TEST REPORT

Applicant:	E&S International Enterprises, Inc.
Address:	7801 Hayvenhurst Avenue, Van Nuys, California 91406 USA
Equipment Type:	Laptop
Model Name:	GWCR7B1559 (refer to section 2.3)
Brand Name:	GATEWAY
FCC ID:	2AYPE-GWCR7B1559
Test Standard:	47 CFR Part 15 Subpart E (refer to section 3.1)
Sample Arrival Date:	Jun. 03, 2025
Test Date:	Jun. 05, 2025 - Jun. 15, 2025
Date of Issue:	Jul. 22, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Julie Zhu

Checked by: Ye Hongji

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(Technical Director)

Revision History

Version	Issue Date	Revisions
Rev. 01	Jul. 09, 2025	Initial Issue
Rev. 02	Jul. 15, 2025	Updated the Series Model Name in Chapter 2.3
Rev. 03	Jul. 22, 2025	Updated the Maximum Output Power in Chapter 2.4

TABLE OF CONTENTS

1 GENERAL INFORMATION 4

1.1 Test Laboratory 4

1.2 Test Location 4

2 PRODUCT INFORMATION 5

2.1 Applicant Information 5

2.2 Manufacturer Information 5

2.3 General Description for Equipment under Test (EUT) 5

2.4 Technical Information 6

2.5 Channel List 8

3 SUMMARY OF TEST RESULTS 10

3.1 Test Standards 10

3.2 Test Verdict 10

4 GENERAL TEST CONFIGURATIONS 11

4.1 Test Environments 11

4.2 Test Equipment List 11

4.3 Test Software List 12

4.4 Measurement Uncertainty 12

4.5 Description of Test Setup 13

5 TEST ITEMS 16

5.1 RF Output Power 16

5.2 Emission Bandwidth and 6 dB Bandwidth 18

5.3 Power Spectral density (PSD) 19

5.4 Conducted Emission 20
5.5 Radiated Spurious Emissions and Band Edge (Restricted-band) 21
ANNEX A TEST RESULT 25
A.1 RF Output Power 25
A.2 Emission Bandwidth & 99% Bandwidth 31
A.3 6 dB Bandwidth 32
A.4 Power Spectral Density 33
A.5 Conducted Emissions 34
A.6 Radiated Spurious Emissions and Band Edge (Restricted-band) 36
ANNEX B TEST SETUP PHOTOS 72
ANNEX C EUT EXTERNAL PHOTOS 72
ANNEX D EUT INTERNAL PHOTOS 72

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	GWCR7B1559
Series Model Name	GWCR7B1559-GRY, GWCR7B1559-GRY-S, AM1510
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-AB8139
Software Version	Windows 11 Home
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac

The requirement for the following technical information of the EUT was tested in this report:

Frequency Range		U-NII-1: 5150 MHz to 5250 MHz, U-NII-3: 5725 MHz to 5850 MHz
Product Type		☐ Mobile ☒ Portable ☐ Fix Location
Modulation technology		OFDM
Modulation Type		256QAM, 64QAM, 16QAM, BPSK, QPSK
Transfer Rate (Mbps) (Single RF path)		802.11a: 54/ 48/ 36/ 24/ 18/ 12/ 9/ 6 Mbps 802.11n: up to 150 Mbps 802.11ac: up to VHT-MCS9
Channel Bandwidth		802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80 MHz
Maximum Output Power		U-NII-1: 22.26 mW U-NII-3: 22.18 mW
Antenna System (eg., MIMO, Smart Antenna)		Cyclic Delay Diversity (CDD) for 802.11a Multi Input Multi Output (MIMO) for 802.11n/ac
Categorization as Correlated or Completely Uncorrelated		Categorization as Correlated for 802.11a Categorization as Uncorrelated for 802.11n/ac
Antenna Type	Main Antenna	FPC Antenna
	Aux. Antenna	
Antenna Gain	Main Antenna	U-NII-1: 5150 MHz to 5250 MHz: 2.99 dBi U-NII-3: 5725 MHz to 5850 MHz: 2.25 dBi
	Aux. Antenna	U-NII-1: 5150 MHz to 5250 MHz: 2.82 dBi U-NII-3: 5725 MHz to 5850 MHz: 2.67 dBi
Total directional gain	For power spectral density (PSD) measurements	Correlated: U-NII-1: 5150 MHz to 5250 MHz: 5.92 dBi U-NII-3: 5725 MHz to 5850 MHz: 5.47 dBi Formulas: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2$ /NANT] dBi Uncorrelated: U-NII-1: 5150 MHz to 5250 MHz: 2.91 dBi U-NII-3: 5725 MHz to 5850 MHz: 2.47 dBi Formulas: Directional gain = 10 log[$(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10})$/NANT] dBi
	For power measurements	Correlated: U-NII-1: 5150 MHz to 5250 MHz: 5.92 dBi U-NII-3: 5725 MHz to 5850 MHz: 5.47 dBi

		Formulas: Directional gain = 10 log[($10^{G1/20}$ + $10^{G2/20}$ + … + $10^{GN/20}$)^2 /NANT] dBi Uncorrelated: U-NII-1: 5150 MHz to 5250 MHz: 2.91 dBi U-NII-3: 5725 MHz to 5850 MHz: 2.47 dBi Formulas: Directional gain = 10 log[($10^{G1/10}$ + $10^{G2/10}$ + … + $10^{GN/10}$)/NANT] dBi
About the Product		The equipment is Laptop, intended for used with information technology equipment.

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

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

2.5 Channel List

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

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

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

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

For 802.11n(HT40)/ac(VHT40)

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

For 802.11ac(VHT80)

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

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

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

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E	Unlicensed National Information Infrastructure Devices
2	KDB Publication 789033 D02v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	KDB Publication 662911 D01v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)
4	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

3.2 Test Verdict

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

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	45% to 63%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+20.5℃ to +25.5℃
Working Voltage of the EUT	NV (Normal Voltage)	11.55 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY46471071	2024.07.04	2025.07.03
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2024.12.16	2025.12.15
Power Sensor	KEYSIGHT	U2063XA	MY58000247	2024.07.04	2025.07.03
Spectrum Analyzer	KEYSIGHT	N9020A	MY50531259	2024.08.01	2025.07.31
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	02460	2024.05.16	2027.05.15
Test Antenna-Horn	A-INFO	LB-180400KF	J211060273	2024.06.15	2027.06.14
Anechoic Chamber	RAINFORD	9m*6m*6m	140	2024.07.28	2027.07.27
Amplifier	COM-MV	LSCX_LNA1-12G-01	7210214	2024.08.01	2025.07.31
Amplifier	COM-MV	XKu_LNA7-18G-01	7210209	2024.08.01	2025.07.31
Amplifier	COM-MV	KA LNA18 40G-01	18050001	2024.12.05	2025.12.04
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2024.08.01	2025.07.31
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2024.01.23	2027.01.22
Amplifier	COM-MV	ZT30-1000M	B2018054558	2024.11.28	2025.11.27
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	130	2024.07.13	2027.07.12
EMI Receiver	Agilent	N9038A	MY55330120	2024.08.01	2025.07.31
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2025.03.23	2028.03.22
Amplifier	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27
Anechoic Chamber	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2024.08.01	2025.07.31
LISN	SCHWARZBECK	NSLK 8127	8127-687	2025.04.29	2026.04.28
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2025.02.14	2028.02.13

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable test Setup
BL410R	BALUN	V2.1.1.488	N/A	The section 4.5.1
BL410E	BALUN	V22.930	N/A	The section 4.5.2&4.5.3&4.5.4&4.5.5

4.4 Measurement Uncertainty

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

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

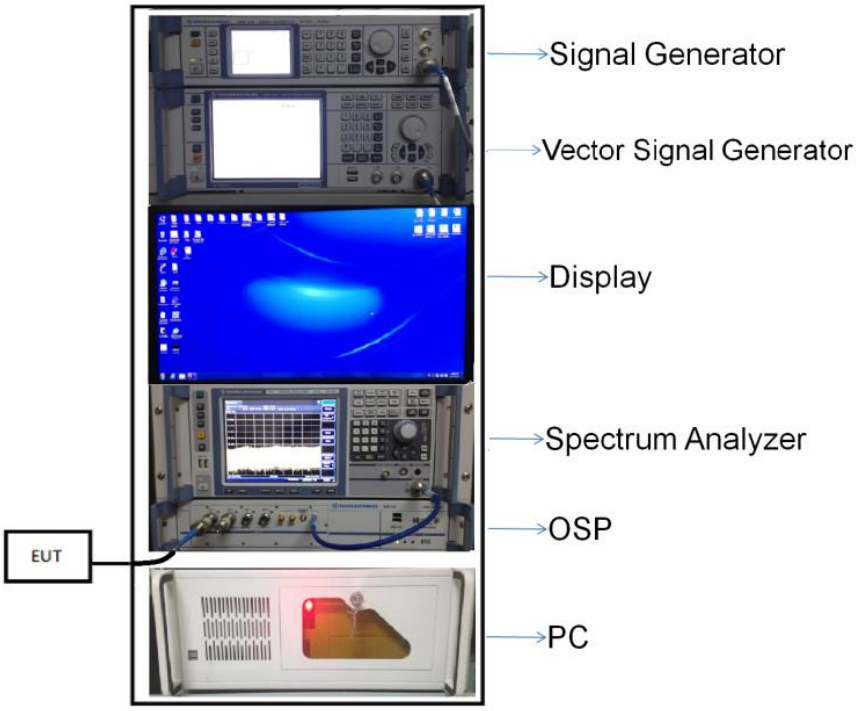
Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.8°C
Humidity	4%

4.5 Description of Test Setup

4.5.1 For Antenna Port Test

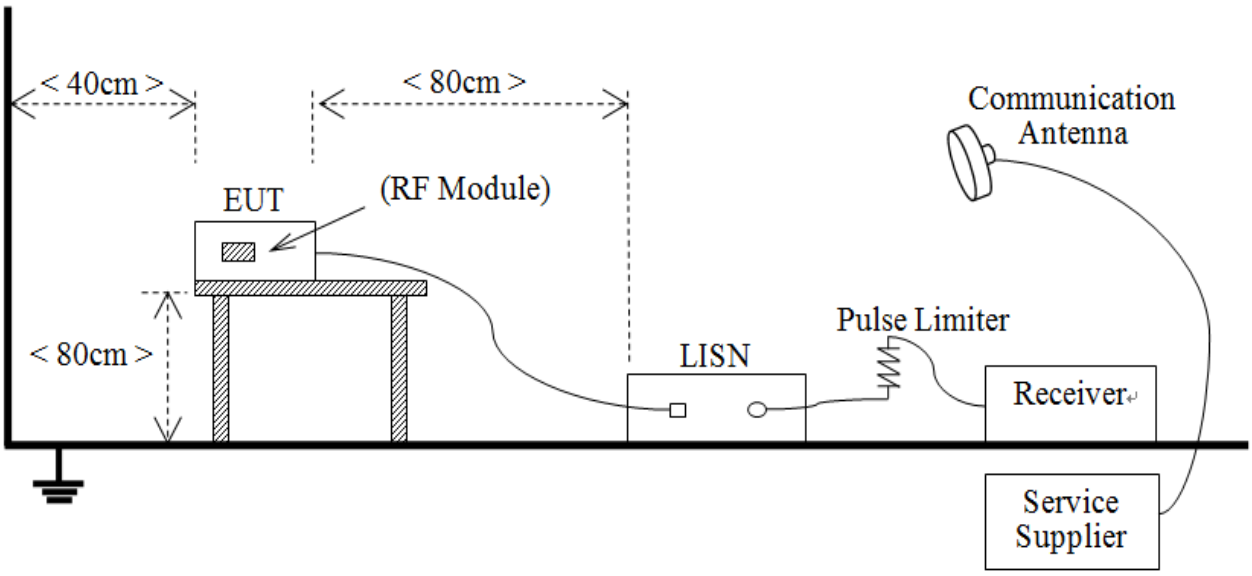
Conducted value (dBm) = Measurement value (dBm) + cable loss (dB)

For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:
Conducted value (dBm) = 10 dBm + 0.5 dB = 10.5 dBm



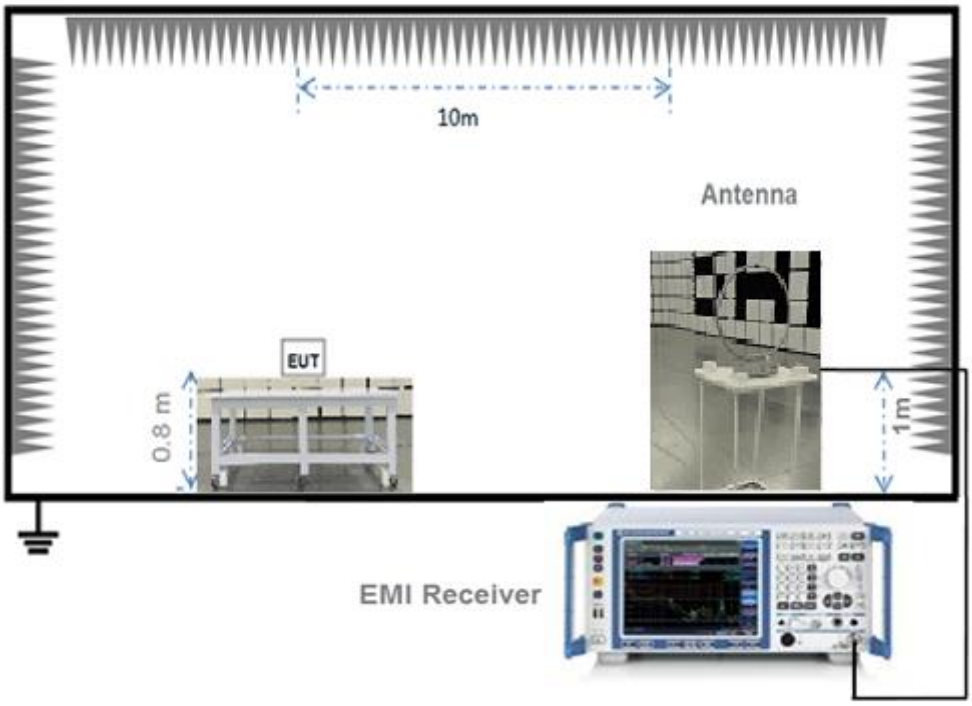
(Diagram 1)

