

# TEST REPORT

**Applicant:** Shenzhen SEI Robotics Co., Ltd.  
4th Floor, Productivity Building D, #5 Hi-Tech Middle  
2nd Road, Shenzhen Hi-Tech Industrial Park,  
Nanshan District, Shenzhen, Guangdong, P.R.  
China

**Address:**

**Equipment Type:** HD Stick

**Model Name:** SEI300 (refer to section 2.4)

**Brand Name:** N/A

**FCC ID:** 2AOVU-SN8BJDA

**Test Standard:** 47 CFR Part 15 Subpart E  
(refer to section 3.1)

**Sample Arrival Date:** Jul. 07, 2023

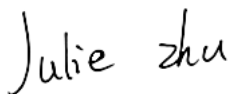
**Test Date:** Jul. 17, 2023 - Jul. 20, 2023

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**ISSUED BY:**

Shenzhen BALUN Technology Co., Ltd.


**Tested by:** Julie Zhu



**Checked by:** Ye Hongji



**Approved by:** Liao Jianming  
(Technical Director)



<b>Revision History</b>		
Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Jul. 25, 2023</u>	<u>Initial Issue</u>

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# 1 GENERAL INFORMATION

## 1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

## 1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	<input checked="" type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	<input type="checkbox"/> 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Shenzhen SEI Robotics Co., Ltd.
Address	4th Floor, Productivity Building D, #5 Hi-Tech Middle 2nd Road, Shenzhen Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R. China

### 2.2 Manufacturer Information

Manufacturer	Shenzhen SEI Robotics Co., Ltd.
Address	4th Floor, Productivity Building D, #5 Hi-Tech Middle 2nd Road, Shenzhen Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R. China

### 2.3 Factory Information

Factory	Shenzhen SEI Robotics Co., Ltd.
Address	4th Floor, Productivity Building D, #5 Hi-Tech Middle 2nd Road, Shenzhen Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R. China

### 2.4 General Description for Equipment under Test (EUT)

EUT Name	HD Stick
Model Name Under Test	SEI300
Series Model Name	SN8BJDX(X=A-Z)
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in model name.(this information provided by the customer)
Hardware Version	SMB.390.01
Software Version	V3.3.3.2
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

## 2.5 Technical Information

Network and Wireless connectivity	WIFI 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac U-NII-1/3
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The requirement for the following technical information of the EUT was tested in this report:

Frequency Range	U-NII-1: 5150 MHz to 5250 MHz, U-NII-3: 5725 MHz to 5850 MHz
Product Type	<input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Modulation technology	OFDM
Modulation Type	256QAM, 64QAM, 16QAM, BPSK, QPSK
Product Type	Mobile for FCC standard
Transfer Rate (Mbps) (Single RF path)	802.11a: 54/ 48/ 36/ 24/ 18/ 12/ 9/ 6 Mbps 802.11n: up to 150 Mbps 802.11ac: up to VHT-MCS9
Channel Bandwidth	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80 MHz
Maximum Output Power	U-NII-1: 24.77 mW U-NII-3: 23.99 mW
Antenna System (eg., MIMO, Smart Antenna)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	PCB Antenna
Antenna Gain	U-NII-1: 5150 MHz to 5250 MHz: 3.05 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.01 dBi
About the Product	The equipment is HD Stick, intended for used with information technology equipment.

## 2.6 Channel List

20 MHz		40 MHz		80 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
<b>36</b>	<b>5180</b>	<b>38</b>	<b>5190</b>	<b>42</b>	<b>5210</b>
40	5200	<b>46</b>	<b>5230</b>	<b>155</b>	<b>5775</b>
<b>44</b>	<b>5220</b>	<b>151</b>	<b>5755</b>		
<b>48</b>	<b>5240</b>	<b>159</b>	<b>5795</b>		
<b>149</b>	<b>5745</b>				
153	5765				
<b>157</b>	<b>5785</b>				
161	5805				
<b>165</b>	<b>5825</b>				

The Lowest frequency, the middle frequency and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11a/n(HT20)/ac(VHT20)

U-NII-1 (5150 - 5250 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
36	Low	5180	149	Low	5745
44	Mid	5220	157	Mid	5785
48	High	5240	165	High	5825

For 802.11n(HT40)/ac(VHT40)

U-NII-1 (5150 - 5250 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
38	Low	5190	151	Low	5755
46	High	5230	159	High	5795

For 802.11ac(VHT80)

U-NII-1 (5150 - 5250 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
42	Mid	5210	155	Mid	5775

Note: Preliminary tests were performed in different data rate in above table to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Modulation Type	U-NII-1	U-NII-3
				Channel	Channel
RF Output Power	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
	11ac(20 MHz)	6.5		48/44/36	165/157/149
	11ac(40 MHz)	13.5		46/38	159/151
	11ac(80 MHz)	29.3		42	155
Emission Bandwidth & 99% Occupied Bandwidth	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
	11ac(20 MHz)	6.5		48/44/36	165/157/149
	11ac(40 MHz)	13.5		46/38	159/151
	11ac(80 MHz)	29.3		42	155
6 dB bandwidth	11a	6	BPSK	N/A	165/157/149
	11n(20 MHz)	6.5		N/A	165/157/149
	11n(40 MHz)	13.5		N/A	159/151
	11ac(20 MHz)	6.5		N/A	165/157/149
	11ac(40 MHz)	13.5		N/A	159/151
	11ac(80 MHz)	29.3		N/A	155
Power Spectral Density	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
	11ac(20 MHz)	6.5		48/44/36	165/157/149
	11ac(40 MHz)	13.5		46/38	159/151
	11ac(80 MHz)	29.3		42	155
Radiated Spurious Emissions	11a	6	BPSK	48/44/36	165/157/149
	11n(20 MHz)	6.5		48/44/36	165/157/149
	11n(40 MHz)	13.5		46/38	159/151
	11ac(20 MHz)	6.5		48/44/36	165/157/149
	11ac(40 MHz)	13.5		46/38	159/151
	11ac(80 MHz)	29.3		42	155
Band Edge (Restricted-band)	11a	6	BPSK	48/36	165/149
	11n(20 MHz)	6.5		48/36	165/149
	11n(40 MHz)	13.5		46/38	159/151
	11ac(20 MHz)	6.5		48/36	165/149
	11ac(40 MHz)	13.5		46/38	159/151
	11ac(80 MHz)	29.3		42	155



### 3 SUMMARY OF TEST RESULTS

#### 3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E	Unlicensed National Information Infrastructure Devices
2	KDB Publication 789033 D02v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

#### 3.2 Test Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass <sup>Note1</sup>
2	RF Output Power	15.407(a)	ANNEX A.1	Pass
3	Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	ANNEX A.2	Pass
4	6 dB bandwidth	15.407(e)	ANNEX A.3	Pass
5	Power Spectral Density	15.407(a)	ANNEX A.4	Pass
6	Conducted Emission	15.207	ANNEX A.5	Pass
7	Radiated Spurious Emissions and Band Edge (Restricted-band)	15.407(b)	ANNEX A.6	Pass
8	Receiver Spurious Emissions	--	--	N/A <sup>Note2</sup>

Note <sup>1</sup>: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

Note <sup>2</sup>: Only radio communication receivers operating in stand-alone mode within the U-NII-30-960 MHz, as well as scanner receivers, are subject to Industry Canada requirements, so this test is not applicable.

Note <sup>3</sup>: Under all normal operating conditions specified in the user manual, frequency stability can keep radiation within the operating frequency band.

## 4 GENERAL TEST CONFIGURATIONS

### 4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	50% to 61%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+23.0°C to +25.0°C
	LT (Low Temperature)	-10°C
	HT (High Temperature)	+50°C
Working Voltage of the EUT	NV (Normal Voltage)	5.00 V
	LV (Low Voltage)	4.75 V
	HV (High Voltage)	5.40 V

### 4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY50330200	2023.05.16	2024.05.15
Power Sensor	KEYSIGHT	U2063XA	MY58000251	2022.07.28	2023.07.27
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2022.12.28	2023.12.27
Spectrum Analyzer	KEYSIGHT	N9020A	MY52510065	2022.09.06	2023.09.05
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	01631	2022.02.03	2025.02.02
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2021.07.02	2024.07.01
Anechoic Chamber	RAINFORD	9m*6m*6m	144	2022.02.19	2024.09.03
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2022.09.09	2023.09.08
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	130	2021.08.15	2024.08.14
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	9163-624	2021.08.20	2024.08.19
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2022.09.08	2023.09.07
Anechoic Chamber	RAINFORD	9m*6m*6m	101	2023.03.26	2026.03.03
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2022.09.09	2023.09.08
LISN	SCHWARZBECK	NSLK 8127	8127-687	2023.05.16	2024.05.15
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2022.02.19	2025.02.18
Amplifier	COM-MV	LSCX_LNA1-12G-01	180602	2020.09.08	2023.09.07
Amplifier	COM-MV	XKu_LNA7-18G-01	180601	2020.09.08	2023.09.07
Amplifier	COM-MV	KA_LNA18-40G-01	18050001	2020.09.08	2023.09.07
Amplifier	COM-MV	ZT30-1000M	B2017119082	2022.12.07	2023.12.06

### 4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V2.1.1.488	N/A	The section 4.5.1
BL410E	BALUN	V19.8.28.435	N/A	The section 4.5.2&4.5.3&4.5.4&4.5.5

### 4.4 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.8°C
Humidity	4%

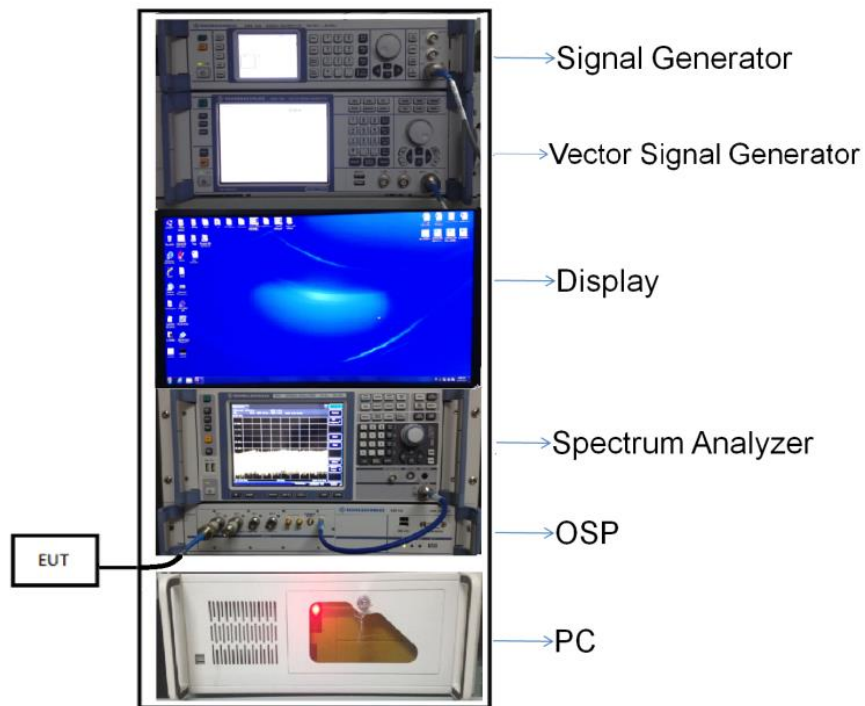
## 4.5 Description of Test Setup

### 4.5.1 For Antenna Port Test

Conducted value (dBm) = Measurement value (dBm) + cable loss (dB)

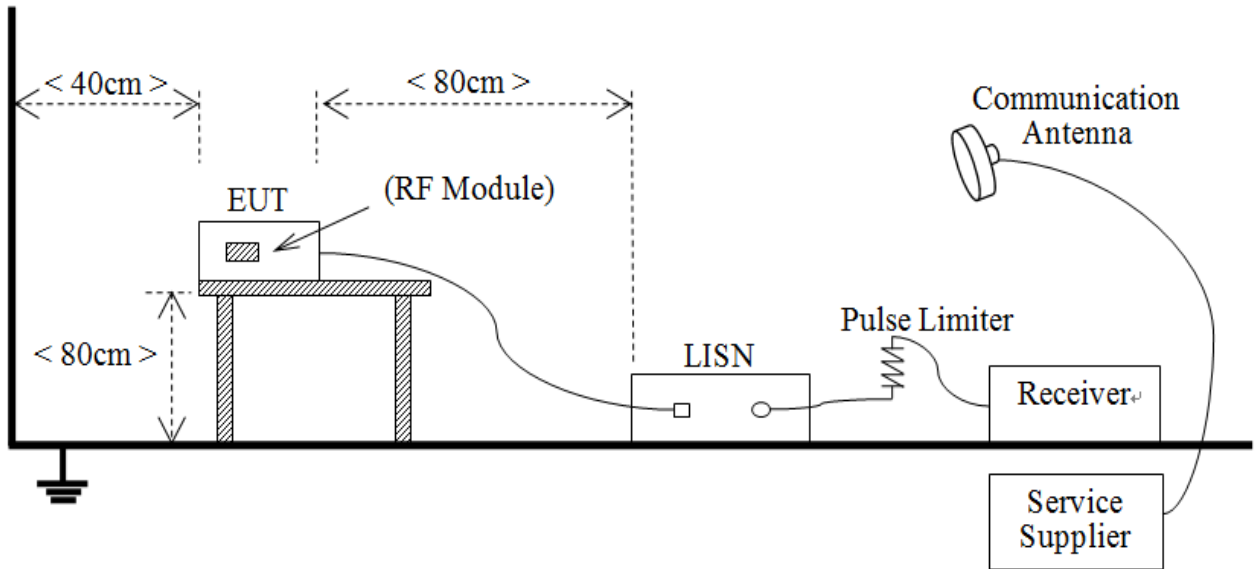
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

Conducted value (dBm) = 10 dBm + 0.5 dB = 10.5 dBm



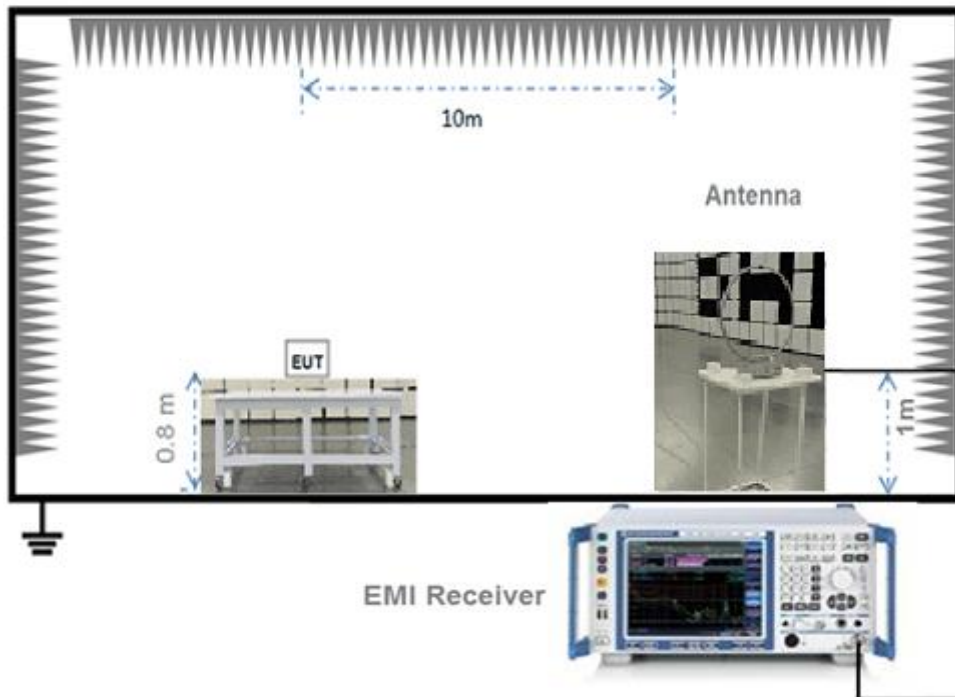
(Diagram 1)

4.5.2 For AC Power Supply Port Test



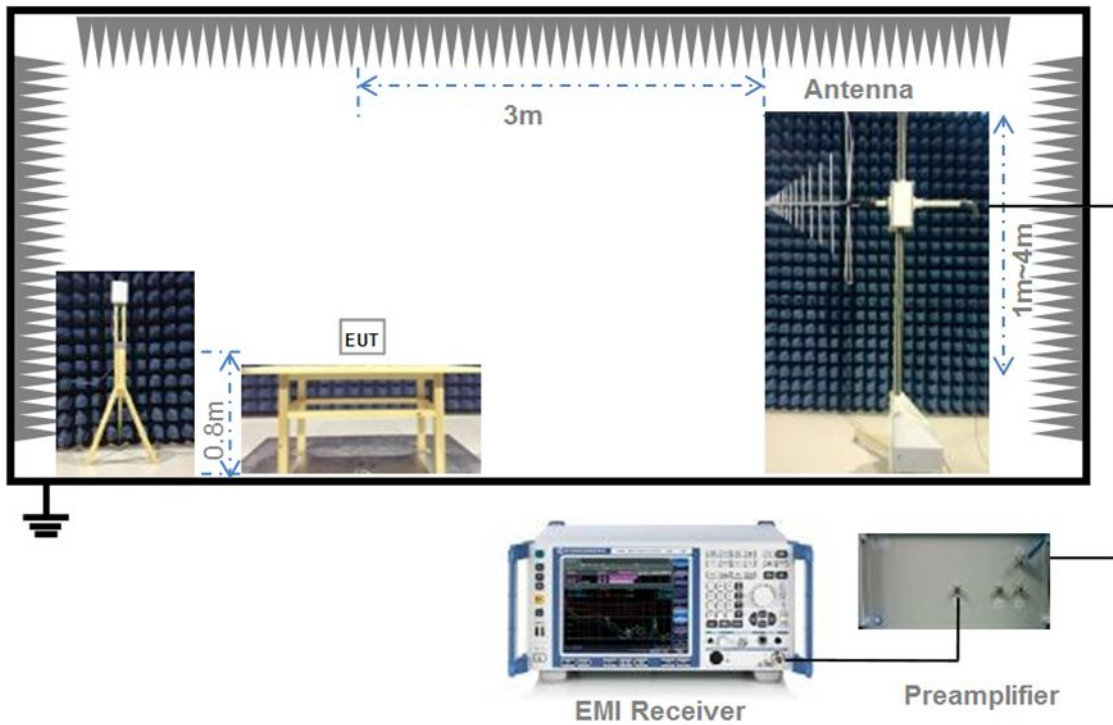
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



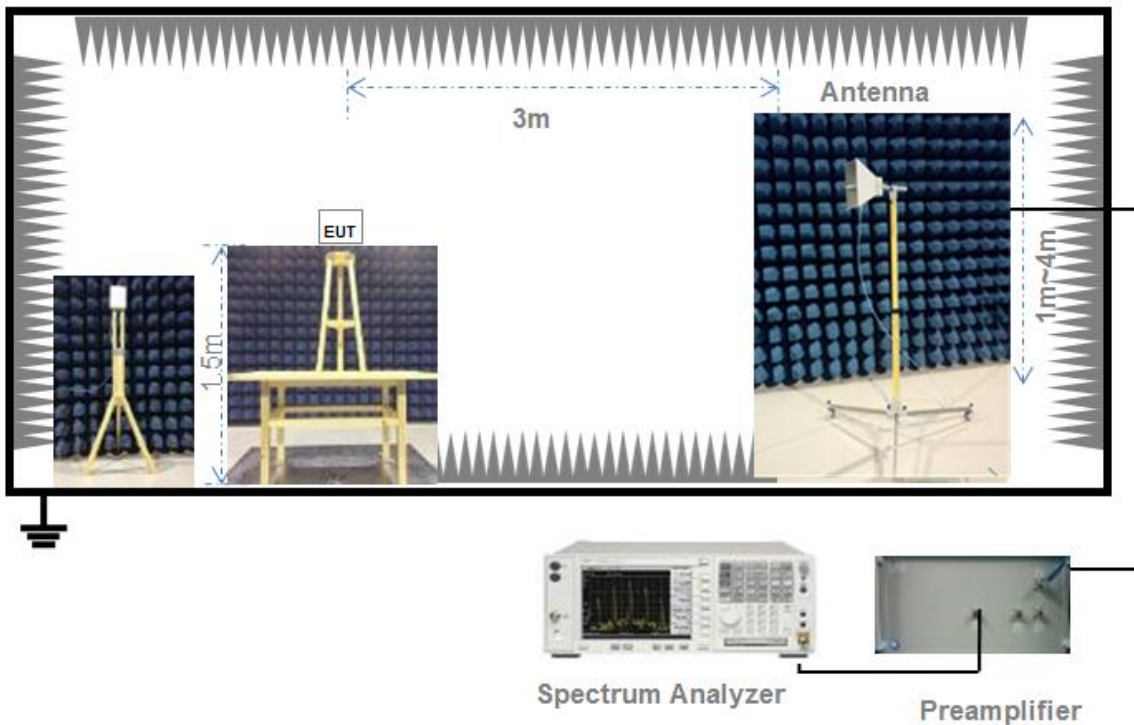
(Diagram 3)

4.5.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.5.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

## 5 TEST ITEMS

### 5.1 RF Output Power

#### 5.1.1 Test Limit

FCC §15.407(a)

The maximum conducted output power should not exceed:

Frequency Band (MHz)	Limit
5150-5250	250 mW
5250-5350	250 mW or 11 dBm + 10log B, whichever is less.
5470-5725	250 mW or 11 dBm + 10log B, whichever is less.
5725-5850	1 W
Note: Where "B" is the 26 dB emissions bandwidth in MHz.	

#### 5.1.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

#### 5.1.3 Test Procedure

The maximum peak conducted output power may be measured using a broadband Average RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the emission bandwidth and utilize a fast-responding diode detector.

The E.I.R.P used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

#### 5.1.4 Test Result

Please refer to ANNEX A.1.

## 5.2 Emission Bandwidth and 6 dB Bandwidth

### 5.2.1 Limit

#### FCC §15.407(a)

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

### 5.2.2 Test Setup

The test setup photo please refer to 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

### 5.2.3 Test Procedure

#### Emission bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set VBW  $\geq 3 \times$  RBW,
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

#### Occupied Bandwidth

1. Set Span = 1.5 times to 5.0 times the OBW
2. Set RBW = 1% to 5% of the OBW.
3. Set VBW  $\geq 3 \times$  RBW, Detector = Peak.
4. Trace mode = Max hold.
5. Use the 99% power bandwidth function of the instrument.

#### 6 dB bandwidth

1. Set RBW = 100 kHz, VBW = 300 kHz.
2. Detector = Peak. Trace mode = Max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 5.2.4 Test Result

Please refer to ANNEX A.2 and ANNEX A.3.



## 5.3 Power Spectral density (PSD)

### 5.3.1 Limit

FCC §15.407(a)

The maximum power spectral density should not exceed:

Frequency Band (MHz)	Limit
5150-5250	11 dBm/MHz
5250-5350	11 dBm/MHz
5470-5725	11 dBm/MHz
5725-5850	30 dBm/500kHz

### 5.3.2 Test Setup

The section 4.5.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

### 5.3.3 Test Procedure

Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

1. Set RBW = 510 kHz/1 MHz, VBW  $\geq$  3\*RBW, Sweep time = Auto, Detector = RMS.
2. Allow the sweeps to continue until the trace stabilizes.
3. Use the peak marker function to determine the maximum amplitude level.
4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.4 or the latest CISPR 16-1-4 for measurements above 1 GHz, so as to simulate a near free-space environment.

### 5.3.4 Test Result

Please refer to ANNEX A.4.

## 5.4 Conducted Emission

### 5.4.1 Limit

FCC §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the U-NII-150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 $\mu$ H/50 $\Omega$  line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB $\mu$ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

### 5.4.2 Test Setup

The section 4.5.2 (Diagram 2) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

### 5.4.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

### 5.4.4 Test Result

Please refer to ANNEX A.5.

## 5.5 Radiated Spurious Emissions and Band Edge (Restricted-band)

### 5.5.1 Limit

FCC §15.209 & 15.407(b)

Frequency (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note<sup>1</sup>: The Limit for radiated test was performed according to FCC Part 15C

Note<sup>2</sup>: The tighter limit applies at the band edge.

### 5.5.2 Test Setup

The section 4.5.3-4.5.5 (Diagram 3 - Diagram 5) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

### 5.5.3 Test Procedure

Since the emission limits are specified in terms of radiated field strength levels, measurements performed to demonstrate compliance have traditionally relied on a radiated test configuration. Radiated measurements remain the principal method for demonstrating compliance to the specified limits; however antenna-port conducted measurements are also now acceptable to demonstrate compliance (see below for details). When radiated measurements are utilized, test site requirements and procedures for maximizing and measuring radiated emissions that are described in ANSI C63.10 shall be followed.

Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

#### General Procedure for conducted measurements in restricted bands

- Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies  $\leq 30$  MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies  $> 1000$  MHz).
- For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).
- Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20 \log D + 104.8$$

where:

E = electric field strength in dB $\mu$ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

e) Compare the resultant electric field strength level to the applicable limit.

f) Perform radiated spurious emission test.

#### Quasi-Peak measurement procedure

The specifications for measurements using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Frequency Interference (CISPR) of the International Electrotechnical Commission.

As an alternative to CISPR quasi-peak measurement, compliance can be demonstrated to the applicable emission limits using a peak detector.

#### Peak power measurement procedure

Peak emission levels are measured by setting the instrument as follows:

a) RBW = as specified in Table 1.

b) VBW  $\geq$  3 x RBW.

c) Detector = Peak.

d) Sweep time = auto.

e) Trace mode = max hold.

f) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be longer for low duty cycle applications).

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
> 1000 MHz	1 MHz

If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.

#### Trace averaging across on and off times of the EUT transmissions followed by duty cycle correction

If continuous transmission of the EUT (i.e., duty cycle  $\geq$  98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than  $\pm$  2 percent), then the following procedure shall be used:

- a) The EUT shall be configured to operate at the maximum achievable duty cycle.
- b) Measure the duty cycle,  $x$ , of the transmitter output signal as described in section 6.0.
- c) RBW = 1 MHz (unless otherwise specified).
- d) VBW  $\geq 3 \times$  RBW.
- e) Detector = RMS, if  $\text{span}/(\# \text{ of points in sweep}) \leq (\text{RBW}/2)$ . Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
- f) Averaging type = power (i.e., RMS).
  - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
  - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
- g) Sweep time = auto.
- h) Perform a trace average of at least 100 traces.
- i) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
  - 1) If power averaging (RMS) mode was used in step f), then the applicable correction factor is  $10 \log(1/x)$ , where  $x$  is the duty cycle.
  - 2) If linear voltage averaging mode was used in step f), then the applicable correction factor is  $20 \log(1/x)$ , where  $x$  is the duty cycle.
  - 3) If a specific emission is demonstrated to be continuous ( $\geq 98$  percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

NOTE: Reduction of the measured emission amplitude levels to account for operational duty factor is not permitted. Compliance is based on emission levels occurring during transmission - not on an average across on and off times of the transmitter.

#### Determining the applicable transmit antenna gain

A conducted power measurement will determine the maximum output power associated with a restricted band emission; however, in order to determine the associated EIRP level, the gain of the transmitting antenna (in dBi) must be added to the measured output power (in dBm).

Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that

is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.

See KDB 662911 for guidance on calculating the additional array gain term when determining the effective antenna gain for a EUT with multiple outputs occupying the same or overlapping frequency ranges in the same band.

#### Radiated spurious emission test

An additional consideration when performing conducted measurements of restricted band emissions is that unwanted emissions radiating from the EUT cabinet, control circuits, power leads, or intermediate circuit elements will likely go undetected in a conducted measurement configuration. To address this concern, a radiated test shall be performed to ensure that emissions emanating from the EUT cabinet (rather than the antenna port) also comply with the applicable limits.

For these cabinet radiated spurious emission measurements the EUT transmit antenna may be replaced with a termination matching the nominal impedance of the antenna. Procedures for performing radiated measurements are specified in ANSI C63.10. All detected emissions shall comply with the applicable limits.

The measurement frequency range is from 30 MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for  $f \geq 1$  GHz, 100 kHz for  $f < 1$  GHz

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

#### 5.5.4 Test Result

Please refer to ANNEX A.6.

## ANNEX A TEST RESULT

### A.1 RF Output Power

Note: For FCC standard, if transmitting antennas of directional gain greater than 6 dBi are used, all band maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11a	3.45	3.57	96.61%	0.15
11n (HT20)	5.09	5.27	96.64%	0.15
11n (HT40)	2.46	2.64	93.19%	0.31
11ac (VHT20)	5.10	5.29	96.33%	0.16
11ac (VHT40)	0.30	0.46	65.24%	1.85
11ac (VHT80)	1.17	1.37	85.29%	0.69

#### Test Data

##### Conducted Power

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	13.68	23.33	250	Pass
11a	CH44	13.47	22.23	250	Pass
11a	CH48	13.32	21.48	250	Pass
11n (HT20)	CH36	13.37	21.73	250	Pass
11n (HT20)	CH44	13.18	20.80	250	Pass
11n (HT20)	CH48	13.68	23.33	250	Pass
11n (HT40)	CH38	13.87	24.38	250	Pass
11n (HT40)	CH46	13.94	24.77	250	Pass
11ac (VHT20)	CH36	13.82	24.10	250	Pass
11ac (VHT20)	CH44	13.63	23.07	250	Pass
11ac (VHT20)	CH48	13.60	22.91	250	Pass
11ac (VHT40)	CH38	13.76	23.77	250	Pass
11ac (VHT40)	CH46	13.80	23.99	250	Pass
11ac (VHT80)	CH42	11.99	15.81	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.62	23.01	1000	Pass
11a	CH157	13.41	21.93	1000	Pass
11a	CH165	13.49	22.34	1000	Pass
11n (HT20)	CH149	13.45	22.13	1000	Pass
11n (HT20)	CH157	13.58	22.80	1000	Pass
11n (HT20)	CH165	13.35	21.63	1000	Pass
11n (HT40)	CH151	13.64	23.12	1000	Pass
11n (HT40)	CH159	13.64	23.12	1000	Pass
11ac (VHT20)	CH149	13.52	22.49	1000	Pass
11ac (VHT20)	CH157	13.49	22.34	1000	Pass
11ac (VHT20)	CH165	13.23	21.04	1000	Pass
11ac (VHT40)	CH151	13.80	23.99	1000	Pass
11ac (VHT40)	CH159	13.78	23.88	1000	Pass
11ac (VHT80)	CH155	13.29	21.33	1000	Pass



## A.2 Emission Bandwidth & 99% Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ2370232-602 Data Part 1.pdf".

### Test Data

U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	21.00	16.36
11a	CH44	20.84	16.36
11a	CH48	20.93	16.36
11n (HT20)	CH36	21.64	17.41
11n (HT20)	CH44	21.41	17.43
11n (HT20)	CH48	22.69	17.44
11n (HT40)	CH38	43.34	35.94
11n (HT40)	CH46	43.84	35.95
11ac (VHT20)	CH36	21.57	17.43
11ac (VHT20)	CH44	21.97	17.44
11ac (VHT20)	CH48	22.67	17.44
11ac (VHT40)	CH38	42.75	35.93
11ac (VHT40)	CH46	43.54	35.92
11ac (VHT80)	CH42	82.17	76.69

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	26.04	16.58
11a	CH157	28.90	17.16
11a	CH165	29.06	16.91
11n (HT20)	CH149	26.26	17.62
11n (HT20)	CH157	28.26	17.76
11n (HT20)	CH165	30.44	17.94
11n (HT40)	CH151	61.01	36.25
11n (HT40)	CH159	68.00	37.04
11ac (VHT20)	CH149	26.67	17.59
11ac (VHT20)	CH157	30.64	17.93
11ac (VHT20)	CH165	28.37	17.78
11ac (VHT40)	CH151	48.92	36.25
11ac (VHT40)	CH159	68.27	36.47
11ac (VHT80)	CH155	159.90	78.57

### A.3 6 dB Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ2370232-602 Data Part 2.pdf".

#### Test Data

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	15.15	500.00	Pass
11a	CH157	14.55	500.00	Pass
11a	CH165	15.20	500.00	Pass
11n (HT20)	CH149	14.80	500.00	Pass
11n (HT20)	CH157	15.20	500.00	Pass
11n (HT20)	CH165	15.10	500.00	Pass
11n (HT40)	CH151	35.15	500.00	Pass
11n (HT40)	CH159	35.20	500.00	Pass
11ac (VHT20)	CH149	15.15	500.00	Pass
11ac (VHT20)	CH157	15.20	500.00	Pass
11ac (VHT20)	CH165	15.20	500.00	Pass
11ac (VHT40)	CH151	35.15	500.00	Pass
11ac (VHT40)	CH159	35.15	500.00	Pass
11ac (VHT80)	CH155	76.20	500.00	Pass

## A.4 Power Spectral Density

Note<sup>1</sup>: Test plots please refer to the document "Annex No.: BL-SZ2370232-602 Data Part 3.pdf".

Note<sup>2</sup>: PSD=Measured PSD+Duty Factor.

### Test Data

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Measured PSD (dBm/MHz)	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH36	3.24	3.39	11.00	Pass
11a	CH44	3.29	3.43	11.00	Pass
11a	CH48	3.27	3.42	11.00	Pass
11n (HT20)	CH36	3.08	3.23	11.00	Pass
11n (HT20)	CH44	2.96	3.10	11.00	Pass
11n (HT20)	CH48	3.89	4.04	11.00	Pass
11n (HT40)	CH38	1.01	1.32	11.00	Pass
11n (HT40)	CH46	0.84	1.14	11.00	Pass
11ac (VHT20)	CH36	4.05	4.21	11.00	Pass
11ac (VHT20)	CH44	3.88	4.05	11.00	Pass
11ac (VHT20)	CH48	4.01	4.17	11.00	Pass
11ac (VHT40)	CH38	-1.77	0.08	11.00	Pass
11ac (VHT40)	CH46	-1.81	0.04	11.00	Pass
11ac (VHT80)	CH42	-6.60	-5.91	11.00	Pass

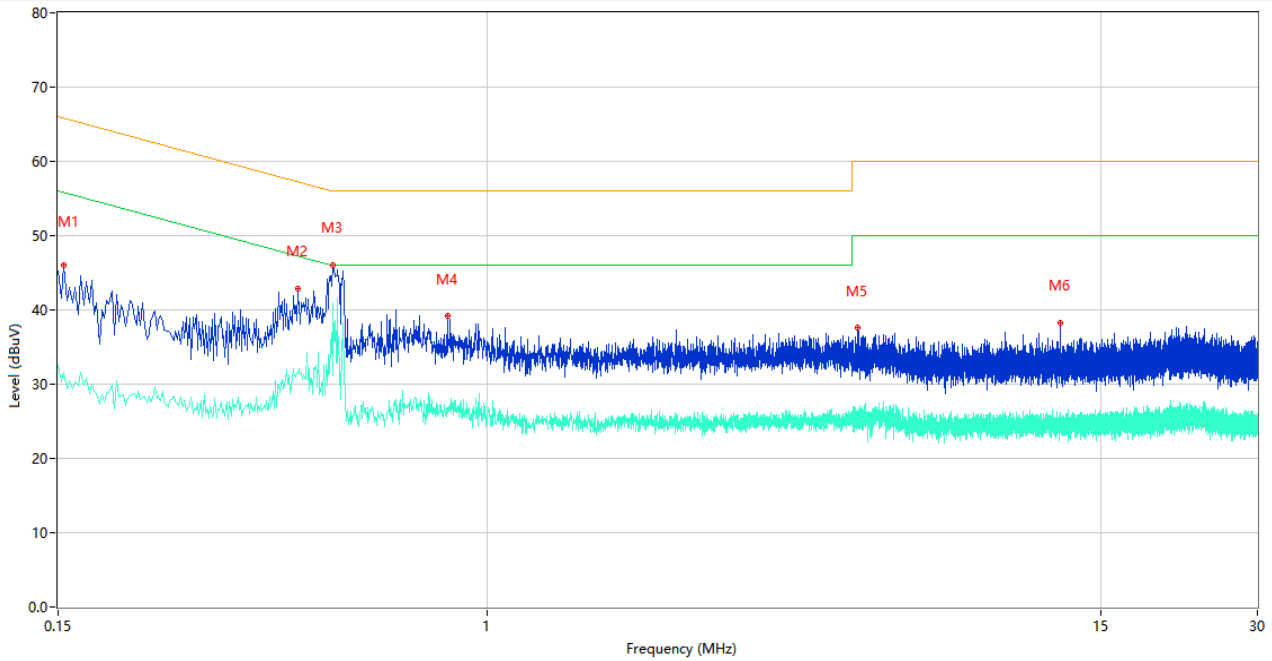
U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Measured PSD (dBm/500kHz)	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
11a	CH149	0.21	0.36	30.00	Pass
11a	CH157	0.11	0.26	30.00	Pass
11a	CH165	-0.37	-0.22	30.00	Pass
11n (HT20)	CH149	-1.72	-1.57	30.00	Pass
11n (HT20)	CH157	-2.25	-2.10	30.00	Pass
11n (HT20)	CH165	-1.03	-0.89	30.00	Pass
11n (HT40)	CH151	-3.73	-3.42	30.00	Pass
11n (HT40)	CH159	-3.90	-3.59	30.00	Pass
11ac (VHT20)	CH149	-2.29	-2.13	30.00	Pass
11ac (VHT20)	CH157	-0.47	-0.30	30.00	Pass
11ac (VHT20)	CH165	-0.70	-0.54	30.00	Pass
11ac (VHT40)	CH151	-4.61	-2.75	30.00	Pass
11ac (VHT40)	CH159	-4.69	-2.83	30.00	Pass
11ac (VHT80)	CH155	-7.92	-7.23	30.00	Pass

## A.5 Conducted Emissions

Note: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

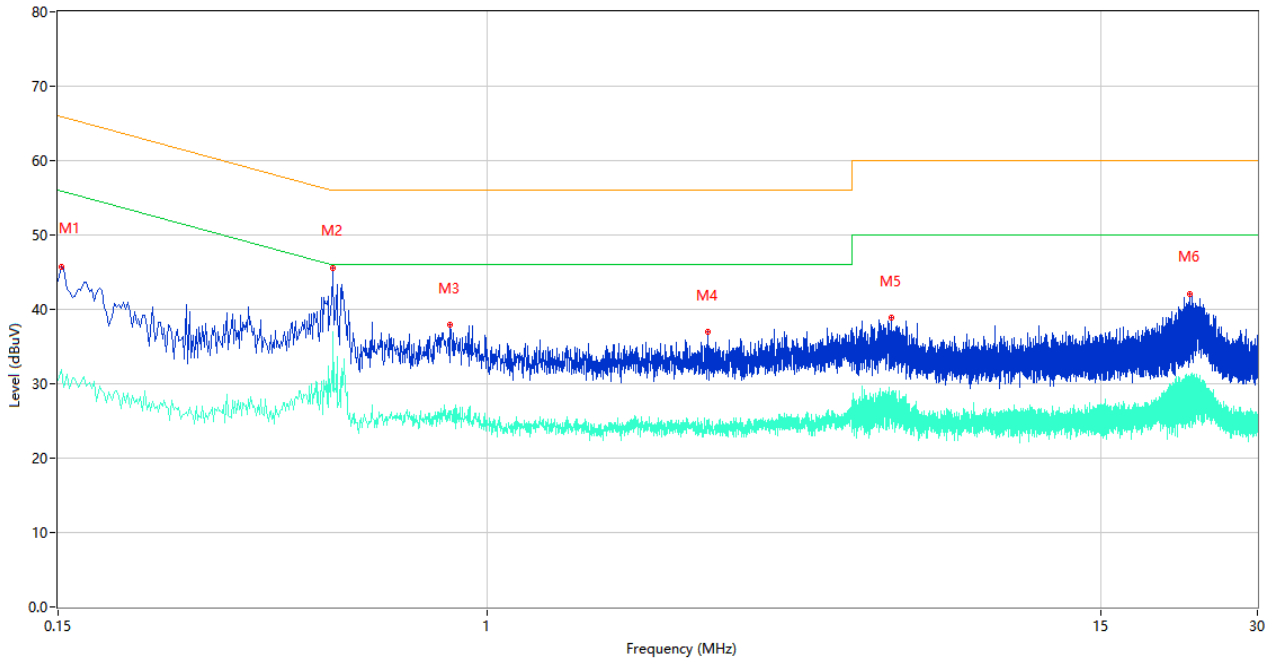
### Test Data and Plots

#### PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.154	45.95	9.78	65.78	19.83	Peak	L	Pass
1**	0.154	31.58	9.78	55.78	24.20	AV	L	Pass
2	0.432	42.90	10.22	57.21	14.31	Peak	L	Pass
2**	0.432	31.55	10.22	47.21	15.66	AV	L	Pass
3	0.504	46.09	9.99	56.00	9.91	Peak	L	Pass
3**	0.504	31.10	9.99	46.00	14.90	AV	L	Pass
4	0.838	39.17	10.60	56.00	16.83	Peak	L	Pass
4**	0.838	26.89	10.60	46.00	19.11	AV	L	Pass
5	5.142	37.56	10.18	60.00	22.44	Peak	L	Pass
5**	5.142	25.88	10.18	50.00	24.12	AV	L	Pass
6	12.532	38.33	10.71	60.00	21.67	Peak	L	Pass
6**	12.532	26.11	10.71	50.00	23.89	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	45.64	9.78	65.89	20.25	Peak	N	Pass
1**	0.152	31.91	9.78	55.89	23.98	AV	N	Pass
2	0.506	45.59	9.99	56.00	10.41	Peak	N	Pass
2**	0.506	36.97	9.99	46.00	9.03	AV	N	Pass
3	0.848	37.86	10.62	56.00	18.14	Peak	N	Pass
3**	0.848	26.29	10.62	46.00	19.71	AV	N	Pass
4	2.642	36.94	10.16	56.00	19.06	Peak	N	Pass
4**	2.642	25.11	10.16	46.00	20.89	AV	N	Pass
5	5.950	38.87	10.27	60.00	21.13	Peak	N	Pass
5**	5.950	25.72	10.27	50.00	24.28	AV	N	Pass
6	22.246	42.11	11.01	60.00	17.89	Peak	N	Pass
6**	22.246	29.86	11.01	50.00	20.14	AV	N	Pass

## A.6 Radiated Spurious Emissions and Band Edge (Restricted-band)

Note<sup>1</sup>: The symbol of "--" in the table which means not application.

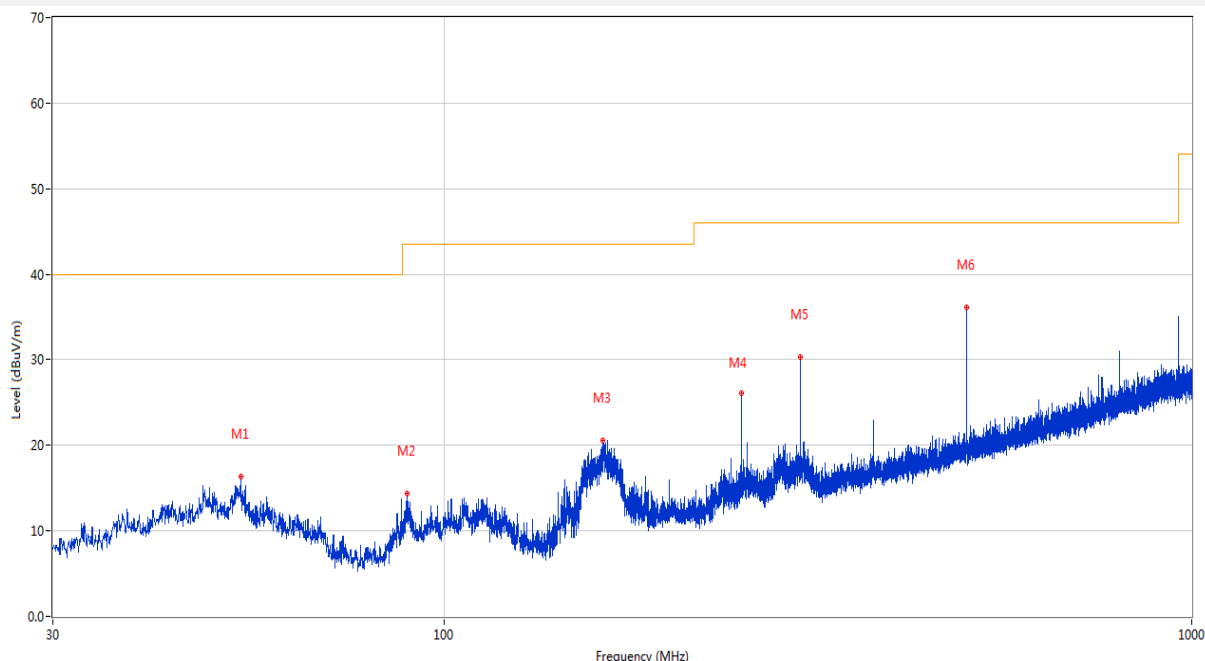
Note<sup>2</sup>: For the test data above 1 GHz, According the ANSI C63.4, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note<sup>3</sup>: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note<sup>4</sup>: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

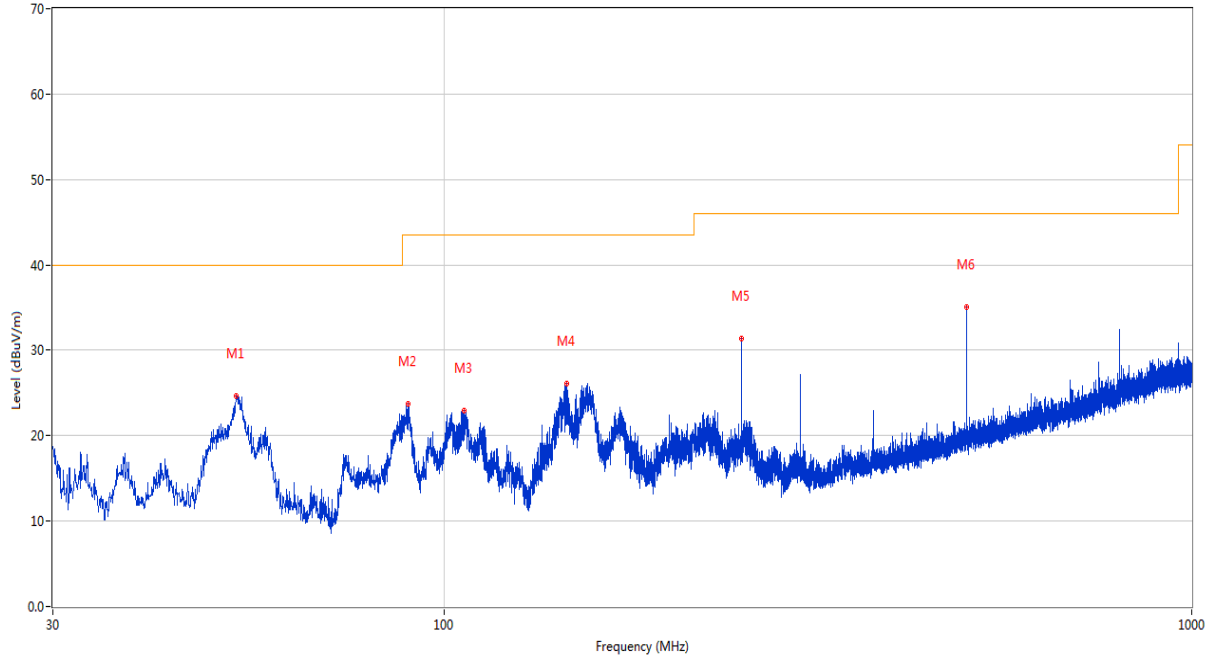
### Test Data and Plots

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	53.523	16.29	-22.94	40.0	23.71	Peak	0.40	100	Horizontal	Pass
2	89.364	14.31	-26.29	43.5	29.19	Peak	38.80	200	Horizontal	Pass
3	162.939	20.51	-26.97	43.5	22.99	Peak	112.00	200	Horizontal	Pass
4	249.996	25.55	-22.91	46.0	20.45	Peak	359.30	100	Horizontal	Pass
5	300.000	30.32	-21.96	46.0	15.68	Peak	338.40	100	Horizontal	Pass
6	500.014	36.15	-16.93	46.0	9.85	Peak	19.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	52.746	24.66	-23.04	40.0	15.34	Peak	224.40	100	Vertical	Pass
2	89.509	23.79	-26.27	43.5	19.71	Peak	354.70	100	Vertical	Pass
3	106.533	22.97	-24.11	43.5	20.53	Peak	264.00	100	Vertical	Pass
4	146.158	26.07	-27.61	43.5	17.43	Peak	255.90	100	Vertical	Pass
5	250.044	31.36	-22.91	46.0	14.64	Peak	176.00	100	Vertical	Pass
6	500.014	35.03	-16.93	46.0	10.97	Peak	100.90	100	Vertical	Pass

Note: The spurious above 18G is noise only, do not show on the report.

