

TEST REPORT

Applicant: SHANGHAI XIANGCHENG COMMUNICATION TECHNOLOGY CO., LTD
Address: 6th Floor, Building 10, No.3000 Longdong Avenue, Pudong New District, Shanghai
Equipment Type: Intelligent Mobile Data Capture Terminal
Model Name: Ranger 3 (refer to section 2.3)
Brand Name: N/A
FCC ID: 2A2UU-MF-T2561
Test Standard: 47 CFR Part 15 Subpart E (refer section 3.1)
Sample Arrival Date: Jul. 27, 2026
Test Date: Aug. 01, 2026 - Aug. 14, 2026
Date of Issue: Sep. 11, 2026

ISSUED BY:

Shanghai Tejet Communications Technology Co., Ltd. Testing Center

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Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Sep. 11, 2026</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China

1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1-2/F., Building 1, No.222, Xuanlan Road, Xuanqiao, Pudong New District, Shanghai, China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352. The laboratory is a testing organization accredited by ISED as a accredited testing laboratory. The company number is 29671 and CAB identifier number is CN0142.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	SHANGHAI XIANGCHENG COMMUNICATION TECHNOLOGY CO., LTD
Address	6th Floor, Building 10, No.3000 Longdong Avenue, Pudong New District, Shanghai

2.2 Manufacturer Information

Manufacturer	SHANGHAI XIANGCHENG COMMUNICATION TECHNOLOGY CO., LTD
Address	6th Floor, Building 10, No.3000 Longdong Avenue, Pudong New District, Shanghai

2.3 General Description for Equipment under Test (EUT)

EUT Name	Intelligent Mobile Data Capture Terminal
Model Name Under Test	Ranger 3
Series Model Name	Ranger3 Nova, Ranger3 Ultra, Ranger3 Lite, Ranger 3C, S60, S60C, S67, S67C, T6, T6 Pro, T6 Lite, T6 SE, M7, M7 PRO, M7 Pro, M7 Lite, EM7 Pro, MF70C, MF70N, MF70P, MF70 Pro, MF70 SE, T25, T2561, T25X, TP25, TP70, TP80, T650, T700
Description of Model name differentiation	All the same except for the model name.
Sample Number	SC-SH25C0065-S06(conducted) SC-SH25C0065-S03(radiated)
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/25/26/66 LTE TDD Band 38/40/41 Bluetooth (BR+EDR+BLE:1M&2M) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40), 802.11ax(HE20/40) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80), 802.11ax(HE20/40/80) 6G WIFI 802.11ax(HE20/40/80) NFC, BDS, GPS, GLONASS, Galileo, QZSS, SBAS
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The requirement for the following technical information of the EUT was tested in this report:

Frequency Range	U-NII-5: 5925 MHz to 6425 MHz, U-NII-6: 6425 MHz to 6525 MHz, U-NII-7: 6525 MHz to 6875 MHz, U-NII-8: 6875 MHz to 7125 MHz	
Equipment Classes	6XD	
Modulation technology	OFDMA	
Modulation Type	1024QAM, 256QAM, 64QAM, 16QAM, BPSK, QPSK	
Transfer Rate (Mbps) (Single RF path)	802.11ax: up to 600.5 Mbps	
Channel Bandwidth	802.11ax: 20 MHz, 40 MHz, 80 MHz	
Maximum Output Power	U-NII-5: 15.45 dBm U-NII-6: 15.88 dBm U-NII-7: 15.57 dBm U-NII-8: 15.31 dBm	
Antenna System (eg., MIMO, Smart Antenna)	Multi Input Multi Output (MIMO) for 802.11ax	
Categorization as Correlated or Completely Uncorrelated	Categorization as Uncorrelated for 802.11ax	
Antenna Type	Main Antenna Aux. Antenna	PIFA Antenna
Antenna Gain	Main Antenna	U-NII-5: 5925 MHz to 6425 MHz: 2.09 dBi U-NII-6: 6425 MHz to 6525 MHz: 3.95 dBi U-NII-7: 6525 MHz to 6875 MHz: 3.95 dBi U-NII-8: 6875 MHz to 7125 MHz: 2.31 dBi
	Aux. Antenna	U-NII-5: 5925 MHz to 6425 MHz: 0.81 dBi

		U-NII-6: 6425 MHz to 6525 MHz: -2.96 dBi U-NII-7: 6525 MHz to 6875 MHz: -2.96 dBi U-NII-8: 6875 MHz to 7125 MHz: -6.08 dBi
Total directional gain	For power spectral density(PSD) measurements	Correlated: U-NII-5: 5925 MHz to 6425 MHz: 4.48 dBi U-NII-6: 6425 MHz to 6525 MHz: 4.18 dBi U-NII-7: 6525 MHz to 6875 MHz: 4.18 dBi U-NII-8: 6875 MHz to 7125 MHz: 2.10 dBi Formulas: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / \text{NANT}]$ dBi Uncorrelated: U-NII-5: 5925 MHz to 6425 MHz: 1.50 dBi U-NII-6: 6425 MHz to 6525 MHz: 1.74 dBi U-NII-7: 6525 MHz to 6875 MHz: 1.74 dBi U-NII-8: 6875 MHz to 7125 MHz: -0.11 dBi Formulas: Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / \text{NANT}]$ dBi
	For power measurements	Correlated: U-NII-5: 5925 MHz to 6425 MHz: 4.48 dBi U-NII-6: 6425 MHz to 6525 MHz: 4.18 dBi U-NII-7: 6525 MHz to 6875 MHz: 4.18 dBi U-NII-8: 6875 MHz to 7125 MHz: 2.10 dBi Formulas: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / \text{NANT}]$ dBi Uncorrelated: U-NII-5: 5925 MHz to 6425 MHz: 1.50 dBi U-NII-6: 6425 MHz to 6525 MHz: 1.74 dBi U-NII-7: 6525 MHz to 6875 MHz: 1.74 dBi U-NII-8: 6875 MHz to 7125 MHz: -0.11 dBi Formulas: Directional gain = $10 \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / \text{NANT}]$ dBi
About the Product		The equipment is Intelligent Mobile Data Capture Terminal, intended for used with information technology equipment.

Mode	Antenna		
	Main Antenna	Aux. Antenna	MIMO
802.11ax20	√	√	√
802.11ax40	√	√	√
802.11ax80	√	√	√
Note: All the configurations were tested, but only the worst data was shown in this report.			

802.11ax RU configuration table							
Mode	Full RU (SU)	RU_26	RU_52	RU_106	RU_242	RU_484	RU_996
802.11ax20	√	√	√	√	√	--	--
802.11ax40	√	√	√	√	√	√	--
802.11ax80	√	√	√	√	√	√	√

Note: The above EUT information in section 2.4 was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

2.5 Channel List

U-NII-5/6/7/8:

20 MHz		40 MHz		80 MHz	
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 test, and the selected channel see below:

For 802.11ax(HE20)

U-NII-5 (5925 - 6425 MHz)			U-NII-6 (6425 - 6525 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
1	Low	5955	97	Low	6435
45	Mid	6175	105	Mid	6475
93	High	6415	113	High	6515

U-NII-7 (6525 - 6875 MHz)			U-NII-8 (6875 - 7125 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
117	Low	6535	185	Low	6875
153	Mid	6715	213	Mid	7015
181	High	6855	229	Mid	7095
/	/	/	233	High	7115

For 802.11ax(HE40)

U-NII-5 (5925 - 6425 MHz)			U-NII-6 (6425 - 6525 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
3	Low	5965	99	Low	6445
43	Mid	6165	107	Mid	6485
91	High	6405	115	High	6525

U-NII-7 (6525 - 6875 MHz)			U-NII-8 (6875 - 7125 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
123	Low	6565	187	Low	6885
155	Mid	6725	211	Mid	7005
179	High	6845	227	High	7085

For 802.11ax(HE80)

U-NII-5 (5925 - 6425 MHz)			U-NII-6 (6425 - 6525 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
7	Low	5985	103	Low	6465
39	Mid	6145	119	High	6545
87	High	6385	/	/	/

U-NII-7 (6525 - 6875 MHz)			U-NII-8 (6875 - 7125 MHz)		
Channel Number	Channel	Frequency (MHz)	Channel Number	Channel	Frequency (MHz)
135	Low	6625	183	Low	6865
151	Mid	6705	199	Mid	6945
167	High	6785	215	High	7025

Note: Preliminary tests were performed in different data rate in above table to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Modulation Type	U-NII-5	U-NII-6	U-NII-7	U-NII-8
				Channel	Channel	Channel	Channel
RF Output Power	11ax(20 MHz)	7.3	OFDMA	1/45/93	97/105/113	117/153/181	185/213/229/233
	11ax(40 MHz)	14.6		3/43/91	99/107/115	123/155/179	187/211/227
	11ax(80 MHz)	30.6		7/39/87	103/119	135/151/167	183/199/215
Emission Bandwidth & 99% Occupied Bandwidth	11ax(20 MHz)	7.3	OFDMA	1/45/93	97/105/113	117/153/181	185/213/229/233
	11ax(40 MHz)	14.6		3/43/91	99/107/115	123/155/179	187/211/227
	11ax(80 MHz)	30.6		7/39/87	103/119	135/151/167	183/199/215
Power Spectral Density	11ax(20 MHz)	7.3	OFDMA	1/45/93	97/105/113	117/153/181	185/213/229/233
	11ax(40 MHz)	14.6		3/43/91	99/107/115	123/155/179	187/211/227
	11ax(80 MHz)	30.6		7/39/87	103/119	135/151/167	183/199/215
Radiated Spurious Emissions	11ax(20 MHz)	7.3	OFDMA	1/45/93	97/105/113	117/153/181	185/213/229/233
	11ax(40 MHz)	14.6		3/43/91	99/107/115	123/155/179	187/211/227
	11ax(80 MHz)	30.6		7/39/87	103/119	135/151/167	183/199/215
Band Edge (Restricted-band)	11ax(20 MHz)	7.3	OFDMA	1/45/93	97/105/113	117/153/181	185/213/229/233
	11ax(40 MHz)	14.6		3/43/91	99/107/115	123/155/179	187/211/227
	11ax(80 MHz)	30.6		7/39/87	103/119	135/151/167	183/199/215
Contention Based Protocol	11ax(20 MHz)	7.3	OFDMA	1/45/93	97/105/113	117/153/181	185/213/229/233
	11ax(40 MHz)	14.6		3/43/91	99/107/115	123/155/179	187/211/227
	11ax(80 MHz)	30.6		7/39/87	103/119	135/151/167	183/199/215
In-Band Emissions	11ax(20 MHz)	7.3	OFDMA	1/45/93	97/105/113	117/153/181	185/213/229/233
	11ax(40 MHz)	14.6		3/43/91	99/107/115	123/155/179	187/211/227
	11ax(80 MHz)	30.6		7/39/87	103/119	135/151/167	183/199/215

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E	Unlicensed National Information Infrastructure Devices
2	KDB Publication 789033 D02v02r01	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E
3	KDB Publication 987594 D02v03	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure 6 GHz (U-NII) Devices Part 15, Subpart E
4	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
5	KDB Publication 662911 D01v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band (e.g., MIMO, Smart Antenna, etc)

3.2 Test Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass ^{Note1}
2	RF Output Power	15.407(a)	ANNEX A.1	Pass
3	Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	ANNEX A.2	Pass
4	Power Spectral Density	15.407(a)	ANNEX A.3	Pass
5	Conducted Emission	15.207	ANNEX A.4	Pass
6	Radiated Spurious Emissions and Band Edge (Restricted-band)	15.407(b)	ANNEX A.5	Pass
7	Contention Based Protocol	15.407(d)	ANNEX A.6	Pass
8	In-Band Emissions	15.407(b)	ANNEX A.7	Pass

Note 1: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

Note 2: Under all normal operating conditions specified in the user manual, frequency stability can keep radiation within the operating frequency band.

3.3 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 $k=2$.

Parameters	Uncertainty
Occupied Channel Bandwidth	2.40 %
RF output power, conducted	0.41 dB
Power Spectral Density, conducted	1.74 dB
Unwanted Emissions, conducted	1.74 dB
Radiated emissions (9 kHz-30 MHz)	4.00 dB
Radiated emissions (30 MHz-1 GHz)	4.40 dB
Radiated emissions (1 GHz -18 GHz)	5.20 dB
Radiated emissions (18 GHz-40 GHz)	5.60 dB
Temperature	0.82 °C
Humidity	4.08 %

3.4 Decision Rule

- ☐ No Need
- ☒ Use General Conformity Decision Rule
- ☐ Use Special Conformity Decision Rule

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

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

Relative Humidity	47% to 58%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+21.8°C to +24.1°C
Working Voltage of the EUT	NV (Normal Voltage)	3.91 V

4.2 Test Equipment List

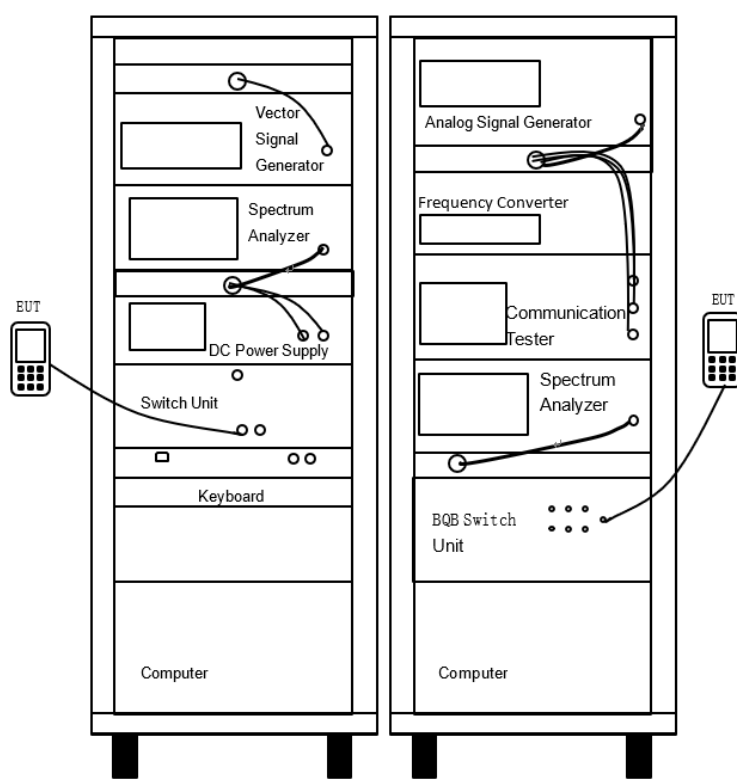
Description	Manufacturer	Model	Equipment No.	Cal. Date	Cal. Due
Spectrum Analyzer	KEYSIGHT	N9020A	BH-EMC-L066	2026.02.03	2027.02.02
Spectrum Analyzer	KEYSIGHT	N9010B	BH-EMC-L099	2026.02.03	2027.02.02
Signal Generator	Anritsu	MG3710E	BH-EMC-L131	2026.02.03	2027.02.02
Wideband Radio Communication Tester	R&S	CMW500	BH-EMC-L094	2026.02.03	2027.02.02
EMI Receiver	KEYSIGHT	N9038A	BH-EMC-L015	2026.03.20	2027.03.19
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519 B	BH-EMC-L067	2024.03.11	2027.03.10
Test Antenna-Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	BH-EMC-L008	2024.03.11	2027.03.10
Test Antenna-Horn(1-18 GHz)	SCHWARZBECK	BBHA 9120D	BH-EMC-L044	2024.03.11	2027.03.10
Test Antenna-Horn (18-40 GHz)	A-INFO	LB-180400-KF	BH-EMC-L061	2024.03.11	2027.03.10
Anechoic Chamber	YiHeng	9m*6m*6m	BH-EMC-L001	2024.04.18	2027.04.17
EMI Receiver	KEYSIGHT	N9038A	BH-EMC-L127	2026.02.05	2027.02.04
LISN	SCHWARZBECK	NSLK 8127	BH-EMC-L011	2026.02.04	2027.02.03
10dB Limiter	SCHWARZBECK	VTSD 9561-F	BH-EMC-L014	2026.02.04	2027.02.03
Shielded Room	YiHeng	5m*4m*3.2m	BH-EMC-L006	2024.02.22	2027.02.21

