

TEST REPORT

Report No.: 8233EU012101W4

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

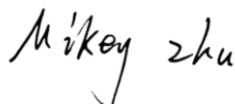
Test Date: Sep. 22, 2024 – Oct. 30, 2024

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ISSUED BY:
SHENZHEN EU TESTING LABORATORY LIMITED



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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	8
3.1	TEST STANDARD	8
3.2	TEST VERDICT.....	8
3.3	TEST LABORATORY	8
4	TEST CONFIGURATION	9
4.1	TEST ENVIRONMENT	9
4.2	TEST EQUIPMENT	9
4.3	DESCRIPTION OF SUPPORT UNIT	10
4.4	TEST MODE.....	10
4.5	DESCRIPTION OF CALCULATION	10
4.6	MEASUREMENT UNCERTAINTY	11
4.7	DEVIATION FROM STANDARDS	11
4.8	ABNORMALITIES FROM STANDARD CONDITION	11
5	TEST ITEMS	12
5.1	MAXIMUM CONDUCTED OUTPUT POWER	12
5.1.1	Test Requirement	12
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	34
ANNEX B	EXTERNAL PHOTOS.....	34
ANNEX C	INTERNAL PHOTOS	34

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

Equipment Class	NII_Unlicensed National Information Infrastructure TX
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Technology	WiFi 6E
Operation Mode	<input type="checkbox"/> a <input type="checkbox"/> n(HT20) <input type="checkbox"/> n(HT40) <input type="checkbox"/> ac(VHT20) <input type="checkbox"/> ac(VHT40) <input 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-5: 5.925 ~ 6.425 GHz U-NII-6: 6.425 ~ 6.525 GHz U-NII-7: 6.525 ~ 6.875 GHz U-NII-8: 6.875 ~ 7.125 GHz
Modulation Technology	OFDM
Modulation Type	1024QAM
Transfer Rate (Mbps) (Single RF path)	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)	2.94dBi (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. 3 (Model No. SLK-YLD-3028A-L-400I-B) to conduct all tests focus on WiFi 6E 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)
1	5955	3	5965	7	5985
5	5975	11	6005	23	6065
9	5995	19	6045	39	6145
13	6015	27	6085	55	6225
17	6035	35	6125	71	6305
21	6055	43	6165	87	6385
25	6075	51	6205	103	6465
29	6095	59	6245	119	6545
33	6115	67	6285	135	6625
37	6135	75	6325	151	6705
41	6155	83	6365	167	6785
45	6175	91	6405	183	6865
49	6195	99	6445	199	6945
53	6215	107	6485	215	7025
57	6235	115	6525	/	/
61	6255	123	6565	/	/
65	6275	131	6605	/	/
69	6295	139	6645	/	/
73	6315	147	6685	/	/
77	6335	155	6725	/	/
81	6355	163	6765	/	/
85	6375	171	6805	/	/
89	6395	179	6845	/	/
93	6415	187	6885	/	/
97	6435	195	6925	/	/
101	6455	203	6965	/	/
105	6475	211	7005	/	/
109	6495	219	7045	/	/

113	6515	227	7085	/	/
117	6535	/	/	/	/
121	6555	/	/	/	/
125	6575	/	/	/	/
129	6595	/	/	/	/
133	6615	/	/	/	/
137	6635	/	/	/	/
141	6655	/	/	/	/
145	6675	/	/	/	/
149	6695	/	/	/	/
153	6715	/	/	/	/
157	6735	/	/	/	/
161	6755	/	/	/	/
165	6775	/	/	/	/
169	6795	/	/	/	/
173	6815	/	/	/	/
177	6835	/	/	/	/
181	6855	/	/	/	/
185	6875	/	/	/	/
189	6895	/	/	/	/
193	6915	/	/	/	/
197	6935	/	/	/	/
201	6955	/	/	/	/
205	6975	/	/	/	/
209	6995	/	/	/	/
213	7015	/	/	/	/
217	7035	/	/	/	/
221	7055	/	/	/	/
225	7075	/	/	/	/
229	7095	/	/	/	/
233	7115	/	/	/	/

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
4	KDB Publication 987594 D03v01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure 6 GHz (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	RF Output Power	15.407(a)	Pass	--
2	Undesirable Emissions	15.407(b)	Pass	--

Note¹: This report is request a Class II Permissive Change (C2PC).

Note²: Compared with the original test report of EUT: FR412210AC 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 "2.94dBi" is lower than the original one "4.62dBi".

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	802.11ax(HEW20) mode	Keep the EUT in 802.11ax(HEW20) transmitting mode.
TM2	802.11ax(HEW40) mode	Keep the EUT in 802.11ax(HEW40) transmitting mode.
TM3	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.

