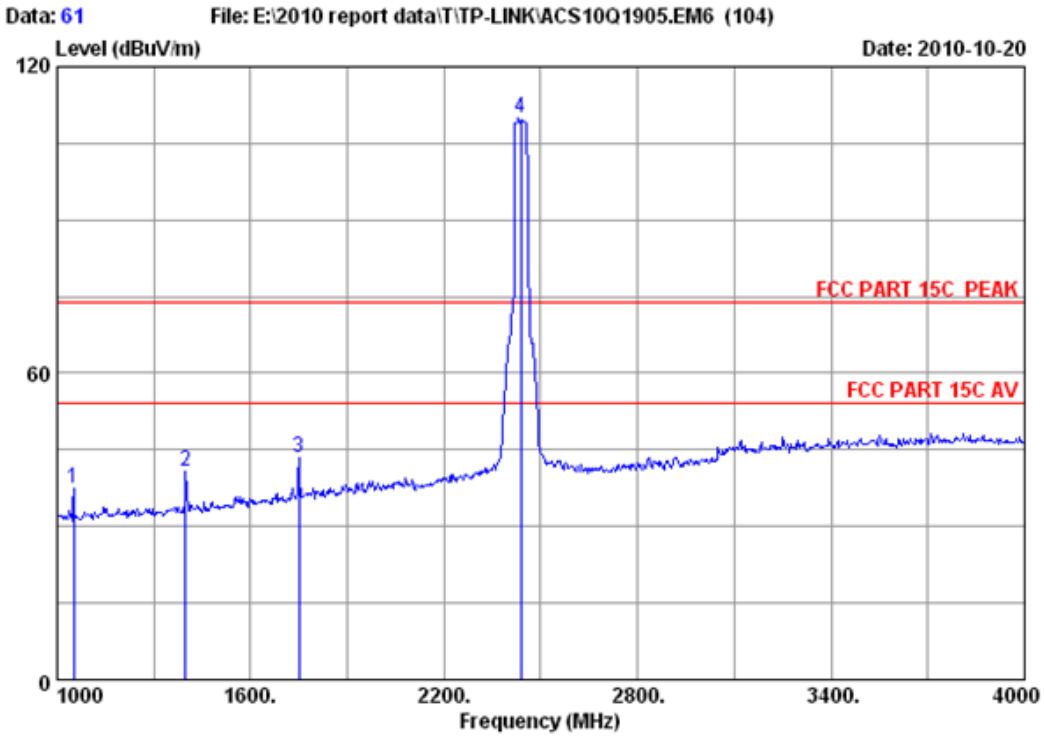
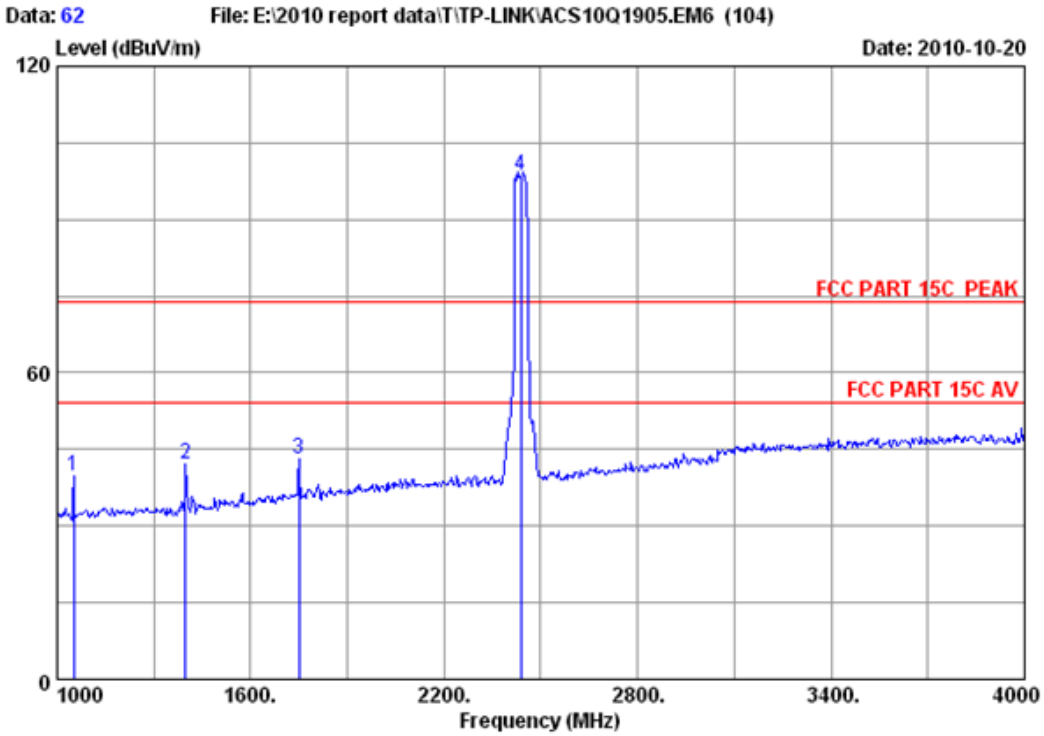


Site no. : RF Chamber Data no. : 61
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz Tx
M/N : TL-WR741ND

	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	1051.000	25.50	4.86	37.81	44.86	37.41	74.00	36.59	Peak
2	1399.000	26.19	5.50	37.18	46.30	40.81	74.00	33.19	Peak
3	1750.000	27.80	6.18	36.86	46.45	43.57	74.00	30.43	Peak
4	2437.000	29.47	7.46	36.61	109.54	109.86	74.00	-35.86	Peak

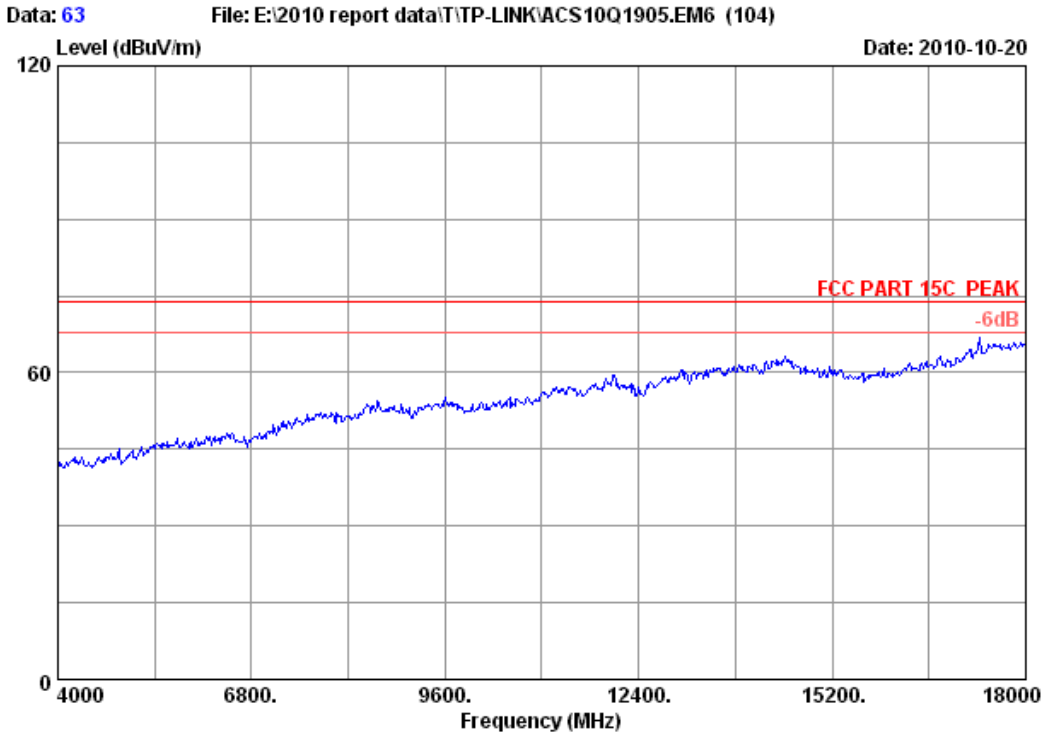
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



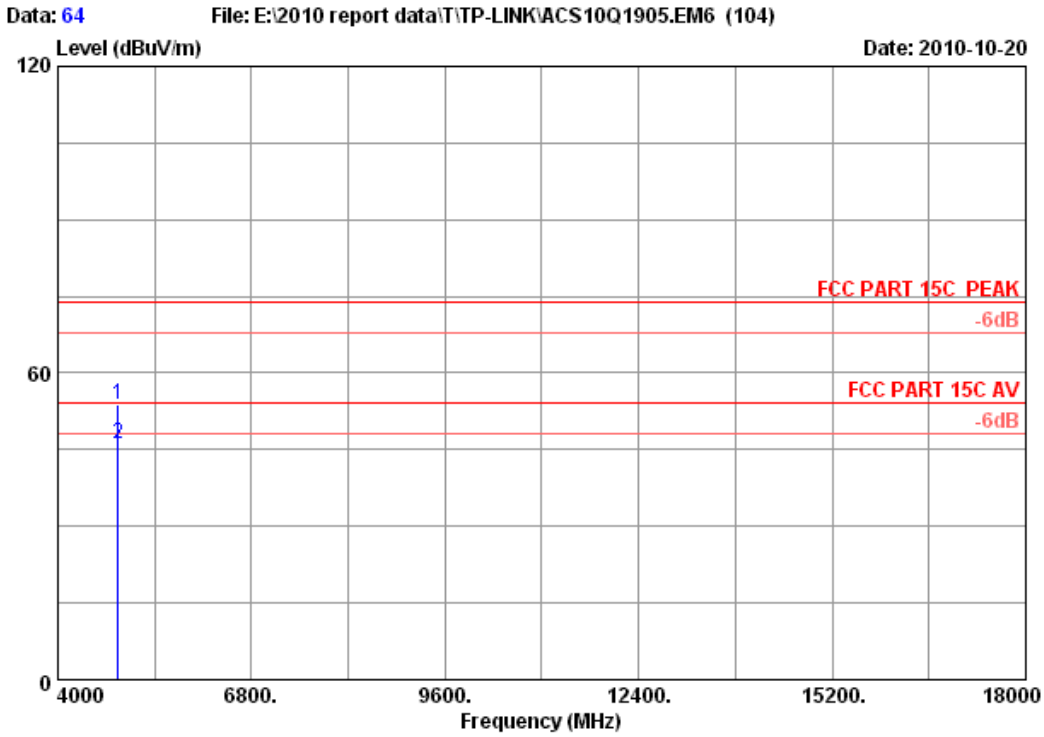
Site no. : RF Chamber Data no. : 62
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz Tx
M/N : TL-WR741ND

	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	1051.000	25.50	4.86	37.81	47.32	39.87	74.00	34.13	Peak
2	1399.000	26.19	5.50	37.18	47.52	42.03	74.00	31.97	Peak
3	1750.000	27.80	6.18	36.86	45.86	42.98	74.00	31.02	Peak
4	2437.000	29.47	7.46	36.61	98.36	98.68	74.00	-24.68	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.



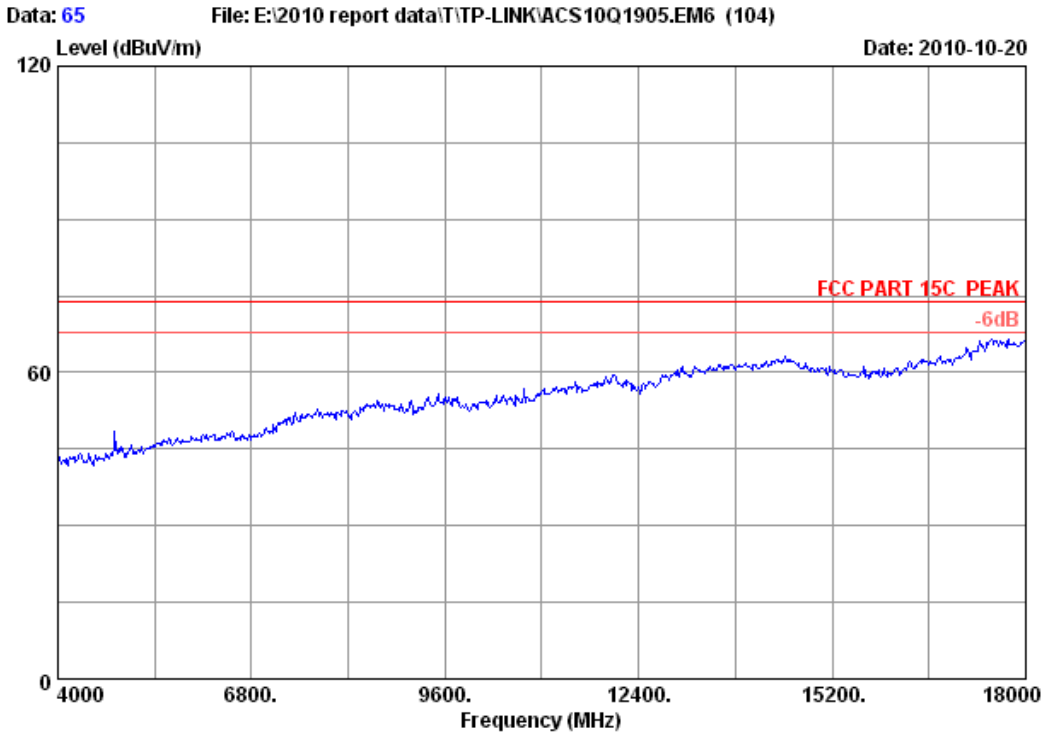

```
Site no.      : RF Chamber                Data no.   : 63
Dis. / Ant.   : 3m   3115(0911)           Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny-lu
EUT           : 150Mbps Wireless N Router
Power         : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11n HT40 CH4 2437MHz Tx
M/N           : TL-WR741ND
```



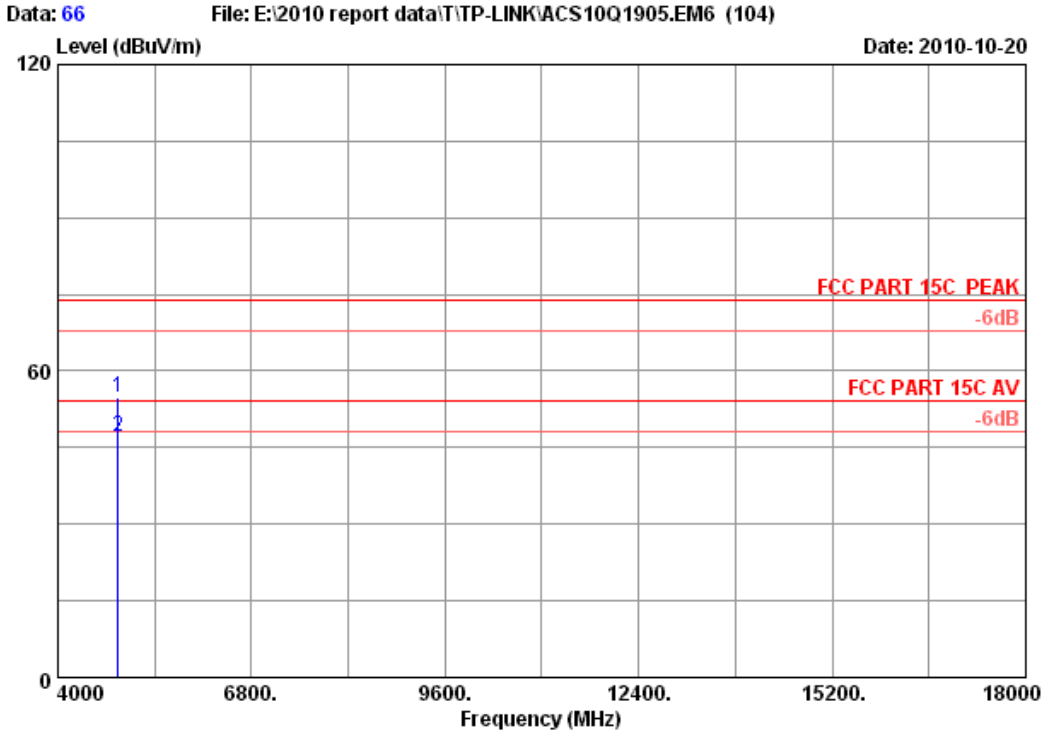
Site no. : RF Chamber Data no. : 64
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz Tx
M/N : TL-WR741ND

	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	4874.000	34.41	10.69	35.03	43.69	53.76	74.00	20.24	Peak
2	4874.000	34.41	10.69	35.03	35.94	46.01	54.00	7.99	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.



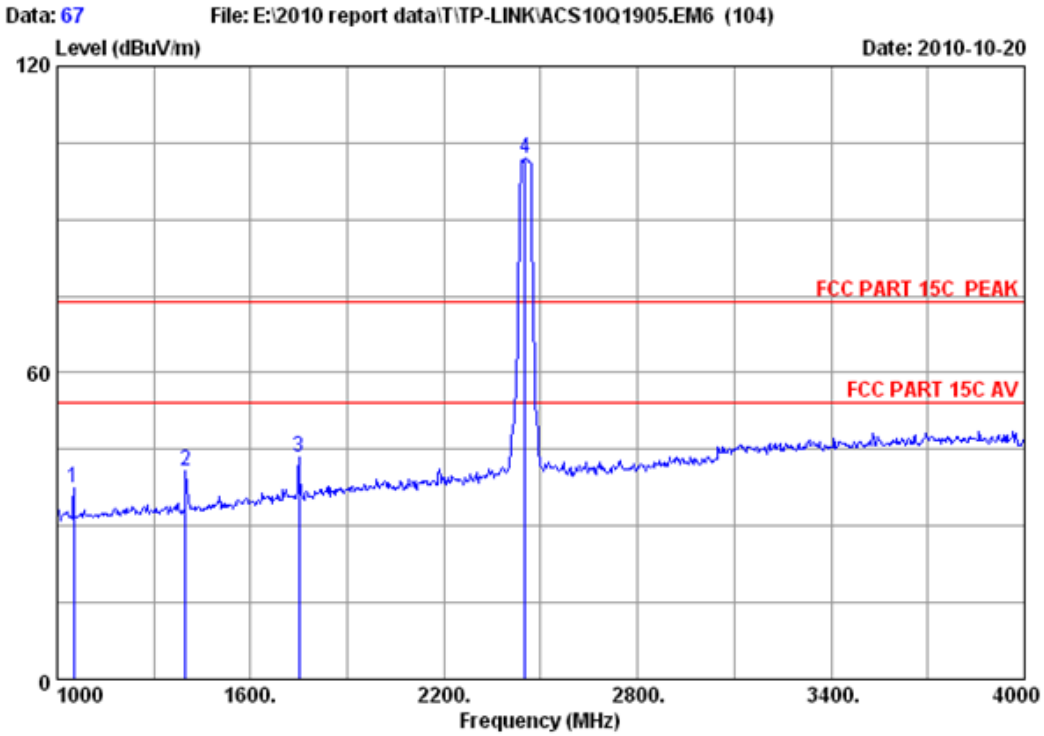

```
Site no.      : RF Chamber                Data no.   : 65
Dis. / Ant.   : 3m   3115(0911)           Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny-lu
EUT           : 150Mbps Wireless N Router
Power         : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11n HT40 CH4 2437MHz Tx
M/N           : TL-WR741ND
```



Site no. : RF Chamber Data no. : 66
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH4 2437MHz Tx
M/N : TL-WR741ND

	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	4874.000	34.41	10.69	35.03	44.68	54.75	74.00	19.25	Peak
2	4874.000	34.41	10.69	35.03	37.14	47.21	54.00	6.79	Average

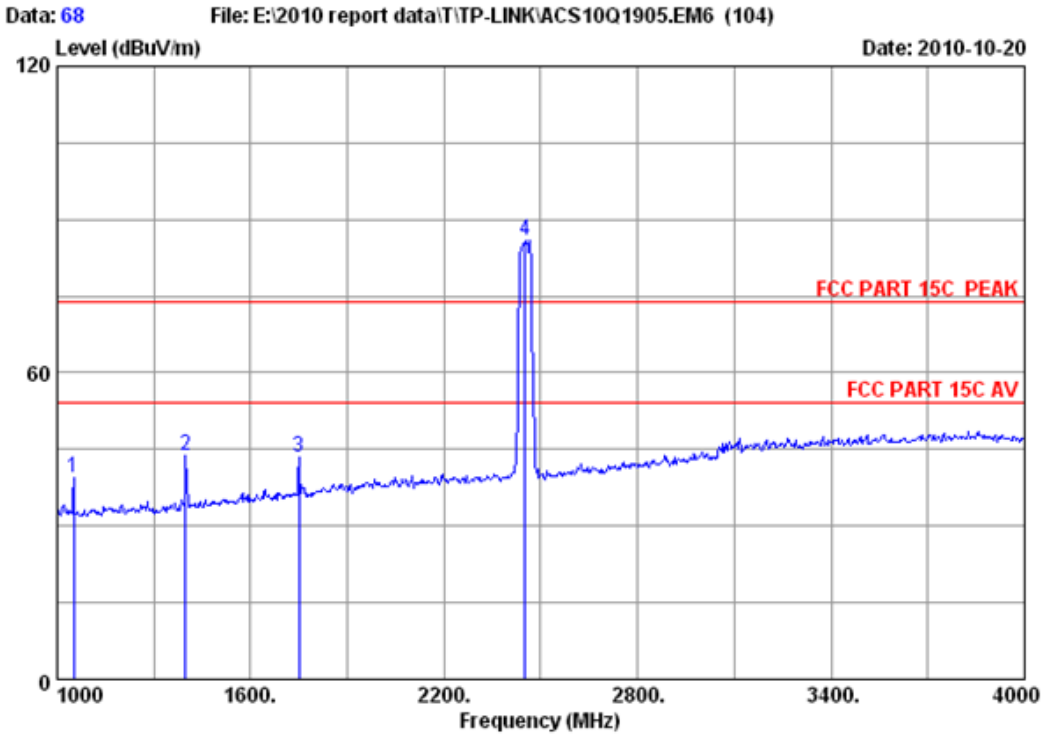
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 67
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	1051.000	25.50	4.86	37.81	44.83	37.38	74.00	36.62	Peak
2	1399.000	26.19	5.50	37.18	46.28	40.79	74.00	33.21	Peak
3	1750.000	27.80	6.18	36.86	46.43	43.55	74.00	30.45	Peak
4	2452.000	29.47	7.50	36.61	101.58	101.94	74.00	-27.94	Peak

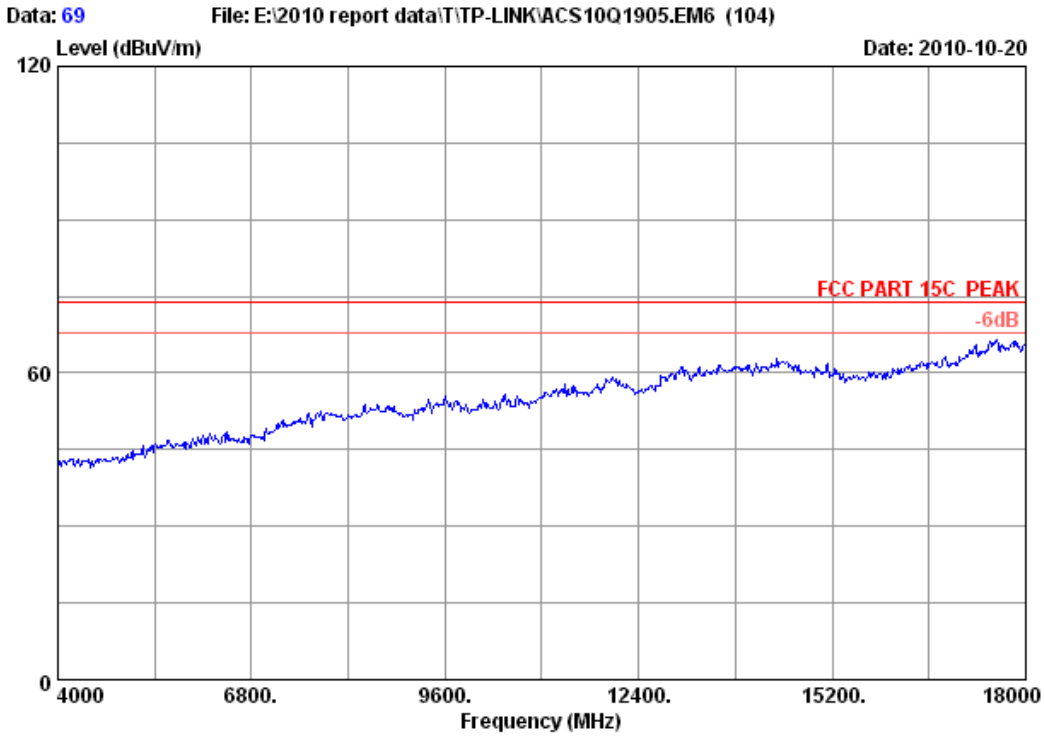
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



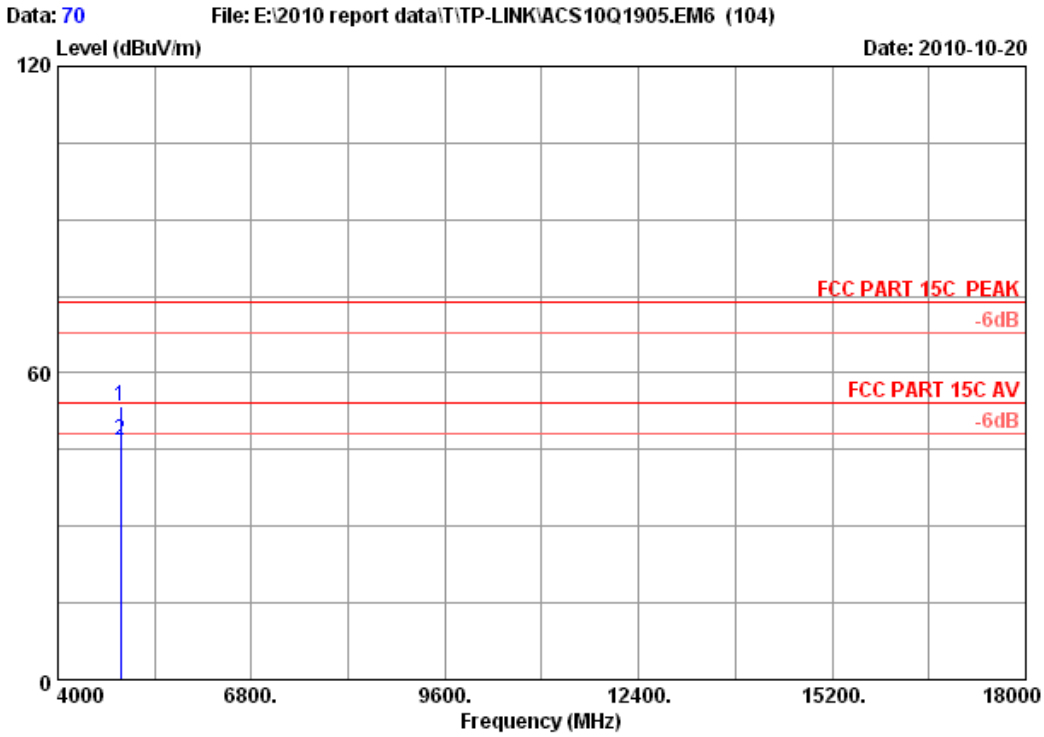
Site no. : RF Chamber Data no. : 68
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	1051.000	25.50	4.86	37.81	46.87	39.42	74.00	34.58	Peak
2	1399.000	26.19	5.50	37.18	49.21	43.72	74.00	30.28	Peak
3	1750.000	27.80	6.18	36.86	46.44	43.56	74.00	30.44	Peak
4	2452.000	29.47	7.50	36.61	85.68	86.04	74.00	-12.04	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.



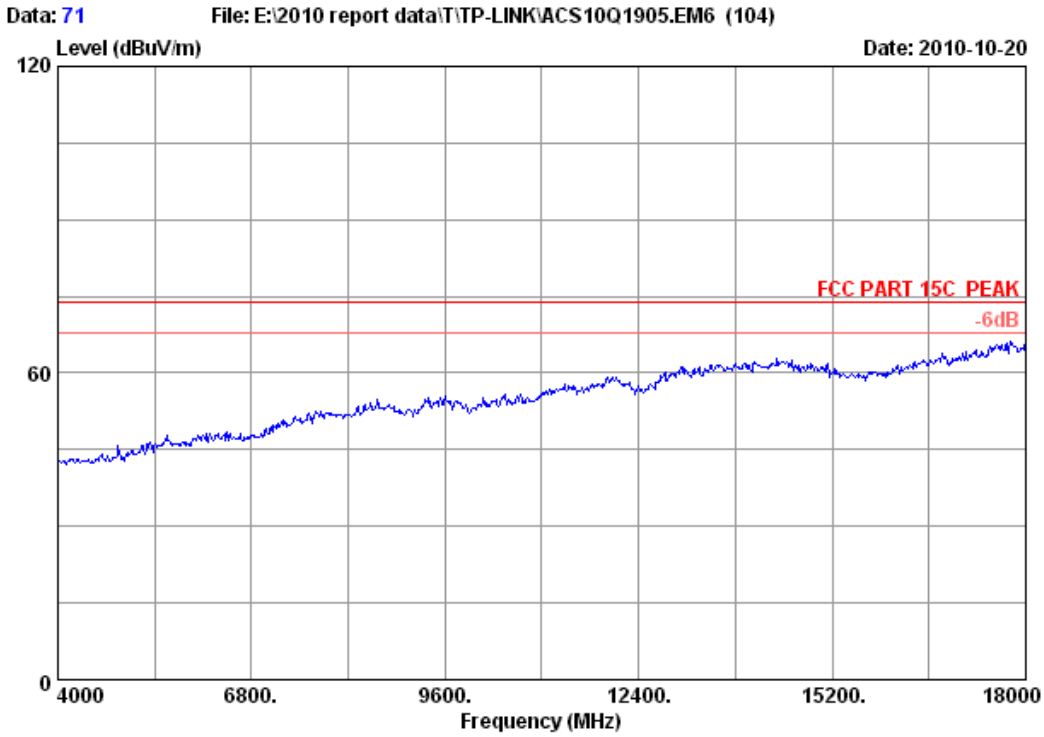

```
Site no.      : RF Chamber                Data no.   : 69
Dis. / Ant.   : 3m   3115(0911)           Ant. pol.  : VERTICAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny-lu
EUT           : 150Mbps Wireless N Router
Power         : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11n HT40 CH7 2452MHz Tx
M/N           : TL-WR741ND
```



