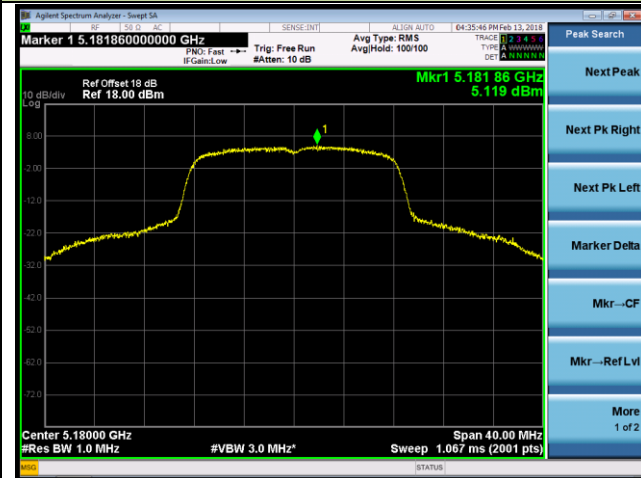


## 802.11a Power Spectral Density

Channel 36 (5180MHz)



Channel 44 (5220MHz)



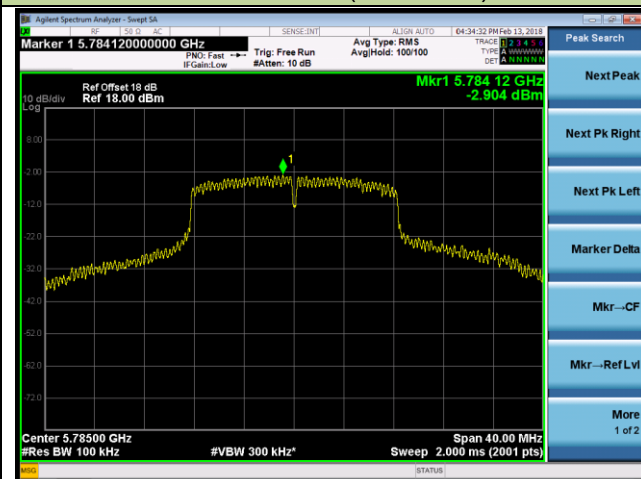
Channel 48 (5240MHz)



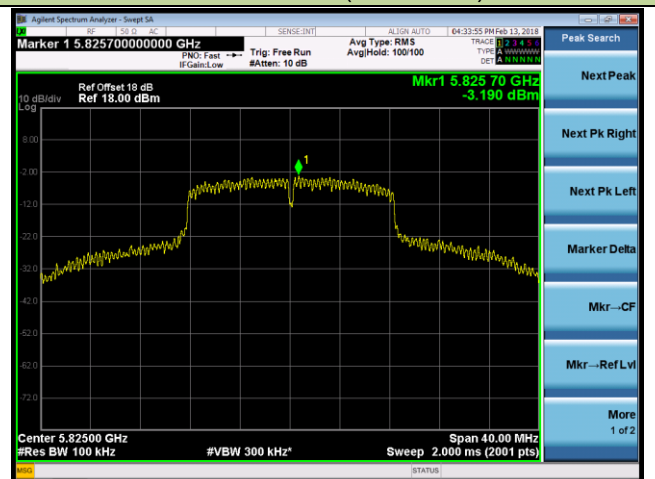
Channel 149 (5745MHz)



Channel 157 (5785MHz)

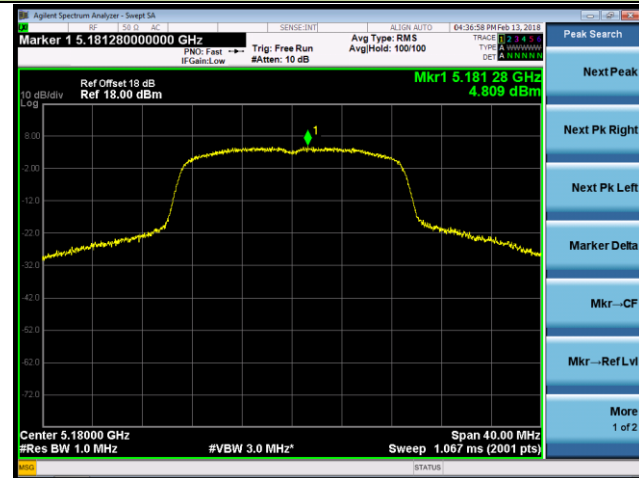


Channel 165 (5825MHz)



## 802.11n-HT20 Power Spectral Density

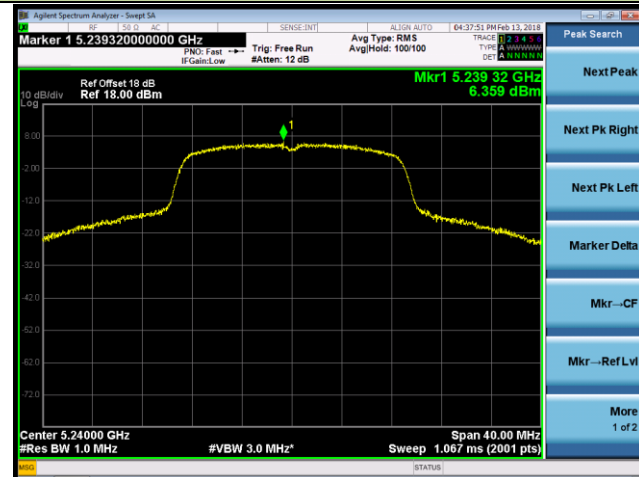
Channel 36 (5180MHz)



Channel 44 (5220MHz)



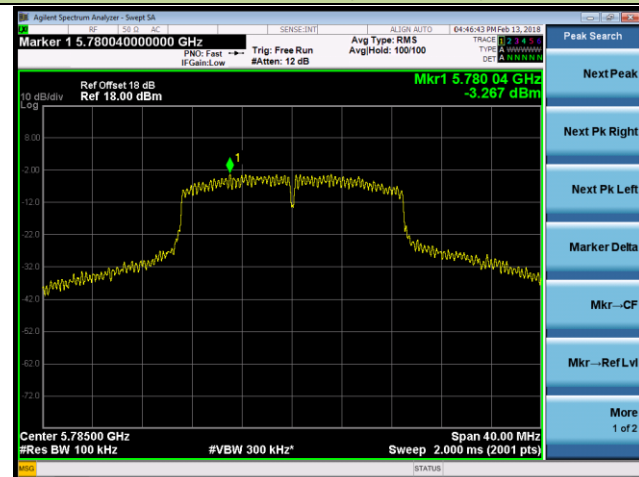
Channel 48 (5240MHz)



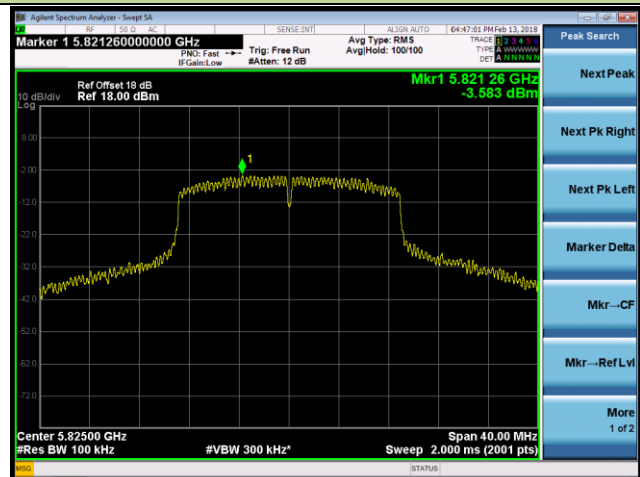
Channel 149 (5745MHz)



Channel 157 (5785MHz)

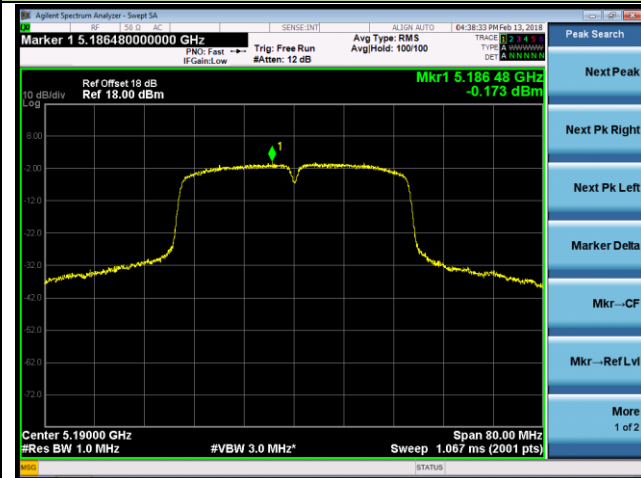


Channel 165 (5825MHz)

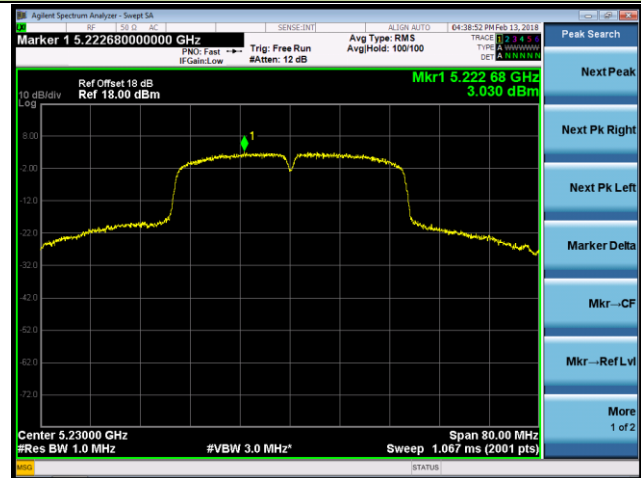


### 802.11n-HT40 Power Spectral Density

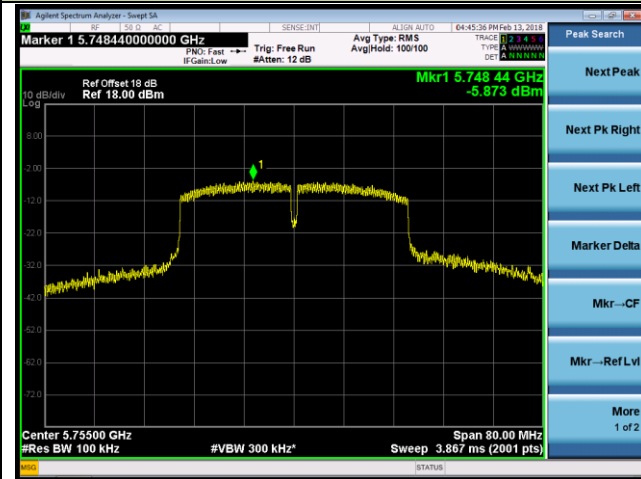
Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 151 (5755MHz)

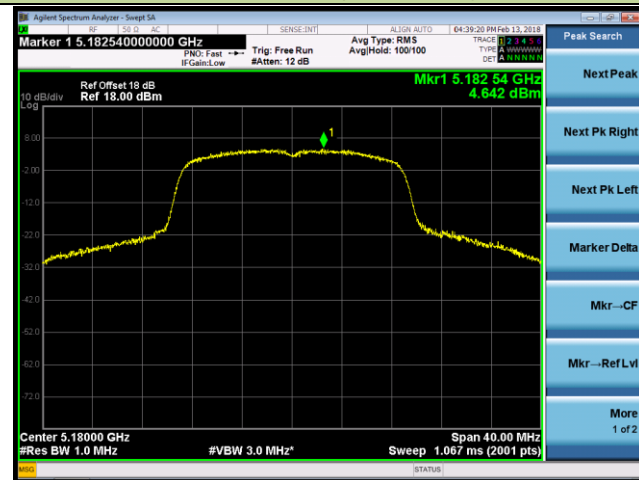


Channel 159 (5795MHz)



## 802.11ac-VHT20 Power Spectral Density

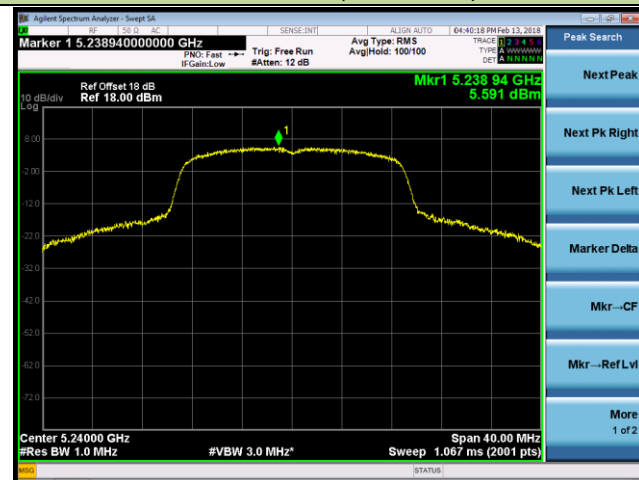
Channel 36 (5180MHz)



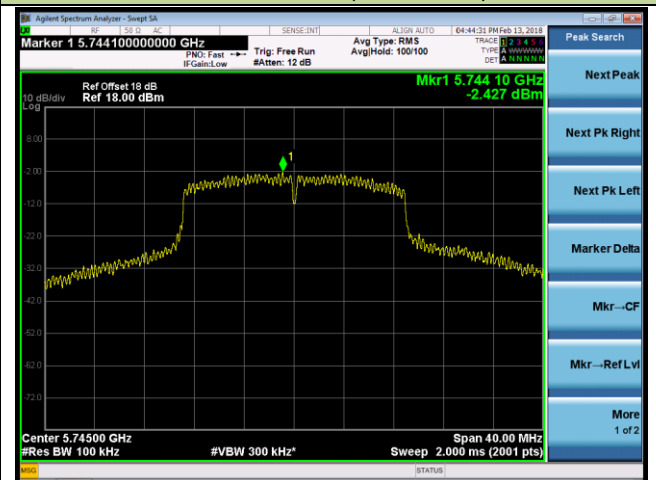
Channel 44 (5220MHz)



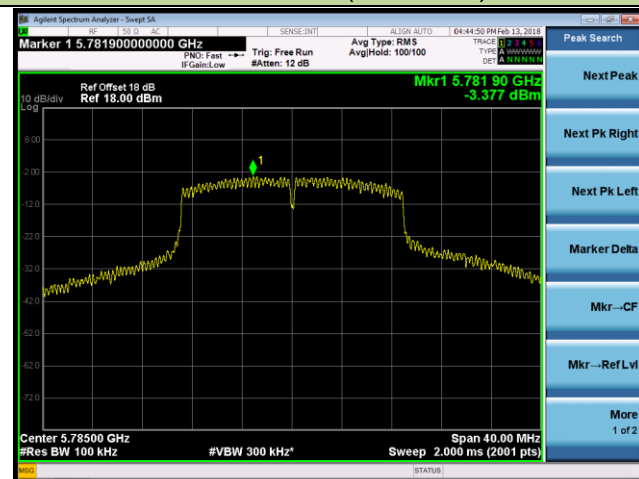
Channel 48 (5240MHz)



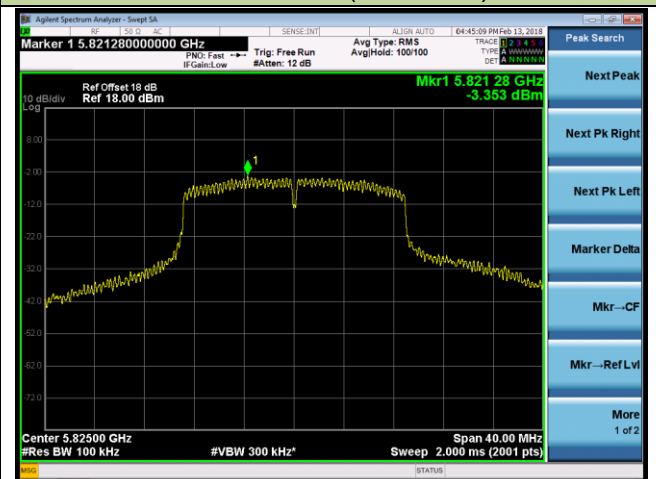
Channel 149 (5745MHz)



Channel 157 (5785MHz)

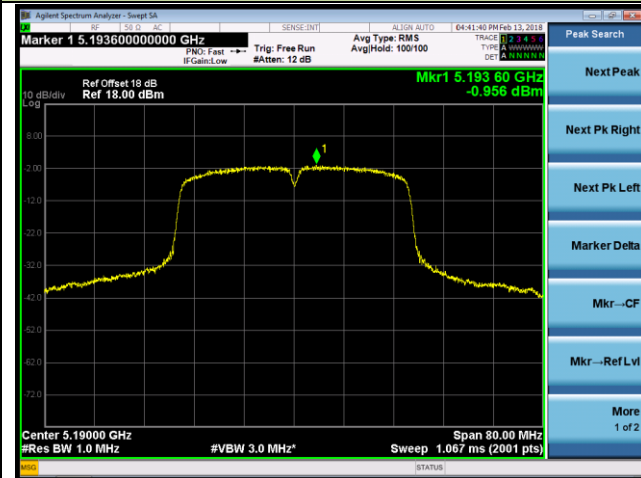


Channel 165 (5825MHz)



## 802.11ac-VHT40 Power Spectral Density

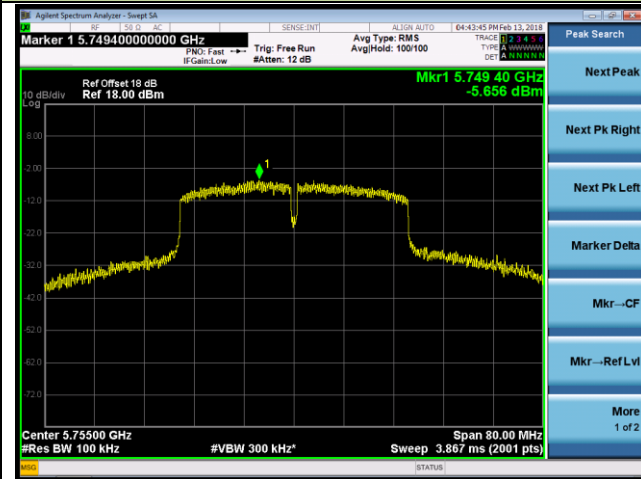
Channel 38 (5190MHz)



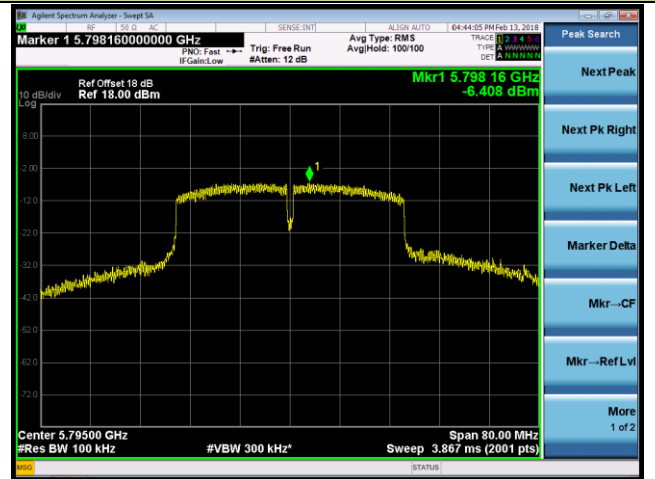
Channel 46 (5230MHz)



Channel 151 (5755MHz)

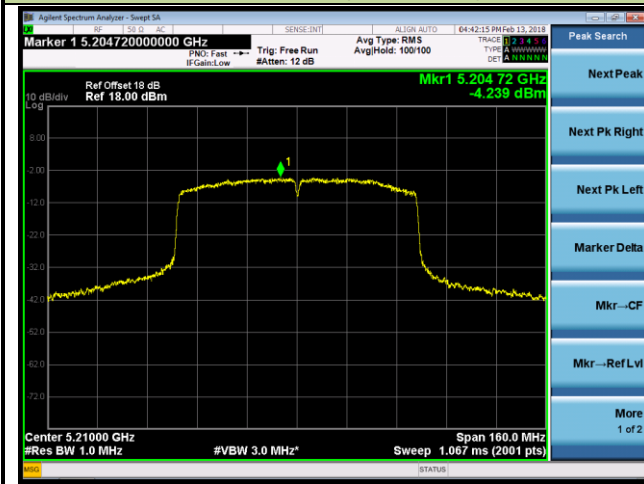


Channel 159 (5795MHz)



### 802.11ac-VHT80 Power Spectral Density

Channel 42 (5210MHz)



Channel 155 (5775MHz)



## **7.6. Frequency Stability Measurement**

### **7.6.1. Test Limit**

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

The transmitter center frequency tolerance shall be  $\pm 20$  ppm maximum for the 5GHz band (IEEE 802.11 specification).

### **7.6.2. Test Procedure Used**

#### **Frequency Stability Under Temperature Variations:**

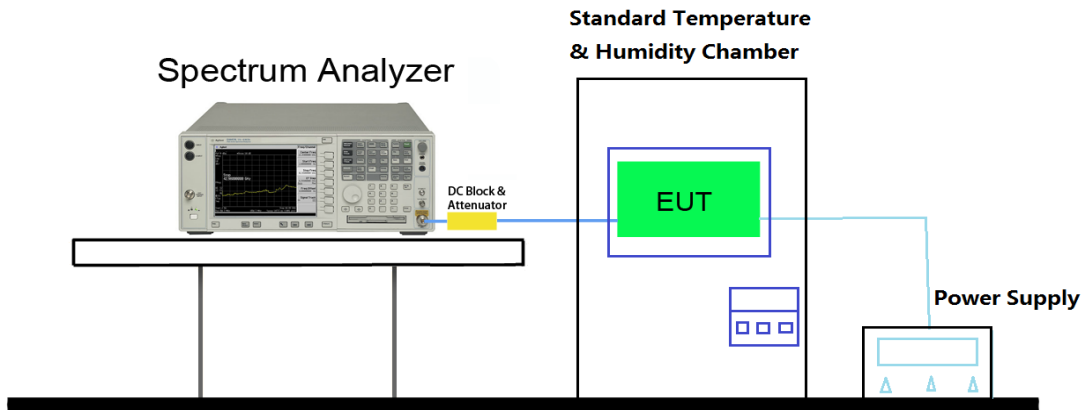
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

#### **Frequency Stability Under Voltage Variations:**

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ( $\pm 15\%$ ) and endpoint, record the maximum frequency change.

### 7.6.3. Test Setup





**7.6.4. Test Result**

Test Engineer	Hunk Li	Temperature	-30 ~ 50°C
Test Time	2018/03/08	Relative Humidity	52%RH
Test Mode	5180MHz (Carrier Mode)	Test Site	TR3

Voltage (%)	Power (DC)	Temp (°C)	Frequency Tolerance (ppm)			
			0 minutes	2 minutes	5 minutes	10 minutes
100%	5	- 30	16.78	16.69	16.71	16.89
		- 20	15.15	15.23	15.31	15.11
		- 10	13.34	13.31	13.29	13.12
		0	12.49	12.33	12.14	15.30
		+ 10	12.78	12.52	12.36	12.45
		+ 20 (Ref)	14.27	14.13	13.26	13.08
		+ 30	14.62	14.44	14.59	14.38
		+ 40	16.71	16.53	16.42	16.35
		+ 50	16.59	16.55	16.41	16.29
115%	5.75	+ 20	16.78	16.62	16.53	16.48
85%	4.25	+ 20	16.63	16.52	16.37	16.22

Note: Frequency Tolerance (ppm) =  $\{[\text{Measured Frequency (Hz)} - \text{Declared Frequency (Hz)}] / \text{Declared Frequency (Hz)}\} * 10^6$ .

## 7.7. Radiated Spurious Emission Measurement

### 7.7.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

All out of band emissions appearing in a restricted band as specified in Section 8.10 of the RSS-Gen Issue 4 must not exceed the limits shown in Table per Section 8.9.

