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TESTING
CNAS L6791

TEST REPORT

Applicant: Ugreen Group Limited
Address: UGREEN Building, Longcheng Industrial Park
Longguanxi Road, Longhua, ShenZhen, China
Equipment Type: AXE5400 Wi-Fi 6E High-Gain USB Adapter
Model Name: CM787
Brand Name: **UGREEN**
FCC ID: 2AQI5-CM787
Test Standard: 47 CFR Part 15 Subpart E
(refer to section 3.1)
Sample Arrival Date: Sep. 05, 2025
Test Date: Sep. 06, 2025 - Oct. 06, 2025
Date of Issue: Oct. 20, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Julie Zhu**Checked by:** Ye Hongji**Approved by:** Sunny Zou
(Technical Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Oct. 20, 2025</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ 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	Ugreen Group Limited
Address	UGREEN Building, Longcheng Industrial Park Longguanxi Road, Longhua, ShenZhen, China

2.2 Manufacturer Information

Manufacturer	Ugreen Group Limited
Address	UGREEN Building, Longcheng Industrial Park Longguanxi Road, Longhua, ShenZhen, China

2.3 General Description for Equipment under Test (EUT)

EUT Name	AXE5400 Wi-Fi 6E High-Gain USB Adapter
Model Name Under Test	CM787
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

Remark:

- Product Number (P/N) code in the below table, for marketing purpose, will be marked on the marking plate.

75917	75917EU	75917UK	75917US	75917JP	75917CN	75917KC
75917A	75917B	75917C	75917P	75917U	75917X	KC-75917

2.4 Technical Information

Network and Wireless connectivity	WIFI 802.11a, 802.11b, 802.11g, 802.11n, 802.11ac and 802.11ax
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The requirement for the following technical information of the EUT was tested in this report:

Frequency Range	U-NII-1: 5150 MHz to 5250 MHz, U-NII-2A: 5250 MHz to 5350 MHz, U-NII-2C: 5470 MHz to 5725 MHz, U-NII-3: 5725 MHz to 5850 MHz	
Product Type	☐ Mobile ☒ Portable ☐ Fix Location	
Modulation Technology	OFDM, OFDMA	
Modulation Type	1024QAM, 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 802.11ax up to 1201 Mbps	
Channel Bandwidth	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80 MHz, 160MHz 802.11ax: 20 MHz, 40 MHz, 80 MHz, 160MHz	
Maximum Output Power	U-NII-1: 17.58 mW U-NII-2A: 17.66 mW U-NII-2C: 22.23 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/ax	
Categorization as Correlated or Completely Uncorrelated	Categorization as Correlated for 802.11a Categorization as Uncorrelated for 802.11n/ac/ax	
Antenna Type	SISO- Antenna 0	PCB Antenna
	SISO- Antenna 1	
Antenna Gain	SISO- Antenna 0	3.05 dBi
	SISO- Antenna 1	
Total directional gain	For power spectral density(PSD) measureme	Correlated: 6.06 dBi Formulas: Directional gain = $G_{ANT} + 10 \log(N_{ANT})$ dBi Uncorrelated: 3.05 dBi

	nts	Formulas: Directional gain = $GANT$
	For power measurements	Correlated: 6.06 dBi Formulas: Directional gain = $GANT + 10 \log(NANT)$ dBi Uncorrelated: 3.05 dBi Formulas: Directional gain = $GANT$
About the Product		The equipment is AXE5400 Wi-Fi 6E High-Gain USB Adapter, intended for used with information technology equipment.

Mode	Antenna		
	SISO-Antenna 0	SISO-Antenna 1	MIMO
802.11a	√	√	√
802.11n20	√	√	√
802.11n40	√	√	√
802.11ac20	√	√	√
802.11ac40	√	√	√
802.11ac80	√	√	√
802.11ac160	√	√	√
802.11ax20	√	√	√
802.11ax40	√	√	√
802.11ax80	√	√	√
802.11ax160	√	√	√
Note: All the configurations were tested, but only the worst data was shown in this report.			

802.11ax RU configuration table							
Mode	Full RU (SU)	RU_26	RU_52	RU_106	RU_242	RU_484	RU_996
802.11ax20	√	--	--	--	--	--	--
802.11ax40	√	--	--	--	--	--	--
802.11ax80	√	--	--	--	--	--	--
802.11ax160	√	--	--	--	--	--	--

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		160 MHz	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
36	5180	38	5190	42	5210	50	5250
40	5200	46	5230	58	5290	114	5570
44	5220	54	5270	106	5530		
48	5240	62	5310	122	5610		
52	5260	102	5510	155	5775		
56	5280	110	5550				
60	5300	118	5590				
64	5320	126	5630				
100	5500	134	5670				
104	5520	151	5755				
108	5540	159	5795				
112	5560						
116	5580						
120	5600						
124	5620						
128	5640						
132	5660						
136	5680						
140	5700						
149	5745						
153	5765						
157	5785						
161	5805						
165	5825						

Note: This report equipment will not transmit in the 5600-5650 MHz frequency band when used in Canada. This restriction is to protect weather radars operating in this frequency band.

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)/ax(HE20)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
36	Low	5180	52	Low	5260
44	Mid	5220	60	Mid	5300
48	High	5240	64	High	5320

U-NII-2C (5470 - 5725 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
100	Low	5500	149	Low	5745
116	Mid	5580	157	Mid	5785
140	High	5700	165	High	5825

For 802.11n(HT40)/ac(VHT40)/ax(HE40)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
38	Low	5190	54	Low	5270
46	High	5230	62	High	5310

U-NII-2C (5470 - 5725 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
102	Low	5510	151	Low	5755
118	Mid	5590	159	High	5795
134	High	5670			

For 802.11ac(VHT80)/ax(HE80)

U-NII-1 (5150 - 5250 MHz)			U-NII-2A (5250 - 5350 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
42	Mid	5210	58	Mid	5290

U-NII-2C (5470 - 5725 MHz)			U-NII-3 (5725 - 5850 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
106	Low	5530	155	Mid	5775
122	High	5610			

For 802.11ac(VHT160)/ax(HE160)

U-NII-1 (5150 - 5250 MHz)			U-NII-2C (5470 - 5725 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
50	Mid	5250	114	Mid	5570

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-2A	U-NII-2C	U-NII-3
				Channel	Channel	Channel	Channel
RF Output Power	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
	11ac(160 MHz)	58.5		50	/	114	/
	11ax(20 MHz)	4		48/44/36	64/60/52	140/116/100	165/157/149
	11ax(40 MHz)	8		46/38	62/54	134/118/102	159/151
	11ax(80 MHz)	17		42	58	122/106	155
	11ax(160 MHz)	34		50	/	114	/
Emission Bandwidth & 99% Occupied Bandwidth	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
	11ac(160 MHz)	58.5		50	/	114	/
	11ax(20 MHz)	4		48/44/36	64/60/52	140/116/100	165/157/149
	11ax(40 MHz)	8		46/38	62/54	134/118/102	159/151
	11ax(80 MHz)	17		42	58	122/106	155
	11ax(160 MHz)	34		50	/	114	/
6 dB Bandwidth	11a	6	BPSK	N/A	N/A	N/A	165/157/149
	11n(20 MHz)	6.5		N/A	N/A	N/A	165/157/149
	11n(40 MHz)	13.5		N/A	N/A	N/A	159/151
	11ac(20 MHz)	6.5		N/A	N/A	N/A	165/157/149
	11ac(40 MHz)	13.5		N/A	N/A	N/A	159/151
	11ac(80 MHz)	29.3		N/A	N/A	N/A	155
	11ax(20 MHz)	4		N/A	N/A	N/A	165/157/149
	11ax(40 MHz)	8		N/A	N/A	N/A	159/151
	11ax(80 MHz)	17		N/A	N/A	N/A	155
Power Spectral Density	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
	11ac(160 MHz)	58.5		50	/	114	/
	11ax(20 MHz)	4		48/44/36	64/60/52	140/116/100	165/157/149

	11ax(40 MHz)	8		46/38	62/54	134/118/102	159/151
	11ax(80 MHz)	17		42	58	122/106	155
	11ax(160 MHz)	34		50	/	114	/
Radiated Spurious Emissions	11a	6	BPSK	48/44/36	64/60/52	140/116/100	165/157/149
	11n(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11n(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(20 MHz)	6.5		48/44/36	64/60/52	140/116/100	165/157/149
	11ac(40 MHz)	13.5		46/38	62/54	134/118/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
	11ac(160 MHz)	58.5		50	/	114	/
	11ax(20 MHz)	4		48/44/36	64/60/52	140/116/100	165/157/149
	11ax(40 MHz)	8		46/38	62/54	134/118/102	159/151
	11ax(80 MHz)	17		42	58	122/106	155
	11ax(160 MHz)	34		50	/	114	/
Band Edge (Restricted -band)	11a	6	BPSK	48/36	64/52	140/100	165/149
	11n(20 MHz)	6.5		48/36	64/52	140/100	165/149
	11n(40 MHz)	13.5		46/38	62/54	134/102	159/151
	11ac(20 MHz)	6.5		48/36	64/52	140/100	165/149
	11ac(40 MHz)	13.5		46/38	62/54	134/102	159/151
	11ac(80 MHz)	29.3		42	58	122/106	155
	11ac(160 MHz)	58.5		50	/	114	/
	11ax(20 MHz)	4		48/36	64/52	140/100	165/149
	11ax(40 MHz)	8		46/38	62/54	134/102	159/151
	11ax(80 MHz)	17		42	58	122/106	155
	11ax(160 MHz)	34		50	/	114	/

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 C63.10-2020	American National Standard of Procedures for Compliance Testing of 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)	5.1.4	Pass
3	Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	5.2.4	Pass
4	6 dB bandwidth	15.407(e)	5.2.4	Pass
5	Power Spectral Density	15.407(a)	5.3.4	Pass
6	Conducted Emission	15.207	5.4.4	Pass
7	Radiated Spurious Emissions and Band Edge (Restricted-band)	15.407(b)	5.5.4	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	50% to 62%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+21.8°C to +25.7°C
Working Voltage of the EUT	NV (Normal Voltage)	5 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY46471071	2025.06.16	2026.06.15
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2024.12.16	2025.12.15
Power Sensor	KEYSIGHT	U2063XA	MY58000247	2025.06.16	2026.06.15
Spectrum Analyzer	KEYSIGHT	N9020A	MY50531259	2025.06.16	2026.06.15
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	2025.06.17	2026.06.16
Amplifier	COM-MV	XKu_LNA7-18G-01	7210209	2025.06.17	2026.06.16
Amplifier	COM-MV	KA LNA18 40G-01	18050001	2024.12.05	2025.12.04
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2025.06.16	2026.06.15
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-01162	2023.08.04	2026.08.03
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2024.01.23	2027.01.22
Amplifier	COM-MV	ZT30-1000M	B2018054558	2024.11.28	2025.11.27
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	130	2024.07.13	2027.07.12
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2025.06.16	2026.06.15
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%

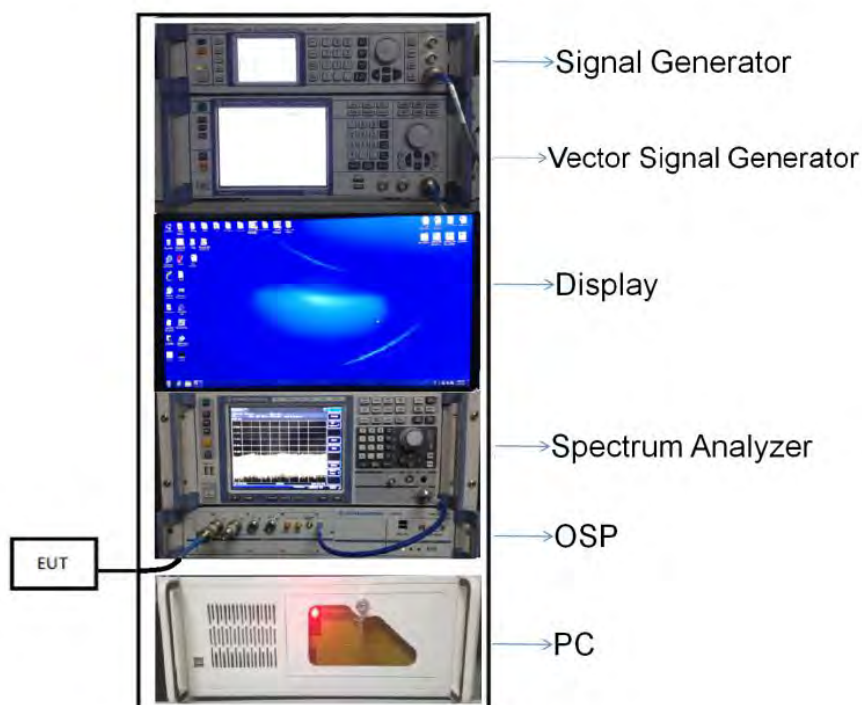
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

