

TEST REPORT

Report No.: 8233EU012101W3

Applicant: SHENZHEN ELECTRON TECHNOLOGY CO.,LTD.

Address: Bld.2,Yingfeng Industrial Zone,Tantou Community,
Songgang Street, Baoan, Shenzhen, China

Product Name: Wi-Fi/Bluetooth Module

Model No.: AP6611S

Trademark: N/A

FCC ID: 2ABC5-AP6611S

Test Standard(s): 47 CFR Part 15 Subpart E

Date of Receipt: Sep. 22, 2024

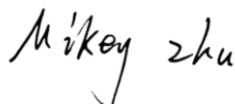
Test Date: Sep. 22, 2024 – Oct. 30, 2024

Date of Issue: Oct. 30, 2024

ISSUED BY:
SHENZHEN EU TESTING LABORATORY LIMITED



Prepared by:



Mikey Zhu/ Engineer

Reviewed and Approved by:



Sally Zhang/ Manager

Revision Record

Report Version	Issued Date	Description	Status
V0	Oct. 30, 2024	Original	Valid



Table of Contents

1	COVER PAGE	1
2	GENERAL INFORMATION	4
2.1	APPLICANT INFORMATION	4
2.2	MANUFACTURER INFORMATION	4
2.3	FACTORY INFORMATION	4
2.4	GENERAL DESCRIPTION OF E.U.T.	4
2.5	TECHNICAL INFORMATION OF E.U.T.	5
3	TEST SUMMARY	7
3.1	TEST STANDARD	7
3.2	TEST VERDICT	7
3.3	TEST LABORATORY	7
4	TEST CONFIGURATION	8
4.1	TEST ENVIRONMENT	8
4.2	TEST EQUIPMENT	8
4.3	DESCRIPTION OF SUPPORT UNIT	9
4.4	TEST MODE	9
4.5	DESCRIPTION OF CALCULATION	9
4.6	MEASUREMENT UNCERTAINTY	10
4.7	DEVIATION FROM STANDARDS	10
4.8	ABNORMALITIES FROM STANDARD CONDITION	10
5	TEST ITEMS	11
5.1	MAXIMUM CONDUCTED OUTPUT POWER	11
5.1.1	Test Requirement	11
5.1.2	Test Setup Diagram	12
5.1.3	Test Procedure	12
5.1.4	Test Data.....	13
5.2	UNDESIRABLE EMISSIONS	15
5.2.1	Test Requirement	15
5.2.2	Test Setup Diagram	16
5.2.3	Test Procedure	17
5.2.4	Test Data.....	18
ANNEX A	TEST SETUP PHOTOS	33
ANNEX B	EXTERNAL PHOTOS	33
ANNEX C	INTERNAL PHOTOS	33

2 General Information

2.1 Applicant Information

Applicant	SHENZHEN ELECTRON TECHNOLOGY CO.,LTD.
Address	Bld.2,Yingfeng Industrial Zone,Tantou Community, Songgang Street, Baoan, Shenzhen, China

2.2 Manufacturer Information

Manufacturer	SHENZHEN ELECTRON TECHNOLOGY CO.,LTD.
Address	Bld.2,Yingfeng Industrial Zone,Tantou Community, Songgang Street, Baoan, Shenzhen, China

2.3 Factory Information

Factory	SHENZHEN ELECTRON TECHNOLOGY CO., LTD.
Address	Bld.2,Yingfeng Industrial Zone,Tantou Community, Songgang Street, Baoan, Shenzhen, China

2.4 General Description of E.U.T.

Product Name	Wi-Fi/Bluetooth Module
Model No. Under Test	AP6611S
List Model No.	N/A
Description of Model differentiation	N/A
Rating(s)	From host system
Product Type	<input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Test Sample No.	-1/2(Normal Sample), -2/2(Engineering Sample)
Hardware Version	N/A
Software Version	N/A
Remark	1) The above information is declared by the applicant, EU-LAB is not responsible for the information accuracy provided by the applicant. 2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.5 Technical Information of E.U.T.

Network and Wireless Connectivity	Bluetooth (BDR+EDR+BLE) WiFi 2.4G: 802.11b, 802.11g, 802.11n(HT20), 802.11ax (HEW20) WiFi 5G: 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80), and 802.11ax(HEW20/40/80) WiFi 6E: 802.11ax(HEW20/40/80) U-NII-1~3, U-NII-5~8
-----------------------------------	---

The requirement for the following technical information of the EUT was tested in this report:

Equipment Class	NII_Unlicensed National Information Infrastructure TX
-----------------	---

Technology	WiFi 5G
Operation Mode	<input checked="" type="checkbox"/> a <input checked="" type="checkbox"/> n(HT20) <input checked="" type="checkbox"/> n(HT40) <input checked="" type="checkbox"/> ac(VHT20) <input checked="" type="checkbox"/> ac(VHT40) <input checked="" type="checkbox"/> ac(VHT80) <input type="checkbox"/> ac(VHT160) <input checked="" type="checkbox"/> ax(HEW20) <input checked="" type="checkbox"/> ax(HEW40) <input checked="" type="checkbox"/> ax(HEW80) <input type="checkbox"/> ax(HEW160)
Operating Frequency	U-NII-1: 5.15~5.25 GHz U-NII-2A: 5.25~5.35 GHz U-NII-2C: 5.470~5.725 GHz U-NII-3: 5.725~5.850 GHz
Modulation Technology	OFDM
Modulation Type	1024QAM, 256QAM, 64QAM, 16QAM, BPSK, QPSK
Transfer Rate (Mbps) (Single RF path)	802.11a: 54/ 48/ 36/ 24/ 18/ 12/ 9/ 6 Mbps 802.11n: up to 150 Mbps 802.11ac: up to VHT-MCS9 802.11ax: up to 1201 Mbps
Antenna System (eg., MIMO, Smart Antenna)	N/A
Categorization as Correlated or Completely Uncorrelated	N/A
Antenna Type	PIFA Antenna
Antenna Gain(Peak)	2.87dBi (Refer to the detailed antenna information)
Beamforming Function	<input type="checkbox"/> With beamforming <input checked="" type="checkbox"/> Without beamforming
Weather Band	<input checked="" type="checkbox"/> With 5600~5650MHz <input type="checkbox"/> Without 5600~5650MHz
Function	<input checked="" type="checkbox"/> Point-to-multipoint <input type="checkbox"/> Point-to-point <input checked="" type="checkbox"/> Client device <input type="checkbox"/> Master device
TPC Function	<input type="checkbox"/> With TPC <input checked="" type="checkbox"/> Without TPC
Support RU	<input checked="" type="checkbox"/> Full RU <input type="checkbox"/> Partial RU
Remark	The above information are declared by the applicant, EU-LAB is not responsible for the information accuracy provided by the applicant.

Antenna Information:

Ant.	Brand	Antenna Model No.	Antenna Gain (dBi)			
			Bluetooth	WiFi 2.4G	WiFi 5G	WiFi 6E
1	Shenzhen Yishengbang Technology Co., Ltd	SLK-YLD-3028A1-L-220I-B	2.47	2.47	2.87	2.52
2		SLK-YLD-3028A-L-320I-B	2.57	2.57	2.83	2.71
3		SLK-YLD-3028A-L-400I-B	1.92	1.92	2.85	2.94
4		SLK-YLD-3028B-R-350I-B	2.73	2.73	2.59	1.87

Note: The lab use Ant. 1 (Model No. SLK-YLD-3028A1-L-220I-B) to conduct all tests focus on WiFi 5G function.