FCC Part 15 Subpart C Paragraph 15.209 & RSS-Gen Issue4 Section 8.9		
Frequency [MHz]	Field Strength [ $\mu\text{V}/\text{m}$ ]	Measured Distance [Meters]
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

### 7.7.2. Test Procedure Used

KDB 789033 D02v02r01 – Section G

### 7.7.3. Test Setting

#### Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

#### Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest

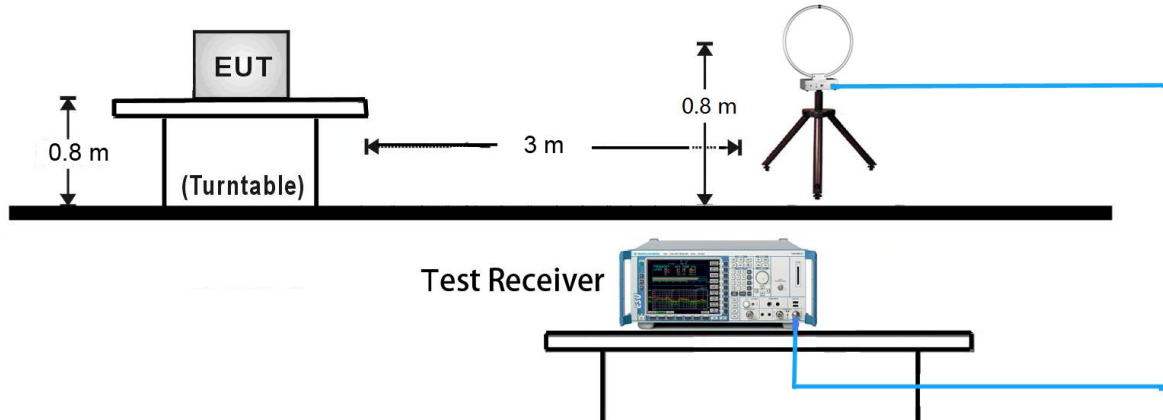
2. Span was set greater than 1MHz
3. RBW = 120 kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

#### **Average Measurements above 1GHz (Method VB)**

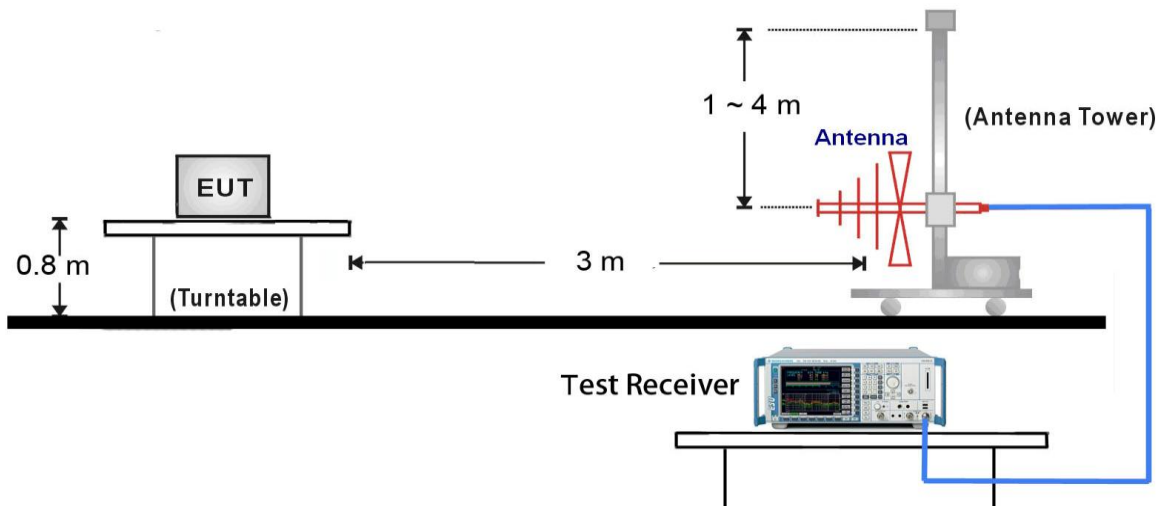
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. Video bandwidth. If the EUT is configured to transmit with duty cycle  $\geq 98\%$ , set  $VBW \leq RBW/100$  (i.e., 10 kHz) but not less than 10 Hz. If the EUT duty cycle is  $< 98\%$ , set  $VBW \geq 1/T$ .
4. Detector = Peak
5. Sweep time = auto
6. Allow max hold to run for at least 50 traces if the transmitted signal is continuous or has at least 98% duty cycle. For lower duty cycles, increase the minimum number of traces by a factor of  $1/x$ , where  $x$  is the duty cycle.

### 7.7.4. Test Setup

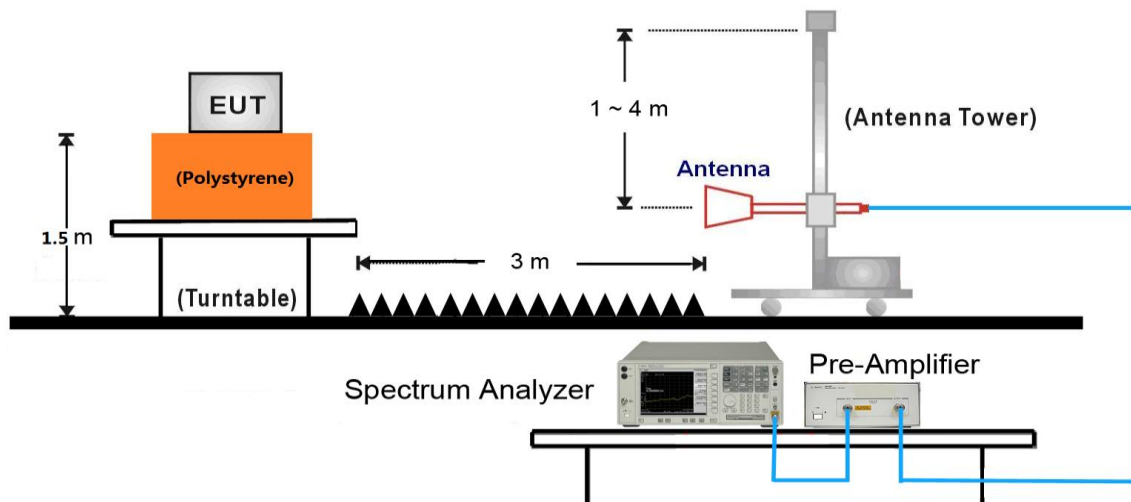
#### 9kHz ~ 30MHz Test Setup:



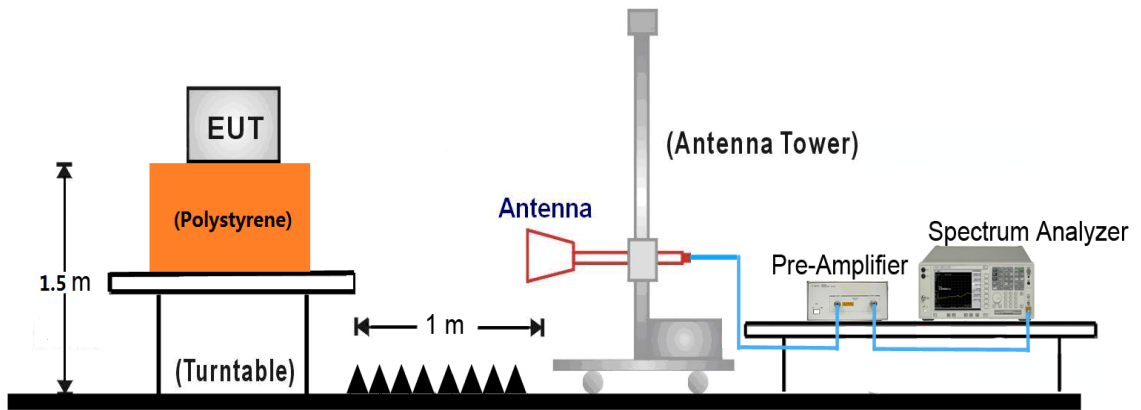
#### 30MHz ~ 1GHz Test Setup:



#### 1GHz ~ 18GHz Test Setup:



18GHz ~40GHz Test Setup:



**7.7.5. Test Result**

Test Mode:	802.11a	Test Site:	AC1
Test Channel:	36	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7137.0	35.4	12.4	47.8	68.2	-20.4	Peak	Horizontal
	7681.0	34.6	12.8	47.4	74.0	-26.6	Peak	Horizontal
*	10367.0	38.9	17.4	56.3	68.2	-11.9	Peak	Horizontal
	11276.5	32.8	17.5	50.3	74.0	-23.7	Peak	Horizontal
*	7188.0	34.4	12.5	46.9	68.2	-21.3	Peak	Vertical
	7604.5	35.0	12.7	47.7	74.0	-26.3	Peak	Vertical
*	10350.0	35.7	17.3	53.0	68.2	-15.2	Peak	Vertical
	11225.5	32.8	17.6	50.4	74.0	-23.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11a	Test Site:	AC1
Test Channel:	44	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7179.5	34.0	12.5	46.5	68.2	-21.7	Peak	Horizontal
	7502.5	34.3	12.7	47.0	74.0	-27.0	Peak	Horizontal
*	10443.5	36.9	17.2	54.1	68.2	-14.1	Peak	Horizontal
	11302.0	32.4	17.5	49.9	74.0	-24.1	Peak	Horizontal
*	7222.0	35.2	12.7	47.9	68.2	-20.3	Peak	Vertical
	8165.5	35.1	13.3	48.4	74.0	-25.6	Peak	Vertical
*	10443.5	36.6	17.2	53.8	68.2	-14.4	Peak	Vertical
	11225.5	32.2	17.6	49.8	74.0	-24.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11a	Test Site:	AC1
Test Channel:	48	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7222.0	35.8	12.7	48.5	68.2	-19.7	Peak	Horizontal
	8267.5	35.9	12.8	48.7	74.0	-25.3	Peak	Horizontal
*	10477.5	35.6	17.4	53.0	68.2	-15.2	Peak	Horizontal
	11251.0	32.8	17.5	50.3	74.0	-23.7	Peak	Horizontal
*	7154.0	35.5	12.4	47.9	68.2	-20.3	Peak	Vertical
	7604.5	34.4	12.7	47.1	74.0	-26.9	Peak	Vertical
*	9916.5	32.7	16.6	49.3	68.2	-18.9	Peak	Vertical
	11276.5	33.5	17.5	51.0	74.0	-23.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11a	Test Site:	AC1
Test Channel:	149	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7162.5	35.4	12.5	47.9	68.2	-20.3	Peak	Horizontal
	8301.5	35.1	12.6	47.7	74.0	-26.3	Peak	Horizontal
*	9857.0	33.4	16.7	50.1	68.2	-18.1	Peak	Horizontal
	11489.0	35.6	17.8	53.4	74.0	-20.6	Peak	Horizontal
*	7179.5	33.9	12.5	46.4	68.2	-21.8	Peak	Vertical
	7664.0	39.7	12.8	52.5	74.0	-21.5	Peak	Vertical
*	9925.0	34.8	16.6	51.4	68.2	-16.8	Peak	Vertical
	11072.5	32.9	17.9	50.8	74.0	-23.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11a	Test Site:	AC1
Test Channel:	157	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7077.5	33.8	11.9	45.7	68.2	-22.5	Peak	Horizontal
	8199.5	35.4	13.1	48.5	74.0	-25.5	Peak	Horizontal
*	9908.0	32.8	16.6	49.4	68.2	-18.8	Peak	Horizontal
	11582.5	33.9	17.7	51.6	74.0	-22.4	Peak	Horizontal
*	7128.5	35.0	12.3	47.3	68.2	-20.9	Peak	Vertical
	7715.0	38.8	12.7	51.5	74.0	-22.5	Peak	Vertical
*	9891.0	34.4	16.6	51.0	68.2	-17.2	Peak	Vertical
	11276.5	33.5	17.5	51.0	74.0	-23.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11a	Test Site:	AC1
Test Channel:	165	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7111.5	35.9	12.2	48.1	68.2	-20.1	Peak	Horizontal
	8454.5	34.4	12.7	47.1	74.0	-26.9	Peak	Horizontal
*	10069.5	31.6	17.0	48.6	68.2	-19.6	Peak	Horizontal
	11123.5	32.9	17.7	50.6	74.0	-23.4	Peak	Horizontal
*	7766.0	40.1	13.1	53.2	68.2	-15.0	Peak	Vertical
	8157.0	33.8	13.3	47.1	74.0	-26.9	Peak	Vertical
*	10010.0	34.5	16.6	51.1	68.2	-17.1	Peak	Vertical
	11072.5	33.3	17.9	51.2	74.0	-22.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	36	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8760.5	33.5	13.2	46.7	68.2	-21.5	Peak	Horizontal
	9151.5	33.9	14.1	48.0	74.0	-26.0	Peak	Horizontal
*	10360.0	37.4	17.4	54.8	68.2	-13.4	Peak	Horizontal
	11030.0	32.4	17.9	50.3	74.0	-23.7	Peak	Horizontal
*	7171.0	34.1	12.5	46.6	68.2	-21.6	Peak	Vertical
	8199.5	33.9	13.1	47.0	74.0	-27.0	Peak	Vertical
*	10360.0	35.1	17.3	52.4	68.2	-15.8	Peak	Vertical
	11225.5	32.1	17.6	49.7	74.0	-24.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	44	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7205.0	34.6	12.6	47.2	68.2	-21.0	Peak	Horizontal
	8242.0	35.6	13.0	48.6	74.0	-25.4	Peak	Horizontal
*	10435.0	35.9	17.3	53.2	68.2	-15.0	Peak	Horizontal
	11285.0	32.8	17.5	50.3	74.0	-23.7	Peak	Horizontal
*	7196.5	36.1	12.5	48.6	68.2	-19.6	Peak	Vertical
	8199.5	34.3	13.1	47.4	74.0	-26.6	Peak	Vertical
*	10435.0	35.6	17.3	52.9	68.2	-15.3	Peak	Vertical
	11863.0	33.0	17.2	50.2	74.0	-23.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	48	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7137.0	33.7	12.4	46.1	68.2	-22.1	Peak	Horizontal
	8327.0	34.7	12.6	47.3	74.0	-26.7	Peak	Horizontal
*	10477.5	37.2	17.4	54.6	68.2	-13.6	Peak	Horizontal
	11225.5	33.4	17.6	51.0	74.0	-23.0	Peak	Horizontal
*	7205.0	34.5	12.6	47.1	68.2	-21.1	Peak	Vertical
	8420.5	35.8	12.6	48.4	74.0	-25.6	Peak	Vertical
*	10477.5	35.3	17.4	52.7	68.2	-15.5	Peak	Vertical
	11863.0	32.7	17.2	49.9	74.0	-24.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	149	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7171.0	34.0	12.5	46.5	68.2	-21.7	Peak	Horizontal
	8267.5	35.7	12.8	48.5	74.0	-25.5	Peak	Horizontal
*	10137.5	34.4	17.0	51.4	68.2	-16.8	Peak	Horizontal
	11480.5	35.8	17.8	53.6	74.0	-20.4	Peak	Horizontal
*	7154.0	33.9	12.4	46.3	68.2	-21.9	Peak	Vertical
	7664.0	39.3	12.8	52.1	74.0	-21.9	Peak	Vertical
*	9899.5	32.5	16.6	49.1	68.2	-19.1	Peak	Vertical
	10987.5	34.0	18.2	52.2	74.0	-21.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	157	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7145.5	34.8	12.4	47.2	68.2	-21.0	Peak	Horizontal
	8276.0	36.0	12.8	48.8	74.0	-25.2	Peak	Horizontal
*	9772.0	32.2	16.2	48.4	68.2	-19.8	Peak	Horizontal
	11565.5	35.4	17.8	53.2	74.0	-20.8	Peak	Horizontal
*	7213.5	34.4	12.6	47.0	68.2	-21.2	Peak	Vertical
	7715.0	39.2	12.7	51.9	74.0	-22.1	Peak	Vertical
*	10095.0	31.4	16.9	48.3	68.2	-19.9	Peak	Vertical
	11174.5	33.2	17.7	50.9	74.0	-23.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	165	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dB $\mu$ V)	Factor (dB)	Measure Level (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Detector	Polarization
*	7162.5	34.7	12.5	47.2	68.2	-21.0	Peak	Horizontal
	8471.5	35.5	12.7	48.2	74.0	-25.8	Peak	Horizontal
*	10078.0	32.1	17.0	49.1	68.2	-19.1	Peak	Horizontal
	11200.0	32.6	17.6	50.2	74.0	-23.8	Peak	Horizontal
*	7766.0	39.1	13.1	52.2	68.2	-16.0	Peak	Vertical
	8267.5	33.9	12.8	46.7	74.0	-27.3	Peak	Vertical
*	10061.0	31.8	16.9	48.7	68.2	-19.5	Peak	Vertical
	11446.5	32.8	17.8	50.6	74.0	-23.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dB $\mu$ V/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT40	Test Site:	AC1
Test Channel:	38	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7171.0	34.4	12.5	46.9	68.2	-21.3	Peak	Horizontal
	8301.5	34.6	12.6	47.2	74.0	-26.8	Peak	Horizontal
*	10384.0	34.6	17.4	52.0	68.2	-16.2	Peak	Horizontal
	11225.5	32.7	17.6	50.3	74.0	-23.7	Peak	Horizontal
*	7188.0	35.9	12.5	48.4	68.2	-19.8	Peak	Vertical
	8378.0	33.8	12.6	46.4	74.0	-27.6	Peak	Vertical
*	9721.0	32.4	15.7	48.1	68.2	-20.1	Peak	Vertical
	11387.0	33.3	17.6	50.9	74.0	-23.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT40	Test Site:	AC1
Test Channel:	46	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7128.5	34.0	12.3	46.3	68.2	-21.9	Peak	Horizontal
	8310.0	35.4	12.6	48.0	74.0	-26.0	Peak	Horizontal
*	9780.5	32.9	16.1	49.0	68.2	-19.2	Peak	Horizontal
	11234.0	33.6	17.5	51.1	74.0	-22.9	Peak	Horizontal
*	6975.5	40.2	11.2	51.4	68.2	-16.8	Peak	Vertical
	8327.0	35.1	12.6	47.7	74.0	-26.3	Peak	Vertical
*	10460.5	35.4	17.2	52.6	68.2	-15.6	Peak	Vertical
	11225.5	33.3	17.6	50.9	74.0	-23.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT40	Test Site:	AC1
Test Channel:	151	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7077.5	34.0	11.9	45.9	68.2	-22.3	Peak	Horizontal
	7579.0	36.0	12.8	48.8	74.0	-25.2	Peak	Horizontal
*	9772.0	34.0	16.2	50.2	68.2	-18.0	Peak	Horizontal
	11157.5	35.2	17.7	52.9	74.0	-21.1	Peak	Horizontal
*	7188.0	35.6	12.5	48.1	68.2	-20.1	Peak	Vertical
	7672.5	39.3	12.8	52.1	74.0	-21.9	Peak	Vertical
*	10146.0	34.8	17.0	51.8	68.2	-16.4	Peak	Vertical
	11123.5	34.0	17.7	51.7	74.0	-22.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11n-HT40	Test Site:	AC1
Test Channel:	159	Test Engineer:	Will Yan
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7145.5	35.6	12.4	48.0	68.2	-20.2	Peak	Horizontal
	8284.5	35.9	12.7	48.6	74.0	-25.4	Peak	Horizontal
*	9857.0	33.5	16.7	50.2	68.2	-18.0	Peak	Horizontal
	11072.5	33.1	17.9	51.0	74.0	-23.0	Peak	Horizontal
*	7188.0	34.7	12.5	47.2	68.2	-21.0	Peak	Vertical
	7723.5	39.3	12.8	52.1	74.0	-21.9	Peak	Vertical
*	10078.0	33.3	17.0	50.3	68.2	-17.9	Peak	Vertical
	11166.0	34.2	17.7	51.9	74.0	-22.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT20	Test Site:	AC1
Test Channel:	36	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7171.0	35.6	12.5	48.1	68.2	-20.1	Peak	Horizontal
	8250.5	36.7	12.9	49.6	74.0	-24.4	Peak	Horizontal
*	10367.0	37.3	17.4	54.7	68.2	-13.5	Peak	Horizontal
	11718.5	33.9	17.3	51.2	74.0	-22.8	Peak	Horizontal
*	7919.0	34.7	13.4	48.1	68.2	-20.1	Peak	Vertical
	8276.0	36.0	12.8	48.8	74.0	-25.2	Peak	Vertical
*	10358.5	35.7	17.4	53.1	68.2	-15.1	Peak	Vertical
	11208.5	33.4	17.6	51.0	74.0	-23.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT20	Test Site:	AC1
Test Channel:	44	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7205.0	34.9	12.6	47.5	68.2	-20.7	Peak	Horizontal
	8276.0	37.0	12.8	49.8	74.0	-24.2	Peak	Horizontal
*	10435.0	37.6	17.3	54.9	68.2	-13.3	Peak	Horizontal
	11735.5	34.4	17.3	51.7	74.0	-22.3	Peak	Horizontal
*	7137.0	35.0	12.4	47.4	68.2	-20.8	Peak	Vertical
	7570.5	35.5	12.9	48.4	74.0	-25.6	Peak	Vertical
*	10443.5	35.8	17.2	53.0	68.2	-15.2	Peak	Vertical
	11854.5	33.4	17.2	50.6	74.0	-23.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT20	Test Site:	AC1
Test Channel:	48	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7910.5	36.7	13.4	50.1	68.2	-18.1	Peak	Horizontal
	8276.0	35.3	12.8	48.1	74.0	-25.9	Peak	Horizontal
*	10486.0	35.6	17.5	53.1	68.2	-15.1	Peak	Horizontal
	11421.0	35.7	17.8	53.5	74.0	-20.5	Peak	Horizontal
*	7111.5	34.5	12.2	46.7	68.2	-21.5	Peak	Vertical
	8412.0	34.4	12.5	46.9	74.0	-27.1	Peak	Vertical
*	10469.0	36.5	17.3	53.8	68.2	-14.4	Peak	Vertical
	11327.5	34.6	17.6	52.2	74.0	-21.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11ac-VHT20	Test Site:	AC1
Test Channel:	149	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7171.0	35.2	12.5	47.7	68.2	-20.5	Peak	Horizontal
	8250.5	35.3	12.9	48.2	74.0	-25.8	Peak	Horizontal
*	9780.5	32.9	16.1	49.0	68.2	-19.2	Peak	Horizontal
	11490.0	37.6	17.8	55.4	74.0	-18.6	Peak	Horizontal
	11490.0	25.1	17.8	42.9	54.0	-11.1	Average	Horizontal
*	7154.0	34.8	12.4	47.2	68.2	-21.0	Peak	Vertical
	7664.0	39.4	12.8	52.2	74.0	-21.8	Peak	Vertical
*	8735.0	34.9	13.0	47.9	68.2	-20.3	Peak	Vertical
	11208.5	33.4	17.6	51.0	74.0	-23.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT20	Test Site:	AC1
Test Channel:	157	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7188.0	35.3	12.5	47.8	68.2	-20.4	Peak	Horizontal
	8199.5	34.7	13.1	47.8	74.0	-26.2	Peak	Horizontal
*	9865.5	33.5	16.7	50.2	68.2	-18.0	Peak	Horizontal
	11570.0	35.8	17.8	53.6	74.0	-20.4	Peak	Horizontal
	11570.0	24.2	17.8	42.0	54.0	-12.0	Average	Horizontal
*	7162.5	34.4	12.5	46.9	68.2	-21.3	Peak	Vertical
	7715.0	39.7	12.7	52.4	74.0	-21.6	Peak	Vertical
*	8845.5	35.3	13.3	48.6	68.2	-19.6	Peak	Vertical
	11115.0	33.2	17.8	51.0	74.0	-23.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT20	Test Site:	AC1
Test Channel:	165	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7222.0	35.1	12.7	47.8	68.2	-20.4	Peak	Horizontal
	8225.0	35.4	13.1	48.5	74.0	-25.5	Peak	Horizontal
*	9746.5	34.2	16.1	50.3	68.2	-17.9	Peak	Horizontal
	11378.5	33.7	17.6	51.3	74.0	-22.7	Peak	Horizontal
*	7766.0	39.3	13.1	52.4	68.2	-15.8	Peak	Vertical
	8284.5	34.6	12.7	47.3	74.0	-26.7	Peak	Vertical
*	9636.0	33.3	15.5	48.8	68.2	-19.4	Peak	Vertical
	11242.5	33.3	17.5	50.8	74.0	-23.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT40	Test Site:	AC1
Test Channel:	38	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7120.0	34.3	12.2	46.5	68.2	-21.7	Peak	Horizontal
	8225.0	37.3	13.1	50.4	74.0	-23.6	Peak	Horizontal
*	10010.0	32.9	16.6	49.5	68.2	-18.7	Peak	Horizontal
	11174.5	33.7	17.7	51.4	74.0	-22.6	Peak	Horizontal
*	7876.5	35.2	13.3	48.5	68.2	-19.7	Peak	Vertical
	8327.0	36.2	12.6	48.8	74.0	-25.2	Peak	Vertical
*	10222.5	33.3	17.1	50.4	68.2	-17.8	Peak	Vertical
	11021.5	33.7	17.9	51.6	74.0	-22.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT40	Test Site:	AC1
Test Channel:	46	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7885.0	35.3	13.4	48.7	68.2	-19.5	Peak	Horizontal
	8437.5	37.4	12.7	50.1	74.0	-23.9	Peak	Horizontal
*	10452.0	36.5	17.2	53.7	68.2	-14.5	Peak	Horizontal
	11531.5	34.1	17.8	51.9	74.0	-22.1	Peak	Horizontal
*	7222.0	34.2	12.7	46.9	68.2	-21.3	Peak	Vertical
	7536.5	35.0	12.9	47.9	74.0	-26.1	Peak	Vertical
*	9814.5	33.5	16.4	49.9	68.2	-18.3	Peak	Vertical
	11353.0	34.8	17.6	52.4	74.0	-21.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT40	Test Site:	AC1
Test Channel:	151	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7137.0	34.7	12.4	47.1	68.2	-21.1	Peak	Horizontal
	8310.0	35.7	12.6	48.3	74.0	-25.7	Peak	Horizontal
*	9814.5	34.8	16.4	51.2	68.2	-17.0	Peak	Horizontal
	11259.5	33.7	17.5	51.2	74.0	-22.8	Peak	Horizontal
*	7077.5	34.2	11.9	46.1	68.2	-22.1	Peak	Vertical
	7672.5	39.6	12.8	52.4	74.0	-21.6	Peak	Vertical
*	10095.0	32.4	16.9	49.3	68.2	-18.9	Peak	Vertical
	11140.5	33.2	17.7	50.9	74.0	-23.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT40	Test Site:	AC1
Test Channel:	159	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7154.0	35.5	12.4	47.9	68.2	-20.3	Peak	Horizontal
	8327.0	36.6	12.6	49.2	74.0	-24.8	Peak	Horizontal
*	10010.0	33.3	16.6	49.9	68.2	-18.3	Peak	Horizontal
	11404.0	35.1	17.7	52.8	74.0	-21.2	Peak	Horizontal
*	7154.0	36.7	12.4	49.1	68.2	-19.1	Peak	Vertical
	7723.5	39.3	12.8	52.1	74.0	-21.9	Peak	Vertical
*	10239.5	32.6	17.2	49.8	68.2	-18.4	Peak	Vertical
	11234.0	33.3	17.5	50.8	74.0	-23.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Test Mode:	802.11ac-VHT80	Test Site:	AC1
Test Channel:	42	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7137.0	35.6	12.4	48.0	68.2	-20.2	Peak	Horizontal
	8225.0	36.4	13.1	49.5	74.0	-24.5	Peak	Horizontal
*	9814.5	32.9	16.4	49.3	68.2	-18.9	Peak	Horizontal
	11174.5	33.8	17.7	51.5	74.0	-22.5	Peak	Horizontal
*	7111.5	34.8	12.2	47.0	68.2	-21.2	Peak	Vertical
	7443.0	36.6	12.9	49.5	74.0	-24.5	Peak	Vertical
*	9721.0	34.0	15.7	49.7	68.2	-18.5	Peak	Vertical
	11429.5	33.4	17.8	51.2	74.0	-22.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11ac-VHT80	Test Site:	AC1
Test Channel:	155	Test Engineer:	Jone Zhang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7094.5	35.7	12.0	47.7	68.2	-20.5	Peak	Horizontal
	8378.0	34.3	12.6	46.9	74.0	-27.1	Peak	Horizontal
*	10256.5	32.7	17.2	49.9	68.2	-18.3	Peak	Horizontal
	11081.0	34.7	17.9	52.6	74.0	-21.4	Peak	Horizontal
*	7247.5	34.5	12.7	47.2	68.2	-21.0	Peak	Vertical
	8165.5	36.9	13.3	50.2	74.0	-23.8	Peak	Vertical
*	9806.0	36.1	16.3	52.4	68.2	-15.8	Peak	Vertical
	10970.5	34.3	18.2	52.5	74.0	-21.5	Peak	Vertical