#### 11a, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1597.600	39.19	-20.01	74.0	34.81	Peak	272.00	100	Horizontal	Pass
1**	1597.600	27.74	-20.01	54.0	26.26	AV	272.00	100	Horizontal	Pass
2	2843.500	43.95	-12.41	74.0	30.05	Peak	297.00	150	Horizontal	Pass
2**	2843.500	34.63	-12.41	54.0	19.37	AV	297.00	150	Horizontal	Pass
3	4339.000	47.63	-6.21	74.0	26.37	Peak	322.00	100	Horizontal	Pass
3**	4339.000	39.69	-6.21	54.0	14.31	AV	322.00	100	Horizontal	Pass
4	5181.750	103.34	-4.65	--	--	Peak	340.00	150	Horizontal	N/A
4**	5181.750	95.91	-4.65	--	--	AV	340.00	150	Horizontal	N/A
5	7494.500	54.57	-0.41	74.0	19.43	Peak	223.00	200	Horizontal	Pass
5**	7494.500	45.96	-0.41	54.0	8.04	AV	223.00	200	Horizontal	Pass
6	12580.662	52.47	1.33	74.0	21.53	Peak	266.00	200	Horizontal	Pass
6**	12580.662	45.27	1.33	54.0	8.73	AV	266.00	200	Horizontal	Pass

#### 11a, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1593.600	37.71	-20.01	74.0	36.29	Peak	0.00	150	Vertical	Pass
1**	1593.600	27.52	-20.01	54.0	26.48	AV	0.00	150	Vertical	Pass
2	2763.000	43.75	-12.77	74.0	30.25	Peak	56.00	150	Vertical	Pass
2**	2763.000	34.29	-12.77	54.0	19.71	AV	56.00	150	Vertical	Pass
3	4221.000	47.32	-7.66	74.0	26.68	Peak	44.00	100	Vertical	Pass
3**	4221.000	37.04	-7.66	54.0	16.96	AV	44.00	100	Vertical	Pass
4	5184.000	95.77	-4.62	--	--	Peak	315.00	100	Vertical	N/A
4**	5184.000	87.79	-4.62	--	--	AV	315.00	100	Vertical	N/A
5	7534.000	54.14	-0.46	74.0	19.86	Peak	360.00	200	Vertical	Pass
5**	7534.000	45.48	-0.46	54.0	8.52	AV	360.00	200	Vertical	Pass
6	12583.987	52.61	1.30	74.0	21.39	Peak	346.00	150	Vertical	Pass
6**	12583.987	43.98	1.30	54.0	10.02	AV	346.00	150	Vertical	Pass



## 11a, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1598.400	38.73	-20.04	74.0	35.27	Peak	248.00	200	Horizontal	Pass
1**	1598.400	27.91	-20.04	54.0	26.09	AV	248.00	200	Horizontal	Pass
2	2846.400	43.75	-12.25	74.0	30.25	Peak	360.00	200	Horizontal	Pass
2**	2846.400	34.07	-12.25	54.0	19.93	AV	360.00	200	Horizontal	Pass
3	4335.000	47.30	-6.14	74.0	26.70	Peak	69.00	100	Horizontal	Pass
3**	4335.000	38.17	-6.14	54.0	15.83	AV	69.00	100	Horizontal	Pass
4	5222.750	102.68	-4.75	--	--	Peak	340.00	150	Horizontal	N/A
4**	5222.750	95.43	-4.75	--	--	AV	340.00	150	Horizontal	N/A
5	7489.000	54.71	-0.33	74.0	19.29	Peak	250.00	100	Horizontal	Pass
5**	7489.000	45.45	-0.33	54.0	8.55	AV	250.00	100	Horizontal	Pass
6	12609.637	52.67	1.07	74.0	21.33	Peak	8.00	150	Horizontal	Pass
6**	12609.637	43.86	1.07	54.0	10.14	AV	8.00	150	Horizontal	Pass

## 11a, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1464.600	38.38	-19.78	74.0	35.62	Peak	274.00	150	Vertical	Pass
1**	1464.600	27.88	-19.78	54.0	26.12	AV	274.00	150	Vertical	Pass
2	2823.800	43.84	-12.70	74.0	30.16	Peak	184.00	100	Vertical	Pass
2**	2823.800	33.87	-12.70	54.0	20.13	AV	184.00	100	Vertical	Pass
3	4299.000	47.45	-6.61	74.0	26.55	Peak	0.00	100	Vertical	Pass
3**	4299.000	38.31	-6.61	54.0	15.69	AV	0.00	100	Vertical	Pass
4	5221.500	95.96	-4.78	--	--	Peak	324.00	150	Vertical	N/A
4**	5221.500	88.13	-4.78	--	--	AV	324.00	150	Vertical	N/A
5	7541.000	55.08	-0.23	74.0	18.92	Peak	225.00	200	Vertical	Pass
5**	7541.000	46.40	-0.23	54.0	7.60	AV	225.00	200	Vertical	Pass
6	12581.137	52.85	1.32	74.0	21.15	Peak	277.00	200	Vertical	Pass
6**	12581.137	43.56	1.32	54.0	10.44	AV	277.00	200	Vertical	Pass

## 11a, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1499.700	37.57	-19.49	74.0	36.43	Peak	319.00	100	Horizontal	Pass
1**	1499.700	29.92	-19.49	54.0	24.08	AV	319.00	100	Horizontal	Pass
2	2735.700	43.42	-11.88	74.0	30.58	Peak	134.00	100	Horizontal	Pass
2**	2735.700	34.42	-11.88	54.0	19.58	AV	134.00	100	Horizontal	Pass
3	4332.000	47.12	-6.05	74.0	26.88	Peak	133.00	200	Horizontal	Pass
3**	4332.000	38.24	-6.05	54.0	15.76	AV	133.00	200	Horizontal	Pass
4	5237.500	103.09	-5.17	--	--	Peak	345.00	100	Horizontal	N/A
4**	5237.500	95.21	-5.17	--	--	AV	345.00	100	Horizontal	N/A
5	7492.500	54.98	-0.41	74.0	19.02	Peak	142.00	150	Horizontal	Pass
5**	7492.500	45.88	-0.41	54.0	8.12	AV	142.00	150	Horizontal	Pass
6	12549.787	52.99	1.61	74.0	21.01	Peak	356.00	100	Horizontal	Pass
6**	12549.787	44.11	1.61	54.0	9.89	AV	356.00	100	Horizontal	Pass

## 11a, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1598.500	38.75	-20.04	74.0	35.25	Peak	221.00	150	Vertical	Pass
1**	1598.500	29.08	-20.04	54.0	24.92	AV	221.00	150	Vertical	Pass
2	2782.400	43.43	-12.97	74.0	30.57	Peak	212.00	150	Vertical	Pass
2**	2782.400	33.64	-12.97	54.0	20.36	AV	212.00	150	Vertical	Pass
3	4135.750	46.59	-7.34	74.0	27.41	Peak	157.00	200	Vertical	Pass
3**	4135.750	37.22	-7.34	54.0	16.78	AV	157.00	200	Vertical	Pass
4	5238.000	95.77	-5.20	--	--	Peak	324.00	100	Vertical	N/A
4**	5238.000	88.17	-5.20	--	--	AV	324.00	100	Vertical	N/A
5	7601.000	53.84	-0.41	74.0	20.16	Peak	258.00	150	Vertical	Pass
5**	7601.000	45.44	-0.41	54.0	8.56	AV	258.00	150	Vertical	Pass
6	12256.474	52.90	0.40	74.0	21.10	Peak	209.00	100	Vertical	Pass
6**	12256.474	42.67	0.40	54.0	11.33	AV	209.00	100	Vertical	Pass

## 11n20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1481.200	38.06	-19.67	74.0	35.94	Peak	224.00	150	Horizontal	Pass
1**	1481.200	27.81	-19.67	54.0	26.19	AV	224.00	150	Horizontal	Pass
2	2845.800	43.49	-12.27	74.0	30.51	Peak	303.00	150	Horizontal	Pass
2**	2845.800	34.33	-12.27	54.0	19.67	AV	303.00	150	Horizontal	Pass
3	4354.750	47.28	-6.61	74.0	26.72	Peak	143.00	200	Horizontal	Pass
3**	4354.750	39.48	-6.61	54.0	14.52	AV	143.00	200	Horizontal	Pass
4	5183.250	102.34	-4.62	--	--	Peak	340.00	200	Horizontal	N/A
4**	5183.250	94.90	-4.62	--	--	AV	340.00	200	Horizontal	N/A
5	7593.250	55.71	-0.58	74.0	18.29	Peak	127.00	150	Horizontal	Pass
5**	7593.250	45.06	-0.58	54.0	8.94	AV	127.00	150	Horizontal	Pass
6	12578.763	52.96	1.35	74.0	21.04	Peak	188.00	150	Horizontal	Pass
6**	12578.763	43.51	1.35	54.0	10.49	AV	188.00	150	Horizontal	Pass

## 11n20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1461.100	38.31	-19.72	74.0	35.69	Peak	106.00	100	Vertical	Pass
1**	1461.100	27.88	-19.72	54.0	26.12	AV	106.00	100	Vertical	Pass
2	2878.500	43.67	-12.35	74.0	30.33	Peak	283.00	150	Vertical	Pass
2**	2878.500	34.82	-12.35	54.0	19.18	AV	283.00	150	Vertical	Pass
3	4704.250	49.27	-5.93	74.0	24.73	Peak	280.00	100	Vertical	Pass
3**	4704.250	43.30	-5.93	54.0	10.70	AV	280.00	100	Vertical	Pass
4	5183.250	95.88	-4.62	--	--	Peak	313.00	150	Vertical	N/A
4**	5183.250	88.54	-4.62	--	--	AV	313.00	150	Vertical	N/A
5	7597.250	54.68	-0.43	74.0	19.32	Peak	280.00	200	Vertical	Pass
5**	7597.250	45.26	-0.43	54.0	8.74	AV	280.00	200	Vertical	Pass
6	12444.100	52.71	0.82	74.0	21.29	Peak	220.00	100	Vertical	Pass
6**	12444.100	43.04	0.82	54.0	10.96	AV	220.00	100	Vertical	Pass

## 11n20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1496.100	39.57	-19.50	74.0	34.43	Peak	229.00	150	Horizontal	Pass
1**	1496.100	27.90	-19.50	54.0	26.10	AV	229.00	150	Horizontal	Pass
2	2731.000	44.24	-11.57	74.0	29.76	Peak	303.00	200	Horizontal	Pass
2**	2731.000	34.65	-11.57	54.0	19.35	AV	303.00	200	Horizontal	Pass
3	4132.250	47.05	-7.28	74.0	26.95	Peak	126.00	100	Horizontal	Pass
3**	4132.250	37.20	-7.28	54.0	16.80	AV	126.00	100	Horizontal	Pass
4	5221.500	102.39	-4.78	--	--	Peak	266.00	200	Horizontal	N/A
4**	5221.500	95.61	-4.78	--	--	AV	266.00	200	Horizontal	N/A
5	7494.500	54.45	-0.41	74.0	19.55	Peak	360.00	150	Horizontal	Pass
5**	7494.500	45.47	-0.41	54.0	8.53	AV	360.00	150	Horizontal	Pass
6	12584.937	53.00	1.29	74.0	21.00	Peak	152.00	300	Horizontal	Pass
6**	12584.937	43.82	1.29	54.0	10.18	AV	152.00	300	Horizontal	Pass

## 11n20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1455.400	37.41	-19.70	74.0	36.59	Peak	263.00	300	Vertical	Pass
1**	1455.400	29.09	-19.70	54.0	24.91	AV	263.00	300	Vertical	Pass
2	2735.100	43.56	-11.85	74.0	30.44	Peak	73.00	200	Vertical	Pass
2**	2735.100	34.29	-11.85	54.0	19.71	AV	73.00	200	Vertical	Pass
3	4345.250	47.27	-6.43	74.0	26.73	Peak	200.00	100	Vertical	Pass
3**	4345.250	38.50	-6.43	54.0	15.50	AV	200.00	100	Vertical	Pass
4	5218.000	95.82	-4.76	--	--	Peak	318.00	100	Vertical	N/A
4**	5218.000	88.38	-4.76	--	--	AV	318.00	100	Vertical	N/A
5	7625.750	54.41	-1.66	74.0	19.59	Peak	299.00	150	Vertical	Pass
5**	7625.750	44.14	-1.66	54.0	9.86	AV	299.00	150	Vertical	Pass
6	12547.651	52.67	1.56	74.0	21.33	Peak	142.00	150	Vertical	Pass
6**	12547.651	43.57	1.56	54.0	10.43	AV	142.00	150	Vertical	Pass

## 11n20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1465.600	37.85	-19.81	74.0	36.15	Peak	225.00	200	Horizontal	Pass
1**	1465.600	28.29	-19.81	54.0	25.71	AV	225.00	200	Horizontal	Pass
2	2849.000	43.67	-12.20	74.0	30.33	Peak	118.00	150	Horizontal	Pass
2**	2849.000	34.39	-12.20	54.0	19.61	AV	118.00	150	Horizontal	Pass
3	4351.250	47.59	-6.61	74.0	26.41	Peak	113.00	100	Horizontal	Pass
3**	4351.250	39.02	-6.61	54.0	14.98	AV	113.00	100	Horizontal	Pass
4	5238.750	103.34	-5.18	--	--	Peak	345.00	100	Horizontal	N/A
4**	5238.750	97.27	-5.18	--	--	AV	345.00	100	Horizontal	N/A
5	7537.000	54.84	-0.28	74.0	19.16	Peak	73.00	200	Horizontal	Pass
5**	7537.000	45.90	-0.28	54.0	8.10	AV	73.00	200	Horizontal	Pass
6	12580.901	53.32	1.33	74.0	20.68	Peak	95.00	150	Horizontal	Pass
6**	12580.901	44.18	1.33	54.0	9.82	AV	95.00	150	Horizontal	Pass

## 11n20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1496.200	38.03	-19.50	74.0	35.97	Peak	186.00	200	Vertical	Pass
1**	1496.200	29.00	-19.50	54.0	25.00	AV	186.00	200	Vertical	Pass
2	2753.100	43.40	-12.98	74.0	30.60	Peak	31.00	200	Vertical	Pass
2**	2753.100	33.54	-12.98	54.0	20.46	AV	31.00	200	Vertical	Pass
3	4325.250	47.63	-5.94	74.0	26.37	Peak	84.00	100	Vertical	Pass
3**	4325.250	38.71	-5.94	54.0	15.29	AV	84.00	100	Vertical	Pass
4	5235.250	97.04	-5.10	--	--	Peak	323.00	150	Vertical	N/A
4**	5235.250	89.08	-5.10	--	--	AV	323.00	150	Vertical	N/A
5	7536.250	54.26	-0.35	74.0	19.74	Peak	356.00	200	Vertical	Pass
5**	7536.250	45.21	-0.35	54.0	8.79	AV	356.00	200	Vertical	Pass
6	12578.288	53.13	1.35	74.0	20.87	Peak	360.00	150	Vertical	Pass
6**	12578.288	44.04	1.35	54.0	9.96	AV	360.00	150	Vertical	Pass

## 11n40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1508.600	38.08	-19.56	74.0	35.92	Peak	247.00	100	Horizontal	Pass
1**	1508.600	27.44	-19.56	54.0	26.56	AV	247.00	100	Horizontal	Pass
2	2831.400	43.51	-12.54	74.0	30.49	Peak	146.00	100	Horizontal	Pass
2**	2831.400	33.88	-12.54	54.0	20.12	AV	146.00	100	Horizontal	Pass
3	4334.250	47.44	-6.13	74.0	26.56	Peak	223.00	200	Horizontal	Pass
3**	4334.250	38.62	-6.13	54.0	15.38	AV	223.00	200	Horizontal	Pass
4	5188.500	101.27	-4.40	--	--	Peak	340.00	150	Horizontal	N/A
4**	5188.500	94.10	-4.40	--	--	AV	340.00	150	Horizontal	N/A
5	7596.250	55.06	-0.46	74.0	18.94	Peak	240.00	100	Horizontal	Pass
5**	7596.250	45.06	-0.46	54.0	8.94	AV	240.00	100	Horizontal	Pass
6	12269.062	52.90	0.47	74.0	21.10	Peak	340.00	100	Horizontal	Pass
6**	12269.062	43.04	0.47	54.0	10.96	AV	340.00	100	Horizontal	Pass

## 11n40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1596.100	38.63	-19.93	74.0	35.37	Peak	355.00	150	Vertical	Pass
1**	1596.100	30.04	-19.93	54.0	23.96	AV	355.00	150	Vertical	Pass
2	2729.500	43.64	-11.51	74.0	30.36	Peak	216.00	150	Vertical	Pass
2**	2729.500	34.44	-11.51	54.0	19.56	AV	216.00	150	Vertical	Pass
3	4368.750	47.42	-6.87	74.0	26.58	Peak	232.00	100	Vertical	Pass
3**	4368.750	38.18	-6.87	54.0	15.82	AV	232.00	100	Vertical	Pass
4	5193.250	95.89	-4.38	--	--	Peak	323.00	100	Vertical	N/A
4**	5193.250	88.26	-4.38	--	--	AV	323.00	100	Vertical	N/A
5	7535.750	54.49	-0.39	74.0	19.51	Peak	307.00	150	Vertical	Pass
5**	7535.750	45.91	-0.39	54.0	8.09	AV	307.00	150	Vertical	Pass
6	12581.137	52.58	1.32	74.0	21.42	Peak	289.00	200	Vertical	Pass
6**	12581.137	44.07	1.32	54.0	9.93	AV	289.00	200	Vertical	Pass

## 11n40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1462.800	38.43	-19.75	74.0	35.57	Peak	227.00	150	Horizontal	Pass
1**	1462.800	28.66	-19.75	54.0	25.34	AV	227.00	150	Horizontal	Pass
2	2735.200	43.19	-11.86	74.0	30.81	Peak	0.00	200	Horizontal	Pass
2**	2735.200	35.08	-11.86	54.0	18.92	AV	0.00	200	Horizontal	Pass
3	4338.750	47.18	-6.19	74.0	26.82	Peak	140.00	100	Horizontal	Pass
3**	4338.750	38.44	-6.19	54.0	15.56	AV	140.00	100	Horizontal	Pass
4	5232.500	101.09	-5.15	--	--	Peak	256.00	100	Horizontal	N/A
4**	5232.500	93.58	-5.15	--	--	AV	256.00	100	Horizontal	N/A
5	7500.000	54.83	-0.74	74.0	19.17	Peak	0.00	200	Horizontal	Pass
5**	7500.000	45.59	-0.74	54.0	8.41	AV	0.00	200	Horizontal	Pass
6	12575.674	53.09	1.37	74.0	20.91	Peak	210.00	100	Horizontal	Pass
6**	12575.674	43.36	1.37	54.0	10.64	AV	210.00	100	Horizontal	Pass

## 11n40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1466.700	40.73	-19.81	74.0	33.27	Peak	285.00	300	Vertical	Pass
1**	1466.700	27.57	-19.81	54.0	26.43	AV	285.00	300	Vertical	Pass
2	2792.400	43.20	-12.56	74.0	30.80	Peak	275.00	150	Vertical	Pass
2**	2792.400	33.90	-12.56	54.0	20.10	AV	275.00	150	Vertical	Pass
3	4141.750	47.34	-7.33	74.0	26.66	Peak	198.00	100	Vertical	Pass
3**	4141.750	38.47	-7.33	54.0	15.53	AV	198.00	100	Vertical	Pass
4	5227.500	94.83	-4.94	--	--	Peak	327.00	200	Vertical	N/A
4**	5227.500	87.95	-4.94	--	--	AV	327.00	200	Vertical	N/A
5	7482.250	54.44	-0.73	74.0	19.56	Peak	253.00	150	Vertical	Pass
5**	7482.250	45.31	-0.73	54.0	8.69	AV	253.00	150	Vertical	Pass
6	12451.463	53.32	0.88	74.0	20.68	Peak	33.00	200	Vertical	Pass
6**	12451.463	43.26	0.88	54.0	10.74	AV	33.00	200	Vertical	Pass

## 11ac20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1460.500	37.21	-19.71	74.0	36.79	Peak	323.00	150	Horizontal	Pass
1**	1460.500	30.31	-19.71	54.0	23.69	AV	323.00	150	Horizontal	Pass
2	2761.800	43.37	-12.80	74.0	30.63	Peak	96.00	100	Horizontal	Pass
2**	2761.800	34.01	-12.80	54.0	19.99	AV	96.00	100	Horizontal	Pass
3	4349.500	47.32	-6.59	74.0	26.68	Peak	99.00	100	Horizontal	Pass
3**	4349.500	37.87	-6.59	54.0	16.13	AV	99.00	100	Horizontal	Pass
4	5178.500	103.27	-4.83	--	--	Peak	339.00	150	Horizontal	N/A
4**	5178.500	95.90	-4.83	--	--	AV	339.00	150	Horizontal	N/A
5	7539.250	54.38	-0.21	74.0	19.62	Peak	74.00	200	Horizontal	Pass
5**	7539.250	45.47	-0.21	54.0	8.53	AV	74.00	200	Horizontal	Pass
6	12577.100	53.18	1.36	74.0	20.82	Peak	359.00	150	Horizontal	Pass
6**	12577.100	44.24	1.36	54.0	9.76	AV	359.00	150	Horizontal	Pass

## 11ac20, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.000	40.61	-19.81	74.0	33.39	Peak	257.00	200	Vertical	Pass
1**	1330.000	31.86	-19.81	54.0	22.14	AV	257.00	200	Vertical	Pass
2	2731.500	44.06	-11.59	74.0	29.94	Peak	231.00	200	Vertical	Pass
2**	2731.500	34.03	-11.59	54.0	19.97	AV	231.00	200	Vertical	Pass
3	4320.000	48.74	-5.99	74.0	25.26	Peak	168.00	150	Vertical	Pass
3**	4320.000	38.75	-5.99	54.0	15.25	AV	168.00	150	Vertical	Pass
4	5182.750	96.98	-4.62	--	--	Peak	323.00	100	Vertical	N/A
4**	5182.750	90.44	-4.62	--	--	AV	323.00	100	Vertical	N/A
5	7498.500	54.56	-0.67	74.0	19.44	Peak	332.00	100	Vertical	Pass
5**	7498.500	45.43	-0.67	54.0	8.57	AV	332.00	100	Vertical	Pass
6	12584.937	52.68	1.29	74.0	21.32	Peak	52.00	150	Vertical	Pass
6**	12584.937	43.78	1.29	54.0	10.22	AV	52.00	150	Vertical	Pass



## 11ac20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1594.900	38.70	-19.96	74.0	35.30	Peak	232.00	150	Horizontal	Pass
1**	1594.900	27.26	-19.96	54.0	26.74	AV	232.00	150	Horizontal	Pass
2	2836.900	43.07	-12.55	74.0	30.93	Peak	70.00	100	Horizontal	Pass
2**	2836.900	33.74	-12.55	54.0	20.26	AV	70.00	100	Horizontal	Pass
3	4093.250	47.46	-7.21	74.0	26.54	Peak	17.00	200	Horizontal	Pass
3**	4093.250	38.04	-7.21	54.0	15.96	AV	17.00	200	Horizontal	Pass
4	5218.250	103.40	-4.77	--	--	Peak	340.00	300	Horizontal	N/A
4**	5218.250	96.28	-4.77	--	--	AV	340.00	300	Horizontal	N/A
5	7538.750	56.11	-0.22	74.0	17.89	Peak	58.00	100	Horizontal	Pass
5**	7538.750	46.48	-0.22	54.0	7.52	AV	58.00	100	Horizontal	Pass
6	12576.862	52.63	1.36	74.0	21.37	Peak	198.00	150	Horizontal	Pass
6**	12576.862	43.31	1.36	54.0	10.69	AV	198.00	150	Horizontal	Pass

## 11ac20, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1594.700	38.00	-19.97	74.0	36.00	Peak	0.00	200	Vertical	Pass
1**	1594.700	27.66	-19.97	54.0	26.34	AV	0.00	200	Vertical	Pass
2	2810.700	43.64	-13.04	74.0	30.36	Peak	266.00	150	Vertical	Pass
2**	2810.700	33.44	-13.04	54.0	20.56	AV	266.00	150	Vertical	Pass
3	4105.250	46.74	-7.49	74.0	27.26	Peak	123.00	200	Vertical	Pass
3**	4105.250	37.13	-7.49	54.0	16.87	AV	123.00	200	Vertical	Pass
4	5222.000	97.34	-4.77	--	--	Peak	317.00	150	Vertical	N/A
4**	5222.000	90.57	-4.77	--	--	AV	317.00	150	Vertical	N/A
5	7571.500	54.50	-1.61	74.0	19.50	Peak	90.00	100	Vertical	Pass
5**	7571.500	44.40	-1.61	54.0	9.60	AV	90.00	100	Vertical	Pass
6	12586.125	52.71	1.28	74.0	21.29	Peak	19.00	300	Vertical	Pass
6**	12586.125	43.80	1.28	54.0	10.20	AV	19.00	300	Vertical	Pass