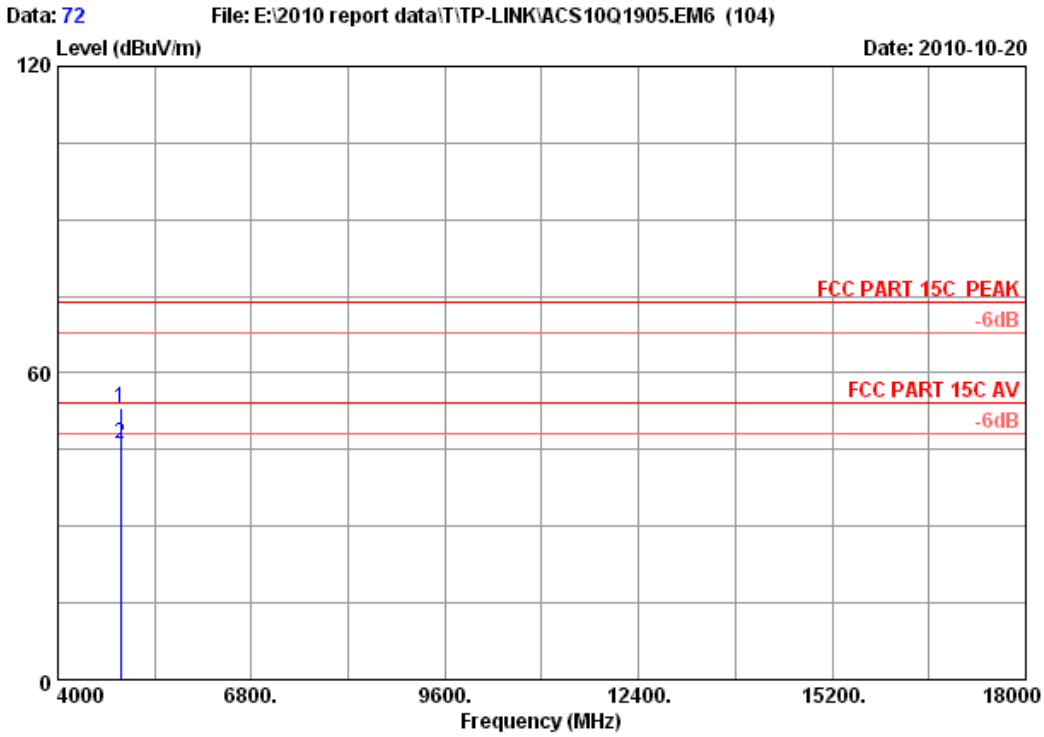
Site no. : RF Chamber Data no. : 70
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	4904.000	34.46	10.74	35.00	43.26	53.46	74.00	20.54	Peak
2	4904.000	34.46	10.74	35.00	36.57	46.77	54.00	7.23	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.      : RF Chamber                Data no.   : 71
Dis. / Ant.   : 3m   3115(0911)           Ant. pol.  : HORIZONTAL
Limit         : FCC PART 15C  PEAK
Env. / Ins.   : 23*C/54%                  Engineer   : Sunny-lu
EUT           : 150Mbps Wireless N Router
Power         : DC 9V From Adapter Input AC 120V/60Hz
Test mode     : IEEE802.11n HT40 CH7 2452MHz Tx
M/N           : TL-WR741ND
```



Site no. : RF Chamber Data no. : 72
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	4904.000	34.46	10.74	35.00	42.95	53.15	74.00	20.85	Peak
2	4904.000	34.46	10.74	35.00	35.84	46.04	54.00	7.96	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.

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,10	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

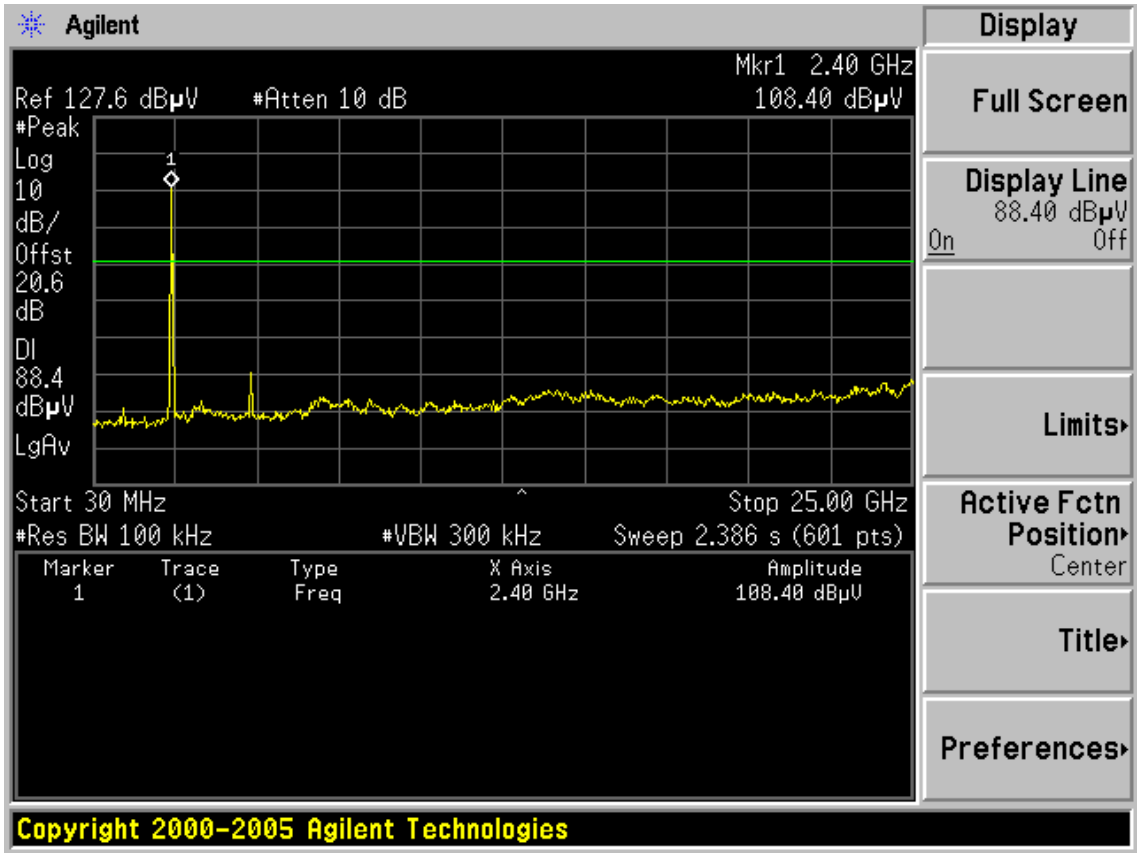
5.3.Test Procedure

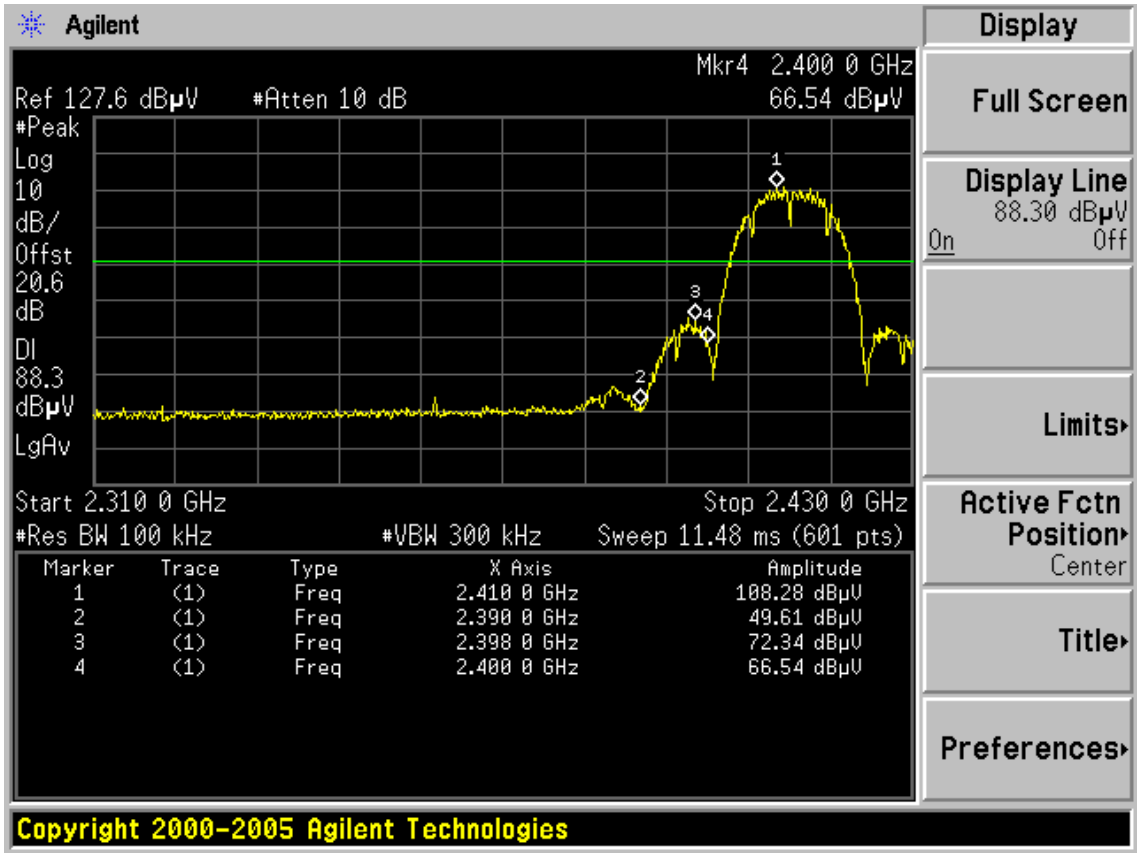
The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

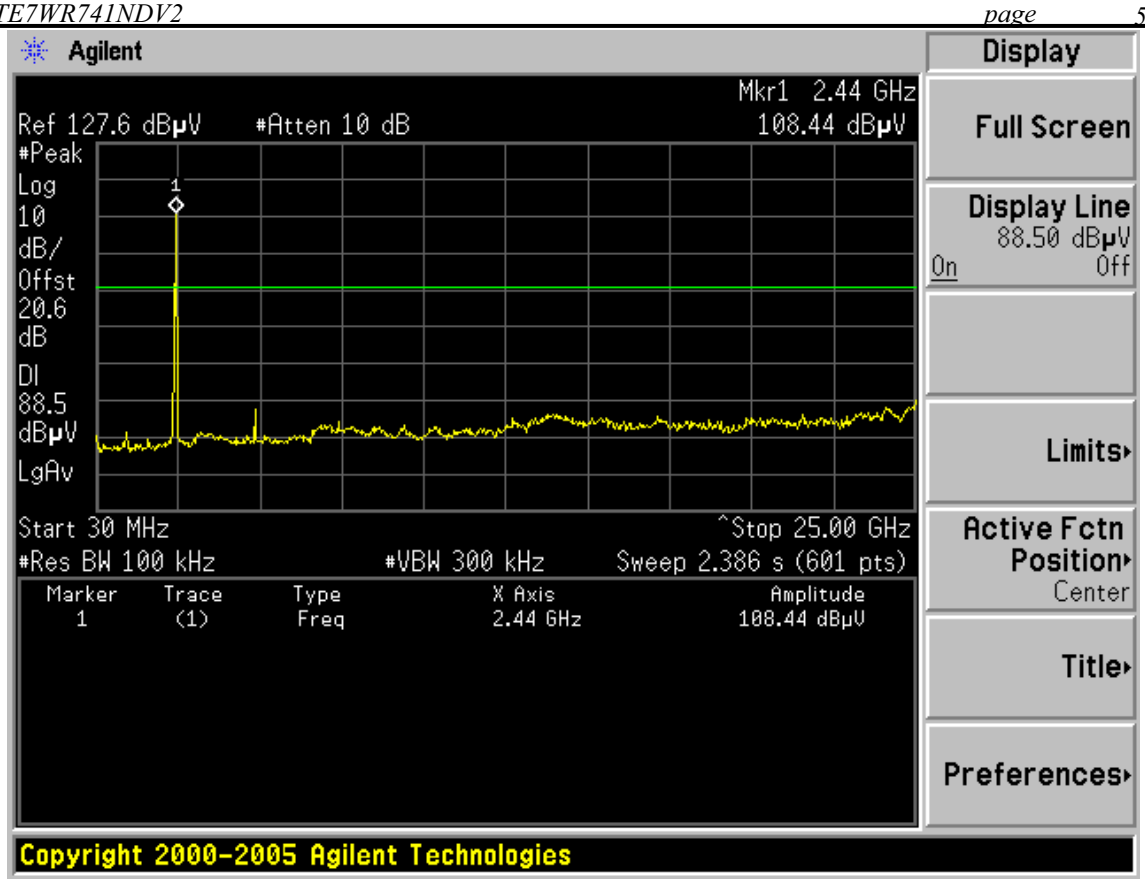
5.4.Test result

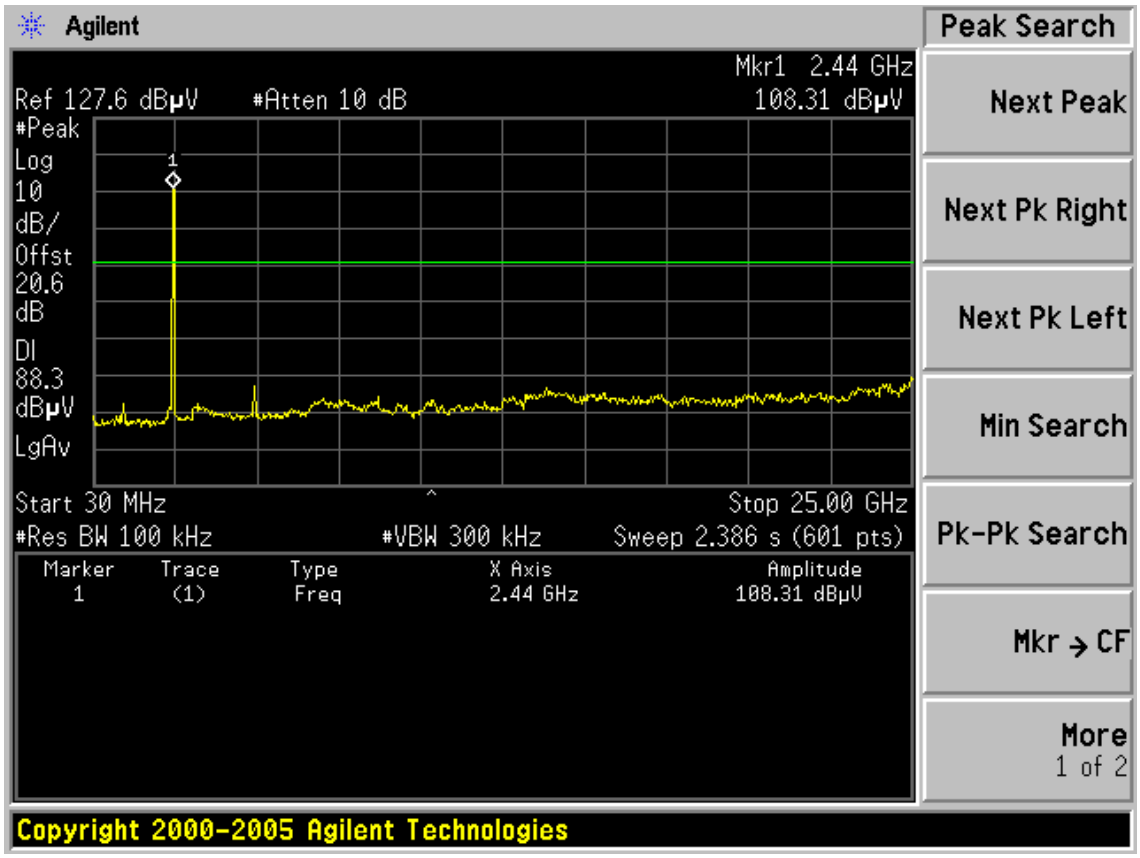
PASS (The testing data was attached in the next pages.)

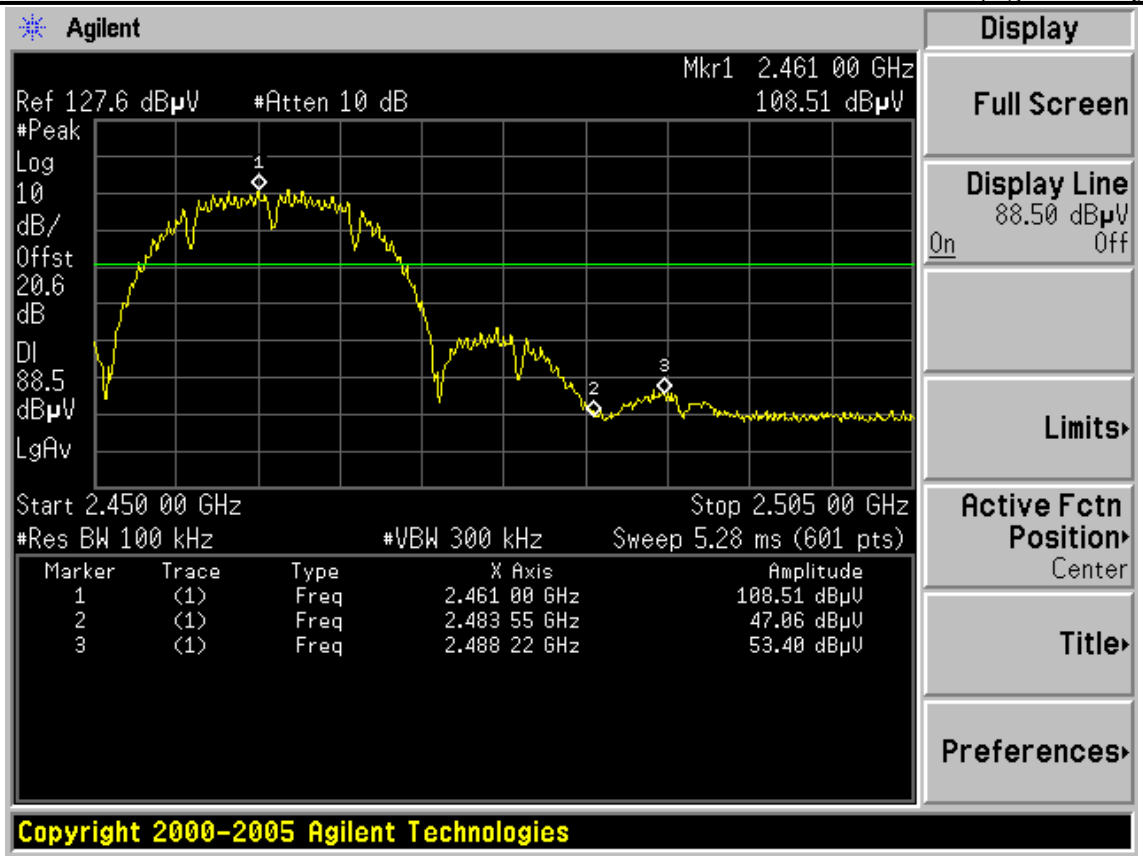
Test Mode: IEEE 802.11b TX



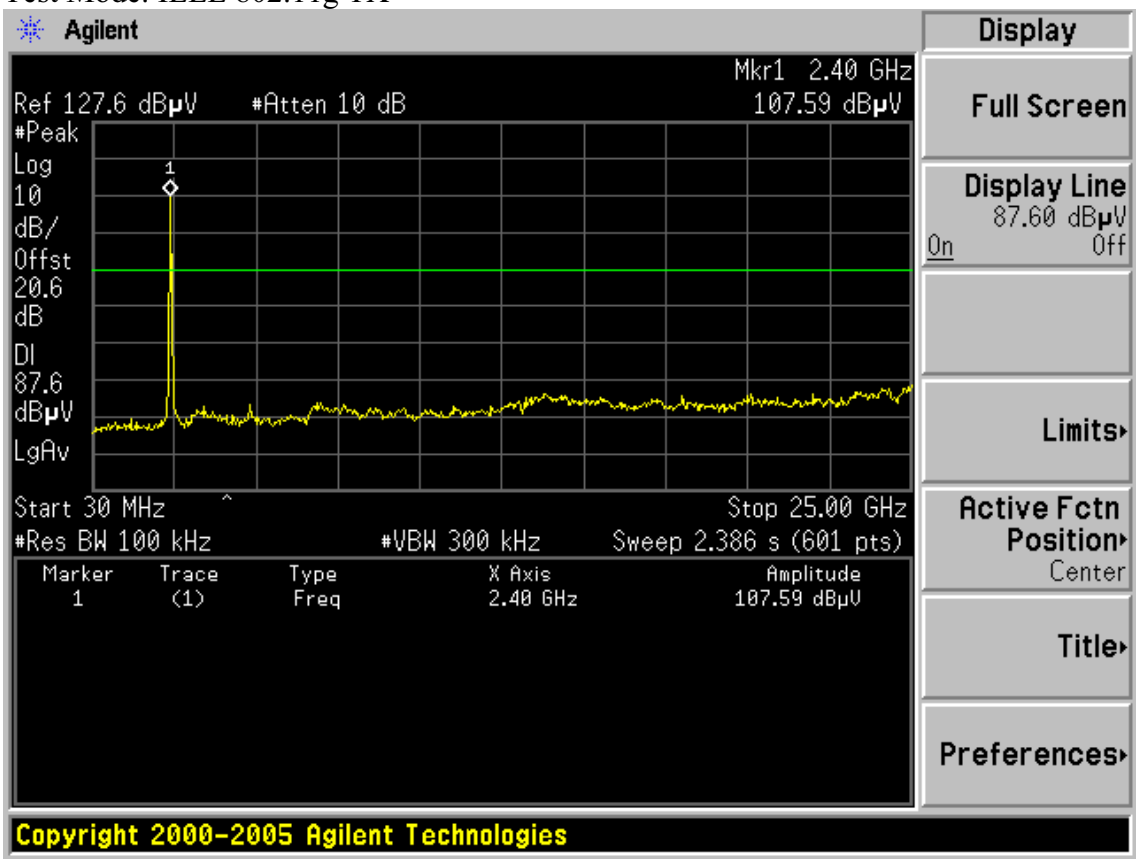


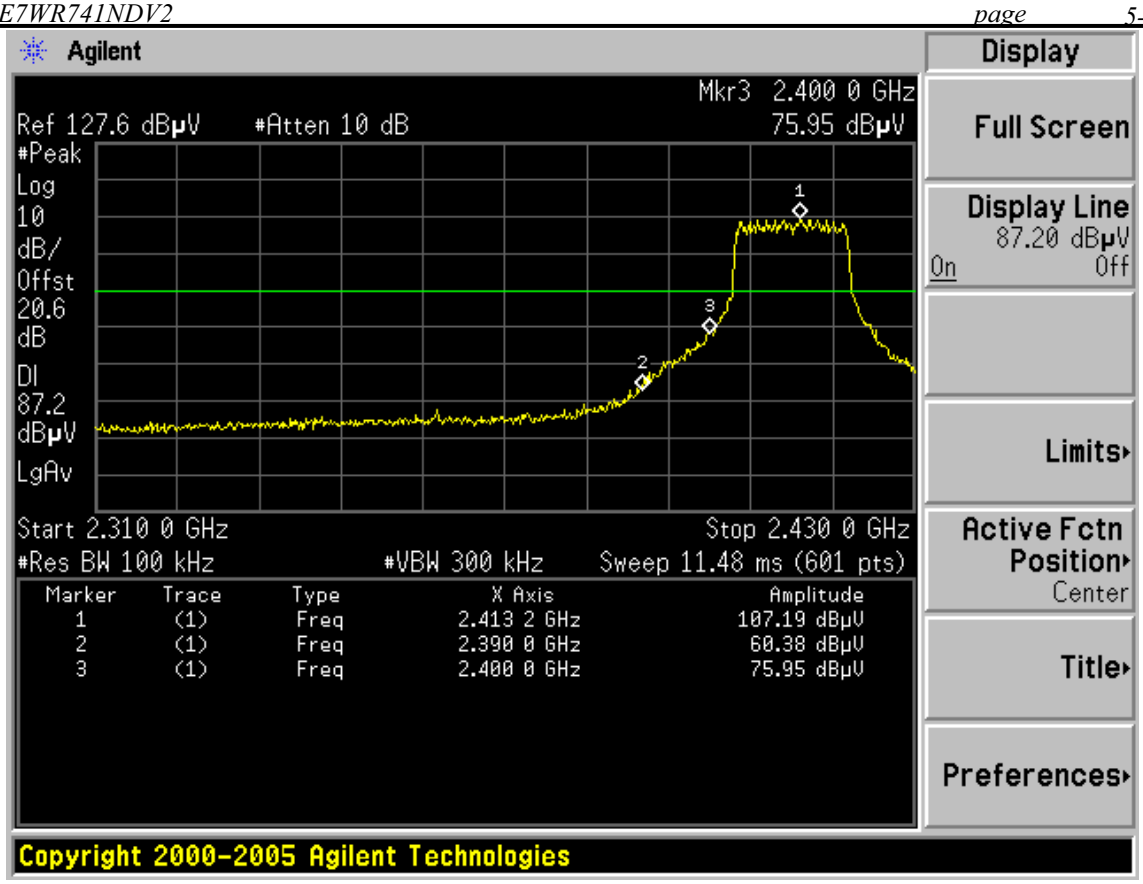

Agilent
Display
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
108.44 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
88.5
dBµV
LgAv
Full Screen
Display Line
88.50 dBµV
On
Off
Limits
Start 30 MHz
^Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Active Fctn
Position
Center
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 108.44 dBµV
Title
Preferences
Copyright 2000-2005 Agilent Technologies

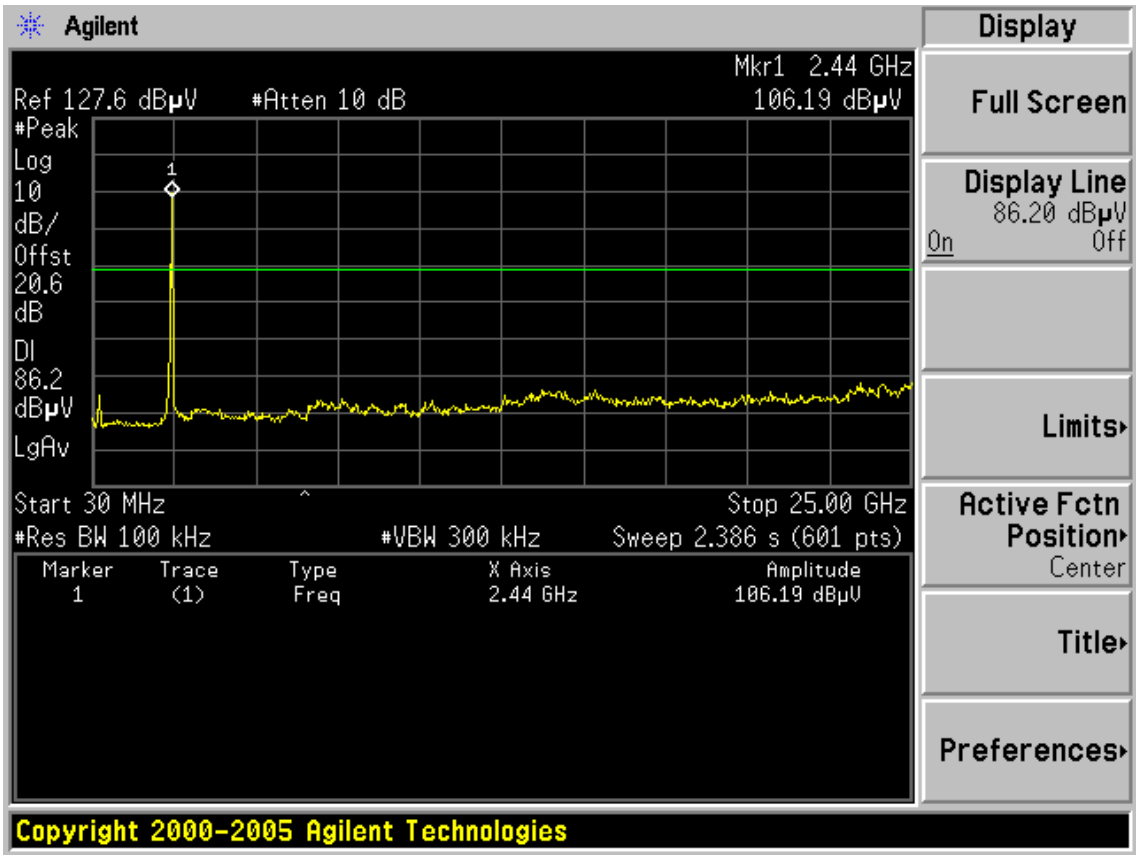

Agilent
Peak Search
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
108.31 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
88.3
dBµV
LgAv
Next Peak
Next Pk Right
Next Pk Left
Min Search
Start 30 MHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Pk-Pk Search
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 108.31 dBµV
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

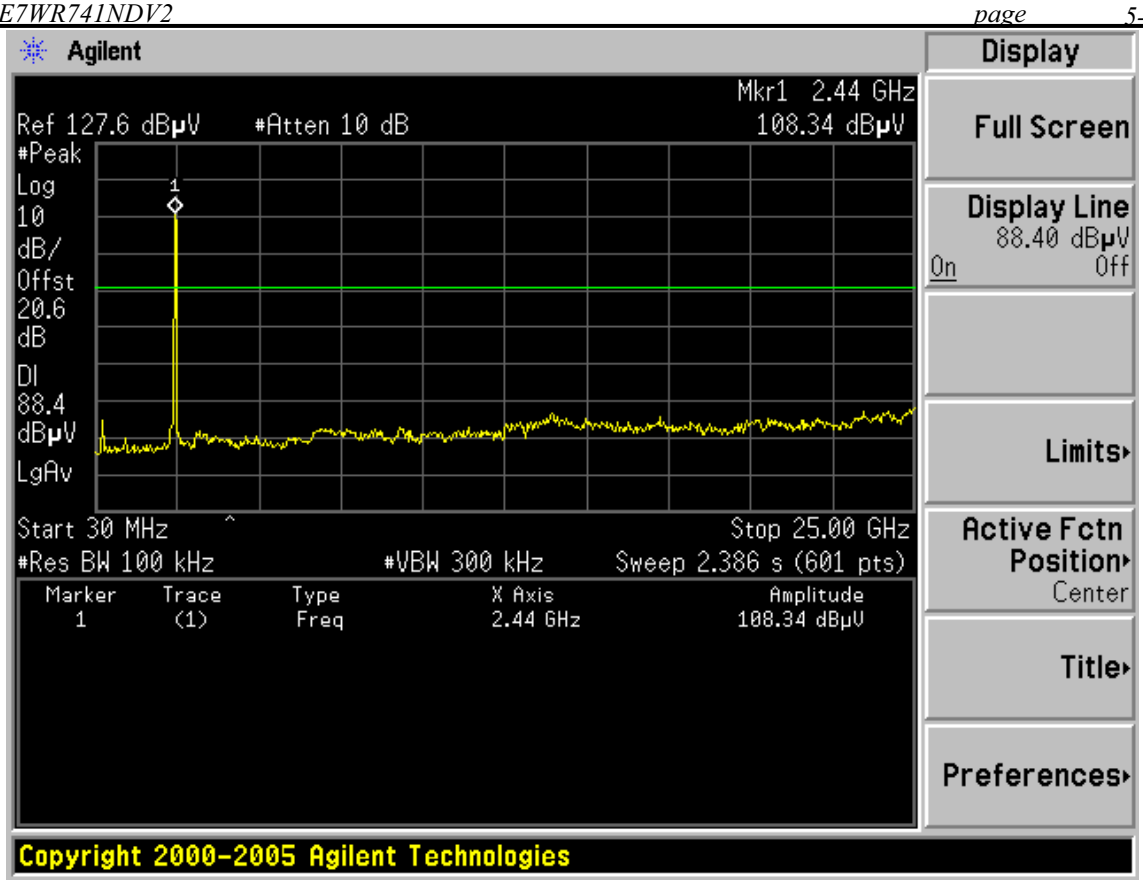


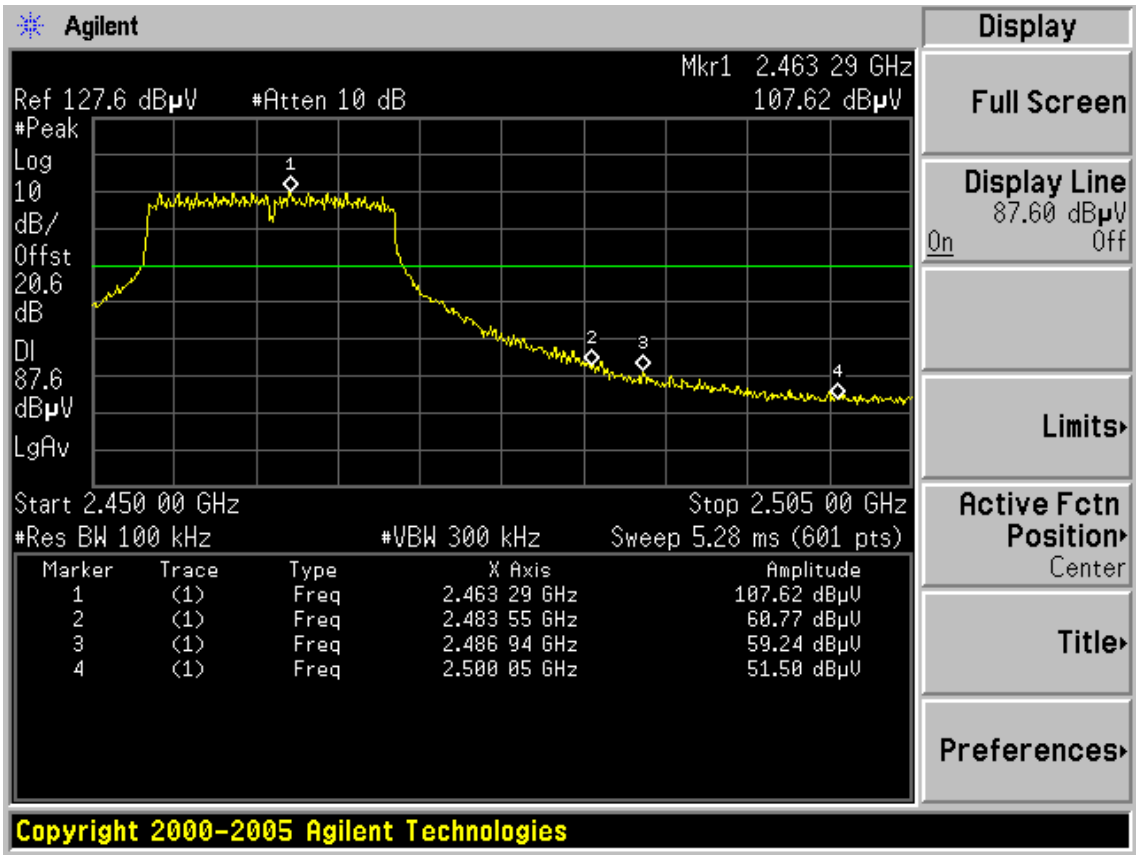
Test Mode: IEEE 802.11g TX



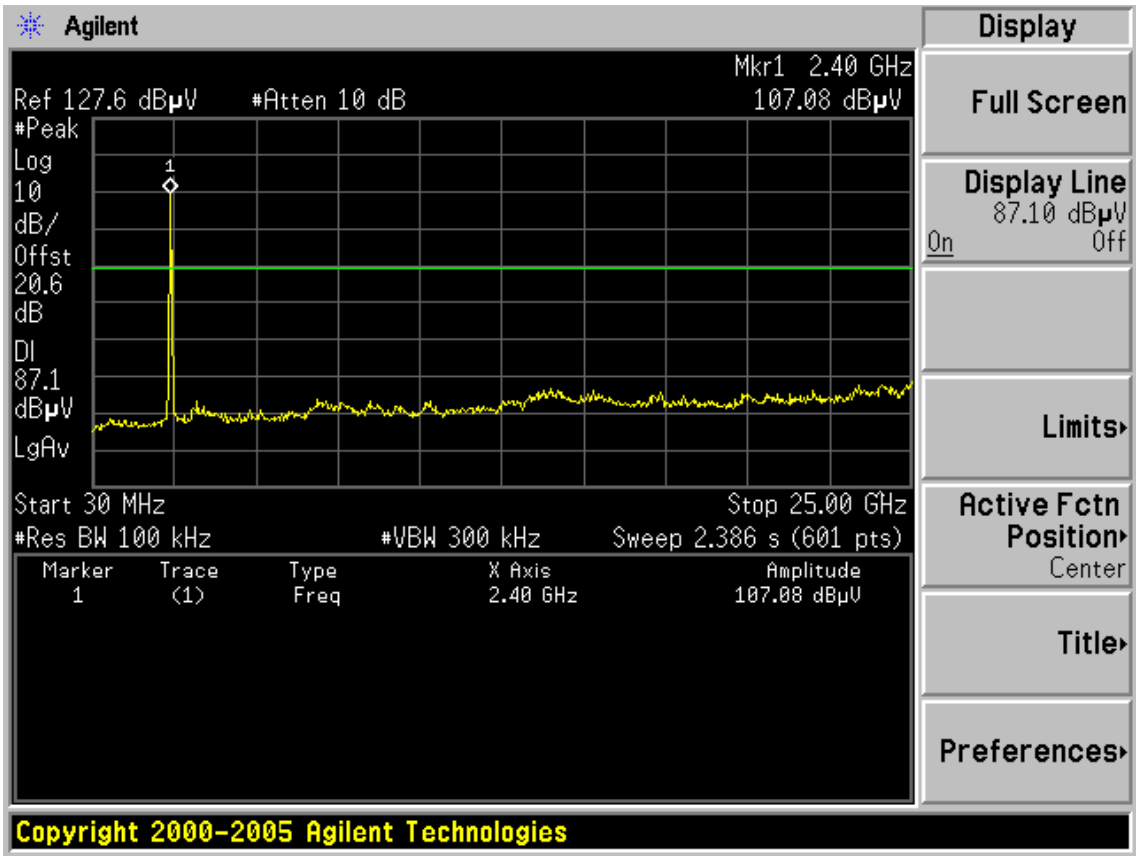

Agilent
Display
Mkr3 2.400 0 GHz
Ref 127.6 dBµV
#Atten 10 dB
75.95 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
87.2
dBµV
LgAv
Start 2.310 0 GHz
Stop 2.430 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 11.48 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.413 2 GHz 107.19 dBµV
2 (1) Freq 2.390 0 GHz 60.38 dBµV
3 (1) Freq 2.400 0 GHz 75.95 dBµV
Full Screen
Display Line
87.20 dBµV
On Off
Limits
Active Fctn
Position
Center
Title
Preferences
Copyright 2000-2005 Agilent Technologies

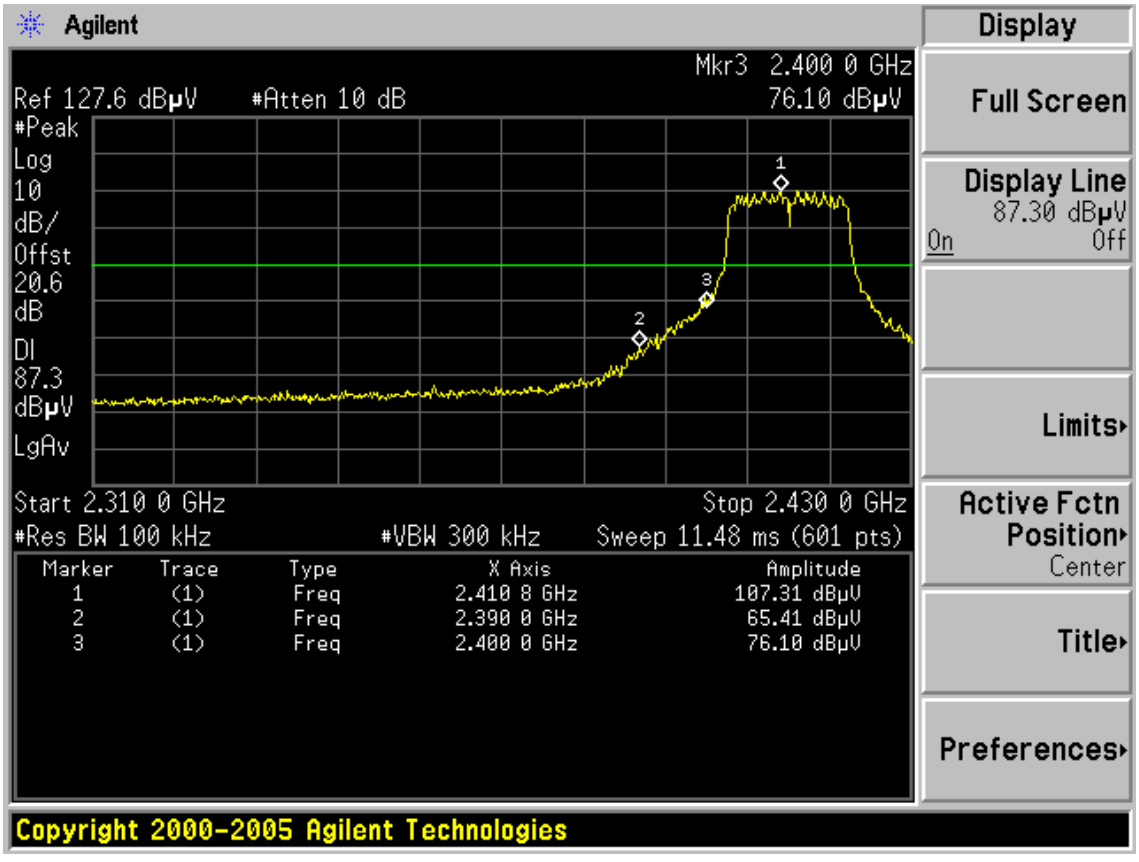

Agilent
Display
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
106.19 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
86.2
dBµV
LgAv
Start 30 MHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 106.19 dBµV
Full Screen
Display Line
86.20 dBµV
On Off
Limits
Active Fctn
Position
Center
Title
Preferences
Copyright 2000-2005 Agilent Technologies

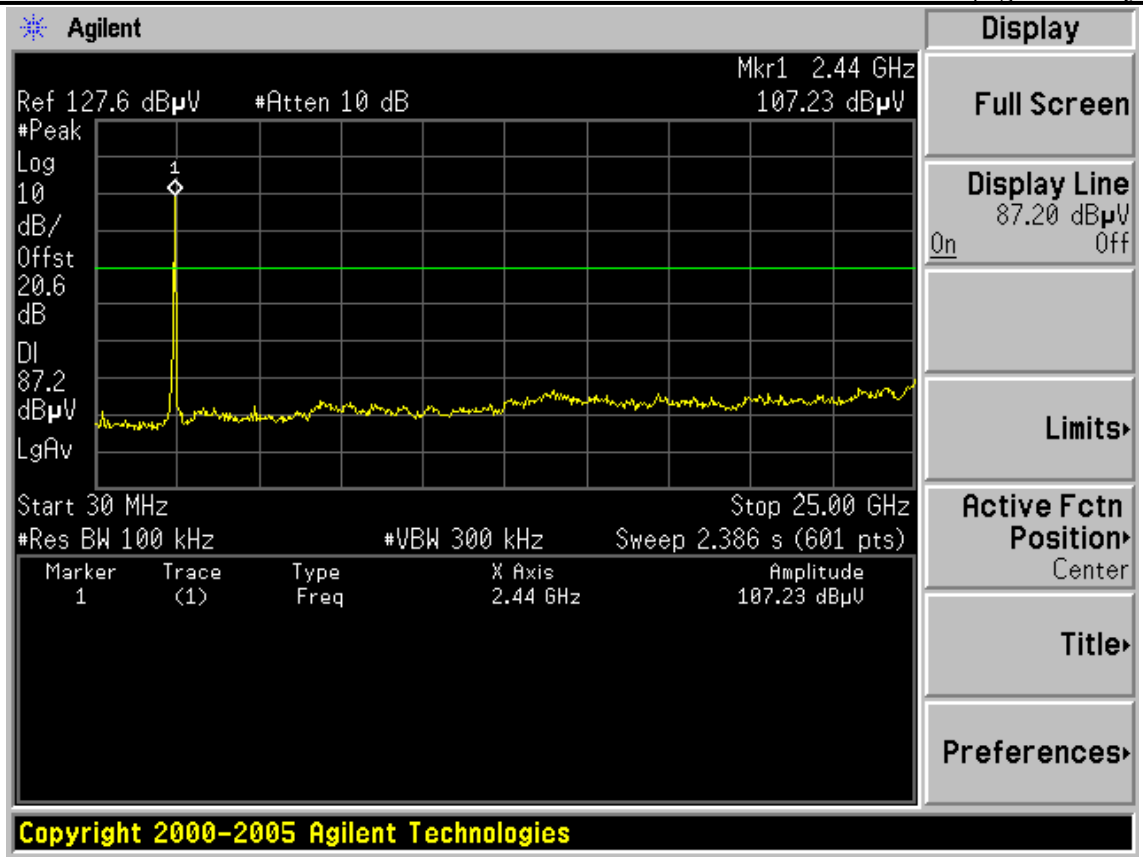

Agilent
Display
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
108.34 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
88.4
dBµV
LgAv
Full Screen
Display Line
88.40 dBµV
On
Off
Limits
Active Fctn
Position
Center
Title
Preferences
