

TEST REPORT

Applicant: E&S International Enterprises, Inc.
Address: 7801 Hayvenhurst Avenue, Van Nuys, California
91406 USA
Equipment Type: Laptop
Model Name: GVAR5B2457 (refer to section 2.3)
Brand Name: GATEWAY
FCC ID: 2AYPE-GVAR5B2457
Test Standard: 47 CFR Part 15 Subpart E
(refer to section 3.1)
Sample Arrival Date: Jun. 05, 2025
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ISSUED BY:

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Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Aug. 05, 2025</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Aug. 12, 2025</u>	<u>Update 2.5 Channel List</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	GWAR5B2457
Series Model Name	GWAR5B2457-TI-S, GWAR5B2457-TI, RWBN12444-GRY, RWBN12444-GRY-S, RWBN12744-GRY
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_AB27V
Software Version	24H2 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, 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: 21.09 mW U-NII-3: 19.28 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	SISO-Main Antenna	PIFA Antenna
	SISO-Aux. Antenna	
Antenna Gain	SISO-Main Antenna	U-NII-1: 5150 MHz to 5250 MHz: 3.36 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.73 dBi
	SISO-Aux. Antenna	U-NII-1: 5150 MHz to 5250 MHz: 2.64 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.85 dBi
Total directional gain	For power spectral density (PSD) measurements	Correlated: U-NII-1: 5150 MHz to 5250 MHz: 6.02 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.01 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: 6.80 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.79 dBi Formulas: Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / NANT]$ dBi
	For power	Correlated:

measurements	U-NII-1: 5150 MHz to 5250 MHz: 6.02 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.01 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: 6.80 dBi U-NII-3: 5725 MHz to 5850 MHz: 3.79 dBi Formulas: Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / NANT]$ dBi
About the Product	The equipment is Laptop, intended for used with information technology equipment.

Mode	Antenna		
	SISO-Main Antenna	SISO-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

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

Note 2: 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	52% to 60%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+21.7℃ to +26.3℃
Working Voltage of the EUT	NV (Normal Voltage)	230V

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
				2025.06.16	2026.06.15
Power Sensor	KEYSIGHT	U2063XA	MY58000247	2024.07.04	2025.07.03
				2025.06.16	2026.06.15
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2024.12.16	2025.12.15
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-Bi-Log	SCHWARZBECK	VULB 9168	9168-01162	2023.08.04	2026.08.03
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	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%

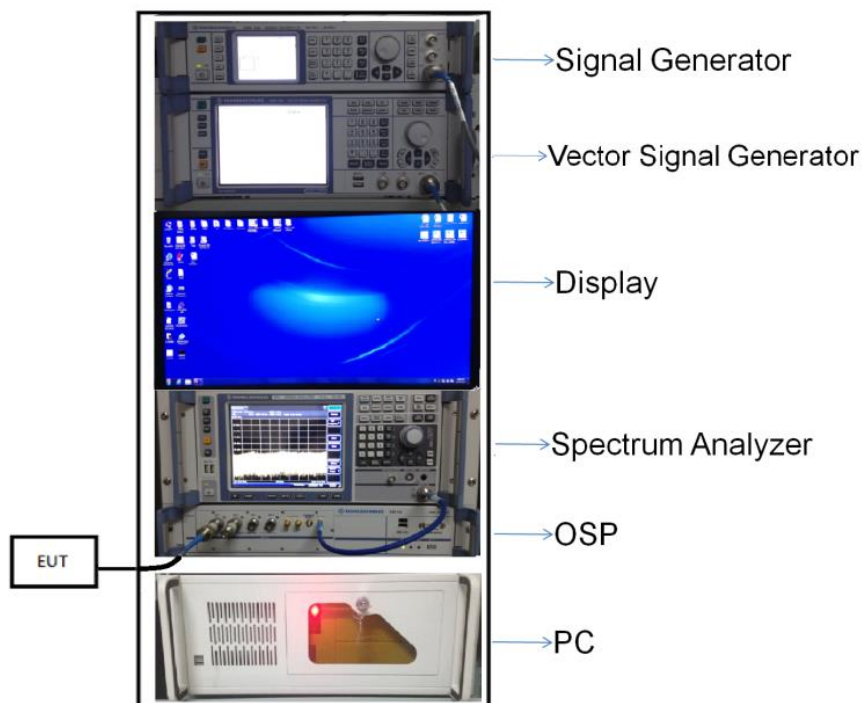
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

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

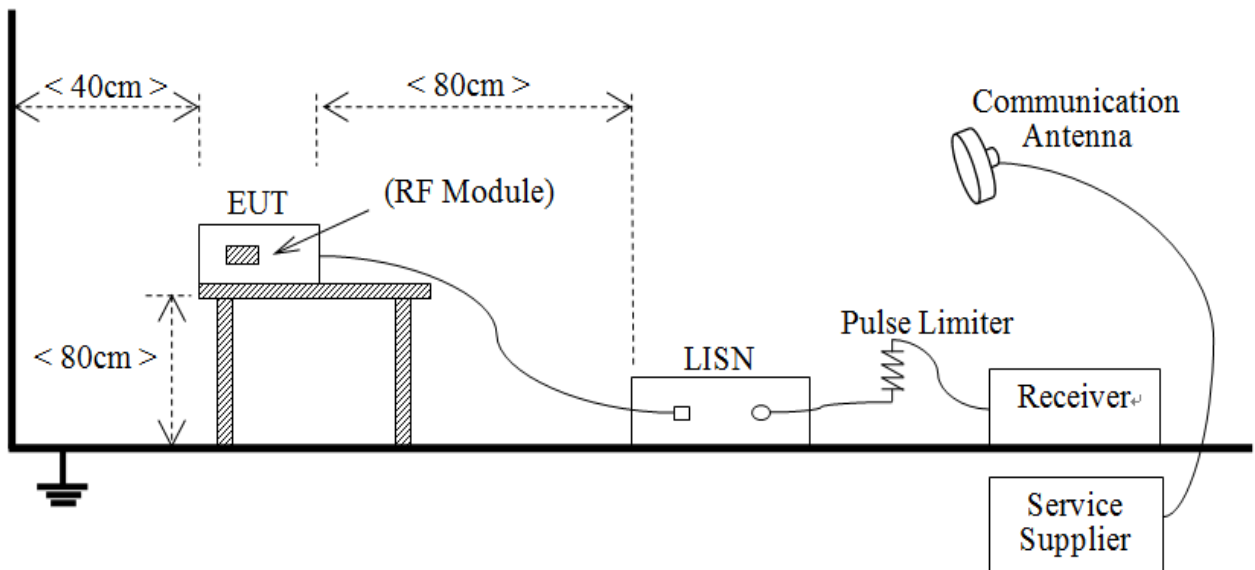
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

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



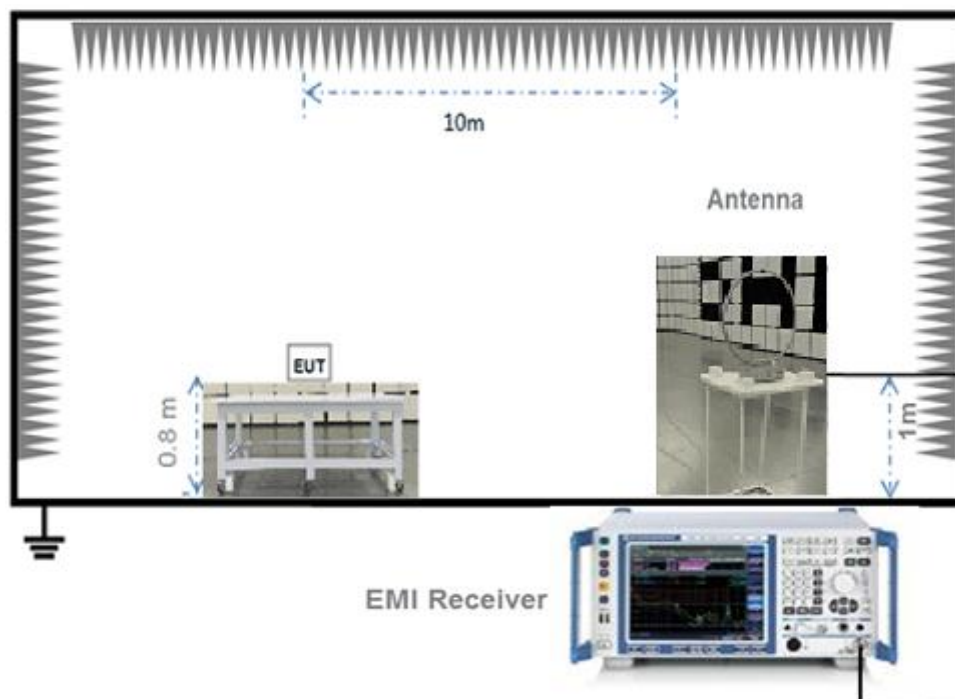
(Diagram 1)

4.5.2 For AC Power Supply Port Test



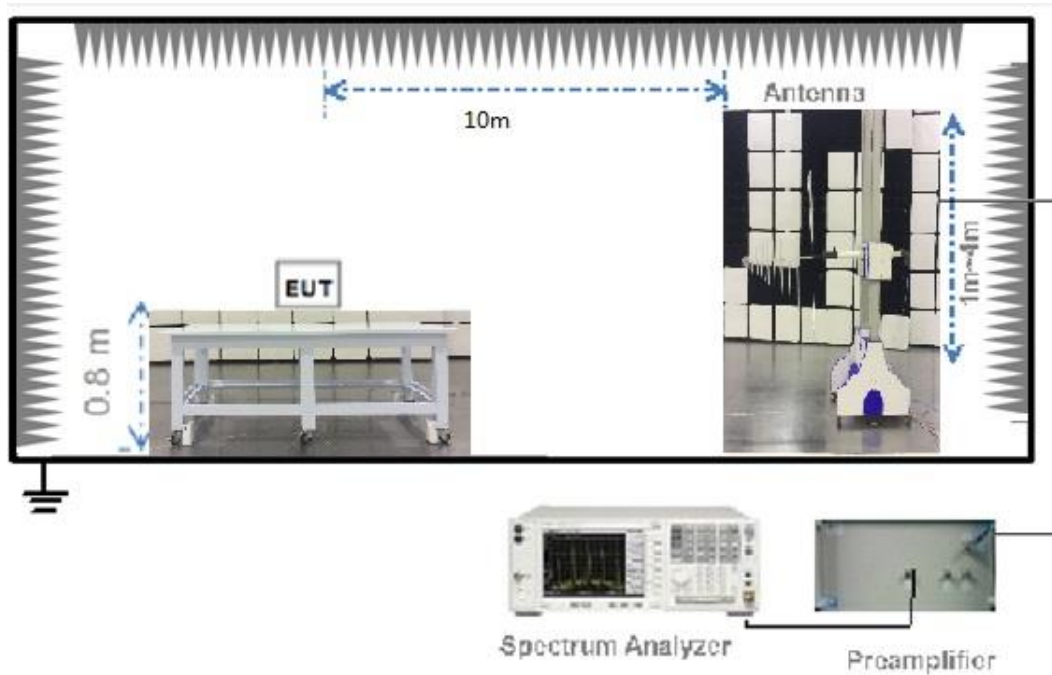
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



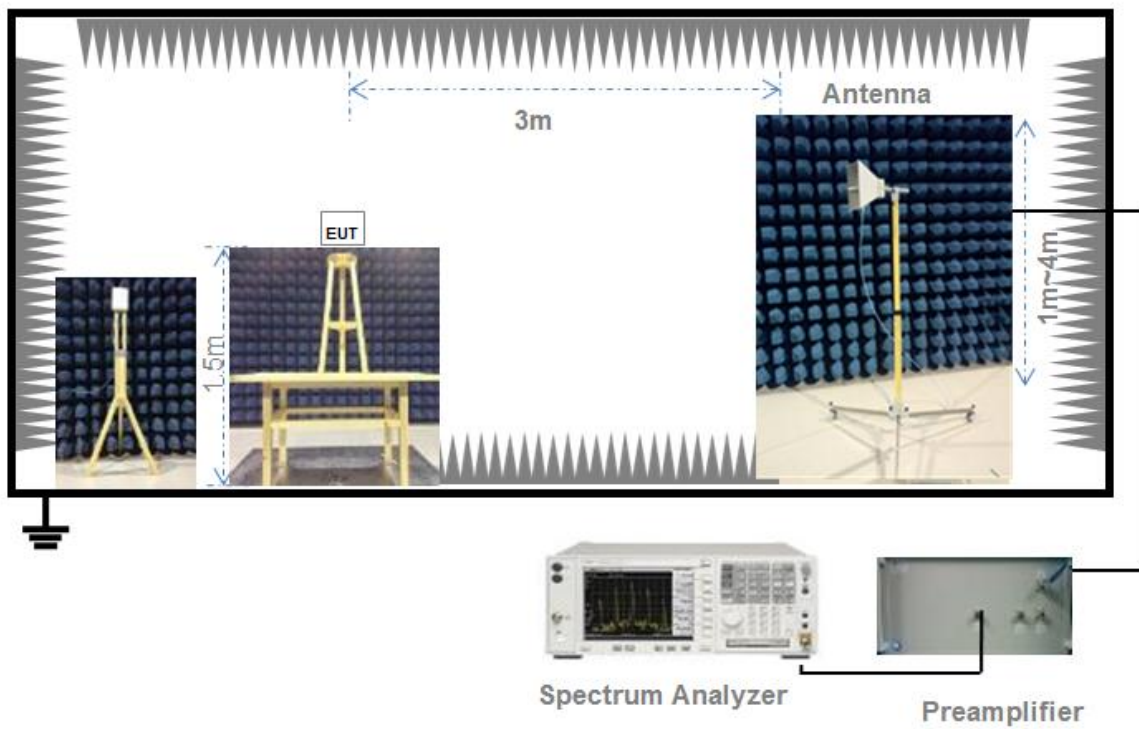
(Diagram 3)

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)

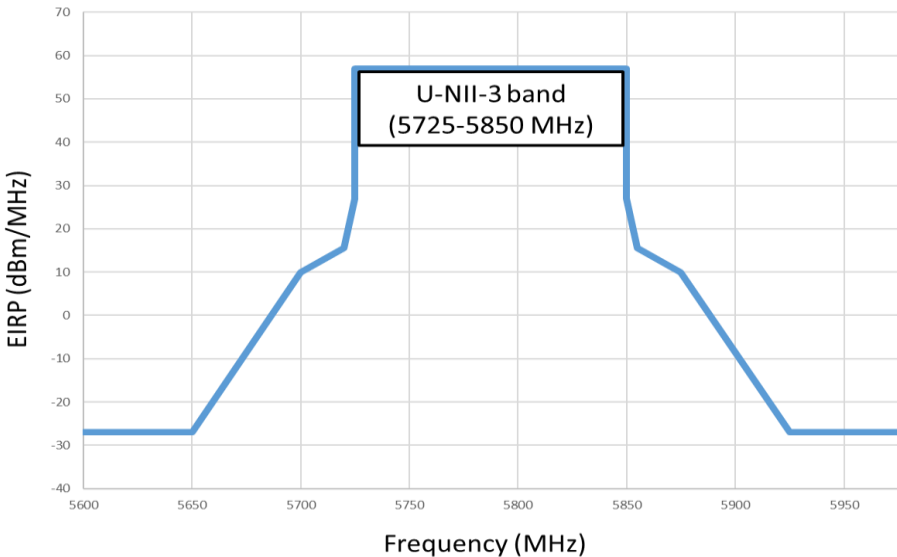
5.5.1 Limit

FCC §15.209 & 15.407(b)

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	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.