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

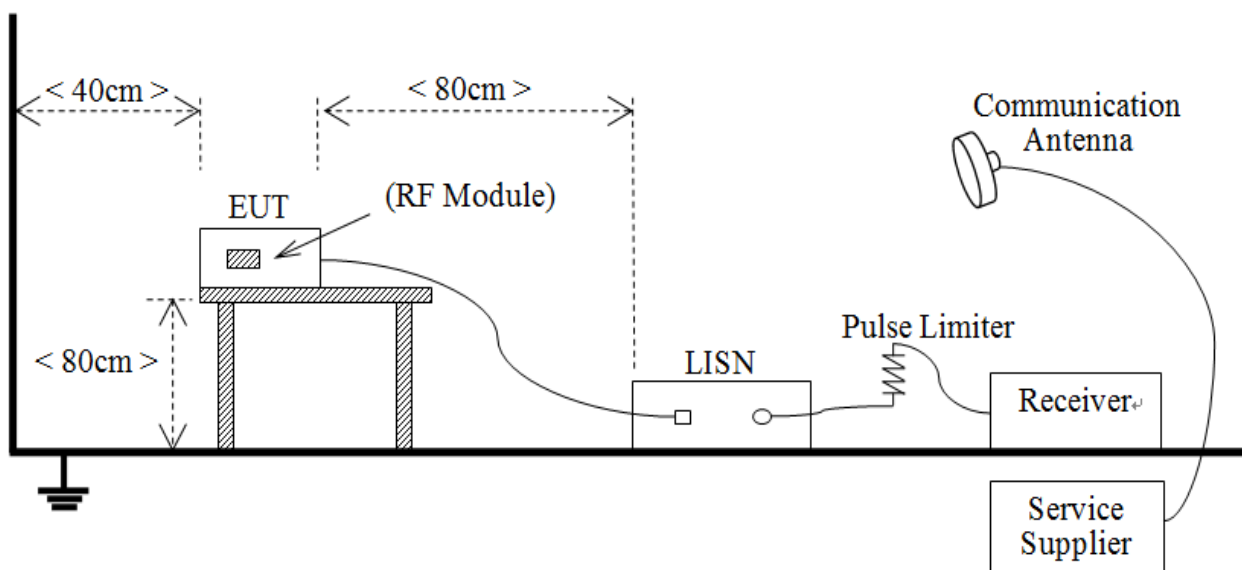
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

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



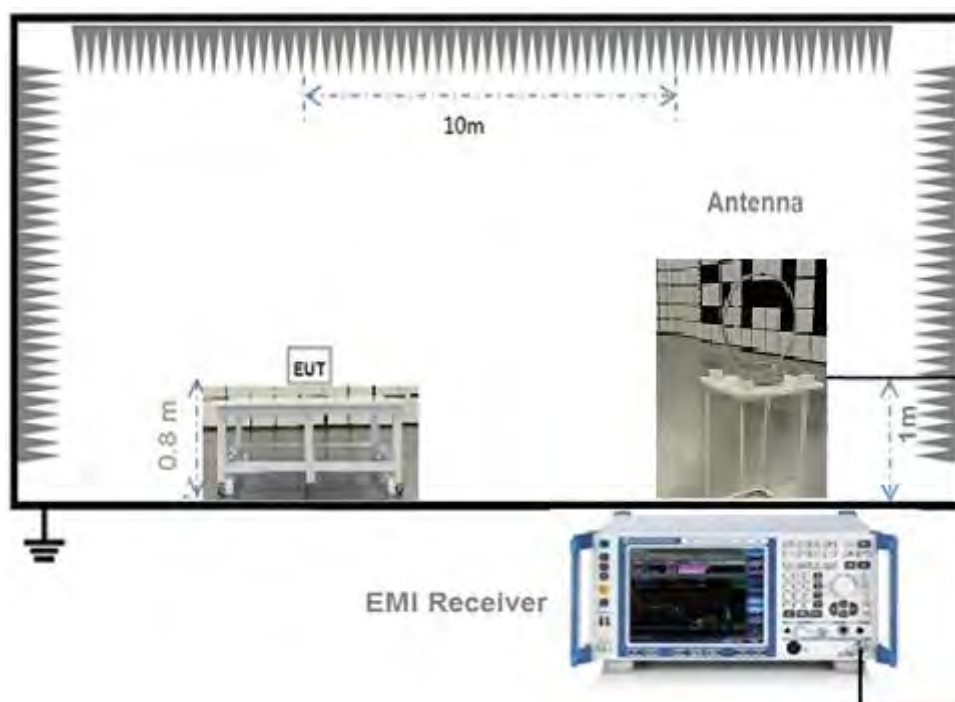
(Diagram 1)

4.5.2 For AC Power Supply Port Test



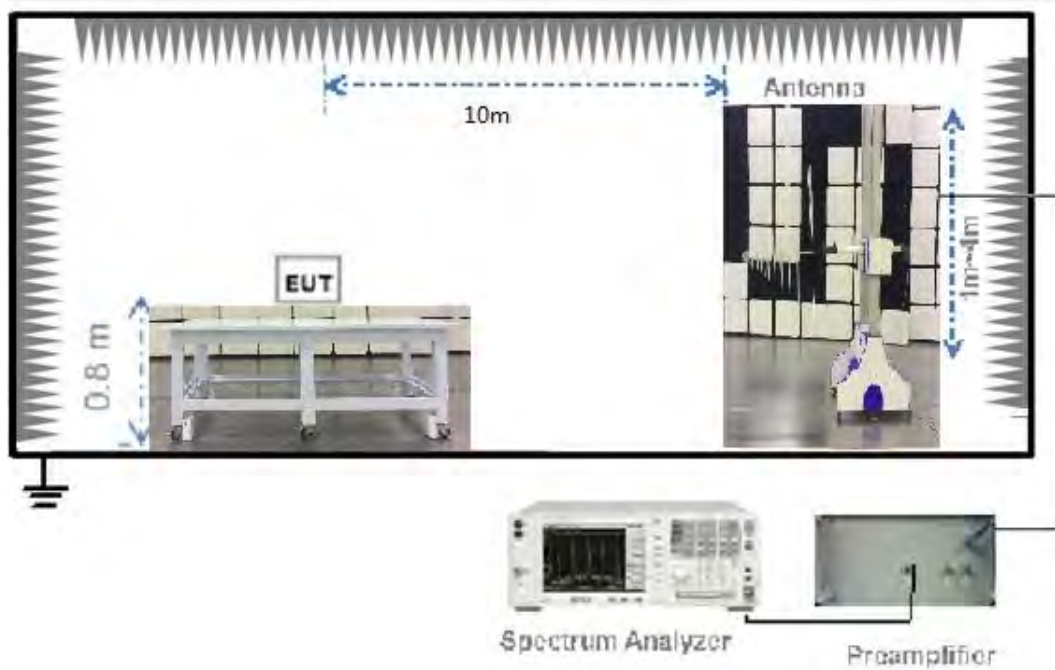
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



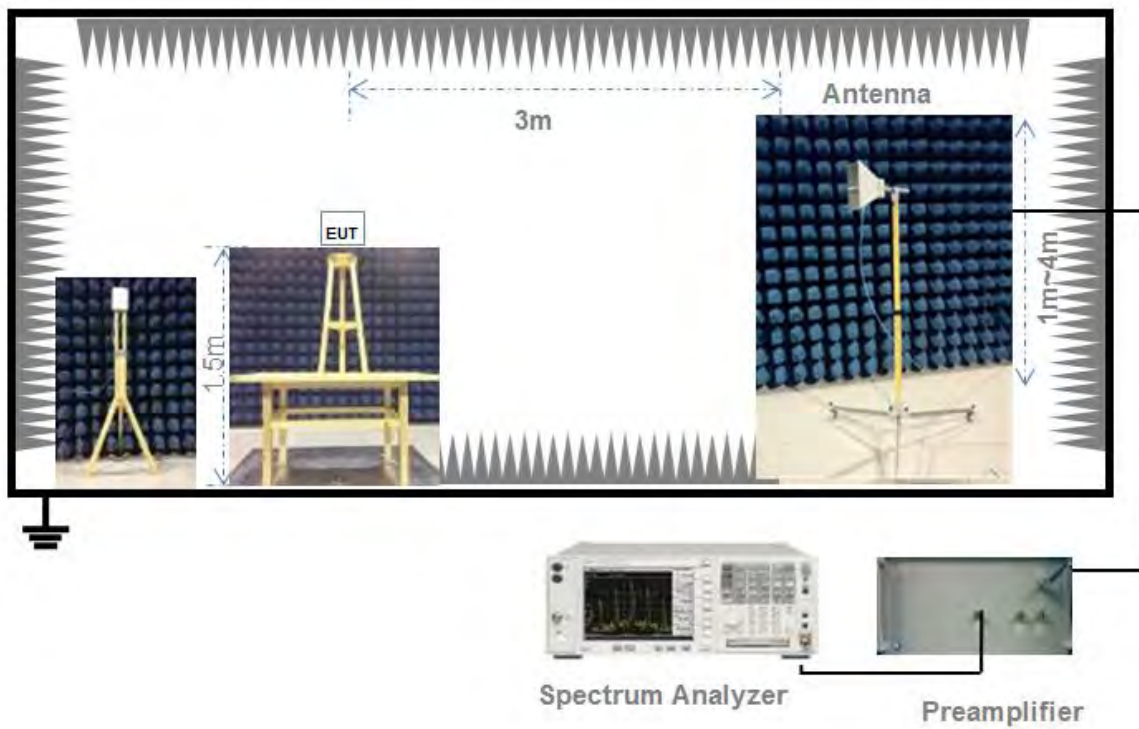
(Diagram 3)

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 A.

5.1.3 Test Procedure

Maximum conducted (average) output power

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

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

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

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

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

Measurements of duty cycle

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

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

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

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

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

The E.I.R.P used radiated test method. At a test site that has been validated using the procedures of ANSI C63.10 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

Note 1: For FCC standard, if transmitting antennas of directional gain greater than 6 dBi are used, all band maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11a	1.36	1.37	99.12%	0.04
11n(HT20)/11ac(VHT20)	1.14	1.16	98.45%	0.07
11n(HT40)/11ac(VHT40)	0.57	0.58	97.94%	0.09
11ac(VHT80)	0.29	0.30	96.62%	0.15
11ac(VHT160)	0.17	0.17	94.84%	0.23
11ax(HE20)(SU)	0.98	1.00	98.80%	0.05
11ax(HE40)(SU)	0.52	0.53	97.73%	0.10
11ax(HE80)(SU)	0.28	0.29	96.53%	0.15
11ax(HE160)(SU)	0.17	0.18	94.86%	0.23

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U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	12.40	17.38	250	Pass
11a	CH44	12.37	17.26	250	Pass
11a	CH48	12.45	17.58	250	Pass
11n(HT20)	CH36	12.34	17.14	250	Pass
11n(HT20)	CH44	12.37	17.26	250	Pass
11n(HT20)	CH48	12.36	17.22	250	Pass
11n(HT40)	CH38	11.82	15.21	250	Pass
11n(HT40)	CH46	11.56	14.32	250	Pass
11ac(VHT20)	CH36	12.11	16.26	250	Pass
11ac(VHT20)	CH44	12.10	16.22	250	Pass
11ac(VHT20)	CH48	12.21	16.63	250	Pass
11ac(VHT40)	CH38	12.11	16.26	250	Pass
11ac(VHT40)	CH46	12.07	16.11	250	Pass
11ac(VHT80)	CH42	12.32	17.06	250	Pass
11ac(VHT160)	CH50	10.75	11.89	250	Pass
11ax(HE20)(SU)	CH36	12.17	16.48	250	Pass
11ax(HE20)(SU)	CH44	12.01	15.89	250	Pass
11ax(HE20)(SU)	CH48	11.97	15.74	250	Pass
11ax(HE40)(SU)	CH38	12.40	17.38	250	Pass
11ax(HE40)(SU)	CH46	12.44	17.54	250	Pass
11ax(HE80)(SU)	CH42	12.31	17.02	250	Pass
11ax(HE160)(SU)	CH50	11.27	13.40	250	Pass

U-NII-2A (5250 - 5350 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH52	12.00	15.85	226	Pass
11a	CH60	12.08	16.14	226	Pass
11a	CH64	12.47	17.66	226	Pass
11n(HT20)	CH52	12.14	16.37	237	Pass
11n(HT20)	CH60	12.21	16.63	238	Pass
11n(HT20)	CH64	12.02	15.92	237	Pass
11n(HT40)	CH54	11.97	15.74	250	Pass
11n(HT40)	CH62	12.09	16.18	250	Pass
11ac(VHT20)	CH52	11.88	15.42	237	Pass
11ac(VHT20)	CH60	11.75	14.96	237	Pass
11ac(VHT20)	CH64	12.24	16.75	238	Pass
11ac(VHT40)	CH54	12.05	16.03	250	Pass
11ac(VHT40)	CH62	12.33	17.10	250	Pass
11ac(VHT80)	CH58	11.71	14.83	250	Pass
11ax(HE20)(SU)	CH52	11.66	14.66	250	Pass
11ax(HE20)(SU)	CH60	11.78	15.07	250	Pass
11ax(HE20)(SU)	CH64	12.33	17.10	250	Pass
11ax(HE40)(SU)	CH54	12.37	17.26	250	Pass
11ax(HE40)(SU)	CH62	11.91	15.52	250	Pass
11ax(HE80)(SU)	CH58	9.02	7.98	250	Pass

