

TEST REPORT

Applicant: Shenzhen Golden Vision Technology Development Co., Ltd

Address of Applicant: No.6 Baofu Road, Baolai industrial Park, Shang mu gu Village, Pinghu, Longgang District, Shenzhen, China

Manufacturer: Shenzhen Golden Vision Technology Development Co., Ltd

Address of Manufacturer: No.6 Baofu Road, Baolai industrial Park, Shang mu gu Village, Pinghu, Longgang District, Shenzhen, China

Factory: Shenzhen Golden Vision Technology Development Co., Ltd

Address of Factory: No.6 Baofu Road, Baolai industrial Park, Shang mu gu Village, Pinghu, Longgang District, Shenzhen, China

Equipment Under Test (EUT)

Product Name: Smart Camera

Model No.: E3, E1, E2, E4A, E4, E6, E7, E8, E9, E10, Z4, Z4A, Z4B, Z5, Z5A, Z6, Z6A, Z7, Z8, Z9, Z13, Z15, S1, S1A, E3Q

Trade Mark: N/A

FCC ID: 2APD7-ELX

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

Date of sample receipt: 2026-05-21

Date of Test: 2026-05-22 to 2026-07-01

Date of report issue: 2026-07-03

Test Result : PASS *

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

Authorized Signature:



Robinson Luo

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	2026-07-03	Original

Tested By:

Jaith. Gai

Date:

2026-07-01

Test Engineer

Prepared By:

Jessie Lu

Date:

2026-07-03

Project Engineer

Check By:

Robinson Lu

Date:

2026-07-03

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
Emission Bandwidth	FCC part 15.407	PASS
Maximum Conducted Output Power	FCC part 15.407(a)(1)(2)	PASS
Power Spectral Density	FCC part 15.407(a)(1)(2)	PASS
Undesirable Emission	FCC part 15.407(b), 15.205/15.209	PASS
Radiated Emission	FCC part 15.205/15.209	PASS
Band Edge	FCC part 15.407(b)(1)(2)(3)	PASS
Frequency Stability	FCC part 15.407(g)	PASS
Channel Move Time	FCC part 15.407(h)(3)	PASS
Channel Closing Transmission time	FCC part 15.407(h)(3)	PASS
Non-Occupancy Period and Client Beacon Test	FCC part 15.407(h)(3)	PASS

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.
2. N/A: not applicable
3. Test according to ANSI C63.10-2020+COR. 1-2023

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9kHz-30MHz	3.1dB	(1)
Radiated Emission	30MHz-200MHz	3.8039dB	(1)
Radiated Emission	200MHz-1GHz	3.9679dB	(1)
Radiated Emission	1GHz-18GHz	4.29dB	(1)
Radiated Emission	18GHz-40GHz	3.30dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	(1)
Duty cycle	/	0.37%	(1)
Occupied Bandwidth	/	3%	(1)
RF conducted power	/	0.75dB	(1)
Conducted Spurious emissions	/	2.58dB	(1)
Frequency Stability	/	0.1%	(1)
Channel Move Time	/	0.1%	(1)
Channel Closing Transmission time	/	0.1%	(1)
Non-Occupancy Period and Client Beacon Test	/	0.1%	(1)
Temperature test	/	1°C	(1)
Humidity test	/	3°C	(1)
Time	/	3°C	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

5 General Information

5.1 General Description of EUT

Product Name:	Smart Camera				
Model No.:	E3, E1, E2, E4A, E4, E6, E7, E8, E9, E10, Z4, Z4A, Z4B, Z5, Z5A, Z6, Z6A, Z7, Z8, Z9, Z13, Z15, S1, S1A, E3Q				
Test Model No:	E3				
Remark: All above models are identical in the same PCB layout, interior structure and electrical circuits. The difference is model name for commercial purpose.					
Test sample(s) ID:	GTSL2026060288-1				
Sample(s) Status:	Engineer sample				
S/N:	N/A				
Operation Frequency:	Band	Mode	Frequency Range(MHz)	Number of channels	
	U-NII Band I	IEEE 802.11ac 20MHz	5180-5240	4	
		IEEE 802.11ac 40MHz	5190-5230	2	
	U-NII Band II-2A	IEEE 802.11ac 20MHz	5260-5320	4	
		IEEE 802.11ac 40MHz	5270-5310	2	
	U-NII Band II-2C	IEEE 802.11ac 20MHz	5500-5700	11	
		IEEE 802.11ac 40MHz	5510-5670	5	
Modulation technology:	OFDM				
Antenna Type:	Metal Built-in Antenna				
Antenna gain:	ANT 1: 2.75dBi @Band I, 3.02dBi @Band II-2A, 4.21dBi @Band II-2C				
Power supply:	AC 120V				

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.

Channel list for 802.11ac(HT20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180MHz	40	5200MHz	44	5220MHz	48	5240MHz
52	5260MHz	56	5280MHz	60	5300MHz	64	5320MHz
100	5500MHz	104	5520MHz	108	5540MHz	112	5560MHz
116	5580MHz	120	5600MHz	124	5620MHz	128	5640MHz
132	5660MHz	136	5680MHz	140	5700MHz		

Channel list for 802.11ac(HT40)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190MHz	46	5230MHz	54	5270MHz	62	5310MHz
102	5510MHz	110	5550MHz	118	5590MHz	126	5630MHz
134	5670MHz						

5.2 Test mode

Transmitting mode	Keep the EUT in transmitting with modulation..	
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:		
Pre-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)	6/6.5 Mbps
	802.11ac(HT40)	13.5 Mbps

5.3 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).
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5.4 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

5.5 Description of Support Units

None.

5.6 Deviation from Standards

None.