Un-restricted band emissions	
Out Operating Band (MHz)	Limit
5150 - 5250	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5250 - 5350	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5470 - 5725	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)
5725 - 5850	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge. 

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength.

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

- a) 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).
- b) 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).
- c) 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).
- d) 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 ¹: 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.

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

Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11a	1.36	2.37	57.52%	2.40
11n(HT20)/11ac(VHT20)	1.28	2.28	55.92%	2.52
11n(HT40)/11ac(VHT40)	0.63	1.61	39.40%	4.05
11ac(VHT80)	0.32	1.32	23.90%	6.22

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	13.07	20.28	250	Pass
11a	CH44	13.05	20.18	250	Pass
11a	CH48	13.24	21.09	250	Pass
11n(HT20)	CH36	12.76	18.88	250	Pass
11n(HT20)	CH44	12.47	17.66	250	Pass
11n(HT20)	CH48	12.71	18.66	250	Pass
11n(HT40)	CH38	12.62	18.28	250	Pass
11n(HT40)	CH46	12.71	18.66	250	Pass
11ac(VHT20)	CH36	12.41	17.42	250	Pass
11ac(VHT20)	CH44	12.53	17.91	250	Pass
11ac(VHT20)	CH48	12.70	18.62	250	Pass
11ac(VHT40)	CH38	12.35	17.18	250	Pass
11ac(VHT40)	CH46	12.73	18.75	250	Pass
11ac(VHT80)	CH42	12.60	18.20	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	12.39	17.34	1000	Pass
11a	CH157	12.45	17.58	1000	Pass
11a	CH165	12.66	18.45	1000	Pass
11n(HT20)	CH149	12.62	18.28	1000	Pass
11n(HT20)	CH157	12.53	17.91	1000	Pass
11n(HT20)	CH165	12.51	17.82	1000	Pass
11n(HT40)	CH151	12.70	18.62	1000	Pass
11n(HT40)	CH159	12.53	17.91	1000	Pass
11ac(VHT20)	CH149	12.61	18.24	1000	Pass
11ac(VHT20)	CH157	12.50	17.78	1000	Pass
11ac(VHT20)	CH165	12.38	17.30	1000	Pass
11ac(VHT40)	CH151	12.65	18.41	1000	Pass
11ac(VHT40)	CH159	12.52	17.86	1000	Pass
11ac(VHT80)	CH155	12.64	18.37	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	12.97	19.82	250	Pass
11a	CH44	12.95	19.72	250	Pass
11a	CH48	12.84	19.23	250	Pass
11n(HT20)	CH36	12.36	17.22	250	Pass
11n(HT20)	CH44	12.27	16.87	250	Pass
11n(HT20)	CH48	12.31	17.02	250	Pass
11n(HT40)	CH38	12.54	17.95	250	Pass
11n(HT40)	CH46	12.31	17.02	250	Pass
11ac(VHT20)	CH36	12.21	16.63	250	Pass
11ac(VHT20)	CH44	12.53	17.91	250	Pass
11ac(VHT20)	CH48	12.80	19.05	250	Pass
11ac(VHT40)	CH38	12.16	16.44	250	Pass
11ac(VHT40)	CH46	12.73	18.75	250	Pass
11ac(VHT80)	CH42	12.28	16.90	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	12.59	18.16	1000	Pass
11a	CH157	12.45	17.58	1000	Pass
11a	CH165	12.26	16.83	1000	Pass
11n(HT20)	CH149	12.22	16.67	1000	Pass
11n(HT20)	CH157	12.43	17.50	1000	Pass
11n(HT20)	CH165	12.11	16.26	1000	Pass
11n(HT40)	CH151	12.80	19.05	1000	Pass
11n(HT40)	CH159	12.53	17.91	1000	Pass
11ac(VHT20)	CH149	12.61	18.24	1000	Pass
11ac(VHT20)	CH157	12.10	16.22	1000	Pass
11ac(VHT20)	CH165	12.48	17.70	1000	Pass
11ac(VHT40)	CH151	12.85	19.28	1000	Pass
11ac(VHT40)	CH159	12.42	17.46	1000	Pass
11ac(VHT80)	CH155	12.43	17.50	1000	Pass

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U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	9.87	9.71	250	Pass
11a	CH44	10.05	10.12	250	Pass
11a	CH48	10.24	10.57	250	Pass
11n(HT20)	CH36	9.86	9.68	250	Pass
11n(HT20)	CH44	9.27	8.45	250	Pass
11n(HT20)	CH48	9.71	9.35	250	Pass
11n(HT40)	CH38	9.52	8.95	250	Pass
11n(HT40)	CH46	9.61	9.14	250	Pass
11ac(VHT20)	CH36	9.11	8.15	250	Pass
11ac(VHT20)	CH44	9.33	8.57	250	Pass
11ac(VHT20)	CH48	9.90	9.77	250	Pass
11ac(VHT40)	CH38	9.21	8.34	250	Pass
11ac(VHT40)	CH46	9.83	9.62	250	Pass
11ac(VHT80)	CH42	9.16	8.24	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	8.99	7.93	831.76	Pass
11a	CH157	9.35	8.61	831.76	Pass
11a	CH165	9.86	9.68	831.76	Pass
11n(HT20)	CH149	9.22	8.36	1000	Pass
11n(HT20)	CH157	9.23	8.38	1000	Pass
11n(HT20)	CH165	9.71	9.35	1000	Pass
11n(HT40)	CH151	9.40	8.71	1000	Pass
11n(HT40)	CH159	9.53	8.97	1000	Pass
11ac(VHT20)	CH149	9.21	8.34	1000	Pass
11ac(VHT20)	CH157	9.40	8.71	1000	Pass
11ac(VHT20)	CH165	9.08	8.09	1000	Pass
11ac(VHT40)	CH151	9.65	9.23	1000	Pass
11ac(VHT40)	CH159	9.32	8.55	1000	Pass
11ac(VHT80)	CH155	9.21	8.34	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	9.57	9.06	250	Pass
11a	CH44	9.75	9.44	250	Pass
11a	CH48	9.94	9.86	250	Pass
11n(HT20)	CH36	9.56	9.04	250	Pass
11n(HT20)	CH44	9.27	8.45	250	Pass
11n(HT20)	CH48	9.61	9.14	250	Pass
11n(HT40)	CH38	9.46	8.83	250	Pass
11n(HT40)	CH46	9.21	8.34	250	Pass
11ac(VHT20)	CH36	9.31	8.53	250	Pass
11ac(VHT20)	CH44	9.03	8.00	250	Pass
11ac(VHT20)	CH48	9.50	8.91	250	Pass
11ac(VHT40)	CH38	9.17	8.26	250	Pass
11ac(VHT40)	CH46	9.93	9.84	250	Pass
11ac(VHT80)	CH42	9.24	8.39	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	9.19	8.30	831.76	Pass
11a	CH157	9.55	9.02	831.76	Pass
11a	CH165	9.58	9.08	831.76	Pass
11n(HT20)	CH149	9.12	8.17	1000	Pass
11n(HT20)	CH157	9.33	8.57	1000	Pass
11n(HT20)	CH165	9.81	9.57	1000	Pass
11n(HT40)	CH151	9.00	7.94	1000	Pass
11n(HT40)	CH159	9.33	8.57	1000	Pass
11ac(VHT20)	CH149	9.21	8.34	1000	Pass
11ac(VHT20)	CH157	9.10	8.13	1000	Pass
11ac(VHT20)	CH165	9.08	8.09	1000	Pass
11ac(VHT40)	CH151	9.75	9.44	1000	Pass
11ac(VHT40)	CH159	9.12	8.17	1000	Pass
11ac(VHT80)	CH155	9.37	8.65	1000	Pass

MIMO

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	12.73	18.76	250	Pass
11a	CH44	12.91	19.56	250	Pass
11a	CH48	13.10	20.43	250	Pass
11n(HT20)	CH36	12.72	18.72	250	Pass
11n(HT20)	CH44	12.28	16.91	250	Pass
11n(HT20)	CH48	12.67	18.50	250	Pass
11n(HT40)	CH38	12.50	17.78	250	Pass
11n(HT40)	CH46	12.42	17.48	250	Pass
11ac(VHT20)	CH36	12.22	16.68	250	Pass
11ac(VHT20)	CH44	12.19	16.57	250	Pass
11ac(VHT20)	CH48	12.71	18.68	250	Pass
11ac(VHT40)	CH38	12.20	16.60	250	Pass
11ac(VHT40)	CH46	12.89	19.46	250	Pass
11ac(VHT80)	CH42	12.21	16.64	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	12.10	16.22	831.76	Pass
11a	CH157	12.46	17.63	831.76	Pass
11a	CH165	12.73	18.76	831.76	Pass
11n(HT20)	CH149	12.18	16.52	1000	Pass
11n(HT20)	CH157	12.29	16.95	1000	Pass
11n(HT20)	CH165	12.77	18.93	1000	Pass
11n(HT40)	CH151	12.21	16.65	1000	Pass
11n(HT40)	CH159	12.44	17.54	1000	Pass
11ac(VHT20)	CH149	12.22	16.67	1000	Pass
11ac(VHT20)	CH157	12.26	16.84	1000	Pass
11ac(VHT20)	CH165	12.09	16.18	1000	Pass
11ac(VHT40)	CH151	12.71	18.67	1000	Pass
11ac(VHT40)	CH159	12.23	16.72	1000	Pass
11ac(VHT80)	CH155	12.30	16.99	1000	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Note ¹: Test plots please refer to the document “Annex No.: BL-SZ2560230-604 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-Main Antenna

U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	20.27	16.52
11a	CH44	20.35	16.53
11a	CH48	20.19	16.55
11n(HT20)	CH36	20.60	17.59
11n(HT20)	CH44	20.59	17.59
11n(HT20)	CH48	20.59	17.61
11n(HT40)	CH38	42.07	36.21
11n(HT40)	CH46	52.71	36.34
11ac(VHT20)	CH36	20.68	17.61
11ac(VHT20)	CH44	20.77	17.61
11ac(VHT20)	CH48	20.62	17.60
11ac(VHT40)	CH38	41.17	36.24
11ac(VHT40)	CH46	48.34	36.34
11ac(VHT80)	CH42	120.00	76.04

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	20.18	16.54
11a	CH157	20.42	16.57
11a	CH165	20.35	16.51
11n(HT20)	CH149	20.64	17.59
11n(HT20)	CH157	20.82	17.65
11n(HT20)	CH165	20.77	17.60
11n(HT40)	CH151	59.21	36.39
11n(HT40)	CH159	59.72	36.71
11ac(VHT20)	CH149	20.70	17.60
11ac(VHT20)	CH157	20.77	17.66
11ac(VHT20)	CH165	20.67	17.61
11ac(VHT40)	CH151	45.51	36.35
11ac(VHT40)	CH159	58.93	36.67
11ac(VHT80)	CH155	133.10	79.85

A.3 6 dB Bandwidth

Note ¹: Test plots please refer to the document “Annex No.: BL-SZ2560230-604 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-Main Antenna

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	16.30	500.00	Pass
11a	CH157	16.50	500.00	Pass
11a	CH165	16.50	500.00	Pass
11n(HT20)	CH149	17.20	500.00	Pass
11n(HT20)	CH157	16.90	500.00	Pass
11n(HT20)	CH165	17.10	500.00	Pass
11n(HT40)	CH151	35.00	500.00	Pass
11n(HT40)	CH159	35.60	500.00	Pass
11ac(VHT20)	CH149	17.20	500.00	Pass
11ac(VHT20)	CH157	17.20	500.00	Pass
11ac(VHT20)	CH165	16.80	500.00	Pass
11ac(VHT40)	CH151	35.30	500.00	Pass
11ac(VHT40)	CH159	34.50	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-SZ2560230-604 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-Main Antenna