U-NII-2C (5470 - 5725 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH100	13.24	21.09	226	Pass
11a	CH116	12.95	19.72	226	Pass
11a	CH140	13.39	21.83	226	Pass
11n(HT20)	CH100	12.90	19.50	238	Pass
11n(HT20)	CH116	13.47	22.23	237	Pass
11n(HT20)	CH140	13.27	21.23	238	Pass
11n(HT40)	CH102	12.97	19.82	250	Pass
11n(HT40)	CH118	12.93	19.63	250	Pass
11n(HT40)	CH134	13.37	21.73	250	Pass
11ac(VHT20)	CH100	12.91	19.54	238	Pass
11ac(VHT20)	CH116	13.28	21.28	238	Pass
11ac(VHT20)	CH140	12.96	19.77	238	Pass
11ac(VHT40)	CH102	12.85	19.28	250	Pass
11ac(VHT40)	CH118	12.90	19.50	250	Pass
11ac(VHT40)	CH134	13.27	21.23	250	Pass
11ac(VHT80)	CH106	12.97	19.82	250	Pass
11ac(VHT80)	CH122	13.13	20.56	250	Pass
11ac(VHT160)	CH114	9.95	9.89	250	Pass
11ax(HE20)(SU)	CH100	12.85	19.28	250	Pass
11ax(HE20)(SU)	CH116	13.34	21.58	250	Pass
11ax(HE20)(SU)	CH140	13.36	21.68	250	Pass
11ax(HE40)(SU)	CH102	12.93	19.63	250	Pass
11ax(HE40)(SU)	CH118	13.02	20.04	250	Pass
11ax(HE40)(SU)	CH134	13.41	21.93	250	Pass
11ax(HE80)(SU)	CH106	13.40	21.88	250	Pass
11ax(HE80)(SU)	CH122	13.11	20.46	250	Pass
11ax(HE160)(SU)	CH114	11.26	13.37	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.02	20.04	1000	Pass
11a	CH157	13.12	20.51	1000	Pass
11a	CH165	13.44	22.08	1000	Pass
11n(HT20)	CH149	12.97	19.82	1000	Pass
11n(HT20)	CH157	13.33	21.53	1000	Pass
11n(HT20)	CH165	12.95	19.72	1000	Pass
11n(HT40)	CH151	13.32	21.48	1000	Pass
11n(HT40)	CH159	12.89	19.45	1000	Pass
11ac(VHT20)	CH149	13.18	20.80	1000	Pass
11ac(VHT20)	CH157	13.46	22.18	1000	Pass
11ac(VHT20)	CH165	13.27	21.23	1000	Pass
11ac(VHT40)	CH151	13.12	20.51	1000	Pass
11ac(VHT40)	CH159	13.41	21.93	1000	Pass
11ac(VHT80)	CH155	12.98	19.86	1000	Pass
11ax(HE20)(SU)	CH149	13.17	20.75	1000	Pass
11ax(HE20)(SU)	CH157	13.05	20.18	1000	Pass
11ax(HE20)(SU)	CH165	13.31	21.43	1000	Pass
11ax(HE40)(SU)	CH151	12.71	18.66	1000	Pass
11ax(HE40)(SU)	CH159	12.83	19.19	1000	Pass
11ax(HE80)(SU)	CH155	13.37	21.73	1000	Pass

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U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	12.06	16.07	250	Pass
11a	CH44	12.20	16.60	250	Pass
11a	CH48	12.43	17.50	250	Pass
11n(HT20)	CH36	12.05	16.03	250	Pass
11n(HT20)	CH44	12.12	16.29	250	Pass
11n(HT20)	CH48	12.07	16.11	250	Pass
11n(HT40)	CH38	11.92	15.56	250	Pass
11n(HT40)	CH46	11.80	15.14	250	Pass
11ac(VHT20)	CH36	11.77	15.03	250	Pass
11ac(VHT20)	CH44	11.93	15.60	250	Pass
11ac(VHT20)	CH48	12.03	15.96	250	Pass
11ac(VHT40)	CH38	11.93	15.60	250	Pass
11ac(VHT40)	CH46	11.77	15.03	250	Pass
11ac(VHT80)	CH42	12.34	17.14	250	Pass
11ac(VHT160)	CH50	10.54	11.32	250	Pass
11ax(HE20)(SU)	CH36	12.05	16.03	250	Pass
11ax(HE20)(SU)	CH44	11.76	15.00	250	Pass
11ax(HE20)(SU)	CH48	11.83	15.24	250	Pass
11ax(HE40)(SU)	CH38	11.76	15.00	250	Pass
11ax(HE40)(SU)	CH46	11.78	15.07	250	Pass
11ax(HE80)(SU)	CH42	11.89	15.45	250	Pass
11ax(HE160)(SU)	CH50	10.48	11.17	250	Pass

U-NII-2A (5250 - 5350 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH52	11.95	15.67	224	Pass
11a	CH60	12.36	17.22	223	Pass
11a	CH64	12.18	16.52	223	Pass
11n(HT20)	CH52	11.88	15.42	238	Pass
11n(HT20)	CH60	12.25	16.79	237	Pass
11n(HT20)	CH64	11.91	15.52	238	Pass
11n(HT40)	CH54	12.20	16.60	250	Pass
11n(HT40)	CH62	12.09	16.18	250	Pass
11ac(VHT20)	CH52	11.78	15.07	237	Pass
11ac(VHT20)	CH60	12.18	16.52	237	Pass
11ac(VHT20)	CH64	12.00	15.85	237	Pass
11ac(VHT40)	CH54	11.80	15.14	250	Pass
11ac(VHT40)	CH62	12.11	16.26	250	Pass
11ac(VHT80)	CH58	11.95	15.67	250	Pass
11ax(HE20)(SU)	CH52	11.60	14.45	250	Pass
11ax(HE20)(SU)	CH60	11.84	15.28	250	Pass
11ax(HE20)(SU)	CH64	12.31	17.02	250	Pass
11ax(HE40)(SU)	CH54	11.82	15.21	250	Pass
11ax(HE40)(SU)	CH62	12.12	16.29	250	Pass
11ax(HE80)(SU)	CH58	9.58	9.08	250	Pass

U-NII-2C (5470 - 5725 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH100	13.21	20.94	223	Pass
11a	CH116	13.32	21.48	224	Pass
11a	CH140	13.45	22.13	224	Pass
11n(HT20)	CH100	12.87	19.36	238	Pass
11n(HT20)	CH116	13.07	20.28	238	Pass
11n(HT20)	CH140	13.33	21.53	237	Pass
11n(HT40)	CH102	12.80	19.05	250	Pass
11n(HT40)	CH118	12.86	19.32	250	Pass
11n(HT40)	CH134	12.84	19.23	250	Pass
11ac(VHT20)	CH100	13.17	20.75	236	Pass
11ac(VHT20)	CH116	12.89	19.45	237	Pass
11ac(VHT20)	CH140	13.14	20.61	237	Pass
11ac(VHT40)	CH102	12.80	19.05	250	Pass
11ac(VHT40)	CH118	12.89	19.45	250	Pass
11ac(VHT40)	CH134	12.98	19.86	250	Pass
11ac(VHT80)	CH106	12.95	19.72	250	Pass
11ac(VHT80)	CH122	13.02	20.04	250	Pass
11ac(VHT160)	CH114	9.76	9.46	250	Pass
11ax(HE20)(SU)	CH100	12.75	18.84	250	Pass
11ax(HE20)(SU)	CH116	13.09	20.37	250	Pass
11ax(HE20)(SU)	CH140	13.33	21.53	250	Pass
11ax(HE40)(SU)	CH102	13.17	20.75	250	Pass
11ax(HE40)(SU)	CH118	13.31	21.43	250	Pass
11ax(HE40)(SU)	CH134	13.38	21.78	250	Pass
11ax(HE80)(SU)	CH106	13.04	20.14	250	Pass
11ax(HE80)(SU)	CH122	13.15	20.65	250	Pass
11ax(HE160)(SU)	CH114	10.75	11.89	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	13.10	20.42	1000	Pass
11a	CH157	13.31	21.43	1000	Pass
11a	CH165	13.12	20.51	1000	Pass
11n(HT20)	CH149	13.10	20.42	1000	Pass
11n(HT20)	CH157	13.15	20.65	1000	Pass
11n(HT20)	CH165	12.98	19.86	1000	Pass
11n(HT40)	CH151	12.98	19.86	1000	Pass
11n(HT40)	CH159	13.03	20.09	1000	Pass
11ac(VHT20)	CH149	12.91	19.54	1000	Pass
11ac(VHT20)	CH157	13.12	20.51	1000	Pass
11ac(VHT20)	CH165	12.92	19.59	1000	Pass
11ac(VHT40)	CH151	13.01	20.00	1000	Pass
11ac(VHT40)	CH159	13.05	20.18	1000	Pass
11ac(VHT80)	CH155	12.73	18.75	1000	Pass
11ax(HE20)(SU)	CH149	12.71	18.66	1000	Pass
11ax(HE20)(SU)	CH157	12.92	19.59	1000	Pass
11ax(HE20)(SU)	CH165	13.20	20.89	1000	Pass
11ax(HE40)(SU)	CH151	12.90	19.50	1000	Pass
11ax(HE40)(SU)	CH159	13.02	20.04	1000	Pass
11ax(HE80)(SU)	CH155	12.82	19.14	1000	Pass

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U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	15.24	33.45	250	Pass
11a	CH44	15.30	33.85	250	Pass
11a	CH48	15.45	35.08	250	Pass
11n(HT20)	CH36	15.21	33.17	250	Pass
11n(HT20)	CH44	15.26	33.55	250	Pass
11n(HT20)	CH48	15.23	33.33	250	Pass
11n(HT40)	CH38	14.88	30.77	250	Pass
11n(HT40)	CH46	14.69	29.46	250	Pass
11ac(VHT20)	CH36	14.95	31.29	250	Pass
11ac(VHT20)	CH44	15.03	31.81	250	Pass
11ac(VHT20)	CH48	15.13	32.59	250	Pass
11ac(VHT40)	CH38	15.03	31.85	250	Pass
11ac(VHT40)	CH46	14.93	31.14	250	Pass
11ac(VHT80)	CH42	15.34	34.20	250	Pass
11ac(VHT160)	CH50	13.66	23.21	250	Pass
11ax(HE20)(SU)	CH36	15.12	32.51	250	Pass
11ax(HE20)(SU)	CH44	14.90	30.88	250	Pass
11ax(HE20)(SU)	CH48	14.91	30.98	250	Pass
11ax(HE40)(SU)	CH38	15.10	32.37	250	Pass
11ax(HE40)(SU)	CH46	15.13	32.60	250	Pass
11ax(HE80)(SU)	CH42	15.12	32.47	250	Pass
11ax(HE160)(SU)	CH50	13.90	24.57	250	Pass

U-NII-2A (5250 - 5350 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH52	14.99	31.52	224	Pass
11a	CH60	15.23	33.36	223	Pass
11a	CH64	15.34	34.18	223	Pass
11n(HT20)	CH52	15.02	31.79	237	Pass
11n(HT20)	CH60	15.24	33.42	237	Pass
11n(HT20)	CH64	14.98	31.45	237	Pass
11n(HT40)	CH54	15.10	32.34	250	Pass
11n(HT40)	CH62	15.10	32.36	250	Pass
11ac(VHT20)	CH52	14.84	30.48	237	Pass
11ac(VHT20)	CH60	14.98	31.48	237	Pass
11ac(VHT20)	CH64	15.13	32.60	237	Pass
11ac(VHT40)	CH54	14.94	31.17	250	Pass
11ac(VHT40)	CH62	15.23	33.36	250	Pass
11ac(VHT80)	CH58	14.84	30.49	250	Pass
11ax(HE20)(SU)	CH52	14.64	29.11	250	Pass
11ax(HE20)(SU)	CH60	14.82	30.34	250	Pass
11ax(HE20)(SU)	CH64	15.33	34.12	250	Pass
11ax(HE40)(SU)	CH54	15.11	32.46	250	Pass
11ax(HE40)(SU)	CH62	15.03	31.82	250	Pass
11ax(HE80)(SU)	CH58	12.32	17.06	250	Pass

