

TEST REPORT

Applicant: E&S International Enterprises, Inc.
Address: 7801 Hayvenhurst Avenue Van Nuys, California
91406, USA
Equipment Type: 8" Tablet
Model Name: GATM10822-BK (refer section 2.4)
Brand Name: Gateway
FCC ID: 2AYPE-GATM10822
Test Standard: 47 CFR Part 15 Subpart E
(refer section 3.1)
Test Date: Aug. 03, 2022 - Aug. 19, 2022
Date of Issue: Sep. 02, 2022

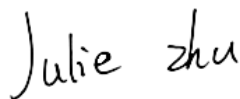
ISSUED BY:

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Approved by: Liao Jianming
(Technical Director)







Revision History		
<u>Version</u>	<u>Issue Date</u>	<u>Revisions</u>
<u>Rev. 01</u>	<u>Sep. 02, 2022</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

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

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	E&S International Enterprises, Inc.
Address	7801 Hayvenhurst Avenue Van Nuys, California 91406, USA

2.2 Manufacturer Information

Manufacturer	HENA GROUP COMPANY LIMITED
Address	ROOM 2205, WESTLANDS CENTRE, 20 WESTLAND ROAD, QUARRY BAY, HONG KONG

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	8" Tablet
Model Name Under Test	GATM10822-BK
Series Model Name	GATM10822-** (* stands for A-Z)
Description of Model name differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in shell color and model name. (this information provided by the customer)
Hardware Version	M862P
Software Version	Android 12
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac U-NII-1/2A/2C/3
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The requirement for the following technical information of the EUT was tested in this report:

Frequency Range	U-NII-1: 5150 MHz to 5250 MHz, U-NII-2A: 5250 MHz to 5350 MHz, U-NII-2C: 5470 MHz to 5725 MHz, U-NII-3: 5725 MHz to 5850 MHz
Product Type	<input type="checkbox"/> Mobile <input checked="" type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Modulation technology	OFDM
Modulation Type	256QAM, 64QAM, 16QAM, BPSK, QPSK
Product Type	Portable for FCC standard
Transfer Rate (Mbps) (Single RF path)	802.11a: 54/ 48/ 36/ 24/ 18/ 12/ 9/ 6 Mbps 802.11n: up to 150 Mbps 802.11ac: up to VHT-MCS9
Channel Bandwidth	802.11a: 20 MHz 802.11n: 20 MHz, 40 MHz 802.11ac: 20 MHz, 40 MHz, 80 MHz
Maximum Output Power	U-NII-1: 8.27 dBm U-NII-2A: 8.31 dBm U-NII-2C: 7.36 dBm U-NII-3: 8.36 dBm
Antenna System (eg., MIMO, Smart Antenna)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	FPC Antenna
Antenna Gain	2.25 dBi
About the Product	The equipment is 8" Tablet, intended for used with information technology equipment.

2.6 Additional Instructions

EUT Software Settings:

Mode	<input checked="" type="checkbox"/> Special software is used. The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.
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During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Test Software Version	Device bulid-in engneer test mode
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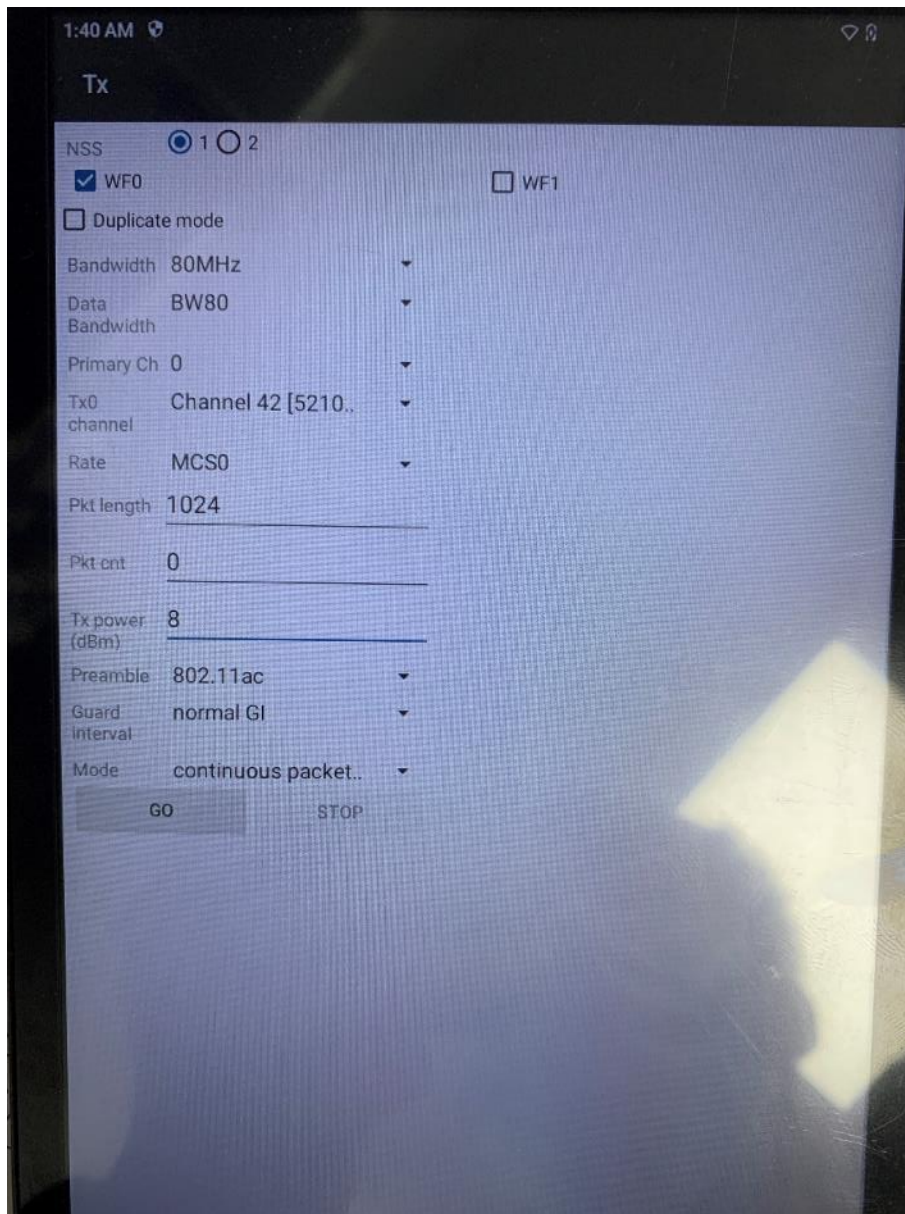
U-NII-1 (5150 - 5250 MHz) Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
11a	CH36	5180	10.5
11a	CH44	5220	10.5
11a	CH48	5240	11.0
11n (HT20)	CH36	5180	9.0
11n (HT20)	CH44	5220	9.0
11n (HT20)	CH48	5240	9.5
11n (HT40)	CH38	5190	9.0
11n (HT40)	CH46	5230	9.0
11ac (VHT20)	CH36	5180	8.0
11ac (VHT20)	CH44	5220	8.5
11ac (VHT20)	CH48	5240	8.5
11ac (VHT40)	CH38	5190	8.0
11ac (VHT40)	CH46	5230	8.0
11ac (VHT80)	CH42	5210	8.0

U-NII-2A (5250 - 5350 MHz) Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
11a	CH52	5260	11.0
11a	CH60	5300	11.0
11a	CH64	5320	11.0
11n (HT20)	CH52	5260	9.5
11n (HT20)	CH60	5300	9.5
11n (HT20)	CH64	5320	9.5
11n (HT40)	CH54	5270	9.0
11n (HT40)	CH62	5310	9.5
11ac (VHT20)	CH52	5260	8.5
11ac (VHT20)	CH60	5300	8.5
11ac (VHT20)	CH64	5320	9.0
11ac (VHT40)	CH54	5270	8.0
11ac (VHT40)	CH62	5310	9.0
11ac (VHT80)	CH58	5290	9.0

U-NII-2C (5470 - 5725 MHz) Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
11a	CH100	5500	10.5
11a	CH116	5580	9.5
11a	CH140	5700	8.5
11n (HT20)	CH100	5500	9.5
11n (HT20)	CH116	5580	9.0
11n (HT20)	CH140	5700	7.5
11n (HT40)	CH102	5510	9.0
11n (HT40)	CH118	5590	8.0
11n (HT40)	CH134	5670	7.5
11ac (VHT20)	CH100	5500	8.0
11ac (VHT20)	CH116	5580	7.0
11ac (VHT20)	CH140	5700	6.5
11ac (VHT40)	CH102	5510	7.5
11ac (VHT40)	CH118	5590	7.0
11ac (VHT40)	CH134	5670	6.5
11ac (VHT80)	CH106	5530	8.0
11ac (VHT80)	CH122	5610	7.0

U-NII-3 (5725 - 5850 MHz) Power level setup in software			
Mode	Channel	Frequency (MHz)	Soft Set
11a	CH149	5745	9.5
11a	CH157	5785	9.5
11a	CH165	5825	10.0
11n (HT20)	CH149	5745	8.5
11n (HT20)	CH157	5785	9.0
11n (HT20)	CH165	5825	9.0
11n (HT40)	CH151	5755	8.5
11n (HT40)	CH159	5795	9.0
11ac (VHT20)	CH149	5745	7.5
11ac (VHT20)	CH157	5785	7.0
11ac (VHT20)	CH165	5825	7.5
11ac (VHT40)	CH151	5755	7.0
11ac (VHT40)	CH159	5795	7.5
11ac (VHT80)	CH155	5775	7.5

Run Software:



2.7 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	58	5290
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	134	5670		
100	5500	151	5755		
104	5520	159	5795		
108	5540				
112	5560				
116	5580				
136	5680				
140	5700				
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-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)

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 (5150 - 5250 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)

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			

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
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
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
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
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
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

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

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

3.2 Test Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass ^{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
8	Receiver Spurious Emissions	--	--	N/A ^{Note2}

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

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

Note ³: 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	49% to 58%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22.4°C to +24.0°C
	LT (Low Temperature)	0°C
	HT (High Temperature)	+40°C
Working Voltage of the EUT	NV (Normal Voltage)	3.8 V
	LV (Low Voltage)	3.5 V
	HV (High Voltage)	4.2 V

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	MY46471071	2022.07.26	2023.07.25
Power Sensor	ROHDE&SCHWARZ	NRP18S	102521	2022.03.09	2023.03.08
Spectrum Analyzer	ROHDE&SCHWARZ	FSV-40	101544	2022.01.04	2023.01.03
Spectrum Analyzer	KEYSIGHT	N9020A	MY52510065	2021.09.08	2022.09.07
Signaling Unit	ROHDE&SCHWARZ	CMW500	171150	2022.06.29	2023.06.28
Test Antenna-Horn (1-18 GHz)	SCHWARZBECK	BBHA 9120D	01631	2022.02.03	2025.02.02
Test Antenna-Horn (18-40 GHz)	A-INFO	LB- 180400KF	J211060273	2021.07.02	2024.07.01
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2021.09.04	2024.09.03
Test Antenna-Bi-Log (30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2021.08.20	2024.08.19
Test Antenna-Loop (9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
EMI Receiver	KEYSIGHT	N9038A	MY53220118	2021.09.13	2022.09.12
Anechoic Chamber	RAINFORD	9m*6m*6m	N/A	2020.03.16	2023.03.15
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2021.10.10	2022.10.09
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.5m*3.1m* 2.8m	N/A	2022.02.19	2025.02.18

4.3 Test Software List

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

4.4 Measurement Uncertainty

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

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

Parameters	Uncertainty
Occupied Channel Bandwidth	2.8%
RF output power, conducted	1.28 dB
Power Spectral Density, conducted	1.30 dB
Unwanted Emissions, conducted	1.84 dB
All emissions, radiated	5.36 dB
Temperature	0.82°C
Humidity	4.1%