Start 30 MHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 108.34 dBµV
Copyright 2000-2005 Agilent Technologies

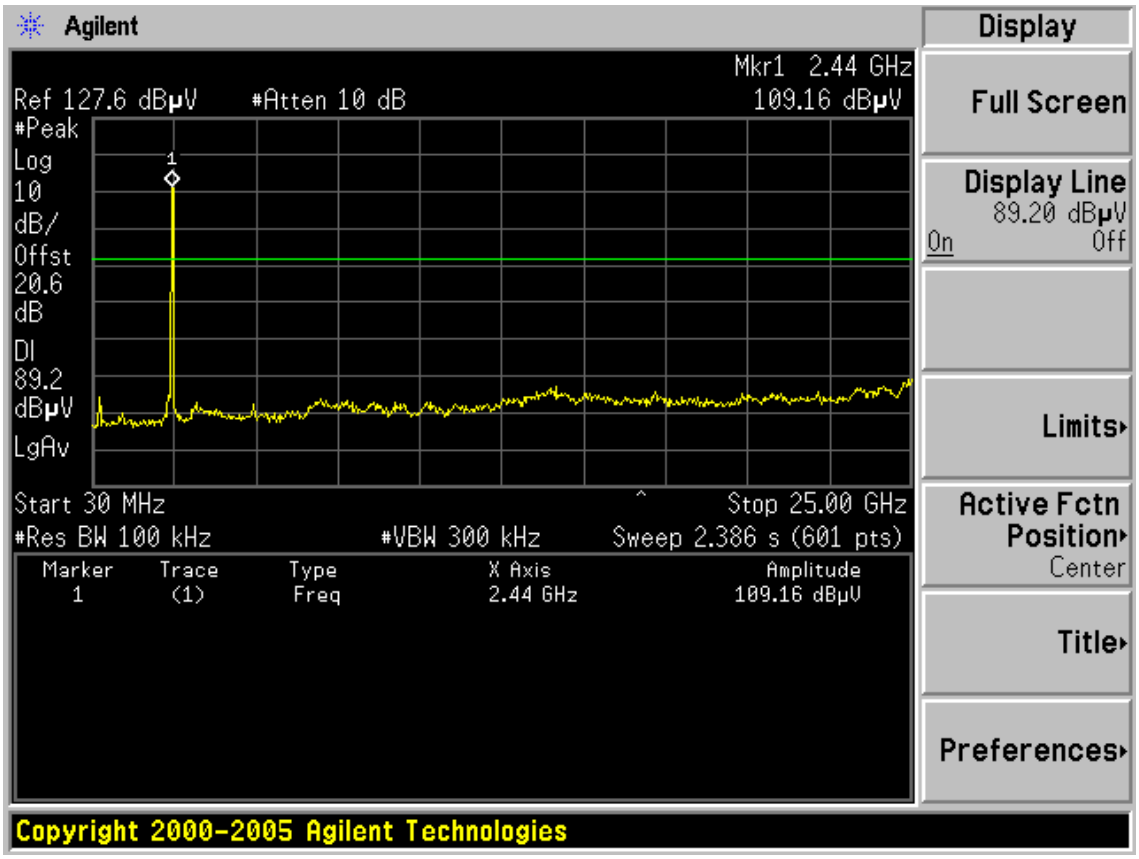

Agilent
Display
Mkr1 2.463 29 GHz
Ref 127.6 dBµV
#Atten 10 dB
107.62 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
87.6
dBµV
LgAv
Full Screen
Display Line
87.60 dBµV
On
Off
Limits
Active Fctn
Position
Center
Title
Preferences
Start 2.450 00 GHz
Stop 2.505 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5.28 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.463 29 GHz 107.62 dBµV
2 (1) Freq 2.483 55 GHz 60.77 dBµV
3 (1) Freq 2.486 94 GHz 59.24 dBµV
4 (1) Freq 2.500 05 GHz 51.50 dBµV
Copyright 2000-2005 Agilent Technologies

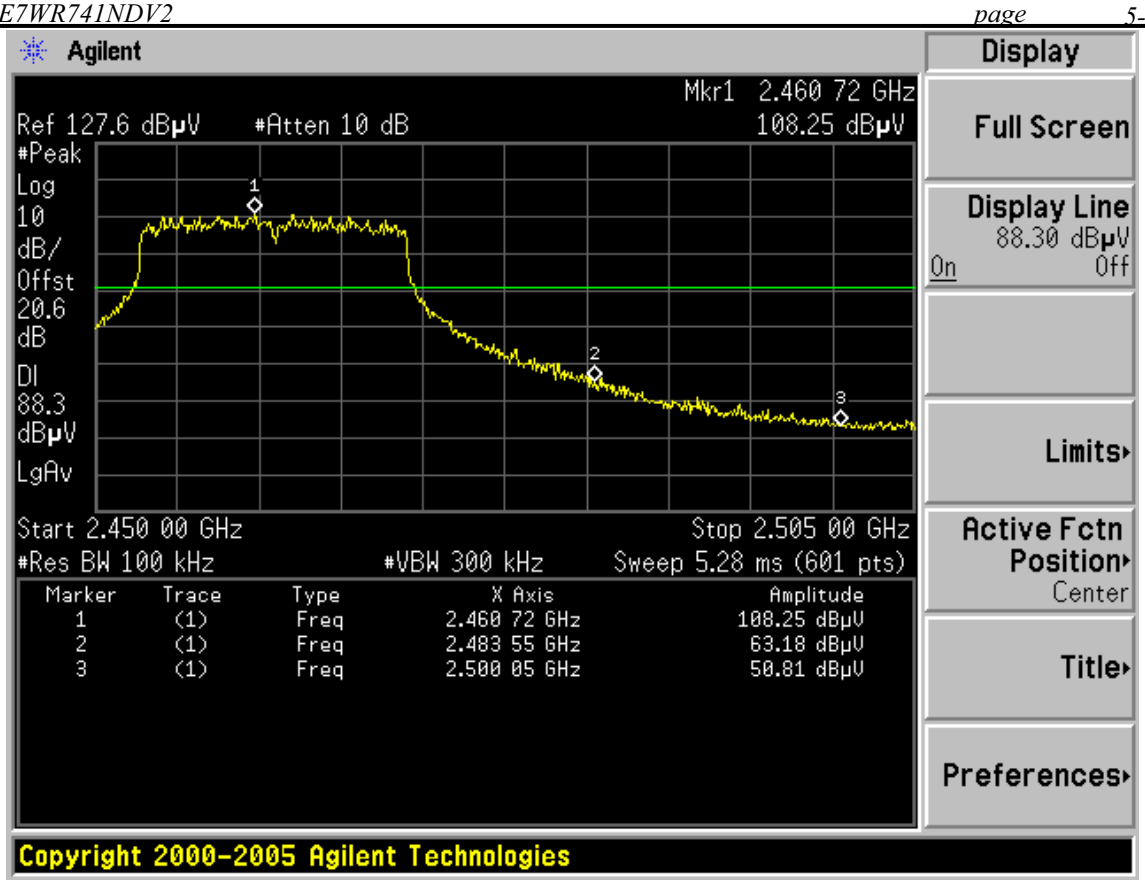
Test Mode: IEEE 802.11n HT20 TX



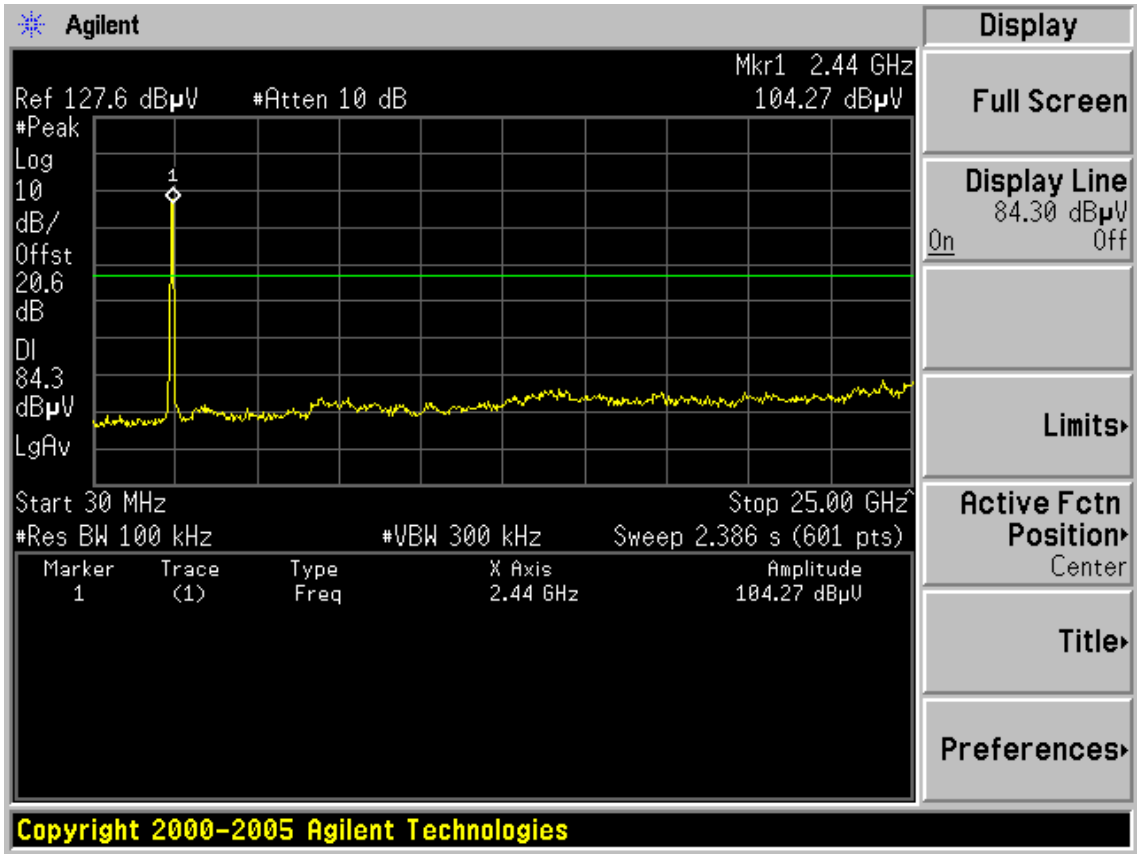


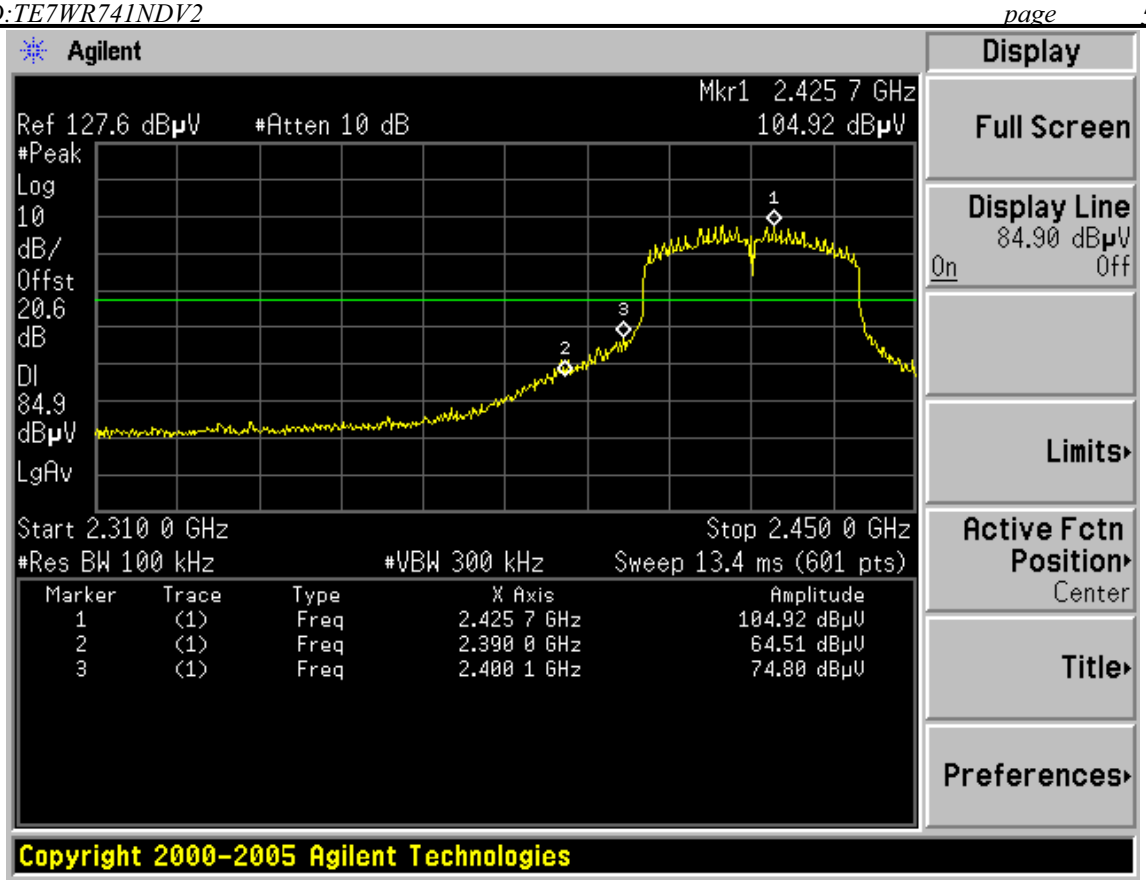

Agilent
Display
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
107.23 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
87.2
dBµV
LgAv
Full Screen
Display Line
87.20 dBµV
On
Off
Limits
Start 30 MHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Active Fctn
Position
Center
Marker
Trace
Type
X Axis
Amplitude
1
(1)
Freq
2.44 GHz
107.23 dBµV
Title
Preferences
Copyright 2000-2005 Agilent Technologies

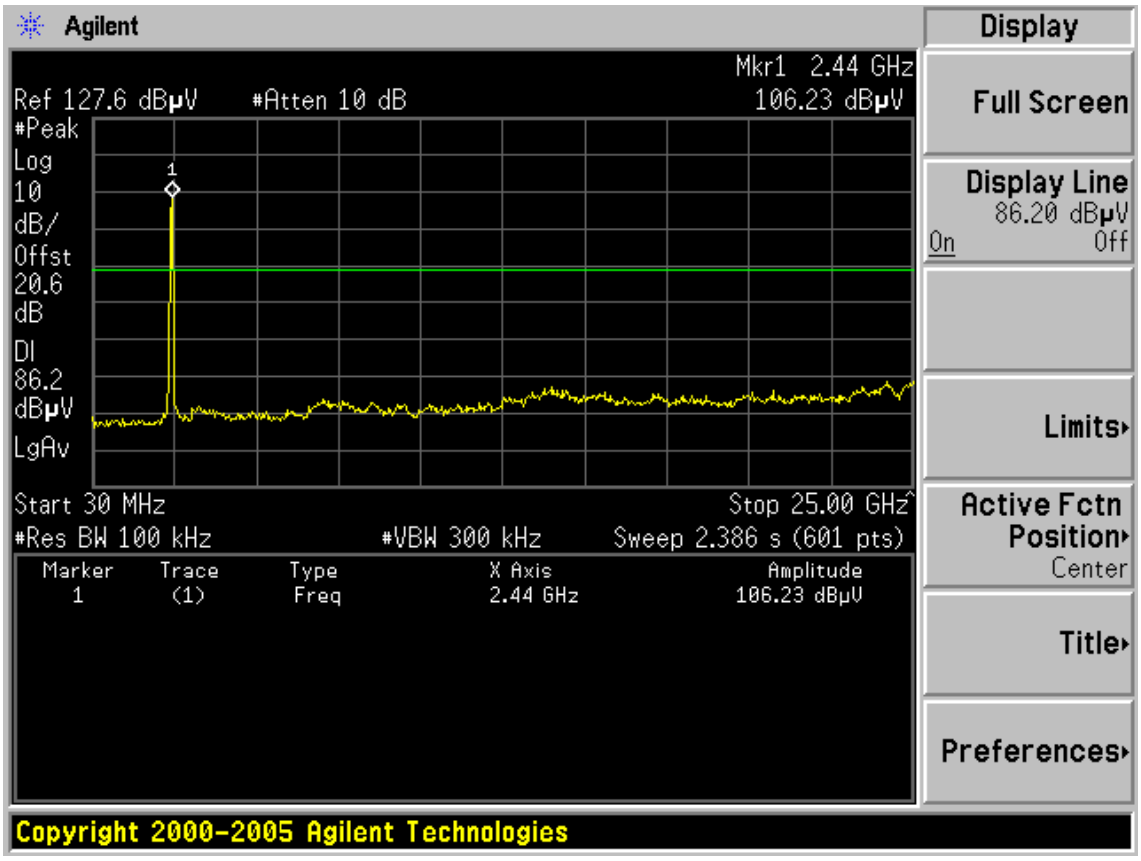

Agilent
Display
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
109.16 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
89.2
dBµV
LgAv
Full Screen
Display Line
89.20 dBµV
On
Off
Limits
Start 30 MHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Active Fctn
Position
Center
Marker
Trace
Type
X Axis
Amplitude
1
(1)
Freq
2.44 GHz
109.16 dBµV
Title
Preferences
Copyright 2000-2005 Agilent Technologies

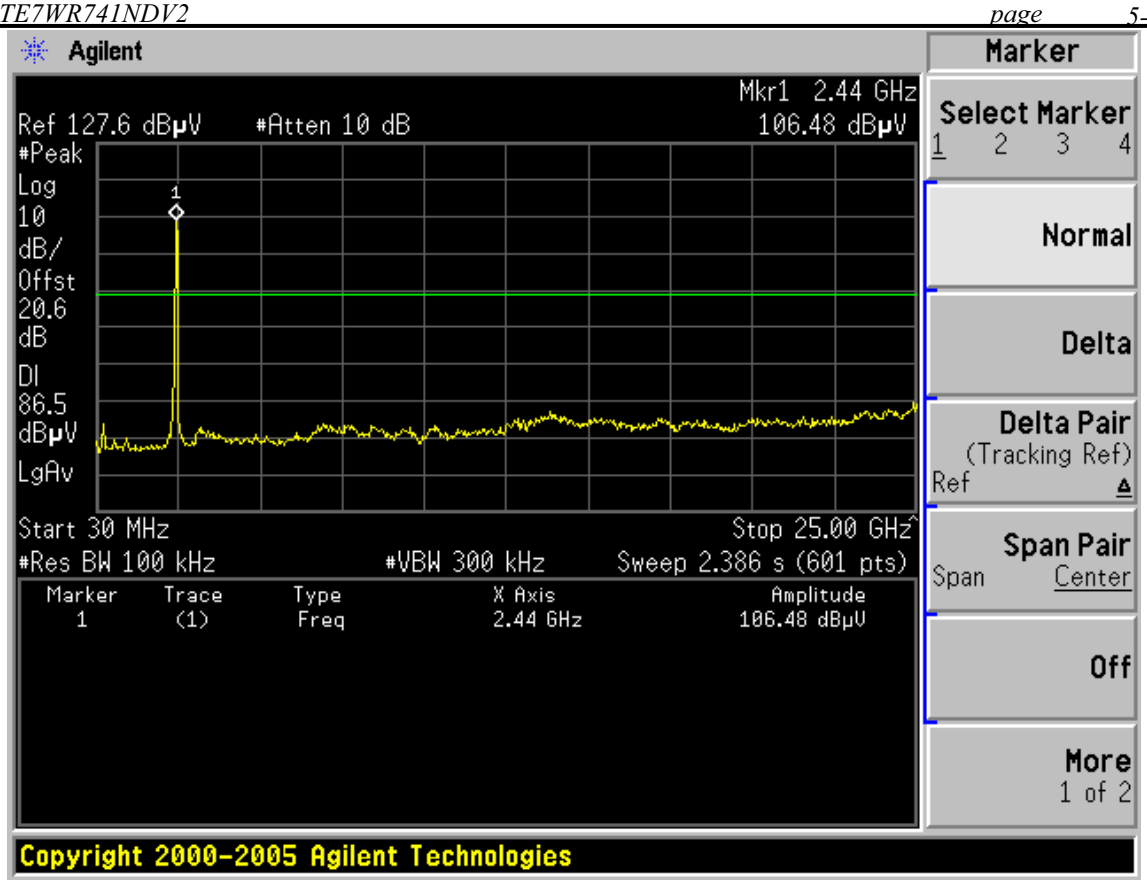


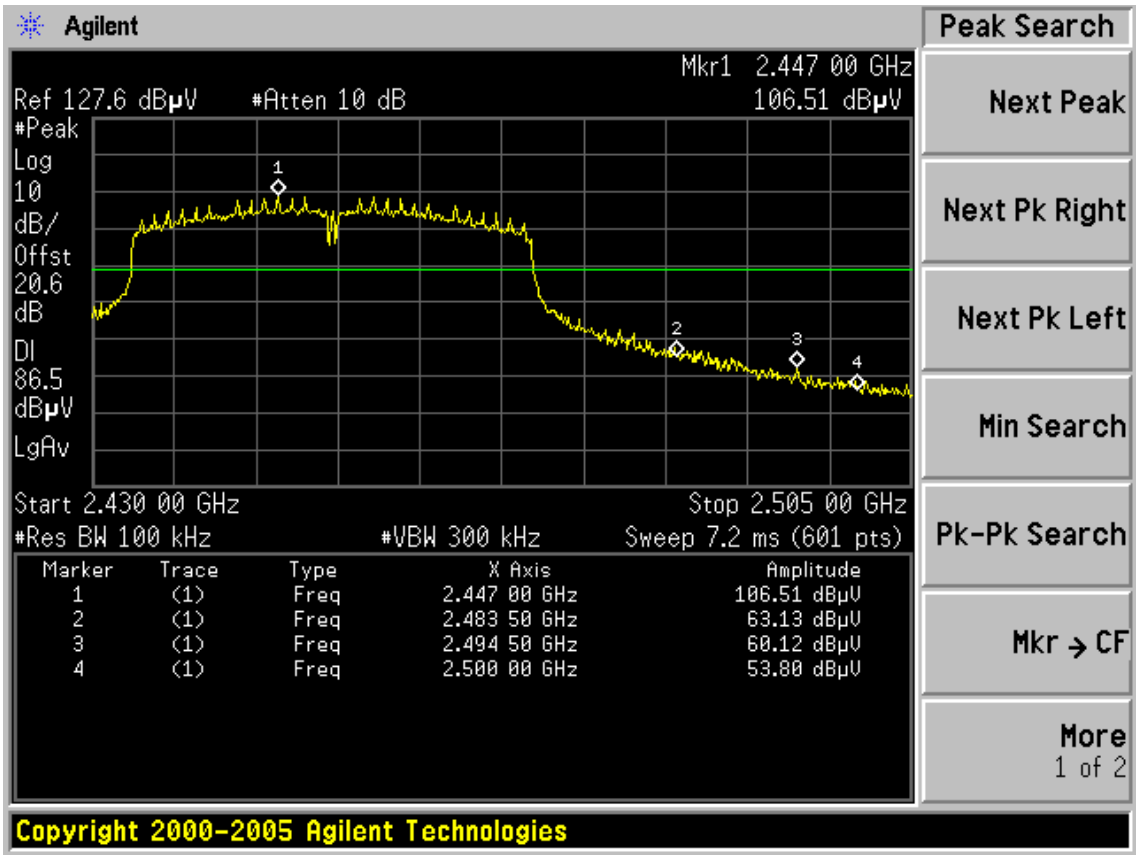
Test Mode: IEEE 802.11n HT40 TX




Agilent
Display
Mkr1 2.425 7 GHz
Ref 127.6 dBµV
#Atten 10 dB
104.92 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
84.9
dBµV
LgAv
Full Screen
Display Line
84.90 dBµV
On Off
Limits
Active Fctn
Position
Center
Title
Preferences
Start 2.310 0 GHz
Stop 2.450 0 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 13.4 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.425 7 GHz 104.92 dBµV
2 (1) Freq 2.390 0 GHz 64.51 dBµV
3 (1) Freq 2.400 1 GHz 74.80 dBµV
Copyright 2000-2005 Agilent Technologies


Agilent
Display
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
106.23 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
86.2
dBµV
LgAv
Full Screen
Display Line
86.20 dBµV
On Off
Limits
Active Fctn
Position
Center
Title
Preferences
Start 30 MHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 106.23 dBµV
Copyright 2000-2005 Agilent Technologies


Agilent
Marker
Mkr1 2.44 GHz
Ref 127.6 dBµV
#Atten 10 dB
106.48 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
86.5
dBµV
LgAv
Start 30 MHz
Stop 25.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.386 s (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.44 GHz 106.48 dBµV
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Off
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
Peak Search
Mkr1 2.447 00 GHz
Ref 127.6 dBµV
#Atten 10 dB
106.51 dBµV
#Peak
Log
10
dB/
Offst
20.6
dB
Dl
86.5
dBµV
LgAv
Start 2.430 00 GHz
Stop 2.505 00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 7.2 ms (601 pts)
Marker Trace Type X Axis Amplitude
1 (1) Freq 2.447 00 GHz 106.51 dBµV
2 (1) Freq 2.483 50 GHz 63.13 dBµV
3 (1) Freq 2.494 50 GHz 60.12 dBµV
4 (1) Freq 2.500 00 GHz 53.80 dBµV
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Copyright 2000-2005 Agilent Technologies

