

TEST REPORT

Applicant: E&S International Enterprises, Inc.
Address: 7801 Hayvenhurst Avenue, Van Nuys, California
91406 USA
Equipment Type: Laptop
Model Name: GWN5B1657 (refer to section 2.3)
Brand Name: GATEWAY
FCC ID: 2AYPE-GWN5B1657
Test Standard: 47 CFR Part 15 Subpart E
(refer to section 3.1)
Sample Arrival Date: Jun. 03, 2025
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ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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(Technical Director)

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Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Jul. 10, 2025</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jul. 14, 2025</u>	<u>Updated the Maximum Output Power in Chapter 2.4</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	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 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	E&S International Enterprises, Inc.
Address	7801 Hayvenhurst Avenue, Van Nuys, California 91406 USA

2.2 Manufacturer Information

Manufacturer	Shenzhen Yuko Technology Co., Ltd.
Address	6th, A9 Bldg, Tianrui Industrial Park, Fuyuan 1st Rd, Fuyong, Boanan, Shenzhen

2.3 General Description for Equipment under Test (EUT)

EUT Name	Laptop
Model Name Under Test	GWNR5B1657
Series Model Name	GWNR5B1657-GRY, AM1636YD, N1636, GWNR5B1657-GRY-S
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 applicant)
Hardware Version	EM_AB336
Software Version	Windows 11 Home
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac
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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	☐ Mobile ☒ Portable ☐ Fix Location	
Modulation technology	OFDM	
Modulation Type	256QAM, 64QAM, 16QAM, BPSK, QPSK	
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: 22.18 mW U-NII-3: 21.73 mW	
Antenna System (eg., MIMO, Smart Antenna)	Cyclic Delay Diversity (CDD) for 802.11a Multi Input Multi Output (MIMO) for 802.11n/ac	
Categorization as Correlated or Completely Uncorrelated	Categorization as Correlated for 802.11a Categorization as Uncorrelated for 802.11n/ac	
Antenna Type	Main Antenna	FPC Antenna
	Aux. Antenna	
Antenna Gain	Main Antenna	U-NII-1: 5150 MHz to 5250 MHz: 2.92 dBi U-NII-3: 5725 MHz to 5850 MHz: 2.06 dBi
	Aux. Antenna	U-NII-1: 5150 MHz to 5250 MHz: 3.26 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.05 dBi
Total directional gain	For power spectral density (PSD) measurements	Correlated: U-NII-1: 5150 MHz to 5250 MHz: 6.10 dBi U-NII-3: 5725 MHz to 5850 MHz: 5.58 dBi Formulas: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / NANT]$ dBi Uncorrelated: U-NII-1: 5150 MHz to 5250 MHz: 3.09 dBi U-NII-3: 5725 MHz to 5850 MHz: 2.58 dBi Formulas: Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / NANT]$ dBi
	For power measurement	Correlated: U-NII-1: 5150 MHz to 5250 MHz: 6.10 dBi U-NII-3: 5725 MHz to 5850 MHz: 5.58 dBi

		Formulas: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / \text{NANT}] \text{ dBi}$ Uncorrelated: U-NII-1: 5150 MHz to 5250 MHz: 3.09 dBi U-NII-3: 5725 MHz to 5850 MHz: 2.58 dBi Formulas: Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / \text{NANT}] \text{ dBi}$
About the Product		The equipment is Laptop, intended for used with information technology equipment.

Mode	Antenna		
	Main Antenna	Aux. Antenna	MIMO
802.11a	√	√	√
802.11n20	√	√	√
802.11n40	√	√	√
802.11ac20	√	√	√
802.11ac40	√	√	√
802.11ac80	√	√	√
Note: All the configurations were tested, but only the worst data was shown in this report.			

Note: The above EUT information in section 2.4 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

2.5 Channel List

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

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	KDB Publication 662911 D01v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)
4	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 ^{Note1}
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

Note¹: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

Note²: 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	45% to 61%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+20.5℃ to +24.4℃
Working Voltage of the EUT	NV (Normal Voltage)	11.55 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY46471071	2024.07.04	2025.07.03
Power Sensor	KEYSIGHT	U2063XA	MY58000247	2024.07.04	2025.07.03
Spectrum Analyzer	KEYSIGHT	N9020A	MY50531259	2024.08.01	2025.07.31
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	02460	2024.05.16	2027.05.15
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Anechoic Chamber	RAINFORD	9m*6m*6m	140	2024.07.28	2027.07.27
Amplifier	COM-MV	LSCX_LNA1-12G-01	7210214	2024.08.01	2025.07.31
Amplifier	COM-MV	XKu_LNA7-18G-01	7210209	2024.08.01	2025.07.31
Amplifier	COM-MV	KA LNA18 40G-01	18050001	2024.12.05	2025.12.04
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2024.08.01	2025.07.31
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2024.01.23	2027.01.22
Amplifier	COM-MV	ZT30-1000M	B2018054558	2024.11.28	2025.11.27
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	130	2024.07.13	2027.07.12
EMI Receiver	Agilent	N9038A	MY55330120	2024.08.01	2025.07.31
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2025.03.23	2028.03.22
Amplifier	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27
Anechoic Chamber	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2024.08.01	2025.07.31
LISN	SCHWARZBECK	NSLK 8127	8127-687	2025.04.29	2026.04.28
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2025.02.14	2028.02.13

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	V22.930	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%

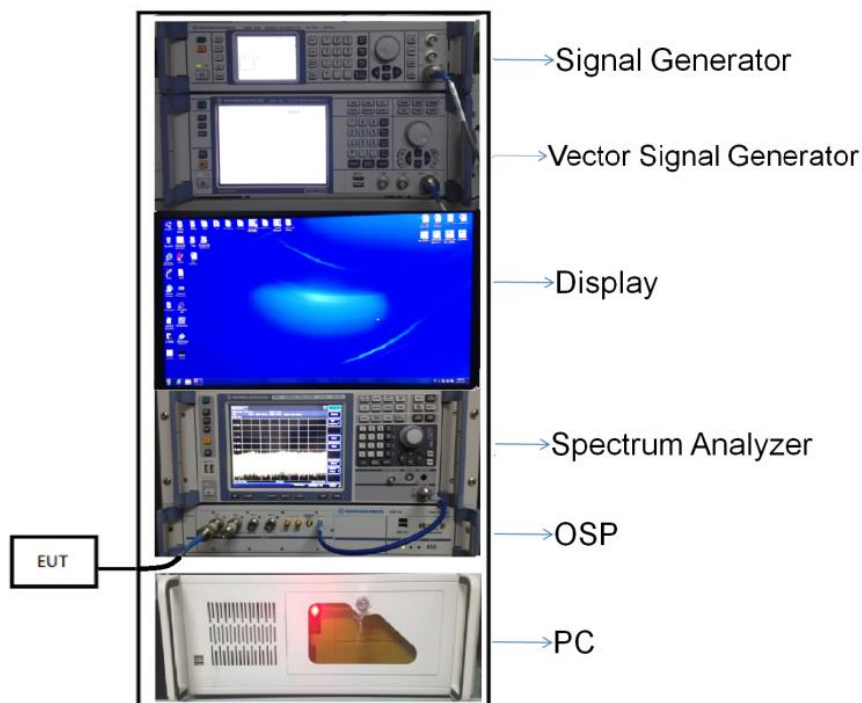
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

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

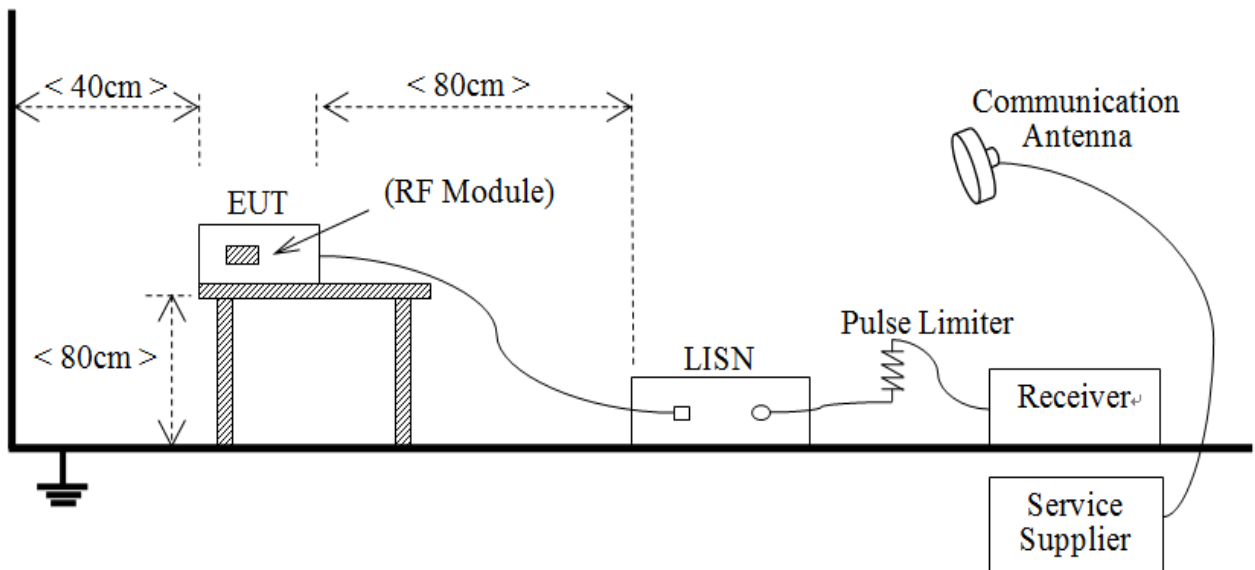
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

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



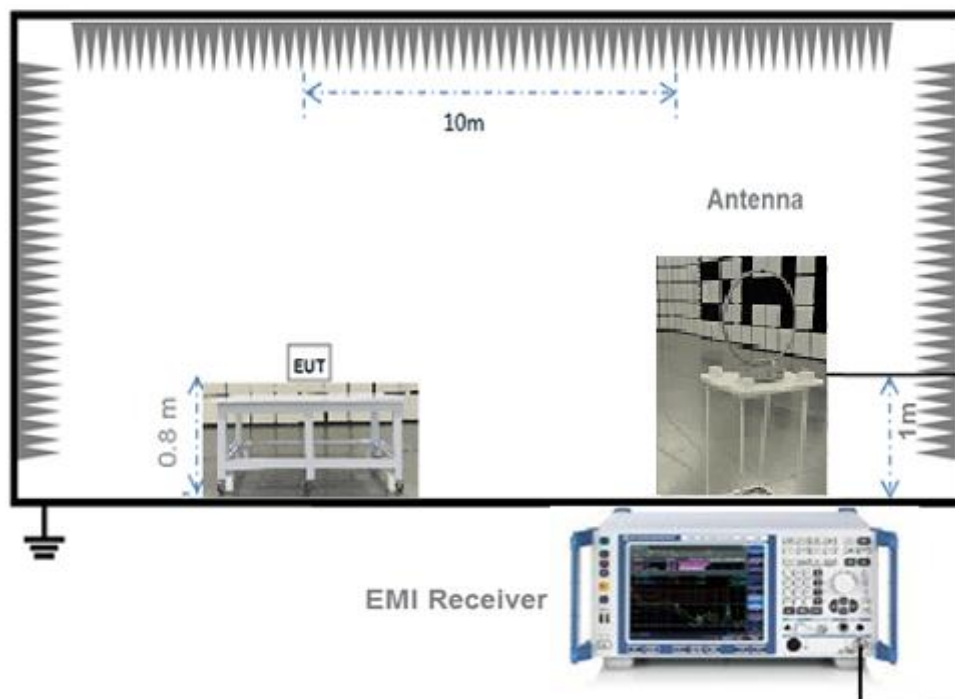
(Diagram 1)

4.5.2 For AC Power Supply Port Test



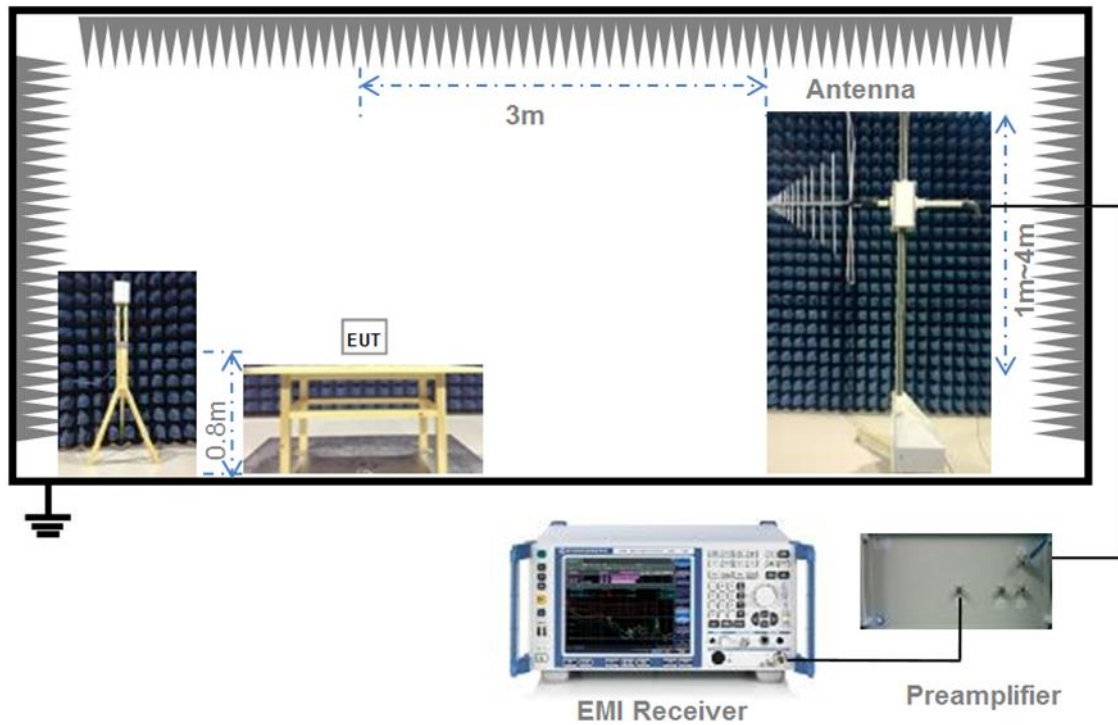
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



