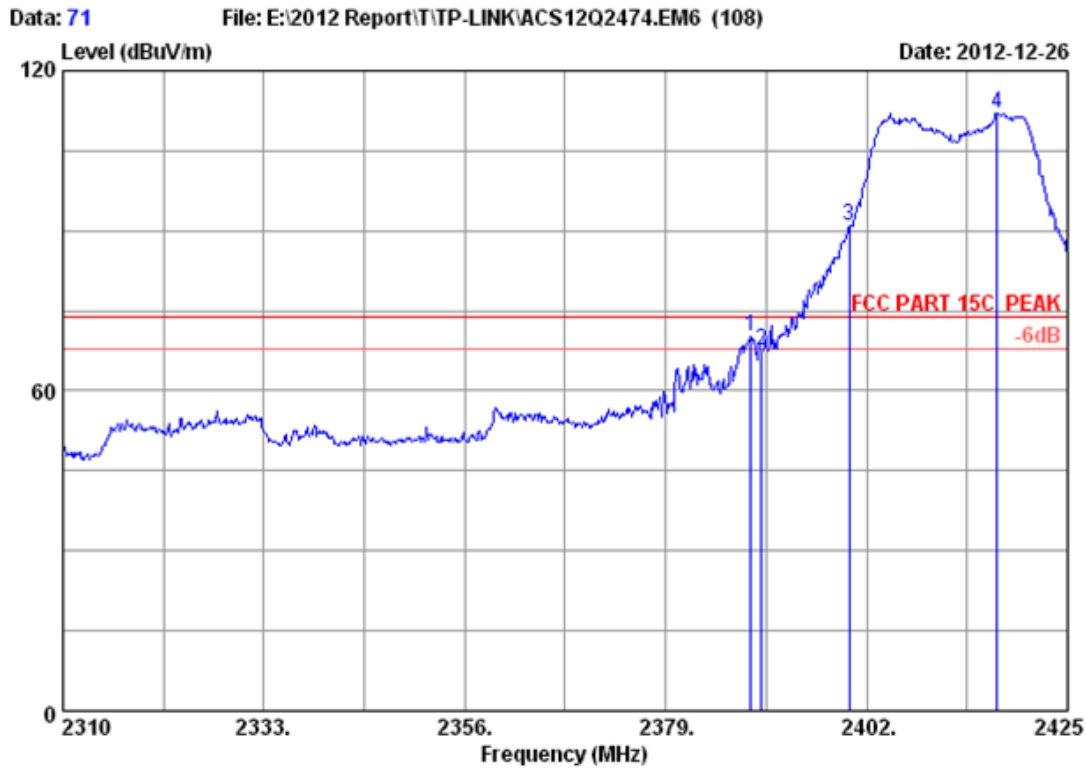


Site no. : 3m Chamber Data no. : 56
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2469.020	27.20	6.13	35.92	85.29	82.70	54.00	-28.70	Average	
2 2483.500	27.29	6.16	35.92	38.68	36.21	54.00	17.79	Average	
3 2500.000	27.40	6.19	35.93	36.78	34.44	54.00	19.56	Average	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

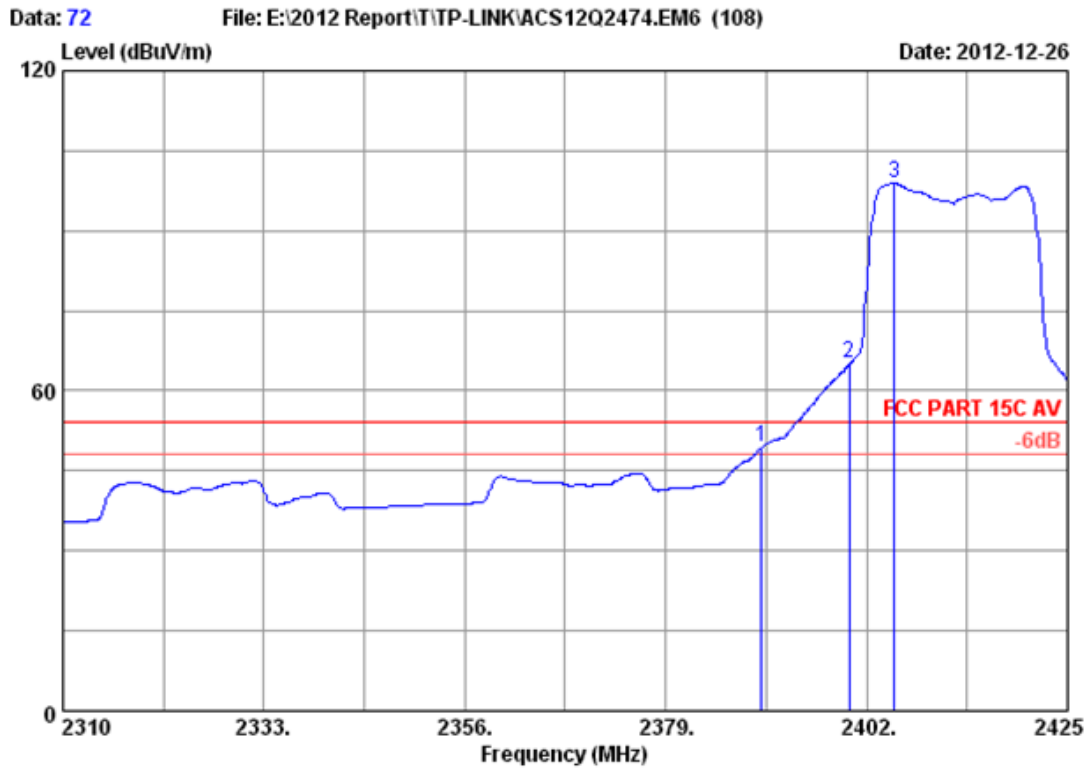


Site no. : 3m Chamber Data no. : 71
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx
 M/N : TD-W8970

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2388.775	26.69	6.00	35.92	73.59	70.36	74.00	3.64	Peak
2	2390.000	26.70	6.00	35.92	70.75	67.53	74.00	6.47	Peak
3	2400.000	26.76	6.02	35.92	93.95	90.81	74.00	-16.81	Peak
4	2416.950	26.87	6.05	35.92	114.98	111.98	74.00	-37.98	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

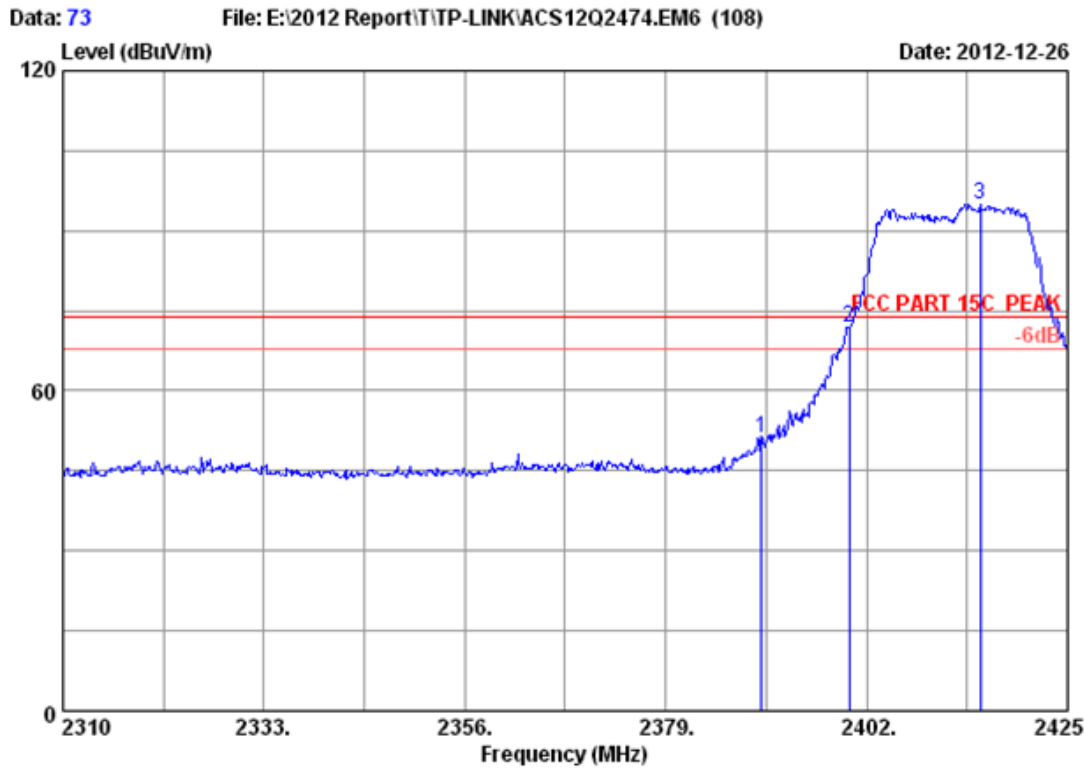


Site no. : 3m Chamber Data no. : 72
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2390.000	26.70	6.00	35.92	52.62	49.40	54.00	4.60	Average
2	2400.000	26.76	6.02	35.92	68.26	65.12	54.00	-11.12	Average
3	2405.220	26.79	6.03	35.92	101.94	98.84	54.00	-44.84	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

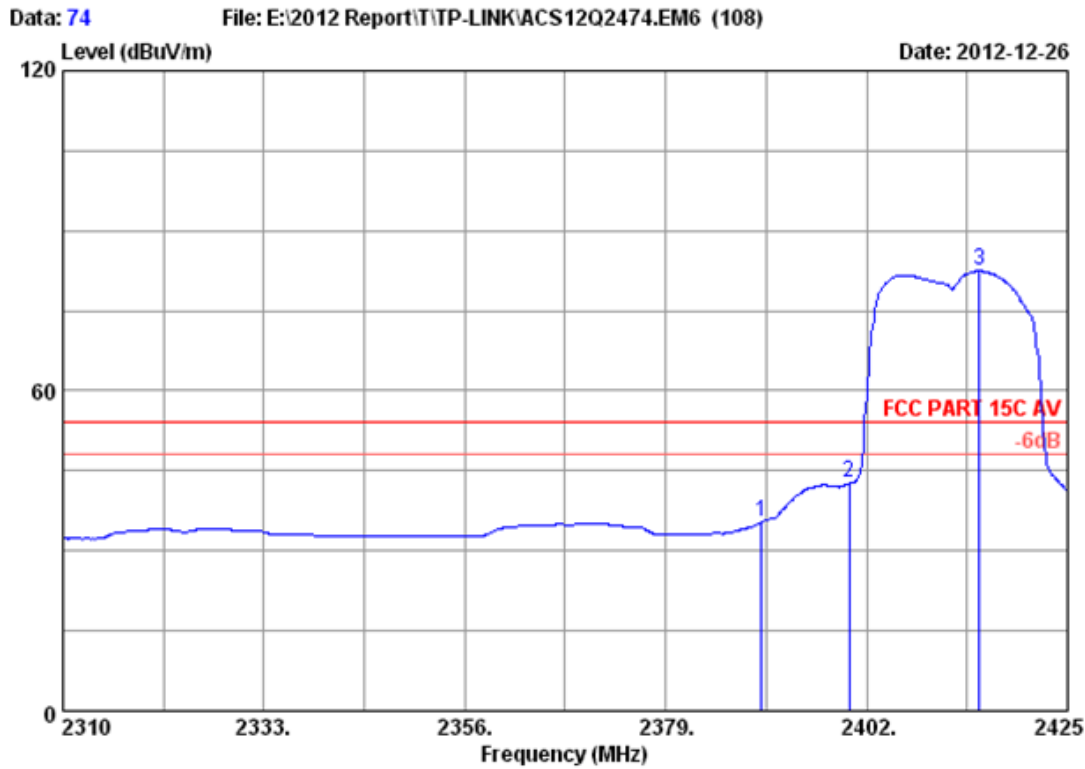


Site no. : 3m Chamber Data no. : 73
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2390.000	26.70	6.00	35.92	54.38	74.00	22.84	Peak	
2	2400.000	26.76	6.02	35.92	74.88	74.00	2.26	Peak	
3	2414.995	26.86	6.04	35.92	98.02	74.00	-21.00	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

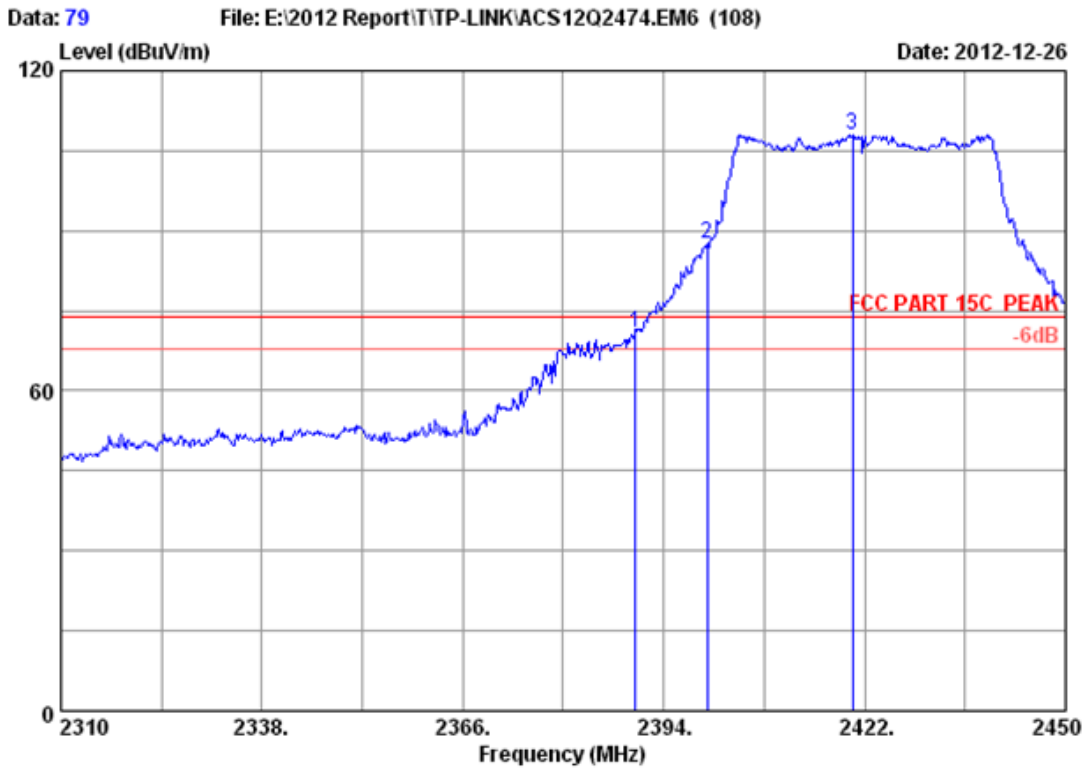


Site no. : 3m Chamber Data no. : 74
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx
 M/N : TD-W8970

	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	26.70	6.00	35.92	38.63	35.41	54.00	18.59	Average
2	26.76	6.02	35.92	45.84	42.70	54.00	11.30	Average
3	26.86	6.04	35.92	85.47	82.45	54.00	-28.45	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

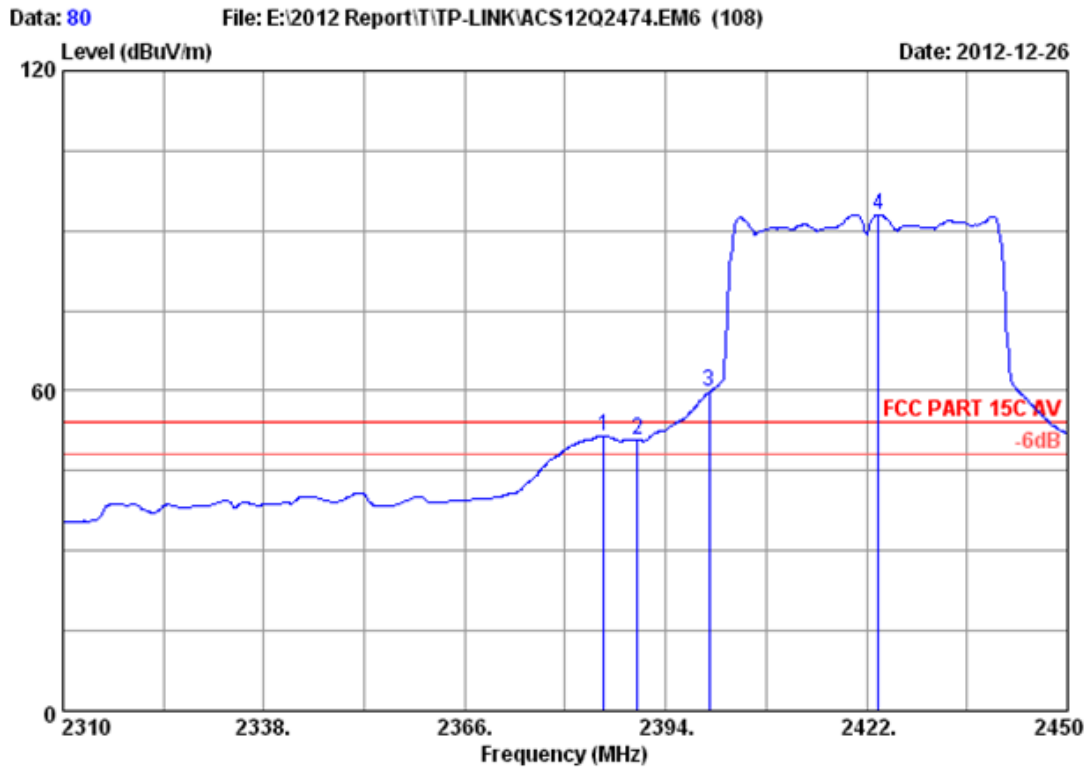


Site no. : 3m Chamber Data no. : 79
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2390.000	26.70	6.00	35.92	73.98	74.00	3.24	Peak	
2	2400.000	26.76	6.02	35.92	90.62	74.00	-13.48	Peak	
3	2420.320	26.89	6.05	35.92	110.87	74.00	-33.89	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

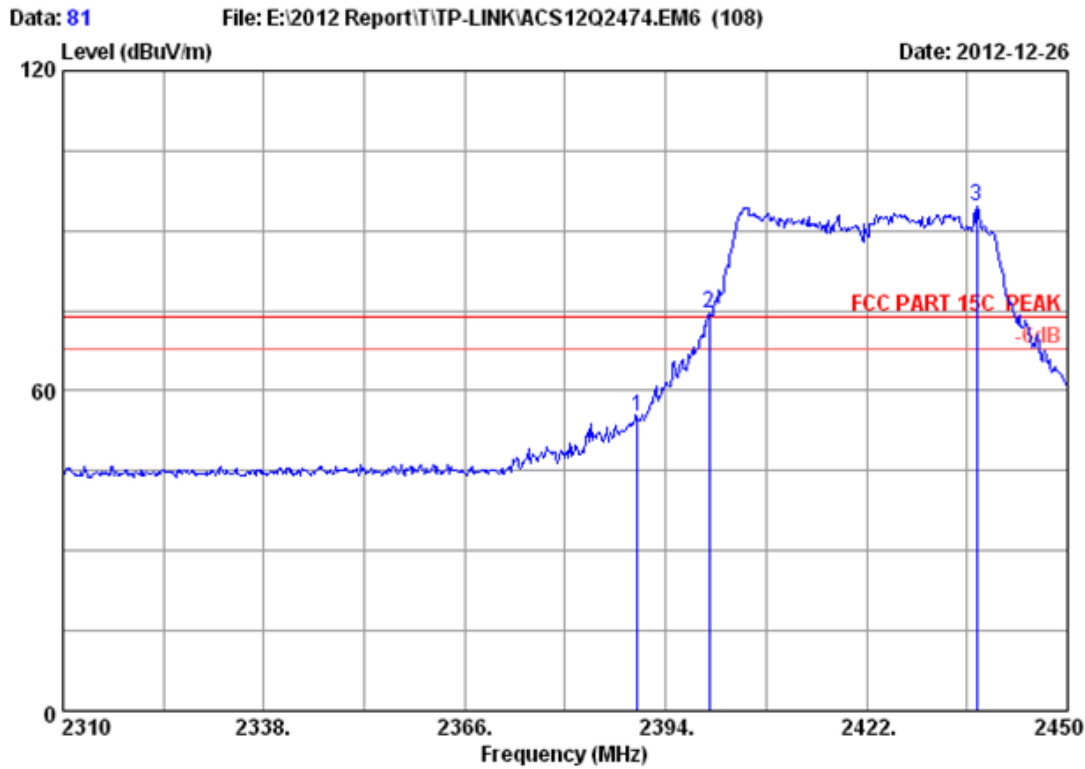


Site no. : 3m Chamber Data no. : 80
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2385.320	26.67	5.99	35.92	54.87	51.61	54.00	2.39	Average
2	2390.000	26.70	6.00	35.92	54.08	50.86	54.00	3.14	Average
3	2400.000	26.76	6.02	35.92	63.00	59.86	54.00	-5.86	Average
4	2423.680	26.91	6.06	35.92	96.03	93.08	54.00	-39.08	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

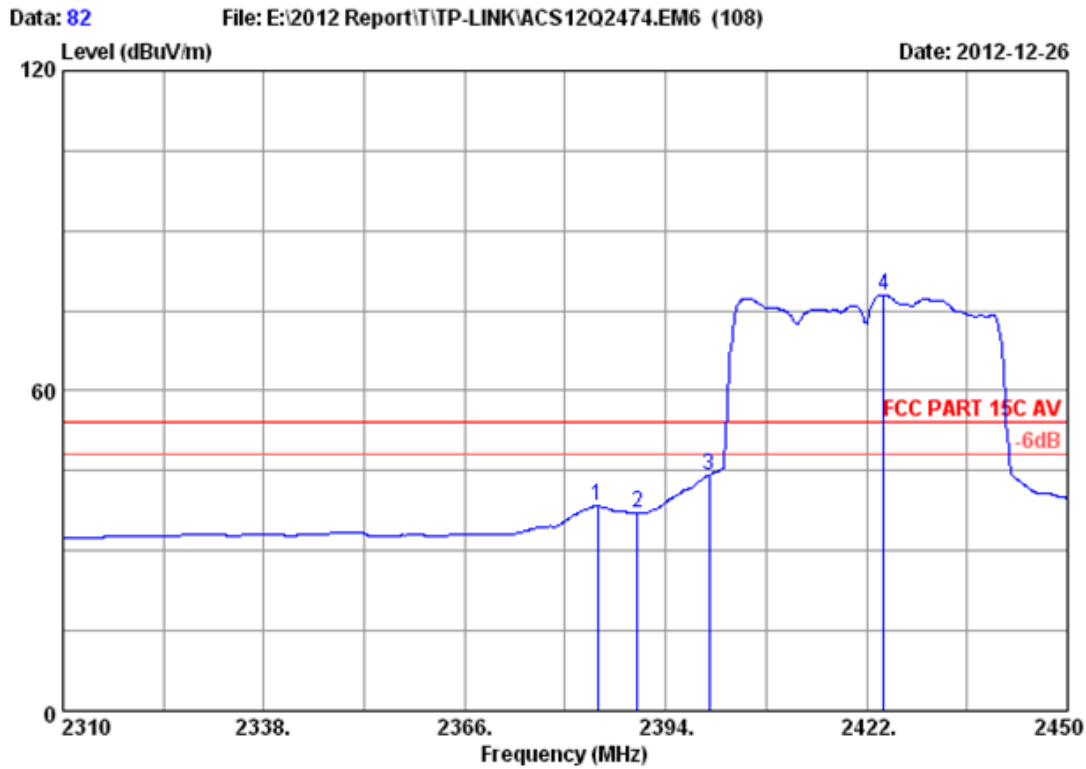


Site no. : 3m Chamber Data no. : 81
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2390.000	26.70	6.00	35.92	58.23	55.01	74.00	18.99	Peak
2	2400.000	26.76	6.02	35.92	77.72	74.58	74.00	-0.58	Peak
3	2437.400	27.00	6.08	35.92	97.48	94.64	74.00	-20.64	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

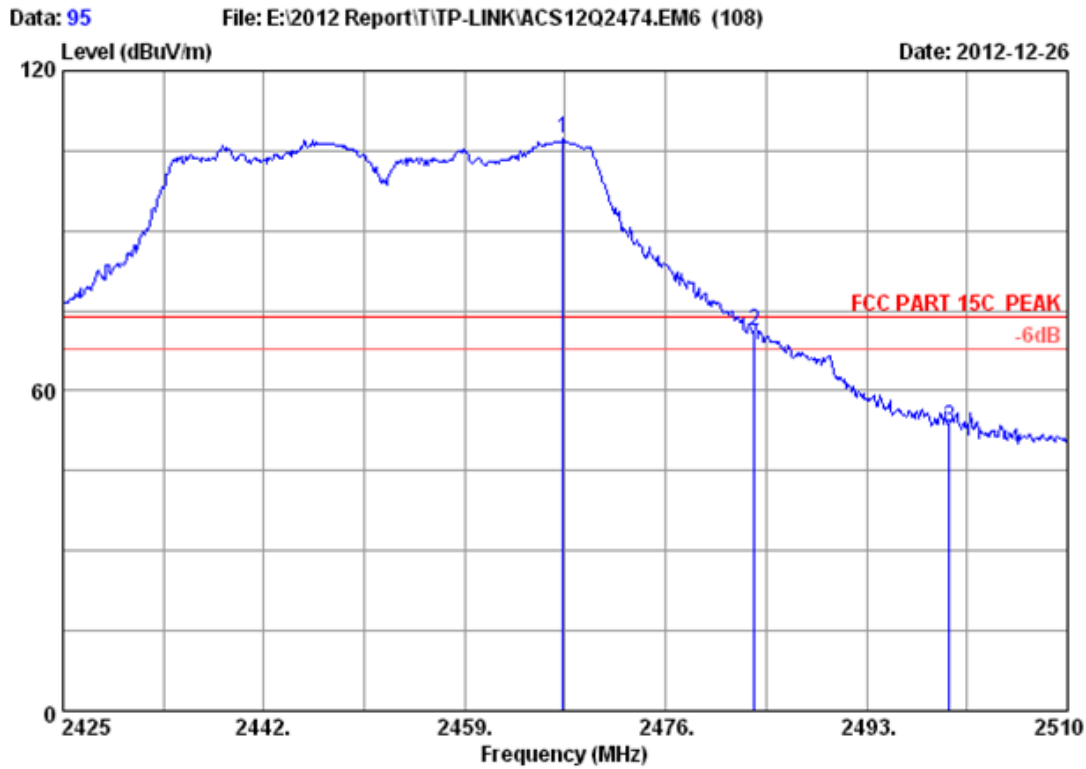


Site no. : 3m Chamber Data no. : 82
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq. (MHz)	Factor (dB/m)	loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2384.480	26.66	5.99	35.92	41.60	38.33	54.00	15.67	Average
2	2390.000	26.70	6.00	35.92	40.22	37.00	54.00	17.00	Average
3	2400.000	26.76	6.02	35.92	47.35	44.21	54.00	9.79	Average
4	2424.380	26.92	6.06	35.92	80.93	77.99	54.00	-23.99	Average

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

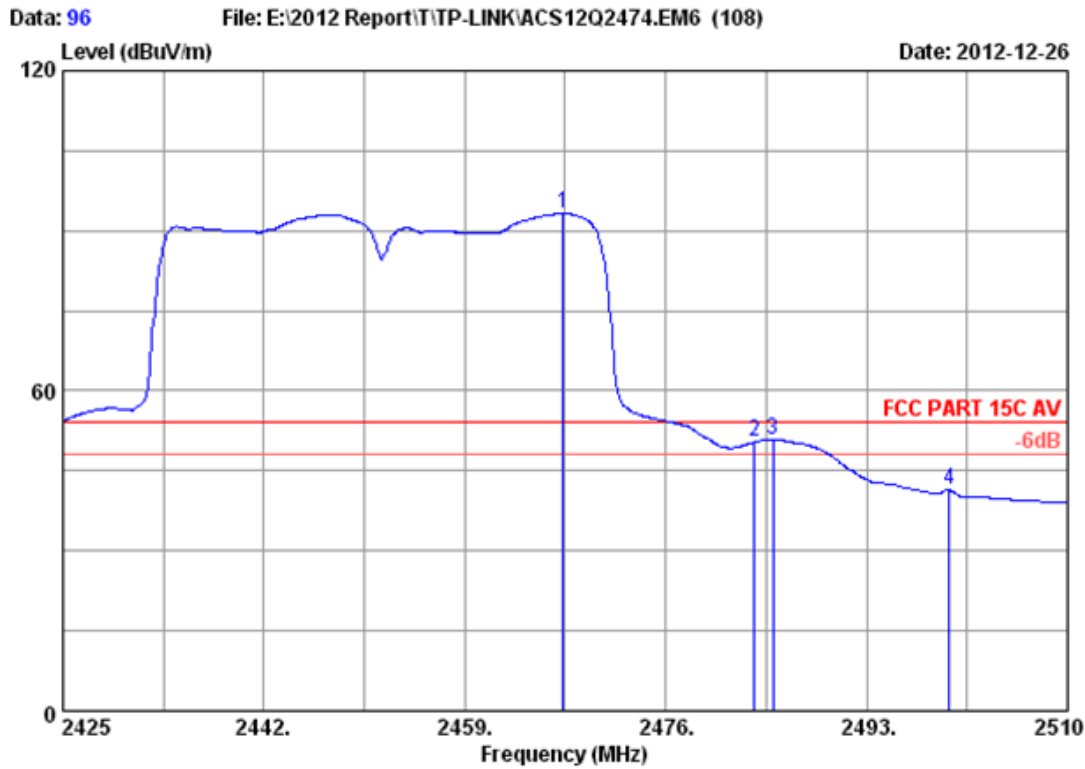


Site no. : 3m Chamber Data no. : 95
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2467.330	27.19	6.13	35.92	109.76	107.16	74.00	-33.16	Peak	
2 2483.500	27.29	6.16	35.92	73.79	71.32	74.00	2.68	Peak	
3 2500.000	27.40	6.19	35.93	55.63	53.29	74.00	20.71	Peak	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

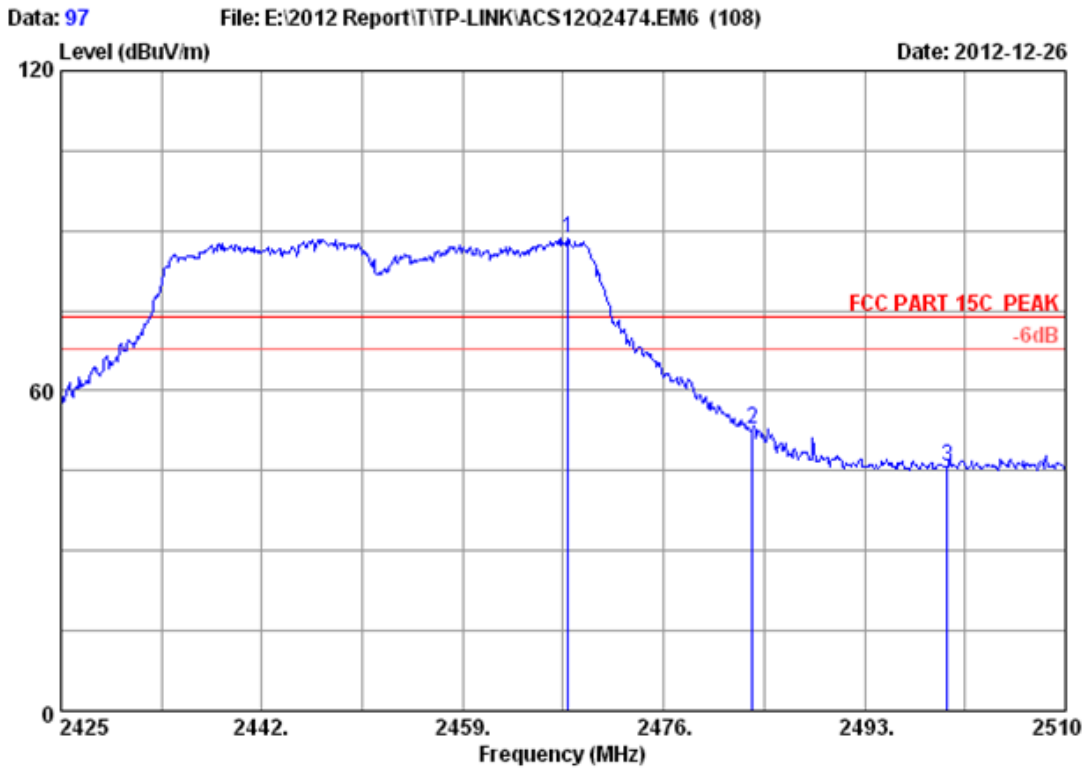


Site no. : 3m Chamber Data no. : 96
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx
 M/N : TD-W8970

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2467.330	27.19	6.13	35.92	95.81	54.00	-39.21	Average	
2	2483.500	27.29	6.16	35.92	52.88	54.00	3.59	Average	
3	2485.095	27.30	6.16	35.92	53.35	54.00	3.11	Average	
4	2500.000	27.40	6.19	35.93	43.75	54.00	12.59	Average	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

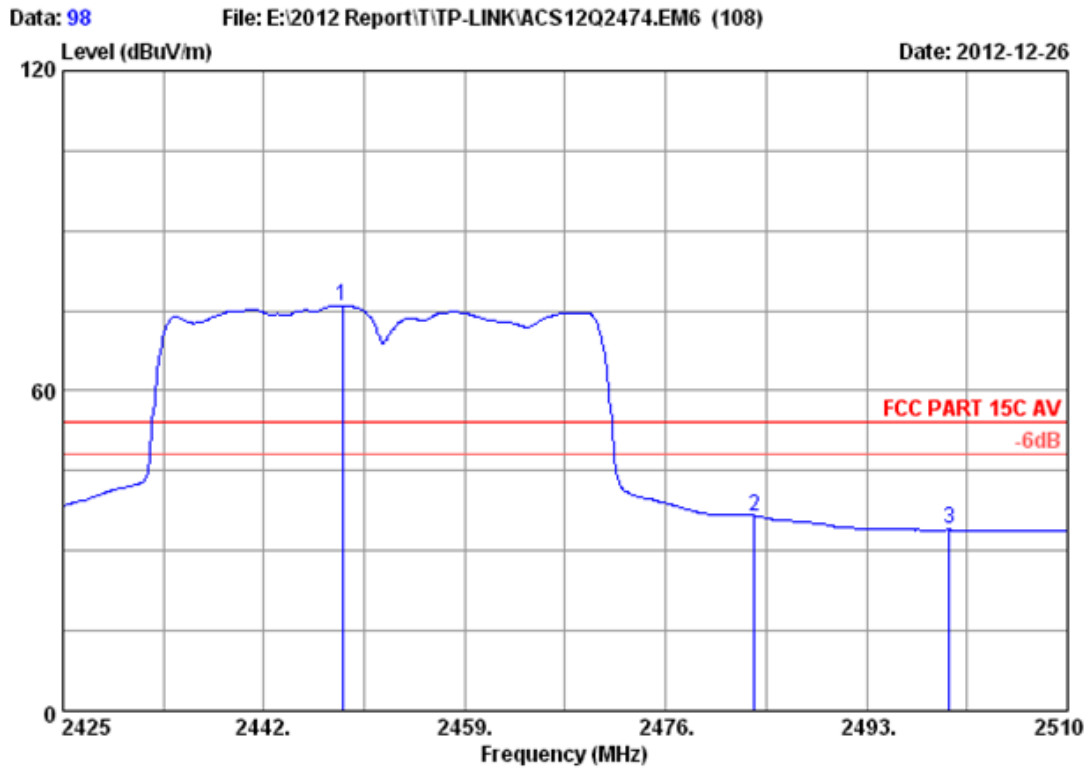


Site no. : 3m Chamber Data no. : 97
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1	2467.925	27.19	6.13	35.92	91.07	88.47	74.00	-14.47	Peak
2	2483.500	27.29	6.16	35.92	55.28	52.81	74.00	21.19	Peak
3	2500.000	27.40	6.19	35.93	47.99	45.65	74.00	28.35	Peak

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 98
 Dis. / Ant. : 3m 2012 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 23°C/54% Engineer : Leo-Li
 EUT : 300Mbps Wireless N Gigabit ADSL2+Modem Router
 Power supply : DC 12V From Adapter input AC 120V/60Hz
 Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx
 M/N : TD-W8970
 :

	Ant.	Cable	Amp.	Emission					
Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		
1 2448.630	27.07	6.10	35.92	78.77	76.02	54.00	-22.02	Average	
2 2483.500	27.29	6.16	35.92	39.04	36.57	54.00	17.43	Average	
3 2500.000	27.40	6.19	35.93	36.28	33.94	54.00	20.06	Average	

Remarks:

1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.31, 12	1Year
4.	HF Cable	Hubersuhner	Sucoflex104	-	May.08, 12	1 Year

