

## 6. BAND EDGE COMPLIANCE TEST

### 6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Amp	HP	8449B	3008A02495	Apr. 28,14	1 Year
2.	Horn Antenna	ETS	3115	9510-4580	Jun. 06, 14	1 Year
3.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr. 28,14	1 Year
4.	RF Cable	Hubersuhner	Sucoflex102	28610/2	Apr. 28,14	1 Year

### 6.2. Limit

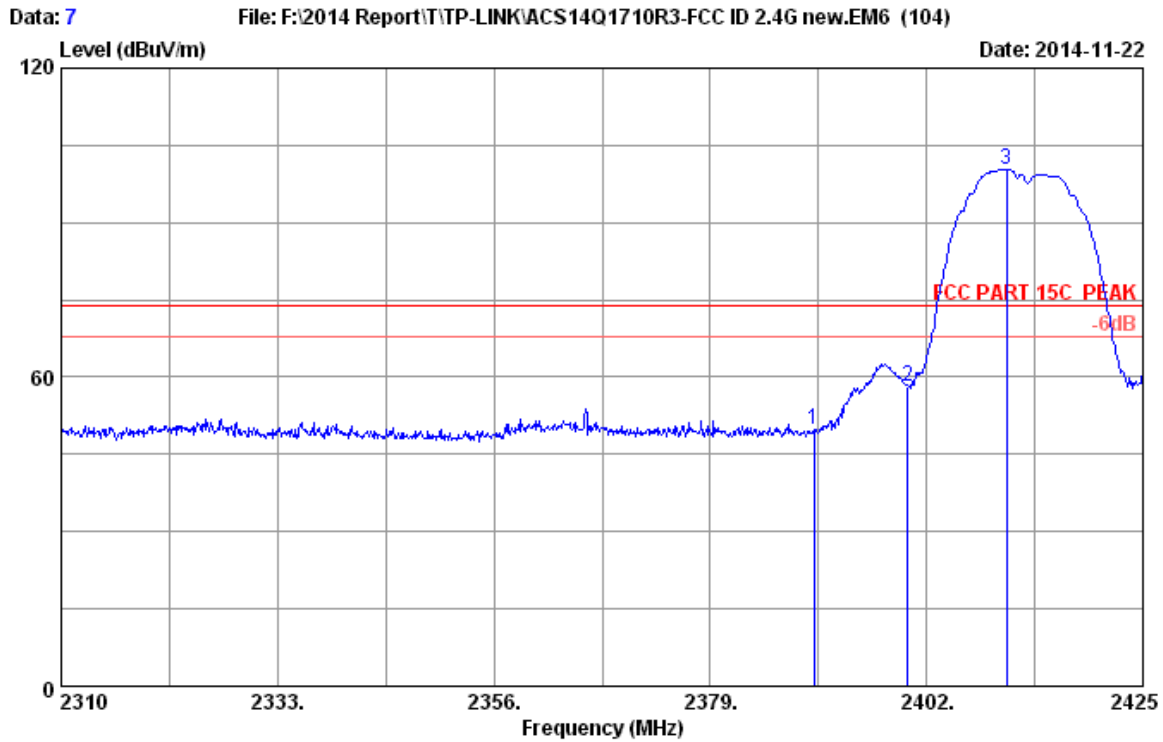
All the lower and upper band-edges emissions appearing within 5.35-5.46GHz and 7.25-7.75GHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 5725MHz to 5850MHz shall be at least 20dB below the fundamental emissions, or comply 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

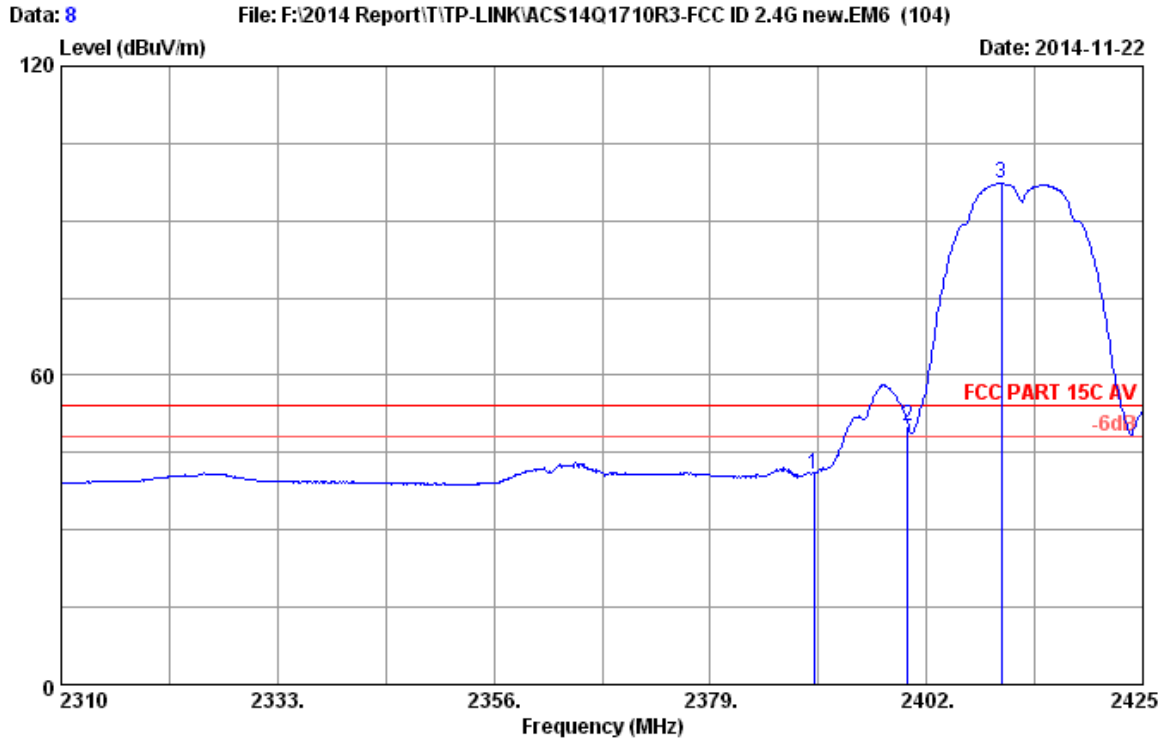
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 7  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11b 2412MHz  
 :

No.	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	28.16	5.78	35.70	51.64	49.88	74.00	24.12	Peak
2	2400.000	28.18	5.80	35.70	60.03	58.31	74.00	15.69	Peak
3	2410.510	28.20	5.81	35.70	102.09	100.40	74.00	-26.40	Peak

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

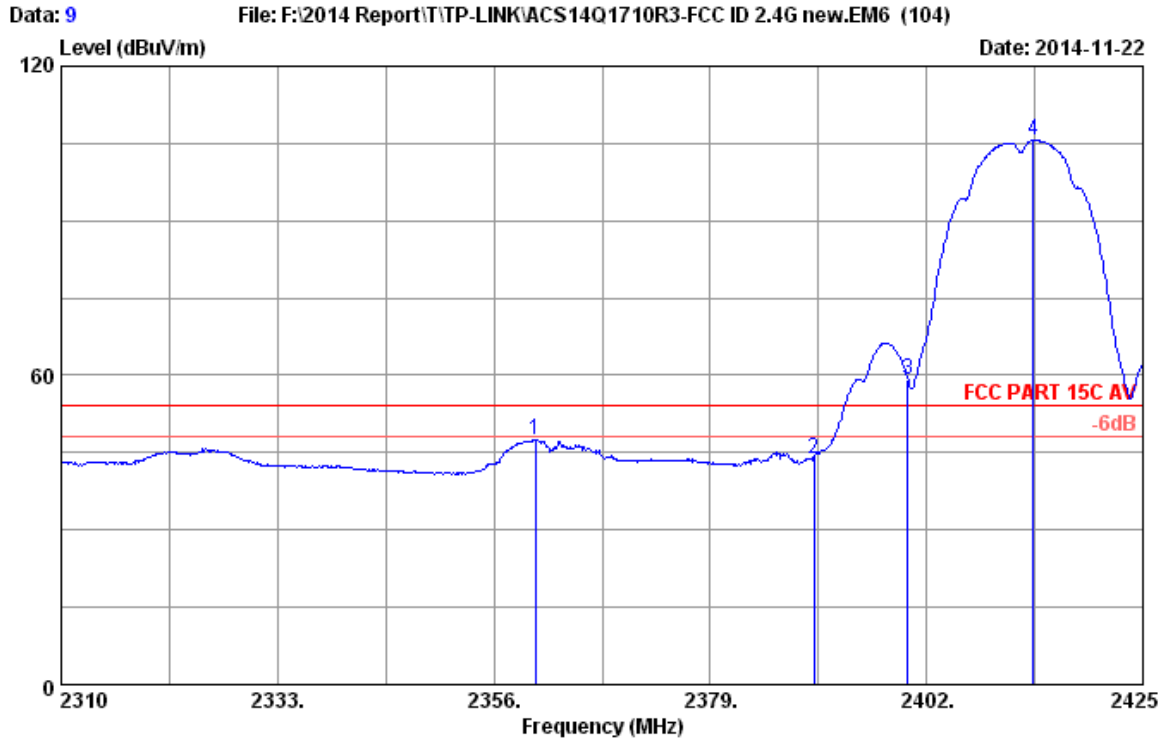


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Site no.      : 3m Chamber                      Data no.   : 8
Dis. / Ant.   : 3m 2014 3115 (4580)           Ant. pol.  : HORIZONTAL
Limit        : FCC PART 15C AV
Env. / Ins.   : 24*C/56%                      Engineer   : Black
EUT          : 300Mbps WiFi Range Extender Power Outlet
              Pass-through M/N:TL-WA860RE
Power rating  : AC 120V/60Hz
Test Mode    : 802.11b 2412MHz
              :
    
```

No.	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	28.16	5.78	35.70	42.40	40.64	54.00	13.36	Average
2	2400.000	28.18	5.80	35.70	51.82	50.10	54.00	3.90	Average
3	2409.935	28.20	5.81	35.70	98.87	97.18	54.00	-43.18	Average

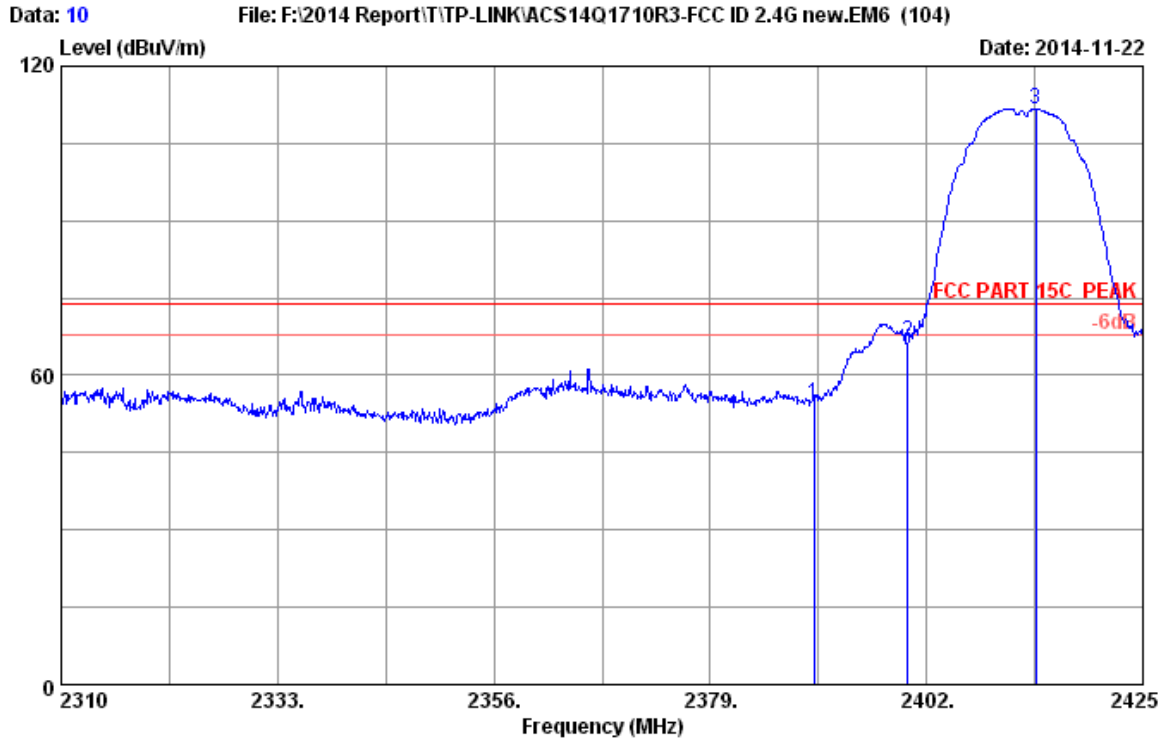
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 9  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11b 2412MHz  
 :

No.	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	2360.370	28.09	5.74	35.70	49.22	47.35	54.00	6.65	Average
2	2390.000	28.16	5.78	35.70	45.54	43.78	54.00	10.22	Average