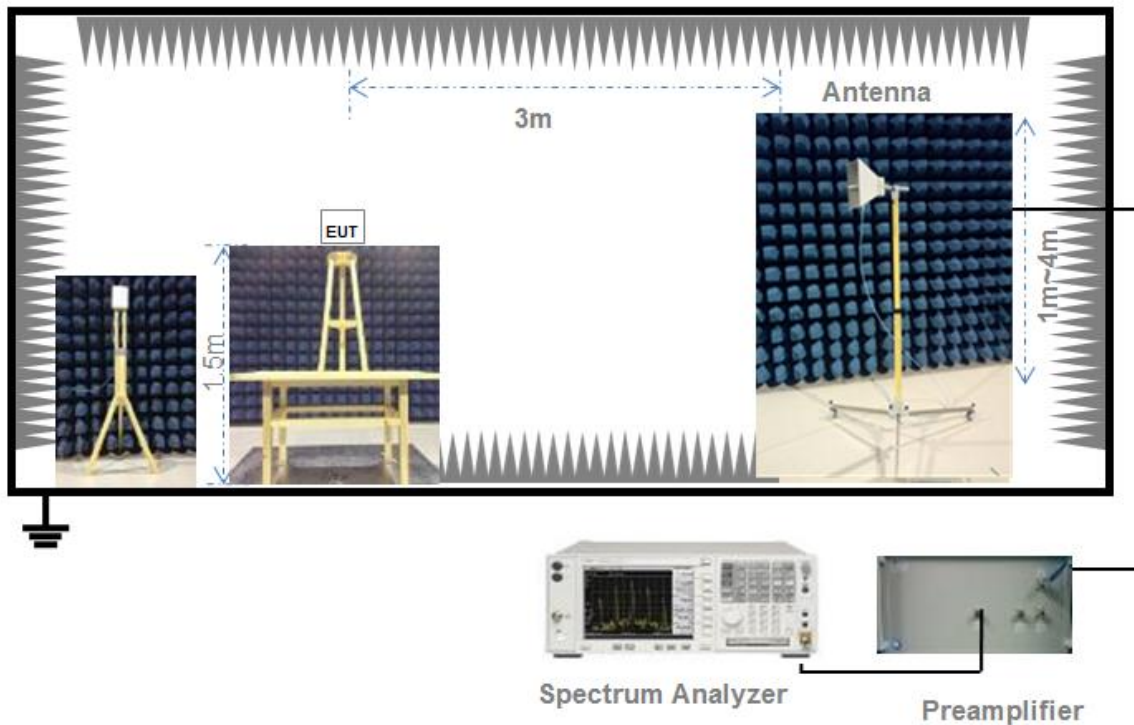
(Diagram 3)

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

Maximum conducted (average) output power

a) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

- 1) The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
- 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal.

c) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

d) Adjust the measurement in dBm by adding 10 log (1/x) where x is the duty cycle.

Measurements of duty cycle

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal.

Set the center frequency of the instrument to the center frequency of the transmission.

Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.

Set VBW $\geq$ RBW. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T \leq 16.7$ microseconds.)

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 $\geq 3 \times$ 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 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ 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 ¹: The Limit for radiated test was performed according to FCC Part 15C

Note ²: 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 ≤ 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 μ 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 $\geq 3 \times$ 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 ≥ 98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than ± 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 (≥ 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	1.36	1.46	92.81%	0.32
11n(HT20)/11ac(VHT20)	1.27	1.38	92.03%	0.36
11n(HT40)/11ac(VHT40)	0.63	0.74	85.14%	0.70
11ac(VHT80)	0.31	0.42	73.81%	1.32

Test DataConducted PowerSISO-Main Antenna

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	12.68	18.54	250	Pass
11a	CH44	13.46	22.18	250	Pass
11a	CH48	13.41	21.93	250	Pass
11n(HT20)	CH36	12.89	19.45	250	Pass
11n(HT20)	CH44	12.39	17.34	250	Pass
11n(HT20)	CH48	12.66	18.45	250	Pass
11n(HT40)	CH38	11.42	13.87	250	Pass
11n(HT40)	CH46	12.15	16.41	250	Pass
11ac(VHT20)	CH36	12.67	18.49	250	Pass
11ac(VHT20)	CH44	12.48	17.70	250	Pass
11ac(VHT20)	CH48	12.55	17.99	250	Pass
11ac(VHT40)	CH38	11.59	14.42	250	Pass
11ac(VHT40)	CH46	12.62	18.28	250	Pass
11ac(VHT80)	CH42	11.01	12.62	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.12	20.51	1000	Pass
11a	CH157	13.18	20.80	1000	Pass
11a	CH165	13.27	21.23	1000	Pass
11n(HT20)	CH149	12.86	19.32	1000	Pass
11n(HT20)	CH157	12.48	17.70	1000	Pass
11n(HT20)	CH165	12.82	19.14	1000	Pass
11n(HT40)	CH151	12.54	17.95	1000	Pass
11n(HT40)	CH159	12.45	17.58	1000	Pass
11ac(VHT20)	CH149	12.91	19.54	1000	Pass
11ac(VHT20)	CH157	12.43	17.50	1000	Pass
11ac(VHT20)	CH165	12.87	19.36	1000	Pass
11ac(VHT40)	CH151	12.12	16.29	1000	Pass
11ac(VHT40)	CH159	12.36	17.22	1000	Pass
11ac(VHT80)	CH155	12.27	16.87	1000	Pass

SISO-Aux. Antenna

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	12.98	19.86	250	Pass
11a	CH44	13.26	21.18	250	Pass
11a	CH48	13.35	21.63	250	Pass
11n(HT20)	CH36	12.89	19.45	250	Pass
11n(HT20)	CH44	12.79	19.01	250	Pass
11n(HT20)	CH48	12.86	19.32	250	Pass
11n(HT40)	CH38	11.42	13.87	250	Pass
11n(HT40)	CH46	12.45	17.58	250	Pass
11ac(VHT20)	CH36	12.77	18.92	250	Pass
11ac(VHT20)	CH44	12.78	18.97	250	Pass
11ac(VHT20)	CH48	12.65	18.41	250	Pass
11ac(VHT40)	CH38	11.89	15.45	250	Pass
11ac(VHT40)	CH46	12.92	19.59	250	Pass
11ac(VHT80)	CH42	11.21	13.21	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.12	20.51	1000	Pass
11a	CH157	13.28	21.28	1000	Pass
11a	CH165	13.37	21.73	1000	Pass
11n(HT20)	CH149	12.94	19.68	1000	Pass
11n(HT20)	CH157	12.88	19.41	1000	Pass
11n(HT20)	CH165	12.82	19.14	1000	Pass
11n(HT40)	CH151	12.54	17.95	1000	Pass
11n(HT40)	CH159	12.85	19.28	1000	Pass
11ac(VHT20)	CH149	12.91	19.54	1000	Pass
11ac(VHT20)	CH157	12.83	19.19	1000	Pass
11ac(VHT20)	CH165	12.77	18.92	1000	Pass
11ac(VHT40)	CH151	12.52	17.86	1000	Pass
11ac(VHT40)	CH159	12.36	17.22	1000	Pass
11ac(VHT80)	CH155	12.23	16.71	1000	Pass

MIMO-Main Antenna

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	9.98	9.95	250	Pass
11a	CH44	9.86	9.68	250	Pass
11a	CH48	10.15	10.35	250	Pass
11n(HT20)	CH36	9.69	9.31	250	Pass
11n(HT20)	CH44	9.78	9.51	250	Pass
11n(HT20)	CH48	9.96	9.91	250	Pass
11n(HT40)	CH38	8.52	7.11	250	Pass
11n(HT40)	CH46	9.75	9.44	250	Pass
11ac(VHT20)	CH36	9.57	9.06	250	Pass
11ac(VHT20)	CH44	9.48	8.87	250	Pass
11ac(VHT20)	CH48	9.85	9.66	250	Pass
11ac(VHT40)	CH38	8.89	7.74	250	Pass
11ac(VHT40)	CH46	9.88	9.73	250	Pass
11ac(VHT80)	CH42	8.11	6.47	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	10.12	10.28	1000	Pass
11a	CH157	10.28	10.67	1000	Pass
11a	CH165	10.17	10.40	1000	Pass
11n(HT20)	CH149	9.91	9.79	1000	Pass
11n(HT20)	CH157	9.48	8.87	1000	Pass
11n(HT20)	CH165	9.92	9.82	1000	Pass
11n(HT40)	CH151	9.54	8.99	1000	Pass
11n(HT40)	CH159	9.79	9.53	1000	Pass
11ac(VHT20)	CH149	9.21	8.34	1000	Pass
11ac(VHT20)	CH157	9.33	8.57	1000	Pass
11ac(VHT20)	CH165	9.67	9.27	1000	Pass
11ac(VHT40)	CH151	9.42	8.75	1000	Pass
11ac(VHT40)	CH159	9.26	8.43	1000	Pass
11ac(VHT80)	CH155	8.83	7.64	1000	Pass

MIMO-Aux. Antenna

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	10.18	10.42	250	Pass
11a	CH44	9.86	9.68	250	Pass
11a	CH48	10.15	10.35	250	Pass
11n(HT20)	CH36	9.99	9.98	250	Pass
11n(HT20)	CH44	9.99	9.98	250	Pass
11n(HT20)	CH48	9.87	9.71	250	Pass
11n(HT40)	CH38	8.32	6.79	250	Pass
11n(HT40)	CH46	9.55	9.02	250	Pass
11ac(VHT20)	CH36	9.87	9.71	250	Pass
11ac(VHT20)	CH44	9.38	8.67	250	Pass
11ac(VHT20)	CH48	9.65	9.23	250	Pass
11ac(VHT40)	CH38	8.79	7.57	250	Pass
11ac(VHT40)	CH46	10.02	10.05	250	Pass
11ac(VHT80)	CH42	7.91	6.18	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	9.92	9.82	1000	Pass
11a	CH157	10.28	10.67	1000	Pass
11a	CH165	10.07	10.16	1000	Pass
11n(HT20)	CH149	9.94	9.86	1000	Pass
11n(HT20)	CH157	9.78	9.51	1000	Pass
11n(HT20)	CH165	9.92	9.82	1000	Pass
11n(HT40)	CH151	9.64	9.20	1000	Pass
11n(HT40)	CH159	9.95	9.89	1000	Pass
11ac(VHT20)	CH149	9.61	9.14	1000	Pass
11ac(VHT20)	CH157	9.53	8.97	1000	Pass
11ac(VHT20)	CH165	9.87	9.71	1000	Pass
11ac(VHT40)	CH151	9.32	8.55	1000	Pass
11ac(VHT40)	CH159	9.06	8.05	1000	Pass
11ac(VHT80)	CH155	9.03	8.00	1000	Pass

MIMO

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	13.09	20.38	250	Pass
11a	CH44	12.87	19.37	250	Pass
11a	CH48	13.16	20.70	250	Pass
11n(HT20)	CH36	12.85	19.29	250	Pass
11n(HT20)	CH44	12.90	19.48	250	Pass
11n(HT20)	CH48	12.93	19.61	250	Pass
11n(HT40)	CH38	11.43	13.90	250	Pass
11n(HT40)	CH46	12.66	18.46	250	Pass
11ac(VHT20)	CH36	12.73	18.76	250	Pass
11ac(VHT20)	CH44	12.44	17.54	250	Pass
11ac(VHT20)	CH48	12.76	18.89	250	Pass
11ac(VHT40)	CH38	11.85	15.31	250	Pass
11ac(VHT40)	CH46	12.96	19.77	250	Pass
11ac(VHT80)	CH42	11.02	12.65	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.03	20.10	1000	Pass
11a	CH157	13.29	21.33	1000	Pass
11a	CH165	13.13	20.56	1000	Pass
11n(HT20)	CH149	12.94	19.66	1000	Pass
11n(HT20)	CH157	12.64	18.38	1000	Pass
11n(HT20)	CH165	12.93	19.63	1000	Pass
11n(HT40)	CH151	12.60	18.20	1000	Pass
11n(HT40)	CH159	12.88	19.41	1000	Pass
11ac(VHT20)	CH149	12.42	17.48	1000	Pass
11ac(VHT20)	CH157	12.44	17.54	1000	Pass
11ac(VHT20)	CH165	12.78	18.97	1000	Pass
11ac(VHT40)	CH151	12.38	17.30	1000	Pass
11ac(VHT40)	CH159	12.17	16.49	1000	Pass
11ac(VHT80)	CH155	11.94	15.64	1000	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Note ¹: Test plots please refer to the document “Annex No.: BL-SZ2560127-604 Data Part 1.pdf”.

Note ²: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

SISO-Aux. Antenna

U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	22.70	16.72
11a	CH44	22.56	16.69
11a	CH48	22.42	16.67
11n(HT20)	CH36	21.19	17.68
11n(HT20)	CH44	21.10	17.65
11n(HT20)	CH48	21.11	17.65
11n(HT40)	CH38	41.71	36.32
11n(HT40)	CH46	48.06	36.37
11ac(VHT20)	CH36	21.67	17.68
11ac(VHT20)	CH44	21.64	17.68
11ac(VHT20)	CH48	21.13	17.67
11ac(VHT40)	CH38	41.79	36.34
11ac(VHT40)	CH46	42.34	36.35
11ac(VHT80)	CH42	81.13	75.61

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	20.65	16.57
11a	CH157	20.52	16.59
11a	CH165	21.07	16.63
11n(HT20)	CH149	20.78	17.63
11n(HT20)	CH157	20.82	17.65
11n(HT20)	CH165	20.89	17.65
11n(HT40)	CH151	42.77	36.32
11n(HT40)	CH159	43.57	36.35
11ac(VHT20)	CH149	20.91	17.64
11ac(VHT20)	CH157	20.77	17.65
11ac(VHT20)	CH165	20.91	17.66
11ac(VHT40)	CH151	41.67	36.32
11ac(VHT40)	CH159	41.58	36.32
11ac(VHT80)	CH155	85.57	75.75

A.3 6 dB Bandwidth

Note ¹: Test plots please refer to the document “Annex No.: BL-SZ2560127-604 Data Part 2.pdf”.

