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

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **VTech Telecommunications Ltd**
Address: 23/F Tai Ping Ind Center Block 1 57 Ting Kok Rd Tai Po NT, Hong Kong

FCC ID: **EW780-S108-00**

Product Name: **SIP Phone**

Standard(s): **47 CFR Part 15, Subpart E(15.407)**
ANSI C63.10-2013
KDB 789033 D02 General U-NII Test Procedures New Rules v02r01

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

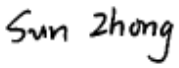
Report Number: **CR230850551-00F**

Date Of Issue: **2024/5/13**

Reviewed By: **Calvin Chen**

Title: RF Engineer

Approved By: **Sun Zhong**



Title: Manager

Test Laboratory: **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, Dongguan,
Guangdong, China
Tel: +86-769-82016888

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.

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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR230850551-00F	Original Report	2024/5/13

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	SIP Phone
EUT Model:	D895M
Multiple Model(s):	D895
Trade Name:	SNOM
Operation Frequency:	Band 1: 5180-5240 MHz (802.11a/n ht20/ac vht20) 5190-5230 MHz(802.11n ht40/ac vht40) 5210 MHz(802.11ac vht80) Band 2: 5260-5320 MHz (802.11a/n ht20/ac vht20) 5270-5310 MHz(802.11n ht40/ac vht40) 5290 MHz(802.11ac vht80) Band 3: 5500-5700 MHz (802.11a/n ht20/ac vht20) 5510-5670 MHz(802.11n ht40/ac vht40) 5530-5610 MHz(802.11ac vht80) Band 4: 5745-5825 MHz (802.11a/n ht20/ac vht20) 5755-5795 MHz(802.11n ht40/ac vht40) 5775 MHz(802.11ac vht80)
Maximum Average Conducted Output Power :	20.39dBm (5150-5250 MHz) 19.82dBm (5250-5350 MHz) 19.63dBm (5470-5725 MHz) 21.05dBm (5725-5850 MHz)
Modulation Type:	OFDM
Rated Input Voltage:	DC5V from adapter or DC48 V from POE
Serial Number:	RF: 2AQA-3 RE&CE: 2AQA-4
EUT Received Date:	2023/8/31
EUT Received Status:	Good
The Multiple models are electrically identical with the test model. Please refer to the declaration letter for more detail, which was provided by manufacturer.	

1.1.2 Operation Frequency Detail:

For 802.11a/n ht20/ac vht20:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
36	**5180**	**52**	**5260**	**100**	**5500**	**149**	**5745**
40	**5200**	**56**	**5280**	104	5520	153	5765
44	5220	60	5300	108	5540	**157**	**5785**
48	**5240**	**64**	**5320**	112	5560	161	5805
/	/	/	/	**116**	**5580**	**165**	**5825**
/	/	/	/	120	5600	/	/
/	/	/	/	124	5620	/	/
/	/	/	/	128	5640	/	/
/	/	/	/	132	5660	/	/
/	/	/	/	136	5680	/	/
/	/	/	/	**140**	**5700**	/	/

For 802.11n ht40/ac vht40:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
38	**5190**	**54**	**5270**	**102**	**5510**	**151**	**5755**
46	**5230**	**62**	**5310**	**110**	**5550**	**159**	**5795**
/	/	/	/	118	5590	/	/
/	/	/	/	126	5630	/	/
/	/	/	/	**134**	**5670**	/	/

For 802.11ac vht80:

5150-5250MHz Band		5250-5350 MHz Band		5470-5725 MHz Band		5725-5850MHz Band	
Channel	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**	**Channel**	**Frequency (MHz)**
42	**5210**	**58**	**5290**	**106**	**5530**	**155**	**5775**
/	/	/	/	**122**	**5610**	/	/
Per section 15.31(m), the above in bold frequencies were performed the test.							

1.1.3 Antenna Information Detail▲:

Antenna	Antenna Type	input impedance (Ohm)	Frequency Range (MHz)	Antenna Gain (dBi)
Chain 1(ANT 1)	PCB	50	5150-5850	2
Chain 2(ANT 2)	PCB	50	5150-5850	2

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:

Accessory Description	Manufacturer	Model
Adapter	Mass Power Electronic Limited	NBS12E050200UV
Adapter	/	VT07EUS05200

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. The EUT can be powered by two different adapters and PoE. According to the test data of AC line conducted emission and radiated emission below 1GHz in the DSS report, the worst case is powered by the adapter NBS12E050200UV. So this adapter was chosen for the full test.
Equipment Modifications:	No
EUT Exercise Software:	RTL8852A MP Toolkit.exe
The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:	

5150-5250 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency**	**Data rate**	**Power Level Setting**	
				Chain 1	**Chain 2**
802.11a	Lowest	5180	6Mbps	73	73
	Middle	5200	6Mbps	73	73
	Highest	5240	6Mbps	73	73
802.11ac vht20	Lowest	5180	MCS0	73	73
	Middle	5200	MCS0	73	73
	Highest	5240	MCS0	73	73
802.11ac vht40	Lowest	5190	MCS0	73	73
	Highest	5230	MCS0	73	73
802.11ac vht80	Middle	5210	MCS0	73	73
5250-5350 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency**	**Data rate**	**Power Level Setting**	
				Chain 1	**Chain 2**
802.11a	Lowest	5260	6Mbps	73	73
	Middle	5280	6Mbps	73	73
	Highest	5320	6Mbps	73	73
802.11ac vht20	Lowest	5260	MCS0	73	73
	Middle	5280	MCS0	73	73
	Highest	5320	MCS0	73	73
802.11ac vht40	Lowest	5270	MCS0	70	70
	Highest	5310	MCS0	70	70
802.11ac vht80	Middle	5290	MCS0	70	70

5470-5725 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency**	**Data rate**	**Power Level Setting**	
				Chain 1	**Chain 2**
802.11a	Lowest	5500	6Mbps	68	68
	Middle	5580	6Mbps	68	68
	Highest	5700	6Mbps	68	68
802.11ac vht20	Lowest	5500	MCS0	68	68
	Middle	5580	MCS0	68	68
	Highest	5700	MCS0	68	68
802.11ac vht40	Lowest	5510	MCS0	58	58
	Middle	5550	MCS0	58	58
	Highest	5670	MCS0	58	58
802.11ac vht80	Lowest	5530	MCS0	56	56
	Highest	5610	MCS0	56	56
5725-5850 MHz Band:					
Test Modes	**Test Channels**	**Test Frequency**	**Data rate**	**Power Level Setting**	
				Chain 1	**Chain 2**
802.11a	Lowest	5745	6Mbps	73	73
	Middle	5785	6Mbps	73	73
	Highest	5825	6Mbps	73	73
802.11ac vht20	Lowest	5745	MCS0	73	73
	Middle	5785	MCS0	73	73
	Highest	5825	MCS0	73	73
802.11ac vht40	Lowest	5755	MCS0	73	73
	Highest	5795	MCS0	73	73
802.11ac vht80	Middle	5775	MCS0	73	73

Note 1: The EUT supports the 802.11a/n ht20/ac vht20/n ht40/ac vht40/ac vht80, the n ht20/n ht40 were reduced since identical parameters with the ac vht20/ac vht40.

Note 2: The device supports SISO in all modes, and MIMO 2T2R in 802.11n ht20/40 and ac vht20/40/80 modes, per pretest, 2T2R mode was the worst mode and reported for 802.11ac vht20/40/80 modes.

Note 3: 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.

1.2.2 Support Equipment List and Details

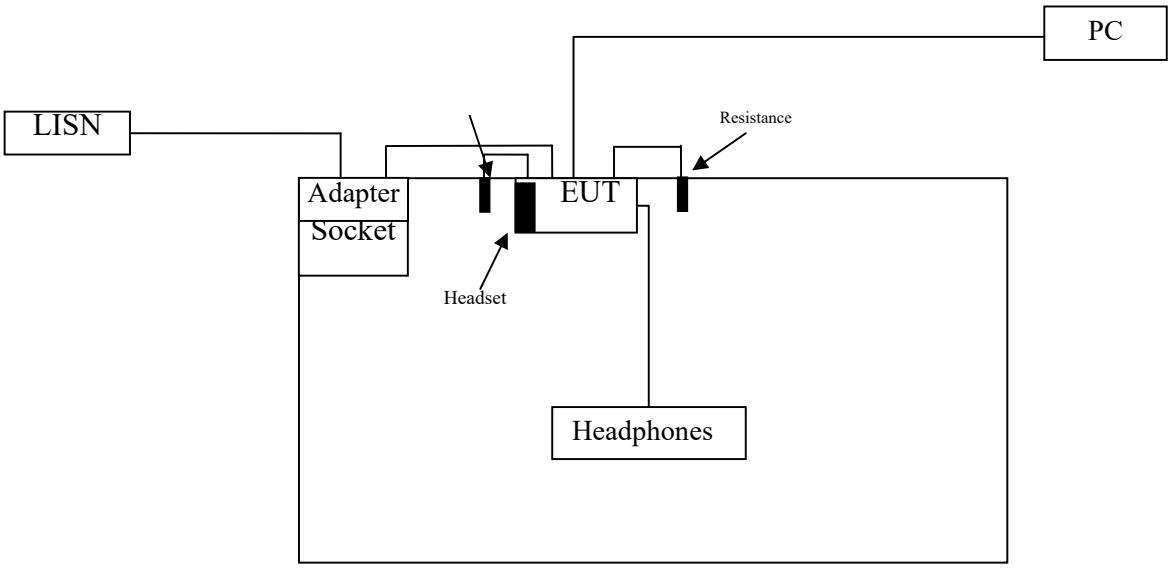
Manufacturer	Description	Model	Serial Number
N/A	Resistance*2	N/A	N/A
DELL	PC	E6410	GYXJ3 A00 JSD2
DIGITAL	POE	G0720-480-050	3TV4E338182
N/A	Headphones	N/A	N/A
VTech	Headset	D8M	N/A

1.2.3 Support Cable List and Details

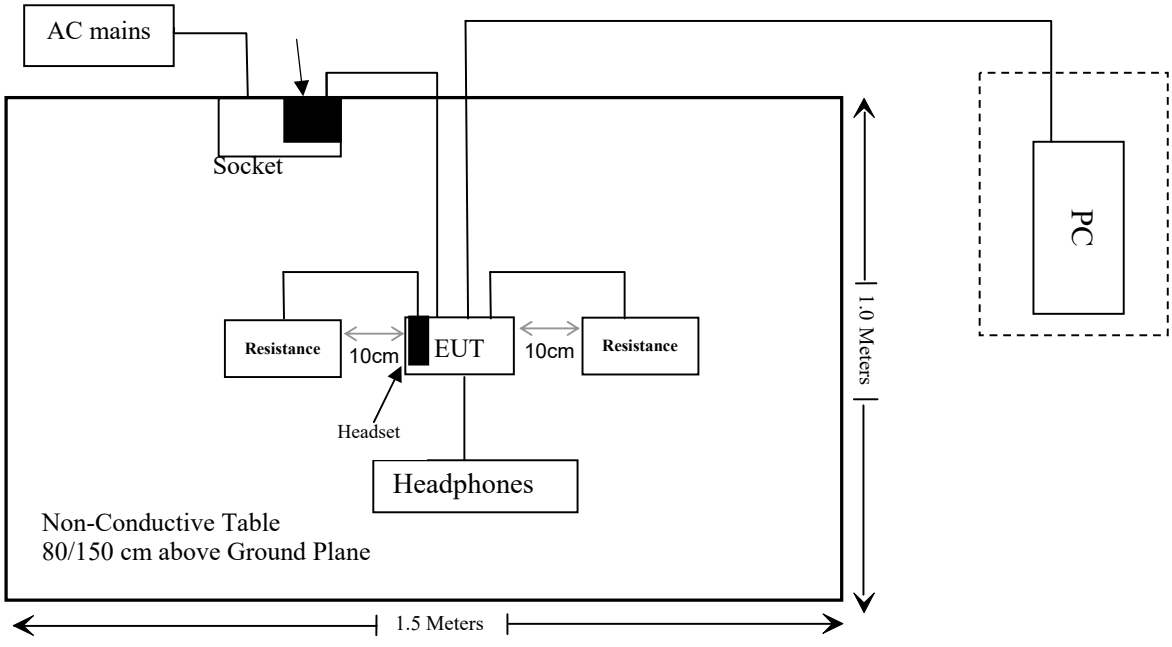
Cable Description	Length (m)	From Port	To
Unshielded un-detachable AC cable	1.2	LISN/AC mains	Socket
Unshielded un-detachable DC cable	2.0	Adapter	EUT
Unshielded un-detachable USB cable	0.3	EUT	Resistance
Unshielded detachable RJ45 cable	8.0	EUT	PC
Unshielded detachable RJ45 cable	1.0	IP phone	Router
Unshielded un-detachable AC cable	1.2	LISN/AC mains	POE
Unshielded detachable RJ45 cable	10	POE	EUT
Unshielded detachable RJ11 cable	1.5	EUT	Headphones

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	9kHz~30MHz: 4.12dB,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)	AC line conducted emissions	Compliant
FCC§15.205& §15.209 &§15.407(b)	Undesirable Emission& Restricted Bands	Compliant
FCC§15.407(a) (e)	Emission Bandwidth	Compliant
FCC§15.407(a)	Maximum Conducted Output Power	Compliant
FCC§15.407 (a)	Power Spectral Density	Compliant
§15.203	Antenna Requirement	Compliant
FCC §2.1091	Maximum Permissible exposure	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 the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between 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 on frequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

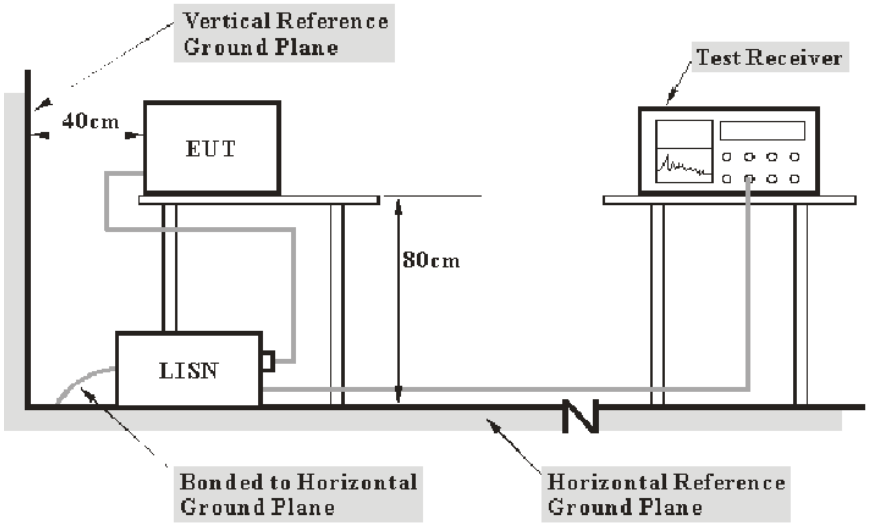
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to be received using a standard AM broadcast receiver: no limit on conducted emissions.

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

(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 battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtainig their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

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 limits.

The spacing between the peripherals was 10 cm.

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

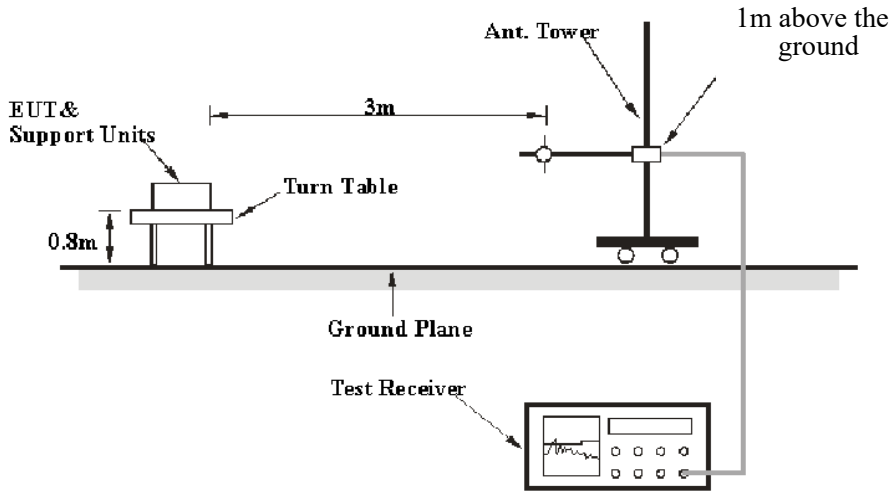
3.2.1 Applicable Standard

FCC §15.407 (b);

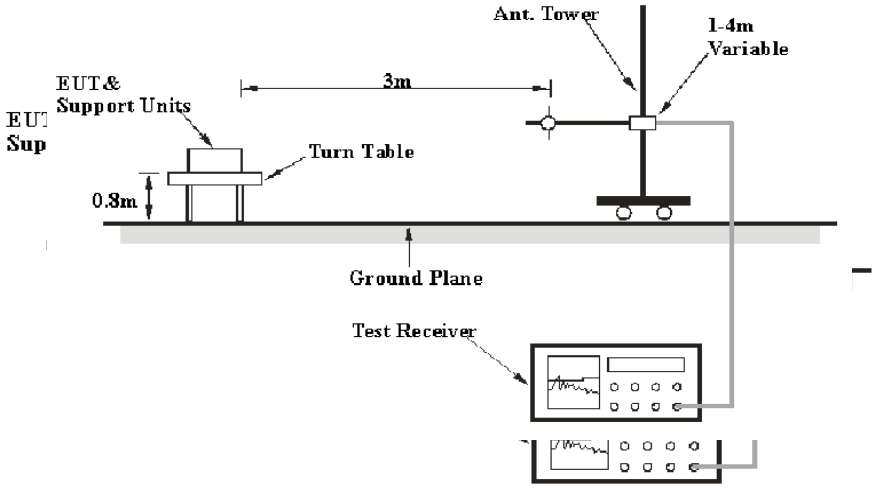
Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:
(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of –27 dBm/MHz.
(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of –27 dBm/MHz.
(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of –27 dBm/MHz.
(4) For transmitters operating solely in the 5.725-5.850 GHz band:
(i) All emissions shall be limited to a level of –27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in § 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
(8) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 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.
(11) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.
(c) The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.2.2 EUT Setup

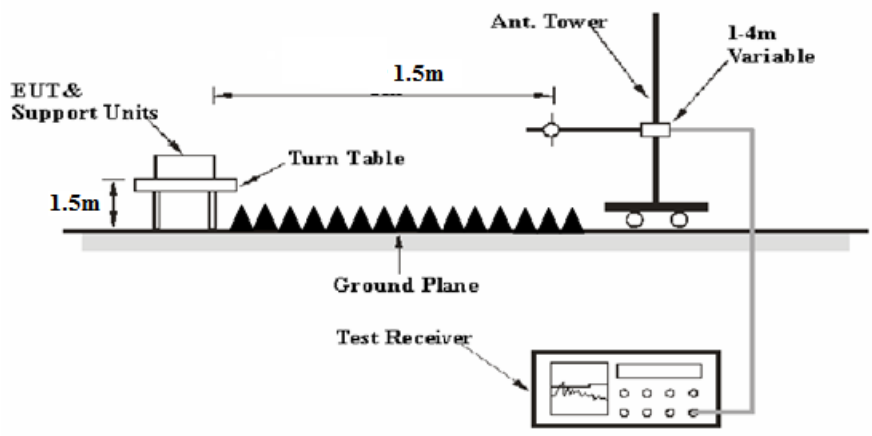
9 kHz-30MHz:



30MHz-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 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 9 kHz-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 Emission Bandwidth:

3.3.1 Applicable Standard

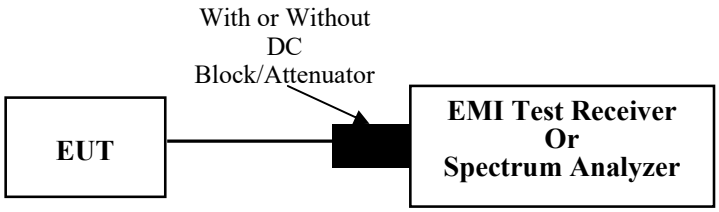
FCC §15.407 (a),(h)

(h)(2) Radar Detection Function of Dynamic Frequency Selection (DFS). U-NII devices operating with any part of its 26 dB emission bandwidth in the 5.25-5.35 GHz and 5.47-5.725 GHz bands shall employ a DFS radar detection mechanism to detect the presence of radar systems and to avoid co-channel operation with radar systems.

FCC §15.407 (e)

Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.3.2 EUT Setup



3.3.3 Test Procedure

26dB Emission Bandwidth:

According to ANSI C63.10-2013 Section 12.4.1

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 peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurementas needed until the RBW/EBW ratio is approximately 1%.

99% Occupied Bandwidth:

According to ANSI C63.10-2013 Section 12.4.2&6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.
The following procedure shall be used for measuring 99% power bandwidth:
a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
d) Step a) through step c) might require iteration to adjust within the specified range.
e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data maybe reported in addition to the plot(s).

3.4 Maximum Conducted Output Power:

3.4.1 Applicable Standard

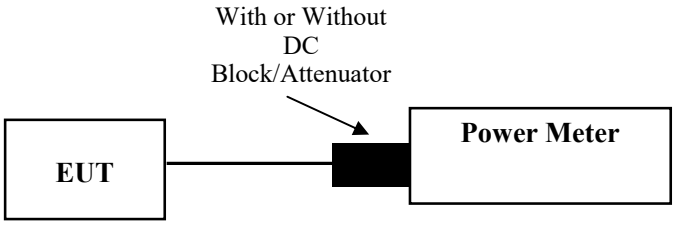
FCC §15.407(a) (1)

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (2)
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (3)(i)
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.4.2 EUT Setup



3.4.3 Test Procedure

According to ANSI C63.10-2013 Section 12.3.3.2

Method PM-G is measurement using a gated RF average power meter.
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. Because 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

FCC §15.407(a) (1)

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

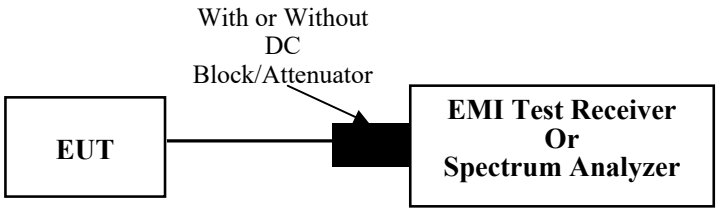
FCC §15.407(a) (2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

FCC §15.407(a) (3)(i)

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

3.5.2 EUT Setup



3.5.3 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

Duty cycle ≥98%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-1 should be applied.

Duty cycle <98%, duty cycle variations are less than ±2%

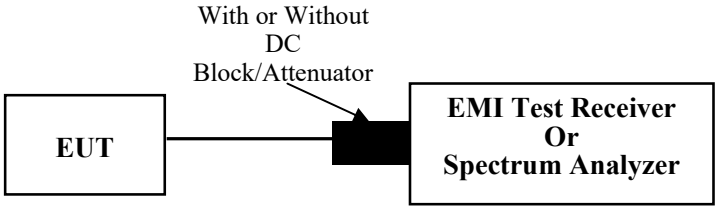
KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-2 should be applied.

Duty cycle <98%, duty cycle variations exceed ±2%

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied.

3.6 Duty Cycle:

3.6.1 EUT Setup



3.6.2 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.)

3.7 Antenna Requirement

3.7.1 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.

3.7.2 Judgment

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

4. TEST DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2AQA-4	Test Date:	2023/11/01
Test Site:	CE	Test Mode:	Transmitting(maximum output power mode 802.11a 5785)
Tester:	David Huang	Test Result:	Pass

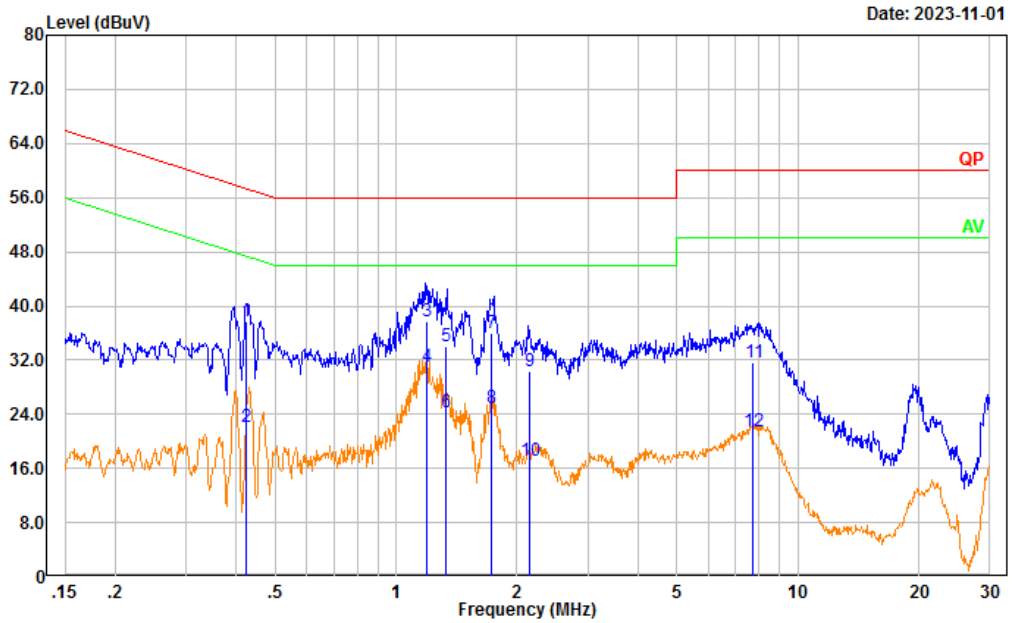
Environmental Conditions:					
Temperature: (℃)	26.8	Relative Humidity: (%)	55	ATM Pressure: (kPa)	101.2

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

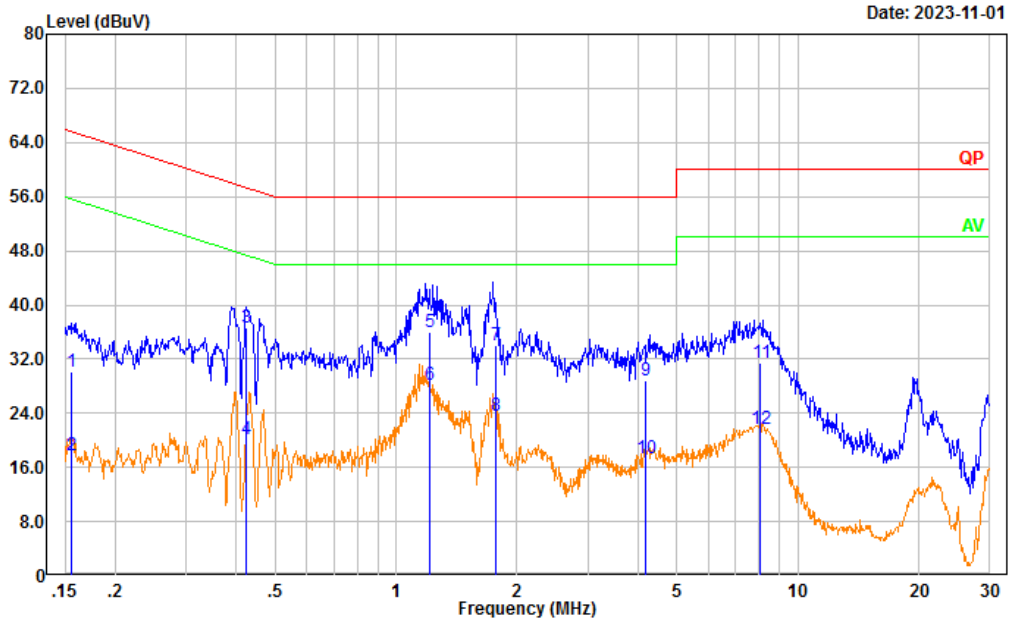
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Project No.: CR230850551-RF
Tester: David Huang
Port: Line
Note: Transmitting(5G WIFI)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.424	28.19	9.61	37.80	57.37	19.57	QP
2	0.424	12.40	9.61	22.01	47.37	25.36	Average
3	1.190	28.21	9.62	37.83	56.00	18.17	QP
4	1.190	21.49	9.62	31.11	46.00	14.89	Average
5	1.332	24.48	9.62	34.10	56.00	21.90	QP
6	1.332	14.69	9.62	24.31	46.00	21.69	Average
7	1.732	26.41	9.63	36.04	56.00	19.96	QP
8	1.732	15.28	9.63	24.91	46.00	21.09	Average
9	2.145	20.63	9.63	30.26	56.00	25.74	QP
10	2.145	7.43	9.63	17.06	46.00	28.94	Average
11	7.749	21.98	9.67	31.65	60.00	28.35	QP
12	7.749	11.74	9.67	21.41	50.00	28.59	Average

Project No.: CR230850551-RF
Tester: David Huang
Port: neutral
Note: Transmitting(5G WIFI)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.155	20.45	9.61	30.06	65.71	35.65	QP
2	0.155	8.09	9.61	17.70	55.71	38.01	Average
3	0.422	27.12	9.61	36.73	57.40	20.67	QP
4	0.422	10.64	9.61	20.25	47.40	27.15	Average
5	1.217	26.29	9.62	35.91	56.00	20.09	QP
6	1.217	18.55	9.62	28.17	46.00	17.83	Average
7	1.765	24.38	9.63	34.01	56.00	21.99	QP
8	1.765	13.94	9.63	23.57	46.00	22.43	Average
9	4.177	19.08	9.65	28.73	56.00	27.27	QP
10	4.177	7.79	9.65	17.44	46.00	28.56	Average
11	8.061	21.78	9.67	31.45	60.00	28.55	QP
12	8.061	11.96	9.67	21.63	50.00	28.37	Average

4.2 Radiation Spurious Emissions

Serial Number:	2AQA-4		Test Date:	Below 1G: 2023/11/2 Above 1G: 2023/10/28	
Test Site:	966-1, 966-2		Test Mode:	Transmitting(maximum output power mode 802.11a)	
Tester:	Vic Du, Tao Zhu, coco Tian		Test Result:	Pass	
Environmental Conditions:					
Temperature: (℃)	26.1~26.7	Relative Humidity: (%)	57~63	ATM Pressure: (kPa)	100.8~100.9

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
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
EMCO	Passive Loop Antenna	6512	9706-1209	2023/2/15	2026/2/14
Audix	Test Software	E3	201021 (V9)	N/A	N/A
Above 1G					
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2025/2/23
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
E-Microwave	Band Rejection Filter	5150-5850MHz	OE01902423	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

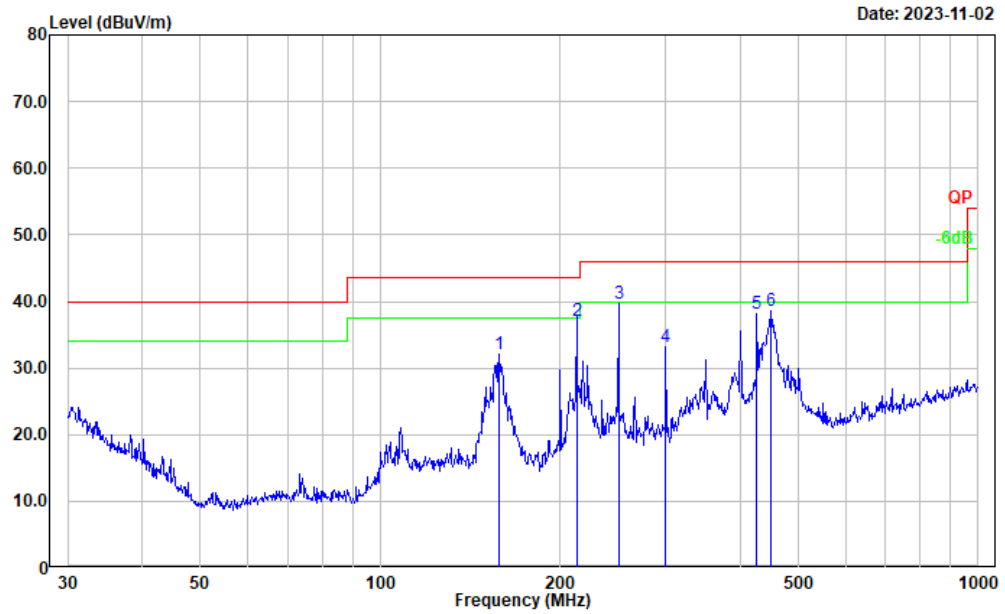
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

For 9kHz-30MHz, The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be recorded for the maximum output power 802.11ac80 5775MHz mode.