All channels were listed on the following table:

20 MHz Bandwidth		40 MHz Bandwidth		80 MHz Bandwidth	
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
36	5180	38	5190	42	5210
40	5200	46	5230	58	5290
44	5220	54	5270	106	5530
48	5240	62	5310	122	5610
52	5260	102	5510	138	5690
56	5280	110	5550	155	5775
60	5300	118	5590	/	/
64	5320	126	5630	/	/
100	5500	134	5670	/	/
104	5520	142	5710	/	/
108	5540	151	5755	/	/
112	5560	159	5795	/	/
116	5580	/	/	/	/
120	5600	/	/	/	/
124	5620	/	/	/	/
128	5640	/	/	/	/
132	5660	/	/	/	/
136	5680	/	/	/	/
140	5700	/	/	/	/
144	5720	/	/	/	/
149	5745	/	/	/	/
153	5765	/	/	/	/
157	5785	/	/	/	/
161	5805	/	/	/	/
165	5825	/	/	/	/

The Lowest frequency, the middle frequency and the highest frequency of channel were selected to perform the tests.

3 Test Summary

3.1 Test Standard

The tests were performed according to following standards:

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E	Unlicensed National Information Infrastructure Devices
2	ANSI C63.10-2020	American National Standard for Testing Unlicensed Wireless Devices
3	KDB Publication 789033 D02v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E

Remark:

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

3.2 Test Verdict

No.	Description	FCC Part No.	Verdict	Remark
1	Maximum Conducted Output Power	15.407(a)(1)(i) 15.407(a)(1)(ii) 15.407(a)(1)(iii) 15.407(a)(1)(iv) 15.407(a)(3)(i)	Pass	--
2	Undesirable Emissions	15.407(b)(1) 15.407(b)(4) 15.407(b)(9) 15.407(b)(10)	Pass	--

Note ¹: This report is request a Class II Permissive Change (C2PC).

Note ²: Compared with the original test report of EUT: FR412210AB which was issued by Sporton International Inc. Hsinchu Laboratory dated on May 02, 2024, the changes of EUT are as below:

1. Changed the antenna type from "Dipole" to "PIFA", and the antenna gain value "2.87dBi" is lower than the original one "4.65dBi".

All others are the same in electrical parameters and internal circuit structure. Therefore, pre-tested the conducted output power, the results are lower than or equal to the original value, so the test data were refer to the original report.

Besides re-tested radiated spurious emissions and attached them in this report.

3.3 Test Laboratory

Test Laboratory	Shenzhen EU Testing Laboratory Limited
Address	101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China
Designation Number	CN1368
Test Firm Registration Number	952583

4 Test Configuration

4.1 Test Environment

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	30% to 60%	
Atmospheric Pressure	86 kPa to 106 kPa	
Temperature	NT (Normal Temperature)	+15°C to +35°C
Working Voltage of the EUT	NV (Normal Voltage)	From host system

4.2 Test Equipment

Conducted Emission at AC power line					
Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	EE-004	2024/01/09	2025/01/08
EMI Test Receiver	Rohde & Schwarz	ESCI	EE-005	2024/01/09	2025/01/08
Test Software	Ferrari Technology	EZ-EMC	EE-014	N.C.R	N.C.R

Radiated Emission and RF Test					
Equipment	Manufacturer	Model No	Serial No	Cal Date	Cal Due Date
EMI Test Receiver	ROHDE & SCHWARZ	ESPI	EE-006	2024/01/09	2025/01/08
Bilog Broadband Antenna	SCHWARZBECK	VULB 9163	EE-007	2023/01/14	2026/01/13
Double Ridged Horn Antenna	A-INFOMW	LB-10180-NF	EE-008	2023/01/12	2026/01/11
Pre-amplifier	Agilent	8447D	EE-009	2024/01/09	2025/01/08
Pre-amplifier	Agilent	8449B	EE-010	2024/01/09	2025/01/08
MXA Signal Analyzer	Agilent	N9020A	EE-011	2024/01/09	2025/01/08
MXG RF Vector Signal Generator	Agilent	N5182A	EE-012	2024/01/09	2025/01/08
Test Software	Farad	EZ-EMC	EE-015	N.C.R	N.C.R
MIMO Power Measurement Module	TSTPASS	TSPS 2023R	EE-016	2024/01/09	2025/01/08
RF Test Software	TSTPASS	TS32893 V2.0	EE-017	N.C.R	N.C.R
Wideband Radio Communication Tester	ROHDE & SCHWARZ	CMW500	EE-402	2024/02/15	2025/02/14
Loop Antenna	TESEQ	HLA6121	EE-403	2024/02/15	2025/02/14
Spectrum Analyzer	ROHDE & SCHWARZ	FSP40	EE-404	2024/02/15	2025/02/14
MXG RF Analog Signal Generator	Agilent	N5181A	EE-406	2024/02/15	2025/02/14
DRG Horn Antenna (up to 40GHz)	SCHWARZBECK	BBHA 9170	EE-410	2024/02/15	2025/02/14
Pre-amplifier	SKET	LNPA-1840-50	EE-411	2024/02/15	2025/02/14
Constant Temperature Humidity Chamber	Guangxin	GXP-401	ES-002	2024/07/30	2025/07/29
Power Sensor	ROHDE&SCHWARZN	NRP18S	ES-420	2024/02/15	2025/02/14

4.3 Description of Support Unit

No.	Title	Manufacturer	Model No.	Serial No.
1	---			

4.4 Test Mode

No.	Test Modes	Description
TM1	802.11a mode	Keep the EUT in 802.11a transmitting mode.
TM2	802.11ax(HEW20) mode	Keep the EUT in 802.11ax(HEW20) transmitting mode.
TM3	802.11ax(HEW40) mode	Keep the EUT in 802.11ax(HEW40) transmitting mode.
TM4	802.11ax(HEW80) mode	Keep the EUT in 802.11ax(HEW80) transmitting mode.

4.5 Description of Calculation

4.5.1. Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS \text{ (dBuV/m)} = RA \text{ (dBuV)} + AF \text{ (dB/m)} + CL \text{ (dB)} - AG \text{ (dB)}$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

4.5.2. Disturbance Calculation

The AC mains conducted disturbance is calculated by adding the 10dB Pulse Limiter and Cable Factor and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$CD \text{ (dBuV)} = RA \text{ (dBuV)} + PL \text{ (dB)} + CL \text{ (dB)}$$

Where CD = Conducted Disturbance	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	PL = 10 dB Pulse Limiter Factor

4.6 Measurement Uncertainty

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

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

Test Item	Measurement Uncertainty
Conducted Emission	2.64 dB
Occupied Channel Bandwidth	2.8 %
RF output power, conducted	0.68 dB
Power Spectral Density, conducted	1.37 dB
Unwanted Emissions, conducted	1.84 dB
Radiated Emission (30MHz- 1GHz)	Ur = 2.70 dB (Horizontal)
	Ur = 2.70 dB (Vertical)
Radiated Emission (1GHz- 18GHz)	Ur = 3.50 dB (Horizontal)
	Ur = 3.50 dB (Vertical)
Radiated Emission (18GHz- 40GHz)	Ur = 5.15 dB (Horizontal)
	Ur = 5.24 dB (Vertical)
Temperature	0.8°C
Humidity	4%

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Condition

None.