4.5.2 For AC Power Supply Port Test



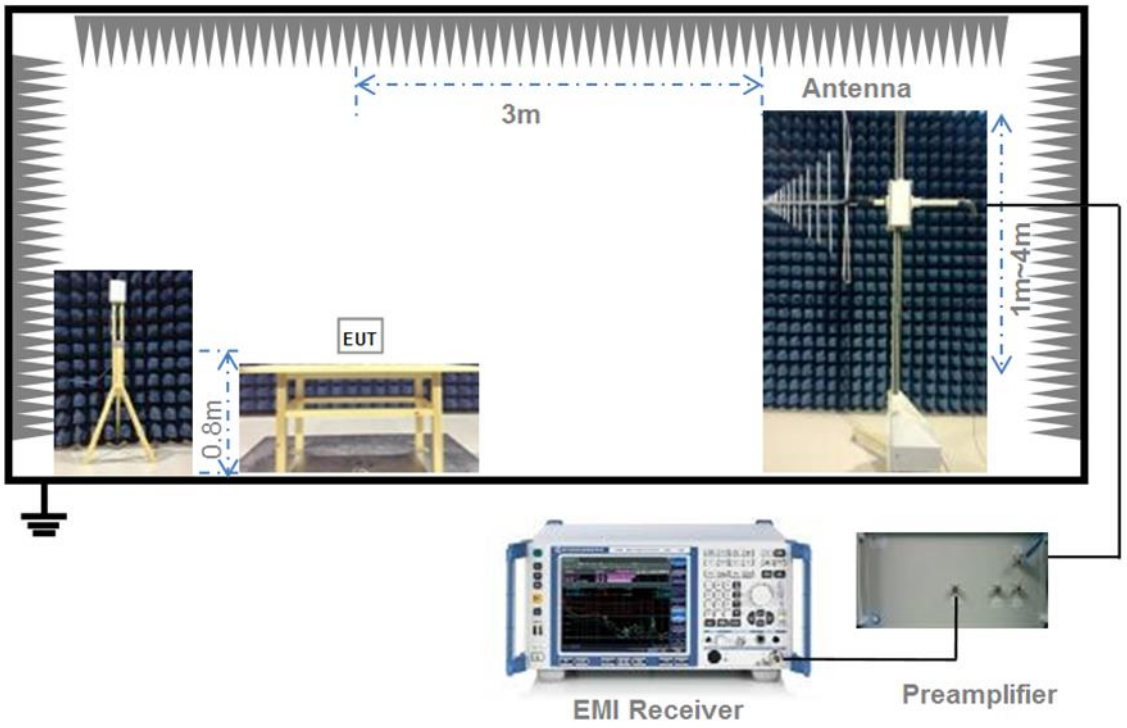
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



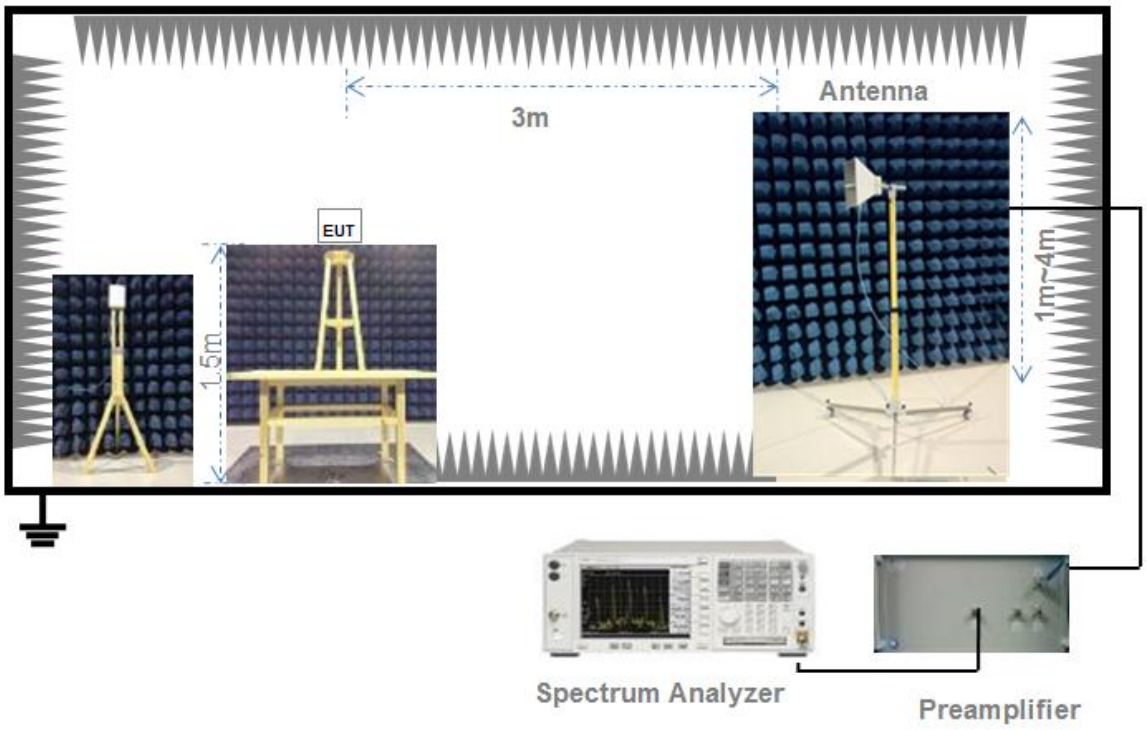
(Diagram 3)

4.5.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.5.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

5 TEST ITEMS

5.1 RF Output Power

5.1.1 Test Limit

FCC §15.407(a)

The maximum conducted output power should not exceed:

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

5.1.2 Test Setup

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

5.1.3 Test Procedure

Maximum conducted (average) output power

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

1) The EUT is configured to transmit continuously or to transmit with a constant duty cycle.

2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.

3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

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

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

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

Measurements of duty cycle

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

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

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

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

5.3.4 Test Result

Please refer to ANNEX A.4.

5.4 Conducted Emission

5.4.1 Limit

FCC §15.207

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

Frequency range (MHz)	Conducted Limit (dBμV)	
	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 (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note [1]: The Limit for radiated test was performed according to FCC Part 15C
Note [2]: The tighter limit applies at the band edge.

5.5.2 Test Setup

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

5.5.3 Test Procedure

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

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

General Procedure for conducted measurements in restricted bands

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 = EIRP – 20log D + 104.8

where:

E = electric field strength in dBμV/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 ≥ 3 x RBW.

c) Detector = Peak.

d) Sweep time = auto.

e) Trace mode = max hold.

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

Table 1—RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

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

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

If continuous transmission of the EUT (i.e., duty cycle ≥ 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 ≥ 3 x RBW.

e) Detector = RMS, if span/(# of points in sweep) ≤ (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 ≥ 1 GHz, 100 kHz for f < 1 GHz
VBW ≥ RBW
Sweep = auto
Detector function = peak
Trace = max hold

5.5.4 Test Result

Please refer to ANNEX A.6.

ANNEX A TEST RESULT

A.1 RF Output Power

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

Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11a	1.36	1.46	92.90%	0.32
11n(HT20)/11ac(VHT20)	1.28	1.38	92.54%	0.34
11n(HT40)/11ac(VHT40)	0.64	0.74	86.49%	0.63
11ac(VHT80)	0.31	0.42	74.52%	1.28

Test Data

Conducted Power

SISO-Main Antenna

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	13.34	21.58	250	Pass
11a	CH44	13.41	21.93	250	Pass
11a	CH48	13.04	20.14	250	Pass
11n(HT20)	CH36	12.40	17.38	250	Pass
11n(HT20)	CH44	12.78	18.97	250	Pass
11n(HT20)	CH48	12.23	16.71	250	Pass
11n(HT40)	CH38	12.11	16.26	250	Pass
11n(HT40)	CH46	12.46	17.62	250	Pass
11ac(VHT20)	CH36	12.50	17.78	250	Pass
11ac(VHT20)	CH44	12.38	17.30	250	Pass
11ac(VHT20)	CH48	12.74	18.79	250	Pass
11ac(VHT40)	CH38	12.01	15.89	250	Pass
11ac(VHT40)	CH46	12.38	17.30	250	Pass
11ac(VHT80)	CH42	10.08	10.19	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.13	20.56	1000	Pass
11a	CH157	13.46	22.18	1000	Pass
11a	CH165	13.02	20.04	1000	Pass
11n(HT20)	CH149	12.49	17.74	1000	Pass
11n(HT20)	CH157	12.58	18.11	1000	Pass
11n(HT20)	CH165	12.67	18.49	1000	Pass
11n(HT40)	CH151	12.61	18.24	1000	Pass
11n(HT40)	CH159	12.49	17.74	1000	Pass
11ac(VHT20)	CH149	12.71	18.66	1000	Pass
11ac(VHT20)	CH157	12.58	18.11	1000	Pass
11ac(VHT20)	CH165	12.30	16.98	1000	Pass
11ac(VHT40)	CH151	12.63	18.32	1000	Pass
11ac(VHT40)	CH159	12.84	19.23	1000	Pass
11ac(VHT80)	CH155	12.33	17.10	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	13.14	20.61	250	Pass
11a	CH44	13.41	21.93	250	Pass
11a	CH48	13.44	22.08	250	Pass
11n(HT20)	CH36	12.30	16.98	250	Pass
11n(HT20)	CH44	12.58	18.11	250	Pass
11n(HT20)	CH48	12.63	18.32	250	Pass
11n(HT40)	CH38	11.91	15.52	250	Pass
11n(HT40)	CH46	12.76	18.88	250	Pass
11ac(VHT20)	CH36	12.40	17.38	250	Pass
11ac(VHT20)	CH44	12.48	17.70	250	Pass
11ac(VHT20)	CH48	12.64	18.37	250	Pass
11ac(VHT40)	CH38	11.91	15.52	250	Pass
11ac(VHT40)	CH46	12.78	18.97	250	Pass
11ac(VHT80)	CH42	10.18	10.42	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.43	22.03	1000	Pass
11a	CH157	13.46	22.18	1000	Pass
11a	CH165	13.42	21.98	1000	Pass
11n(HT20)	CH149	12.49	17.74	1000	Pass
11n(HT20)	CH157	12.88	19.41	1000	Pass
11n(HT20)	CH165	12.87	19.36	1000	Pass
11n(HT40)	CH151	12.41	17.42	1000	Pass
11n(HT40)	CH159	12.59	18.16	1000	Pass
11ac(VHT20)	CH149	12.71	18.66	1000	Pass
11ac(VHT20)	CH157	12.38	17.30	1000	Pass
11ac(VHT20)	CH165	12.60	18.20	1000	Pass
11ac(VHT40)	CH151	12.43	17.50	1000	Pass
11ac(VHT40)	CH159	12.64	18.37	1000	Pass
11ac(VHT80)	CH155	12.63	18.32	1000	Pass

MIMO-Main Antenna

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	9.94	9.86	250	Pass
11a	CH44	10.54	11.32	250	Pass
11a	CH48	10.44	11.07	250	Pass
11n(HT20)	CH36	9.30	8.51	250	Pass
11n(HT20)	CH44	9.08	8.09	250	Pass
11n(HT20)	CH48	9.13	8.18	250	Pass
11n(HT40)	CH38	8.91	7.78	250	Pass
11n(HT40)	CH46	9.46	8.83	250	Pass
11ac(VHT20)	CH36	9.30	8.51	250	Pass
11ac(VHT20)	CH44	9.48	8.87	250	Pass
11ac(VHT20)	CH48	9.44	8.79	250	Pass
11ac(VHT40)	CH38	8.11	6.47	250	Pass
11ac(VHT40)	CH46	9.58	9.08	250	Pass
11ac(VHT80)	CH42	7.28	5.35	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	10.53	11.30	1000	Pass
11a	CH157	10.16	10.38	1000	Pass
11a	CH165	10.32	10.76	1000	Pass
11n(HT20)	CH149	9.59	9.10	1000	Pass
11n(HT20)	CH157	9.08	8.09	1000	Pass
11n(HT20)	CH165	9.37	8.65	1000	Pass
11n(HT40)	CH151	9.01	7.96	1000	Pass
11n(HT40)	CH159	9.29	8.49	1000	Pass
11ac(VHT20)	CH149	10.01	10.02	1000	Pass
11ac(VHT20)	CH157	8.98	7.91	1000	Pass
11ac(VHT20)	CH165	9.50	8.91	1000	Pass
11ac(VHT40)	CH151	9.13	8.18	1000	Pass
11ac(VHT40)	CH159	9.54	8.99	1000	Pass
11ac(VHT80)	CH155	9.43	8.77	1000	Pass

MIMO-Aux. Antenna

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	10.24	10.57	250	Pass
11a	CH44	10.39	10.94	250	Pass
11a	CH48	10.41	10.99	250	Pass
11n(HT20)	CH36	9.50	8.91	250	Pass
11n(HT20)	CH44	9.28	8.47	250	Pass
11n(HT20)	CH48	9.43	8.77	250	Pass
11n(HT40)	CH38	8.71	7.43	250	Pass
11n(HT40)	CH46	9.46	8.83	250	Pass
11ac(VHT20)	CH36	9.10	8.13	250	Pass
11ac(VHT20)	CH44	9.48	8.87	250	Pass
11ac(VHT20)	CH48	9.84	9.64	250	Pass
11ac(VHT40)	CH38	8.51	7.10	250	Pass
11ac(VHT40)	CH46	9.38	8.67	250	Pass
11ac(VHT80)	CH42	7.28	5.35	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	10.33	10.79	1000	Pass
11a	CH157	10.16	10.38	1000	Pass
11a	CH165	10.32	10.76	1000	Pass
11n(HT20)	CH149	9.59	9.10	1000	Pass
11n(HT20)	CH157	9.48	8.87	1000	Pass
11n(HT20)	CH165	9.77	9.48	1000	Pass
11n(HT40)	CH151	9.21	8.34	1000	Pass
11n(HT40)	CH159	9.29	8.49	1000	Pass
11ac(VHT20)	CH149	9.81	9.57	1000	Pass
11ac(VHT20)	CH157	9.28	8.47	1000	Pass
11ac(VHT20)	CH165	9.30	8.51	1000	Pass
11ac(VHT40)	CH151	9.43	8.77	1000	Pass
11ac(VHT40)	CH159	9.34	8.59	1000	Pass
11ac(VHT80)	CH155	9.43	8.77	1000	Pass

MIMO

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	13.10	20.43	250	Pass
11a	CH44	13.48	22.26	250	Pass
11a	CH48	13.44	22.06	250	Pass
11n(HT20)	CH36	12.41	17.42	250	Pass
11n(HT20)	CH44	12.19	16.56	250	Pass
11n(HT20)	CH48	12.29	16.95	250	Pass
11n(HT40)	CH38	11.82	15.21	250	Pass
11n(HT40)	CH46	12.47	17.66	250	Pass
11ac(VHT20)	CH36	12.21	16.64	250	Pass
11ac(VHT20)	CH44	12.49	17.74	250	Pass
11ac(VHT20)	CH48	12.65	18.43	250	Pass
11ac(VHT40)	CH38	11.32	13.57	250	Pass
11ac(VHT40)	CH46	12.49	17.75	250	Pass
11ac(VHT80)	CH42	10.29	10.69	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.44	22.09	1000	Pass
11a	CH157	13.17	20.75	1000	Pass
11a	CH165	13.33	21.53	1000	Pass
11n(HT20)	CH149	12.60	18.20	1000	Pass
11n(HT20)	CH157	12.29	16.96	1000	Pass
11n(HT20)	CH165	12.58	18.13	1000	Pass
11n(HT40)	CH151	12.12	16.30	1000	Pass
11n(HT40)	CH159	12.30	16.98	1000	Pass
11ac(VHT20)	CH149	12.92	19.59	1000	Pass
11ac(VHT20)	CH157	12.14	16.38	1000	Pass
11ac(VHT20)	CH165	12.41	17.42	1000	Pass
11ac(VHT40)	CH151	12.29	16.95	1000	Pass
11ac(VHT40)	CH159	12.45	17.59	1000	Pass
11ac(VHT80)	CH155	12.44	17.54	1000	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Note [1]: Test plots please refer to the document “Annex No.: BL-SZ2560122-604 Data Part 1.pdf”.

