中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **Grandstream Networks, Inc.**

Address: 126 Brookline Ave., 3rd Floor Boston, MA 02215, USA

FCC ID: **YZZGWN7665**
IC: **11964A-GWN7665**
HVIN: **GWN7665**

Product Name: **802.11ax Tri-Band Wi-Fi 6E Access Point**

Standard(s): **47 CFR Part 15, Subpart E(15.407)**
RSS-248 Issue 2, December 2022
RSS-Gen, Issue 5, February 2021 Amendment 2
ANSI C63.10-2013
KDB 987594 D02 U-NII 6 GHz EMC Measurement v02r01

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR230955399-00G**

Date Of Issue: **2023/12/01**

Reviewed By: **Calvin Chen**

Title: RF Engineer

Approved By: **Sun Zhong**

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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230955399-00G	Original Report	2023/12/01

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	802.11ax Tri-Band Wi-Fi 6E Access Point
EUT Model:	GWN7665
Operation Frequency:	5955-6415 MHz (802.11a/ax he20) 5965-6405 MHz(802.11ax he40) 5985-6385 MHz(802.11ax he80) 6025-6345 MHz(802.11ax he160) 6435-6515 MHz (802.11a/ax he20) 6445-6525 MHz(802.11ax he40) 6465-6545 MHz(802.11ax he80) 6505 MHz(802.11ax he160) 6535-6855 MHz (802.11a/ax he20) 6565-6845 MHz(802.11ax he40) 6625-6865 MHz(802.11ax he80) 6665-6825 MHz(802.11ax he160) 6875-7115 MHz (802.11a he20)/6875-7095 MHz (802.11ax he20) 6885-7085 MHz(802.11ax he40) 6945-7025 MHz(802.11ax he80) 6985 MHz(802.11ax he160)
Maximum Average Output Power (EIRP):	22.97dBm (5925-6425 MHz) 23.12dBm (6425-6525 MHz) 23.34dBm (6525-6875 MHz) 22.73dBm (6875-7125 MHz)
Modulation Type:	802.11a:OFDM-BPSK, QPSK, 16QAM, 64QAM 802.11ax: OFDMA- BPSK, QPSK, 16QAM, 64QAM,256QAM,1024QAM
Equipment classes:	Low-power indoor access point(6ID)
Rated Input Voltage:	POE 48V
Serial Number:	RE/CE:2BI1-1;RF: 2BI1-2
EUT Received Date:	2023/9/20
EUT Received Status:	Good

1.1.2 Operation Frequency Detail:

For 5925-7125 MHz Band, 109 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5955	47	6185	93	6415	141	6655	187	6885
3	5965	49	6195	97	6435	143	6665	189	6895
5	5975	51	6205	99	6445	145	6675	193	6915
7	5985	53	6215	101	6455	147	6685	195	6925
9	5995	55	6225	103	6465	149	6695	197	6935
11	6005	57	6235	105	6475	151	6705	199	6945
13	6015	59	6245	107	6485	153	6715	201	6955
15	6025	61	6255	109	6495	155	6725	203	6965
17	6035	65	6275	111	6505	157	6735	205	6975
19	6045	67	6285	113	6515	161	6755	207	6985
21	6055	69	6295	115	6525	163	6765	209	6995
23	6065	71	6305	117	6535	165	6775	211	7005
25	6075	73	6315	119	6545	167	6785	213	7015
27	6085	75	6325	121	6555	169	6795	215	7025
29	6095	77	6335	123	6565	171	6805	217	7035
33	6115	79	6345	125	6575	173	6815	219	7045
35	6125	81	6355	129	6595	175	6825	221	7055
37	6135	83	6365	131	6605	177	6835	225	7075
39	6145	85	6375	133	6615	179	6845	227	7085
41	6155	87	6385	135	6625	181	6855	229	7095
43	6165	89	6395	137	6635	183	6865	233	7115
45	6175	91	6405	139	6645	185	6875	/	/

Test channel Information

For 802.11a/ax he20:

U-NII 5		U-NII 6		U-NII 7		U-NII 8	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
Per section 15.31(m)/RSS-Gen, the below frequencies were performed the test as below:							
1	5955	97	6435	117	6535	185	6875
45	6175	105	6475	149	6695	189	6895
93	6415	113	6515	181	6855	209	6995
/	/	/	/	/	/	233	7115*

*: The test frequency is 7095MHz for the 802.11ax he20 mode.

For 802.11ax he40:

U-NII 5		U-NII 6		U-NII 7		U-NII 8	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
Per section 15.31(m)/RSS-Gen, the below frequencies were performed the test as below:							
3	5965	99	6445	123	6565	187	6885
43	6165	107	6485	147	6685	195	6925
91	6405	115	6525	179	6845	203	6965
/	/	/	/	/	/	227	7085

For 802.11ax he80:

U-NII 5		U-NII 6		U-NII 7		U-NII 8	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
Per section 15.31(m)/RSS-Gen, the below frequencies were performed the test as below:							
7	5985	103	6465	135	6625	199	6945
39	6145	119	6545	151	6705	215	7025
87	6385	/	/	167	6785	/	/
/	/	/	/	183	6865	/	/

For 802.11ax he160:

U-NII 5		U-NII 6		U-NII 7		U-NII 8	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
Per section 15.31(m)/RSS-Gen, the below frequencies were performed the test as below:							
15	6025	111	6505	143	6665	207	6985
47	6185			175	6825	/	/
79	6345			/	/		
/	/			/	/	/	/

1.1.3 Antenna Information Detail▲:

Antenna	Antenna Type	input impedance (Ohm)	Frequency Range (MHz)	Antenna Gain (dBi)
Chain 0	PIFA	50	5925-7125	4.55
Chain 1	PIFA	50	5925-7125	4.55

The Method of §15.203 Compliance:

☒Antenna was permanently attached to the unit.

☐Antenna use a unique type of connector to attach to the EUT.

☐Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

1.1.4 Accessory Information:

No.

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
Equipment Modifications:	No
EUT Exercise Software:	QRCT.exe
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:	

5925-6425 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency (MHz)**	**Data rate**	**Power Level Setting**	
				Chain 0	**Chain 1**
802.11a	Lowest	5955	6Mbps	11	8
	Middle	6175	6Mbps	8	8
	Highest	6415	6Mbps	8	8
802.11ax he20	Lowest	5955	MCS0	8	6
	Middle	6175	MCS0	5	5
	Highest	6415	MCS0	6	6
802.11ax he40	Lowest	5965	MCS0	10	8
	Middle	6165	MCS0	9	6
	Highest	6405	MCS0	7	8
802.11ax he80	Lowest	5985	MCS0	12	10
	Middle	6145	MCS0	10	8
	Highest	6385	MCS0	10	10
802.11ax he160	Lowest	6025	MCS0	13	10
	Middle	6185	MCS0	13	12
	Highest	6345	MCS0	14	13

6425-6525 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency (MHz)**	**Data rate**	**Power Level Setting**	
				Chain 0	**Chain 1**
802.11a	Lowest	6435	6Mbps	8	7
	Middle	6475	6Mbps	8	8
	Highest	6515	6Mbps	8	8
802.11ax he20	Lowest	6435	MCS0	5	6
	Middle	6475	MCS0	6	7
	Highest	6515	MCS0	9	6
802.11ax he40	Lowest	6445	MCS0	8	8
	Middle	6485	MCS0	9	9
	Highest	6525	MCS0	10	9
802.11ax he80	Lowest	6465	MCS0	11	11
	Highest	6545	MCS0	10	11
802.11ax he160	Middle	6505	MCS0	14	14
6525-6875 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency (MHz)**	**Data rate**	**Power Level Setting**	
				Chain 0	**Chain 1**
802.11a	Lowest	6535	6Mbps	7	8
	Middle	6695	6Mbps	8	8
	Highest	6855	6Mbps	10	8
802.11ax he20	Lowest	6535	MCS0	5	6
	Middle	6695	MCS0	6	6
	Highest	6855	MCS0	9	6
802.11ax he40	Lowest	6565	MCS0	9	8
	Middle	6685	MCS0	10	8
	Highest	6845	MCS0	10	8
802.11ax he80	Lowest	6625	MCS0	11	11
	Middle	6705	MCS0	11	10
	Highest	6785	MCS0	11	10
	Additional	6865	MCS0	12	11
802.11ax he160	Lowest	6665	MCS0	12	13
	Highest	6825	MCS0	14	13

6875-7125 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency (MHz)**	**Data rate**	**Power Level Setting**	
				Chain 0	**Chain 1**
802.11a	Lowest	6875	6Mbps	9	8
	Middle	6895	6Mbps	9	9
	Highest	6995	6Mbps	10	11
	Additional	7115	6Mbps	8	8
802.11ax he20	Lowest	6875	MCS0	7	6
	Middle	6895	MCS0	7	6
	Highest	6995	MCS0	7	8
	Additional	7095	MCS0	6	7
802.11ax he40	Lowest	6885	MCS0	10	9
	Middle	6925	MCS0	9	9
	Highest	6965	MCS0	9	11
	Additional	7085	MCS0	8	9
802.11ax he80	Lowest	6945	MCS0	12	12
	Highest	7025	MCS0	11	12
802.11ax he160	Middle	6985	MCS0	14	15

Note:
1. The above are the worst-case data rates, which are determined for each mode based upon investigations by measuring the average power and PSD across all data rates, bandwidths, and modulations.
2. The device supports SISO in all modes, and MIMO 2T2R in 802.11ax modes, per pretest, 2T2R mode was the worst mode and reported for 802.11ax modes.
3. The device support Beamforming and non-beamforming mode for MIMO, per pretest, Beamforming mode was the worst mode and reported for MIMO.
4. For 802.11ax mode, the device not support partial RU mode.

1.2.2 Support Equipment List and Details

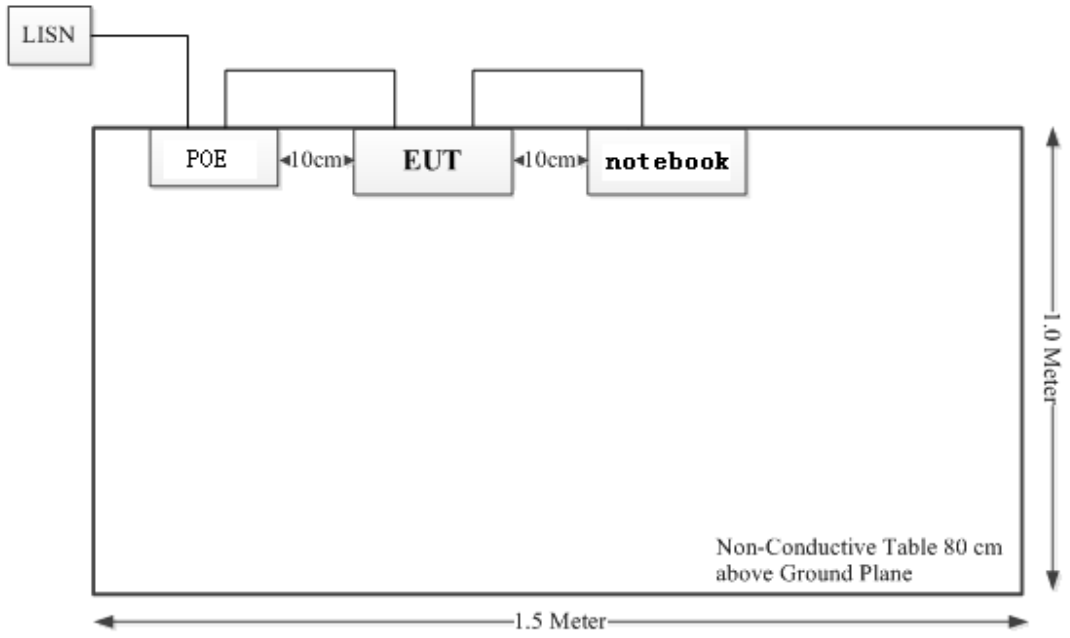
Manufacturer	Description	Model	Serial Number
DELL	Notebook	E6410	GYXJ3 A00 JSD2
DIGITAL	POE	G0720-480-050	3TV4E338182

1.2.3 Support Cable List and Details

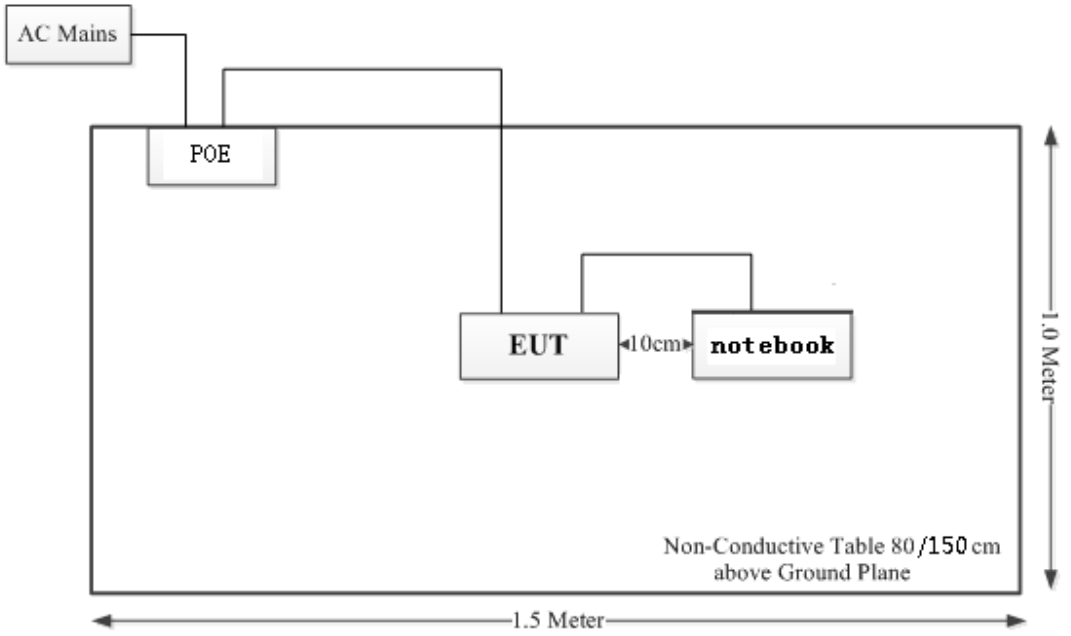
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
RJ45 Cable	NO	NO	1	POE	EUT
RJ45 Cable	NO	NO	1	Notebook	EUT

1.2.4Block Diagram of Test Setup

AC line conducted emissions:



Spurious Emissions:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207(a) RSS-Gen Clause 8.8	AC line conducted emissions	Compliant
FCC§15.205& §15.209 &§15.407(b)(6) RSS-248 Clause 4.6.2 (a)	Undesirable Emission& Restricted Bands	Compliant
§15.407(b)(7) RSS-248 Clause 4.6.2 (b)	In-band Emission	Compliant
§15.407(a) (10) RSS-248 Clause 4.4	26 dB Emission Bandwidth & 99% Occupied bandwidth	Compliant
§15.407(a) (5) RSS-248 Clause 4.5.2(b)	Maximum E.I.R.P.	Compliant
§15.407 (a) (5) RSS-248 Clause 4.5.2(a)	Maximum Power Spectral Density	Compliant
§15.407 (d) (6) RSS-248 Clause 4.7	Contention Based Protocol	Compliant
RSS-248 Clause 4.8	Additional requirements	Compliant
§ 15.407 (a) (9) §15.203 RSS-Gen Clause 6.8	Antenna Requirement	Compliant
FCC §2.1091	Maximum Permissible exposure	Compliant
RSS-102 §4	Exposure Limits	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to thepublic utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency orfrequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohmsline impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement ofthe radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundarybetween the frequency ranges.

	Conducted limit (dBμV)	
Frequency of emission (MHz)	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators onfrequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to bereceived using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μV within the frequency band 535-1705 kHz, as measured using a 50 μH/50 ohmsLISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221,§15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ batterypower for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the ACpower lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, ACadapters or battery eliminators or that connect to the AC power lines indirectly, obtainig their power through another device which isconnected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

RSS-Gen Clause 8.8

Unless stated otherwise in the applicable RSS, for radio apparatus that are designed to be connected to the public utility AC power network, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the range 150 kHz to 30 MHz shall not exceed the limits in table 4, as measured using a 50 μH / 50 Ω line impedance stabilization network. This requirement applies for the radio frequency voltage measured between each power line and the ground terminal of each AC power-line mains cable of the EUT.
For an EUT that connects to the AC power lines indirectly, through another device, the requirement for compliance with the limits in table 4 shall apply at the terminals of the AC power-line mains cable of a representative support device, while it provides power to the EUT. The lower limit applies at the

boundary between the frequency ranges. The device used to power the EUT shall be representative of typical applications.

Table 4 – AC power-line conducted emissions limits

Frequency (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56[1]	56 to 46[1]
0.5 – 5	56	46
5 – 30	60	50

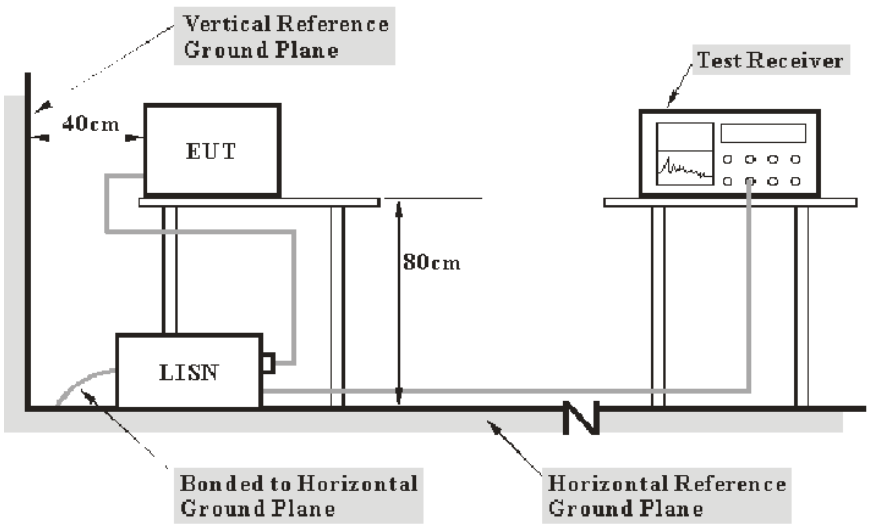
Note 1: The level decreases linearly with the logarithm of the frequency.

For an EUT with a permanent or detachable antenna operating between 150 kHz and 30 MHz, the AC power-line conducted emissions must be measured using the following configurations:

(a) Perform the AC power-line conducted emissions test with the antenna connected to determine compliance with the limits of table 4 outside the transmitter's fundamental emission band.

(b) Retest with a dummy load instead of the antenna to determine compliance with the limits of table 4 within the transmitter's fundamental emission band. For a detachable antenna, remove the antenna and connect a suitable dummy load to the antenna connector. For a permanent antenna, remove the antenna and terminate the RF output with a dummy load or network that simulates the antenna in the fundamental frequency band.

3.1.2 EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207,RSS-Genlimits.

The spacing between the peripherals was 10cm.

The adapter or EUT was connected to the main LISN with a 120 V/60 Hz AC power source.

3.1.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.4 Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit, measured over all the current-carrying conductors of the EUT power cords, and the operating frequency or frequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are more than 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carried out only on each of the phase ("hot") line(s) and (if used) on the neutral line(s), but not on the ground[protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noise level of the measuring instrument at representative frequencies should be reported. The specific conductor of the power-line cord for each of the reported emissions should be identified. Measure the six highest emissions with respect to the limit on each current-carrying conductor of each power cord associated with the EUT (but not the power cords of associated or peripheral equipment that are part of the test configuration). Then, report the six highest emissions with respect to the limit from among all the measurements identifying the frequency and specific current-carrying conductor identified with the emission. The six highest emissions should be reported for each of the current-carrying conductors, or the six highest emissions may be reported over all the current-carrying conductors.

3.1.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor=attenuation caused by cable loss + voltage division factor of AMN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.2 Radiation Spurious Emissions

3.2.1 Applicable Standard

FCC §15.407 (b);

(6) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of −27 dBm/MHz.

(9) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in § 15.207.

(10) The provisions of § 15.205 apply to intentional radiators operating under this section.

RSS-248 Clause 4.6.1 This section specifies measurement requirements for unwanted emission limits for RLAN devices. Measurement requirements

The power of the unwanted emissions shall be measured in terms of average value.

Measurements shall employ a resolution bandwidth of 1 MHz. A narrower resolution bandwidth may be used, provided the measured power is integrated over 1 MHz. Measurements of the unwanted emissions shall be performed and reported using the lowest and highest channels that the device supports.

For purposes of this section, the channel bandwidth is identical to the occupied bandwidth or the 26 dB emission bandwidth, whereas the channel edges are the outermost frequency points that define the channel bandwidth.

If the transmission is in bursts, the provisions for pulsed operation in RSS-Gen shall apply.

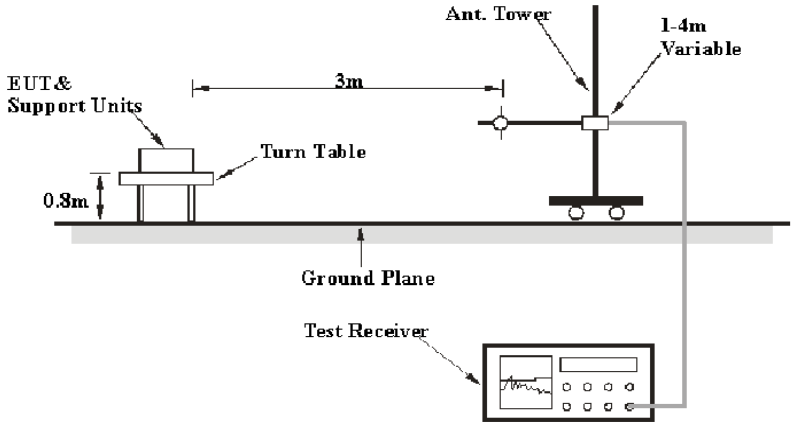
RSS-248 Clause 4.6. 2 Unwanted emission limits

The following unwanted emission limits shall apply:

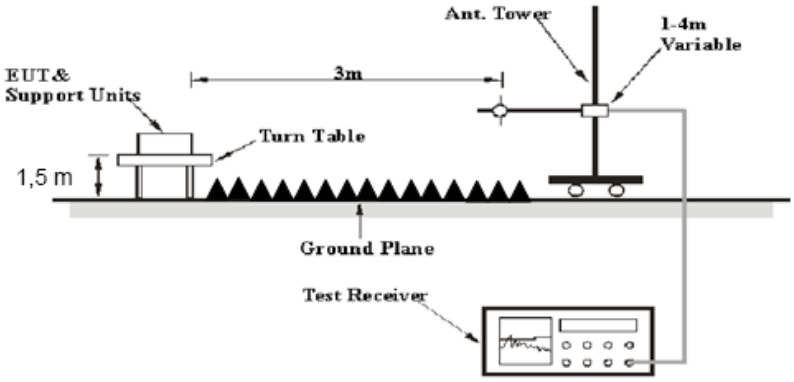
a. Any emissions outside of the 5925-7125 MHz frequency band shall not exceed –27 dbm/MHz e.i.r.p. Spectral density

3.2.2EUT Setup

Below 1GHz:



1-40 GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was FCC 15.209, FCC 15.407, RSS-248, RSS-Gen limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle.

The spacing between the peripherals was 10cm.

3.2.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

9 kHz-30MHz:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	200 Hz	1 kHz	/	QP
150 kHz – 30 MHz	9 kHz	30 kHz	/	QP

30-1000MHz:

Detector	RBW	Video B/W	IF B/W
QP	100 kHz	300 kHz	120kHz

1GHz- 40GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
AV	>98%	1MHz	10 Hz
	<98%	1MHz	1/T

Note: T is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

3.2.4 Test Procedure

During the radiated emission test, the adapter was connected to the first AC floor outlet.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: E [dBμV/m] = EIRP[dBm] + 95.2, for d = 3 meters.

According to C63.10, the above 1G test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/decade from 3m to 1.5m
Distance extrapolation Factor =20 log (specific distance [3m]/test distance [1.5m]) dB= 6.02 dB

All emissions under the average limit and under the noise floor have not recorded in the report.

3.2.5 Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Factor= Antenna Factor + Cable Loss-Amplifier Gain

For 30MHz-1GHz:
Result = Reading + Factor

For 1GHz-40GHz
Result = Reading + Factor-Distance extrapolation Factor

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.3 26 dB Emission Bandwidth & 99% Occupied bandwidth:

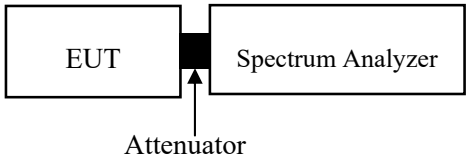
3.3.1 Applicable Standard

According to FCC§15.407(a)(10), The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 megahertz..

RSS-248 Clause 4.4

The occupied bandwidth of an RLAN device shall not exceed 320 MHz.

3.3.2 EUT Setup



3.3.3 Test Procedure

Test Method: KDB789033 D02 Clause II.C

1. Emission Bandwidth (EBW)
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
f) For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥3* RBW.
g) Measure and record the results in the test report.

3.4 Maximum EIRP

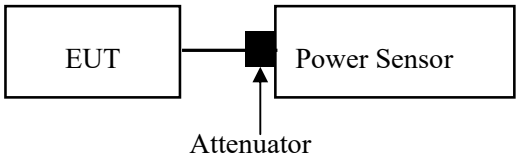
3.4.1 Applicable Standard

According to the FCC §15.407(a)(5), For an indoor access point operating in the 5.925–7.125 GHz band, the maximum power spectral density must not exceed 5 dBm e.i.r.p. in any 1-megahertz band. In addition, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

RSS-248 Clause 4.5.2

The following limits shall apply to low-power indoor access-points and indoor subordinate devices:
a. the maximum e.i.r.p. spectral density shall not exceed 5 dBm/MHz and
b. the maximum e.i.r.p. over the 5925-7125 MHz frequency band shall not exceed 30 dBm

3.4.2 EUT Setup



3.4.3 Test Procedure

Test Method: KDB789033 D02 Clause II.E.3 b)

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.5 Maximum power spectral density:

3.5.1 Applicable Standard

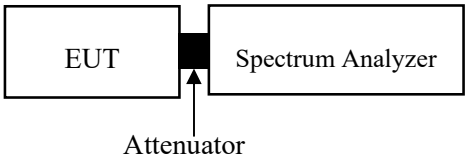
According to the FCC §15.407(a)(5), For an indoor access point operating in the 5.925–7.125 GHz band, the maximum power spectral density must not exceed 5 dBm e.i.r.p. in any 1-megahertz band. In addition, the maximum e.i.r.p. over the frequency band of operation must not exceed 30 dBm.

RSS-248 Clause 4.5.2

The following limits shall apply to low-power indoor access-points and indoor subordinate devices:

a. the maximum e.i.r.p. spectral density shall not exceed 5 dBm/MHz and
b. the maximum e.i.r.p. over the 5925-7125 MHz frequency band shall not exceed 30 dBm

3.5.2 EUT Setup



3.5.3 Test Procedure

Test Method: KDB789033 D02 Clause II.F Method SA-1

3.6 IN-BAND EMISSIONS:

3.6.1 Applicable Standard

According to FCC§15.407(b) (7),

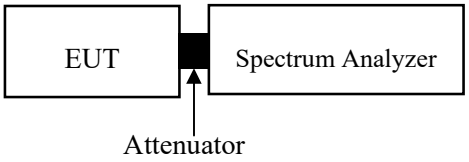
For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

RSS-248 Clause 4.5.2(b)

the e.i.r.p. spectral density of unwanted emissions falling into the 5925-7125 MHz frequency band shall be attenuated below the reference power spectral density by:

i. 20 dB at 1 MHz away from the channel edges
ii. a value, linearly interpolated in a dB scale, between 20 dB and 28 dB at frequencies between 1 MHz outside of channel edges and 1 channel bandwidth away from the operating channel centre, respectively
iii. 28 dB at 1 channel bandwidth away from the operating channel centre
iv. a value, linearly interpolated in a dB scale, between 28 dB and 40 dB at frequencies between 1 channel bandwidth away from the operating channel centre and 1.5 times the channel bandwidth away from the operating channel centre, respectively
v. 40 dB at 1.5 times the channel bandwidth away from the operating channel centre
vi. a minimum of 40 dB at frequencies that are further away than 1.5 times the channel bandwidth from the operating channel centre

3.6.2 EUT Setup



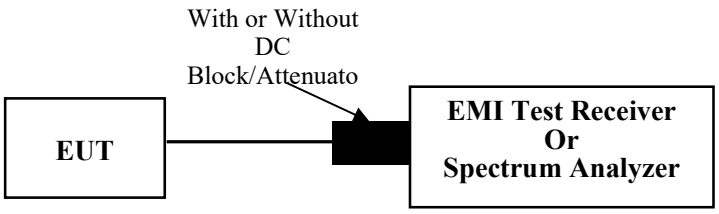
3.5.3 Test Procedure

Test Method: KDB 987594 D02 Clause J

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 C63.10-2013.
3. Take nominal bandwidth as reference channel bandwidth provided that 26 dB emission bandwidth is always larger than nominal bandwidth.
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 ≥ 3 X RBW
   d) Number of points in sweep ≥ [2 X span / 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. 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.
   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.
6. Adjust the span to encompass the entire mask as necessary.
7. Clear trace.
8. Trace average at least 100 traces in power averaging (rms) mode.
9. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask.

3.7 Duty Cycle:

3.7.1 EUT Setup



3.7.2 Test Procedure

According to ANSI C63.10-2013 Section 12.2

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:
1) Set the center frequency of the instrument to the center frequency of the transmission.
2) Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ RBW. Set detector = peak or average.
4) 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 the duty cycle shall not be used if T ≤ 16.7 μs.)

3.8 Contention Based Protocol

3.8.1 Applicable Standard

According to FCC15.407(d) (6) &KDB 98754 D02.

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-agnosticic 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 (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold(-62dBm)1.The -62dBm(or lower) Threshold is referenced to a 0dBi antenna gain.

To ensure incumbent operations are reliably detected in the band , low power indoor devices must detect RF energy throughout intended operating channel . For example , an 802 .device that plans to transmit a 40 MHz-wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally , low-power indoor devices must detect co-channel energy with 90% or greater certainty .

Table 1. Criteria to determine number of times detection threshold test may be performed

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Tune incumbent and EUT transmissions ($f_{c1} = f_{c2}$)
$BW_{Inc} < BW_{EUT} \leq 2BW_{Inc}$	Once	Incumbent transmission is contained within BW_{EUT}
$2BW_{Inc} < BW_{EUT} \leq 4BW_{Inc}$	Twice. Incumbent transmission is contained within BW_{EUT}	Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel
$BW_{EUT} > 4BW_{Inc}$	Three times	Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel

where:
$BWEUT$: Transmission bandwidth of EUT signal
$BWInc$: Transmission bandwidth of the simulated incumbent signal (10 MHz wide AWGN signal)
$fc1$: Center frequency of EUT transmission
$fc2$: Center frequency of simulated incumbent signal

According to RSS-248 Clause 4.7 .

This section sets out the requirements for the use of a contention-based protocol. Low-power indoor access points, indoor subordinate devices, and low-power client devices shall employ a contention-based protocol.

The FCC's accepted KDB procedures listed on ISED's Certification and Engineering Bureau website (see the Normative Test Standards and Acceptable Alternate Procedures page) shall be used to demonstrate the compliance of a device with the contention-based protocol requirements set out in this section.

The minimum detection threshold power is the received power referenced to a 0 dBi antenna. Devices shall use a contention-based protocol to detect the presence of any emissions on the channel that the device intends to occupy. The device shall be able to detect, within its entire occupied bandwidth, a radio frequency power of at least -62 dBm or lower.

If an emission is detected on a channel, the device shall cease transmissions and shall not resume transmissions on this channel while the detected radio frequency power is at or above the -62 dBm threshold.