7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4. Test Results

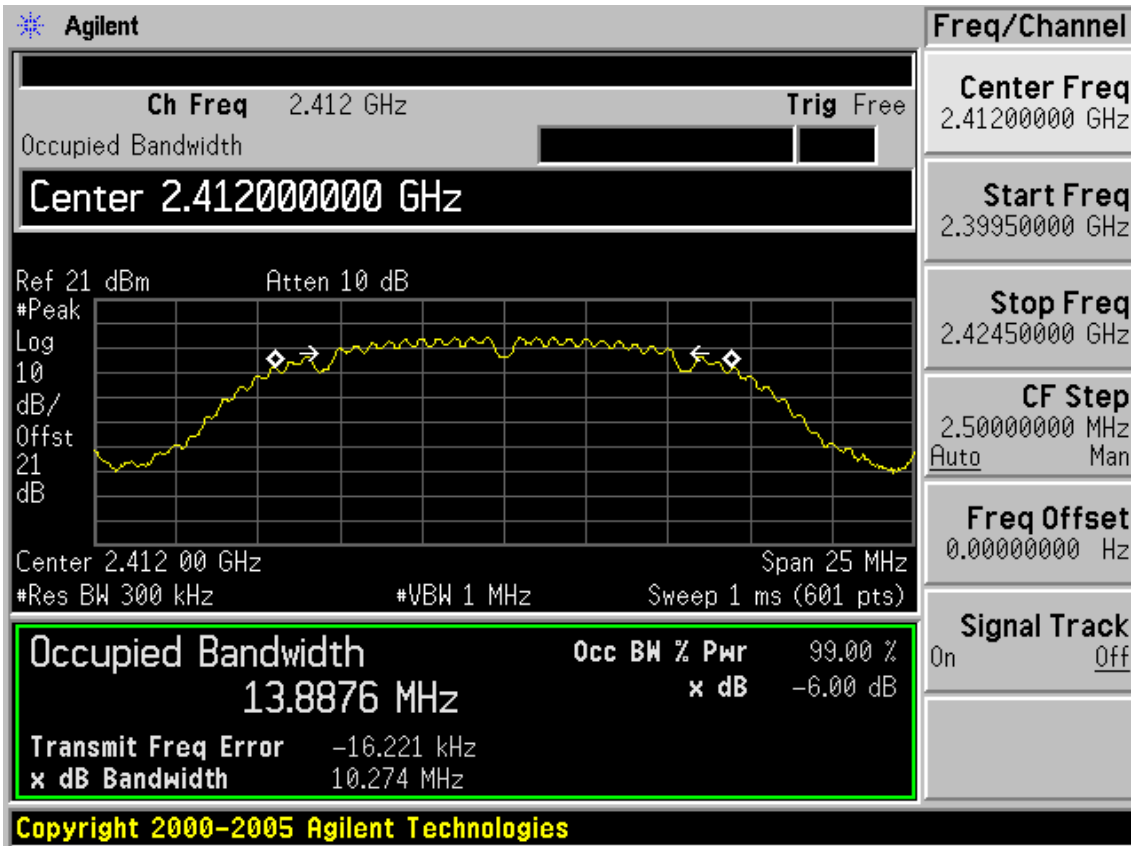
EUT: 300Mbps Wireless N Gigabit ADSL2+Modem Router		
M/N: TD-W8970		
Test date: 2013-01-09	Pressure: 101.1 ± 1.0 kpa	Humidity: 51.3 ± 3.0%
Tested by: Leo-Li	Test site: RF Site	Temperature: 21.4 ± 0.6 °C

Cable loss: 1 dB		Attenuator loss: 20 dB			
Test Mode	CH	6dB bandwidth (MHz)			Limit (KHz)
		ANT0	ANT1	ANT2	
11b	CH1	10.274	10.271	10.249	>500
	CH6	10.261	10.266	10.268	>500
	CH11	10.236	10.254	10.266	>500
11g	CH1	16.443	16.444	16.487	>500
	CH6	16.487	16.475	16.527	>500
	CH11	16.432	16.400	16.428	>500
11n HT20	CH1	17.594	17.732	17.707	>500
	CH6	17.600	17.702	17.706	>500
	CH11	17.673	17.694	17.723	>500
11n HT40	CH1	36.621	36.565	36.688	>500
	CH4	36.687	36.677	36.721	>500
	CH7	36.674	36.608	36.582	>500
Conclusion: PASS					

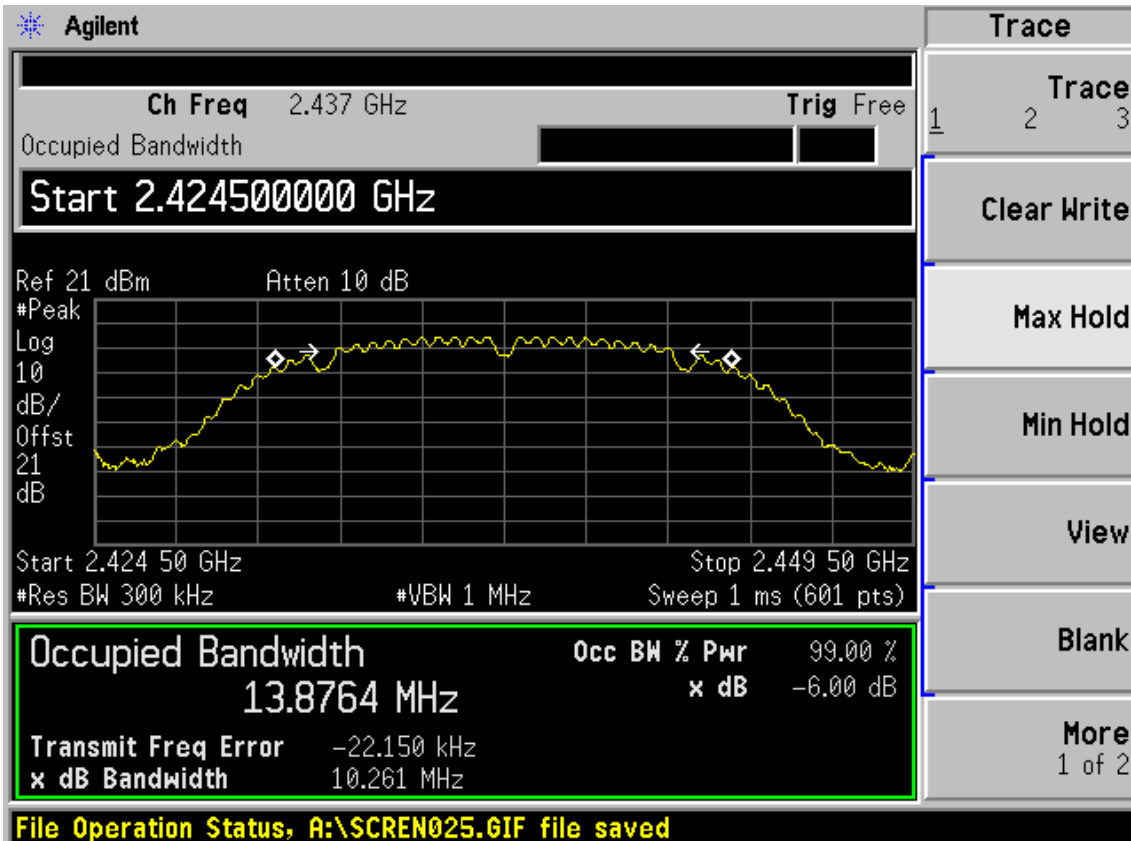
ANT 0

Test Mode: IEEE 802.11b TX

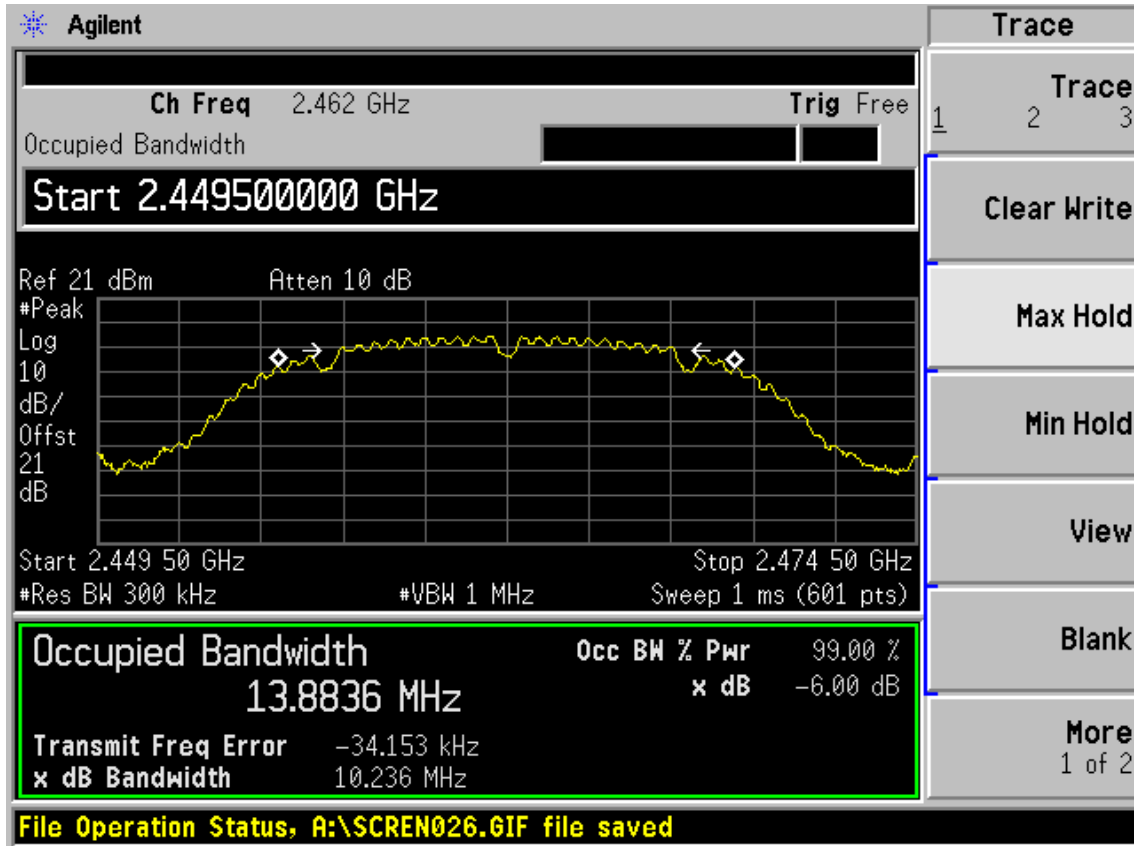
Test CH1: 2412MHz



Test CH6: 2437MHz

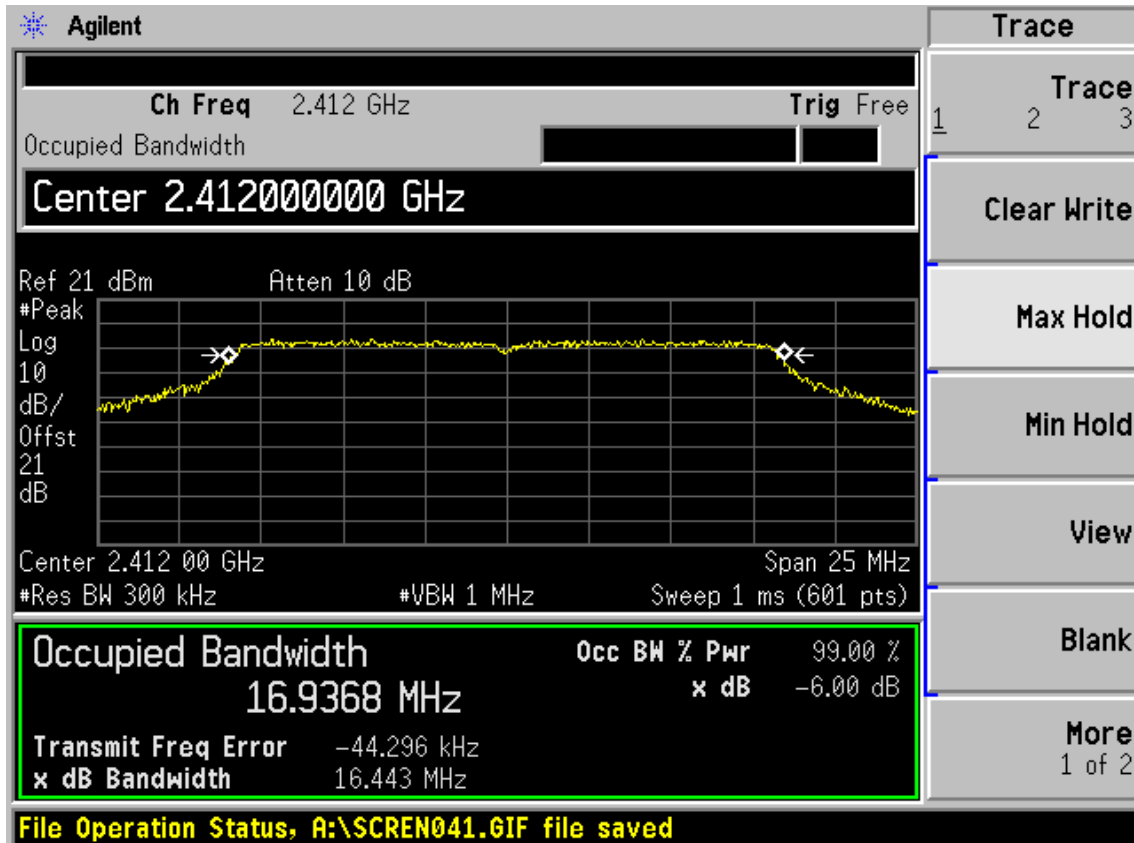


Test CH11: 2462MHz



Test Mode: IEEE 802.11g TX

Test CH1: 2412MHz



Test CH6: 2437MHz

Agilent

Trace
 Trace 1 2 3
 Clear Write
 Max Hold
 Min Hold
 View
 Blank
 More 1 of 2

Ch Freq 2.437 GHz Trig Free

Occupied Bandwidth

Start 2.424500000 GHz

Ref 21 dBm Atten 10 dB

Start 2.424 50 GHz Stop 2.449 50 GHz

#Res BW 300 kHz #VBW 1 MHz Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
17.0305 MHz	x dB	-6.00 dB
Transmit Freq Error	-36.982 kHz	
x dB Bandwidth	16.487 MHz	

File Operation Status, A:\SCREEN040.GIF file saved

Test CH11: 2462MHz

Agilent

Trace
 Trace 1 2 3
 Clear Write
 Max Hold
 Min Hold
 View
 Blank
 More 1 of 2

Ch Freq 2.462 GHz Trig Free

Occupied Bandwidth

Center 2.462000000 GHz

Ref 21 dBm Atten 10 dB

Center 2.462 00 GHz Span 25 MHz

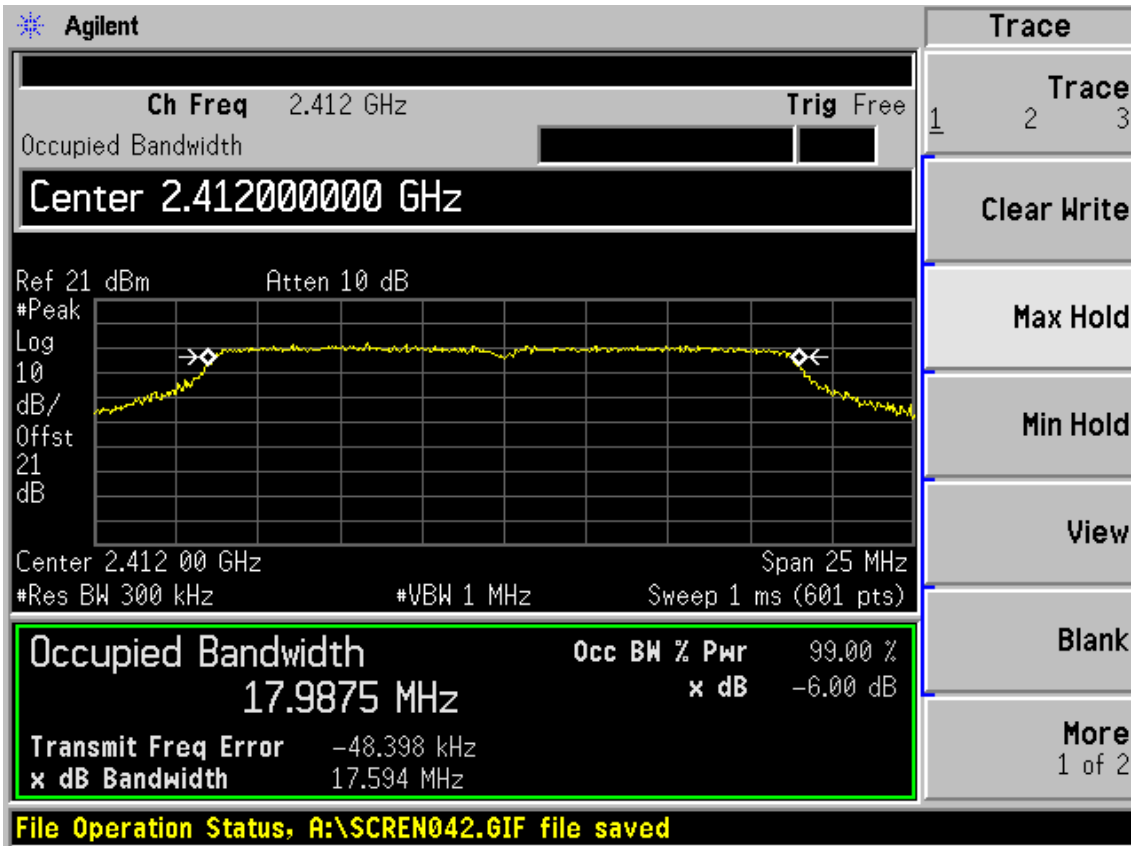
#Res BW 300 kHz #VBW 1 MHz Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
16.9717 MHz	x dB	-6.00 dB
Transmit Freq Error	-74.837 kHz	
x dB Bandwidth	16.432 MHz	

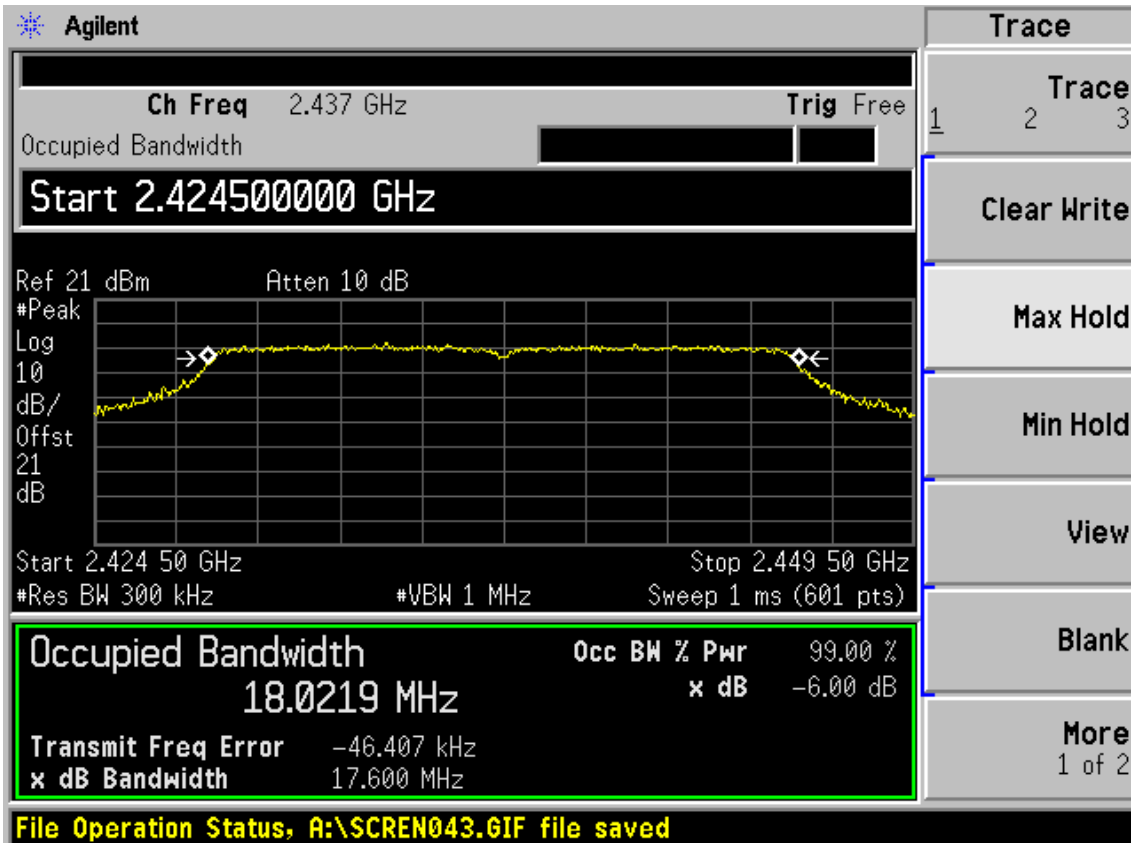
File Operation Status, A:\SCREEN039.GIF file saved