5.7 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. 04, 2025 Jun. 03, 2026	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	MXA Signal Analyzer	Agilent	N9020A	GTS566	Apr. 10, 2026	Apr. 09, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	Jun. 04, 2025 Jun. 03, 2026	Jun. 03, 2026 Jun. 02, 2027
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	Apr. 10, 2026	Apr. 09, 2027
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	Apr. 10, 2026	Apr. 09, 2027
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	Apr. 10, 2026	Apr. 09, 2027
6	Wideband Power Meter	Keysight	N1924A	GTS673	Apr. 10, 2026	Apr. 09, 2027
7	USB RF Power Sensor	DARE	RPR3006W	GTS569	Apr. 10, 2026	Apr. 09, 2027
8	RF Switch Box	Shongyi	RFSW3003328	GTS571	Apr. 10, 2026	Apr. 09, 2027
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

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 Metal Built-in antenna, reference to the appendix III for details.	

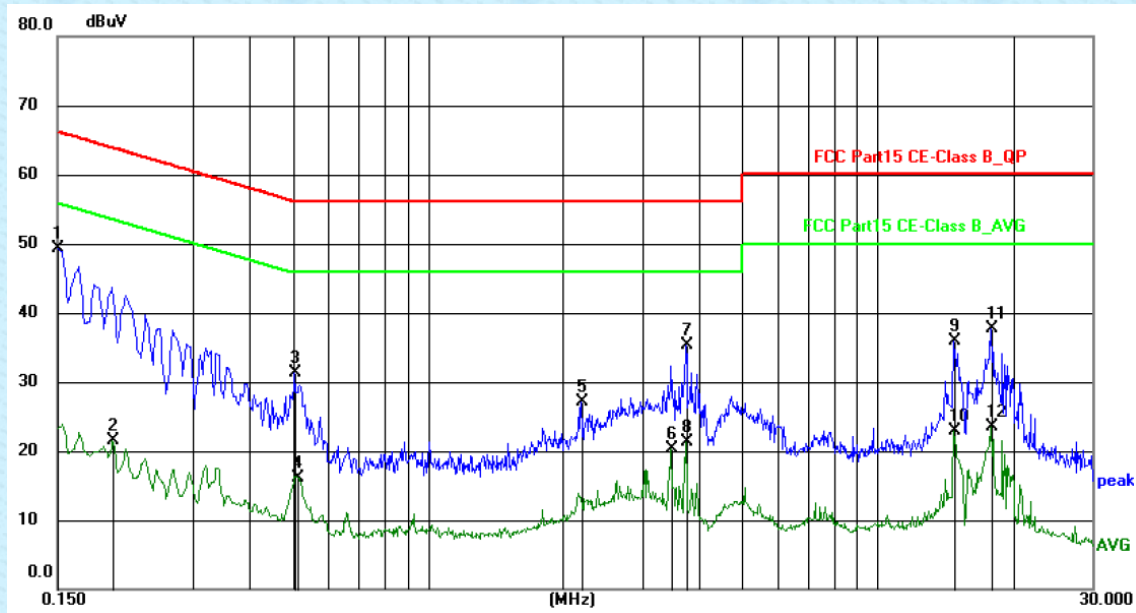
7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207						
Test Method:	ANSI C63.10-2020+COR. 1-2023						
Test Frequency Range:	150KHz to 30MHz						
Receiver setup:	RBW=9KHz, VBW=30KHz						
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 procedure	The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). 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 C63.10-2020+COR. 1-2023 on conducted measurement.						
Test setup:	Reference Plane 40cm LISN 40cm AUX Equipment E.U.T Test table/Insulation plane 80cm LISN 40cm Filter AC power EMI Receiver Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m						
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:

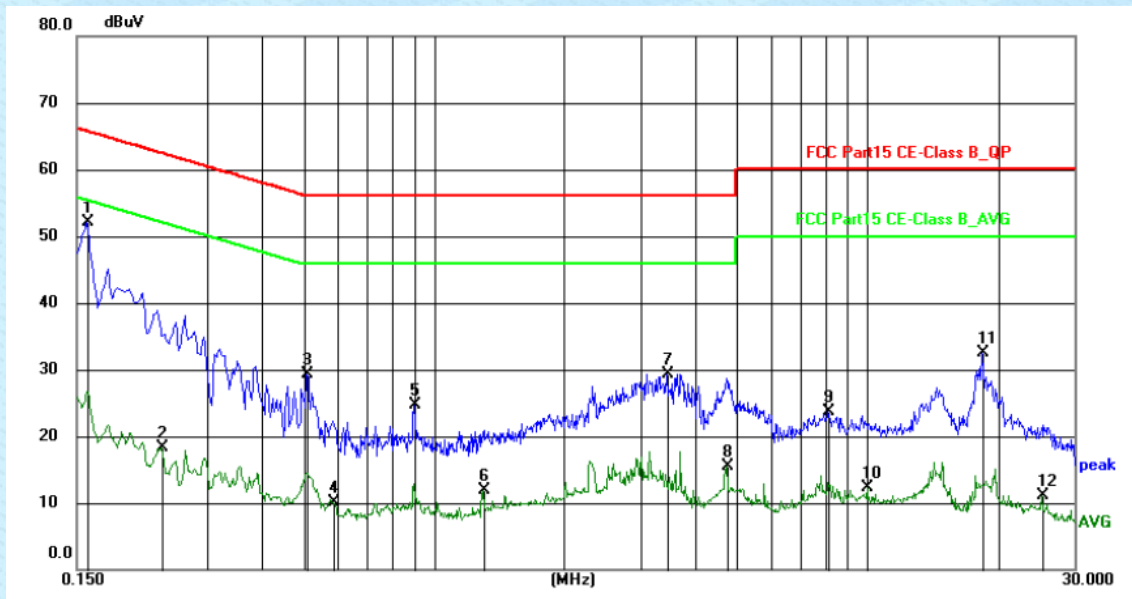
Pre-scan all test modes, found worst case at 802.11ac(VHT20) 5180MHz, and so only show the test result of it

Line:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	39.50	9.81	49.31	66.00	-16.69	peak	P
2	0.1995	11.74	9.75	21.49	53.63	-32.14	AVG	P
3	0.5055	21.66	9.71	31.37	56.00	-24.63	peak	P
4	0.5155	6.37	9.71	16.08	46.00	-29.92	AVG	P
5	2.1929	17.37	9.72	27.09	56.00	-28.91	peak	P
6	3.4845	10.58	9.72	20.30	46.00	-25.70	AVG	P
7	3.7590	25.57	9.72	35.29	56.00	-20.71	peak	P
8	3.7590	11.66	9.72	21.38	46.00	-24.62	AVG	P
9	14.8110	26.07	9.90	35.97	60.00	-24.03	peak	P
10	14.8110	13.06	9.90	22.96	50.00	-27.04	AVG	P
11	17.8575	27.71	9.94	37.65	60.00	-22.35	peak	P
12	17.8575	13.55	9.94	23.49	50.00	-26.51	AVG	P