U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Verdict
11a	CH36	1.90	11.00	Pass
11a	CH44	1.58	11.00	Pass
11a	CH48	2.01	11.00	Pass
11n(HT20)	CH36	1.44	11.00	Pass
11n(HT20)	CH44	1.04	11.00	Pass
11n(HT20)	CH48	1.42	11.00	Pass
11n(HT40)	CH38	-4.68	11.00	Pass
11n(HT40)	CH46	-1.38	11.00	Pass
11ac(VHT20)	CH36	1.01	11.00	Pass
11ac(VHT20)	CH44	0.89	11.00	Pass
11ac(VHT20)	CH48	1.91	11.00	Pass
11ac(VHT40)	CH38	-4.59	11.00	Pass
11ac(VHT40)	CH46	-1.45	11.00	Pass
11ac(VHT80)	CH42	-9.99	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	FCC Limit (dBm/500kHz)	Verdict
11a	CH149	-1.86	29.20	Pass
11a	CH157	-1.80	29.20	Pass
11a	CH165	-1.15	29.20	Pass
11n(HT20)	CH149	-1.70	30.00	Pass
11n(HT20)	CH157	-1.79	30.00	Pass
11n(HT20)	CH165	-1.46	30.00	Pass
11n(HT40)	CH151	-3.80	30.00	Pass
11n(HT40)	CH159	-4.30	30.00	Pass
11ac(VHT20)	CH149	-1.69	30.00	Pass
11ac(VHT20)	CH157	-1.68	30.00	Pass
11ac(VHT20)	CH165	-2.10	30.00	Pass
11ac(VHT40)	CH151	-4.55	30.00	Pass
11ac(VHT40)	CH159	-4.20	30.00	Pass
11ac(VHT80)	CH155	-8.08	30.00	Pass

A.5 Conducted Emissions

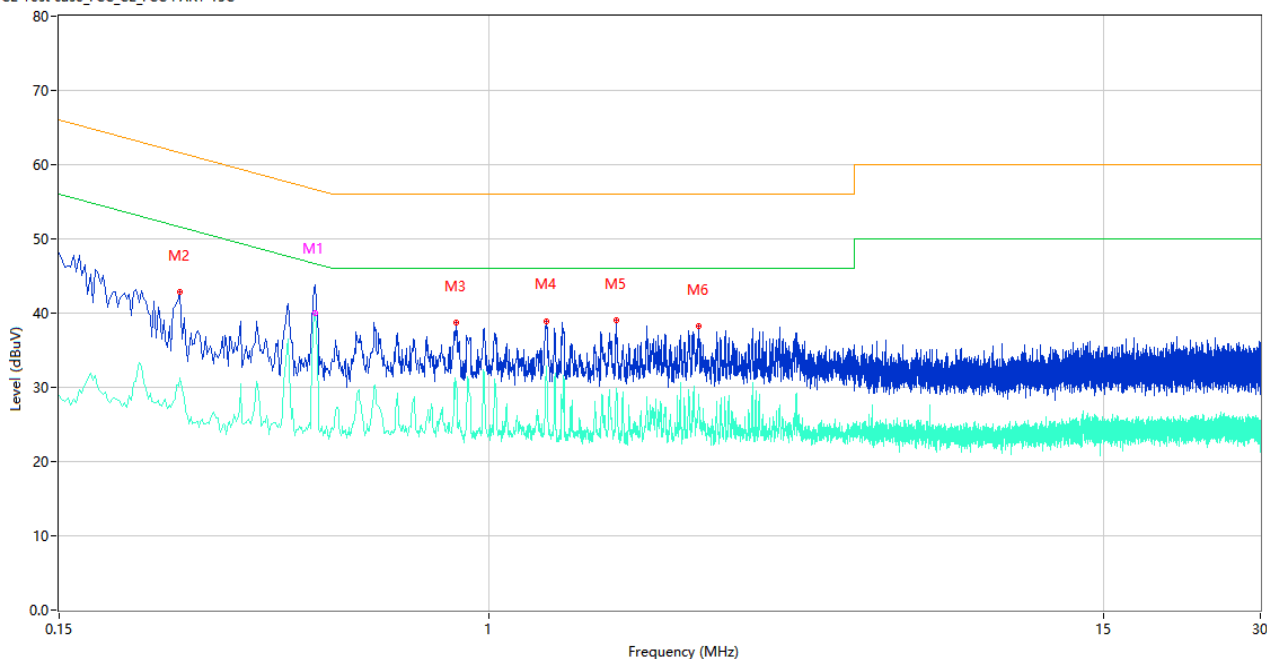
Note¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

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

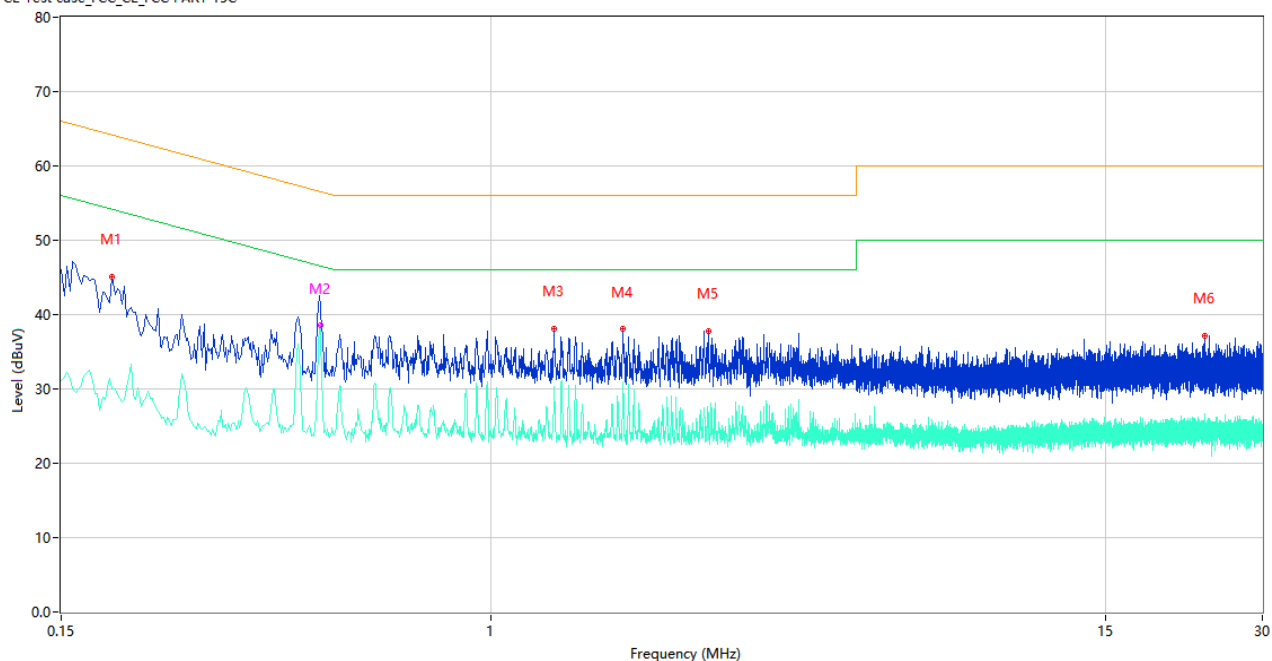
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.464	43.73	10.07	56.62	12.89	Peak	L	Pass
1**	0.464	39.93	10.07	46.62	6.69	AV	L	Pass
2	0.256	42.79	9.83	61.56	18.77	Peak	L	Pass
2**	0.256	31.19	9.83	51.56	20.37	AV	L	Pass
3	0.866	38.71	10.54	56.00	17.29	Peak	L	Pass
3**	0.866	30.72	10.54	46.00	15.28	AV	L	Pass
4	1.288	38.90	10.56	56.00	17.10	Peak	L	Pass
4**	1.288	32.00	10.56	46.00	14.00	AV	L	Pass
5	1.748	39.00	10.20	56.00	17.00	Peak	L	Pass
5**	1.748	28.92	10.20	46.00	17.08	AV	L	Pass
6	2.516	38.18	10.19	56.00	17.82	Peak	L	Pass
6**	2.516	27.93	10.19	46.00	18.07	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	0.188	45.10	9.84	64.12	19.02	Peak	N	Pass
1**	0.188	30.02	9.84	54.12	24.10	AV	N	Pass
2	0.470	41.04	10.07	56.51	15.47	Peak	N	Pass
2**	0.470	38.50	10.07	46.51	8.01	AV	N	Pass
3	1.318	38.11	10.38	56.00	17.89	Peak	N	Pass
3**	1.318	30.07	10.38	46.00	15.93	AV	N	Pass
4	1.788	38.07	10.24	56.00	17.93	Peak	N	Pass
4**	1.788	30.87	10.24	46.00	15.13	AV	N	Pass
5	2.606	37.80	9.83	56.00	18.20	Peak	N	Pass
5**	2.606	25.28	9.83	46.00	20.72	AV	N	Pass
6	23.228	37.15	11.22	60.00	22.85	Peak	N	Pass
6**	23.228	25.73	11.22	50.00	24.27	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.

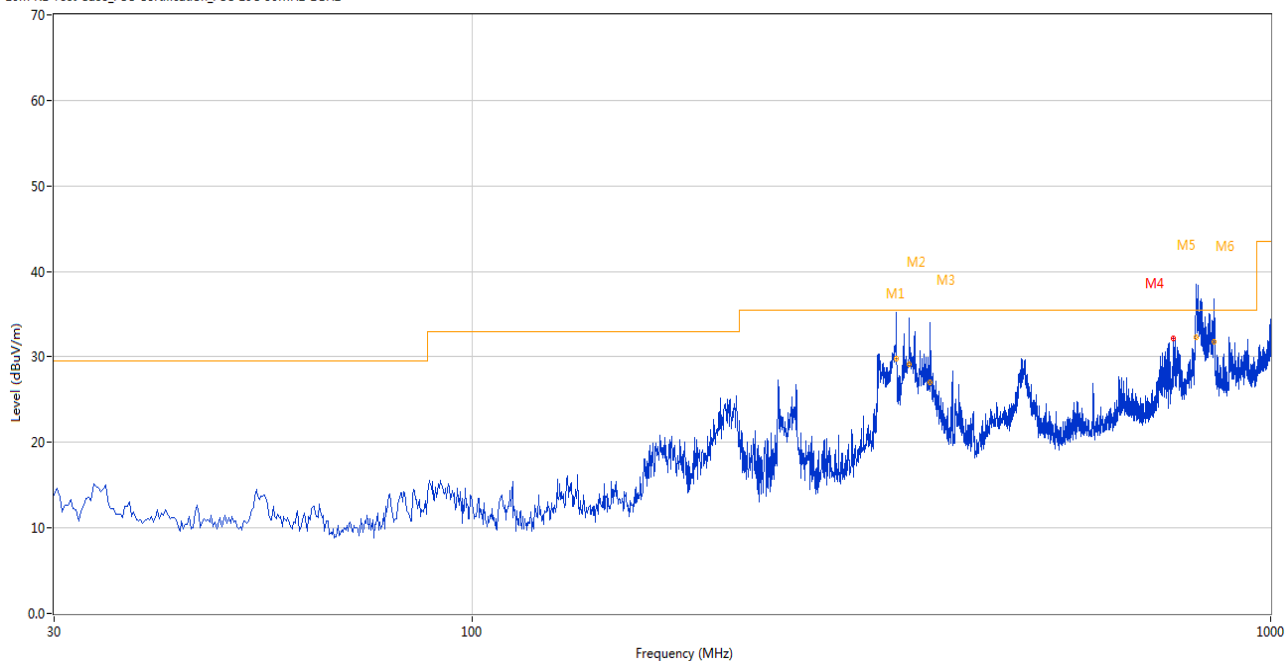
Note⁴: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

Note⁵: For Multiple transmitter output, the quantity $10 \log(\text{NANT})$ 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 $10 \log(\text{NANT})$ 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

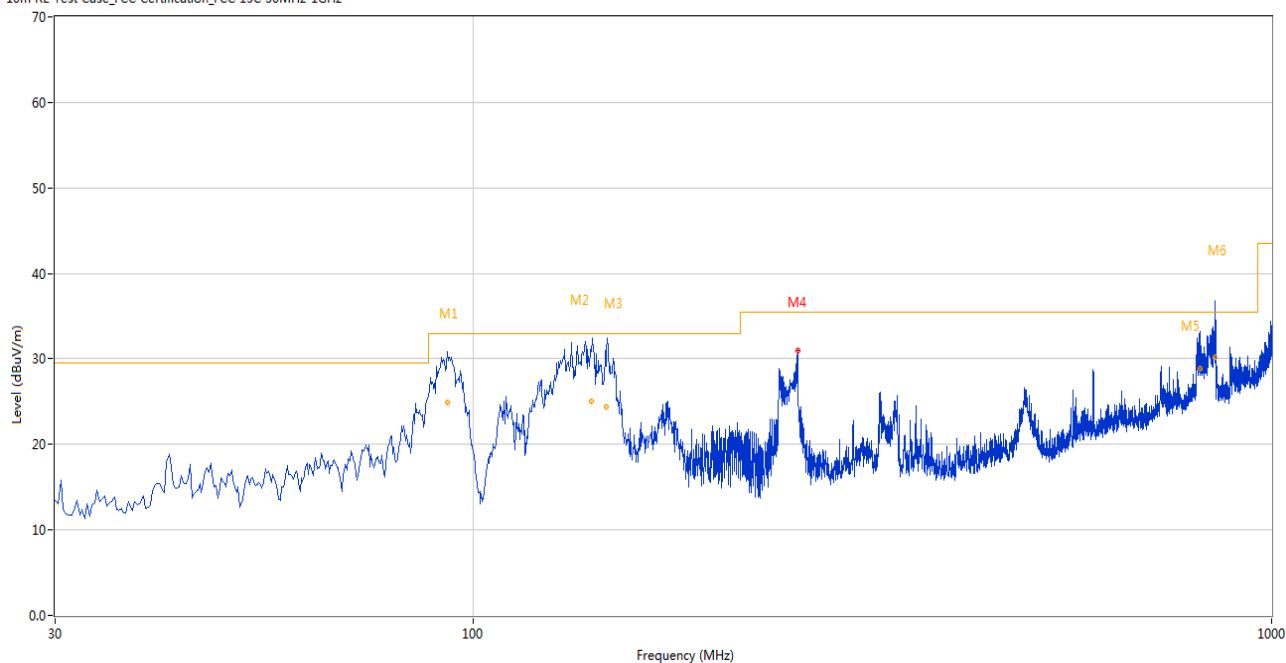
10m RE Test Case_FCC Certification_FCC 15C 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	339.838	35.20	-24.41	35.5	0.30	Peak	6.00	200	Horizontal	N/A
1*	339.838	29.81	-24.41	35.5	5.69	QP	6.00	200	Horizontal	Pass
2	352.929	34.49	-24.20	35.5	1.01	Peak	340.00	200	Horizontal	N/A
2*	352.929	29.13	-24.20	35.5	6.37	QP	340.00	200	Horizontal	Pass
3	374.991	33.97	-23.52	35.5	1.53	Peak	360.00	200	Horizontal	N/A
3*	374.991	27.03	-23.52	35.5	8.47	QP	360.00	200	Horizontal	Pass
4	756.106	32.11	-13.40	35.5	3.39	Peak	4.00	100	Horizontal	Pass
5	807.746	38.53	-12.43	35.5	-3.03	Peak	20.00	100	Horizontal	N/A
5*	807.746	32.33	-12.43	35.5	3.17	QP	20.00	100	Horizontal	Pass
6	849.203	36.72	-11.83	35.5	-1.22	Peak	335.00	100	Horizontal	N/A
6*	849.203	31.72	-11.83	35.5	3.78	QP	335.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