Test Mode: IEEE 802.11n HT20 TX

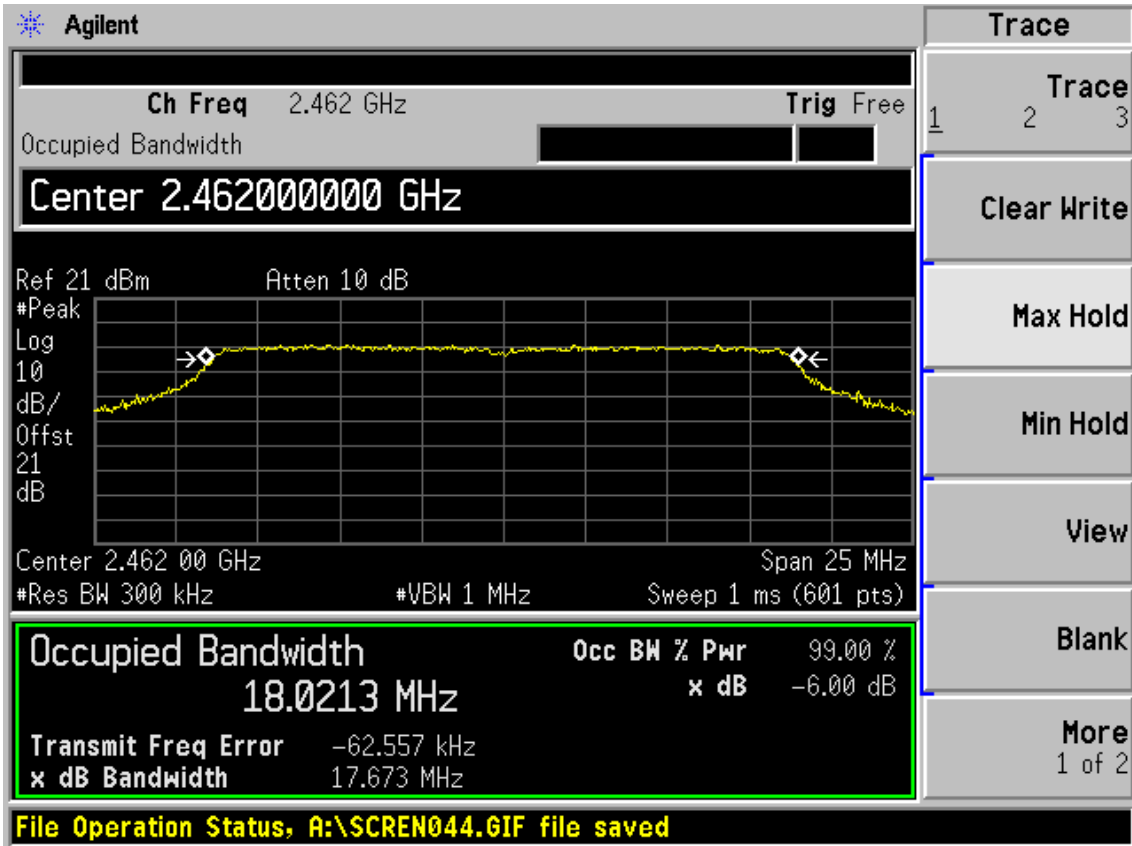
Test CH1: 2412MHz



Test CH6: 2437MHz

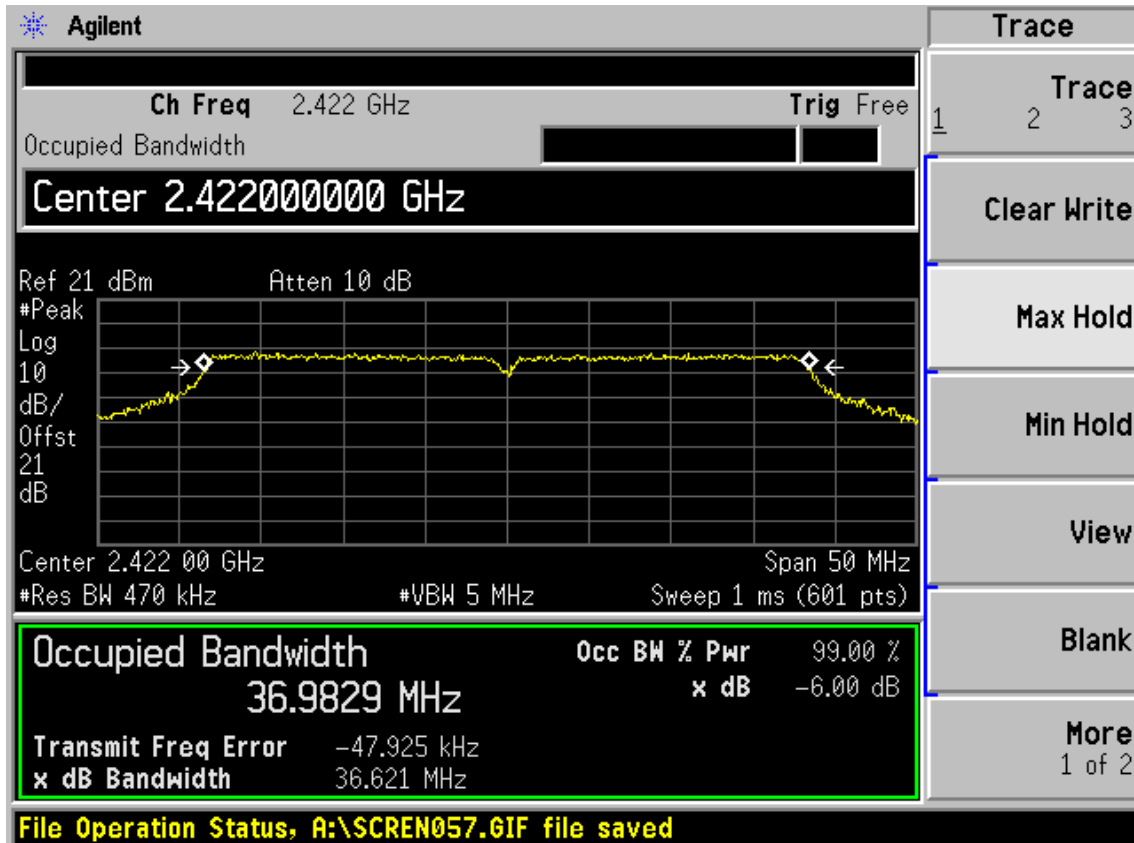


Test CH11: 2462MHz

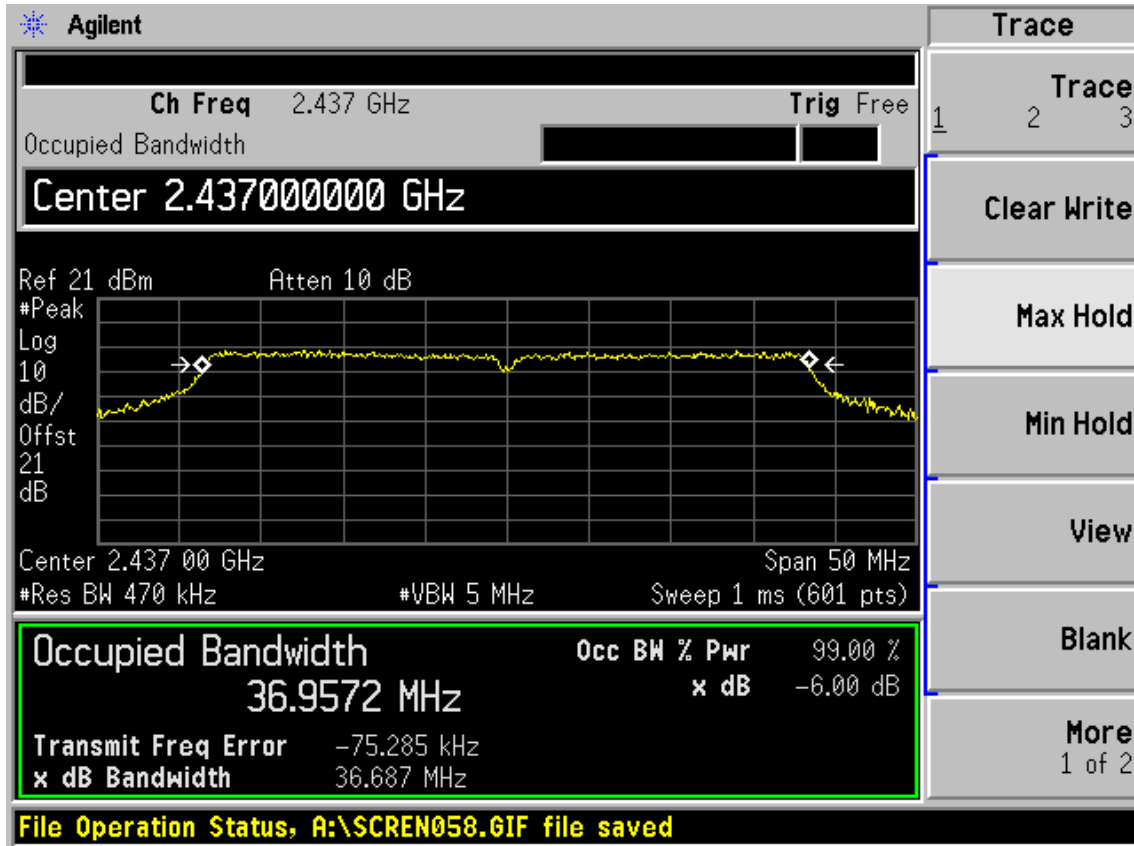


Test Mode: IEEE 802.11n HT40 TX

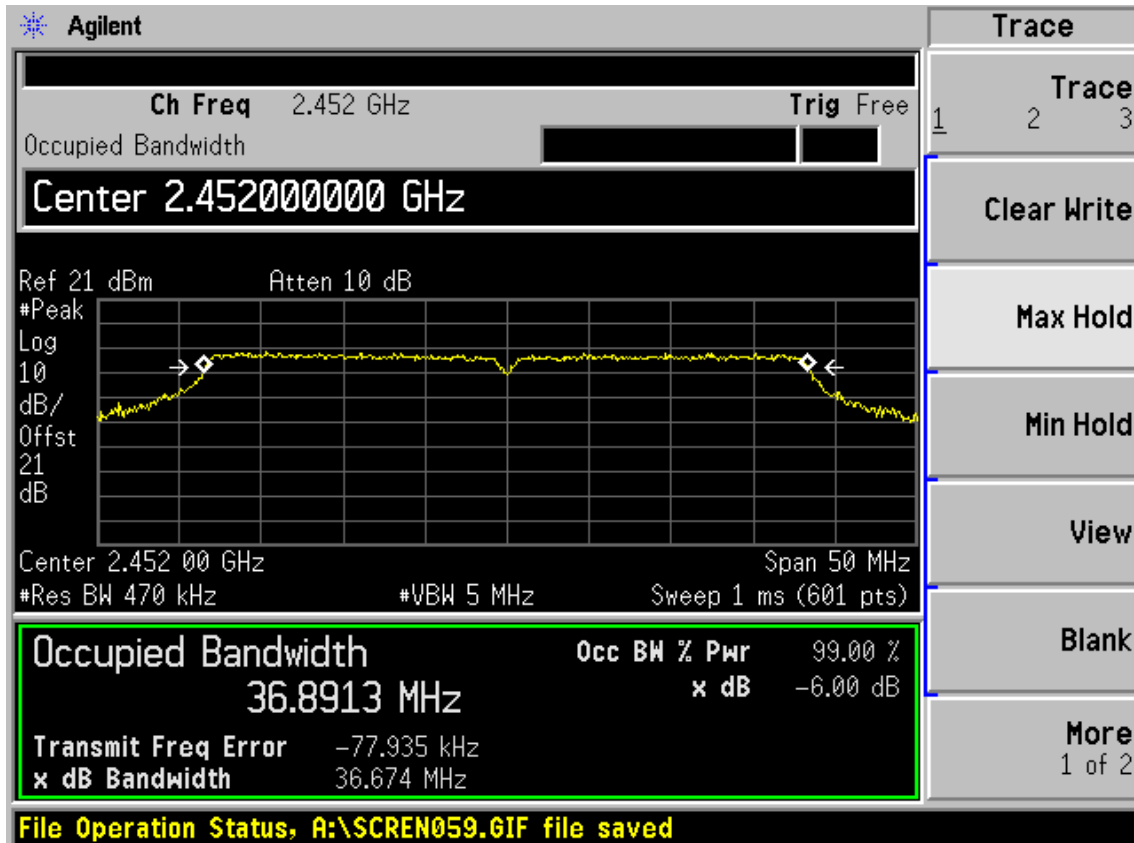
Test CH1: 2422MHz



Test CH4: 2437MHz



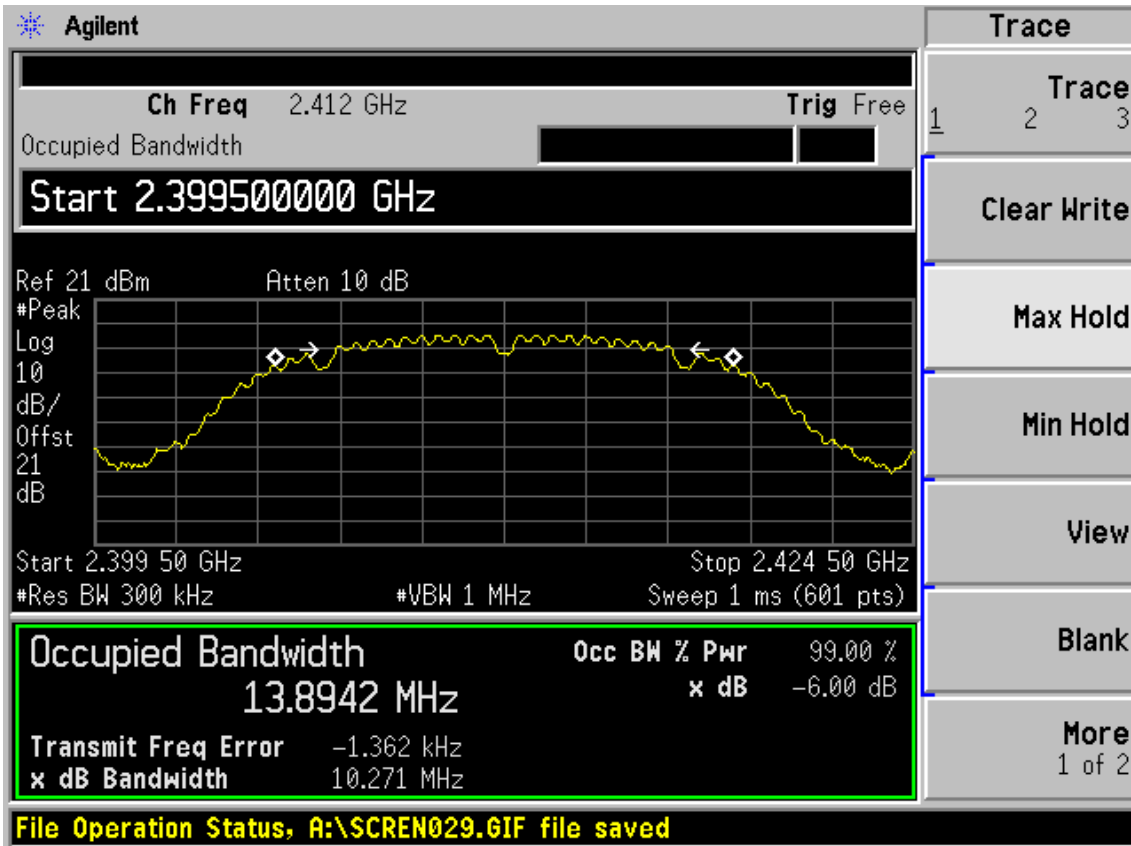
Test CH7: 2452MHz



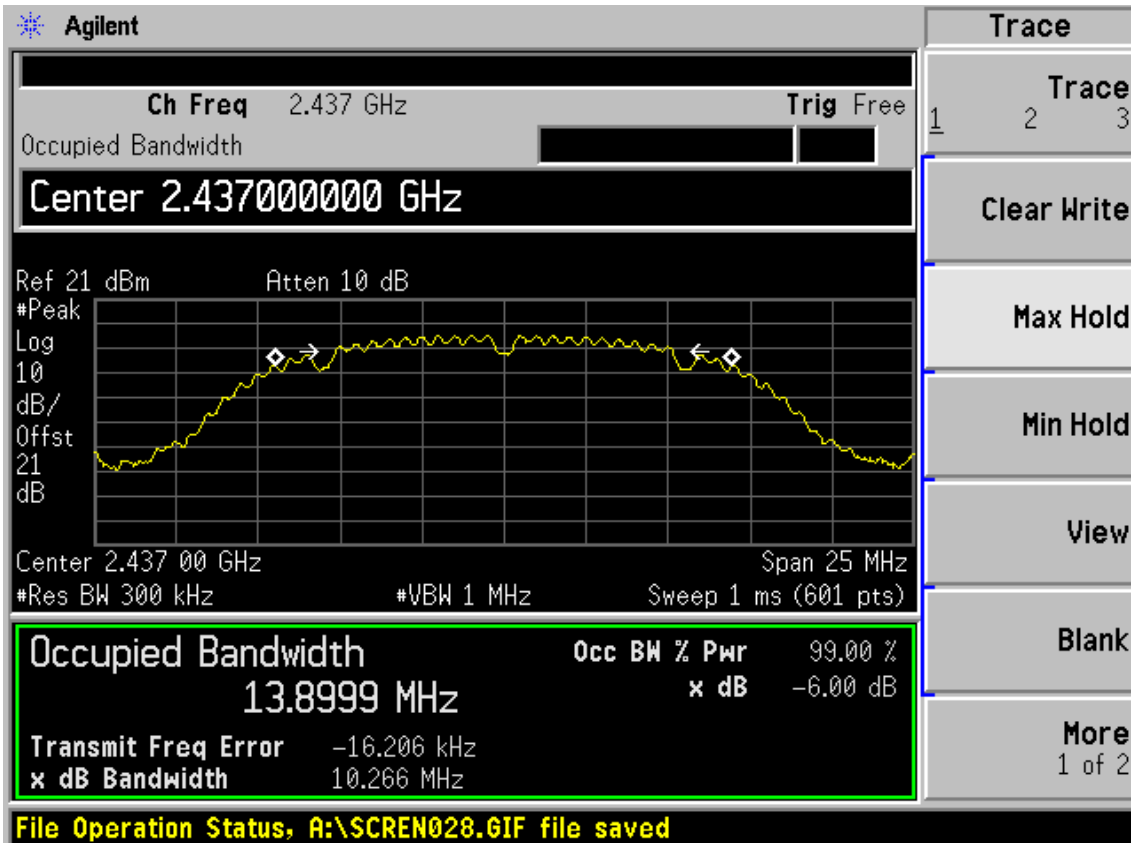
ANT 1

Test Mode: IEEE 802.11b TX

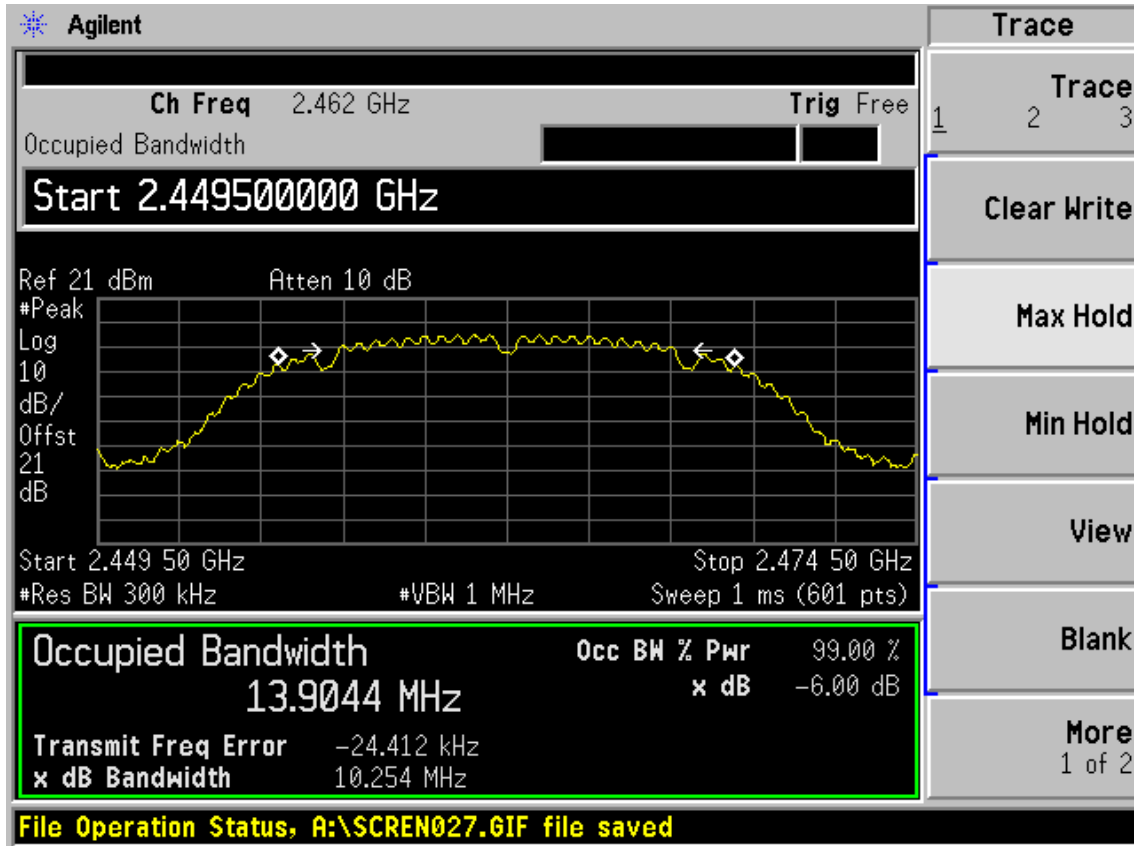
Test CH1: 2412MHz



Test CH6: 2437MHz

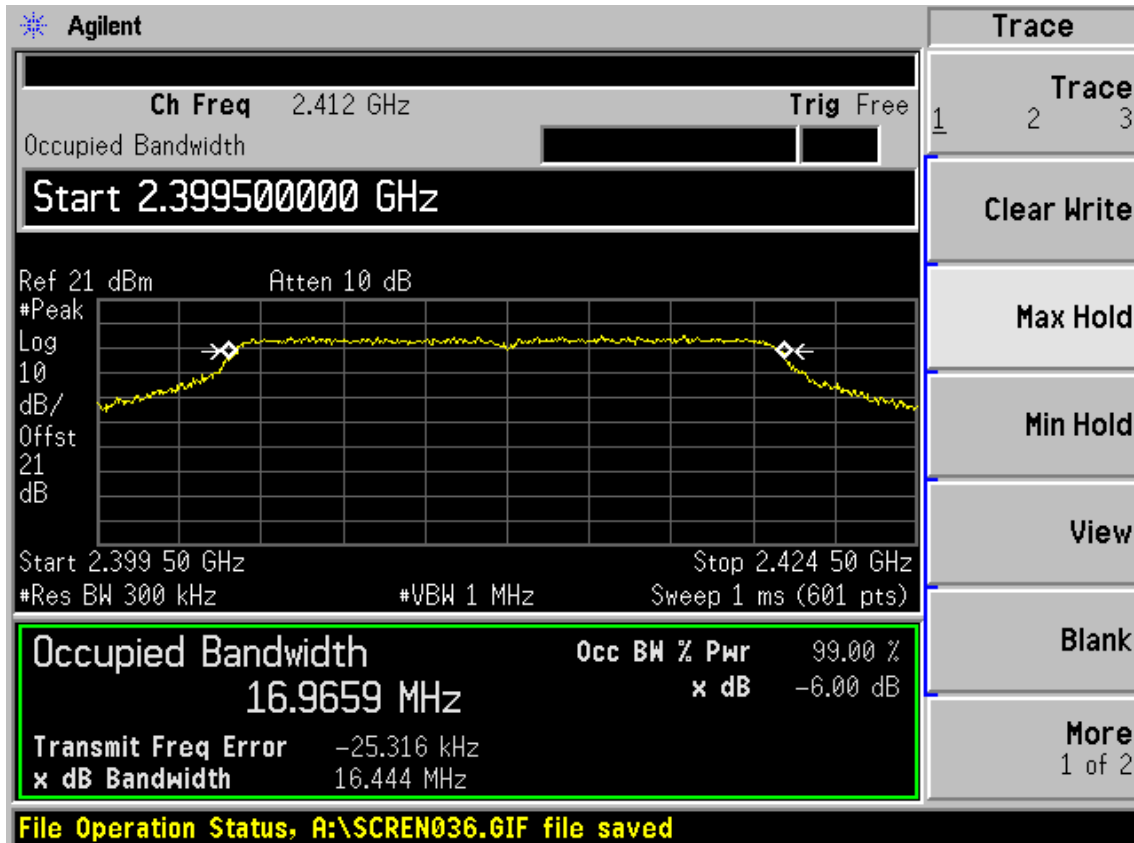


Test CH11: 2462MHz

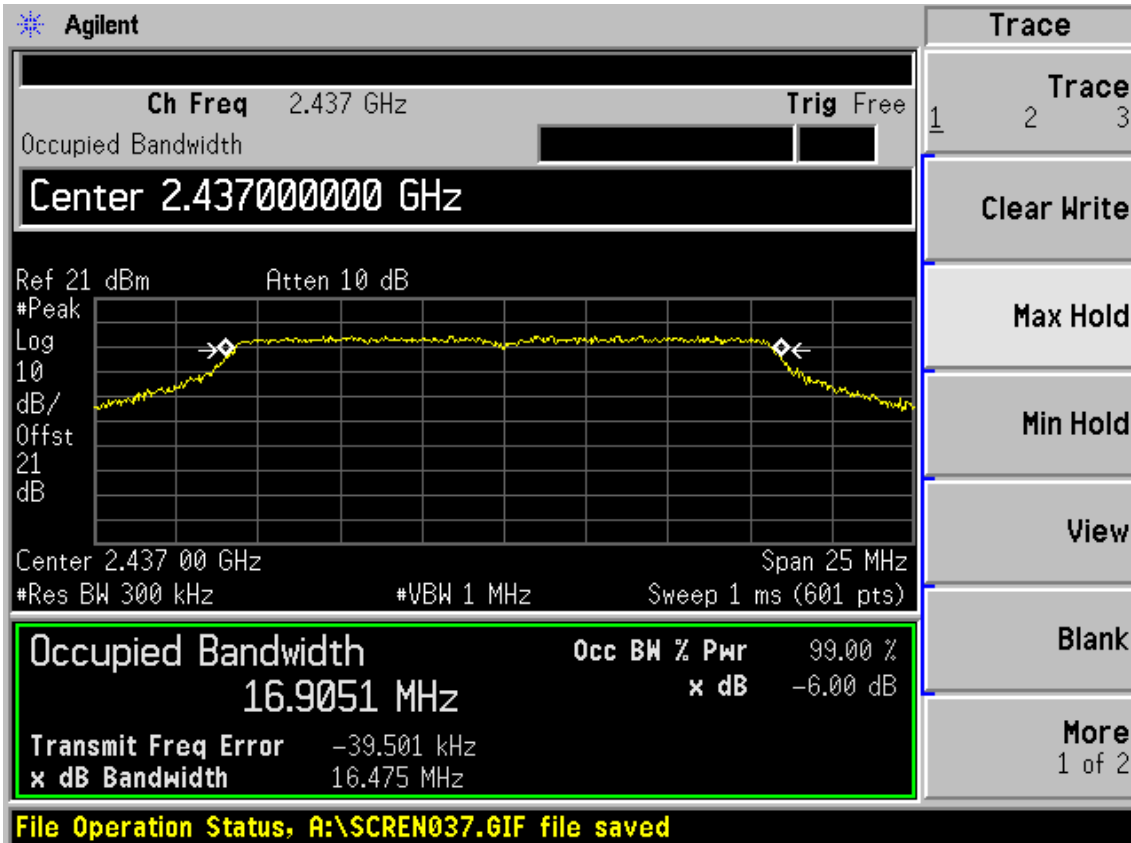


Test Mode: IEEE 802.11g TX

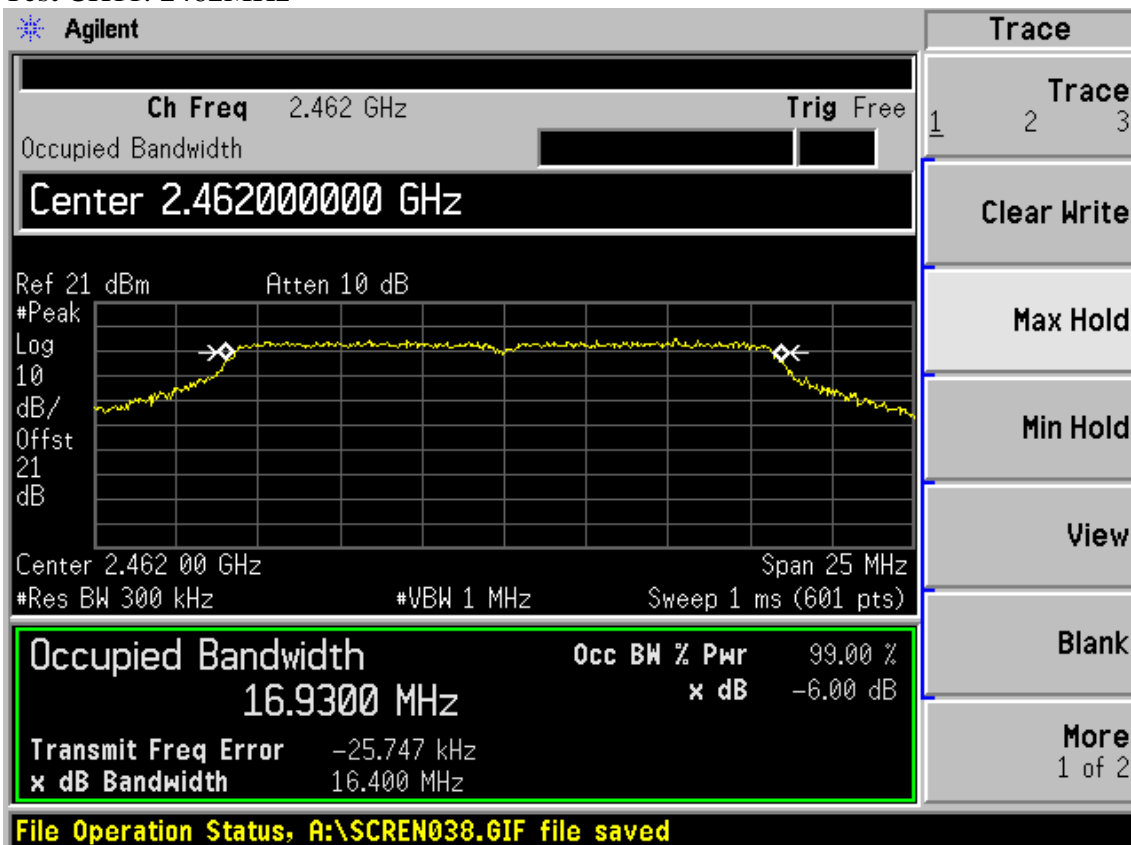
Test CH1: 2412MHz



Test CH6: 2437MHz



Test CH11: 2462MHz



Test Mode: IEEE 802.11n HT20 TX

Test CH1: 2412MHz

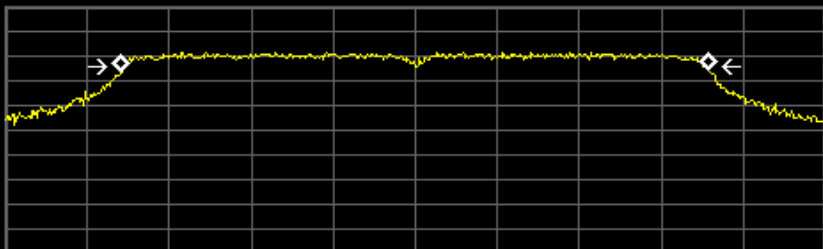
Agilent

Ch Freq 2.412 GHz Trig Free

Occupied Bandwidth

Start 2.399500000 GHz

Ref 21 dBm Atten 10 dB
#Peak
Log
10
dB/
Offst
21
dB



Start 2.399 50 GHz Stop 2.424 50 GHz
#Res BW 300 kHz #VBW 1 MHz Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
17.9211 MHz	x dB	-6.00 dB
Transmit Freq Error	-36.084 kHz	
x dB Bandwidth	17.732 MHz	

File Operation Status, A:\SCREN047.GIF file saved

Trace

Trace
1 2 3

Clear Write

Max Hold

Min Hold

View

Blank

More
1 of 2

Test CH6: 2437MHz

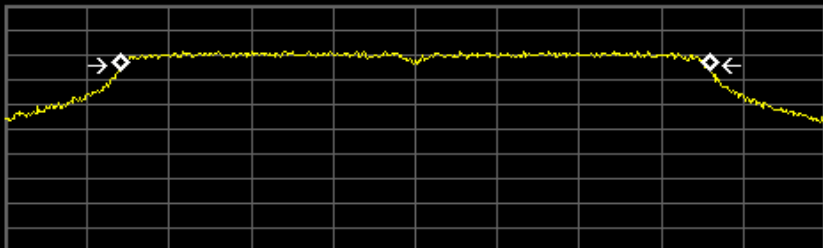
Agilent

Ch Freq 2.437 GHz Trig Free

Occupied Bandwidth

Center 2.437000000 GHz

Ref 21 dBm Atten 10 dB
#Peak
Log
10
dB/
Offst
21
dB



Center 2.437 00 GHz Span 25 MHz
#Res BW 300 kHz #VBW 1 MHz Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
17.9768 MHz	x dB	-6.00 dB
Transmit Freq Error	-30.200 kHz	
x dB Bandwidth	17.702 MHz	

File Operation Status, A:\SCREN046.GIF file saved

Trace

Trace
1 2 3

Clear Write

Max Hold

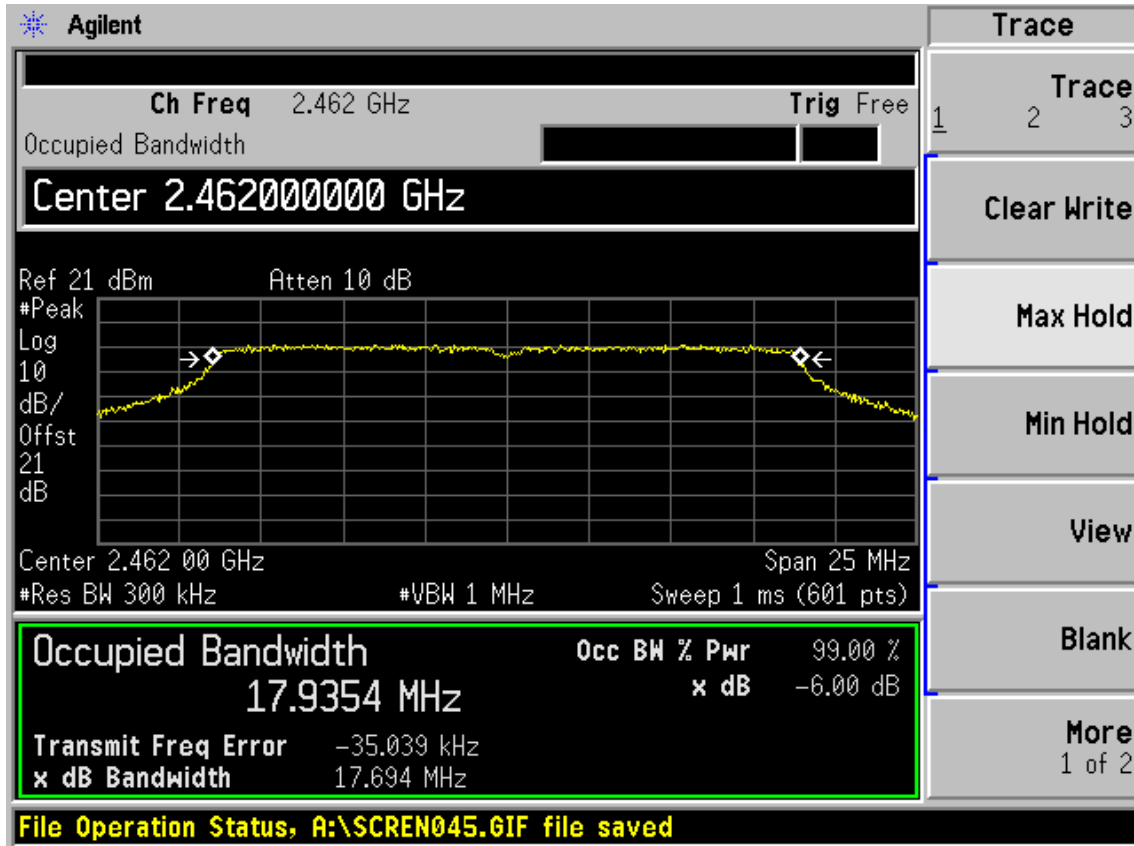
Min Hold

View

Blank

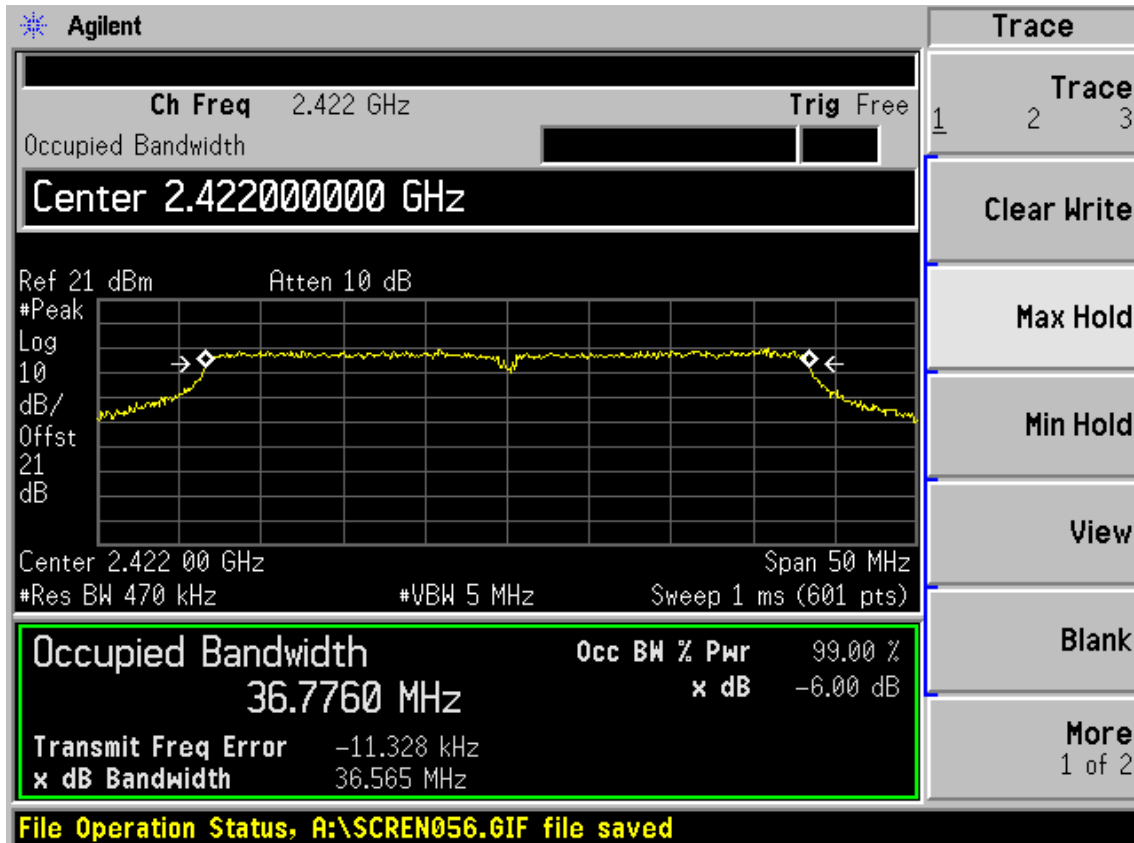
More
1 of 2

Test CH11: 2462MHz

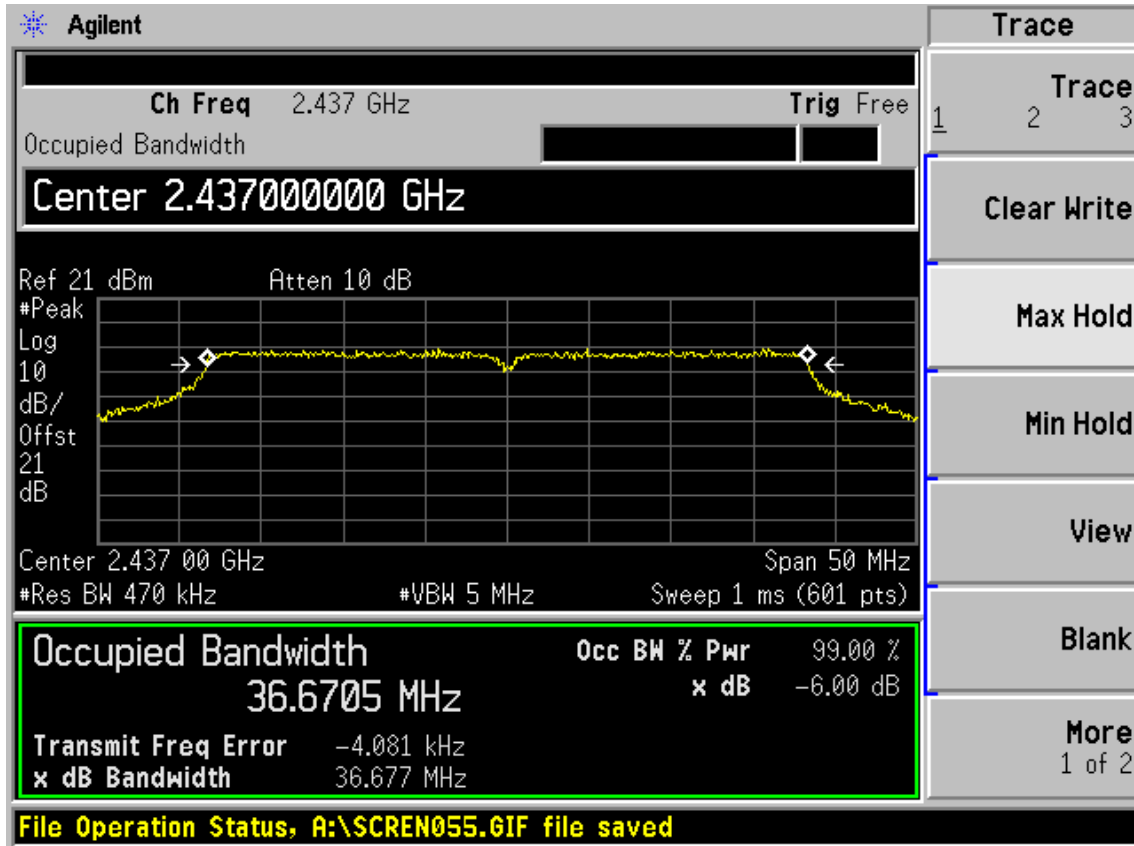


Test Mode: IEEE 802.11n HT40 TX

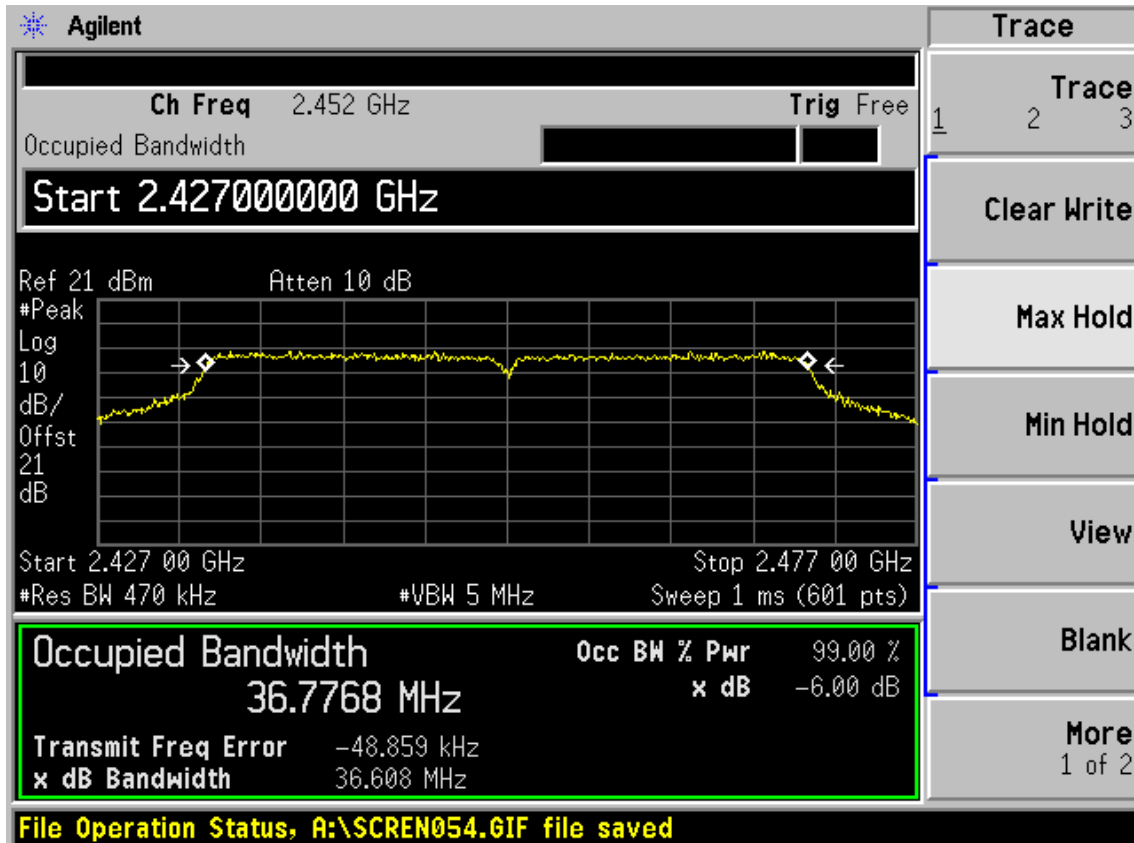
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



ANT 2

Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz

Agilent

Ch Freq 2.412 GHz Trig Free

Occupied Bandwidth

Start 2.399500000 GHz

Ref 21 dBm Atten 10 dB

#Peak

Log

10

dB/

Offst

21

dB

Start 2.399 50 GHz Stop 2.424 50 GHz

#Res BW 300 kHz #VBW 1 MHz Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
13.8900 MHz	x dB	-6.00 dB
Transmit Freq Error		-15.388 kHz
x dB Bandwidth		10.249 MHz

File Operation Status, A:\SCREEN030.GIF file saved

Trace

Trace
1
2
3

Clear Write

Max Hold

Min Hold

View

Blank

More
1 of 2

Test CH6: 2437MHz

Agilent

Ch Freq 2.437 GHz Trig Free

Occupied Bandwidth

Start 2.424500000 GHz

Ref 21 dBm Atten 10 dB

#Peak

Log

10

dB/

Offst

21

dB

Start 2.424 50 GHz Stop 2.449 50 GHz

#Res BW 300 kHz #VBW 1 MHz Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
13.8814 MHz	x dB	-6.00 dB
Transmit Freq Error		-26.700 kHz
x dB Bandwidth		10.268 MHz

