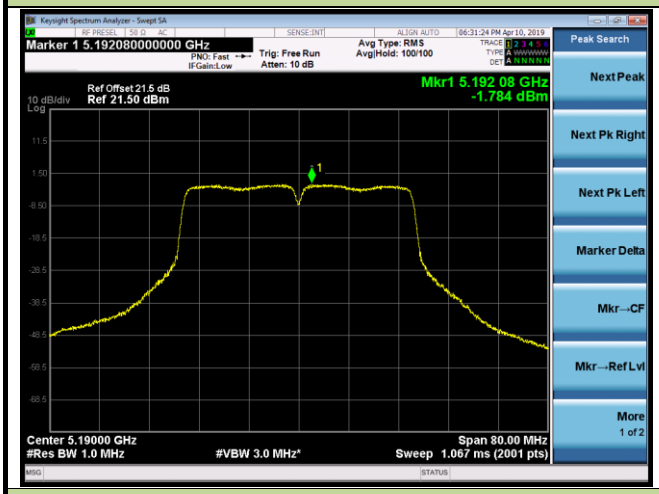
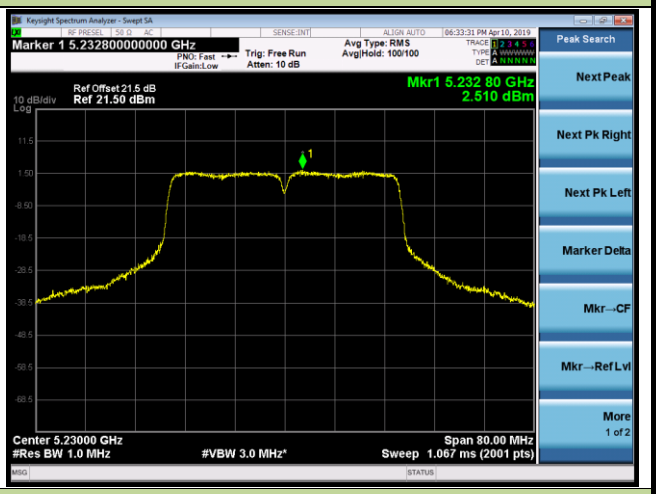
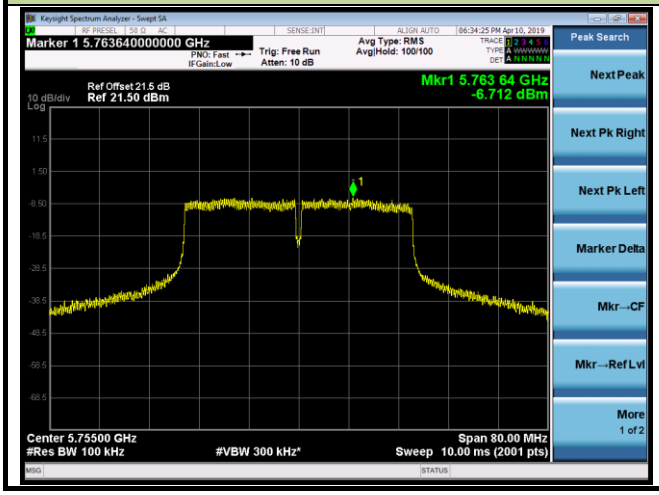
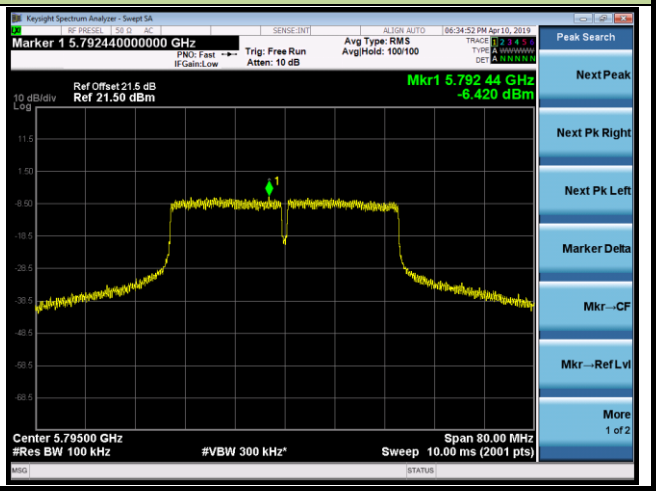
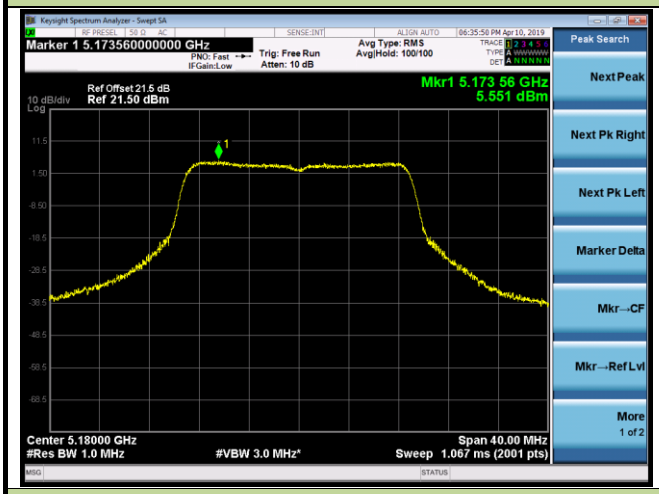
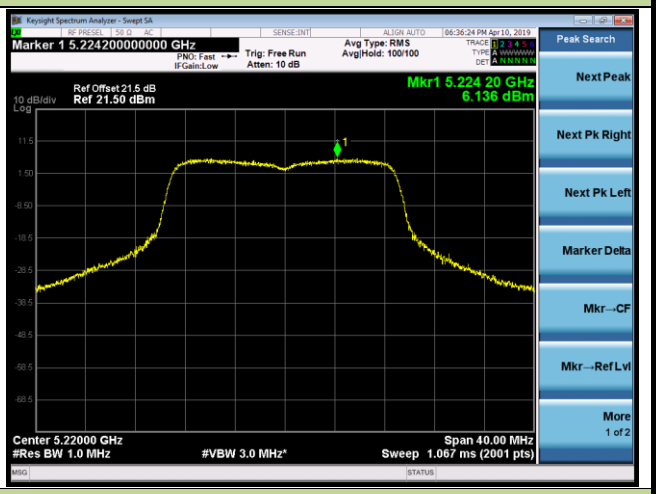
802.11n-HT40 Power Spectral Density - Ant 3 / Ant 1 + 2 + 3	
Channel 38 (5190MHz)	Channel 46 (5230MHz)
	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

802.11ac-VHT20 Power Spectral Density - Ant 3 / Ant 1 + 2 + 3

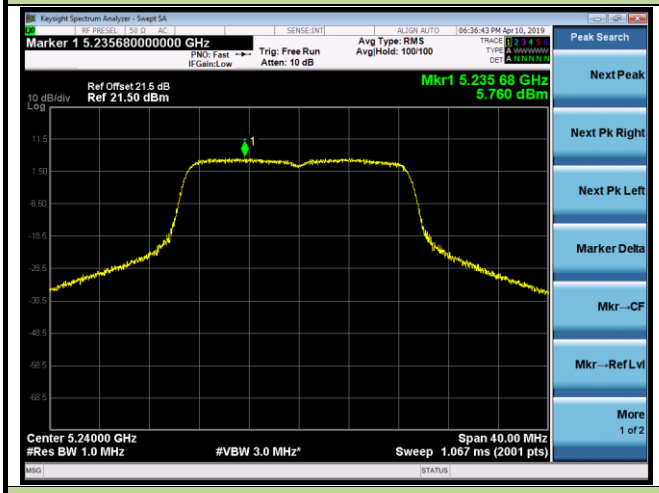
Channel 36 (5180MHz)



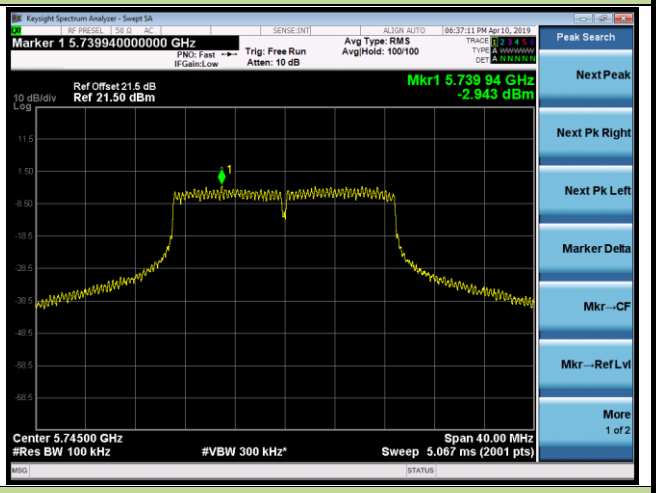
Channel 44 (5220MHz)



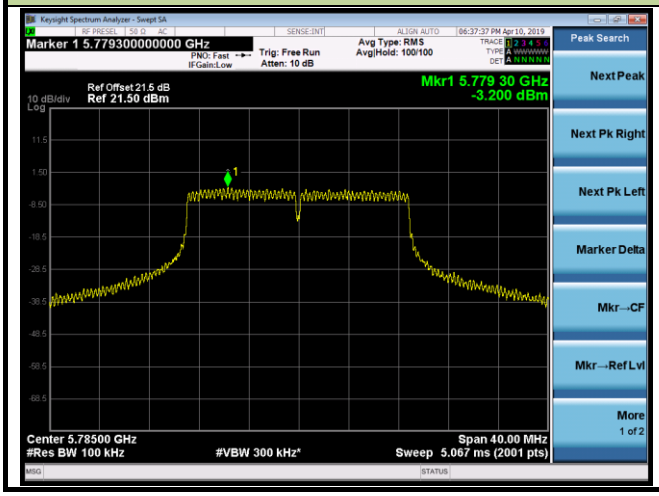
Channel 48 (5240MHz)



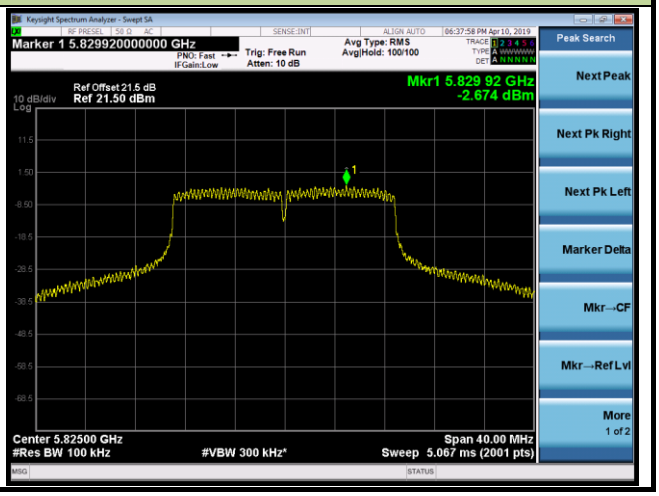
Channel 149 (5745MHz)

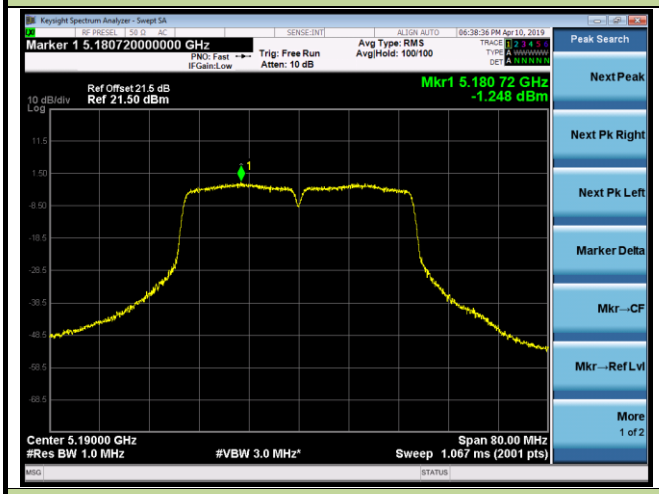
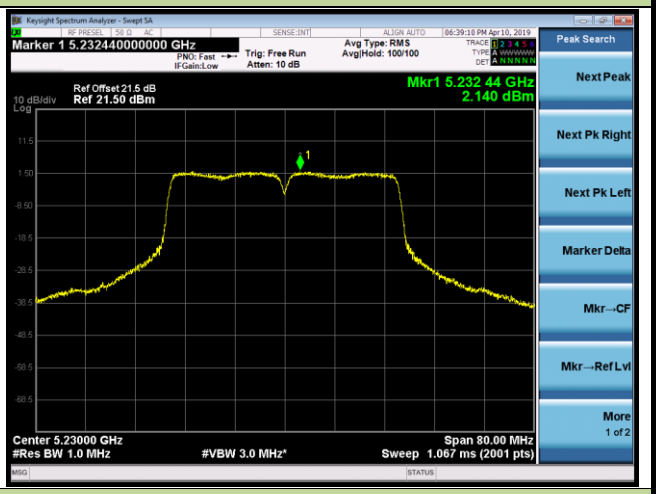
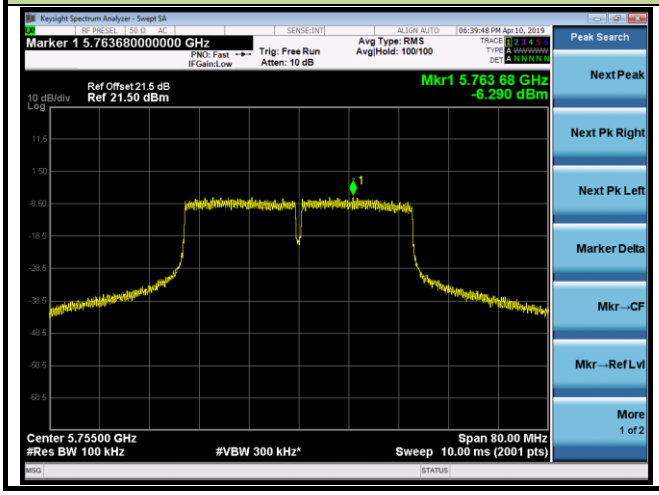
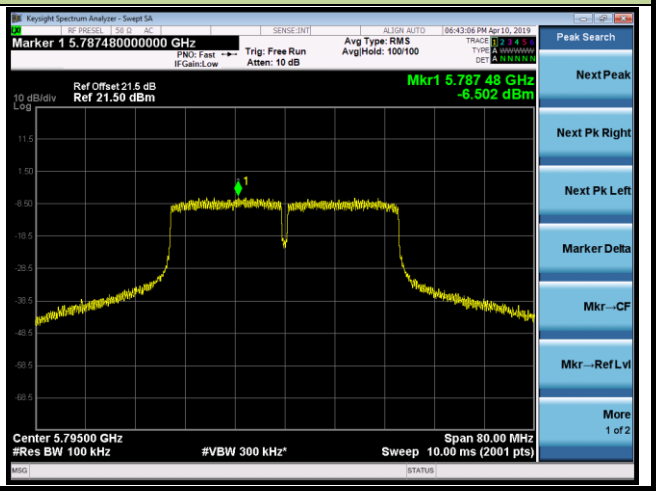


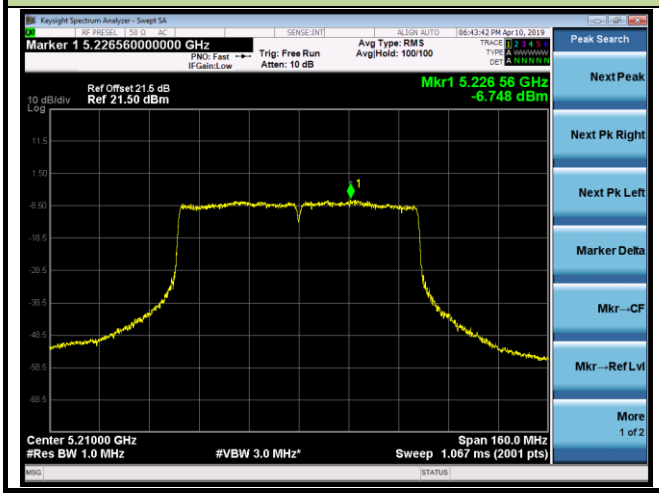
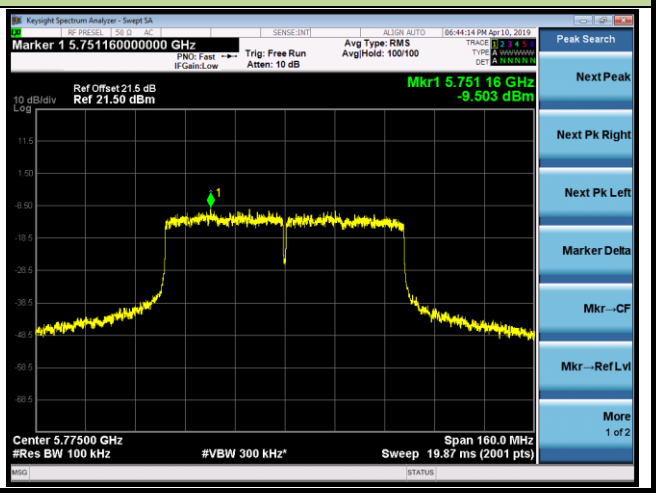
Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11ac-VHT40 Power Spectral Density - Ant 3 / Ant 1 + 2 + 3	
Channel 38 (5190MHz)	Channel 46 (5230MHz)
	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

802.11ac-VHT80 Power Spectral Density - Ant 3 / Ant 1 + 2 + 3	
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 ±20 ppm maximum for the 5GHz band (IEEE 802.11 specification).

7.6.2.Test Procedure Used

Frequency Stability Under Temperature Variations:

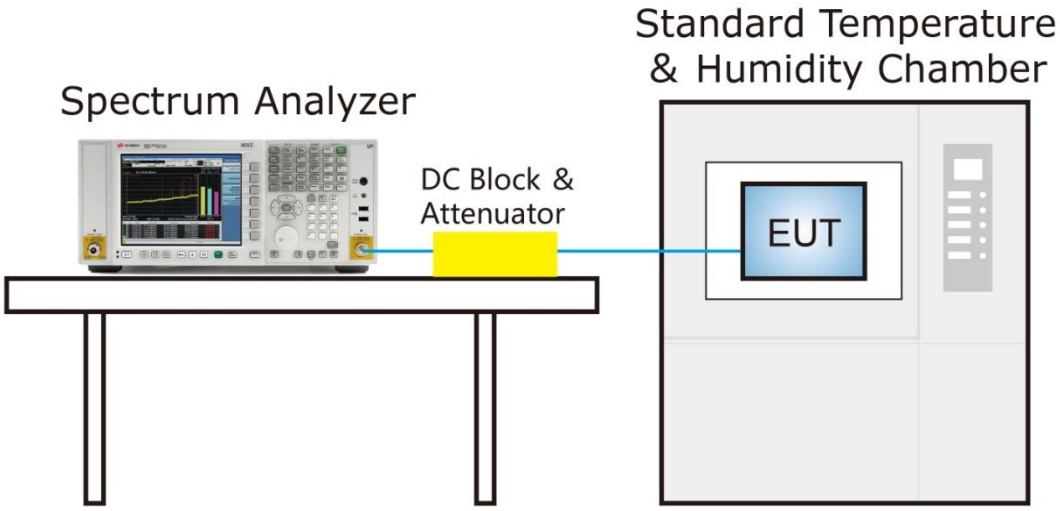
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain 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 (±15%) and endpoint, recordthe maximum frequency change.

7.6.3.Test Setup



7.6.4.Test Result

Product	Wireless Module	Temperature	-30 ~ 50°C
Test Engineer	Dandy Li	Relative Humidity	46 ~ 55%RH
Test Site	TR3	Test Time	2019/04/01
Test Mode	5180MHz (Carrier Mode)		

Voltage (%)	Power (VDC)	Temp (°C)	Frequency Tolerance (ppm)	Limit (ppm)	Result
100%	3.3	- 30	-2.57	-20 ~ +20	Pass
		- 20	-2.58	-20 ~ +20	Pass
		- 10	-2.58	-20 ~ +20	Pass
		0	-2.59	-20 ~ +20	Pass
		+ 10	-2.61	-20 ~ +20	Pass
		+ 20 (Ref)	-2.64	-20 ~ +20	Pass
		+ 30	-2.65	-20 ~ +20	Pass
		+ 40	-2.64	-20 ~ +20	Pass
		+ 50	-2.64	-20 ~ +20	Pass
85%	2.8	+ 20	-7.75	-20 ~ +20	Pass
115%	3.8	+ 20	-10.89	-20 ~ +20	Pass

Note: Frequency Tolerance (ppm) = {[Measured Frequency (Hz) - Declared Frequency (Hz)] / 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 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
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

7.7.2.Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.7.3.Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz

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 = as specified in Table 1

4. Detector = CISPR quasi-peak

5. Sweep time = auto couple

6. Trace was allowed to stabilize

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

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. VBW;If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz.

If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.

4. Detector = Peak

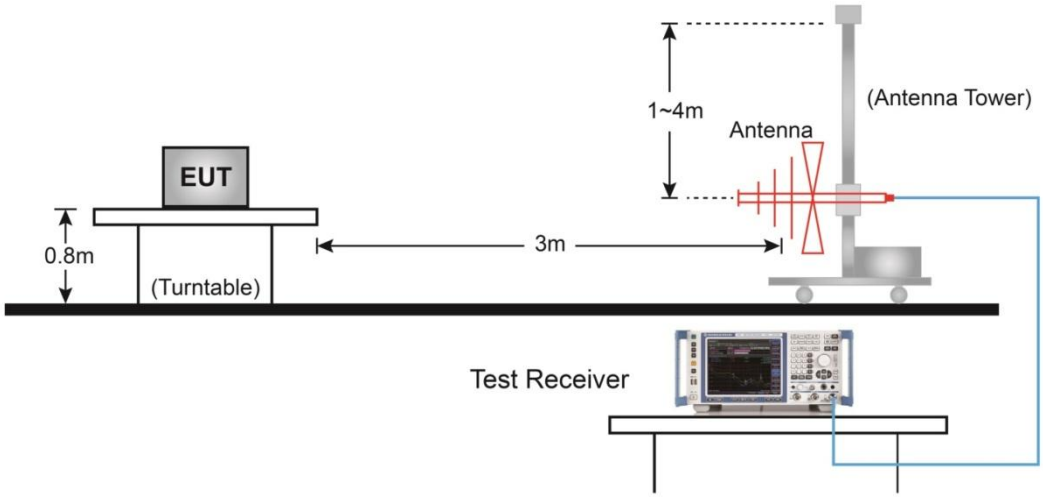
5. Sweep time = auto

6. Trace mode = max hold

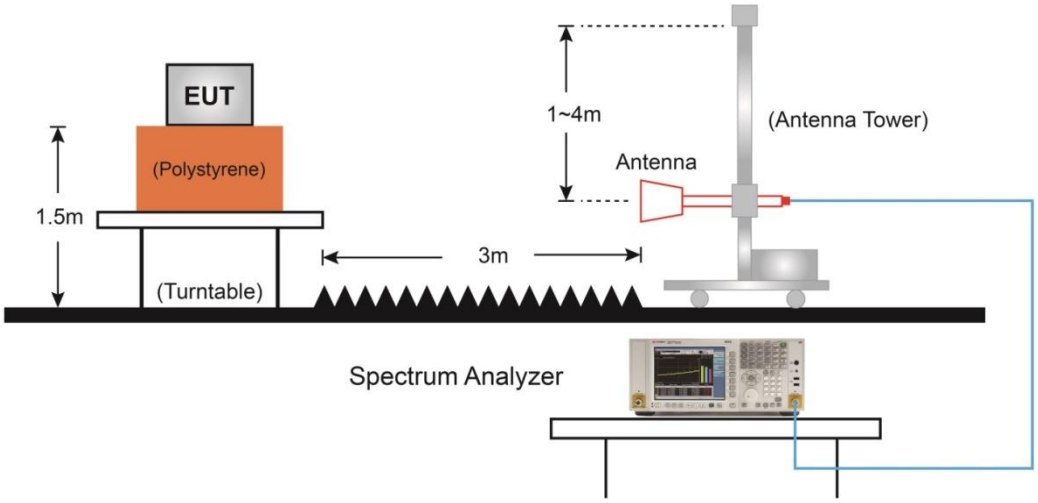
7. Trace was allowed to stabilize

7.7.4.Test Setup

30MHz ~ 1GHz Test Setup:



1GHz ~ 40GHz Test Setup:



7.7.5.Test Result

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 1	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8701.0	34.4	13.2	47.6	68.2	-20.6	Peak	Horizontal
*	10035.5	35.4	16.1	51.5	68.2	-16.7	Peak	Horizontal
	11234.0	35.6	17.4	53.0	74.0	-21.0	Peak	Horizontal
	12135.0	34.9	17.0	51.9	74.0	-22.1	Peak	Horizontal
*	8752.0	35.1	13.3	48.4	68.2	-19.8	Peak	Vertical
*	10350.0	35.1	16.8	51.9	68.2	-16.3	Peak	Vertical
	11633.5	35.8	17.2	53.0	74.0	-21.0	Peak	Vertical
	15543.5	37.4	17.5	54.9	74.0	-19.1	Peak	Vertical
	15542.5	27.7	17.5	45.2	54.0	-8.8	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 1	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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	35.1	13.3	48.4	68.2	-19.8	Peak	Horizontal
*	9942.0	34.2	16.1	50.3	68.2	-17.9	Peak	Horizontal
	11115.0	34.2	17.3	51.5	74.0	-22.5	Peak	Horizontal
	12500.5	33.4	16.7	50.1	74.0	-23.9	Peak	Horizontal
*	8735.0	34.0	13.2	47.2	68.2	-21.0	Peak	Vertical
*	9984.5	34.6	16.0	50.6	68.2	-17.6	Peak	Vertical
	11353.0	35.1	17.6	52.7	74.0	-21.3	Peak	Vertical
	15671.0	39.5	17.2	56.7	74.0	-17.3	Peak	Vertical
	15656.3	28.7	17.2	45.9	54.0	-8.1	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 1	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8854.0	35.3	13.4	48.7	68.2	-19.5	Peak	Horizontal
*	10052.5	32.1	16.1	48.2	68.2	-20.0	Peak	Horizontal
	11021.5	33.0	17.8	50.8	74.0	-23.2	Peak	Horizontal
	12415.5	32.7	16.7	49.4	74.0	-24.6	Peak	Horizontal
*	8862.5	35.5	13.4	48.9	68.2	-19.3	Peak	Vertical
*	10010.0	34.7	16.1	50.8	68.2	-17.4	Peak	Vertical
	11633.5	35.4	17.2	52.6	74.0	-21.4	Peak	Vertical
	15730.5	39.1	17.0	56.1	74.0	-17.9	Peak	Vertical
	15719.4	27.4	17.1	44.5	54.0	-9.5	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 1	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8888.0	35.8	13.4	49.2	68.2	-19.0	Peak	Horizontal
*	10273.5	34.4	16.7	51.1	68.2	-17.1	Peak	Horizontal
	11608.0	34.6	17.5	52.1	74.0	-21.9	Peak	Horizontal
	15637.0	32.5	17.7	50.2	74.0	-23.8	Peak	Horizontal
*	8743.5	33.3	13.3	46.6	68.2	-21.6	Peak	Vertical
*	10214.0	32.2	16.5	48.7	68.2	-19.5	Peak	Vertical
	10970.5	33.0	17.9	50.9	74.0	-23.1	Peak	Vertical
	12415.5	32.4	16.7	49.1	74.0	-24.9	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 1	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8726.5	34.8	13.2	48.0	68.2	-20.2	Peak	Horizontal
*	9916.5	34.5	16.0	50.5	68.2	-17.7	Peak	Horizontal
	10843.0	35.3	17.7	53.0	74.0	-21.0	Peak	Horizontal
	12177.5	34.1	17.1	51.2	74.0	-22.8	Peak	Horizontal
*	8735.0	35.3	13.2	48.5	68.2	-19.7	Peak	Vertical
*	10078.0	32.3	16.0	48.3	68.2	-19.9	Peak	Vertical
	11021.5	32.0	17.8	49.8	74.0	-24.2	Peak	Vertical
	12500.5	32.7	16.7	49.4	74.0	-24.6	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 1	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8675.5	34.9	13.1	48.0	68.2	-20.2	Peak	Horizontal
*	9772.0	34.6	15.9	50.5	68.2	-17.7	Peak	Horizontal
	11174.5	34.0	17.4	51.4	74.0	-22.6	Peak	Horizontal
	12509.0	32.7	16.6	49.3	74.0	-24.7	Peak	Horizontal
*	8684.0	34.8	13.1	47.9	68.2	-20.3	Peak	Vertical
*	9950.5	34.5	16.1	50.6	68.2	-17.6	Peak	Vertical
	10775.0	34.9	17.5	52.4	74.0	-21.6	Peak	Vertical
	12449.5	34.0	16.6	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 2	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8811.5	34.4	13.4	47.8	68.2	-20.4	Peak	Horizontal
*	10001.5	34.0	16.1	50.1	68.2	-18.1	Peak	Horizontal
	11140.5	35.3	17.6	52.9	74.0	-21.1	Peak	Horizontal
	12313.5	32.6	16.9	49.5	74.0	-24.5	Peak	Horizontal
*	8743.5	33.0	13.3	46.3	68.2	-21.9	Peak	Vertical
*	9772.0	33.7	15.9	49.6	68.2	-18.6	Peak	Vertical
	11472.0	35.3	17.8	53.1	74.0	-20.9	Peak	Vertical
	15543.5	40.0	17.5	57.5	74.0	-16.5	Peak	Vertical
	15539.5	29.3	17.5	46.8	54.0	-7.2	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 2	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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	34.8	13.3	48.1	68.2	-20.1	Peak	Horizontal
*	9925.0	34.4	16.0	50.4	68.2	-17.8	Peak	Horizontal
	11361.5	35.0	17.6	52.6	74.0	-21.4	Peak	Horizontal
	12551.5	33.9	16.7	50.6	74.0	-23.4	Peak	Horizontal
*	8794.5	35.3	13.3	48.6	68.2	-19.6	Peak	Vertical
*	10273.5	34.9	16.7	51.6	68.2	-16.6	Peak	Vertical
	11591.0	34.7	17.6	52.3	74.0	-21.7	Peak	Vertical
	15654.0	41.4	17.2	58.6	74.0	-15.4	Peak	Vertical
	15660.7	29.7	17.2	46.9	54.0	-7.1	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 2	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8735.0	35.2	13.2	48.4	68.2	-19.8	Peak	Horizontal
*	9857.0	32.8	16.0	48.8	68.2	-19.4	Peak	Horizontal
	12016.0	33.6	16.9	50.5	74.0	-23.5	Peak	Horizontal
	15841.0	32.7	16.7	49.4	74.0	-24.6	Peak	Horizontal
*	8811.5	35.8	13.4	49.2	68.2	-19.0	Peak	Vertical
*	9950.5	34.7	16.1	50.8	68.2	-17.4	Peak	Vertical
	11803.5	35.5	16.9	52.4	74.0	-21.6	Peak	Vertical
	15722.0	41.5	17.0	58.5	74.0	-15.5	Peak	Vertical
	15718.8	30.7	17.1	47.8	54.0	-6.2	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 2	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8879.5	35.5	13.4	48.9	68.2	-19.3	Peak	Horizontal
*	10035.5	32.4	16.1	48.5	68.2	-19.7	Peak	Horizontal
	12245.5	33.8	17.0	50.8	74.0	-23.2	Peak	Horizontal
	15790.0	31.8	16.8	48.6	74.0	-25.4	Peak	Horizontal
*	8777.5	34.9	13.3	48.2	68.2	-20.0	Peak	Vertical
*	10052.5	34.2	16.1	50.3	68.2	-17.9	Peak	Vertical
	12016.0	34.3	16.9	51.2	74.0	-22.8	Peak	Vertical
	15705.0	33.2	17.3	50.5	74.0	-23.5	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 2	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8692.5	33.6	13.2	46.8	68.2	-21.4	Peak	Horizontal
*	10120.5	32.5	16.2	48.7	68.2	-19.5	Peak	Horizontal
	12041.5	32.4	17.0	49.4	74.0	-24.6	Peak	Horizontal
	15858.0	32.0	16.8	48.8	74.0	-25.2	Peak	Horizontal
*	8845.5	33.3	13.4	46.7	68.2	-21.5	Peak	Vertical
*	10052.5	32.6	16.1	48.7	68.2	-19.5	Peak	Vertical
	11778.0	32.6	17.2	49.8	74.0	-24.2	Peak	Vertical
	15798.5	31.9	16.9	48.8	74.0	-25.2	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 2	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8726.5	33.1	13.2	46.3	68.2	-21.9	Peak	Horizontal
*	10137.5	33.9	16.2	50.1	68.2	-18.1	Peak	Horizontal
	12169.0	34.6	17.2	51.8	74.0	-22.2	Peak	Horizontal
	15849.5	31.8	16.8	48.6	74.0	-25.4	Peak	Horizontal
*	8735.0	34.9	13.2	48.1	68.2	-20.1	Peak	Vertical
*	10171.5	33.3	16.4	49.7	68.2	-18.5	Peak	Vertical
	12033.0	32.7	16.9	49.6	74.0	-24.4	Peak	Vertical
	15926.0	32.0	17.1	49.1	74.0	-24.9	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 3	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8820.0	35.0	13.4	48.4	68.2	-19.8	Peak	Horizontal
*	9976.0	32.5	15.9	48.4	68.2	-19.8	Peak	Horizontal
	11752.5	32.7	16.9	49.6	74.0	-24.4	Peak	Horizontal
	15841.0	31.9	16.7	48.6	74.0	-25.4	Peak	Horizontal
*	8743.5	34.5	13.3	47.8	68.2	-20.4	Peak	Vertical
*	9831.5	33.2	16.1	49.3	68.2	-18.9	Peak	Vertical
	11166.0	32.3	17.4	49.7	74.0	-24.3	Peak	Vertical
	15841.0	31.9	16.7	48.6	74.0	-25.4	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 3	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8854.0	35.0	13.4	48.4	68.2	-19.8	Peak	Horizontal
*	9814.5	33.6	16.0	49.6	68.2	-18.6	Peak	Horizontal
	11387.0	34.9	17.6	52.5	74.0	-21.5	Peak	Horizontal
	15815.5	32.3	17.1	49.4	74.0	-24.6	Peak	Horizontal
*	8701.0	35.0	13.2	48.2	68.2	-20.0	Peak	Vertical
*	10078.0	33.1	16.0	49.1	68.2	-19.1	Peak	Vertical
	11531.5	32.7	17.6	50.3	74.0	-23.7	Peak	Vertical
	15883.5	31.7	17.1	48.8	74.0	-25.2	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 3	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8658.5	34.3	13.0	47.3	68.2	-20.9	Peak	Horizontal
*	10044.0	33.0	16.1	49.1	68.2	-19.1	Peak	Horizontal
	11285.0	33.7	17.5	51.2	74.0	-22.8	Peak	Horizontal
	15866.5	31.7	17.0	48.7	74.0	-25.3	Peak	Horizontal
*	8879.5	34.9	13.4	48.3	68.2	-19.9	Peak	Vertical
*	10044.0	33.0	16.1	49.1	68.2	-19.1	Peak	Vertical
	11531.5	34.6	17.6	52.2	74.0	-21.8	Peak	Vertical
	15841.0	31.1	16.7	47.8	74.0	-26.2	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 3	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8709.5	35.2	13.2	48.4	68.2	-19.8	Peak	Horizontal
*	9933.5	33.8	16.1	49.9	68.2	-18.3	Peak	Horizontal
	11446.5	32.3	17.7	50.0	74.0	-24.0	Peak	Horizontal
	15569.0	31.9	17.5	49.4	74.0	-24.6	Peak	Horizontal
*	8845.5	35.0	13.4	48.4	68.2	-19.8	Peak	Vertical
*	10095.0	32.6	16.2	48.8	68.2	-19.4	Peak	Vertical
	11285.0	32.9	17.5	50.4	74.0	-23.6	Peak	Vertical
	15849.5	31.8	16.8	48.6	74.0	-25.4	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 3	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8735.0	34.0	13.2	47.2	68.2	-21.0	Peak	Horizontal
*	9993.0	33.8	16.1	49.9	68.2	-18.3	Peak	Horizontal
	11710.0	34.7	17.2	51.9	74.0	-22.1	Peak	Horizontal
	15798.5	31.8	16.9	48.7	74.0	-25.3	Peak	Horizontal
*	8828.5	32.8	13.4	46.2	68.2	-22.0	Peak	Vertical
*	9797.5	33.9	15.9	49.8	68.2	-18.4	Peak	Vertical
	11327.5	33.7	17.6	51.3	74.0	-22.7	Peak	Vertical
	15798.5	31.7	16.9	48.6	74.0	-25.4	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11a - Ant 3	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8786.0	33.7	13.3	47.0	68.2	-21.2	Peak	Horizontal
*	10197.0	32.1	16.2	48.3	68.2	-19.9	Peak	Horizontal
	12092.5	32.5	17.0	49.5	74.0	-24.5	Peak	Horizontal
	15790.0	31.8	16.8	48.6	74.0	-25.4	Peak	Horizontal
*	8837.0	34.8	13.3	48.1	68.2	-20.1	Peak	Vertical
*	9814.5	33.8	16.0	49.8	68.2	-18.4	Peak	Vertical
	11514.5	32.9	17.6	50.5	74.0	-23.5	Peak	Vertical
	15858.0	32.0	16.8	48.8	74.0	-25.2	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT20 - Ant 1 + 2 + 3	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8769.0	33.8	13.4	47.2	68.2	-21.0	Peak	Horizontal
*	9857.0	33.6	16.0	49.6	68.2	-18.6	Peak	Horizontal
	11021.5	33.2	17.8	51.0	74.0	-23.0	Peak	Horizontal
	12330.5	33.9	16.7	50.6	74.0	-23.4	Peak	Horizontal
*	8811.5	35.2	13.4	48.6	68.2	-19.6	Peak	Vertical
*	10248.0	34.6	16.5	51.1	68.2	-17.1	Peak	Vertical
	11276.5	34.2	17.5	51.7	74.0	-22.3	Peak	Vertical
	15543.5	42.9	17.5	60.4	74.0	-13.6	Peak	Vertical
	15544.2	29.9	17.5	47.4	54.0	-6.6	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT20 - Ant 1 + 2 + 3	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8803.0	36.4	13.3	49.7	68.2	-18.5	Peak	Horizontal
*	9908.0	34.4	16.0	50.4	68.2	-17.8	Peak	Horizontal
	11013.0	33.5	17.8	51.3	74.0	-22.7	Peak	Horizontal
	12483.5	33.6	16.8	50.4	74.0	-23.6	Peak	Horizontal
*	8692.5	33.6	13.2	46.8	68.2	-21.4	Peak	Vertical
*	9772.0	33.0	15.9	48.9	68.2	-19.3	Peak	Vertical
	11531.5	35.0	17.6	52.6	74.0	-21.4	Peak	Vertical
	15671.0	42.3	17.2	59.5	74.0	-14.5	Peak	Vertical
	15663.1	32.3	17.2	49.5	54.0	-4.5	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT20 - Ant 1 + 2 + 3	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8692.5	33.7	13.2	46.9	68.2	-21.3	Peak	Horizontal
*	9865.5	34.1	16.1	50.2	68.2	-18.0	Peak	Horizontal
	10877.0	33.5	17.8	51.3	74.0	-22.7	Peak	Horizontal
	12364.5	32.4	16.7	49.1	74.0	-24.9	Peak	Horizontal
*	8709.5	34.3	13.2	47.5	68.2	-20.7	Peak	Vertical
*	9993.0	33.1	16.1	49.2	68.2	-19.0	Peak	Vertical
	12058.5	33.6	17.0	50.6	74.0	-23.4	Peak	Vertical
	15722.0	41.6	17.0	58.6	74.0	-15.4	Peak	Vertical
	15723.7	30.7	17.0	47.7	54.0	-6.3	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT20 - Ant 1 + 2 + 3	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8743.5	35.1	13.3	48.4	68.2	-19.8	Peak	Horizontal
*	10282.0	34.6	16.7	51.3	68.2	-16.9	Peak	Horizontal
	10970.5	34.5	17.9	52.4	74.0	-21.6	Peak	Horizontal
	12271.0	33.5	16.9	50.4	74.0	-23.6	Peak	Horizontal
*	8769.0	33.2	13.4	46.6	68.2	-21.6	Peak	Vertical
*	9814.5	32.5	16.0	48.5	68.2	-19.7	Peak	Vertical
	10851.5	34.6	17.8	52.4	74.0	-21.6	Peak	Vertical
	12390.0	32.6	16.6	49.2	74.0	-24.8	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT20 - Ant 1 + 2 + 3	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8735.0	35.0	13.2	48.2	68.2	-20.0	Peak	Horizontal
*	10197.0	34.0	16.2	50.2	68.2	-18.0	Peak	Horizontal
	10919.5	34.4	18.0	52.4	74.0	-21.6	Peak	Horizontal
	12220.0	32.9	17.0	49.9	74.0	-24.1	Peak	Horizontal
*	8709.5	35.2	13.2	48.4	68.2	-19.8	Peak	Vertical
*	9942.0	33.6	16.1	49.7	68.2	-18.5	Peak	Vertical
	10877.0	33.7	17.8	51.5	74.0	-22.5	Peak	Vertical
	12279.5	33.0	16.9	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT20 - Ant 1 + 2 + 3	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8871.0	34.9	13.5	48.4	68.2	-19.8	Peak	Horizontal
*	9772.0	32.7	15.9	48.6	68.2	-19.6	Peak	Horizontal
	11021.5	32.4	17.8	50.2	74.0	-23.8	Peak	Horizontal
	12407.0	32.4	16.6	49.0	74.0	-25.0	Peak	Horizontal
*	8760.5	33.5	13.3	46.8	68.2	-21.4	Peak	Vertical
*	9780.5	35.2	15.8	51.0	68.2	-17.2	Peak	Vertical
	11650.5	36.9	17.4	54.3	74.0	-19.7	Peak	Vertical
	11647.9	28.9	17.3	46.2	54.0	-7.8	Average	Vertical
	12381.5	35.1	16.7	51.8	74.0	-22.2	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT40 - Ant 1 + 2 + 3	Test Channel:	38
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8692.5	34.6	13.2	47.8	68.2	-20.4	Peak	Horizontal
*	10035.5	33.2	16.1	49.3	68.2	-18.9	Peak	Horizontal
	11234.0	34.4	17.4	51.8	74.0	-22.2	Peak	Horizontal
	12390.0	32.5	16.6	49.1	74.0	-24.9	Peak	Horizontal
*	8811.5	34.6	13.4	48.0	68.2	-20.2	Peak	Vertical
*	9882.5	32.4	16.1	48.5	68.2	-19.7	Peak	Vertical
	10936.5	34.7	18.0	52.7	74.0	-21.3	Peak	Vertical
	12543.0	34.3	16.7	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT40 - Ant 1 + 2 + 3	Test Channel:	46
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8854.0	35.3	13.4	48.7	68.2	-19.5	Peak	Horizontal
*	9942.0	33.6	16.1	49.7	68.2	-18.5	Peak	Horizontal
	10877.0	33.7	17.8	51.5	74.0	-22.5	Peak	Horizontal
	12441.0	32.8	16.5	49.3	74.0	-24.7	Peak	Horizontal
*	8828.5	34.7	13.4	48.1	68.2	-20.1	Peak	Vertical
*	10214.0	35.1	16.5	51.6	68.2	-16.6	Peak	Vertical
	11608.0	34.0	17.5	51.5	74.0	-22.5	Peak	Vertical
	15696.5	38.7	17.3	56.0	74.0	-18.0	Peak	Vertical
	15693.7	28.1	17.3	45.4	54.0	-8.6	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT40 - Ant 1 + 2 + 3	Test Channel:	151
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8701.0	34.6	13.2	47.8	68.2	-20.4	Peak	Horizontal
*	10358.5	33.9	16.8	50.7	68.2	-17.5	Peak	Horizontal
	11438.0	34.6	17.7	52.3	74.0	-21.7	Peak	Horizontal
	12330.5	32.7	16.7	49.4	74.0	-24.6	Peak	Horizontal
*	8709.5	34.4	13.2	47.6	68.2	-20.6	Peak	Vertical
*	9857.0	33.5	16.0	49.5	68.2	-18.7	Peak	Vertical
	10970.5	35.2	17.9	53.1	74.0	-20.9	Peak	Vertical
	12220.0	35.2	17.0	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/03/30
Test Mode:	802.11n-HT40 - Ant 1 + 2 + 3	Test Channel:	159
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8811.5	35.2	13.4	48.6	68.2	-19.6	Peak	Horizontal
*	9984.5	34.2	16.0	50.2	68.2	-18.0	Peak	Horizontal
	11030.0	34.2	17.8	52.0	74.0	-22.0	Peak	Horizontal
	12279.5	33.0	16.9	49.9	74.0	-24.1	Peak	Horizontal
*	8760.5	33.6	13.3	46.9	68.2	-21.3	Peak	Vertical
*	9967.5	34.0	16.0	50.0	68.2	-18.2	Peak	Vertical
	11038.5	34.8	17.8	52.6	74.0	-21.4	Peak	Vertical
	12271.0	33.4	16.9	50.3	74.0	-23.7	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 + 3	Test Channel:	36
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	6907.5	38.1	10.2	48.3	68.2	-19.9	Peak	Horizontal
*	8675.5	33.3	13.1	46.4	68.2	-21.8	Peak	Horizontal
	11480.5	31.5	17.7	49.2	74.0	-24.8	Peak	Horizontal
	12058.5	31.5	17.0	48.5	74.0	-25.5	Peak	Horizontal
*	6168.0	36.2	7.8	44.0	68.2	-24.2	Peak	Vertical
*	6907.5	44.5	10.2	54.7	68.2	-13.5	Peak	Vertical
	11846.0	32.0	16.9	48.9	74.0	-25.1	Peak	Vertical
	15535.0	40.2	17.5	57.7	74.0	-16.3	Peak	Vertical
	15536.0	29.6	17.5	47.1	54.0	-6.9	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 + 3	Test Channel:	44
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	6958.5	37.1	10.5	47.6	68.2	-20.6	Peak	Horizontal
*	8794.5	34.0	13.3	47.3	68.2	-20.9	Peak	Horizontal
	11514.5	32.5	17.6	50.1	74.0	-23.9	Peak	Horizontal
	12398.5	32.5	16.6	49.1	74.0	-24.9	Peak	Horizontal
*	6958.5	42.0	10.5	52.5	68.2	-15.7	Peak	Vertical
*	7970.0	32.7	12.5	45.2	68.2	-23.0	Peak	Vertical
	11582.5	31.6	17.6	49.2	74.0	-24.8	Peak	Vertical
	15671.0	39.2	17.2	56.4	74.0	-17.6	Peak	Vertical
	15665.8	33.0	17.2	50.2	54.0	-3.8	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 + 3	Test Channel:	48
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	7970.0	34.0	12.5	46.5	68.2	-21.7	Peak	Horizontal
*	8930.5	33.6	13.4	47.0	68.2	-21.2	Peak	Horizontal
	11336.0	31.9	17.6	49.5	74.0	-24.5	Peak	Horizontal
	12492.0	32.2	16.7	48.9	74.0	-25.1	Peak	Horizontal
*	6984.0	38.9	10.7	49.6	68.2	-18.6	Peak	Vertical
*	7970.0	33.3	12.5	45.8	68.2	-22.4	Peak	Vertical
	11030.0	32.8	17.8	50.6	74.0	-23.4	Peak	Vertical
	15722.0	41.6	17.0	58.6	74.0	-15.4	Peak	Vertical
	15723.1	33.5	17.0	50.5	54.0	-3.5	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 + 3	Test Channel:	149
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	7927.5	34.2	12.5	46.7	68.2	-21.5	Peak	Horizontal
*	8786.0	33.1	13.3	46.4	68.2	-21.8	Peak	Horizontal
	11123.5	34.0	17.5	51.5	74.0	-22.5	Peak	Horizontal
	12220.0	32.8	17.0	49.8	74.0	-24.2	Peak	Horizontal
*	8769.0	32.2	13.4	45.6	68.2	-22.6	Peak	Vertical
*	9695.5	31.9	15.5	47.4	68.2	-20.8	Peak	Vertical
	11259.5	33.3	17.5	50.8	74.0	-23.2	Peak	Vertical
	12228.5	32.7	17.0	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 + 3	Test Channel:	157
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8837.0	31.7	13.3	45.0	68.2	-23.2	Peak	Horizontal
*	9857.0	31.1	16.0	47.1	68.2	-21.1	Peak	Horizontal
	11225.5	32.0	17.4	49.4	74.0	-24.6	Peak	Horizontal
	11982.0	32.9	16.9	49.8	74.0	-24.2	Peak	Horizontal
*	8845.5	33.8	13.4	47.2	68.2	-21.0	Peak	Vertical
*	9806.0	32.0	15.9	47.9	68.2	-20.3	Peak	Vertical
	11599.5	33.2	17.6	50.8	74.0	-23.2	Peak	Vertical
	12211.5	32.7	17.0	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 + 3	Test Channel:	165
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8854.0	33.7	13.4	47.1	68.2	-21.1	Peak	Horizontal
*	9899.5	32.3	16.1	48.4	68.2	-19.8	Peak	Horizontal
	10860.0	33.2	17.8	51.0	74.0	-23.0	Peak	Horizontal
	11650.5	33.1	17.4	50.5	74.0	-23.5	Peak	Horizontal
*	8879.5	33.7	13.4	47.1	68.2	-21.1	Peak	Vertical
*	9780.5	32.4	15.8	48.2	68.2	-20.0	Peak	Vertical
	11030.0	32.3	17.8	50.1	74.0	-23.9	Peak	Vertical
	12084.0	32.9	16.9	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 + 3	Test Channel:	38
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8854.0	32.7	13.4	46.1	68.2	-22.1	Peak	Horizontal
*	9831.5	32.6	16.1	48.7	68.2	-19.5	Peak	Horizontal
	11081.0	32.3	17.9	50.2	74.0	-23.8	Peak	Horizontal
	12109.5	32.5	17.1	49.6	74.0	-24.4	Peak	Horizontal
*	6933.0	44.7	10.3	55.0	68.2	-13.2	Peak	Vertical
*	8820.0	34.2	13.4	47.6	68.2	-20.6	Peak	Vertical
	10877.0	32.6	17.8	50.4	74.0	-23.6	Peak	Vertical
	12033.0	32.6	16.9	49.5	74.0	-24.5	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 + 3	Test Channel:	46
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	7842.5	32.7	12.1	44.8	68.2	-23.4	Peak	Horizontal
*	8718.0	32.8	13.2	46.0	68.2	-22.2	Peak	Horizontal
	11395.5	32.9	17.6	50.5	74.0	-23.5	Peak	Horizontal
	12177.5	32.5	17.1	49.6	74.0	-24.4	Peak	Horizontal
*	6984.0	43.2	10.7	53.9	68.2	-14.3	Peak	Vertical
*	8701.0	33.0	13.2	46.2	68.2	-22.0	Peak	Vertical
	11030.0	31.1	17.8	48.9	74.0	-25.1	Peak	Vertical
	15722.0	36.8	17.0	53.8	74.0	-20.2	Peak	Vertical
	15724.6	30.5	17.0	47.5	54.0	-6.5	Average	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 + 3	Test Channel:	151
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	7936.0	36.0	12.6	48.6	68.2	-19.6	Peak	Horizontal
*	9848.5	34.4	16.1	50.5	68.2	-17.7	Peak	Horizontal
	10792.0	34.9	17.5	52.4	74.0	-21.6	Peak	Horizontal
	11523.0	35.3	17.6	52.9	74.0	-21.1	Peak	Horizontal
*	8811.5	34.7	13.4	48.1	68.2	-20.1	Peak	Vertical
*	10205.5	34.8	16.3	51.1	68.2	-17.1	Peak	Vertical
	10936.5	34.1	18.0	52.1	74.0	-21.9	Peak	Vertical
	11625.0	35.3	17.1	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 + 3	Test Channel:	159
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8658.5	35.2	13.0	48.2	68.2	-20.0	Peak	Horizontal
*	10409.5	34.3	16.8	51.1	68.2	-17.1	Peak	Horizontal
	11319.0	35.6	17.6	53.2	74.0	-20.8	Peak	Horizontal
	12279.5	34.5	16.9	51.4	74.0	-22.6	Peak	Horizontal
*	8896.5	34.8	13.3	48.1	68.2	-20.1	Peak	Vertical
*	10163.0	34.4	16.5	50.9	68.2	-17.3	Peak	Vertical
	10800.5	35.5	17.5	53.0	74.0	-21.0	Peak	Vertical
	11608.0	35.2	17.5	52.7	74.0	-21.3	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 + 3	Test Channel:	42
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8658.5	35.3	13.0	48.3	68.2	-19.9	Peak	Horizontal
*	9874.0	34.1	16.1	50.2	68.2	-18.0	Peak	Horizontal
	10826.0	34.9	17.6	52.5	74.0	-21.5	Peak	Horizontal
	11276.5	34.9	17.5	52.4	74.0	-21.6	Peak	Horizontal
*	6950.0	43.9	10.4	54.3	68.2	-13.9	Peak	Vertical
*	8845.5	35.9	13.4	49.3	68.2	-18.9	Peak	Vertical
	10851.5	35.3	17.8	53.1	74.0	-20.9	Peak	Vertical
	11667.5	35.4	17.4	52.8	74.0	-21.2	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)

Product	Wireless Module	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	57 %
Test Site	AC1	Test Date	2019/04/01
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 + 3	Test Channel:	155
Remark:	1. Average measurement was not performed if peak level lower than average limit (54 dBμV/m). 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
*	8590.5	36.1	12.9	49.0	68.2	-19.2	Peak	Horizontal
*	9797.5	34.6	15.9	50.5	68.2	-17.7	Peak	Horizontal
	10970.5	35.0	17.9	52.9	74.0	-21.1	Peak	Horizontal
	12330.5	34.0	16.7	50.7	74.0	-23.3	Peak	Horizontal
*	8692.5	34.6	13.2	47.8	68.2	-20.4	Peak	Vertical
*	9916.5	34.8	16.0	50.8	68.2	-17.4	Peak	Vertical
	11395.5	35.7	17.6	53.3	74.0	-20.7	Peak	Vertical
	16096.0	34.0	17.4	51.4	74.0	-22.6	Peak	Vertical

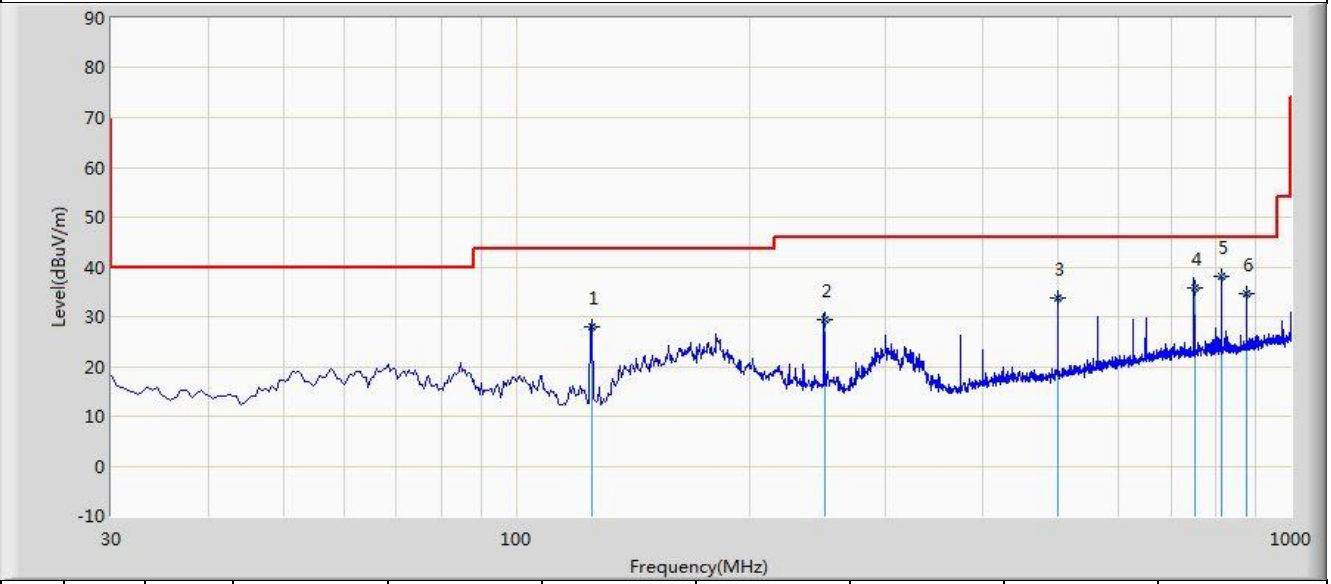
Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Worst Case of Radiated Emission below 1GHz:

Site: AC1	Time: 2019/04/02 - 04:08
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: VULB 9168_20-2000MHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Mode 2	



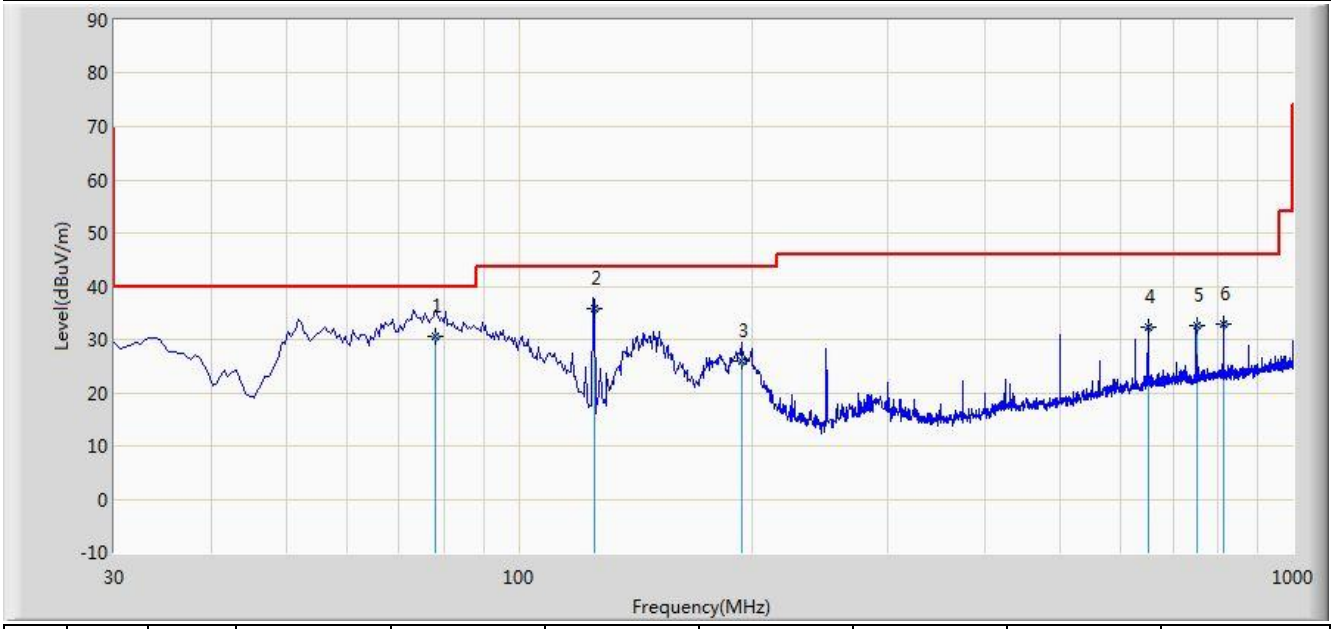
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			125.040	28.021	14.380	-15.479	43.500	13.641	QP
2			250.140	29.546	16.400	-16.454	46.000	13.146	QP
3			500.050	33.655	14.920	-12.345	46.000	18.735	QP
4			750.524	35.840	12.680	-10.160	46.000	23.160	QP
5		*	812.980	38.134	14.350	-7.866	46.000	23.784	QP
6			875.556	34.619	10.210	-11.381	46.000	24.408	QP

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + 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 ~ 40GHz), therefore no data appear in the report.

Site: AC1	Time: 2019/04/02 - 04:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: VULB 9168_20-2000MHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Mode 2	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			78.050	30.632	20.148	-9.368	40.000	10.484	QP
2		*	125.000	35.792	22.154	-7.708	43.500	13.638	QP
3			194.050	25.987	14.350	-17.513	43.500	11.637	QP
4			650.014	32.280	10.500	-13.720	46.000	21.779	QP
5			750.540	32.511	9.350	-13.489	46.000	23.160	QP
6			813.190	33.033	9.250	-12.967	46.000	23.783	QP

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + 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 ~ 40GHz), 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
[1] 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	8.025 - 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	([2])
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 increasinglinearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasinglinearly 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 edgeincreasing linearly to a level of 27 dBm/MHz at the band edge.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

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

FCC Part 15 Subpart C Paragraph 15.209		
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 Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.8.3.Test Setting

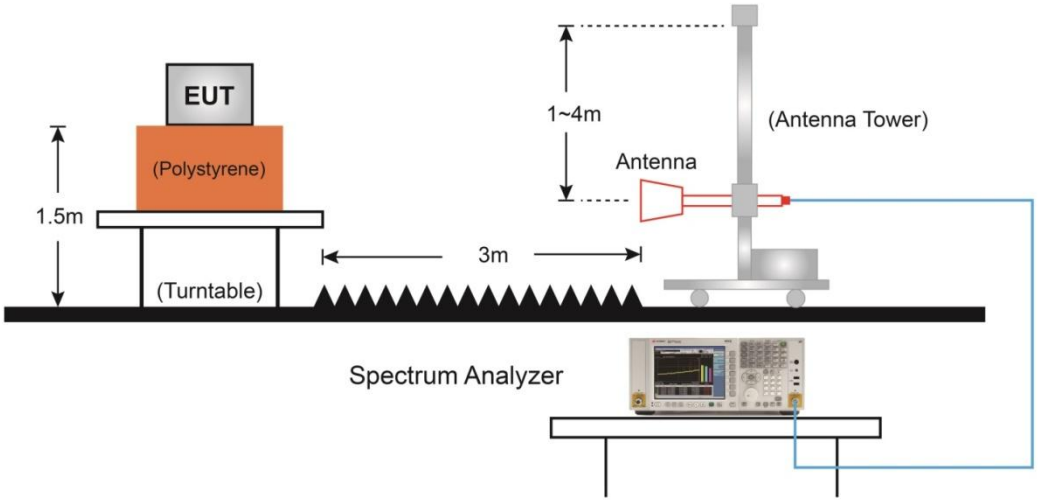
Peak Measurements above 1GHz

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

Average Measurements above 1GHz (Method VB)

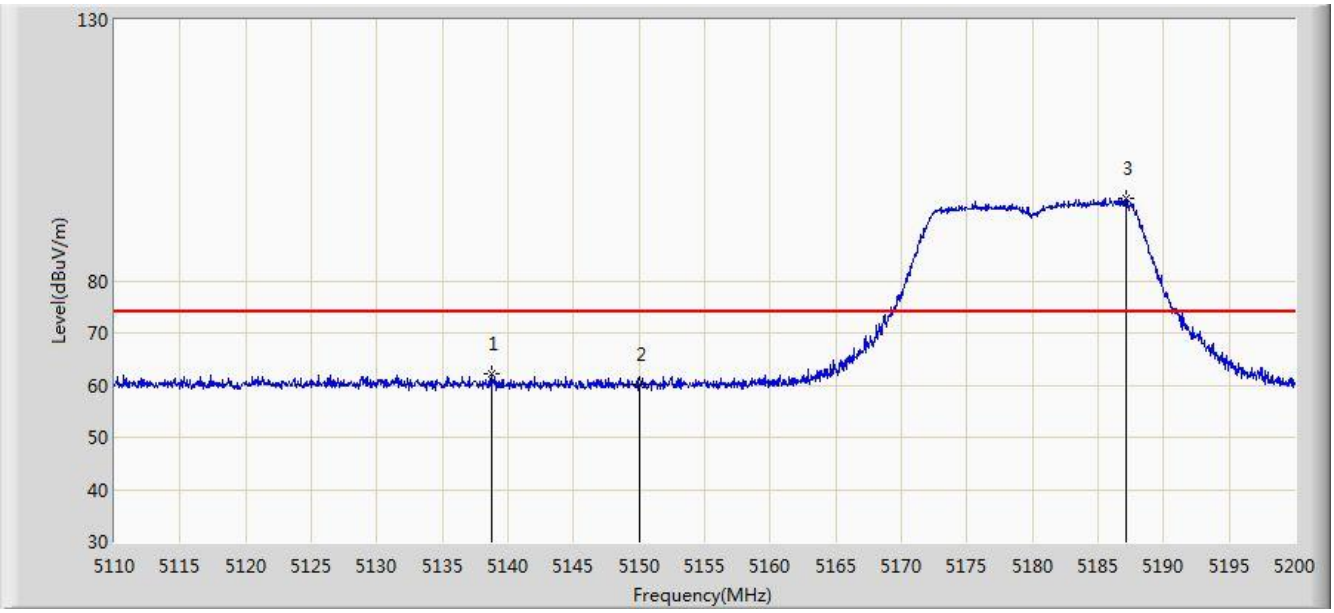
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBWIf the EUT is configured to transmit with duty cycle ≥ 98%, set VBW ≤ RBW/100 (i.e., 10 kHz) but not less than 10 Hz. If the EUT duty cycle is < 98%, set VBW ≥ 1/T.
4. Detector = Peak
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.