10m RE Test Case_FCC Certification_FCC 15C 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	93.034	30.79	-30.30	33.0	2.21	Peak	20.00	100	Vertical	N/A
1*	93.034	24.92	-30.30	33.0	8.08	QP	20.00	100	Vertical	Pass
2	140.869	30.08	-26.76	33.0	2.92	Peak	323.00	103	Vertical	N/A
2*	140.869	25.10	-26.76	33.0	7.90	QP	323.00	103	Vertical	Pass
3	146.878	29.23	-26.24	33.0	3.77	Peak	307.00	128	Vertical	N/A
3*	146.878	24.37	-26.24	33.0	8.63	QP	307.00	128	Vertical	Pass
4	254.984	31.01	-27.24	35.5	4.49	Peak	360.00	200	Vertical	Pass
5	812.594	33.18	-12.44	35.5	2.32	Peak	360.00	200	Vertical	N/A
5*	812.594	28.86	-12.44	35.5	6.64	QP	360.00	200	Vertical	Pass
6	850.367	34.89	-11.81	35.5	0.61	Peak	360.00	140	Vertical	N/A
6*	850.367	30.24	-11.81	35.5	5.26	QP	360.00	140	Vertical	Pass

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

Note ²: All the configurations were pre tested, only the worst configuration has been reported in this report.