## 11ac20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1461.300	38.78	-19.73	74.0	35.22	Peak	327.00	150	Horizontal	Pass
1**	1461.300	27.66	-19.73	54.0	26.34	AV	327.00	150	Horizontal	Pass
2	2730.000	44.42	-11.53	74.0	29.58	Peak	49.00	100	Horizontal	Pass
2**	2730.000	34.89	-11.53	54.0	19.11	AV	49.00	100	Horizontal	Pass
3	4320.000	47.65	-5.99	74.0	26.35	Peak	173.00	100	Horizontal	Pass
3**	4320.000	38.34	-5.99	54.0	15.66	AV	173.00	100	Horizontal	Pass
4	5238.500	103.42	-5.19	--	--	Peak	348.00	150	Horizontal	N/A
4**	5238.500	96.78	-5.19	--	--	AV	348.00	150	Horizontal	N/A
5	7621.500	54.23	-1.49	74.0	19.77	Peak	73.00	100	Horizontal	Pass
5**	7621.500	44.08	-1.49	54.0	9.92	AV	73.00	100	Horizontal	Pass
6	12579.474	52.35	1.34	74.0	21.65	Peak	76.00	200	Horizontal	Pass
6**	12579.474	44.36	1.34	54.0	9.64	AV	76.00	200	Horizontal	Pass

## 11ac20, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1502.900	38.27	-19.54	74.0	35.73	Peak	22.00	100	Vertical	Pass
1**	1502.900	27.35	-19.54	54.0	26.65	AV	22.00	100	Vertical	Pass
2	2726.300	43.74	-11.63	74.0	30.26	Peak	266.00	100	Vertical	Pass
2**	2726.300	34.10	-11.63	54.0	19.90	AV	266.00	100	Vertical	Pass
3	4351.750	47.73	-6.62	74.0	26.27	Peak	51.00	200	Vertical	Pass
3**	4351.750	38.29	-6.62	54.0	15.71	AV	51.00	200	Vertical	Pass
4	5238.250	96.97	-5.20	--	--	Peak	317.00	150	Vertical	N/A
4**	5238.250	90.14	-5.20	--	--	AV	317.00	150	Vertical	N/A
5	7697.750	54.82	-1.41	74.0	19.18	Peak	345.00	200	Vertical	Pass
5**	7697.750	43.74	-1.41	54.0	10.26	AV	345.00	200	Vertical	Pass
6	12613.913	52.31	1.03	74.0	21.69	Peak	204.00	150	Vertical	Pass
6**	12613.913	43.89	1.03	54.0	10.11	AV	204.00	150	Vertical	Pass

## 11ac40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1479.800	37.24	-19.70	74.0	36.76	Peak	325.00	200	Horizontal	Pass
1**	1479.800	29.06	-19.70	54.0	24.94	AV	325.00	200	Horizontal	Pass
2	2799.800	43.27	-12.80	74.0	30.73	Peak	359.00	100	Horizontal	Pass
2**	2799.800	33.95	-12.80	54.0	20.05	AV	359.00	100	Horizontal	Pass
3	4298.000	47.39	-6.64	74.0	26.61	Peak	348.00	150	Horizontal	Pass
3**	4298.000	37.59	-6.64	54.0	16.41	AV	348.00	150	Horizontal	Pass
4	5187.250	102.38	-4.42	--	--	Peak	340.00	150	Horizontal	N/A
4**	5187.250	94.80	-4.42	--	--	AV	340.00	150	Horizontal	N/A
5	7481.500	54.37	-0.80	74.0	19.63	Peak	208.00	100	Horizontal	Pass
5**	7481.500	44.70	-0.80	54.0	9.30	AV	208.00	100	Horizontal	Pass
6	12406.813	52.89	0.39	74.0	21.11	Peak	0.00	300	Horizontal	Pass
6**	12406.813	42.89	0.39	54.0	11.11	AV	0.00	300	Horizontal	Pass

## 11ac40, U-NII-1, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1496.700	39.06	-19.51	74.0	34.94	Peak	282.00	200	Vertical	Pass
1**	1496.700	27.38	-19.51	54.0	26.62	AV	282.00	200	Vertical	Pass
2	2759.000	43.59	-12.90	74.0	30.41	Peak	352.00	150	Vertical	Pass
2**	2759.000	33.70	-12.90	54.0	20.30	AV	352.00	150	Vertical	Pass
3	4346.000	47.41	-6.48	74.0	26.59	Peak	0.00	100	Vertical	Pass
3**	4346.000	38.18	-6.48	54.0	15.82	AV	0.00	100	Vertical	Pass
4	5192.750	96.62	-4.38	--	--	Peak	322.00	100	Vertical	N/A
4**	5192.750	89.22	-4.38	--	--	AV	322.00	100	Vertical	N/A
5	7487.250	54.16	-0.36	74.0	19.84	Peak	314.00	200	Vertical	Pass
5**	7487.250	45.38	-0.36	54.0	8.62	AV	314.00	200	Vertical	Pass
6	12614.388	52.75	1.03	74.0	21.25	Peak	280.00	150	Vertical	Pass
6**	12614.388	43.74	1.03	54.0	10.26	AV	280.00	150	Vertical	Pass

## 11ac40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1496.000	38.93	-19.50	74.0	35.07	Peak	354.00	150	Horizontal	Pass
1**	1496.000	27.17	-19.50	54.0	26.83	AV	354.00	150	Horizontal	Pass
2	2727.800	43.60	-11.52	74.0	30.40	Peak	187.00	150	Horizontal	Pass
2**	2727.800	33.94	-11.52	54.0	20.06	AV	187.00	150	Horizontal	Pass
3	4375.500	47.37	-7.20	74.0	26.63	Peak	108.00	100	Horizontal	Pass
3**	4375.500	38.29	-7.20	54.0	15.71	AV	108.00	100	Horizontal	Pass
4	5233.000	102.59	-5.14	--	--	Peak	257.00	200	Horizontal	N/A
4**	5233.000	94.52	-5.14	--	--	AV	257.00	200	Horizontal	N/A
5	7543.500	55.01	-0.32	74.0	18.99	Peak	248.00	150	Horizontal	Pass
5**	7543.500	45.57	-0.32	54.0	8.43	AV	248.00	150	Horizontal	Pass
6	12575.438	53.35	1.38	74.0	20.65	Peak	52.00	100	Horizontal	Pass
6**	12575.438	43.24	1.38	54.0	10.76	AV	52.00	100	Horizontal	Pass

## 11ac40, U-NII-1, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1462.400	38.40	-19.75	74.0	35.60	Peak	255.00	150	Vertical	Pass
1**	1462.400	27.69	-19.75	54.0	26.31	AV	255.00	150	Vertical	Pass
2	2811.400	43.32	-13.02	74.0	30.68	Peak	286.00	200	Vertical	Pass
2**	2811.400	33.04	-13.02	54.0	20.96	AV	286.00	200	Vertical	Pass
3	4336.250	47.56	-6.11	74.0	26.44	Peak	16.00	100	Vertical	Pass
3**	4336.250	39.39	-6.11	54.0	14.61	AV	16.00	100	Vertical	Pass
4	5227.000	96.44	-4.94	--	--	Peak	322.00	100	Vertical	N/A
4**	5227.000	88.11	-4.94	--	--	AV	322.00	100	Vertical	N/A
5	7523.750	54.45	-0.96	74.0	19.55	Peak	181.00	150	Vertical	Pass
5**	7523.750	44.33	-0.96	54.0	9.67	AV	181.00	150	Vertical	Pass
6	12429.850	53.40	0.65	74.0	20.60	Peak	7.00	200	Vertical	Pass
6**	12429.850	43.09	0.65	54.0	10.91	AV	7.00	200	Vertical	Pass

## 11ac80, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1592.400	38.73	-19.97	74.0	35.27	Peak	305.00	200	Horizontal	Pass
1**	1592.400	27.82	-19.97	54.0	26.18	AV	305.00	200	Horizontal	Pass
2	2790.200	43.33	-12.60	74.0	30.67	Peak	26.00	150	Horizontal	Pass
2**	2790.200	33.27	-12.60	54.0	20.73	AV	26.00	150	Horizontal	Pass
3	4364.750	47.64	-6.74	74.0	26.36	Peak	73.00	100	Horizontal	Pass
3**	4364.750	38.49	-6.74	54.0	15.51	AV	73.00	100	Horizontal	Pass
4	5190.500	97.09	-4.39	--	--	Peak	340.00	150	Horizontal	N/A
4**	5190.500	89.35	-4.39	--	--	AV	340.00	150	Horizontal	N/A
5	7490.250	54.40	-0.32	74.0	19.60	Peak	157.00	200	Horizontal	Pass
5**	7490.250	45.87	-0.32	54.0	8.13	AV	157.00	200	Horizontal	Pass
6	12579.237	52.67	1.34	74.0	21.33	Peak	175.00	300	Horizontal	Pass
6**	12579.237	43.77	1.34	54.0	10.23	AV	175.00	300	Horizontal	Pass

## 11ac80, U-NII-1, 1 GHz to 18 GHz, Middle Channel, ANT V

	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1597.900	37.36	-20.03	74.0	36.64	Peak	0.00	150	Vertical	Pass
1**	1597.900	27.35	-20.03	54.0	26.65	AV	0.00	150	Vertical	Pass
2	2826.700	43.57	-12.61	74.0	30.43	Peak	177.00	100	Vertical	Pass
2**	2826.700	34.24	-12.61	54.0	19.76	AV	177.00	100	Vertical	Pass
3	4332.000	47.13	-6.05	74.0	26.87	Peak	306.00	200	Vertical	Pass
3**	4332.000	37.91	-6.05	54.0	16.09	AV	306.00	200	Vertical	Pass
4	5189.250	91.44	-4.40	--	--	Peak	322.00	150	Vertical	N/A
4**	5189.250	83.88	-4.40	--	--	AV	322.00	150	Vertical	N/A
5	7492.750	54.34	-0.43	74.0	19.66	Peak	190.00	200	Vertical	Pass
5**	7492.750	45.18	-0.43	54.0	8.82	AV	190.00	200	Vertical	Pass
6	12271.438	52.76	0.49	74.0	21.24	Peak	178.00	300	Vertical	Pass
6**	12271.438	42.87	0.49	54.0	11.13	AV	178.00	300	Vertical	Pass

## 11a, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1461.000	39.36	-19.72	74.0	34.64	Peak	328.00	150	Horizontal	Pass
1**	1461.000	28.57	-19.72	54.0	25.43	AV	328.00	150	Horizontal	Pass
2	2729.200	44.23	-11.50	74.0	29.77	Peak	39.00	150	Horizontal	Pass
2**	2729.200	34.65	-11.50	54.0	19.35	AV	39.00	150	Horizontal	Pass
3	3927.500	46.96	-7.96	74.0	27.04	Peak	273.00	200	Horizontal	Pass
3**	3927.500	37.58	-7.96	54.0	16.42	AV	273.00	200	Horizontal	Pass
4	5747.500	101.56	-5.28	--	--	Peak	132.00	100	Horizontal	N/A
4**	5747.500	94.06	-5.28	--	--	AV	132.00	100	Horizontal	N/A
5	7537.000	54.72	-0.28	74.0	19.28	Peak	32.00	100	Horizontal	Pass
5**	7537.000	46.24	-0.28	54.0	7.76	AV	32.00	100	Horizontal	Pass
6	12579.713	53.28	1.34	74.0	20.72	Peak	8.00	150	Horizontal	Pass
6**	12579.713	43.89	1.34	54.0	10.11	AV	8.00	150	Horizontal	Pass

## 11a, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1593.600	38.65	-20.01	74.0	35.35	Peak	219.00	100	Vertical	Pass
1**	1593.600	29.93	-20.01	54.0	24.07	AV	219.00	100	Vertical	Pass
2	2854.500	43.56	-12.29	74.0	30.44	Peak	17.00	100	Vertical	Pass
2**	2854.500	34.12	-12.29	54.0	19.88	AV	17.00	100	Vertical	Pass
3	4313.250	47.69	-6.03	74.0	26.31	Peak	0.00	200	Vertical	Pass
3**	4313.250	38.23	-6.03	54.0	15.77	AV	0.00	200	Vertical	Pass
4	5747.250	95.09	-5.28	--	--	Peak	330.00	150	Vertical	N/A
4**	5747.250	87.68	-5.28	--	--	AV	330.00	150	Vertical	N/A
5	7594.750	54.58	-0.49	74.0	19.42	Peak	216.00	200	Vertical	Pass
5**	7594.750	45.03	-0.49	54.0	8.97	AV	216.00	200	Vertical	Pass
6	12448.612	53.22	0.87	74.0	20.78	Peak	87.00	100	Vertical	Pass
6**	12448.612	43.50	0.87	54.0	10.50	AV	87.00	100	Vertical	Pass

## 11a, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1463.300	38.33	-19.76	74.0	35.67	Peak	324.00	200	Horizontal	Pass
1**	1463.300	30.08	-19.76	54.0	23.92	AV	324.00	200	Horizontal	Pass
2	2703.900	44.09	-12.74	74.0	29.91	Peak	163.00	150	Horizontal	Pass
2**	2703.900	33.64	-12.74	54.0	20.36	AV	163.00	150	Horizontal	Pass
3	4325.000	48.46	-5.94	74.0	25.54	Peak	345.00	100	Horizontal	Pass
3**	4325.000	38.41	-5.94	54.0	15.59	AV	345.00	100	Horizontal	Pass
4	5786.500	103.45	-4.73	--	--	Peak	135.00	150	Horizontal	N/A
4**	5786.500	95.71	-4.73	--	--	AV	135.00	150	Horizontal	N/A
5	7541.250	54.29	-0.23	74.0	19.71	Peak	201.00	100	Horizontal	Pass
5**	7541.250	45.15	-0.23	54.0	8.85	AV	201.00	100	Horizontal	Pass
6	12578.050	52.29	1.35	74.0	21.71	Peak	0.00	100	Horizontal	Pass
6**	12578.050	44.12	1.35	54.0	9.88	AV	0.00	100	Horizontal	Pass

## 11a, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1527.600	37.82	-19.61	74.0	36.18	Peak	113.00	150	Vertical	Pass
1**	1527.600	27.73	-19.61	54.0	26.27	AV	113.00	150	Vertical	Pass
2	2728.300	43.53	-11.48	74.0	30.47	Peak	234.00	150	Vertical	Pass
2**	2728.300	35.01	-11.48	54.0	18.99	AV	234.00	150	Vertical	Pass
3	4341.250	47.78	-6.32	74.0	26.22	Peak	3.00	200	Vertical	Pass
3**	4341.250	39.31	-6.32	54.0	14.69	AV	3.00	200	Vertical	Pass
4	5787.500	95.71	-4.74	--	--	Peak	0.00	200	Vertical	N/A
4**	5787.500	89.44	-4.74	--	--	AV	0.00	200	Vertical	N/A
5	7544.750	54.78	-0.45	74.0	19.22	Peak	52.00	150	Vertical	Pass
5**	7544.750	45.72	-0.45	54.0	8.28	AV	52.00	150	Vertical	Pass
6	12606.550	52.35	1.09	74.0	21.65	Peak	64.00	100	Vertical	Pass
6**	12606.550	45.20	1.09	54.0	8.80	AV	64.00	100	Vertical	Pass

## 11a, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1445.300	38.23	-19.71	74.0	35.77	Peak	241.00	200	Horizontal	Pass
1**	1445.300	28.57	-19.71	54.0	25.43	AV	241.00	200	Horizontal	Pass
2	2725.500	43.93	-11.67	74.0	30.07	Peak	226.00	200	Horizontal	Pass
2**	2725.500	35.32	-11.67	54.0	18.68	AV	226.00	200	Horizontal	Pass
3	4356.750	47.52	-6.63	74.0	26.48	Peak	166.00	100	Horizontal	Pass
3**	4356.750	39.19	-6.63	54.0	14.81	AV	166.00	100	Horizontal	Pass
4	5823.250	102.12	-4.71	--	--	Peak	306.00	100	Horizontal	N/A
4**	5823.250	94.63	-4.71	--	--	AV	306.00	100	Horizontal	N/A
5	7599.000	54.06	-0.34	74.0	19.94	Peak	249.00	150	Horizontal	Pass
5**	7599.000	46.08	-0.34	54.0	7.92	AV	249.00	150	Horizontal	Pass
6	12587.550	52.84	1.27	74.0	21.16	Peak	29.00	300	Horizontal	Pass
6**	12587.550	43.58	1.27	54.0	10.42	AV	29.00	300	Horizontal	Pass

## 11a, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1592.400	39.16	-19.97	74.0	34.84	Peak	0.00	300	Vertical	Pass
1**	1592.400	27.91	-19.97	54.0	26.09	AV	0.00	300	Vertical	Pass
2	2777.300	43.61	-13.08	74.0	30.39	Peak	292.00	100	Vertical	Pass
2**	2777.300	33.02	-13.08	54.0	20.98	AV	292.00	100	Vertical	Pass
3	4087.500	46.94	-7.21	74.0	27.06	Peak	332.00	150	Vertical	Pass
3**	4087.500	37.48	-7.21	54.0	16.52	AV	332.00	150	Vertical	Pass
4	5826.500	96.72	-4.78	--	--	Peak	0.00	200	Vertical	N/A
4**	5826.500	89.17	-4.78	--	--	AV	0.00	200	Vertical	N/A
5	7492.000	55.28	-0.39	74.0	18.72	Peak	257.00	150	Vertical	Pass
5**	7492.000	45.47	-0.39	54.0	8.53	AV	257.00	150	Vertical	Pass
6	12582.325	52.49	1.31	74.0	21.51	Peak	67.00	150	Vertical	Pass
6**	12582.325	45.13	1.31	54.0	8.87	AV	67.00	150	Vertical	Pass



## 11n20, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1595.100	38.38	-19.96	74.0	35.62	Peak	338.00	150	Horizontal	Pass
1**	1595.100	27.53	-19.96	54.0	26.47	AV	338.00	150	Horizontal	Pass
2	2848.300	43.84	-12.21	74.0	30.16	Peak	3.00	100	Horizontal	Pass
2**	2848.300	34.21	-12.21	54.0	19.79	AV	3.00	100	Horizontal	Pass
3	4332.250	47.45	-6.06	74.0	26.55	Peak	32.00	200	Horizontal	Pass
3**	4332.250	38.97	-6.06	54.0	15.03	AV	32.00	200	Horizontal	Pass
4	5747.250	100.96	-5.28	--	--	Peak	131.00	200	Horizontal	N/A
4**	5747.250	93.30	-5.28	--	--	AV	131.00	200	Horizontal	N/A
5	7494.750	54.36	-0.40	74.0	19.64	Peak	304.00	100	Horizontal	Pass
5**	7494.750	45.56	-0.40	54.0	8.44	AV	304.00	100	Horizontal	Pass
6	12453.838	52.93	0.86	74.0	21.07	Peak	187.00	150	Horizontal	Pass
6**	12453.838	43.55	0.86	54.0	10.45	AV	187.00	150	Horizontal	Pass

## 11n20, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1463.900	40.06	-19.77	74.0	33.94	Peak	104.00	200	Vertical	Pass
1**	1463.900	28.22	-19.77	54.0	25.78	AV	104.00	200	Vertical	Pass
2	2736.800	43.85	-11.94	74.0	30.15	Peak	0.00	150	Vertical	Pass
2**	2736.800	35.00	-11.94	54.0	19.00	AV	0.00	150	Vertical	Pass
3	4330.500	47.34	-5.98	74.0	26.66	Peak	67.00	150	Vertical	Pass
3**	4330.500	38.86	-5.98	54.0	15.14	AV	67.00	150	Vertical	Pass
4	5747.500	95.22	-5.28	--	--	Peak	331.00	100	Vertical	N/A
4**	5747.500	87.77	-5.28	--	--	AV	331.00	100	Vertical	N/A
5	7543.250	54.54	-0.31	74.0	19.46	Peak	240.00	150	Vertical	Pass
5**	7543.250	45.75	-0.31	54.0	8.25	AV	240.00	150	Vertical	Pass
6	12552.401	52.96	1.59	74.0	21.04	Peak	75.00	100	Vertical	Pass
6**	12552.401	43.17	1.59	54.0	10.83	AV	75.00	100	Vertical	Pass

## 11n20, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1463.200	38.25	-19.76	74.0	35.75	Peak	226.00	200	Horizontal	Pass
1**	1463.200	27.67	-19.76	54.0	26.33	AV	226.00	200	Horizontal	Pass
2	2881.900	43.73	-12.24	74.0	30.27	Peak	39.00	150	Horizontal	Pass
2**	2881.900	33.63	-12.24	54.0	20.37	AV	39.00	150	Horizontal	Pass
3	4325.250	47.33	-5.94	74.0	26.67	Peak	7.00	200	Horizontal	Pass
3**	4325.250	38.56	-5.94	54.0	15.44	AV	7.00	200	Horizontal	Pass
4	5786.500	102.63	-4.73	--	--	Peak	131.00	150	Horizontal	N/A
4**	5786.500	95.46	-4.73	--	--	AV	131.00	150	Horizontal	N/A
5	7598.500	54.15	-0.37	74.0	19.85	Peak	190.00	100	Horizontal	Pass
5**	7598.500	45.72	-0.37	54.0	8.28	AV	190.00	100	Horizontal	Pass
6	12583.037	52.65	1.31	74.0	21.35	Peak	195.00	150	Horizontal	Pass
6**	12583.037	43.60	1.31	54.0	10.40	AV	195.00	150	Horizontal	Pass

## 11n20, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1594.300	37.62	-19.99	74.0	36.38	Peak	217.00	100	Vertical	Pass
1**	1594.300	29.12	-19.99	54.0	24.88	AV	217.00	100	Vertical	Pass
2	2860.600	43.49	-12.37	74.0	30.51	Peak	314.00	100	Vertical	Pass
2**	2860.600	33.85	-12.37	54.0	20.15	AV	314.00	100	Vertical	Pass
3	4342.250	47.47	-6.29	74.0	26.53	Peak	313.00	150	Vertical	Pass
3**	4342.250	38.28	-6.29	54.0	15.72	AV	313.00	150	Vertical	Pass
4	5783.750	96.30	-4.69	--	--	Peak	0.00	200	Vertical	N/A
4**	5783.750	88.99	-4.69	--	--	AV	0.00	200	Vertical	N/A
5	7488.750	55.10	-0.33	74.0	18.90	Peak	33.00	100	Vertical	Pass
5**	7488.750	46.15	-0.33	54.0	7.85	AV	33.00	100	Vertical	Pass
6	12551.213	52.98	1.60	74.0	21.02	Peak	177.00	150	Vertical	Pass
6**	12551.213	44.34	1.60	54.0	9.66	AV	177.00	150	Vertical	Pass

## 11n20, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1456.200	37.83	-19.71	74.0	36.17	Peak	207.00	150	Horizontal	Pass
1**	1456.200	28.70	-19.71	54.0	25.30	AV	207.00	150	Horizontal	Pass
2	2797.500	43.89	-12.72	74.0	30.11	Peak	113.00	150	Horizontal	Pass
2**	2797.500	33.37	-12.72	54.0	20.63	AV	113.00	150	Horizontal	Pass
3	4340.500	47.34	-6.28	74.0	26.66	Peak	207.00	200	Horizontal	Pass
3**	4340.500	38.23	-6.28	54.0	15.77	AV	207.00	200	Horizontal	Pass
4	5826.500	101.54	-4.78	--	--	Peak	298.00	150	Horizontal	N/A
4**	5826.500	94.15	-4.78	--	--	AV	298.00	150	Horizontal	N/A
5	7490.250	54.78	-0.32	74.0	19.22	Peak	83.00	200	Horizontal	Pass
5**	7490.250	45.70	-0.32	54.0	8.30	AV	83.00	200	Horizontal	Pass
6	12586.362	52.98	1.28	74.0	21.02	Peak	344.00	100	Horizontal	Pass
6**	12586.362	43.76	1.28	54.0	10.24	AV	344.00	100	Horizontal	Pass

## 11n20, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1465.800	38.95	-19.81	74.0	35.05	Peak	255.00	200	Vertical	Pass
1**	1465.800	29.61	-19.81	54.0	24.39	AV	255.00	200	Vertical	Pass
2	2753.400	43.61	-12.98	74.0	30.39	Peak	76.00	150	Vertical	Pass
2**	2753.400	33.78	-12.98	54.0	20.22	AV	76.00	150	Vertical	Pass
3	4341.750	47.68	-6.31	74.0	26.32	Peak	62.00	100	Vertical	Pass
3**	4341.750	38.14	-6.31	54.0	15.86	AV	62.00	100	Vertical	Pass
4	5822.750	96.90	-4.69	--	--	Peak	360.00	100	Vertical	N/A
4**	5822.750	89.48	-4.69	--	--	AV	360.00	100	Vertical	N/A
5	7490.500	53.87	-0.32	74.0	20.13	Peak	288.00	150	Vertical	Pass
5**	7490.500	45.36	-0.32	54.0	8.64	AV	288.00	150	Vertical	Pass
6	12588.026	52.47	1.26	74.0	21.53	Peak	168.00	300	Vertical	Pass
6**	12588.026	43.56	1.26	54.0	10.44	AV	168.00	300	Vertical	Pass

