

FCC PART 15.407

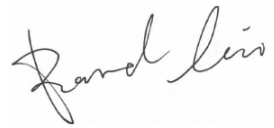
TEST REPORT

For

ACSL Ltd.

Hulic Kasai Rinkai Bldg. 2F, 3-6-4 Rinkaicho, Edogawa-ku, Tokyo, Japan 134-0086

FCC ID: 2A8JK-GS5US-FALCON

Report Type: Original Report	Product Name: Smart Controller
Report Number:	RSHA240424001-00E
Report Date:	2024-08-06
Reviewed By:	Bard Liu 
Approved By:	Oscar Ye 
Test Laboratory:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Kunshan). This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, or any agency of the U.S.Government.

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RSHA240424001-00E	R1V1	2024-08-06	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	ACSL Ltd.				
Manufacturer:	Aerora North America, Inc.				
Product Name:	Smart Controller				
Tested Model:	TENSO-F3				
Power Supply:	DC 3.7V				
Operating Frequency	B1: 5150-5250 MHz, B2: 5250-5350 MHz, B3: 5470-5725 MHz, B4: 5725-5850 MHz				
Maximum Output Power	Mode:	5G Wi-Fi B1:	5G Wi-Fi B2:	5G Wi-Fi B3:	5G Wi-Fi B4:
	802.11a:	18.16 dBm	18.45 dBm	19.17 dBm	18.33 dBm
	802.11ac20:	18.23 dBm	18.55 Bm	19.29 Bm	18.47 dBm
	802.11ac40:	18.76 dBm	19.08 dBm	20.22 dBm	19.36 dBm
	802.11ac80:	17.15dBm	18.12dBm	18.86dBm	19.54dBm
Channel Number	B1: 7, B2: 7, B3: 21, B4: 8				
Channel Separation	802.11a/ac/n20: 20 MHz, 802.11ac/n40: 40 MHz, 802.11ac80: 80 MHz				
Modulation Type	OFDM				
Antenna Type	FPC Antenna				
★Maximum Antenna Gain	Band 1: 1.92 dBi Band 2: 1.92 dBi Band 3: 0.15 dBi Band 4: 0.15 dBi				

Note: The maximum antenna gain was provided by the applicant.

All measurement and test data in this report was gathered from production sample serial number: RSHA240424001-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-04-24.)

Objective

This type approval report is prepared for *ACSL Ltd.* in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions' rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.207, 15.209 and 15.407 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Kunshan).

Measurement Uncertainty

Item		Uncertainty
AC Power Lines Conducted Emissions		3.19 dB
RF conducted test with spectrum		0.9dB
RF Output Power with Power meter		0.5dB
Radiated emission	9 kHz~150 kHz	3.8dB
	150 kHz~30 MHz	3.4dB
	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
Occupied Bandwidth		0.5kHz
Temperature		1.0°C
Humidity		6%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Kunshan) to collect test data is located on the No.248 Chenghu Road, Kunshan, Jiangsu Province, China.

Bay Area Compliance Laboratories Corp. (Kunshan) is accredited in accordance with ISO/IEC 17025:2017 by NVLAP (Lab code: 600338-0), and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN5055.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The EUT was configured for testing in an engineering mode which was provided by the manufacturer. The system support 802.11a/n20/n40/ac20/ac40/ac80, the 802.11n20/n40 were reduced since the identical parameters with 802.11 ac20 and ac40.

For **5150~5250 MHz** band, test channel list is as below,

802.11a/ac 20/n20 mode Channel 36, 40, 48 were tested.
802.11ac40/n40 mode Channel 38, 46 were tested.
802.11ac80 mode Channel 42 was tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For **5250~5350 MHz** band, test channel list is as below,

802.11a/ac20/n20 mode Channel 52, 56, 64 were tested.
802.11ac40/n40 mode Channel 54, 62 were tested.
802.11ac80 mode Channel 58 was tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
54	5270	62	5310
56	5280	64	5320
58	5290	/	/

For **5470~5725 MHz** band, test channel list is as below,

802.11a/ac20/n20 mode Channel 100, 116, 140,144 were tested.
802.11ac40/n40 mode Channel 102, 110, 134,142 were tested.
802.11ac80 mode Channel 106, 122, 138 was tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	116	5580	132	5660
102	5510	118	5590	134	5670
104	5520	120	5600	136	5680
106	5530	122	5610	138	5690
108	5540	124	5620	140	5700
110	5550	126	5630	142	5710
112	5560	128	5640	144	5720

For 5725~5850 MHz band,

802.11a/ac20/n20 mode Channel 149, 157, 165 were tested.

802.11ac40/n40 mode Channel 151, 159 were tested.

802.11ac80 mode Channel 155 was tested.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	159	5795
151	5755	161	5805
153	5765	165	5825
155	5775	/	/
157	5785	/	/

EUT Exercise Software

“QRCT3” was used to test.

The worst case was performed under:

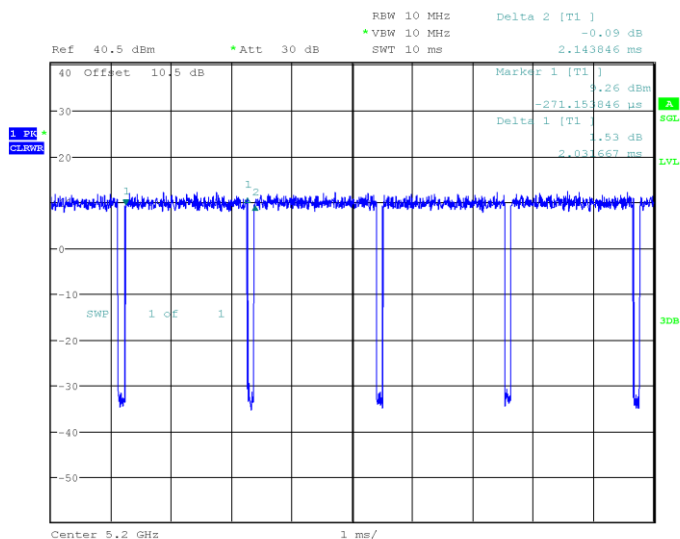
U-NII	Mode	Data rate	★Power Level		
			Low Channel	Middle Channel	High Channel
5150~5250MHz	802.11a	6Mbps	15	15	15
	802.11ac20	MCS0	15	15	15
	802.11ac40	MCS0	14	/	14
	802.11ac80	MCS0	/	12	/

U-NII	Mode	Data rate	★Power Level		
			Low Channel	Middle Channel	High Channel
5250~5350MHz	802.11a	6Mbps	15	15	15
	802.11ac20	MCS0	15	15	15
	802.11ac40	MCS0	13	/	13
	802.11ac80	MCS0	/	13	/

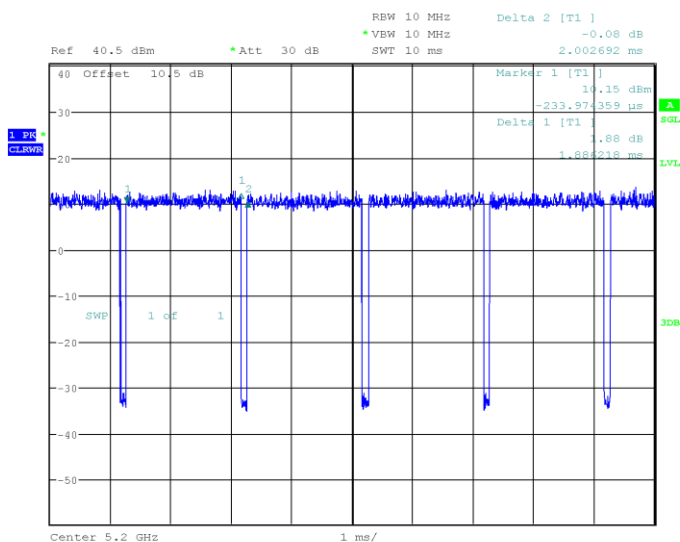
U-NII	Mode	Data rate	★Power Level			
			Low Channel	Middle Channel	High Channel	Cross Channel
5470~5725MHz	802.11a	6Mbps	15	15	15	15
	802.11ac20	MCS0	15	15	15	15
	802.11ac40	MCS0	13	13	13	13
	802.11ac80	MCS0	9	9	9	/

U-NII	Mode	Data rate	★Power Level		
			Low Channel	Middle Channel	High Channel
5725~5850MHz	802.11a	6Mbps	15	15	15
	802.11ac20	MCS0	15	15	15
	802.11ac40	MCS0	15	/	15
	802.11ac80	MCS0	/	15	/

Note: The power level was declared by the applicant.

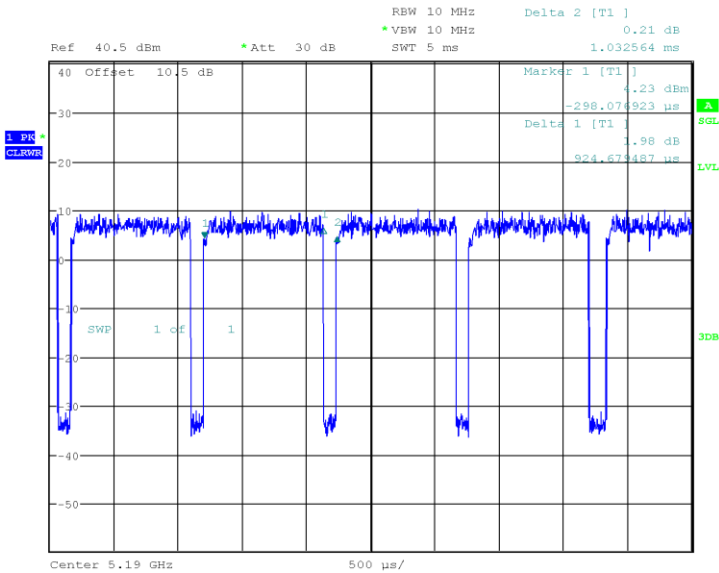
Duty Cycle**5150MHz-5250MHz Band:****802.11a mode**

ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 29.JUL.2024 19:18:59

802.11ac20 mode

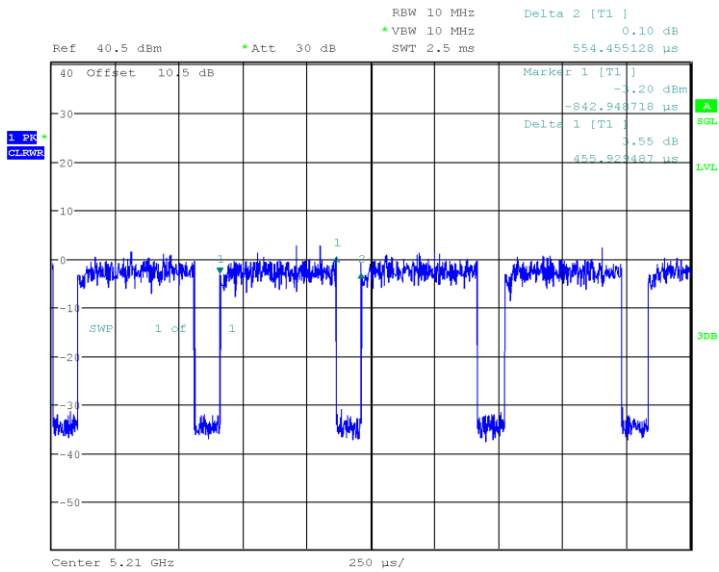
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802.11ac40 mode



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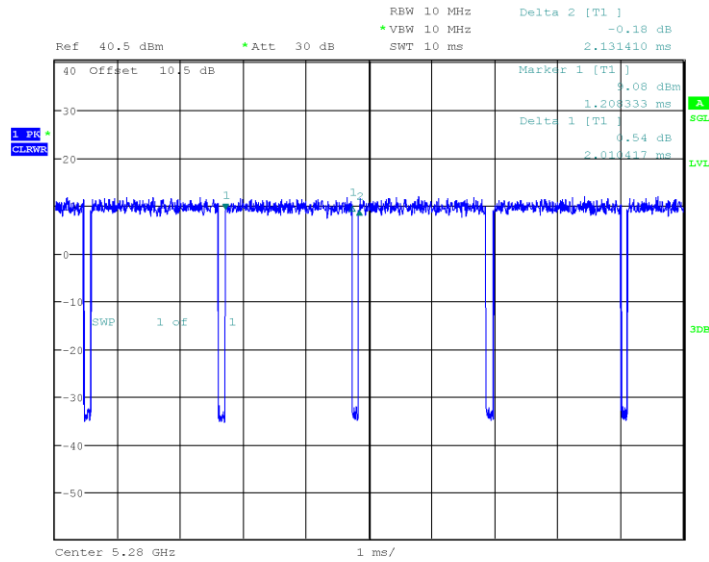
802.11ac80 mode



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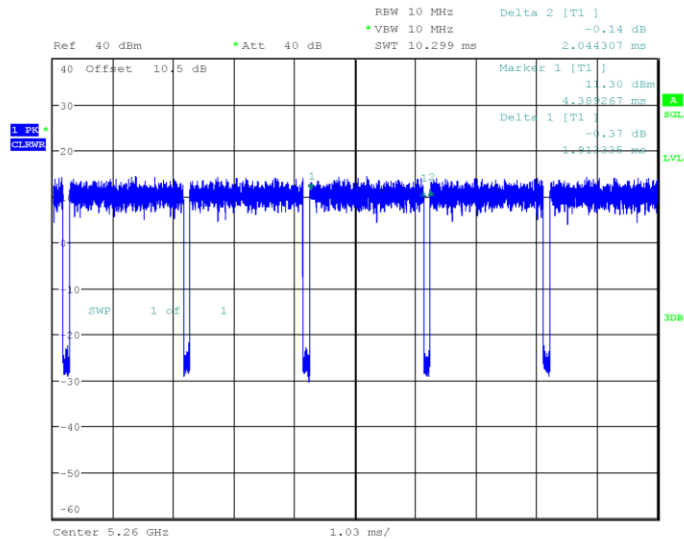
5250MHz-5350MHz Band:

802.11a mode



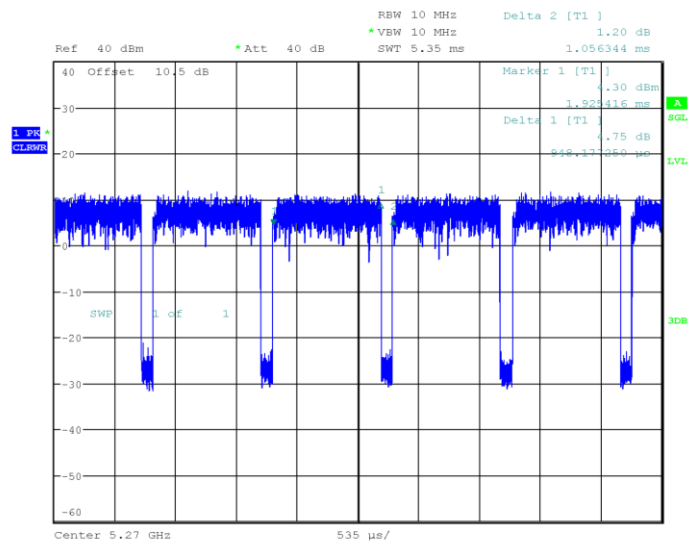
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802.11ac20 mode



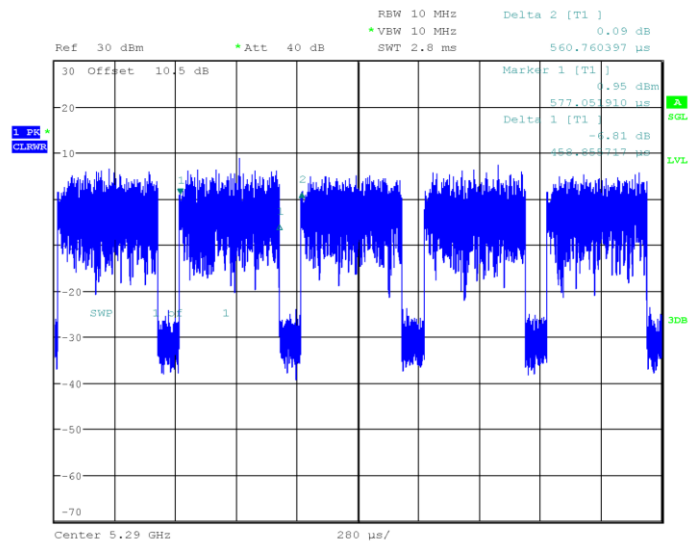
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 Date: 23.MAY.2024 09:25:25

802.11ac40 mode

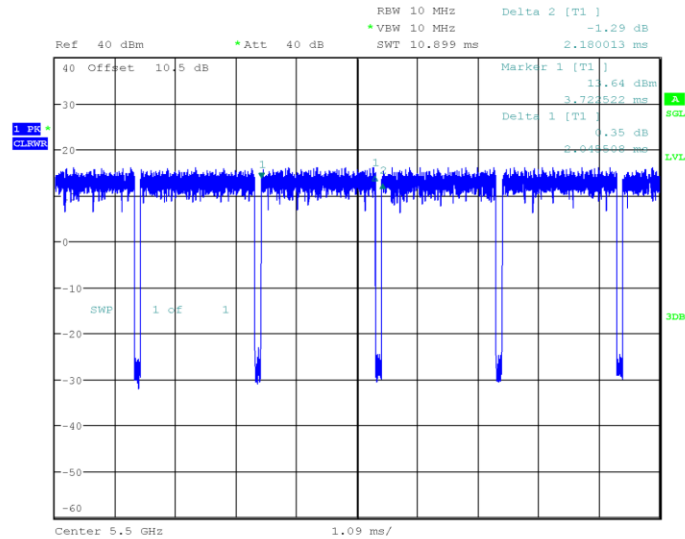


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Date: 23.MAY.2024 11:41:05

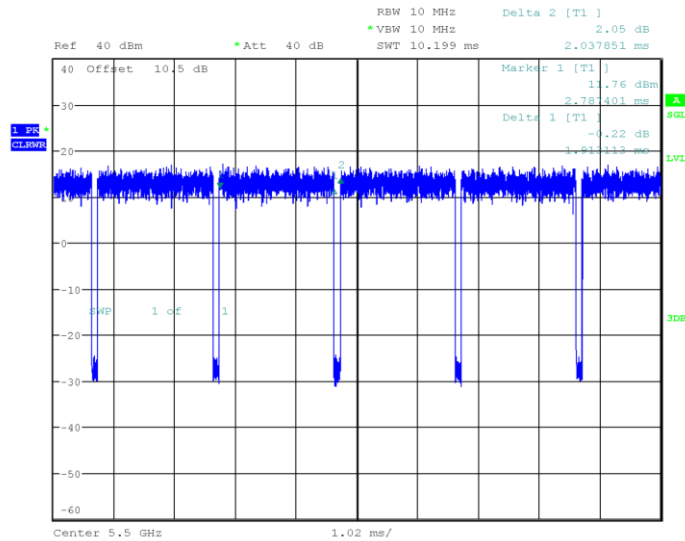
802.11ac80 mode



ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 23.MAY.2024 11:54:02

5470MHz-5725MHz Band:**802.11a mode**

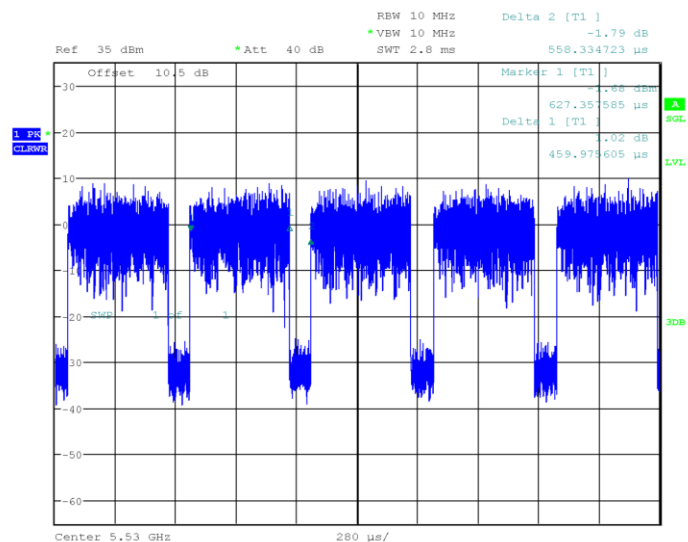
ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 24.MAY.2024 09:29:54

802.11ac20 mode

ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 24.MAY.2024 11:01:42

RBW 10 MHz Delta 2 [T1] -1.59 dB
 *Att 40 dB *VSW 10 MHz SWT 5.3 ms 1.059384 ms
 Ref 40 dBm 10.5 dB
 Marker 1 [T1] 8.72 dBm 1.429605 ms
 Delta 1 [T1] 2.56 dB 812.333333 us
 1. PS
 CL 3dB 1A 5GL 1VL
 Center 5.51 GHz 530 us/

802.11ac80 mode



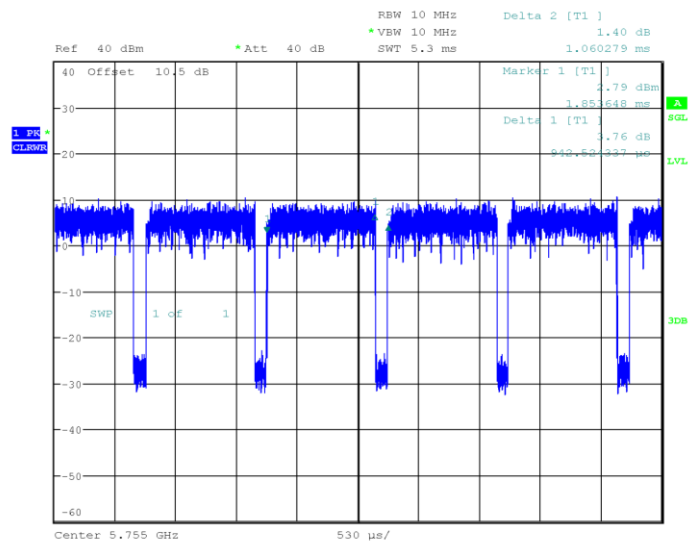
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802.11a mode



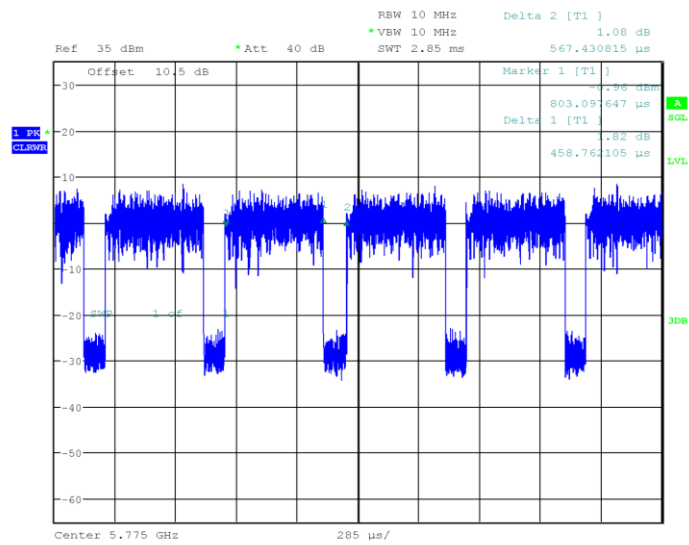
ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 23.MAY.2024 14:10:05