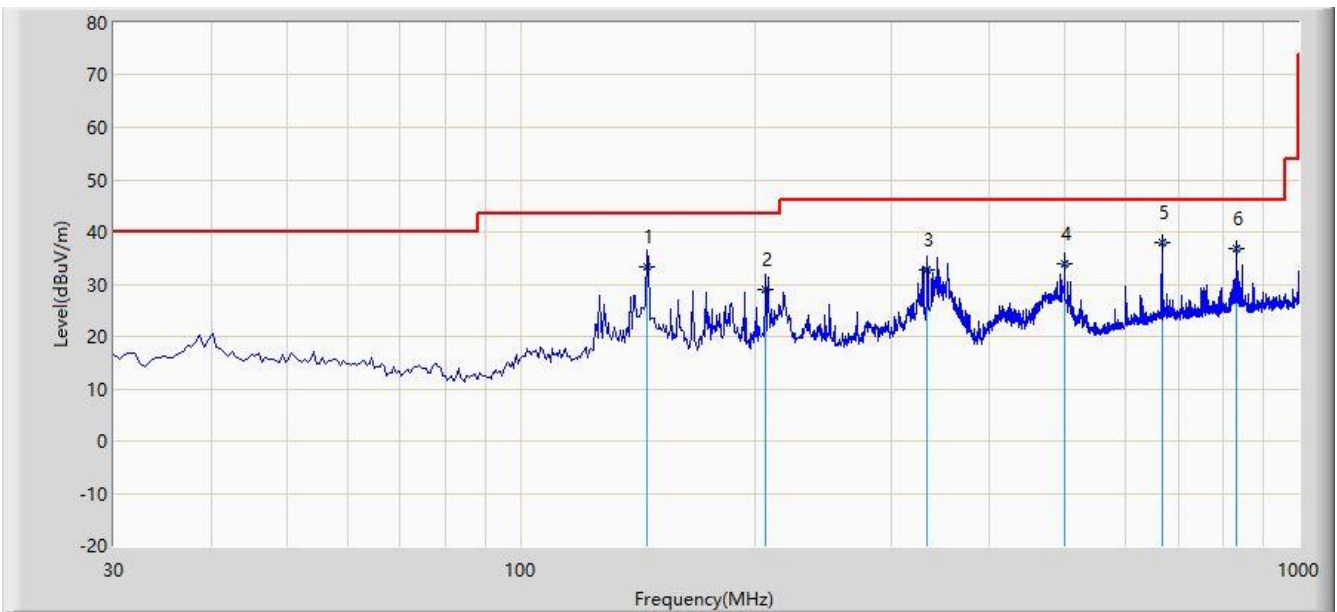
Note 1: "\*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

**The worst case of Radiated Emission below 1GHz:**

Site: AC1	Time: 2018/03/10 - 17:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Snake Ni
Probe: VULB 9168_20-2000MHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
<b>Worst Mode:</b> Transmit at channel 5180MHz by 802.11a	



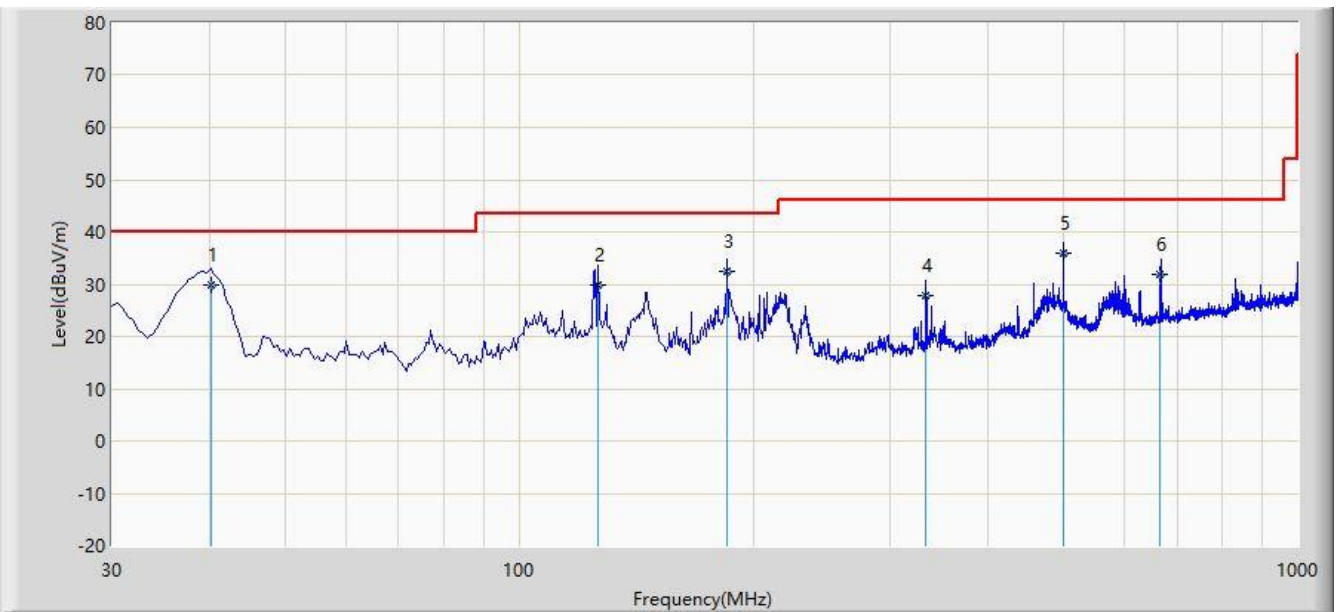
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			145.430	33.219	18.252	-10.281	43.500	14.967	QP
2			206.540	28.874	17.542	-14.626	43.500	11.332	QP
3			333.125	32.764	17.525	-13.236	46.000	15.239	QP
4			499.965	33.783	15.214	-12.217	46.000	18.570	QP
5		*	666.805	37.901	16.212	-8.099	46.000	21.688	QP
6			833.645	36.667	13.053	-9.333	46.000	23.614	QP

Note 1: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Site: AC1	Time: 2018/03/10 - 17:58
Limit: FCC_Part15.209_RE(3m)	Engineer: Snake Ni
Probe: VULB 9168_20-2000MHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
<b>Worst Mode:</b> Transmit at channel 5180MHz by 802.11a	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			40.185	29.847	15.240	-10.153	40.000	14.607	QP
2			126.515	29.871	16.242	-13.629	43.500	13.629	QP
3			185.200	32.550	20.253	-10.950	43.500	12.297	QP
4			333.125	27.815	12.576	-18.185	46.000	15.239	QP
5		*	499.965	35.894	17.325	-10.106	46.000	18.570	QP
6			666.085	31.906	10.225	-14.094	46.000	21.680	QP

Note 1: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

## 7.8. Radiated Restricted Band Edge Measurement

### 7.8.1. Test Limit

#### **For 15.205 requirement:**

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.25 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41	--	--	--

#### **For 15.407(b) requirement:**

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band:

All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47

CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [ $\mu\text{V}/\text{m}$ ]	Measured Distance [Meters]
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

**For RSS-Gen Section 8.10 Requirement:**

Radiated emissions which fall in the restricted bands, as defined in Section 8.10 of RSS-Gen, must also comply with the radiated emission limits specified in Section 8.9.

Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.009 - 0.110	240 - 285	9.0 - 9.2
2.1735 - 2.1905	322 - 335.4	9.3 - 9.5
3.020 - 3.026	399.9 - 410	10.6 - 12.7
4.125 - 4.128	608 - 614	13.25 - 13.4
4.17725 - 4.17775	960 - 1427	14.47 - 14.5
4.20725 - 4.20775	1435 - 1626.5	15.35 - 16.2
5.677 - 5.683	1645.5 - 1646.5	17.7 - 21.4
6.215 - 6.218	1660 - 1710	22.01 - 23.12
6.26775 - 6.26825	1718.8 - 1722.2	23.6 - 24.0
6.31175 - 6.31225	2200 - 2300	31.2 - 31.8
8.291 - 8.294	2310 - 2390	36.43 - 36.5
8.362 - 8.366	2655 - 2900	Above 38.6
8.37625 - 8.38675	3260 - 3267	--
8.41425 - 8.41475	3332 - 3339	
12.29 - 12.293	3345.8 - 3358	
12.51975 - 12.52025	3500 - 4400	
12.57675 - 12.57725	4500 - 5150	
13.36 - 13.41	5350 - 5460	
16.42 - 16.423	7250 - 7750	
16.69475 - 16.69525	8025 - 8500	
16.80425 - 16.80475	--	
25.5 - 25.67		
37.5 - 38.25		
73 - 74.6		
74.8 - 75.2		
108 - 138		
156.52475 - 156.525225		
156.7 - 156.9		

Note: \*Certain frequency bands listed in Table 6 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to the devices

are set out in the 200- and 300-series of RSSs, such as RSS-210 and RSS-310, which contain the requirements that apply to licence-exempt radio apparatus.

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the band 5725-5850 MHz shall have e.i.r.p. of unwanted emissions comply with the following:

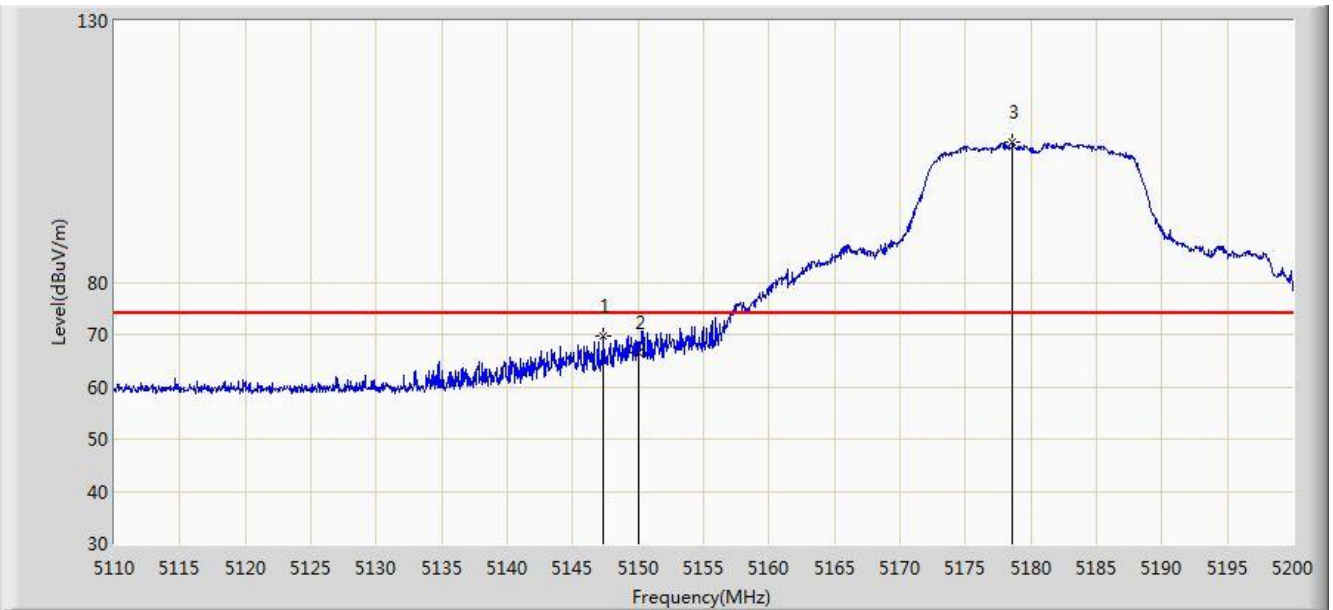
- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5MHz above or below the band edges;
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edges;
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edges; and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edges.

All out of band emissions appearing in a restricted band as specified in Section 8.10 of the RSS-Gen must not exceed the limits shown in Table per Section 8.9.

RSS-Gen Section 8.9		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
0.009 ~ 0.490	2400/F (kHz)	300
0.490 ~ 1.705	24000/F (kHz)	30
1.705 ~ 30	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

**7.8.2.Test Result**

Site: AC1	Time: 2017/12/26 - 03:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5180MHz	



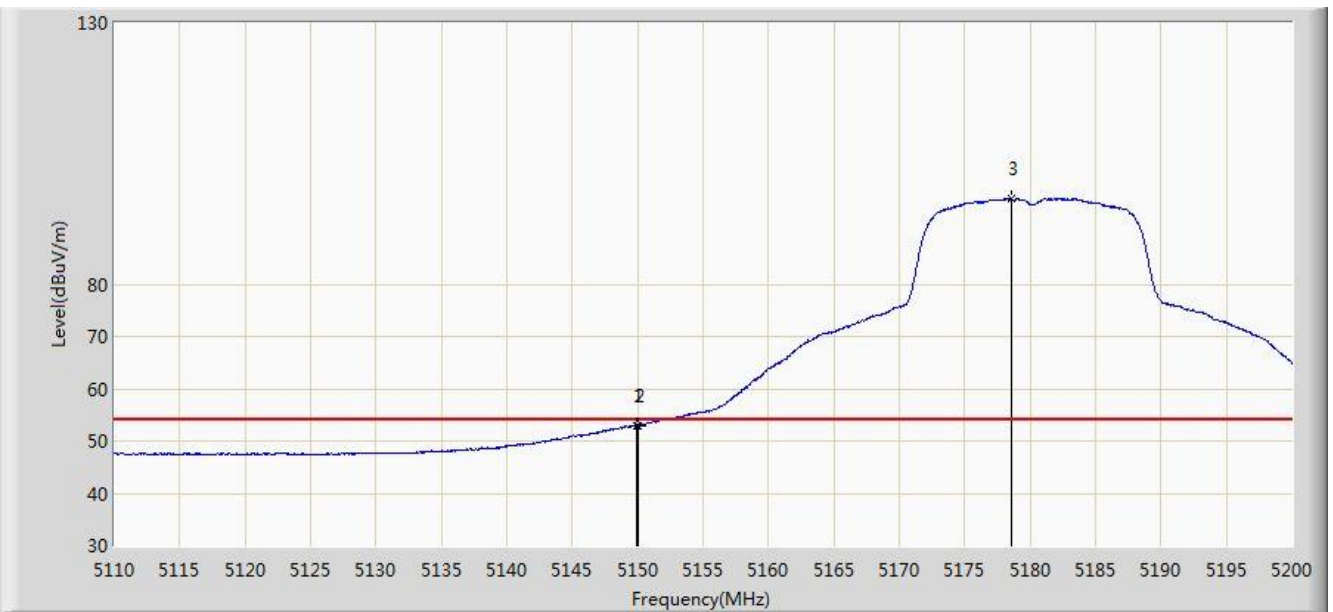
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5147.305	69.663	63.100	-4.337	74.000	6.563	PK
2			5150.000	66.472	59.910	-7.528	74.000	6.562	PK
3		*	5178.625	106.688	100.233	N/A	N/A	6.455	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/12/26 - 03:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5180MHz	

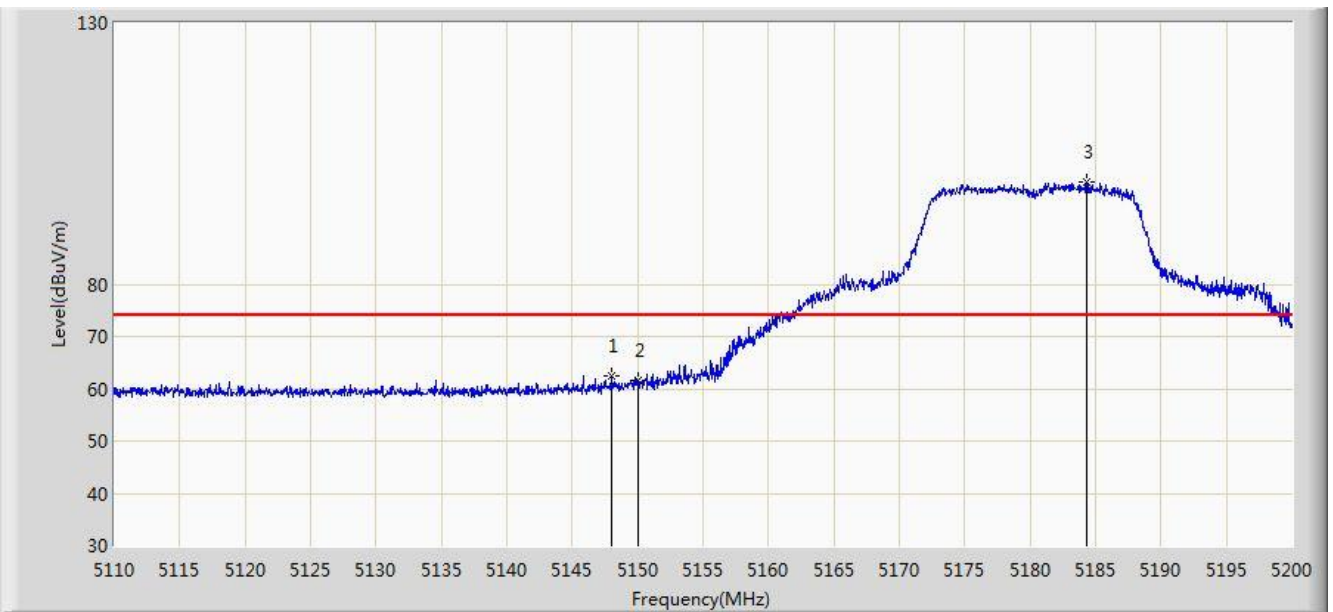


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.960	52.973	46.411	-1.027	54.000	6.562	AV
2			5150.000	52.941	46.379	-1.059	54.000	6.562	AV
3		*	5178.580	96.456	90.001	N/A	N/A	6.455	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 03:39
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5180MHz	

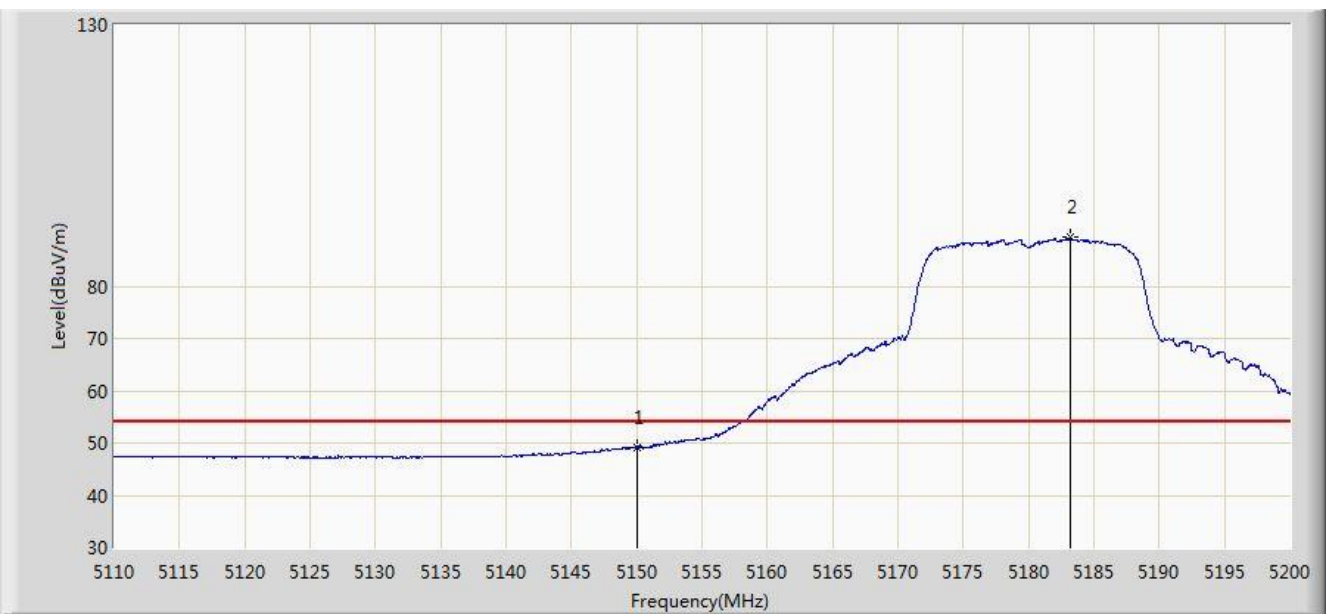


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5147.980	62.497	55.938	-11.503	74.000	6.559	PK
2			5150.000	61.460	54.898	-12.540	74.000	6.562	PK
3		*	5184.340	99.494	93.080	N/A	N/A	6.414	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 03:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5180MHz	

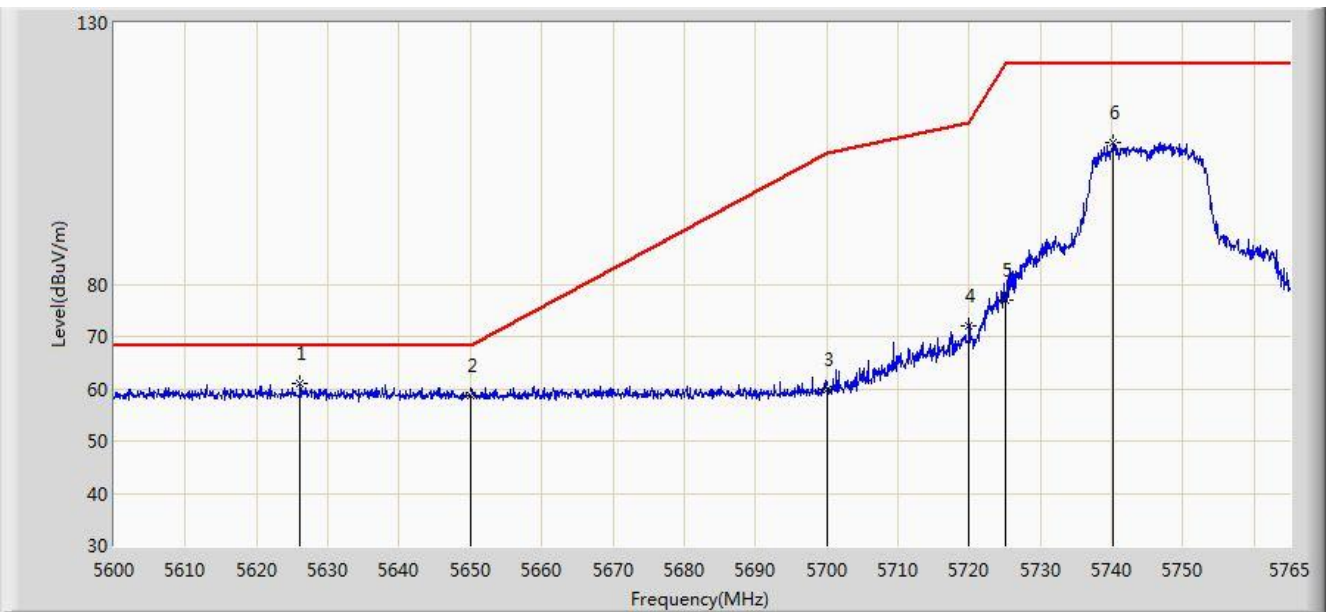


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	49.232	42.670	-4.768	54.000	6.562	AV
2		*	5183.215	89.321	82.900	N/A	N/A	6.421	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 03:46
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5745MHz	

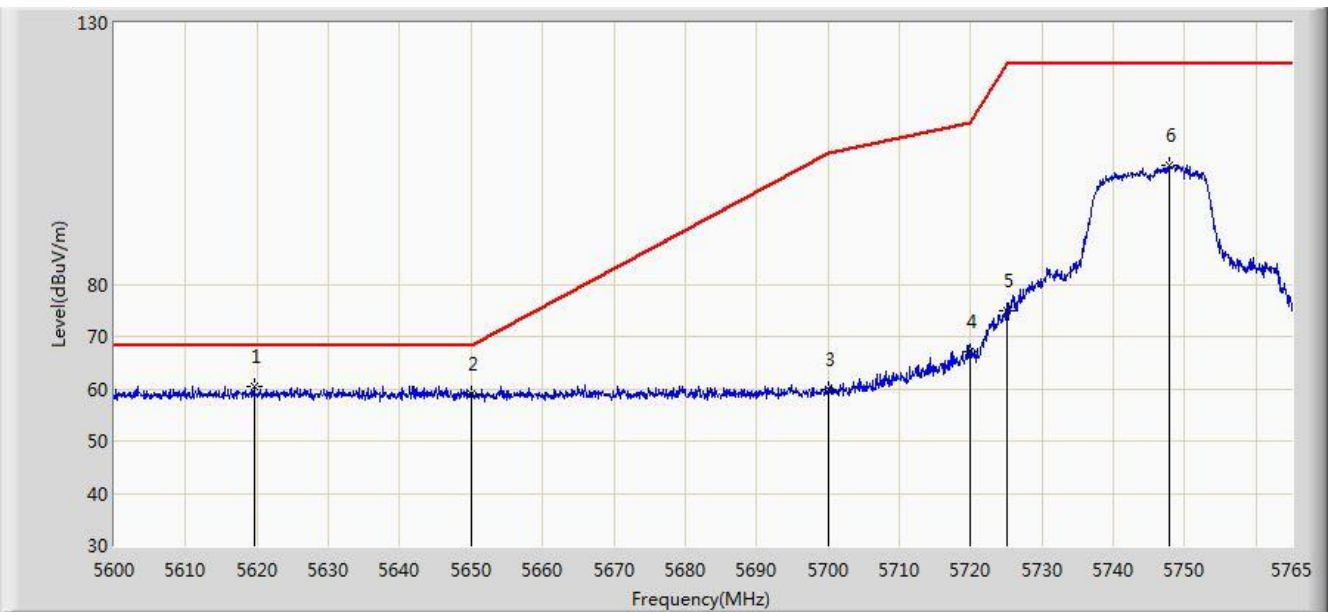


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5626.152	60.957	53.946	-7.243	68.200	7.011	PK
2			5650.000	58.740	51.735	-9.460	68.200	7.005	PK
3			5700.000	59.956	52.791	-45.244	105.200	7.165	PK
4			5720.000	72.092	64.793	-38.708	110.800	7.299	PK
5			5725.000	76.817	69.489	-45.383	122.200	7.328	PK
6			5740.250	107.063	99.670	N/A	N/A	7.393	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 03:49
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5745MHz	