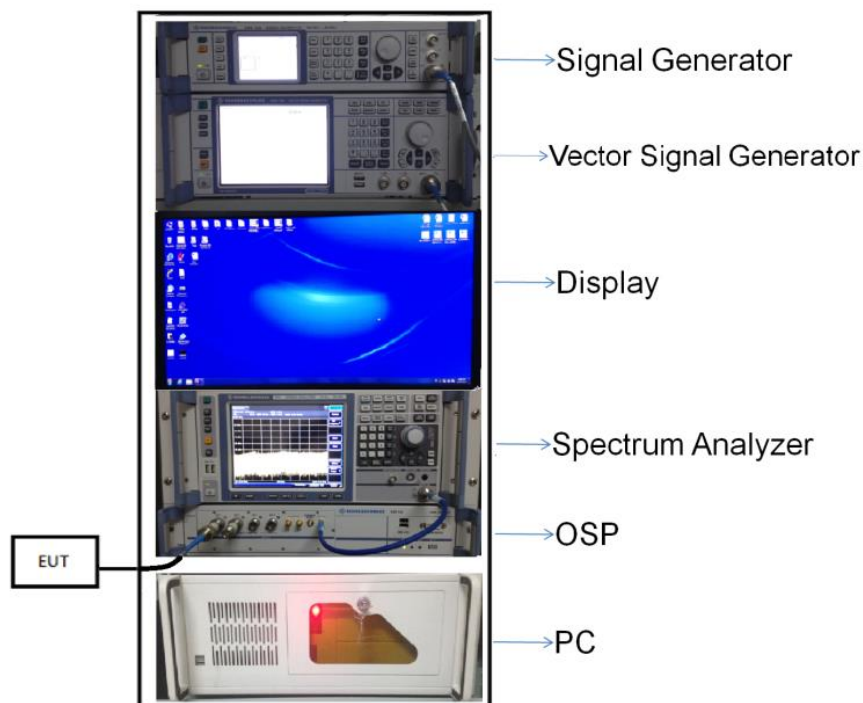
4.5 Description of Test Setup

4.5.1 For Antenna Port Test

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

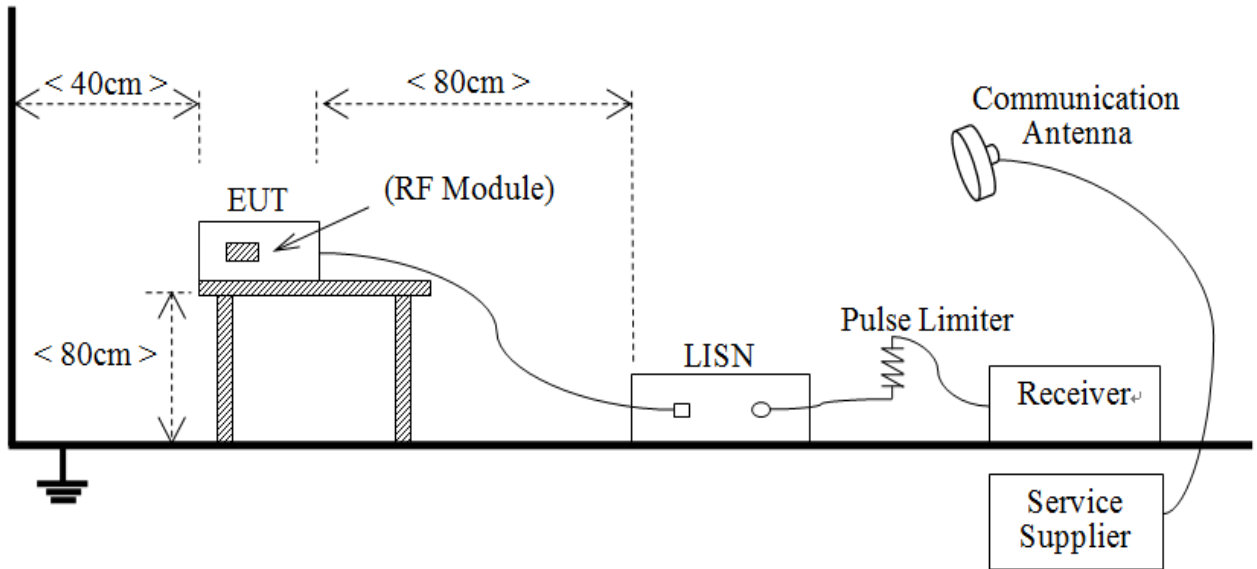
For example: the measurement value is 10 dBm and the cable 0.5dBm used, then the final result of EUT:

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



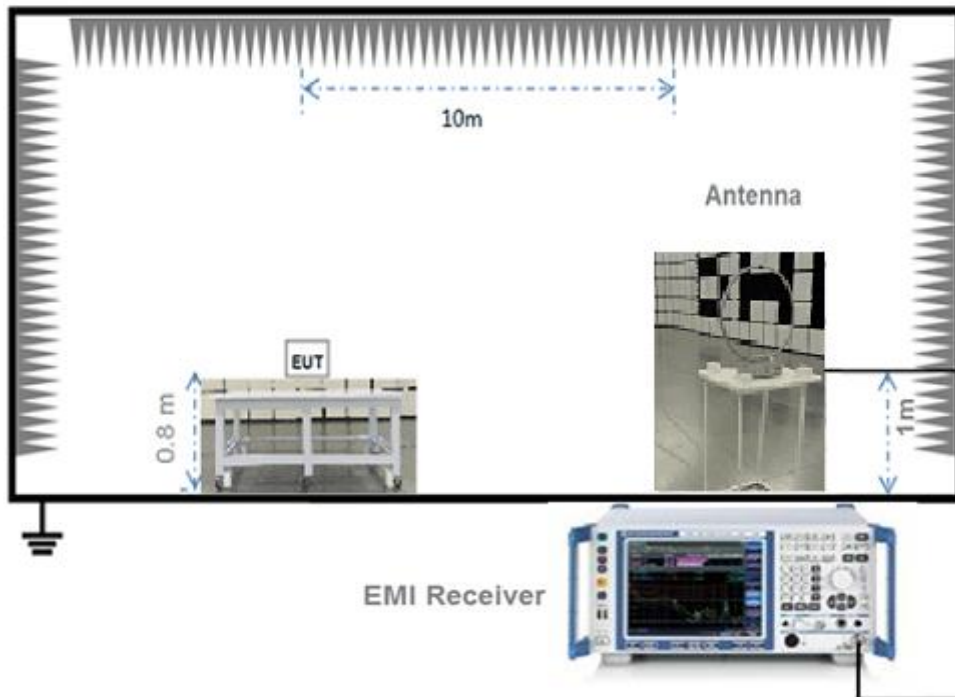
(Diagram 1)

4.5.2 For AC Power Supply Port Test



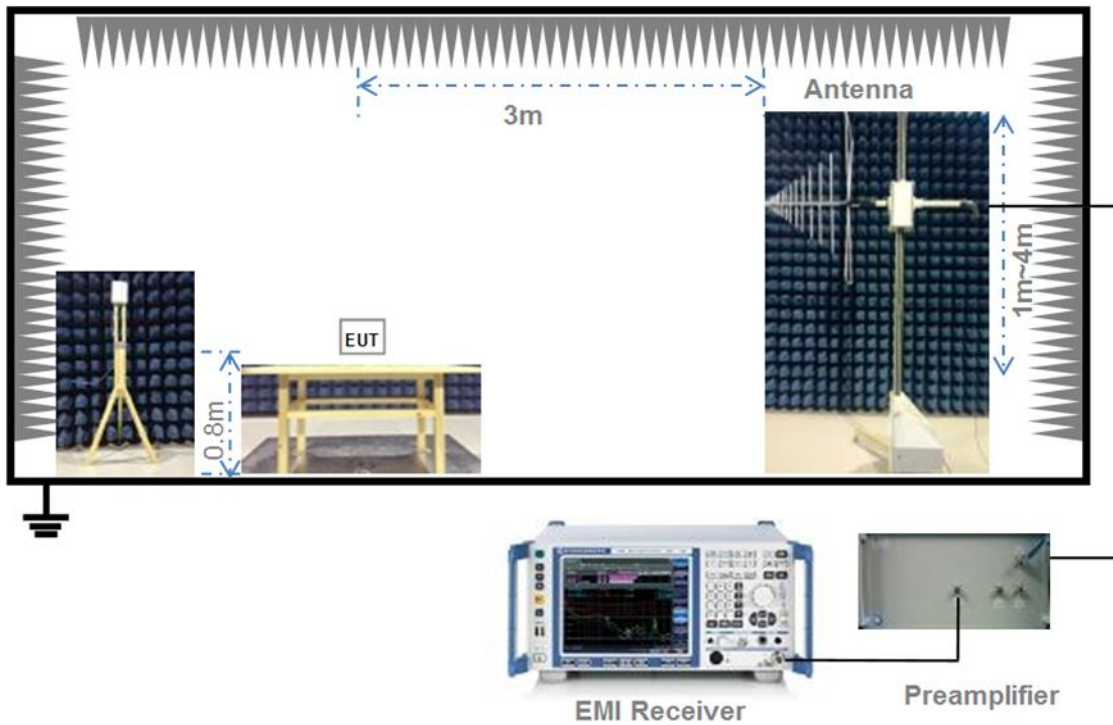
(Diagram 2)

4.5.3 For Radiated Test (Below 30 MHz)



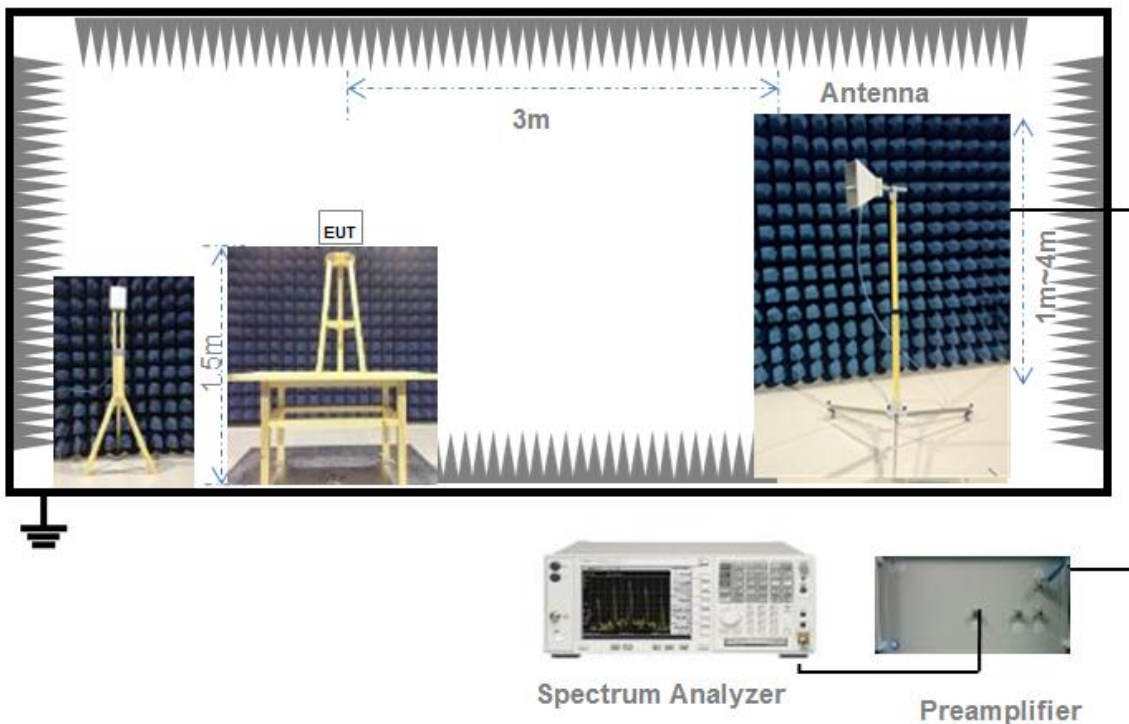
(Diagram 3)

4.5.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.5.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

5 TEST ITEMS

5.1 RF Output Power

5.1.1 Test Limit

FCC §15.407(a)

The maximum conducted output power should not exceed:

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

5.1.2 Test Setup

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

5.1.3 Test Procedure

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

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

5.1.4 Test Result

Please refer to ANNEX A.1.

5.2 Emission Bandwidth and 6 dB Bandwidth

5.2.1 Limit

FCC §15.407(a)

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

5.2.2 Test Setup

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

5.2.3 Test Procedure

Emission bandwidth

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

Occupied Bandwidth

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

6 dB bandwidth

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

5.2.4 Test Result

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

5.3 Power Spectral density (PSD)

5.3.1 Limit

FCC §15.407(a)

The maximum power spectral density should not exceed:

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

5.3.2 Test Setup

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

5.3.3 Test Procedure

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

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

5.3.4 Test Result

Please refer to ANNEX A.4.

5.4 Conducted Emission

5.4.1 Limit

FCC §15.207

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

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

5.4.2 Test Setup

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

5.4.3 Test Procedure

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

5.4.4 Test Result

Please refer to ANNEX A.5.

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

5.5.1 Limit

FCC §15.209 & 15.407(b)

Frequency (MHz)	Field Strength (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

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	<p>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.</p>

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

5.5.2 Test Setup

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

5.5.3 Test Procedure

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

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

General Procedure for conducted measurements in restricted bands

- a) Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see guidance on determining the applicable antenna gain)
- c) 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).
- d) 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).
- e) 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.

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

Quasi-Peak measurement procedure

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

Electrotechnical Commission.

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

Peak power measurement procedure

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

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

Table 1—RBW as a function of frequency

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

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

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

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

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

averaging shall not be used.

g) Sweep time = auto.

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

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

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

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

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

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

Determining the applicable transmit antenna gain

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

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

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

Radiated spurious emission test

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

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

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

The power of the EUT transmitting frequency should be ignored.

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

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

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

VBW \geq RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.5.4 Test Result

Please refer to ANNEX A.6.