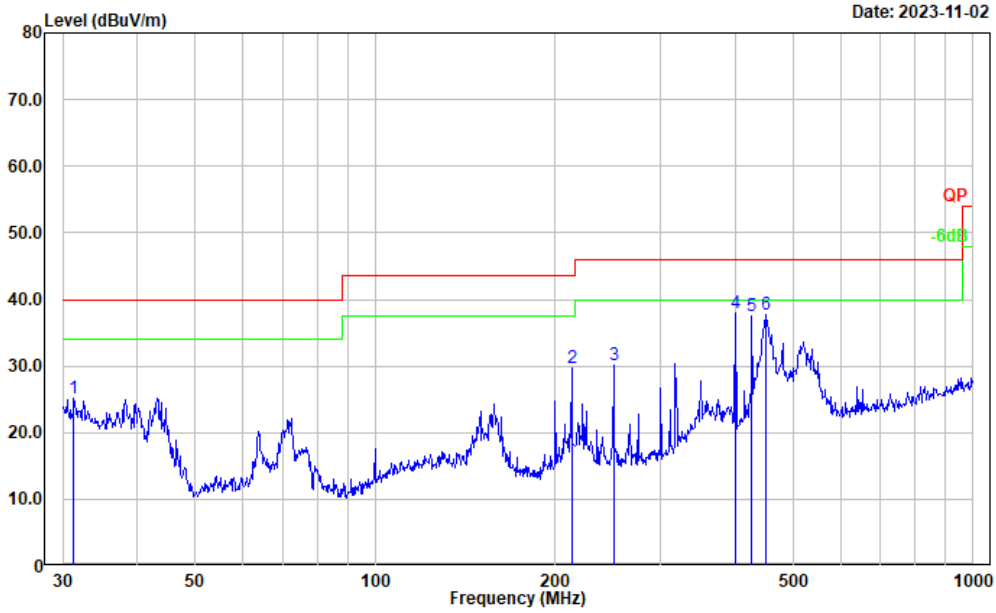
1) 30MHz-1GHz (802.11a mode)
5150-5250MHz-Low channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.14	-11.96	32.18	43.50	11.32	Peak
2	213.015	49.56	-12.57	36.99	43.50	6.51	QP
3	250.301	52.78	-13.18	39.60	46.00	6.40	Peak
4	300.367	43.70	-10.63	33.07	46.00	12.93	Peak
5	426.521	45.78	-7.65	38.13	46.00	7.87	Peak
6	451.135	45.55	-6.91	38.64	46.00	7.36	Peak

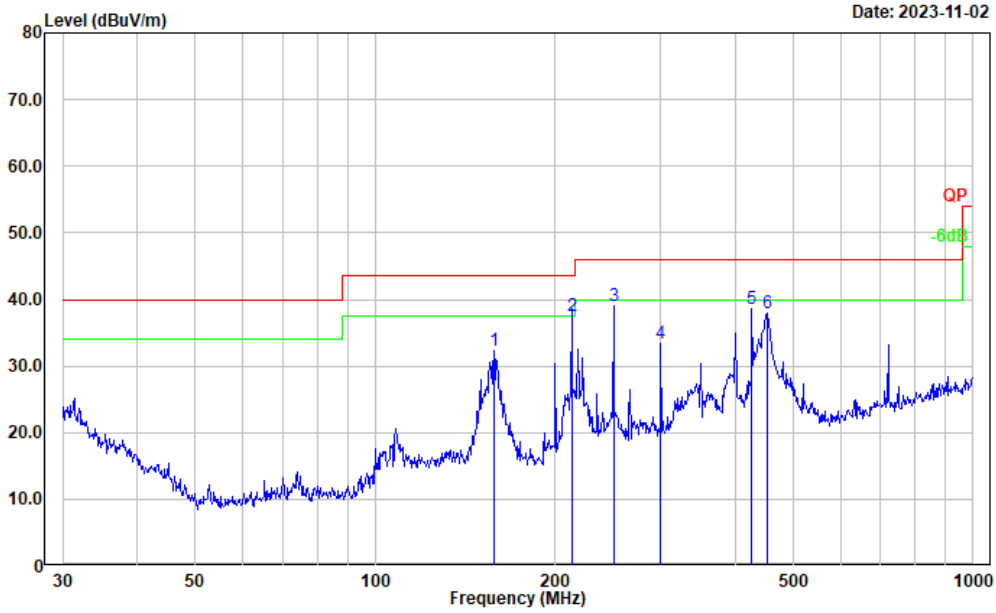
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.289	30.02	-4.77	25.25	40.00	14.75	Peak
2	213.015	42.33	-12.57	29.76	43.50	13.74	Peak
3	250.301	43.40	-13.18	30.22	46.00	15.78	Peak
4	400.432	46.70	-8.74	37.96	46.00	8.04	Peak
5	426.521	45.07	-7.65	37.42	46.00	8.58	Peak
6	451.135	44.55	-6.91	37.64	46.00	8.36	Peak

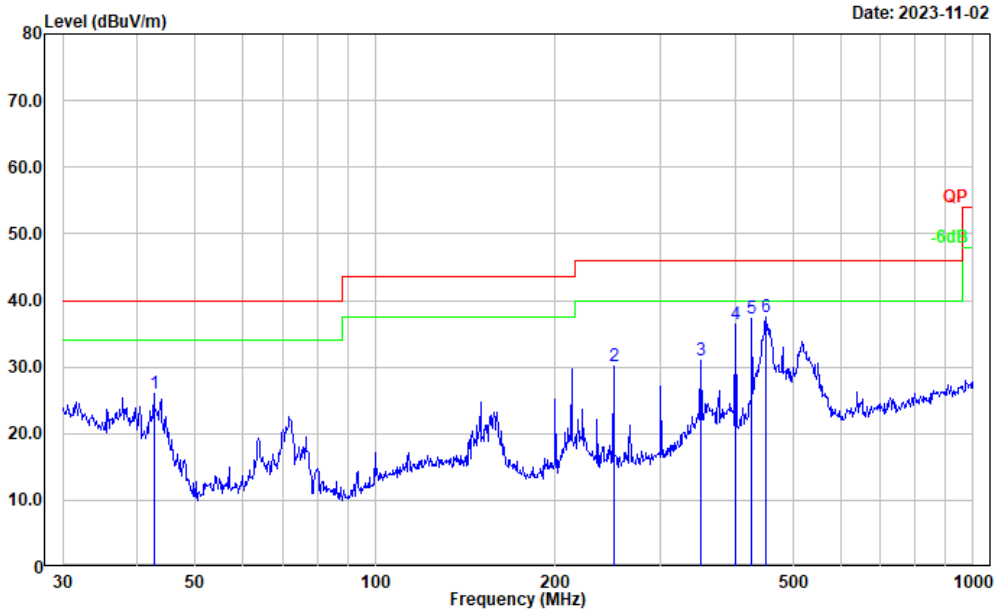
5150-5250MHz-Middle channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.18	-11.96	32.22	43.50	11.28	Peak
2	213.015	50.17	-12.57	37.60	43.50	5.90	QP
3	250.301	52.24	-13.18	39.06	46.00	6.94	Peak
4	300.367	44.10	-10.63	33.47	46.00	12.53	Peak
5	426.521	46.27	-7.65	38.62	46.00	7.38	Peak
6	452.720	44.83	-6.85	37.98	46.00	8.02	Peak

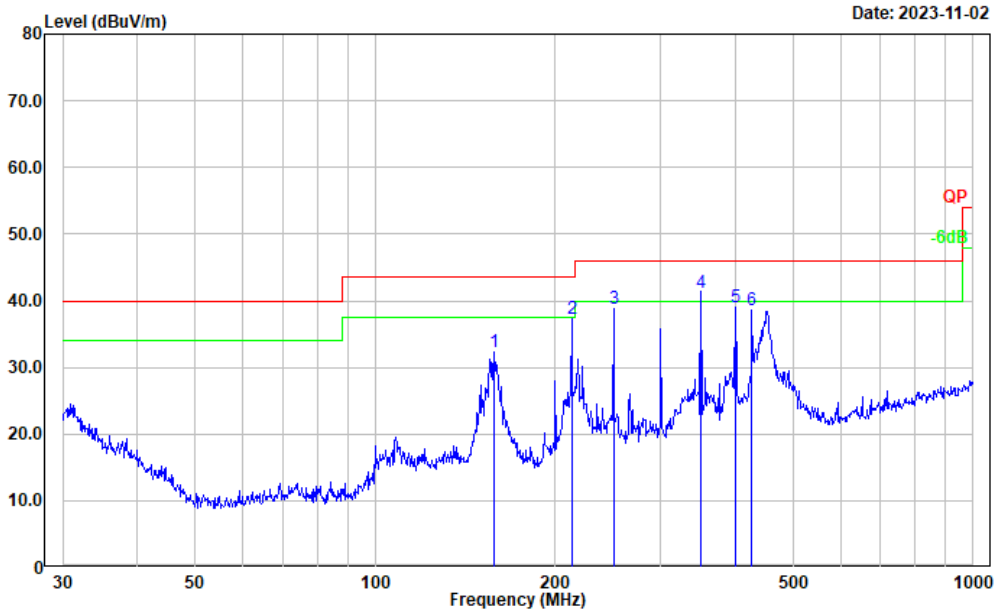
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	42.600	38.82	-12.87	25.95	40.00	14.05	Peak
2	250.301	43.30	-13.18	30.12	46.00	15.88	Peak
3	350.477	41.13	-10.03	31.10	46.00	14.90	Peak
4	400.432	45.22	-8.74	36.48	46.00	9.52	Peak
5	426.521	44.99	-7.65	37.34	46.00	8.66	Peak
6	451.135	44.49	-6.91	37.58	46.00	8.42	Peak

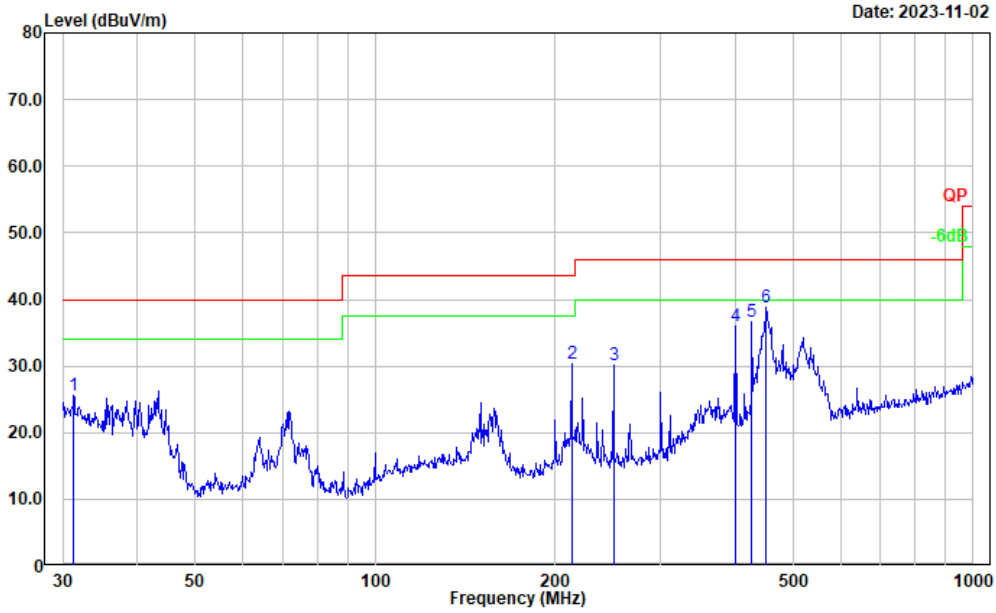
5150-5250MHz-High channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.33	-11.96	32.37	43.50	11.13	Peak
2	213.015	49.85	-12.57	37.28	43.50	6.22	Peak
3	250.301	52.08	-13.18	38.90	46.00	7.10	Peak
4	350.477	51.15	-10.03	41.12	46.00	4.88	QP
5	400.432	47.71	-8.74	38.97	46.00	7.03	Peak
6	426.521	46.30	-7.65	38.65	46.00	7.35	Peak

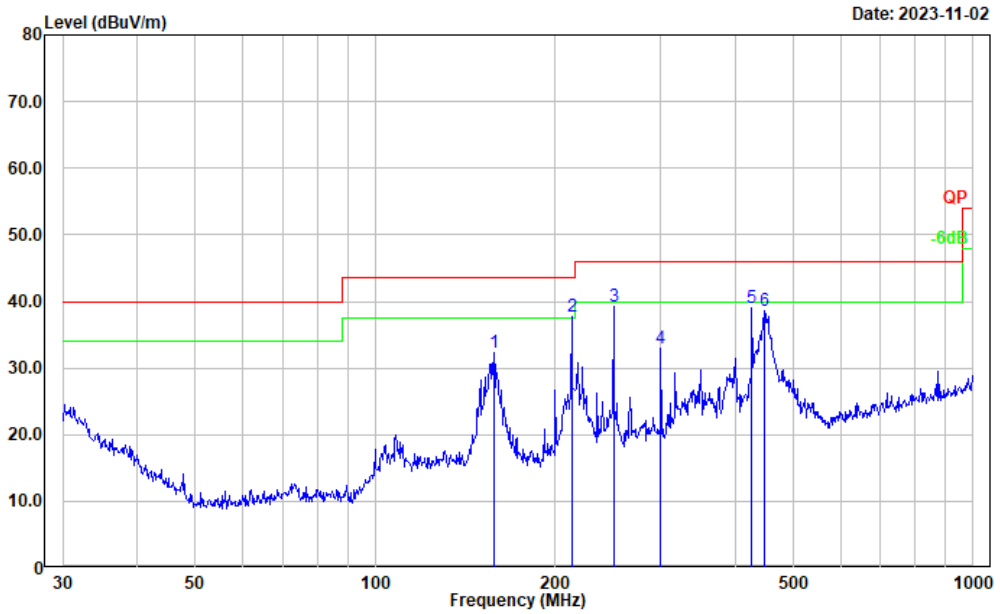
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.289	30.29	-4.77	25.52	40.00	14.48	Peak
2	213.015	42.86	-12.57	30.29	43.50	13.21	Peak
3	250.301	43.32	-13.18	30.14	46.00	15.86	Peak
4	400.432	44.72	-8.74	35.98	46.00	10.02	Peak
5	426.521	44.23	-7.65	36.58	46.00	9.42	Peak
6	451.135	45.62	-6.91	38.71	46.00	7.29	Peak

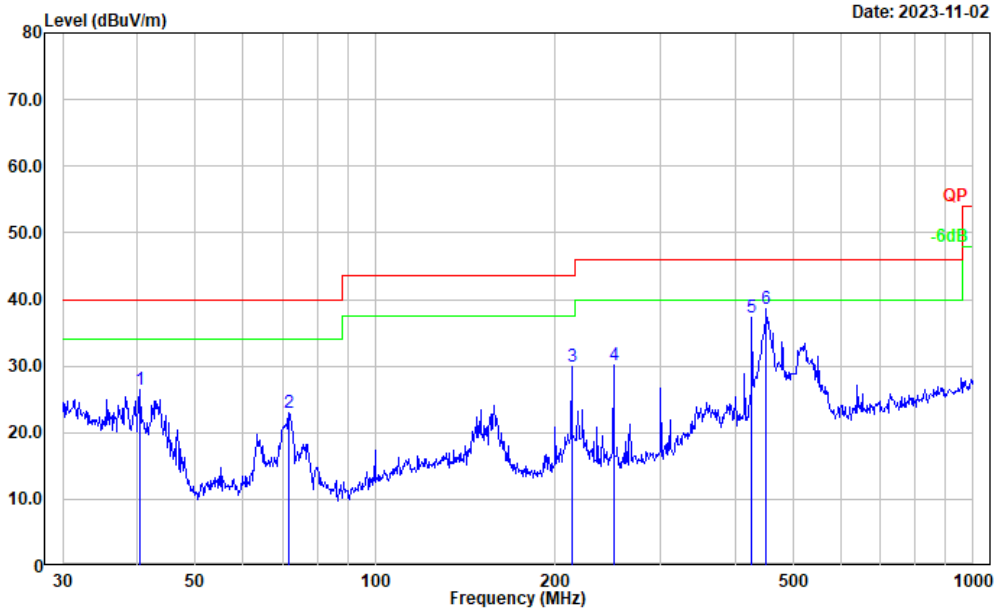
5250-5350MHz-Low channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.26	-11.96	32.30	43.50	11.20	Peak
2	213.015	50.26	-12.57	37.69	43.50	5.81	QP
3	250.301	52.42	-13.18	39.24	46.00	6.76	Peak
4	300.367	43.63	-10.63	33.00	46.00	13.00	Peak
5	426.521	46.61	-7.65	38.96	46.00	7.04	Peak
6	446.414	45.64	-7.08	38.56	46.00	7.44	Peak

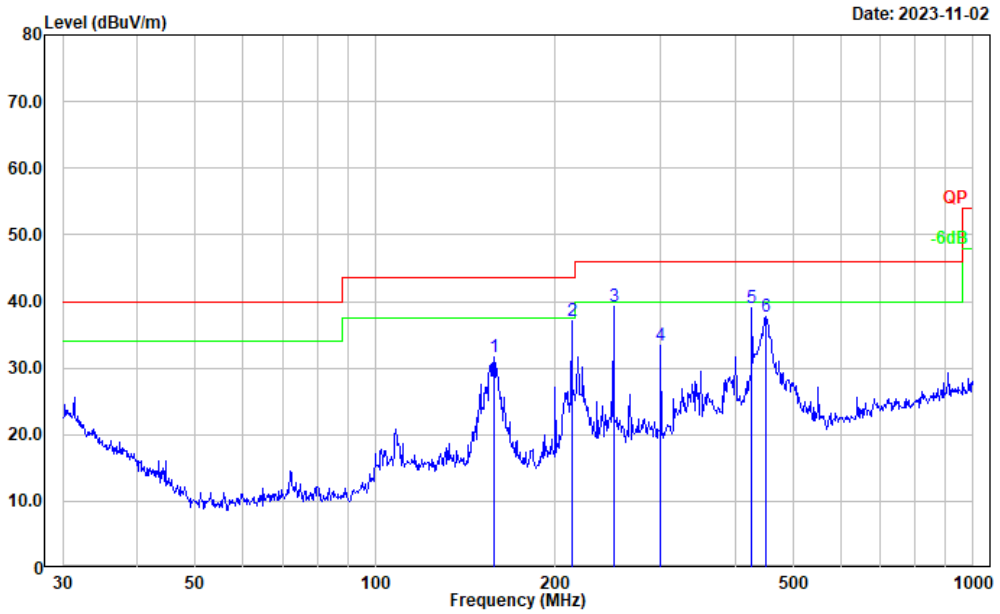
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	40.417	38.03	-11.66	26.37	40.00	13.63	Peak
2	71.832	39.67	-16.74	22.93	40.00	17.07	Peak
3	213.015	42.46	-12.57	29.89	43.50	13.61	Peak
4	250.301	43.34	-13.18	30.16	46.00	15.84	Peak
5	426.521	44.89	-7.65	37.24	46.00	8.76	Peak
6	451.135	45.40	-6.91	38.49	46.00	7.51	Peak

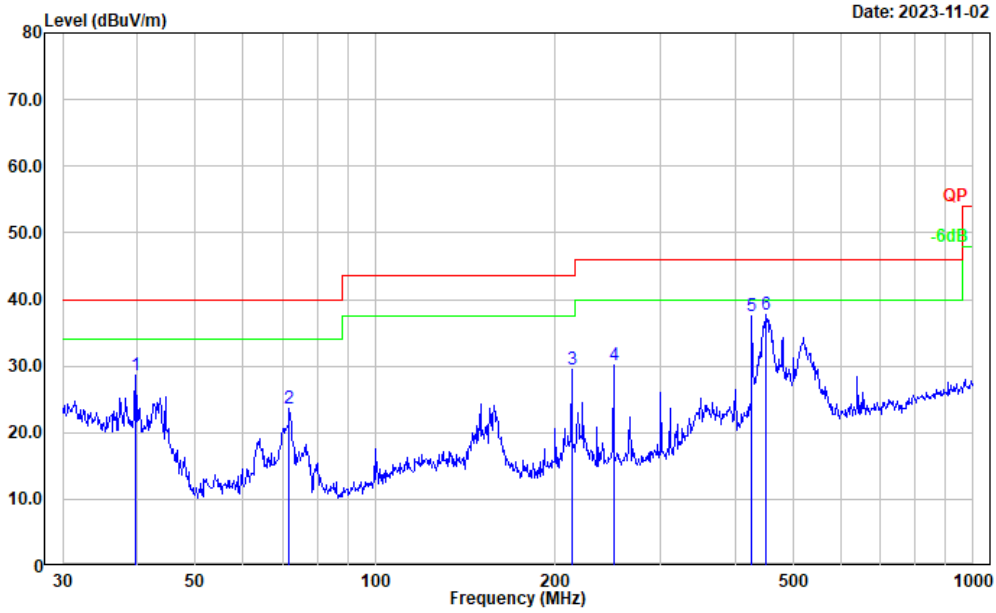
5250-5350MHz-Middle channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	43.65	-11.96	31.69	43.50	11.81	Peak
2	213.015	49.54	-12.57	36.97	43.50	6.53	Peak
3	250.301	52.42	-13.18	39.24	46.00	6.76	Peak
4	300.367	44.05	-10.63	33.42	46.00	12.58	Peak
5	426.521	46.63	-7.65	38.98	46.00	7.02	Peak
6	451.135	44.56	-6.91	37.65	46.00	8.35	Peak

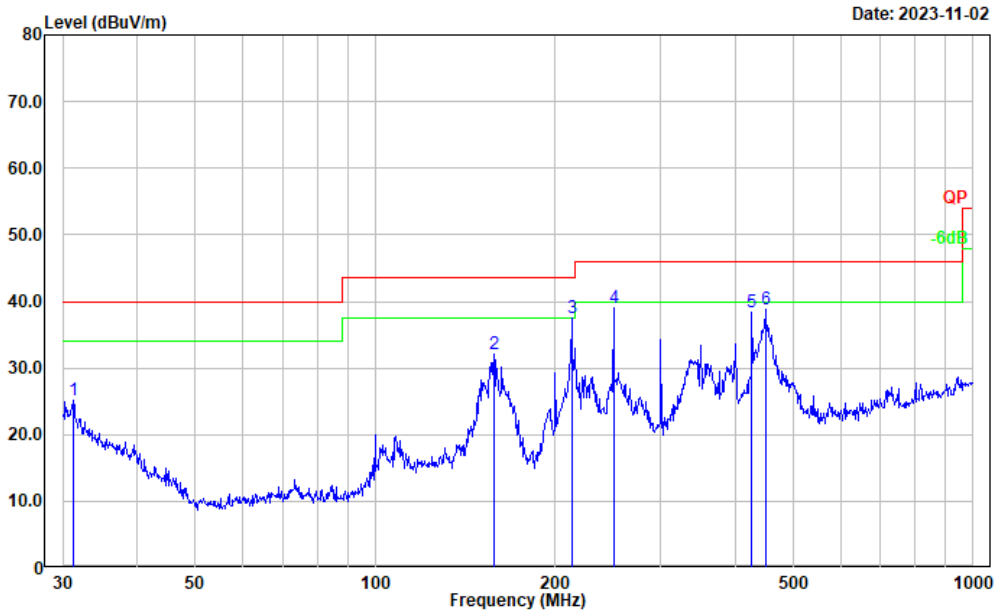
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	39.715	39.75	-11.19	28.56	40.00	11.44	Peak
2	71.832	40.28	-16.74	23.54	40.00	16.46	Peak
3	213.015	42.13	-12.57	29.56	43.50	13.94	Peak
4	250.301	43.34	-13.18	30.16	46.00	15.84	Peak
5	426.521	45.10	-7.65	37.45	46.00	8.55	Peak
6	451.135	44.57	-6.91	37.66	46.00	8.34	Peak

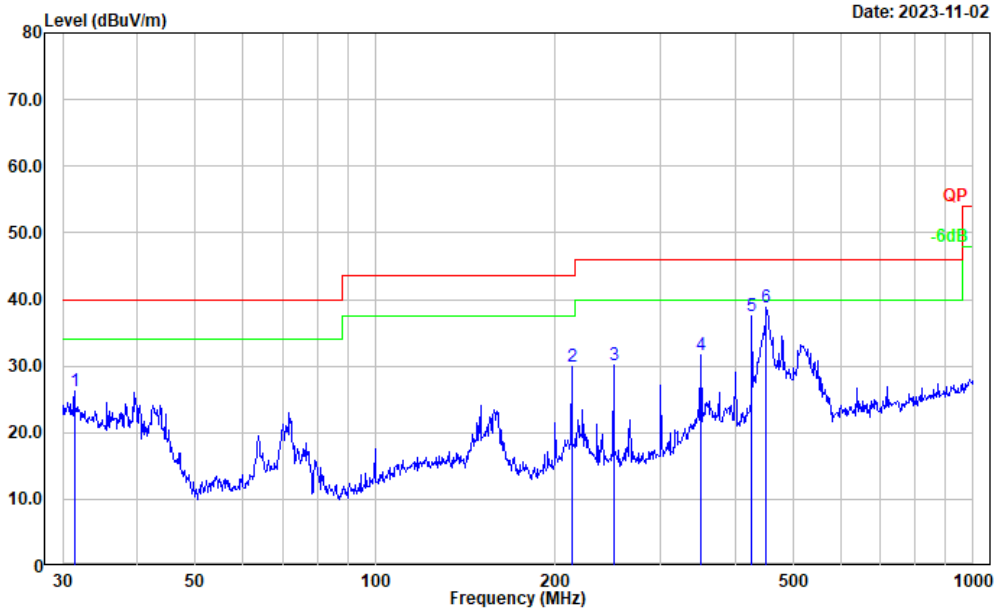
5250-5350MHz-High channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.289	29.95	-4.77	25.18	40.00	14.82	Peak
2	158.112	43.99	-11.96	32.03	43.50	11.47	Peak
3	213.015	49.98	-12.57	37.41	43.50	6.09	Peak
4	250.301	52.15	-13.18	38.97	46.00	7.03	Peak
5	426.521	46.12	-7.65	38.47	46.00	7.53	Peak
6	449.556	45.85	-6.97	38.88	46.00	7.12	Peak

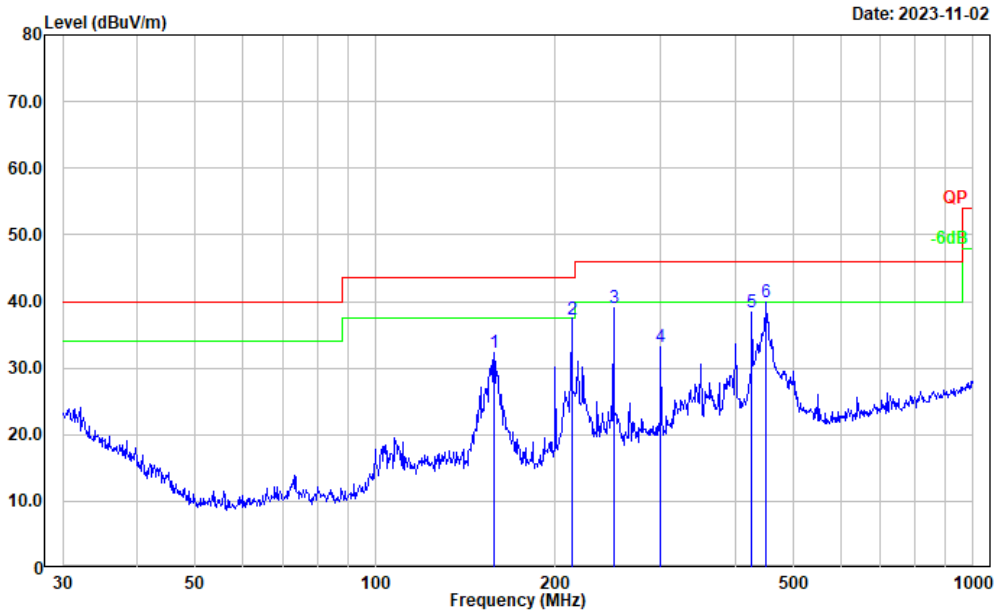
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.399	31.11	-4.86	26.25	40.00	13.75	Peak
2	213.015	42.43	-12.57	29.86	43.50	13.64	Peak
3	250.301	43.37	-13.18	30.19	46.00	15.81	Peak
4	350.477	41.67	-10.03	31.64	46.00	14.36	Peak
5	426.521	45.24	-7.65	37.59	46.00	8.41	Peak
6	451.135	45.71	-6.91	38.80	46.00	7.20	Peak

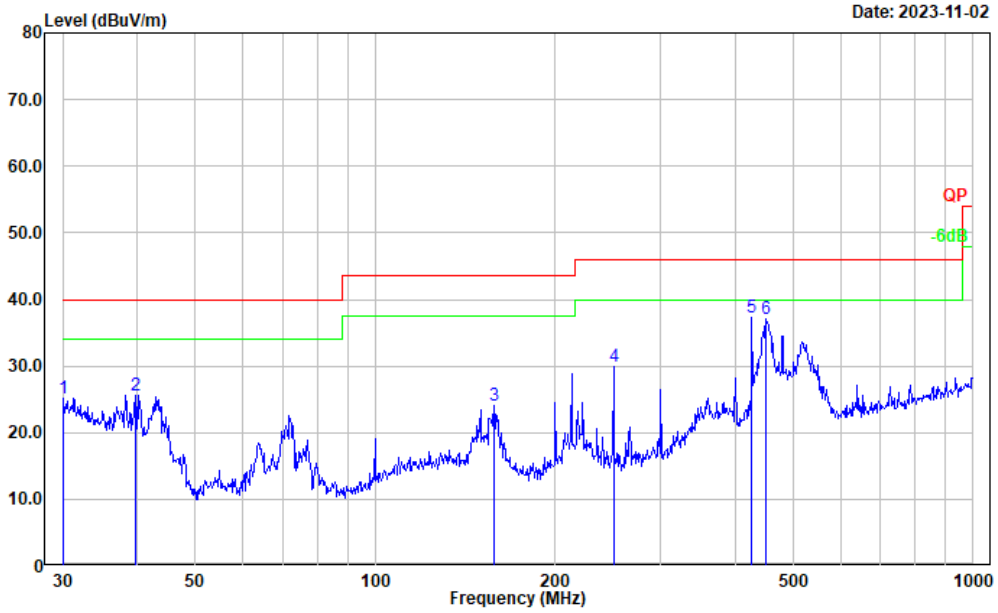
5470-5725MHz-Low channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.29	-11.96	32.33	43.50	11.17	Peak
2	213.015	49.86	-12.57	37.29	43.50	6.21	QP
3	250.301	52.29	-13.18	39.11	46.00	6.89	Peak
4	300.367	43.73	-10.63	33.10	46.00	12.90	Peak
5	426.521	46.12	-7.65	38.47	46.00	7.53	Peak
6	451.135	46.88	-6.91	39.97	46.00	6.03	Peak

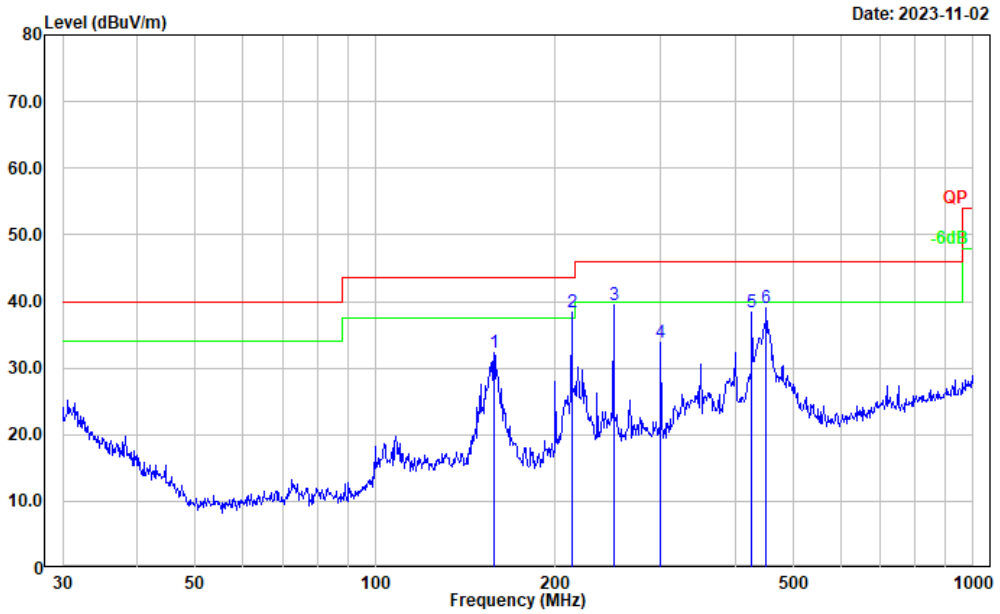
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.105	29.05	-3.88	25.17	40.00	14.83	Peak
2	39.715	36.83	-11.19	25.64	40.00	14.36	Peak
3	158.112	36.03	-11.96	24.07	43.50	19.43	Peak
4	250.301	43.11	-13.18	29.93	46.00	16.07	Peak
5	426.521	44.92	-7.65	37.27	46.00	8.73	Peak
6	451.135	44.00	-6.91	37.09	46.00	8.91	Peak

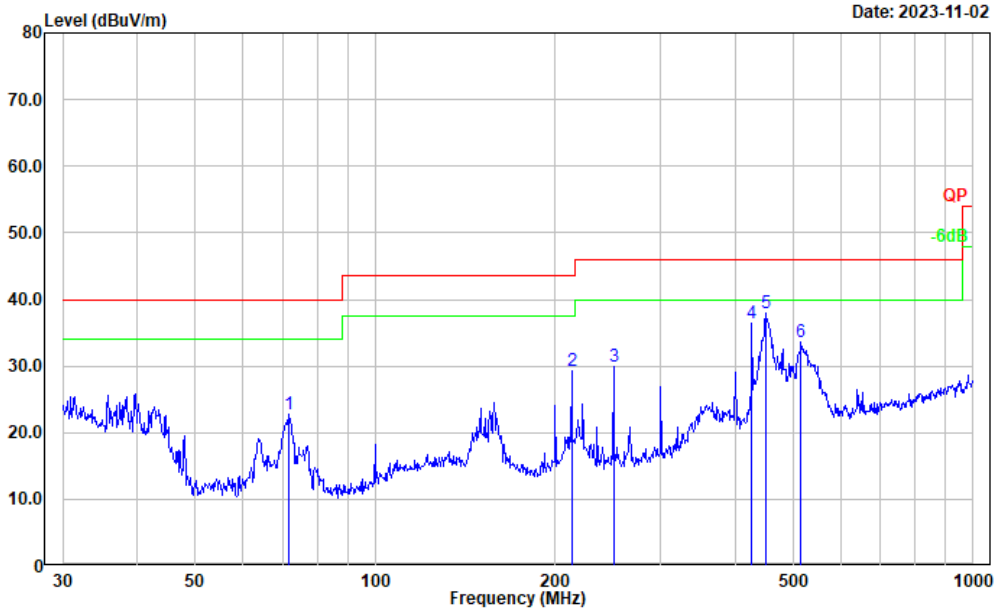
5470-5725MHz-Middle channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.26	-11.96	32.30	43.50	11.20	Peak
2	213.015	50.99	-12.57	38.42	43.50	5.08	QP
3	250.301	52.56	-13.18	39.38	46.00	6.62	Peak
4	300.367	44.38	-10.63	33.75	46.00	12.25	Peak
5	426.521	45.95	-7.65	38.30	46.00	7.70	Peak
6	451.135	45.85	-6.91	38.94	46.00	7.06	Peak

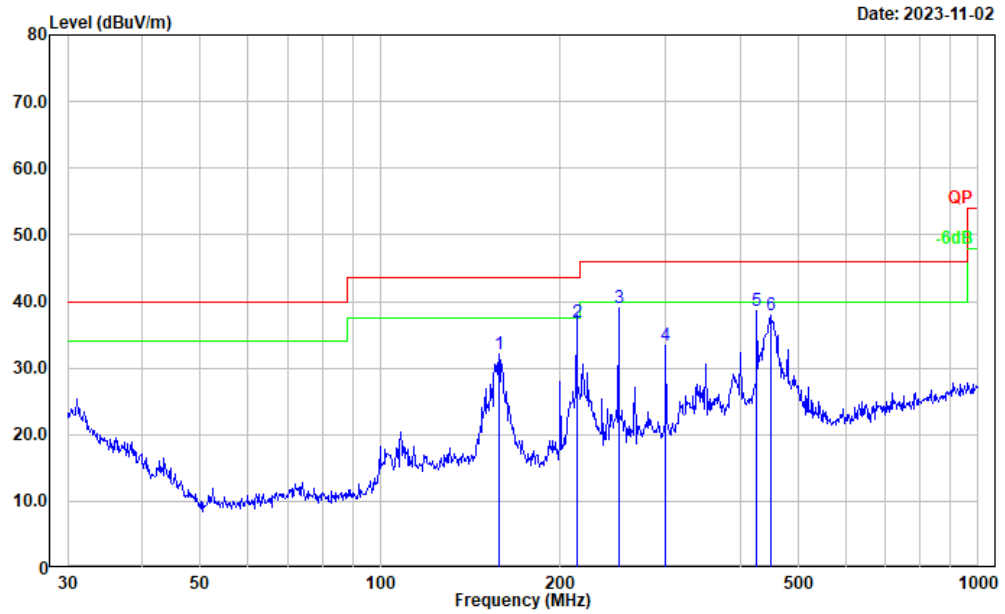
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	71.832	39.51	-16.74	22.77	40.00	17.23	Peak
2	213.015	41.83	-12.57	29.26	43.50	14.24	Peak
3	250.301	43.04	-13.18	29.86	46.00	16.14	Peak
4	426.521	44.13	-7.65	36.48	46.00	9.52	Peak
5	449.556	45.01	-6.97	38.04	46.00	7.96	Peak
6	515.437	39.52	-5.83	33.69	46.00	12.31	Peak

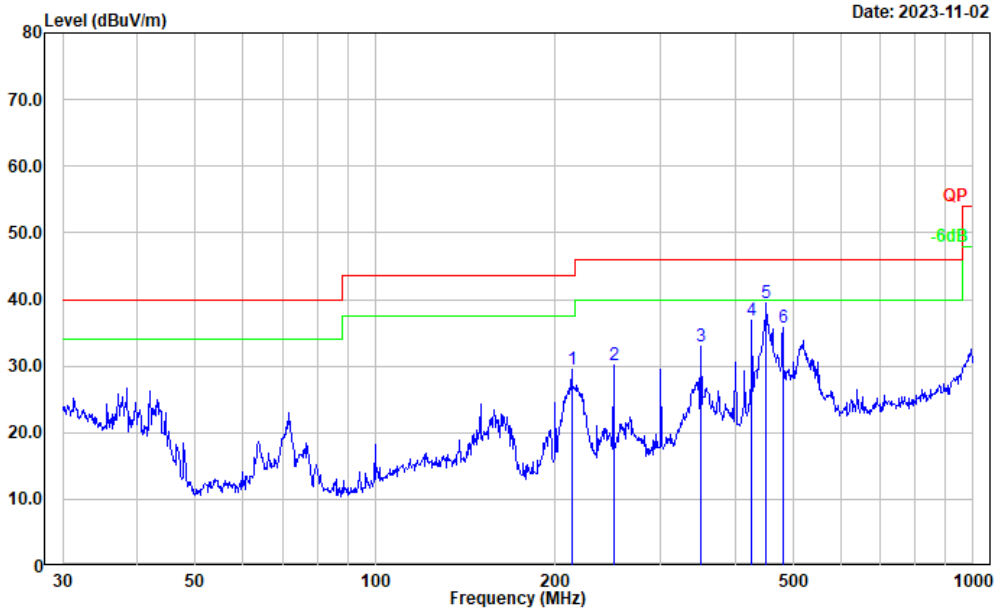
5470-5725MHz-High channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	43.99	-11.96	32.03	43.50	11.47	Peak
2	213.015	49.52	-12.57	36.95	43.50	6.55	QP
3	250.301	52.30	-13.18	39.12	46.00	6.88	Peak
4	300.367	43.99	-10.63	33.36	46.00	12.64	Peak
5	426.521	46.22	-7.65	38.57	46.00	7.43	Peak
6	449.556	44.84	-6.97	37.87	46.00	8.13	Peak

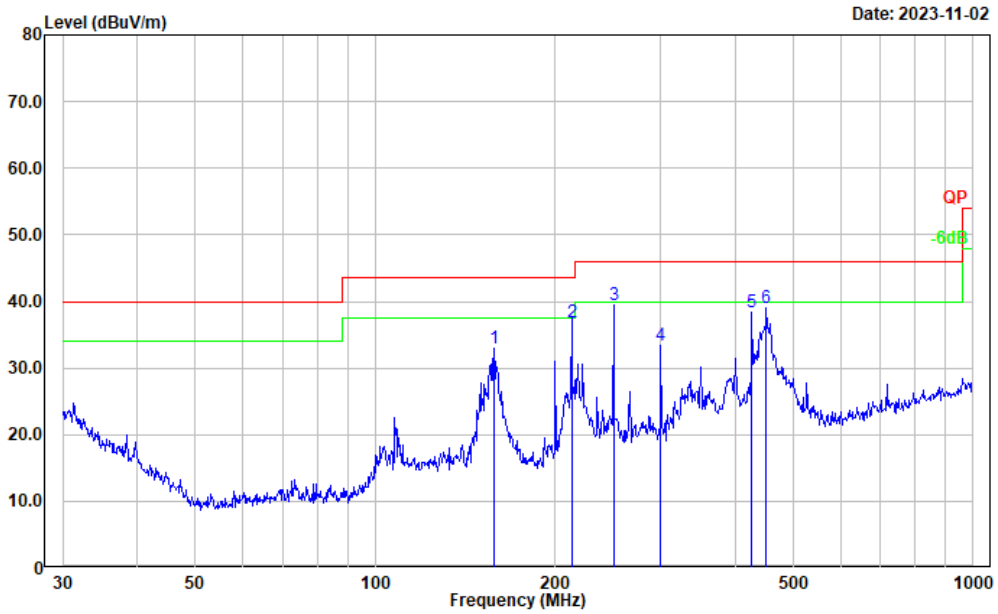
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	213.015	42.16	-12.57	29.59	43.50	13.91	Peak
2	250.301	43.22	-13.18	30.04	46.00	15.96	Peak
3	350.477	43.07	-10.03	33.04	46.00	12.96	Peak
4	426.521	44.56	-7.65	36.91	46.00	9.09	Peak
5	451.135	46.43	-6.91	39.52	46.00	6.48	Peak
6	480.528	41.95	-6.25	35.70	46.00	10.30	Peak