5 Test Items

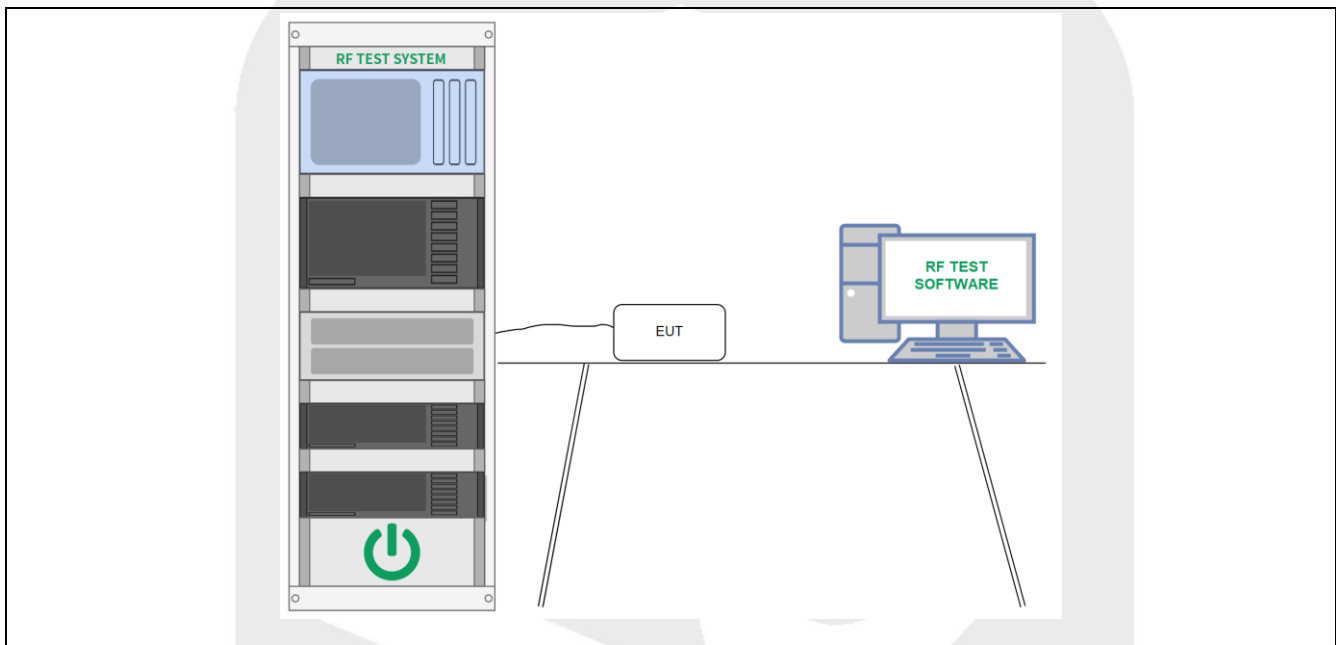
5.1 Maximum Conducted Output Power

5.1.1 Test Requirement

Test Requirement	<p>For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.</p> <p>If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).</p> <p>For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.</p> <p>If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.</p> <p>For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.</p> <p>Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power.</p> <p>For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi.</p> <p>Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.</p> <p>For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.</p> <p>If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.</p> <p>For the 5.25-5.35 GHz and 5.47-5.725GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.</p> <p>For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.</p> <p>If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.</p>
------------------	---

	<p>However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.</p>
<p>Test Method</p>	<p>ANSI C63.10-2020, section 12.4</p>

5.1.2 Test Setup Diagram



5.1.3 Test Procedure

Method SA-1

- a) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
- b) Set RBW = 1 MHz.
- c) Set VBW \geq 3 MHz.
- d) Number of points in sweep \geq $[2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing \leq $\text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- e) Sweep time = auto.
- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- g) If transmit duty cycle $<$ 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle \geq 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
- h) Trace average at least 100 traces in power averaging (rms) mode.
- i) Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument's band power measurement function, with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.

5.1.4 Test Data

PASS.

The EUT is part of the C2PC program, pre-tested the conducted output power, the results are lower than or equal to the original value, so the test data were refer to the original report.

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25 GHz	-	-
802.11a_Nss 1, (6Mbps)_1TX	19.29	0.08492
802.11ax HEW20_Nss 1, (MCS0)_1TX	16.79	0.04775
802.11ax HEW40_Nss 1, (MCS0)_1TX	18.70	0.07413
802.11ax HEW80_Nss 1, (MCS0)_1TX	11.90	0.01549
5.25-5.35 GHz	-	-
802.11a_Nss 1, (6Mbps)_1TX	19.65	0.09226
802.11ax HEW20_Nss 1, (MCS0)_1TX	20.08	0.10186
802.11ax HEW40_Nss 1, (MCS0)_1TX	18.73	0.07464
802.11ax HEW80_Nss 1, (MCS0)_1TX	12.12	0.01629
5.47-5.725 GHz	-	-
802.11a_Nss 1, (6Mbps)_1TX	17.50	0.05623
802.11ax HEW20_Nss 1, (MCS0)_1TX	17.74	0.05943
802.11ax HEW40_Nss 1, (MCS0)_1TX	18.40	0.06918
802.11ax HEW80_Nss 1, (MCS0)_1TX	16.31	0.04276
5.725-5.85 GHz	-	-
802.11a_Nss 1, (6Mbps)_1TX	17.91	0.06180
802.11ax HEW20_Nss 1, (MCS0)_1TX	18.22	0.06637
802.11ax HEW40_Nss 1, (MCS0)_1TX	17.52	0.05649
802.11ax HEW80_Nss 1, (MCS0)_1TX	16.16	0.04130

Result

Mode	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
		ANT1	Limit	
802.11a_Nss 1, (6Mbps)_1TX	5180	14.69	<=23.98	Pass
	5200	16.64	<=23.98	Pass
	5240	19.29	<=23.98	Pass
	5260	19.34	<=23.98	Pass
	5300	19.65	<=23.98	Pass
	5320	16.81	<=23.98	Pass
	5500	13.33	<=23.98	Pass
	5580	17.50	<=23.98	Pass
	5700	11.80	<=23.98	Pass
	5720 Straddle 5.47-5.725GHz	16.03	<=23.62	Pass
	5720 Straddle 5.725-5.850GHz	9.76	<=30.00	Pass
	5745	17.54	<=30.00	Pass
	5785	17.46	<=30.00	Pass
	5825	17.91	<=30.00	Pass

Mode	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
		ANT1	Limit	
802.11ax HEW20_Nss 1, (MCS0)_1TX	5180	14.38	<=23.98	Pass
	5200	16.44	<=23.98	Pass
	5240	16.79	<=23.98	Pass
	5260	19.69	<=23.98	Pass
	5300	20.08	<=23.98	Pass
	5320	17.41	<=23.98	Pass
	5500	13.54	<=23.98	Pass
	5580	17.74	<=23.98	Pass
	5700	1.48	<=23.98	Pass
	5720 Straddle 5.47-5.725GHz	16.22	<=23.62	Pass
	5720 Straddle 5.725-5.850GHz	10.88	<=30.00	Pass
	5745	17.70	<=30.00	Pass
	5785	17.72	<=30.00	Pass
	5825	18.22	<=30.00	Pass
802.11ax HEW40_Nss 1, (MCS0)_1TX	5190	12.48	<=23.98	Pass
	5230	18.70	<=23.98	Pass
	5270	18.73	<=23.98	Pass
	5310	14.52	<=23.98	Pass
	5510	10.93	<=23.98	Pass
	5550	18.40	<=23.98	Pass
	5670	18.04	<=23.98	Pass
	5710 Straddle 5.47-5.725GHz	17.64	<=23.98	Pass
	5710 Straddle 5.725-5.850GHz	7.29	<=30.00	Pass
	5755	17.49	<=30.00	Pass
	5795	17.52	<=30.00	Pass
802.11ax HEW80_Nss 1, (MCS0)_1TX	5210	11.90	<=23.98	Pass
	5290	12.12	<=23.98	Pass
	5530	10.17	<=23.98	Pass
	5610	14.66	<=23.98	Pass
	5690 Straddle 5.47-5.725GHz	16.31	<=23.98	Pass
	5690 Straddle 5.725-5.850GHz	1.38	<=30.00	Pass
	5775	16.16	<=30.00	Pass

Note1: The antenna gain is 2.87dBi.