Neutral:

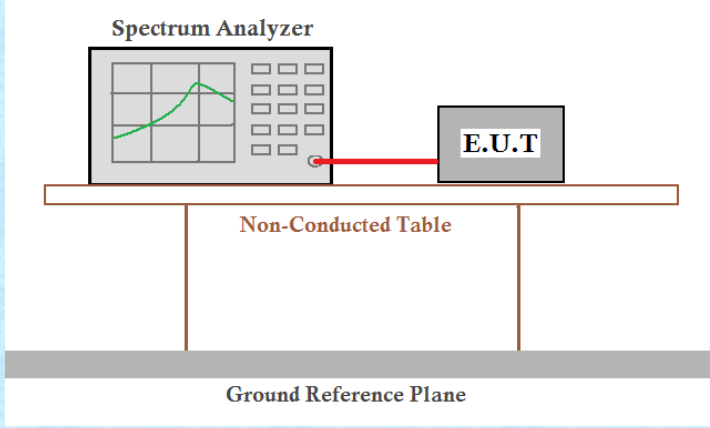


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1590	42.21	9.82	52.03	65.52	-13.49	peak	P
2	0.2355	8.52	9.76	18.28	52.25	-33.97	AVG	P
3	0.5100	19.59	9.71	29.30	56.00	-26.70	peak	P
4	0.5865	0.45	9.70	10.15	46.00	-35.85	AVG	P
5	0.9015	15.07	9.66	24.73	56.00	-31.27	peak	P
6	1.3020	2.22	9.66	11.88	46.00	-34.12	AVG	P
7	3.4485	19.60	9.72	29.32	56.00	-26.68	peak	P
8	4.7445	5.72	9.72	15.44	46.00	-30.56	AVG	P
9	8.1420	13.85	9.78	23.63	60.00	-36.37	peak	P
10	10.0140	2.49	9.81	12.30	50.00	-37.70	AVG	P
11	18.3300	22.59	9.96	32.55	60.00	-27.45	peak	P
12	25.2645	1.14	10.04	11.18	50.00	-38.82	AVG	P

Notes:

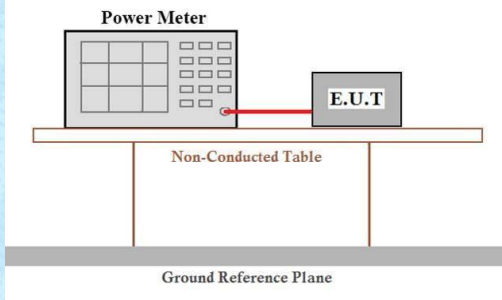
1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss

7.3 Emission Bandwidth

Test Requirement :	FCC Part15 E Section 15.407
Test Method :	ANSI C63.10-2020+COR. 1-2023 & KDB 789033 D02 v02r01
Limit:	N/A
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer, shown with a grid and a green curve, is connected to an E.U.T. (Equipment Under Test) box by a red cable. Both the Spectrum Analyzer and the E.U.T. are positioned on a table labeled 'Non-Conducted Table'. This table is supported by two vertical legs and sits on a thick grey horizontal bar labeled 'Ground Reference Plane'.
Test procedure:	According to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

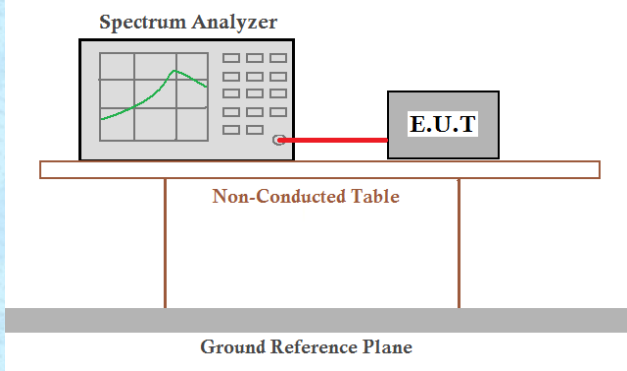
Measurement Data: The detailed test data see Appendix for UNII 5G.

7.4 Maximum Conducted Output Power

Test Requirement	FCC Part15 E Section 15.407	
Test Method :	ANSI C63.10-2020+COR. 1-2023 & KDB 789033 D02 v02r01	
Limit:	Frequency band (MHz)	Limit
	5150-5250	$\leq 1\text{W}(30\text{dBm})$ for master device
		$\leq 250\text{Mw}(23.98\text{dBm})$ for client device
	5250-5350	$\leq 250\text{Mw}(23.98\text{dBm})$ for client device or $11\text{dBm}+10\log B^*$
	5470-5725	$\leq 250\text{Mw}(23.98\text{dBm})$ for client device or $11\text{dBm}+10\log B^*$
Remark: *Where B is the 26Db emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.		
Test setup:		
Duty Cycle set up:	RBW=VBW=8MHz	
Test procedure:	Measurement using an RF average power meter The testing follows Measurement Procedure Subclause 11.9.2.3.2 & 12.4.3.1 of ANSI C63.10 Note: Method AVGPM-G is a measurement using a gated RF average power meter.	
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 for UNII 5G.