3	2400.000	28.18	5.80	35.70	60.74	59.02	54.00	-5.02	Average
4	2413.385	28.21	5.82	35.70	107.23	105.56	54.00	-51.56	Average

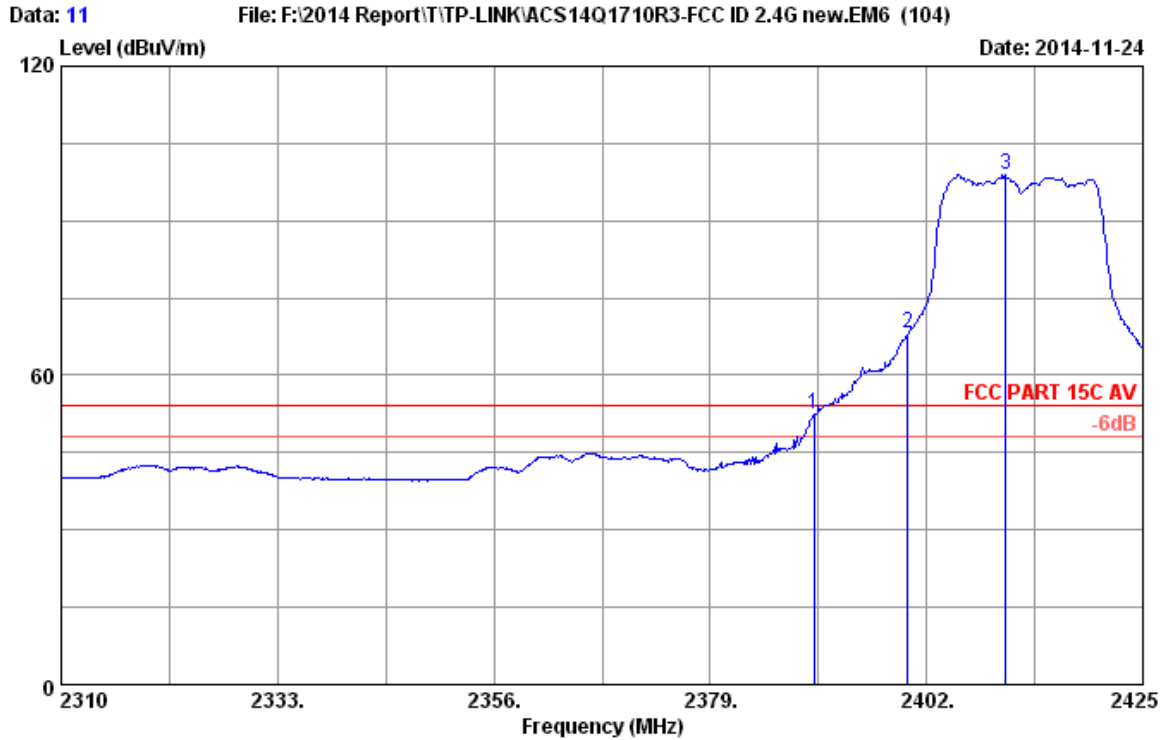
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 10  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11b 2412MHz  
 :

No.	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	28.16	5.78	35.70	56.32	54.56	74.00	19.44	Peak
2	2400.000	28.18	5.80	35.70	68.37	66.65	74.00	7.35	Peak
3	2413.615	28.21	5.82	35.70	113.47	111.80	74.00	-37.80	Peak

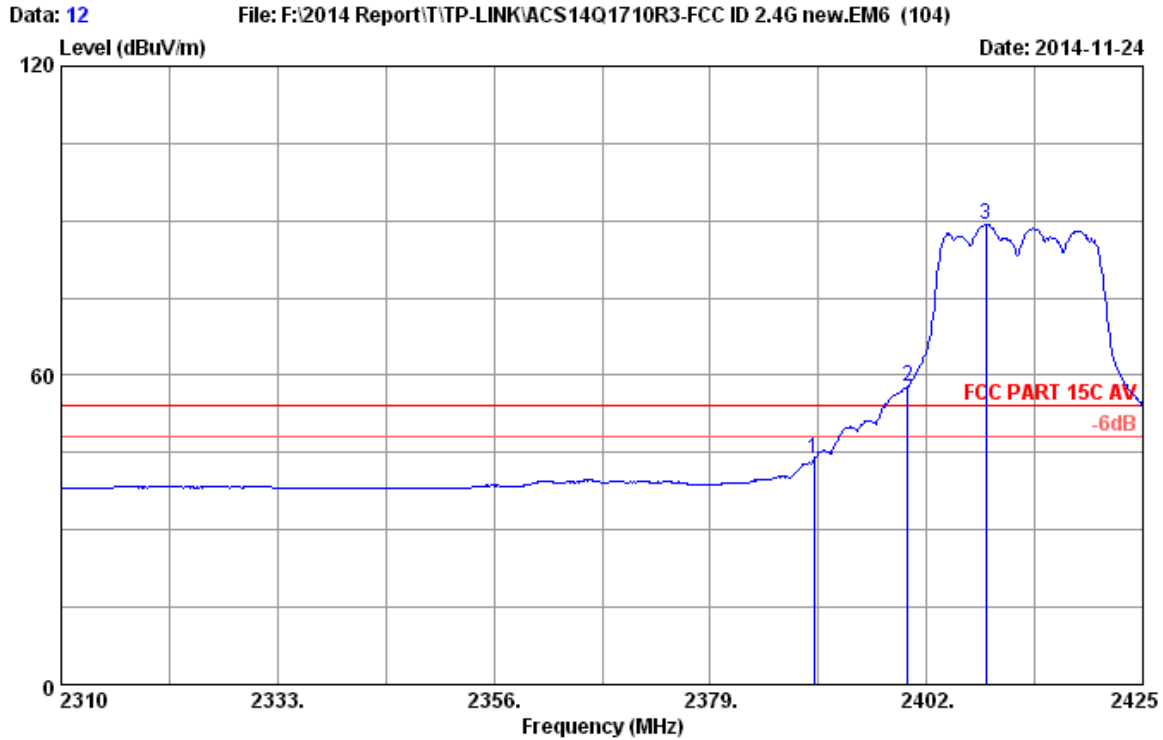
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 11  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2412MHz  
 :

No.	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	28.16	5.78	35.70	54.14	52.38	54.00	1.62	Average
2	2400.000	28.18	5.80	35.70	69.94	68.22	54.00	-14.22	Average
3	2410.395	28.20	5.81	35.70	100.67	98.98	54.00	-44.98	Average

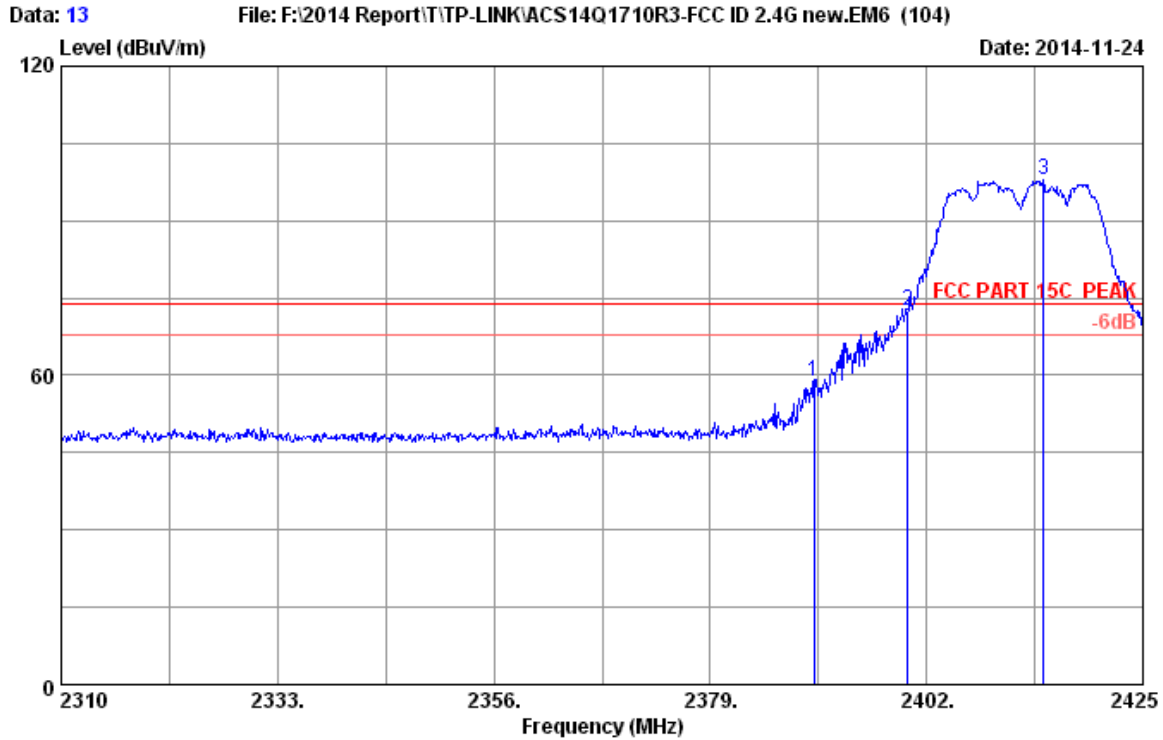
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 12  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2412MHz  
 :

No.	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	28.16	5.78	35.70	45.61	43.85	54.00	10.15	Average
2	2400.000	28.18	5.80	35.70	59.53	57.81	54.00	-3.81	Average
3	2408.325	28.20	5.81	35.70	90.95	89.26	54.00	-35.26	Average

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

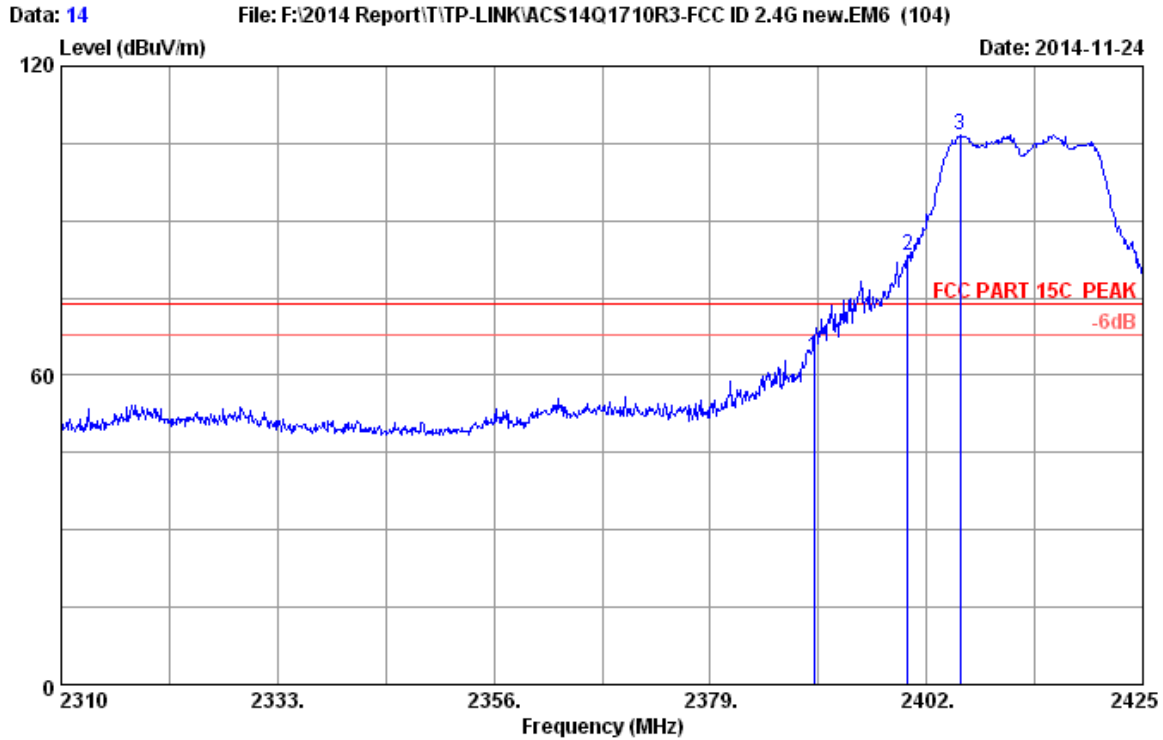


Site no. : 3m Chamber Data no. : 13  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24\*C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2412MHz  
 :

No.	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	28.16	5.78	35.70	60.50	58.74	74.00	15.26	Peak
2	2400.000	28.18	5.80	35.70	74.28	72.56	74.00	1.44	Peak
3	2414.420	28.21	5.82	35.70	99.55	97.88	74.00	-23.88	Peak

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

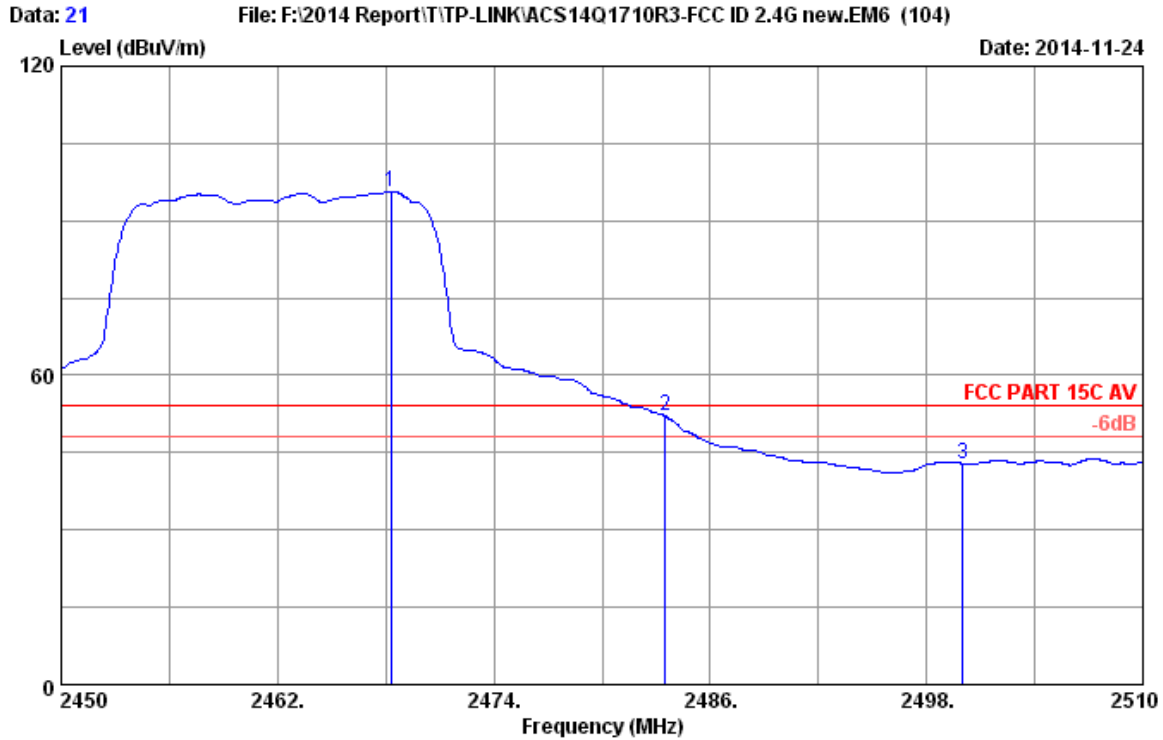




Site no. : 3m Chamber Data no. : 14  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2412MHz  
 :

No.	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	28.16	5.78	35.70	65.26	63.50	74.00	10.50	Peak
2	2400.000	28.18	5.80	35.70	85.06	83.34	74.00	-9.34	Peak
3	2405.565	28.19	5.81	35.70	108.39	106.69	74.00	-32.69	Peak

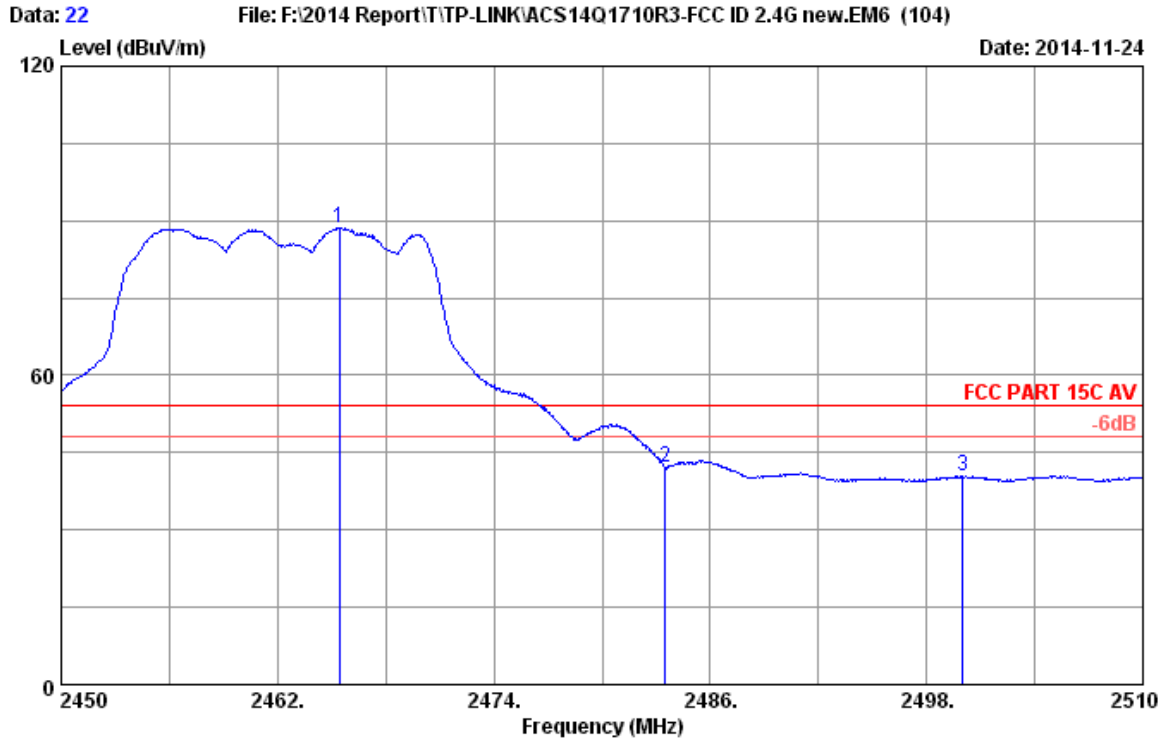