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

Test Data

SISO-Aux. Antenna

U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	21.18	16.63
11a	CH44	21.25	16.66
11a	CH48	21.38	16.67
11n(HT20)	CH36	21.00	17.69
11n(HT20)	CH44	21.01	17.71
11n(HT20)	CH48	21.05	17.71
11n(HT40)	CH38	43.10	36.51
11n(HT40)	CH46	43.17	36.52
11ac(VHT20)	CH36	21.22	17.71
11ac(VHT20)	CH44	21.25	17.72
11ac(VHT20)	CH48	21.26	17.72
11ac(VHT40)	CH38	42.36	36.45
11ac(VHT40)	CH46	42.15	36.51
11ac(VHT80)	CH42	83.08	75.99

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	25.87	16.86
11a	CH157	27.36	17.12
11a	CH165	28.30	17.45
11n(HT20)	CH149	29.43	17.85
11n(HT20)	CH157	28.96	17.93
11n(HT20)	CH165	29.44	17.99
11n(HT40)	CH151	66.94	36.73
11n(HT40)	CH159	68.49	36.86
11ac(VHT20)	CH149	21.80	17.82
11ac(VHT20)	CH157	27.64	17.85
11ac(VHT20)	CH165	27.76	17.94
11ac(VHT40)	CH151	64.84	36.65
11ac(VHT40)	CH159	68.05	36.75
11ac(VHT80)	CH155	112.96	76.54

A.3 6 dB Bandwidth

Note [1]: Test plots please refer to the document “Annex No.: BL-SZ2560122-604 Data Part 2.pdf”.

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

Test Data

SISO-Aux. Antenna

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	16.50	500.00	Pass
11a	CH157	16.50	500.00	Pass
11a	CH165	16.50	500.00	Pass
11n(HT20)	CH149	17.30	500.00	Pass
11n(HT20)	CH157	17.70	500.00	Pass
11n(HT20)	CH165	17.70	500.00	Pass
11n(HT40)	CH151	36.90	500.00	Pass
11n(HT40)	CH159	36.90	500.00	Pass
11ac(VHT20)	CH149	17.70	500.00	Pass
11ac(VHT20)	CH157	17.30	500.00	Pass
11ac(VHT20)	CH165	17.00	500.00	Pass
11ac(VHT40)	CH151	36.10	500.00	Pass
11ac(VHT40)	CH159	36.00	500.00	Pass
11ac(VHT80)	CH155	75.40	500.00	Pass

A.4 Power Spectral Density

Note [1]: Test plots please refer to the document “Annex No.: BL-SZ2560122-604 Data Part 3.pdf”.

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

Test Data

SISO-Aux. Antenna

U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	FCC Limit (dBm/MHz)	Verdict
11a	CH36	1.12	11.00	Pass
11a	CH44	1.10	11.00	Pass
11a	CH48	1.16	11.00	Pass
11n(HT20)	CH36	0.05	11.00	Pass
11n(HT20)	CH44	0.05	11.00	Pass
11n(HT20)	CH48	-0.09	11.00	Pass
11n(HT40)	CH38	-3.45	11.00	Pass
11n(HT40)	CH46	-3.05	11.00	Pass
11ac(VHT20)	CH36	0.17	11.00	Pass
11ac(VHT20)	CH44	0.06	11.00	Pass
11ac(VHT20)	CH48	0.00	11.00	Pass
11ac(VHT40)	CH38	-3.35	11.00	Pass
11ac(VHT40)	CH46	-3.03	11.00	Pass
11ac(VHT80)	CH42	-6.85	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	FCC Limit (dBm/500kHz)	Verdict
11a	CH149	-1.84	30.00	Pass
11a	CH157	-1.88	30.00	Pass
11a	CH165	-1.63	30.00	Pass
11n(HT20)	CH149	-2.43	30.00	Pass
11n(HT20)	CH157	-2.75	30.00	Pass
11n(HT20)	CH165	-2.59	30.00	Pass
11n(HT40)	CH151	-6.12	30.00	Pass
11n(HT40)	CH159	-6.22	30.00	Pass
11ac(VHT20)	CH149	-3.20	30.00	Pass
11ac(VHT20)	CH157	-3.23	30.00	Pass
11ac(VHT20)	CH165	-3.04	30.00	Pass
11ac(VHT40)	CH151	-5.99	30.00	Pass
11ac(VHT40)	CH159	-6.11	30.00	Pass
11ac(VHT80)	CH155	-7.66	30.00	Pass

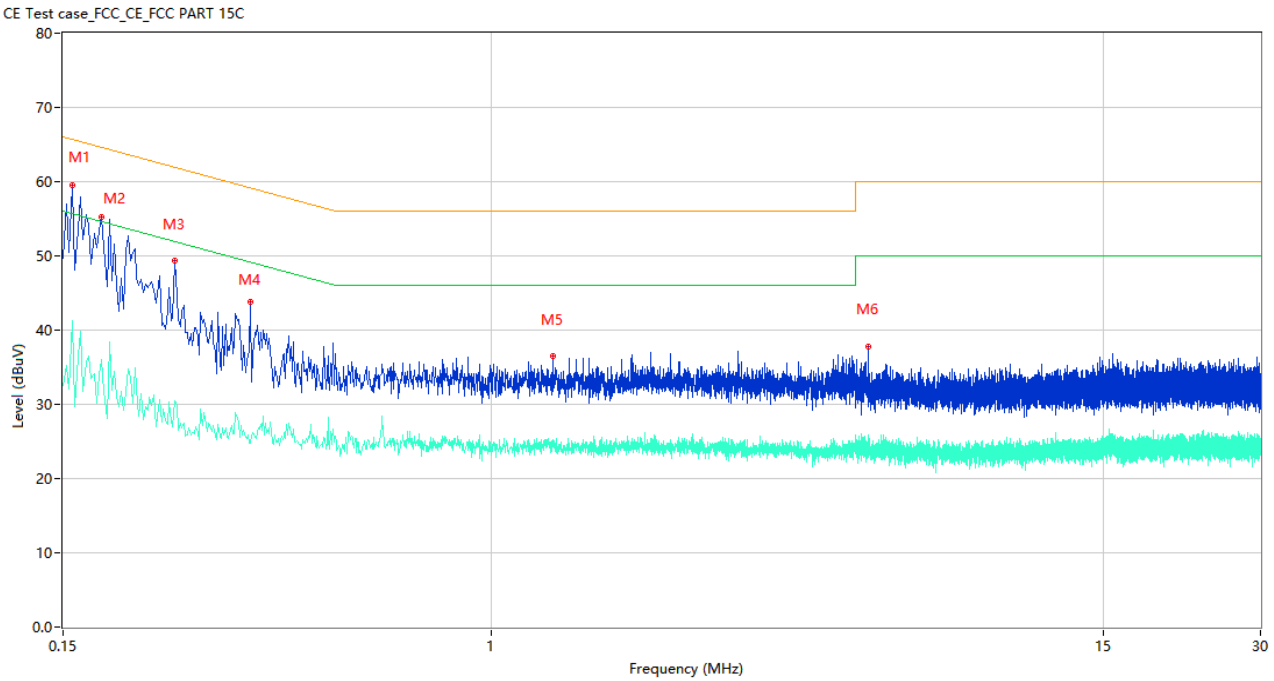
A.5 Conducted Emissions

Note [1]: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

Note [2]: 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.

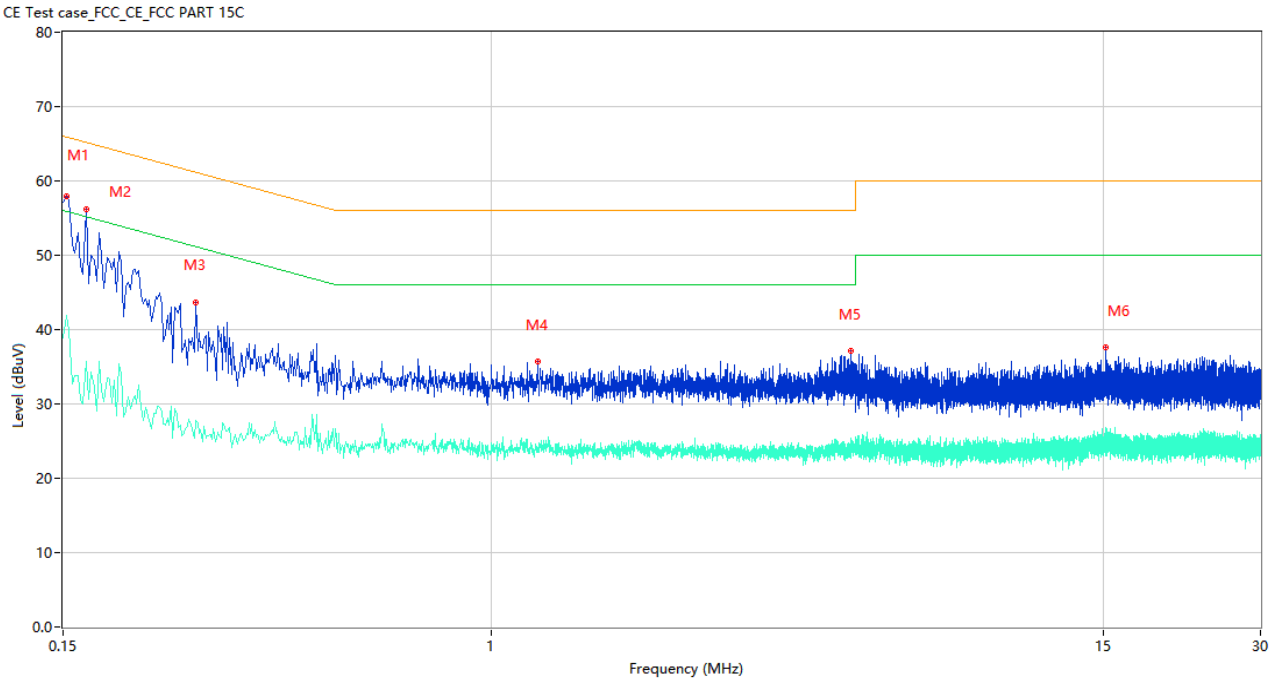
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.156	59.57	9.86	65.67	6.10	Peak	L	Pass
1**	0.156	41.27	9.86	55.67	14.40	AV	L	Pass
2	0.178	55.26	9.85	64.58	9.32	Peak	L	Pass
2**	0.178	36.08	9.85	54.58	18.50	AV	L	Pass
3	0.246	49.34	9.83	61.89	12.55	Peak	L	Pass
3**	0.246	30.54	9.83	51.89	21.35	AV	L	Pass
4	0.344	43.85	10.70	59.11	15.26	Peak	L	Pass
4**	0.344	24.82	10.70	49.11	24.29	AV	L	Pass
5	1.308	36.48	10.48	56.00	19.52	Peak	L	Pass
5**	1.308	25.18	10.48	46.00	20.82	AV	L	Pass
6	5.288	37.83	10.34	60.00	22.17	Peak	L	Pass
6**	5.288	25.89	10.34	50.00	24.11	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	58.01	9.86	65.89	7.88	Peak	N	Pass
1**	0.152	41.88	9.86	55.89	14.01	AV	N	Pass
2	0.166	56.11	9.85	65.16	9.05	Peak	N	Pass
2**	0.166	35.78	9.85	55.16	19.38	AV	N	Pass
3	0.270	43.66	9.83	61.12	17.46	Peak	N	Pass
3**	0.270	27.82	9.83	51.12	23.30	AV	N	Pass
4	1.224	35.71	10.23	56.00	20.29	Peak	N	Pass
4**	1.224	24.18	10.23	46.00	21.82	AV	N	Pass
5	4.898	37.15	10.24	56.00	18.85	Peak	N	Pass
5**	4.898	25.34	10.24	46.00	20.66	AV	N	Pass
6	15.126	37.68	10.83	60.00	22.32	Peak	N	Pass
6**	15.126	25.19	10.83	50.00	24.81	AV	N	Pass

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

Note [1]: The symbol of "--" in the table which means not application.

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

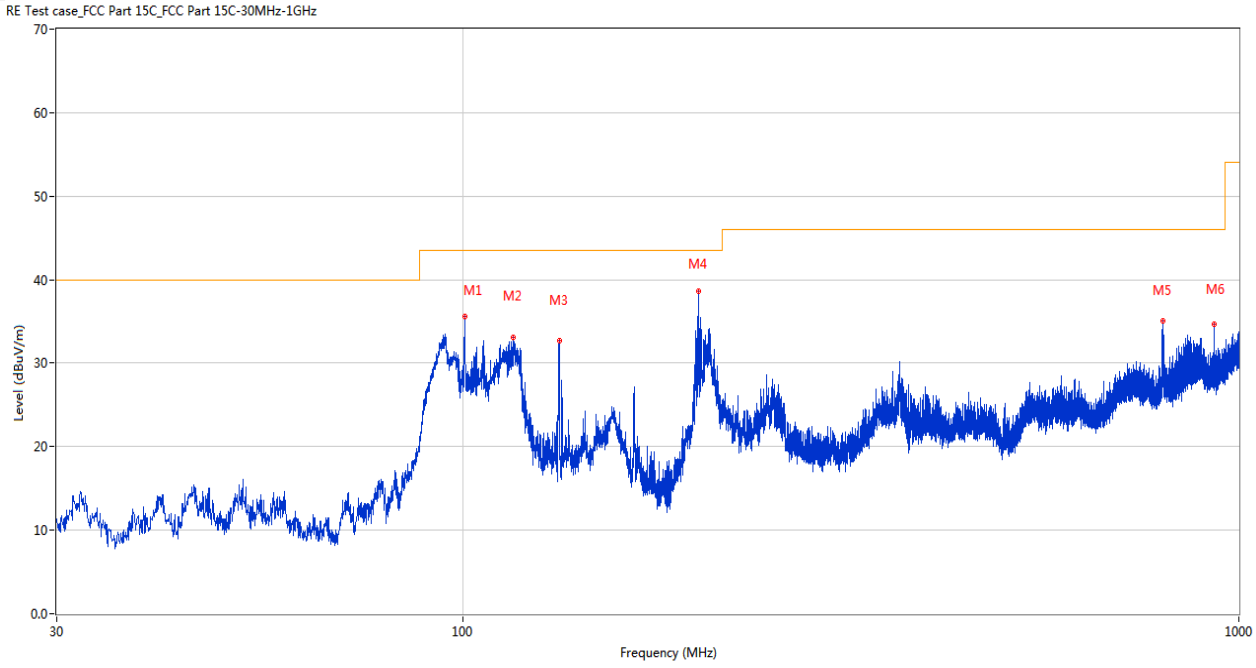
Note [3]: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

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

Note [5]: For Multiple transmitter output, the quantity *10 log (NANT)* dB is added to each spectrum value before comparing to the emission limit. When testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding *10 log(NANT)* if the measurements are made relative to the in-band emissions on the individual outputs.