3.8.2 EUT Setup

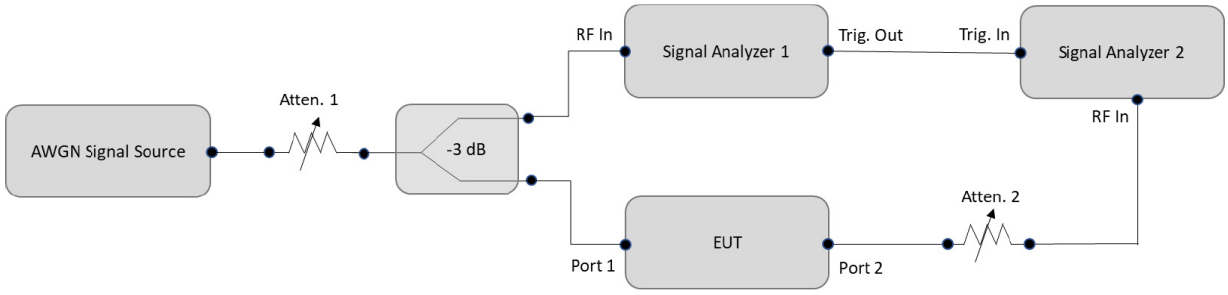


Figure 2. Contention-based protocol test setup, conducted method Step-by-Step Procedure, Conducted Setup

3.8.3 Test Procedure

Test Method: KDB 987594 D02 Clause I

1. Configure the EUT to transmit with a constant duty cycle.
2. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
3. Set the signal analyzer center frequency to the nominal EEUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT.
   Connect the output port of the EUT to the signal analyzer 2, as shown in Figure 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
4. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
5. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
6. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in Figure 2.
7. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
8. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
9. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
10. Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.

3.9 Antenna Requirement

3.9.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or§15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

FCC §15.407 (a) (9)

Access points operating under the provisions of paragraphs (a)(5) and (a)(6) of this section must employ a permanently attached integrated antenna.

RSS-GEN Clause 6.8

The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.

3.9.2 Judgment

Result: Compliant. Please refer to the Antenna Information detail in Section 1.

3.10 Operational requirements

3.10.1 Applicable Standard

According to RSS-248 Clause 4.8 Operational requirements

This section sets out operational requirements for RLAN devices. The following operational requirements shall apply to RLAN devices:

a. Devices shall automatically stop transmitting if there is an absence of information to transmit or an operational failure. Note that the intention is not to prohibit either the transmission of control or signalling information, or the use of repetitive codes, where one or both are required by the technology. An explanation of how to stop transmitting shall be included in the certification filing.

b.Devices shall not be used for control of or communications with unmanned aircraft systems.

3.10.2 Judgment

RSS-248 Clause 4.8.1:

Standard-power access points, fixed client devices, low-power indoor access points, and indoor subordinate devices

For standard-power access points, fixed client devices, low-power indoor access points and indoor subordinate devices, the following requirements shall apply:

a.operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited but

b.low-power indoor access points shall be permitted to operate in the 5925-6425 MHz band in large aircraft while flying above 3,048 m (10,000 ft)

4. Test DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2BI1-1	Test Date:	2023/11/18
Test Site:	CE	Test Mode:	Transmitting(Maximum Output Power 802.11ax160 6665MHz)
Tester:	David Huang	Test Result:	Pass

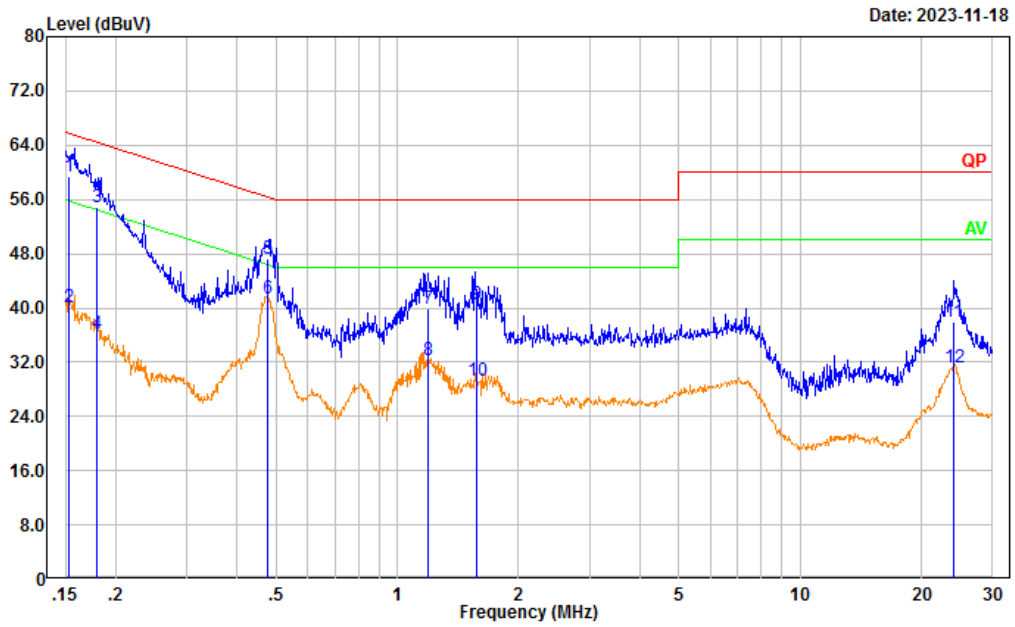
Environmental Conditions:					
Temperature: (℃)	24.8	Relative Humidity: (%)	32	ATM Pressure: (kPa)	101.8

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/03/31	2024/03/30
R&S	EMI Test Receiver	ESR3	102726	2023/03/31	2024/03/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/08/06	2024/08/05
Audix	Test Software	E3	190306 (V9)	N/A	N/A

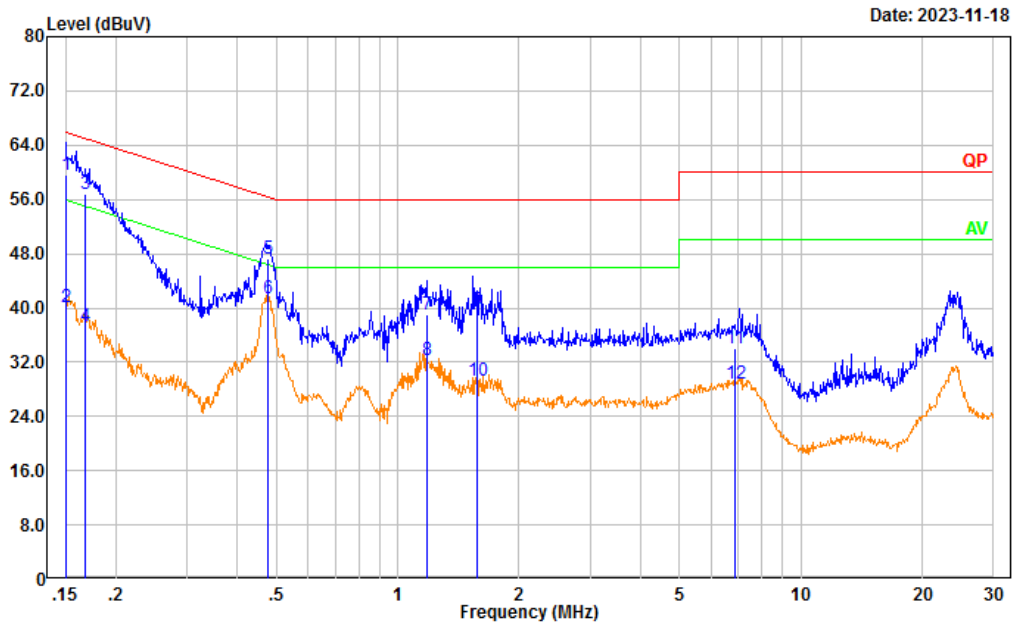
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Project No.: CR230955399-RF
Tester: David Huang
Port: Line
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.153	49.86	9.61	59.47	65.81	6.34	QP
2	0.153	30.58	9.61	40.19	55.81	15.62	Average
3	0.180	45.32	9.61	54.93	64.50	9.57	QP
4	0.180	26.63	9.61	36.24	54.50	18.26	Average
5	0.476	37.60	9.61	47.21	56.41	9.20	QP
6	0.476	31.82	9.61	41.43	46.41	4.98	Average
7	1.193	30.28	9.62	39.90	56.00	16.10	QP
8	1.193	22.62	9.62	32.24	46.00	13.76	Average
9	1.578	30.89	9.63	40.52	56.00	15.48	QP
10	1.578	19.54	9.63	29.17	46.00	16.83	Average
11	23.990	28.21	9.81	38.02	60.00	21.98	QP
12	23.990	21.33	9.81	31.14	50.00	18.86	Average

Project No.: CR230955399-RF
Tester: David Huang
Port: neutral
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.151	49.90	9.61	59.51	65.95	6.44	QP
2	0.151	30.59	9.61	40.20	55.95	15.75	Average
3	0.167	47.10	9.61	56.71	65.08	8.37	QP
4	0.167	27.73	9.61	37.34	55.08	17.74	Average
5	0.475	37.56	9.61	47.17	56.42	9.25	QP
6	0.475	31.80	9.61	41.41	46.42	5.01	Average
7	1.181	29.50	9.62	39.12	56.00	16.88	QP
8	1.181	22.64	9.62	32.26	46.00	13.74	Average
9	1.577	30.02	9.63	39.65	56.00	16.35	QP
10	1.577	19.62	9.63	29.25	46.00	16.75	Average
11	6.863	24.43	9.66	34.09	60.00	25.91	QP
12	6.863	19.27	9.66	28.93	50.00	21.07	Average

4.2 Radiation Spurious Emissions

Serial Number:	2BI1-1	Test Date:	Below 1G: 2023/11/27 Above 1G: 2023/10/17
Test Site:	966-1, 966-2	Test Mode:	Transmitting
Tester:	Carl Xue, Coco Tian, Tao Zhu, Mack Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.4~25.8	Relative Humidity: (%)	45~65	ATM Pressure: (kPa)	100.9~101.3

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Below 1G					
Sunol Sciences	Antenna	JB6	A082520-6	2023/9/18	2026/9/17
BACL	Loop Antenna	1313-1P	3092721	2023/11/9	2026/11/8
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
Audix	Test Software	E3	201021 (V9)	N/A	N/A
Above 1G					
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2022/11/9	2023/11/8
Audix	Test Software	E3	201021 (V9)	N/A	N/A
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5
Mini Circuits	High Pass Filter	VHF-6010+	31119	2023/8/6	2024/8/5
PASTERNACK	Horn Antenna	PE9850/2F-20	072001	2021/2/5	2024/2/4
JD	Multiplex Switch Test Control Set	DT7220SCU	DQ77925	2023/8/6	2024/8/5
JD	Filter Switch Unit	DT7220FSU	DQ77928	2023/8/6	2024/8/5

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

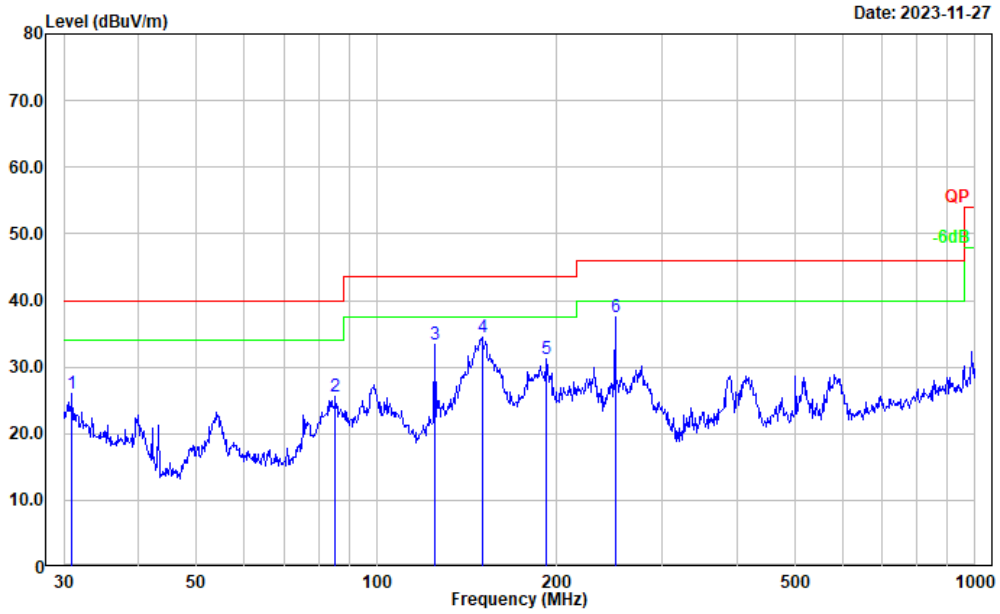
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

For 9kHz-30MHz, The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be recorded.

1) 30MHz-1GHz

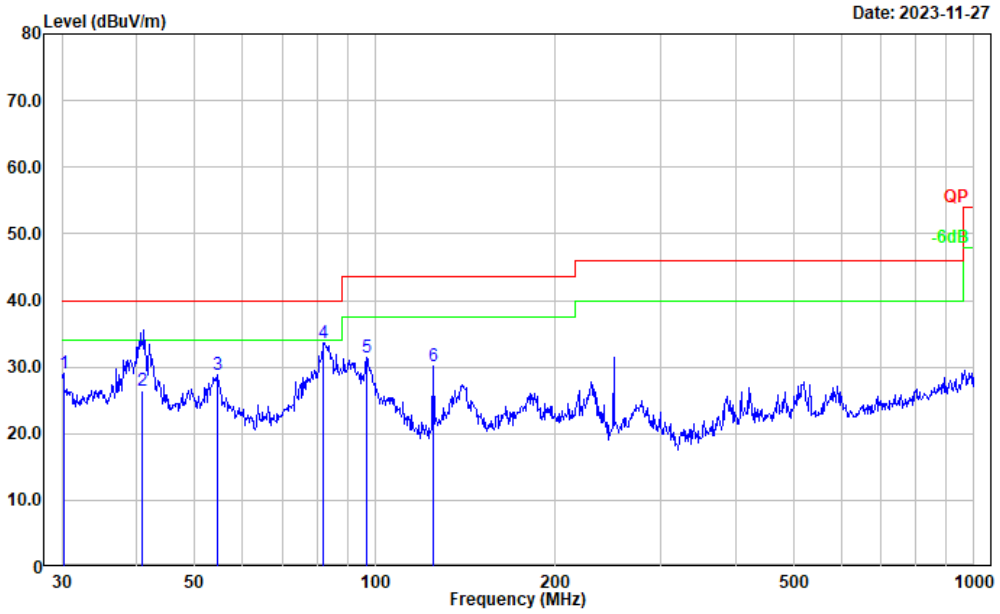
5925-6425MHz ax he160 Low Channel

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5925-6425MHz ax he160 Low Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.962	30.50	-4.53	25.97	40.00	14.03	Peak
2	85.298	42.69	-17.19	25.50	40.00	14.50	Peak
3	125.007	44.75	-11.31	33.44	43.50	10.06	Peak
4	150.011	46.36	-11.90	34.46	43.50	9.04	Peak
5	192.419	44.36	-13.13	31.23	43.50	12.27	Peak
6	250.301	50.63	-13.18	37.45	46.00	8.55	Peak

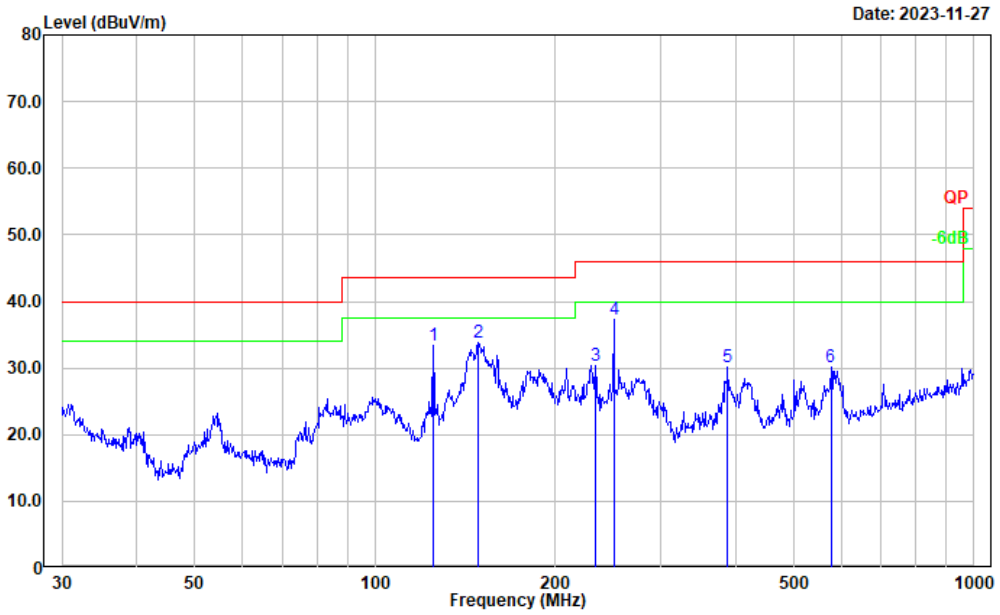
Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5925-6425MHz ax he160 Low Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.211	32.95	-3.96	28.99	40.00	11.01	Peak
2	40.874	38.42	-11.92	26.50	40.00	13.50	QP
3	54.452	46.10	-17.17	28.93	40.00	11.07	Peak
4	81.783	50.96	-17.36	33.60	40.00	6.40	Peak
5	96.775	46.48	-15.13	31.35	43.50	12.15	Peak
6	125.007	41.52	-11.31	30.21	43.50	13.29	Peak

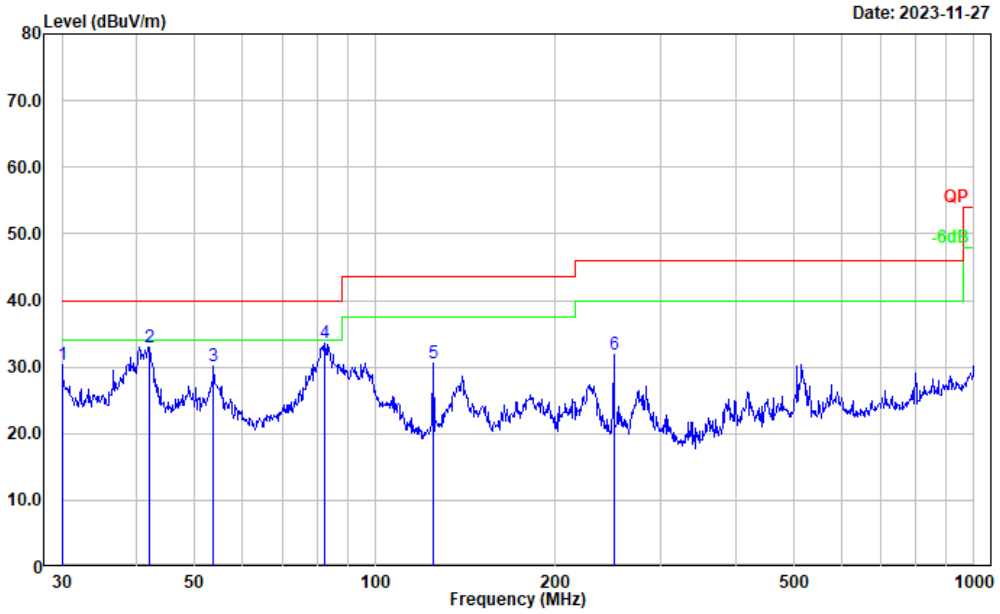
Middle Channel

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5925-6425MHz ax he160 Middle Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	125.007	44.73	-11.31	33.42	43.50	10.08	Peak
2	148.441	45.62	-11.90	33.72	43.50	9.78	Peak
3	233.349	43.54	-13.11	30.43	46.00	15.57	Peak
4	250.301	50.52	-13.18	37.34	46.00	8.66	Peak
5	387.992	38.97	-8.93	30.04	46.00	15.96	Peak
6	576.644	35.73	-5.58	30.15	46.00	15.85	Peak

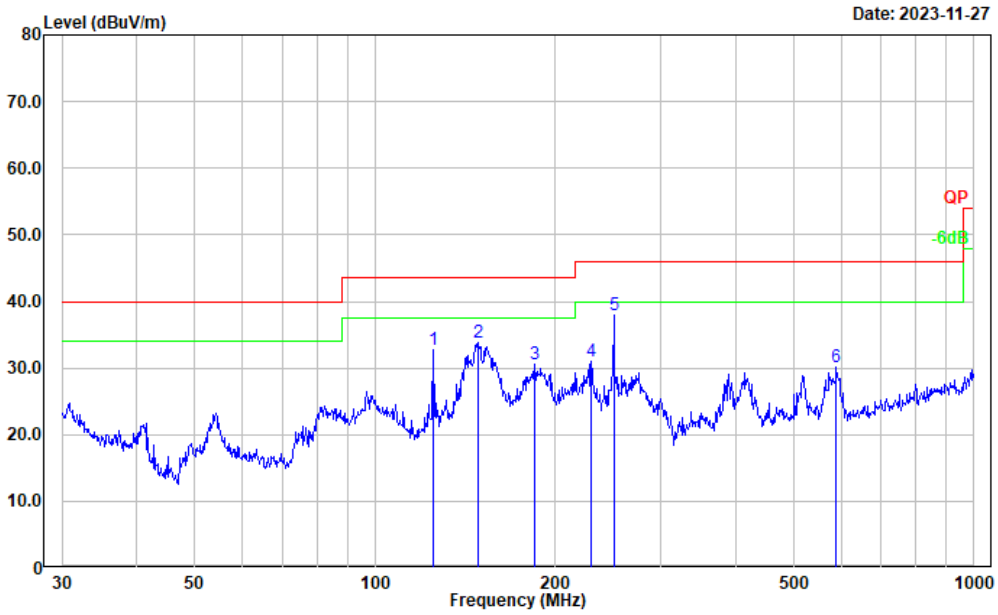
Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5925-6425MHz ax he160 Middle Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.000	34.14	-3.80	30.34	40.00	9.66	Peak
2	42.007	45.56	-12.51	33.05	40.00	6.95	Peak
3	53.693	47.21	-17.15	30.06	40.00	9.94	Peak
4	82.359	51.01	-17.31	33.70	40.00	6.30	Peak
5	125.007	41.83	-11.31	30.52	43.50	12.98	Peak
6	250.301	45.03	-13.18	31.85	46.00	14.15	Peak

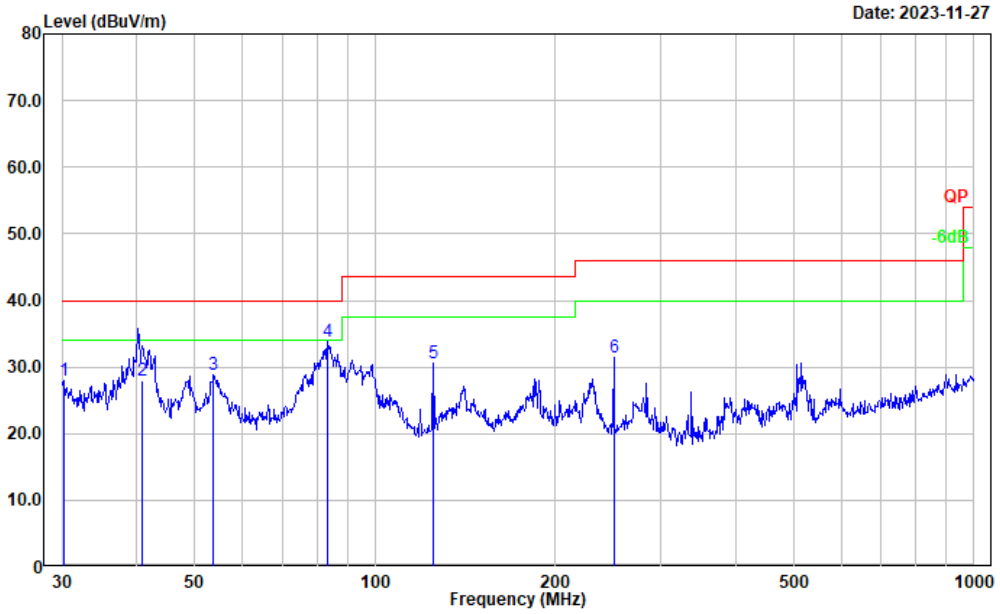
High Channel

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(5925-6425MHz ax he160 High Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	125.007	44.08	-11.31	32.77	43.50	10.73	Peak
2	148.963	45.79	-11.90	33.89	43.50	9.61	Peak
3	185.138	44.02	-13.51	30.51	43.50	12.99	Peak
4	229.293	44.02	-13.03	30.99	46.00	15.01	Peak
5	250.301	51.11	-13.18	37.93	46.00	8.07	Peak
6	588.905	35.52	-5.34	30.18	46.00	15.82	Peak

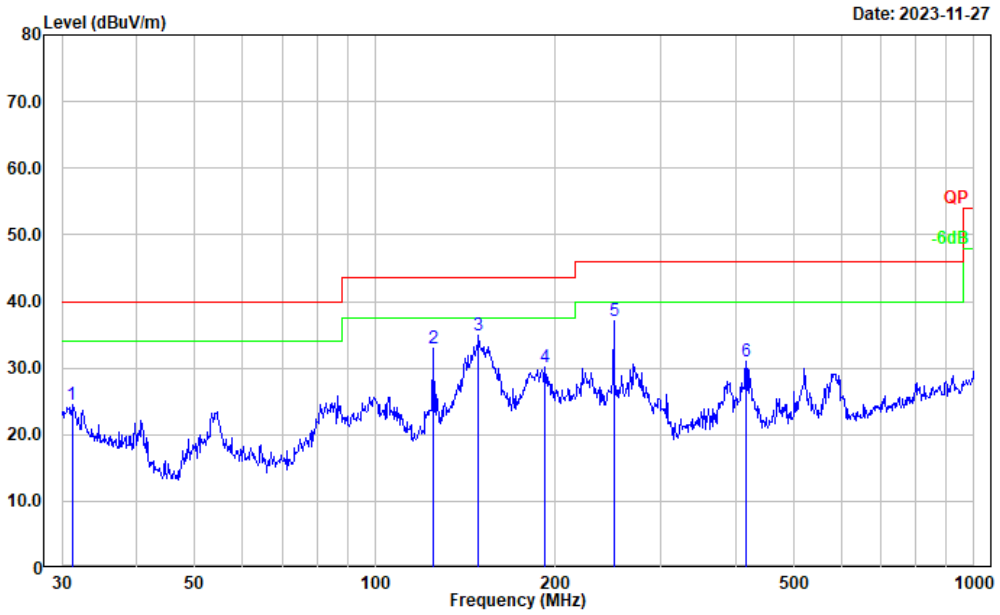
Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(5925-6425MHz ax he160 High Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.317	31.92	-4.04	27.88	40.00	12.12	Peak
2	40.848	39.96	-11.90	28.06	40.00	11.94	QP
3	53.693	45.91	-17.15	28.76	40.00	11.24	Peak
4	83.522	51.10	-17.24	33.86	40.00	6.14	Peak
5	125.007	41.90	-11.31	30.59	43.50	12.91	Peak
6	250.301	44.70	-13.18	31.52	46.00	14.48	Peak

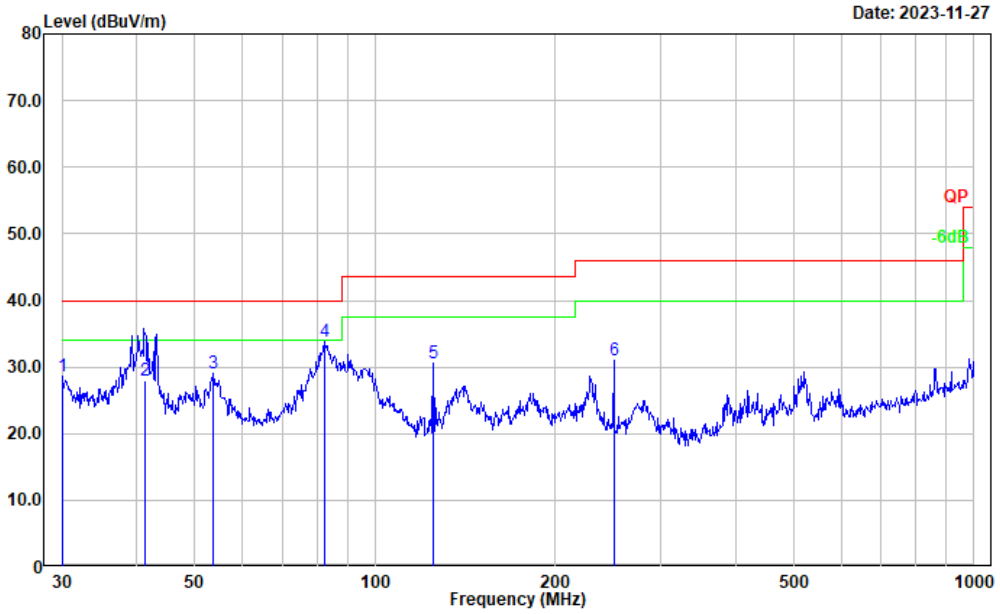
6425-6525MHz ax he160 6505MHz

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(6425-6525MHz ax he160 6505MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.180	29.23	-4.69	24.54	40.00	15.46	Peak
2	125.007	44.37	-11.31	33.06	43.50	10.44	Peak
3	148.963	46.90	-11.90	35.00	43.50	8.50	Peak
4	192.419	43.32	-13.13	30.19	43.50	13.31	Peak
5	250.301	50.19	-13.18	37.01	46.00	8.99	Peak
6	416.179	39.19	-8.10	31.09	46.00	14.91	Peak

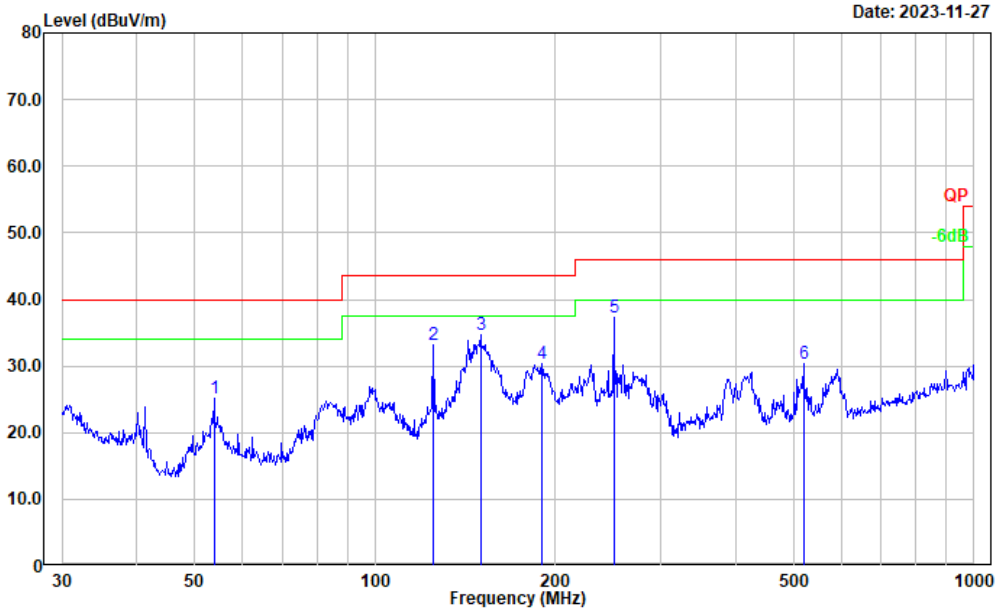
Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(6425-6525MHz ax he160 6505MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.105	32.41	-3.88	28.53	40.00	11.47	Peak
2	41.400	40.10	-12.21	27.89	40.00	12.11	QP
3	53.693	46.18	-17.15	29.03	40.00	10.97	Peak
4	82.359	51.16	-17.31	33.85	40.00	6.15	Peak
5	125.007	41.81	-11.31	30.50	43.50	13.00	Peak
6	250.301	44.19	-13.18	31.01	46.00	14.99	Peak