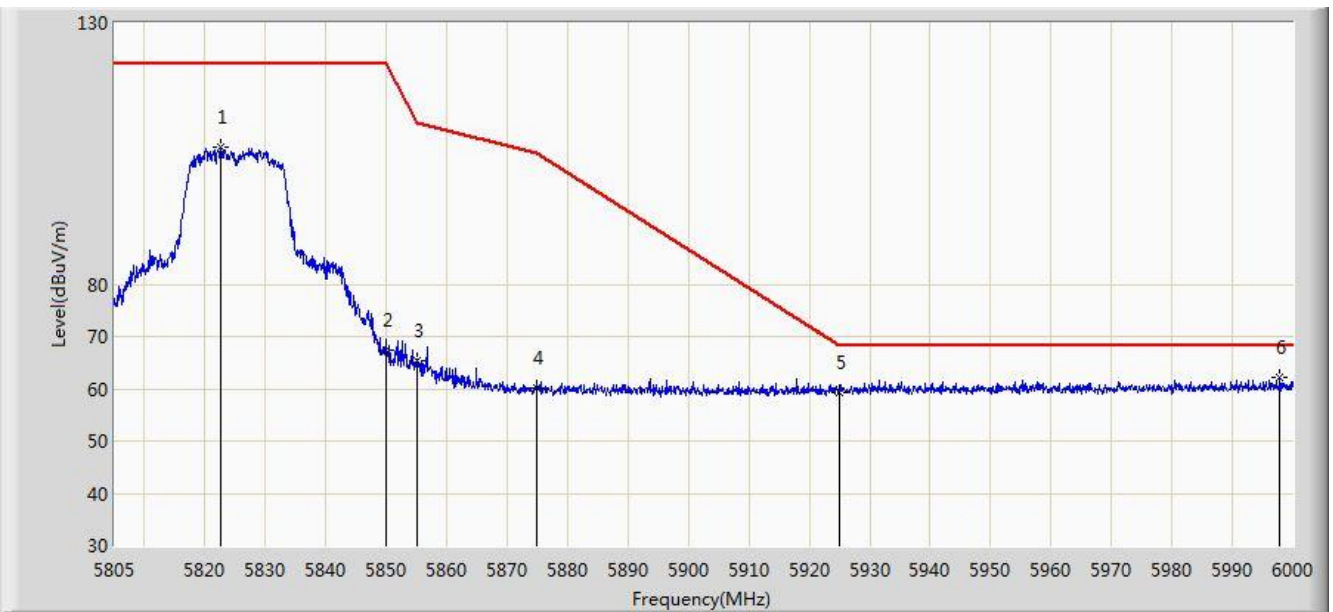


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5619.553	60.569	53.564	-7.631	68.200	7.004	PK
2			5650.000	59.003	51.998	-9.197	68.200	7.005	PK
3			5700.000	59.758	52.593	-45.442	105.200	7.165	PK
4			5720.000	67.125	59.826	-43.675	110.800	7.299	PK
5			5725.000	74.947	67.619	-47.253	122.200	7.328	PK
6			5747.757	102.782	95.375	N/A	N/A	7.407	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 03:51
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5825MHz	

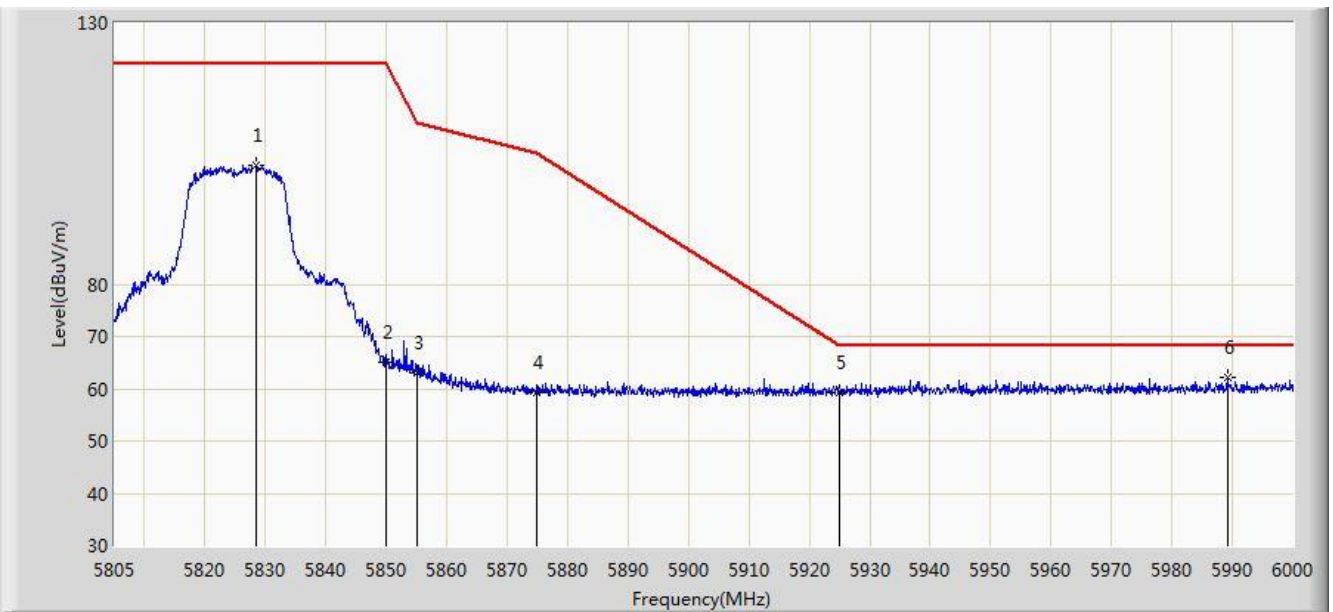


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5822.550	106.101	98.454	N/A	N/A	7.647	PK
2			5850.000	67.470	59.697	-54.730	122.200	7.774	PK
3			5855.000	65.414	57.638	-45.386	110.800	7.775	PK
4			5875.000	60.112	52.294	-45.088	105.200	7.818	PK
5			5925.000	59.279	51.460	-8.921	68.200	7.819	PK
6		*	5997.855	62.090	54.121	-6.110	68.200	7.970	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 03:54
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11a at Channel 5825MHz	

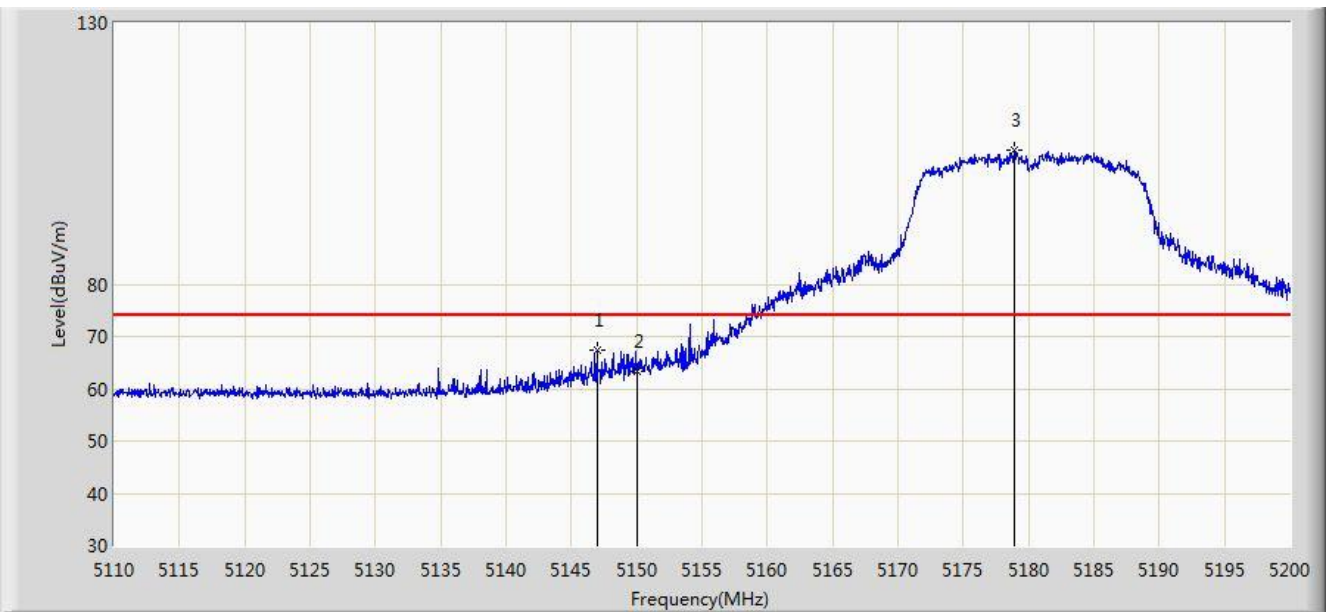


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5828.400	102.896	95.222	N/A	N/A	7.674	PK
2			5850.000	65.077	57.304	-57.123	122.200	7.774	PK
3			5855.000	62.928	55.152	-47.872	110.800	7.775	PK
4			5875.000	59.379	51.561	-45.821	105.200	7.818	PK
5			5925.000	59.362	51.543	-8.838	68.200	7.819	PK
6		*	5989.178	62.281	54.352	-5.919	68.200	7.928	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:08
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz	



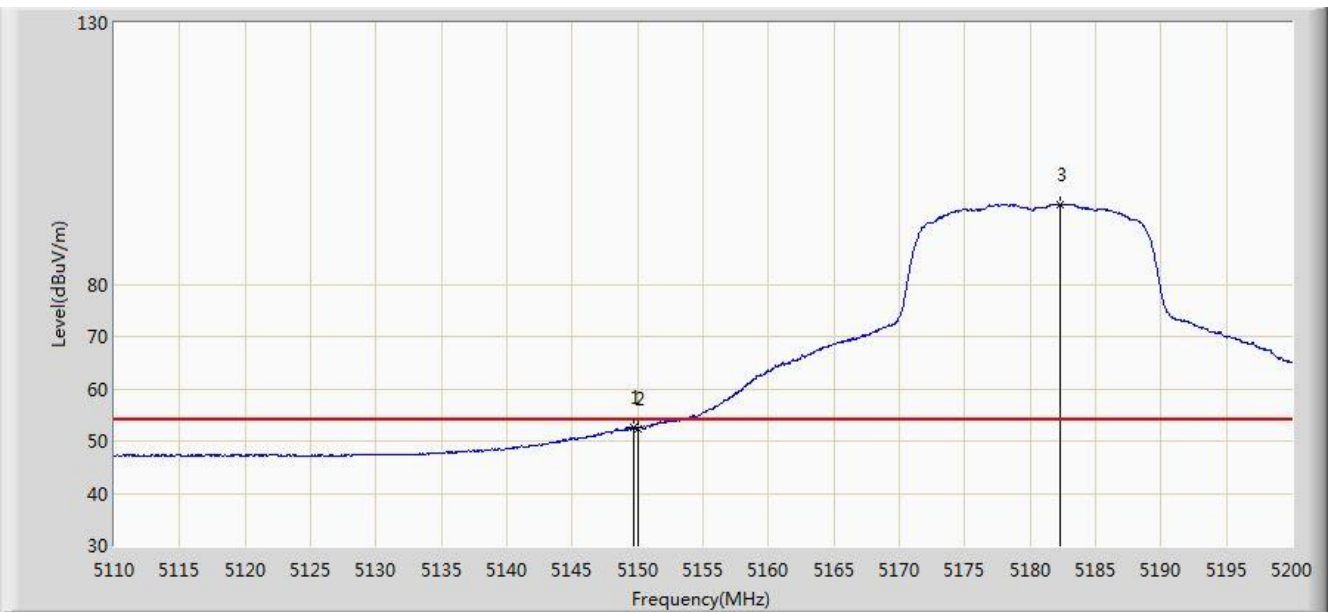
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5146.945	67.452	60.887	-6.548	74.000	6.565	PK
2			5150.000	63.189	56.627	-10.811	74.000	6.562	PK
3		*	5178.940	105.787	99.334	N/A	N/A	6.453	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/12/26 - 03:59
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz	

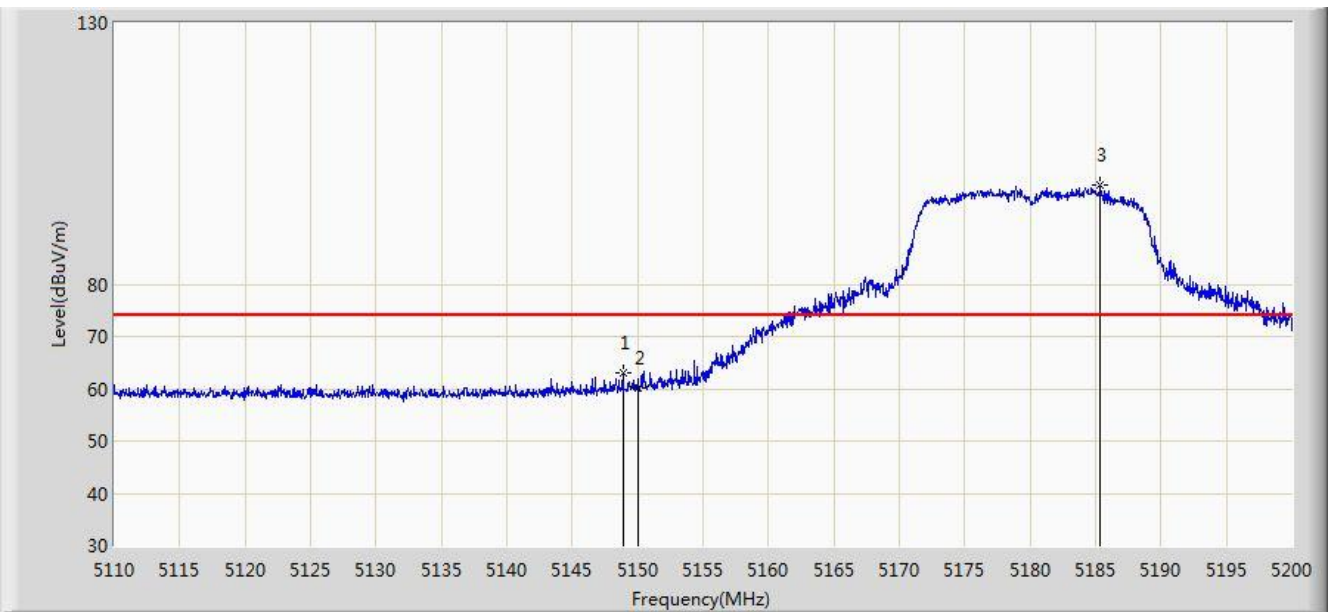


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.690	52.735	46.174	-1.265	54.000	6.561	AV
2			5150.000	52.449	45.887	-1.551	54.000	6.562	AV
3		*	5182.270	95.357	88.930	N/A	N/A	6.427	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:10
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz	

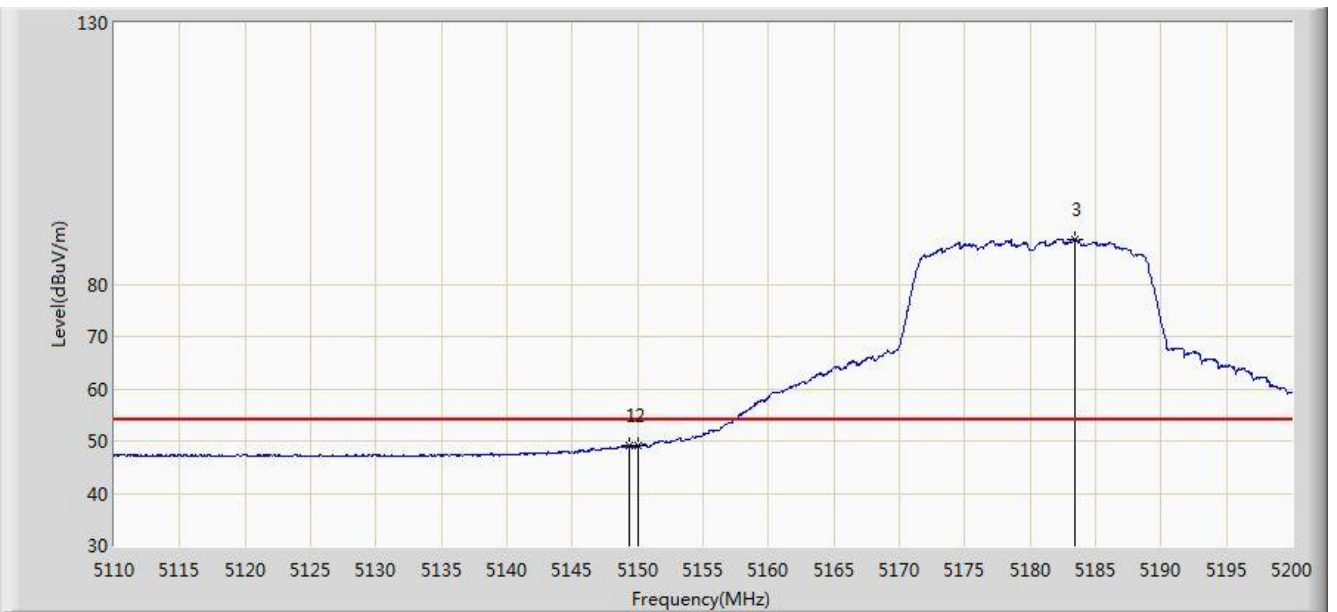


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.880	62.933	56.373	-11.067	74.000	6.561	PK
2			5150.000	60.148	53.586	-13.852	74.000	6.562	PK
3		*	5185.375	98.884	92.476	N/A	N/A	6.409	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:11
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz	

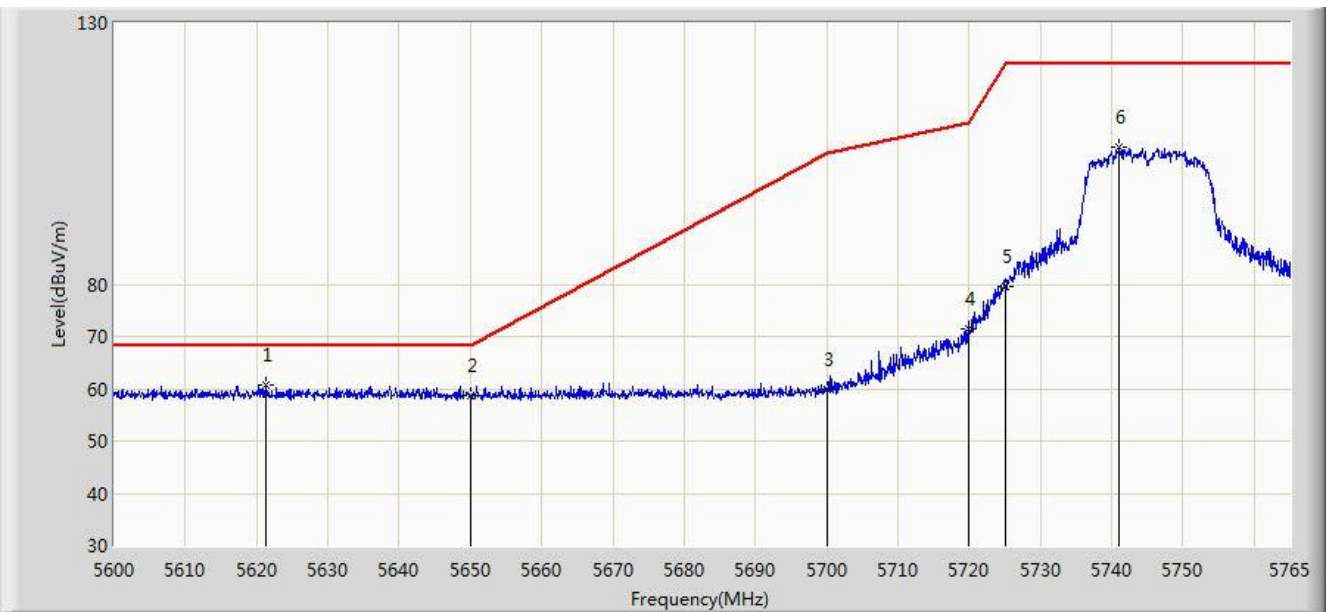


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.375	49.215	42.654	-4.785	54.000	6.561	AV
2			5150.000	49.112	42.550	-4.888	54.000	6.562	AV
3		*	5183.440	88.641	82.221	N/A	N/A	6.420	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:15
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz	

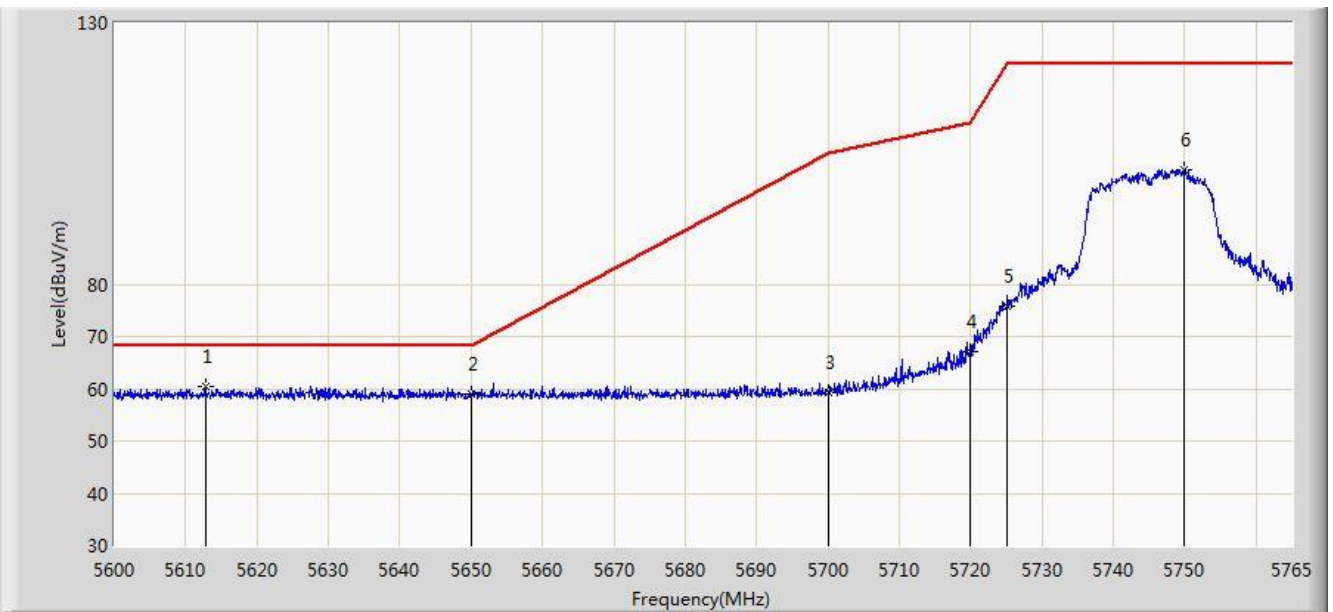


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5621.368	60.711	53.702	-7.489	68.200	7.009	PK
2			5650.000	58.590	51.585	-9.610	68.200	7.005	PK
3			5700.000	59.992	52.827	-45.208	105.200	7.165	PK
4			5720.000	71.365	64.066	-39.435	110.800	7.299	PK
5			5725.000	79.542	72.214	-42.658	122.200	7.328	PK
6			5741.075	106.102	98.706	N/A	N/A	7.397	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:17
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz	