802.11ac40 mode



ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 23.MAY.2024 14:27:16

802.11ac80 mode



ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 23.MAY.2024 14:40:38

5.2G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty cycle factor (dB)
a_5200MHz_Chain 0	2.032	2.144	94.78	0.23
ac20_5200MHz_Chain 0	1.886	2.003	94.16	0.26
ac40_5190MHz_Chain 0	0.925	1.033	89.55	0.48
ac80_5210MHz_Chain 0	0.456	0.554	82.31	0.85

5.3G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty cycle factor (dB)
a_5280MHz_Chain 0	2.010	2.131	94.32	0.25
ac20_5260MHz_Chain 0	1.913	2.044	93.59	0.29
ac40_5270MHz_Chain 0	0.948	1.056	89.77	0.47
ac80_5290MHz_Chain 0	0.459	0.561	81.82	0.87

5.6G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty cycle factor (dB)
a_5500MHz_Chain 0	2.046	2.180	93.85	0.28
ac20_5500MHz_Chain 0	1.913	2.038	93.87	0.27
ac40_5510MHz_Chain 0	0.942	1.059	88.95	0.51
ac80_5530MHz_Chain 0	0.460	0.558	82.44	0.84

5.8G

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty cycle factor (dB)
a_5745MHz_Chain 0	2.044	2.158	94.72	0.24
ac20_5745MHz_Chain 0	1.913	2.033	94.10	0.26
ac40_5755MHz_Chain 0	0.943	1.060	88.96	0.51
ac80_5775MHz_Chain 0	0.459	0.567	80.95	0.92

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

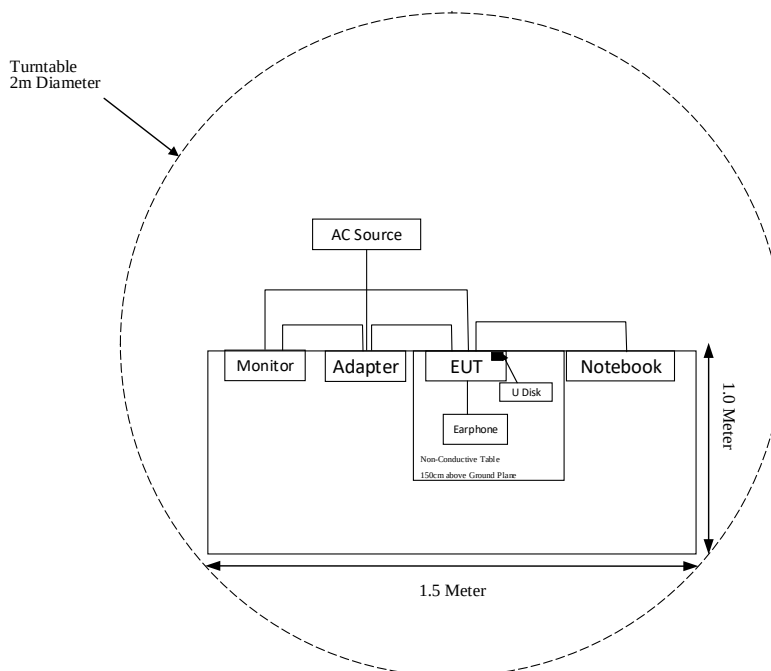
Manufacturer	Description	Model	Serial Number
XIAOMI	Monitor	P24FBA-RA	50715/313100001953
Lenovo	NOTEBOOK	LJJ6K3U	9DD96DBA
Lenovo	USB flash disk	T180	0A1266865200521
Unknown	Earphone	Unknown	Unknown

External I/O Cable

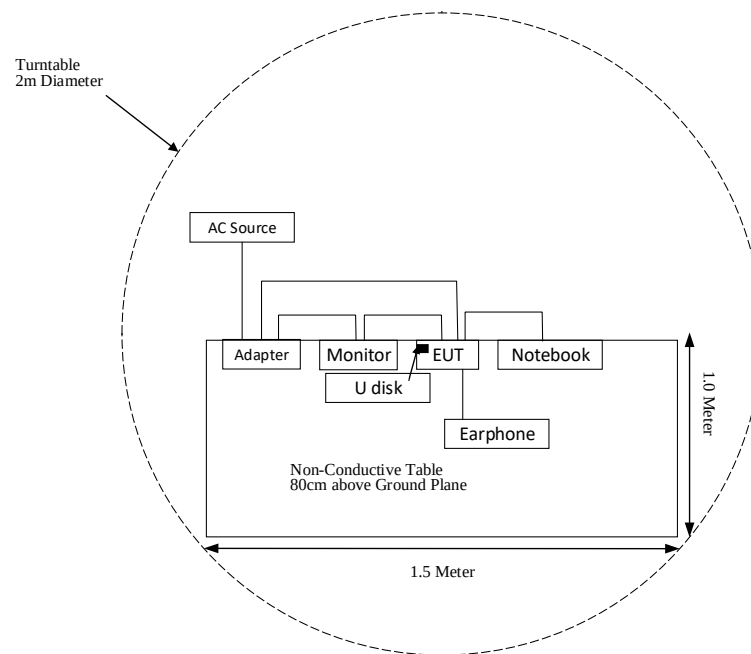
Cable Description	Length (m)	From Port	To
Power Cable	1.0	LISN/AC Source	Adapter
USB Cable	1.0	Adapter	EUT
RJ45	1.0	Notebook	EUT
HDMI Cable	2.0	Monitor	EUT

Block Diagram of Test Setup

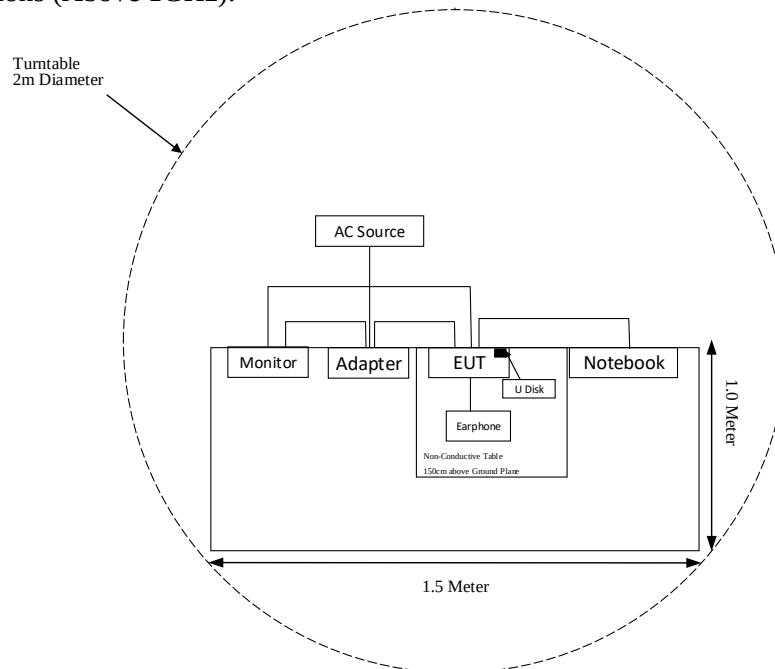
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emission Test (Chamber #1)					
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2024-04-23	2025-04-22
Sunol Sciences	Hybrid Antenna	JB3	A090314-1	2023-11-11	2024-11-10
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
Sonoma Instrument	Amplifier	310N	171205	2024-04-23	2025-04-22
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22
Narda	6dB Attenuator	773-6	10690812-2-1	2023-11-11	2024-11-10
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2024-04-25	2025-04-24
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2024-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2023-12-08	2024-12-07
A.H.Systems,inc	Amplifier	PAM-0118P	512	2024-04-25	2025-04-24
EM Electronics Corporation	Amplifier	EM18G40G	060726	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRC50703	G094	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRC50704	G084	2024-04-25	2025-04-24
MICRO-TRONICS	Band Reject Filter	BRC50705	G085	2024-04-25	2025-04-24
Narda	Attenuator	10dB	010	2023-08-15	2024-08-14
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-11	011	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-12	012	2024-04-23	2025-04-22
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV40-N	103298	2024-04-24	2025-04-23
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2024-04-24	2025-04-23
Anritsu	Power Sensor	MA24418A	12621	2024-04-23	2025-04-22
Narda	Attenuator	10dB	010	2024-04-23	2025-04-22
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A
Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2024-04-23	2025-04-22
Rohde & Schwarz	LISN	ENV216	101115	2024-04-23	2025-04-22
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	0357.8810.54	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-15	015	2024-04-23	2025-04-22

Statement of Traceability: Bay Area Compliance Laboratories Corp. (Kunshan) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207 & §15.407(b) (9)	AC Power Line Conducted Emissions	Compliant
§ 15.205 & §15.209 & §15.407(b)	Undesirable Emission & Band Edge Emissions	Compliant
§§15.407(a) & §15.407(e)	Emission Bandwidth	Compliant
§15.407(a)	Conducted Transmitter Output Power	Compliant
§15.407(a)	Power Spectral Density	Compliant

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 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 user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.
- c. Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407, if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

Antenna permanently attached to the unit. fulfill the requirement of this section. Please refer to the EUT photos.

Antenna Type	Frequency Range	Max. Antenna Gain	Input impedance
FPC	5150~5250 MHz	1.92 dBi	50Ω
	5250~5350 MHz	1.92 dBi	50Ω
	5470~5725 MHz	0.15 dBi	50Ω
	5725~5850 MHz	0.15 dBi	50Ω

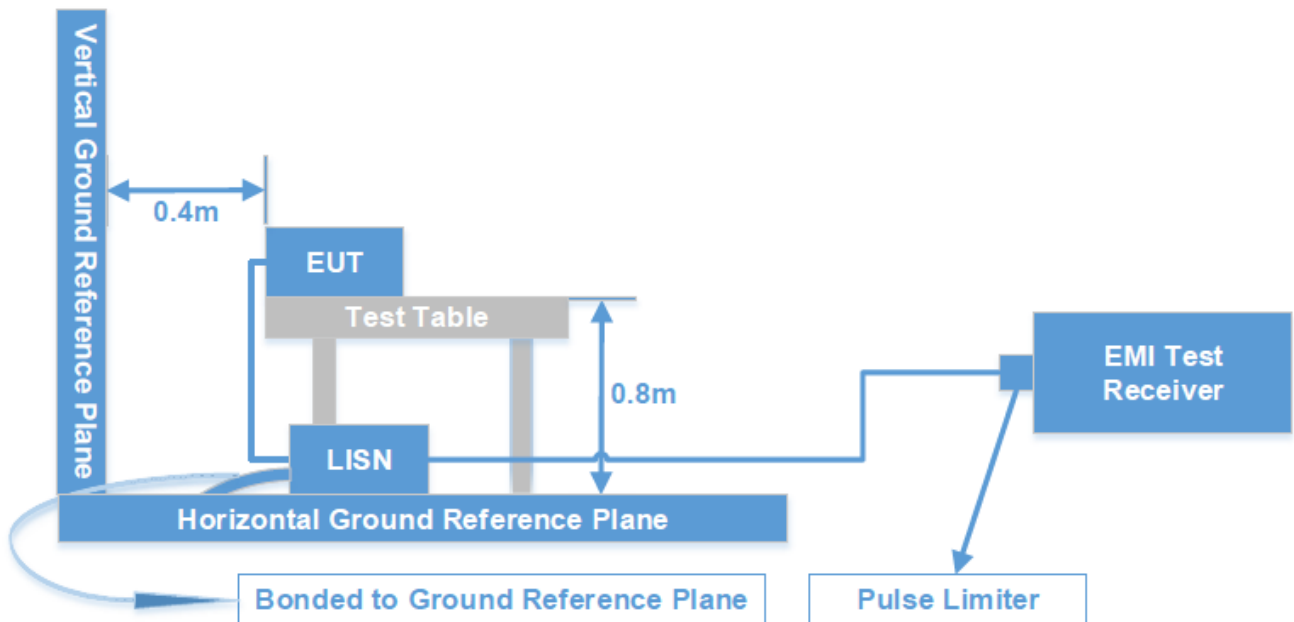
Result: Compliant.

FCC §15.407 (b) (9) §15.207 (a) – AC POWER LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a), §15.407(b) (9)

Test System Setup



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.

EMI Test Receiver Setup

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

Frequency Range	RBW	VBW
150 kHz - 30 MHz	9 kHz	30 kHz

Test Procedure

During the conducted emission test, the EUT or adapte Injector was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

If the maximum peak value of the emissions is below the average limit, the QP value and average value measurement will not need to be performed and only record the maximum peak measured value to meet the requirements.

Level & Over Limit Calculation

The Level is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation from the Meter Reading. The basic equation is as follows:

$$\begin{aligned}\text{Factor (dB)} &= \text{LISN VDF (dB)} + \text{Cable Loss (dB)} + \text{Transient Limiter Attenuation (dB)} \\ \text{Level (dB}\mu\text{V)} &= \text{Read level (dB}\mu\text{V)} + \text{Factor (dB)}\end{aligned}$$

The “**Over Limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit of 7 dB means the emission is 7 dB above the limit. The equation for Over Limit calculation is as follows:

$$\text{Over Limit (dB)} = \text{Level (dB}\mu\text{V)} - \text{Limit (dB}\mu\text{V)}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data: See Appendix

§15.205 & §15.209 & §15.407(B) – UNDESIRABLE EMISSION & BAND EDGE EMISSIONS

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

(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 in the 5.725-5.85 GHz band:

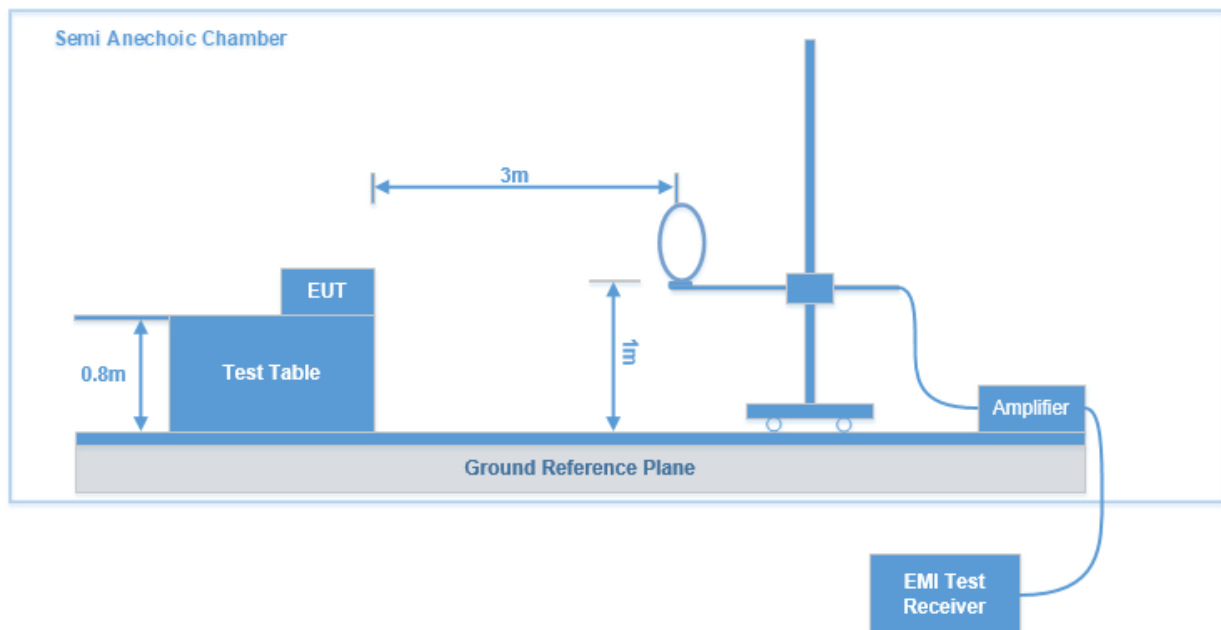
(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the 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.

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000MHz shall be performed using a minimum resolution bandwidth of 1MHz.

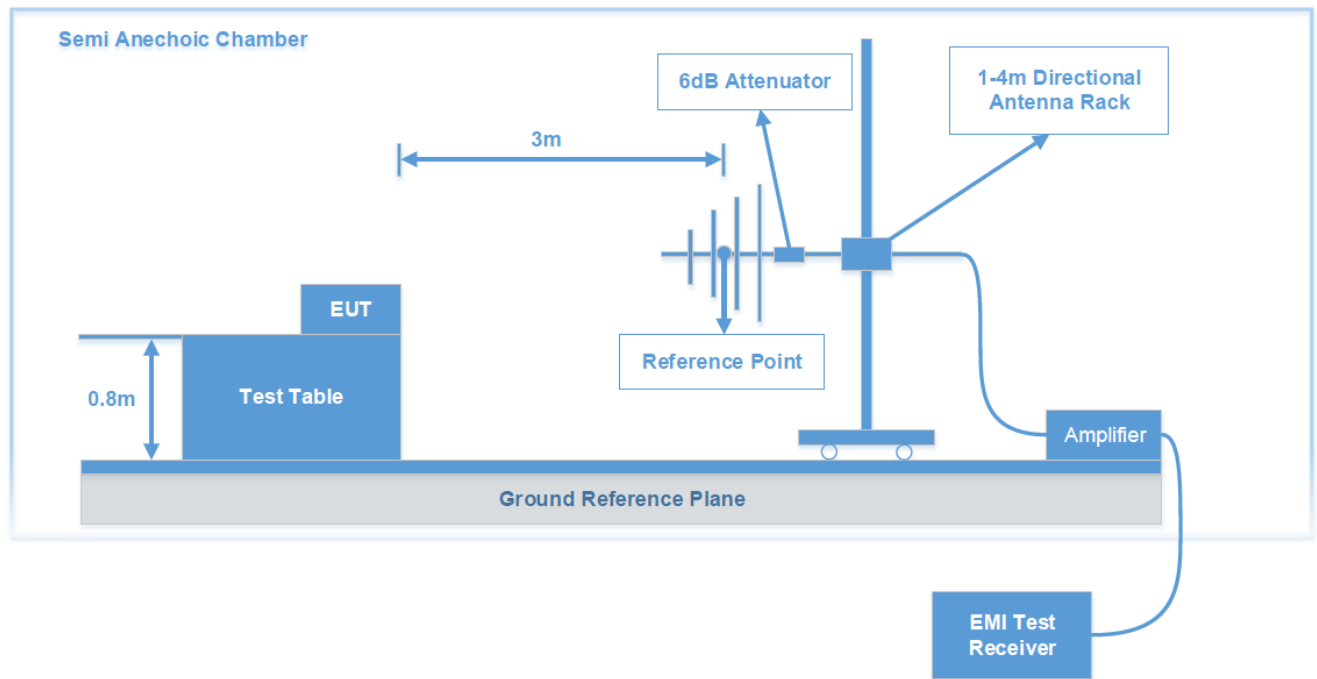
According to 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E \text{ [dB}\mu\text{V/m]} = \text{EIRP [dBm]} + 95.2$, for $d = 3$ meters.

Test System Setup

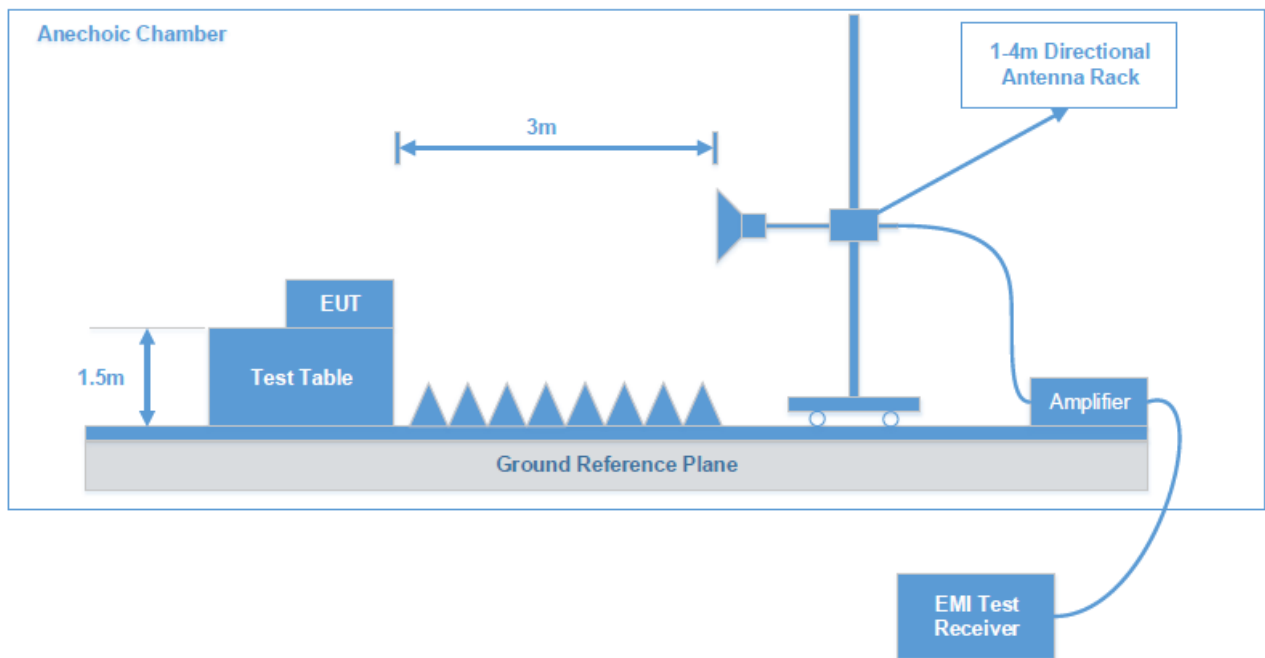
9 kHz – 30 MHz:



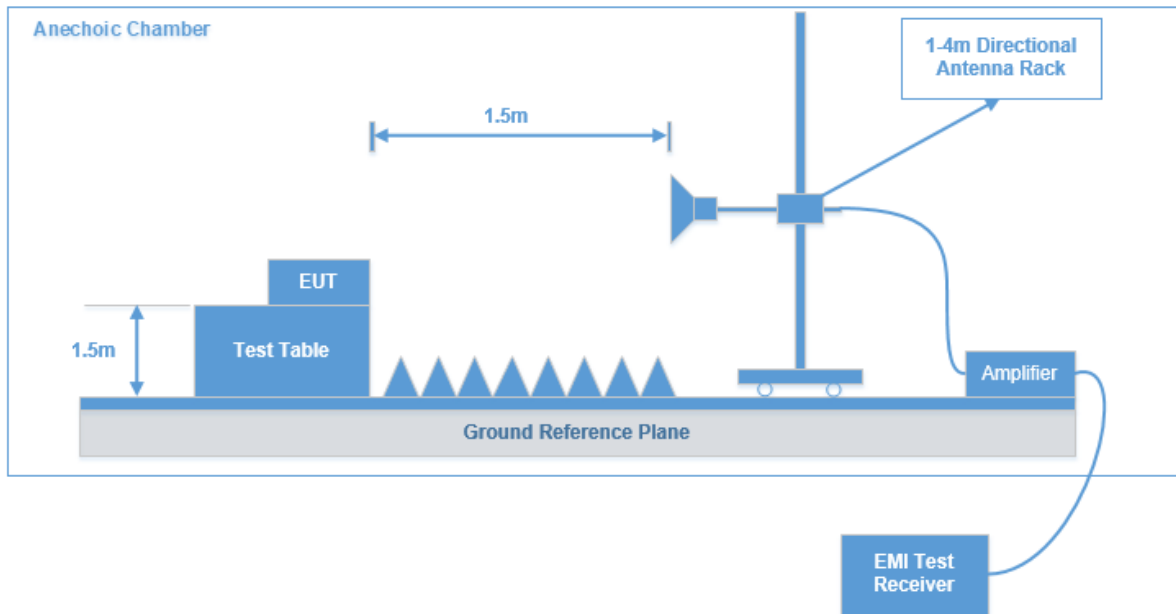
30 MHz - 1 GHz:



1 GHz – 18 GHz:



18 GHz – 40 GHz:



The radiated emission tests were performed in the 3 meters test site for below 18GHz and 1.5m for 18-40 GHz, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.407 limits. The limit at 1.5m for 18-40 GHz is 80dB μ V/m (Peak) and 60dB μ V/m (Average)

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

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

The spacing between the peripherals was 10 cm.