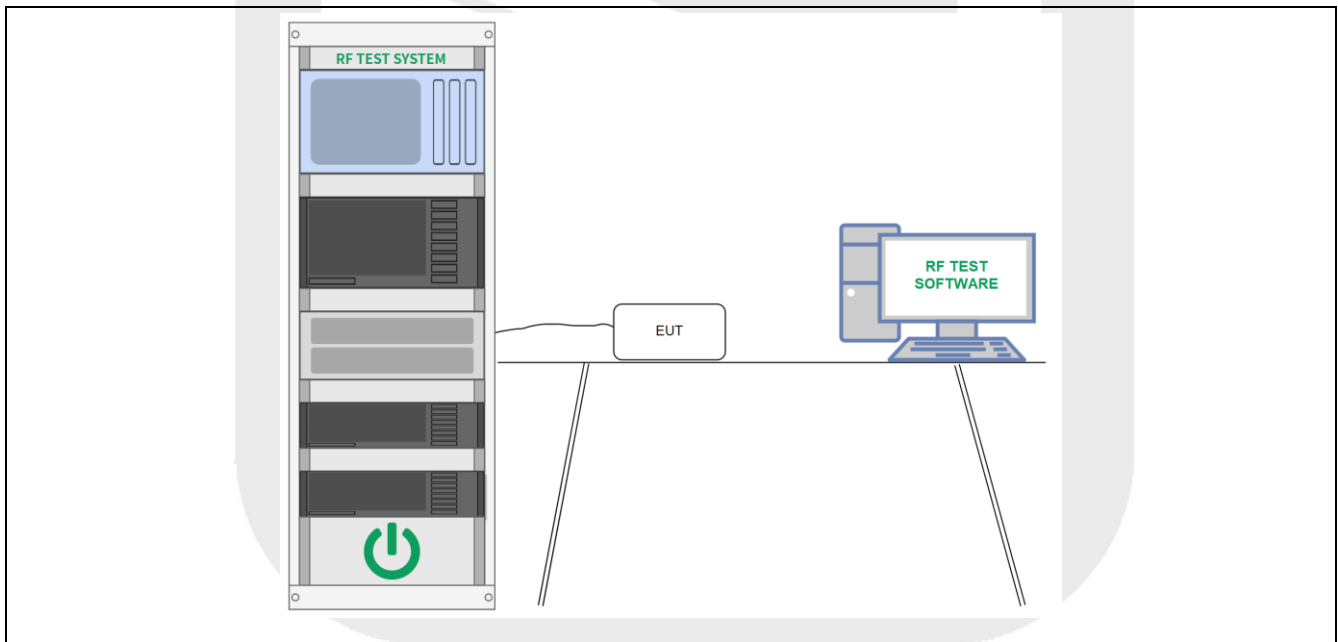
5 Test Items

5.1 Maximum Conducted Output Power

5.1.1 Test Requirement

Test Requirement	The maximum conducted output power should not exceed:	
	Frequency Band (MHz)	Limit
	5150-5250	250 mW
	5250-5350	250 mW or 11 dBm + 10log B, whichever is less.
	5470-5725	250 mW or 11 dBm + 10log B, whichever is less.
	5725-5850	1 W
	5925-7125	24 dBm (e.i.r.p.)
Note: Where "B" is the 26 dB emissions bandwidth in MHz.		
Test Method	ANSI C63.10-2020, section 12.4	

5.1.2 Test Setup Diagram



5.1.3 Test Procedure

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

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

5.1.4 Test 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)	EIRP (dBm)	EIRP (W)
5.925-6.425 GHz	-	-	-	-
802.11ax HEW20_Nss 1, (MCS0)_1TX	8.71	0.00743	11.65	0.014622
802.11ax HEW40_Nss 1, (MCS0)_1TX	11.02	0.01265	13.96	0.024889
802.11ax HEW80_Nss 1, (MCS0)_1TX	14.06	0.02547	17.00	0.050119
6.425-6.525 GHz	-	-	-	-
802.11ax HEW20_Nss 1, (MCS0)_1TX	8.15	0.00653	11.09	0.012853
802.11ax HEW40_Nss 1, (MCS0)_1TX	10.83	0.01211	13.77	0.023823
802.11ax HEW80_Nss 1, (MCS0)_1TX	13.65	0.02317	16.59	0.045604
6.525-6.875 GHz	-	-	-	-
802.11ax HEW20_Nss 1, (MCS0)_1TX	8.83	0.00764	11.77	0.015031
802.11ax HEW40_Nss 1, (MCS0)_1TX	11.23	0.01327	14.17	0.026122
802.11ax HEW80_Nss 1, (MCS0)_1TX	13.90	0.02455	16.84	0.048306
6.875-7.125 GHz	-	-	-	-
802.11ax HEW20_Nss 1, (MCS0)_1TX	8.86	0.00769	11.80	0.015136
802.11ax HEW40_Nss 1, (MCS0)_1TX	9.38	0.00867	12.32	0.017061
802.11ax HEW80_Nss 1, (MCS0)_1TX	12.73	0.01875	15.67	0.036898

Result

Mode	Frequency (MHz)	Total Power (dBm)	EIRP (dBm)		Verdict
			ANT1	Limit	
802.11ax HEW20_Nss 1, (MCS0)_1TX	5955	8.25	11.19	<=24.00	Pass
	6195	8.71	11.65	<=24.00	Pass
	6415	8.21	11.15	<=24.00	Pass
	6435	8.12	11.06	<=24.00	Pass
	6475	8.14	11.08	<=24.00	Pass
	6515	8.15	11.09	<=24.00	Pass
	6535	8.26	11.20	<=24.00	Pass
	6695	8.27	11.21	<=24.00	Pass
	6875	8.83	11.77	<=24.00	Pass
	6895	8.86	11.80	<=24.00	Pass
	6995	7.21	10.15	<=30.00	Pass
	7095	7.46	10.40	<=24.00	Pass
7115	6.87	9.81	<=24.00	Pass	
802.11ax HEW40_Nss 1, (MCS0)_1TX	5965	10.78	13.72	<=24.00	Pass
	6205	10.78	13.72	<=24.00	Pass
	6405	11.02	13.96	<=24.00	Pass
	6445	10.61	13.55	<=24.00	Pass
	6485	10.83	13.77	<=24.00	Pass
	6525	10.61	13.55	<=24.00	Pass

Mode	Frequency (MHz)	Total Power (dBm)	EIRP (dBm)		Verdict
			ANT1	Limit	
	6565	10.73	13.67	<=24.00	Pass
	6685	10.87	13.81	<=24.00	Pass
	6885	11.23	14.17	<=24.00	Pass
	6925	9.11	12.05	<=24.00	Pass
	7005	9.11	12.05	<=24.00	Pass
	7085	9.38	12.32	<=24.00	Pass
802.11ax HEW80_Nss 1, (MCS0)_1TX	5985	14.05	16.99	<=24.00	Pass
	6225	14.06	17.00	<=24.00	Pass
	6385	13.75	16.69	<=24.00	Pass
	6465	13.39	16.33	<=24.00	Pass
	6545	13.65	16.59	<=24.00	Pass
	6625	13.23	16.17	<=24.00	Pass
	6705	12.70	15.64	<=24.00	Pass
	6785	12.69	15.63	<=24.00	Pass
	6865	13.90	16.84	<=24.00	Pass
	6945	12.73	15.67	<=24.00	Pass
	7025	12.59	15.53	<=24.00	Pass

Note1: The antenna gain is 2.94dBi.