SISO-Main 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	1509.054	40.53	74.0	33.47	Peak	190.00	200	Horizontal	Pass
1**	1509.054	29.55	54.0	24.45	AV	190.00	200	Horizontal	Pass
2	2345.577	42.89	74.0	31.11	Peak	204.00	100	Horizontal	Pass
2**	2345.577	37.14	54.0	16.86	AV	204.00	100	Horizontal	Pass
3	4207.864	45.31	74.0	28.69	Peak	256.00	200	Horizontal	Pass
3**	4207.864	37.64	54.0	16.36	AV	256.00	200	Horizontal	Pass
4	7437.276	52.95	74.0	21.05	Peak	36.00	400	Horizontal	Pass
4**	7437.276	41.05	54.0	12.95	AV	36.00	400	Horizontal	Pass
5	12517.365	56.69	74.0	17.31	Peak	297.00	300	Horizontal	Pass
5**	12517.365	47.21	54.0	6.79	AV	297.00	300	Horizontal	Pass
6	16150.758	54.37	74.0	19.63	Peak	354.00	300	Horizontal	Pass
6**	16150.758	40.83	54.0	13.17	AV	354.00	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	1573.772	38.24	74.0	35.76	Peak	73.00	300	Vertical	Pass
1**	1573.772	25.19	54.0	28.81	AV	73.00	300	Vertical	Pass
2	2347.481	45.53	74.0	28.47	Peak	83.00	100	Vertical	Pass
2**	2347.481	35.41	54.0	18.59	AV	83.00	100	Vertical	Pass
3	3920.471	45.67	74.0	28.33	Peak	29.00	200	Vertical	Pass
3**	3920.471	36.80	54.0	17.20	AV	29.00	200	Vertical	Pass
4	7676.504	49.33	74.0	24.67	Peak	77.00	400	Vertical	Pass
4**	7676.504	42.85	54.0	11.15	AV	77.00	400	Vertical	Pass
5	12529.762	53.93	74.0	20.07	Peak	348.00	300	Vertical	Pass
5**	12529.762	43.85	54.0	10.15	AV	348.00	300	Vertical	Pass
6	15381.167	52.31	74.0	21.69	Peak	138.00	300	Vertical	Pass
6**	15381.167	42.69	54.0	11.31	AV	138.00	300	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	1513.822	36.73	74.0	37.27	Peak	101.00	300	Horizontal	Pass
1**	1513.822	31.96	54.0	22.04	AV	101.00	300	Horizontal	Pass
2	2352.396	45.90	74.0	28.10	Peak	274.00	300	Horizontal	Pass
2**	2352.396	39.91	54.0	14.09	AV	274.00	300	Horizontal	Pass
3	4207.723	50.16	74.0	23.84	Peak	95.00	200	Horizontal	Pass
3**	4207.723	39.14	54.0	14.86	AV	95.00	200	Horizontal	Pass
4	7436.189	54.53	74.0	19.47	Peak	271.00	300	Horizontal	Pass
4**	7436.189	43.40	54.0	10.60	AV	271.00	300	Horizontal	Pass
5	12520.147	57.01	74.0	16.99	Peak	202.00	400	Horizontal	Pass
5**	12520.147	46.40	54.0	7.60	AV	202.00	400	Horizontal	Pass
6	16148.468	52.38	74.0	21.62	Peak	34.00	400	Horizontal	Pass
6**	16148.468	41.22	54.0	12.78	AV	34.00	400	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	1569.605	38.10	74.0	35.90	Peak	182.00	200	Vertical	Pass
1**	1569.605	29.52	54.0	24.48	AV	182.00	200	Vertical	Pass
2	2347.375	46.68	74.0	27.32	Peak	221.00	300	Vertical	Pass
2**	2347.375	32.33	54.0	21.67	AV	221.00	300	Vertical	Pass
3	3913.510	45.95	74.0	28.05	Peak	14.00	200	Vertical	Pass
3**	3913.510	33.29	54.0	20.71	AV	14.00	200	Vertical	Pass
4	7680.443	50.30	74.0	23.70	Peak	297.00	300	Vertical	Pass
4**	7680.443	41.85	54.0	12.15	AV	297.00	300	Vertical	Pass
5	12529.991	56.99	74.0	17.01	Peak	275.00	100	Vertical	Pass
5**	12529.991	45.55	54.0	8.45	AV	275.00	100	Vertical	Pass
6	15380.305	50.48	74.0	23.52	Peak	310.00	200	Vertical	Pass
6**	15380.305	44.39	54.0	9.61	AV	310.00	200	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	1515.187	40.49	74.0	33.51	Peak	141.00	400	Horizontal	Pass
1**	1515.187	30.81	54.0	23.19	AV	141.00	400	Horizontal	Pass
2	2349.017	45.19	74.0	28.81	Peak	69.00	100	Horizontal	Pass
2**	2349.017	39.08	54.0	14.92	AV	69.00	100	Horizontal	Pass
3	4205.107	45.51	74.0	28.49	Peak	354.00	200	Horizontal	Pass
3**	4205.107	39.09	54.0	14.91	AV	354.00	200	Horizontal	Pass
4	7434.611	56.16	74.0	17.84	Peak	287.00	300	Horizontal	Pass
4**	7434.611	42.41	54.0	11.59	AV	287.00	300	Horizontal	Pass
5	12515.724	58.62	74.0	15.38	Peak	20.00	200	Horizontal	Pass
5**	12515.724	45.65	54.0	8.35	AV	20.00	200	Horizontal	Pass
6	16145.689	52.14	74.0	21.86	Peak	312.00	400	Horizontal	Pass
6**	16145.689	43.63	54.0	10.37	AV	312.00	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	1569.627	39.23	74.0	34.77	Peak	257.00	300	Vertical	Pass
1**	1569.627	24.18	54.0	29.82	AV	257.00	300	Vertical	Pass
2	2348.553	45.70	74.0	28.30	Peak	356.00	400	Vertical	Pass
2**	2348.553	34.30	54.0	19.70	AV	356.00	400	Vertical	Pass
3	3916.524	46.71	74.0	27.29	Peak	358.00	200	Vertical	Pass
3**	3916.524	34.30	54.0	19.70	AV	358.00	200	Vertical	Pass
4	7678.292	51.83	74.0	22.17	Peak	197.00	300	Vertical	Pass
4**	7678.292	41.03	54.0	12.97	AV	197.00	300	Vertical	Pass
5	12528.346	55.04	74.0	18.96	Peak	297.00	100	Vertical	Pass
5**	12528.346	44.71	54.0	9.29	AV	297.00	100	Vertical	Pass
6	15383.179	52.63	74.0	21.37	Peak	221.00	300	Vertical	Pass
6**	15383.179	47.32	54.0	6.68	AV	221.00	300	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	1512.160	39.96	74.0	34.04	Peak	176.00	200	Horizontal	Pass
1**	1512.160	28.82	54.0	25.18	AV	176.00	200	Horizontal	Pass
2	2344.674	45.42	74.0	28.58	Peak	247.00	200	Horizontal	Pass
2**	2344.674	38.31	54.0	15.69	AV	247.00	200	Horizontal	Pass
3	4205.703	48.33	74.0	25.67	Peak	342.00	200	Horizontal	Pass
3**	4205.703	35.55	54.0	18.45	AV	342.00	200	Horizontal	Pass
4	7436.199	51.64	74.0	22.36	Peak	245.00	100	Horizontal	Pass
4**	7436.199	41.60	54.0	12.40	AV	245.00	100	Horizontal	Pass
5	12517.156	53.25	74.0	20.75	Peak	19.00	100	Horizontal	Pass
5**	12517.156	44.80	54.0	9.20	AV	19.00	100	Horizontal	Pass
6	16148.555	56.08	74.0	17.92	Peak	139.00	100	Horizontal	Pass
6**	16148.555	43.52	54.0	10.48	AV	139.00	100	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	1568.562	38.96	74.0	35.04	Peak	268.00	100	Vertical	Pass
1**	1568.562	28.13	54.0	25.87	AV	268.00	100	Vertical	Pass
2	2351.024	42.27	74.0	31.73	Peak	218.00	400	Vertical	Pass
2**	2351.024	35.47	54.0	18.53	AV	218.00	400	Vertical	Pass
3	3915.919	46.86	74.0	27.14	Peak	205.00	200	Vertical	Pass
3**	3915.919	36.46	54.0	17.54	AV	205.00	200	Vertical	Pass
4	7680.493	51.12	74.0	22.88	Peak	316.00	200	Vertical	Pass
4**	7680.493	42.58	54.0	11.42	AV	316.00	200	Vertical	Pass
5	12529.063	53.95	74.0	20.05	Peak	155.00	100	Vertical	Pass
5**	12529.063	44.34	54.0	9.66	AV	155.00	100	Vertical	Pass
6	15382.911	54.51	74.0	19.49	Peak	51.00	100	Vertical	Pass
6**	15382.911	45.77	54.0	8.23	AV	51.00	100	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	1515.453	37.85	74.0	36.15	Peak	195.00	200	Horizontal	Pass
1**	1515.453	32.14	54.0	21.86	AV	195.00	200	Horizontal	Pass
2	2346.371	43.56	74.0	30.44	Peak	163.00	400	Horizontal	Pass
2**	2346.371	36.69	54.0	17.31	AV	163.00	400	Horizontal	Pass
3	4208.436	50.73	74.0	23.27	Peak	185.00	200	Horizontal	Pass
3**	4208.436	36.79	54.0	17.21	AV	185.00	200	Horizontal	Pass
4	7430.694	56.42	74.0	17.58	Peak	190.00	300	Horizontal	Pass
4**	7430.694	41.72	54.0	12.28	AV	190.00	300	Horizontal	Pass
5	12521.798	57.92	74.0	16.08	Peak	259.00	300	Horizontal	Pass
5**	12521.798	48.59	54.0	5.41	AV	259.00	300	Horizontal	Pass
6	16145.364	53.84	74.0	20.16	Peak	53.00	100	Horizontal	Pass
6**	16145.364	41.85	54.0	12.15	AV	53.00	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	1569.555	34.60	74.0	39.40	Peak	167.00	100	Vertical	Pass
1**	1569.555	28.29	54.0	25.71	AV	167.00	100	Vertical	Pass
2	2349.928	46.83	74.0	27.17	Peak	219.00	100	Vertical	Pass
2**	2349.928	30.49	54.0	23.51	AV	219.00	100	Vertical	Pass
3	3919.378	42.84	74.0	31.16	Peak	97.00	200	Vertical	Pass
3**	3919.378	36.93	54.0	17.07	AV	97.00	200	Vertical	Pass
4	7677.778	52.99	74.0	21.01	Peak	75.00	100	Vertical	Pass
4**	7677.778	43.77	54.0	10.23	AV	75.00	100	Vertical	Pass
5	12530.102	55.21	74.0	18.79	Peak	195.00	300	Vertical	Pass
5**	12530.102	40.88	54.0	13.12	AV	195.00	300	Vertical	Pass
6	15380.448	52.22	74.0	21.78	Peak	9.00	300	Vertical	Pass
6**	15380.448	44.88	54.0	9.12	AV	9.00	300	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	1514.847	40.46	74.0	33.54	Peak	346.00	200	Horizontal	Pass
1**	1514.847	26.85	54.0	27.15	AV	346.00	200	Horizontal	Pass
2	2351.929	46.44	74.0	27.56	Peak	279.00	200	Horizontal	Pass
2**	2351.929	35.29	54.0	18.71	AV	279.00	200	Horizontal	Pass
3	4206.630	46.76	74.0	27.24	Peak	81.00	200	Horizontal	Pass
3**	4206.630	39.56	54.0	14.44	AV	81.00	200	Horizontal	Pass
4	7433.041	51.62	74.0	22.38	Peak	22.00	300	Horizontal	Pass
4**	7433.041	45.08	54.0	8.92	AV	22.00	300	Horizontal	Pass
5	12516.638	56.34	74.0	17.66	Peak	332.00	400	Horizontal	Pass
5**	12516.638	47.23	54.0	6.77	AV	332.00	400	Horizontal	Pass
6	16148.354	53.34	74.0	20.66	Peak	200.00	300	Horizontal	Pass
6**	16148.354	43.84	54.0	10.16	AV	200.00	300	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	1569.427	38.69	74.0	35.31	Peak	153.00	300	Vertical	Pass
1**	1569.427	28.90	54.0	25.10	AV	153.00	300	Vertical	Pass
2	2343.951	45.33	74.0	28.67	Peak	79.00	200	Vertical	Pass
2**	2343.951	31.70	54.0	22.30	AV	79.00	200	Vertical	Pass
3	3920.387	42.62	74.0	31.38	Peak	57.00	200	Vertical	Pass
3**	3920.387	34.17	54.0	19.83	AV	57.00	200	Vertical	Pass
4	7677.682	50.81	74.0	23.19	Peak	79.00	200	Vertical	Pass
4**	7677.682	45.08	54.0	8.92	AV	79.00	200	Vertical	Pass
5	12533.493	57.00	74.0	17.00	Peak	58.00	100	Vertical	Pass
5**	12533.493	43.65	54.0	10.35	AV	58.00	100	Vertical	Pass
6	15378.916	52.36	74.0	21.64	Peak	108.00	200	Vertical	Pass
6**	15378.916	44.78	54.0	9.22	AV	108.00	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	1511.612	37.88	74.0	36.12	Peak	34.00	100	Horizontal	Pass
1**	1511.612	30.06	54.0	23.94	AV	34.00	100	Horizontal	Pass
2	2349.064	42.45	74.0	31.55	Peak	183.00	100	Horizontal	Pass
2**	2349.064	36.75	54.0	17.25	AV	183.00	100	Horizontal	Pass
3	4208.567	45.67	74.0	28.33	Peak	281.00	200	Horizontal	Pass
3**	4208.567	36.73	54.0	17.27	AV	281.00	200	Horizontal	Pass
4	7433.951	53.12	74.0	20.88	Peak	300.00	300	Horizontal	Pass
4**	7433.951	40.30	54.0	13.70	AV	300.00	300	Horizontal	Pass
5	12520.089	55.94	74.0	18.06	Peak	52.00	100	Horizontal	Pass
5**	12520.089	44.29	54.0	9.71	AV	52.00	100	Horizontal	Pass
6	16150.159	56.24	74.0	17.76	Peak	206.00	100	Horizontal	Pass
6**	16150.159	44.53	54.0	9.47	AV	206.00	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	1567.501	38.26	74.0	35.74	Peak	205.00	100	Vertical	Pass
1**	1567.501	24.40	54.0	29.60	AV	205.00	100	Vertical	Pass
2	2348.391	46.34	74.0	27.66	Peak	180.00	400	Vertical	Pass
2**	2348.391	30.80	54.0	23.20	AV	180.00	400	Vertical	Pass
3	3920.099	45.19	74.0	28.81	Peak	196.00	200	Vertical	Pass
3**	3920.099	38.25	54.0	15.75	AV	196.00	200	Vertical	Pass
4	7681.991	55.08	74.0	18.92	Peak	97.00	400	Vertical	Pass
4**	7681.991	45.83	54.0	8.17	AV	97.00	400	Vertical	Pass
5	12532.480	54.98	74.0	19.02	Peak	263.00	400	Vertical	Pass
5**	12532.480	40.04	54.0	13.96	AV	263.00	400	Vertical	Pass
6	15379.699	56.06	74.0	17.94	Peak	81.00	200	Vertical	Pass
6**	15379.699	42.57	54.0	11.43	AV	81.00	200	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	1512.603	38.21	74.0	35.79	Peak	201.00	100	Horizontal	Pass
1**	1512.603	27.15	54.0	26.85	AV	201.00	100	Horizontal	Pass
2	2348.128	46.70	74.0	27.30	Peak	229.00	200	Horizontal	Pass
2**	2348.128	37.39	54.0	16.61	AV	229.00	200	Horizontal	Pass
3	4205.880	45.89	74.0	28.11	Peak	324.00	200	Horizontal	Pass
3**	4205.880	37.88	54.0	16.12	AV	324.00	200	Horizontal	Pass
4	7437.850	55.76	74.0	18.24	Peak	83.00	300	Horizontal	Pass
4**	7437.850	42.61	54.0	11.39	AV	83.00	300	Horizontal	Pass
5	12517.175	54.38	74.0	19.62	Peak	93.00	100	Horizontal	Pass
5**	12517.175	44.28	54.0	9.72	AV	93.00	100	Horizontal	Pass
6	16147.830	56.29	74.0	17.71	Peak	292.00	400	Horizontal	Pass
6**	16147.830	42.92	54.0	11.08	AV	292.00	400	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	1573.829	38.55	74.0	35.45	Peak	353.00	100	Vertical	Pass
1**	1573.829	27.29	54.0	26.71	AV	353.00	100	Vertical	Pass
2	2343.083	47.17	74.0	26.83	Peak	219.00	200	Vertical	Pass
2**	2343.083	34.01	54.0	19.99	AV	219.00	200	Vertical	Pass
3	3913.296	44.39	74.0	29.61	Peak	297.00	200	Vertical	Pass
3**	3913.296	39.19	54.0	14.81	AV	297.00	200	Vertical	Pass
4	7684.086	50.75	74.0	23.25	Peak	159.00	400	Vertical	Pass
4**	7684.086	45.69	54.0	8.31	AV	159.00	400	Vertical	Pass
5	12527.984	55.06	74.0	18.94	Peak	44.00	400	Vertical	Pass