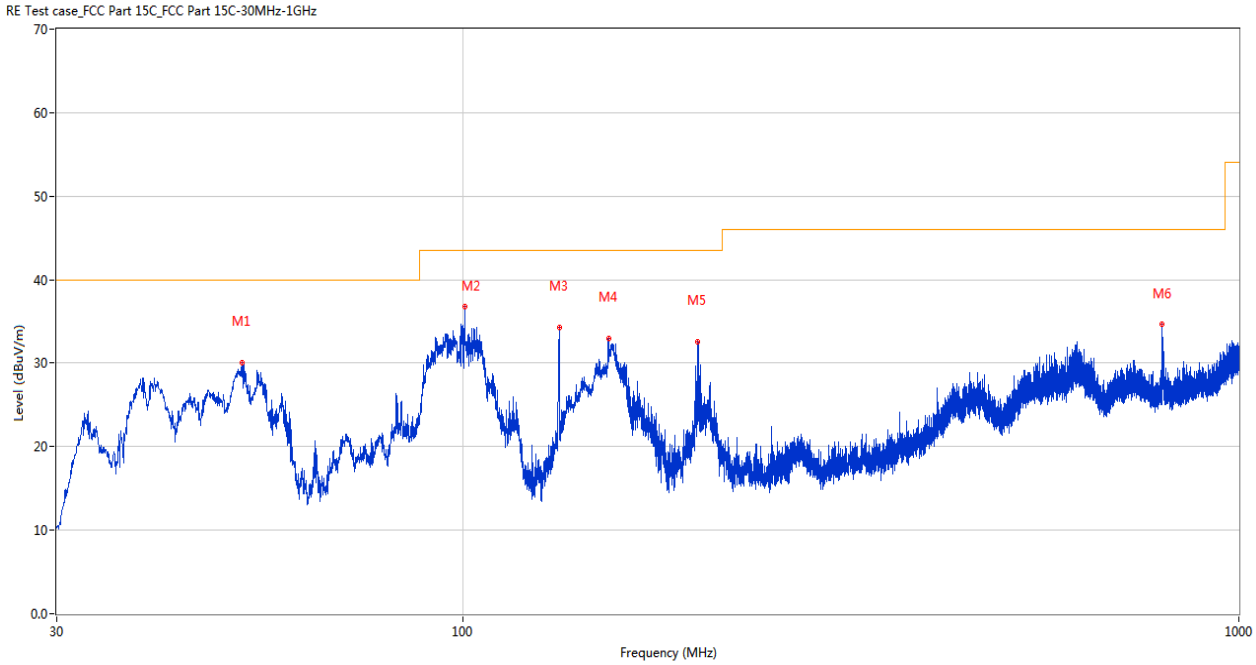
Test Data and Plots

30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	100.664	35.33	-29.99	43.5	8.17	Peak	78.00	200	Horizontal	Pass
2	116.330	33.13	-28.56	43.5	10.37	Peak	0.00	200	Horizontal	Pass
3	133.257	32.63	-26.73	43.5	10.87	Peak	324.00	100	Horizontal	Pass
4	201.205	38.62	-28.84	43.5	4.88	Peak	265.00	200	Horizontal	Pass
5	797.901	35.05	-11.79	46.0	10.95	Peak	252.00	100	Horizontal	Pass
6	929.772	34.70	-10.78	46.0	11.30	Peak	89.00	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	52.019	30.10	-26.81	40.0	9.90	Peak	144.00	100	Vertical	Pass
2	100.713	36.75	-29.98	43.5	6.75	Peak	245.00	100	Vertical	Pass
3	133.257	34.32	-26.73	43.5	9.18	Peak	272.00	100	Vertical	Pass
4	154.354	32.97	-25.66	43.5	10.53	Peak	341.00	100	Vertical	Pass
5	200.962	32.60	-28.82	43.5	10.90	Peak	9.00	200	Vertical	Pass
6	797.173	34.71	-11.78	46.0	11.29	Peak	209.00	200	Vertical	Pass