File Operation Status, A:\SCREEN031.GIF file saved

Trace

Trace
1
2
3

Clear Write

Max Hold

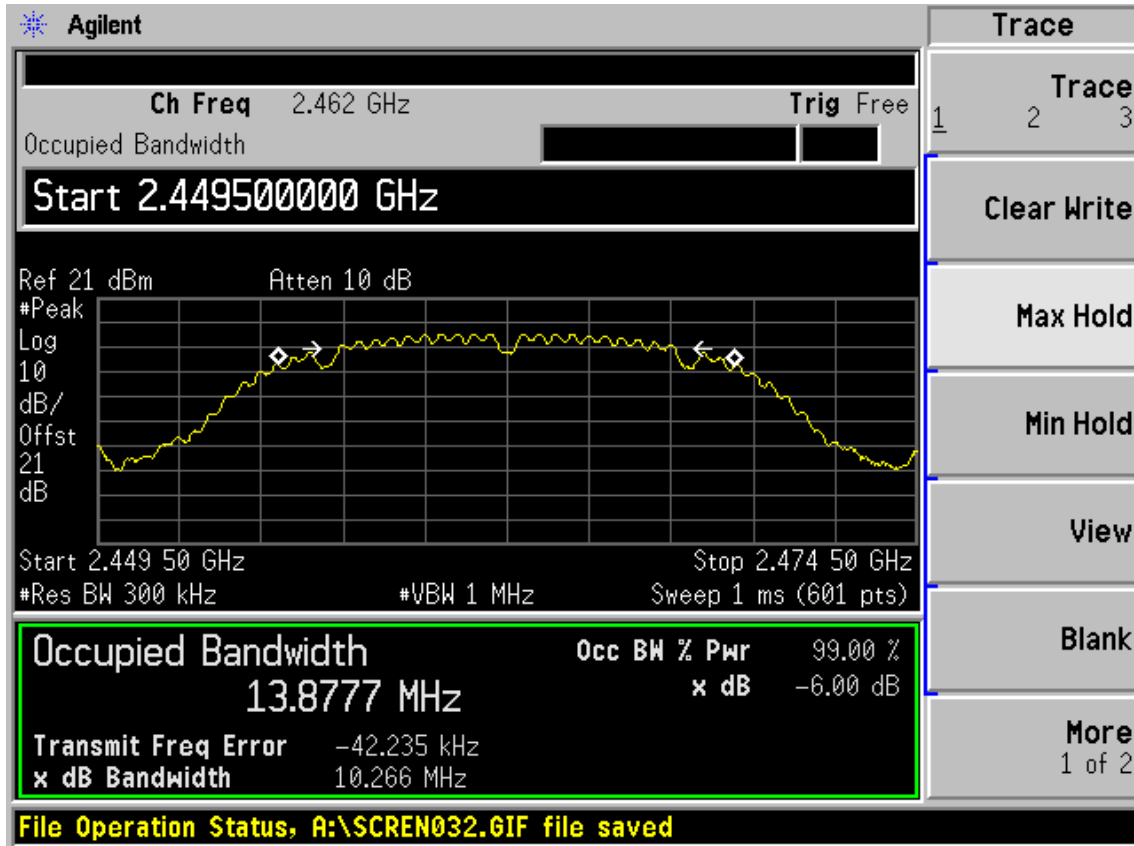
Min Hold

View

Blank

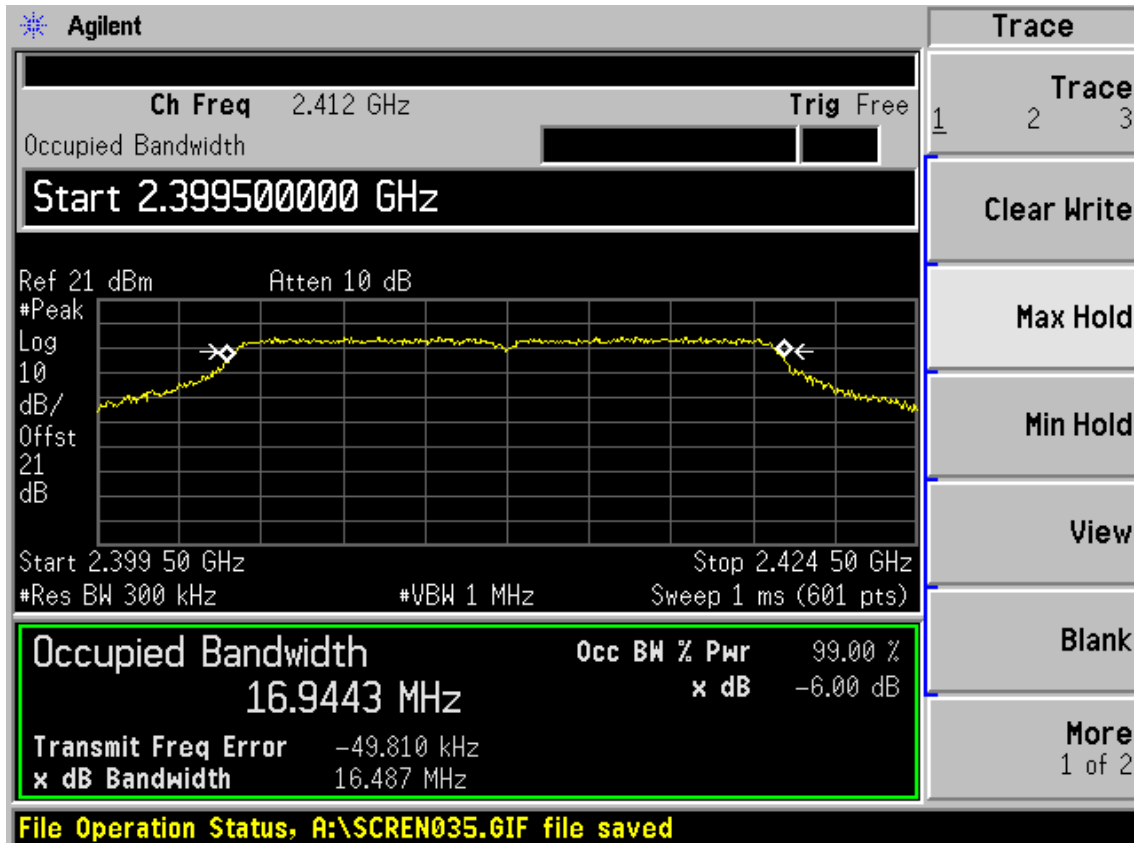
More
1 of 2

Test CH11: 2462MHz

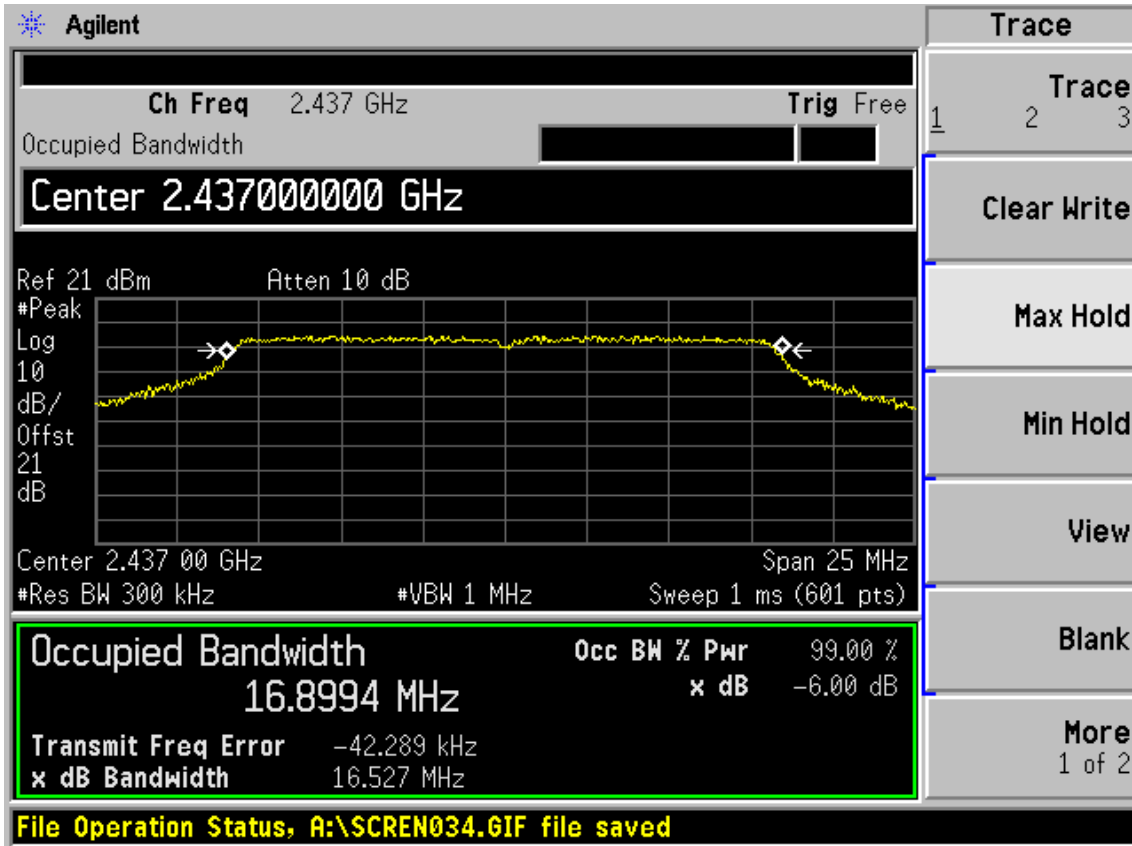


Test Mode: IEEE 802.11g TX

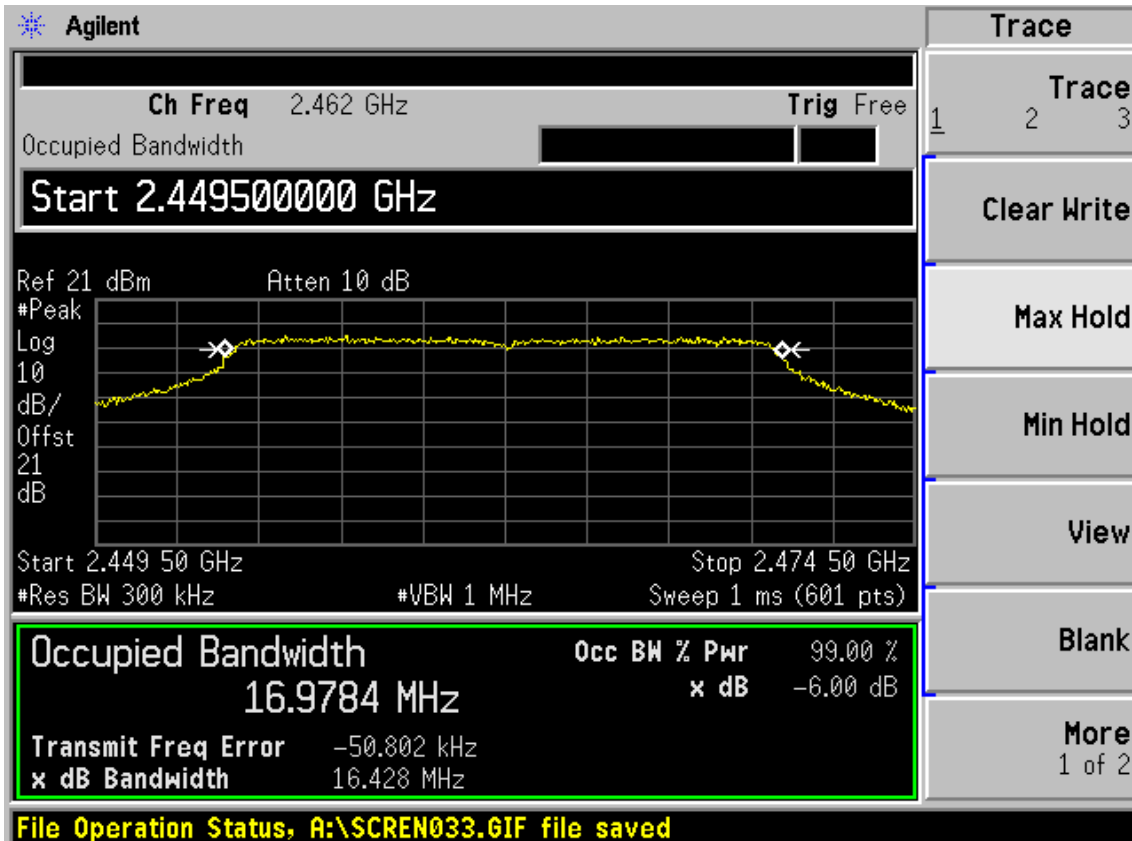
Test CH1: 2412MHz



Test CH6: 2437MHz

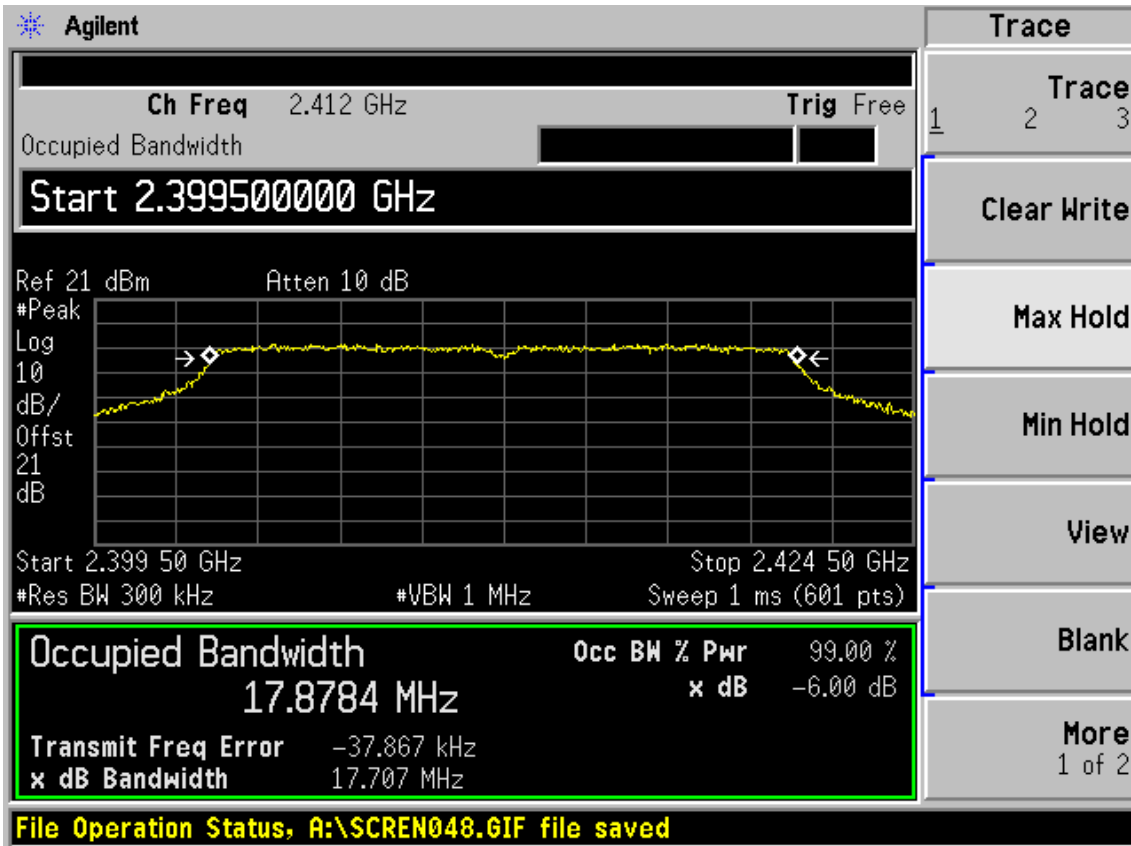


Test CH11: 2462MHz

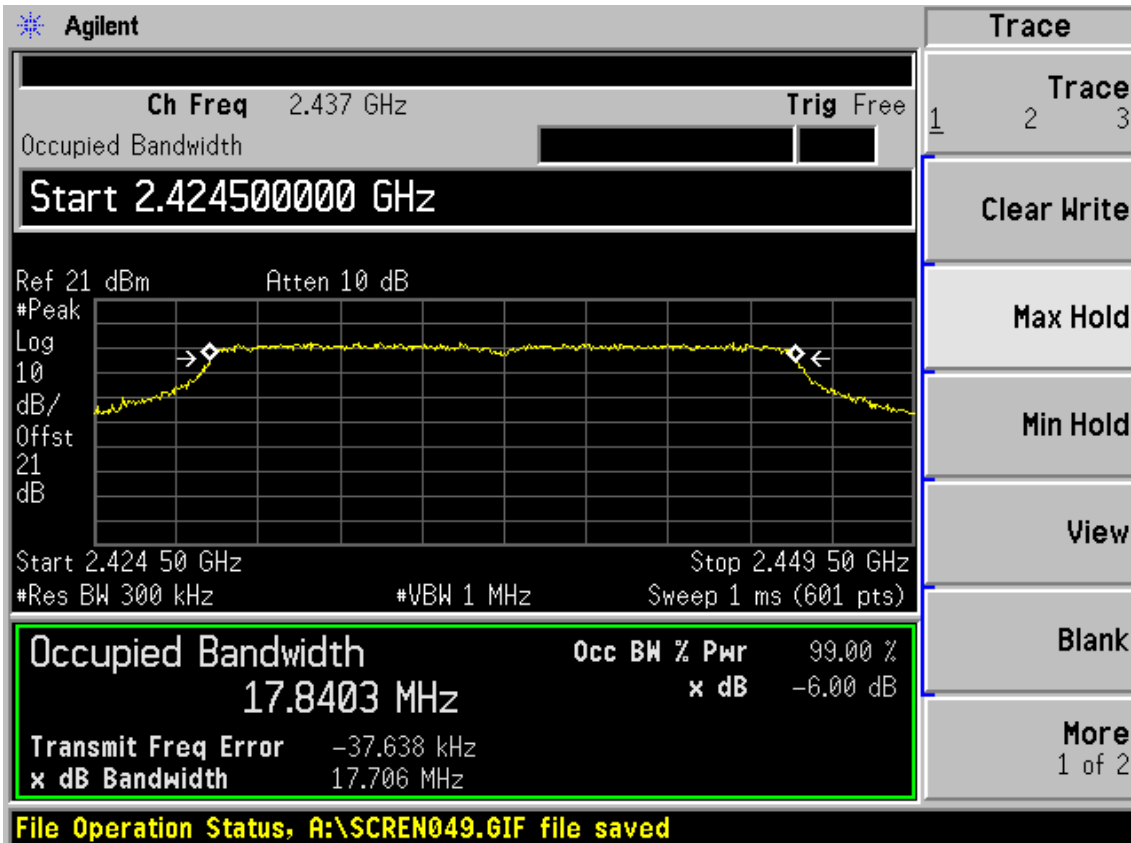


Test Mode: IEEE 802.11n HT20 TX

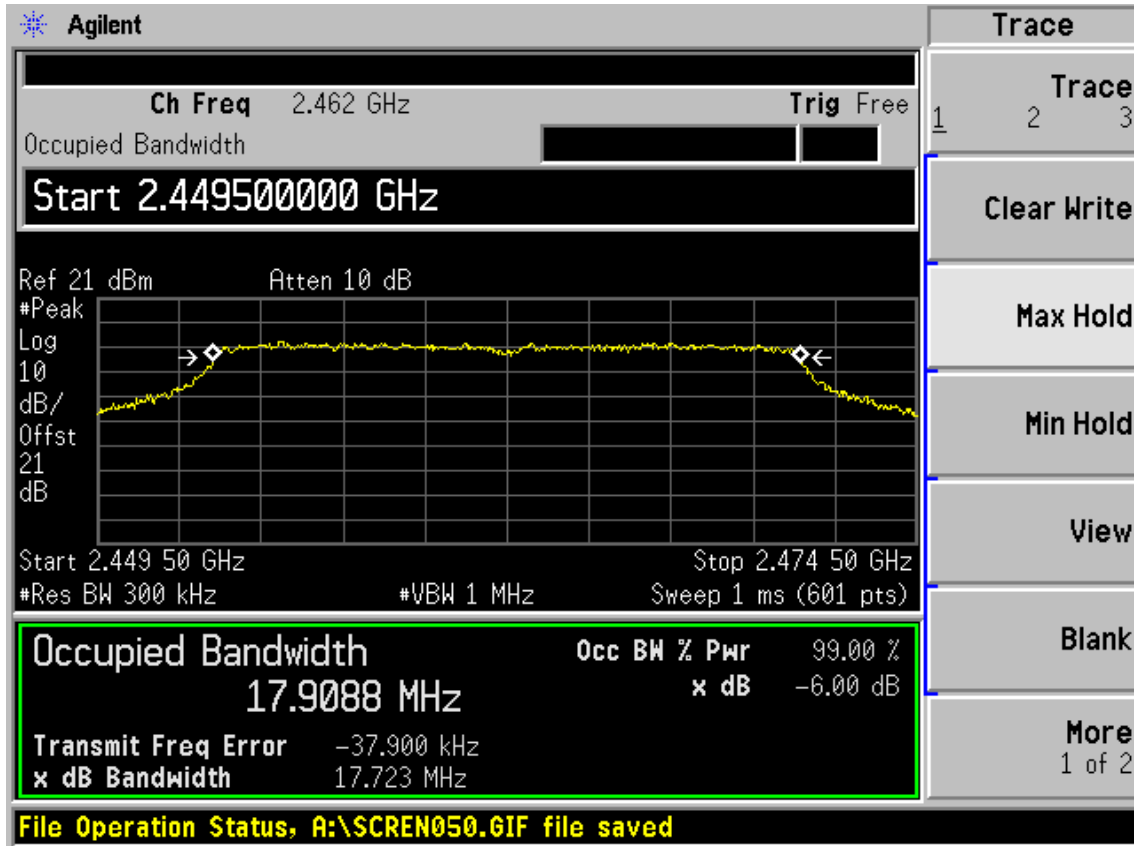
Test CH1: 2412MHz



Test CH6: 2437MHz

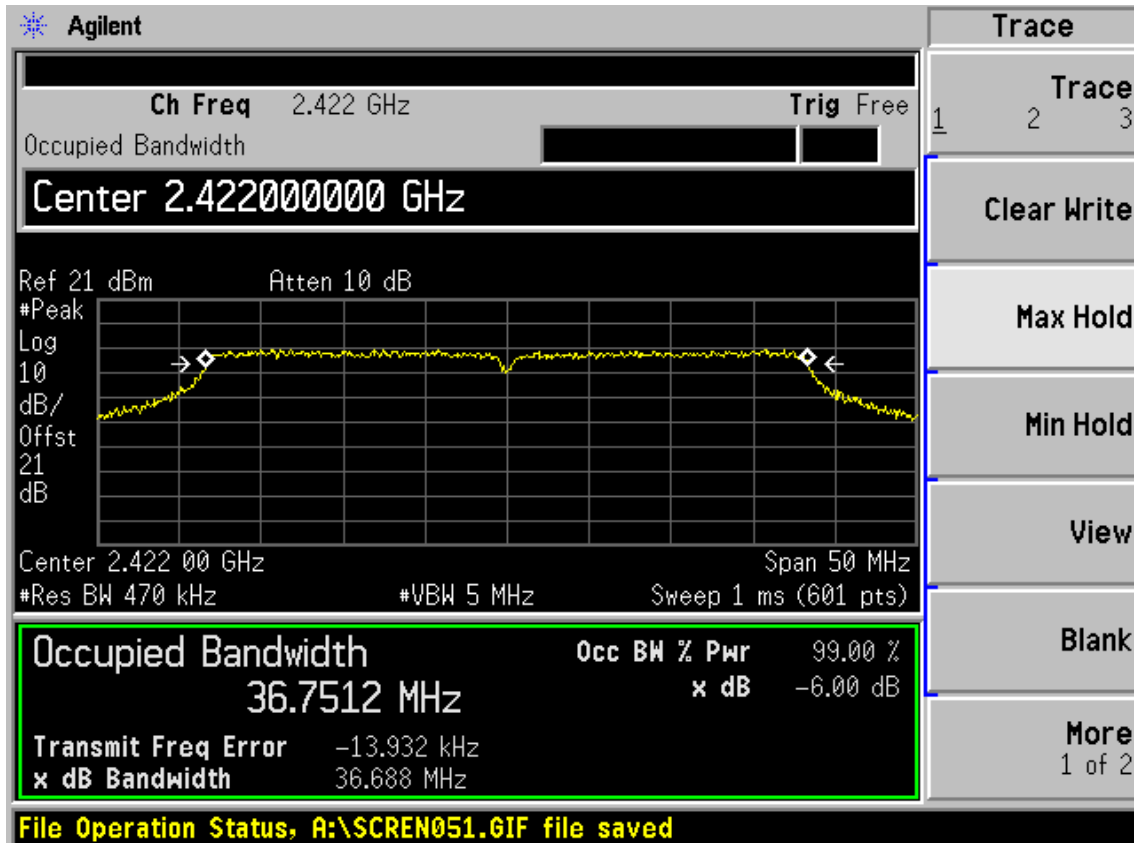


Test CH11: 2462MHz



Test Mode: IEEE 802.11n HT40 TX

Test CH1: 2422MHz



Test CH4: 2437MHz

Agilent
Trace

Ch Freq 2.437 GHz Trig Free

Occupied Bandwidth

Center 2.437000000 GHz

Ref 21 dBm

Atten 10 dB

#Peak

Log

10

dB/

Offst

21

dB

Center 2.437 00 GHz

Span 50 MHz

#Res BW 470 kHz

#VBW 5 MHz

Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
36.7902 MHz	x dB	-6.00 dB
Transmit Freq Error		
x dB Bandwidth		

File Operation Status, A:\SCREN052.GIF file saved

Trace

1 Trace 2 3

Clear Write

Max Hold

Min Hold

View

Blank

More 1 of 2

Test CH7: 2452MHz

Agilent
Trace

Ch Freq 2.452 GHz Trig Free

Occupied Bandwidth

Start 2.427000000 GHz

Ref 21 dBm

Atten 10 dB

#Peak

Log

10

dB/

Offst

21

dB

Start 2.427 00 GHz

Stop 2.477 00 GHz

#Res BW 470 kHz

#VBW 5 MHz

Sweep 1 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
36.7565 MHz	x dB	-6.00 dB
Transmit Freq Error		
x dB Bandwidth		

File Operation Status, A:\SCREN053.GIF file saved

Trace

1 Trace 2 3

Clear Write

Max Hold

Min Hold

View

Blank

More 1 of 2

8. OUTPUT POWER TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.31, 12	1 Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 12	1 Year
5.	Power Meter	Anritsu	ML2487A	6K00002472	May.08, 12	1 Year
6.	Power Sensor	Anritsu	MA2491A	033005	May.08, 12	1 Year

8.2. Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

8.3. Test Procedure

- 1, Connected the EUT's antenna port to measure device by 26dB attenuator.
- 2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is 20MHz and above 26dB bandwidth of signal to measure out each test modes' PK output power.
- 3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So Bandwidth correction method according to ANSI C63.10 clause 6.10.2.1 part (c) was used:
 - 1) Set the RBW=3MHz and VBW =8MHz
 - 2) Turn averaging off
 - 3) Set sweep to automatic
 - 4) Set the span just large enough to capture the emission
 - 5) Use a peak detector on max hold
 - 6) Record the measured power
 - 7) Calculate Output power of EUT use the formula:

Peak output power =measured power+ 10log[(26dB bandwidth of emission)/(analyzer RBW)]

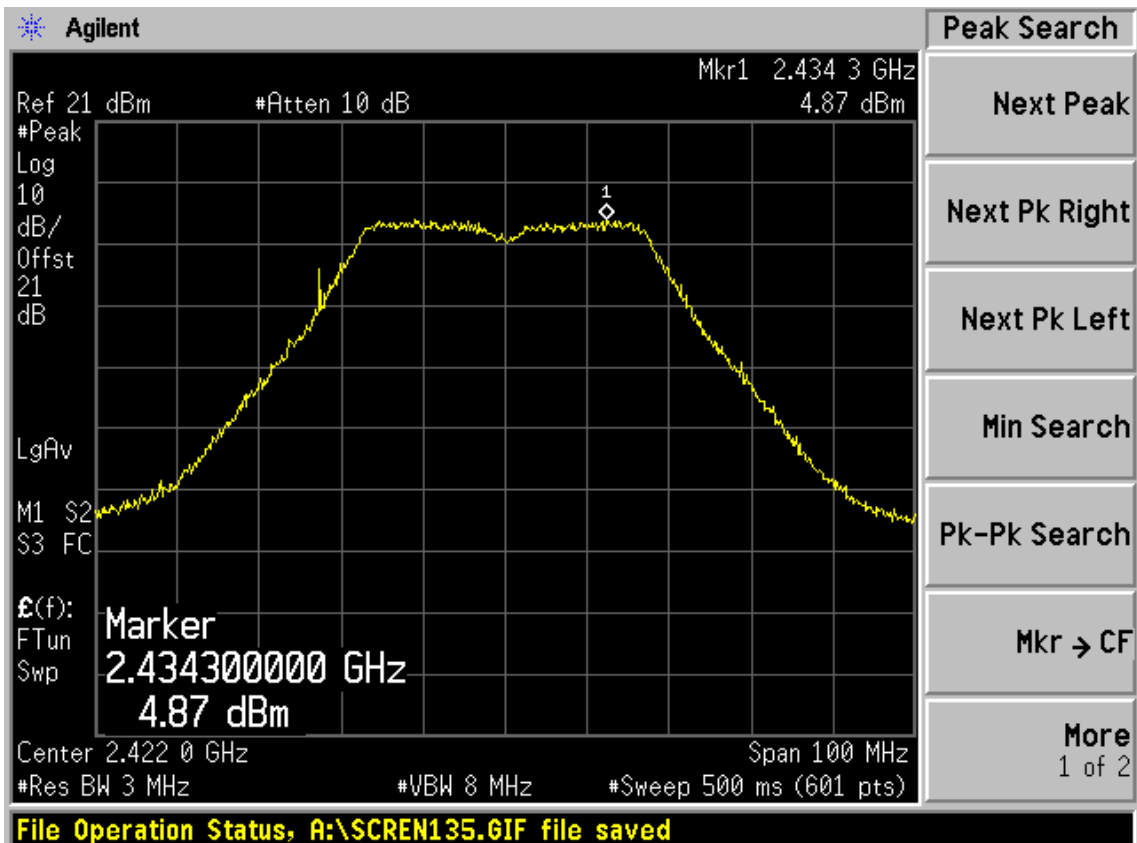
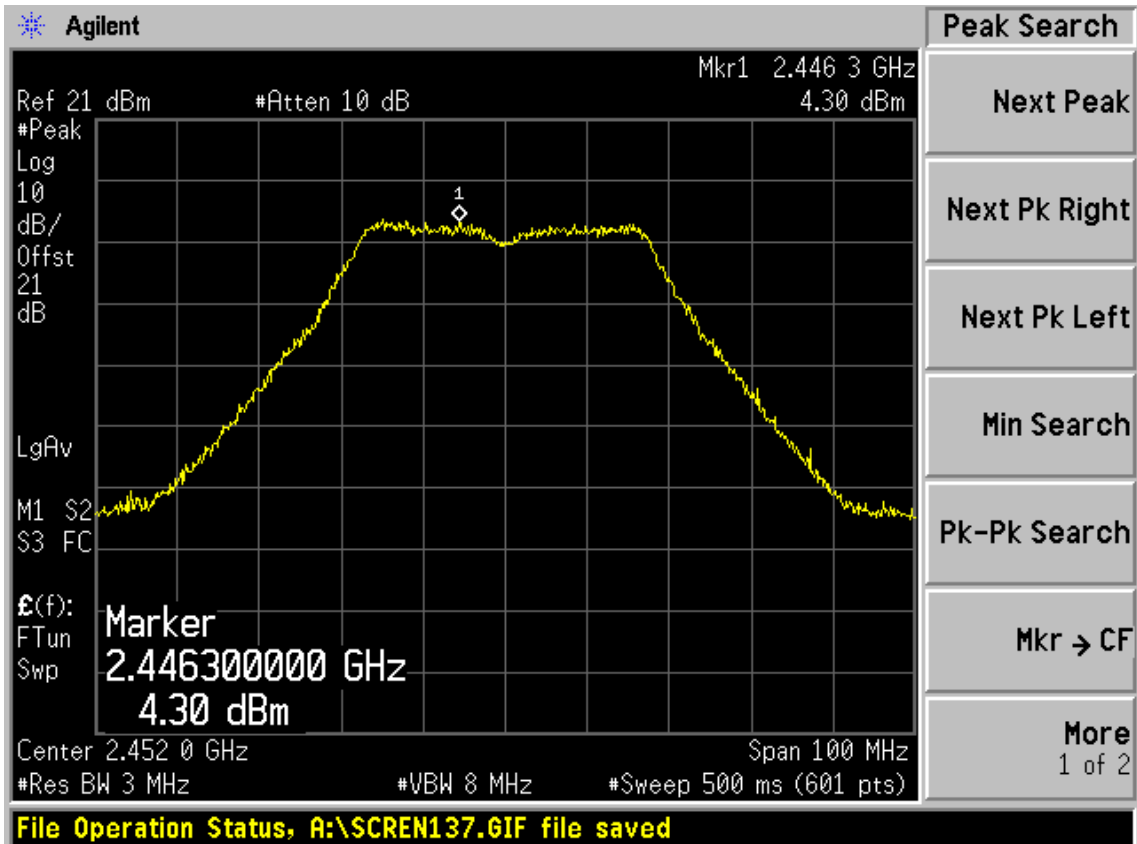
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

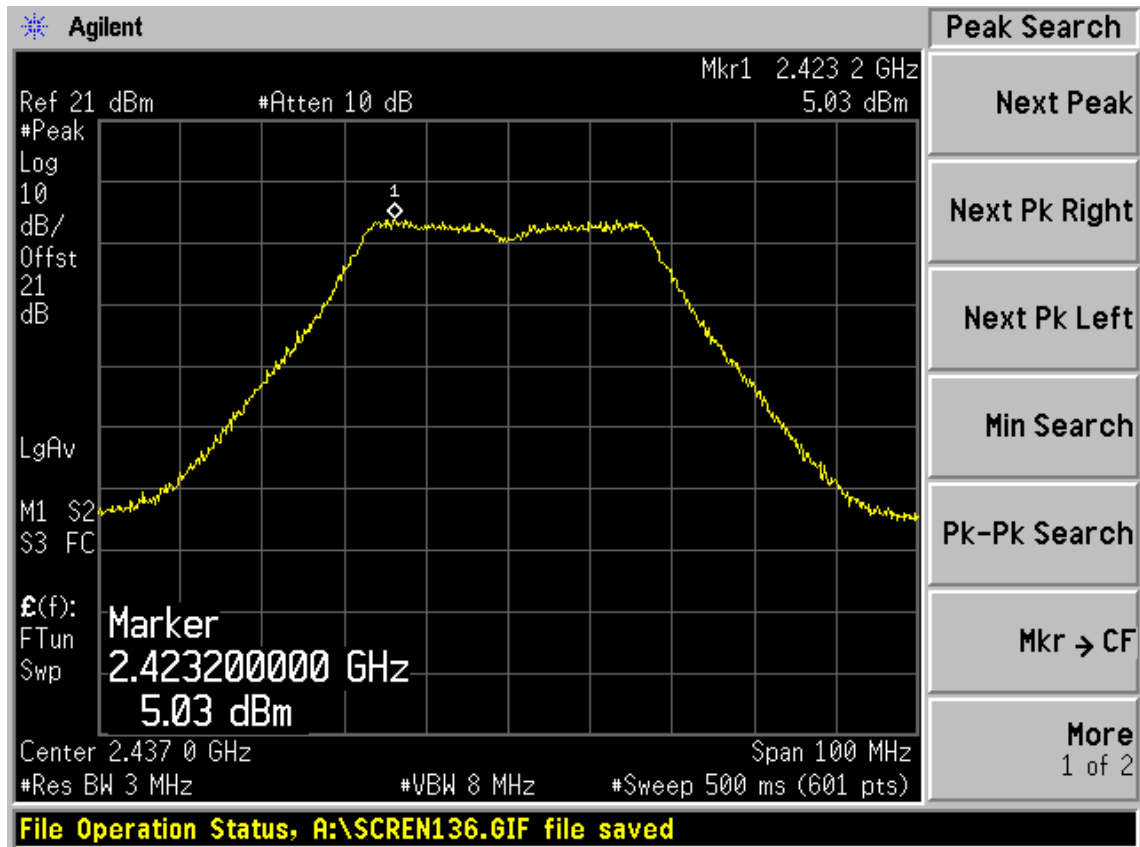
8.4. Test Results

\EUT: 300Mbps Wireless N Gigabit ADSL2+Modem Router						
M/N: TD-W8970						
Test date: 2013-01-09		Pressure: 101.2 ± 1.0 kpa		Humidity: 49.4 ± 3.0%		
Tested by: Leo-Li		Test site: RF Site		Temperature: 21.7 ± 0.6 °C		
Cable loss: 1 dB			Attenuator loss: 20 dB			
Test Mode	CH (MHz)	Peak output Power (dBm)				Limit (dBm)
		ANT0	ANT1	ANT2	Total	
11b	CH1	17.48	18.66	18.09	N/A	30
	CH6	17.82	18.34	18.25	N/A	30
	CH11	17.25	17.99	18.08	N/A	30
11g	CH1	20.81	21.9	21.39	N/A	30
	CH6	21.16	22	21.64	N/A	30
	CH11	20.62	21.55	21.43	N/A	30
11n HT20	CH1	19.3	19.96	20.06	24.56	30
	CH6	19.54	19.73	20.26	24.63	30
	CH11	19.04	19.35	20.38	24.40	30

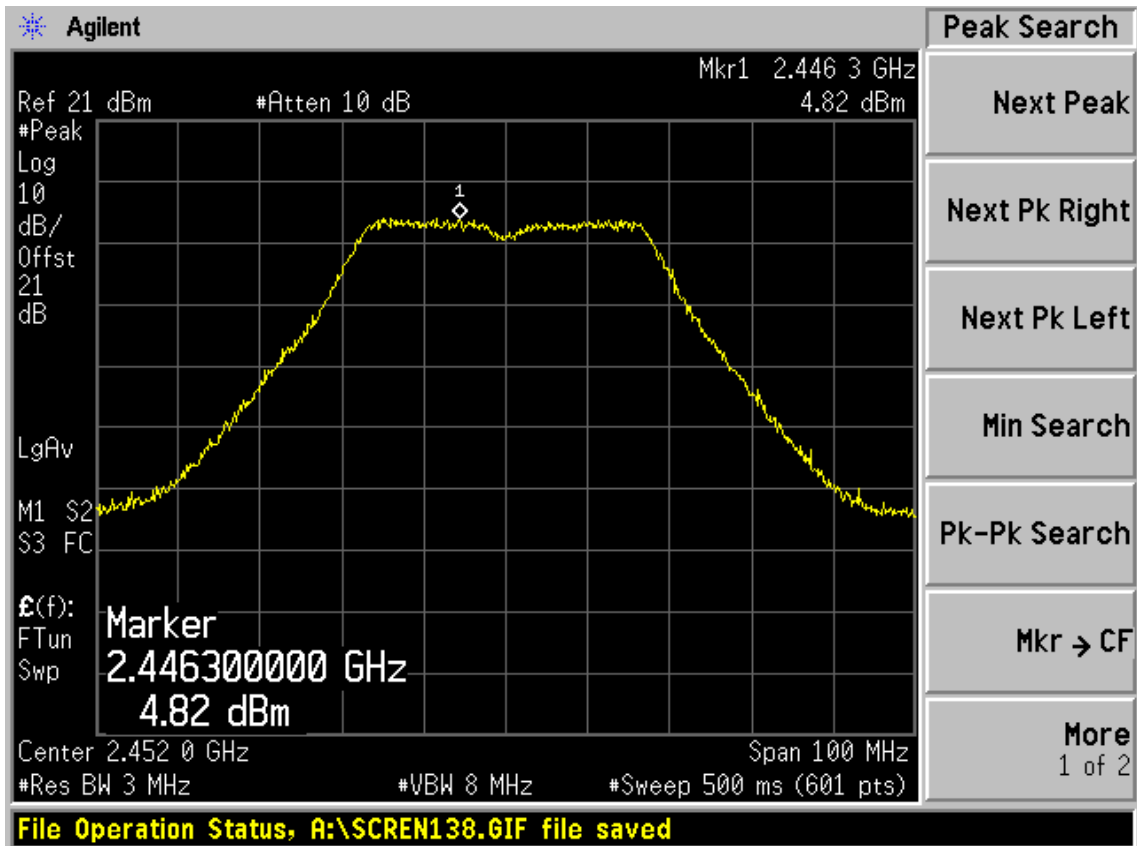
Test Mode	CH	Result							Limit (dBm)
		Measured power(dBm)/3MHz			PK Output power (dBm)				
		ANT0	ANT1	ANT2	ANT0	ANT1	ANT2	Total	
11n HT40	CH3	4.87	5.15	5.04	17.09	17.29	17.17	21.96	30
	CH6	5.03	5.05	5.75	17.25	17.19	17.88	22.22	30
	CH9	4.30	4.82	5.18	16.52	16.96	17.31	21.71	30
Chain 0	26dB Bandwidth for 11n HT40:50.00MHz								
Chain 1	26dB Bandwidth for 11n HT40:49.159MHz								
Chain 2	26dB Bandwidth for 11n HT40:48.963MHz								
Chain 0	BW correction factor = 10log[(50.00MHz)/(3MHz)] = 12.22dB								
Chain 1	BW correction factor = 10log[(49.159MHz)/(3MHz)] = 12.14dB								
Chain 2	BW correction factor = 10log[(48.963MHz)/(3MHz)] = 12.13dB								
Conclusion: PASS									