5**	12527.984	44.93	54.0	9.07	AV	44.00	400	Vertical	Pass
6	15384.450	54.28	74.0	19.72	Peak	37.00	100	Vertical	Pass
6**	15384.450	45.51	54.0	8.49	AV	37.00	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	1515.004	38.08	74.0	35.92	Peak	130.00	100	Horizontal	Pass
1**	1515.004	31.82	54.0	22.18	AV	130.00	100	Horizontal	Pass
2	2350.506	43.66	74.0	30.34	Peak	297.00	100	Horizontal	Pass
2**	2350.506	37.52	54.0	16.48	AV	297.00	100	Horizontal	Pass
3	4204.779	46.16	74.0	27.84	Peak	95.00	200	Horizontal	Pass
3**	4204.779	38.63	54.0	15.37	AV	95.00	200	Horizontal	Pass
4	7436.546	51.94	74.0	22.06	Peak	6.00	400	Horizontal	Pass
4**	7436.546	40.84	54.0	13.16	AV	6.00	400	Horizontal	Pass
5	12519.423	56.27	74.0	17.73	Peak	344.00	200	Horizontal	Pass
5**	12519.423	46.18	54.0	7.82	AV	344.00	200	Horizontal	Pass
6	16146.734	52.63	74.0	21.37	Peak	145.00	300	Horizontal	Pass
6**	16146.734	42.54	54.0	11.46	AV	145.00	300	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	1570.764	33.54	74.0	40.46	Peak	322.00	200	Vertical	Pass
1**	1570.764	29.65	54.0	24.35	AV	322.00	200	Vertical	Pass
2	2344.539	43.46	74.0	30.54	Peak	78.00	200	Vertical	Pass
2**	2344.539	31.79	54.0	22.21	AV	78.00	200	Vertical	Pass
3	3920.637	43.58	74.0	30.42	Peak	303.00	200	Vertical	Pass
3**	3920.637	38.07	54.0	15.93	AV	303.00	200	Vertical	Pass
4	7683.761	52.88	74.0	21.12	Peak	224.00	100	Vertical	Pass
4**	7683.761	44.52	54.0	9.48	AV	224.00	100	Vertical	Pass
5	12527.243	57.63	74.0	16.37	Peak	355.00	400	Vertical	Pass
5**	12527.243	42.93	54.0	11.07	AV	355.00	400	Vertical	Pass
6	15379.322	51.24	74.0	22.76	Peak	340.00	200	Vertical	Pass
6**	15379.322	44.39	54.0	9.61	AV	340.00	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	1515.658	42.08	74.0	31.92	Peak	165.00	100	Horizontal	Pass
1**	1515.658	30.07	54.0	23.93	AV	165.00	100	Horizontal	Pass
2	2347.750	44.83	74.0	29.17	Peak	295.00	100	Horizontal	Pass
2**	2347.750	37.17	54.0	16.83	AV	295.00	100	Horizontal	Pass
3	4206.048	50.42	74.0	23.58	Peak	13.00	200	Horizontal	Pass
3**	4206.048	37.97	54.0	16.03	AV	13.00	200	Horizontal	Pass
4	7430.932	54.00	74.0	20.00	Peak	94.00	400	Horizontal	Pass
4**	7430.932	40.40	54.0	13.60	AV	94.00	400	Horizontal	Pass
5	12519.808	58.57	74.0	15.43	Peak	301.00	300	Horizontal	Pass
5**	12519.808	44.41	54.0	9.59	AV	301.00	300	Horizontal	Pass
6	16144.823	56.02	74.0	17.98	Peak	329.00	200	Horizontal	Pass
6**	16144.823	45.95	54.0	8.05	AV	329.00	200	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	1568.134	36.85	74.0	37.15	Peak	42.00	100	Vertical	Pass
1**	1568.134	29.18	54.0	24.82	AV	42.00	100	Vertical	Pass
2	2348.465	46.42	74.0	27.58	Peak	198.00	100	Vertical	Pass
2**	2348.465	34.36	54.0	19.64	AV	198.00	100	Vertical	Pass
3	3918.135	44.27	74.0	29.73	Peak	358.00	200	Vertical	Pass
3**	3918.135	37.80	54.0	16.20	AV	358.00	200	Vertical	Pass
4	7683.085	54.27	74.0	19.73	Peak	210.00	200	Vertical	Pass
4**	7683.085	44.33	54.0	9.67	AV	210.00	200	Vertical	Pass
5	12527.939	54.95	74.0	19.05	Peak	306.00	400	Vertical	Pass
5**	12527.939	43.05	54.0	10.95	AV	306.00	400	Vertical	Pass
6	15378.621	54.70	74.0	19.30	Peak	203.00	200	Vertical	Pass
6**	15378.621	41.77	54.0	12.23	AV	203.00	200	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	1511.239	38.98	74.0	35.02	Peak	330.00	100	Horizontal	Pass
1**	1511.239	31.30	54.0	22.70	AV	330.00	100	Horizontal	Pass
2	2346.427	43.07	74.0	30.93	Peak	138.00	400	Horizontal	Pass
2**	2346.427	38.86	54.0	15.14	AV	138.00	400	Horizontal	Pass
3	4201.908	45.89	74.0	28.11	Peak	339.00	200	Horizontal	Pass
3**	4201.908	35.16	54.0	18.84	AV	339.00	200	Horizontal	Pass
4	7435.352	56.25	74.0	17.75	Peak	80.00	300	Horizontal	Pass
4**	7435.352	42.75	54.0	11.25	AV	80.00	300	Horizontal	Pass
5	12521.552	56.90	74.0	17.10	Peak	201.00	200	Horizontal	Pass
5**	12521.552	49.95	54.0	4.05	AV	201.00	200	Horizontal	Pass
6	16145.846	56.72	74.0	17.28	Peak	191.00	200	Horizontal	Pass
6**	16145.846	46.71	54.0	7.29	AV	191.00	200	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	1573.988	38.98	74.0	35.02	Peak	189.00	200	Vertical	Pass
1**	1573.988	28.74	54.0	25.26	AV	189.00	200	Vertical	Pass
2	2343.710	44.49	74.0	29.51	Peak	29.00	200	Vertical	Pass
2**	2343.710	34.52	54.0	19.48	AV	29.00	200	Vertical	Pass
3	3919.568	42.23	74.0	31.77	Peak	175.00	200	Vertical	Pass
3**	3919.568	37.41	54.0	16.59	AV	175.00	200	Vertical	Pass
4	7681.584	53.55	74.0	20.45	Peak	355.00	200	Vertical	Pass
4**	7681.584	43.05	54.0	10.95	AV	355.00	200	Vertical	Pass
5	12527.845	54.17	74.0	19.83	Peak	191.00	200	Vertical	Pass
5**	12527.845	44.59	54.0	9.41	AV	191.00	200	Vertical	Pass
6	15385.445	55.24	74.0	18.76	Peak	226.00	400	Vertical	Pass
6**	15385.445	45.61	54.0	8.39	AV	226.00	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	1513.454	37.84	74.0	36.16	Peak	219.00	400	Horizontal	Pass
1**	1513.454	28.03	54.0	25.97	AV	219.00	400	Horizontal	Pass
2	2352.252	47.52	74.0	26.48	Peak	56.00	400	Horizontal	Pass
2**	2352.252	40.20	54.0	13.80	AV	56.00	400	Horizontal	Pass
3	4203.583	45.18	74.0	28.82	Peak	337.00	200	Horizontal	Pass
3**	4203.583	34.99	54.0	19.01	AV	337.00	200	Horizontal	Pass
4	7431.227	52.41	74.0	21.59	Peak	104.00	400	Horizontal	Pass
4**	7431.227	41.58	54.0	12.42	AV	104.00	400	Horizontal	Pass
5	12517.317	57.93	74.0	16.07	Peak	98.00	200	Horizontal	Pass
5**	12517.317	48.48	54.0	5.52	AV	98.00	200	Horizontal	Pass
6	16146.401	52.89	74.0	21.11	Peak	216.00	400	Horizontal	Pass
6**	16146.401	43.04	54.0	10.96	AV	216.00	400	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	1569.688	34.19	74.0	39.81	Peak	215.00	400	Vertical	Pass
1**	1569.688	26.09	54.0	27.91	AV	215.00	400	Vertical	Pass
2	2347.059	45.78	74.0	28.22	Peak	177.00	300	Vertical	Pass
2**	2347.059	33.51	54.0	20.49	AV	177.00	300	Vertical	Pass
3	3915.660	43.09	74.0	30.91	Peak	50.00	200	Vertical	Pass
3**	3915.660	35.04	54.0	18.96	AV	50.00	200	Vertical	Pass
4	7683.241	52.17	74.0	21.83	Peak	66.00	400	Vertical	Pass
4**	7683.241	45.54	54.0	8.46	AV	66.00	400	Vertical	Pass
5	12533.461	57.66	74.0	16.34	Peak	145.00	400	Vertical	Pass
5**	12533.461	42.33	54.0	11.67	AV	145.00	400	Vertical	Pass
6	15381.127	54.09	74.0	19.91	Peak	176.00	300	Vertical	Pass
6**	15381.127	42.12	54.0	11.88	AV	176.00	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	1510.252	39.32	74.0	34.68	Peak	195.00	400	Horizontal	Pass
1**	1510.252	28.48	54.0	25.52	AV	195.00	400	Horizontal	Pass
2	2351.339	46.91	74.0	27.09	Peak	251.00	300	Horizontal	Pass
2**	2351.339	35.11	54.0	18.89	AV	251.00	300	Horizontal	Pass
3	4205.669	50.75	74.0	23.25	Peak	215.00	200	Horizontal	Pass
3**	4205.669	37.73	54.0	16.27	AV	215.00	200	Horizontal	Pass
4	7436.306	53.51	74.0	20.49	Peak	81.00	200	Horizontal	Pass
4**	7436.306	44.46	54.0	9.54	AV	81.00	200	Horizontal	Pass
5	12520.819	53.33	74.0	20.67	Peak	68.00	200	Horizontal	Pass
5**	12520.819	48.33	54.0	5.67	AV	68.00	200	Horizontal	Pass
6	16144.340	51.89	74.0	22.11	Peak	79.00	400	Horizontal	Pass
6**	16144.340	43.88	54.0	10.12	AV	79.00	400	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	1569.722	36.91	74.0	37.09	Peak	293.00	100	Vertical	Pass
1**	1569.722	24.05	54.0	29.95	AV	293.00	100	Vertical	Pass
2	2350.861	43.91	74.0	30.09	Peak	55.00	100	Vertical	Pass
2**	2350.861	33.52	54.0	20.48	AV	55.00	100	Vertical	Pass
3	3913.945	42.83	74.0	31.17	Peak	95.00	200	Vertical	Pass
3**	3913.945	35.08	54.0	18.92	AV	95.00	200	Vertical	Pass
4	7680.126	53.70	74.0	20.30	Peak	299.00	100	Vertical	Pass
4**	7680.126	41.49	54.0	12.51	AV	299.00	100	Vertical	Pass
5	12532.105	56.24	74.0	17.76	Peak	304.00	200	Vertical	Pass
5**	12532.105	42.38	54.0	11.62	AV	304.00	200	Vertical	Pass
6	15385.445	52.15	74.0	21.85	Peak	148.00	300	Vertical	Pass
6**	15385.445	44.53	54.0	9.47	AV	148.00	300	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	1514.239	39.68	74.0	34.32	Peak	234.00	100	Horizontal	Pass
1**	1514.239	32.24	54.0	21.76	AV	234.00	100	Horizontal	Pass
2	2349.514	43.19	74.0	30.81	Peak	45.00	200	Horizontal	Pass
2**	2349.514	36.82	54.0	17.18	AV	45.00	200	Horizontal	Pass
3	4203.151	46.62	74.0	27.38	Peak	109.00	200	Horizontal	Pass
3**	4203.151	38.82	54.0	15.18	AV	109.00	200	Horizontal	Pass
4	7432.230	51.43	74.0	22.57	Peak	197.00	200	Horizontal	Pass
4**	7432.230	42.92	54.0	11.08	AV	197.00	200	Horizontal	Pass
5	12515.515	54.83	74.0	19.17	Peak	92.00	400	Horizontal	Pass
5**	12515.515	46.81	54.0	7.19	AV	92.00	400	Horizontal	Pass
6	16149.168	53.19	74.0	20.81	Peak	91.00	200	Horizontal	Pass
6**	16149.168	45.60	54.0	8.40	AV	91.00	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	1573.350	33.54	74.0	40.46	Peak	8.00	300	Vertical	Pass
1**	1573.350	27.26	54.0	26.74	AV	8.00	300	Vertical	Pass
2	2346.341	42.50	74.0	31.50	Peak	130.00	300	Vertical	Pass
2**	2346.341	36.35	54.0	17.65	AV	130.00	300	Vertical	Pass
3	3919.006	45.60	74.0	28.40	Peak	330.00	200	Vertical	Pass
3**	3919.006	36.52	54.0	17.48	AV	330.00	200	Vertical	Pass
4	7679.368	53.53	74.0	20.47	Peak	84.00	300	Vertical	Pass
4**	7679.368	44.90	54.0	9.10	AV	84.00	300	Vertical	Pass
5	12530.520	56.14	74.0	17.86	Peak	271.00	300	Vertical	Pass
5**	12530.520	45.24	54.0	8.76	AV	271.00	300	Vertical	Pass
6	15385.634	55.33	74.0	18.67	Peak	141.00	100	Vertical	Pass
6**	15385.634	44.46	54.0	9.54	AV	141.00	100	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	1523.100	35.48	74.0	38.52	Peak	95.00	300	Horizontal	Pass
1**	1523.100	31.45	54.0	22.55	AV	95.00	300	Horizontal	Pass
2	4016.721	46.77	74.0	27.23	Peak	34.00	100	Horizontal	Pass
2**	4016.721	35.25	54.0	18.75	AV	34.00	100	Horizontal	Pass
3	7595.600	51.06	74.0	22.94	Peak	308.00	200	Horizontal	Pass
3**	7595.600	41.15	54.0	12.85	AV	308.00	200	Horizontal	Pass
4	12455.712	55.69	74.0	18.31	Peak	233.00	400	Horizontal	Pass
4**	12455.712	42.26	54.0	11.74	AV	233.00	400	Horizontal	Pass
5	16096.776	51.10	74.0	22.90	Peak	320.00	300	Horizontal	Pass
5**	16096.776	47.47	54.0	6.53	AV	320.00	300	Horizontal	Pass
6	17416.237	55.65	74.0	18.35	Peak	32.00	300	Horizontal	Pass
6**	17416.237	47.88	54.0	6.12	AV	32.00	300	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	1331.379	43.84	74.0	30.16	Peak	160.00	400	Vertical	Pass
1**	1331.379	32.21	54.0	21.79	AV	160.00	400	Vertical	Pass
2	1438.367	44.63	74.0	29.37	Peak	15.00	300	Vertical	Pass
2**	1438.367	37.49	54.0	16.51	AV	15.00	300	Vertical	Pass
3	4312.676	49.60	74.0	24.40	Peak	266.00	200	Vertical	Pass
3**	4312.676	40.54	54.0	13.46	AV	266.00	200	Vertical	Pass
4	7591.434	53.36	74.0	20.64	Peak	82.00	300	Vertical	Pass
4**	7591.434	42.41	54.0	11.59	AV	82.00	300	Vertical	Pass
5	12530.869	54.04	74.0	19.96	Peak	40.00	200	Vertical	Pass
5**	12530.869	43.09	54.0	10.91	AV	40.00	200	Vertical	Pass
6	15904.490	56.58	74.0	17.42	Peak	192.00	100	Vertical	Pass
6**	15904.490	47.49	54.0	6.51	AV	192.00	100	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	1518.025	38.87	74.0	35.13	Peak	205.00	100	Horizontal	Pass
1**	1518.025	31.63	54.0	22.37	AV	205.00	100	Horizontal	Pass
2	4022.385	50.06	74.0	23.94	Peak	140.00	300	Horizontal	Pass
2**	4022.385	36.43	54.0	17.57	AV	140.00	300	Horizontal	Pass
3	7598.138	54.31	74.0	19.69	Peak	34.00	200	Horizontal	Pass
3**	7598.138	41.75	54.0	12.25	AV	34.00	200	Horizontal	Pass
4	12458.657	51.14	74.0	22.86	Peak	197.00	100	Horizontal	Pass
4**	12458.657	41.20	54.0	12.80	AV	197.00	100	Horizontal	Pass
5	16092.905	51.39	74.0	22.61	Peak	349.00	100	Horizontal	Pass
5**	16092.905	42.51	54.0	11.49	AV	349.00	100	Horizontal	Pass
6	17423.277	54.85	74.0	19.15	Peak	276.00	200	Horizontal	Pass
6**	17423.277	46.16	54.0	7.84	AV	276.00	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	1335.741	43.55	74.0	30.45	Peak	10.00	300	Vertical	Pass
1**	1335.741	32.39	54.0	21.61	AV	10.00	300	Vertical	Pass
2	1444.257	41.01	74.0	32.99	Peak	196.00	100	Vertical	Pass
2**	1444.257	35.60	54.0	18.40	AV	196.00	100	Vertical	Pass
3	4315.219	44.46	74.0	29.54	Peak	205.00	200	Vertical	Pass
3**	4315.219	40.75	54.0	13.25	AV	205.00	200	Vertical	Pass
4	7592.947	54.68	74.0	19.32	Peak	22.00	100	Vertical	Pass