5.2 Undesirable Emissions

5.2.1 Test Requirement

Test Requirement	<p>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 e.i.r.p. of -27 dBm/MHz.</p> <p>For transmitters operating in the 5.25-5.35 Hz band: All emissions out-side of the 5.15-5.35 Hz band shall not exceed an e.i.r.p.of-27 dBmMHz.</p> <p>For transmitters operating in the5.47-5.725 Hz band: All emissions out-side of the 5.47-5.725 GHz band shall not exceed an e.i.r.p.of-27 dBmMHz.</p> <p>For transmitters operating solely in the 5.725-5.850 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.</p>			
	MHz	MHz	MHz	GHz
	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
	¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
	2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
	4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
	6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
	6.31175-6.31225	123-138	2200-2300	14.47-14.5
	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
	8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
	12.57675-12.57725	322-335.4	3600-4400	(²)
	13.36-13.41			
		<p>¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.</p> <p>²Above 38.6</p>		
		<p>The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in § 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in § 15.209shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in § 15.209shall be demonstrated based on the average value of the measured emissions. The provisions in § 15.35apply to these measurements.</p>		

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

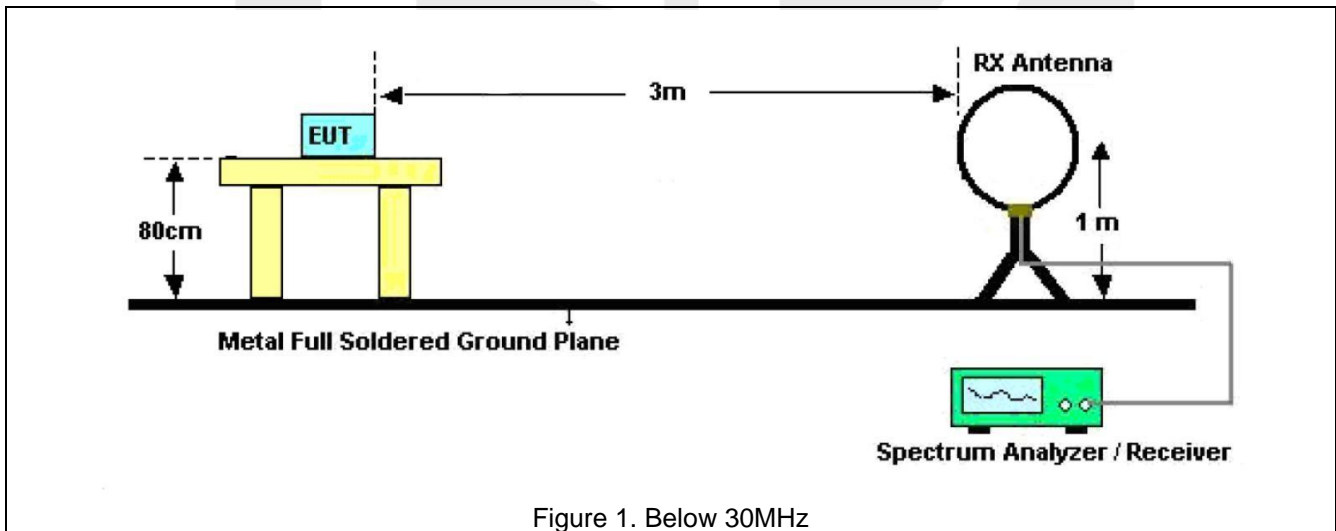
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.

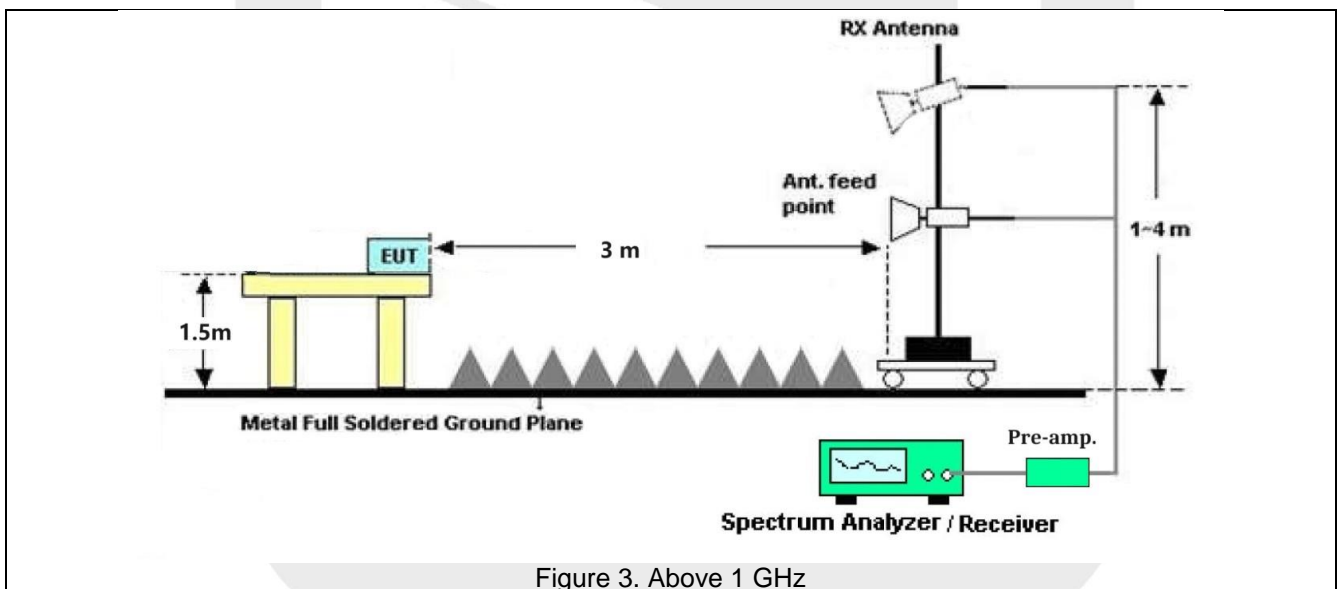
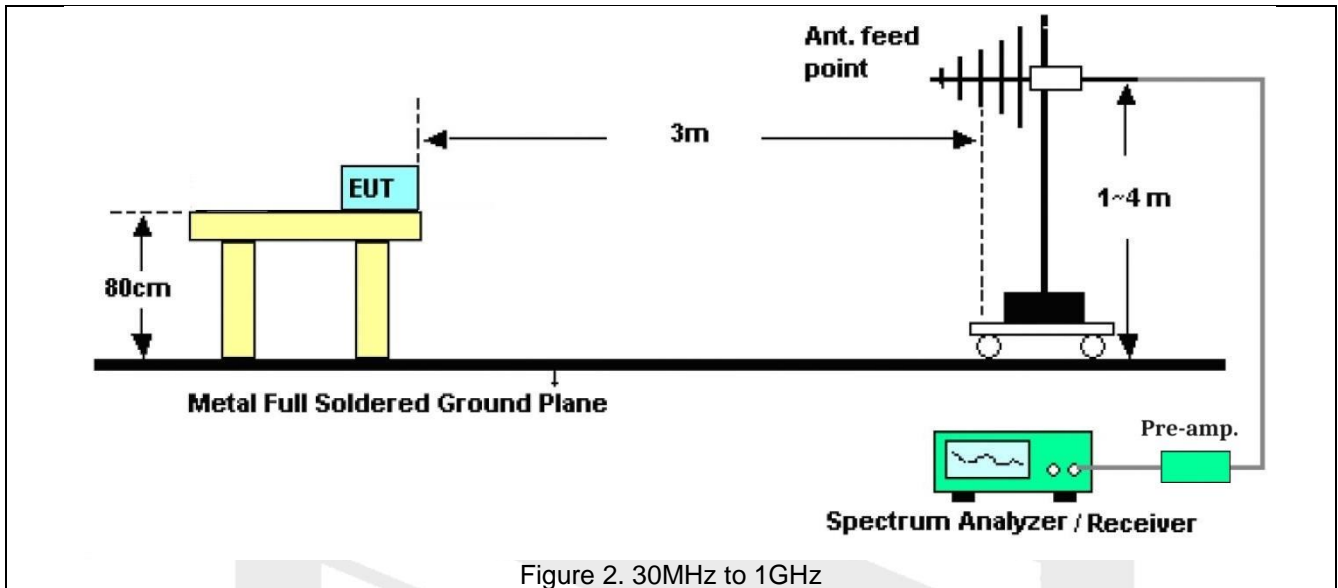
Note:

- 1) Field Strength (dB μ V/m) = 20*log[Field Strength (μ V/m)].
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) For above 1000 MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
- 4) For above 1000 MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK).