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 21  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2462MHz  
 :

No.	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	2468.300	28.33	5.90	35.70	97.11	95.64	54.00	-41.64	Average
2	2483.500	28.36	5.92	35.70	53.56	52.14	54.00	1.86	Average
3	2500.000	28.40	5.94	35.70	44.27	42.91	54.00	11.09	Average

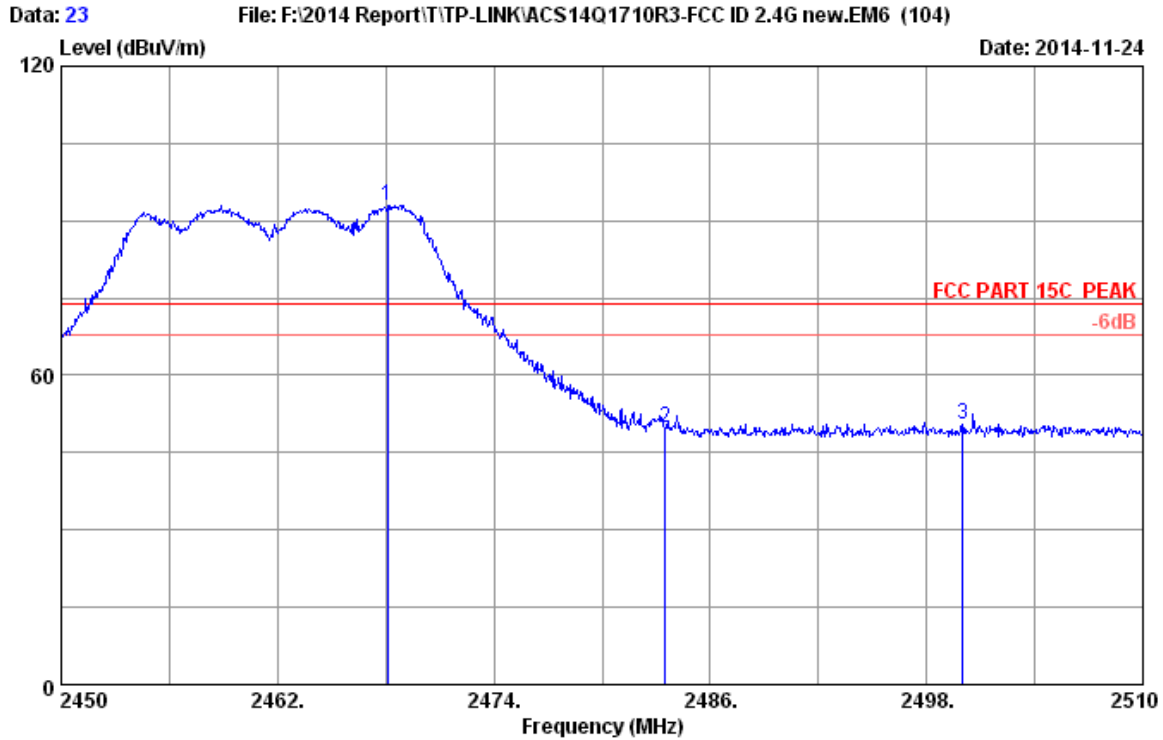
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 22  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24\*C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2462MHz  
 :

No.	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	2465.420	28.32	5.89	35.70	89.99	88.50	54.00	-34.50	Average
2	2483.500	28.36	5.92	35.70	43.55	42.13	54.00	11.87	Average
3	2500.000	28.40	5.94	35.70	41.65	40.29	54.00	13.71	Average

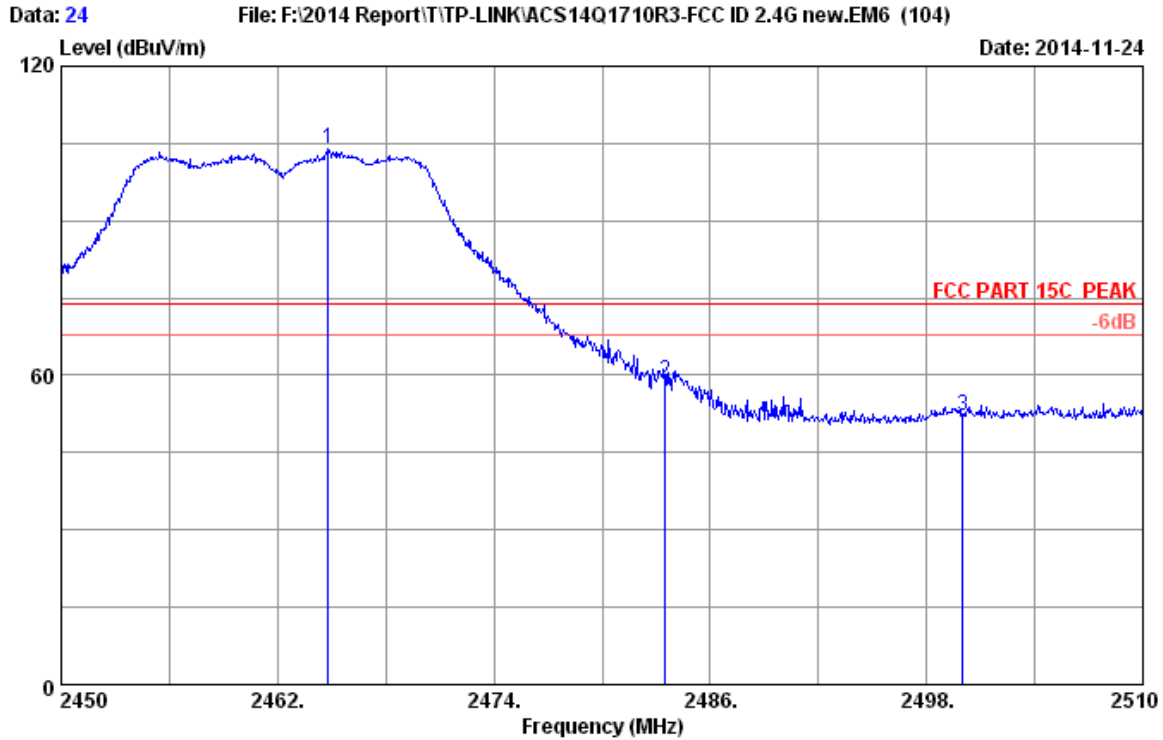
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 23  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2462MHz  
 :

No.	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	2468.120	28.33	5.90	35.70	94.56	93.09	74.00	-19.09	Peak
2	2483.500	28.36	5.92	35.70	51.28	49.86	74.00	24.14	Peak
3	2500.000	28.40	5.94	35.70	51.84	50.48	74.00	23.52	Peak

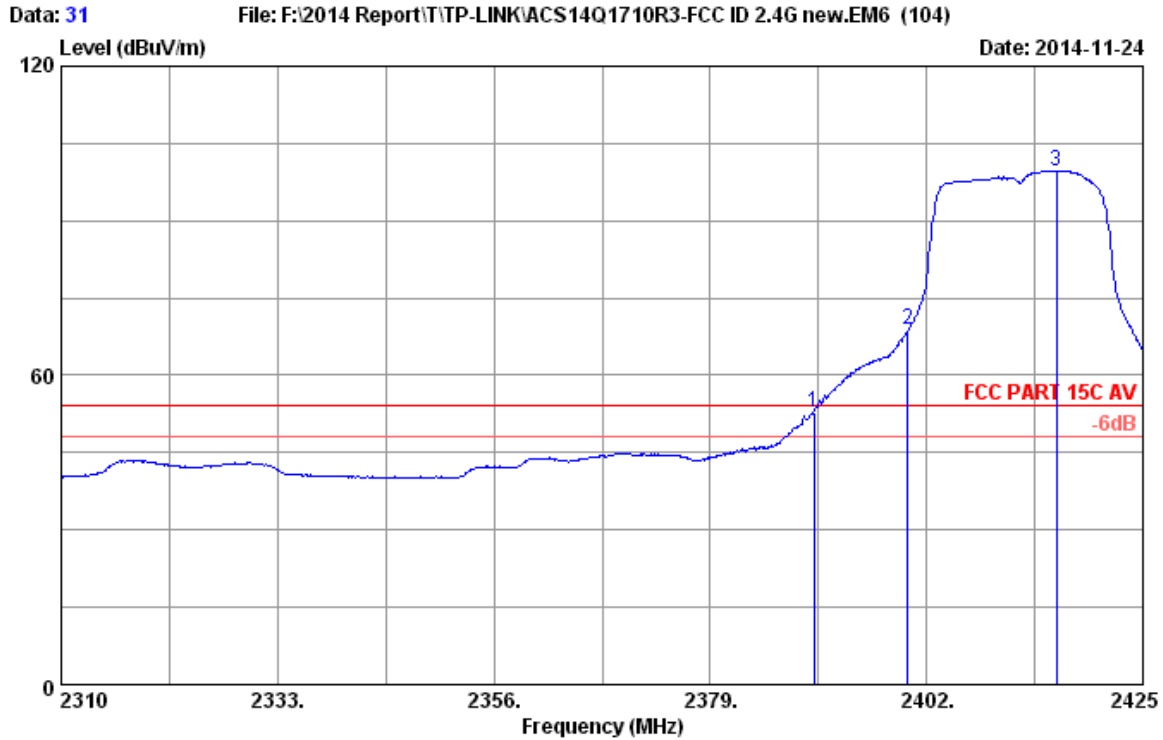
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 24  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24\*C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11g 2462MHz  
 :

No.	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	2464.820	28.32	5.89	35.70	105.51	104.02	74.00	-30.02	Peak
2	2483.500	28.36	5.92	35.70	60.36	58.94	74.00	15.06	Peak
3	2500.000	28.40	5.94	35.70	53.48	52.12	74.00	21.88	Peak

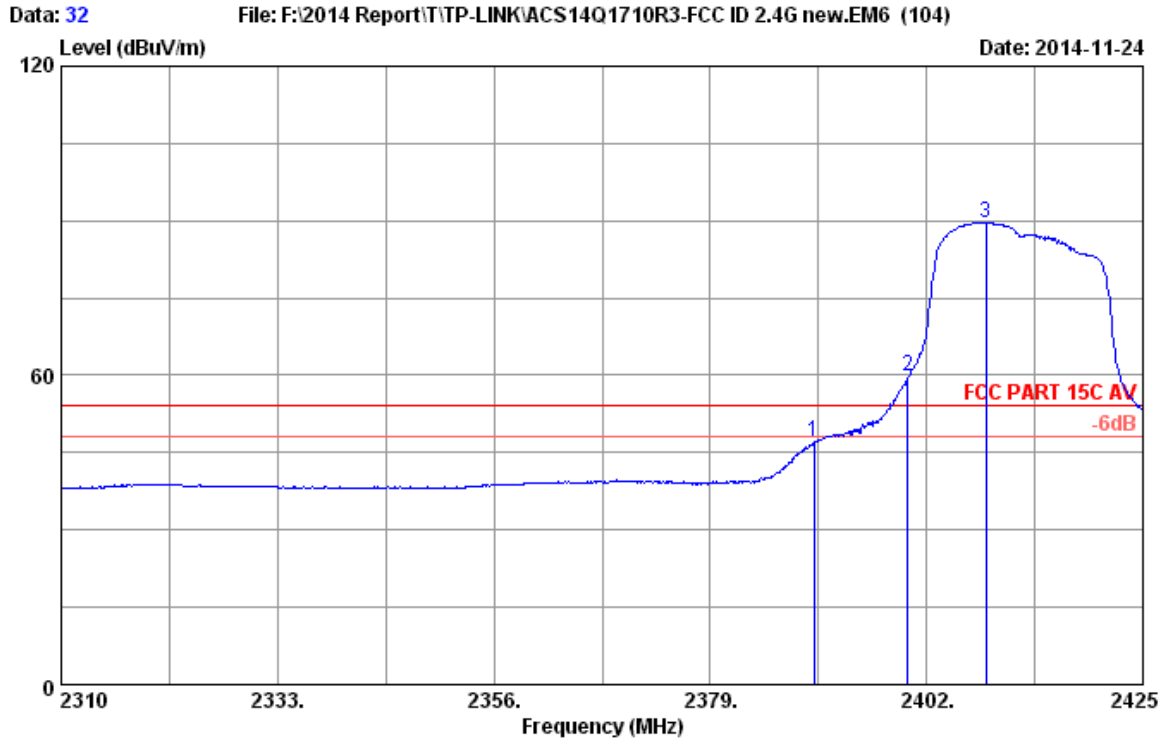
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 31  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2412MHz  
 :

No.	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	28.16	5.78	35.70	54.43	52.67	54.00	1.33	Average
2	2400.000	28.18	5.80	35.70	70.48	68.76	54.00	-14.76	Average
3	2415.800	28.21	5.82	35.70	101.44	99.77	54.00	-45.77	Average

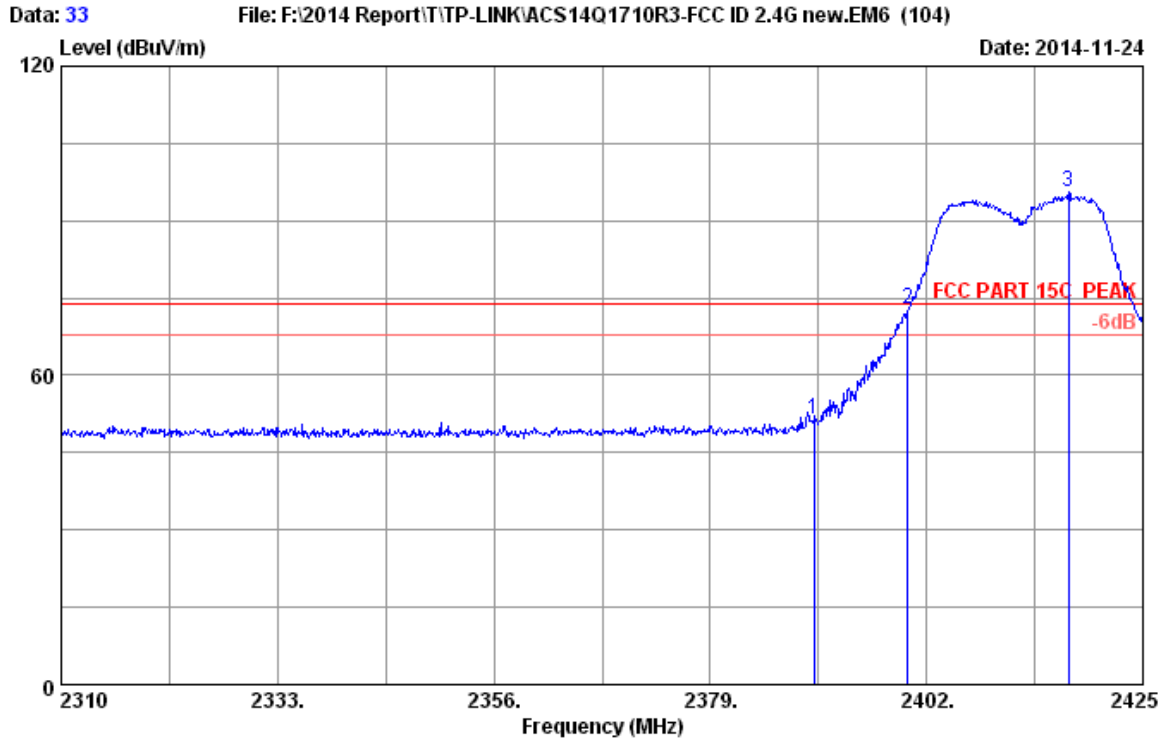
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 32  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2412MHz  