7.8.4.Test Setup



7.8.5.Test Result

Site: AC1	Time: 2019/03/28 - 02:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 1	

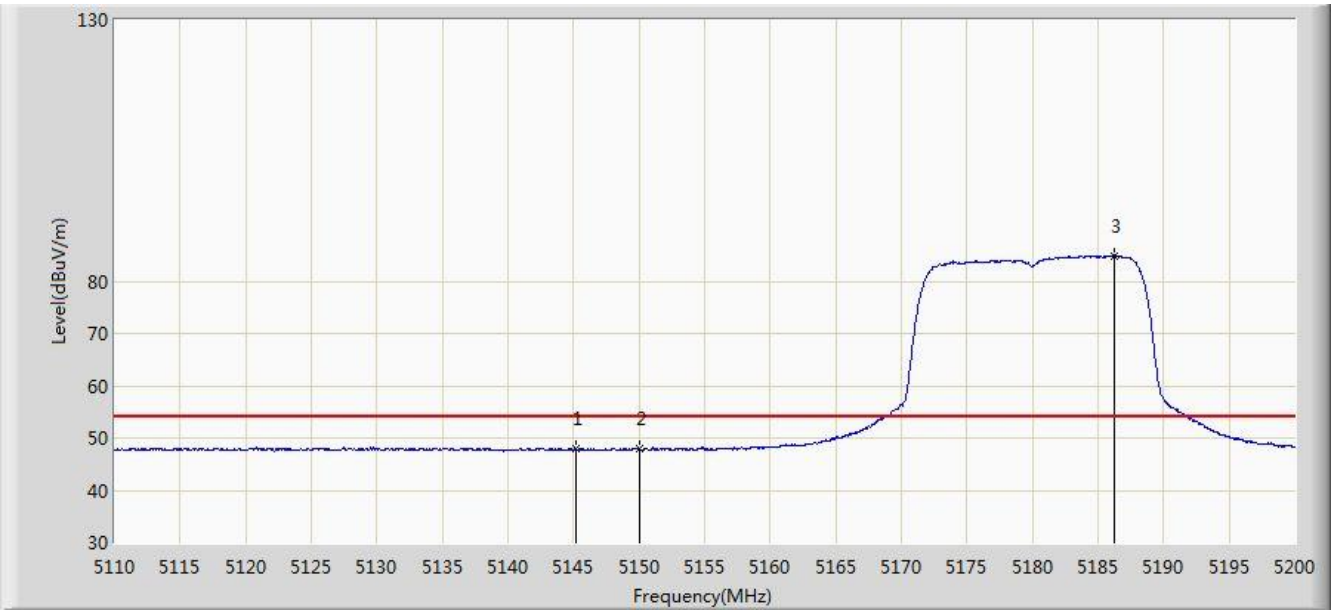


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5138.710	62.112	55.581	-11.888	74.000	6.531	PK
2			5150.000	60.050	53.653	-13.950	74.000	6.398	PK
3		*	5187.130	95.814	89.276	N/A	N/A	6.539	PK

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: 2019/03/28 - 02:20
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 1	

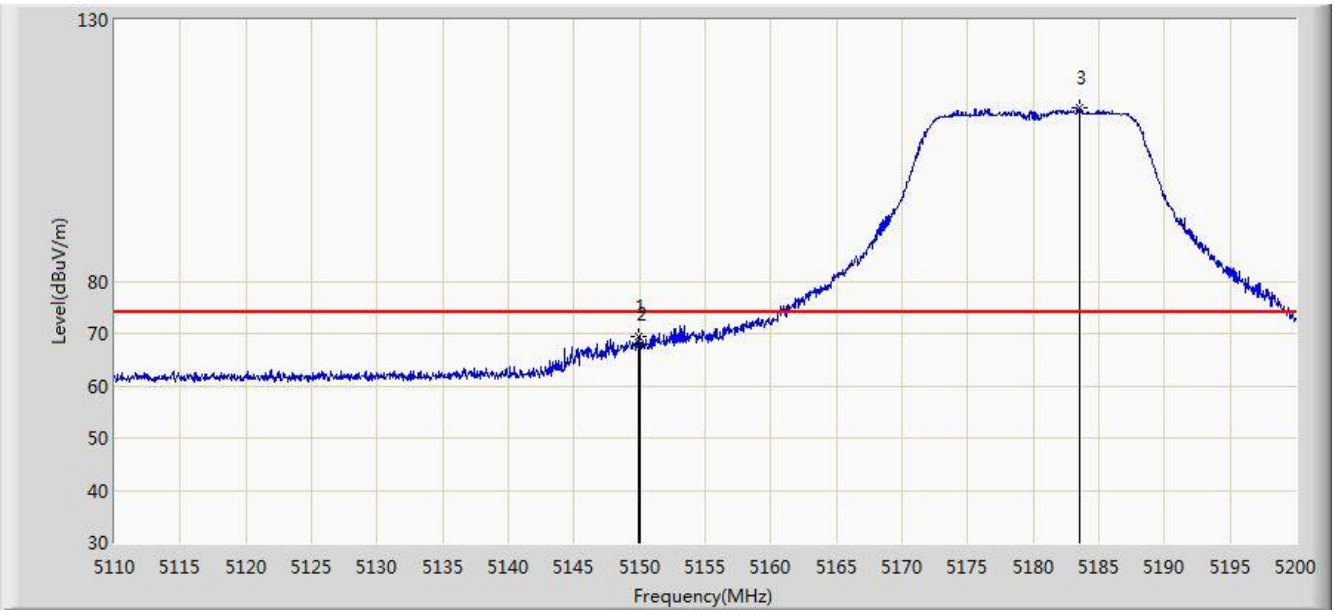


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5145.145	48.089	41.655	-5.911	54.000	6.434	AV
2			5150.000	47.895	41.498	-6.105	54.000	6.398	AV
3		*	5186.275	84.819	78.272	N/A	N/A	6.546	AV

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: 2019/03/28 - 02:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 1	

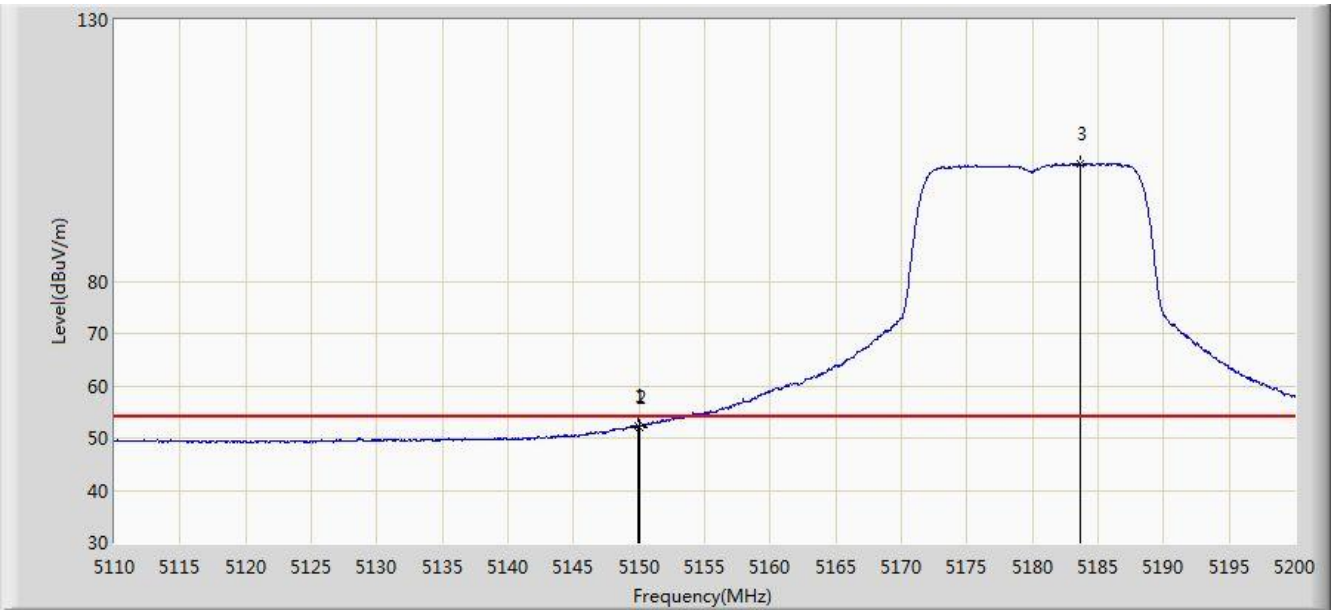


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.915	69.295	62.898	-4.705	74.000	6.397	PK
2			5150.000	67.992	61.595	-6.008	74.000	6.398	PK
3		*	5183.575	113.153	106.579	N/A	N/A	6.574	PK

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: 2019/03/28 - 02:11
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 1	

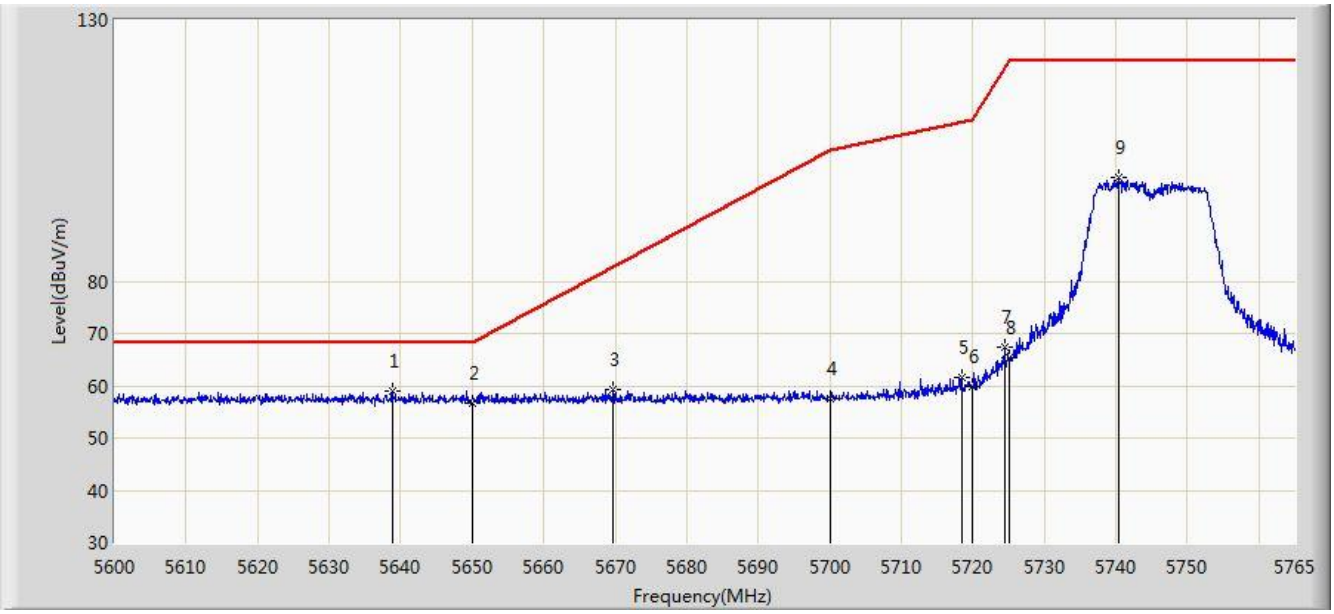


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.960	52.362	45.965	-1.638	54.000	6.397	AV
2			5150.000	52.159	45.762	-1.841	54.000	6.398	AV
3		*	5183.620	102.576	96.003	N/A	N/A	6.574	AV

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: 2019/03/29 - 02:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5745MHz, Ant 1	

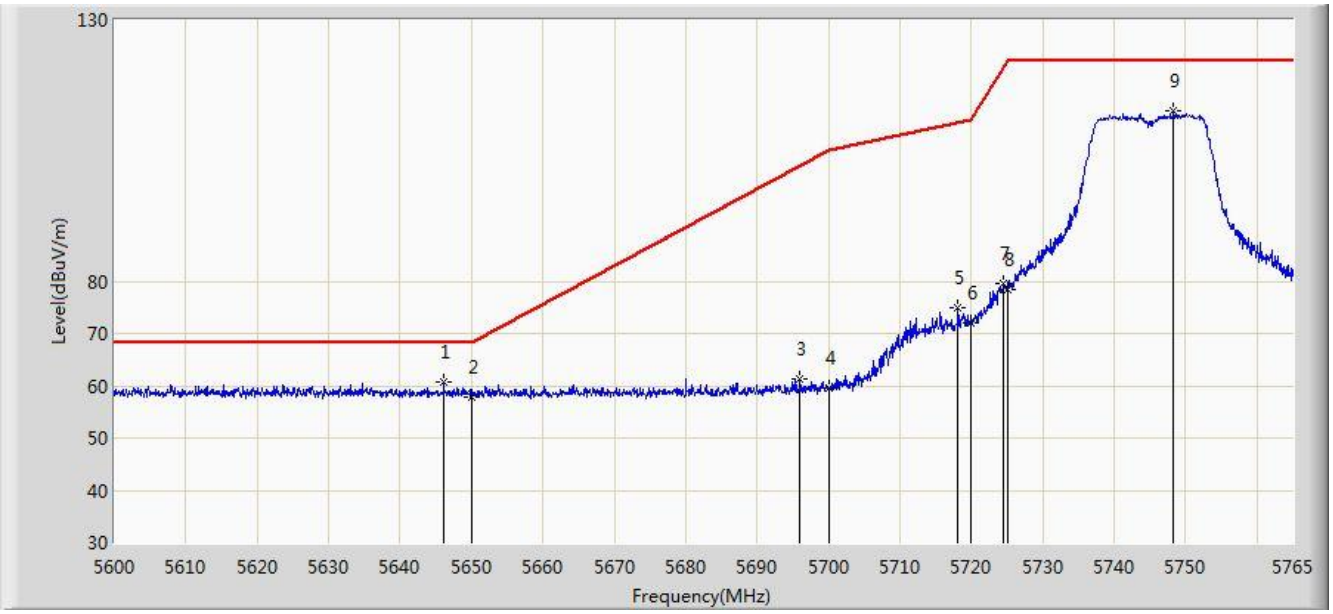


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5638.775	59.125	52.307	-9.075	68.200	6.818	PK
2			5650.000	56.633	49.840	-11.567	68.200	6.793	PK
3			5669.712	59.402	52.674	-23.423	82.826	6.728	PK
4			5700.000	57.533	50.624	-47.667	105.200	6.909	PK
5			5718.388	61.704	54.787	-48.646	110.349	6.916	PK
6			5720.000	59.856	52.952	-50.944	110.800	6.904	PK
7			5724.493	67.528	60.657	-53.517	121.044	6.871	PK
8			5725.000	65.411	58.544	-56.789	122.200	6.867	PK
9			5740.333	99.818	92.860	N/A	N/A	6.958	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: 2019/03/29 - 02:29
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5745MHz, Ant 1	

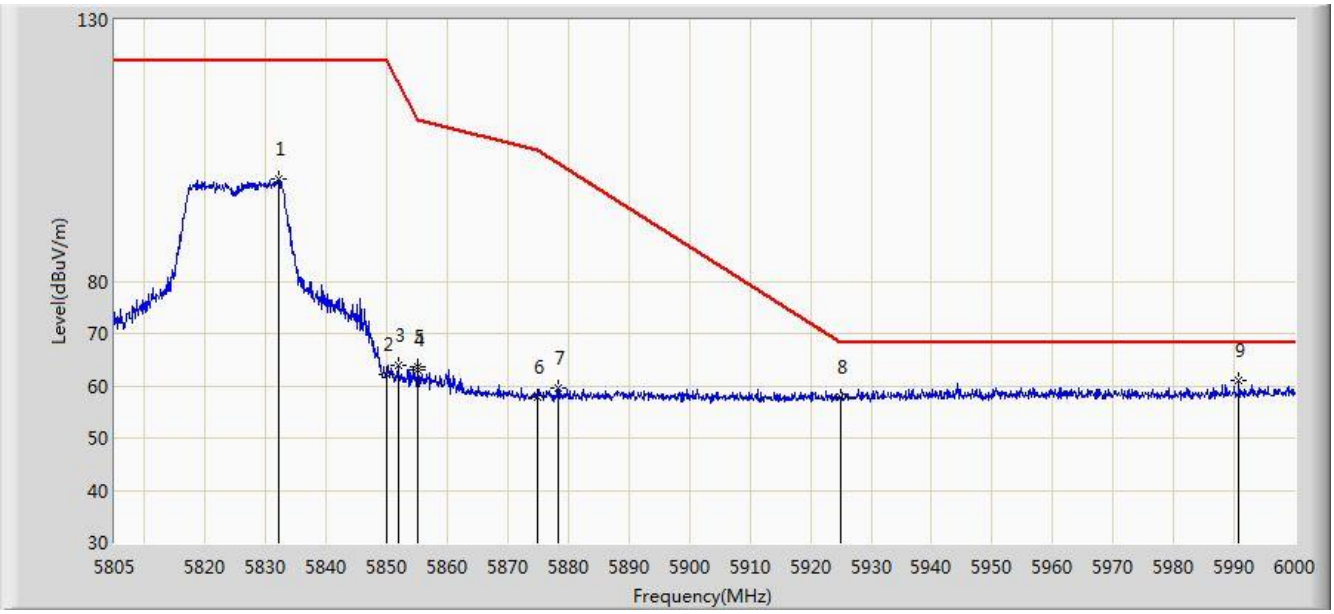


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5646.118	60.730	53.920	-7.470	68.200	6.809	PK
2			5650.000	57.860	51.067	-10.340	68.200	6.793	PK
3			5696.030	61.172	54.293	-41.102	102.274	6.878	PK
4			5700.000	59.448	52.539	-45.752	105.200	6.909	PK
5			5718.058	74.825	67.906	-35.432	110.257	6.919	PK
6			5720.000	71.994	65.090	-38.806	110.800	6.904	PK
7			5724.493	79.538	72.667	-41.507	121.044	6.871	PK
8			5725.000	78.530	71.663	-43.670	122.200	6.867	PK
9			5748.335	112.643	105.602	N/A	N/A	7.041	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: 2019/03/29 - 03:19
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5825MHz, Ant 1	

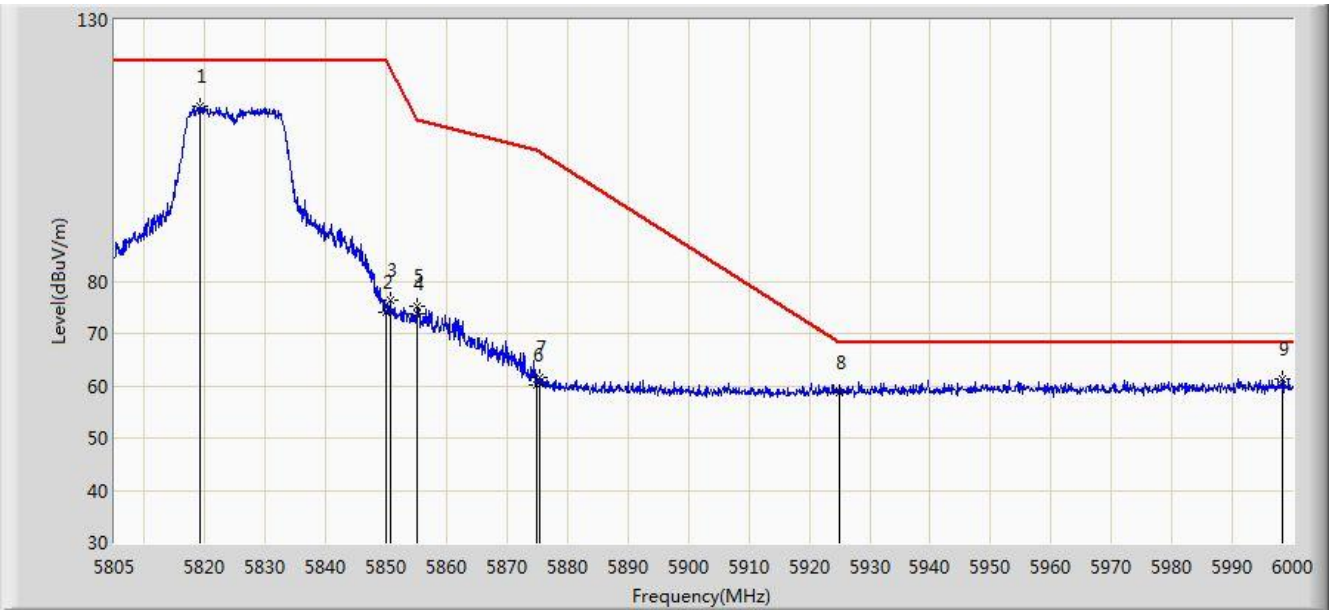


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5832.203	99.512	92.140	N/A	N/A	7.373	PK
2			5850.000	62.103	54.773	-60.097	122.200	7.331	PK
3			5851.897	63.886	56.556	-53.988	117.874	7.330	PK
4			5855.000	62.976	55.648	-47.824	110.800	7.327	PK
5			5855.018	63.636	56.308	-47.159	110.795	7.327	PK
6			5875.000	57.958	50.544	-47.242	105.200	7.414	PK
7			5878.223	59.577	52.141	-43.229	102.806	7.435	PK
8			5925.000	57.833	50.533	-10.367	68.200	7.299	PK
9		*	5990.835	60.979	53.549	-7.221	68.200	7.430	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: 2019/03/29 - 02:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5825MHz, Ant 1	

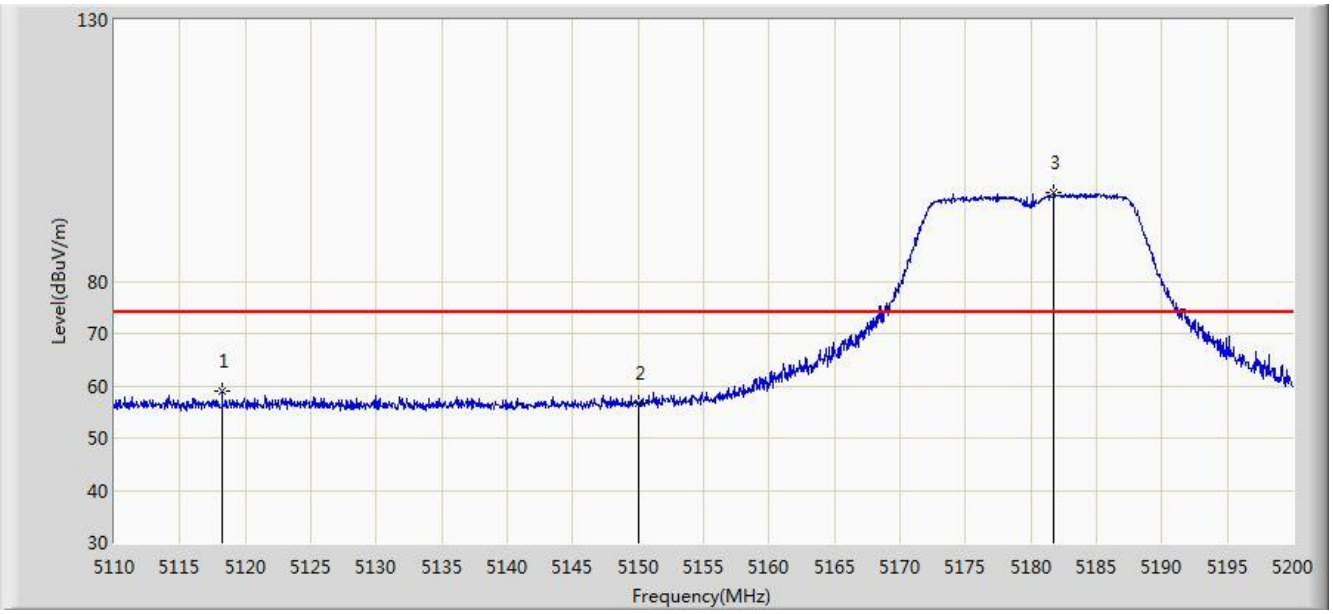


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5819.138	113.491	106.239	N/A	N/A	7.252	PK
2			5850.000	74.101	66.771	-48.099	122.200	7.331	PK
3			5850.630	76.261	68.931	-44.502	120.763	7.330	PK
4			5855.000	73.664	66.336	-37.136	110.800	7.327	PK
5			5855.115	75.269	67.941	-35.499	110.768	7.328	PK
6			5875.000	60.220	52.806	-44.980	105.200	7.414	PK
7			5875.493	61.659	54.242	-43.175	104.834	7.418	PK
8			5925.000	58.654	51.354	-9.546	68.200	7.299	PK
9		*	5998.245	61.248	53.754	-6.952	68.200	7.494	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: 2019/03/28 - 05:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 2	

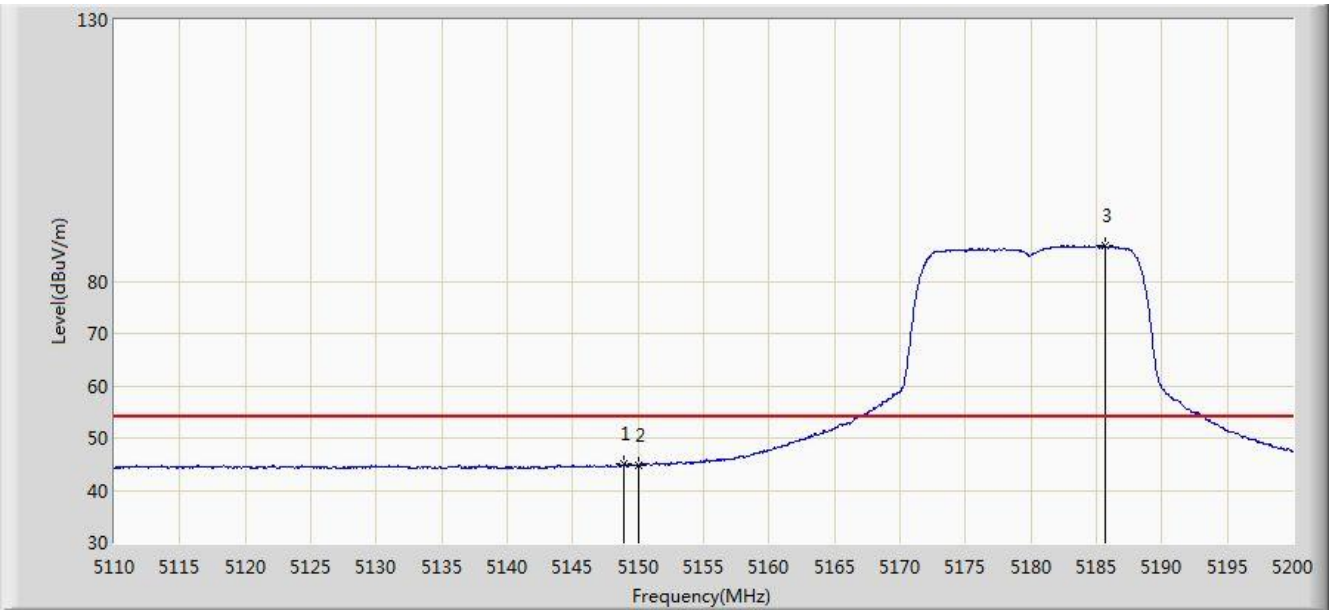


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5118.235	58.871	52.358	-15.129	74.000	6.513	PK
2			5150.000	56.757	50.360	-17.243	74.000	6.398	PK
3		*	5181.775	97.079	90.492	N/A	N/A	6.588	PK

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: 2019/03/28 - 05:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 2	

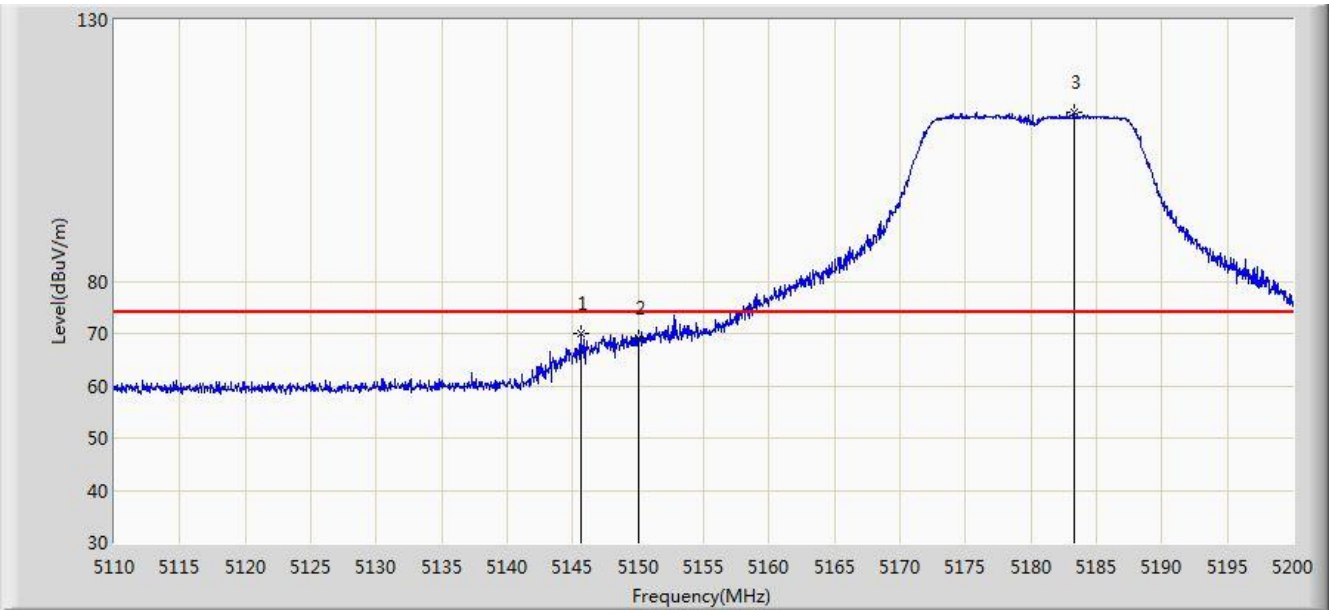


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.925	44.950	38.556	-9.050	54.000	6.394	AV
2			5150.000	44.755	38.358	-9.245	54.000	6.398	AV
3		*	5185.645	86.810	80.257	N/A	N/A	6.554	AV

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: 2019/03/28 - 05:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 2	