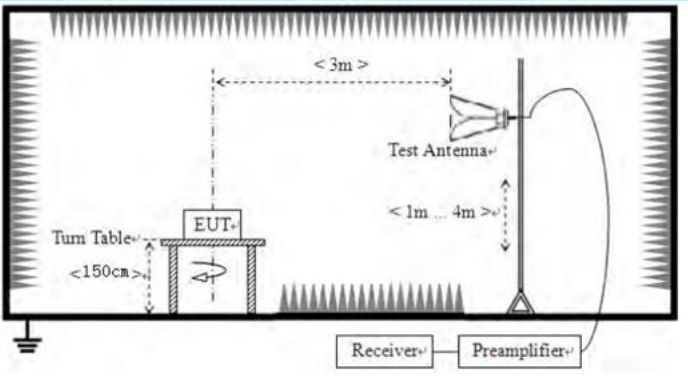
7.5 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407	
Test Method :	ANSI C63.10-2020+COR. 1-2023 & KDB 789033 D02 v02r01	
Limit:	Frequency band (MHz)	Limit
	5150-5250	≤17dBm in 1MHz for master device
		≤11dBm in 1MHz for client device
	5250-5350	≤11dBm in 1MHz for client device
	5470-5725	≤11dBm in 1MHz for client device
Remark: The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.		
Test setup:		
Test procedure:	1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, "Compute power...". 2) Use the peak search function on the instrument to find the peak of the spectrum. 3) Make the following adjustments to the peak value of the spectrum, if applicable: a) If Method SA-2 or SA-2 Alternative was used, add $10 \log(1/x)$, where x is the duty cycle, to the peak of the spectrum. b) If Method SA-3 Alternative was used and the linear mode was used in step E)2)g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging. 4) The result is the PSD.	
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 for UNII 5G.

7.6 Band Edge

Test Requirement:	FCC Part15 E Section 15.407 and 15.205				
Test Method:	ANSI C63.10-2020+COR. 1-2023				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver setup:					
	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
AV		1MHz	3MHz	Average Value	
Limit:					
	Frequency		Limit (dBuV/m @3m)		Remark
	30MHz-88MHz		40.0		Quasi-peak Value
	88MHz-216MHz		43.5		Quasi-peak Value
	216MHz-960MHz		46.0		Quasi-peak Value
	960MHz-1GHz		54.0		Quasi-peak Value
	Above 1GHz		54.0		Average Value
			68.2		Peak Value
	Undesirable emission limits:				
	(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.				
(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.					
(3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.					
Test Procedure:	a. The EUT was placed on the top of a rotating table 1.5 m above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. 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. d. 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 rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. 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.
Test setup:	For radiated emissions above 1GHz 
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 for UNII 5G.

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. All antennas were tested and passed, only ant 1 report.
5. According to KDB 789033 D02 v02r01 section G) 1) (d), for For measurements above 1000 MHz @ 3m distance, the limit of field strength is computed as follows:

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2;$$
For example, if EIRP = -27dBm

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

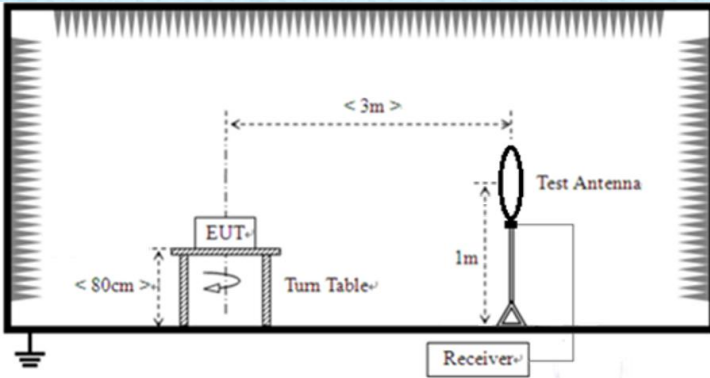
Measurement Data:

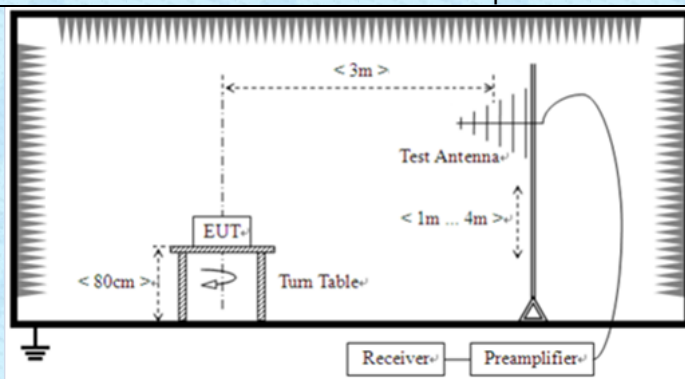
Worse case mode:		802.11ac(HT20)		Test Frequency:		5180MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150.0000	48.94	3.19	52.13	68.20	-16.07	peak	H
5150.0000	37.31	3.19	40.50	54.00	-13.50	AVG	H
5150.0000	51.71	3.19	54.90	68.20	-13.30	peak	V
5150.0000	38.06	3.19	41.25	54.00	-12.75	AVG	V
Worse case mode:		802.11ac(HT20)		Test Frequency:		5320MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5350.0000	43.52	3.61	47.13	68.20	-21.07	peak	H
5350.0000	33.38	3.61	36.99	54.00	-17.01	AVG	H
5350.0000	47.23	3.61	50.84	68.20	-17.36	peak	V
5350.0000	35.31	3.61	38.92	54.00	-15.08	AVG	V
Worse case mode:		802.11ac		Test Frequency:		5500MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5460.0000	39.21	3.84	43.05	68.20	-25.15	peak	H
5460.0000	29.51	3.84	33.35	54.00	-20.65	AVG	H
5460.0000	41.55	3.84	45.39	68.20	-22.81	peak	V
5460.0000	31.25	3.84	35.09	54.00	-18.91	AVG	V
Worse case mode:		802.11ac		Test Frequency:		5700MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5725.0000	38.93	4.70	43.63	68.20	-24.57	peak	H
-	-	-	-	-	-	AVG	H
5725.0000	44.44	4.70	49.14	68.20	-19.06	peak	V
-	-	-	-	-	-	AVG	V