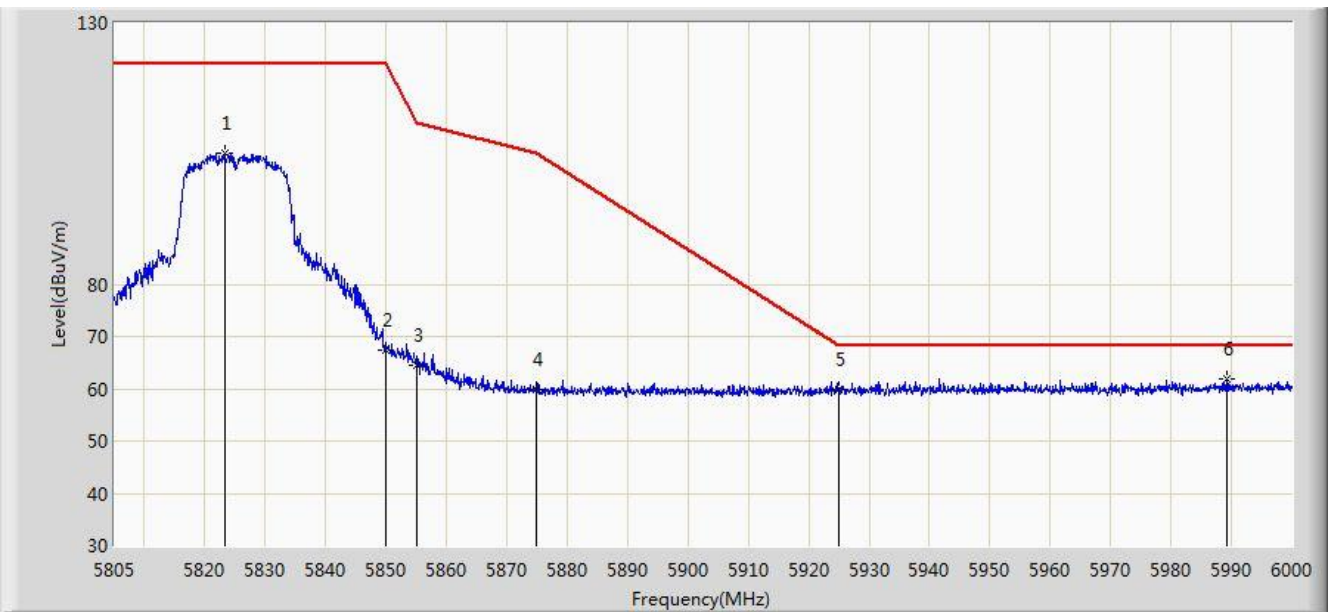


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5612.788	60.465	53.475	-7.735	68.200	6.990	PK
2			5650.000	59.073	52.068	-9.127	68.200	7.005	PK
3			5700.000	59.373	52.208	-45.827	105.200	7.165	PK
4			5720.000	66.986	59.687	-43.814	110.800	7.299	PK
5			5725.000	75.681	68.353	-46.519	122.200	7.328	PK
6			5749.902	102.023	94.615	N/A	N/A	7.408	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:20
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz	

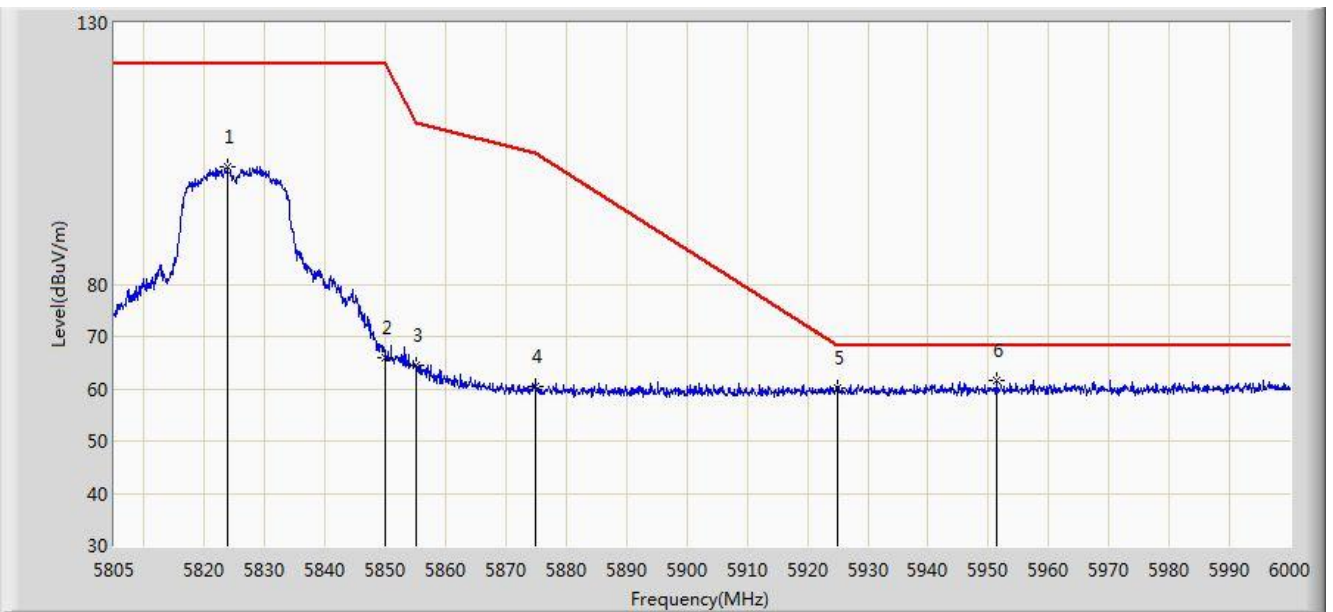


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5823.428	105.213	97.562	N/A	N/A	7.651	PK
2			5850.000	67.405	59.632	-54.795	122.200	7.774	PK
3			5855.000	64.618	56.842	-46.182	110.800	7.775	PK
4			5875.000	59.720	51.902	-45.480	105.200	7.818	PK
5			5925.000	59.956	52.137	-8.244	68.200	7.819	PK
6		*	5989.275	61.829	53.900	-6.371	68.200	7.930	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:23
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz	

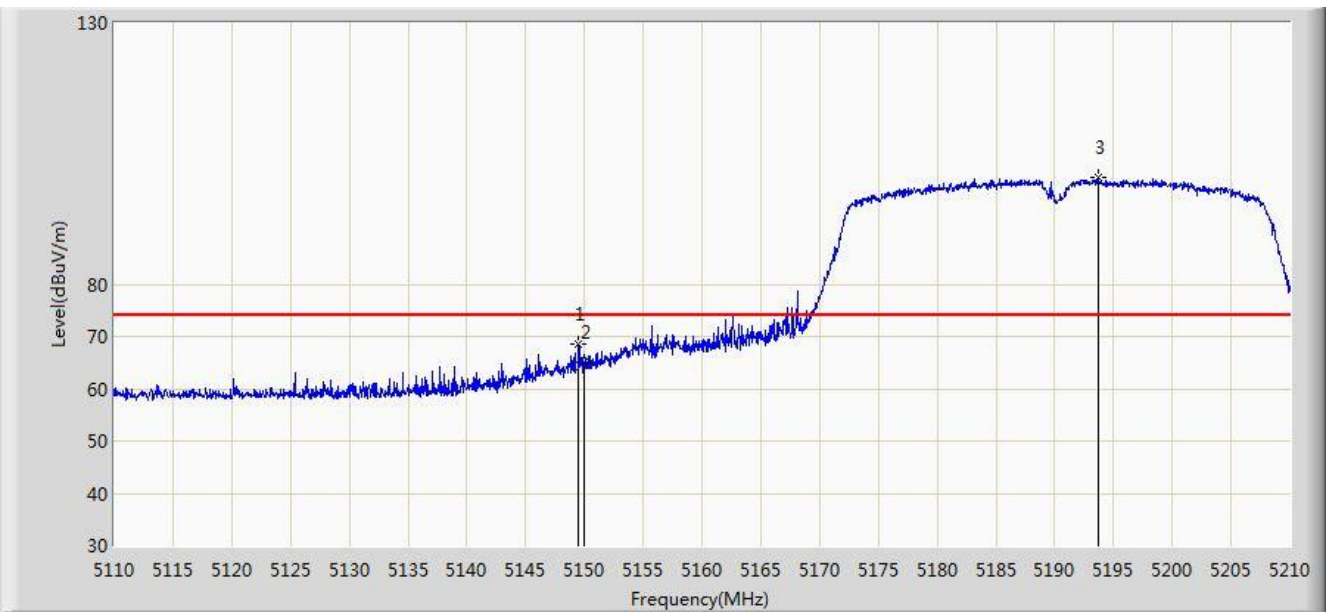


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5823.817	102.546	94.893	N/A	N/A	7.654	PK
2			5850.000	66.077	58.304	-56.123	122.200	7.774	PK
3			5855.000	64.623	56.847	-46.177	110.800	7.775	PK
4			5875.000	60.332	52.514	-44.868	105.200	7.818	PK
5			5925.000	60.161	52.342	-8.039	68.200	7.819	PK
6		*	5951.250	61.725	53.881	-6.475	68.200	7.844	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:13
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz	



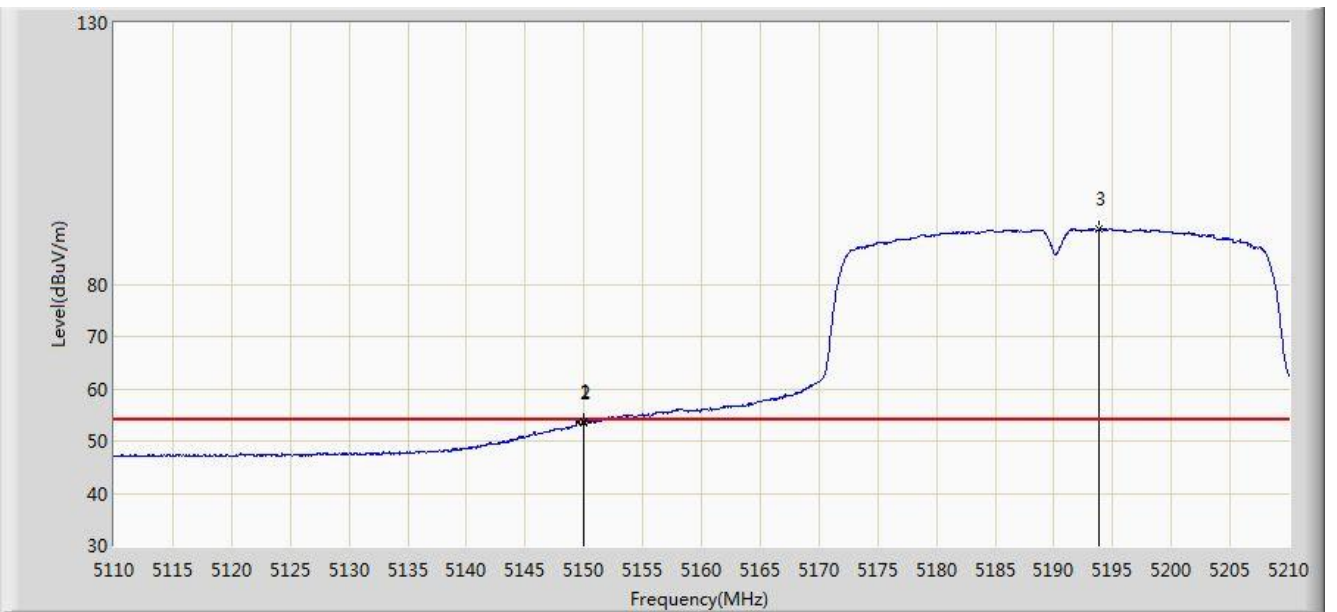
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.500	68.519	61.958	-5.481	74.000	6.561	PK
2			5150.000	65.048	58.486	-8.952	74.000	6.562	PK
3		*	5193.700	100.305	93.944	N/A	N/A	6.360	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/12/26 - 05:10
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz	

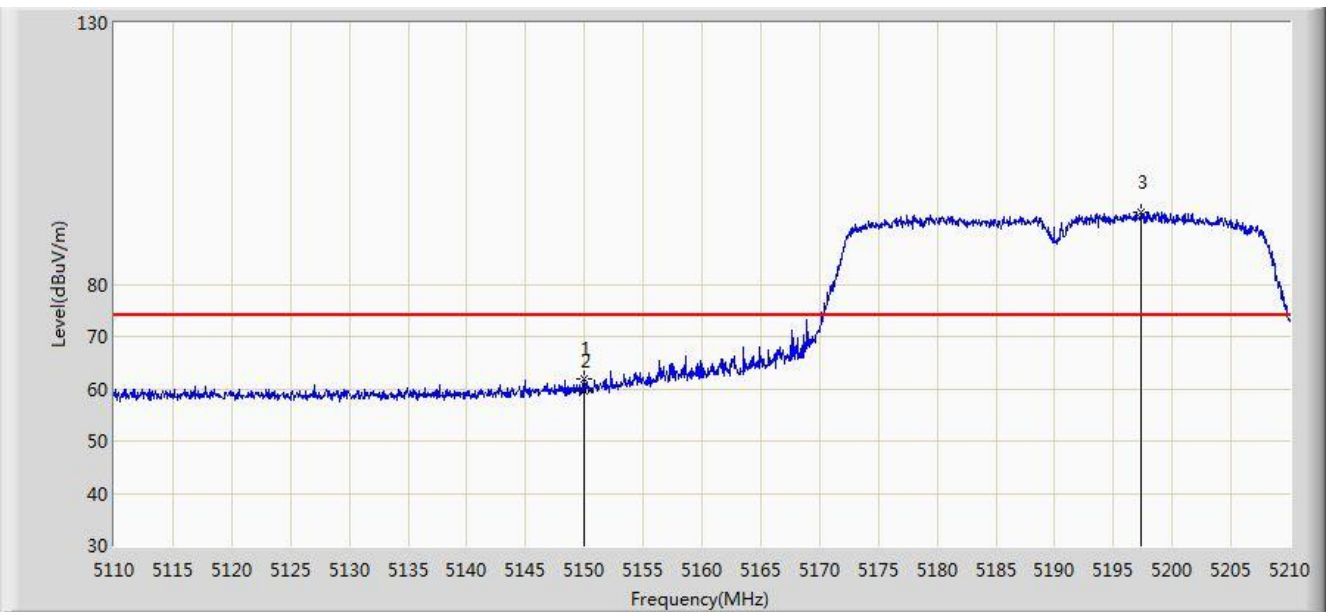


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.950	53.738	47.176	-0.262	54.000	6.562	AV
2			5150.000	53.476	46.914	-0.524	54.000	6.562	AV
3		*	5193.800	90.611	84.251	N/A	N/A	6.359	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz	

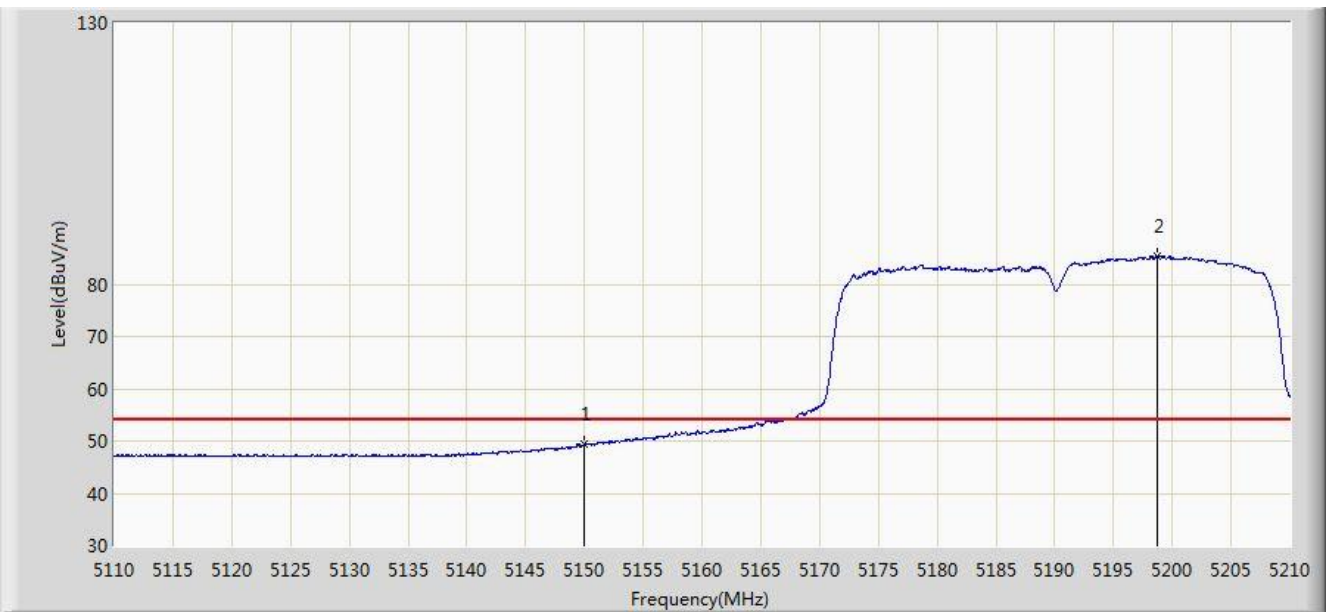


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.950	61.851	55.289	-12.149	74.000	6.562	PK
2			5150.000	59.654	53.092	-14.346	74.000	6.562	PK
3		*	5197.300	93.886	87.546	N/A	N/A	6.340	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz	

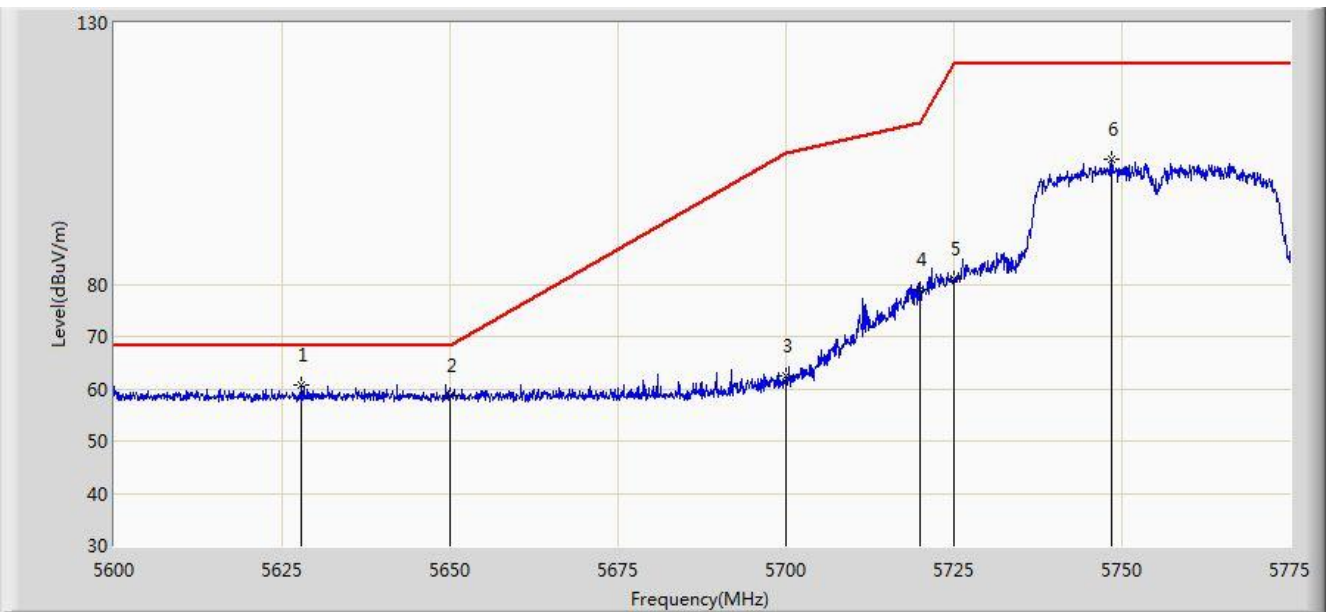


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	49.294	42.732	-4.706	54.000	6.562	AV
2		*	5198.750	85.458	79.126	N/A	N/A	6.332	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:21
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz	

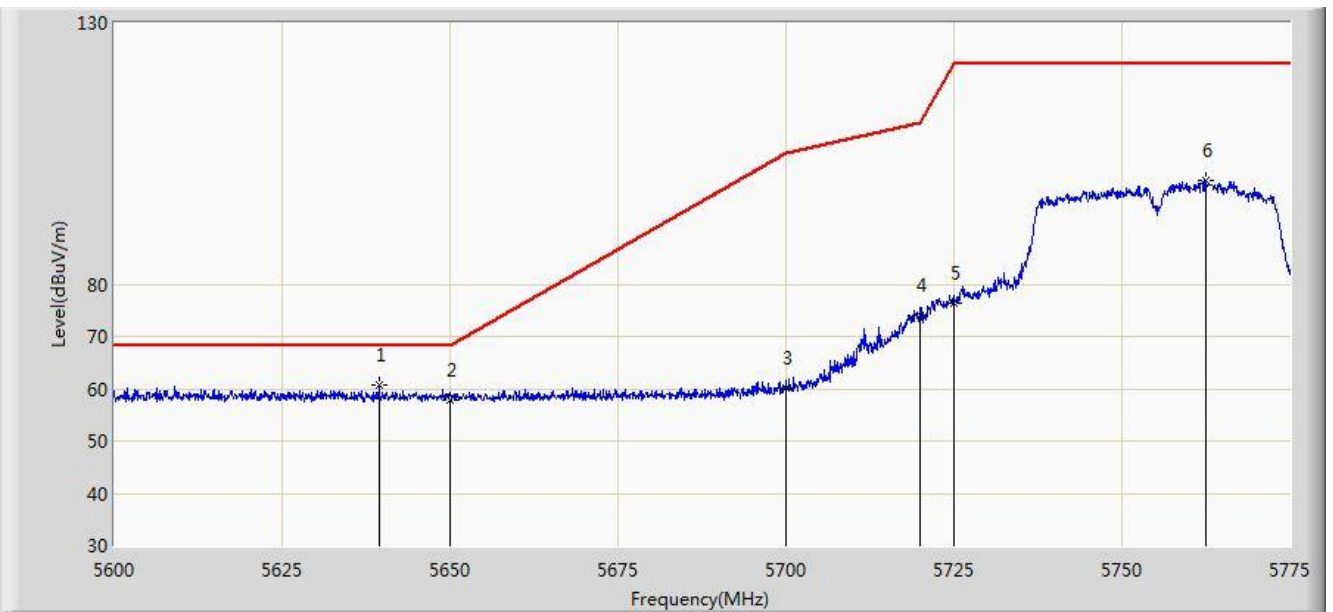


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5627.825	60.738	53.730	-7.462	68.200	7.008	PK
2			5650.000	58.568	51.563	-9.632	68.200	7.005	PK
3			5700.000	62.483	55.318	-42.717	105.200	7.165	PK
4			5720.000	78.848	71.549	-31.952	110.800	7.299	PK
5			5725.000	81.010	73.682	-41.190	122.200	7.328	PK
6			5748.487	103.811	96.404	N/A	N/A	7.407	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:22
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz	

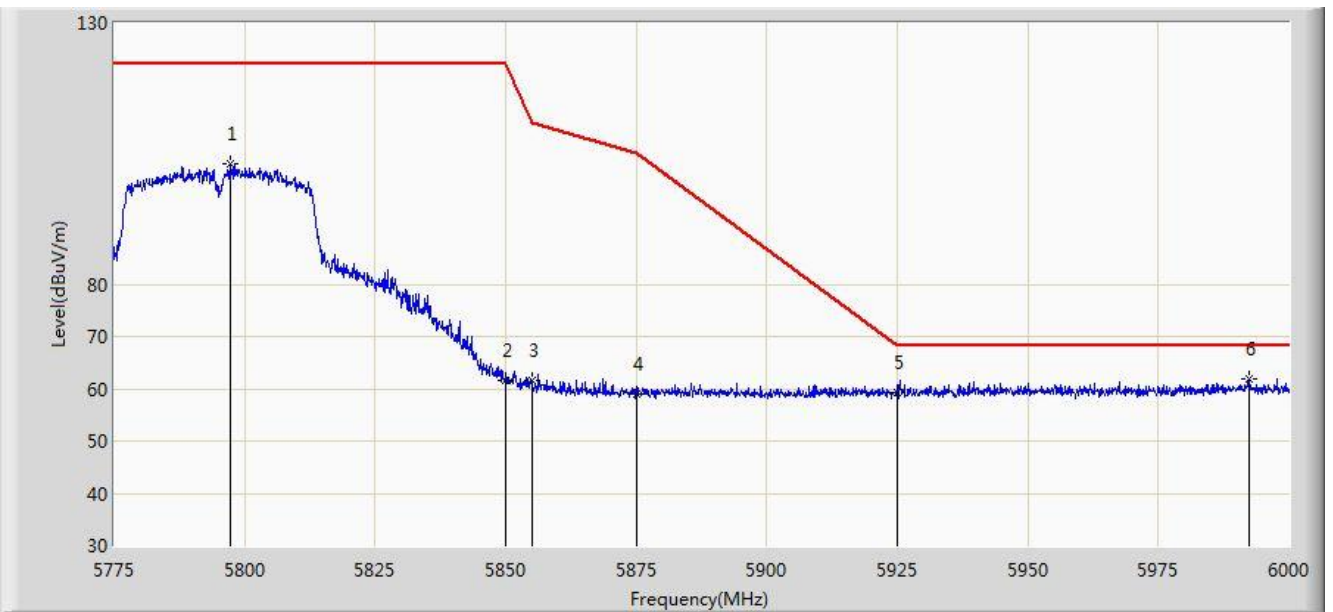


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5639.375	60.744	53.756	-7.456	68.200	6.987	PK
2			5650.000	57.797	50.792	-10.403	68.200	7.005	PK
3			5700.000	60.168	53.003	-45.032	105.200	7.165	PK
4			5720.000	74.034	66.735	-36.766	110.800	7.299	PK
5			5725.000	76.406	69.078	-45.794	122.200	7.328	PK
6			5762.575	99.953	92.531	N/A	N/A	7.422	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:25
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz	