ANNEX A TEST RESULT

A.1 RF Output Power

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

Duty Cycle

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle
11a	1.386	1.436	96.52%
11n (HT20)/11ac (VHT20)	1.310	1.355	96.68%
11n (HT40)/11ac (VHT40)	0.649	0.697	93.11%
11ac (VHT80)	0.322	0.368	87.61%

Test Data

Conducted Power

U-NII-1 (5150 - 5250 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH36	8.24	6.67	250	Pass
11a	CH44	8.27	6.71	250	Pass
11a	CH48	8.22	6.64	250	Pass
11n (HT20)	CH36	7.49	5.61	250	Pass
11n (HT20)	CH44	7.41	5.51	250	Pass
11n (HT20)	CH48	7.42	5.52	250	Pass
11n (HT40)	CH38	7.42	5.52	250	Pass
11n (HT40)	CH46	7.37	5.46	250	Pass
11ac (VHT20)	CH36	6.26	4.23	250	Pass
11ac (VHT20)	CH44	6.29	4.26	250	Pass
11ac (VHT20)	CH48	6.44	4.41	250	Pass
11ac (VHT40)	CH38	6.45	4.42	250	Pass
11ac (VHT40)	CH46	6.34	4.31	250	Pass
11ac (VHT80)	CH42	6.46	4.43	250	Pass

U-NII-2A (5250 - 5350 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH52	8.25	6.68	250	Pass
11a	CH60	8.31	6.78	250	Pass
11a	CH64	8.13	6.50	250	Pass
11n (HT20)	CH52	7.29	5.36	250	Pass
11n (HT20)	CH60	7.46	5.57	250	Pass
11n (HT20)	CH64	7.39	5.48	250	Pass
11n (HT40)	CH54	7.42	5.52	250	Pass
11n (HT40)	CH62	7.33	5.41	250	Pass
11ac (VHT20)	CH52	6.44	4.41	250	Pass
11ac (VHT20)	CH60	6.18	4.15	250	Pass
11ac (VHT20)	CH64	6.38	4.35	250	Pass
11ac (VHT40)	CH54	6.43	4.40	250	Pass
11ac (VHT40)	CH62	6.33	4.30	250	Pass
11ac (VHT80)	CH58	6.42	4.39	250	Pass

U-NII-2C (5470 - 5725 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH100	7.36	5.45	250	Pass
11a	CH116	7.27	5.33	250	Pass
11a	CH140	7.30	5.37	250	Pass
11n (HT20)	CH100	6.31	4.28	250	Pass
11n (HT20)	CH116	6.30	4.27	250	Pass
11n (HT20)	CH140	6.30	4.27	250	Pass
11n (HT40)	CH102	6.40	4.37	250	Pass
11n (HT40)	CH118	6.42	4.39	250	Pass
11n (HT40)	CH134	6.32	4.29	250	Pass
11ac (VHT20)	CH100	5.40	3.47	250	Pass
11ac (VHT20)	CH116	5.16	3.28	250	Pass
11ac (VHT20)	CH140	5.21	3.32	250	Pass
11ac (VHT40)	CH102	5.40	3.47	250	Pass
11ac (VHT40)	CH118	5.36	3.44	250	Pass
11ac (VHT40)	CH134	5.43	3.49	250	Pass
11ac (VHT80)	CH106	5.48	3.53	250	Pass
11ac (VHT80)	CH122	5.43	3.49	250	Pass

U-NII-3 (5725 - 5850 MHz)					
Mode	Channel	Conducted Power (dBm)	Conducted Power (mW)	FCC Limit (mW)	Verdict
11a	CH149	8.36	6.85	1000	Pass
11a	CH157	8.10	6.46	1000	Pass
11a	CH165	8.29	6.75	1000	Pass
11n (HT20)	CH149	7.34	5.42	1000	Pass
11n (HT20)	CH157	7.48	5.60	1000	Pass
11n (HT20)	CH165	7.17	5.21	1000	Pass
11n (HT40)	CH151	7.23	5.28	1000	Pass
11n (HT40)	CH159	7.43	5.53	1000	Pass
11ac (VHT20)	CH149	6.47	4.44	1000	Pass
11ac (VHT20)	CH157	6.30	4.27	1000	Pass
11ac (VHT20)	CH165	6.41	4.38	1000	Pass
11ac (VHT40)	CH151	6.41	4.38	1000	Pass
11ac (VHT40)	CH159	6.35	4.32	1000	Pass
11ac (VHT80)	CH155	6.35	4.32	1000	Pass

A.2 Emission Bandwidth & 99% Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ2280100-604 Data Part 1.pdf".

Test Data

U-NII-1 (5150 - 5250 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH36	20.03	16.52
11a	CH44	19.99	16.53
11a	CH48	20.08	16.52
11n (HT20)	CH36	20.31	17.62
11n (HT20)	CH44	20.33	17.64
11n (HT20)	CH48	20.38	17.63
11n (HT40)	CH38	40.56	36.17
11n (HT40)	CH46	40.63	36.21
11ac (VHT20)	CH36	20.33	17.64
11ac (VHT20)	CH44	20.36	17.64
11ac (VHT20)	CH48	20.30	17.64
11ac (VHT40)	CH38	40.57	36.21
11ac (VHT40)	CH46	40.54	36.20
11ac (VHT80)	CH42	81.06	76.17

U-NII-2A (5250 - 5350 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH52	20.22	16.52
11a	CH60	20.06	16.54
11a	CH64	19.99	16.55
11n (HT20)	CH52	20.32	17.62
11n (HT20)	CH60	20.37	17.63
11n (HT20)	CH64	20.28	17.65
11n (HT40)	CH54	40.61	36.24
11n (HT40)	CH62	40.63	36.23
11ac (VHT20)	CH52	20.32	17.65
11ac (VHT20)	CH60	20.42	17.68
11ac (VHT20)	CH64	20.39	17.66
11ac (VHT40)	CH54	40.75	36.28
11ac (VHT40)	CH62	40.85	36.29
11ac (VHT80)	CH58	81.18	76.12

U-NII-2C (5470 - 5725 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH100	20.01	16.55
11a	CH116	19.93	16.55
11a	CH140	20.03	16.55
11n (HT20)	CH100	20.38	17.64
11n (HT20)	CH116	20.41	17.62
11n (HT20)	CH140	20.43	17.66
11n (HT40)	CH102	40.65	36.20
11n (HT40)	CH118	40.53	36.19
11n (HT40)	CH134	40.67	36.25
11ac (VHT20)	CH100	20.35	17.65
11ac (VHT20)	CH116	20.31	17.66
11ac (VHT20)	CH140	20.28	17.66
11ac (VHT40)	CH102	40.51	36.27
11ac (VHT40)	CH118	40.59	36.25
11ac (VHT40)	CH134	40.72	36.29
11ac (VHT80)	CH106	81.08	76.12
11ac (VHT80)	CH122	81.29	76.20

U-NII-3 (5725 - 5850 MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	CH149	20.02	16.56
11a	CH157	19.97	16.56
11a	CH165	20.11	16.54
11n (HT20)	CH149	20.32	17.65
11n (HT20)	CH157	20.35	17.62
11n (HT20)	CH165	20.37	17.65
11n (HT40)	CH151	40.58	36.19
11n (HT40)	CH159	40.60	36.18
11ac (VHT20)	CH149	20.41	17.63
11ac (VHT20)	CH157	20.35	17.68
11ac (VHT20)	CH165	20.31	17.64
11ac (VHT40)	CH151	40.69	36.27
11ac (VHT40)	CH159	40.93	36.24
11ac (VHT80)	CH155	80.76	76.14

A.3 6 dB Bandwidth

Note: Test plots please refer to the document "Annex No.: BL-SZ2280100-604 Data Part 2.pdf".

Test Data

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	6 dB Bandwidth (MHz)	Limit (kHz)	Verdict
11a	CH149	15.20	500.00	Pass
11a	CH157	15.20	500.00	Pass
11a	CH165	15.20	500.00	Pass
11n (HT20)	CH149	15.20	500.00	Pass
11n (HT20)	CH157	15.20	500.00	Pass
11n (HT20)	CH165	15.15	500.00	Pass
11n (HT40)	CH151	35.20	500.00	Pass
11n (HT40)	CH159	35.20	500.00	Pass
11ac (VHT20)	CH149	15.20	500.00	Pass
11ac (VHT20)	CH157	15.20	500.00	Pass
11ac (VHT20)	CH165	15.15	500.00	Pass
11ac (VHT40)	CH151	35.20	500.00	Pass
11ac (VHT40)	CH159	35.20	500.00	Pass
11ac (VHT80)	CH155	75.20	500.00	Pass

A.4 Power Spectral Density

Note¹: Test plots please refer to the document "Annex No.: BL-SZ2280100-604 Data Part 3.pdf".

Note²: The RBW used in U-NII-3 is 1 MHz, and the PSD factor is: $10 \cdot \log(500 \text{ kHz/RBW}) = -3 \text{ dBm}$.

Test Data

U-NII-1 (5150 - 5250 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH36	-1.80	11.00	Pass
11a	CH44	-2.22	11.00	Pass
11a	CH48	-1.96	11.00	Pass
11n (HT20)	CH36	-3.56	11.00	Pass
11n (HT20)	CH44	-3.91	11.00	Pass
11n (HT20)	CH48	-3.43	11.00	Pass
11n (HT40)	CH38	-6.51	11.00	Pass
11n (HT40)	CH46	-7.11	11.00	Pass
11ac (VHT20)	CH36	-4.50	11.00	Pass
11ac (VHT20)	CH44	-4.41	11.00	Pass
11ac (VHT20)	CH48	-4.55	11.00	Pass
11ac (VHT40)	CH38	-7.42	11.00	Pass
11ac (VHT40)	CH46	-7.81	11.00	Pass
11ac (VHT80)	CH42	-11.05	11.00	Pass

U-NII-2A (5250 - 5350 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH52	-2.29	11.00	Pass
11a	CH60	-2.47	11.00	Pass
11a	CH64	-2.47	11.00	Pass
11n (HT20)	CH52	-3.87	11.00	Pass
11n (HT20)	CH60	-4.06	11.00	Pass
11n (HT20)	CH64	-4.26	11.00	Pass
11n (HT40)	CH54	-7.32	11.00	Pass
11n (HT40)	CH62	-7.01	11.00	Pass
11ac (VHT20)	CH52	-4.85	11.00	Pass
11ac (VHT20)	CH60	-5.05	11.00	Pass
11ac (VHT20)	CH64	-4.67	11.00	Pass
11ac (VHT40)	CH54	-8.28	11.00	Pass
11ac (VHT40)	CH62	-7.57	11.00	Pass
11ac (VHT80)	CH58	-10.84	11.00	Pass

U-NII-2C (5470 - 5725 MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11a	CH100	-2.75	11.00	Pass
11a	CH116	-3.18	11.00	Pass
11a	CH140	-3.31	11.00	Pass
11n (HT20)	CH100	-3.87	11.00	Pass
11n (HT20)	CH116	-4.28	11.00	Pass
11n (HT20)	CH140	-4.41	11.00	Pass
11n (HT40)	CH102	-7.17	11.00	Pass
11n (HT40)	CH118	-7.37	11.00	Pass
11n (HT40)	CH134	-7.51	11.00	Pass
11ac (VHT20)	CH100	-5.18	11.00	Pass
11ac (VHT20)	CH116	-5.61	11.00	Pass
11ac (VHT20)	CH140	-5.27	11.00	Pass
11ac (VHT40)	CH102	-8.43	11.00	Pass
11ac (VHT40)	CH118	-8.52	11.00	Pass
11ac (VHT40)	CH134	-8.39	11.00	Pass
11ac (VHT80)	CH106	-11.30	11.00	Pass
11ac (VHT80)	CH122	-11.79	11.00	Pass

U-NII-3 (5725 - 5850 MHz)				
Mode	Channel	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
11a	CH149	-5.53	30.00	Pass
11a	CH157	-5.73	30.00	Pass
11a	CH165	-5.29	30.00	Pass
11n (HT20)	CH149	-6.66	30.00	Pass
11n (HT20)	CH157	-6.32	30.00	Pass
11n (HT20)	CH165	-6.69	30.00	Pass
11n (HT40)	CH151	-9.86	30.00	Pass
11n (HT40)	CH159	-9.46	30.00	Pass
11ac (VHT20)	CH149	-7.39	30.00	Pass
11ac (VHT20)	CH157	-8.17	30.00	Pass
11ac (VHT20)	CH165	-7.90	30.00	Pass
11ac (VHT40)	CH151	-11.11	30.00	Pass
11ac (VHT40)	CH159	-10.73	30.00	Pass
11ac (VHT80)	CH155	-13.95	30.00	Pass