 :

No.	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	28.16	5.78	35.70	48.77	47.01	54.00	6.99	Average
2	2400.000	28.18	5.80	35.70	61.39	59.67	54.00	-5.67	Average
3	2408.325	28.20	5.81	35.70	91.33	89.64	54.00	-35.64	Average

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

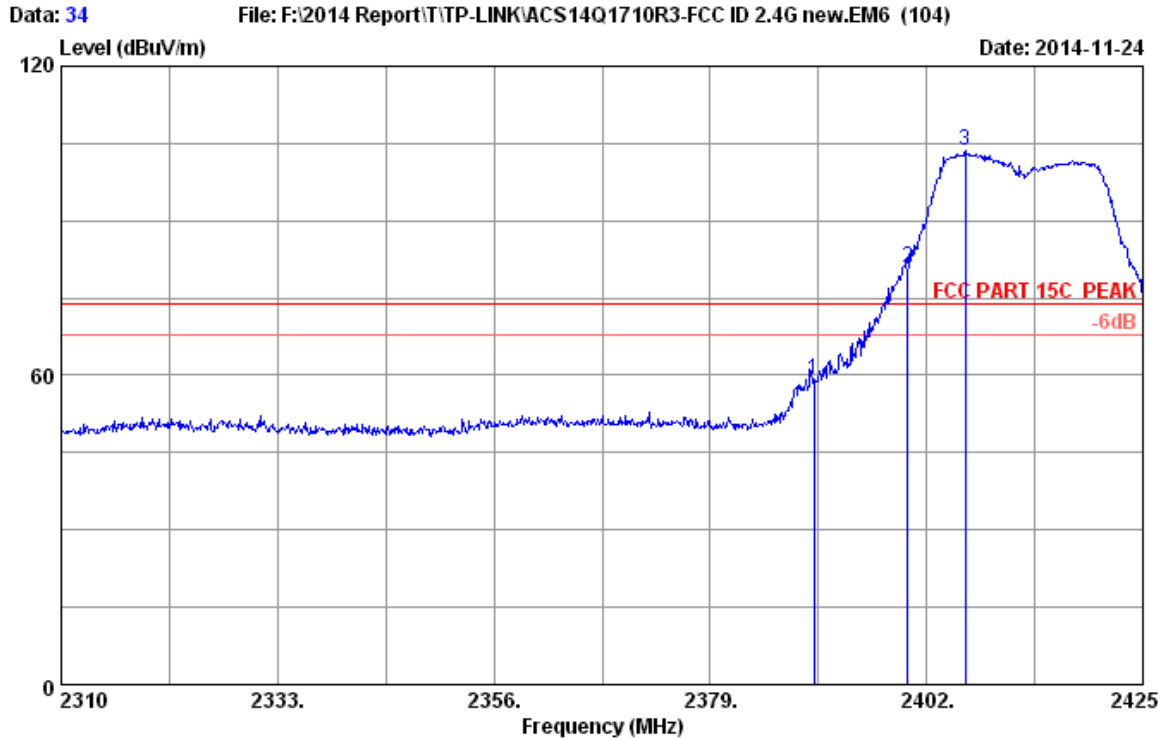


Site no. : 3m Chamber Data no. : 33  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2412MHz  
 :

No.	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	28.16	5.78	35.70	53.30	51.54	74.00	22.46	Peak
2	2400.000	28.18	5.80	35.70	74.75	73.03	74.00	0.97	Peak
3	2417.065	28.22	5.82	35.70	97.29	95.63	74.00	-21.63	Peak

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

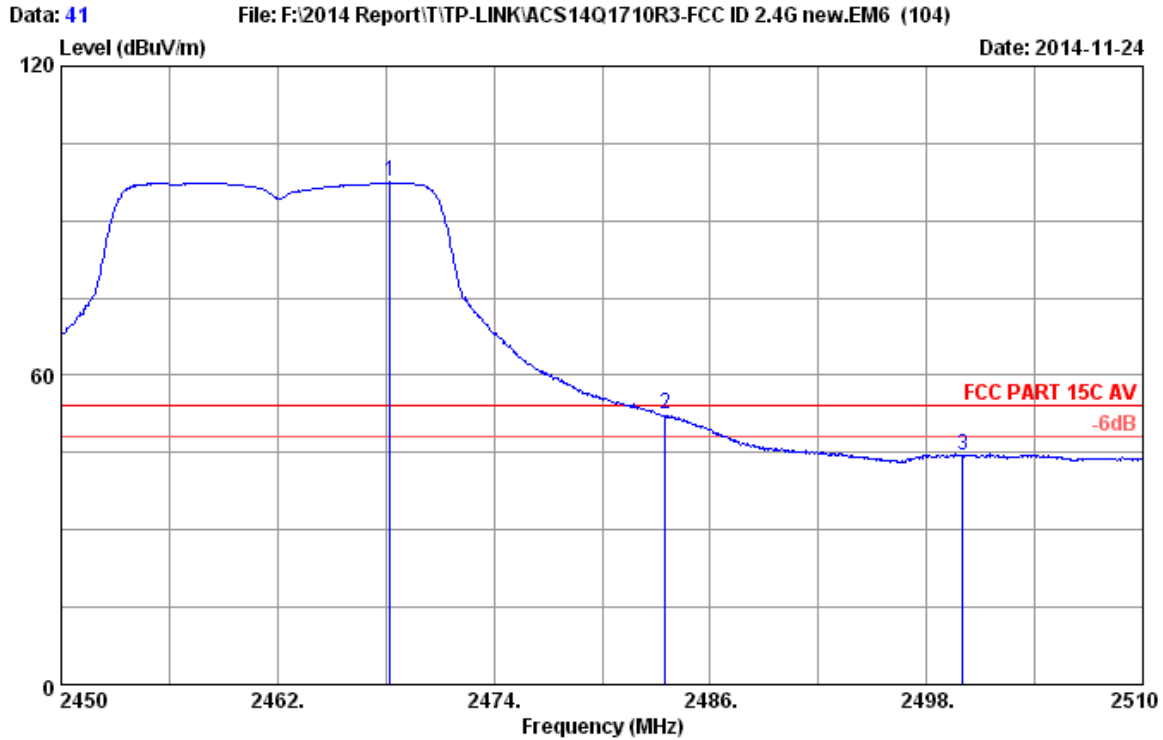




Site no. : 3m Chamber Data no. : 34  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24\*C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2412MHz  
 :

No.	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	28.16	5.78	35.70	60.85	59.09	74.00	14.91	Peak
2	2400.000	28.18	5.80	35.70	82.48	80.76	74.00	-6.76	Peak
3	2406.140	28.19	5.81	35.70	105.32	103.62	74.00	-29.62	Peak

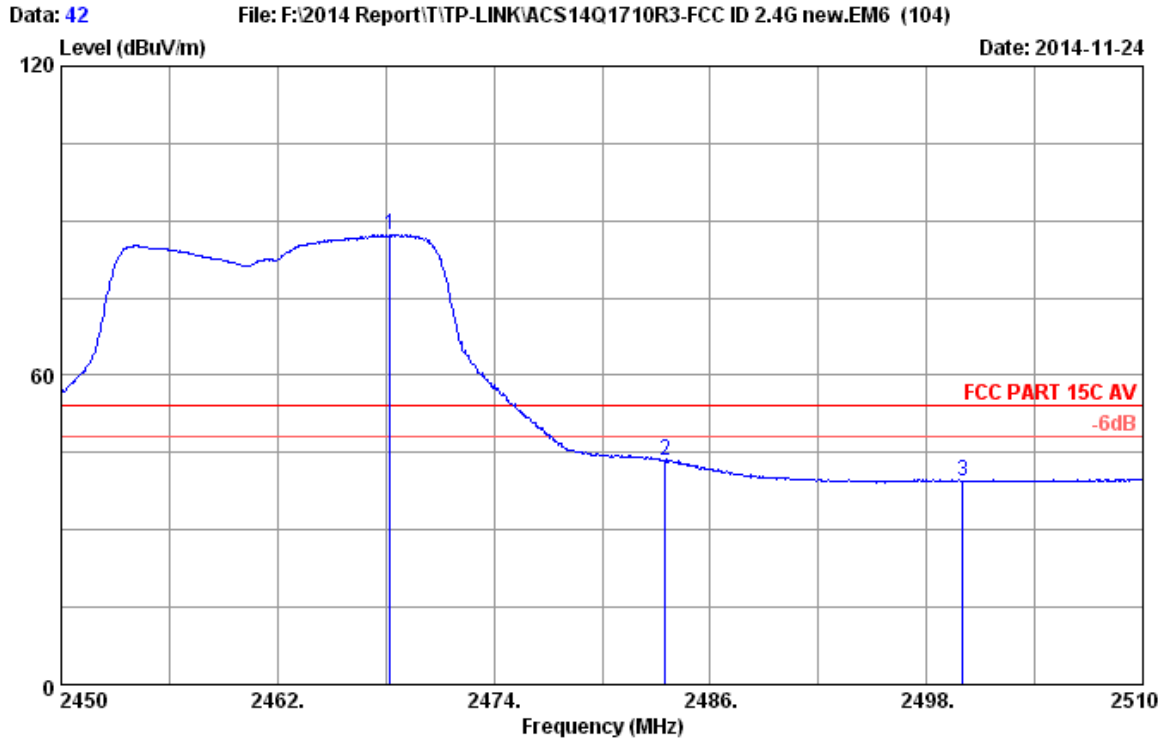
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 41  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2462MHz  
 :

No.	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	2468.240	28.33	5.90	35.70	98.93	97.46	54.00	-43.46	Average
2	2483.500	28.36	5.92	35.70	53.81	52.39	54.00	1.61	Average
3	2500.000	28.40	5.94	35.70	45.96	44.60	54.00	9.40	Average

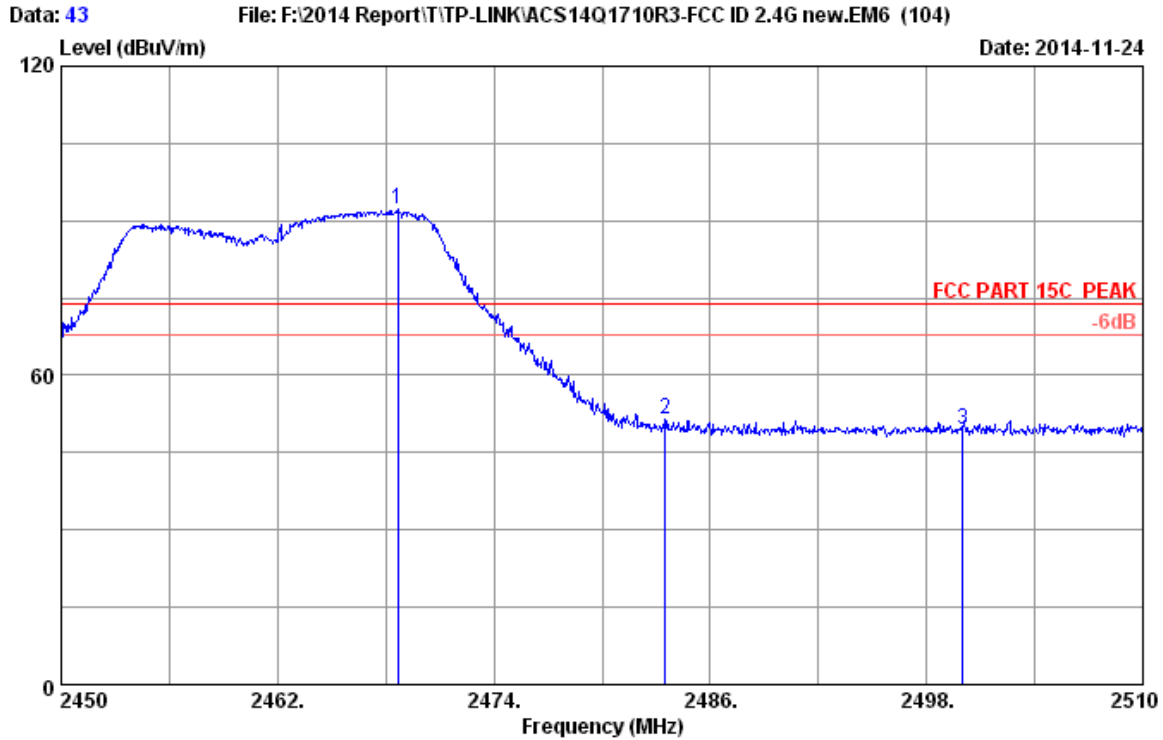
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 42  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2462MHz  
 :

No.	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	2468.240	28.33	5.90	35.70	88.83	87.36	54.00	-33.36	Average
2	2483.500	28.36	5.92	35.70	44.96	43.54	54.00	10.46	Average
3	2500.000	28.40	5.94	35.70	40.88	39.52	54.00	14.48	Average

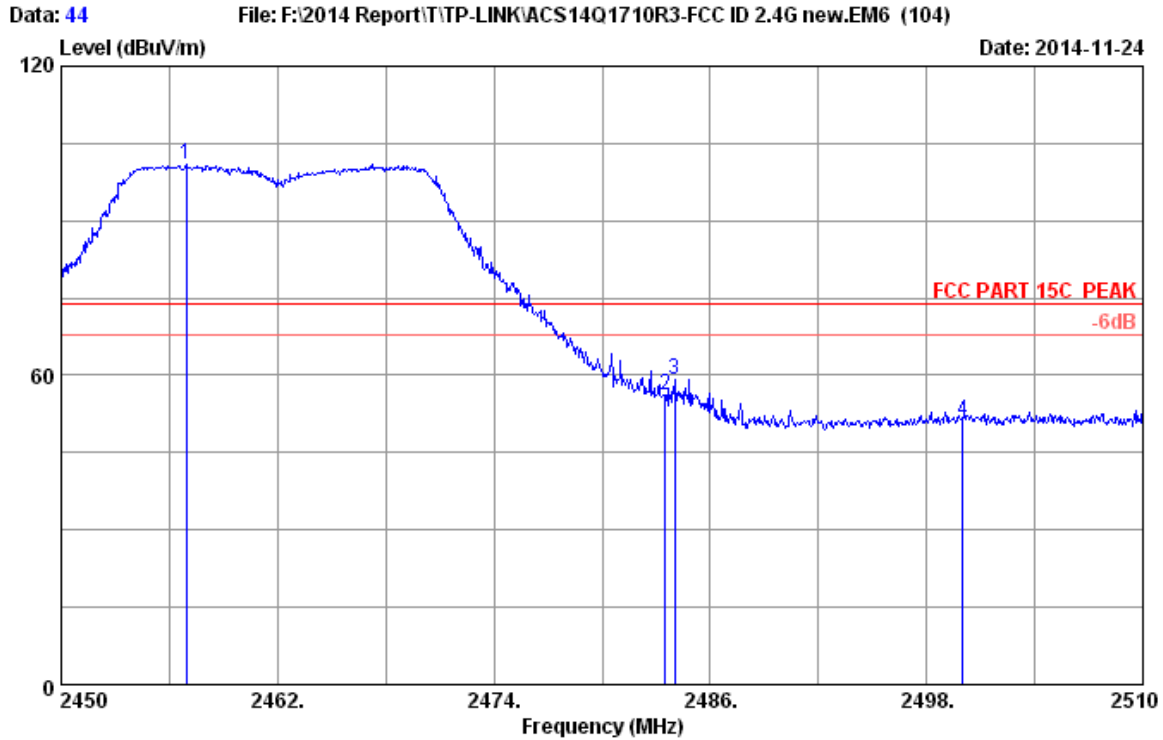
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 43  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24\*C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2462MHz  
 :