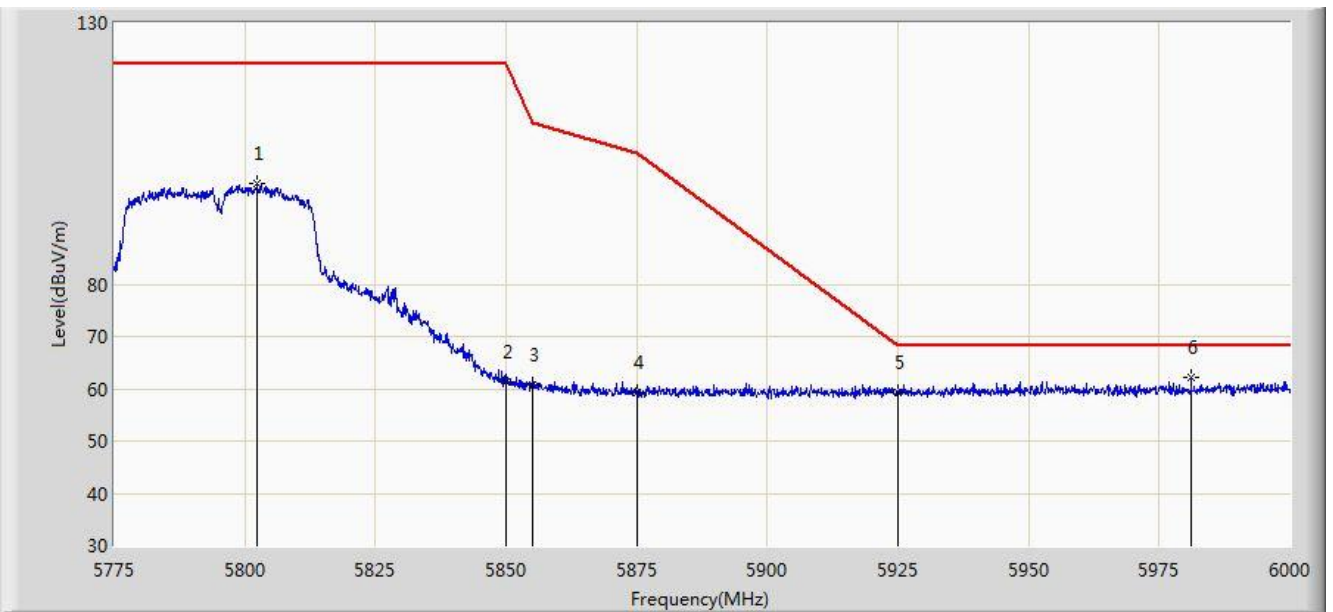


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5797.275	102.907	95.359	N/A	N/A	7.548	PK
2			5850.000	61.646	53.873	-60.554	122.200	7.774	PK
3			5855.000	61.579	53.803	-49.221	110.800	7.775	PK
4			5875.000	58.884	51.066	-46.316	105.200	7.818	PK
5			5925.000	59.244	51.425	-8.956	68.200	7.819	PK
6		*	5992.350	61.852	53.909	-6.348	68.200	7.943	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:27
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz	

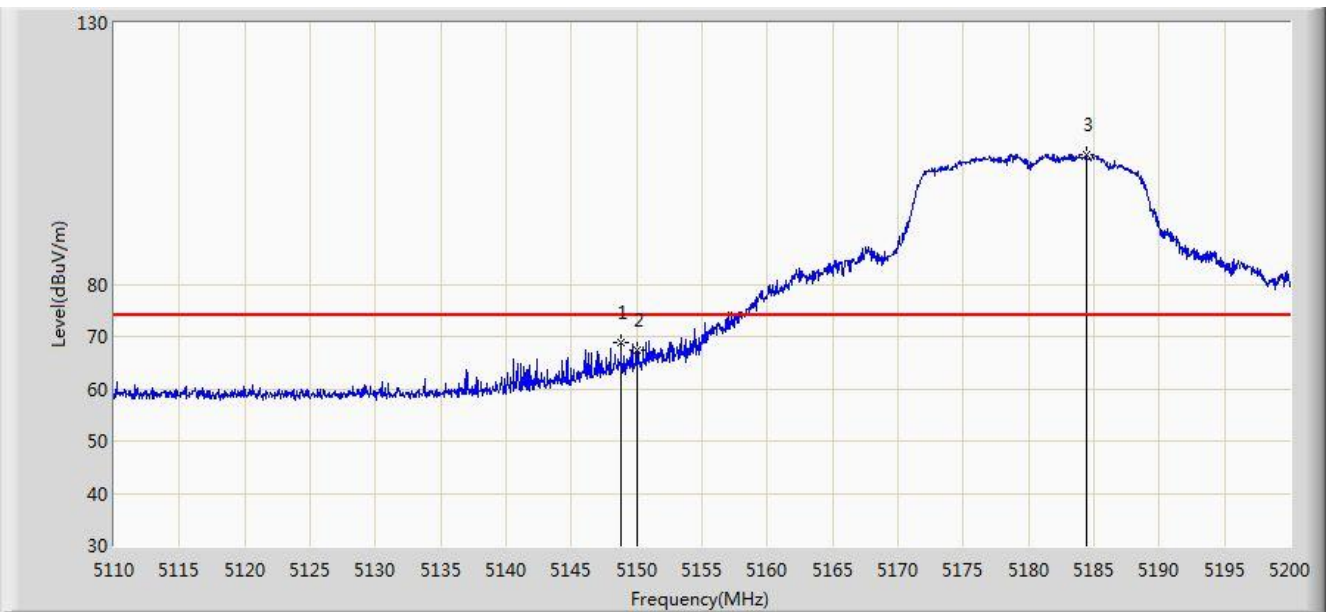


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5802.337	99.284	91.719	N/A	N/A	7.565	PK
2			5850.000	61.326	53.553	-60.874	122.200	7.774	PK
3			5855.000	60.668	52.892	-50.132	110.800	7.775	PK
4			5875.000	59.268	51.450	-45.932	105.200	7.818	PK
5			5925.000	59.336	51.517	-8.864	68.200	7.819	PK
6		*	5981.100	62.099	54.209	-6.101	68.200	7.890	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz	



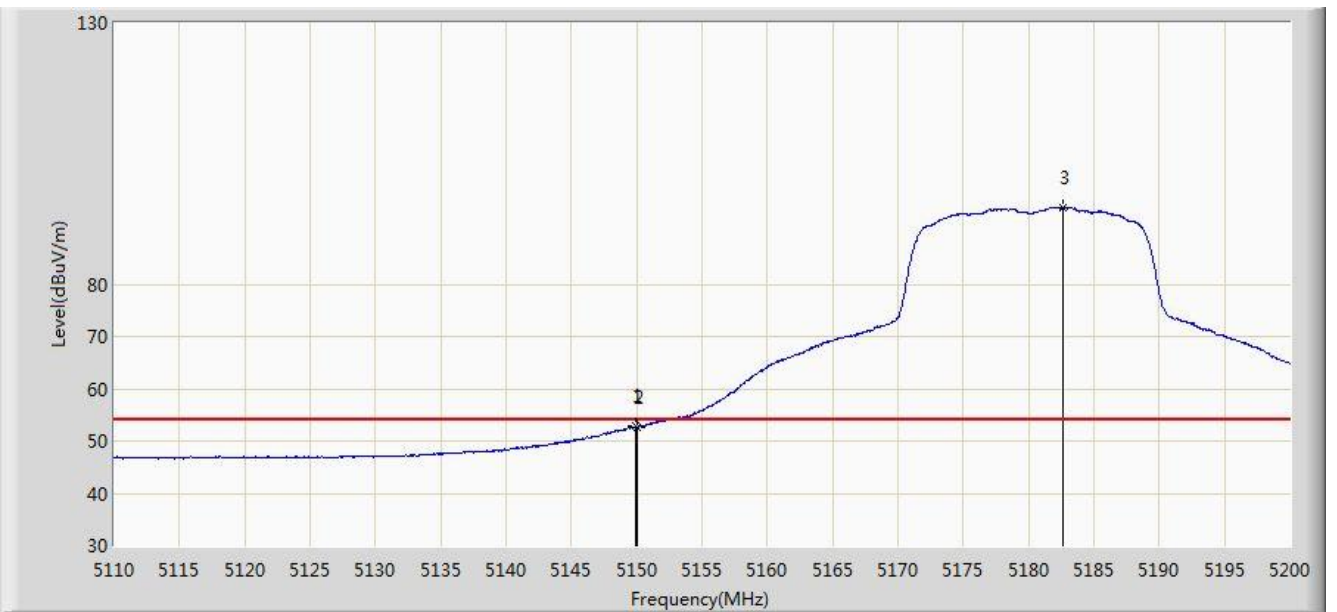
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.790	68.910	62.350	-5.090	74.000	6.560	PK
2			5150.000	67.435	60.873	-6.565	74.000	6.562	PK
3		*	5184.385	104.920	98.506	N/A	N/A	6.414	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/12/26 - 04:39
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz	

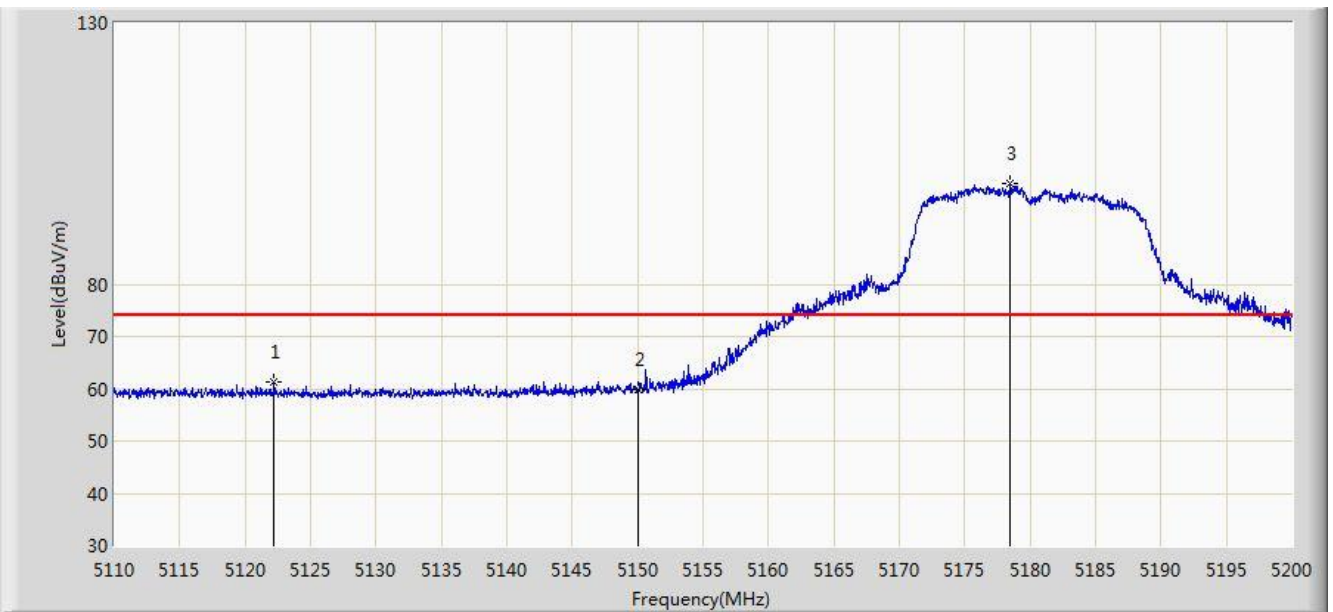


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.960	52.759	46.197	-1.241	54.000	6.562	AV
2			5150.000	52.694	46.132	-1.306	54.000	6.562	AV
3		*	5182.675	94.728	88.304	N/A	N/A	6.424	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz	

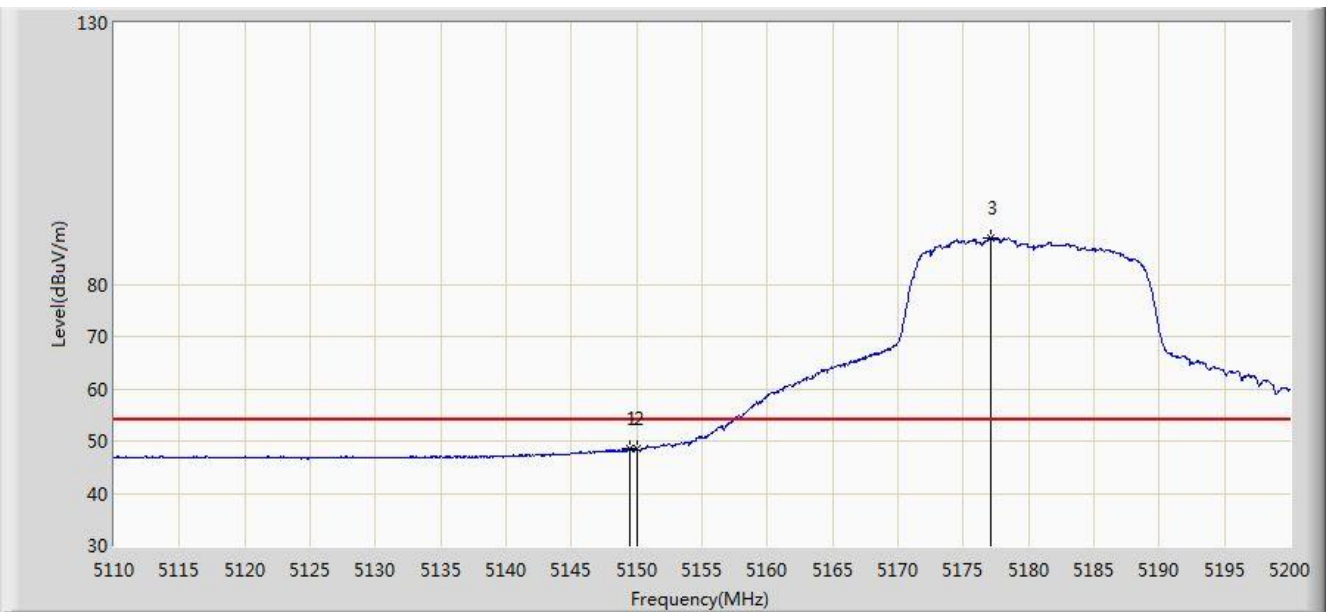


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5122.195	61.293	54.645	-12.707	74.000	6.648	PK
2			5150.000	59.752	53.190	-14.248	74.000	6.562	PK
3		*	5178.445	99.157	92.700	N/A	N/A	6.456	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz	

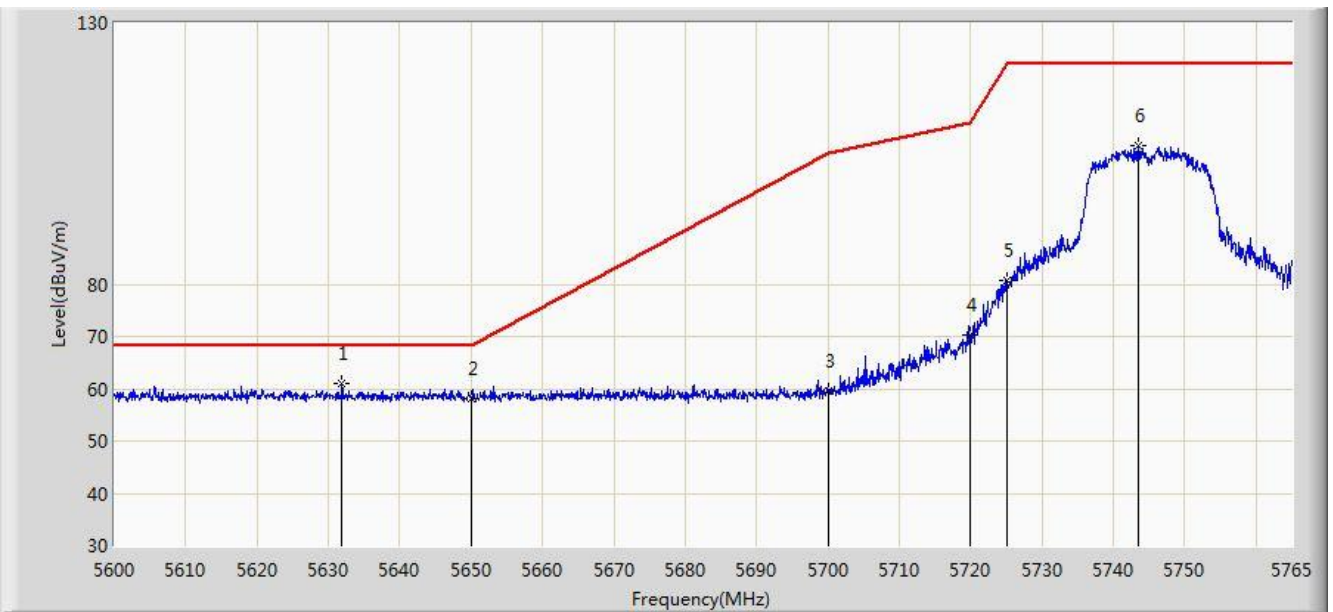


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.465	48.502	41.941	-5.498	54.000	6.561	AV
2			5150.000	48.428	41.866	-5.572	54.000	6.562	AV
3		*	5177.140	88.975	82.508	N/A	N/A	6.467	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:48
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz	

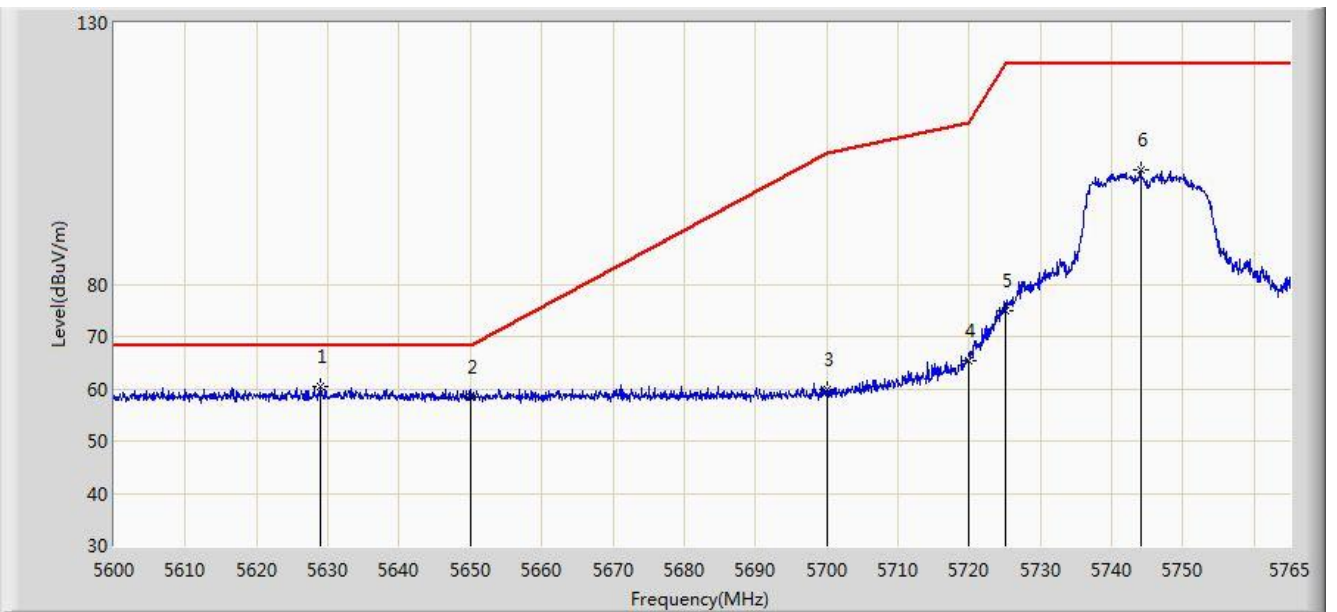


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5631.928	60.903	53.902	-7.297	68.200	7.001	PK
2			5650.000	58.060	51.055	-10.140	68.200	7.005	PK
3			5700.000	59.553	52.388	-45.647	105.200	7.165	PK
4			5720.000	70.323	63.024	-40.477	110.800	7.299	PK
5			5725.000	80.689	73.361	-41.511	122.200	7.328	PK
6			5743.467	106.567	99.163	N/A	N/A	7.404	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:51
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz	

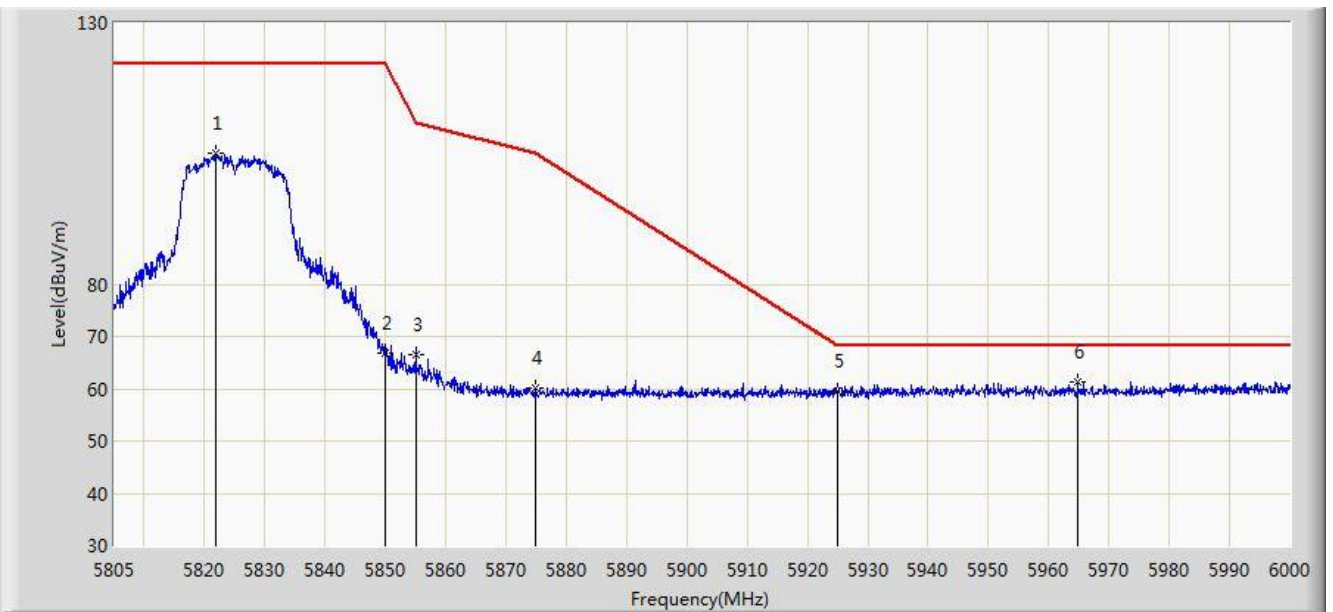


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5629.040	60.294	53.288	-7.906	68.200	7.006	PK
2			5650.000	58.403	51.398	-9.797	68.200	7.005	PK
3			5700.000	59.798	52.633	-45.402	105.200	7.165	PK
4			5720.000	65.330	58.031	-45.470	110.800	7.299	PK
5			5725.000	74.948	67.620	-47.252	122.200	7.328	PK
6			5744.045	101.754	94.350	N/A	N/A	7.404	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:56
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz	

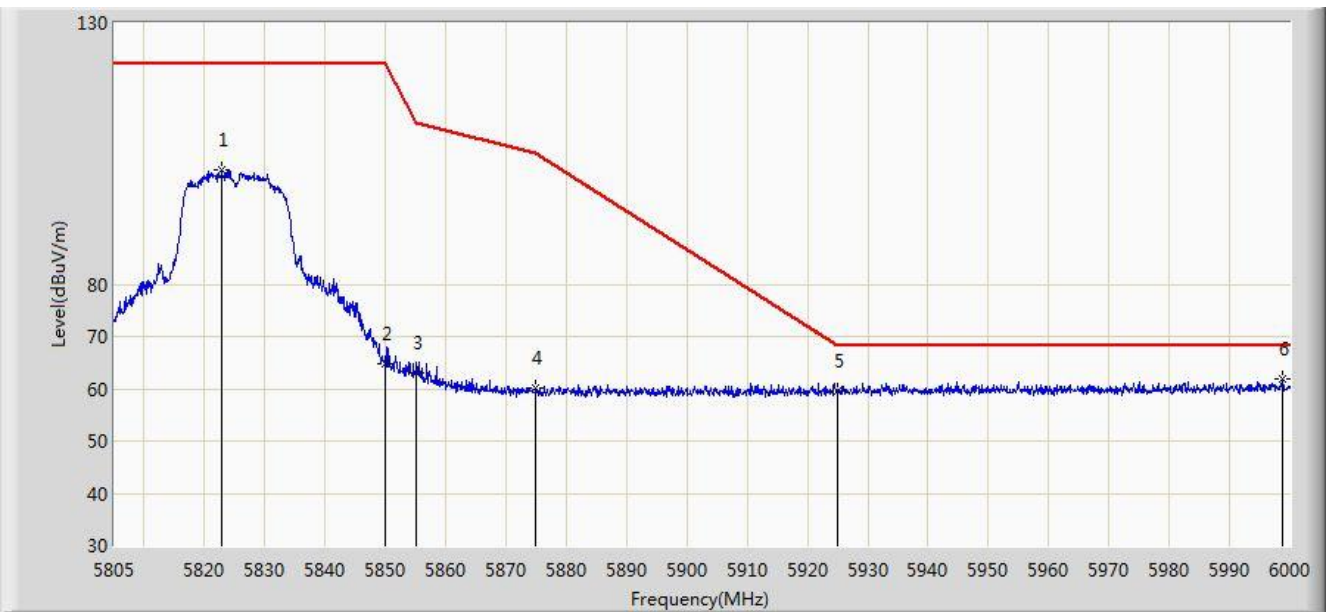


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5821.868	105.100	97.456	N/A	N/A	7.644	PK
2			5850.000	66.950	59.177	-55.250	122.200	7.774	PK
3			5855.000	66.619	58.843	-44.181	110.800	7.775	PK
4			5875.000	60.127	52.309	-45.073	105.200	7.818	PK
5			5925.000	59.701	51.882	-8.499	68.200	7.819	PK
6		*	5964.803	61.352	53.489	-6.848	68.200	7.864	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 04:58
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz	