U-NII-2C (5470 - 5725 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH100	16.24	42.03	223	Pass
11a	CH116	16.15	41.20	224	Pass
11a	CH140	16.43	43.96	224	Pass
11n(HT20)	CH100	15.90	38.86	238	Pass
11n(HT20)	CH116	16.28	42.51	237	Pass
11n(HT20)	CH140	16.31	42.76	237	Pass
11n(HT40)	CH102	15.90	38.87	250	Pass
11n(HT40)	CH118	15.91	38.95	250	Pass
11n(HT40)	CH134	16.12	40.96	250	Pass
11ac(VHT20)	CH100	16.05	40.29	236	Pass
11ac(VHT20)	CH116	16.10	40.73	237	Pass
11ac(VHT20)	CH140	16.06	40.38	237	Pass
11ac(VHT40)	CH102	15.84	38.33	250	Pass
11ac(VHT40)	CH118	15.91	38.95	250	Pass
11ac(VHT40)	CH134	16.14	41.09	250	Pass
11ac(VHT80)	CH106	15.97	39.54	250	Pass
11ac(VHT80)	CH122	16.09	40.60	250	Pass
11ac(VHT160)	CH114	12.87	19.35	250	Pass
11ax(HE20)(SU)	CH100	15.81	38.11	250	Pass
11ax(HE20)(SU)	CH116	16.23	41.95	250	Pass
11ax(HE20)(SU)	CH140	16.36	43.20	250	Pass
11ax(HE40)(SU)	CH102	16.06	40.38	250	Pass
11ax(HE40)(SU)	CH118	16.18	41.47	250	Pass
11ax(HE40)(SU)	CH134	16.41	43.71	250	Pass
11ax(HE80)(SU)	CH106	16.23	42.01	250	Pass
11ax(HE80)(SU)	CH122	16.14	41.12	250	Pass
11ax(HE160)(SU)	CH114	14.02	25.25	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	16.07	40.46	1000	Pass
11a	CH157	16.23	41.94	1000	Pass
11a	CH165	16.29	42.59	1000	Pass
11n(HT20)	CH149	16.05	40.23	1000	Pass
11n(HT20)	CH157	16.25	42.18	1000	Pass
11n(HT20)	CH165	15.98	39.59	1000	Pass
11n(HT40)	CH151	16.16	41.34	1000	Pass
11n(HT40)	CH159	15.97	39.54	1000	Pass
11ac(VHT20)	CH149	16.06	40.34	1000	Pass
11ac(VHT20)	CH157	16.30	42.69	1000	Pass
11ac(VHT20)	CH165	16.11	40.82	1000	Pass
11ac(VHT40)	CH151	16.08	40.51	1000	Pass
11ac(VHT40)	CH159	16.24	42.11	1000	Pass
11ac(VHT80)	CH155	15.87	38.61	1000	Pass
11ax(HE20)(SU)	CH149	15.96	39.41	1000	Pass
11ax(HE20)(SU)	CH157	16.00	39.77	1000	Pass
11ax(HE20)(SU)	CH165	16.27	42.32	1000	Pass
11ax(HE40)(SU)	CH151	15.82	38.16	1000	Pass
11ax(HE40)(SU)	CH159	15.94	39.23	1000	Pass
11ax(HE80)(SU)	CH155	16.11	40.87	1000	Pass

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 A.

5.2.3 Test Procedure

Emission bandwidth

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

Occupied Bandwidth

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

6 dB bandwidth

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

5.2.4 Test Result

Note 1: Test plots please refer to the document “Annex No.: BL-SZ2590493-602 Data Part 1.pdf”.

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

Note 3: All the configurations were pre tested, only the worst configuration has been reported in this report.

Test Data (Emission Bandwidth)

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U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	17.96	16.11
11a	CH44	17.96	16.11
11a	CH48	17.92	16.11
11n(HT20)	CH36	18.78	17.21
11n(HT20)	CH44	18.88	17.21
11n(HT20)	CH48	18.86	17.21
11n(HT40)	CH38	38.66	35.72
11n(HT40)	CH46	38.58	35.73
11ac(VHT20)	CH36	18.89	17.21
11ac(VHT20)	CH44	18.88	17.20
11ac(VHT20)	CH48	18.91	17.19
11ac(VHT40)	CH38	38.51	35.71
11ac(VHT40)	CH46	38.50	35.72
11ac(VHT80)	CH42	82.77	75.37
11ac(VHT160)	CH50	163.80	154.81
11ax(HE20)(SU)	CH36	20.01	18.61
11ax(HE20)(SU)	CH44	19.99	18.61
11ax(HE20)(SU)	CH48	20.01	18.60
11ax(HE40)(SU)	CH38	39.57	37.34
11ax(HE40)(SU)	CH46	39.58	37.33
11ax(HE80)(SU)	CH42	80.08	76.80
11ax(HE160)(SU)	CH50	161.60	155.89

U-NII-2A (5250 - 5350 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH52	17.98	16.11
11a	CH60	17.96	16.11
11a	CH64	17.94	16.11
11n(HT20)	CH52	18.86	17.21
11n(HT20)	CH60	18.88	17.22
11n(HT20)	CH64	18.86	17.21
11n(HT40)	CH54	38.65	35.76
11n(HT40)	CH62	38.69	35.78
11ac(VHT20)	CH52	18.85	17.20
11ac(VHT20)	CH60	18.86	17.19
11ac(VHT20)	CH64	18.89	17.19
11ac(VHT40)	CH54	38.57	35.77
11ac(VHT40)	CH62	38.52	35.70
11ac(VHT80)	CH58	84.15	75.67
11ax(HE20)(SU)	CH52	19.98	18.61
11ax(HE20)(SU)	CH60	19.98	18.62
11ax(HE20)(SU)	CH64	19.99	18.61
11ax(HE40)(SU)	CH54	39.57	37.35
11ax(HE40)(SU)	CH62	39.57	37.34
11ax(HE80)(SU)	CH58	80.23	76.93

U-NII-2C (5470 - 5725 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH100	17.96	16.11
11a	CH116	17.97	16.10
11a	CH140	17.97	16.10
11n(HT20)	CH100	18.88	17.21
11n(HT20)	CH116	18.85	17.22
11n(HT20)	CH140	18.89	17.22
11n(HT40)	CH102	38.50	35.63
11n(HT40)	CH118	38.49	35.66
11n(HT40)	CH134	38.46	35.63
11ac(VHT20)	CH100	18.89	17.22
11ac(VHT20)	CH116	18.91	17.21
11ac(VHT20)	CH140	18.92	17.21
11ac(VHT40)	CH102	38.28	35.62
11ac(VHT40)	CH118	38.24	35.62
11ac(VHT40)	CH134	38.29	35.68
11ac(VHT80)	CH106	82.36	75.20
11ac(VHT80)	CH122	82.47	75.23
11ac(VHT160)	CH114	163.50	153.56
11ax(HE20)(SU)	CH100	19.94	18.61
11ax(HE20)(SU)	CH116	20.00	18.60
11ax(HE20)(SU)	CH140	19.94	18.60
11ax(HE40)(SU)	CH102	39.54	37.32
11ax(HE40)(SU)	CH118	39.47	37.26
11ax(HE40)(SU)	CH134	39.58	37.36
11ax(HE80)(SU)	CH106	80.17	76.74
11ax(HE80)(SU)	CH122	80.10	76.76
11ax(HE160)(SU)	CH114	164.60	156.38

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	17.98	16.10
11a	CH157	17.90	16.11
11a	CH165	17.92	16.13
11n(HT20)	CH149	18.85	17.23
11n(HT20)	CH157	18.90	17.23
11n(HT20)	CH165	18.92	17.24
11n(HT40)	CH151	38.52	35.68
11n(HT40)	CH159	38.46	35.69
11ac(VHT20)	CH149	18.85	17.21
11ac(VHT20)	CH157	18.83	17.23
11ac(VHT20)	CH165	18.93	17.21
11ac(VHT40)	CH151	38.35	35.75
11ac(VHT40)	CH159	38.30	35.72
11ac(VHT80)	CH155	90.48	75.44
11ax(HE20)(SU)	CH149	20.03	18.60
11ax(HE20)(SU)	CH157	20.05	18.63
11ax(HE20)(SU)	CH165	19.98	18.61
11ax(HE40)(SU)	CH151	39.60	37.40
11ax(HE40)(SU)	CH159	39.55	37.32
11ax(HE80)(SU)	CH155	80.26	76.81

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U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	17.73	16.15
11a	CH44	17.67	16.14
11a	CH48	17.73	16.14
11n(HT20)	CH36	18.82	17.26
11n(HT20)	CH44	18.90	17.23
11n(HT20)	CH48	18.81	17.25
11n(HT40)	CH38	38.37	35.65
11n(HT40)	CH46	38.38	35.70
11ac(VHT20)	CH36	18.83	17.23
11ac(VHT20)	CH44	18.85	17.25
11ac(VHT20)	CH48	18.83	17.24
11ac(VHT40)	CH38	38.32	35.70
11ac(VHT40)	CH46	38.46	35.72
11ac(VHT80)	CH42	82.17	75.22
11ac(VHT160)	CH50	162.71	154.27
11ax(HE20)(SU)	CH36	19.94	18.59
11ax(HE20)(SU)	CH44	19.96	18.60
11ax(HE20)(SU)	CH48	19.93	18.59
11ax(HE40)(SU)	CH38	39.65	37.35
11ax(HE40)(SU)	CH46	39.66	37.36
11ax(HE80)(SU)	CH42	80.28	76.69
11ax(HE160)(SU)	CH50	161.40	156.16

U-NII-2A (5250 - 5350 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH52	17.76	16.14
11a	CH60	17.71	16.14
11a	CH64	17.75	16.15
11n(HT20)	CH52	18.87	17.26
11n(HT20)	CH60	18.81	17.23
11n(HT20)	CH64	18.87	17.25
11n(HT40)	CH54	38.32	35.72
11n(HT40)	CH62	38.37	35.74
11ac(VHT20)	CH52	18.79	17.24
11ac(VHT20)	CH60	18.85	17.23
11ac(VHT20)	CH64	18.81	17.23
11ac(VHT40)	CH54	38.36	35.72
11ac(VHT40)	CH62	38.41	35.68
11ac(VHT80)	CH58	82.57	75.34
11ax(HE20)(SU)	CH52	19.92	18.60
11ax(HE20)(SU)	CH60	19.93	18.60
11ax(HE20)(SU)	CH64	19.94	18.59
11ax(HE40)(SU)	CH54	39.70	37.32
11ax(HE40)(SU)	CH62	39.68	37.37
11ax(HE80)(SU)	CH58	80.42	76.98

U-NII-2C (5470 - 5725 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH100	17.73	16.15
11a	CH116	17.82	16.15
11a	CH140	17.78	16.13
11n(HT20)	CH100	18.87	17.26
11n(HT20)	CH116	18.92	17.24
11n(HT20)	CH140	18.85	17.26
11n(HT40)	CH102	38.33	35.66
11n(HT40)	CH118	38.34	35.68
11n(HT40)	CH134	38.34	35.71
11ac(VHT20)	CH100	18.76	17.23
11ac(VHT20)	CH116	18.84	17.24
11ac(VHT20)	CH140	18.83	17.23
11ac(VHT40)	CH102	38.37	35.71
11ac(VHT40)	CH118	38.40	35.62
11ac(VHT40)	CH134	38.36	35.70
11ac(VHT80)	CH106	82.59	75.19
11ac(VHT80)	CH122	82.94	75.19
11ac(VHT160)	CH114	162.61	153.56
11ax(HE20)(SU)	CH100	19.96	18.58
11ax(HE20)(SU)	CH116	19.96	18.59
11ax(HE20)(SU)	CH140	19.97	18.60
11ax(HE40)(SU)	CH102	39.59	37.31
11ax(HE40)(SU)	CH118	39.69	37.30
11ax(HE40)(SU)	CH134	39.58	37.33
11ax(HE80)(SU)	CH106	80.40	76.81
11ax(HE80)(SU)	CH122	80.29	76.72
11ax(HE160)(SU)	CH114	161.40	155.53

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	17.74	16.14
11a	CH157	17.70	16.15
11a	CH165	17.78	16.13
11n(HT20)	CH149	18.78	17.25
11n(HT20)	CH157	18.90	17.24
11n(HT20)	CH165	18.85	17.26
11n(HT40)	CH151	38.45	35.73
11n(HT40)	CH159	38.38	35.69
11ac(VHT20)	CH149	18.82	17.25
11ac(VHT20)	CH157	18.82	17.25
11ac(VHT20)	CH165	18.83	17.25
11ac(VHT40)	CH151	38.31	35.65
11ac(VHT40)	CH159	38.36	35.68
11ac(VHT80)	CH155	82.58	75.32
11ax(HE20)(SU)	CH149	19.95	18.58
11ax(HE20)(SU)	CH157	19.94	18.59
11ax(HE20)(SU)	CH165	19.96	18.60
11ax(HE40)(SU)	CH151	39.70	37.37
11ax(HE40)(SU)	CH159	39.63	37.29
11ax(HE80)(SU)	CH155	80.36	76.85

Note 1: Test plots please refer to the document “Annex No.: BL-SZ2590493-602 Data Part 2.pdf”.

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

Note 3: All the configurations were pre tested, only the worst configuration has been reported in this report.