No.	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	2468.660	28.33	5.90	35.70	93.85	92.38	74.00	-18.38	Peak
2	2483.500	28.36	5.92	35.70	52.85	51.43	74.00	22.57	Peak
3	2500.000	28.40	5.94	35.70	50.78	49.42	74.00	24.58	Peak

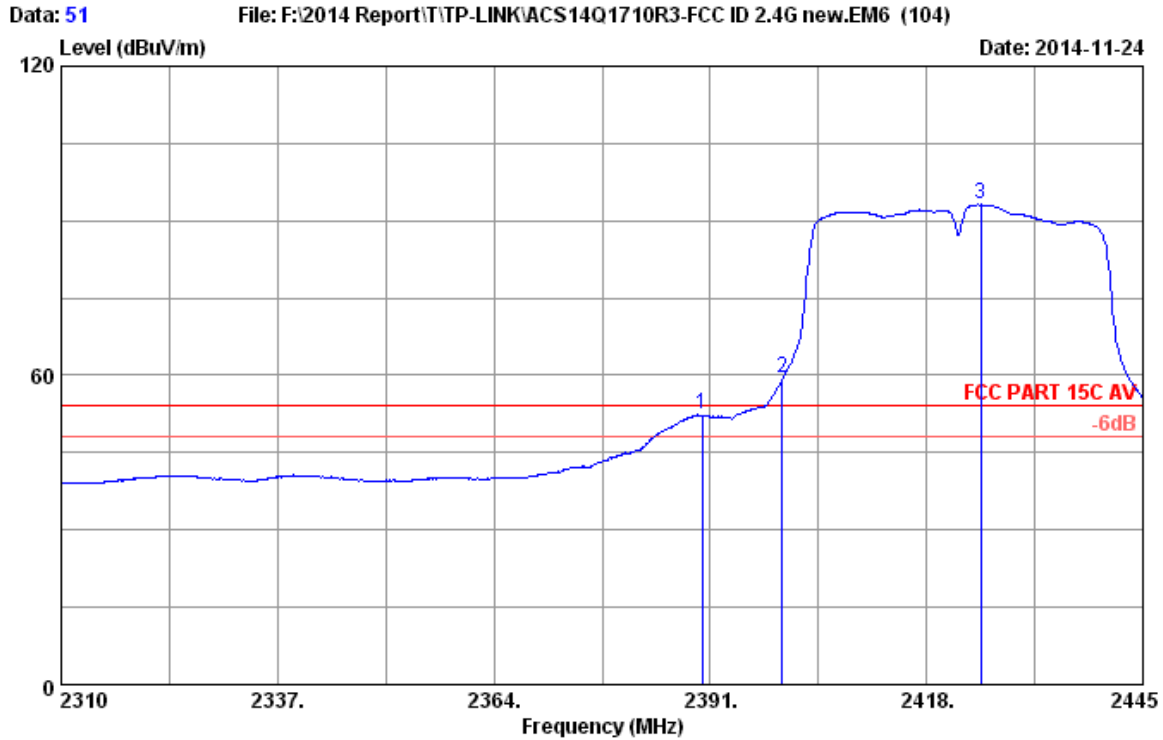
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 44  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT20 2462MHz  
 :

No.	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	2456.960	28.31	5.88	35.70	102.61	101.10	74.00	-27.10	Peak
2	2483.500	28.36	5.92	35.70	57.61	56.19	74.00	17.81	Peak
3	2484.020	28.36	5.92	35.70	60.70	59.28	74.00	14.72	Peak
4	2500.000	28.40	5.94	35.70	52.41	51.05	74.00	22.95	Peak

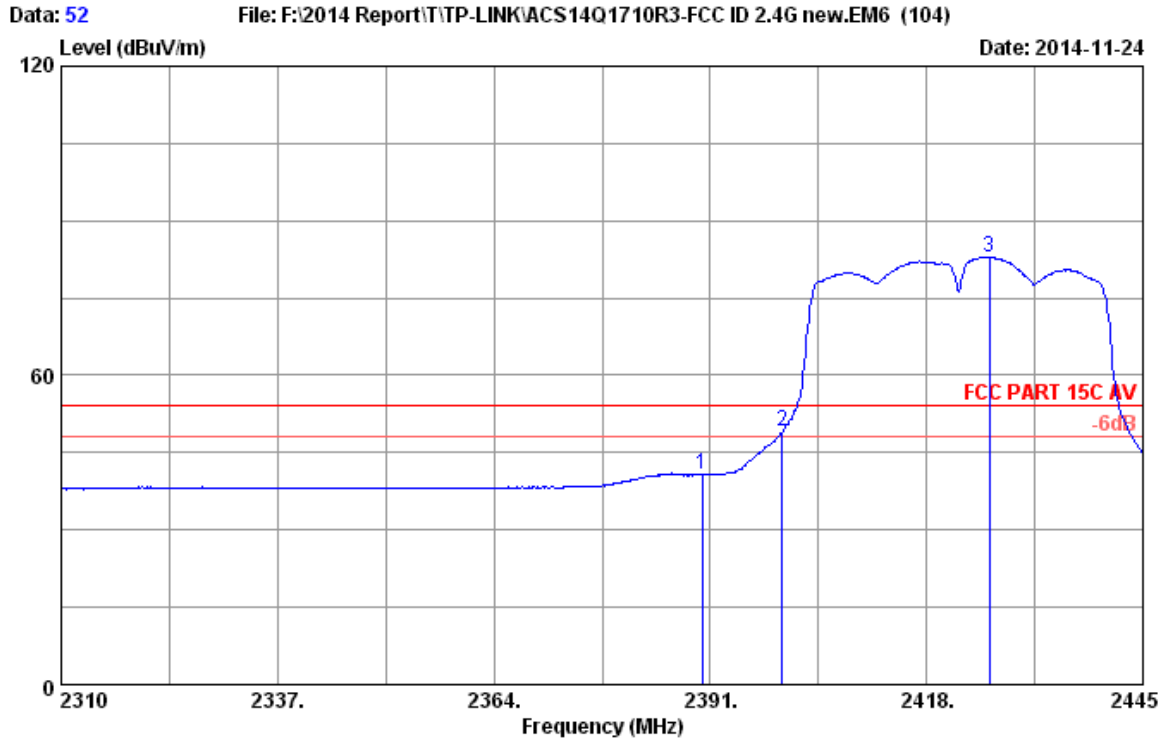
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 51  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2422MHz  
 :

No.	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	28.16	5.78	35.70	54.14	52.38	54.00	1.62	Average
2	2400.000	28.18	5.80	35.70	61.07	59.35	54.00	-5.35	Average
3	2424.750	28.23	5.83	35.70	94.76	93.12	54.00	-39.12	Average

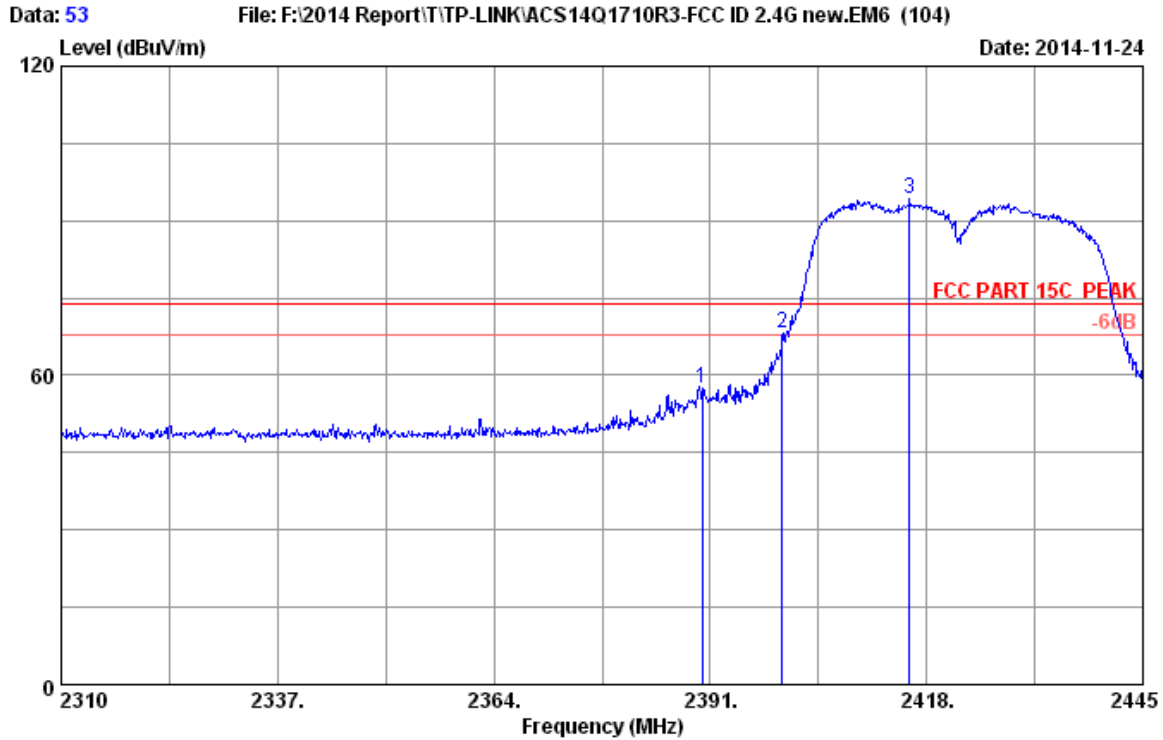
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 52  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2422MHz  
 :

No.	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	28.16	5.78	35.70	42.43	40.67	54.00	13.33	Average
2	2400.000	28.18	5.80	35.70	50.82	49.10	54.00	4.90	Average
3	2425.830	28.24	5.83	35.70	84.54	82.91	54.00	-28.91	Average

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

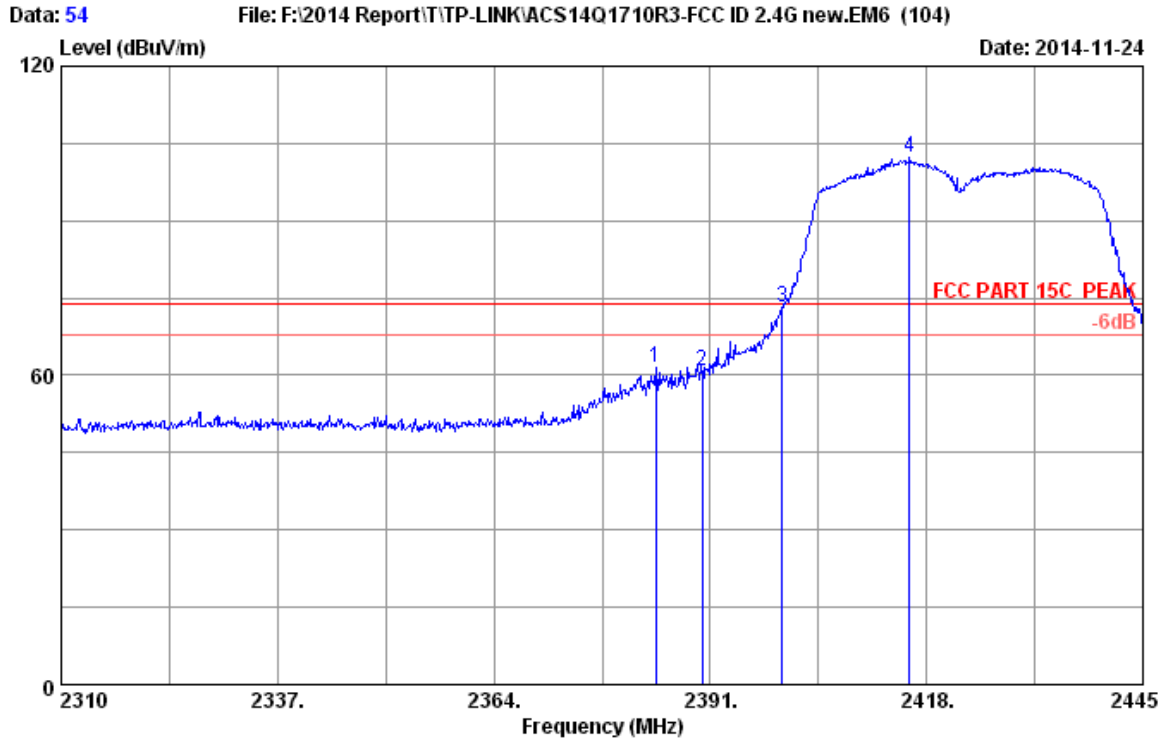


Site no. : 3m Chamber Data no. : 53  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2422MHz  
 :

No.	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	28.16	5.78	35.70	59.10	57.34	74.00	16.66	Peak
2	2400.000	28.18	5.80	35.70	69.84	68.12	74.00	5.88	Peak
3	2415.840	28.21	5.82	35.70	95.83	94.16	74.00	-20.16	Peak

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

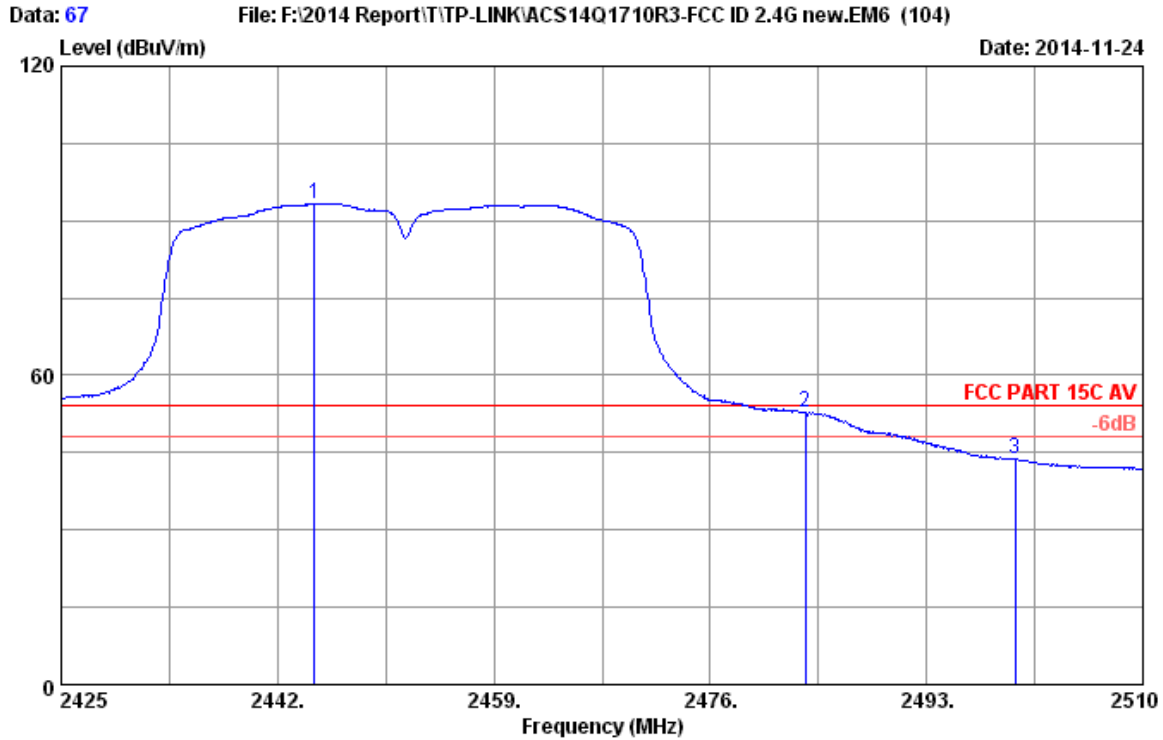




Site no. : 3m Chamber Data no. : 54  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2422MHz  
 :

No.	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	2384.250	28.15	5.77	35.70	63.43	61.65	74.00	12.35	Peak
