

TEST REPORT

Applicant: Wyrestorm Technologies ProAV Corporation

Address of Applicant: 27 wood road suite 100, Round Lake, New York 12151, United States

Manufacturer: Wyrestorm Technologies ProAV Corporation

Address of Manufacturer: 27 wood road suite 100, Round Lake, New York 12151, United States

Factory: Shen Zhen Proitav Technology Co.,Ltd

Address of Factory: 301-401, Building 16, Hejing Industrial Park, No.87, Hexiu West Road, Zhancheng Community, Fuhai St., Baoan District, Shenzhen, China

Equipment Under Test (EUT)

Product Name: Video Bar

Model No.: APO-VX20-UC v2(VB20-A00)

Trade Mark: WyreStorm

FCC ID: 2BAXSAPOVX20UCV2

Applicable standards: FCC CFR Title 47 Part 15 Subpart E Section 15.407

Date of sample receipt: April 21, 2026

Date of Test: April 21, 2026-July 10, 2026

Date of report issued: July 14, 2026

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



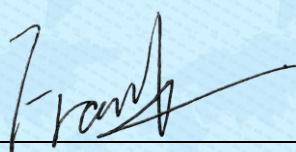
Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	July 14, 2026	Original

Tested By:

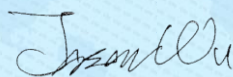


Date:

July 14, 2026

Test Engineer

Prepared By:

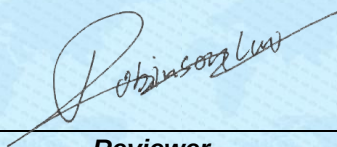


Date:

July 14, 2026

Project Engineer

Check By:



Date:

July 14, 2026

Reviewer

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4 Test Summary

Test Item	Section	Result
Antenna requirement	FCC part 15.203	Pass
AC Power Line Conducted Emission	FCC part 15.207	Pass
Maximum Conducted Output Power	FCC part 15.407(a)(3)	Pass
Channel Bandwidth and 99% Occupied Bandwidth	FCC part 15.407(e)	Pass
Power Spectral Density	FCC part 15.407(a)(3)	Pass
Band Edge	FCC part 15.407(b)(4)	Pass
Spurious Emission	FCC part 15.205/15.209/15.407(b)(4)	Pass
Frequency Stability	FCC part 15.407(g)	Pass

Remarks:

1. Test according to ANSI C63.10:2020.
2. Pass: The EUT complies with the essential requirements in the standard.

4.1 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$\pm 7.25 \times 10^{-8}$
2	Duty cycle	$\pm 0.37\%$
3	Occupied Bandwidth	$\pm 3\%$
4	RF conducted power	$\pm 0.75\text{dB}$
5	RF power density	$\pm 3\text{dB}$
6	Conducted Spurious emissions	$\pm 2.58\text{dB}$
7	AC Power Line Conducted Emission	$\pm 3.44\text{dB}$ (0.15MHz ~ 30MHz)
8	Radiated Spurious emission test	$\pm 3.1\text{dB}$ (9kHz-30MHz)
		$\pm 3.8039\text{dB}$ (30MHz-200MHz)
		$\pm 3.9679\text{dB}$ (200MHz-1GHz)
		$\pm 4.29\text{dB}$ (1GHz-18GHz)
		$\pm 3.30\text{dB}$ (18GHz-40GHz)
9	Temperature test	$\pm 1^\circ\text{C}$
10	Humidity test	$\pm 3\%$
11	Time	$\pm 3\%$

5 General Information

5.1 General Description of EUT

Product Name:	Video Bar
Model No.:	APO-VX20-UC v2(VB20-A00)
Test sample(s) ID:	GTS2026040011-1
Sample(s) Status:	Engineer sample
S/N:	N/A
Operation Frequency:	802.11ac(VHT20): 5745MHz~5805MHz 802.11ac(VHT40): 5755MHz~5795MHz 802.11ac(VHT80): 5775MHz
Channel numbers:	802.11ac(VHT20): 4 802.11ac(VHT40): 2 802.11ac(VHT80): 1
Channel bandwidth:	802.11ac(VHT20): 20MHz 802.11ac(VHT40): 40MHz 802.11ac(VHT80): 80MHz
Modulation technology:	Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	Integral Antenna
Antenna gain:	ANT 1: 2.46dBi ANT 2: 2.40dBi ANT 3: 3.45dBi ANT 4: 3.17dBi
Power supply:	Adapter 1 Model: FJ-GN212020006000D Input: AC 100-240V, 50/60Hz, 2.5A Max Output: DC 20.0V, 6.0A, 120.0W Adapter 2 Model: DSA-120PFG-193 200600 Input: AC 100-240V, 50/60Hz, 2.0A Output: DC 20.0V, 6.0A, 120.0W

Disclaimer statement:

1. Antenna gain information provided by the customer, and the laboratory is not responsible for its authenticity.
2. The information in this section is provided by the applicant or manufacturer, GTS is not liable to the accuracy, suitability, reliability or/and integrity of the information.
3. The product contains two WIFI modules, each WIFI module has two antennas, and the two WIFI modules cannot transmit signals at the same time.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745MHz	151	5755MHz	153	5765MHz	155	5775MHz
157	5785MHz	159	5795MHz	161	5805MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Test channel	Frequency (MHz)		
	802.11ac(VHT20)	802.11ac(VHT40)	802.11ac(VHT80)
Lowest channel	5745	5755	
Middle channel	5785		5775
Highest channel	5805	5795	

5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode
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We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11ac(HT20)	6.5Mbps
802.11ac(HT40)	13Mbps
802.11ac(HT80)	29.3Mbps

5.3 Description of Support Units

None

5.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC —Registration No.: 381383**

Designation Number: CN5029

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files.

● **ISED—Registration No.: 9079A**

CAB identifier: CN0091

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of ISED for radio equipment testing.

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

5.5 Test Location

All tests were performed at:
Global United Technology Services Co., Ltd. Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102 Tel: 0755-27798480 Fax: 0755-27798960

5.6 Additional Instructions

Test Software	Special test software provided by manufacturer
Power level setup	Default

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	Apr. 10, 2026	Apr. 09, 2027
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	Apr. 10, 2026	Apr. 09, 2027
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	Apr. 11, 2026	Apr. 10, 2027
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	Apr. 11, 2026	Apr. 10, 2027
6	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	Jul. 11, 2025	Jul 10, 2026
7	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov.22, 2025	Nov.21, 2026
8	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	Apr. 10, 2026	Apr. 09, 2027
9	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	Apr. 10, 2026	Apr. 09, 2027
10	Horn Antenna (18GH-40GHz)	Schwarzbeck	BBHA 9170	GTS691	Apr. 11, 2026	Apr. 10, 2027
11	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	Mar. 10, 2026	Mar. 09, 2027
12	Amplifier	/	LNA-1000-30S	GTS650	Apr. 10, 2026	Apr. 09, 2027
13	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 24, 2025	Nov. 23, 2026
14	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	Apr. 10, 2026	Apr. 09, 2027
15	Thermo meter	JINCHUANG	GSP-8A	GTS643	Apr. 13, 2026	Apr. 12, 2027
16	RE cable 1	GTS	N/A	GTS675	Jul. 11, 2025	Jul. 10, 2026
17	RE cable 2	GTS	N/A	GTS676	Jul. 11, 2025	Jul. 10, 2026
18	RE cable 3	GTS	N/A	GTS677	Jul. 11, 2025	Jul. 10, 2026
19	RE cable 4	GTS	N/A	GTS678	Jul. 11, 2025	Jul. 10, 2026
20	RE cable 5	GTS	N/A	GTS679	Jul. 11, 2025	Jul. 10, 2026
21	RE cable 6	GTS	N/A	GTS680	Jul. 11, 2025	Jul. 10, 2026
22	RE cable 7	GTS	N/A	GTS681	Jul. 11, 2025	Jul. 10, 2026
23	RE cable 8	GTS	N/A	GTS682	Jul. 11, 2025	Jul. 10, 2026
24	EMI Test Software	AUDIX	E3-6.100614a	GTS725	N/A	N/A

Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	Jul. 12, 2022	Jul. 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	Jun. 03, 2026	Jun. 02, 2027
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	Apr. 10, 2026	Apr. 09, 2027
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	Thermo meter	JINCHUANG	GSP-8A	GTS642	Apr. 14, 2026	Apr. 13, 2027
6	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	Apr. 11, 2026	Apr. 10, 2027
7	ISN	SCHWARZBECK	NTFM 8158	GTS565	Apr. 10, 2026	Apr. 09, 2027
8	High voltage probe	SCHWARZBECK	TK9420	GTS537	Apr. 10, 2026	Apr. 09, 2027
9	Antenna end assembly	Weinschel	1870A	GTS560	Apr. 10, 2026	Apr. 09, 2027
10	EMI Test Software	AUDIX	E3-6.100622	GTS726	N/A	N/A
11	Current probe	CYBERTEK	EM5011	GTS698	Jan. 27, 2026	Jan. 26, 2027

RF Conducted Test:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Wireless Connectivity Test Set	Anritsu	MT8862A	SN6272327180	Aug. 26, 2025	Aug. 25, 2026
2	Bluetooth Test Set	Anritsu	MT8852B	SN6262097212	Aug. 26, 2025	Aug. 25, 2026
3	EXA Signal Analyzer	Keysight	N9010B	MY60241168	Aug. 26, 2025	Aug. 25, 2026
4	Vector Signal Generator	Keysight	N5182B	MY61250192	Apr. 16, 2026	Apr. 15, 2027
5	Analog Signal Generator	Keysight	N5171B	MY61252573	Aug. 26, 2025	Aug. 25, 2026
6	RF Control Unit and Power Test Unit	Tonscend	JS0806-2	SN21F8060437	Apr. 16, 2026	Apr. 15, 2027
7	Power Control Unit	Tonscend	JS0806-4ADC	SN21C8060386	N/A	N/A
8	Wideband Radio Communication Tester	R&S	CWM500	GTS569	Aug. 26, 2025	Aug. 25, 2026
9	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	Apr. 10, 2026	Apr. 09, 2027
10	Thermo meter	JINCHUANG	GSP-8A	GTS641	Apr. 14, 2026	Apr. 13, 2027
11	Test Software	Tonscend	JS1120-3 V3.5.39	N/A	N/A	N/A

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	KUMAO	SF132	GTS647	Jul. 16, 2025	Jul. 15, 2026

7 Test results and Measurement Data

7.1 Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
<i>15.203 requirement:</i> An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The antenna is integral Antenna, reference to the appendix II for details	

7.2 Conducted Emissions

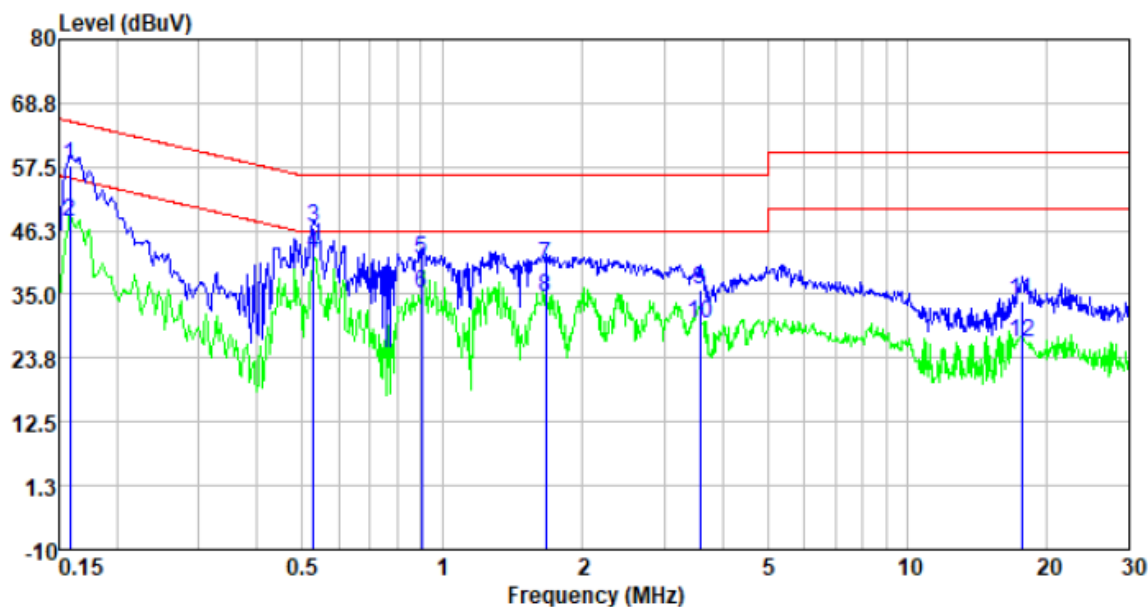
Test Requirement:	FCC Part15 C Section 15.207						
Test Method:	ANSI C63.10:2020						
Test Frequency Range:	150KHz to 30MHz						
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto						
Limit:	Frequency range (MHz)		Limit (dBuV)				
			Quasi-peak		Average		
	0.15-0.5		66 to 56*		56 to 46*		
	0.5-5		56		46		
	5-30		60		50		
* Decreases with the logarithm of the frequency.							
Test setup:	Reference Plane 40cm LISN 40cm AUX Equipment E.U.T Test table/Insulation plane 80cm 40cm LISN Filter AC power EMI Receiver Remark E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m						
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.						
Test Instruments:	Refer to section 6.0 for details						
Test mode:	Refer to section 5.2 for details						
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1012mbar	
Test voltage:	AC 120V, 60Hz						
Test results:	Pass						

Measurement data

Pre-scan all test modes, found worst case at 802.11ac(VHT20) 5785MHz@Ant 1, and so only show the test result of it.

Adapter 1:

Line:

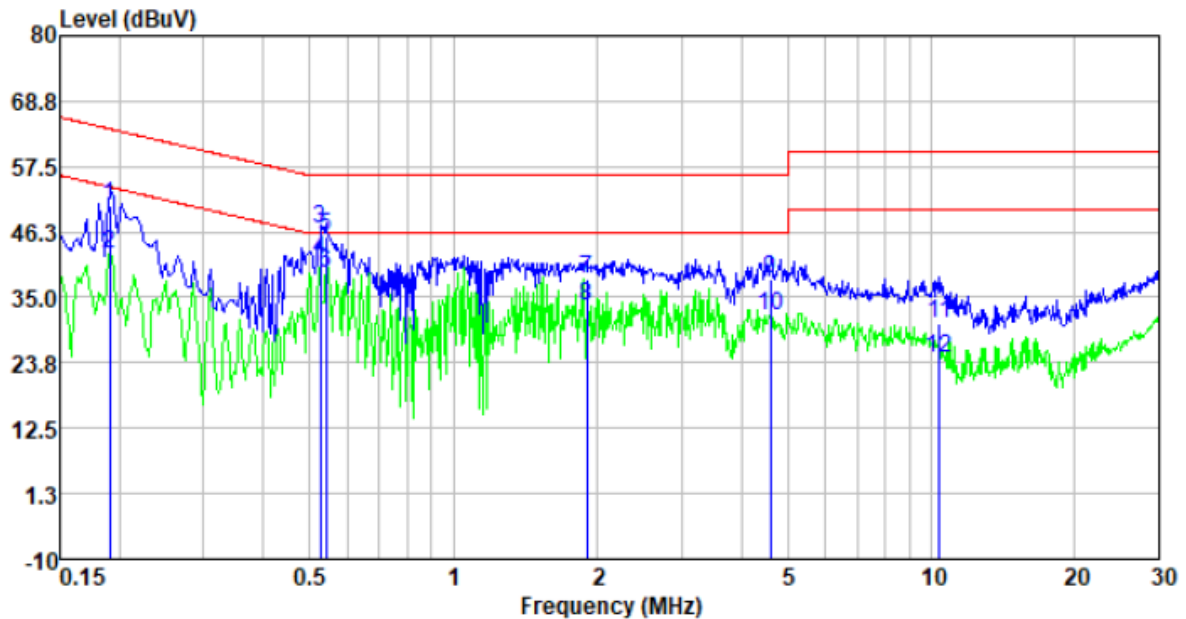


Freq	Reading level	Correct Factor	Final level	Limit level	Over limit	Remark
MHz	dBuV	dB	dBuV	level	dBuV	
0.16	38.25	19.60	57.85	65.56	-7.71	QP
0.16	28.11	19.60	47.71	55.56	-7.85	Average
0.53	27.30	19.60	46.90	56.00	-9.10	QP
0.53	22.40	19.60	42.00	46.00	-4.00	Average
0.90	21.57	19.61	41.18	56.00	-14.82	QP
0.90	15.40	19.61	35.01	46.00	-10.99	Average
1.67	20.39	19.65	40.04	56.00	-15.96	QP
1.67	14.87	19.65	34.52	46.00	-11.48	Average
3.58	16.19	19.67	35.86	56.00	-20.14	QP
3.58	10.29	19.67	29.96	46.00	-16.04	Average
17.57	14.10	19.87	33.97	60.00	-26.03	QP
17.57	6.65	19.87	26.52	50.00	-23.48	Average

Note: Correct Factor (dB) = LISN Factor (dB) + Cable Loss (dB)

Final level (dBuV) = Reading level (dBuV) + Correct Factor (dB)

Neutral:

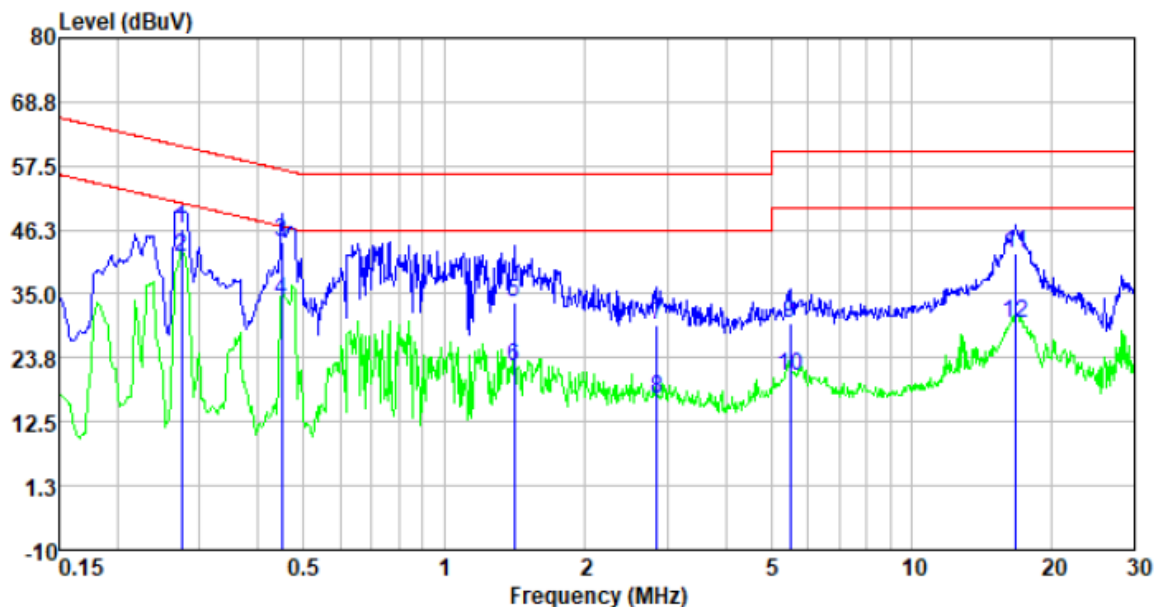


Freq	Reading level	Correct Factor	Final level	Limit level	Over limit	Remark
MHz	dBuV	dB	dBuV	level	dBuV	
0.19	31.16	19.60	50.76	64.02	-13.26	QP
0.19	22.95	19.60	42.55	54.02	-11.47	Average
0.53	27.28	19.60	46.88	56.00	-9.12	QP
0.53	22.02	19.60	41.62	46.00	-4.38	Average
0.54	25.98	19.60	45.58	56.00	-10.42	QP
0.54	19.52	19.60	39.12	46.00	-6.88	Average
1.90	18.46	19.66	38.12	56.00	-17.88	QP
1.90	13.89	19.66	33.55	46.00	-12.45	Average
4.60	18.53	19.68	38.21	56.00	-17.79	QP
4.60	12.23	19.68	31.91	46.00	-14.09	Average
10.40	10.93	19.72	30.65	60.00	-29.35	QP
10.40	4.92	19.72	24.64	50.00	-25.36	Average

Note:Correct Factor (dB)=LISN Factor (dB) + Cable Loss (dB)
Final level (dBuV)=Reading level (dBuV) + Correct Factor (dB)

Adapter 2:

Line:

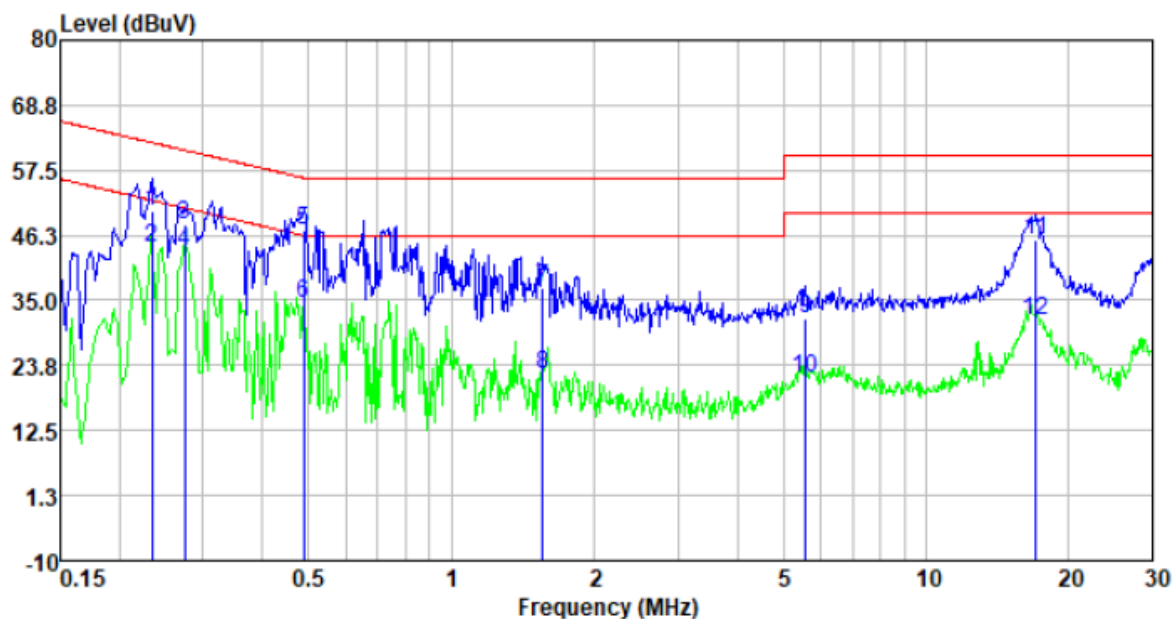


Freq	Reading level	Correct Factor	Final level	Limit level	Over limit	Remark
MHz	dBuV	dB	dBuV	level	dBuV	
0.27	26.94	19.60	46.54	60.98	-14.44	QP
0.27	22.04	19.60	41.64	50.98	-9.34	Average
0.45	24.64	19.60	44.24	56.89	-12.65	QP
0.45	14.10	19.60	33.70	46.89	-13.19	Average
1.41	13.93	19.63	33.56	56.00	-22.44	QP
1.41	2.75	19.63	22.38	46.00	-23.62	Average
2.85	9.79	19.67	29.46	56.00	-26.54	QP
2.85	-3.14	19.67	16.53	46.00	-29.47	Average
5.51	10.13	19.68	29.81	60.00	-30.19	QP
5.51	0.78	19.68	20.46	50.00	-29.54	Average
16.75	22.38	19.85	42.23	60.00	-17.77	QP
16.75	9.85	19.85	29.70	50.00	-20.30	Average