4.3 Test Software List

Description	Manufacturer	Software Version	Serial No.	Applicable Test Setup
BL410R	BALUN	V3.5.2.642	N/A	The section 4.4.1
BL410-E	BALUN	V21.919	N/A	The section 4.4.3&4.4.4&4.4.5
BL410-E	BALUN	V19.618	N/A	The section 4.4.2

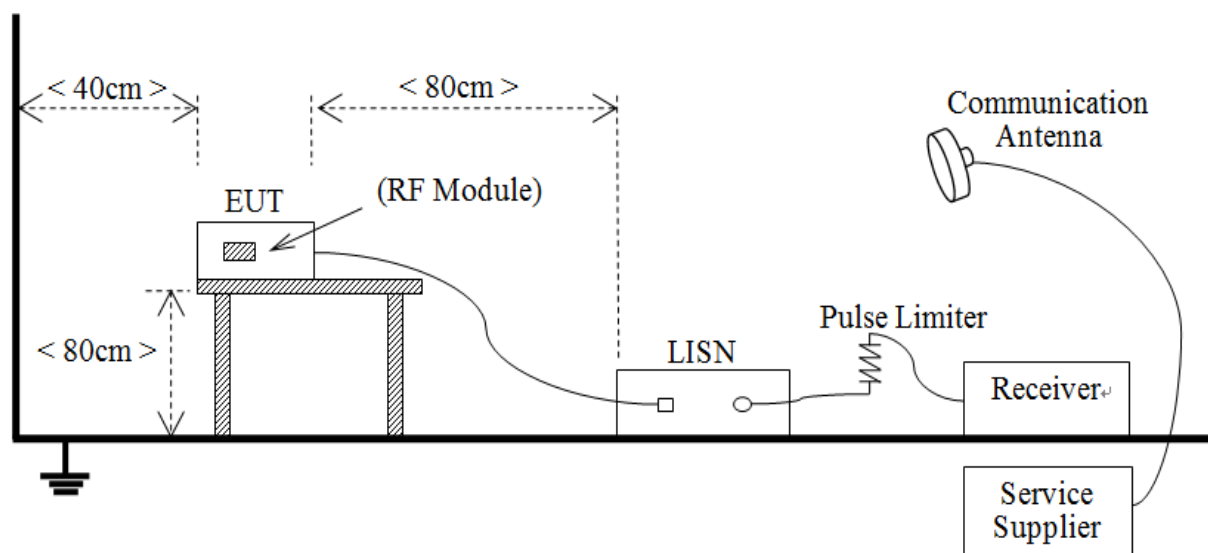
4.4 Description of Test Setup

4.4.1 For Antenna Port Test



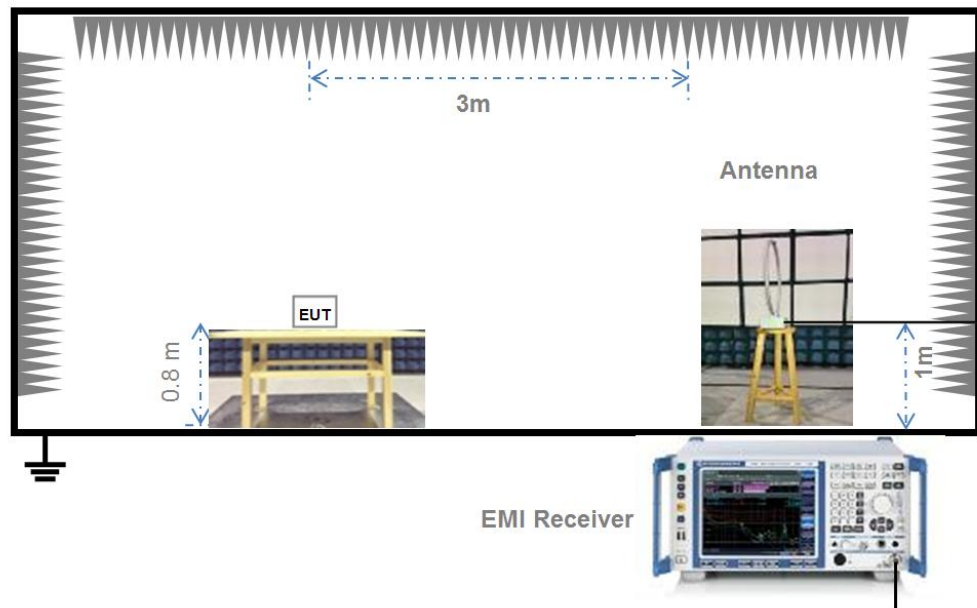
(Diagram 1)

4.4.2 For AC Power Supply Port Test



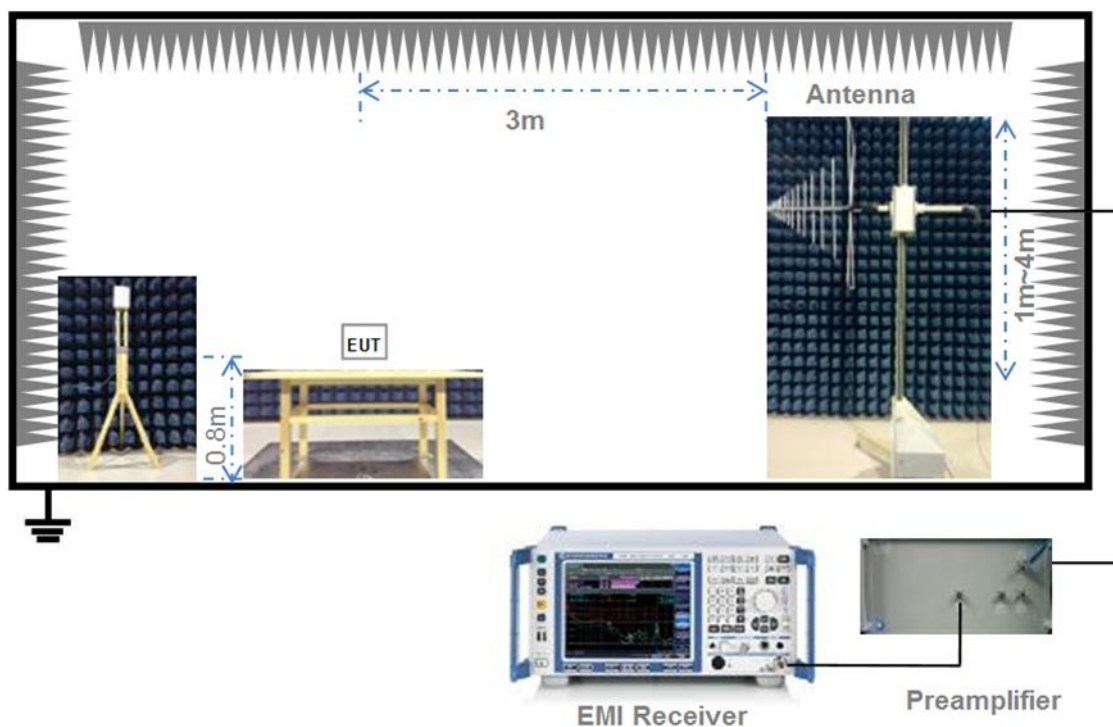
(Diagram 2)

4.4.3 For Radiated Test (Below 30 MHz)



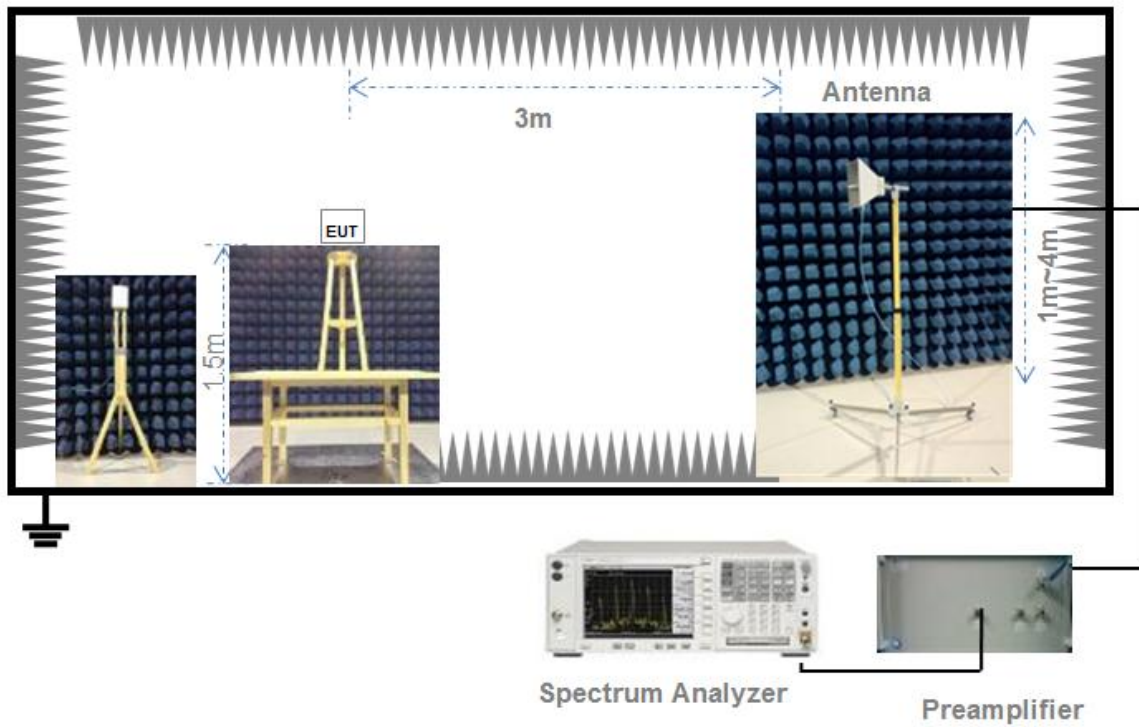
(Diagram 3)

4.4.4 For Radiated Test (30 MHz-1 GHz)



(Diagram 4)

4.4.5 For Radiated Test (Above 1 GHz)



(Diagram 5)

5 TEST ITEMS

5.1 RF Output Power

5.1.1 Test Limit

FCC §15.407(a)

The maximum conducted output power should not exceed:

Frequency Band (MHz)	Limit
5925-7125	24 dBm (e.i.r.p.)

5.1.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.1.3 Test Procedure

Maximum conducted (average) output power

a) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

- 1) The EUT is configured to transmit continuously or to transmit with a constant duty cycle.
- 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal.

c) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

d) Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle.

Measurements of duty cycle

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal.

Set the center frequency of the instrument to the center frequency of the transmission.

Set RBW $\geq$ OBW if possible; otherwise, set RBW to the largest available value.

Set VBW $\geq$ RBW. Set detector = peak or average.

The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T \leq 16.7$ microseconds.)

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 Result

Please refer to ANNEX A.1.

5.2 Emission Bandwidth and 99% Occupied Bandwidth

5.2.1 Limit

FCC §15.407(a)

The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz.

5.2.2 Test Setup

The test setup photo please refer to 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.2.3 Test Procedure

Emission bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set VBW $\geq 3 \times$ RBW,
3. Detector = Peak.
4. Trace mode = Max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

Occupied Bandwidth

1. Set Span = 1.5 times to 5.0 times the OBW
2. Set RBW = 1% to 5% of the OBW.
3. Set VBW $\geq 3 \times$ RBW, Detector = Peak.
4. Trace mode = Max hold.
5. Use the 99% power bandwidth function of the instrument.

5.2.4 Test Result

Please refer to ANNEX A.2.

5.3 Power Spectral density (PSD)

5.3.1 Limit

FCC §15.407(a)

The maximum power spectral density should not exceed:

Frequency Band (MHz)	Limit
5925-7125	-1 dBm/MHz (e.i.r.p.)

5.3.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.3.3 Test Procedure

Set the spectrum analyzer or EMI receiver span to view the entire emission bandwidth.

1. Set RBW = 1 MHz,
2. VBW $\geq 3 \times$ RBW,
3. Sweep time = Auto,
4. Detector = RMS.
5. Allow the sweeps to continue until the trace stabilizes.
6. Use the peak marker function to determine the maximum amplitude level.
7. The E.I.R.P spectral density 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.

5.3.4 Test Result

Please refer to ANNEX A.3.

5.4 Conducted Emission

5.4.1 Limit

FCC §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the U-NII-150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

5.4.2 Test Setup

The section 4.4.2 (Diagram 2) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.4.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

5.4.4 Test Result

Please refer to ANNEX A.4.

5.5 Radiated Spurious Emissions and Band Edge (Restricted-band)

5.5.1 Limit

FCC §15.209 & 15.407(b)

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
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

Note ¹: The Limit for radiated test was performed according to FCC Part 15C

Note ²: The tighter limit applies at the band edge.

Un-restricted band emissions	
Out Operating Band (MHz)	Limit
5925 - 7125	e.i.r.p. -27 dBm (68.2 dBuV/m@3m)

Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength.

5.5.2 Test Setup

The section 4.4.3-4.4.5 (Diagram 3 - Diagram 5) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.5.3 Test Procedure

Since the emission limits are specified in terms of radiated field strength levels, measurements performed to demonstrate compliance have traditionally relied on a radiated test configuration. Radiated measurements remain the principal method for demonstrating compliance to the specified limits; however antenna-port conducted measurements are also now acceptable to demonstrate compliance (see below for details). When radiated measurements are utilized, test site requirements and procedures for maximizing and measuring radiated emissions that are described in ANSI C63.10 shall be followed.

Antenna-port conducted measurements may also be used as an alternative to radiated measurements for demonstrating compliance in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case spurious emissions is required.

General Procedure for conducted measurements in restricted bands

- Measure the conducted output power (in dBm) using the detector specified (see guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).
- Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP level (see guidance on determining the applicable antenna gain)

c) Add the appropriate maximum ground reflection factor to the EIRP level (6 dB for frequencies ≤ 30 MHz, 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive and 0 dB for frequencies > 1000 MHz).
 d) For devices with multiple antenna-ports, measure the power of each individual chain and sum the EIRP of all chains in linear terms (e.g., Watts, mW).

e) Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:
 $E = \text{EIRP} - 20\log D + 104.8$

where:

E = electric field strength in dB μ V/m,

EIRP = equivalent isotropic radiated power in dBm

D = specified measurement distance in meters.

f) Compare the resultant electric field strength level to the applicable limit.

g) Perform radiated spurious emission test.

Quasi-Peak measurement procedure

The specifications for measurements using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Frequency Interference (CISPR) of the International Electrotechnical Commission.

As an alternative to CISPR quasi-peak measurement, compliance can be demonstrated to the applicable emission limits using a peak detector.

Peak power measurement procedure

Peak emission levels are measured by setting the instrument as follows:

a) RBW = as specified in Table 1.

b) VBW $\geq 3 \times$ RBW.

c) Detector = Peak.

d) Sweep time = auto.

e) Trace mode = max hold.

f) Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time may be longer for low duty cycle applications).

Table 1—RBW as a function of frequency

Frequency	RBW
9-150 kHz	200-300 Hz
0.15-30 MHz	9-10 kHz
30-1000 MHz	100-120 kHz
> 1000 MHz	1 MHz

If the peak-detected amplitude can be shown to comply with the average limit, then it is not necessary to perform a separate average measurement.

Trace averaging across on and off times of the EUT transmissions followed by duty cycle correction

If continuous transmission of the EUT (i.e., duty cycle ≥ 98 percent) cannot be achieved and the duty cycle is constant (i.e., duty cycle variations are less than ± 2 percent), then the following procedure shall be used:

- a) The EUT shall be configured to operate at the maximum achievable duty cycle.
- b) Measure the duty cycle, x , of the transmitter output signal as described in section 6.0.
- c) RBW = 1 MHz (unless otherwise specified).
- d) VBW $\geq 3 \times$ RBW.
- e) Detector = RMS, if $\text{span}/(\# \text{ of points in sweep}) \leq (\text{RBW}/2)$. Satisfying this condition may require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
- f) Averaging type = power (i.e., RMS).
 - 1) As an alternative, the detector and averaging type may be set for linear voltage averaging.
 - 2) Some instruments require linear display mode in order to use linear voltage averaging. Log or dB averaging shall not be used.
- g) Sweep time = auto.
- h) Perform a trace average of at least 100 traces.
- i) A correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100 percent duty cycle. The correction factor is computed as follows:
 - 1) If power averaging (RMS) mode was used in step f), then the applicable correction factor is $10 \log(1/x)$, where x is the duty cycle.
 - 2) If linear voltage averaging mode was used in step f), then the applicable correction factor is $20 \log(1/x)$, where x is the duty cycle.
 - 3) If a specific emission is demonstrated to be continuous (≥ 98 percent duty cycle) rather than turning on and off with the transmit cycle, then no duty cycle correction is required for that emission.