4**	7592.947	45.66	54.0	8.34	AV	22.00	100	Vertical	Pass
5	12532.894	54.83	74.0	19.17	Peak	152.00	400	Vertical	Pass
5**	12532.894	43.08	54.0	10.92	AV	152.00	400	Vertical	Pass
6	15907.625	54.89	74.0	19.11	Peak	99.00	200	Vertical	Pass
6**	15907.625	42.70	54.0	11.30	AV	99.00	200	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	1525.028	38.76	74.0	35.24	Peak	146.00	400	Horizontal	Pass
1**	1525.028	27.73	54.0	26.27	AV	146.00	400	Horizontal	Pass
2	4016.161	45.77	74.0	28.23	Peak	69.00	300	Horizontal	Pass
2**	4016.161	34.15	54.0	19.85	AV	69.00	300	Horizontal	Pass
3	7596.061	50.77	74.0	23.23	Peak	327.00	200	Horizontal	Pass
3**	7596.061	42.65	54.0	11.35	AV	327.00	200	Horizontal	Pass
4	12451.932	54.80	74.0	19.20	Peak	340.00	300	Horizontal	Pass
4**	12451.932	42.14	54.0	11.86	AV	340.00	300	Horizontal	Pass
5	16094.684	55.98	74.0	18.02	Peak	209.00	400	Horizontal	Pass
5**	16094.684	43.66	54.0	10.34	AV	209.00	400	Horizontal	Pass
6	17417.276	56.65	74.0	17.35	Peak	328.00	100	Horizontal	Pass
6**	17417.276	48.13	54.0	5.87	AV	328.00	100	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	1332.994	46.28	74.0	27.72	Peak	86.00	300	Vertical	Pass
1**	1332.994	32.64	54.0	21.36	AV	86.00	300	Vertical	Pass
2	1442.054	42.07	74.0	31.93	Peak	284.00	400	Vertical	Pass
2**	1442.054	38.56	54.0	15.44	AV	284.00	400	Vertical	Pass
3	4311.272	48.12	74.0	25.88	Peak	285.00	200	Vertical	Pass
3**	4311.272	36.96	54.0	17.04	AV	285.00	200	Vertical	Pass
4	7591.650	55.21	74.0	18.79	Peak	246.00	400	Vertical	Pass
4**	7591.650	45.81	54.0	8.19	AV	246.00	400	Vertical	Pass
5	12530.969	53.28	74.0	20.72	Peak	147.00	400	Vertical	Pass
5**	12530.969	43.39	54.0	10.61	AV	147.00	400	Vertical	Pass
6	15907.405	55.88	74.0	18.12	Peak	163.00	100	Vertical	Pass
6**	15907.405	47.73	54.0	6.27	AV	163.00	100	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	1523.167	36.79	74.0	37.21	Peak	121.00	400	Horizontal	Pass
1**	1523.167	27.52	54.0	26.48	AV	121.00	400	Horizontal	Pass
2	4022.930	46.52	74.0	27.48	Peak	122.00	400	Horizontal	Pass
2**	4022.930	34.56	54.0	19.44	AV	122.00	400	Horizontal	Pass
3	7600.882	54.86	74.0	19.14	Peak	331.00	200	Horizontal	Pass
3**	7600.882	41.64	54.0	12.36	AV	331.00	200	Horizontal	Pass
4	12455.503	51.34	74.0	22.66	Peak	109.00	400	Horizontal	Pass
4**	12455.503	42.88	54.0	11.12	AV	109.00	400	Horizontal	Pass
5	16097.921	56.42	74.0	17.58	Peak	254.00	200	Horizontal	Pass
5**	16097.921	43.75	54.0	10.25	AV	254.00	200	Horizontal	Pass
6	17422.858	58.70	74.0	15.30	Peak	307.00	400	Horizontal	Pass
6**	17422.858	47.51	54.0	6.49	AV	307.00	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	1332.535	44.73	74.0	29.27	Peak	27.00	300	Vertical	Pass
1**	1332.535	33.49	54.0	20.51	AV	27.00	300	Vertical	Pass
2	1441.036	39.68	74.0	34.32	Peak	17.00	100	Vertical	Pass
2**	1441.036	34.38	54.0	19.62	AV	17.00	100	Vertical	Pass
3	4314.278	46.73	74.0	27.27	Peak	162.00	200	Vertical	Pass
3**	4314.278	37.73	54.0	16.27	AV	162.00	200	Vertical	Pass
4	7592.781	54.97	74.0	19.03	Peak	154.00	100	Vertical	Pass
4**	7592.781	44.63	54.0	9.37	AV	154.00	100	Vertical	Pass
5	12533.999	50.62	74.0	23.38	Peak	62.00	100	Vertical	Pass
5**	12533.999	40.97	54.0	13.03	AV	62.00	100	Vertical	Pass
6	15905.770	52.49	74.0	21.51	Peak	109.00	300	Vertical	Pass
6**	15905.770	45.03	54.0	8.97	AV	109.00	300	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	1520.939	37.01	74.0	36.99	Peak	325.00	300	Horizontal	Pass
1**	1520.939	30.63	54.0	23.37	AV	325.00	300	Horizontal	Pass
2	4019.229	46.08	74.0	27.92	Peak	164.00	200	Horizontal	Pass
2**	4019.229	35.03	54.0	18.97	AV	164.00	200	Horizontal	Pass
3	7598.274	50.43	74.0	23.57	Peak	153.00	200	Horizontal	Pass
3**	7598.274	43.59	54.0	10.41	AV	153.00	200	Horizontal	Pass
4	12456.595	53.56	74.0	20.44	Peak	126.00	400	Horizontal	Pass
4**	12456.595	41.44	54.0	12.56	AV	126.00	400	Horizontal	Pass
5	16096.834	51.79	74.0	22.21	Peak	268.00	400	Horizontal	Pass
5**	16096.834	42.73	54.0	11.27	AV	268.00	400	Horizontal	Pass
6	17418.609	55.13	74.0	18.87	Peak	225.00	300	Horizontal	Pass
6**	17418.609	44.46	54.0	9.54	AV	225.00	300	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	1337.389	43.19	74.0	30.81	Peak	62.00	200	Vertical	Pass
1**	1337.389	31.61	54.0	22.39	AV	62.00	200	Vertical	Pass
2	1442.580	40.13	74.0	33.87	Peak	314.00	200	Vertical	Pass
2**	1442.580	34.15	54.0	19.85	AV	314.00	200	Vertical	Pass
3	4307.474	49.65	74.0	24.35	Peak	167.00	200	Vertical	Pass
3**	4307.474	40.80	54.0	13.20	AV	167.00	200	Vertical	Pass
4	7591.537	55.55	74.0	18.45	Peak	41.00	100	Vertical	Pass
4**	7591.537	45.14	54.0	8.86	AV	41.00	100	Vertical	Pass
5	12535.482	53.95	74.0	20.05	Peak	35.00	200	Vertical	Pass
5**	12535.482	40.89	54.0	13.11	AV	35.00	200	Vertical	Pass
6	15909.012	54.76	74.0	19.24	Peak	49.00	100	Vertical	Pass
6**	15909.012	43.68	54.0	10.32	AV	49.00	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	1520.082	35.24	74.0	38.76	Peak	86.00	300	Horizontal	Pass
1**	1520.082	28.84	54.0	25.16	AV	86.00	300	Horizontal	Pass
2	4018.002	49.65	74.0	24.35	Peak	46.00	100	Horizontal	Pass
2**	4018.002	34.87	54.0	19.13	AV	46.00	100	Horizontal	Pass
3	7598.275	53.82	74.0	20.18	Peak	218.00	200	Horizontal	Pass
3**	7598.275	45.19	54.0	8.81	AV	218.00	200	Horizontal	Pass
4	12453.610	55.45	74.0	18.55	Peak	276.00	200	Horizontal	Pass
4**	12453.610	46.89	54.0	7.11	AV	276.00	200	Horizontal	Pass
5	16099.141	55.76	74.0	18.24	Peak	301.00	200	Horizontal	Pass
5**	16099.141	44.95	54.0	9.05	AV	301.00	200	Horizontal	Pass
6	17422.206	58.55	74.0	15.45	Peak	111.00	200	Horizontal	Pass
6**	17422.206	49.23	54.0	4.77	AV	111.00	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	1336.773	42.42	74.0	31.58	Peak	334.00	200	Vertical	Pass
1**	1336.773	34.75	54.0	19.25	AV	334.00	200	Vertical	Pass
2	1439.372	42.67	74.0	31.33	Peak	217.00	200	Vertical	Pass
2**	1439.372	36.65	54.0	17.35	AV	217.00	200	Vertical	Pass
3	4314.684	46.79	74.0	27.21	Peak	142.00	200	Vertical	Pass
3**	4314.684	41.33	54.0	12.67	AV	142.00	200	Vertical	Pass
4	7597.389	51.40	74.0	22.60	Peak	86.00	200	Vertical	Pass
4**	7597.389	43.19	54.0	10.81	AV	86.00	200	Vertical	Pass
5	12534.168	52.36	74.0	21.64	Peak	51.00	100	Vertical	Pass
5**	12534.168	42.13	54.0	11.87	AV	51.00	100	Vertical	Pass
6	15910.012	55.40	74.0	18.60	Peak	182.00	100	Vertical	Pass
6**	15910.012	44.73	54.0	9.27	AV	182.00	100	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	1524.204	37.44	74.0	36.56	Peak	168.00	100	Horizontal	Pass
1**	1524.204	28.47	54.0	25.53	AV	168.00	100	Horizontal	Pass
2	4016.665	45.08	74.0	28.92	Peak	129.00	100	Horizontal	Pass
2**	4016.665	35.00	54.0	19.00	AV	129.00	100	Horizontal	Pass
3	7597.661	53.31	74.0	20.69	Peak	154.00	200	Horizontal	Pass
3**	7597.661	43.84	54.0	10.16	AV	154.00	200	Horizontal	Pass
4	12454.488	54.44	74.0	19.56	Peak	193.00	200	Horizontal	Pass
4**	12454.488	45.68	54.0	8.32	AV	193.00	200	Horizontal	Pass
5	16094.652	52.11	74.0	21.89	Peak	258.00	400	Horizontal	Pass
5**	16094.652	47.76	54.0	6.24	AV	258.00	400	Horizontal	Pass
6	17421.372	59.05	74.0	14.95	Peak	226.00	100	Horizontal	Pass
6**	17421.372	48.53	54.0	5.47	AV	226.00	100	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	1329.754	44.75	74.0	29.25	Peak	236.00	400	Vertical	Pass
1**	1329.754	33.32	54.0	20.68	AV	236.00	400	Vertical	Pass
2	1439.686	44.64	74.0	29.36	Peak	312.00	200	Vertical	Pass
2**	1439.686	35.01	54.0	18.99	AV	312.00	200	Vertical	Pass
3	4315.113	44.46	74.0	29.54	Peak	87.00	200	Vertical	Pass
3**	4315.113	36.04	54.0	17.96	AV	87.00	200	Vertical	Pass
4	7592.102	52.16	74.0	21.84	Peak	241.00	200	Vertical	Pass
4**	7592.102	43.85	54.0	10.15	AV	241.00	200	Vertical	Pass
5	12534.325	52.55	74.0	21.45	Peak	135.00	400	Vertical	Pass
5**	12534.325	45.29	54.0	8.71	AV	135.00	400	Vertical	Pass
6	15904.378	53.92	74.0	20.08	Peak	264.00	300	Vertical	Pass
6**	15904.378	45.15	54.0	8.85	AV	264.00	300	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	1518.913	38.01	74.0	35.99	Peak	55.00	100	Horizontal	Pass
1**	1518.913	27.10	54.0	26.90	AV	55.00	100	Horizontal	Pass
2	4019.854	46.63	74.0	27.37	Peak	41.00	300	Horizontal	Pass
2**	4019.854	35.03	54.0	18.97	AV	41.00	300	Horizontal	Pass
3	7601.830	50.47	74.0	23.53	Peak	149.00	200	Horizontal	Pass
3**	7601.830	41.50	54.0	12.50	AV	149.00	200	Horizontal	Pass
4	12453.938	50.84	74.0	23.16	Peak	104.00	300	Horizontal	Pass
4**	12453.938	46.98	54.0	7.02	AV	104.00	300	Horizontal	Pass
5	16095.839	55.98	74.0	18.02	Peak	327.00	300	Horizontal	Pass
5**	16095.839	44.32	54.0	9.68	AV	327.00	300	Horizontal	Pass
6	17423.466	54.15	74.0	19.85	Peak	31.00	200	Horizontal	Pass
6**	17423.466	49.55	54.0	4.45	AV	31.00	200	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	1336.018	43.17	74.0	30.83	Peak	352.00	200	Vertical	Pass
1**	1336.018	30.94	54.0	23.06	AV	352.00	200	Vertical	Pass
2	1443.314	40.81	74.0	33.19	Peak	164.00	200	Vertical	Pass
2**	1443.314	37.56	54.0	16.44	AV	164.00	200	Vertical	Pass
3	4311.146	46.08	74.0	27.92	Peak	296.00	200	Vertical	Pass
3**	4311.146	37.46	54.0	16.54	AV	296.00	200	Vertical	Pass
4	7591.666	51.99	74.0	22.01	Peak	201.00	200	Vertical	Pass
4**	7591.666	45.53	54.0	8.47	AV	201.00	200	Vertical	Pass
5	12531.393	53.56	74.0	20.44	Peak	16.00	400	Vertical	Pass
5**	12531.393	44.20	54.0	9.80	AV	16.00	400	Vertical	Pass
6	15902.681	51.56	74.0	22.44	Peak	34.00	100	Vertical	Pass
6**	15902.681	44.94	54.0	9.06	AV	34.00	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	1524.173	39.30	74.0	34.70	Peak	68.00	400	Horizontal	Pass
1**	1524.173	32.68	54.0	21.32	AV	68.00	400	Horizontal	Pass
2	4016.111	47.79	74.0	26.21	Peak	203.00	200	Horizontal	Pass
2**	4016.111	36.01	54.0	17.99	AV	203.00	200	Horizontal	Pass
3	7597.124	53.21	74.0	20.79	Peak	60.00	200	Horizontal	Pass
3**	7597.124	44.13	54.0	9.87	AV	60.00	200	Horizontal	Pass
4	12459.726	55.17	74.0	18.83	Peak	159.00	400	Horizontal	Pass
4**	12459.726	42.13	54.0	11.87	AV	159.00	400	Horizontal	Pass
5	16092.698	51.12	74.0	22.88	Peak	271.00	300	Horizontal	Pass
5**	16092.698	46.00	54.0	8.00	AV	271.00	300	Horizontal	Pass
6	17421.065	59.07	74.0	14.93	Peak	196.00	400	Horizontal	Pass
6**	17421.065	46.67	54.0	7.33	AV	196.00	400	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	1335.257	43.98	74.0	30.02	Peak	98.00	300	Vertical	Pass
1**	1335.257	32.29	54.0	21.71	AV	98.00	300	Vertical	Pass
2	1436.777	42.27	74.0	31.73	Peak	5.00	100	Vertical	Pass
2**	1436.777	36.12	54.0	17.88	AV	5.00	100	Vertical	Pass
3	4314.988	47.48	74.0	26.52	Peak	44.00	200	Vertical	Pass
3**	4314.988	41.30	54.0	12.70	AV	44.00	200	Vertical	Pass
4	7592.637	52.28	74.0	21.72	Peak	267.00	400	Vertical	Pass
4**	7592.637	44.31	54.0	9.69	AV	267.00	400	Vertical	Pass
5	12531.439	53.81	74.0	20.19	Peak	132.00	100	Vertical	Pass
5**	12531.439	45.29	54.0	8.71	AV	132.00	100	Vertical	Pass
6	15906.472	55.96	74.0	18.04	Peak	17.00	100	Vertical	Pass
6**	15906.472	44.03	54.0	9.97	AV	17.00	100	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	1523.543	40.91	74.0	33.09	Peak	88.00	200	Horizontal	Pass
1**	1523.543	28.61	54.0	25.39	AV	88.00	200	Horizontal	Pass
2	4020.651	48.15	74.0	25.85	Peak	349.00	300	Horizontal	Pass
2**	4020.651	36.23	54.0	17.77	AV	349.00	300	Horizontal	Pass
3	7596.631	53.30	74.0	20.70	Peak	213.00	200	Horizontal	Pass
3**	7596.631	45.04	54.0	8.96	AV	213.00	200	Horizontal	Pass
4	12458.357	50.89	74.0	23.11	Peak	66.00	300	Horizontal	Pass
4**	12458.357	41.84	54.0	12.16	AV	66.00	300	Horizontal	Pass
5	16097.592	53.38	74.0	20.62	Peak	130.00	400	Horizontal	Pass
5**	16097.592	43.29	54.0	10.71	AV	130.00	400	Horizontal	Pass
6	17423.196	55.45	74.0	18.55	Peak	303.00	200	Horizontal	Pass
6**	17423.196	46.65	54.0	7.35	AV	303.00	200	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	1334.901	44.19	74.0	29.81	Peak	125.00	400	Vertical	Pass
1**	1334.901	31.05	54.0	22.95	AV	125.00	400	Vertical	Pass
2	1436.791	41.60	74.0	32.40	Peak	189.00	200	Vertical	Pass
2**	1436.791	39.72	54.0	14.28	AV	189.00	200	Vertical	Pass