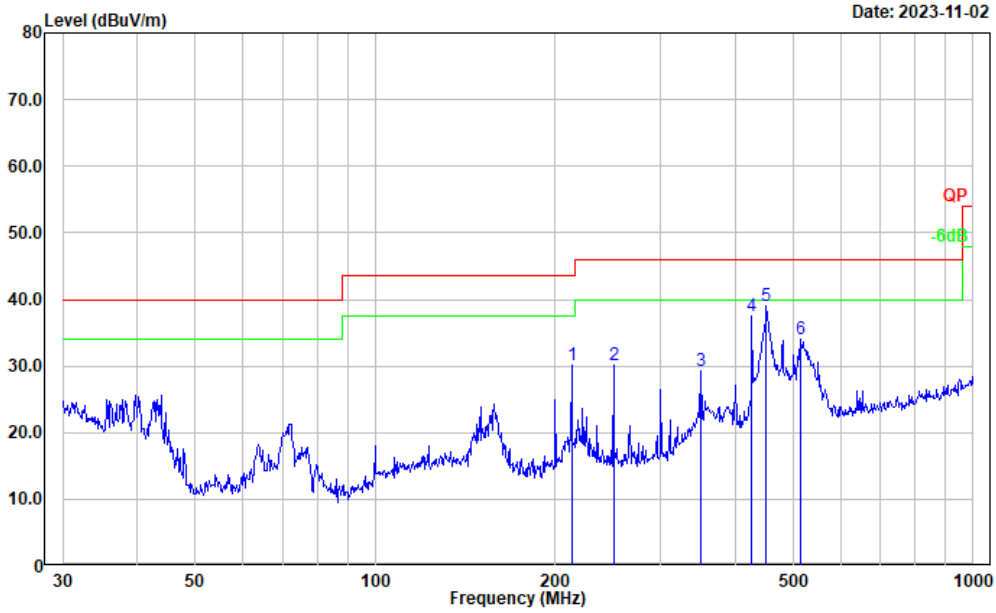
5725-5850MHz-Low channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.82	-11.96	32.86	43.50	10.64	Peak
2	213.015	49.34	-12.57	36.77	43.50	6.73	QP
3	250.301	52.74	-13.18	39.56	46.00	6.44	Peak
4	300.367	43.95	-10.63	33.32	46.00	12.68	Peak
5	426.521	46.10	-7.65	38.45	46.00	7.55	Peak
6	451.135	45.94	-6.91	39.03	46.00	6.97	Peak

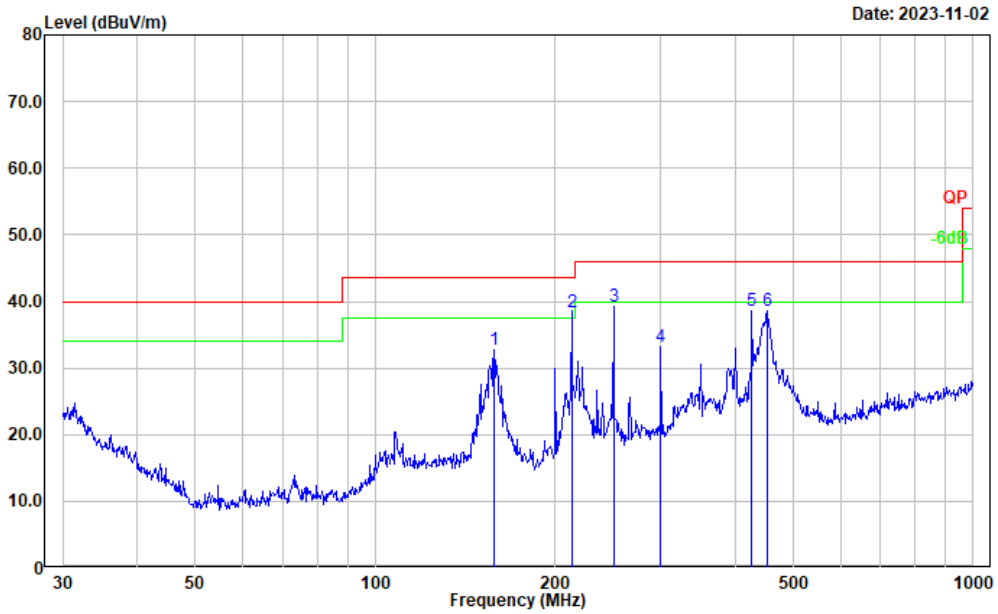
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	213.015	42.71	-12.57	30.14	43.50	13.36	Peak
2	250.301	43.36	-13.18	30.18	46.00	15.82	Peak
3	350.477	39.32	-10.03	29.29	46.00	16.71	Peak
4	426.521	45.24	-7.65	37.59	46.00	8.41	Peak
5	451.135	45.84	-6.91	38.93	46.00	7.07	Peak
6	515.437	39.83	-5.83	34.00	46.00	12.00	Peak

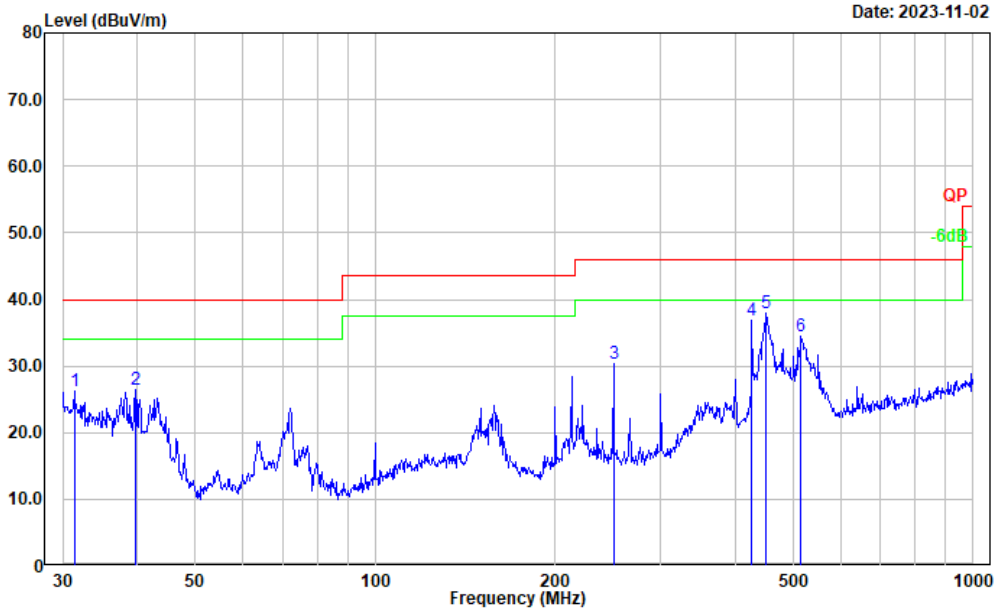
5725-5850MHz-Middle channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.61	-11.96	32.65	43.50	10.85	Peak
2	213.015	50.97	-12.57	38.40	43.50	5.10	QP
3	250.301	52.36	-13.18	39.18	46.00	6.82	Peak
4	300.367	43.89	-10.63	33.26	46.00	12.74	Peak
5	426.521	46.16	-7.65	38.51	46.00	7.49	Peak
6	452.720	45.41	-6.85	38.56	46.00	7.44	Peak

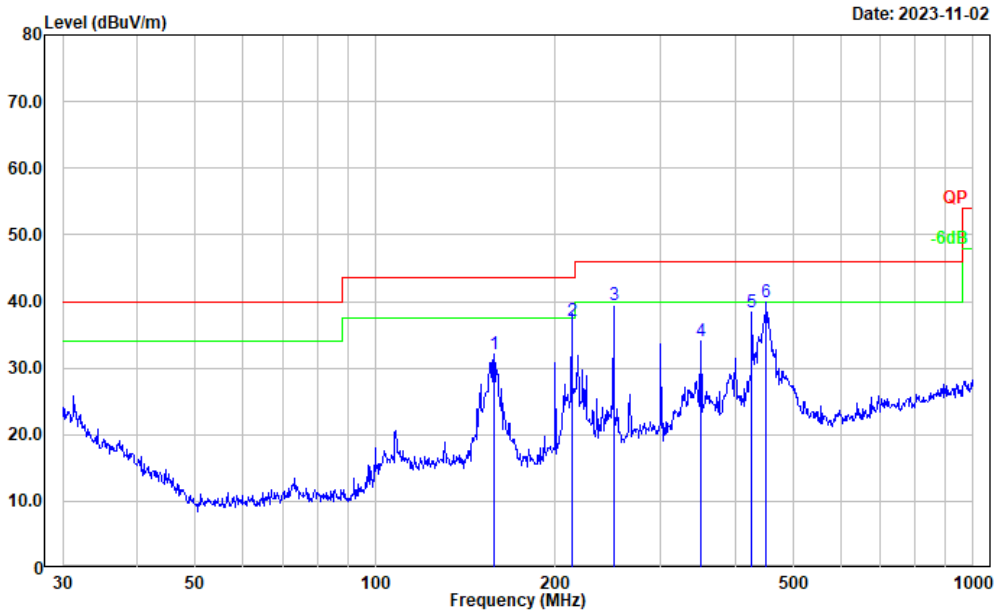
Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.399	31.13	-4.86	26.27	40.00	13.73	Peak
2	39.715	37.67	-11.19	26.48	40.00	13.52	Peak
3	250.301	43.53	-13.18	30.35	46.00	15.65	Peak
4	426.521	44.56	-7.65	36.91	46.00	9.09	Peak
5	451.135	44.86	-6.91	37.95	46.00	8.05	Peak
6	515.437	40.20	-5.83	34.37	46.00	11.63	Peak

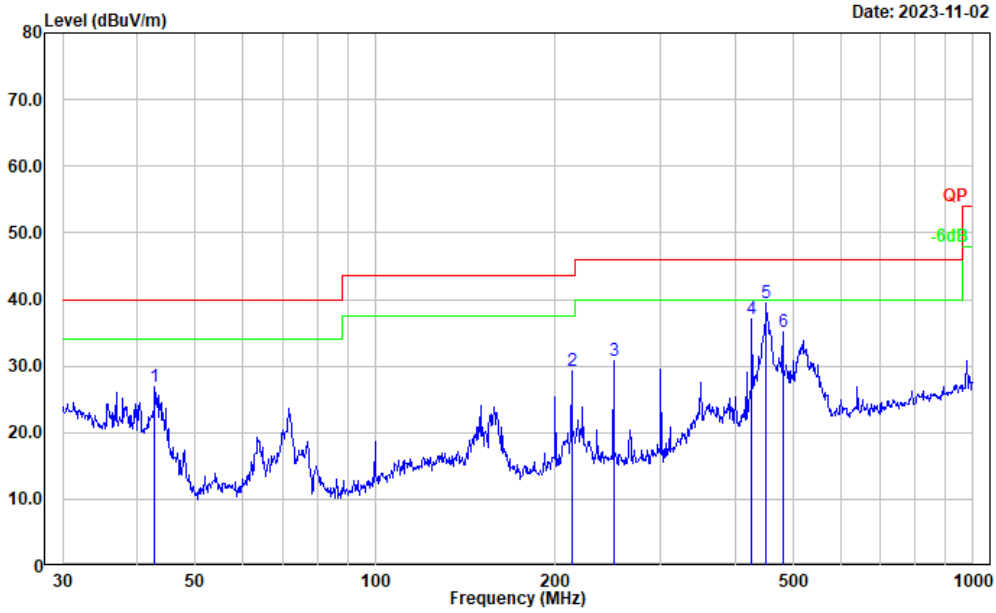
5725-5850MHz-High channel

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	158.112	44.00	-11.96	32.04	43.50	11.46	Peak
2	213.015	49.75	-12.57	37.18	43.50	6.32	QP
3	250.301	52.53	-13.18	39.35	46.00	6.65	Peak
4	350.477	44.01	-10.03	33.98	46.00	12.02	Peak
5	426.521	46.12	-7.65	38.47	46.00	7.53	Peak
6	451.135	46.87	-6.91	39.96	46.00	6.04	Peak

Project No.: CR230850551-RF
Tester: Vic Du
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	42.750	39.75	-12.96	26.79	40.00	13.21	Peak
2	213.015	41.77	-12.57	29.20	43.50	14.30	Peak
3	250.301	43.92	-13.18	30.74	46.00	15.26	Peak
4	426.521	44.66	-7.65	37.01	46.00	8.99	Peak
5	451.135	46.32	-6.91	39.41	46.00	6.59	Peak
6	480.528	41.28	-6.25	35.03	46.00	10.97	Peak

2) 1GHz-40GHz:

5150-5250MHz:

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: 5180 MHz							
5150.000	45.35	PK	H	11.67	57.02	74.00	16.98
5150.000	30.25	AV	H	11.67	41.92	54.00	12.08
5150.000	45.67	PK	V	11.67	57.34	74.00	16.66
5150.000	32.02	AV	V	11.67	43.69	54.00	10.31
10360.000	35.79	PK	H	20.47	56.26	68.20	11.94
10360.000	36.04	PK	V	20.47	56.51	68.20	11.69
Middle Channel: 5200 MHz							
10400.000	36.04	PK	H	20.54	56.58	68.20	11.62
10400.000	36.29	PK	V	20.54	56.83	68.20	11.37
High Channel: 5240 MHz							
5350.000	45.64	PK	H	11.94	57.58	74.00	16.42
5350.000	31.21	AV	H	11.94	43.15	54.00	10.85
5350.000	45.37	PK	V	11.94	57.31	74.00	16.69
5350.000	31.52	AV	V	11.94	43.46	54.00	10.54
10480.000	36.35	PK	H	20.42	56.77	68.20	11.43
10480.000	36.58	PK	V	20.42	57.00	68.20	11.20

802.11a Mode Chain 2:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5180 MHz							
5150.000	45.31	PK	H	11.67	56.98	74.00	17.02
5150.000	30.23	AV	H	11.67	41.90	54.00	12.10
5150.000	45.66	PK	V	11.67	57.33	74.00	16.67
5150.000	31.96	AV	V	11.67	43.63	54.00	10.37
10360.000	35.78	PK	H	20.47	56.25	68.20	11.95
10360.000	35.94	PK	V	20.47	56.41	68.20	11.79
Middle Channel: 5200 MHz							
10400.000	35.99	PK	H	20.54	56.53	68.20	11.67
10400.000	36.19	PK	V	20.54	56.73	68.20	11.47
High Channel: 5240 MHz							
5350.000	45.55	PK	H	11.94	57.49	74.00	16.51
5350.000	31.13	AV	H	11.94	43.07	54.00	10.93
5350.000	45.33	PK	V	11.94	57.27	74.00	16.73
5350.000	31.49	AV	V	11.94	43.43	54.00	10.57
10480.000	36.25	PK	H	20.42	56.67	68.20	11.53
10480.000	36.55	PK	V	20.42	56.97	68.20	11.23

802.11ac ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5180 MHz							
5150.000	44.38	PK	H	11.67	56.05	74.00	17.95
5150.000	30.12	AV	H	11.67	41.79	54.00	12.21
5150.000	45.39	PK	V	11.67	57.06	74.00	16.94
5150.000	31.78	AV	V	11.67	43.45	54.00	10.55
10360.000	35.76	PK	H	20.47	56.23	68.20	11.97
10360.000	36.01	PK	V	20.47	56.48	68.20	11.72
Middle Channel: 5200 MHz							
10400.000	35.98	PK	H	20.54	56.52	68.20	11.68
10400.000	36.23	PK	V	20.54	56.77	68.20	11.43
High Channel: 5240 MHz							
5350.000	45.65	PK	H	11.94	57.59	74.00	16.41
5350.000	30.87	AV	H	11.94	42.81	54.00	11.19
5350.000	44.52	PK	V	11.94	56.46	74.00	17.54
5350.000	30.67	AV	V	11.94	42.61	54.00	11.39
10480.000	36.27	PK	H	20.42	56.69	68.20	11.51
10480.000	36.52	PK	V	20.42	56.94	68.20	11.26

802.11ac ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5190 MHz							
5150.000	44.36	PK	H	11.67	56.03	74.00	17.97
5150.000	30.15	AV	H	11.67	41.82	54.00	12.18
5150.000	44.37	PK	V	11.67	56.04	74.00	17.96
5150.000	24.69	AV	V	11.67	36.36	54.00	17.64
10380.000	35.62	PK	H	20.51	56.13	68.20	12.07
10380.000	35.87	PK	V	20.51	56.38	68.20	11.82
High Channel: 5230 MHz							
5350.000	45.67	PK	H	11.94	57.61	74.00	16.39
5350.000	31.36	AV	H	11.94	43.30	54.00	10.70
5350.000	45.46	PK	V	11.94	57.40	74.00	16.60
5350.000	31.33	AV	V	11.94	43.27	54.00	10.73
10460.000	36.22	PK	H	20.45	56.67	68.20	11.53
10460.000	36.40	PK	V	20.45	56.85	68.20	11.35

802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Middle Channel: 5210 MHz							
5150.000	44.60	PK	H	11.67	56.27	74.00	17.73
5150.000	30.08	AV	H	11.67	41.75	54.00	12.25
5150.000	44.51	PK	V	11.67	56.18	74.00	17.82
5150.000	30.27	AV	V	11.67	41.94	54.00	12.06
5350.000	44.55	PK	H	11.94	56.49	74.00	17.51
5350.000	30.07	AV	H	11.94	42.01	54.00	11.99
5350.000	44.61	PK	V	11.94	56.55	74.00	17.45
5350.000	30.12	AV	V	11.94	42.06	54.00	11.94
10420.000	34.76	PK	H	20.51	55.27	68.20	12.93
10420.000	34.99	PK	V	20.51	55.50	68.20	12.70

5250-5350MHz:

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: 5260 MHz							
5150.000	44.67	PK	H	11.67	56.34	74.00	17.66
5150.000	30.26	AV	H	11.67	41.93	54.00	12.07
5150.000	44.88	PK	V	11.67	56.55	74.00	17.45
5150.000	30.16	AV	V	11.67	41.83	54.00	12.17
10520.000	36.15	PK	H	20.53	56.68	68.20	11.52
10520.000	36.33	PK	V	20.53	56.86	68.20	11.34
Middle Channel: 5280 MHz							
10560.000	36.40	PK	H	20.81	57.21	68.20	10.99
10560.000	36.64	PK	V	20.81	57.45	68.20	10.75
High Channel: 5320 MHz							
5350.000	47.51	PK	H	11.94	59.45	74.00	14.55
5350.000	32.35	AV	H	11.94	44.29	54.00	9.71
5350.000	47.69	PK	V	11.94	59.63	74.00	14.37
5350.000	32.42	AV	V	11.94	44.36	54.00	9.64
10640.000	36.59	PK	H	21.13	57.72	74.00	16.28
10640.000	23.16	AV	H	21.13	44.29	54.00	9.71
10640.000	36.83	PK	V	21.13	57.96	74.00	16.04
10640.000	23.40	AV	V	21.13	44.53	54.00	9.47

802.11a Mode Chain 2:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel:				5260	MHz		
5150.000	44.66	PK	H	11.67	56.33	74.00	17.67
5150.000	30.19	AV	H	11.67	41.86	54.00	12.14
5150.000	44.79	PK	V	11.67	56.46	74.00	17.54
5150.000	30.13	AV	V	11.67	41.80	54.00	12.20
10520.000	36.08	PK	H	20.53	56.61	68.20	11.59
10520.000	36.32	PK	V	20.53	56.85	68.20	11.35
Middle Channel:				5280	MHz		
10560.000	36.38	PK	H	20.81	57.19	68.20	11.01
10560.000	36.63	PK	V	20.81	57.44	68.20	10.76
High Channel:				5320	MHz		
5350.000	47.48	PK	H	11.94	59.42	74.00	14.58
5350.000	32.29	AV	H	11.94	44.23	54.00	9.77
5350.000	47.67	PK	V	11.94	59.61	74.00	14.39
5350.000	32.40	AV	V	11.94	44.34	54.00	9.66
10640.000	36.58	PK	H	21.13	57.71	74.00	16.29
10640.000	23.12	AV	H	21.13	44.25	54.00	9.75
10640.000	36.83	PK	V	21.13	57.96	74.00	16.04
10640.000	23.34	AV	V	21.13	44.47	54.00	9.53

802.11ac ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5260 MHz							
5150.000	45.21	PK	H	11.67	56.88	74.00	17.12
5150.000	30.78	AV	H	11.67	42.45	54.00	11.55
5150.000	45.34	PK	V	11.67	57.01	74.00	16.99
5150.000	30.84	AV	V	11.67	42.51	54.00	11.49
10520.000	36.01	PK	H	20.53	56.54	68.20	11.66
10520.000	36.24	PK	V	20.53	56.77	68.20	11.43
Middle Channel: 5280 MHz							
10560.000	36.33	PK	H	20.81	57.14	68.20	11.06
10560.000	36.56	PK	V	20.81	57.37	68.20	10.83
High Channel: 5320 MHz							
5350.000	48.52	PK	H	11.94	60.46	74.00	13.54
5350.000	32.88	AV	H	11.94	44.82	54.00	9.18
5350.000	48.65	PK	V	11.94	60.59	74.00	13.41
5350.000	32.96	AV	V	11.94	44.90	54.00	9.10
10640.000	36.45	PK	H	21.13	57.58	74.00	16.42
10640.000	22.02	AV	H	21.13	43.15	54.00	10.85
10640.000	36.69	PK	V	21.13	57.82	74.00	16.18
10640.000	22.26	AV	V	21.13	43.39	54.00	10.61

802.11ac ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5270 MHz							
5150.000	45.76	PK	H	11.67	57.43	74.00	16.57
5150.000	30.80	AV	H	11.67	42.47	54.00	11.53
5150.000	46.03	PK	V	11.67	57.70	74.00	16.30
5150.000	31.24	AV	V	11.67	42.91	54.00	11.09
10540.000	36.25	PK	H	20.68	56.93	68.20	11.27
10540.000	36.48	PK	V	20.68	57.16	68.20	11.04
High Channel: 5310 MHz							
5350.000	52.64	PK	H	11.94	64.58	74.00	9.42
5350.000	34.26	AV	H	11.94	46.20	54.00	7.80
5350.000	52.47	PK	V	11.94	64.41	74.00	9.59
5350.000	34.41	AV	V	11.94	46.35	54.00	7.65
10620.000	36.64	PK	H	21.11	57.75	74.00	16.25
10620.000	23.53	AV	H	21.11	44.64	54.00	9.36
10620.000	36.88	PK	V	21.11	57.99	74.00	16.01
10620.000	23.76	AV	V	21.11	44.87	54.00	9.13

802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Middle Channel: 5290 MHz							
5150.000	45.69	PK	H	11.67	57.36	74.00	16.64
5150.000	30.79	AV	H	11.67	42.46	54.00	11.54
5150.000	45.78	PK	V	11.67	57.45	74.00	16.55
5150.000	30.91	AV	V	11.67	42.58	54.00	11.42
5350.000	49.67	PK	H	11.94	61.61	74.00	12.39
5350.000	32.46	AV	H	11.94	44.40	54.00	9.60
5350.000	48.97	PK	V	11.94	60.91	74.00	13.09
5350.000	32.08	AV	V	11.94	44.02	54.00	9.98
10580.000	36.19	PK	H	20.96	57.15	68.20	11.05
10580.000	36.42	PK	V	20.96	57.38	68.20	10.82

5470-5725MHz

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: 5500 MHz							
5470.000	45.19	PK	H	11.84	57.03	68.20	11.17
5470.000	45.37	PK	V	11.84	57.21	68.20	10.99
11000.000	34.40	PK	H	21.53	55.93	74.00	18.07
11000.000	23.26	AV	H	21.53	44.79	54.00	9.21
11000.000	34.63	PK	V	21.53	56.16	74.00	17.84
11000.000	23.51	AV	V	21.53	45.04	54.00	8.96
Middle Channel: 5580 MHz							
11160.000	35.27	PK	H	21.38	56.65	74.00	17.35
11160.000	23.16	AV	H	21.38	44.54	54.00	9.46
11160.000	35.50	PK	V	21.38	56.88	74.00	17.12
11160.000	23.39	AV	V	21.38	44.77	54.00	9.23
High Channel: 5700 MHz							
5725.000	45.37	PK	H	12.57	57.94	68.20	10.26
5725.000	45.29	PK	V	12.57	57.86	68.20	10.34
11400.000	35.76	PK	H	21.91	57.67	74.00	16.33
11400.000	23.65	AV	H	21.91	45.56	54.00	8.44
11400.000	35.97	PK	V	21.91	57.88	74.00	16.12
11400.000	23.88	AV	V	21.91	45.79	54.00	8.21

802.11a Mode Chain 2:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5500 MHz							
5470.000	45.11	PK	H	11.84	56.95	68.20	11.25
5470.000	45.32	PK	V	11.84	57.16	68.20	11.04
11000.000	34.39	PK	H	21.53	55.92	74.00	18.08
11000.000	23.28	AV	H	21.53	44.81	54.00	9.19
11000.000	34.53	PK	V	21.53	56.06	74.00	17.94
11000.000	23.47	AV	V	21.53	45.00	54.00	9.00
Middle Channel: 5580 MHz							
11160.000	35.21	PK	H	21.38	56.59	74.00	17.41
11160.000	23.11	AV	H	21.38	44.49	54.00	9.51
11160.000	35.44	PK	V	21.38	56.82	74.00	17.18
11160.000	23.37	AV	V	21.38	44.75	54.00	9.25
High Channel: 5700 MHz							
5725.000	45.35	PK	H	12.57	57.92	68.20	10.28
5725.000	45.22	PK	V	12.57	57.79	68.20	10.41
11400.000	35.75	PK	H	21.91	57.66	74.00	16.34
11400.000	23.63	AV	H	21.91	45.54	54.00	8.46
11400.000	35.95	PK	V	21.91	57.86	74.00	16.14
11400.000	23.82	AV	V	21.91	45.73	54.00	8.27

802.11ac ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5500 MHz							
5470.000	45.78	PK	H	11.84	57.62	68.20	10.58
5470.000	45.98	PK	V	11.84	57.82	68.20	10.38
11000.000	35.31	PK	H	21.53	56.84	74.00	17.16
11000.000	23.15	AV	H	21.53	44.68	54.00	9.32
11000.000	35.52	PK	V	21.53	57.05	74.00	16.95
11000.000	23.39	AV	V	21.53	44.92	54.00	9.08
Middle Channel: 5580 MHz							
11160.000	35.53	PK	H	21.38	56.91	74.00	17.09
11160.000	24.05	AV	H	21.38	45.43	54.00	8.57
11160.000	35.67	PK	V	21.38	57.05	74.00	16.95
11160.000	24.26	AV	V	21.38	45.64	54.00	8.36
High Channel: 5700 MHz							
5725.000	44.67	PK	H	12.57	57.24	68.20	10.96
5725.000	45.13	PK	V	12.57	57.70	68.20	10.50
11400.000	34.63	PK	H	21.91	56.54	74.00	17.46
11400.000	23.52	AV	H	21.91	45.43	54.00	8.57
11400.000	34.85	PK	V	21.91	56.76	74.00	17.24
11400.000	23.74	AV	V	21.91	45.65	54.00	8.35

802.11ac ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5510 MHz							
5470.000	45.69	PK	H	11.84	57.53	68.20	10.67
5470.000	45.75	PK	V	11.84	57.59	68.20	10.61
11020.000	34.62	PK	H	21.52	56.14	74.00	17.86
11020.000	23.37	AV	H	21.52	44.89	54.00	9.11
11020.000	34.83	PK	V	21.52	56.35	74.00	17.65
11020.000	23.59	AV	V	21.52	45.11	54.00	8.89
Middle Channel: 5550 MHz							
11100.000	34.99	PK	H	21.47	56.46	74.00	17.54
11100.000	23.72	AV	H	21.47	45.19	54.00	8.81
11100.000	35.20	PK	V	21.47	56.67	74.00	17.33
11100.000	23.94	AV	V	21.47	45.41	54.00	8.59
High Channel: 5670 MHz							
5725.000	45.37	PK	H	12.57	57.94	68.20	10.26
5725.000	45.37	PK	V	12.57	57.94	68.20	10.26
11340.000	35.34	PK	H	21.86	57.20	74.00	16.80
11340.000	23.09	AV	H	21.86	44.95	54.00	9.05
11340.000	35.56	PK	V	21.86	57.42	74.00	16.58
11340.000	23.31	AV	V	21.86	45.17	54.00	8.83

802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5530 MHz							
5470.000	45.88	PK	H	11.84	57.72	68.20	10.48
5470.000	45.94	PK	V	11.84	57.78	68.20	10.42
11060.000	35.23	PK	H	21.49	56.72	74.00	17.28
11060.000	23.52	AV	H	21.49	45.01	54.00	8.99
11060.000	35.44	PK	V	21.49	56.93	74.00	17.07
11060.000	23.76	AV	V	21.49	45.25	54.00	8.75
High Channel: 5610 MHz							
5725.000	44.23	PK	H	12.57	56.80	68.20	11.40
5725.000	44.29	PK	V	12.57	56.86	68.20	11.34
11220.000	36.27	PK	H	21.43	57.70	74.00	16.30
11220.000	23.58	AV	H	21.43	45.01	54.00	8.99
11220.000	36.51	PK	V	21.43	57.94	74.00	16.06
11220.000	23.80	AV	V	21.43	45.23	54.00	8.77

5725-5850MHz

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: 5745 MHz							
11490.000	34.72	PK	H	21.49	56.21	74.00	17.79
11490.000	23.39	AV	H	21.49	44.88	54.00	9.12
11490.000	34.95	PK	V	21.49	56.44	74.00	17.56
11490.000	23.58	AV	V	21.49	45.07	54.00	8.93
Middle Channel: 5785 MHz							
11570.000	35.06	PK	H	21.71	56.77	74.00	17.23
11570.000	23.73	AV	H	21.71	45.44	54.00	8.56
11570.000	35.30	PK	V	21.71	57.01	74.00	16.99
11570.000	23.92	AV	V	21.71	45.63	54.00	8.37
High Channel: 5825 MHz							
11650.000	35.13	PK	H	22.04	57.17	74.00	16.83
11650.000	23.77	AV	H	22.04	45.81	54.00	8.19
11650.000	35.35	PK	V	22.04	57.39	74.00	16.61
11650.000	23.00	AV	V	22.04	45.04	54.00	8.96

802.11a Mode Chain 2:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5745 MHz							
11490.000	34.66	PK	H	21.49	56.15	74.00	17.85
11490.000	23.39	AV	H	21.49	44.88	54.00	9.12
11490.000	34.95	PK	V	21.49	56.44	74.00	17.56
11490.000	23.53	AV	V	21.49	45.02	54.00	8.98
Middle Channel: 5785 MHz							
11570.000	35.04	PK	H	21.71	56.75	74.00	17.25
11570.000	23.64	AV	H	21.71	45.35	54.00	8.65
11570.000	35.29	PK	V	21.71	57.00	74.00	17.00
11570.000	23.88	AV	V	21.71	45.59	54.00	8.41
High Channel: 5825 MHz							
11650.000	35.09	PK	H	22.04	57.13	74.00	16.87
11650.000	23.74	AV	H	22.04	45.78	54.00	8.22
11650.000	35.30	PK	V	22.04	57.34	74.00	16.66
11650.000	22.92	AV	V	22.04	44.96	54.00	9.04

802.11ac ht20 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5745 MHz							
11490.000	34.60	PK	H	21.49	56.09	74.00	17.91
11490.000	23.28	AV	H	21.49	44.77	54.00	9.23
11490.000	34.83	PK	V	21.49	56.32	74.00	17.68
11490.000	23.46	AV	V	21.49	44.95	54.00	9.05
Middle Channel: 5785 MHz							
11570.000	34.93	PK	H	21.71	56.64	74.00	17.36
11570.000	23.62	AV	H	21.71	45.33	54.00	8.67
11570.000	35.16	PK	V	21.71	56.87	74.00	17.13
11570.000	23.84	AV	V	21.71	45.55	54.00	8.45
High Channel: 5825 MHz							
11650.000	35.02	PK	H	22.04	57.06	74.00	16.94
11650.000	23.67	AV	H	22.04	45.71	54.00	8.29
11650.000	35.24	PK	V	22.04	57.28	74.00	16.72
11650.000	23.88	AV	V	22.04	45.92	54.00	8.08

802.11ac ht40 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 5755 MHz							
11510.000	34.69	PK	H	21.48	56.17	74.00	17.83
11510.000	23.36	AV	H	21.48	44.84	54.00	9.16
11510.000	34.90	PK	V	21.48	56.38	74.00	17.62
11510.000	23.58	AV	V	21.48	45.06	54.00	8.94
High Channel: 5795 MHz							
11590.000	35.32	PK	H	21.78	57.10	74.00	16.90
11590.000	22.93	AV	H	21.78	44.71	54.00	9.29
11590.000	35.54	PK	V	21.78	57.32	74.00	16.68
11590.000	23.16	AV	V	21.78	44.94	54.00	9.06

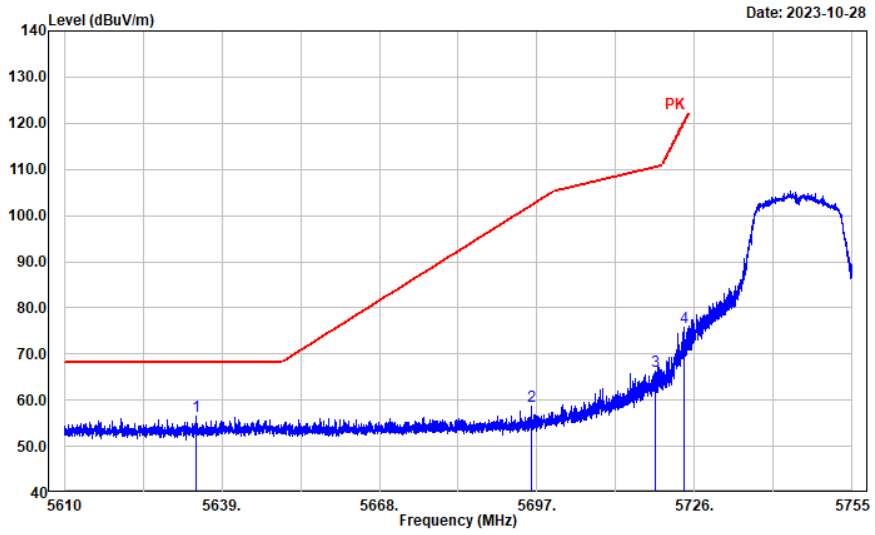
802.11ac80 Mode:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Middle Channel: 5775 MHz							
11550.000	35.62	PK	H	21.63	57.25	74.00	16.75
11550.000	22.43	AV	H	21.63	44.06	54.00	9.94
11550.000	35.34	PK	V	21.63	56.97	74.00	17.03
11550.000	22.92	AV	V	21.63	44.55	54.00	9.45

Test plots for Band Edge Measurements (Radiated)

802.11a_Chain 1			
Test Channel:	**5745MHz**	**Ant. Polar. :**	**Horizontal**

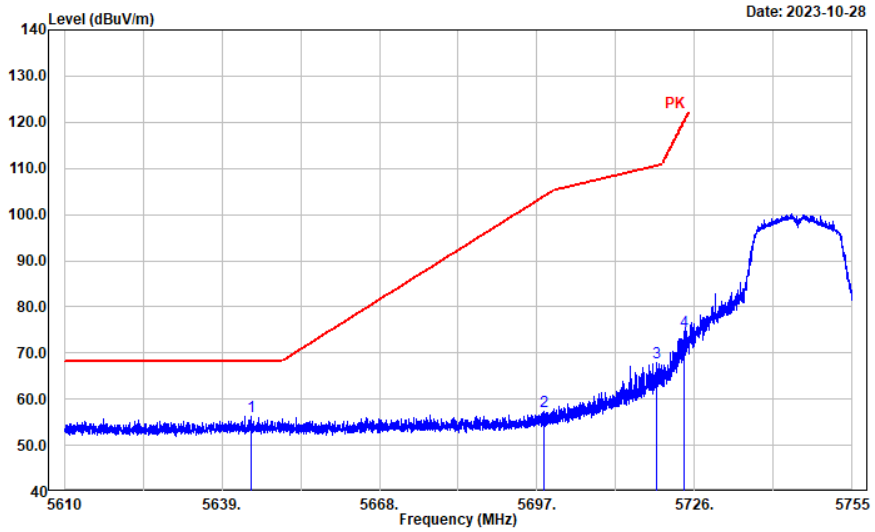
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5634.278	44.37	12.23	56.60	68.20	11.60	Peak
2	5696.031	46.22	12.53	58.75	102.28	43.53	Peak
3	5718.772	53.81	12.57	66.38	110.46	44.08	Peak
4	5723.993	63.34	12.57	75.91	119.90	43.99	Peak