6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	May.08, 10	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08,10	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	May.08,10	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.

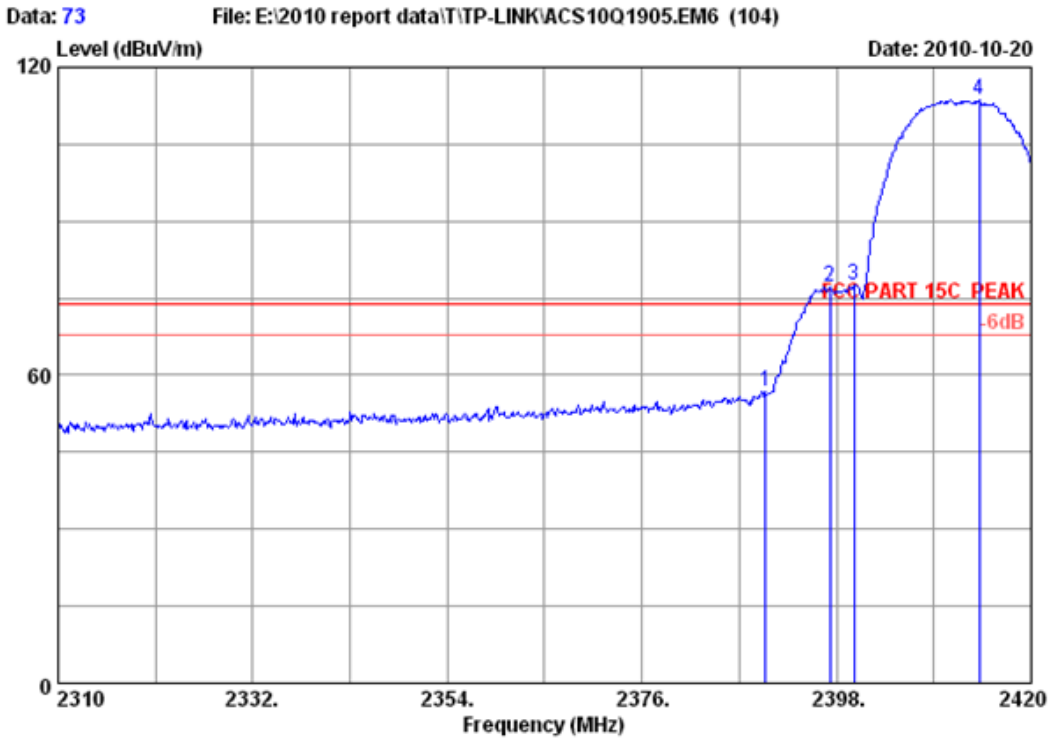
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

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

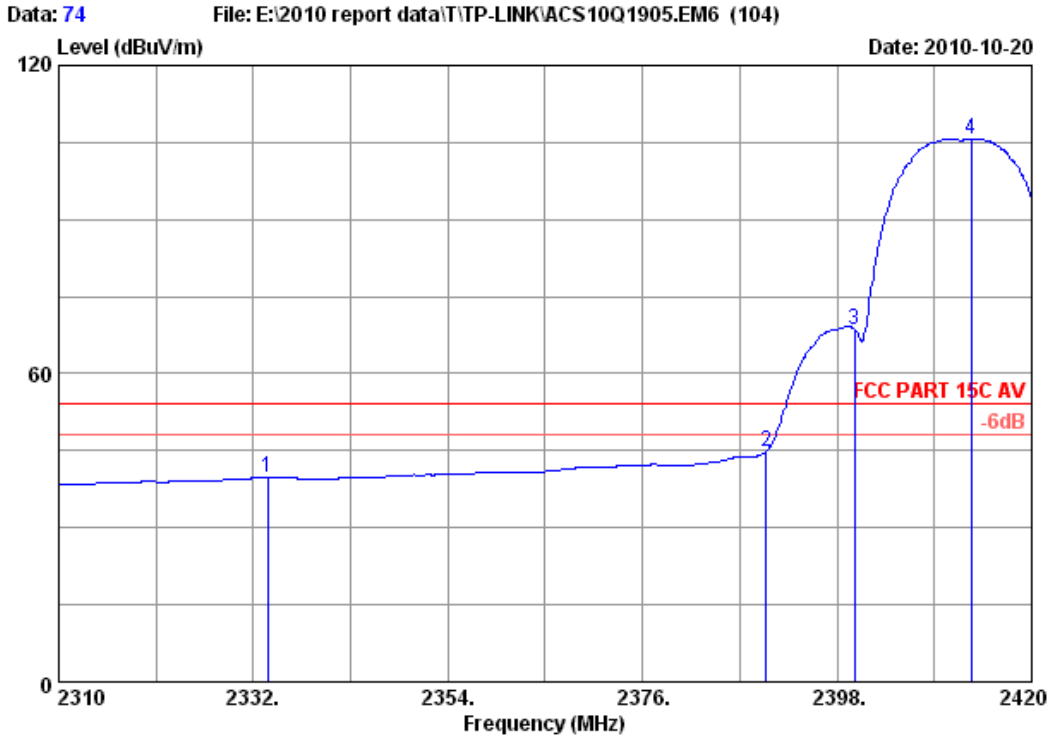
Pass (The testing data was attached in the next pages.)



Site no. : RF Chamber Data no. : 73
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	56.54	56.75	74.00	17.25	Peak
2	2397.230	29.44	7.39	36.62	77.07	77.28	74.00	-3.28	Peak
3	2400.000	29.44	7.43	36.62	77.31	77.56	74.00	-3.56	Peak
4	2414.170	29.45	7.43	36.62	113.49	113.75	74.00	-39.75	Peak

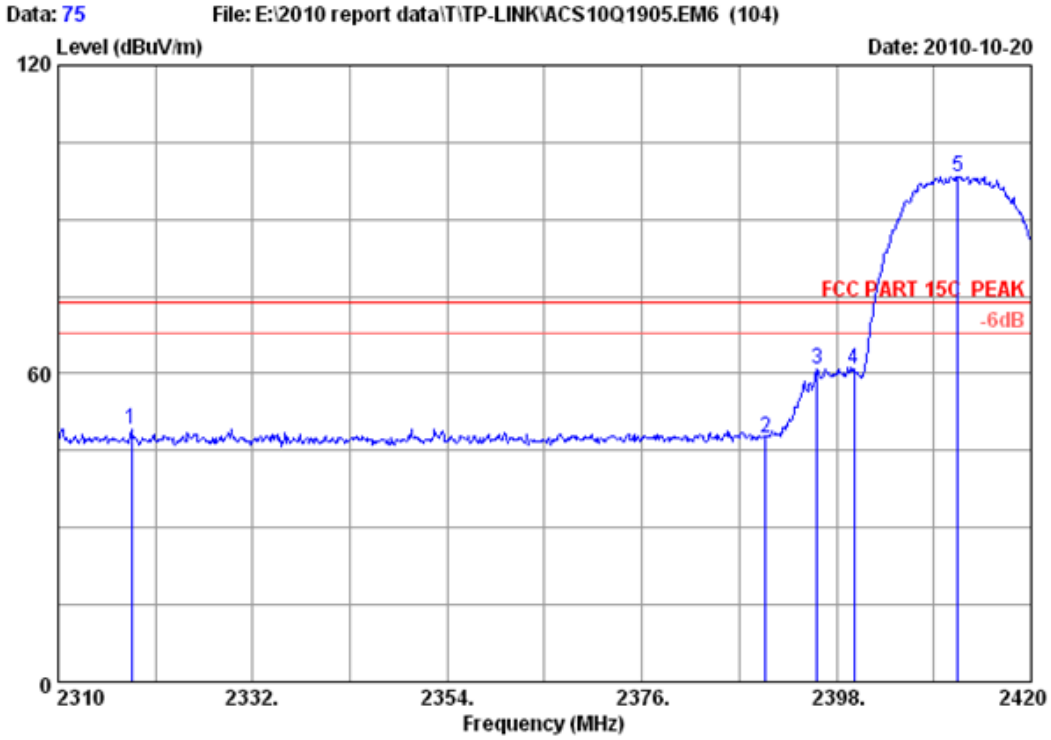
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 74
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2333.650	29.40	7.27	36.63	39.74	39.78	54.00	14.22	Average
2	2390.000	29.44	7.39	36.62	44.58	44.79	54.00	9.21	Average
3	2400.000	29.44	7.43	36.62	68.41	68.66	54.00	-14.66	Average
4	2413.180	29.45	7.43	36.62	105.48	105.74	54.00	-51.74	Average

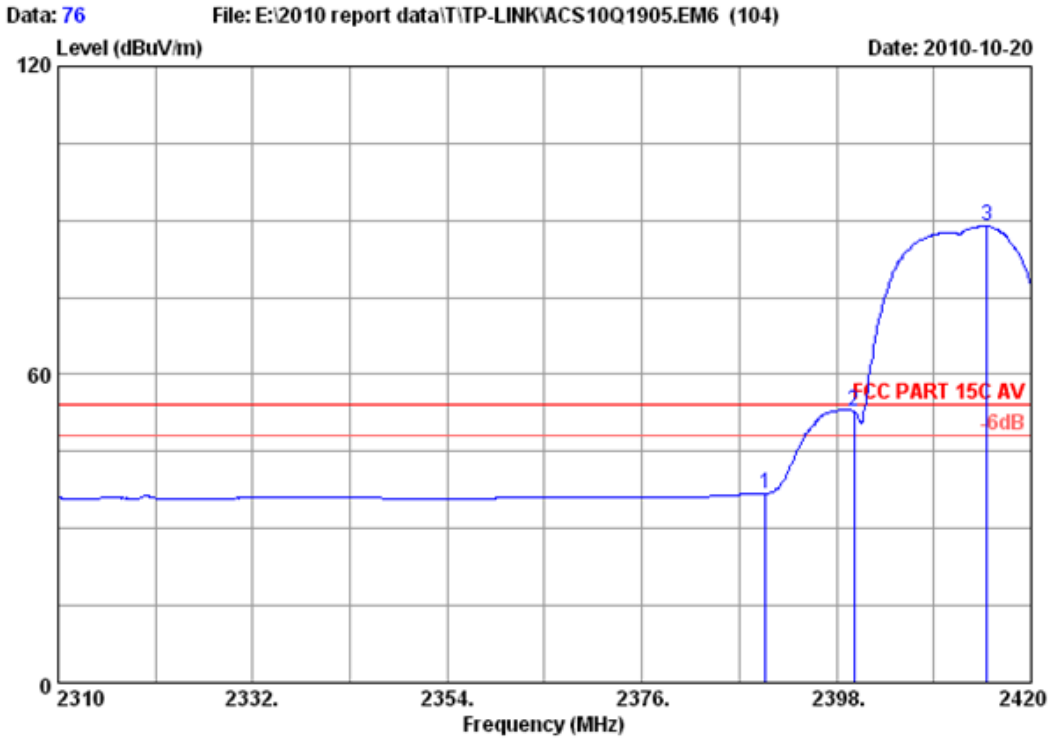
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 75
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2318.250	29.40	7.24	36.63	49.08	49.09	74.00	24.91	Peak
2	2390.000	29.44	7.39	36.62	47.33	47.54	74.00	26.46	Peak
3	2395.800	29.44	7.39	36.62	60.56	60.77	74.00	13.23	Peak
4	2400.000	29.44	7.43	36.62	60.69	60.94	74.00	13.06	Peak
5	2411.750	29.45	7.43	36.62	98.07	98.33	74.00	-24.33	Peak

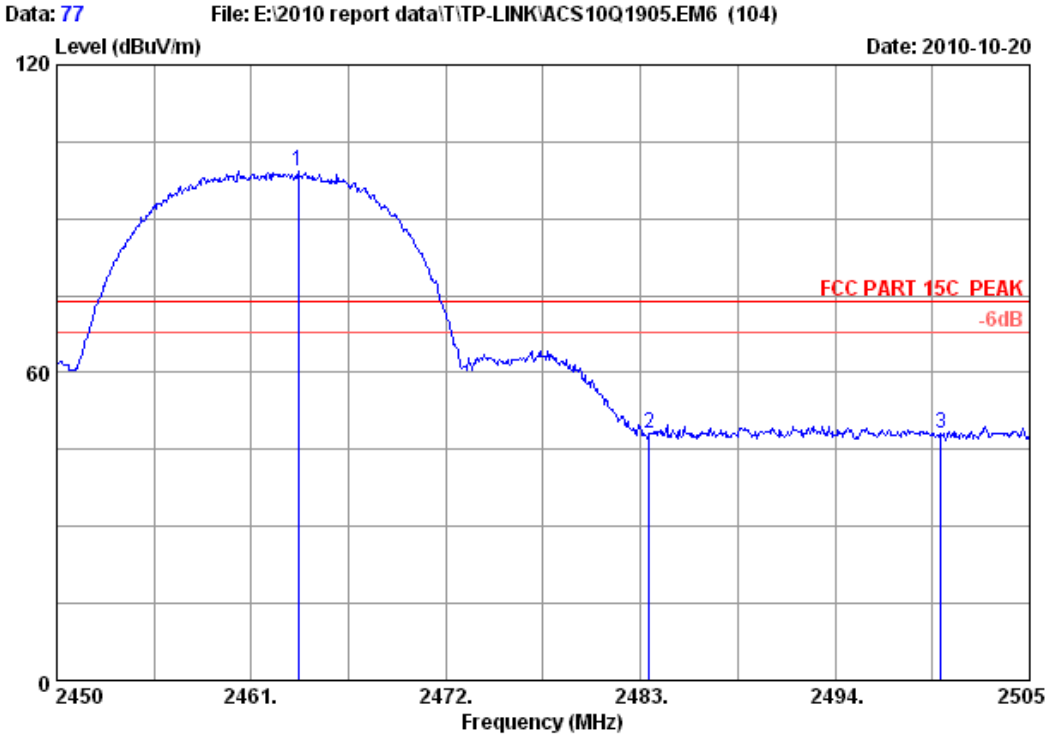
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 76
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	36.53	36.74	54.00	17.26	Average
2	2400.000	29.44	7.43	36.62	52.49	52.74	54.00	1.26	Average
3	2415.050	29.45	7.43	36.62	88.69	88.95	54.00	-34.95	Average

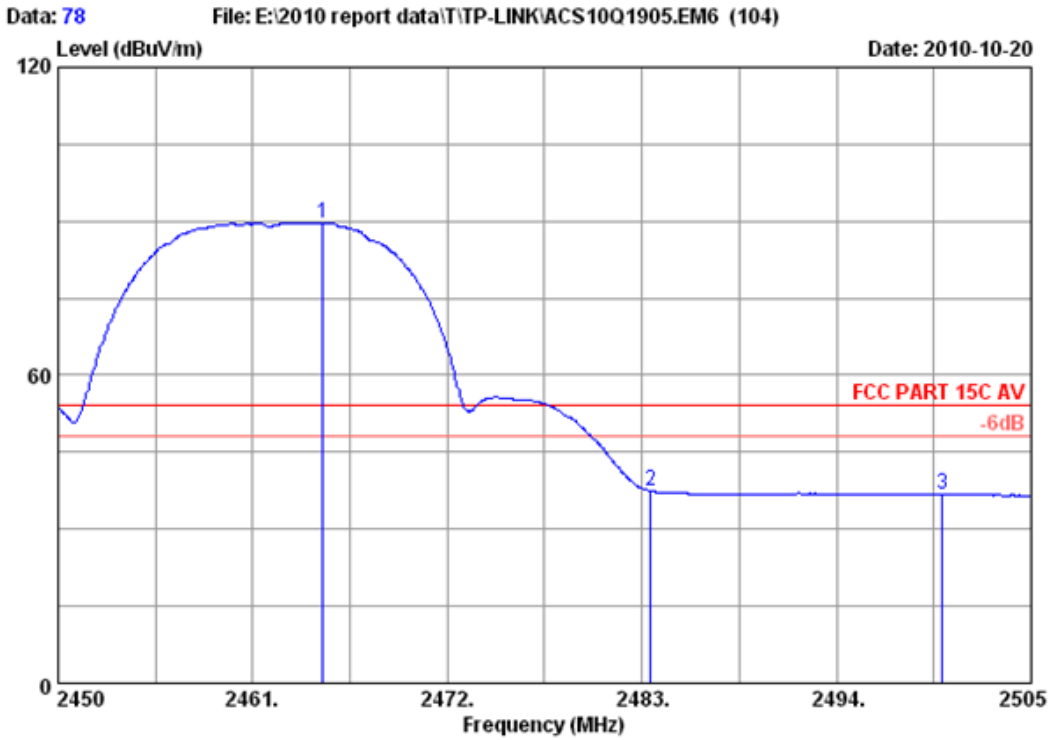
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 77
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2463.640	29.48	7.54	36.61	98.78	99.19	74.00	-25.19	Peak
2	2483.500	29.49	7.58	36.60	47.70	48.17	74.00	25.83	Peak
3	2500.000	29.50	7.62	36.60	47.51	48.03	74.00	25.97	Peak

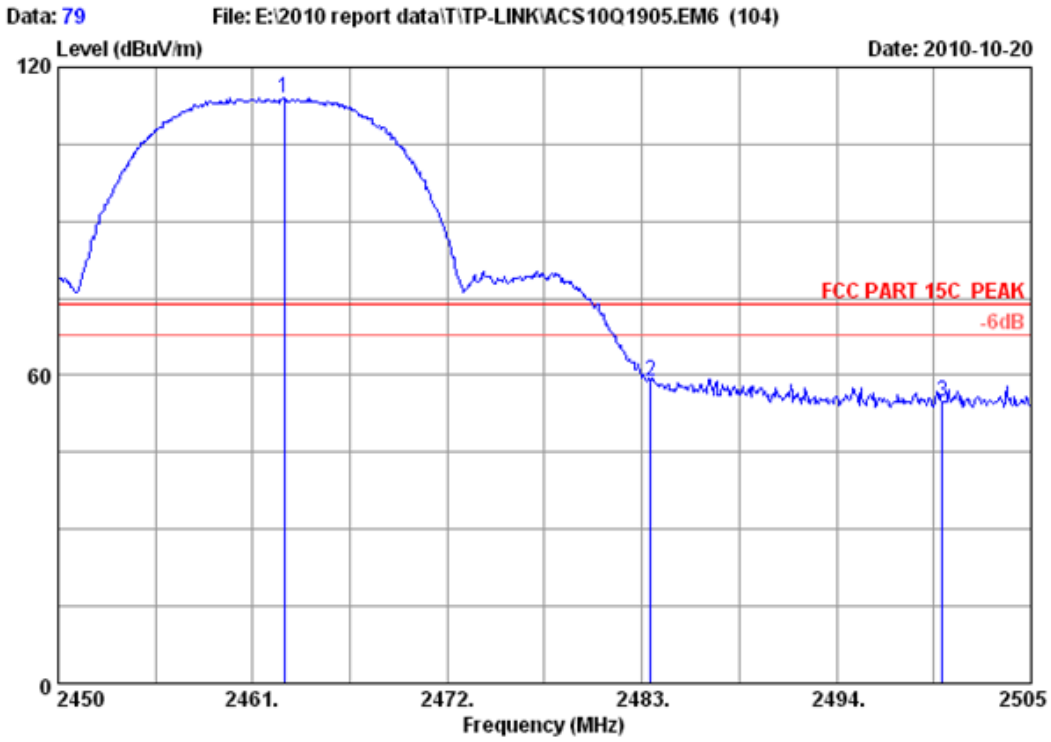
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 78
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2464.960	29.48	7.54	36.61	89.25	89.66	54.00	-35.66	Average
2	2483.500	29.49	7.58	36.60	36.98	37.45	54.00	16.55	Average
3	2500.000	29.50	7.62	36.60	36.19	36.71	54.00	17.29	Average

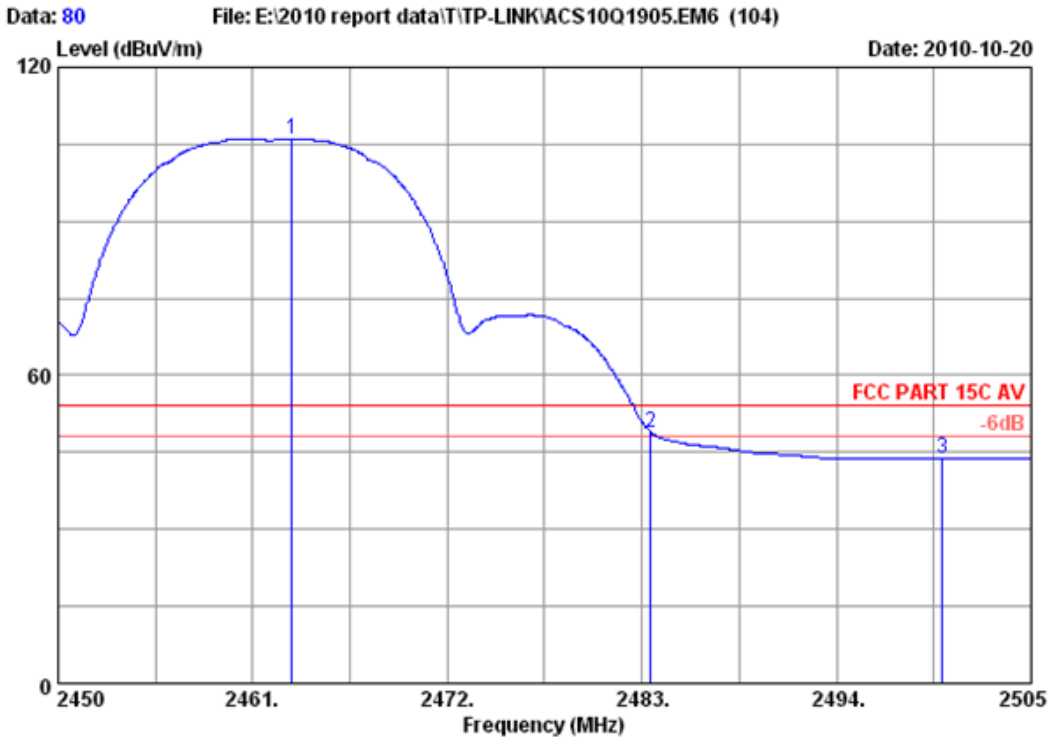
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 79
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2462.760	29.48	7.54	36.61	113.64	114.05	74.00	-40.05	Peak
2	2483.500	29.49	7.58	36.60	58.47	58.94	74.00	15.06	Peak
3	2500.000	29.50	7.62	36.60	54.16	54.68	74.00	19.32	Peak

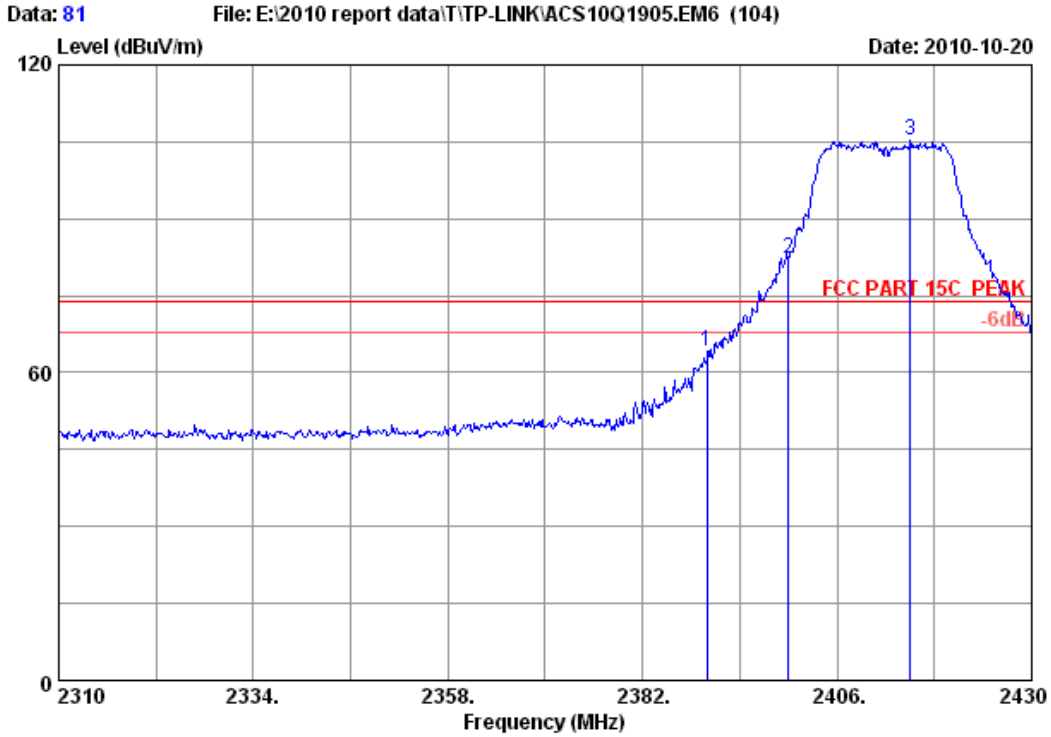
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 80
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11b CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2463.200	29.48	7.54	36.61	105.64	106.05	54.00	-52.05	Average
2	2483.500	29.49	7.58	36.60	48.41	48.88	54.00	5.12	Average
3	2500.000	29.50	7.62	36.60	43.33	43.85	54.00	10.15	Average

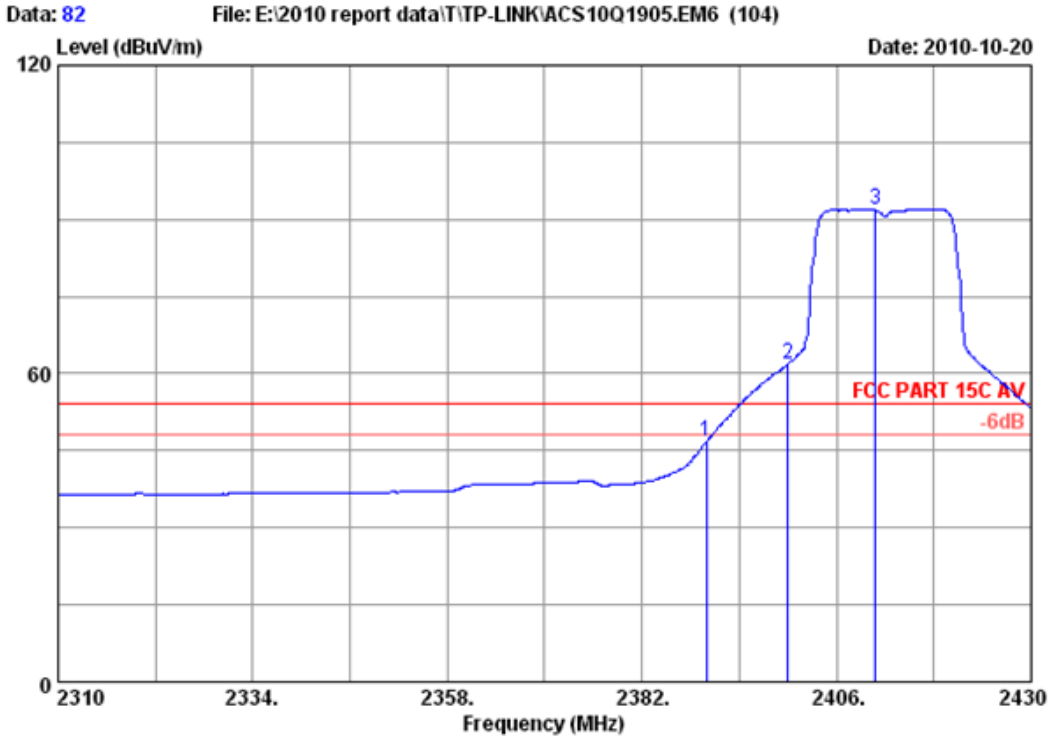
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 81
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	63.93	64.14	74.00	9.86	Peak
2	2400.000	29.44	7.43	36.62	81.87	82.12	74.00	-8.12	Peak
3	2415.000	29.45	7.43	36.62	104.87	105.13	74.00	-31.13	Peak

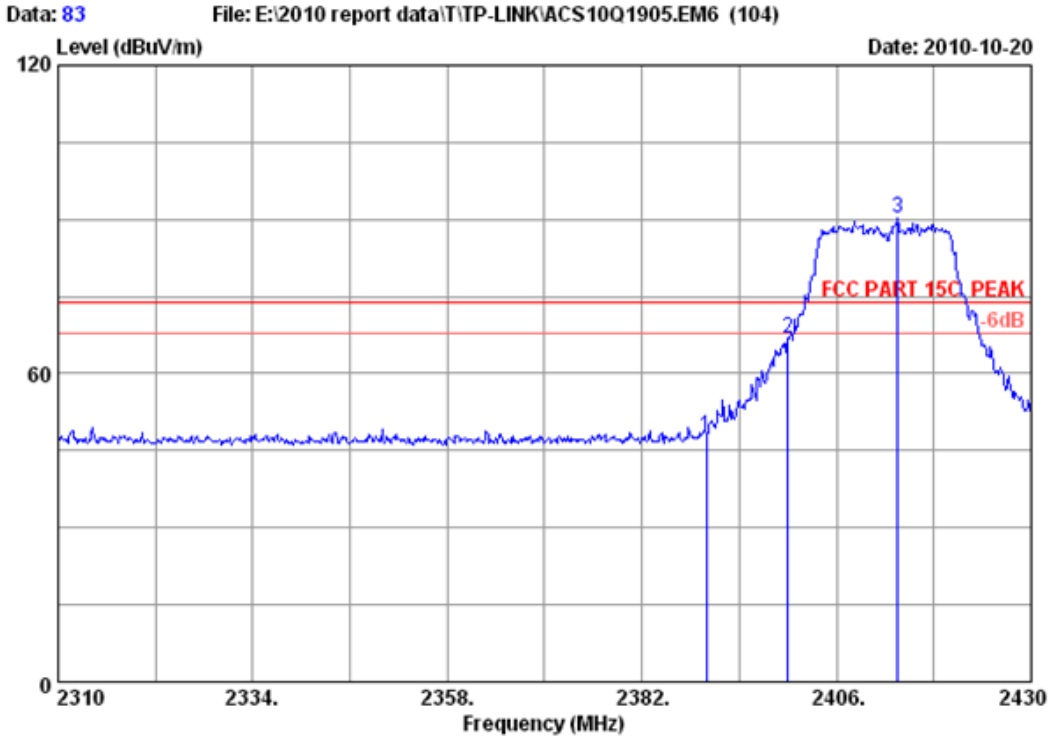
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 82
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	46.60	46.81	54.00	7.19	Average
2	2400.000	29.44	7.43	36.62	61.67	61.92	54.00	-7.92	Average