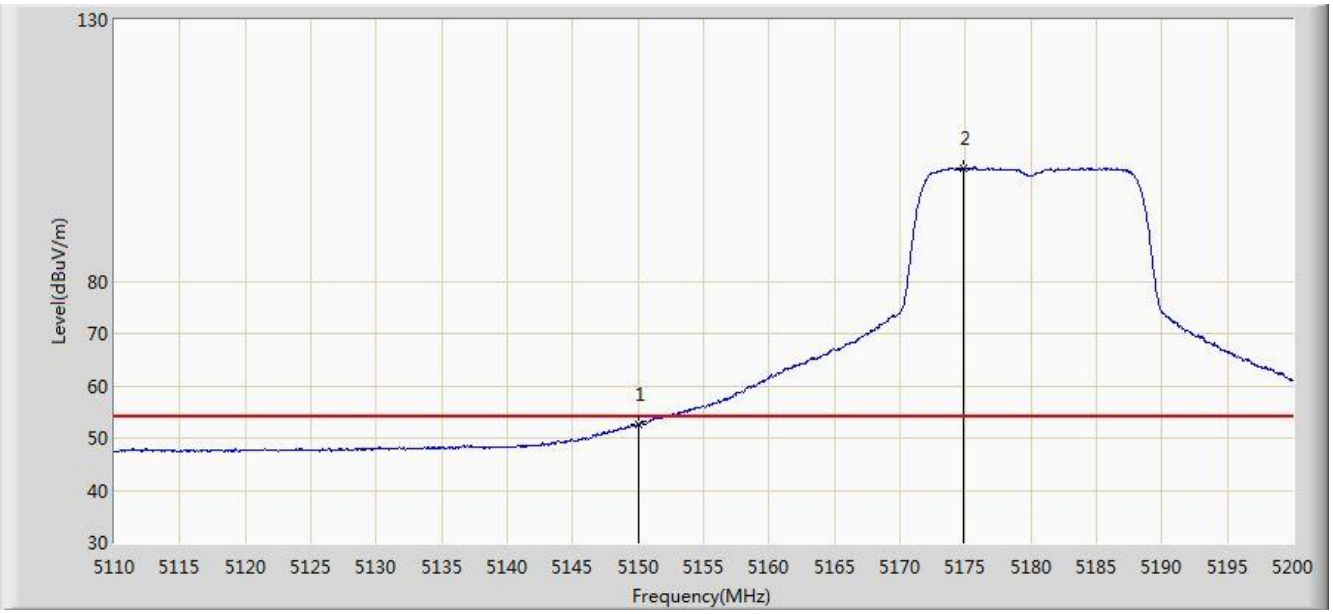


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5145.595	70.084	63.657	-3.916	74.000	6.427	PK
2			5150.000	69.011	62.614	-4.989	74.000	6.398	PK
3		*	5183.260	112.376	105.799	N/A	N/A	6.577	PK

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: 2019/03/28 - 05:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 2	

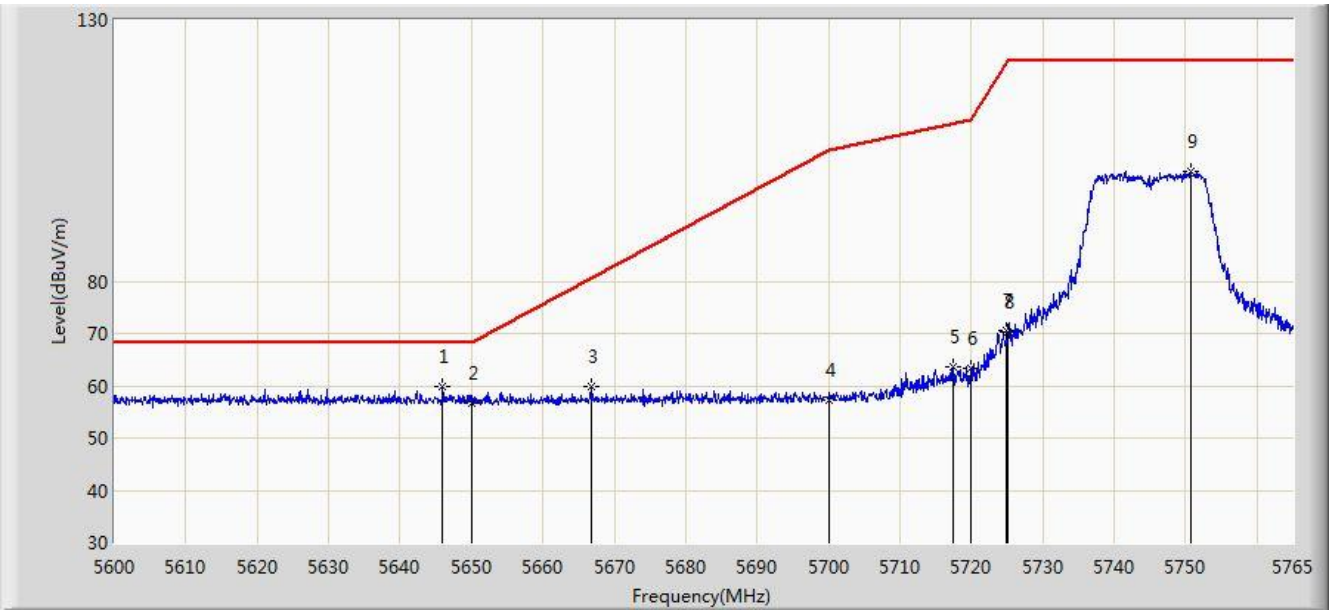


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	52.546	46.149	-1.454	54.000	6.398	AV
2		*	5174.845	101.655	95.135	N/A	N/A	6.520	AV

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: 2019/03/29 - 03:25
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5745MHz, Ant 2	

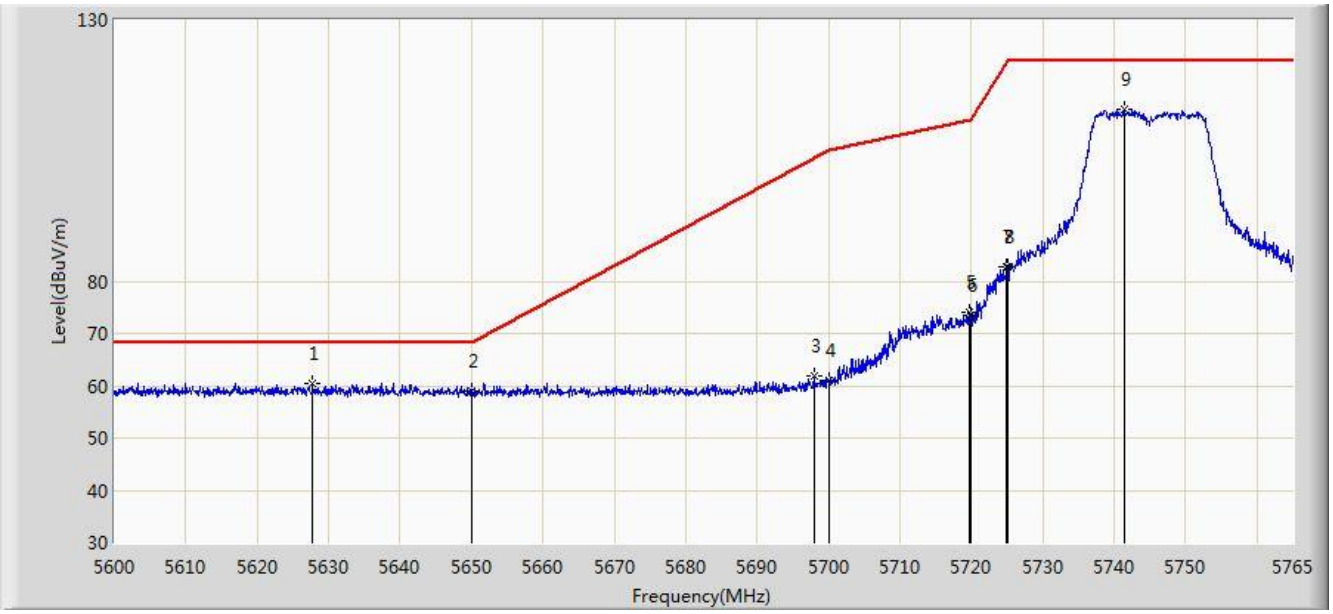


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5645.953	59.947	53.136	-8.253	68.200	6.811	PK
2			5650.000	56.605	49.812	-11.595	68.200	6.793	PK
3			5666.743	59.755	53.018	-20.871	80.626	6.738	PK
4			5700.000	57.138	50.229	-48.062	105.200	6.909	PK
5			5717.397	63.523	56.599	-46.549	110.072	6.924	PK
6			5720.000	63.270	56.366	-47.530	110.800	6.904	PK
7			5724.987	70.690	63.823	-51.480	122.170	6.868	PK
8			5725.000	70.372	63.505	-51.828	122.200	6.867	PK
9			5750.728	101.092	94.022	N/A	N/A	7.071	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: 2019/03/29 - 03:21
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5745MHz, Ant 2	

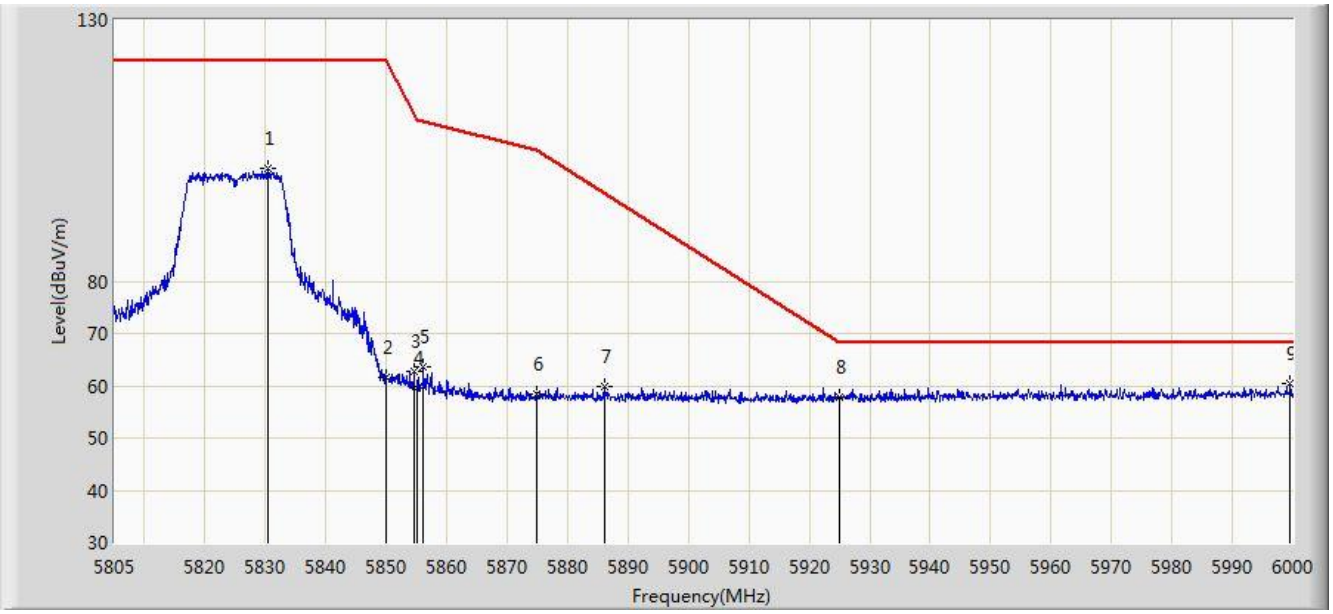


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5627.803	60.541	53.795	-7.659	68.200	6.747	PK
2			5650.000	59.118	52.325	-9.082	68.200	6.793	PK
3			5697.928	61.889	54.996	-41.784	103.673	6.892	PK
4			5700.000	61.020	54.111	-44.180	105.200	6.909	PK
5			5719.625	74.125	67.218	-36.570	110.695	6.907	PK
6			5720.000	73.429	66.525	-37.371	110.800	6.904	PK
7			5724.987	82.789	75.922	-39.381	122.170	6.868	PK
8			5725.000	82.672	75.805	-39.528	122.200	6.867	PK
9			5741.405	112.785	105.820	N/A	N/A	6.965	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: 2019/03/29 - 03:31
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5825MHz, Ant 2	

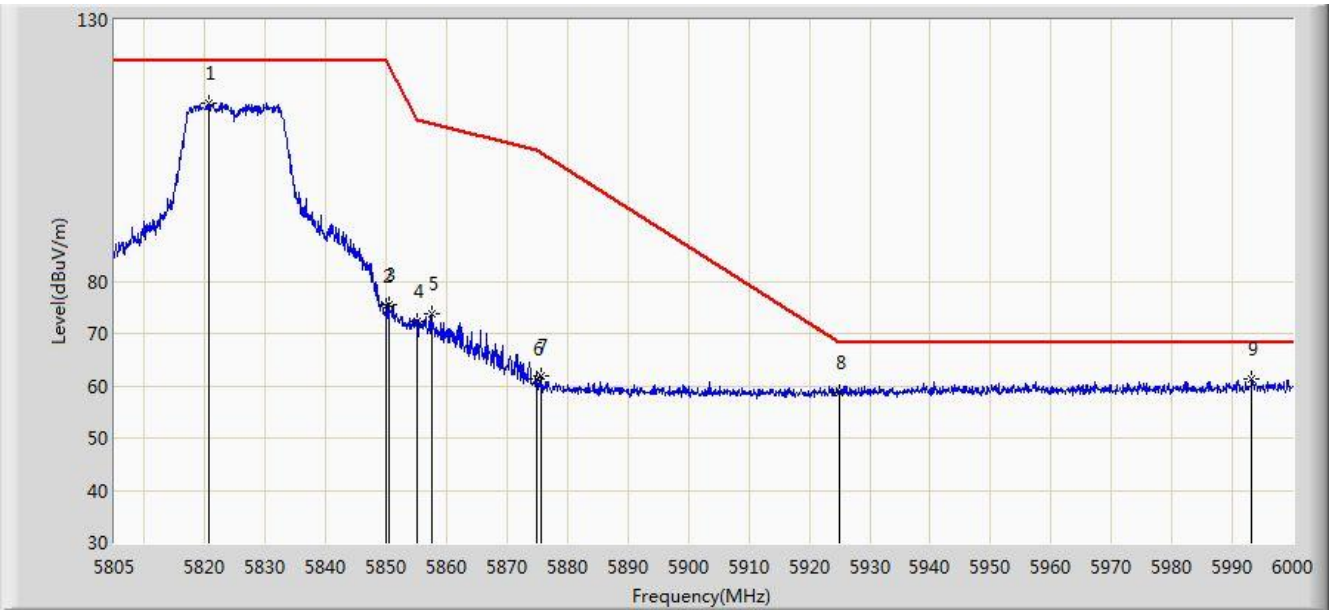


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5830.350	101.511	94.133	N/A	N/A	7.378	PK
2			5850.000	61.578	54.248	-60.622	122.200	7.331	PK
3			5854.627	62.842	55.514	-48.808	111.650	7.329	PK
4			5855.000	59.547	52.219	-51.253	110.800	7.327	PK
5			5856.187	63.723	56.396	-46.744	110.467	7.327	PK
6			5875.000	58.396	50.982	-46.804	105.200	7.414	PK
7			5886.022	59.920	52.455	-37.097	97.017	7.465	PK
8			5925.000	57.749	50.449	-10.451	68.200	7.299	PK
9		*	5999.610	60.528	53.031	-7.672	68.200	7.496	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: 2019/03/29 - 03:28
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5825MHz, Ant 2	

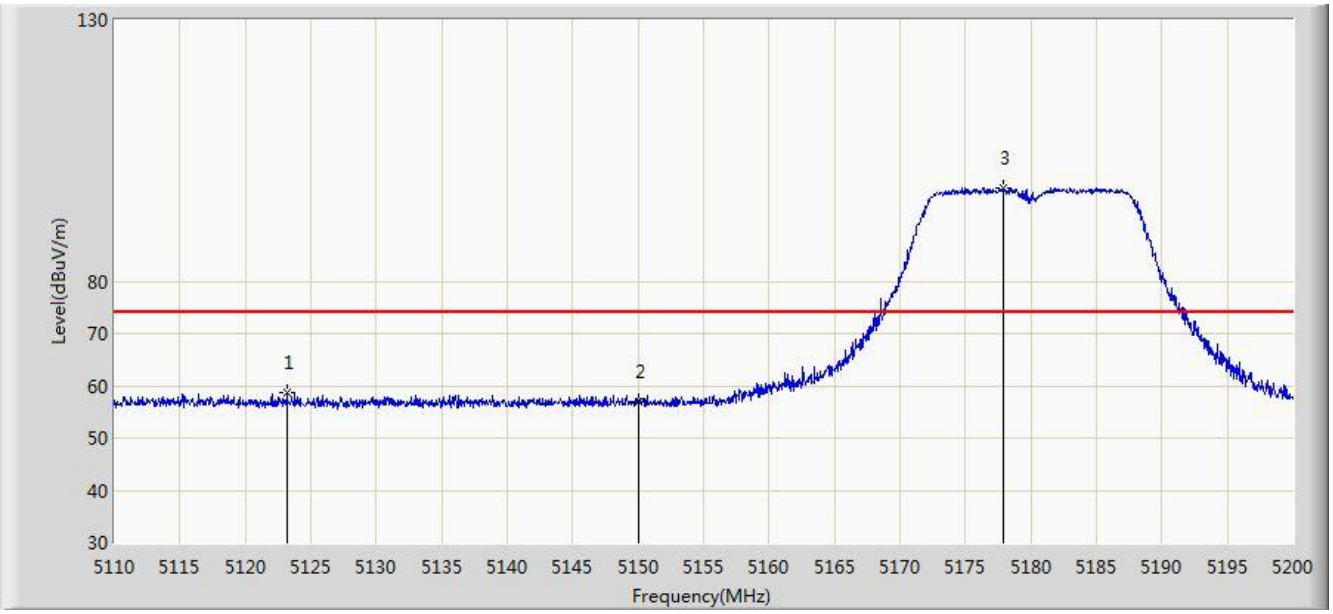


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5820.697	114.165	106.889	N/A	N/A	7.275	PK
2			5850.000	75.102	67.772	-47.098	122.200	7.331	PK
3			5850.435	75.616	68.286	-45.592	121.208	7.330	PK
4			5855.000	72.433	65.105	-38.367	110.800	7.327	PK
5			5857.455	73.904	66.577	-36.208	110.112	7.327	PK
6			5875.000	61.245	53.831	-43.955	105.200	7.414	PK
7			5875.590	61.815	54.397	-42.947	104.762	7.418	PK
8			5925.000	58.793	51.493	-9.407	68.200	7.299	PK
9		*	5993.175	61.256	53.805	-6.944	68.200	7.450	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: 2019/03/28 - 04:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 3	

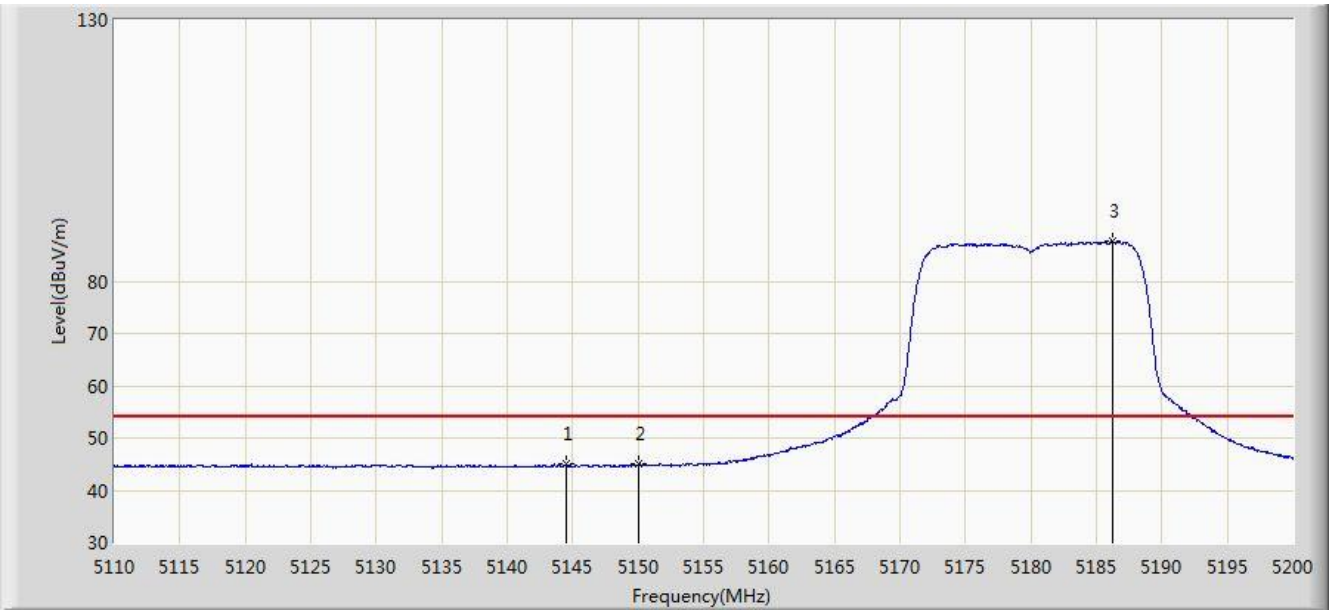


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5123.185	58.583	52.019	-15.417	74.000	6.564	PK
2			5150.000	56.876	50.479	-17.124	74.000	6.398	PK
3		*	5177.860	97.945	91.396	N/A	N/A	6.549	PK

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: 2019/03/28 - 04:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 3	

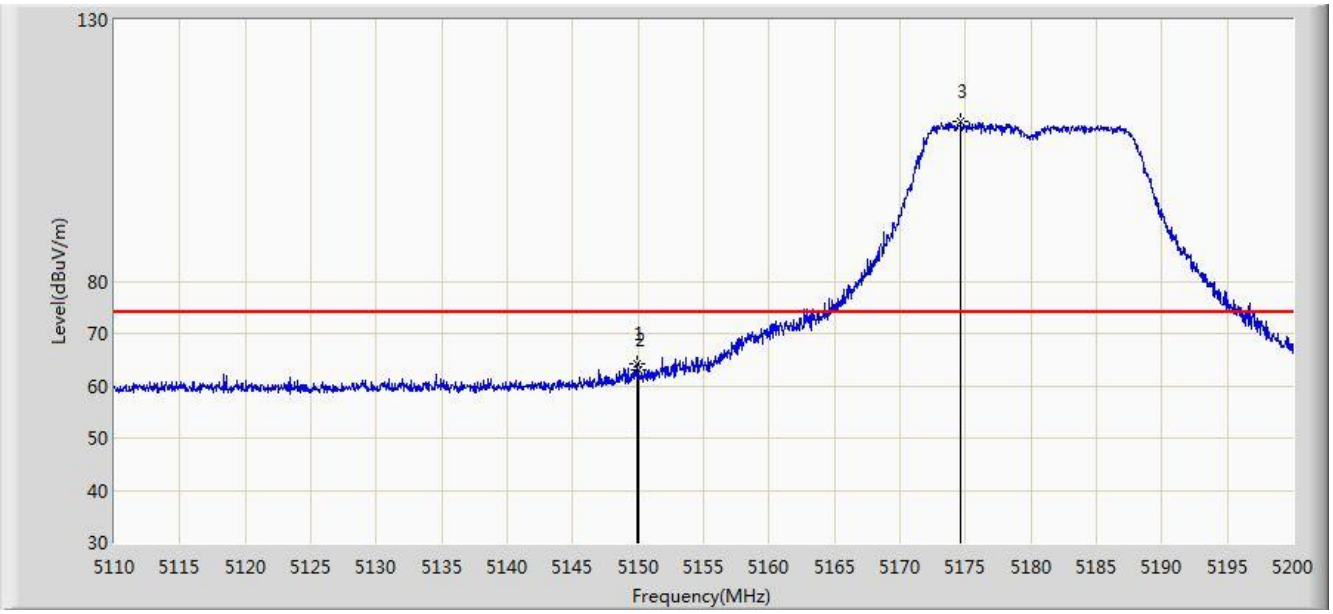


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5144.515	44.962	38.519	-9.038	54.000	6.444	AV
2			5150.000	44.933	38.536	-9.067	54.000	6.398	AV
3		*	5186.275	87.625	81.078	N/A	N/A	6.546	AV

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: 2019/03/28 - 04:39
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 3	

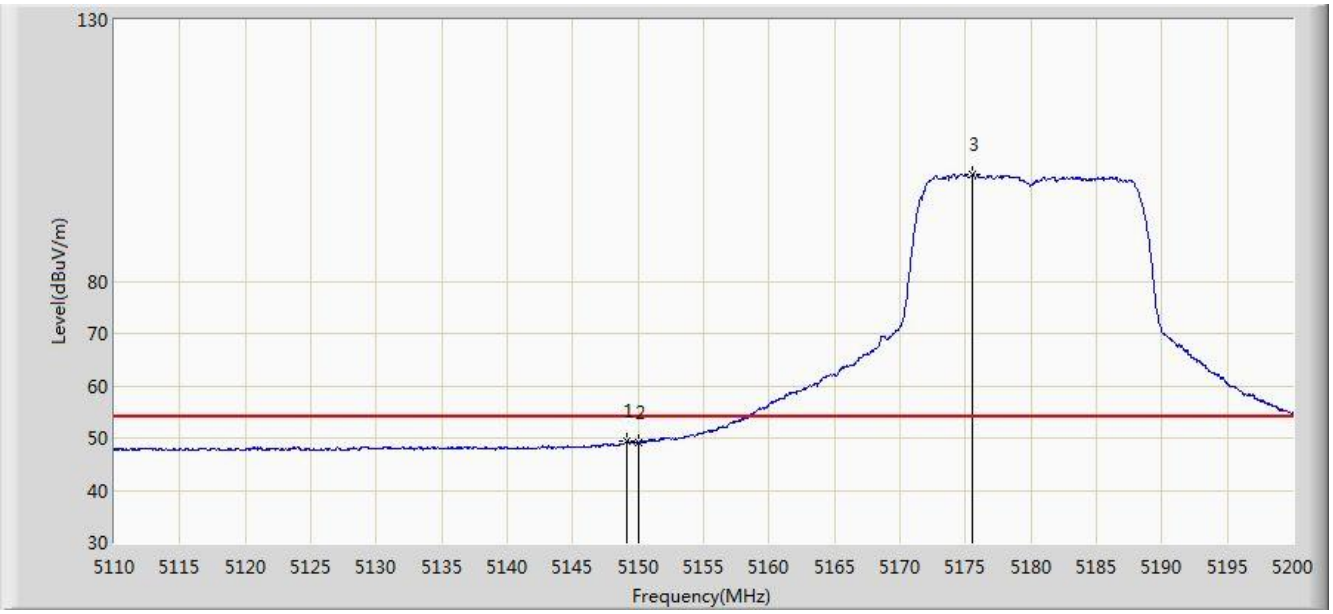


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.870	64.307	57.910	-9.693	74.000	6.397	PK
2			5150.000	62.908	56.511	-11.092	74.000	6.398	PK
3		*	5174.665	110.465	103.947	N/A	N/A	6.518	PK

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: 2019/03/28 - 04:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11a at Channel 5180MHz, Ant 3	

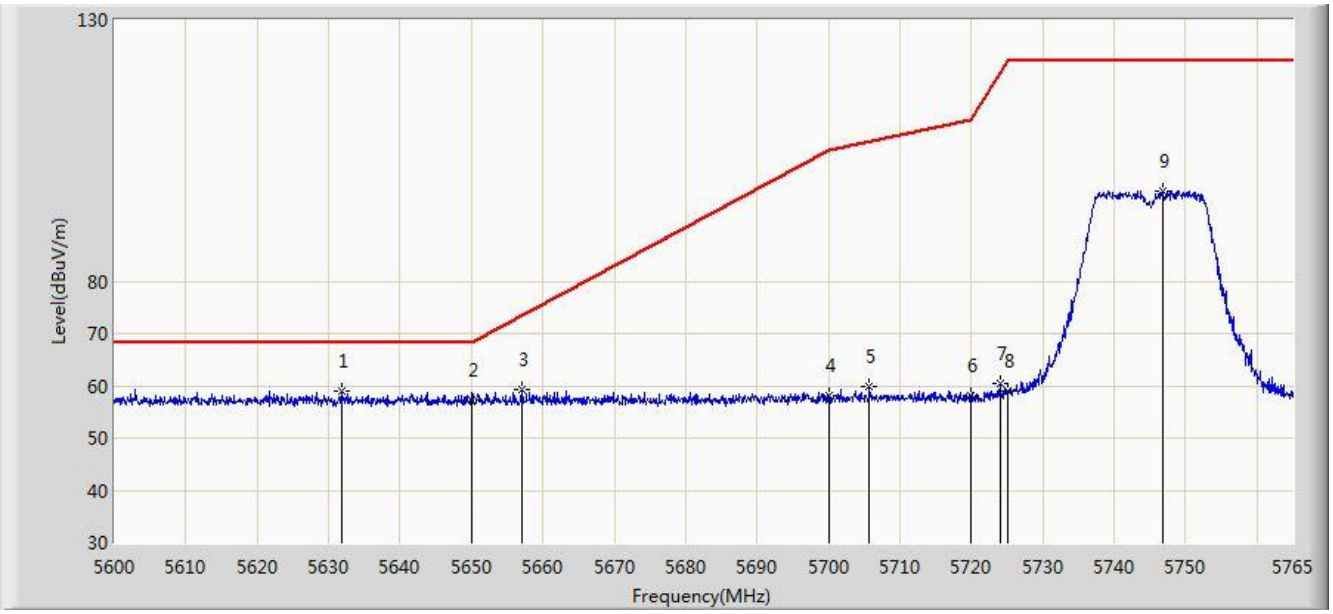


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.105	49.352	42.958	-4.648	54.000	6.394	AV
2			5150.000	48.988	42.591	-5.012	54.000	6.398	AV
3		*	5175.565	100.550	94.023	N/A	N/A	6.527	AV

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: 2019/03/29 - 03:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5745MHz, Ant 3	

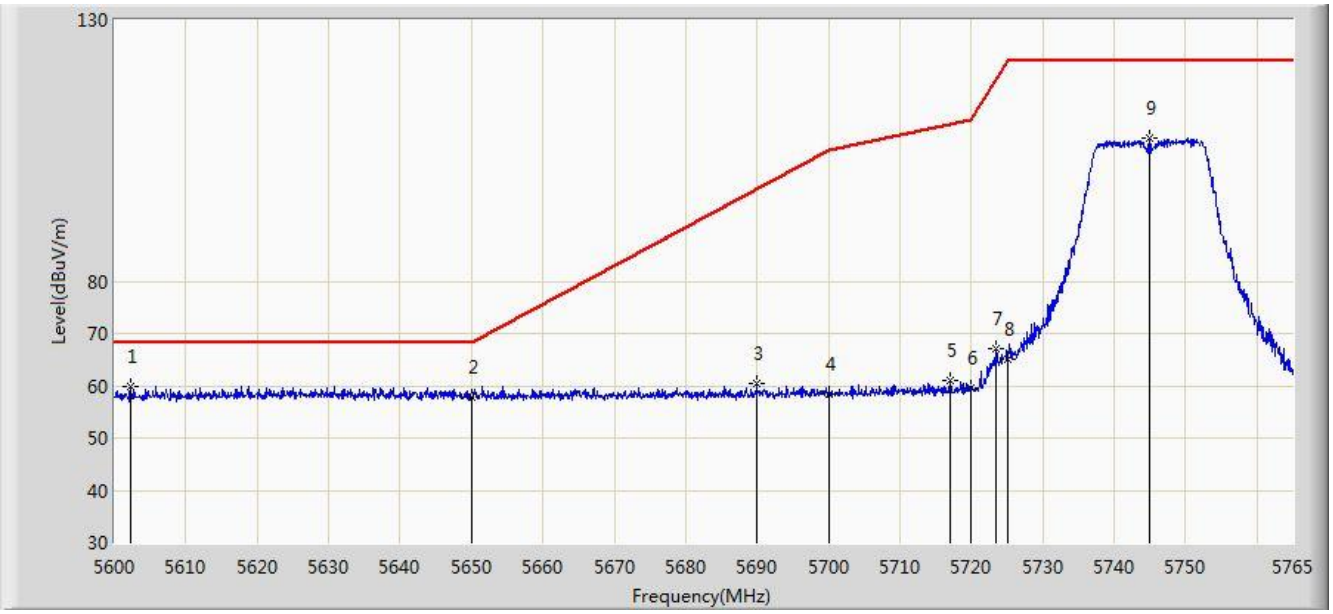


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5631.763	59.032	52.260	-9.168	68.200	6.772	PK
2			5650.000	57.316	50.523	-10.884	68.200	6.793	PK
3			5657.007	59.172	52.405	-14.233	73.405	6.766	PK
4			5700.000	58.042	51.133	-47.158	105.200	6.909	PK
5			5705.683	59.757	52.801	-47.036	106.793	6.957	PK
6			5720.000	57.972	51.068	-52.828	110.800	6.904	PK
7			5723.998	60.428	53.553	-59.489	119.916	6.875	PK
8			5725.000	58.918	52.051	-63.282	122.200	6.867	PK
9			5746.850	97.358	90.336	N/A	N/A	7.022	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: 2019/03/29 - 03:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5745MHz, Ant 3	