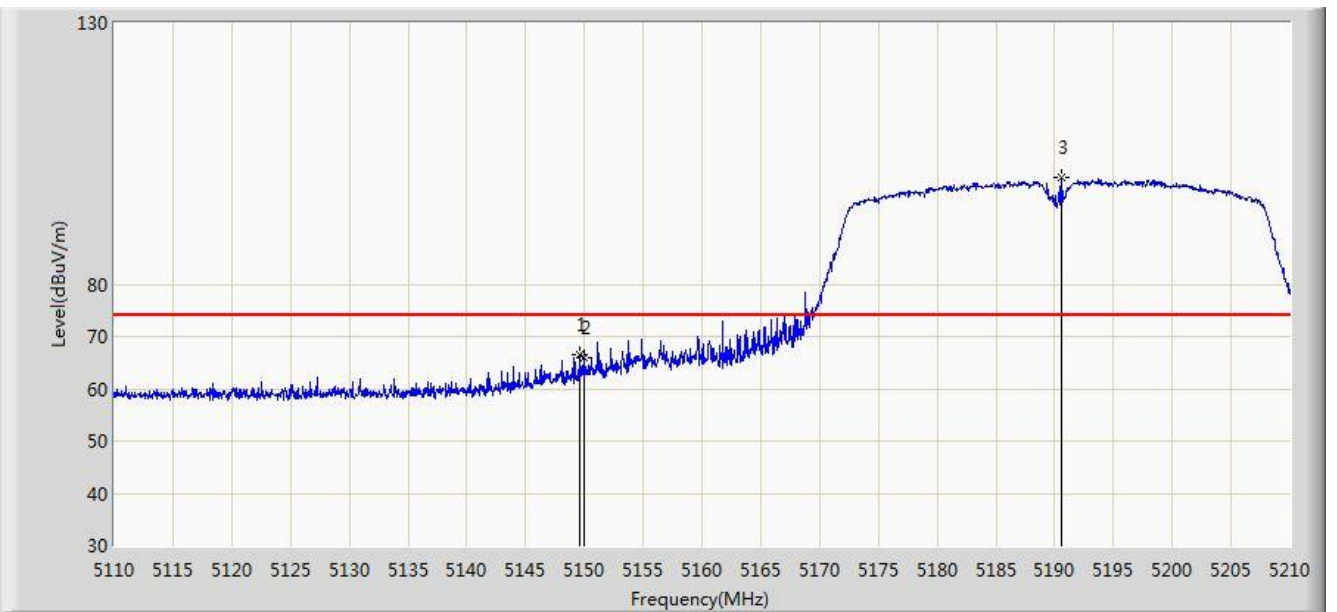


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5822.842	102.025	94.376	N/A	N/A	7.649	PK
2			5850.000	64.883	57.110	-57.317	122.200	7.774	PK
3			5855.000	63.017	55.241	-47.783	110.800	7.775	PK
4			5875.000	60.261	52.443	-44.939	105.200	7.818	PK
5			5925.000	59.454	51.635	-8.746	68.200	7.819	PK
6		*	5998.830	61.947	53.982	-6.253	68.200	7.965	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz	



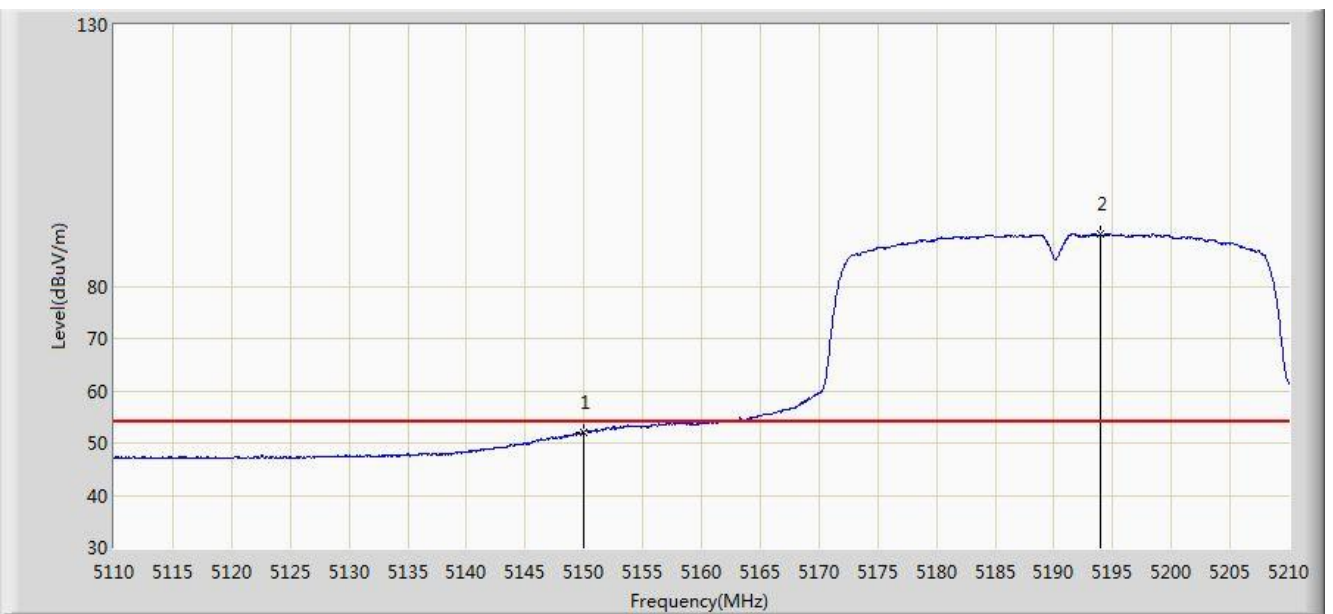
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.650	66.476	59.915	-7.524	74.000	6.561	PK
2			5150.000	65.892	59.330	-8.108	74.000	6.562	PK
3		*	5190.600	100.308	93.930	N/A	N/A	6.378	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/12/26 - 05:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz	

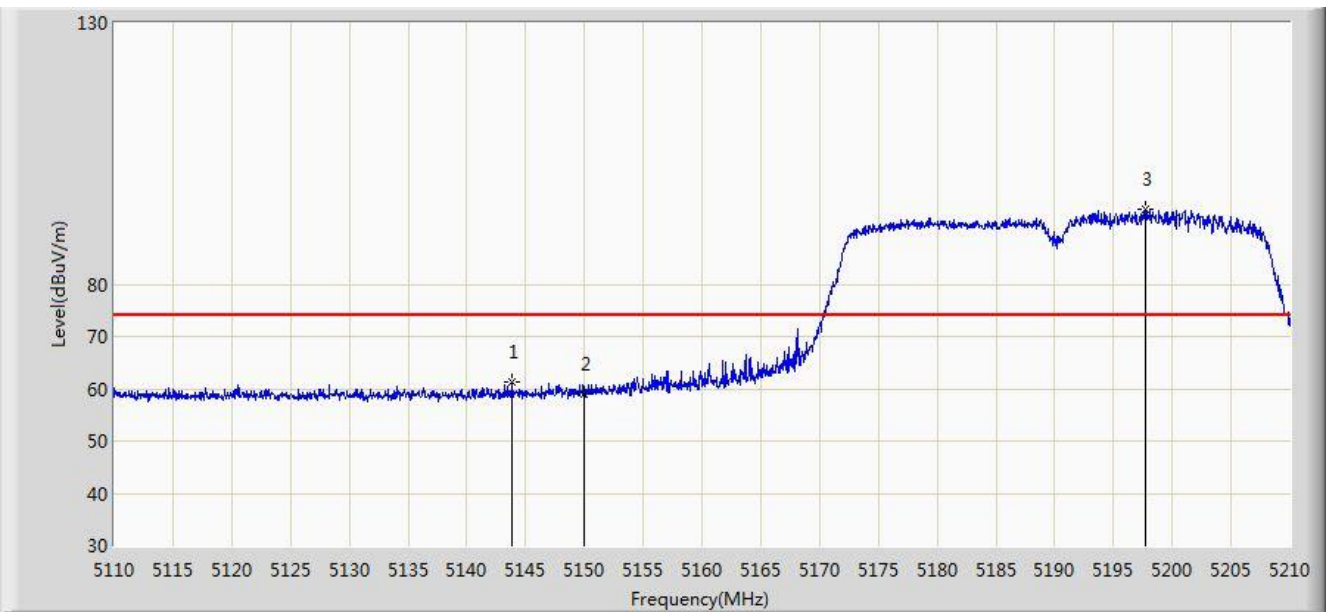


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	52.117	45.555	-1.883	54.000	6.562	AV
2		*	5193.950	90.000	83.641	N/A	N/A	6.359	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz	

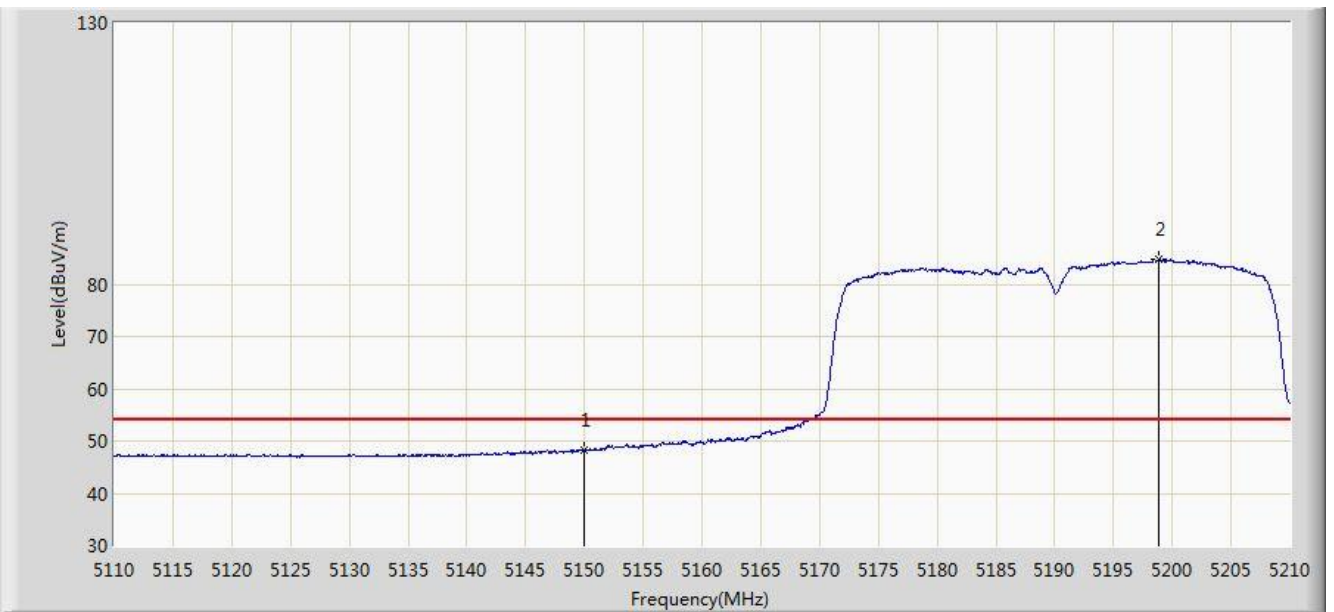


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5143.850	61.432	54.849	-12.568	74.000	6.583	PK
2			5150.000	58.977	52.415	-15.023	74.000	6.562	PK
3		*	5197.700	94.236	87.898	N/A	N/A	6.338	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz	

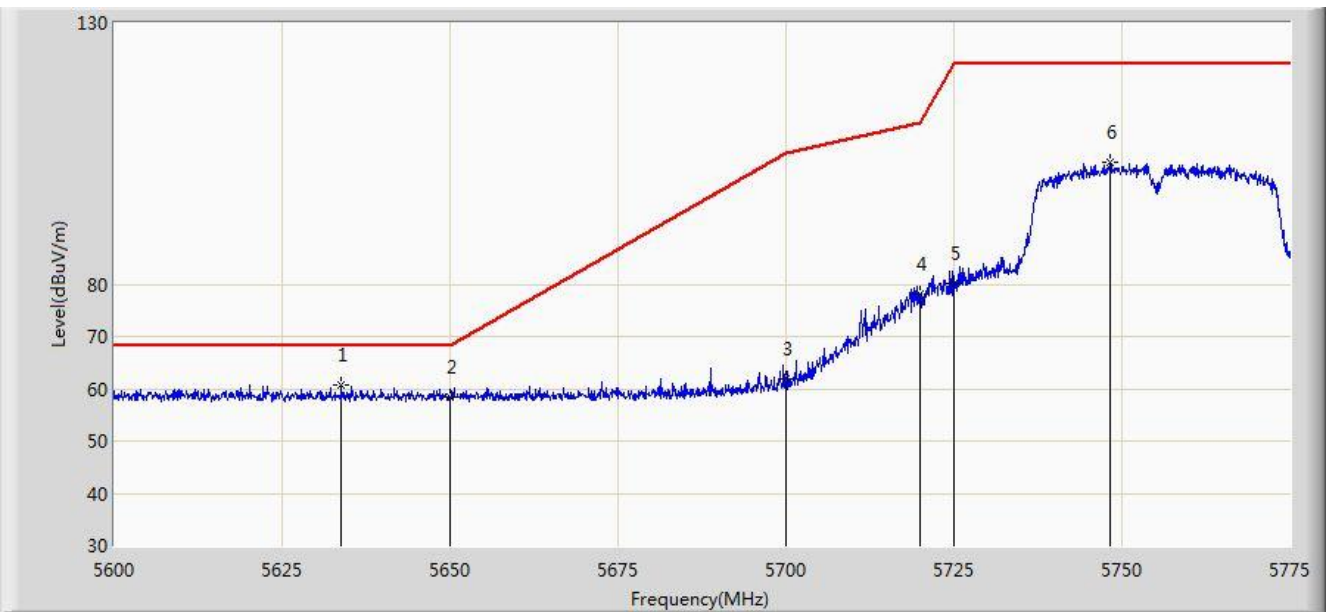


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	48.296	41.734	-5.704	54.000	6.562	AV
2		*	5198.850	84.768	78.436	N/A	N/A	6.331	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:50
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz	

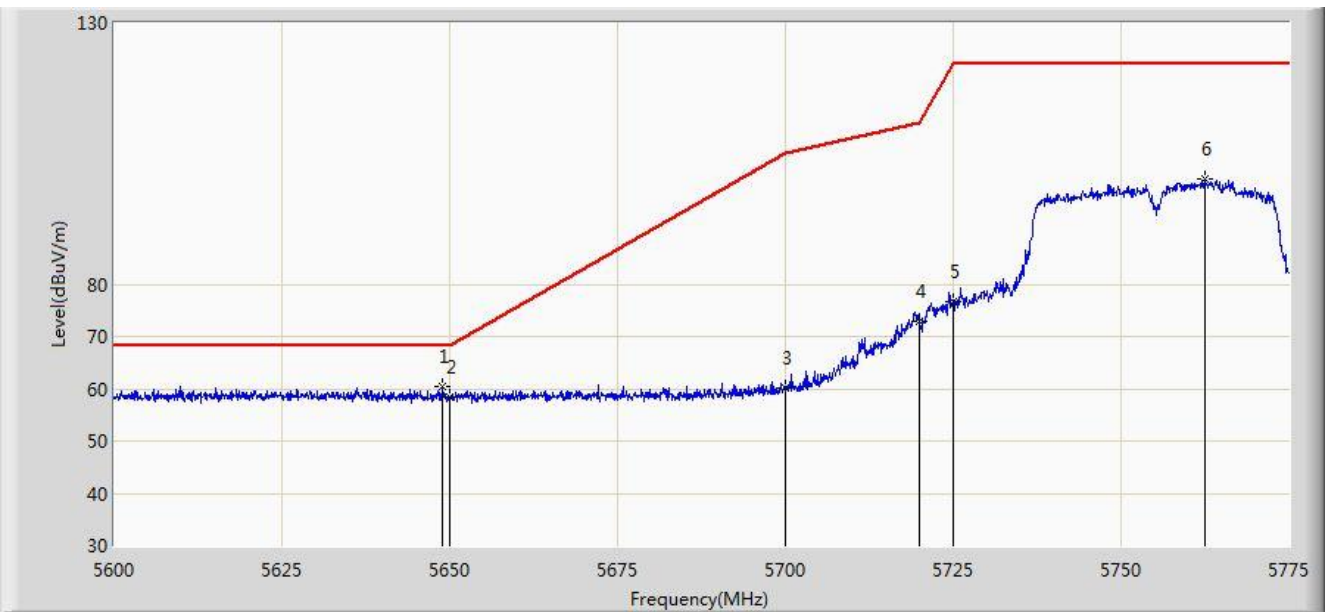


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5633.775	60.815	53.817	-7.385	68.200	6.998	PK
2			5650.000	58.386	51.381	-9.814	68.200	7.005	PK
3			5700.000	61.757	54.592	-43.443	105.200	7.165	PK
4			5720.000	78.030	70.731	-32.770	110.800	7.299	PK
5			5725.000	80.255	72.927	-41.945	122.200	7.328	PK
6			5748.312	103.356	95.949	N/A	N/A	7.407	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:52
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz	

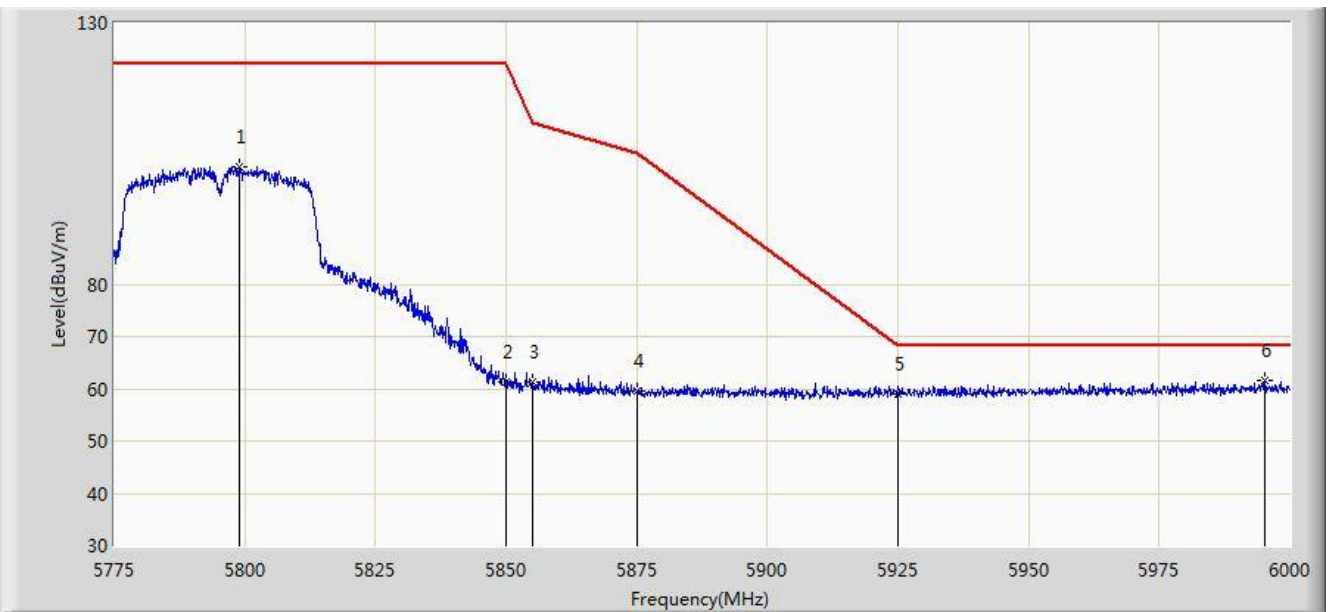


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5649.000	60.303	53.300	-7.897	68.200	7.003	PK
2			5650.000	58.296	51.291	-9.904	68.200	7.005	PK
3			5700.000	60.073	52.908	-45.127	105.200	7.165	PK
4			5720.000	73.002	65.703	-37.798	110.800	7.299	PK
5			5725.000	76.750	69.422	-45.450	122.200	7.328	PK
6			5762.400	100.259	92.837	N/A	N/A	7.421	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:55
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz	

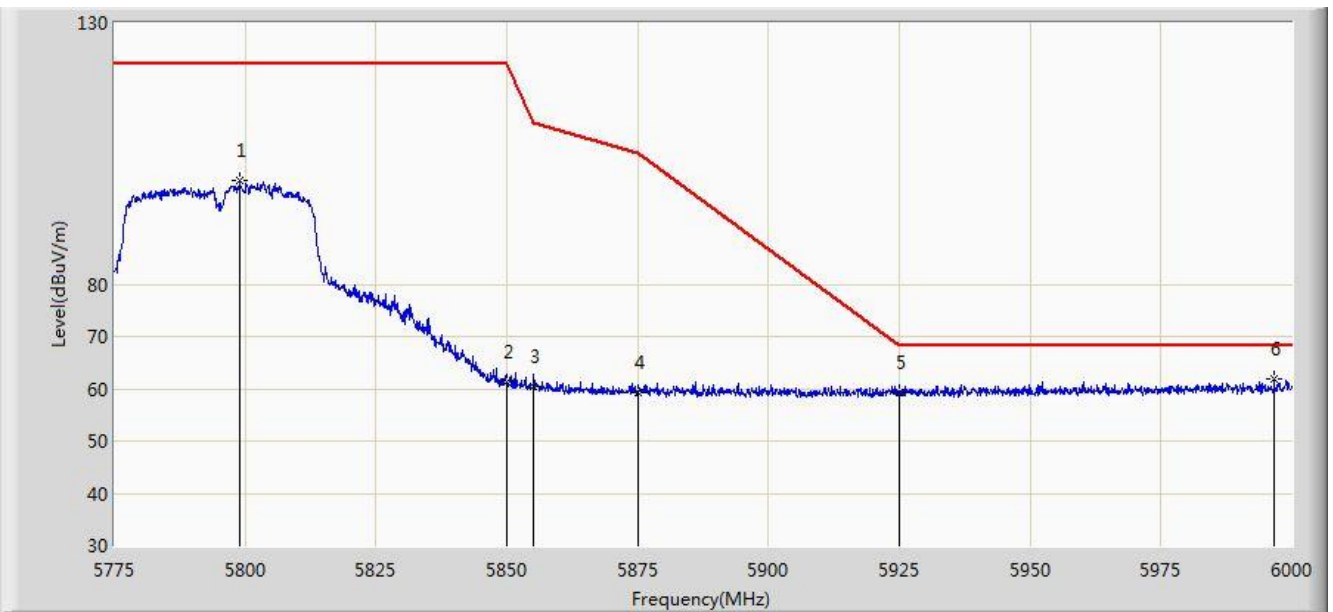


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5799.075	102.599	95.045	N/A	N/A	7.554	PK
2			5850.000	61.172	53.399	-61.028	122.200	7.774	PK
3			5855.000	61.232	53.456	-49.568	110.800	7.775	PK
4			5875.000	59.596	51.778	-45.604	105.200	7.818	PK
5			5925.000	58.974	51.155	-9.226	68.200	7.819	PK
6		*	5995.275	61.475	53.518	-6.725	68.200	7.957	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 05:57
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz	

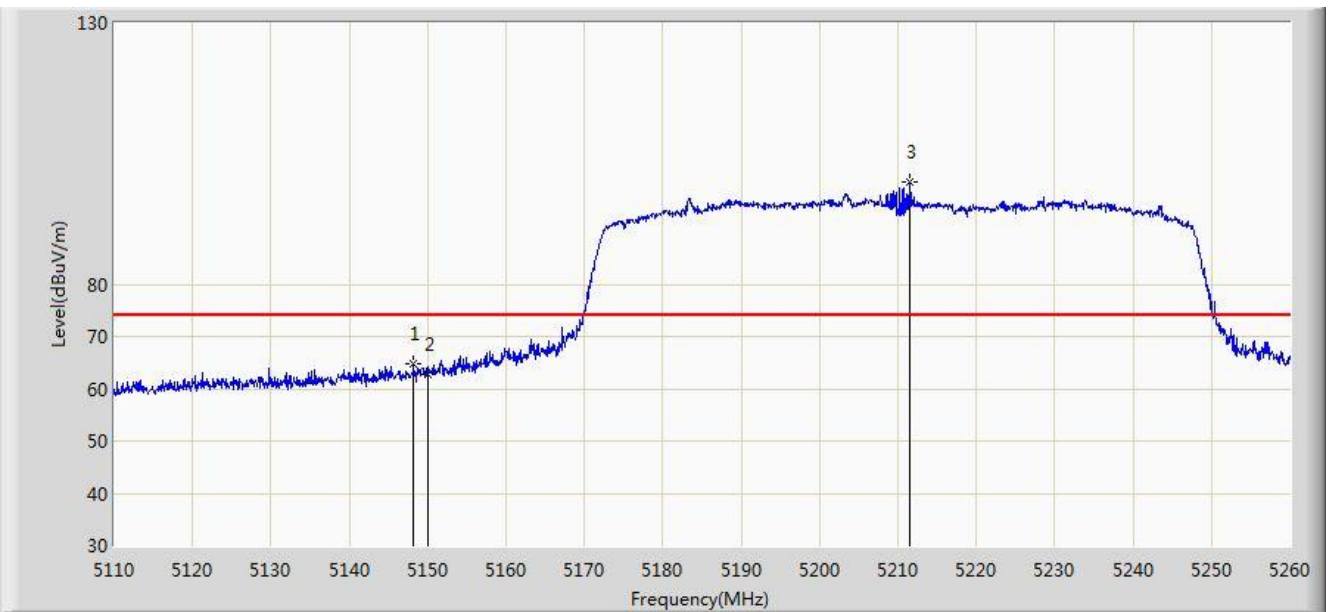


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5798.962	99.773	92.219	N/A	N/A	7.553	PK
2			5850.000	61.372	53.599	-60.828	122.200	7.774	PK
3			5855.000	60.467	52.691	-50.333	110.800	7.775	PK
4			5875.000	59.240	51.422	-45.960	105.200	7.818	PK
5			5925.000	59.166	51.347	-9.034	68.200	7.819	PK
6		*	5996.625	61.876	53.913	-6.324	68.200	7.963	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 06:11
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz	