802.11a			
Test Channel:	**5745MHz**	**Ant. Polar. :**	**Vertical**

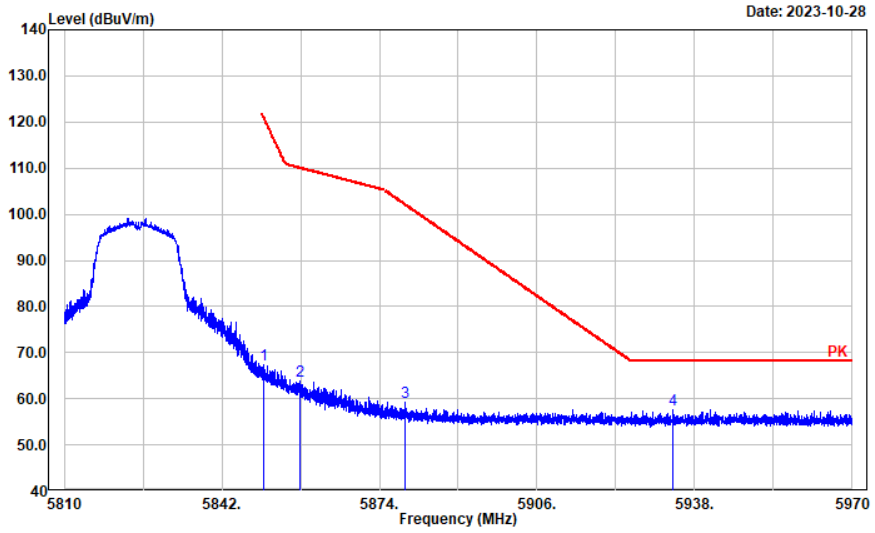
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5644.401	43.95	12.29	56.24	68.20	11.96	Peak
2	5698.178	44.79	12.54	57.33	103.86	46.53	Peak
3	5719.004	55.31	12.57	67.88	110.52	42.64	Peak
4	5724.080	62.00	12.57	74.57	120.10	45.53	Peak

802.11a			
Test Channel:	**5825MHz**	**Ant. Polar. :**	**Horizontal**

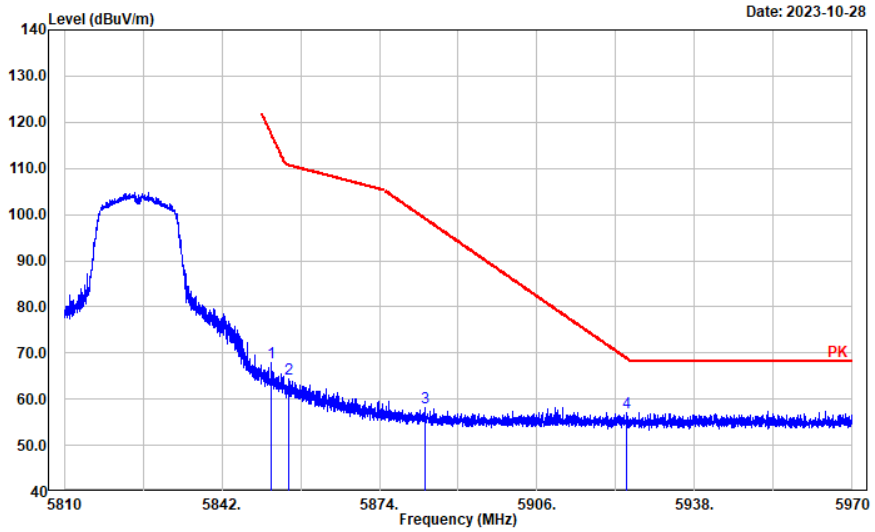
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5850.520	54.71	12.77	67.48	121.01	53.53	Peak
2	5857.850	50.93	12.81	63.74	110.00	46.26	Peak
3	5879.198	46.20	12.92	59.12	102.08	42.96	Peak
4	5933.480	44.67	13.03	57.70	68.20	10.50	Peak

802.11a			
Test Channel:	**5825MHz**	**Ant. Polar. :**	**Vertical**

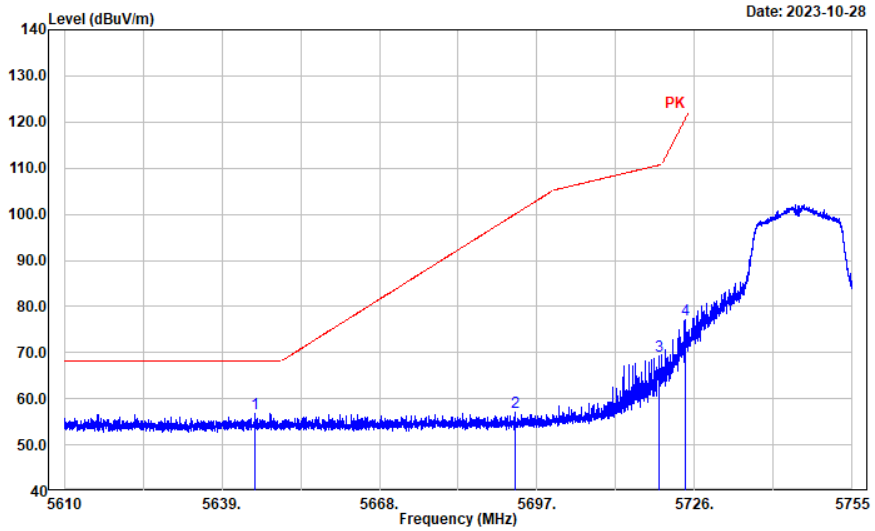
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5852.024	55.18	12.78	67.96	117.58	49.62	Peak
2	5855.545	51.48	12.80	64.28	110.65	46.37	Peak
3	5883.199	45.17	12.93	58.10	99.11	41.01	Peak
4	5924.103	44.16	13.03	57.19	68.86	11.67	Peak

802.11a_Chain 2			
Test Channel:	**5745MHz**	**Ant. Polar. :**	**Horizontal**

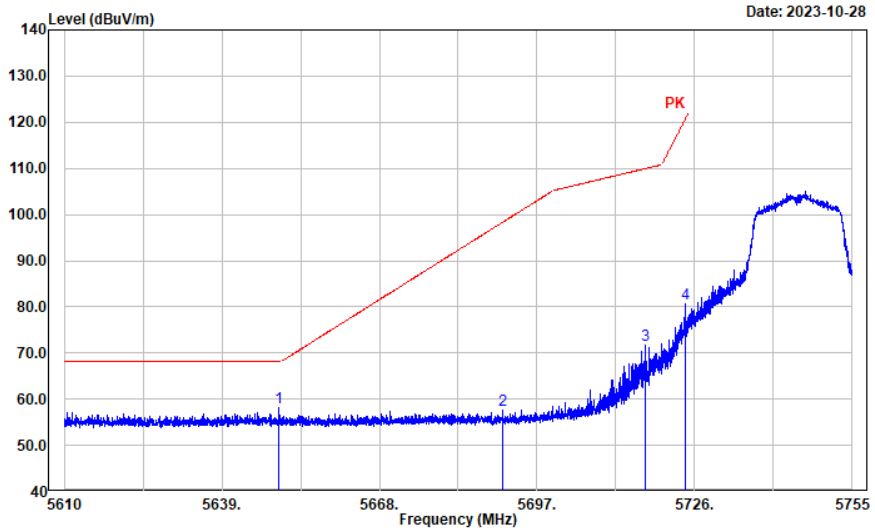
Project No.: CR230850551
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5645.079	44.27	12.65	56.92	68.20	11.28	Peak
2	5692.995	44.25	12.74	56.99	100.04	43.05	Peak
3	5719.494	56.44	12.80	69.24	110.66	41.42	Peak
4	5724.213	64.19	12.81	77.00	120.41	43.41	Peak

802.11a			
Test Channel:	**5745MHz**	**Ant. Polar. :**	**Vertical**

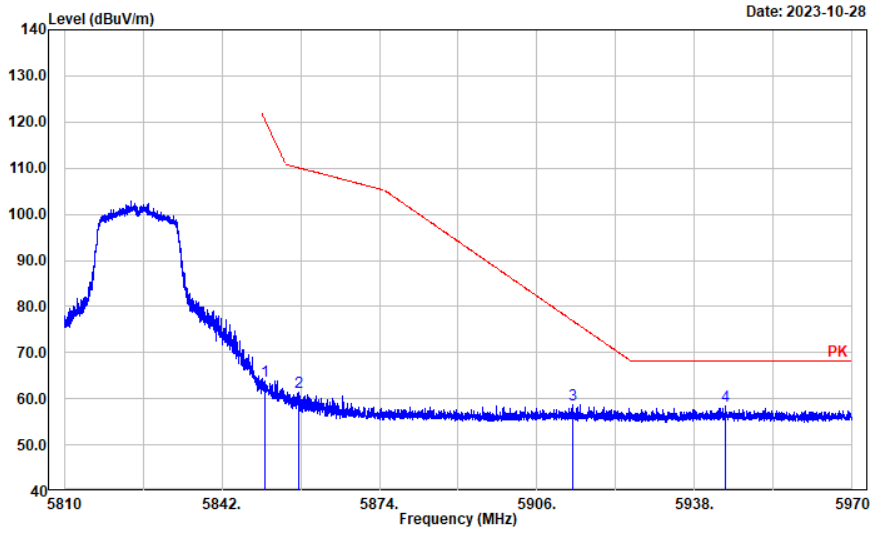
Project No.: CR230850551
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5649.435	45.38	12.68	58.06	68.20	10.14	Peak
2	5690.718	44.99	12.74	57.73	98.36	40.63	Peak
3	5716.920	59.01	12.80	71.81	109.94	38.13	Peak
4	5724.213	67.80	12.81	80.61	120.41	39.80	Peak

802.11a			
Test Channel:	**5825MHz**	**Ant. Polar. :**	**Horizontal**

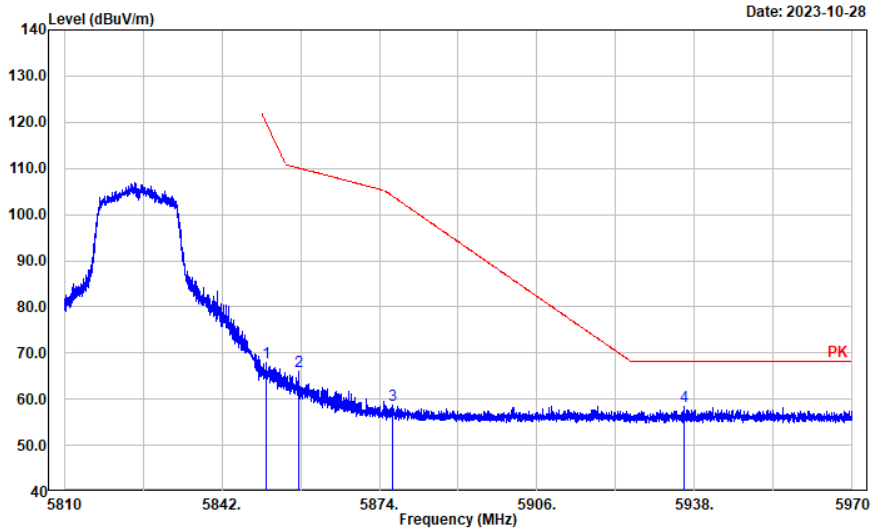
Project No.: CR230850551
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5850.672	50.67	13.27	63.94	120.67	56.73	Peak
2	5857.648	48.14	13.29	61.43	110.06	48.63	Peak
3	5913.168	45.35	13.44	58.79	76.93	18.14	Peak
4	5944.304	44.98	13.53	58.51	68.20	9.69	Peak

802.11a			
Test Channel:	**5825MHz**	**Ant. Polar. :**	**Vertical**

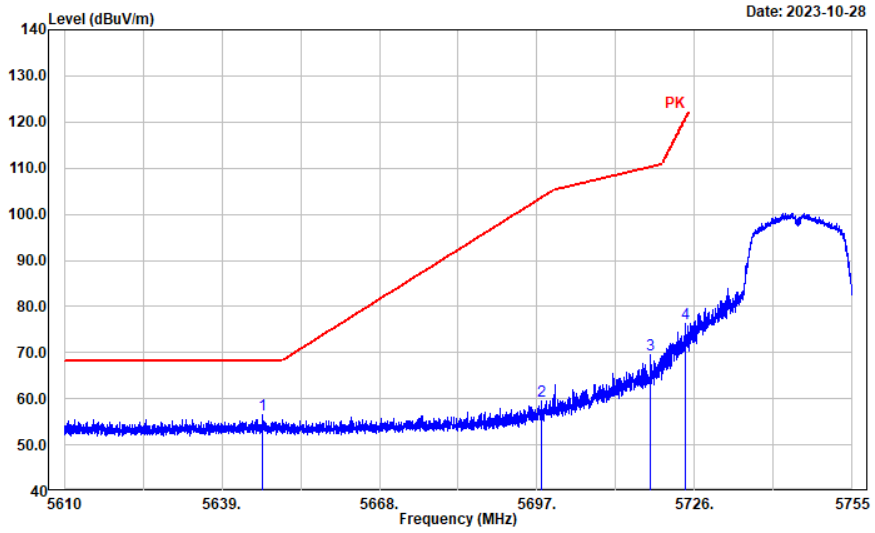
Project No.: CR230850551
Tester: Tao Zhu
Polarization: Vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5851.088	54.76	13.27	68.03	119.72	51.69	Peak
2	5857.616	52.65	13.29	65.94	110.07	44.13	Peak
3	5876.592	45.29	13.33	58.62	104.02	45.40	Peak
4	5935.824	44.79	13.51	58.30	68.20	9.90	Peak

802.11ac vht20			
Test Channel:	**5745MHz**	**Ant. Polar. :**	**Horizontal**

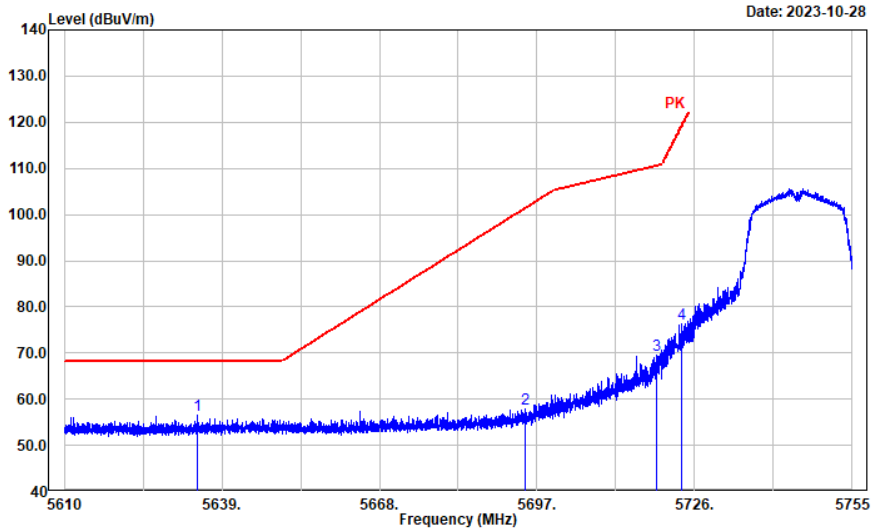
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5646.431	44.22	12.30	56.52	68.20	11.68	Peak
2	5697.801	46.86	12.54	59.40	103.58	44.18	Peak
3	5717.756	57.02	12.57	69.59	110.17	40.58	Peak
4	5724.196	63.66	12.57	76.23	120.37	44.14	Peak

802.11ac vht20			
Test Channel:	**5745MHz**	**Ant. Polar. :**	**Vertical**

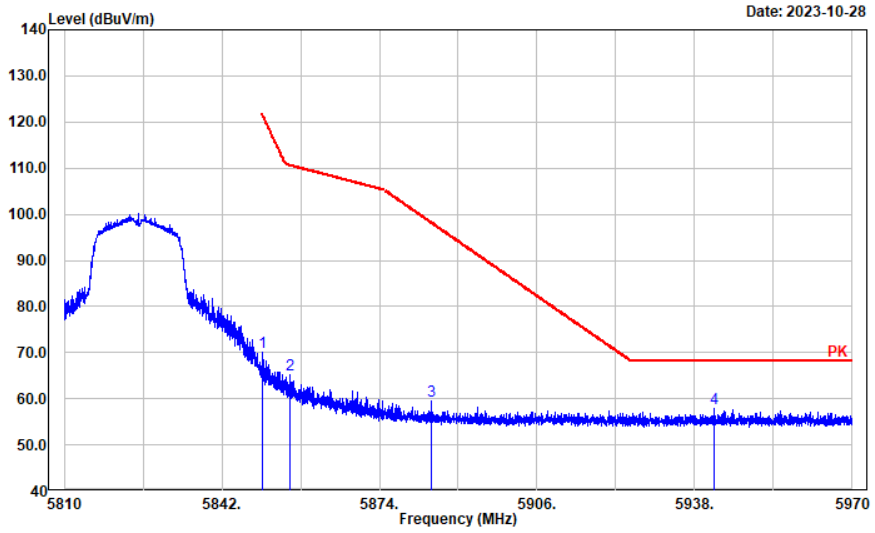
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5634.423	44.27	12.24	56.51	68.20	11.69	Peak
2	5694.900	45.47	12.53	58.00	101.44	43.44	Peak
3	5719.091	56.90	12.57	69.47	110.55	41.08	Peak
4	5723.674	63.85	12.57	76.42	119.18	42.76	Peak

802.11ac vht20			
Test Channel:	**5825MHz**	**Ant. Polar. :**	**Horizontal**

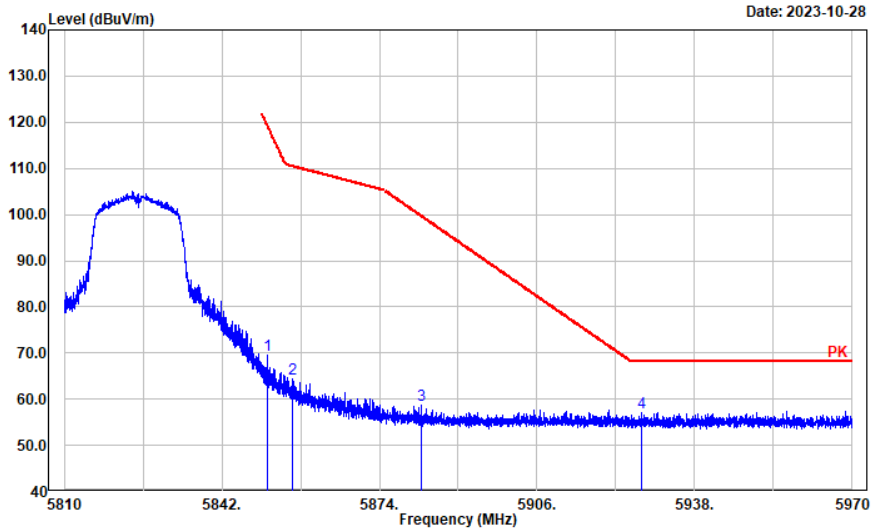
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5850.360	57.41	12.77	70.18	121.38	51.20	Peak
2	5855.897	52.43	12.80	65.23	110.55	45.32	Peak
3	5884.511	46.55	12.95	59.50	98.14	38.64	Peak
4	5941.995	44.81	13.03	57.84	68.20	10.36	Peak

802.11ac vht20			
Test Channel:	**5825MHz**	**Ant. Polar. :**	**Vertical**

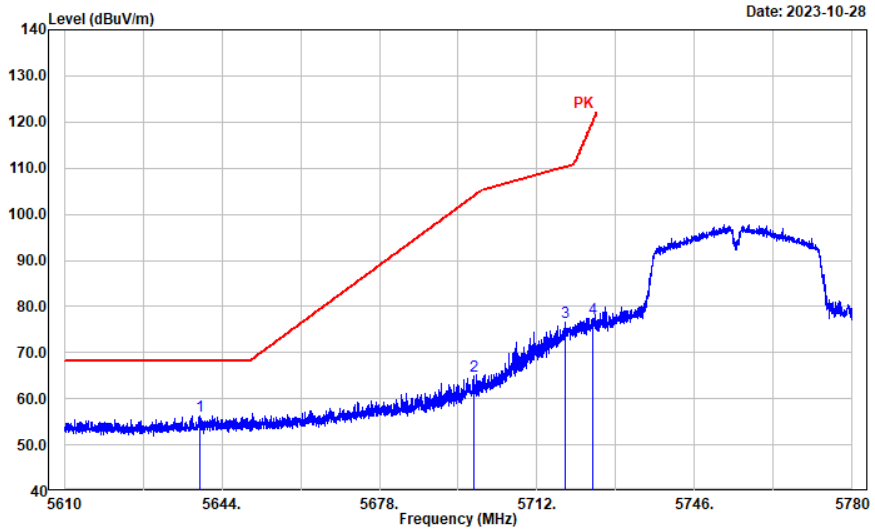
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5851.192	56.82	12.77	69.59	119.48	49.89	Peak
2	5856.345	51.68	12.81	64.49	110.42	45.93	Peak
3	5882.590	45.89	12.93	58.82	99.56	40.74	Peak
4	5927.208	44.16	13.02	57.18	68.20	11.02	Peak

802.11ac vht40			
Test Channel:	**5755MHz**	**Ant. Polar. :**	**Horizontal**

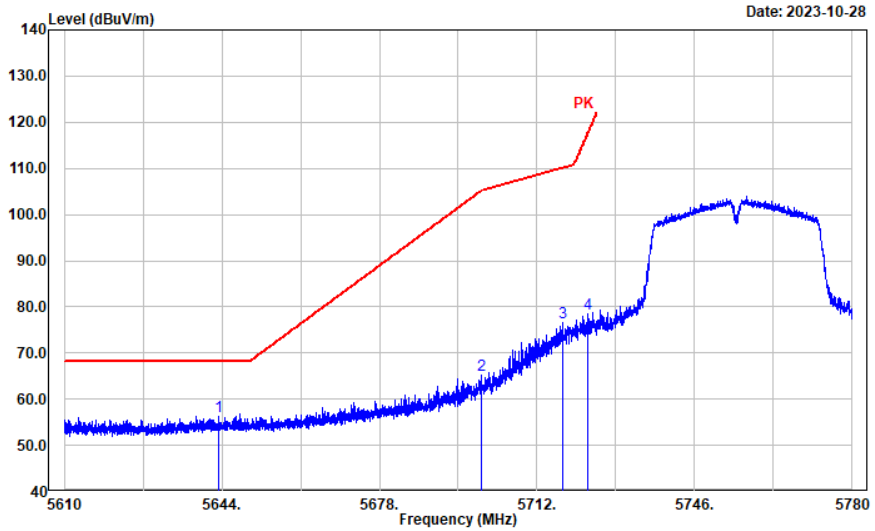
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5639.382	44.02	12.26	56.28	68.20	11.92	Peak
2	5698.315	52.38	12.55	64.93	103.96	39.03	Peak
3	5717.972	64.12	12.57	76.69	110.23	33.54	Peak
4	5723.923	64.90	12.57	77.47	119.74	42.27	Peak

802.11ac vht40			
Test Channel:	**5755MHz**	**Ant. Polar. :**	**Vertical**

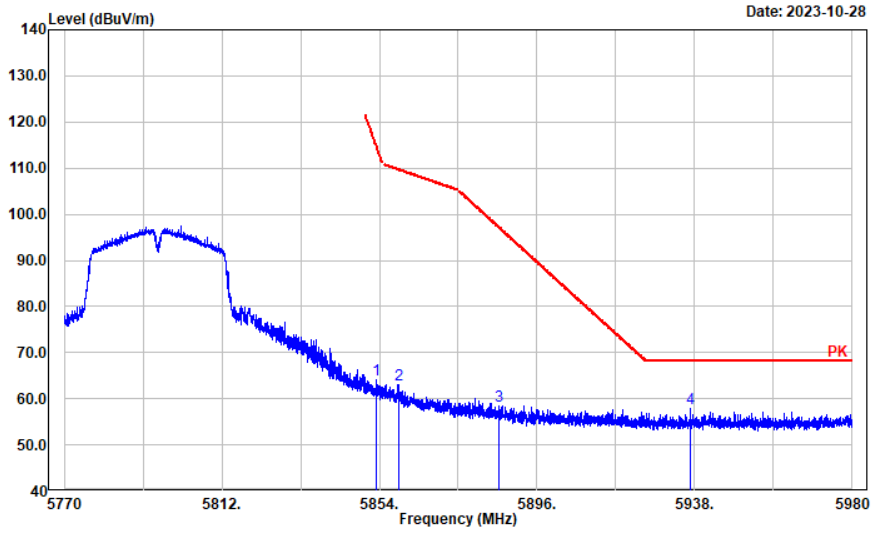
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5643.259	43.99	12.29	56.28	68.20	11.92	Peak
2	5700.084	52.63	12.55	65.18	105.22	40.04	Peak
3	5717.563	63.90	12.57	76.47	110.12	33.65	Peak
4	5722.971	66.02	12.57	78.59	117.57	38.98	Peak

802.11ac vht40			
Test Channel:	**5795MHz**	**Ant. Polar. :**	**Horizontal**

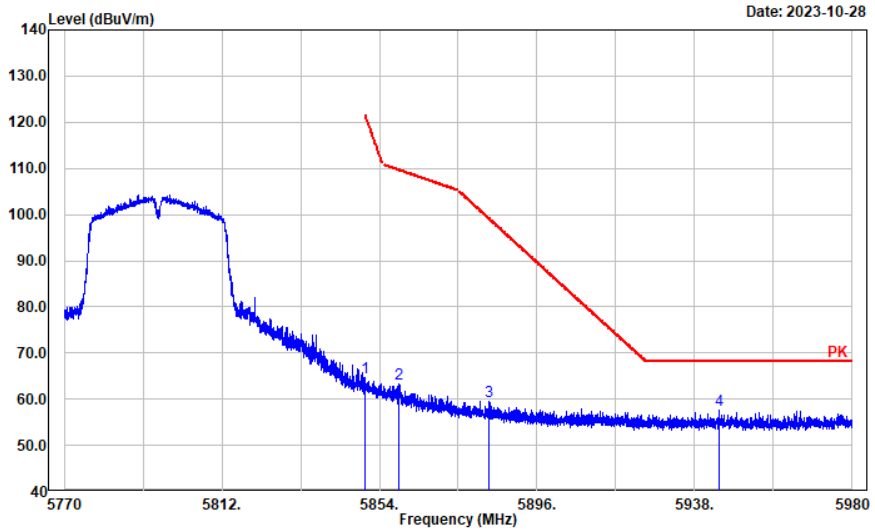
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5853.303	51.36	12.79	64.15	114.67	50.52	Peak
2	5859.016	50.14	12.81	62.95	109.67	46.72	Peak
3	5885.943	45.57	12.95	58.52	97.08	38.56	Peak
4	5936.731	44.83	13.03	57.86	68.20	10.34	Peak

802.11ac vht40			
Test Channel:	**5795MHz**	**Ant. Polar. :**	**Vertical**

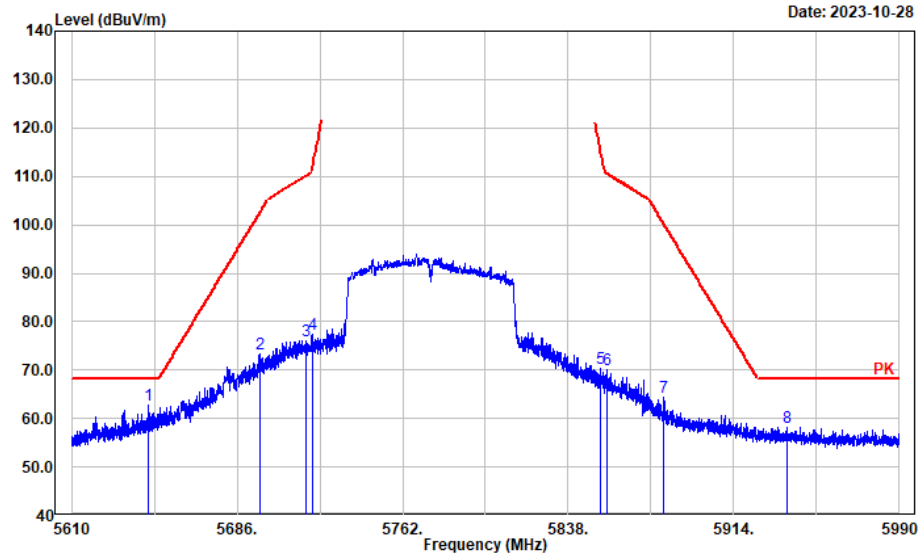
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5850.236	51.85	12.77	64.62	121.66	57.04	Peak
2	5859.016	50.48	12.81	63.29	109.67	46.38	Peak
3	5883.170	46.48	12.93	59.41	99.13	39.72	Peak
4	5944.587	44.51	13.03	57.54	68.20	10.66	Peak

802.11ac vht80			
Test Channel:	**5775MHz**	**Ant. Polar. :**	**Horizontal**

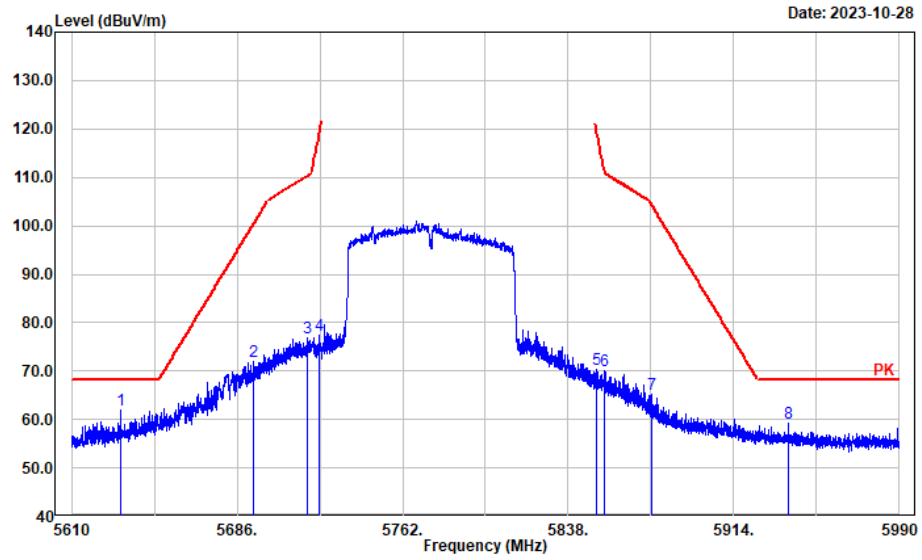
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5645.499	50.57	12.29	62.86	68.20	5.34	Peak
2	5696.657	60.68	12.53	73.21	102.74	29.53	Peak
3	5717.941	63.41	12.57	75.98	110.22	34.24	Peak
4	5720.906	64.85	12.57	77.42	112.87	35.45	Peak
5	5852.716	57.67	12.78	70.45	116.01	45.56	Peak
6	5855.833	57.30	12.80	70.10	110.57	40.47	Peak
7	5881.831	51.58	12.93	64.51	100.13	35.62	Peak
8	5938.614	45.21	13.03	58.24	68.20	9.96	Peak

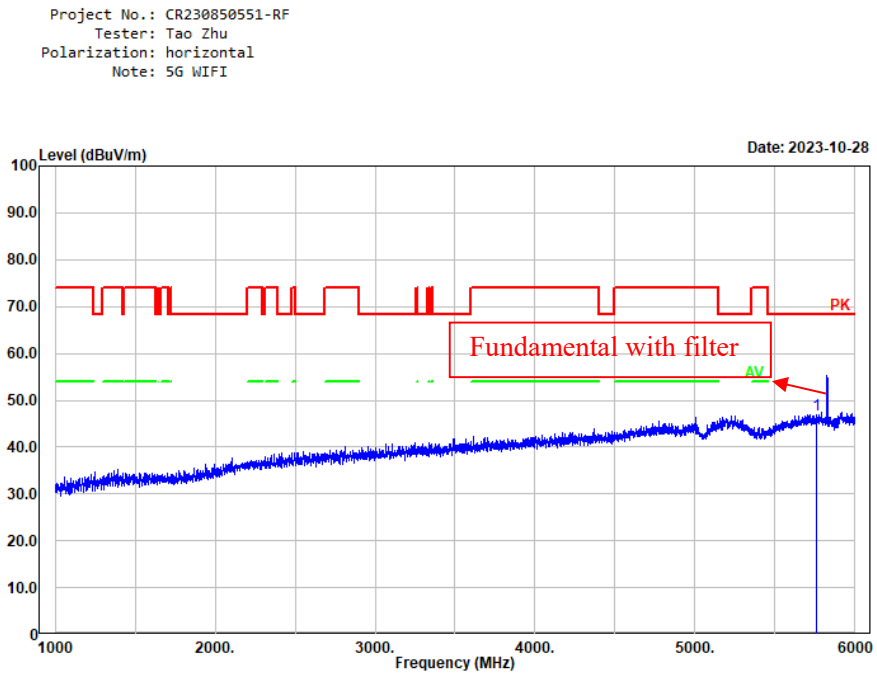
802.11ac vht80			
Test Channel:	**5775MHz**	**Ant. Polar. :**	**Vertical**

Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note:



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5632.500	49.82	12.22	62.04	68.20	6.16	Peak
2	5693.617	59.35	12.52	71.87	100.49	28.62	Peak
3	5718.246	64.37	12.57	76.94	110.31	33.37	Peak
4	5723.719	64.83	12.57	77.40	119.28	41.88	Peak
5	5851.196	57.46	12.77	70.23	119.47	49.24	Peak
6	5854.389	57.37	12.80	70.17	112.19	42.02	Peak
7	5876.509	52.21	12.90	65.11	104.08	38.97	Peak
8	5938.918	46.32	13.03	59.35	68.20	8.85	Peak

Listed with the worst harmonic margin test plot (802.11ac vht20 High channel)

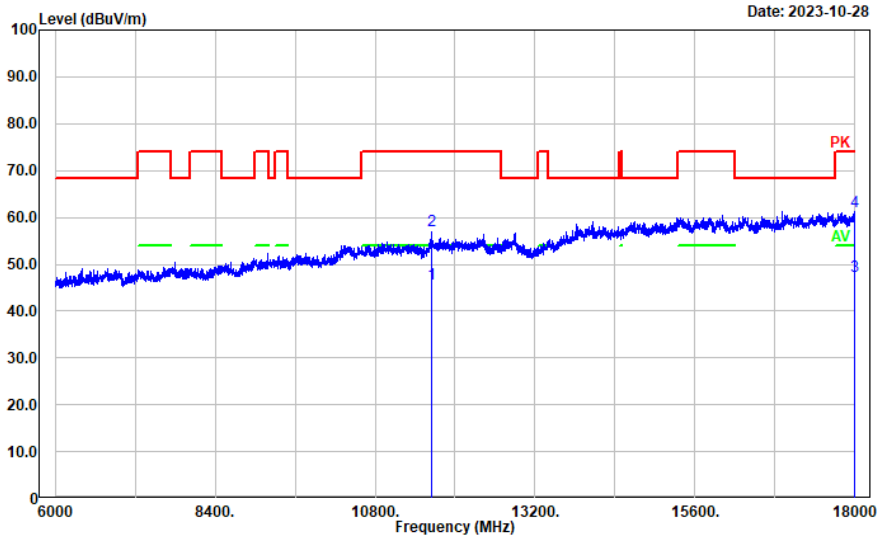
Horizontal	
1-6GHz	

No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	5761.952	34.25	12.62	46.87	68.20	21.33	Peak

Horizontal

6-18GHz

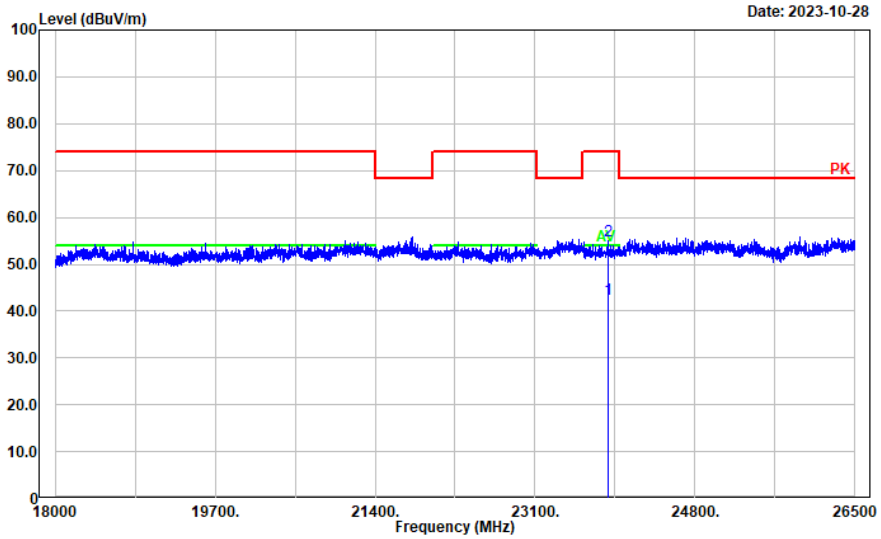
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: horizontal
Note: 5G WIFI