EMI Test Receiver & Spectrum Analyzer Setup

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

Frequency Range	RBW	VBW	IF B/W	Measurement
9 kHz - 150 kHz	200 Hz	1 kHz	200 Hz	QP/Average
150 kHz - 30 MHz	9 kHz	30 kHz	9 kHz	QP/ Average
30 MHz - 1000 MHz	100 kHz	300 kHz	/	Peak
	/	/	120 kHz	QP
Above 1GHz	1MHz	3 MHz	/	Peak
	1MHz	3 MHz	/	Average

For 9 kHz-30MHz test, the lowest height of the magnetic antenna shall be 1 m above the ground and three antenna orientations (parallel, perpendicular, and ground-parallel) shall be measured.

Test Procedure

During the radiated emission test, the adapter was connected to AC floor outlet. Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

If the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 6 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\begin{aligned}\text{Corrected Amplitude (dB}\mu\text{V/m)} &= \text{Meter Reading (dB}\mu\text{V)} + \text{Corrected factor (dB/m)} \\ \text{Corrected factor (dB/m)} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)}\end{aligned}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Corrected Amplitude (dB}\mu\text{V/m)}$$

Test Data: See Appendix

FCC §15.407(a) & §15.407(e)–EMISSION BANDWIDTH

Applicable Standard

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

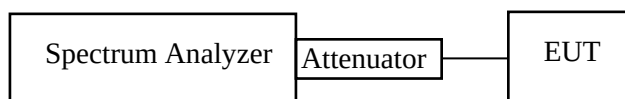
1. Emission Bandwidth (EBW)

- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- Set RBW = 100 kHz.
 - Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
 - Detector = Peak.
 - Trace mode = max hold.
 - Sweep = auto couple.
 - Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

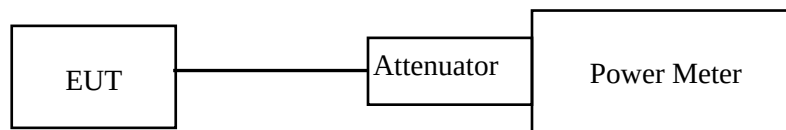
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting 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.

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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 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 colocated 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.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.



FCC §15.407(a) - POWER SPECTRAL DENSITY

Applicable Standard

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. 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.

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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 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.

Test Procedure

The measurements are base on FCC KDB 789033 D02 General UNII Test Proceidyres New Rules v02r01: Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices section F: Maximum power spectral density (PPSD) and method SA-2

EUT PHOTOGRAPHS

Please refer to the attachment APPENDIX A-EUT EXTERNAL PHOTOGRAPHS and APPENDIX B-INTERNAL PHOTOGRAPHS.

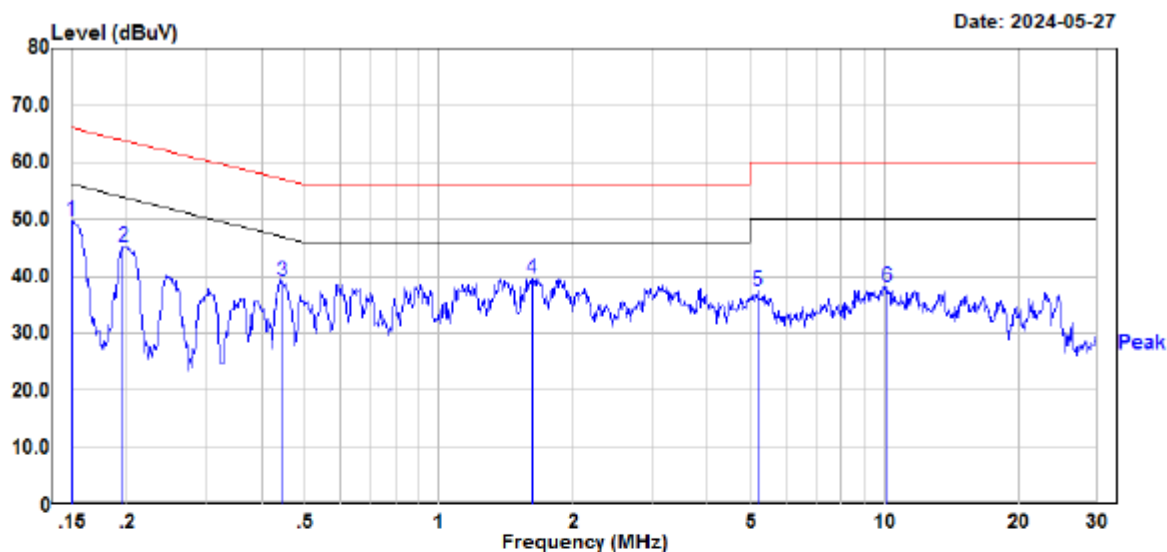
TEST SETUP PHOTOGRAPHS

Please refer to the attachment APPENDIX D-TEST SETUP PHOTOGRAPHS.

APPENDIX - TEST DATA**Environmental Conditions & Test Information**

Test Item:	DUTY CYCLE	AC POWER- LINE CONDUCTED EMISSIONS LIMITS	UNWANTED EMISSIONS & BAND EDGE EMISSIONS		
			9 kHz - 1GHz	1 GHz – 18 GHz	18 GHz - 40 GHz
Test Date:	2024-05-23 to 2024-07-29	2024-05-27	2024-06-03	2024-06-03	2024-05-24
Temperature:	21.3-22.3 °C	24.5 °C	23.8 °C	23.8 °C	25.5 °C
Relative Humidity:	41-48 %	57 %	50 %	50 %	52 %
ATM Pressure:	101.0-101.9kPa	100.7kPa	101.2 kPa	101.2 kPa	100.5kPa
Test Result:	/	Pass	Pass	Pass	Pass
Test Engineer:	Bard Liu	Frank Liu	Leah Li	Klein Zhu& Hugh Wu	Hugh Wu

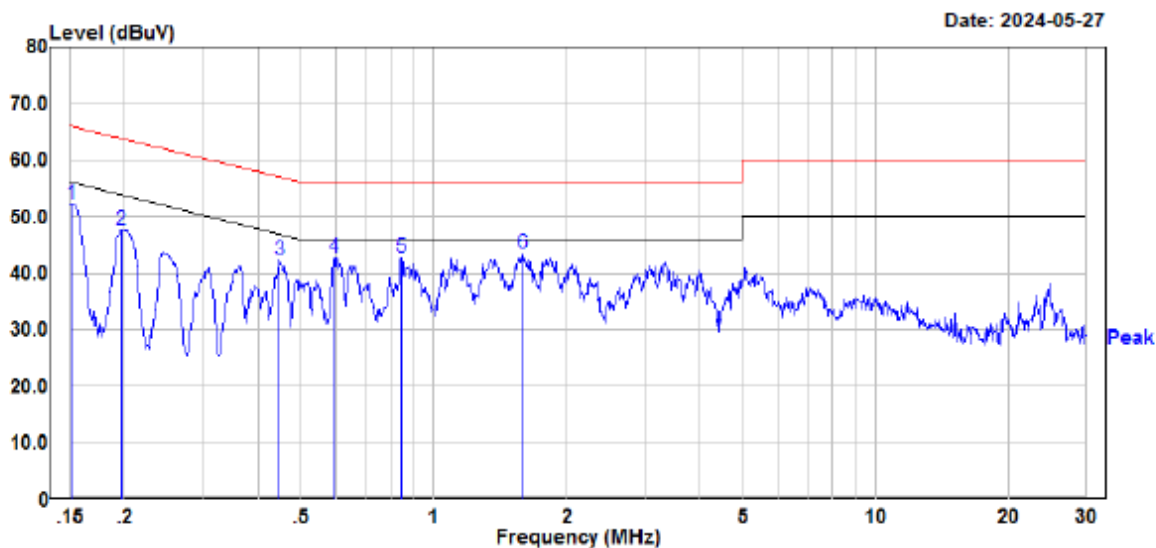
Test Item:	EMISSION BANDWIDTH	CONDUCTED TRANSMITTER OUTPUT POWER	POWER SPECTRAL DENSITY
Test Date:	2024-05-15 to 2024-08-05	2024-05-15 to 2024-05-24	2024-05-15 to 2024-05-24
Temperature:	21.3-22.3 °C	21.3-22.3 °C	21.3-22.3 °C
Relative Humidity:	41-48 %	41-48 %	41-48 %
ATM Pressure:	101.0-101.9kPa	101.0-101.9kPa	101.0-101.9kPa
Test Result:	Pass	Pass	Pass
Test Engineer:	Bard Liu	Bard Liu	Bard Liu

AC POWER LINE CONDUCTED EMISSIONS*EUT operation mode: Transmitting in 802.11ac40 mode low channel of 5470~5725MHz (maximum output power)***AC 120V/60 Hz, Line**

Site : CE
Condition : FCC PART 15.207
: DET:Peak
Project No. : RSHA240424001
Model : TENS0-F3
Phase : L
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR
Temperature : 24.5°C
Humidity : 57%
Atmospheric pressure: 100.7kPa
Test Engineer : Frank Liu

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.150	29.79	20.12	49.91	66.00	-16.09	Peak
2	0.195	24.99	20.11	45.10	63.81	-18.71	Peak
3	0.445	18.83	20.23	39.06	56.98	-17.92	Peak
4	1.617	19.51	20.02	39.53	56.00	-16.47	Peak
5	5.190	17.20	20.28	37.48	60.00	-22.52	Peak
6	10.121	18.23	20.00	38.23	60.00	-21.77	Peak

AC 120V/60 Hz, Neutral



Site : CE
Condition : FCC PART 15.207
Project No. : RSHA240424001
Model : TENS0-F3
Phase : N
Voltage : 120V/60Hz
Mode : 5G WIFI
Test Equipment : ENV216,ESR
Temperature : 24.5℃
Humidity : 57%
Atmospheric pressure: 100.7kPa
Test Engineer : Frank Liu

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.152	32.04	20.12	52.16	65.92	-13.76	Peak
2	0.196	27.62	20.11	47.73	63.76	-16.03	Peak
3	0.447	22.19	20.23	42.42	56.93	-14.51	Peak
4	0.597	22.72	20.10	42.82	56.00	-13.18	Peak
5	0.846	22.86	19.88	42.74	56.00	-13.26	Peak
6	1.585	23.59	20.01	43.60	56.00	-12.40	Peak

Transmitter Unwanted Emissions & Band Edge Emissions

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

9 kHz - 30 MHz: (Maximum output power mode and channel)

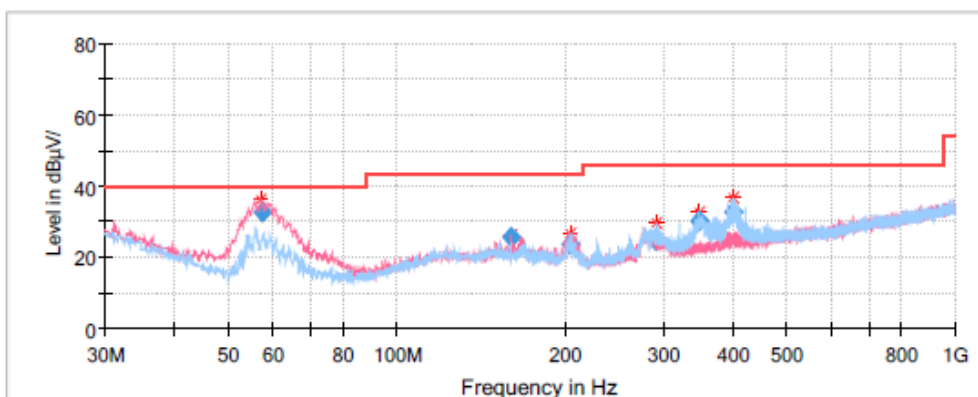
The amplitude of spurious emissions attenuated more than 20 dB below the limit was not be recorded.

30MHz-1GHz(5150-5250MHz Band): (Transmitting in maximum output power mode 802.11ac40 mode)

Low Channel: 5190 MHz

Common Information

Project No:	RSHA240424001
EUT Model:	TENSO-F3
Test Mode:	5G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.8°C
Humidity:	50%
Barometric Pressure:	101.2kPa
Test Engineer:	Leah Li
Test Date:	2024/6/3

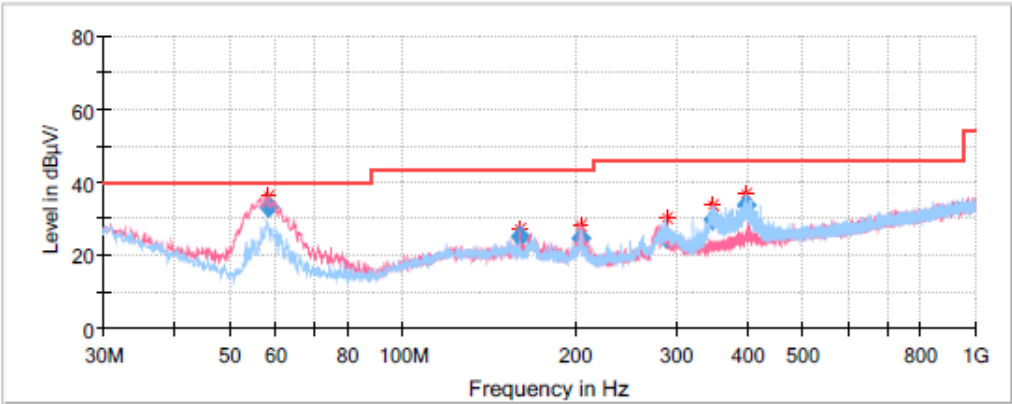
**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
57.578800	32.69	40.00	7.31	V	-17.4
160.007300	25.57	43.50	17.93	V	-12.2
204.514450	23.68	43.50	19.82	H	-12.5
292.014100	24.46	46.00	21.54	H	-10.6
348.413600	29.95	46.00	16.05	H	-9.3
400.109850	32.67	46.00	13.33	H	-8.0

High Channel: 5230 MHz

Common Information

Project No:	RSHA240424001
EUT Model:	TENSO-F3
Test Mode:	5G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.8°C
Humidity:	50%
Barometric Pressure:	101.2kPa
Test Engineer:	Leah Li
Test Date:	2024/6/3



Final Result

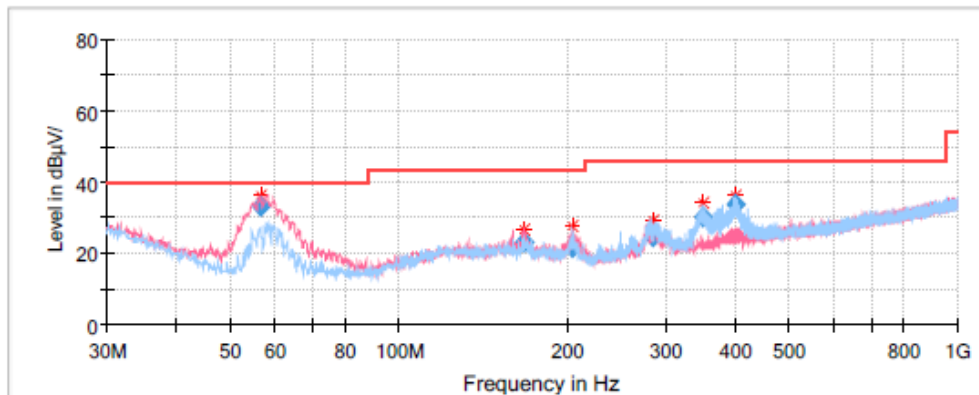
Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
58.187250	33.37	40.00	6.63	V	-17.4
160.013900	25.32	43.50	18.18	V	-12.2
204.299000	24.68	43.50	18.82	V	-12.5
288.732250	24.49	46.00	21.51	H	-10.6
347.938400	29.89	46.00	16.11	H	-9.3
398.593650	33.63	46.00	12.37	H	-8.0

30MHz-1GHz(5250-5350MHz Band): (Transmitting in maximum output power mode 802.11ac40 mode)

Low Channel: 5270 MHz

Common Information

Project No:	RSHA240424001
EUT Model:	TENSO-F3
Test Mode:	5G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.8°C
Humidity:	50%
Barometric Pressure:	101.2kPa
Test Engineer:	Leah Li
Test Date:	2024/6/3

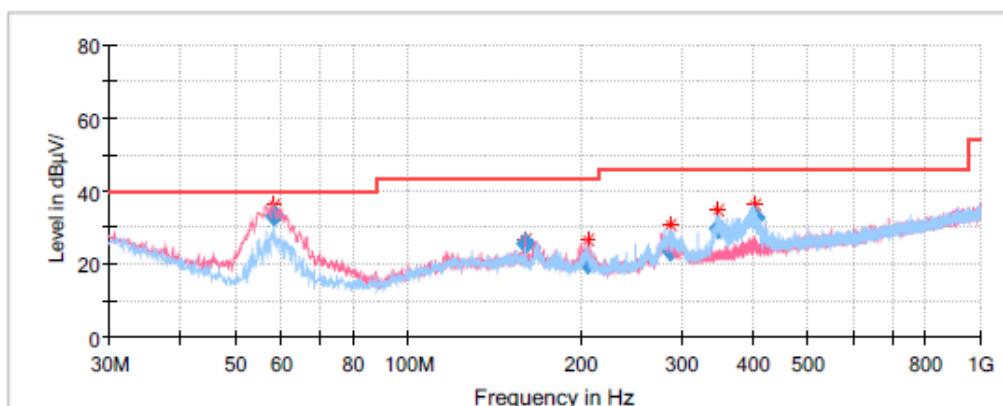


Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
56.646050	32.96	40.00	7.04	V	-17.3
167.168650	22.94	43.50	20.56	V	-12.5
205.050150	21.65	43.50	21.85	V	-12.5
284.463450	24.82	46.00	21.18	H	-10.6
350.011450	29.96	46.00	16.04	H	-9.3
399.445800	33.46	46.00	12.54	H	-8.0

High Channel: 5310 MHz**Common Information**

Project No:	RSHA240424001
EUT Model:	TENSO-F3
Test Mode:	5G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.8°C
Humidity:	50%
Barometric Pressure:	101.2kPa
Test Engineer:	Leah Li
Test Date:	2024/6/3

**Final Result**

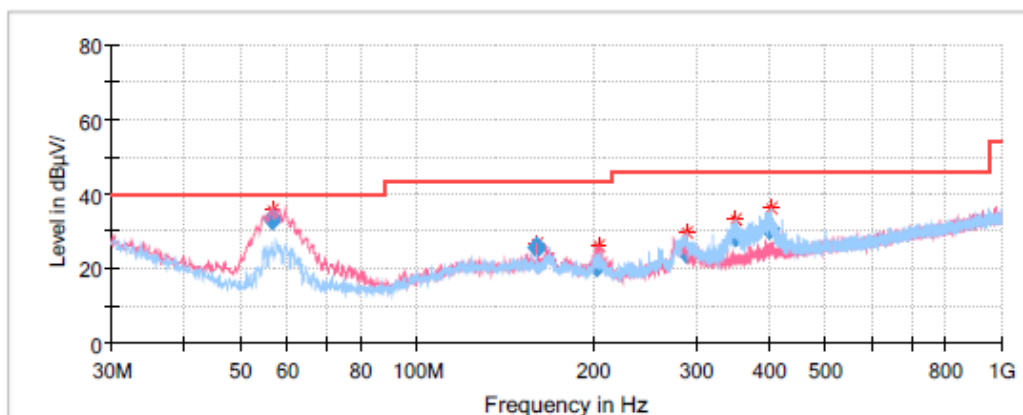
Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
58.273550	33.18	40.00	6.82	V	-17.4
160.005200	25.69	43.50	17.81	V	-12.2
206.185700	20.15	43.50	23.35	V	-12.6
287.973150	23.86	46.00	22.14	H	-10.6
348.622050	29.90	46.00	16.10	H	-9.3
402.173900	32.78	46.00	13.22	H	-7.9

30MHz-1GHz(5470-5725MHz Band): (Transmitting in maximum output power mode 802.11ac40 mode)

Low Channel: 5510 MHz

Common Information

Project No:	RSHA240424001
EUT Model:	TENSO-F3
Test Mode:	5G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.8°C
Humidity:	50%
Barometric Pressure:	101.2kPa
Test Engineer:	Leah Li
Test Date:	2024/6/3



Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
56.461900	33.24	40.00	6.76	V	-17.3
160.010300	25.76	43.50	17.74	V	-12.2
203.121000	20.70	43.50	22.80	V	-12.4
289.227800	24.03	46.00	21.97	H	-10.6
350.713600	28.88	46.00	17.12	H	-9.2
401.360950	30.91	46.00	15.09	H	-7.9

Middle Channel: 5550 MHz

Common Information

Project No:

EUT Model:

Test Mode:

Standard:

Test Equipment:

Temperature:

Humidity:

Barometric Pressure:

Test Engineer:

Test Date:

RSHA240424001

TENSO-F3

5G WIFI

FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407

ESCI, JB3, 310N

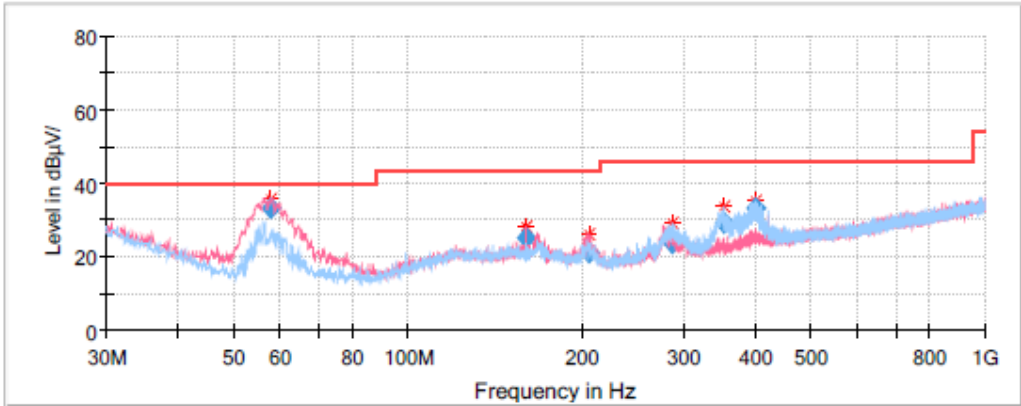
23.8℃

50%

101.2kPa

Leah Li

2024/6/3



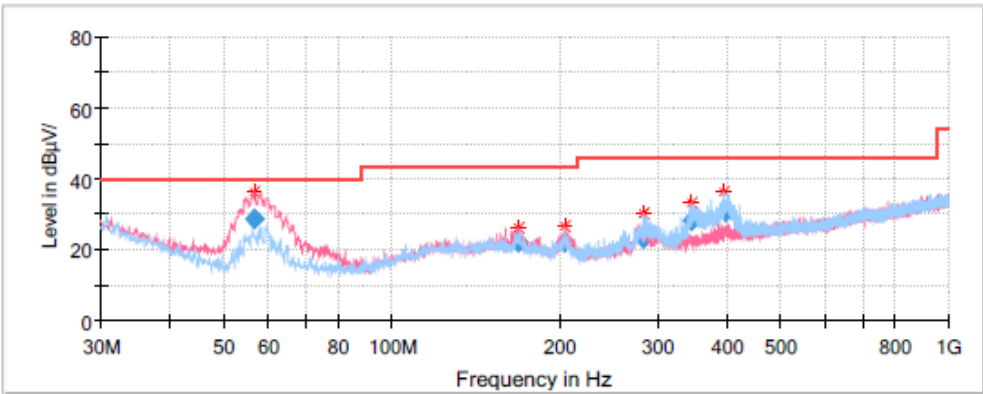
Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
57.877300	33.09	40.00	6.91	V	-17.4
160.019300	25.40	43.50	18.10	V	-12.2
206.124650	20.95	43.50	22.55	V	-12.6
286.243850	23.88	46.00	22.12	H	-10.6
352.692300	29.34	46.00	16.66	H	-9.2
400.029050	33.19	46.00	12.81	H	-8.0

High Channel: 5670 MHz

Common Information

Project No:	RSHA240424001
EUT Model:	TENSO-F3
Test Mode:	5G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.8°C
Humidity:	50%
Barometric Pressure:	101.2kPa
Test Engineer:	Leah Li
Test Date:	2024/6/3



Final Result

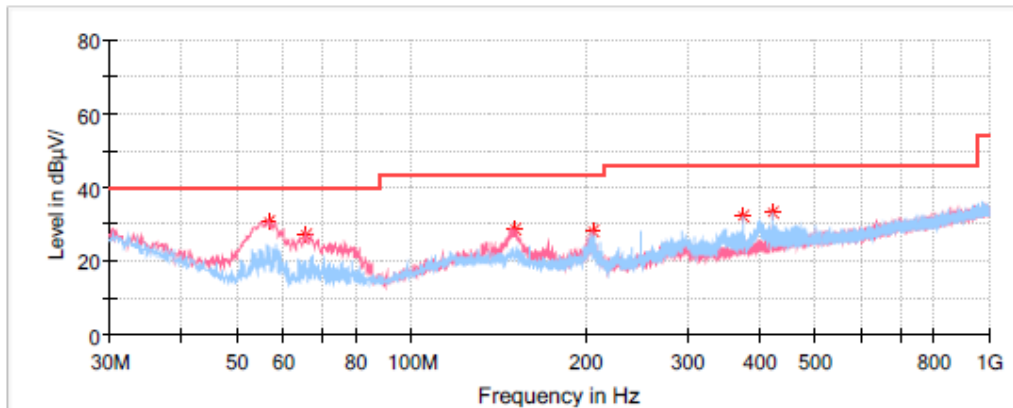
Frequency (MHz)	QuasiPeak (dBµ V/m)	Limit (dBµ V/m)	Margin (dB)	Pol	Corr. (dB/m)
56.520450	28.71	40.00	11.29	V	-17.3
168.349900	22.25	43.50	21.25	V	-12.5
204.976500	22.29	43.50	21.21	V	-12.5
283.166100	23.07	46.00	22.93	H	-10.6
345.666800	27.95	46.00	18.05	H	-9.4
396.544300	30.90	46.00	15.10	H	-8.1

30MHz-1GHz(5725-5850MHz Band): (Transmitting in maximum output power mode 802.11ac80 mode)

Middle Channel: 5775 MHz

Common Information

Project No:	RSHA240424001
EUT Model:	TENSO-F3
Test Mode:	5G WIFI
Standard:	FCC Part 15.247 & FCC Part 15.249 & FCC Part 15.407
Test Equipment:	ESCI, JB3, 310N
Temperature:	23.4℃
Humidity:	57%
Barometric Pressure:	100.5kPa
Test Engineer:	Leah Li
Test Date:	2024/6/12



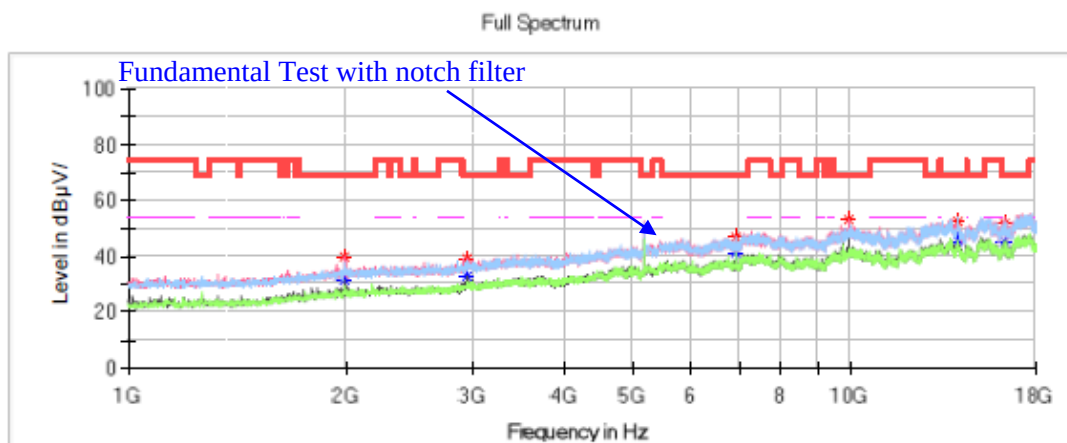
Critical_Freqs

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
56.432500	30.64	40.00	9.36	V	-17.3
65.768750	27.17	40.00	12.83	V	-17.3
151.128750	28.82	43.50	14.68	V	-11.8
206.297500	28.00	43.50	15.50	V	-12.6
374.956250	32.29	46.00	13.71	H	-8.6
421.516250	33.25	46.00	12.75	H	-7.4

1GHz - 18GHz(5150-5250MHz Band):**802.11a Mode:****Low Channel: 5180MHz**

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu



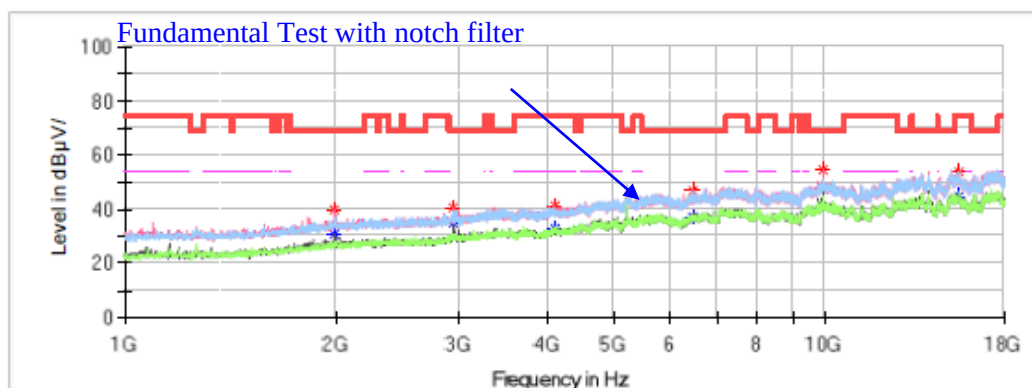
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1994.500000	39.66	---	68.20	28.54	V	-10.6
1994.500000	---	31.49	---	---	V	-10.6
2949.900000	---	32.64	---	---	V	-8.2
2949.900000	39.12	---	68.20	29.08	V	-8.2
6905.800000	---	41.47	---	---	H	3.2
6905.800000	47.12	---	68.20	21.08	H	3.2
9908.000000	53.22	---	68.20	14.98	V	7.5
9908.000000	---	48.00	---	---	V	7.5
14001.600000	---	45.78	---	---	H	10.5
14001.600000	52.72	---	68.20	15.48	V	10.5
16301.700000	---	45.17	---	---	V	9.7
16301.700000	52.02	---	68.20	16.18	H	9.7

Middle Channel: 5200MHz**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

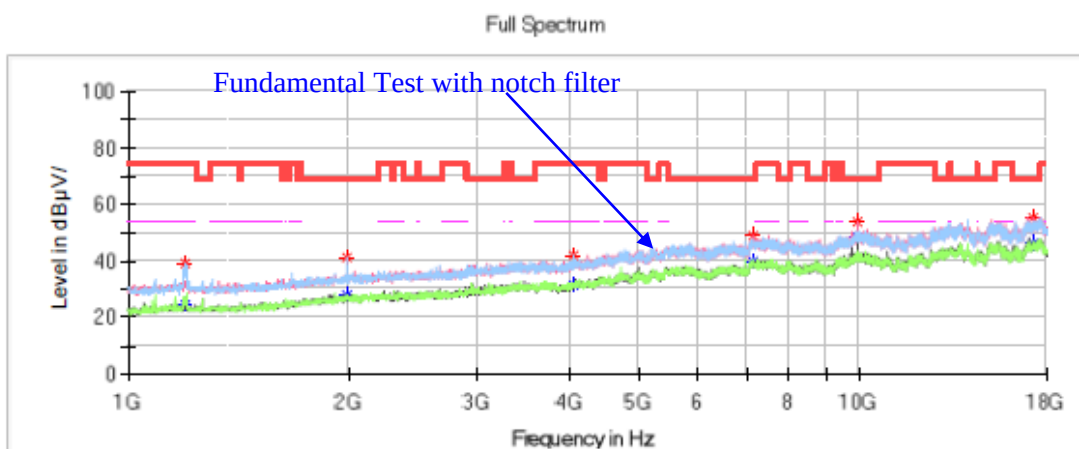
Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1994.500000	---	30.88	---	---	V	-10.6
1994.500000	39.65	---	68.20	28.55	V	-10.6
2949.900000	40.53	---	68.20	27.67	V	-8.2
2949.900000	---	34.98	---	---	V	-8.2
4119.500000	---	32.72	54.00	21.28	H	-4.8
4119.500000	41.51	---	74.00	32.49	V	-4.8
6465.500000	---	36.83	---	---	H	0.8
6465.500000	47.04	---	68.20	21.16	H	0.8
9908.000000	---	47.72	---	---	V	7.5
9908.000000	54.46	---	68.20	13.74	V	7.5
15485.700000	---	44.76	54.00	9.24	H	11.7
15485.700000	53.79	---	74.00	20.21	H	11.7

High Channel: 5240MHz**Common Information**

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Klein Zhu

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1197.200000	39.33	---	74.00	34.67	H	-14.9
1197.200000	---	24.63	54.00	29.37	H	-14.9
1994.500000	---	28.09	---	---	H	-10.6
1994.500000	40.93	---	68.20	27.27	H	-10.6
4066.800000	---	31.45	54.00	22.55	H	-4.9
4066.800000	41.75	---	74.00	32.25	H	-4.9
7131.900000	---	40.18	---	---	H	3.9
7131.900000	49.08	---	68.20	19.12	V	3.9
9908.000000	---	48.15	---	---	V	7.5
9908.000000	53.87	---	68.20	14.33	V	7.5
17238.400000	---	45.81	---	---	V	13.0
17238.400000	55.35	---	68.20	12.85	V	13.0

802.11ac20 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5180MHz						
1197.200000	---	27.93	54.00	26.07	H	-14.9
1197.200000	39.06	---	74.00	34.94	H	-14.9
2123.700000	42.38	---	68.20	25.82	V	-10.4
7570.500000	---	39.80	54.00	14.20	V	4.1
7570.500000	49.04	---	74.00	24.96	V	4.1
9846.800000	52.99	---	68.20	15.21	V	7.3
13372.600000	---	44.91	54.00	9.09	V	10.5
13372.600000	50.50	---	74.00	23.50	V	10.5
17303.000000	55.07	---	68.20	13.13	V	13.1
Middle Channel: 5200MHz						
1197.200000	---	26.54	54.00	27.46	H	-14.9
1197.200000	37.41	---	74.00	36.59	H	-14.9
2128.800000	38.79	---	68.20	29.41	H	-10.4
6933.000000	47.35	---	68.20	20.85	H	3.4
9727.800000	52.75	---	68.20	15.45	V	6.9
14494.600000	---	44.42	54.00	9.58	V	8.2
14494.600000	50.10	---	74.00	23.90	V	8.2
17634.500000	55.80	---	68.20	12.40	V	13.1
High Channel: 5240MHz						
1197.200000	---	25.45	54.00	28.55	H	-14.9
1197.200000	38.66	---	74.00	35.34	H	-14.9
1997.900000	38.30	---	68.20	29.90	H	-10.6
3679.200000	---	31.33	54.00	22.67	H	-5.7
3679.200000	41.28	---	74.00	32.72	H	-5.7
9727.800000	54.22	---	68.20	13.98	V	6.9
13389.600000	50.74	---	74.00	23.26	H	10.6
13389.600000	---	44.44	54.00	9.56	H	10.6
17575.000000	55.44	---	68.20	12.76	V	13.3

802.11ac40 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5190MHz						
1192.100000	38.01	---	74.00	35.99	H	-14.9
1192.100000	---	27.45	54.00	26.55	H	-14.9
1991.100000	37.15	---	68.20	31.05	V	-10.6
3194.700000	39.91	---	68.20	28.29	H	-7.3
9908.000000	51.87	---	68.20	16.33	V	7.5
14001.600000	52.10	---	68.20	16.10	V	10.5
17501.900000	55.16	---	68.20	13.04	V	13.6
High Channel: 5230MHz						
1197.200000	---	27.68	54.00	26.32	H	-14.9
1197.200000	38.60	---	74.00	35.40	H	-14.9
1991.100000	36.74	---	68.20	31.46	V	-10.6
3896.800000	---	29.04	54.00	24.96	V	-5.3
3896.800000	39.93	---	74.00	34.07	V	-5.3
6972.100000	48.45	---	68.20	19.75	H	3.6
9848.500000	54.75	---	68.20	13.45	V	7.3
17603.900000	56.44	---	68.20	11.76	H	13.2

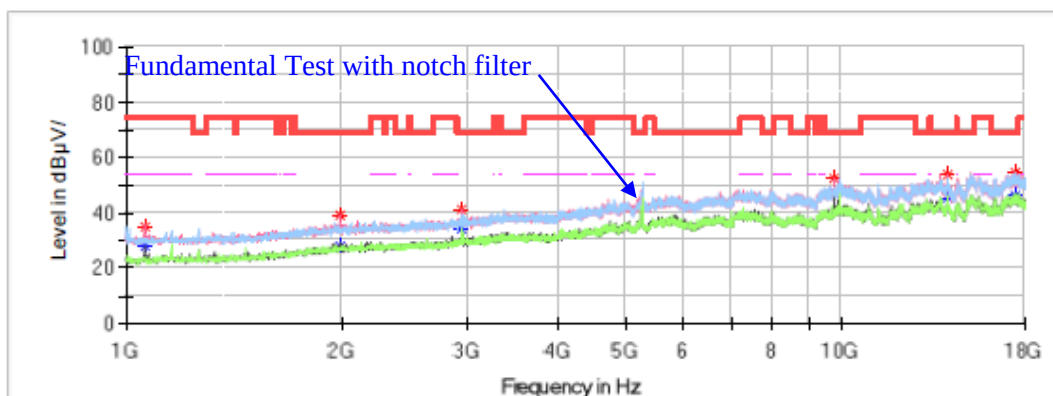
802.11ac80 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Channel: 5210MHz						
2122.000000	42.18	---	68.20	26.02	H	-10.4
2949.900000	38.18	---	68.20	30.02	H	-8.2
4177.300000	---	32.81	54.00	21.19	H	-4.6
4177.300000	40.81	---	74.00	33.19	H	-4.6
7545.000000	---	42.10	54.00	11.90	V	4.2
7545.000000	48.18	---	74.00	25.82	V	4.2
14016.900000	53.05	---	68.20	15.15	H	10.4
17794.300000	---	44.79	54.00	9.21	H	12.4
17794.300000	53.81	---	74.00	20.19	H	12.4

1GHz-18GHz(5250-5350MHz Band):**802.11a Mode:****Low Channel: 5260MHz****Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

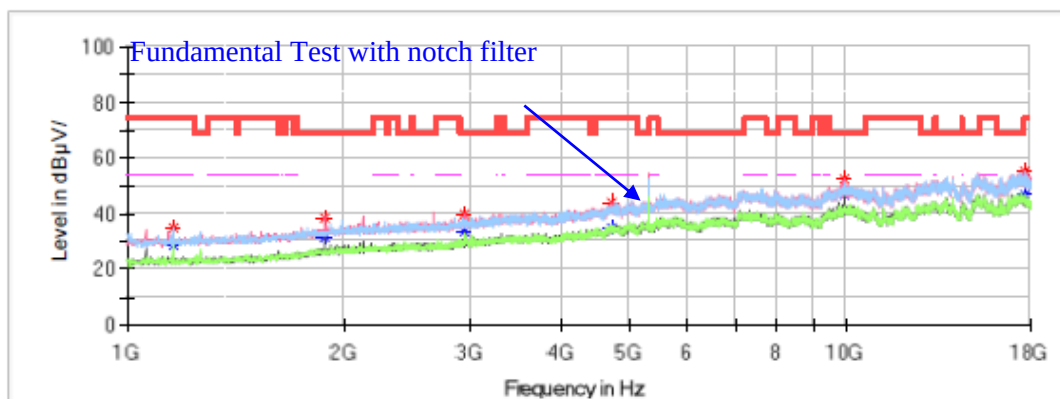
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1061.200000	---	27.99	54.00	26.01	V	-15.3
1061.200000	34.78	---	74.00	39.22	V	-15.3
1992.800000	---	28.01	---	---	V	-10.6
1992.800000	39.04	---	68.20	29.16	V	-10.6
2949.900000	41.16	---	68.20	27.04	V	-8.2
2949.900000	---	34.11	---	---	V	-8.2
9727.800000	---	47.27	---	---	V	6.9
9727.800000	52.40	---	68.20	15.80	V	6.9
14001.600000	---	45.22	---	---	V	10.5
14001.600000	53.85	---	68.20	14.35	V	10.5
17396.500000	---	45.82	---	---	H	13.4
17396.500000	54.32	---	68.20	13.88	H	13.4

Middle Channel: 5280MHz**Common Information**

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Hugh Wu

Full Spectrum

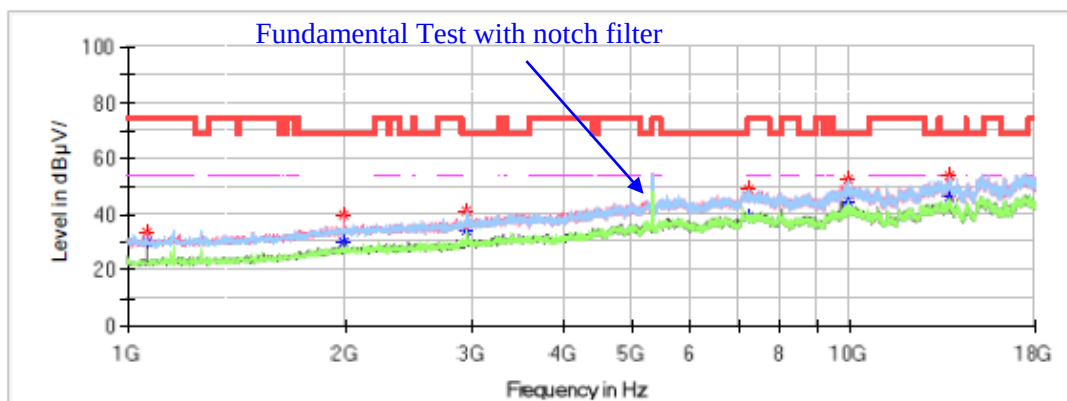
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1158.100000	---	28.56	54.00	25.44	H	-15.0
1158.100000	34.80	---	74.00	39.20	H	-15.0
1884.000000	38.44	---	68.20	29.76	V	-11.3
1884.000000	---	31.14	---	---	V	-11.3
2949.900000	39.86	---	68.20	28.34	V	-8.2
2949.900000	---	33.83	---	---	V	-8.2
4714.500000	---	34.89	54.00	19.11	H	-2.7
4714.500000	44.34	---	74.00	29.66	H	-2.7
9908.000000	52.79	---	68.20	15.41	V	7.5
9908.000000	---	47.09	---	---	V	7.5
17636.200000	---	46.57	---	---	H	13.1
17636.200000	55.03	---	68.20	13.17	H	13.1

High Channel: 5320MHz**Common Information**

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Hugh Wu

Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1064.600000	---	29.72	54.00	24.28	V	-15.3
1064.600000	33.89	---	74.00	40.11	V	-15.3
1992.800000	---	29.94	---	---	V	-10.6
1992.800000	39.95	---	68.20	28.25	V	-10.6
2949.900000	41.05	---	68.20	27.15	V	-8.2
2949.900000	---	34.55	---	---	V	-8.2
7216.900000	---	39.40	---	---	H	4.0
7216.900000	49.04	---	68.20	19.16	H	4.0
9908.000000	52.51	---	68.20	15.69	H	7.5
9908.000000	---	44.79	---	---	H	7.5
13678.600000	---	45.95	---	---	V	10.8
13678.600000	54.00	---	68.20	14.20	V	10.8