2	2390.000	28.16	5.78	35.70	62.53	60.77	74.00	13.23	Peak
3	2400.000	28.18	5.80	35.70	75.07	73.35	74.00	0.65	Peak
4	2415.840	28.21	5.82	35.70	103.87	102.20	74.00	-28.20	Peak

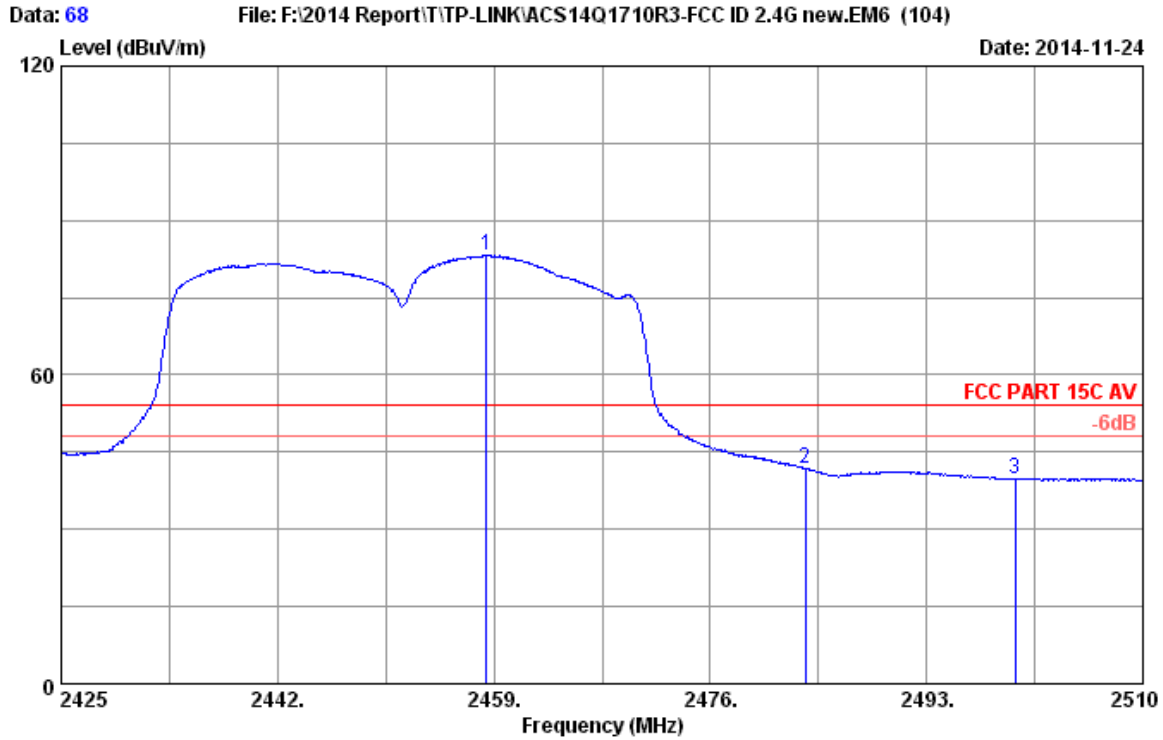
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 67  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24\*C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2452MHz  
 :

No.	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	2444.890	28.28	5.86	35.70	94.81	93.25	54.00	-39.25	Average
2	2483.500	28.36	5.92	35.70	54.20	52.78	54.00	1.22	Average
3	2500.000	28.40	5.94	35.70	45.13	43.77	54.00	10.23	Average

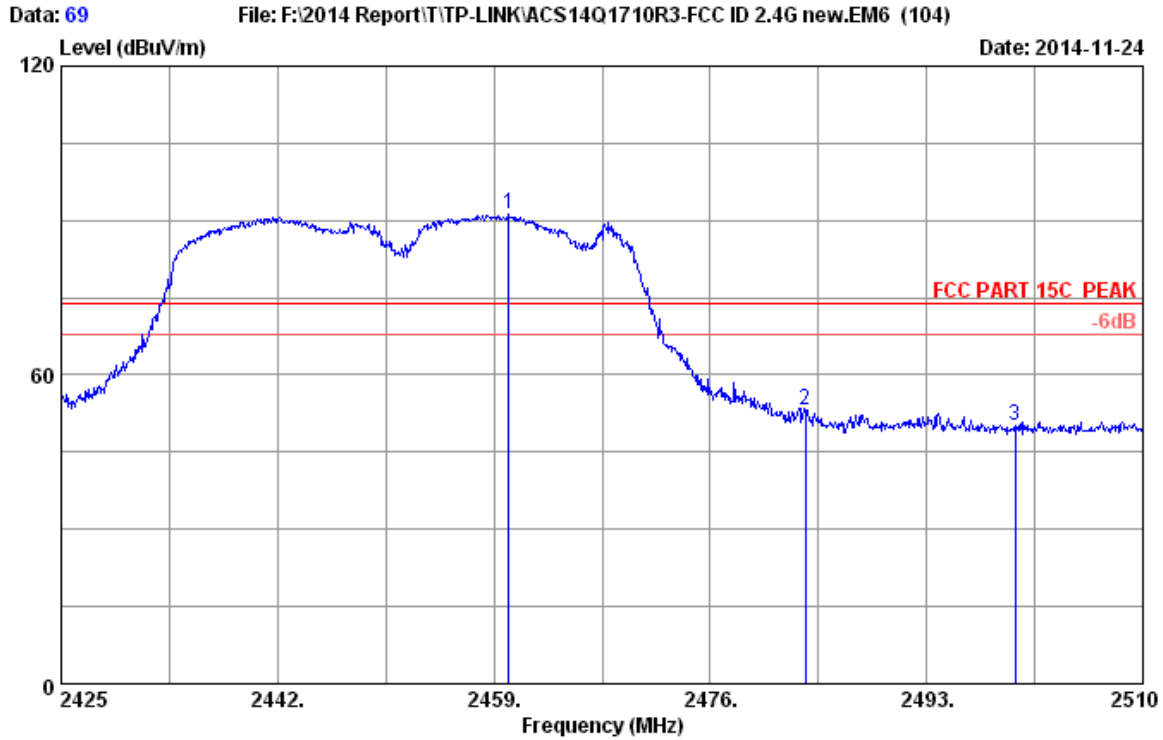
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 68  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2452MHz  
 :

No.	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	2458.405	28.31	5.88	35.70	84.75	83.24	54.00	-29.24	Average
2	2483.500	28.36	5.92	35.70	43.30	41.88	54.00	12.12	Average
3	2500.000	28.40	5.94	35.70	41.14	39.78	54.00	14.22	Average

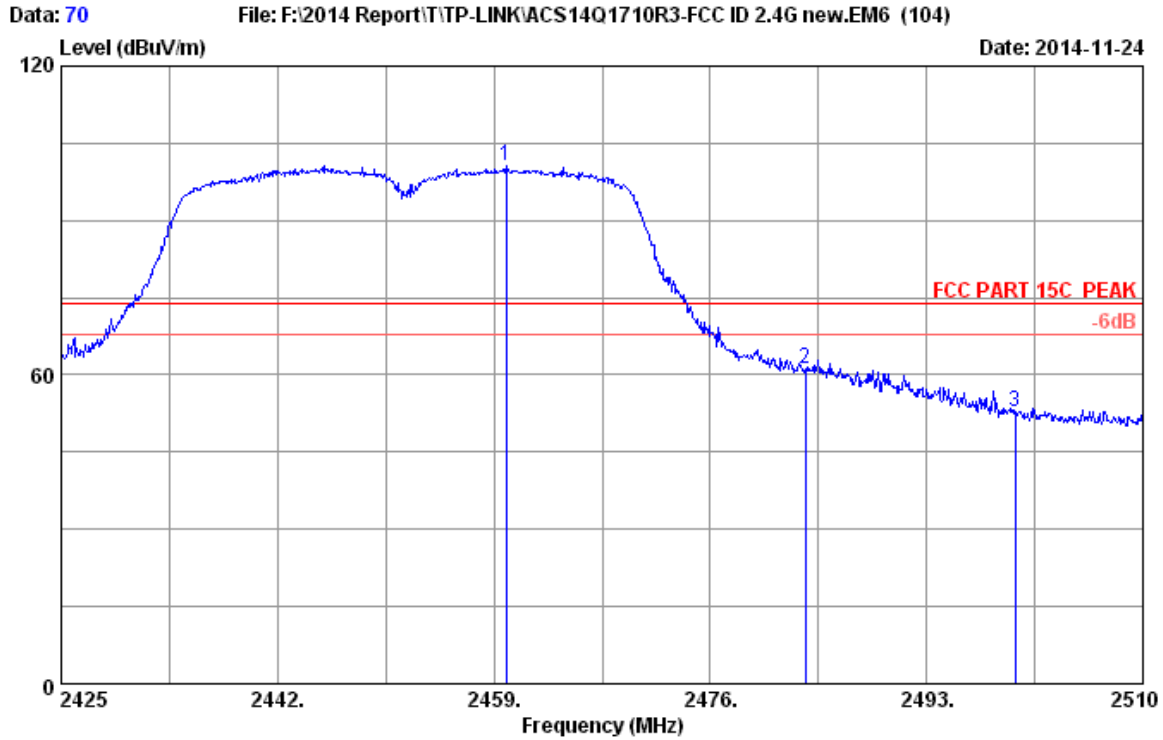
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 69  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2452MHz  
 :

No.	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	2460.190	28.31	5.88	35.70	92.79	91.28	74.00	-17.28	Peak
2	2483.500	28.36	5.92	35.70	54.41	52.99	74.00	21.01	Peak
3	2500.000	28.40	5.94	35.70	51.34	49.98	74.00	24.02	Peak

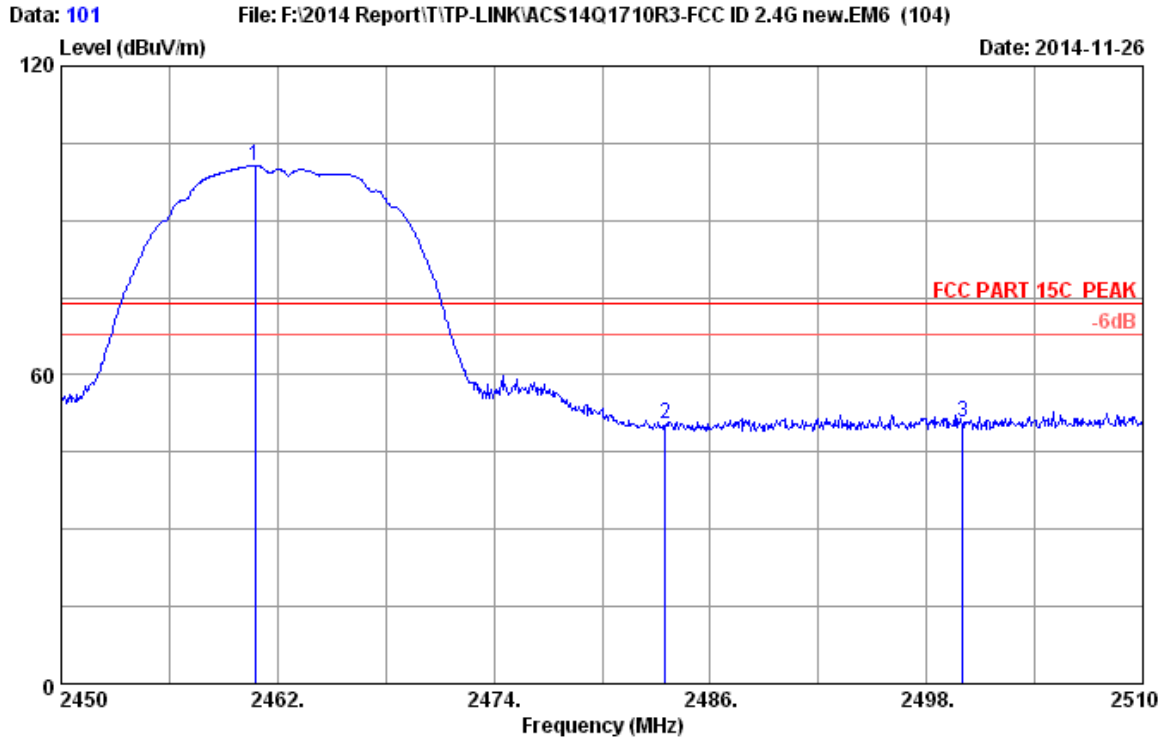
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 70  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11n HT40 2452MHz  
 :

No.	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	2459.935	28.31	5.88	35.70	102.21	100.70	74.00	-26.70	Peak
2	2483.500	28.36	5.92	35.70	62.65	61.23	74.00	12.77	Peak
3	2500.000	28.40	5.94	35.70	54.04	52.68	74.00	21.32	Peak

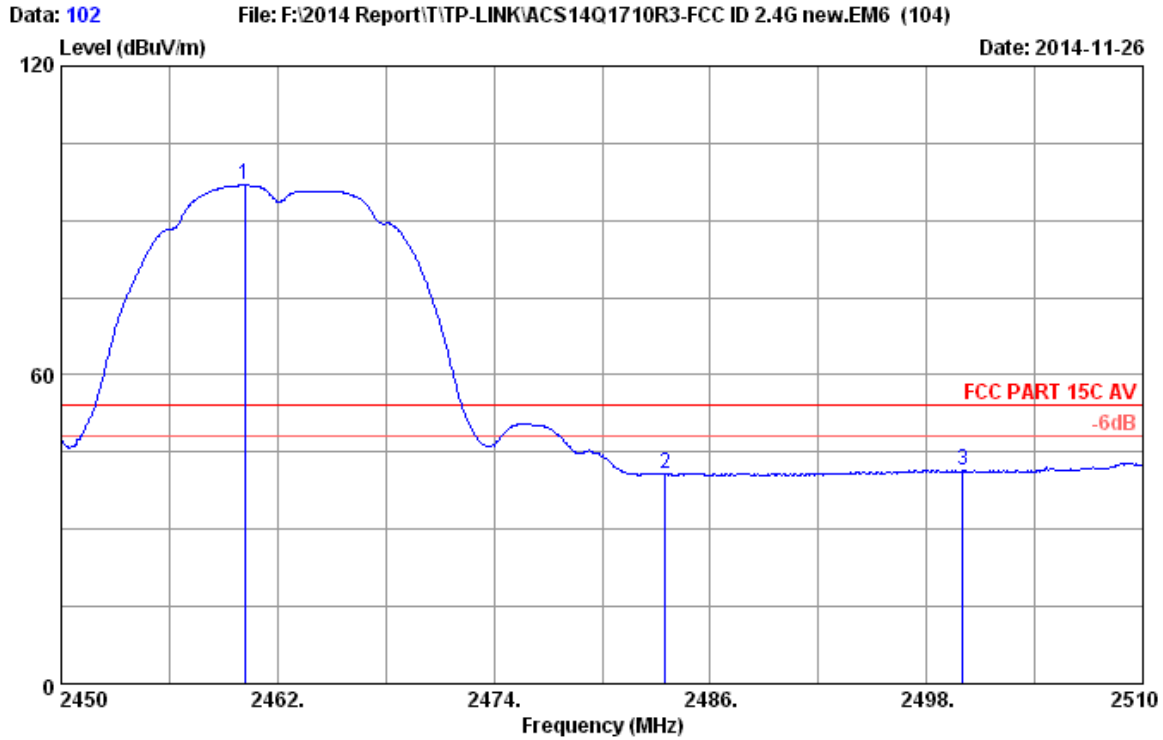
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 101  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11b 2462MHz  
 : The Othe Sample

No.	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	2460.740	28.31	5.89	35.70	102.13	100.63	74.00	-26.63	Peak
2	2483.500	28.36	5.92	35.70	51.89	50.47	74.00	23.53	Peak