NOTE: Reduction of the measured emission amplitude levels to account for operational duty factor is not permitted. Compliance is based on emission levels occurring during transmission - not on an average across on and off times of the transmitter.

Determining the applicable transmit antenna gain

A conducted power measurement will determine the maximum output power associated with a restricted band emission; however, in order to determine the associated EIRP level, the gain of the transmitting antenna (in dBi) must be added to the measured output power (in dBm).

Since the out-of-band characteristics of the EUT transmit antenna will often be unknown, the use of a conservative antenna gain value is necessary. Thus, when determining the EIRP based on the measured conducted power, the upper bound on antenna gain for a device with a single RF output shall be selected as the maximum in-band gain of the antenna across all operating bands, or 2 dBi, whichever is greater. However, for devices that operate in multiple frequency bands while using the same transmit antenna, the highest gain of the antenna within the operating band nearest in frequency to the restricted band emission being measured may be used in lieu of the overall highest gain when the emission is at a frequency that is within 20 percent of the nearest band edge frequency, but in no case shall a value less than 2 dBi be used.

See KDB 662911 for guidance on calculating the additional array gain term when determining the effective antenna gain for a EUT with multiple outputs occupying the same or overlapping frequency ranges in the same band.

Radiated spurious emission test

An additional consideration when performing conducted measurements of restricted band emissions is that unwanted emissions radiating from the EUT cabinet, control circuits, power leads, or intermediate circuit elements will likely go undetected in a conducted measurement configuration. To address this concern, a radiated test shall be performed to ensure that emissions emanating from the EUT cabinet (rather than the antenna port) also comply with the applicable limits.

For these cabinet radiated spurious emission measurements the EUT transmit antenna may be replaced with a termination matching the nominal impedance of the antenna. Procedures for performing radiated measurements are specified in ANSI C63.10. All detected emissions shall comply with the applicable limits. The measurement frequency range is from 30 MHz 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

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW $\geq$ RBW

Sweep = auto

Detector function = peak

Trace = max hold

5.5.4 Test Result

Please refer to ANNEX A.5.

5.6 Contention Based Protocol

5.6.1 Limit

FCC §15.15.407(d)

Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.

Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel and stay off the channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.

5.6.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.6.3 Test Procedure

The AWGN interference signal level is corrected according to the antenna gain, and the AWGN interference signal is modulated by the vector signal source. When AWGN interference exists, a spectrum analyzer is used to detect whether the EUT recognizes and stops transmission.

5.6.4 Test Result

Please refer to ANNEX A.6.

5.7 In-Band Emissions

5.7.1 Limit

FCC §15.15.407(b)

Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:

- a. Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
- b. Suppressed by 28 dB at one channel bandwidth from the channel center.
- c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.

5.7.2 Test Setup

The section 4.4.1 (Diagram 1) test setup description was used for this test. The photo of test setup please refer to ANNEX B.

5.7.3 Test Procedure

1. Connect output of the antenna port to a spectrum analyzer or EMI receiver, with appropriate attenuation, as to not damage the instrumentation.
2. Set the reference level of the measuring equipment in accordance with procedure 4.1.5.2 of ANSI C63.10.
3. Measure the 26 dB EBW using the test procedure 12.4.1 of ANSI C63.10. (This will be used to determine the channel edge.)
4. Measure the power spectral density (which will be used for emissions mask reference) using the following procedure:
 - a) Set the span to encompass the entire 26 dB EBW of the signal.
 - b) Set RBW = same RBW used for 26 dB EBW measurement.
 - c) Set VBW $\geq 3 \times$ RBW
 - d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$.
 - e) Sweep time = auto.
 - f) Detector = RMS (i.e., power averaging)
 - g) Trace average at least 100 traces in power averaging (rms) mode.
 - h) Use the peak search function on the instrument to find the peak of the spectrum.
5. For the purposes of developing the emission mask, the channel bandwidth is defined as the 26 dB EBW.
6. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
 - a. Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
 - b. Suppressed by 28 dB at one channel bandwidth from the channel center.
 - c. Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
7. Adjust the span to encompass the entire mask as necessary.
8. Clear trace.

9. Trace average at least 100 traces in power averaging (rms) mode.
10. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask

5.7.4 Test Result

Please refer to ANNEX A.7.

ANNEX A TEST RESULT

A.1 RF Output Power

Note 1: For FCC standard, if transmitting antennas of directional gain greater than 6 dBi are used, all band maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note 2: All the configurations were tested, but only the worst data was shown in this report.

Note 3: The RF Output Power has considered the Duty Factor.

Duty Cycle

U-NII-5/6/7/8

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11ax (HE20)	100.00	100.00	100.00%	0.00
11ax (HE40)	100.00	100.00	100.00%	0.00
11ax (HE80)	100.00	100.00	100.00%	0.00

Test Mode	On Time (ms)	On+Off time (ms)	Duty Cycle	Duty Factor
11ax (HE20) (RU)	4.71	5.49	85.72%	0.67
11ax (HE40) (RU)	2.37	3.18	74.47%	1.28
11ax (HE80) (RU)	1.17	1.96	59.65%	2.24

Test DataConducted PowerMain Antenna:

U-NII-5 (5925 - 6425MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH1	7.92	24	Pass
11ax (HE20)	CH45	6.84	24	Pass
11ax (HE20)	CH93	6.76	24	Pass
11ax (HE40)	CH3	9.27	24	Pass
11ax (HE40)	CH43	8.09	24	Pass
11ax (HE40)	CH91	8.75	24	Pass
11ax (HE80)	CH7	12.61	24	Pass
11ax (HE80)	CH39	11.65	24	Pass
11ax (HE80)	CH87	11.93	24	Pass
11ax (HE20) (RU26)	CH1	-0.92	24	Pass
11ax (HE20) (RU26)	CH45	-1.61	24	Pass
11ax (HE20) (RU26)	CH93	-1.17	24	Pass
11ax (HE20) (RU52)	CH1	0.61	24	Pass
11ax (HE20) (RU52)	CH45	0.11	24	Pass
11ax (HE20) (RU52)	CH93	0.73	24	Pass
11ax (HE20) (RU106)	CH1	4.68	24	Pass
11ax (HE20) (RU106)	CH45	4.11	24	Pass
11ax (HE20) (RU106)	CH93	4.25	24	Pass
11ax (HE20) (RU242)	CH1	6.96	24	Pass
11ax (HE20) (RU242)	CH45	6.54	24	Pass
11ax (HE20) (RU242)	CH93	6.99	24	Pass
11ax (HE40) (RU484)	CH3	7.95	24	Pass
11ax (HE40) (RU484)	CH43	7.46	24	Pass
11ax (HE40) (RU484)	CH91	8.17	24	Pass
11ax (HE80) (RU996)	CH7	11.90	24	Pass
11ax (HE80) (RU996)	CH39	10.60	24	Pass
11ax (HE80) (RU996)	CH87	11.17	24	Pass

U-NII-6 (6425 - 6525MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH97	8.82	24	Pass
11ax (HE20)	CH105	8.75	24	Pass
11ax (HE20)	CH113	7.32	24	Pass
11ax (HE40)	CH99	11.02	24	Pass
11ax (HE40)	CH107	11.16	24	Pass
11ax (HE40)	CH115	11.06	24	Pass
11ax (HE80)	CH103	14.99	24	Pass
11ax (HE80)	CH119	13.11	24	Pass
11ax (HE20) (RU26)	CH97	0.51	24	Pass
11ax (HE20) (RU26)	CH105	0.93	24	Pass
11ax (HE20) (RU26)	CH113	-0.44	24	Pass
11ax (HE20) (RU52)	CH97	3.68	24	Pass
11ax (HE20) (RU52)	CH105	2.92	24	Pass
11ax (HE20) (RU52)	CH113	3.75	24	Pass
11ax (HE20) (RU106)	CH97	5.48	24	Pass
11ax (HE20) (RU106)	CH105	5.87	24	Pass
11ax (HE20) (RU106)	CH113	5.82	24	Pass
11ax (HE20) (RU242)	CH97	7.72	24	Pass
11ax (HE20) (RU242)	CH105	8.60	24	Pass
11ax (HE20) (RU242)	CH113	7.84	24	Pass
11ax (HE40) (RU484)	CH99	9.86	24	Pass
11ax (HE40) (RU484)	CH107	9.66	24	Pass
11ax (HE40) (RU484)	CH115	9.66	24	Pass
11ax (HE80) (RU996)	CH103	12.84	24	Pass
11ax (HE80) (RU996)	CH119	13.77	24	Pass

U-NII-7 (6525 - 6825MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH117	8.28	24	Pass
11ax (HE20)	CH153	8.18	24	Pass
11ax (HE20)	CH181	9.68	24	Pass
11ax (HE40)	CH123	10.46	24	Pass
11ax (HE40)	CH155	9.49	24	Pass
11ax (HE40)	CH179	10.33	24	Pass
11ax (HE80)	CH135	14.03	24	Pass
11ax (HE80)	CH151	14.40	24	Pass
11ax (HE80)	CH167	13.67	24	Pass
11ax (HE20) (RU26)	CH117	-0.49	24	Pass
11ax (HE20) (RU26)	CH153	-0.64	24	Pass
11ax (HE20) (RU26)	CH181	-1.22	24	Pass
11ax (HE20) (RU52)	CH117	2.08	24	Pass
11ax (HE20) (RU52)	CH153	2.06	24	Pass
11ax (HE20) (RU52)	CH181	1.81	24	Pass
11ax (HE20) (RU106)	CH117	4.92	24	Pass
11ax (HE20) (RU106)	CH153	4.07	24	Pass
11ax (HE20) (RU106)	CH181	5.04	24	Pass
11ax (HE20) (RU242)	CH117	7.11	24	Pass
11ax (HE20) (RU242)	CH153	7.73	24	Pass
11ax (HE20) (RU242)	CH181	8.58	24	Pass
11ax (HE40) (RU484)	CH123	9.79	24	Pass
11ax (HE40) (RU484)	CH155	10.33	24	Pass
11ax (HE40) (RU484)	CH179	10.69	24	Pass
11ax (HE80) (RU996)	CH135	12.65	24	Pass
11ax (HE80) (RU996)	CH151	12.84	24	Pass
11ax (HE80) (RU996)	CH167	11.84	24	Pass

U-NII-8 (6875 - 7125MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH185	9.55	24	Pass
11ax (HE20)	CH213	9.23	24	Pass
11ax (HE20)	CH229	8.92	24	Pass
11ax (HE20)	CH233	9.14	24	Pass
11ax (HE40)	CH187	11.18	24	Pass
11ax (HE40)	CH211	10.93	24	Pass
11ax (HE40)	CH227	10.87	24	Pass
11ax (HE80)	CH183	14.71	24	Pass
11ax (HE80)	CH199	13.73	24	Pass
11ax (HE80)	CH215	14.64	24	Pass
11ax (HE20) (RU26)	CH189	0.46	24	Pass
11ax (HE20) (RU26)	CH213	-0.59	24	Pass
11ax (HE20) (RU26)	CH229	-0.77	24	Pass
11ax (HE20) (RU26)	CH233	-0.57	24	Pass
11ax (HE20) (RU52)	CH189	3.16	24	Pass
11ax (HE20) (RU52)	CH213	2.33	24	Pass
11ax (HE20) (RU52)	CH229	2.51	24	Pass
11ax (HE20) (RU106)	CH233	5.43	24	Pass
11ax (HE20) (RU106)	CH213	4.63	24	Pass
11ax (HE20) (RU106)	CH229	4.44	24	Pass
11ax (HE20) (RU242)	CH189	7.05	24	Pass
11ax (HE20) (RU242)	CH213	7.41	24	Pass
11ax (HE20) (RU242)	CH229	6.70	24	Pass
11ax (HE20) (RU242)	CH233	7.03	24	Pass
11ax (HE40) (RU484)	CH187	10.51	24	Pass
11ax (HE40) (RU484)	CH211	9.87	24	Pass
11ax (HE40) (RU484)	CH227	9.49	24	Pass
11ax (HE80) (RU996)	CH183	13.54	24	Pass
11ax (HE80) (RU996)	CH199	13.61	24	Pass
11ax (HE80) (RU996)	CH215	13.12	24	Pass

Aux. Antenna:

U-NII-5 (5925 - 6425MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH1	6.99	24	Pass
11ax (HE20)	CH45	7.26	24	Pass
11ax (HE20)	CH93	7.50	24	Pass
11ax (HE40)	CH3	9.74	24	Pass
11ax (HE40)	CH43	8.78	24	Pass
11ax (HE40)	CH91	9.17	24	Pass
11ax (HE80)	CH7	12.27	24	Pass
11ax (HE80)	CH39	12.09	24	Pass
11ax (HE80)	CH87	12.59	24	Pass
11ax (HE20) (RU26)	CH1	-1.38	24	Pass
11ax (HE20) (RU26)	CH45	-1.31	24	Pass
11ax (HE20) (RU26)	CH93	-0.78	24	Pass
11ax (HE20) (RU52)	CH1	0.18	24	Pass
11ax (HE20) (RU52)	CH45	0.21	24	Pass
11ax (HE20) (RU52)	CH93	1.42	24	Pass
11ax (HE20) (RU106)	CH1	3.35	24	Pass
11ax (HE20) (RU106)	CH45	4.22	24	Pass
11ax (HE20) (RU106)	CH93	4.01	24	Pass
11ax (HE20) (RU242)	CH1	6.34	24	Pass
11ax (HE20) (RU242)	CH45	6.78	24	Pass
11ax (HE20) (RU242)	CH93	6.93	24	Pass
11ax (HE40) (RU484)	CH3	7.86	24	Pass
11ax (HE40) (RU484)	CH43	8.52	24	Pass
11ax (HE40) (RU484)	CH91	8.90	24	Pass
11ax (HE80) (RU996)	CH7	11.58	24	Pass
11ax (HE80) (RU996)	CH39	10.48	24	Pass
11ax (HE80) (RU996)	CH87	11.35	24	Pass

U-NII-6 (6425 - 6525MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH97	2.30	24	Pass
11ax (HE20)	CH105	2.28	24	Pass
11ax (HE20)	CH113	4.13	24	Pass
11ax (HE40)	CH99	4.91	24	Pass
11ax (HE40)	CH107	5.00	24	Pass
11ax (HE40)	CH115	6.85	24	Pass
11ax (HE80)	CH103	8.56	24	Pass
11ax (HE80)	CH119	9.75	24	Pass
11ax (HE20) (RU26)	CH97	-6.29	24	Pass
11ax (HE20) (RU26)	CH105	-5.89	24	Pass
11ax (HE20) (RU26)	CH113	-3.44	24	Pass
11ax (HE20) (RU52)	CH97	-3.08	24	Pass
11ax (HE20) (RU52)	CH105	-2.20	24	Pass
11ax (HE20) (RU52)	CH113	-1.24	24	Pass
11ax (HE20) (RU106)	CH97	-0.96	24	Pass
11ax (HE20) (RU106)	CH105	-0.82	24	Pass
11ax (HE20) (RU106)	CH113	1.32	24	Pass
11ax (HE20) (RU242)	CH97	1.22	24	Pass
11ax (HE20) (RU242)	CH105	1.41	24	Pass
11ax (HE20) (RU242)	CH113	3.59	24	Pass
11ax (HE40) (RU484)	CH99	3.44	24	Pass
11ax (HE40) (RU484)	CH107	3.63	24	Pass
11ax (HE40) (RU484)	CH115	7.08	24	Pass
11ax (HE80) (RU996)	CH103	7.07	24	Pass
11ax (HE80) (RU996)	CH119	9.76	24	Pass