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

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

SISO-Aux. Antenna

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1509.771	42.36	74.0	31.64	Peak	222.00	400	Horizontal	Pass
1**	1509.771	28.60	54.0	25.40	AV	222.00	400	Horizontal	Pass
2	2344.630	46.17	74.0	27.83	Peak	133.00	400	Horizontal	Pass
2**	2344.630	36.50	54.0	17.50	AV	133.00	400	Horizontal	Pass
3	4206.312	48.21	74.0	25.79	Peak	59.00	200	Horizontal	Pass
3**	4206.312	36.95	54.0	17.05	AV	59.00	200	Horizontal	Pass
4	7438.094	51.42	74.0	22.58	Peak	236.00	400	Horizontal	Pass
4**	7438.094	42.02	54.0	11.98	AV	236.00	400	Horizontal	Pass
5	12518.748	56.52	74.0	17.48	Peak	21.00	200	Horizontal	Pass
5**	12518.748	44.29	54.0	9.71	AV	21.00	200	Horizontal	Pass
6	16145.483	53.33	74.0	20.67	Peak	53.00	100	Horizontal	Pass
6**	16145.483	42.19	54.0	11.81	AV	53.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1566.992	37.92	74.0	36.08	Peak	122.00	300	Vertical	Pass
1**	1566.992	28.63	54.0	25.37	AV	122.00	300	Vertical	Pass
2	2344.645	42.10	74.0	31.90	Peak	265.00	200	Vertical	Pass
2**	2344.645	35.75	54.0	18.25	AV	265.00	200	Vertical	Pass
3	3916.349	47.67	74.0	26.33	Peak	21.00	200	Vertical	Pass
3**	3916.349	38.71	54.0	15.29	AV	21.00	200	Vertical	Pass
4	7681.029	50.07	74.0	23.93	Peak	130.00	200	Vertical	Pass
4**	7681.029	44.22	54.0	9.78	AV	130.00	200	Vertical	Pass
5	12527.613	57.17	74.0	16.83	Peak	182.00	400	Vertical	Pass
5**	12527.613	43.01	54.0	10.99	AV	182.00	400	Vertical	Pass
6	15382.170	54.47	74.0	19.53	Peak	40.00	100	Vertical	Pass
6**	15382.170	42.57	54.0	11.43	AV	40.00	100	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	1513.722	40.17	74.0	33.83	Peak	245.00	200	Horizontal	Pass
1**	1513.722	30.50	54.0	23.50	AV	245.00	200	Horizontal	Pass
2	2350.395	44.23	74.0	29.77	Peak	234.00	400	Horizontal	Pass
2**	2350.395	39.26	54.0	14.74	AV	234.00	400	Horizontal	Pass
3	4207.183	48.02	74.0	25.98	Peak	299.00	200	Horizontal	Pass
3**	4207.183	40.18	54.0	13.82	AV	299.00	200	Horizontal	Pass
4	7434.270	57.09	74.0	16.91	Peak	359.00	300	Horizontal	Pass
4**	7434.270	44.98	54.0	9.02	AV	359.00	300	Horizontal	Pass
5	12521.314	56.27	74.0	17.73	Peak	277.00	100	Horizontal	Pass
5**	12521.314	44.36	54.0	9.64	AV	277.00	100	Horizontal	Pass
6	16147.412	52.01	74.0	21.99	Peak	239.00	100	Horizontal	Pass
6**	16147.412	44.76	54.0	9.24	AV	239.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1572.135	34.28	74.0	39.72	Peak	354.00	100	Vertical	Pass
1**	1572.135	24.38	54.0	29.62	AV	354.00	100	Vertical	Pass
2	2344.924	42.00	74.0	32.00	Peak	45.00	300	Vertical	Pass
2**	2344.924	35.21	54.0	18.79	AV	45.00	300	Vertical	Pass
3	3916.683	43.08	74.0	30.92	Peak	288.00	200	Vertical	Pass
3**	3916.683	33.96	54.0	20.04	AV	288.00	200	Vertical	Pass
4	7678.853	54.18	74.0	19.82	Peak	43.00	400	Vertical	Pass
4**	7678.853	45.21	54.0	8.79	AV	43.00	400	Vertical	Pass
5	12532.666	57.21	74.0	16.79	Peak	181.00	300	Vertical	Pass
5**	12532.666	42.49	54.0	11.51	AV	181.00	300	Vertical	Pass
6	15379.805	54.16	74.0	19.84	Peak	162.00	200	Vertical	Pass
6**	15379.805	42.54	54.0	11.46	AV	162.00	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	1509.063	39.04	74.0	34.96	Peak	37.00	300	Horizontal	Pass
1**	1509.063	26.64	54.0	27.36	AV	37.00	300	Horizontal	Pass
2	2351.916	43.87	74.0	30.13	Peak	50.00	300	Horizontal	Pass
2**	2351.916	34.97	54.0	19.03	AV	50.00	300	Horizontal	Pass
3	4205.440	49.59	74.0	24.41	Peak	190.00	200	Horizontal	Pass
3**	4205.440	35.75	54.0	18.25	AV	190.00	200	Horizontal	Pass
4	7437.028	56.21	74.0	17.79	Peak	254.00	300	Horizontal	Pass
4**	7437.028	42.45	54.0	11.55	AV	254.00	300	Horizontal	Pass
5	12515.441	57.49	74.0	16.51	Peak	74.00	200	Horizontal	Pass
5**	12515.441	47.80	54.0	6.20	AV	74.00	200	Horizontal	Pass
6	16143.392	57.13	74.0	16.87	Peak	138.00	100	Horizontal	Pass
6**	16143.392	45.36	54.0	8.64	AV	138.00	100	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	1572.110	38.42	74.0	35.58	Peak	31.00	300	Vertical	Pass
1**	1572.110	23.88	54.0	30.12	AV	31.00	300	Vertical	Pass
2	2347.577	44.10	74.0	29.90	Peak	94.00	200	Vertical	Pass
2**	2347.577	34.60	54.0	19.40	AV	94.00	200	Vertical	Pass
3	3916.173	42.31	74.0	31.69	Peak	69.00	200	Vertical	Pass
3**	3916.173	36.47	54.0	17.53	AV	69.00	200	Vertical	Pass
4	7679.892	54.57	74.0	19.43	Peak	176.00	300	Vertical	Pass
4**	7679.892	43.44	54.0	10.56	AV	176.00	300	Vertical	Pass
5	12526.049	57.02	74.0	16.98	Peak	61.00	300	Vertical	Pass
5**	12526.049	41.54	54.0	12.46	AV	61.00	300	Vertical	Pass
6	15382.976	52.46	74.0	21.54	Peak	346.00	400	Vertical	Pass
6**	15382.976	45.25	54.0	8.75	AV	346.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1509.001	40.48	74.0	33.52	Peak	110.00	300	Horizontal	Pass
1**	1509.001	27.92	54.0	26.08	AV	110.00	300	Horizontal	Pass
2	2348.711	44.06	74.0	29.94	Peak	105.00	200	Horizontal	Pass
2**	2348.711	36.32	54.0	17.68	AV	105.00	200	Horizontal	Pass
3	4205.816	49.20	74.0	24.80	Peak	333.00	200	Horizontal	Pass
3**	4205.816	36.38	54.0	17.62	AV	333.00	200	Horizontal	Pass
4	7435.978	54.15	74.0	19.85	Peak	243.00	100	Horizontal	Pass
4**	7435.978	43.33	54.0	10.67	AV	243.00	100	Horizontal	Pass
5	12515.320	56.43	74.0	17.57	Peak	222.00	400	Horizontal	Pass
5**	12515.320	45.03	54.0	8.97	AV	222.00	400	Horizontal	Pass
6	16143.394	53.82	74.0	20.18	Peak	30.00	400	Horizontal	Pass
6**	16143.394	42.80	54.0	11.20	AV	30.00	400	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	1570.609	34.96	74.0	39.04	Peak	7.00	100	Vertical	Pass
1**	1570.609	27.87	54.0	26.13	AV	7.00	100	Vertical	Pass
2	2345.620	46.76	74.0	27.24	Peak	321.00	400	Vertical	Pass
2**	2345.620	30.40	54.0	23.60	AV	321.00	400	Vertical	Pass
3	3917.872	45.57	74.0	28.43	Peak	269.00	200	Vertical	Pass
3**	3917.872	34.66	54.0	19.34	AV	269.00	200	Vertical	Pass
4	7679.526	49.47	74.0	24.53	Peak	174.00	100	Vertical	Pass
4**	7679.526	42.93	54.0	11.07	AV	174.00	100	Vertical	Pass
5	12526.158	58.33	74.0	15.67	Peak	326.00	100	Vertical	Pass
5**	12526.158	42.82	54.0	11.18	AV	326.00	100	Vertical	Pass
6	15379.939	52.01	74.0	21.99	Peak	279.00	200	Vertical	Pass
6**	15379.939	41.81	54.0	12.19	AV	279.00	200	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	1510.994	42.15	74.0	31.85	Peak	281.00	400	Horizontal	Pass
1**	1510.994	30.48	54.0	23.52	AV	281.00	400	Horizontal	Pass
2	2350.666	42.39	74.0	31.61	Peak	223.00	300	Horizontal	Pass
2**	2350.666	38.15	54.0	15.85	AV	223.00	300	Horizontal	Pass
3	4204.076	49.81	74.0	24.19	Peak	241.00	200	Horizontal	Pass
3**	4204.076	37.41	54.0	16.59	AV	241.00	200	Horizontal	Pass
4	7431.762	54.08	74.0	19.92	Peak	134.00	300	Horizontal	Pass
4**	7431.762	41.51	54.0	12.49	AV	134.00	300	Horizontal	Pass
5	12521.814	58.38	74.0	15.62	Peak	276.00	300	Horizontal	Pass
5**	12521.814	44.58	54.0	9.42	AV	276.00	300	Horizontal	Pass
6	16144.133	55.81	74.0	18.19	Peak	118.00	200	Horizontal	Pass
6**	16144.133	42.10	54.0	11.90	AV	118.00	200	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	1569.346	36.83	74.0	37.17	Peak	27.00	200	Vertical	Pass
1**	1569.346	29.50	54.0	24.50	AV	27.00	200	Vertical	Pass
2	2349.154	47.19	74.0	26.81	Peak	115.00	100	Vertical	Pass
2**	2349.154	31.97	54.0	22.03	AV	115.00	100	Vertical	Pass
3	3914.297	46.00	74.0	28.00	Peak	175.00	200	Vertical	Pass
3**	3914.297	38.50	54.0	15.50	AV	175.00	200	Vertical	Pass
4	7684.280	51.69	74.0	22.31	Peak	347.00	200	Vertical	Pass
4**	7684.280	44.33	54.0	9.67	AV	347.00	200	Vertical	Pass
5	12533.615	55.32	74.0	18.68	Peak	166.00	200	Vertical	Pass
5**	12533.615	45.15	54.0	8.85	AV	166.00	200	Vertical	Pass
6	15382.801	52.23	74.0	21.77	Peak	216.00	200	Vertical	Pass
6**	15382.801	44.03	54.0	9.97	AV	216.00	200	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	1508.299	39.53	74.0	34.47	Peak	77.00	100	Horizontal	Pass
1**	1508.299	30.29	54.0	23.71	AV	77.00	100	Horizontal	Pass
2	2348.803	45.94	74.0	28.06	Peak	355.00	400	Horizontal	Pass
2**	2348.803	37.42	54.0	16.58	AV	355.00	400	Horizontal	Pass
3	4204.251	49.68	74.0	24.32	Peak	263.00	200	Horizontal	Pass
3**	4204.251	40.06	54.0	13.94	AV	263.00	200	Horizontal	Pass
4	7437.203	53.05	74.0	20.95	Peak	208.00	300	Horizontal	Pass
4**	7437.203	43.97	54.0	10.03	AV	208.00	300	Horizontal	Pass
5	12517.981	53.94	74.0	20.06	Peak	112.00	100	Horizontal	Pass
5**	12517.981	45.79	54.0	8.21	AV	112.00	100	Horizontal	Pass
6	16149.260	56.42	74.0	17.58	Peak	307.00	300	Horizontal	Pass
6**	16149.260	44.84	54.0	9.16	AV	307.00	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	1566.762	36.49	74.0	37.51	Peak	290.00	300	Vertical	Pass
1**	1566.762	25.13	54.0	28.87	AV	290.00	300	Vertical	Pass
2	2345.987	44.92	74.0	29.08	Peak	246.00	100	Vertical	Pass
2**	2345.987	33.90	54.0	20.10	AV	246.00	100	Vertical	Pass
3	3918.914	43.91	74.0	30.09	Peak	313.00	200	Vertical	Pass
3**	3918.914	37.32	54.0	16.68	AV	313.00	200	Vertical	Pass
4	7677.774	49.71	74.0	24.29	Peak	359.00	400	Vertical	Pass
4**	7677.774	42.49	54.0	11.51	AV	359.00	400	Vertical	Pass
5	12531.083	55.87	74.0	18.13	Peak	164.00	300	Vertical	Pass
5**	12531.083	43.35	54.0	10.65	AV	164.00	300	Vertical	Pass
6	15382.591	55.32	74.0	18.68	Peak	36.00	400	Vertical	Pass
6**	15382.591	45.72	54.0	8.28	AV	36.00	400	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	1514.140	38.90	74.0	35.10	Peak	149.00	300	Horizontal	Pass
1**	1514.140	29.36	54.0	24.64	AV	149.00	300	Horizontal	Pass
2	2352.096	44.66	74.0	29.34	Peak	185.00	400	Horizontal	Pass
2**	2352.096	38.14	54.0	15.86	AV	185.00	400	Horizontal	Pass
3	4202.431	45.99	74.0	28.01	Peak	273.00	200	Horizontal	Pass
3**	4202.431	39.70	54.0	14.30	AV	273.00	200	Horizontal	Pass
4	7431.331	52.76	74.0	21.24	Peak	140.00	100	Horizontal	Pass
4**	7431.331	42.40	54.0	11.60	AV	140.00	100	Horizontal	Pass
5	12519.602	57.56	74.0	16.44	Peak	126.00	400	Horizontal	Pass
5**	12519.602	46.23	54.0	7.77	AV	126.00	400	Horizontal	Pass
6	16150.319	52.62	74.0	21.38	Peak	231.00	100	Horizontal	Pass
6**	16150.319	42.59	54.0	11.41	AV	231.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1570.260	38.42	74.0	35.58	Peak	227.00	200	Vertical	Pass
1**	1570.260	29.04	54.0	24.96	AV	227.00	200	Vertical	Pass
2	2346.518	43.62	74.0	30.38	Peak	208.00	300	Vertical	Pass
2**	2346.518	35.52	54.0	18.48	AV	208.00	300	Vertical	Pass
3	3919.827	44.04	74.0	29.96	Peak	54.00	200	Vertical	Pass
3**	3919.827	38.02	54.0	15.98	AV	54.00	200	Vertical	Pass
4	7678.151	49.89	74.0	24.11	Peak	202.00	100	Vertical	Pass
4**	7678.151	42.03	54.0	11.97	AV	202.00	100	Vertical	Pass
5	12531.250	57.40	74.0	16.60	Peak	238.00	400	Vertical	Pass
5**	12531.250	41.21	54.0	12.79	AV	238.00	400	Vertical	Pass
6	15385.730	50.52	74.0	23.48	Peak	81.00	300	Vertical	Pass
6**	15385.730	44.32	54.0	9.68	AV	81.00	300	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	1508.101	40.83	74.0	33.17	Peak	309.00	200	Horizontal	Pass
1**	1508.101	27.71	54.0	26.29	AV	309.00	200	Horizontal	Pass
2	2344.684	45.66	74.0	28.34	Peak	121.00	200	Horizontal	Pass
2**	2344.684	35.45	54.0	18.55	AV	121.00	200	Horizontal	Pass
3	4207.939	48.58	74.0	25.42	Peak	358.00	200	Horizontal	Pass
3**	4207.939	37.80	54.0	16.20	AV	358.00	200	Horizontal	Pass
4	7437.123	54.45	74.0	19.55	Peak	66.00	100	Horizontal	Pass
4**	7437.123	45.48	54.0	8.52	AV	66.00	100	Horizontal	Pass
5	12521.961	57.90	74.0	16.10	Peak	335.00	400	Horizontal	Pass
5**	12521.961	44.74	54.0	9.26	AV	335.00	400	Horizontal	Pass
6	16144.293	52.75	74.0	21.25	Peak	332.00	300	Horizontal	Pass
6**	16144.293	46.50	54.0	7.50	AV	332.00	300	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	1570.894	36.46	74.0	37.54	Peak	259.00	200	Vertical	Pass
1**	1570.894	24.85	54.0	29.15	AV	259.00	200	Vertical	Pass
2	2349.057	42.33	74.0	31.67	Peak	228.00	400	Vertical	Pass
2**	2349.057	34.86	54.0	19.14	AV	228.00	400	Vertical	Pass
3	3916.269	46.93	74.0	27.07	Peak	138.00	200	Vertical	Pass
3**	3916.269	38.49	54.0	15.51	AV	138.00	200	Vertical	Pass
4	7680.317	54.50	74.0	19.50	Peak	292.00	300	Vertical	Pass
4**	7680.317	45.90	54.0	8.10	AV	292.00	300	Vertical	Pass
5	12529.688	53.94	74.0	20.06	Peak	178.00	300	Vertical	Pass
5**	12529.688	41.60	54.0	12.40	AV	178.00	300	Vertical	Pass
6	15381.050	55.87	74.0	18.13	Peak	180.00	100	Vertical	Pass
6**	15381.050	46.55	54.0	7.45	AV	180.00	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	1510.413	40.54	74.0	33.46	Peak	16.00	100	Horizontal	Pass
1**	1510.413	32.17	54.0	21.83	AV	16.00	100	Horizontal	Pass
2	2346.427	41.92	74.0	32.08	Peak	235.00	300	Horizontal	Pass
2**	2346.427	37.62	54.0	16.38	AV	235.00	300	Horizontal	Pass
3	4204.292	45.90	74.0	28.10	Peak	78.00	200	Horizontal	Pass
3**	4204.292	35.72	54.0	18.28	AV	78.00	200	Horizontal	Pass
4	7434.407	56.88	74.0	17.12	Peak	195.00	300	Horizontal	Pass
4**	7434.407	43.11	54.0	10.89	AV	195.00	300	Horizontal	Pass
5	12515.054	53.94	74.0	20.06	Peak	340.00	400	Horizontal	Pass
5**	12515.054	44.34	54.0	9.66	AV	340.00	400	Horizontal	Pass
6	16147.208	55.53	74.0	18.47	Peak	143.00	100	Horizontal	Pass
6**	16147.208	44.25	54.0	9.75	AV	143.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1574.109	35.14	74.0	38.86	Peak	264.00	200	Vertical	Pass
1**	1574.109	25.62	54.0	28.38	AV	264.00	200	Vertical	Pass
2	2349.323	45.69	74.0	28.31	Peak	350.00	200	Vertical	Pass
2**	2349.323	30.74	54.0	23.26	AV	350.00	200	Vertical	Pass
3	3913.857	43.03	74.0	30.97	Peak	148.00	200	Vertical	Pass
3**	3913.857	36.60	54.0	17.40	AV	148.00	200	Vertical	Pass
4	7681.163	54.46	74.0	19.54	Peak	197.00	400	Vertical	Pass
4**	7681.163	42.66	54.0	11.34	AV	197.00	400	Vertical	Pass
5	12527.615	54.96	74.0	19.04	Peak	267.00	100	Vertical	Pass
5**	12527.615	41.15	54.0	12.85	AV	267.00	100	Vertical	Pass
6	15382.194	52.46	74.0	21.54	Peak	251.00	300	Vertical	Pass
6**	15382.194	42.06	54.0	11.94	AV	251.00	300	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	1509.649	38.65	74.0	35.35	Peak	19.00	300	Horizontal	Pass
1**	1509.649	26.83	54.0	27.17	AV	19.00	300	Horizontal	Pass
2	2348.595	43.38	74.0	30.62	Peak	11.00	300	Horizontal	Pass
2**	2348.595	40.48	54.0	13.52	AV	11.00	300	Horizontal	Pass
3	4204.456	49.05	74.0	24.95	Peak	4.00	200	Horizontal	Pass
3**	4204.456	36.25	54.0	17.75	AV	4.00	200	Horizontal	Pass