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	11650.000	23.67	22.04	45.71	54.00	8.29	Average
2	11650.000	35.02	22.04	57.06	74.00	16.94	Peak
3	18000.000	15.05	32.48	47.53	54.00	6.47	Average
4	18000.000	28.75	32.48	61.23	74.00	12.77	Peak

Horizontal	
18-26.5GHz	

Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note: 5G WIFI

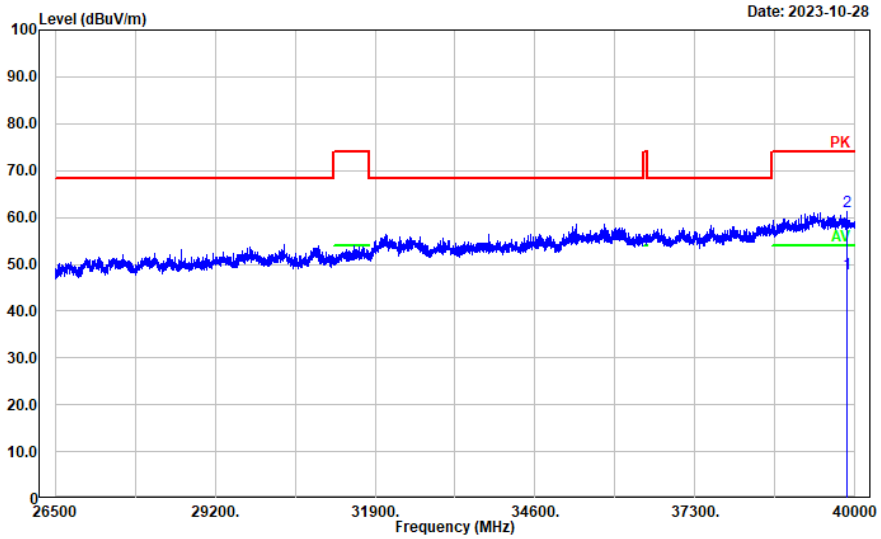


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	23879.780	37.92	4.63	42.55	54.00	11.45	Average
2	23879.780	50.42	4.63	55.05	74.00	18.95	Peak

Horizontal

26.5-40GHz

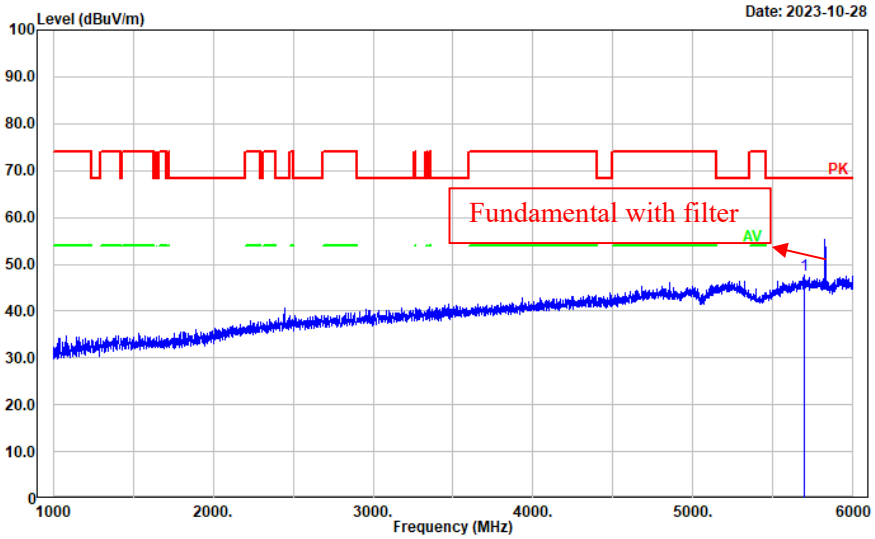
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: Horizontal
Note: 5G WIFI



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	39867.670	39.28	8.58	47.86	54.00	6.14	Average
2	39867.670	52.78	8.58	61.36	74.00	12.64	Peak

Vertical	
1-18GHz	

Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note: 5G WIFI

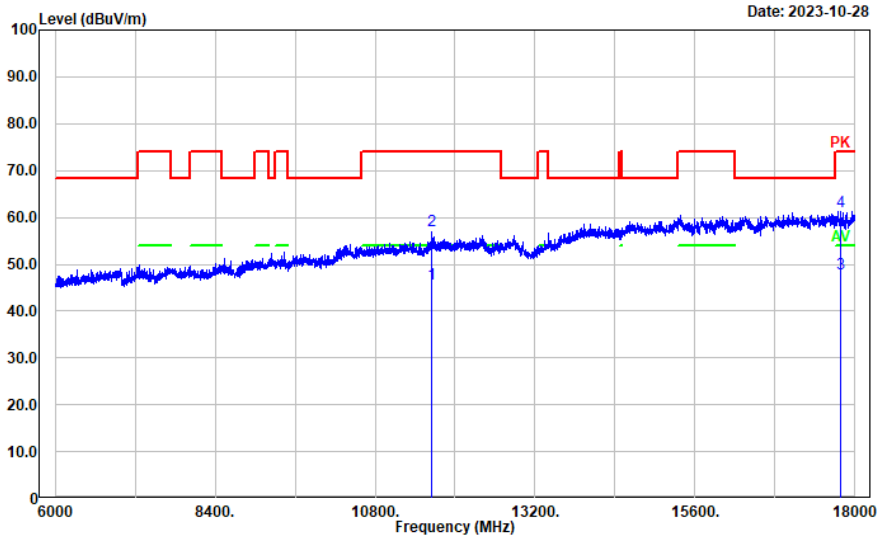


No.	Frequency (MHz)	Reading (dBμV)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1	5691.938	35.12	12.52	47.64	68.20	20.56	Peak

Vertical

6-18GHz

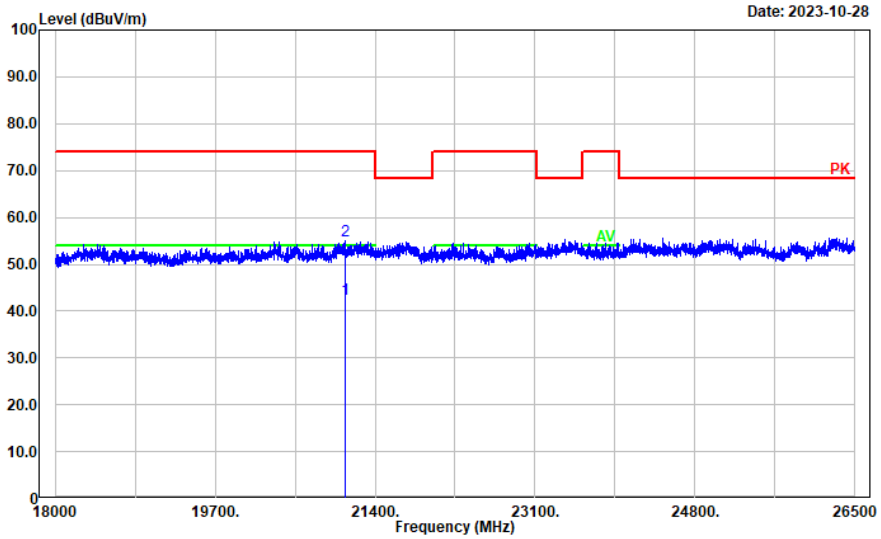
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note: 5G WIFI



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	11650.000	23.88	22.04	45.92	54.00	8.08	Average
2	11650.000	35.24	22.04	57.28	74.00	16.72	Peak
3	17786.360	16.29	31.57	47.86	54.00	6.14	Average
4	17786.360	29.81	31.57	61.38	74.00	12.62	Peak

Vertical	
18-26.5GHz	

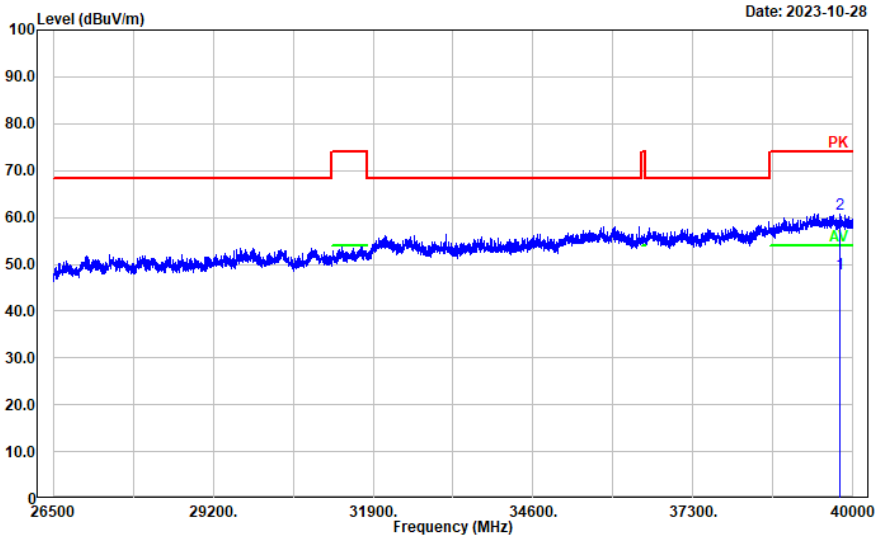
Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note: 5G WIFI



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	21081.020	37.87	4.68	42.55	54.00	11.45	Average
2	21081.020	50.33	4.68	55.01	74.00	18.99	Peak

Vertical	
26.5-40GHz	

Project No.: CR230850551-RF
Tester: Tao Zhu
Polarization: vertical
Note: 5G WIFI



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	39783.960	38.91	8.97	47.88	54.00	6.12	Average
2	39783.960	51.75	8.97	60.72	74.00	13.28	Peak

4.3 Emission Bandwidth

Serial Number:	2AQA-3	Test Date:	2023/10/10-2023/10/11
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24-25	Relative Humidity: (%)	46-51	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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:

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5180	19.20	16.56
	5200	19.88	16.48
	5240	19.08	16.48
802.11ac vht20	5180	19.88	17.64
	5200	23.80	17.72
	5240	23.76	17.68
802.11ac vht40	5190	42.40	36.4
	5230	43.04	36.48
802.11ac vht80	5210	82.72	74.88
Note 1: Test only was performed at Chain 2. Note 2: the 99% occupied bandwidth has not fall into the band 5250-5350MHz, please refer to the test plots of 99% occupied bandwidth.			

5250-5350 MHz:

Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260	18.96	16.48
	5280	23.92	16.52
	5320	19.04	16.48
802.11ac vht20	5260	19.84	17.6
	5280	19.84	17.68
	5320	19.96	17.64
802.11ac vht40	5270	42.00	36.32
	5310	42.00	36.4
802.11ac vht80	5290	82.56	74.88
Note: Test only was performed at Chain 2.			

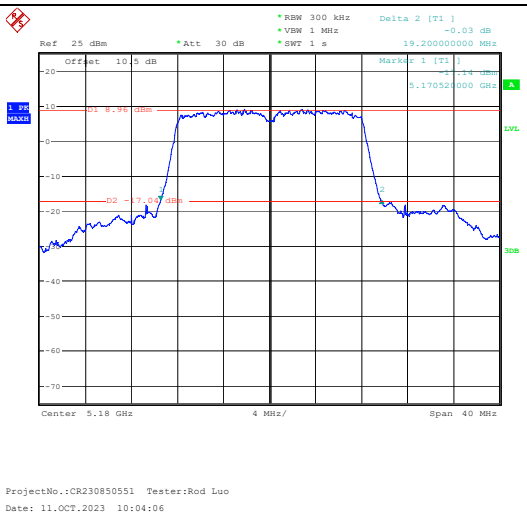
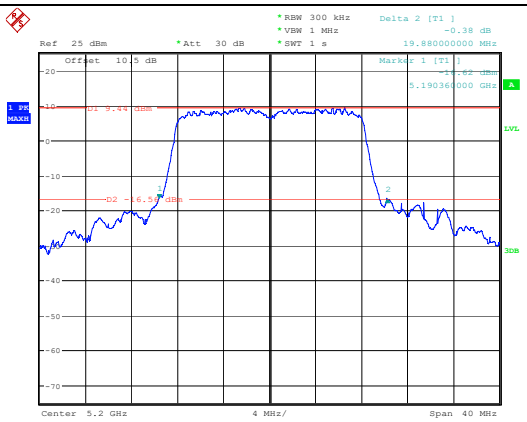
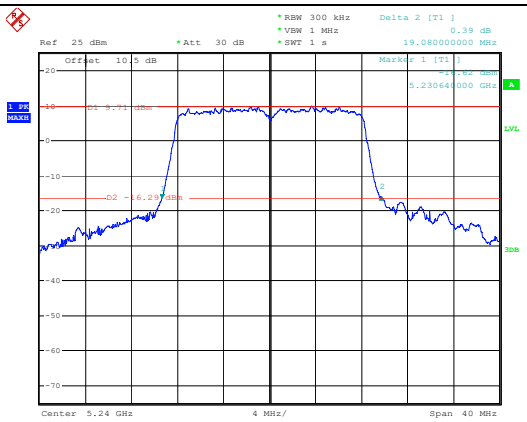
5470-5725MHz:

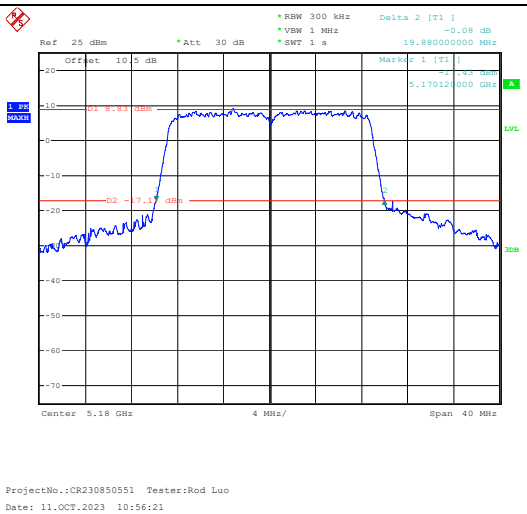
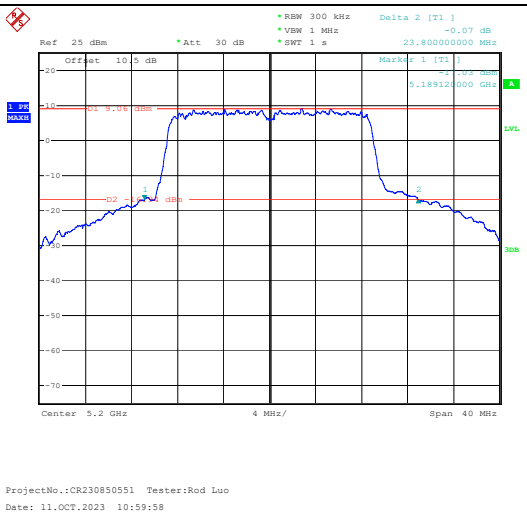
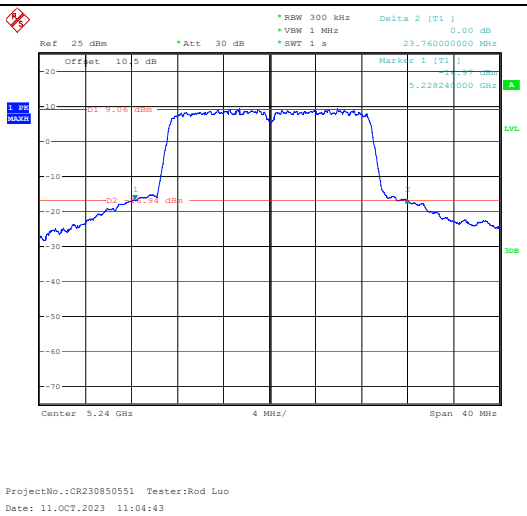
Test Modes	Test Frequency (MHz)	26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5500	19.00	16.44
	5580	19.00	16.44
	5700	18.96	16.44
802.11ac vht20	5500	19.84	17.6
	5580	19.96	17.64
	5700	19.88	17.64
802.11ac vht40	5510	42.16	36.4
	5550	42.64	36.32
	5670	41.76	36.24
802.11ac vht80	5530	82.24	74.88
	5610	82.40	74.88
Note: Test only was performed at Chain 2.			

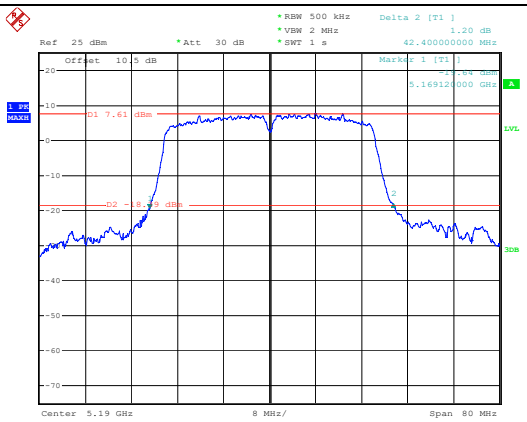
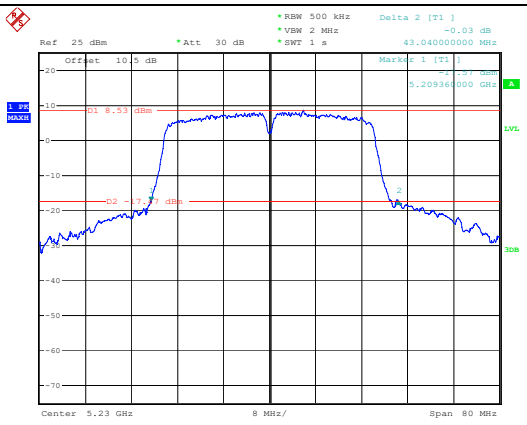
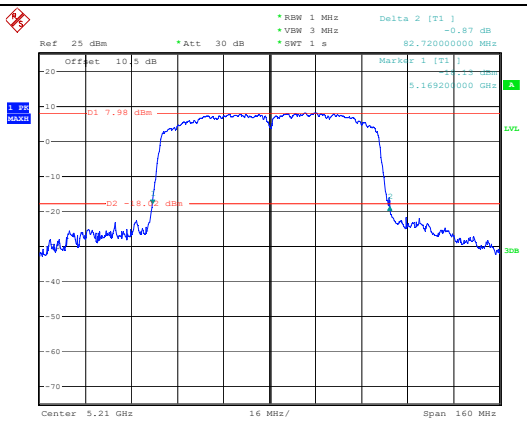
5725-5850 MHz:

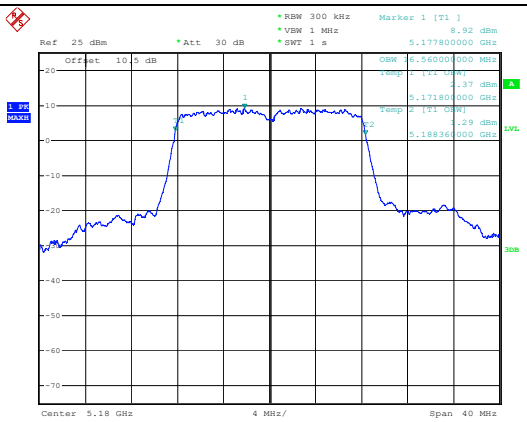
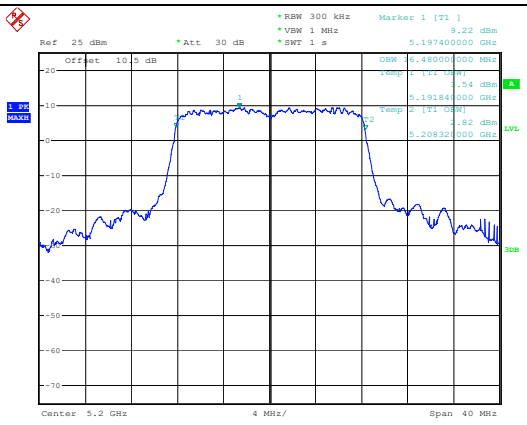
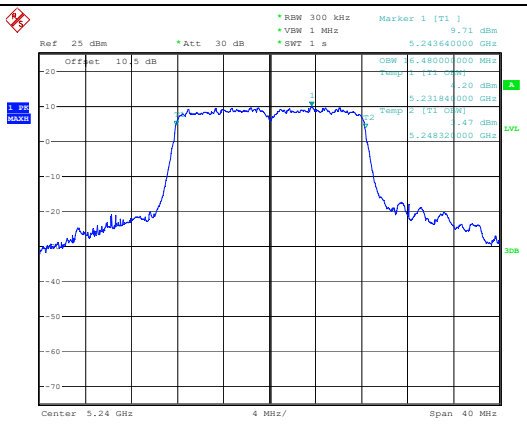
Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5745	16.40	16.48
	5785	16.40	16.44
	5825	16.40	16.48
802.11ac vht20	5745	17.64	17.6
	5785	17.64	17.64
	5825	17.64	17.64
802.11ac vht40	5755	35.36	36.4
	5795	35.36	36.4
802.11ac vht80	5775	75.36	74.88
Note: 6dB Emission Bandwidth Limit: ⩾0.5 MHz Test only was performed at Chain 2. the 99% occupied bandwidth has not fall into the band 5470-5725MHz, please refer to the test plots of 99% occupied bandwidth.			

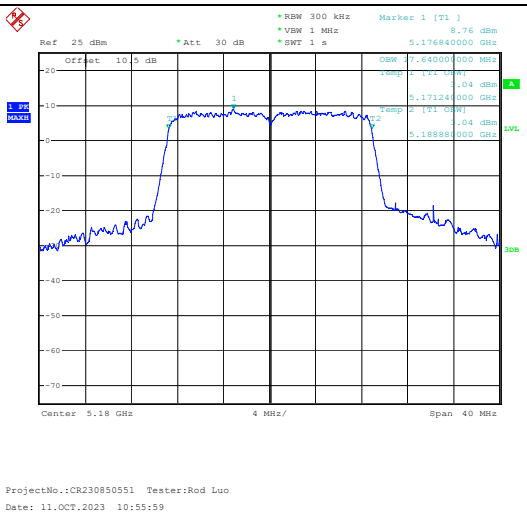
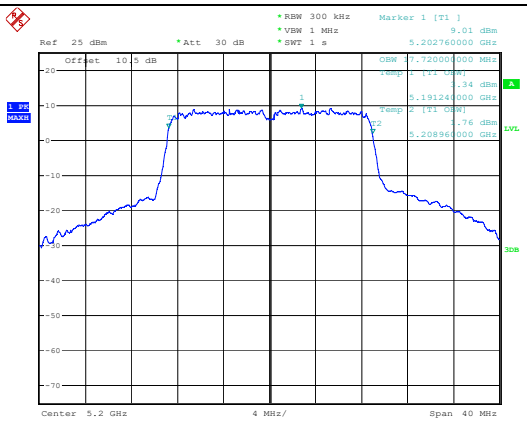
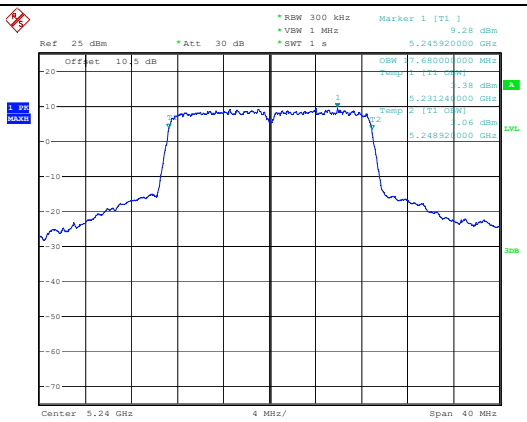
5150-5250MHz:

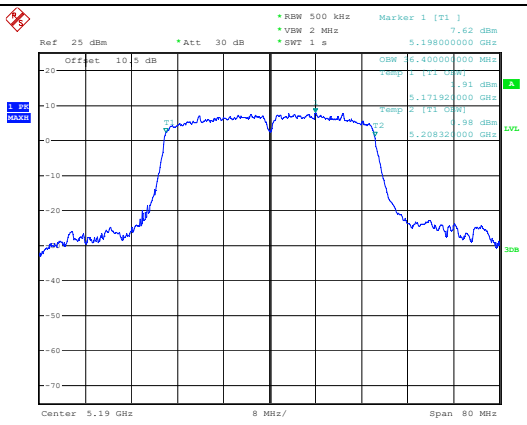
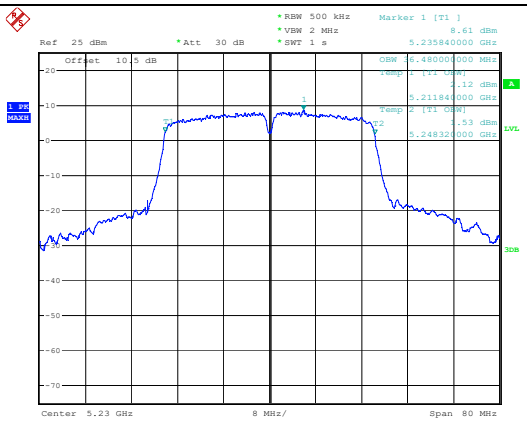
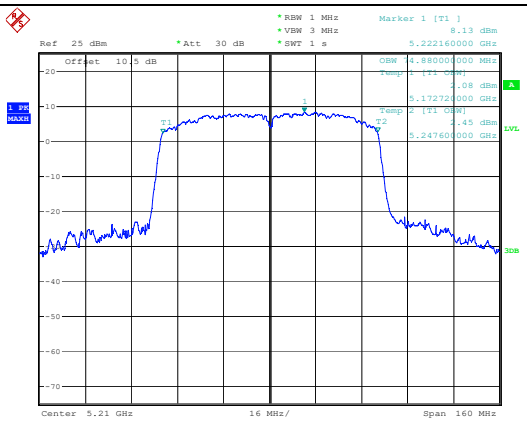
26dB Emission Bandwidth	
802.11a Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:04:06
802.11a Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:08:40
802.11a Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:11:56

26dB Emission Bandwidth	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

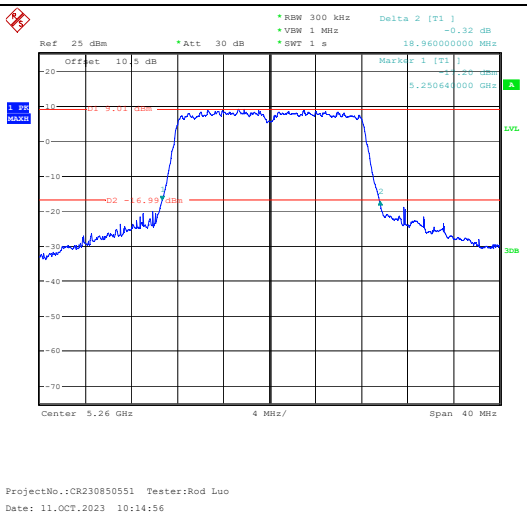
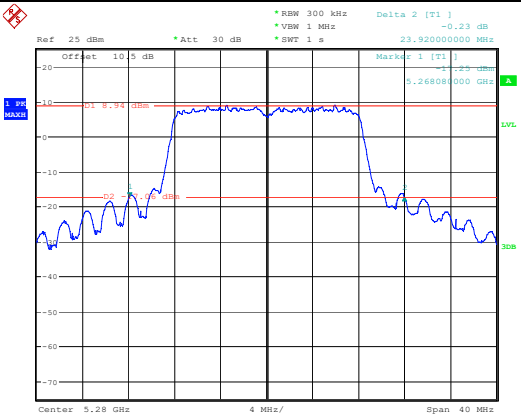
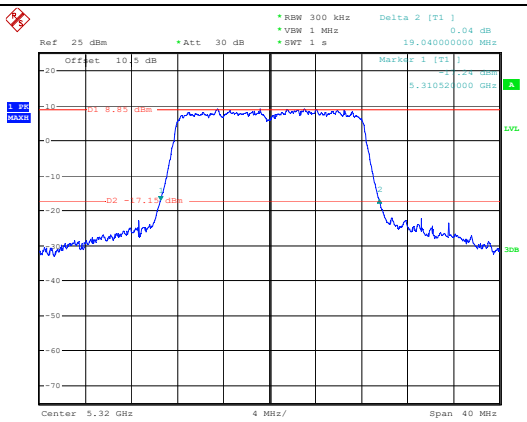
26dB Emission Bandwidth	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

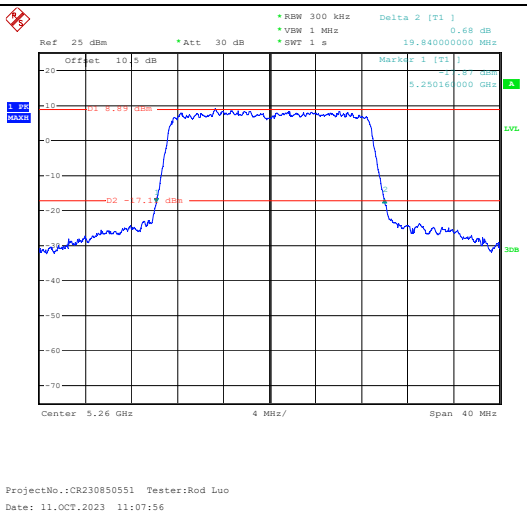
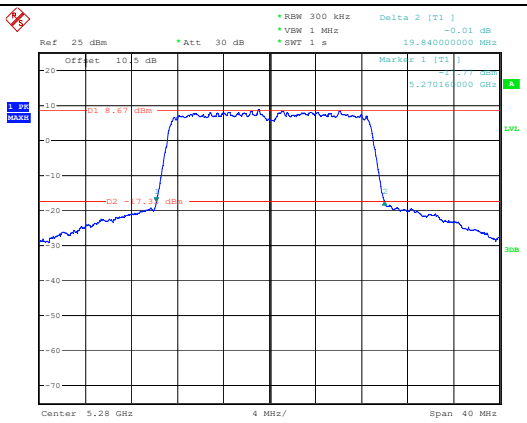
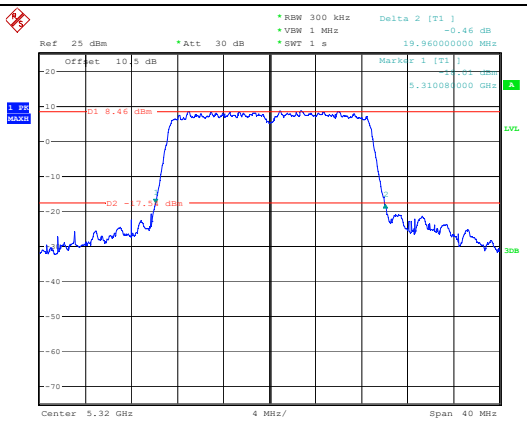
99% Emission Bandwidth	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

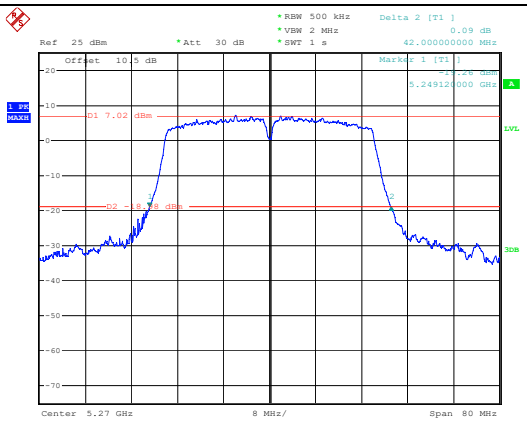
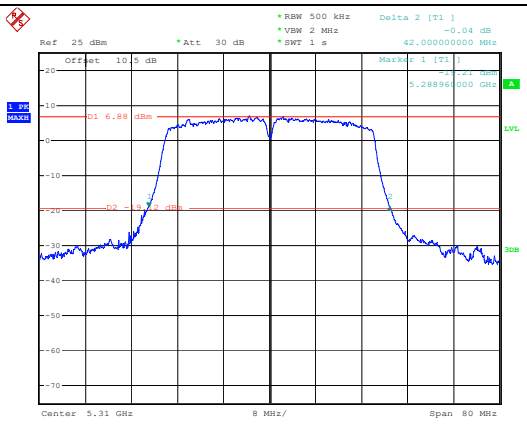
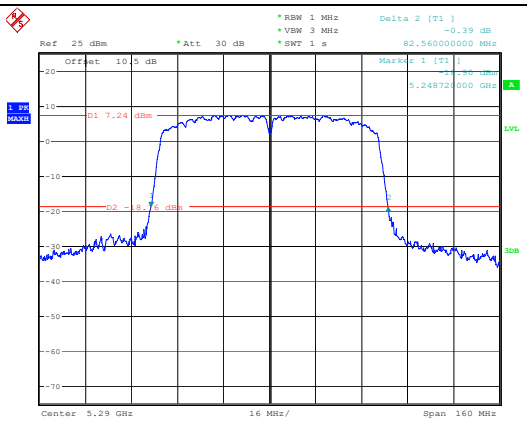
99% Emission Bandwidth	
802.11ac vht20 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:55:59
802.11ac vht20 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:59:22
802.11ac vht20 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:04:09

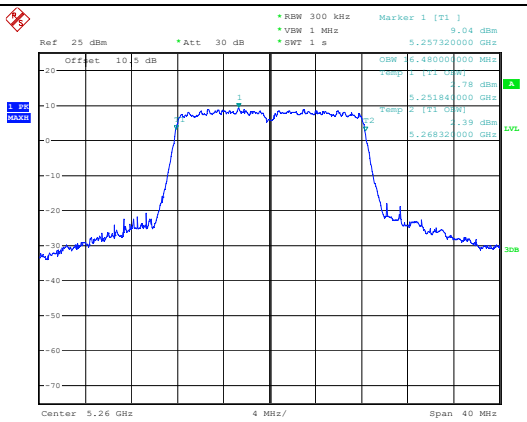
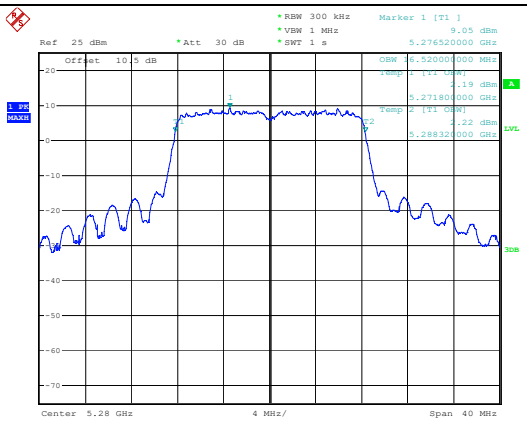
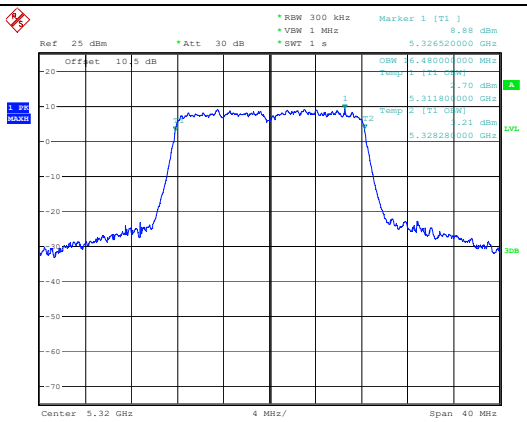
99% Emission Bandwidth	
802.11ac vht40 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:46:21
802.11ac vht40 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:49:24
802.11ac vht80 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 13:11:56