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> <p>For transmitters operating within the 5.925-7.125 Hz band: Any emissions outside of the 5.925-7.125 Hz band must not exceed an e.i.r.p.of -27 dBm/MHz.</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

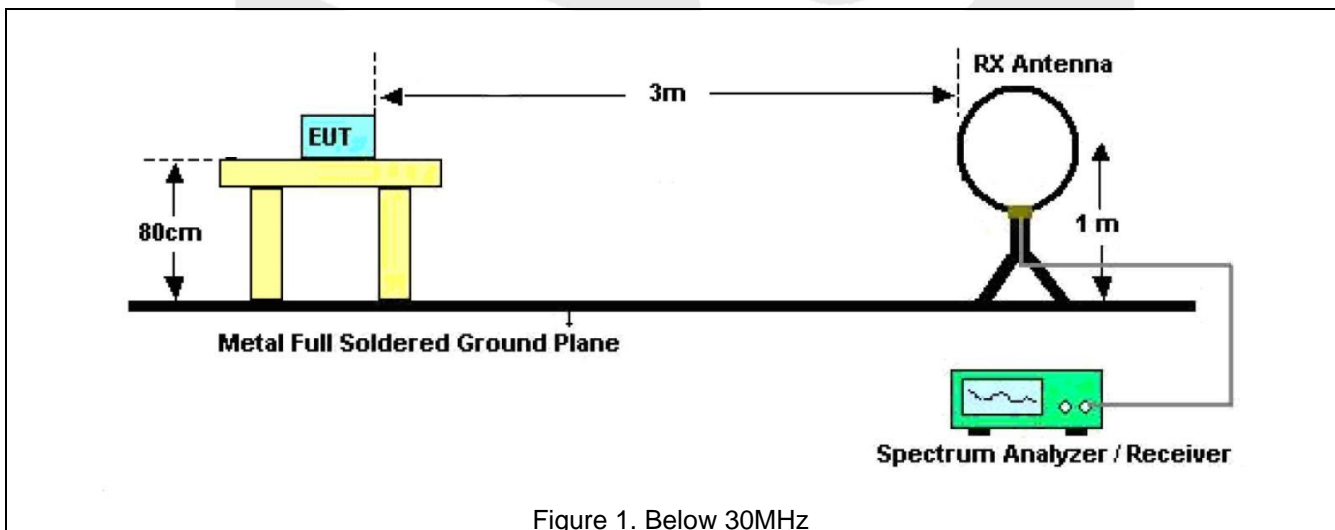
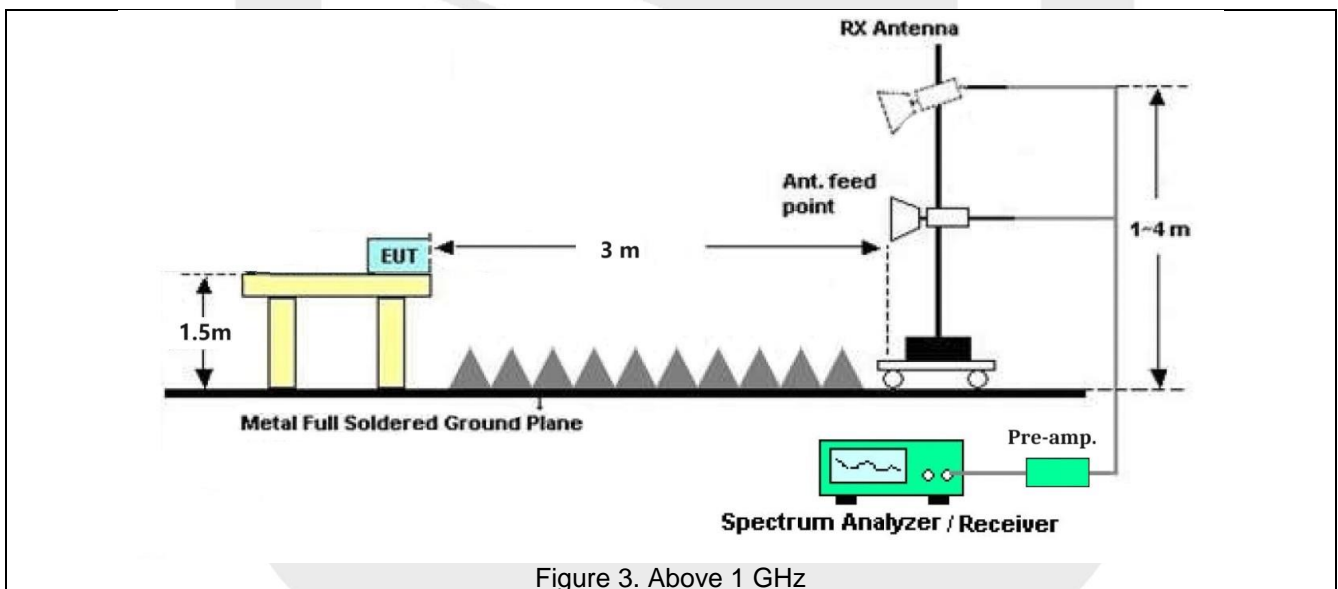
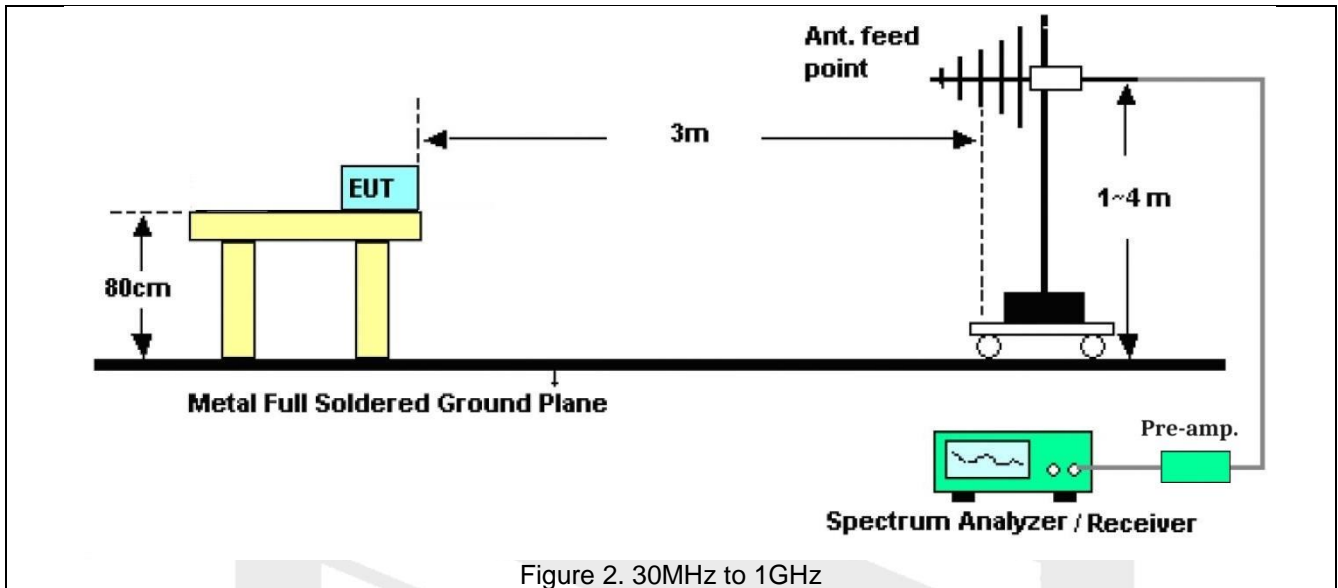


Figure 1. Below 30MHz



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.