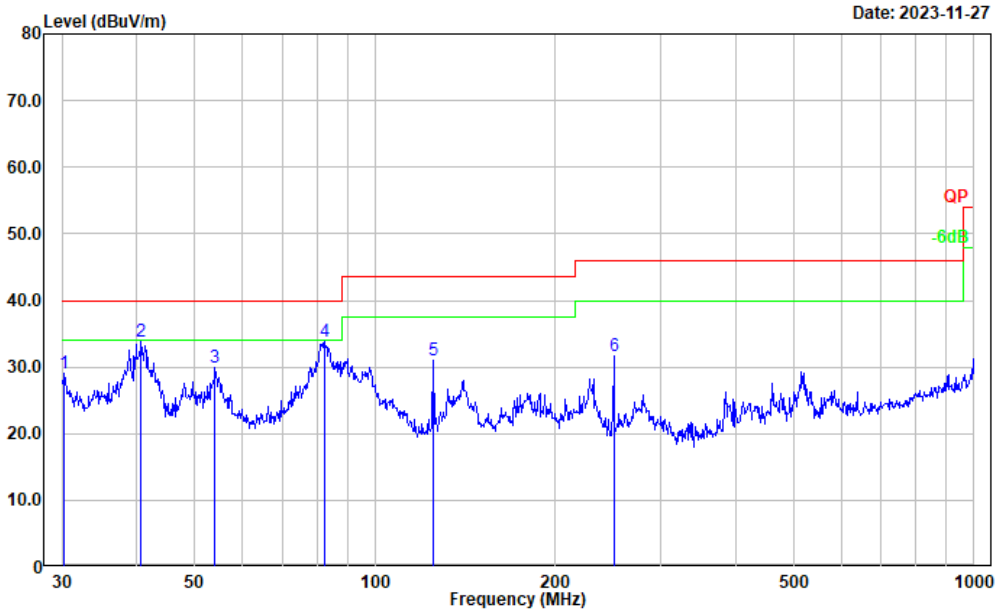
6525-6875MHz ax he160 6665MHz

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(6525-6875MHz ax he160 6665MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	53.882	42.35	-17.16	25.19	40.00	14.81	Peak
2	125.007	44.47	-11.31	33.16	43.50	10.34	Peak
3	150.011	46.52	-11.90	34.62	43.50	8.88	Peak
4	189.739	43.74	-13.47	30.27	43.50	13.23	Peak
5	250.301	50.51	-13.18	37.33	46.00	8.67	Peak
6	519.065	36.16	-5.84	30.32	46.00	15.68	Peak

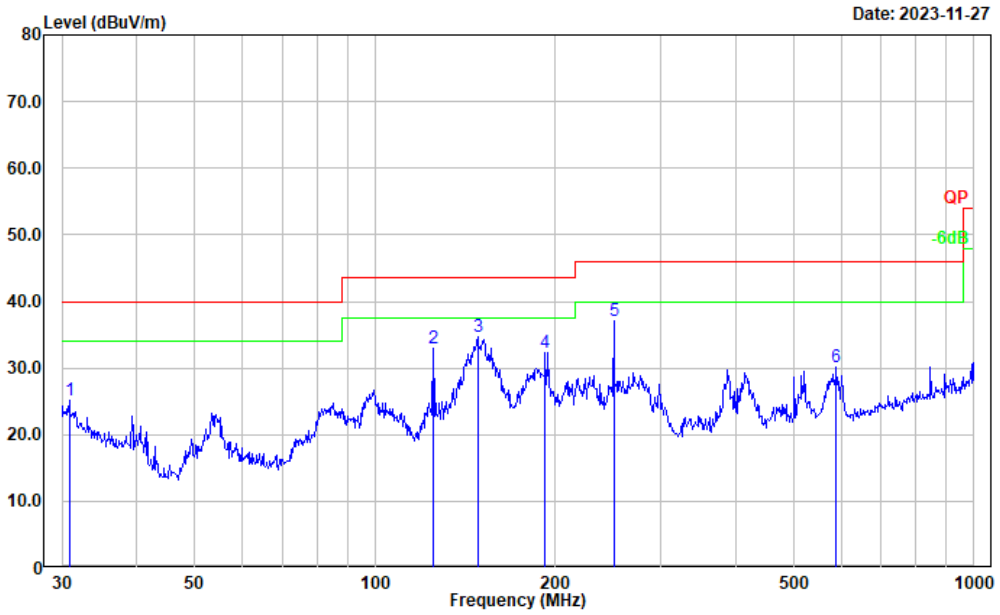
Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(6525-6875MHz ax he160 6665MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.317	33.11	-4.04	29.07	40.00	10.93	Peak
2	40.702	45.72	-11.82	33.90	40.00	6.10	Peak
3	54.071	47.10	-17.16	29.94	40.00	10.06	Peak
4	82.359	51.06	-17.31	33.75	40.00	6.25	Peak
5	125.007	42.27	-11.31	30.96	43.50	12.54	Peak
6	250.301	44.80	-13.18	31.62	46.00	14.38	Peak

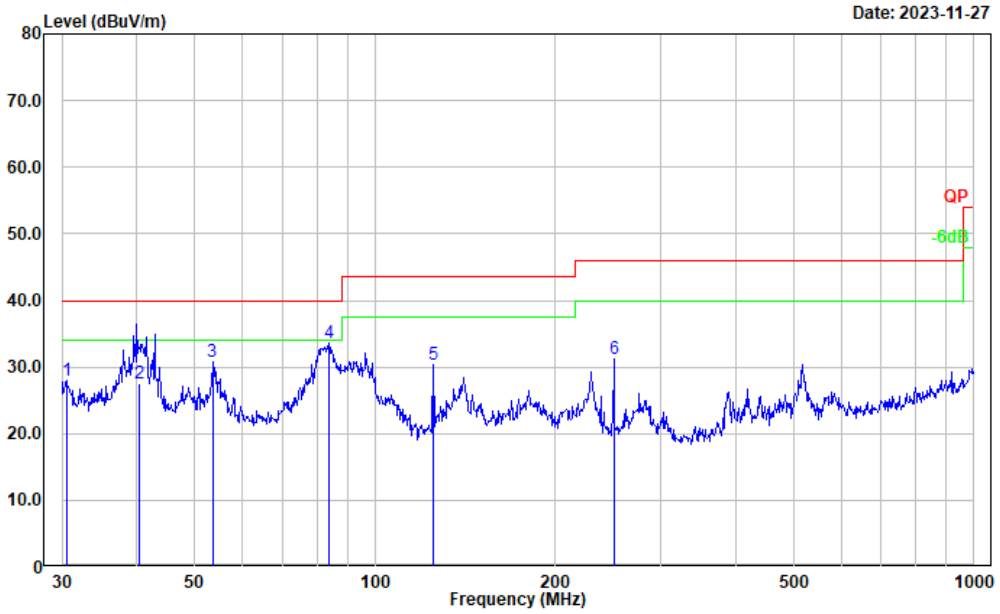
6525-6875MHz ax he160 6825MHz

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(6525-6875MHz ax he160 6825MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.853	29.58	-4.45	25.13	40.00	14.87	Peak
2	125.007	44.33	-11.31	33.02	43.50	10.48	Peak
3	148.441	46.68	-11.90	34.78	43.50	8.72	Peak
4	192.419	45.48	-13.13	32.35	43.50	11.15	Peak
5	250.301	50.31	-13.18	37.13	46.00	8.87	Peak
6	588.905	35.49	-5.34	30.15	46.00	15.85	Peak

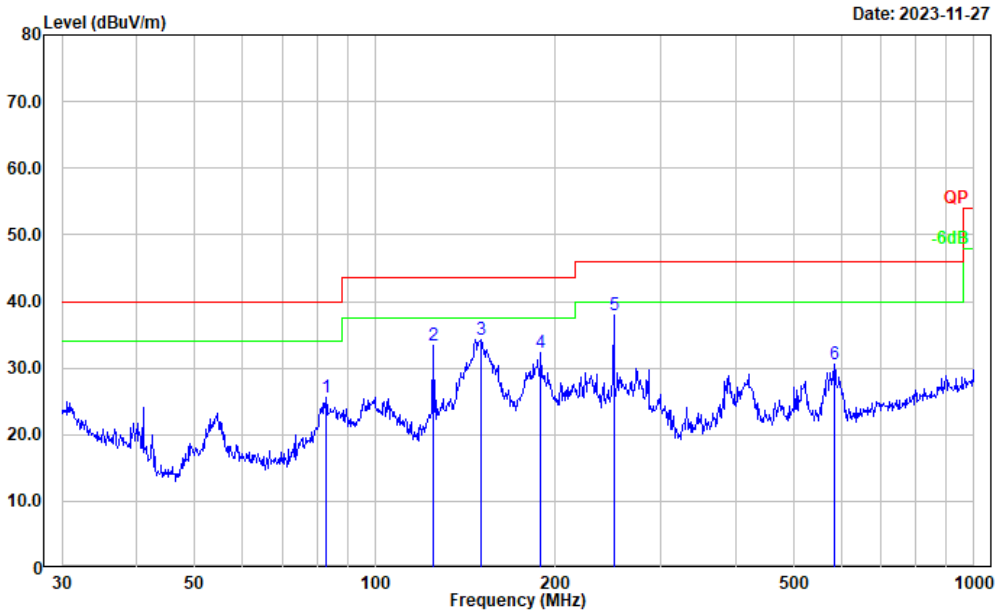
Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(6525-6875MHz ax he160 6825MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.531	32.14	-4.20	27.94	40.00	12.06	Peak
2	40.450	39.30	-11.68	27.62	40.00	12.38	QP
3	53.505	47.85	-17.15	30.70	40.00	9.30	Peak
4	83.816	50.84	-17.24	33.60	40.00	6.40	Peak
5	125.007	41.56	-11.31	30.25	43.50	13.25	Peak
6	250.301	44.51	-13.18	31.33	46.00	14.67	Peak

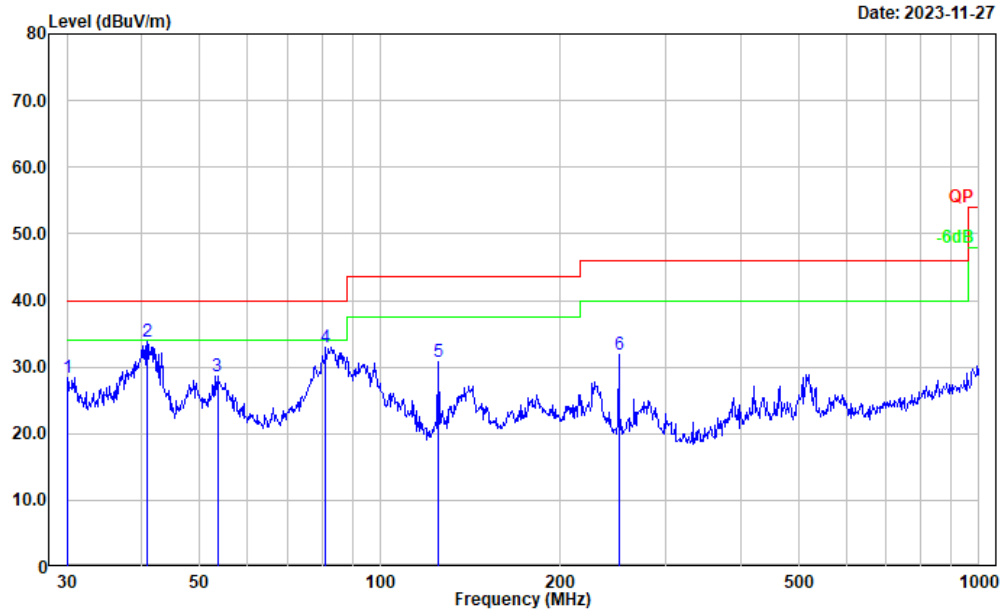
6875-7125MHz ax he160 6985MHz

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(6875-7125MHz ax he160 6985MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	82.938	42.76	-17.23	25.53	40.00	14.47	Peak
2	125.007	44.61	-11.31	33.30	43.50	10.20	Peak
3	150.538	46.28	-11.93	34.35	43.50	9.15	Peak
4	189.074	45.87	-13.47	32.40	43.50	11.10	Peak
5	250.301	51.04	-13.18	37.86	46.00	8.14	Peak
6	584.790	35.94	-5.44	30.50	46.00	15.50	Peak

Project No.: CR230955399-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(6875-7125MHz ax he160 6985MHz)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.105	32.35	-3.88	28.47	40.00	11.53	Peak
2	40.845	45.72	-11.90	33.82	40.00	6.18	Peak
3	53.505	45.84	-17.15	28.69	40.00	11.31	Peak
4	81.212	50.33	-17.38	32.95	40.00	7.05	Peak
5	125.007	42.03	-11.31	30.72	43.50	12.78	Peak
6	250.301	45.03	-13.18	31.85	46.00	14.15	Peak

2) 1GHz-40GHz:

802.11a Mode Chain 0:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5955 MHz							
5850.000	50.80	PK	H	6.75	57.55	88.20	30.65
5850.000	50.91	PK	V	6.75	57.66	88.20	30.54
5850.000	37.05	AV	H	6.75	43.80	68.20	24.40
5850.000	37.17	AV	V	6.75	43.92	68.20	24.28
5925.000	52.82	PK	H	7.01	59.83	88.20	28.37
5925.000	52.93	PK	V	7.01	59.94	88.20	28.26
5925.000	38.09	AV	H	7.01	45.10	68.20	23.10
5925.000	38.20	AV	V	7.01	45.21	68.20	22.99
11910.000	35.72	PK	H	16.58	52.30	74.00	21.70
11910.000	22.79	AV	H	16.58	39.37	54.00	14.63
11910.000	36.15	PK	V	16.58	52.73	74.00	21.27
11910.000	23.24	AV	V	16.58	39.82	54.00	14.18
Middle Channel: 6175 MHz							
12350.000	36.58	PK	H	16.62	53.20	74.00	20.80
12350.000	23.94	AV	H	16.62	40.56	54.00	13.44
12350.000	36.89	PK	V	16.62	53.51	74.00	20.49
12350.000	24.31	AV	V	16.62	40.93	54.00	13.07
High Channel: 6415 MHz							
12830.000	65.40	PK	H	16.99	82.39	88.20	5.81
12830.000	47.65	AV	H	16.99	64.64	68.20	3.56
12830.000	66.51	PK	V	16.99	83.50	88.20	4.70
12830.000	48.17	AV	V	16.99	65.16	68.20	3.04

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5955 MHz							
5850.000	48.62	PK	H	6.75	55.37	88.20	32.83
5850.000	48.64	PK	V	6.75	55.39	88.20	32.81
5850.000	35.14	AV	H	6.75	41.89	68.20	26.31
5850.000	35.75	AV	V	6.75	42.50	68.20	25.70
5925.000	50.70	PK	H	7.01	57.71	88.20	30.49
5925.000	50.76	PK	V	7.01	57.77	88.20	30.43
5925.000	36.76	AV	H	7.01	43.77	68.20	24.43
5925.000	36.89	AV	V	7.01	43.90	68.20	24.30
11910.000	33.58	PK	H	16.58	50.16	74.00	23.84
11910.000	20.68	AV	H	16.58	37.26	54.00	16.74
11910.000	34.00	PK	V	16.58	50.58	74.00	23.42
11910.000	21.54	AV	V	16.58	38.12	54.00	15.88
Middle Channel: 6175 MHz							
12350.000	34.74	PK	H	16.62	51.36	74.00	22.64
12350.000	22.02	AV	H	16.62	38.64	54.00	15.36
12350.000	35.11	PK	V	16.62	51.73	74.00	22.27
12350.000	22.05	AV	V	16.62	38.67	54.00	15.33
High Channel: 6415 MHz							
12830.000	63.26	PK	H	16.99	80.25	88.20	7.95
12830.000	45.93	AV	H	16.99	62.92	68.20	5.28
12830.000	64.49	PK	V	16.99	81.48	88.20	6.72
12830.000	45.81	AV	V	16.99	62.80	68.20	5.40

802.11ax he20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				5955	MHz		
5850.000	50.91	PK	H	6.75	57.66	88.20	30.54
5850.000	51.03	PK	V	6.75	57.78	88.20	30.42
5850.000	37.18	AV	H	6.75	43.93	68.20	24.27
5850.000	37.29	AV	V	6.75	44.04	68.20	24.16
5925.000	54.79	PK	H	7.01	61.80	88.20	26.40
5925.000	54.90	PK	V	7.01	61.91	88.20	26.29
5925.000	40.04	AV	H	7.01	47.05	68.20	21.15
5925.000	40.16	AV	V	7.01	47.17	68.20	21.03
11910.000	36.45	PK	H	16.58	53.03	74.00	20.97
11910.000	22.98	AV	H	16.58	39.56	54.00	14.44
11910.000	36.92	PK	V	16.58	53.50	74.00	20.50
11910.000	23.39	AV	V	16.58	39.97	54.00	14.03
Middle Channel:				6175	MHz		
12350.000	36.84	PK	H	16.62	53.46	74.00	20.54
12350.000	23.77	AV	H	16.62	40.39	54.00	13.61
12350.000	37.66	PK	V	16.62	54.28	74.00	19.72
12350.000	24.25	AV	V	16.62	40.87	54.00	13.13
High Channel:				6415	MHz		
12830.000	66.95	PK	H	16.99	83.94	88.20	4.26
12830.000	47.40	AV	H	16.99	64.39	68.20	3.81
12830.000	68.07	PK	V	16.99	85.06	88.20	3.14
12830.000	47.91	AV	V	16.99	64.90	68.20	3.30

802.11ax he40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5965 MHz							
5850.000	51.36	PK	H	6.75	58.11	88.20	30.09
5850.000	51.48	PK	V	6.75	58.23	88.20	29.97
5850.000	37.32	AV	H	6.75	44.07	68.20	24.13
5850.000	37.43	AV	V	6.75	44.18	68.20	24.02
5925.000	57.29	PK	H	7.01	64.30	88.20	23.90
5925.000	57.41	PK	V	7.01	64.42	88.20	23.78
5925.000	43.83	AV	H	7.01	50.84	68.20	17.36
5925.000	43.95	AV	V	7.01	50.96	68.20	17.24
11930.000	36.07	PK	H	16.56	52.63	74.00	21.37
11930.000	21.92	AV	H	16.56	38.48	54.00	15.52
11930.000	36.56	PK	V	16.56	53.12	74.00	20.88
11930.000	22.41	AV	V	16.56	38.97	54.00	15.03
Middle Channel: 6165 MHz							
12330.000	37.14	PK	H	16.62	53.76	74.00	20.24
12330.000	23.00	AV	H	16.62	39.62	54.00	14.38
12330.000	37.66	PK	V	16.62	54.28	74.00	19.72
12330.000	23.51	AV	V	16.62	40.13	54.00	13.87
High Channel: 6405 MHz							
12810.000	63.84	PK	H	16.91	80.75	88.20	7.45
12810.000	47.62	AV	H	16.91	64.53	68.20	3.67
12810.000	64.97	PK	V	16.91	81.88	88.20	6.32
12810.000	48.13	AV	V	16.91	65.04	68.20	3.16

802.11ax he80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5985 MHz							
5850.000	51.11	PK	H	6.75	57.86	88.20	30.34
5850.000	51.23	PK	V	6.75	57.98	88.20	30.22
5850.000	37.19	AV	H	6.75	43.94	68.20	24.26
5850.000	37.30	AV	V	6.75	44.05	68.20	24.15
5925.000	55.89	PK	H	7.01	62.90	88.20	25.30
5925.000	56.02	PK	V	7.01	63.03	88.20	25.17
5925.000	42.13	AV	H	7.01	49.14	68.20	19.06
5925.000	42.26	AV	V	7.01	49.27	68.20	18.93
11970.000	35.92	PK	H	16.55	52.47	74.00	21.53
11970.000	22.20	AV	H	16.55	38.75	54.00	15.25
11970.000	36.45	PK	V	16.55	53.00	74.00	21.00
11970.000	22.73	AV	V	16.55	39.28	54.00	14.72
Middle Channel: 6145 MHz							
12290.000	36.94	PK	H	16.62	53.56	74.00	20.44
12290.000	23.29	AV	H	16.62	39.91	54.00	14.09
12290.000	37.48	PK	V	16.62	54.10	74.00	19.90
12290.000	23.81	AV	V	16.62	40.43	54.00	13.57
High Channel: 6385 MHz							
12770.000	64.69	PK	H	16.85	81.54	88.20	6.66
12770.000	47.06	AV	H	16.85	63.91	68.20	4.29
12770.000	65.82	PK	V	16.85	82.67	88.20	5.53
12770.000	47.64	AV	V	16.85	64.49	68.20	3.71

802.11ax he160 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6025 MHz							
5850.000	51.59	PK	H	6.75	58.34	88.20	29.86
5850.000	51.72	PK	V	6.75	58.47	88.20	29.73
5850.000	37.48	AV	H	6.75	44.23	68.20	23.97
5850.000	37.61	AV	V	6.75	44.36	68.20	23.84
5925.000	60.57	PK	H	7.01	67.58	88.20	20.62
5925.000	60.71	PK	V	7.01	67.72	88.20	20.48
5925.000	43.44	AV	H	7.01	50.45	68.20	17.75
5925.000	44.59	AV	V	7.01	51.60	68.20	16.60
12050.000	35.74	PK	H	16.75	52.49	74.00	21.51
12050.000	21.55	AV	H	16.75	38.30	54.00	15.70
12050.000	36.22	PK	V	16.75	52.97	74.00	21.03
12050.000	22.07	AV	V	16.75	38.82	54.00	15.18
Middle Channel: 6185 MHz							
12370.000	36.52	PK	H	16.61	53.13	74.00	20.87
12370.000	22.31	AV	H	16.61	38.92	54.00	15.08
12370.000	36.95	PK	V	16.61	53.56	74.00	20.44
12370.000	22.84	AV	V	16.61	39.45	54.00	14.55
High Channel: 6345 MHz							
12690.000	49.79	PK	H	16.80	66.59	74.00	7.41
12690.000	33.52	AV	H	16.80	50.32	54.00	3.68
12690.000	50.90	PK	V	16.80	67.70	74.00	6.30
12690.000	34.05	AV	V	16.80	50.85	54.00	3.15

6425-6525MHz:

802.11a Mode Chain 0:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6435 MHz							
12870.000	64.30	PK	H	17.16	81.46	88.20	6.74
12870.000	47.48	AV	H	17.16	64.64	68.20	3.56
12870.000	65.24	PK	V	17.16	82.40	88.20	5.80
12870.000	48.03	AV	V	17.16	65.19	68.20	3.01
Middle Channel: 6475 MHz							
12950.000	62.56	PK	H	17.02	79.58	88.20	8.62
12950.000	45.60	AV	H	17.02	62.62	68.20	5.58
12950.000	63.73	PK	V	17.02	80.75	88.20	7.45
12950.000	46.17	AV	V	17.02	63.19	68.20	5.01
High Channel: 6515 MHz							
13030.000	61.87	PK	H	16.68	78.55	88.20	9.65
13030.000	44.74	AV	H	16.68	61.42	68.20	6.78
13030.000	62.98	PK	V	16.68	79.66	88.20	8.54
13030.000	45.26	AV	V	16.68	61.94	68.20	6.26

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6435 MHz							
12870.000	61.86	PK	H	17.16	79.02	88.20	9.18
12870.000	45.13	AV	H	17.16	62.29	68.20	5.91
12870.000	62.79	PK	V	17.16	79.95	88.20	8.25
12870.000	45.51	AV	V	17.16	62.67	68.20	5.53
Middle Channel: 6475 MHz							
12950.000	60.14	PK	H	17.02	77.16	88.20	11.04
12950.000	43.27	AV	H	17.02	60.29	68.20	7.91
12950.000	61.30	PK	V	17.02	78.32	88.20	9.88
12950.000	43.58	AV	V	17.02	60.60	68.20	7.60
High Channel: 6515 MHz							
13030.000	59.28	PK	H	16.68	75.96	88.20	12.24
13030.000	42.16	AV	H	16.68	58.84	68.20	9.36
13030.000	60.33	PK	V	16.68	77.01	88.20	11.19
13030.000	42.98	AV	V	16.68	59.66	68.20	8.54

802.11ax he20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6435 MHz							
12870.000	66.87	PK	H	17.16	84.03	88.20	4.17
12870.000	47.08	AV	H	17.16	64.24	68.20	3.96
12870.000	67.99	PK	V	17.16	85.15	88.20	3.05
12870.000	47.60	AV	V	17.16	64.76	68.20	3.44
Middle Channel: 6475 MHz							
12950.000	66.03	PK	H	17.02	83.05	88.20	5.15
12950.000	46.19	AV	H	17.02	63.21	68.20	4.99
12950.000	67.11	PK	V	17.02	84.13	88.20	4.07
12950.000	46.74	AV	V	17.02	63.76	68.20	4.44
High Channel: 6515 MHz							
13030.000	65.80	PK	H	16.68	82.48	88.20	5.72
13030.000	45.94	AV	H	16.68	62.62	68.20	5.58
13030.000	66.91	PK	V	16.68	83.59	88.20	4.61
13030.000	46.47	AV	V	16.68	63.15	68.20	5.05

802.11ax he40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6445 MHz							
12890.000	65.10	PK	H	17.24	82.34	88.20	5.86
12890.000	47.28	AV	H	17.24	64.52	68.20	3.68
12890.000	66.22	PK	V	17.24	83.46	88.20	4.74
12890.000	47.79	AV	V	17.24	65.03	68.20	3.17
Middle Channel: 6485 MHz							
12970.000	64.47	PK	H	16.91	81.38	88.20	6.82
12970.000	46.63	AV	H	16.91	63.54	68.20	4.66
12970.000	65.58	PK	V	16.91	82.49	88.20	5.71
12970.000	47.14	AV	V	16.91	64.05	68.20	4.15
High Channel: 6525 MHz							
13050.000	64.48	PK	H	16.63	81.11	88.20	7.09
13050.000	46.66	AV	H	16.63	63.29	68.20	4.91
13050.000	65.61	PK	V	16.63	82.24	88.20	5.96
13050.000	47.20	AV	V	16.63	63.83	68.20	4.37

802.11ax80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6465 MHz							
12930.000	63.27	PK	H	17.13	80.40	88.20	7.80
12930.000	46.92	AV	H	17.13	64.05	68.20	4.15
12930.000	64.34	PK	V	17.13	81.47	88.20	6.73
12930.000	47.45	AV	V	17.13	64.58	68.20	3.62
High Channel: 6545 MHz							
13090.000	62.87	PK	H	16.53	79.40	88.20	8.80
13090.000	46.56	AV	H	16.53	63.09	68.20	5.11
13090.000	63.99	PK	V	16.53	80.52	88.20	7.68
13090.000	47.10	AV	V	16.53	63.63	68.20	4.57

802.11ax160 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6505 MHz							
13010.000	62.32	PK	H	16.74	79.06	88.20	9.14
13010.000	46.05	AV	H	16.74	62.79	68.20	5.41
13010.000	63.47	PK	V	16.74	80.21	88.20	7.99
13010.000	46.56	AV	V	16.74	63.30	68.20	4.90

6525-6875MHz

802.11a Mode Chain 0:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6535 MHz							
13070.000	48.20	PK	H	16.59	64.79	88.20	23.41
13070.000	33.02	AV	H	16.59	49.61	68.20	18.59
13070.000	48.75	PK	V	16.59	65.34	88.20	22.86
13070.000	33.53	AV	V	16.59	50.12	68.20	18.08
Middle Channel: 6695 MHz							
13390.000	45.12	PK	H	17.22	62.34	74.00	11.66
13390.000	30.68	AV	H	17.22	47.90	54.00	6.10
13390.000	45.59	PK	V	17.22	62.81	74.00	11.19
13390.000	31.16	AV	V	17.22	48.38	54.00	5.62
High Channel: 6855 MHz							
13710.000	46.05	PK	H	17.60	63.65	88.20	24.55
13710.000	30.54	AV	H	17.60	48.14	68.20	20.06
13710.000	46.58	PK	V	17.60	64.18	88.20	24.02
13710.000	31.16	AV	V	17.60	48.76	68.20	19.44

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				6535	MHz		
13070.000	45.56	PK	H	16.59	62.15	88.20	26.05
13070.000	30.58	AV	H	16.59	47.17	68.20	21.03
13070.000	46.05	PK	V	16.59	62.64	88.20	25.56
13070.000	30.99	AV	V	16.59	47.58	68.20	20.62
Middle Channel:				6695	MHz		
13390.000	42.56	PK	H	17.22	59.78	74.00	14.22
13390.000	28.38	AV	H	17.22	45.60	54.00	8.40
13390.000	43.16	PK	V	17.22	60.38	74.00	13.62
13390.000	28.75	AV	V	17.22	45.97	54.00	8.03
High Channel:				6855	MHz		
13710.000	43.45	PK	H	17.60	61.05	88.20	27.15
13710.000	28.05	AV	H	17.60	45.65	68.20	22.55
13710.000	43.95	PK	V	17.60	61.55	88.20	26.65
13710.000	28.42	AV	V	17.60	46.02	68.20	22.18

802.11ax he20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6535 MHz							
13070.000	47.72	PK	H	16.59	64.31	88.20	23.89
13070.000	32.86	AV	H	16.59	49.45	68.20	18.75
13070.000	48.21	PK	V	16.59	64.80	88.20	23.40
13070.000	33.37	AV	V	16.59	49.96	68.20	18.24
Middle Channel: 6695 MHz							
13390.000	44.96	PK	H	17.22	62.18	74.00	11.82
13390.000	30.13	AV	H	17.22	47.35	54.00	6.65
13390.000	45.48	PK	V	17.22	62.70	74.00	11.30
13390.000	30.65	AV	V	17.22	47.87	54.00	6.13
High Channel: 6855 MHz							
13710.000	45.42	PK	H	17.60	63.02	88.20	25.18
13710.000	30.30	AV	H	17.60	47.90	68.20	20.30
13710.000	45.99	PK	V	17.60	63.59	88.20	24.61
13710.000	30.84	AV	V	17.60	48.44	68.20	19.76

802.11ax he40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6565 MHz							
13130.000	47.01	PK	H	16.60	63.61	88.20	24.59
13130.000	32.13	AV	H	16.60	48.73	68.20	19.47
13130.000	47.52	PK	V	16.60	64.12	88.20	24.08
13130.000	32.65	AV	V	16.60	49.25	68.20	18.95
Middle Channel: 6685 MHz							
13370.000	43.93	PK	H	17.16	61.09	74.00	12.91
13370.000	28.86	AV	H	17.16	46.02	54.00	7.98
13370.000	44.47	PK	V	17.16	61.63	74.00	12.37
13370.000	29.39	AV	V	17.16	46.55	54.00	7.45
High Channel: 6845 MHz							
13690.000	44.84	PK	H	17.57	62.41	88.20	25.79
13690.000	29.78	AV	H	17.57	47.35	68.20	20.85
13690.000	45.36	PK	V	17.57	62.93	88.20	25.27
13690.000	30.27	AV	V	17.57	47.84	68.20	20.36

802.11ax80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6625 MHz							
13250.000	44.72	PK	H	16.86	61.58	74.00	12.42
13250.000	29.85	AV	H	16.86	46.71	54.00	7.29
13250.000	45.24	PK	V	16.86	62.10	74.00	11.90
13250.000	30.37	AV	V	16.86	47.23	54.00	6.77
Middle Channel: 6705 MHz							
13410.000	45.23	PK	H	17.21	62.44	88.20	25.76
13410.000	30.09	AV	H	17.21	47.30	68.20	20.90
13410.000	45.70	PK	V	17.21	62.91	88.20	25.29
13410.000	30.58	AV	V	17.21	47.79	68.20	20.41
High Channel: 6785 MHz							
13570.000	44.54	PK	H	17.28	61.82	88.20	26.38
13570.000	29.23	AV	H	17.28	46.51	68.20	21.69
13570.000	45.07	PK	V	17.28	62.35	88.20	25.85
13570.000	29.75	AV	V	17.28	47.03	68.20	21.17
Straddle Channel: 6865 MHz							
13730.000	45.67	PK	H	17.68	63.35	88.20	24.85
13730.000	31.48	AV	H	17.68	49.16	68.20	19.04
13730.000	46.20	PK	V	17.68	63.88	88.20	24.32
13730.000	32.01	AV	V	17.68	49.69	68.20	18.51

802.11ax160 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6665 MHz							
13330.000	44.40	PK	H	17.01	61.41	74.00	12.59
13330.000	28.84	AV	H	17.01	45.85	54.00	8.15
13330.000	44.92	PK	V	17.01	61.93	74.00	12.07
13330.000	29.33	AV	V	17.01	46.34	54.00	7.66
Middle Channel: 6825 MHz							
13650.000	44.95	PK	H	17.54	62.49	88.20	25.71
13650.000	29.26	AV	H	17.54	46.80	68.20	21.40
13650.000	45.47	PK	V	17.54	63.01	88.20	25.19
13650.000	29.78	AV	V	17.54	47.32	68.20	20.88