Note:Correct Factor (dB)=LISN Factor (dB) + Cable Loss (dB)

Final level (dBuV)=Reading level (dBuV) + Correct Factor (dB)

Neutral:



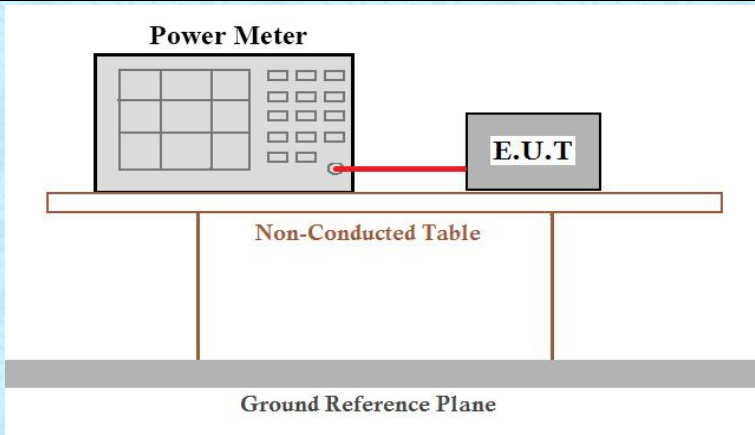
Freq	Reading level	Correct Factor	Final level	Limit level	Over limit	Remark
MHz	dBuV	dB	dBuV	level	dBuV	
0.23	30.87	19.60	50.47	62.30	-11.83	QP
0.23	24.56	19.60	44.16	52.30	-8.14	Average
0.27	28.44	19.60	48.04	60.98	-12.94	QP
0.27	23.71	19.60	43.31	50.98	-7.67	Average
0.49	27.43	19.60	47.03	56.19	-9.16	QP
0.49	14.84	19.60	34.44	46.19	-11.75	Average
1.56	17.49	19.65	37.14	56.00	-18.86	QP
1.56	2.70	19.65	22.35	46.00	-23.65	Average
5.56	12.10	19.68	31.78	60.00	-28.22	QP
5.56	1.85	19.68	21.53	50.00	-28.47	Average
17.02	25.46	19.87	45.33	60.00	-14.67	QP
17.02	11.61	19.87	31.48	50.00	-18.52	Average

Note:Correct Factor (dB)=LISN Factor (dB) + Cable Loss (dB)
Final level (dBuV)=Reading level (dBuV) + Correct Factor (dB)

Notes:

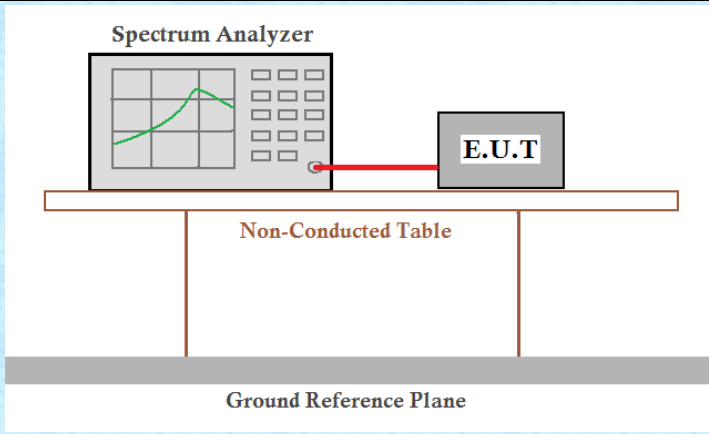
1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.

7.3 Maximum Conducted Output Power

Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2020 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	30dBm
Duty Cycle set up:	RBW=VBW=8MHz
Test setup:	 The diagram illustrates the test setup. A Power Meter, represented by a box with a grid of buttons and a display, is connected to an E.U.T. (Equipment Under Test) box by a red cable. Both the Power Meter and the E.U.T. are placed on a table labeled 'Non-Conducted Table'. Below this table is a thick grey bar labeled 'Ground Reference Plane'.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

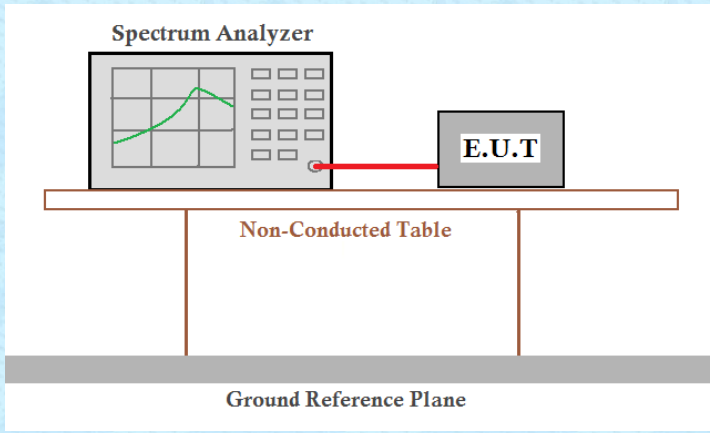
Measurement Data: The detailed test data see Appendix.

7.4 Channel Bandwidth and 99% Occupied Bandwidth

Test Requirement:	FCC Part15 E Section 15.407(e)
Test Method:	ANSI C63.10:2020 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	>500KHz
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix.

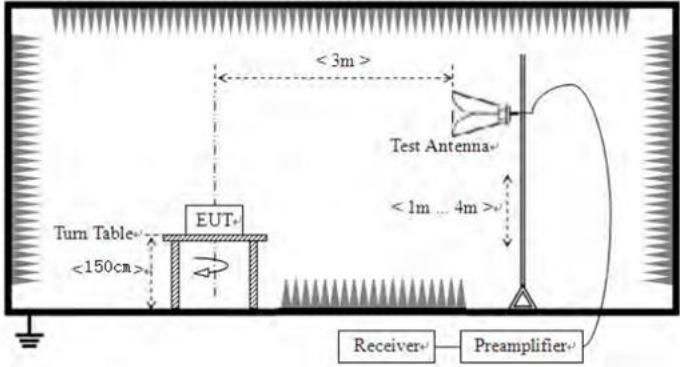
7.5 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2020 and KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	30dBm/500kHz
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix.

7.6 Band edge

7.6.1 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10: 2020				
Test Frequency Range:	9kHz to 40GHz, only worse case is reported				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	Above 1GHz	Peak RMS	1MHz 1MHz	3MHz 3MHz	Peak RMS
Limit:	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.				
Test setup:					
Test Procedure:	1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.				

Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Remarks:

1. *Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
3. *The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.*
4. *According to KDB 789033 D02v02r01 section G) 1) d), for measurements above 1000 MHz @3m distance, the limit of field strength is computed as follows:*

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2;$$

$$E[\text{dBuV/m}] = -27 + 95.2 = 68.2\text{dBuV/m}.$$

$$E[\text{dBuV/m}] = 10 + 95.2 = 105.2\text{dBuV/m}.$$

$$E[\text{dBuV/m}] = 15.6 + 95.2 = 110.8\text{dBuV/m}.$$

$$E[\text{dBuV/m}] = 27 + 95.2 = 122.2\text{dBuV/m}$$

Measurement data:

All antennas have test, only the worst case MIMO report.

