



## FCC PART 15.247

### 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**

<b>Report Type:</b> Original Report	<b>Product Name:</b> Avionics System
<b>Report Number:</b> RSHA240322002-00B	
<b>Report Date:</b> 2024-12-30	
<b>Reviewed By:</b> Jenny Yang	
<b>Approved By:</b> Oscar Ye	
<b>Test Laboratory:</b> Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu province, China Tel: +86-512-86175000 Fax: +86-512-88934268 <a href="http://www.baclcorp.com.cn">www.baclcorp.com.cn</a>	

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	RSHA240322002-00B	R1V1	2024-12-30	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:	2.4G SRD
Operating Band/Frequency:	2411-2466 MHz
Maximum Peak Power:	24.43 dBm
Channel Number:	6
Channel Separation:	11 MHz
Modulation Type:	BPSK
Antenna Type:	Rod Antenna
★Maximum Antenna Gain:	Antenna 1/Antenna 2: 3.34 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 report is prepared for *Heilongjiang Huida Technology Co., Ltd* in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commissions' rules.

The tests were performed in order to determine Compliant with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.209 and 15.247 rules.

### Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliant Testing of Unlicensed Wireless Devices and FCC 558074 D01 15.247 Meas Guidance v05r02.

## Measurement Uncertainty

Item	Uncertainty
AC Power Lines Conducted Emissions	3.19dB
RF conducted test with spectrum	0.9dB
RF Output Power with Power meter	0.5dB
Radiated emission	9 kHz~150 kHz
	150 kHz~30 MHz
	30MHz~1GHz
	1GHz~6GHz
	6GHz~18GHz
	18GHz~40GHz
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

Test channel list as below:

EUT was tested with Channel 1, 4 and 6.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2411	4	2444
2	2422	5	2455
3	2433	6	2466

### Equipment Modifications

No modification was made to the EUT tested.

### EUT Exercise Software

RF Test Software: Xshell 4

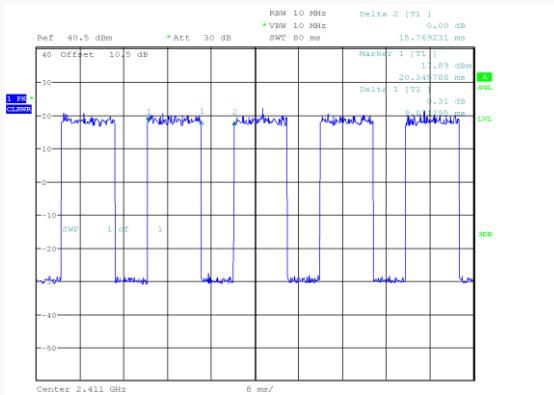
Antenna	Mode	Channel	Frequency (MHz)	★Power Level
Antenna 1	SRD (BW: 1.25 MHz)	Low	2411	17
		Middle	2444	16
		High	2466	15
	SRD (BW: 10 MHz)	Low	2411	17
		Middle	2444	16
		High	2466	15
Antenna 2	SRD (BW: 1.25 MHz)	Low	2411	14
		Middle	2444	14
		High	2466	14
	SRD (BW: 10 MHz)	Low	2411	14
		Middle	2444	14
		High	2466	14

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**

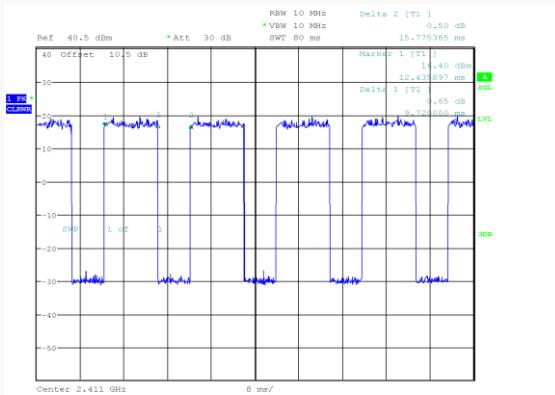
Low Channel: 2411 MHz



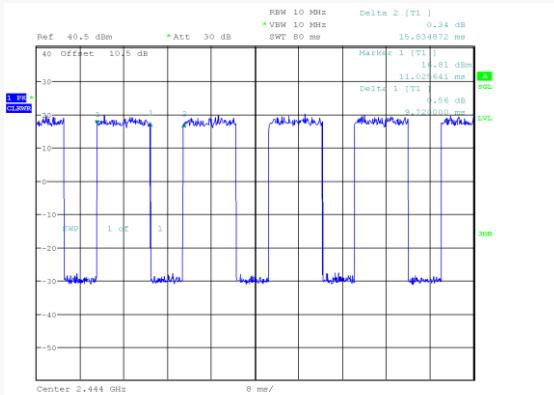
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 17.JUL.2024 17:27:21

**Antenna 1 BW: 10 MHz**

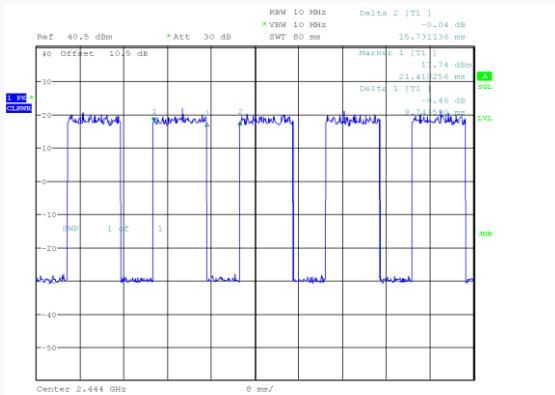
Low Channel: 2411 MHz



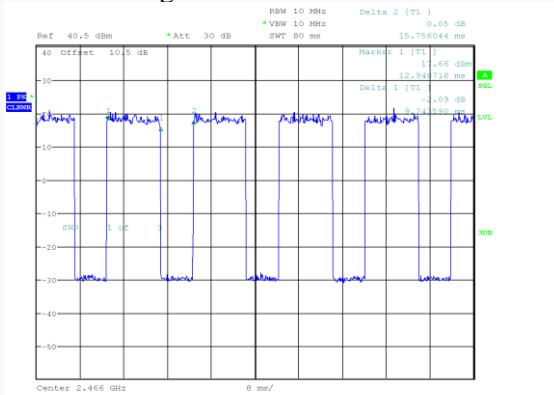
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 09:47:14

**Middle Channel: 2444 MHz**

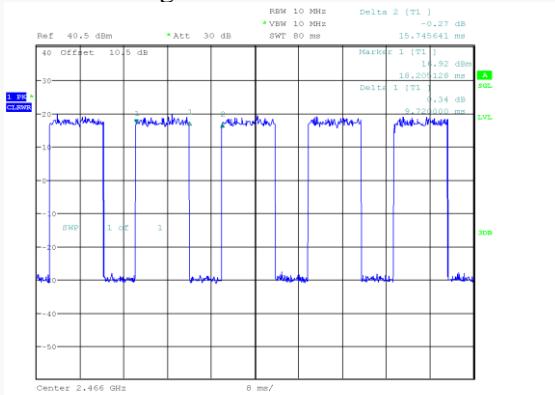
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 09:45:41