Note ²: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

SISO-Aux. Antenna

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	16.50	500.00	Pass
11a	CH157	16.60	500.00	Pass
11a	CH165	16.50	500.00	Pass
11n(HT20)	CH149	17.00	500.00	Pass
11n(HT20)	CH157	17.10	500.00	Pass
11n(HT20)	CH165	17.10	500.00	Pass
11n(HT40)	CH151	35.40	500.00	Pass
11n(HT40)	CH159	35.80	500.00	Pass
11ac(VHT20)	CH149	17.30	500.00	Pass
11ac(VHT20)	CH157	17.00	500.00	Pass
11ac(VHT20)	CH165	17.10	500.00	Pass
11ac(VHT40)	CH151	35.40	500.00	Pass
11ac(VHT40)	CH159	35.30	500.00	Pass
11ac(VHT80)	CH155	75.30	500.00	Pass

A.4 Power Spectral Density

Note ¹: Test plots please refer to the document "Annex No.: BL-SZ2560127-604 Data Part 3.pdf".

Note ²: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

SISO-Aux. Antenna

U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Verdict
11a	CH36	2.31	11.00	Pass
11a	CH44	2.39	11.00	Pass
11a	CH48	2.27	11.00	Pass
11n(HT20)	CH36	0.76	11.00	Pass
11n(HT20)	CH44	0.45	11.00	Pass
11n(HT20)	CH48	0.45	11.00	Pass
11n(HT40)	CH38	-3.88	11.00	Pass
11n(HT40)	CH46	-2.35	11.00	Pass
11ac(VHT20)	CH36	0.78	11.00	Pass
11ac(VHT20)	CH44	1.03	11.00	Pass
11ac(VHT20)	CH48	0.89	11.00	Pass
11ac(VHT40)	CH38	-3.12	11.00	Pass
11ac(VHT40)	CH46	-1.97	11.00	Pass
11ac(VHT80)	CH42	-5.88	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	FCC Limit (dBm/500kHz)	Verdict
11a	CH149	-0.68	30.00	Pass
11a	CH157	-1.15	30.00	Pass
11a	CH165	-0.97	30.00	Pass
11n(HT20)	CH149	-1.83	30.00	Pass
11n(HT20)	CH157	-1.52	30.00	Pass
11n(HT20)	CH165	-1.48	30.00	Pass
11n(HT40)	CH151	-4.90	30.00	Pass
11n(HT40)	CH159	-4.81	30.00	Pass
11ac(VHT20)	CH149	-1.85	30.00	Pass
11ac(VHT20)	CH157	-1.88	30.00	Pass
11ac(VHT20)	CH165	-1.60	30.00	Pass
11ac(VHT40)	CH151	-4.89	30.00	Pass
11ac(VHT40)	CH159	-4.79	30.00	Pass
11ac(VHT80)	CH155	-5.51	30.00	Pass

A.5 Conducted Emissions

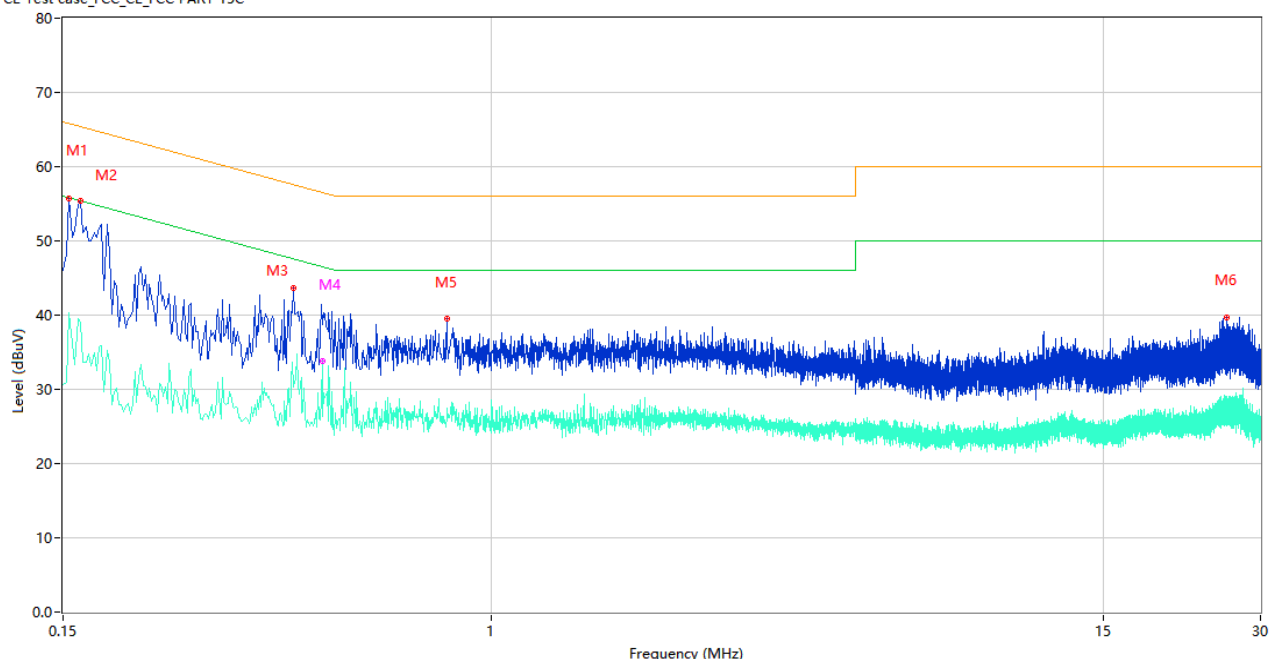
Note¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

Note²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Test Data and Plots

PHASE L

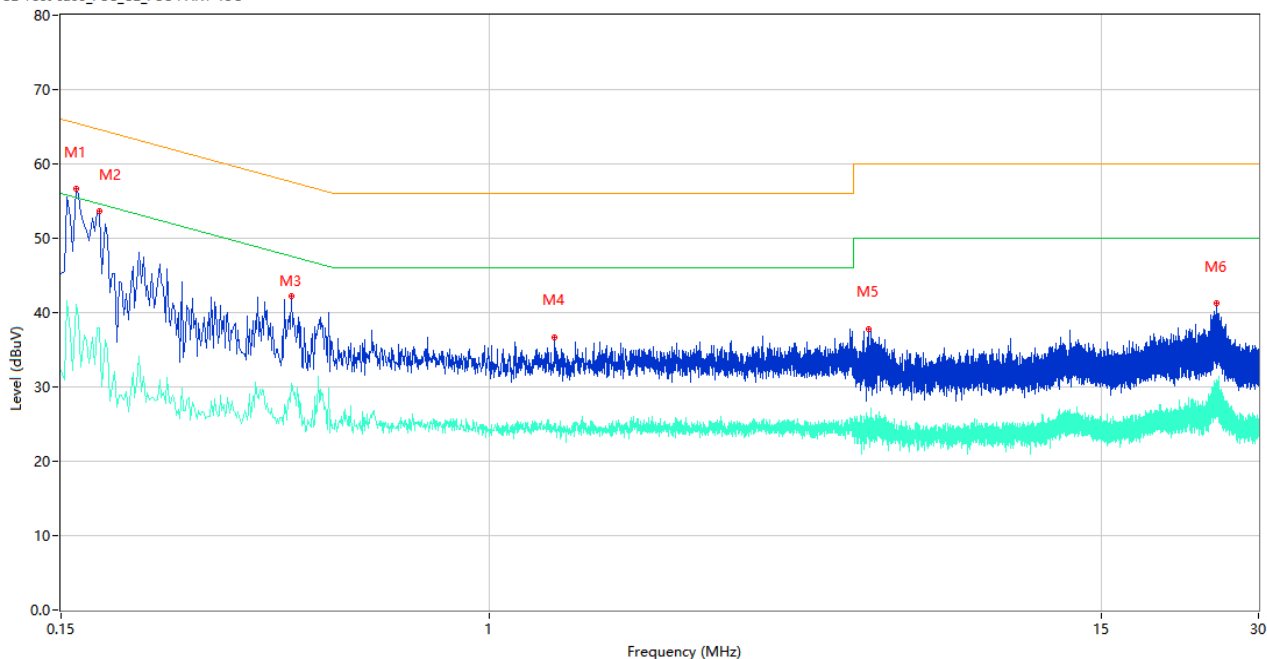
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.154	55.67	9.86	65.78	10.11	Peak	L	Pass
1**	0.154	40.25	9.86	55.78	15.53	AV	L	Pass
2	0.162	55.35	9.85	65.36	10.01	Peak	L	Pass
2**	0.162	39.08	9.85	55.36	16.28	AV	L	Pass
3	0.416	43.62	10.44	57.53	13.91	Peak	L	Pass
3**	0.416	30.26	10.44	47.53	17.27	AV	L	Pass
4	0.472	38.97	10.07	56.48	17.51	Peak	L	Pass
4**	0.472	33.75	10.07	46.48	12.73	AV	L	Pass
5	0.820	39.51	10.63	56.00	16.49	Peak	L	Pass
5**	0.820	26.34	10.63	46.00	19.66	AV	L	Pass
6	25.814	39.69	11.09	60.00	20.31	Peak	L	Pass
6**	25.814	27.66	11.09	50.00	22.34	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.160	56.59	9.85	65.46	8.87	Peak	N	Pass
1**	0.160	41.11	9.85	55.46	14.35	AV	N	Pass
2	0.178	53.65	9.85	64.58	10.93	Peak	N	Pass
2**	0.178	38.01	9.85	54.58	16.57	AV	N	Pass
3	0.416	42.20	10.44	57.53	15.33	Peak	N	Pass
3**	0.416	30.42	10.44	47.53	17.11	AV	N	Pass
4	1.334	36.70	10.22	56.00	19.30	Peak	N	Pass
4**	1.334	25.11	10.22	46.00	20.89	AV	N	Pass
5	5.354	37.86	10.26	60.00	22.14	Peak	N	Pass
5**	5.354	25.64	10.26	50.00	24.36	AV	N	Pass
6	24.904	41.20	11.11	60.00	18.80	Peak	N	Pass
6**	24.904	28.68	11.11	50.00	21.32	AV	N	Pass

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

Note¹: The symbol of “--” in the table which means not application.

Note²: 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.

Note³: 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.

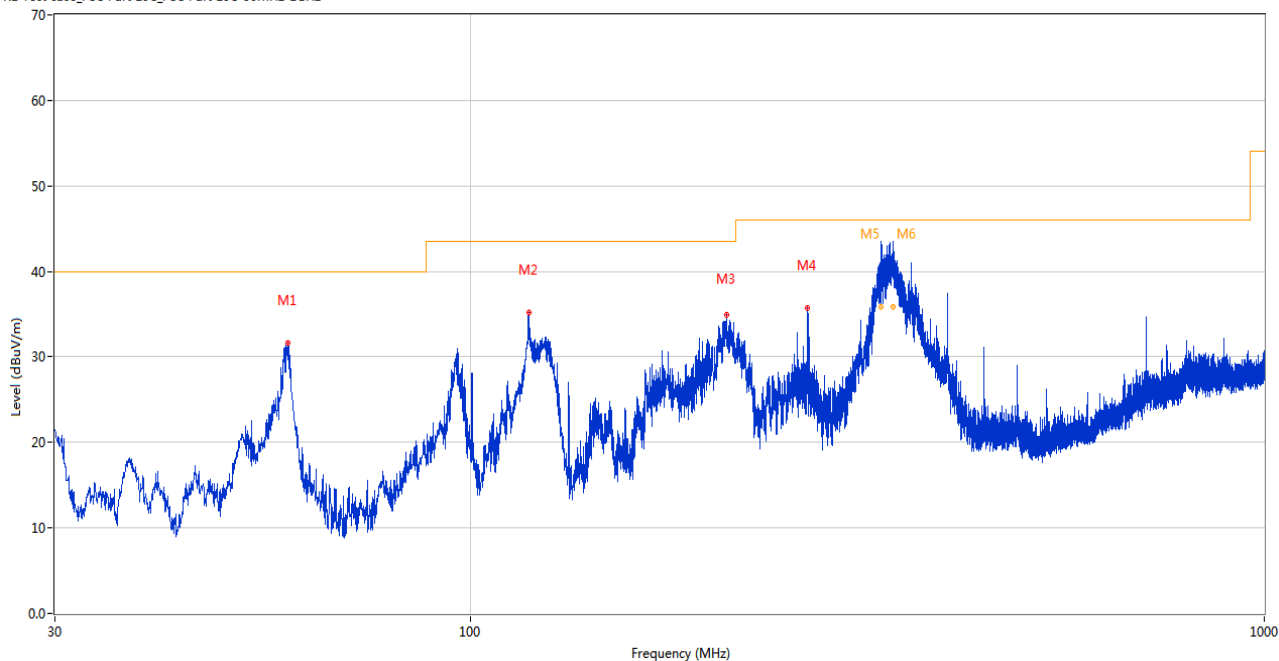
Note⁴: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

Note⁵: For Multiple transmitter output, the quantity $10 \log (NANT)$ dB is added to each spectrum value before comparing to the emission limit. When testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding $10 \log (NANT)$ if the measurements are made relative to the in-band emissions on the individual outputs.