3	2410.800	29.45	7.43	36.62	91.74	92.00	54.00	-38.00	Average

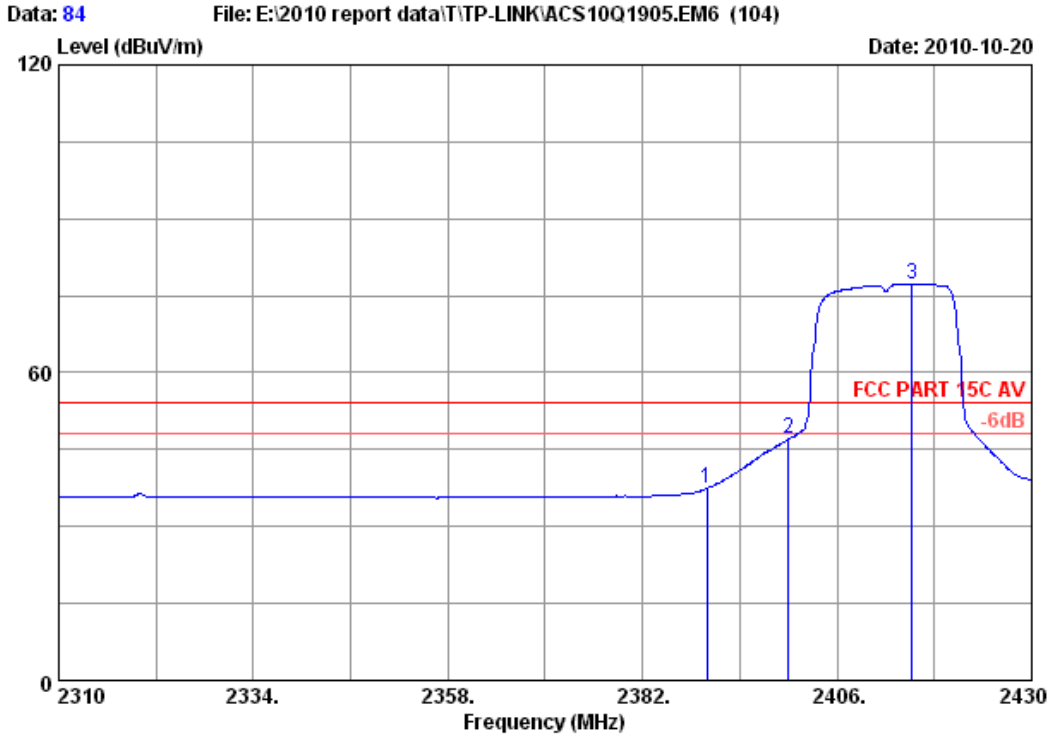
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 83
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	47.65	47.86	74.00	26.14	Peak
2	2400.000	29.44	7.43	36.62	66.50	66.75	74.00	7.25	Peak
3	2413.560	29.45	7.43	36.62	89.87	90.13	74.00	-16.13	Peak

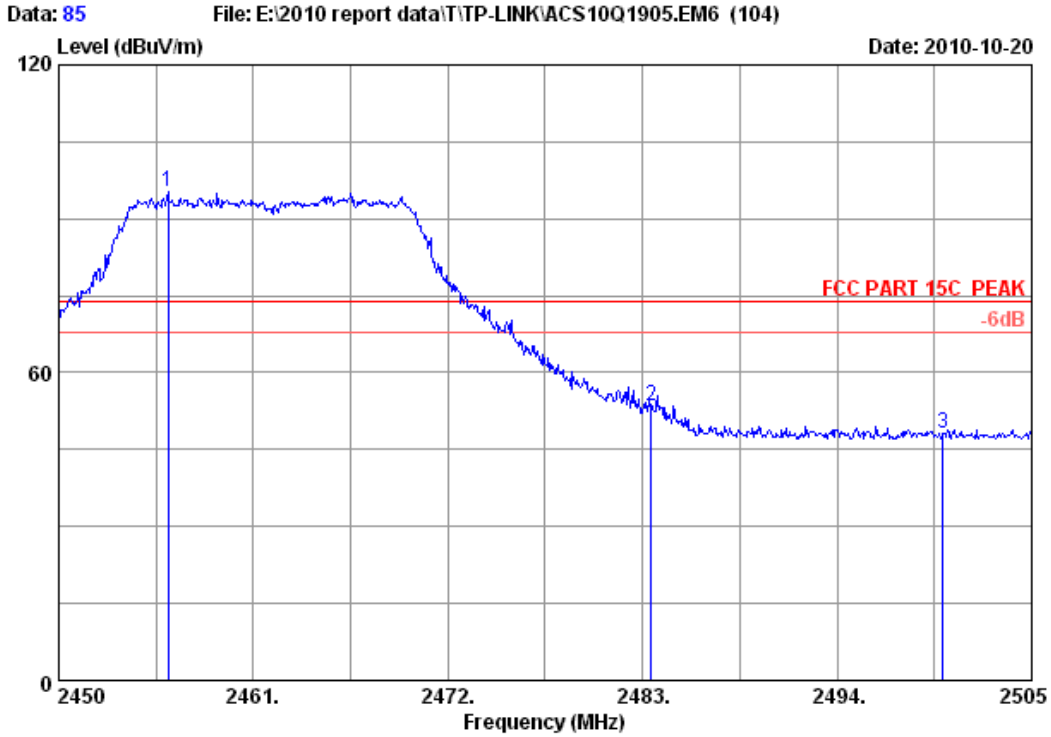
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 84
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	37.23	37.44	54.00	16.56	Average
2	2400.000	29.44	7.43	36.62	46.86	47.11	54.00	6.89	Average
3	2415.240	29.45	7.43	36.62	76.97	77.23	54.00	-23.23	Average

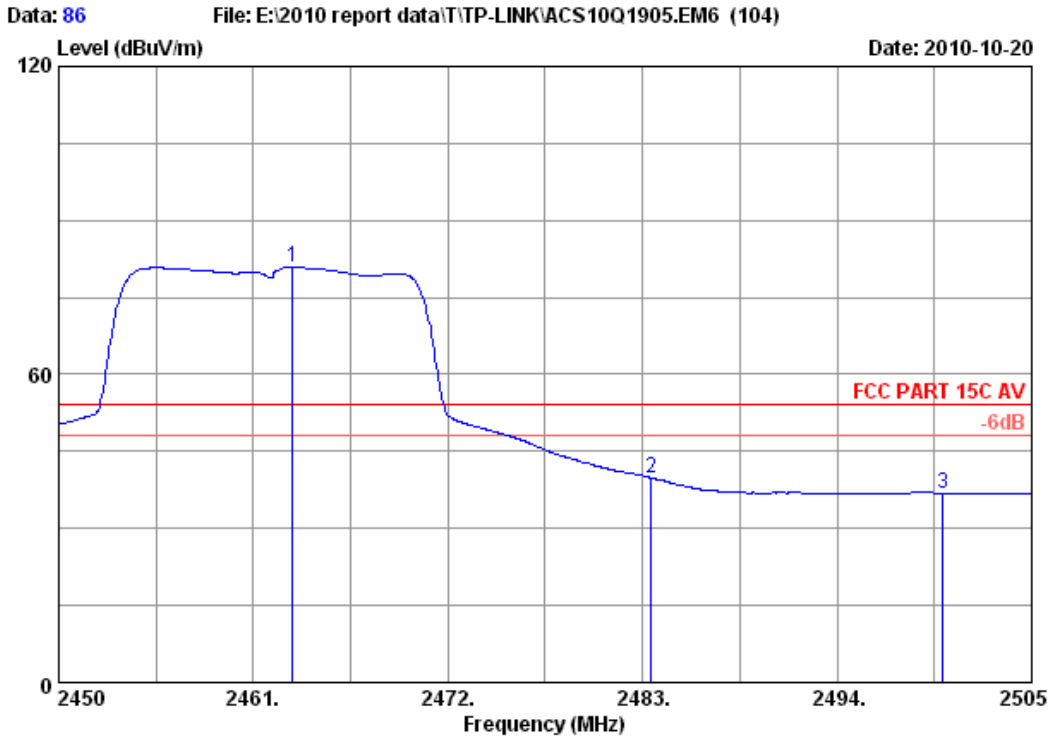
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 85
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2456.160	29.48	7.50	36.61	94.80	95.17	74.00	-21.17	Peak
2	2483.500	29.49	7.58	36.60	53.06	53.53	74.00	20.47	Peak
3	2500.000	29.50	7.62	36.60	47.47	47.99	74.00	26.01	Peak

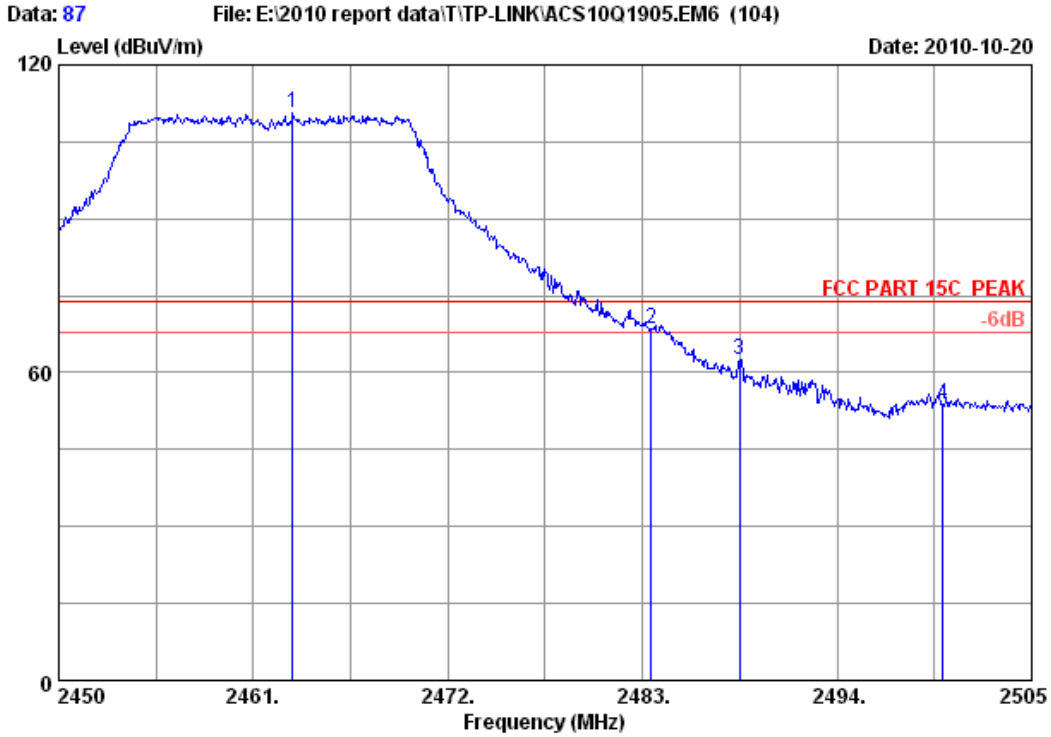
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 86
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2463.200	29.48	7.54	36.61	80.51	80.92	54.00	-26.92	Average
2	2483.500	29.49	7.58	36.60	39.34	39.81	54.00	14.19	Average
3	2500.000	29.50	7.62	36.60	36.33	36.85	54.00	17.15	Average

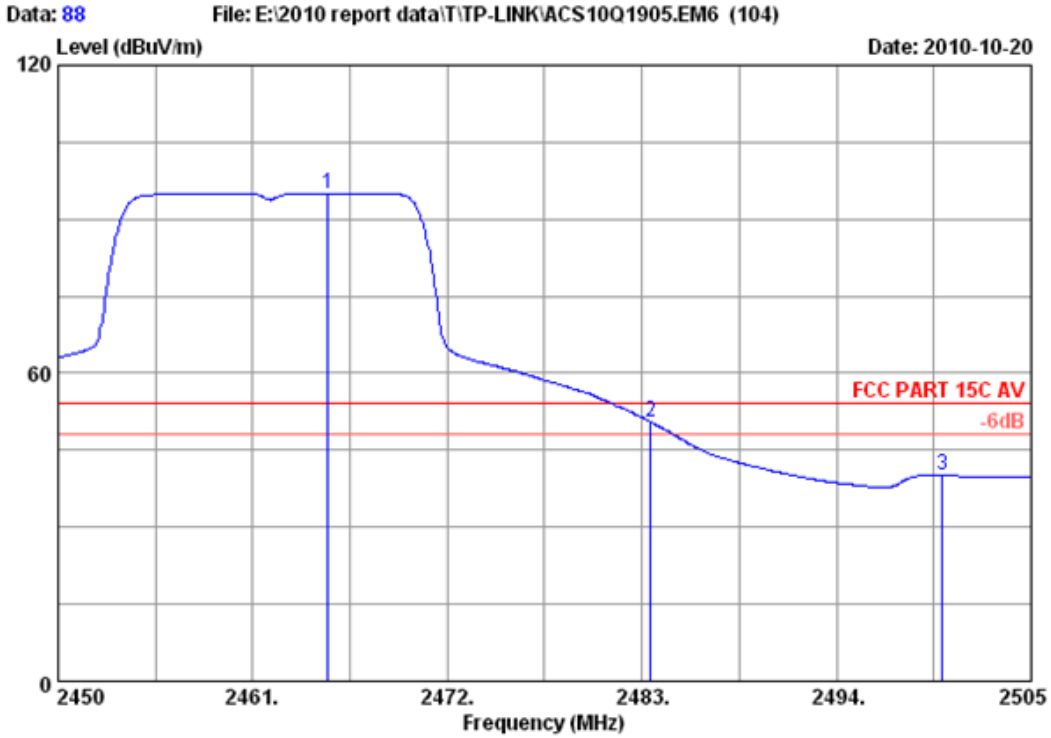
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 87
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2463.200	29.48	7.54	36.61	110.13	110.54	74.00	-36.54	Peak
2	2483.500	29.49	7.58	36.60	67.96	68.43	74.00	5.57	Peak
3	2488.500	29.50	7.58	36.60	62.15	62.63	74.00	11.37	Peak
4	2500.000	29.50	7.62	36.60	53.13	53.65	74.00	20.35	Peak

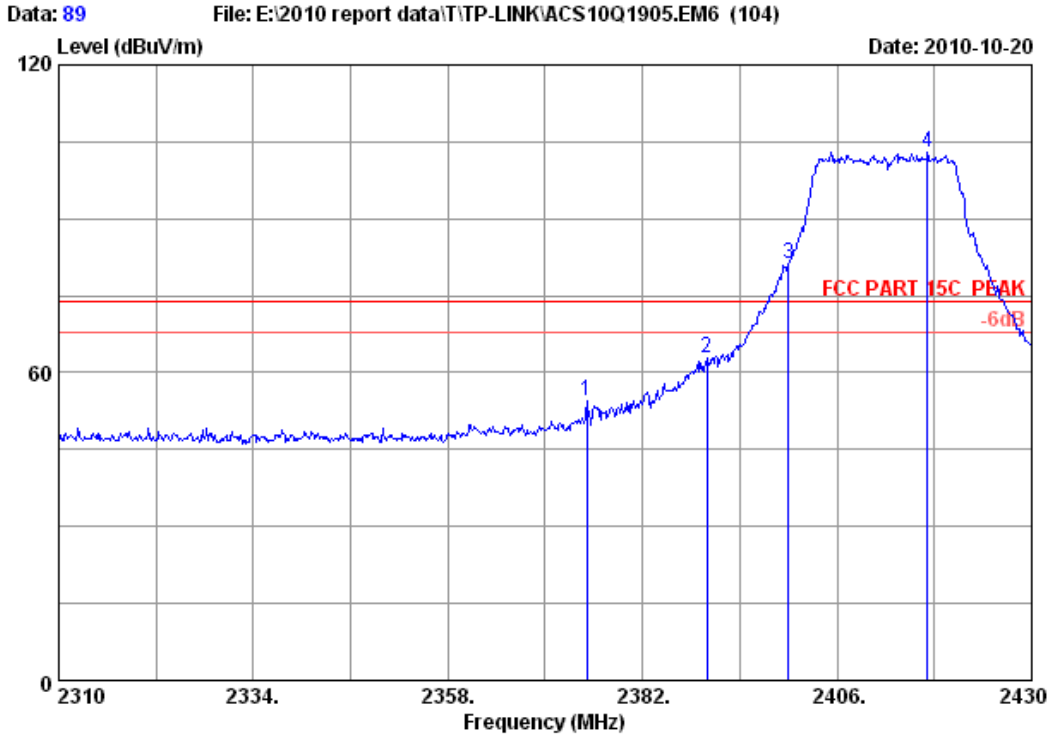
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 88
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11g CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2465.235	29.48	7.54	36.61	94.68	95.09	54.00	-41.09	Average
2	2483.500	29.49	7.58	36.60	50.05	50.52	54.00	3.48	Average
3	2500.000	29.50	7.62	36.60	39.49	40.01	54.00	13.99	Average

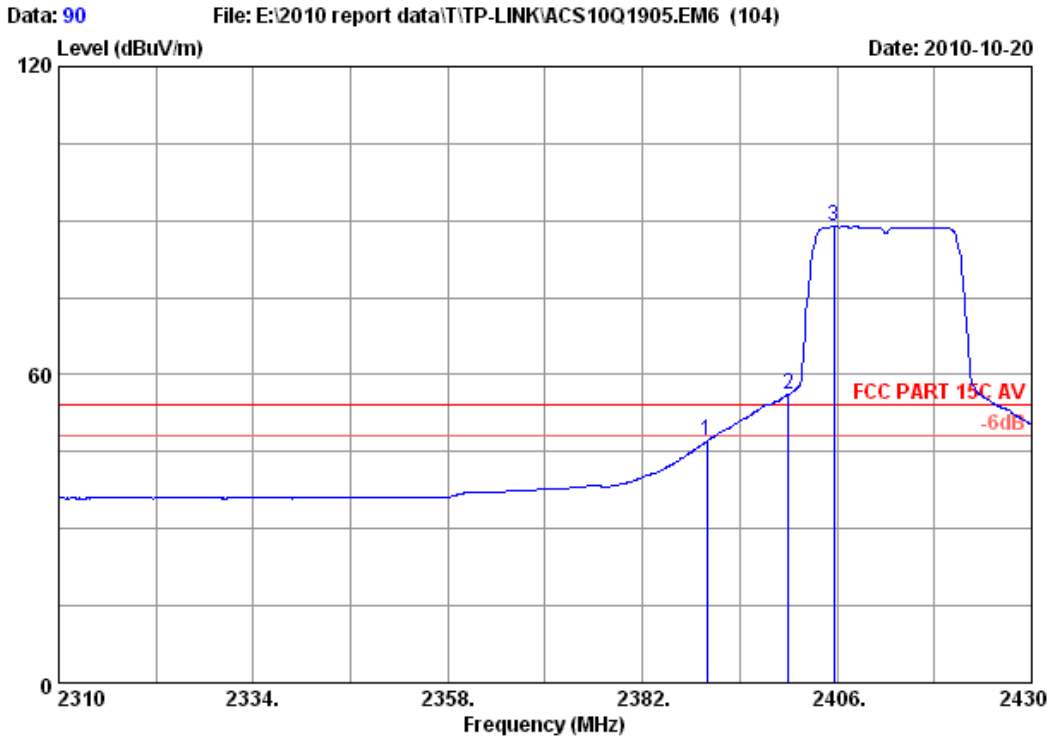
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 89
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2375.160	29.43	7.35	36.62	54.45	54.61	74.00	19.39	Peak
2	2390.000	29.44	7.39	36.62	62.76	62.97	74.00	11.03	Peak
3	2400.000	29.44	7.43	36.62	81.08	81.33	74.00	-7.33	Peak
4	2417.160	29.45	7.43	36.61	102.81	103.08	74.00	-29.08	Peak

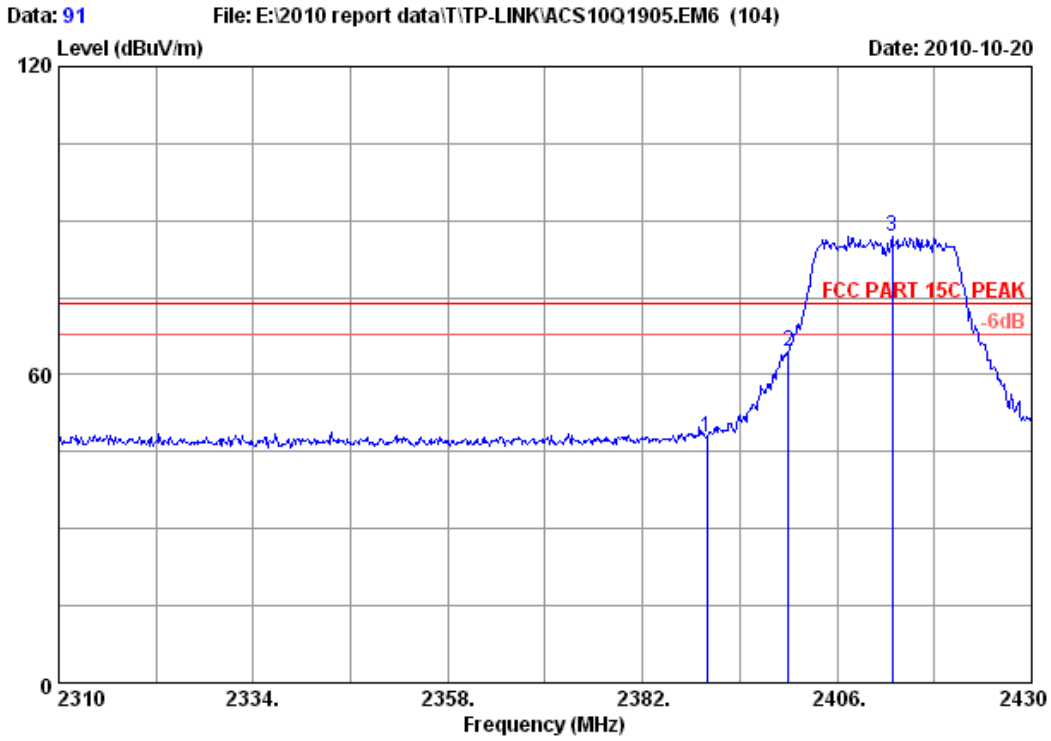
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 90
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	46.88	47.09	54.00	6.91	Average
2	2400.000	29.44	7.43	36.62	55.87	56.12	54.00	-2.12	Average
3	2405.640	29.45	7.43	36.62	88.59	88.85	54.00	-34.85	Average

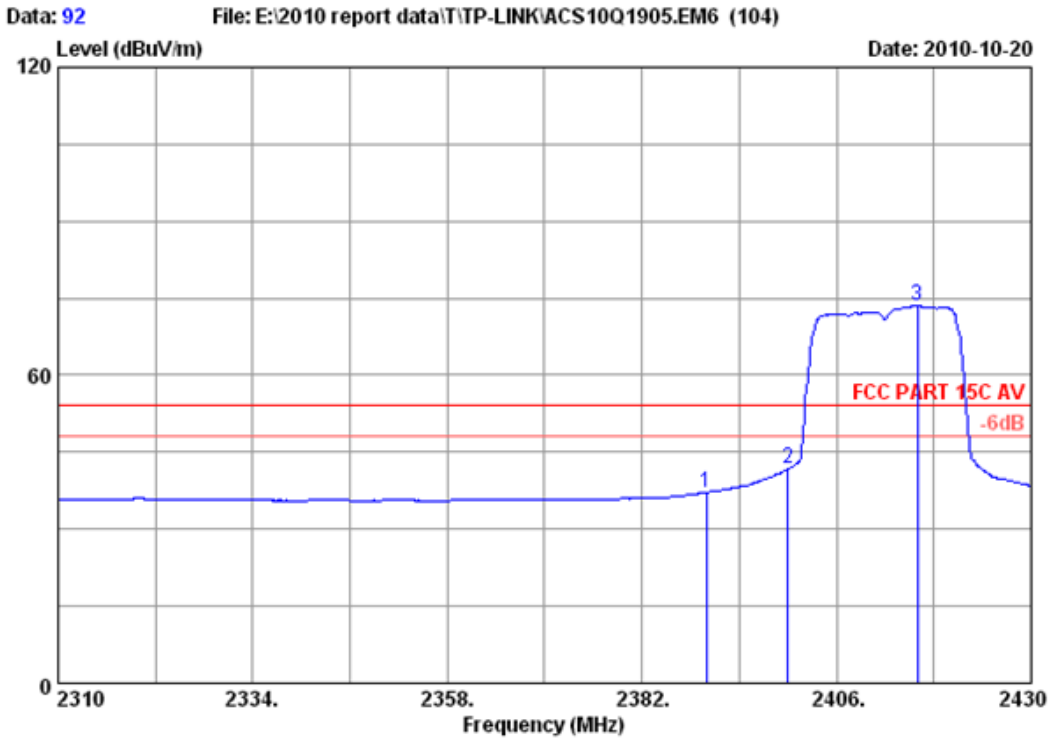
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 91
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	47.68	47.89	74.00	26.11	Peak
2	2400.000	29.44	7.43	36.62	64.26	64.51	74.00	9.49	Peak
3	2412.840	29.45	7.43	36.62	86.71	86.97	74.00	-12.97	Peak

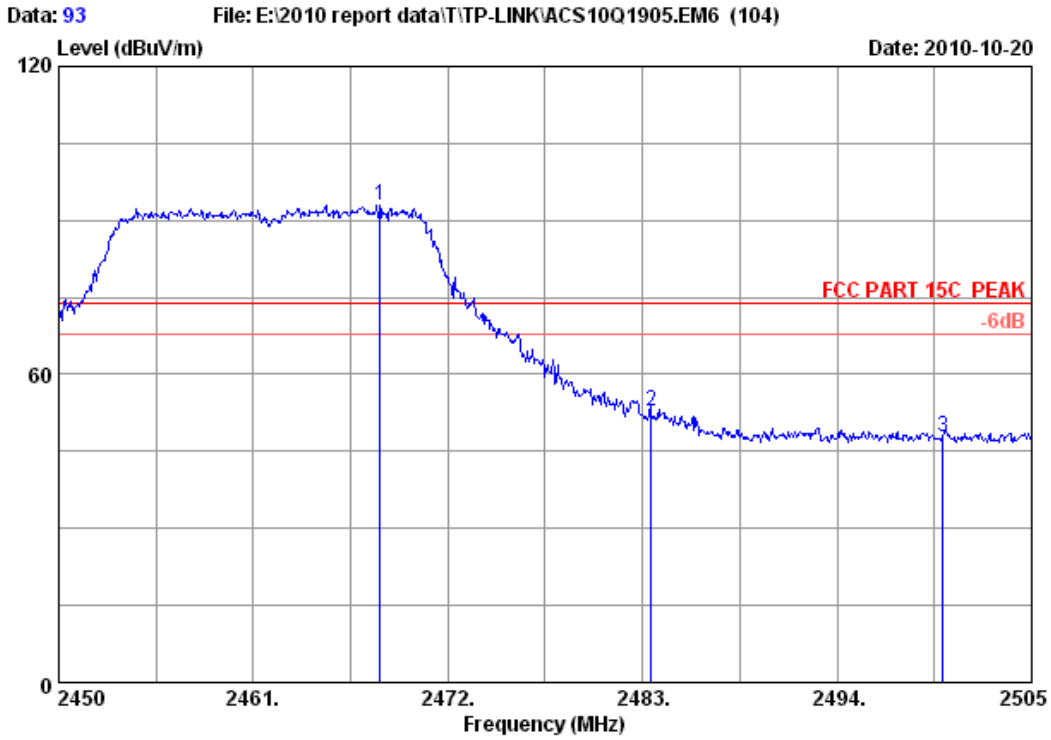
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 92
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH1 2412MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	36.99	37.20	54.00	16.80	Average
2	2400.000	29.44	7.43	36.62	41.50	41.75	54.00	12.25	Average
3	2415.960	29.45	7.43	36.61	73.16	73.43	54.00	-19.43	Average

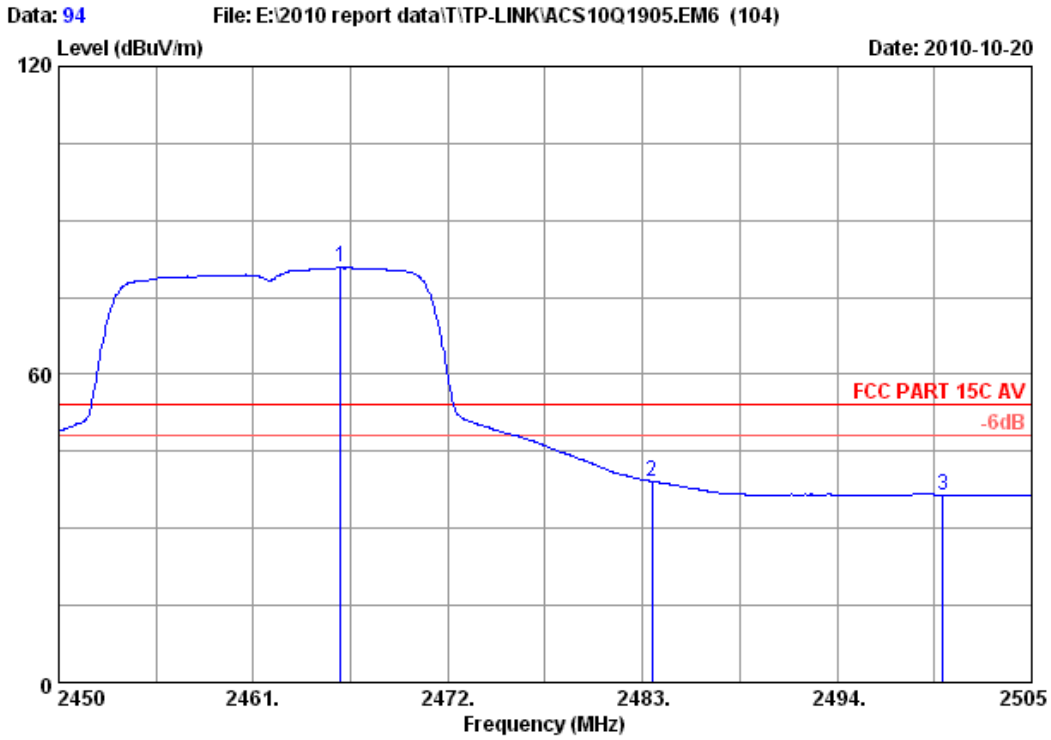
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 93
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2468.150	29.48	7.54	36.60	92.61	93.03	74.00	-19.03	Peak
2	2483.500	29.49	7.58	36.60	52.41	52.88	74.00	21.12	Peak