**Middle Channel: 2444 MHz**

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 17.JUL.2024 17:25:59

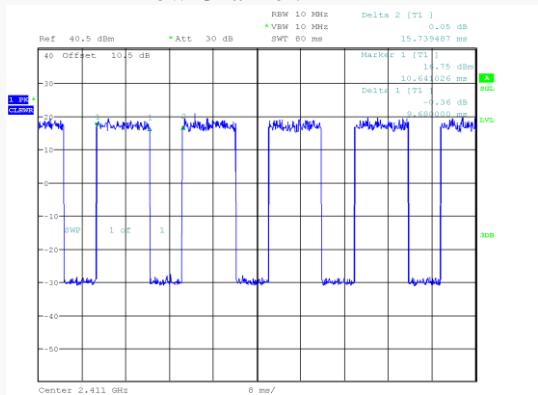
**High Channel: 2466 MHz**

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 17.JUL.2024 17:20:27

**High Channel: 2466 MHz**

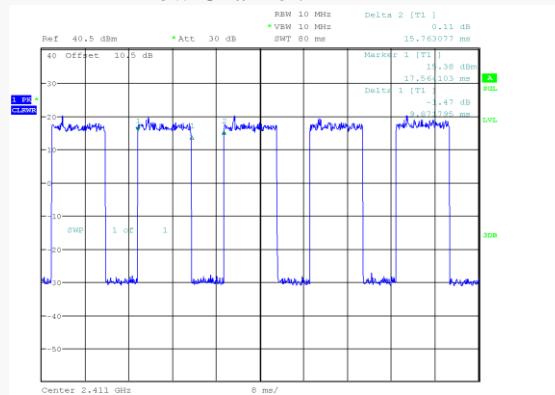
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 09:44:27

### Antenna 2 BW: 1.25 MHz Low Channel: 2411 MHz



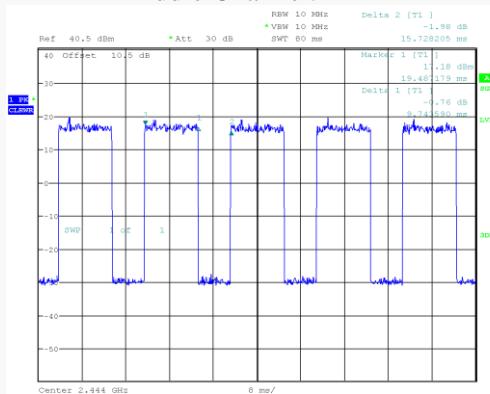
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 15:15:57

### Antenna 2 BW: 10 MHz Low Channel: 2411 MHz



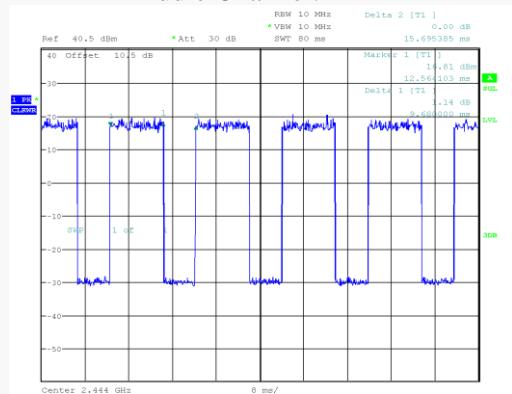
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Date: 18.JUL.2024 13:35:49

### Middle Channel: 2444 MHz



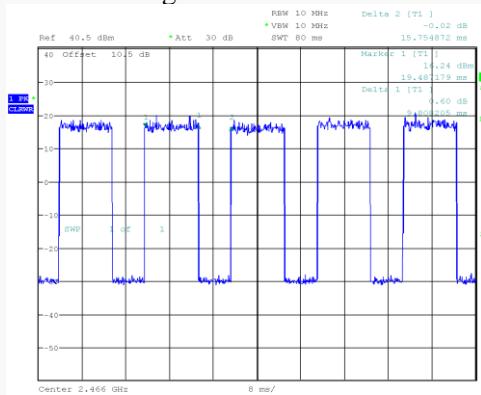
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 13:34:48

### Middle Channel: 2444 MHz



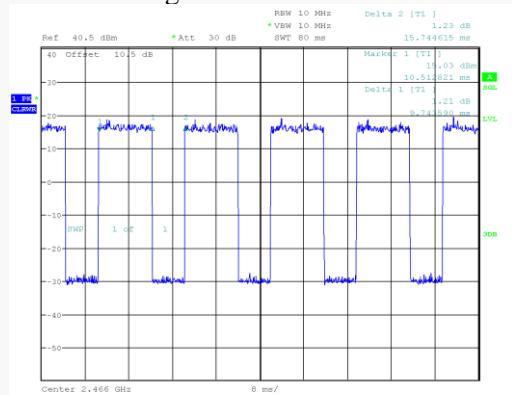
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 15:17:00

### High Channel: 2466 MHz



ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 15:18:11

### High Channel: 2466 MHz



ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 18.JUL.2024 13:33:52

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

<b>Antenna</b>	<b>Mode</b>	<b>Channel</b>	<b>Duty Cycle (%)</b>	<b>Ton (ms)</b>	<b>Ton+off (ms)</b>	<b>10log(1/x) (dB)</b>
Antenna 1	SRD (BW: 1.25 MHz)	Low	62.59	9.87	15.77	2.03
		Middle	61.92	9.74	15.73	2.08
		High	61.80	9.74	15.76	2.09
	SRD (BW: 10 MHz)	Low	61.60	9.72	15.78	2.10
		Middle	61.40	9.72	15.83	2.12
		High	61.71	9.72	15.75	2.09
Antenna 2	SRD (BW: 1.25 MHz)	Low	61.50	9.68	15.74	2.11
		Middle	61.66	9.68	15.70	2.10
		High	62.29	9.81	15.75	2.06
	SRD (BW: 10 MHz)	Low	62.63	9.87	15.76	2.03
		Middle	61.92	9.74	15.73	2.08
		High	61.88	9.74	15.74	2.08