802.11ac20 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5260MHz						
1158.100000	---	27.70	54.00	26.30	H	-15.0
1158.100000	34.98	---	74.00	39.02	H	-15.0
2655.800000	---	31.15	---	---	V	-9.2
2655.800000	38.51	---	68.20	29.69	V	-9.2
4114.400000	---	32.13	54.00	21.87	V	-4.8
4114.400000	42.61	---	74.00	31.39	V	-4.8
7500.800000	---	39.74	54.00	14.26	H	4.2
7500.800000	48.54	---	74.00	25.46	H	4.2
9908.000000	---	45.30	---	---	H	7.5
9908.000000	52.22	---	68.20	15.98	H	7.5
15543.500000	---	45.45	54.00	8.55	H	11.5
15543.500000	53.63	---	74.00	20.37	H	11.5
Middle Channel: 5280MHz						
1328.100000	---	28.78	54.00	25.22	V	-14.5
1328.100000	34.06	---	74.00	39.94	V	-14.5
1996.200000	---	27.50	---	---	H	-10.6
1996.200000	39.10	---	68.20	29.10	H	-10.6
2949.900000	40.41	---	68.20	27.79	V	-8.2
2949.900000	---	33.47	---	---	V	-8.2
7193.100000	---	39.21	---	---	H	3.9
7193.100000	48.94	---	68.20	19.26	H	3.9
9908.000000	---	48.66	---	---	V	7.5
9908.000000	54.03	---	68.20	14.17	V	7.5
16335.700000	---	44.21	---	---	H	9.8
16335.700000	54.03	---	68.20	14.17	H	9.8
High Channel: 5320MHz						
1158.100000	---	26.97	54.00	27.03	H	-15.0
1158.100000	34.44	---	74.00	39.56	H	-15.0
2132.200000	---	30.23	---	---	V	-10.4
2132.200000	43.18	---	68.20	25.02	V	-10.4
2949.900000	---	33.03	---	---	V	-8.2
2949.900000	40.60	---	68.20	27.60	V	-8.2
7092.800000	48.19	---	68.20	20.01	H	3.9
7092.800000	---	42.66	---	---	H	3.9
9908.000000	---	47.45	---	---	V	7.5
9908.000000	53.86	---	68.20	14.34	V	7.5
15217.100000	---	45.83	---	---	H	10.8
15217.100000	55.73	---	68.20	12.47	H	10.8

802.11ac40 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5270MHz						
1158.100000	---	28.59	54.00	25.41	H	-15.0
1158.100000	33.50	---	74.00	40.50	H	-15.0
1926.500000	---	27.61	---	---	H	-11.1
1926.500000	35.84	---	68.20	32.36	H	-11.1
2949.900000	---	34.09	---	---	H	-8.2
2949.900000	41.19	---	68.20	27.01	H	-8.2
5746.400000	---	38.24	---	---	H	0.5
5746.400000	52.08	---	68.20	16.12	H	0.5
9659.800000	---	49.95	---	---	V	6.7
9659.800000	54.96	---	68.20	13.24	V	6.7
15521.400000	---	45.68	54.00	8.32	V	11.6
15521.400000	53.75	---	74.00	20.25	V	11.6
High Channel: 5310MHz						
1263.500000	---	27.47	---	---	H	-14.7
1263.500000	34.88	---	68.20	33.32	H	-14.7
1994.500000	---	28.14	---	---	V	-10.6
1994.500000	40.82	---	68.20	27.38	V	-10.6
3063.800000	---	32.64	---	---	H	-7.8
3063.800000	39.96	---	68.20	28.24	H	-7.8
7079.200000	47.99	---	68.20	20.21	H	3.9
7079.200000	---	42.95	---	---	H	3.9
9668.300000	---	44.89	---	---	V	6.8
9668.300000	52.14	---	68.20	16.06	V	6.8
15181.400000	---	45.24	---	---	V	10.7
15181.400000	53.96	---	68.20	14.24	V	10.7

802.11ac80 Mode:

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
Channel: 5290MHz						
1331.500000	35.95	---	74.00	38.05	V	-14.5
1331.500000	---	30.59	54.00	23.41	V	-14.5
1992.800000	40.33	---	68.20	27.87	V	-10.6
1992.800000	---	29.90	---	---	V	-10.6
2949.900000	40.38	---	68.20	27.82	V	-8.2
2949.900000	---	34.24	---	---	V	-8.2
4624.400000	---	33.59	54.00	20.41	H	-3.2
4624.400000	43.16	---	74.00	30.84	H	-3.2
9848.500000	52.42	---	68.20	15.78	H	7.3
9848.500000	---	43.91	---	---	H	7.3
17394.800000	---	46.44	---	---	V	13.4
17394.800000	56.76	---	68.20	11.44	V	13.4

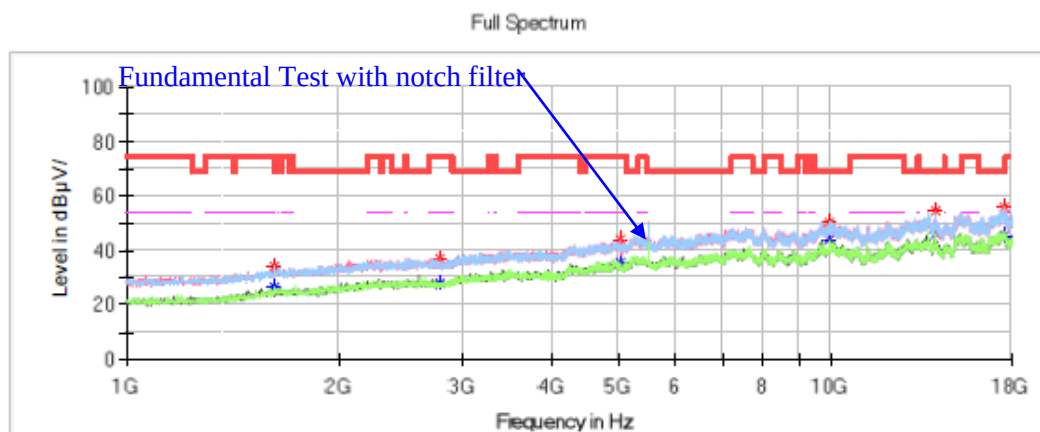
1GHz-18GHz(5470-5725MHz Band):

802.11a Mode:

Low Channel: 5500MHz

Common Information

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Hugh Wu

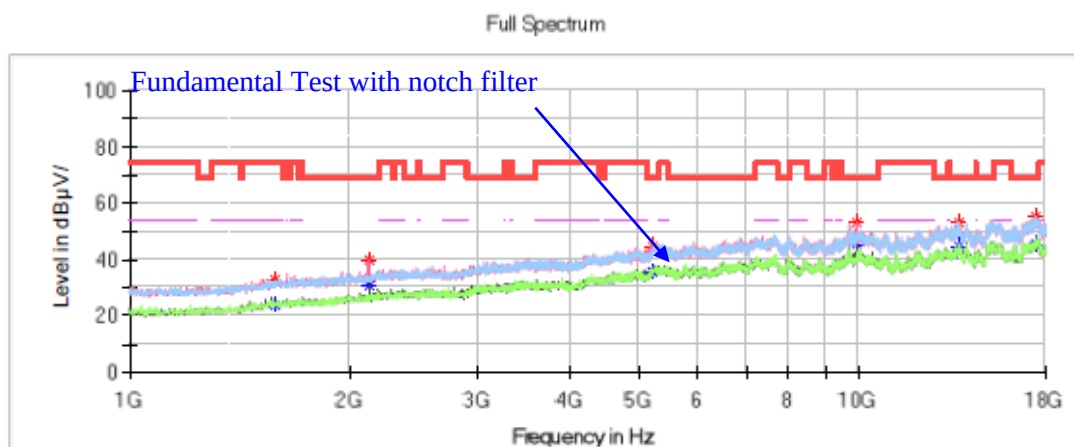


Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1623.900000	---	26.38	54.00	27.62	H	-13.1
1623.900000	34.34	---	74.00	39.66	H	-13.1
2778.200000	---	27.89	54.00	26.11	V	-8.8
2778.200000	37.33	---	74.00	36.67	V	-8.8
5006.900000	---	35.84	54.00	18.16	V	-1.2
5006.900000	43.73	---	74.00	30.27	V	-1.2
9908.000000	---	44.18	---	---	V	7.5
9908.000000	50.43	---	68.20	17.77	V	7.5
14005.000000	---	46.09	---	---	V	10.5
14005.000000	54.46	---	68.20	13.74	V	10.5
17595.400000	---	45.61	---	---	H	13.2
17595.400000	56.03	---	68.20	12.17	H	13.2

Middle Channel: 5580MHz**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

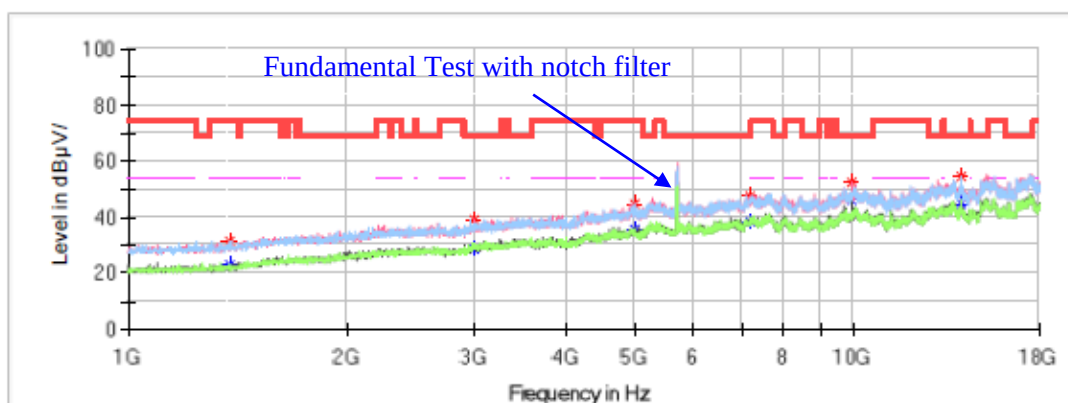
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1581.400000	---	23.75	54.00	30.25	V	-13.4
1581.400000	33.20	---	74.00	40.80	V	-13.4
2132.200000	39.76	---	68.20	28.44	V	-10.4
2132.200000	---	30.74	---	---	V	-10.4
5212.600000	---	35.68	---	---	H	-0.3
5212.600000	44.80	---	68.20	23.40	H	-0.3
9908.000000	52.97	---	68.20	15.23	V	7.5
9908.000000	---	45.51	---	---	V	7.5
13682.000000	---	44.52	---	---	H	10.8
13682.000000	53.42	---	68.20	14.78	H	10.8
17467.900000	---	45.59	---	---	V	13.5
17467.900000	54.99	---	68.20	13.21	V	13.5

High Channel: 5700MHz**Common Information**

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Hugh Wu

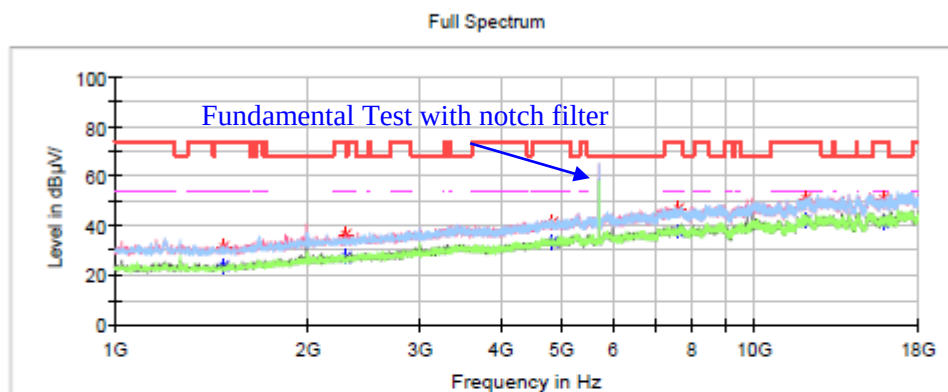
Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1377.400000	---	22.75	54.00	31.25	H	-14.3
1377.400000	31.44	---	74.00	42.56	H	-14.3
3004.300000	---	28.90	---	---	V	-8.0
3004.300000	38.84	---	68.20	29.36	V	-8.0
4978.000000	---	35.52	54.00	18.48	V	-1.3
4978.000000	44.58	---	74.00	29.42	V	-1.3
7177.800000	---	38.44	---	---	H	3.9
7177.800000	47.74	---	68.20	20.46	H	3.9
9908.000000	---	46.35	---	---	V	7.5
9908.000000	52.15	---	68.20	16.05	V	7.5
14008.400000	---	45.10	---	---	V	10.5
14008.400000	54.76	---	68.20	13.44	V	10.5

Cross Channel: 5720MHz**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1479.400000	---	23.55	54.00	30.45	V	-14.8
1479.400000	31.18	---	74.00	42.82	V	-14.8
2298.800000	---	27.61	54.00	26.39	V	-10.8
2298.800000	36.66	---	74.00	37.34	V	-10.8
4818.200000	---	33.27	54.00	20.73	H	-3.1
4818.200000	41.44	---	74.00	32.56	H	-3.1
7611.300000	---	37.76	54.00	16.24	V	3.9
7611.300000	46.90	---	74.00	27.10	V	3.9
12033.000000	---	42.12	54.00	11.88	V	9.0
12033.000000	51.23	---	74.00	22.77	V	9.0
15880.100000	---	41.19	54.00	12.81	H	9.5
15880.100000	51.05	---	74.00	22.95	H	9.5

802.11ac20 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5500MHz						
1197.200000	---	24.89	54.00	29.11	H	-14.9
1197.200000	30.60	---	74.00	43.40	H	-14.9
2130.500000	36.67	---	68.20	31.53	V	-10.4
2130.500000	---	29.60	---	---	V	-10.4
2949.900000	---	31.14	---	---	V	-8.2
2949.900000	38.38	---	68.20	29.82	V	-8.2
4252.100000	---	33.53	54.00	20.47	H	-4.4
4252.100000	42.46	---	74.00	31.54	H	-4.4
9848.500000	---	43.88	---	---	V	7.3
9848.500000	52.17	---	68.20	16.03	V	7.3
17464.500000	---	47.53	---	---	V	13.5
17464.500000	57.01	---	68.20	11.19	V	13.5
Middle Channel: 5580MHz						
1141.100000	---	22.85	54.00	31.15	H	-15.1
1141.100000	29.67	---	74.00	44.33	H	-15.1
1761.600000	---	24.68	---	---	V	-12.2
1761.600000	34.84	---	68.20	33.36	V	-12.2
3162.400000	---	29.60	---	---	H	-7.4
3162.400000	40.26	---	68.20	27.94	H	-7.4
4648.200000	---	33.82	54.00	20.18	V	-3.0
4648.200000	43.05	---	74.00	30.95	V	-3.0
9908.000000	51.62	---	68.20	16.58	V	7.5
9908.000000	---	45.47	---	---	V	7.5
14016.900000	---	44.81	---	---	H	10.4
14016.900000	55.69	---	68.20	12.51	H	10.4
High Channel: 5700MHz						
1402.900000	---	23.09	54.00	30.91	H	-14.2
1402.900000	33.14	---	74.00	40.86	H	-14.2
2572.500000	---	27.37	---	---	H	-9.5
2572.500000	36.86	---	68.20	31.34	H	-9.5
4911.700000	---	35.39	54.00	18.61	V	-1.7
4911.700000	44.21	---	74.00	29.79	V	-1.7
7640.200000	---	40.10	54.00	13.90	H	4.1
7640.200000	49.24	---	74.00	24.76	H	4.1
11206.800000	---	42.00	54.00	12.00	V	6.7
11206.800000	49.64	---	74.00	24.36	V	6.7
15189.900000	---	45.87	---	---	V	10.8
15189.900000	55.88	---	68.20	12.32	V	10.8
Cross Channel: 5720MHz						
1486.200000	---	23.05	54.00	30.95	V	-14.8
1486.200000	32.72	---	74.00	41.28	V	-14.8
2846.200000	---	28.53	54.00	25.47	V	-9.0
2846.200000	36.95	---	74.00	37.05	V	-9.0
4663.500000	---	33.15	54.00	20.85	H	-3.7
4663.500000	42.75	---	74.00	31.25	H	-3.7
8386.500000	---	39.79	54.00	14.21	H	5.1
8386.500000	48.17	---	74.00	25.83	V	5.1
12575.300000	---	44.80	54.00	9.20	V	9.7
12575.300000	51.06	---	74.00	22.94	V	9.7
15902.200000	---	43.24	54.00	10.76	V	9.5
15902.200000	51.52	---	74.00	22.48	V	9.5
1486.200000	---	23.05	54.00	30.95	V	-14.8

802.11ac40 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5510MHz						
1338.300000	---	23.11	54.00	30.89	V	-14.4
1338.300000	31.31	---	74.00	42.69	V	-14.4
2127.100000	---	32.23	---	---	V	-10.4
2127.100000	44.17	---	68.20	24.03	V	-10.4
4340.500000	---	33.82	54.00	20.18	V	-4.2
4340.500000	43.07	---	74.00	30.93	V	-4.2
6732.400000	---	37.12	---	---	V	2.2
6732.400000	47.48	---	68.20	20.72	V	2.2
9727.800000	---	46.21	---	---	V	6.9
9727.800000	53.01	---	68.20	15.19	V	6.9
15645.500000	---	45.34	54.00	8.66	H	10.9
15645.500000	54.82	---	74.00	19.18	H	10.9
Middle Channel: 5550MHz						
1163.200000	---	21.65	54.00	32.35	V	-15.0
1163.200000	31.09	---	74.00	42.91	V	-15.0
2123.700000	---	31.81	---	---	V	-10.4
2123.700000	39.45	---	68.20	28.75	V	-10.4
3276.300000	---	31.09	---	---	V	-7.0
3276.300000	40.12	---	68.20	28.08	V	-7.0
7279.800000	---	39.87	54.00	14.13	H	4.0
7279.800000	48.09	---	74.00	25.91	H	4.0
9908.000000	---	45.43	---	---	V	7.5
9908.000000	51.69	---	68.20	16.51	V	7.5
15643.800000	---	44.84	54.00	9.16	V	10.9
15643.800000	53.85	---	74.00	20.15	V	10.9
High channel: 5670MHz						
1130.900000	---	22.74	54.00	31.26	H	-15.3
1130.900000	31.50	---	74.00	42.50	H	-15.3
2346.400000	---	27.95	54.00	26.05	V	-10.6
2346.400000	35.62	---	74.00	38.38	V	-10.6
4612.500000	---	33.98	54.00	20.02	V	-3.9
4612.500000	41.37	---	74.00	32.63	V	-3.9
8092.400000	---	37.84	54.00	16.16	V	4.2
8092.400000	48.00	---	74.00	26.00	V	4.2
12150.300000	---	43.71	54.00	10.29	V	9.2
12150.300000	52.55	---	74.00	21.45	V	9.2
15524.800000	---	42.43	54.00	11.57	V	9.8
15524.800000	51.55	---	74.00	22.45	V	9.8
Cross channel: 5710MHz						
1198.900000	---	26.69	54.00	27.31	H	-15.2
1198.900000	36.59	---	74.00	37.41	H	-15.2
2298.800000	33.75	---	74.00	40.25	V	-10.8
2298.800000	---	27.94	54.00	26.06	V	-10.8
4080.400000	---	30.84	54.00	23.16	H	-5.6
4080.400000	40.07	---	74.00	33.93	H	-5.6
7687.800000	---	39.64	54.00	14.36	V	3.9
7687.800000	48.26	---	74.00	25.74	V	3.9
11609.700000	---	39.61	54.00	14.39	V	8.9
11609.700000	50.64	---	74.00	23.36	V	8.9
15892.000000	---	44.28	54.00	9.72	V	9.5
15892.000000	52.96	---	74.00	21.04	V	9.5

802.11ac80 Mode:

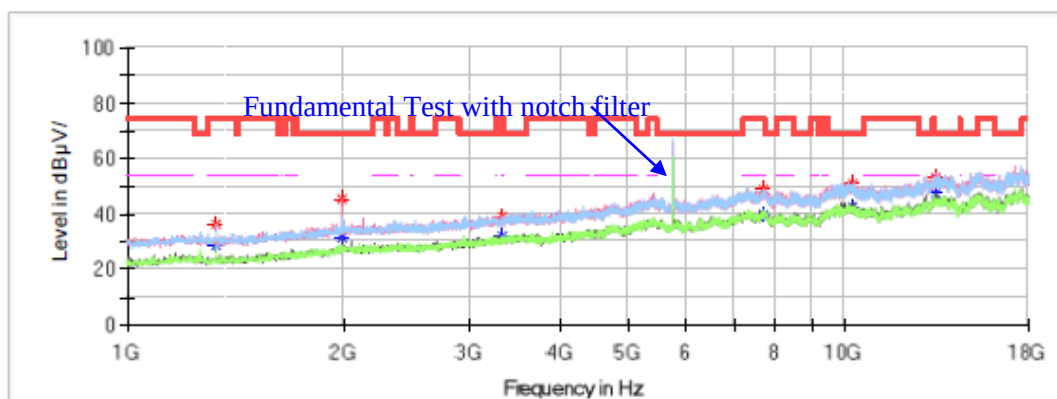
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5530MHz						
1190.400000	---	23.03	54.00	30.97	V	-15.2
1190.400000	33.99	---	74.00	40.01	V	-15.2
2322.600000	---	26.84	54.00	27.16	V	-10.7
2322.600000	35.42	---	74.00	38.58	V	-10.7
4337.100000	---	33.04	54.00	20.96	V	-4.8
4337.100000	43.55	---	74.00	30.45	V	-4.8
7545.000000	---	38.26	54.00	15.74	H	3.9
7545.000000	45.28	---	74.00	28.72	H	3.9
12214.900000	---	41.24	54.00	12.76	H	9.3
12214.900000	50.52	---	74.00	23.48	H	9.3
15784.900000	---	42.53	54.00	11.47	V	9.6
15784.900000	51.62	---	74.00	22.38	V	9.6
Middle Channel: 5610MHz						
1198.900000	36.29	---	74.00	37.71	V	-15.2
1198.900000	---	24.84	54.00	29.16	V	-15.2
2842.800000	37.33	---	74.00	36.67	H	-9.0
2842.800000	---	27.87	54.00	26.13	H	-9.0
4774.000000	43.33	---	74.00	30.67	H	-3.3
4774.000000	---	32.99	54.00	21.01	H	-3.3
8388.200000	48.95	---	74.00	25.05	V	5.1
8388.200000	---	39.66	54.00	14.34	V	5.1
11636.900000	---	41.05	54.00	12.95	H	8.9
11636.900000	51.73	---	74.00	22.27	H	8.9
15633.600000	50.15	---	74.00	23.85	H	9.7
15633.600000	---	41.02	54.00	12.98	H	9.7
High Channel: 5690MHz						
1333.200000	---	23.04	54.00	30.96	H	-15.0
1333.200000	31.65	---	74.00	42.35	H	-15.0
2844.500000	---	28.82	54.00	25.18	V	-9.0
2844.500000	36.97	---	74.00	37.03	V	-9.0
4223.200000	---	31.75	54.00	22.25	H	-5.2
4223.200000	40.33	---	74.00	33.67	H	-5.2
7682.700000	---	39.06	54.00	14.94	V	3.9
7682.700000	47.66	---	74.00	26.34	V	3.9
12165.600000	---	41.47	54.00	12.53	H	9.2
12165.600000	51.03	---	74.00	22.97	H	9.2
16048.400000	---	41.66	54.00	12.34	V	9.6
16048.400000	51.60	---	74.00	22.40	V	9.6