A.5 Conducted Emissions

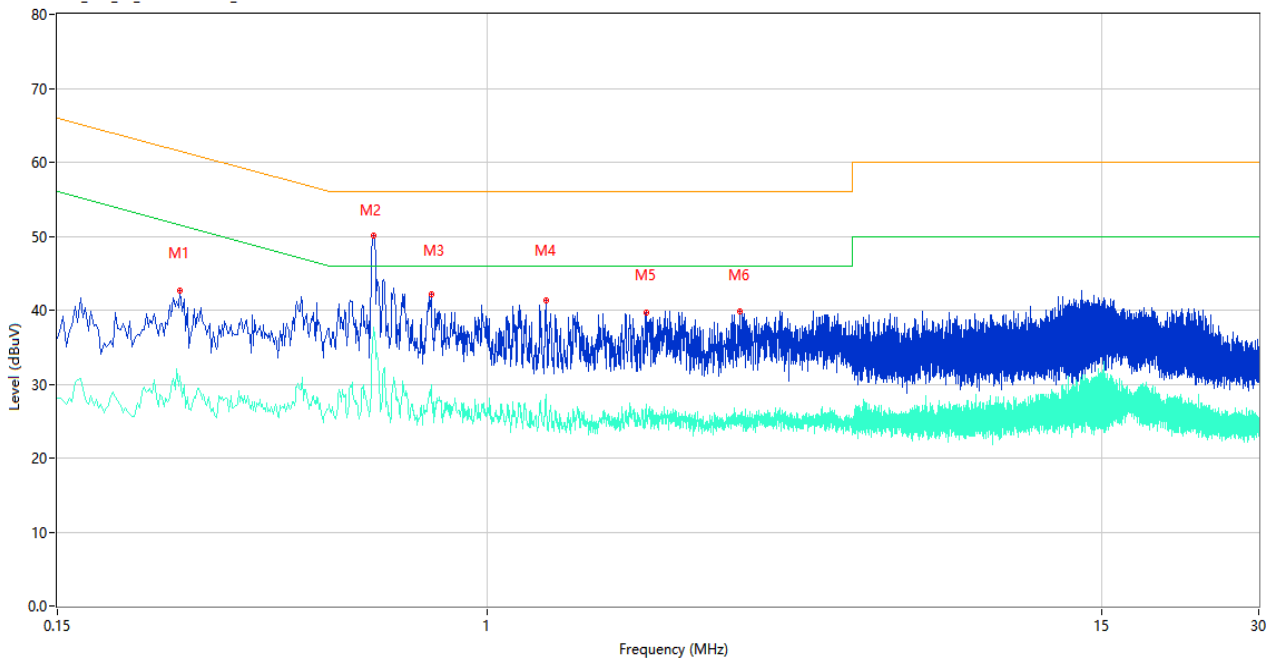
Note ¹: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

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

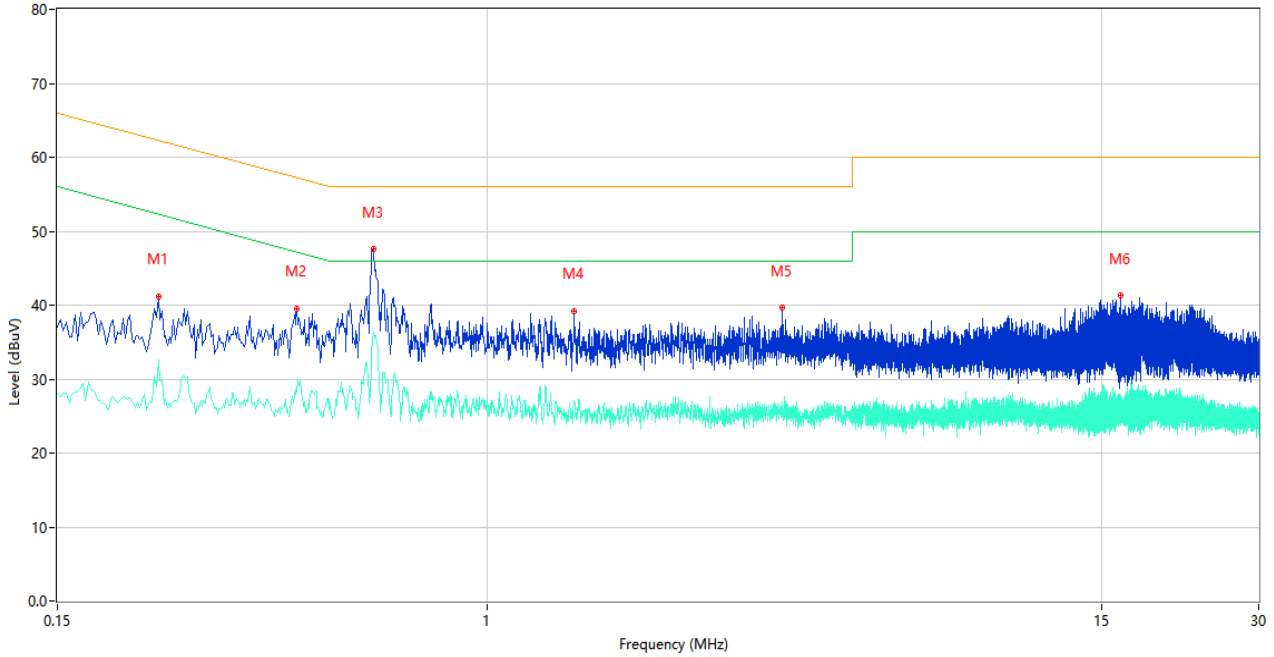
CE Test case_FCC_CE_FCC PART 15B_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.258	42.71	10.01	61.50	-18.79	Peak	L	Pass
1**	0.258	31.05	10.01	51.50	-20.45	AV	L	Pass
2	0.606	50.06	10.34	56.00	-5.94	Peak	L	Pass
2**	0.606	37.66	10.34	46.00	-8.34	AV	L	Pass
3	0.780	42.16	10.54	56.00	-13.84	Peak	L	Pass
3**	0.780	29.96	10.54	46.00	-16.04	AV	L	Pass
4	1.292	41.29	10.61	56.00	-14.71	Peak	L	Pass
4**	1.292	28.67	10.61	46.00	-17.33	AV	L	Pass
5	2.012	39.63	10.39	56.00	-16.37	Peak	L	Pass
5**	2.012	27.35	10.39	46.00	-18.65	AV	L	Pass
6	3.044	39.84	10.18	56.00	-16.16	Peak	L	Pass
6**	3.044	24.88	10.18	46.00	-21.12	AV	L	Pass

PHASE N

CE Test case_FCC_CE_FCC PART 15B_Class B



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.234	41.21	10.03	62.31	-21.10	Peak	N	Pass
1**	0.234	32.49	10.03	52.31	-19.82	AV	N	Pass
2	0.432	39.58	10.42	57.21	-17.63	Peak	N	Pass
2**	0.432	28.37	10.42	47.21	-18.84	AV	N	Pass
3	0.604	47.57	10.34	56.00	-8.43	Peak	N	Pass
3**	0.604	36.14	10.34	46.00	-9.86	AV	N	Pass
4	1.464	39.24	10.22	56.00	-16.76	Peak	N	Pass
4**	1.464	27.13	10.22	46.00	-18.87	AV	N	Pass
5	3.660	39.66	10.42	56.00	-16.34	Peak	N	Pass
5**	3.660	26.58	10.42	46.00	-19.42	AV	N	Pass
6	16.336	41.31	10.15	60.00	-18.69	Peak	N	Pass
6**	16.336	26.46	10.15	50.00	-23.54	AV	N	Pass

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

Test Data

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

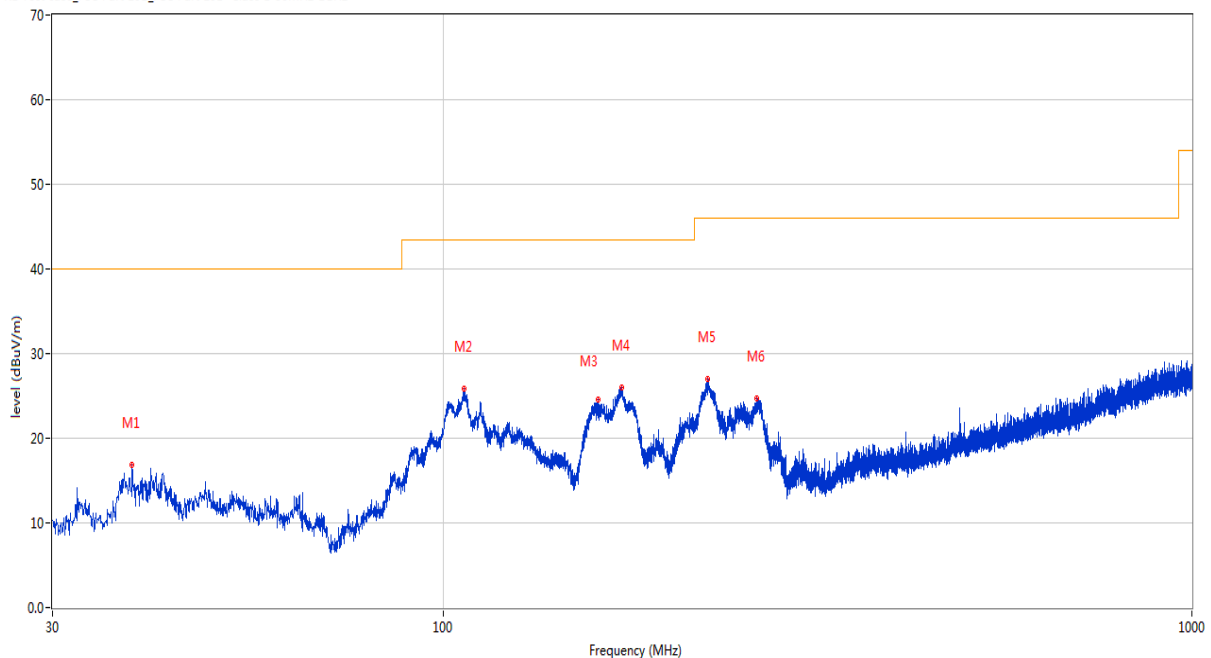
Note 2: For the test data above 1 GHz, According the ANSI C63.4, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

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.

30 MHz to 1 GHz, ANT H

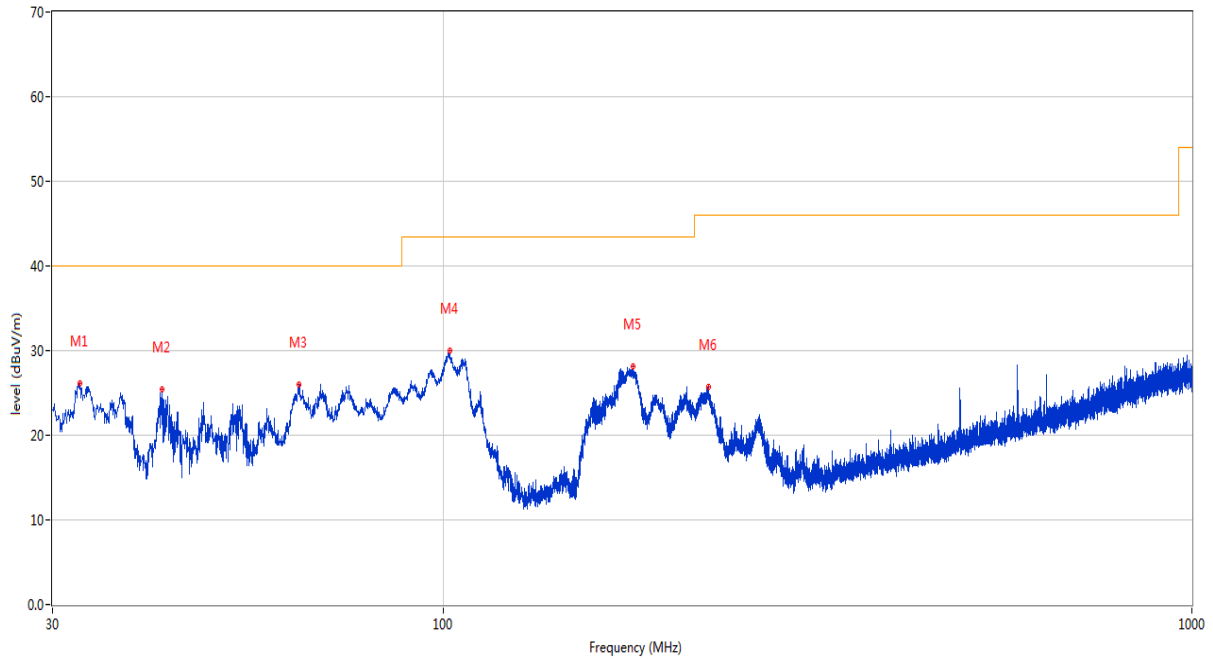
RE Test case_FCC Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	38.342	16.80	-24.51	40.0	-23.20	Peak	343.80	200	Horizontal	Pass
2	106.533	25.89	-24.11	43.5	-17.61	Peak	38.90	200	Horizontal	Pass
3	160.611	24.57	-27.28	43.5	-18.93	Peak	68.00	200	Horizontal	Pass
4	173.172	25.95	-26.44	43.5	-17.55	Peak	89.20	200	Horizontal	Pass
5	225.552	27.05	-23.70	46.0	-18.95	Peak	265.40	100	Horizontal	Pass
6	261.927	24.75	-22.22	46.0	-21.25	Peak	252.60	100	Horizontal	Pass

30 MHz to 1 GHz, ANT V

RE Test case_FCC Part 15B_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	32.619	26.11	-26.51	40.0	-13.89	Peak	0.00	200	Vertical	Pass
2	42.077	25.47	-23.45	40.0	-14.53	Peak	260.10	100	Vertical	Pass
3	64.095	25.98	-24.95	40.0	-14.02	Peak	80.00	100	Vertical	Pass
4	102.022	29.95	-24.53	43.5	-13.55	Peak	235.00	100	Vertical	Pass
5	179.089	28.13	-26.10	43.5	-15.37	Peak	104.80	100	Vertical	Pass
6	225.988	25.65	-23.74	46.0	-20.35	Peak	349.50	100	Vertical	Pass