**Note:** “x” means the Duty Cycle.

## Support Equipment List and Details

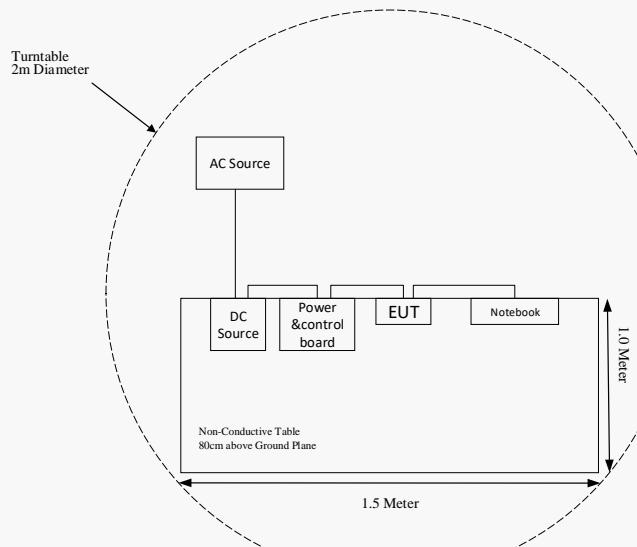
Manufacturer	Description	Model	Serial Number
DELL	Notebook	GX620	D65874152
Heilongjiang Huida Technology Co., Ltd	Power &control board	/	/

## External I/O Cable

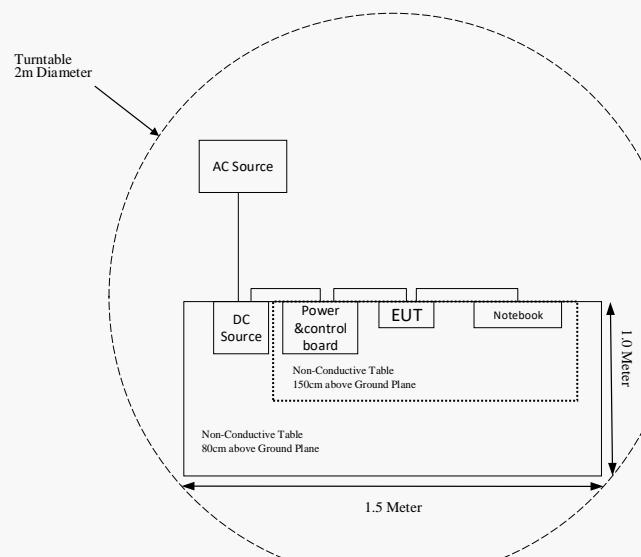
Cable Description	Length(m)	From Port	To
Power Cable	1.0	AC Source	DC Source
Power Cable	2.0	DC Source	Power &control board
Data Cable	0.5	EUT	Notebook

## Block Diagram of Test Setup

For Radiated Emissions (Below 1GHz):



## For Radiated Emissions (Above 1GHz):



## SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (I), §1.1310 & §2.1091	Maximum Permissible Exposure (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a)	AC Line Conducted Emissions	Not Applicable (See Note)
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Emission Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant

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

## TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
<b>Radiated Emission Test (Chamber #1)</b>					
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
<b>Radiated Emission Test (Chamber #2)</b>					
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	BRM50702	G024	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
<b>RF Conducted Test</b>					
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).

## 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/cm <sup>2</sup> )	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	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/4πR<sup>2</sup> = power density (in appropriate units, e.g. mW/cm<sup>2</sup>);

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/cm²)	MPE Limit (mW/cm²)	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 Compliant 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 15.247 (b), 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

The EUT has two external rod antennas for SRD and the antenna gain is 3.34 dBi, the antenna was 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	2400~2500 MHz	3.34 dBi	50Ω
2	Rod antenna	2400~2500 MHz	3.34 dBi	50Ω

**Result:** Compliant.

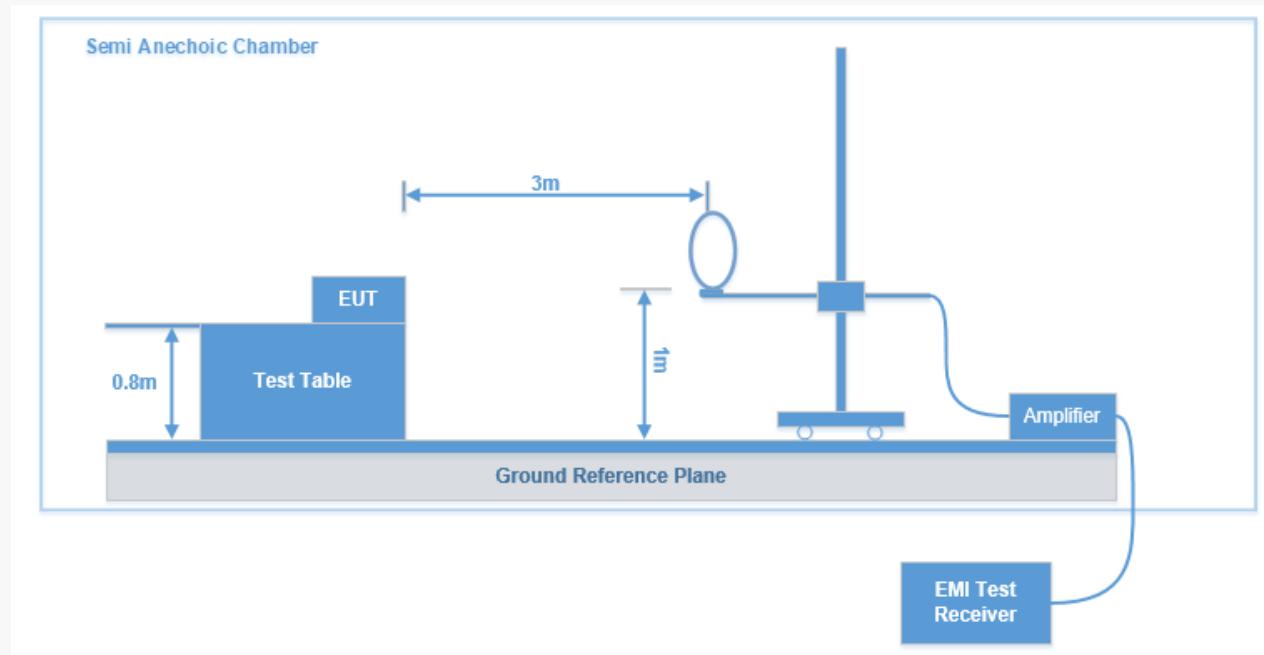
## FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS

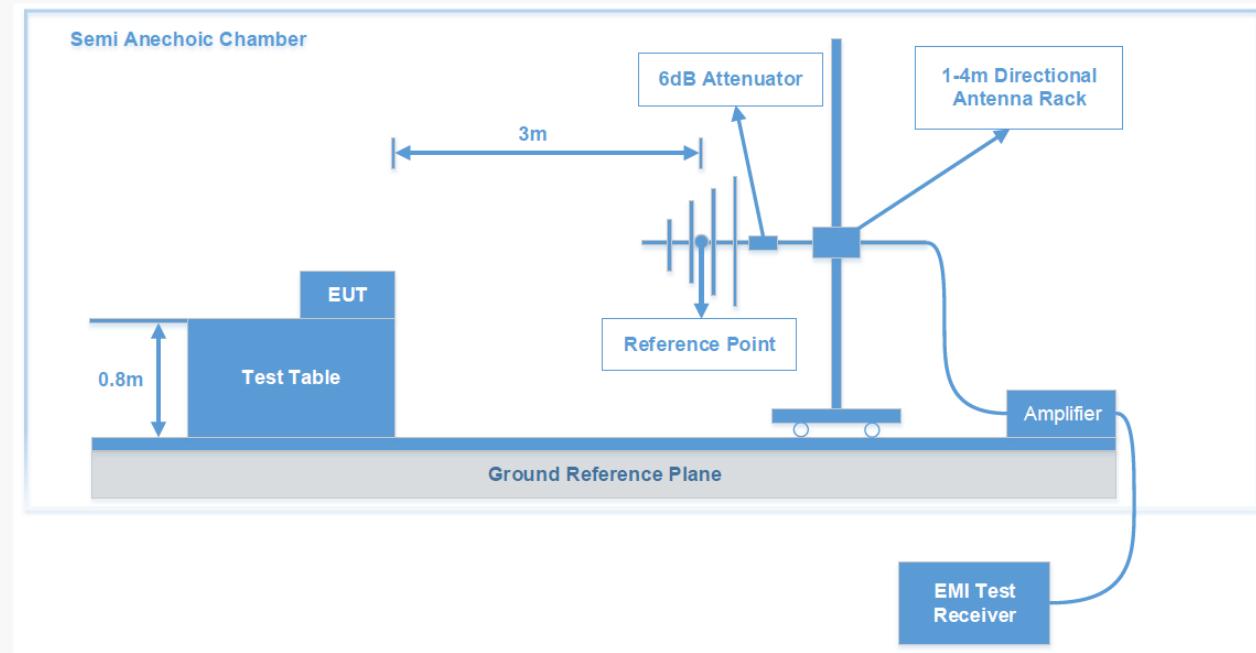
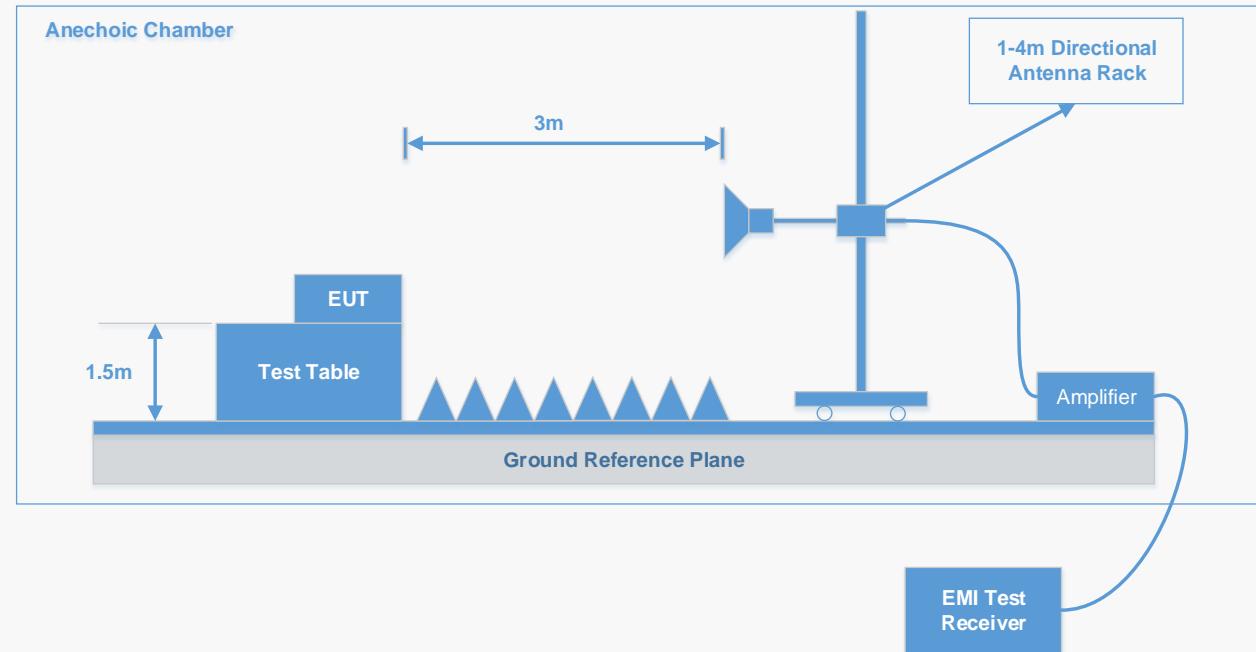
### Applicable Standard

FCC §15.247 (d); §15.209; §15.205;

### Test System Setup

**9 kHz - 30 MHz:**



**30 MHz - 1 GHz:****1 GHz - 25 GHz:**

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 15.247 limits.

## EMI Test Receiver 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

According to ANSI C63.10-2013 clause 6.5, 6.6 and 6.7.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

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

## 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:

Corrected Amplitude (dB $\mu$ V/m) = Meter Reading (dB $\mu$ V) + Antenna Factor (dB/m) + Cable Loss (dB) - 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:

Margin (dB) = Limit (dB $\mu$ V/m) – Corrected Amplitude (dB $\mu$ V/m)

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

## Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247.

## Test Data: See Appendix

## FCC §15.247(A) (2) - 6 DB EMISSION BANDWIDTH

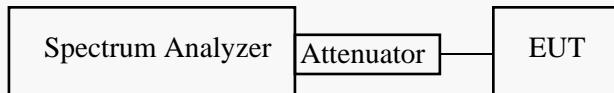
### Applicable Standard

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

### Test Procedure

According to ANSI C63.10-2013 sub-clause 11.8.1

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW)  $\geq 3 * \text{RBW}$ .
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. 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.



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

### Test Data: See Appendix

## FCC §15.247(B) (3) - MAXIMUM CONDUCTED OUTPUT POWER

### Applicable Standard

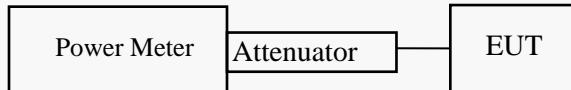
According to FCC §15.247(b) (3), for systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, Compliant with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

### Test Procedure

According to ANSI C63.10-2013 sub-clause 11.9.1.3

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

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 §15.247(D) - 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE

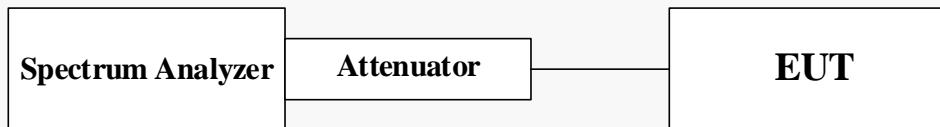
### Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates Compliant with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### Test Procedure

According to ANSI C63.10-2013 sub-clause 6.10.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.