1GHz-18GHz(5725-5850MHz Band):**802.11a Mode:****Low Channel: 5745MHz**

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



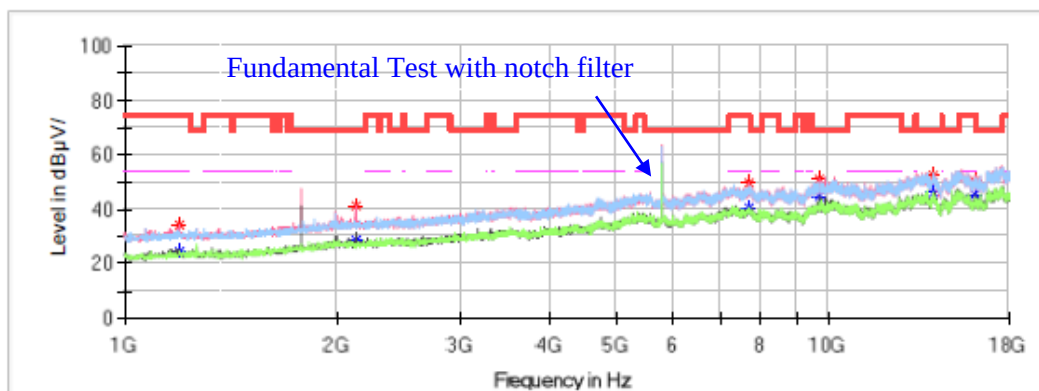
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1331.500000	---	28.72	54.00	25.28	H	-14.5
1331.500000	36.55	---	74.00	37.45	H	-14.5
1994.500000	---	31.49	---	---	V	-10.6
1994.500000	45.37	---	68.20	22.83	V	-10.6
3327.300000	---	32.26	---	---	H	-6.8
3327.300000	39.41	---	68.20	28.79	H	-6.8
7703.100000	---	40.20	54.00	13.80	V	4.0
7703.100000	49.28	---	74.00	24.72	V	4.0
10237.800000	---	42.58	---	---	V	7.6
10237.800000	51.13	---	68.20	17.07	V	7.6
13379.400000	52.84	---	74.00	21.16	V	10.5
13379.400000	---	47.46	54.00	6.54	V	10.5

Middle Channel: 5785MHz**Common Information**

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Klein Zhu

Full Spectrum

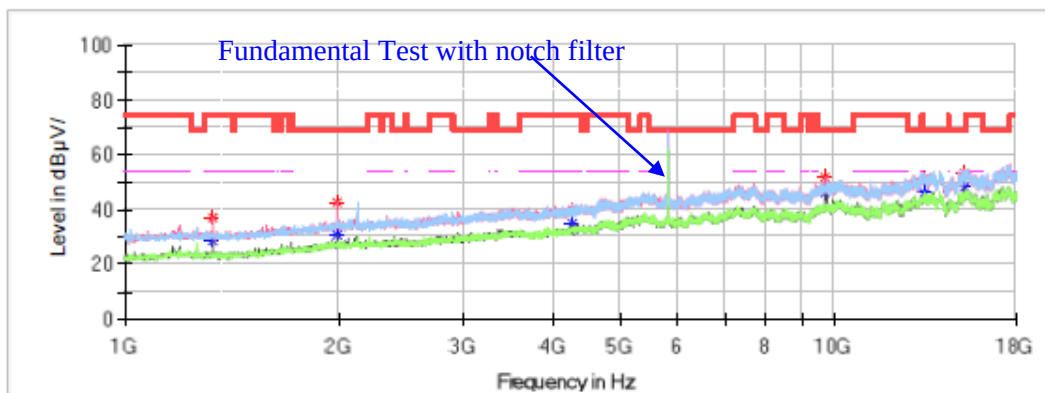
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1198.900000	34.31	---	74.00	39.69	V	-14.9
1198.900000	---	24.64	54.00	29.36	V	-14.9
2125.400000	---	28.64	---	---	V	-10.4
2125.400000	40.96	---	68.20	27.24	V	-10.4
7704.800000	---	40.60	54.00	13.40	H	4.0
7704.800000	49.67	---	74.00	24.33	H	4.0
9668.300000	---	44.72	---	---	V	6.8
9668.300000	51.05	---	68.20	17.15	V	6.8
14001.600000	---	45.88	---	---	H	10.5
14001.600000	52.79	---	68.20	15.41	H	10.5
16135.100000	50.16	---	74.00	23.84	V	9.2
16135.100000	---	45.59	54.00	8.41	V	9.2

High Channel: 5825MHz**Common Information**

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Klein Zhu

Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1331.500000	---	28.36	54.00	25.64	V	-14.5
1331.500000	36.82	---	74.00	37.18	V	-14.5
1989.400000	---	30.53	---	---	V	-10.6
1989.400000	42.58	---	68.20	25.62	V	-10.6
4267.400000	---	35.25	54.00	18.75	V	-4.4
4267.400000	40.16	---	74.00	33.84	V	-4.4
9668.300000	51.94	---	68.20	16.26	V	6.8
9668.300000	---	45.92	---	---	V	6.8
13393.000000	50.88	---	74.00	23.12	H	10.6
13393.000000	---	45.81	54.00	8.19	H	10.6
15259.600000	---	47.91	---	---	V	11.0
15259.600000	52.85	---	68.20	15.35	V	11.0

802.11ac20 Mode:

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5745MHz						
1326.400000	---	28.22	54.00	25.78	V	-14.5
1326.400000	36.76	---	74.00	37.24	V	-14.5
1957.100000	---	26.44	---	---	H	-10.9
1957.100000	36.25	---	68.20	31.95	H	-10.9
2949.900000	38.75	---	68.20	29.45	V	-8.2
2949.900000	---	32.53	---	---	V	-8.2
9668.300000	52.38	---	68.20	15.82	V	6.8
9668.300000	---	46.53	---	---	V	6.8
14005.000000	52.74	---	68.20	15.46	H	10.5
14005.000000	---	45.79	---	---	H	10.5
17603.900000	56.34	---	68.20	11.86	V	13.2
17603.900000	---	47.60	---	---	V	13.2
Middle Channel: 5785MHz						
1064.600000	36.83	---	74.00	37.17	V	-15.3
1064.600000	---	30.10	54.00	23.90	V	-15.3
2127.100000	---	31.24	---	---	H	-10.4
2127.100000	39.53	---	68.20	28.67	H	-10.4
2949.900000	---	33.33	---	---	V	-8.2
2949.900000	40.01	---	68.20	28.19	V	-8.2
7640.200000	---	40.02	54.00	13.98	V	4.1
7640.200000	48.96	---	74.00	25.04	V	4.1
9727.800000	---	49.19	---	---	H	6.9
9727.800000	55.64	---	68.20	12.56	H	6.9
13379.400000	50.95	---	74.00	23.05	V	10.5
13379.400000	---	44.85	54.00	9.15	V	10.5
High Channel: 5825MHz						
1992.800000	---	34.09	---	---	H	-10.6
1992.800000	48.42	---	68.20	19.78	H	-10.6
3449.700000	---	31.36	---	---	V	-6.3
3449.700000	39.81	---	68.20	28.39	V	-6.3
7684.400000	---	38.72	54.00	15.28	V	4.1
7684.400000	48.65	---	74.00	25.35	V	4.1
9908.000000	---	43.56	---	---	H	7.5
9908.000000	48.96	---	68.20	19.24	H	7.5
13311.400000	49.76	---	74.00	24.24	V	10.3
13311.400000	---	45.10	54.00	8.90	V	10.3
17609.000000	---	46.50	---	---	V	13.2
17609.000000	55.53	---	68.20	12.67	V	13.2

802.11ac40 Mode:

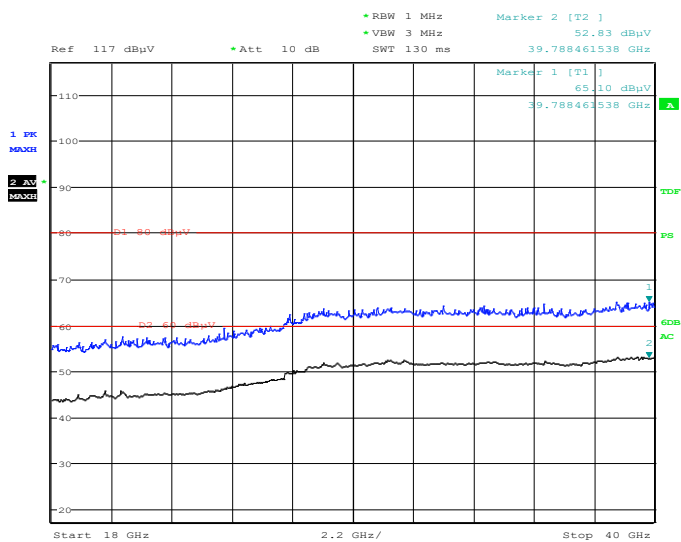
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Low Channel: 5755MHz						
2128.800000	---	31.75	---	---	H	-10.4
2128.800000	41.88	---	68.20	26.32	H	-10.4
4250.400000	---	32.99	54.00	21.01	V	-4.4
4250.400000	40.69	---	74.00	33.31	V	-4.4
7171.000000	---	38.81	---	---	V	3.9
7171.000000	47.81	---	68.20	20.39	V	3.9
9727.800000	---	44.61	---	---	H	6.9
9727.800000	49.53	---	68.20	18.67	H	6.9
15230.700000	---	44.70	---	---	V	10.9
15230.700000	53.54	---	68.20	14.66	V	10.9
17590.300000	---	45.91	---	---	V	13.2
17590.300000	55.25	---	68.20	12.95	V	13.2
High Channel: 5795MHz						
1061.200000	---	27.21	54.00	26.79	V	-15.3
1061.200000	38.24	---	74.00	35.76	V	-15.3
2666.000000	---	32.62	---	---	V	-9.2
2666.000000	43.66	---	68.20	24.54	V	-9.2
7239.000000	---	39.39	---	---	H	4.0
7239.000000	48.58	---	68.20	19.62	H	4.0
9908.000000	---	43.41	---	---	V	7.5
9908.000000	50.04	---	68.20	18.16	V	7.5
14027.100000	---	44.61	---	---	H	10.4
14027.100000	53.73	---	68.20	14.47	H	10.4
17573.300000	---	46.21	---	---	V	13.3
17573.300000	55.99	---	68.20	12.21	V	13.3

802.11ac80 Mode:

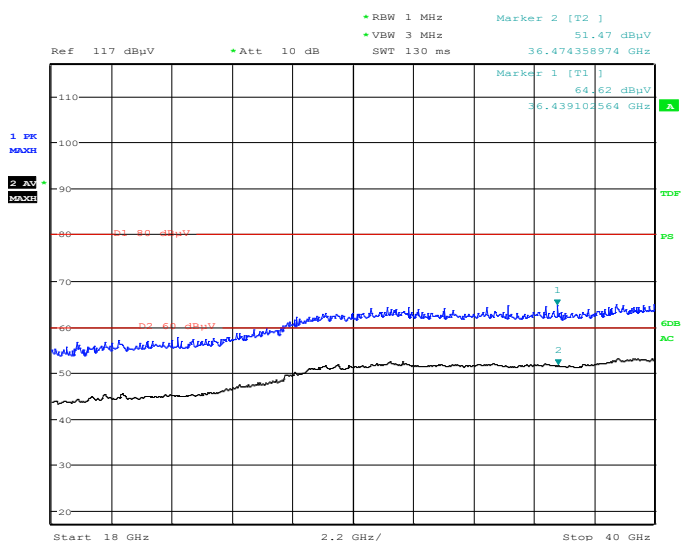
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
Channel: 5775MHz						
1061.200000	36.46	---	74.00	37.54	V	-15.3
1061.200000	---	24.75	54.00	29.25	V	-15.3
1992.800000	39.53	---	68.20	28.67	H	-10.6
1992.800000	---	29.59	---	---	H	-10.6
2854.700000	---	29.27	54.00	24.73	V	-8.5
2854.700000	39.58	---	74.00	34.42	V	-8.5
4831.800000	---	35.23	54.00	18.77	V	-2.1
4831.800000	43.47	---	74.00	30.53	V	-2.1
9727.800000	---	46.78	---	---	H	6.9
9727.800000	52.43	---	68.20	15.77	H	6.9
14001.600000	---	44.60	---	---	V	10.5
14001.600000	53.58	---	68.20	14.62	V	10.5

18GHz-40GHz:

Pre-scan with 802.11a, 802.11ac20, 802.11ac40, 802.11ac80 modes of operation in the X,Y and Z axes of orientation, the worst case **802.11ac40 low channel of 5470-5725MHz** was recorded

Horizontal

Project No.:RSHA240424001 Tester:Hugh Wu
Date: 24.MAY.2024 18:16:15

Vertical

Project No.:RSHA240424001 Tester:Hugh Wu
Date: 24.MAY.2024 18:32:40

Note: The test distance is 1.5m. The limit is 80dBμ V/m(Peak) and 60dBμ V/m(Average).

Bands Edge Emissions Test (5150-5250MHz Band):

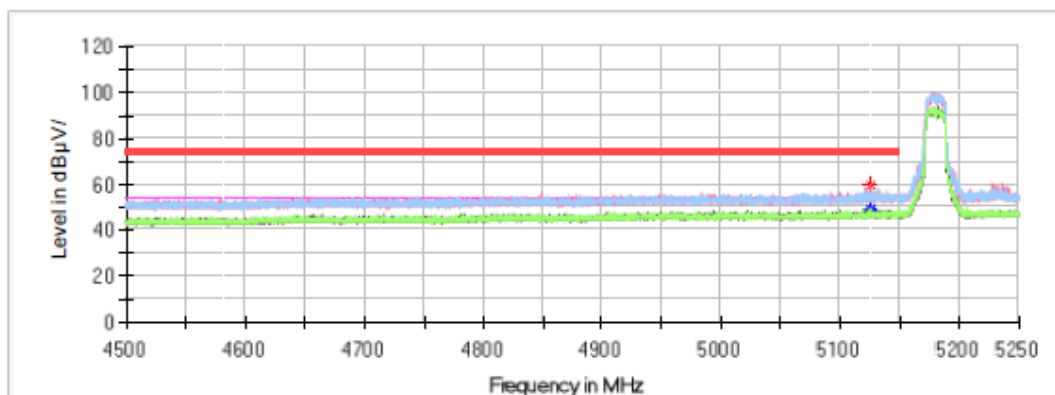
Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode:**Low Channel****Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

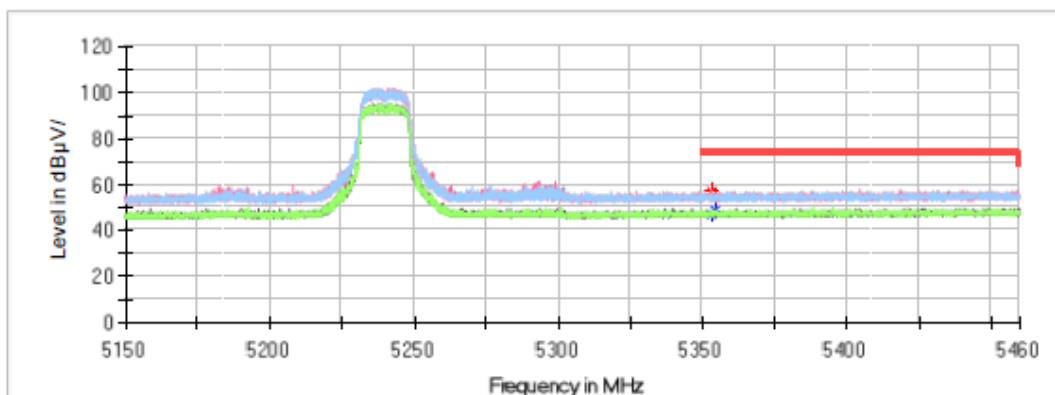
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5124.825000	---	49.20	54.00	4.80	H	9.3
5124.825000	54.32	---	74.00	19.68	H	9.3
5126.025000	---	48.88	54.00	5.12	V	9.3
5126.025000	59.55	---	74.00	14.45	V	9.3

High Channel**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

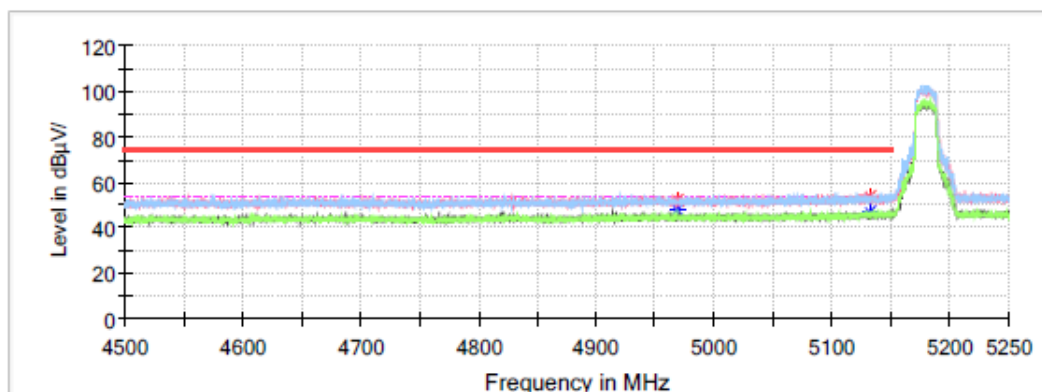
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5352.988000	---	47.14	54.00	6.86	H	10.2
5352.988000	56.90	---	74.00	17.10	H	10.2
5354.476000	54.70	---	74.00	19.30	V	10.2
5354.476000	---	48.79	54.00	5.21	V	10.2

**802.11ac20 Mode:
Low Channel****Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

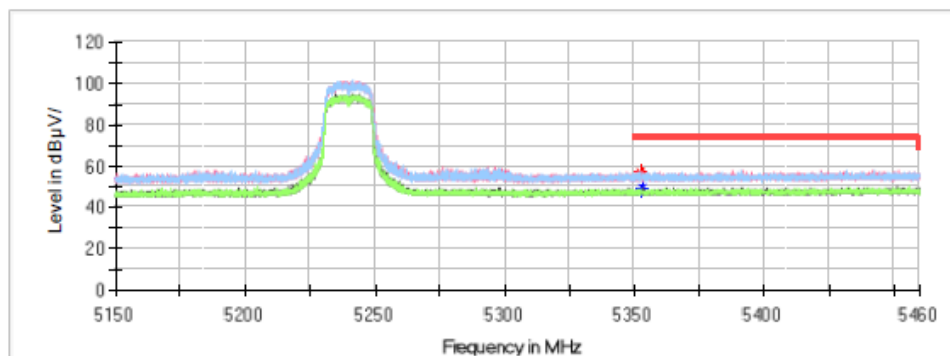
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4968.150000	51.71	---	74.00	22.29	H	7.7
4968.150000	---	47.70	54.00	6.30	H	7.7
5131.725000	---	47.22	54.00	6.78	V	8.2
5131.725000	53.38	---	74.00	20.62	V	8.2

High Channel**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

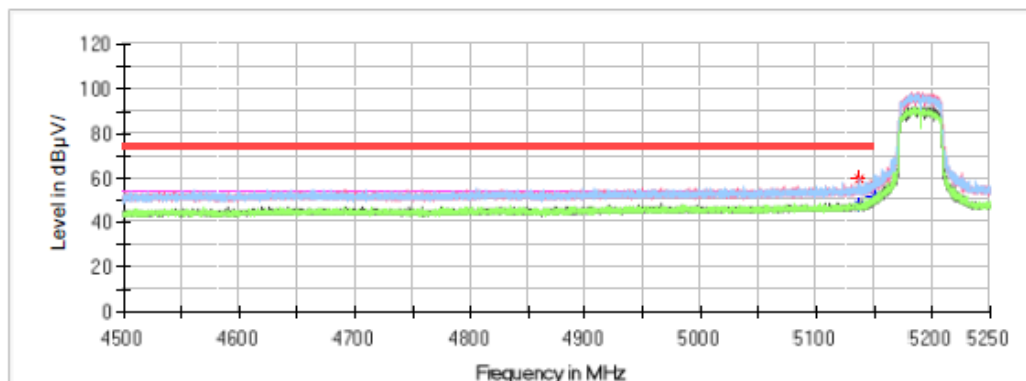
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5352.554000	---	47.88	54.00	6.12	H	10.2
5352.554000	57.28	---	74.00	16.72	H	10.2
5353.205000	55.69	---	74.00	18.31	V	10.2
5353.205000	---	49.47	54.00	4.53	V	10.2

802.11ac40 Mode:**Low Channel****Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

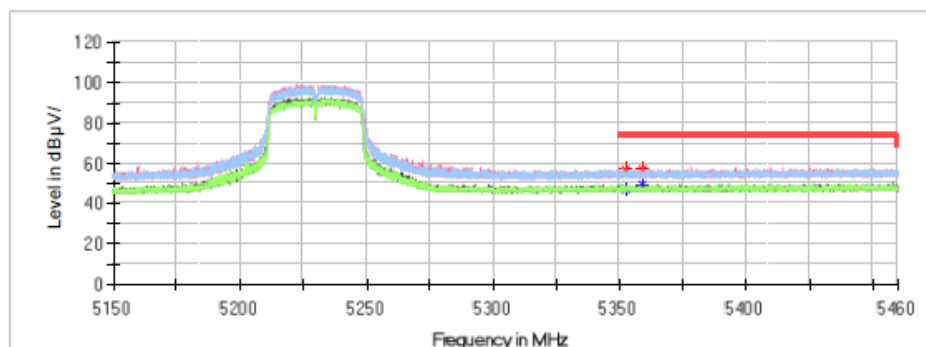
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5136.975000	59.93	---	74.00	14.07	H	9.4
5136.975000	---	47.78	54.00	6.22	H	9.4
5149.875000	57.45	---	74.00	16.55	V	9.4
5149.875000	---	51.96	54.00	2.04	V	9.4