6875-7125MHz

802.11a Mode Chain 0:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Straddle Channel:				6875	MHz		
13750.000	46.60	PK	H	17.75	64.35	88.20	23.85
13750.000	31.17	AV	H	17.75	48.92	68.20	19.28
13750.000	47.12	PK	V	17.75	64.87	88.20	23.33
13750.000	31.71	AV	V	17.75	49.46	68.20	18.74
Low Channel:				6895	MHz		
13790.000	47.85	PK	H	17.89	65.74	88.20	22.46
13790.000	32.44	AV	H	17.89	50.33	68.20	17.87
13790.000	48.36	PK	V	17.89	66.25	88.20	21.95
13790.000	32.97	AV	V	17.89	50.86	68.20	17.34
Middle Channel:				6995	MHz		
13990.000	61.02	PK	H	18.50	79.52	88.20	8.68
13990.000	45.70	AV	H	18.50	64.20	68.20	4.00
13990.000	61.53	PK	V	18.50	80.03	88.20	8.17
13990.000	46.24	AV	V	18.50	64.74	68.20	3.46
High Channel:				7115	MHz		
7125.000	74.56	PK	H	8.68	83.24	88.20	4.96
7125.000	56.22	AV	H	8.68	64.90	68.20	3.30
7125.000	74.75	PK	V	8.68	83.43	88.20	4.77
7125.000	56.44	AV	V	8.68	65.12	68.20	3.08
7250.000	47.43	PK	H	9.33	56.76	74.00	17.24
7250.000	33.85	AV	H	9.33	43.18	54.00	10.82
7250.000	47.54	PK	V	9.33	56.87	74.00	17.13
7250.000	33.96	AV	V	9.33	43.29	54.00	10.71
14230.000	51.36	PK	H	18.92	70.28	88.20	17.92
14230.000	36.28	AV	H	18.92	55.20	68.20	13.00
14230.000	51.90	PK	V	18.92	70.82	88.20	17.38
14230.000	36.81	AV	V	18.92	55.73	68.20	12.47

802.11a Mode Chain 1:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Straddle Channel:				6875	MHz		
13750.000	43.96	PK	H	17.75	61.71	88.20	26.49
13750.000	28.95	AV	H	17.75	46.70	68.20	21.50
13750.000	44.44	PK	V	17.75	62.19	88.20	26.01
13750.000	29.52	AV	V	17.75	47.27	68.20	20.93
Low Channel:				6895	MHz		
13790.000	43.81	PK	H	17.89	61.70	88.20	26.50
13790.000	28.56	AV	H	17.89	46.45	68.20	21.75
13790.000	44.36	PK	V	17.89	62.25	88.20	25.95
13790.000	29.16	AV	V	17.89	47.05	68.20	21.15
Middle Channel:				6995	MHz		
13990.000	58.28	PK	H	18.50	76.78	88.20	11.42
13990.000	43.25	AV	H	18.50	61.75	68.20	6.45
13990.000	59.21	PK	V	18.50	77.71	88.20	10.49
13990.000	43.89	AV	V	18.50	62.39	68.20	5.81
High Channel:				7115	MHz		
7125.000	72.11	PK	H	8.68	80.79	88.20	7.41
7125.000	53.85	AV	H	8.68	62.53	68.20	5.67
7125.000	72.37	PK	V	8.68	81.05	88.20	7.15
7125.000	53.76	AV	V	8.68	62.44	68.20	5.76
7250.000	44.91	PK	H	9.33	54.24	74.00	19.76
7250.000	31.64	AV	H	9.33	40.97	54.00	13.03
7250.000	45.07	PK	V	9.33	54.40	74.00	19.60
7250.000	31.43	AV	V	9.33	40.76	54.00	13.24
14230.000	48.67	PK	H	18.92	67.59	88.20	20.61
14230.000	33.62	AV	H	18.92	52.54	68.20	15.66
14230.000	49.48	PK	V	18.92	68.40	88.20	19.80
14230.000	34.33	AV	V	18.92	53.25	68.20	14.95

802.11ax he20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Straddle Channel:				6875	MHz		
13750.000	46.54	PK	H	17.75	64.29	88.20	23.91
13750.000	31.01	AV	H	17.75	48.76	68.20	19.44
13750.000	47.06	PK	V	17.75	64.81	88.20	23.39
13750.000	31.57	AV	V	17.75	49.32	68.20	18.88
Low Channel:				6895	MHz		
13790.000	47.45	PK	H	17.89	65.34	88.20	22.86
13790.000	32.50	AV	H	17.89	50.39	68.20	17.81
13790.000	47.96	PK	V	17.89	65.85	88.20	22.35
13790.000	33.03	AV	V	17.89	50.92	68.20	17.28
Middle Channel:				6995	MHz		
13990.000	43.14	PK	H	18.50	61.64	88.20	26.56
13990.000	28.71	AV	H	18.50	47.21	68.20	20.99
13990.000	43.62	PK	V	18.50	62.12	88.20	26.08
13990.000	29.23	AV	V	18.50	47.73	68.20	20.47
High Channel:				7095	MHz		
7125.000	61.77	PK	H	8.68	70.45	88.20	17.75
7125.000	43.25	AV	H	8.68	51.93	68.20	16.27
7125.000	62.02	PK	V	8.68	70.70	88.20	17.50
7125.000	43.48	AV	V	8.68	52.16	68.20	16.04
7250.000	48.30	PK	H	9.33	57.63	74.00	16.37
7250.000	33.62	AV	H	9.33	42.95	54.00	11.05
7250.000	48.45	PK	V	9.33	57.78	74.00	16.22
7250.000	33.77	AV	V	9.33	43.10	54.00	10.90
14190.000	50.30	PK	H	18.85	69.15	88.20	19.05
14190.000	35.89	AV	H	18.85	54.74	68.20	13.46
14190.000	51.02	PK	V	18.85	69.87	88.20	18.33
14190.000	36.37	AV	V	18.85	55.22	68.20	12.98

802.11ax he40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Straddle Channel:				6885	MHz		
13770.000	47.09	PK	H	17.81	64.90	88.20	23.30
13770.000	31.70	AV	H	17.81	49.51	68.20	18.69
13770.000	47.62	PK	V	17.81	65.43	88.20	22.77
13770.000	32.21	AV	V	17.81	50.02	68.20	18.18
Low Channel:				6925	MHz		
13850.000	49.14	PK	H	18.27	67.41	88.20	20.79
13850.000	34.03	AV	H	18.27	52.30	68.20	15.90
13850.000	49.66	PK	V	18.27	67.93	88.20	20.27
13850.000	34.57	AV	V	18.27	52.84	68.20	15.36
Middle Channel:				6965	MHz		
13930.000	55.24	PK	H	18.59	73.83	88.20	14.37
13930.000	40.39	AV	H	18.59	58.98	68.20	9.22
13930.000	55.76	PK	V	18.59	74.35	88.20	13.85
13930.000	40.91	AV	V	18.59	59.50	68.20	8.70
High Channel:				7085	MHz		
7125.000	66.66	PK	H	8.68	75.34	88.20	12.86
7125.000	45.79	AV	H	8.68	54.47	68.20	13.73
7125.000	66.88	PK	V	8.68	75.56	88.20	12.64
7125.000	46.00	AV	V	8.68	54.68	68.20	13.52
7250.000	47.47	PK	H	9.33	56.80	74.00	17.20
7250.000	33.63	AV	H	9.33	42.96	54.00	11.04
7250.000	47.58	PK	V	9.33	56.91	74.00	17.09
7250.000	33.74	AV	V	9.33	43.07	54.00	10.93
14170.000	47.74	PK	H	18.81	66.55	88.20	21.65
14170.000	33.56	AV	H	18.81	52.37	68.20	15.83
14170.000	48.27	PK	V	18.81	67.08	88.20	21.12
14170.000	34.09	AV	V	18.81	52.90	68.20	15.30

802.11ax80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 6945 MHz							
13890.000	50.35	PK	H	18.56	68.91	88.20	19.29
13890.000	35.94	AV	H	18.56	54.50	68.20	13.70
13890.000	50.86	PK	V	18.56	69.42	88.20	18.78
13890.000	36.42	AV	V	18.56	54.98	68.20	13.22
High Channel: 7025 MHz							
7125.000	52.61	PK	H	8.68	61.29	88.20	26.91
7125.000	36.24	AV	H	8.68	44.92	68.20	23.28
7125.000	52.82	PK	V	8.68	61.50	88.20	26.70
7125.000	36.39	AV	V	8.68	45.07	68.20	23.13
7250.000	46.92	PK	H	9.33	56.25	74.00	17.75
7250.000	33.66	AV	H	9.33	42.99	54.00	11.01
7250.000	47.03	PK	V	9.33	56.36	74.00	17.64
7250.000	33.77	AV	V	9.33	43.10	54.00	10.90
14050.000	56.90	PK	H	18.56	75.46	88.20	12.74
14050.000	42.13	AV	H	18.56	60.69	68.20	7.51
14050.000	57.41	PK	V	18.56	75.97	88.20	12.23
14050.000	42.62	AV	V	18.56	61.18	68.20	7.02

802.11ax160 Mode:

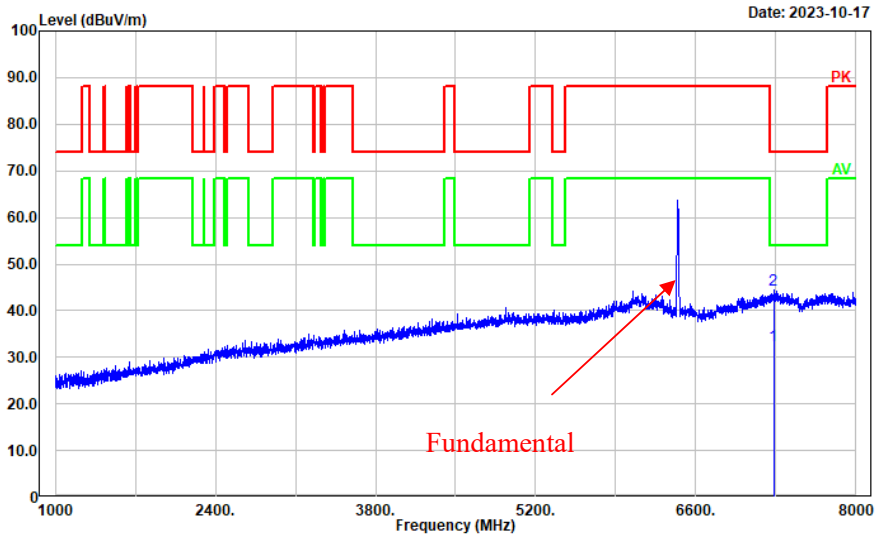
Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Middle Channel: 6985 MHz							
7125.000	52.24	PK	H	8.68	60.92	88.20	27.28
7125.000	36.71	AV	H	8.68	45.39	68.20	22.81
7125.000	52.42	PK	V	8.68	61.10	88.20	27.10
7125.000	36.86	AV	V	8.68	45.54	68.20	22.66
7250.000	48.25	PK	H	9.33	57.58	74.00	16.42
7250.000	33.73	AV	H	9.33	43.06	54.00	10.94
7250.000	48.36	PK	V	9.33	57.69	74.00	16.31
7250.000	33.84	AV	V	9.33	43.17	54.00	10.83
13970.000	59.59	PK	H	18.52	78.11	88.20	10.09
13970.000	44.76	AV	H	18.52	63.28	68.20	4.92
13970.000	60.11	PK	V	18.52	78.63	88.20	9.57
13970.000	45.28	AV	V	18.52	63.80	68.20	4.40

Note:
Result = Reading + Factor
Distance extrapolation Factor =20 log (specific distance [3m]/test distance [1.5m]) dB= 6.02 dB
The Distance extrapolation Factor was included in the factor.

Worst Test plots (802.11a chain 0 6435 MHz was the worst)

Horizontal	
1-8GHz	

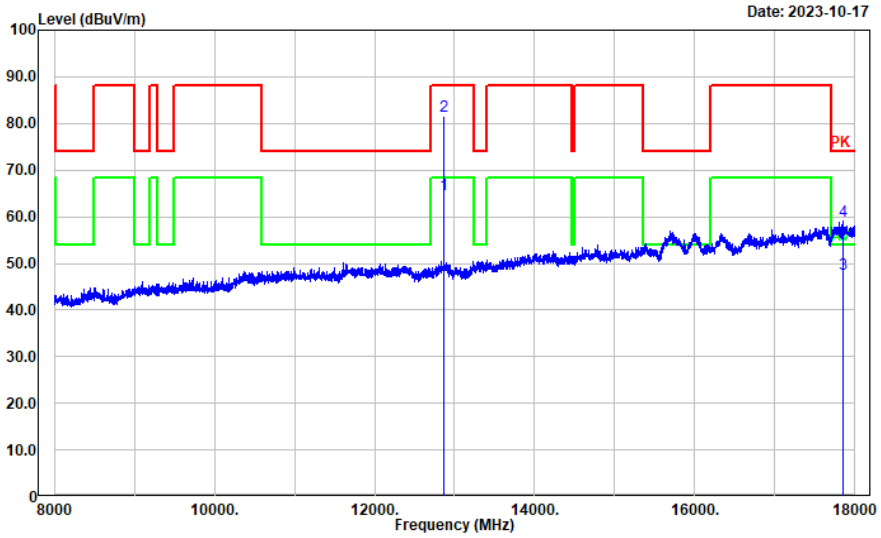
Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7278.856	22.95	9.46	32.41	54.00	21.59	Average
2	7278.856	35.00	9.46	44.46	74.00	29.54	Peak

8-18GHz

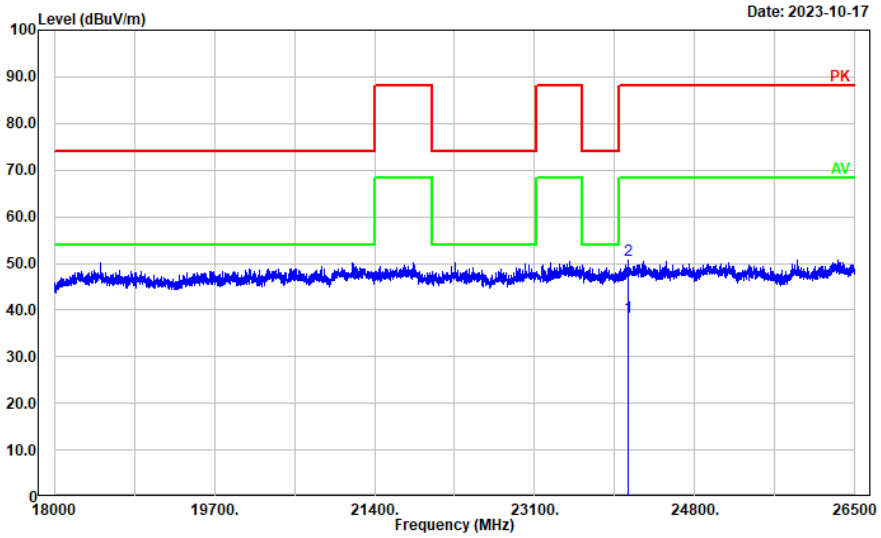
Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	12870.000	47.48	17.16	64.64	68.20	3.56	Average
2	12870.000	64.30	17.16	81.46	88.20	6.74	Peak
3	17845.970	21.80	25.86	47.66	54.00	6.34	Average
4	17845.970	33.19	25.86	59.05	74.00	14.95	Peak

18-26.5GHz

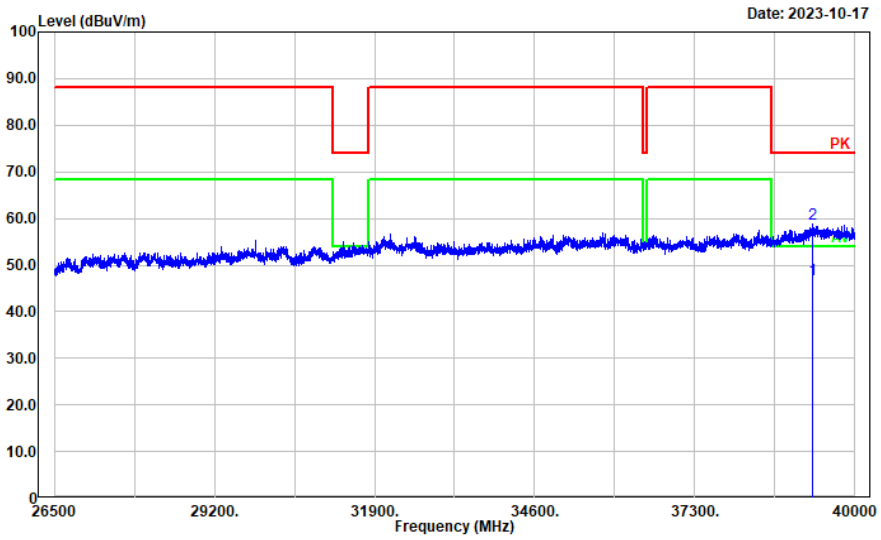
Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24097.420	39.64	-1.20	38.44	68.20	29.76	Average
2	24097.420	51.96	-1.20	50.76	88.20	37.44	Peak

26.5-40GHz

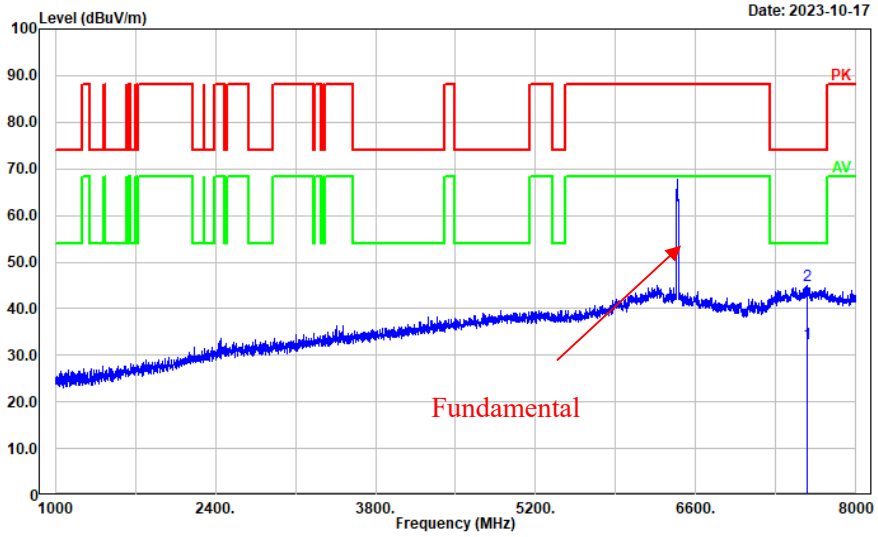
Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	39289.760	36.71	10.18	46.89	54.00	7.11	Average
2	39289.760	48.53	10.18	58.71	74.00	15.29	Peak

Vertical	
1-8GHz	

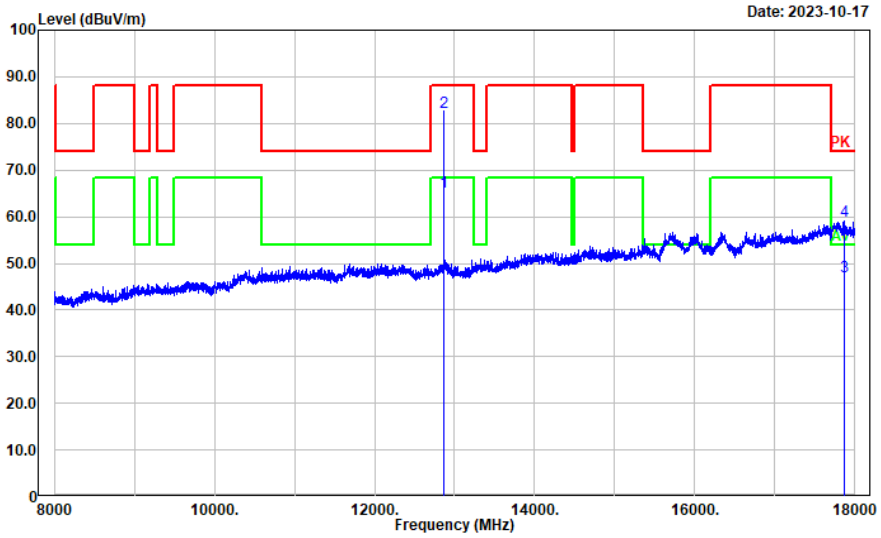
Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7572.915	22.44	9.97	32.41	54.00	21.59	Average
2	7572.915	34.91	9.97	44.88	74.00	29.12	Peak

8-18GHz

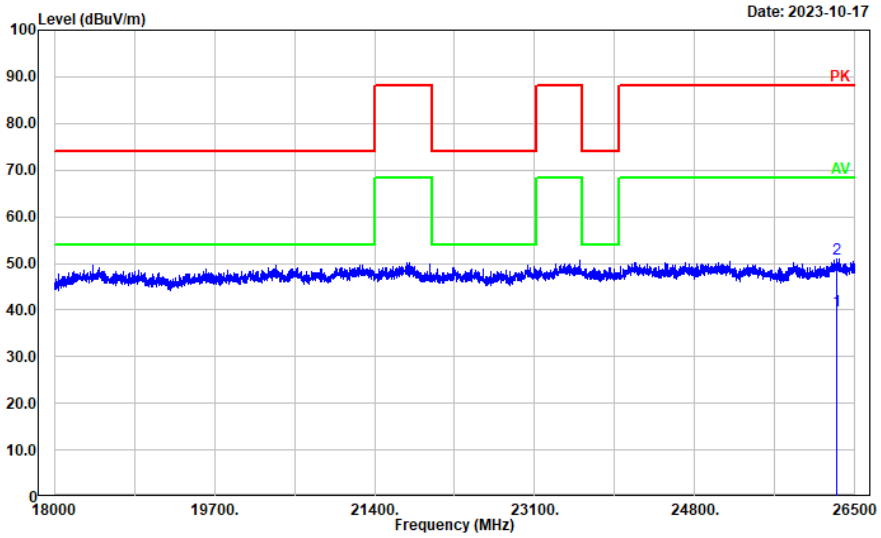
Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	12870.000	48.03	17.16	65.19	68.20	3.01	Average
2	12870.000	65.24	17.16	82.40	88.20	5.80	Peak
3	17861.970	21.29	25.95	47.24	54.00	6.76	Average
4	17861.970	33.23	25.95	59.18	74.00	14.82	Peak

18-26.5GHz

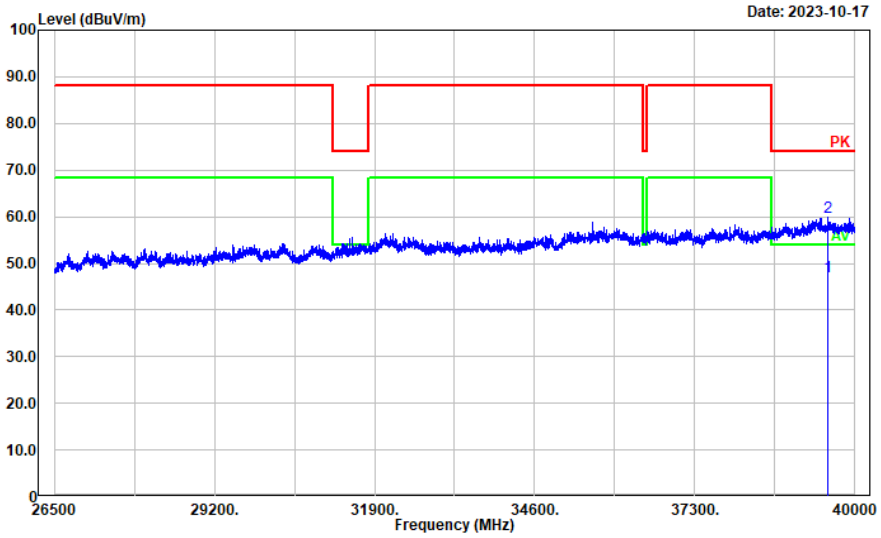
Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	26311.260	38.90	0.88	39.78	68.20	28.42	Average
2	26311.260	50.12	0.88	51.00	88.20	37.20	Peak

26.5-40GHz

Project No.: CR230955399-RF
Tester: Mack Huang
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	39551.710	37.27	9.96	47.23	54.00	6.77	Average
2	39551.710	50.00	9.96	59.96	74.00	14.04	Peak

4.3 Emission Bandwidth

Serial Number:	2BI1-2	Test Date:	2023/10/16-2023/10/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24.9-25.8	Relative Humidity: (%)	50-58	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	102259	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

5925-6425 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)
802.11a	5955	19.95	16.33	320
	6175	20.05	16.33	320
	6415	19.9	16.38	320
802.11ax he20	5955	20.95	18.83	320
	6175	20.7	18.78	320
	6415	20.95	18.88	320
802.11ax he40	5965	40.1	37.46	320
	6165	40.1	37.56	320
	6405	40	37.56	320
802.11ax he80	5985	82.2	76.72	320
	6145	82.4	76.92	320
	6385	82.4	76.72	320
802.11ax he160	6025	164.4	153.85	320
	6185	164.8	155.44	320
	6345	165.2	154.65	320
Note: Test only was performed at Chain 0.				

6425-6525 MHz:

Test Modes	Test Frequency(MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)
802.11a	6435	20.15	16.33	320
	6475	20.2	16.33	320
	6515	19.9	16.33	320
802.11ax he20	6435	21.15	18.88	320
	6475	20.95	18.83	320
	6515	20.95	18.83	320
802.11ax he40	6445	40.2	37.56	320
	6485	40.3	37.56	320
	6525	40	37.46	320
802.11ax he80	6465	82	76.72	320
	6545	82	76.72	320
802.11ax he160	6505	164.8	154.65	320
Note: Test only was performed at Chain 0.				

6525-6875 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)
802.11a	6535	19.8	16.33	320
	6695	19.9	16.38	320
	6855	20	16.38	320
802.11ax he20	6535	21.15	18.83	320
	6695	21.25	18.88	320
	6855	21.05	18.88	320
802.11ax he40	6565	40	37.46	320
	6685	40.1	37.56	320
	6845	40	37.56	320
802.11ax he80	6625	83	76.52	320
	6705	82.4	76.72	320
	6785	81.8	76.72	320
	6865	82.4	76.72	320
802.11ax he160	6665	165.6	155.44	320
	6825	164.8	154.65	320
Note: Test only was performed at Chain 0.				

6875-7125 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Limit (MHz)
802.11a	6875	19.9	16.38	320
	6895	19.9	16.33	320
	6995	20.6	16.43	320
	7115	20	16.33	320
802.11ax he20	6875	21.1	18.83	320
	6895	21.2	18.83	320
	6995	21.25	18.88	320
	7095	21.2	18.83	320
802.11ax he40	6885	40.5	37.56	320
	6925	40.3	37.46	320
	6965	40.2	37.56	320
	7085	40.3	37.46	320
802.11ax he80	6945	81.6	76.52	320
	7025	82.2	76.12	320
802.11ax he160	6985	166	155.04	320
Note: Test only was performed at Chain 0.				

The test plots please refer to the Appendix B.

4.4 Maximum Conducted Output Power

Serial Number:	2BI1-2	Test Date:	2023/10/16-2023/11/25
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.9-26.7	Relative Humidity: (%)	51-59	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Anritsu	Pulse Power Sensor	MA2411A	10780	2023/8/4	2024/8/3
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A
Anritsu	Power Meter	ML2495A	1106009	2023/8/4	2024/8/3

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

5925-6425 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			EIRP (dBm)	EIRP Limit (dBm)
		Chain 0	Chain 1	Total		
802.11a	5955	10.13	10.3	/	14.85	30
	6175	10.19	10.04	/	14.74	30
	6415	10.15	10.48	/	15.03	30
802.11ax he20	5955	5.35	4.8	8.09	15.64	30
	6175	4.17	4.05	7.12	14.67	30
	6415	5.11	4.61	7.88	15.43	30
802.11ax he40	5965	7.33	7.65	10.50	18.05	30
	6165	7.71	5.55	9.77	17.32	30
	6405	7.14	7.66	10.42	17.97	30
802.11ax he80	5985	10.02	7.92	12.11	19.66	30
	6145	9.64	9.88	12.77	20.32	30
	6385	9.95	9.73	12.85	20.40	30
802.11ax he160	6025	12.08	11.18	14.66	22.21	30
	6185	12.65	11.59	15.16	22.71	30
	6345	12.32	12.49	15.42	22.97	30
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

6425-6525 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			EIRP (dBm)	EIRP Limit (dBm)
		Chain 0	Chain 1	Total		
802.11a	6435	9.44	10.19	/	14.74	30
	6475	9.61	9.69	/	14.24	30
	6515	9.44	9.66	/	14.21	30
802.11ax he20	6435	4.16	5.25	7.75	15.30	30
	6475	4.79	4.99	7.90	15.45	30
	6515	5.22	4.33	7.81	15.36	30
802.11ax he40	6445	7.31	7.46	10.40	17.95	30
	6485	7.67	7.54	10.62	18.17	30
	6525	6.71	7.91	10.36	17.91	30
802.11ax he80	6465	9.81	9.87	12.85	20.40	30
	6545	9.45	10.38	12.95	20.50	30
802.11ax he160	6505	12.23	12.86	15.57	23.12	30
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

6525-6875 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			EIRP (dBm)	EIRP Limit (dBm)
		Chain 0	Chain 1	Total		
802.11a	6535	9.95	9.71	/	14.5	30
	6695	10.18	10.52	/	15.07	30
	6855	10.18	10.32	/	14.87	30
802.11ax he20	6535	4.52	4.69	7.62	15.17	30
	6695	5.01	4.85	7.94	15.49	30
	6855	4.95	4.5	7.74	15.29	30
802.11ax he40	6565	7.38	7.31	10.36	17.91	30
	6685	7.81	7.23	10.54	18.09	30
	6845	7.57	6.88	10.25	17.80	30
802.11ax he80	6625	9.88	9.94	12.92	20.47	30
	6705	10.2	8.53	12.46	20.01	30
	6785	9.66	9.53	12.61	20.16	30
	6865	8.77	9.68	12.26	19.81	30
802.11ax he160	6665	12.53	13.02	15.79	23.34	30
	6825	12.02	13.09	15.60	23.15	30
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

6875-7125 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			EIRP (dBm)	EIRP Limit (dBm)
		Chain 0	Chain 1	Total		
802.11a	6875	9.68	9.98	/	14.53	30
	6895	10.23	10.4	/	14.95	30
	6995	10.25	10.76	/	15.31	30
	7115	9.94	10.35	/	14.9	30
802.11ax he20	6875	4.46	4.27	7.38	14.93	30
	6895	4.47	3.92	7.21	14.76	30
	6995	4.69	3.99	7.36	14.91	30
	7095	4.74	4.17	7.47	15.02	30
802.11ax he40	6885	7.82	7.47	10.66	18.21	30
	6925	7.47	7.11	10.30	17.85	30
	6965	6.89	8.28	10.65	18.20	30
	7085	7.96	6.42	10.27	17.82	30
802.11ax he80	6945	9.03	9.79	12.44	19.99	30
	7025	9.39	9.35	12.38	19.93	30
802.11ax he160	6985	12.19	12.14	15.18	22.73	30
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

4.5 Maximum power spectral density

Serial Number:	2BI1-2	Test Date:	2023/10/16-2023/11/25
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.9-26.7	Relative Humidity: (%)	51-59	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	102259	2023-04-18	2024-04-17
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

5925-6425 MHz:

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)			EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
		Chain 0	Chain 1	Total		
802.11a	5955	0.04	0.14	/	4.69	5
	6175	0.07	-0.07	/	4.62	5
	6415	0.01	0.35	/	4.9	5
802.11ax he20	5955	-5.88	-5.93	-2.89	4.66	5
	6175	-6.42	-5.34	-2.84	4.71	5
	6415	-5.52	-5.97	-2.73	4.82	5
802.11ax he40	5965	-6	-5.7	-2.84	4.71	5
	6165	-5.33	-6.37	-2.81	4.74	5
	6405	-5.92	-5.44	-2.66	4.89	5
802.11ax he80	5985	-5.87	-5.65	-2.75	4.80	5
	6145	-5.46	-5.99	-2.71	4.84	5
	6385	-5.53	-5.64	-2.57	4.98	5
802.11ax he160	6025	-6.06	-6.12	-3.08	4.47	5
	6185	-5.7	-5.65	-2.66	4.89	5
	6345	-5.89	-5.65	-2.76	4.79	5
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/Nss) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

6425-6525 MHz:

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)			EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
		Chain 0	Chain 1	Total		
802.11a	6435	-0.59	0.09	/	4.64	5
	6475	-0.42	-0.51	/	4.13	5
	6515	-0.59	-0.51	/	4.04	5
802.11ax he20	6435	-6.25	-5.36	-2.77	4.78	5
	6475	-5.73	-5.66	-2.68	4.87	5
	6515	-5.51	-6.37	-2.91	4.64	5
802.11ax he40	6445	-5.86	-5.83	-2.83	4.72	5
	6485	-5.35	-5.81	-2.56	4.99	5
	6525	-6.39	-5.31	-2.81	4.74	5
802.11ax he80	6465	-5.6	-5.76	-2.67	4.88	5
	6545	-6.08	-5.14	-2.57	4.98	5
802.11ax he160	6505	-6.14	-5.69	-2.90	4.65	5
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/Nss) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

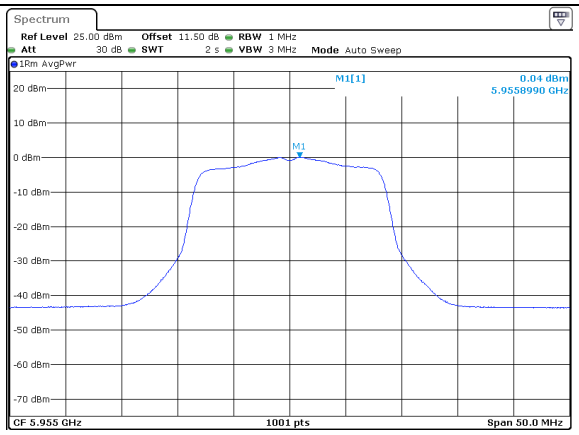
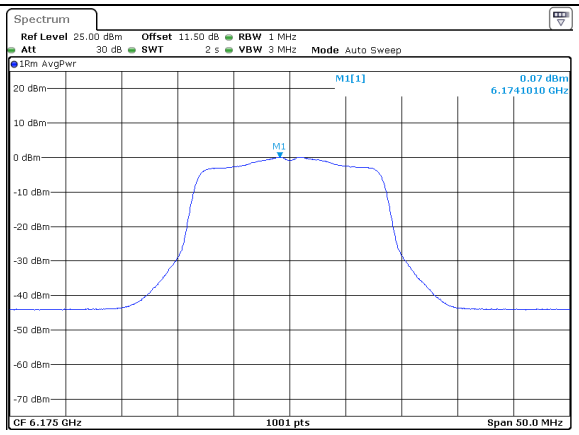
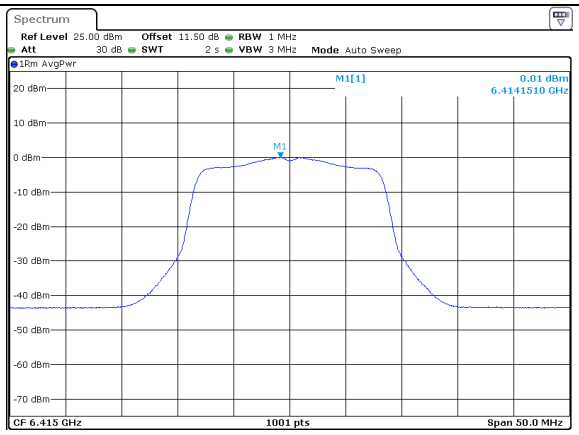
6525-6875 MHz:

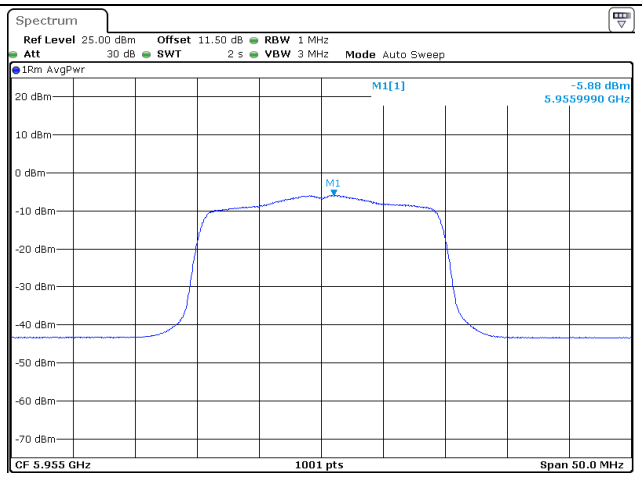
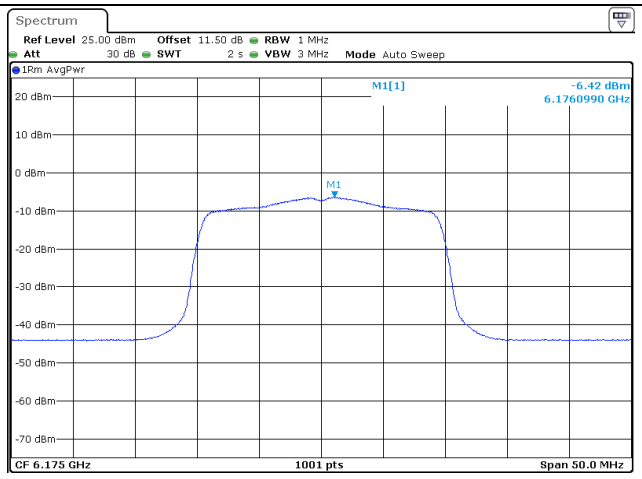
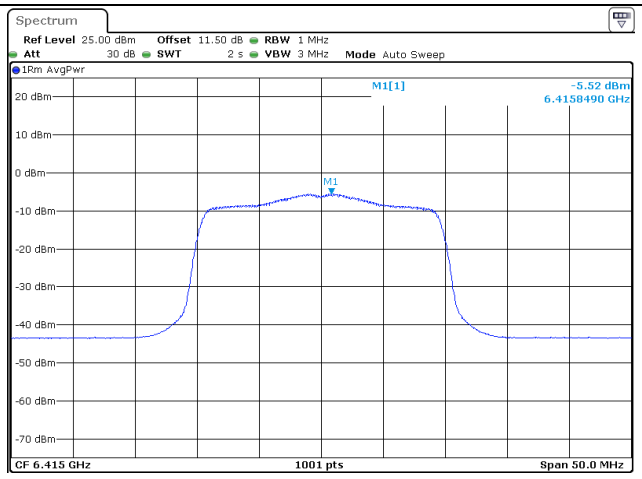
Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)			EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
		Chain 0	Chain 1	Total		
802.11a	6535	-0.13	-0.42	/	4.42	5
	6695	0.07	0.4	/	4.95	5
	6855	0.05	0.2	/	4.75	5
802.11ax he20	6535	-6.05	-5.74	-2.88	4.67	5
	6695	-5.55	-5.81	-2.67	4.88	5
	6855	-5.51	-6.05	-2.76	4.79	5
802.11ax he40	6565	-5.88	-5.91	-2.88	4.67	5
	6685	-5.44	-5.88	-2.64	4.91	5
	6845	-5.64	-6.42	-3.00	4.55	5
802.11ax he80	6625	-5.82	-5.63	-2.71	4.84	5
	6705	-5.31	-6.88	-3.01	4.54	5
	6785	-5.82	-5.87	-2.83	4.72	5
	6865	-6.58	-5.92	-3.23	4.32	5
802.11ax he160	6665	-6.18	-5.47	-2.80	4.75	5
	6825	-6.36	-5.14	-2.70	4.85	5
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

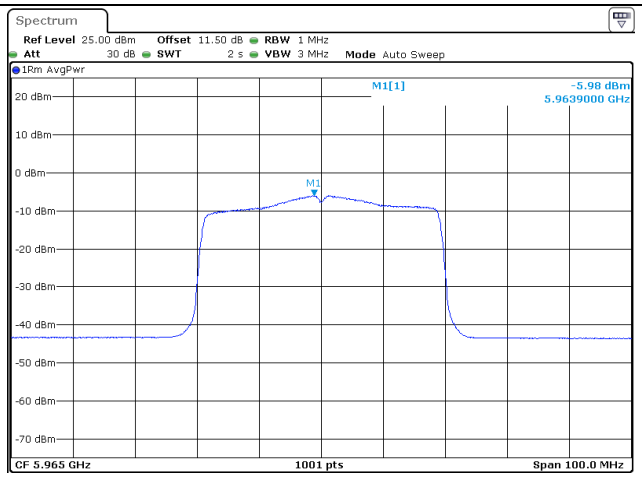
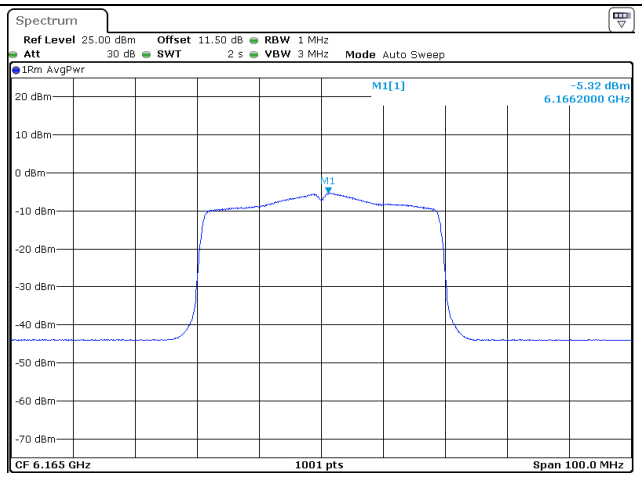
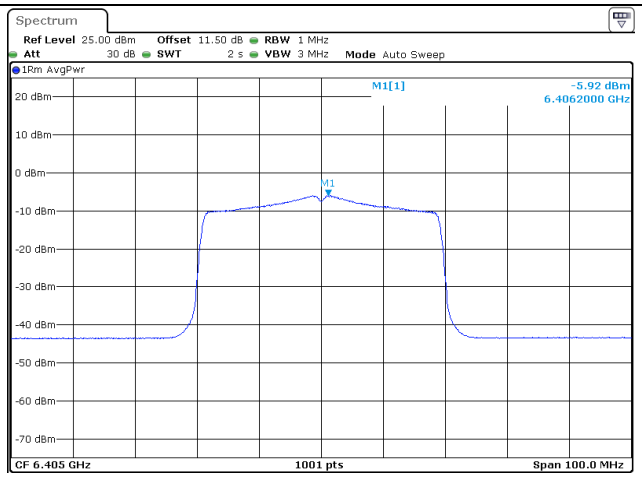
6875-7125 MHz:

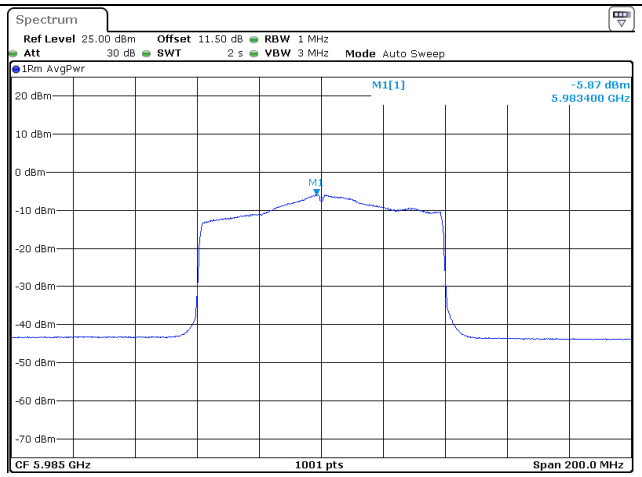
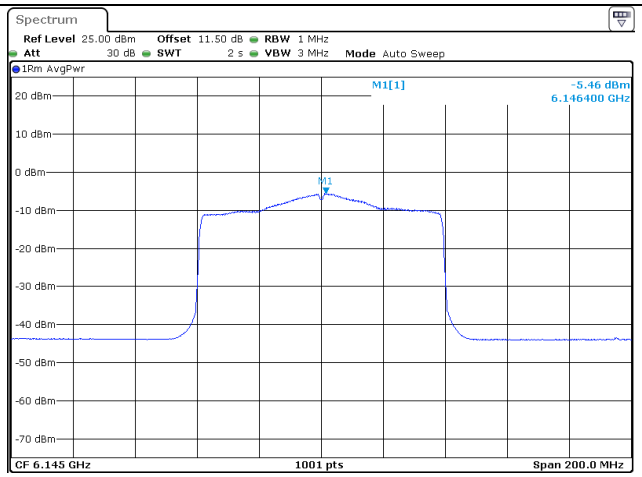
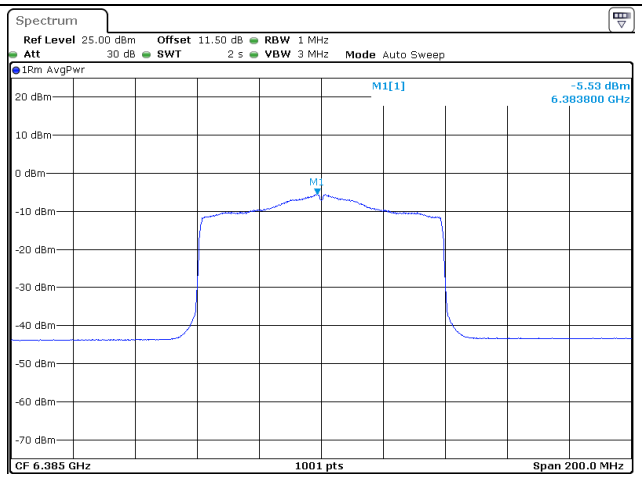
Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)			EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)
		Chain 0	Chain 1	Total		
802.11a	6875	-0.45	-0.15	/	4.4	5
	6895	0.13	0.28	/	4.83	5
	6995	-0.13	0.25	/	4.8	5
	7115	-0.14	0.28	/	4.83	5
802.11ax he20	6875	-5.58	-5.71	-2.63	4.92	5
	6895	-5.6	-6.11	-2.84	4.71	5
	6995	-5.79	-6.44	-3.09	4.46	5
	7095	-5.38	-5.86	-2.60	4.95	5
802.11ax he40	6885	-5.44	-5.77	-2.59	4.96	5
	6925	-5.72	-6.15	-2.92	4.63	5
	6965	-6.34	-4.99	-2.60	4.95	5
	7085	-5.29	-6.75	-2.95	4.60	5
802.11ax he80	6945	-6.52	-5.69	-3.07	4.48	5
	7025	-5.58	-5.86	-2.71	4.84	5
802.11ax he160	6985	-6.38	-6.09	-3.22	4.33	5
Note: The device employed Beam-forming for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB N_{ANT}=2, Nss=1(Worst case) The device is an indoor AP.						
Antenna Gain:	4.55	dBi	Directional gain:	7.55	dBi	

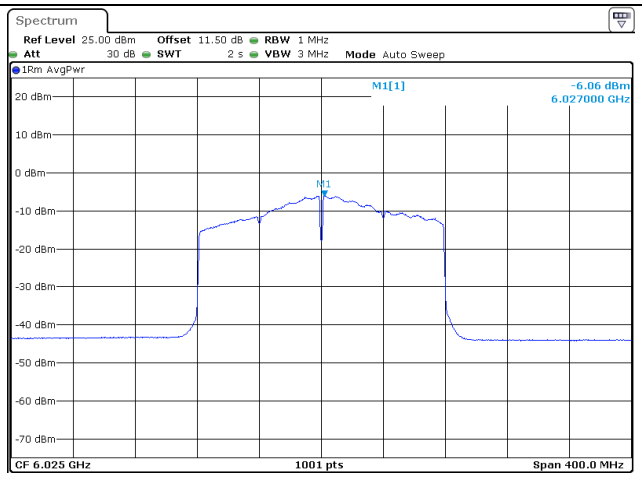
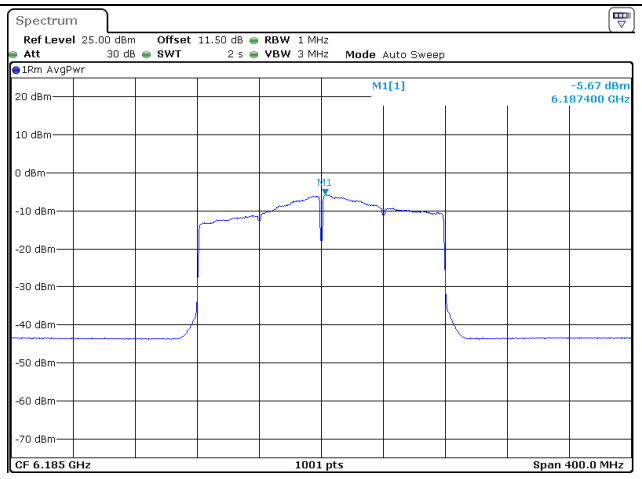
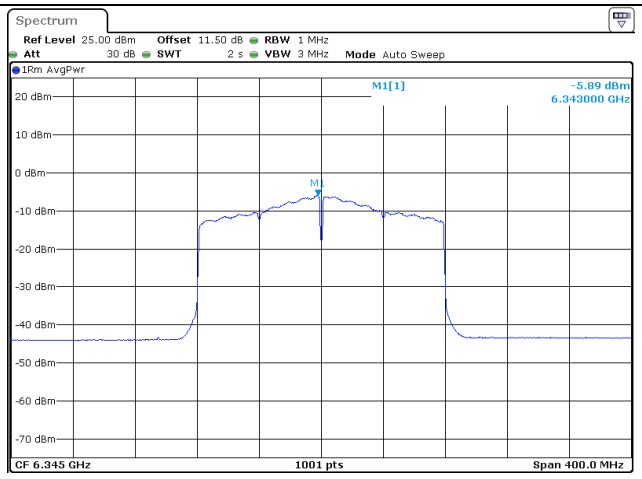
5925-6425MHz:
Ant0:

Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

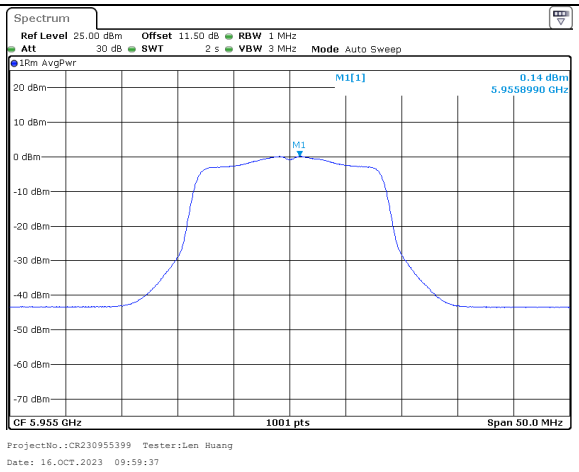
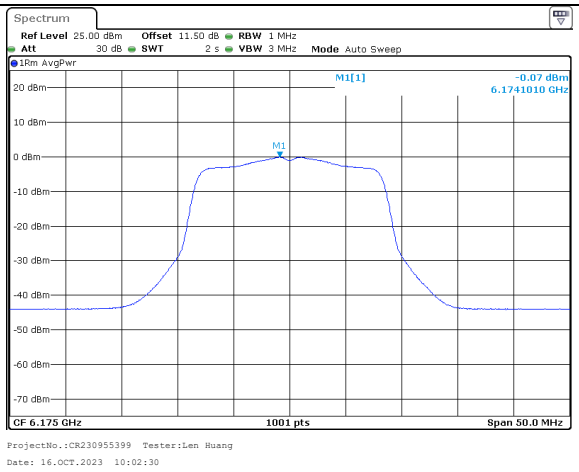
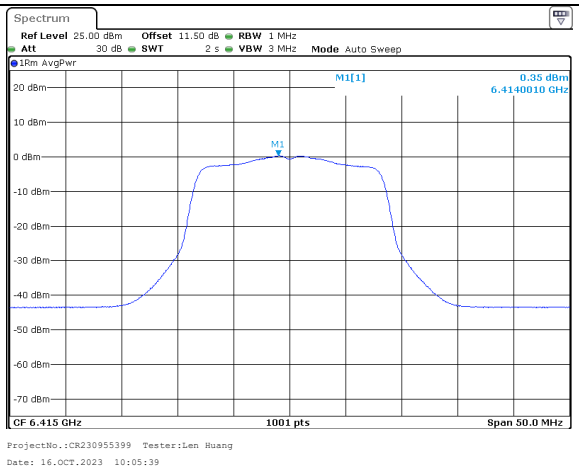
Maximum power spectral density	
802.11ax he20 Lowest Channel	
802.11ax he20 Middle Channel	
802.11ax he20 Highest Channel	

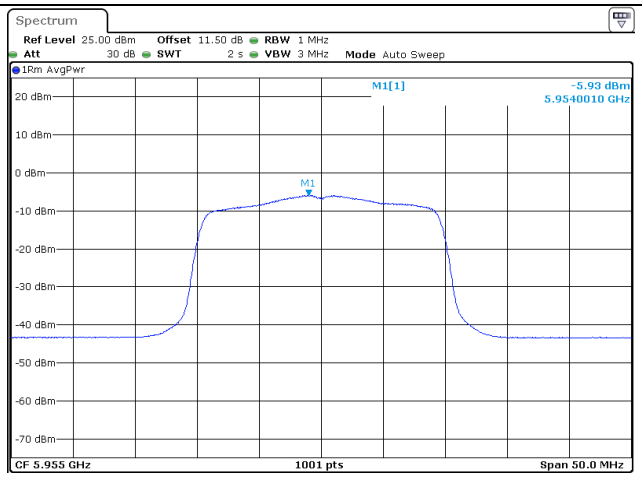
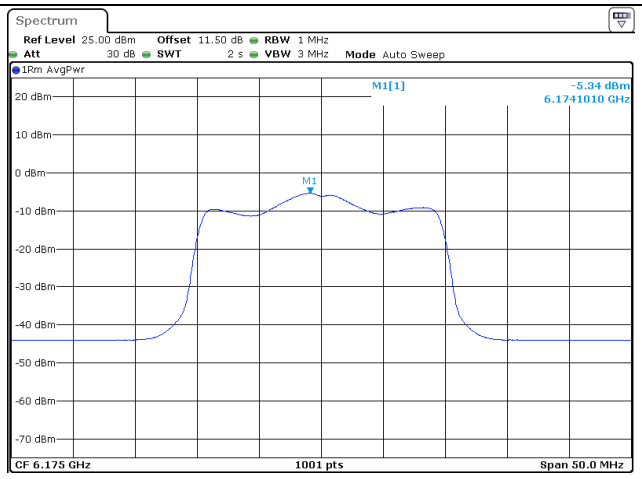
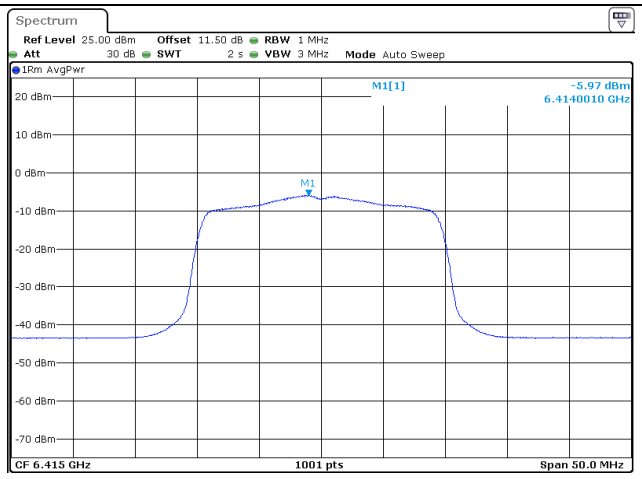
Maximum power spectral density	
802.11ax he40 Lowest Channel	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	

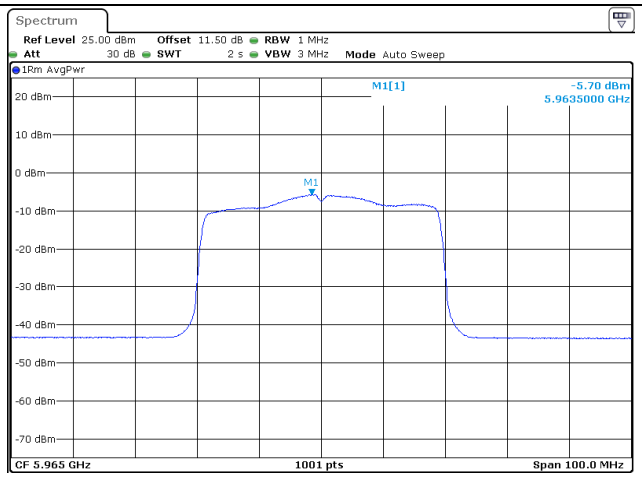
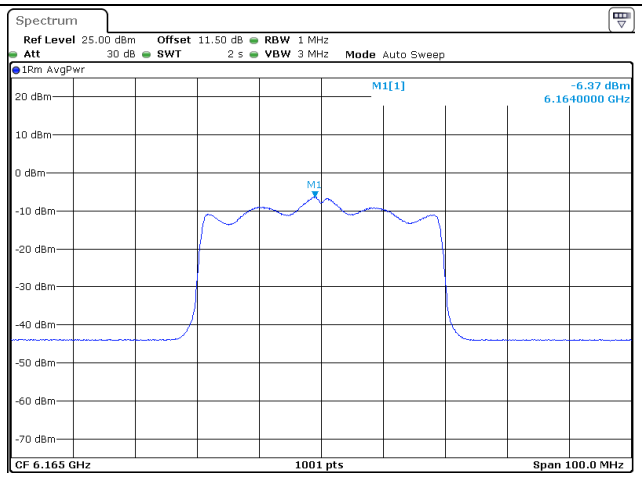
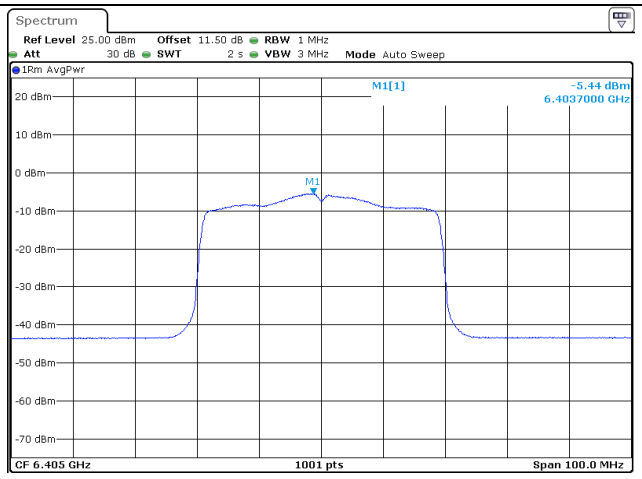
Maximum power spectral density	
802.11ax he80 Lowest Channel	
802.11ax he80 Middle Channel	
802.11ax he80 Highest Channel	

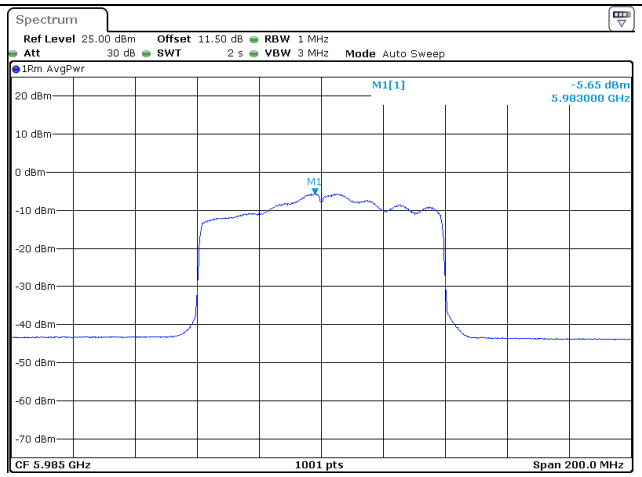
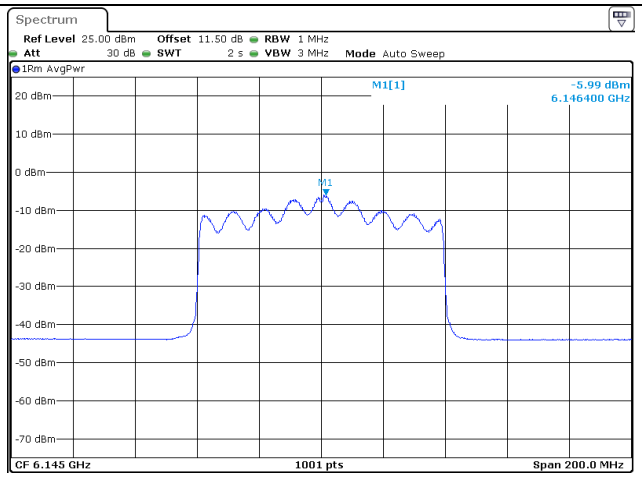
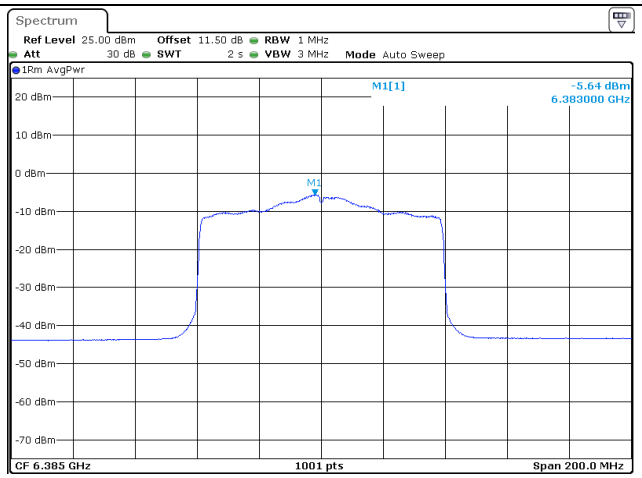
Maximum power spectral density	
802.11ax he160 Lowest Channel	
802.11ax he160 Middle Channel	
802.11ax he160 Highest Channel	

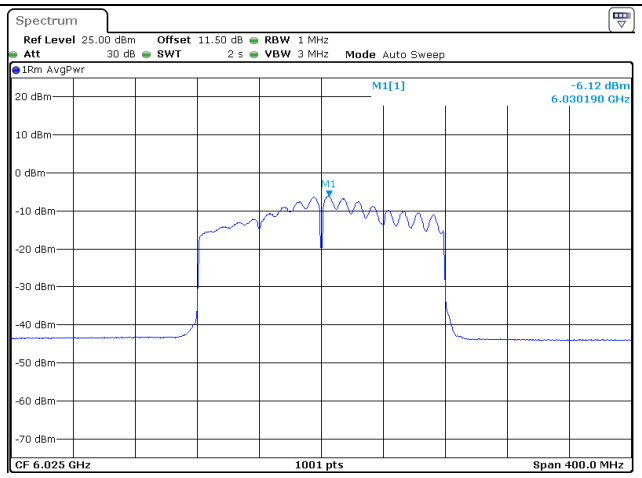
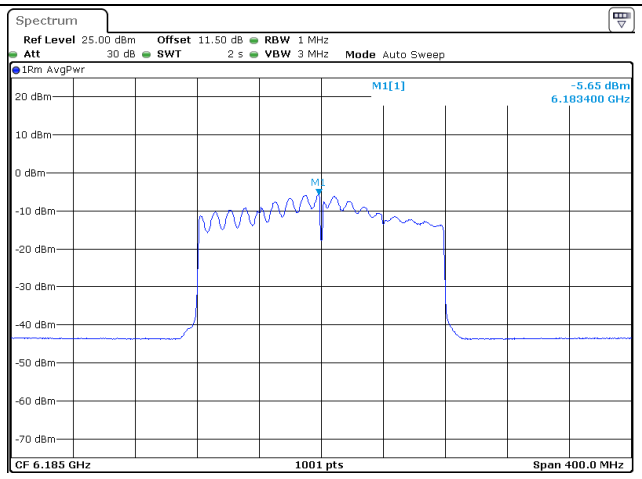
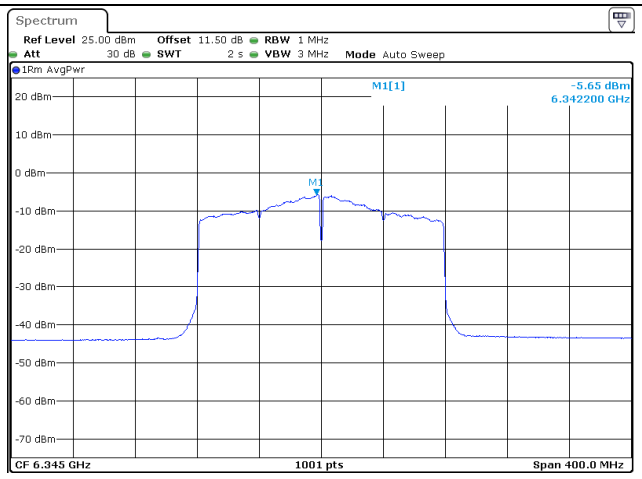
Ant1:

Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

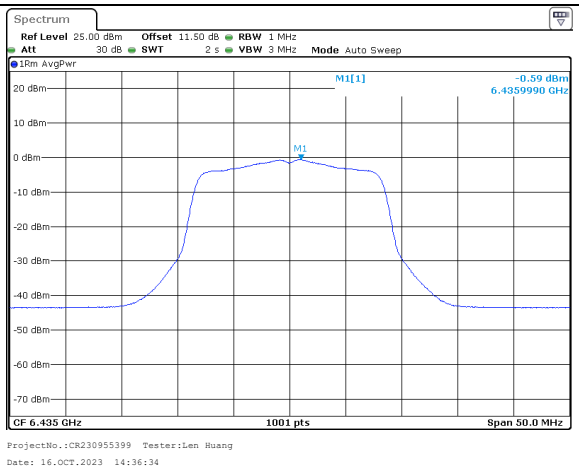
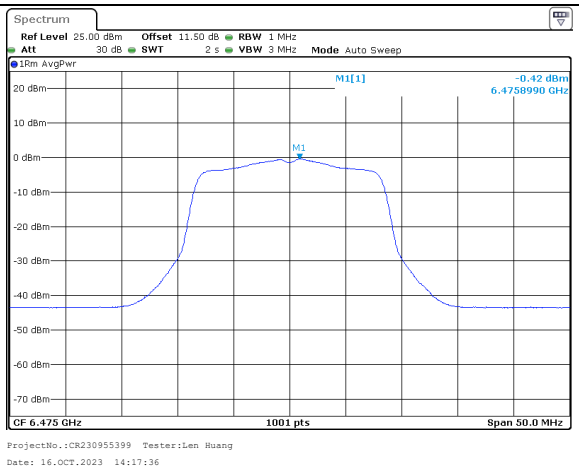
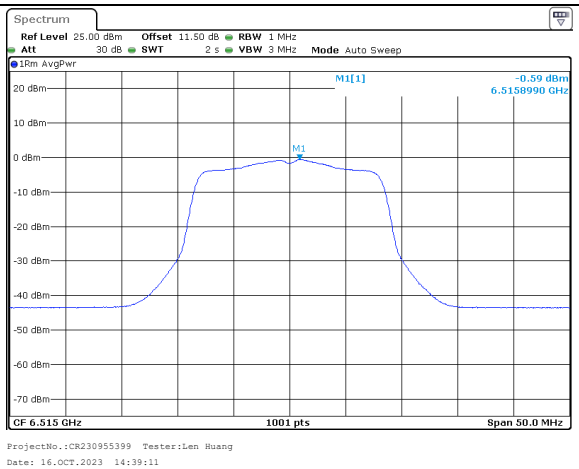
Maximum power spectral density	
802.11ax he20 Lowest Channel	
802.11ax he20 Middle Channel	
802.11ax he20 Highest Channel	

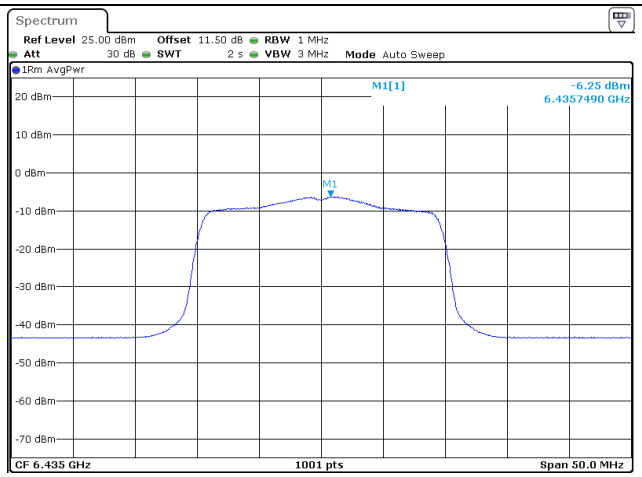
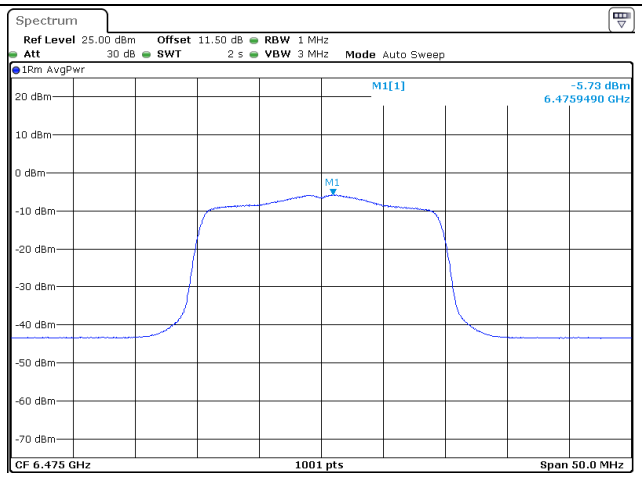
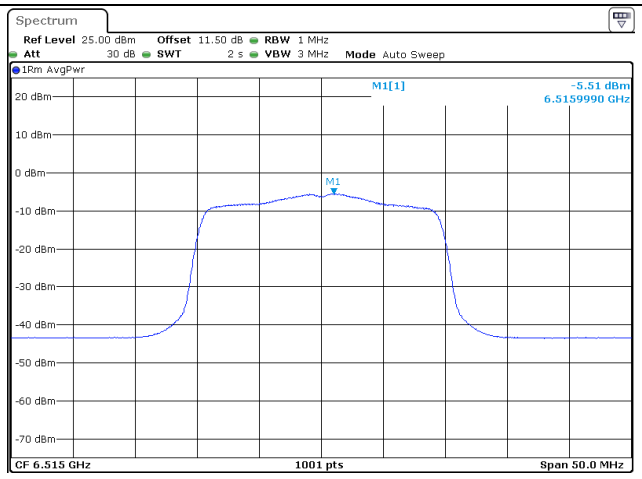
Maximum power spectral density	
802.11ax he40 Lowest Channel	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	

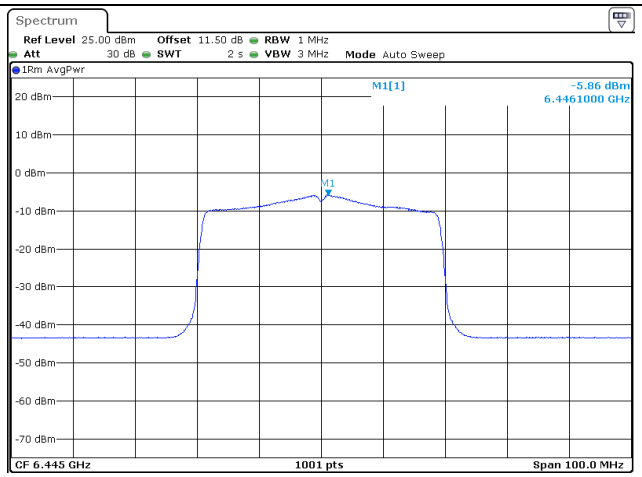
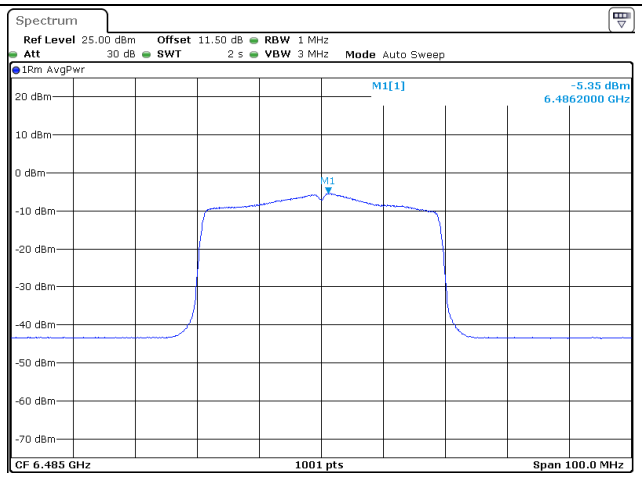
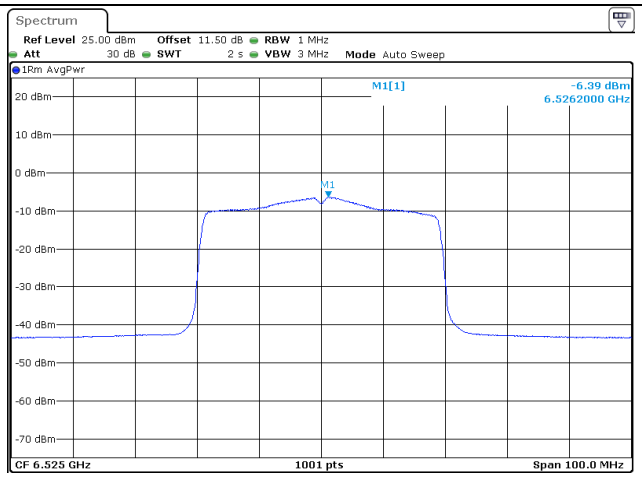
Maximum power spectral density	
802.11ax he80 Lowest Channel	
802.11ax he80 Middle Channel	
802.11ax he80 Highest Channel	

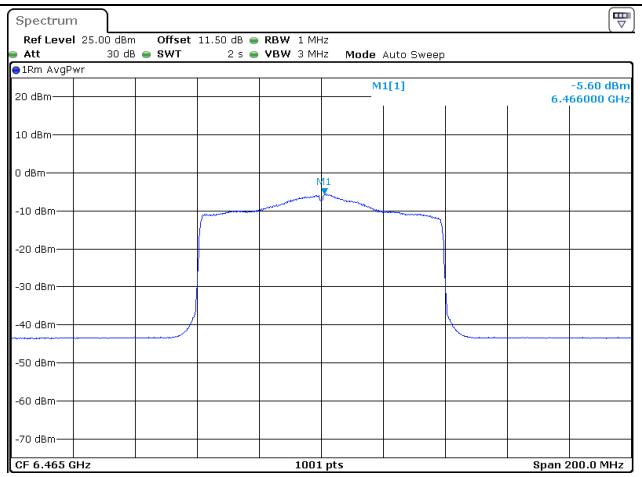
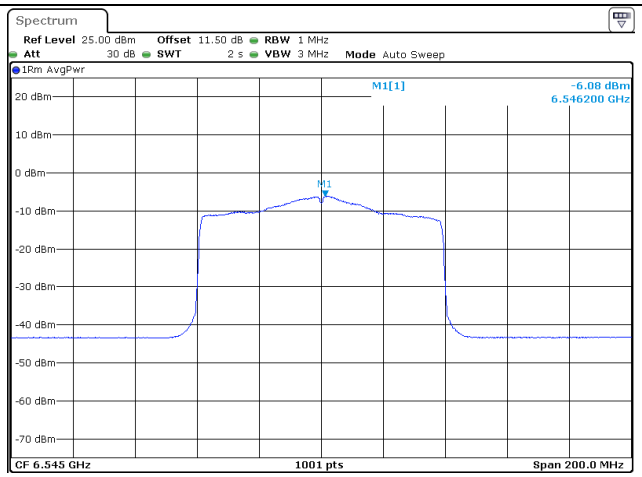
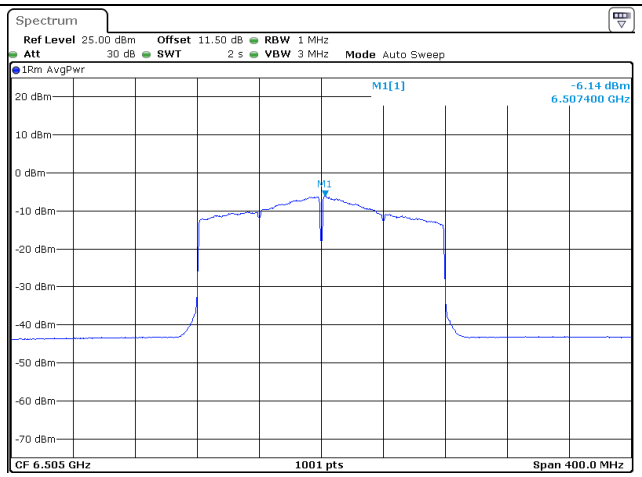
Maximum power spectral density	
802.11ax he160 Lowest Channel	
802.11ax he160 Middle Channel	
802.11ax he160 Highest Channel	

6425-6525MHz:
Chain 0:

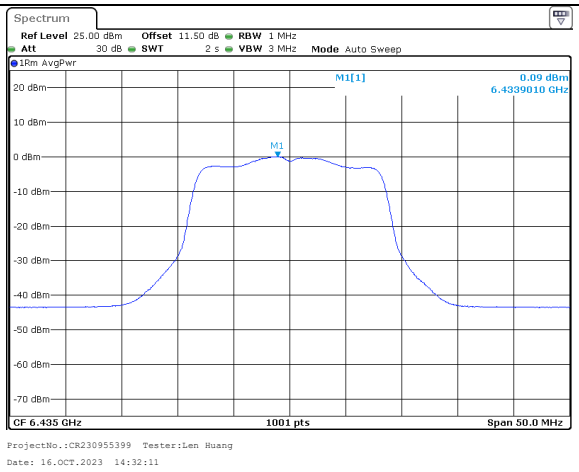
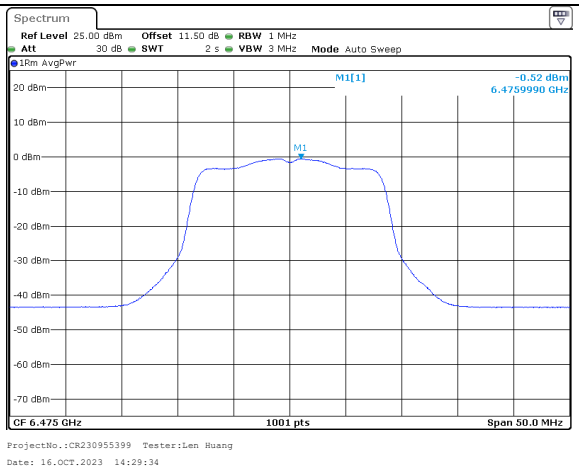
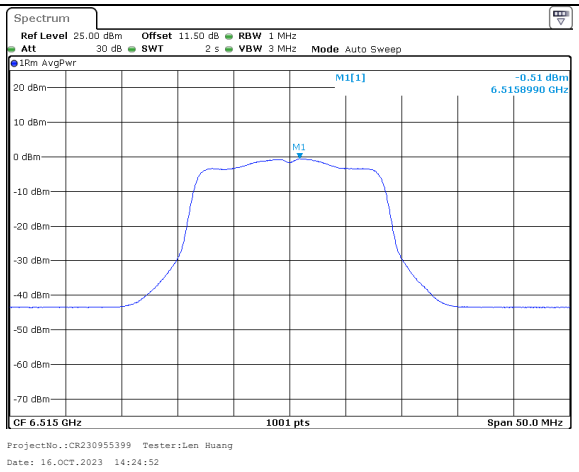
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

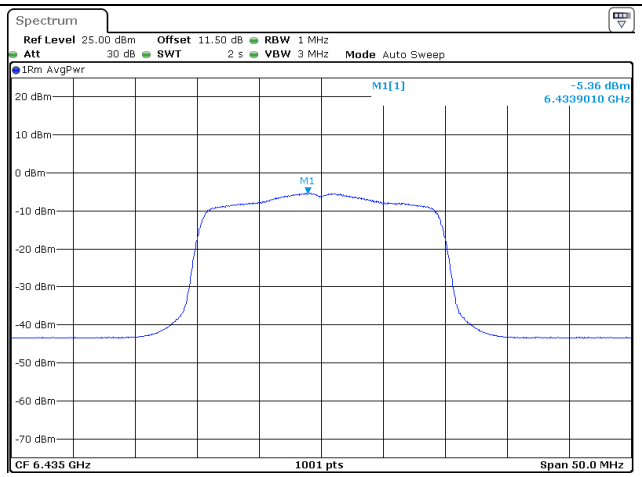
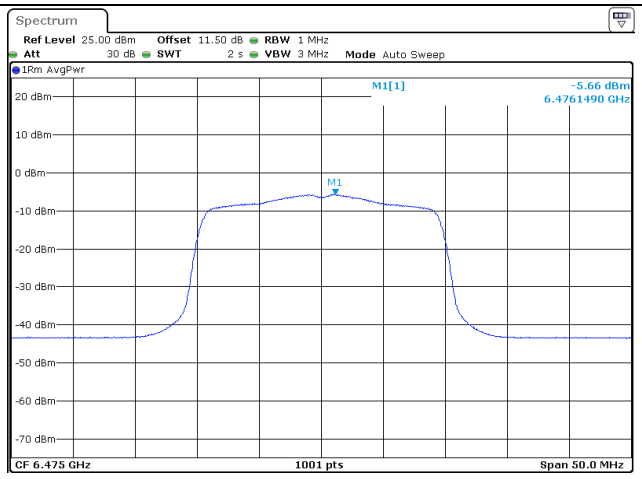
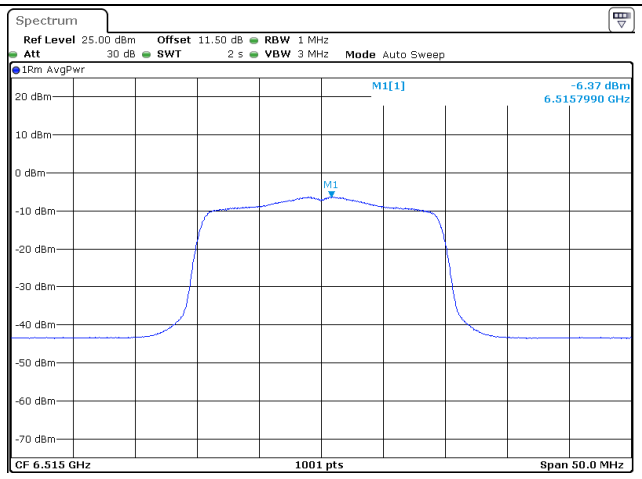
Maximum power spectral density	
802.11ax he20 Lowest Channel	
802.11ax he20 Middle Channel	
802.11ax he20 Highest Channel	

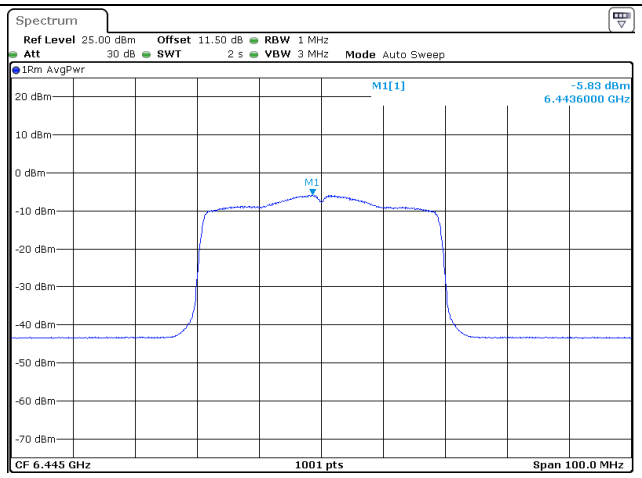
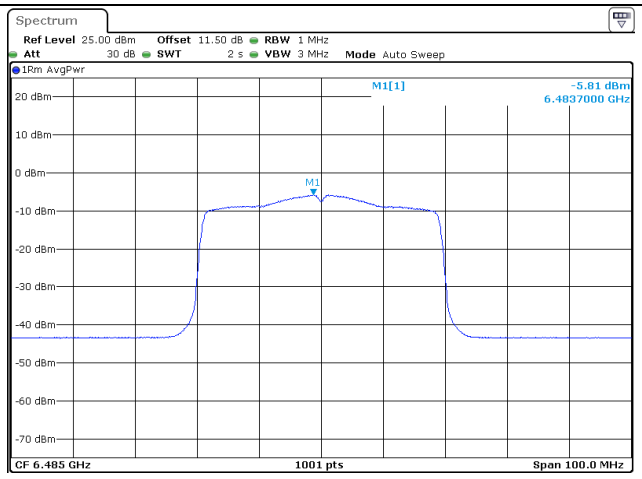
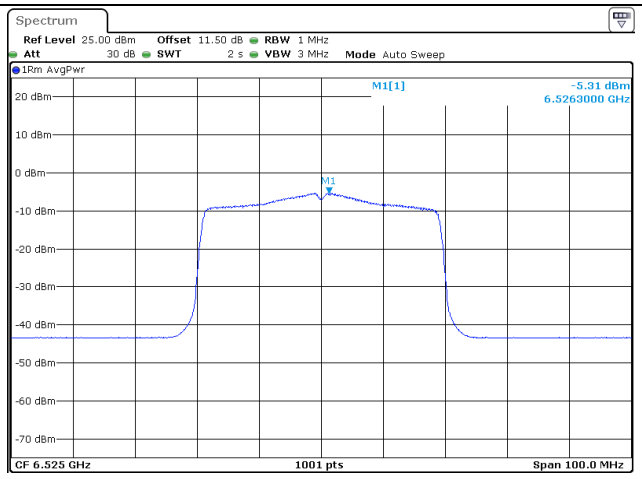
Maximum power spectral density	
802.11ax he40 Lowest Channel	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	

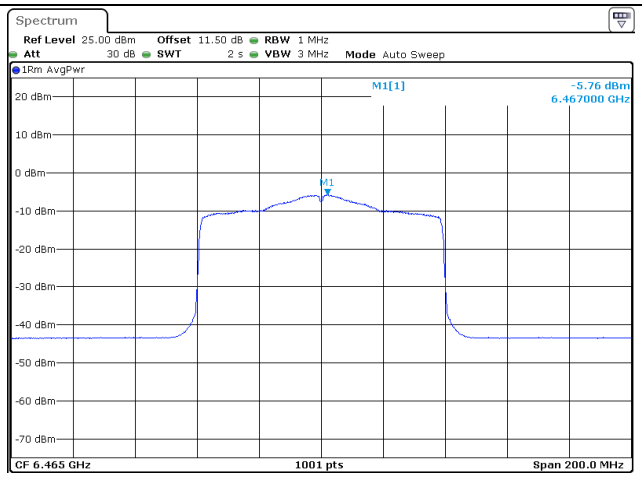
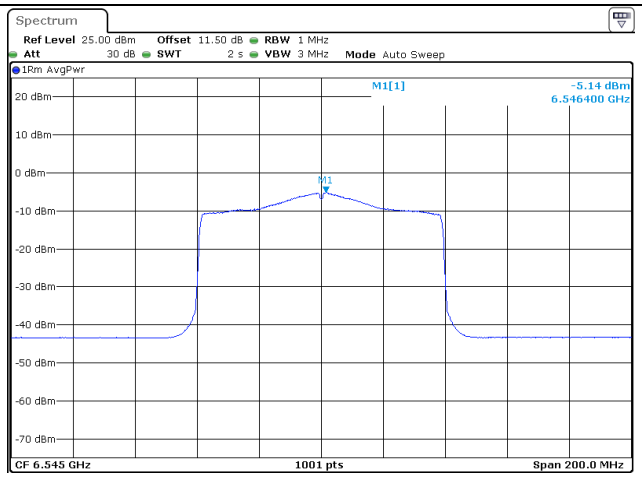
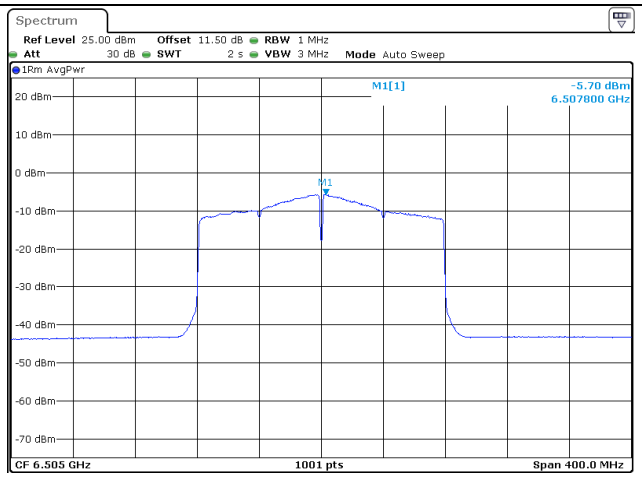
Maximum power spectral density	
802.11ax he80 Middle Channel	
802.11ax he80 Straddle Channel	
802.11ax he 160 Straddle Channel	

Chain 1:

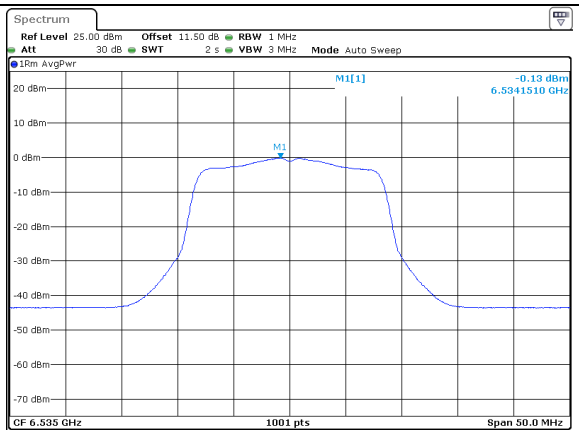
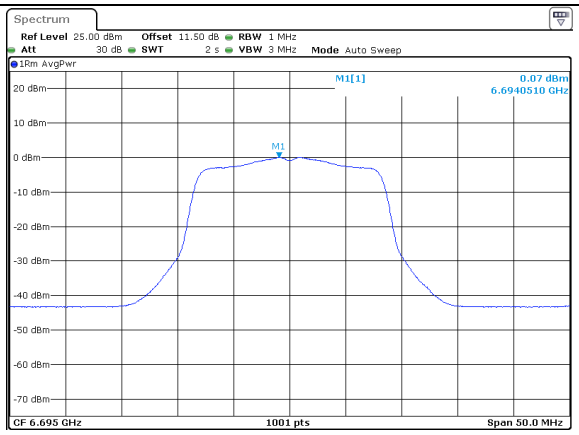
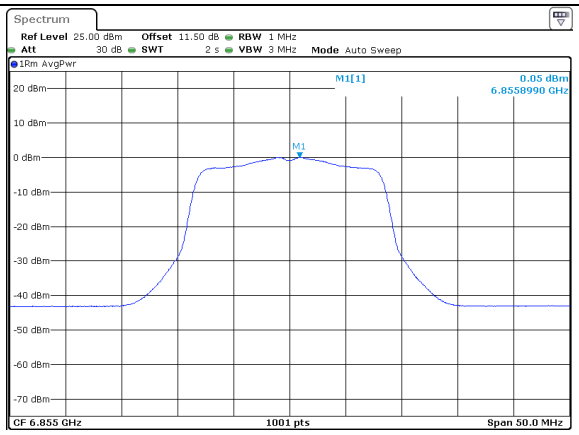
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

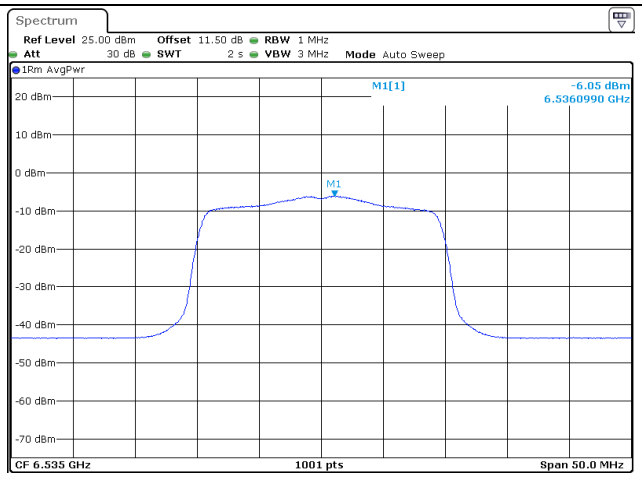
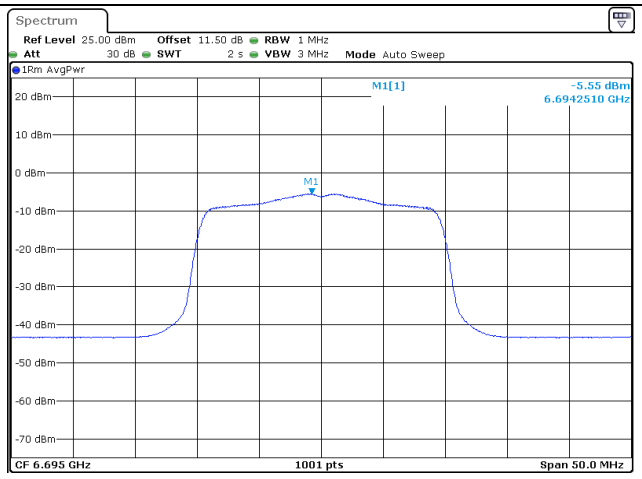
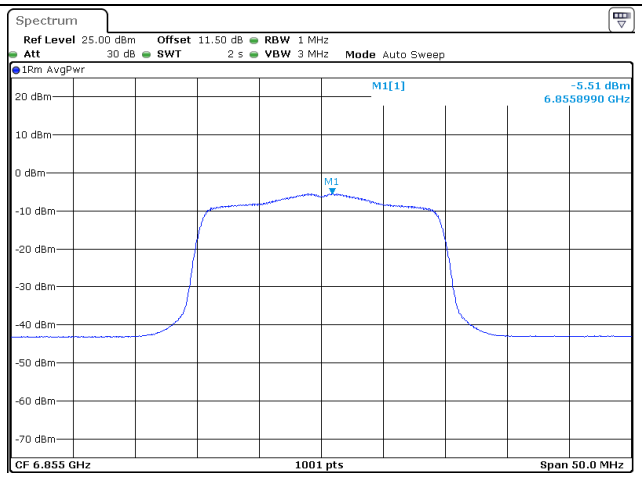
Maximum power spectral density	
802.11ax he20 Lowest Channel	
802.11ax he20 Middle Channel	
802.11ax he20 Highest Channel	

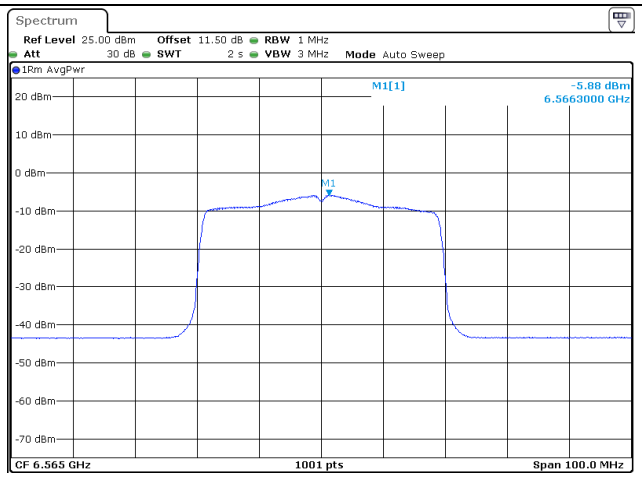
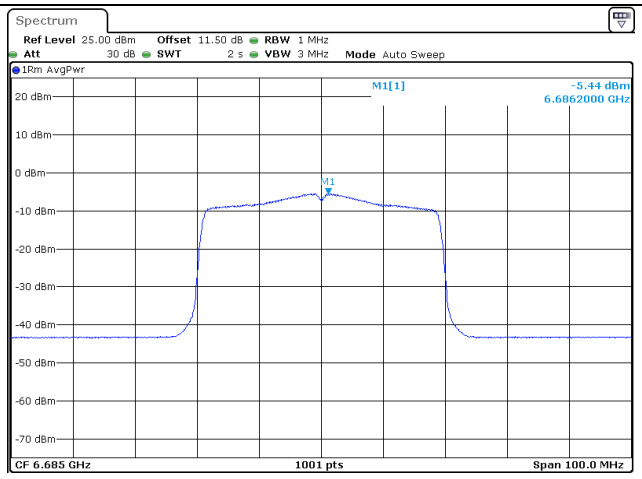
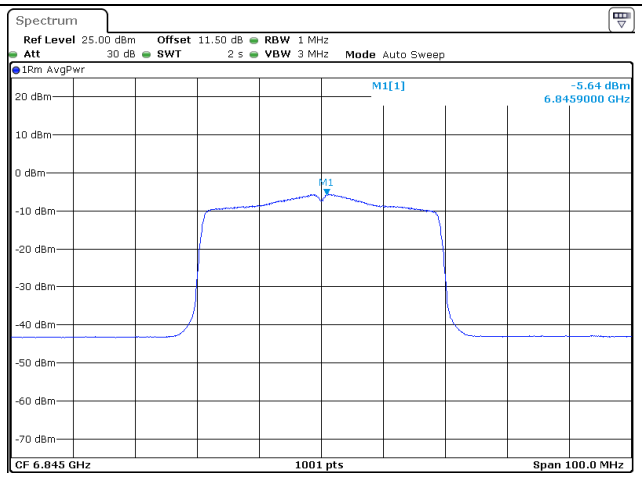
Maximum power spectral density	
802.11ax he40 Lowest Channel	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	