Worse case mode:		802.11ac(VHT40)		Test Frequency:		5190MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150.0000	48.13	3.19	51.32	68.20	-16.88	peak	H
5150.0000	38.76	3.19	41.95	54.00	-12.05	AVG	H
5150.0000	48.47	3.19	51.66	68.20	-16.54	peak	V
5150.0000	39.25	3.19	42.44	54.00	-11.56	AVG	V
Worse case mode:		802.11ac(VHT40)		Test Frequency:		5310MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5350.0000	48.62	3.61	52.23	68.20	-15.97	peak	H
5350.0000	37.69	3.61	41.30	54.00	-12.70	AVG	H
5350.0000	49.29	3.61	52.90	68.20	-15.30	peak	V
5350.0000	38.06	3.61	41.67	54.00	-12.33	AVG	V
Worse case mode:		802.11ac(VHT40)		Test Frequency:		5510MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5460.0000	43.49	3.84	47.33	68.20	-20.87	peak	H
5460.0000	33.03	3.84	36.87	54.00	-17.13	AVG	H
5460.0000	45.47	3.84	49.31	68.20	-18.89	peak	V
5460.0000	35.29	3.84	39.13	54.00	-14.87	AVG	V
Worse case mode:		802.11ac(VHT40)		Test Frequency:		5670MHz	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5725.0000	38.25	4.70	42.95	68.20	-25.25	peak	H
-	-	-	-	-	-	AVG	H
5725.0000	40.83	4.70	45.53	68.20	-22.67	peak	V
-	-	-	-	-	-	AVG	V

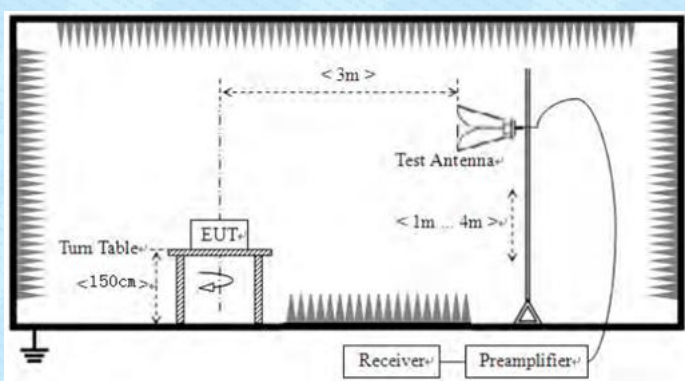
7.7 Radiated Emission

Test Requirement :	FCC Part15 C Section 15.209 and 15.205				
Test Method :	ANSI C63.10-2020+Cor. 1-2023				
Test Frequency Range:	9kHz to 40GHz				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
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:					
	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 Procedure:	Substitution method was performed to determine the actual ERP emission levels of the EUT. The following test procedure as below: 1>.Below 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 rotatable 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. 2>.Above 1GHz test procedure: 1. On the test site as test setup graph above,the EUT shall be placed at the 0.8m support on the turntable and in the position closest to normal use as declared by the provider. 2. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter.The output of the test antenna shall be connected to the measuring receiver. 3. The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the transmitter under test. 4. The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the turntable should be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver. 5. Repeat step 4 for test frequency with the test antenna polarized horizontally. 6. Remove the transmitter and replace it with a substitution antenna 7. Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends vertically polarized, and with the signal generator tuned to a particular test frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output. 8. Repeat step 7 with both antennas horizontally polarized for each test frequency. 9. Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps 7 and 8 by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula: $EIRP(dBm) = P_g(dBm) - \text{cable loss (dB)} + \text{antenna gain (dBi)}$ where: P_g is the generator output power into the substitution antenna.
Test setup:	For radiated emissions from 9kHz to 30MHz  For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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:

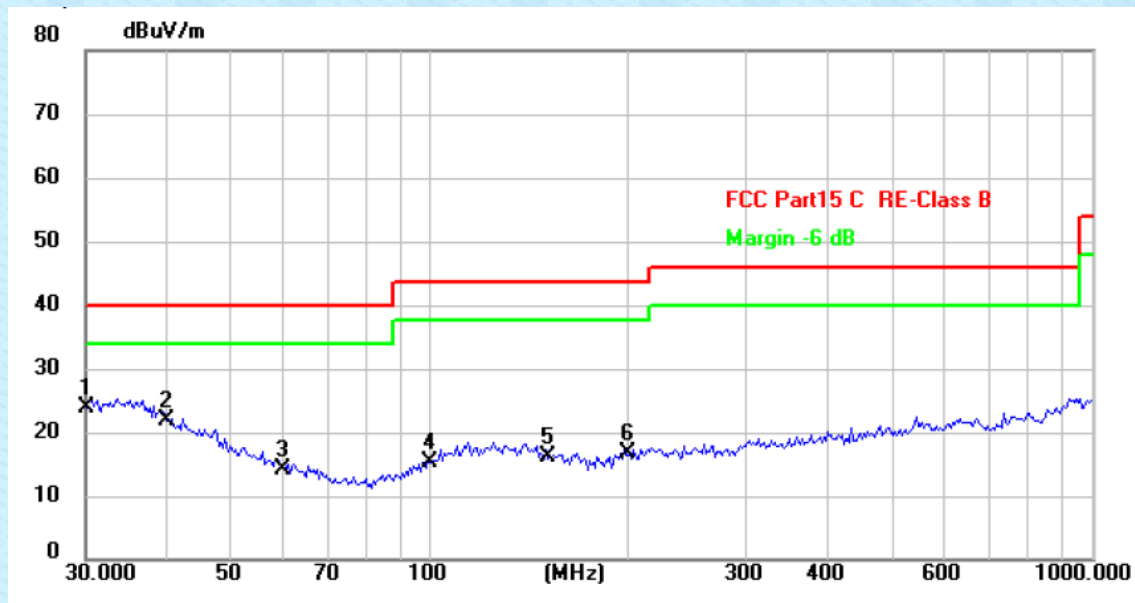
9 kHz ~ 30 MHz

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.