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

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1620.600	38.64	-17.61	74.0	-35.36	Peak	155.00	300	Horizontal	Pass
1**	1620.600	28.75	-17.61	54.0	-25.25	AV	155.00	300	Horizontal	Pass
2	4226.000	49.48	-4.65	74.0	-24.52	Peak	31.00	400	Horizontal	Pass
2**	4226.000	41.18	-4.65	54.0	-12.82	AV	31.00	400	Horizontal	Pass
3	5181.200	100.76	-2.50	--	--	Peak	156.00	150	Horizontal	N/A
3**	5181.200	93.20	-2.50	--	--	AV	156.00	150	Horizontal	N/A
4	7359.375	49.38	-3.47	74.0	-24.62	Peak	171.00	200	Horizontal	Pass
4**	7359.375	41.22	-3.47	54.0	-12.78	AV	171.00	200	Horizontal	Pass
5	11323.138	51.67	0.88	74.0	-22.33	Peak	285.00	200	Horizontal	Pass
5**	11323.138	42.65	0.88	54.0	-11.35	AV	285.00	200	Horizontal	Pass
6	16195.838	54.29	2.72	74.0	-19.71	Peak	0.00	300	Horizontal	Pass
6**	16195.838	45.06	2.72	54.0	-8.94	AV	0.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1466.100	38.75	-17.41	74.0	-35.25	Peak	357.00	200	Vertical	Pass
1**	1466.100	29.55	-17.41	54.0	-24.45	AV	357.00	200	Vertical	Pass
2	4357.000	49.07	-3.88	74.0	-24.93	Peak	124.00	300	Vertical	Pass
2**	4357.000	40.47	-3.88	54.0	-13.53	AV	124.00	300	Vertical	Pass
3	5178.800	92.96	-2.40	--	--	Peak	83.00	100	Vertical	N/A
3**	5178.800	85.74	-2.40	--	--	AV	83.00	100	Vertical	N/A
4	7344.712	49.76	-3.10	74.0	-24.24	Peak	318.00	400	Vertical	Pass
4**	7344.712	40.94	-3.10	54.0	-13.06	AV	318.00	400	Vertical	Pass
5	10928.687	52.71	0.36	74.0	-21.29	Peak	286.00	150	Vertical	Pass
5**	10928.687	42.55	0.36	54.0	-11.45	AV	286.00	150	Vertical	Pass
6	16198.462	54.17	2.72	74.0	-19.83	Peak	253.00	100	Vertical	Pass
6**	16198.462	44.61	2.72	54.0	-9.39	AV	253.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1589.800	38.62	-17.53	74.0	-35.38	Peak	160.00	100	Horizontal	Pass
1**	1589.800	28.73	-17.53	54.0	-25.27	AV	160.00	100	Horizontal	Pass
2	4226.800	49.17	-4.58	74.0	-24.83	Peak	34.00	200	Horizontal	Pass
2**	4226.800	40.43	-4.58	54.0	-13.57	AV	34.00	200	Horizontal	Pass
3	5218.800	100.85	-2.86	--	--	Peak	149.00	150	Horizontal	N/A
3**	5218.800	93.35	-2.86	--	--	AV	149.00	150	Horizontal	N/A
4	7349.887	50.71	-3.33	74.0	-23.29	Peak	13.00	300	Horizontal	Pass
4**	7349.887	41.05	-3.33	54.0	-12.95	AV	13.00	300	Horizontal	Pass
5	10915.463	51.89	0.47	74.0	-22.11	Peak	31.00	200	Horizontal	Pass
5**	10915.463	43.42	0.47	54.0	-10.58	AV	31.00	200	Horizontal	Pass
6	16194.000	54.12	2.72	74.0	-19.88	Peak	0.00	200	Horizontal	Pass
6**	16194.000	44.12	2.72	54.0	-9.88	AV	0.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1556.400	39.03	-17.50	74.0	-34.97	Peak	360.00	300	Vertical	Pass
1**	1556.400	29.10	-17.50	54.0	-24.90	AV	360.00	300	Vertical	Pass
2	4236.600	49.53	-4.70	74.0	-24.47	Peak	183.00	200	Vertical	Pass
2**	4236.600	40.97	-4.70	54.0	-13.03	AV	183.00	200	Vertical	Pass
3	5224.200	92.41	-2.94	--	--	Peak	101.00	100	Vertical	N/A
3**	5224.200	84.20	-2.94	--	--	AV	101.00	100	Vertical	N/A
4	7374.900	49.45	-3.68	74.0	-24.55	Peak	353.00	100	Vertical	Pass
4**	7374.900	40.59	-3.68	54.0	-13.41	AV	353.00	100	Vertical	Pass
5	12222.437	52.05	1.68	74.0	-21.95	Peak	64.00	200	Vertical	Pass
5**	12222.437	42.97	1.68	54.0	-11.03	AV	64.00	200	Vertical	Pass
6	15849.600	54.47	1.89	74.0	-19.53	Peak	343.00	400	Vertical	Pass
6**	15849.600	45.37	1.89	54.0	-8.63	AV	343.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1615.300	39.27	-17.60	74.0	-34.73	Peak	224.00	400	Horizontal	Pass
1**	1615.300	28.95	-17.60	54.0	-25.05	AV	224.00	400	Horizontal	Pass
2	4262.400	49.82	-4.91	74.0	-24.18	Peak	316.00	100	Horizontal	Pass
2**	4262.400	40.03	-4.91	54.0	-13.97	AV	316.00	100	Horizontal	Pass
3	5241.600	100.85	-2.40	--	--	Peak	150.00	200	Horizontal	N/A
3**	5241.600	93.36	-2.40	--	--	AV	150.00	200	Horizontal	N/A
4	7374.900	50.33	-3.68	74.0	-23.67	Peak	204.00	300	Horizontal	Pass
4**	7374.900	40.54	-3.68	54.0	-13.46	AV	204.00	300	Horizontal	Pass
5	11589.075	51.83	0.18	74.0	-22.17	Peak	331.00	100	Horizontal	Pass
5**	11589.075	41.86	0.18	54.0	-12.14	AV	331.00	100	Horizontal	Pass
6	15822.562	53.88	2.13	74.0	-20.12	Peak	236.00	100	Horizontal	Pass
6**	15822.562	43.80	2.13	54.0	-10.20	AV	236.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1561.800	38.17	-17.38	74.0	-35.83	Peak	355.00	400	Vertical	Pass
1**	1561.800	28.84	-17.38	54.0	-25.16	AV	355.00	400	Vertical	Pass
2	4352.600	49.27	-3.94	74.0	-24.73	Peak	209.00	100	Vertical	Pass
2**	4352.600	39.98	-3.94	54.0	-14.02	AV	209.00	100	Vertical	Pass
3	5238.600	94.05	-2.56	--	--	Peak	63.00	200	Vertical	N/A
3**	5238.600	85.36	-2.56	--	--	AV	63.00	200	Vertical	N/A
4	7452.237	49.26	-2.83	74.0	-24.74	Peak	360.00	100	Vertical	Pass
4**	7452.237	40.14	-2.83	54.0	-13.86	AV	360.00	100	Vertical	Pass
5	11603.738	52.68	0.42	74.0	-21.32	Peak	28.00	200	Vertical	Pass
5**	11603.738	42.48	0.42	54.0	-11.52	AV	28.00	200	Vertical	Pass
6	15836.738	53.94	2.00	74.0	-20.06	Peak	126.00	300	Vertical	Pass
6**	15836.738	44.90	2.00	54.0	-9.10	AV	126.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1473.600	39.05	-17.53	74.0	-34.95	Peak	303.00	100	Horizontal	Pass
1**	1473.600	29.38	-17.53	54.0	-24.62	AV	303.00	100	Horizontal	Pass
2	4228.800	49.53	-4.54	74.0	-24.47	Peak	219.00	400	Horizontal	Pass
2**	4228.800	40.41	-4.54	54.0	-13.59	AV	219.00	400	Horizontal	Pass
3	5182.400	98.54	-2.45	--	--	Peak	157.00	200	Horizontal	N/A
3**	5182.400	90.98	-2.45	--	--	AV	157.00	200	Horizontal	N/A
4	7289.225	49.42	-3.21	74.0	-24.58	Peak	360.00	100	Horizontal	Pass
4**	7289.225	39.51	-3.21	54.0	-14.49	AV	360.00	100	Horizontal	Pass
5	10811.099	52.30	0.63	74.0	-21.70	Peak	317.00	150	Horizontal	Pass
5**	10811.099	42.73	0.63	54.0	-11.27	AV	317.00	150	Horizontal	Pass
6	15852.225	53.77	1.81	74.0	-20.23	Peak	88.00	400	Horizontal	Pass
6**	15852.225	44.70	1.81	54.0	-9.30	AV	88.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1504.300	38.62	-17.62	74.0	-35.38	Peak	281.00	100	Vertical	Pass
1**	1504.300	28.98	-17.62	54.0	-25.02	AV	281.00	100	Vertical	Pass
2	4359.400	49.93	-3.88	74.0	-24.07	Peak	155.00	200	Vertical	Pass
2**	4359.400	39.82	-3.88	54.0	-14.18	AV	155.00	200	Vertical	Pass
3	5181.800	90.03	-2.48	--	--	Peak	61.00	150	Vertical	N/A
3**	5181.800	82.22	-2.48	--	--	AV	61.00	150	Vertical	N/A
4	7739.737	50.04	-2.57	74.0	-23.96	Peak	253.00	300	Vertical	Pass
4**	7739.737	40.37	-2.57	54.0	-13.63	AV	253.00	300	Vertical	Pass
5	10919.775	51.68	0.52	74.0	-22.32	Peak	46.00	200	Vertical	Pass
5**	10919.775	42.93	0.52	54.0	-11.07	AV	46.00	200	Vertical	Pass
6	15846.450	55.02	1.92	74.0	-18.98	Peak	51.00	100	Vertical	Pass
6**	15846.450	44.71	1.92	54.0	-9.29	AV	51.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1465.100	38.64	-17.49	74.0	-35.36	Peak	217.00	300	Horizontal	Pass
1**	1465.100	28.46	-17.49	54.0	-25.54	AV	217.00	300	Horizontal	Pass
2	4346.200	49.45	-4.25	74.0	-24.55	Peak	333.00	100	Horizontal	Pass
2**	4346.200	40.42	-4.25	54.0	-13.58	AV	333.00	100	Horizontal	Pass
3	5218.000	98.65	-2.80	--	--	Peak	152.00	100	Horizontal	N/A
3**	5218.000	91.12	-2.80	--	--	AV	152.00	100	Horizontal	N/A
4	7736.862	49.58	-2.39	74.0	-24.42	Peak	281.00	400	Horizontal	Pass
4**	7736.862	41.09	-2.39	54.0	-12.91	AV	281.00	400	Horizontal	Pass
5	11226.537	52.51	-0.06	74.0	-21.49	Peak	233.00	100	Horizontal	Pass
5**	11226.537	43.42	-0.06	54.0	-10.58	AV	233.00	100	Horizontal	Pass
6	15843.037	53.43	1.98	74.0	-20.57	Peak	7.00	200	Horizontal	Pass
6**	15843.037	45.26	1.98	54.0	-8.74	AV	7.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1471.800	38.21	-17.54	74.0	-35.79	Peak	0.00	400	Vertical	Pass
1**	1471.800	28.85	-17.54	54.0	-25.15	AV	0.00	400	Vertical	Pass
2	4208.800	49.92	-5.02	74.0	-24.08	Peak	318.00	100	Vertical	Pass
2**	4208.800	40.10	-5.02	54.0	-13.90	AV	318.00	100	Vertical	Pass
3	5222.600	90.81	-2.91	--	--	Peak	286.00	150	Vertical	N/A
3**	5222.600	83.05	-2.91	--	--	AV	286.00	150	Vertical	N/A
4	7677.063	49.23	-2.27	74.0	-24.77	Peak	130.00	400	Vertical	Pass
4**	7677.063	39.80	-2.27	54.0	-14.20	AV	130.00	400	Vertical	Pass
5	12216.401	52.53	1.59	74.0	-21.47	Peak	247.00	100	Vertical	Pass
5**	12216.401	42.92	1.59	54.0	-11.08	AV	247.00	100	Vertical	Pass
6	15846.187	53.81	1.92	74.0	-20.19	Peak	322.00	200	Vertical	Pass
6**	15846.187	45.66	1.92	54.0	-8.34	AV	322.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1552.300	38.88	-17.31	74.0	-35.12	Peak	356.00	200	Horizontal	Pass
1**	1552.300	29.96	-17.31	54.0	-24.04	AV	356.00	200	Horizontal	Pass
2	4319.800	49.82	-4.30	74.0	-24.18	Peak	84.00	400	Horizontal	Pass
2**	4319.800	40.08	-4.30	54.0	-13.92	AV	84.00	400	Horizontal	Pass
3	5237.600	98.54	-2.61	--	--	Peak	157.00	100	Horizontal	N/A
3**	5237.600	91.15	-2.61	--	--	AV	157.00	100	Horizontal	N/A
4	7677.063	49.09	-2.27	74.0	-24.91	Peak	31.00	200	Horizontal	Pass
4**	7677.063	40.72	-2.27	54.0	-13.28	AV	31.00	200	Horizontal	Pass
5	11720.463	52.37	1.29	74.0	-21.63	Peak	282.00	100	Horizontal	Pass
5**	11720.463	41.92	1.29	54.0	-12.08	AV	282.00	100	Horizontal	Pass
6	16106.588	54.24	1.56	74.0	-19.76	Peak	192.00	200	Horizontal	Pass
6**	16106.588	43.82	1.56	54.0	-10.18	AV	192.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1570.300	39.07	-17.49	74.0	-34.93	Peak	128.00	100	Vertical	Pass
1**	1570.300	28.43	-17.49	54.0	-25.57	AV	128.00	100	Vertical	Pass
2	4332.400	49.44	-4.46	74.0	-24.56	Peak	244.00	400	Vertical	Pass
2**	4332.400	40.45	-4.46	54.0	-13.55	AV	244.00	400	Vertical	Pass
3	5243.600	91.21	-2.38	--	--	Peak	60.00	100	Vertical	N/A
3**	5243.600	82.95	-2.38	--	--	AV	60.00	100	Vertical	N/A
4	7582.188	49.43	-3.20	74.0	-24.57	Peak	202.00	100	Vertical	Pass
4**	7582.188	38.55	-3.20	54.0	-15.45	AV	202.00	100	Vertical	Pass
5	11207.850	52.33	0.02	74.0	-21.67	Peak	235.00	200	Vertical	Pass
5**	11207.850	42.83	0.02	54.0	-11.17	AV	235.00	200	Vertical	Pass
6	16120.237	53.72	1.46	74.0	-20.28	Peak	249.00	300	Vertical	Pass
6**	16120.237	43.96	1.46	54.0	-10.04	AV	249.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1467.900	38.36	-17.52	74.0	-35.64	Peak	159.00	100	Horizontal	Pass
1**	1467.900	28.54	-17.52	54.0	-25.46	AV	159.00	100	Horizontal	Pass
2	3877.400	49.11	-5.75	74.0	-24.89	Peak	254.00	200	Horizontal	Pass
2**	3877.400	38.65	-5.75	54.0	-15.35	AV	254.00	200	Horizontal	Pass
3	5191.800	95.50	-2.65	--	--	Peak	160.00	150	Horizontal	N/A
3**	5191.800	88.13	-2.65	--	--	AV	160.00	150	Horizontal	N/A
4	7365.700	49.16	-3.52	74.0	-24.84	Peak	221.00	200	Horizontal	Pass
4**	7365.700	40.73	-3.52	54.0	-13.27	AV	221.00	200	Horizontal	Pass
5	11055.762	51.68	-0.26	74.0	-22.32	Peak	336.00	150	Horizontal	Pass
5**	11055.762	41.97	-0.26	54.0	-12.03	AV	336.00	150	Horizontal	Pass
6	15836.738	53.92	2.00	74.0	-20.08	Peak	341.00	150	Horizontal	Pass
6**	15836.738	44.60	2.00	54.0	-9.40	AV	341.00	150	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1489.900	38.47	-17.53	74.0	-35.53	Peak	51.00	300	Vertical	Pass
1**	1489.900	28.61	-17.53	54.0	-25.39	AV	51.00	300	Vertical	Pass
2	4363.800	49.21	-3.97	74.0	-24.79	Peak	10.00	400	Vertical	Pass
2**	4363.800	40.22	-3.97	54.0	-13.78	AV	10.00	400	Vertical	Pass
3	5186.600	87.74	-2.42	--	--	Peak	85.00	100	Vertical	N/A
3**	5186.600	79.38	-2.42	--	--	AV	85.00	100	Vertical	N/A