Test Method	ANSI C63.10-2020, section 12.7.4, section 12.7.5, section 12.7.6.
-------------	---

5.2.2 Test Setup Diagram





5.2.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power.

Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

The power of the EUT transmitting frequency should be ignored.

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

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

For 9kHz to 150kHz, Set the spectrum analyzer as:

RBW = 200Hz, VBW = 1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:

RBW = 9KHz, VBW = 30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:
RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For above 1GHz,Set the spectrum analyzer as:
RBW =1MHz, VBW =1MHz, Detector= Peak, Trace mode= Max hold, Sweep- auto couple.
RBW =1MHz, VBW =10Hz, Detector= Average, Trace mode= Max hold, Sweep- auto couple.

For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

5.2.4 Test Data

PASS.

Please to see the following pages.

The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

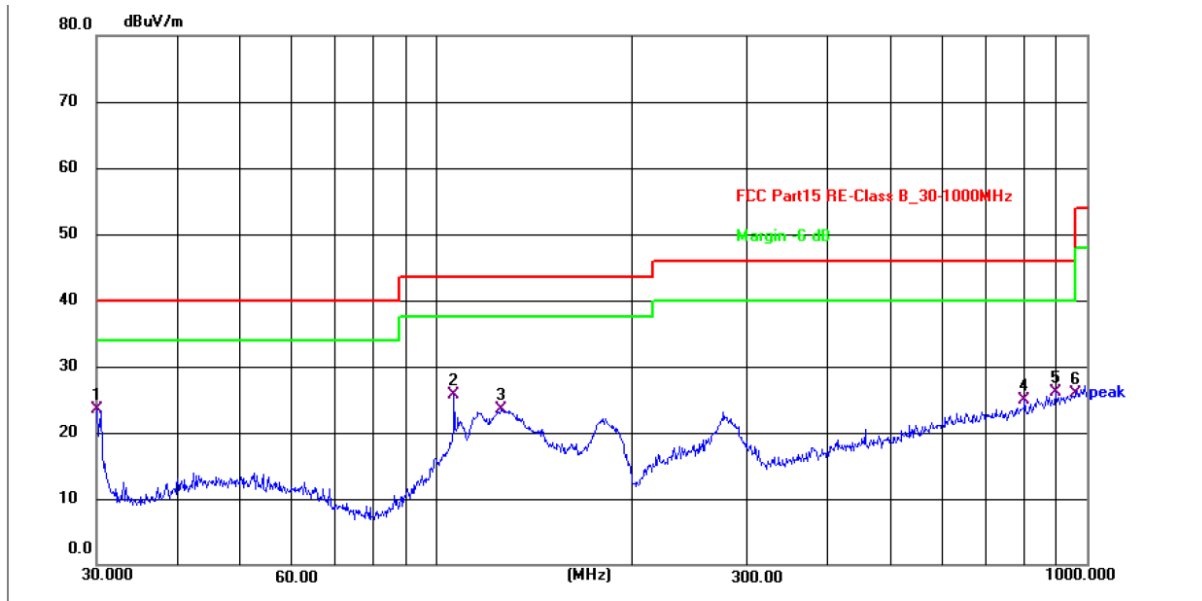
For test of 30MHz-1GHz, during the test, pre-scan all modes, only the worst case is recorded in the report.

For test of 1GHz-18GHz, during the test, pre-scan all modes, and found the 802.11ax (HEW20) is worse case, the report only record this mode.

The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

Radiated Emission Test Data (30-1000MHz)

Test Site:	966 Chamber #1	Polarization:	Horizontal
Distance:	3m	Test Mode:	TM2/ CH 5200MHz



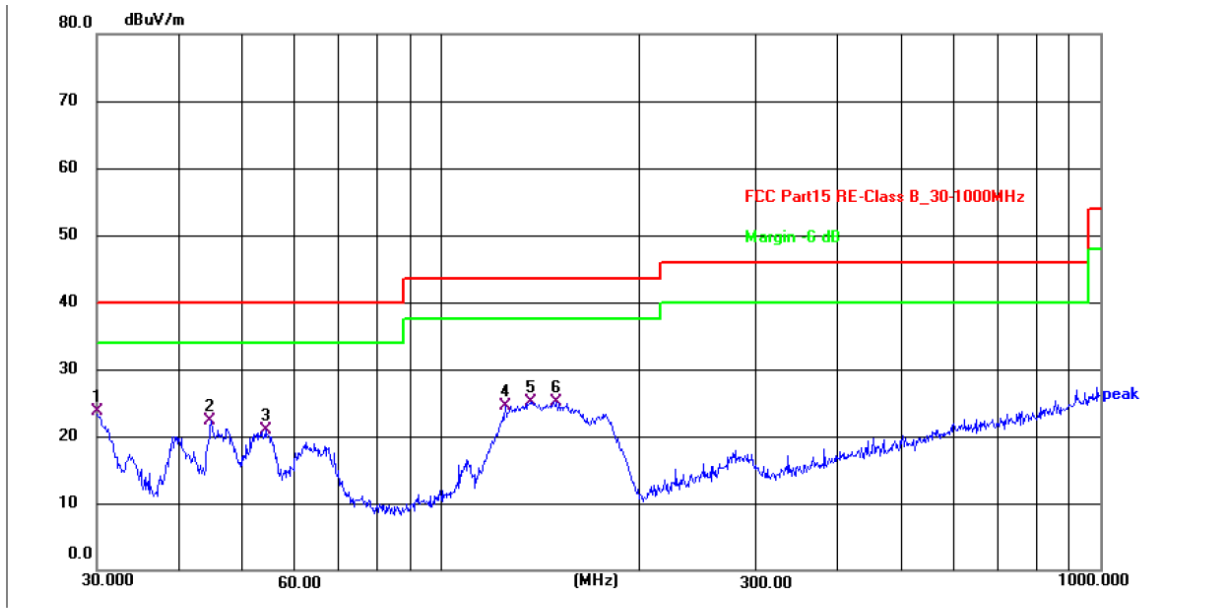
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	30.1054	40.49	-16.94	23.55	40.00	-16.45	QP	P	
2	106.3850	41.85	-16.10	25.75	43.50	-17.75	QP	P	
3	125.4457	40.66	-17.24	23.42	43.50	-20.08	QP	P	
4	801.7863	28.77	-3.94	24.83	46.00	-21.17	QP	P	
5	893.8567	28.26	-2.22	26.04	46.00	-19.96	QP	P	
6	958.7943	27.03	-1.16	25.87	46.00	-20.13	QP	P	

Note: Level = Reading + Factor

Margin = Level - Limit

Radiated Emission Test Data (30-1000MHz)

Test Site:	966 Chamber #1	Polarization:	Vertical
Distance:	3m	Test Mode:	TM2/ CH 5200MHz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	30.0000	40.60	-16.94	23.66	40.00	-16.34	QP	P	
2	44.7433	36.55	-14.29	22.26	40.00	-17.74	QP	P	
3	54.0711	35.29	-14.45	20.84	40.00	-19.16	QP	P	
4	125.0066	41.78	-17.21	24.57	43.50	-18.93	QP	P	
5	136.9391	43.06	-17.92	25.14	43.50	-18.36	QP	P	
6	149.4857	43.86	-18.67	25.19	43.50	-18.31	QP	P	