3	2500.000	28.40	5.94	35.70	52.10	50.74	74.00	23.26	Peak

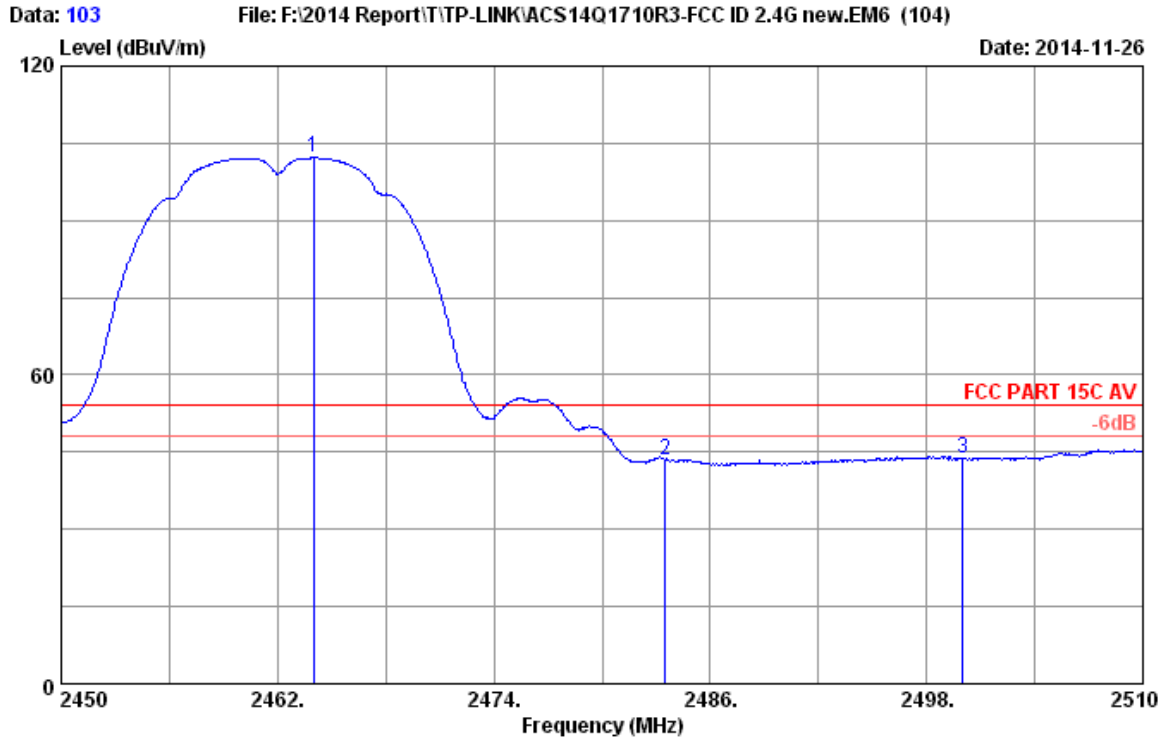
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading  
 -Amp Factor  
 2. The emission levels that are 20dB below the official  
 limit are not reported.



Site no. : 3m Chamber Data no. : 102  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11b 2462MHz  
 : The Othe Sample

No.	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	2460.200	28.31	5.88	35.70	98.33	96.82	54.00	-42.82	Peak
2	2483.500	28.36	5.92	35.70	42.19	40.77	54.00	13.23	Peak
3	2500.000	28.40	5.94	35.70	42.81	41.45	54.00	12.55	Peak

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

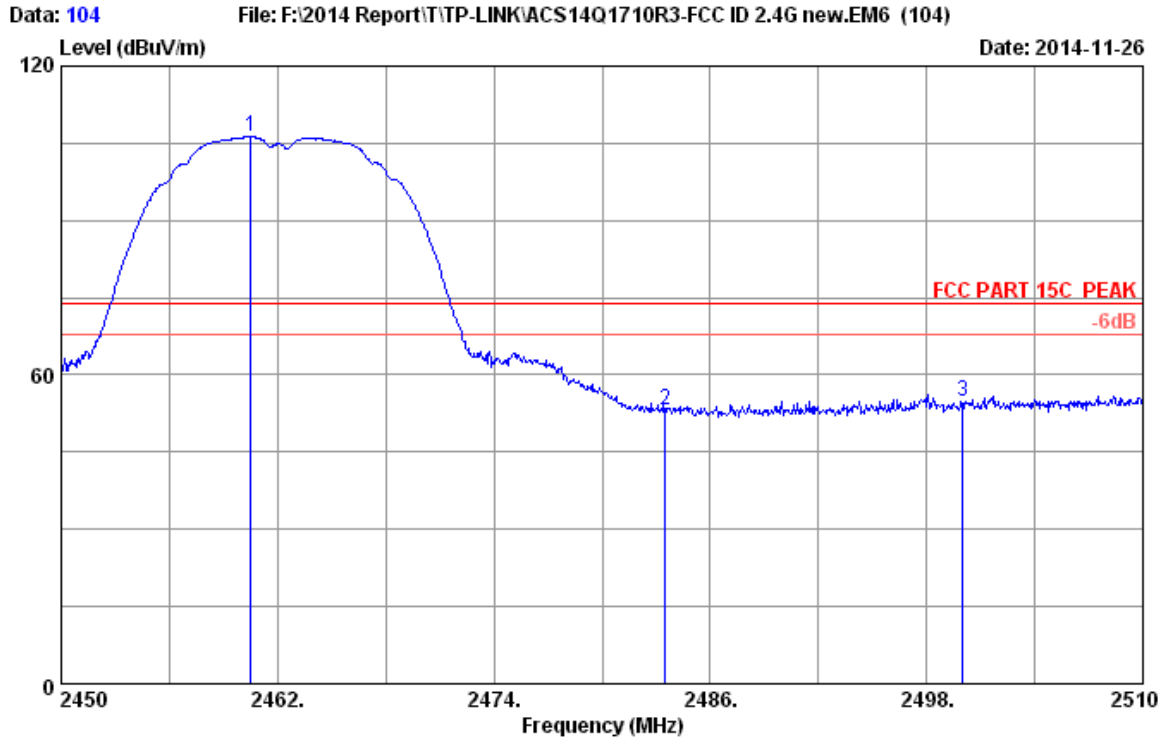


Site no. : 3m Chamber Data no. : 103  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C AV  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11b 2462MHz  
 : The Othe Sample

No.	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	2463.980	28.32	5.89	35.70	103.63	102.14	54.00	-48.14	Peak
2	2483.500	28.36	5.92	35.70	44.78	43.36	54.00	10.64	Peak
3	2500.000	28.40	5.94	35.70	45.06	43.70	54.00	10.30	Peak

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





Site no. : 3m Chamber Data no. : 104  
 Dis. / Ant. : 3m 2014 3115 (4580) Ant. pol. : VERTICAL  
 Limit : FCC PART 15C PEAK  
 Env. / Ins. : 24°C/56% Engineer : Black  
 EUT : 300Mbps WiFi Range Extender Power Outlet  
 Pass-through M/N:TL-WA860RE  
 Power rating : AC 120V/60Hz  
 Test Mode : 802.11b 2462MHz  
 : The Othe Sample

No.	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	2460.500	28.31	5.89	35.70	107.73	106.23	74.00	-32.23	Peak
2	2483.500	28.36	5.92	35.70	54.48	53.06	74.00	20.94	Peak
3	2500.000	28.40	5.94	35.70	56.18	54.82	74.00	19.18	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 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	Apr. 28,14	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.29, 14	1Year
3.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,14	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,14	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 300kHz RBW and 1MHz 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

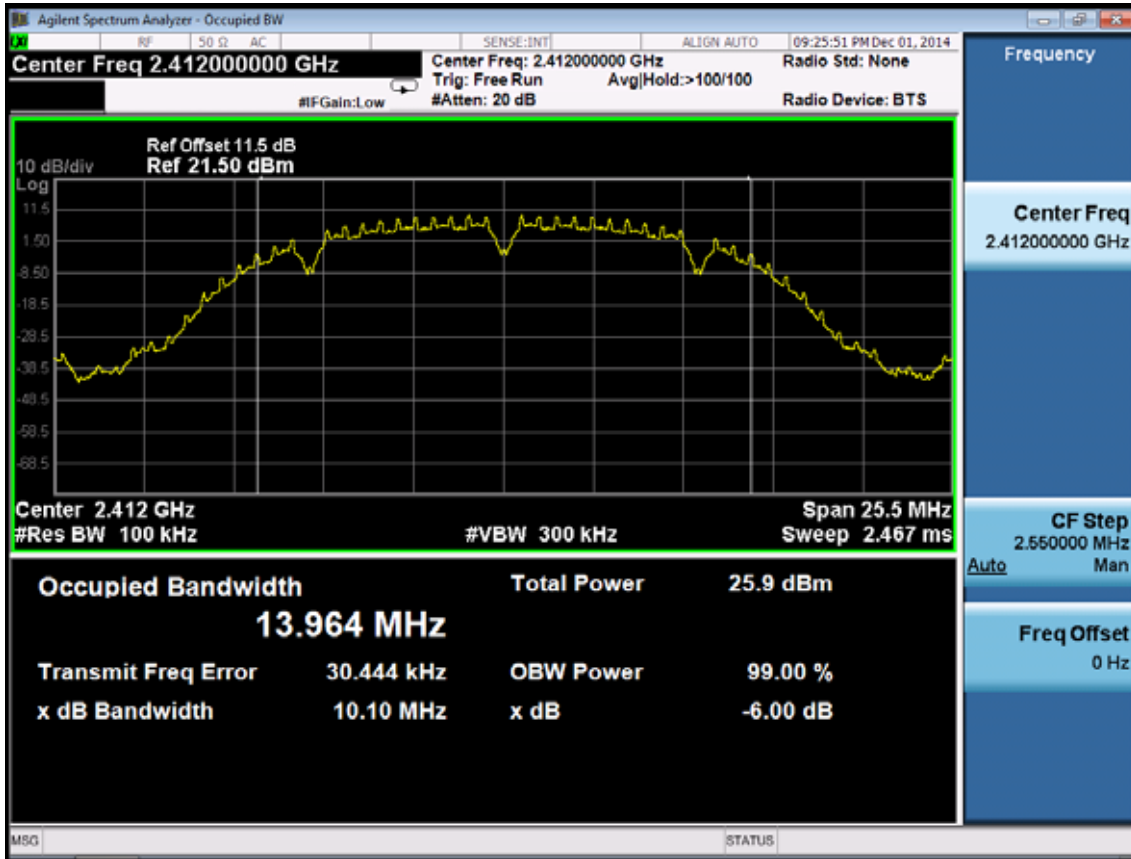