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

### Test Data: See Appendix

## FCC §15.247(E) - POWER SPECTRAL DENSITY

### Applicable Standard

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

### Test Procedure

According to ANSI C63.10-2013 sub-clause 11.10.2

The following procedure shall be used if maximum peak conducted output power was used to determine Compliant, and it is optional if the maximum conducted (average) output power was used to determine Compliant:

1. Set the RBW to:  $3\text{kHz} \leq \text{RBW} \leq 100\text{ kHz}$ .
2. Set the VBW  $\geq 3 * \text{RBW}$ .
3. Set the span to 1.5 times the DTS bandwidth.
4. Detector = peak.
5. Sweep time = auto couple.
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level within the RBW.
9. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.



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

### Test Data: See Appendix

## APPENDIX - TEST DATA

### Environmental Conditions & Test Information

Test Item:	SPURIOUS EMISSIONS			
	9 kHz – 30MHz	30MHz~1GHz	1 GHz - 18 GHz	18 GHz - 25 GHz
<b>Test Date:</b>	2024-04-22	2024-07-17	2024-07-20	2024-07-13
<b>Temperature:</b>	25 °C	23.4 °C	22.8 °C	25.5 °C
<b>Relative Humidity:</b>	55 %	52 %	53 %	52 %
<b>ATM Pressure:</b>	101.5 kPa	100.9 kPa	100.5kPa	100.5kPa
<b>Test Result:</b>	Pass	Pass	Pass	Pass
<b>Test Engineer:</b>	Leah Li	Leah Li	Klein Zhu& Destine Hu	Hugh Wu

Test Item:	6 DB EMISSION BANDWIDTH	MAXIMUM CONDUCTED OUTPUT POWER	100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE	POWER SPECTRAL DENSITY
<b>Test Date:</b>	2024-07-17 & 2024-11-26&2024-12-30	2024-12-30	2024-07-19	2024-12-30
<b>Temperature:</b>	22.3-25.5 °C	24.6 °C	23.8 °C	24.6 °C
<b>Relative Humidity:</b>	50-58 %	55 %	52 %	55 %
<b>ATM Pressure:</b>	100.2-102.7kPa	102.1 kPa	100.4kPa	102.1 kPa
<b>Test Result:</b>	Pass	Pass	Pass	Pass
<b>Test Engineer:</b>	Neil Zhou	Neil Zhou	Neil Zhou	Neil Zhou

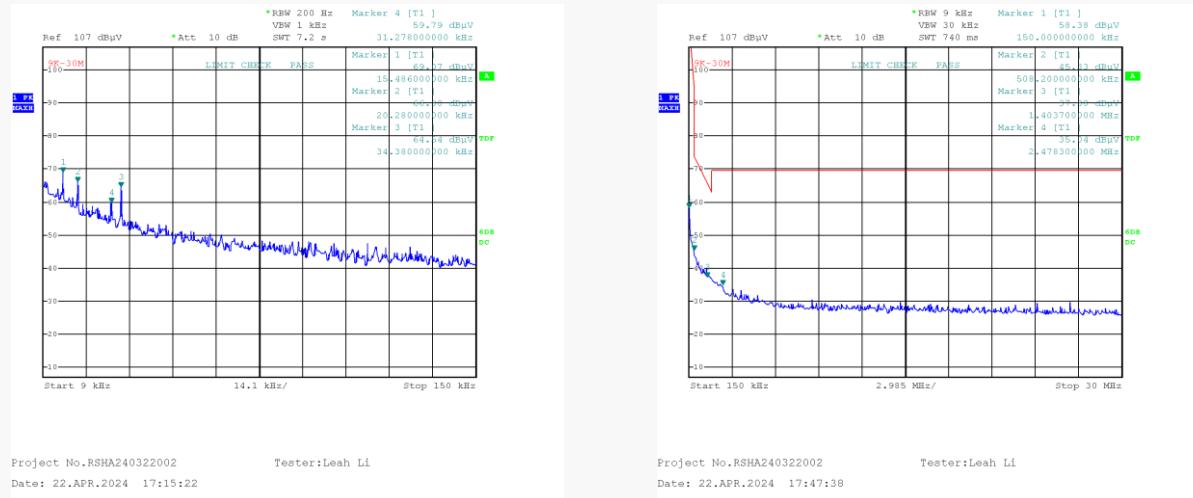
<b>Test Item:</b>	Duty Cycle
<b>Test Date:</b>	2024-07-17&2024-07-18
<b>Temperature:</b>	23.8-25.5 °C
<b>Relative Humidity:</b>	52-58 %
<b>ATM Pressure:</b>	100.2-100.4kPa
<b>Test Result:</b>	Pass
<b>Test Engineer:</b>	Neil Zhou

## SPURIOUS EMISSIONS

*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 mode Antenna 1+Antenna 2 SRD (BW: 1.25 MHz))  
(Parallel worst)



### 9 kHz - 150 kHz

Frequency (MHz)	Corrected Amplitude (dB $\mu$ V/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dB $\mu$ V/m) @3m	Margin (dB)
0.015486	69.07	PK	52.87	123.81	54.74
0.020280	66.30	PK	49.92	121.46	55.16
0.031278	59.79	PK	46.87	117.70	57.91
0.034380	64.54	PK	46.06	116.88	52.34

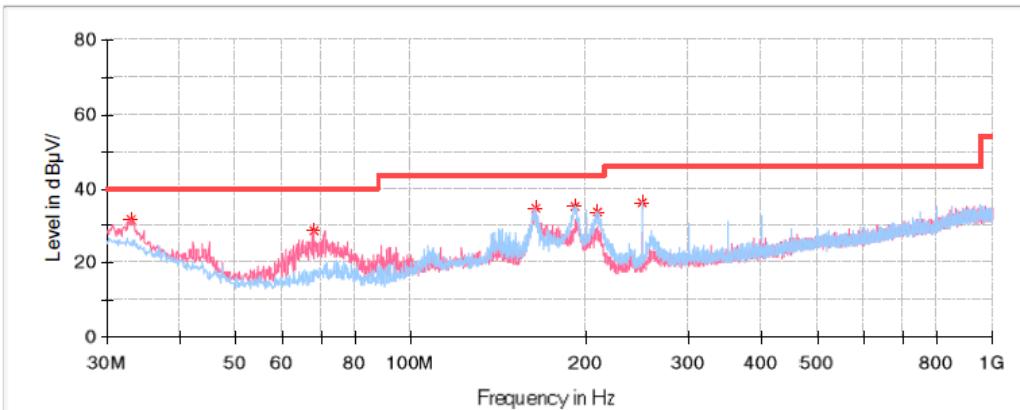
### 150 kHz - 30 MHz

Frequency (MHz)	Corrected Amplitude (dB $\mu$ V/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dB $\mu$ V/m) @3m	Margin (dB)
0.15000	58.38	PK	50.90	104.08	45.70
0.50820	45.33	PK	23.00	73.48	28.15
1.40370	37.38	PK	6.65	64.66	27.28
2.47830	35.04	PK	12.39	69.54	34.50

