

TEST REPORT

Applicant: Quanzhou SKYDROID Technology Co., Ltd.

Address of Applicant: 2nd Floor, Building A, Yucheng Base, Fengze District, Quanzhou City, Fujian Province

Manufacturer: Quanzhou SKYDROID Technology Co., Ltd.

Address of Manufacturer: 2nd Floor, Building A, Yucheng Base, Fengze District, Quanzhou City, Fujian Province

Factory: Quanzhou SKYDROID Technology Co., Ltd.

Address of Factory: 2nd Floor, Building A, Yucheng Base, Fengze District, Quanzhou City, Fujian Province

Equipment Under Test (EUT)

Product Name: Remote control

Model No.: H30, H30C, H30Pro, R30, R30Pro

Trade Mark: SKYDROID

FCC ID: 2ATGZQZYH30

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

Date of sample receipt: 12 June, 2024

Date of Test: 13 June, to 18 July, 2024

Date of report issued: 18 July, 2024

Test Result : PASS *

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

Authorized Signature:



Robinson Luo

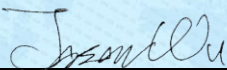
Laboratory Manager

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	18 July, 2024	Original

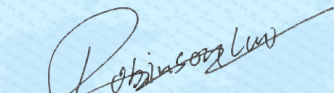
Prepared By:


Project Engineer

Date:

18 July, 2024

Check By:


Reviewer

Date:

18 July, 2024

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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
Emission Bandwidth and 99% Occupied Bandwidth	FCC part 15.407(a)(12) FCC part 15.407(e)	Pass
Power Spectral Density	FCC part 15.407(a)(3)	Pass
Unwanted Emissions	FCC part 15.205/15.209/15.407(b)(4),(9),(10)	Pass
Frequency Stability	FCC part 15.407(g)	Pass

Remarks:

1. Pass: The EUT complies with the essential requirements in the standard.
2. Test according to ANSI C63.10:2013.

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:	Remote control
Model No.:	H30, H30C, H30Pro, R30, R30Pro
Test Model No.:	H30
Remark: all the models are electrical identical including the same software parameter and hardware design, Only the model name is different	
Test sample(s) ID:	GTS0613-1
Sample(s) Status:	Engineer sample
S/N:	2024H30B0194
Operation Frequency:	802.11a/802.11n(HT20)/802.11ac(HT20): 5745MHz ~ 5825MHz 802.11n(HT40)/ 802.11ac(HT40): 5755MHz ~ 5795MHz 802.11ac(HT80): 5775MHz
Channel numbers:	802.11a/802.11n(HT20)/802.11ac(HT20): 5 802.11n(HT40)/ 802.11ac(HT40): 2 802.11ac(HT80): 1
Channel bandwidth:	802.11a/802.11n(HT20)/802.11ac(HT20): 20MHz 802.11n(HT40)/802.11ac(HT40): 40MHz 802.11ac(HT80): 80MHz
Modulation technology:	Orthogonal Frequency Division Multiplexing (OFDM)
Antenna Type:	PIFA Antenna
Antenna gain:	1.03dBi
Power supply:	AC Adapter(100~240VAC)

Remark:

1. Antenna gain information provided by the customer
2. The relevant information of the sample is provided by the entrusting company, and the laboratory is not responsible for its authenticity.

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	163	5815MHz
165	5825MHz						

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)		
	802.11 a/n/ac(HT20)	802.11 n/ac(HT40)	802.11ac(HT80)
Lowest channel	5745	5755	
Middle channel	5785		5775
Highest channel	5825	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	Mode	Data rate
802.11a	6Mbps	802.11n/ac(HT40)	13Mbps
802.11n/ac(HT20)	6.5Mbps	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	June 22, 2024	June 21, 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	April 11, 2024	April 10, 2025
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9168	GTS640	March 19, 2023	March 18, 2025
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	April 17, 2023	April 16, 2025
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	April 11, 2024	April 10, 2025
8	Loop Antenna	ZHINAN	ZN30900A	GTS534	Nov. 13, 2023	Nov.12, 2024
9	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	April 11, 2024	April 10, 2025
10	Amplifier(1GHz-26.5GHz)	HP	8449B	GTS601	April 11, 2024	April 10, 2025
11	Horn Antenna (18-26.5GHz)	/	UG-598A/U	GTS664	Oct. 29, 2023	Oct. 28, 2024
12	Horn Antenna (26.5-40GHz)	A.H Systems	SAS-573	GTS665	Oct. 29, 2023	Oct. 28, 2024
13	FSV·Signal Analyzer (10Hz-40GHz)	Keysight	FSV-40-N	GTS666	March 12, 2024	March 11, 2025
14	Amplifier	/	LNA-1000-30S	GTS650	April 11, 2024	April 10, 2025
15	CDNE M2+M3-16A	HCT	30MHz-300MHz	GTS692	Nov. 08, 2023	Nov.07, 2024
16	Wideband Amplifier	/	WDA-01004000-15P35	GTS602	April 11, 2024	April 10, 2025
17	Thermo meter	JINCHUANG	GSP-8A	GTS643	April 18, 2024	April 17, 2025
18	RE cable 1	GTS	N/A	GTS675	July 02. 2024	July 01. 2025
19	RE cable 2	GTS	N/A	GTS676	July 02. 2024	July 01. 2025
20	RE cable 3	GTS	N/A	GTS677	July 02. 2024	July 01. 2025
21	RE cable 4	GTS	N/A	GTS678	July 02. 2024	July 01. 2025
22	RE cable 5	GTS	N/A	GTS679	July 02. 2024	July 01. 2025
23	RE cable 6	GTS	N/A	GTS680	July 02. 2024	July 01. 2025
24	RE cable 7	GTS	N/A	GTS681	July 05. 2024	July 04. 2025
25	RE cable 8	GTS	N/A	GTS682	July 05. 2024	July 04. 2025