3	2500.000	29.50	7.62	36.60	47.37	47.89	74.00	26.11	Peak

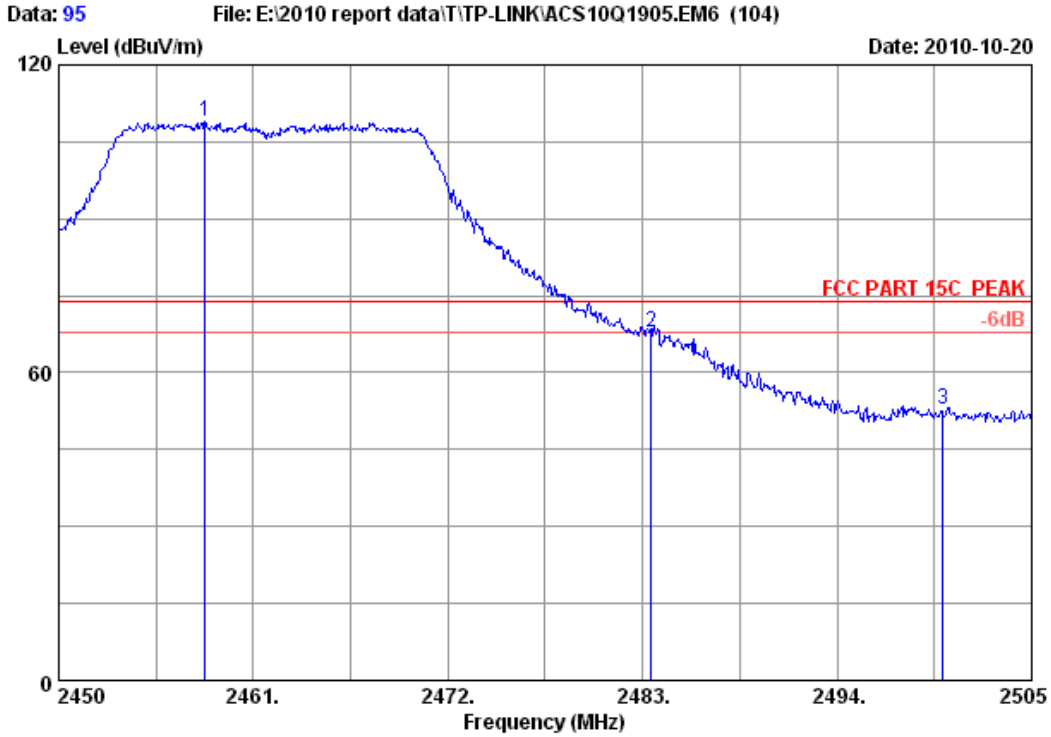
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 94
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2465.950	29.48	7.54	36.61	80.35	80.76	54.00	-26.76	Average
2	2483.530	29.49	7.58	36.60	38.72	39.19	54.00	14.81	Average
3	2500.000	29.50	7.62	36.60	36.02	36.54	54.00	17.46	Average

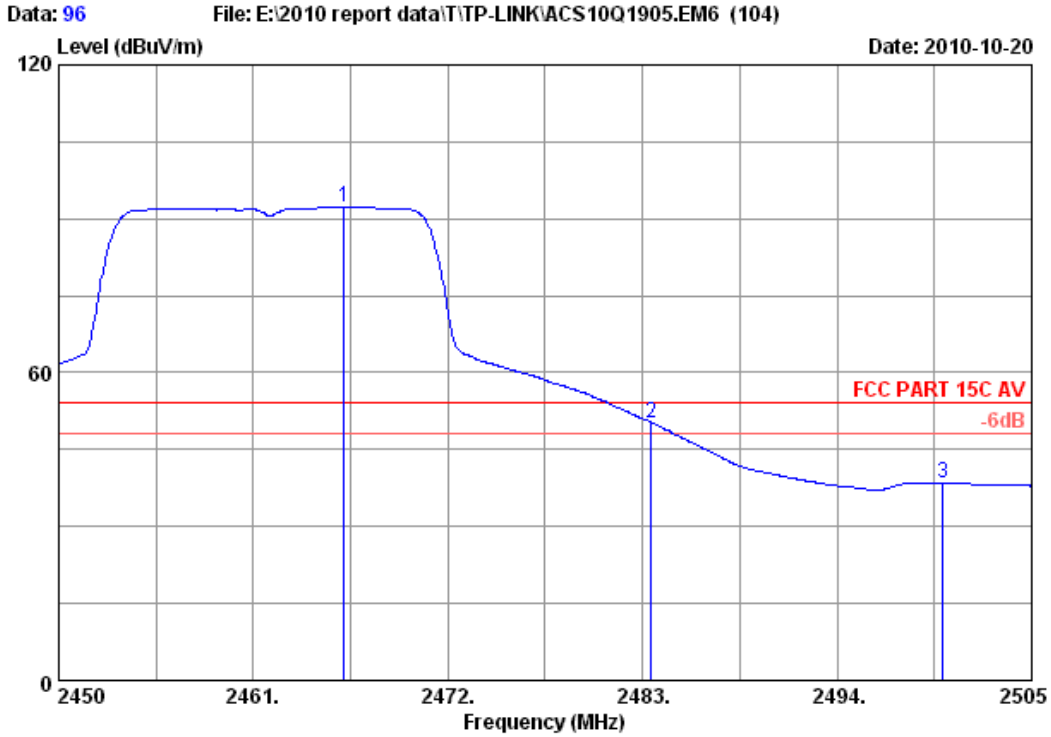
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 95
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2458.250	29.48	7.50	36.61	108.70	109.07	74.00	-35.07	Peak
2	2483.500	29.49	7.58	36.60	67.36	67.83	74.00	6.17	Peak
3	2500.000	29.50	7.62	36.60	52.38	52.90	74.00	21.10	Peak

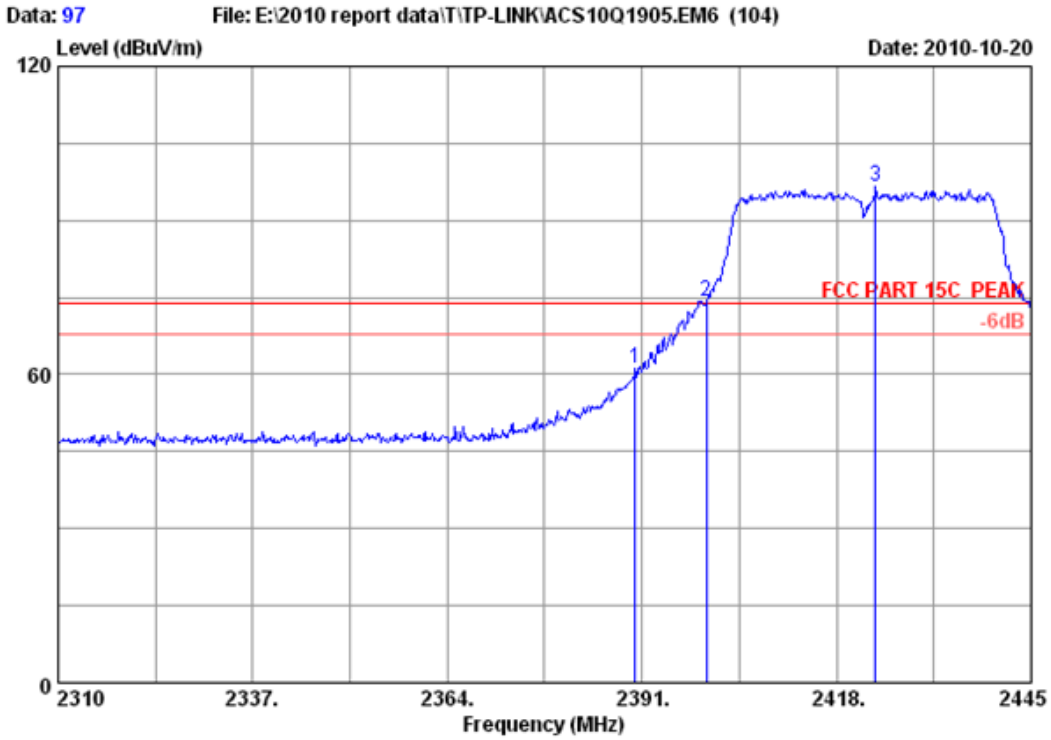
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 96
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT20 CH11 2462MHz Tx
M/N : TL-WR741ND

	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	2466.115	29.48	7.54	36.61	91.77	92.18	54.00	-38.18	Average
2	2483.500	29.49	7.58	36.60	49.80	50.27	54.00	3.73	Average
3	2500.000	29.50	7.62	36.60	37.94	38.46	54.00	15.54	Average

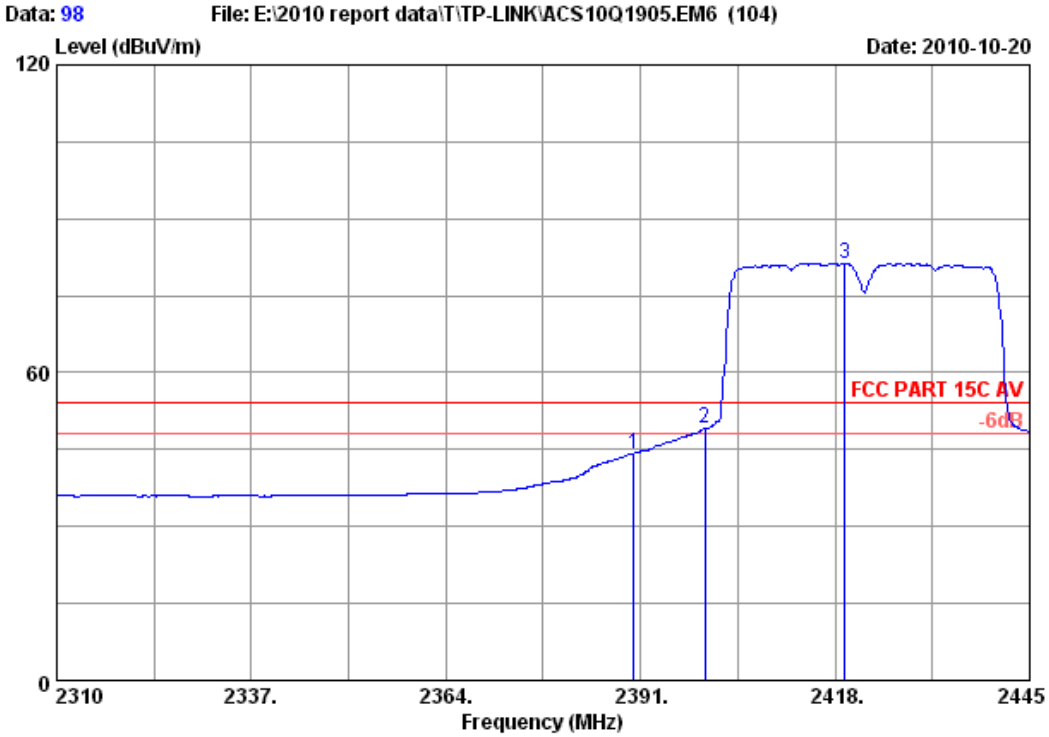
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 97
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	61.03	61.24	74.00	12.76	Peak
2	2400.000	29.44	7.43	36.62	73.87	74.12	74.00	-0.12	Peak
3	2423.400	29.46	7.46	36.61	96.32	96.63	74.00	-22.63	Peak

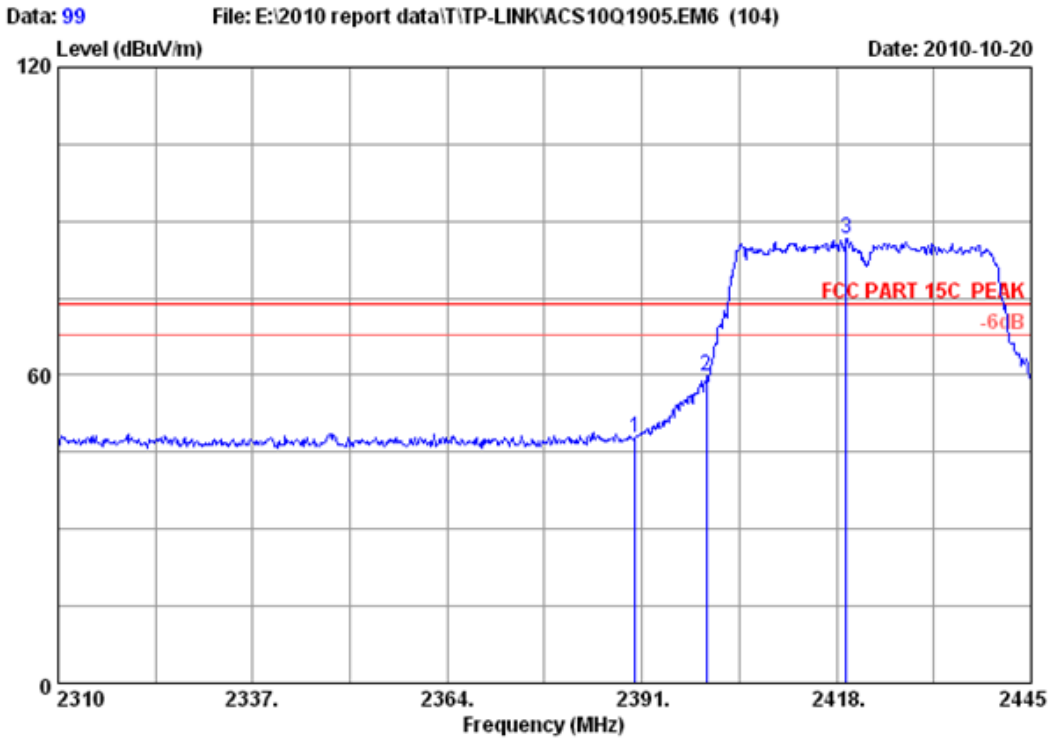
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 98
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	44.03	44.24	54.00	9.76	Average
2	2400.000	29.44	7.43	36.62	48.79	49.04	54.00	4.96	Average
3	2419.350	29.45	7.46	36.61	81.05	81.35	54.00	-27.35	Average

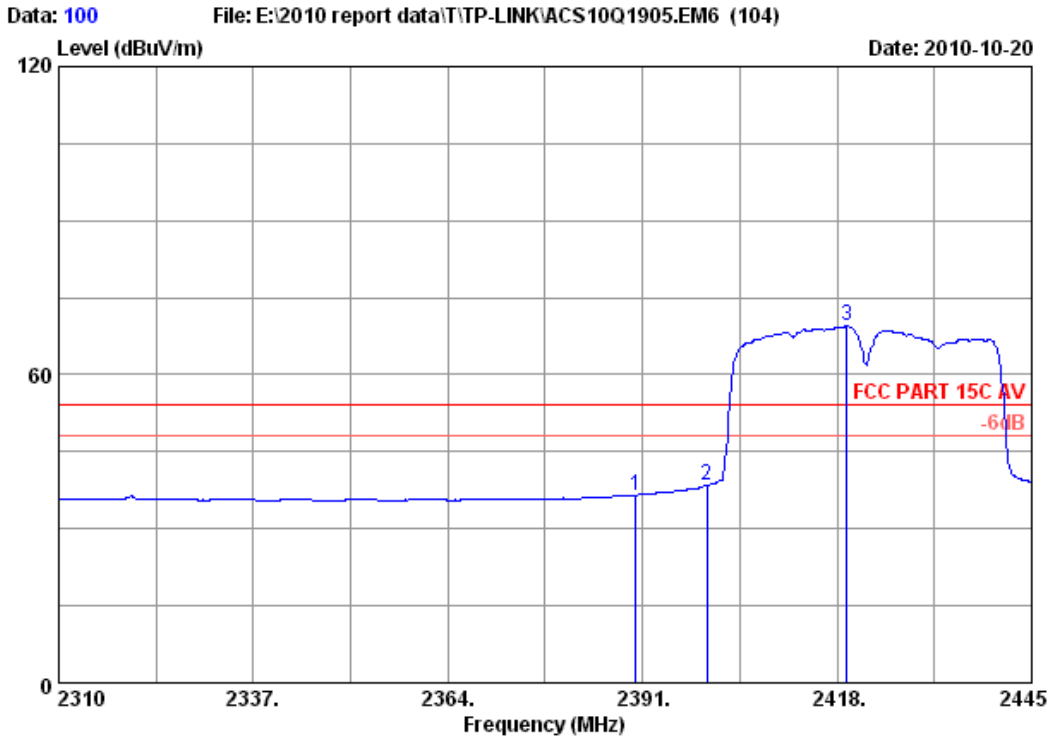
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 99
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	47.62	47.83	74.00	26.17	Peak
2	2400.000	29.44	7.43	36.62	59.53	59.78	74.00	14.22	Peak
3	2419.350	29.45	7.46	36.61	86.41	86.71	74.00	-12.71	Peak

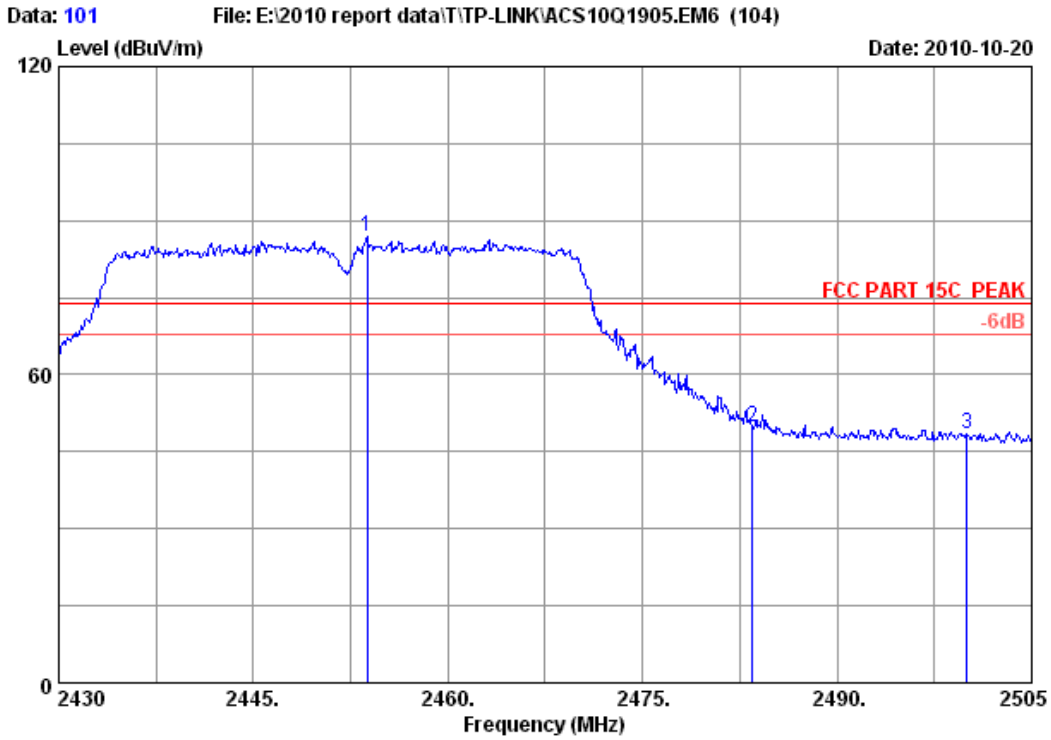
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 100
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH1 2422MHz Tx
M/N : TL-WR741ND

	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	2390.000	29.44	7.39	36.62	36.36	36.57	54.00	17.43	Average
2	2400.000	29.44	7.43	36.62	38.27	38.52	54.00	15.48	Average
3	2419.350	29.45	7.46	36.61	69.10	69.40	54.00	-15.40	Average

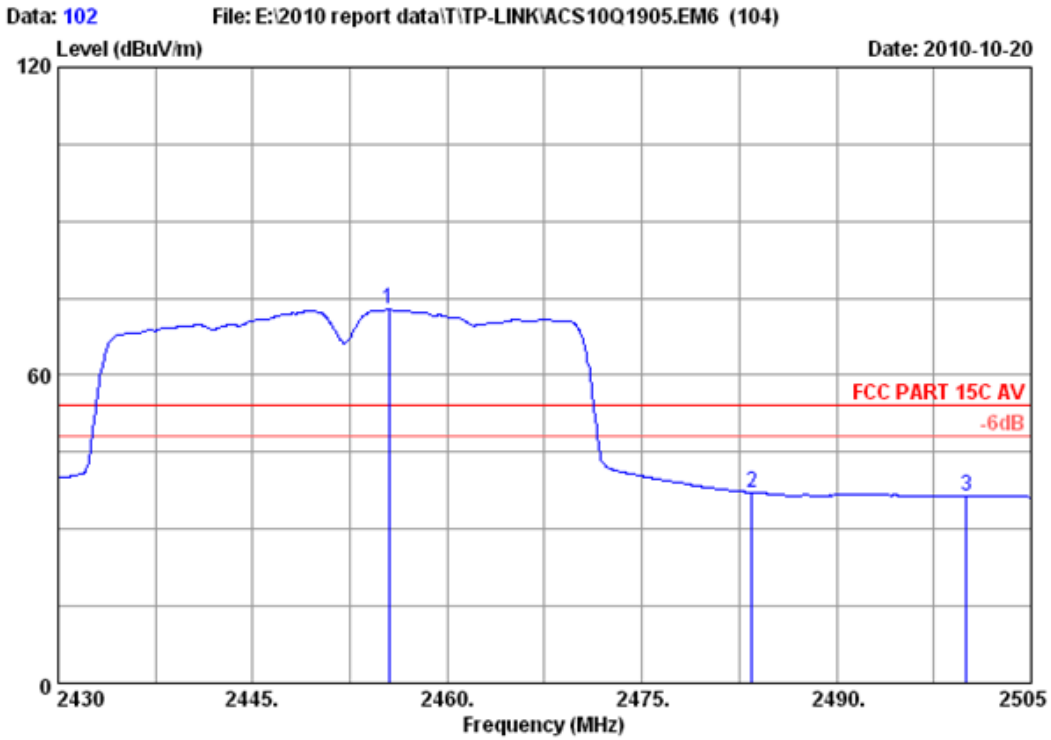
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 101
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	2453.775	29.48	7.50	36.61	86.42	86.79	74.00	-12.79	Peak
2	2483.500	29.49	7.58	36.60	49.39	49.86	74.00	24.14	Peak
3	2500.000	29.50	7.62	36.60	47.81	48.33	74.00	25.67	Peak

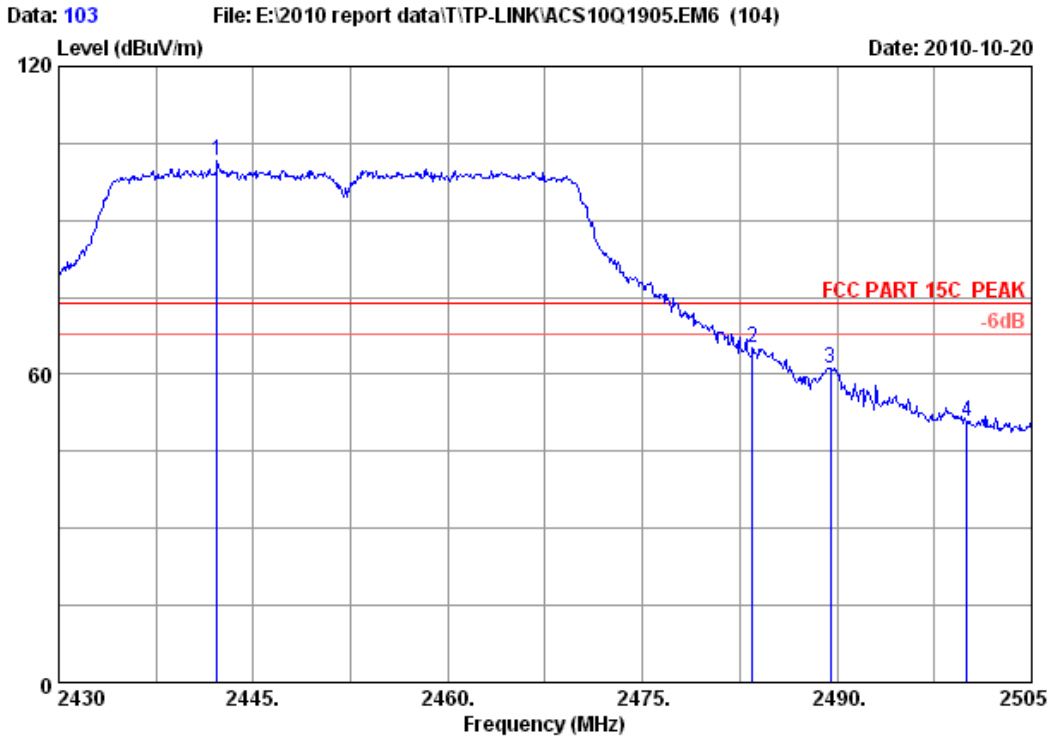
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 102
Dis. / Ant. : 3m 3115(0911) Ant. pol. : HORIZONTAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	2455.500	29.48	7.50	36.61	72.44	72.81	54.00	-18.81	Average
2	2483.500	29.49	7.58	36.60	36.70	37.17	54.00	16.83	Average
3	2500.000	29.50	7.62	36.60	35.92	36.44	54.00	17.56	Average

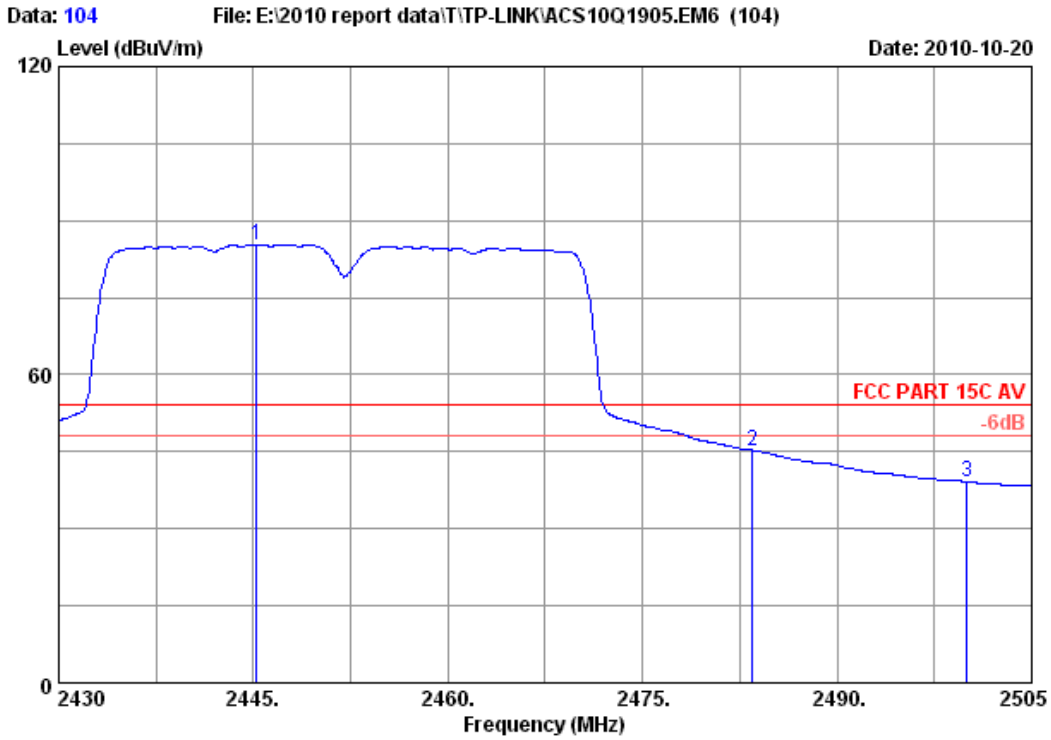
Remarks:
1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : RF Chamber Data no. : 103
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C PEAK
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	2442.225	29.47	7.50	36.61	101.36	101.72	74.00	-27.72	Peak
2	2483.500	29.49	7.58	36.60	64.68	65.15	74.00	8.85	Peak
3	2489.475	29.50	7.58	36.60	60.77	61.25	74.00	12.75	Peak
4	2500.000	29.50	7.62	36.60	50.20	50.72	74.00	23.28	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. : RF Chamber Data no. : 104
Dis. / Ant. : 3m 3115(0911) Ant. pol. : VERTICAL