3	4311.978	45.95	74.0	28.05	Peak	215.00	200	Vertical	Pass
3**	4311.978	36.19	54.0	17.81	AV	215.00	200	Vertical	Pass
4	7591.812	51.33	74.0	22.67	Peak	206.00	400	Vertical	Pass
4**	7591.812	45.15	54.0	8.85	AV	206.00	400	Vertical	Pass
5	12537.348	51.66	74.0	22.34	Peak	288.00	400	Vertical	Pass
5**	12537.348	41.00	54.0	13.00	AV	288.00	400	Vertical	Pass
6	15908.363	52.14	74.0	21.86	Peak	30.00	300	Vertical	Pass
6**	15908.363	44.88	54.0	9.12	AV	30.00	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	1520.917	36.96	74.0	37.04	Peak	70.00	300	Horizontal	Pass
1**	1520.917	32.67	54.0	21.33	AV	70.00	300	Horizontal	Pass
2	4022.925	48.75	74.0	25.25	Peak	28.00	300	Horizontal	Pass
2**	4022.925	39.10	54.0	14.90	AV	28.00	300	Horizontal	Pass
3	7597.274	56.27	74.0	17.73	Peak	22.00	200	Horizontal	Pass
3**	7597.274	45.00	54.0	9.00	AV	22.00	200	Horizontal	Pass
4	12455.740	51.38	74.0	22.62	Peak	0.00	300	Horizontal	Pass
4**	12455.740	42.20	54.0	11.80	AV	0.00	300	Horizontal	Pass
5	16095.639	54.69	74.0	19.31	Peak	161.00	300	Horizontal	Pass
5**	16095.639	47.46	54.0	6.54	AV	161.00	300	Horizontal	Pass
6	17423.401	53.36	74.0	20.64	Peak	134.00	400	Horizontal	Pass
6**	17423.401	46.96	54.0	7.04	AV	134.00	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	1333.531	46.95	74.0	27.05	Peak	46.00	200	Vertical	Pass
1**	1333.531	32.77	54.0	21.23	AV	46.00	200	Vertical	Pass
2	1436.442	42.43	74.0	31.57	Peak	167.00	200	Vertical	Pass
2**	1436.442	38.29	54.0	15.71	AV	167.00	200	Vertical	Pass
3	4307.463	46.07	74.0	27.93	Peak	174.00	200	Vertical	Pass
3**	4307.463	38.80	54.0	15.20	AV	174.00	200	Vertical	Pass
4	7598.133	51.74	74.0	22.26	Peak	115.00	400	Vertical	Pass
4**	7598.133	45.84	54.0	8.16	AV	115.00	400	Vertical	Pass
5	12531.697	52.02	74.0	21.98	Peak	76.00	300	Vertical	Pass
5**	12531.697	43.04	54.0	10.96	AV	76.00	300	Vertical	Pass
6	15909.428	53.51	74.0	20.49	Peak	279.00	100	Vertical	Pass
6**	15909.428	47.66	54.0	6.34	AV	279.00	100	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	1520.204	35.88	74.0	38.12	Peak	81.00	400	Horizontal	Pass
1**	1520.204	29.10	54.0	24.90	AV	81.00	400	Horizontal	Pass
2	4017.934	49.38	74.0	24.62	Peak	341.00	200	Horizontal	Pass
2**	4017.934	34.60	54.0	19.40	AV	341.00	200	Horizontal	Pass
3	7596.863	50.76	74.0	23.24	Peak	346.00	200	Horizontal	Pass
3**	7596.863	44.27	54.0	9.73	AV	346.00	200	Horizontal	Pass
4	12452.111	51.35	74.0	22.65	Peak	188.00	400	Horizontal	Pass
4**	12452.111	41.67	54.0	12.33	AV	188.00	400	Horizontal	Pass
5	16094.547	55.73	74.0	18.27	Peak	104.00	400	Horizontal	Pass
5**	16094.547	47.72	54.0	6.28	AV	104.00	400	Horizontal	Pass
6	17420.202	58.86	74.0	15.14	Peak	296.00	100	Horizontal	Pass
6**	17420.202	49.18	54.0	4.82	AV	296.00	100	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	1334.058	43.58	74.0	30.42	Peak	243.00	400	Vertical	Pass
1**	1334.058	32.22	54.0	21.78	AV	243.00	400	Vertical	Pass
2	1441.471	43.69	74.0	30.31	Peak	36.00	300	Vertical	Pass
2**	1441.471	39.27	54.0	14.73	AV	36.00	300	Vertical	Pass
3	4309.706	49.86	74.0	24.14	Peak	317.00	200	Vertical	Pass
3**	4309.706	38.98	54.0	15.02	AV	317.00	200	Vertical	Pass
4	7595.381	53.74	74.0	20.26	Peak	341.00	100	Vertical	Pass
4**	7595.381	43.47	54.0	10.53	AV	341.00	100	Vertical	Pass
5	12531.977	54.10	74.0	19.90	Peak	296.00	300	Vertical	Pass
5**	12531.977	43.28	54.0	10.72	AV	296.00	300	Vertical	Pass
6	15910.063	56.55	74.0	17.45	Peak	94.00	200	Vertical	Pass
6**	15910.063	46.63	54.0	7.37	AV	94.00	200	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	1519.261	37.34	74.0	36.66	Peak	66.00	300	Horizontal	Pass
1**	1519.261	31.19	54.0	22.81	AV	66.00	300	Horizontal	Pass
2	4018.803	46.69	74.0	27.31	Peak	246.00	200	Horizontal	Pass
2**	4018.803	39.82	54.0	14.18	AV	246.00	200	Horizontal	Pass
3	7597.264	51.75	74.0	22.25	Peak	151.00	200	Horizontal	Pass
3**	7597.264	45.46	54.0	8.54	AV	151.00	200	Horizontal	Pass
4	12453.585	56.21	74.0	17.79	Peak	174.00	100	Horizontal	Pass
4**	12453.585	46.78	54.0	7.22	AV	174.00	100	Horizontal	Pass
5	16095.521	52.69	74.0	21.31	Peak	305.00	400	Horizontal	Pass
5**	16095.521	43.07	54.0	10.93	AV	305.00	400	Horizontal	Pass
6	17422.064	55.47	74.0	18.53	Peak	88.00	100	Horizontal	Pass
6**	17422.064	47.00	54.0	7.00	AV	88.00	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	1334.107	42.67	74.0	31.33	Peak	316.00	100	Vertical	Pass
1**	1334.107	34.25	54.0	19.75	AV	316.00	100	Vertical	Pass
2	1439.368	43.93	74.0	30.07	Peak	107.00	400	Vertical	Pass
2**	1439.368	36.81	54.0	17.19	AV	107.00	400	Vertical	Pass
3	4310.415	48.34	74.0	25.66	Peak	165.00	200	Vertical	Pass
3**	4310.415	36.79	54.0	17.21	AV	165.00	200	Vertical	Pass
4	7591.592	50.84	74.0	23.16	Peak	102.00	100	Vertical	Pass
4**	7591.592	41.31	54.0	12.69	AV	102.00	100	Vertical	Pass
5	12538.726	53.48	74.0	20.52	Peak	214.00	300	Vertical	Pass
5**	12538.726	41.24	54.0	12.76	AV	214.00	300	Vertical	Pass
6	15906.264	54.30	74.0	19.70	Peak	152.00	300	Vertical	Pass
6**	15906.264	48.01	54.0	5.99	AV	152.00	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	1522.440	41.18	74.0	32.82	Peak	322.00	400	Horizontal	Pass
1**	1522.440	31.48	54.0	22.52	AV	322.00	400	Horizontal	Pass
2	4022.181	48.60	74.0	25.40	Peak	236.00	100	Horizontal	Pass
2**	4022.181	39.69	54.0	14.31	AV	236.00	100	Horizontal	Pass
3	7598.964	53.18	74.0	20.82	Peak	169.00	200	Horizontal	Pass
3**	7598.964	41.30	54.0	12.70	AV	169.00	200	Horizontal	Pass
4	12458.831	50.67	74.0	23.33	Peak	63.00	300	Horizontal	Pass
4**	12458.831	46.06	54.0	7.94	AV	63.00	300	Horizontal	Pass
5	16095.673	52.52	74.0	21.48	Peak	54.00	300	Horizontal	Pass
5**	16095.673	46.67	54.0	7.33	AV	54.00	300	Horizontal	Pass
6	17420.594	56.57	74.0	17.43	Peak	264.00	100	Horizontal	Pass
6**	17420.594	49.39	54.0	4.61	AV	264.00	100	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	1332.251	45.78	74.0	28.22	Peak	162.00	100	Vertical	Pass
1**	1332.251	33.82	54.0	20.18	AV	162.00	100	Vertical	Pass
2	1438.710	39.70	74.0	34.30	Peak	321.00	100	Vertical	Pass
2**	1438.710	36.95	54.0	17.05	AV	321.00	100	Vertical	Pass
3	4311.741	46.60	74.0	27.40	Peak	107.00	200	Vertical	Pass
3**	4311.741	35.75	54.0	18.25	AV	107.00	200	Vertical	Pass
4	7597.004	51.18	74.0	22.82	Peak	76.00	300	Vertical	Pass
4**	7597.004	41.07	54.0	12.93	AV	76.00	300	Vertical	Pass
5	12531.783	52.91	74.0	21.09	Peak	33.00	200	Vertical	Pass
5**	12531.783	46.41	54.0	7.59	AV	33.00	200	Vertical	Pass
6	15904.959	52.15	74.0	21.85	Peak	70.00	300	Vertical	Pass
6**	15904.959	46.63	54.0	7.37	AV	70.00	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-Main 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	4987.500	56.50	74.0	17.50	Peak	188.00	150	Horizontal	Pass
1**	4987.500	43.83	54.0	10.17	AV	188.00	150	Horizontal	Pass
2	5150.000	60.55	74.0	13.45	Peak	120.00	150	Horizontal	Pass
2**	5150.000	45.66	54.0	8.34	AV	120.00	150	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	55.64	74.0	18.36	Peak	181.00	200	Horizontal	Pass
1**	5350.000	45.13	54.0	8.87	AV	181.00	200	Horizontal	Pass
2	5371.267	56.93	74.0	17.07	Peak	212.00	150	Horizontal	Pass
2**	5371.267	44.84	54.0	9.16	AV	212.00	150	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	60.95	74.0	13.05	Peak	130.00	100	Horizontal	Pass
1**	5148.917	45.40	54.0	8.60	AV	130.00	100	Horizontal	Pass
2	5150.000	63.61	74.0	10.39	Peak	125.00	150	Horizontal	Pass
2**	5150.000	45.98	54.0	8.02	AV	125.00	150	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	56.30	74.0	17.70	Peak	68.00	200	Horizontal	Pass
1**	5350.000	45.23	54.0	8.77	AV	68.00	200	Horizontal	Pass
2	5352.200	57.10	74.0	16.90	Peak	0.00	150	Horizontal	Pass
2**	5352.200	45.12	54.0	8.88	AV	0.00	150	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	5148.917	61.93	74.0	12.07	Peak	121.00	200	Horizontal	Pass
1**	5148.917	49.05	54.0	4.95	AV	121.00	200	Horizontal	Pass
2	5150.000	61.37	74.0	12.63	Peak	123.00	100	Horizontal	Pass
2**	5150.000	49.67	54.0	4.33	AV	123.00	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	55.47	74.0	18.53	Peak	181.00	150	Horizontal	Pass
1**	5350.000	45.44	54.0	8.56	AV	181.00	150	Horizontal	Pass
2	5378.417	57.09	74.0	16.91	Peak	237.00	200	Horizontal	Pass
2**	5378.417	45.30	54.0	8.70	AV	237.00	200	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	5148.917	59.63	74.0	14.37	Peak	155.00	200	Horizontal	Pass
1**	5148.917	45.22	54.0	8.78	AV	155.00	200	Horizontal	Pass
2	5150.000	62.56	74.0	11.44	Peak	125.00	200	Horizontal	Pass
2**	5150.000	45.14	54.0	8.86	AV	125.00	200	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	55.87	74.0	18.13	Peak	268.00	100	Horizontal	Pass
1**	5350.000	45.22	54.0	8.78	AV	268.00	100	Horizontal	Pass
2	5355.500	57.03	74.0	16.97	Peak	28.00	150	Horizontal	Pass
2**	5355.500	44.97	54.0	9.03	AV	28.00	150	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	5146.750	62.75	74.0	11.25	Peak	125.00	200	Horizontal	Pass
1**	5146.750	48.75	54.0	5.25	AV	125.00	200	Horizontal	Pass
2	5150.000	61.90	74.0	12.10	Peak	164.00	150	Horizontal	Pass
2**	5150.000	49.71	54.0	4.29	AV	164.00	150	Horizontal	Pass
3	5148.917	60.91	74.0	13.09	Peak	120.00	100	Horizontal	Pass
3**	5148.917	50.20	54.0	3.80	AV	120.00	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	55.73	74.0	18.27	Peak	316.00	200	Horizontal	Pass
1**	5350.000	45.20	54.0	8.80	AV	316.00	200	Horizontal	Pass
2	5388.500	57.12	74.0	16.88	Peak	2.00	100	Horizontal	Pass
2**	5388.500	44.72	54.0	9.28	AV	2.00	100	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	61.34	74.0	12.66	Peak	126.00	200	Horizontal	Pass
1**	5148.917	48.60	54.0	5.40	AV	126.00	200	Horizontal	Pass
2	5150.000	61.22	74.0	12.78	Peak	162.00	100	Horizontal	Pass
2**	5150.000	50.38	54.0	3.62	AV	162.00	100	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	88.00	150	Horizontal	Pass
1**	5350.000	45.31	54.0	8.69	AV	88.00	150	Horizontal	Pass
2	5353.667	56.98	74.0	17.02	Peak	285.00	150	Horizontal	Pass
2**	5353.667	45.08	54.0	8.92	AV	285.00	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	5623.333	56.31	68.2	11.89	Peak	168.00	150	Horizontal	Pass
2	5650.000	55.01	68.2	13.19	Peak	44.00	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	56.29	68.4	12.11	Peak	86.00	100	Horizontal	Pass
2	5992.500	57.51	68.2	10.69	Peak	145.00	200	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	5619.583	56.77	68.2	11.43	Peak	79.00	100	Horizontal	Pass
2	5650.000	55.32	68.2	12.88	Peak	203.00	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	55.53	68.4	12.87	Peak	6.00	150	Horizontal	Pass
2	5929.000	57.24	68.2	10.96	Peak	264.00	100	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	5646.667	58.36	68.2	9.84	Peak	194.00	200	Horizontal	Pass
2	5650.000	57.43	68.2	10.77	Peak	194.00	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	55.46	68.4	12.94	Peak	64.00	100	Horizontal	Pass
2	5937.750	57.60	68.2	10.60	Peak	295.00	200	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	5640.834	56.78	68.2	11.42	Peak	218.00	200	Horizontal	Pass
2	5650.000	55.83	68.2	12.37	Peak	0.00	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	55.76	68.4	12.64	Peak	35.00	100	Horizontal	Pass
2	5956.750	57.74	68.2	10.46	Peak	0.00	100	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	5647.291	58.29	68.2	9.91	Peak	151.00	150	Horizontal	Pass
2	5650.000	55.40	68.2	12.80	Peak	185.00	150	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	56.60	68.4	11.80	Peak	89.00	100	Horizontal	Pass
2	5949.750	57.28	68.2	10.92	Peak	276.00	100	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	5632.083	64.29	68.2	3.91	Peak	147.00	150	Horizontal	Pass
2	5650.000	61.67	68.2	6.53	Peak	147.00	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	59.38	68.4	9.02	Peak	192.00	200	Horizontal	Pass
2	5937.500	61.27	68.2	6.93	Peak	192.00	200	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2560230-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2560230-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2560230-AI.PDF”.

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