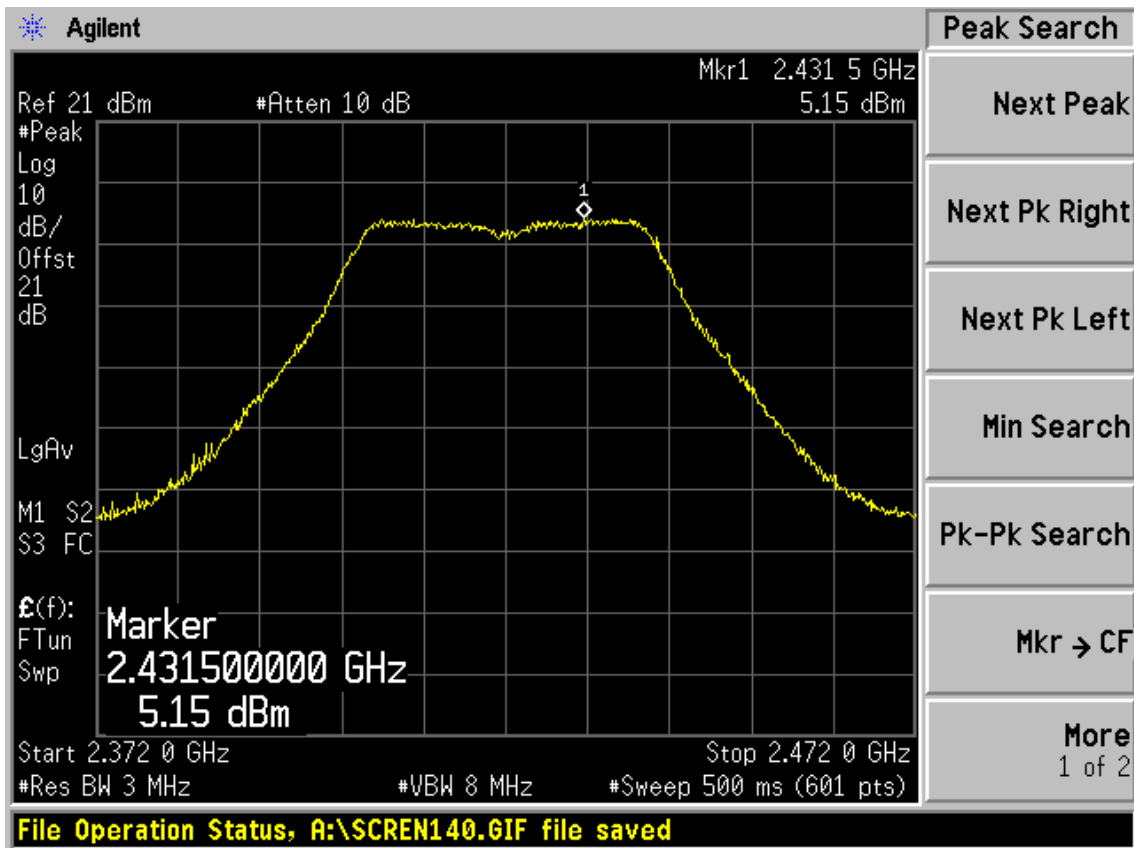
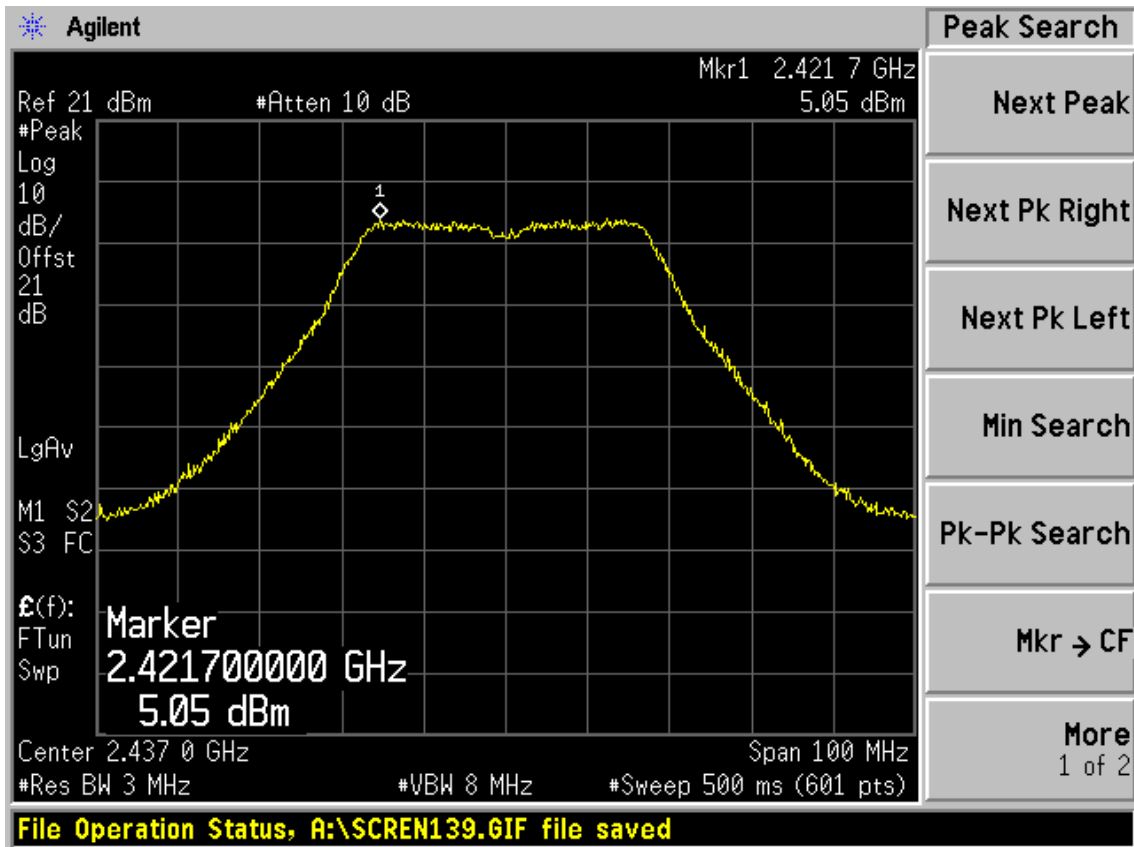
Test Mode: IEEE 802.11n HT40
ANT 0



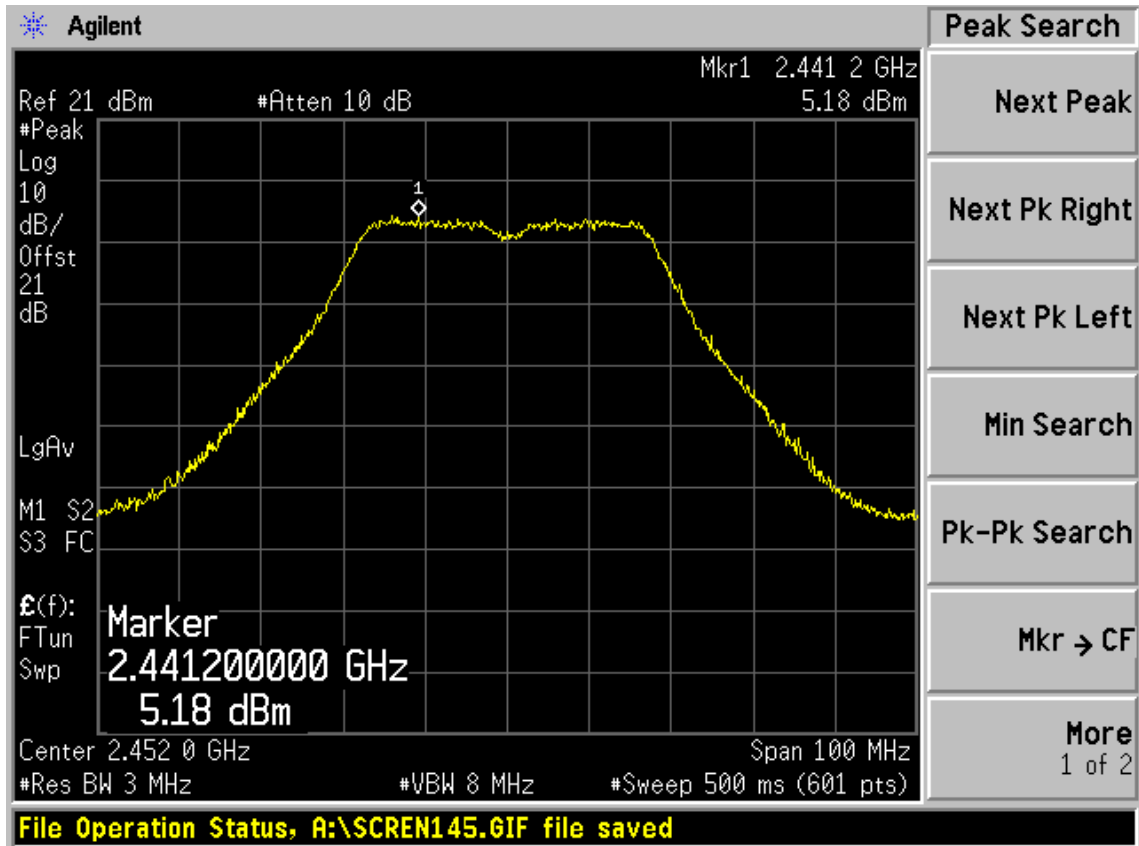
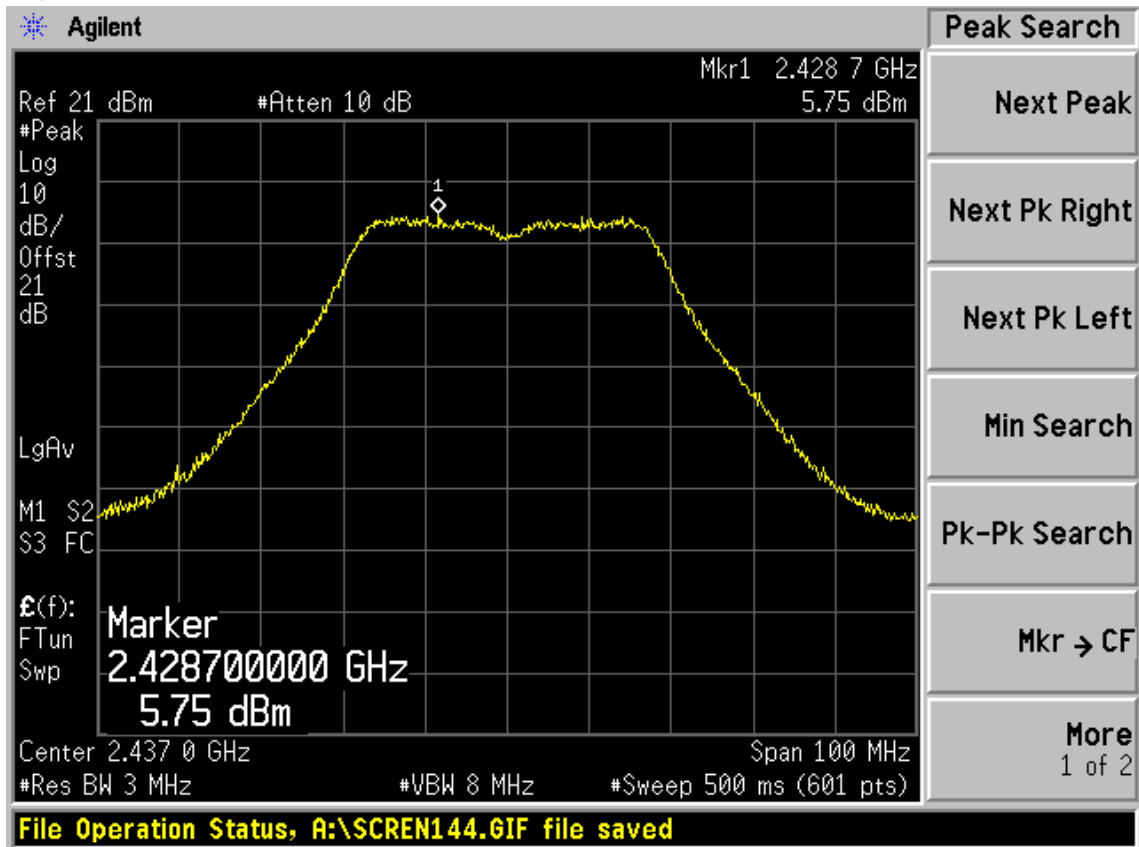


ANT 1





ANT2



26Bandwidth
ANT 0

Agilent
Freq/Channel

Ch Freq 2.422 GHz Trig Free

Center 2.422000000 GHz

Center 2.422 00 GHz Span 50 MHz

#Res BW 470 kHz #VBW 5 MHz Sweep 1 ms (601 pts)

Center Freq
2.42200000 GHz

Start Freq
2.39700000 GHz

Stop Freq
2.44700000 GHz

CF Step
5.00000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Occupied Bandwidth	Occ BW % Pwr 99.00 %
37.2900 MHz	x dB -26.00 dB
Transmit Freq Error	-63.408 kHz
x dB Bandwidth	50.000 MHz

Copyright 2000-2005 Agilent Technologies

Agilent
Trace

Ch Freq 2.437 GHz Trig Free

Center 2.437000000 GHz

Center 2.437 00 GHz Span 50 MHz

#Res BW 470 kHz #VBW 5 MHz Sweep 1 ms (601 pts)

Trace
1 2 3

Clear Write

Max Hold

Min Hold

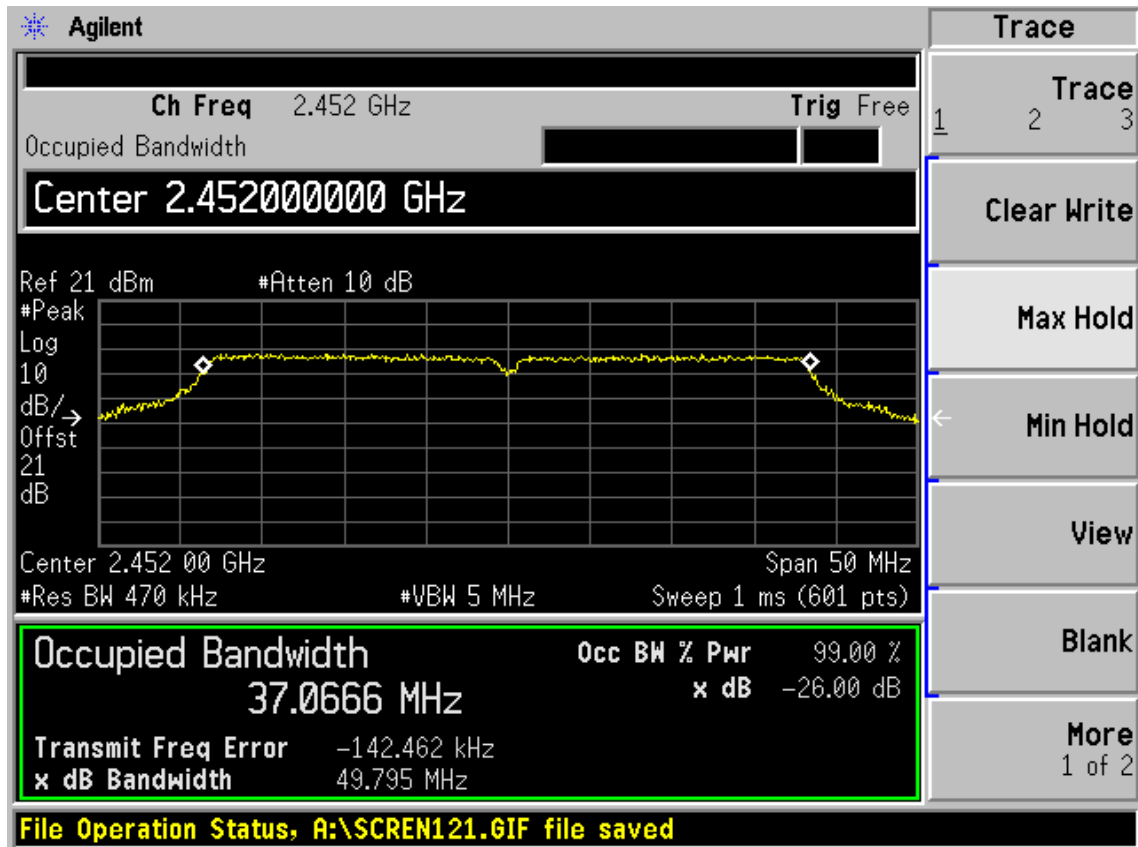
View

Blank

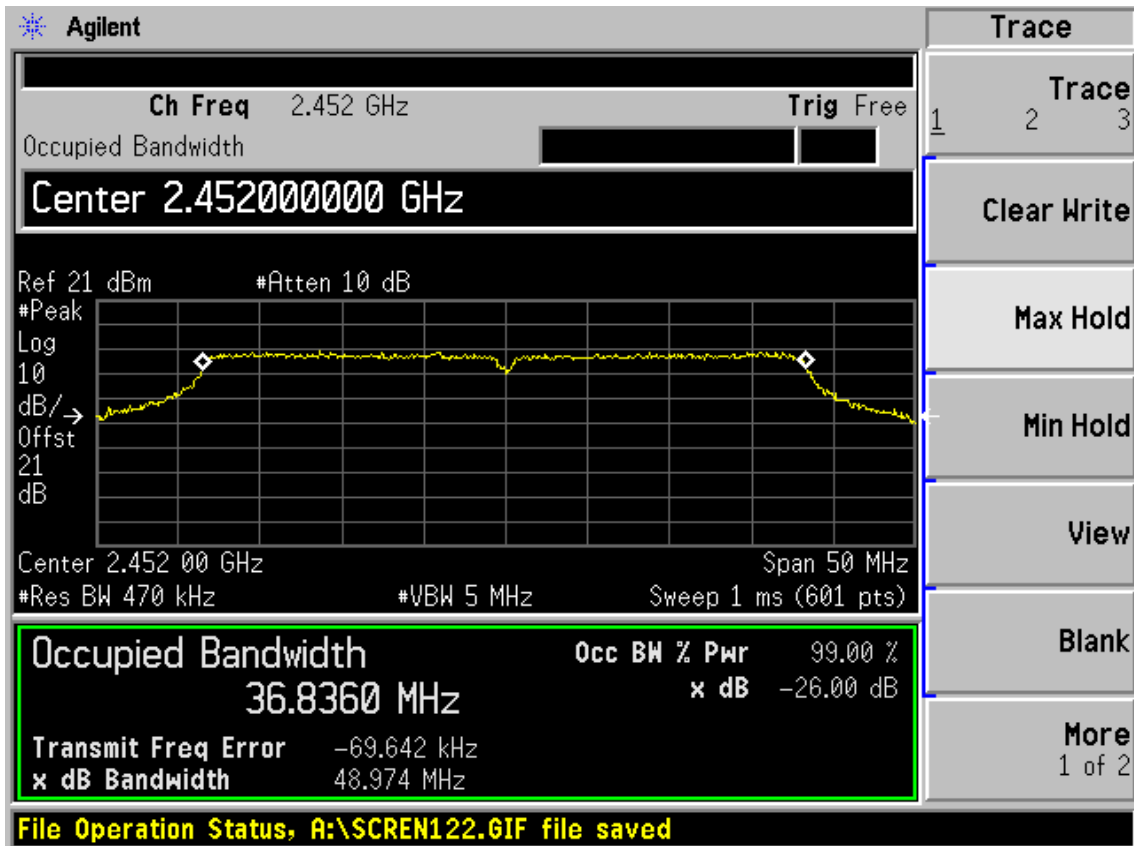
More
1 of 2

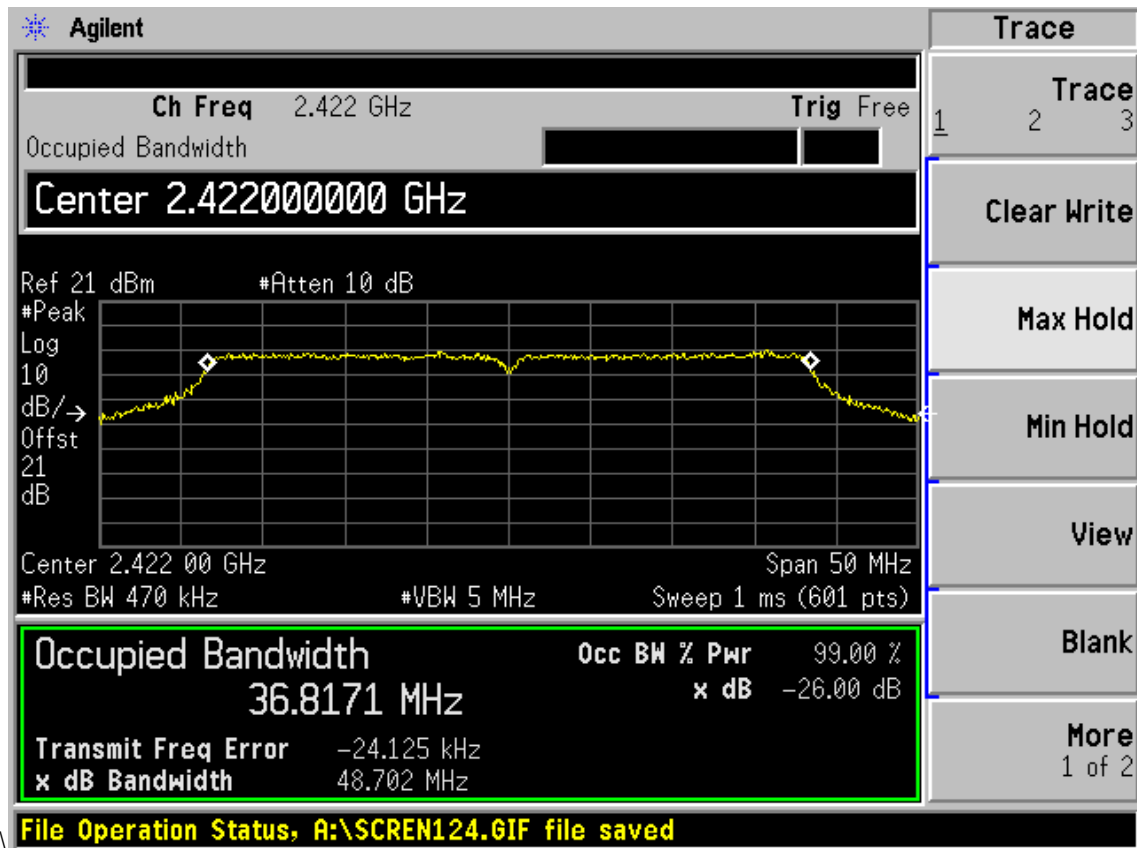
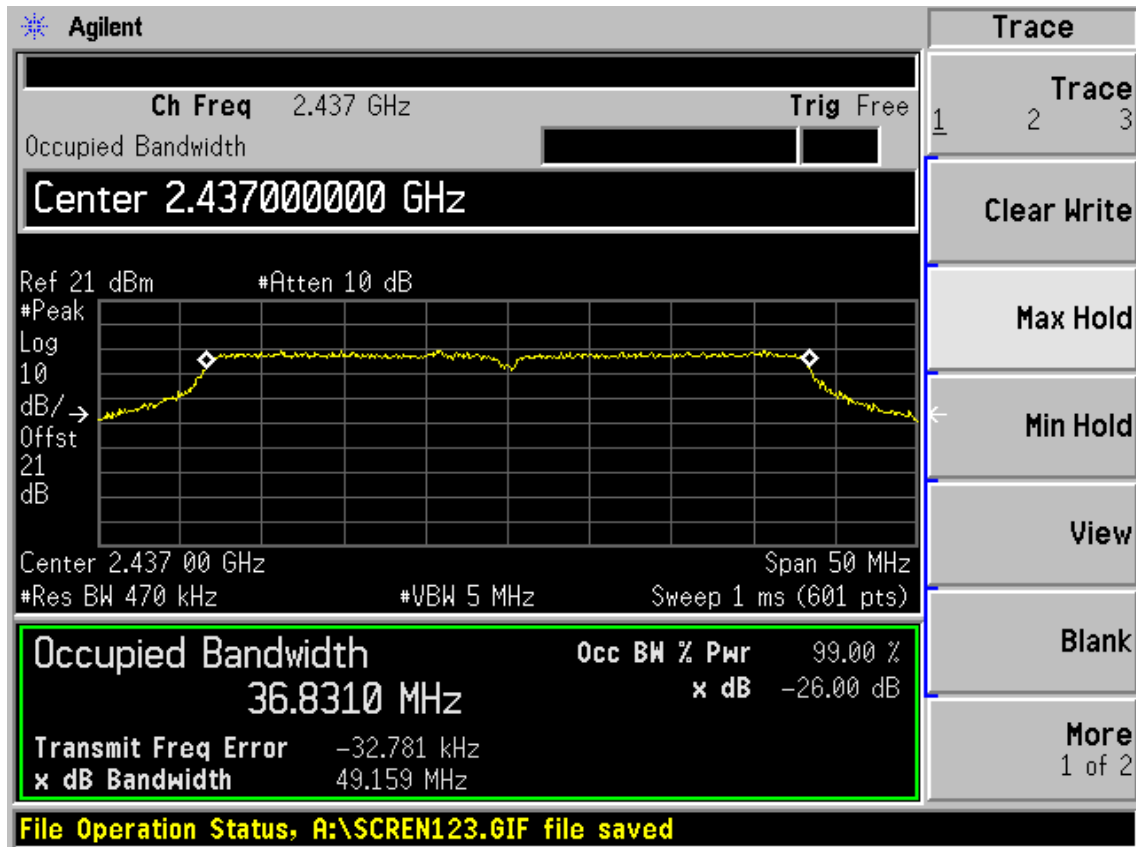
Occupied Bandwidth	Occ BW % Pwr 99.00 %
37.1472 MHz	x dB -26.00 dB
Transmit Freq Error	-54.097 kHz
x dB Bandwidth	49.791 MHz

File Operation Status, A:\SCREEN120.GIF file saved

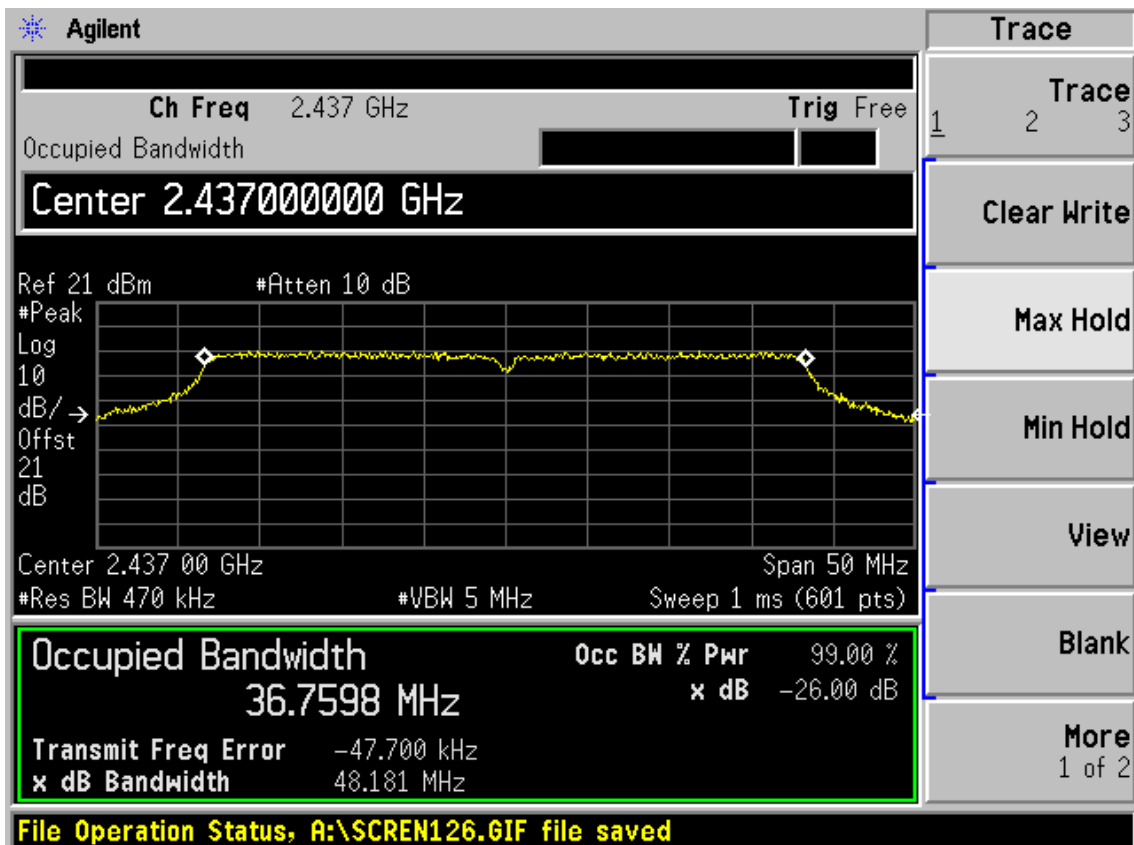
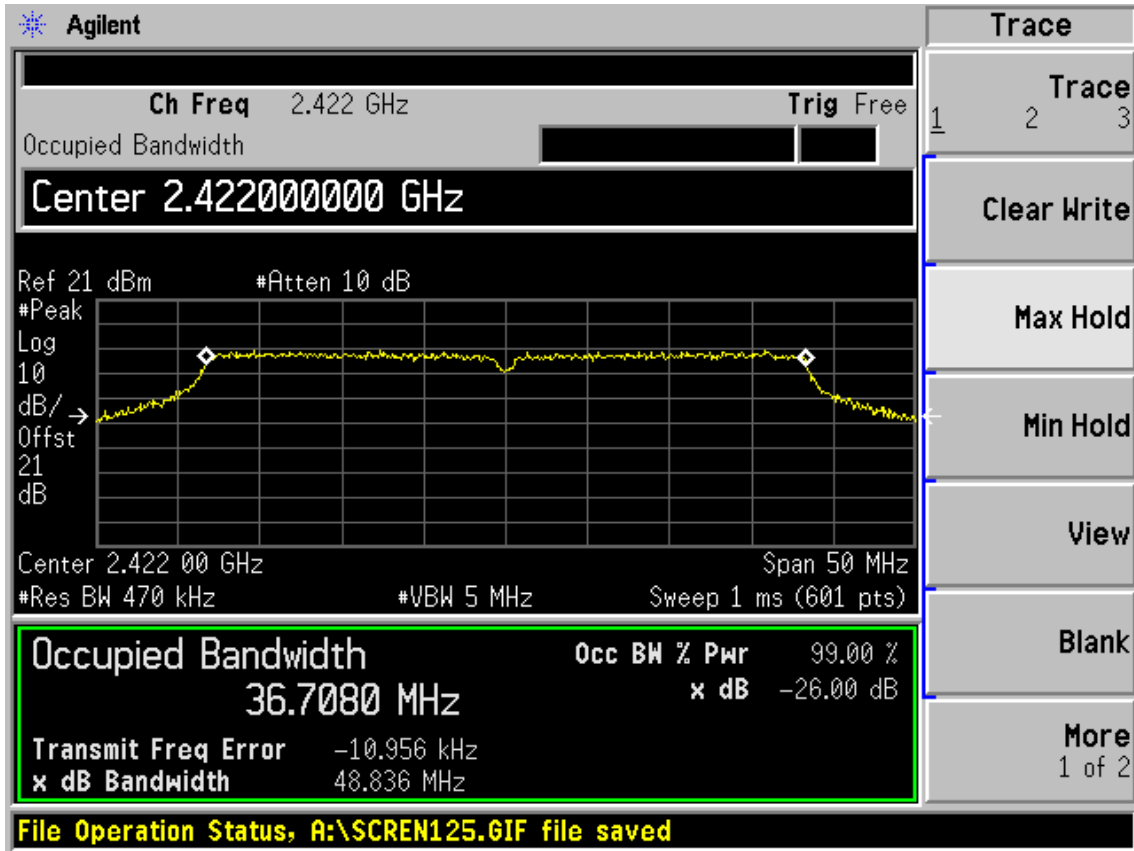


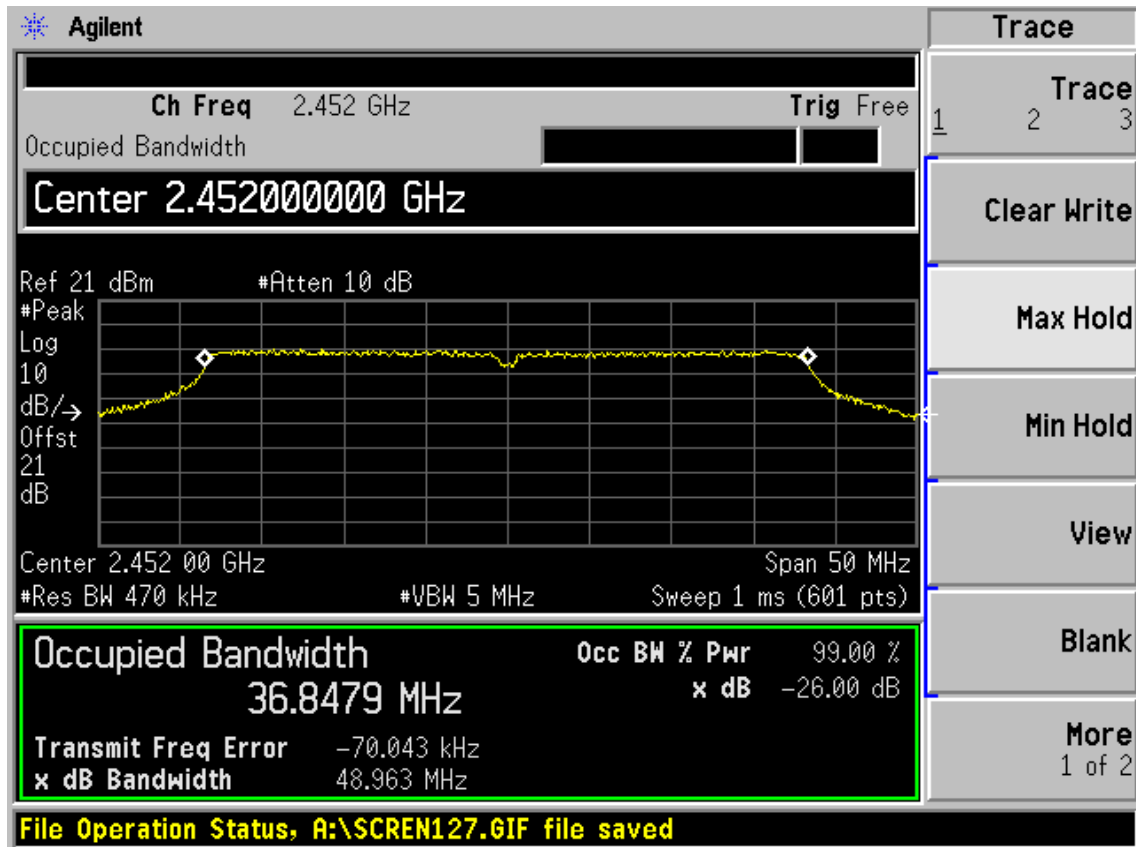
ANT 1





ANT2





9. POWER SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 12	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 12	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.31, 12	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	May.08, 12	1 Year

9.2. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3. Test Procedure

1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.
2. Set the test frequency as center frequency, Set RBW=100KHz, VBW=300KHz, Span to 5-30 % greater than the EBW, Read out maximum peak level of the test frequency.
- 3, adjusting (reducing) the measured power in step 2 by a bandwidth correction factor (BWCF) where $BWCF = 10\log(3 \text{ kHz}/100 \text{ kHz} = -15.2 \text{ dB})$

Note: The cable loss and attenuator loss were offset into measure device as an amplitude

9.4. Test Results

EUT: 300Mbps Wireless N Gigabit ADSL2+Modem Router		
M/N:TD-W8970		
Test date: 2013-01-09	Pressure: 101.2±1.0 kpa	Humidity: 52.4±3.0%
Tested by: Leo-Li	Test site: RF Site	Temperature: 21.4±0.6°C

Cable loss: 1 dB		Attenuator loss: 20 Db						
Test Mode	CH	Power density (dBm/100KHz)			Power density (dBm/3KHz)			Limit (dBm/3KHz)
		ANT0	ANT1	ANT2	ANT0	ANT1	ANT2	
11b	CH1	4.43	4.88	4.88	-10.77	-10.32	-10.32	8
	CH6	4.79	4.61	5.36	-10.41	-10.59	-9.84	8
	CH11	4.45	4.48	5.24	-10.75	-10.72	-9.96	8
11g	CH1	2.56	3.49	3.30	-12.64	-11.71	-11.9	8
	CH6	2.96	3.54	3.65	-12.24	-11.66	-11.55	8
	CH11	2.62	3.21	3.74	-12.58	-11.99	-11.46	8

11n Mode

Test Mode	CH	Power density (dBm/100KHz)				Power density (dBm/3KHz)	Limit (dBm/3KHz)
		ANT0	ANT1	ANT2	Total	Total	
11n HT20	CH1	0.48	1.45	0.78	5.69	-9.51	8
	CH6	0.26	0.28	1.30	5.41	-9.79	8
	CH11	-0.04	0.54	1.03	5.30	-9.9	8
11n HT40	CH1	-4.78	-4.11	-4.09	0.46	-14.74	8
	CH4	-4.18	-4.15	-3.86	0.71	-14.49	8
	CH7	-4.57	-4.44	-3.97	0.45	-14.75	8