4	7336.663	49.61	-2.91	74.0	-24.39	Peak	304.00	300	Vertical	Pass
4**	7336.663	41.35	-2.91	54.0	-12.65	AV	304.00	300	Vertical	Pass
5	11602.875	51.30	0.41	74.0	-22.70	Peak	73.00	100	Vertical	Pass
5**	11602.875	43.09	0.41	54.0	-10.91	AV	73.00	100	Vertical	Pass
6	15851.175	54.15	1.84	74.0	-19.85	Peak	98.00	300	Vertical	Pass
6**	15851.175	44.77	1.84	54.0	-9.23	AV	98.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1550.200	39.63	-17.41	74.0	-34.37	Peak	283.00	300	Horizontal	Pass
1**	1550.200	28.83	-17.41	54.0	-25.17	AV	283.00	300	Horizontal	Pass
2	4221.600	49.90	-4.96	74.0	-24.10	Peak	78.00	100	Horizontal	Pass
2**	4221.600	39.60	-4.96	54.0	-14.40	AV	78.00	100	Horizontal	Pass
3	5226.200	95.51	-2.96	--	--	Peak	172.00	100	Horizontal	N/A
3**	5226.200	87.81	-2.96	--	--	AV	172.00	100	Horizontal	N/A
4	7342.987	50.49	-3.10	74.0	-23.51	Peak	360.00	300	Horizontal	Pass
4**	7342.987	40.65	-3.10	54.0	-13.35	AV	360.00	300	Horizontal	Pass
5	11107.800	51.80	-0.54	74.0	-22.20	Peak	153.00	100	Horizontal	Pass
5**	11107.800	41.69	-0.54	54.0	-12.31	AV	153.00	100	Horizontal	Pass
6	15986.099	53.71	1.32	74.0	-20.29	Peak	82.00	200	Horizontal	Pass
6**	15986.099	43.61	1.32	54.0	-10.39	AV	82.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1506.700	39.07	-17.55	74.0	-34.93	Peak	87.00	400	Vertical	Pass
1**	1506.700	29.67	-17.55	54.0	-24.33	AV	87.00	400	Vertical	Pass
2	4221.200	50.10	-4.94	74.0	-23.90	Peak	0.00	300	Vertical	Pass
2**	4221.200	39.98	-4.94	54.0	-14.02	AV	0.00	300	Vertical	Pass
3	5227.400	87.97	-2.83	--	--	Peak	73.00	200	Vertical	N/A
3**	5227.400	81.85	-2.83	--	--	AV	73.00	200	Vertical	N/A
4	7327.175	49.58	-3.03	74.0	-24.42	Peak	165.00	400	Vertical	Pass
4**	7327.175	40.55	-3.03	54.0	-13.45	AV	165.00	400	Vertical	Pass
5	10921.787	51.93	0.48	74.0	-22.07	Peak	213.00	150	Vertical	Pass
5**	10921.787	42.99	0.48	54.0	-11.01	AV	213.00	150	Vertical	Pass
6	15853.275	53.53	1.78	74.0	-20.47	Peak	0.00	400	Vertical	Pass
6**	15853.275	44.27	1.78	54.0	-9.73	AV	0.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1577.600	38.58	-17.62	74.0	-35.42	Peak	325.00	300	Horizontal	Pass
1**	1577.600	28.93	-17.62	54.0	-25.07	AV	325.00	300	Horizontal	Pass
2	4128.000	49.42	-5.02	74.0	-24.58	Peak	112.00	400	Horizontal	Pass
2**	4128.000	40.13	-5.02	54.0	-13.87	AV	112.00	400	Horizontal	Pass
3	5178.400	97.73	-2.39	--	--	Peak	160.00	150	Horizontal	N/A
3**	5178.400	89.75	-2.39	--	--	AV	160.00	150	Horizontal	N/A
4	7336.663	49.81	-2.91	74.0	-24.19	Peak	264.00	100	Horizontal	Pass
4**	7336.663	41.30	-2.91	54.0	-12.70	AV	264.00	100	Horizontal	Pass
5	11229.412	51.85	-0.06	74.0	-22.15	Peak	264.00	100	Horizontal	Pass
5**	11229.412	42.05	-0.06	54.0	-11.95	AV	264.00	100	Horizontal	Pass
6	15838.838	53.64	2.02	74.0	-20.36	Peak	213.00	200	Horizontal	Pass
6**	15838.838	45.39	2.02	54.0	-8.61	AV	213.00	200	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1497.600	38.68	-17.49	74.0	-35.32	Peak	326.00	200	Vertical	Pass
1**	1497.600	28.44	-17.49	54.0	-25.56	AV	326.00	200	Vertical	Pass
2	4227.200	49.25	-4.57	74.0	-24.75	Peak	134.00	300	Vertical	Pass
2**	4227.200	39.95	-4.57	54.0	-14.05	AV	134.00	300	Vertical	Pass
3	5177.400	89.12	-2.38	--	--	Peak	86.00	150	Vertical	N/A
3**	5177.400	80.24	-2.38	--	--	AV	86.00	150	Vertical	N/A
4	7340.112	50.37	-3.00	74.0	-23.63	Peak	260.00	300	Vertical	Pass
4**	7340.112	41.01	-3.00	54.0	-12.99	AV	260.00	300	Vertical	Pass
5	11214.463	51.41	-0.01	74.0	-22.59	Peak	223.00	150	Vertical	Pass
5**	11214.463	42.28	-0.01	54.0	-11.72	AV	223.00	150	Vertical	Pass
6	15842.513	54.30	1.99	74.0	-19.70	Peak	93.00	400	Vertical	Pass
6**	15842.513	44.42	1.99	54.0	-9.58	AV	93.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1528.300	38.89	-17.47	74.0	-35.11	Peak	161.00	400	Horizontal	Pass
1**	1528.300	29.25	-17.47	54.0	-24.75	AV	161.00	400	Horizontal	Pass
2	4229.200	49.51	-4.55	74.0	-24.49	Peak	264.00	100	Horizontal	Pass
2**	4229.200	40.16	-4.55	54.0	-13.84	AV	264.00	100	Horizontal	Pass
3	5221.200	97.86	-2.97	--	--	Peak	153.00	150	Horizontal	N/A
3**	5221.200	90.97	-2.97	--	--	AV	153.00	150	Horizontal	N/A
4	7352.763	49.50	-3.35	74.0	-24.50	Peak	47.00	100	Horizontal	Pass
4**	7352.763	40.89	-3.35	54.0	-13.11	AV	47.00	100	Horizontal	Pass
5	11577.000	51.63	-0.01	74.0	-22.37	Peak	234.00	150	Horizontal	Pass
5**	11577.000	41.26	-0.01	54.0	-12.74	AV	234.00	150	Horizontal	Pass
6	15838.838	54.18	2.02	74.0	-19.82	Peak	343.00	300	Horizontal	Pass
6**	15838.838	44.38	2.02	54.0	-9.62	AV	343.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1460.200	38.88	-17.54	74.0	-35.12	Peak	46.00	100	Vertical	Pass
1**	1460.200	31.20	-17.54	54.0	-22.80	AV	46.00	100	Vertical	Pass
2	4380.800	49.64	-4.42	74.0	-24.36	Peak	258.00	200	Vertical	Pass
2**	4380.800	39.25	-4.42	54.0	-14.75	AV	258.00	200	Vertical	Pass
3	5221.400	90.62	-2.96	--	--	Peak	76.00	100	Vertical	N/A
3**	5221.400	82.90	-2.96	--	--	AV	76.00	100	Vertical	N/A
4	7602.600	49.23	-2.88	74.0	-24.77	Peak	296.00	400	Vertical	Pass
4**	7602.600	39.85	-2.88	54.0	-14.15	AV	296.00	400	Vertical	Pass
5	10932.138	51.59	0.29	74.0	-22.41	Peak	315.00	100	Vertical	Pass
5**	10932.138	42.98	0.29	54.0	-11.02	AV	315.00	100	Vertical	Pass
6	16111.575	53.60	1.46	74.0	-20.40	Peak	360.00	400	Vertical	Pass
6**	16111.575	43.90	1.46	54.0	-10.10	AV	360.00	400	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1615.100	38.54	-17.61	74.0	-35.46	Peak	360.00	400	Horizontal	Pass
1**	1615.100	29.20	-17.61	54.0	-24.80	AV	360.00	400	Horizontal	Pass
2	4212.600	49.17	-4.92	74.0	-24.83	Peak	71.00	100	Horizontal	Pass
2**	4212.600	40.02	-4.92	54.0	-13.98	AV	71.00	100	Horizontal	Pass
3	5241.800	97.40	-2.38	--	--	Peak	149.00	200	Horizontal	N/A
3**	5241.800	90.34	-2.38	--	--	AV	149.00	200	Horizontal	N/A
4	7357.075	49.37	-3.46	74.0	-24.63	Peak	192.00	100	Horizontal	Pass
4**	7357.075	41.06	-3.46	54.0	-12.94	AV	192.00	100	Horizontal	Pass
5	11217.050	51.45	-0.05	74.0	-22.55	Peak	92.00	150	Horizontal	Pass
5**	11217.050	42.47	-0.05	54.0	-11.53	AV	92.00	150	Horizontal	Pass
6	16108.687	53.80	1.50	74.0	-20.20	Peak	141.00	400	Horizontal	Pass
6**	16108.687	44.20	1.50	54.0	-9.80	AV	141.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1579.000	38.17	-17.60	74.0	-35.83	Peak	0.00	100	Vertical	Pass
1**	1579.000	28.77	-17.60	54.0	-25.23	AV	0.00	100	Vertical	Pass
2	4292.800	49.37	-4.94	74.0	-24.63	Peak	166.00	400	Vertical	Pass
2**	4292.800	40.05	-4.94	54.0	-13.95	AV	166.00	400	Vertical	Pass
3	5241.200	89.68	-2.42	--	--	Peak	78.00	100	Vertical	N/A
3**	5241.200	83.05	-2.42	--	--	AV	78.00	100	Vertical	N/A
4	7345.288	49.14	-3.10	74.0	-24.86	Peak	35.00	150	Vertical	Pass
4**	7345.288	40.74	-3.10	54.0	-13.26	AV	35.00	150	Vertical	Pass
5	10950.537	51.55	0.03	74.0	-22.45	Peak	16.00	150	Vertical	Pass
5**	10950.537	42.42	0.03	54.0	-11.58	AV	16.00	150	Vertical	Pass
6	15853.275	53.61	1.78	74.0	-20.39	Peak	33.00	100	Vertical	Pass
6**	15853.275	45.00	1.78	54.0	-9.00	AV	33.00	100	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1497.400	38.81	-17.49	74.0	-35.19	Peak	70.00	200	Horizontal	Pass
1**	1497.400	28.69	-17.49	54.0	-25.31	AV	70.00	200	Horizontal	Pass
2	4247.600	49.40	-4.79	74.0	-24.60	Peak	140.00	100	Horizontal	Pass
2**	4247.600	40.22	-4.79	54.0	-13.78	AV	140.00	100	Horizontal	Pass
3	5188.200	94.83	-2.49	--	--	Peak	155.00	200	Horizontal	N/A
3**	5188.200	87.21	-2.49	--	--	AV	155.00	200	Horizontal	N/A
4	7352.763	50.22	-3.35	74.0	-23.78	Peak	94.00	300	Horizontal	Pass
4**	7352.763	41.05	-3.35	54.0	-12.95	AV	94.00	300	Horizontal	Pass
5	10928.687	51.52	0.36	74.0	-22.48	Peak	360.00	150	Horizontal	Pass
5**	10928.687	42.83	0.36	54.0	-11.17	AV	360.00	150	Horizontal	Pass
6	16198.200	54.05	2.72	74.0	-19.95	Peak	79.00	400	Horizontal	Pass
6**	16198.200	44.21	2.72	54.0	-9.79	AV	79.00	400	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1622.800	38.41	-17.62	74.0	-35.59	Peak	307.00	400	Vertical	Pass
1**	1622.800	28.97	-17.62	54.0	-25.03	AV	307.00	400	Vertical	Pass
2	4230.800	49.20	-4.57	74.0	-24.80	Peak	234.00	300	Vertical	Pass
2**	4230.800	40.25	-4.57	54.0	-13.75	AV	234.00	300	Vertical	Pass
3	5187.400	86.65	-2.47	--	--	Peak	57.00	100	Vertical	N/A
3**	5187.400	78.75	-2.47	--	--	AV	57.00	100	Vertical	N/A
4	7351.037	50.34	-3.29	74.0	--23.66	Peak	166.00	100	Vertical	Pass
4**	7351.037	42.75	-3.29	54.0	-11.25	AV	166.00	100	Vertical	Pass
5	10941.338	52.04	0.15	74.0	-21.96	Peak	248.00	100	Vertical	Pass
5**	10941.338	42.52	0.15	54.0	-11.48	AV	248.00	100	Vertical	Pass
6	15851.963	54.59	1.82	74.0	-19.41	Peak	153.00	200	Vertical	Pass
6**	15851.963	44.95	1.82	54.0	-9.05	AV	153.00	200	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1616.600	38.79	-17.68	74.0	-35.21	Peak	0.00	400	Horizontal	Pass
1**	1616.600	28.19	-17.68	54.0	-25.81	AV	0.00	400	Horizontal	Pass
2	4234.400	49.14	-4.69	74.0	-24.86	Peak	317.00	200	Horizontal	Pass
2**	4234.400	39.90	-4.69	54.0	-14.10	AV	317.00	200	Horizontal	Pass
3	5227.200	94.55	-2.85	--	--	Peak	147.00	100	Horizontal	N/A
3**	5227.200	87.43	-2.85	--	--	AV	147.00	100	Horizontal	N/A
4	7725.362	50.09	-2.20	74.0	-23.91	Peak	331.00	100	Horizontal	Pass
4**	7725.362	40.23	-2.20	54.0	-13.77	AV	331.00	100	Horizontal	Pass
5	10939.612	51.75	0.16	74.0	-22.25	Peak	295.00	150	Horizontal	Pass
5**	10939.612	42.77	0.16	54.0	-11.23	AV	295.00	150	Horizontal	Pass
6	16085.325	53.98	1.95	74.0	-20.02	Peak	123.00	100	Horizontal	Pass
6**	16085.325	44.16	1.95	54.0	-9.84	AV	123.00	100	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1587.500	38.63	-17.60	74.0	-35.37	Peak	335.00	100	Vertical	Pass
1**	1587.500	29.66	-17.60	54.0	-24.34	AV	335.00	100	Vertical	Pass
2	4242.800	49.41	-4.80	74.0	-24.59	Peak	250.00	400	Vertical	Pass
2**	4242.800	40.56	-4.80	54.0	-13.44	AV	250.00	400	Vertical	Pass
3	5232.200	87.10	-2.79	--	--	Peak	60.00	200	Vertical	N/A
3**	5232.200	79.58	-2.79	--	--	AV	60.00	200	Vertical	N/A
4	7487.888	49.66	-3.60	74.0	-24.34	Peak	150.00	400	Vertical	Pass
4**	7487.888	39.43	-3.60	54.0	-14.57	AV	150.00	400	Vertical	Pass
5	10920.350	51.39	0.51	74.0	-22.61	Peak	150.00	150	Vertical	Pass
5**	10920.350	43.23	0.51	54.0	-10.77	AV	150.00	150	Vertical	Pass
6	15842.250	53.73	1.99	74.0	-20.27	Peak	12.00	300	Vertical	Pass
6**	15842.250	44.85	1.99	54.0	-9.15	AV	12.00	300	Vertical	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1493.300	39.52	-17.42	74.0	-34.48	Peak	163.00	200	Horizontal	Pass
1**	1493.300	29.14	-17.42	54.0	-24.86	AV	163.00	200	Horizontal	Pass
2	4229.400	48.99	-4.55	74.0	-25.01	Peak	187.00	400	Horizontal	Pass
2**	4229.400	40.78	-4.55	54.0	-13.22	AV	187.00	400	Horizontal	Pass
3	5216.000	92.09	-2.76	--	--	Peak	156.00	200	Horizontal	N/A
3**	5216.000	84.56	-2.76	--	--	AV	156.00	200	Horizontal	N/A
4	7350.750	50.23	-3.28	74.0	-23.77	Peak	189.00	400	Horizontal	Pass
4**	7350.750	40.39	-3.28	54.0	-13.61	AV	189.00	400	Horizontal	Pass
5	10918.338	52.07	0.50	74.0	-21.93	Peak	44.00	150	Horizontal	Pass
5**	10918.338	43.02	0.50	54.0	-10.98	AV	44.00	150	Horizontal	Pass
6	16091.888	53.35	1.87	74.0	-20.65	Peak	114.00	300	Horizontal	Pass
6**	16091.888	44.03	1.87	54.0	-9.97	AV	114.00	300	Horizontal	Pass