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	July 12, 2022	July 11, 2027
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 11, 2024	April 10, 2025
3	LISN	ROHDE & SCHWARZ	ENV216	GTS226	April 11, 2024	April 10, 2025
4	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
6	Thermo meter	JINCHUANG	GSP-8A	GTS642	April 18, 2024	April 17, 2025
7	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	April 11, 2024	April 10, 2025
8	ISN	SCHWARZBECK	NTFM 8158	GTS565	April 11, 2024	April 10, 2025
9	High voltage probe	SCHWARZBECK	TK9420	GTS537	April 11, 2024	April 10, 2025
10	Antenna end assembly	Weinschel	1870A	GTS560	April 11, 2024	April 10, 2025

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	April 11, 2024	April 10, 2025
2	EMI Test Receiver	R&S	ESCI 7	GTS552	April 11, 2024	April 10, 2025
3	PSA Series Spectrum Analyzer	Agilent	E4440A	GTS536	April 11, 2024	April 10, 2025
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	April 11, 2024	April 10, 2025
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	April 11, 2024	April 10, 2025
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	April 11, 2024	April 10, 2025
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	April 11, 2024	April 10, 2025
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	April 11, 2024	April 10, 2025
9	Thermo meter	JINCHUANG	GSP-8A	GTS641	April 18, 2024	April 17, 2025

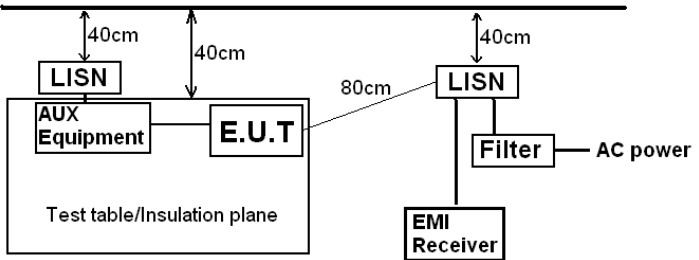
General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	KUMAO	SF132	GTS647	April 18, 2024	April 17, 2025

7 Test results and Measurement Data

7.1 Antenna requirement

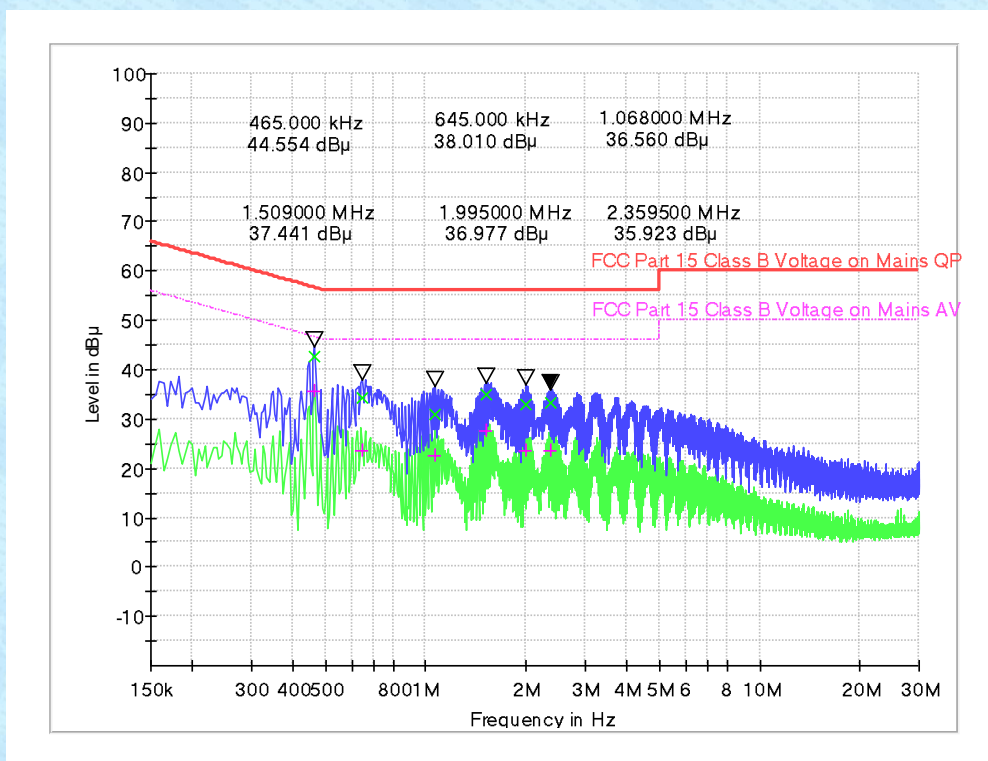
Standard requirement:	FCC Part15 C Section 15.203
<i>15.203 requirement:</i> An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique 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 PIFA Antenna, reference to the appendix II for details.	