U-NII-7 (6525 - 6825MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH117	4.76	24	Pass
11ax (HE20)	CH153	2.93	24	Pass
11ax (HE20)	CH181	3.18	24	Pass
11ax (HE40)	CH123	5.77	24	Pass
11ax (HE40)	CH155	4.88	24	Pass
11ax (HE40)	CH179	3.92	24	Pass
11ax (HE80)	CH135	8.65	24	Pass
11ax (HE80)	CH151	9.31	24	Pass
11ax (HE80)	CH167	8.55	24	Pass
11ax (HE20) (RU26)	CH117	-4.40	24	Pass
11ax (HE20) (RU26)	CH153	-5.76	24	Pass
11ax (HE20) (RU26)	CH181	-8.12	24	Pass
11ax (HE20) (RU52)	CH117	-1.28	24	Pass
11ax (HE20) (RU52)	CH153	-2.68	24	Pass
11ax (HE20) (RU52)	CH181	-4.62	24	Pass
11ax (HE20) (RU106)	CH117	1.36	24	Pass
11ax (HE20) (RU106)	CH153	-0.63	24	Pass
11ax (HE20) (RU106)	CH181	-1.17	24	Pass
11ax (HE20) (RU242)	CH117	3.74	24	Pass
11ax (HE20) (RU242)	CH153	2.86	24	Pass
11ax (HE20) (RU242)	CH181	2.22	24	Pass
11ax (HE40) (RU484)	CH123	4.79	24	Pass
11ax (HE40) (RU484)	CH155	6.37	24	Pass
11ax (HE40) (RU484)	CH179	4.66	24	Pass
11ax (HE80) (RU996)	CH135	7.30	24	Pass
11ax (HE80) (RU996)	CH151	7.58	24	Pass
11ax (HE80) (RU996)	CH167	8.22	24	Pass

U-NII-8 (6875 - 7125MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH185	1.39	24	Pass
11ax (HE20)	CH213	0.64	24	Pass
11ax (HE20)	CH229	0.47	24	Pass
11ax (HE20)	CH233	0.69	24	Pass
11ax (HE40)	CH187	3.34	24	Pass
11ax (HE40)	CH211	2.77	24	Pass
11ax (HE40)	CH227	4.46	24	Pass
11ax (HE80)	CH183	6.38	24	Pass
11ax (HE80)	CH199	5.63	24	Pass
11ax (HE80)	CH215	5.52	24	Pass
11ax (HE20) (RU26)	CH189	-7.36	24	Pass
11ax (HE20) (RU26)	CH213	-8.84	24	Pass
11ax (HE20) (RU26)	CH229	-7.79	24	Pass
11ax (HE20) (RU26)	CH233	-7.78	24	Pass
11ax (HE20) (RU52)	CH189	-4.48	24	Pass
11ax (HE20) (RU52)	CH213	-6.96	24	Pass
11ax (HE20) (RU52)	CH229	-5.33	24	Pass
11ax (HE20) (RU52)	CH233	-5.48	24	Pass
11ax (HE20) (RU106)	CH189	-2.06	24	Pass
11ax (HE20) (RU106)	CH213	-3.92	24	Pass
11ax (HE20) (RU106)	CH229	-3.04	24	Pass
11ax (HE20) (RU106)	CH233	-3.26	24	Pass
11ax (HE20) (RU242)	CH189	-1.17	24	Pass
11ax (HE20) (RU242)	CH213	-1.21	24	Pass
11ax (HE20) (RU242)	CH229	-0.79	24	Pass
11ax (HE20) (RU242)	CH233	-1.21	24	Pass
11ax (HE40) (RU484)	CH187	3.28	24	Pass
11ax (HE40) (RU484)	CH211	1.92	24	Pass
11ax (HE40) (RU484)	CH227	3.81	24	Pass
11ax (HE80) (RU996)	CH183	5.49	24	Pass
11ax (HE80) (RU996)	CH199	6.00	24	Pass
11ax (HE80) (RU996)	CH215	6.15	24	Pass

MIMO Antenna:

U-NII-5 (5925 - 6425MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH1	10.49	24	Pass
11ax (HE20)	CH45	10.07	24	Pass
11ax (HE20)	CH93	10.16	24	Pass
11ax (HE40)	CH3	12.52	24	Pass
11ax (HE40)	CH43	11.46	24	Pass
11ax (HE40)	CH91	11.98	24	Pass
11ax (HE80)	CH7	15.45	24	Pass
11ax (HE80)	CH39	14.89	24	Pass
11ax (HE80)	CH87	15.28	24	Pass
11ax (HE20) (RU26)	CH1	1.87	24	Pass
11ax (HE20) (RU26)	CH45	1.55	24	Pass
11ax (HE20) (RU26)	CH93	2.04	24	Pass
11ax (HE20) (RU52)	CH1	3.41	24	Pass
11ax (HE20) (RU52)	CH45	3.17	24	Pass
11ax (HE20) (RU52)	CH93	4.10	24	Pass
11ax (HE20) (RU106)	CH1	7.07	24	Pass
11ax (HE20) (RU106)	CH45	7.17	24	Pass
11ax (HE20) (RU106)	CH93	7.14	24	Pass
11ax (HE20) (RU242)	CH1	9.67	24	Pass
11ax (HE20) (RU242)	CH45	9.67	24	Pass
11ax (HE20) (RU242)	CH93	9.97	24	Pass
11ax (HE40) (RU484)	CH3	10.92	24	Pass
11ax (HE40) (RU484)	CH43	11.03	24	Pass
11ax (HE40) (RU484)	CH91	11.56	24	Pass
11ax (HE80) (RU996)	CH7	14.76	24	Pass
11ax (HE80) (RU996)	CH39	13.55	24	Pass
11ax (HE80) (RU996)	CH87	14.27	24	Pass

U-NII-6 (6425 - 6525MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH97	9.69	24	Pass
11ax (HE20)	CH105	9.63	24	Pass
11ax (HE20)	CH113	9.02	24	Pass
11ax (HE40)	CH99	11.97	24	Pass
11ax (HE40)	CH107	12.10	24	Pass
11ax (HE40)	CH115	12.46	24	Pass
11ax (HE80)	CH103	15.88	24	Pass
11ax (HE80)	CH119	14.76	24	Pass
11ax (HE20) (RU26)	CH97	1.33	24	Pass
11ax (HE20) (RU26)	CH105	1.75	24	Pass
11ax (HE20) (RU26)	CH113	1.32	24	Pass
11ax (HE20) (RU52)	CH97	4.51	24	Pass
11ax (HE20) (RU52)	CH105	4.08	24	Pass
11ax (HE20) (RU52)	CH113	4.94	24	Pass
11ax (HE20) (RU106)	CH97	6.37	24	Pass
11ax (HE20) (RU106)	CH105	6.71	24	Pass
11ax (HE20) (RU106)	CH113	7.14	24	Pass
11ax (HE20) (RU242)	CH97	8.60	24	Pass
11ax (HE20) (RU242)	CH105	9.36	24	Pass
11ax (HE20) (RU242)	CH113	9.22	24	Pass
11ax (HE40) (RU484)	CH99	10.75	24	Pass
11ax (HE40) (RU484)	CH107	10.63	24	Pass
11ax (HE40) (RU484)	CH115	11.57	24	Pass
11ax (HE80) (RU996)	CH103	13.86	24	Pass
11ax (HE80) (RU996)	CH119	15.23	24	Pass

U-NII-7 (6525 - 6825MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH117	9.88	24	Pass
11ax (HE20)	CH153	9.31	24	Pass
11ax (HE20)	CH181	10.56	24	Pass
11ax (HE40)	CH123	11.73	24	Pass
11ax (HE40)	CH155	10.78	24	Pass
11ax (HE40)	CH179	11.22	24	Pass
11ax (HE80)	CH135	15.14	24	Pass
11ax (HE80)	CH151	15.57	24	Pass
11ax (HE80)	CH167	14.83	24	Pass
11ax (HE20) (RU26)	CH117	0.99	24	Pass
11ax (HE20) (RU26)	CH153	0.52	24	Pass
11ax (HE20) (RU26)	CH181	-0.41	24	Pass
11ax (HE20) (RU52)	CH117	3.73	24	Pass
11ax (HE20) (RU52)	CH153	3.32	24	Pass
11ax (HE20) (RU52)	CH181	2.70	24	Pass
11ax (HE20) (RU106)	CH117	6.50	24	Pass
11ax (HE20) (RU106)	CH153	5.34	24	Pass
11ax (HE20) (RU106)	CH181	5.97	24	Pass
11ax (HE20) (RU242)	CH117	8.75	24	Pass
11ax (HE20) (RU242)	CH153	8.95	24	Pass
11ax (HE20) (RU242)	CH181	9.48	24	Pass
11ax (HE40) (RU484)	CH123	10.98	24	Pass
11ax (HE40) (RU484)	CH155	11.80	24	Pass
11ax (HE40) (RU484)	CH179	11.66	24	Pass
11ax (HE80) (RU996)	CH135	13.77	24	Pass
11ax (HE80) (RU996)	CH151	13.98	24	Pass
11ax (HE80) (RU996)	CH167	13.41	24	Pass

U-NII-8 (6875 - 7125MHz)				
Mode	Channel	EIRP (dBm)	EIRP Limit (dBm)	Verdict
11ax (HE20)	CH185	10.17	24	Pass
11ax (HE20)	CH213	9.79	24	Pass
11ax (HE20)	CH229	9.50	24	Pass
11ax (HE20)	CH233	9.72	24	Pass
11ax (HE40)	CH187	11.84	24	Pass
11ax (HE40)	CH211	11.55	24	Pass
11ax (HE40)	CH227	11.76	24	Pass
11ax (HE80)	CH183	15.31	24	Pass
11ax (HE80)	CH199	14.36	24	Pass
11ax (HE80)	CH215	15.14	24	Pass
11ax (HE20) (RU26)	CH189	1.12	24	Pass
11ax (HE20) (RU26)	CH213	0.01	24	Pass
11ax (HE20) (RU26)	CH229	0.02	24	Pass
11ax (HE20) (RU26)	CH233	0.18	24	Pass
11ax (HE20) (RU52)	CH189	3.85	24	Pass
11ax (HE20) (RU52)	CH213	2.81	24	Pass
11ax (HE20) (RU52)	CH229	3.17	24	Pass
11ax (HE20) (RU52)	CH233	2.77	24	Pass
11ax (HE20) (RU106)	CH189	6.14	24	Pass
11ax (HE20) (RU106)	CH213	5.20	24	Pass
11ax (HE20) (RU106)	CH229	5.15	24	Pass
11ax (HE20) (RU106)	CH233	5.09	24	Pass
11ax (HE20) (RU242)	CH189	7.66	24	Pass
11ax (HE20) (RU242)	CH213	7.97	24	Pass
11ax (HE20) (RU242)	CH229	7.41	24	Pass
11ax (HE20) (RU242)	CH233	7.64	24	Pass
11ax (HE40) (RU484)	CH187	11.26	24	Pass
11ax (HE40) (RU484)	CH211	10.52	24	Pass
11ax (HE40) (RU484)	CH227	10.53	24	Pass
11ax (HE80) (RU996)	CH183	14.18	24	Pass
11ax (HE80) (RU996)	CH199	14.31	24	Pass
11ax (HE80) (RU996)	CH215	13.92	24	Pass

A.2 Emission Bandwidth & 99% Occupied Bandwidth

Note 1: Test plots please refer to the document “Annex No.: BL-SH2670015-605 Data Part 1.pdf”.

Note 2: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note 3: All antenna were pre tested, but only the worst case has been reported in this report.

Test Data

U-NII-5 (5925 - 6425MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax (HE20)	CH1	24.50	19.03
11ax (HE20)	CH45	22.12	19.03
11ax (HE20)	CH93	22.25	19.01
11ax (HE40)	CH3	39.58	37.45
11ax (HE40)	CH43	39.62	37.45
11ax (HE40)	CH91	39.68	37.45
11ax (HE80)	CH7	80.23	76.68
11ax (HE80)	CH39	80.32	76.71
11ax (HE80)	CH87	80.28	76.76

U-NII-6 (6425 - 6525MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax (HE20)	CH97	22.51	19.04
11ax (HE20)	CH105	22.31	19.02
11ax (HE20)	CH113	22.38	19.05
11ax (HE40)	CH99	39.55	37.42
11ax (HE40)	CH107	39.49	37.47
11ax (HE40)	CH115	39.69	37.49
11ax (HE80)	CH103	80.29	76.67
11ax (HE80)	CH119	80.27	76.84

U-NII-7 (6525 - 6825MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax (HE20)	CH117	22.16	19.02
11ax (HE20)	CH153	22.32	19.01
11ax (HE20)	CH181	21.99	19.02
11ax (HE40)	CH123	39.62	37.48
11ax (HE40)	CH155	39.53	37.43
11ax (HE40)	CH179	39.55	37.48
11ax (HE80)	CH135	80.32	76.80
11ax (HE80)	CH151	80.27	76.73
11ax (HE80)	CH167	80.31	76.67

U-NII-8 (6875 - 7125MHz)			
Mode	Channel	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax (HE20)	CH185	22.00	19.01
11ax (HE20)	CH213	22.36	19.01
11ax (HE20)	CH229	24.68	19.06
11ax (HE20)	CH233	22.07	19.00
11ax (HE40)	CH187	39.58	37.45
11ax (HE40)	CH211	39.60	37.44
11ax (HE40)	CH227	39.59	37.49
11ax (HE80)	CH183	80.29	76.80
11ax (HE80)	CH199	80.32	76.80
11ax (HE80)	CH215	80.44	76.67

A.3 Power Spectral Density (PSD)

Note 1: Test plots please refer to the document "Annex No.: BL-SH2670015-605 Data Part 2.pdf".

Note 2: The PSD has considered the Duty Factor.