## 11n40, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1460.900	37.88	-19.72	74.0	36.12	Peak	324.00	150	Horizontal	Pass
1**	1460.900	29.57	-19.72	54.0	24.43	AV	324.00	150	Horizontal	Pass
2	2741.400	43.47	-12.47	74.0	30.53	Peak	200.00	200	Horizontal	Pass
2**	2741.400	33.33	-12.47	54.0	20.67	AV	200.00	200	Horizontal	Pass
3	4358.250	47.75	-6.59	74.0	26.25	Peak	247.00	150	Horizontal	Pass
3**	4358.250	37.81	-6.59	54.0	16.19	AV	247.00	150	Horizontal	Pass
4	5761.000	97.49	-5.01	--	--	Peak	297.00	200	Horizontal	N/A
4**	5761.000	89.87	-5.01	--	--	AV	297.00	200	Horizontal	N/A
5	7492.000	54.25	-0.39	74.0	19.75	Peak	73.00	100	Horizontal	Pass
5**	7492.000	45.39	-0.39	54.0	8.61	AV	73.00	100	Horizontal	Pass
6	12582.088	52.33	1.32	74.0	21.67	Peak	292.00	150	Horizontal	Pass
6**	12582.088	43.62	1.32	54.0	10.38	AV	292.00	150	Horizontal	Pass

## 11n40, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1473.200	37.80	-19.73	74.0	36.20	Peak	257.00	150	Vertical	Pass
1**	1473.200	29.91	-19.73	54.0	24.09	AV	257.00	150	Vertical	Pass
2	2729.300	43.80	-11.50	74.0	30.20	Peak	225.00	100	Vertical	Pass
2**	2729.300	35.02	-11.50	54.0	18.98	AV	225.00	100	Vertical	Pass
3	4226.000	47.09	-7.60	74.0	26.91	Peak	0.00	100	Vertical	Pass
3**	4226.000	37.57	-7.60	54.0	16.43	AV	0.00	100	Vertical	Pass
4	5757.000	93.19	-5.13	--	--	Peak	330.00	200	Vertical	N/A
4**	5757.000	86.00	-5.13	--	--	AV	330.00	200	Vertical	N/A
5	7600.250	54.19	-0.37	74.0	19.81	Peak	57.00	150	Vertical	Pass
5**	7600.250	45.96	-0.37	54.0	8.04	AV	57.00	150	Vertical	Pass
6	12576.388	52.65	1.37	74.0	21.35	Peak	212.00	300	Vertical	Pass
6**	12576.388	44.20	1.37	54.0	9.80	AV	212.00	300	Vertical	Pass

## 11n40, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1469.400	37.64	-19.77	74.0	36.36	Peak	220.00	150	Horizontal	Pass
1**	1469.400	27.64	-19.77	54.0	26.36	AV	220.00	150	Horizontal	Pass
2	2824.900	43.72	-12.66	74.0	30.28	Peak	134.00	200	Horizontal	Pass
2**	2824.900	35.38	-12.66	54.0	18.62	AV	134.00	200	Horizontal	Pass
3	4368.500	47.33	-6.86	74.0	26.67	Peak	216.00	100	Horizontal	Pass
3**	4368.500	37.99	-6.86	54.0	16.01	AV	216.00	100	Horizontal	Pass
4	5792.750	99.64	-4.74	--	--	Peak	298.00	100	Horizontal	N/A
4**	5792.750	92.40	-4.74	--	--	AV	298.00	100	Horizontal	N/A
5	7543.000	53.81	-0.30	74.0	20.19	Peak	290.00	200	Horizontal	Pass
5**	7543.000	45.14	-0.30	54.0	8.86	AV	290.00	200	Horizontal	Pass
6	12452.650	52.40	0.87	74.0	21.60	Peak	143.00	100	Horizontal	Pass
6**	12452.650	43.50	0.87	54.0	10.50	AV	143.00	100	Horizontal	Pass

## 11n40, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1480.900	37.71	-19.68	74.0	36.29	Peak	206.00	150	Vertical	Pass
1**	1480.900	27.75	-19.68	54.0	26.25	AV	206.00	150	Vertical	Pass
2	2727.500	43.80	-11.54	74.0	30.20	Peak	360.00	100	Vertical	Pass
2**	2727.500	33.93	-11.54	54.0	20.07	AV	360.00	100	Vertical	Pass
3	4330.250	47.66	-5.98	74.0	26.34	Peak	16.00	200	Vertical	Pass
3**	4330.250	38.76	-5.98	54.0	15.24	AV	16.00	200	Vertical	Pass
4	5796.750	94.81	-4.66	--	--	Peak	331.00	100	Vertical	N/A
4**	5796.750	87.28	-4.66	--	--	AV	331.00	100	Vertical	N/A
5	7497.750	54.17	-0.62	74.0	19.83	Peak	57.00	150	Vertical	Pass
5**	7497.750	44.99	-0.62	54.0	9.01	AV	57.00	150	Vertical	Pass
6	12606.550	52.75	1.09	74.0	21.25	Peak	290.00	100	Vertical	Pass
6**	12606.550	43.47	1.09	54.0	10.53	AV	290.00	100	Vertical	Pass

## 11ac20, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1471.800	37.66	-19.74	74.0	36.34	Peak	223.00	150	Horizontal	Pass
1**	1471.800	28.49	-19.74	54.0	25.51	AV	223.00	150	Horizontal	Pass
2	2863.200	43.60	-12.38	74.0	30.40	Peak	112.00	200	Horizontal	Pass
2**	2863.200	34.41	-12.38	54.0	19.59	AV	112.00	200	Horizontal	Pass
3	4336.500	47.24	-6.10	74.0	26.76	Peak	347.00	150	Horizontal	Pass
3**	4336.500	39.07	-6.10	54.0	14.93	AV	347.00	150	Horizontal	Pass
4	5743.250	100.86	-5.34	--	--	Peak	131.00	100	Horizontal	N/A
4**	5743.250	93.30	-5.34	--	--	AV	131.00	100	Horizontal	N/A
5	7535.250	54.80	-0.43	74.0	19.20	Peak	139.00	200	Horizontal	Pass
5**	7535.250	44.91	-0.43	54.0	9.09	AV	139.00	200	Horizontal	Pass
6	12540.526	53.11	1.40	74.0	20.89	Peak	87.00	150	Horizontal	Pass
6**	12540.526	43.78	1.40	54.0	10.22	AV	87.00	150	Horizontal	Pass

## 11ac20, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1599.600	39.40	-20.07	74.0	34.60	Peak	221.00	150	Vertical	Pass
1**	1599.600	30.93	-20.07	54.0	23.07	AV	221.00	150	Vertical	Pass
2	2736.400	44.23	-11.92	74.0	29.77	Peak	105.00	300	Vertical	Pass
2**	2736.400	34.83	-11.92	54.0	19.17	AV	105.00	300	Vertical	Pass
3	4335.750	47.87	-6.12	74.0	26.13	Peak	218.00	200	Vertical	Pass
3**	4335.750	38.52	-6.12	54.0	15.48	AV	218.00	200	Vertical	Pass
4	5746.500	95.51	-5.27	--	--	Peak	318.00	100	Vertical	N/A
4**	5746.500	88.63	-5.27	--	--	AV	318.00	100	Vertical	N/A
5	7535.250	53.99	-0.43	74.0	20.01	Peak	43.00	150	Vertical	Pass
5**	7535.250	45.56	-0.43	54.0	8.44	AV	43.00	150	Vertical	Pass
6	12574.725	52.40	1.38	74.0	21.60	Peak	0.00	200	Vertical	Pass
6**	12574.725	44.08	1.38	54.0	9.92	AV	0.00	200	Vertical	Pass

## 11ac20, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1462.000	38.78	-19.74	74.0	35.22	Peak	326.00	150	Horizontal	Pass
1**	1462.000	27.69	-19.74	54.0	26.31	AV	326.00	150	Horizontal	Pass
2	2732.400	43.92	-11.62	74.0	30.08	Peak	276.00	200	Horizontal	Pass
2**	2732.400	34.63	-11.62	54.0	19.37	AV	276.00	200	Horizontal	Pass
3	4317.500	47.73	-5.96	74.0	26.27	Peak	59.00	200	Horizontal	Pass
3**	4317.500	38.71	-5.96	54.0	15.29	AV	59.00	200	Horizontal	Pass
4	5784.000	102.58	-4.69	--	--	Peak	134.00	100	Horizontal	N/A
4**	5784.000	94.89	-4.69	--	--	AV	134.00	100	Horizontal	N/A
5	7579.750	54.01	-1.43	74.0	19.99	Peak	290.00	150	Horizontal	Pass
5**	7579.750	44.29	-1.43	54.0	9.71	AV	290.00	150	Horizontal	Pass
6	12370.713	52.33	0.56	74.0	21.67	Peak	180.00	100	Horizontal	Pass
6**	12370.713	42.94	0.56	54.0	11.06	AV	180.00	100	Horizontal	Pass

## 11ac20, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1461.100	38.19	-19.72	74.0	35.81	Peak	259.00	200	Vertical	Pass
1**	1461.100	27.88	-19.72	54.0	26.12	AV	259.00	200	Vertical	Pass
2	2747.000	43.44	-12.83	74.0	30.56	Peak	350.00	150	Vertical	Pass
2**	2747.000	33.68	-12.83	54.0	20.32	AV	350.00	150	Vertical	Pass
3	4703.750	49.54	-5.95	74.0	24.46	Peak	62.00	100	Vertical	Pass
3**	4703.750	40.95	-5.95	54.0	13.05	AV	62.00	100	Vertical	Pass
4	5786.500	97.42	-4.73	--	--	Peak	323.00	100	Vertical	N/A
4**	5786.500	90.11	-4.73	--	--	AV	323.00	100	Vertical	N/A
5	7525.250	54.38	-0.94	74.0	19.62	Peak	62.00	200	Vertical	Pass
5**	7525.250	44.70	-0.94	54.0	9.30	AV	62.00	200	Vertical	Pass
6	12635.763	53.27	0.84	74.0	20.73	Peak	0.00	100	Vertical	Pass
6**	12635.763	42.65	0.84	54.0	11.35	AV	0.00	100	Vertical	Pass

## 11ac20, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1479.000	39.96	-19.72	74.0	34.04	Peak	230.00	150	Horizontal	Pass
1**	1479.000	31.47	-19.72	54.0	22.53	AV	230.00	150	Horizontal	Pass
2	2727.500	43.52	-11.54	74.0	30.48	Peak	81.00	150	Horizontal	Pass
2**	2727.500	34.36	-11.54	54.0	19.64	AV	81.00	150	Horizontal	Pass
3	4343.750	47.47	-6.27	74.0	26.53	Peak	42.00	200	Horizontal	Pass
3**	4343.750	38.88	-6.27	54.0	15.12	AV	42.00	200	Horizontal	Pass
4	5828.250	101.67	-4.74	--	--	Peak	134.00	100	Horizontal	N/A
4**	5828.250	94.14	-4.74	--	--	AV	134.00	100	Horizontal	N/A
5	7600.250	55.24	-0.37	74.0	18.76	Peak	273.00	100	Horizontal	Pass
5**	7600.250	45.42	-0.37	54.0	8.58	AV	273.00	100	Horizontal	Pass
6	12579.713	52.87	1.34	74.0	21.13	Peak	0.00	150	Horizontal	Pass
6**	12579.713	44.26	1.34	54.0	9.74	AV	0.00	150	Horizontal	Pass

## 11ac20, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1493.000	37.99	-19.43	74.0	36.01	Peak	344.00	150	Vertical	Pass
1**	1493.000	28.19	-19.43	54.0	25.81	AV	344.00	150	Vertical	Pass
2	2800.600	43.70	-12.84	74.0	30.30	Peak	243.00	100	Vertical	Pass
2**	2800.600	34.17	-12.84	54.0	19.83	AV	243.00	100	Vertical	Pass
3	4340.750	47.50	-6.29	74.0	26.50	Peak	315.00	200	Vertical	Pass
3**	4340.750	38.71	-6.29	54.0	15.29	AV	315.00	200	Vertical	Pass
4	5825.250	97.81	-4.76	--	--	Peak	0.00	150	Vertical	N/A
4**	5825.250	89.51	-4.76	--	--	AV	0.00	150	Vertical	N/A
5	7597.750	54.34	-0.40	74.0	19.66	Peak	248.00	200	Vertical	Pass
5**	7597.750	45.68	-0.40	54.0	8.32	AV	248.00	200	Vertical	Pass
6	12251.487	53.01	0.37	74.0	20.99	Peak	121.00	100	Vertical	Pass
6**	12251.487	42.45	0.37	54.0	11.55	AV	121.00	100	Vertical	Pass



## 11ac40, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1462.000	38.30	-19.74	74.0	35.70	Peak	284.00	200	Horizontal	Pass
1**	1462.000	27.32	-19.74	54.0	26.68	AV	284.00	200	Horizontal	Pass
2	2879.000	43.72	-12.33	74.0	30.28	Peak	264.00	200	Horizontal	Pass
2**	2879.000	34.00	-12.33	54.0	20.00	AV	264.00	200	Horizontal	Pass
3	4339.250	47.59	-6.22	74.0	26.41	Peak	108.00	100	Horizontal	Pass
3**	4339.250	38.94	-6.22	54.0	15.06	AV	108.00	100	Horizontal	Pass
4	5751.750	100.42	-5.26	--	--	Peak	132.00	100	Horizontal	N/A
4**	5751.750	92.57	-5.26	--	--	AV	132.00	100	Horizontal	N/A
5	7532.500	54.51	-0.53	74.0	19.49	Peak	189.00	200	Horizontal	Pass
5**	7532.500	46.02	-0.53	54.0	7.98	AV	189.00	200	Horizontal	Pass
6	12301.125	52.62	0.66	74.0	21.38	Peak	310.00	300	Horizontal	Pass
6**	12301.125	43.11	0.66	54.0	10.89	AV	310.00	300	Horizontal	Pass

## 11ac40, U-NII-3, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1519.200	38.24	-19.64	74.0	35.76	Peak	91.00	100	Vertical	Pass
1**	1519.200	27.66	-19.64	54.0	26.34	AV	91.00	100	Vertical	Pass
2	2735.100	43.60	-11.85	74.0	30.40	Peak	122.00	100	Vertical	Pass
2**	2735.100	34.58	-11.85	54.0	19.42	AV	122.00	100	Vertical	Pass
3	4324.250	47.42	-5.93	74.0	26.58	Peak	323.00	200	Vertical	Pass
3**	4324.250	38.29	-5.93	54.0	15.71	AV	323.00	200	Vertical	Pass
4	5758.250	96.33	-5.06	--	--	Peak	332.00	100	Vertical	N/A
4**	5758.250	87.96	-5.06	--	--	AV	332.00	100	Vertical	N/A
5	7492.500	54.09	-0.41	74.0	19.91	Peak	30.00	200	Vertical	Pass
5**	7492.500	46.17	-0.41	54.0	7.83	AV	30.00	200	Vertical	Pass
6	12613.437	52.60	1.04	74.0	21.40	Peak	19.00	150	Vertical	Pass
6**	12613.437	43.82	1.04	54.0	10.18	AV	19.00	150	Vertical	Pass

## 11ac40, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1486.800	38.36	-19.57	74.0	35.64	Peak	326.00	150	Horizontal	Pass
1**	1486.800	28.20	-19.57	54.0	25.80	AV	326.00	150	Horizontal	Pass
2	2859.000	43.75	-12.35	74.0	30.25	Peak	291.00	200	Horizontal	Pass
2**	2859.000	34.62	-12.35	54.0	19.38	AV	291.00	200	Horizontal	Pass
3	4345.250	47.68	-6.43	74.0	26.32	Peak	345.00	300	Horizontal	Pass
3**	4345.250	38.30	-6.43	54.0	15.70	AV	345.00	300	Horizontal	Pass
4	5791.750	102.08	-4.73	--	--	Peak	298.00	100	Horizontal	N/A
4**	5791.750	95.10	-4.73	--	--	AV	298.00	100	Horizontal	N/A
5	7602.250	54.14	-0.47	74.0	19.86	Peak	335.00	150	Horizontal	Pass
5**	7602.250	45.06	-0.47	54.0	8.94	AV	335.00	150	Horizontal	Pass
6	12582.563	52.68	1.31	74.0	21.32	Peak	170.00	150	Horizontal	Pass
6**	12582.563	44.47	1.31	54.0	9.53	AV	170.00	150	Horizontal	Pass

## 11ac40, U-NII-3, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1438.800	37.06	-19.77	74.0	36.94	Peak	111.00	200	Vertical	Pass
1**	1438.800	28.34	-19.77	54.0	25.66	AV	111.00	200	Vertical	Pass
2	2728.900	43.68	-11.48	74.0	30.32	Peak	102.00	200	Vertical	Pass
2**	2728.900	34.83	-11.48	54.0	19.17	AV	102.00	200	Vertical	Pass
3	4345.250	47.88	-6.43	74.0	26.12	Peak	355.00	100	Vertical	Pass
3**	4345.250	38.33	-6.43	54.0	15.67	AV	355.00	100	Vertical	Pass
4	5787.750	98.51	-4.74	--	--	Peak	2.00	150	Vertical	N/A
4**	5787.750	90.14	-4.74	--	--	AV	2.00	150	Vertical	N/A
5	7539.500	54.88	-0.21	74.0	19.12	Peak	150.00	100	Vertical	Pass
5**	7539.500	45.42	-0.21	54.0	8.58	AV	150.00	100	Vertical	Pass
6	12576.625	52.83	1.37	74.0	21.17	Peak	8.00	200	Vertical	Pass
6**	12576.625	44.51	1.37	54.0	9.49	AV	8.00	200	Vertical	Pass

## 11ac80, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1510.600	38.56	-19.62	74.0	35.44	Peak	222.00	150	Horizontal	Pass
1**	1510.600	27.39	-19.62	54.0	26.61	AV	222.00	150	Horizontal	Pass
2	2793.500	43.63	-12.54	74.0	30.37	Peak	134.00	100	Horizontal	Pass
2**	2793.500	34.06	-12.54	54.0	19.94	AV	134.00	100	Horizontal	Pass
3	4369.000	47.93	-6.88	74.0	26.07	Peak	239.00	100	Horizontal	Pass
3**	4369.000	38.49	-6.88	54.0	15.51	AV	239.00	100	Horizontal	Pass
4	5795.000	96.63	-4.71	--	--	Peak	135.00	200	Horizontal	N/A
4**	5795.000	88.77	-4.71	--	--	AV	135.00	200	Horizontal	N/A
5	7494.500	54.24	-0.41	74.0	19.76	Peak	21.00	100	Horizontal	Pass
5**	7494.500	45.32	-0.41	54.0	8.68	AV	21.00	100	Horizontal	Pass
6	12361.925	53.04	0.63	74.0	20.96	Peak	159.00	150	Horizontal	Pass
6**	12361.925	43.17	0.63	54.0	10.83	AV	159.00	150	Horizontal	Pass

## 11ac80, U-NII-3, 1 GHz to 18 GHz, Middle Channel, ANT V

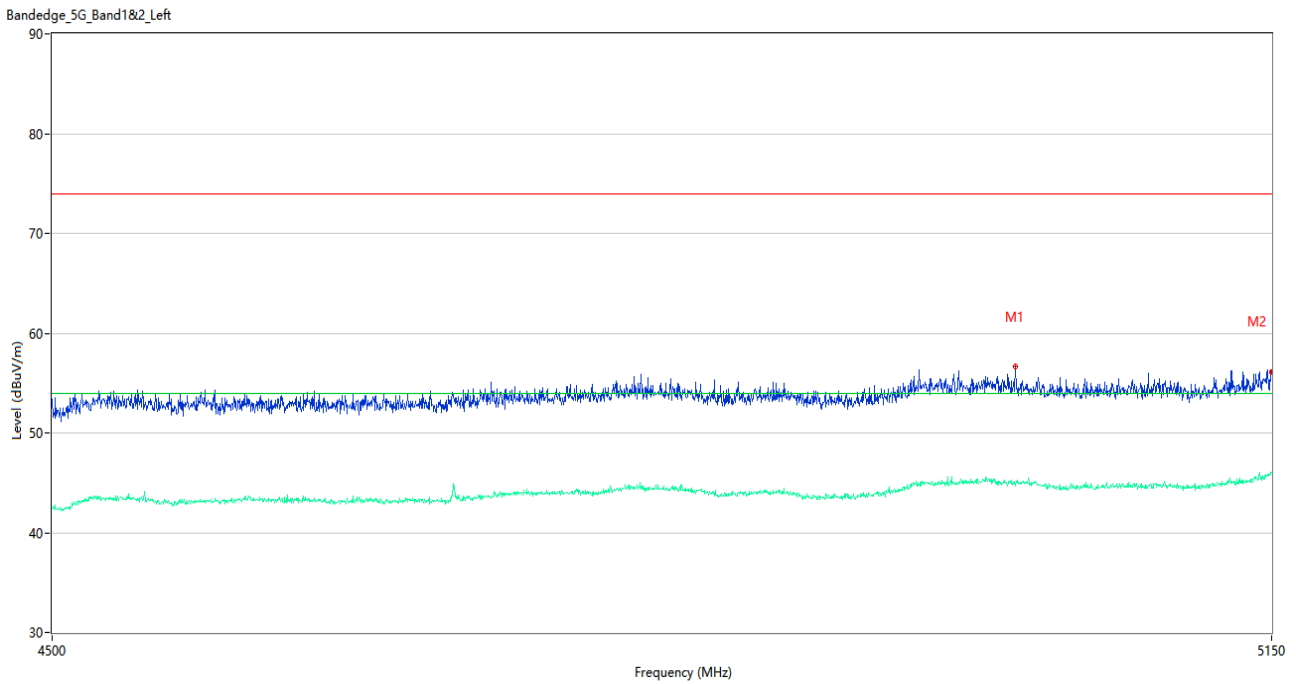
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1487.000	37.95	-19.58	74.0	36.05	Peak	347.00	200	Vertical	Pass
1**	1487.000	28.15	-19.58	54.0	25.85	AV	347.00	200	Vertical	Pass
2	2734.400	44.31	-11.79	74.0	29.69	Peak	48.00	200	Vertical	Pass
2**	2734.400	34.16	-11.79	54.0	19.84	AV	48.00	200	Vertical	Pass
3	4345.000	47.28	-6.41	74.0	26.72	Peak	287.00	100	Vertical	Pass
3**	4345.000	37.89	-6.41	54.0	16.11	AV	287.00	100	Vertical	Pass
4	5798.500	92.40	-4.72	--	--	Peak	328.00	150	Vertical	N/A
4**	5798.500	85.42	-4.72	--	--	AV	328.00	150	Vertical	N/A
5	7596.000	53.94	-0.46	74.0	20.06	Peak	320.00	100	Vertical	Pass
5**	7596.000	45.01	-0.46	54.0	8.99	AV	320.00	100	Vertical	Pass
6	12393.275	52.65	0.36	74.0	21.35	Peak	108.00	300	Vertical	Pass
6**	12393.275	42.58	0.36	54.0	11.42	AV	108.00	300	Vertical	Pass

## A.6.2 Band Edge (Restricted-band)

Test Band	Mode	Channel	Verdict
U-NII-1	802.11a	Low	Pass
		High	Pass
	802.11n(HT20)	Low	Pass
		High	Pass
	802.11n(HT40)	Low	Pass
		High	Pass
	802.11ac(VHT20)	Low	Pass
		High	Pass
	802.11ac(VHT40)	Low	Pass
		High	Pass
802.11ac(VHT80)	Middle	Pass	
U-NII-3	802.11a	Low	Pass
		High	Pass
	802.11n(HT20)	Low	Pass
		High	Pass
	802.11n(HT40)	Low	Pass
		High	Pass
	802.11ac(VHT20)	Low	Pass
		High	Pass
	802.11ac(VHT40)	Low	Pass
		High	Pass
802.11ac(VHT80)	Middle	Pass	