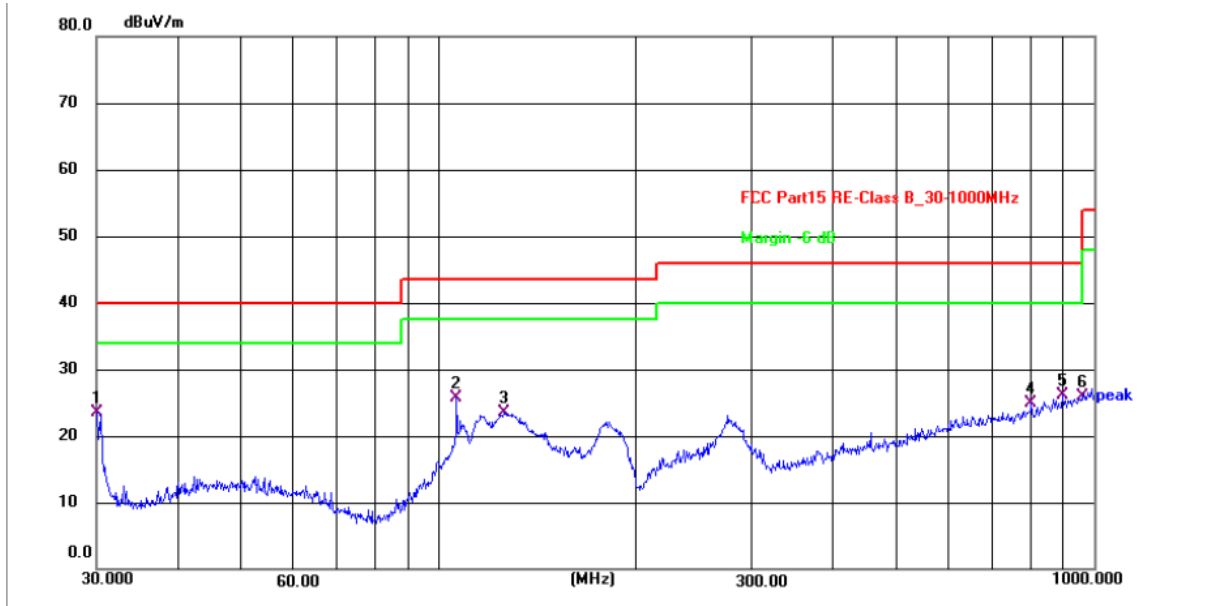
For test of 30MHz-1GHz, during the test, pre-scan all modes, only the worst case is recorded in the report.

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:	TM1/ CH 5955MHz



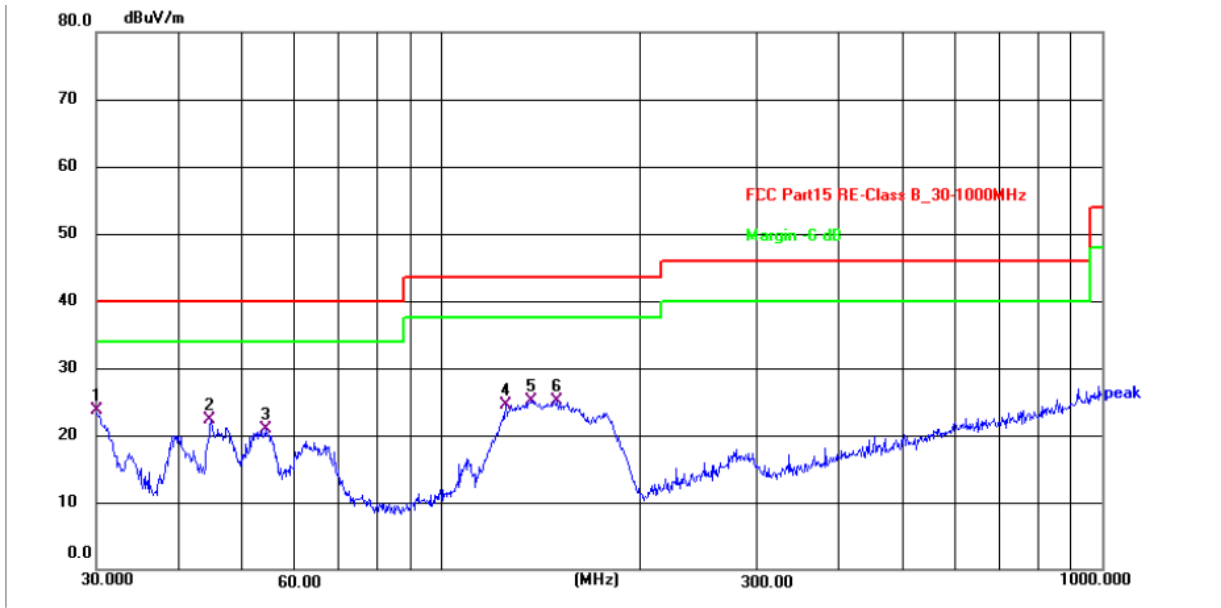
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	30.1054	40.49	-16.94	23.55	40.00	-16.45	QP	P	
2	106.3850	41.85	-16.10	25.75	43.50	-17.75	QP	P	
3	125.4457	40.66	-17.24	23.42	43.50	-20.08	QP	P	
4	801.7863	28.77	-3.94	24.83	46.00	-21.17	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:	TM1/ CH 5955MHz