Test Data (6 dB Bandwidth)

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U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	10.50	500.00	Pass
11a	CH157	13.60	500.00	Pass
11a	CH165	15.30	500.00	Pass
11n (HT20)	CH149	13.00	500.00	Pass
11n (HT20)	CH157	16.30	500.00	Pass
11n (HT20)	CH165	15.30	500.00	Pass
11n (HT40)	CH151	35.20	500.00	Pass
11n (HT40)	CH159	35.30	500.00	Pass
11ac (VHT20)	CH149	15.20	500.00	Pass
11ac (VHT20)	CH157	14.00	500.00	Pass
11ac (VHT20)	CH165	15.30	500.00	Pass
11ac (VHT40)	CH151	35.30	500.00	Pass
11ac (VHT40)	CH159	32.80	500.00	Pass
11ac (VHT80)	CH155	74.10	500.00	Pass
11ax (HE20)(SU)	CH149	14.00	500.00	Pass
11ax (HE20)(SU)	CH157	15.00	500.00	Pass
11ax (HE20)(SU)	CH165	14.30	500.00	Pass
11ax (HE40)(SU)	CH151	35.20	500.00	Pass
11ax (HE40)(SU)	CH159	34.00	500.00	Pass
11ax (HE80)(SU)	CH155	75.20	500.00	Pass

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U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	15.20	500.00	Pass
11a	CH157	14.00	500.00	Pass
11a	CH165	14.00	500.00	Pass
11n (HT20)	CH149	13.40	500.00	Pass
11n (HT20)	CH157	15.30	500.00	Pass
11n (HT20)	CH165	15.50	500.00	Pass
11n (HT40)	CH151	35.20	500.00	Pass
11n (HT40)	CH159	35.20	500.00	Pass
11ac (VHT20)	CH149	12.80	500.00	Pass
11ac (VHT20)	CH157	14.00	500.00	Pass
11ac (VHT20)	CH165	15.30	500.00	Pass
11ac (VHT40)	CH151	35.20	500.00	Pass
11ac (VHT40)	CH159	35.20	500.00	Pass
11ac (VHT80)	CH155	72.80	500.00	Pass
11ax (HE20)(SU)	CH149	12.90	500.00	Pass
11ax (HE20)(SU)	CH157	12.70	500.00	Pass
11ax (HE20)(SU)	CH165	16.50	500.00	Pass
11ax (HE40)(SU)	CH151	30.30	500.00	Pass
11ax (HE40)(SU)	CH159	33.90	500.00	Pass
11ax (HE80)(SU)	CH155	75.30	500.00	Pass

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 A.

5.3.3 Test Procedure

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

1. Set RBW = 510 kHz/1 MHz, VBW $\geq 3 \times$ RBW, Sweep time = Auto, Detector = RMS.
2. Allow the sweeps to continue until the trace stabilizes.
3. Use the peak marker function to determine the maximum amplitude level.
4. The E.I.R.P spectral density used radiated test method. At a test site that has been validated using the procedures of ANSI C63.10 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

Note 1: Test plots please refer to the document “Annex No.: BL-SZ2590493-602 Data Part 3.pdf”.

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

Test Data

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U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH36	2.69	11.00	Pass
11a	CH44	2.39	11.00	Pass
11a	CH48	2.42	11.00	Pass
11n(HT20)	CH36	2.28	11.00	Pass
11n(HT20)	CH44	2.18	11.00	Pass
11n(HT20)	CH48	2.22	11.00	Pass
11n(HT40)	CH38	-1.49	11.00	Pass
11n(HT40)	CH46	-1.86	11.00	Pass
11ac(VHT20)	CH36	2.05	11.00	Pass
11ac(VHT20)	CH44	1.90	11.00	Pass
11ac(VHT20)	CH48	2.12	11.00	Pass
11ac(VHT40)	CH38	-1.03	11.00	Pass
11ac(VHT40)	CH46	-1.12	11.00	Pass
11ac(VHT80)	CH42	-4.05	11.00	Pass
11ac(VHT160)	CH50	-7.55	11.00	Pass
11ax(HE20)(SU)	CH36	2.07	11.00	Pass
11ax(HE20)(SU)	CH44	1.67	11.00	Pass
11ax(HE20)(SU)	CH48	1.77	11.00	Pass
11ax(HE40)(SU)	CH38	-0.94	11.00	Pass
11ax(HE40)(SU)	CH46	-0.97	11.00	Pass
11ax(HE80)(SU)	CH42	-4.22	11.00	Pass
11ax(HE160)(SU)	CH50	-7.33	11.00	Pass

U-NII-2A (5250 - 5350 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH52	2.01	11.00	Pass
11a	CH60	2.09	11.00	Pass
11a	CH64	2.67	11.00	Pass
11n(HT20)	CH52	1.98	11.00	Pass
11n(HT20)	CH60	2.30	11.00	Pass
11n(HT20)	CH64	2.12	11.00	Pass
11n(HT40)	CH54	-1.23	11.00	Pass
11n(HT40)	CH62	-1.14	11.00	Pass
11ac(VHT20)	CH52	1.77	11.00	Pass
11ac(VHT20)	CH60	1.71	11.00	Pass
11ac(VHT20)	CH64	2.25	11.00	Pass
11ac(VHT40)	CH54	-1.20	11.00	Pass
11ac(VHT40)	CH62	-0.87	11.00	Pass
11ac(VHT80)	CH58	-4.76	11.00	Pass
11ax(HE20)(SU)	CH52	1.51	11.00	Pass
11ax(HE20)(SU)	CH60	1.68	11.00	Pass
11ax(HE20)(SU)	CH64	2.27	11.00	Pass
11ax(HE40)(SU)	CH54	-0.87	11.00	Pass
11ax(HE40)(SU)	CH62	-0.98	11.00	Pass
11ax(HE80)(SU)	CH58	-7.54	11.00	Pass

U-NII-2C (5470 - 5725 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH100	3.91	11.00	Pass
11a	CH116	3.54	11.00	Pass
11a	CH140	3.68	11.00	Pass
11n(HT20)	CH100	3.33	11.00	Pass
11n(HT20)	CH116	3.59	11.00	Pass
11n(HT20)	CH140	3.17	11.00	Pass
11n(HT40)	CH102	0.36	11.00	Pass
11n(HT40)	CH118	0.05	11.00	Pass
11n(HT40)	CH134	0.58	11.00	Pass
11ac(VHT20)	CH100	3.48	11.00	Pass
11ac(VHT20)	CH116	3.52	11.00	Pass
11ac(VHT20)	CH140	3.02	11.00	Pass
11ac(VHT40)	CH102	0.26	11.00	Pass
11ac(VHT40)	CH118	0.36	11.00	Pass
11ac(VHT40)	CH134	0.52	11.00	Pass
11ac(VHT80)	CH106	-2.80	11.00	Pass
11ac(VHT80)	CH122	-2.57	11.00	Pass
11ac(VHT160)	CH114	-7.95	11.00	Pass
11ax(HE20)(SU)	CH100	3.33	11.00	Pass
11ax(HE20)(SU)	CH116	3.54	11.00	Pass
11ax(HE20)(SU)	CH140	3.42	11.00	Pass
11ax(HE40)(SU)	CH102	0.06	11.00	Pass
11ax(HE40)(SU)	CH118	0.08	11.00	Pass
11ax(HE40)(SU)	CH134	0.47	11.00	Pass
11ax(HE80)(SU)	CH106	-2.60	11.00	Pass
11ax(HE80)(SU)	CH122	-2.87	11.00	Pass
11ax(HE160)(SU)	CH114	-6.69	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
11a	CH149	0.46	30.00	Pass
11a	CH157	0.85	30.00	Pass
11a	CH165	0.95	30.00	Pass
11n(HT20)	CH149	0.45	30.00	Pass
11n(HT20)	CH157	0.71	30.00	Pass
11n(HT20)	CH165	-0.05	30.00	Pass
11n(HT40)	CH151	-2.43	30.00	Pass
11n(HT40)	CH159	-2.89	30.00	Pass
11ac(VHT20)	CH149	0.72	30.00	Pass
11ac(VHT20)	CH157	0.89	30.00	Pass
11ac(VHT20)	CH165	0.45	30.00	Pass
11ac(VHT40)	CH151	-2.69	30.00	Pass
11ac(VHT40)	CH159	-2.51	30.00	Pass
11ac(VHT80)	CH155	-6.20	30.00	Pass
11ax(HE20)(SU)	CH149	0.59	30.00	Pass
11ax(HE20)(SU)	CH157	0.46	30.00	Pass
11ax(HE20)(SU)	CH165	0.51	30.00	Pass
11ax(HE40)(SU)	CH151	-3.41	30.00	Pass
11ax(HE40)(SU)	CH159	-3.12	30.00	Pass
11ax(HE80)(SU)	CH155	-5.83	30.00	Pass

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U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH36	2.20	11.00	Pass
11a	CH44	2.11	11.00	Pass
11a	CH48	2.38	11.00	Pass
11n(HT20)	CH36	1.95	11.00	Pass
11n(HT20)	CH44	1.83	11.00	Pass
11n(HT20)	CH48	1.77	11.00	Pass
11n(HT40)	CH38	-1.21	11.00	Pass
11n(HT40)	CH46	-1.33	11.00	Pass
11ac(VHT20)	CH36	1.75	11.00	Pass
11ac(VHT20)	CH44	1.87	11.00	Pass
11ac(VHT20)	CH48	1.85	11.00	Pass
11ac(VHT40)	CH38	-1.10	11.00	Pass
11ac(VHT40)	CH46	-1.48	11.00	Pass
11ac(VHT80)	CH42	-3.95	11.00	Pass
11ac(VHT160)	CH50	-7.91	11.00	Pass
11ax(HE20)(SU)	CH36	2.00	11.00	Pass
11ax(HE20)(SU)	CH44	1.45	11.00	Pass
11ax(HE20)(SU)	CH48	1.57	11.00	Pass
11ax(HE40)(SU)	CH38	-1.52	11.00	Pass
11ax(HE40)(SU)	CH46	-1.73	11.00	Pass
11ax(HE80)(SU)	CH42	-4.54	11.00	Pass
11ax(HE160)(SU)	CH50	-8.10	11.00	Pass

U-NII-2A (5250 - 5350 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH52	1.89	11.00	Pass
11a	CH60	2.47	11.00	Pass
11a	CH64	2.18	11.00	Pass
11n(HT20)	CH52	1.82	11.00	Pass
11n(HT20)	CH60	2.01	11.00	Pass
11n(HT20)	CH64	1.60	11.00	Pass
11n(HT40)	CH54	-1.13	11.00	Pass
11n(HT40)	CH62	-1.24	11.00	Pass
11ac(VHT20)	CH52	1.65	11.00	Pass
11ac(VHT20)	CH60	2.03	11.00	Pass
11ac(VHT20)	CH64	1.76	11.00	Pass
11ac(VHT40)	CH54	-1.54	11.00	Pass
11ac(VHT40)	CH62	-1.16	11.00	Pass
11ac(VHT80)	CH58	-4.45	11.00	Pass
11ax(HE20)(SU)	CH52	1.29	11.00	Pass
11ax(HE20)(SU)	CH60	1.84	11.00	Pass
11ax(HE20)(SU)	CH64	2.08	11.00	Pass
11ax(HE40)(SU)	CH54	-1.43	11.00	Pass
11ax(HE40)(SU)	CH62	-1.23	11.00	Pass
11ax(HE80)(SU)	CH58	-6.96	11.00	Pass

U-NII-2C (5470 - 5725 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH100	3.71	11.00	Pass
11a	CH116	3.77	11.00	Pass
11a	CH140	3.64	11.00	Pass
11n(HT20)	CH100	3.30	11.00	Pass
11n(HT20)	CH116	3.16	11.00	Pass
11n(HT20)	CH140	3.34	11.00	Pass
11n(HT40)	CH102	0.00	11.00	Pass
11n(HT40)	CH118	-0.25	11.00	Pass
11n(HT40)	CH134	-0.21	11.00	Pass
11ac(VHT20)	CH100	3.69	11.00	Pass
11ac(VHT20)	CH116	3.21	11.00	Pass
11ac(VHT20)	CH140	3.29	11.00	Pass
11ac(VHT40)	CH102	0.16	11.00	Pass
11ac(VHT40)	CH118	0.07	11.00	Pass
11ac(VHT40)	CH134	-0.14	11.00	Pass
11ac(VHT80)	CH106	-2.89	11.00	Pass
11ac(VHT80)	CH122	-3.04	11.00	Pass
11ac(VHT160)	CH114	-7.72	11.00	Pass
11ax(HE20)(SU)	CH100	3.09	11.00	Pass
11ax(HE20)(SU)	CH116	3.28	11.00	Pass
11ax(HE20)(SU)	CH140	3.40	11.00	Pass
11ax(HE40)(SU)	CH102	0.51	11.00	Pass
11ax(HE40)(SU)	CH118	0.36	11.00	Pass
11ax(HE40)(SU)	CH134	0.36	11.00	Pass
11ax(HE80)(SU)	CH106	-2.89	11.00	Pass
11ax(HE80)(SU)	CH122	-2.97	11.00	Pass
11ax(HE160)(SU)	CH114	-7.04	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
11a	CH149	0.79	30.00	Pass
11a	CH157	0.61	30.00	Pass
11a	CH165	0.42	30.00	Pass
11n(HT20)	CH149	0.35	30.00	Pass
11n(HT20)	CH157	0.58	30.00	Pass
11n(HT20)	CH165	0.10	30.00	Pass
11n(HT40)	CH151	-2.99	30.00	Pass
11n(HT40)	CH159	-3.07	30.00	Pass
11ac(VHT20)	CH149	0.59	30.00	Pass
11ac(VHT20)	CH157	0.39	30.00	Pass
11ac(VHT20)	CH165	0.03	30.00	Pass
11ac(VHT40)	CH151	-2.81	30.00	Pass
11ac(VHT40)	CH159	-2.94	30.00	Pass
11ac(VHT80)	CH155	-5.70	30.00	Pass
11ax(HE20)(SU)	CH149	0.01	30.00	Pass
11ax(HE20)(SU)	CH157	0.05	30.00	Pass
11ax(HE20)(SU)	CH165	0.28	30.00	Pass
11ax(HE40)(SU)	CH151	-3.15	30.00	Pass
11ax(HE40)(SU)	CH159	-3.06	30.00	Pass
11ax(HE80)(SU)	CH155	-6.16	30.00	Pass

