

FCC PART 15.407

TEST REPORT

For

Heilongjiang Huida Technology Co., Ltd

Building 1, Science and Technology Innovation Headquarters, Shenzhen (Harbin) Industrial Park,
No. 288 Zhigu Street, Songbei District, Harbin, China

FCC ID: 2BBNT-HC402

Report Type: Original Report	Product Name: Avionics System
Report Number:	RSHA240322002-00C
Report Date:	2024-12-20
Reviewed By:	Jenny Yang
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	RSHA240322002-00C	R1V1	2024-12-20	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Heilongjiang Huida Technology Co., Ltd
Product Name:	Avionics System
Tested Model:	HC402
Power Supply:	DC 32V
RF Function:	5G SRD
Operating Band/Frequency:	Band 1: 5180-5240 MHz; Band 4: 5735-5805 MHz
Maximum Average Power:	Band 1: 17.64 dBm Band 4: 26.23 dBm
Channel Number:	Band 1: 7; Band 4: 8
Modulation Type:	BPSK
Antenna Type:	Rod Antenna
★Maximum Antenna Gain:	Antenna 1/Antenna 2: Band 1: 3.27 dBi; Band 4: 2.90 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: RSHA240322002-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-03-22.)

Objective

This type approval report is prepared for *Heilongjiang Huida Technology Co., 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, 15.209 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.

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℃
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

Test channel list as below:

For **5180~5240 MHz** band, EUT was tested with Channel 1, 4 and 7.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5180	5	5220
2	5190	6	5230
3	5200	7	5240
4	5210	/	/

For **5735~5805 MHz** band, EUT was tested with Channel 1, 5 and 8.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	5735	5	5775
2	5745	6	5785
3	5755	7	5795
4	5764	8	5805

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

RF test tool: Xshell 4

5180~5240 MHz band

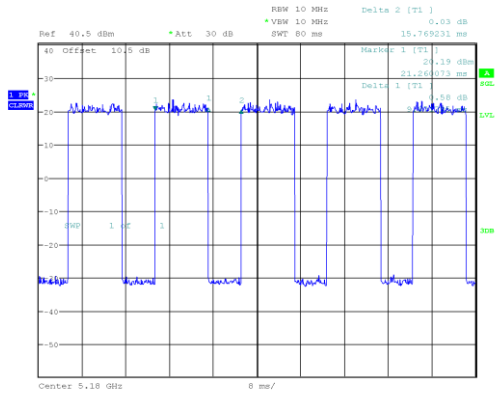
Antenna	Mode	Channel	Frequency (MHz)	★Power Level
Antenna 1	SRD (BW: 1.25 MHz)	Low	5180	17
		Middle	5210	22
		High	5240	22
	SRD (BW: 10 MHz)	Low	5180	22
		Middle	5210	23
		High	5240	23
Antenna 2	SRD (BW: 1.25 MHz)	Low	5180	18
		Middle	5210	19
		High	5240	20
	SRD (BW: 10 MHz)	Low	5180	20
		Middle	5210	20
		High	5240	20

5735~5805 MHz band

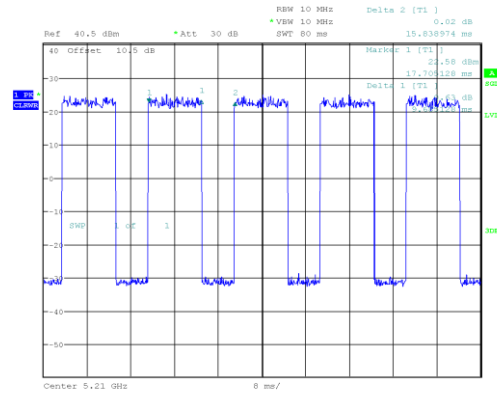
Antenna	Mode	Channel	Frequency (MHz)	★Power Level
Antenna 1	SRD (BW: 1.25 MHz)	Low	5735	23
		Middle	5775	20
		High	5805	23
	SRD (BW: 10 MHz)	Low	5735	25
		Middle	5775	25
		High	5805	25
Antenna 2	SRD (BW: 1.25 MHz)	Low	5735	23
		Middle	5775	20
		High	5805	23
	SRD (BW: 10 MHz)	Low	5735	25
		Middle	5775	25
		High	5805	25

Note: 1.The power level was declared by the applicant.

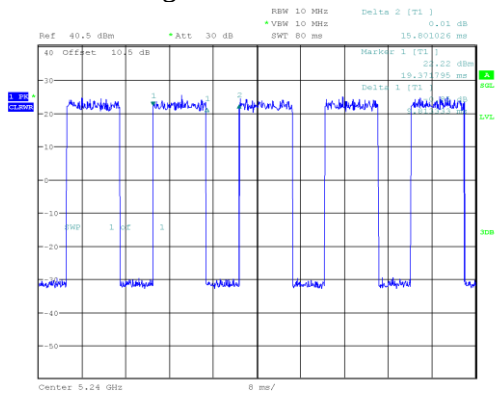
2.All modes support SISO&MIMO mode, two antennas with the same power level

Duty Cycle:**Antenna 1 BW: 1.25 MHz****Low Channel: 5180 MHz**

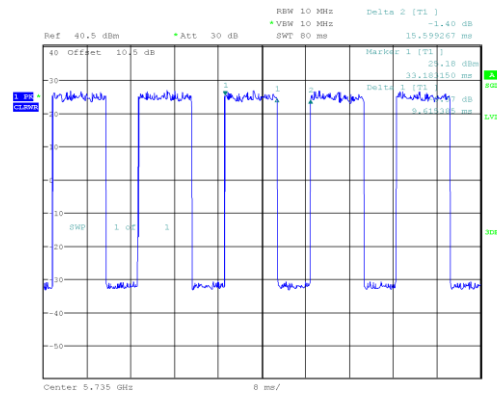
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 17:28:38

Middle Channel: 5210 MHz

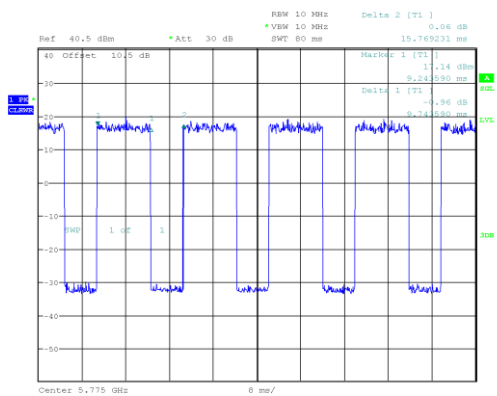
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Date: 30.JUL.2024 15:58:56

High Channel: 5240 MHz

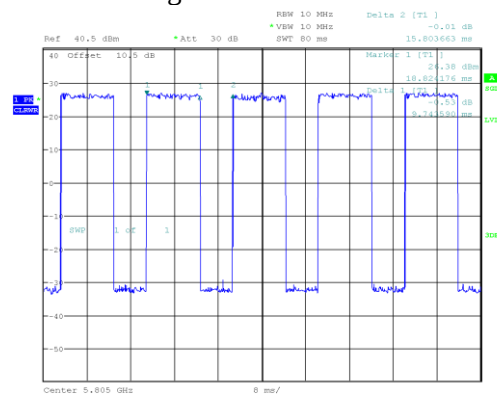
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Date: 30.JUL.2024 16:00:03

Low Channel: 5735 MHz

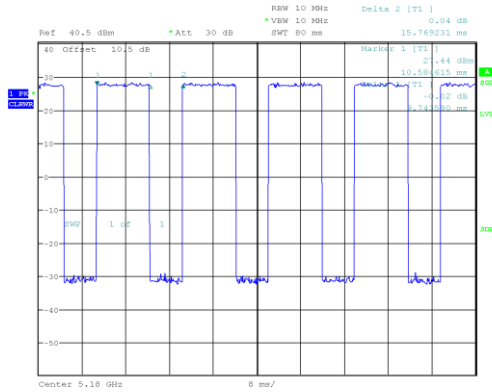
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Middle Channel: 5775 MHz

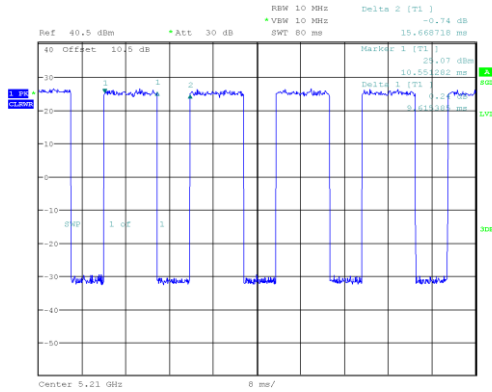
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 15:57:21

High Channel: 5805 MHz

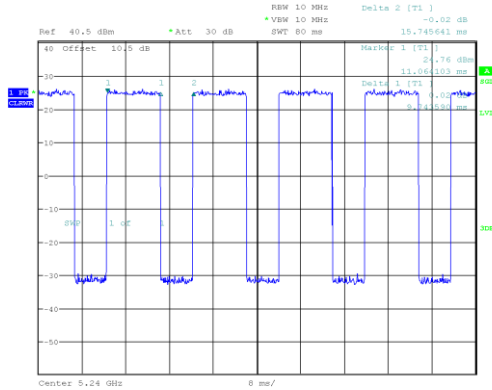
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Antenna 1 BW: 10 MHz**Low Channel: 5180 MHz**

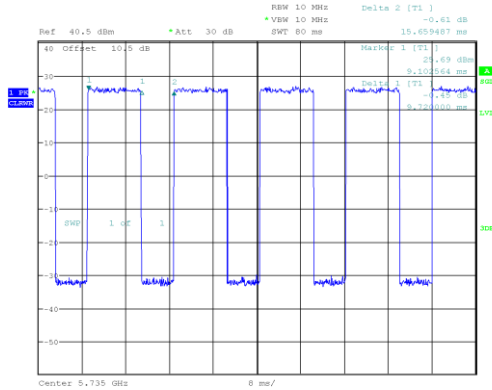
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Middle Channel: 5210 MHz

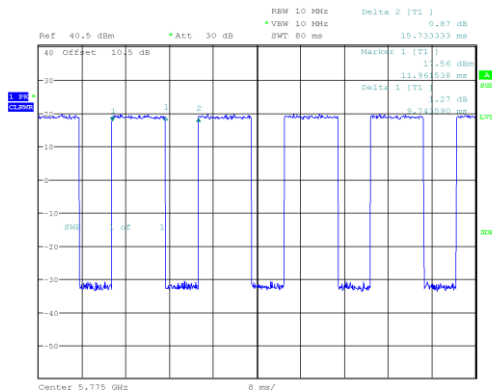
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Date: 30.JUL.2024 16:44:27

High Channel: 5240 MHz

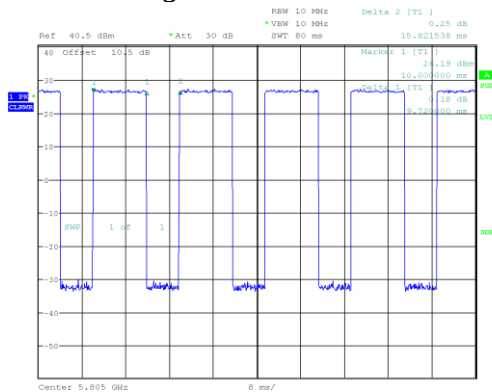
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Low Channel: 5735 MHz

ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 09:48:31

Middle Channel: 5775 MHz

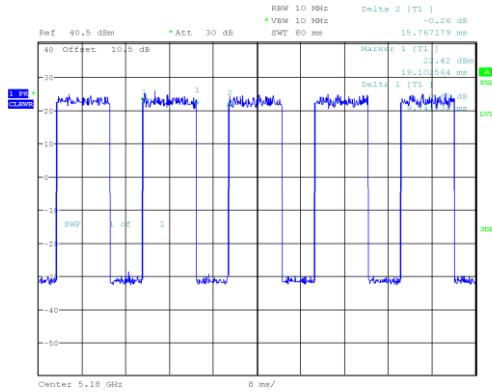
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:43:03

High Channel: 5805 MHz

ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 09:49:43

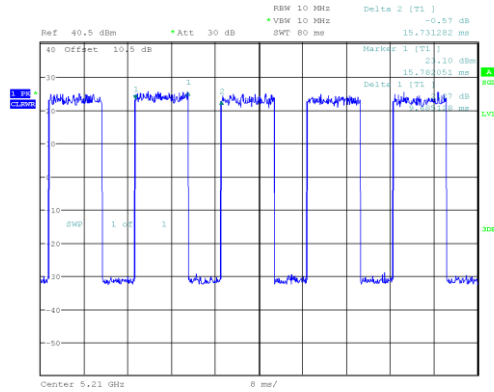
Antenna 2 BW: 1.25 MHz

Low Channel: 5180 MHz



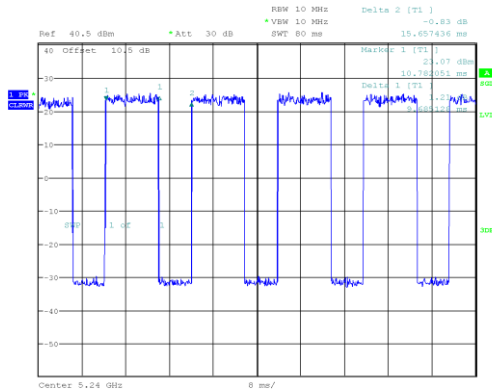
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Middle Channel: 5210 MHz



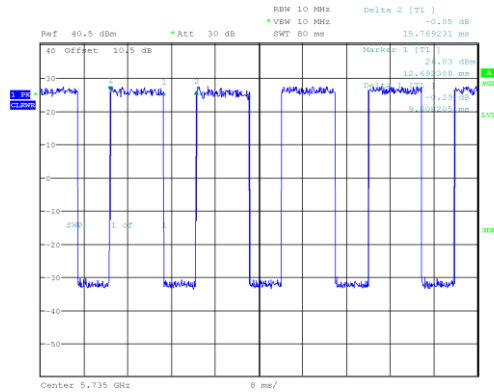
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High Channel: 5240 MHz



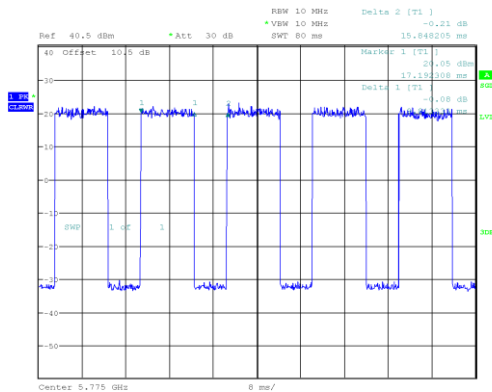
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Date: 30.JUL.2024 16:03:02

Low Channel: 5735 MHz



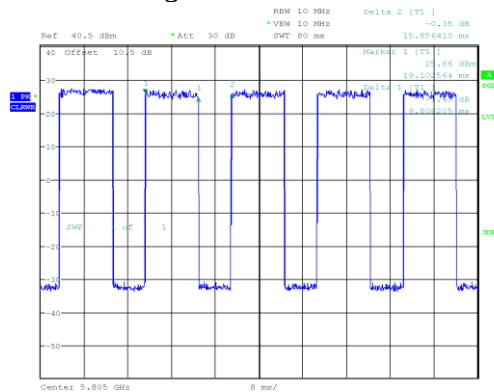
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Middle Channel: 5775 MHz



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:04:17

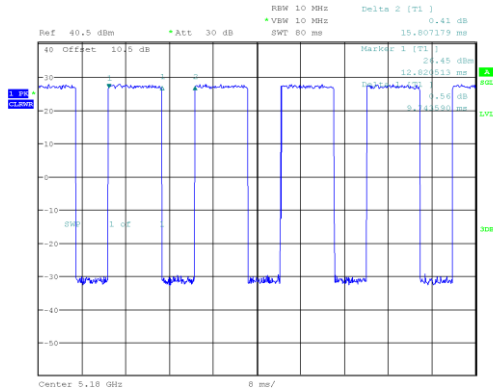
High Channel: 5805 MHz



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 15:14:03

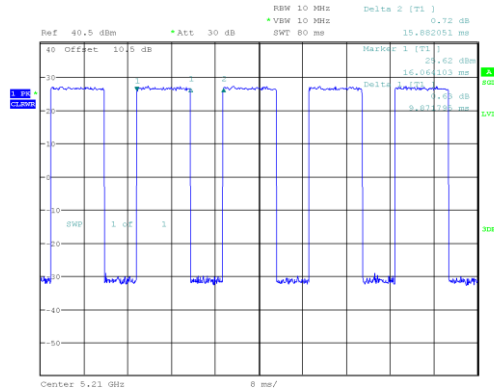
Antenna 2 BW: 10 MHz

Low Channel: 5180 MHz



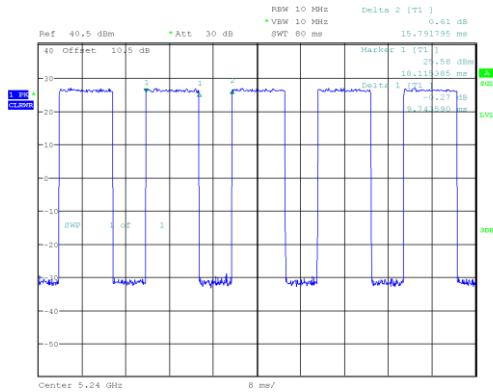
ProjectNo.:RSHA240322002 Tester:Neil Zhou
 Date: 18.JUL.2024 13:39:55

Middle Channel: 5210 MHz



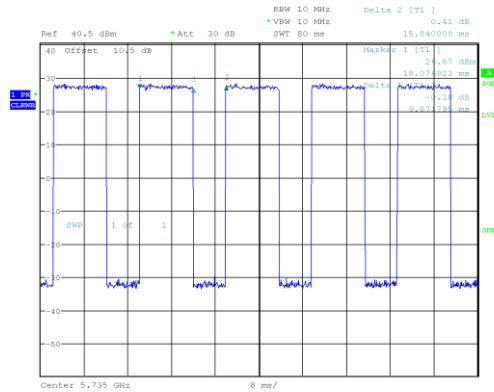
ProjectNo.:RSHA240322002 Tester:Neil Zhou
 Date: 30.JUL.2024 16:38:55

High Channel: 5240 MHz



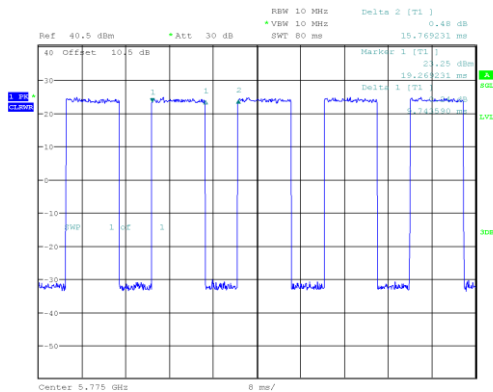
ProjectNo.:RSHA240322002 Tester:Neil Zhou
 Date: 30.JUL.2024 16:40:20

Low Channel: 5735 MHz



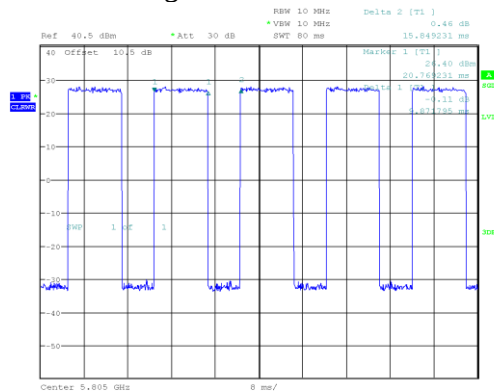
ProjectNo.:RSHA240322002 Tester:Neil Zhou
 Date: 18.JUL.2024 13:40:50

Middle Channel: 5775 MHz



ProjectNo.:RSHA240322002 Tester:Neil Zhou
 Date: 30.JUL.2024 16:41:33

High Channel: 5805 MHz



ProjectNo.:RSHA240322002 Tester:Neil Zhou
 Date: 18.JUL.2024 13:41:55

Note: Offset (10.5dB) = Attenuator(10dB)+Cable loss(0.5dB)

Antenna	Mode	Frequency (MHz)	Transmission Duration (ms)	Transmission Period	Duty Cycle (%)	Duty Cycle Factor (dB)
Antenna 1	SRD (BW: 1.25 MHz)	5180	9.87	15.77	62.59	2.04
		5210	9.69	15.84	61.17	2.13
		5240	9.81	15.80	62.09	2.07
	SRD (BW: 10 MHz)	5180	9.74	15.77	61.76	2.09
		5210	9.62	15.67	61.39	2.12
		5240	9.74	15.75	61.84	2.09
Antenna 2	SRD (BW: 1.25 MHz)	5180	9.74	15.77	61.76	2.09
		5210	9.69	15.73	61.60	2.10
		5240	9.69	15.66	61.88	2.08
	SRD (BW: 10 MHz)	5180	9.74	15.81	61.61	2.10
		5210	9.87	15.88	62.15	2.07
		5240	9.74	15.79	61.68	2.10

Antenna	Mode	Frequency (MHz)	Transmission Duration (ms)	Transmission Period	Duty Cycle (%)	Duty Cycle Factor (dB)
Antenna 1	SRD (BW: 1.25 MHz)	5735	9.62	15.60	61.67	2.10
		5775	9.74	15.77	61.76	2.09
		5805	9.74	15.80	61.65	2.10
	SRD (BW: 10 MHz)	5735	9.72	15.66	62.07	2.07
		5775	9.74	15.73	61.92	2.08
		5805	9.72	15.82	61.44	2.12
Antenna 2	SRD (BW: 1.25 MHz)	5735	9.81	15.77	62.21	2.06
		5775	9.81	15.85	61.89	2.08
		5805	9.81	15.86	61.85	2.09
	SRD (BW: 10 MHz)	5735	9.87	15.84	62.31	2.05
		5775	9.74	15.77	61.76	2.09
		5805	9.87	15.85	62.27	2.06

Equipment Modifications

No modification was made to the EUT.