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: 5955 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3202.42	47.99	-0.86	47.13	68.23	-21.10	PK	PASS
V	7512.62	42.37	9.84	52.22	68.23	-16.01	PK	PASS
V	9501.16	37.71	13.14	50.85	68.23	-17.38	PK	PASS
V	11910.50	42.46	13.79	56.25	68.23	-11.98	PK	PASS
V	14010.19	35.94	17.34	53.28	68.23	-14.95	PK	PASS
V	17865.25	*	*	*	68.23	*	PK	PASS
H	3201.00	45.06	-0.87	44.20	68.23	-24.03	PK	PASS
H	7502.50	40.61	9.83	50.45	68.23	-17.78	PK	PASS
H	9502.50	36.06	13.15	49.21	68.23	-19.02	PK	PASS
H	11911.25	44.61	13.79	58.40	68.23	-9.83	PK	PASS
H	14009.43	38.00	17.34	55.34	68.23	-12.89	PK	PASS
H	17867.25	*	*	*	68.23	*	PK	PASS
V	3202.42	34.90	-0.86	34.04	54.00	-19.96	AV	PASS
V	7512.62	28.88	9.84	38.72	54.00	-15.28	AV	PASS
V	9501.16	22.02	13.14	35.16	54.00	-18.84	AV	PASS
V	11910.50	30.21	13.79	44.00	54.00	-10.00	AV	PASS
V	14010.19	22.52	17.34	39.86	54.00	-14.14	AV	PASS
V	17865.25	*	*	*	54.00	*	AV	PASS
H	3201.00	34.00	-0.87	33.14	54.00	-20.86	AV	PASS
H	7502.50	30.52	9.83	40.36	54.00	-13.64	AV	PASS
H	9502.50	22.50	13.15	35.65	54.00	-18.35	AV	PASS
H	11911.25	30.62	13.79	44.41	54.00	-9.59	AV	PASS
H	14009.43	22.29	17.34	39.63	54.00	-14.37	AV	PASS
H	17867.25	*	*	*	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: 6195 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3406.11	47.19	-0.11	47.08	68.23	-21.15	PK	PASS
V	8019.12	40.30	10.37	50.67	68.23	-17.56	PK	PASS
V	9703.08	36.94	13.20	50.14	68.23	-18.09	PK	PASS
V	12390.50	43.84	13.91	57.75	68.23	-10.48	PK	PASS
V	14307.93	37.41	17.44	54.85	68.23	-13.38	PK	PASS
V	18586.50	*	*	*	68.23	*	PK	PASS
H	3401.90	45.58	-0.13	45.45	68.23	-22.78	PK	PASS
H	8013.51	41.72	10.36	52.08	68.23	-16.15	PK	PASS
H	9701.33	36.89	13.20	50.09	68.23	-18.14	PK	PASS
H	12392.25	42.13	13.91	56.04	68.23	-12.19	PK	PASS
H	14303.16	36.60	17.44	54.04	68.23	-14.19	PK	PASS
H	18586.00	*	*	*	68.23	*	PK	PASS
V	3406.11	32.07	-0.11	31.96	54.00	-22.04	AV	PASS
V	8019.12	30.10	10.37	40.47	54.00	-13.53	AV	PASS
V	9703.08	24.54	13.20	37.74	54.00	-16.26	AV	PASS
V	12390.50	32.15	13.91	46.06	54.00	-7.94	AV	PASS
V	14307.93	23.85	17.44	41.29	54.00	-12.71	AV	PASS
V	18586.50	*	*	*	54.00	*	AV	PASS
H	3401.90	32.03	-0.13	31.89	54.00	-22.11	AV	PASS
H	8013.51	30.94	10.36	41.29	54.00	-12.71	AV	PASS
H	9701.33	22.98	13.20	36.18	54.00	-17.82	AV	PASS
H	12392.25	31.18	13.91	45.09	54.00	-8.91	AV	PASS
H	14303.16	22.65	17.44	40.08	54.00	-13.92	AV	PASS
H	18586.00	*	*	*	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: 6415 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3707.18	45.00	1.10	46.10	68.23	-22.13	PK	PASS
V	8215.61	40.69	10.89	51.58	68.23	-16.65	PK	PASS
V	9803.84	36.67	13.23	49.90	68.23	-18.33	PK	PASS
V	12831.50	43.87	13.96	57.83	68.23	-10.40	PK	PASS
V	14700.58	37.33	17.56	54.89	68.23	-13.34	PK	PASS
V	19247.00	*	*	*	68.23	*	PK	PASS
H	3701.37	45.61	1.09	46.70	68.23	-21.53	PK	PASS
H	8207.61	41.39	10.87	52.26	68.23	-15.97	PK	PASS
H	9802.64	37.96	13.23	51.19	68.23	-17.04	PK	PASS
H	12830.00	42.42	13.96	56.38	68.23	-11.85	PK	PASS
H	14716.85	37.75	17.60	55.34	68.23	-12.89	PK	PASS
H	19247.25	*	*	*	68.23	*	PK	PASS
V	3707.18	34.45	1.10	35.54	54.00	-18.46	AV	PASS
V	8215.61	30.90	10.89	41.79	54.00	-12.21	AV	PASS
V	9803.84	22.54	13.23	35.77	54.00	-18.23	AV	PASS
V	12831.50	30.47	13.96	44.43	54.00	-9.57	AV	PASS
V	14700.58	23.40	17.56	40.96	54.00	-13.04	AV	PASS
V	19247.00	*	*	*	54.00	*	AV	PASS
H	3701.37	34.79	1.09	35.88	54.00	-18.12	AV	PASS
H	8207.61	29.30	10.87	40.17	54.00	-13.83	AV	PASS
H	9802.64	22.93	13.23	36.16	54.00	-17.84	AV	PASS
H	12830.00	31.77	13.96	45.73	54.00	-8.27	AV	PASS
H	14716.85	24.52	17.60	42.11	54.00	-11.89	AV	PASS
H	19247.25	*	*	*	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: 6435 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3718.25	47.75	1.11	48.86	68.23	-19.37	PK	PASS
V	8209.85	42.09	10.88	52.96	68.23	-15.27	PK	PASS
V	9815.68	36.70	13.23	49.94	68.23	-18.29	PK	PASS
V	12870.00	42.23	13.96	56.19	68.23	-12.04	PK	PASS
V	14710.79	36.84	17.58	54.42	68.23	-13.81	PK	PASS