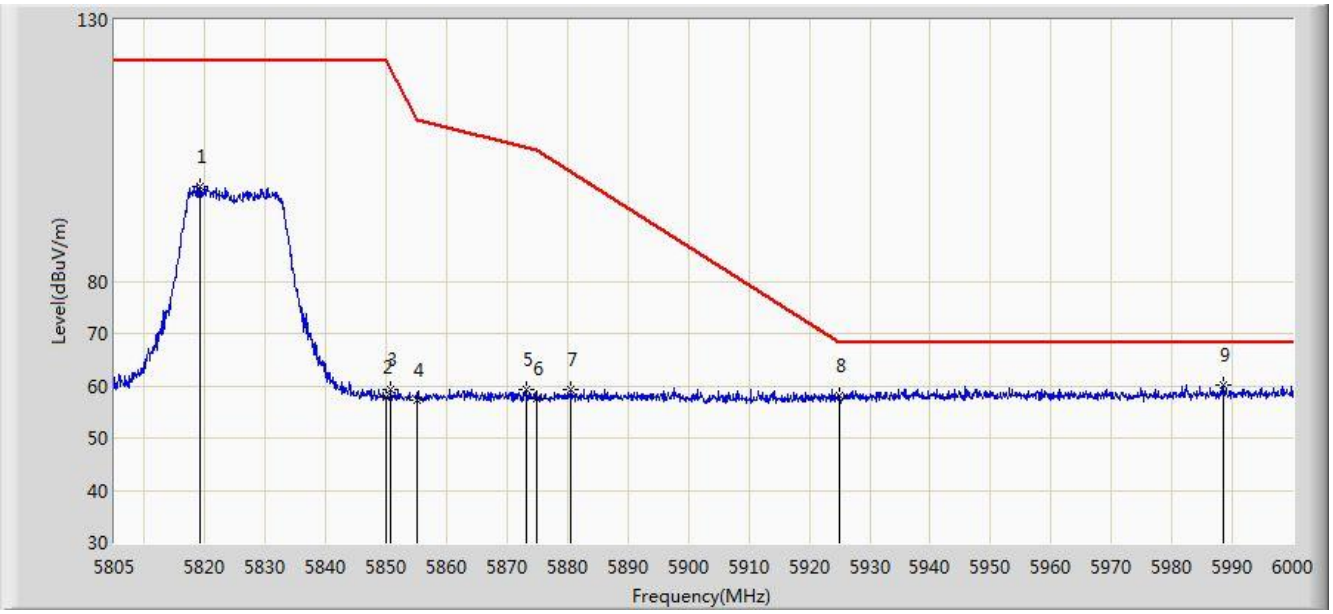


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5602.228	59.762	53.091	-8.438	68.200	6.671	PK
2			5650.000	57.859	51.066	-10.341	68.200	6.793	PK
3			5689.925	60.482	53.651	-37.288	97.771	6.831	PK
4			5700.000	58.534	51.625	-46.666	105.200	6.909	PK
5			5717.067	61.037	54.110	-48.943	109.980	6.927	PK
6			5720.000	59.646	52.742	-51.154	110.800	6.904	PK
7			5723.502	67.143	60.265	-51.642	118.786	6.878	PK
8			5725.000	65.167	58.300	-57.033	122.200	6.867	PK
9			5744.870	107.405	100.407	N/A	N/A	6.999	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: 2019/03/29 - 03:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5825MHz, Ant 3	

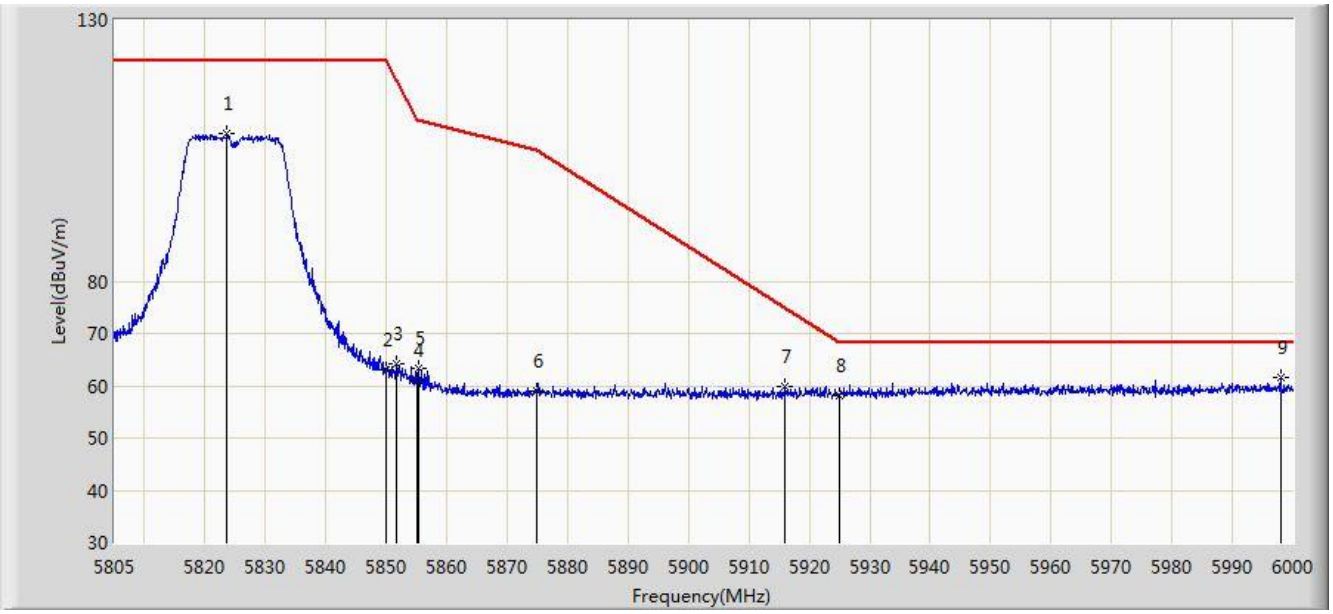


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5819.138	98.229	90.977	N/A	N/A	7.252	PK
2			5850.000	57.753	50.423	-64.447	122.200	7.331	PK
3			5850.728	59.156	51.826	-61.383	120.540	7.330	PK
4			5855.000	57.315	49.987	-53.485	110.800	7.327	PK
5			5873.055	59.334	51.934	-46.409	105.744	7.401	PK
6			5875.000	57.593	50.179	-47.607	105.200	7.414	PK
7			5880.562	59.379	51.933	-41.689	101.069	7.447	PK
8			5925.000	58.059	50.759	-10.141	68.200	7.299	PK
9		*	5988.397	60.072	52.664	-8.128	68.200	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: 2019/03/29 - 03:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11a at Channel 5825MHz, Ant 3	

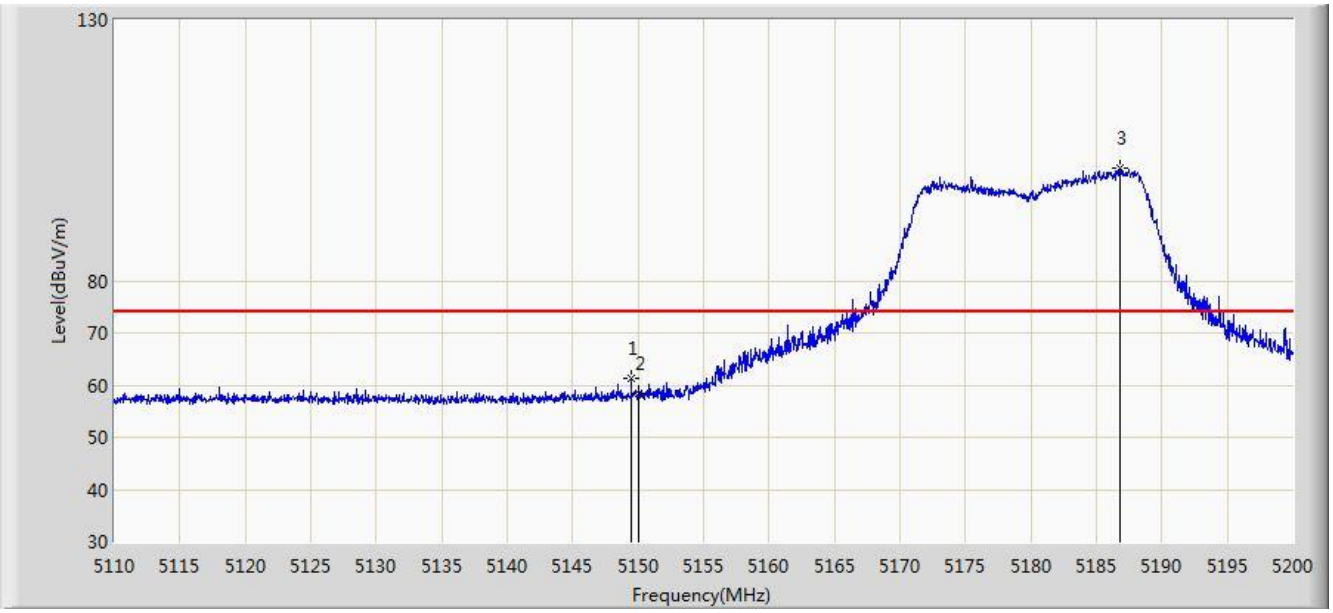


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5823.623	108.198	100.878	N/A	N/A	7.320	PK
2			5850.000	63.083	55.753	-59.117	122.200	7.331	PK
3			5851.605	64.270	56.940	-54.270	118.540	7.329	PK
4			5855.000	61.146	53.818	-49.654	110.800	7.327	PK
5			5855.408	63.253	55.925	-47.433	110.686	7.328	PK
6			5875.000	59.093	51.679	-46.107	105.200	7.414	PK
7			5915.955	59.887	52.593	-14.983	74.870	7.294	PK
8			5925.000	58.167	50.867	-10.033	68.200	7.299	PK
9		*	5997.953	61.673	54.180	-6.527	68.200	7.494	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: 2019/03/30 - 05:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT20 at Channel 5180MHz, Ant 1 + 2 + 3	

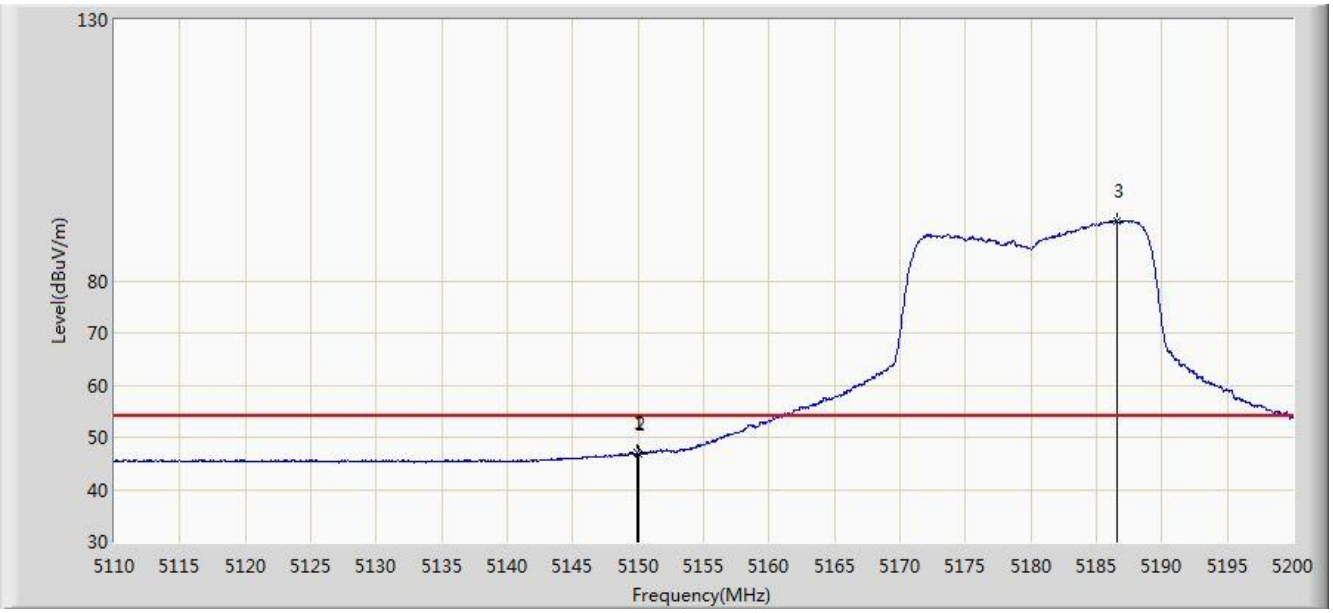


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.465	61.386	54.991	-12.614	74.000	6.396	PK
2			5150.000	58.365	51.968	-15.635	74.000	6.398	PK
3		*	5186.815	101.495	94.954	27.495	74.000	6.542	PK

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: 2019/03/30 - 05:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT20 at Channel 5180MHz, Ant 1 + 2 + 3	

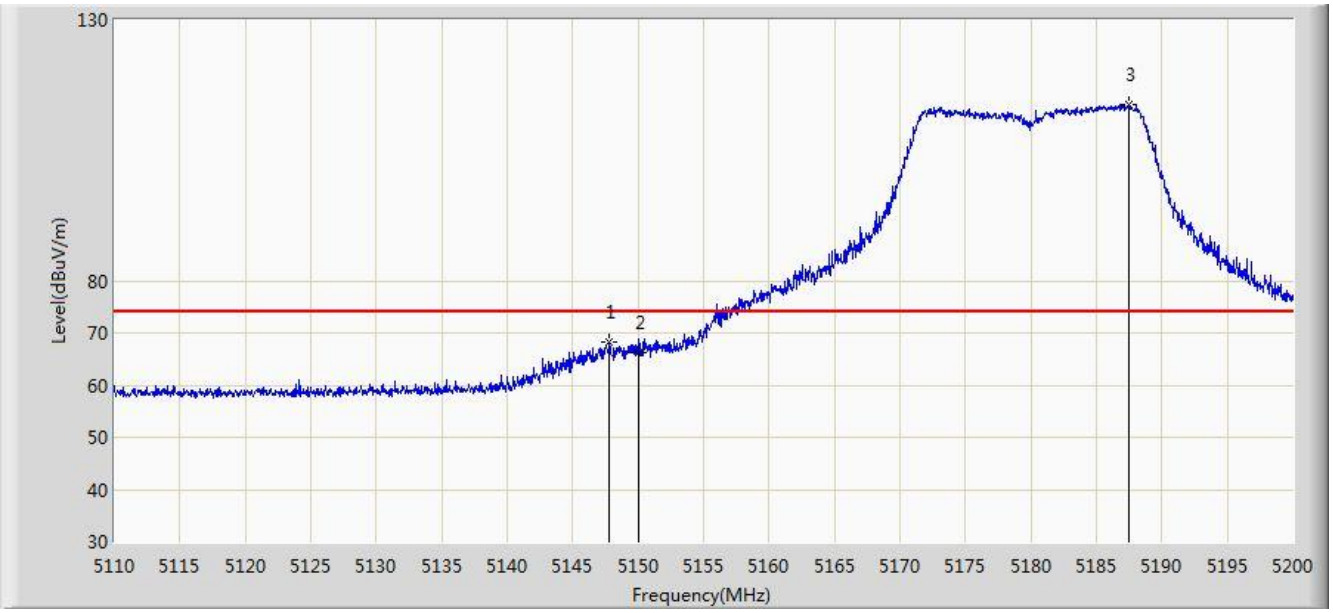


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.960	46.969	40.572	-7.031	54.000	6.397	AV
2			5150.000	46.883	40.486	-7.117	54.000	6.398	AV
3		*	5186.545	91.573	85.029	37.573	54.000	6.545	AV

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: 2019/03/30 - 05:39
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT20 at Channel 5180MHz, Ant 1 + 2 + 3	

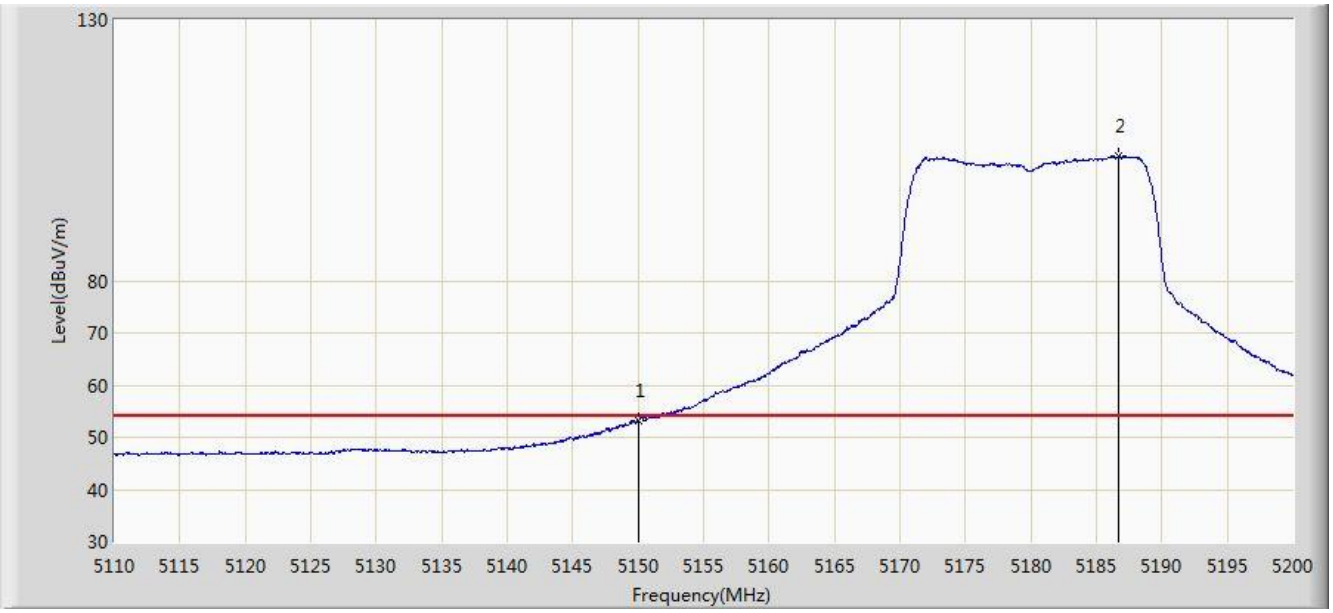


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5147.800	68.291	61.897	-5.709	74.000	6.394	PK
2			5150.000	66.358	59.961	-7.642	74.000	6.398	PK
3		*	5187.535	113.784	107.250	39.784	74.000	6.534	PK

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: 2019/03/30 - 05:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT20 at Channel 5180MHz, Ant 1 + 2 + 3	

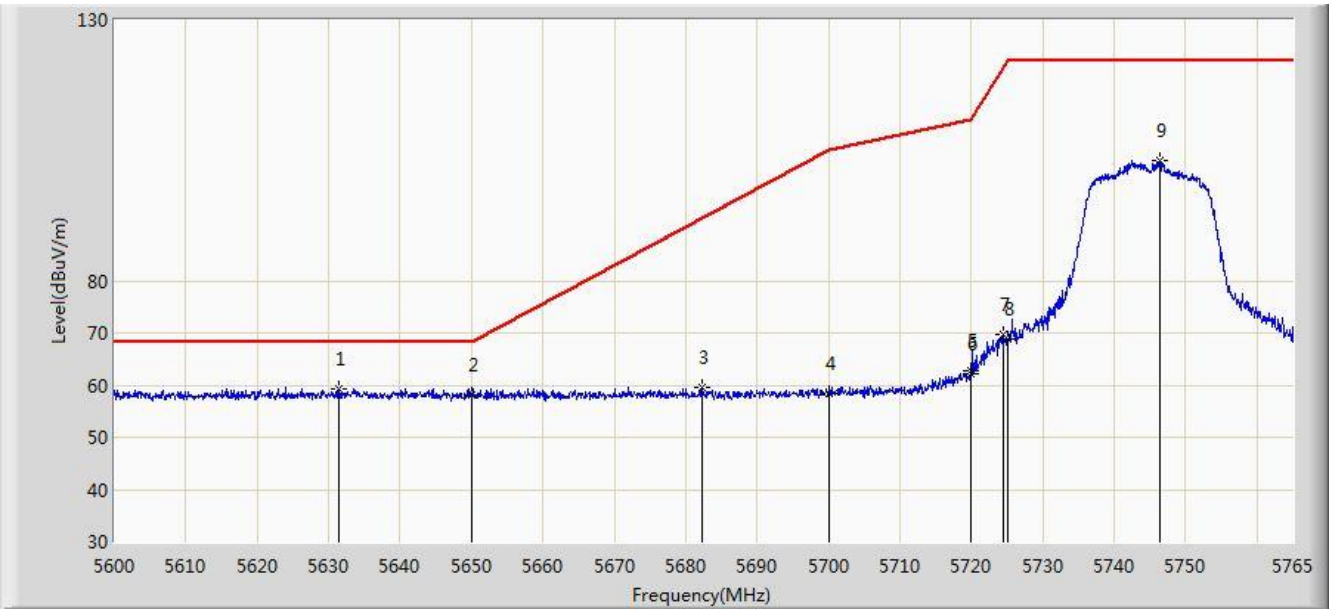


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	53.225	46.828	-0.775	54.000	6.398	AV
2		*	5186.725	103.865	97.323	49.865	54.000	6.542	AV

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: 2019/03/30 - 04:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz, Ant 1 + 2 + 3	

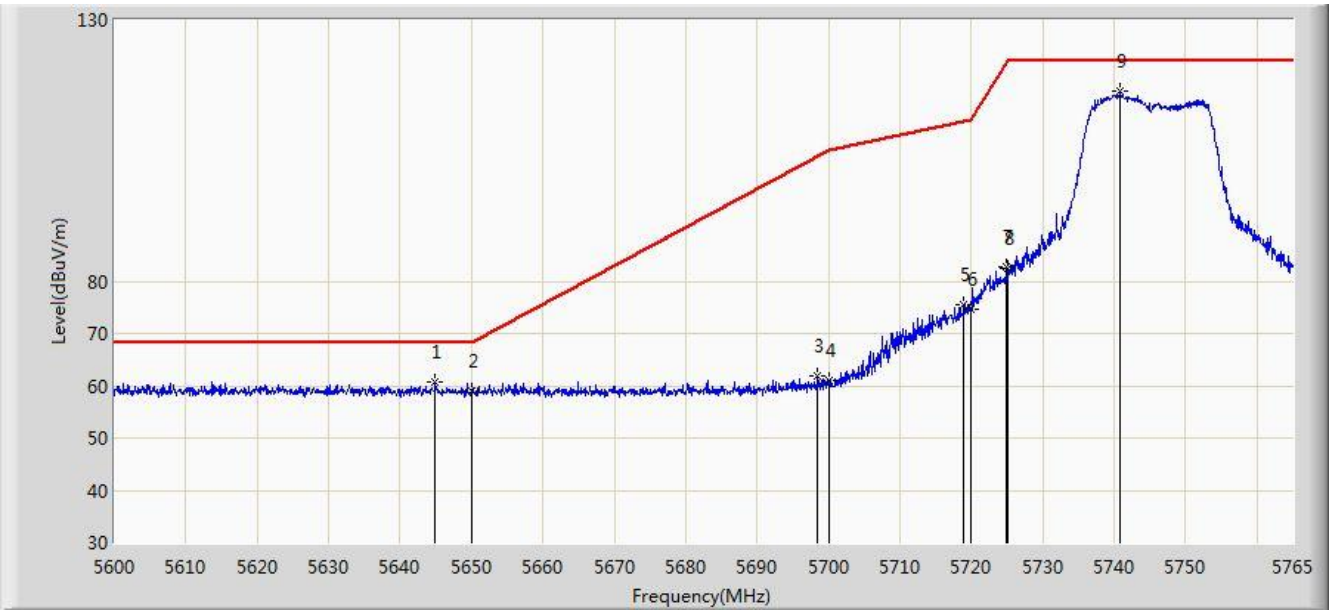


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5631.350	59.370	52.601	-8.830	68.200	6.769	PK
2			5650.000	58.192	51.399	-10.008	68.200	6.793	PK
3			5682.252	59.602	52.832	-32.502	92.104	6.769	PK
4			5700.000	58.547	51.638	-46.653	105.200	6.909	PK
5			5719.955	62.698	55.793	-48.090	110.787	6.905	PK
6			5720.000	62.292	55.388	-48.508	110.800	6.904	PK
7			5724.410	69.658	62.786	-51.198	120.855	6.872	PK
8			5725.000	68.817	61.950	-53.383	122.200	6.867	PK
9			5746.437	103.006	95.989	N/A	N/A	7.018	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: 2019/03/30 - 04:23
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz, Ant 1 + 2 + 3	

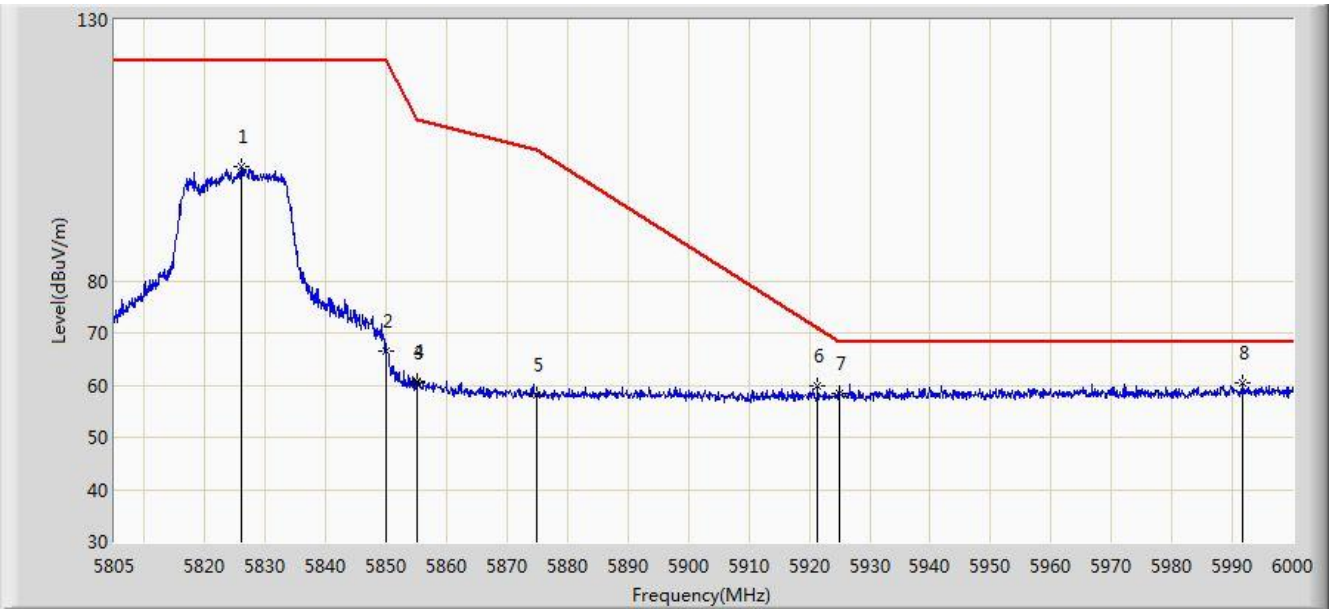


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5644.962	60.747	53.932	-7.453	68.200	6.815	PK
2			5650.000	58.923	52.130	-9.277	68.200	6.793	PK
3			5698.505	61.846	54.949	-42.252	104.098	6.897	PK
4			5700.000	61.131	54.222	-44.069	105.200	6.909	PK
5			5718.965	75.628	68.716	-34.882	110.511	6.912	PK
6			5720.000	74.716	67.812	-36.084	110.800	6.904	PK
7			5724.987	82.770	75.903	-39.400	122.170	6.868	PK
8			5725.000	82.355	75.488	-39.845	122.200	6.867	PK
9		*	5740.910	116.282	109.320	N/A	N/A	6.961	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: 2019/03/30 - 04:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz, Ant 1 + 2 + 3	

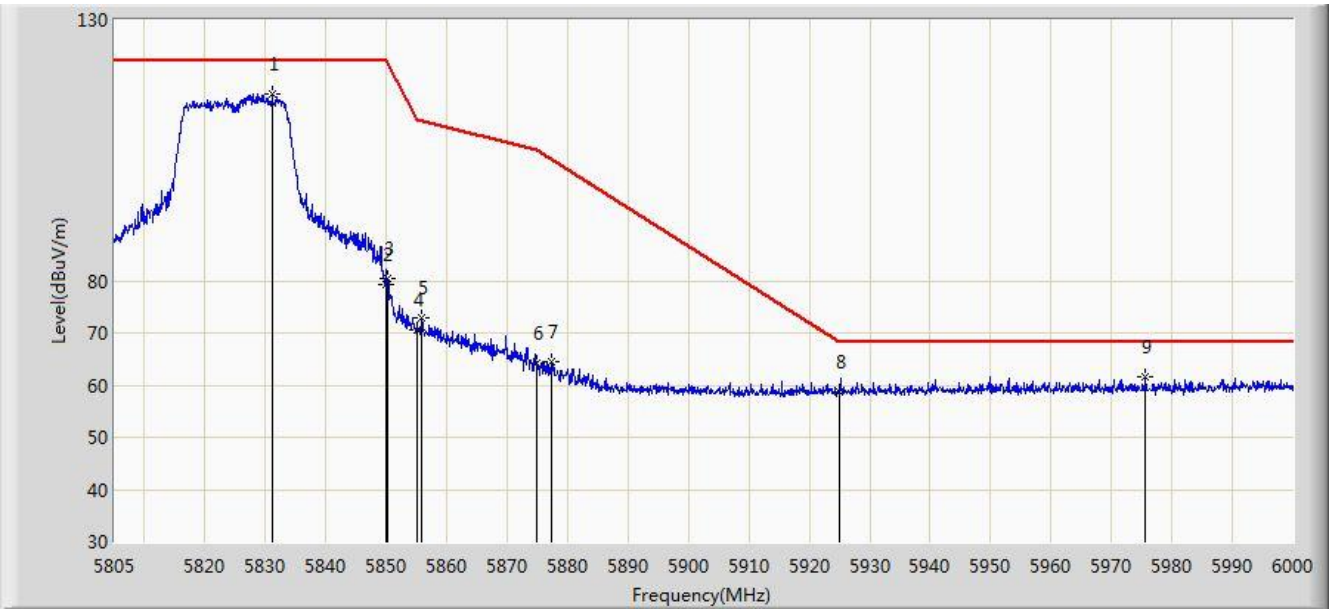


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5826.060	101.945	94.589	N/A	N/A	7.355	PK
2			5850.000	66.502	59.172	-55.698	122.200	7.331	PK
3			5855.000	60.398	53.070	-50.402	110.800	7.327	PK
4			5855.212	60.849	53.521	-49.892	110.741	7.328	PK
5			5875.000	58.045	50.631	-47.155	105.200	7.414	PK
6			5921.415	59.752	52.455	-11.090	70.842	7.297	PK
7			5925.000	58.305	51.005	-9.895	68.200	7.299	PK
8		*	5991.615	60.409	52.972	-7.791	68.200	7.437	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: 2019/03/30 - 04:29
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz, Ant 1 + 2 + 3	