Support Equipment List and Details

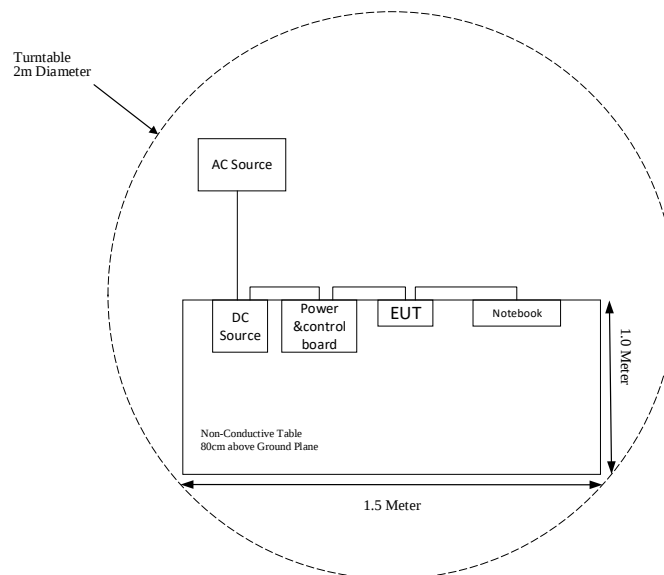
Manufacturer	Description	Model	Serial Number
DELL	Notebook	GX620	D65874152
Heilongjiang Huida Technology Co., Ltd	Power &control board	/	/

External I/O Cable

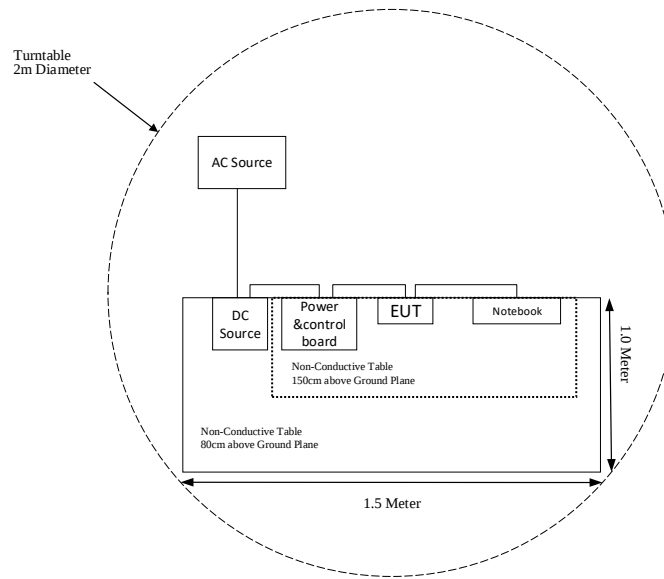
Cable Description	Length (m)	From Port	To
Power Cable	1.0	AC Source	DC Source
Power Cable	2.0	DC Source	Power &control board
Data Cable	0.5	EUT	Notebook

Block Diagram of Test Setup

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
Rohde & Schwarz	EMI Test Receiver	ESCI	100195	2023-05-23	2024-05-22
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
Sonoma Instrument	Amplifier	310N	171205	2023-05-23	2024-05-22
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-8	008	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2024-04-23	2025-04-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2023-05-23	2024-05-22
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	84159	2023-12-07	2024-12-06
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	2024-04-23	2025-04-22
MICRO-TRONICS	Band Reject Filter	BRC50705	G085	2024-04-23	2025-04-22
Narda	Attenuator	10dB	010	2024-04-23	2025-04-22
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	FSU26	100147	2024-04-01	2025-03-31
Anritsu	Power Sensor	MA24418A	12621	2024-04-23	2025-04-22
N/A	Attenuator	10 dB	N/A	2024-04-23	2025-04-22
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A

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
§1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 & §15.407(b) (9)	AC Power Line Conducted Emissions	Not Applicable (See Note)
§ 15.205 & §15.209 & §15.407(b)	Undesirable Emission & Restricted Bands	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

Note: The EUT only used in drone which powered by battery not connected to the AC power lines.

FCC §1.1310 & §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §2.1091 and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm²)	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;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

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:

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

Calculated Data:

Mode	Frequency Range (MHz)	Antenna Gain		★Tune-up Output Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)	MPE ratio
		(dBi)	(numeric)	(dBm)	(mW)				
2.4G SRD	2411-2466	3.34	2.16	25	316.23	20	0.1357	1.0	0.1357
5G SRD	5180-5240	3.27	2.12	17.7	58.88	20	0.0249	1.0	0.0249
	5735-5805	2.90	1.95	26.5	446.68	20	0.1733	1.0	0.1733
5G Wi-Fi	5150-5250	3.04	2.01	13.5	22.39	20	0.0090	1.0	0.0090
	5725-5850	4.64	2.91	10.5	11.22	20	0.0065	1.0	0.0065

Note:

1. For the above tune up power were declared by the manufacturer.
2. SRD and Wi-Fi can transmit simultaneously, but 2.4G SRD and 5G SRD cannot transmit simultaneously.

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

$$= S_{5G\ Wi-Fi}/S_{limit- 5G\ Wi-Fi} + S_{5G\ SRD}/S_{limit- 5G\ SRD}$$

$$= 0.0090 + 0.1733$$

$$= 0.1823$$

$$< 1.0$$

Result: The device meet FCC MPE at 20 cm distance.

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 use a unique type of connector to attach to the EUT. fulfill the requirement of this section. Please refer to the EUT photos.

Antenna	Antenna Type	Frequency Range	Max. Antenna Gain	Input impedance
1	Rod antenna	5180-5240 MHz	3.27 dBi	50Ω
		5735~5805 MHz	2.90 dBi	
2	Rod antenna	5180-5240 MHz	3.27 dBi	50Ω
		5735~5805 MHz	2.90 dBi	

Result: Compliant.

§15.205 & §15.209 & §15.407(B) – UNDESIRABLE EMISSION & RESTRICTED BANDS

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

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.

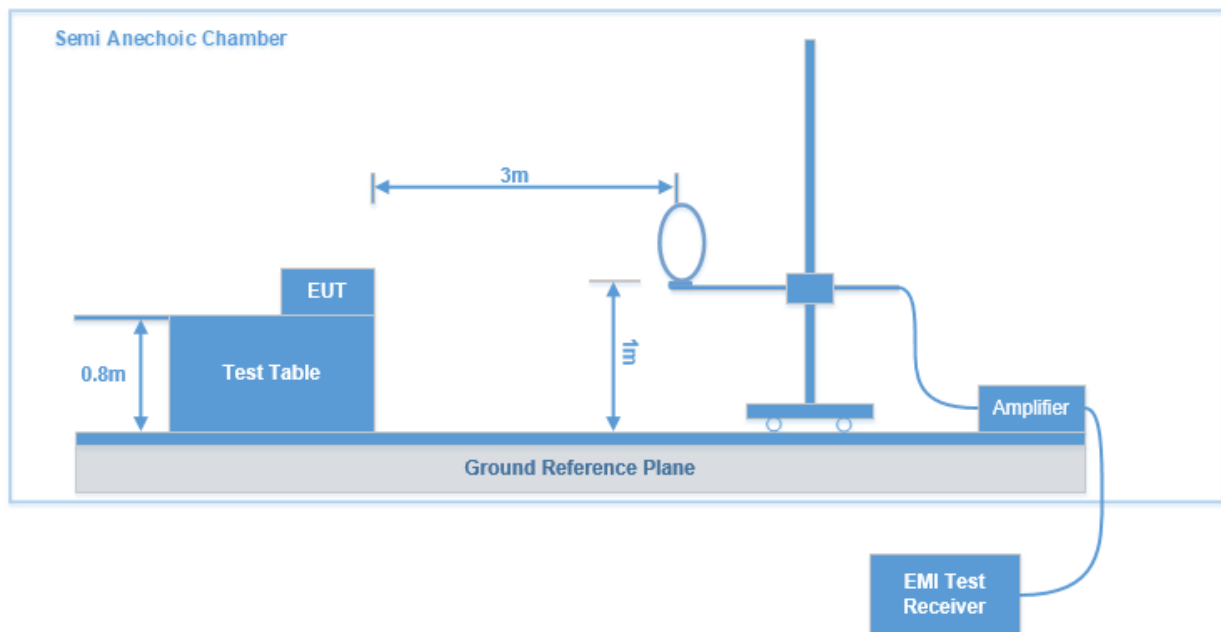
For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of – 27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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.

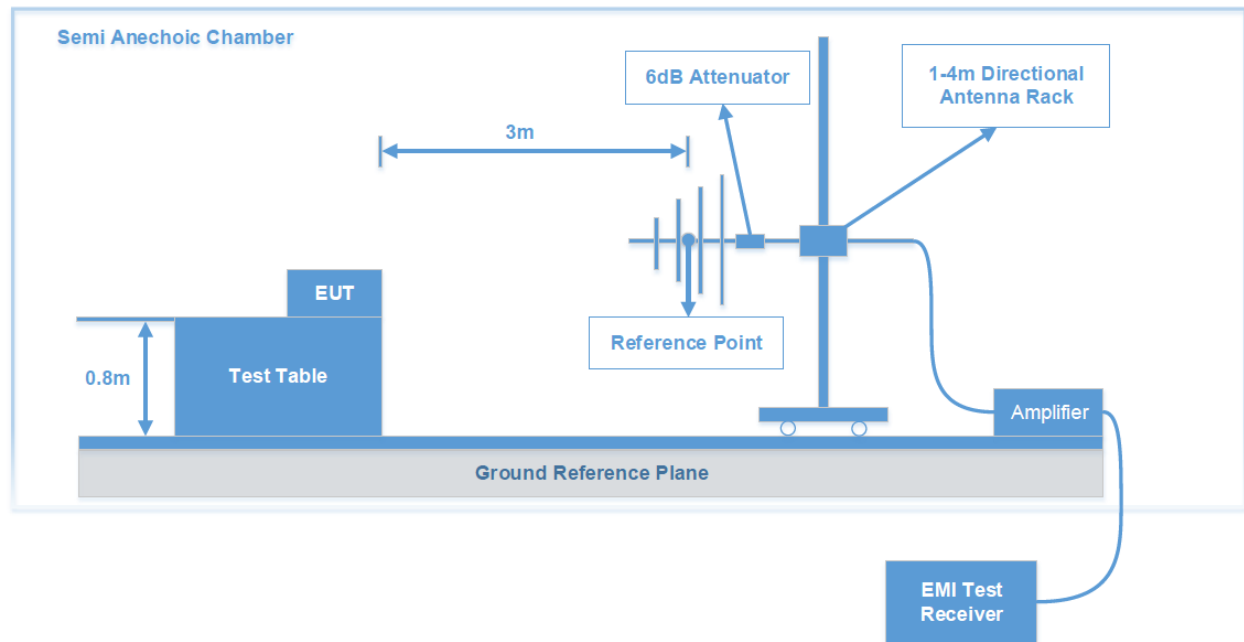
According to 789033 D02 General UNII Test Procedures New Rules v02r01, emission shall be computed as: $E [dB\mu V/m] = EIRP [dBm] + 95.2$, for $d = 3$ meters.

Test System Setup

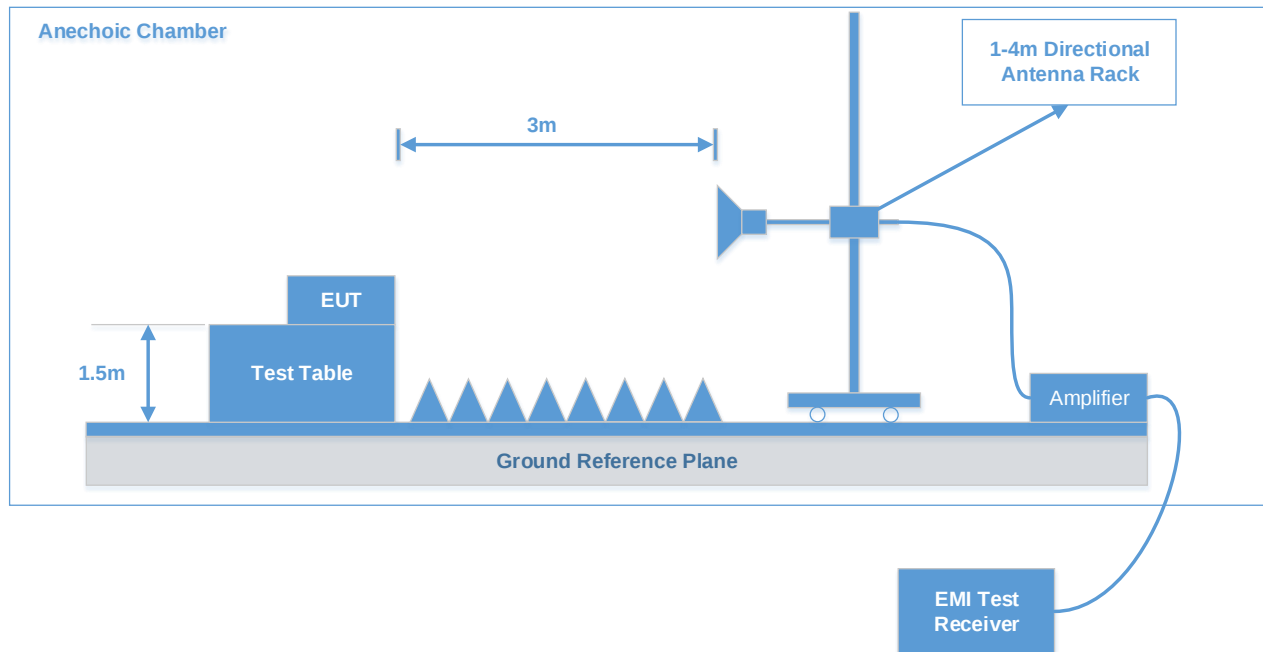
9 kHz - 30 MHz:

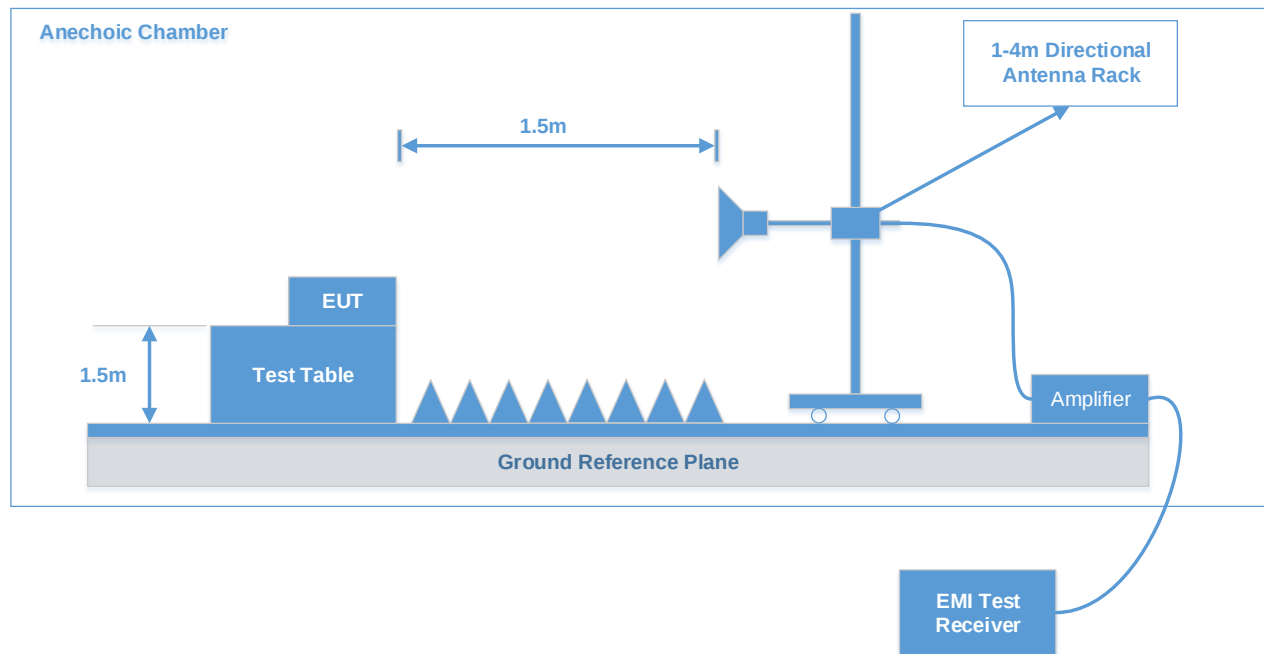


30 MHz - 1 GHz:



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:

$$\text{Corrected Amplitude (dB}\mu\text{V/m)} = \text{Meter Reading (dB}\mu\text{V)} + \text{Corrected factor (dB/m)}$$

$$\text{Corrected factor (dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)}$$

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:

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

Note: The QuasiPeak (dB μ V/m), MaxPeak (dB μ V/m), Average (dB μ V/m) which shown in the data table are all Corrected Amplitude.