V	19307.50	*	*	*	68.23	*	PK	PASS
H	3701.79	47.46	1.09	48.55	68.23	-19.68	PK	PASS
H	8216.04	40.85	10.89	51.75	68.23	-16.48	PK	PASS
H	9815.97	36.81	13.23	50.04	68.23	-18.19	PK	PASS
H	12871.25	43.55	13.96	57.51	68.23	-10.72	PK	PASS
H	14700.29	35.01	17.56	52.57	68.23	-15.66	PK	PASS
H	19305.75	*	*	*	68.23	*	PK	PASS
V	3718.25	34.32	1.11	35.43	54.00	-18.57	AV	PASS
V	8209.85	28.94	10.88	39.82	54.00	-14.18	AV	PASS
V	9815.68	22.89	13.23	36.12	54.00	-17.88	AV	PASS
V	12870.00	31.10	13.96	45.06	54.00	-8.94	AV	PASS
V	14710.79	24.12	17.58	41.71	54.00	-12.29	AV	PASS
V	19307.50	*	*	*	54.00	*	AV	PASS
H	3701.79	32.74	1.09	33.83	54.00	-20.17	AV	PASS
H	8216.04	28.41	10.89	39.30	54.00	-14.70	AV	PASS
H	9815.97	23.14	13.23	36.37	54.00	-17.63	AV	PASS
H	12871.25	30.07	13.96	44.03	54.00	-9.97	AV	PASS
H	14700.29	24.00	17.56	41.56	54.00	-12.44	AV	PASS
H	19305.75	*	*	*	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: 6475 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3703.06	47.44	1.09	48.54	68.23	-19.69	PK	PASS
V	8219.63	42.78	10.90	53.69	68.23	-14.54	PK	PASS
V	9815.65	35.64	13.23	48.88	68.23	-19.35	PK	PASS
V	12950.00	43.74	13.96	57.70	68.23	-10.53	PK	PASS
V	14704.65	37.50	17.57	55.07	68.23	-13.16	PK	PASS
V	19425.50	*	*	*	68.23	*	PK	PASS
H	3710.48	45.37	1.10	46.47	68.23	-21.76	PK	PASS
H	8217.87	42.65	10.90	53.54	68.23	-14.69	PK	PASS
H	9811.44	35.11	13.23	48.34	68.23	-19.89	PK	PASS
H	12950.00	43.99	13.96	57.95	68.23	-10.28	PK	PASS
H	14710.27	35.11	17.58	52.69	68.23	-15.54	PK	PASS
H	19426.00	*	*	*	68.23	*	PK	PASS
V	3703.06	34.55	1.09	35.64	54.00	-18.36	AV	PASS
V	8219.63	28.12	10.90	39.02	54.00	-14.98	AV	PASS
V	9815.65	24.72	13.23	37.96	54.00	-16.04	AV	PASS
V	12950.00	30.84	13.96	44.80	54.00	-9.20	AV	PASS
V	14704.65	22.04	17.57	39.61	54.00	-14.39	AV	PASS
V	19425.50	*	*	*	54.00	*	AV	PASS
H	3710.48	32.92	1.10	34.02	54.00	-19.98	AV	PASS
H	8217.87	30.94	10.90	41.84	54.00	-12.16	AV	PASS
H	9811.44	22.19	13.23	35.42	54.00	-18.58	AV	PASS
H	12950.00	32.52	13.96	46.48	54.00	-7.52	AV	PASS
H	14710.27	24.39	17.58	41.97	54.00	-12.03	AV	PASS
H	19426.00	*	*	*	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: 6515 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3718.35	45.22	1.11	46.33	68.23	-21.90	PK	PASS
V	8207.00	42.46	10.87	53.32	68.23	-14.91	PK	PASS
V	9812.37	37.92	13.23	51.15	68.23	-17.08	PK	PASS
V	13030.50	42.93	13.96	56.89	68.23	-11.35	PK	PASS
V	14710.13	35.02	17.58	52.61	68.23	-15.62	PK	PASS
V	19545.00	*	*	*	68.23	*	PK	PASS
H	3710.42	47.52	1.10	48.62	68.23	-19.61	PK	PASS
H	8205.24	41.33	10.86	52.20	68.23	-16.03	PK	PASS
H	9806.48	35.53	13.23	48.76	68.23	-19.47	PK	PASS
H	13031.25	43.37	13.96	57.33	68.23	-10.90	PK	PASS
H	14709.44	35.83	17.58	53.41	68.23	-14.82	PK	PASS
H	19545.75	*	*	*	68.23	*	PK	PASS
V	3718.35	33.78	1.11	34.89	54.00	-19.11	AV	PASS
V	8207.00	28.12	10.87	38.99	54.00	-15.01	AV	PASS
V	9812.37	24.00	13.23	37.23	54.00	-16.77	AV	PASS
V	13030.50	30.62	13.96	44.58	54.00	-9.42	AV	PASS
V	14710.13	23.84	17.58	41.42	54.00	-12.58	AV	PASS
V	19545.00	*	*	*	54.00	*	AV	PASS
H	3710.42	34.36	1.10	35.46	54.00	-18.54	AV	PASS
H	8205.24	30.78	10.86	41.65	54.00	-12.35	AV	PASS
H	9806.48	24.83	13.23	38.06	54.00	-15.94	AV	PASS
H	13031.25	32.44	13.96	46.40	54.00	-7.60	AV	PASS
H	14709.44	24.69	17.58	42.27	54.00	-11.73	AV	PASS
H	19545.75	*	*	*	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: 6535 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3715.23	45.29	1.10	46.40	68.23	-21.83	PK	PASS
V	8207.39	41.34	10.87	52.21	68.23	-16.02	PK	PASS
V	9818.06	35.92	13.24	49.16	68.23	-19.07	PK	PASS
V	13070.25	42.53	13.96	56.49	68.23	-11.74	PK	PASS
V	14710.68	36.74	17.58	54.33	68.23	-13.90	PK	PASS
V	19605.75	*	*	*	68.23	*	PK	PASS
H	3719.22	47.28	1.11	48.38	68.23	-19.85	PK	PASS
H	8210.64	40.80	10.88	51.68	68.23	-16.55	PK	PASS
H	9820.42	37.71	13.24	50.95	68.23	-17.28	PK	PASS
H	13072.25	42.08	13.96	56.04	68.23	-12.19	PK	PASS
H	14716.29	36.48	17.60	54.08	68.23	-14.15	PK	PASS
H	19606.50	*	*	*	68.23	*	PK	PASS
V	3715.23	32.40	1.10	33.50	54.00	-20.50	AV	PASS
V	8207.39	29.81	10.87	40.68	54.00	-13.32	AV	PASS