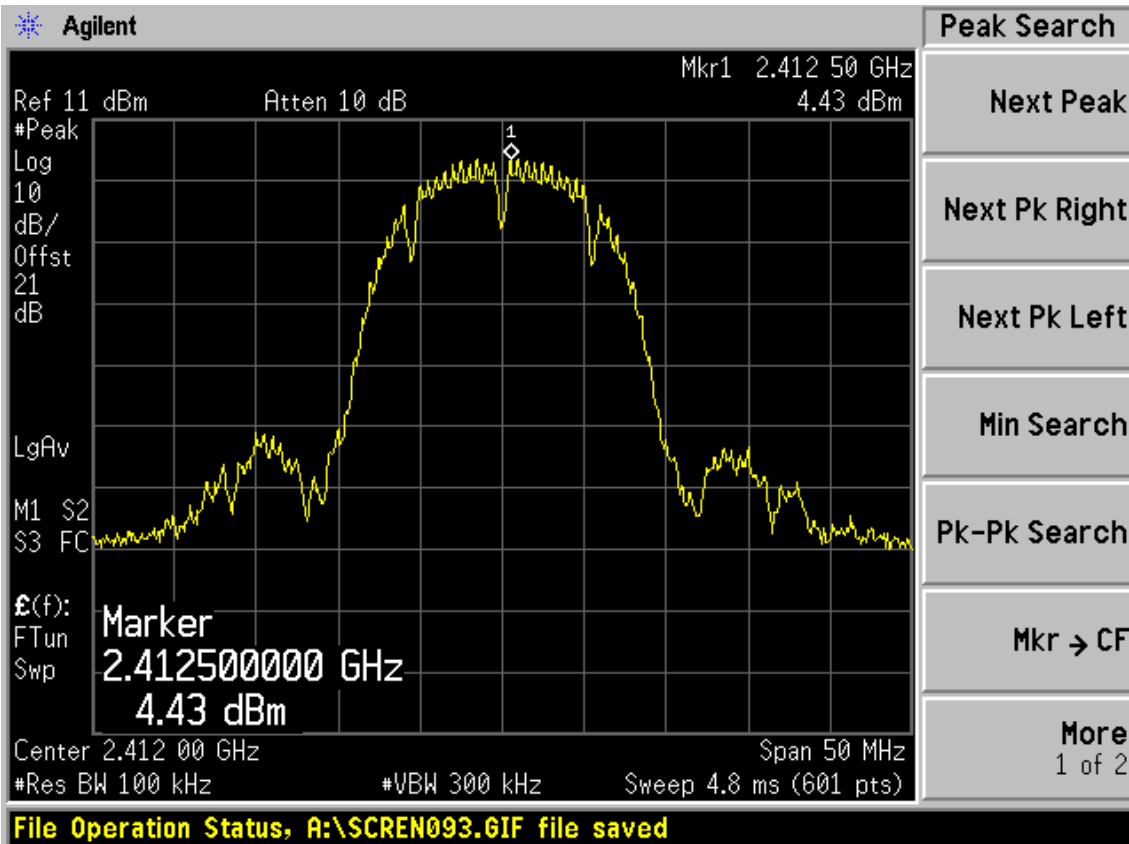
BW correction factor = $10\log[(3/100KHz)] = -15.2$