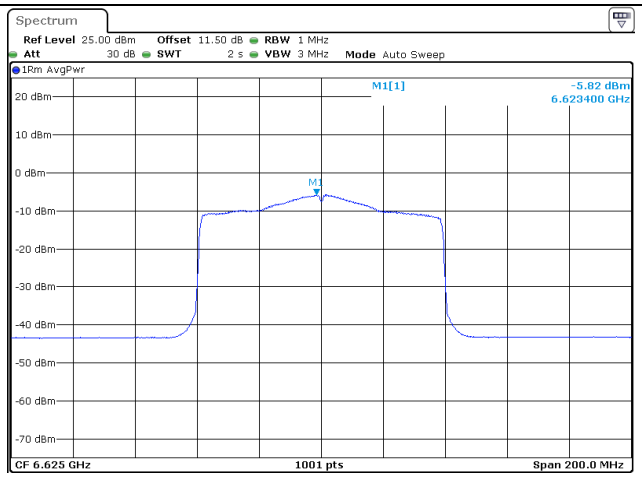
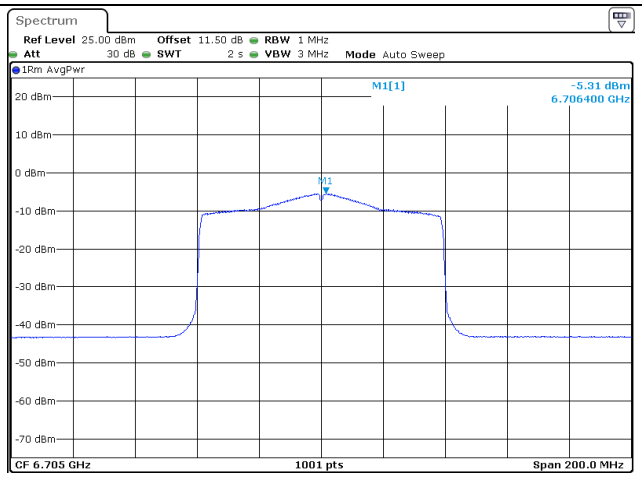
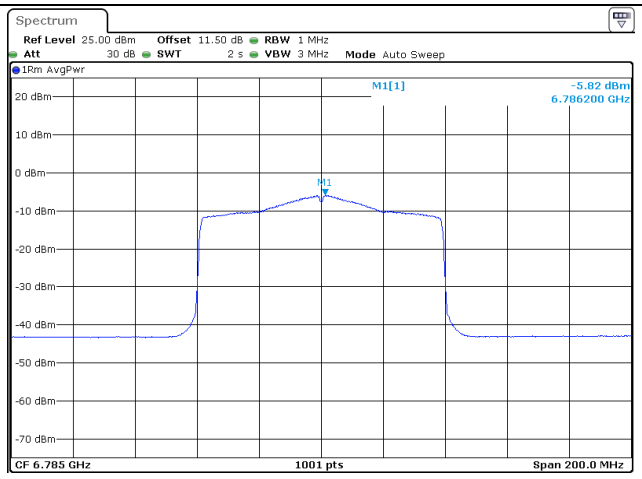
Maximum power spectral density	
802.11ax he80 Middle Channel	
802.11ax he80 Straddle Channel	
802.11ax he 160 Straddle Channel	

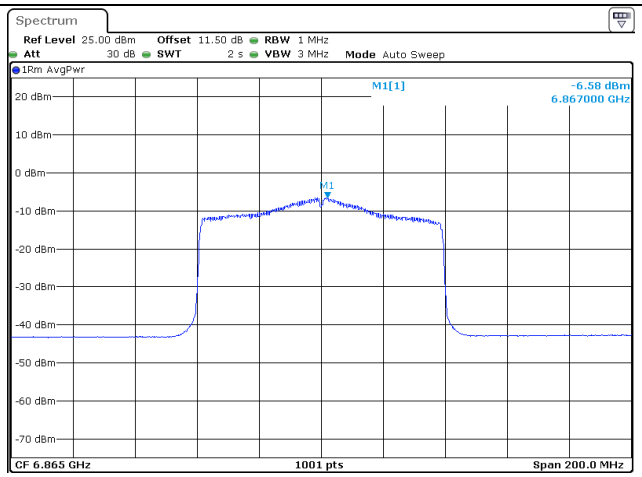
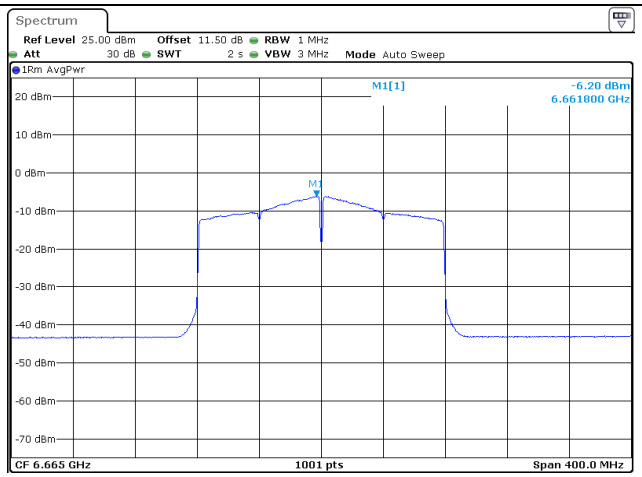
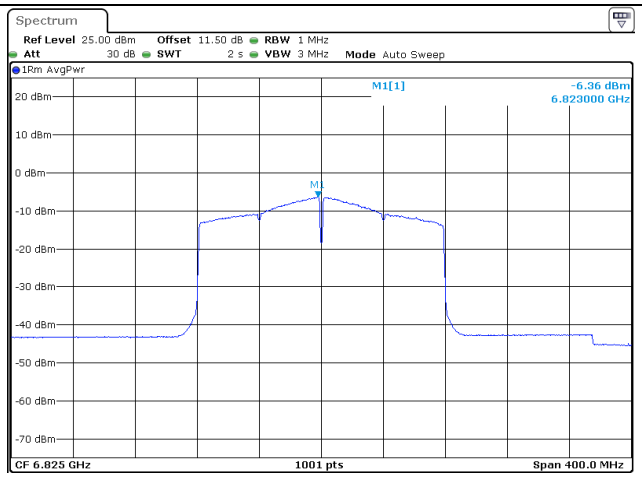
6525-6875MHz:
Chain 0:

Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

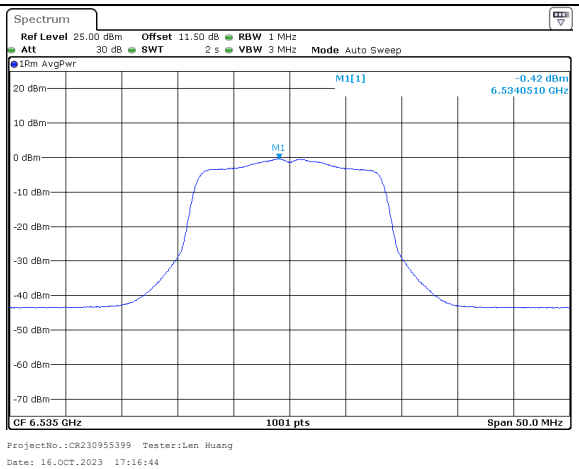
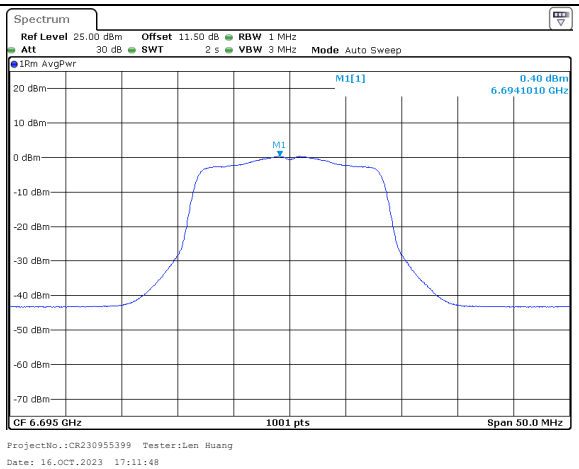
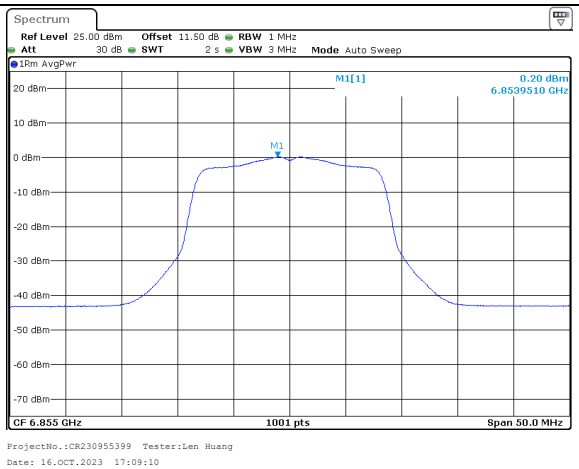
Maximum power spectral density	
802.11ax he20 Lowest Channel	
802.11ax he20 Middle Channel	
802.11ax he20 Highest Channel	

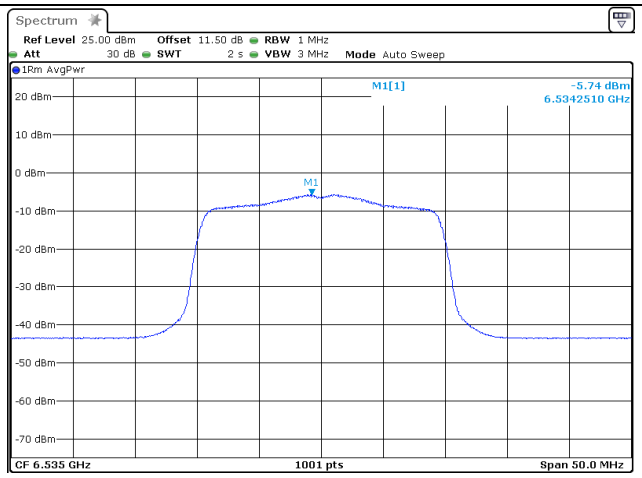
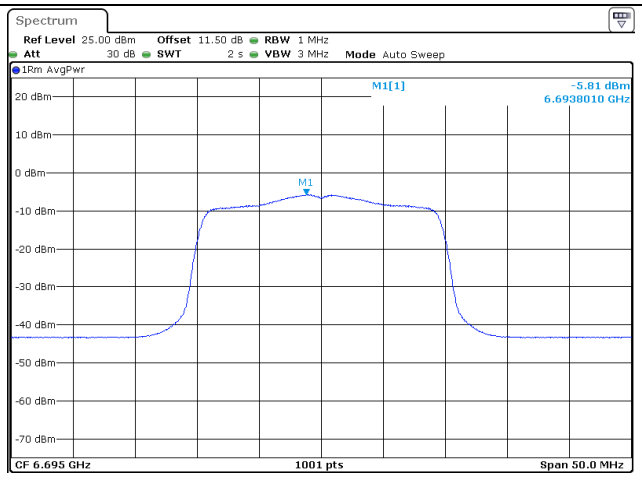
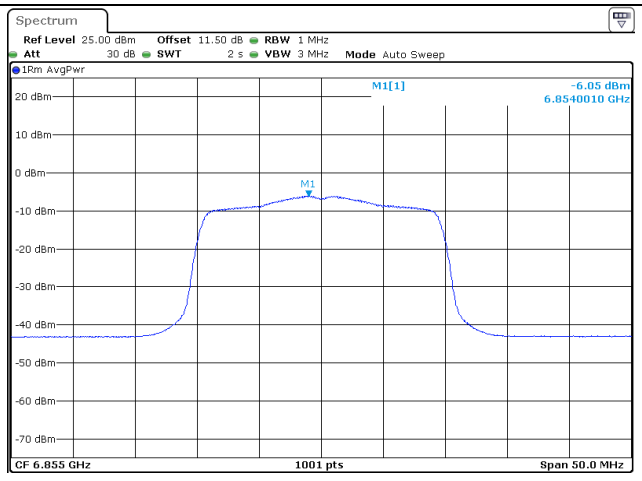
Maximum power spectral density	
802.11ax he40 Lowest Channel	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	

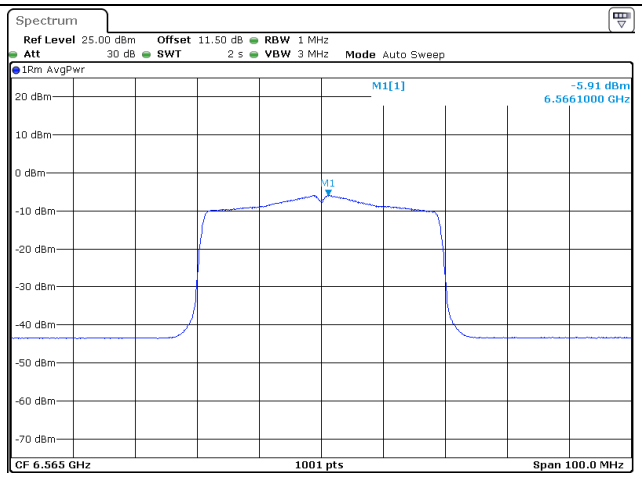
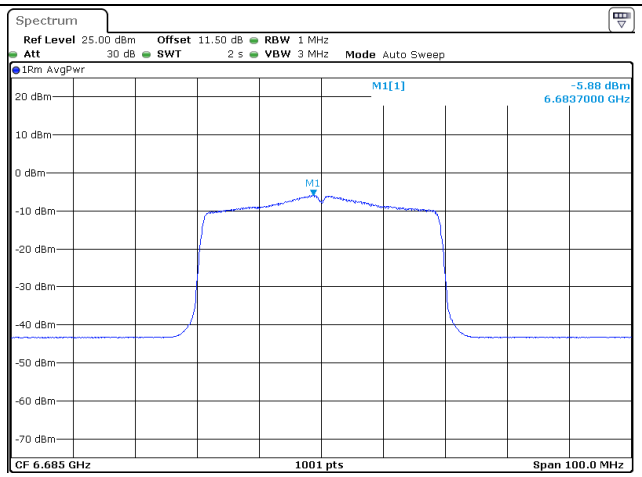
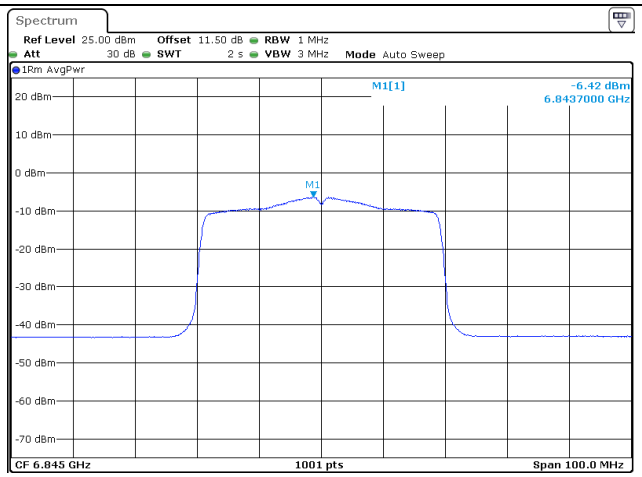
Maximum power spectral density	
802.11ax he80 Lowest Channel	
802.11ax he80 Middle Channel	
802.11ax he80 Highest Channel	

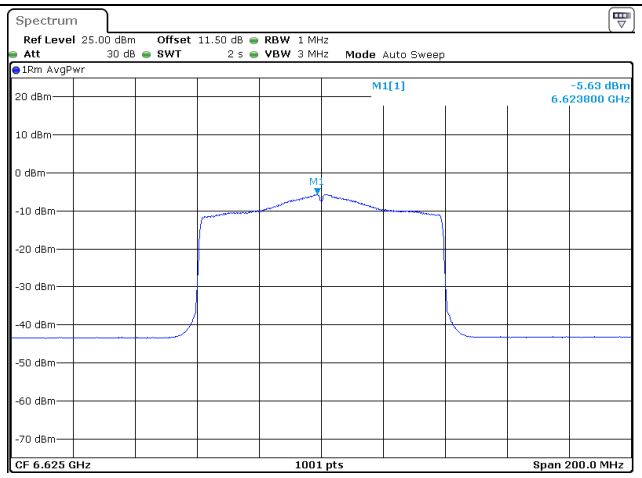
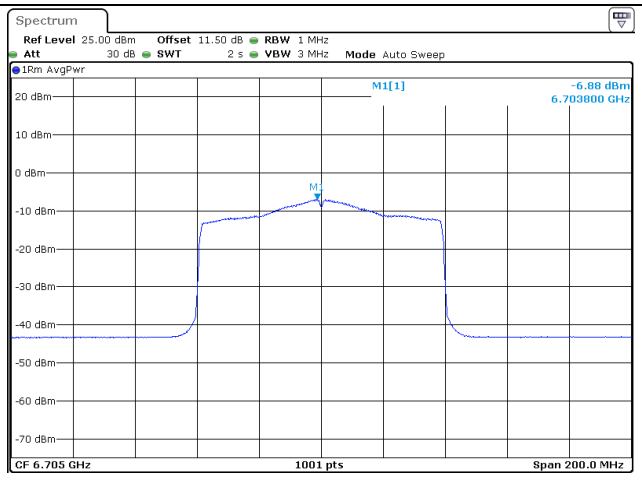
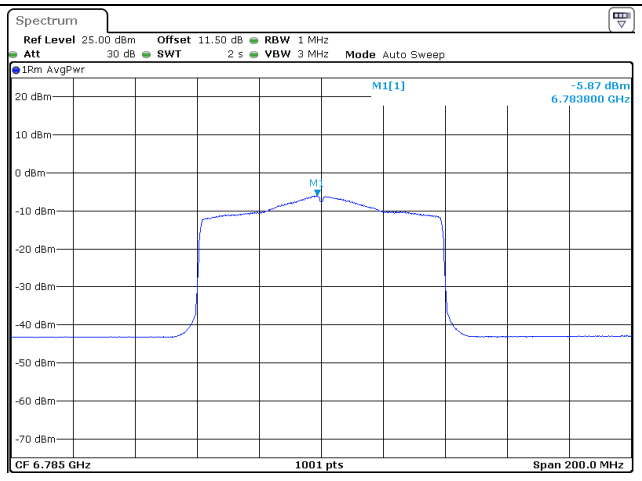
Maximum power spectral density	
802.11ax he80 Straddle Channel	
802.11ax he160 Middle Channel	
802.11ax he160 Straddle Channel	

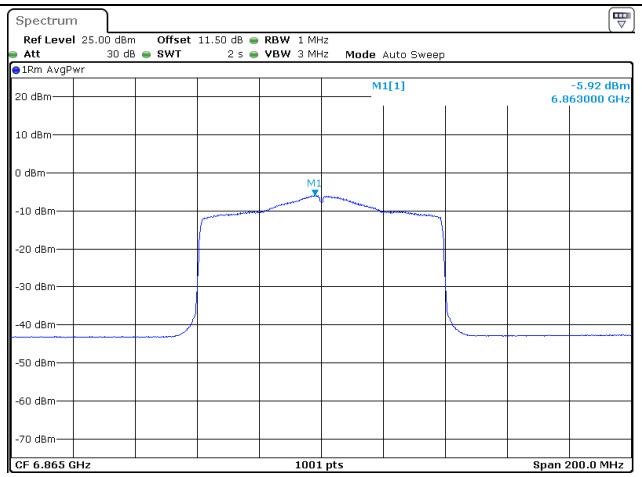
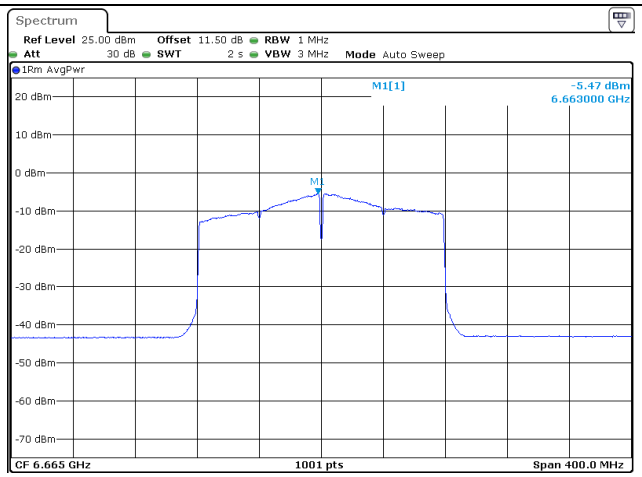
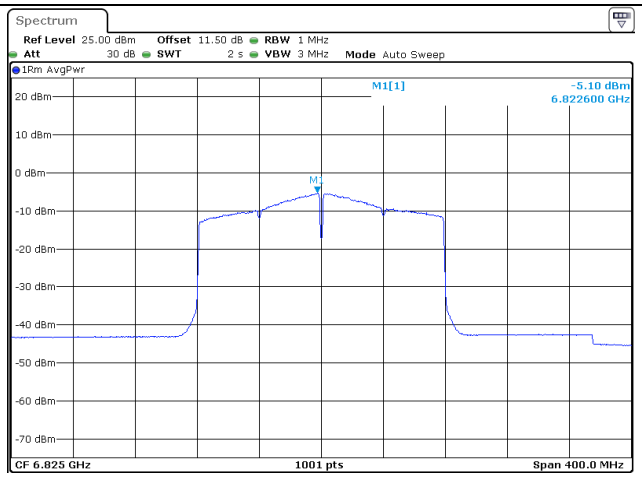
Chain 1:

Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

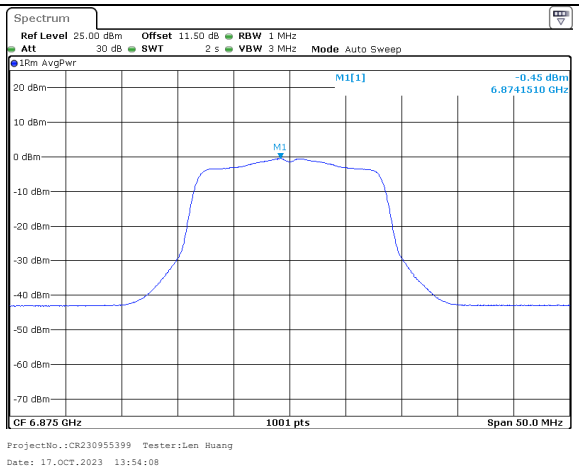
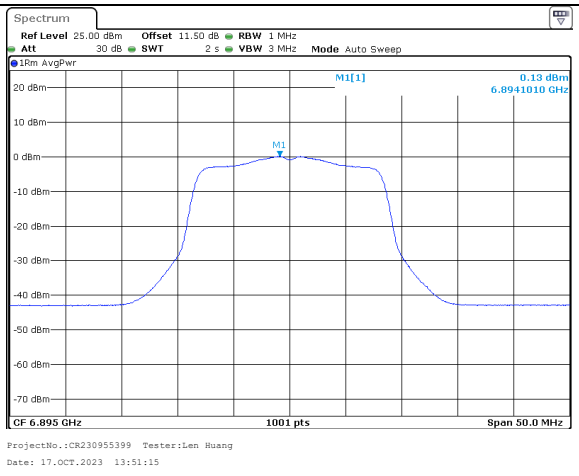
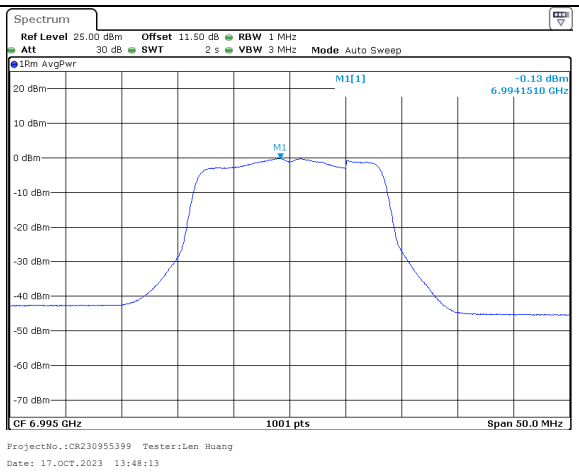
Maximum power spectral density	
802.11ax he20 Lowest Channel	
802.11ax he20 Middle Channel	
802.11ax he20 Highest Channel	

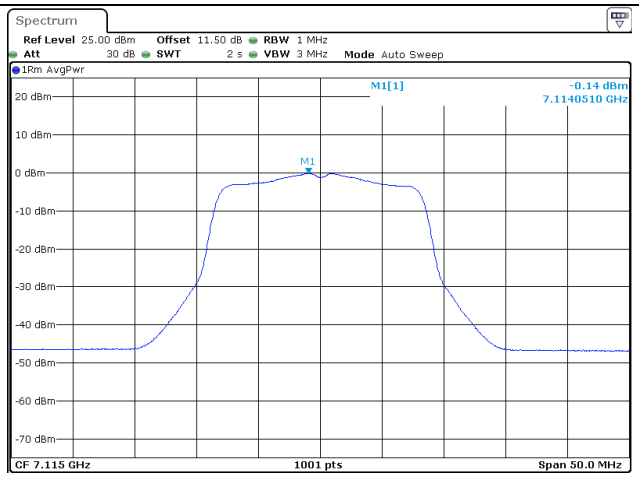
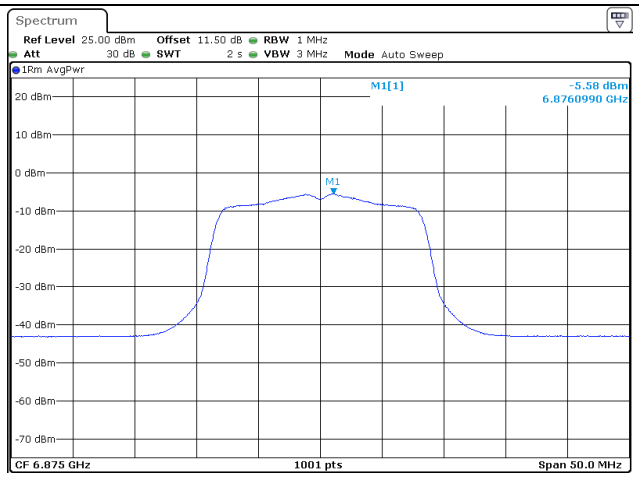
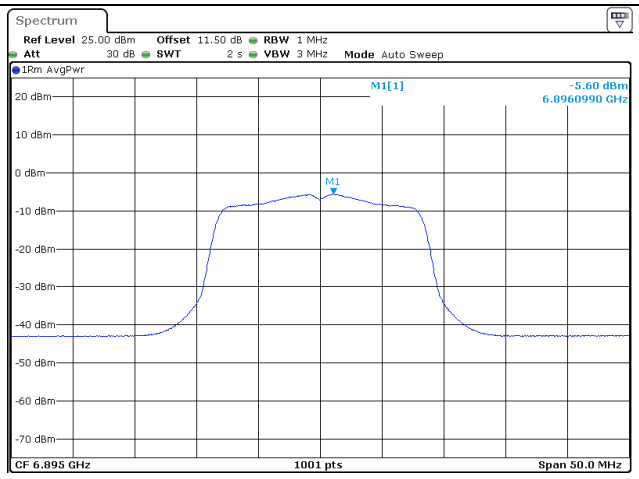
Maximum power spectral density	
802.11ax he40 Lowest Channel	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	

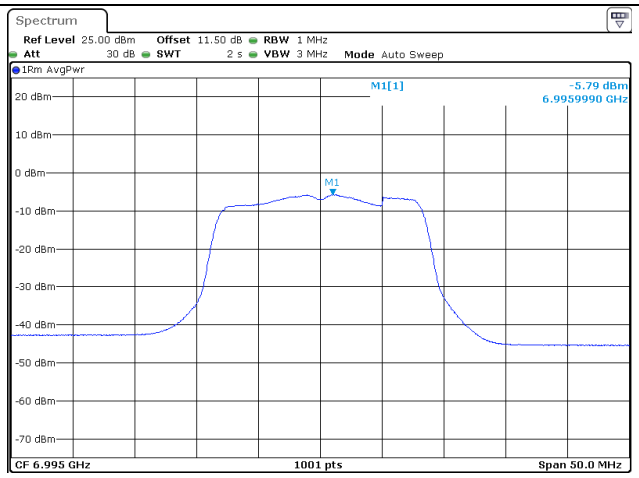
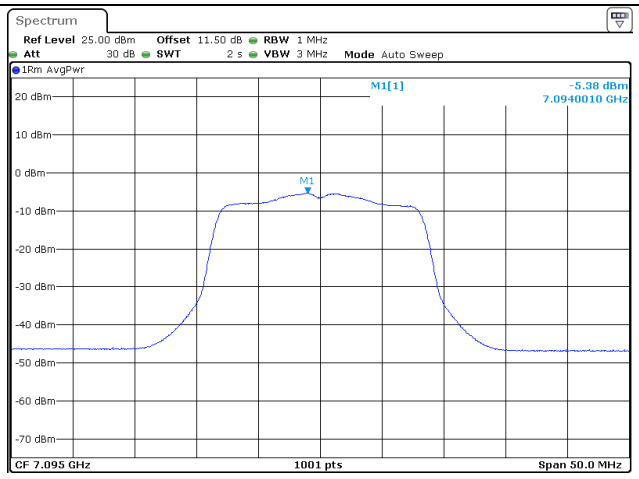
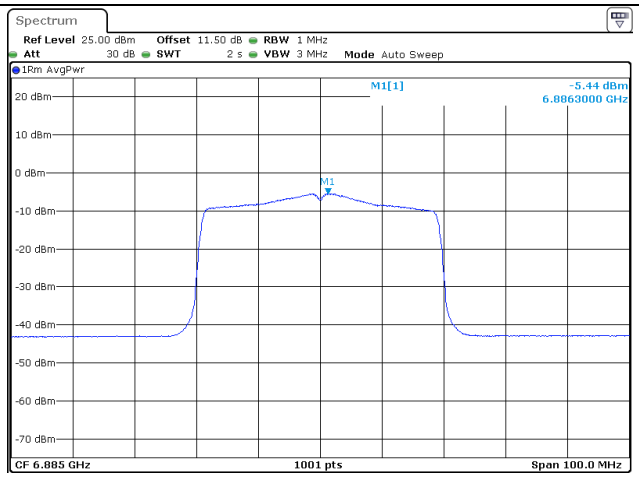
Maximum power spectral density	
802.11ax he80 Lowest Channel	
802.11ax he80 Middle Channel	
802.11ax he80 Highest Channel	