V	9818.06	23.39	13.24	36.62	54.00	-17.38	AV	PASS
V	13070.25	31.31	13.96	45.27	54.00	-8.73	AV	PASS
V	14710.68	23.01	17.58	40.59	54.00	-13.41	AV	PASS
V	19605.75	*	*	*	54.00	*	AV	PASS
H	3719.22	33.11	1.11	34.22	54.00	-19.78	AV	PASS
H	8210.64	30.36	10.88	41.24	54.00	-12.76	AV	PASS
H	9820.42	24.40	13.24	37.64	54.00	-16.36	AV	PASS
H	13072.25	32.11	13.96	46.07	54.00	-7.93	AV	PASS
H	14716.29	23.82	17.60	41.42	54.00	-12.58	AV	PASS
H	19606.50	*	*	*	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: 6695 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3709.40	45.25	1.10	46.34	68.23	-21.89	PK	PASS
V	8204.88	42.83	10.86	53.70	68.23	-14.53	PK	PASS
V	9818.84	37.81	13.24	51.05	68.23	-17.18	PK	PASS
V	13392.50	42.46	13.96	56.42	68.23	-11.81	PK	PASS
V	14701.70	36.87	17.56	54.44	68.23	-13.79	PK	PASS
V	20085.25	*	*	*	68.23	*	PK	PASS
H	3709.34	47.14	1.10	48.24	68.23	-19.99	PK	PASS
H	8202.04	40.13	10.86	50.99	68.23	-17.24	PK	PASS
H	9813.41	36.40	13.23	49.63	68.23	-18.60	PK	PASS
H	13390.75	44.65	13.96	58.61	68.23	-9.62	PK	PASS
H	14712.89	35.07	17.59	52.66	68.23	-15.57	PK	PASS
H	20086.00	*	*	*	68.23	*	PK	PASS
V	3709.40	34.02	1.10	35.12	54.00	-18.88	AV	PASS
V	8204.88	30.83	10.86	41.70	54.00	-12.30	AV	PASS
V	9818.84	24.24	13.24	37.47	54.00	-16.53	AV	PASS
V	13392.50	30.19	13.96	44.15	54.00	-9.85	AV	PASS
V	14701.70	22.40	17.56	39.97	54.00	-14.03	AV	PASS
V	20085.25	*	*	*	54.00	*	AV	PASS
H	3709.34	32.47	1.10	33.57	54.00	-20.43	AV	PASS
H	8202.04	28.35	10.86	39.21	54.00	-14.79	AV	PASS
H	9813.41	23.39	13.23	36.62	54.00	-17.38	AV	PASS
H	13390.75	32.87	13.96	46.83	54.00	-7.17	AV	PASS
H	14712.89	24.16	17.59	41.75	54.00	-12.25	AV	PASS
H	20086.00	*	*	*	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: 6875 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3701.95	46.78	1.09	47.87	68.23	-20.36	PK	PASS
V	8218.67	40.97	10.90	51.87	68.23	-16.36	PK	PASS
V	9820.50	37.75	13.24	50.98	68.23	-17.25	PK	PASS
V	13750.00	43.57	13.96	57.53	68.23	-10.70	PK	PASS
V	14708.64	35.82	17.58	53.40	68.23	-14.83	PK	PASS
V	20627.50	*	*	*	68.23	*	PK	PASS
H	3701.53	46.97	1.09	48.06	68.23	-20.17	PK	PASS
H	8208.21	41.53	10.87	52.40	68.23	-15.83	PK	PASS
H	9813.13	37.72	13.23	50.96	68.23	-17.27	PK	PASS
H	13750.25	44.82	13.96	58.78	68.23	-9.45	PK	PASS
H	14718.07	36.98	17.60	54.58	68.23	-13.65	PK	PASS
H	20626.75	*	*	*	68.23	*	PK	PASS
V	3701.95	33.08	1.09	34.17	54.00	-19.83	AV	PASS
V	8218.67	28.65	10.90	39.55	54.00	-14.45	AV	PASS
V	9820.50	22.14	13.24	35.38	54.00	-18.62	AV	PASS
V	13750.00	30.28	13.96	44.24	54.00	-9.76	AV	PASS
V	14708.64	22.06	17.58	39.64	54.00	-14.36	AV	PASS
V	20627.50	*	*	*	54.00	*	AV	PASS
H	3701.53	32.75	1.09	33.85	54.00	-20.15	AV	PASS
H	8208.21	30.92	10.87	41.79	54.00	-12.21	AV	PASS
H	9813.13	23.72	13.23	36.96	54.00	-17.04	AV	PASS
H	13750.25	31.28	13.96	45.24	54.00	-8.76	AV	PASS
H	14718.07	23.12	17.60	40.72	54.00	-13.28	AV	PASS
H	20626.75	*	*	*	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: 6895 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3702.88	45.04	1.09	46.13	68.23	-22.10	PK	PASS
V	8208.48	41.10	10.87	51.97	68.23	-16.26	PK	PASS
V	9813.99	35.53	13.23	48.77	68.23	-19.46	PK	PASS
V	13790.50	44.30	13.96	58.26	68.23	-9.97	PK	PASS
V	15016.38	37.04	17.60	54.63	68.23	-13.60	PK	PASS
V	20685.00	*	*	*	68.23	*	PK	PASS
H	3716.72	46.80	1.11	47.91	68.23	-20.32	PK	PASS
H	8217.11	40.17	10.90	51.06	68.23	-17.17	PK	PASS
H	9802.74	36.43	13.23	49.66	68.23	-18.57	PK	PASS
H	13791.75	42.19	13.96	56.15	68.23	-12.08	PK	PASS
H	15011.05	36.67	17.58	54.25	68.23	-13.98	PK	PASS
H	20685.75	*	*	*	68.23	*	PK	PASS
V	3702.88	34.64	1.09	35.73	54.00	-18.27	AV	PASS
V	8208.48	30.32	10.87	41.19	54.00	-12.81	AV	PASS
V	9813.99	24.91	13.23	38.14	54.00	-15.86	AV	PASS
V	13790.50	32.89	13.96	46.85	54.00	-7.15	AV	PASS
V	15016.38	24.98	17.60	42.58	54.00	-11.42	AV	PASS
V	20685.00	*	*	*	54.00	*	AV	PASS
H	3716.72	34.05	1.11	35.15	54.00	-18.85	AV	PASS
H	8217.11	28.97	10.90	39.87	54.00	-14.13	AV	PASS
H	9802.74	23.03	13.23	36.26	54.00	-17.74	AV	PASS
H	13791.75	30.76	13.96	44.72	54.00	-9.28	AV	PASS