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 band is 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)

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

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:

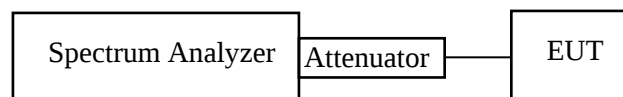
- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two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

3. Occupied bandwidth

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 $[10 \log (\text{OBW}/\text{RBW})]$ 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 may be reported in addition to the plot(s).



Note: Offset (10.5dB) = Attenuator(10dB)+Cable loss(0.5dB)

Test Data: See Appendix

FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

According to §15.407(a)(1)

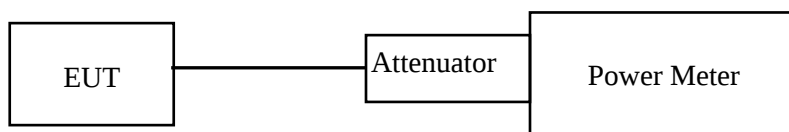
For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

According to §15.407(a) (3)

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

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.



Test Data: See Appendix

FCC §15.407(a) - POWER SPECTRAL DENSITY

Applicable Standard

According to §15.407(a) (1)

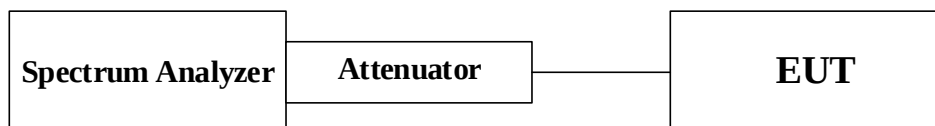
For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

According to §15.407(a) (3)

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 based on C63.10:2013 and method SA-2 used



Note: Offset (10.5dB) = Attenuator(10dB)+Cable loss(0.5dB)

Test Data: See Appendix

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:	UNWANTED EMISSIONS & RESTRICTED FREQUENCY BANDS				Duty Cycle
	9 kHz – 30MHz	30MHz~1GHz	1 GHz – 18 GHz	18 GHz - 40 GHz	
Test Date:	2024-04-22	2024-07-17	2024-07-20	2024-07-13	2024-07-17 to 2024-07-30
Temperature:	25 °C	23.4 °C	22.8 °C	25.5 °C	24.9-25.5 °C
Relative Humidity:	55 %	52 %	53 %	52 %	58-60 %
ATM Pressure:	101.5 kPa	100.9 kPa	100.5kPa	100.5kPa	99.9-100.2kPa
Test Result:	Pass	Pass	Pass	Pass	Pass
Test Engineer:	Leah Li	Leah Li	Klein Zhu	Hugh Wu	Neil Zhou

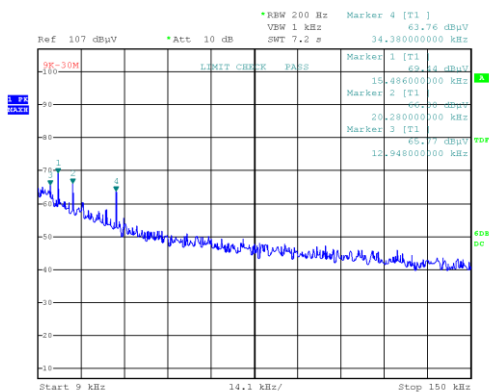
Test Item:	EMISSION BANDWIDTH	CONDUCTED TRANSMITTER OUTPUT POWER	POWER SPECTRAL DENSITY
Test Date:	2024-07-10 to 2024-11-25	2024-07-17 to 2024-07-30	2024-12-07 to 2024-12-11
Temperature:	22.4-25.5 °C	24.9-25.5 °C	22-26 °C
Relative Humidity:	52-60 %	58-60 %	50-52 %
ATM Pressure:	99.9-101.8kPa	99.9-100.2kPa	102.0-102.5kPa
Test Result:	Pass	Pass	Pass
Test Engineer:	Neil Zhou	Neil Zhou	Neil Zhou

Transmitter Unwanted Emissions & Restricted frequency bands

EUT operation mode: Transmitting

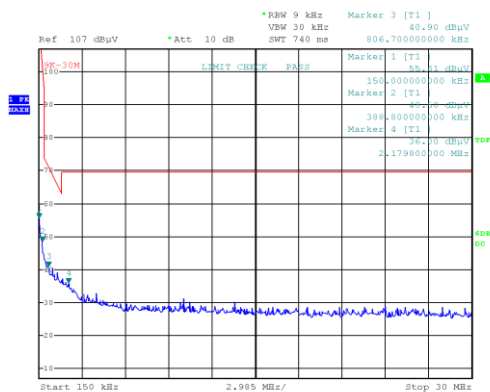
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

9 kHz - 30 MHz: (Transmitting in maximum output power 5735-5805MHz Band Antenna 1+Antenna 2
SRD (BW: 10 MHz)) (Parallel worst)



Project No.RSHA240322002
Date: 22.APR.2024 17:17:31

Tester:Leah Li



Project No.RSHA240322002
Date: 22.APR.2024 17:49:57

Tester:Leah Li

9 kHz - 150 kHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.012948	65.77	PK	54.49	125.36	59.59
0.015486	69.44	PK	52.87	123.81	54.365
0.020280	66.3	PK	49.92	121.46	55.163
0.034380	63.76	PK	46.06	116.88	53.118

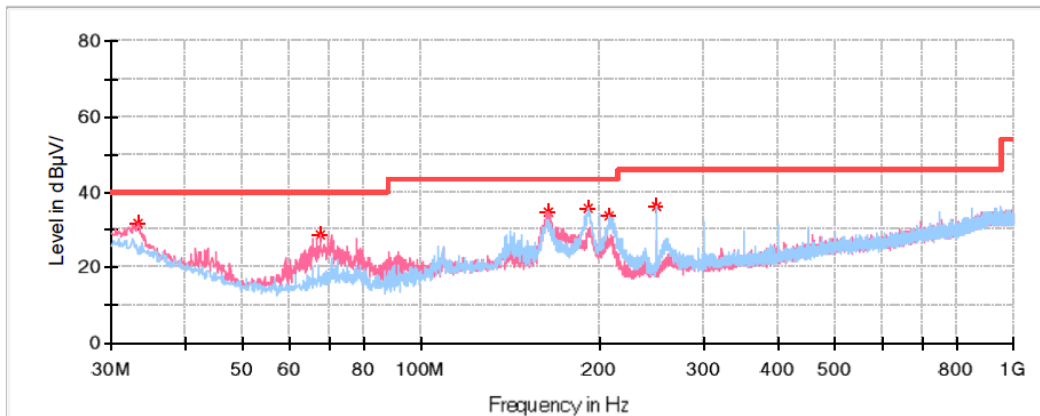
150 kHz - 30 MHz

Frequency (MHz)	Corrected Amplitude (dBμV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBμV/m) @3m	Margin (dB)
0.15000	55.61	PK	50.90	104.08	48.47
0.38880	48.50	PK	26.16	95.81	47.31
0.80670	40.90	PK	19.50	69.47	28.57
2.17980	36.00	PK	13.65	69.54	33.54

30MHz - 1GHz (5180-5240MHz Band): Antenna 1+Antenna 2 SRD (BW: 10 MHz) (worst case)
Low Channel: 5180 MHz

Common Information

Project No: RSHA240322002
Test Mode: Transmitting in 5180 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Test Engineer: Leah Li



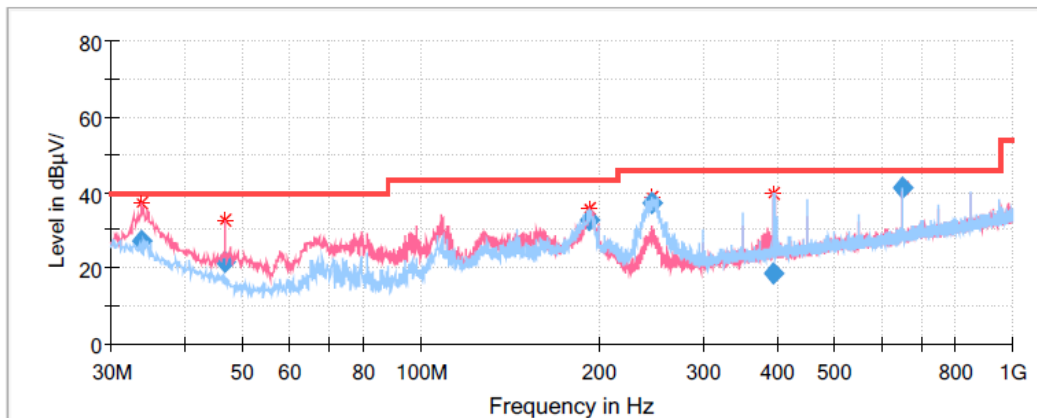
Critical Freqs

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
33.273750	31.66	40.00	8.34	V	-6.7
67.587500	28.66	40.00	11.34	V	-16.9
163.860000	34.90	43.50	8.60	V	-12.7
191.990000	35.63	43.50	7.87	H	-12.8
207.995000	33.52	43.50	9.98	H	-13.0
249.947500	36.43	46.00	9.57	H	-12.7

Middle Channel: 5210 MHz

Common Information

Project No: RSHA240322002
Test Mode: Transmitting in 5210 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Test Engineer: Leah Li

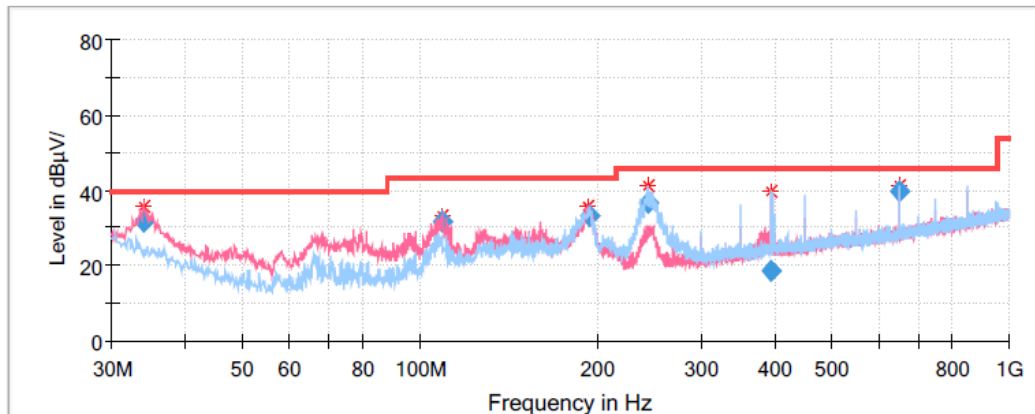


Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
33.758750	27.00	40.00	13.00	V	-7.6
46.732500	21.76	40.00	18.24	V	-15.6
192.841900	32.52	43.50	10.98	H	-12.5
245.826400	37.16	46.00	8.84	H	-12.4
395.932500	18.75	46.00	27.25	H	-8.1
650.004700	41.10	46.00	4.90	H	-3.1

High Channel: 5240 MHz**Common Information**

Project No: RSHA240322002
Test Mode: Transmitting in 5240 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Test Engineer: Leah Li

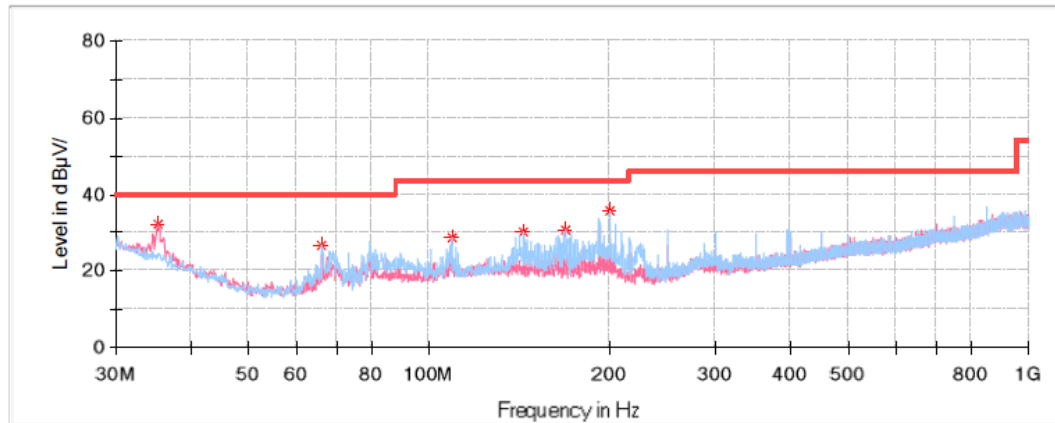
**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
34.001250	31.45	40.00	8.55	V	-7.8
108.792700	31.62	43.50	11.88	V	-12.9
193.916800	33.27	43.50	10.23	V	-12.5
243.994550	36.88	46.00	9.12	V	-12.5
395.932500	18.74	46.00	27.26	H	-8.1
649.994500	39.99	46.00	6.01	H	-3.1

30MHz - 1GHz (5735-5805MHz Band): Antenna 1+Antenna 2 SRD (BW: 10 MHz) (worst case)
Low Channel: 5735 MHz

Common Information

Project No:	RSHA240322002
Test Mode:	Transmitting in 5735 channel
Standard:	FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Test Engineer:	Leah Li



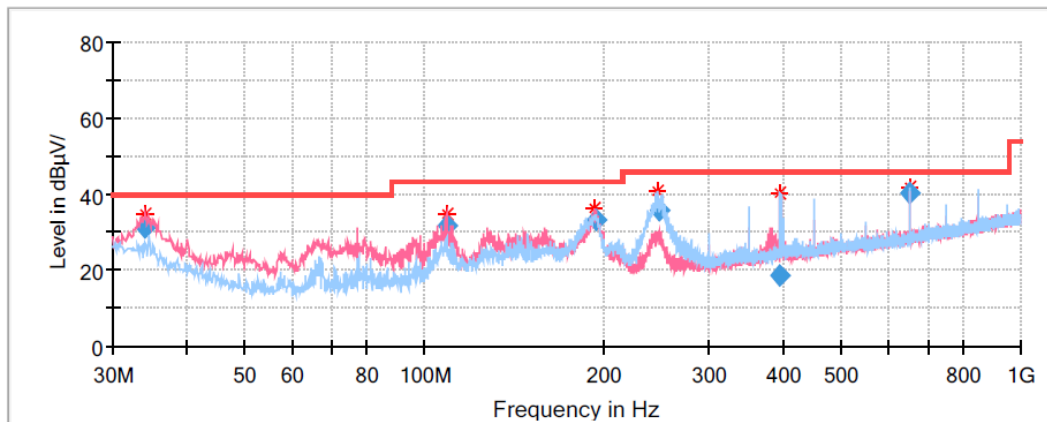
Critical_Freqs

Frequency (MHz)	MaxPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
35.213750	32.05	40.00	7.95	V	-8.0
66.253750	26.88	40.00	13.12	H	-17.0
108.812500	28.44	43.50	15.06	H	-13.2
143.247500	29.97	43.50	13.53	H	-11.7
168.710000	30.78	43.50	12.72	H	-12.9
199.992500	35.54	43.50	7.96	H	-12.5

Middle Channel: 5775 MHz

Common Information

Project No: RSHA240322002
Test Mode: Transmitting in 5775 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Test Engineer: Leah Li

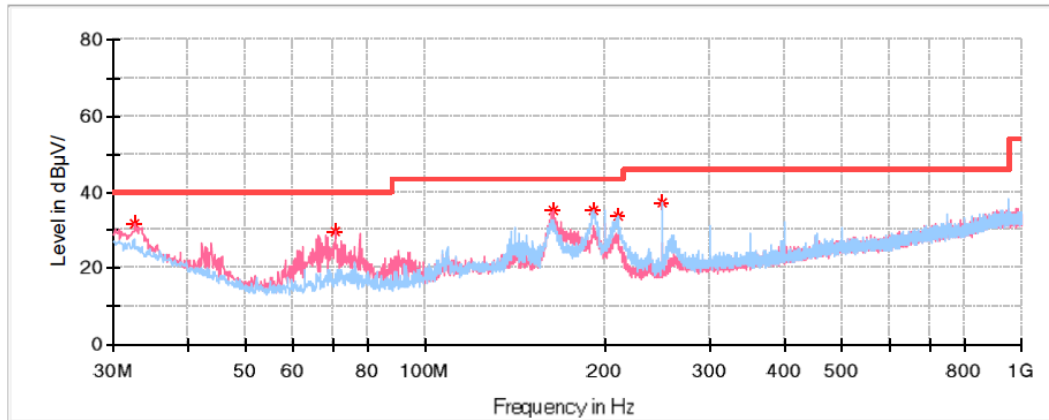


Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
34.122500	31.00	40.00	9.00	V	-7.9
108.820900	31.63	43.50	11.87	V	-12.9
193.693650	33.22	43.50	10.28	V	-12.5
247.938600	35.77	46.00	10.23	H	-12.4
395.932500	18.82	46.00	27.18	H	-8.1
649.993600	40.45	46.00	5.55	H	-3.1

High Channel: 5805 MHz**Common Information**

Project No: RSHA240322002
Test Mode: Transmitting in 5805 channel
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.407
Test Engineer: Leah Li

**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
32.546250	31.55	40.00	8.45	V	-6.2
70.618750	29.75	40.00	10.25	V	-16.8
163.617500	35.32	43.50	8.18	V	-12.7
191.626250	35.39	43.50	8.11	H	-12.8
209.935000	33.82	43.50	9.68	H	-13.2
249.947500	37.06	46.00	8.94	H	-12.7

1GHz - 18GHz (5150-5250MHz Band):**Antenna 1+Antenna 2 SRD (BW: 1.25 MHz)****Low Channel: 5180 MHz****Common Information**

Project No.:

RSHA240322002

Test Mode:

SRD

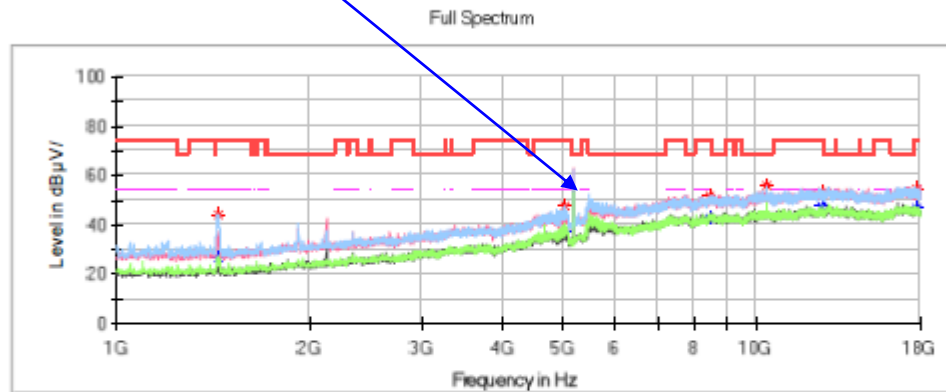
Standard:

FCC Part 15.205& FCC Part 15.209& FCC Part 15.407

Test Engineer:

Klein Zhu

Fundamental Test with notch filter

**Critical Freqs**

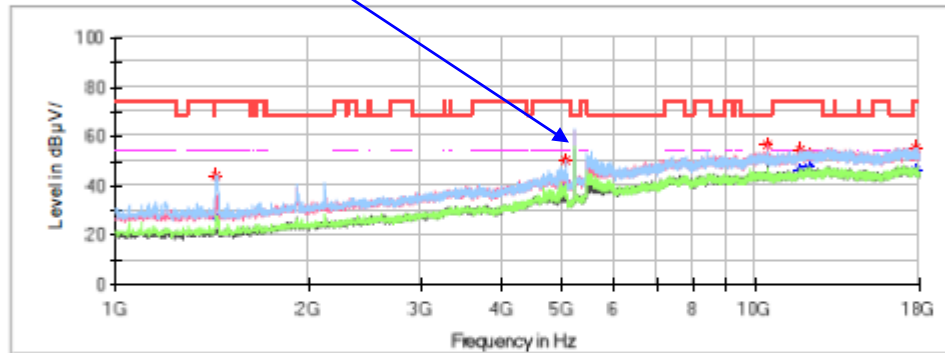
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	—	26.61	54.00	27.39	H	-14.8
1438.600000	44.25	—	74.00	29.75	H	-14.8
5020.500000	—	38.00	54.00	16.00	H	-2.4
5020.500000	47.52	—	74.00	26.48	H	-2.4
8444.300000	—	42.77	54.00	11.23	H	5.3
8444.300000	51.56	—	74.00	22.44	H	5.3
10360.200000	55.90	—	68.20	12.30	V	7.1
12633.100000	—	47.80	54.00	6.20	H	9.7
12633.100000	53.10	—	74.00	20.90	H	9.7
17777.300000	—	46.96	54.00	7.04	V	11.8
17777.300000	54.54	—	74.00	19.46	V	11.8

Middle Channel: 5210 MHz**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

Full Spectrum

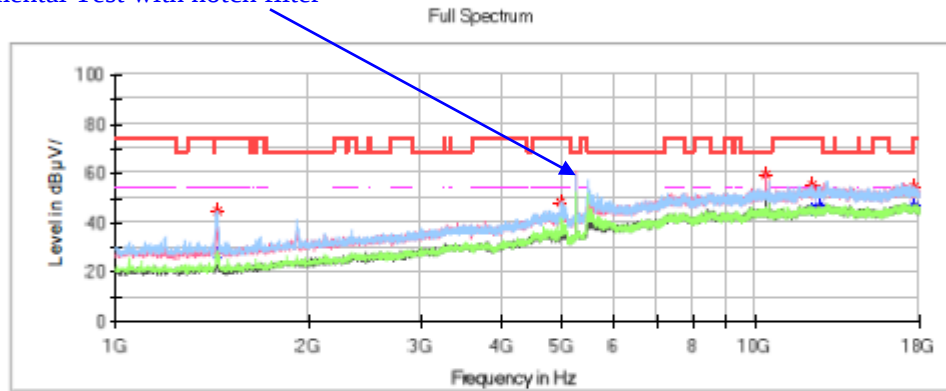
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μV/m)	Average (dB μV/m)	Limit (dB μV/m)	Margin (dB)	Pol	Corr. (dB/m)
1436.900000	—	27.66	54.00	26.34	H	-14.8
1436.900000	43.98	—	74.00	30.02	H	-14.8
5049.400000	50.53	—	74.00	23.47	H	-2.2
5049.400000	—	40.25	54.00	13.75	H	-2.2
10419.700000	56.86	—	68.20	11.34	V	7.1
11740.600000	—	45.83	54.00	8.17	V	8.9
11740.600000	54.73	—	74.00	19.27	V	8.9
12087.400000	—	47.50	54.00	6.50	V	9.1
12087.400000	52.39	—	74.00	21.61	V	9.1
17804.500000	—	45.97	54.00	8.03	V	11.8
17804.500000	55.21	—	74.00	18.79	V	11.8

High Channel: 5240 MHz**Common Information**

Project No.: RSHA240322002
 Test Mode: SRD
 Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
 Test Engineer: Klein Zhu

Fundamental Test with notch filter

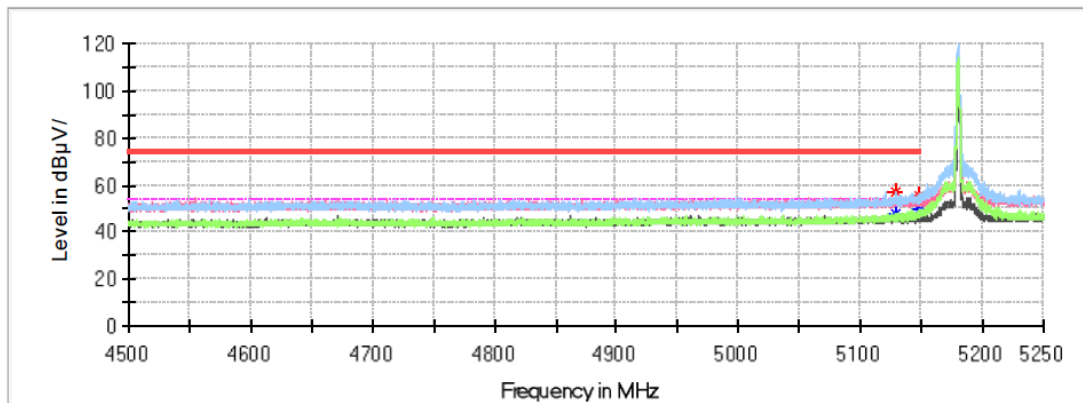
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	—	26.97	54.00	27.03	H	-14.8
1438.600000	44.47	—	74.00	29.53	H	-14.8
4959.300000	—	41.62	54.00	12.38	H	-2.6
4959.300000	48.39	—	74.00	25.61	H	-2.6
10363.600000	59.40	—	68.20	8.80	V	7.1
12231.900000	—	45.31	54.00	8.69	H	9.3
12231.900000	55.27	—	74.00	18.73	H	9.3
12527.700000	—	46.85	54.00	7.15	V	9.7
12527.700000	52.55	—	74.00	21.45	V	9.7
17722.900000	54.29	—	74.00	19.71	V	11.7
17722.900000	—	46.81	54.00	7.19	V	11.7

Band Edge:**Low Channel****Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205&FCC 15.209&FCC 15.407
Test Engineer: Klein Zhu

Full Spectrum

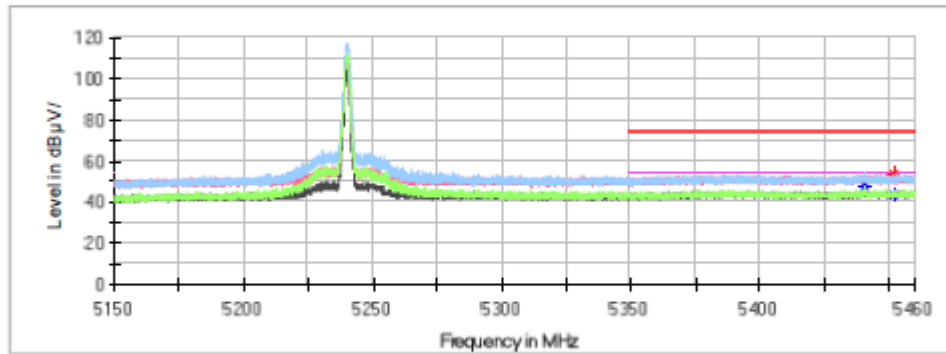
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5129.550000	---	48.04	54.00	5.96	H	8.2
5129.550000	56.94	---	74.00	17.06	H	8.2
5148.675000	---	49.88	54.00	4.12	H	8.2
5148.675000	55.30	---	74.00	18.70	H	8.2

High Channel**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

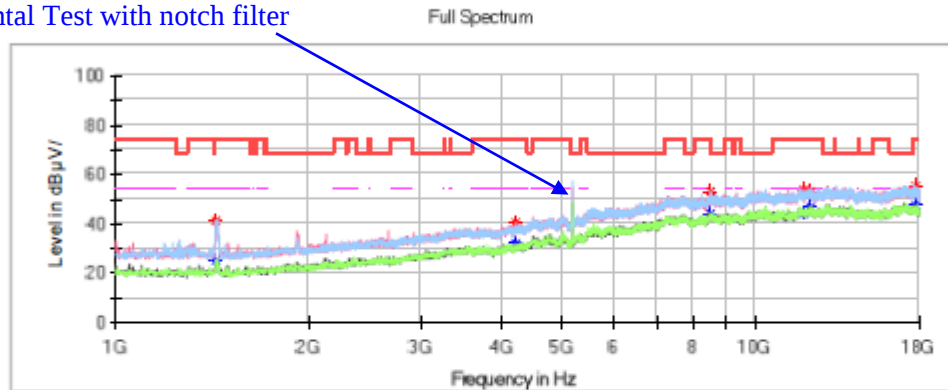
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5440.563000	51.00	—	74.00	23.00	H	5.0
5440.563000	—	47.58	54.00	6.42	H	5.0
5451.692000	—	43.96	54.00	10.04	V	5.0
5451.692000	53.89	—	74.00	20.11	V	5.0

Antenna 1+Antenna 2 SRD (BW: 10 MHz)**Low Channel: 5180 MHz****Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

**Critical Freqs**

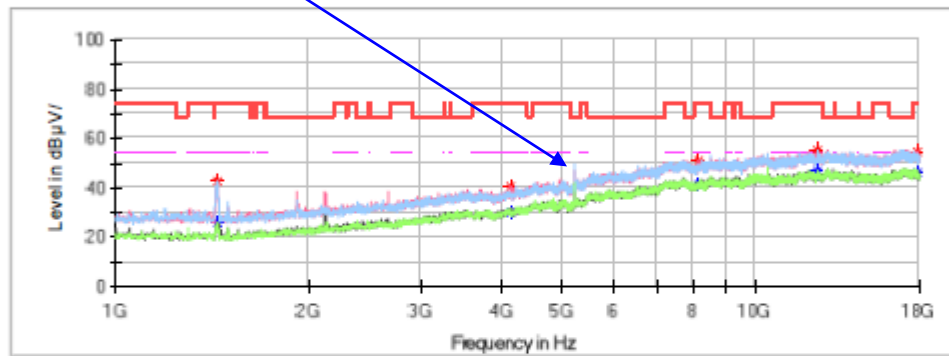
Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1435.200000	—	25.13	54.00	28.87	H	-14.8
1435.200000	41.55	—	74.00	32.45	H	-14.8
4223.200000	—	31.92	54.00	22.08	V	-5.2
4223.200000	40.71	—	74.00	33.29	V	-5.2
8486.800000	—	43.77	54.00	10.23	H	5.4
8486.800000	52.94	—	74.00	21.06	H	5.4
11871.500000	—	43.86	54.00	10.14	V	8.9
11871.500000	53.87	—	74.00	20.13	V	8.9
12157.100000	—	47.06	54.00	6.94	H	9.2
12157.100000	53.29	—	74.00	20.71	H	9.2
17765.400000	—	47.51	54.00	6.49	V	11.8
17765.400000	55.38	—	74.00	18.62	V	11.8

Middle Channel: 5210 MHz**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

Full Spectrum

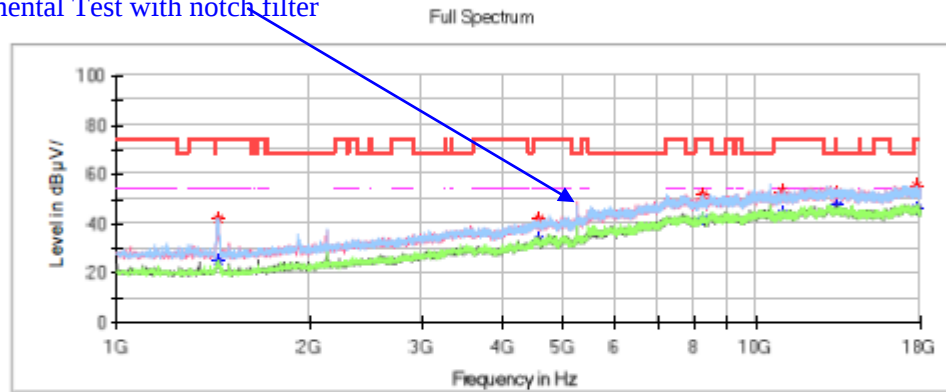
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	—	25.55	54.00	28.45	V	-14.8
1438.600000	42.32	—	74.00	31.68	V	-14.8
4129.700000	—	30.15	54.00	23.85	V	-5.5
4129.700000	40.50	—	74.00	33.50	V	-5.5
8160.400000	—	41.31	54.00	12.69	H	4.4
8160.400000	50.77	—	74.00	23.23	H	4.4
12512.400000	55.46	—	74.00	18.54	H	9.7
12512.400000	—	45.61	54.00	8.39	H	9.7
12514.100000	—	46.86	54.00	7.14	H	9.7
12514.100000	52.99	—	74.00	21.01	H	9.7
17901.400000	—	45.80	54.00	8.20	V	11.9
17901.400000	54.71	—	74.00	19.29	V	11.9

High Channel: 5240 MHz**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

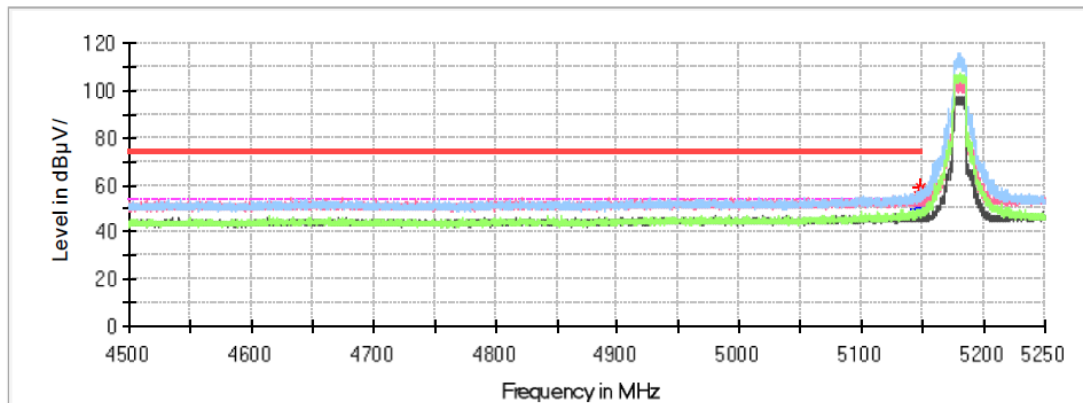
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1440.300000	41.95	—	74.00	32.05	H	-14.8
1440.300000	—	25.31	54.00	28.69	H	-14.8
4563.200000	—	33.56	54.00	20.44	V	-4.0
4563.200000	41.98	—	74.00	32.02	V	-4.0
8216.500000	—	41.76	54.00	12.24	H	4.6
8216.500000	51.86	—	74.00	22.14	H	4.6
10939.900000	—	44.03	54.00	9.97	V	7.3
10939.900000	52.94	—	74.00	21.06	V	7.3
13331.800000	52.28	—	74.00	21.72	V	9.6
13331.800000	—	47.87	54.00	6.13	V	9.6
17767.100000	55.04	—	74.00	18.96	H	11.8
17767.100000	—	46.30	54.00	7.70	H	11.8

Band Edge:**Low Channel****Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205&FCC 15.209&FCC 15.407
Test Engineer: Klein Zhu

Full Spectrum

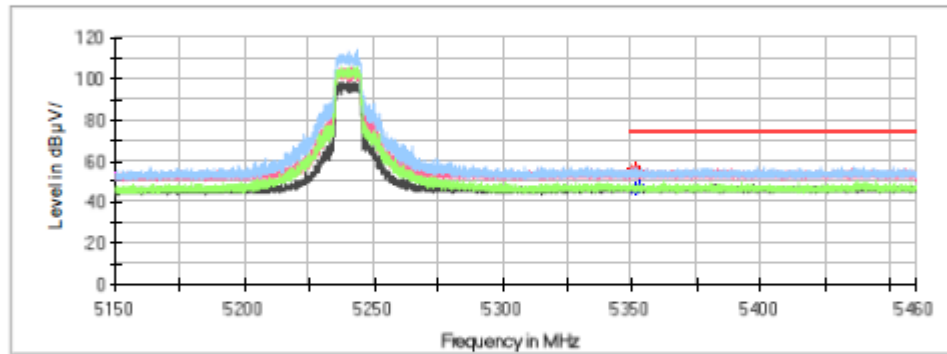
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5146.875000	55.34	---	74.00	18.66	H	8.2
5146.875000	---	49.84	54.00	4.16	H	8.2
5148.450000	58.86	---	74.00	15.14	H	8.2
5148.450000	---	49.17	54.00	4.83	H	8.2

High Channel**Common Information**

Project No.: RSHA240322001
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209&FCC Part 15.407
Test Engineer: Klein Zhu

Full Spectrum

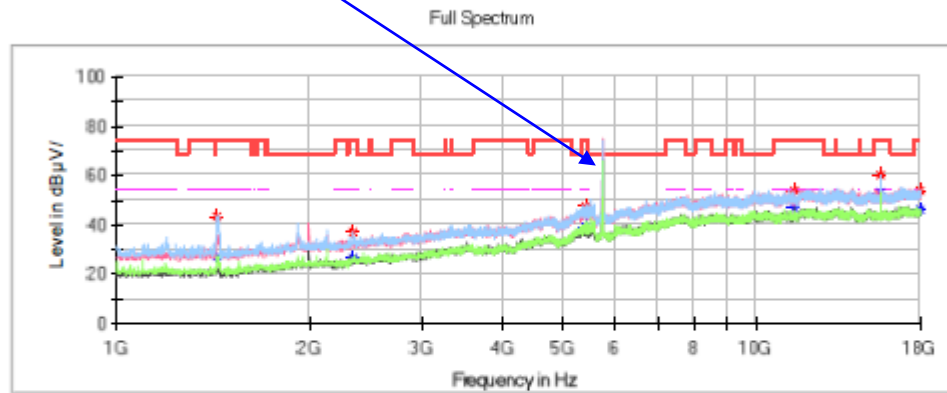
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5351.066000	—	46.56	54.00	7.44	V	8.7
5351.066000	55.98	—	74.00	18.02	V	8.7
5353.019000	54.02	—	74.00	19.98	H	8.7
5353.019000	—	46.73	54.00	7.27	H	8.7

1GHz - 18GHz (5735-5805MHz Band):**Antenna 1+Antenna 2 SRD (BW: 1.25 MHz)****Low Channel: 5735 MHz****Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

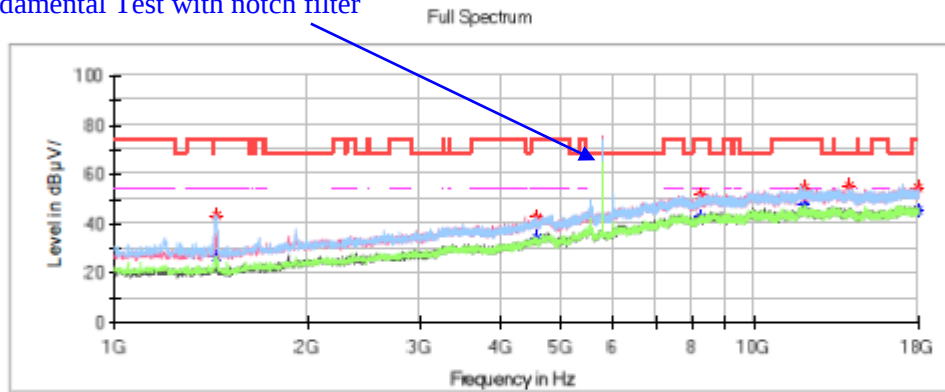
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1436.900000	—	27.14	54.00	26.86	H	-14.8
1436.900000	43.60	—	74.00	30.40	H	-14.8
2339.600000	—	26.69	54.00	27.31	H	-10.7
2339.600000	37.06	—	74.00	36.94	H	-10.7
5414.900000	47.86	—	74.00	26.14	H	-0.7
5414.900000	—	38.90	54.00	15.10	H	-0.7
11470.300000	—	47.20	54.00	6.80	V	8.8
11470.300000	53.64	—	74.00	20.36	V	8.8
15562.200000	59.93	—	74.00	14.07	H	9.8
15562.200000	—	52.98	54.00	1.02	H	9.8
17976.200000	—	45.96	54.00	8.04	H	11.9
17976.200000	54.04	—	74.00	19.96	H	11.9