MIMO(ANT1&2)

<i>IEEE 802.11ac HT20</i>								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	39.42	32.36	9.72	23.83	57.67	68.20	-10.53	Horizontal
5700	38.84	32.5	9.79	23.84	57.29	105.20	-47.91	Horizontal
5720	40.06	32.53	9.81	23.85	58.55	110.80	-52.25	Horizontal
5725	40.49	32.53	9.83	23.86	58.99	122.20	-63.21	Horizontal
5850	39.04	32.7	9.99	23.87	57.86	122.20	-64.34	Horizontal
5855	39.71	32.72	9.99	23.88	58.54	110.80	-52.26	Horizontal
5875	40.59	32.74	10.04	23.89	59.48	105.20	-45.72	Horizontal
5925	39.22	32.8	10.11	23.9	58.23	68.20	-9.97	Horizontal
5650	36.90	32.36	9.72	23.83	55.15	68.20	-13.05	Vertical
5700	35.67	32.5	9.79	23.84	54.12	105.20	-51.08	Vertical
5720	36.44	32.53	9.81	23.85	54.93	110.80	-55.87	Vertical
5725	39.58	32.53	9.83	23.86	58.08	122.20	-64.12	Vertical
5850	36.26	32.7	9.99	23.87	55.08	122.20	-67.12	Vertical
5855	35.90	32.72	9.99	23.88	54.73	110.80	-56.07	Vertical
5875	39.14	32.74	10.04	23.89	58.03	105.20	-47.17	Vertical
5925	39.46	32.8	10.11	23.9	58.47	68.20	-9.73	Vertical

IEEE 802.11ac HT40								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	40.12	32.36	9.72	23.83	58.37	68.20	-9.83	Horizontal
5700	40.58	32.5	9.79	23.84	59.03	105.20	-46.17	Horizontal
5720	38.61	32.53	9.81	23.85	57.10	110.80	-53.70	Horizontal
5725	37.31	32.53	9.83	23.86	55.81	122.20	-66.39	Horizontal
5850	41.07	32.7	9.99	23.87	59.89	122.20	-62.31	Horizontal
5855	38.21	32.72	9.99	23.88	57.04	110.80	-53.76	Horizontal
5875	35.24	32.74	10.04	23.89	54.13	105.20	-51.07	Horizontal
5925	35.51	32.8	10.11	23.9	54.52	68.20	-13.68	Horizontal
5650	34.76	32.36	9.72	23.83	53.01	68.20	-15.19	Vertical
5700	40.29	32.5	9.79	23.84	58.74	105.20	-46.46	Vertical
5720	36.98	32.53	9.81	23.85	55.47	110.80	-55.33	Vertical
5725	40.98	32.53	9.83	23.86	59.48	122.20	-62.72	Vertical
5850	40.07	32.7	9.99	23.87	58.89	122.20	-63.31	Vertical
5855	40.68	32.72	9.99	23.88	59.51	110.80	-51.29	Vertical
5875	40.89	32.74	10.04	23.89	59.78	105.20	-45.42	Vertical
5925	38.90	32.8	10.11	23.9	57.91	68.20	-10.29	Vertical

IEEE 802.11ac HT80								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	42.04	32.36	9.72	23.83	60.29	68.20	-7.91	Horizontal
5700	35.52	32.5	9.79	23.84	53.97	105.20	-51.23	Horizontal
5720	43.86	32.53	9.81	23.85	62.35	110.80	-48.45	Horizontal
5725	35.88	32.53	9.83	23.86	54.38	122.20	-67.82	Horizontal
5850	40.53	32.7	9.99	23.87	59.35	122.20	-62.85	Horizontal
5855	36.52	32.72	9.99	23.88	55.35	110.80	-55.45	Horizontal
5875	35.97	32.74	10.04	23.89	54.86	105.20	-50.34	Horizontal
5925	39.98	32.8	10.11	23.9	58.99	68.20	-9.21	Horizontal
5650	39.43	32.36	9.72	23.83	57.68	68.20	-10.52	Vertical
5700	42.46	32.5	9.79	23.84	60.91	105.20	-44.29	Vertical
5720	42.31	32.53	9.81	23.85	60.80	110.80	-50.00	Vertical
5725	42.67	32.53	9.83	23.86	61.17	122.20	-61.03	Vertical
5850	39.98	32.7	9.99	23.87	58.80	122.20	-63.40	Vertical
5855	38.33	32.72	9.99	23.88	57.16	110.80	-53.64	Vertical
5875	39.37	32.74	10.04	23.89	58.26	105.20	-46.94	Vertical
5925	39.89	32.8	10.11	23.9	58.90	68.20	-9.30	Vertical

MIMO(ANT3&4)
IEEE 802.11ac HT20
Peak value:

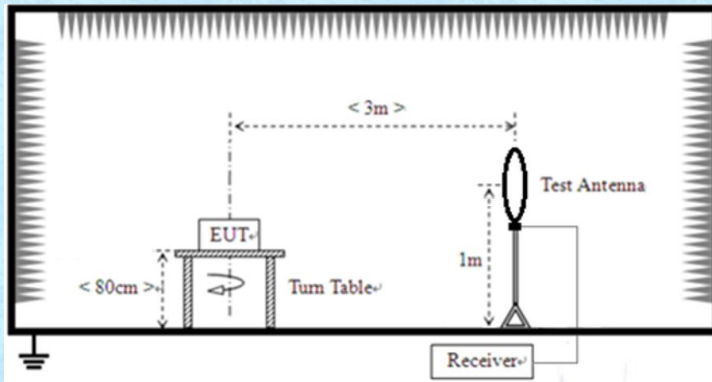
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	41.19	32.36	9.72	23.83	59.44	68.20	-8.76	Horizontal
5700	40.82	32.5	9.79	23.84	59.27	105.20	-45.93	Horizontal
5720	42.15	32.53	9.81	23.85	60.64	110.80	-50.16	Horizontal
5725	42.35	32.53	9.83	23.86	60.85	122.20	-61.35	Horizontal
5850	41.07	32.7	9.99	23.87	59.89	122.20	-62.31	Horizontal
5855	41.82	32.72	9.99	23.88	60.65	110.80	-50.15	Horizontal
5875	42.41	32.74	10.04	23.89	61.30	105.20	-43.90	Horizontal
5925	41.22	32.8	10.11	23.9	60.23	68.20	-7.97	Horizontal
5650	39.00	32.36	9.72	23.83	57.25	68.20	-10.95	Vertical
5700	37.56	32.5	9.79	23.84	56.01	105.20	-49.19	Vertical
5720	38.48	32.53	9.81	23.85	56.97	110.80	-53.83	Vertical
5725	41.70	32.53	9.83	23.86	60.20	122.20	-62.00	Vertical
5850	38.37	32.7	9.99	23.87	57.19	122.20	-65.01	Vertical
5855	38.10	32.72	9.99	23.88	56.93	110.80	-53.87	Vertical
5875	41.38	32.74	10.04	23.89	60.27	105.20	-44.93	Vertical
5925	41.61	32.8	10.11	23.9	60.62	68.20	-7.58	Vertical

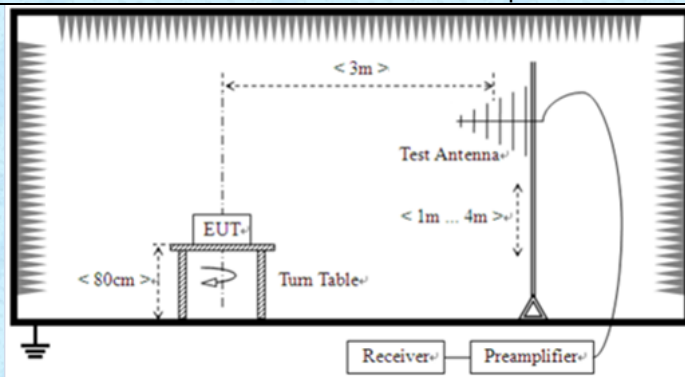
IEEE 802.11ac HT40								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	42.07	32.36	9.72	23.83	60.32	68.20	-7.88	Horizontal
5700	42.68	32.5	9.79	23.84	61.13	105.20	-44.07	Horizontal
5720	40.78	32.53	9.81	23.85	59.27	110.80	-51.53	Horizontal
5725	39.32	32.53	9.83	23.86	57.82	122.20	-64.38	Horizontal
5850	43.20	32.7	9.99	23.87	62.02	122.20	-60.18	Horizontal
5855	40.40	32.72	9.99	23.88	59.23	110.80	-51.57	Horizontal
5875	37.22	32.74	10.04	23.89	56.11	105.20	-49.09	Horizontal
5925	37.62	32.8	10.11	23.9	56.63	68.20	-11.57	Horizontal
5650	36.94	32.36	9.72	23.83	55.19	68.20	-13.01	Vertical
5700	42.32	32.5	9.79	23.84	60.77	105.20	-44.43	Vertical
5720	39.12	32.53	9.81	23.85	57.61	110.80	-53.19	Vertical
5725	43.17	32.53	9.83	23.86	61.67	122.20	-60.53	Vertical
5850	40.28	32.7	9.99	23.87	59.10	122.20	-63.10	Vertical
5855	41.68	32.72	9.99	23.88	60.51	110.80	-50.29	Vertical
5875	42.27	32.74	10.04	23.89	61.16	105.20	-44.04	Vertical
5925	39.45	32.8	10.11	23.9	58.46	68.20	-9.74	Vertical