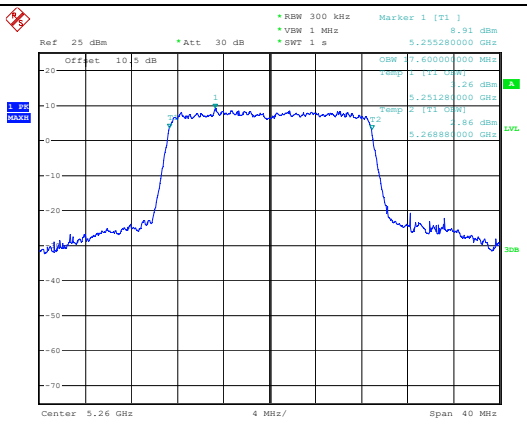
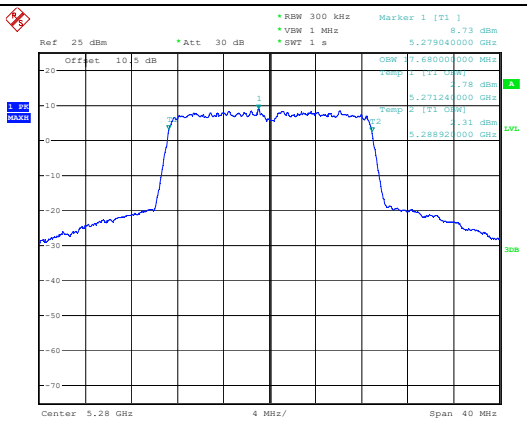
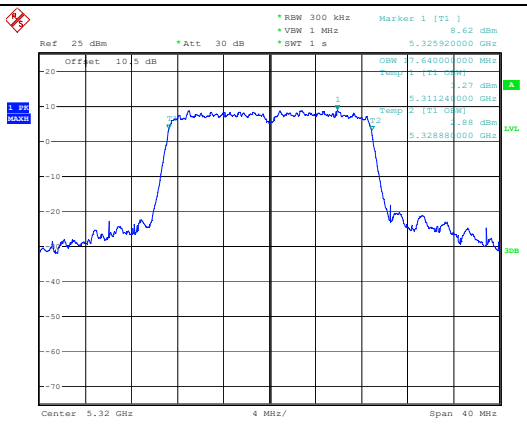
5250-5350MHz:

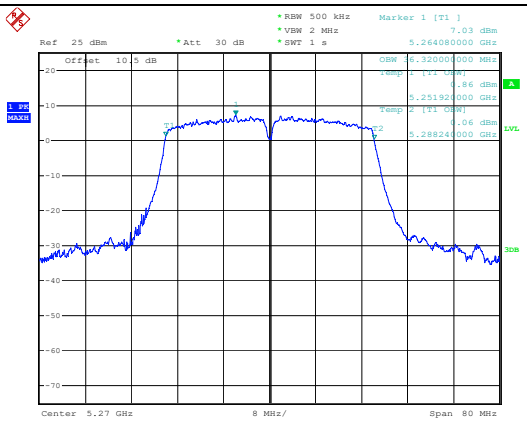
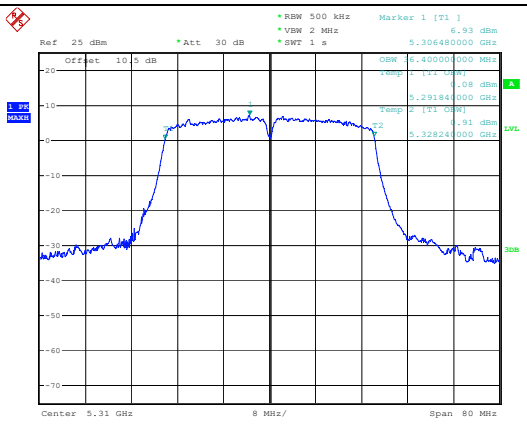
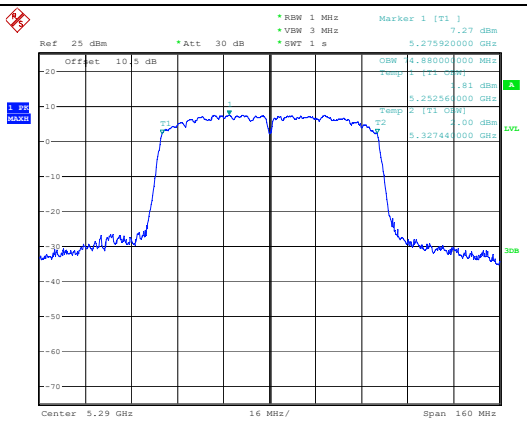
26dB Emission Bandwidth	
802.11a Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:14:56
802.11a Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:19:11
802.11a Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:22:45

26dB Emission Bandwidth	
802.11ac vht20 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:07:56
802.11ac vht20 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:12:59
802.11ac vht20 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:17:19

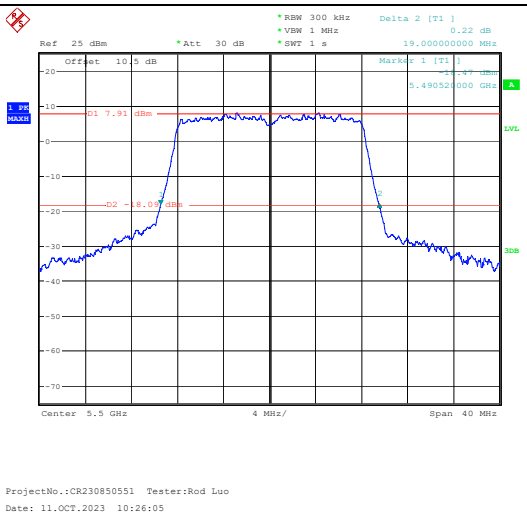
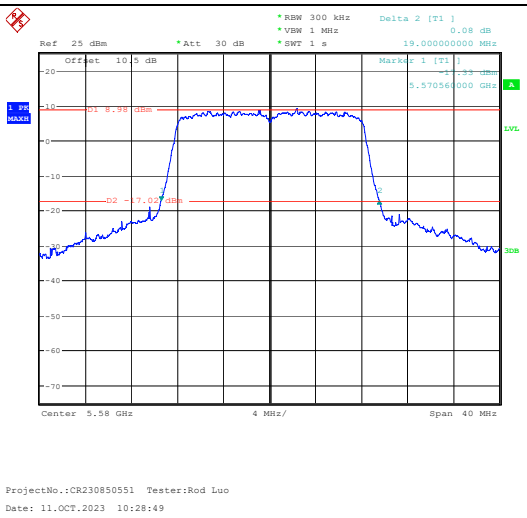
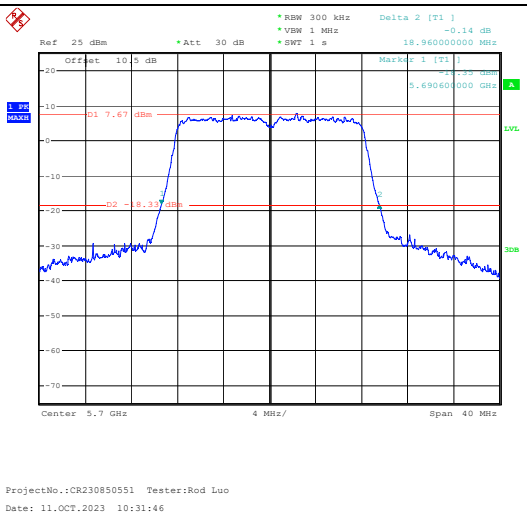
26dB Emission Bandwidth	
802.11ac vht40 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:52:11
802.11ac vht40 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:55:10
802.11ac vht80 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 13:15:51

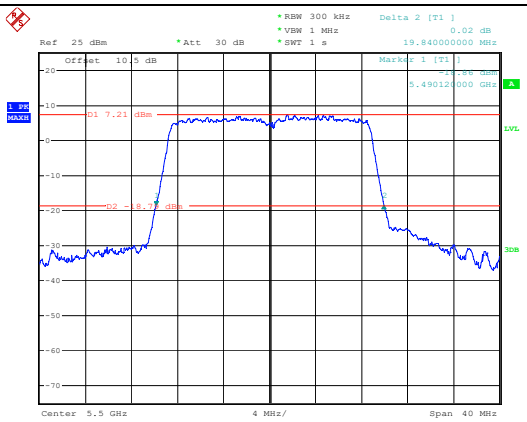
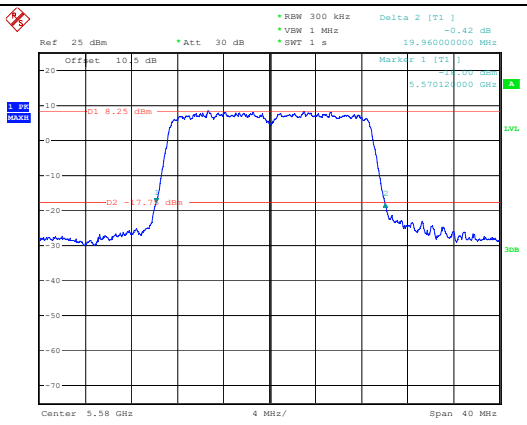
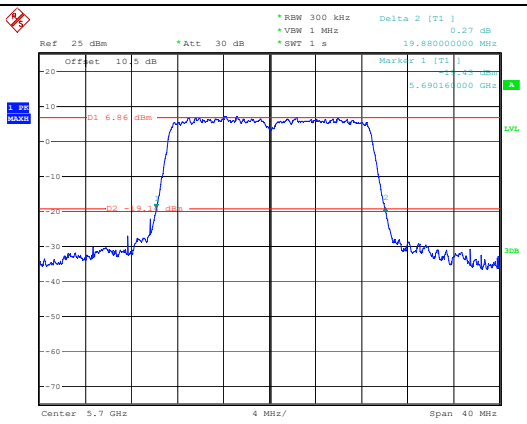
99% Emission Bandwidth	
802.11a Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:14:21
802.11a Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:18:34
802.11a Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 10:22:21

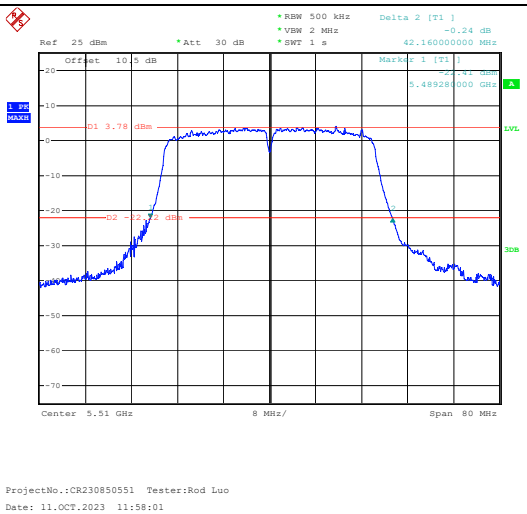
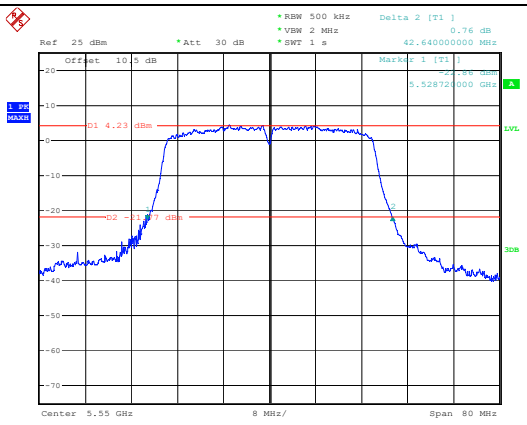
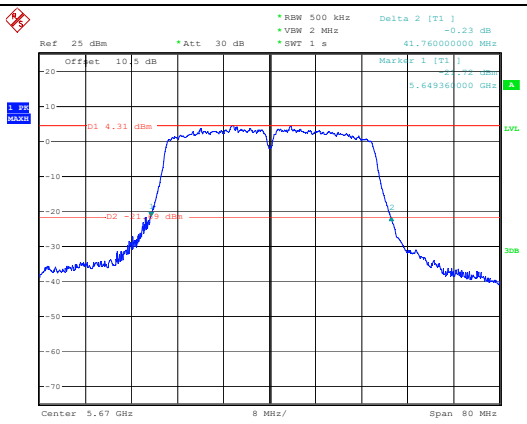
99% Emission Bandwidth	
802.11ac vht20 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:07:33
802.11ac vht20 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:12:23
802.11ac vht20 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:16:45

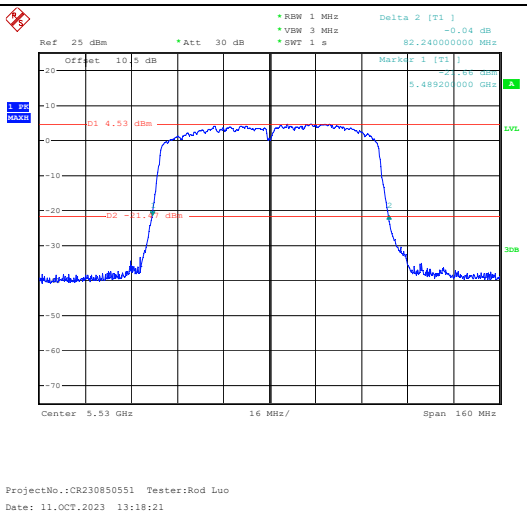
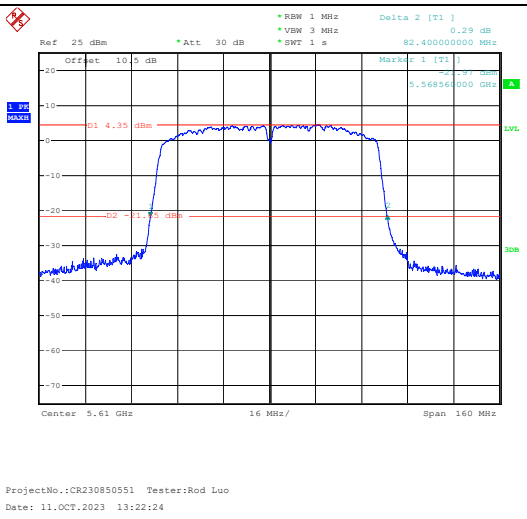
99% Emission Bandwidth	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

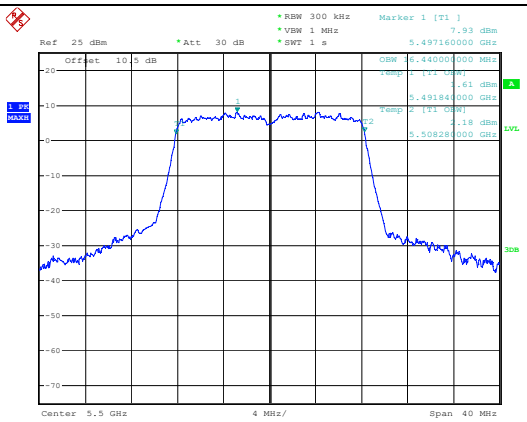
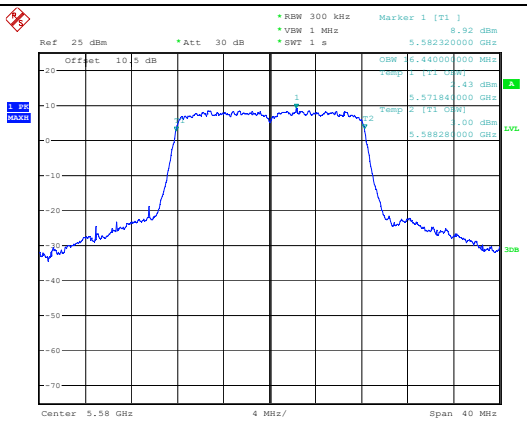
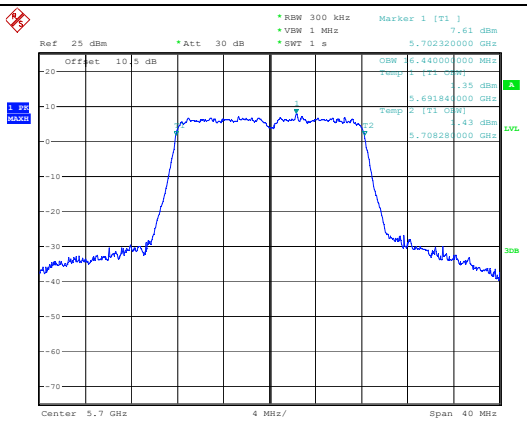
5470-5725 MHz:

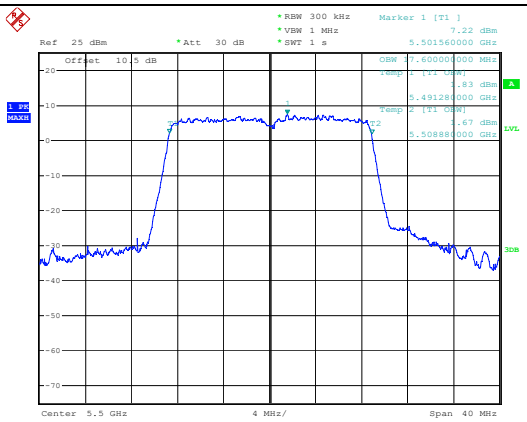
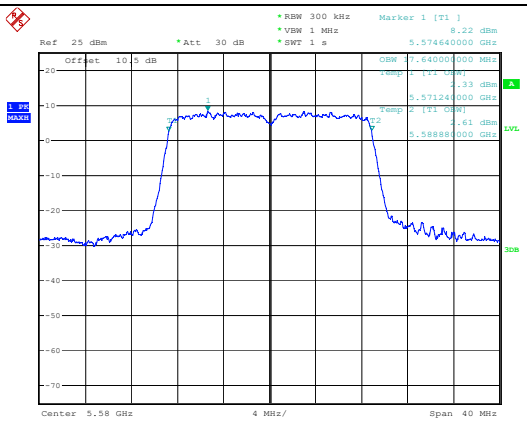
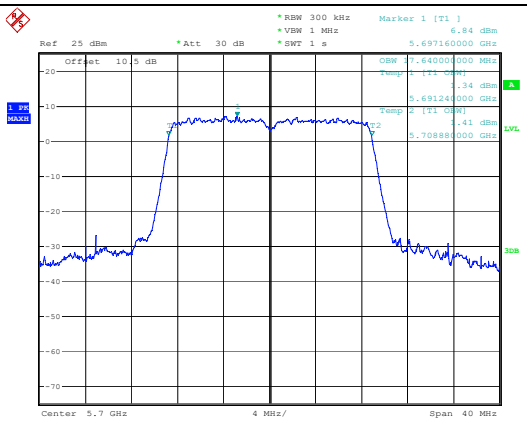
26dB Emission Bandwidth	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

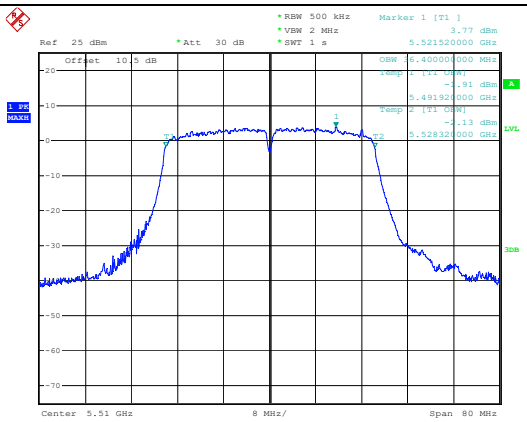
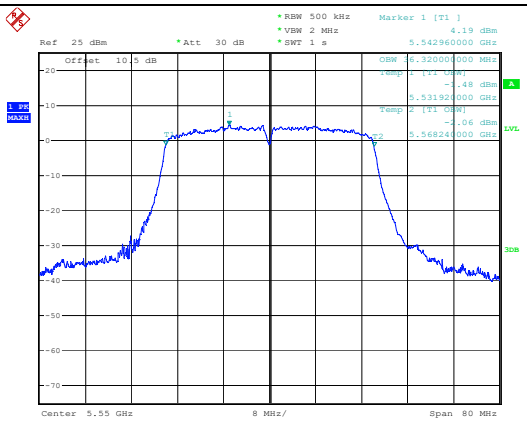
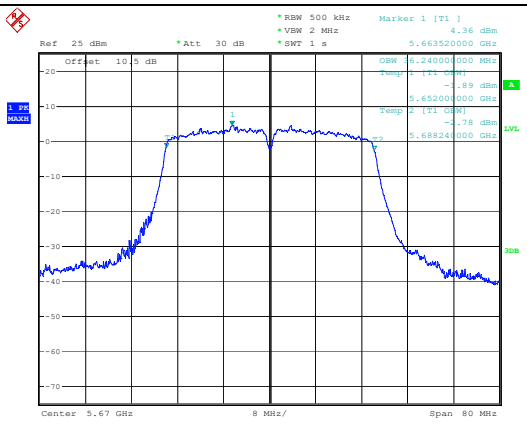
26dB Emission Bandwidth	
802.11ac vht20 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:20:40
802.11ac vht20 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:23:58
802.11ac vht20 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:27:36

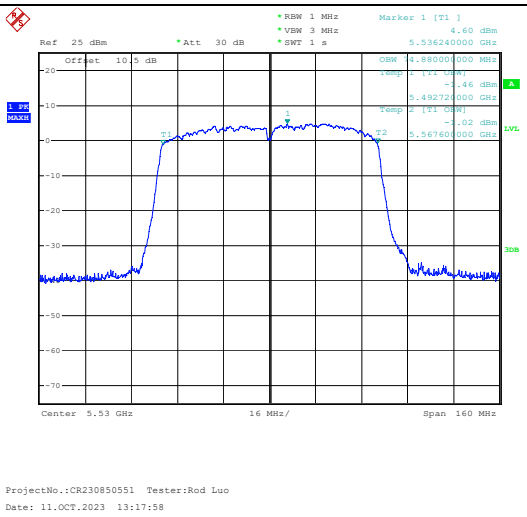
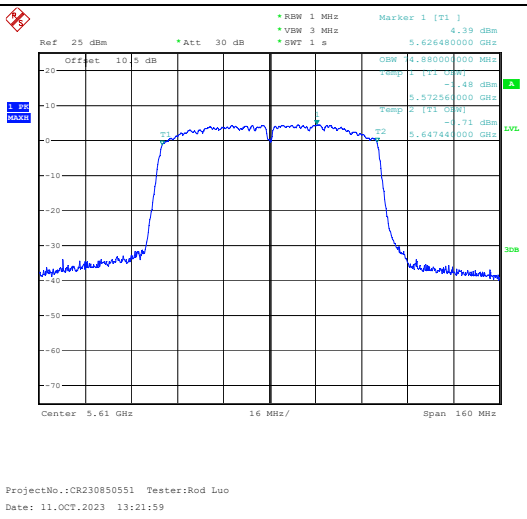
26dB Emission Bandwidth	
802.11ac vht40 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:58:01
802.11ac vht40 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 12:08:15
802.11ac vht40 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 12:12:24

26dB Emission Bandwidth	
802.11ac vht80 Lowest Channel	
802.11ac vht80 Highest Channel	

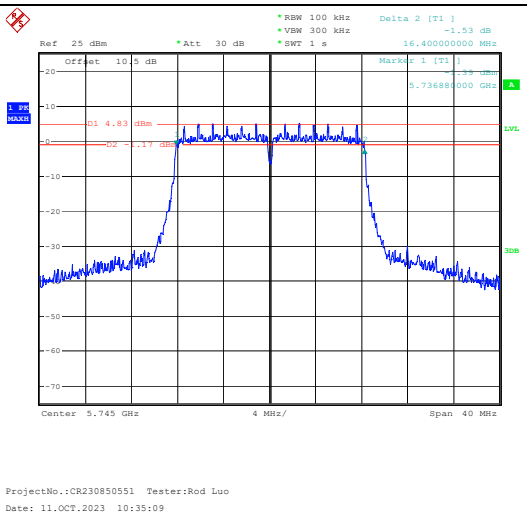
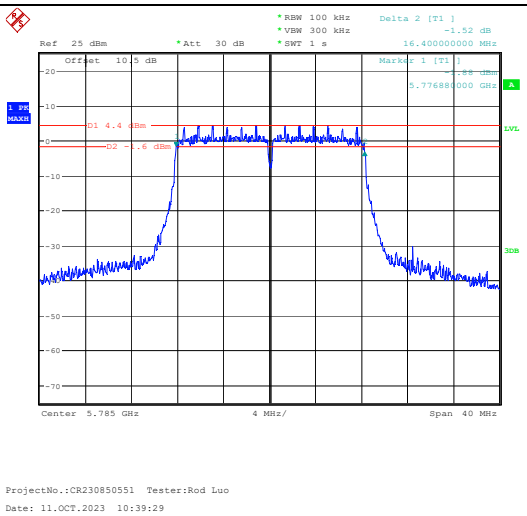
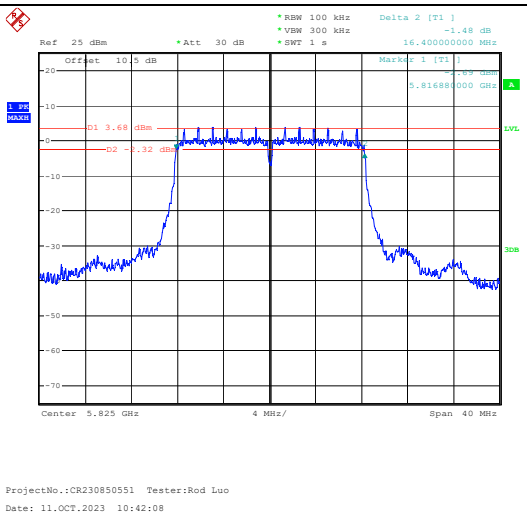
99% Emission Bandwidth	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

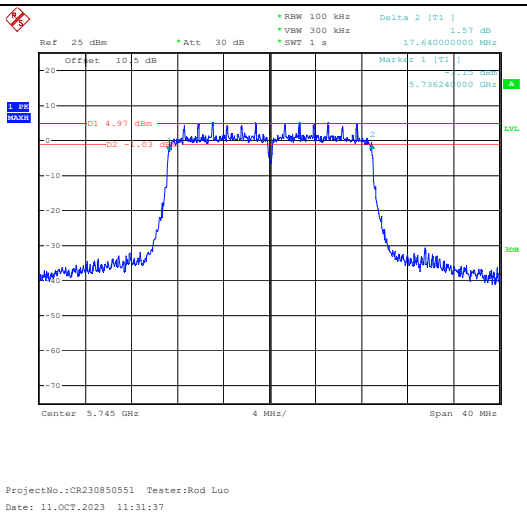
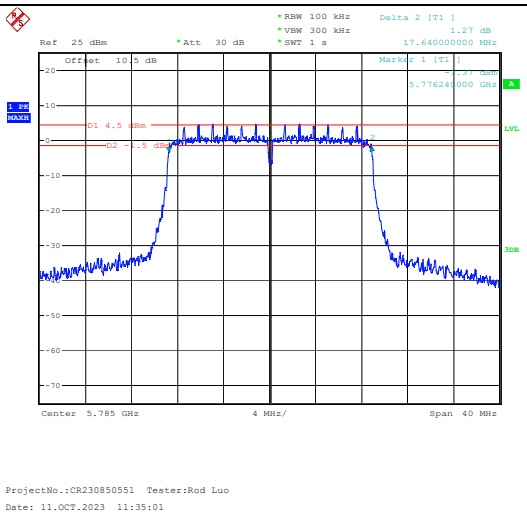
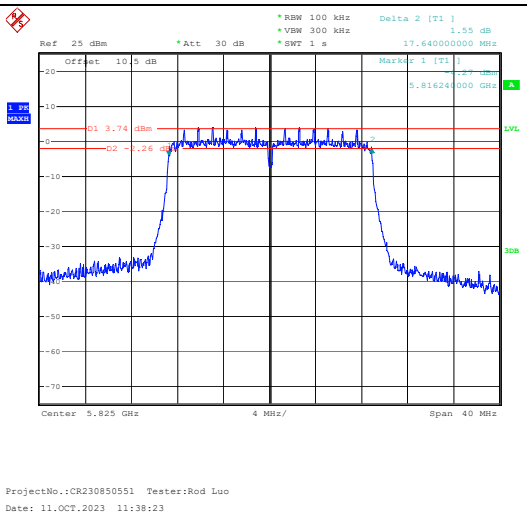
99% Emission Bandwidth	
802.11ac vht20 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:20:04
802.11ac vht20 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:23:22
802.11ac vht20 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:26:49

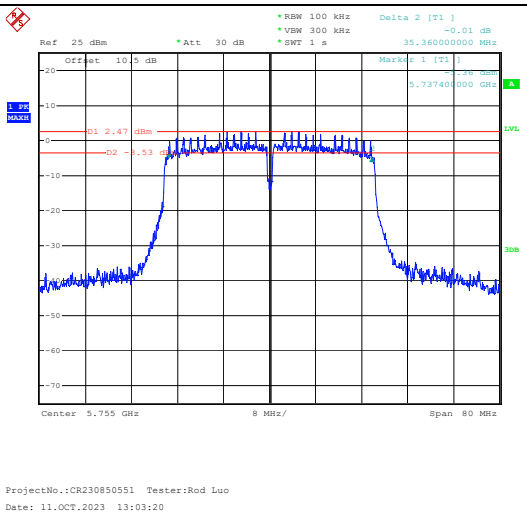
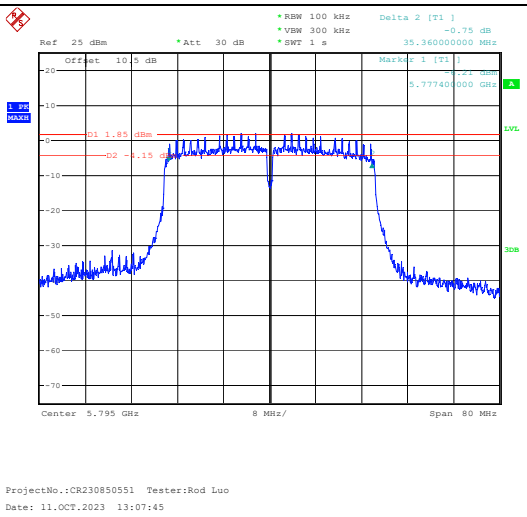
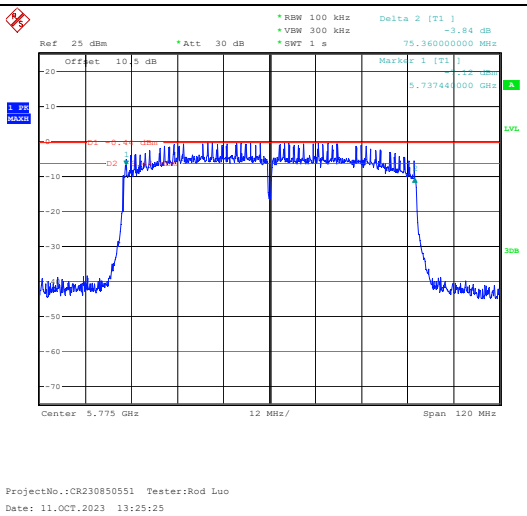
99% Emission Bandwidth	
802.11ac vht40 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:57:25
802.11ac vht40 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 12:07:28
802.11ac vht40 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 12:11:36

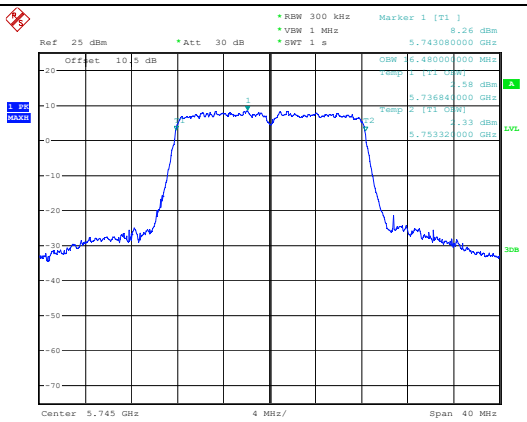
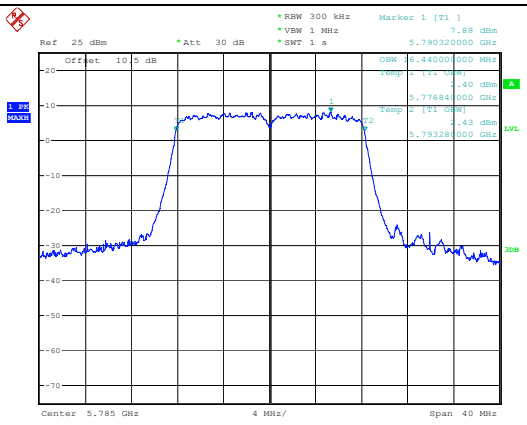
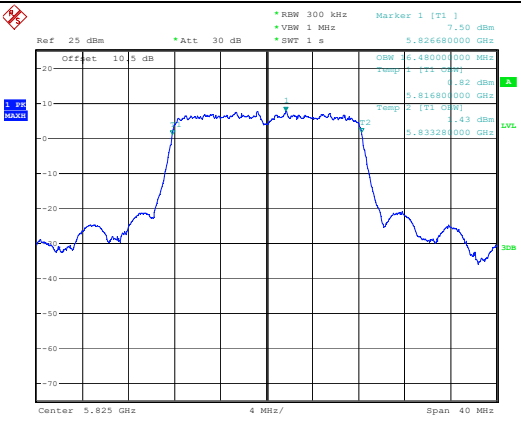
99% Emission Bandwidth	
802.11ac vht80 Lowest Channel	
802.11ac vht80 Highest Channel	

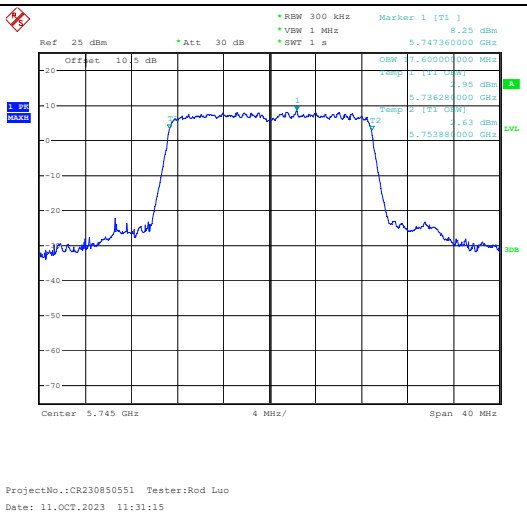
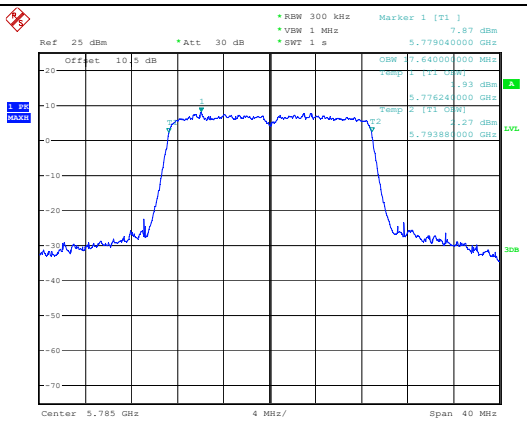
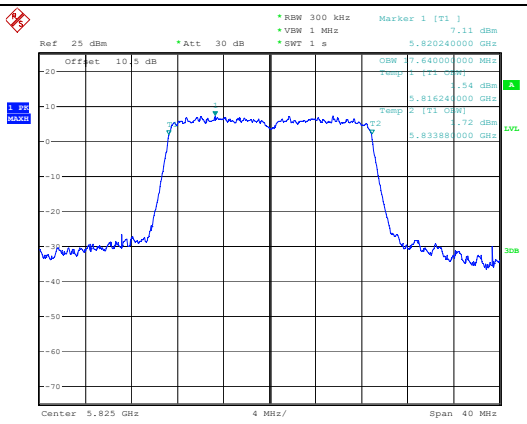
5725-5850MHz:

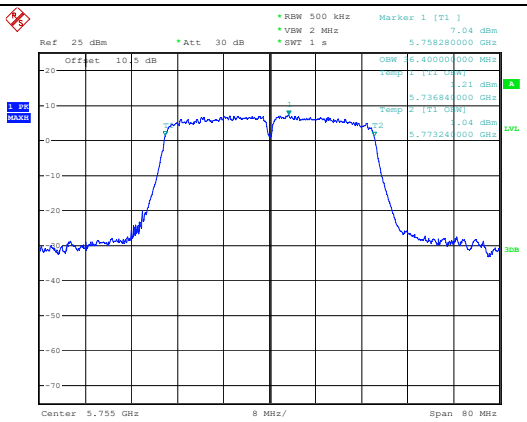
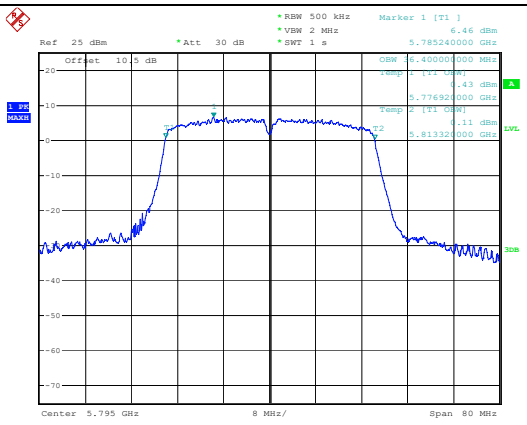
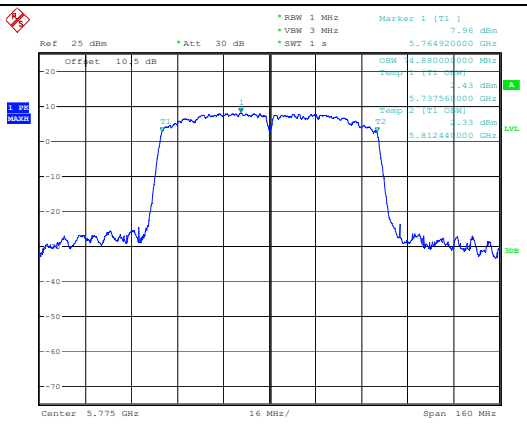
6dB Emission Bandwidth	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

6dB Emission Bandwidth	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

6dB Emission Bandwidth	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

99% Emission Bandwidth	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

99% Emission Bandwidth	
802.11ac vht20 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:31:15
802.11ac vht20 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:34:14
802.11ac vht20 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 11:38:01

99% Emission Bandwidth	
802.11ac vht40 Lowest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 13:02:55
802.11ac vht40 Highest Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 13:07:10
802.11ac vht80 Middle Channel	 ProjectNo.:CR230850551 Tester:Rod Luo Date: 11.OCT.2023 13:25:03

4.4 Maximum Conducted Output Power

Serial Number:	2AQA-3	Test Date:	2023/10/10-2023/10/11
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24-25	Relative Humidity: (%)	46-51	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Anritsu	Power Meter	ML2495A	1106009	2023/8/4	2024/8/3
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A
Anritsu	Pulse Power Sensor	MA2411A	10780	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:

5150-5250 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		Chain 1	Chain 2	Total	Limit
802.11a	5180	15.72	16.97	/	24
	5200	16.51	17.28	/	24
	5240	17.07	17.74	/	24
802.11ac vht20	5180	15.66	16.89	19.33	24
	5200	16.21	17.38	19.84	24
	5240	17.05	17.69	20.39	24
802.11ac vht40	5190	15.49	16.58	19.08	24
	5230	16.64	17.30	19.99	24
802.11ac vht80	5210	14.92	15.72	18.35	24

Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leqslant 4$
The device is a client unit.