MIMO

U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH36	5.46	11.00	Pass
11a	CH44	5.26	11.00	Pass
11a	CH48	5.41	11.00	Pass
11n(HT20)	CH36	5.13	11.00	Pass
11n(HT20)	CH44	5.02	11.00	Pass
11n(HT20)	CH48	5.01	11.00	Pass
11n(HT40)	CH38	1.66	11.00	Pass
11n(HT40)	CH46	1.42	11.00	Pass
11ac(VHT20)	CH36	4.91	11.00	Pass
11ac(VHT20)	CH44	4.89	11.00	Pass
11ac(VHT20)	CH48	5.00	11.00	Pass
11ac(VHT40)	CH38	1.95	11.00	Pass
11ac(VHT40)	CH46	1.71	11.00	Pass
11ac(VHT80)	CH42	-0.99	11.00	Pass
11ac(VHT160)	CH50	-4.72	11.00	Pass
11ax(HE20)(SU)	CH36	5.05	11.00	Pass
11ax(HE20)(SU)	CH44	4.57	11.00	Pass
11ax(HE20)(SU)	CH48	4.68	11.00	Pass
11ax(HE40)(SU)	CH38	1.79	11.00	Pass
11ax(HE40)(SU)	CH46	1.68	11.00	Pass
11ax(HE80)(SU)	CH42	-1.37	11.00	Pass
11ax(HE160)(SU)	CH50	-4.69	11.00	Pass

U-NII-2A (5250 - 5350 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH52	4.96	11.00	Pass
11a	CH60	5.29	11.00	Pass
11a	CH64	5.44	11.00	Pass
11n(HT20)	CH52	4.91	11.00	Pass
11n(HT20)	CH60	5.17	11.00	Pass
11n(HT20)	CH64	4.88	11.00	Pass
11n(HT40)	CH54	1.83	11.00	Pass
11n(HT40)	CH62	1.82	11.00	Pass
11ac(VHT20)	CH52	4.72	11.00	Pass
11ac(VHT20)	CH60	4.88	11.00	Pass
11ac(VHT20)	CH64	5.02	11.00	Pass
11ac(VHT40)	CH54	1.64	11.00	Pass
11ac(VHT40)	CH62	2.00	11.00	Pass
11ac(VHT80)	CH58	-1.59	11.00	Pass
11ax(HE20)(SU)	CH52	4.41	11.00	Pass
11ax(HE20)(SU)	CH60	4.77	11.00	Pass
11ax(HE20)(SU)	CH64	5.19	11.00	Pass
11ax(HE40)(SU)	CH54	1.87	11.00	Pass
11ax(HE40)(SU)	CH62	1.91	11.00	Pass
11ax(HE80)(SU)	CH58	-4.23	11.00	Pass

U-NII-2C (5470 - 5725 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH100	6.82	11.00	Pass
11a	CH116	6.67	11.00	Pass
11a	CH140	6.67	11.00	Pass
11n(HT20)	CH100	6.33	11.00	Pass
11n(HT20)	CH116	6.39	11.00	Pass
11n(HT20)	CH140	6.27	11.00	Pass
11n(HT40)	CH102	3.19	11.00	Pass
11n(HT40)	CH118	2.91	11.00	Pass
11n(HT40)	CH134	3.21	11.00	Pass
11ac(VHT20)	CH100	6.60	11.00	Pass
11ac(VHT20)	CH116	6.38	11.00	Pass
11ac(VHT20)	CH140	6.17	11.00	Pass
11ac(VHT40)	CH102	3.22	11.00	Pass
11ac(VHT40)	CH118	3.23	11.00	Pass
11ac(VHT40)	CH134	3.21	11.00	Pass
11ac(VHT80)	CH106	0.17	11.00	Pass
11ac(VHT80)	CH122	0.21	11.00	Pass
11ac(VHT160)	CH114	-4.82	11.00	Pass
11ax(HE20)(SU)	CH100	6.22	11.00	Pass
11ax(HE20)(SU)	CH116	6.42	11.00	Pass
11ax(HE20)(SU)	CH140	6.42	11.00	Pass
11ax(HE40)(SU)	CH102	3.30	11.00	Pass
11ax(HE40)(SU)	CH118	3.23	11.00	Pass
11ax(HE40)(SU)	CH134	3.43	11.00	Pass
11ax(HE80)(SU)	CH106	0.27	11.00	Pass
11ax(HE80)(SU)	CH122	0.09	11.00	Pass
11ax(HE160)(SU)	CH114	-3.85	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
11a	CH149	3.64	30.00	Pass
11a	CH157	3.74	30.00	Pass
11a	CH165	3.70	30.00	Pass
11n(HT20)	CH149	3.41	30.00	Pass
11n(HT20)	CH157	3.66	30.00	Pass
11n(HT20)	CH165	3.04	30.00	Pass
11n(HT40)	CH151	0.31	30.00	Pass
11n(HT40)	CH159	0.03	30.00	Pass
11ac(VHT20)	CH149	3.67	30.00	Pass
11ac(VHT20)	CH157	3.66	30.00	Pass
11ac(VHT20)	CH165	3.26	30.00	Pass
11ac(VHT40)	CH151	0.26	30.00	Pass
11ac(VHT40)	CH159	0.29	30.00	Pass
11ac(VHT80)	CH155	-2.93	30.00	Pass
11ax(HE20)(SU)	CH149	3.32	30.00	Pass
11ax(HE20)(SU)	CH157	3.27	30.00	Pass
11ax(HE20)(SU)	CH165	3.41	30.00	Pass
11ax(HE40)(SU)	CH151	-0.27	30.00	Pass
11ax(HE40)(SU)	CH159	-0.08	30.00	Pass
11ax(HE80)(SU)	CH155	-2.98	30.00	Pass

5.4 Conducted Emission

5.4.1 Limit

FCC §15.207

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

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

5.4.2 Test Setup

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

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

Note ¹: The EUT was tested in Link mode and the charging.

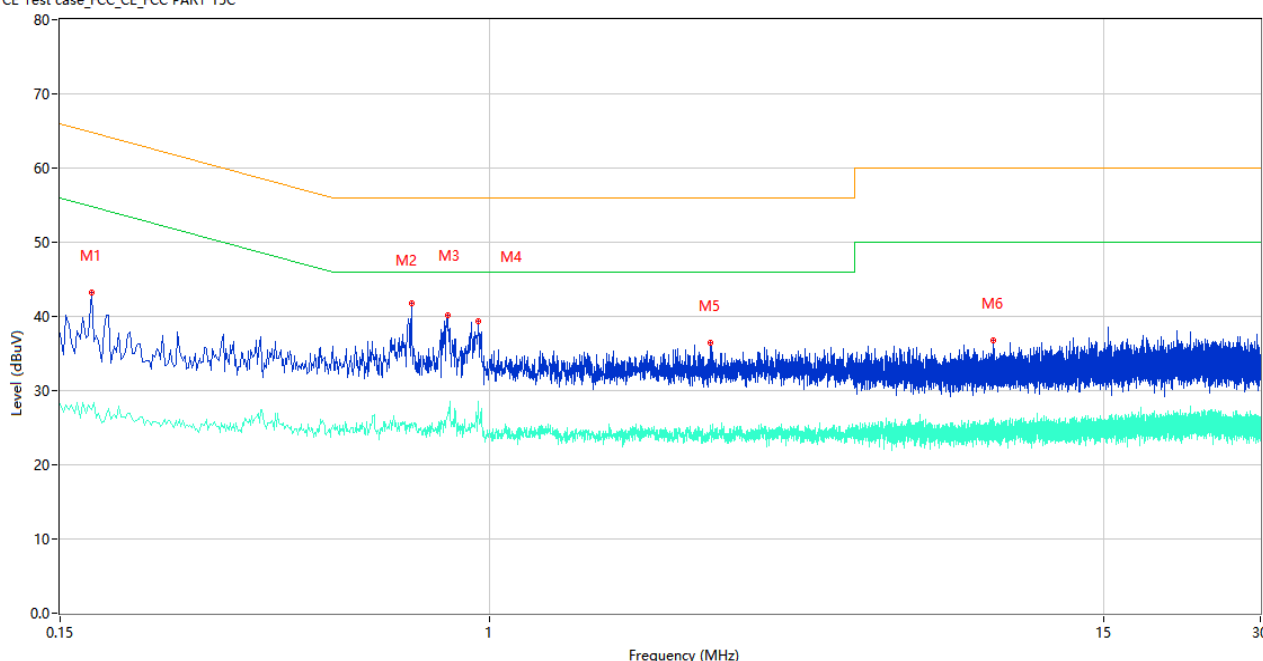
Note ²: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Note ³: Results (dBuV) = Original reading level of Spectrum Analyzer (dBuV) + Factor (dB)

Test Data and Plots

PHASE L

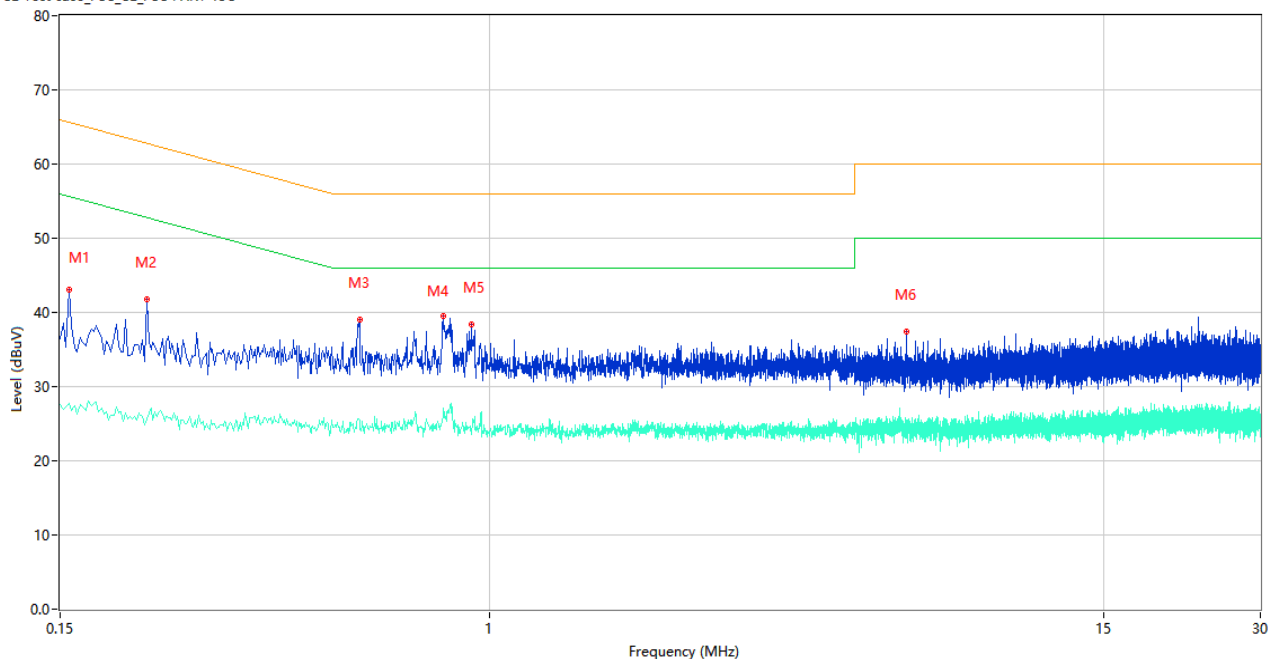
CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.172	43.29	9.85	64.86	21.57	Peak	L	Pass
1**	0.172	27.35	9.85	54.86	27.51	AV	L	Pass
2	0.708	41.69	10.63	56.00	14.31	Peak	L	Pass
2**	0.708	25.40	10.63	46.00	20.60	AV	L	Pass
3	0.832	40.13	10.65	56.00	15.87	Peak	L	Pass
3**	0.832	27.14	10.65	46.00	18.86	AV	L	Pass
4	0.952	39.32	10.12	56.00	16.68	Peak	L	Pass
4**	0.952	26.94	10.12	46.00	19.06	AV	L	Pass
5	2.652	36.52	10.24	56.00	19.48	Peak	L	Pass
5**	2.652	25.16	10.24	46.00	20.84	AV	L	Pass
6	9.234	36.85	10.50	60.00	23.15	Peak	L	Pass
6**	9.234	24.56	10.50	50.00	25.44	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15C



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.156	43.07	9.86	65.67	22.60	Peak	N	Pass
1**	0.156	27.73	9.86	55.67	27.94	AV	N	Pass
2	0.220	41.79	9.84	62.82	21.03	Peak	N	Pass
2**	0.220	25.57	9.84	52.82	27.25	AV	N	Pass
3	0.562	38.98	10.12	56.00	17.02	Peak	N	Pass
3**	0.562	25.41	10.12	46.00	20.59	AV	N	Pass
4	0.814	39.50	10.62	56.00	16.50	Peak	N	Pass
4**	0.814	26.10	10.62	46.00	19.90	AV	N	Pass
5	0.922	38.31	10.19	56.00	17.69	Peak	N	Pass
5**	0.922	23.85	10.19	46.00	22.15	AV	N	Pass
6	6.286	37.39	10.30	60.00	22.61	Peak	N	Pass
6**	6.286	25.00	10.30	50.00	25.00	AV	N	Pass