Test Data and Plots

30 MHz to 1 GHz, ANT H

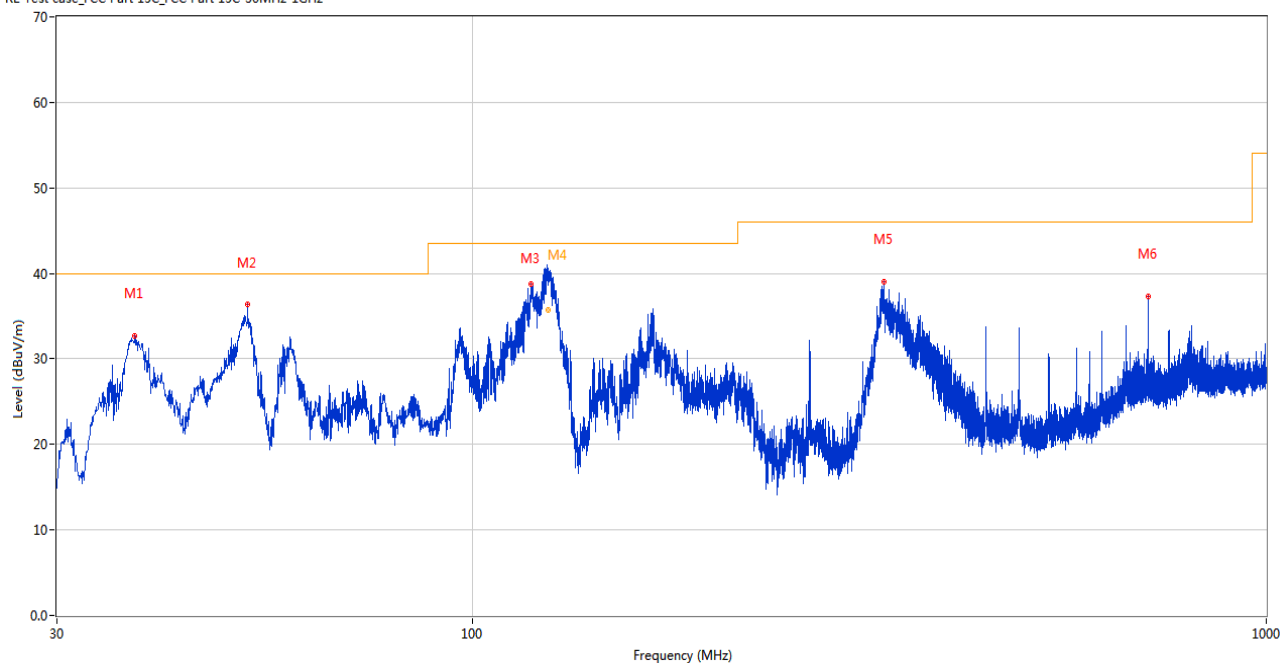
RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	58.955	31.60	-27.10	40.0	8.40	Peak	82.00	200	Horizontal	Pass
2	118.561	35.19	-28.23	43.5	8.31	Peak	30.00	200	Horizontal	Pass
3	210.469	34.90	-28.71	43.5	8.60	Peak	144.00	100	Horizontal	Pass
4	266.147	35.69	-26.17	46.0	10.31	Peak	74.00	100	Horizontal	Pass
5	329.535	43.57	-23.35	46.0	2.43	Peak	100.00	101	Horizontal	N/A
5*	329.535	35.88	-23.35	46.0	10.12	QP	100.00	101	Horizontal	Pass
6	341.163	43.37	-23.66	46.0	2.63	Peak	275.00	112	Horizontal	N/A
6*	341.163	35.87	-23.66	46.0	10.13	QP	275.00	112	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15C_FCC Part 15C-30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	37.614	32.66	-26.92	40.0	7.34	Peak	188.00	100	Vertical	Pass
2	52.164	36.32	-26.79	40.0	3.68	Peak	243.00	100	Vertical	Pass
3	118.706	38.69	-28.21	43.5	4.81	Peak	150.00	100	Vertical	Pass
4	124.669	40.01	-27.78	43.5	3.49	Peak	302.00	109	Vertical	N/A
4*	124.669	35.79	-27.78	43.5	7.71	QP	302.00	109	Vertical	Pass
5	329.924	39.08	-23.33	46.0	6.92	Peak	304.00	200	Vertical	Pass
6	709.825	37.30	-14.40	46.0	8.70	Peak	334.00	100	Vertical	Pass

Note ¹: The spurious above 18G is noise only, do not show on the report.

Note ²: All antenna were pre tested, but only the worst case has been reported in this report.