Antenna Gain:	2	dBi	Directional gain:	2	dBi

5250-5350 MHz:

Test Modes	Test Frequency(MHz)	Max. Conducted Average Output Power(dBm)			
		Chain 1	Chain 2	Total	Limit
802.11a	5260	17.38	17.05	/	23.78
	5280	16.51	17.08	/	24.00
	5320	16.77	16.96	/	23.80
802.11ac vht20	5260	16.21	16.83	19.54	23.98
	5280	16.54	17.06	19.82	23.98
	5320	16.66	16.84	19.76	24.00
802.11ac vht40	5270	15.63	16.00	18.83	24.00
	5310	15.49	16.02	18.77	24.00
802.11ac vht80	5290	15.67	15.47	18.58	24.00
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leqslant 4$					
Antenna Gain:	2	dBi	Directional gain:	2	dBi

5470-5725 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		Chain 1	Chain 2	Total	Limit
802.11a	5500	17.11	15.73	/	23.79
	5580	18.69	16.84	/	23.79
	5700	16.48	15.28	/	23.78
802.11ac vht20	5500	15.88	15.37	18.64	23.98
	5580	16.84	16.39	19.63	24.00
	5700	17.06	15.19	19.24	23.98
802.11ac vht40	5510	13.55	13.19	16.38	24.00
	5550	13.77	13.64	16.72	24.00
	5670	14.32	13.20	16.81	24.00
802.11ac vht80	5530	13.13	12.79	15.97	24.00
	5610	12.82	12.44	15.64	24.00
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leqslant 4$					
Antenna Gain:	2	dBi	Directional gain:	2	dBi

5725-5850 MHz:

Test Modes	Test Frequency (MHz)	Max. Conducted Average Output Power (dBm)			
		Chain 1	Chain 2	Total	Limit
802.11a	5745	18.97	16.46	/	30
	5785	19.57	15.93	/	30
	5825	19.39	15.12	/	30
802.11ac vht20	5745	18.87	16.32	20.79	30
	5785	19.16	16.08	20.90	30
	5825	19.36	15.26	20.79	30
802.11ac vht40	5755	18.54	16.21	20.54	30
	5795	18.86	15.44	20.49	30
802.11ac vht80	5775	19.31	16.23	21.05	30
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices: Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leqslant 4$					
Antenna Gain:	2	dBi	Directional gain:	2	dBi

4.5 Maximum power spectral density

Serial Number:	2AQA-3	Test Date:	2023/10/10-2024/05/06
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo, Len Huang	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24-26	Relative Humidity: (%)	46-55	ATM Pressure: (kPa)	101

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023-04-18	2024-04-17
R&S	Spectrum Analyzer	FSV40-N	102259	2024-04-17	2025-04-16
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	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:

5150-5250MHz

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)				
		Chain 1	Chain 2	Duty cycle factor	Total	Limit
802.11a	5180	6.16	5.64	0.47	6.11	11
	5200	4.97	5.96	0.47	6.43	11
	5240	5.64	6.36	0.47	6.83	11
802.11ac vht20	5180	4.05	5.39	0.53	8.31	11
	5200	4.47	5.54	0.53	8.58	11
	5240	5.20	5.93	0.53	9.12	11
802.11ac vht40	5190	1.19	2.38	1.00	5.83	11
	5230	1.99	2.66	1.00	6.35	11
802.11ac vht80	5210	-2.75	-2.05	1.79	2.42	11

Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:
Array Gain = 10 log(N_{ANT}/N_{SS}) dB

Duty cycle <98%, and duty cycle variations are less than ±2%,method ANSI C63.10-2013 Section 12.3.2.4 was used.

Antenna Gain:	2	dBi	Directional gain:	5	dBi

5250-5350MHz

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)				
		Chain 1	Chain 2	Duty cycle factor	Total	Limit
802.11a	5260	6.45	5.58	0.47	6.92	11
	5280	5.06	5.51	0.47	5.98	11
	5320	5.33	5.66	0.47	6.13	11
802.11ac vht20	5260	4.62	5.29	0.53	8.51	11
	5280	4.85	5.08	0.53	8.51	11
	5320	4.92	5.09	0.53	8.55	11
802.11ac vht40	5270	0.90	1.36	1.00	5.14	11
	5310	1.31	1.33	1.00	5.33	11
802.11ac vht80	5290	-2.54	-2.42	1.79	2.32	11
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB Note: Duty cycle <98%, and duty cycle variations are less than ±2%,method ANSI C63.10-2013 Section 12.3.2.4 was used.						
Antenna Gain:	2	dBi	Directional gain:	5.00		dBi

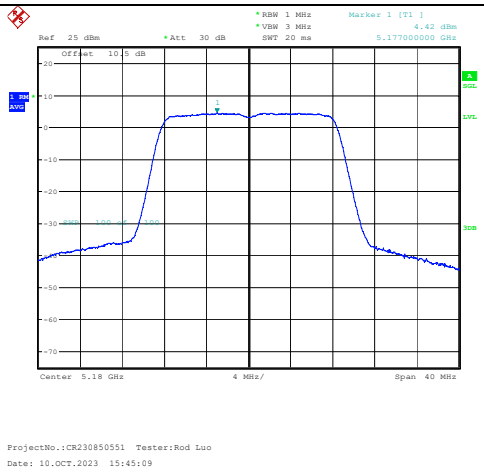
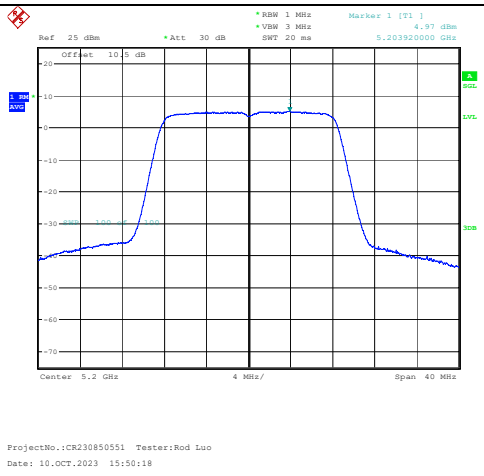
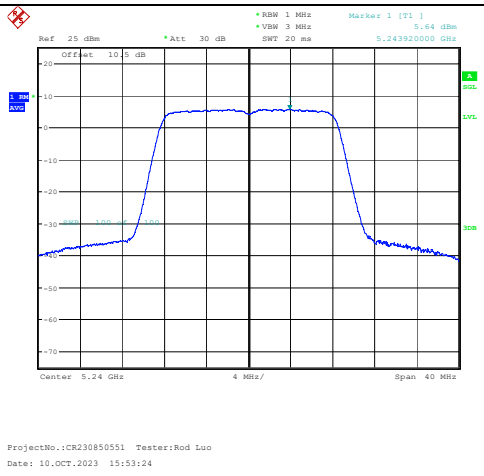
5470-5725MHz

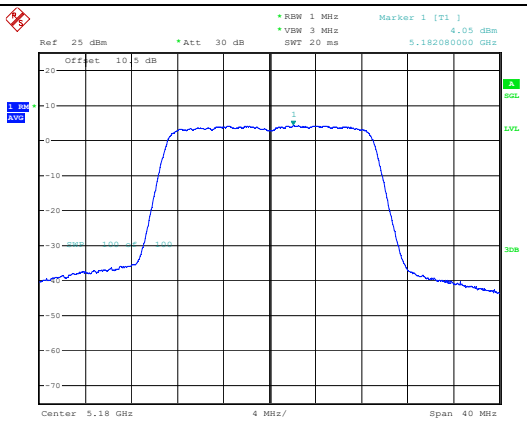
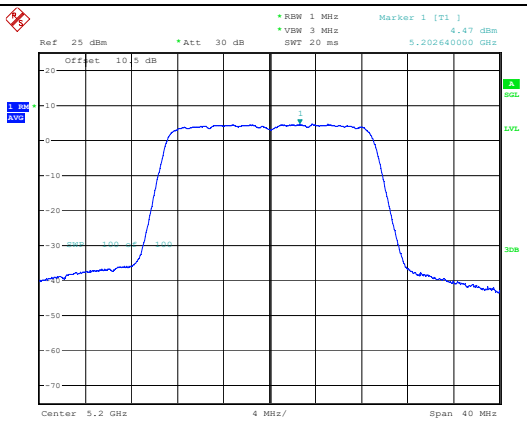
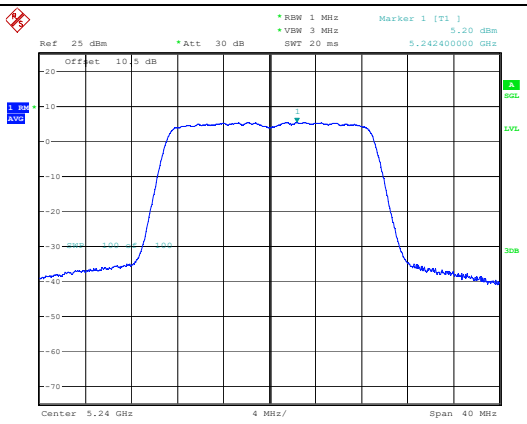
Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/MHz)				
		Chain 1	Chain 2	Duty cycle factor	Total	Limit
802.11a	5500	5.49	4.34	0.47	6.10	11
	5580	7.06	5.38	0.47	7.53	11
	5700	5.19	3.79	0.47	5.66	11
802.11ac vht20	5500	4.04	3.90	0.53	7.51	11
	5580	4.93	4.82	0.53	8.42	11
	5700	5.18	3.54	0.53	7.98	11
802.11ac vht40	5510	-1.30	-1.78	1.00	2.48	11
	5550	-0.70	-1.09	1.00	3.12	11
	5670	-0.34	-1.61	1.00	3.08	11
802.11ac vht80	5530	-5.03	-5.34	1.79	-0.38	11
	5610	-4.90	-5.60	1.79	-0.43	11
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB Duty cycle <98%, and duty cycle variations are less than ±2%,method ANSI C63.10-2013 Section 12.3.2.4 was used.						
Antenna Gain:	2	dBi	Directional gain:	5.00		dBi

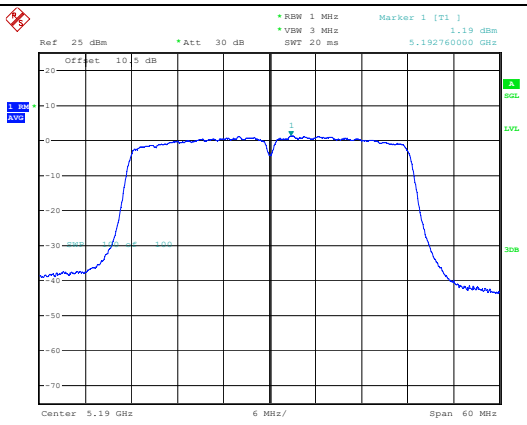
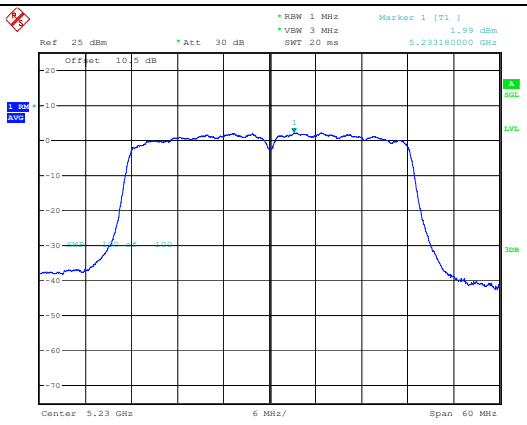
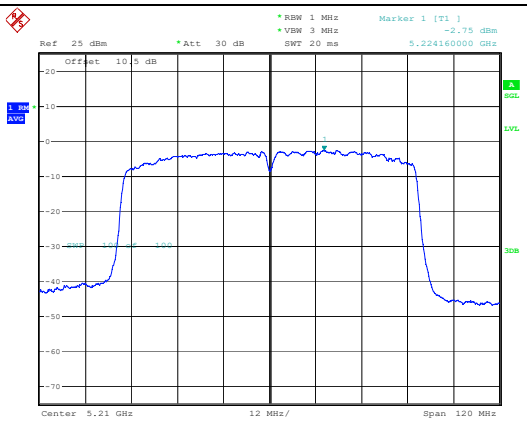
5725-5850MHz

Test Modes	Test Frequency (MHz)	Maximum Power Spectral Density (dBm/500kHz)				
		Chain 1	Chain 2	Duty cycle factor	Total	Limit
802.11a	5745	4.47	2.04	0.47	4.94	30
	5785	5.05	1.61	0.47	5.52	30
	5825	4.93	0.86	0.47	5.40	30
802.11ac vht20	5745	3.90	1.66	0.53	6.46	30
	5785	4.31	1.32	0.53	6.61	30
	5825	4.50	0.59	0.53	6.51	30
802.11ac vht40	5755	1.15	-1.31	1.00	4.10	30
	5795	1.17	-1.94	1.00	3.90	30
802.11ac vht80	5775	-2.18	-4.80	1.79	1.51	30
Note: The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB Duty cycle <98%, and duty cycle variations are less than ±2%,method ANSI C63.10-2013 Section 12.3.2.4 was used.						
Antenna Gain:	2	dBi	Directional gain:	5.00	dBi	

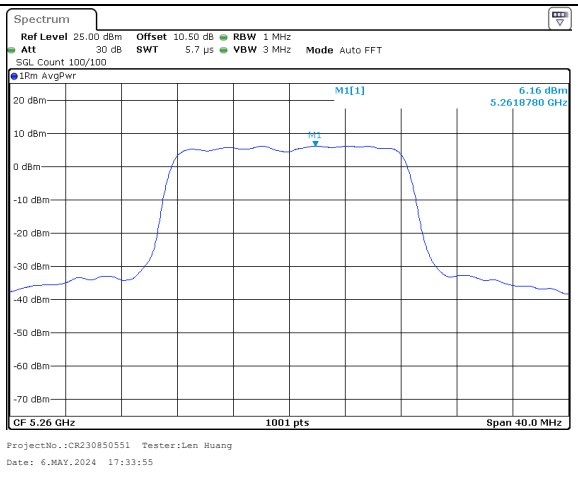
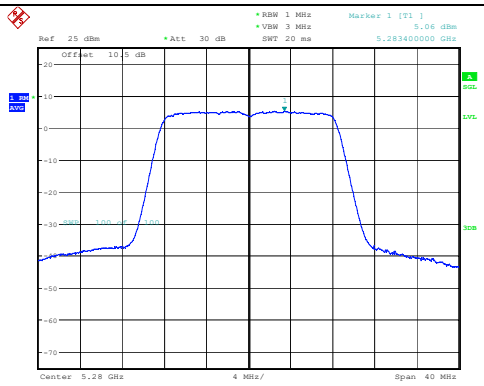
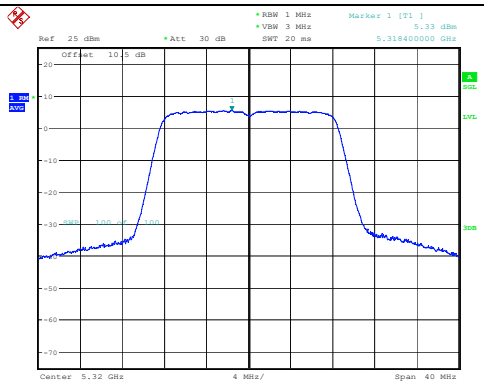
Chain 1:
5150-5250MHz:

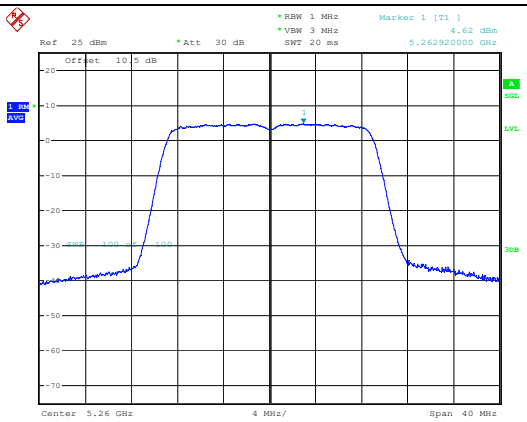
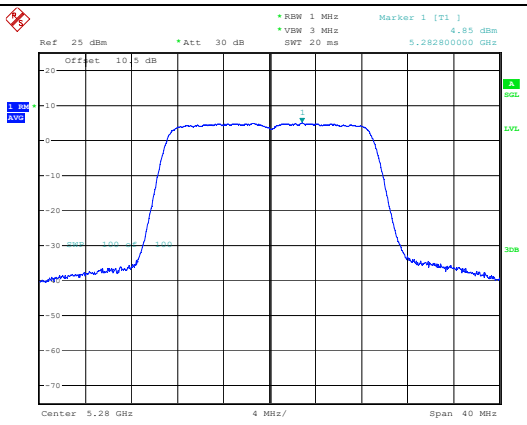
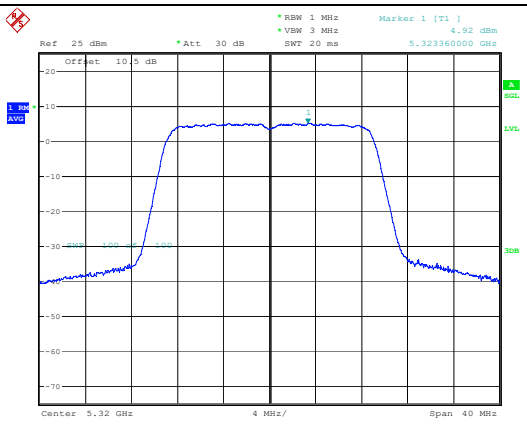
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

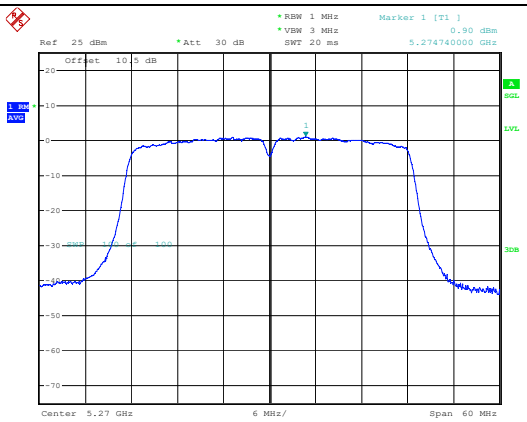
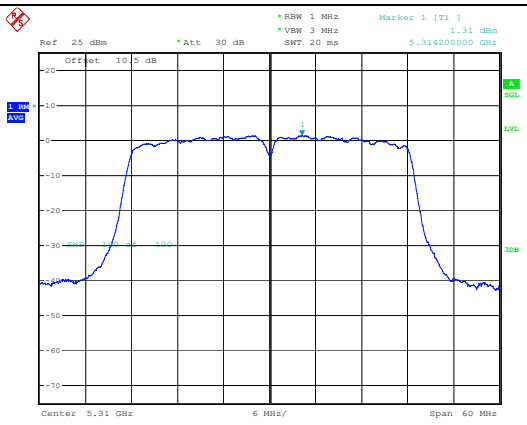
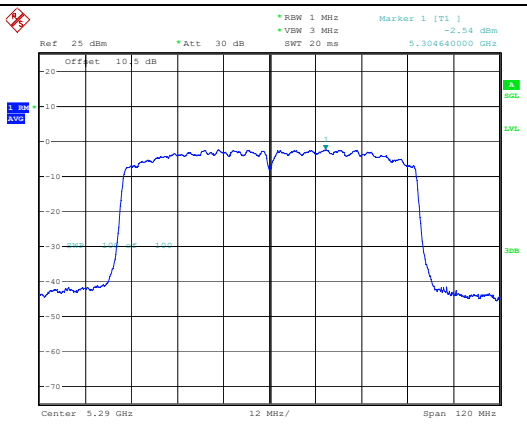
Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

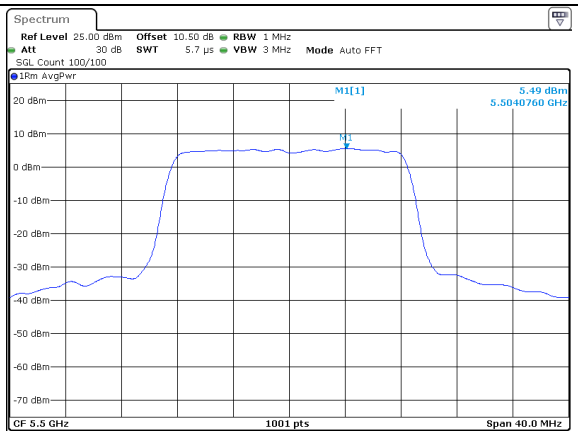
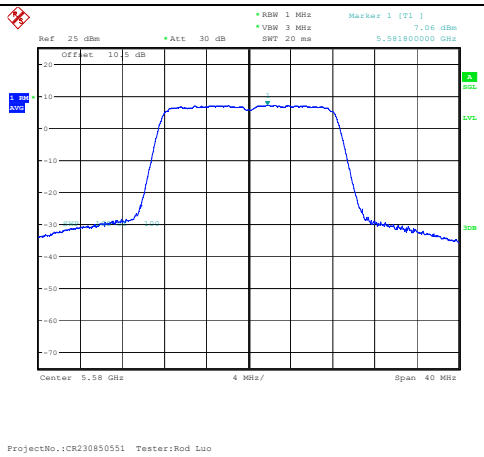
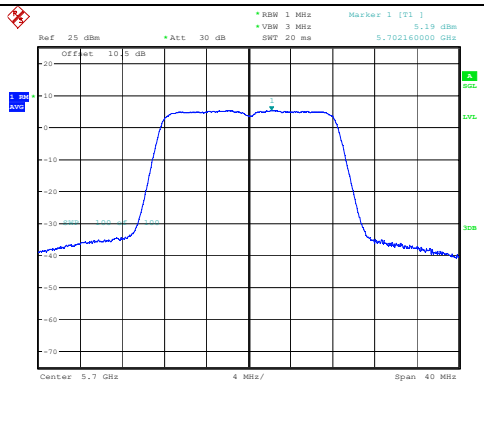
5250-5350MHz:

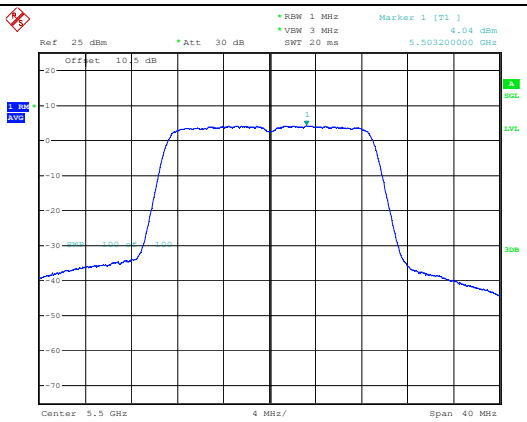
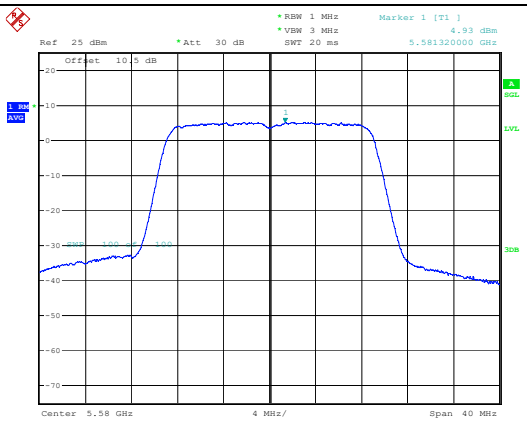
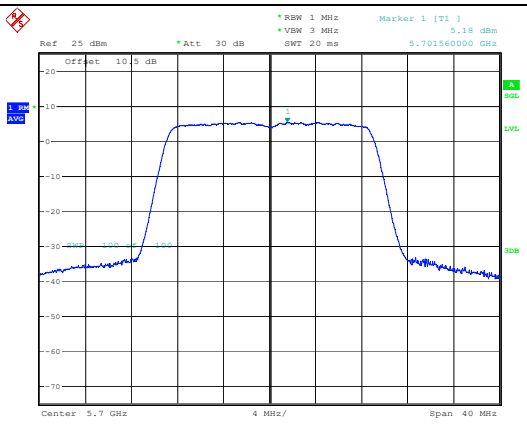
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

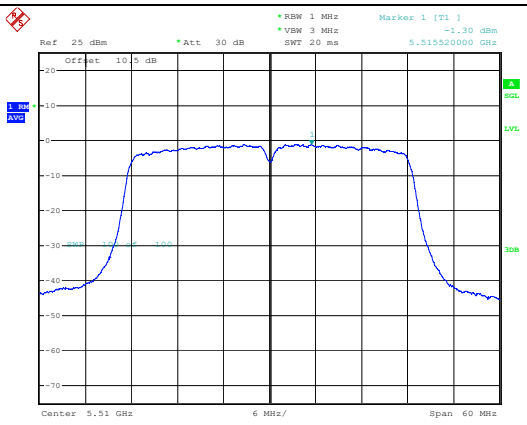
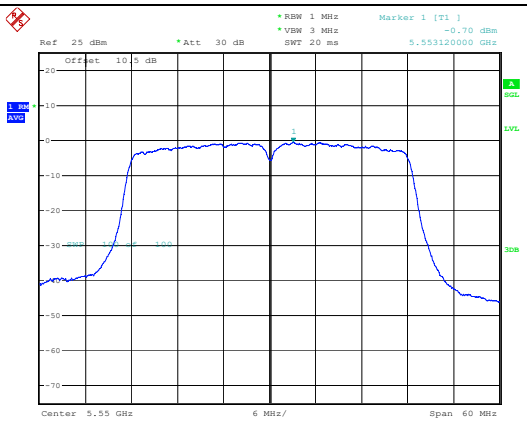
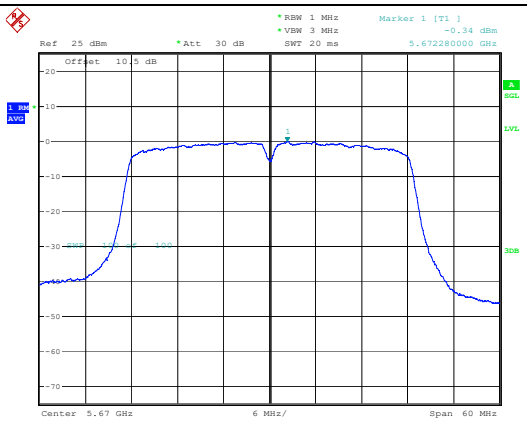
Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

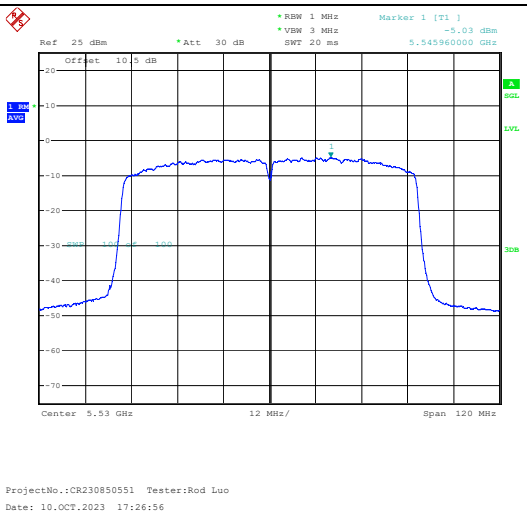
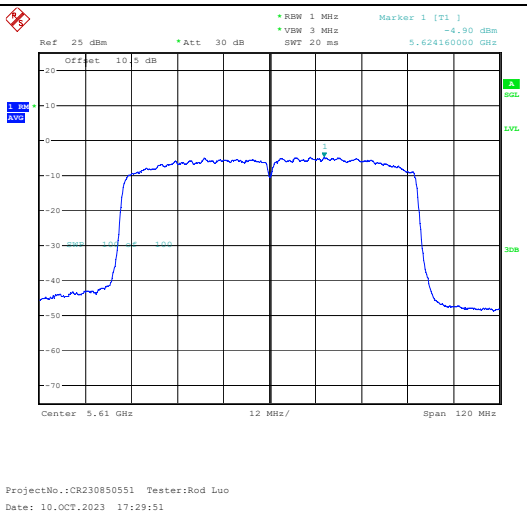
Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

5470-5725 MHz:

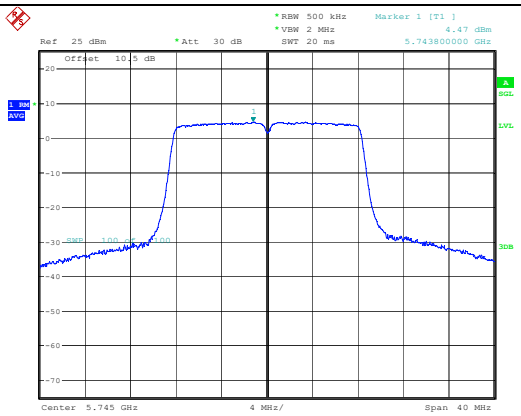
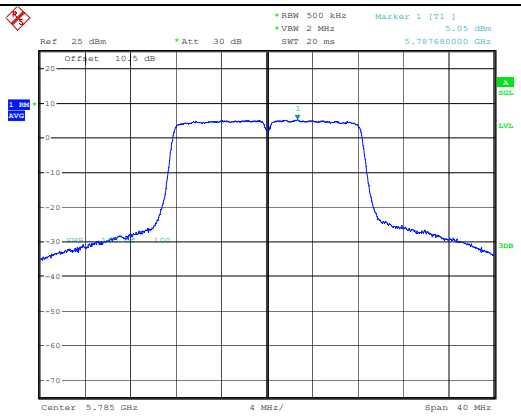
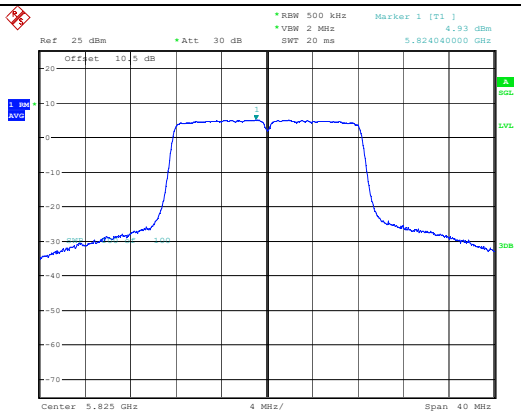
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

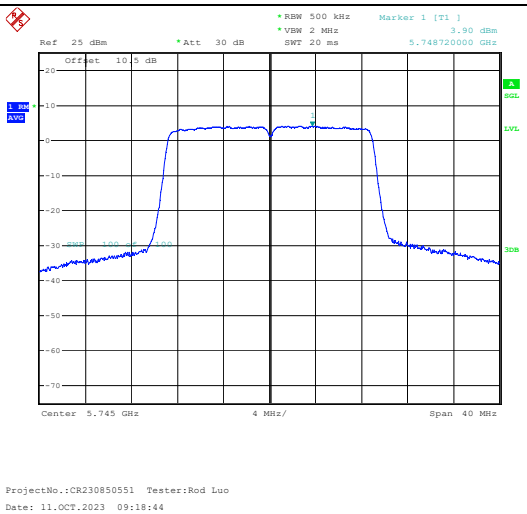
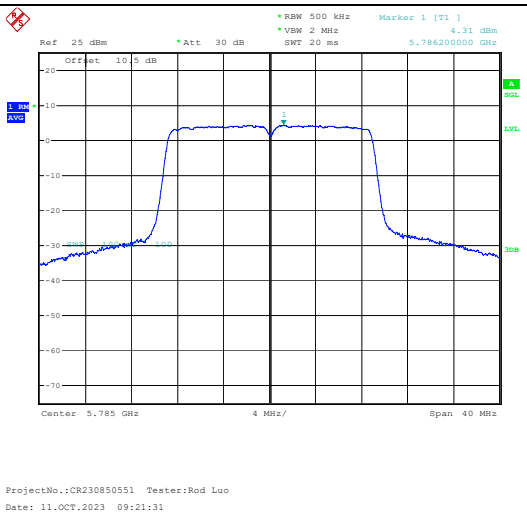
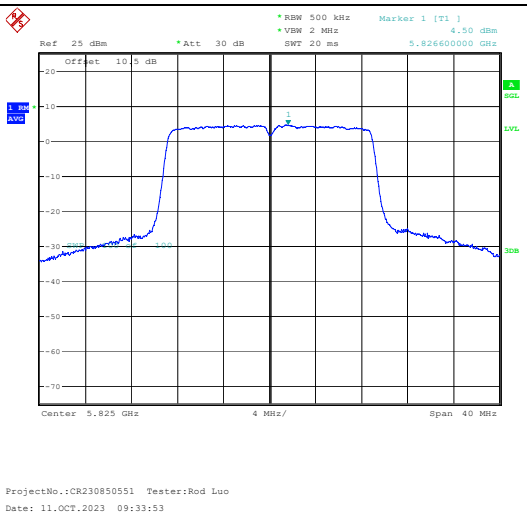
Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

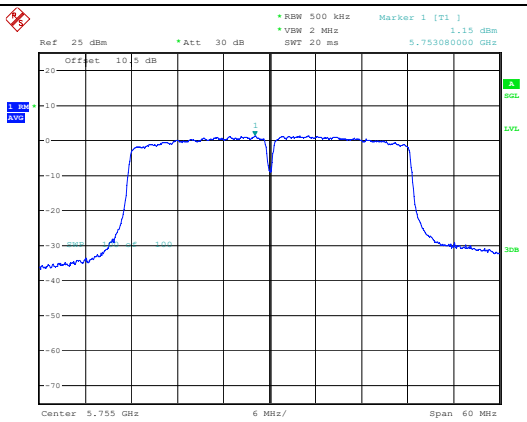
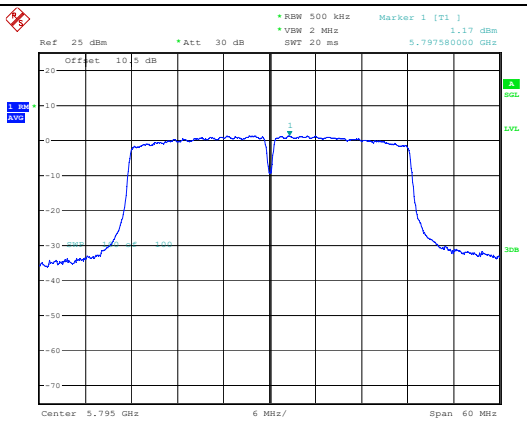
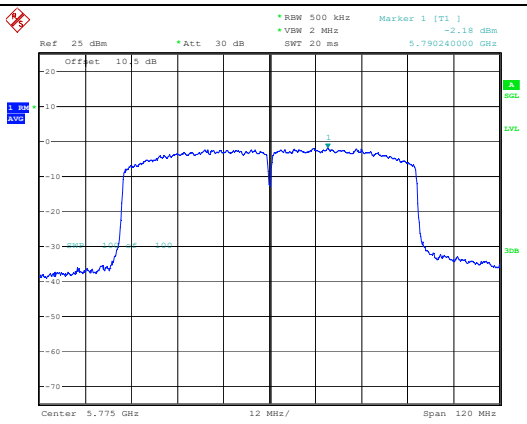
Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Middle Channel	
802.11ac vht40 Highest Channel	

Maximum power spectral density	
802.11ac vht80 Lowest Channel	
802.11ac vht80 Highest Channel	