**30MHz - 1GHz: Antenna 1+Antenna 2 SRD (BW: 1.25 MHz) (worst case)**  
**Low Channel: 2411 MHz**

## Common Information

Project No: RSHA240322002  
Test Mode: Transmitting in 2411 channel  
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.247  
Test Engineer: Leah Li



## Critical\_Freqs

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
32.910000	31.78	40.00	8.22	V	-6.4
68.193750	28.68	40.00	11.32	V	-16.9
163.375000	34.81	43.50	8.69	V	-12.7
190.898750	35.37	43.50	8.13	H	-12.9
208.358750	33.49	43.50	10.01	H	-13.1
249.947500	36.40	46.00	9.60	H	-12.7

**Middle Channel: 2444 MHz****Common Information**

Project No:

RSHA240322002

Test Mode:

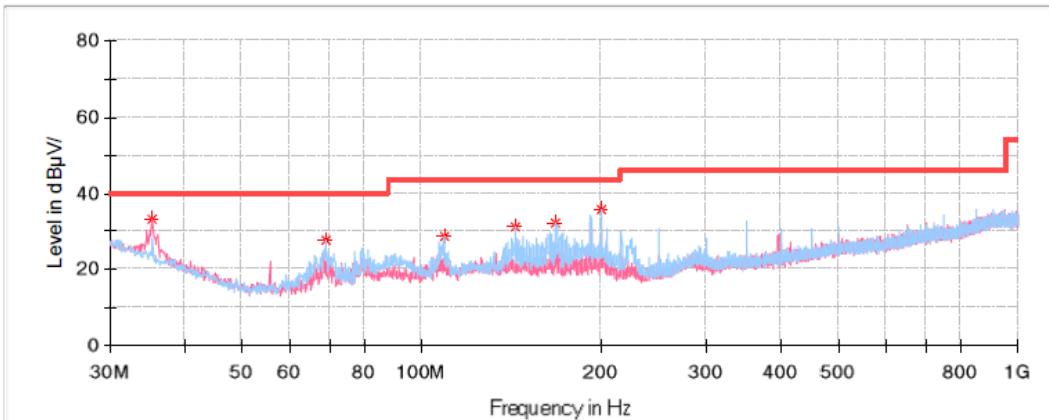
Transmitting in 2444 channel

Standard:

FCC Part 15.205&amp;FCC Part 15.209&amp;FCC Part 15.247

Test Engineer:

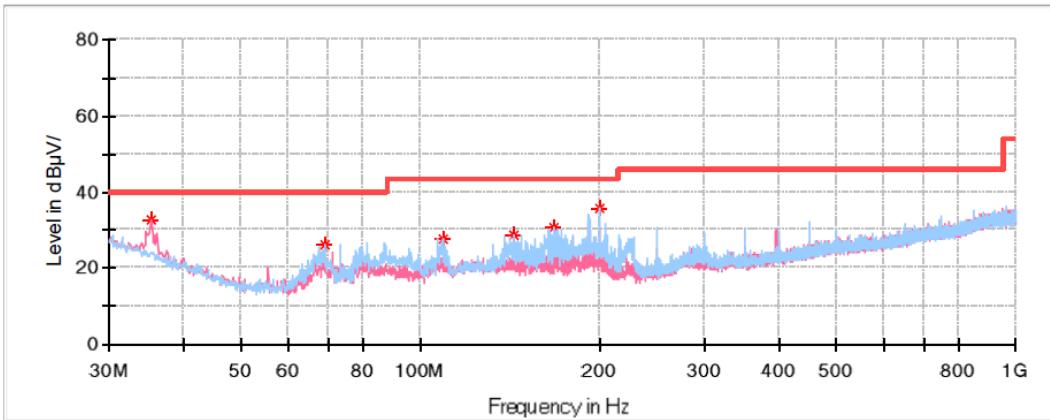
Leah Li

**Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
35.335000	33.13	40.00	6.87	V	-8.1
69.163750	27.49	40.00	12.51	H	-16.8
108.812500	28.48	43.50	15.02	H	-13.2
143.247500	31.06	43.50	12.44	H	-11.7
167.861250	32.14	43.50	11.36	H	-12.8
199.992500	35.88	43.50	7.62	H	-12.5

**High Channel: 2466 MHz****Common Information**

Project No: RSHA240322002  
Test Mode: Transmitting in 2466 channel  
Standard: FCC Part 15.205&FCC Part 15.209&FCC Part 15.247  
Test Engineer: Leah Li

**Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
35.335000	32.95	40.00	7.05	V	-8.1
69.163750	25.94	40.00	14.06	H	-16.8
108.812500	27.74	43.50	15.76	H	-13.2
143.247500	28.68	43.50	14.82	H	-11.7
167.982500	30.86	43.50	12.64	H	-12.8
199.992500	35.68	43.50	7.82	H	-12.5

**1GHz - 18GHz:****Antenna 1+Antenna 2 SRD (BW: 1.25 MHz)****Low Channel: 2411 MHz****Common Information**

Project No.:

RSHA240322002

Test Mode:

SRD

Standard:

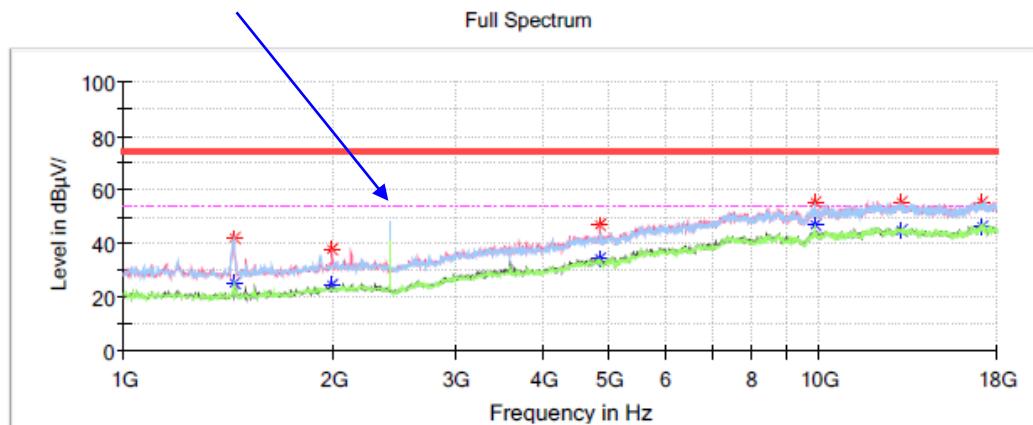
FCC Part 15.205&amp; FCC Part 15.209&amp; FCC Part 15.247