High Channel**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

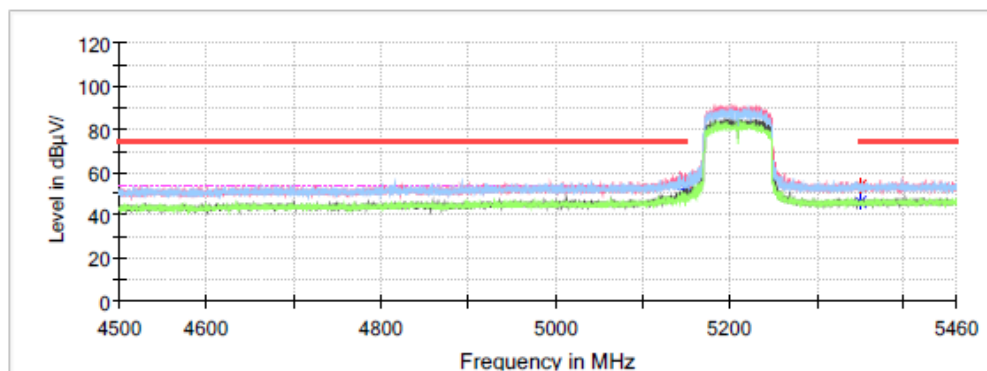
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5352.461000	57.44	---	74.00	16.56	V	10.2
5352.461000	---	46.95	54.00	7.05	V	10.2
5359.126000	56.82	---	74.00	17.18	V	10.3
5359.126000	---	49.70	54.00	4.30	V	10.3

802.11ac80 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5149.248000	55.13	---	74.00	18.87	V	8.2
5149.248000	---	51.83	54.00	2.17	V	8.2
5350.272000	53.69	---	74.00	20.31	H	8.7
5350.272000	---	46.41	54.00	7.59	H	8.7

Band Edge Emissions Test (5250-5350MHz Band):

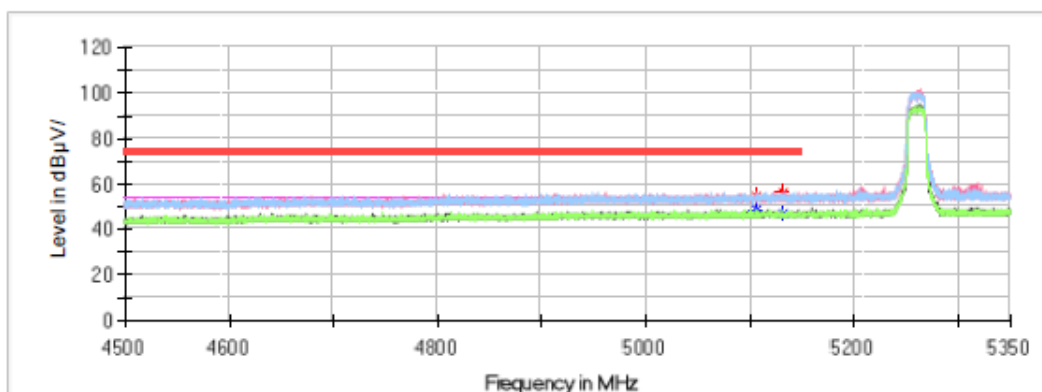
Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

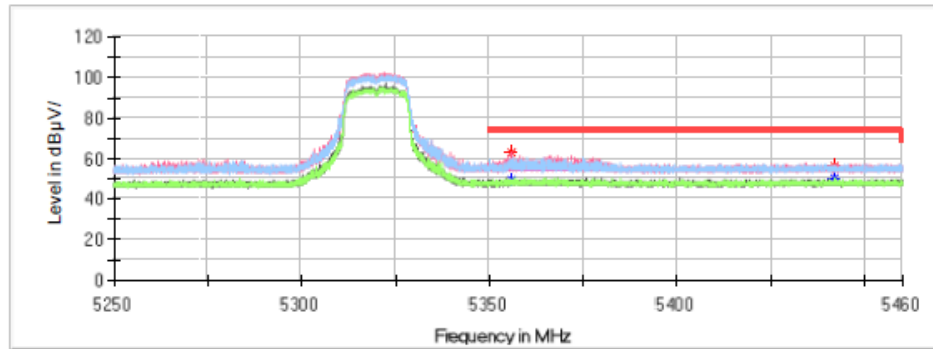
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5107.240000	54.73	---	74.00	19.27	V	9.2
5107.240000	---	48.69	54.00	5.31	H	9.2
5132.740000	56.49	---	74.00	17.51	V	9.3
5132.740000	---	47.09	54.00	6.91	V	9.3

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



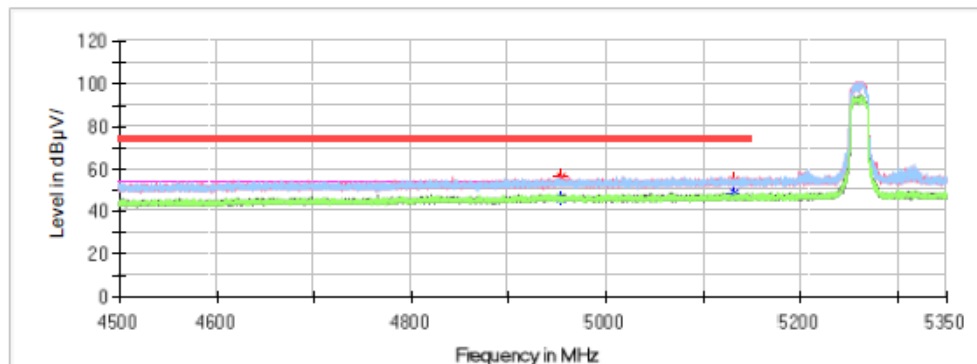
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5355.798000	63.33	---	74.00	10.67	V	10.2
5355.798000	---	49.31	54.00	4.69	V	10.2
5442.108000	56.42	---	74.00	17.58	H	10.6
5442.108000	---	50.75	54.00	3.25	H	10.6

802.11ac20 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

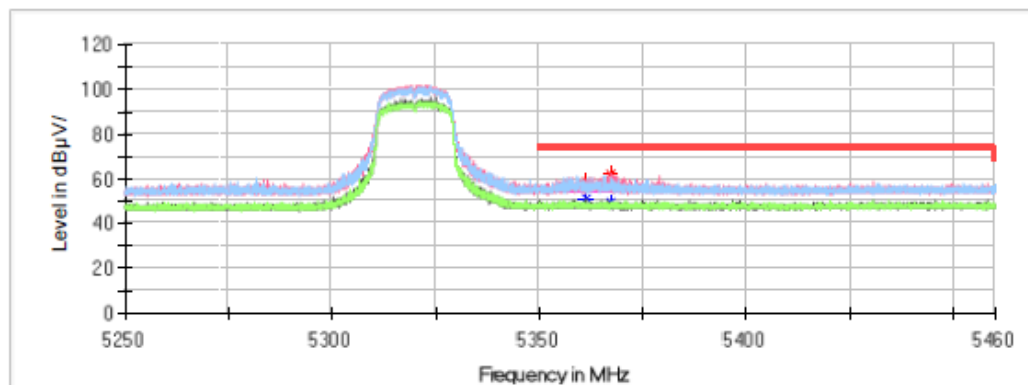
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4954.070000	56.52	---	74.00	17.48	V	8.6
4954.070000	---	46.00	54.00	8.00	H	8.6
5132.910000	54.26	---	74.00	19.74	H	9.3
5132.910000	---	48.94	54.00	5.06	H	9.3

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



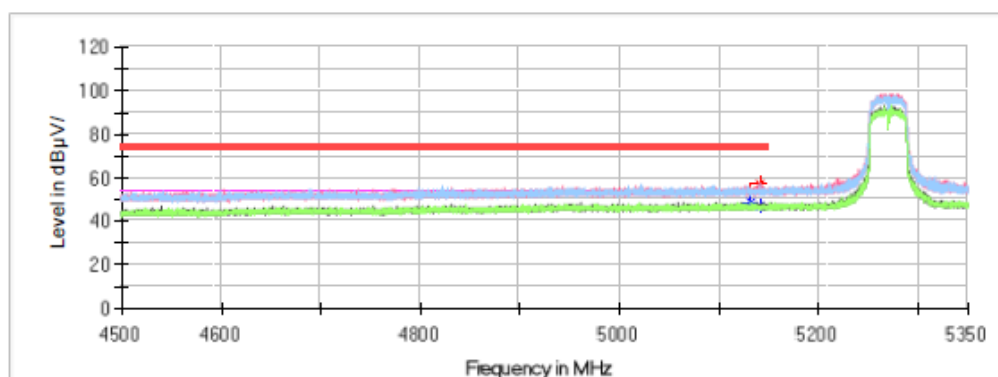
Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5361.447000	---	51.24	54.00	2.76	V	10.3
5361.447000	58.55	---	74.00	15.45	V	10.3
5367.180000	---	49.76	54.00	4.24	V	10.3
5367.180000	62.33	---	74.00	11.67	V	10.3

802.11ac40 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

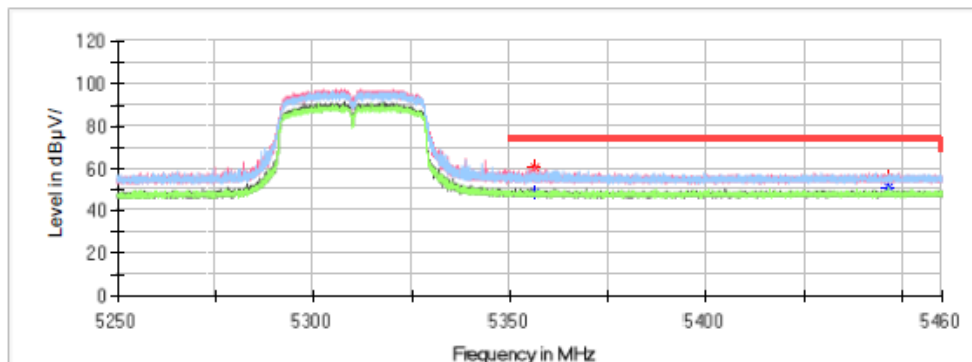
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5132.910000	53.56	---	74.00	20.44	H	9.3
5132.910000	---	49.00	54.00	5.00	H	9.3
5140.475000	---	46.98	54.00	7.02	H	9.4
5140.475000	57.29	---	74.00	16.71	H	9.4

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



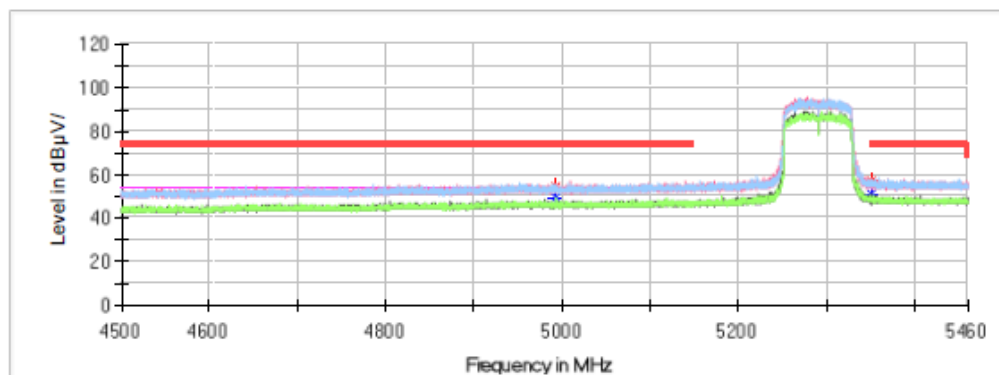
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5356.365000	---	48.94	54.00	5.06	V	10.3
5356.365000	60.22	---	74.00	13.78	V	10.3
5446.623000	55.44	---	74.00	18.56	H	10.6
5446.623000	---	50.79	54.00	3.21	H	10.6

802.11ac80 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
4993.440000	54.16	---	74.00	19.84	H	8.8
4993.440000	---	49.13	54.00	4.87	H	8.8
5350.176000	57.09	---	74.00	16.91	V	10.2
5350.176000	---	51.25	54.00	2.75	V	10.2

Band Edge Emissions Test (5470-5725MHz Band):

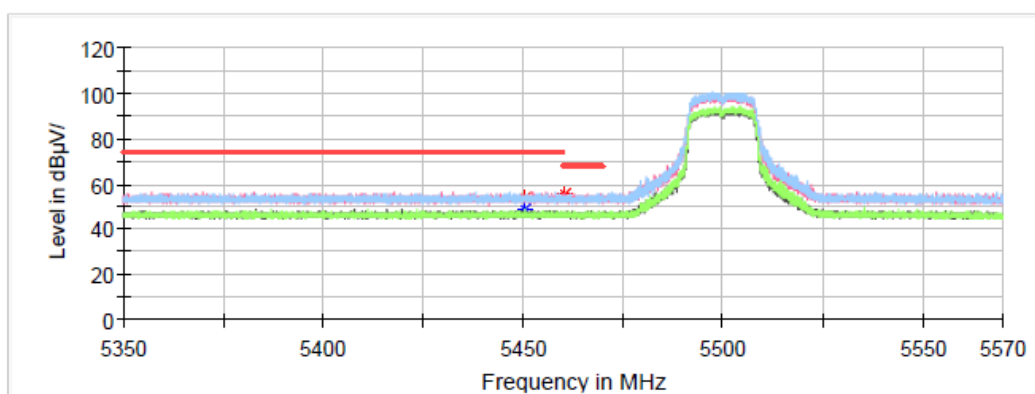
Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

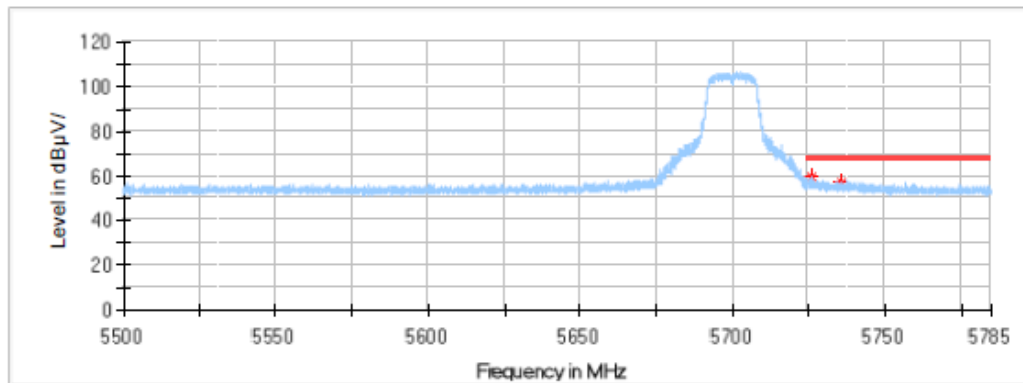
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5450.320000	53.89	---	74.00	20.11	H	9.0
5450.320000	---	48.50	54.00	5.50	H	9.0
5460.638000	55.68	---	68.20	12.52	V	9.0

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



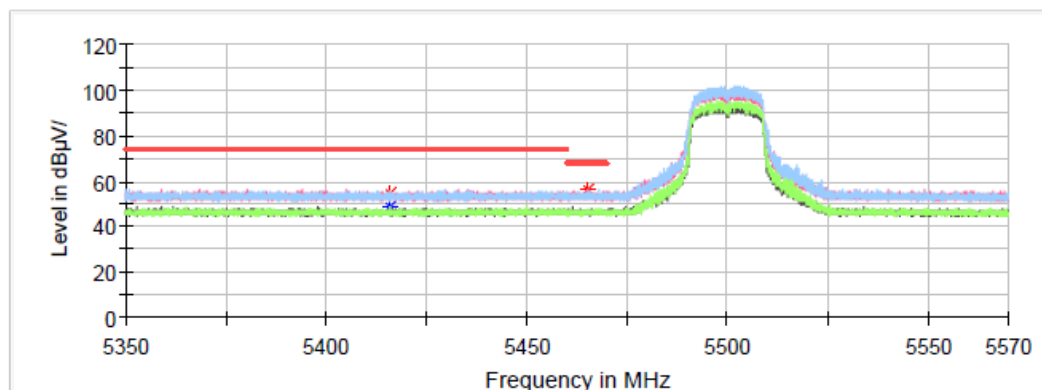
Critical Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5726.204500	59.51	---	68.20	8.69	H	8.9
5736.094000	57.10	---	68.20	11.10	H	8.9

802.11ac20 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

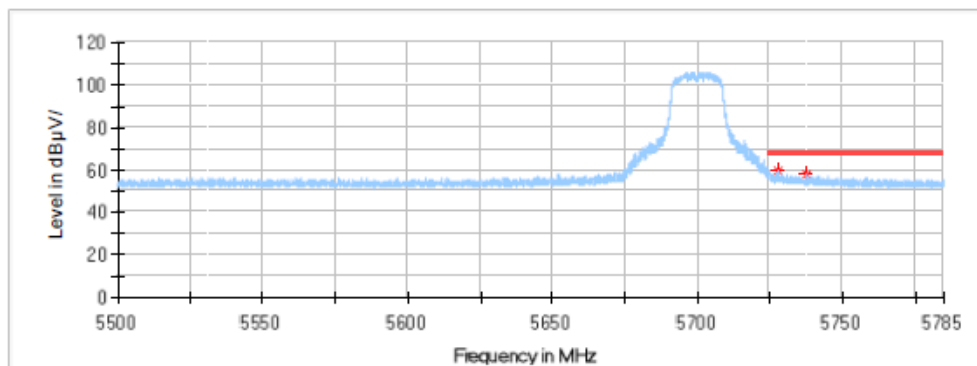
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5415.890000	54.40	---	74.00	19.60	H	8.9
5415.890000	---	48.70	54.00	5.30	H	8.9
5465.258000	56.61	---	68.20	11.59	V	9.0

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



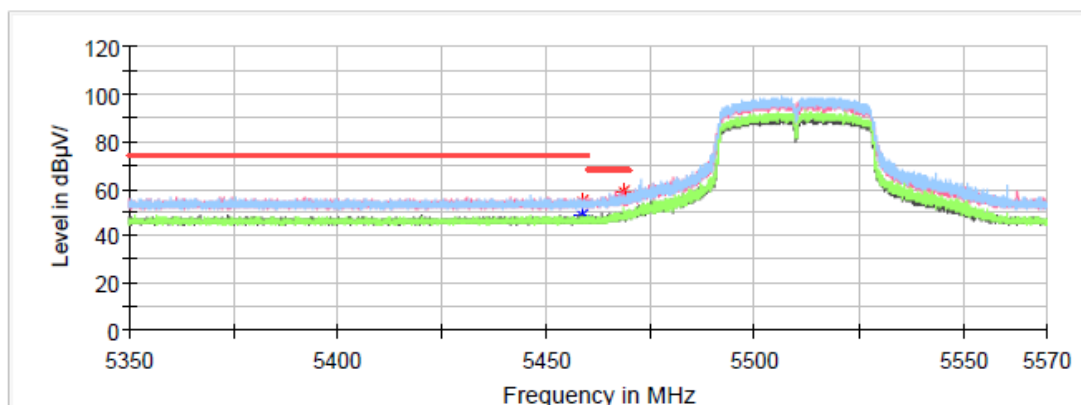
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5727.971500	59.32	---	68.20	8.88	H	8.9
5737.490500	57.85	---	68.20	10.35	H	8.9

802.11ac40 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

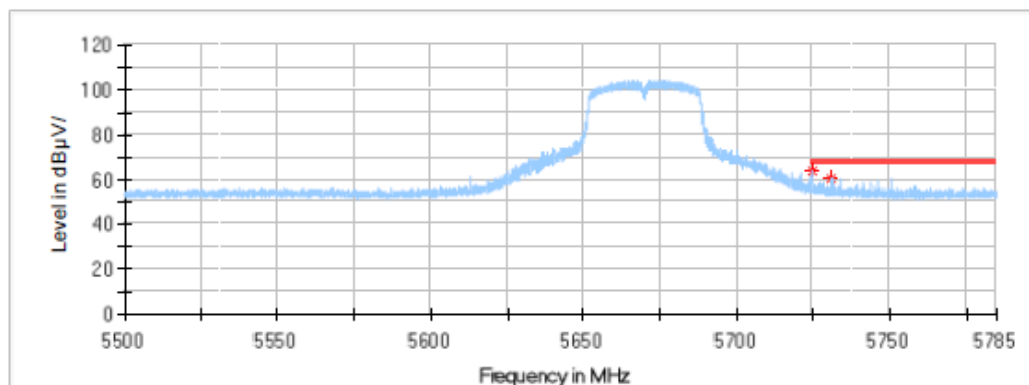
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5458.702000	54.74	---	74.00	19.26	V	9.0
5458.702000	---	48.70	54.00	5.30	V	9.0
5468.668000	58.91	---	68.20	9.29	V	9.0

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



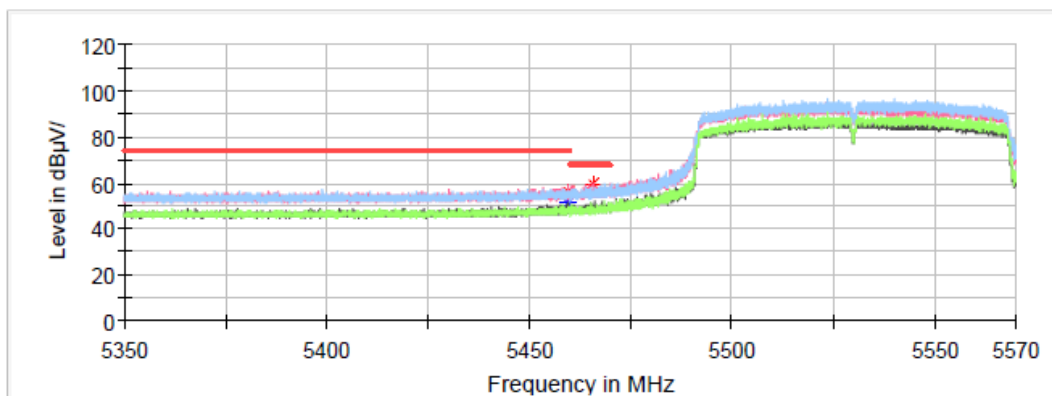
Critical Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5725.007500	64.16	---	68.20	4.04	H	8.9
5731.049500	60.33	---	68.20	7.87	H	8.9