Limit : FCC PART 15C AV
Env. / Ins. : 23*C/54% Engineer : Sunny-lu
EUT : 150Mbps Wireless N Router
Power : DC 9V From Adapter Input AC 120V/60Hz
Test mode : IEEE802.11n HT40 CH7 2452MHz Tx
M/N : TL-WR741ND

	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	2445.225	29.47	7.50	36.61	84.97	85.33	54.00	-31.33	Average
2	2483.500	29.49	7.58	36.60	44.78	45.25	54.00	8.75	Average
3	2500.000	29.50	7.62	36.60	38.58	39.10	54.00	14.90	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 Analyzer	Agilent	E4446A	US44300459	May.08,10	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,10	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1Year

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.

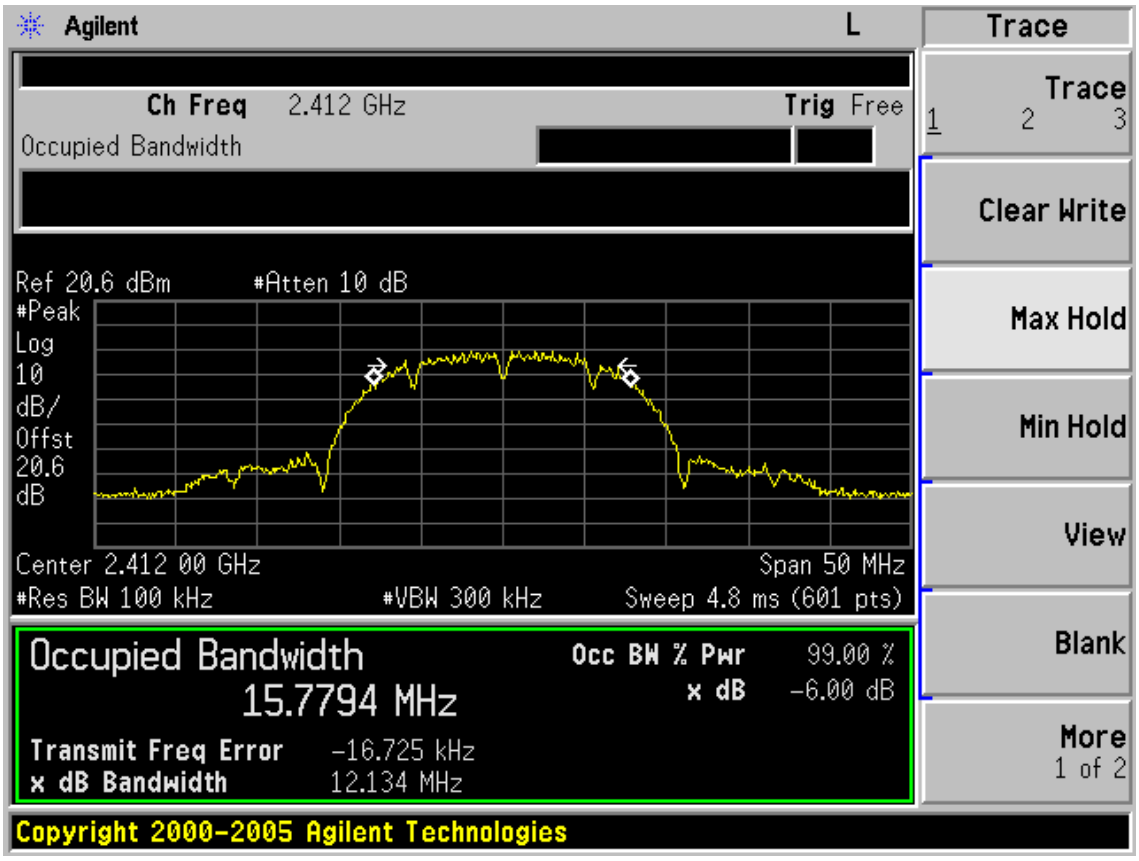
7.4.Test Results

EUT:150Mbps Wireless N Router		
M/N:TL-WR741ND		
Test date:2010-12-04	Pressure: 100.6 kpa	Humidity: 60 %
Tested by:Sunny-lu	Test site: RF Site	Temperature：25 ℃

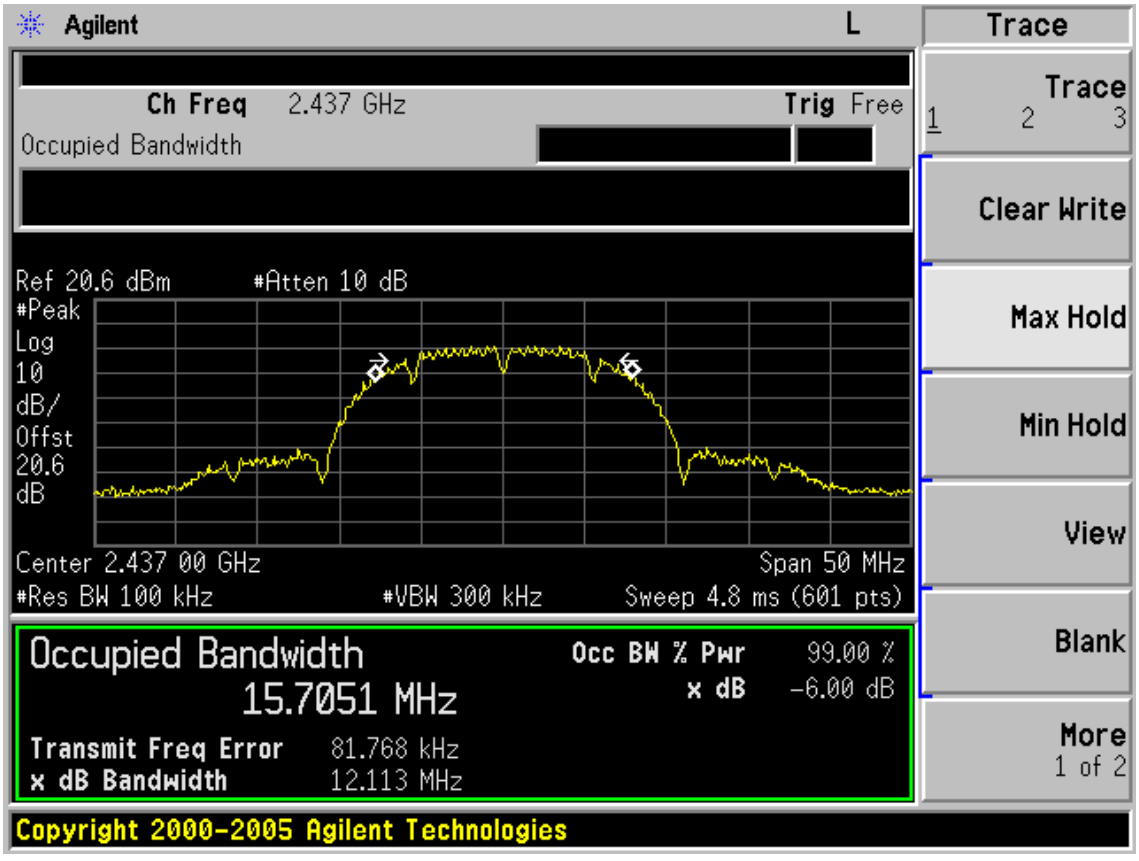
Cable loss: 0.6 dB		Attenuator loss: 20 dB	Antenna Gain: 5 dBi
Test Mode	CH	6dB bandwidth （MHz）	Limit (KHz)
11b	CH1	12.134	>500
	CH6	12.113	>500
	CH11	12.607	>500
11g	CH1	16.605	>500
	CH6	16.550	>500
	CH11	16.601	>500
11n HT20	CH1	17.780	>500
	CH6	17.751	>500
	CH11	17.752	>500
11n HT40	CH1	36.403	>500
	CH4	36.125	>500
	CH7	36.184	>500
Conclusion：PASS			

Test Mode: IEEE 802.11b TX

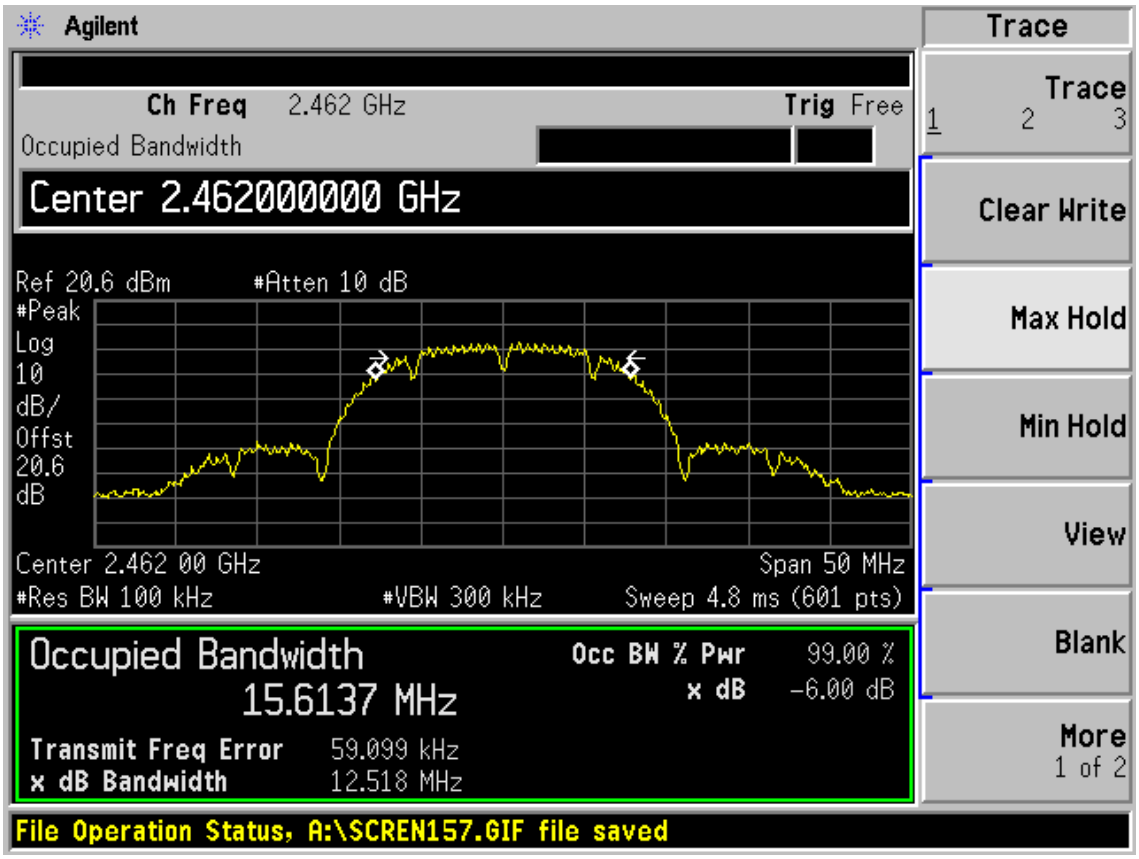
Test CH1: 2412MHz



Test CH6: 2437MHz

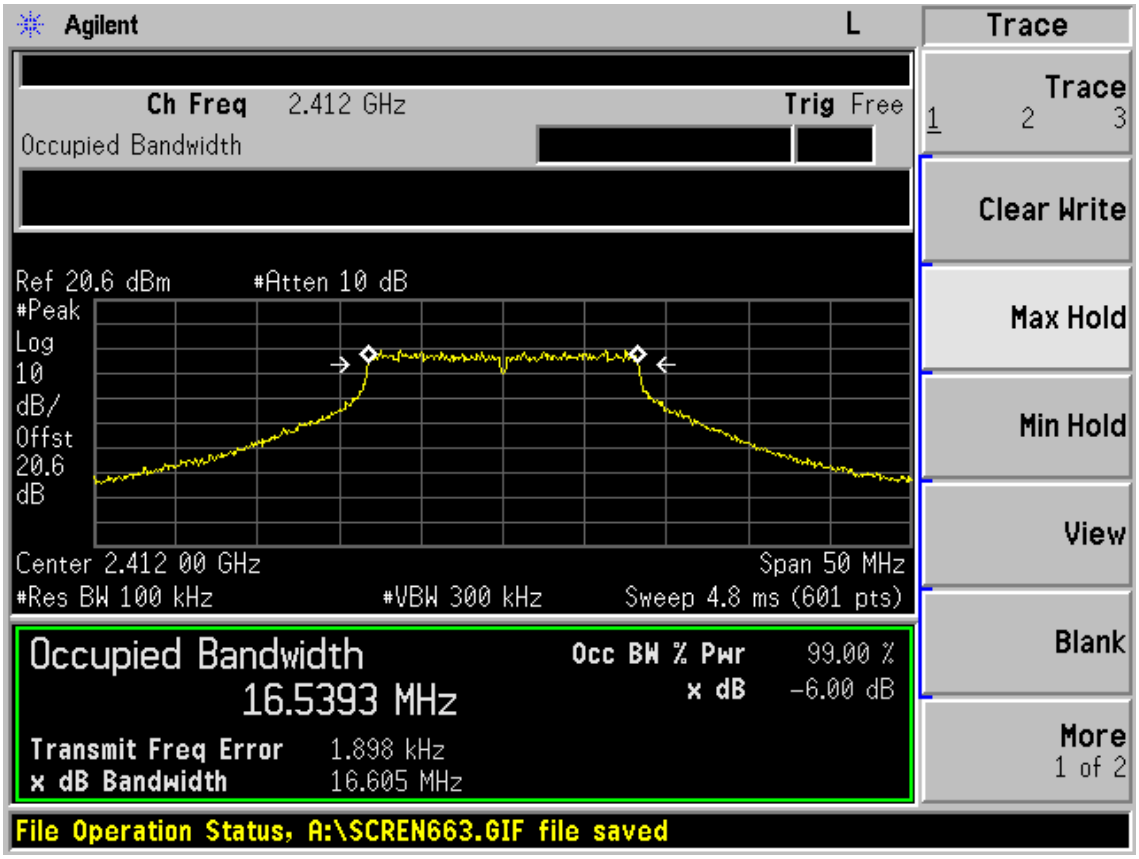


Test CH11: 2462MHz

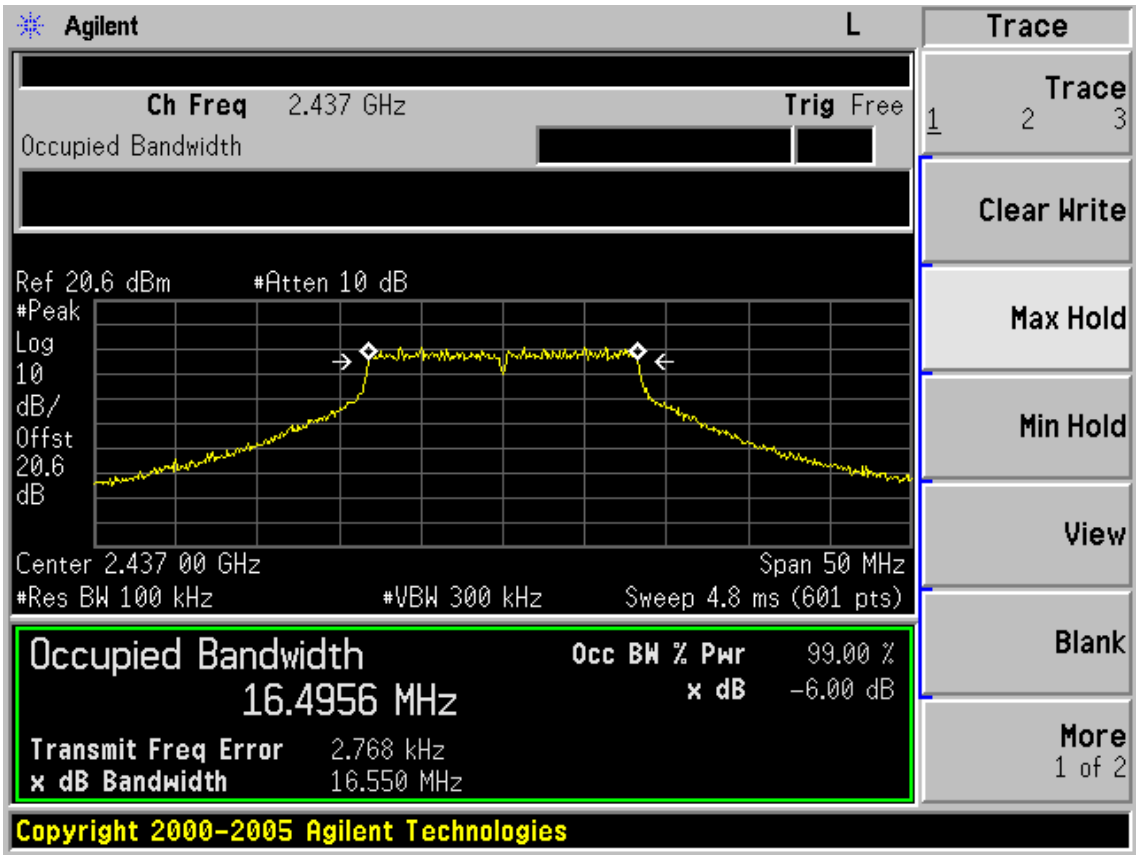


Test Mode: IEEE 802.11g TX

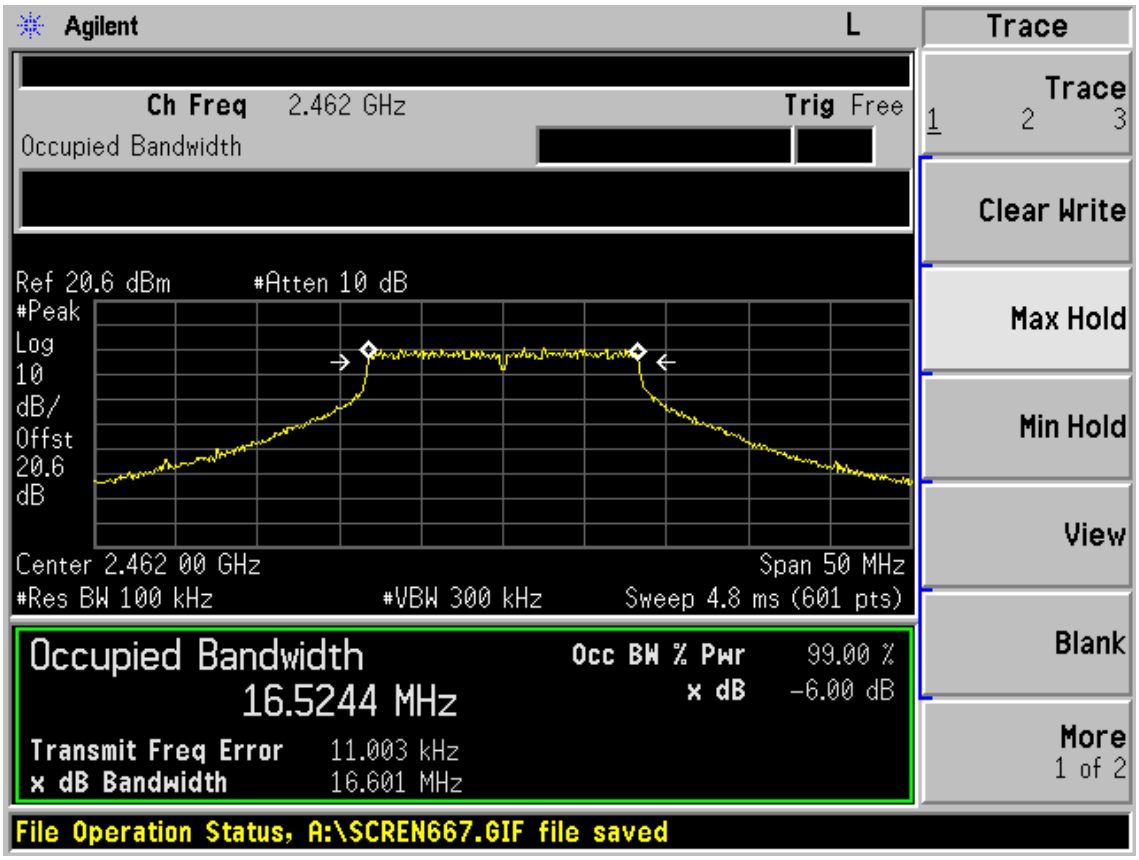
Test CH1: 2412MHz



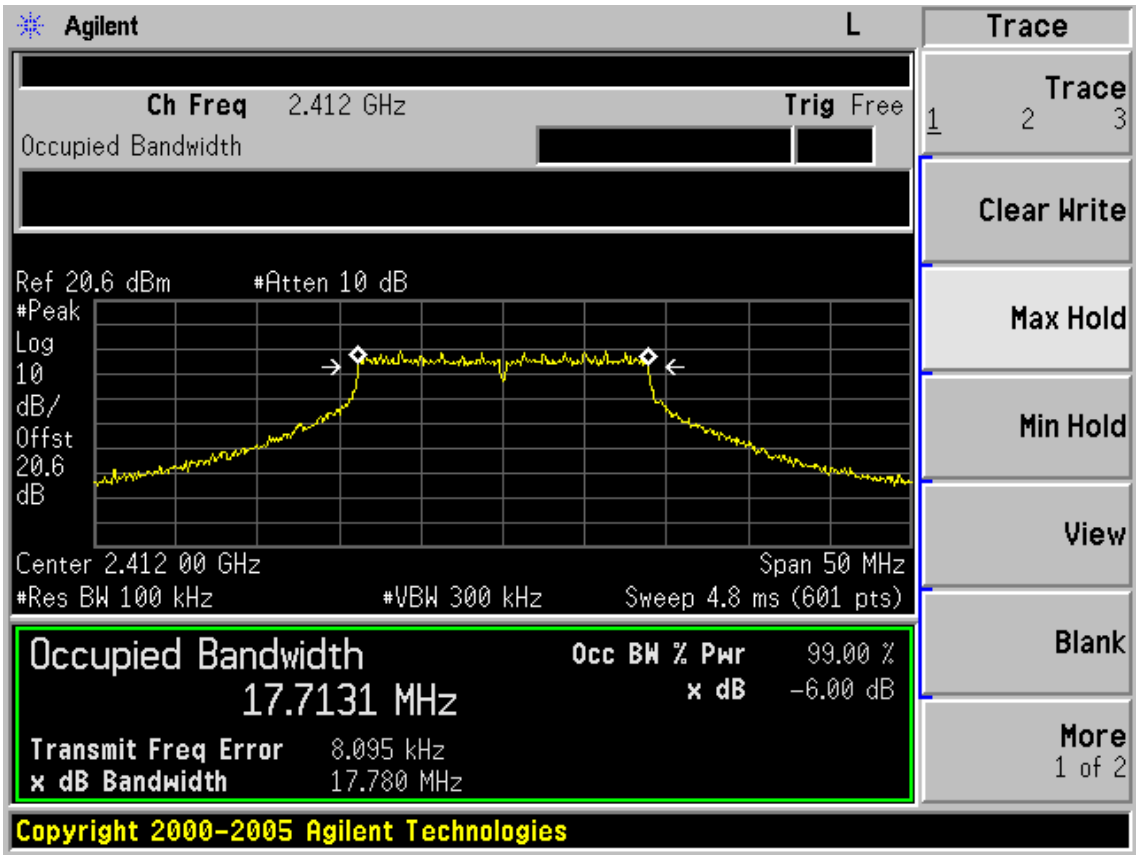
Test CH6: 2437MHz



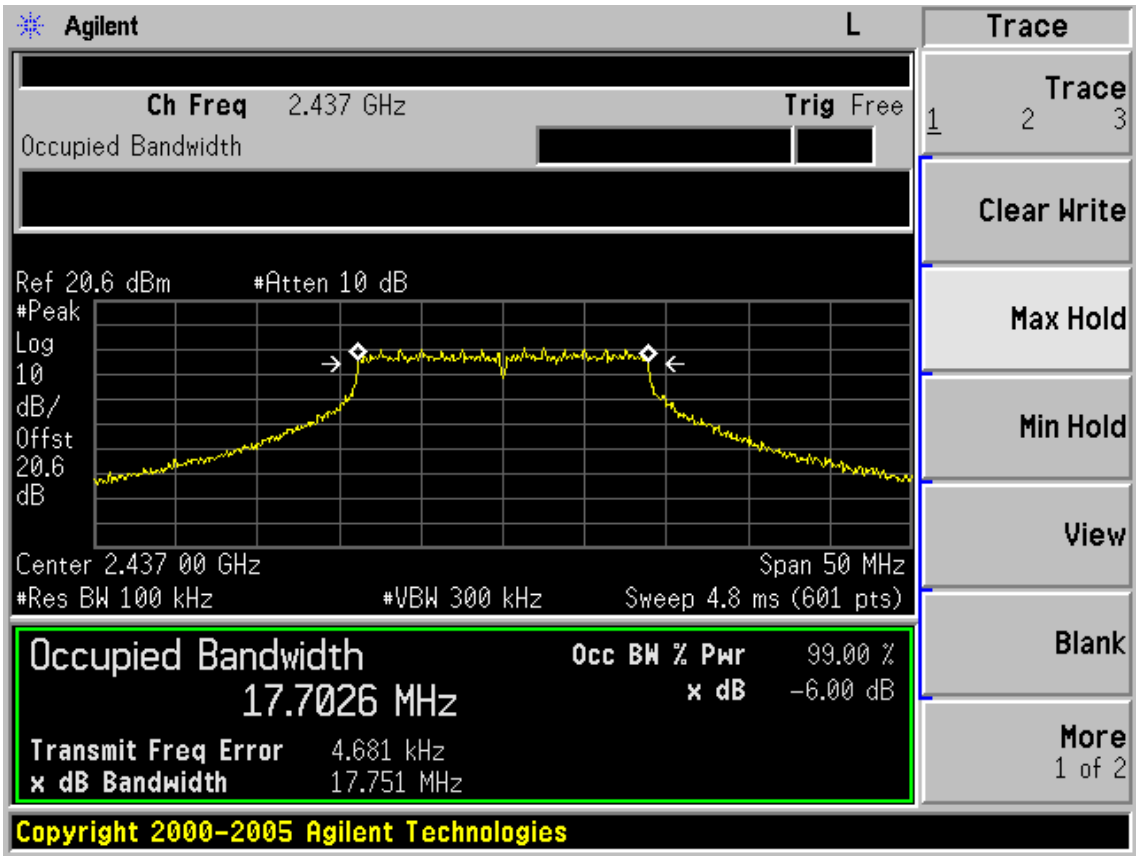
Test CH11: 2462MHz



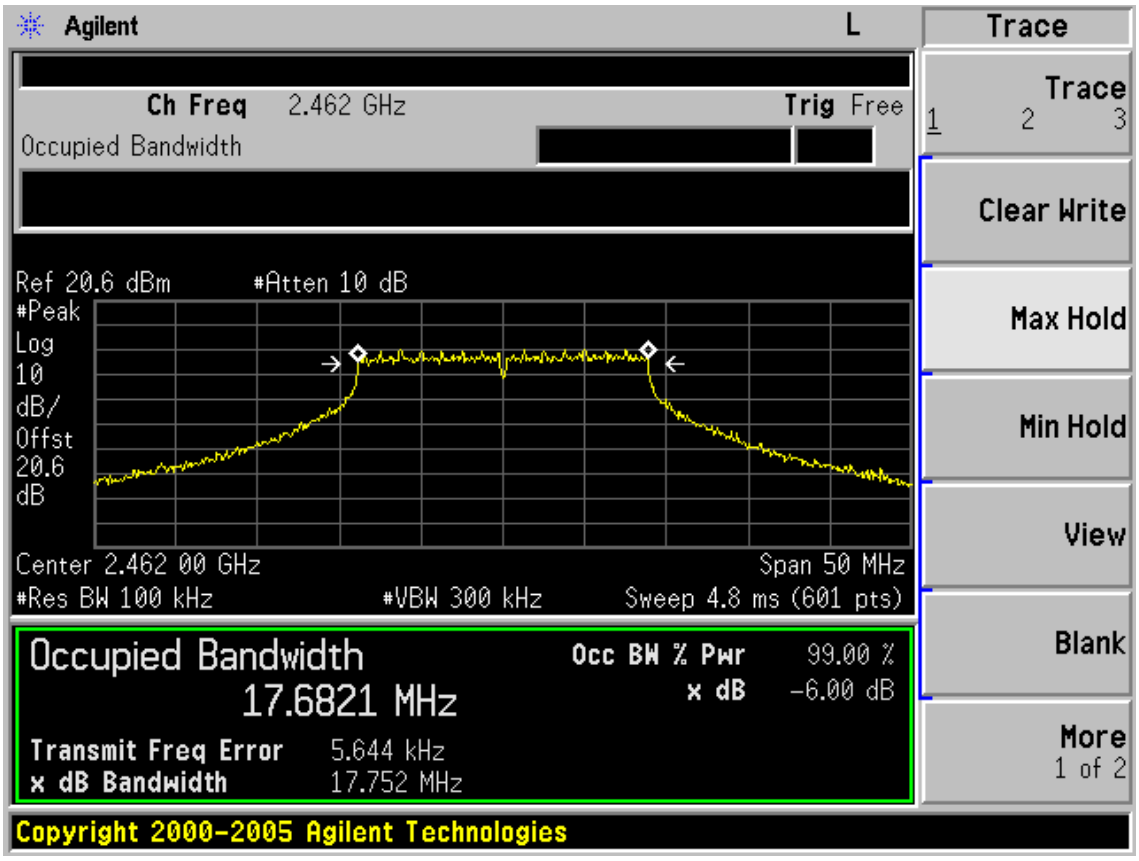
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



Test CH6: 2437MHz

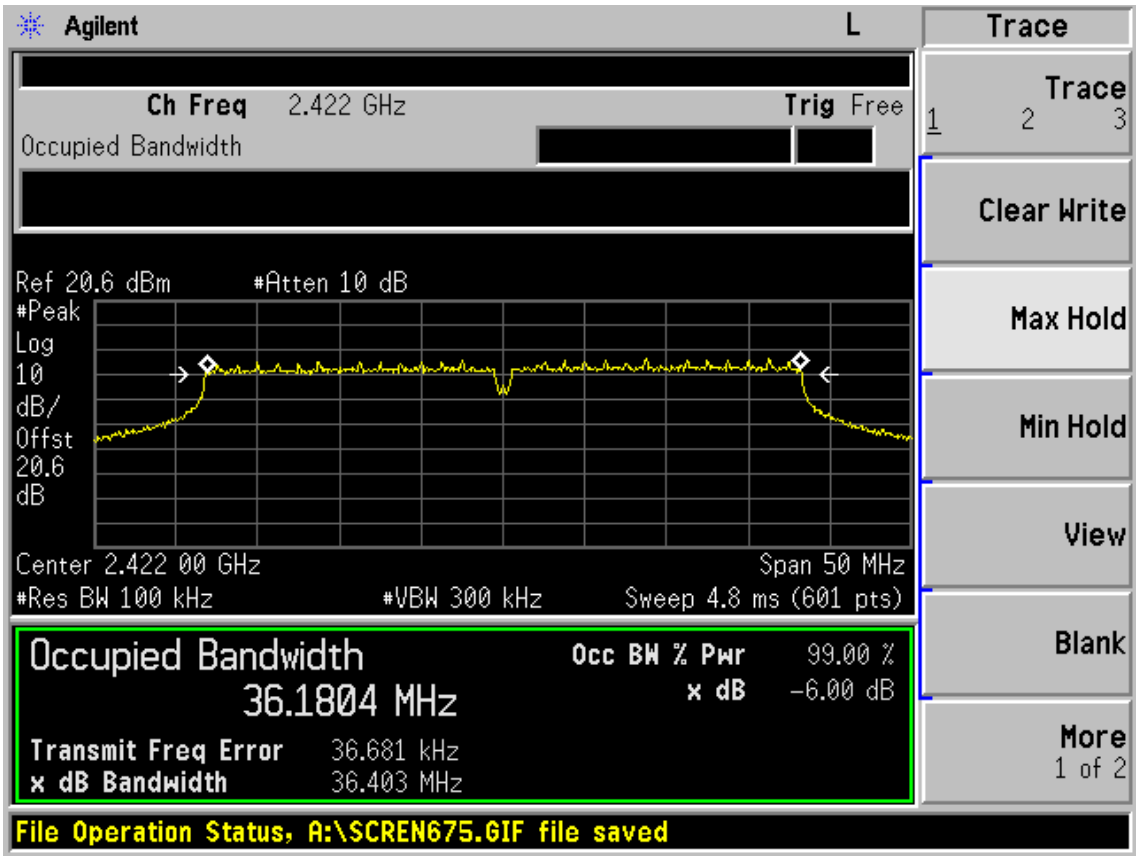


Test CH11: 2462MHz

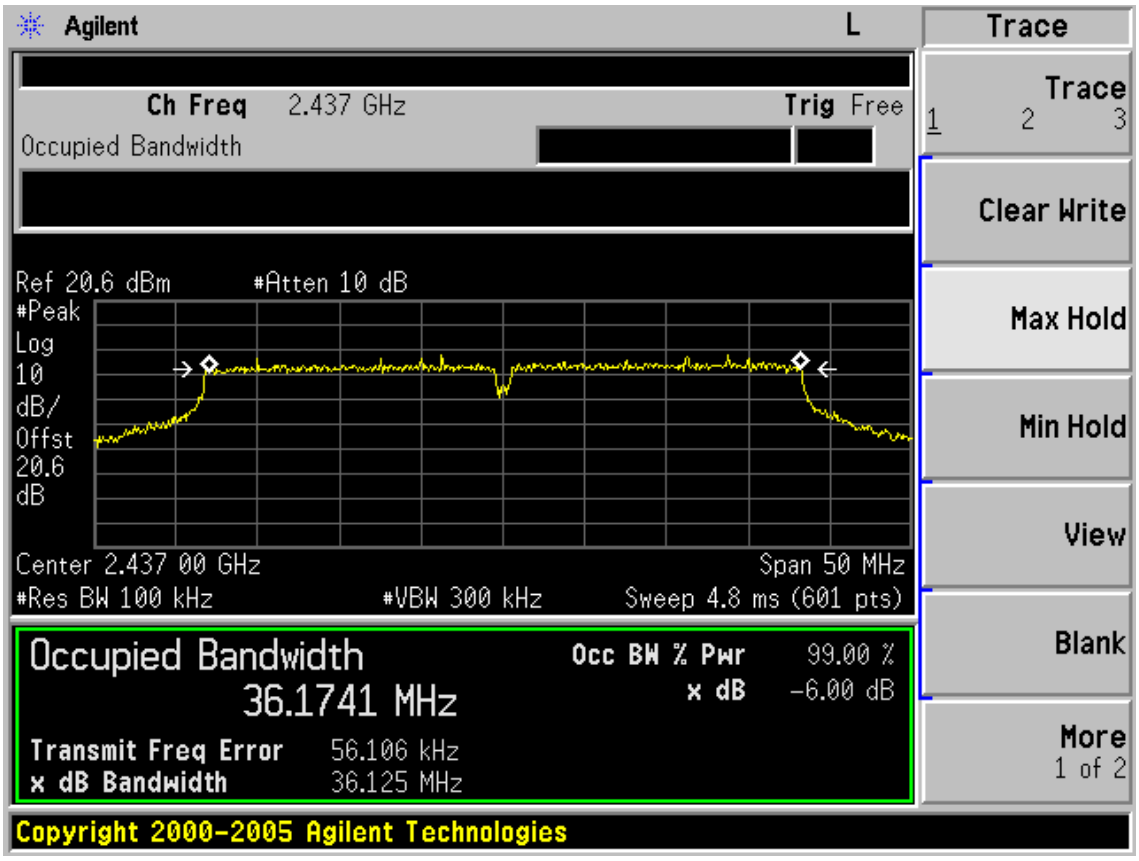


Test Mode: IEEE 802.11n HT40 TX

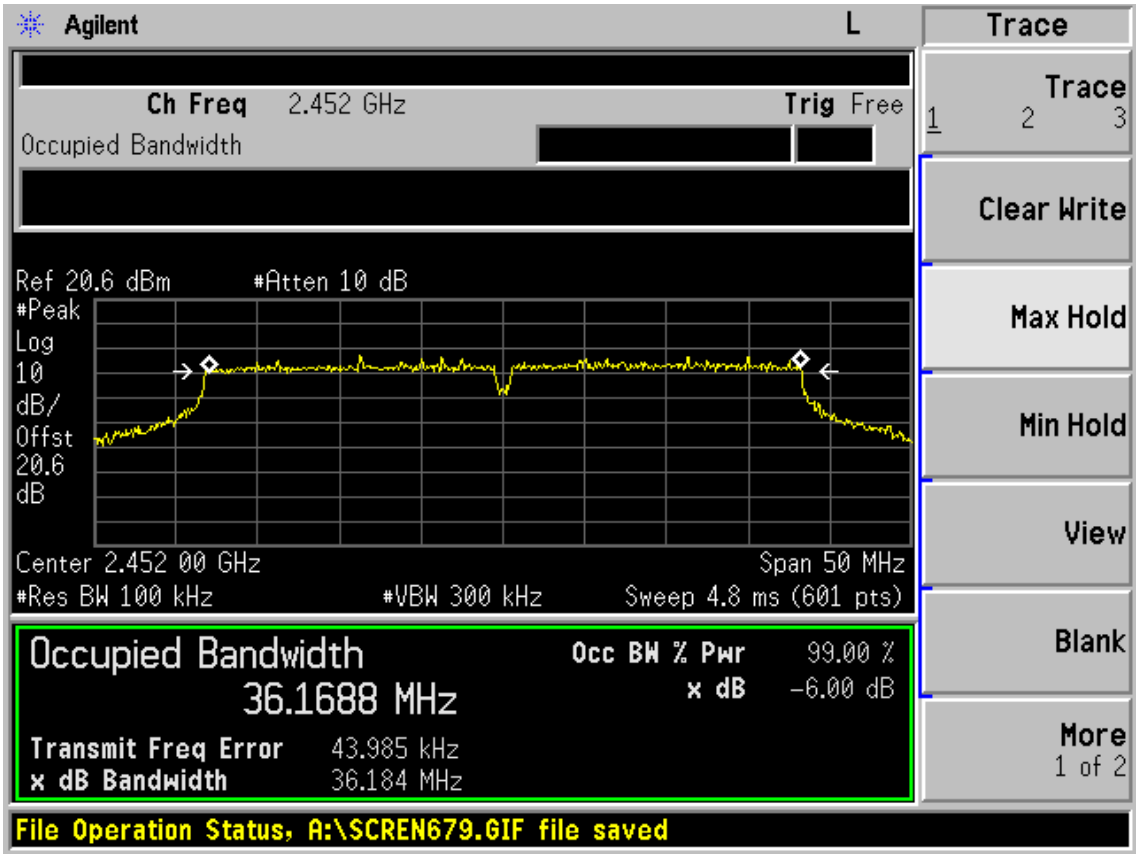
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Power meter	Anritsu	ML2487A	6K00002472	May.08,10	1Year
2.	Power sensor	Anritsu	MA2491A	0033005	May.08,10	1Year
3	Attenuator	Agilent	8491B	MY39262165	May.08,10	1 Year
4	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 10	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,10	1Year

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 20dB attenuator.

2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is above 6dB bandwidth of signal to measure out each test modes' PK output power.

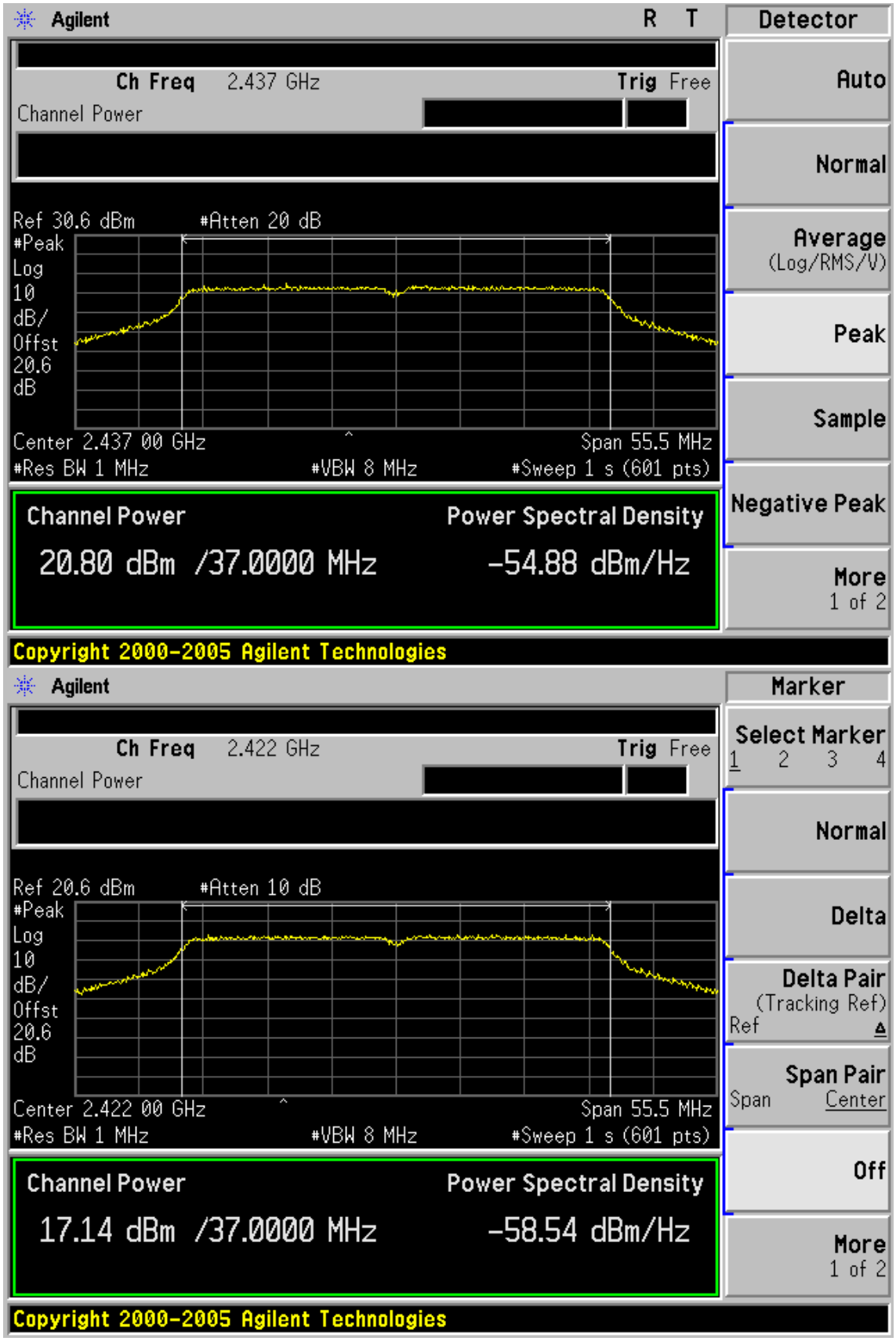
3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So the channel power measure function of Spectrum Analyzer was used to measure out the PK output power of each test modes'

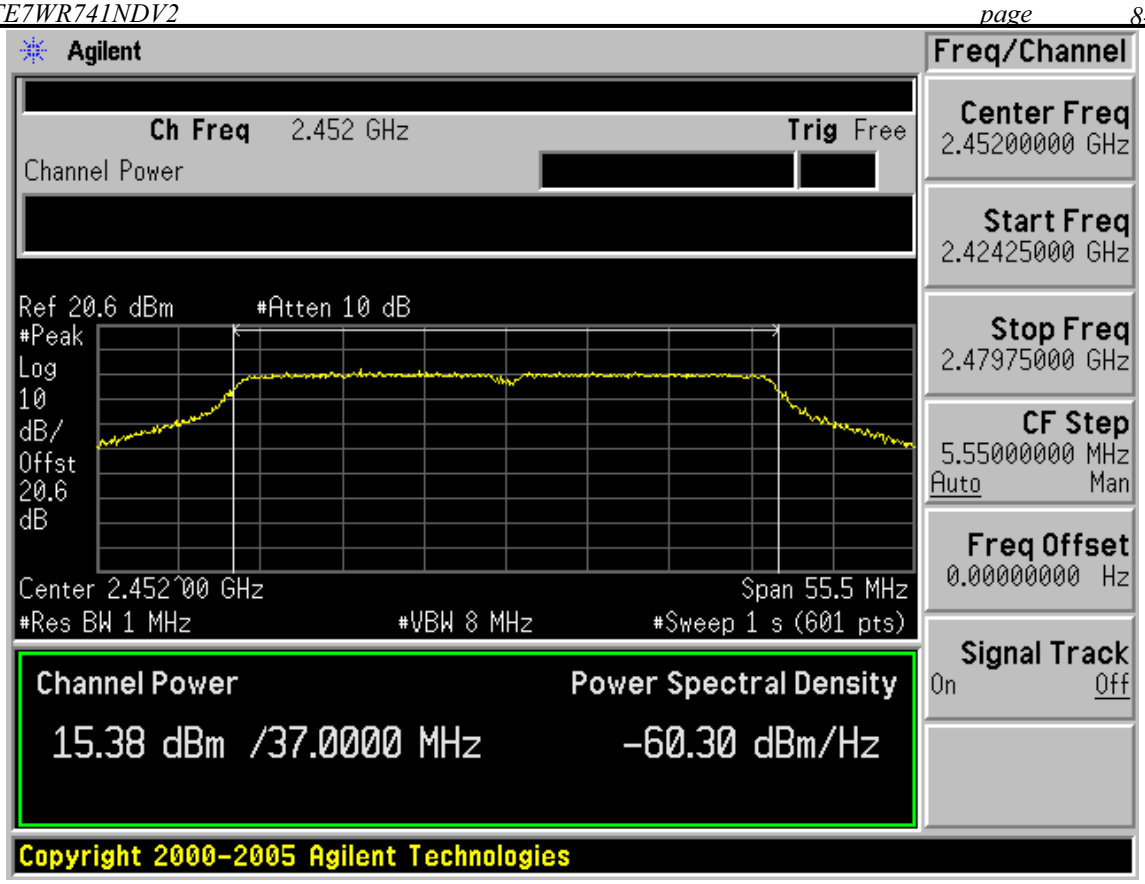
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

8.4.Test Results

EUT:150Mbps Wireless N Router		
M/N:TL-WR741ND		
Test date:2010-12-03	Pressure: 100.2 kpa	Humidity: 60 %
Tested by:Sunny-lu	Test site: RF Site	Temperature：25 ℃

Cable loss: 0.6dB		Attenuator loss: 20 dB	Antenna Gain: 5.0dBi
Test Mode	CH	Peak output Power （dBm）	Limit (dBm)
11b	CH1	21.30	30
	CH6	21.55	30
	CH11	21.78	30
11g	CH1	19.82	30
	CH6	22.78	30
	CH11	19.56	30
11n HT20	CH1	18.12	30
	CH6	22.50	30
	CH11	17.97	30
11n HT40	CH1	17.14	30
	CH4	20.80	30
	CH7	15.38	30
Conclusion：PASS			


Agilent
R T
Detector
Ch Freq 2.437 GHz
Trig Free
Channel Power
Auto
Normal
Ref 30.6 dBm
#Atten 20 dB
#Peak
Log
10
dB/
Offst
20.6
dB
Average
(Log/RMS/V)
Peak
Sample
Center 2.437 00 GHz
Span 55.5 MHz
#Res BW 1 MHz
#VBW 8 MHz
#Sweep 1 s (601 pts)
Negative Peak
Channel Power
20.80 dBm /37.0000 MHz