Receiver Setting:

RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto

Test Engineer:

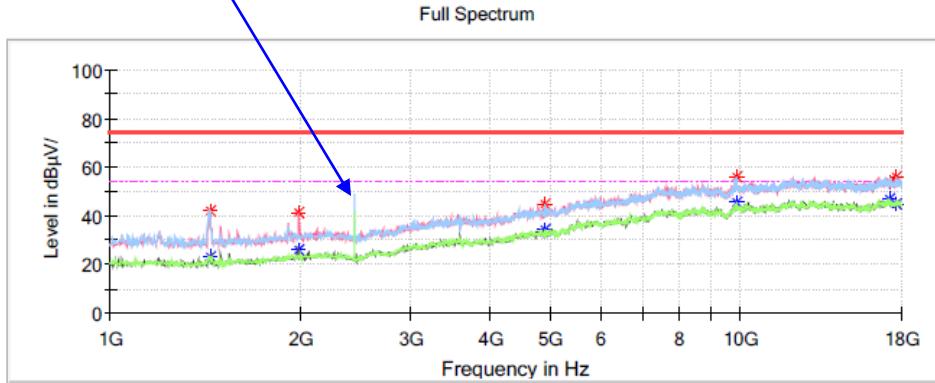
Destine Hu

**Fundamental Test with notch filter****Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	---	25.08	54.00	28.92	H	-14.8
1438.600000	41.85	---	74.00	32.15	H	-14.8
1992.800000	---	24.32	54.00	29.68	V	-11.8
1992.800000	37.95	---	74.00	36.05	V	-11.8
4821.600000	---	34.51	54.00	19.49	H	-3.1
4821.600000	47.02	---	74.00	26.98	H	-3.1
9863.800000	---	46.78	54.00	7.22	H	6.7
9863.800000	55.40	---	74.00	18.60	H	6.7
13131.200000	---	44.87	54.00	9.13	V	9.7
13131.200000	55.19	---	74.00	18.81	V	9.7
17095.600000	55.52	---	74.00	18.48	V	12.1
17095.600000	---	45.83	54.00	8.17	V	12.1

**Middle Channel: 2444 MHz****Common Information**

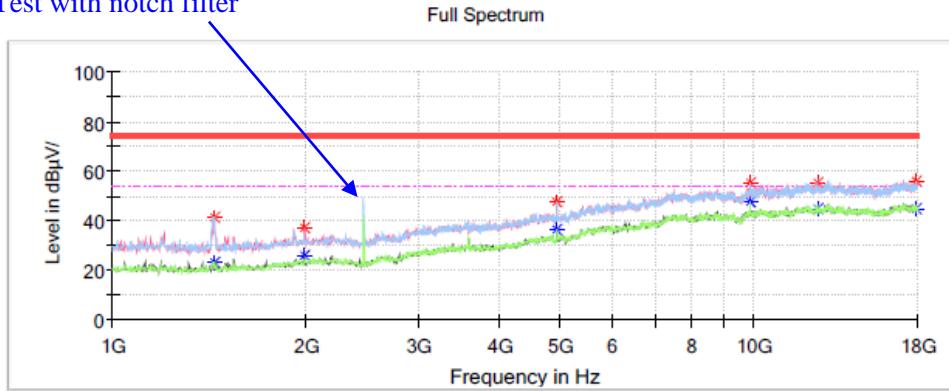
Project No.: RSHA240322002  
 Test Mode: SRD  
 Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.247  
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto  
 Test Engineer: Destine Hu

**Fundamental Test with notch filter****Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	---	23.10	54.00	30.90	H	-14.8
1438.600000	42.12	---	74.00	31.88	H	-14.8
1996.200000	---	25.90	54.00	28.10	V	-11.8
1996.200000	41.24	---	74.00	32.76	V	-11.8
4886.200000	---	34.56	54.00	19.44	V	-2.9
4886.200000	44.74	---	74.00	29.26	V	-2.9
9863.800000	---	45.54	54.00	8.46	H	6.7
9863.800000	55.94	---	74.00	18.06	H	6.7
17241.800000	---	46.86	54.00	7.14	H	11.9
17241.800000	54.00	---	74.00	20.00	H	11.9
17663.400000	---	44.99	54.00	9.01	H	11.7
17663.400000	56.23	---	74.00	17.77	H	11.7

**High Channel: 2466 MHz****Common Information**

Project No.: RSHA240322002  
 Test Mode: SRD  
 Standard: FCC Part 15.205& FCC Part 15.209& FCC Part 15.247  
 Receiver Setting: RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto  
 Test Engineer: Destine Hu

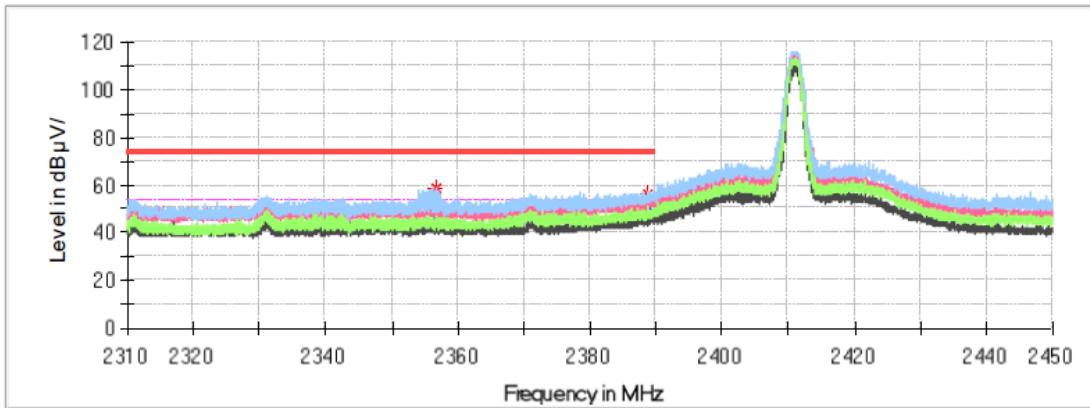
**Fundamental Test with notch filter****Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1438.600000	---	23.21	54.00	30.79	H	-14.8
1438.600000	<b>41.47</b>	---	74.00	32.53	H	-14.8
1992.800000	---	25.53	54.00	28.47	V	-11.8
1992.800000	36.75	---	74.00	37.25	V	-11.8
4930.400000	---	36.12	54.00	17.88	H	-2.7
4930.400000	<b>47.61</b>	---	74.00	26.39	H	-2.7
9863.800000	---	47.68	54.00	6.32	H	6.7
9863.800000	<b>55.47</b>	---	74.00	18.53	H	6.7
12522.600000	---	44.75	54.00	9.25	V	9.7
12522.600000	<b>55.23</b>	---	74.00	<b>18.77</b>	V	9.7
17843.600000	---	44.92	54.00	9.08	V	11.8
17843.600000	<b>55.64</b>	---	74.00	18.36	V	11.8