4	7436.309	54.32	74.0	19.68	Peak	258.00	200	Horizontal	Pass
4**	7436.309	43.10	54.0	10.90	AV	258.00	200	Horizontal	Pass
5	12520.184	54.03	74.0	19.97	Peak	13.00	300	Horizontal	Pass
5**	12520.184	49.37	54.0	4.63	AV	13.00	300	Horizontal	Pass
6	16146.784	51.71	74.0	22.29	Peak	155.00	300	Horizontal	Pass
6**	16146.784	43.84	54.0	10.16	AV	155.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1572.985	39.32	74.0	34.68	Peak	126.00	100	Vertical	Pass
1**	1572.985	23.84	54.0	30.16	AV	126.00	100	Vertical	Pass
2	2350.549	43.56	74.0	30.44	Peak	24.00	300	Vertical	Pass
2**	2350.549	33.98	54.0	20.02	AV	24.00	300	Vertical	Pass
3	3917.508	45.62	74.0	28.38	Peak	123.00	200	Vertical	Pass
3**	3917.508	34.92	54.0	19.08	AV	123.00	200	Vertical	Pass
4	7683.736	53.41	74.0	20.59	Peak	232.00	200	Vertical	Pass
4**	7683.736	41.60	54.0	12.40	AV	232.00	200	Vertical	Pass
5	12527.364	58.25	74.0	15.75	Peak	100.00	200	Vertical	Pass
5**	12527.364	44.12	54.0	9.88	AV	100.00	200	Vertical	Pass
6	15385.756	50.60	74.0	23.40	Peak	106.00	400	Vertical	Pass
6**	15385.756	44.47	54.0	9.53	AV	106.00	400	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	1514.984	37.01	74.0	36.99	Peak	330.00	300	Horizontal	Pass
1**	1514.984	28.94	54.0	25.06	AV	330.00	300	Horizontal	Pass
2	2348.749	45.26	74.0	28.74	Peak	85.00	400	Horizontal	Pass
2**	2348.749	38.68	54.0	15.32	AV	85.00	400	Horizontal	Pass
3	4208.260	48.02	74.0	25.98	Peak	325.00	200	Horizontal	Pass
3**	4208.260	40.21	54.0	13.79	AV	325.00	200	Horizontal	Pass
4	7434.730	51.44	74.0	22.56	Peak	359.00	300	Horizontal	Pass
4**	7434.730	43.46	54.0	10.54	AV	359.00	300	Horizontal	Pass
5	12516.513	56.86	74.0	17.14	Peak	92.00	300	Horizontal	Pass
5**	12516.513	49.36	54.0	4.64	AV	92.00	300	Horizontal	Pass
6	16147.914	56.20	74.0	17.80	Peak	267.00	300	Horizontal	Pass
6**	16147.914	43.87	54.0	10.13	AV	267.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1570.422	34.82	74.0	39.18	Peak	168.00	100	Vertical	Pass
1**	1570.422	24.64	54.0	29.36	AV	168.00	100	Vertical	Pass
2	2344.590	43.83	74.0	30.17	Peak	325.00	100	Vertical	Pass
2**	2344.590	32.42	54.0	21.58	AV	325.00	100	Vertical	Pass
3	3917.873	41.89	74.0	32.11	Peak	244.00	200	Vertical	Pass
3**	3917.873	35.89	54.0	18.11	AV	244.00	200	Vertical	Pass
4	7682.265	54.96	74.0	19.04	Peak	248.00	400	Vertical	Pass
4**	7682.265	42.11	54.0	11.89	AV	248.00	400	Vertical	Pass
5	12532.635	58.15	74.0	15.85	Peak	68.00	200	Vertical	Pass
5**	12532.635	43.34	54.0	10.66	AV	68.00	200	Vertical	Pass
6	15383.892	54.71	74.0	19.29	Peak	149.00	200	Vertical	Pass
6**	15383.892	45.30	54.0	8.70	AV	149.00	200	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	1508.147	40.87	74.0	33.13	Peak	60.00	300	Horizontal	Pass
1**	1508.147	27.02	54.0	26.98	AV	60.00	300	Horizontal	Pass
2	2351.776	43.71	74.0	30.29	Peak	295.00	200	Horizontal	Pass
2**	2351.776	35.91	54.0	18.09	AV	295.00	200	Horizontal	Pass
3	4208.569	47.52	74.0	26.48	Peak	67.00	200	Horizontal	Pass
3**	4208.569	35.81	54.0	18.19	AV	67.00	200	Horizontal	Pass
4	7431.499	55.53	74.0	18.47	Peak	211.00	200	Horizontal	Pass
4**	7431.499	42.47	54.0	11.53	AV	211.00	200	Horizontal	Pass
5	12514.819	57.37	74.0	16.63	Peak	117.00	400	Horizontal	Pass
5**	12514.819	49.03	54.0	4.97	AV	117.00	400	Horizontal	Pass
6	16147.922	53.67	74.0	20.33	Peak	25.00	100	Horizontal	Pass
6**	16147.922	41.10	54.0	12.90	AV	25.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1572.995	38.58	74.0	35.42	Peak	164.00	100	Vertical	Pass
1**	1572.995	27.48	54.0	26.52	AV	164.00	100	Vertical	Pass
2	2348.628	45.96	74.0	28.04	Peak	348.00	100	Vertical	Pass
2**	2348.628	30.72	54.0	23.28	AV	348.00	100	Vertical	Pass
3	3915.206	45.44	74.0	28.56	Peak	89.00	200	Vertical	Pass
3**	3915.206	36.83	54.0	17.17	AV	89.00	200	Vertical	Pass
4	7679.249	54.88	74.0	19.12	Peak	226.00	200	Vertical	Pass
4**	7679.249	46.96	54.0	7.04	AV	226.00	200	Vertical	Pass
5	12531.931	53.00	74.0	21.00	Peak	181.00	100	Vertical	Pass
5**	12531.931	43.72	54.0	10.28	AV	181.00	100	Vertical	Pass
6	15382.645	55.25	74.0	18.75	Peak	279.00	100	Vertical	Pass
6**	15382.645	46.59	54.0	7.41	AV	279.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1508.128	36.84	74.0	37.16	Peak	214.00	100	Horizontal	Pass
1**	1508.128	29.49	54.0	24.51	AV	214.00	100	Horizontal	Pass
2	2345.519	43.72	74.0	30.28	Peak	165.00	100	Horizontal	Pass
2**	2345.519	35.92	54.0	18.08	AV	165.00	100	Horizontal	Pass
3	4207.511	49.29	74.0	24.71	Peak	343.00	200	Horizontal	Pass
3**	4207.511	36.21	54.0	17.79	AV	343.00	200	Horizontal	Pass
4	7436.556	55.94	74.0	18.06	Peak	267.00	200	Horizontal	Pass
4**	7436.556	41.04	54.0	12.96	AV	267.00	200	Horizontal	Pass
5	12518.551	55.53	74.0	18.47	Peak	80.00	100	Horizontal	Pass
5**	12518.551	45.44	54.0	8.56	AV	80.00	100	Horizontal	Pass
6	16146.483	52.40	74.0	21.60	Peak	35.00	300	Horizontal	Pass
6**	16146.483	44.41	54.0	9.59	AV	35.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1570.267	35.90	74.0	38.10	Peak	284.00	400	Vertical	Pass
1**	1570.267	24.12	54.0	29.88	AV	284.00	400	Vertical	Pass
2	2345.373	44.09	74.0	29.91	Peak	141.00	300	Vertical	Pass
2**	2345.373	32.14	54.0	21.86	AV	141.00	300	Vertical	Pass
3	3920.113	46.43	74.0	27.57	Peak	211.00	200	Vertical	Pass
3**	3920.113	38.16	54.0	15.84	AV	211.00	200	Vertical	Pass
4	7682.990	54.51	74.0	19.49	Peak	281.00	400	Vertical	Pass
4**	7682.990	43.62	54.0	10.38	AV	281.00	400	Vertical	Pass
5	12528.535	55.85	74.0	18.15	Peak	55.00	200	Vertical	Pass
5**	12528.535	43.44	54.0	10.56	AV	55.00	200	Vertical	Pass
6	15384.538	52.29	74.0	21.71	Peak	92.00	200	Vertical	Pass
6**	15384.538	45.62	54.0	8.38	AV	92.00	200	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	1508.520	41.05	74.0	32.95	Peak	179.00	300	Horizontal	Pass
1**	1508.520	26.80	54.0	27.20	AV	179.00	300	Horizontal	Pass
2	2345.443	44.77	74.0	29.23	Peak	220.00	400	Horizontal	Pass
2**	2345.443	35.82	54.0	18.18	AV	220.00	400	Horizontal	Pass
3	4205.703	48.36	74.0	25.64	Peak	242.00	200	Horizontal	Pass
3**	4205.703	38.78	54.0	15.22	AV	242.00	200	Horizontal	Pass
4	7430.723	56.48	74.0	17.52	Peak	355.00	400	Horizontal	Pass
4**	7430.723	45.04	54.0	8.96	AV	355.00	400	Horizontal	Pass
5	12516.321	54.39	74.0	19.61	Peak	248.00	300	Horizontal	Pass
5**	12516.321	44.34	54.0	9.66	AV	248.00	300	Horizontal	Pass
6	16144.486	56.73	74.0	17.27	Peak	332.00	300	Horizontal	Pass
6**	16144.486	41.05	54.0	12.95	AV	332.00	300	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	1568.725	37.51	74.0	36.49	Peak	148.00	200	Vertical	Pass
1**	1568.725	25.82	54.0	28.18	AV	148.00	200	Vertical	Pass
2	2349.488	45.77	74.0	28.23	Peak	221.00	200	Vertical	Pass
2**	2349.488	35.66	54.0	18.34	AV	221.00	200	Vertical	Pass
3	3914.774	45.70	74.0	28.30	Peak	40.00	200	Vertical	Pass
3**	3914.774	36.08	54.0	17.92	AV	40.00	200	Vertical	Pass
4	7681.497	53.74	74.0	20.26	Peak	119.00	400	Vertical	Pass
4**	7681.497	41.94	54.0	12.06	AV	119.00	400	Vertical	Pass
5	12529.542	53.58	74.0	20.42	Peak	279.00	200	Vertical	Pass
5**	12529.542	43.46	54.0	10.54	AV	279.00	200	Vertical	Pass
6	15379.839	54.77	74.0	19.23	Peak	360.00	200	Vertical	Pass
6**	15379.839	44.28	54.0	9.72	AV	360.00	200	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	1521.069	36.03	74.0	37.97	Peak	299.00	300	Horizontal	Pass
1**	1521.069	29.44	54.0	24.56	AV	299.00	300	Horizontal	Pass
2	4021.340	44.82	74.0	29.18	Peak	218.00	400	Horizontal	Pass
2**	4021.340	36.84	54.0	17.16	AV	218.00	400	Horizontal	Pass
3	7600.612	51.86	74.0	22.14	Peak	200.00	200	Horizontal	Pass
3**	7600.612	44.43	54.0	9.57	AV	200.00	200	Horizontal	Pass
4	12456.294	55.66	74.0	18.34	Peak	12.00	200	Horizontal	Pass
4**	12456.294	42.16	54.0	11.84	AV	12.00	200	Horizontal	Pass
5	16094.122	50.77	74.0	23.23	Peak	302.00	400	Horizontal	Pass
5**	16094.122	44.58	54.0	9.42	AV	302.00	400	Horizontal	Pass
6	17422.945	55.89	74.0	18.11	Peak	284.00	300	Horizontal	Pass
6**	17422.945	48.36	54.0	5.64	AV	284.00	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	1336.655	45.32	74.0	28.68	Peak	130.00	400	Vertical	Pass
1**	1336.655	33.86	54.0	20.14	AV	130.00	400	Vertical	Pass
2	1439.725	43.15	74.0	30.85	Peak	326.00	300	Vertical	Pass
2**	1439.725	39.32	54.0	14.68	AV	326.00	300	Vertical	Pass
3	4308.450	50.09	74.0	23.91	Peak	175.00	200	Vertical	Pass
3**	4308.450	38.65	54.0	15.35	AV	175.00	200	Vertical	Pass
4	7596.802	55.64	74.0	18.36	Peak	280.00	100	Vertical	Pass
4**	7596.802	41.83	54.0	12.17	AV	280.00	100	Vertical	Pass
5	12535.595	51.84	74.0	22.16	Peak	206.00	300	Vertical	Pass
5**	12535.595	46.52	54.0	7.48	AV	206.00	300	Vertical	Pass
6	15906.951	57.33	74.0	16.67	Peak	47.00	300	Vertical	Pass
6**	15906.951	46.59	54.0	7.41	AV	47.00	300	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	1518.289	35.34	74.0	38.66	Peak	68.00	200	Horizontal	Pass
1**	1518.289	26.92	54.0	27.08	AV	68.00	200	Horizontal	Pass
2	4021.867	50.01	74.0	23.99	Peak	309.00	300	Horizontal	Pass
2**	4021.867	36.84	54.0	17.16	AV	309.00	300	Horizontal	Pass
3	7601.974	53.63	74.0	20.37	Peak	101.00	200	Horizontal	Pass
3**	7601.974	44.82	54.0	9.18	AV	101.00	200	Horizontal	Pass
4	12452.170	53.75	74.0	20.25	Peak	285.00	200	Horizontal	Pass
4**	12452.170	42.22	54.0	11.78	AV	285.00	200	Horizontal	Pass
5	16095.033	54.29	74.0	19.71	Peak	76.00	100	Horizontal	Pass
5**	16095.033	42.86	54.0	11.14	AV	76.00	100	Horizontal	Pass
6	17417.604	55.98	74.0	18.02	Peak	171.00	100	Horizontal	Pass
6**	17417.604	49.55	54.0	4.45	AV	171.00	100	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	1335.230	46.59	74.0	27.41	Peak	326.00	100	Vertical	Pass
1**	1335.230	36.27	54.0	17.73	AV	326.00	100	Vertical	Pass
2	1441.026	39.03	74.0	34.97	Peak	177.00	300	Vertical	Pass
2**	1441.026	37.18	54.0	16.82	AV	177.00	300	Vertical	Pass
3	4311.523	47.45	74.0	26.55	Peak	232.00	200	Vertical	Pass
3**	4311.523	37.35	54.0	16.65	AV	232.00	200	Vertical	Pass
4	7596.001	54.04	74.0	19.96	Peak	238.00	200	Vertical	Pass
4**	7596.001	41.44	54.0	12.56	AV	238.00	200	Vertical	Pass
5	12531.185	55.27	74.0	18.73	Peak	62.00	300	Vertical	Pass
5**	12531.185	42.09	54.0	11.91	AV	62.00	300	Vertical	Pass
6	15907.017	52.39	74.0	21.61	Peak	172.00	400	Vertical	Pass
6**	15907.017	44.48	54.0	9.52	AV	172.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1522.754	41.15	74.0	32.85	Peak	44.00	300	Horizontal	Pass
1**	1522.754	31.73	54.0	22.27	AV	44.00	300	Horizontal	Pass
2	4020.897	48.90	74.0	25.10	Peak	266.00	400	Horizontal	Pass
2**	4020.897	36.89	54.0	17.11	AV	266.00	400	Horizontal	Pass
3	7594.962	52.31	74.0	21.69	Peak	14.00	200	Horizontal	Pass
3**	7594.962	42.73	54.0	11.27	AV	14.00	200	Horizontal	Pass
4	12457.881	51.99	74.0	22.01	Peak	345.00	100	Horizontal	Pass
4**	12457.881	45.58	54.0	8.42	AV	345.00	100	Horizontal	Pass
5	16093.566	52.95	74.0	21.05	Peak	221.00	400	Horizontal	Pass
5**	16093.566	42.47	54.0	11.53	AV	221.00	400	Horizontal	Pass
6	17421.015	56.75	74.0	17.25	Peak	50.00	100	Horizontal	Pass
6**	17421.015	45.08	54.0	8.92	AV	50.00	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	1332.166	45.86	74.0	28.14	Peak	203.00	400	Vertical	Pass
1**	1332.166	31.54	54.0	22.46	AV	203.00	400	Vertical	Pass
2	1438.643	42.99	74.0	31.01	Peak	262.00	400	Vertical	Pass
2**	1438.643	35.16	54.0	18.84	AV	262.00	400	Vertical	Pass
3	4314.674	46.62	74.0	27.38	Peak	84.00	200	Vertical	Pass
3**	4314.674	41.14	54.0	12.86	AV	84.00	200	Vertical	Pass
4	7595.672	52.54	74.0	21.46	Peak	154.00	400	Vertical	Pass
4**	7595.672	45.40	54.0	8.60	AV	154.00	400	Vertical	Pass
5	12534.466	56.21	74.0	17.79	Peak	181.00	400	Vertical	Pass
5**	12534.466	42.30	54.0	11.70	AV	181.00	400	Vertical	Pass
6	15909.864	52.84	74.0	21.16	Peak	1.00	200	Vertical	Pass
6**	15909.864	42.64	54.0	11.36	AV	1.00	200	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	1518.211	40.41	74.0	33.59	Peak	315.00	100	Horizontal	Pass
1**	1518.211	30.34	54.0	23.66	AV	315.00	100	Horizontal	Pass
2	4021.903	46.59	74.0	27.41	Peak	88.00	300	Horizontal	Pass
2**	4021.903	36.96	54.0	17.04	AV	88.00	300	Horizontal	Pass
3	7594.596	53.24	74.0	20.76	Peak	295.00	200	Horizontal	Pass
3**	7594.596	44.25	54.0	9.75	AV	295.00	200	Horizontal	Pass
4	12458.197	54.77	74.0	19.23	Peak	207.00	100	Horizontal	Pass
4**	12458.197	45.76	54.0	8.24	AV	207.00	100	Horizontal	Pass
5	16093.140	53.36	74.0	20.64	Peak	259.00	200	Horizontal	Pass
5**	16093.140	43.12	54.0	10.88	AV	259.00	200	Horizontal	Pass
6	17423.397	58.84	74.0	15.16	Peak	155.00	200	Horizontal	Pass
6**	17423.397	45.75	54.0	8.25	AV	155.00	200	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	1332.789	43.87	74.0	30.13	Peak	27.00	200	Vertical	Pass
1**	1332.789	35.13	54.0	18.87	AV	27.00	200	Vertical	Pass
2	1441.219	39.28	74.0	34.72	Peak	298.00	200	Vertical	Pass
2**	1441.219	35.03	54.0	18.97	AV	298.00	200	Vertical	Pass
3	4311.176	44.96	74.0	29.04	Peak	254.00	200	Vertical	Pass
3**	4311.176	41.09	54.0	12.91	AV	254.00	200	Vertical	Pass
4	7593.440	51.02	74.0	22.98	Peak	291.00	400	Vertical	Pass
4**	7593.440	41.17	54.0	12.83	AV	291.00	400	Vertical	Pass
5	12536.247	53.89	74.0	20.11	Peak	28.00	400	Vertical	Pass
5**	12536.247	46.03	54.0	7.97	AV	28.00	400	Vertical	Pass
6	15909.874	56.41	74.0	17.59	Peak	11.00	400	Vertical	Pass
6**	15909.874	48.45	54.0	5.55	AV	11.00	400	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	1525.036	39.55	74.0	34.45	Peak	182.00	300	Horizontal	Pass
1**	1525.036	30.14	54.0	23.86	AV	182.00	300	Horizontal	Pass
2	4021.348	47.70	74.0	26.30	Peak	158.00	300	Horizontal	Pass
2**	4021.348	34.23	54.0	19.77	AV	158.00	300	Horizontal	Pass
3	7600.829	55.60	74.0	18.40	Peak	337.00	200	Horizontal	Pass
3**	7600.829	45.28	54.0	8.72	AV	337.00	200	Horizontal	Pass
4	12456.252	54.03	74.0	19.97	Peak	335.00	100	Horizontal	Pass
4**	12456.252	41.88	54.0	12.12	AV	335.00	100	Horizontal	Pass
5	16092.284	52.70	74.0	21.30	Peak	14.00	400	Horizontal	Pass
5**	16092.284	43.14	54.0	10.86	AV	14.00	400	Horizontal	Pass
6	17417.099	54.76	74.0	19.24	Peak	159.00	400	Horizontal	Pass
6**	17417.099	45.14	54.0	8.86	AV	159.00	400	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	1333.122	46.07	74.0	27.93	Peak	153.00	400	Vertical	Pass
1**	1333.122	32.58	54.0	21.42	AV	153.00	400	Vertical	Pass
2	1436.428	43.24	74.0	30.76	Peak	63.00	300	Vertical	Pass