Middle Channel: 5775 MHz**Common Information**

Project No.: RSHA240322002
 Test Mode: SRD
 Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
 Test Engineer: Klein Zhu

Fundamental Test with notch filter

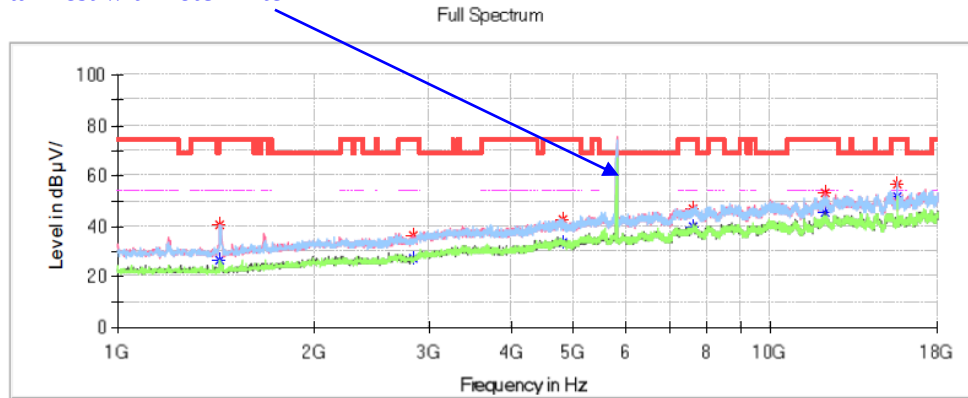
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µV/m)	Average (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	—	26.24	54.00	27.76	H	-14.8
1438.600000	43.52	—	74.00	30.48	H	-14.8
4571.700000	—	33.93	54.00	20.07	H	-4.0
4571.700000	42.35	—	74.00	31.65	H	-4.0
8216.500000	—	42.42	54.00	11.58	V	4.6
8216.500000	52.00	—	74.00	22.00	V	4.6
11942.900000	—	47.68	54.00	6.32	H	9.0
11942.900000	54.38	—	74.00	19.62	H	9.0
14030.500000	55.57	—	68.20	12.63	V	9.8
17984.700000	54.54	—	74.00	19.46	V	11.9
17984.700000	—	45.50	54.00	8.50	V	11.9

High Channel: 5805 MHz**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205&FCC 15.209&FCC 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

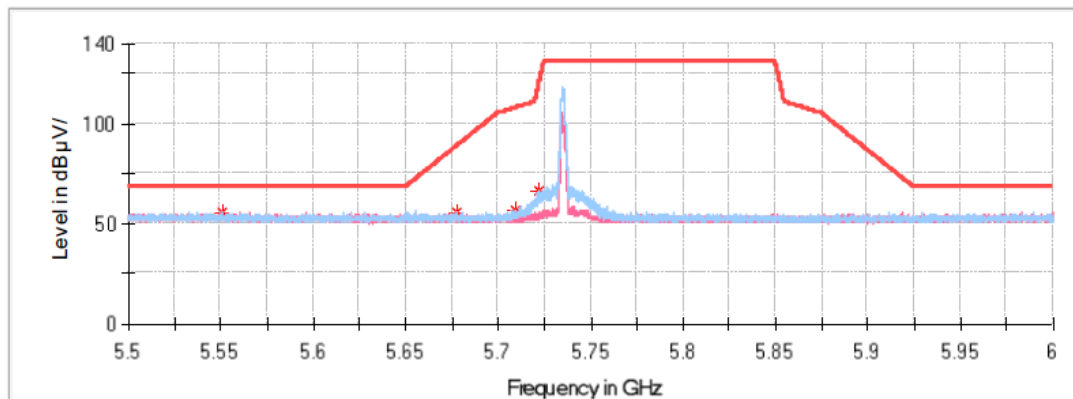
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1436.900000	---	26.57	54.00	27.43	H	-14.8
1436.900000	40.34	---	74.00	33.66	H	-14.8
2827.500000	---	27.12	54.00	26.88	H	-9.0
2827.500000	36.05	---	74.00	37.95	H	-9.0
4816.500000	---	33.33	54.00	20.67	H	-3.1
4816.500000	42.60	---	74.00	31.40	H	-3.1
7623.200000	---	39.63	54.00	14.37	V	3.9
7623.200000	47.07	---	74.00	26.93	V	3.9
12119.700000	---	45.11	54.00	8.89	V	9.1
12119.700000	52.83	---	74.00	21.17	V	9.1
15601.300000	56.71	---	74.00	17.29	H	9.7
15601.300000	---	51.99	54.00	2.01	H	9.7

Band Edge:**Low Channel****Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205&FCC 15.209&FCC 15.407
Test Engineer: Klein Zhu

Full Spectrum

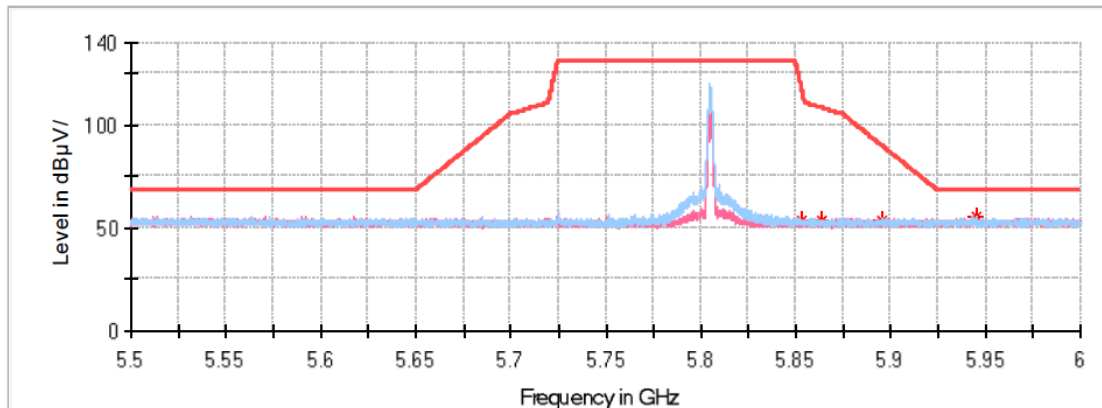
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5550.950000	55.89	---	68.20	12.31	H	9.1
5678.050000	55.80	---	88.96	33.16	H	8.9
5709.250000	56.73	---	107.79	51.06	H	8.9
5721.850000	66.59	---	118.35	51.76	H	8.9

High Channel**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205&FCC 15.209&FCC 15.407
Test Engineer: Klein Zhu

Full Spectrum

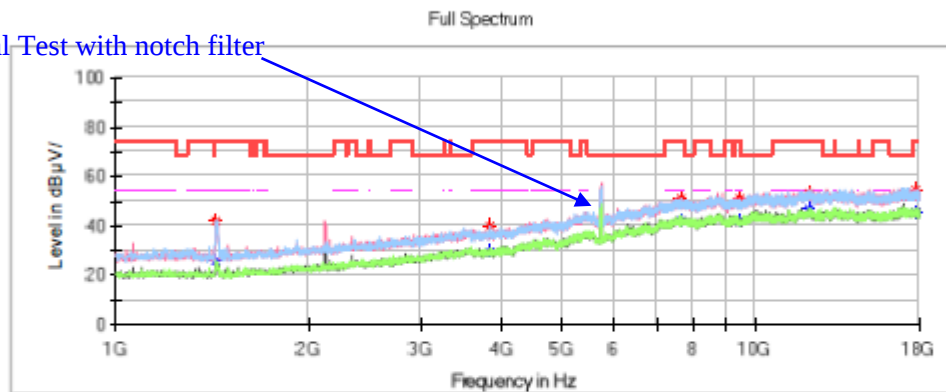
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5853.200000	54.01	---	118.14	64.13	H	8.7
5863.650000	54.26	---	108.38	54.12	H	8.7
5895.000000	54.25	---	90.40	36.15	H	8.7
5944.750000	56.24	---	68.20	11.96	H	8.6

Antenna 1+Antenna 2 SRD (BW: 10 MHz)**Low Channel: 5735 MHz****Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

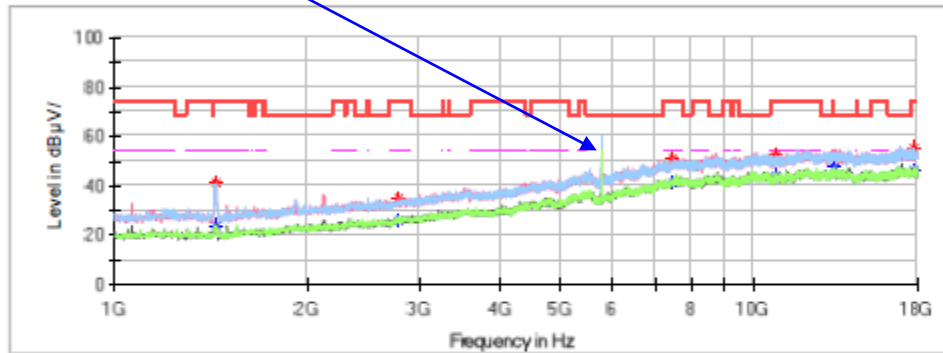
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1436.900000	—	25.61	54.00	28.39	H	-14.8
1436.900000	42.04	—	74.00	31.96	H	-14.8
3837.300000	—	29.41	54.00	24.59	V	-6.0
3837.300000	39.75	—	74.00	34.25	V	-6.0
7640.200000	—	41.96	54.00	12.04	V	3.9
7640.200000	51.29	—	74.00	22.71	V	3.9
9420.100000	—	42.06	54.00	11.94	V	5.4
9420.100000	50.92	—	74.00	23.08	V	5.4
12067.000000	52.98	—	74.00	21.02	H	9.1
12067.000000	—	46.79	54.00	7.21	H	9.1
17728.000000	—	45.43	54.00	8.57	V	11.7
17728.000000	54.75	—	74.00	19.25	V	11.7

Middle Channel: 5775 MHz**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter Full Spectrum

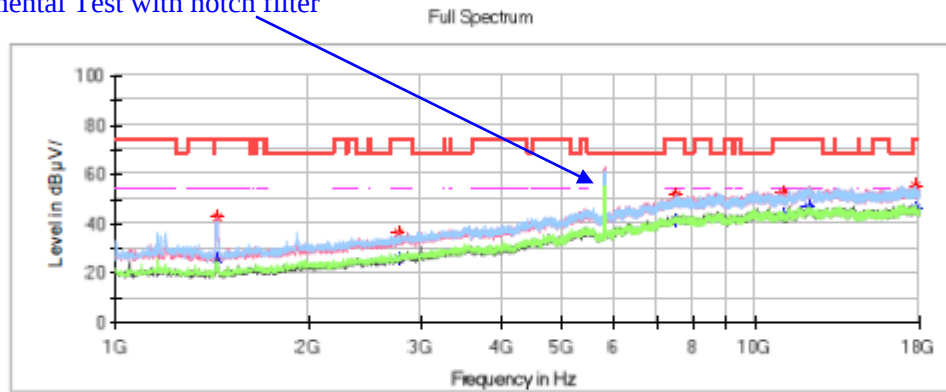
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μV/m)	Average (dB μV/m)	Limit (dB μV/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	—	23.99	54.00	30.01	H	-14.8
1438.600000	41.33	—	74.00	32.67	H	-14.8
2774.800000	—	25.53	54.00	28.47	V	-9.2
2774.800000	34.77	—	74.00	39.23	V	-9.2
7466.800000	—	41.53	54.00	12.47	V	3.8
7466.800000	51.27	—	74.00	22.73	V	3.8
10841.300000	—	43.92	54.00	10.08	H	7.2
10841.300000	52.70	—	74.00	21.30	H	7.2
13365.800000	52.09	—	74.00	21.91	V	9.6
13365.800000	—	47.23	54.00	6.77	V	9.6
17772.200000	—	46.32	54.00	7.68	H	11.8
17772.200000	55.13	—	74.00	18.87	H	11.8

High Channel: 5805 MHz**Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.407
Test Engineer: Klein Zhu

Fundamental Test with notch filter

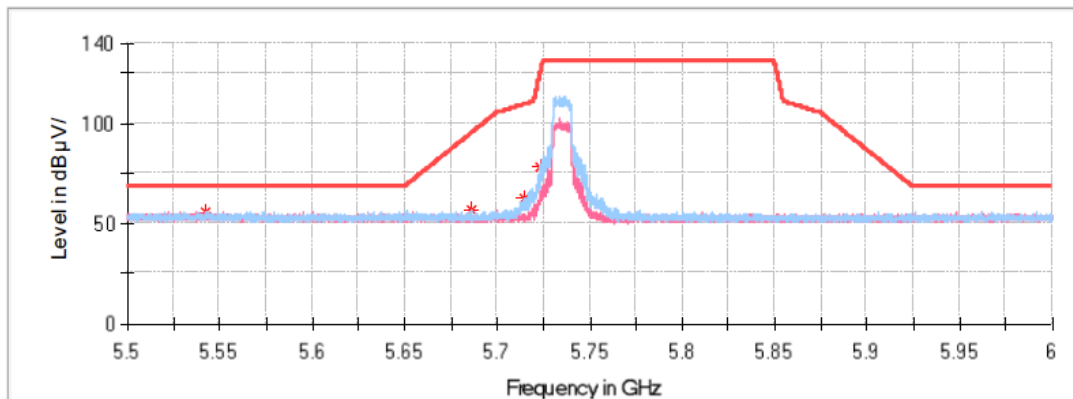
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	—	25.89	54.00	28.11	V	-14.8
1438.600000	42.45	—	74.00	31.55	V	-14.8
2764.600000	—	25.85	54.00	28.15	H	-9.2
2764.600000	36.28	—	74.00	37.72	H	-9.2
7509.300000	—	41.41	54.00	12.59	V	3.9
7509.300000	51.81	—	74.00	22.19	V	3.9
11035.100000	—	43.17	54.00	10.83	H	7.4
11035.100000	52.54	—	74.00	21.46	H	7.4
12123.100000	52.59	—	74.00	21.41	H	9.1
12123.100000	—	46.98	54.00	7.02	H	9.1
17826.600000	—	46.17	54.00	7.83	V	11.8
17826.600000	55.29	—	74.00	18.71	V	11.8

Band Edge:**Low Channel****Common Information**

Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205&FCC 15.209&FCC 15.407
Test Engineer: Klein Zhu

Full Spectrum

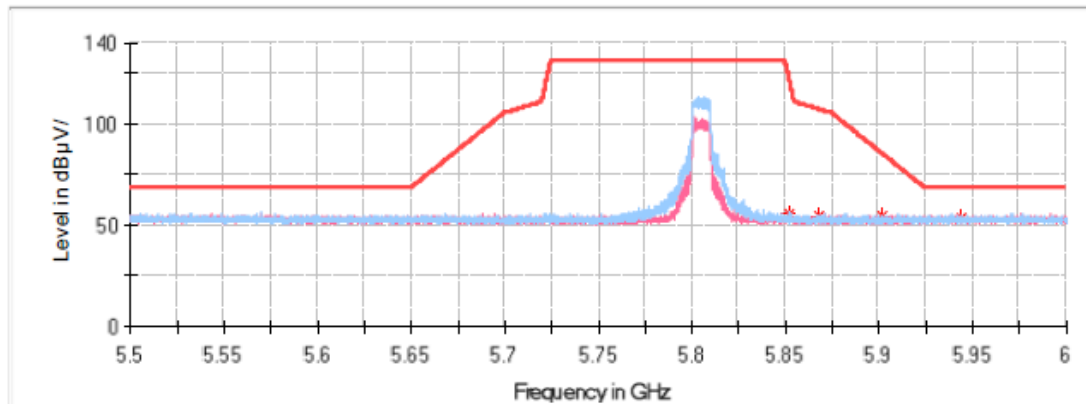
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
5542.250000	56.14	---	68.20	12.06	H	9.1
5685.800000	56.39	---	94.69	38.30	H	8.9
5714.100000	62.81	---	109.15	46.34	H	8.9
5723.500000	78.28	---	125.08	46.80	H	8.9

High Channel**Common Information**

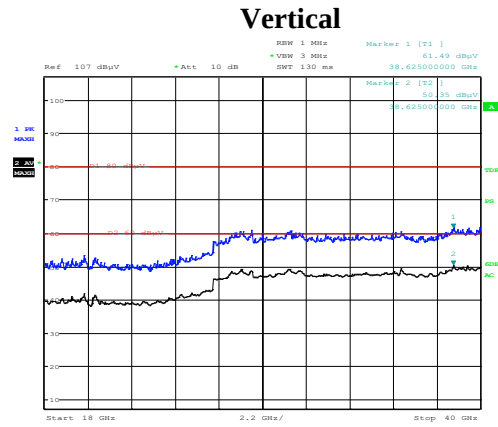
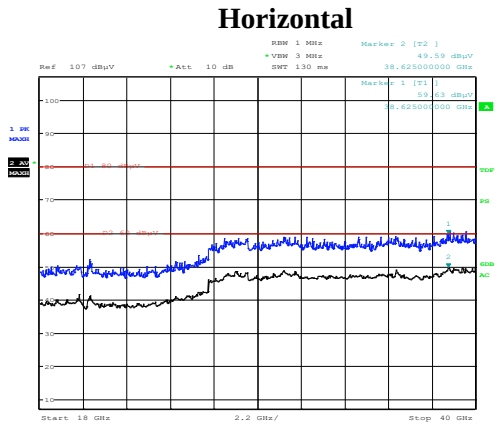
Project No.: RSHA240322002
Test Mode: SRD
Standard: FCC Part 15.205&FCC 15.209&FCC 15.407
Test Engineer: Klein Zhu

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)
5851.850000	55.88	---	123.65	67.78	H	8.7
5868.300000	55.24	---	107.08	51.84	H	8.7
5901.850000	54.44	---	85.33	30.89	H	8.7
5943.700000	54.31	---	68.20	13.89	V	8.6

18GHz-40GHz: 5735-5805 MHz Antenna 1+Antenna 2 SRD (BW: 10 MHz) High channel



Project No.: RSHA240322002
Date: 13.JUL.2024 00:50:22

Tester: Hugh Wu

Project No.: RSHA240322002
Date: 13.JUL.2024 00:59:30

Tester: Hugh Wu

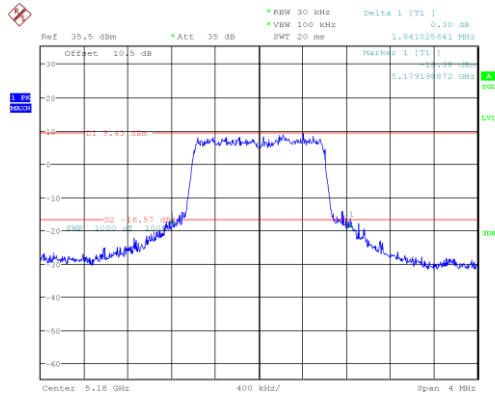
Note: The test distance is 1.5m. The limit is 80dBμV/m (Peak) and 60dBμV/m (Average).