IEEE 802.11ac HT80								
Peak value:								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5650	43.21	32.36	9.72	23.83	61.46	68.20	-6.74	Horizontal
5700	36.98	32.5	9.79	23.84	55.43	105.20	-49.77	Horizontal
5720	44.25	32.53	9.81	23.85	62.74	110.80	-48.06	Horizontal
5725	36.93	32.53	9.83	23.86	55.43	122.20	-66.77	Horizontal
5850	41.95	32.7	9.99	23.87	60.77	122.20	-61.43	Horizontal
5855	37.18	32.72	9.99	23.88	56.01	110.80	-54.79	Horizontal
5875	37.18	32.74	10.04	23.89	56.07	105.20	-49.13	Horizontal
5925	41.47	32.8	10.11	23.9	60.48	68.20	-7.72	Horizontal
5650	37.31	32.36	9.72	23.83	55.56	68.20	-12.64	Vertical
5700	41.98	32.5	9.79	23.84	60.43	105.20	-44.77	Vertical
5720	42.64	32.53	9.81	23.85	61.13	110.80	-49.67	Vertical
5725	41.25	32.53	9.83	23.86	59.75	122.20	-62.45	Vertical
5850	39.86	32.7	9.99	23.87	58.68	122.20	-63.52	Vertical
5855	38.81	32.72	9.99	23.88	57.64	110.80	-53.16	Vertical
5875	37.60	32.74	10.04	23.89	56.49	105.20	-48.71	Vertical
5925	37.77	32.8	10.11	23.9	56.78	68.20	-11.42	Vertical

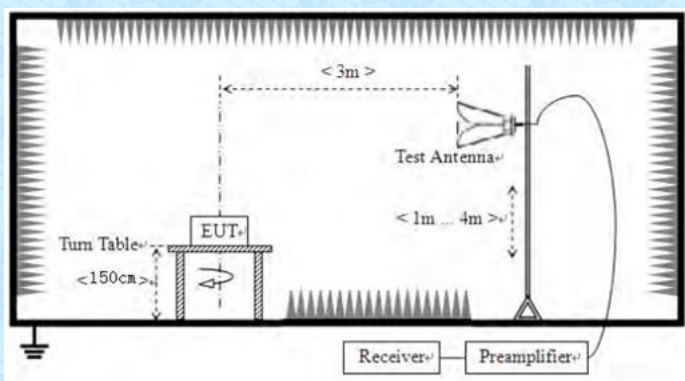
7.7 Spurious Emission

7.7.1 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.209, Part 15E Section 15.407(b)(4)																												
Test Method:	ANSI C63.10:2020																												
Test Frequency Range:	9kHz to 40GHz																												
Test site:	Measurement Distance: 3m																												
Receiver setup:	Frequency	Detector	RBW	VBW	Value																								
	9kHz-150KHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value																								
	150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value																								
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value																								
	Above 1GHz	Peak	1MHz	3MHz	Peak Value																								
		AV	1MHz	3MHz	Average Value																								
Note: For Duty cycle ≥ 98%, average detector set as above For Duty cycle < 98%, average detector set as below: VBW ≥ 1 / T																													
Limit:	<table><tr><th>Frequency (MHz)</th><th>Field strength (microvolts/meter)</th><th>Measurement distance (meters)</th></tr><tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr><tr><td>1.705-30.0</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100**</td><td>3</td></tr><tr><td>88-216</td><td>150**</td><td>3</td></tr><tr><td>216-960</td><td>200**</td><td>3</td></tr><tr><td>Above 960</td><td>500</td><td>3</td></tr></table>					Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)	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
	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)																										
	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																										
	The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.																												
Test setup:	For radiated emissions from 9kHz to 30MHz																												
																													
For radiated emissions from 30MHz to 1GHz																													



For radiated emissions above 1GHz



Test Procedure:

1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
7. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.

Test Instruments:

Refer to section 6.0 for details

Test mode:	Refer to section 5.2 for details					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1012mbar
Test voltage:	AC 120V, 60Hz					
Test results:	Pass					

Remarks:

1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

Measurement Data:**9 kHz ~ 30 MHz**

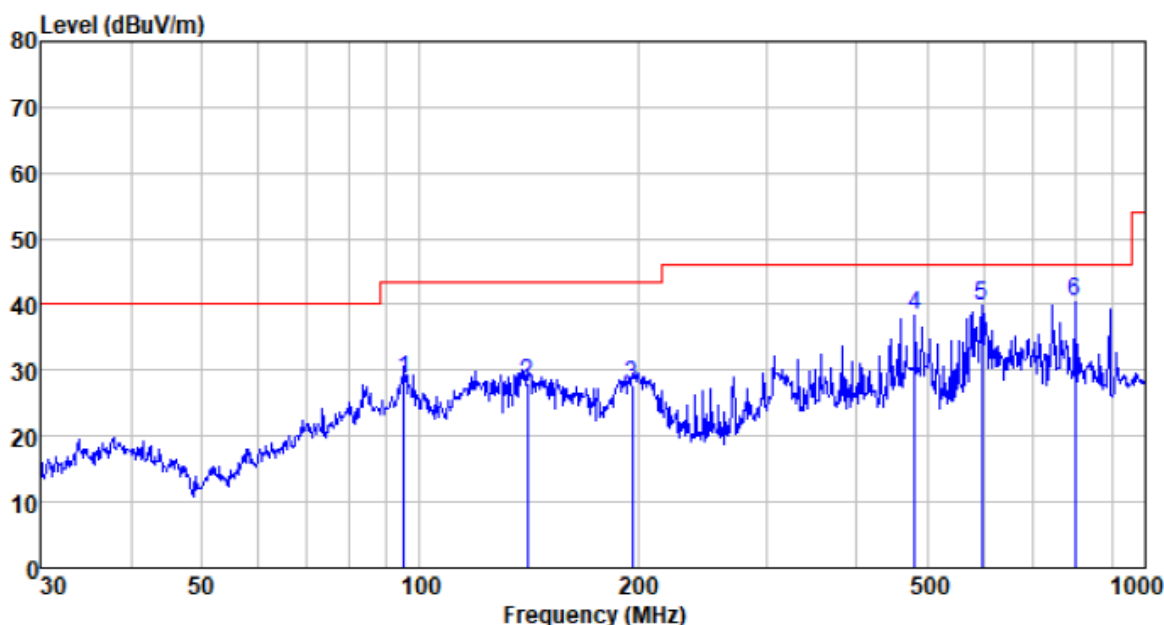
The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Below 1GHz

Pre-scan all test modes, found worst case at 802.11ac(VHT20) 5785MHz@Ant 1, and so only show the test result of it.