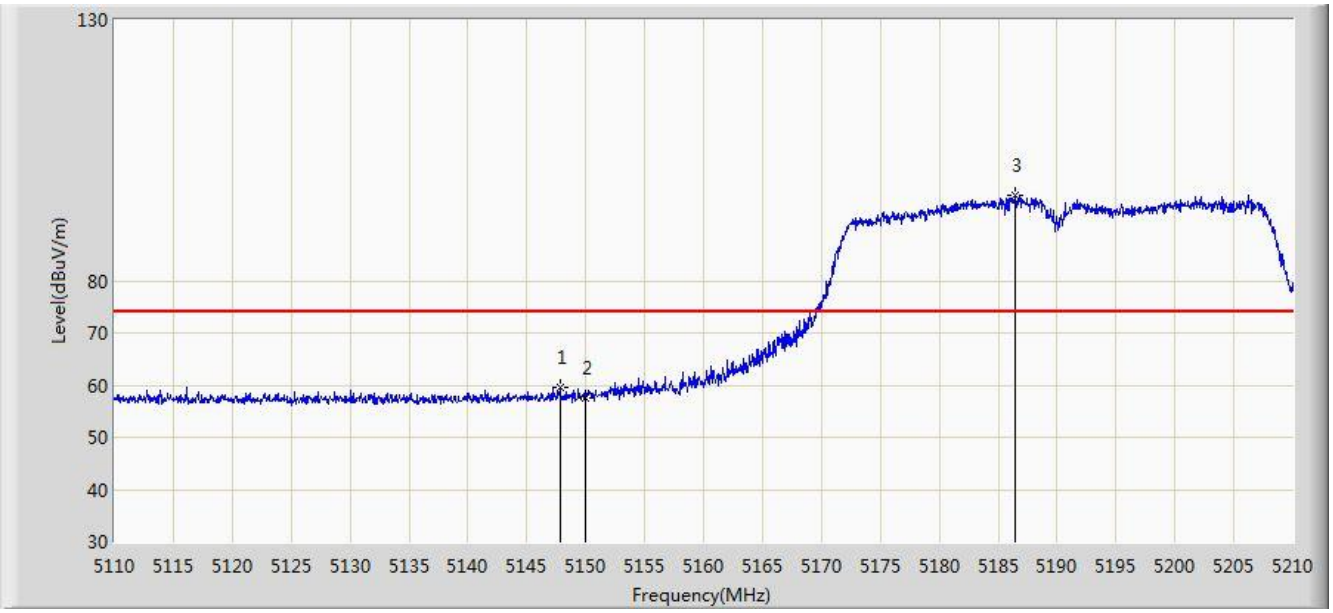


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5831.130	115.914	108.538	N/A	N/A	7.376	PK
2			5850.000	79.137	71.807	-43.063	122.200	7.331	PK
3			5850.240	80.388	73.058	-41.264	121.653	7.330	PK
4			5855.000	70.652	63.324	-40.148	110.800	7.327	PK
5			5855.895	73.005	65.677	-37.544	110.549	7.327	PK
6			5875.000	64.296	56.882	-40.904	105.200	7.414	PK
7			5877.248	64.503	57.074	-39.027	103.530	7.428	PK
8			5925.000	58.738	51.438	-9.462	68.200	7.299	PK
9			5975.625	61.670	54.312	-6.530	68.200	7.357	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: 2019/03/30 - 05:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT40 at Channel 5190MHz, Ant 1 + 2 + 3	

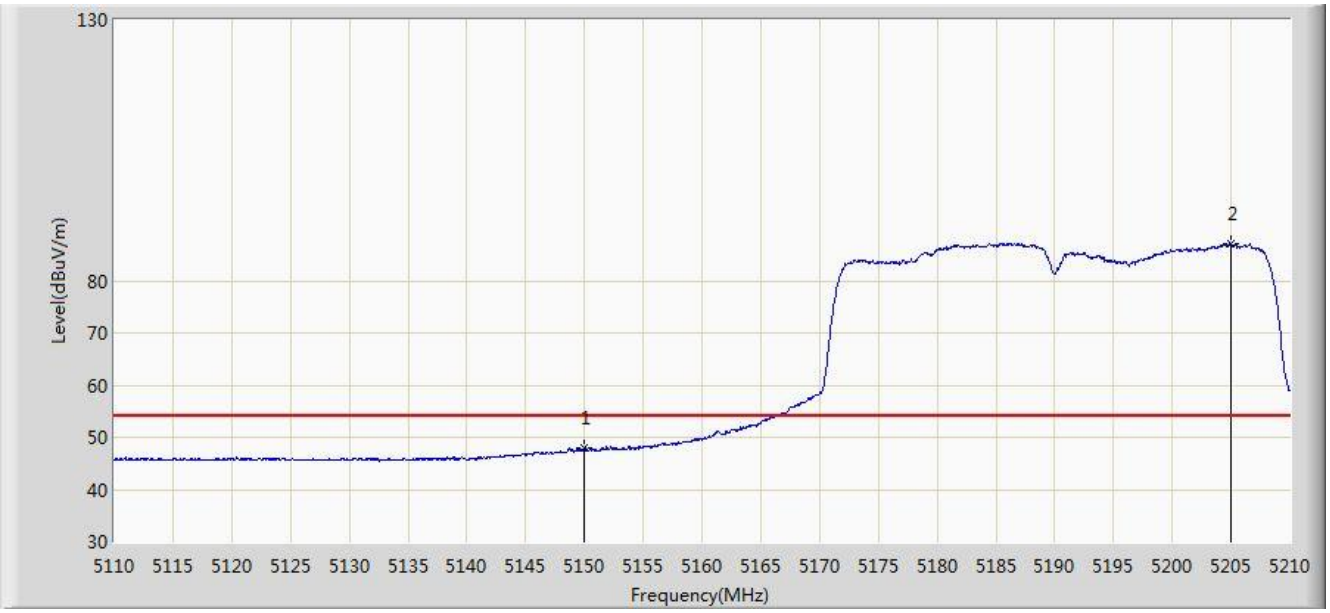


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5147.800	59.559	53.165	-14.441	74.000	6.394	PK
2			5150.000	57.452	51.055	-16.548	74.000	6.398	PK
3		*	5186.500	96.487	89.942	22.487	74.000	6.545	PK

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: 2019/03/30 - 05:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT40 at Channel 5190MHz, Ant 1 + 2 + 3	

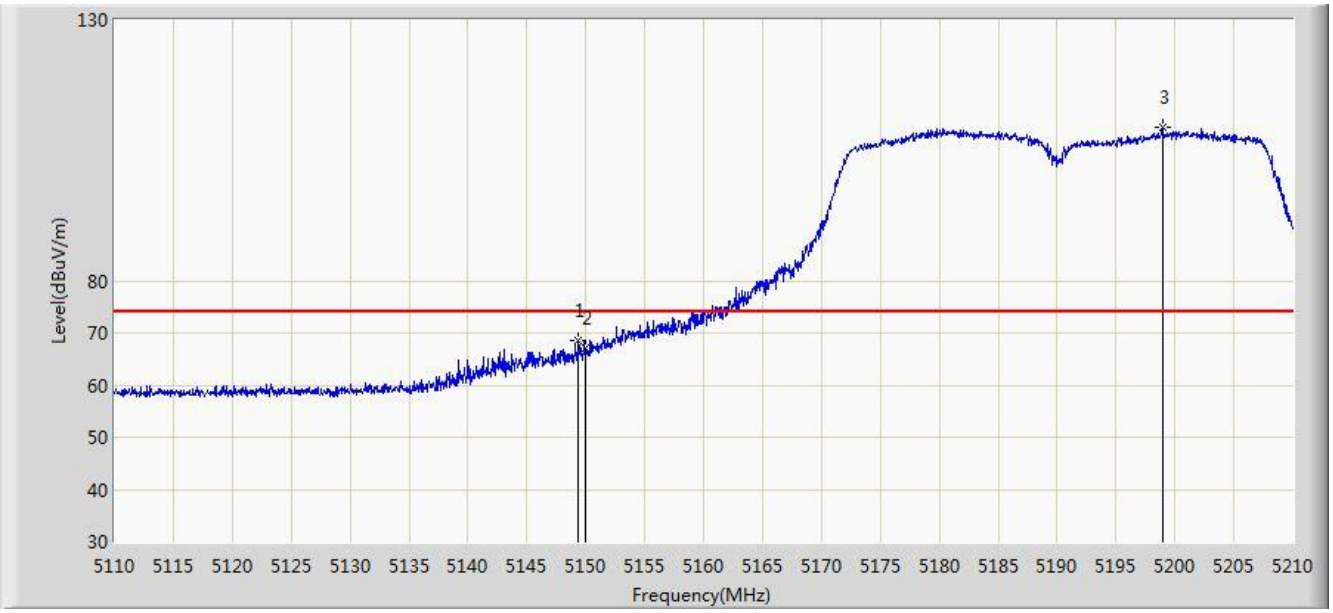


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	48.048	41.651	-5.952	54.000	6.398	AV
2		*	5204.950	87.172	80.835	33.172	54.000	6.337	AV

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: 2019/03/30 - 05:54
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT40 at Channel 5190MHz, Ant 1 + 2 + 3	

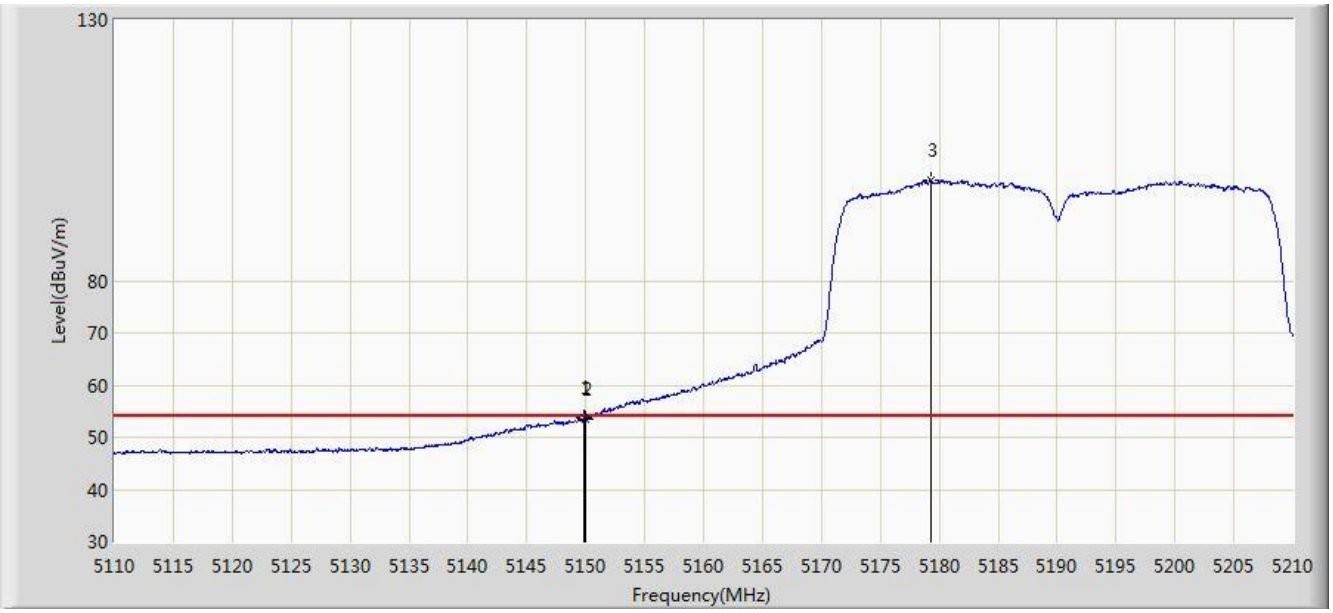


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.400	68.538	62.143	-5.462	74.000	6.396	PK
2			5150.000	66.964	60.567	-7.036	74.000	6.398	PK
3		*	5198.950	109.280	102.857	35.280	74.000	6.423	PK

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: 2019/03/30 - 05:51
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11n-HT40 at Channel 5190MHz, Ant 1 + 2 + 3	

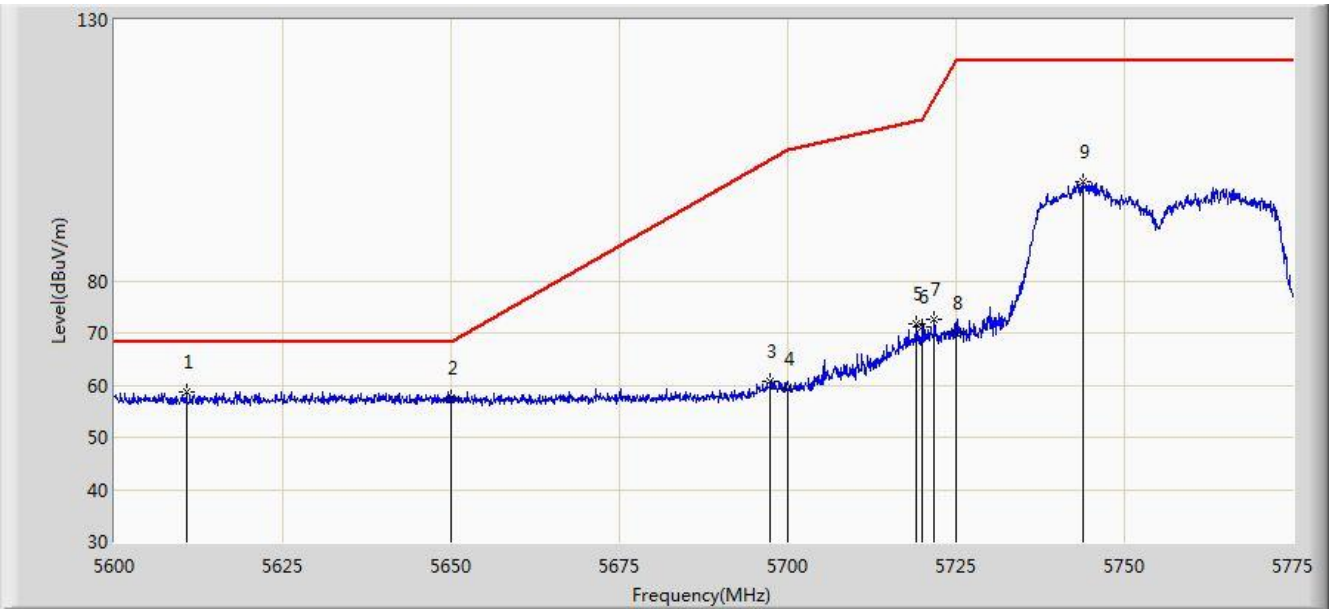


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.900	53.699	47.302	-0.301	54.000	6.397	AV
2			5150.000	53.555	47.158	-0.445	54.000	6.398	AV
3		*	5179.250	99.348	92.785	45.348	54.000	6.563	AV

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: 2019/03/30 - 04:32
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz, Ant 1 + 2 + 3	

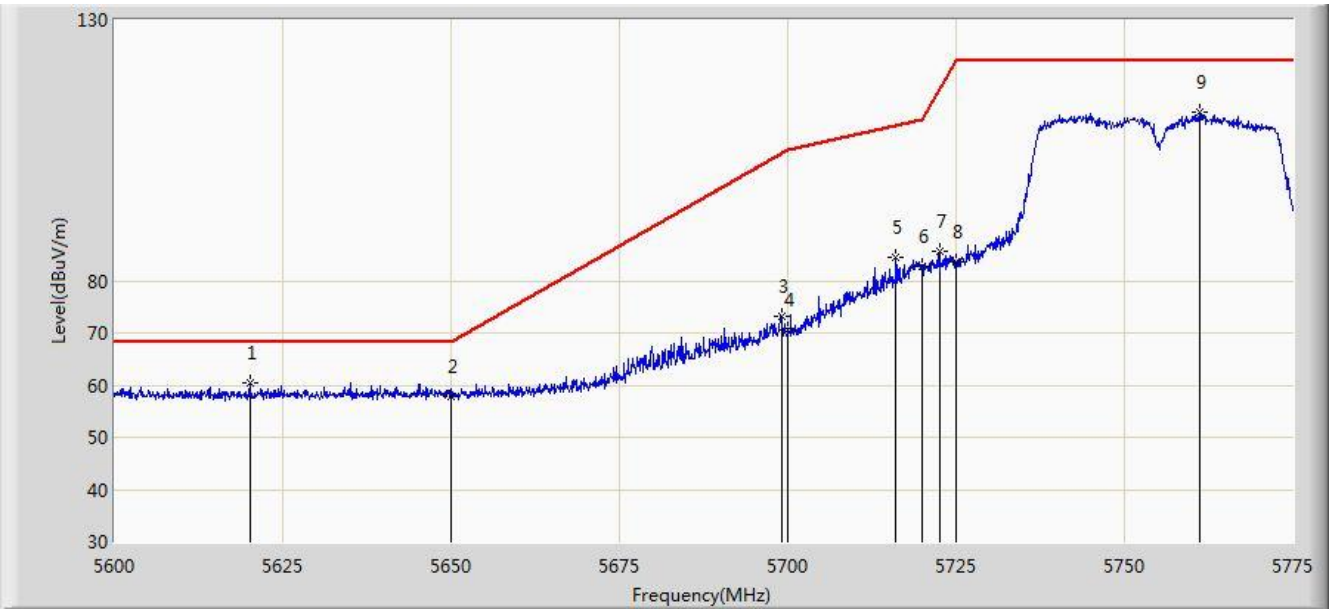


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5610.675	58.810	52.137	-9.390	68.200	6.673	PK
2			5650.000	57.603	50.810	-10.597	68.200	6.793	PK
3			5697.475	60.858	53.968	-42.482	103.339	6.890	PK
4			5700.000	59.294	52.385	-45.906	105.200	6.909	PK
5			5719.175	71.818	64.907	-38.752	110.569	6.911	PK
6			5720.000	71.021	64.117	-39.779	110.800	6.904	PK
7			5721.800	72.649	65.758	-42.256	114.905	6.891	PK
8			5725.000	70.074	63.207	-52.126	122.200	6.867	PK
9			5743.850	98.842	91.856	N/A	N/A	6.985	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: 2019/03/30 - 04:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz, Ant 1 + 2 + 3	

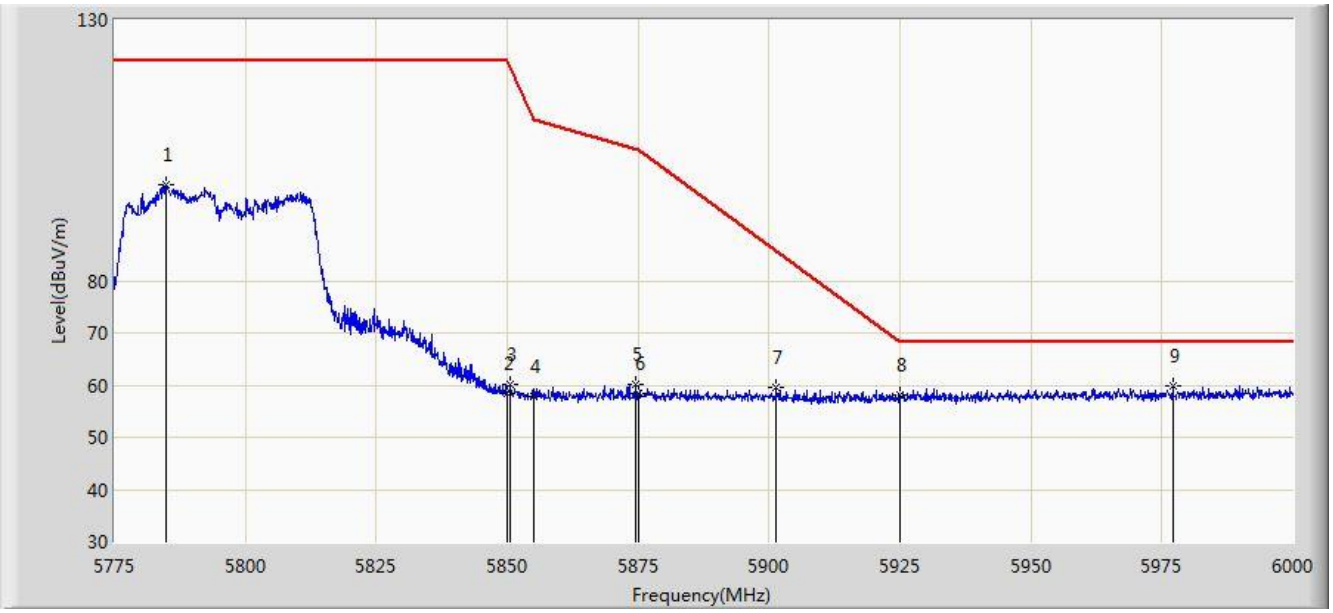


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5620.125	60.364	53.657	-7.836	68.200	6.708	PK
2			5650.000	57.919	51.126	-10.281	68.200	6.793	PK
3			5699.050	73.265	66.364	-31.235	104.500	6.901	PK
4			5700.000	70.693	63.784	-34.507	105.200	6.909	PK
5			5716.112	84.479	77.545	-25.234	109.713	6.934	PK
6			5720.000	82.701	75.797	-28.099	110.800	6.904	PK
7			5722.500	85.629	78.743	-30.872	116.501	6.885	PK
8			5725.000	83.643	76.776	-38.557	122.200	6.867	PK
9			5761.263	112.220	105.037	N/A	N/A	7.183	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: 2019/03/30 - 04:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz, Ant 1 + 2 + 3	

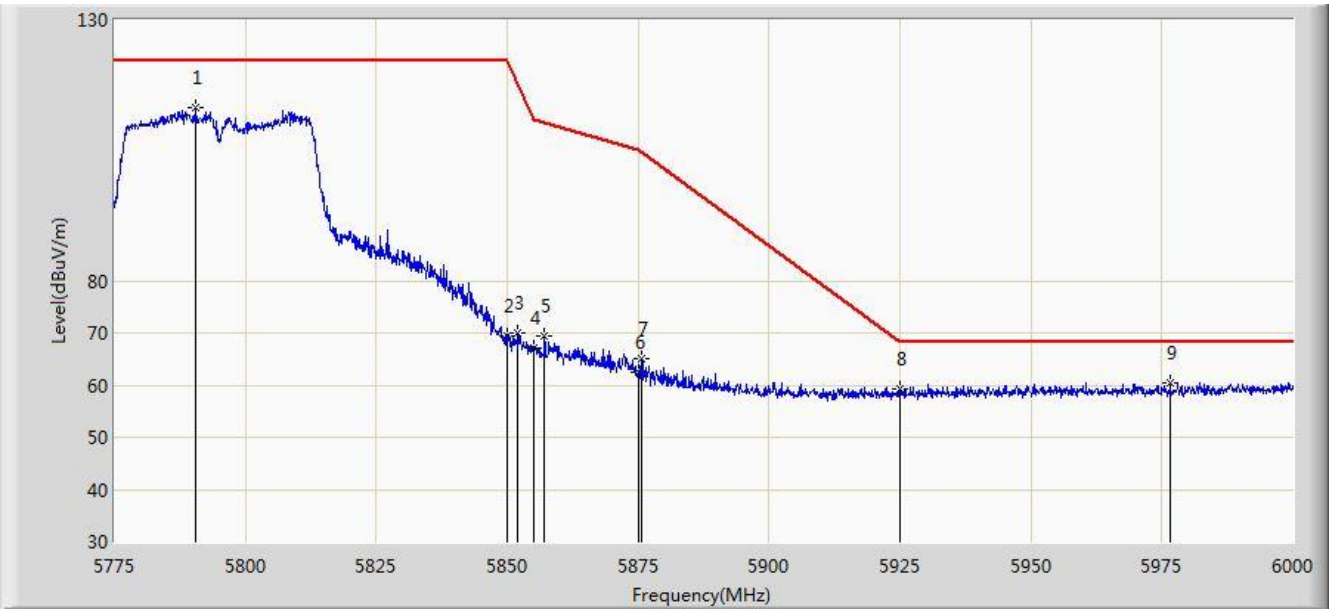


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5784.788	98.509	91.386	N/A	N/A	7.122	PK
2			5850.000	58.342	51.012	-63.858	122.200	7.331	PK
3			5850.600	60.017	52.687	-60.814	120.831	7.330	PK
4			5855.000	57.808	50.480	-52.992	110.800	7.327	PK
5			5874.450	60.012	52.602	-45.342	105.354	7.410	PK
6			5875.000	58.270	50.856	-46.930	105.200	7.414	PK
7			5901.337	59.525	52.089	-26.146	85.672	7.437	PK
8			5925.000	58.008	50.708	-10.192	68.200	7.299	PK
9		*	5977.050	59.950	52.597	-8.250	68.200	7.354	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: 2019/03/30 - 04:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz, Ant 1 + 2 + 3	

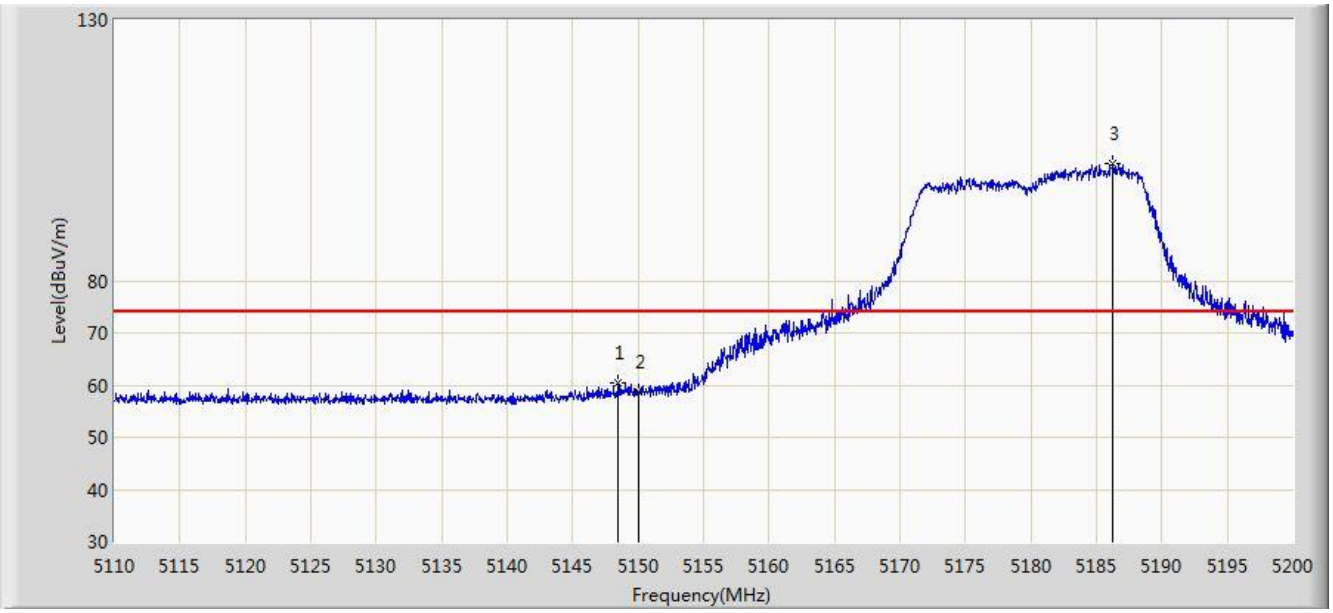


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5790.413	113.058	105.992	N/A	N/A	7.067	PK
2			5850.000	69.352	62.022	-52.848	122.200	7.331	PK
3			5851.950	69.971	62.641	-47.782	117.753	7.330	PK
4			5855.000	67.104	59.776	-43.696	110.800	7.327	PK
5			5857.125	69.507	62.180	-40.697	110.204	7.327	PK
6			5875.000	62.569	55.155	-42.631	105.200	7.414	PK
7			5875.687	65.112	57.694	-39.577	104.689	7.419	PK
8			5925.000	59.171	51.871	-9.029	68.200	7.299	PK
9		*	5976.600	60.518	53.163	-7.682	68.200	7.354	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: 2019/03/30 - 06:12
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT20 at Channel 5180MHz, Ant 1 + 2 + 3	

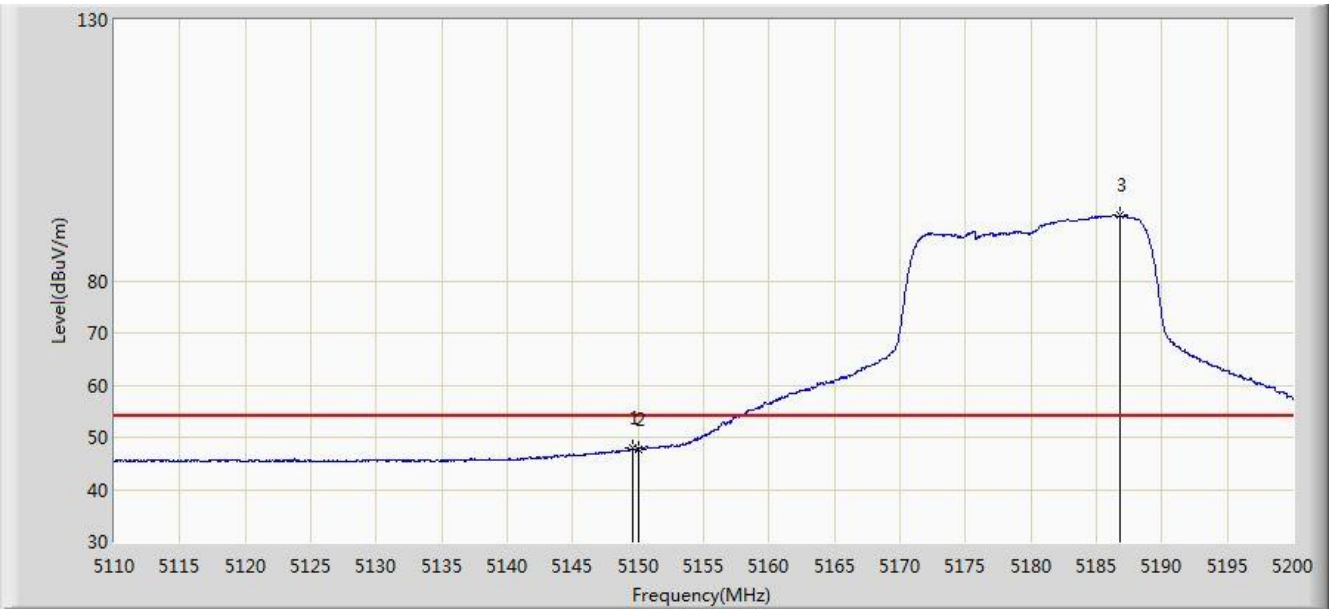


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.475	60.349	53.957	-13.651	74.000	6.392	PK
2			5150.000	58.756	52.359	-15.244	74.000	6.398	PK
3		*	5186.230	102.375	95.828	28.375	74.000	6.547	PK

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: 2019/03/30 - 06:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT20 at Channel 5180MHz, Ant 1 + 2 + 3	

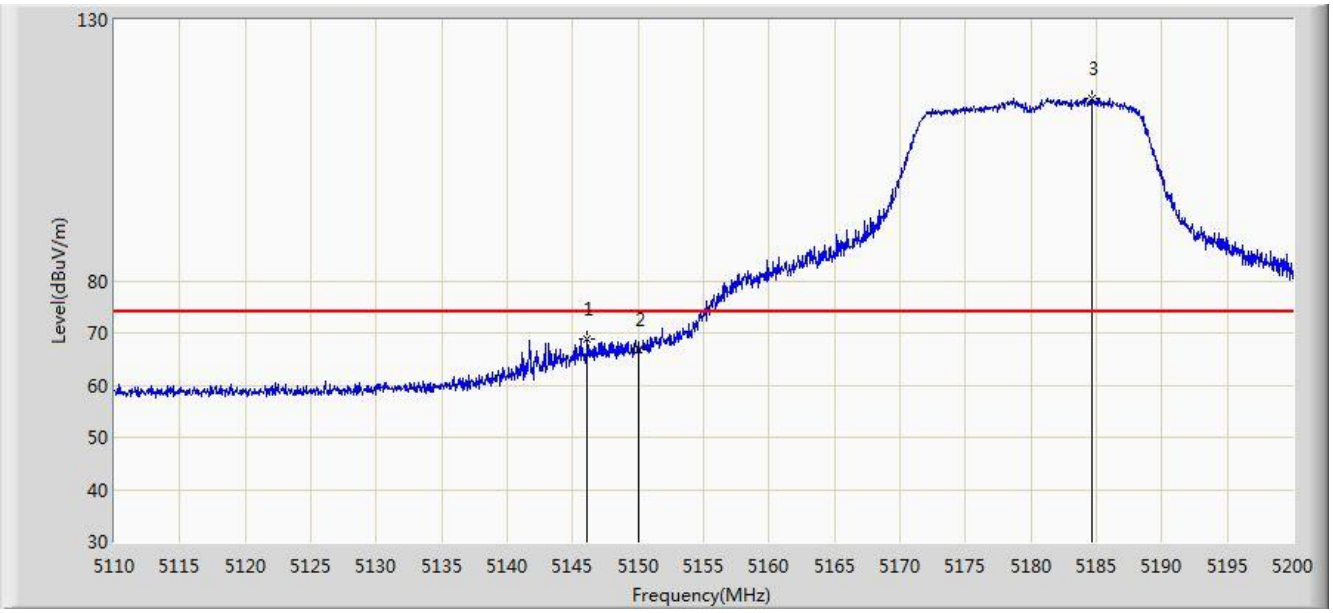


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.555	47.847	41.451	-6.153	54.000	6.396	AV
2			5150.000	47.654	41.257	-6.346	54.000	6.398	AV
3		*	5186.815	92.563	86.022	38.563	54.000	6.542	AV