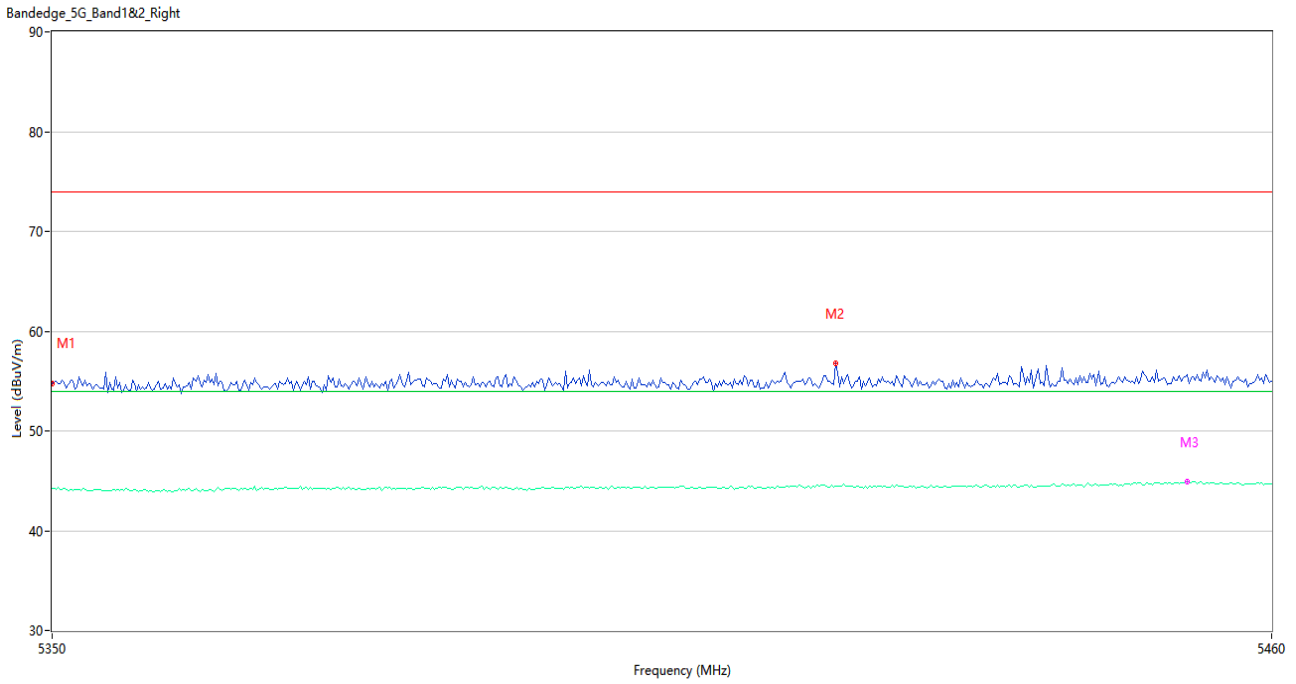
Test Data and Plots

U-NII-1 11a Low Channel



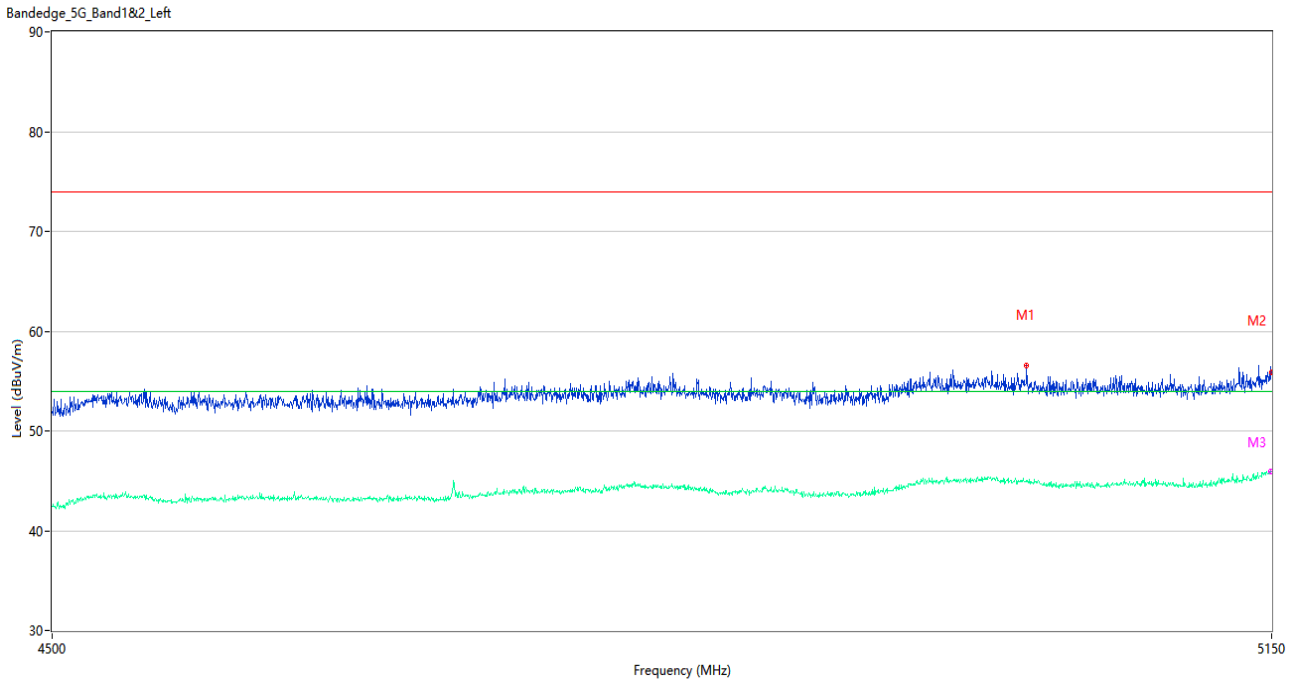
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5006.025	56.62	1.62	74.0	17.38	Peak	67.00	100	Horizontal	Pass
1**	5006.025	44.74	1.62	54.0	9.26	AV	67.00	100	Horizontal	Pass
2	5150.000	56.11	0.84	74.0	17.89	Peak	125.00	150	Horizontal	Pass
2**	5150.000	46.07	0.84	54.0	7.93	AV	125.00	150	Horizontal	Pass

U-NII-1 11a High Channel



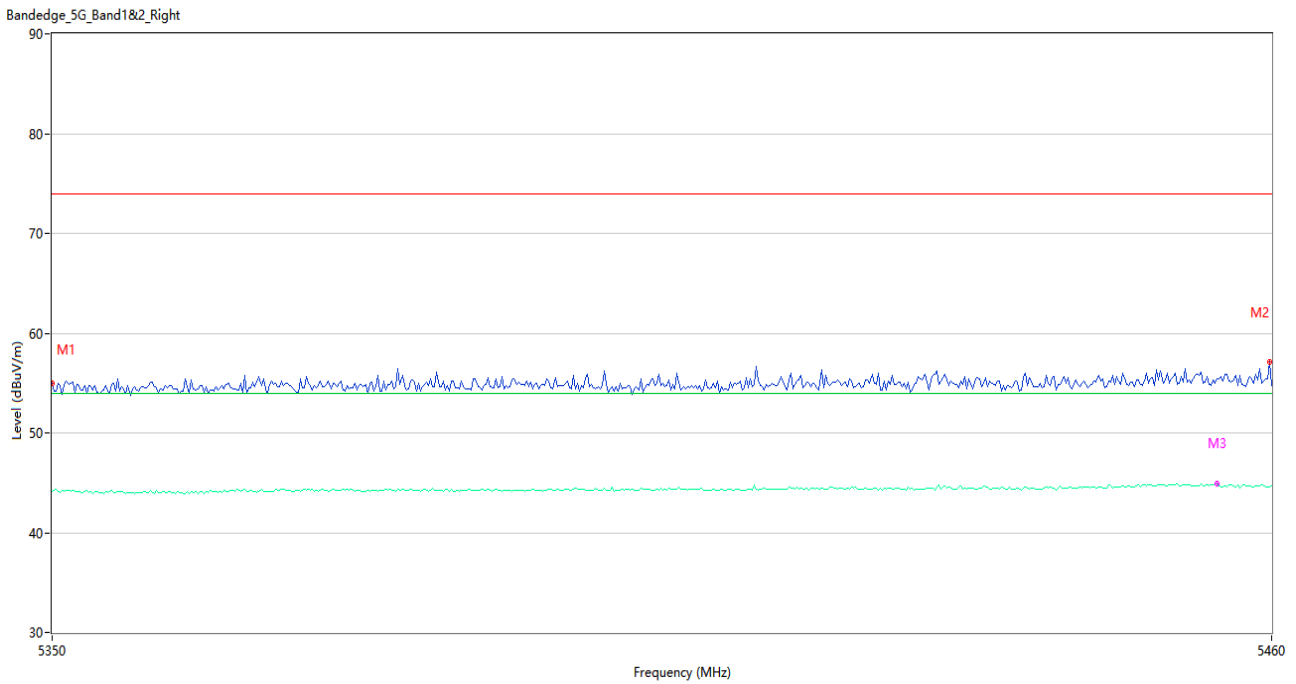
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	54.69	0.85	74.0	19.31	Peak	154.00	200	Horizontal	Pass
1**	5350.000	44.27	0.85	54.0	9.73	AV	154.00	200	Horizontal	Pass
2	5420.400	56.78	1.26	74.0	17.22	Peak	143.00	150	Horizontal	Pass
2**	5420.400	44.50	1.26	54.0	9.50	AV	143.00	150	Horizontal	Pass
3	5452.300	55.62	1.29	74.0	18.38	Peak	355.00	100	Horizontal	Pass
3**	5452.300	44.93	1.29	54.0	9.07	AV	355.00	100	Horizontal	Pass

U-NII-1 11n20 Low Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5012.200	56.60	1.47	74.0	17.40	Peak	148.00	150	Horizontal	Pass
1**	5012.200	44.94	1.47	54.0	9.06	AV	148.00	150	Horizontal	Pass
2	5150.000	55.89	0.84	74.0	18.11	Peak	274.00	100	Horizontal	Pass
2**	5150.000	45.73	0.84	54.0	8.27	AV	274.00	100	Horizontal	Pass
3	5149.675	55.14	0.84	74.0	18.86	Peak	359.00	150	Horizontal	Pass
3**	5149.675	45.95	0.84	54.0	8.05	AV	359.00	150	Horizontal	Pass

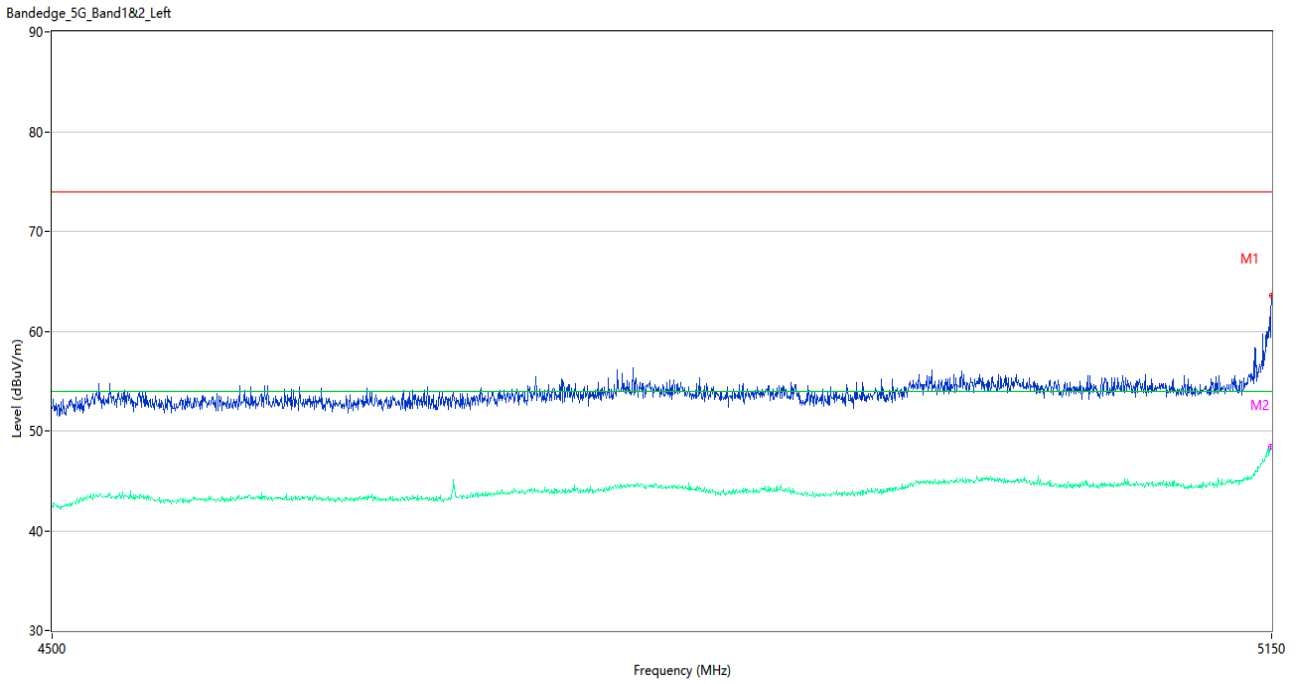
U-NII-1 11n20 High Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	54.96	0.85	74.0	19.04	Peak	69.00	100	Horizontal	Pass
1**	5350.000	44.10	0.85	54.0	9.90	AV	69.00	100	Horizontal	Pass
2	5459.817	57.08	1.23	74.0	16.92	Peak	39.00	100	Horizontal	Pass
2**	5459.817	44.60	1.23	54.0	9.40	AV	39.00	100	Horizontal	Pass
3	5455.050	55.37	1.18	74.0	18.63	Peak	246.00	150	Horizontal	Pass
3**	5455.050	44.94	1.18	54.0	9.06	AV	246.00	150	Horizontal	Pass

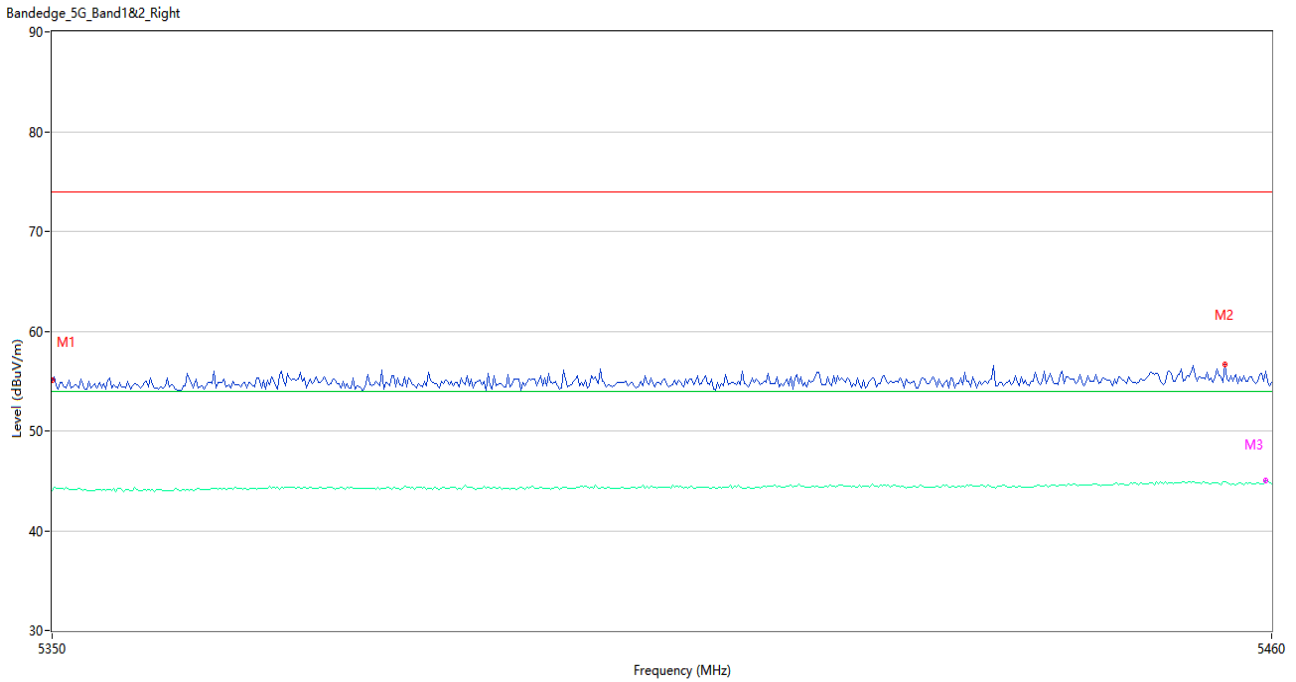


U-NII-1 11n40 Low Channel



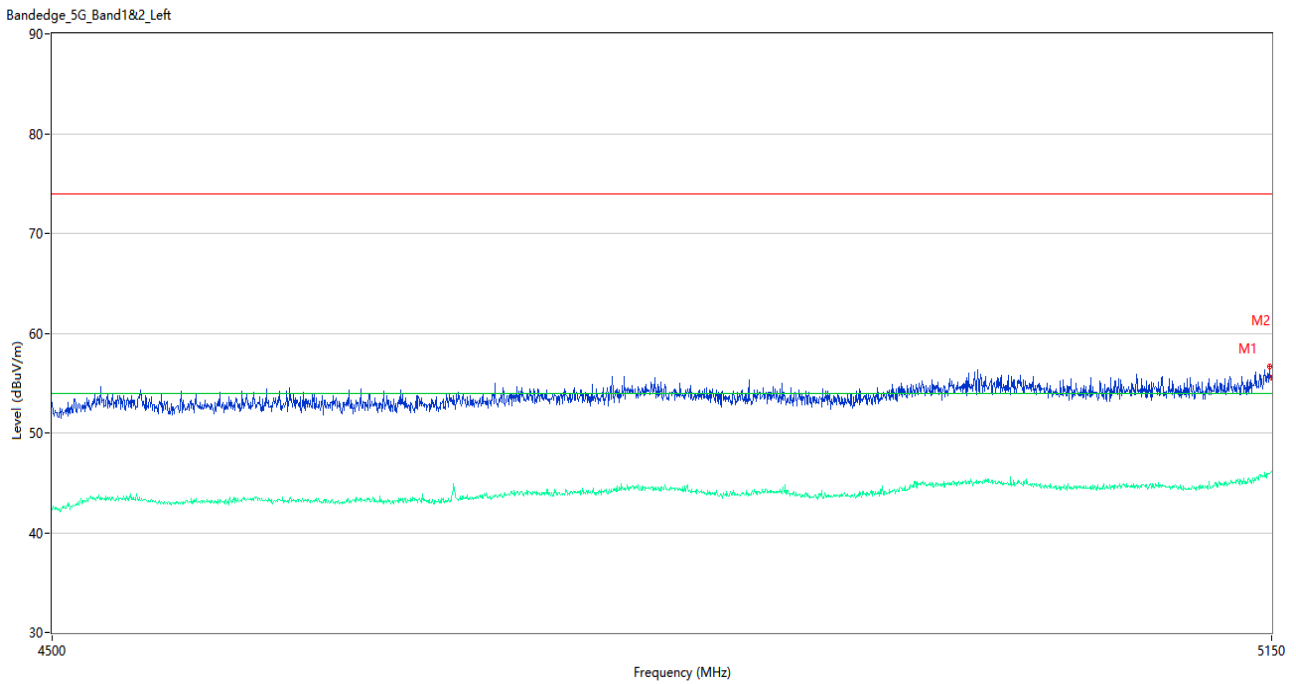
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5150.000	63.57	0.84	74.0	10.43	Peak	265.00	150	Horizontal	Pass
1**	5150.000	48.43	0.84	54.0	5.57	AV	265.00	150	Horizontal	Pass
2	5149.675	61.69	0.84	74.0	12.31	Peak	139.00	200	Horizontal	Pass
2**	5149.675	48.46	0.84	54.0	5.54	AV	139.00	200	Horizontal	Pass

U-NII-1 11n40 High Channel



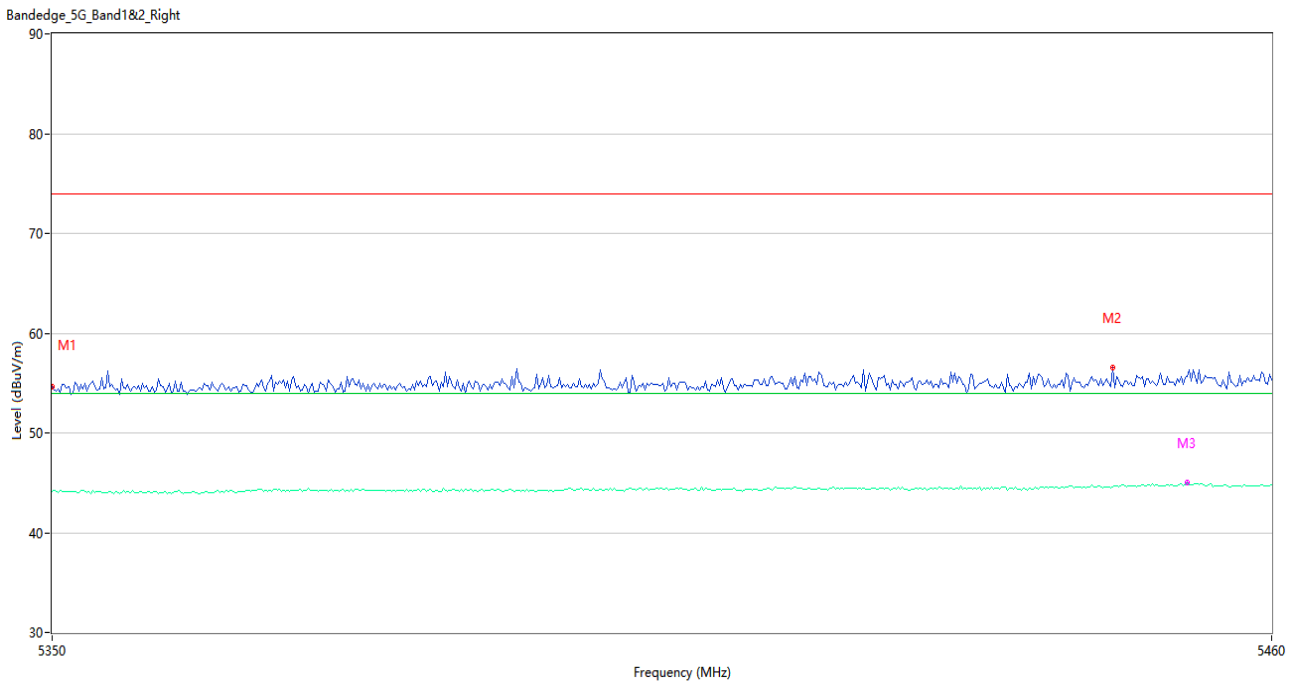
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	55.04	0.85	74.0	18.96	Peak	360.00	200	Horizontal	Pass
1**	5350.000	44.05	0.85	54.0	9.95	AV	360.00	200	Horizontal	Pass
2	5455.783	56.64	1.17	74.0	17.36	Peak	360.00	200	Horizontal	Pass
2**	5455.783	44.91	1.17	54.0	9.09	AV	360.00	200	Horizontal	Pass
3	5459.450	56.00	1.24	74.0	18.00	Peak	6.00	100	Horizontal	Pass
3**	5459.450	45.01	1.24	54.0	8.99	AV	6.00	100	Horizontal	Pass

U-NII-1 11ac20 Low Channel



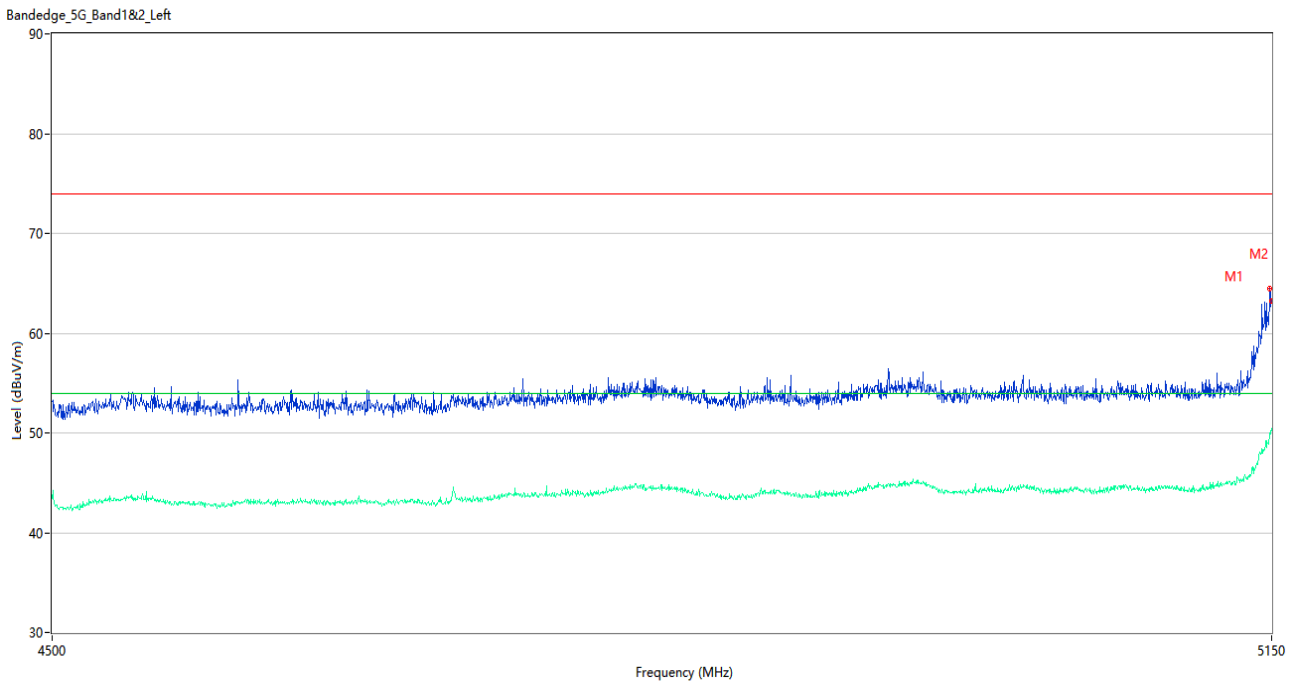
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5148.700	56.66	0.85	74.0	17.34	Peak	264.00	200	Horizontal	Pass
1**	5148.700	45.88	0.85	54.0	8.12	AV	264.00	200	Horizontal	Pass
2	5150.000	55.56	0.84	74.0	18.44	Peak	160.00	150	Horizontal	Pass
2**	5150.000	46.17	0.84	54.0	7.83	AV	160.00	150	Horizontal	Pass