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

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1494.000	39.30	-17.38	74.0	-34.70	Peak	67.00	300	Vertical	Pass
1**	1494.000	29.57	-17.38	54.0	-24.43	AV	67.00	300	Vertical	Pass
2	4212.000	49.22	-4.89	74.0	-24.78	Peak	177.00	200	Vertical	Pass
2**	4212.000	40.54	-4.89	54.0	-13.46	AV	177.00	200	Vertical	Pass
3	5212.400	84.34	-2.62	--	--	Peak	82.00	200	Vertical	N/A
3**	5212.400	77.24	-2.62	--	--	AV	82.00	200	Vertical	N/A
4	7600.013	49.75	-2.97	74.0	-24.25	Peak	0.00	200	Vertical	Pass
4**	7600.013	39.29	-2.97	54.0	-14.71	AV	0.00	200	Vertical	Pass
5	10917.188	52.52	0.49	74.0	-21.48	Peak	78.00	200	Vertical	Pass
5**	10917.188	42.15	0.49	54.0	-11.85	AV	78.00	200	Vertical	Pass
6	15862.725	54.05	1.42	74.0	-19.95	Peak	78.00	200	Vertical	Pass
6**	15862.725	43.85	1.42	54.0	-10.15	AV	78.00	200	Vertical	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1545.700	38.78	-17.55	74.0	-35.22	Peak	258.00	300	Horizontal	Pass
1**	1545.700	28.64	-17.55	54.0	-25.36	AV	258.00	300	Horizontal	Pass
2	4215.200	49.55	-4.99	74.0	-24.45	Peak	237.00	200	Horizontal	Pass
2**	4215.200	41.19	-4.99	54.0	-12.81	AV	237.00	200	Horizontal	Pass
3	5258.400	100.81	-2.66	--	--	Peak	151.00	150	Horizontal	N/A
3**	5258.400	92.39	-2.66	--	--	AV	151.00	150	Horizontal	N/A
4	7360.237	49.83	-3.50	74.0	-24.17	Peak	46.00	200	Horizontal	Pass
4**	7360.237	40.57	-3.50	54.0	-13.43	AV	46.00	200	Horizontal	Pass
5	11603.162	52.07	0.42	74.0	-21.93	Peak	288.00	200	Horizontal	Pass
5**	11603.162	42.74	0.42	54.0	-11.26	AV	288.00	200	Horizontal	Pass
6	15849.600	53.72	1.89	74.0	-20.28	Peak	214.00	200	Horizontal	Pass
6**	15849.600	44.55	1.89	54.0	-9.45	AV	214.00	200	Horizontal	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1486.900	38.39	-17.60	74.0	-35.61	Peak	131.00	400	Vertical	Pass
1**	1486.900	28.71	-17.60	54.0	-25.29	AV	131.00	400	Vertical	Pass
2	4211.800	49.66	-4.89	74.0	-24.34	Peak	297.00	200	Vertical	Pass
2**	4211.800	39.90	-4.89	54.0	-14.10	AV	297.00	200	Vertical	Pass
3	5262.600	91.92	-2.67	--	--	Peak	76.00	150	Vertical	N/A
3**	5262.600	84.00	-2.67	--	--	AV	76.00	150	Vertical	N/A
4	7341.550	49.53	-3.07	74.0	-24.47	Peak	130.00	100	Vertical	Pass
4**	7341.550	40.34	-3.07	54.0	-13.66	AV	130.00	100	Vertical	Pass
5	11321.700	51.98	0.89	74.0	-22.02	Peak	68.00	100	Vertical	Pass
5**	11321.700	41.63	0.89	54.0	-12.37	AV	68.00	100	Vertical	Pass
6	15841.200	53.82	2.01	74.0	-20.18	Peak	0.00	100	Vertical	Pass
6**	15841.200	44.83	2.01	54.0	-9.17	AV	0.00	100	Vertical	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1584.900	38.82	-17.51	74.0	-35.18	Peak	153.00	400	Horizontal	Pass
1**	1584.900	29.45	-17.51	54.0	-24.55	AV	153.00	400	Horizontal	Pass
2	4230.000	49.41	-4.56	74.0	-24.59	Peak	267.00	200	Horizontal	Pass
2**	4230.000	40.24	-4.56	54.0	-13.76	AV	267.00	200	Horizontal	Pass
3	5298.800	100.83	-3.14	--	--	Peak	148.00	200	Horizontal	N/A
3**	5298.800	93.88	-3.14	--	--	AV	148.00	200	Horizontal	N/A
4	7368.288	50.65	-3.86	74.0	-23.35	Peak	256.00	200	Horizontal	Pass
4**	7368.288	40.63	-3.86	54.0	-13.37	AV	256.00	200	Horizontal	Pass
5	10920.637	51.43	0.51	74.0	-22.57	Peak	277.00	150	Horizontal	Pass
5**	10920.637	42.66	0.51	54.0	-11.34	AV	277.00	150	Horizontal	Pass
6	15832.800	54.00	1.97	74.0	-20.00	Peak	137.00	200	Horizontal	Pass
6**	15832.800	44.84	1.97	54.0	-9.16	AV	137.00	200	Horizontal	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1490.000	38.76	-17.53	74.0	-35.24	Peak	124.00	100	Vertical	Pass
1**	1490.000	29.46	-17.53	54.0	-24.54	AV	124.00	100	Vertical	Pass
2	4249.400	49.32	-4.87	74.0	-24.68	Peak	56.00	200	Vertical	Pass
2**	4249.400	39.95	-4.87	54.0	-14.05	AV	56.00	200	Vertical	Pass
3	5299.000	92.13	-3.14	--	--	Peak	296.00	150	Vertical	N/A
3**	5299.000	85.05	-3.14	--	--	AV	296.00	150	Vertical	N/A
4	7346.150	49.53	-3.11	74.0	-24.47	Peak	252.00	400	Vertical	Pass
4**	7346.150	40.65	-3.11	54.0	-13.35	AV	252.00	400	Vertical	Pass
5	11200.088	51.68	0.08	74.0	-22.32	Peak	332.00	200	Vertical	Pass
5**	11200.088	42.41	0.08	54.0	-11.59	AV	332.00	200	Vertical	Pass
6	16109.475	54.09	1.48	74.0	-19.91	Peak	96.00	300	Vertical	Pass
6**	16109.475	44.10	1.48	54.0	-9.90	AV	96.00	300	Vertical	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1506.500	38.61	-17.56	74.0	-35.39	Peak	144.00	200	Horizontal	Pass
1**	1506.500	28.98	-17.56	54.0	-25.02	AV	144.00	200	Horizontal	Pass
2	4376.000	49.03	-4.30	74.0	-24.97	Peak	327.00	100	Horizontal	Pass
2**	4376.000	39.98	-4.30	54.0	-14.02	AV	327.00	100	Horizontal	Pass
3	5318.800	100.93	-2.53	--	--	Peak	155.00	100	Horizontal	N/A
3**	5318.800	94.09	-2.53	--	--	AV	155.00	100	Horizontal	N/A
4	7689.713	49.54	-2.38	74.0	-24.46	Peak	112.00	200	Horizontal	Pass
4**	7689.713	39.53	-2.38	54.0	-14.47	AV	112.00	200	Horizontal	Pass
5	11606.038	52.00	0.42	74.0	-22.00	Peak	321.00	150	Horizontal	Pass
5**	11606.038	42.26	0.42	54.0	-11.74	AV	321.00	150	Horizontal	Pass
6	15842.775	54.21	1.98	74.0	-19.79	Peak	276.00	100	Horizontal	Pass
6**	15842.775	44.81	1.98	54.0	-9.19	AV	276.00	100	Horizontal	Pass