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: 2019/03/30 - 06:10
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT20 at Channel 5180MHz, Ant 1 + 2 + 3	

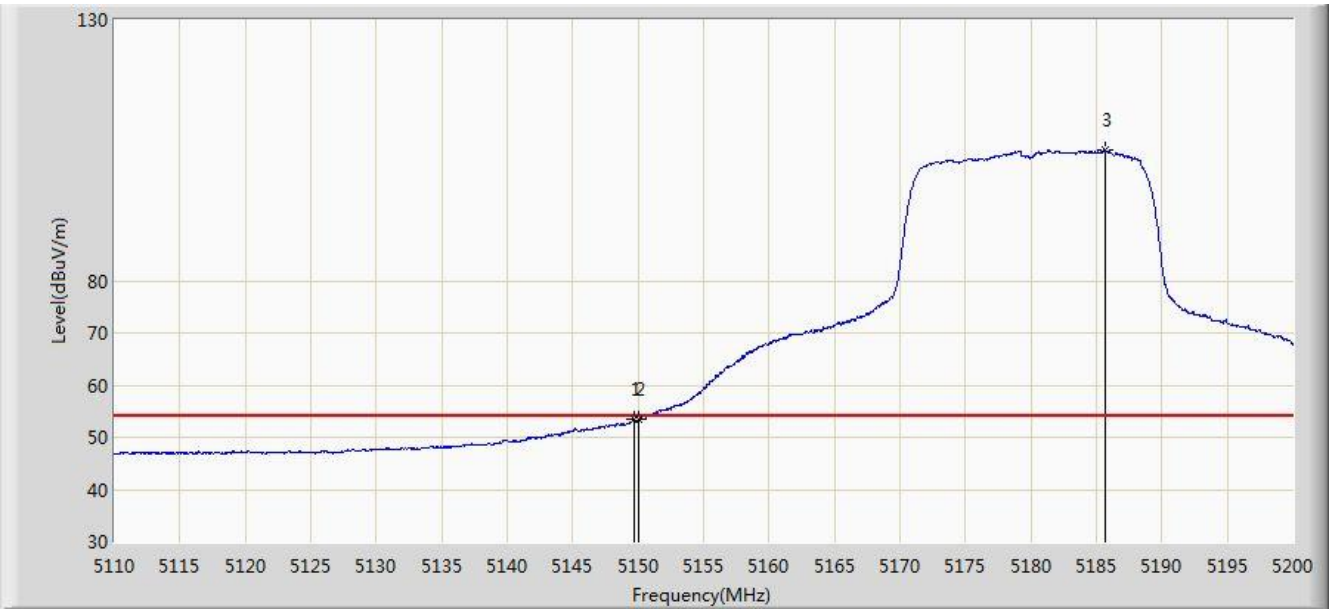


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5146.135	68.738	62.319	-5.262	74.000	6.418	PK
2			5150.000	66.782	60.385	-7.218	74.000	6.398	PK
3		*	5184.610	115.010	108.447	41.010	74.000	6.563	PK

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: 2019/03/30 - 06:07
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT20 at Channel 5180MHz, Ant 1 + 2 + 3	

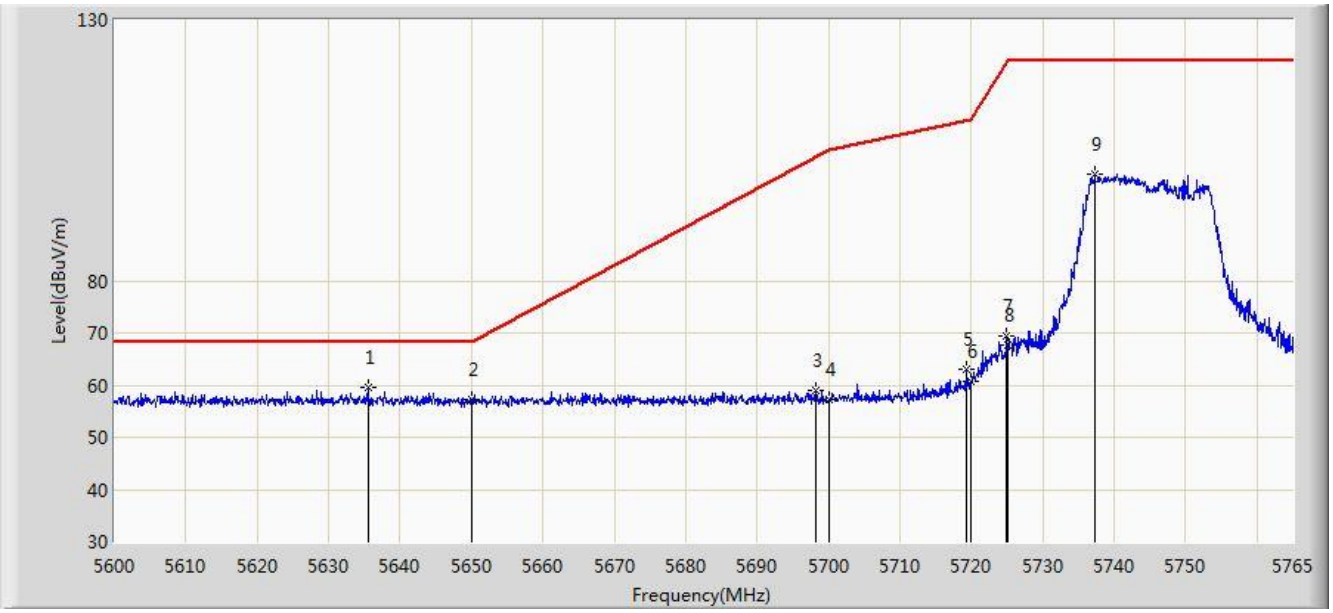


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.735	53.459	47.063	-0.541	54.000	6.396	AV
2			5150.000	53.372	46.975	-0.628	54.000	6.398	AV
3		*	5185.645	105.020	98.467	51.020	54.000	6.554	AV

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: 2019/03/30 - 04:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz, Ant 1 + 2 + 3	

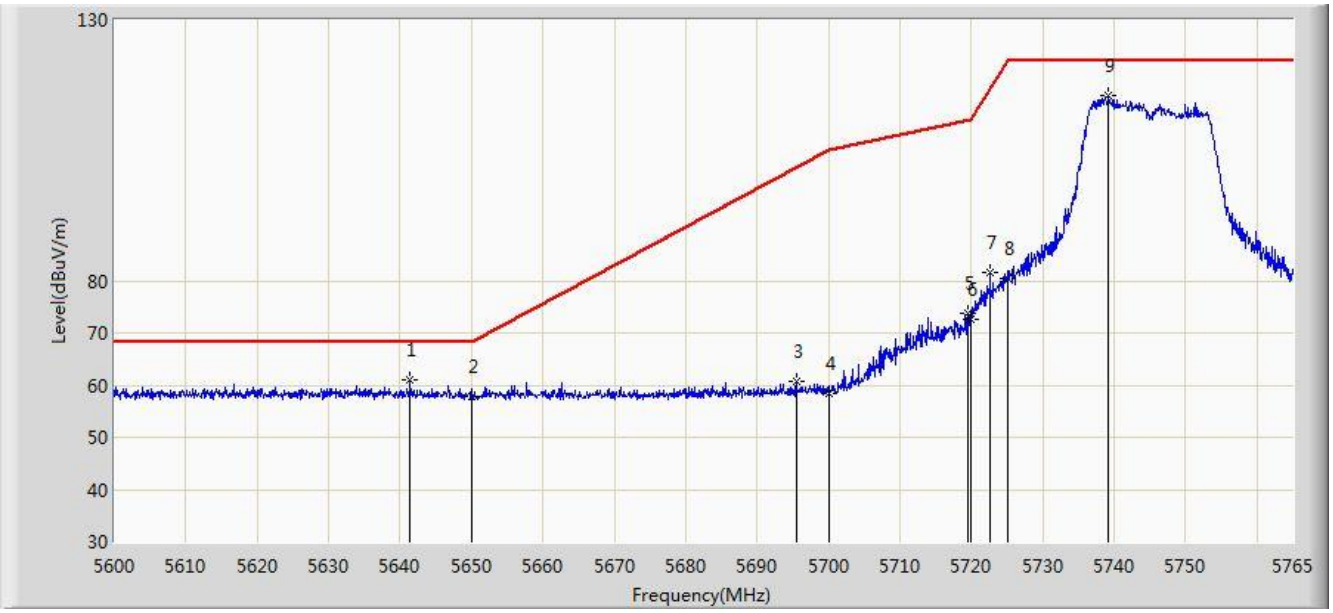


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5635.475	59.646	52.850	-8.554	68.200	6.796	PK
2			5650.000	57.104	50.311	-11.096	68.200	6.793	PK
3			5698.175	58.866	51.971	-44.989	103.855	6.895	PK
4			5700.000	57.176	50.267	-48.024	105.200	6.909	PK
5			5719.377	62.938	56.029	-47.688	110.626	6.909	PK
6			5720.000	60.581	53.677	-50.219	110.800	6.904	PK
7			5724.905	69.331	62.463	-52.653	121.983	6.869	PK
8			5725.000	67.780	60.913	-54.420	122.200	6.867	PK
9			5737.280	100.567	93.629	N/A	N/A	6.938	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: 2019/03/30 - 04:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz, Ant 1 + 2 + 3	

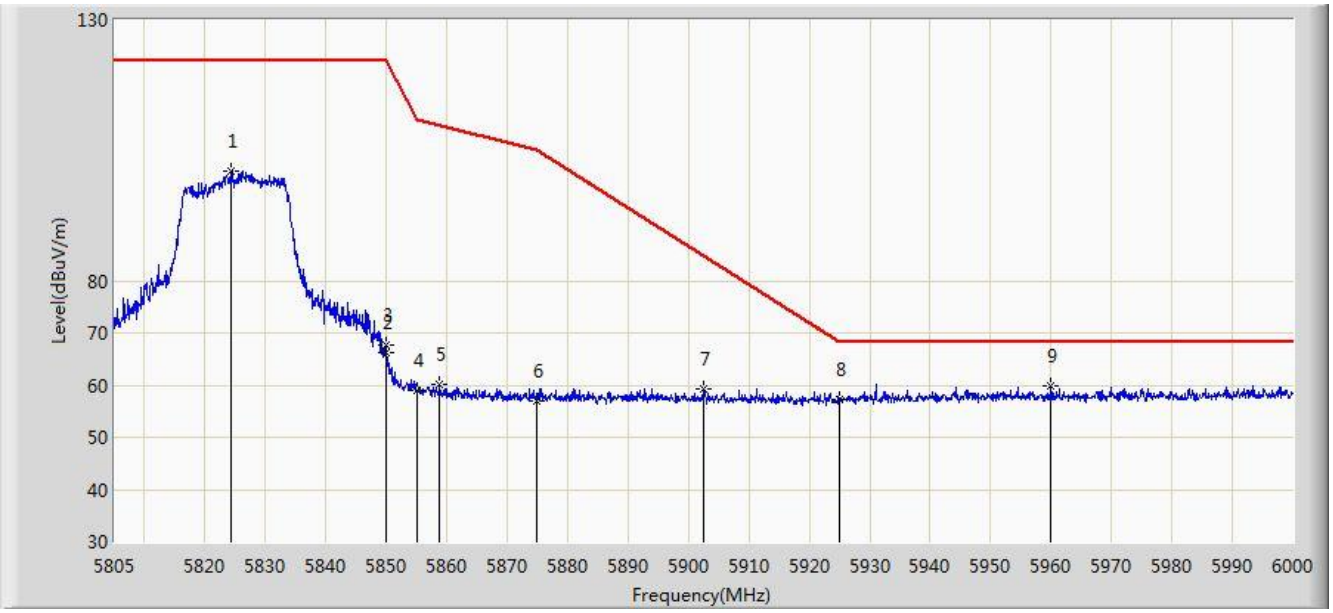


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5641.415	60.891	54.061	-7.309	68.200	6.830	PK
2			5650.000	57.749	50.956	-10.451	68.200	6.793	PK
3			5695.453	60.626	53.752	-41.222	101.849	6.874	PK
4			5700.000	58.440	51.531	-46.760	105.200	6.909	PK
5			5719.460	73.752	66.843	-36.898	110.649	6.909	PK
6			5720.000	72.675	65.771	-38.125	110.800	6.904	PK
7			5722.595	81.501	74.616	-35.217	116.718	6.885	PK
8			5725.000	80.369	73.502	-41.831	122.200	6.867	PK
9		*	5739.178	115.480	108.530	N/A	N/A	6.950	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: 2019/03/30 - 04:48
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz, Ant 1 + 2 + 3	

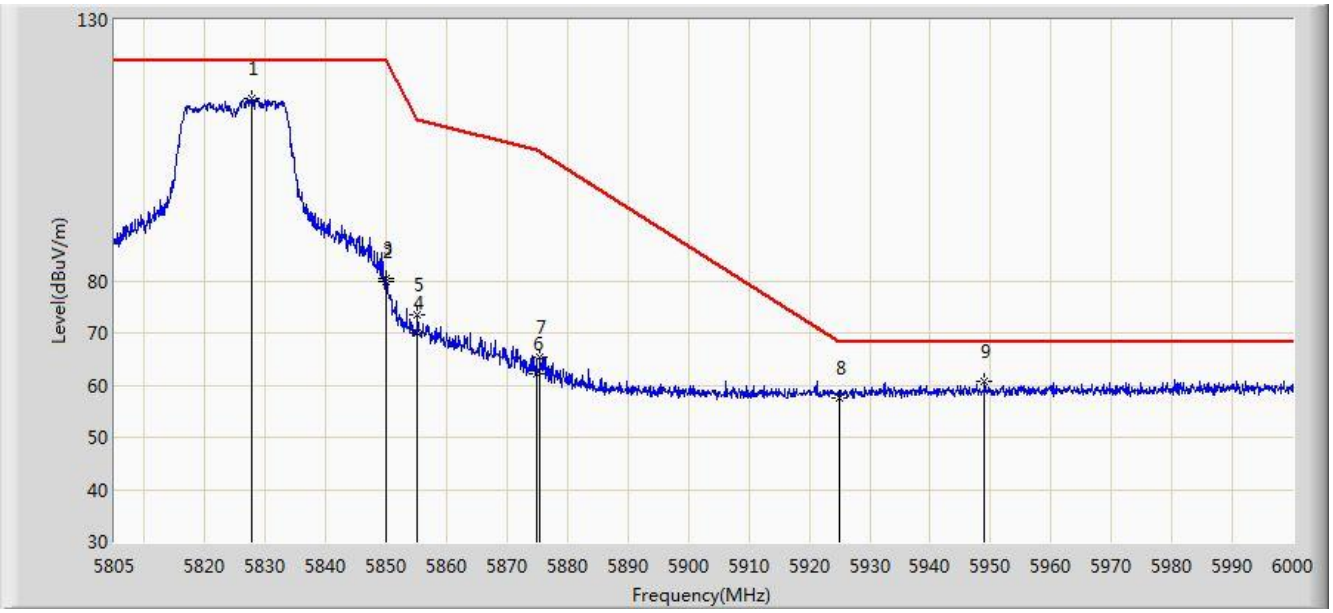


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5824.305	101.066	93.736	N/A	N/A	7.331	PK
2			5850.000	66.191	58.861	-56.009	122.200	7.331	PK
3			5850.045	67.753	60.423	-54.344	122.097	7.331	PK
4			5855.000	58.844	51.516	-51.956	110.800	7.327	PK
5			5858.820	60.157	52.831	-49.572	109.729	7.326	PK
6			5875.000	57.027	49.613	-48.173	105.200	7.414	PK
7			5902.598	59.299	51.879	-25.439	84.739	7.420	PK
8			5925.000	57.328	50.028	-10.872	68.200	7.299	PK
9		*	5960.025	59.780	52.363	-8.420	68.200	7.417	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: 2019/03/30 - 04:51
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz, Ant 1 + 2 + 3	

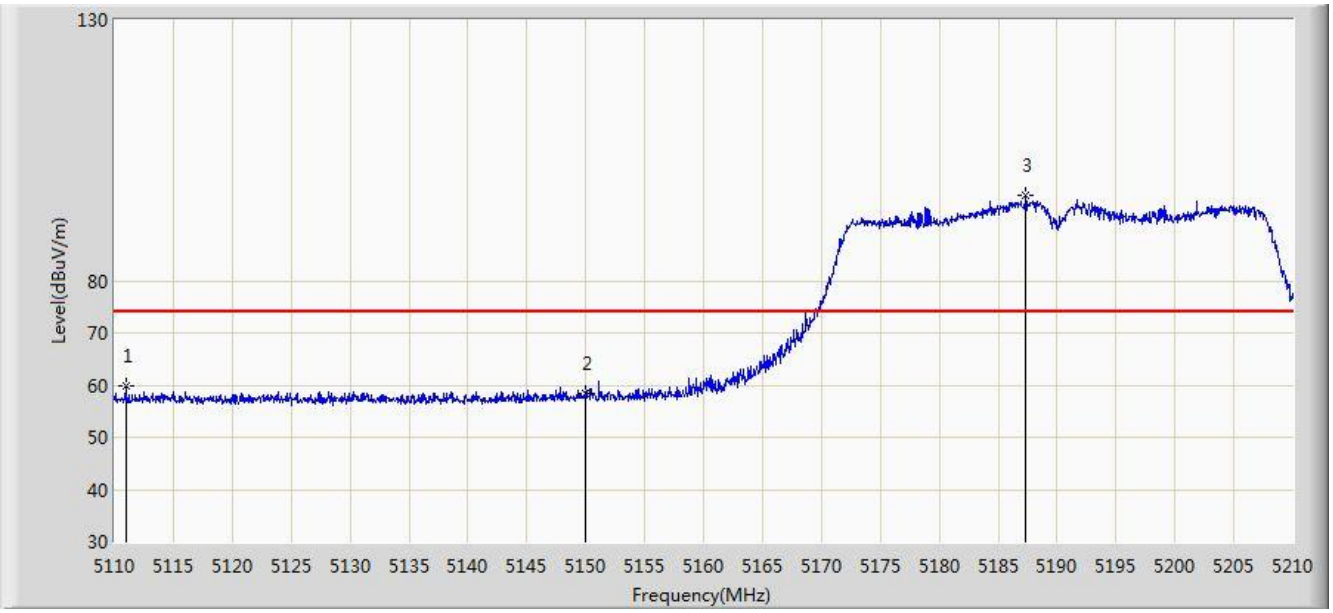


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5827.717	114.990	107.609	N/A	N/A	7.381	PK
2			5850.000	79.949	72.619	-42.251	122.200	7.331	PK
3			5850.045	80.549	73.219	-41.548	122.097	7.331	PK
4			5855.000	69.951	62.623	-40.849	110.800	7.327	PK
5			5855.212	73.338	66.010	-37.403	110.741	7.328	PK
6			5875.000	62.150	54.736	-43.050	105.200	7.414	PK
7			5875.493	65.438	58.021	-39.396	104.834	7.418	PK
8			5925.000	57.671	50.371	-10.529	68.200	7.299	PK
9			5948.910	60.821	53.331	-7.379	68.200	7.490	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: 2019/03/30 - 06:30
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT40 at Channel 5190MHz, Ant 1 + 2 + 3	

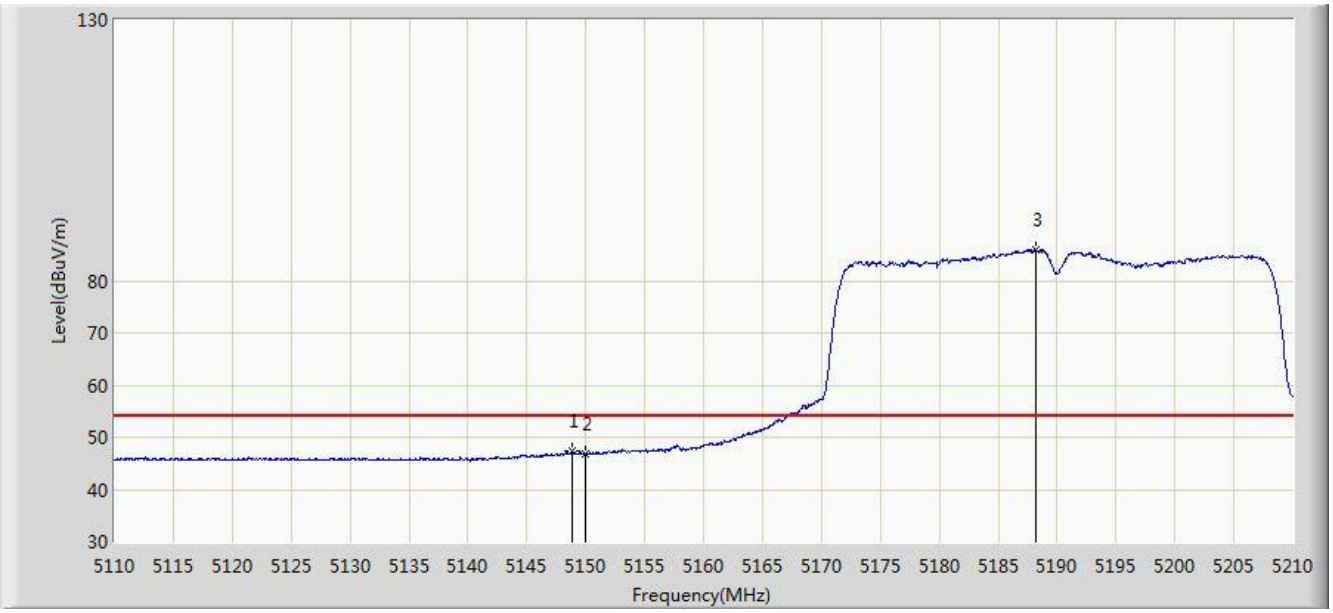


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5110.950	59.878	53.425	-14.122	74.000	6.453	PK
2			5150.000	58.296	51.899	-15.704	74.000	6.398	PK
3		*	5187.350	96.508	89.972	22.508	74.000	6.536	PK

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: 2019/03/30 - 06:31
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT40 at Channel 5190MHz, Ant 1 + 2 + 3	

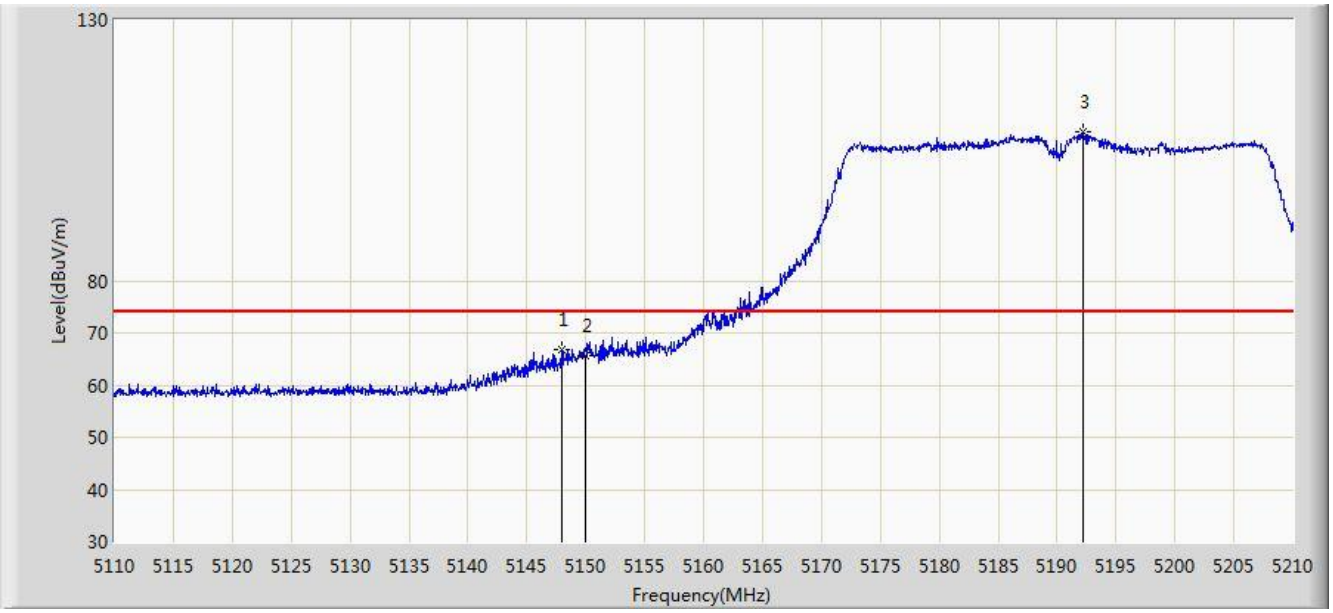


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.800	47.248	40.855	-6.752	54.000	6.394	AV
2			5150.000	46.861	40.464	-7.139	54.000	6.398	AV
3		*	5188.150	85.939	79.411	31.939	54.000	6.528	AV

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: 2019/03/30 - 06:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT40 at Channel 5190MHz, Ant 1 + 2 + 3	

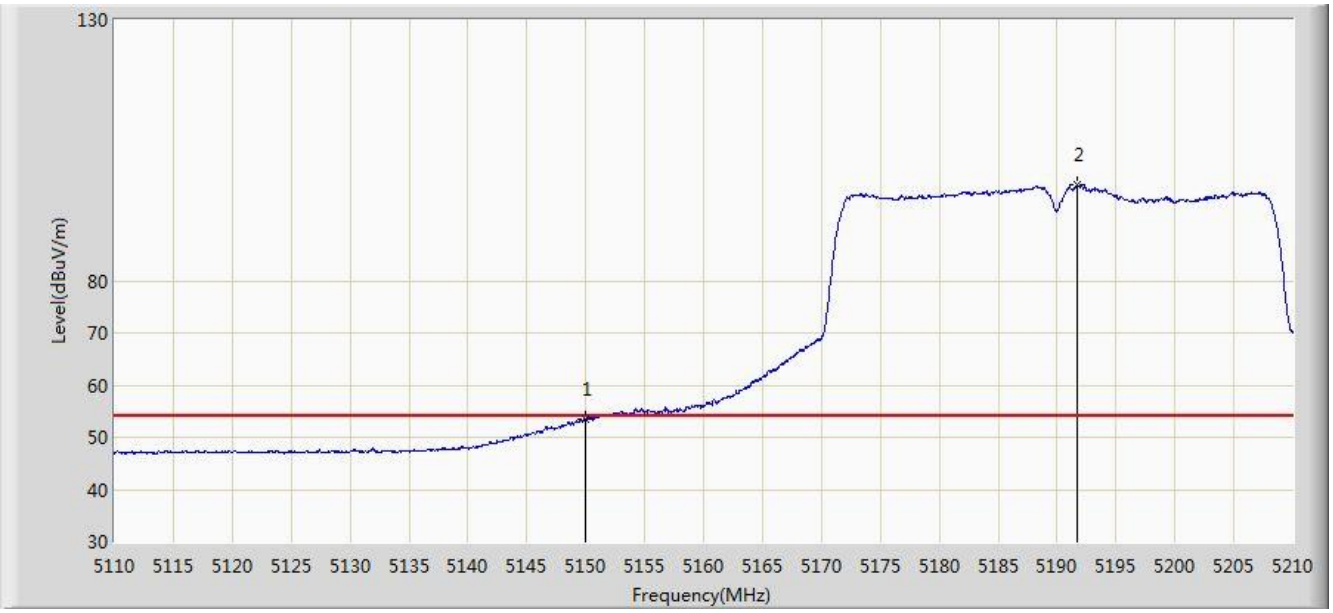


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5147.950	66.775	60.383	-7.225	74.000	6.391	PK
2			5150.000	65.553	59.156	-8.447	74.000	6.398	PK
3		*	5192.250	108.544	102.056	34.544	74.000	6.488	PK

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: 2019/03/30 - 06:24
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT40 at Channel 5190MHz, Ant 1 + 2 + 3	

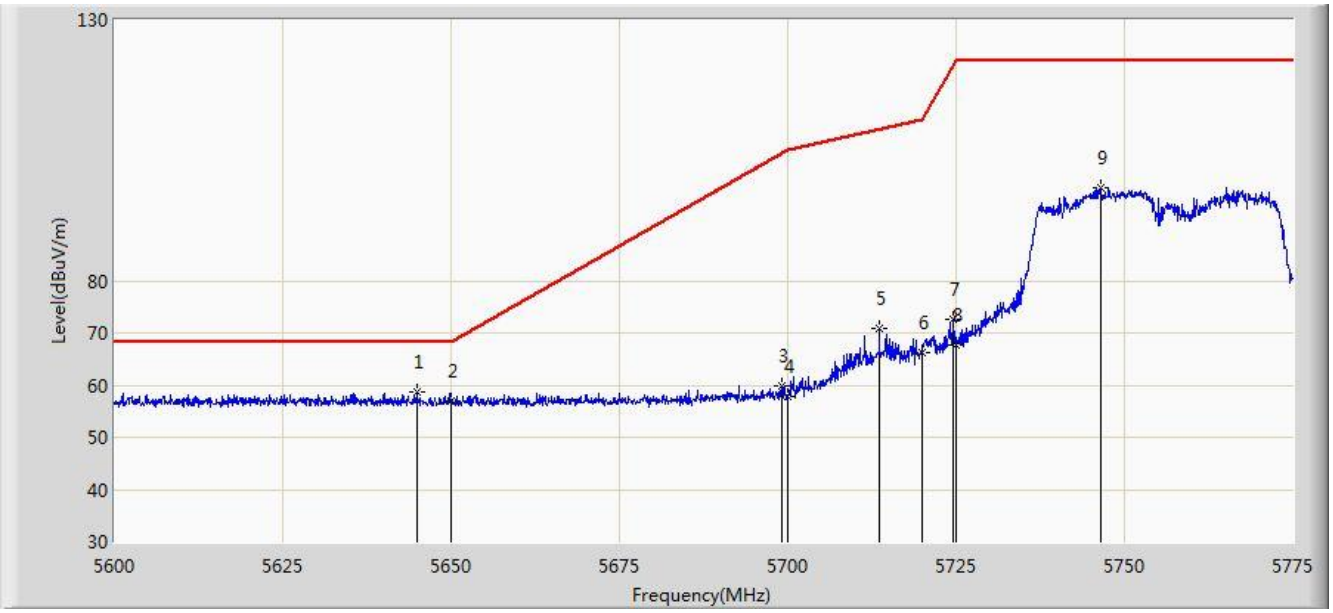


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	53.432	47.035	-0.568	54.000	6.398	AV
2		*	5191.700	98.347	91.854	44.347	54.000	6.493	AV

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: 2019/03/30 - 04:54
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz, Ant 1 + 2 + 3	