7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207					
Test Method:	ANSI C63.10:2013					
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  <i>Remark</i> 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					

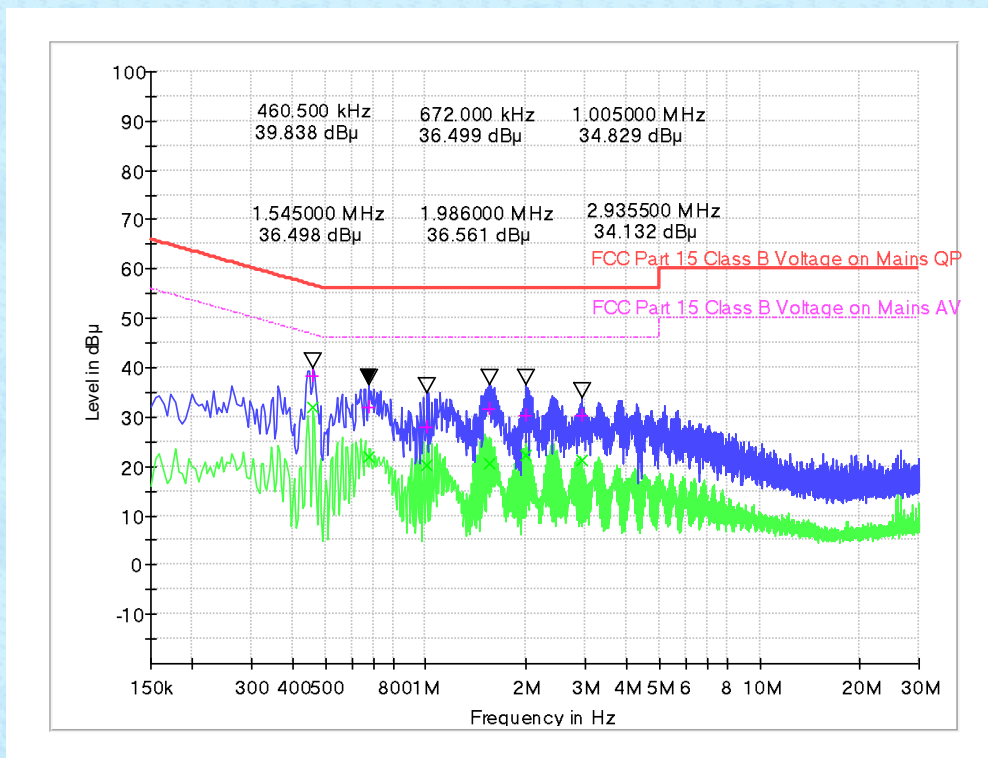
Measurement data

Pre-scan all test modes, found worst case at BT+WIFI Link, and so only show the test result of it
Line:



Frequency (MHz)	QuasiPeak (dBμ V)	CAverage (dBμ V)	Cabel Loss (dB)	Corr. (dB)	Margin - QPK	Limit - QPK	Margin - AV	Limit - AV (dBμ V)
0.465000	42.71	35.59	0.1	10.2	13.89	56.6	11.01	46.6
0.645000	34.15	23.60	0.1	10.2	21.85	56.0	22.40	46.0
1.068000	31.06	22.41	0.1	10.2	24.94	56.0	23.59	46.0
1.509000	34.89	27.73	0.1	10.2	21.11	56.0	18.27	46.0
1.995000	32.87	23.51	0.2	10.2	23.13	56.0	22.49	46.0
2.359500	33.21	23.60	0.2	10.2	22.79	56.0	22.40	46.0

Neutral:

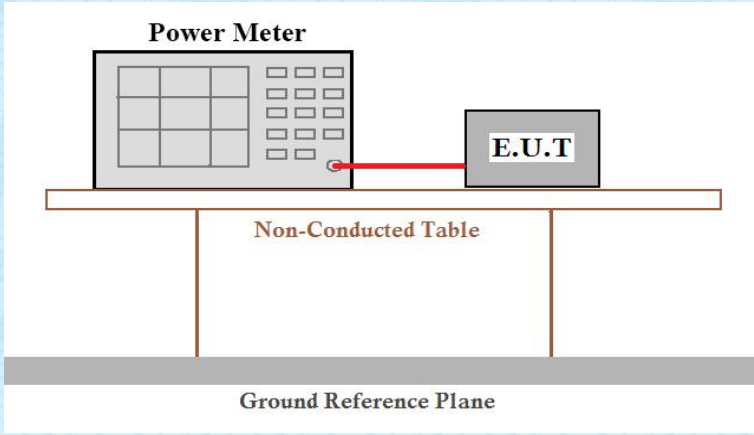


Frequency (MHz)	QuasiPeak (dBμ V)	CAverage (dBμ V)	Cabel Loss (dB)	Corr. (dB)	Margin - QPK (dB)	Limit - QPK (dBμ V)	Margin - AV (dB)	Limit - AV (dBμ V)
0.460500	38.29	32.09	0.1	10.2	18.39	56.7	14.59	46.7
0.672000	31.99	22.06	0.1	10.2	24.01	56.0	23.94	46.0
1.005000	28.03	20.16	0.2	10.2	27.97	56.0	25.84	46.0
1.545000	31.71	20.54	0.2	10.2	24.29	56.0	25.46	46.0
1.986000	30.28	22.31	0.2	10.2	25.72	56.0	23.69	46.0
2.935500	30.19	21.14	0.2	10.2	25.81	56.0	24.86	46.0