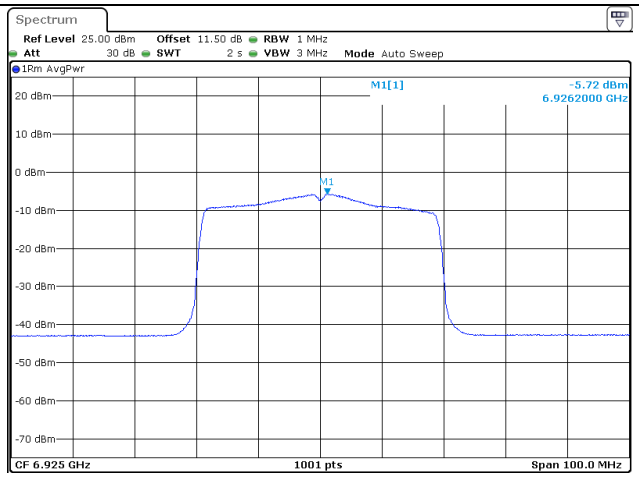
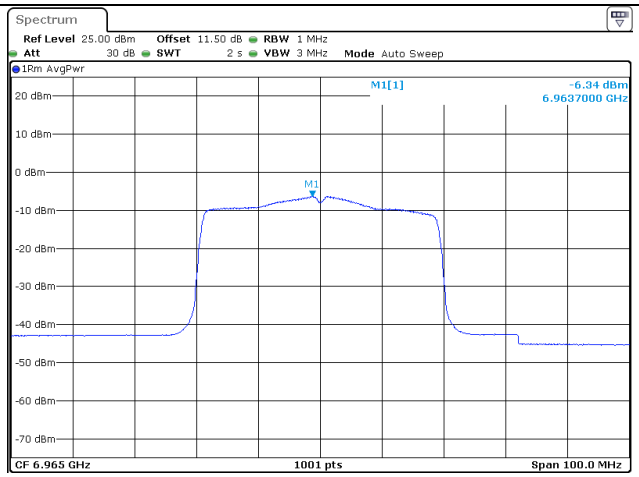
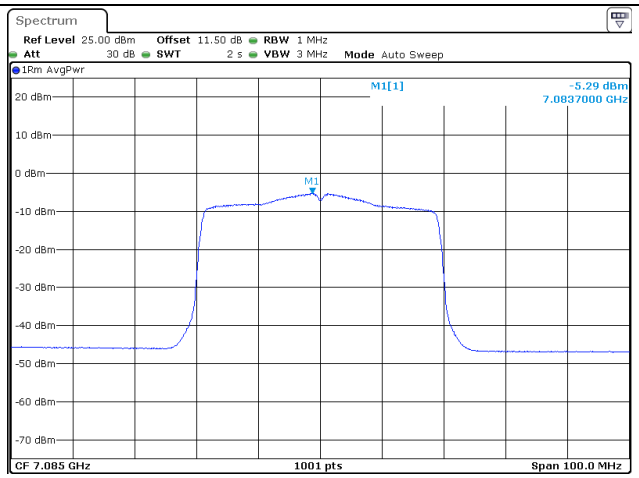
Maximum power spectral density	
802.11ax he80 Straddle Channel	
802.11ax he160 Middle Channel	
802.11ax he160 Straddle Channel	

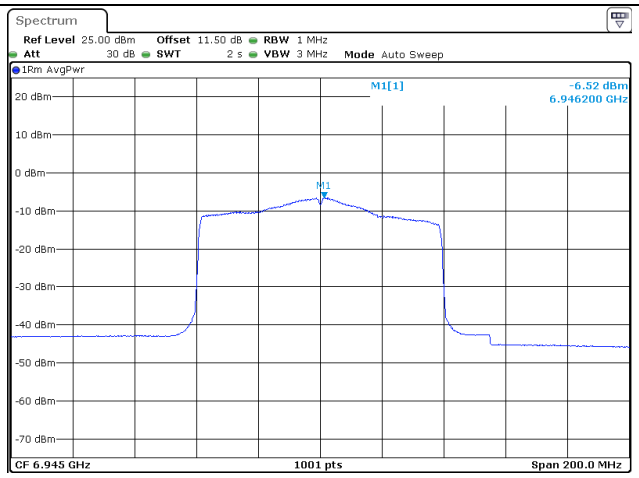
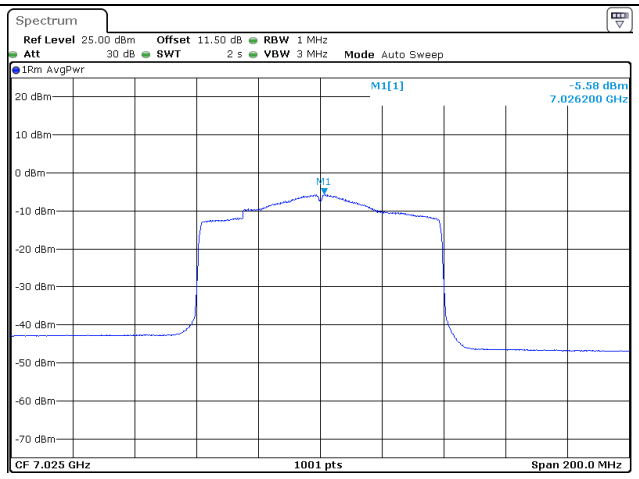
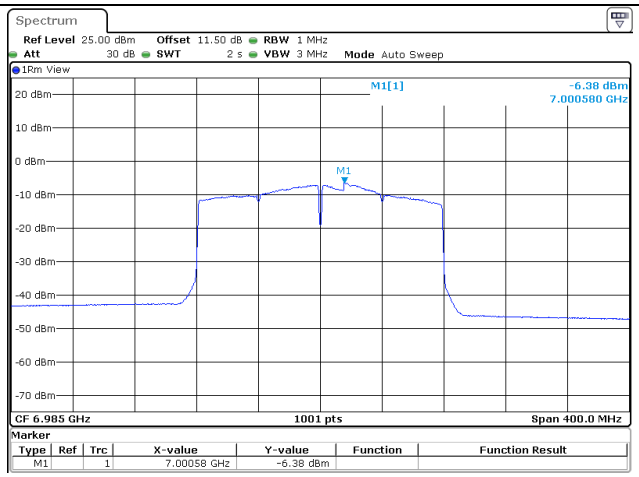
6875-7125MHz:
Chain 0:

Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

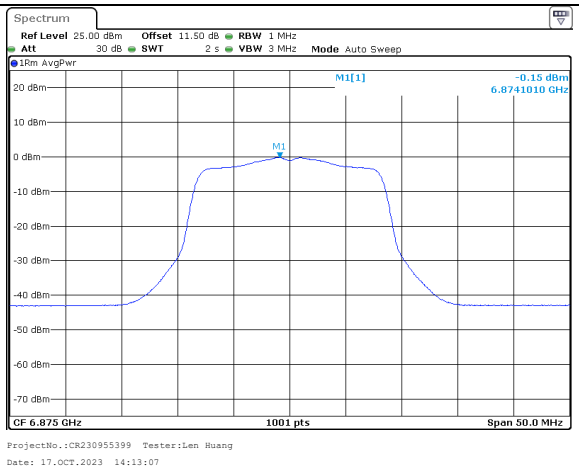
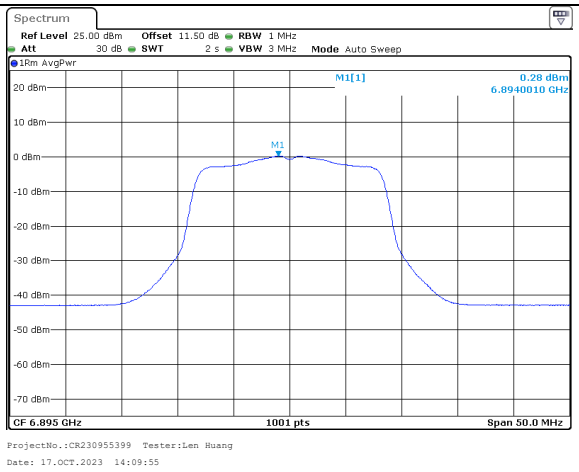
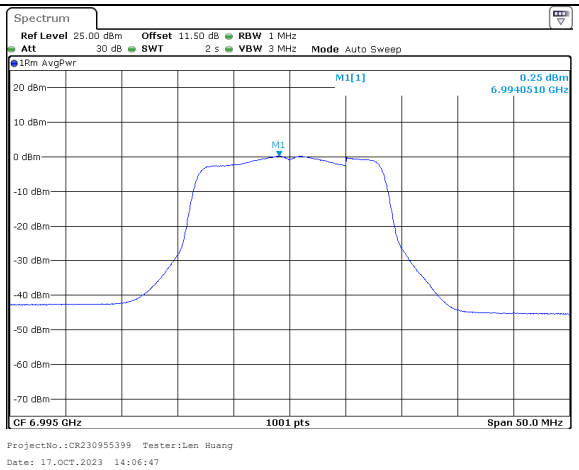
Maximum power spectral density	
802.11a Straddle Channel	
802.11 ax he20 Lowest Channel	
802.11 ax he20 Middle Channel	

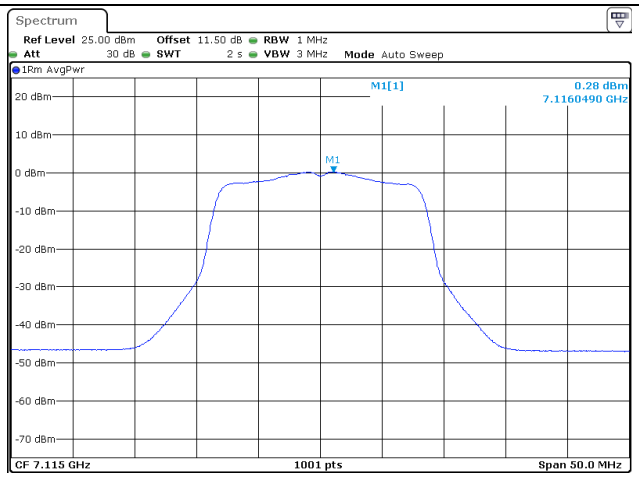
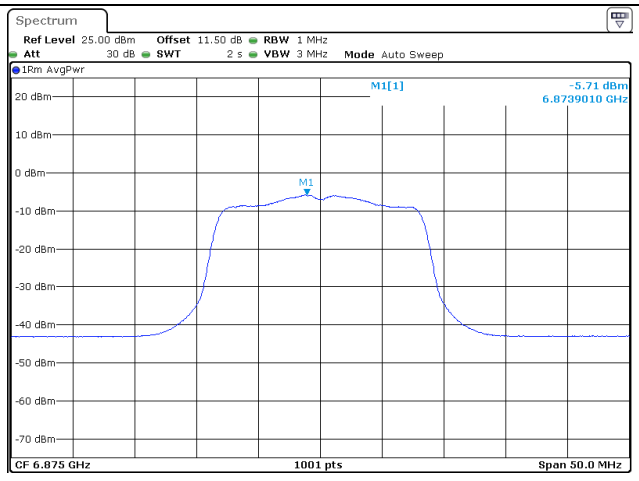
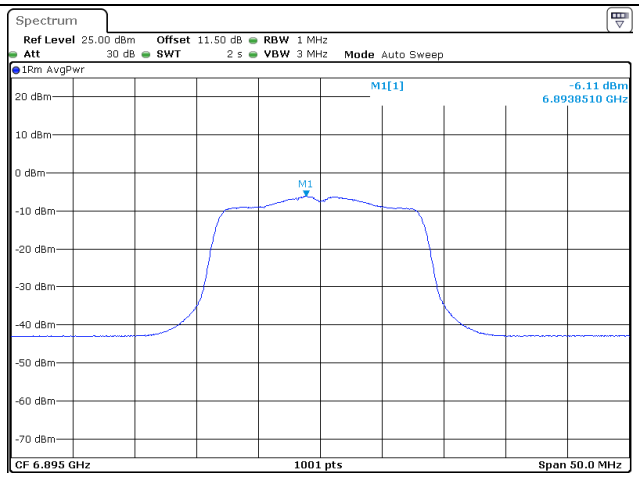
Maximum power spectral density	
802.11 ax he20 Highest Channel	
802.11 ax he20 Straddle Channel	
802.11 ax he40 Lowest Channel	

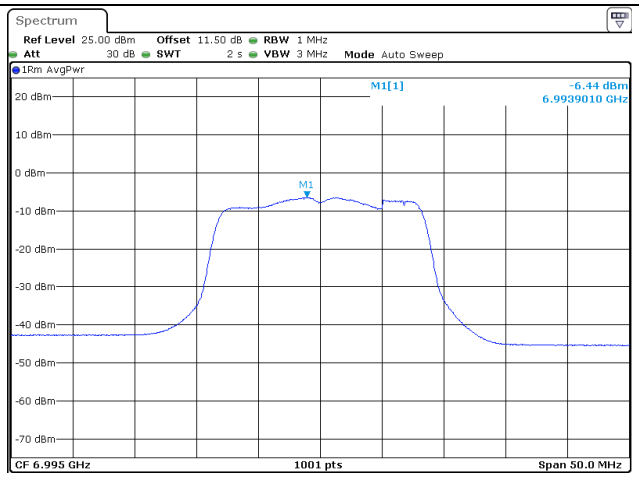
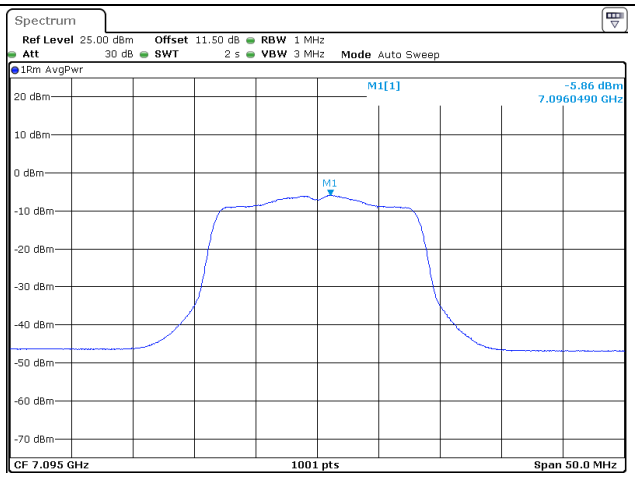
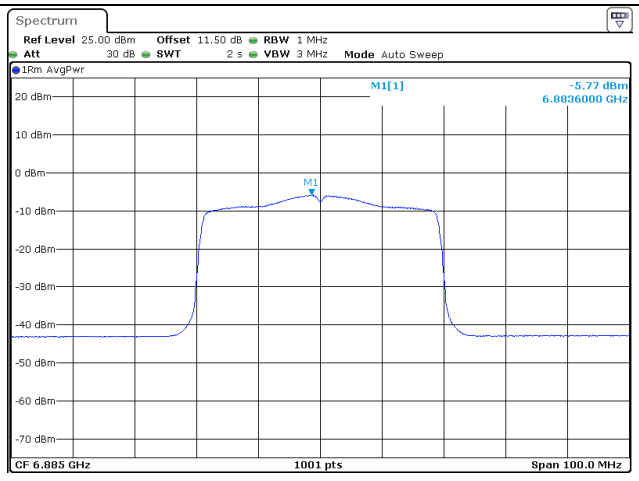
Maximum power spectral density	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	
802.11ax he40 Straddle Channel	

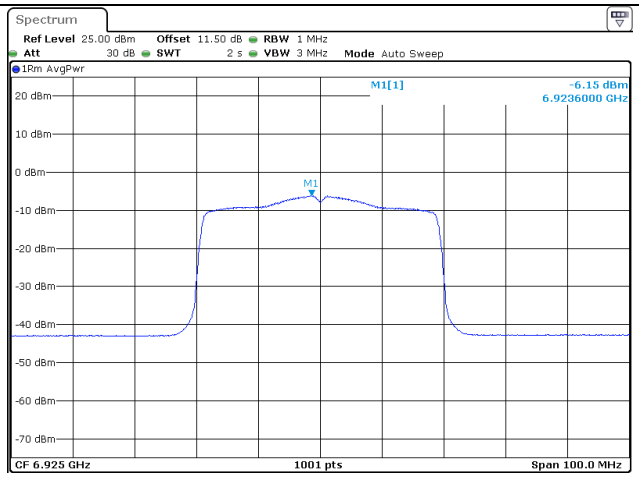
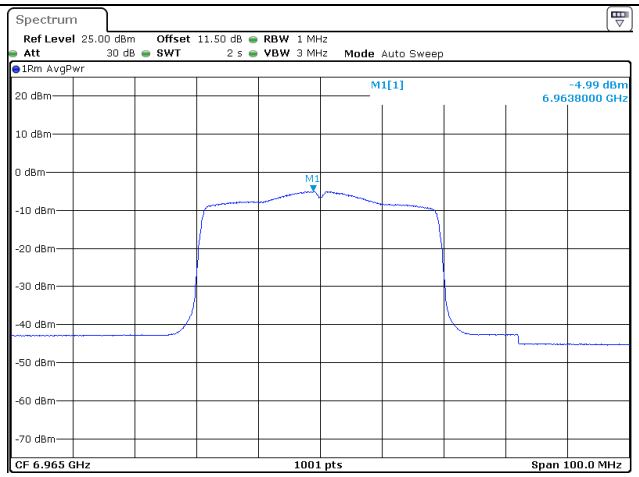
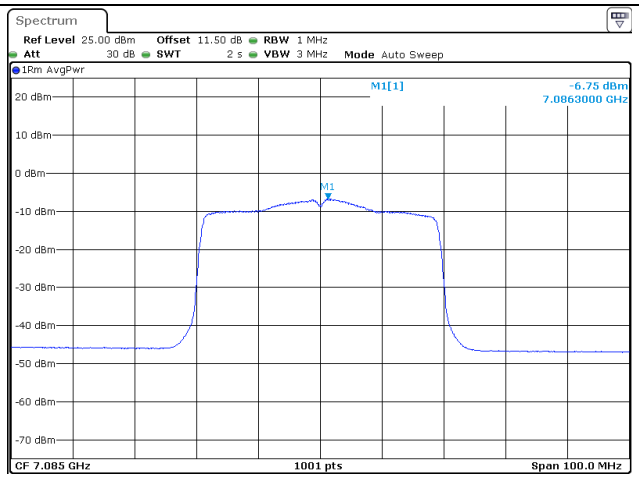
Maximum power spectral density	
802.11ax he80 Lowest Channel	
802.11ax he80 Highest Channel	
802.11ax he 160 Middle Channel	

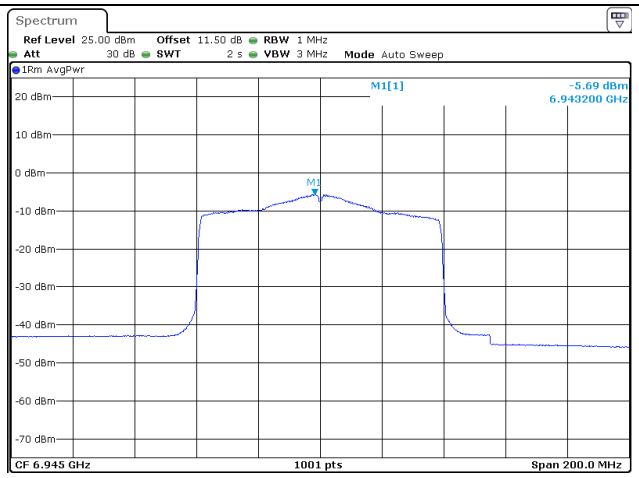
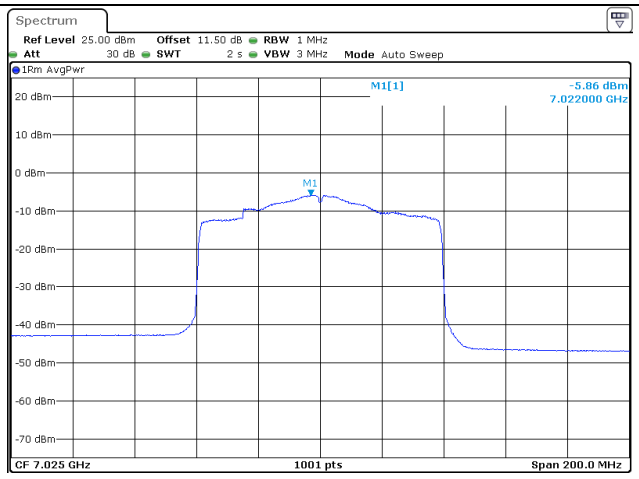
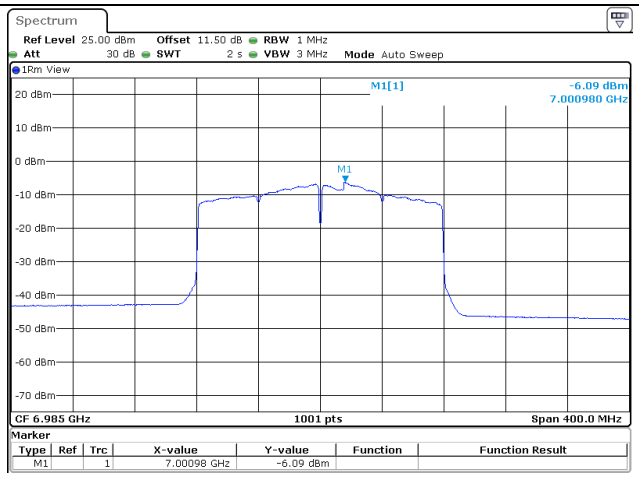
Chain 1:

Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

Maximum power spectral density	
802.11a Straddle Channel	
802.11 ax he20 Lowest Channel	
802.11 ax he20 Middle Channel	

Maximum power spectral density	
802.11 ax he20 Highest Channel	
802.11 ax he20 Straddle Channel	
802.11 ax he40 Lowest Channel	

Maximum power spectral density	
802.11ax he40 Middle Channel	
802.11ax he40 Highest Channel	
802.11ax he40 Straddle Channel	

Maximum power spectral density	
802.11ax he80 Lowest Channel	
802.11ax he80 Highest Channel	
802.11ax he 160 Middle Channel	

4.6 In-band Emission

Serial Number:	2BI1-2	Test Date:	2023/12/1
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	N/A

Environmental Conditions:					
Temperature: (℃)	26.7	Relative Humidity: (%)	56	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	102259	2023/04/18	2024/04/17
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

The test data of In-Band Emissions please refer to the Appendix A.

4.7 Duty Cycle

Serial Number:	2BI1-2	Test Date:	2023/11/26
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	N/A

Environmental Conditions:					
Temperature: (℃)	26.7	Relative Humidity: (%)	56	ATM Pressure: (kPa)	101

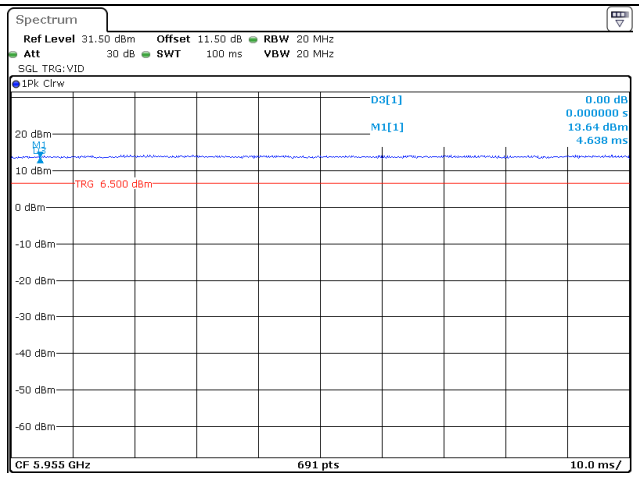
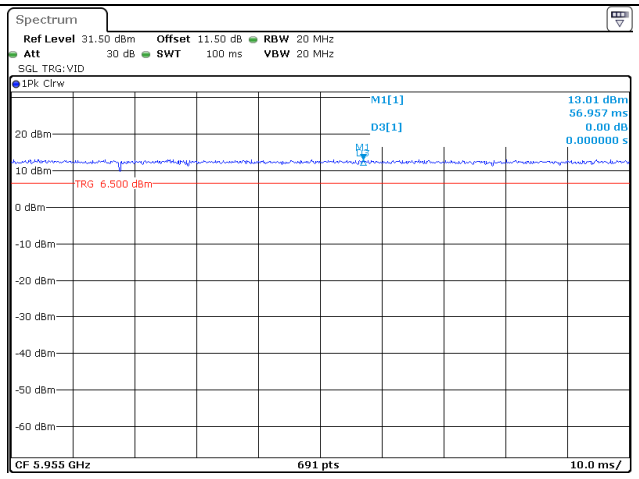
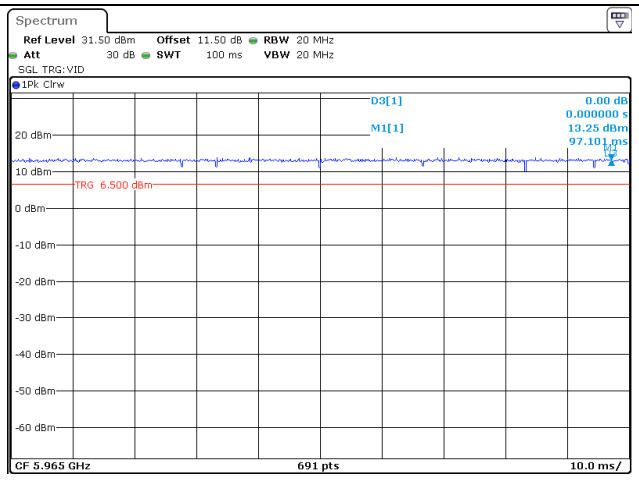
Test Equipment List and Details:

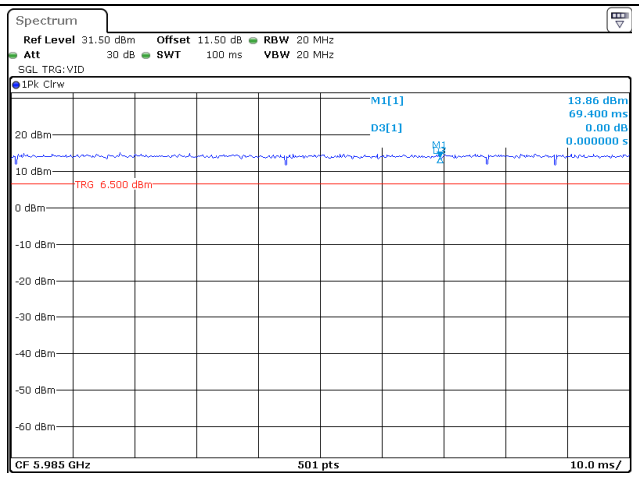
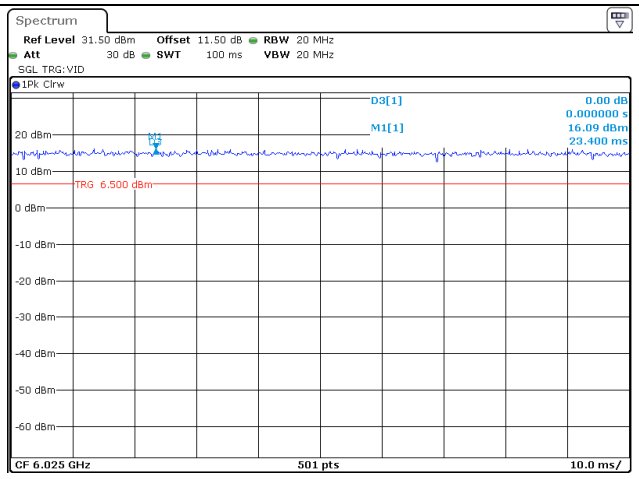
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	102259	2023/04/18	2024/04/17
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)	Duty Factor (dB)	VBW setting (Hz)
802.11a	100	100	100	/	10
802.11ax he20	100	100	100	/	10
802.11ax he40	100	100	100	/	10
802.11ax he80	100	100	100	/	10
802.11ax he160	100	100	100	/	10

Note: Test at the Chain 0.

Duty Cycle	
802.11a	
802.11ax he20	
802.11ax he40	

Duty Cycle	
802.11ax he80	
802.11ax he160	

4.8 Contention Based Protocol

Serial Number:	2BI1-2	Test Date:	2023-10-27
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	N/A

Environmental Conditions:					
Temperature: (℃)	25.6	Relative Humidity: (%)	54	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	102259	2023/04/18	2024/04/17
Agilent	MXG Vector Signal Generator	N5182B	MY51350144	2023/3/31	2024/3/30
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

The test data and plots please refer to the Appendix C.

5. RF EXPOSURE EVALUATION

5.1 MAXIMUM PERMISSIBLE EXPOSURE (MPE)

5.1.1 Applicable Standard

According to subpart 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (Minutes)**
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

5.1.2 Result

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm^2)
P = power input to the antenna (in appropriate units, e.g., mW).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \le 1$$

Mode	Frequency (MHz)	Tune Up Conducted Power (dBm)	Antenna Gain (dBi) (Note 2)	Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
Bluetooth	2402-2480	14.5	4.45	32	0.006	1.0
BLE	2402-2480	14.0	4.45	32	0.005	1.0
2.4G Wi-Fi	2412-2462	25.0	7.15	32	0.128	1.0
5G Wi-Fi	5180-5240	27.6	8.26	32	0.300	1.0
	5260-5320	21.73	8.26	32	0.078	1.0
	5500-5700	21.73	8.26	32	0.078	1.0
	5745-5825	27.2	8.26	32	0.273	1.0
6G Wi-Fi	5955-6145	16.0	7.55	32	0.018	1.0
	6435-6515	16.0	7.55	32	0.018	1.0
	6535-6855	16.0	7.55	32	0.018	1.0
	6875-7115	16.0	7.55	32	0.018	1.0

Note:

1) The tune up conducted power was declared by the applicant.

2) For the Wi-Fi mode, the antenna gain would be the directional gain.

3) The Bluetooth, 2.4G Wi-Fi, 5G Wi-Fi and 6G Wi-Fi can transmit simultaneously.

The ratio=$MPE_{Bluetooth}$/limit+$MPE_{2.4G\ Wi\text{-}Fi}$/limit+$MPE_{5G\ Wi\text{-}Fi}$/limit +$MPE_{6G\ Wi\text{-}Fi}$/limit
=0.006+0.128+0.300+0.018=0.452＜1.0, simultaneous exposure is not required.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 32cm from nearby persons.

Result: Compliance

5.2 RSS-102 § 4 –Exposure Limits

5.2.1 Applicable Standard

According to RSS-102 § 4:

Table 4: RF Field Strength Limits for Devices Used by the General Public (Uncontrolled Environment)

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m^2)	Reference Period (minutes)
0.003-10[21]	83	90	-	Instantaneous˙
0.1-10	-	0.73/ f	-	6¨
1.1-10	87/ $f^{0.5}$	-	-	6¨
10-20	27.46	0.0728	-2	6
20-48	58.07/ $f^{0.25}$	0.1540/ $f^{0.25}$	8.944/ $f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	3.142 $f^{0.3417}$	0.008335 $f^{0.3417}$	0.02619 $f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	616000/ $f^{1.2}$
150000-300000	0.158 $f^{0.5}$	4.21 x 10^{-4} $f^{0.5}$	6.67 x 10^{-5} f	616000/f

Note: f is frequency in MHz.
˙ Based on nerve stimulation (NS).
¨ Based on specific absorption rate (SAR).

5.2.2 Result

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. W/m^2)
P = power input to the antenna (in appropriate units, e.g., W).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \le 1$$

Mode	Frequency (MHz)	Tune Up Conducted Power (dBm)	Antenna Gain (dBi) (Note 2)	Evaluation Distance (m)	Power Density (W/m^2)	MPE Limit (W/m^2)
Bluetooth	2402-2480	14.5	4.45	0.32	0.061	5.351
BLE	2402-2480	14.0	4.45	0.32	0.054	5.351
2.4G Wi-Fi	2412-2462	25.0	7.15	0.32	1.276	5.366
5G Wi-Fi	5180-5240	27.6	8.26	0.32	2.997	9.047
	5260-5320	21.73	8.26	0.32	0.776	9.142
	5500-5700	21.73	8.26	0.32	0.776	9.425
	5745-5825	27.2	8.26	0.32	2.733	9.710
6G Wi-Fi	5955-6145	16.0	7.55	0.32	0.176	9.952
	6435-6515	16.0	7.55	0.32	0.176	10.493
	6535-6855	16.0	7.55	0.32	0.176	10.604
	6875-7115	16.0	7.55	0.32	0.176	10.978

Note:

1) The tune up conducted power was declared by the applicant.

2) For the Wi-Fi mode, the antenna gain would be the directional gain.

3) The Bluetooth, 2.4G Wi-Fi, 5G Wi-Fi and 6G Wi-Fi can transmit simultaneously.

The ratio=$MPE_{Bluetooth}$/limit+$MPE_{2.4G\ Wi\text{-}Fi}$/limit+$MPE_{5G\ Wi\text{-}Fi}$/limit +$MPE_{6G\ Wi\text{-}Fi}$/limit
=0.061/5.351+1.276/5.366+2.997/9.047+0.176/9.952=0.598＜1.0, simultaneous exposure is not required.

To maintain compliance with the ISEDC’s RF exposure guidelines, place the equipment at least 32cm from nearby persons.

6. EUT PHOTOGRAPHS

Please refer to the attachment CR230955399-EXP EUT EXTERNAL PHOTOGRAPHS and CR230955399-INP EUT INTERNAL PHOTOGRAPHS.

7. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR230955399-00G-TSP TEST SETUP PHOTOGRAPHS.

===== END OF REPORT =====