Test Data

Main Antenna:

U-NII-5 (5925 - 6425MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH1	-3.36	-1.00	Pass
11ax (HE20)	CH45	-4.67	-1.00	Pass
11ax (HE20)	CH93	-4.98	-1.00	Pass
11ax (HE40)	CH3	-4.39	-1.00	Pass
11ax (HE40)	CH43	-5.48	-1.00	Pass
11ax (HE40)	CH91	-5.44	-1.00	Pass
11ax (HE80)	CH7	-3.55	-1.00	Pass
11ax (HE80)	CH39	-5.32	-1.00	Pass
11ax (HE80)	CH87	-4.87	-1.00	Pass
11ax (HE20) (RU26)	CH1	-3.79	-1.00	Pass
11ax (HE20) (RU26)	CH45	-5.16	-1.00	Pass
11ax (HE20) (RU26)	CH93	-4.31	-1.00	Pass
11ax (HE20) (RU52)	CH1	-4.91	-1.00	Pass
11ax (HE20) (RU52)	CH45	-5.77	-1.00	Pass
11ax (HE20) (RU52)	CH93	-4.91	-1.00	Pass
11ax (HE20) (RU106)	CH1	-4.15	-1.00	Pass
11ax (HE20) (RU106)	CH45	-4.10	-1.00	Pass
11ax (HE20) (RU106)	CH93	-4.24	-1.00	Pass
11ax (HE20) (RU242)	CH1	-4.24	-1.00	Pass
11ax (HE20) (RU242)	CH45	-3.66	-1.00	Pass
11ax (HE20) (RU242)	CH93	-4.55	-1.00	Pass
11ax (HE40) (RU484)	CH3	-5.21	-1.00	Pass
11ax (HE40) (RU484)	CH43	-5.48	-1.00	Pass
11ax (HE40) (RU484)	CH91	-5.21	-1.00	Pass
11ax (HE80) (RU996)	CH7	-4.36	-1.00	Pass
11ax (HE80) (RU996)	CH39	-5.52	-1.00	Pass
11ax (HE80) (RU996)	CH87	-5.00	-1.00	Pass

U-NII-6 (6425 - 6525MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH97	-2.62	-1.00	Pass
11ax (HE20)	CH105	-2.38	-1.00	Pass
11ax (HE20)	CH113	-4.24	-1.00	Pass
11ax (HE40)	CH99	-2.63	-1.00	Pass
11ax (HE40)	CH107	-2.44	-1.00	Pass
11ax (HE40)	CH115	-2.97	-1.00	Pass
11ax (HE80)	CH103	-2.06	-1.00	Pass
11ax (HE80)	CH119	-4.02	-1.00	Pass
11ax (HE20) (RU26)	CH97	-2.73	-1.00	Pass
11ax (HE20) (RU26)	CH105	-2.37	-1.00	Pass
11ax (HE20) (RU26)	CH113	-2.57	-1.00	Pass
11ax (HE20) (RU52)	CH97	-2.69	-1.00	Pass
11ax (HE20) (RU52)	CH105	-2.40	-1.00	Pass
11ax (HE20) (RU52)	CH113	-2.48	-1.00	Pass
11ax (HE20) (RU106)	CH97	-3.10	-1.00	Pass
11ax (HE20) (RU106)	CH105	-3.14	-1.00	Pass
11ax (HE20) (RU106)	CH113	-3.03	-1.00	Pass
11ax (HE20) (RU242)	CH97	-2.72	-1.00	Pass
11ax (HE20) (RU242)	CH105	-3.10	-1.00	Pass
11ax (HE20) (RU242)	CH113	-3.12	-1.00	Pass
11ax (HE40) (RU484)	CH99	-3.56	-1.00	Pass
11ax (HE40) (RU484)	CH107	-3.44	-1.00	Pass
11ax (HE40) (RU484)	CH115	-3.38	-1.00	Pass
11ax (HE80) (RU996)	CH103	-2.90	-1.00	Pass
11ax (HE80) (RU996)	CH119	-2.27	-1.00	Pass

U-NII-7 (6525 - 6825MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH117	-3.42	-1.00	Pass
11ax (HE20)	CH153	-3.66	-1.00	Pass
11ax (HE20)	CH181	-2.19	-1.00	Pass
11ax (HE40)	CH123	-3.32	-1.00	Pass
11ax (HE40)	CH155	-3.92	-1.00	Pass
11ax (HE40)	CH179	-3.33	-1.00	Pass
11ax (HE80)	CH135	-3.04	-1.00	Pass
11ax (HE80)	CH151	-2.71	-1.00	Pass
11ax (HE80)	CH167	-2.77	-1.00	Pass
11ax (HE20) (RU26)	CH117	-3.02	-1.00	Pass
11ax (HE20) (RU26)	CH153	-3.97	-1.00	Pass
11ax (HE20) (RU26)	CH181	-4.26	-1.00	Pass
11ax (HE20) (RU52)	CH117	-3.77	-1.00	Pass
11ax (HE20) (RU52)	CH153	-3.96	-1.00	Pass
11ax (HE20) (RU52)	CH181	-3.85	-1.00	Pass
11ax (HE20) (RU106)	CH117	-4.04	-1.00	Pass
11ax (HE20) (RU106)	CH153	-4.25	-1.00	Pass
11ax (HE20) (RU106)	CH181	-3.29	-1.00	Pass
11ax (HE20) (RU242)	CH117	-3.54	-1.00	Pass
11ax (HE20) (RU242)	CH153	-3.17	-1.00	Pass
11ax (HE20) (RU242)	CH181	-2.80	-1.00	Pass
11ax (HE40) (RU484)	CH123	-3.41	-1.00	Pass
11ax (HE40) (RU484)	CH155	-2.55	-1.00	Pass
11ax (HE40) (RU484)	CH179	-2.57	-1.00	Pass
11ax (HE80) (RU996)	CH135	-3.15	-1.00	Pass
11ax (HE80) (RU996)	CH151	-4.14	-1.00	Pass
11ax (HE80) (RU996)	CH167	-4.36	-1.00	Pass

U-NII-8 (6875 - 7125MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH185	-2.21	-1.00	Pass
11ax (HE20)	CH213	-2.97	-1.00	Pass
11ax (HE20)	CH229	-3.30	-1.00	Pass
11ax (HE20)	CH233	-2.81	-1.00	Pass
11ax (HE40)	CH187	-2.48	-1.00	Pass
11ax (HE40)	CH211	-3.19	-1.00	Pass
11ax (HE40)	CH227	-3.21	-1.00	Pass
11ax (HE80)	CH183	-2.76	-1.00	Pass
11ax (HE80)	CH199	-3.52	-1.00	Pass
11ax (HE80)	CH215	-3.11	-1.00	Pass
11ax (HE20) (RU26)	CH189	-2.81	-1.00	Pass
11ax (HE20) (RU26)	CH213	-3.65	-1.00	Pass
11ax (HE20) (RU26)	CH229	-3.70	-1.00	Pass
11ax (HE20) (RU26)	CH233	-3.42	-1.00	Pass
11ax (HE20) (RU52)	CH189	-2.36	-1.00	Pass
11ax (HE20) (RU52)	CH213	-3.52	-1.00	Pass
11ax (HE20) (RU52)	CH229	-4.04	-1.00	Pass
11ax (HE20) (RU52)	CH233	-3.67	-1.00	Pass
11ax (HE20) (RU106)	CH189	-2.98	-1.00	Pass
11ax (HE20) (RU106)	CH213	-3.84	-1.00	Pass
11ax (HE20) (RU106)	CH229	-4.03	-1.00	Pass
11ax (HE20) (RU106)	CH233	-3.99	-1.00	Pass
11ax (HE20) (RU242)	CH189	-3.54	-1.00	Pass
11ax (HE20) (RU242)	CH213	-3.39	-1.00	Pass
11ax (HE20) (RU243)	CH229	-4.18	-1.00	Pass
11ax (HE20) (RU242)	CH233	-3.69	-1.00	Pass
11ax (HE40) (RU484)	CH187	-2.91	-1.00	Pass
11ax (HE40) (RU484)	CH211	-3.69	-1.00	Pass
11ax (HE40) (RU484)	CH227	-3.66	-1.00	Pass
11ax (HE80) (RU996)	CH183	-2.76	-1.00	Pass
11ax (HE80) (RU996)	CH199	-2.85	-1.00	Pass
11ax (HE80) (RU996)	CH215	-2.23	-1.00	Pass

Aux. Antenna:

U-NII-5 (5925 - 6425MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH1	-5.26	-1.00	Pass
11ax (HE20)	CH45	-5.81	-1.00	Pass
11ax (HE20)	CH93	-4.77	-1.00	Pass
11ax (HE40)	CH3	-5.11	-1.00	Pass
11ax (HE40)	CH43	-4.71	-1.00	Pass
11ax (HE40)	CH91	-4.37	-1.00	Pass
11ax (HE80)	CH7	-4.72	-1.00	Pass
11ax (HE80)	CH39	-5.06	-1.00	Pass
11ax (HE80)	CH87	-4.52	-1.00	Pass
11ax (HE20) (RU26)	CH1	-4.50	-1.00	Pass
11ax (HE20) (RU26)	CH45	-4.48	-1.00	Pass
11ax (HE20) (RU26)	CH93	-3.83	-1.00	Pass
11ax (HE20) (RU52)	CH1	-4.94	-1.00	Pass
11ax (HE20) (RU52)	CH45	-5.72	-1.00	Pass
11ax (HE20) (RU52)	CH93	-4.50	-1.00	Pass
11ax (HE20) (RU106)	CH1	-4.86	-1.00	Pass
11ax (HE20) (RU106)	CH45	-4.18	-1.00	Pass
11ax (HE20) (RU106)	CH93	-4.38	-1.00	Pass
11ax (HE20) (RU242)	CH1	-5.03	-1.00	Pass
11ax (HE20) (RU242)	CH45	-4.82	-1.00	Pass
11ax (HE20) (RU242)	CH93	-4.22	-1.00	Pass
11ax (HE40) (RU484)	CH3	-5.58	-1.00	Pass
11ax (HE40) (RU484)	CH43	-5.33	-1.00	Pass
11ax (HE40) (RU484)	CH91	-4.39	-1.00	Pass
11ax (HE80) (RU996)	CH7	-4.48	-1.00	Pass
11ax (HE80) (RU996)	CH39	-5.30	-1.00	Pass
11ax (HE80) (RU996)	CH87	-4.36	-1.00	Pass

U-NII-6 (6425 - 6525MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH97	-8.81	-1.00	Pass
11ax (HE20)	CH105	-8.81	-1.00	Pass
11ax (HE20)	CH113	-7.33	-1.00	Pass
11ax (HE40)	CH99	-8.62	-1.00	Pass
11ax (HE40)	CH107	-8.59	-1.00	Pass
11ax (HE40)	CH115	-6.29	-1.00	Pass
11ax (HE80)	CH103	-8.44	-1.00	Pass
11ax (HE80)	CH119	-6.75	-1.00	Pass
11ax (HE20) (RU26)	CH97	-9.00	-1.00	Pass
11ax (HE20) (RU26)	CH105	-8.59	-1.00	Pass
11ax (HE20) (RU26)	CH113	-6.48	-1.00	Pass
11ax (HE20) (RU52)	CH97	-8.67	-1.00	Pass
11ax (HE20) (RU52)	CH105	-8.37	-1.00	Pass
11ax (HE20) (RU52)	CH113	-7.37	-1.00	Pass
11ax (HE20) (RU106)	CH97	-9.35	-1.00	Pass
11ax (HE20) (RU106)	CH105	-9.30	-1.00	Pass
11ax (HE20) (RU106)	CH113	-7.09	-1.00	Pass
11ax (HE20) (RU242)	CH97	-10.01	-1.00	Pass
11ax (HE20) (RU242)	CH105	-9.75	-1.00	Pass
11ax (HE20) (RU242)	CH113	-7.51	-1.00	Pass
11ax (HE40) (RU484)	CH99	-9.43	-1.00	Pass
11ax (HE40) (RU484)	CH107	-9.26	-1.00	Pass
11ax (HE40) (RU484)	CH115	-6.50	-1.00	Pass
11ax (HE80) (RU996)	CH103	-8.96	-1.00	Pass
11ax (HE80) (RU996)	CH119	-7.03	-1.00	Pass

U-NII-7 (6525 - 6825MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH117	-7.05	-1.00	Pass
11ax (HE20)	CH153	-8.06	-1.00	Pass
11ax (HE20)	CH181	-8.15	-1.00	Pass
11ax (HE40)	CH123	-8.40	-1.00	Pass
11ax (HE40)	CH155	-9.14	-1.00	Pass
11ax (HE40)	CH179	-9.63	-1.00	Pass
11ax (HE80)	CH135	-10.20	-1.00	Pass
11ax (HE80)	CH151	-8.85	-1.00	Pass
11ax (HE80)	CH167	-8.79	-1.00	Pass
11ax (HE20) (RU26)	CH117	-6.70	-1.00	Pass
11ax (HE20) (RU26)	CH149	-8.45	-1.00	Pass
11ax (HE20) (RU26)	CH185	-10.62	-1.00	Pass
11ax (HE20) (RU52)	CH117	-7.65	-1.00	Pass
11ax (HE20) (RU52)	CH149	-8.21	-1.00	Pass
11ax (HE20) (RU52)	CH185	-10.14	-1.00	Pass
11ax (HE20) (RU106)	CH117	-7.28	-1.00	Pass
11ax (HE20) (RU106)	CH149	-8.96	-1.00	Pass
11ax (HE20) (RU106)	CH185	-9.47	-1.00	Pass
11ax (HE20) (RU242)	CH117	-7.71	-1.00	Pass
11ax (HE20) (RU242)	CH149	-8.23	-1.00	Pass
11ax (HE20) (RU242)	CH185	-8.96	-1.00	Pass
11ax (HE40) (RU484)	CH123	-8.24	-1.00	Pass
11ax (HE40) (RU484)	CH147	-6.83	-1.00	Pass
11ax (HE40) (RU484)	CH187	-8.30	-1.00	Pass
11ax (HE80) (RU996)	CH135	-8.44	-1.00	Pass
11ax (HE80) (RU996)	CH151	-8.41	-1.00	Pass
11ax (HE80) (RU996)	CH183	-8.38	-1.00	Pass

U-NII-8 (6875 - 7125MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH185	-10.25	-1.00	Pass
11ax (HE20)	CH213	-11.35	-1.00	Pass
11ax (HE20)	CH229	-10.95	-1.00	Pass
11ax (HE20)	CH233	-11.13	-1.00	Pass
11ax (HE40)	CH187	-11.11	-1.00	Pass
11ax (HE40)	CH211	-11.28	-1.00	Pass
11ax (HE40)	CH227	-9.91	-1.00	Pass
11ax (HE80)	CH183	-12.17	-1.00	Pass
11ax (HE80)	CH199	-12.65	-1.00	Pass
11ax (HE80)	CH215	-12.85	-1.00	Pass
11ax (HE20) (RU26)	CH189	-10.01	-1.00	Pass
11ax (HE20) (RU26)	CH213	-11.83	-1.00	Pass
11ax (HE20) (RU26)	CH229	-10.95	-1.00	Pass
11ax (HE20) (RU26)	CH233	-10.96	-1.00	Pass
11ax (HE20) (RU52)	CH189	-9.77	-1.00	Pass
11ax (HE20) (RU52)	CH213	-11.90	-1.00	Pass
11ax (HE20) (RU52)	CH229	-11.62	-1.00	Pass
11ax (HE20) (RU52)	CH233	-11.41	-1.00	Pass
11ax (HE20) (RU106)	CH189	-10.42	-1.00	Pass
11ax (HE20) (RU106)	CH213	-12.19	-1.00	Pass
11ax (HE20) (RU106)	CH229	-11.74	-1.00	Pass
11ax (HE20) (RU106)	CH233	-11.88	-1.00	Pass
11ax (HE20) (RU242)	CH189	-11.85	-1.00	Pass
11ax (HE20) (RU242)	CH213	-12.08	-1.00	Pass
11ax (HE20) (RU243)	CH229	-12.03	-1.00	Pass
11ax (HE20) (RU242)	CH233	-11.36	-1.00	Pass
11ax (HE40) (RU484)	CH187	-10.05	-1.00	Pass
11ax (HE40) (RU484)	CH211	-11.02	-1.00	Pass
11ax (HE40) (RU484)	CH227	-9.58	-1.00	Pass
11ax (HE80) (RU996)	CH183	-10.82	-1.00	Pass
11ax (HE80) (RU996)	CH199	-10.30	-1.00	Pass
11ax (HE80) (RU996)	CH215	-10.12	-1.00	Pass

MIMO Antenna:

U-NII-5 (5925 - 6425MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH1	-1.19	-1.00	Pass
11ax (HE20)	CH45	-2.19	-1.00	Pass
11ax (HE20)	CH93	-1.86	-1.00	Pass
11ax (HE40)	CH3	-1.73	-1.00	Pass
11ax (HE40)	CH43	-2.07	-1.00	Pass
11ax (HE40)	CH91	-1.86	-1.00	Pass
11ax (HE80)	CH7	-1.09	-1.00	Pass
11ax (HE80)	CH39	-2.18	-1.00	Pass
11ax (HE80)	CH87	-1.68	-1.00	Pass
11ax (HE20) (RU26)	CH1	-1.12	-1.00	Pass
11ax (HE20) (RU26)	CH45	-1.80	-1.00	Pass
11ax (HE20) (RU26)	CH93	-1.06	-1.00	Pass
11ax (HE20) (RU52)	CH1	-1.91	-1.00	Pass
11ax (HE20) (RU52)	CH45	-2.73	-1.00	Pass
11ax (HE20) (RU52)	CH93	-1.69	-1.00	Pass
11ax (HE20) (RU106)	CH1	-1.48	-1.00	Pass
11ax (HE20) (RU106)	CH45	-1.13	-1.00	Pass
11ax (HE20) (RU106)	CH93	-1.30	-1.00	Pass
11ax (HE20) (RU242)	CH1	-1.61	-1.00	Pass
11ax (HE20) (RU242)	CH45	-1.19	-1.00	Pass
11ax (HE20) (RU242)	CH93	-1.38	-1.00	Pass
11ax (HE40) (RU484)	CH3	-2.38	-1.00	Pass
11ax (HE40) (RU484)	CH43	-2.40	-1.00	Pass
11ax (HE40) (RU484)	CH91	-1.77	-1.00	Pass
11ax (HE80) (RU996)	CH7	-1.41	-1.00	Pass
11ax (HE80) (RU996)	CH39	-2.40	-1.00	Pass
11ax (HE80) (RU996)	CH87	-1.66	-1.00	Pass