Notes:

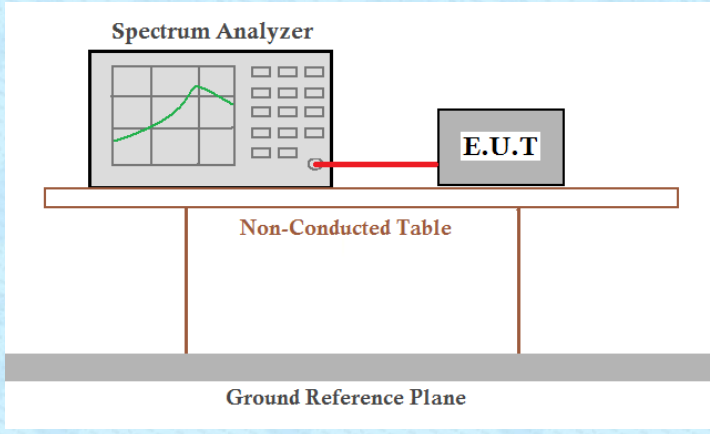
1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level = Receiver Read level + LISN Factor + Cable Loss
4. If the average limit is met when using a quasi-peak 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 C63.10:2013
Limit:	30dBm
Duty Cycle set up:	RBW=VBW=8MHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

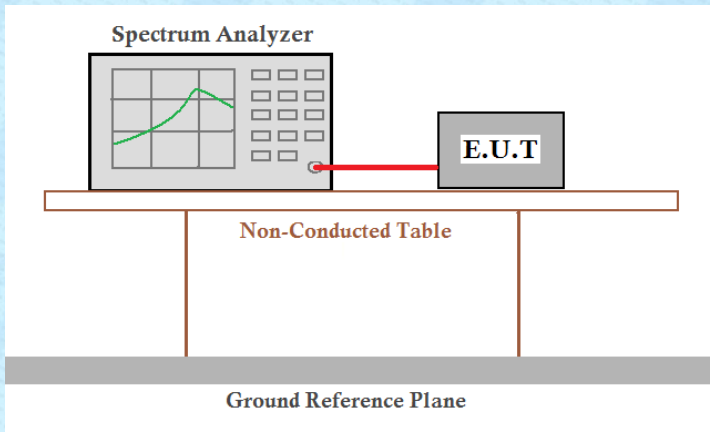
Measurement Data: The detailed test data see Appendix for WIFI 5.8G.

7.4 Emission Bandwidth and 99% Occupied Bandwidth

Test Requirement:	FCC Part15 E Section 15.407(a)(12) and 15.407(e)
Test Method:	ANSI C63.10:2013
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 for WIFI 5.8G.

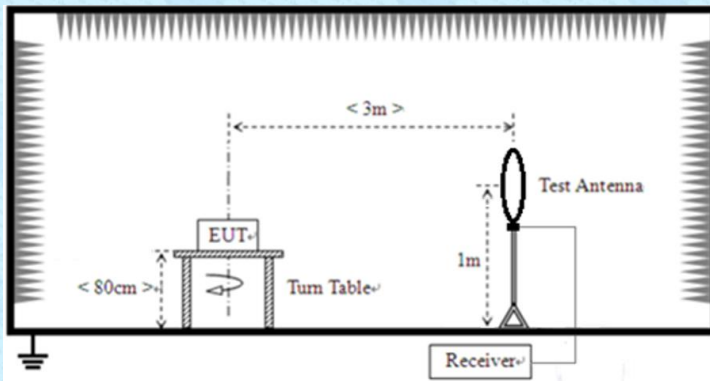
7.5 Power Spectral Density

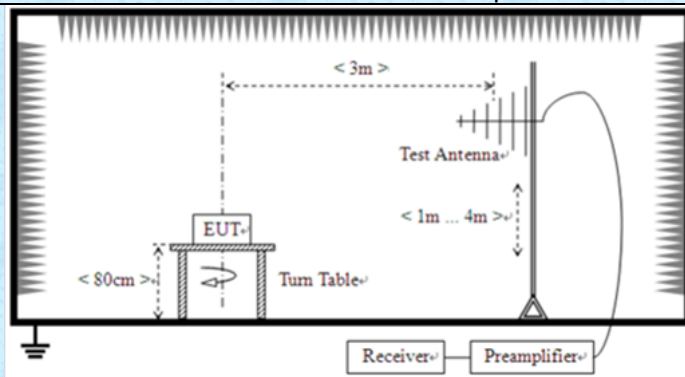
Test Requirement:	FCC Part15 E Section 15.407(a)(3)
Test Method:	ANSI C63.10:2013
Limit:	30dBm/500kHz
Test setup:	 The diagram illustrates the test setup. A Spectrum Analyzer, shown with a grid and a green curve, is connected to an E.U.T (Equipment Under Test) box by a red cable. Both the Spectrum Analyzer and the E.U.T are positioned on a table labeled 'Non-Conducted Table'. This table is supported by a 'Ground Reference Plane' at the base of the setup.
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 WIFI 5.8G.