SISO-Aux. Antenna

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1508.809	40.64	74.0	33.36	Peak	223.00	100	Horizontal	Pass
1**	1508.809	26.98	54.0	27.02	AV	223.00	100	Horizontal	Pass
2	2345.894	47.31	74.0	26.69	Peak	30.00	200	Horizontal	Pass
2**	2345.894	40.47	54.0	13.53	AV	30.00	200	Horizontal	Pass
3	4204.892	50.37	74.0	23.63	Peak	109.00	200	Horizontal	Pass
3**	4204.892	35.54	54.0	18.46	AV	109.00	200	Horizontal	Pass
4	7433.847	54.63	74.0	19.37	Peak	37.00	200	Horizontal	Pass
4**	7433.847	40.35	54.0	13.65	AV	37.00	200	Horizontal	Pass
5	12518.556	55.95	74.0	18.05	Peak	40.00	200	Horizontal	Pass
5**	12518.556	45.65	54.0	8.35	AV	40.00	200	Horizontal	Pass
6	16146.545	51.98	74.0	22.02	Peak	230.00	300	Horizontal	Pass
6**	16146.545	46.42	54.0	7.58	AV	230.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1566.764	33.87	74.0	40.13	Peak	165.00	300	Vertical	Pass
1**	1566.764	28.05	54.0	25.95	AV	165.00	300	Vertical	Pass
2	2348.682	43.77	74.0	30.23	Peak	270.00	100	Vertical	Pass
2**	2348.682	31.37	54.0	22.63	AV	270.00	100	Vertical	Pass
3	3919.485	46.15	74.0	27.85	Peak	276.00	200	Vertical	Pass
3**	3919.485	34.38	54.0	19.62	AV	276.00	200	Vertical	Pass
4	7683.300	54.28	74.0	19.72	Peak	169.00	400	Vertical	Pass
4**	7683.300	42.79	54.0	11.21	AV	169.00	400	Vertical	Pass
5	12527.162	54.39	74.0	19.61	Peak	262.00	100	Vertical	Pass
5**	12527.162	44.30	54.0	9.70	AV	262.00	100	Vertical	Pass
6	15380.101	53.53	74.0	20.47	Peak	137.00	400	Vertical	Pass
6**	15380.101	41.90	54.0	12.10	AV	137.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1512.290	40.71	74.0	33.29	Peak	241.00	100	Horizontal	Pass
1**	1512.290	28.16	54.0	25.84	AV	241.00	100	Horizontal	Pass
2	2345.354	47.02	74.0	26.98	Peak	245.00	300	Horizontal	Pass
2**	2345.354	34.73	54.0	19.27	AV	245.00	300	Horizontal	Pass
3	4203.975	45.43	74.0	28.57	Peak	239.00	200	Horizontal	Pass
3**	4203.975	38.09	54.0	15.91	AV	239.00	200	Horizontal	Pass
4	7431.993	54.07	74.0	19.93	Peak	281.00	200	Horizontal	Pass
4**	7431.993	42.76	54.0	11.24	AV	281.00	200	Horizontal	Pass
5	12515.774	54.11	74.0	19.89	Peak	343.00	100	Horizontal	Pass
5**	12515.774	49.74	54.0	4.26	AV	343.00	100	Horizontal	Pass
6	16149.943	53.62	74.0	20.38	Peak	65.00	200	Horizontal	Pass
6**	16149.943	42.09	54.0	11.91	AV	65.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1572.112	34.88	74.0	39.12	Peak	29.00	400	Vertical	Pass
1**	1572.112	24.51	54.0	29.49	AV	29.00	400	Vertical	Pass
2	2348.266	42.71	74.0	31.29	Peak	50.00	400	Vertical	Pass
2**	2348.266	32.46	54.0	21.54	AV	50.00	400	Vertical	Pass
3	3917.896	44.99	74.0	29.01	Peak	7.00	200	Vertical	Pass
3**	3917.896	36.20	54.0	17.80	AV	7.00	200	Vertical	Pass
4	7679.874	50.43	74.0	23.57	Peak	219.00	200	Vertical	Pass
4**	7679.874	41.10	54.0	12.90	AV	219.00	200	Vertical	Pass
5	12533.558	54.94	74.0	19.06	Peak	207.00	400	Vertical	Pass
5**	12533.558	41.96	54.0	12.04	AV	207.00	400	Vertical	Pass
6	15382.570	50.46	74.0	23.54	Peak	186.00	100	Vertical	Pass
6**	15382.570	45.52	54.0	8.48	AV	186.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1513.937	42.55	74.0	31.45	Peak	288.00	200	Horizontal	Pass
1**	1513.937	31.75	54.0	22.25	AV	288.00	200	Horizontal	Pass
2	2351.778	47.01	74.0	26.99	Peak	346.00	200	Horizontal	Pass
2**	2351.778	37.66	54.0	16.34	AV	346.00	200	Horizontal	Pass
3	4207.969	49.55	74.0	24.45	Peak	39.00	200	Horizontal	Pass
3**	4207.969	37.53	54.0	16.47	AV	39.00	200	Horizontal	Pass
4	7432.720	53.82	74.0	20.18	Peak	138.00	100	Horizontal	Pass
4**	7432.720	42.60	54.0	11.40	AV	138.00	100	Horizontal	Pass
5	12515.884	54.82	74.0	19.18	Peak	288.00	400	Horizontal	Pass
5**	12515.884	50.01	54.0	3.99	AV	288.00	400	Horizontal	Pass
6	16149.387	56.55	74.0	17.45	Peak	337.00	400	Horizontal	Pass
6**	16149.387	41.80	54.0	12.20	AV	337.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1573.157	39.12	74.0	34.88	Peak	252.00	300	Vertical	Pass
1**	1573.157	27.84	54.0	26.16	AV	252.00	300	Vertical	Pass
2	2350.784	47.81	74.0	26.19	Peak	157.00	200	Vertical	Pass
2**	2350.784	36.04	54.0	17.96	AV	157.00	200	Vertical	Pass
3	3918.794	46.17	74.0	27.83	Peak	113.00	200	Vertical	Pass
3**	3918.794	33.84	54.0	20.16	AV	113.00	200	Vertical	Pass
4	7682.373	52.44	74.0	21.56	Peak	332.00	100	Vertical	Pass
4**	7682.373	43.84	54.0	10.16	AV	332.00	100	Vertical	Pass
5	12530.626	54.31	74.0	19.69	Peak	176.00	300	Vertical	Pass
5**	12530.626	43.62	54.0	10.38	AV	176.00	300	Vertical	Pass
6	15381.402	51.27	74.0	22.73	Peak	266.00	400	Vertical	Pass
6**	15381.402	44.51	54.0	9.49	AV	266.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1509.796	37.11	74.0	36.89	Peak	359.00	100	Horizontal	Pass
1**	1509.796	30.25	54.0	23.75	AV	359.00	100	Horizontal	Pass
2	2346.249	45.72	74.0	28.28	Peak	133.00	300	Horizontal	Pass
2**	2346.249	37.34	54.0	16.66	AV	133.00	300	Horizontal	Pass
3	4204.622	47.50	74.0	26.50	Peak	187.00	200	Horizontal	Pass
3**	4204.622	37.22	54.0	16.78	AV	187.00	200	Horizontal	Pass
4	7430.815	53.93	74.0	20.07	Peak	154.00	100	Horizontal	Pass
4**	7430.815	43.71	54.0	10.29	AV	154.00	100	Horizontal	Pass
5	12515.146	57.51	74.0	16.49	Peak	136.00	200	Horizontal	Pass
5**	12515.146	46.78	54.0	7.22	AV	136.00	200	Horizontal	Pass
6	16145.356	51.59	74.0	22.41	Peak	126.00	200	Horizontal	Pass
6**	16145.356	46.64	54.0	7.36	AV	126.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1572.989	36.80	74.0	37.20	Peak	231.00	100	Vertical	Pass
1**	1572.989	26.73	54.0	27.27	AV	231.00	100	Vertical	Pass
2	2346.113	42.20	74.0	31.80	Peak	270.00	400	Vertical	Pass
2**	2346.113	34.91	54.0	19.09	AV	270.00	400	Vertical	Pass
3	3919.515	44.82	74.0	29.18	Peak	183.00	200	Vertical	Pass
3**	3919.515	34.77	54.0	19.23	AV	183.00	200	Vertical	Pass
4	7680.963	52.40	74.0	21.60	Peak	137.00	200	Vertical	Pass
4**	7680.963	45.95	54.0	8.05	AV	137.00	200	Vertical	Pass
5	12530.072	53.76	74.0	20.24	Peak	223.00	200	Vertical	Pass
5**	12530.072	42.64	54.0	11.36	AV	223.00	200	Vertical	Pass
6	15385.149	53.43	74.0	20.57	Peak	151.00	400	Vertical	Pass
6**	15385.149	44.33	54.0	9.67	AV	151.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1511.530	36.80	74.0	37.20	Peak	23.00	100	Horizontal	Pass
1**	1511.530	28.70	54.0	25.30	AV	23.00	100	Horizontal	Pass
2	2347.542	42.04	74.0	31.96	Peak	58.00	300	Horizontal	Pass
2**	2347.542	38.85	54.0	15.15	AV	58.00	300	Horizontal	Pass
3	4202.329	48.51	74.0	25.49	Peak	162.00	200	Horizontal	Pass
3**	4202.329	35.99	54.0	18.01	AV	162.00	200	Horizontal	Pass
4	7432.243	55.62	74.0	18.38	Peak	4.00	200	Horizontal	Pass
4**	7432.243	41.22	54.0	12.78	AV	4.00	200	Horizontal	Pass
5	12514.087	53.76	74.0	20.24	Peak	61.00	300	Horizontal	Pass
5**	12514.087	47.57	54.0	6.43	AV	61.00	300	Horizontal	Pass
6	16147.477	55.19	74.0	18.81	Peak	254.00	100	Horizontal	Pass
6**	16147.477	46.71	54.0	7.29	AV	254.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1573.431	37.58	74.0	36.42	Peak	132.00	200	Vertical	Pass
1**	1573.431	28.90	54.0	25.10	AV	132.00	200	Vertical	Pass
2	2344.200	47.28	74.0	26.72	Peak	56.00	300	Vertical	Pass
2**	2344.200	34.91	54.0	19.09	AV	56.00	300	Vertical	Pass
3	3918.992	43.18	74.0	30.82	Peak	220.00	200	Vertical	Pass
3**	3918.992	38.77	54.0	15.23	AV	220.00	200	Vertical	Pass
4	7683.763	50.77	74.0	23.23	Peak	346.00	100	Vertical	Pass
4**	7683.763	46.13	54.0	7.87	AV	346.00	100	Vertical	Pass
5	12526.804	56.94	74.0	17.06	Peak	214.00	200	Vertical	Pass
5**	12526.804	41.90	54.0	12.10	AV	214.00	200	Vertical	Pass
6	15379.767	53.21	74.0	20.79	Peak	292.00	400	Vertical	Pass
6**	15379.767	43.03	54.0	10.97	AV	292.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1514.509	41.37	74.0	32.63	Peak	82.00	400	Horizontal	Pass
1**	1514.509	28.45	54.0	25.55	AV	82.00	400	Horizontal	Pass
2	2350.960	43.47	74.0	30.53	Peak	57.00	100	Horizontal	Pass
2**	2350.960	37.65	54.0	16.35	AV	57.00	100	Horizontal	Pass
3	4208.990	46.00	74.0	28.00	Peak	147.00	200	Horizontal	Pass
3**	4208.990	39.81	54.0	14.19	AV	147.00	200	Horizontal	Pass
4	7431.405	54.99	74.0	19.01	Peak	53.00	200	Horizontal	Pass
4**	7431.405	40.78	54.0	13.22	AV	53.00	200	Horizontal	Pass
5	12518.499	52.85	74.0	21.15	Peak	209.00	200	Horizontal	Pass
5**	12518.499	49.13	54.0	4.87	AV	209.00	200	Horizontal	Pass
6	16150.646	55.29	74.0	18.71	Peak	273.00	100	Horizontal	Pass
6**	16150.646	46.42	54.0	7.58	AV	273.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1570.826	39.41	74.0	34.59	Peak	252.00	400	Vertical	Pass
1**	1570.826	28.61	54.0	25.39	AV	252.00	400	Vertical	Pass
2	2344.330	46.06	74.0	27.94	Peak	24.00	400	Vertical	Pass
2**	2344.330	34.03	54.0	19.97	AV	24.00	400	Vertical	Pass
3	3920.786	42.67	74.0	31.33	Peak	312.00	200	Vertical	Pass
3**	3920.786	34.93	54.0	19.07	AV	312.00	200	Vertical	Pass
4	7681.190	52.60	74.0	21.40	Peak	224.00	100	Vertical	Pass
4**	7681.190	41.84	54.0	12.16	AV	224.00	100	Vertical	Pass
5	12530.080	55.23	74.0	18.77	Peak	25.00	300	Vertical	Pass
5**	12530.080	43.20	54.0	10.80	AV	25.00	300	Vertical	Pass
6	15381.992	50.37	74.0	23.63	Peak	340.00	200	Vertical	Pass
6**	15381.992	44.60	54.0	9.40	AV	340.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1509.553	37.10	74.0	36.90	Peak	94.00	200	Horizontal	Pass
1**	1509.553	31.68	54.0	22.32	AV	94.00	200	Horizontal	Pass
2	2351.311	42.92	74.0	31.08	Peak	256.00	200	Horizontal	Pass
2**	2351.311	40.32	54.0	13.68	AV	256.00	200	Horizontal	Pass
3	4208.235	49.12	74.0	24.88	Peak	28.00	200	Horizontal	Pass
3**	4208.235	37.96	54.0	16.04	AV	28.00	200	Horizontal	Pass
4	7435.884	55.30	74.0	18.70	Peak	167.00	100	Horizontal	Pass
4**	7435.884	41.89	54.0	12.11	AV	167.00	100	Horizontal	Pass
5	12520.943	58.15	74.0	15.85	Peak	192.00	100	Horizontal	Pass
5**	12520.943	47.59	54.0	6.41	AV	192.00	100	Horizontal	Pass
6	16151.093	53.10	74.0	20.90	Peak	349.00	100	Horizontal	Pass
6**	16151.093	42.82	54.0	11.18	AV	349.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1570.844	34.66	74.0	39.34	Peak	358.00	100	Vertical	Pass
1**	1570.844	24.22	54.0	29.78	AV	358.00	100	Vertical	Pass
2	2345.872	42.42	74.0	31.58	Peak	38.00	100	Vertical	Pass
2**	2345.872	35.31	54.0	18.69	AV	38.00	100	Vertical	Pass
3	3915.850	46.12	74.0	27.88	Peak	312.00	200	Vertical	Pass
3**	3915.850	35.16	54.0	18.84	AV	312.00	200	Vertical	Pass
4	7677.243	49.73	74.0	24.27	Peak	237.00	200	Vertical	Pass
4**	7677.243	43.02	54.0	10.98	AV	237.00	200	Vertical	Pass
5	12525.786	53.56	74.0	20.44	Peak	326.00	100	Vertical	Pass
5**	12525.786	44.50	54.0	9.50	AV	326.00	100	Vertical	Pass
6	15381.041	54.03	74.0	19.97	Peak	215.00	400	Vertical	Pass
6**	15381.041	47.09	54.0	6.91	AV	215.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1509.717	37.38	74.0	36.62	Peak	212.00	300	Horizontal	Pass
1**	1509.717	30.48	54.0	23.52	AV	212.00	300	Horizontal	Pass
2	2345.721	47.48	74.0	26.52	Peak	328.00	400	Horizontal	Pass
2**	2345.721	36.77	54.0	17.23	AV	328.00	400	Horizontal	Pass
3	4204.089	50.19	74.0	23.81	Peak	196.00	200	Horizontal	Pass
3**	4204.089	38.62	54.0	15.38	AV	196.00	200	Horizontal	Pass
4	7431.271	52.00	74.0	22.00	Peak	212.00	400	Horizontal	Pass
4**	7431.271	43.13	54.0	10.87	AV	212.00	400	Horizontal	Pass
5	12515.790	53.32	74.0	20.68	Peak	249.00	400	Horizontal	Pass
5**	12515.790	45.86	54.0	8.14	AV	249.00	400	Horizontal	Pass
6	16150.746	54.54	74.0	19.46	Peak	272.00	100	Horizontal	Pass
6**	16150.746	41.83	54.0	12.17	AV	272.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1566.915	37.13	74.0	36.87	Peak	324.00	300	Vertical	Pass
1**	1566.915	26.72	54.0	27.28	AV	324.00	300	Vertical	Pass
2	2348.826	42.06	74.0	31.94	Peak	269.00	400	Vertical	Pass
2**	2348.826	32.33	54.0	21.67	AV	269.00	400	Vertical	Pass
3	3914.316	43.77	74.0	30.23	Peak	2.00	200	Vertical	Pass
3**	3914.316	33.65	54.0	20.35	AV	2.00	200	Vertical	Pass
4	7678.032	52.01	74.0	21.99	Peak	163.00	100	Vertical	Pass
4**	7678.032	45.79	54.0	8.21	AV	163.00	100	Vertical	Pass
5	12525.867	54.27	74.0	19.73	Peak	46.00	100	Vertical	Pass
5**	12525.867	40.98	54.0	13.02	AV	46.00	100	Vertical	Pass
6	15382.435	55.13	74.0	18.87	Peak	259.00	100	Vertical	Pass
6**	15382.435	44.13	54.0	9.87	AV	259.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1509.298	40.53	74.0	33.47	Peak	16.00	400	Horizontal	Pass
1**	1509.298	27.51	54.0	26.49	AV	16.00	400	Horizontal	Pass
2	2350.004	41.97	74.0	32.03	Peak	220.00	200	Horizontal	Pass
2**	2350.004	37.17	54.0	16.83	AV	220.00	200	Horizontal	Pass
3	4207.763	48.36	74.0	25.64	Peak	187.00	200	Horizontal	Pass
3**	4207.763	34.95	54.0	19.05	AV	187.00	200	Horizontal	Pass
4	7436.044	51.62	74.0	22.38	Peak	113.00	100	Horizontal	Pass
4**	7436.044	43.89	54.0	10.11	AV	113.00	100	Horizontal	Pass
5	12516.353	54.79	74.0	19.21	Peak	65.00	300	Horizontal	Pass
5**	12516.353	44.50	54.0	9.50	AV	65.00	300	Horizontal	Pass
6	16143.510	55.47	74.0	18.53	Peak	196.00	400	Horizontal	Pass
6**	16143.510	44.72	54.0	9.28	AV	196.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1574.265	36.13	74.0	37.87	Peak	68.00	300	Vertical	Pass
1**	1574.265	26.34	54.0	27.66	AV	68.00	300	Vertical	Pass
2	2343.558	47.43	74.0	26.57	Peak	186.00	300	Vertical	Pass
2**	2343.558	34.64	54.0	19.36	AV	186.00	300	Vertical	Pass
3	3914.278	42.61	74.0	31.39	Peak	266.00	200	Vertical	Pass
3**	3914.278	39.17	54.0	14.83	AV	266.00	200	Vertical	Pass
4	7679.771	52.17	74.0	21.83	Peak	235.00	200	Vertical	Pass
4**	7679.771	43.86	54.0	10.14	AV	235.00	200	Vertical	Pass
5	12528.606	56.30	74.0	17.70	Peak	153.00	400	Vertical	Pass
5**	12528.606	45.07	54.0	8.93	AV	153.00	400	Vertical	Pass
6	15383.768	56.04	74.0	17.96	Peak	85.00	200	Vertical	Pass
6**	15383.768	46.61	54.0	7.39	AV	85.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1508.411	42.36	74.0	31.64	Peak	245.00	100	Horizontal	Pass
1**	1508.411	27.72	54.0	26.28	AV	245.00	100	Horizontal	Pass
2	2347.026	46.91	74.0	27.09	Peak	6.00	400	Horizontal	Pass
2**	2347.026	36.22	54.0	17.78	AV	6.00	400	Horizontal	Pass
3	4203.083	48.28	74.0	25.72	Peak	49.00	200	Horizontal	Pass
3**	4203.083	38.80	54.0	15.20	AV	49.00	200	Horizontal	Pass
4	7431.132	57.08	74.0	16.92	Peak	88.00	400	Horizontal	Pass