U-NII-1 11ac20 High Channel



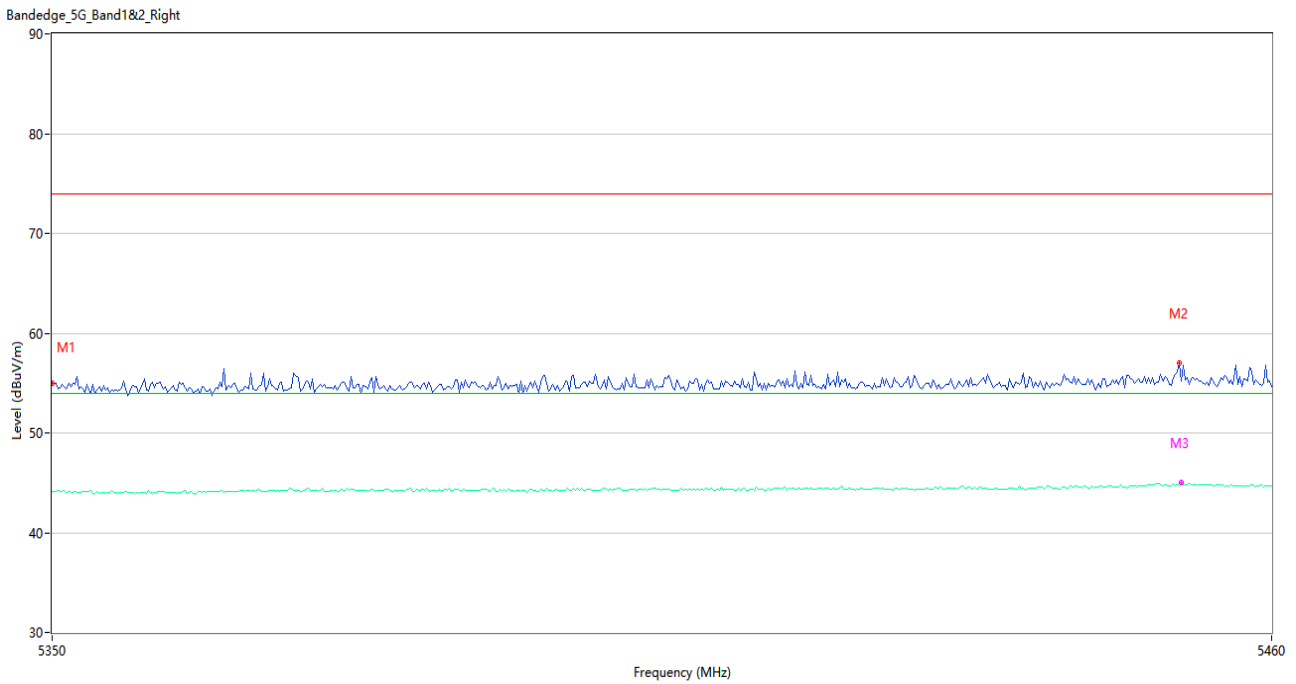
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	54.64	0.85	74.0	19.36	Peak	72.00	100	Horizontal	Pass
1**	5350.000	44.12	0.85	54.0	9.88	AV	72.00	100	Horizontal	Pass
2	5445.517	56.52	1.25	74.0	17.48	Peak	316.00	150	Horizontal	Pass
2**	5445.517	44.53	1.25	54.0	9.47	AV	316.00	150	Horizontal	Pass
3	5452.300	55.59	1.29	74.0	18.41	Peak	342.00	200	Horizontal	Pass
3**	5452.300	45.06	1.29	54.0	8.94	AV	342.00	200	Horizontal	Pass

U-NII-1 11ac40 Low Channel



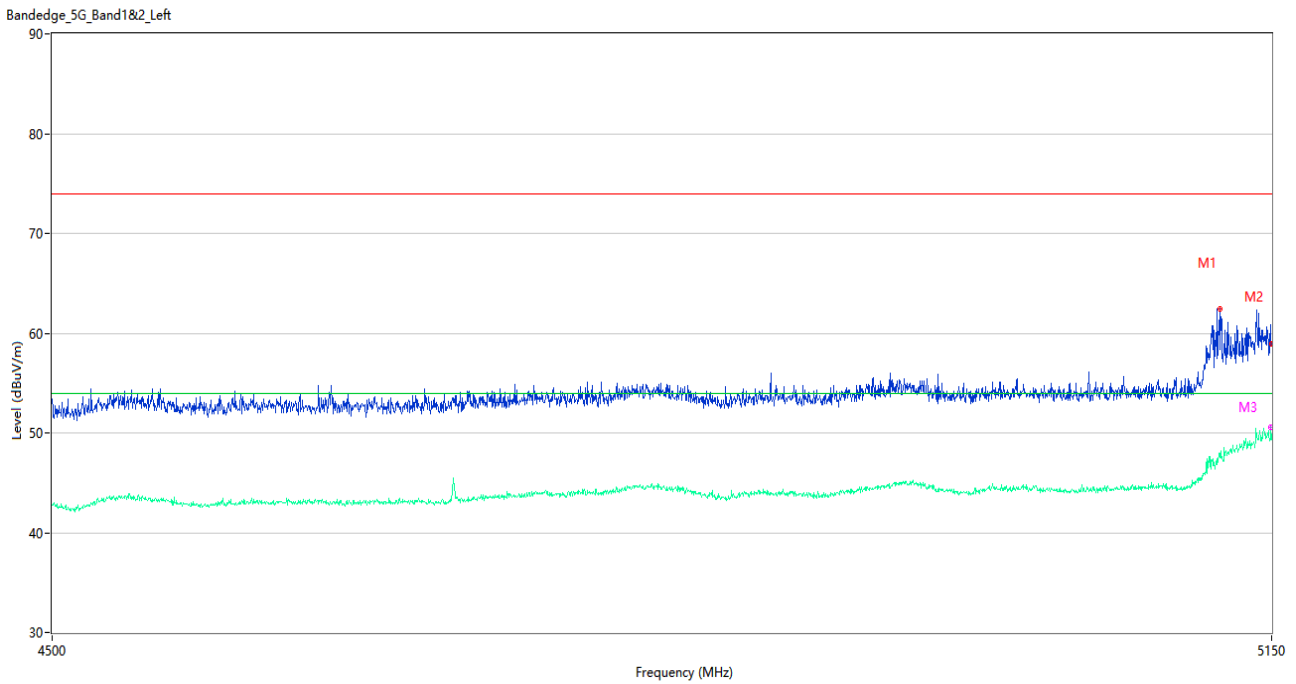
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5149.025	64.51	0.84	74.0	9.49	Peak	132.00	150	Horizontal	Pass
1**	5149.025	49.78	0.84	54.0	4.22	AV	132.00	150	Horizontal	Pass
2	5150.000	63.17	0.84	74.0	10.83	Peak	266.00	150	Horizontal	Pass
2**	5150.000	50.43	0.84	54.0	3.57	AV	266.00	150	Horizontal	Pass

U-NII-1 11ac40 High Channel



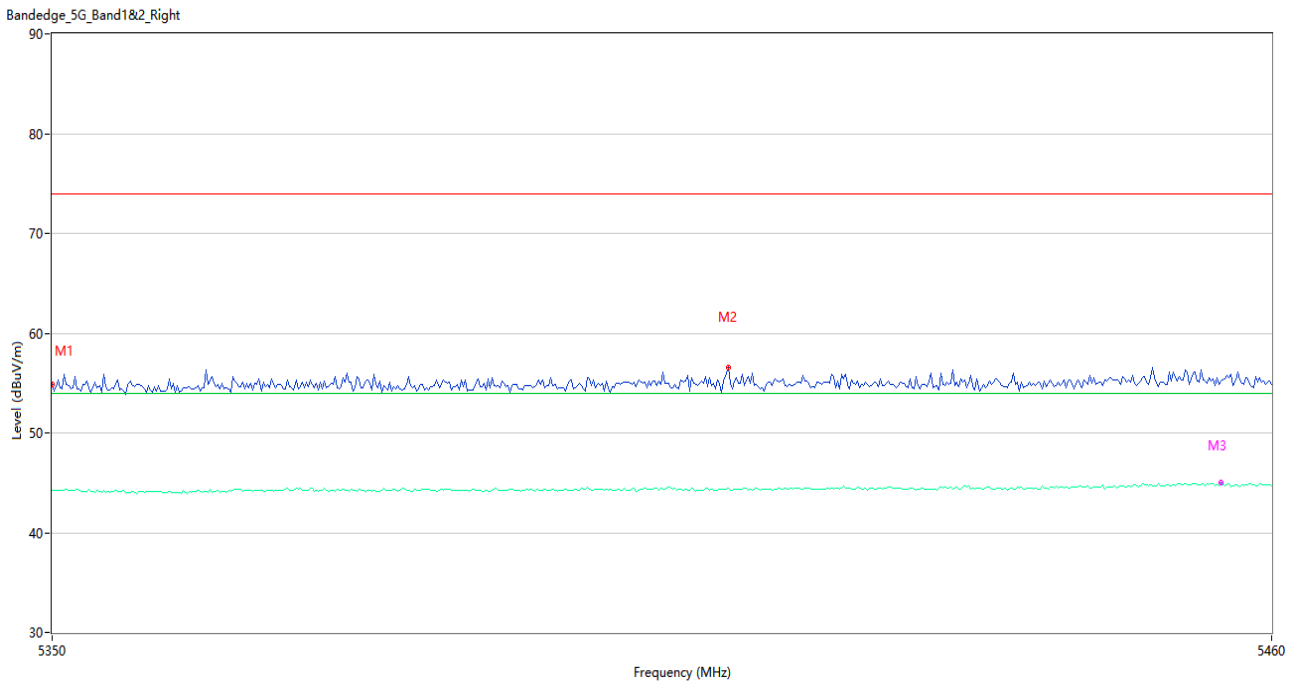
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	54.99	0.85	74.0	19.01	Peak	169.00	150	Horizontal	Pass
1**	5350.000	44.10	0.85	54.0	9.90	AV	169.00	150	Horizontal	Pass
2	5451.567	57.03	1.27	74.0	16.97	Peak	352.00	200	Horizontal	Pass
2**	5451.567	44.70	1.27	54.0	9.30	AV	352.00	200	Horizontal	Pass
3	5451.750	55.19	1.27	74.0	18.81	Peak	352.00	100	Horizontal	Pass
3**	5451.750	45.02	1.27	54.0	8.98	AV	352.00	100	Horizontal	Pass

U-NII-1 11ac80 Middle Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5120.750	62.46	0.49	74.0	11.54	Peak	134.00	150	Horizontal	Pass
1**	5120.750	47.74	0.49	54.0	6.26	AV	134.00	150	Horizontal	Pass
2	5150.000	58.94	0.84	74.0	15.06	Peak	266.00	200	Horizontal	Pass
2**	5150.000	49.34	0.84	54.0	4.66	AV	266.00	200	Horizontal	Pass
3	5149.675	58.76	0.84	74.0	15.24	Peak	168.00	150	Horizontal	Pass
3**	5149.675	50.51	0.84	54.0	3.49	AV	168.00	150	Horizontal	Pass

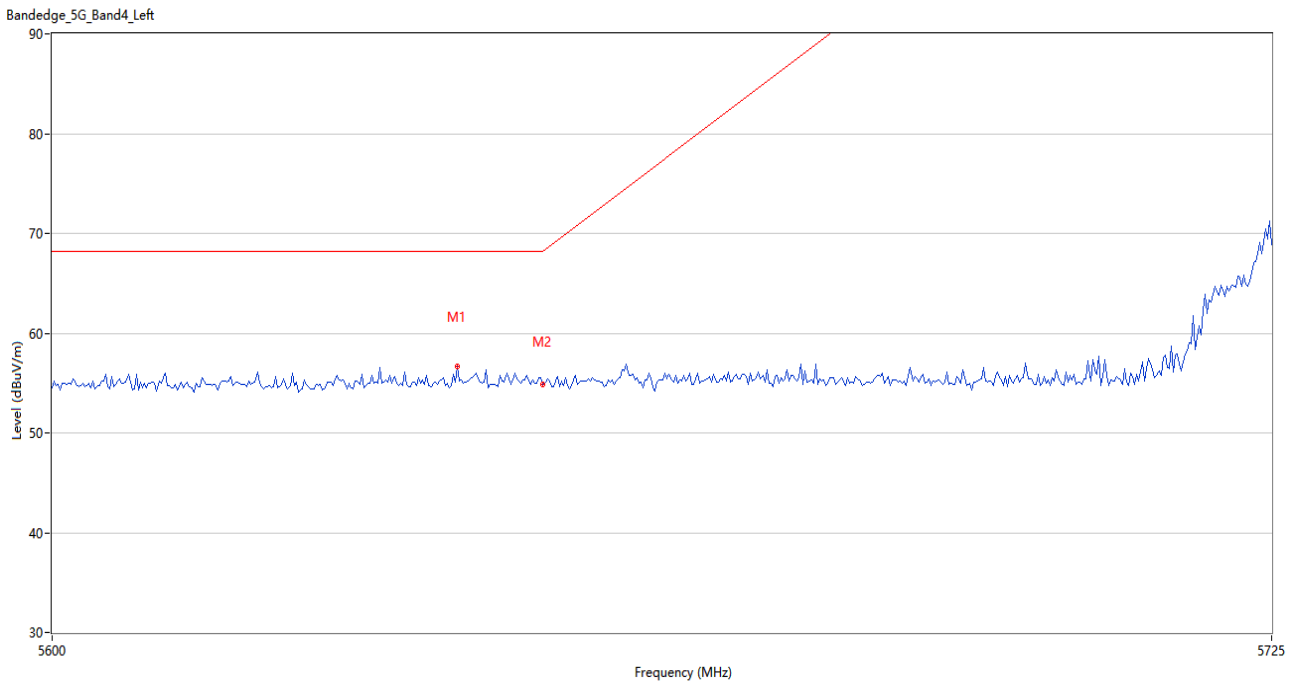
U-NII-1 11ac80 Middle Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	54.83	0.85	74.0	19.17	Peak	219.00	100	Horizontal	Pass
1**	5350.000	44.23	0.85	54.0	9.77	AV	219.00	100	Horizontal	Pass
2	5410.683	56.60	1.25	74.0	17.40	Peak	99.00	200	Horizontal	Pass
2**	5410.683	44.45	1.25	54.0	9.55	AV	99.00	200	Horizontal	Pass
3	5455.416	55.18	1.18	74.0	18.82	Peak	40.00	100	Horizontal	Pass
3**	5455.416	45.01	1.18	54.0	8.99	AV	40.00	100	Horizontal	Pass

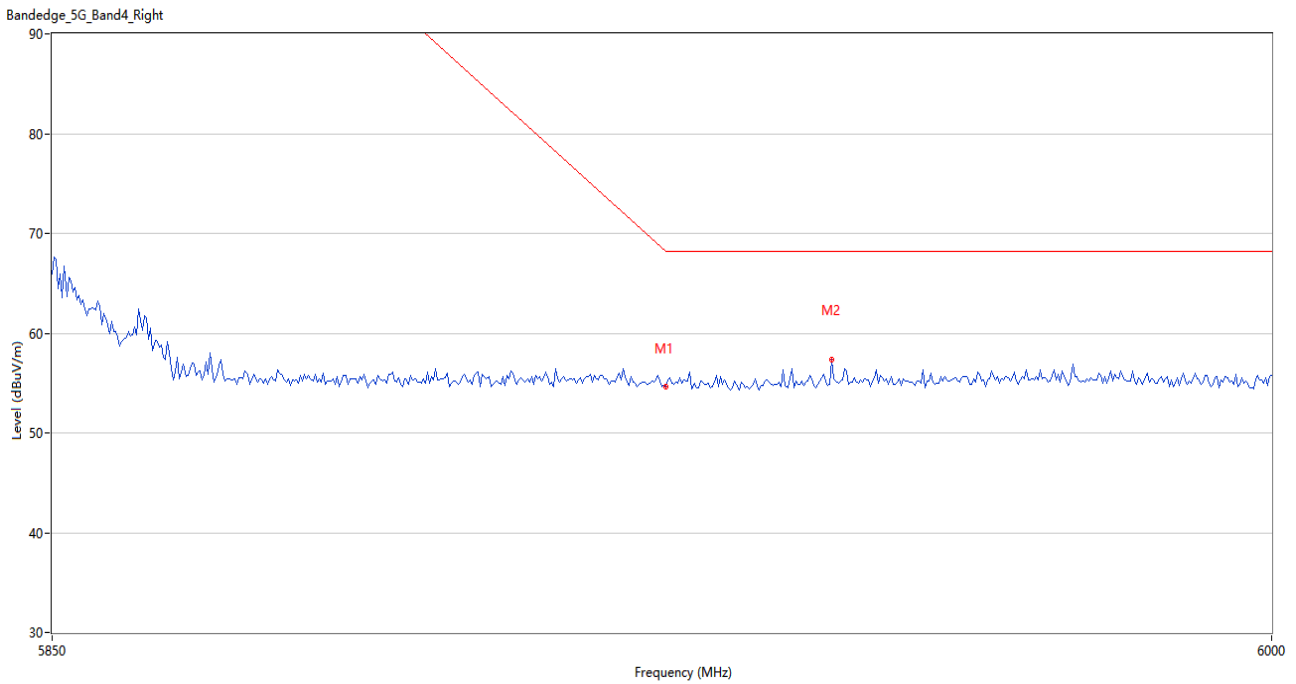


U-NII-3 11a Low Channel



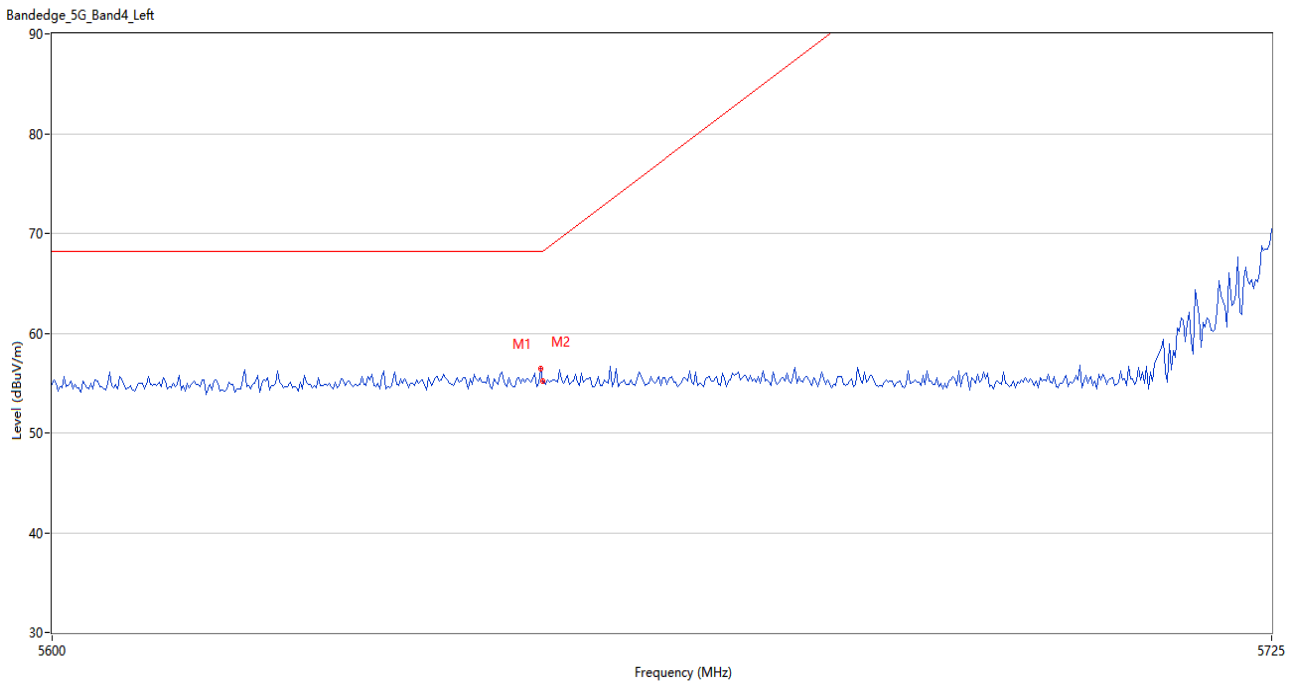
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5641.250	56.69	0.92	68.2	11.51	Peak	142.00	150	Horizontal	Pass
2	5650.000	54.84	0.79	68.2	13.36	Peak	248.00	150	Horizontal	Pass

U-NII-3 11a High Channel



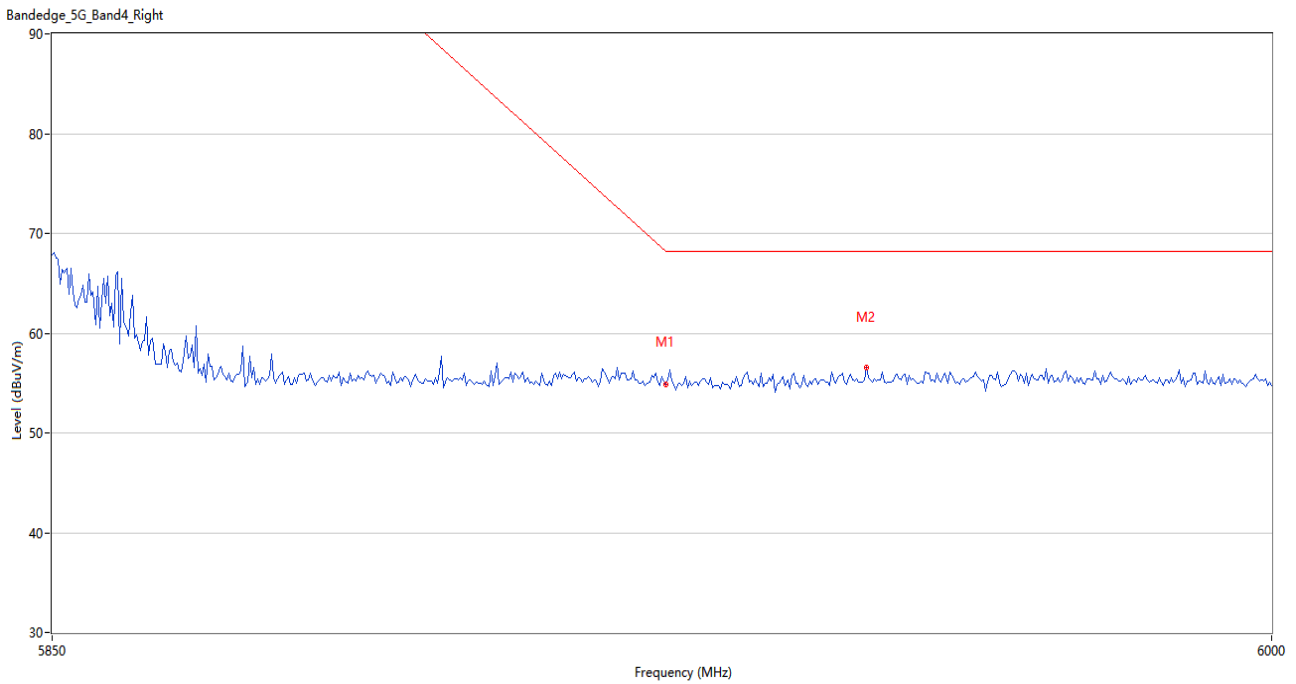
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	54.62	1.08	68.2	13.58	Peak	151.00	100	Horizontal	Pass
2	5945.500	57.36	1.02	68.2	10.84	Peak	144.00	100	Horizontal	Pass