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

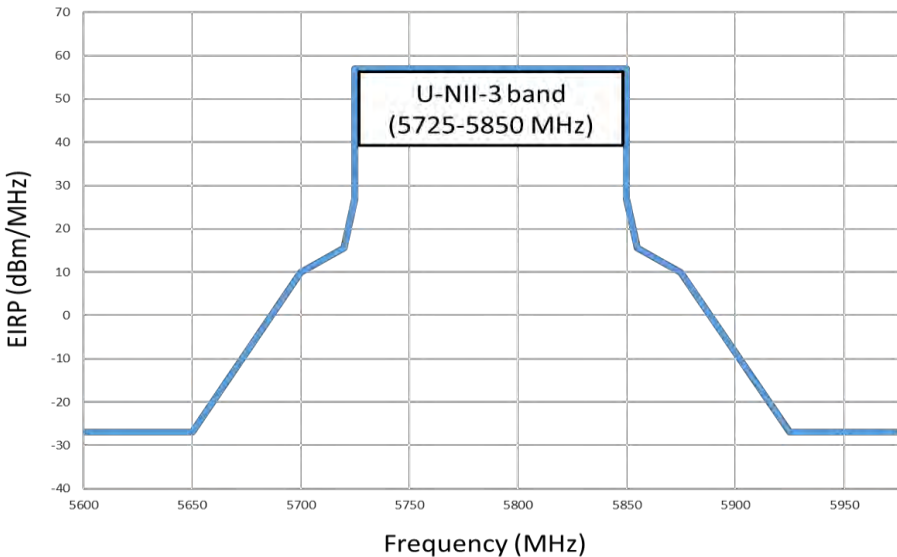
5.5.1 Limit

FCC §15.209 & 15.407(b)

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

Note¹: The Limit for radiated test was performed according to FCC Part 15C

Note²: The tighter limit applies at the band edge.

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

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

5.5.2 Test Setup

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

5.5.3 Test Procedure

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

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

General Procedure for conducted measurements in restricted bands

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

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

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

- e) Compare the resultant electric field strength level to the applicable limit.
- f) Perform radiated spurious emission test.

Quasi-Peak measurement procedure

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

As an alternative to CISPR quasi-peak measurement, compliance can be demonstrated to the applicable

emission limits using a peak detector.

Peak power measurement procedure

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

- a) RBW = as specified in Table 1.
- b) VBW $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Sweep time = auto.
- e) Trace mode = max hold.
- f) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be longer for low duty cycle applications).

Table 1—RBW as a function of frequency

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

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

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

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

- a) The EUT shall be configured to operate at the maximum achievable duty cycle.
- b) Measure the duty cycle, x , of the transmitter output signal as described in section 6.0.
- c) RBW = 1 MHz (unless otherwise specified).
- d) VBW $\geq 3 \times$ RBW.
- e) Detector = RMS, if $\text{span}/(\# \text{ of points in sweep}) \leq (\text{RBW}/2)$. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
- f) Averaging type = power (i.e., RMS).
 - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
 - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.

g) Sweep time = auto.

h) Perform a trace average of at least 100 traces.

i) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:

1) If power averaging (RMS) mode was used in step f), then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.

2) If linear voltage averaging mode was used in step f), then the applicable correction factor is $20 \log(1/x)$, where x is the duty cycle.

3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

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

Determining the applicable transmit antenna gain

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

Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.

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

Radiated spurious emission test

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

For these cabinet radiated spurious emission measurements the EUT transmit antenna may be replaced with a termination matching the nominal impedance of the antenna. Procedures for performing radiated

measurements are specified in ANSI C63.10. All detected emissions shall comply with the applicable limits.

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

The power of the EUT transmitting frequency should be ignored.

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

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

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

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.5.4 Test Result

Note 1: The symbol of “--” in the table which means not application.

Note 2: For the test data above 1 GHz, According the ANSI C63.10, 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.

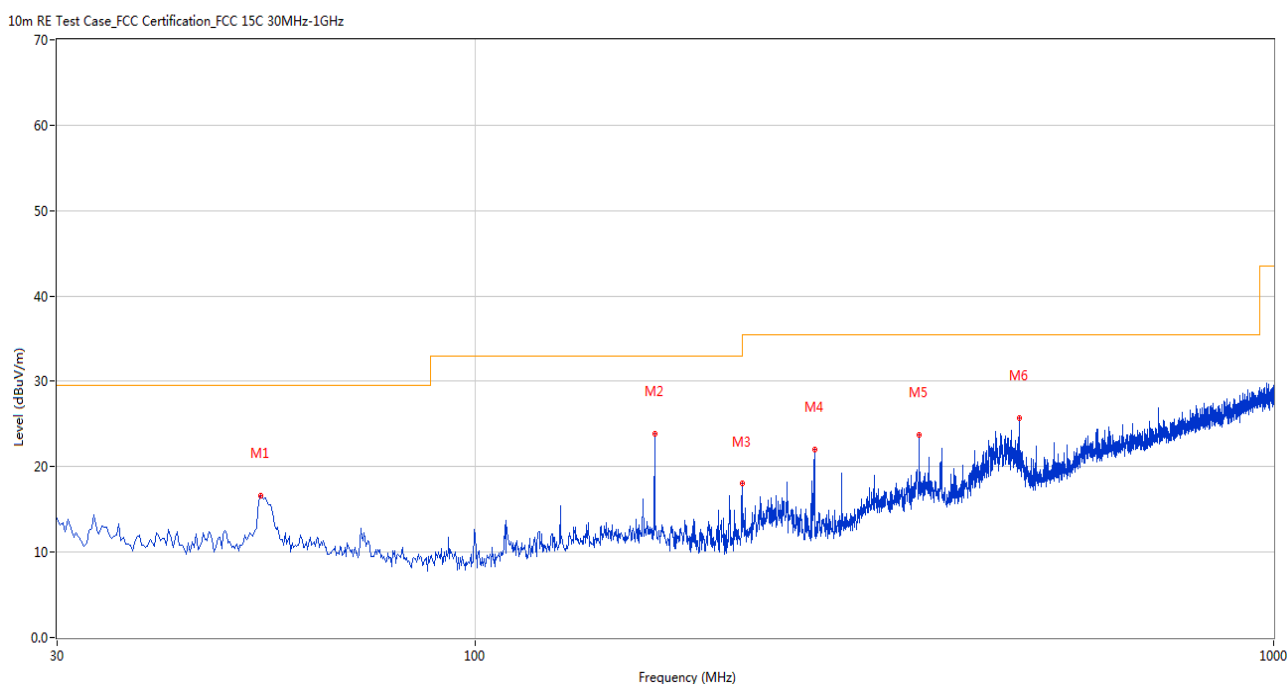
Note 3: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note 4: The EUT was tested in Link mode and the charging.

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

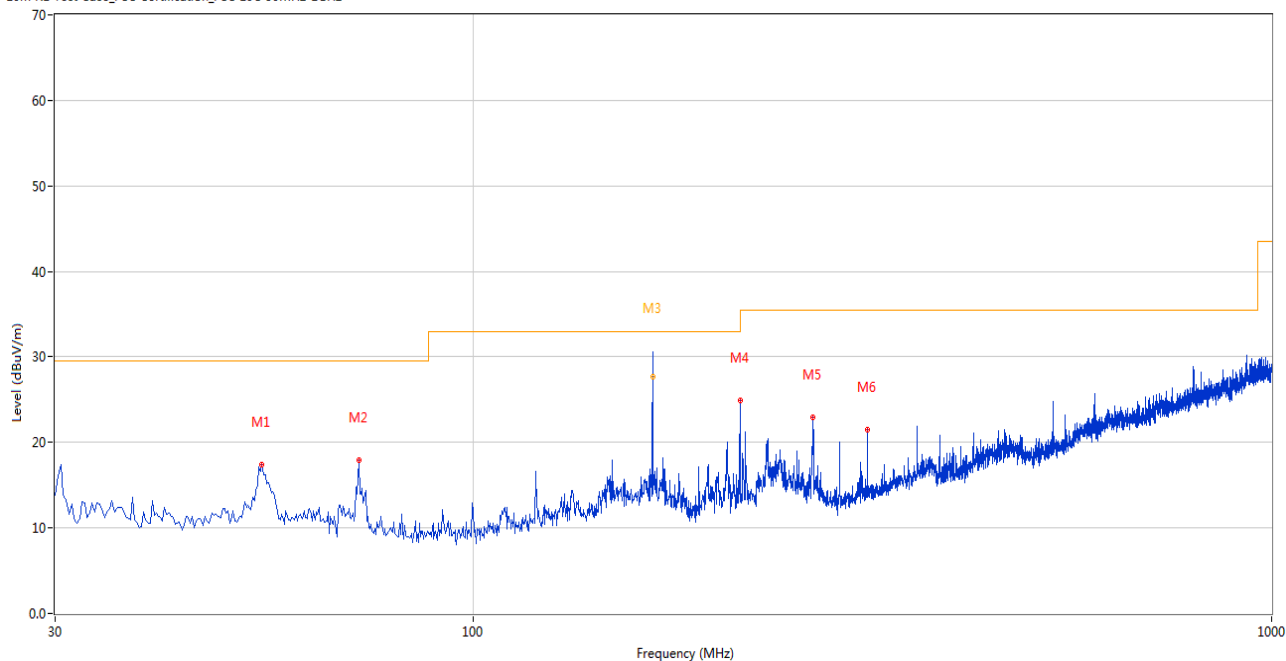
30 MHz to 1 GHz, ANT H



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	54.002	16.63	-27.08	29.5	12.87	Peak	360.00	100	Horizontal	Pass
2	167.948	23.88	-26.68	33.0	9.12	Peak	162.00	200	Horizontal	Pass
3	215.951	18.00	-29.25	33.0	15.00	Peak	81.00	200	Horizontal	Pass
4	266.136	21.97	-26.89	35.5	13.53	Peak	254.00	200	Horizontal	Pass
5	359.960	23.72	-23.72	35.5	11.78	Peak	124.00	200	Horizontal	Pass
6	479.968	25.77	-20.84	35.5	9.73	Peak	118.00	200	Horizontal	Pass

30 MHz to 1 GHz, ANT V

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



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	54.486	17.41	-27.12	29.5	12.09	Peak	205.00	200	Vertical	Pass
2	71.942	17.87	-29.24	29.5	11.63	Peak	90.00	100	Vertical	Pass
3	167.948	30.63	-26.68	33.0	2.37	Peak	101.00	100	Vertical	N/A
3*	167.948	27.62	-26.68	33.0	5.38	QP	101.00	100	Vertical	Pass
4	215.951	24.96	-29.25	33.0	8.04	Peak	69.00	100	Vertical	Pass
5	266.621	22.92	-26.79	35.5	12.58	Peak	308.00	200	Vertical	Pass
6	311.957	21.52	-25.04	35.5	13.98	Peak	155.00	100	Vertical	Pass