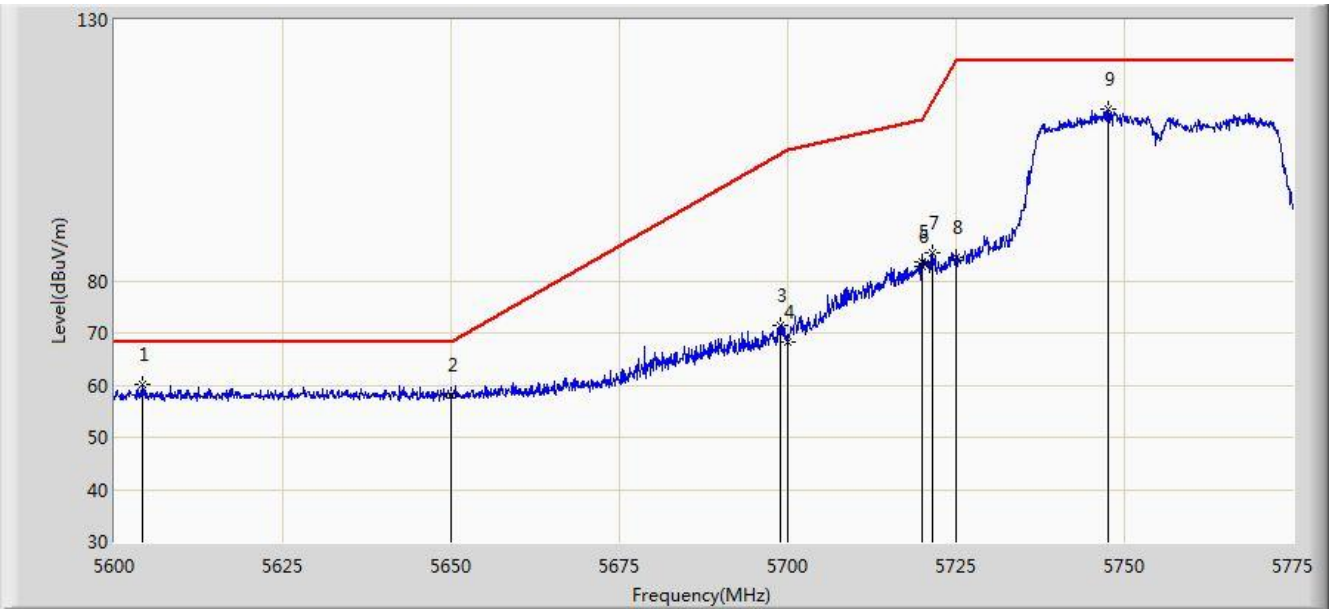


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5644.975	58.648	51.833	-9.552	68.200	6.815	PK
2			5650.000	56.906	50.113	-11.294	68.200	6.793	PK
3			5699.050	59.919	53.018	-44.581	104.500	6.901	PK
4			5700.000	57.967	51.058	-47.233	105.200	6.909	PK
5			5713.575	71.000	64.047	-38.003	109.003	6.952	PK
6			5720.000	66.362	59.458	-44.438	110.800	6.904	PK
7			5724.600	72.668	65.798	-48.620	121.288	6.869	PK
8			5725.000	67.814	60.947	-54.386	122.200	6.867	PK
9			5746.475	97.696	90.678	N/A	N/A	7.018	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: 2019/03/30 - 04:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz, Ant 1 + 2 + 3	

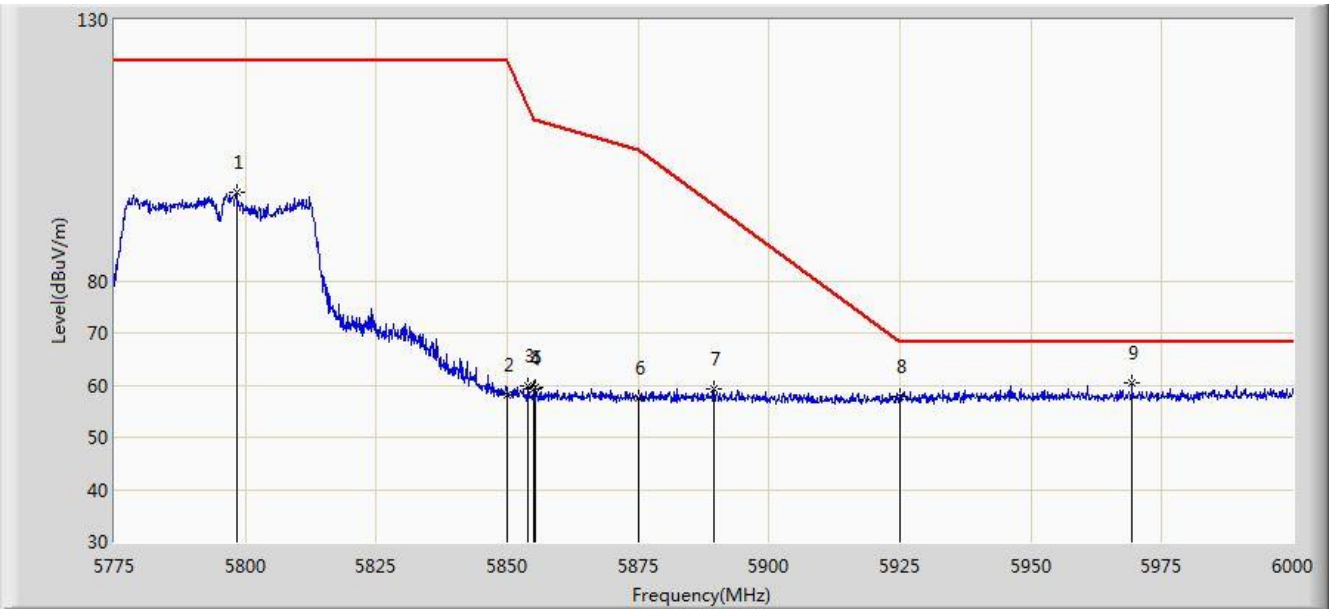


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5604.200	60.030	53.363	-8.170	68.200	6.668	PK
2			5650.000	58.199	51.406	-10.001	68.200	6.793	PK
3			5698.962	71.503	64.602	-32.932	104.435	6.900	PK
4			5700.000	68.403	61.494	-36.797	105.200	6.909	PK
5			5719.962	83.523	76.618	-27.267	110.789	6.905	PK
6			5720.000	82.856	75.952	-27.944	110.800	6.904	PK
7			5721.450	85.424	78.530	-28.683	114.107	6.893	PK
8			5725.000	84.595	77.728	-37.605	122.200	6.867	PK
9			5747.525	112.891	105.860	N/A	N/A	7.031	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: 2019/03/30 - 04:59
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz, Ant 1 + 2 + 3	

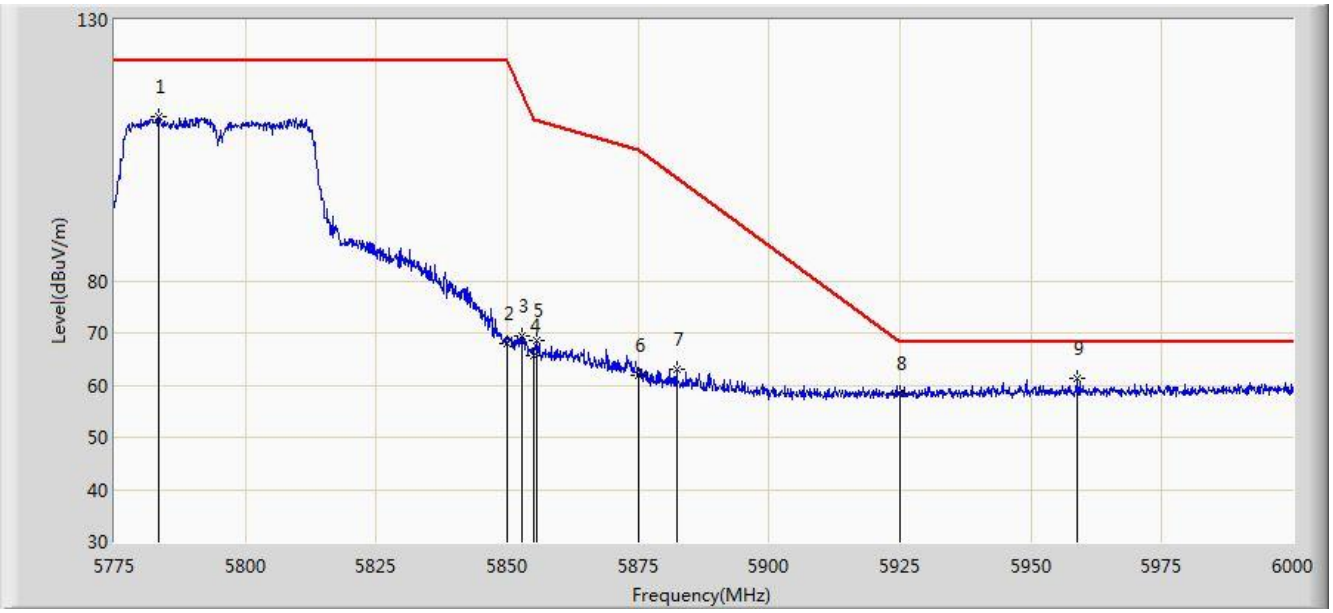


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5798.400	96.909	89.852	N/A	N/A	7.056	PK
2			5850.000	58.009	50.679	-64.191	122.200	7.331	PK
3			5854.087	59.889	52.561	-52.991	112.881	7.328	PK
4			5855.000	59.156	51.828	-51.644	110.800	7.327	PK
5			5855.325	59.664	52.336	-51.045	110.709	7.328	PK
6			5875.000	57.426	50.012	-47.774	105.200	7.414	PK
7			5889.413	59.199	51.722	-35.303	94.502	7.477	PK
8			5925.000	57.971	50.671	-10.229	68.200	7.299	PK
9		*	5969.288	60.478	53.102	-7.722	68.200	7.376	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: 2019/03/30 - 05:01
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz, Ant 1 + 2 + 3	

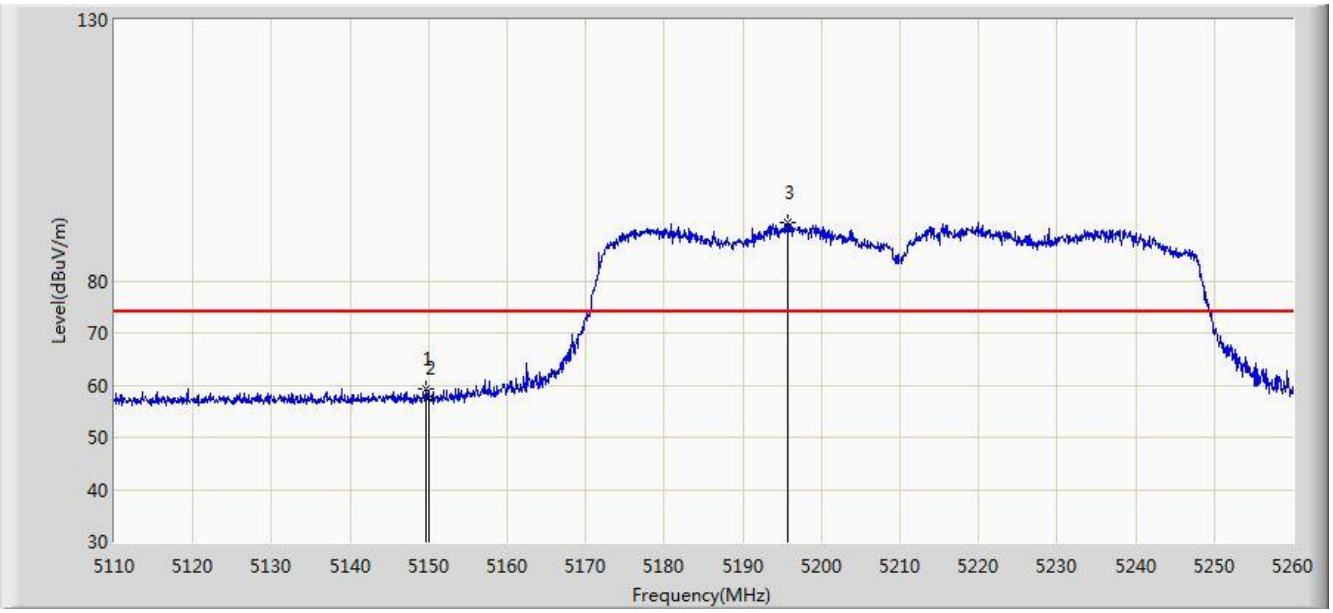


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5783.325	111.323	104.185	N/A	N/A	7.138	PK
2			5850.000	67.830	60.500	-54.370	122.200	7.331	PK
3			5852.850	69.284	61.955	-46.417	115.701	7.330	PK
4			5855.000	65.598	58.270	-45.202	110.800	7.327	PK
5			5855.550	68.462	61.134	-42.184	110.646	7.328	PK
6			5875.000	61.808	54.394	-43.392	105.200	7.414	PK
7			5882.325	62.903	55.451	-36.856	99.760	7.452	PK
8			5925.000	58.379	51.079	-9.821	68.200	7.299	PK
9		*	5958.712	61.177	53.752	-7.023	68.200	7.425	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: 2019/03/30 - 06:45
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT80 at Channel 5210MHz, Ant 1 + 2 + 3	

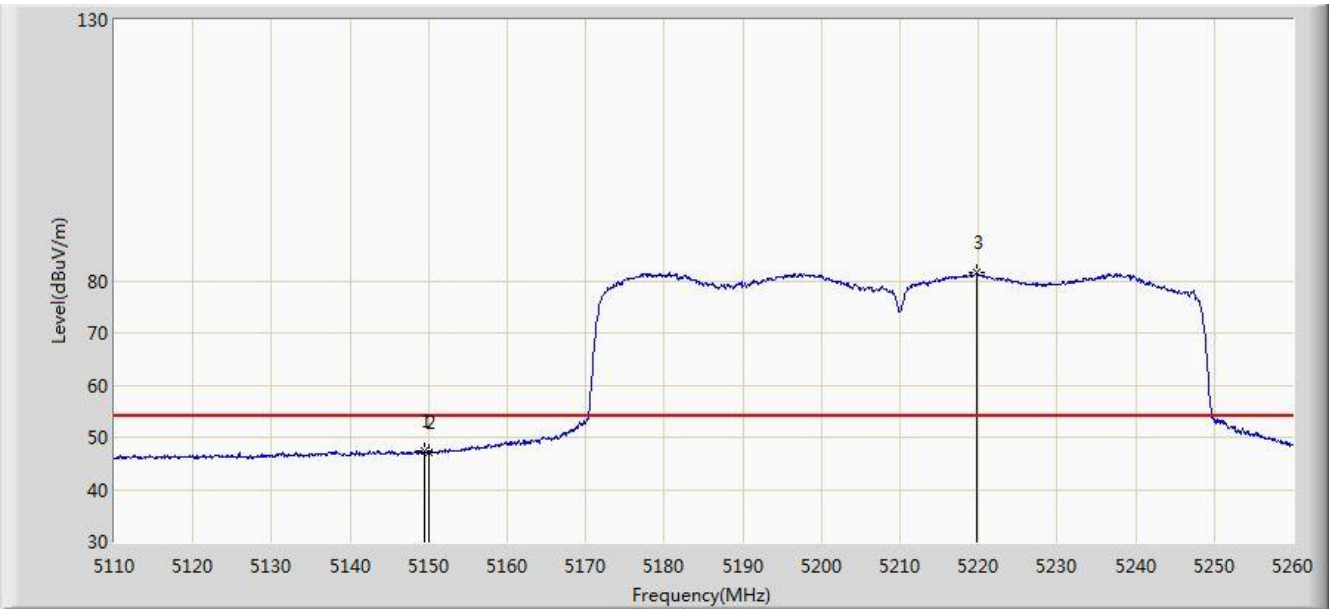


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.750	59.294	52.898	-14.706	74.000	6.396	PK
2			5150.000	57.557	51.160	-16.443	74.000	6.398	PK
3		*	5195.650	91.195	84.740	17.195	74.000	6.455	PK

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: 2019/03/30 - 06:47
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT80 at Channel 5210MHz, Ant 1 + 2 + 3	

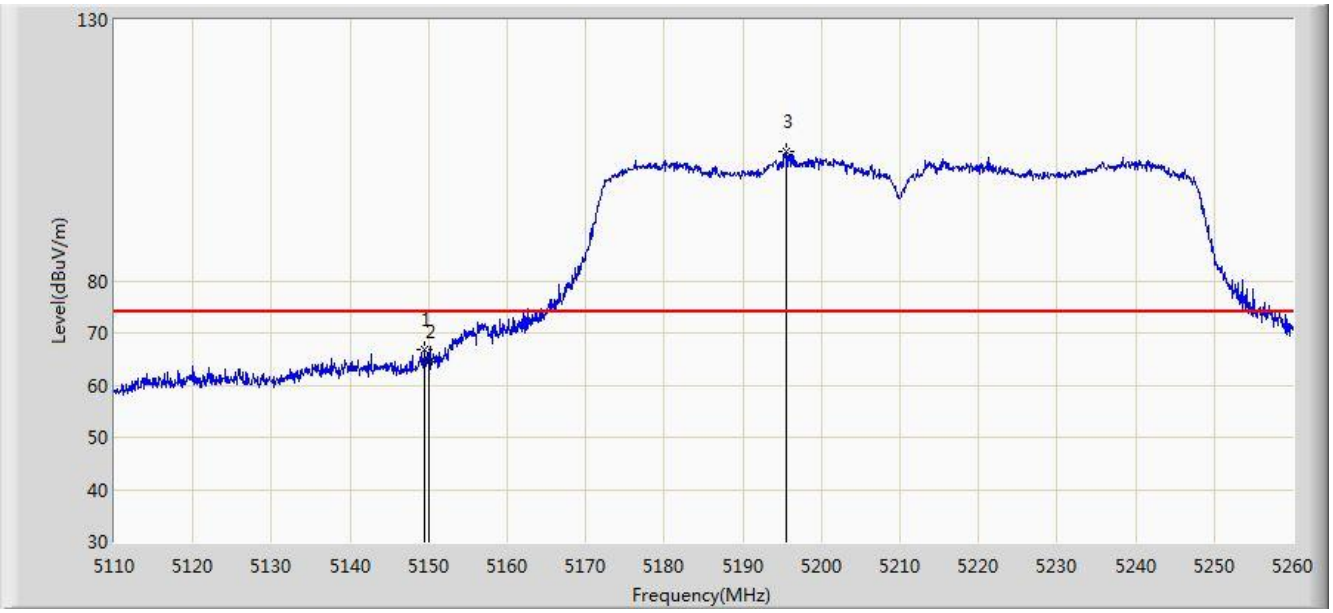


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.450	47.384	40.989	-6.616	54.000	6.396	AV
2			5150.000	47.073	40.676	-6.927	54.000	6.398	AV
3		*	5219.725	81.564	75.347	27.564	54.000	6.217	AV

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: 2019/03/30 - 06:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT80 at Channel 5210MHz, Ant 1 + 2 + 3	

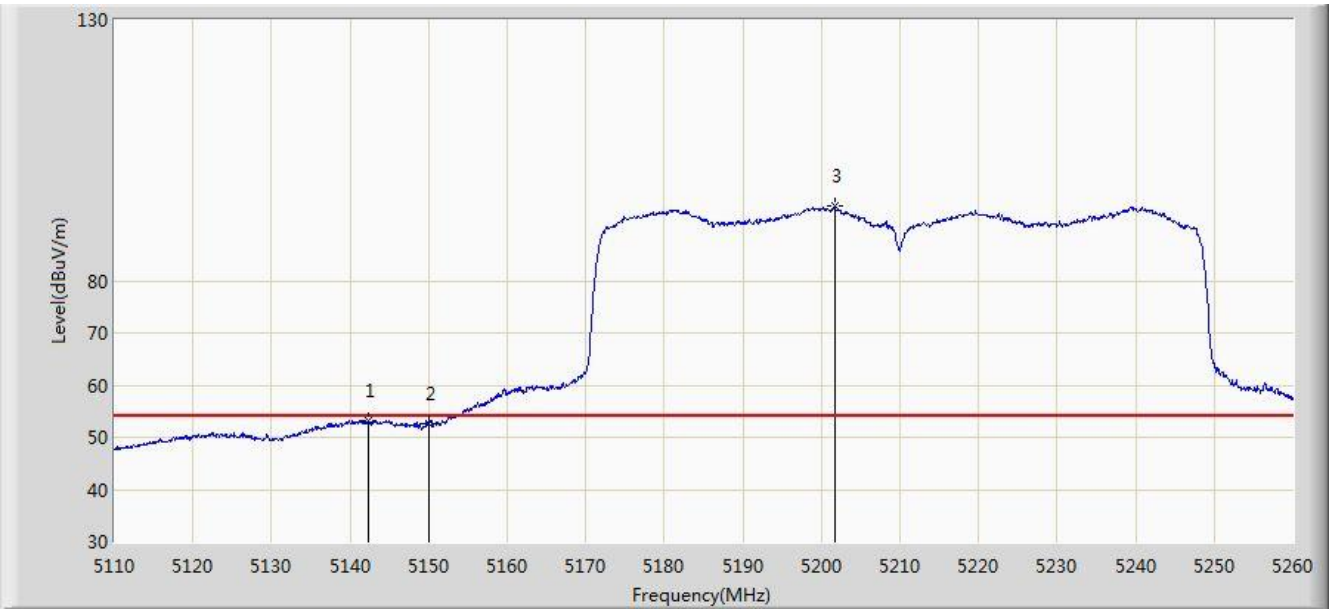


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.450	66.850	60.455	-7.150	74.000	6.396	PK
2			5150.000	64.442	58.045	-9.558	74.000	6.398	PK
3		*	5195.500	104.816	98.359	30.816	74.000	6.457	PK

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: 2019/03/30 - 06:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Note: Transmit by 802.11ac-VHT80 at Channel 5210MHz, Ant 1 + 2 + 3	

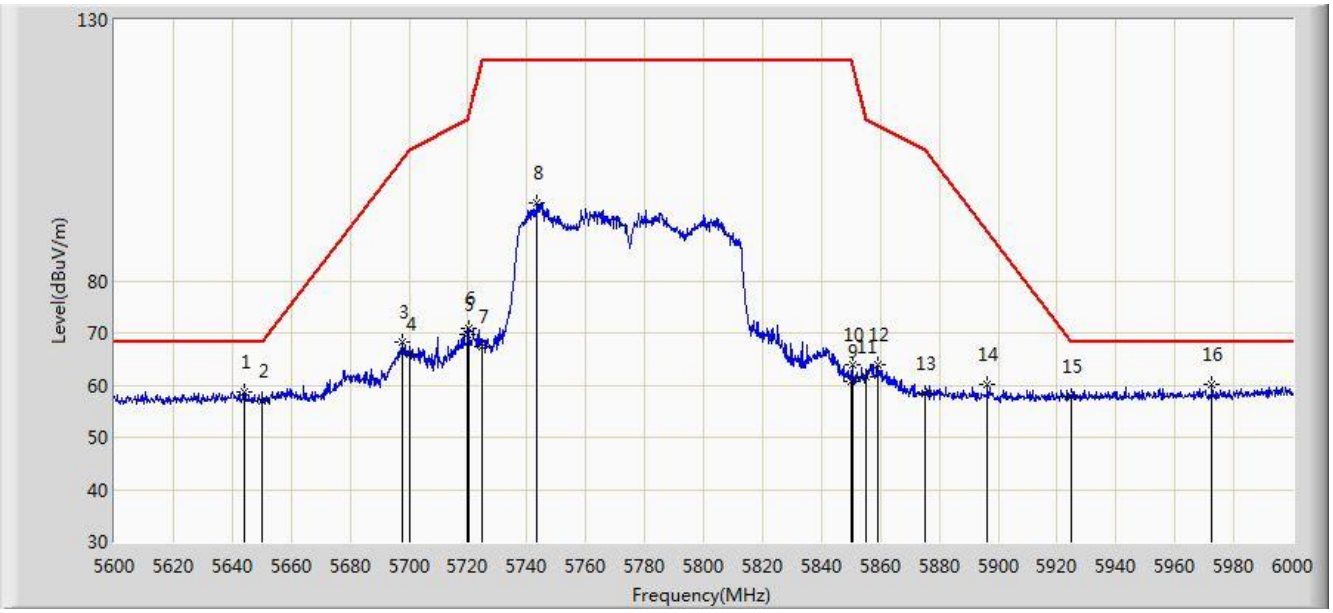


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5142.250	53.269	46.792	-0.731	54.000	6.478	AV
2			5150.000	52.487	46.090	-1.513	54.000	6.398	AV
3		*	5201.650	94.304	87.920	40.304	54.000	6.384	AV

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: 2019/03/30 - 05:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz, Ant 1 + 2 + 3	

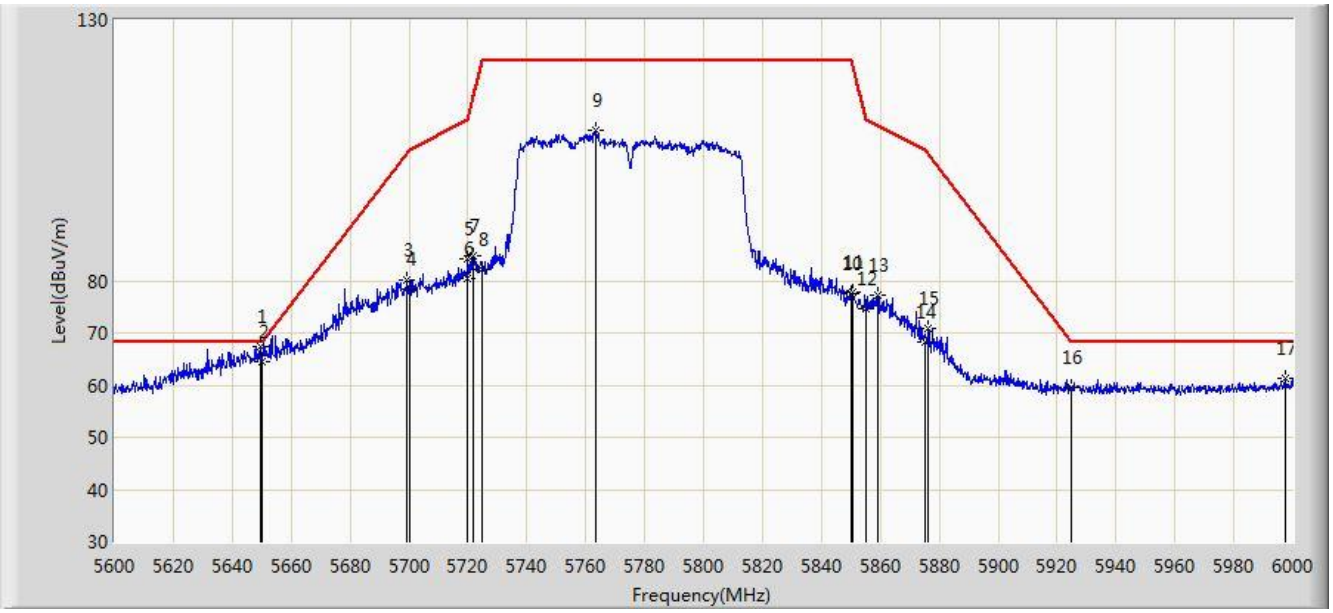


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5644.200	58.718	51.900	-9.482	68.200	6.818	PK
2			5650.000	56.817	50.024	-11.383	68.200	6.793	PK
3			5697.600	68.184	61.294	-35.247	103.431	6.891	PK
4			5700.000	65.870	58.961	-39.330	105.200	6.909	PK
5			5720.000	69.776	62.872	-41.024	110.800	6.904	PK
6			5720.200	70.825	63.922	-40.431	111.256	6.903	PK
7			5725.000	67.472	60.605	-54.728	122.200	6.867	PK
8			5743.400	94.902	87.922	N/A	N/A	6.981	PK
9			5850.000	60.724	53.394	-61.476	122.200	7.331	PK
10			5850.400	64.001	56.671	-57.286	121.288	7.330	PK
11			5855.000	61.458	54.130	-49.342	110.800	7.327	PK
12			5859.000	63.810	56.484	-45.868	109.678	7.326	PK
13			5875.000	58.358	50.944	-46.842	105.200	7.414	PK
14			5896.400	60.181	52.686	-29.144	89.326	7.495	PK
15			5925.000	57.728	50.428	-10.472	68.200	7.299	PK
16		*	5972.600	60.216	52.850	-7.984	68.200	7.366	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: 2019/03/30 - 05:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Flag Yang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Wireless Module	Power: DC 3.3V
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz, Ant 1 + 2 + 3	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5649.400	67.528	60.732	-0.672	68.200	6.796	PK
2			5650.000	64.432	57.639	-3.768	68.200	6.793	PK
3			5699.200	80.088	73.186	-24.522	104.611	6.902	PK
4			5700.000	78.480	71.571	-26.720	105.200	6.909	PK
5			5719.800	84.308	77.402	-26.436	110.744	6.906	PK
6			5720.000	80.438	73.534	-30.362	110.800	6.904	PK
7			5722.000	84.700	77.810	-30.662	115.361	6.890	PK
8			5725.000	82.200	75.333	-40.000	122.200	6.867	PK
9			5763.400	108.811	101.626	N/A	N/A	7.184	PK
10			5850.000	77.521	70.191	-44.679	122.200	7.331	PK
11			5850.800	77.725	70.395	-42.650	120.375	7.330	PK
12			5855.000	74.600	67.272	-36.200	110.800	7.327	PK
13			5859.200	77.326	70.000	-32.296	109.622	7.326	PK
14			5875.000	68.173	60.759	-37.027	105.200	7.414	PK
15			5876.200	70.992	63.570	-33.316	104.308	7.421	PK
16			5925.000	59.602	52.302	-8.598	68.200	7.299	PK
17			5997.400	61.256	53.768	-6.944	68.200	7.488	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + 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 Part 15.207 Limits		
Frequency (MHz)	QP (dBμV)	AV (dBμV)
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.

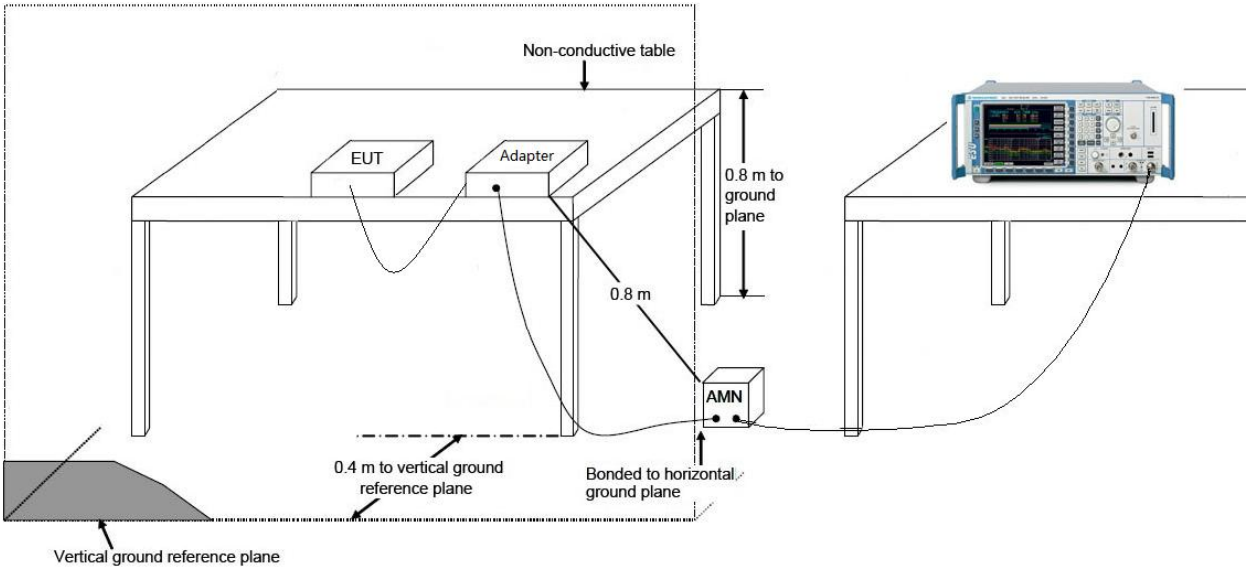
7.9.2.Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 789033 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

7.9.3.Test Setup



7.9.4.Test Result

The EUT is powered by DC Source, so this requirement doesn't apply.

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **Wireless Module** is in compliance with Part 15E of the FCC Rules.

The End

Appendix A - Test Setup Photograph

Refer to “1903RSU032-UT” file.

Appendix B - EUT Photograph

Refer to “1903RSU032-UE” file.