Note: Level = Reading + Factor

Margin = Level - Limit

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5180 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3215.94	45.10	-0.81	44.28	68.23	-23.95	PK	PASS
V	7505.36	41.59	9.84	51.42	68.23	-16.81	PK	PASS
V	9504.36	37.38	13.16	50.53	68.23	-17.70	PK	PASS
V	10361.75	42.31	13.79	56.10	68.23	-12.13	PK	PASS
V	14016.96	37.07	17.35	54.42	68.23	-13.81	PK	PASS
V	15541.00	*	*	*	68.23	*	PK	PASS
H	3200.75	45.74	-0.87	44.87	68.23	-23.36	PK	PASS
H	7501.75	41.37	9.83	51.20	68.23	-17.03	PK	PASS
H	9500.00	35.21	13.14	48.35	68.23	-19.88	PK	PASS
H	10362.25	42.67	13.79	56.46	68.23	-11.78	PK	PASS
H	14007.62	37.50	17.34	54.84	68.23	-13.39	PK	PASS
H	15541.75	*	*	*	68.23	*	PK	PASS
V	3215.94	33.01	-0.81	32.20	54.00	-21.80	AV	PASS
V	7505.36	29.97	9.84	39.81	54.00	-14.19	AV	PASS
V	9504.36	24.17	13.16	37.32	54.00	-16.68	AV	PASS
V	10361.75	31.42	13.79	45.21	54.00	-8.79	AV	PASS
V	14016.96	22.62	17.35	39.97	54.00	-14.03	AV	PASS
V	15541.00	*	*	*	54.00	*	AV	PASS
H	3200.75	32.49	-0.87	31.63	54.00	-22.37	AV	PASS
H	7501.75	30.13	9.83	39.96	54.00	-14.04	AV	PASS
H	9500.00	24.81	13.14	37.95	54.00	-16.05	AV	PASS
H	10362.25	32.84	13.79	46.63	54.00	-7.37	AV	PASS
H	14007.62	23.82	17.34	41.16	54.00	-12.84	AV	PASS
H	15541.75	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5200 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3404.34	46.65	-0.12	46.53	68.23	-21.70	PK	PASS
V	8019.69	42.02	10.37	52.39	68.23	-15.84	PK	PASS
V	9702.42	35.17	13.20	48.37	68.23	-19.86	PK	PASS
V	10401.75	42.47	13.91	56.38	68.23	-11.85	PK	PASS
V	14304.31	35.48	17.44	52.91	68.23	-15.32	PK	PASS
V	15602.25	*	*	*	68.23	*	PK	PASS
H	3412.43	46.02	-0.09	45.93	68.23	-22.30	PK	PASS
H	8006.96	41.26	10.34	51.60	68.23	-16.63	PK	PASS
H	9709.45	35.79	13.20	48.99	68.23	-19.24	PK	PASS
H	10401.75	42.22	13.91	56.13	68.23	-12.10	PK	PASS
H	14311.87	35.42	17.45	52.87	68.23	-15.36	PK	PASS
H	15602.00	*	*	*	68.23	*	PK	PASS
V	3404.34	34.36	-0.12	34.24	54.00	-19.76	AV	PASS
V	8019.69	30.27	10.37	40.64	54.00	-13.36	AV	PASS
V	9702.42	24.58	13.20	37.78	54.00	-16.22	AV	PASS
V	10401.75	32.59	13.91	46.50	54.00	-7.50	AV	PASS
V	14304.31	23.25	17.44	40.69	54.00	-13.31	AV	PASS
V	15602.25	*	*	*	54.00	*	AV	PASS
H	3412.43	32.19	-0.09	32.10	54.00	-21.90	AV	PASS
H	8006.96	28.13	10.34	38.47	54.00	-15.53	AV	PASS
H	9709.45	22.21	13.20	35.41	54.00	-18.59	AV	PASS
H	10401.75	30.64	13.91	44.55	54.00	-9.45	AV	PASS
H	14311.87	24.49	17.45	41.94	54.00	-12.06	AV	PASS
H	15602.00	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5240 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3707.56	45.80	1.10	46.90	68.23	-21.33	PK	PASS
V	8208.94	40.01	10.87	50.89	68.23	-17.34	PK	PASS
V	9817.72	35.24	13.24	48.48	68.23	-19.75	PK	PASS
V	10480.50	43.67	13.96	57.63	68.23	-10.60	PK	PASS
V	14708.22	37.57	17.58	55.15	68.23	-13.08	PK	PASS
V	15721.00	*	*	*	68.23	*	PK	PASS
H	3707.13	47.73	1.10	48.82	68.23	-19.41	PK	PASS
H	8209.80	42.17	10.88	53.05	68.23	-15.18	PK	PASS
H	9816.80	35.83	13.24	49.06	68.23	-19.17	PK	PASS
H	10482.50	42.47	13.96	56.43	68.23	-11.80	PK	PASS
H	14704.37	36.09	17.57	53.66	68.23	-14.57	PK	PASS
H	15721.75	*	*	*	68.23	*	PK	PASS
V	3707.56	33.63	1.10	34.73	54.00	-19.27	AV	PASS
V	8208.94	30.99	10.87	41.86	54.00	-12.14	AV	PASS
V	9817.72	22.52	13.24	35.75	54.00	-18.25	AV	PASS
V	10480.50	31.87	13.96	45.83	54.00	-8.18	AV	PASS
V	14708.22	24.32	17.58	41.90	54.00	-12.10	AV	PASS
V	15721.00	*	*	*	54.00	*	AV	PASS
H	3707.13	32.58	1.10	33.67	54.00	-20.33	AV	PASS
H	8209.80	28.13	10.88	39.01	54.00	-14.99	AV	PASS
H	9816.80	22.05	13.24	35.28	54.00	-18.72	AV	PASS
H	10482.50	31.17	13.96	45.13	54.00	-8.87	AV	PASS
H	14704.37	23.17	17.57	40.74	54.00	-13.26	AV	PASS
H	15721.75	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5260 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3209.17	46.17	-0.84	45.34	68.23	-22.89	PK	PASS
V	7519.17	40.99	9.85	50.84	68.23	-17.39	PK	PASS
V	9504.57	36.19	13.16	49.35	68.23	-18.88	PK	PASS
V	10520.25	43.18	13.79	56.97	68.23	-11.26	PK	PASS
V	14004.34	35.51	17.34	52.85	68.23	-15.38	PK	PASS
V	15780.75	*	*	*	68.23	*	PK	PASS
H	3201.75	45.12	-0.86	44.25	68.23	-23.98	PK	PASS
H	7500.25	40.77	9.83	50.60	68.23	-17.63	PK	PASS
H	9500.50	37.37	13.14	50.51	68.23	-17.72	PK	PASS
H	10520.25	42.80	13.79	56.59	68.23	-11.64	PK	PASS
H	14013.39	36.91	17.35	54.25	68.23	-13.98	PK	PASS
H	15781.00	*	*	*	68.23	*	PK	PASS
V	3209.17	33.10	-0.84	32.27	54.00	-21.73	AV	PASS
V	7519.17	28.84	9.85	38.69	54.00	-15.31	AV	PASS
V	9504.57	22.81	13.16	35.97	54.00	-18.03	AV	PASS
V	10520.25	31.93	13.79	45.72	54.00	-8.28	AV	PASS
V	14004.34	22.17	17.34	39.50	54.00	-14.50	AV	PASS
V	15780.75	*	*	*	54.00	*	AV	PASS
H	3201.75	34.95	-0.86	34.09	54.00	-19.91	AV	PASS
H	7500.25	30.39	9.83	40.22	54.00	-13.78	AV	PASS
H	9500.50	23.94	13.14	37.08	54.00	-16.92	AV	PASS
H	10520.25	31.83	13.79	45.62	54.00	-8.38	AV	PASS
H	14013.39	22.74	17.35	40.09	54.00	-13.91	AV	PASS
H	15781.00	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5300 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3412.89	46.53	-0.09	46.44	68.23	-21.79	PK	PASS
V	8010.45	40.68	10.35	51.03	68.23	-17.20	PK	PASS
V	9719.45	37.28	13.21	50.49	68.23	-17.74	PK	PASS
V	10600.75	44.34	13.91	58.25	68.23	-9.98	PK	PASS
V	14308.88	37.16	17.44	54.61	68.23	-13.62	PK	PASS
V	15900.50	*	*	*	68.23	*	PK	PASS
H	3404.39	47.94	-0.12	47.81	68.23	-20.42	PK	PASS
H	8003.97	40.03	10.33	50.36	68.23	-17.87	PK	PASS
H	9709.18	35.62	13.20	48.82	68.23	-19.41	PK	PASS
H	10602.00	43.80	13.91	57.71	68.23	-10.52	PK	PASS
H	14314.82	37.95	17.45	55.40	68.23	-12.83	PK	PASS
H	15902.25	*	*	*	68.23	*	PK	PASS
V	3412.89	34.53	-0.09	34.44	54.00	-19.56	AV	PASS
V	8010.45	29.51	10.35	39.86	54.00	-14.14	AV	PASS
V	9719.45	24.96	13.21	38.17	54.00	-15.83	AV	PASS
V	10600.75	32.44	13.91	46.35	54.00	-7.65	AV	PASS
V	14308.88	24.80	17.44	42.24	54.00	-11.76	AV	PASS
V	15900.50	*	*	*	54.00	*	AV	PASS
H	3404.39	33.87	-0.12	33.75	54.00	-20.25	AV	PASS
H	8003.97	30.54	10.33	40.87	54.00	-13.13	AV	PASS
H	9709.18	23.36	13.20	36.56	54.00	-17.44	AV	PASS
H	10602.00	32.06	13.91	45.97	54.00	-8.03	AV	PASS
H	14314.82	24.65	17.45	42.11	54.00	-11.89	AV	PASS
H	15902.25	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5320 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3711.73	46.56	1.10	47.66	68.23	-20.57	PK	PASS
V	8202.94	41.44	10.86	52.30	68.23	-15.93	PK	PASS
V	9808.48	37.03	13.23	50.27	68.23	-17.96	PK	PASS
V	10641.25	44.52	13.96	58.48	68.23	-9.75	PK	PASS
V	14706.67	36.82	17.57	54.40	68.23	-13.83	PK	PASS
V	15962.50	*	*	*	68.23	*	PK	PASS
H	3714.19	47.98	1.10	49.08	68.23	-19.15	PK	PASS
H	8207.89	40.07	10.87	50.94	68.23	-17.29	PK	PASS
H	9811.52	36.68	13.23	49.91	68.23	-18.32	PK	PASS
H	10641.00	44.49	13.96	58.45	68.23	-9.78	PK	PASS
H	14706.94	35.49	17.58	53.06	68.23	-15.17	PK	PASS