EMISSION BANDWIDTH*EUT operation mode: Transmitting*

Antenna	Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
Antenna 1	SRD (BW: 1.25 MHz)	Low	5180	1.641
		Middle	5210	1.776
		High	5240	1.846
	SRD (BW: 10 MHz)	Low	5180	11.587
		Middle	5210	10.914
		High	5240	11.058
Antenna 2	SRD (BW: 1.25 MHz)	Low	5180	1.883
		Middle	5210	2.129
		High	5240	1.854
	SRD (BW: 10 MHz)	Low	5180	16.923
		Middle	5210	17.051
		High	5240	15.833

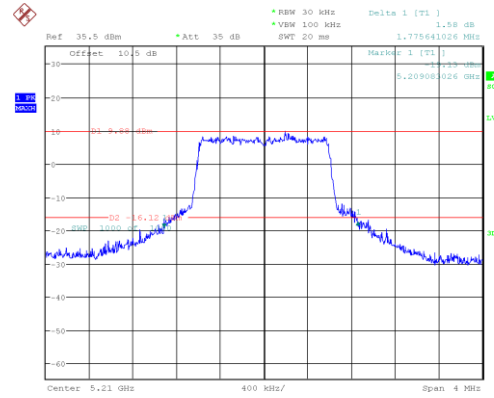
Antenna 1 BW: 1.25 MHz

Low Channel



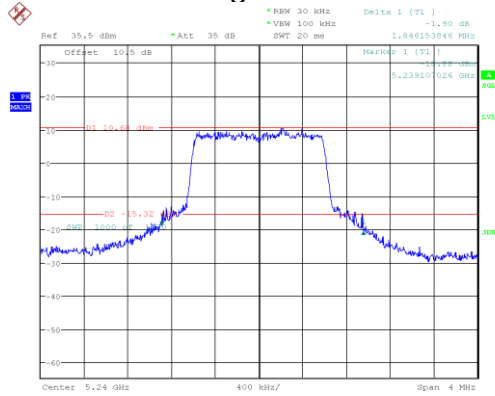
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 10:55:40

Middle Channel



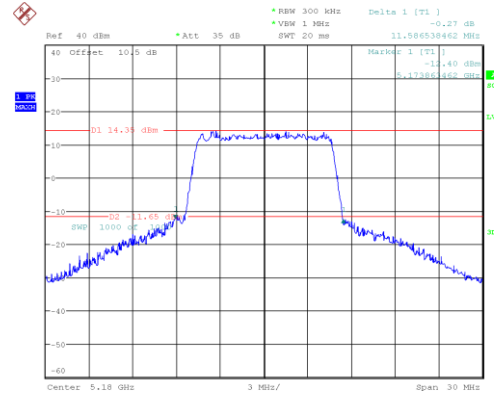
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 11:03:32

High Channel



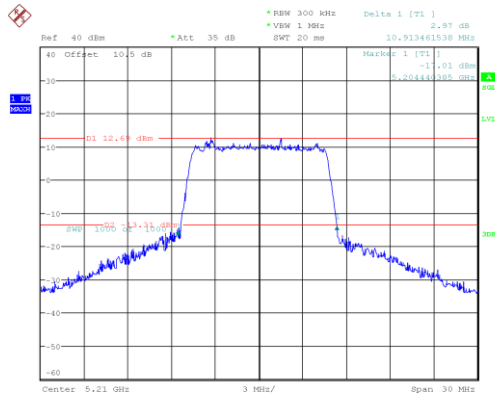
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 11:09:45

Low Channel



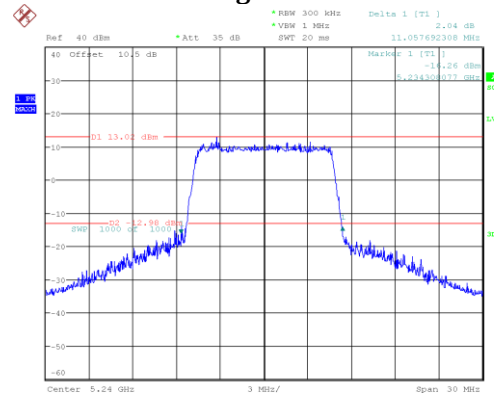
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 13:15:37

Middle Channel



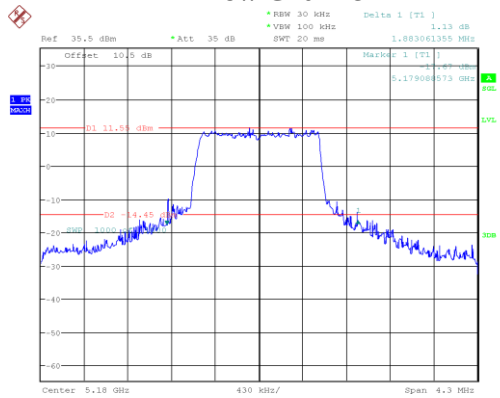
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 13:27:26

High Channel



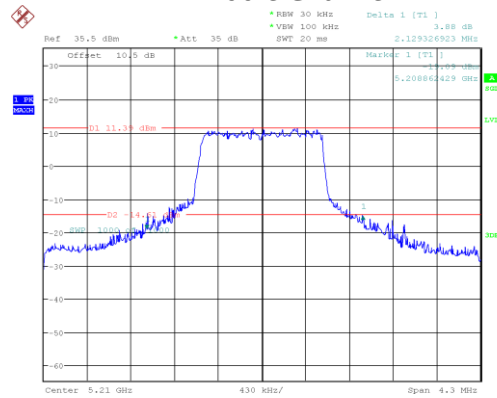
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 13:30:16

Antenna 2 BW: 1.25 MHz Low Channel



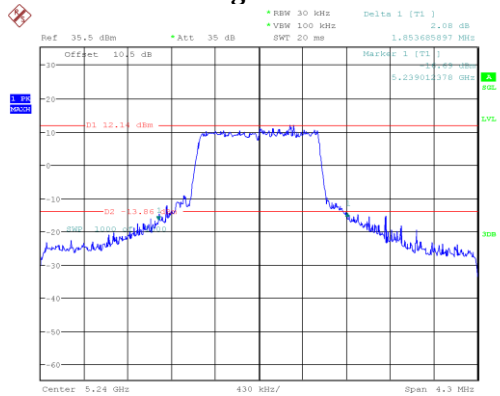
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 11:44:00

Middle Channel



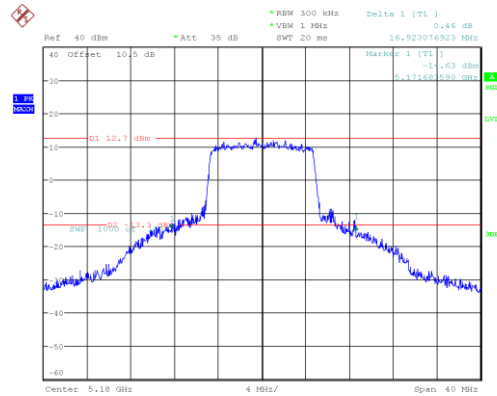
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 11:47:23

High Channel



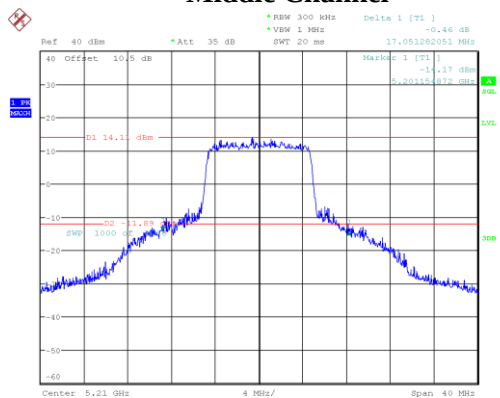
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 11:49:28

Antenna 2 BW: 10 MHz Low Channel



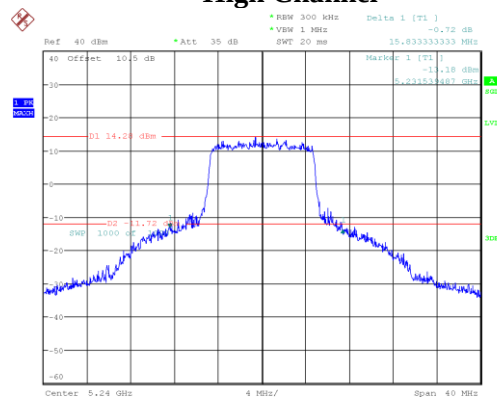
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 13:57:30

Middle Channel



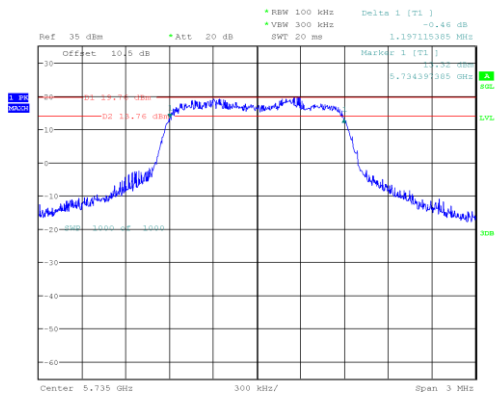
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 13:54:10

High Channel

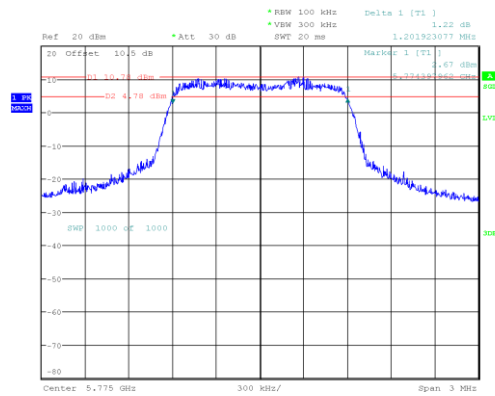


ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 25.NOV.2024 14:00:39

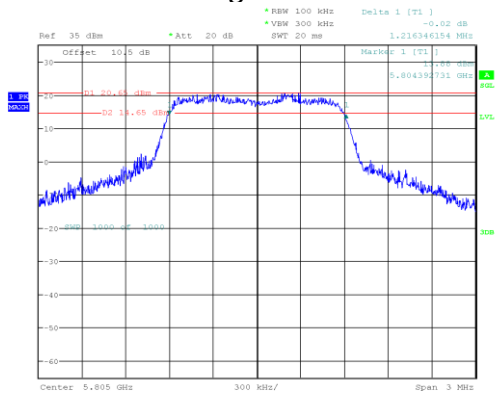
Antenna	Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Antenna 1	SRD (BW: 1.25 MHz)	Low	5735	1.197	≥ 0.5
		Middle	5775	1.202	
		High	5805	1.216	
	SRD (BW: 10 MHz)	Low	5735	9.519	≥ 0.5
		Middle	5775	9.519	
		High	5805	9.519	
Antenna 2	SRD (BW: 1.25 MHz)	Low	5735	1.212	≥ 0.5
		Middle	5775	1.216	
		High	5805	1.197	
	SRD (BW: 10 MHz)	Low	5735	9.519	≥ 0.5
		Middle	5775	9.519	
		High	5805	9.519	

**Antenna 1 BW: 1.25 MHz
Low Channel**

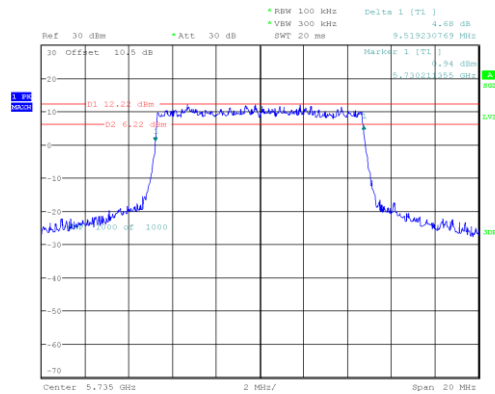
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 14:11:18

Middle Channel

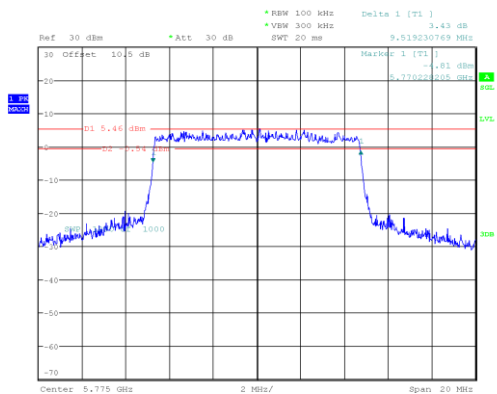
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 15:55:29

High Channel

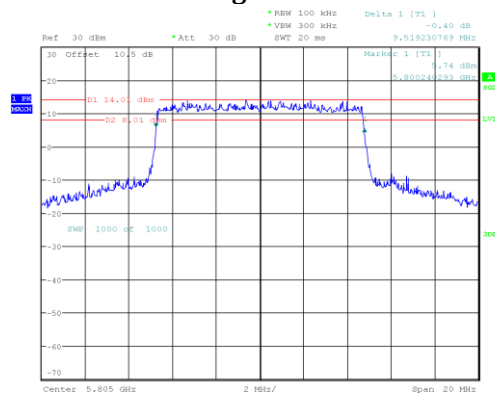
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 14:08:12

**Antenna 1 BW: 10 MHz
Low Channel**

ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 18:53:14

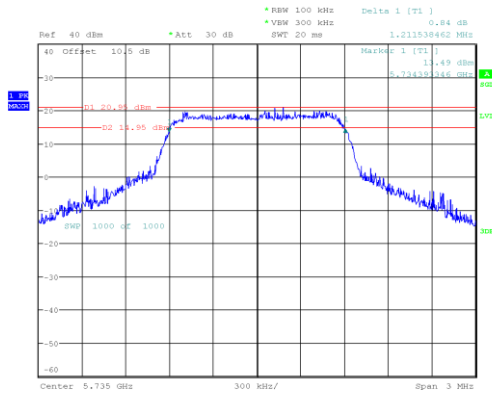
Middle Channel

ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 17:08:17

High Channel

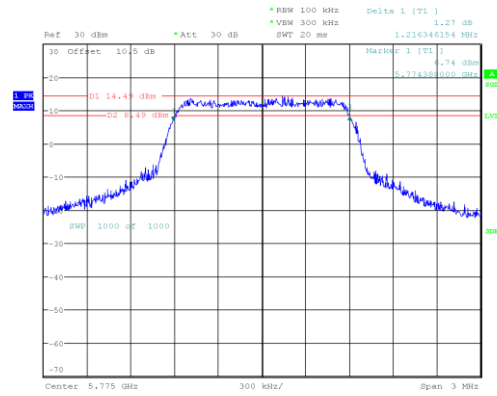
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 18:55:48

Antenna 2 BW: 1.25 MHz Low Channel



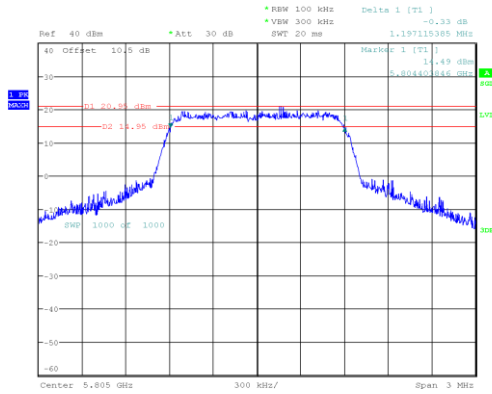
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 14:25:48

Middle Channel



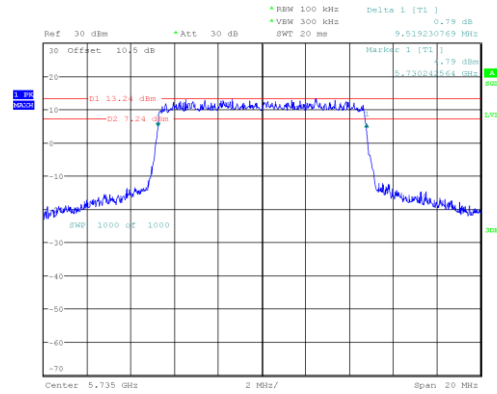
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:33:22

High Channel



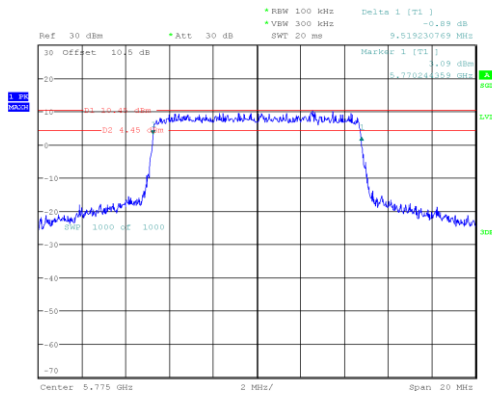
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 14:29:26

Antenna 2 BW: 10 MHz Low Channel



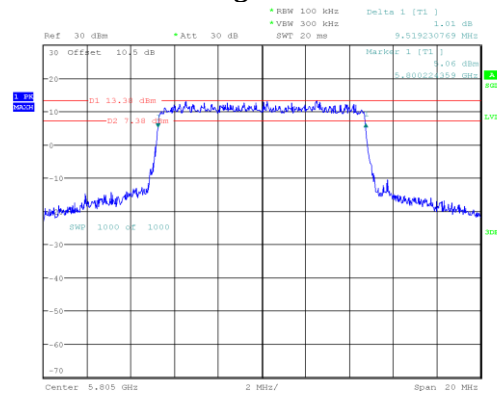
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 11:01:04

Middle Channel



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 17:11:53

High Channel

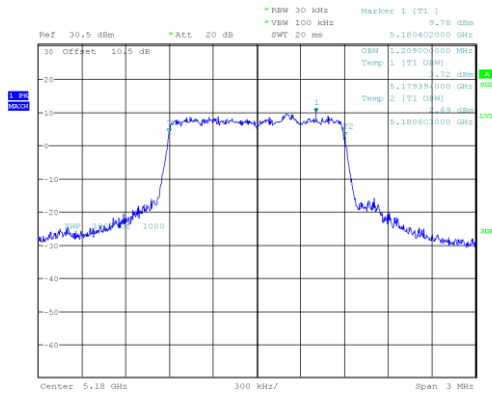


ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 11:28:04

Antenna	Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)
Antenna 1	SRD (1.25M)	Low	5180	1.209
		Middle	5210	1.215
		High	5240	1.212
	SRD (10M)	Low	5180	9.457
		Middle	5210	9.420
		High	5240	9.400
Antenna 2	SRD (1.25M)	Low	5180	1.209
		Middle	5210	1.212
		High	5240	1.215
	SRD (10M)	Low	5180	9.460
		Middle	5210	9.460
		High	5240	9.460

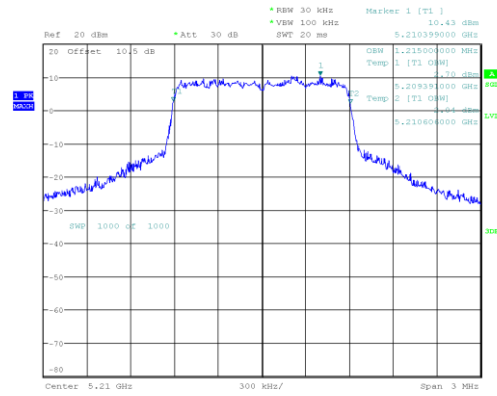
Note: the 99% Occupied Bandwidth have not fall into the band 5250-5350MHz.