Adapter 1:

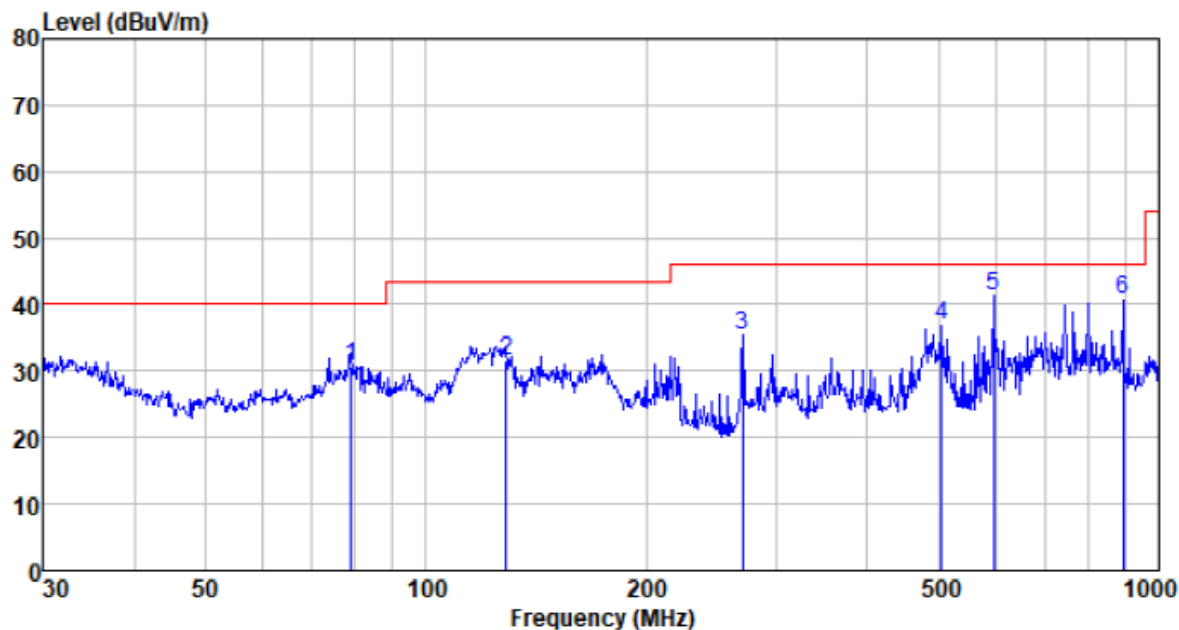
Horizontal:



Remarks:

Final level (dBuV/m) = Reading level (dBuV) + Antenna factor (dB/m) + Cable loss (dB) - Preamp Factor (dB)

Vertical:



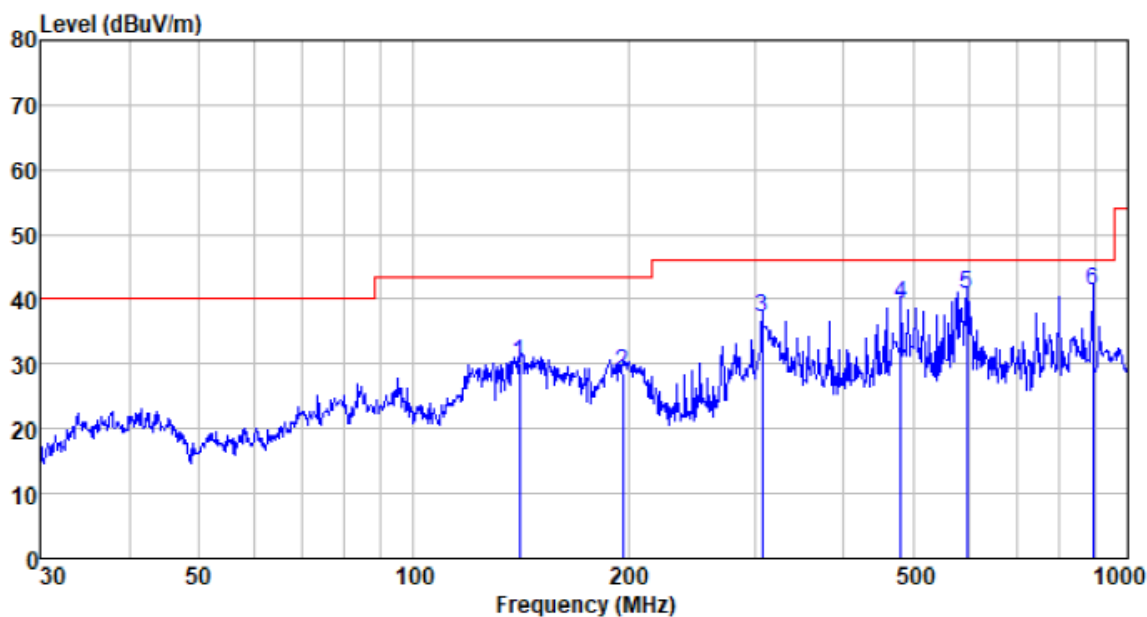
Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Final level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
78.965	52.52	10.00	1.79	33.57	30.74	40.00	-9.26	QP
128.563	49.85	13.06	2.26	33.53	31.64	43.50	-11.86	QP
270.375	53.86	11.42	3.36	33.25	35.39	46.00	-10.61	QP
504.706	48.42	16.90	4.61	32.89	37.04	46.00	-8.96	QP
595.133	50.08	18.81	5.06	32.64	41.31	46.00	-4.69	QP
893.857	43.30	23.00	6.20	31.65	40.85	46.00	-5.15	QP

Remarks:

Final level(dBuV/m) = Reading level(dBuV) + Antenna factor(dB/m) + Cable loss(dB) - Preamp Factor(dB)

Adapter 2:

Horizontal:

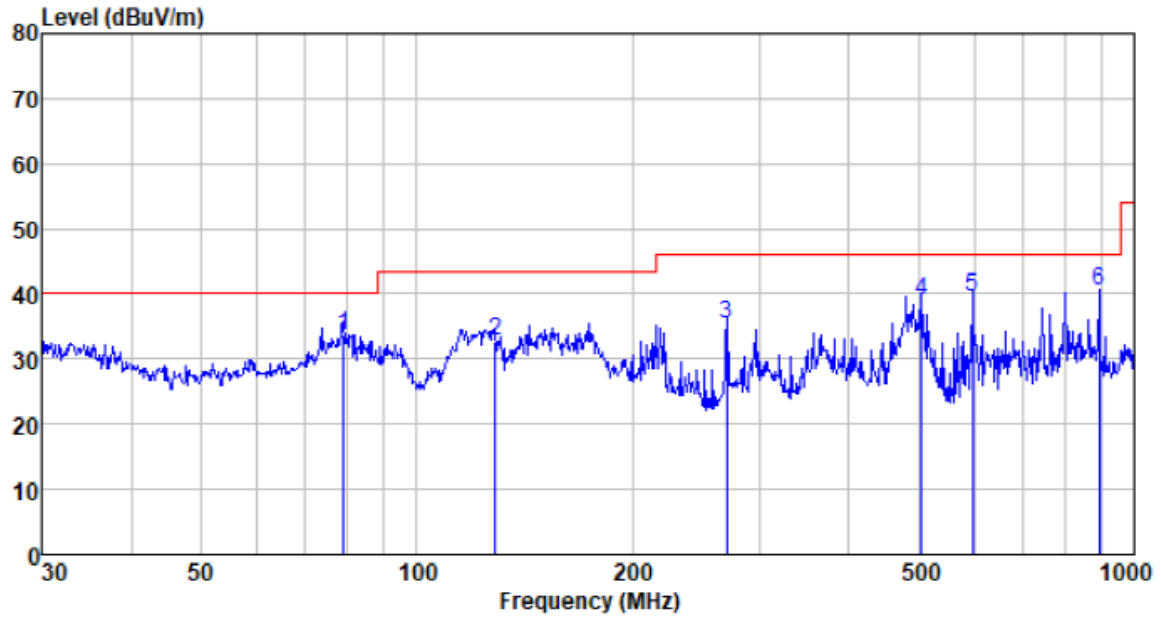


Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Final level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
140.835	47.44	13.87	2.37	33.50	30.18	43.50	-13.32	QP
196.510	48.70	10.60	2.77	33.41	28.66	43.50	-14.84	QP
307.831	54.31	12.46	3.60	33.18	37.19	46.00	-8.81	QP
480.528	51.32	16.50	4.50	32.92	39.40	46.00	-6.60	QP
595.133	49.59	18.81	5.06	32.64	40.82	46.00	-5.18	QP
893.857	43.75	23.00	6.20	31.65	41.30	46.00	-4.70	QP

Remarks:

Final level (dBuV/m) = Reading level (dBuV) + Antenna factor (dB/m) + Cable loss (dB) - Preamp Factor (dB)

Vertical:



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	Final level dBuV/m	Limit level dBuV/m	Over limit dB	Remark
78.965	55.52	10.00	1.79	33.57	33.74	40.00	-6.26	QP
128.563	50.85	13.06	2.26	33.53	32.64	43.50	-10.86	QP
270.375	53.86	11.42	3.36	33.25	35.39	46.00	-10.61	QP
504.706	50.32	16.90	4.61	32.89	38.94	46.00	-7.06	QP
595.133	48.24	18.81	5.06	32.64	39.47	46.00	-6.53	QP
893.857	42.87	23.00	6.20	31.65	40.42	46.00	-5.58	QP

Remarks:

Final level(dBuV/m) = Reading level(dBuV) + Antenna factor(dB/m) + Cable loss(dB) - Preamp Factor(dB)

Above 1GHz:

All antennas have test, only the worst case MIMO report.