11a, U-NII-2A, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1529.400	38.53	-17.50	74.0	-35.47	Peak	289.00	200	Vertical	Pass
1**	1529.400	29.15	-17.50	54.0	-24.85	AV	289.00	200	Vertical	Pass
2	4351.800	48.99	-3.95	74.0	-25.01	Peak	308.00	400	Vertical	Pass
2**	4351.800	40.76	-3.95	54.0	-13.24	AV	308.00	400	Vertical	Pass
3	5318.800	91.81	-2.53	--	--	Peak	78.00	100	Vertical	N/A
3**	5318.800	84.32	-2.53	--	--	AV	78.00	100	Vertical	N/A
4	7375.187	50.50	-3.71	74.0	-23.50	Peak	257.00	300	Vertical	Pass
4**	7375.187	40.37	-3.71	54.0	-13.63	AV	257.00	300	Vertical	Pass
5	12220.425	52.01	1.65	74.0	-21.99	Peak	82.00	200	Vertical	Pass
5**	12220.425	43.63	1.65	54.0	-10.37	AV	82.00	200	Vertical	Pass
6	15842.513	54.77	1.99	74.0	-19.23	Peak	181.00	300	Vertical	Pass
6**	15842.513	44.67	1.99	54.0	-9.33	AV	181.00	300	Vertical	Pass

11n20, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1529.800	38.72	-17.51	74.0	-35.28	Peak	217.00	100	Horizontal	Pass
1**	1529.800	29.24	-17.51	54.0	-24.76	AV	217.00	100	Horizontal	Pass
2	4213.000	49.22	-4.94	74.0	-24.78	Peak	56.00	100	Horizontal	Pass
2**	4213.000	40.04	-4.94	54.0	-13.96	AV	56.00	100	Horizontal	Pass
3	5258.800	98.07	-2.67	--	--	Peak	155.00	100	Horizontal	N/A
3**	5258.800	90.95	-2.67	--	--	AV	155.00	100	Horizontal	N/A
4	7376.625	49.63	-3.77	74.0	-24.37	Peak	191.00	300	Horizontal	Pass
4**	7376.625	40.74	-3.77	54.0	-13.26	AV	191.00	300	Horizontal	Pass
5	10937.312	51.29	0.19	74.0	-22.71	Peak	153.00	100	Horizontal	Pass
5**	10937.312	43.03	0.19	54.0	-10.97	AV	153.00	100	Horizontal	Pass
6	15870.338	53.47	1.29	74.0	-20.53	Peak	202.00	150	Horizontal	Pass
6**	15870.338	43.53	1.29	54.0	-10.47	AV	202.00	150	Horizontal	Pass

11n20, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1615.100	38.33	-17.61	74.0	-35.67	Peak	34.00	200	Vertical	Pass
1**	1615.100	29.00	-17.61	54.0	-25.00	AV	34.00	200	Vertical	Pass
2	4227.400	49.65	-4.57	74.0	-24.35	Peak	109.00	200	Vertical	Pass
2**	4227.400	40.57	-4.57	54.0	-13.43	AV	109.00	200	Vertical	Pass
3	5258.800	90.25	-2.67	--	--	Peak	83.00	150	Vertical	N/A
3**	5258.800	82.31	-2.67	--	--	AV	83.00	150	Vertical	N/A
4	7356.500	50.22	-3.47	74.0	-23.78	Peak	73.00	200	Vertical	Pass
4**	7356.500	40.87	-3.47	54.0	-13.13	AV	73.00	200	Vertical	Pass
5	11215.325	51.73	-0.02	74.0	-22.27	Peak	360.00	150	Vertical	Pass
5**	11215.325	42.19	-0.02	54.0	-11.81	AV	360.00	150	Vertical	Pass
6	15839.625	54.13	2.03	74.0	-19.87	Peak	0.00	400	Vertical	Pass
6**	15839.625	46.04	2.03	54.0	-7.96	AV	0.00	400	Vertical	Pass

11n20, U-NII-2A, 1 GHz to 18 GHz, Middle Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1495.900	38.75	-17.43	74.0	-35.25	Peak	230.00	100	Horizontal	Pass
1**	1495.900	29.11	-17.43	54.0	-24.89	AV	230.00	100	Horizontal	Pass
2	4200.800	49.19	-4.86	74.0	-24.81	Peak	190.00	300	Horizontal	Pass
2**	4200.800	40.38	-4.86	54.0	-13.62	AV	190.00	300	Horizontal	Pass
3	5298.400	98.42	-3.13	--	--	Peak	141.00	100	Horizontal	N/A
3**	5298.400	91.29	-3.13	--	--	AV	141.00	100	Horizontal	N/A
4	7351.037	49.70	-3.29	74.0	-24.30	Peak	345.00	300	Horizontal	Pass
4**	7351.037	41.10	-3.29	54.0	-12.90	AV	345.00	300	Horizontal	Pass
5	11201.237	51.85	0.07	74.0	-22.15	Peak	325.00	150	Horizontal	Pass
5**	11201.237	42.16	0.07	54.0	-11.84	AV	325.00	150	Horizontal	Pass
6	15843.037	53.91	1.98	74.0	-20.09	Peak	297.00	400	Horizontal	Pass
6**	15843.037	44.87	1.98	54.0	-9.13	AV	297.00	400	Horizontal	Pass

11n20, U-NII-2A, 1 GHz to 18 GHz, Middle Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1575.100	38.43	-17.57	74.0	-35.57	Peak	225.00	300	Vertical	Pass
1**	1575.100	29.99	-17.57	54.0	-24.01	AV	225.00	300	Vertical	Pass
2	4274.600	49.18	-4.48	74.0	-24.82	Peak	30.00	400	Vertical	Pass
2**	4274.600	39.88	-4.48	54.0	-14.12	AV	30.00	400	Vertical	Pass
3	5298.000	90.35	-3.12	--	--	Peak	287.00	100	Vertical	N/A
3**	5298.000	82.10	-3.12	--	--	AV	287.00	100	Vertical	N/A
4	7336.663	50.27	-2.91	74.0	-23.73	Peak	238.00	400	Vertical	Pass
4**	7336.663	41.01	-2.91	54.0	-12.99	AV	238.00	400	Vertical	Pass
5	12221.575	51.72	1.66	74.0	-22.28	Peak	263.00	150	Vertical	Pass
5**	12221.575	42.29	1.66	54.0	-11.71	AV	263.00	150	Vertical	Pass
6	15839.887	54.08	2.03	74.0	-19.92	Peak	334.00	300	Vertical	Pass
6**	15839.887	45.54	2.03	54.0	-8.46	AV	334.00	300	Vertical	Pass

11n20, U-NII-2A, 1 GHz to 18 GHz, High Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1452.300	38.32	-17.36	74.0	-35.68	Peak	5.00	100	Horizontal	Pass
1**	1452.300	29.44	-17.36	54.0	-24.56	AV	5.00	100	Horizontal	Pass
2	3946.400	48.86	-4.77	74.0	-25.14	Peak	198.00	200	Horizontal	Pass
2**	3946.400	39.31	-4.77	54.0	-14.69	AV	198.00	200	Horizontal	Pass
3	5317.600	99.06	-2.60	--	--	Peak	150.00	200	Horizontal	N/A
3**	5317.600	91.56	-2.60	--	--	AV	150.00	200	Horizontal	N/A
4	7336.088	49.85	-2.93	74.0	-24.15	Peak	54.00	400	Horizontal	Pass
4**	7336.088	41.02	-2.93	54.0	-12.98	AV	54.00	400	Horizontal	Pass
5	10945.362	52.24	0.13	74.0	-21.76	Peak	94.00	100	Horizontal	Pass
5**	10945.362	41.94	0.13	54.0	-12.06	AV	94.00	100	Horizontal	Pass
6	15840.412	53.48	2.03	74.0	-20.52	Peak	55.00	150	Horizontal	Pass
6**	15840.412	44.93	2.03	54.0	-9.07	AV	55.00	150	Horizontal	Pass

11n20, U-NII-2A, 1 GHz to 18 GHz, High Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1554.500	38.67	-17.43	74.0	-35.33	Peak	12.00	100	Vertical	Pass
1**	1554.500	29.08	-17.43	54.0	-24.92	AV	12.00	100	Vertical	Pass
2	4208.800	49.06	-5.02	74.0	-24.94	Peak	195.00	300	Vertical	Pass
2**	4208.800	40.27	-5.02	54.0	-13.73	AV	195.00	300	Vertical	Pass
3	5322.000	89.90	-2.53	--	--	Peak	302.00	200	Vertical	N/A
3**	5322.000	82.95	-2.53	--	--	AV	302.00	200	Vertical	N/A
4	7352.763	49.42	-3.35	74.0	-24.58	Peak	258.00	400	Vertical	Pass
4**	7352.763	40.48	-3.35	54.0	-13.52	AV	258.00	400	Vertical	Pass
5	10654.412	52.65	-0.14	74.0	-21.35	Peak	118.00	150	Vertical	Pass
5**	10654.412	42.41	-0.14	54.0	-11.59	AV	118.00	150	Vertical	Pass
6	15844.612	53.96	1.95	74.0	-20.04	Peak	1.00	150	Vertical	Pass
6**	15844.612	46.09	1.95	54.0	-7.91	AV	1.00	150	Vertical	Pass

11n40, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT H

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1541.000	38.55	-17.50	74.0	-35.45	Peak	245.00	100	Horizontal	Pass
1**	1541.000	28.91	-17.50	54.0	-25.09	AV	245.00	100	Horizontal	Pass
2	4215.200	49.70	-4.99	74.0	-24.30	Peak	238.00	300	Horizontal	Pass
2**	4215.200	40.72	-4.99	54.0	-13.28	AV	238.00	300	Horizontal	Pass
3	5268.600	94.88	-2.74	--	--	Peak	149.00	100	Horizontal	N/A
3**	5268.600	88.06	-2.74	--	--	AV	149.00	100	Horizontal	N/A
4	7339.537	49.29	-2.97	74.0	-24.71	Peak	171.00	300	Horizontal	Pass
4**	7339.537	40.57	-2.97	54.0	-13.43	AV	171.00	300	Horizontal	Pass
5	11123.613	52.26	-0.42	74.0	-21.74	Peak	189.00	150	Horizontal	Pass
5**	11123.613	41.73	-0.42	54.0	-12.27	AV	189.00	150	Horizontal	Pass
6	15836.213	54.27	1.99	74.0	-19.73	Peak	322.00	200	Horizontal	Pass
6**	15836.213	44.72	1.99	54.0	-9.28	AV	322.00	200	Horizontal	Pass

11n40, U-NII-2A, 1 GHz to 18 GHz, Low Channel, ANT V

No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1471.000	39.06	-17.55	74.0	-34.94	Peak	176.00	400	Vertical	Pass
1**	1471.000	29.60	-17.55	54.0	-24.40	AV	176.00	400	Vertical	Pass
2	4207.800	49.96	-5.08	74.0	-24.04	Peak	137.00	300	Vertical	Pass
2**	4207.800	39.91	-5.08	54.0	-14.09	AV	137.00	300	Vertical	Pass
3	5266.800	86.85	-2.76	--	--	Peak	68.00	200	Vertical	N/A
3**	5266.800	78.86	-2.76	--	--	AV	68.00	200	Vertical	N/A
4	7344.425	49.75	-3.10	74.0	-24.25	Peak	32.00	400	Vertical	Pass
4**	7344.425	41.12	-3.10	54.0	-12.88	AV	32.00	400	Vertical	Pass
5	11616.963	52.32	0.34	74.0	-21.68	Peak	67.00	100	Vertical	Pass
5**	11616.963	42.29	0.34	54.0	-11.71	AV	67.00	100	Vertical	Pass
6	15848.287	53.15	1.90	74.0	-20.85	Peak	262.00	200	Vertical	Pass
6**	15848.287	44.51	1.90	54.0	-9.49	AV	262.00	200	Vertical	Pass