Antenna 1 BW: 1.25 MHz Low Channel



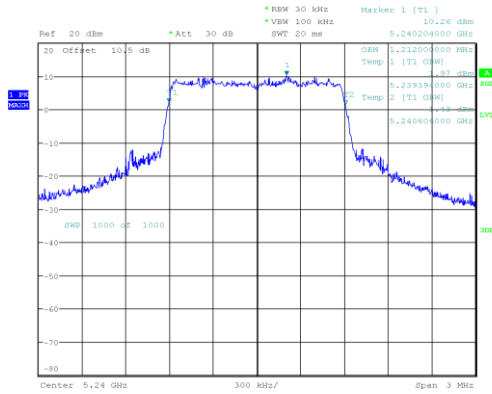
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 13:33:32

Middle Channel



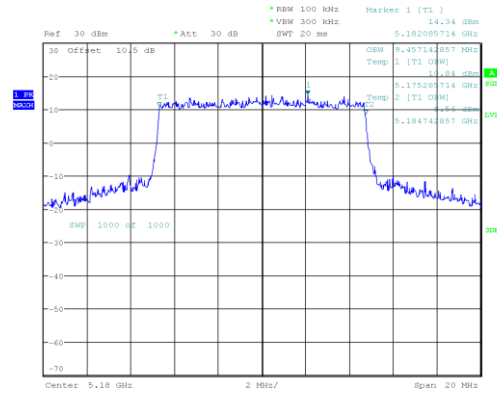
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 15:35:50

High Channel



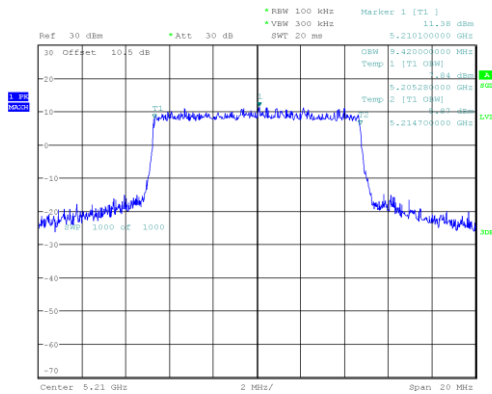
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 15:37:51

Antenna 1 BW: 10 MHz Low Channel



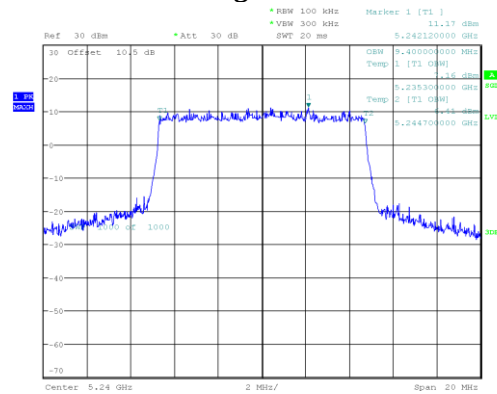
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 17:53:11

Middle Channel



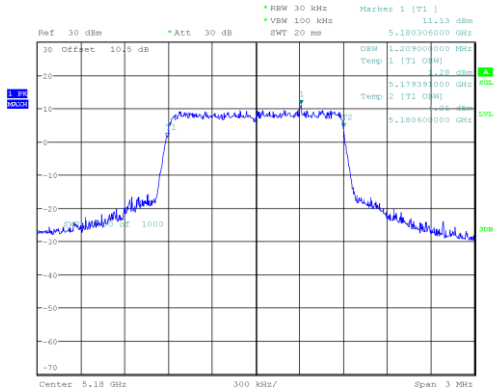
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:53:31

High Channel



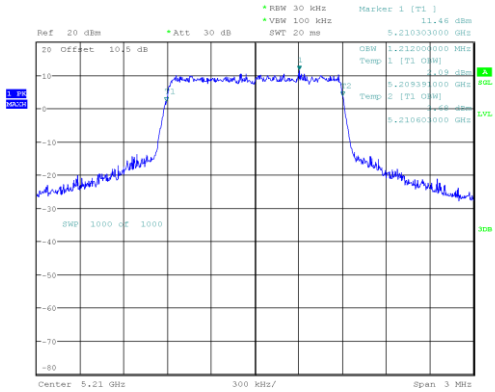
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:50:50

Antenna 2 BW: 1.25 MHz
Low Channel



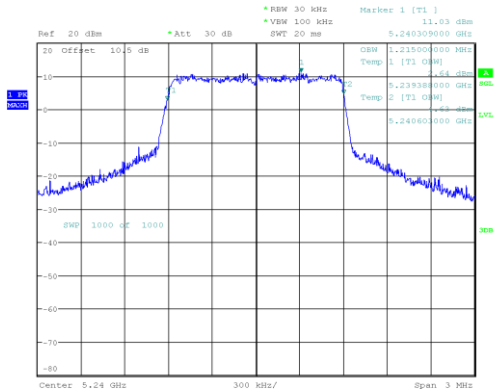
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 15:06:50

Middle Channel



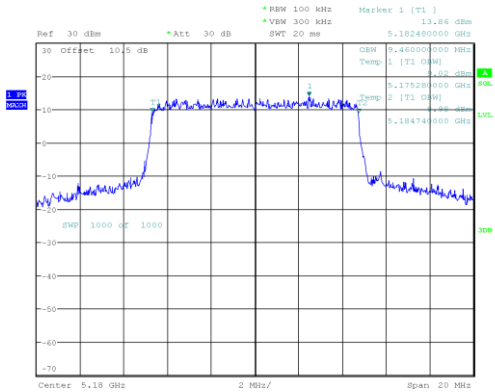
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:14:03

High Channel



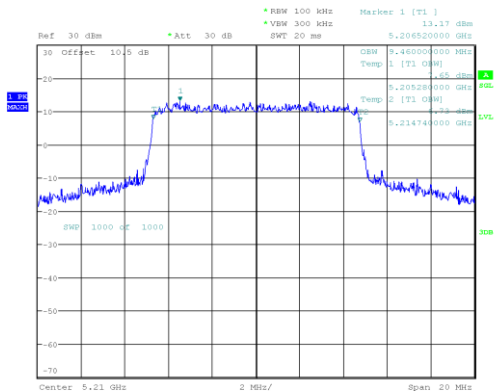
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:11:42

Antenna 2 BW: 10 MHz
Low Channel



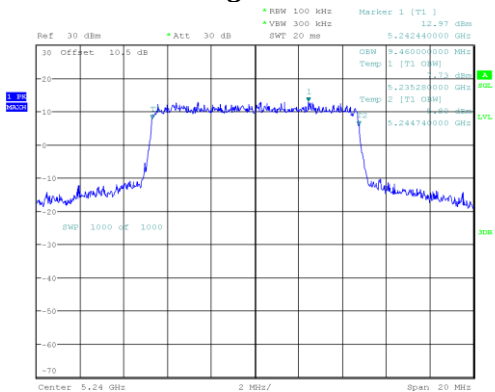
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 11:57:45

Middle Channel



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 17:27:07

High Channel

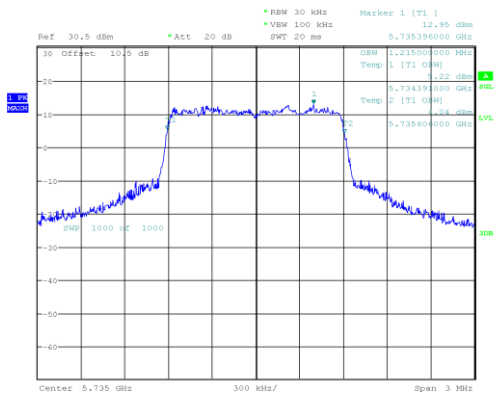


ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 17:25:01

Antenna	Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)
Antenna 1	SRD (1.25M)	Low	5735	1.215
		Middle	5775	1.209
		High	5805	1.224
	SRD (10M)	Low	5735	9.429
		Middle	5775	9.400
		High	5805	9.457
Antenna 2	SRD (1.25M)	Low	5735	1.233
		Middle	5775	1.215
		High	5805	1.221
	SRD (10M)	Low	5735	9.440
		Middle	5775	9.440
		High	5805	9.440

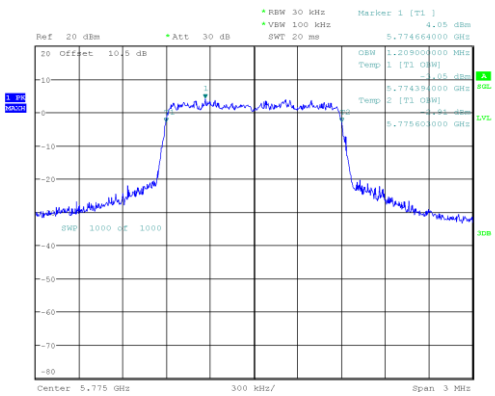
Note: the 99% Occupied Bandwidth have not fall into the band 5470-5725MHz.

Antenna 1 BW: 1.25 MHz
Low Channel



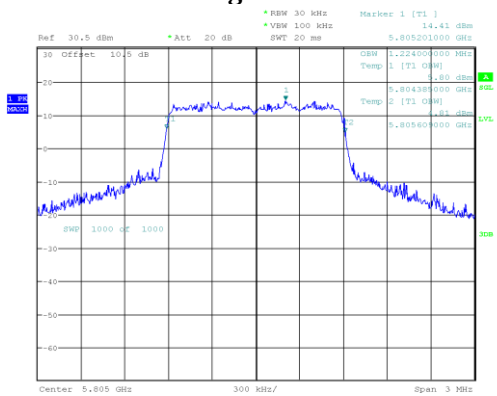
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 13:26:02

Middle Channel



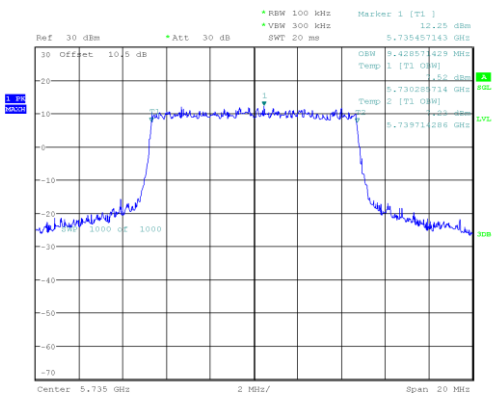
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 15:33:53

High Channel



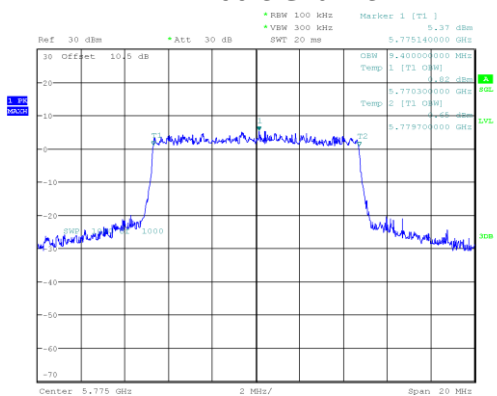
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 13:31:30

Antenna 1 BW: 10 MHz
Low Channel



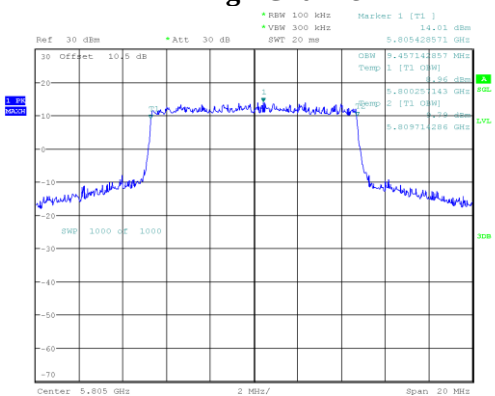
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 17:51:27

Middle Channel

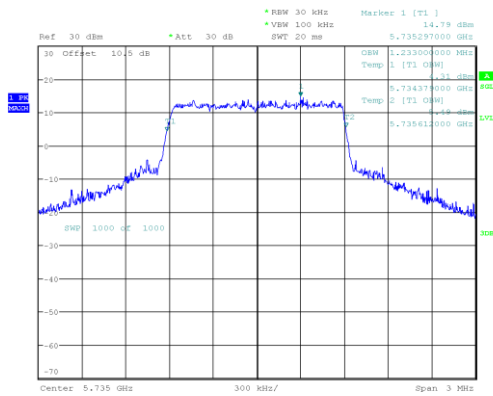


ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:56:04

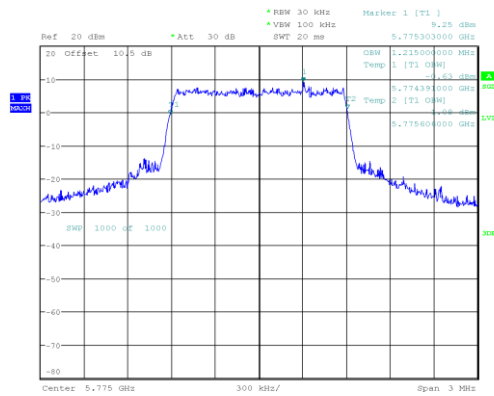
High Channel



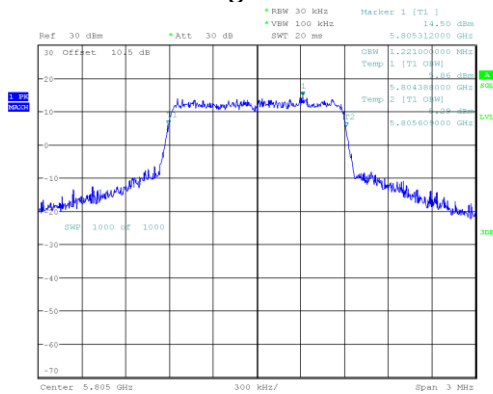
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 17.JUL.2024 17:49:32

**Antenna 2 BW: 1.25 MHz
Low Channel**

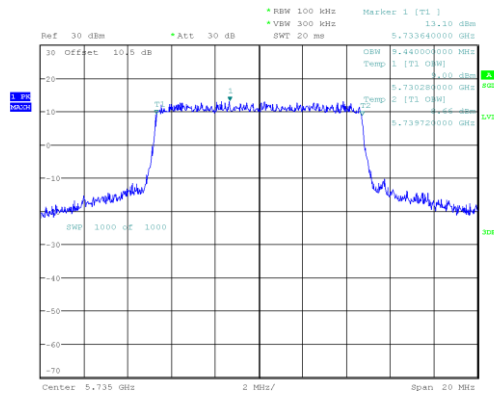
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 15:04:32

Middle Channel

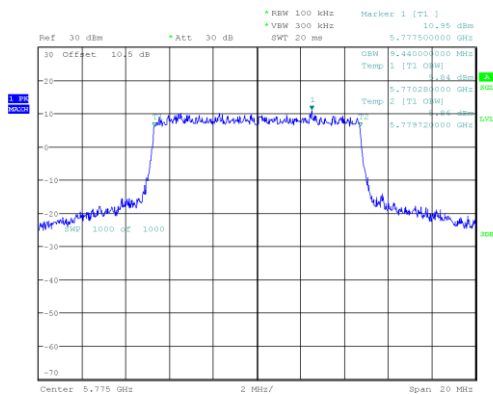
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 16:09:18

High Channel

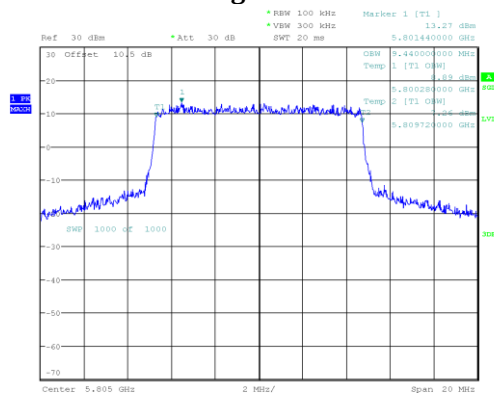
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 15:01:58

**Antenna 2 BW: 10 MHz
Low Channel**

ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 11:55:17

Middle Channel

ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 30.JUL.2024 17:28:57

High Channel

ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 18.JUL.2024 11:53:09

CONDUCTED TRANSMITTER OUTPUT POWER*Test Mode: Transmitting*

Antenna	Mode	Channel	Frequency (MHz)	Max Conducted Average Output Power (dBm)	Limit (dBm)
Antenna 1	SRD (BW: 1.25 MHz)	Low	5180	13.89	30
		Middle	5210	14.06	30
		High	5240	14.01	30
	SRD (BW: 10 MHz)	Low	5180	14.58	30
		Middle	5210	14.38	30
		High	5240	14.48	30
Antenna 2	SRD (BW: 1.25 MHz)	Low	5180	14.53	30
		Middle	5210	15.14	30
		High	5240	15.08	30
	SRD (BW: 10 MHz)	Low	5180	14.06	30
		Middle	5210	14.03	30
		High	5240	13.89	30
Antenna 1+Antenna 2	SRD (BW: 1.25 MHz)	Low	5180	17.23	30
		Middle	5210	17.64	30
		High	5240	17.59	30
	SRD (BW: 10 MHz)	Low	5180	17.34	30
		Middle	5210	17.22	30
		High	5240	17.21	30

Note: 1. The EUT is an outdoor access point and the maximum antenna gain is 3.27dBi, the EIRP less than 21dBm

2. $\text{Antenna 1+Antenna 2} = 10 \cdot \log(10^{\text{Antenna 1/10}} + 10^{\text{Antenna 2/10}})$

3. All transmit signals are *completely uncorrelated* with each other, Directional gain = G_{ANT}

Antenna	Mode	Channel	Frequency (MHz)	Max Conducted Average Output Power (dBm)	Limit (dBm)
Antenna 1	SRD (BW: 1.25 MHz)	Low	5735	18.41	30
		Middle	5775	17.05	30
		High	5805	20.37	30
	SRD (BW: 10 MHz)	Low	5735	21.27	30
		Middle	5775	22.16	30
		High	5805	23.83	30
Antenna 2	SRD (BW: 1.25 MHz)	Low	5735	19.23	30
		Middle	5775	16.95	30
		High	5805	20.04	30
	SRD (BW: 10 MHz)	Low	5735	22.42	30
		Middle	5775	22.95	30
		High	5805	22.52	30
Antenna 1+Antenna 2	SRD (BW: 1.25 MHz)	Low	5735	21.85	30
		Middle	5775	20.01	30
		High	5805	23.22	30
	SRD (BW: 10 MHz)	Low	5735	24.89	30
		Middle	5775	25.58	30
		High	5805	26.23	30

Note: 1. $\text{Antenna 1} + \text{Antenna 2} = 10 \cdot \log(10^{\text{Antenna 1}/10} + 10^{\text{Antenna 2}/10})$

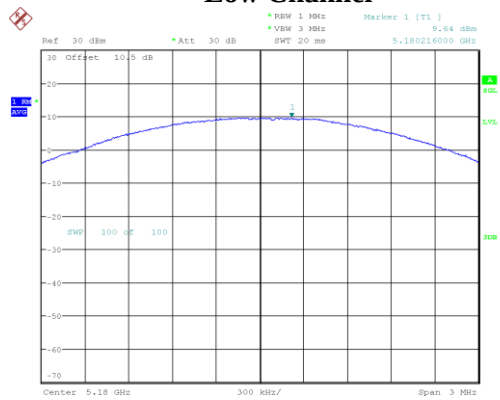
2. All transmit signals are *completely uncorrelated* with each other, Directional gain = G_{ANT}