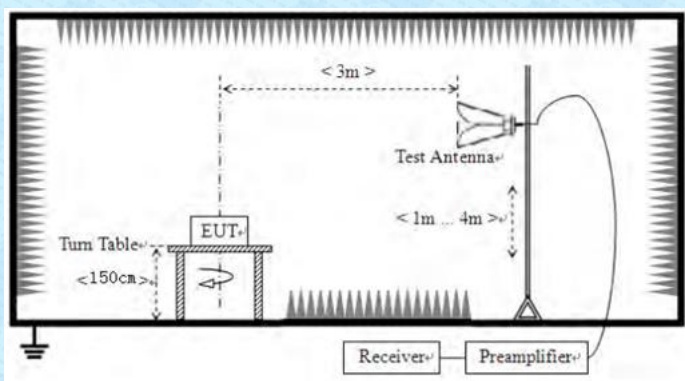
7.6 Unwanted Emission

7.6.1 Radiated Emission Method

Test Requirement:	FCC Part15 C Section 15.205 and 15.209 Part 15E Section 15.407(b)(4),(9),(10)																												
Test Method:	ANSI C63.10:2013																												
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 to1GHz																													



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.

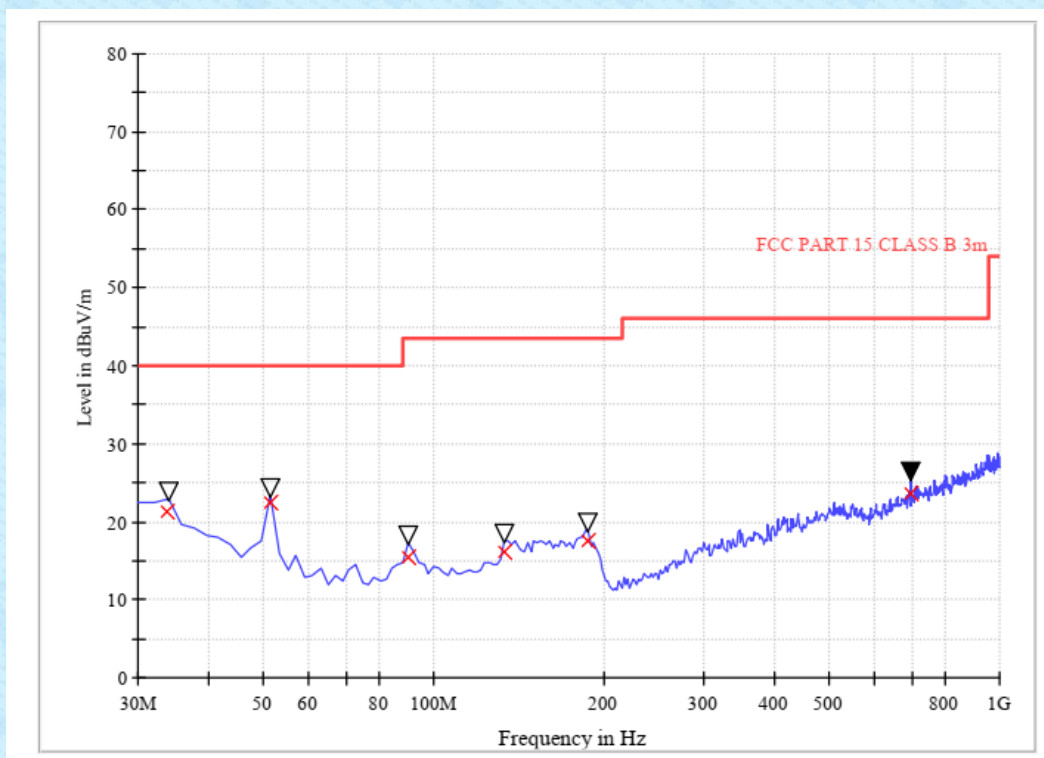
Measurement Data:

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.