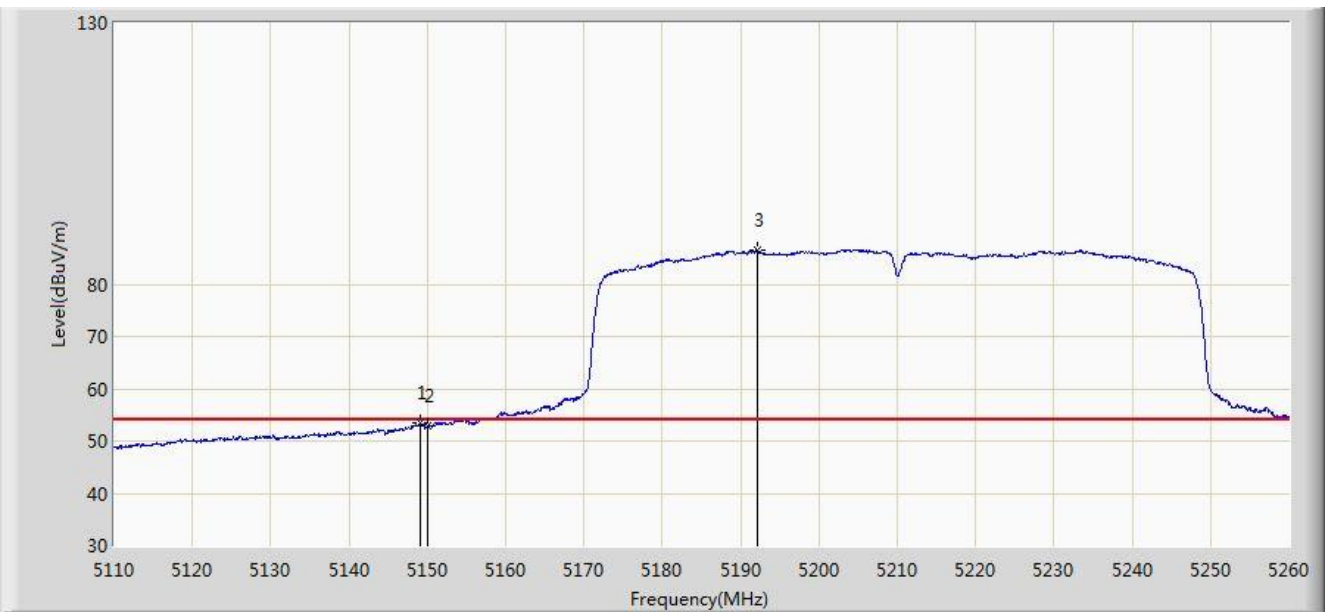
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.250	64.726	58.167	-9.274	74.000	6.558	PK
2			5150.000	62.865	56.303	-11.135	74.000	6.562	PK
3		*	5211.475	99.535	93.161	N/A	N/A	6.373	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/12/26 - 06:09
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz	

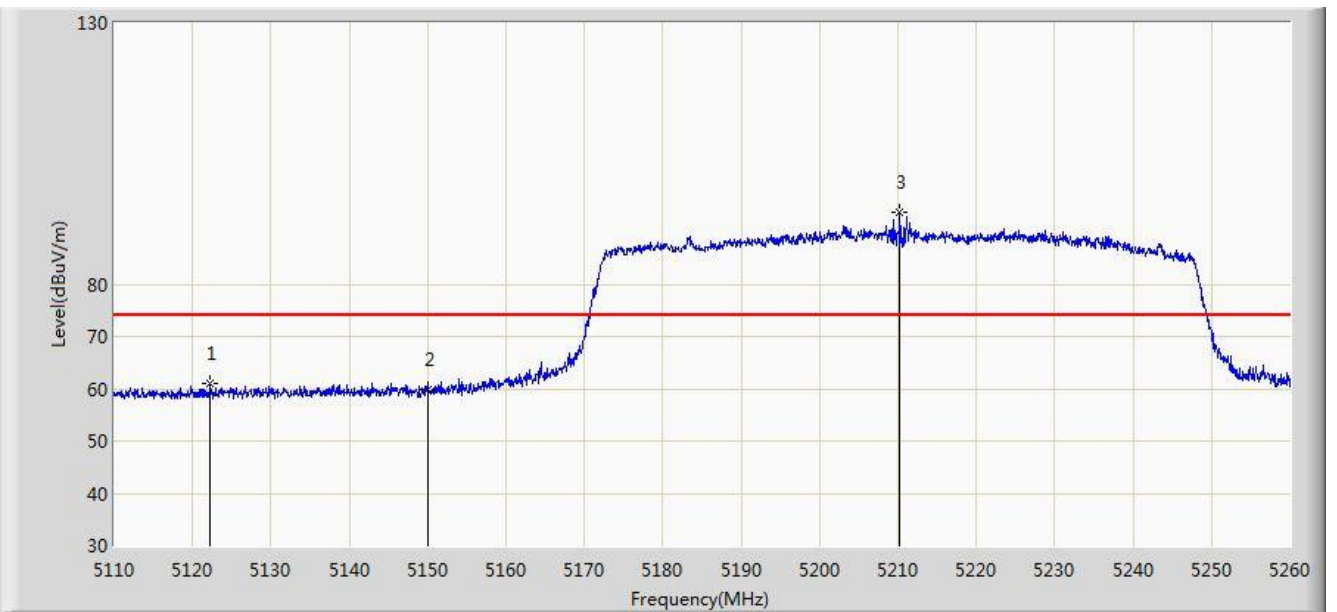


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.075	53.353	46.793	-0.647	54.000	6.560	AV
2			5150.000	52.801	46.239	-1.199	54.000	6.562	AV
3		*	5192.050	86.605	80.235	N/A	N/A	6.370	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 06:13
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz	

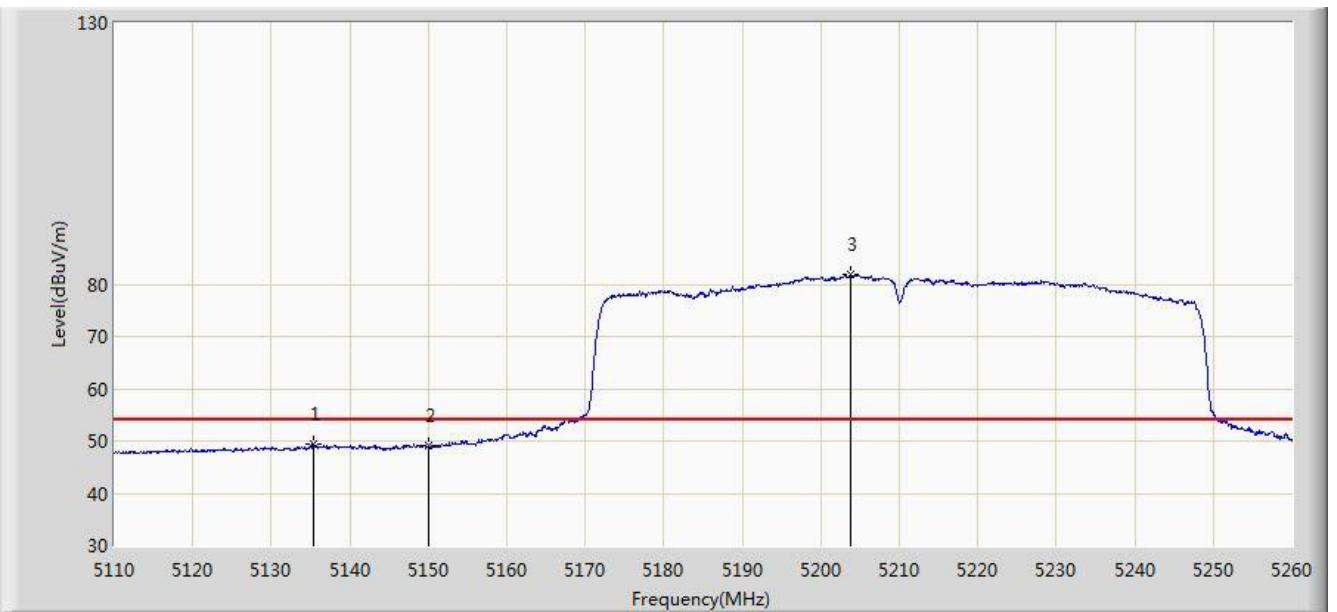


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5122.300	61.115	54.467	-12.885	74.000	6.648	PK
2			5150.000	59.844	53.282	-14.156	74.000	6.562	PK
3		*	5210.275	93.905	87.536	N/A	N/A	6.369	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 06:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz	

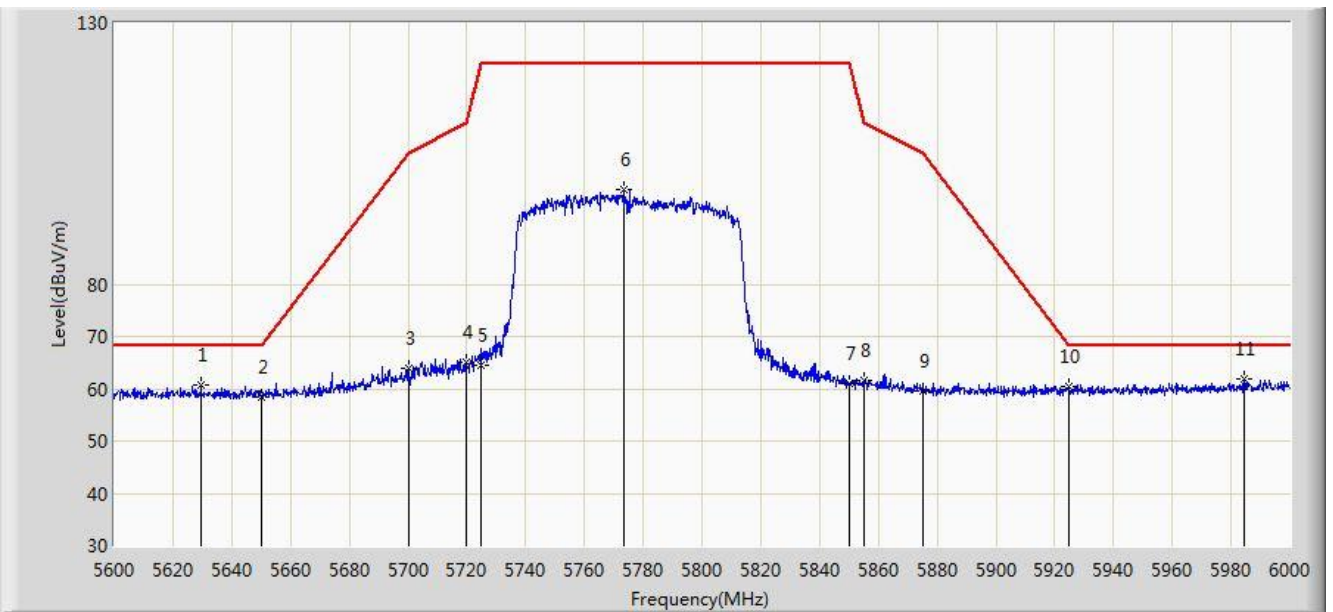


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5135.350	49.526	42.895	-4.474	54.000	6.631	AV
2			5150.000	49.021	42.459	-4.979	54.000	6.562	AV
3		*	5203.750	81.859	75.512	N/A	N/A	6.347	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 06:19
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz	

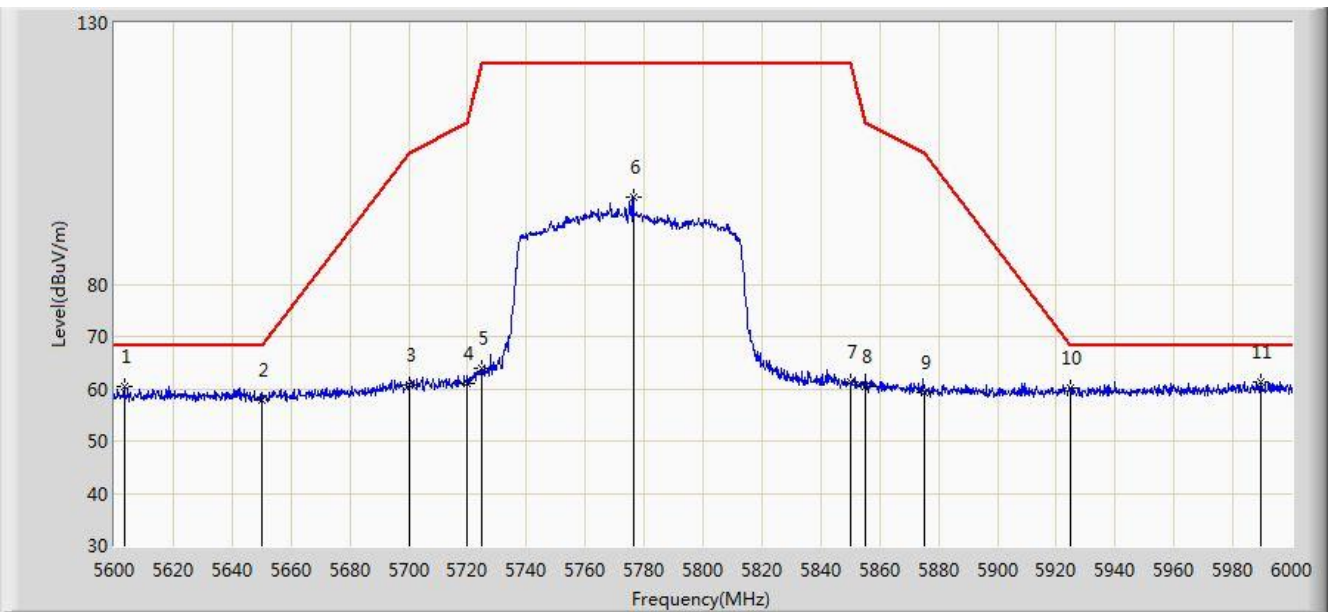


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5629.600	60.580	53.575	-7.620	68.200	7.005	PK
2			5650.000	58.550	51.545	-9.650	68.200	7.005	PK
3			5700.000	63.996	56.831	-41.204	105.200	7.165	PK
4			5720.000	65.179	57.880	-45.621	110.800	7.299	PK
5			5725.000	64.379	57.051	-57.821	122.200	7.328	PK
6			5773.200	98.209	90.749	N/A	N/A	7.460	PK
7			5850.000	60.908	53.135	-61.292	122.200	7.774	PK
8			5855.000	61.654	53.878	-49.146	110.800	7.775	PK
9			5875.000	59.488	51.670	-45.712	105.200	7.818	PK
10			5925.000	60.531	52.712	-7.669	68.200	7.819	PK
11		*	5984.600	61.858	53.951	-6.342	68.200	7.907	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/12/26 - 06:23
Limit: FCC_Part15.407_RE(3m)	Engineer: Hunk Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wi-Fi USB Dongle	Power: DC 5V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5603.400	60.413	53.433	-7.787	68.200	6.980	PK
2			5650.000	57.957	50.952	-10.243	68.200	7.005	PK
3			5700.000	60.624	53.459	-44.576	105.200	7.165	PK
4			5720.000	61.067	53.768	-49.733	110.800	7.299	PK
5			5725.000	63.981	56.653	-58.219	122.200	7.328	PK
6			5776.400	96.693	89.222	N/A	N/A	7.471	PK
7			5850.000	61.289	53.516	-60.911	122.200	7.774	PK
8			5855.000	60.366	52.590	-50.434	110.800	7.775	PK
9			5875.000	59.248	51.430	-45.952	105.200	7.818	PK
10			5925.000	60.058	52.239	-8.142	68.200	7.819	PK
11		*	5989.400	61.310	53.380	-6.890	68.200	7.930	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

## 7.9. AC Conducted Emissions Measurement

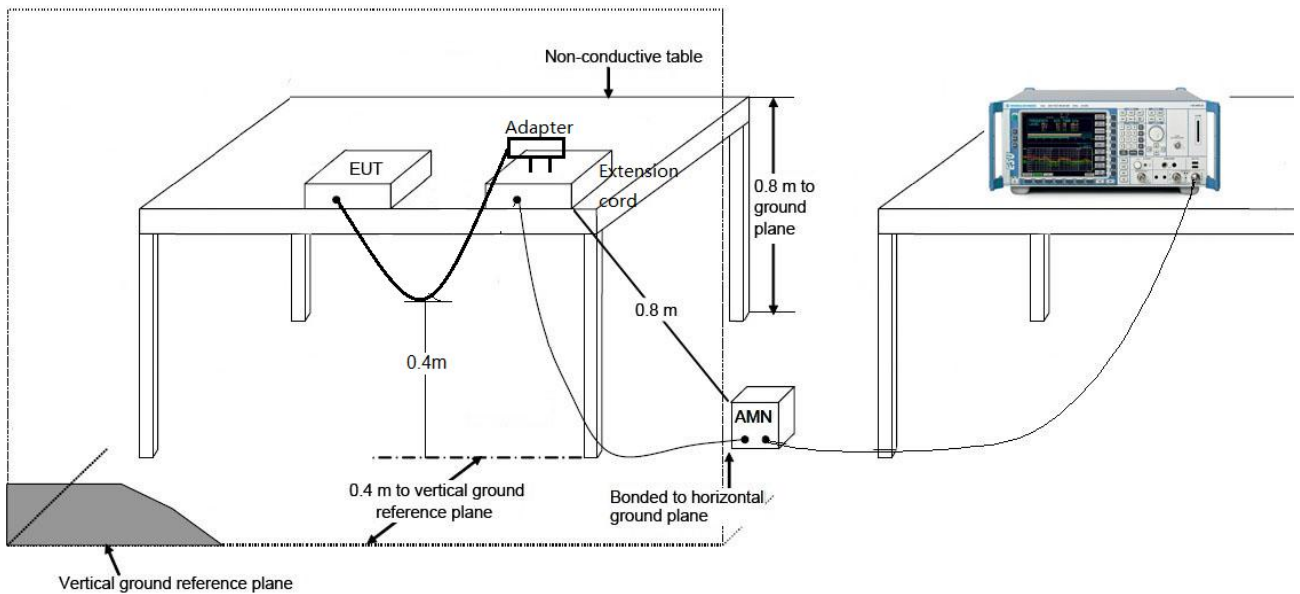
### 7.9.1. Test Limit

FCC 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 ~ 0.50	66 ~ 56	56 ~ 46
0.50 ~ 5.0	56	46
5.0 ~ 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

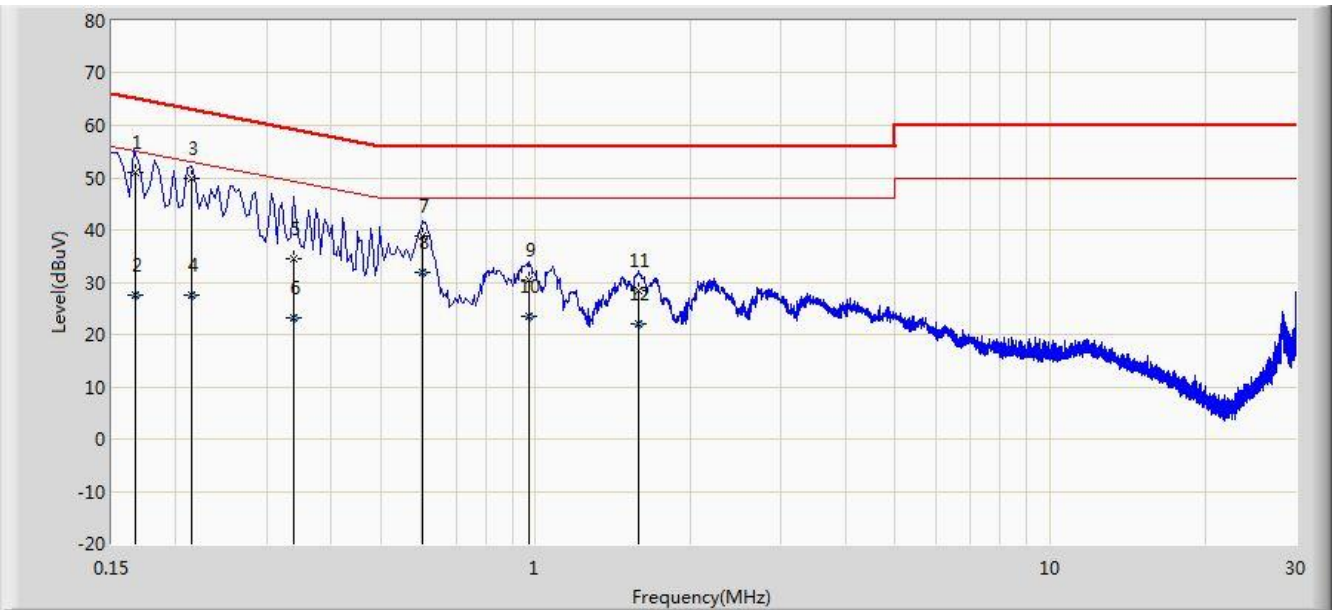
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

### 7.9.2. Test Setup



### 7.9.3. Test Result

Site: SR2	Time: 2018/03/05 - 19:43
Limit: FCC_Part15.207_CE_AC Power	Engineer: Cat Hu
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Wi-Fi USB Dongle	Power: AC 120V/60Hz
Test Mode 1	

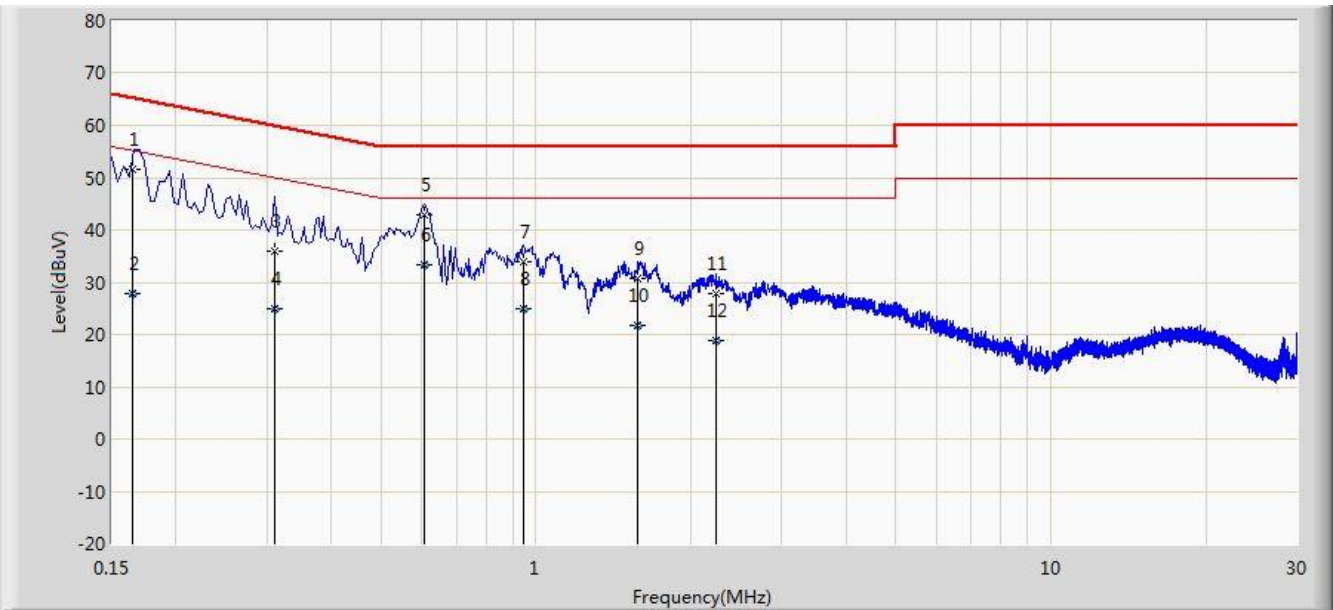


No	Flag	Mark	Frequency (MHz)	Measure Level (DBUV)	Reading Level (DBUV)	Over Limit (dB)	Limit (DBUV)	Factor (dB)	Type
1			0.167	51.085	41.000	-14.023	65.108	10.085	QP
2			0.167	27.485	17.400	-27.623	55.108	10.085	AV
3			0.215	49.954	40.000	-13.056	63.010	9.954	QP
4			0.215	27.554	17.600	-25.456	53.010	9.954	AV
5			0.338	34.500	24.465	-24.752	59.252	10.034	QP
6			0.338	23.196	13.162	-26.056	49.252	10.034	AV
7			0.602	38.954	28.840	-17.046	56.000	10.114	QP
8			0.602	32.004	21.890	-13.996	46.000	10.114	AV
9			0.970	30.577	20.653	-25.423	56.000	9.924	QP
10			0.970	23.522	13.598	-22.478	46.000	9.924	AV
11			1.590	28.431	18.545	-27.569	56.000	9.886	QP
12			1.590	21.919	12.033	-24.081	46.000	9.886	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2018/03/05 - 19:50
Limit: FCC_Part15.207_CE_AC Power	Engineer: Cat Hu
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Wi-Fi USB Dongle	Power: AC 120V/60Hz
Test Mode 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (DBUV)	Reading Level (DBUV)	Over Limit (dB)	Limit (DBUV)	Factor (dB)	Type
1			0.165	51.473	41.400	-13.735	65.208	10.073	QP
2			0.165	27.773	17.700	-27.435	55.208	10.073	AV
3			0.310	35.945	25.900	-24.025	59.970	10.045	QP
4			0.310	24.945	14.900	-25.025	49.970	10.045	AV
5			0.606	42.828	32.700	-13.172	56.000	10.128	QP
6			0.606	33.228	23.100	-12.772	46.000	10.128	AV
7			0.946	33.824	23.886	-22.176	56.000	9.938	QP
8			0.946	24.911	14.972	-21.089	46.000	9.938	AV
9			1.578	30.688	20.801	-25.312	56.000	9.887	QP
10			1.578	21.719	11.832	-24.281	46.000	9.887	AV
11			2.230	27.928	18.060	-28.072	56.000	9.868	QP
12			2.230	18.942	9.074	-27.058	46.000	9.868	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)



## 8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Wi-Fi USB Dongle** is in compliance with Part 15E of the FCC Rules and ISED Rules.

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The End