U-NII-3 11n20 Low Channel



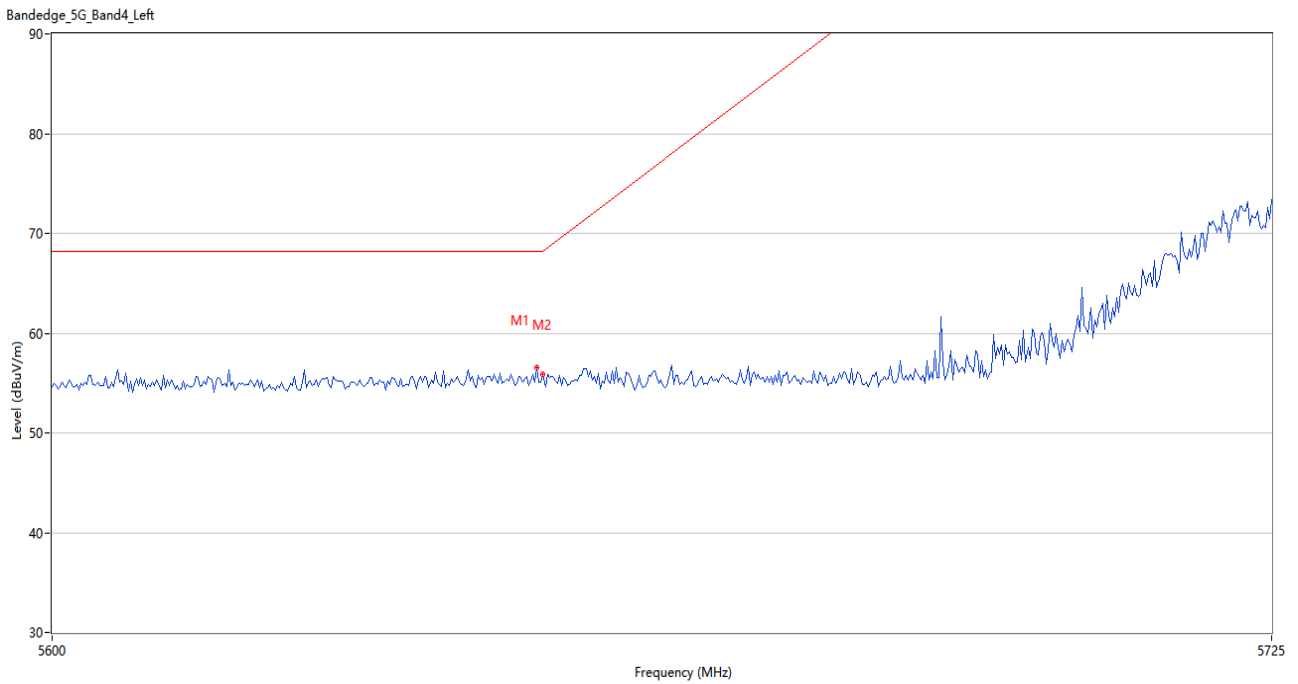
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5649.791	56.42	0.79	68.2	11.78	Peak	288.00	100	Horizontal	Pass
2	5650.000	55.20	0.79	68.2	13.00	Peak	123.00	100	Horizontal	Pass

U-NII-3 11n20 High Channel



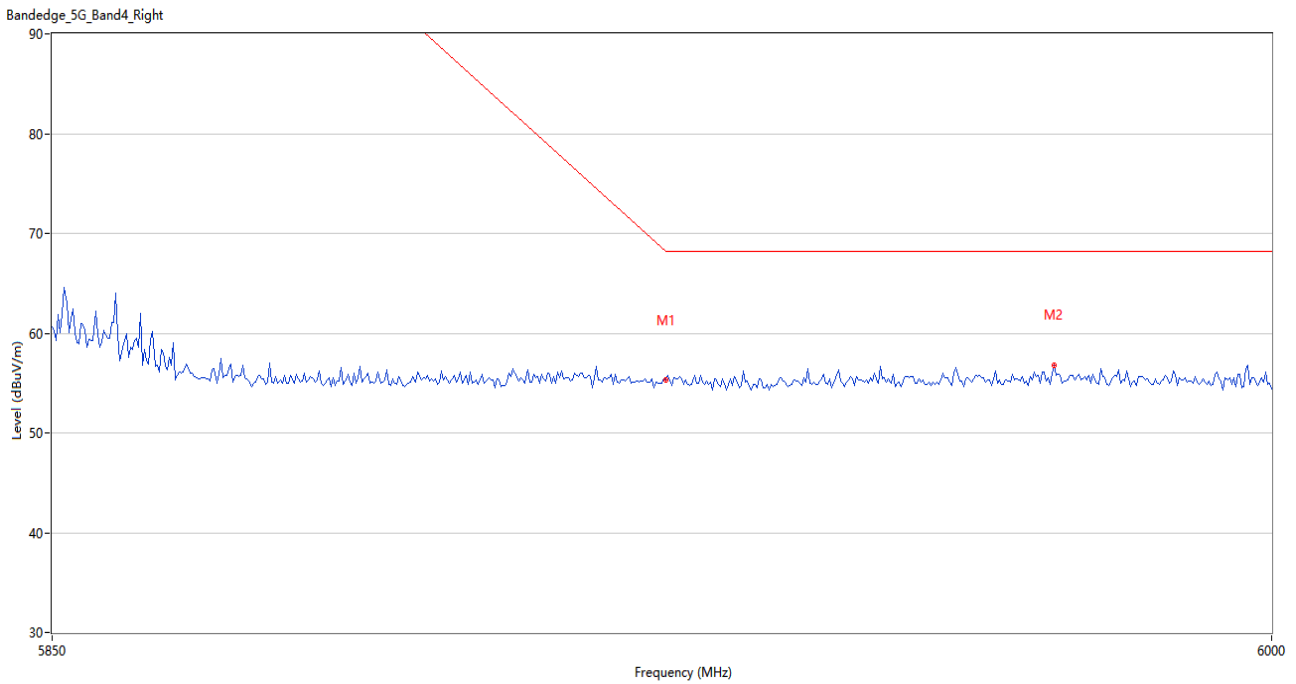
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	54.83	1.08	68.2	13.37	Peak	0.00	200	Horizontal	Pass
2	5949.750	56.60	1.02	68.2	11.60	Peak	79.00	200	Horizontal	Pass

U-NII-3 11n40 Low Channel



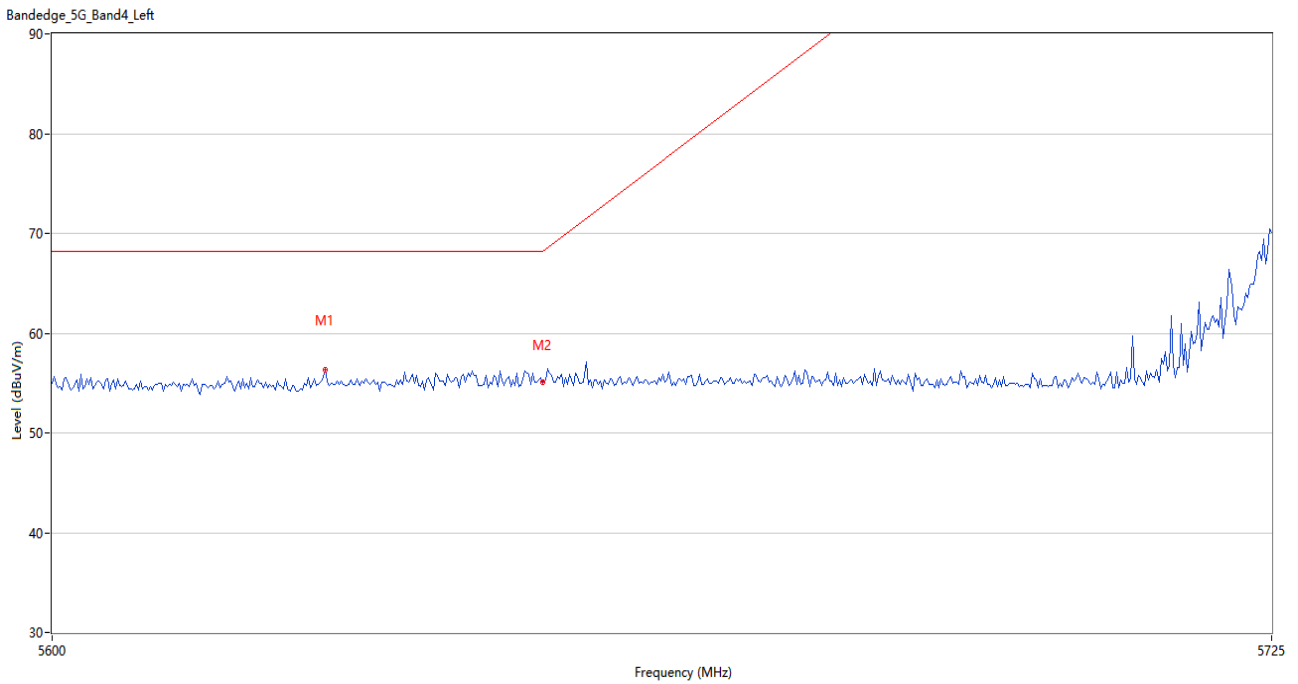
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5649.375	56.57	0.78	68.2	11.63	Peak	359.00	150	Horizontal	Pass
2	5650.000	55.82	0.79	68.2	12.38	Peak	90.00	150	Horizontal	Pass

U-NII-3 11n40 High Channel



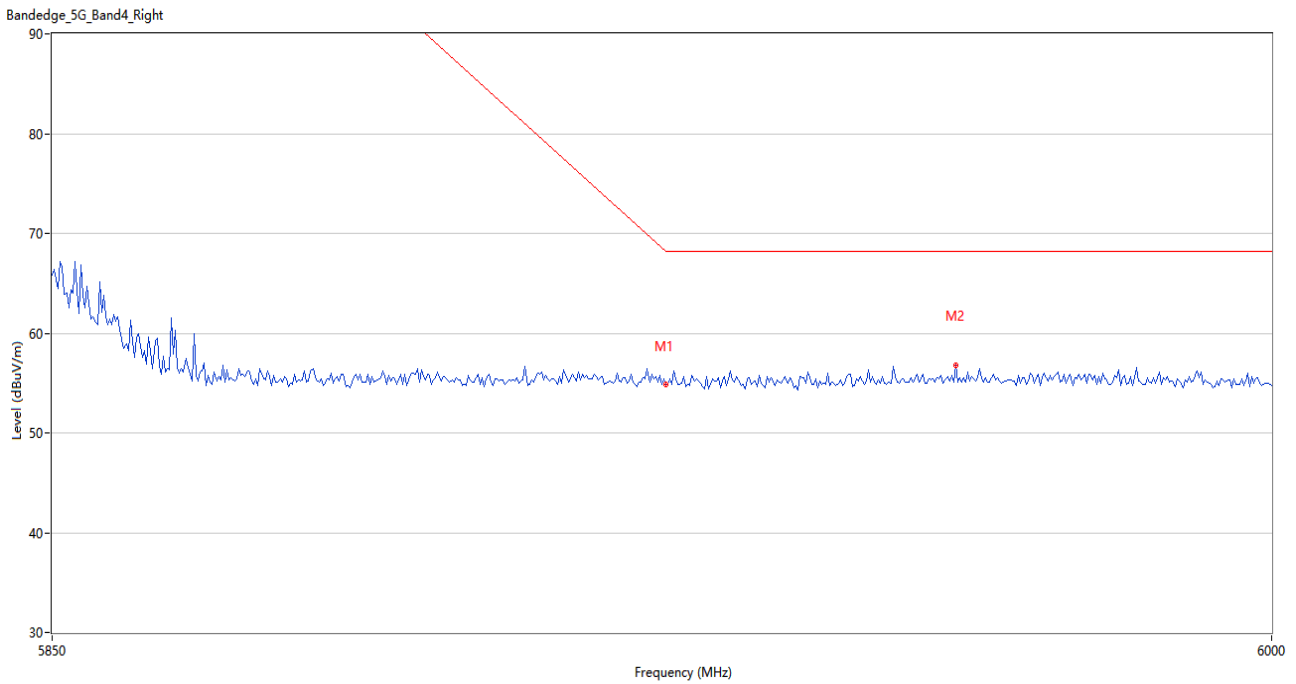
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	55.35	1.08	68.2	12.85	Peak	8.00	200	Horizontal	Pass
2	5973.000	56.83	1.18	68.2	11.37	Peak	159.00	200	Horizontal	Pass

U-NII-3 11ac20 Low Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5627.708	56.32	0.86	68.2	11.88	Peak	90.00	100	Horizontal	Pass
2	5650.000	55.03	0.79	68.2	13.17	Peak	138.00	100	Horizontal	Pass

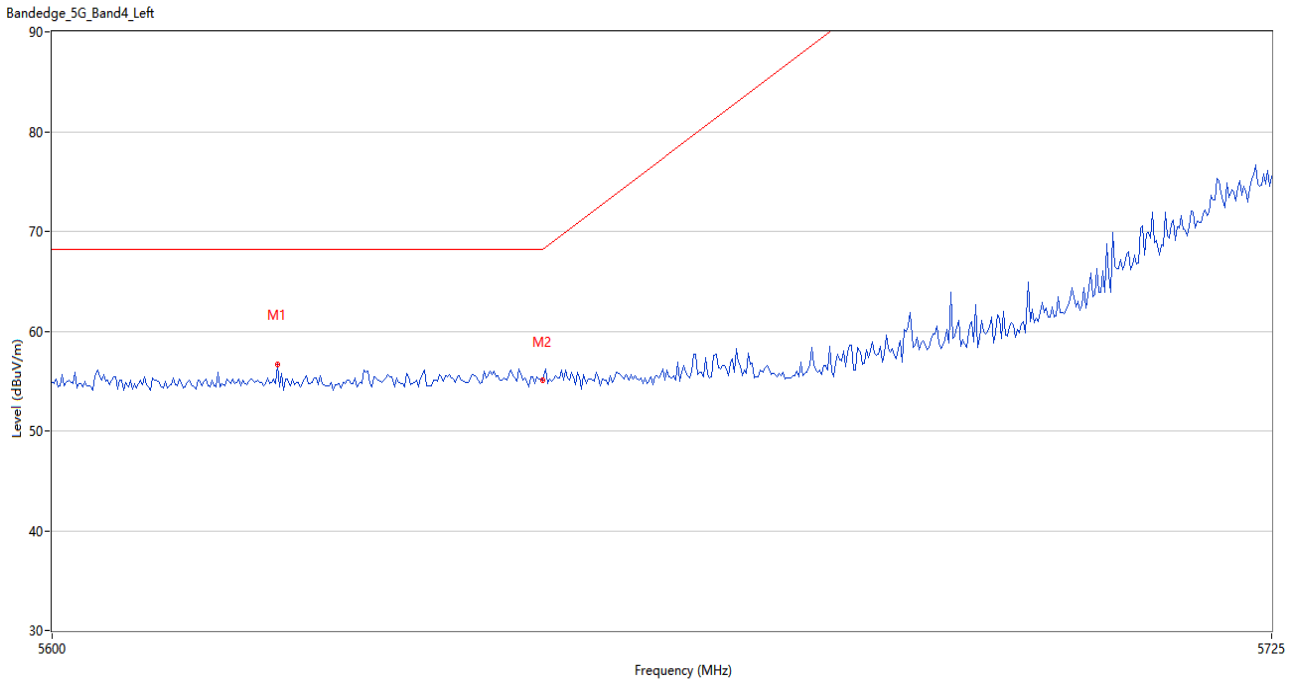
U-NII-3 11ac20 High Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	54.85	1.08	68.2	13.35	Peak	157.00	200	Horizontal	Pass
2	5960.750	56.81	0.99	68.2	11.39	Peak	94.00	200	Horizontal	Pass

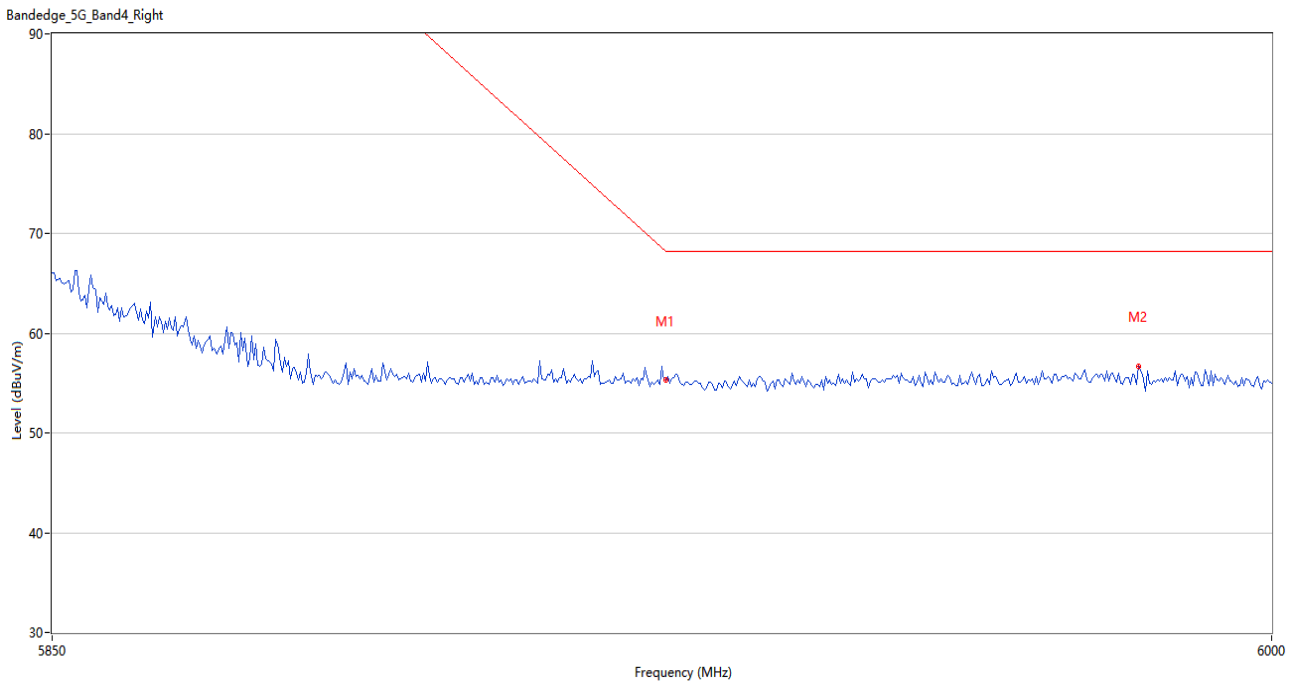


U-NII-3 11ac40 Low Channel



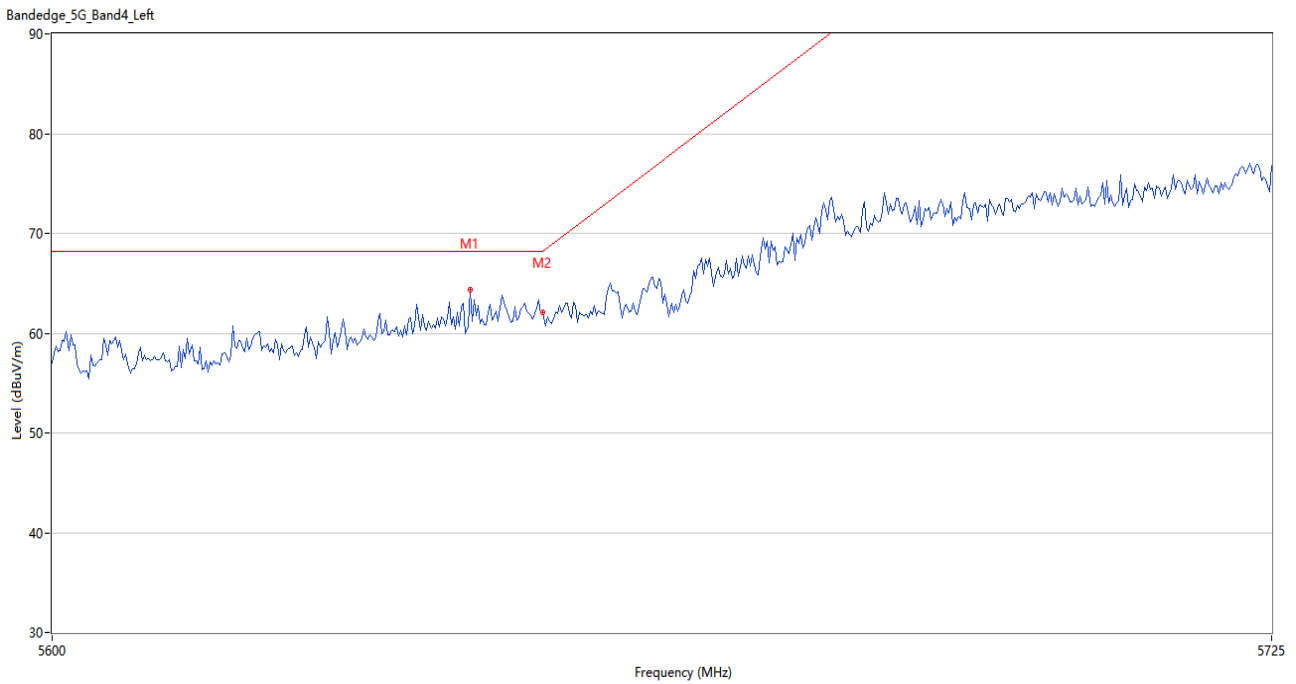
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5622.917	56.69	0.68	68.2	11.51	Peak	136.00	150	Horizontal	Pass
2	5650.000	55.05	0.79	68.2	13.15	Peak	225.00	150	Horizontal	Pass

U-NII-3 11ac40 High Channel



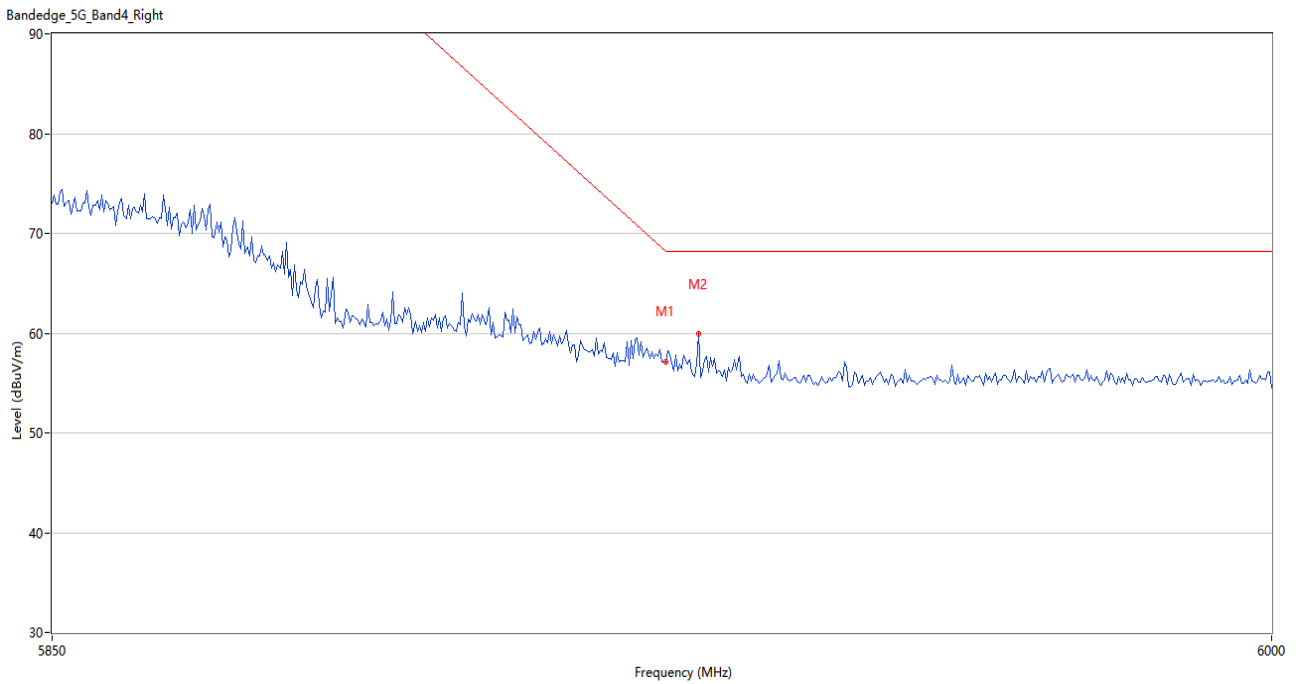
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	55.31	1.08	68.2	12.89	Peak	0.00	150	Horizontal	Pass
2	5983.500	56.64	0.93	68.2	11.56	Peak	360.00	150	Horizontal	Pass

U-NII-3 11ac80 Middle Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5642.500	64.37	0.90	68.2	3.83	Peak	135.00	200	Horizontal	Pass
2	5650.000	62.10	0.79	68.2	6.10	Peak	133.00	200	Horizontal	Pass

U-NII-3 11ac80 Middle Channel



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5925.000	57.15	1.08	68.2	11.05	Peak	297.00	150	Horizontal	Pass
2	5929.000	59.94	0.87	68.2	8.26	Peak	308.00	150	Horizontal	Pass

## **ANNEX B TEST SETUP PHOTOS**

Please refer the document “BL-SZ2370232-AR.PDF”.

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document “BL-SZ2370232-AW.PDF”.

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document “BL-SZ2370232-AI.PDF”.

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--END OF REPORT--