U-NII-6 (6425 - 6525MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH97	-1.69	-1.00	Pass
11ax (HE20)	CH105	-1.49	-1.00	Pass
11ax (HE20)	CH113	-2.51	-1.00	Pass
11ax (HE40)	CH99	-1.65	-1.00	Pass
11ax (HE40)	CH107	-1.50	-1.00	Pass
11ax (HE40)	CH115	-1.31	-1.00	Pass
11ax (HE80)	CH103	-1.16	-1.00	Pass
11ax (HE80)	CH119	-2.16	-1.00	Pass
11ax (HE20) (RU26)	CH97	-1.81	-1.00	Pass
11ax (HE20) (RU26)	CH105	-1.44	-1.00	Pass
11ax (HE20) (RU26)	CH113	-1.09	-1.00	Pass
11ax (HE20) (RU52)	CH97	-1.72	-1.00	Pass
11ax (HE20) (RU52)	CH105	-1.42	-1.00	Pass
11ax (HE20) (RU52)	CH113	-1.26	-1.00	Pass
11ax (HE20) (RU106)	CH97	-2.17	-1.00	Pass
11ax (HE20) (RU106)	CH105	-2.20	-1.00	Pass
11ax (HE20) (RU106)	CH113	-1.59	-1.00	Pass
11ax (HE20) (RU242)	CH97	-1.97	-1.00	Pass
11ax (HE20) (RU242)	CH105	-2.25	-1.00	Pass
11ax (HE20) (RU242)	CH113	-1.77	-1.00	Pass
11ax (HE40) (RU484)	CH99	-2.56	-1.00	Pass
11ax (HE40) (RU484)	CH107	-2.43	-1.00	Pass
11ax (HE40) (RU484)	CH115	-1.66	-1.00	Pass
11ax (HE80) (RU996)	CH103	-1.94	-1.00	Pass
11ax (HE80) (RU996)	CH119	-1.02	-1.00	Pass

U-NII-7 (6525 - 6825MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH117	-1.86	-1.00	Pass
11ax (HE20)	CH153	-2.31	-1.00	Pass
11ax (HE20)	CH181	-1.21	-1.00	Pass
11ax (HE40)	CH123	-2.14	-1.00	Pass
11ax (HE40)	CH155	-2.78	-1.00	Pass
11ax (HE40)	CH179	-2.41	-1.00	Pass
11ax (HE80)	CH135	-2.28	-1.00	Pass
11ax (HE80)	CH151	-1.77	-1.00	Pass
11ax (HE80)	CH167	-1.80	-1.00	Pass
11ax (HE20) (RU26)	CH117	-1.47	-1.00	Pass
11ax (HE20) (RU26)	CH149	-2.64	-1.00	Pass
11ax (HE20) (RU26)	CH185	-3.36	-1.00	Pass
11ax (HE20) (RU52)	CH117	-2.28	-1.00	Pass
11ax (HE20) (RU52)	CH149	-2.57	-1.00	Pass
11ax (HE20) (RU52)	CH185	-2.93	-1.00	Pass
11ax (HE20) (RU106)	CH117	-2.35	-1.00	Pass
11ax (HE20) (RU106)	CH149	-2.99	-1.00	Pass
11ax (HE20) (RU106)	CH185	-2.35	-1.00	Pass
11ax (HE20) (RU242)	CH117	-2.13	-1.00	Pass
11ax (HE20) (RU242)	CH149	-1.99	-1.00	Pass
11ax (HE20) (RU242)	CH185	-1.86	-1.00	Pass
11ax (HE40) (RU484)	CH123	-2.18	-1.00	Pass
11ax (HE40) (RU484)	CH147	-1.17	-1.00	Pass
11ax (HE40) (RU484)	CH187	-1.54	-1.00	Pass
11ax (HE80) (RU996)	CH135	-2.02	-1.00	Pass
11ax (HE80) (RU996)	CH151	-2.76	-1.00	Pass
11ax (HE80) (RU996)	CH183	-2.91	-1.00	Pass

U-NII-8 (6875 - 7125MHz)				
Mode	Channel	PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
11ax (HE20)	CH185	-1.58	-1.00	Pass
11ax (HE20)	CH213	-2.38	-1.00	Pass
11ax (HE20)	CH229	-2.61	-1.00	Pass
11ax (HE20)	CH233	-2.21	-1.00	Pass
11ax (HE40)	CH187	-1.92	-1.00	Pass
11ax (HE40)	CH211	-2.56	-1.00	Pass
11ax (HE40)	CH227	-2.37	-1.00	Pass
11ax (HE80)	CH183	-2.29	-1.00	Pass
11ax (HE80)	CH199	-3.02	-1.00	Pass
11ax (HE80)	CH215	-2.68	-1.00	Pass
11ax (HE20) (RU26)	CH189	-2.05	-1.00	Pass
11ax (HE20) (RU26)	CH213	-3.04	-1.00	Pass
11ax (HE20) (RU26)	CH229	-2.95	-1.00	Pass
11ax (HE20) (RU26)	CH233	-2.72	-1.00	Pass
11ax (HE20) (RU52)	CH189	-1.64	-1.00	Pass
11ax (HE20) (RU52)	CH213	-2.93	-1.00	Pass
11ax (HE20) (RU52)	CH229	-3.34	-1.00	Pass
11ax (HE20) (RU52)	CH233	-3.00	-1.00	Pass
11ax (HE20) (RU106)	CH189	-2.26	-1.00	Pass
11ax (HE20) (RU106)	CH213	-3.25	-1.00	Pass
11ax (HE20) (RU106)	CH229	-3.35	-1.00	Pass
11ax (HE20) (RU106)	CH233	-3.34	-1.00	Pass
11ax (HE20) (RU242)	CH189	-2.94	-1.00	Pass
11ax (HE20) (RU242)	CH213	-2.84	-1.00	Pass
11ax (HE20) (RU243)	CH229	-3.52	-1.00	Pass
11ax (HE20) (RU242)	CH233	-3.00	-1.00	Pass
11ax (HE40) (RU484)	CH187	-2.14	-1.00	Pass
11ax (HE40) (RU484)	CH211	-2.96	-1.00	Pass
11ax (HE40) (RU484)	CH227	-2.67	-1.00	Pass
11ax (HE80) (RU996)	CH183	-2.13	-1.00	Pass
11ax (HE80) (RU996)	CH199	-2.13	-1.00	Pass
11ax (HE80) (RU996)	CH215	-1.58	-1.00	Pass

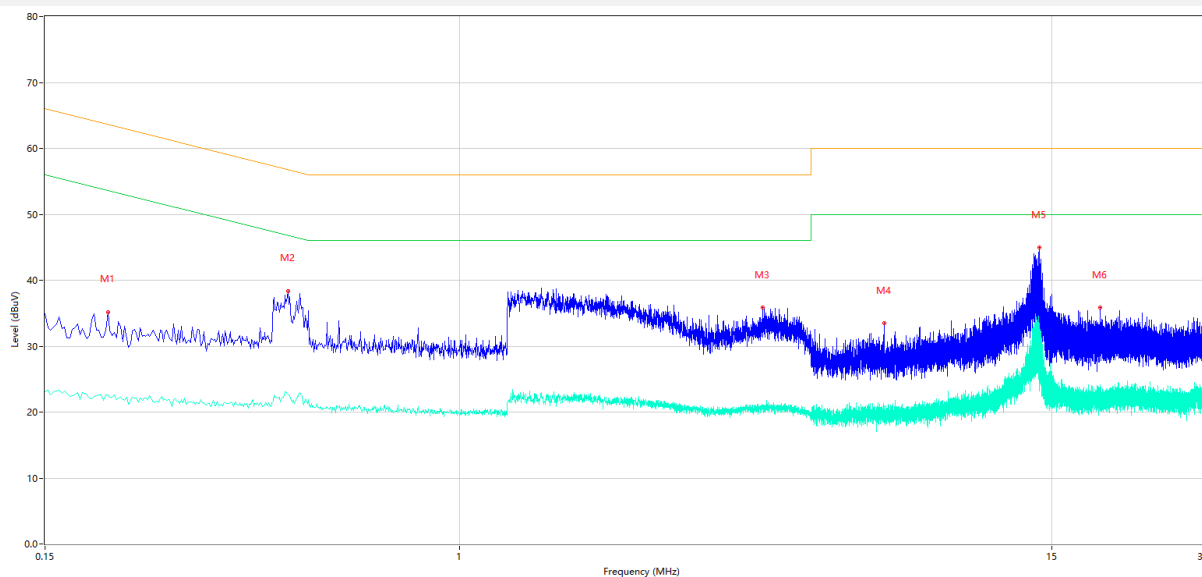
A.4 Conducted Emission

Note 1: The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

Note 2: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

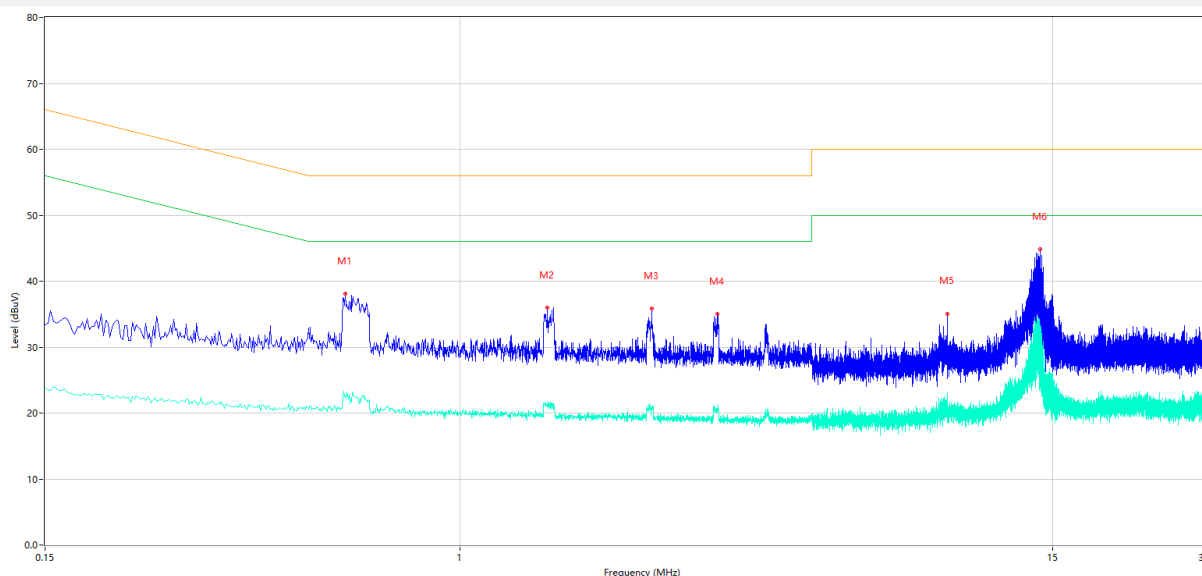
Test Data and Plots

PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.200	35.20	10.21	63.61	28.41	Peak	L	Pass
1**	0.200	22.57	10.21	53.61	31.04	AV	L	Pass
2	0.456	38.40	10.24	56.77	18.37	Peak	L	Pass
2**	0.456	22.64	10.24	46.77	24.13	AV	L	Pass
3	4.006	35.81	10.33	56.00	20.19	Peak	L	Pass
3**	4.006	20.85	10.33	46.00	25.15	AV	L	Pass
4	6.978	33.45	10.38	60.00	26.55	Peak	L	Pass
4**	6.978	19.30	10.38	50.00	30.70	AV	L	Pass
5	14.166	44.97	10.74	60.00	15.03	Peak	L	Pass
5**	14.166	33.50	10.74	50.00	16.50	AV	L	Pass
6	18.738	35.82	11.25	60.00	24.18	Peak	L	Pass
6**	18.738	22.99	11.25	50.00	27.01	AV	L	Pass

PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.592	38.06	10.13	56.00	17.94	Peak	N	Pass
1**	0.592	22.63	10.13	46.00	23.37	AV	N	Pass
2	1.490	35.97	10.15	56.00	20.03	Peak	N	Pass
2**	1.490	21.26	10.15	46.00	24.74	AV	N	Pass
3	2.404	35.87	10.16	56.00	20.13	Peak	N	Pass
3**	2.404	20.43	10.16	46.00	25.57	AV	N	Pass
4	3.242	35.01	10.17	56.00	20.99	Peak	N	Pass
4**	3.242	20.29	10.17	46.00	25.71	AV	N	Pass
5	9.286	35.08	10.31	60.00	24.92	Peak	N	Pass
5**	9.286	23.06	10.31	50.00	26.94	AV	N	Pass
6	14.170	44.87	10.58	60.00	15.13	Peak	N	Pass
6**	14.170	29.97	10.58	50.00	20.03	AV	N	Pass

A.5 Radiated Spurious Emissions and Band Edge (Restricted-band)

A.5.1 Radiated Spurious Emissions

Note 1: Please refer to the document “BL-SH2670015-605 Data Part 3.pdf”.

Note 2: The symbol of “--” in the table which means not application.

Note 3: For the test data above 1 GHz, According the ANSI C63.10, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 4: The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

Note 5: The EUT is working in the Normal link mode below 1 GHz. All modes have been tested and normal link mode is worst.

Note 6: The spurious above 18G is noise only, do not show on the report.

Note 7: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note 8: All antenna were pre tested, but only the worst case has been reported in this report.

A.5.2 Band Edge (Restricted-band)

Note 1: Please refer to the document “BL-SH2670015-605 Data Part 4.pdf”.

Note 2: For the test data above 1 GHz, According the ANSI C63.10, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: All the configurations were pre tested, only the worst configuration has been reported in this report.

Note 4: All antenna were pre tested, but only the worst case has been reported in this report.

A.6 Contention Based Protocol

Note: This device does not support channel puncturing mode for incumbent avoidance.

Interference Signals used for Tests

Interference Signals Type	Bandwidth (MHz)
AWGN	10

Regulated Threshold Level

Test Method	Interference threshold level
☒ Conducted	The Regulated Threshold Level = -62 dBm (assumes a 0 dBi receive antenna)
☐ Radiation	

Test Data

U-NII-5 (5925 MHz to 6425 MHz)									
Operation Mode	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Injected (AWGN) Power (dBm)	Antenna Gain (dBi)	Path Loss ^{Note1} (dB)	Adjusted Power ^{Note2} (dBm)	Detection Limit (dBm)	EUT Tx Status ^{Note3}
802.11ax (HE20)	37	6135	6135	-61.27	0.81	0	-62.08	-62	Off
				-64.52	0.81	0	-65.33	-62	Minimal
				-82.00	0.81	0	-82.81	-62	On
802.11ax (HE80)	39	6145	6070	-61.23	0.81	0	-62.04	-62	Off
				-64.86	0.81	0	-65.67	-62	Minimal
				-82.00	0.81	0	-82.81	-62	On
			6145	-61.26	0.81	0	-62.07	-62	Off
				-64.58	0.81	0	-65.39	-62	Minimal
				-82.00	0.81	0	-82.81	-62	On
			6220	-61.24	0.81	0	-62.05	-62	Off
				-64.82	0.81	0	-65.63	-62	Minimal
				-82.00	0.81	0	-82.81	-62	On

Note1: The corrected AWGN power is located at the antenna connection port, so path losses are not considered.

Note2: Adjusted Power (dBm) = Injected (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB).