Conclusion : PASS

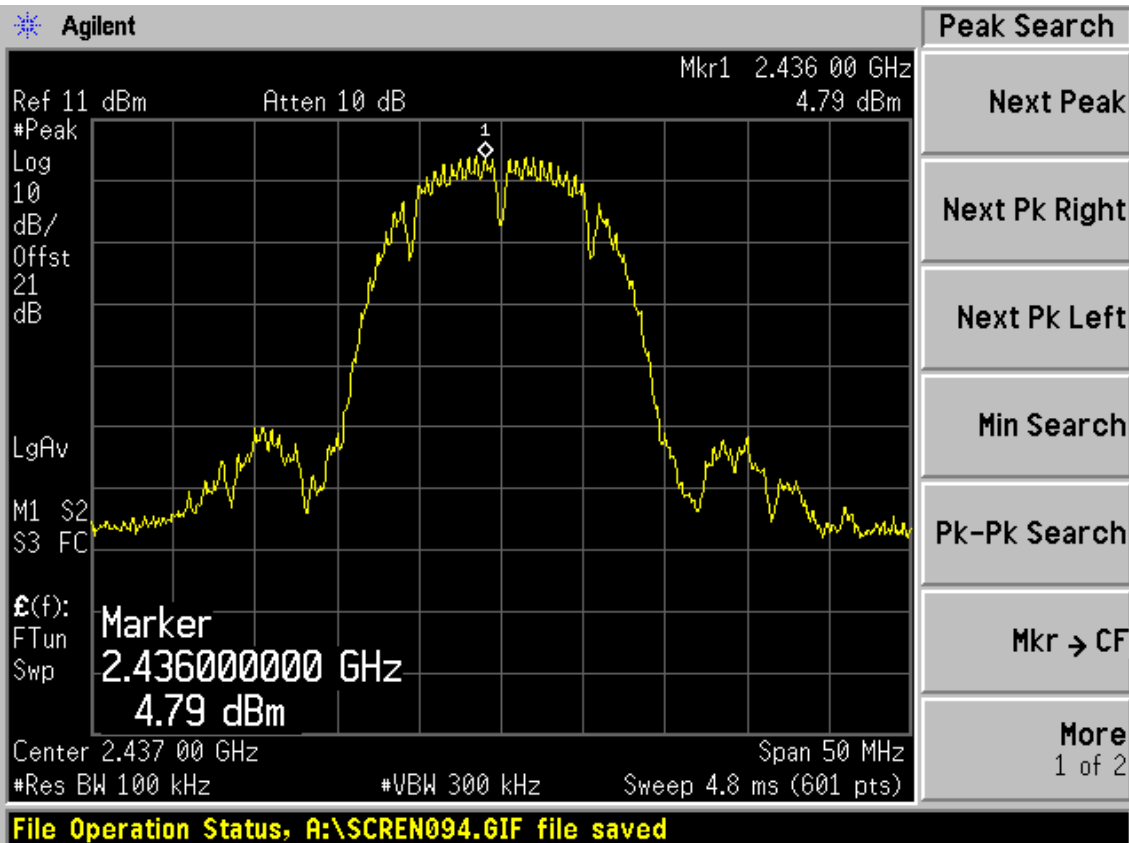
ANT 0

Test Mode: IEEE 802.11b TX

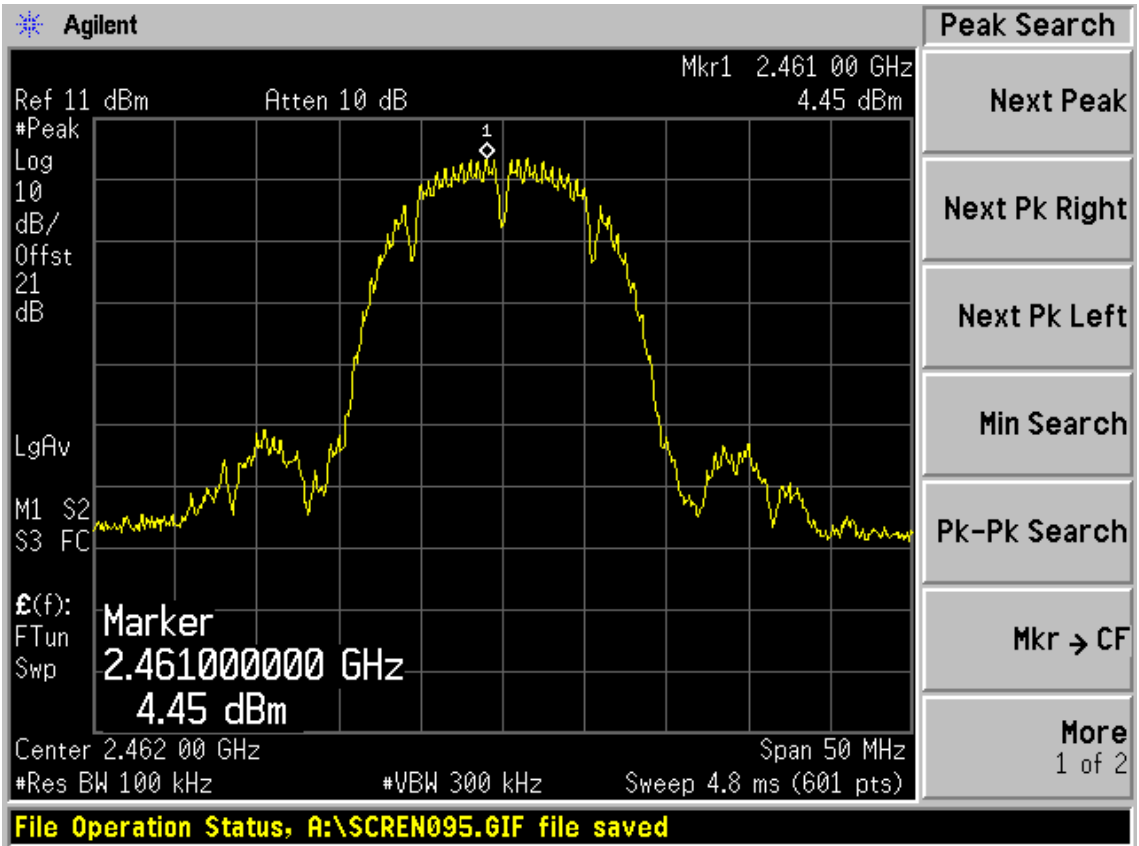
Test CH1: 2412MHz



Test CH6: 2437MHz

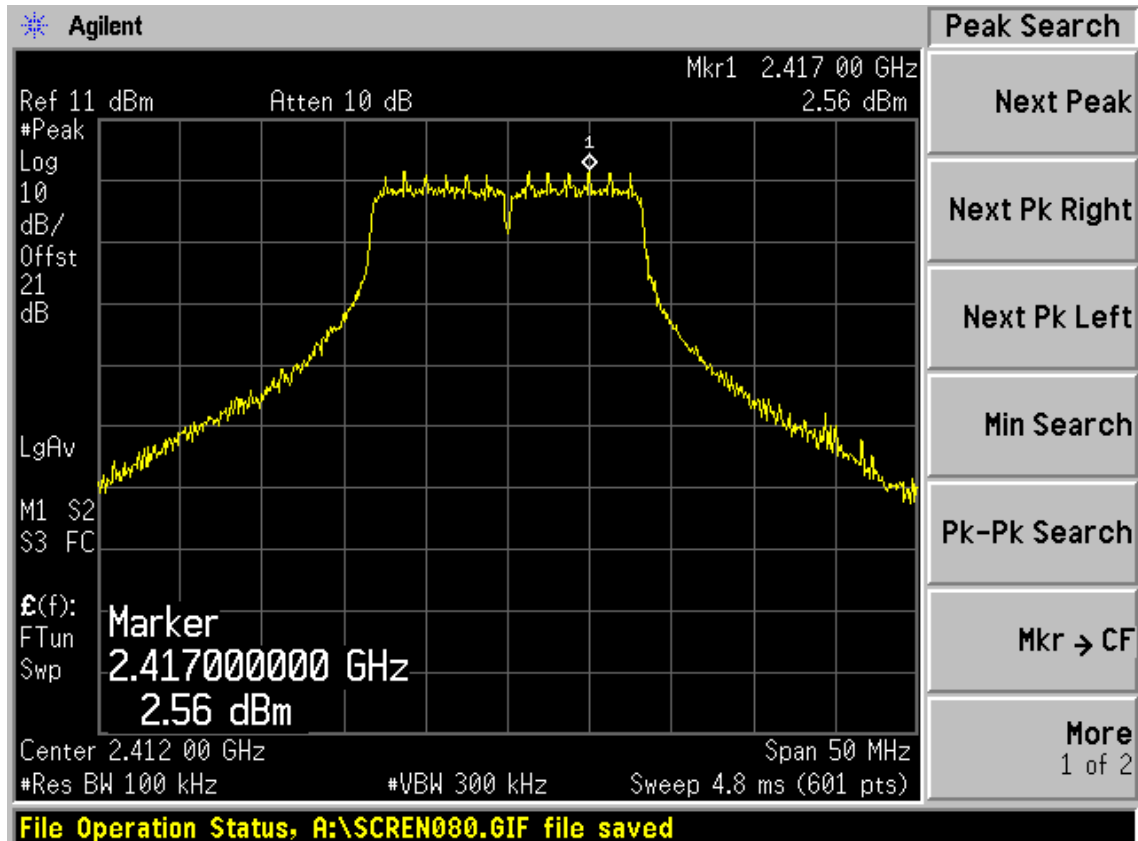


Test CH11: 2462MHz

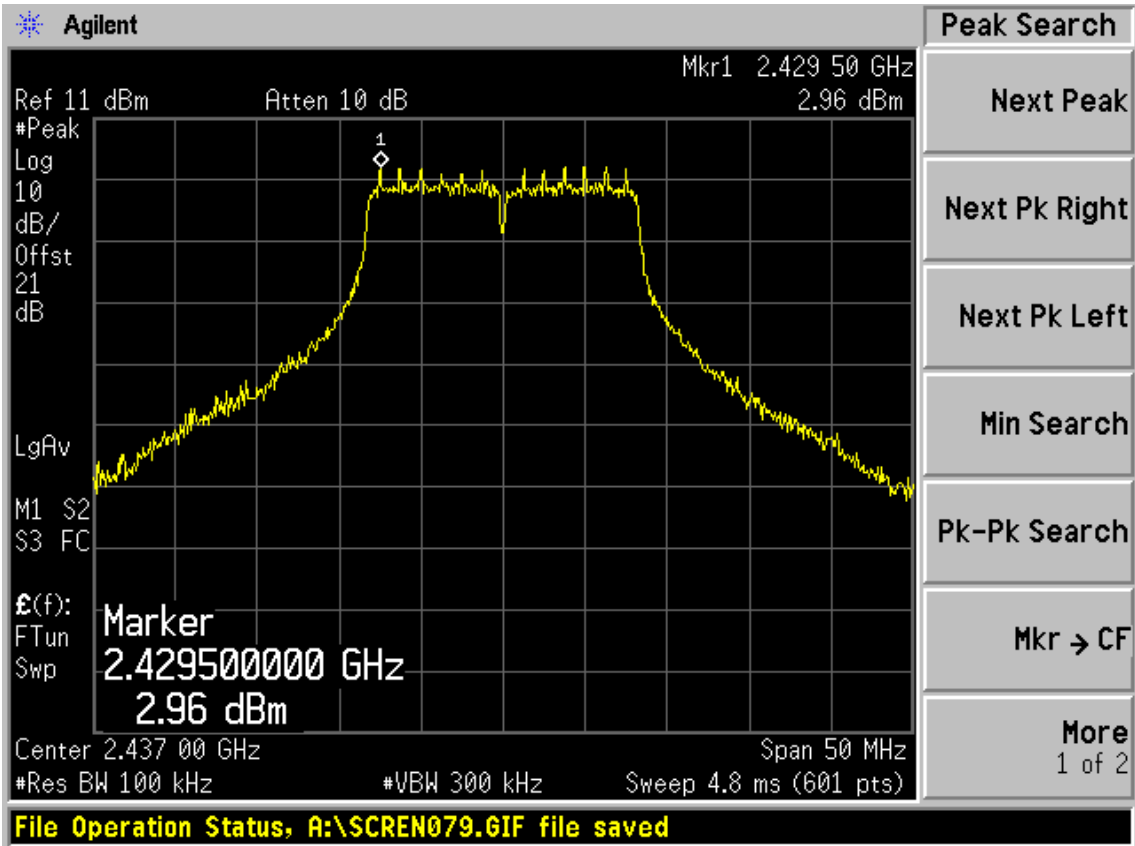


Test Mode: IEEE 802.11g TX

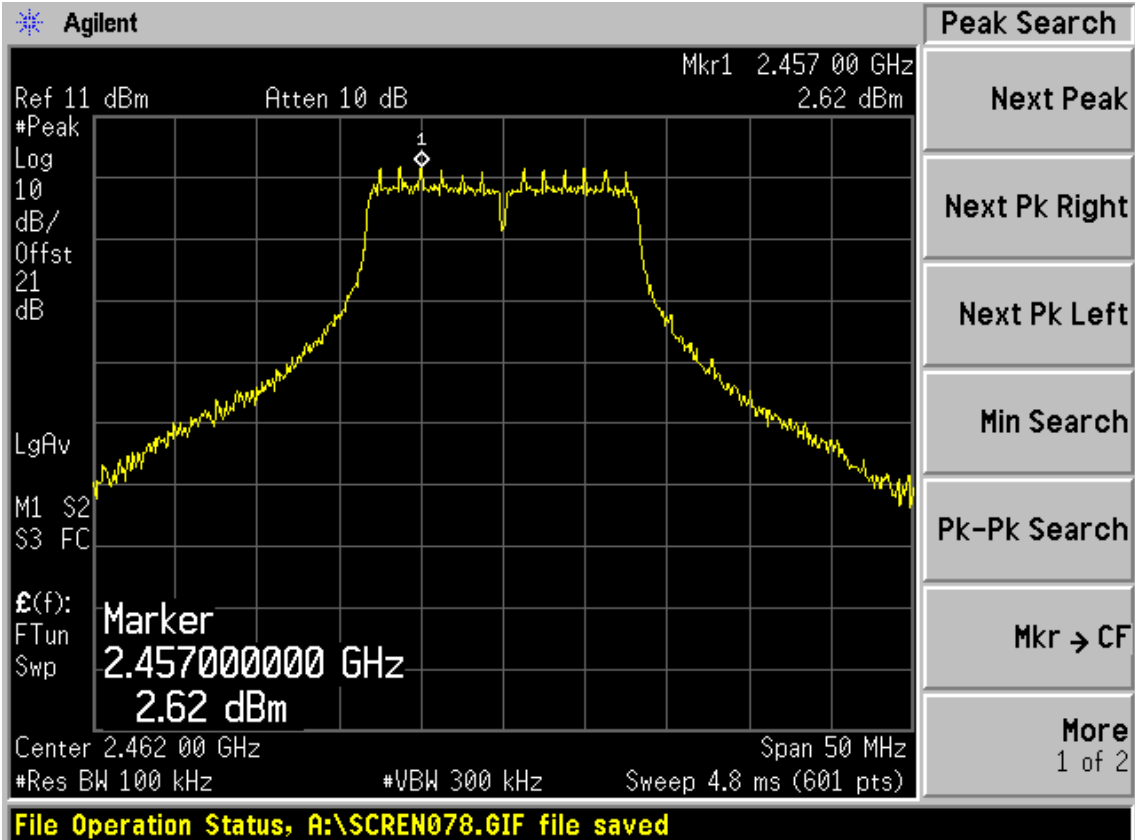
Test CH1: 2412MHz



Test CH6: 2437MHz

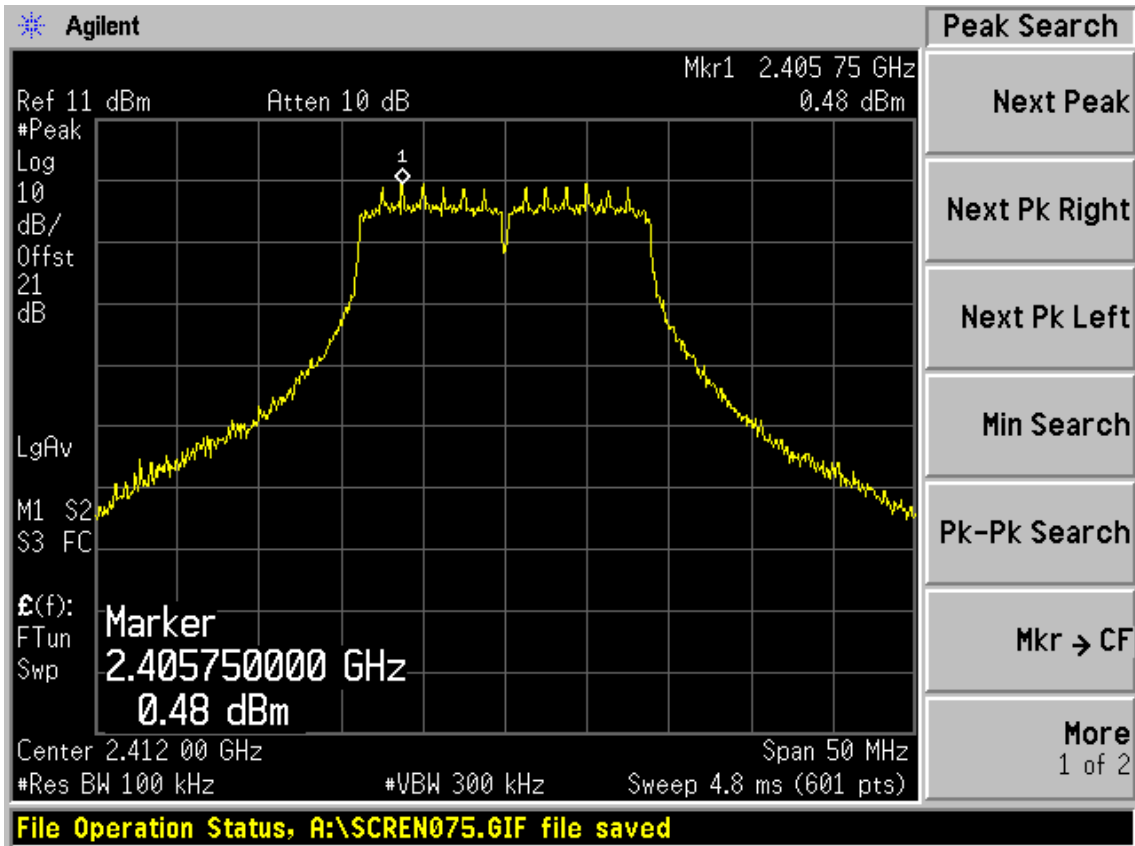


Test CH11: 2462MHz

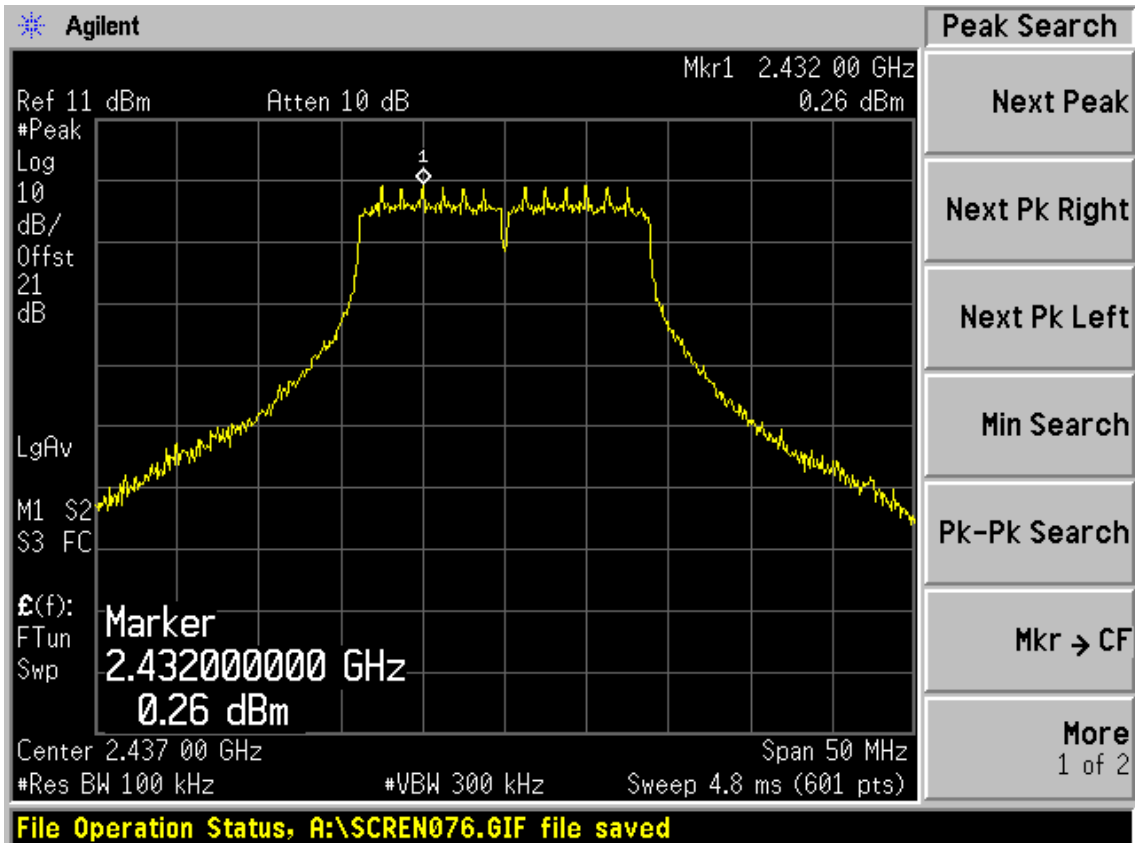


Test Mode: IEEE 802.11n HT20 TX

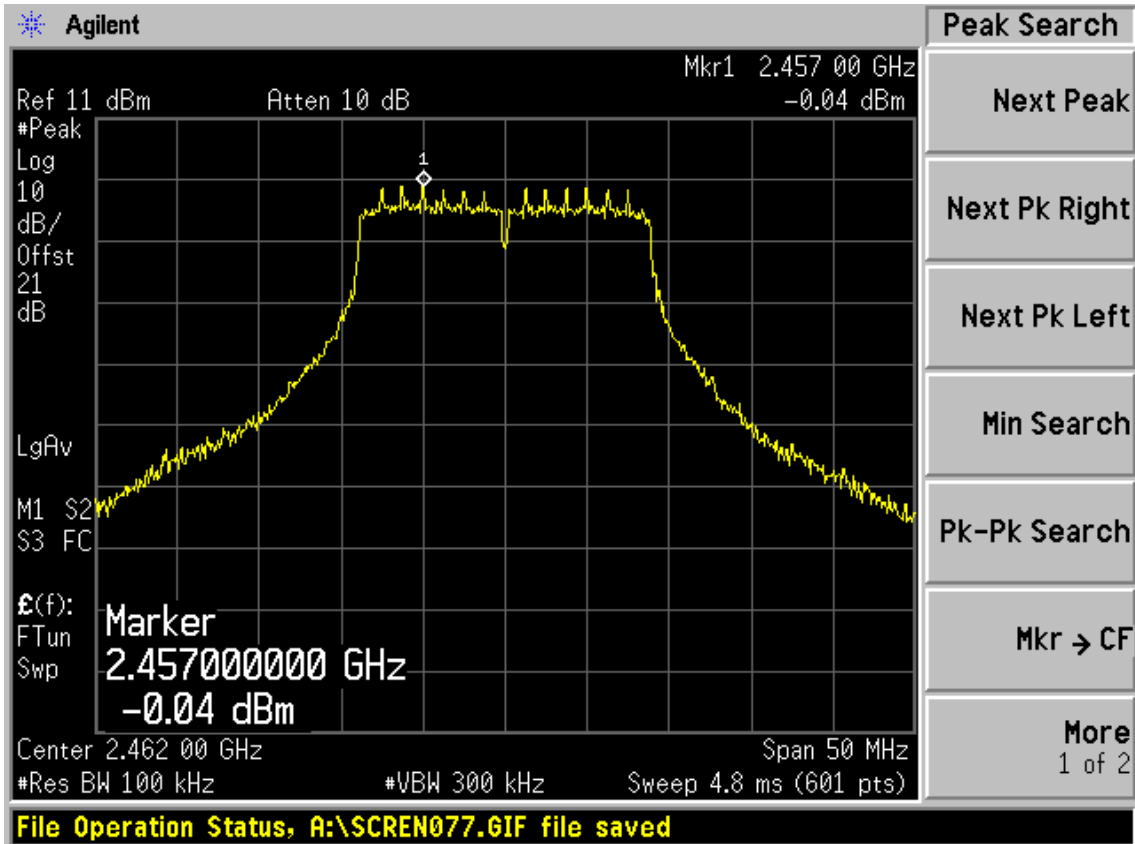
Test CH1: 2412MHz



Test CH6: 2437MHz

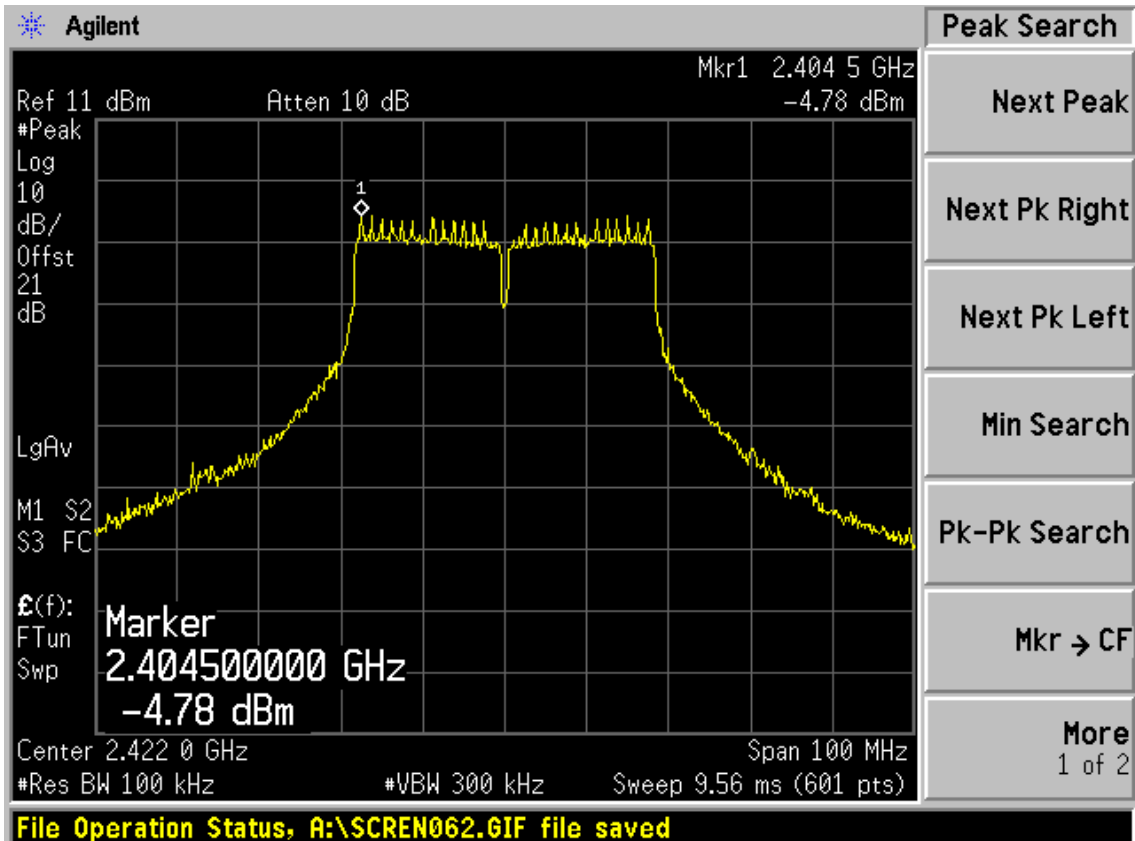


Test CH1: 2462MHz

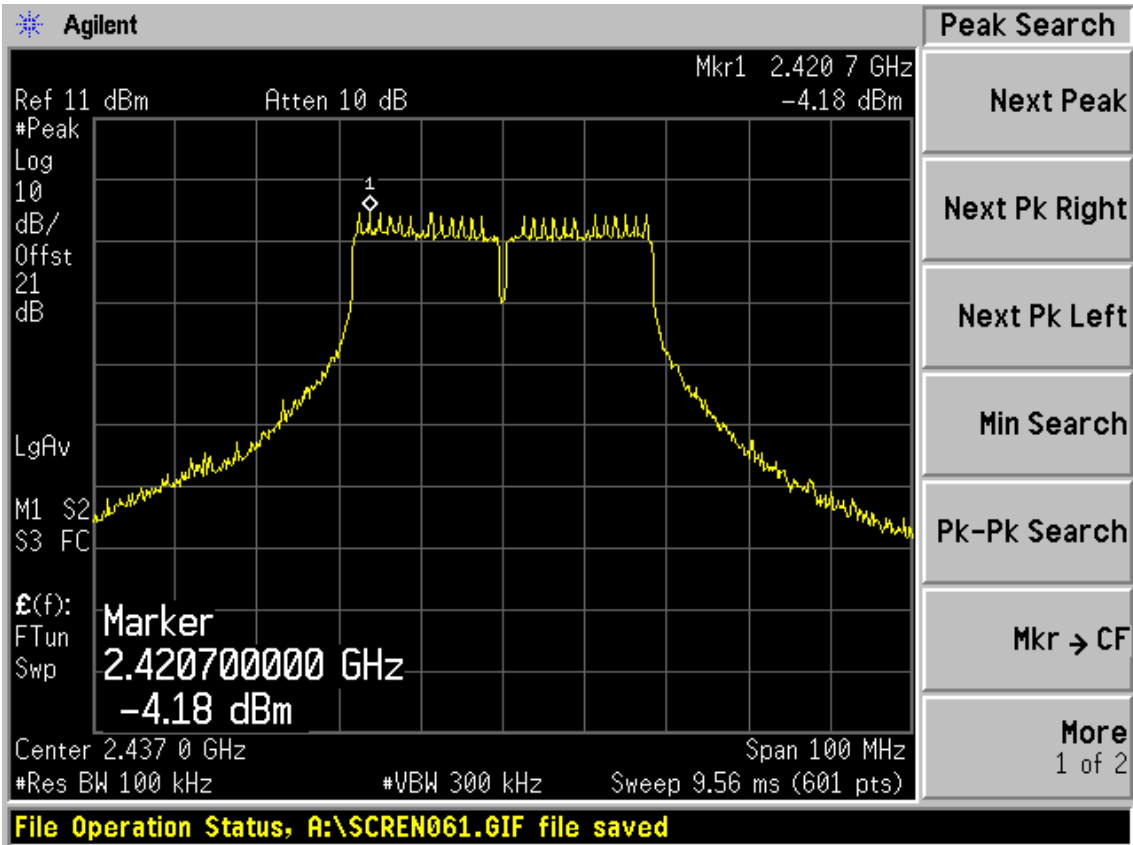


Test Mode: IEEE 802.11n HT40 TX

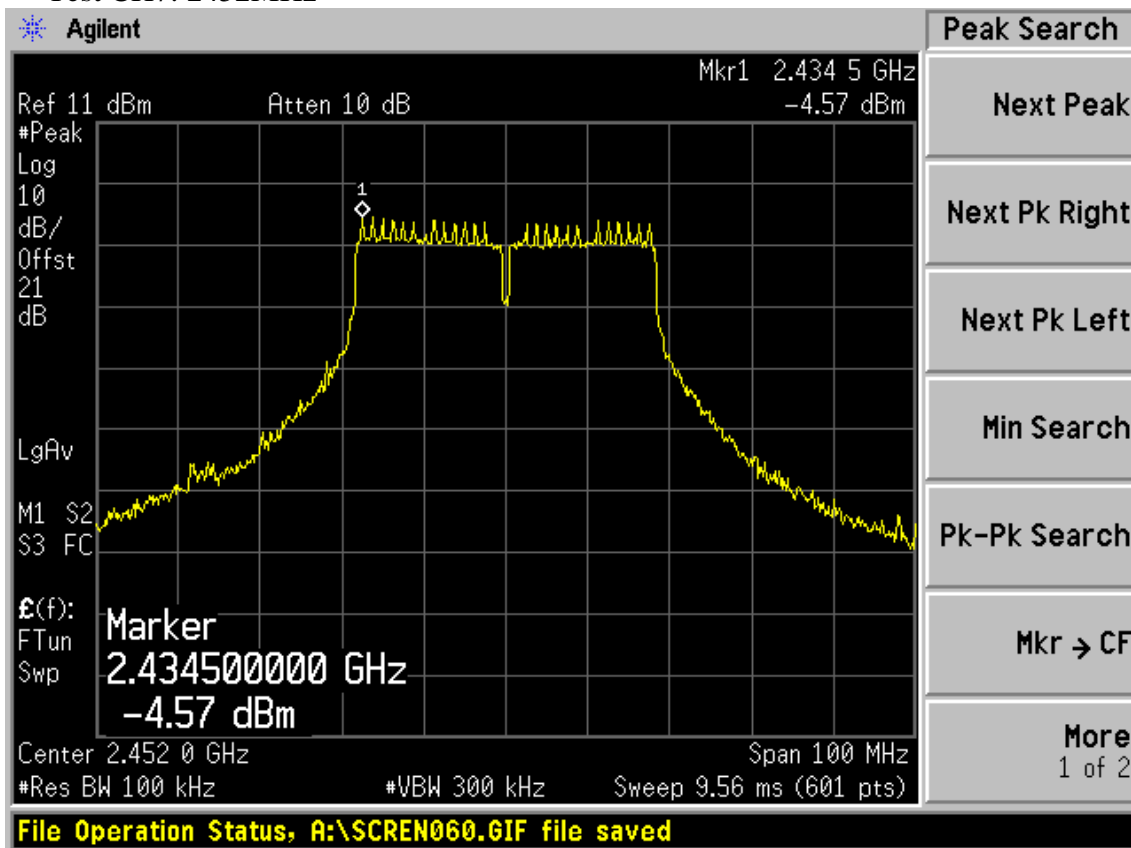
Test CH1: 2422MHz



Test CH4: 2437MHz



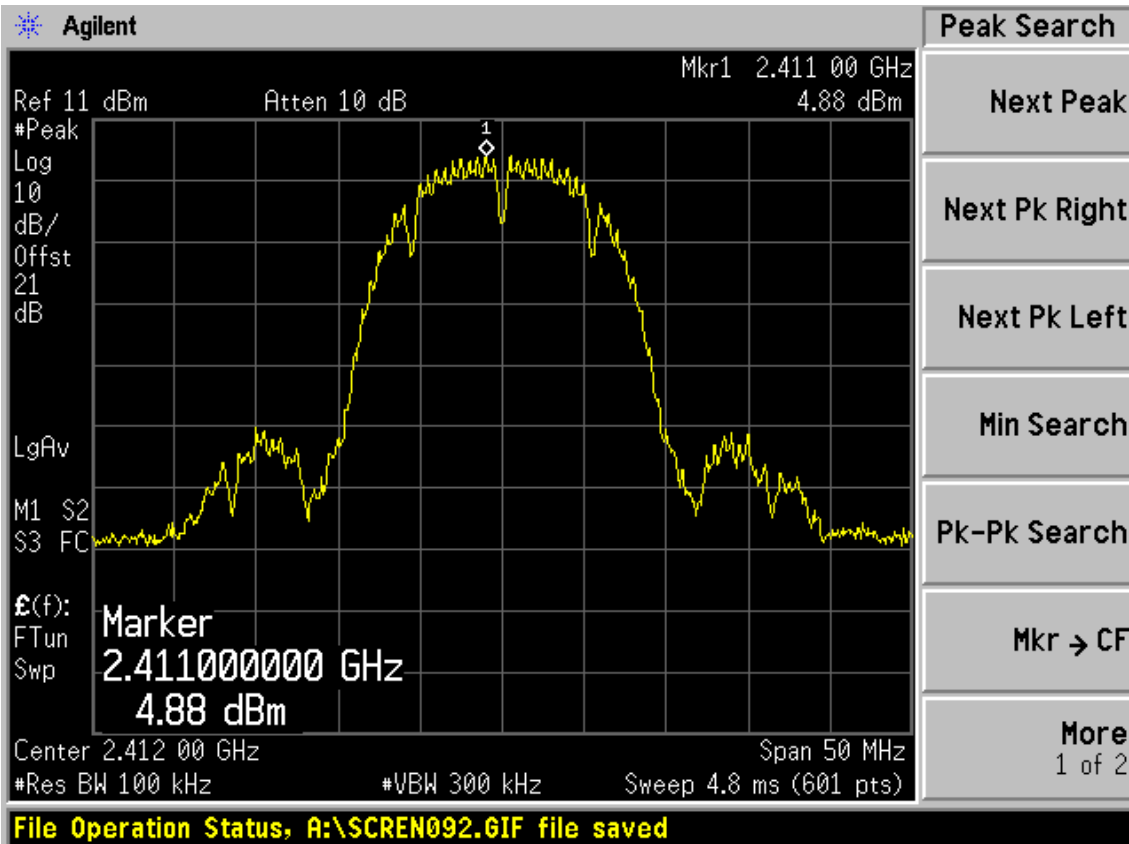
Test CH7: 2452MHz



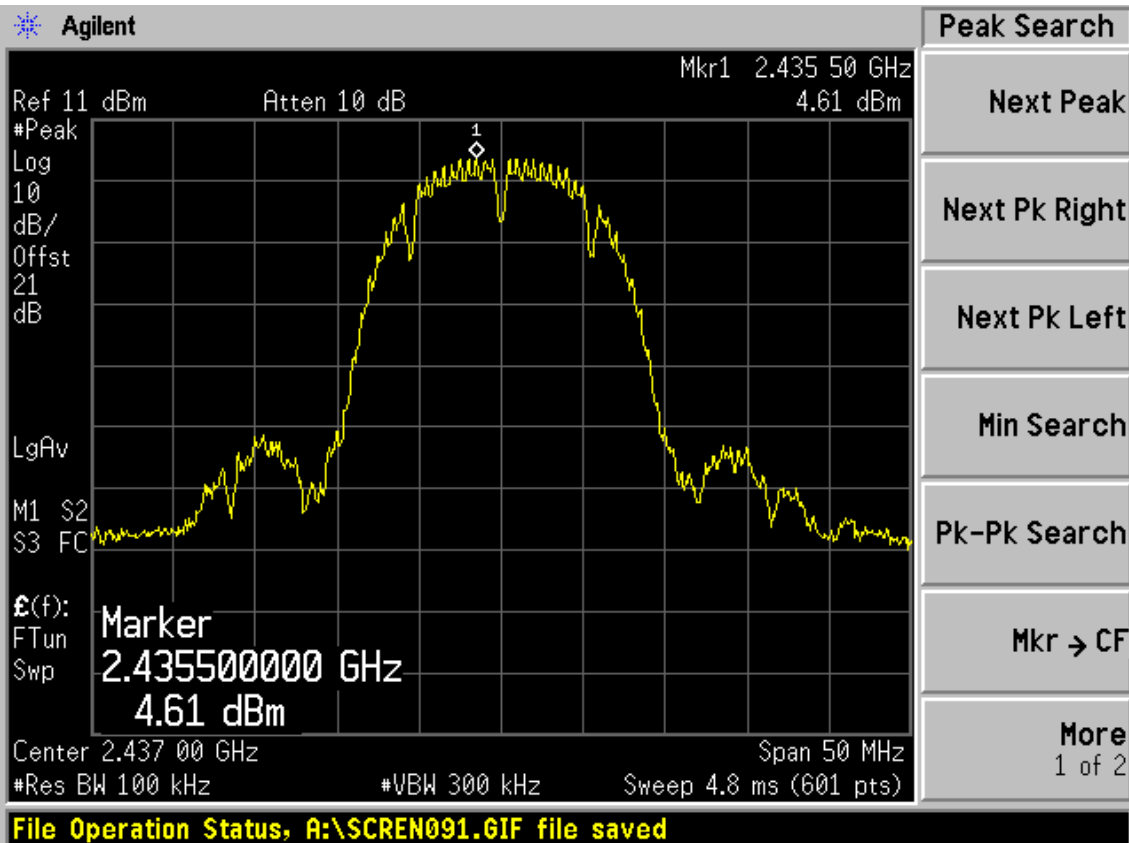
ANT 1

Test Mode: IEEE 802.11b TX

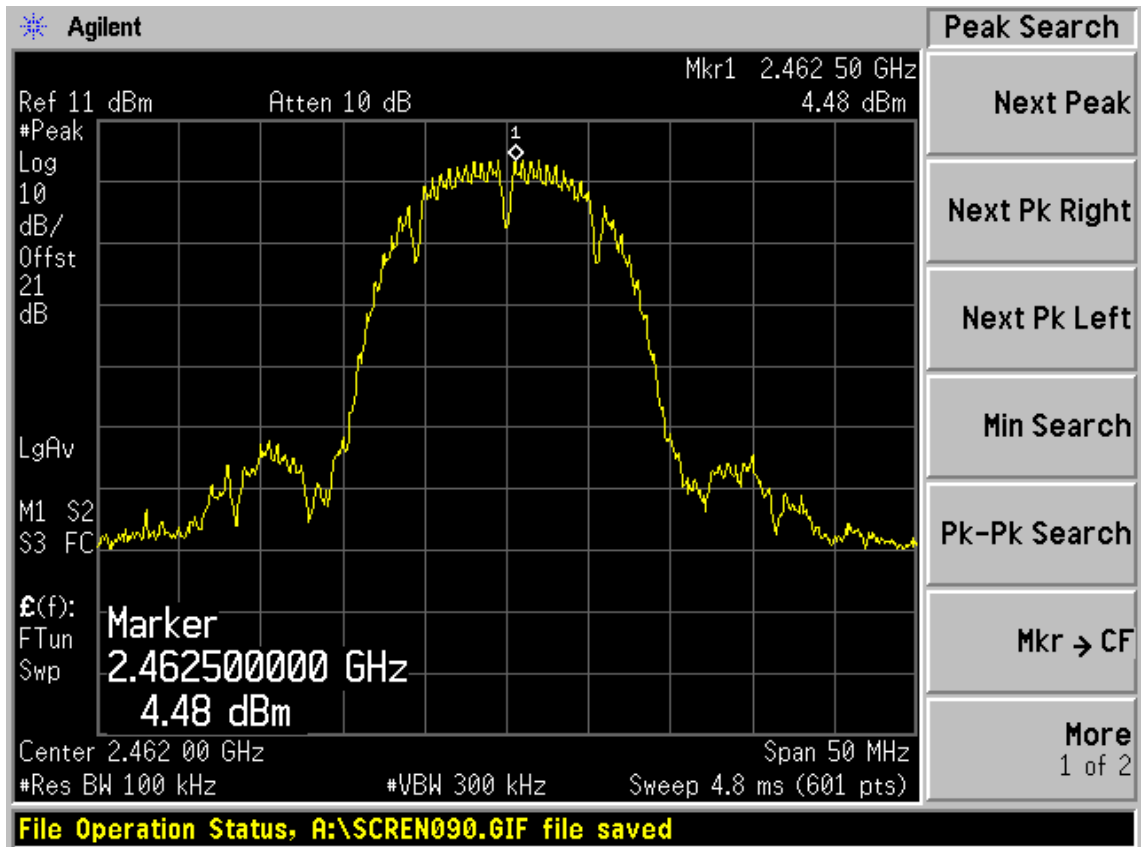
Test CH1: 2412MHz



Test CH6: 2437MHz

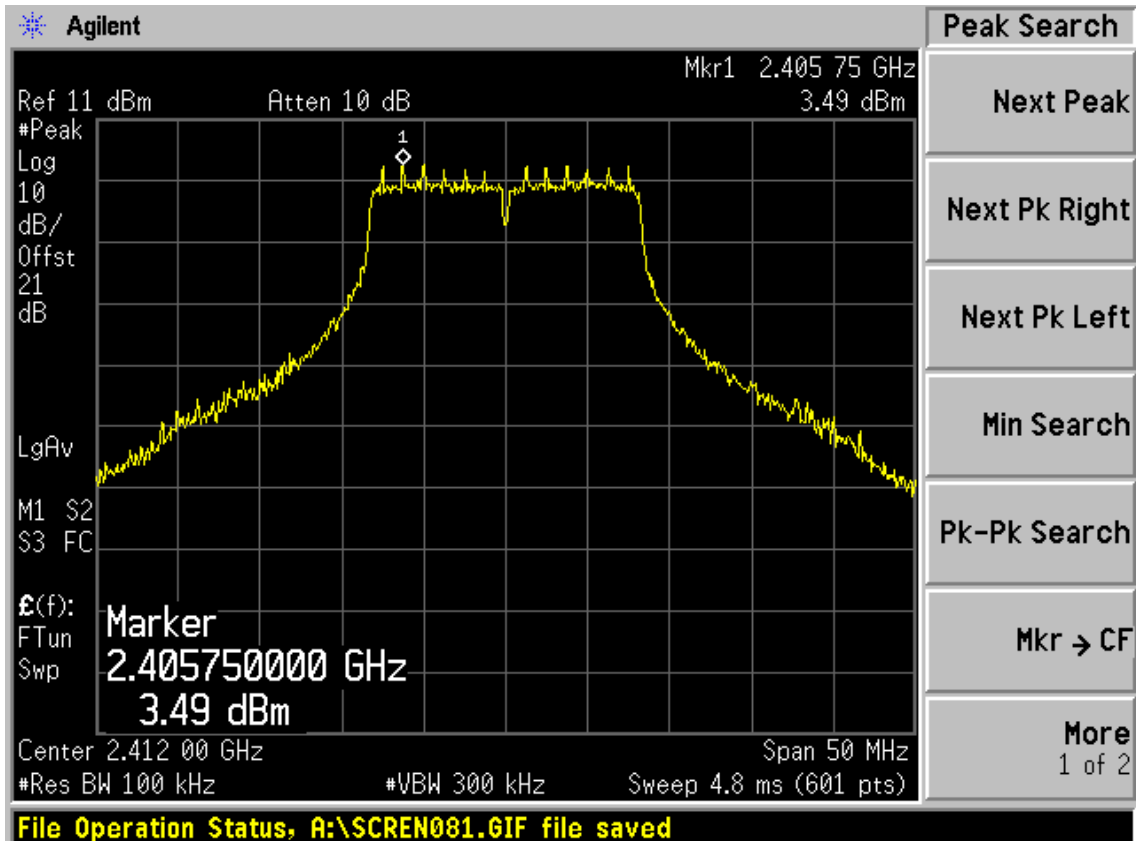


Test CH11: 2462MHz

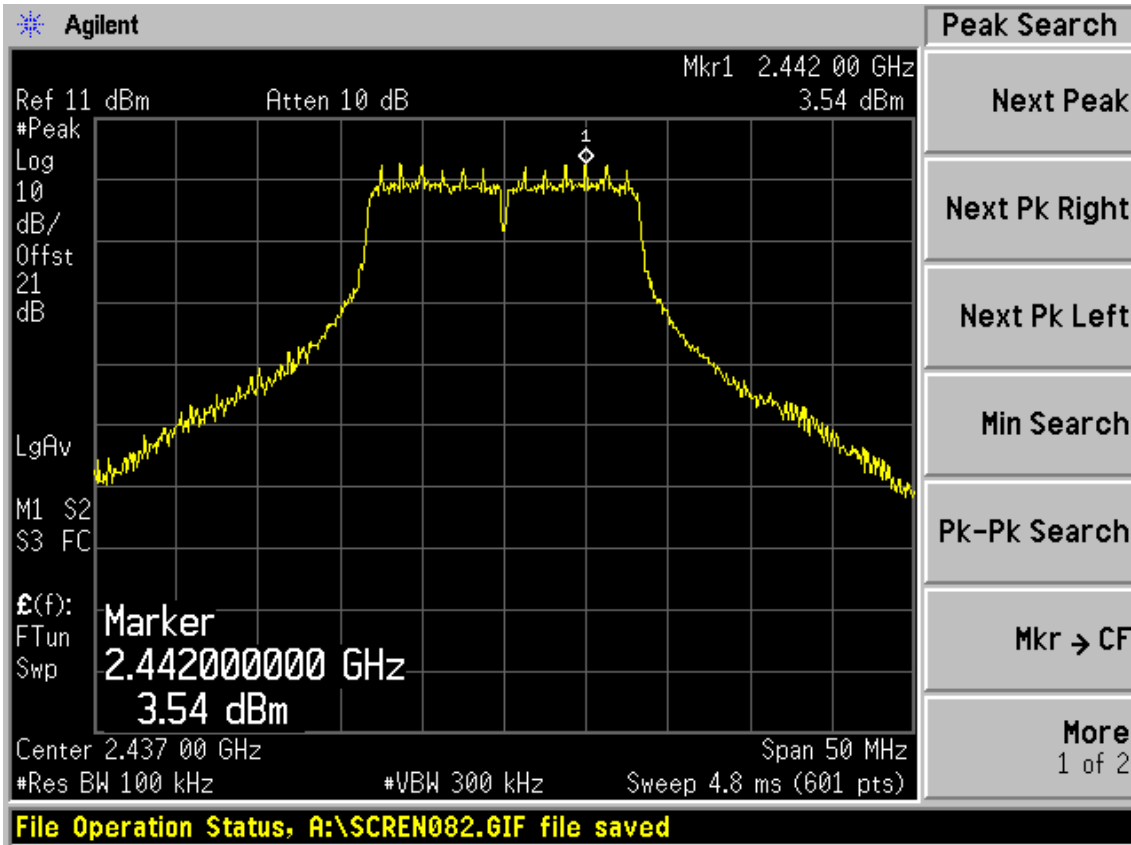


Test Mode: IEEE 802.11g TX

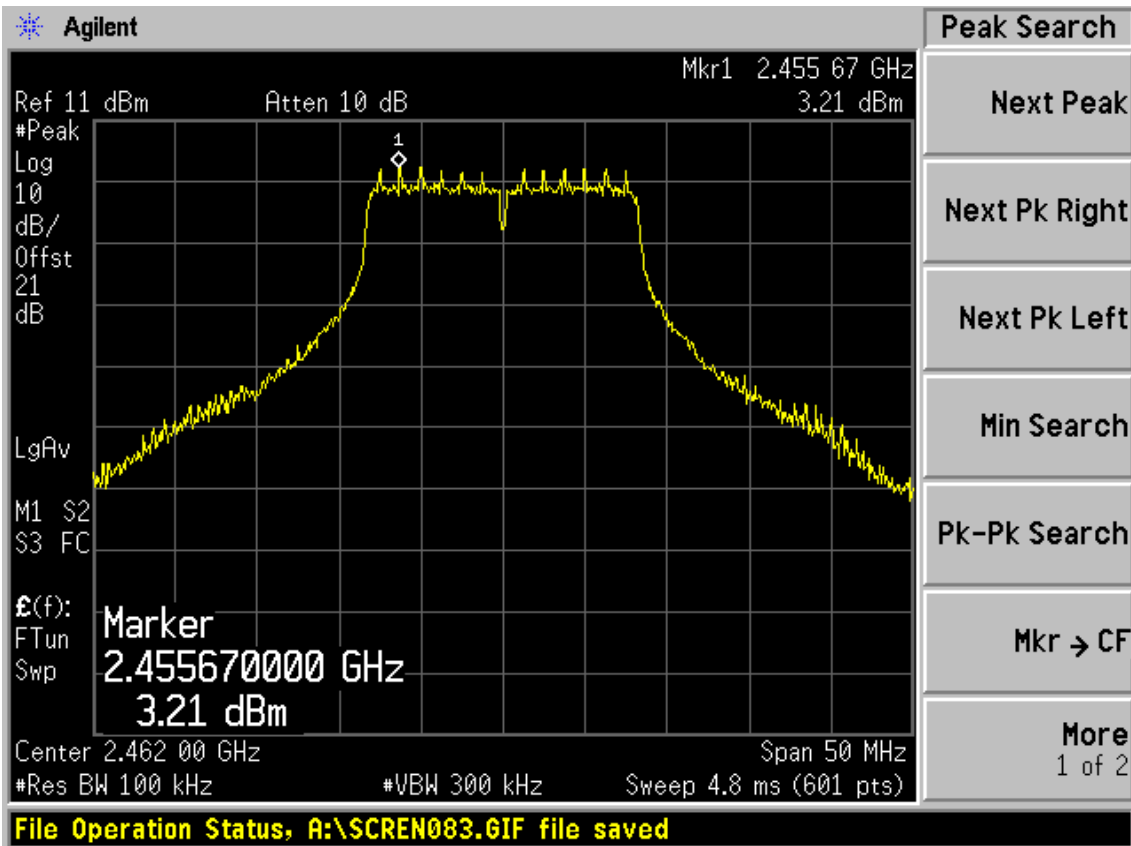
Test CH1: 2412MHz



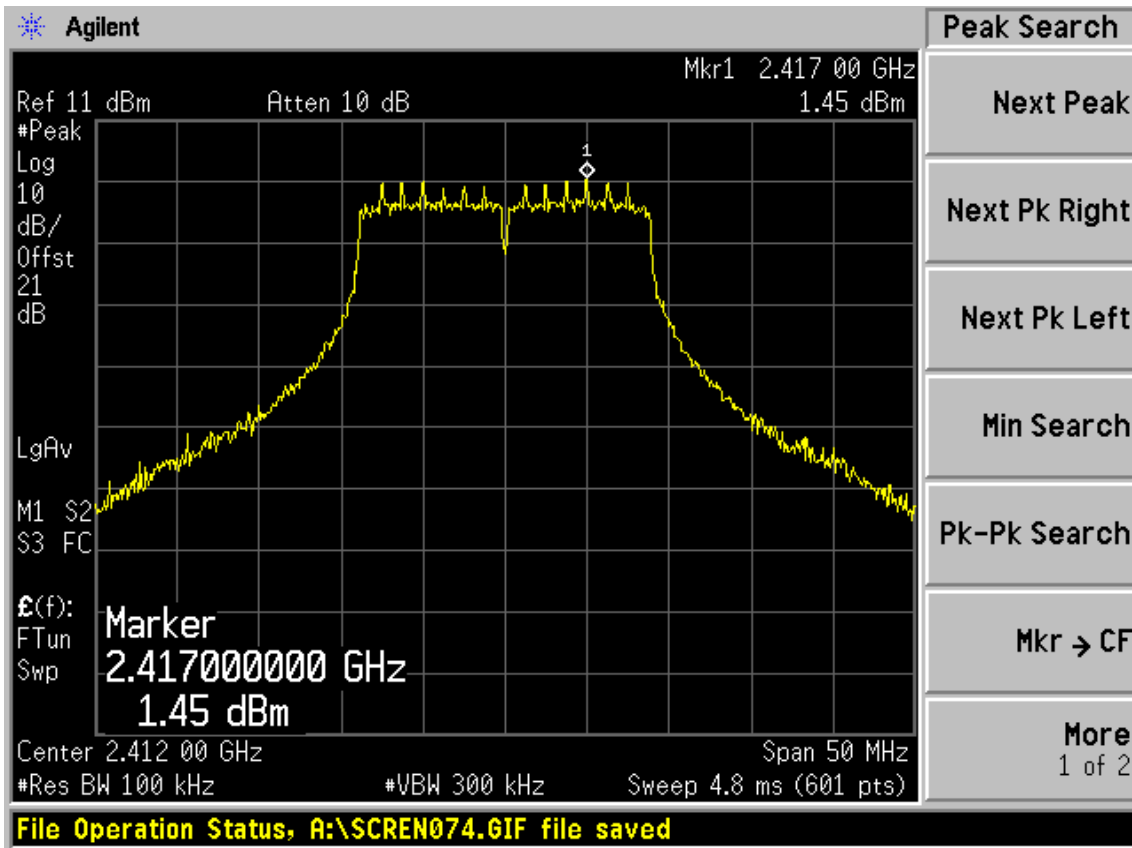
Test CH6: 2437MHz



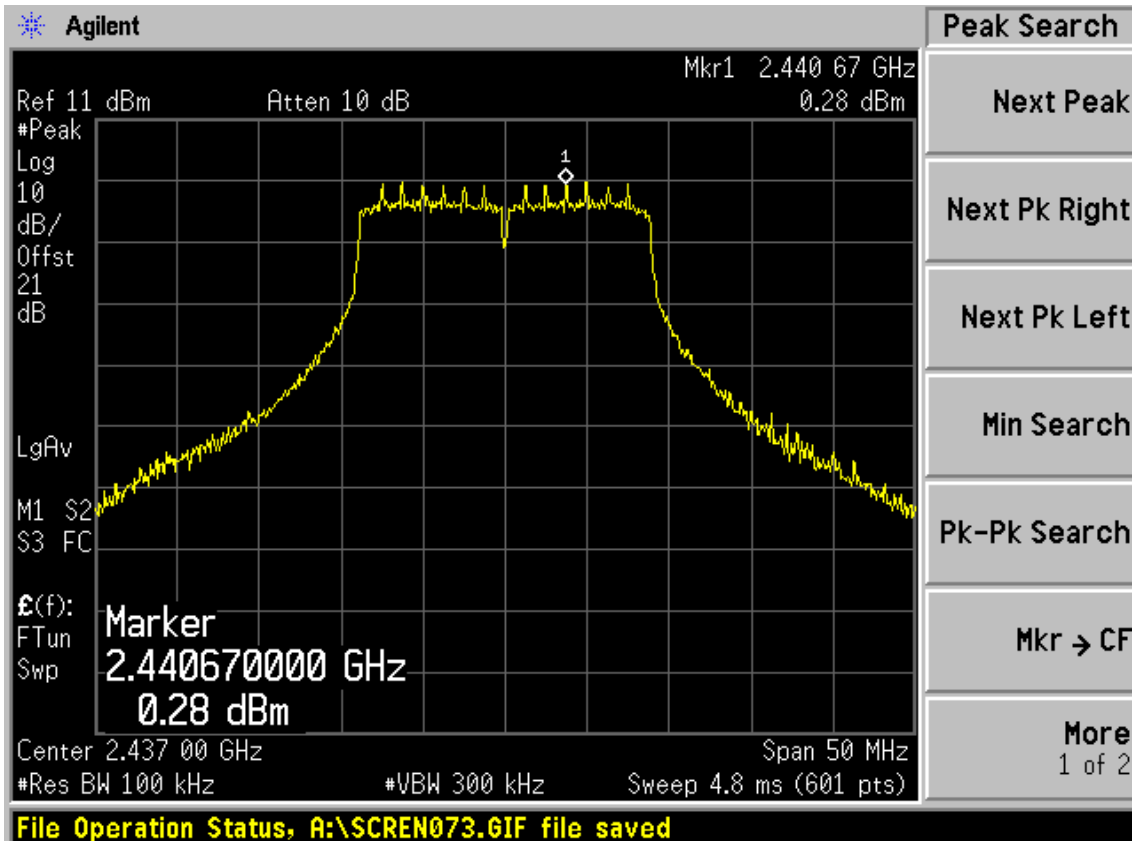
Test CH11: 2462MHz



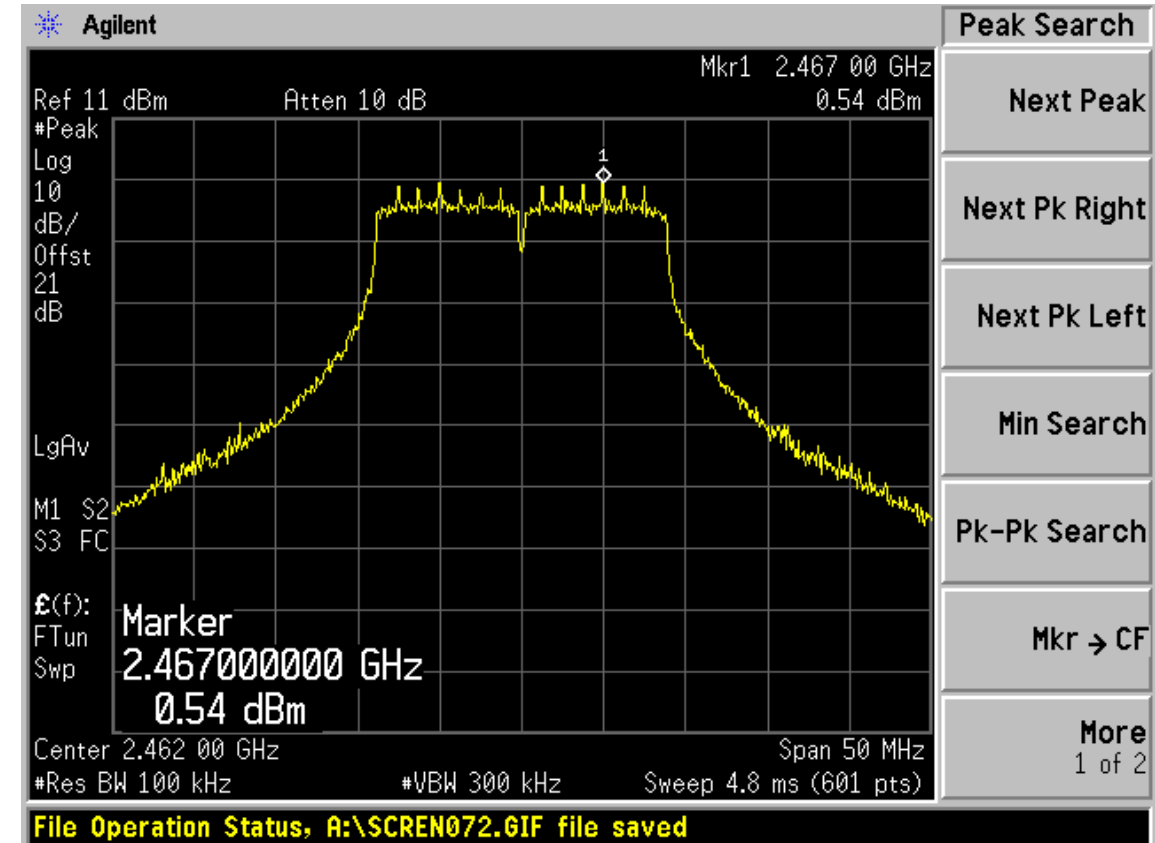
Test Mode: IEEE 802.11n HT20 TX
 Test CH1: 2412MHz



Test CH6: 2437MHz

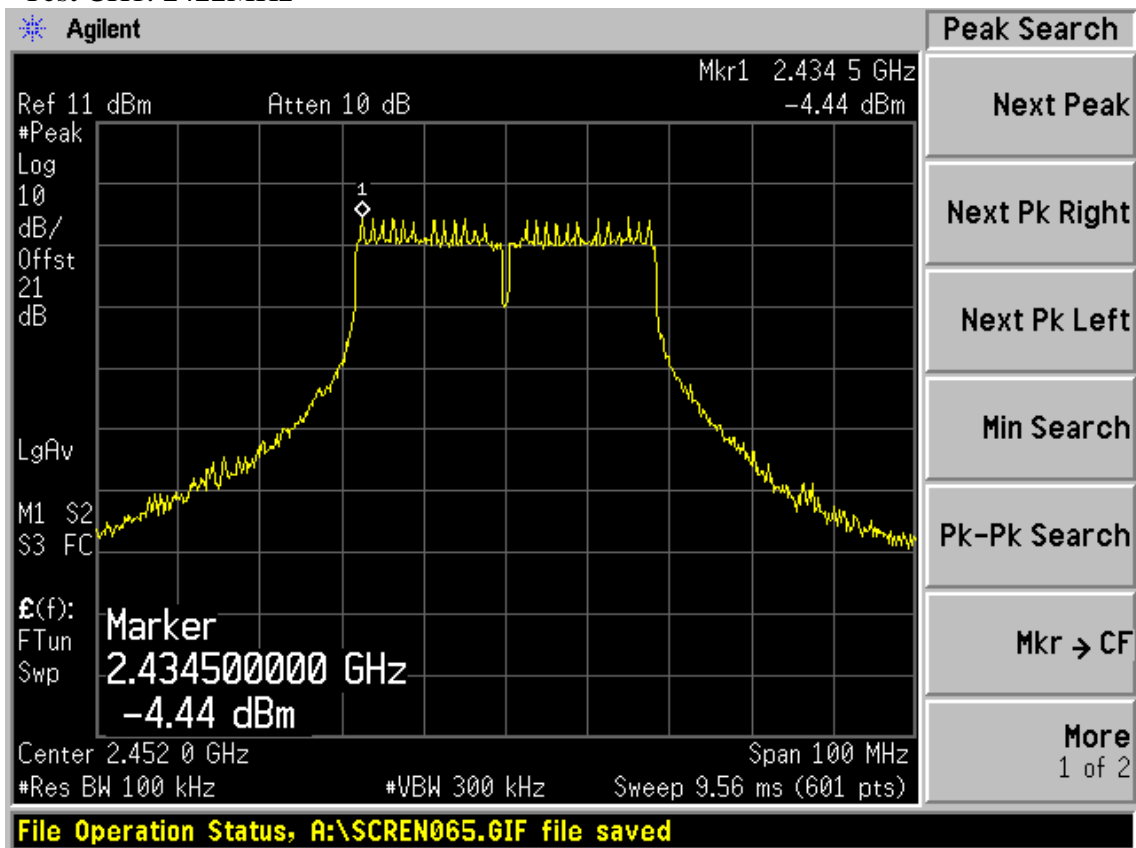


Test CH11: 2462MHz

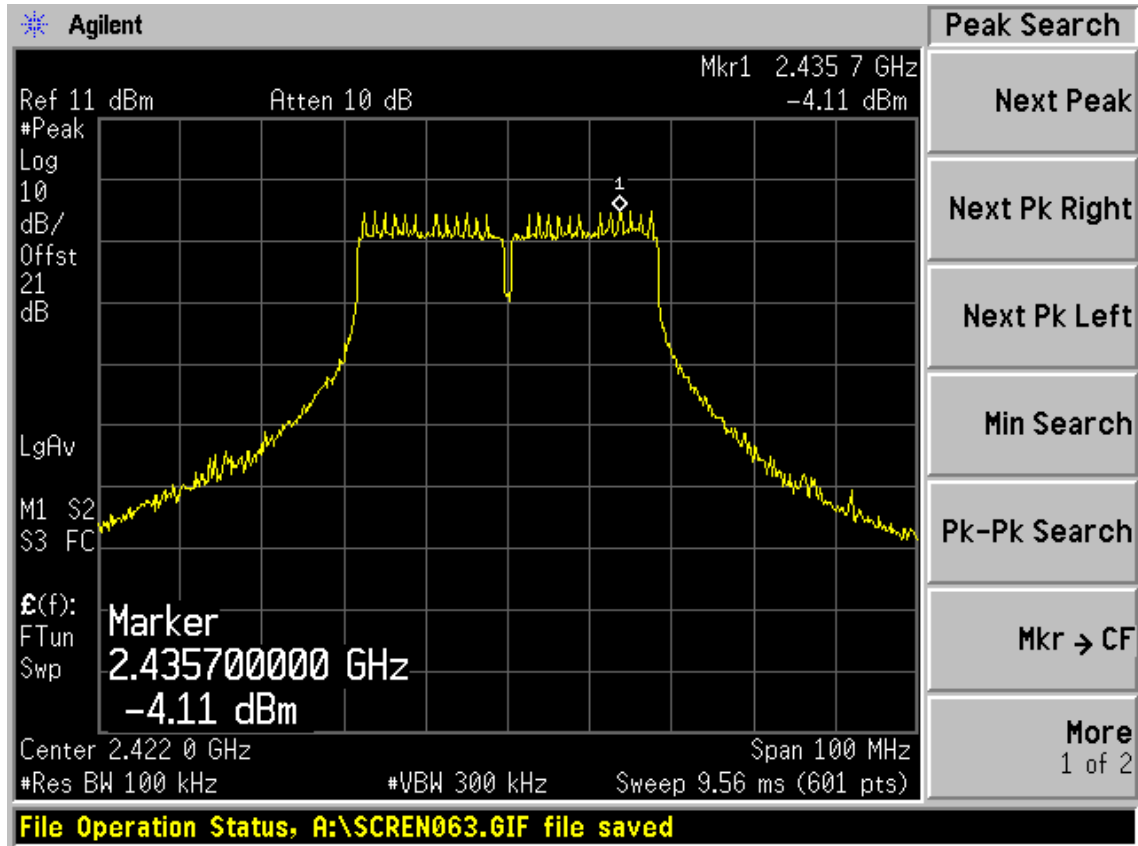


Test Mode: IEEE 802.11n HT40 TX

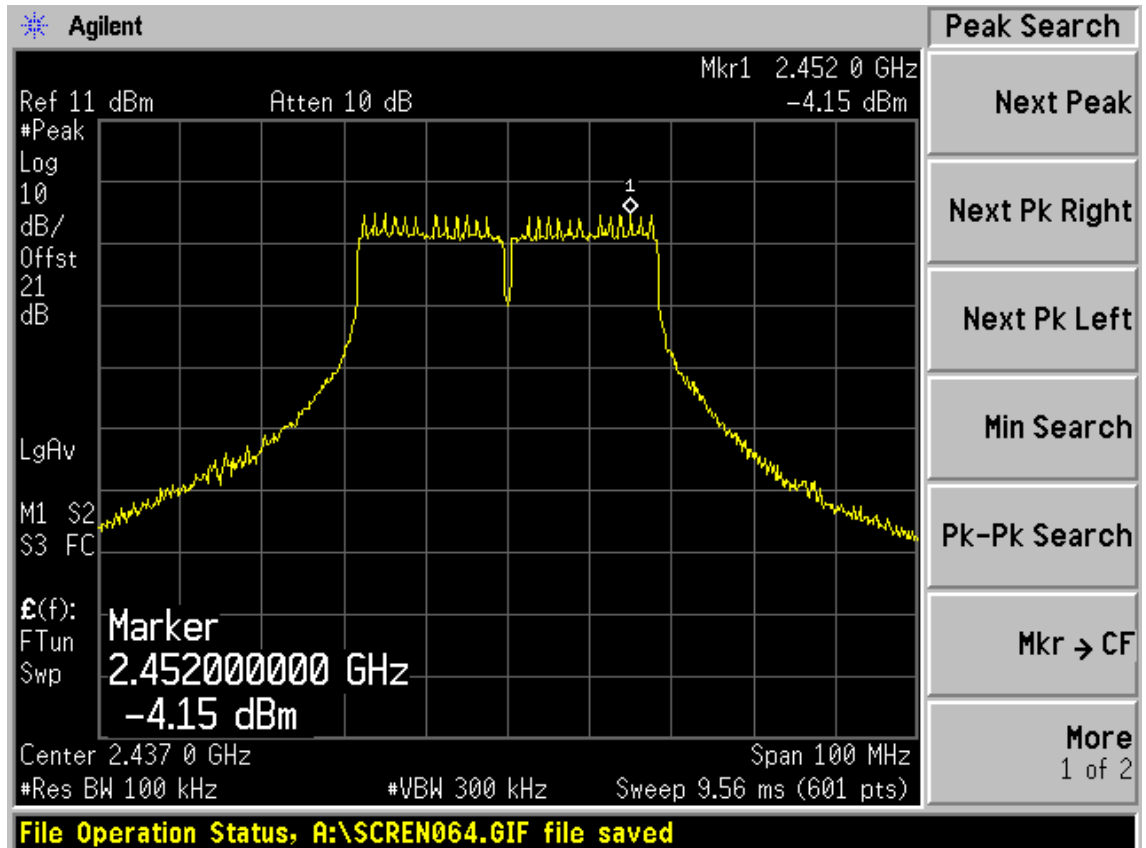
Test CH1: 2422MHz



Test CH4: 2437MHz



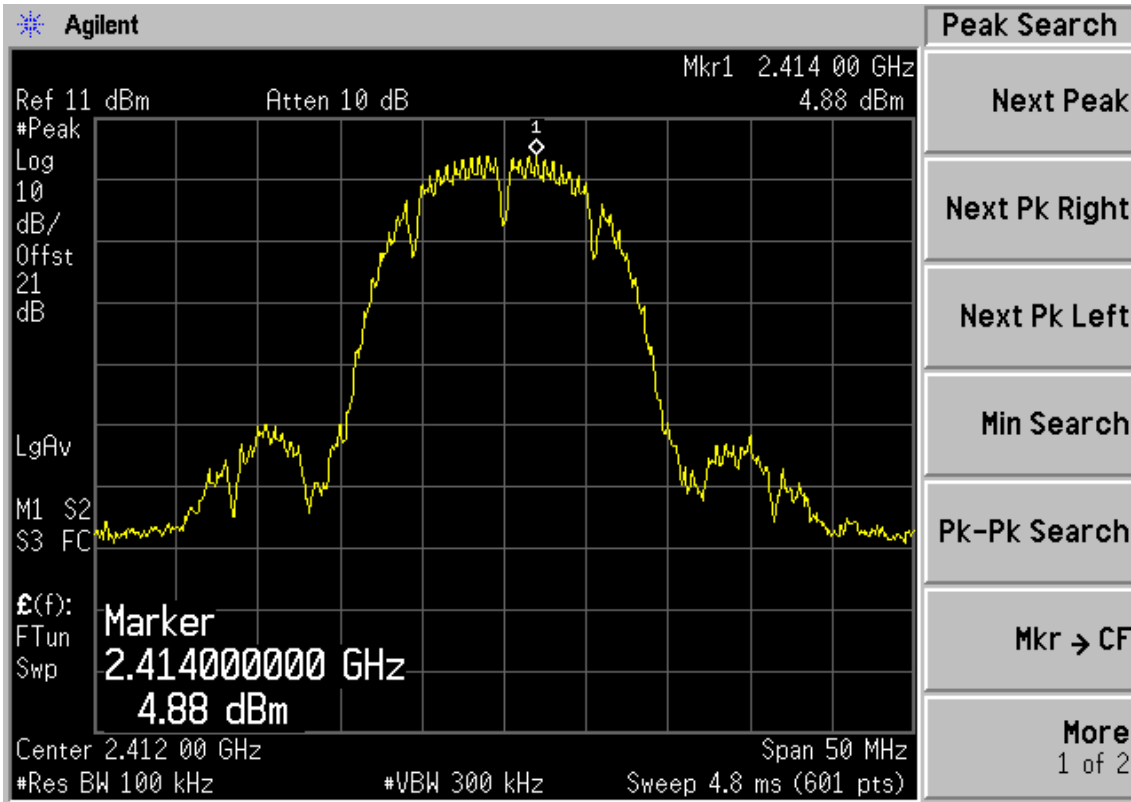
Test CH7: 2452MHz



ANT 2

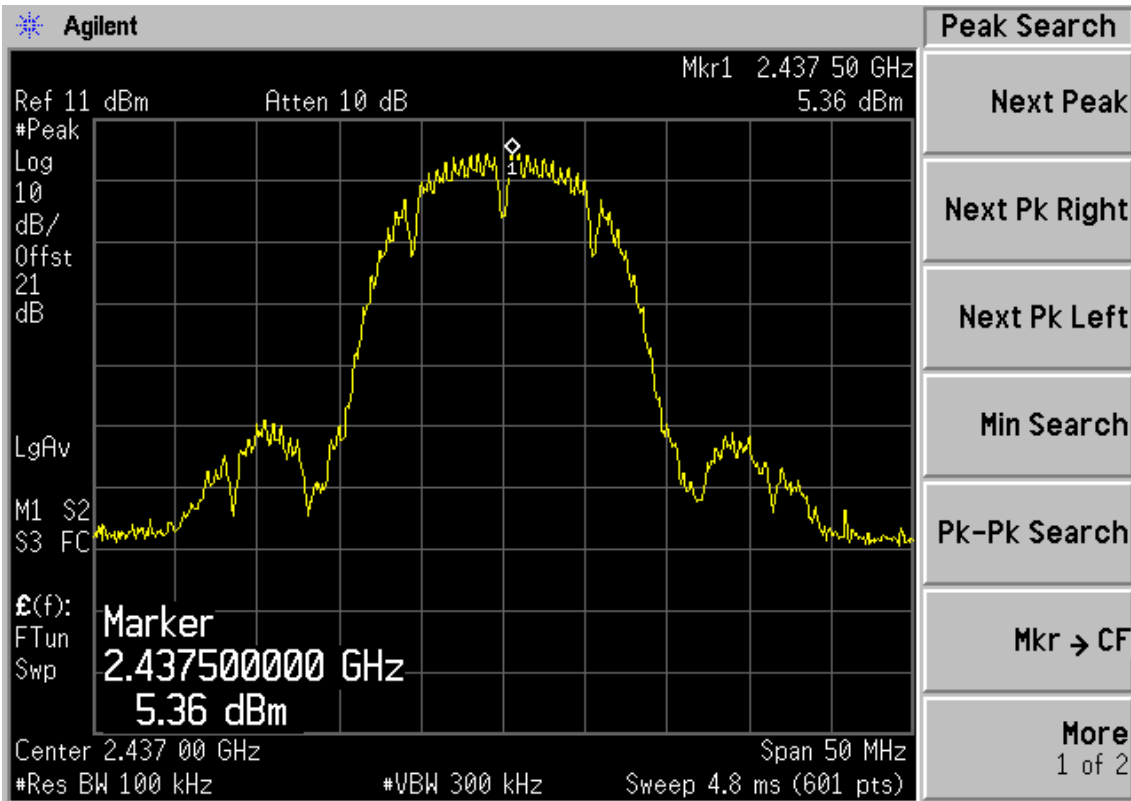
Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz