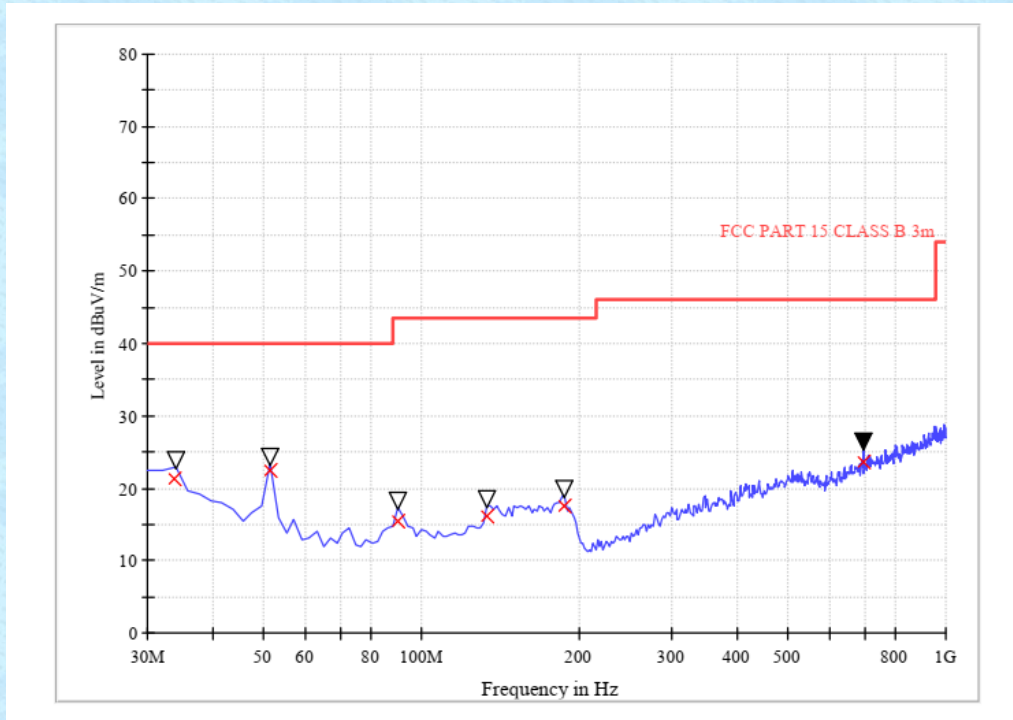
Below 1GHz

Pre-scan all test modes, found worst case at 802.11ac(VHT80) 5775MHz, and so only show the test result of it
Horizontal:



Frequency (MHz)	QuasiPeak (dB μ V/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dB μ V/m)
30.00	21.34	107	H	150.0	21.1	18.66	40.0
57.20	18.28	103	H	131.0	8.0	21.72	40.0
72.76	18.33	109	H	129.0	8.7	21.67	40.0
78.60	17.95	104	H	171.0	9.4	22.05	40.0
138.84	18.23	105	H	134.0	13.8	25.27	43.5
294.36	19.73	103	H	102.0	16.2	26.27	46.0

Vertical:



Frequency (MHz)	QuasiPeak (dB μ V/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - QPK (dB)	Limit - QPK (dB μ V/m)
33.88	21.40	106	H	139.0	19.2	18.60	40.0
51.40	22.40	102	H	146.0	9.7	17.60	40.0
90.28	15.42	104	H	115.0	11.3	28.08	43.5
133.04	16.05	103	H	137.0	13.7	27.45	43.5
187.44	17.46	101	H	114.0	11.3	26.04	43.5
696.76	23.62	105	H	108.0	22.3	22.38	46.0

Above 1GHz:

Band 4: 5725 MHz - 5825 MHz, 802.11a						
Test channel: Lowest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5650.00	36.25	17.16	53.41	68.20	14.79	Vertical
5700.00	35.24	17.35	52.59	105.20	52.61	Vertical
5720.00	36.41	17.46	53.87	110.80	56.93	Vertical
5725.00	42.25	17.49	59.74	122.20	62.46	Vertical
11490.00	54.27	6.61	60.88	74.00	13.12	Vertical
5650.00	35.68	17.16	52.84	68.20	15.36	Horizontal
5700.00	36.25	17.35	53.60	105.20	51.60	Horizontal
5720.00	44.24	17.46	61.70	110.80	49.10	Horizontal
5725.00	48.25	17.49	65.74	122.20	56.46	Horizontal
11490.00	53.21	6.61	59.82	74.00	14.18	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11490.00	44.21	6.61	50.82	54.00	3.18	Vertical
11490.00	43.68	6.61	50.29	54.00	3.71	Horizontal
Test channel: Middle channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11570.00	54.87	6.28	61.15	74.00	12.85	Vertical
11570.00	53.96	6.28	60.24	74.00	13.76	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11570.00	44.14	6.28	50.42	54.00	3.58	Vertical
11570.00	44.56	6.28	50.84	54.00	3.16	Horizontal

Test channel: Highest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5850.00	35.62	18.01	53.63	122.20	68.57	Vertical
5855.00	35.41	18.02	53.43	110.80	57.37	Vertical
5875.00	35.52	18.07	53.59	105.20	51.61	Vertical
5925.00	34.52	17.95	52.47	68.20	15.73	Vertical
11650.00	53.14	6.49	59.63	74.00	14.37	Vertical
5850.00	34.14	18.01	52.15	122.20	70.05	Horizontal
5855.00	34.96	18.02	52.98	110.80	57.82	Horizontal
5875.00	34.65	18.07	52.72	105.20	52.48	Horizontal
5925.00	34.85	17.95	52.80	68.20	15.40	Horizontal
11650.00	52.74	6.49	59.23	74.00	14.77	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11650.00	44.36	6.49	50.85	54.00	3.15	Vertical
11650.00	44.24	6.49	50.73	54.00	3.27	Horizontal

Band 4: 5725 MHz - 5825 MHz, 802.11n-HT20						
Test channel: Lowest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5650.00	35.12	17.16	52.28	68.20	15.92	Vertical
5700.00	35.20	17.35	52.55	105.20	52.65	Vertical
5720.00	35.69	17.46	53.15	110.80	57.65	Vertical
5725.00	36.41	17.49	53.90	122.20	68.30	Vertical
11490.00	54.20	6.61	60.81	74.00	13.19	Vertical
5650.00	36.78	17.16	53.94	68.20	14.26	Horizontal
5700.00	35.64	17.35	52.99	105.20	52.21	Horizontal
5720.00	35.75	17.46	53.21	110.80	57.59	Horizontal
5725.00	38.12	17.49	55.61	122.20	66.59	Horizontal
11490.00	53.69	6.61	60.30	74.00	13.70	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11490.00	44.12	6.61	50.73	54.00	3.27	Vertical
11490.00	44.22	6.61	50.83	54.00	3.17	Horizontal
Test channel: Middle channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11570.00	54.63	6.28	60.91	74.00	13.09	Vertical
11570.00	53.74	6.28	60.02	74.00	13.98	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11570.00	44.12	6.28	50.40	54.00	3.60	Vertical
11570.00	43.98	6.28	50.26	54.00	3.74	Horizontal