EUT: 300Mbps WIFI Range Extender Power Outlet Pass-through		
M/N: TL-WA860RE		
Test date: 2014-12-01	Pressure: 102.3±1. 0kpa	Humidity: 53.5±3. 0 %
Tested by: Black_Yan	Test site: RF site	Temperature:22.6±0. 6°C

Test Mode	CH	-6dB bandwidth (MHz)		Limit (KHz)
		ANT0	ANT1	
11b	CH1	10.10	10.10	>500
	CH6	10.10	10.11	>500
	CH11	10.10	10.10	>500
11g	CH1	16.37	16.36	>500
	CH6	16.36	16.36	>500
	CH11	16.36	16.36	>500
11n HT20	CH1	17.59	17.58	>500
	CH6	17.58	17.57	>500
	CH11	17.59	17.58	>500
11n HT40	CH3	35.15	35.14	>500
	CH6	35.15	35.14	>500
	CH9	35.15	35.14	>500
Conclusion : PASS				

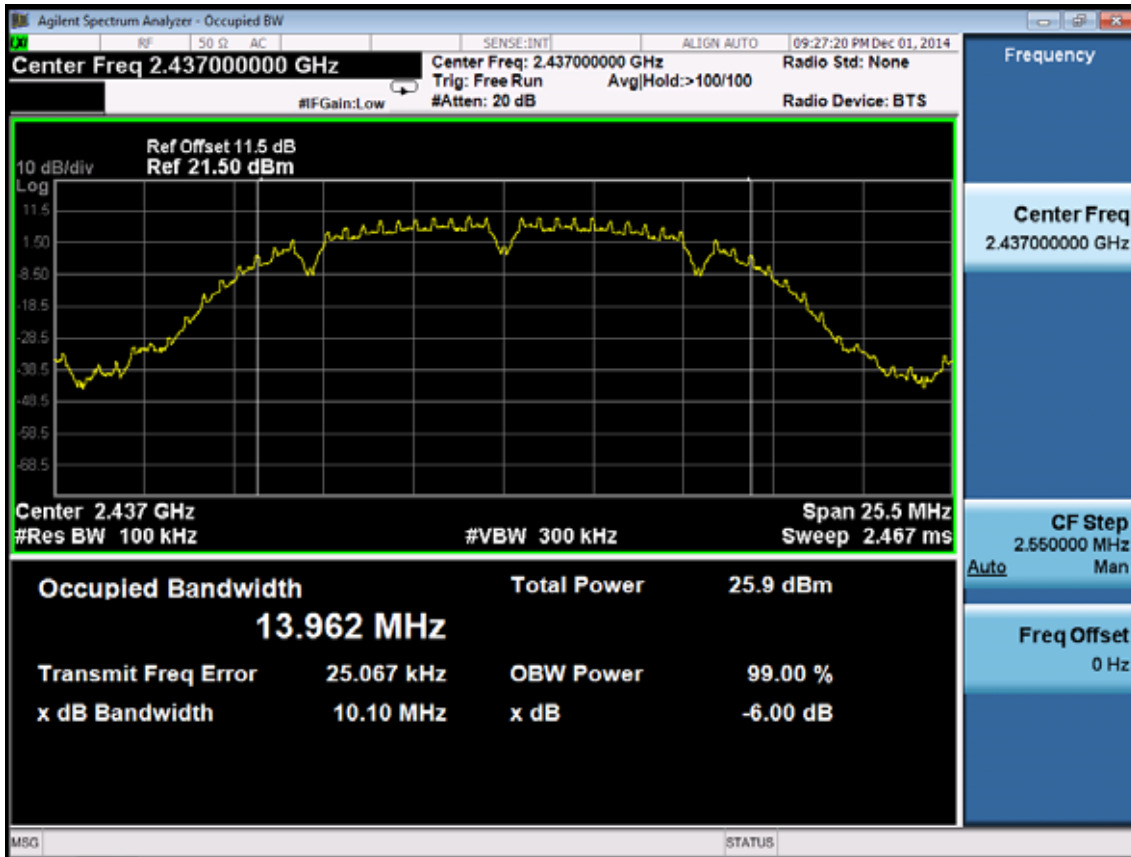
**ANT 0:**

Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz



Test CH6: 2437MHz

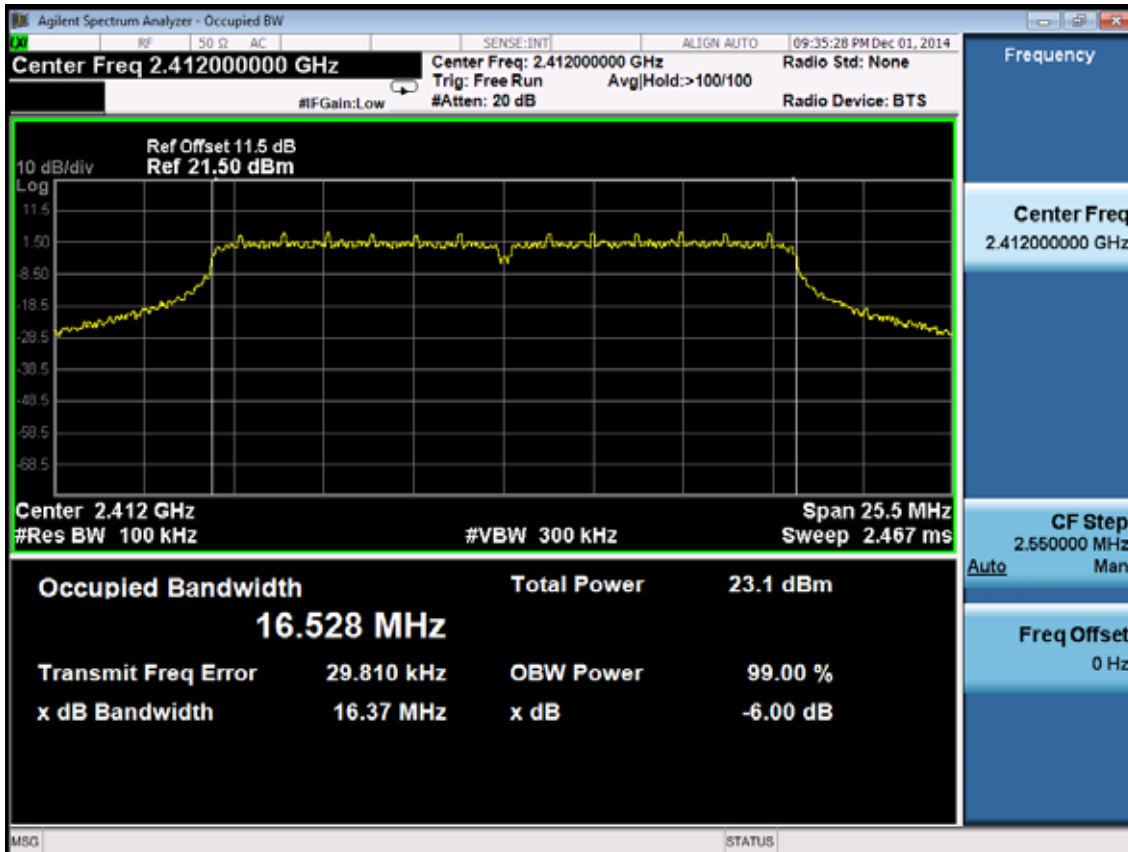


Test CH11: 2462MHz

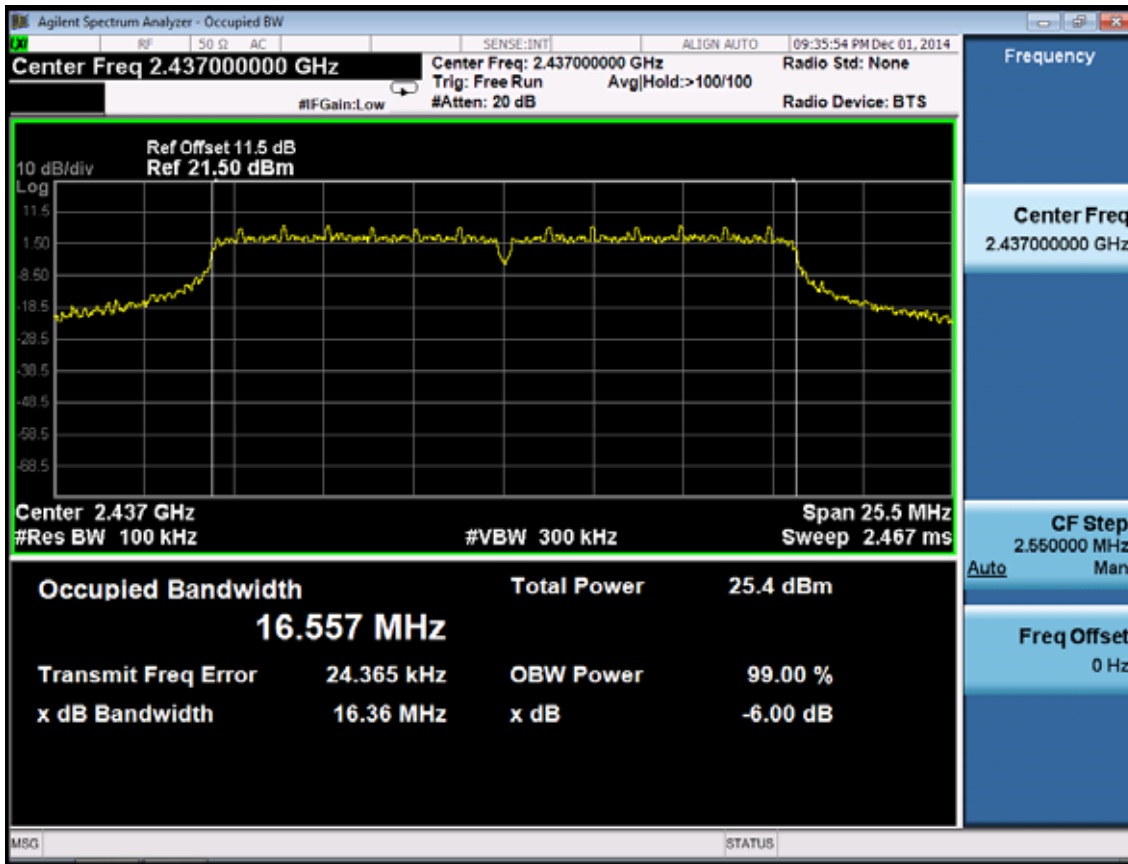


Test Mode: IEEE 802.11g TX

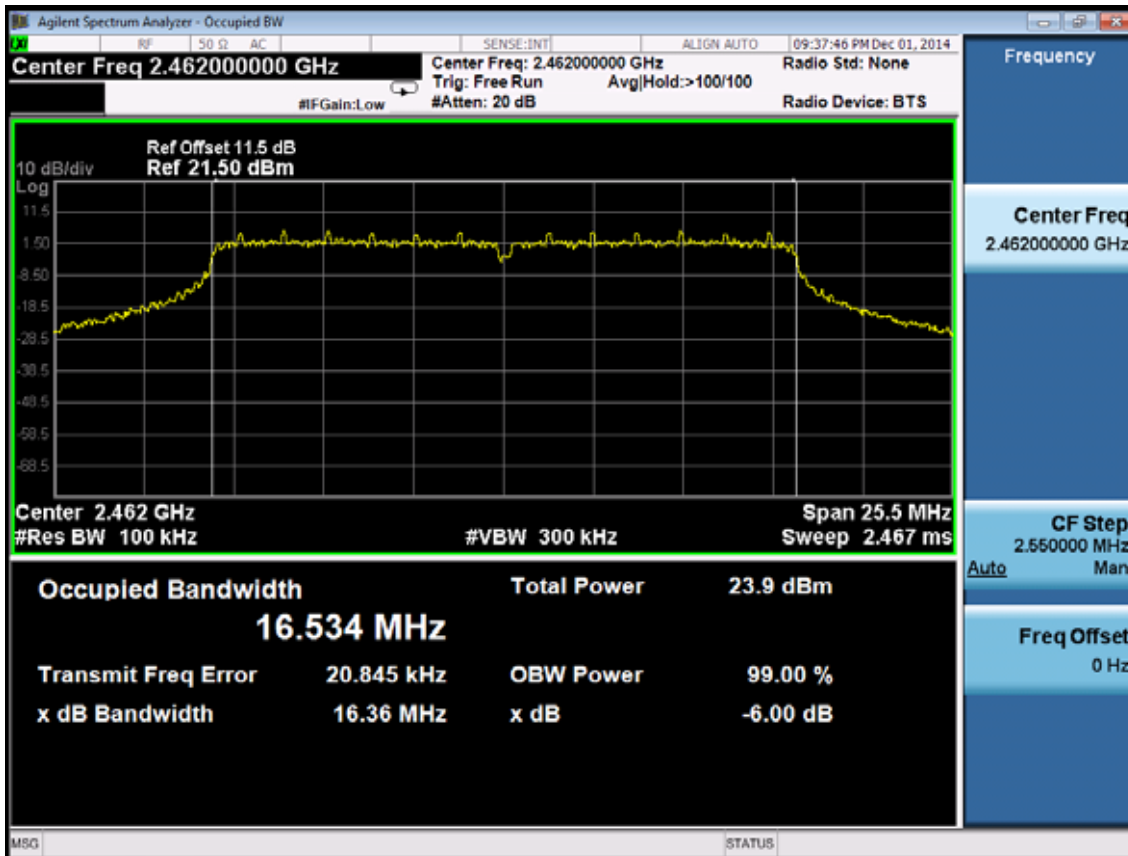
Test CH1: 2412MHz



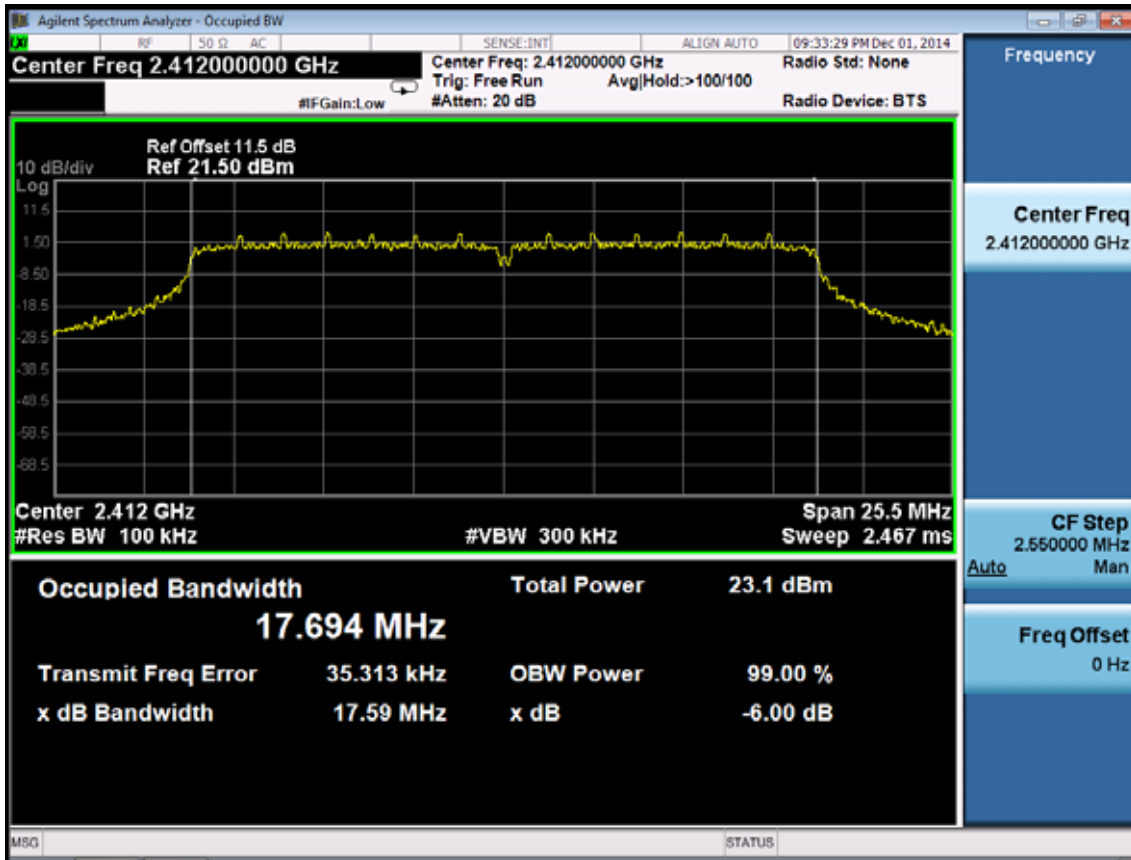
Test CH6: 2437MHz



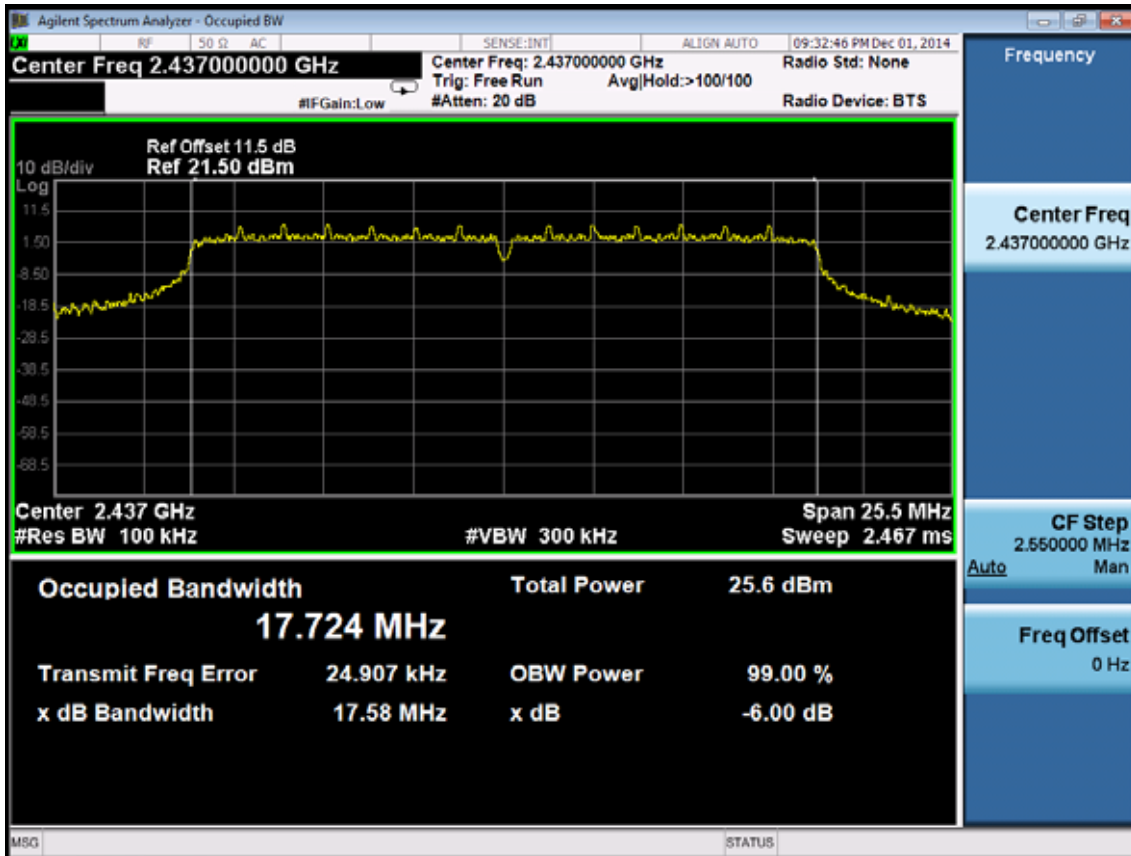
Test CH11: 2462MHz



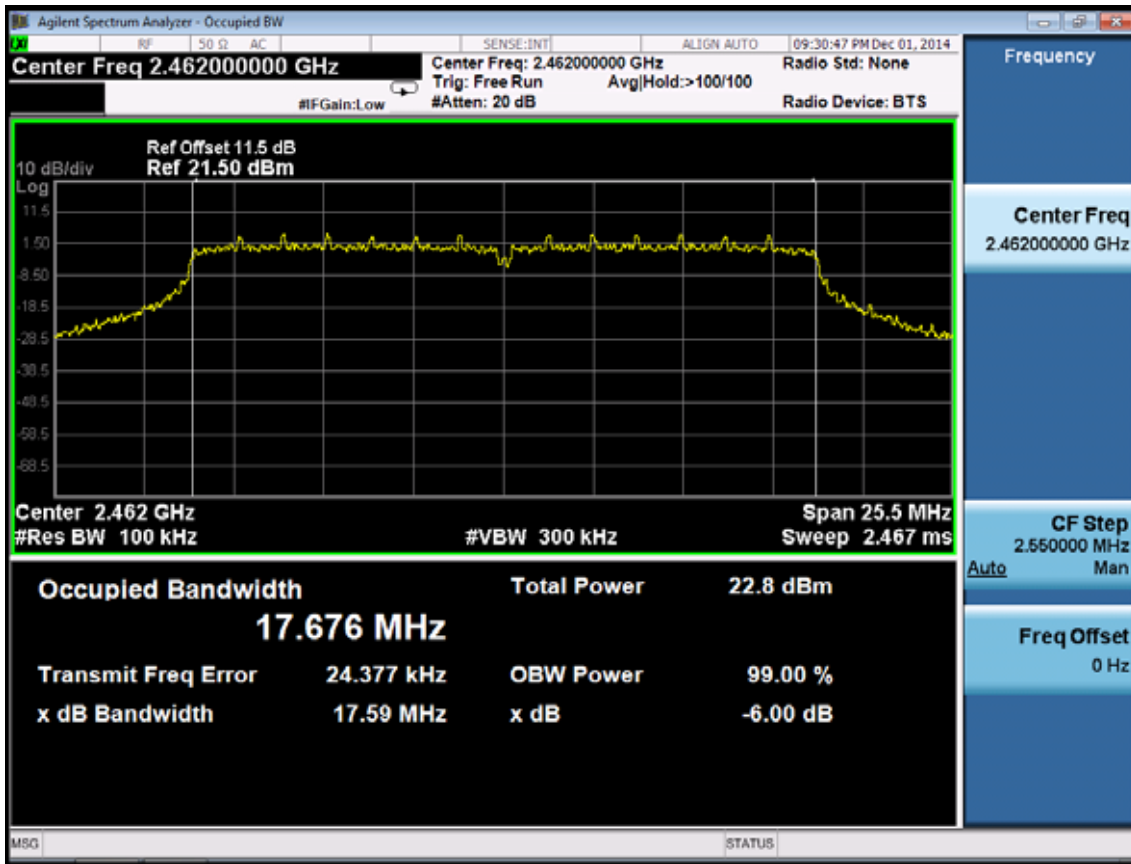
Test Mode: IEEE 802.11n HT20 TX  
 Test CH1: 2412MHz



Test CH6: 2437MHz

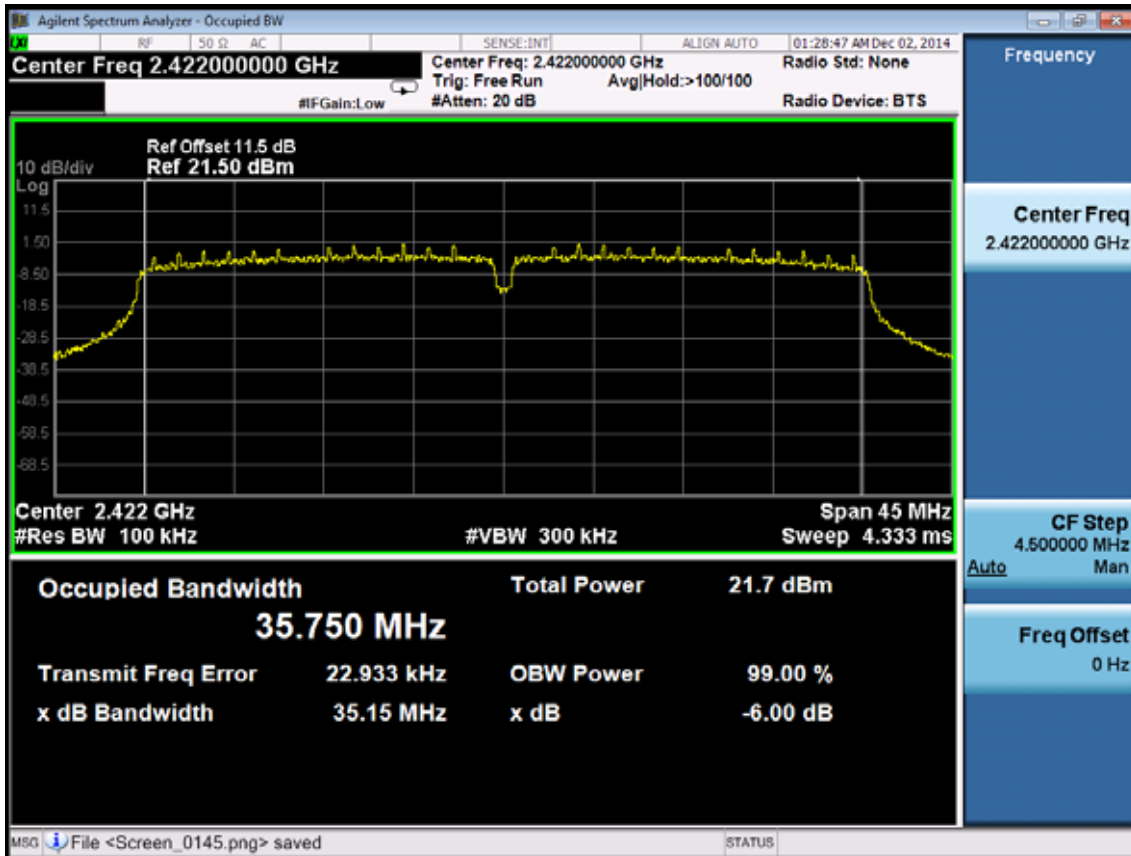


Test CH11: 2462MHz

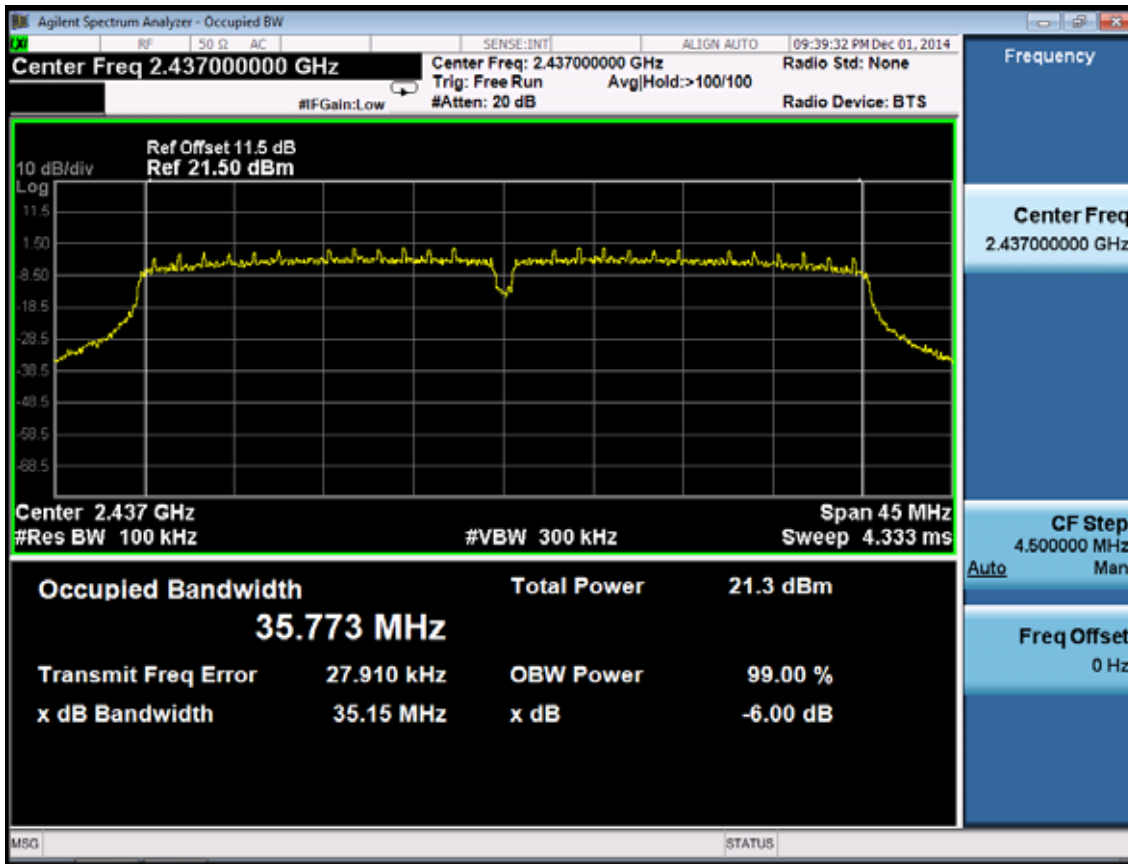


Test Mode: IEEE 802.11n HT40 TX

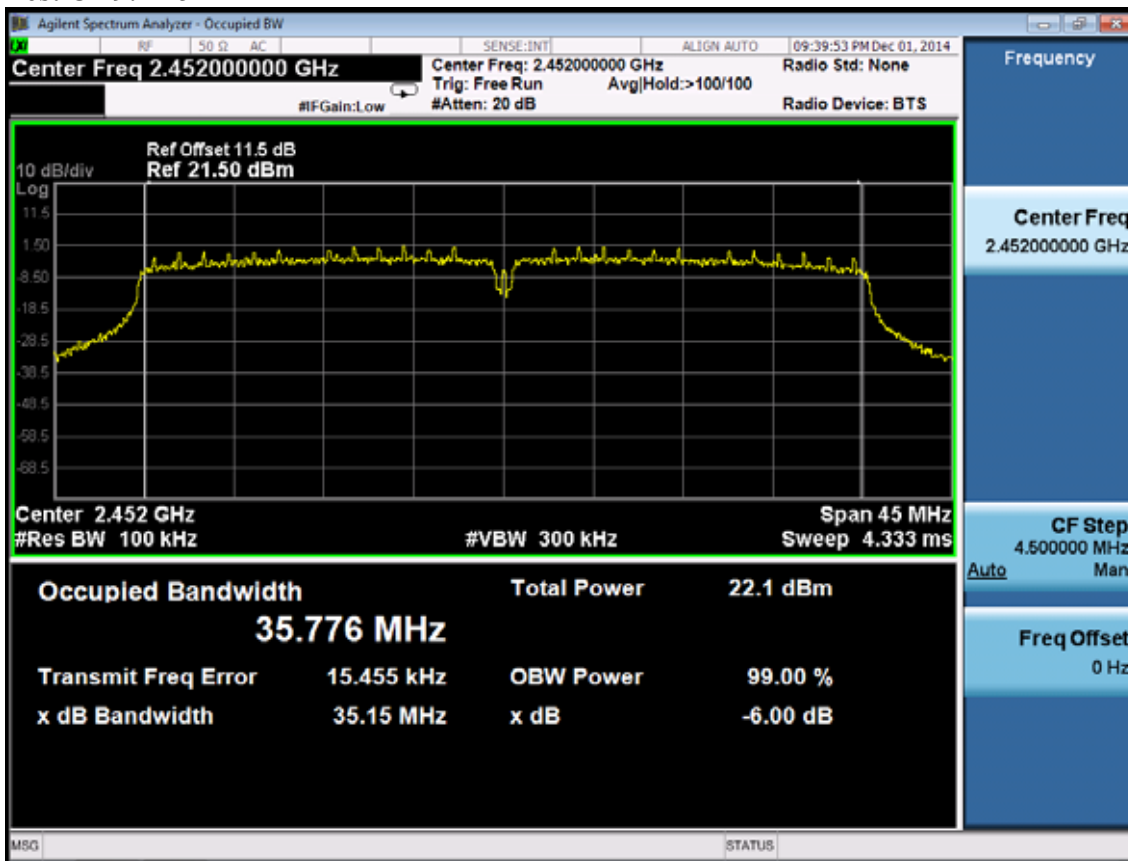
Test CH3: 2422MHz



Test CH6: 2437MHz



Test CH9: 2452MHz

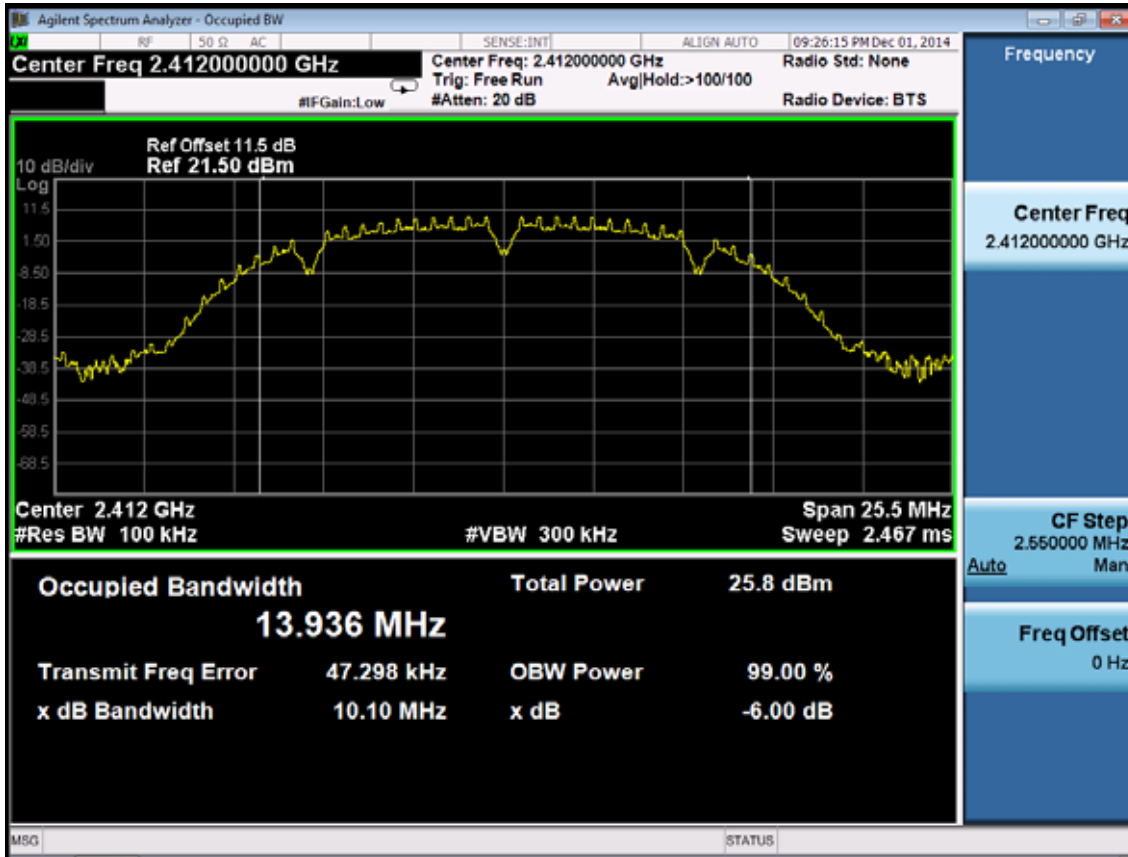




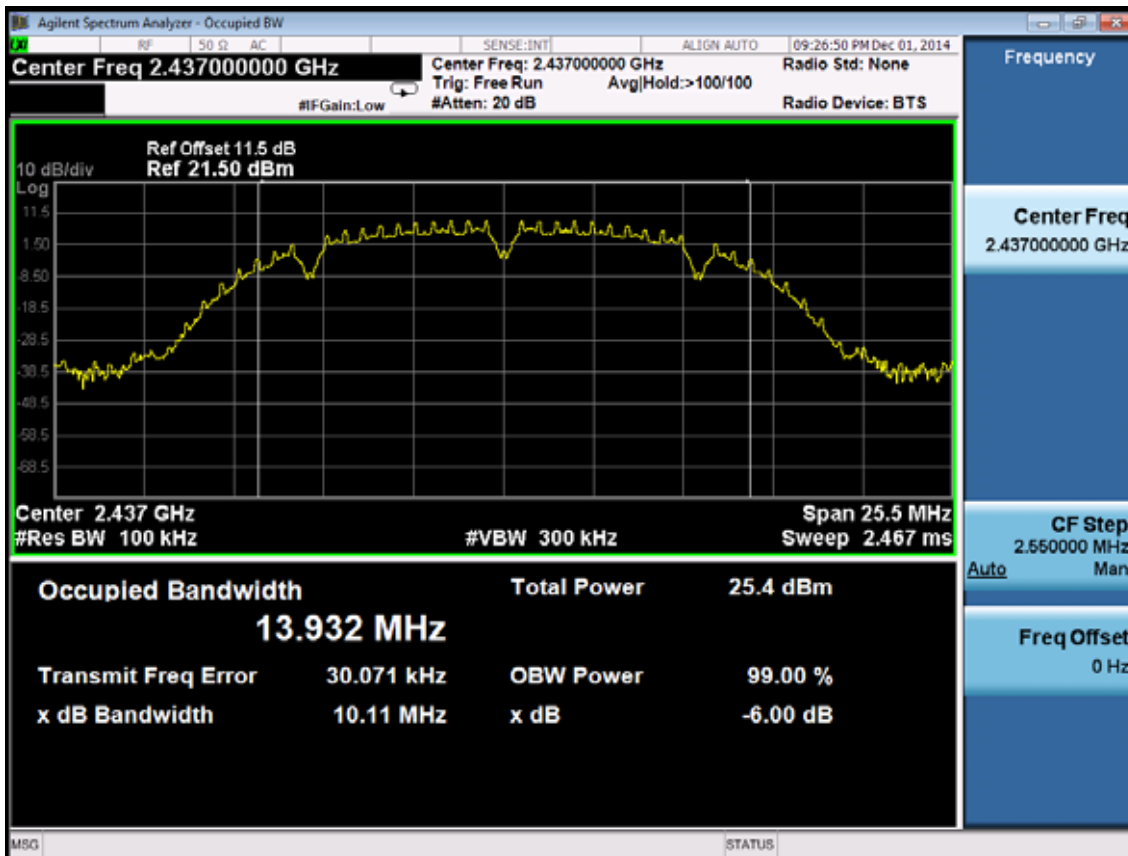
**ANT 1:**

Test Mode: IEEE 802.11b TX

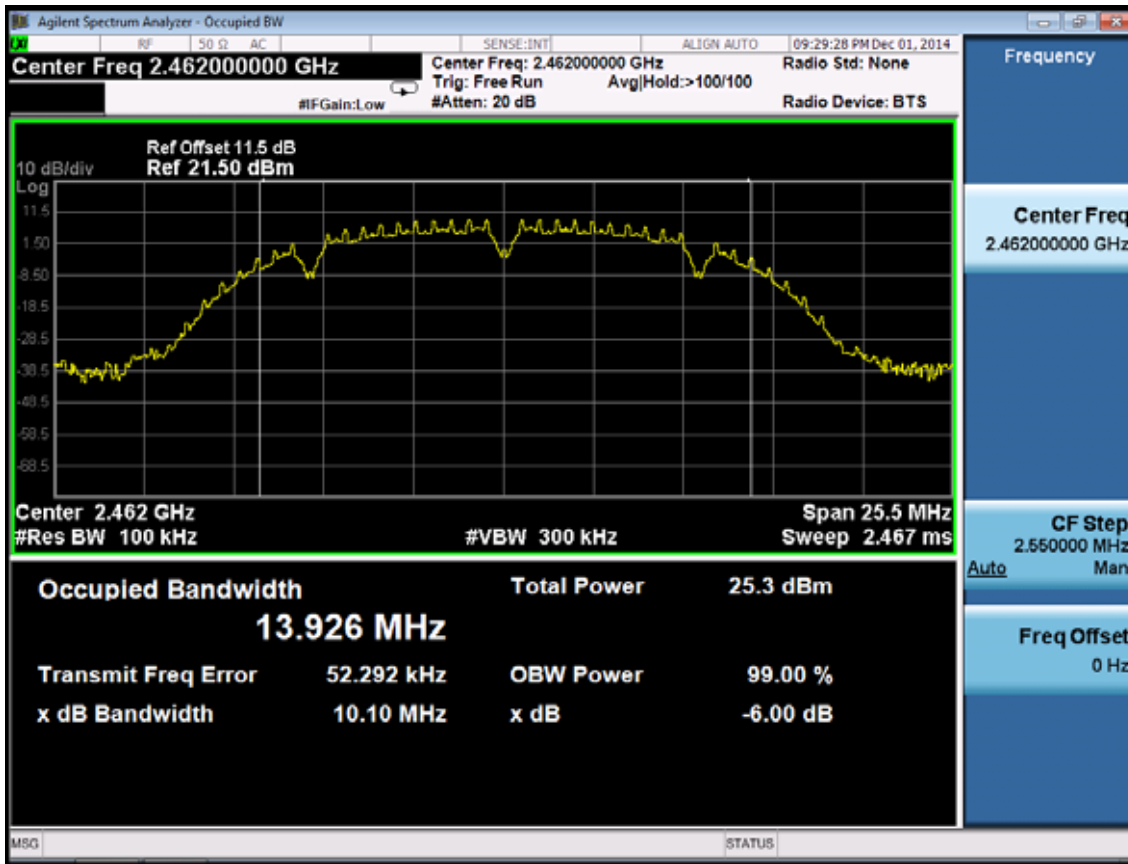
Test CH1: 2412MHz



**Test CH6: 2437MHz**

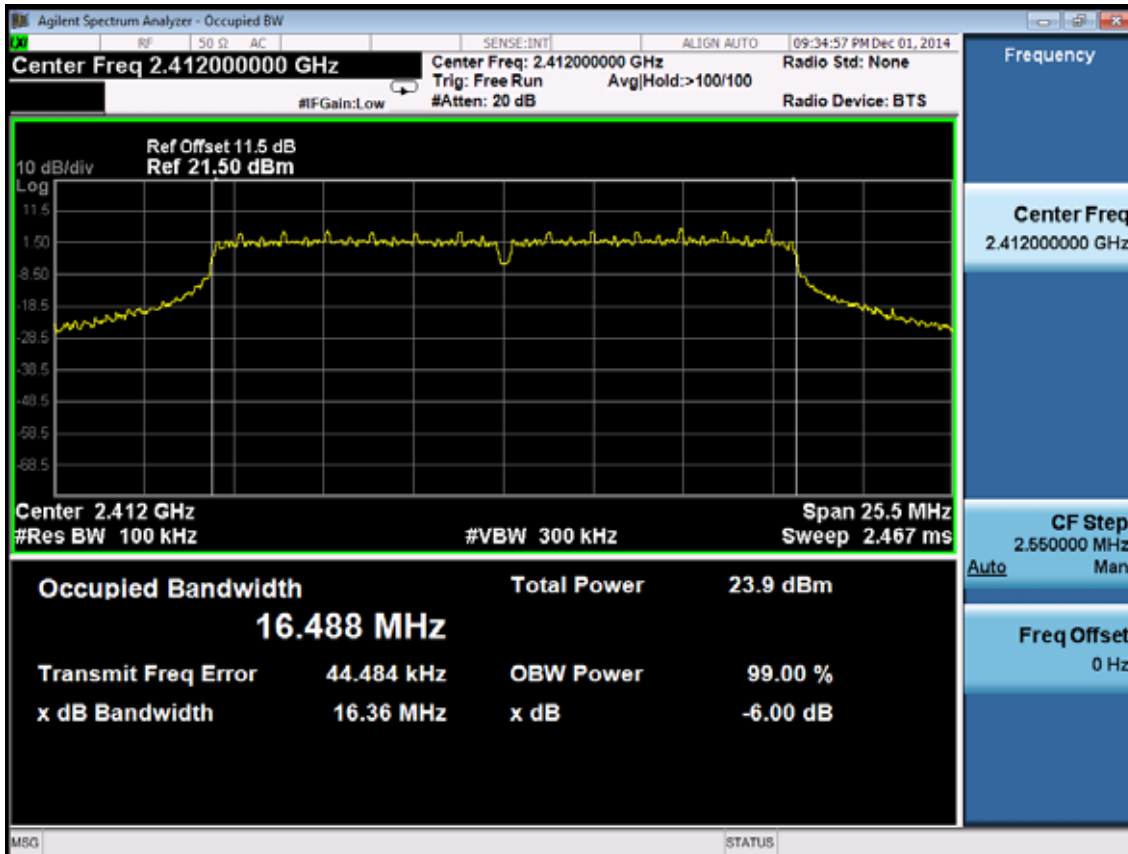


Test CH11: 2462MHz

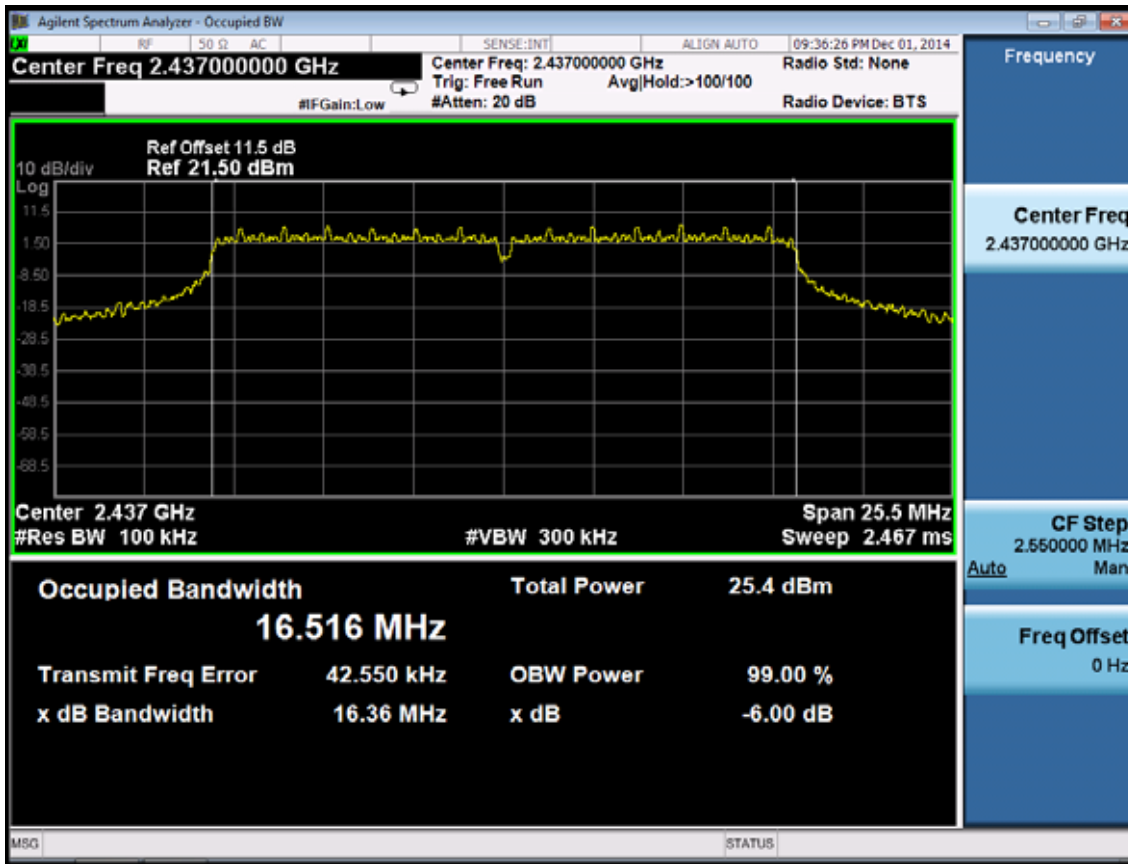


Test Mode: IEEE 802.11g TX

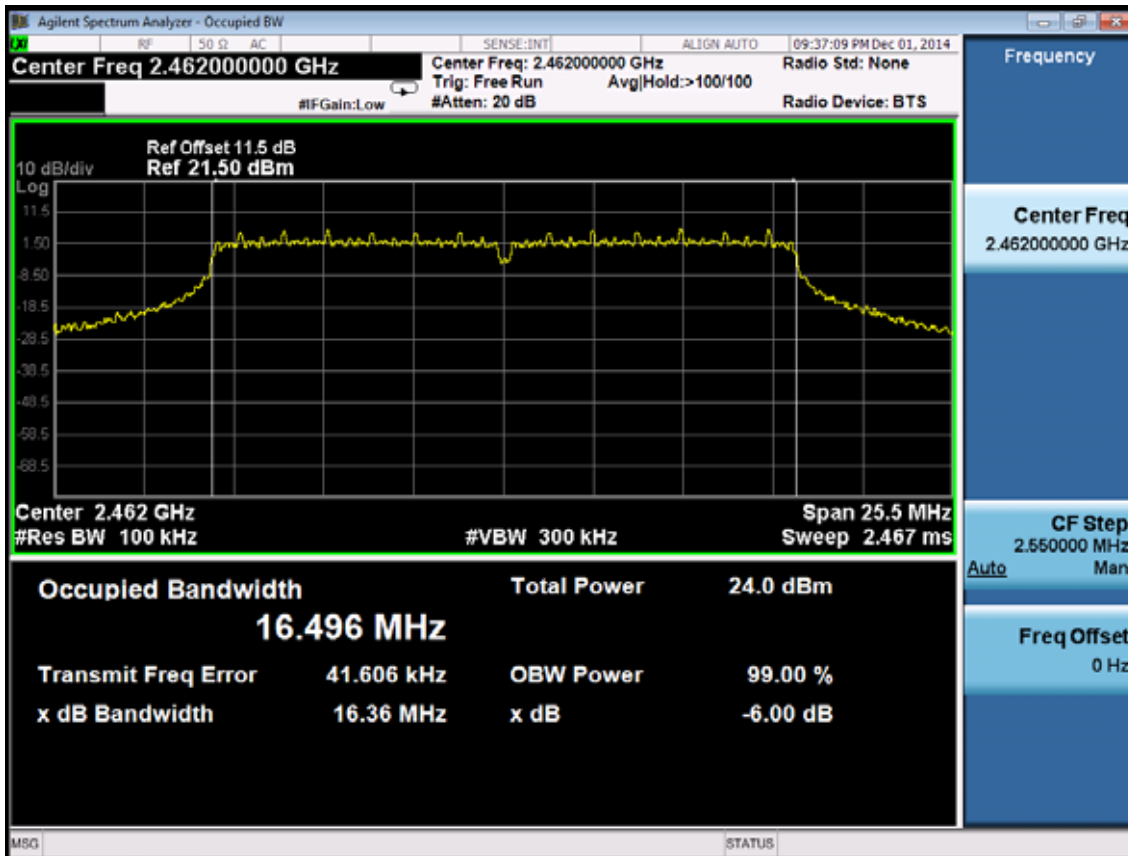
Test CH1: 2412MHz



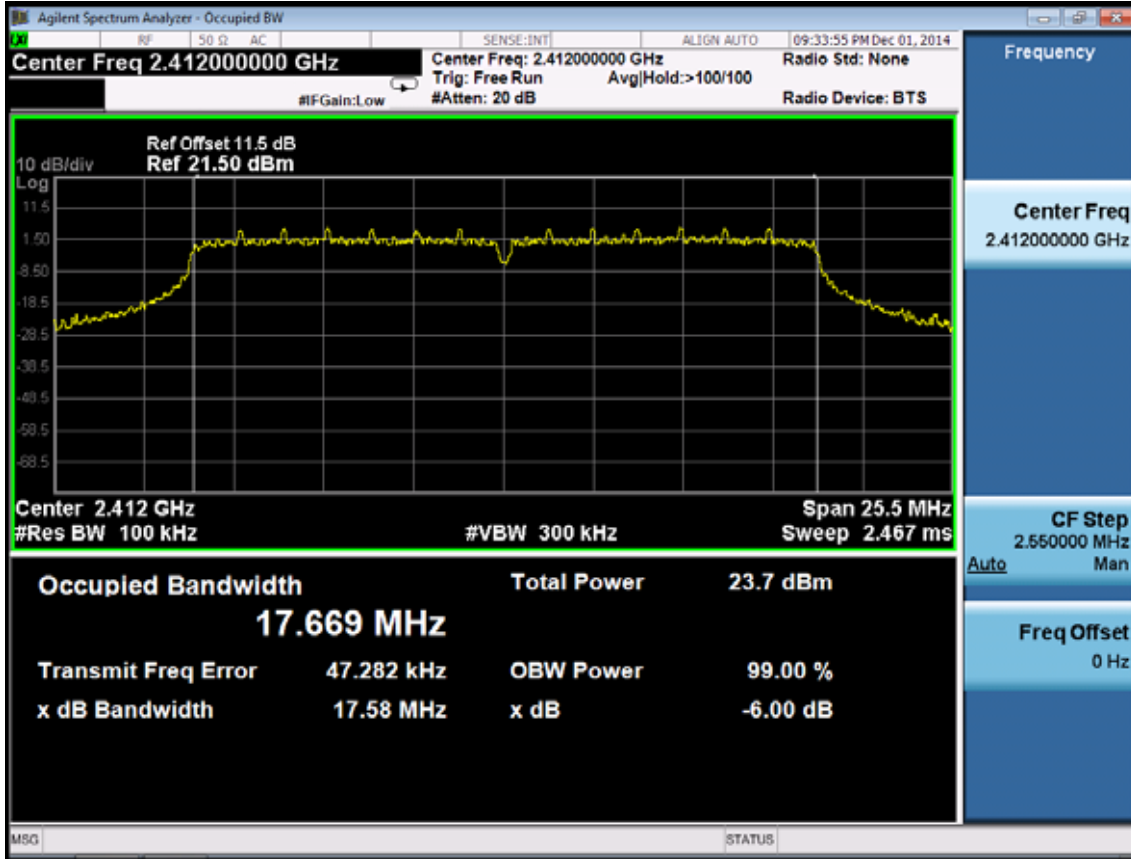
Test CH6: 2437MHz



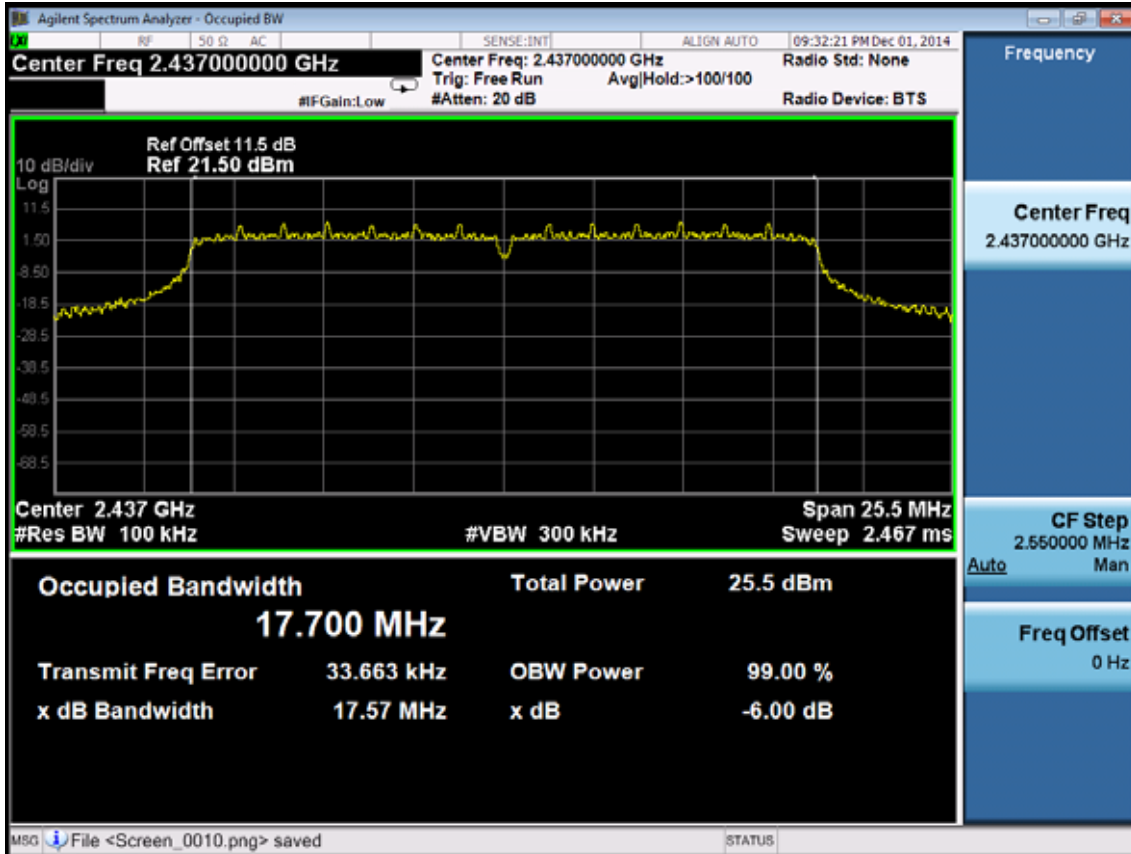
Test CH11: 2462MHz



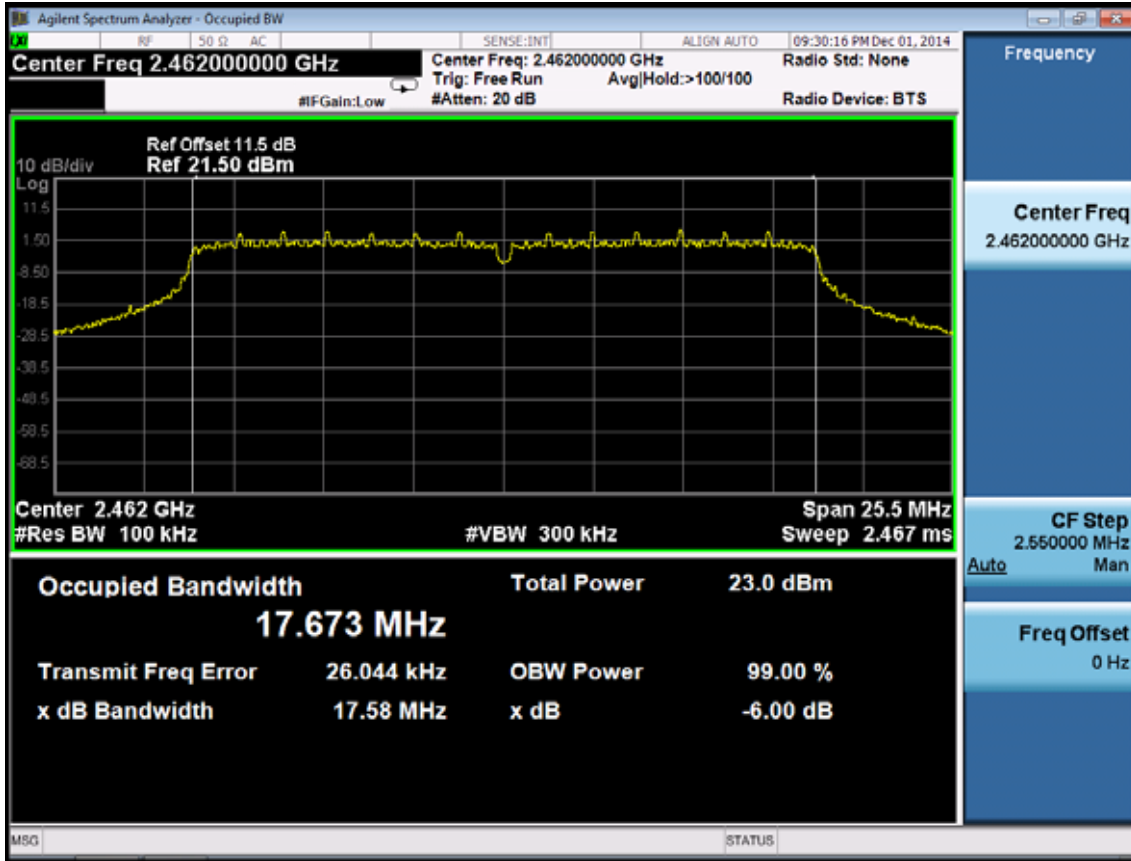
Test Mode: IEEE 802.11n HT20 TX  
 Test CH1: 2412MHz



Test CH6: 2437MHz

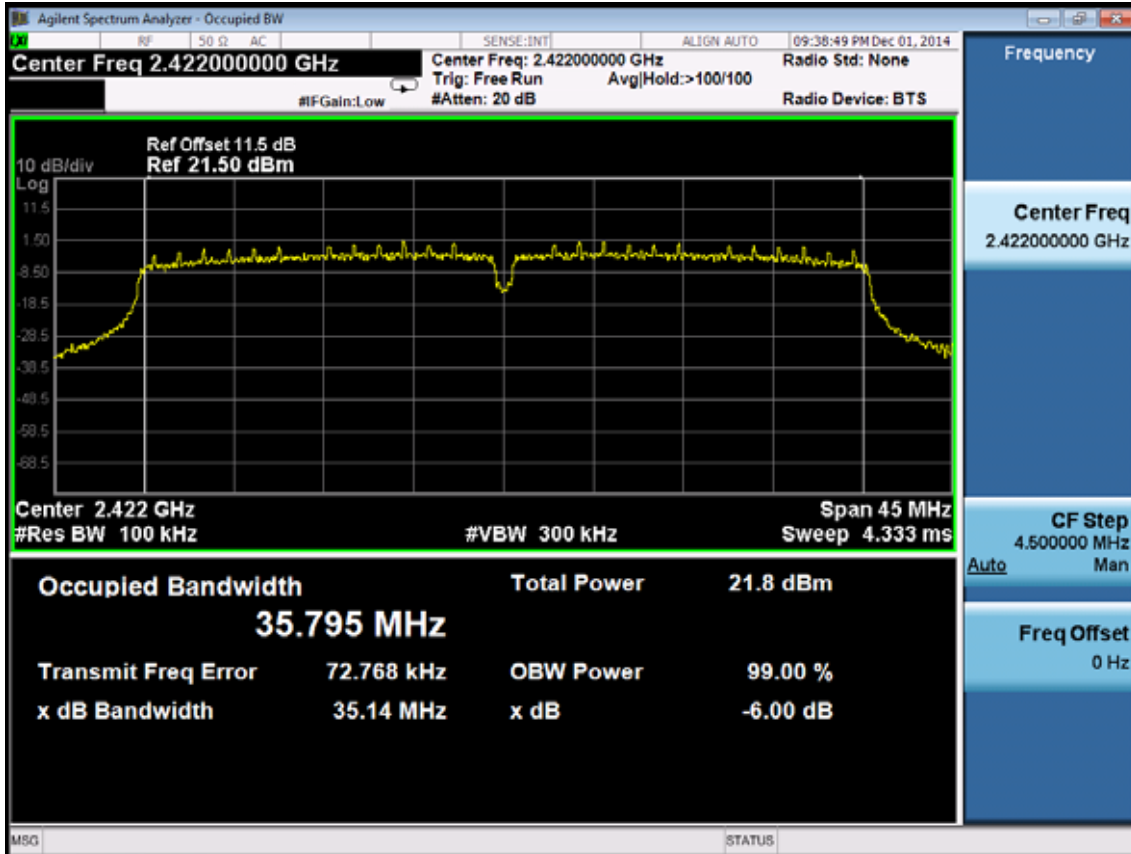


Test CH11: 2462MHz

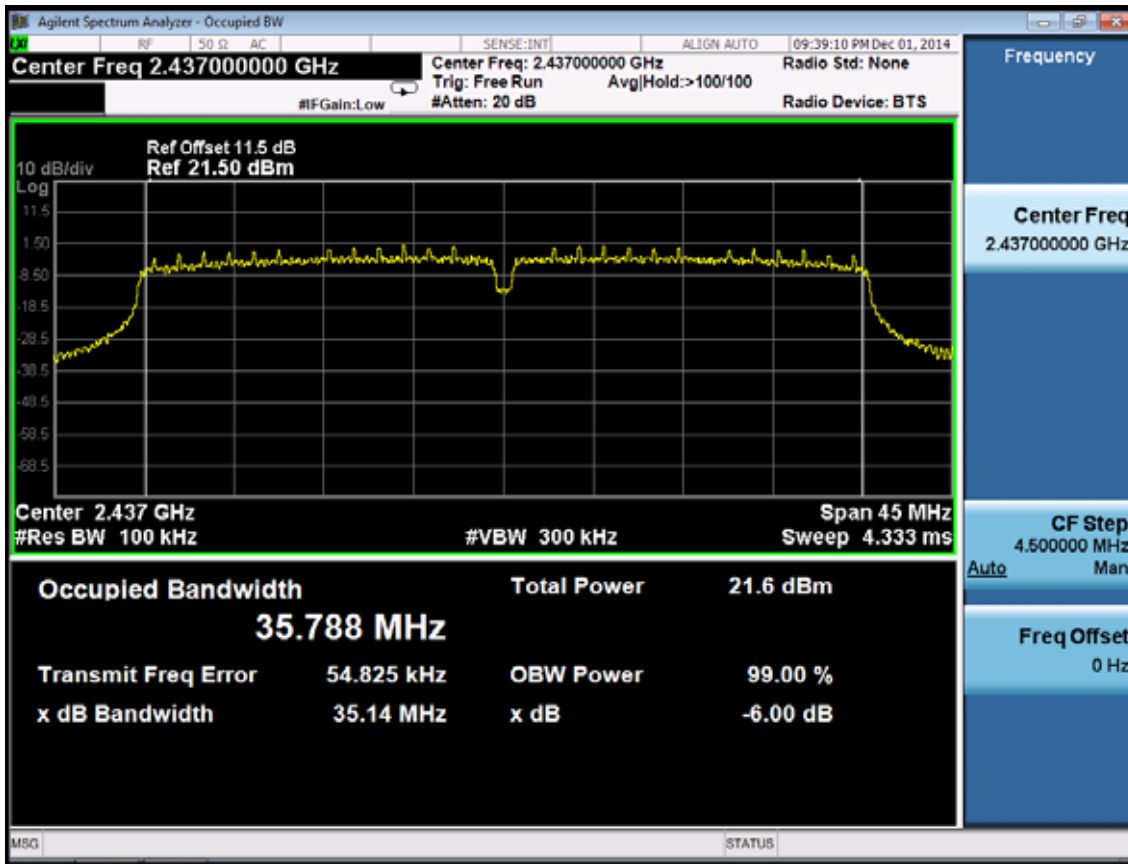


Test Mode: IEEE 802.11n HT40 TX

Test CH3: 2422MHz



Test CH6: 2437MHz



Test CH9: 2452MHz