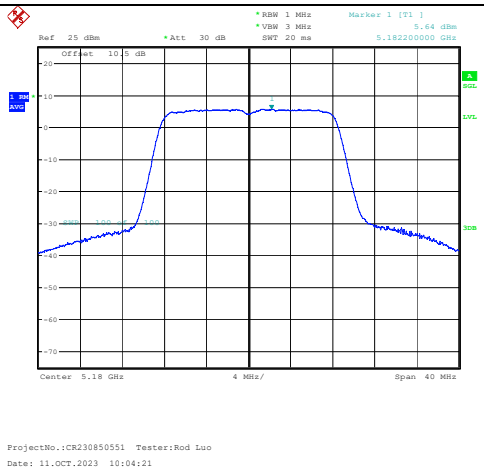
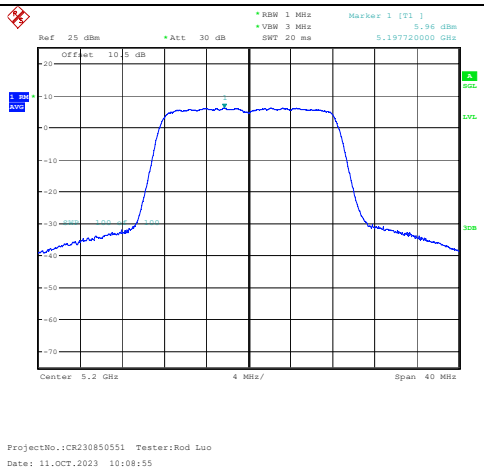
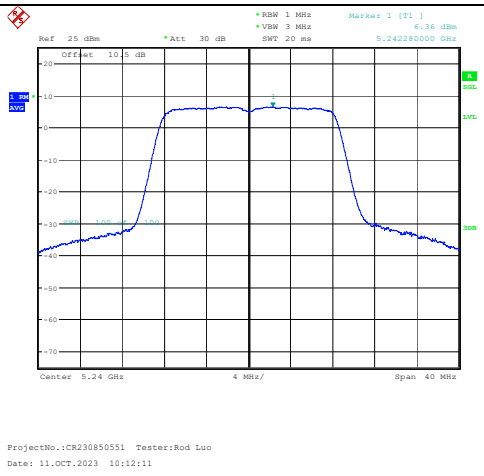
5725-5850MHz

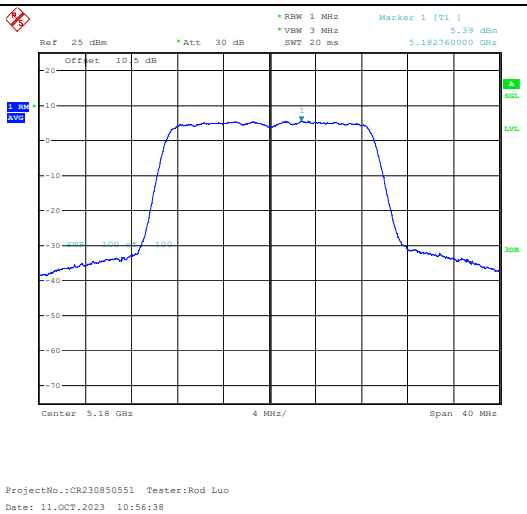
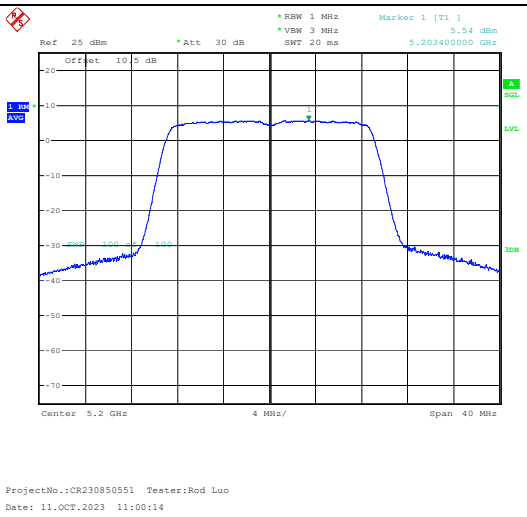
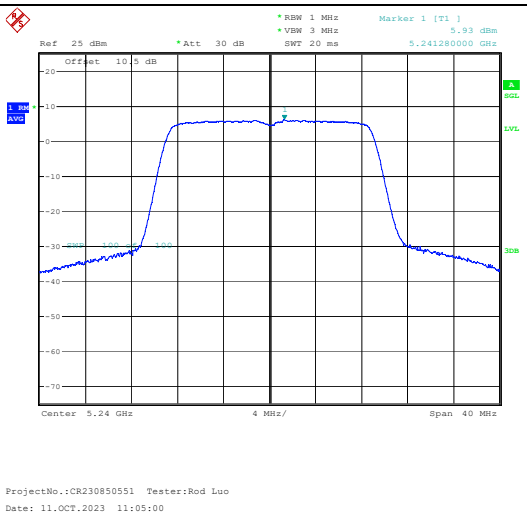
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

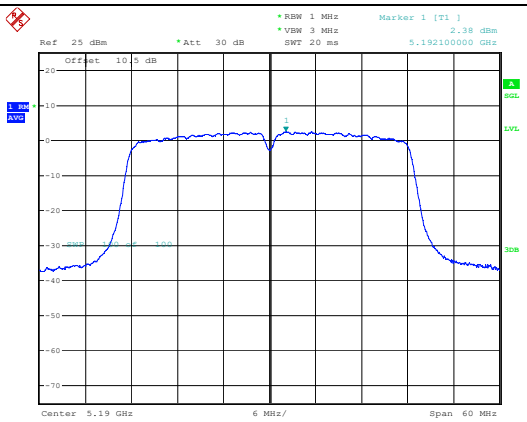
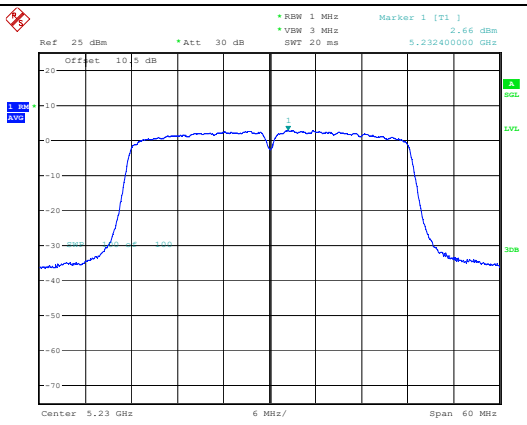
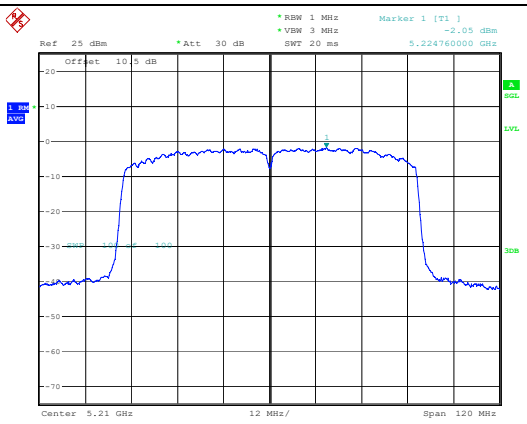
Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

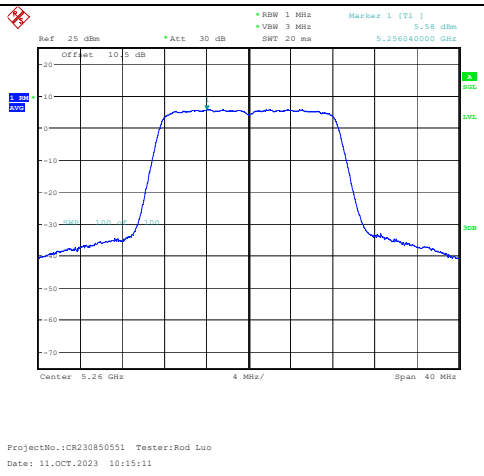
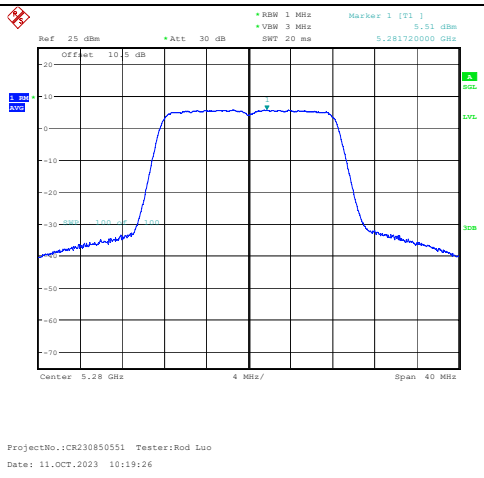
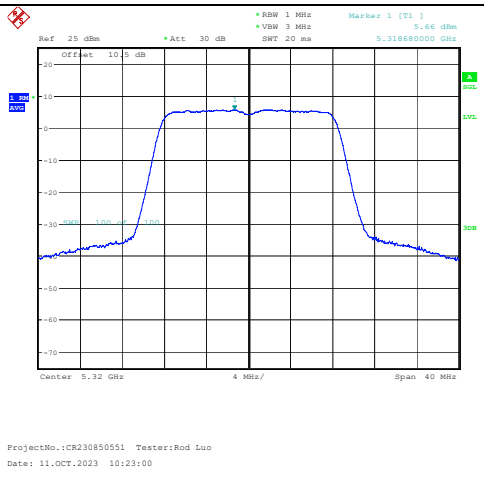
Chain 2:
5150-5250MHz:

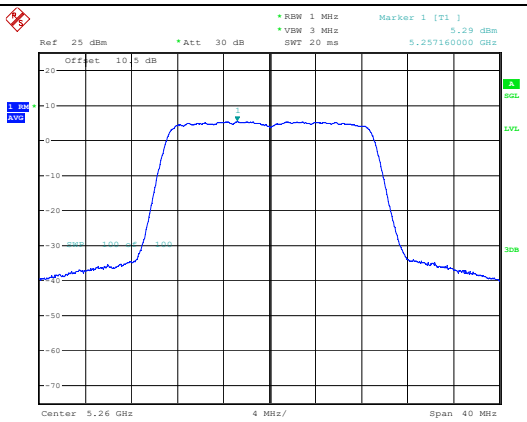
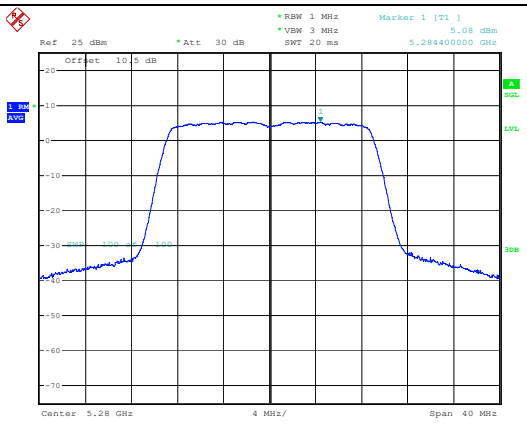
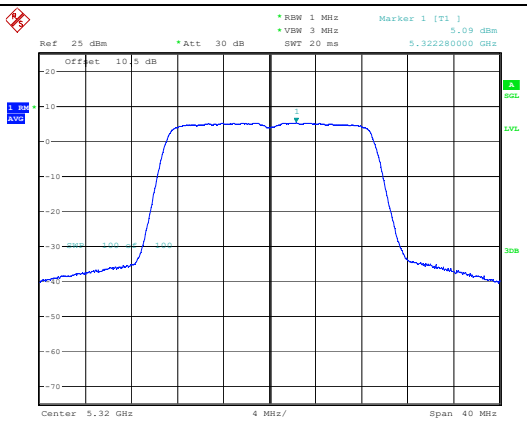
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

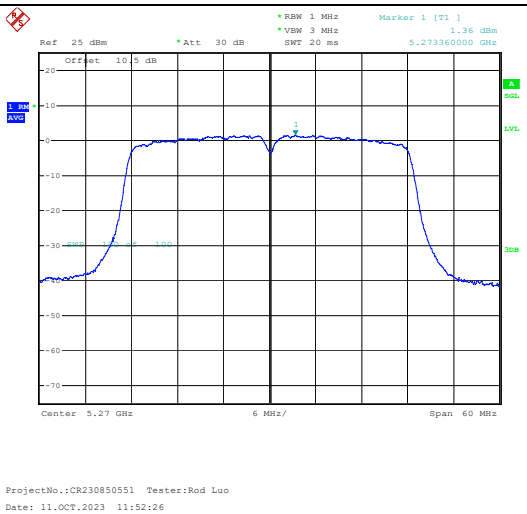
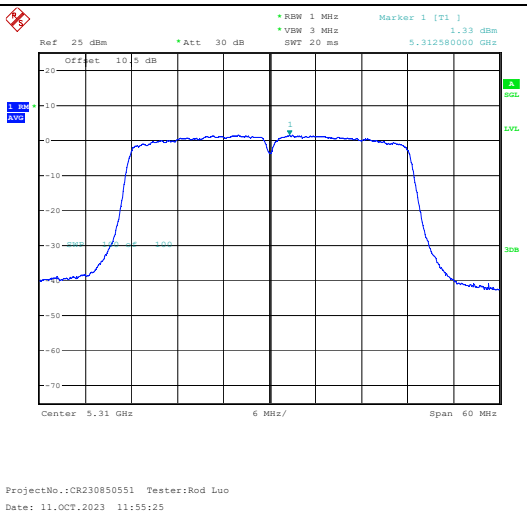
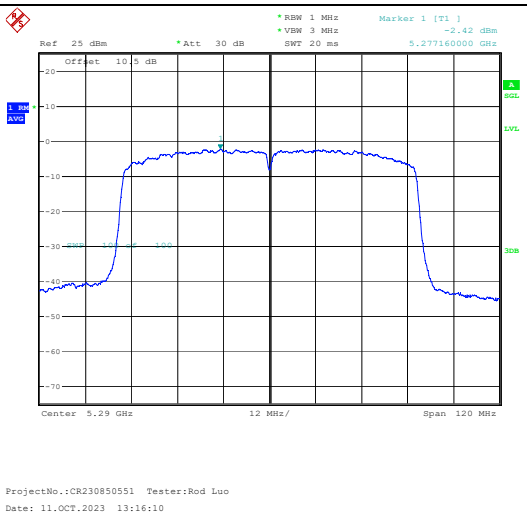
Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

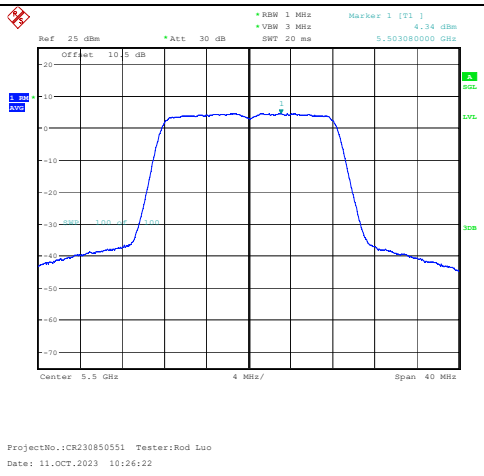
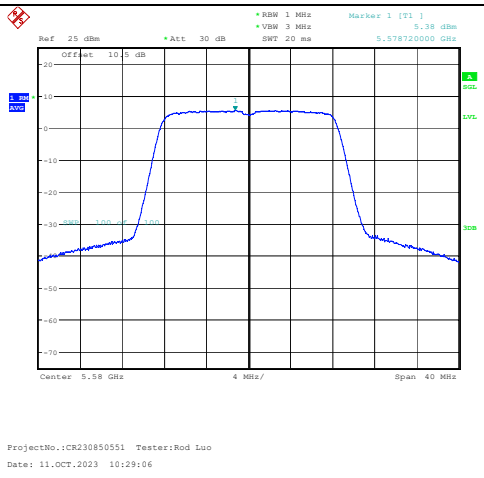
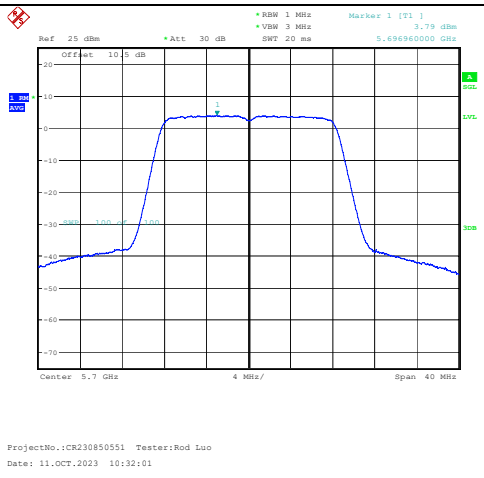
5250-5350MHz:

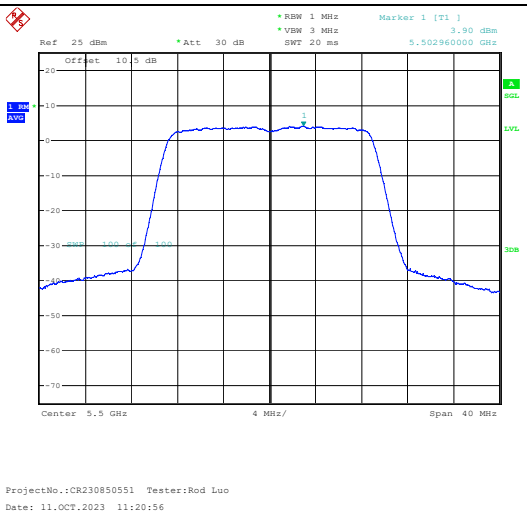
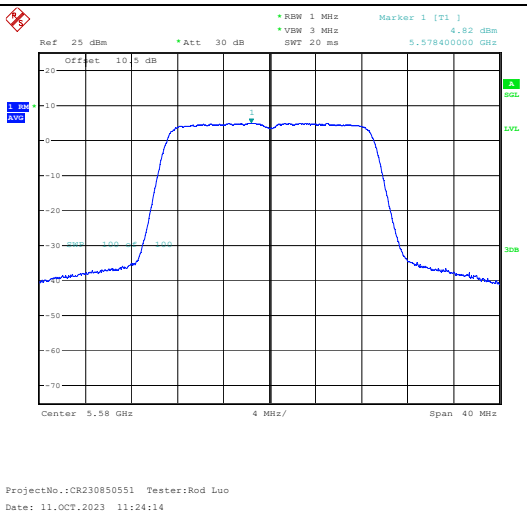
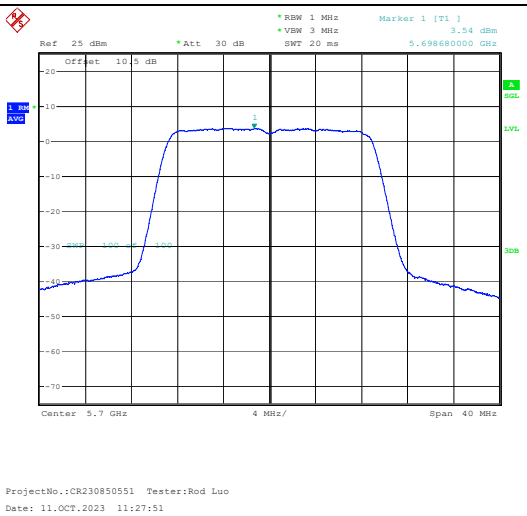
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

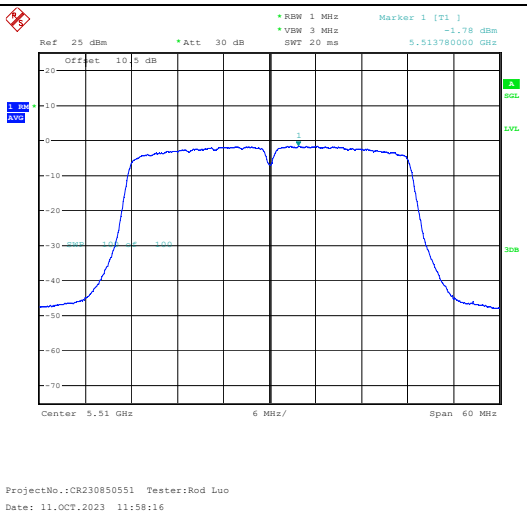
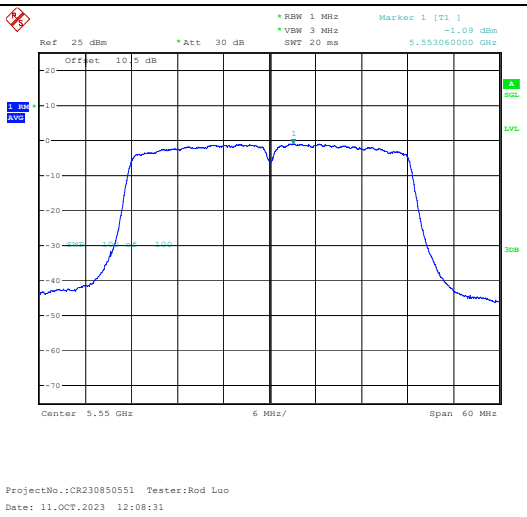
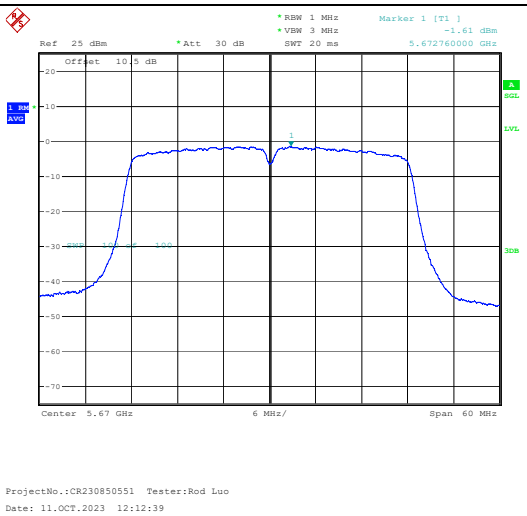
Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

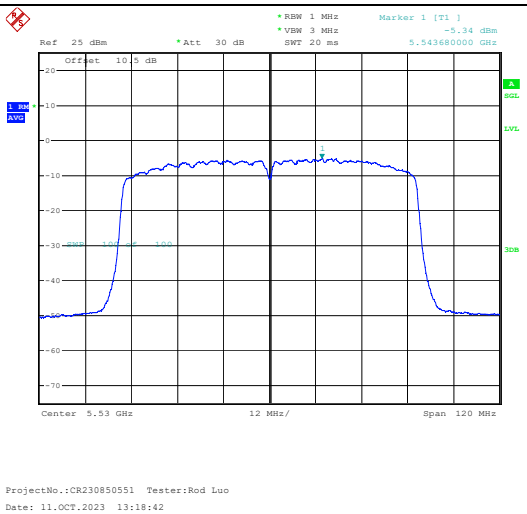
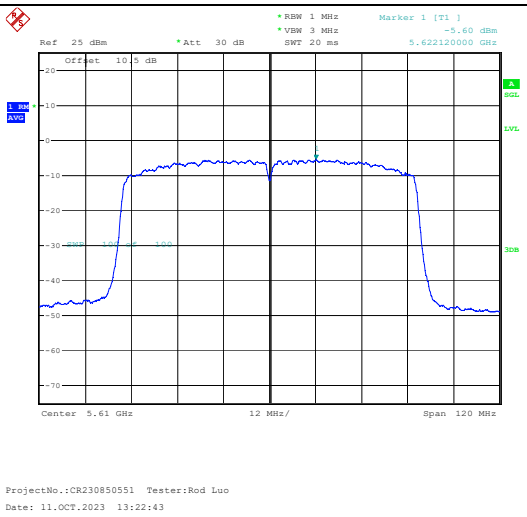
Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

5470-5725 MHz:

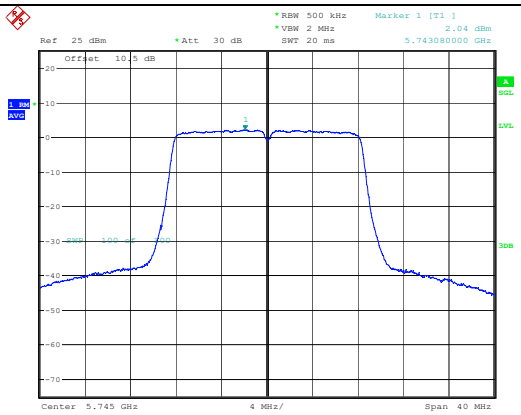
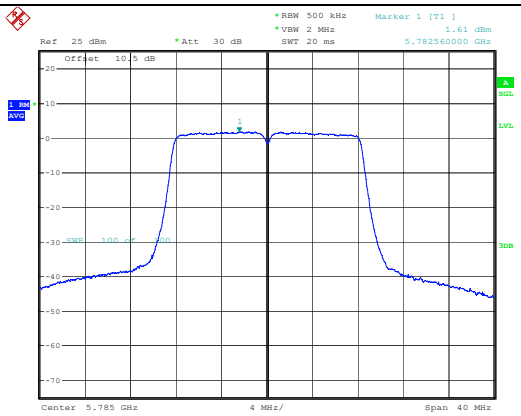
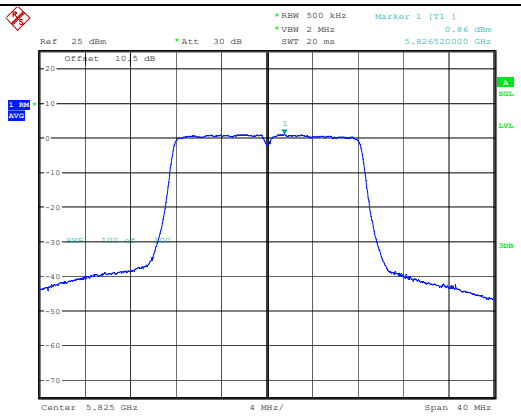
Maximum power spectral density	
802.11a Lowest Channel	
802.11a Middle Channel	
802.11a Highest Channel	

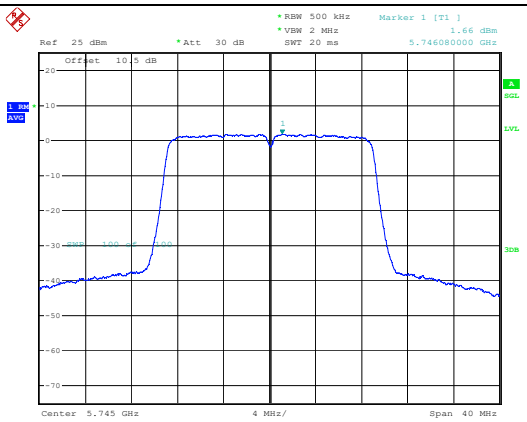
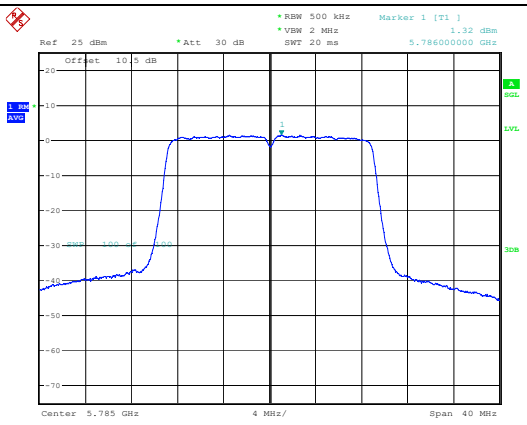
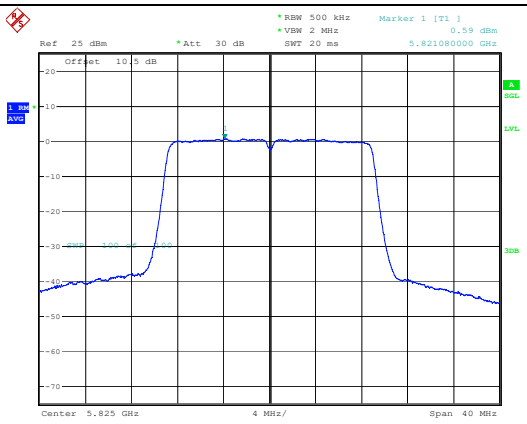
Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

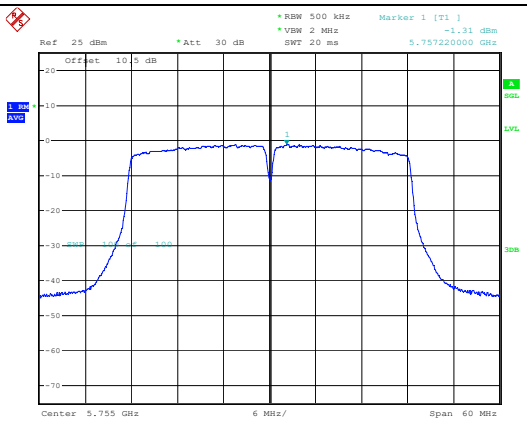
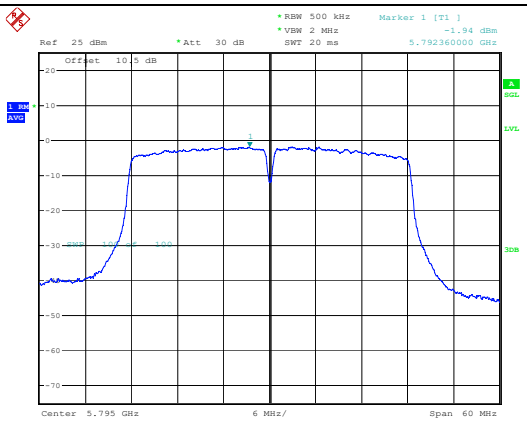
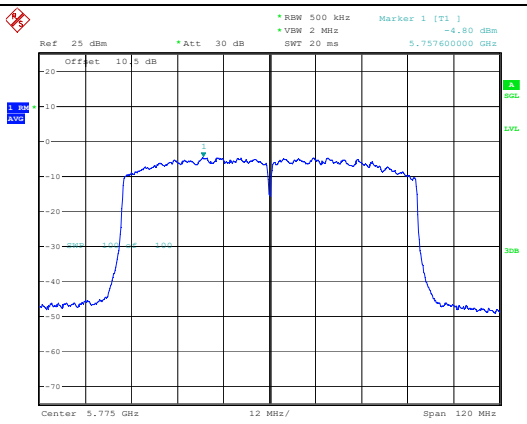
Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Middle Channel	
802.11ac vht40 Highest Channel	

Maximum power spectral density	
802.11ac vht80 Lowest Channel	
802.11ac vht80 Highest Channel	

5725-5850MHz

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

Maximum power spectral density	
802.11ac vht20 Lowest Channel	
802.11ac vht20 Middle Channel	
802.11ac vht20 Highest Channel	

Maximum power spectral density	
802.11ac vht40 Lowest Channel	
802.11ac vht40 Highest Channel	
802.11ac vht80 Middle Channel	

4.6 Duty Cycle

Serial Number:	2AQA-3	Test Date:	2024/03/08
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo	Test Result:	N/A

Environmental Conditions:					
Temperature: (℃)	22	Relative Humidity: (%)	65	ATM Pressure: (kPa)	101

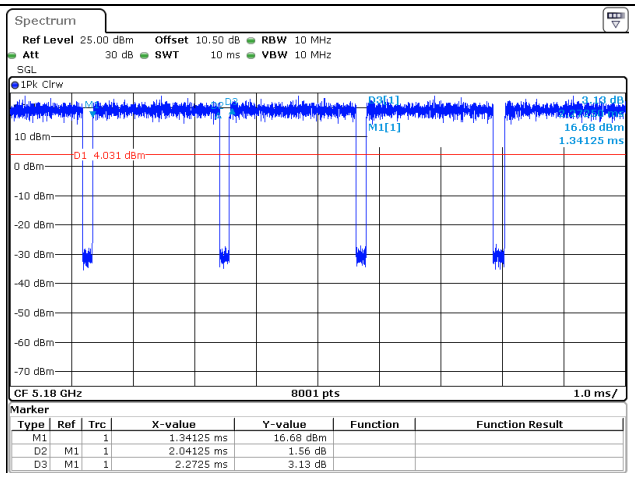
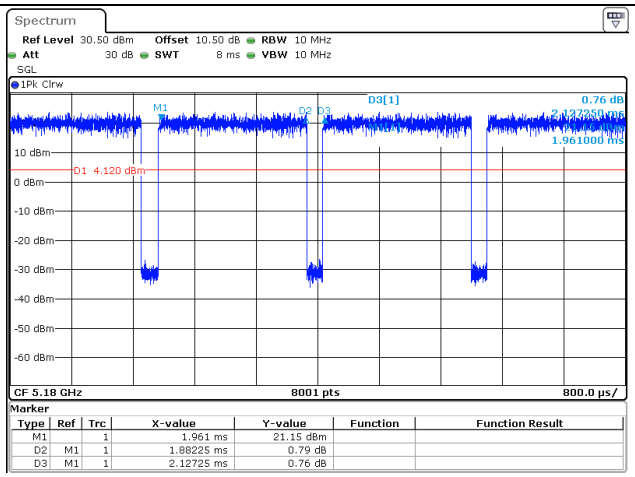
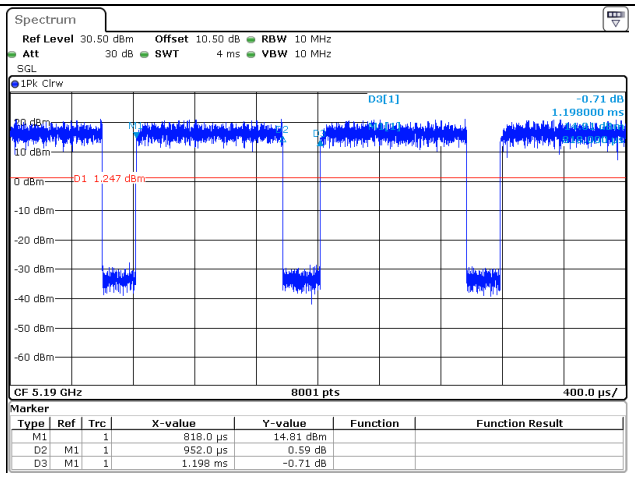
Test Equipment List and Details:

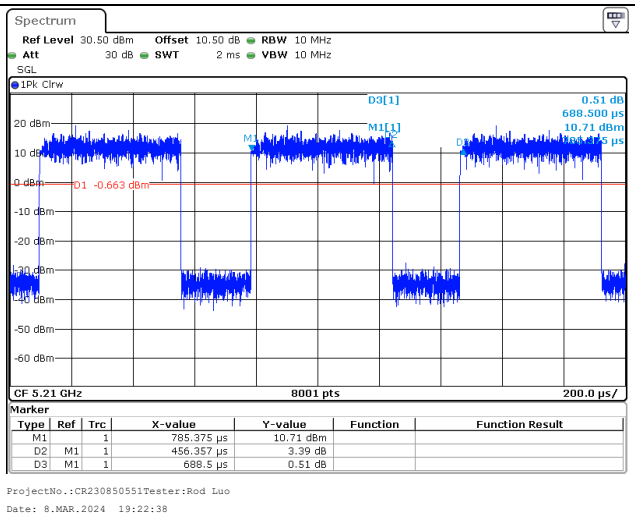
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40-N	102259	2023-04-18	2024-04-17
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

** 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:

Test Modes	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	Duty Factor (dB)	VBW Setting (Hz)
802.11a	2.041	2.273	89.79	490	0.47	500
802.11ac vht20	1.882	2.127	88.48	531	0.53	1000
802.11ac vht40	0.952	1.198	79.47	1050	1.00	2000
802.11ac vht80	0.456	0.689	66.18	2193	1.79	3000
Note: Test only was performed at Chain 2.						

Duty Cycle	
802.11a	
802.11ac vht20	
802.11ac vht40	

Duty Cycle	
802.11ac vht80	

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)	Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
Bluetooth	2402-2480	7.0	1.0	20	0.001	1.0
BLE	2402-2480	17.0	1.0	20	0.013	1.0
2.4G Wi-Fi	2412-2462	26.5	0	20	0.089	1.0
5G Wi-Fi	5180-5240	20.5	2.0	20	0.035	1.0
	5260-5320	20.0	2.0	20	0.032	1.0
	5500-5700	20.0	2.0	20	0.032	1.0
	5745-5825	21.5	2.0	20	0.045	1.0
DECT	1921.536 - 1928.448	20.0	0	20	0.020	1.0
NFC	13.56	/	/	20	<0.0001	0.98

Note:

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

2) NFC field strength is 67.49dBuV/m@3m= -27.7dBm (0.0017mW)

3) The Bluetooth, NFC, Wi-Fi and DECT can transmit simultaneously. The 2.4G Wi-Fi can't transmit with 5G Wi-Fi at the same time.

The ratio=$MPE_{Bluetooth}$/limit+$MPE_{2.4G\ Wi\text{-}Fi}$/limit+MPE_{DECT}/limit
=0.013+0.089+0.020=0.122＜1.0, simultaneous exposure is not required.

4) The power of the NFC and WPT is extreme low, which not affect the simultaneous exposure evaluation result.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliance

6. EUT PHOTOGRAPHS

Please refer to the attachment CR230850551-EXP EUT EXTERNAL PHOTOGRAPHS and CR230850551-INP EUT INTERNAL PHOTOGRAPHS.

7. TEST SETUP PHOTOGRAPHS

Please refer to the attachment CR230850551-00F-TSP TEST SETUP PHOTOGRAPHS.

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