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

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

Note 3: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

MIMO

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	1592.600	38.63	74.0	35.37	Peak	255.00	200	Horizontal	Pass
1**	1592.600	30.21	54.0	23.79	AV	255.00	200	Horizontal	Pass
2	4263.500	47.59	74.0	26.41	Peak	268.00	300	Horizontal	Pass
2**	4263.500	37.41	54.0	16.59	AV	268.00	300	Horizontal	Pass
3	5179.250	111.25	--	--	Peak	112.00	200	Horizontal	N/A
3**	5179.250	105.26	--	--	AV	112.00	200	Horizontal	N/A
4	8288.088	48.26	74.0	25.74	Peak	47.00	100	Horizontal	Pass
4**	8288.088	44.92	54.0	9.08	AV	47.00	100	Horizontal	Pass
5	12482.813	53.55	74.0	20.45	Peak	40.00	100	Horizontal	Pass
5**	12482.813	43.82	54.0	10.18	AV	40.00	100	Horizontal	Pass
6	16131.526	54.44	74.0	19.56	Peak	154.00	100	Horizontal	Pass
6**	16131.526	46.48	54.0	7.52	AV	154.00	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	1496.200	40.01	74.0	33.99	Peak	138.00	400	Vertical	Pass
1**	1496.200	29.10	54.0	24.90	AV	138.00	400	Vertical	Pass
2	4347.000	47.58	74.0	26.42	Peak	325.00	300	Vertical	Pass
2**	4347.000	38.33	54.0	15.67	AV	325.00	300	Vertical	Pass
3	5182.500	103.55	--	--	Peak	73.00	100	Vertical	N/A
3**	5182.500	96.56	--	--	AV	73.00	100	Vertical	N/A
4	8288.088	48.63	74.0	25.37	Peak	217.00	100	Vertical	Pass
4**	8288.088	44.35	54.0	9.65	AV	217.00	100	Vertical	Pass
5	11788.599	53.11	74.0	20.89	Peak	161.00	200	Vertical	Pass
5**	11788.599	42.70	54.0	11.30	AV	161.00	200	Vertical	Pass
6	15883.201	54.69	74.0	19.31	Peak	259.00	400	Vertical	Pass
6**	15883.201	44.90	54.0	9.10	AV	259.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1464.900	39.11	74.0	34.89	Peak	210.00	200	Horizontal	Pass
1**	1464.900	30.11	54.0	23.89	AV	210.00	200	Horizontal	Pass
2	4258.500	46.96	74.0	27.04	Peak	0.00	100	Horizontal	Pass
2**	4258.500	37.63	54.0	16.37	AV	0.00	100	Horizontal	Pass
3	5220.750	110.18	--	--	Peak	266.00	200	Horizontal	N/A
3**	5220.750	104.59	--	--	AV	266.00	200	Horizontal	N/A
4	8351.974	48.11	74.0	25.89	Peak	355.00	100	Horizontal	Pass
4**	8351.974	44.38	54.0	9.62	AV	355.00	100	Horizontal	Pass
5	12430.562	52.83	74.0	21.17	Peak	0.00	100	Horizontal	Pass
5**	12430.562	42.97	54.0	11.03	AV	0.00	100	Horizontal	Pass
6	15664.275	55.82	74.0	18.18	Peak	31.00	300	Horizontal	Pass
6**	15664.275	45.98	54.0	8.02	AV	31.00	300	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	1536.300	39.15	74.0	34.85	Peak	139.00	300	Vertical	Pass
1**	1536.300	28.62	54.0	25.38	AV	139.00	300	Vertical	Pass
2	4245.750	47.48	74.0	26.52	Peak	286.00	400	Vertical	Pass
2**	4245.750	39.46	54.0	14.54	AV	286.00	400	Vertical	Pass
3	5218.750	104.49	--	--	Peak	34.00	200	Vertical	N/A
3**	5218.750	97.54	--	--	AV	34.00	200	Vertical	N/A
4	8351.974	48.90	74.0	25.10	Peak	167.00	100	Vertical	Pass
4**	8351.974	44.04	54.0	9.96	AV	167.00	100	Vertical	Pass
5	12487.088	53.33	74.0	20.67	Peak	327.00	200	Vertical	Pass
5**	12487.088	44.15	54.0	9.85	AV	327.00	200	Vertical	Pass
6	15667.162	56.34	74.0	17.66	Peak	15.00	400	Vertical	Pass
6**	15667.162	44.44	54.0	9.56	AV	15.00	400	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	1501.200	38.18	74.0	35.82	Peak	145.00	400	Horizontal	Pass
1**	1501.200	29.48	54.0	24.52	AV	145.00	400	Horizontal	Pass
2	4265.250	47.00	74.0	27.00	Peak	360.00	100	Horizontal	Pass
2**	4265.250	37.87	54.0	16.13	AV	360.00	100	Horizontal	Pass
3	5240.750	110.84	--	--	Peak	287.00	150	Horizontal	N/A
3**	5240.750	104.50	--	--	AV	287.00	150	Horizontal	N/A
4	8384.275	48.91	74.0	25.09	Peak	47.00	100	Horizontal	Pass
4**	8384.275	44.91	54.0	9.09	AV	47.00	100	Horizontal	Pass
5	12514.400	53.37	74.0	20.63	Peak	60.00	200	Horizontal	Pass
5**	12514.400	44.36	54.0	9.64	AV	60.00	200	Horizontal	Pass
6	15719.663	54.50	74.0	19.50	Peak	0.00	300	Horizontal	Pass
6**	15719.663	45.26	54.0	8.74	AV	0.00	300	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	1577.600	39.33	74.0	34.67	Peak	139.00	300	Vertical	Pass
1**	1577.600	30.20	54.0	23.80	AV	139.00	300	Vertical	Pass
2	4337.000	47.35	74.0	26.65	Peak	93.00	200	Vertical	Pass
2**	4337.000	38.39	54.0	15.61	AV	93.00	200	Vertical	Pass
3	5241.250	104.16	--	--	Peak	0.00	150	Vertical	N/A
3**	5241.250	97.61	--	--	AV	0.00	150	Vertical	N/A
4	8384.037	48.92	74.0	25.08	Peak	354.00	100	Vertical	Pass
4**	8384.037	44.28	54.0	9.72	AV	354.00	100	Vertical	Pass
5	12497.776	52.77	74.0	21.23	Peak	125.00	100	Vertical	Pass
5**	12497.776	44.48	54.0	9.52	AV	125.00	100	Vertical	Pass
6	15722.025	51.52	74.0	22.48	Peak	21.00	100	Vertical	Pass
6**	15722.025	48.91	54.0	5.09	AV	21.00	100	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	1581.400	39.10	74.0	34.90	Peak	212.00	200	Horizontal	Pass
1**	1581.400	28.63	54.0	25.37	AV	212.00	200	Horizontal	Pass
2	4328.250	46.88	74.0	27.12	Peak	307.00	100	Horizontal	Pass
2**	4328.250	38.63	54.0	15.37	AV	307.00	100	Horizontal	Pass
3	5181.000	110.27	--	--	Peak	112.00	150	Horizontal	N/A
3**	5181.000	104.11	--	--	AV	112.00	150	Horizontal	N/A
4	8288.325	48.00	74.0	26.00	Peak	60.00	100	Horizontal	Pass
4**	8288.325	45.51	54.0	8.49	AV	60.00	100	Horizontal	Pass
5	12519.388	52.78	74.0	21.22	Peak	125.00	100	Horizontal	Pass
5**	12519.388	43.82	54.0	10.18	AV	125.00	100	Horizontal	Pass
6	15884.775	54.00	74.0	20.00	Peak	237.00	200	Horizontal	Pass
6**	15884.775	44.75	54.0	9.25	AV	237.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1495.400	39.95	74.0	34.05	Peak	152.00	300	Vertical	Pass
1**	1495.400	30.05	54.0	23.95	AV	152.00	300	Vertical	Pass
2	4285.750	47.51	74.0	26.49	Peak	111.00	200	Vertical	Pass
2**	4285.750	38.05	54.0	15.95	AV	111.00	200	Vertical	Pass
3	5181.000	105.55	--	--	Peak	72.00	100	Vertical	N/A
3**	5181.000	97.78	--	--	AV	72.00	100	Vertical	N/A
4	8288.088	48.97	74.0	25.03	Peak	348.00	100	Vertical	Pass
4**	8288.088	44.45	54.0	9.55	AV	348.00	100	Vertical	Pass
5	12470.225	53.37	74.0	20.63	Peak	168.00	100	Vertical	Pass
5**	12470.225	43.33	54.0	10.67	AV	168.00	100	Vertical	Pass
6	16128.113	53.48	74.0	20.52	Peak	50.00	100	Vertical	Pass
6**	16128.113	45.11	54.0	8.89	AV	50.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1441.200	38.14	74.0	35.86	Peak	128.00	100	Horizontal	Pass
1**	1441.200	28.44	54.0	25.56	AV	128.00	100	Horizontal	Pass
2	4050.250	47.49	74.0	26.51	Peak	190.00	100	Horizontal	Pass
2**	4050.250	37.18	54.0	16.82	AV	190.00	100	Horizontal	Pass
3	5220.750	110.10	--	--	Peak	112.00	200	Horizontal	N/A
3**	5220.750	102.01	--	--	AV	112.00	200	Horizontal	N/A
4	8351.974	48.87	74.0	25.13	Peak	290.00	100	Horizontal	Pass
4**	8351.974	44.74	54.0	9.26	AV	290.00	100	Horizontal	Pass
5	12486.850	53.06	74.0	20.94	Peak	116.00	100	Horizontal	Pass
5**	12486.850	44.32	54.0	9.68	AV	116.00	100	Horizontal	Pass
6	16096.874	53.70	74.0	20.30	Peak	179.00	100	Horizontal	Pass
6**	16096.874	44.88	54.0	9.12	AV	179.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1500.100	40.54	74.0	33.46	Peak	147.00	200	Vertical	Pass
1**	1500.100	30.77	54.0	23.23	AV	147.00	200	Vertical	Pass
2	4260.000	47.21	74.0	26.79	Peak	247.00	200	Vertical	Pass
2**	4260.000	37.78	54.0	16.22	AV	247.00	200	Vertical	Pass
3	5220.750	103.03	--	--	Peak	33.00	100	Vertical	N/A
3**	5220.750	95.72	--	--	AV	33.00	100	Vertical	N/A
4	8351.974	50.29	74.0	23.71	Peak	0.00	100	Vertical	Pass
4**	8351.974	43.87	54.0	10.13	AV	0.00	100	Vertical	Pass
5	12473.075	52.90	74.0	21.10	Peak	167.00	100	Vertical	Pass
5**	12473.075	44.21	54.0	9.79	AV	167.00	100	Vertical	Pass
6	15658.762	52.52	74.0	21.48	Peak	169.00	100	Vertical	Pass
6**	15658.762	48.54	54.0	5.46	AV	169.00	100	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	1464.900	38.43	74.0	35.57	Peak	244.00	100	Horizontal	Pass
1**	1464.900	28.38	54.0	25.62	AV	244.00	100	Horizontal	Pass
2	4324.000	46.93	74.0	27.07	Peak	0.00	300	Horizontal	Pass
2**	4324.000	37.66	54.0	16.34	AV	0.00	300	Horizontal	Pass
3	5239.500	109.95	--	--	Peak	286.00	100	Horizontal	N/A
3**	5239.500	103.44	--	--	AV	286.00	100	Horizontal	N/A
4	8384.275	49.23	74.0	24.77	Peak	118.00	100	Horizontal	Pass
4**	8384.275	44.76	54.0	9.24	AV	118.00	100	Horizontal	Pass
5	12432.938	53.07	74.0	20.93	Peak	52.00	150	Horizontal	Pass
5**	12432.938	43.13	54.0	10.87	AV	52.00	150	Horizontal	Pass
6	15714.150	55.40	74.0	18.60	Peak	360.00	300	Horizontal	Pass
6**	15714.150	45.17	54.0	8.83	AV	360.00	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	1498.400	42.43	74.0	31.57	Peak	135.00	200	Vertical	Pass
1**	1498.400	34.71	54.0	19.29	AV	135.00	200	Vertical	Pass
2	4308.750	47.43	74.0	26.57	Peak	169.00	400	Vertical	Pass
2**	4308.750	37.51	54.0	16.49	AV	169.00	400	Vertical	Pass
3	5242.750	104.24	--	--	Peak	0.00	200	Vertical	N/A
3**	5242.750	97.48	--	--	AV	0.00	200	Vertical	N/A
4	8384.037	49.91	74.0	24.09	Peak	161.00	100	Vertical	Pass
4**	8384.037	44.98	54.0	9.02	AV	161.00	100	Vertical	Pass
5	12469.512	53.25	74.0	20.75	Peak	82.00	200	Vertical	Pass
5**	12469.512	44.18	54.0	9.82	AV	82.00	200	Vertical	Pass
6	15723.600	52.76	74.0	21.24	Peak	18.00	100	Vertical	Pass
6**	15723.600	48.76	54.0	5.24	AV	18.00	100	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	1439.400	38.49	74.0	35.51	Peak	65.00	200	Horizontal	Pass
1**	1439.400	30.70	54.0	23.30	AV	65.00	200	Horizontal	Pass
2	4242.750	47.47	74.0	26.53	Peak	128.00	200	Horizontal	Pass
2**	4242.750	37.76	54.0	16.24	AV	128.00	200	Horizontal	Pass
3	5194.000	108.52	--	--	Peak	109.00	100	Horizontal	N/A
3**	5194.000	101.01	--	--	AV	109.00	100	Horizontal	N/A
4	8304.237	49.34	74.0	24.66	Peak	125.00	100	Horizontal	Pass
4**	8304.237	44.83	54.0	9.17	AV	125.00	100	Horizontal	Pass
5	12440.537	52.86	74.0	21.14	Peak	11.00	200	Horizontal	Pass
5**	12440.537	43.77	54.0	10.23	AV	11.00	200	Horizontal	Pass
6	16086.375	53.93	74.0	20.07	Peak	53.00	300	Horizontal	Pass
6**	16086.375	44.51	54.0	9.49	AV	53.00	300	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	1491.300	39.12	74.0	34.88	Peak	163.00	100	Vertical	Pass
1**	1491.300	28.47	54.0	25.53	AV	163.00	100	Vertical	Pass
2	4399.000	46.86	74.0	27.14	Peak	12.00	200	Vertical	Pass
2**	4399.000	37.99	54.0	16.01	AV	12.00	200	Vertical	Pass
3	5192.250	101.54	--	--	Peak	72.00	100	Vertical	N/A
3**	5192.250	93.06	--	--	AV	72.00	100	Vertical	N/A
4	8304.237	48.41	74.0	25.59	Peak	2.00	100	Vertical	Pass
4**	8304.237	45.12	54.0	8.88	AV	2.00	100	Vertical	Pass
5	12455.975	52.96	74.0	21.04	Peak	111.00	100	Vertical	Pass
5**	12455.975	44.68	54.0	9.32	AV	111.00	100	Vertical	Pass
6	15899.475	53.59	74.0	20.41	Peak	208.00	300	Vertical	Pass
6**	15899.475	44.56	54.0	9.44	AV	208.00	300	Vertical	Pass