4**	7431.132	41.28	54.0	12.72	AV	88.00	400	Horizontal	Pass
5	12516.194	55.99	74.0	18.01	Peak	154.00	400	Horizontal	Pass
5**	12516.194	45.56	54.0	8.44	AV	154.00	400	Horizontal	Pass
6	16146.913	52.34	74.0	21.66	Peak	73.00	300	Horizontal	Pass
6**	16146.913	46.57	54.0	7.43	AV	73.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1568.569	38.40	74.0	35.60	Peak	94.00	200	Vertical	Pass
1**	1568.569	29.63	54.0	24.37	AV	94.00	200	Vertical	Pass
2	2345.479	43.77	74.0	30.23	Peak	72.00	100	Vertical	Pass
2**	2345.479	33.90	54.0	20.10	AV	72.00	100	Vertical	Pass
3	3917.587	45.04	74.0	28.96	Peak	268.00	200	Vertical	Pass
3**	3917.587	38.14	54.0	15.86	AV	268.00	200	Vertical	Pass
4	7681.028	50.48	74.0	23.52	Peak	253.00	100	Vertical	Pass
4**	7681.028	46.49	54.0	7.51	AV	253.00	100	Vertical	Pass
5	12533.492	56.80	74.0	17.20	Peak	296.00	200	Vertical	Pass
5**	12533.492	40.33	54.0	13.67	AV	296.00	200	Vertical	Pass
6	15385.545	55.81	74.0	18.19	Peak	33.00	300	Vertical	Pass
6**	15385.545	46.04	54.0	7.96	AV	33.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1511.769	40.21	74.0	33.79	Peak	125.00	400	Horizontal	Pass
1**	1511.769	27.04	54.0	26.96	AV	125.00	400	Horizontal	Pass
2	2351.397	44.75	74.0	29.25	Peak	342.00	200	Horizontal	Pass
2**	2351.397	36.14	54.0	17.86	AV	342.00	200	Horizontal	Pass
3	4206.816	45.21	74.0	28.79	Peak	100.00	200	Horizontal	Pass
3**	4206.816	39.94	54.0	14.06	AV	100.00	200	Horizontal	Pass
4	7435.130	56.03	74.0	17.97	Peak	175.00	400	Horizontal	Pass
4**	7435.130	41.87	54.0	12.13	AV	175.00	400	Horizontal	Pass
5	12521.093	54.33	74.0	19.67	Peak	78.00	300	Horizontal	Pass
5**	12521.093	48.45	54.0	5.55	AV	78.00	300	Horizontal	Pass
6	16147.842	56.00	74.0	18.00	Peak	331.00	300	Horizontal	Pass
6**	16147.842	45.18	54.0	8.82	AV	331.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1566.550	36.49	74.0	37.51	Peak	108.00	400	Vertical	Pass
1**	1566.550	26.02	54.0	27.98	AV	108.00	400	Vertical	Pass
2	2347.611	42.70	74.0	31.30	Peak	347.00	200	Vertical	Pass
2**	2347.611	30.96	54.0	23.04	AV	347.00	200	Vertical	Pass
3	3919.515	42.56	74.0	31.44	Peak	347.00	200	Vertical	Pass
3**	3919.515	36.80	54.0	17.20	AV	347.00	200	Vertical	Pass
4	7681.310	51.69	74.0	22.31	Peak	242.00	400	Vertical	Pass
4**	7681.310	42.35	54.0	11.65	AV	242.00	400	Vertical	Pass
5	12525.793	58.20	74.0	15.80	Peak	111.00	200	Vertical	Pass
5**	12525.793	39.94	54.0	14.06	AV	111.00	200	Vertical	Pass
6	15384.207	55.11	74.0	18.89	Peak	127.00	400	Vertical	Pass
6**	15384.207	41.96	54.0	12.04	AV	127.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1515.024	42.37	74.0	31.63	Peak	146.00	300	Horizontal	Pass
1**	1515.024	32.49	54.0	21.51	AV	146.00	300	Horizontal	Pass
2	2345.003	45.74	74.0	28.26	Peak	95.00	400	Horizontal	Pass
2**	2345.003	34.49	54.0	19.51	AV	95.00	400	Horizontal	Pass
3	4202.576	46.44	74.0	27.56	Peak	66.00	200	Horizontal	Pass
3**	4202.576	40.00	54.0	14.00	AV	66.00	200	Horizontal	Pass
4	7438.278	53.70	74.0	20.30	Peak	315.00	400	Horizontal	Pass
4**	7438.278	45.37	54.0	8.63	AV	315.00	400	Horizontal	Pass
5	12518.828	55.71	74.0	18.29	Peak	63.00	200	Horizontal	Pass
5**	12518.828	49.80	54.0	4.20	AV	63.00	200	Horizontal	Pass
6	16146.290	56.42	74.0	17.58	Peak	246.00	100	Horizontal	Pass
6**	16146.290	45.31	54.0	8.69	AV	246.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1568.650	35.28	74.0	38.72	Peak	4.00	200	Vertical	Pass
1**	1568.650	25.74	54.0	28.26	AV	4.00	200	Vertical	Pass
2	2347.615	43.74	74.0	30.26	Peak	244.00	100	Vertical	Pass
2**	2347.615	32.25	54.0	21.75	AV	244.00	100	Vertical	Pass
3	3920.554	41.90	74.0	32.10	Peak	243.00	200	Vertical	Pass
3**	3920.554	36.42	54.0	17.58	AV	243.00	200	Vertical	Pass
4	7677.192	54.12	74.0	19.88	Peak	236.00	400	Vertical	Pass
4**	7677.192	41.04	54.0	12.96	AV	236.00	400	Vertical	Pass
5	12527.531	54.13	74.0	19.87	Peak	273.00	200	Vertical	Pass
5**	12527.531	44.61	54.0	9.39	AV	273.00	200	Vertical	Pass
6	15380.501	56.06	74.0	17.94	Peak	91.00	300	Vertical	Pass
6**	15380.501	42.42	54.0	11.58	AV	91.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1508.605	40.79	74.0	33.21	Peak	158.00	100	Horizontal	Pass
1**	1508.605	27.78	54.0	26.22	AV	158.00	100	Horizontal	Pass
2	2345.334	41.92	74.0	32.08	Peak	185.00	300	Horizontal	Pass
2**	2345.334	36.39	54.0	17.61	AV	185.00	300	Horizontal	Pass
3	4202.383	45.18	74.0	28.82	Peak	339.00	200	Horizontal	Pass
3**	4202.383	38.25	54.0	15.75	AV	339.00	200	Horizontal	Pass
4	7432.198	55.19	74.0	18.81	Peak	247.00	100	Horizontal	Pass
4**	7432.198	41.41	54.0	12.59	AV	247.00	100	Horizontal	Pass
5	12520.514	57.27	74.0	16.73	Peak	276.00	200	Horizontal	Pass
5**	12520.514	44.77	54.0	9.23	AV	276.00	200	Horizontal	Pass
6	16147.480	53.07	74.0	20.93	Peak	195.00	300	Horizontal	Pass
6**	16147.480	44.09	54.0	9.91	AV	195.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1573.120	37.95	74.0	36.05	Peak	40.00	200	Vertical	Pass
1**	1573.120	27.31	54.0	26.69	AV	40.00	200	Vertical	Pass
2	2343.575	47.00	74.0	27.00	Peak	282.00	200	Vertical	Pass
2**	2343.575	34.02	54.0	19.98	AV	282.00	200	Vertical	Pass
3	3915.446	46.33	74.0	27.67	Peak	244.00	200	Vertical	Pass
3**	3915.446	37.36	54.0	16.64	AV	244.00	200	Vertical	Pass
4	7678.734	51.62	74.0	22.38	Peak	101.00	200	Vertical	Pass
4**	7678.734	46.11	54.0	7.89	AV	101.00	200	Vertical	Pass
5	12533.216	55.40	74.0	18.60	Peak	292.00	100	Vertical	Pass
5**	12533.216	45.18	54.0	8.82	AV	292.00	100	Vertical	Pass
6	15384.244	52.37	74.0	21.63	Peak	54.00	400	Vertical	Pass
6**	15384.244	42.40	54.0	11.60	AV	54.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1513.768	38.49	74.0	35.51	Peak	93.00	300	Horizontal	Pass
1**	1513.768	31.60	54.0	22.40	AV	93.00	300	Horizontal	Pass
2	2350.561	43.05	74.0	30.95	Peak	8.00	200	Horizontal	Pass
2**	2350.561	39.57	54.0	14.43	AV	8.00	200	Horizontal	Pass
3	4203.627	49.38	74.0	24.62	Peak	319.00	200	Horizontal	Pass
3**	4203.627	35.70	54.0	18.30	AV	319.00	200	Horizontal	Pass
4	7433.765	52.00	74.0	22.00	Peak	241.00	200	Horizontal	Pass
4**	7433.765	45.84	54.0	8.16	AV	241.00	200	Horizontal	Pass
5	12517.394	58.62	74.0	15.38	Peak	355.00	200	Horizontal	Pass
5**	12517.394	46.64	54.0	7.36	AV	355.00	200	Horizontal	Pass
6	16148.048	55.81	74.0	18.19	Peak	155.00	200	Horizontal	Pass
6**	16148.048	40.90	54.0	13.10	AV	155.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1573.856	39.07	74.0	34.93	Peak	98.00	100	Vertical	Pass
1**	1573.856	26.93	54.0	27.07	AV	98.00	100	Vertical	Pass
2	2349.726	44.13	74.0	29.87	Peak	36.00	100	Vertical	Pass
2**	2349.726	33.03	54.0	20.97	AV	36.00	100	Vertical	Pass
3	3915.345	42.46	74.0	31.54	Peak	104.00	200	Vertical	Pass
3**	3915.345	35.73	54.0	18.27	AV	104.00	200	Vertical	Pass
4	7681.178	50.11	74.0	23.89	Peak	1.00	200	Vertical	Pass
4**	7681.178	46.76	54.0	7.24	AV	1.00	200	Vertical	Pass
5	12529.757	58.30	74.0	15.70	Peak	30.00	300	Vertical	Pass
5**	12529.757	40.09	54.0	13.91	AV	30.00	300	Vertical	Pass
6	15378.747	52.39	74.0	21.61	Peak	342.00	300	Vertical	Pass
6**	15378.747	46.98	54.0	7.02	AV	342.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1523.629	37.14	74.0	36.86	Peak	36.00	100	Horizontal	Pass
1**	1523.629	27.49	54.0	26.51	AV	36.00	100	Horizontal	Pass
2	4023.127	46.08	74.0	27.92	Peak	77.00	400	Horizontal	Pass
2**	4023.127	35.85	54.0	18.15	AV	77.00	400	Horizontal	Pass
3	7601.018	52.38	74.0	21.62	Peak	136.00	200	Horizontal	Pass
3**	7601.018	44.43	54.0	9.57	AV	136.00	200	Horizontal	Pass
4	12459.182	55.83	74.0	18.17	Peak	307.00	400	Horizontal	Pass
4**	12459.182	42.15	54.0	11.85	AV	307.00	400	Horizontal	Pass
5	16098.258	56.18	74.0	17.82	Peak	275.00	100	Horizontal	Pass
5**	16098.258	43.70	54.0	10.30	AV	275.00	100	Horizontal	Pass
6	17419.549	53.76	74.0	20.24	Peak	10.00	400	Horizontal	Pass
6**	17419.549	46.88	54.0	7.12	AV	10.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1335.435	45.05	74.0	28.95	Peak	346.00	200	Vertical	Pass
1**	1335.435	31.61	54.0	22.39	AV	346.00	200	Vertical	Pass
2	1437.346	40.50	74.0	33.50	Peak	103.00	300	Vertical	Pass
2**	1437.346	34.63	54.0	19.37	AV	103.00	300	Vertical	Pass
3	4311.989	48.02	74.0	25.98	Peak	57.00	200	Vertical	Pass
3**	4311.989	38.38	54.0	15.62	AV	57.00	200	Vertical	Pass
4	7593.253	52.24	74.0	21.76	Peak	114.00	100	Vertical	Pass
4**	7593.253	41.04	54.0	12.96	AV	114.00	100	Vertical	Pass
5	12530.846	56.24	74.0	17.76	Peak	226.00	100	Vertical	Pass
5**	12530.846	43.50	54.0	10.50	AV	226.00	100	Vertical	Pass
6	15906.110	56.66	74.0	17.34	Peak	61.00	400	Vertical	Pass
6**	15906.110	43.33	54.0	10.67	AV	61.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1525.037	40.98	74.0	33.02	Peak	101.00	300	Horizontal	Pass
1**	1525.037	28.23	54.0	25.77	AV	101.00	300	Horizontal	Pass
2	4017.735	48.21	74.0	25.79	Peak	167.00	400	Horizontal	Pass
2**	4017.735	36.48	54.0	17.52	AV	167.00	400	Horizontal	Pass
3	7600.695	54.99	74.0	19.01	Peak	149.00	200	Horizontal	Pass
3**	7600.695	43.16	54.0	10.84	AV	149.00	200	Horizontal	Pass
4	12458.469	51.88	74.0	22.12	Peak	305.00	400	Horizontal	Pass
4**	12458.469	42.15	54.0	11.85	AV	305.00	400	Horizontal	Pass
5	16096.453	54.34	74.0	19.66	Peak	6.00	100	Horizontal	Pass
5**	16096.453	44.91	54.0	9.09	AV	6.00	100	Horizontal	Pass
6	17423.529	57.57	74.0	16.43	Peak	88.00	200	Horizontal	Pass
6**	17423.529	48.95	54.0	5.05	AV	88.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1332.866	47.18	74.0	26.82	Peak	192.00	300	Vertical	Pass
1**	1332.866	33.27	54.0	20.73	AV	192.00	300	Vertical	Pass
2	1443.920	39.20	74.0	34.80	Peak	35.00	400	Vertical	Pass
2**	1443.920	35.73	54.0	18.27	AV	35.00	400	Vertical	Pass
3	4309.006	45.10	74.0	28.90	Peak	122.00	200	Vertical	Pass
3**	4309.006	39.54	54.0	14.46	AV	122.00	200	Vertical	Pass
4	7591.823	55.33	74.0	18.67	Peak	20.00	100	Vertical	Pass
4**	7591.823	45.68	54.0	8.32	AV	20.00	100	Vertical	Pass
5	12538.544	54.85	74.0	19.15	Peak	347.00	100	Vertical	Pass
5**	12538.544	41.43	54.0	12.57	AV	347.00	100	Vertical	Pass
6	15906.469	53.83	74.0	20.17	Peak	166.00	400	Vertical	Pass
6**	15906.469	46.32	54.0	7.68	AV	166.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1518.629	38.40	74.0	35.60	Peak	45.00	300	Horizontal	Pass
1**	1518.629	32.46	54.0	21.54	AV	45.00	300	Horizontal	Pass
2	4020.232	46.00	74.0	28.00	Peak	360.00	400	Horizontal	Pass
2**	4020.232	36.64	54.0	17.36	AV	360.00	400	Horizontal	Pass
3	7600.245	54.79	74.0	19.21	Peak	29.00	200	Horizontal	Pass
3**	7600.245	42.37	54.0	11.63	AV	29.00	200	Horizontal	Pass
4	12452.372	54.98	74.0	19.02	Peak	314.00	300	Horizontal	Pass
4**	12452.372	41.32	54.0	12.68	AV	314.00	300	Horizontal	Pass
5	16094.057	52.93	74.0	21.07	Peak	141.00	300	Horizontal	Pass
5**	16094.057	46.32	54.0	7.68	AV	141.00	300	Horizontal	Pass
6	17418.730	56.49	74.0	17.51	Peak	332.00	400	Horizontal	Pass
6**	17418.730	45.54	54.0	8.46	AV	332.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1335.195	47.06	74.0	26.94	Peak	151.00	400	Vertical	Pass
1**	1335.195	33.79	54.0	20.21	AV	151.00	400	Vertical	Pass
2	1438.084	40.53	74.0	33.47	Peak	319.00	100	Vertical	Pass
2**	1438.084	36.83	54.0	17.17	AV	319.00	100	Vertical	Pass
3	4312.332	45.47	74.0	28.53	Peak	99.00	200	Vertical	Pass
3**	4312.332	38.50	54.0	15.50	AV	99.00	200	Vertical	Pass
4	7593.844	54.13	74.0	19.87	Peak	53.00	200	Vertical	Pass
4**	7593.844	40.85	54.0	13.15	AV	53.00	200	Vertical	Pass
5	12535.056	53.16	74.0	20.84	Peak	43.00	200	Vertical	Pass
5**	12535.056	44.53	54.0	9.47	AV	43.00	200	Vertical	Pass
6	15906.736	57.37	74.0	16.63	Peak	104.00	400	Vertical	Pass
6**	15906.736	45.20	54.0	8.80	AV	104.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1517.237	35.93	74.0	38.07	Peak	53.00	200	Horizontal	Pass
1**	1517.237	29.21	54.0	24.79	AV	53.00	200	Horizontal	Pass
2	4023.776	47.32	74.0	26.68	Peak	250.00	100	Horizontal	Pass
2**	4023.776	36.62	54.0	17.38	AV	250.00	100	Horizontal	Pass
3	7601.841	54.03	74.0	19.97	Peak	259.00	200	Horizontal	Pass
3**	7601.841	42.09	54.0	11.91	AV	259.00	200	Horizontal	Pass
4	12455.997	53.05	74.0	20.95	Peak	15.00	200	Horizontal	Pass
4**	12455.997	43.67	54.0	10.33	AV	15.00	200	Horizontal	Pass
5	16098.023	54.15	74.0	19.85	Peak	331.00	300	Horizontal	Pass
5**	16098.023	47.53	54.0	6.47	AV	331.00	300	Horizontal	Pass
6	17418.787	57.89	74.0	16.11	Peak	51.00	400	Horizontal	Pass
6**	17418.787	46.64	54.0	7.36	AV	51.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.471	47.35	74.0	26.65	Peak	25.00	300	Vertical	Pass
1**	1330.471	32.09	54.0	21.91	AV	25.00	300	Vertical	Pass
2	1443.010	41.86	74.0	32.14	Peak	187.00	300	Vertical	Pass
2**	1443.010	38.13	54.0	15.87	AV	187.00	300	Vertical	Pass
3	4313.889	50.19	74.0	23.81	Peak	89.00	200	Vertical	Pass
3**	4313.889	40.87	54.0	13.13	AV	89.00	200	Vertical	Pass
4	7597.861	55.99	74.0	18.01	Peak	230.00	100	Vertical	Pass
4**	7597.861	41.85	54.0	12.15	AV	230.00	100	Vertical	Pass
5	12537.991	53.47	74.0	20.53	Peak	329.00	200	Vertical	Pass
5**	12537.991	41.28	54.0	12.72	AV	329.00	200	Vertical	Pass
6	15903.052	55.02	74.0	18.98	Peak	287.00	200	Vertical	Pass
6**	15903.052	47.49	54.0	6.51	AV	287.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1522.909	37.82	74.0	36.18	Peak	287.00	200	Horizontal	Pass
1**	1522.909	29.68	54.0	24.32	AV	287.00	200	Horizontal	Pass
2	4019.709	48.73	74.0	25.27	Peak	73.00	200	Horizontal	Pass
2**	4019.709	36.07	54.0	17.93	AV	73.00	200	Horizontal	Pass
3	7601.113	50.44	74.0	23.56	Peak	178.00	200	Horizontal	Pass
3**	7601.113	45.44	54.0	8.56	AV	178.00	200	Horizontal	Pass
4	12453.170	55.23	74.0	18.77	Peak	344.00	300	Horizontal	Pass
4**	12453.170	44.48	54.0	9.52	AV	344.00	300	Horizontal	Pass
5	16095.066	51.29	74.0	22.71	Peak	195.00	400	Horizontal	Pass
5**	16095.066	43.86	54.0	10.14	AV	195.00	400	Horizontal	Pass
6	17419.843	56.11	74.0	17.89	Peak	236.00	200	Horizontal	Pass
6**	17419.843	46.64	54.0	7.36	AV	236.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1332.781	46.43	74.0	27.57	Peak	193.00	200	Vertical	Pass
1**	1332.781	34.03	54.0	19.97	AV	193.00	200	Vertical	Pass
2	1442.354	40.70	74.0	33.30	Peak	324.00	200	Vertical	Pass
2**	1442.354	38.57	54.0	15.43	AV	324.00	200	Vertical	Pass