MIMO(ANT1&2)

802.11ac(HT20)					Test Frequency: 5745MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11490	38.91	39.40	8.73	36.30	50.74	68.20	-17.46	Horizontal
17235	36.86	41.00	11.37	36.28	52.95	68.20	-15.25	Horizontal
11490	38.12	39.40	8.73	36.30	49.95	68.20	-18.25	Vertical
17235	38.88	41.00	11.37	36.28	54.97	68.20	-13.23	Vertical

802.11ac(HT20)					Test Frequency: 5785MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11570	37.79	39.28	8.77	36.29	49.55	68.20	-18.65	Horizontal
17355	36.53	41.52	11.48	36.26	53.27	68.20	-14.93	Horizontal
11570	35.68	39.28	8.77	36.29	47.44	68.20	-20.76	Vertical
17355	38.92	41.52	11.48	36.26	55.66	68.20	-12.54	Vertical

802.11ac(HT20)					Test Frequency: 5805MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11650	39.94	39.16	8.79	36.27	51.62	68.20	-16.58	Horizontal
17475	37.06	42.30	11.58	36.25	54.69	68.20	-13.51	Horizontal
11650	35.48	39.16	8.79	36.27	47.16	68.20	-21.04	Vertical
17475	34.41	42.30	11.58	36.25	52.04	68.20	-16.16	Vertical

802.11ac(HT40)					Test Frequency: 5755MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11510	36.60	39.40	8.74	36.30	48.44	68.20	-19.76	Horizontal
17265	38.32	41.26	11.40	36.27	54.71	68.20	-13.49	Horizontal
11510	41.00	39.40	8.74	36.30	52.84	68.20	-15.36	Vertical
17265	39.53	41.26	11.40	36.27	55.92	68.20	-12.28	Vertical

802.11ac(HT40)					Test Frequency: 5795MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11590	41.72	39.22	8.77	36.28	53.43	68.20	-14.77	Horizontal
17385	34.99	41.78	11.51	36.26	52.02	68.20	-16.18	Horizontal
11590	39.13	39.22	8.77	36.28	50.84	68.20	-17.36	Vertical
17385	34.32	41.78	11.51	36.26	51.35	68.20	-16.85	Vertical

802.11ac(HT80)					Test Frequency: 5775MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11550	38.52	39.34	8.76	36.29	50.33	68.20	-17.87	Horizontal
17325	36.67	41.52	11.45	36.26	53.38	68.20	-14.82	Horizontal
11550	36.04	39.34	8.76	36.29	47.85	68.20	-20.35	Vertical
17325	35.34	41.52	11.45	36.26	52.05	68.20	-16.15	Vertical

MIMO(ANT3&4)

802.11ac(HT20)					Test Frequency: 5745MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11490	38.22	39.40	8.73	36.30	50.05	68.20	-18.15	Horizontal
17235	35.94	41.00	11.37	36.28	52.03	68.20	-16.17	Horizontal
11490	37.75	39.40	8.73	36.30	49.58	68.20	-18.62	Vertical
17235	38.25	41.00	11.37	36.28	54.34	68.20	-13.86	Vertical

802.11ac(HT20)					Test Frequency: 5785MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11570	38.85	39.28	8.77	36.29	50.61	68.20	-17.59	Horizontal
17355	38.46	41.52	11.48	36.26	55.20	68.20	-13.00	Horizontal
11570	36.91	39.28	8.77	36.29	48.67	68.20	-19.53	Vertical
17355	39.04	41.52	11.48	36.26	55.78	68.20	-12.42	Vertical

802.11ac(HT20)					Test Frequency: 5805MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11650	40.44	39.16	8.79	36.27	52.12	68.20	-16.08	Horizontal
17475	37.38	42.30	11.58	36.25	55.01	68.20	-13.19	Horizontal
11650	35.71	39.16	8.79	36.27	47.39	68.20	-20.81	Vertical
17475	34.83	42.30	11.58	36.25	52.46	68.20	-15.74	Vertical

802.11ac(HT40)					Test Frequency: 5755MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11510	36.10	39.40	8.74	36.30	47.94	68.20	-20.26	Horizontal
17265	38.00	41.26	11.40	36.27	54.39	68.20	-13.81	Horizontal
11510	40.77	39.40	8.74	36.30	52.61	68.20	-15.59	Vertical
17265	39.11	41.26	11.40	36.27	55.50	68.20	-12.70	Vertical

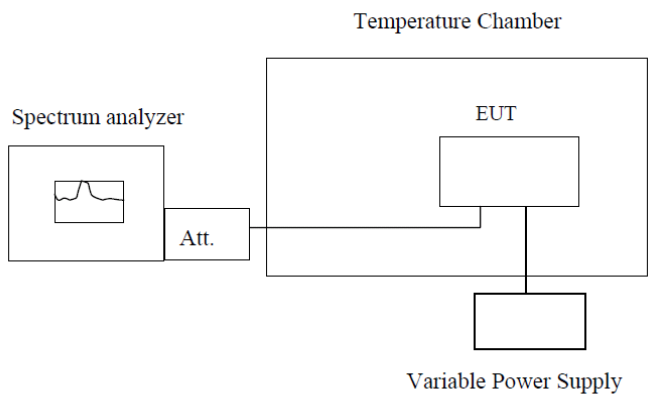
802.11ac(HT40)					Test Frequency: 5795MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11590	41.19	39.22	8.77	36.28	52.90	68.20	-15.30	Horizontal
17385	34.40	41.78	11.51	36.26	51.43	68.20	-16.77	Horizontal
11590	38.75	39.22	8.77	36.28	50.46	68.20	-17.74	Vertical
17385	34.31	41.78	11.51	36.26	51.34	68.20	-16.86	Vertical

802.11ac(HT80)					Test Frequency: 5775MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
11550	38.06	39.34	8.76	36.29	49.87	68.20	-18.33	Horizontal
17325	36.38	41.52	11.45	36.26	53.09	68.20	-15.11	Horizontal
11550	35.83	39.34	8.76	36.29	47.64	68.20	-20.56	Vertical
17325	34.95	41.52	11.45	36.26	51.66	68.20	-16.54	Vertical

Notes:

1. Level = Read Level + Antenna Factor+ Cable loss- Preamplifier Factor
2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.
3. If the test result on peak is lower than the limit more than 20dB, then average measurement needn't be performed.

7.8 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2020, FCC Part 2.1055
Limit:	Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified
Test Procedure:	The EUT was setup to ANSI C63.4, 2014; tested to 2.1055 for compliance to FCC Part 15.407(g) requirements.
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data:

All were test, only the ANT 1 test result recorded in the report.

Test Condition	Test Mode	Test Frequency [MHz]	Ant	Result [ppm]	Limit [ppm]	Verdict
NTNV	Carrier	5745	1	-1.32	<=20	PASS
		5755	1	-1.82	<=20	PASS
		5775	1	-0.85	<=20	PASS
		5785	1	-0.45	<=20	PASS
		5795	1	-0.63	<=20	PASS
		5805	1	-0.38	<=20	PASS

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

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