30MHz~ 1GHz

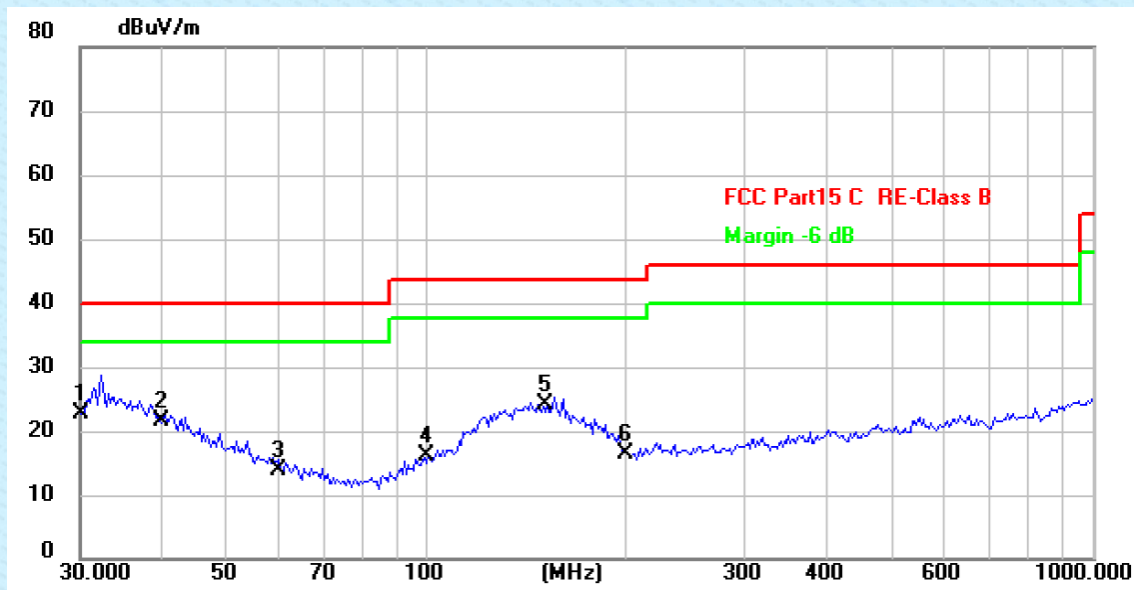
Pre-scan all test modes, found worst case at 802.11ac(HT20) 5180MHz, and so only show the test result of it.

Horizontal:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.0000	27.35	-3.46	23.89	40.00	-16.11	peak
2	40.0000	26.99	-5.26	21.73	40.00	-18.27	peak
3	60.0000	27.35	-13.10	14.25	40.00	-25.75	peak
4	100.0000	28.13	-12.82	15.31	43.50	-28.19	peak
5	150.0000	28.23	-12.07	16.16	43.50	-27.34	peak
6	200.0000	29.48	-12.71	16.77	43.50	-26.73	peak

Vertical:



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	30.0000	26.22	-3.46	22.76	40.00	-17.24	peak
2	40.0000	26.88	-5.26	21.62	40.00	-18.38	peak
3	60.0000	26.96	-13.10	13.86	40.00	-26.14	peak
4	100.0000	28.92	-12.82	16.10	43.50	-27.40	peak
5	150.0000	29.23	-5.07	24.16	43.50	-19.34	peak
6	200.0000	29.06	-12.71	16.35	43.50	-27.15	peak

Above 1GHz:

802.11ac(HT20)					Test Frequency: 5180MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
6921.5353	41.11	28.01	2.99	22.13	49.98	68.20	-18.22	Vertical
10382.280 8	39.61	33.51	3.62	23.55	53.19	68.20	-15.01	Vertical
6763.0116	40.83	27.80	2.87	22.37	49.13	68.20	-19.07	Horizontal
10322.317 0	39.91	32.02	3.60	23.21	53.40	68.20	-14.80	Horizontal
6921.5353	30.03	28.01	2.99	22.13	38.90	54.00	-15.10	Vertical
10382.280 8	29.10	33.51	3.62	23.55	42.68	54.00	-11.32	Vertical
6763.0116	30.01	27.80	2.87	22.37	38.31	54.00	-15.69	Horizontal
10322.317 0	28.57	32.02	3.60	23.21	42.06	54.00	-11.94	Horizontal
802.11ac(HT20)					Test Frequency: 5200MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
7682.1505	42.37	28.78	3.14	22.35	51.94	68.20	-16.26	Vertical
9854.9082	40.20	32.26	3.57	23.22	52.81	68.20	-15.39	Vertical
7083.7747	40.47	28.35	3.02	22.19	49.65	68.20	-18.55	Horizontal
10625.639 4	38.97	33.62	3.63	23.30	52.92	68.20	-15.28	Horizontal
7682.1505	28.50	28.78	3.14	22.35	38.07	54.00	-15.93	Vertical
9854.9082	29.10	32.26	3.57	23.22	41.71	54.00	-12.29	Vertical
7083.7747	28.57	28.35	3.02	22.19	37.75	54.00	-16.25	Horizontal
10625.639 4	28.56	33.62	3.63	23.30	42.51	54.00	-11.49	Horizontal

802.11ac(HT20)					Test Frequency: 5240MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
6763.0116	41.21	27.30	2.85	21.85	49.51	68.20	-18.69	Vertical
9797.9904	40.34	32.16	3.45	23.14	52.81	68.20	-15.39	Vertical
6608.1185	41.93	26.73	2.82	21.80	49.68	68.20	-18.52	Horizontal
8477.1058	40.14	29.57	3.33	22.76	50.28	68.20	-17.92	Horizontal
6763.0116	30.01	27.30	2.85	21.85	38.31	54.00	-15.69	Vertical
9797.9904	28.57	32.16	3.45	23.14	41.04	54.00	-12.96	Vertical
6608.1185	30.45	26.73	2.82	21.80	38.20	54.00	-15.80	Horizontal
8477.1058	28.52	29.57	3.33	22.76	38.66	54.00	-15.34	Horizontal
802.11ac(HT20)					Test Frequency: 5260MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
6881.5594	41.22	27.81	2.96	22.04	49.95	68.20	-18.25	Vertical
9246.5824	39.63	30.71	3.40	23.07	50.67	68.20	-17.53	Vertical
6961.7434	40.85	28.15	2.99	22.13	49.86	68.20	-18.34	Horizontal
12210.372 2	39.76	37.25	3.80	25.35	55.46	68.20	-12.74	Horizontal
6881.5594	29.55	27.81	2.96	22.04	38.28	54.00	-15.72	Vertical
9246.5824	28.97	30.71	3.40	23.07	40.01	54.00	-13.99	Vertical
6961.7434	30.04	28.15	2.99	22.13	39.05	54.00	-14.95	Horizontal
12210.372 2	28.02	37.25	3.80	25.35	43.72	54.00	-10.28	Horizontal