H	15962.50	*	*	*	68.23	*	PK	PASS
V	3711.73	34.87	1.10	35.97	54.00	-18.03	AV	PASS
V	8202.94	28.92	10.86	39.77	54.00	-14.23	AV	PASS
V	9808.48	22.94	13.23	36.17	54.00	-17.83	AV	PASS
V	10641.25	31.12	13.96	45.08	54.00	-8.92	AV	PASS
V	14706.67	23.73	17.57	41.31	54.00	-12.69	AV	PASS
V	15962.50	*	*	*	54.00	*	AV	PASS
H	3714.19	34.37	1.10	35.47	54.00	-18.53	AV	PASS
H	8207.89	29.82	10.87	40.69	54.00	-13.31	AV	PASS
H	9811.52	24.42	13.23	37.65	54.00	-16.35	AV	PASS
H	10641.00	30.39	13.96	44.35	54.00	-9.65	AV	PASS
H	14706.94	24.29	17.58	41.86	54.00	-12.14	AV	PASS
H	15962.50	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5500 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3207.52	45.84	-0.84	45.00	68.23	-23.23	PK	PASS
V	7504.82	42.02	9.83	51.86	68.23	-16.37	PK	PASS
V	9504.01	35.84	13.15	48.99	68.23	-19.24	PK	PASS
V	11002.50	44.95	13.79	58.74	68.23	-9.49	PK	PASS
V	14006.19	35.21	17.34	52.55	68.23	-15.68	PK	PASS
V	16511.75	*	*	*	68.23	*	PK	PASS
H	3201.00	46.39	-0.87	45.52	68.23	-22.71	PK	PASS
H	7500.50	40.82	9.83	50.65	68.23	-17.58	PK	PASS
H	9501.50	37.74	13.15	50.88	68.23	-17.35	PK	PASS
H	11002.00	42.83	13.79	56.62	68.23	-11.61	PK	PASS
H	14006.29	36.25	17.34	53.59	68.23	-14.64	PK	PASS
H	16508.25	*	*	*	68.23	*	PK	PASS
V	3207.52	32.14	-0.84	31.29	54.00	-22.71	AV	PASS
V	7504.82	30.74	9.83	40.57	54.00	-13.43	AV	PASS
V	9504.01	23.78	13.15	36.93	54.00	-17.07	AV	PASS
V	11002.50	31.97	13.79	45.76	54.00	-8.24	AV	PASS
V	14006.19	23.45	17.34	40.79	54.00	-13.21	AV	PASS
V	16511.75	*	*	*	54.00	*	AV	PASS
H	3201.00	32.77	-0.87	31.90	54.00	-22.10	AV	PASS
H	7500.50	30.83	9.83	40.66	54.00	-13.34	AV	PASS
H	9501.50	24.89	13.15	38.03	54.00	-15.97	AV	PASS
H	11002.00	31.55	13.79	45.34	54.00	-8.66	AV	PASS
H	14006.29	22.90	17.34	40.23	54.00	-13.77	AV	PASS
H	16508.25	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5580 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3403.95	47.05	-0.12	46.93	68.23	-21.30	PK	PASS
V	8015.51	42.08	10.36	52.44	68.23	-15.79	PK	PASS
V	9712.20	35.56	13.20	48.77	68.23	-19.46	PK	PASS
V	11160.25	43.66	13.91	57.57	68.23	-10.66	PK	PASS
V	14315.27	36.55	17.45	54.01	68.23	-14.22	PK	PASS
V	16741.75	*	*	*	68.23	*	PK	PASS
H	3417.98	46.17	-0.07	46.11	68.23	-22.12	PK	PASS
H	8003.97	42.31	10.33	52.64	68.23	-15.59	PK	PASS
H	9709.17	35.54	13.20	48.75	68.23	-19.48	PK	PASS
H	11160.55	43.52	13.91	57.43	68.23	-10.80	PK	PASS
H	14305.79	36.19	17.44	53.63	68.23	-14.60	PK	PASS
H	16742.25	*	*	*	68.23	*	PK	PASS
V	3403.95	32.08	-0.12	31.95	54.00	-22.05	AV	PASS
V	8015.51	28.24	10.36	38.60	54.00	-15.40	AV	PASS
V	9712.20	23.46	13.20	36.66	54.00	-17.34	AV	PASS
V	11160.25	30.61	13.91	44.52	54.00	-9.48	AV	PASS
V	14315.27	24.29	17.45	41.74	54.00	-12.26	AV	PASS
V	16741.75	*	*	*	54.00	*	AV	PASS
H	3417.98	32.74	-0.07	32.67	54.00	-21.33	AV	PASS
H	8003.97	28.37	10.33	38.70	54.00	-15.30	AV	PASS
H	9709.17	24.47	13.20	37.67	54.00	-16.33	AV	PASS
H	11160.55	30.26	13.91	44.17	54.00	-9.83	AV	PASS
H	14305.79	24.84	17.44	42.28	54.00	-11.72	AV	PASS
H	16742.25	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5745 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3204.49	46.90	-0.85	46.04	68.23	-22.19	PK	PASS
V	7517.43	41.93	9.85	51.78	68.23	-16.45	PK	PASS
V	9520.16	37.03	13.21	50.25	68.23	-17.98	PK	PASS
V	11490.25	44.91	15.22	60.13	68.23	-8.10	PK	PASS
V	14020.45	36.06	17.36	53.42	68.23	-14.81	PK	PASS
V	17236.75	*	*	*	68.23	*	PK	PASS
H	3201.25	46.02	-0.87	45.16	68.23	-23.07	PK	PASS
H	7500.50	41.46	9.83	51.29	68.23	-16.94	PK	PASS
H	9500.50	36.45	13.14	49.59	68.23	-18.64	PK	PASS
H	11490.25	42.64	15.22	57.86	68.23	-10.37	PK	PASS
H	14018.32	36.86	17.36	54.22	68.23	-14.01	PK	PASS
H	17237.00	*	*	*	68.23	*	PK	PASS
V	3204.49	33.29	-0.85	32.44	54.00	-21.56	AV	PASS
V	7517.43	29.99	9.85	39.84	54.00	-14.16	AV	PASS
V	9520.16	24.91	13.21	38.12	54.00	-15.88	AV	PASS
V	11490.25	32.60	15.22	47.82	54.00	-6.18	AV	PASS
V	14020.45	24.75	17.36	42.10	54.00	-11.90	AV	PASS
V	17236.75	*	*	*	54.00	*	AV	PASS
H	3201.25	34.13	-0.87	33.27	54.00	-20.73	AV	PASS
H	7500.50	29.44	9.83	39.27	54.00	-14.73	AV	PASS
H	9500.50	22.46	13.14	35.60	54.00	-18.40	AV	PASS
H	11490.25	31.90	15.22	47.12	54.00	-6.88	AV	PASS
H	14018.32	24.94	17.36	42.29	54.00	-11.71	AV	PASS
H	17237.00	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5745 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3401.57	48.00	-0.13	47.86	68.23	-20.37	PK	PASS
V	8008.53	42.53	10.34	52.87	68.23	-15.36	PK	PASS
V	9713.63	36.15	13.20	49.35	68.23	-18.88	PK	PASS
V	11571.75	42.81	15.31	58.12	68.23	-10.11	PK	PASS
V	14314.81	35.41	17.45	52.86	68.23	-15.37	PK	PASS
V	17355.00	*	*	*	68.23	*	PK	PASS
H	3417.46	47.49	-0.07	47.42	68.23	-20.81	PK	PASS
H	8000.94	40.18	10.32	50.50	68.23	-17.73	PK	PASS
H	9715.48	36.25	13.20	49.46	68.23	-18.77	PK	PASS
H	11571.50	44.02	15.31	59.33	68.23	-8.90	PK	PASS
H	14315.54	36.53	17.45	53.99	68.23	-14.24	PK	PASS
H	17357.50	*	*	*	68.23	*	PK	PASS
V	3401.57	34.38	-0.13	34.24	54.00	-19.76	AV	PASS
V	8008.53	29.92	10.34	40.27	54.00	-13.73	AV	PASS
V	9713.63	22.42	13.20	35.63	54.00	-18.37	AV	PASS
V	11571.75	30.38	15.31	45.69	54.00	-8.31	AV	PASS
V	14314.81	22.12	17.45	39.58	54.00	-14.42	AV	PASS
V	17355.00	*	*	*	54.00	*	AV	PASS
H	3417.46	32.53	-0.07	32.47	54.00	-21.53	AV	PASS
H	8000.94	30.16	10.32	40.48	54.00	-13.52	AV	PASS
H	9715.48	24.14	13.20	37.35	54.00	-16.65	AV	PASS
H	11571.50	30.55	15.31	45.86	54.00	-8.14	AV	PASS
H	14315.54	24.62	17.45	42.08	54.00	-11.92	AV	PASS
H	17357.50	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5785 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3401.57	48.00	-0.13	47.86	68.23	-20.37	PK	PASS
V	8008.53	42.53	10.34	52.87	68.23	-15.36	PK	PASS
V	9713.63	36.15	13.20	49.35	68.23	-18.88	PK	PASS
V	11571.75	42.81	15.31	58.12	68.23	-10.11	PK	PASS
V	14314.81	35.41	17.45	52.86	68.23	-15.37	PK	PASS
V	17355.00	*	*	*	68.23	*	PK	PASS
H	3417.46	47.49	-0.07	47.42	68.23	-20.81	PK	PASS
H	8000.94	40.18	10.32	50.50	68.23	-17.73	PK	PASS
H	9715.48	36.25	13.20	49.46	68.23	-18.77	PK	PASS
H	11571.50	44.02	15.31	59.33	68.23	-8.90	PK	PASS
H	14315.54	36.53	17.45	53.99	68.23	-14.24	PK	PASS
H	17357.50	*	*	*	68.23	*	PK	PASS
V	3401.57	34.38	-0.13	34.24	54.00	-19.76	AV	PASS
V	8008.53	29.92	10.34	40.27	54.00	-13.73	AV	PASS
V	9713.63	22.42	13.20	35.63	54.00	-18.37	AV	PASS
V	11571.75	30.38	15.31	45.69	54.00	-8.31	AV	PASS
V	14314.81	22.12	17.45	39.58	54.00	-14.42	AV	PASS
V	17355.00	*	*	*	54.00	*	AV	PASS
H	3417.46	32.53	-0.07	32.47	54.00	-21.53	AV	PASS
H	8000.94	30.16	10.32	40.48	54.00	-13.52	AV	PASS
H	9715.48	24.14	13.20	37.35	54.00	-16.65	AV	PASS
H	11571.50	30.55	15.31	45.86	54.00	-8.14	AV	PASS
H	14315.54	24.62	17.45	42.08	54.00	-11.92	AV	PASS
H	17357.50	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Radiated Spurious Emission (1GHz-40GHz)