2**	1436.428	36.42	54.0	17.58	AV	63.00	300	Vertical	Pass
3	4315.230	50.08	74.0	23.92	Peak	141.00	200	Vertical	Pass
3**	4315.230	39.85	54.0	14.15	AV	141.00	200	Vertical	Pass
4	7595.993	51.99	74.0	22.01	Peak	223.00	300	Vertical	Pass
4**	7595.993	42.72	54.0	11.28	AV	223.00	300	Vertical	Pass
5	12531.450	51.50	74.0	22.50	Peak	306.00	400	Vertical	Pass
5**	12531.450	41.33	54.0	12.67	AV	306.00	400	Vertical	Pass
6	15902.575	55.71	74.0	18.29	Peak	126.00	300	Vertical	Pass
6**	15902.575	42.95	54.0	11.05	AV	126.00	300	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	1521.167	37.59	74.0	36.41	Peak	316.00	100	Horizontal	Pass
1**	1521.167	31.91	54.0	22.09	AV	316.00	100	Horizontal	Pass
2	4018.101	46.40	74.0	27.60	Peak	259.00	100	Horizontal	Pass
2**	4018.101	39.77	54.0	14.23	AV	259.00	100	Horizontal	Pass
3	7597.156	52.29	74.0	21.71	Peak	302.00	200	Horizontal	Pass
3**	7597.156	40.91	54.0	13.09	AV	302.00	200	Horizontal	Pass
4	12454.503	50.71	74.0	23.29	Peak	9.00	300	Horizontal	Pass
4**	12454.503	41.80	54.0	12.20	AV	9.00	300	Horizontal	Pass
5	16092.297	51.66	74.0	22.34	Peak	164.00	400	Horizontal	Pass
5**	16092.297	46.54	54.0	7.46	AV	164.00	400	Horizontal	Pass
6	17416.381	54.44	74.0	19.56	Peak	107.00	100	Horizontal	Pass
6**	17416.381	45.11	54.0	8.89	AV	107.00	100	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	1335.510	41.83	74.0	32.17	Peak	264.00	200	Vertical	Pass
1**	1335.510	32.08	54.0	21.92	AV	264.00	200	Vertical	Pass
2	1438.630	42.13	74.0	31.87	Peak	190.00	300	Vertical	Pass
2**	1438.630	39.62	54.0	14.38	AV	190.00	300	Vertical	Pass
3	4308.422	47.54	74.0	26.46	Peak	212.00	200	Vertical	Pass
3**	4308.422	39.49	54.0	14.51	AV	212.00	200	Vertical	Pass
4	7596.034	52.36	74.0	21.64	Peak	251.00	100	Vertical	Pass
4**	7596.034	44.02	54.0	9.98	AV	251.00	100	Vertical	Pass
5	12532.422	52.65	74.0	21.35	Peak	318.00	100	Vertical	Pass
5**	12532.422	42.37	54.0	11.63	AV	318.00	100	Vertical	Pass
6	15906.673	54.26	74.0	19.74	Peak	241.00	100	Vertical	Pass
6**	15906.673	46.11	54.0	7.89	AV	241.00	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	1517.458	40.77	74.0	33.23	Peak	50.00	200	Horizontal	Pass
1**	1517.458	30.34	54.0	23.66	AV	50.00	200	Horizontal	Pass
2	4019.692	47.07	74.0	26.93	Peak	213.00	200	Horizontal	Pass
2**	4019.692	37.46	54.0	16.54	AV	213.00	200	Horizontal	Pass
3	7599.318	53.84	74.0	20.16	Peak	92.00	200	Horizontal	Pass
3**	7599.318	44.64	54.0	9.36	AV	92.00	200	Horizontal	Pass
4	12456.342	52.30	74.0	21.70	Peak	37.00	100	Horizontal	Pass
4**	12456.342	42.47	54.0	11.53	AV	37.00	100	Horizontal	Pass
5	16097.081	52.54	74.0	21.46	Peak	78.00	100	Horizontal	Pass
5**	16097.081	42.65	54.0	11.35	AV	78.00	100	Horizontal	Pass
6	17417.188	57.70	74.0	16.30	Peak	118.00	100	Horizontal	Pass
6**	17417.188	45.83	54.0	8.17	AV	118.00	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	1336.450	47.42	74.0	26.58	Peak	350.00	400	Vertical	Pass
1**	1336.450	35.98	54.0	18.02	AV	350.00	400	Vertical	Pass
2	1441.928	40.76	74.0	33.24	Peak	238.00	100	Vertical	Pass
2**	1441.928	39.52	54.0	14.48	AV	238.00	100	Vertical	Pass
3	4313.113	48.41	74.0	25.59	Peak	49.00	200	Vertical	Pass
3**	4313.113	40.55	54.0	13.45	AV	49.00	200	Vertical	Pass
4	7595.557	50.31	74.0	23.69	Peak	360.00	400	Vertical	Pass
4**	7595.557	40.90	54.0	13.10	AV	360.00	400	Vertical	Pass
5	12532.053	53.26	74.0	20.74	Peak	54.00	100	Vertical	Pass
5**	12532.053	44.96	54.0	9.04	AV	54.00	100	Vertical	Pass
6	15902.729	57.34	74.0	16.66	Peak	257.00	200	Vertical	Pass
6**	15902.729	46.13	54.0	7.87	AV	257.00	200	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	1520.810	36.28	74.0	37.72	Peak	171.00	300	Horizontal	Pass
1**	1520.810	28.89	54.0	25.11	AV	171.00	300	Horizontal	Pass
2	4017.048	45.49	74.0	28.51	Peak	179.00	100	Horizontal	Pass
2**	4017.048	36.02	54.0	17.98	AV	179.00	100	Horizontal	Pass
3	7598.665	50.73	74.0	23.27	Peak	247.00	200	Horizontal	Pass
3**	7598.665	43.14	54.0	10.86	AV	247.00	200	Horizontal	Pass
4	12457.191	55.30	74.0	18.70	Peak	173.00	100	Horizontal	Pass
4**	12457.191	42.74	54.0	11.26	AV	173.00	100	Horizontal	Pass
5	16091.738	51.72	74.0	22.28	Peak	53.00	400	Horizontal	Pass
5**	16091.738	46.42	54.0	7.58	AV	53.00	400	Horizontal	Pass
6	17421.071	56.21	74.0	17.79	Peak	8.00	200	Horizontal	Pass
6**	17421.071	49.37	54.0	4.63	AV	8.00	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	1332.357	43.65	74.0	30.35	Peak	154.00	200	Vertical	Pass
1**	1332.357	35.38	54.0	18.62	AV	154.00	200	Vertical	Pass
2	1438.809	41.75	74.0	32.25	Peak	15.00	400	Vertical	Pass
2**	1438.809	35.10	54.0	18.90	AV	15.00	400	Vertical	Pass
3	4313.899	46.92	74.0	27.08	Peak	351.00	200	Vertical	Pass
3**	4313.899	39.68	54.0	14.32	AV	351.00	200	Vertical	Pass
4	7596.749	53.74	74.0	20.26	Peak	120.00	200	Vertical	Pass
4**	7596.749	46.38	54.0	7.62	AV	120.00	200	Vertical	Pass
5	12531.858	53.52	74.0	20.48	Peak	50.00	100	Vertical	Pass
5**	12531.858	42.14	54.0	11.86	AV	50.00	100	Vertical	Pass
6	15908.784	51.91	74.0	22.09	Peak	104.00	100	Vertical	Pass
6**	15908.784	43.46	54.0	10.54	AV	104.00	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	1519.585	37.53	74.0	36.47	Peak	289.00	100	Horizontal	Pass
1**	1519.585	30.10	54.0	23.90	AV	289.00	100	Horizontal	Pass
2	4018.900	46.76	74.0	27.24	Peak	308.00	300	Horizontal	Pass
2**	4018.900	36.29	54.0	17.71	AV	308.00	300	Horizontal	Pass
3	7594.803	52.29	74.0	21.71	Peak	145.00	200	Horizontal	Pass
3**	7594.803	43.88	54.0	10.12	AV	145.00	200	Horizontal	Pass
4	12457.434	52.73	74.0	21.27	Peak	293.00	200	Horizontal	Pass
4**	12457.434	42.19	54.0	11.81	AV	293.00	200	Horizontal	Pass
5	16096.605	52.55	74.0	21.45	Peak	42.00	400	Horizontal	Pass
5**	16096.605	46.56	54.0	7.44	AV	42.00	400	Horizontal	Pass
6	17417.460	57.25	74.0	16.75	Peak	250.00	100	Horizontal	Pass
6**	17417.460	45.61	54.0	8.39	AV	250.00	100	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	1337.331	43.28	74.0	30.72	Peak	69.00	300	Vertical	Pass
1**	1337.331	35.69	54.0	18.31	AV	69.00	300	Vertical	Pass
2	1436.423	42.72	74.0	31.28	Peak	139.00	200	Vertical	Pass
2**	1436.423	34.92	54.0	19.08	AV	139.00	200	Vertical	Pass
3	4313.473	45.77	74.0	28.23	Peak	241.00	200	Vertical	Pass
3**	4313.473	40.54	54.0	13.46	AV	241.00	200	Vertical	Pass
4	7592.534	53.23	74.0	20.77	Peak	88.00	300	Vertical	Pass
4**	7592.534	44.32	54.0	9.68	AV	88.00	300	Vertical	Pass
5	12536.147	50.79	74.0	23.21	Peak	171.00	400	Vertical	Pass
5**	12536.147	46.25	54.0	7.75	AV	171.00	400	Vertical	Pass
6	15908.683	53.74	74.0	20.26	Peak	176.00	200	Vertical	Pass
6**	15908.683	47.09	54.0	6.91	AV	176.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1521.988	36.19	74.0	37.81	Peak	62.00	100	Horizontal	Pass
1**	1521.988	27.55	54.0	26.45	AV	62.00	100	Horizontal	Pass
2	4017.405	49.28	74.0	24.72	Peak	356.00	300	Horizontal	Pass
2**	4017.405	38.08	54.0	15.92	AV	356.00	300	Horizontal	Pass
3	7596.207	54.14	74.0	19.86	Peak	148.00	200	Horizontal	Pass
3**	7596.207	44.06	54.0	9.94	AV	148.00	200	Horizontal	Pass
4	12452.716	51.05	74.0	22.95	Peak	230.00	200	Horizontal	Pass
4**	12452.716	44.07	54.0	9.93	AV	230.00	200	Horizontal	Pass
5	16096.425	55.69	74.0	18.31	Peak	354.00	300	Horizontal	Pass
5**	16096.425	45.32	54.0	8.68	AV	354.00	300	Horizontal	Pass
6	17422.835	58.50	74.0	15.50	Peak	242.00	300	Horizontal	Pass
6**	17422.835	49.71	54.0	4.29	AV	242.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1335.357	41.61	74.0	32.39	Peak	275.00	300	Vertical	Pass
1**	1335.357	32.63	54.0	21.37	AV	275.00	300	Vertical	Pass
2	1444.100	44.95	74.0	29.05	Peak	178.00	100	Vertical	Pass
2**	1444.100	37.92	54.0	16.08	AV	178.00	100	Vertical	Pass
3	4312.008	46.59	74.0	27.41	Peak	56.00	200	Vertical	Pass
3**	4312.008	40.52	54.0	13.48	AV	56.00	200	Vertical	Pass
4	7594.527	55.13	74.0	18.87	Peak	18.00	400	Vertical	Pass
4**	7594.527	46.42	54.0	7.58	AV	18.00	400	Vertical	Pass
5	12533.364	51.57	74.0	22.43	Peak	280.00	400	Vertical	Pass
5**	12533.364	44.39	54.0	9.61	AV	280.00	400	Vertical	Pass
6	15907.356	53.78	74.0	20.22	Peak	151.00	400	Vertical	Pass
6**	15907.356	43.25	54.0	10.75	AV	151.00	400	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	1519.115	35.35	74.0	38.65	Peak	118.00	100	Horizontal	Pass
1**	1519.115	29.32	54.0	24.68	AV	118.00	100	Horizontal	Pass
2	4023.093	48.78	74.0	25.22	Peak	118.00	400	Horizontal	Pass
2**	4023.093	36.45	54.0	17.55	AV	118.00	400	Horizontal	Pass
3	7599.092	55.96	74.0	18.04	Peak	288.00	200	Horizontal	Pass
3**	7599.092	44.66	54.0	9.34	AV	288.00	200	Horizontal	Pass
4	12459.598	54.75	74.0	19.25	Peak	71.00	400	Horizontal	Pass
4**	12459.598	43.17	54.0	10.83	AV	71.00	400	Horizontal	Pass
5	16092.110	54.79	74.0	19.21	Peak	209.00	400	Horizontal	Pass
5**	16092.110	44.80	54.0	9.20	AV	209.00	400	Horizontal	Pass
6	17417.124	57.58	74.0	16.42	Peak	172.00	200	Horizontal	Pass
6**	17417.124	48.03	54.0	5.97	AV	172.00	200	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	1329.811	41.83	74.0	32.17	Peak	164.00	300	Vertical	Pass
1**	1329.811	36.51	54.0	17.49	AV	164.00	300	Vertical	Pass
2	1443.696	39.83	74.0	34.17	Peak	329.00	100	Vertical	Pass
2**	1443.696	39.17	54.0	14.83	AV	329.00	100	Vertical	Pass
3	4308.015	49.21	74.0	24.79	Peak	224.00	200	Vertical	Pass
3**	4308.015	35.79	54.0	18.21	AV	224.00	200	Vertical	Pass
4	7593.163	53.37	74.0	20.63	Peak	35.00	400	Vertical	Pass
4**	7593.163	43.12	54.0	10.88	AV	35.00	400	Vertical	Pass
5	12531.506	53.61	74.0	20.39	Peak	336.00	200	Vertical	Pass
5**	12531.506	44.31	54.0	9.69	AV	336.00	200	Vertical	Pass
6	15904.109	55.00	74.0	19.00	Peak	162.00	300	Vertical	Pass
6**	15904.109	45.23	54.0	8.77	AV	162.00	300	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	1520.192	39.59	74.0	34.41	Peak	187.00	300	Horizontal	Pass
1**	1520.192	27.65	54.0	26.35	AV	187.00	300	Horizontal	Pass
2	4016.189	45.55	74.0	28.45	Peak	0.00	100	Horizontal	Pass
2**	4016.189	33.95	54.0	20.05	AV	0.00	100	Horizontal	Pass
3	7601.380	55.30	74.0	18.70	Peak	182.00	200	Horizontal	Pass
3**	7601.380	42.72	54.0	11.28	AV	182.00	200	Horizontal	Pass
4	12454.600	50.82	74.0	23.18	Peak	95.00	200	Horizontal	Pass
4**	12454.600	44.44	54.0	9.56	AV	95.00	200	Horizontal	Pass
5	16095.710	54.31	74.0	19.69	Peak	99.00	200	Horizontal	Pass
5**	16095.710	42.41	54.0	11.59	AV	99.00	200	Horizontal	Pass
6	17419.121	55.82	74.0	18.18	Peak	145.00	400	Horizontal	Pass
6**	17419.121	49.93	54.0	4.07	AV	145.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1335.229	44.69	74.0	29.31	Peak	289.00	300	Vertical	Pass
1**	1335.229	35.17	54.0	18.83	AV	289.00	300	Vertical	Pass
2	1444.232	40.89	74.0	33.11	Peak	3.00	400	Vertical	Pass
2**	1444.232	35.05	54.0	18.95	AV	3.00	400	Vertical	Pass
3	4314.220	47.08	74.0	26.92	Peak	298.00	200	Vertical	Pass
3**	4314.220	39.75	54.0	14.25	AV	298.00	200	Vertical	Pass
4	7598.241	51.73	74.0	22.27	Peak	145.00	100	Vertical	Pass
4**	7598.241	44.09	54.0	9.91	AV	145.00	100	Vertical	Pass
5	12534.854	55.27	74.0	18.73	Peak	25.00	400	Vertical	Pass
5**	12534.854	43.35	54.0	10.65	AV	25.00	400	Vertical	Pass
6	15908.259	57.10	74.0	16.90	Peak	290.00	100	Vertical	Pass
6**	15908.259	47.04	54.0	6.96	AV	290.00	100	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	1517.136	39.04	74.0	34.96	Peak	172.00	200	Horizontal	Pass
1**	1517.136	28.76	54.0	25.24	AV	172.00	200	Horizontal	Pass
2	4022.281	48.56	74.0	25.44	Peak	285.00	400	Horizontal	Pass
2**	4022.281	38.83	54.0	15.17	AV	285.00	400	Horizontal	Pass
3	7599.081	55.98	74.0	18.02	Peak	269.00	200	Horizontal	Pass
3**	7599.081	45.41	54.0	8.59	AV	269.00	200	Horizontal	Pass
4	12454.814	54.49	74.0	19.51	Peak	72.00	100	Horizontal	Pass
4**	12454.814	43.22	54.0	10.78	AV	72.00	100	Horizontal	Pass
5	16096.153	55.89	74.0	18.11	Peak	177.00	400	Horizontal	Pass
5**	16096.153	42.10	54.0	11.90	AV	177.00	400	Horizontal	Pass
6	17418.846	56.64	74.0	17.36	Peak	218.00	300	Horizontal	Pass
6**	17418.846	47.98	54.0	6.02	AV	218.00	300	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	1331.152	46.72	74.0	27.28	Peak	291.00	100	Vertical	Pass
1**	1331.152	34.11	54.0	19.89	AV	291.00	100	Vertical	Pass
2	1439.030	39.39	74.0	34.61	Peak	27.00	200	Vertical	Pass
2**	1439.030	35.06	54.0	18.94	AV	27.00	200	Vertical	Pass
3	4310.298	46.47	74.0	27.53	Peak	151.00	200	Vertical	Pass
3**	4310.298	38.83	54.0	15.17	AV	151.00	200	Vertical	Pass
4	7593.988	52.75	74.0	21.25	Peak	13.00	300	Vertical	Pass
4**	7593.988	42.32	54.0	11.68	AV	13.00	300	Vertical	Pass
5	12538.820	55.80	74.0	18.20	Peak	89.00	200	Vertical	Pass
5**	12538.820	42.61	54.0	11.39	AV	89.00	200	Vertical	Pass
6	15909.294	52.71	74.0	21.29	Peak	202.00	400	Vertical	Pass
6**	15909.294	45.20	54.0	8.80	AV	202.00	400	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	1518.823	39.42	74.0	34.58	Peak	11.00	200	Horizontal	Pass
1**	1518.823	27.93	54.0	26.07	AV	11.00	200	Horizontal	Pass
2	4018.537	49.60	74.0	24.40	Peak	355.00	300	Horizontal	Pass
2**	4018.537	35.38	54.0	18.62	AV	355.00	300	Horizontal	Pass
3	7600.711	53.40	74.0	20.60	Peak	73.00	200	Horizontal	Pass
3**	7600.711	43.26	54.0	10.74	AV	73.00	200	Horizontal	Pass
4	12458.709	55.45	74.0	18.55	Peak	71.00	400	Horizontal	Pass
4**	12458.709	42.92	54.0	11.08	AV	71.00	400	Horizontal	Pass
5	16097.392	52.47	74.0	21.53	Peak	280.00	300	Horizontal	Pass
5**	16097.392	46.58	54.0	7.42	AV	280.00	300	Horizontal	Pass
6	17421.799	55.09	74.0	18.91	Peak	256.00	400	Horizontal	Pass
6**	17421.799	49.12	54.0	4.88	AV	256.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1336.391	43.62	74.0	30.38	Peak	268.00	100	Vertical	Pass
1**	1336.391	33.56	54.0	20.44	AV	268.00	100	Vertical	Pass
2	1441.227	42.23	74.0	31.77	Peak	351.00	200	Vertical	Pass
2**	1441.227	36.67	54.0	17.33	AV	351.00	200	Vertical	Pass
3	4309.566	46.06	74.0	27.94	Peak	219.00	200	Vertical	Pass
3**	4309.566	41.41	54.0	12.59	AV	219.00	200	Vertical	Pass
4	7592.492	56.00	74.0	18.00	Peak	85.00	200	Vertical	Pass
4**	7592.492	43.46	54.0	10.54	AV	85.00	200	Vertical	Pass
5	12535.018	55.60	74.0	18.40	Peak	154.00	400	Vertical	Pass
5**	12535.018	42.91	54.0	11.09	AV	154.00	400	Vertical	Pass
6	15905.827	56.62	74.0	17.38	Peak	53.00	100	Vertical	Pass
6**	15905.827	46.19	54.0	7.81	AV	53.00	100	Vertical	Pass