Test channel: Highest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dB μ V)	Factor (dB)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Polarization
5850.00	34.69	18.01	52.70	122.20	69.50	Vertical
5855.00	34.87	18.02	52.89	110.80	57.91	Vertical
5875.00	35.69	18.07	53.76	105.20	51.44	Vertical
5925.00	34.21	17.95	52.16	68.20	16.04	Vertical
11650.00	54.98	6.49	61.47	74.00	12.53	Vertical
5850.00	35.20	18.01	53.21	122.20	68.99	Horizontal
5855.00	34.25	18.02	52.27	110.80	58.53	Horizontal
5875.00	35.29	18.07	53.36	105.20	51.84	Horizontal
5925.00	35.77	17.95	53.72	68.20	14.48	Horizontal
11650.00	53.96	6.49	60.45	74.00	13.55	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dB μ V)	Factor (dB)	Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Polarization
11650.00	43.98	6.49	50.47	54.00	3.53	Vertical
11650.00	44.18	6.49	50.67	54.00	3.33	Horizontal

Band 4: 5725 MHz - 5825 MHz, 802.11n-HT40						
Test channel: Lowest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5650.00	35.25	17.16	52.41	68.20	15.79	Vertical
5700.00	35.69	17.35	53.04	105.20	52.16	Vertical
5720.00	37.45	17.46	54.91	110.80	55.89	Vertical
5725.00	38.22	17.49	55.71	122.20	66.49	Vertical
11510.00	55.12	6.60	61.72	74.00	12.28	Vertical
5650.00	36.12	17.16	53.28	68.20	14.92	Horizontal
5700.00	35.96	17.35	53.31	105.20	51.89	Horizontal
5720.00	36.44	17.46	53.90	110.80	56.90	Horizontal
5725.00	37.12	17.49	54.61	122.20	67.59	Horizontal
11510.00	53.88	6.60	60.48	74.00	13.52	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11510.00	43.52	6.60	50.12	54.00	3.88	Vertical
11510.00	43.82	6.60	50.42	54.00	3.58	Horizontal
Test channel: Highest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5850.00	34.66	18.01	52.67	122.20	69.53	Vertical
5855.00	35.69	18.02	53.71	110.80	57.09	Vertical
5875.00	35.20	18.07	53.27	105.20	51.93	Vertical
5925.00	35.77	17.95	53.72	68.20	14.48	Vertical
11590.00	55.63	6.17	61.80	74.00	12.20	Vertical
5850.00	34.65	18.01	52.66	122.20	69.54	Horizontal
5855.00	34.22	18.02	52.24	110.80	58.56	Horizontal
5875.00	35.63	18.07	53.70	105.20	51.50	Horizontal
5925.00	34.81	17.95	52.76	68.20	15.44	Horizontal
11590.00	54.69	6.17	60.86	74.00	13.14	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11590.00	44.23	6.17	50.40	54.00	3.60	Vertical
11590.00	44.65	6.17	50.82	54.00	3.18	Horizontal

Band 4: 5725 MHz - 5825 MHz, 8802.11ac-VHT20						
Test channel: Lowest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5650.00	35.52	17.16	52.68	68.20	15.52	Vertical
5700.00	35.74	17.35	53.09	105.20	52.11	Vertical
5720.00	35.66	17.46	53.12	110.80	57.68	Vertical
5725.00	36.41	17.49	53.90	122.20	68.30	Vertical
11490.00	54.21	6.61	60.82	74.00	13.18	Vertical
5650.00	36.85	17.16	54.01	68.20	14.19	Horizontal
5700.00	35.94	17.35	53.29	105.20	51.91	Horizontal
5720.00	35.76	17.46	53.22	110.80	57.58	Horizontal
5725.00	38.54	17.49	56.03	122.20	66.17	Horizontal
11490.00	53.66	6.61	60.27	74.00	13.73	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11490.00	43.69	6.61	50.30	54.00	3.70	Vertical
11490.00	43.98	6.61	50.59	54.00	3.41	Horizontal
Test channel: Middle channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11570.00	54.12	6.28	60.40	74.00	13.60	Vertical
11570.00	53.64	6.28	59.92	74.00	14.08	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11570.00	44.12	6.28	50.40	54.00	3.60	Vertical
11570.00	43.72	6.28	50.00	54.00	4.00	Horizontal