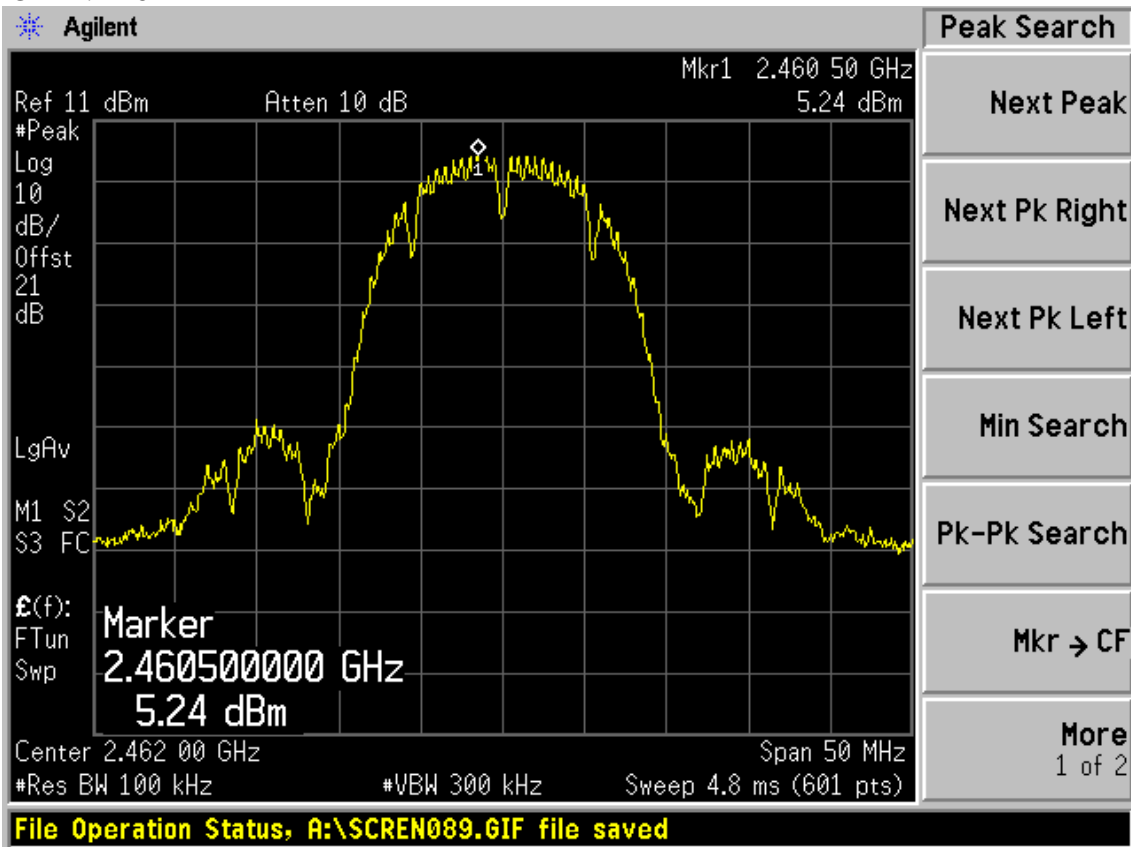
File Operation Status, A:\SCREEN087.GIF file saved

Test CH6: 2437MHz



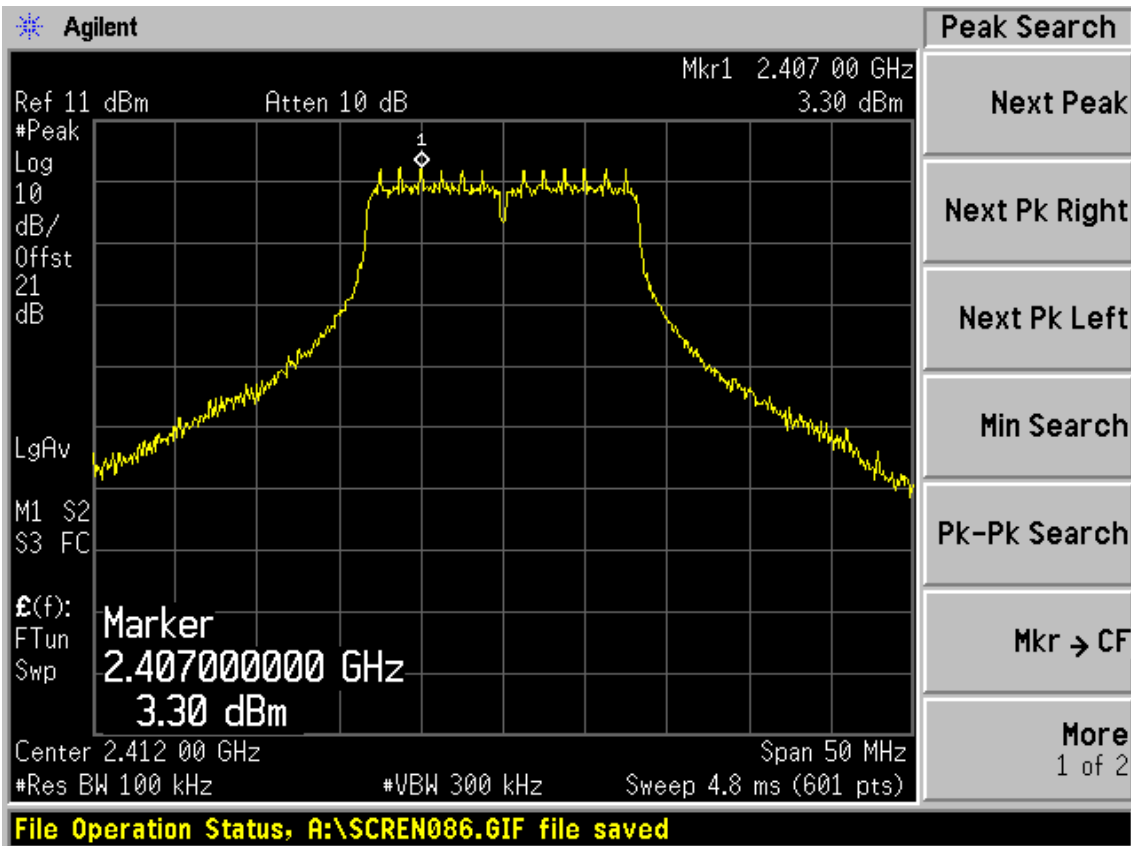
File Operation Status, A:\SCREEN088.GIF file saved

Test CH11: 2462MHz

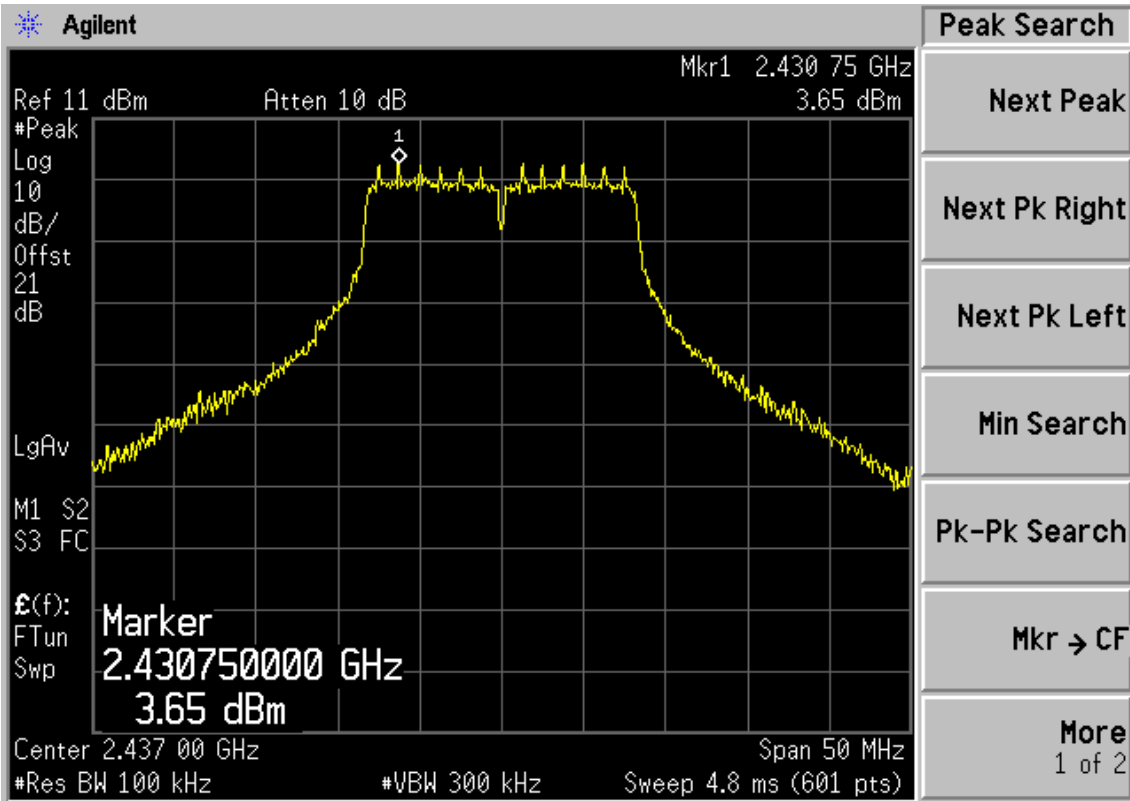


Test Mode: IEEE 802.11g TX

Test CH1: 2412MHz

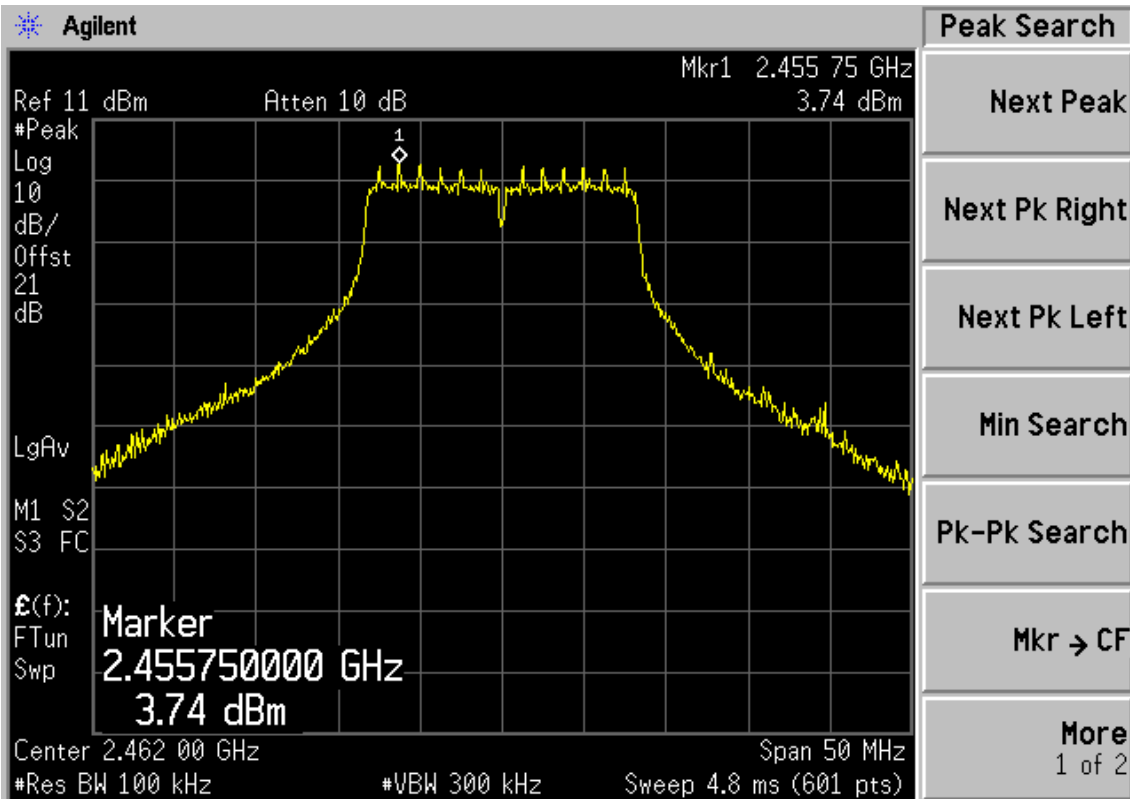


Test CH6: 2437MHz



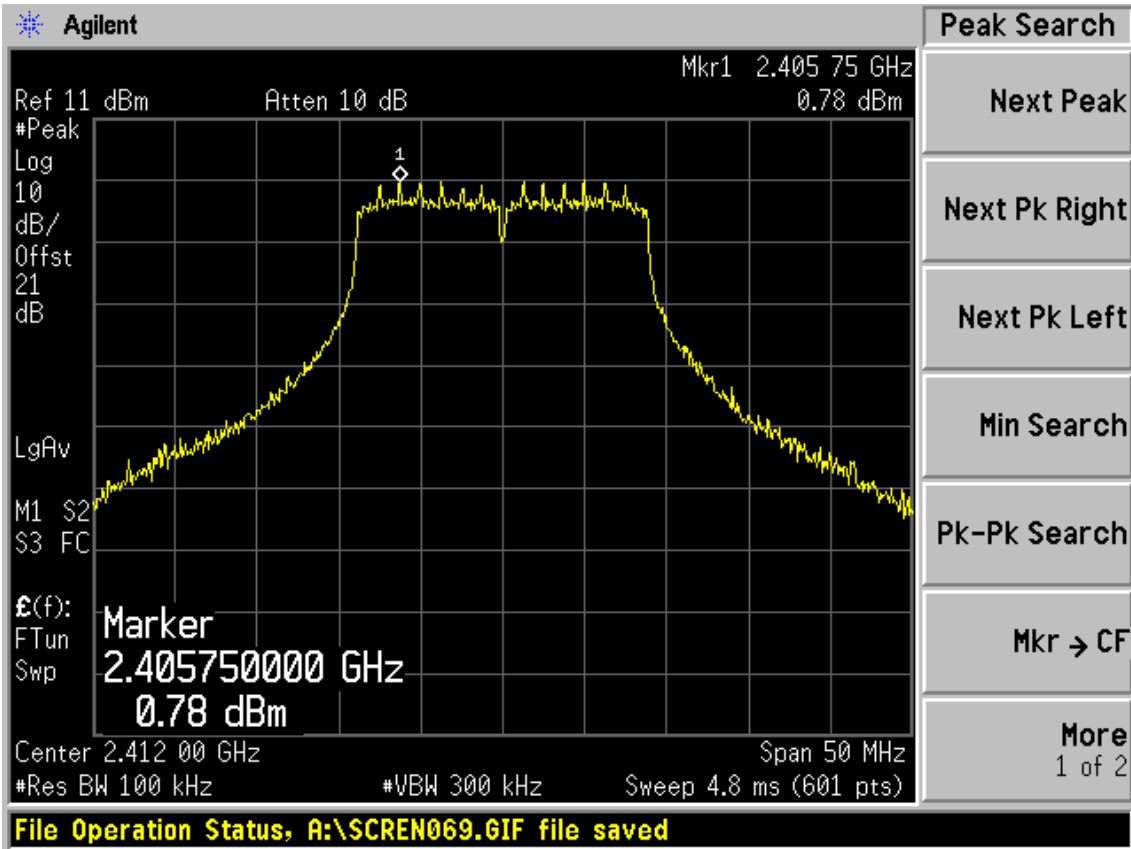
File Operation Status, A:\SCREN085.GIF file saved

Test CH11: 2462MHz

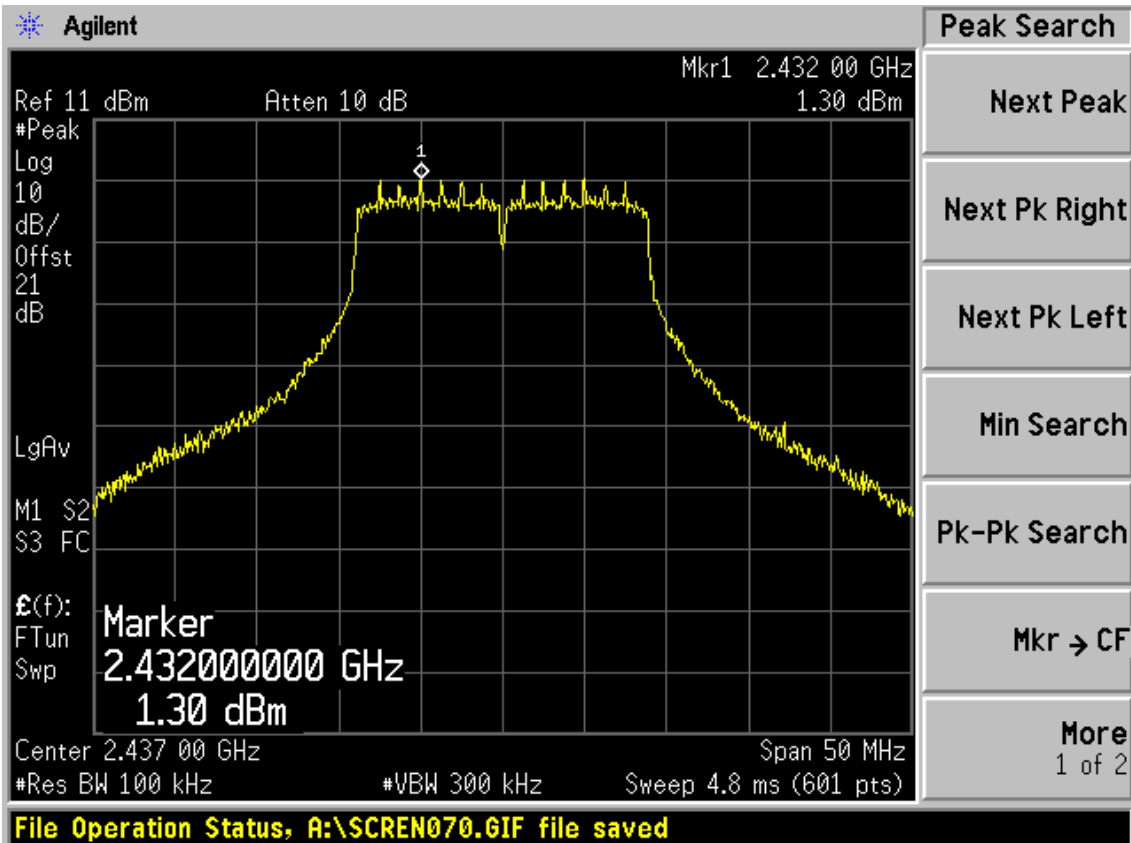


File Operation Status, A:\SCREN084.GIF file saved

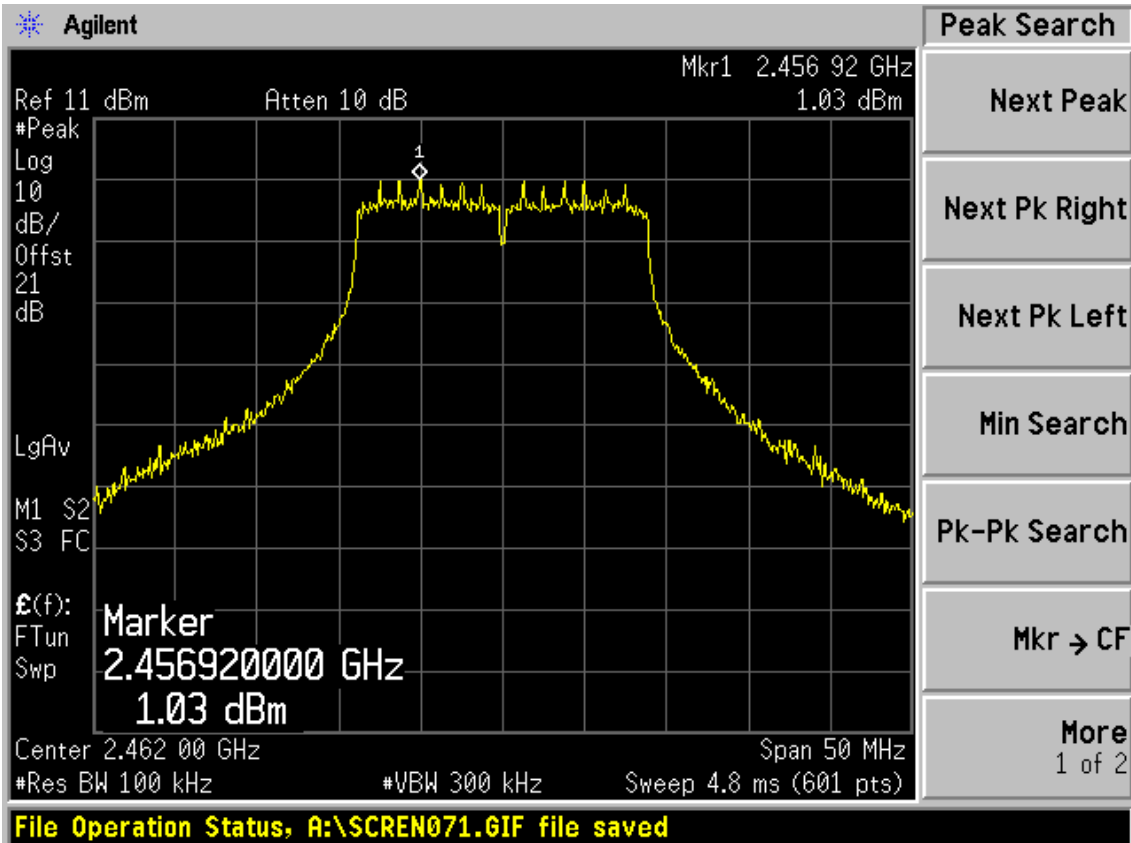
Test Mode: IEEE 802.11n HT20 TX
 Test CH1: 2412MHz



Test CH6: 2437MHz

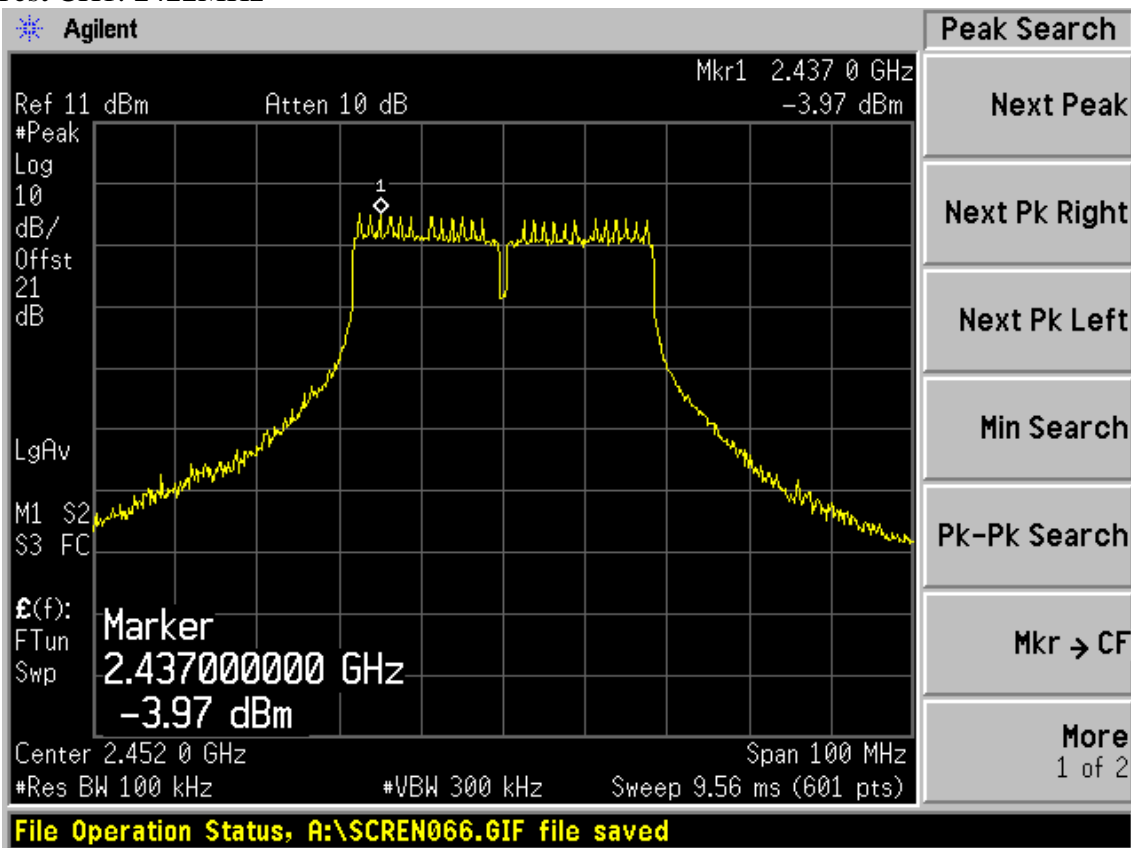


Test CH11: 2462MHz

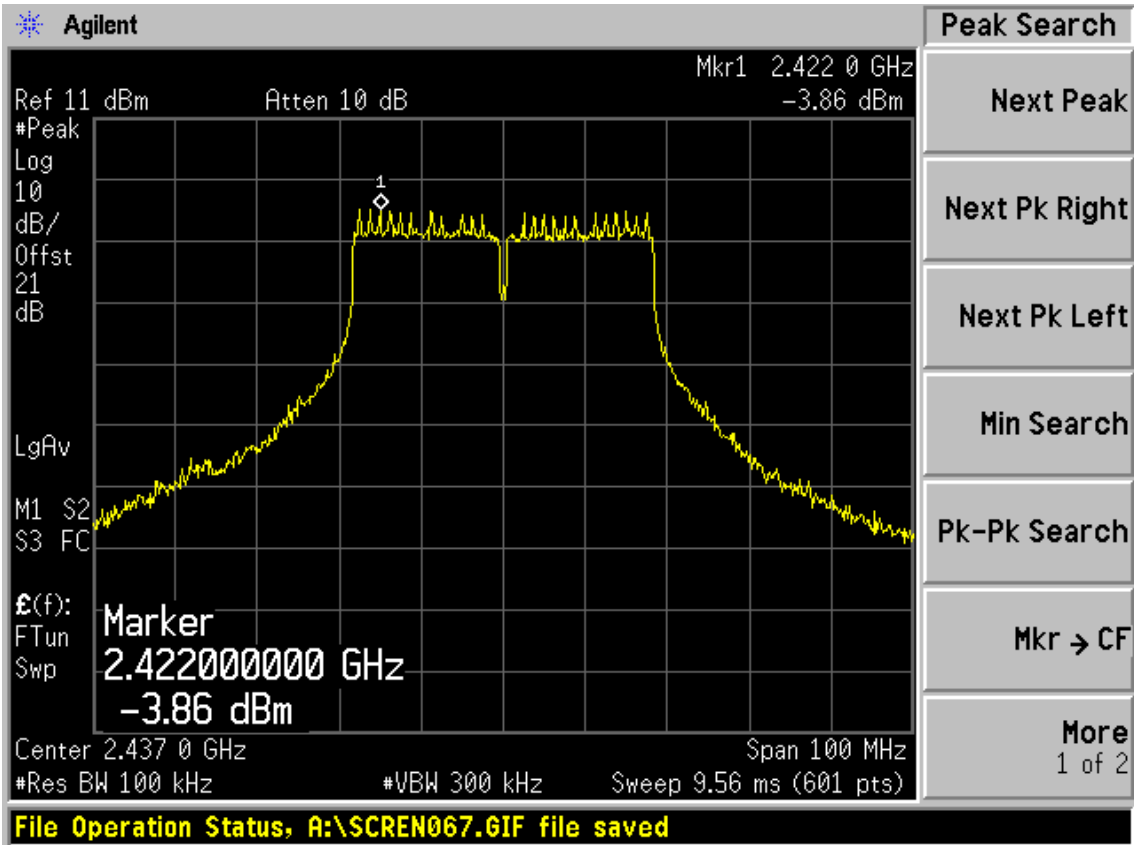


Test Mode: IEEE 802.11n HT40 TX

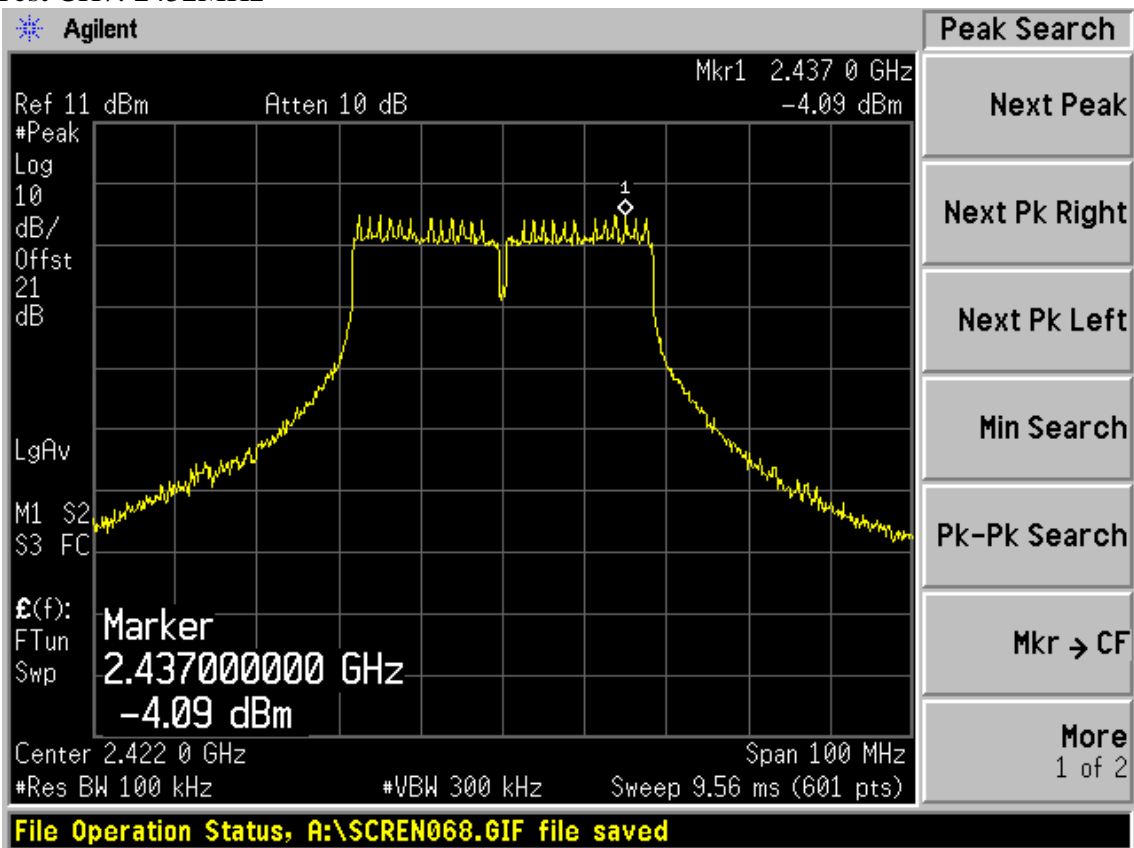
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



10. MPE ESTIMATION

10.1.Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm ²)	Averaging time(minutes)
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

Frequency(MHz)	Power density (mW/ cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz

10.2. Estimation Result

EUT: 300Mbps Wireless N Gigabit ADSL2+Modem Router		
M/N: TD-W8970		
Test date: 2013-01-09	Pressure: 101.2±1.0 kpa	Humidity: 49.6±3.0%
Tested by: Leo-Li	Test site: RF Site	Temperature: 21.8±0.6°C

Cable loss: 1 dB		Attenuator loss: 20 dB				Antenna Gain: 5.0dBi	
Test Mode	CH	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE
11b	CH1	2412	18.66	73.45	5	3.16	0.0462
	CH6	2437	18.34	68.23	5	3.16	0.0429
	CH11	2462	18.08	64.27	5	3.16	0.0405
11g	CH1	2412	21.90	154.88	5	3.16	0.0975
	CH6	2437	22.00	158.49	5	3.16	0.0998
	CH11	2462	21.55	142.89	5	3.16	0.0899
11n HT20	CH1	2412	24.56	285.76	5	3.16	0.1799
	CH6	2437	24.63	290.40	5	3.16	0.1828
	CH11	2462	24.40	275.42	5	3.16	0.1734
11n HT40	CH1	2422	21.96	157.04	5	3.16	0.0988
	CH4	2437	22.22	166.72	5	3.16	0.1049
	CH7	2452	21.71	148.25	5	3.16	0.0933

11. ANTENNA REQUIREMENT

11.1. STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are Dipole antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 5dBi.

12.DEVIATION TO TEST SPECIFICATIONS

[NONE]