A.6.2 Band Edge (Restricted-band)

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

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

Test Data

SISO-Aux. Antenna

U-NII-1 11a Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5147.833	56.74	74.0	17.26	Peak	273.00	150	Horizontal	Pass
1**	5147.833	44.67	54.0	9.33	AV	273.00	150	Horizontal	Pass
2	5150.000	56.85	74.0	17.15	Peak	280.00	150	Horizontal	Pass
2**	5150.000	45.18	54.0	8.82	AV	280.00	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	56.08	74.0	17.92	Peak	59.00	100	Horizontal	Pass
1**	5350.000	45.15	54.0	8.85	AV	59.00	100	Horizontal	Pass
2	5350.917	56.75	74.0	17.25	Peak	15.00	150	Horizontal	Pass
2**	5350.917	45.21	54.0	8.79	AV	15.00	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	59.99	74.0	14.01	Peak	264.00	150	Horizontal	Pass
1**	5148.917	44.83	54.0	9.17	AV	264.00	150	Horizontal	Pass
2	5150.000	57.32	74.0	16.68	Peak	279.00	150	Horizontal	Pass
2**	5150.000	44.82	54.0	9.18	AV	279.00	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	55.74	74.0	18.26	Peak	243.00	150	Horizontal	Pass
1**	5350.000	45.23	54.0	8.77	AV	243.00	150	Horizontal	Pass
2	5356.417	56.71	74.0	17.29	Peak	113.00	200	Horizontal	Pass
2**	5356.417	44.96	54.0	9.04	AV	113.00	200	Horizontal	Pass

U-NII-1 11n40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5146.750	61.10	74.0	12.90	Peak	279.00	100	Horizontal	Pass
1**	5146.750	49.00	54.0	5.00	AV	279.00	100	Horizontal	Pass
2	5150.000	63.67	74.0	10.33	Peak	279.00	200	Horizontal	Pass
2**	5150.000	50.22	54.0	3.78	AV	279.00	200	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	55.93	74.0	18.07	Peak	259.00	200	Horizontal	Pass
1**	5350.000	45.28	54.0	8.72	AV	259.00	200	Horizontal	Pass
2	5384.834	57.18	74.0	16.82	Peak	303.00	150	Horizontal	Pass
2**	5384.834	44.85	54.0	9.15	AV	303.00	150	Horizontal	Pass

U-NII-1 11ac20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5145.667	56.76	74.0	17.24	Peak	268.00	150	Horizontal	Pass
1**	5145.667	44.67	54.0	9.33	AV	268.00	150	Horizontal	Pass
2	5150.000	56.34	74.0	17.66	Peak	266.00	200	Horizontal	Pass
2**	5150.000	45.00	54.0	9.00	AV	266.00	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	55.46	74.0	18.54	Peak	90.00	100	Horizontal	Pass
1**	5350.000	45.19	54.0	8.81	AV	90.00	100	Horizontal	Pass
2	5394.916	56.70	74.0	17.30	Peak	360.00	100	Horizontal	Pass
2**	5394.916	44.69	54.0	9.31	AV	360.00	100	Horizontal	Pass

U-NII-1 11ac40 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5147.833	61.86	74.0	12.14	Peak	281.00	150	Horizontal	Pass
1**	5147.833	49.52	54.0	4.48	AV	281.00	150	Horizontal	Pass
2	5150.000	62.11	74.0	11.89	Peak	285.00	100	Horizontal	Pass
2**	5150.000	50.49	54.0	3.51	AV	285.00	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	55.27	74.0	18.73	Peak	360.00	100	Horizontal	Pass
1**	5350.000	45.17	54.0	8.83	AV	360.00	100	Horizontal	Pass
2	5374.200	56.69	74.0	17.31	Peak	43.00	200	Horizontal	Pass
2**	5374.200	45.13	54.0	8.87	AV	43.00	200	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	5130.500	62.08	74.0	11.92	Peak	280.00	150	Horizontal	Pass
1**	5130.500	49.03	54.0	4.97	AV	280.00	150	Horizontal	Pass
2	5150.000	60.32	74.0	13.68	Peak	280.00	150	Horizontal	Pass
2**	5150.000	50.04	54.0	3.96	AV	280.00	150	Horizontal	Pass
3	5148.917	61.65	74.0	12.35	Peak	276.00	150	Horizontal	Pass
3**	5148.917	50.35	54.0	3.65	AV	276.00	150	Horizontal	Pass

U-NII-1 11ac80 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5350.000	56.17	74.0	17.83	Peak	208.00	100	Horizontal	Pass
1**	5350.000	45.37	54.0	8.63	AV	208.00	100	Horizontal	Pass
2	5365.950	56.97	74.0	17.03	Peak	284.00	100	Horizontal	Pass
2**	5365.950	44.90	54.0	9.10	AV	284.00	100	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	5636.666	56.53	68.2	11.67	Peak	268.00	150	Horizontal	Pass
2	5650.000	55.20	68.2	13.00	Peak	157.00	100	Horizontal	Pass

U-NII-3 11a High Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	55.56	68.4	12.84	Peak	227.00	150	Horizontal	Pass
2	5939.000	57.03	68.2	11.17	Peak	322.00	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	5634.166	57.29	68.2	10.91	Peak	216.00	100	Horizontal	Pass
2	5650.000	55.65	68.2	12.55	Peak	6.00	200	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	55.90	68.4	12.50	Peak	115.00	150	Horizontal	Pass
2	5999.750	57.27	68.2	10.93	Peak	96.00	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	5640.416	56.31	68.2	11.89	Peak	326.00	100	Horizontal	Pass
2	5650.000	56.41	68.2	11.79	Peak	33.00	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	55.03	68.4	13.37	Peak	11.00	100	Horizontal	Pass
2	5978.750	57.12	68.2	11.08	Peak	164.00	100	Horizontal	Pass

U-NII-3 11ac20 Low Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5640.208	56.88	68.2	11.32	Peak	314.00	200	Horizontal	Pass
2	5650.000	55.25	68.2	12.95	Peak	227.00	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	55.97	68.4	12.43	Peak	89.00	150	Horizontal	Pass
2	5999.000	56.99	68.2	11.21	Peak	18.00	150	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	5634.791	56.08	68.2	12.12	Peak	193.00	100	Horizontal	Pass
2	5650.000	56.09	68.2	12.11	Peak	47.00	100	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	55.48	68.4	12.92	Peak	133.00	100	Horizontal	Pass
2	5938.500	57.10	68.2	11.10	Peak	360.00	200	Horizontal	Pass

U-NII-3 11ac80 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5639.584	57.65	68.2	10.55	Peak	239.00	150	Horizontal	Pass
2	5650.000	56.19	68.2	12.01	Peak	291.00	150	Horizontal	Pass

U-NII-3 11ac80 Middle Channel

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	5924.750	55.54	68.4	12.86	Peak	357.00	100	Horizontal	Pass
2	5931.250	57.50	68.2	10.70	Peak	132.00	150	Horizontal	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2560122-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2560122-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2560122-AI.PDF”.

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