Note3: The AWGN level is reported for the following conditions:

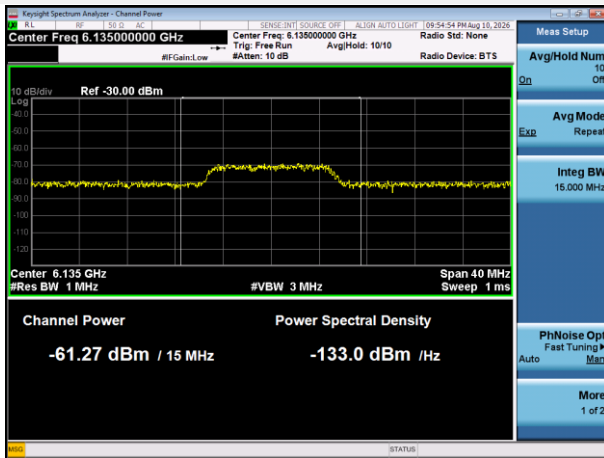
- Off: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
- Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
- On: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Contention Based Protocol Detection Rate													
Detection Limit		90%											
Operation Mode	AWGN Signal Frequency (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Rate	Test Result
802.11ax (HE20)	6135	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS
802.11ax (HE80)	6070	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	90%	PASS
	6145	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	90%	PASS
	6220	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS

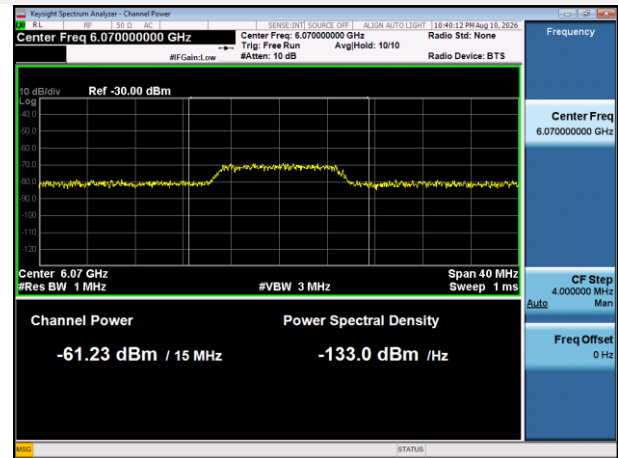
Test Plots

Plots of Incumbent signal (AWGN) Level

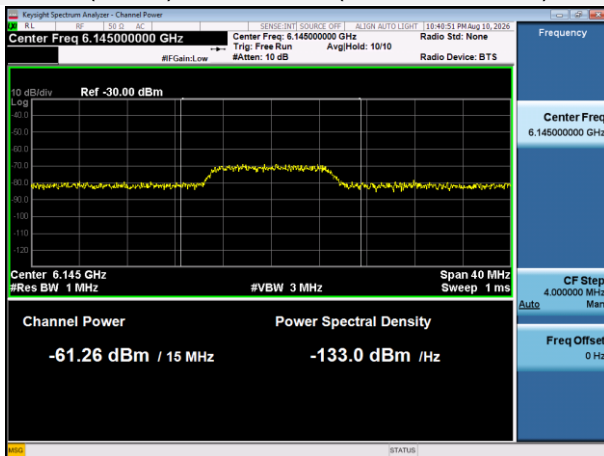
802.11ax (HE20)-Channel 37



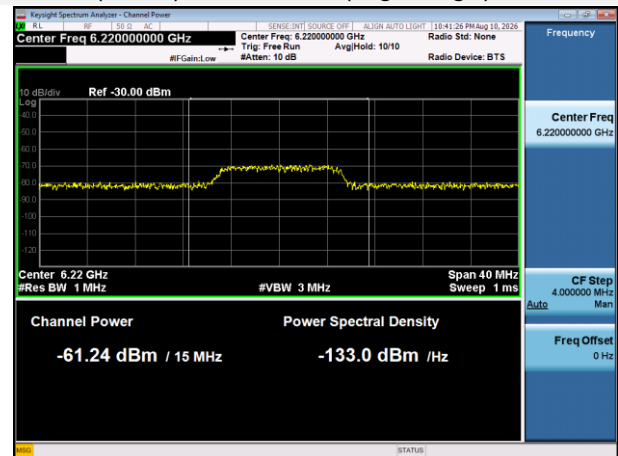
802.11ax (HE80)-Channel 39 (Low Edge)



802.11ax (HE80)-Channel 39 (Channel Center)

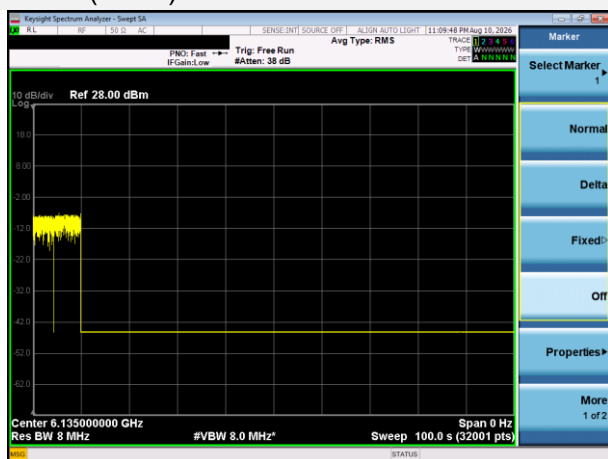


802.11ax (HE80)-Channel 39 (High Edge)

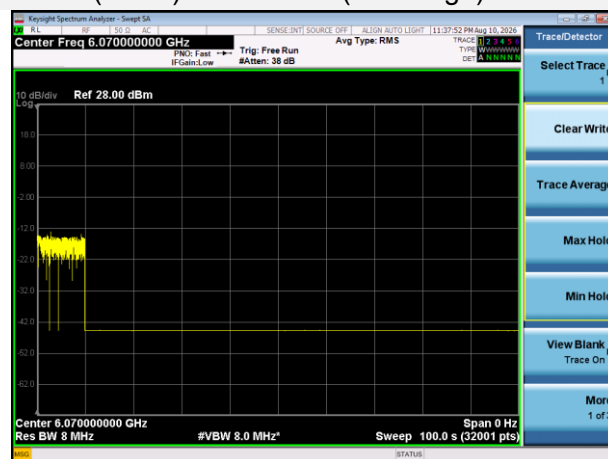


Plots of EUT Tx waveform

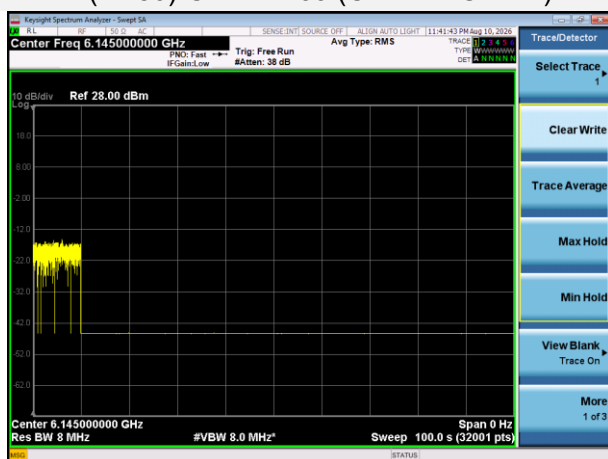
802.11ax (HE20)-Channel 37



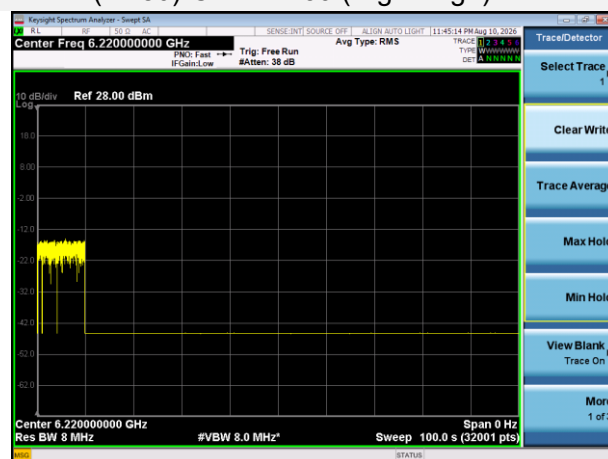
802.11ax (HE80)-Channel 39 (Low Edge)



802.11ax (HE80)-Channel 39 (Channel Center)



802.11ax (HE80)-Channel 39 (High Edge)



U-NII-6 (6425 MHz to 6525 MHz)									
Operation Mode	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Injected (AWGN) Power (dBm)	Antenna Gain (dBi)	Path Loss ^{Note1} (dB)	Adjusted Power ^{Note2} (dBm)	Detection Limit (dBm)	EUT Tx Status ^{Note3}
802.11ax (HE20)	97	6435	6435	-65.02	-2.96	0	-62.06	-62	Off
				-66.89	-2.96	0	-63.93	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On
802.11ax (HE80)	119	6545	6470	-65.08	-2.96	0	-62.12	-62	Off
				-66.78	-2.96	0	-63.82	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On
			6545	-65.11	-2.96	0	-62.15	-62	Off
				-66.46	-2.96	0	-63.50	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On
			6620	-65.14	-2.96	0	-62.18	-62	Off
				-66.29	-2.96	0	-63.33	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On

Note1: The corrected AWGN power is located at the antenna connection port, so path losses are not considered.

Note2: Adjusted Power (dBm) = Injected (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB).

Note3: The AWGN level is reported for the following conditions:

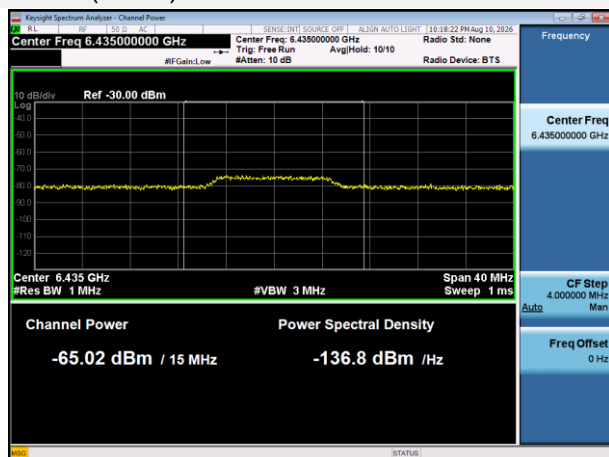
- Off: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
- Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
- On: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Contention Based Protocol Detection Rate													
Detection Limit		90%											
Operation Mode	AWGN Signal Frequency (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Rate	Test Result
802.11ax (HE20)	6435	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS
802.11ax (HE80)	6470	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS
	6545	✓	✓	✓	✓	✓	X	✓	✓	✓	✓	90%	PASS
	6620	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS

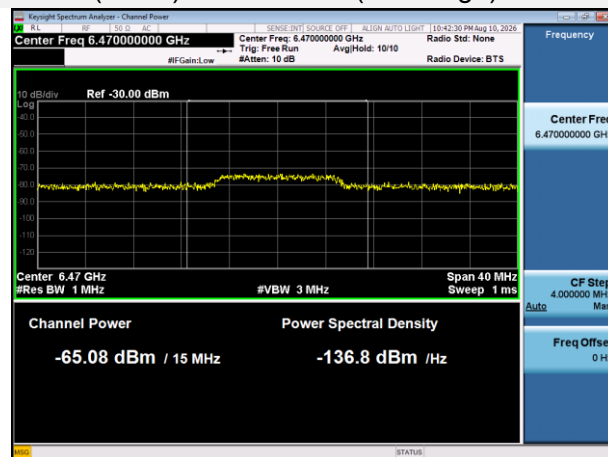
Test Plots

Plots of Incumbent signal (AWGN) Level

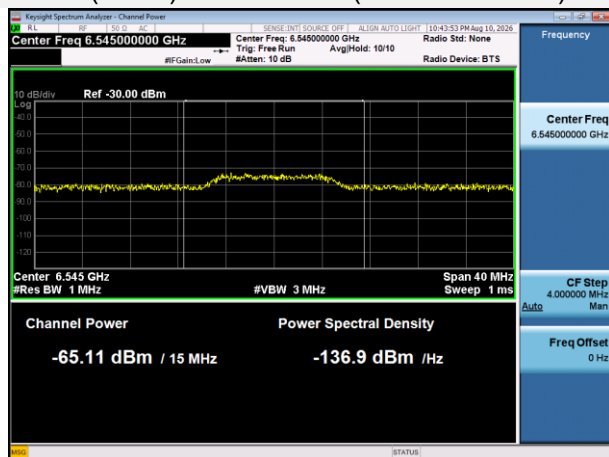
802.11ax (HE20)-Channel 97



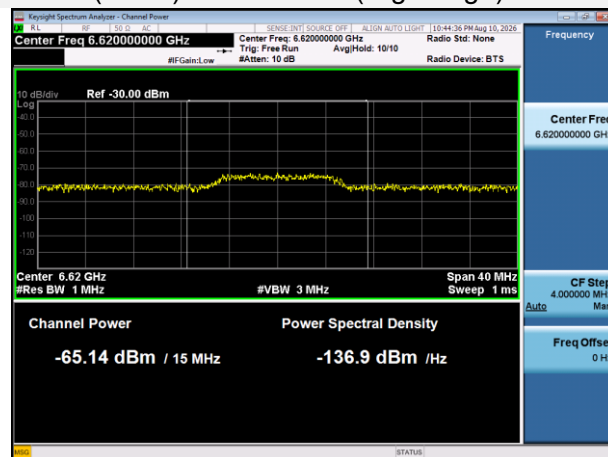
802.11ax (HE80)-Channel 119 (Low Edge)



802.11ax (HE80)-Channel 119 (Channel Center)

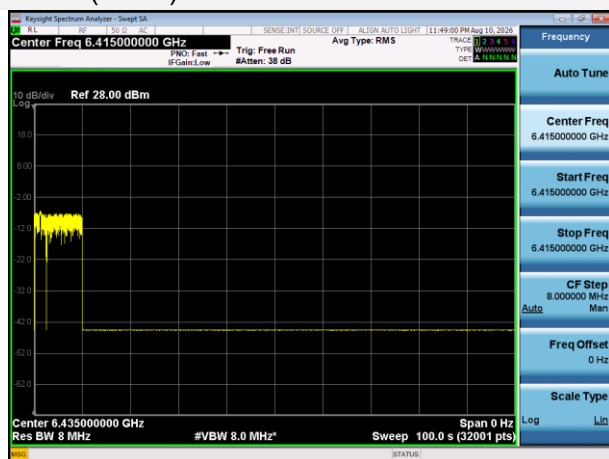


802.11ax (HE80)-Channel 119 (High Edge)

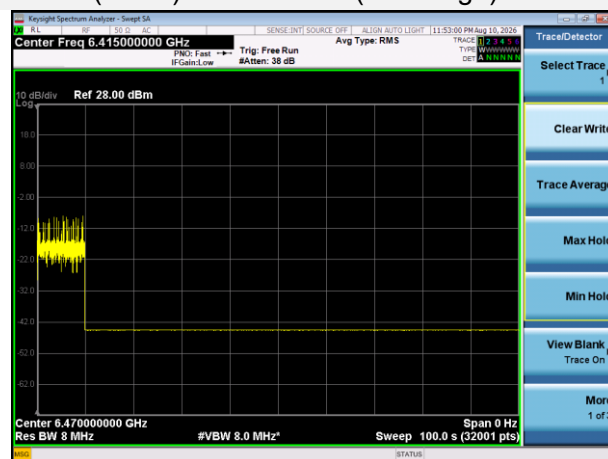


Plots of EUT Tx waveform

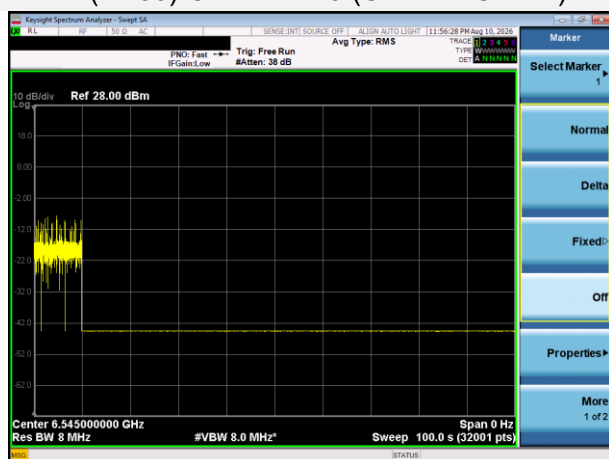
802.11ax (HE20)-Channel 97



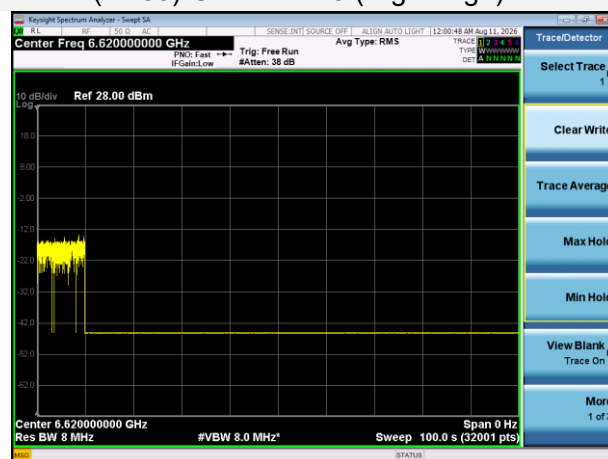
802.11ax (HE80)-Channel 119 (Low Edge)



802.11ax (HE80)-Channel 119 (Channel Center)



802.11ax (HE80)-Channel 119 (High Edge)



U-NII-7 (6525 MHz to 6875 MHz)									
Operation Mode	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Injected (AWGN) Power (dBm)	Antenna Gain (dBi)	Path Loss ^{Note1} (dB)	Adjusted Power ^{Note2} (dBm)	Detection Limit (dBm)	EUT Tx Status ^{Note3}
802.11ax (HE20)	129	6595	6595	-65.01	-2.96	0	-62.05	-62	Off
				-67.82	-2.96	0	-64.86	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On
802.11ax (HE80)	151	6705	6630	-65.13	-2.96	0	-62.17	-62	Off
				-66.97	-2.96	0	-64.01	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On
			6705	-65.11	-2.96	0	-62.15	-62	Off
				-66.28	-2.96	0	-63.32	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On
			6780	-65.15	-2.96	0	-62.19	-62	Off
				-66.98	-2.96	0	-64.02	-62	Minimal
				-82.00	-2.96	0	-79.04	-62	On

Note1: The corrected AWGN power is located at the antenna connection port, so path losses are not considered.