802.11ac(HT20)					Test Frequency: 5280MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
7249.8171	40.96	28.38	3.12	22.24	50.22	68.20	-17.98	Vertical
9741.4012	41.02	32.02	3.42	23.12	53.34	68.20	-14.86	Vertical
6921.5353	41.36	28.01	2.99	22.13	50.23	68.20	-17.97	Horizontal
9354.3238	39.66	30.99	3.41	23.08	50.98	68.20	-17.22	Horizontal
7249.8171	28.52	28.38	3.12	22.24	37.78	54.00	-16.22	Vertical
9741.4012	28.58	32.02	3.42	23.12	40.90	54.00	-13.10	Vertical
6921.5353	30.48	28.01	2.99	22.13	39.35	54.00	-14.65	Horizontal
9354.3238	28.47	30.99	3.41	23.08	39.79	54.00	-14.21	Horizontal
802.11ac(HT20)					Test Frequency: 5320MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
6881.5594	41.59	27.81	2.96	22.04	50.32	68.20	-17.88	Vertical
10382.2808	39.76	33.19	3.60	23.21	53.34	68.20	-14.86	Vertical
6763.0116	41.94	27.30	2.85	21.85	50.24	68.20	-17.96	Horizontal
9797.9904	40.05	32.17	3.43	23.13	52.52	68.20	-15.68	Horizontal
6881.5594	30.02	27.81	2.96	22.04	38.75	54.00	-15.25	Vertical
10382.2808	29.10	33.19	3.60	23.21	42.68	54.00	-11.32	Vertical
6763.0116	30.01	27.30	2.85	21.85	38.31	54.00	-15.69	Horizontal
9797.9904	28.57	32.17	3.43	23.13	41.04	54.00	-12.96	Horizontal

802.11ac(HT20)					Test Frequency: 5500MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
6921.5353	41.48	28.01	2.99	22.13	50.35	68.20	-17.85	Vertical
9854.9082	39.76	32.31	3.44	23.14	52.37	68.20	-15.83	Vertical
6921.5353	41.11	28.01	2.99	22.13	49.98	68.20	-18.22	Horizontal
10503.255 3	39.76	33.37	3.61	23.22	53.52	68.20	-14.68	Horizontal
6921.5353	30.48	28.01	2.99	22.13	39.35	54.00	-14.65	Vertical
9854.9082	28.57	32.31	3.44	23.14	41.18	54.00	-12.82	Vertical
6921.5353	30.03	28.01	2.99	22.13	38.90	54.00	-15.10	Horizontal
10503.255 3	28.02	33.37	3.61	23.22	41.78	54.00	-12.22	Horizontal
802.11ac(HT20)					Test Frequency: 5580MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
7207.9451	42.40	28.36	3.12	22.24	51.64	68.20	-22.36	Vertical
12424.405 9	40.05	37.21	3.81	25.36	55.71	68.20	-18.29	Vertical
6881.5594	41.47	27.81	2.96	22.04	50.20	68.20	-23.80	Horizontal
10625.639 4	40.04	33.63	3.63	23.30	53.99	68.20	-20.01	Horizontal
7207.9451	29.06	28.36	3.12	22.24	38.30	54.00	-15.70	Vertical
12424.405 9	28.57	37.21	3.81	25.36	44.23	54.00	-9.77	Vertical
6881.5594	29.55	27.81	2.96	22.04	38.28	54.00	-15.72	Horizontal
10625.639 4	28.00	33.63	3.63	23.30	41.95	54.00	-12.05	Horizontal

802.11ac(HT20)					Test Frequency: 5700MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
7862.2186	40.57	28.95	3.16	22.37	50.31	68.20	-23.69	Vertical
11793.302 7	41.01	35.39	3.70	23.59	56.51	68.20	-17.49	Vertical
6961.7434	40.72	28.15	2.99	22.13	49.73	68.20	-24.27	Horizontal
12139.850 1	39.45	38.05	3.78	25.33	55.16	68.20	-18.84	Horizontal
7862.2186	28.53	28.95	3.16	22.37	38.27	54.00	-15.73	Vertical
11793.302 7	28.57	35.39	3.70	23.59	44.07	54.00	-9.93	Vertical
6961.7434	29.89	28.15	2.99	22.13	38.90	54.00	-15.10	Horizontal
12139.850 1	28.01	38.05	3.78	25.33	43.72	54.00	-10.28	Horizontal
802.11ac(HT40)					Test Frequency: 5190MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
9408.6643	39.67	31.14	3.42	23.09	51.13	68.20	-17.07	Vertical
12424.405 9	40.75	37.21	3.82	25.37	56.41	68.20	-11.79	Vertical
9087.2927	39.33	30.31	3.37	23.04	49.97	68.20	-18.23	Horizontal
11129.603 3	41.10	34.37	3.66	23.35	55.78	68.20	-12.42	Horizontal
9408.6643	28.49	31.14	3.42	23.09	39.95	54.00	-14.05	Vertical
12424.405 9	28.57	37.21	3.82	25.37	44.23	54.00	-9.77	Vertical
9087.2927	28.45	30.31	3.37	23.04	39.09	54.00	-14.91	Horizontal
11129.603 3	28.54	34.37	3.66	23.35	43.22	54.00	-10.78	Horizontal