Test channel: Highest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5850.00	34.27	18.01	52.28	122.20	69.92	Vertical
5855.00	34.69	18.02	52.71	110.80	58.09	Vertical
5875.00	35.24	18.07	53.31	105.20	51.89	Vertical
5925.00	34.68	17.95	52.63	68.20	15.57	Vertical
11650.00	54.29	6.49	60.78	74.00	13.22	Vertical
5850.00	35.26	18.01	53.27	122.20	68.93	Horizontal
5855.00	34.55	18.02	52.57	110.80	58.23	Horizontal
5875.00	35.64	18.07	53.71	105.20	51.49	Horizontal
5925.00	35.84	17.95	53.79	68.20	14.41	Horizontal
11650.00	53.66	6.49	60.15	74.00	13.85	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11650.00	44.14	6.49	50.63	54.00	3.37	Vertical
11650.00	43.89	6.49	50.38	54.00	3.62	Horizontal

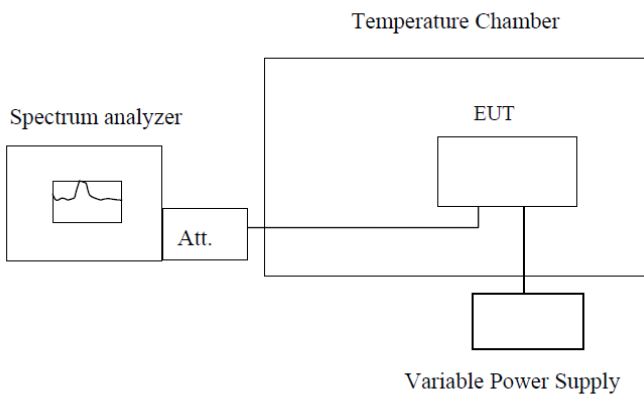
Band 4: 5725 MHz - 5825 MHz, 802.11ac-VHT40						
Test channel: Lowest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5650.00	35.62	17.16	52.78	68.20	15.42	Vertical
5700.00	35.12	17.35	52.47	105.20	52.73	Vertical
5720.00	37.54	17.46	55.00	110.80	55.80	Vertical
5725.00	38.22	17.49	55.71	122.20	66.49	Vertical
11510.00	55.10	6.60	61.70	74.00	12.30	Vertical
5650.00	35.69	17.16	52.85	68.20	15.35	Horizontal
5700.00	35.24	17.35	52.59	105.20	52.61	Horizontal
5720.00	36.32	17.46	53.78	110.80	57.02	Horizontal
5725.00	37.45	17.49	54.94	122.20	67.26	Horizontal
11510.00	53.52	6.60	60.12	74.00	13.88	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11510.00	43.98	6.60	50.58	54.00	3.42	Vertical
11510.00	43.82	6.60	50.42	54.00	3.58	Horizontal
Test channel: Highest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5850.00	35.24	18.01	53.25	122.20	68.95	Vertical
5855.00	35.36	18.02	53.38	110.80	57.42	Vertical
5875.00	34.23	18.07	52.30	105.20	52.90	Vertical
5925.00	36.47	17.95	54.42	68.20	13.78	Vertical
11590.00	54.65	6.17	60.82	74.00	13.18	Vertical
5850.00	34.66	18.01	52.67	122.20	69.53	Horizontal
5855.00	34.74	18.02	52.76	110.80	58.04	Horizontal
5875.00	35.27	18.07	53.34	105.20	51.86	Horizontal
5925.00	34.64	17.95	52.59	68.20	15.61	Horizontal
11590.00	54.31	6.17	60.48	74.00	13.52	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11590.00	44.22	6.17	50.39	54.00	3.61	Vertical
11590.00	44.79	6.17	50.96	54.00	3.04	Horizontal

Band 4: 5725 MHz - 5825 MHz, 802.11ac-VHT80						
Test channel: Lowest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
5650.00	35.62	17.16	52.78	68.20	15.42	Vertical
5700.00	36.14	17.35	53.49	105.20	51.71	Vertical
5720.00	37.45	17.46	54.91	110.80	55.89	Vertical
5725.00	41.65	17.49	59.14	122.20	63.06	Vertical
5850.00	35.66	18.01	53.67	122.20	68.53	Vertical
5855.00	35.24	18.02	53.26	110.80	57.54	Vertical
5875.00	34.96	18.07	53.03	105.20	52.17	Vertical
5925.00	34.62	17.95	52.57	68.20	15.63	Vertical
11550.00	55.23	6.39	61.62	74.00	12.38	Vertical
5650.00	35.20	17.16	52.36	68.20	15.84	Horizontal
5700.00	37.74	17.35	55.09	105.20	50.11	Horizontal
5720.00	38.13	17.46	55.59	110.80	55.21	Horizontal
5725.00	38.65	17.49	56.14	122.20	66.06	Horizontal
5850.00	36.17	18.01	54.18	122.20	68.02	Horizontal
5855.00	35.64	18.02	53.66	110.80	57.14	Horizontal
5875.00	35.23	18.07	53.30	105.20	51.90	Horizontal
5925.00	35.89	17.95	53.84	68.20	14.36	Horizontal
11550.00	54.25	6.39	60.64	74.00	13.36	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBμV)	Factor (dB)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
11550.00	44.15	6.39	50.54	54.00	3.46	Vertical
11550.00	43.87	6.39	50.26	54.00	3.74	Horizontal

Note:

1. *Level = Reading + Factor.*
2. *Test Frequency up to 40GHz, and the emission levels of other frequencies are lower than the limit 20dB, not show in test report.*

7.7 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2013, 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, 2003; 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: The detailed test data see Appendix for WIFI 5.8G.

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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