Power Spectral Density
-54.88 dBm/Hz
More
1 of 2
Copyright 2000-2005 Agilent Technologies
Agilent
Marker
Ch Freq 2.422 GHz
Trig Free
Channel Power
Select Marker
1 2 3 4
Normal
Ref 20.6 dBm
#Atten 10 dB
#Peak
Log
10
dB/
Offst
20.6
dB
Delta
Delta Pair
(Tracking Ref)
Ref
Span Pair
Span Center
Center 2.422 00 GHz
Span 55.5 MHz
#Res BW 1 MHz
#VBW 8 MHz
#Sweep 1 s (601 pts)
Off
Channel Power
17.14 dBm /37.0000 MHz
Power Spectral Density
-58.54 dBm/Hz
More
1 of 2
Copyright 2000-2005 Agilent Technologies


Agilent
Freq/Channel
Ch Freq 2.452 GHz
Trig Free
Channel Power
Ref 20.6 dBm
#Atten 10 dB
#Peak
Log
10
dB/
Offst
20.6
dB
Center 2.452^00 GHz
Span 55.5 MHz
#Res BW 1 MHz
#VBW 8 MHz
#Sweep 1 s (601 pts)
Channel Power
15.38 dBm /37.0000 MHz
Power Spectral Density
-60.30 dBm/Hz
Center Freq
2.45200000 GHz
Start Freq
2.42425000 GHz
Stop Freq
2.47975000 GHz
CF Step
5.55000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Copyright 2000-2005 Agilent Technologies

9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 10	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 10	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08, 10	1Year

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, Follow the test procedure as described in ANSI C.10: 2009 Clause 6.11.2.3 to measure out each test modes and chain's power density with 3KHz.

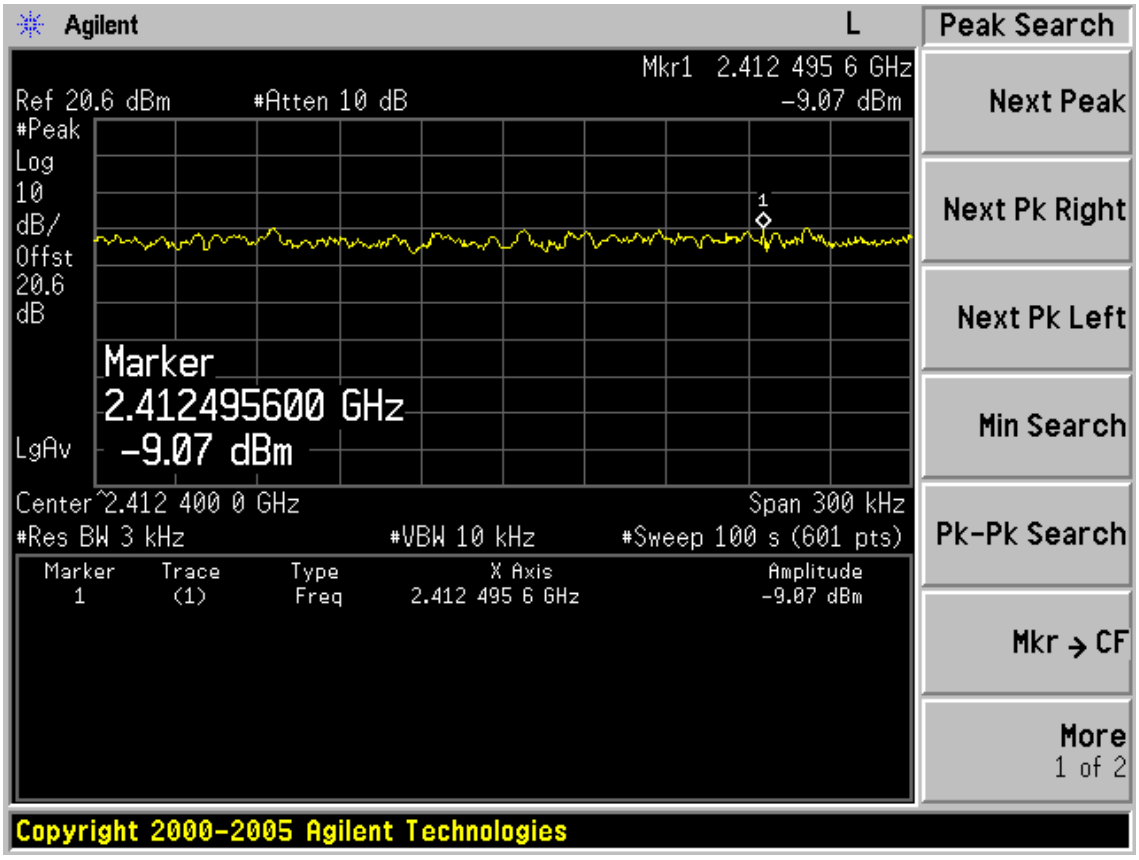
9.4.Test Results

EUT:150Mbps Wireless N ADSL2+Modem Router		
M/N:TD-W8951ND		
Test date:2010-11-30	Pressure: 100.6kpa	Humidity: 60 %
Tested by:Sunny-lu	Test site: RF Site	Temperature：25℃

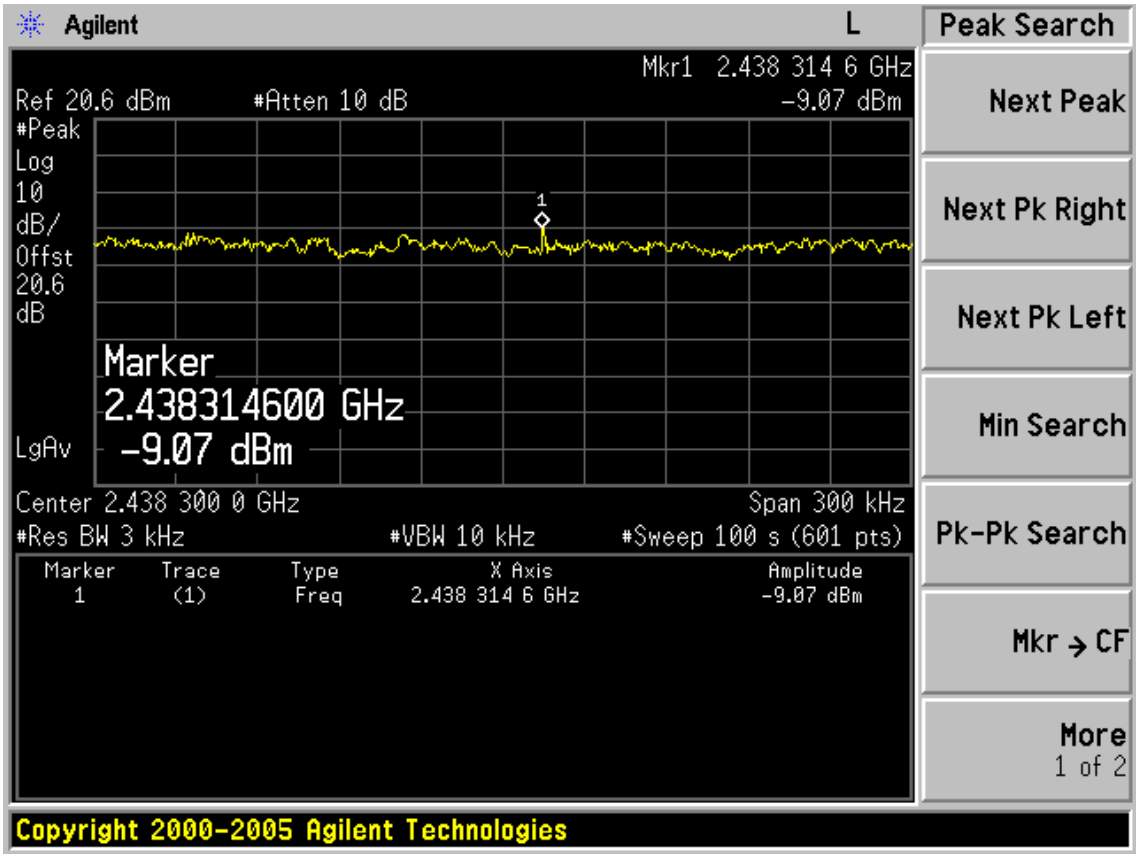
Cable loss: 0.6 dB		Attenuator loss: 20 dB	Antenna Gain: 5.0 dBi
Test Mode	CH	Power density （dBm/3KHz）	Limit (dBm/3KHz)
11b	CH1	-9.10	8
	CH6	-8.41	8
	CH11	-8.12	8
11g	CH1	-13.40	8
	CH6	-12.73	8
	CH11	-12.17	8
11n HT20	CH1	-12.98	8
	CH6	-12.30	8
	CH11	-11.82	8
11n HT40	CH1	-13.23	8
	CH4	-12.85	8
	CH7	-12.07	8
Conclusion：PASS			

Test Mode: IEEE 802.11b TX

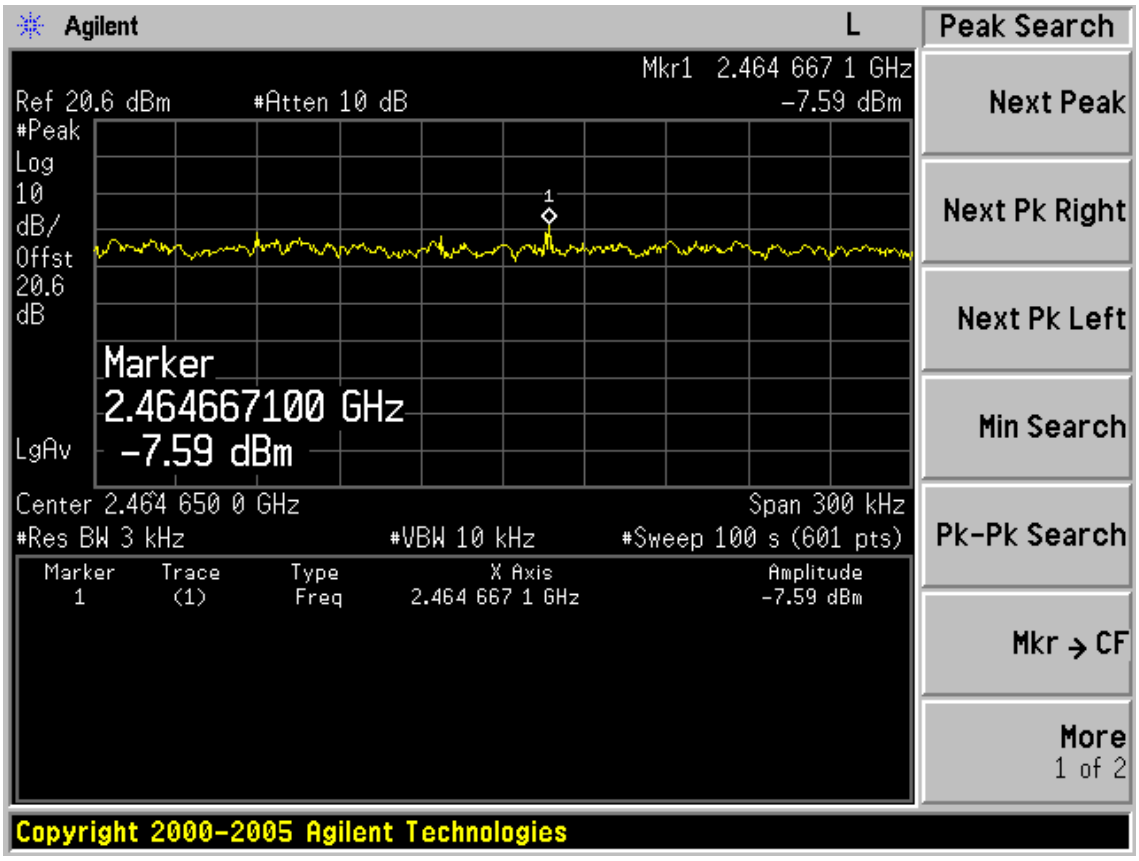
Test CH1: 2412MHz



Test CH6: 2437MHz

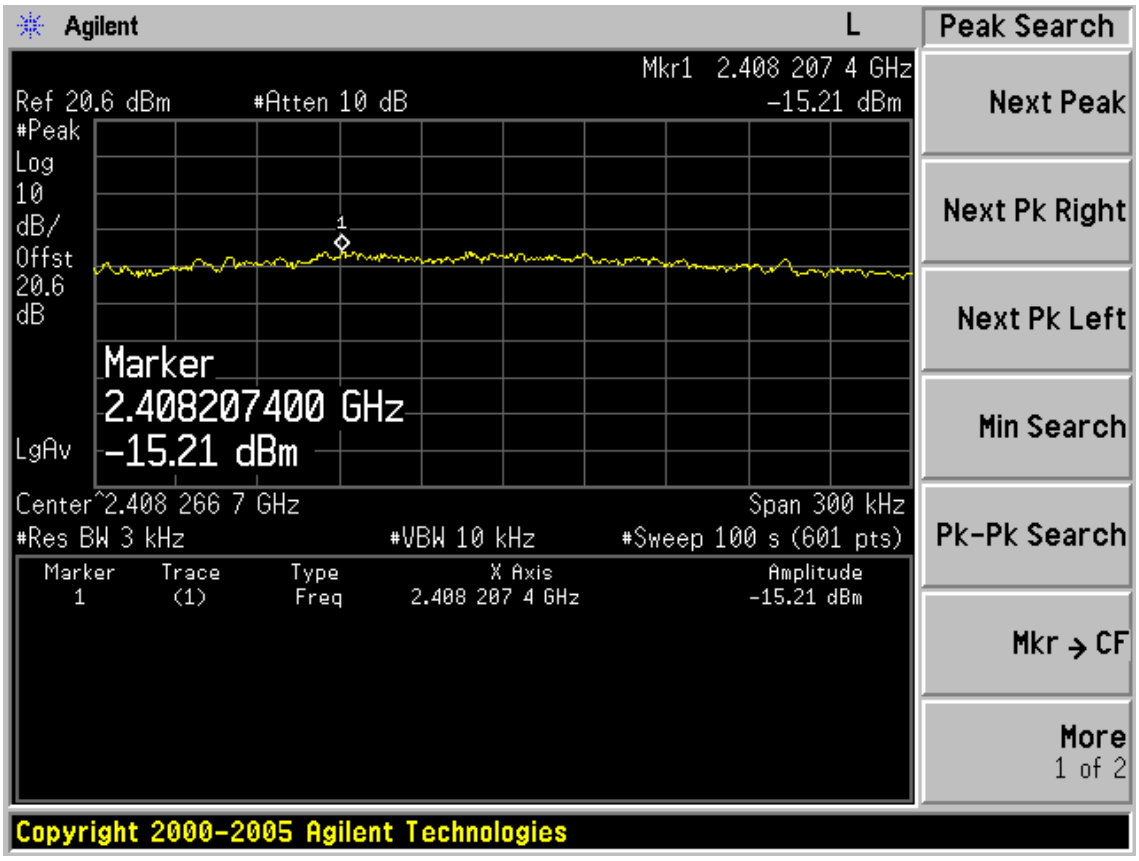


Test CH11: 2462MHz

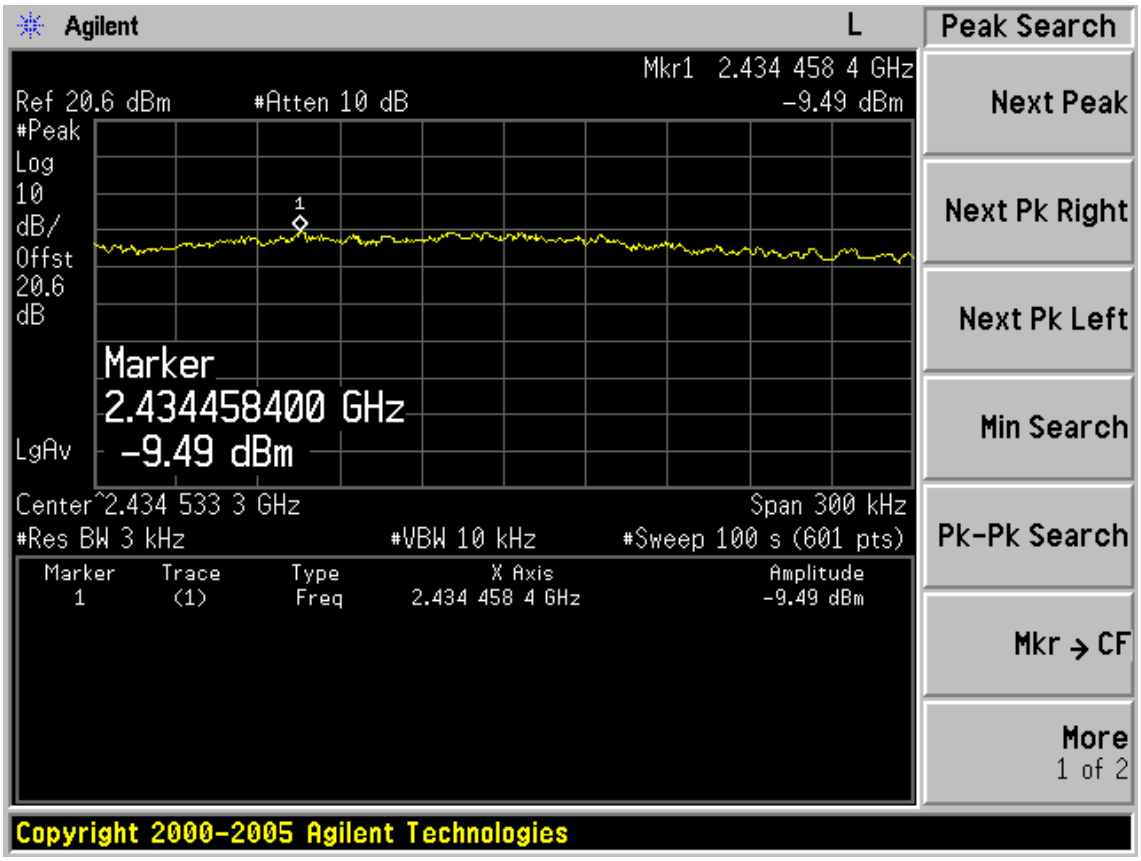


Test Mode: IEEE 802.11g TX

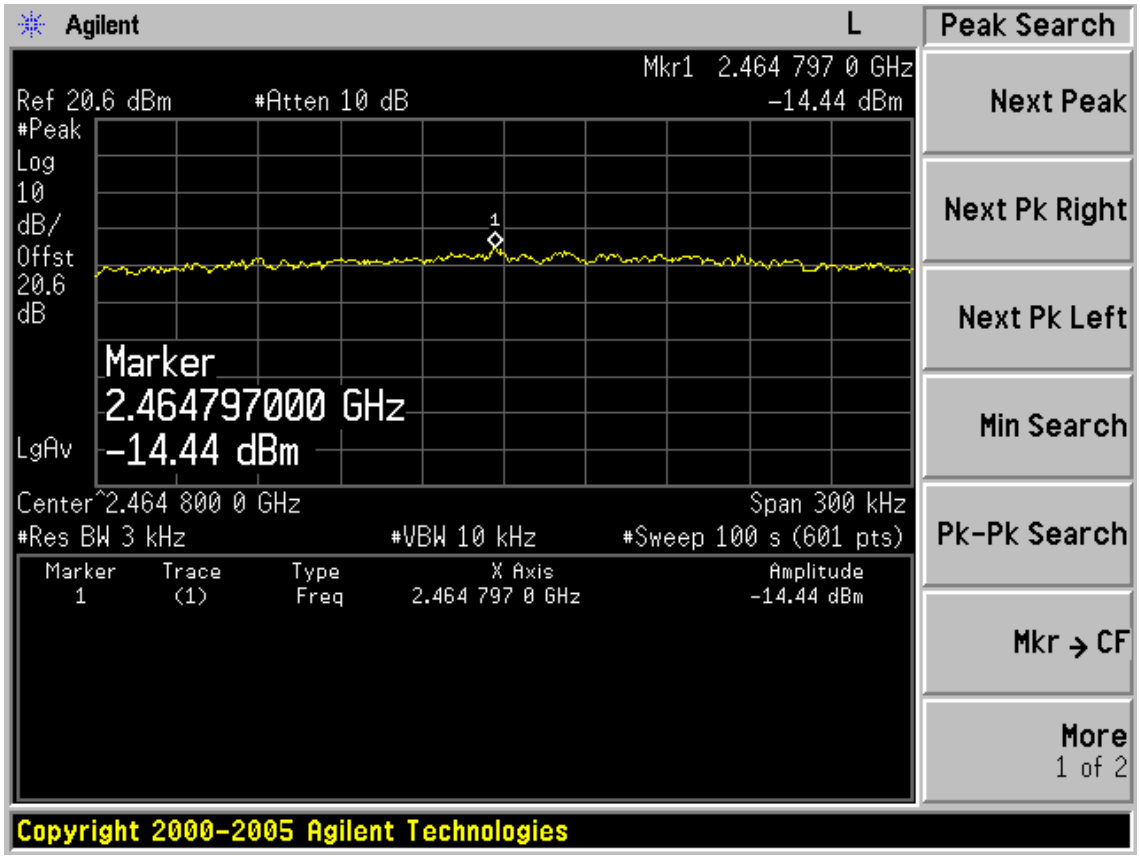
Test CH1: 2412MHz



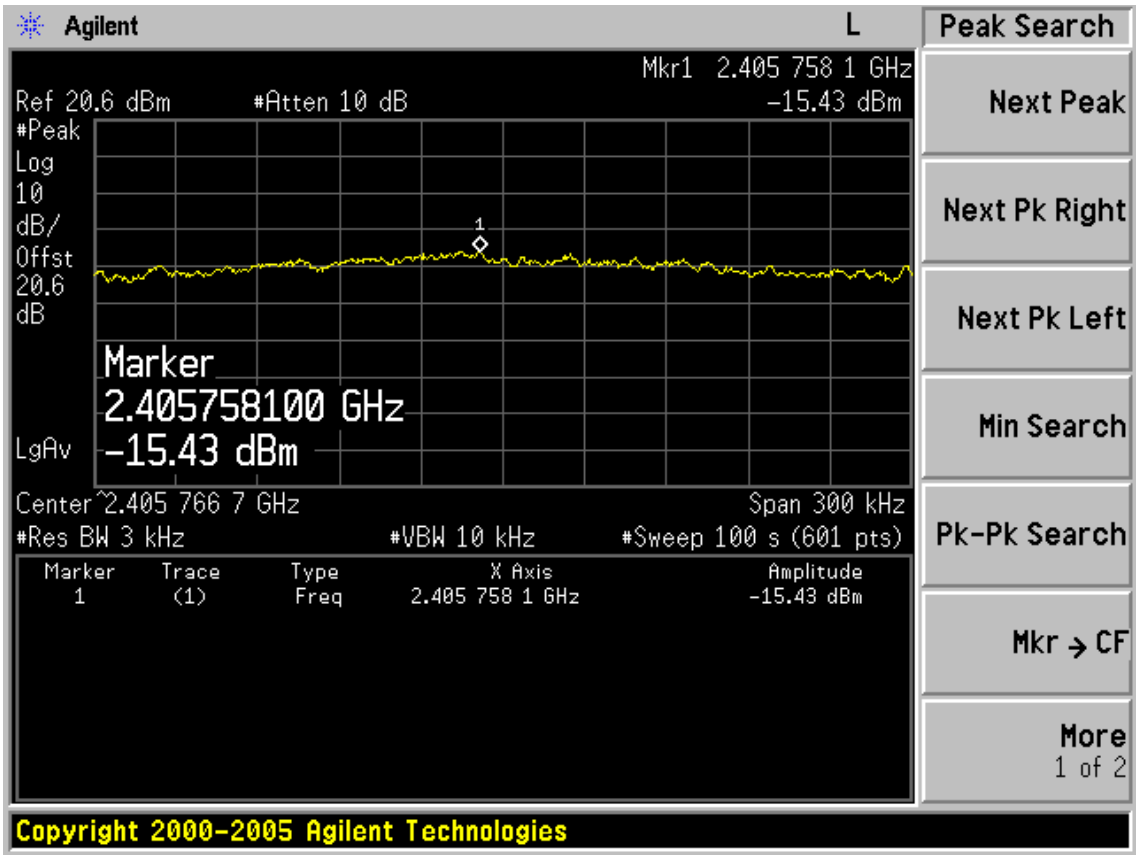
Test CH6: 2437MHz



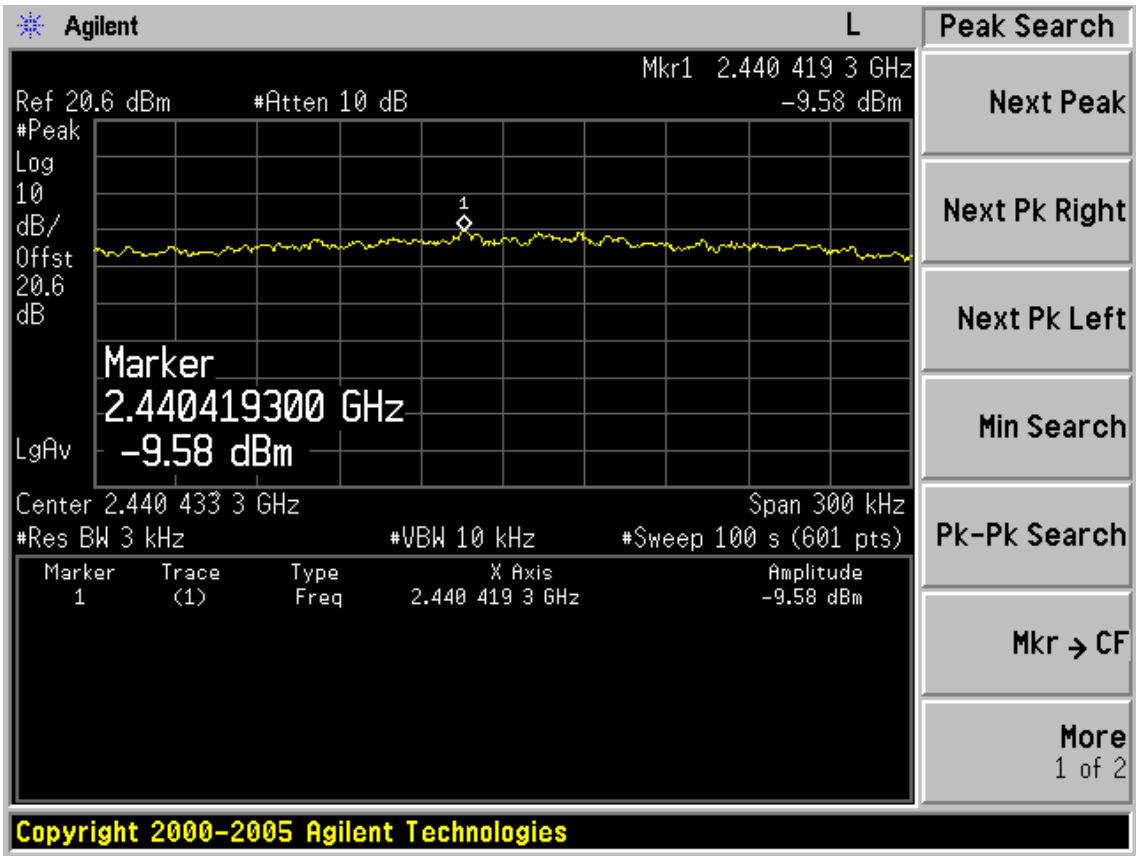
Test CH11: 2462MHz



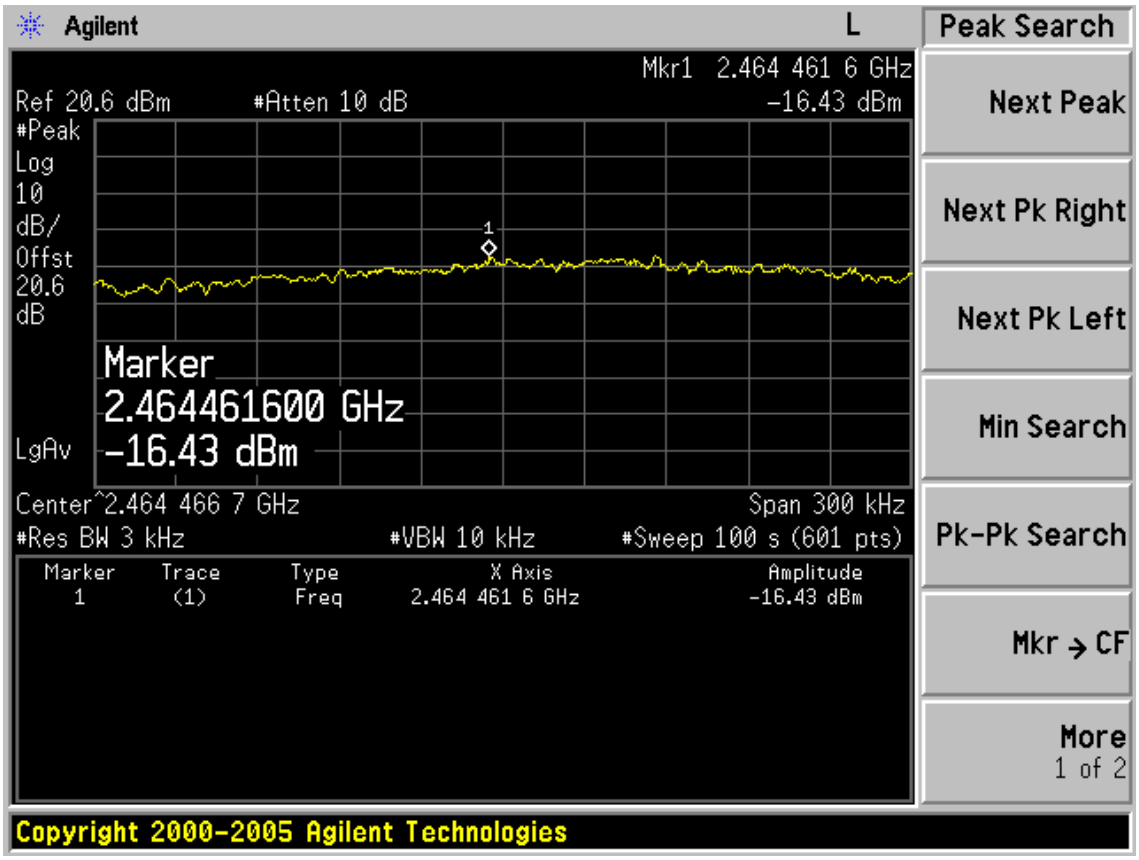
Test Mode: IEEE 802.11n HT20 TX
Test CH1: 2412MHz



Test CH6: 2437MHz

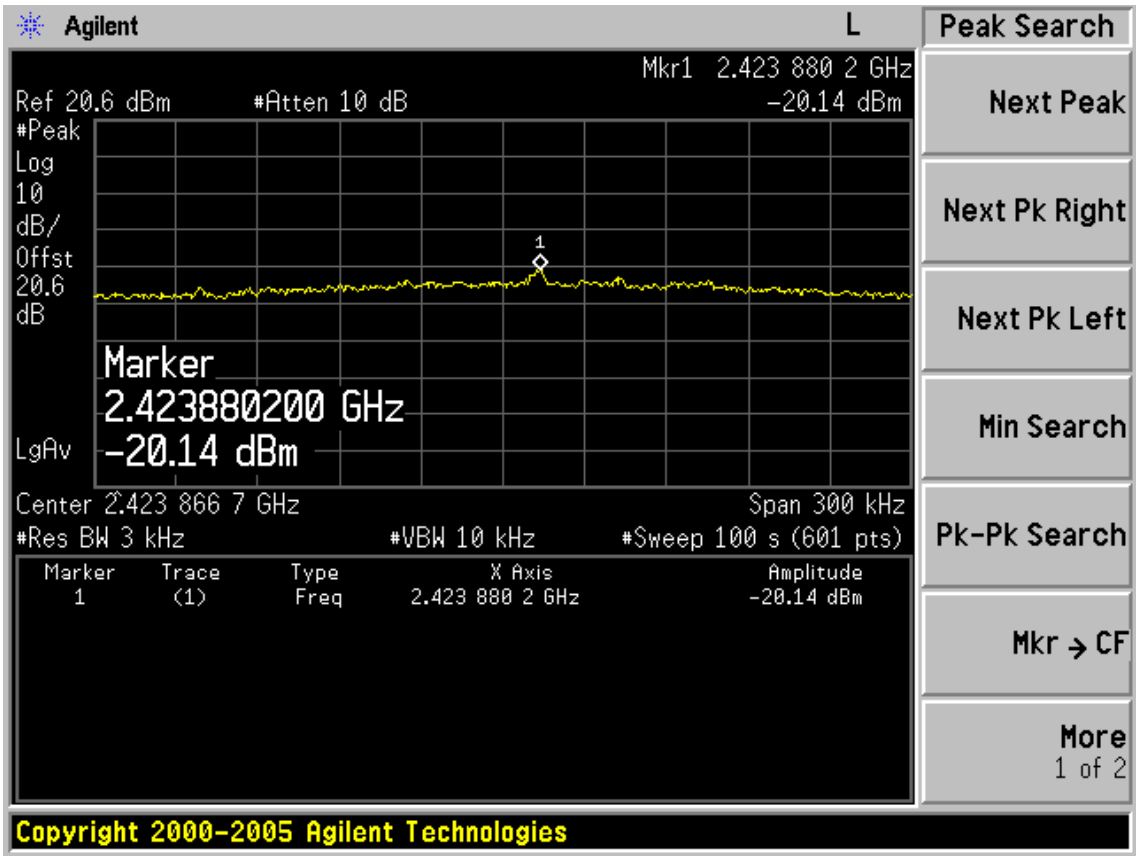


Test CH11: 2462MHz

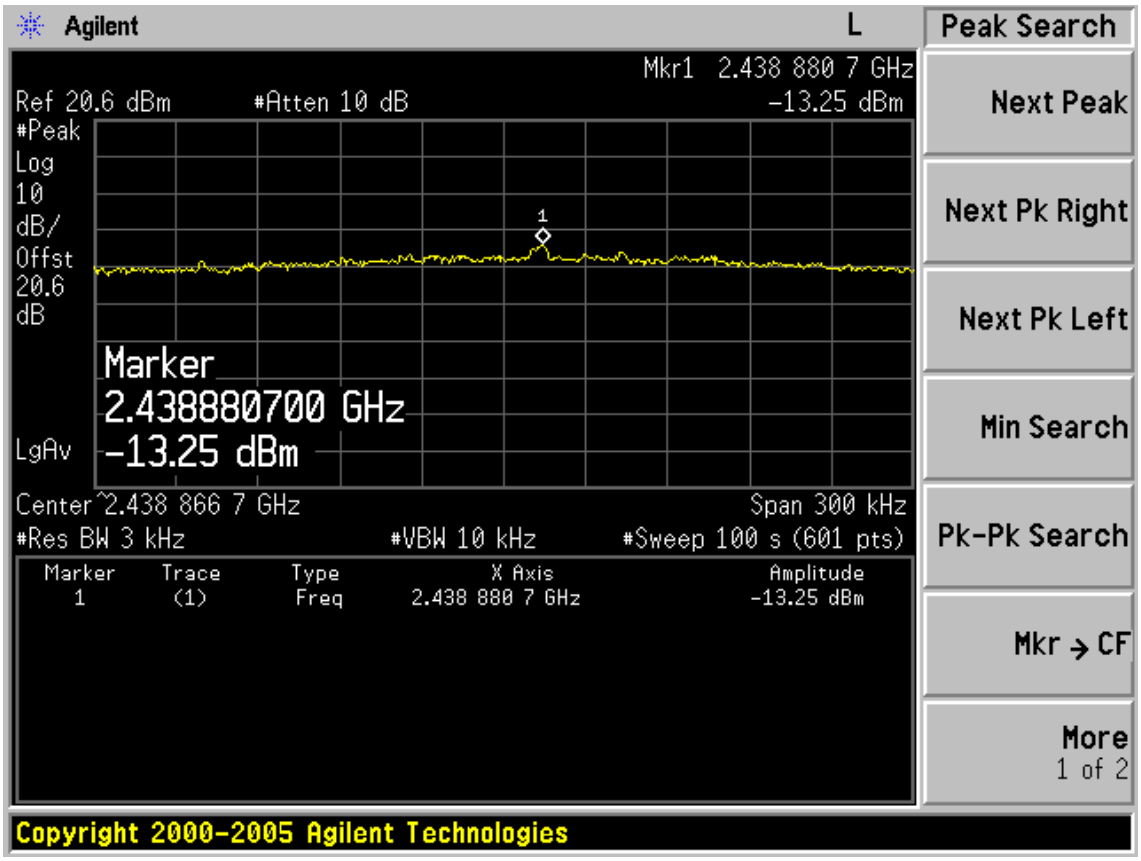


Test Mode: IEEE 802.11n HT40 TX

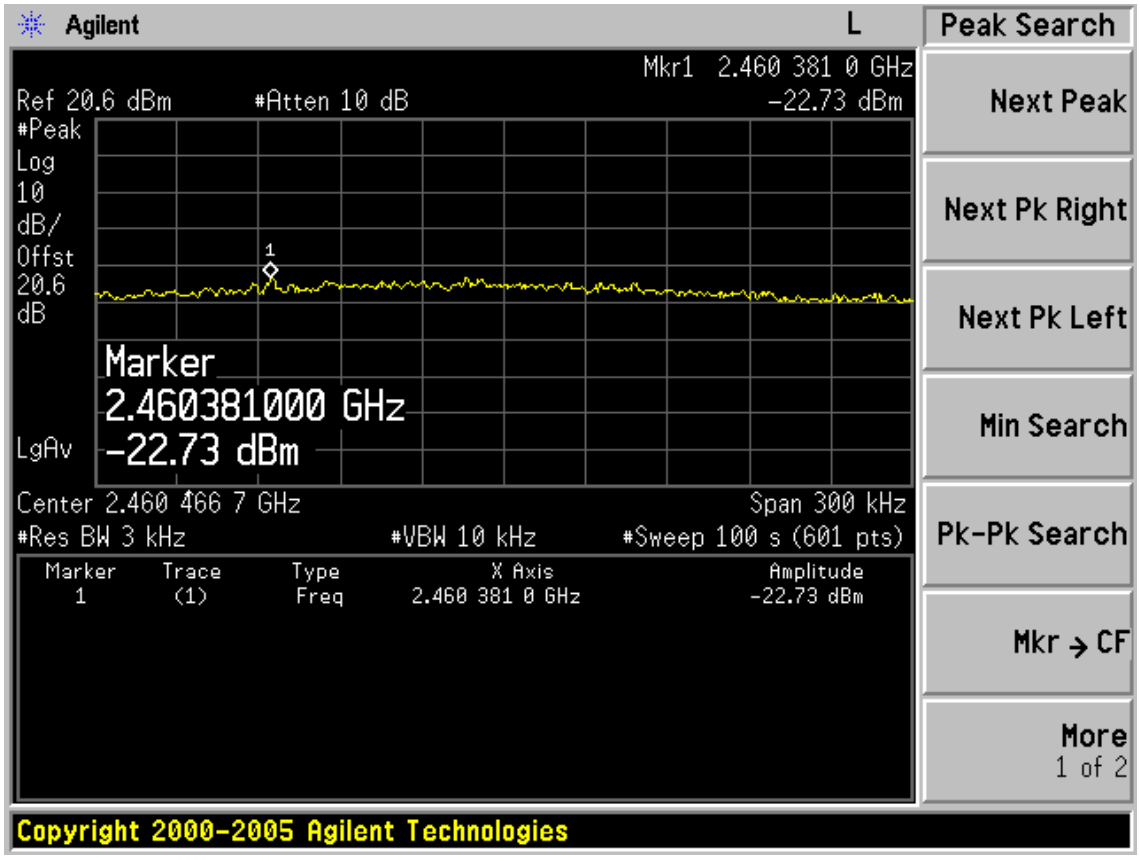
Test CH1: 2422MHz



Test CH4: 2437MHz



Test CH7: 2452MHz



10. ANTENNA REQUIREMENT

10.1. 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.

10.2. ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product is dipole antenna with SMA-B connector 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 only 5dBi.

11.MPE ESTIMATION

11.1.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

11.2.2, Estimation Result

Mode	CH	Frequency (MHz)	PK Output power (dBm)	Output power (mW)	antenna Gain (dBi)	antenna Gain(linear)	MPE
11b	1	2412	21.30	134.90	5	3.16	0.0849
	6	2437	21.55	142.89	5	3.16	0.0899
	11	2462	21.78	150.66	5	3.16	0.0948
11g	1	2412	19.82	95.94	5	3.16	0.0604
	6	2437	22.78	189.67	5	3.16	0.1194
	11	2462	19.56	90.36	5	3.16	0.0569
11n HT20	1	2412	18.12	64.86	5	3.16	0.0408
	6	2437	22.50	177.83	5	3.16	0.1119
	11	2462	17.97	62.66	5	3.16	0.0394
11n HT40	1	2422	17.14	51.76	5	3.16	0.0326
	4	2437	20.80	120.23	5	3.16	0.0757
	7	2452	15.38	34.51	5	3.16	0.0217

Note: The estimation distance is 20cm

12. DEVIATION TO TEST SPECIFICATIONS

[NONE]