802.11ac(HT40)					Test Frequency: 5230MHz			
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
9246.5824	40.21	30.71	3.40	23.07	51.25	68.20	-16.95	Vertical
15305.107 1	40.92	37.96	3.90	26.55	56.23	68.20	-11.97	Vertical
11194.256 7	40.31	34.64	3.66	23.54	55.07	68.20	-13.13	Horizontal
14954.574 8	41.50	38.31	3.87	26.49	57.19	68.20	-11.01	Horizontal
9246.5824	28.97	30.71	3.40	23.07	40.01	54.00	-13.99	Vertical
15305.107 1	29.13	37.96	3.90	26.55	44.44	54.00	-9.56	Vertical
11194.256 7	28.54	34.64	3.66	23.54	43.30	54.00	-10.70	Horizontal
14954.574 8	28.55	38.31	3.87	26.49	44.24	54.00	-9.76	Horizontal
802.11ac(HT40)					Test Frequency: 5270MHz			
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
9087.2927	41.87	30.31	3.37	23.04	52.51	68.20	-15.69	Vertical
14954.574 8	41.25	38.31	3.87	26.49	56.94	68.20	-11.26	Vertical
11793.302 7	40.20	37.05	3.81	25.36	55.70	68.20	-12.50	Horizontal
14954.574 8	40.04	38.31	3.87	26.49	55.73	68.20	-12.47	Horizontal
9087.2927	28.45	30.31	3.37	23.04	39.09	54.00	-14.91	Vertical
14954.574 8	28.55	38.31	3.87	26.49	44.24	54.00	-9.76	Vertical
11793.302 7	28.57	37.05	3.81	25.36	44.07	54.00	-9.93	Horizontal
14954.574 8	28.55	38.31	3.87	26.49	44.24	54.00	-9.76	Horizontal

802.11ac(HT40)					Test Frequency: 5310MHz			
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
7771.6630	40.14	28.87	3.15	22.36	49.80	68.20	-18.40	Vertical
14954.574 8	39.74	38.31	3.87	26.49	55.43	68.20	-12.77	Vertical
7726.7771	42.28	28.81	3.15	22.36	51.88	68.20	-16.32	Horizontal
13089.281 7	40.15	37.24	3.69	25.44	55.64	68.20	-12.56	Horizontal
7771.6630	27.95	28.87	3.15	22.36	37.61	54.00	-16.39	Vertical
14954.574 8	29.08	38.31	3.87	26.49	44.77	54.00	-9.23	Vertical
7726.7771	28.52	28.81	3.15	22.36	38.12	54.00	-15.88	Horizontal
13089.281 7	27.96	37.24	3.69	25.44	43.45	54.00	-10.55	Horizontal
802.11ac(HT40)					Test Frequency: 5510MHz			
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
8187.5534	41.12	29.42	3.30	22.73	51.11	68.20	-17.09	Vertical
14782.330 8	39.49	38.19	3.85	26.47	55.06	68.20	-13.14	Vertical
10382.280 8	39.76	33.19	3.60	23.21	53.34	68.20	-14.86	Horizontal
14782.330 8	40.37	38.19	3.85	26.47	55.94	68.20	-12.26	Horizontal
8187.5534	28.55	29.42	3.30	22.73	38.54	54.00	-15.46	Vertical
14782.330 8	28.04	38.19	3.85	26.47	43.61	54.00	-10.39	Vertical
10382.280 8	29.10	33.19	3.60	23.21	42.68	54.00	-11.32	Horizontal
14782.330 8	28.04	38.19	3.85	26.47	43.61	54.00	-10.39	Horizontal

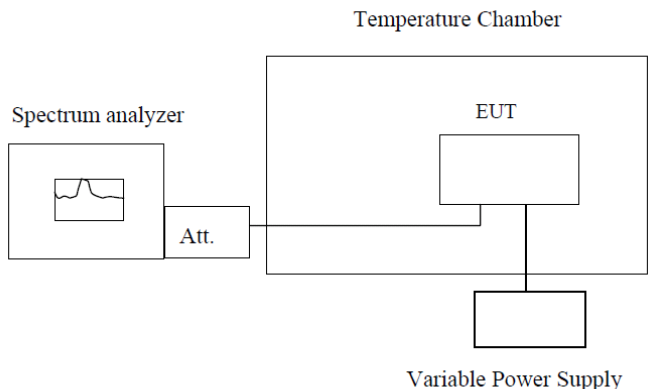
802.11ac(HT40)					Test Frequency: 5550MHz			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10442.592 9	40.06	33.28	3.62	23.23	53.73	68.20	-14.47	Vertical
11930.718 5	39.74	37.19	3.77	25.30	55.40	68.20	-12.80	Vertical
9140.0820	40.05	30.45	3.38	23.05	50.83	68.20	-17.37	Horizontal
11065.323 3	40.15	34.47	3.65	23.52	54.75	68.20	-13.45	Horizontal
10442.592 9	28.58	33.28	3.62	23.23	42.25	54.00	-11.75	Vertical
11930.718 5	27.99	37.19	3.77	25.30	43.65	54.00	-10.35	Vertical
9140.0820	28.43	30.45	3.38	23.05	39.21	54.00	-14.79	Horizontal
11065.323 3	27.97	34.47	3.65	23.52	42.57	54.00	-11.43	Horizontal
802.11ac(HT40)					Test Frequency: 5670MHz			
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
10382.280 8	41.88	33.19	3.60	23.21	55.46	68.20	-12.74	Vertical
14868.203 3	41.16	38.19	3.85	26.47	56.79	68.20	-11.41	Vertical
11390.479 0	40.19	36.53	3.79	25.32	55.19	68.20	-13.01	Horizontal
14954.574 8	40.18	38.31	3.87	26.49	55.87	68.20	-12.33	Horizontal
10382.280 8	29.10	33.19	3.60	23.21	42.68	54.00	-11.32	Vertical
14868.203 3	28.60	38.19	3.85	26.47	44.23	54.00	-9.77	Vertical
11390.479 0	28.01	36.53	3.79	25.32	43.01	54.00	-10.99	Horizontal
14954.574	28.55	38.31	3.87	26.49	44.24	54.00	-9.76	Horizontal

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Notes:

1. Level = Read Level + Antenna Factor+ Cable loss- Preamp Factor.
2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.

7.8 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10-2020+COR. 1-2023, 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 C63.10-2020+Cor. 1-2023; 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 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix for UNII 5G.

8 Test Setup Photo

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

9 EUT Constructional Details

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

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