Note2: Adjusted Power (dBm) = Injected (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB).

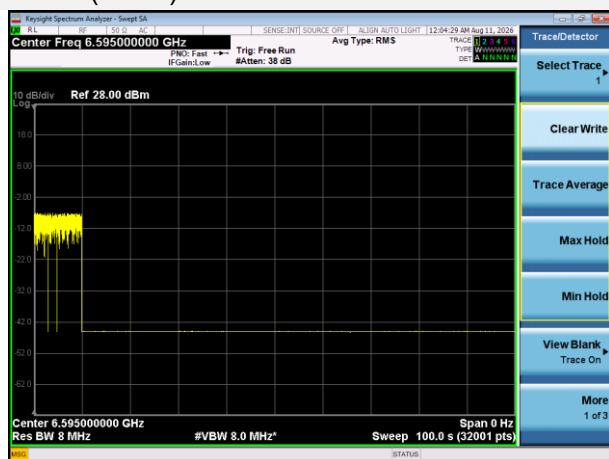
Note3: The AWGN level is reported for the following conditions:

- Off: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
- Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
- On: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

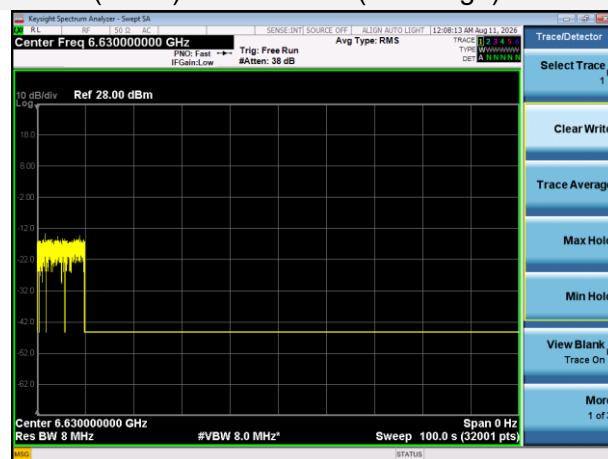
Contention Based Protocol Detection Rate													
Detection Limit		90%											
Operation Mode	AWGN Signal Frequency (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Rate	Test Result
802.11ax (HE20)	6595	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	90%	PASS
802.11ax (HE80)	6630	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS
	6705	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS
	6780	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS

Plots of EUT Tx waveform

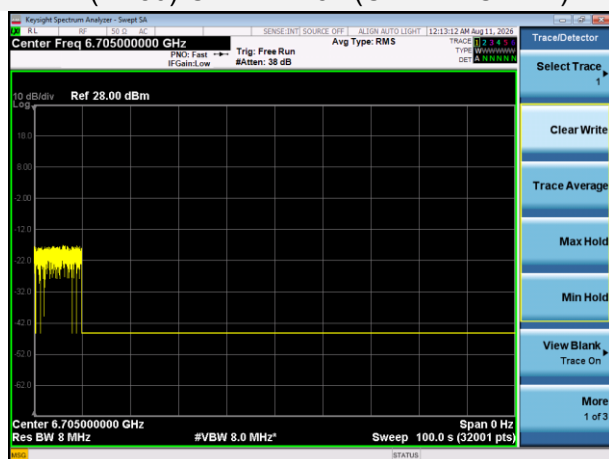
802.11ax (HE20)-Channel 129



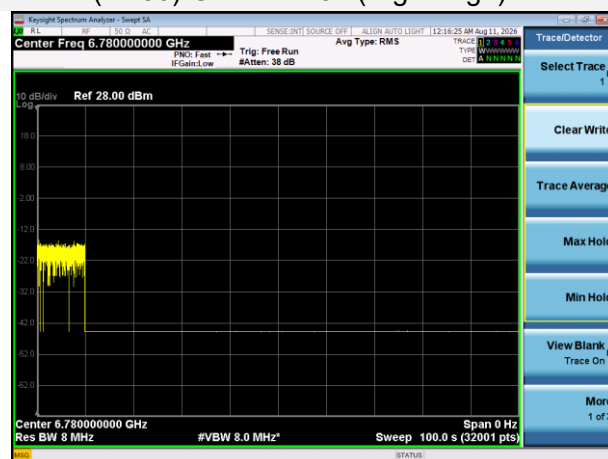
802.11ax (HE80)-Channel 151 (Low Edge)



802.11ax (HE80)-Channel 151 (Channel Center)



802.11ax (HE80)-Channel 151 (High Edge)



U-NII-8 (6875 MHz to 7125 MHz)									
Operation Mode	Channel Number	Channel Frequency (MHz)	AWGN Signal Frequency (MHz)	Injected (AWGN) Power (dBm)	Antenna Gain (dBi)	Path Loss ^{Note1} (dB)	Adjusted Power ^{Note2} (dBm)	Detection Limit (dBm)	EUT Tx Status ^{Note3}
802.11ax (HE20)	193	6915	6915	-68.10	-6.08	0	-62.02	-62	Off
				-69.67	-6.08	0	-63.59	-62	Minimal
				-82.00	-6.08	0	-75.92	-62	On
802.11ax (HE80)	199	6945	6870	-68.18	-6.08	0	-62.10	-62	Off
				-68.92	-6.08	0	-62.84	-62	Minimal
				-82.00	-6.08	0	-75.92	-62	On
			6945	-68.15	-6.08	0	-62.07	-62	Off
				-68.99	-6.08	0	-62.91	-62	Minimal
				-82.00	-6.08	0	-75.92	-62	On
			7020	-68.13	-6.08	0	-62.05	-62	Off
				-68.50	-6.08	0	-62.42	-62	Minimal
				-82.00	-6.08	0	-75.92	-62	On

Note1: The corrected AWGN power is located at the antenna connection port, so path losses are not considered.

Note2: Adjusted Power (dBm) = Injected (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB).

Note3: The AWGN level is reported for the following conditions:

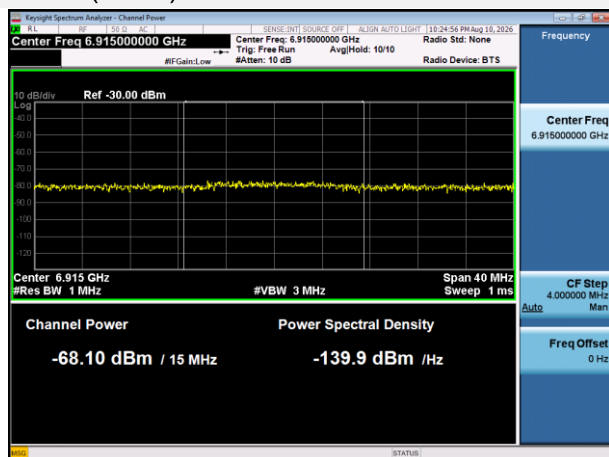
- Off: AWGN level at which no transmission is detected, consistently for a minimum period of 10 seconds.
- Minimal: AWGN level at which the system begins to trigger the transmission switch-off, albeit not being kept off consistently.
- On: AWGN level at which no impact on the transmission is detected, consistently for a minimum period of 10 seconds.

Contention Based Protocol Detection Rate													
Detection Limit		90%											
Operation Mode	AWGN Signal Frequency (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Rate	Test Result
802.11ax (HE20)	6915	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	90%	PASS
802.11ax (HE80)	6870	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS
	6945	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS
	7020	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%	PASS

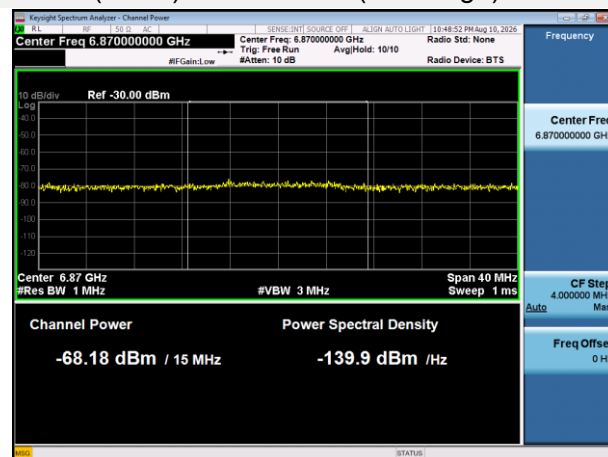
Test Plots

Plots of Incumbent signal(AWGN) Level

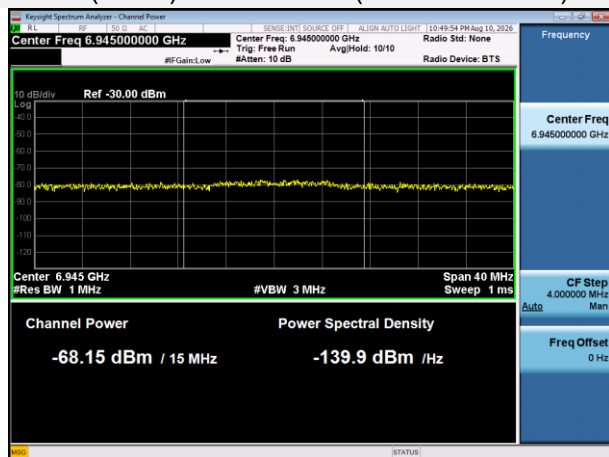
802.11ax (HE20)-Channel 193



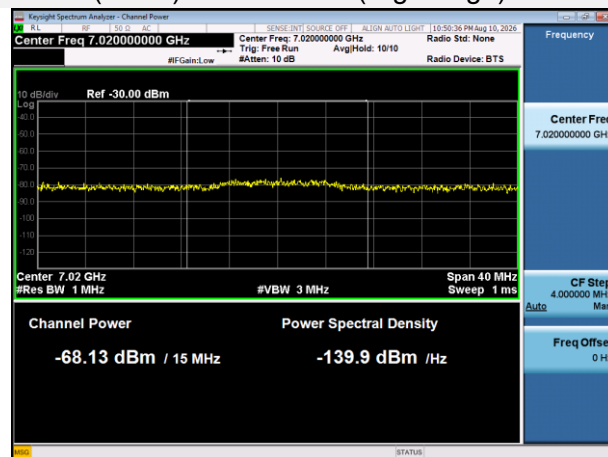
802.11ax (HE80)-Channel 199 (Low Edge)



802.11ax (HE80)-Channel 199 (Channel Center)

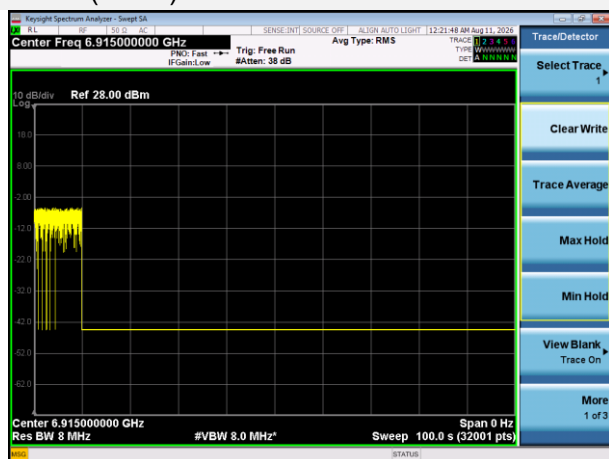


802.11ax (HE80)-Channel 199 (High Edge)

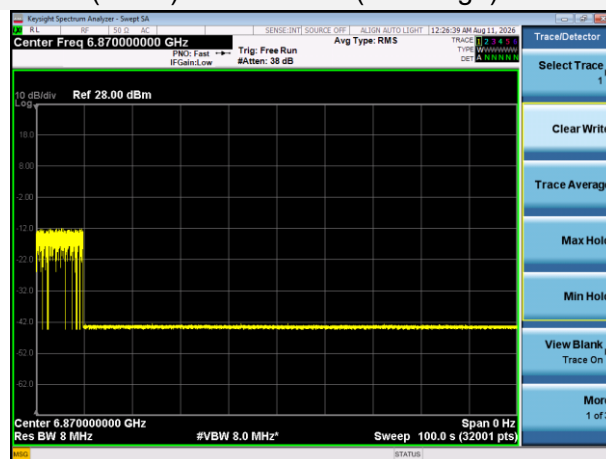


Plots of EUT Tx waveform

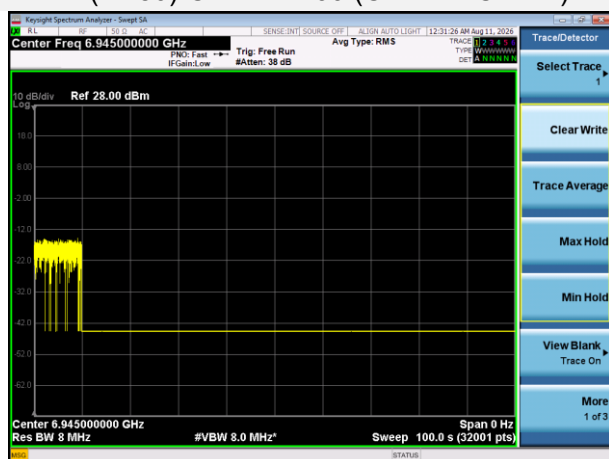
802.11ax (HE20)-Channel 193



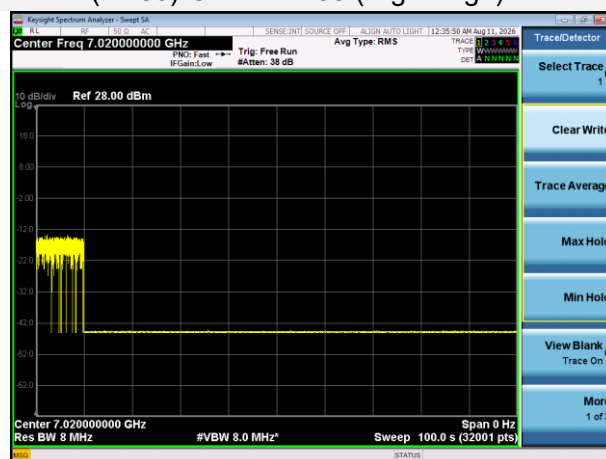
802.11ax (HE80)-Channel 199 (Low Edge)



802.11ax (HE80)-Channel 199 (Channel Center)



802.11ax (HE80)-Channel 199 (High Edge)



A.7 In-Band Emissions

Note: Please refer to the document “BL-SH2670015-605 Data Part 5.pdf”.

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SH2670015-605-AR-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SH2670015-605-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SH2670015-605-AI.PDF”.

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--END OF REPORT--