Test Mode: 802.11ax(HEW20)					Channel: 5825MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3718.68	46.49	1.11	47.60	68.23	-20.63	PK	PASS
V	8213.30	40.41	10.89	51.29	68.23	-16.94	PK	PASS
V	9817.63	35.61	13.24	48.85	68.23	-19.38	PK	PASS
V	11650.50	44.48	15.39	59.87	68.23	-8.36	PK	PASS
V	14702.72	36.96	17.56	54.52	68.23	-13.71	PK	PASS
V	17477.50	*	*	*	68.23	*	PK	PASS
H	3712.74	47.25	1.10	48.36	68.23	-19.87	PK	PASS
H	8203.33	41.81	10.86	52.67	68.23	-15.56	PK	PASS
H	9819.78	36.42	13.24	49.66	68.23	-18.57	PK	PASS
H	11651.25	42.45	15.39	57.84	68.23	-10.39	PK	PASS
H	14706.83	35.64	17.57	53.21	68.23	-15.02	PK	PASS
H	17475.75	*	*	*	68.23	*	PK	PASS
V	3718.68	33.34	1.11	34.45	54.00	-19.55	AV	PASS
V	8213.30	28.08	10.89	38.96	54.00	-15.04	AV	PASS
V	9817.63	22.85	13.24	36.08	54.00	-17.92	AV	PASS
V	11650.50	31.41	15.39	46.80	54.00	-7.20	AV	PASS
V	14702.72	24.74	17.56	42.31	54.00	-11.69	AV	PASS
V	17477.50	*	*	*	54.00	*	AV	PASS
H	3712.74	32.36	1.10	33.46	54.00	-20.54	AV	PASS
H	8203.33	29.70	10.86	40.55	54.00	-13.45	AV	PASS
H	9819.78	22.64	13.24	35.87	54.00	-18.13	AV	PASS
H	11651.25	30.51	15.39	45.90	54.00	-8.10	AV	PASS
H	14706.83	24.66	17.57	42.23	54.00	-11.77	AV	PASS
H	17475.75	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
2. "*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.

ANNEX A TEST SETUP PHOTOS

Please refer to the document "8233EU012101W-AA.PDF"

ANNEX B EXTERNAL PHOTOS

Please refer to the document "8233EU012101W-AB.PDF"

ANNEX C INTERNAL PHOTOS

Please refer to the document "8233EU012101W-AC.PDF"



STATEMENT

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the "inspection and testing dedicated stamp" or test report stamp.
5. The test data and results are only valid for the tested samples provided by the customer.
6. This report shall not be partially reproduced without the written permission of the laboratory.
7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--- End of Report ---