3	4307.347	48.29	74.0	25.71	Peak	67.00	200	Vertical	Pass
3**	4307.347	38.01	54.0	15.99	AV	67.00	200	Vertical	Pass
4	7592.579	55.71	74.0	18.29	Peak	25.00	100	Vertical	Pass
4**	7592.579	41.90	54.0	12.10	AV	25.00	100	Vertical	Pass
5	12536.338	52.46	74.0	21.54	Peak	228.00	300	Vertical	Pass
5**	12536.338	40.88	54.0	13.12	AV	228.00	300	Vertical	Pass
6	15906.996	57.46	74.0	16.54	Peak	131.00	100	Vertical	Pass
6**	15906.996	46.68	54.0	7.32	AV	131.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1524.027	38.46	74.0	35.54	Peak	139.00	400	Horizontal	Pass
1**	1524.027	30.46	54.0	23.54	AV	139.00	400	Horizontal	Pass
2	4019.713	45.80	74.0	28.20	Peak	79.00	400	Horizontal	Pass
2**	4019.713	35.88	54.0	18.12	AV	79.00	400	Horizontal	Pass
3	7595.449	52.57	74.0	21.43	Peak	80.00	200	Horizontal	Pass
3**	7595.449	44.06	54.0	9.94	AV	80.00	200	Horizontal	Pass
4	12457.311	53.39	74.0	20.61	Peak	318.00	100	Horizontal	Pass
4**	12457.311	44.17	54.0	9.83	AV	318.00	100	Horizontal	Pass
5	16092.171	52.75	74.0	21.25	Peak	29.00	300	Horizontal	Pass
5**	16092.171	42.09	54.0	11.91	AV	29.00	300	Horizontal	Pass
6	17418.123	54.86	74.0	19.14	Peak	238.00	200	Horizontal	Pass
6**	17418.123	45.53	54.0	8.47	AV	238.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.377	43.57	74.0	30.43	Peak	87.00	400	Vertical	Pass
1**	1330.377	33.59	54.0	20.41	AV	87.00	400	Vertical	Pass
2	1439.804	41.23	74.0	32.77	Peak	324.00	200	Vertical	Pass
2**	1439.804	38.28	54.0	15.72	AV	324.00	200	Vertical	Pass
3	4313.615	47.27	74.0	26.73	Peak	8.00	200	Vertical	Pass
3**	4313.615	35.59	54.0	18.41	AV	8.00	200	Vertical	Pass
4	7593.100	51.74	74.0	22.26	Peak	219.00	300	Vertical	Pass
4**	7593.100	46.14	54.0	7.86	AV	219.00	300	Vertical	Pass
5	12538.359	53.13	74.0	20.87	Peak	114.00	200	Vertical	Pass
5**	12538.359	43.11	54.0	10.89	AV	114.00	200	Vertical	Pass
6	15904.562	51.50	74.0	22.50	Peak	228.00	200	Vertical	Pass
6**	15904.562	43.92	54.0	10.08	AV	228.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1520.247	39.00	74.0	35.00	Peak	194.00	400	Horizontal	Pass
1**	1520.247	32.13	54.0	21.87	AV	194.00	400	Horizontal	Pass
2	4022.550	45.01	74.0	28.99	Peak	263.00	100	Horizontal	Pass
2**	4022.550	37.48	54.0	16.52	AV	263.00	100	Horizontal	Pass
3	7597.360	52.27	74.0	21.73	Peak	139.00	200	Horizontal	Pass
3**	7597.360	42.35	54.0	11.65	AV	139.00	200	Horizontal	Pass
4	12459.054	55.60	74.0	18.40	Peak	55.00	300	Horizontal	Pass
4**	12459.054	46.87	54.0	7.13	AV	55.00	300	Horizontal	Pass
5	16093.249	55.17	74.0	18.83	Peak	185.00	400	Horizontal	Pass
5**	16093.249	43.03	54.0	10.97	AV	185.00	400	Horizontal	Pass
6	17421.853	56.37	74.0	17.63	Peak	279.00	300	Horizontal	Pass
6**	17421.853	47.70	54.0	6.30	AV	279.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1331.415	43.41	74.0	30.59	Peak	179.00	400	Vertical	Pass
1**	1331.415	32.13	54.0	21.87	AV	179.00	400	Vertical	Pass
2	1439.374	43.98	74.0	30.02	Peak	74.00	200	Vertical	Pass
2**	1439.374	35.21	54.0	18.79	AV	74.00	200	Vertical	Pass
3	4310.651	47.54	74.0	26.46	Peak	158.00	200	Vertical	Pass
3**	4310.651	37.75	54.0	16.25	AV	158.00	200	Vertical	Pass
4	7595.762	54.75	74.0	19.25	Peak	173.00	300	Vertical	Pass
4**	7595.762	42.47	54.0	11.53	AV	173.00	300	Vertical	Pass
5	12536.391	53.35	74.0	20.65	Peak	279.00	100	Vertical	Pass
5**	12536.391	43.97	54.0	10.03	AV	279.00	100	Vertical	Pass
6	15903.414	55.05	74.0	18.95	Peak	38.00	400	Vertical	Pass
6**	15903.414	43.89	54.0	10.11	AV	38.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.255	39.89	74.0	34.11	Peak	239.00	300	Horizontal	Pass
1**	1521.255	28.24	54.0	25.76	AV	239.00	300	Horizontal	Pass
2	4022.524	49.28	74.0	24.72	Peak	86.00	300	Horizontal	Pass
2**	4022.524	39.56	54.0	14.44	AV	86.00	300	Horizontal	Pass
3	7598.092	54.83	74.0	19.17	Peak	89.00	200	Horizontal	Pass
3**	7598.092	42.95	54.0	11.05	AV	89.00	200	Horizontal	Pass
4	12456.073	54.47	74.0	19.53	Peak	355.00	300	Horizontal	Pass
4**	12456.073	47.07	54.0	6.93	AV	355.00	300	Horizontal	Pass
5	16091.783	50.73	74.0	23.27	Peak	173.00	200	Horizontal	Pass
5**	16091.783	43.87	54.0	10.13	AV	173.00	200	Horizontal	Pass
6	17422.279	55.71	74.0	18.29	Peak	167.00	400	Horizontal	Pass
6**	17422.279	48.76	54.0	5.24	AV	167.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.420	43.57	74.0	30.43	Peak	113.00	300	Vertical	Pass
1**	1330.420	33.28	54.0	20.72	AV	113.00	300	Vertical	Pass
2	1440.987	40.89	74.0	33.11	Peak	103.00	300	Vertical	Pass
2**	1440.987	39.48	54.0	14.52	AV	103.00	300	Vertical	Pass
3	4313.223	44.85	74.0	29.15	Peak	277.00	200	Vertical	Pass
3**	4313.223	36.17	54.0	17.83	AV	277.00	200	Vertical	Pass
4	7597.382	52.10	74.0	21.90	Peak	118.00	100	Vertical	Pass
4**	7597.382	40.94	54.0	13.06	AV	118.00	100	Vertical	Pass
5	12532.476	56.10	74.0	17.90	Peak	228.00	300	Vertical	Pass
5**	12532.476	46.33	54.0	7.67	AV	228.00	300	Vertical	Pass
6	15902.620	52.30	74.0	21.70	Peak	270.00	100	Vertical	Pass
6**	15902.620	45.56	54.0	8.44	AV	270.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1520.148	36.18	74.0	37.82	Peak	98.00	200	Horizontal	Pass
1**	1520.148	31.74	54.0	22.26	AV	98.00	200	Horizontal	Pass
2	4022.035	46.94	74.0	27.06	Peak	200.00	100	Horizontal	Pass
2**	4022.035	35.91	54.0	18.09	AV	200.00	100	Horizontal	Pass
3	7598.329	52.66	74.0	21.34	Peak	85.00	200	Horizontal	Pass
3**	7598.329	43.87	54.0	10.13	AV	85.00	200	Horizontal	Pass
4	12453.819	52.52	74.0	21.48	Peak	97.00	300	Horizontal	Pass
4**	12453.819	43.66	54.0	10.34	AV	97.00	300	Horizontal	Pass
5	16098.548	55.38	74.0	18.62	Peak	145.00	400	Horizontal	Pass
5**	16098.548	42.44	54.0	11.56	AV	145.00	400	Horizontal	Pass
6	17420.634	56.08	74.0	17.92	Peak	32.00	300	Horizontal	Pass
6**	17420.634	48.04	54.0	5.96	AV	32.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1331.893	46.19	74.0	27.81	Peak	64.00	300	Vertical	Pass
1**	1331.893	33.73	54.0	20.27	AV	64.00	300	Vertical	Pass
2	1439.642	43.04	74.0	30.96	Peak	252.00	300	Vertical	Pass
2**	1439.642	38.35	54.0	15.65	AV	252.00	300	Vertical	Pass
3	4314.471	49.15	74.0	24.85	Peak	222.00	200	Vertical	Pass
3**	4314.471	38.61	54.0	15.39	AV	222.00	200	Vertical	Pass
4	7595.689	53.89	74.0	20.11	Peak	51.00	300	Vertical	Pass
4**	7595.689	45.29	54.0	8.71	AV	51.00	300	Vertical	Pass
5	12533.112	53.38	74.0	20.62	Peak	198.00	200	Vertical	Pass
5**	12533.112	42.32	54.0	11.68	AV	198.00	200	Vertical	Pass
6	15910.017	52.28	74.0	21.72	Peak	200.00	200	Vertical	Pass
6**	15910.017	48.44	54.0	5.56	AV	200.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.424	41.03	74.0	32.97	Peak	357.00	300	Horizontal	Pass
1**	1521.424	31.68	54.0	22.32	AV	357.00	300	Horizontal	Pass
2	4021.006	49.02	74.0	24.98	Peak	252.00	100	Horizontal	Pass
2**	4021.006	36.96	54.0	17.04	AV	252.00	100	Horizontal	Pass
3	7602.264	53.08	74.0	20.92	Peak	294.00	200	Horizontal	Pass
3**	7602.264	43.43	54.0	10.57	AV	294.00	200	Horizontal	Pass
4	12456.524	55.32	74.0	18.68	Peak	133.00	400	Horizontal	Pass
4**	12456.524	46.47	54.0	7.53	AV	133.00	400	Horizontal	Pass
5	16096.684	53.44	74.0	20.56	Peak	355.00	100	Horizontal	Pass
5**	16096.684	41.95	54.0	12.05	AV	355.00	100	Horizontal	Pass
6	17422.349	55.35	74.0	18.65	Peak	203.00	100	Horizontal	Pass
6**	17422.349	48.06	54.0	5.94	AV	203.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1335.756	45.94	74.0	28.06	Peak	126.00	300	Vertical	Pass
1**	1335.756	34.35	54.0	19.65	AV	126.00	300	Vertical	Pass
2	1437.939	44.32	74.0	29.68	Peak	144.00	300	Vertical	Pass
2**	1437.939	34.15	54.0	19.85	AV	144.00	300	Vertical	Pass
3	4312.063	46.04	74.0	27.96	Peak	143.00	200	Vertical	Pass
3**	4312.063	35.62	54.0	18.38	AV	143.00	200	Vertical	Pass
4	7595.361	50.10	74.0	23.90	Peak	287.00	400	Vertical	Pass
4**	7595.361	41.94	54.0	12.06	AV	287.00	400	Vertical	Pass
5	12538.064	50.88	74.0	23.12	Peak	36.00	400	Vertical	Pass
5**	12538.064	41.96	54.0	12.04	AV	36.00	400	Vertical	Pass
6	15905.706	55.46	74.0	18.54	Peak	337.00	300	Vertical	Pass
6**	15905.706	46.61	54.0	7.39	AV	337.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.264	39.54	74.0	34.46	Peak	24.00	100	Horizontal	Pass
1**	1521.264	28.64	54.0	25.36	AV	24.00	100	Horizontal	Pass
2	4018.494	48.86	74.0	25.14	Peak	237.00	300	Horizontal	Pass
2**	4018.494	34.33	54.0	19.67	AV	237.00	300	Horizontal	Pass
3	7594.654	53.84	74.0	20.16	Peak	340.00	200	Horizontal	Pass
3**	7594.654	46.07	54.0	7.93	AV	340.00	200	Horizontal	Pass
4	12452.329	54.74	74.0	19.26	Peak	56.00	100	Horizontal	Pass
4**	12452.329	42.57	54.0	11.43	AV	56.00	100	Horizontal	Pass
5	16096.535	52.63	74.0	21.37	Peak	316.00	100	Horizontal	Pass
5**	16096.535	42.19	54.0	11.81	AV	316.00	100	Horizontal	Pass
6	17420.788	56.62	74.0	17.38	Peak	360.00	400	Horizontal	Pass
6**	17420.788	50.10	54.0	3.90	AV	360.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1331.627	42.07	74.0	31.93	Peak	53.00	200	Vertical	Pass
1**	1331.627	30.81	54.0	23.19	AV	53.00	200	Vertical	Pass
2	1436.877	44.15	74.0	29.85	Peak	154.00	200	Vertical	Pass
2**	1436.877	36.41	54.0	17.59	AV	154.00	200	Vertical	Pass
3	4313.180	47.80	74.0	26.20	Peak	66.00	200	Vertical	Pass
3**	4313.180	39.49	54.0	14.51	AV	66.00	200	Vertical	Pass
4	7597.895	51.65	74.0	22.35	Peak	339.00	200	Vertical	Pass
4**	7597.895	44.32	54.0	9.68	AV	339.00	200	Vertical	Pass
5	12535.060	54.74	74.0	19.26	Peak	82.00	100	Vertical	Pass
5**	12535.060	42.42	54.0	11.58	AV	82.00	100	Vertical	Pass
6	15905.362	55.47	74.0	18.53	Peak	35.00	400	Vertical	Pass
6**	15905.362	44.15	54.0	9.85	AV	35.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1518.424	40.43	74.0	33.57	Peak	273.00	200	Horizontal	Pass
1**	1518.424	26.95	54.0	27.05	AV	273.00	200	Horizontal	Pass
2	4018.739	45.82	74.0	28.18	Peak	320.00	100	Horizontal	Pass
2**	4018.739	36.09	54.0	17.91	AV	320.00	100	Horizontal	Pass
3	7596.313	53.38	74.0	20.62	Peak	14.00	200	Horizontal	Pass
3**	7596.313	43.49	54.0	10.51	AV	14.00	200	Horizontal	Pass
4	12452.331	52.35	74.0	21.65	Peak	43.00	400	Horizontal	Pass
4**	12452.331	44.84	54.0	9.16	AV	43.00	400	Horizontal	Pass
5	16092.249	51.22	74.0	22.78	Peak	191.00	200	Horizontal	Pass
5**	16092.249	45.70	54.0	8.30	AV	191.00	200	Horizontal	Pass
6	17417.725	56.41	74.0	17.59	Peak	202.00	300	Horizontal	Pass
6**	17417.725	46.67	54.0	7.33	AV	202.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1335.687	44.44	74.0	29.56	Peak	52.00	400	Vertical	Pass
1**	1335.687	34.95	54.0	19.05	AV	52.00	400	Vertical	Pass
2	1440.944	41.74	74.0	32.26	Peak	246.00	400	Vertical	Pass
2**	1440.944	36.23	54.0	17.77	AV	246.00	400	Vertical	Pass
3	4308.705	46.60	74.0	27.40	Peak	45.00	200	Vertical	Pass
3**	4308.705	41.13	54.0	12.87	AV	45.00	200	Vertical	Pass
4	7594.027	53.99	74.0	20.01	Peak	59.00	300	Vertical	Pass
4**	7594.027	43.42	54.0	10.58	AV	59.00	300	Vertical	Pass
5	12534.870	50.79	74.0	23.21	Peak	268.00	100	Vertical	Pass
5**	12534.870	42.55	54.0	11.45	AV	268.00	100	Vertical	Pass
6	15908.363	55.95	74.0	18.05	Peak	239.00	300	Vertical	Pass
6**	15908.363	45.18	54.0	8.82	AV	239.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1523.879	35.67	74.0	38.33	Peak	95.00	200	Horizontal	Pass
1**	1523.879	29.92	54.0	24.08	AV	95.00	200	Horizontal	Pass
2	4022.512	49.95	74.0	24.05	Peak	202.00	300	Horizontal	Pass
2**	4022.512	36.40	54.0	17.60	AV	202.00	300	Horizontal	Pass
3	7601.350	54.37	74.0	19.63	Peak	351.00	200	Horizontal	Pass
3**	7601.350	44.93	54.0	9.07	AV	351.00	200	Horizontal	Pass
4	12455.785	53.36	74.0	20.64	Peak	29.00	200	Horizontal	Pass
4**	12455.785	42.53	54.0	11.47	AV	29.00	200	Horizontal	Pass
5	16092.436	55.80	74.0	18.20	Peak	311.00	200	Horizontal	Pass
5**	16092.436	45.10	54.0	8.90	AV	311.00	200	Horizontal	Pass
6	17422.805	57.46	74.0	16.54	Peak	282.00	100	Horizontal	Pass
6**	17422.805	46.72	54.0	7.28	AV	282.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1333.457	42.45	74.0	31.55	Peak	275.00	300	Vertical	Pass
1**	1333.457	34.00	54.0	20.00	AV	275.00	300	Vertical	Pass
2	1437.402	44.90	74.0	29.10	Peak	170.00	200	Vertical	Pass
2**	1437.402	39.75	54.0	14.25	AV	170.00	200	Vertical	Pass
3	4309.357	45.68	74.0	28.32	Peak	236.00	200	Vertical	Pass
3**	4309.357	39.74	54.0	14.26	AV	236.00	200	Vertical	Pass
4	7596.511	51.94	74.0	22.06	Peak	241.00	100	Vertical	Pass
4**	7596.511	42.55	54.0	11.45	AV	241.00	100	Vertical	Pass
5	12533.962	52.46	74.0	21.54	Peak	30.00	300	Vertical	Pass
5**	12533.962	43.58	54.0	10.42	AV	30.00	300	Vertical	Pass
6	15909.866	53.69	74.0	20.31	Peak	265.00	300	Vertical	Pass
6**	15909.866	45.13	54.0	8.87	AV	265.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1519.407	37.80	74.0	36.20	Peak	242.00	300	Horizontal	Pass
1**	1519.407	26.93	54.0	27.07	AV	242.00	300	Horizontal	Pass
2	4019.959	44.62	74.0	29.38	Peak	221.00	100	Horizontal	Pass
2**	4019.959	35.23	54.0	18.77	AV	221.00	100	Horizontal	Pass
3	7599.676	52.41	74.0	21.59	Peak	210.00	200	Horizontal	Pass
3**	7599.676	42.47	54.0	11.53	AV	210.00	200	Horizontal	Pass
4	12457.689	53.24	74.0	20.76	Peak	225.00	400	Horizontal	Pass
4**	12457.689	45.12	54.0	8.88	AV	225.00	400	Horizontal	Pass
5	16093.357	55.00	74.0	19.00	Peak	337.00	300	Horizontal	Pass
5**	16093.357	45.11	54.0	8.89	AV	337.00	300	Horizontal	Pass
6	17422.262	54.47	74.0	19.53	Peak	52.00	300	Horizontal	Pass
6**	17422.262	47.19	54.0	6.81	AV	52.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1336.413	42.84	74.0	31.16	Peak	73.00	400	Vertical	Pass
1**	1336.413	33.69	54.0	20.31	AV	73.00	400	Vertical	Pass
2	1437.008	41.82	74.0	32.18	Peak	165.00	400	Vertical	Pass
2**	1437.008	34.96	54.0	19.04	AV	165.00	400	Vertical	Pass
3	4313.937	46.71	74.0	27.29	Peak	104.00	200	Vertical	Pass
3**	4313.937	41.25	54.0	12.75	AV	104.00	200	Vertical	Pass
4	7593.962	52.00	74.0	22.00	Peak	296.00	300	Vertical	Pass
4**	7593.962	42.32	54.0	11.68	AV	296.00	300	Vertical	Pass
5	12537.110	55.14	74.0	18.86	Peak	147.00	200	Vertical	Pass
5**	12537.110	46.34	54.0	7.66	AV	147.00	200	Vertical	Pass
6	15907.252	56.43	74.0	17.57	Peak	198.00	300	Vertical	Pass
6**	15907.252	48.58	54.0	5.42	AV	198.00	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