POWER SPECTRAL DENSITY*Test Mode: Transmitting*

Antenna	Mode	Channel	Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor (dB)	Result (dBm/MHz)	Limit (dBm/MHz)
Antenna 1	SRD (BW: 1.25 MHz)	Low	5180	9.64	2.04	11.68	17
		Middle	5210	10.35	2.13	12.48	17
		High	5240	9.66	2.07	11.73	17
	SRD (BW: 10 MHz)	Low	5180	6.38	2.09	8.47	17
		Middle	5210	6.50	2.12	8.62	17
		High	5240	7.06	2.09	9.15	17
Antenna 2	SRD (BW: 1.25 MHz)	Low	5180	9.71	2.09	11.80	17
		Middle	5210	10.28	2.10	12.38	17
		High	5240	10.03	2.08	12.11	17
	SRD (BW: 10 MHz)	Low	5180	5.57	2.10	7.67	17
		Middle	5210	6.03	2.07	8.10	17
		High	5240	5.60	2.10	7.70	17
Antenna 1 + Antenna 2	SRD (BW: 1.25 MHz)	Low	5180	/	/	14.75	17
		Middle	5210	/	/	15.44	17
		High	5240	/	/	14.93	17
	SRD (BW: 10 MHz)	Low	5180	/	/	11.10	17
		Middle	5210	/	/	11.38	17
		High	5240	/	/	11.50	17

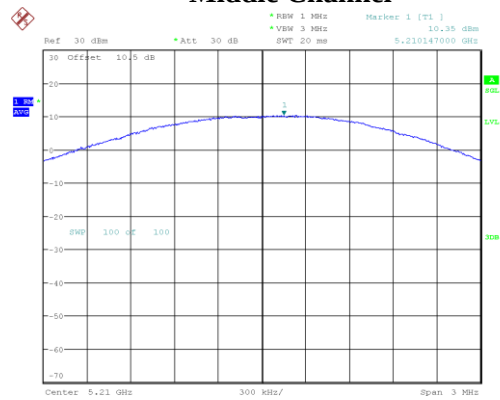
Note: 1. Antenna 1+Antenna 2 = $10 \cdot \log(10^{\text{Antenna 1/10}} + 10^{\text{Antenna 2/10}})$ 2. All transmit signals are *completely uncorrelated* with each other, Directional gain = G_{ANT}

Antenna 1 BW: 1.25 MHz
Low Channel



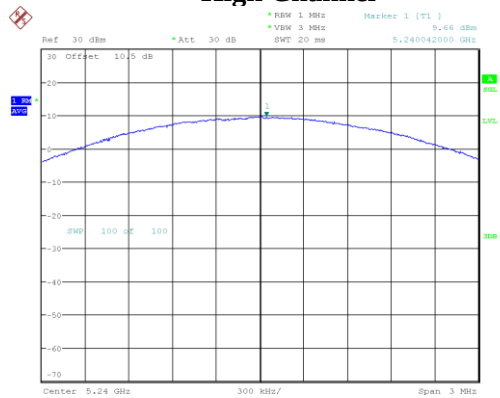
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:57:43

Middle Channel



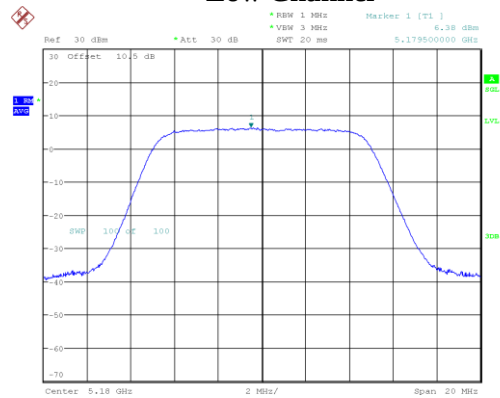
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:58:32

High Channel



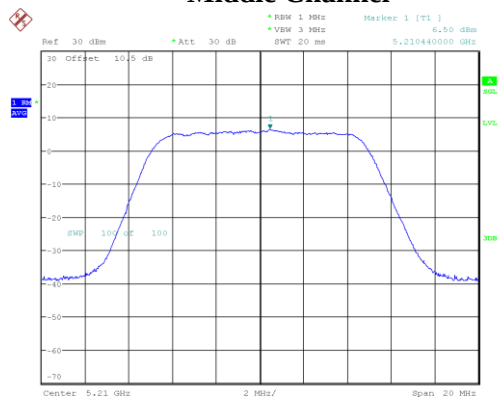
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:59:15

Antenna 1 BW: 10 MHz
Low Channel



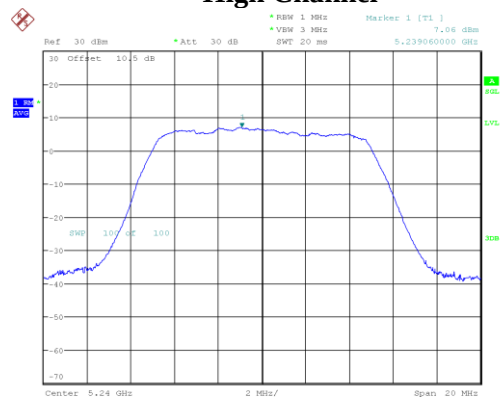
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 11.DEC.2024 10:04:59

Middle Channel



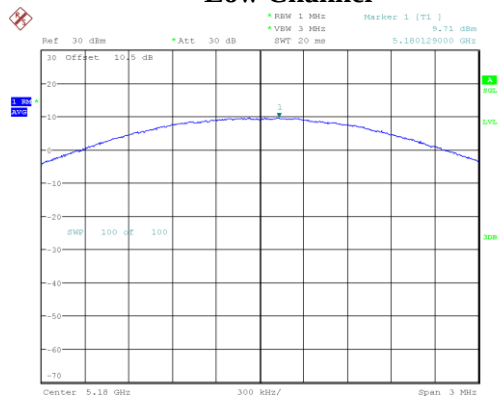
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Date: 11.DEC.2024 10:04:13

High Channel



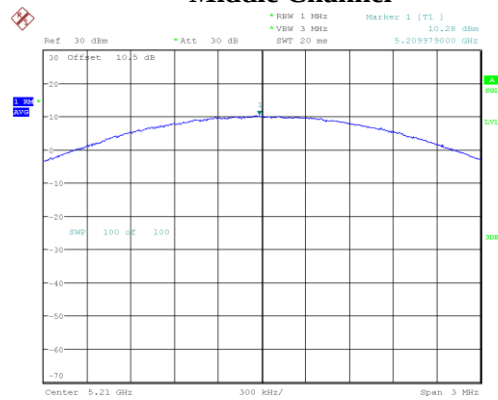
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 11.DEC.2024 10:03:28

Antenna 2 BW: 1.25 MHz
Low Channel



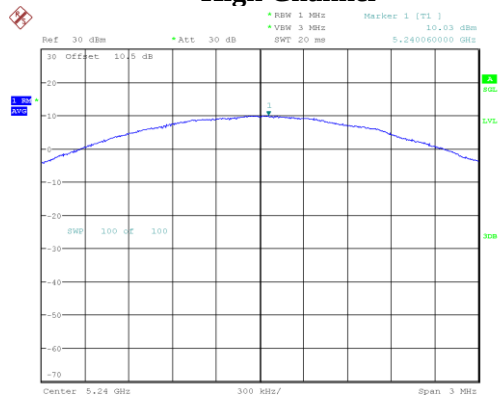
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 16:02:16

Middle Channel



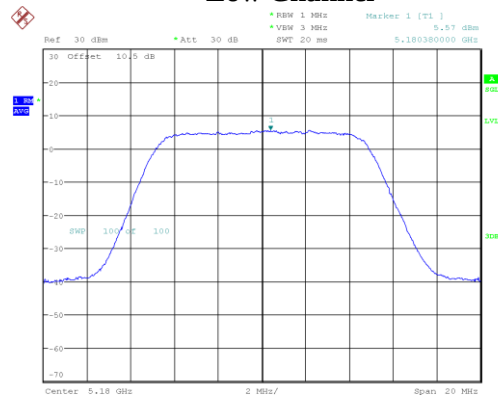
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 16:01:31

High Channel



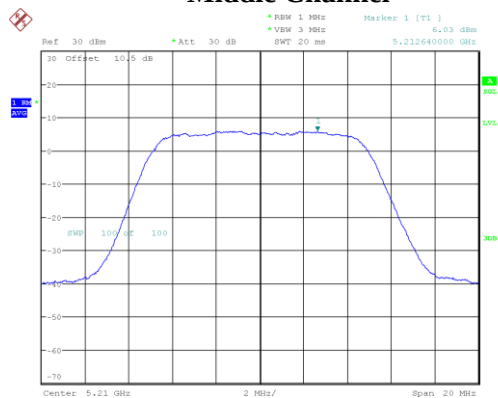
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 16:00:36

Antenna 2 BW: 10 MHz
Low Channel



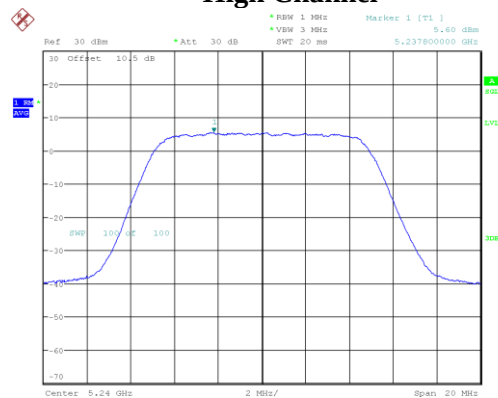
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 11.DEC.2024 10:10:02

Middle Channel



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 11.DEC.2024 10:10:58

High Channel



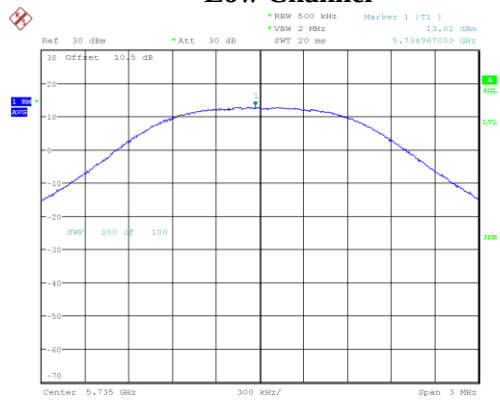
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 11.DEC.2024 10:09:21

Antenna	Mode	Channel	Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor (dB)	Result (dBm/500kHz)	Limit (dBm/500kHz)
Antenna 1	SRD (BW: 1.25 MHz)	Low	5735	13.01	2.10	15.11	30
		Middle	5775	11.38	2.09	13.47	30
		High	5805	14.76	2.10	16.86	30
	SRD (BW: 10 MHz)	Low	5735	4.60	2.07	6.67	30
		Middle	5775	6.80	2.08	8.88	30
		High	5805	7.29	2.12	9.41	30
Antenna 2	SRD (BW: 1.25 MHz)	Low	5735	13.99	2.06	16.05	30
		Middle	5775	11.31	2.08	13.39	30
		High	5805	13.93	2.09	16.02	30
	SRD (BW: 10 MHz)	Low	5735	7.74	2.05	9.79	30
		Middle	5775	8.07	2.09	10.16	30
		High	5805	7.78	2.06	9.84	30
Antenna 1 + Antenna 2	SRD (BW: 1.25 MHz)	Low	5735	/	/	18.62	30
		Middle	5775	/	/	16.44	30
		High	5805	/	/	19.47	30
	SRD (BW: 10 MHz)	Low	5735	/	/	11.51	30
		Middle	5775	/	/	12.58	30
		High	5805	/	/	12.64	30

Note: 1. Antenna 1+Antenna 2 = $10 \cdot \log(10^{\text{Antenna 1}/10} + 10^{\text{Antenna 2}/10})$

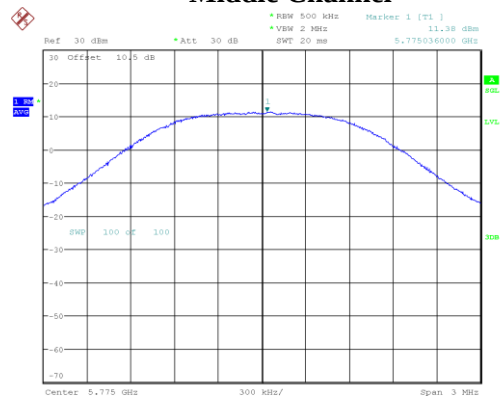
2. All transmit signals are *completely uncorrelated* with each other, Directional gain = G_{ANT}

Antenna 1 BW: 1.25 MHz
Low Channel



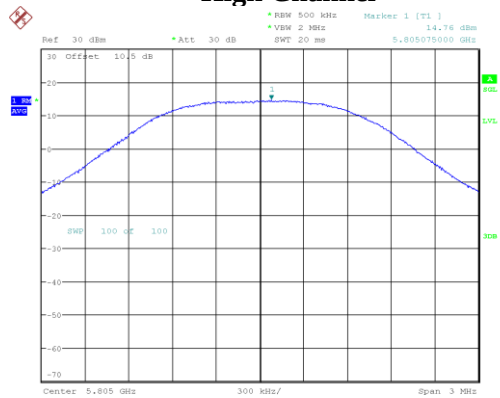
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:40:29

Middle Channel



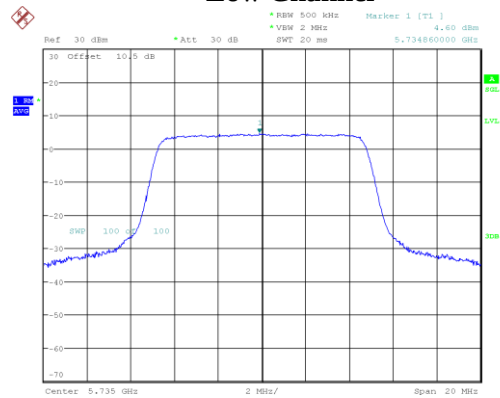
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:39:07

High Channel



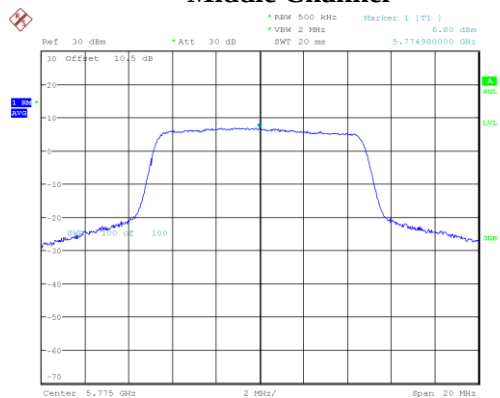
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:41:48

Antenna 1 BW: 10 MHz
Low Channel



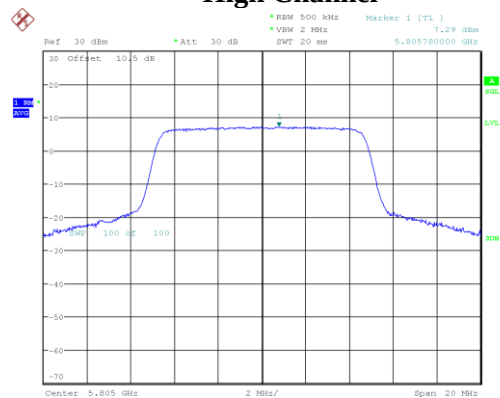
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 11:34:51

Middle Channel



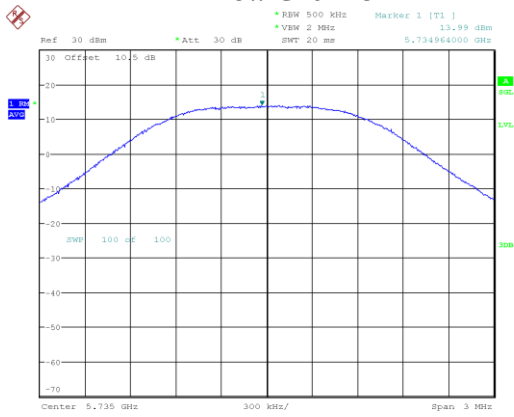
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Date: 7.DEC.2024 11:35:32

High Channel



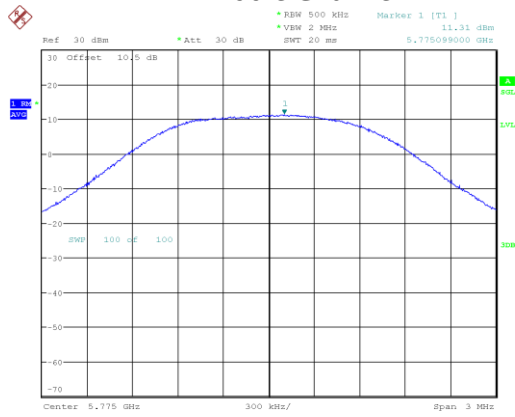
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Date: 7.DEC.2024 11:36:15

Antenna 2 BW: 1.25 MHz
Low Channel



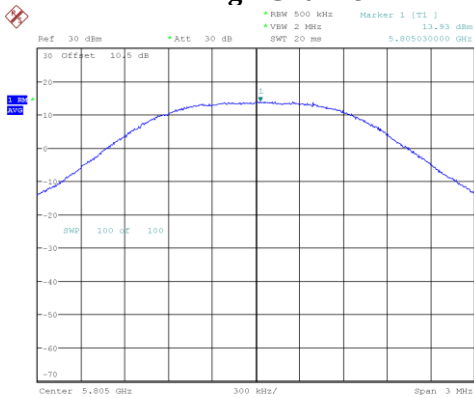
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:43:42

Middle Channel



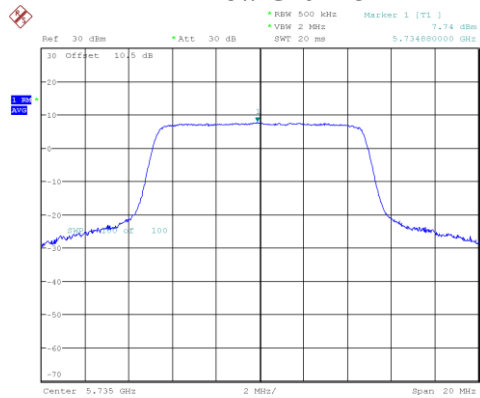
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Date: 7.DEC.2024 15:44:25

High Channel



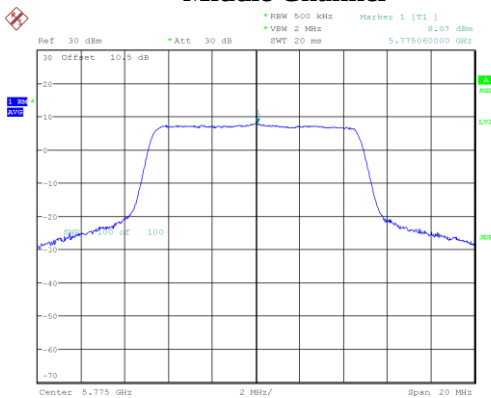
ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 15:42:18

Antenna 2 BW: 10 MHz
Low Channel



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 11:39:12

Middle Channel



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 11:39:52

High Channel



ProjectNo.:RSHA240322002 Tester:Neil Zhou
Date: 7.DEC.2024 11:38:29

EUT PHOTOGRAPHS

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

TEST SETUP PHOTOGRAPHS

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

Declarations

1. The laboratory is not responsible for the authenticity of any information provided by the applicant. Information from the applicant that may affect test results is marked with “★”.
2. The test data was only valid for the test sample(s).
3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor $k=2$ with the 95.45% confidence interval.

******* END OF REPORT *******