H	15011.05	23.72	17.58	41.30	54.00	-12.70	AV	PASS
H	20685.75	*	*	*	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: 6995 MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3714.49	46.30	1.10	47.41	68.23	-20.82	PK	PASS
V	8202.29	41.28	10.86	52.13	68.23	-16.10	PK	PASS
V	9806.23	36.28	13.23	49.51	68.23	-18.72	PK	PASS
V	13991.25	43.74	13.96	57.70	68.23	-10.53	PK	PASS
V	15001.30	36.66	17.56	54.22	68.23	-14.01	PK	PASS
V	20985.50	*	*	*	68.23	*	PK	PASS
H	3714.08	45.95	1.10	47.05	68.23	-21.18	PK	PASS
H	8203.27	42.36	10.86	53.22	68.23	-15.01	PK	PASS
H	9806.99	36.07	13.23	49.30	68.23	-18.93	PK	PASS
H	13991.25	44.82	13.96	58.78	68.23	-9.45	PK	PASS
H	15009.71	36.17	17.58	53.76	68.23	-14.47	PK	PASS
H	20985.00	*	*	*	68.23	*	PK	PASS
V	3714.49	32.98	1.10	34.09	54.00	-19.91	AV	PASS
V	8202.29	29.92	10.86	40.77	54.00	-13.23	AV	PASS
V	9806.23	24.99	13.23	38.23	54.00	-15.77	AV	PASS
V	13991.25	32.45	13.96	46.41	54.00	-7.60	AV	PASS
V	15001.30	23.28	17.56	40.84	54.00	-13.16	AV	PASS
V	20985.50	*	*	*	54.00	*	AV	PASS
H	3714.08	33.55	1.10	34.65	54.00	-19.35	AV	PASS
H	8203.27	28.05	10.86	38.91	54.00	-15.09	AV	PASS
H	9806.99	22.49	13.23	35.72	54.00	-18.28	AV	PASS
H	13991.25	30.68	13.96	44.64	54.00	-9.36	AV	PASS
H	15009.71	23.71	17.58	41.29	54.00	-12.71	AV	PASS
H	20985.00	*	*	*	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: 7095MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3719.72	47.37	1.11	48.48	68.23	-19.75	PK	PASS
V	8203.27	42.19	10.86	53.04	68.23	-15.19	PK	PASS
V	9812.09	36.80	13.23	50.03	68.23	-18.20	PK	PASS
V	14190.50	42.46	13.96	56.42	68.23	-11.81	PK	PASS
V	15202.70	35.29	17.57	52.85	68.23	-15.38	PK	PASS
V	21286.25	*	*	*	68.23	*	PK	PASS
H	3700.18	46.83	1.09	47.92	68.23	-20.31	PK	PASS
H	8212.67	40.58	10.88	51.47	68.23	-16.76	PK	PASS
H	9810.04	37.43	13.23	50.66	68.23	-17.57	PK	PASS
H	14190.75	43.65	13.96	57.61	68.23	-10.62	PK	PASS
H	15203.90	37.73	17.57	55.30	68.23	-12.93	PK	PASS
H	21286.25	*	*	*	68.23	*	PK	PASS
V	3719.72	34.86	1.11	35.97	54.00	-18.03	AV	PASS
V	8203.27	30.23	10.86	41.09	54.00	-12.91	AV	PASS
V	9812.09	24.77	13.23	38.00	54.00	-16.00	AV	PASS
V	14190.50	30.76	13.96	44.72	54.00	-9.28	AV	PASS
V	15202.70	22.51	17.57	40.08	54.00	-13.92	AV	PASS
V	21286.25	*	*	*	54.00	*	AV	PASS
H	3700.18	33.53	1.09	34.62	54.00	-19.38	AV	PASS
H	8212.67	28.76	10.88	39.65	54.00	-14.35	AV	PASS
H	9810.04	23.79	13.23	37.02	54.00	-16.98	AV	PASS
H	14190.75	30.54	13.96	44.50	54.00	-9.50	AV	PASS
H	15203.90	22.60	17.57	40.17	54.00	-13.83	AV	PASS
H	21286.25	*	*	*	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: 7115MHz			
Pol.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type	Result
V	3704.27	47.93	1.09	49.02	68.23	-19.21	PK	PASS
V	8210.98	41.22	10.88	52.09	68.23	-16.14	PK	PASS
V	9803.20	35.28	13.23	48.51	68.23	-19.72	PK	PASS
V	14230.00	43.77	13.96	57.73	68.23	-10.50	PK	PASS
V	15605.00	35.88	17.57	53.45	68.23	-14.78	PK	PASS
V	21345.25	*	*	*	68.23	*	PK	PASS
H	3715.15	47.20	1.10	48.30	68.23	-19.93	PK	PASS
H	8211.87	41.80	10.88	52.68	68.23	-15.55	PK	PASS
H	9813.99	36.90	13.23	50.13	68.23	-18.10	PK	PASS
H	14230.00	44.39	13.96	58.35	68.23	-9.88	PK	PASS
H	15619.72	36.31	17.60	53.92	68.23	-14.31	PK	PASS
H	21347.25	*	*	*	68.23	*	PK	PASS
V	3704.27	33.26	1.09	34.35	54.00	-19.65	AV	PASS
V	8210.98	28.11	10.88	38.99	54.00	-15.01	AV	PASS
V	9803.20	22.31	13.23	35.54	54.00	-18.46	AV	PASS
V	14230.00	32.90	13.96	46.86	54.00	-7.14	AV	PASS
V	15605.00	23.27	17.57	40.84	54.00	-13.16	AV	PASS
V	21345.25	*	*	*	54.00	*	AV	PASS
H	3715.15	32.08	1.10	33.18	54.00	-20.82	AV	PASS
H	8211.87	30.35	10.88	41.24	54.00	-12.76	AV	PASS
H	9813.99	24.95	13.23	38.19	54.00	-15.81	AV	PASS
H	14230.00	31.35	13.96	45.31	54.00	-8.69	AV	PASS
H	15619.72	22.99	17.60	40.59	54.00	-13.41	AV	PASS
H	21347.25	*	*	*	54.00	*	AV	PASS

Remark:

1. Emission Level = Reading + Factor, Margin= Emission Level – Limit.
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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"



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