Note: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

SISO-Aux. Antenna

U-NII-1 11a Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5146.750	57.99	74.0	16.01	Peak	248.00	150	Horizontal	Pass
1**	5146.750	45.86	54.0	8.14	AV	248.00	150	Horizontal	Pass
2	5150.000	57.35	74.0	16.65	Peak	277.00	200	Horizontal	Pass
2**	5150.000	46.40	54.0	7.60	AV	277.00	200	Horizontal	Pass

U-NII-1 11a High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	55.63	74.0	18.37	Peak	289.00	100	Horizontal	Pass
1**	5350.000	45.28	54.0	8.72	AV	289.00	100	Horizontal	Pass
2	5357.334	57.01	74.0	16.99	Peak	91.00	200	Horizontal	Pass
2**	5357.334	45.22	54.0	8.78	AV	91.00	200	Horizontal	Pass

U-NII-1 11n20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5148.917	58.53	74.0	15.47	Peak	253.00	200	Horizontal	Pass
1**	5148.917	45.39	54.0	8.61	AV	253.00	200	Horizontal	Pass
2	5150.000	57.77	74.0	16.23	Peak	248.00	200	Horizontal	Pass
2**	5150.000	45.71	54.0	8.29	AV	248.00	200	Horizontal	Pass

U-NII-1 11n20 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	55.67	74.0	18.33	Peak	123.00	200	Horizontal	Pass
1**	5350.000	45.40	54.0	8.60	AV	123.00	200	Horizontal	Pass
2	5353.117	57.29	74.0	16.71	Peak	305.00	200	Horizontal	Pass
2**	5353.117	45.38	54.0	8.62	AV	305.00	200	Horizontal	Pass

U-NII-1 11n40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5147.833	63.06	74.0	10.94	Peak	252.00	150	Horizontal	Pass
1**	5147.833	50.06	54.0	3.94	AV	252.00	150	Horizontal	Pass
2	5150.000	64.21	74.0	9.79	Peak	256.00	100	Horizontal	Pass
2**	5150.000	50.69	54.0	3.31	AV	256.00	100	Horizontal	Pass

U-NII-1 11n40 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	55.99	74.0	18.01	Peak	0.00	200	Horizontal	Pass
1**	5350.000	45.26	54.0	8.74	AV	0.00	200	Horizontal	Pass
2	5375.300	56.99	74.0	17.01	Peak	230.00	150	Horizontal	Pass
2**	5375.300	45.00	54.0	9.00	AV	230.00	150	Horizontal	Pass

U-NII-1 11ac20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5147.833	58.82	74.0	15.18	Peak	273.00	200	Horizontal	Pass
1**	5147.833	45.15	54.0	8.85	AV	273.00	200	Horizontal	Pass
2	5150.000	57.50	74.0	16.50	Peak	278.00	150	Horizontal	Pass
2**	5150.000	45.07	54.0	8.93	AV	278.00	150	Horizontal	Pass

U-NII-1 11ac20 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	55.81	74.0	18.19	Peak	93.00	200	Horizontal	Pass
1**	5350.000	45.37	54.0	8.63	AV	93.00	200	Horizontal	Pass
2	5357.150	56.94	74.0	17.06	Peak	187.00	100	Horizontal	Pass
2**	5357.150	45.12	54.0	8.88	AV	187.00	100	Horizontal	Pass

U-NII-1 11ac40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5148.917	61.49	74.0	12.51	Peak	286.00	200	Horizontal	Pass
1**	5148.917	49.38	54.0	4.62	AV	286.00	200	Horizontal	Pass
2	5150.000	63.77	74.0	10.23	Peak	256.00	100	Horizontal	Pass
2**	5150.000	50.03	54.0	3.97	AV	256.00	100	Horizontal	Pass

U-NII-1 11ac40 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	56.02	74.0	17.98	Peak	186.00	200	Horizontal	Pass
1**	5350.000	45.56	54.0	8.44	AV	186.00	200	Horizontal	Pass
2	5352.016	57.20	74.0	16.80	Peak	269.00	150	Horizontal	Pass
2**	5352.016	45.38	54.0	8.62	AV	269.00	150	Horizontal	Pass

U-NII-1 11ac80 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5148.917	61.71	74.0	12.29	Peak	268.00	100	Horizontal	Pass
1**	5148.917	50.82	54.0	3.18	AV	268.00	100	Horizontal	Pass
2	5150.000	63.86	74.0	10.14	Peak	273.00	150	Horizontal	Pass
2**	5150.000	50.70	54.0	3.30	AV	273.00	150	Horizontal	Pass

U-NII-1 11ac80 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	56.10	74.0	17.90	Peak	0.00	200	Horizontal	Pass
1**	5350.000	45.56	54.0	8.44	AV	0.00	200	Horizontal	Pass
2	5384.100	57.30	74.0	16.70	Peak	68.00	150	Horizontal	Pass
2**	5384.100	45.03	54.0	8.97	AV	68.00	150	Horizontal	Pass

U-NII-3 11a Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5637.084	56.49	68.2	11.71	Peak	64.00	150	Horizontal	Pass
2	5650.000	55.85	68.2	12.35	Peak	6.00	200	Horizontal	Pass

U-NII-3 11a High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	55.29	68.4	13.11	Peak	89.00	100	Horizontal	Pass
2	5944.750	57.61	68.2	10.59	Peak	352.00	150	Horizontal	Pass

U-NII-3 11n20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5604.167	56.70	68.2	11.50	Peak	329.00	100	Horizontal	Pass
2	5650.000	55.30	68.2	12.90	Peak	352.00	100	Horizontal	Pass

U-NII-3 11n20 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	55.38	68.4	13.02	Peak	64.00	100	Horizontal	Pass
2	5948.250	57.92	68.2	10.28	Peak	289.00	200	Horizontal	Pass

U-NII-3 11n40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5602.500	56.49	68.2	11.71	Peak	50.00	100	Horizontal	Pass
2	5650.000	55.33	68.2	12.87	Peak	47.00	200	Horizontal	Pass

U-NII-3 11n40 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	56.28	68.4	12.12	Peak	175.00	100	Horizontal	Pass
2	5997.500	57.43	68.2	10.77	Peak	143.00	100	Horizontal	Pass

U-NII-3 11ac20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5633.750	56.74	68.2	11.46	Peak	107.00	100	Horizontal	Pass
2	5650.000	55.79	68.2	12.41	Peak	13.00	150	Horizontal	Pass

U-NII-3 11ac20 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	55.17	68.4	13.23	Peak	79.00	100	Horizontal	Pass
2	5968.750	57.49	68.2	10.71	Peak	211.00	200	Horizontal	Pass

U-NII-3 11ac40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5637.500	56.32	68.2	11.88	Peak	264.00	200	Horizontal	Pass
2	5650.000	55.34	68.2	12.86	Peak	102.00	200	Horizontal	Pass

U-NII-3 11ac40 High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	56.29	68.4	12.11	Peak	1.00	150	Horizontal	Pass
2	5973.750	56.92	68.2	11.28	Peak	348.00	200	Horizontal	Pass

U-NII-3 11ac80 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5647.084	57.15	68.2	11.05	Peak	246.00	100	Horizontal	Pass
2	5650.000	55.56	68.2	12.64	Peak	248.00	150	Horizontal	Pass

U-NII-3 11ac80 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	55.56	68.4	12.84	Peak	200.00	100	Horizontal	Pass
2	5996.250	57.34	68.2	10.86	Peak	252.00	150	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2560127-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2560127-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2560127-AI.PDF”.

Statement

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