802.11ac80 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

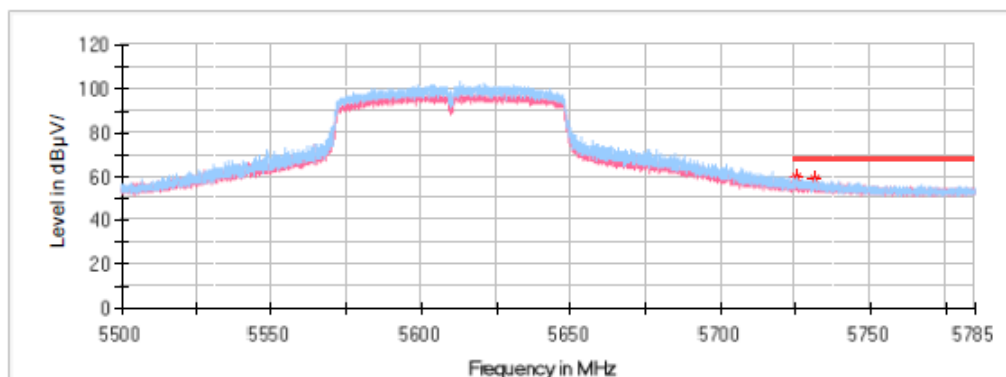
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5459.340000	56.58	---	74.00	17.42	V	9.0
5459.340000	---	51.33	54.00	2.67	V	9.0
5465.478000	59.47	---	68.20	8.73	V	9.0

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum



Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5725.549000	59.38	---	68.20	8.82	H	8.9
5731.391500	58.72	---	68.20	9.48	H	8.9

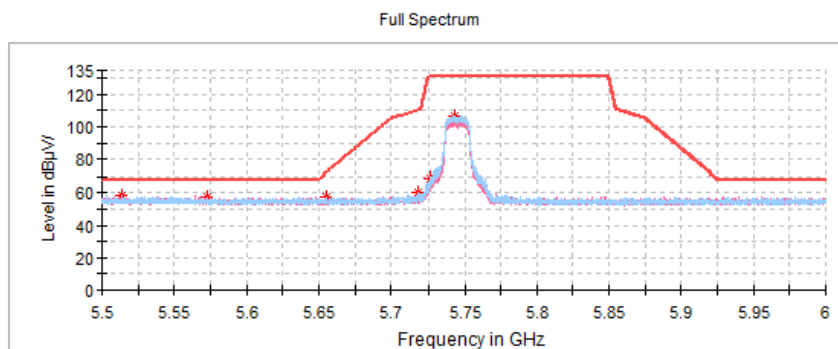
Band Edge Emissions Test (5725-5850MHz Band):

Note:

1. Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor
2. Corrected Amplitude = Corrected Factor + Reading
3. Margin = Limit - Corrected. Amplitude

802.11a Mode:**Common Information**

Project No.: RSHA240424001
 Test Mode: 5G WIFI
 Standard: FCC Part 15.407
 Test Engineer: Hugh Wu

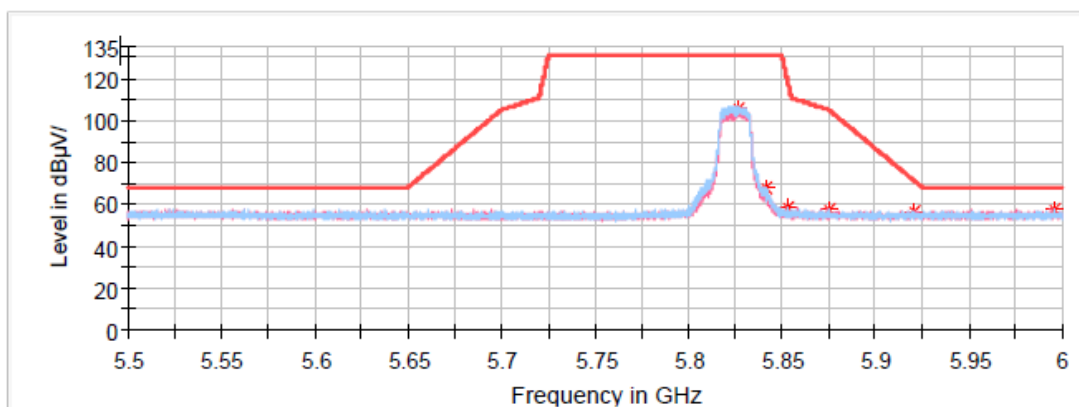
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5513.900000	58.55	---	68.20	9.65	H	10.8
5572.600000	57.95	---	68.20	10.25	V	10.7
5655.700000	57.18	---	72.42	15.24	V	10.6
5717.450000	60.47	---	110.09	49.61	H	10.6

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum



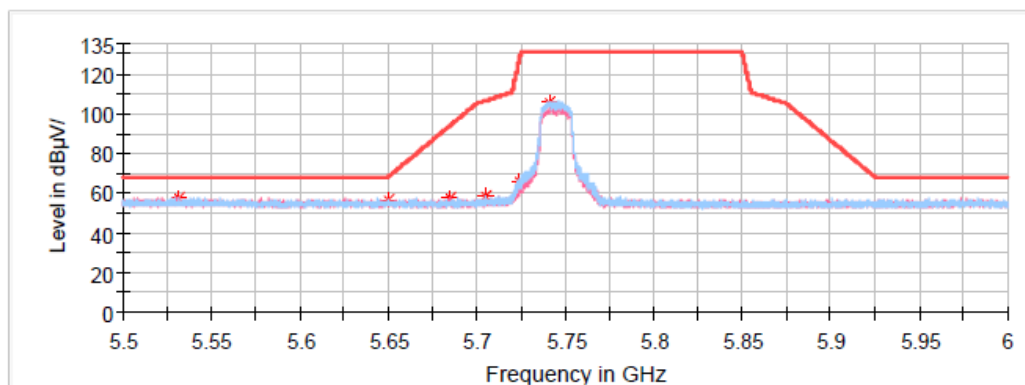
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5875.100000	57.31	---	105.13	47.81	H	10.4
5920.650000	57.00	---	71.42	14.41	H	10.3
5995.300000	57.63	---	68.20	10.57	H	10.2

802.11ac20 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

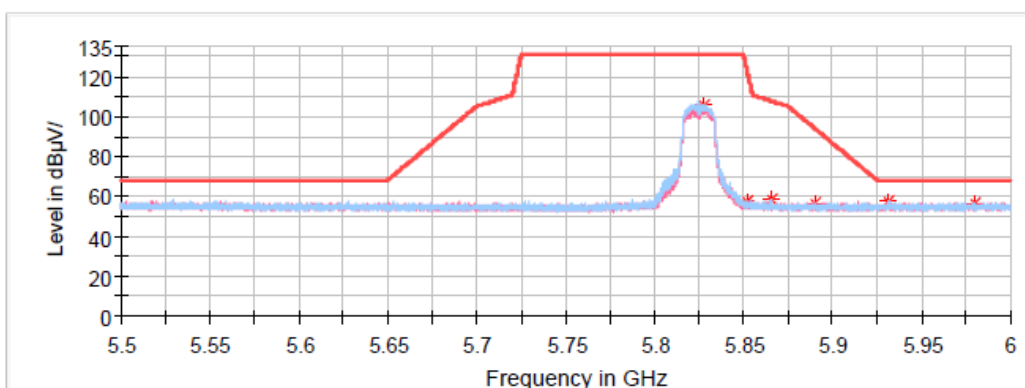
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5531.400000	57.98	---	68.20	10.22	H	10.8
5650.100000	57.00	---	68.27	11.27	H	10.6
5684.750000	57.51	---	93.92	36.41	V	10.6
5705.500000	58.27	---	106.74	48.47	H	10.6

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum



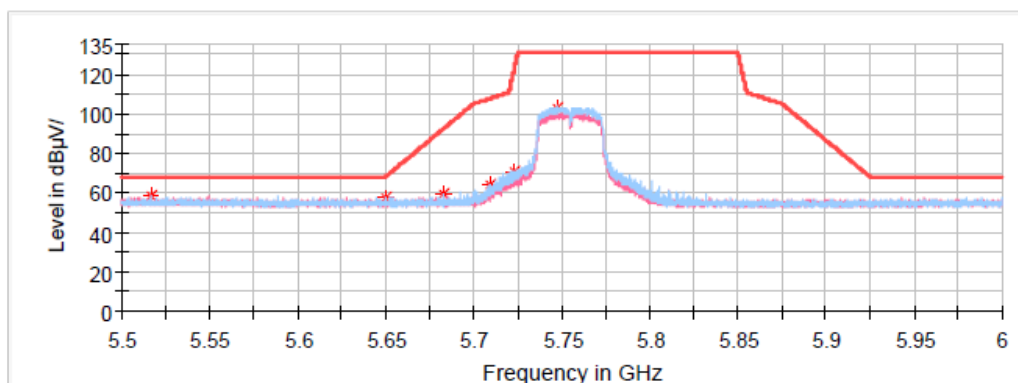
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5865.250000	58.72	---	107.93	49.21	H	10.4
5889.700000	57.00	---	94.32	37.32	H	10.3
5930.900000	57.66	---	68.20	10.54	H	10.3
5980.150000	56.48	---	68.20	11.72	H	10.2

802.11ac40 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

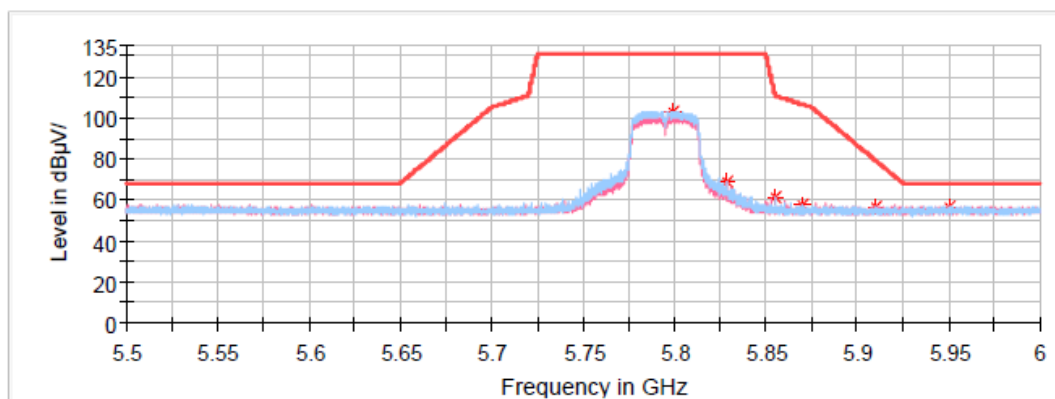
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5517.250000	58.99	---	68.20	9.21	H	10.8
5650.250000	57.24	---	68.39	11.15	H	10.6
5682.700000	59.77	---	92.40	32.62	H	10.6
5709.650000	64.15	---	107.90	43.75	H	10.6

Common Information

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum



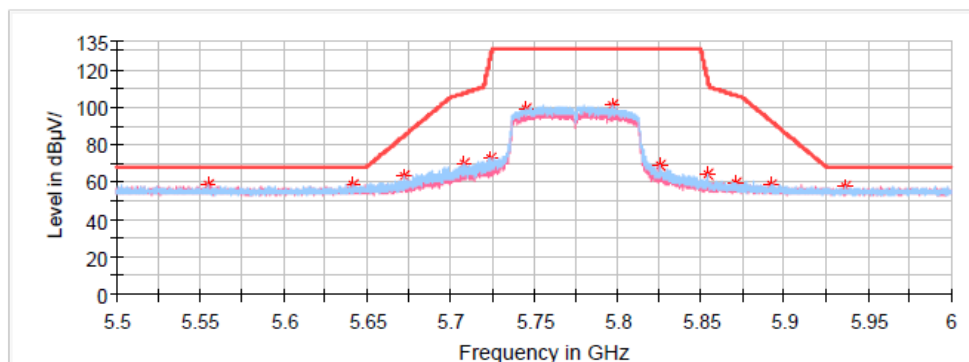
Critical_Freqs

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5869.750000	57.39	---	106.67	49.28	H	10.4
5910.400000	57.01	---	79.00	22.00	H	10.3
5950.100000	57.00	---	68.20	11.20	V	10.3

802.11ac80 Mode:**Common Information**

Project No.: RSHA240424001
Test Mode: 5G WIFI
Standard: FCC Part 15.407
Test Engineer: Hugh Wu

Full Spectrum

**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5554.950000	58.13	---	68.20	10.07	H	10.8
5641.700000	58.45	---	68.20	9.75	H	10.7
5672.800000	62.83	---	85.07	22.24	H	10.6
5708.050000	69.58	---	107.45	37.87	H	10.6
5870.850000	59.49	---	106.36	46.88	H	10.4
5892.000000	59.00	---	92.62	33.62	H	10.3
5936.850000	57.60	---	68.20	10.60	H	10.3

EMISSION BANDWIDTH**Test Result:** Compliant*5150-5250 MHz:*

Test mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
802.11 a	Low	5180	19.730	16.300
	Middle	5200	20.110	16.300
	High	5240	19.880	16.300
802.11 ac20	Low	5180	21.224	17.400
	Middle	5200	21.018	17.400
	High	5240	21.020	17.400
802.11 ac40	Low	5190	41.958	35.900
	High	5230	41.259	35.900
802.11 ac80	Middle	5210	87.912	75.200

Note: the 99% Occupied Bandwidth have not fall into the band 5250-5350MHz.

5250-5350 MHz:

Test mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
802.11 a	Low	5260	19.880	16.300
	Middle	5280	19.830	16.300
	High	5320	19.780	16.300
802.11 ac20	Low	5260	21.018	17.400
	Middle	5280	20.968	17.400
	High	5320	20.967	17.400
802.11 ac40	Low	5270	42.058	35.900
	High	5310	41.658	35.900
802.11 ac80	Middle	5290	84.316	75.200

5470-5725 MHz:

Test mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
802.11 a	Low	5500	20.457	16.300
	Middle	5580	20.816	16.429
	High	5700	20.511	16.300
	Cross	5720	20.965	16.300
802.11 ac20	Low	5500	21.117	17.400
	Middle	5580	21.687	17.500
	High	5700	21.484	17.450
	Cross	5720	21.067	17.450
802.11 ac40	Low	5510	44.855	36.000
	Middle	5550	44.655	36.000
	High	5670	45.155	36.000
	Cross	5710	44.755	36.100
802.11 ac80	Low	5530	84.915	75.200
	Middle	5610	85.914	75.200
	High	5690	85.914	75.400

5725-5850MHz:

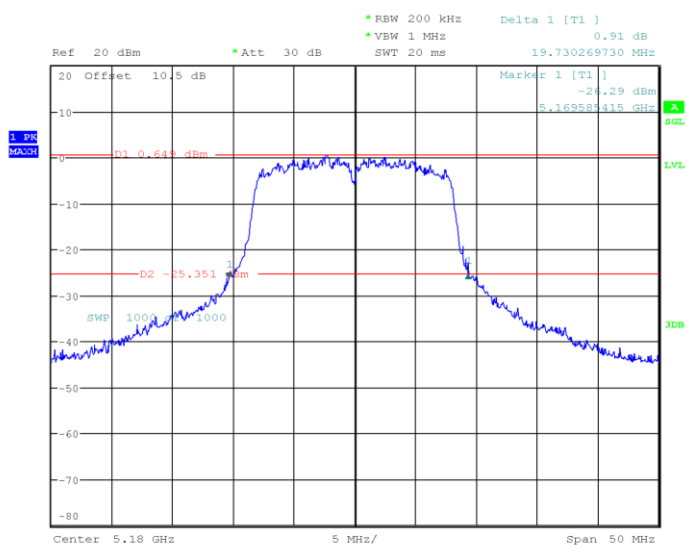
Test mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)
802.11 a	Low	5745	15.435	0.500	16.300
	Middle	5785	15.235	0.500	16.250
	High	5825	15.485	0.500	16.250
802.11 ac20	Low	5745	15.235	0.500	17.450
	Middle	5785	15.285	0.500	17.450
	High	5825	15.285	0.500	17.350
802.11 ac40	Low	5755	35.365	0.500	36.100
	High	5795	35.365	0.500	35.900
802.11 ac80	Middle	5775	75.724	0.500	75.400

Note: the 99% Occupied Bandwidth have not fall into the band 5470-5725MHz.

26dB Bandwidth

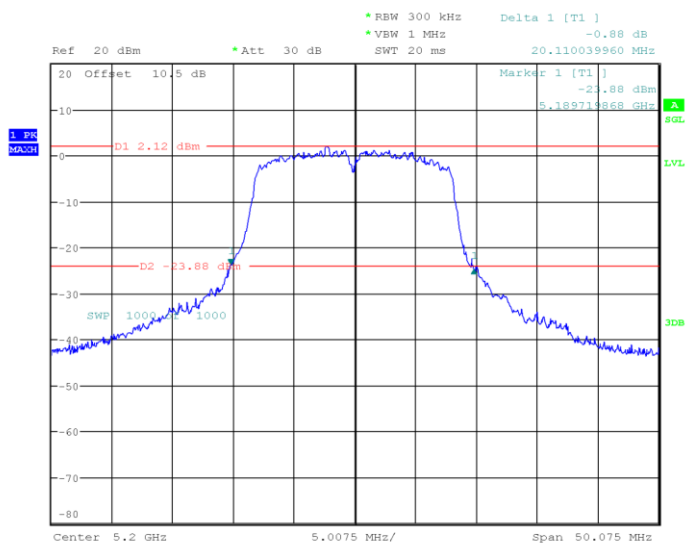
5150-5250 MHz Band:

802.11a mode, 5180MHz

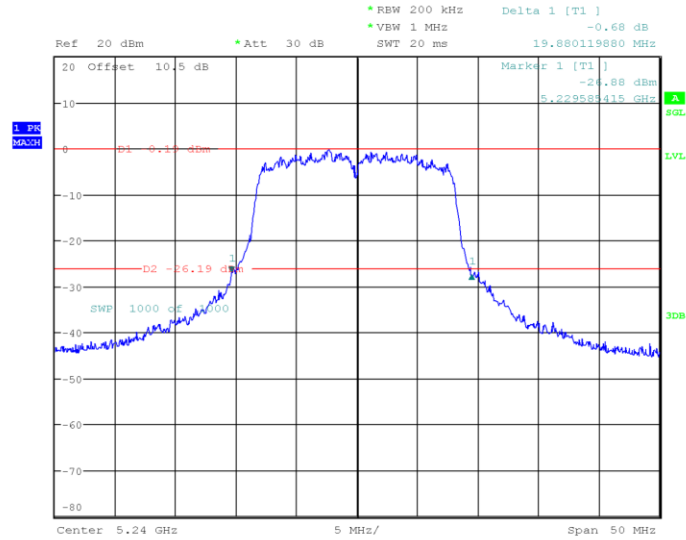


ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 15.MAY.2024 14:43:42

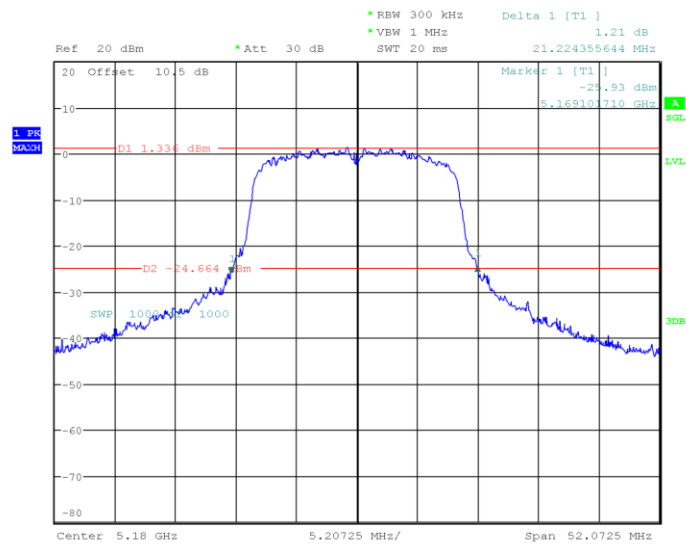
802.11a mode, 5200MHz



ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 15.MAY.2024 14:56:14

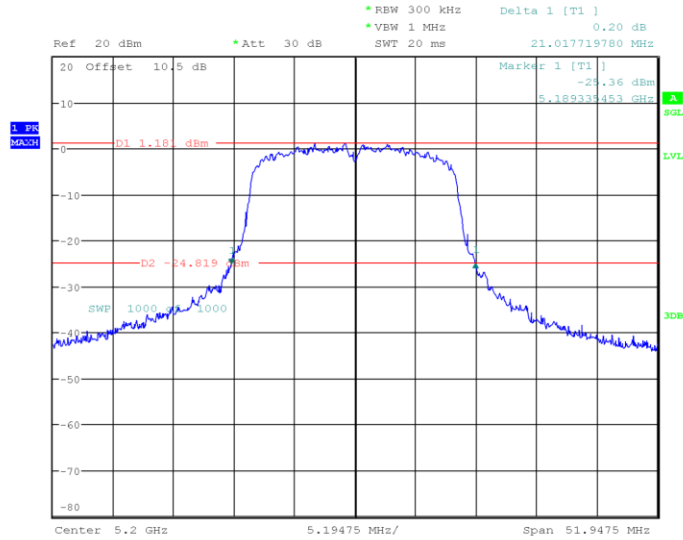
802.11a mode, 5240MHz

ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 15.MAY.2024 15:00:20

802.11ac20 mode, 5180MHz

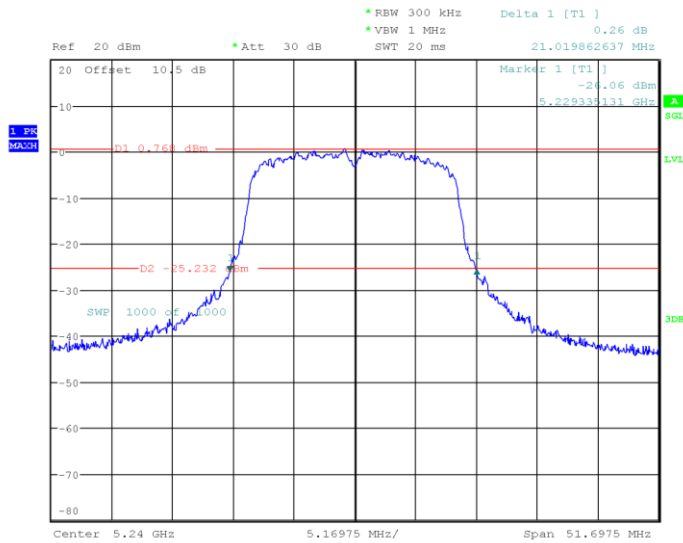
ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 15.MAY.2024 15:30:17

802.11ac20 mode, 5200MHz



ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 15.MAY.2024 15:34:18

802.11ac20 mode, 5240MHz



ProjectNo.:RSHA240424001 Tester:Bard Liu
Date: 15.MAY.2024 15:38:55