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

Project No.: RSHA240322002  
Test Mode: SRD  
Standard: FCC Part 12.205&FCC 15.209&FCC 15.247  
Test Engineer: Klein Zhu

Full Spectrum

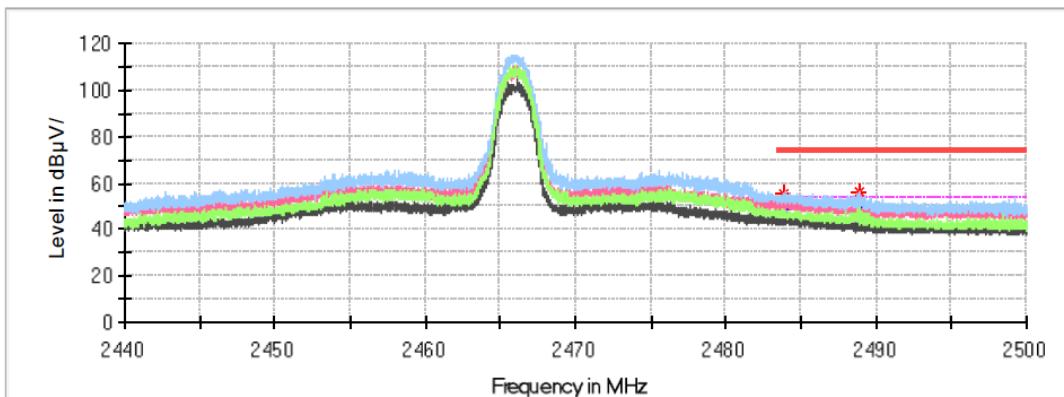
**Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2356.662000	58.85	---	74.00	15.15	V	-0.7
2356.662000	---	47.04	54.00	6.96	V	-0.7
2388.666000	55.94	---	74.00	18.06	H	-0.6
2388.666000	---	50.77	54.00	3.23	H	-0.6

**High Channel****Common Information**

Project No.: RSHA240322002  
Test Mode: SRD  
Standard: FCC Part 12.205&FCC 15.209&FCC 15.247  
Test Engineer: Klein Zhu

Full Spectrum

**Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2483.848000	---	48.29	54.00	5.71	H	-0.3
2483.848000	55.19	---	74.00	18.81	H	-0.3
2488.828000	---	49.48	54.00	4.52	H	-0.2
2488.828000	56.09	---	74.00	17.91	H	-0.2

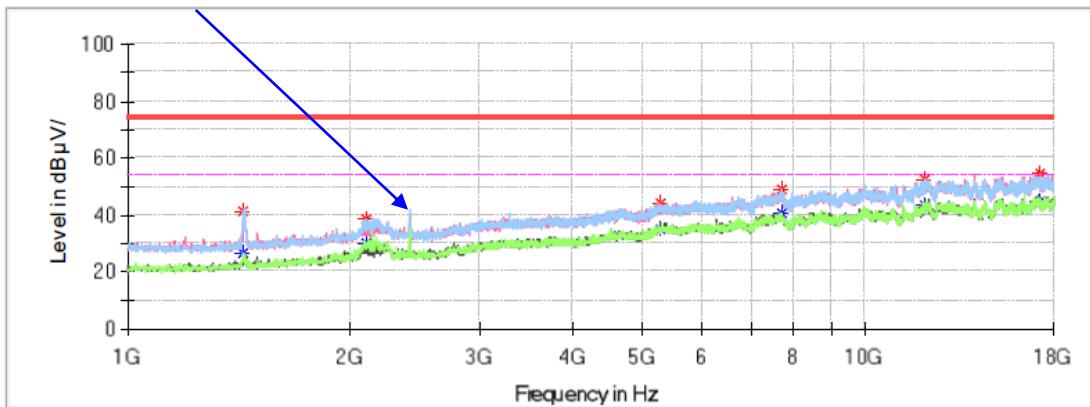
**Antenna 1+Antenna 2 SRD (BW: 10 MHz)**  
**Low Channel: 2411 MHz**

### Common Information

Project No.: RSHA240322002  
 Test Mode: SRD  
 Standard: FCC Part 12.205&FCC 15.209&FCC 15.247  
 Test Engineer: Klein Zhu

#### Fundamental Test with notch filter

Full Spectrum



### Critical\_Freqs

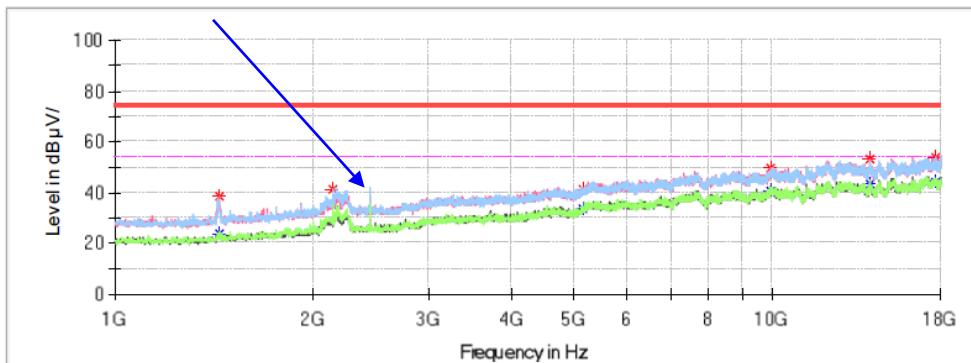
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1436.900000	41.50	---	74.00	32.50	H	-14.8
1436.900000	---	26.36	54.00	27.64	H	-14.8
2106.700000	38.44	---	74.00	35.56	H	-11.4
2106.700000	---	30.11	54.00	23.89	H	-11.4
5273.800000	---	35.21	54.00	18.79	H	-1.3
5273.800000	44.37	---	74.00	29.63	H	-1.3
7696.300000	48.62	---	74.00	25.38	V	3.9
7696.300000	---	40.52	54.00	13.48	V	3.9
12056.800000	---	43.64	54.00	10.36	H	9.0
12056.800000	52.51	---	74.00	21.49	H	9.0
17190.800000	---	44.82	54.00	9.18	V	12.0
17190.800000	54.35	---	74.00	19.65	V	12.0

**Middle Channel: 2444 MHz****Common Information**

Project No.: RSHA240322002  
 Test Mode: SRD  
 Standard: FCC Part 12.205&FCC 15.209&FCC 15.247  
 Test Engineer: Klein Zhu

**Fundamental Test with notch filter**

Full Spectrum

**Critical\_Freqs**

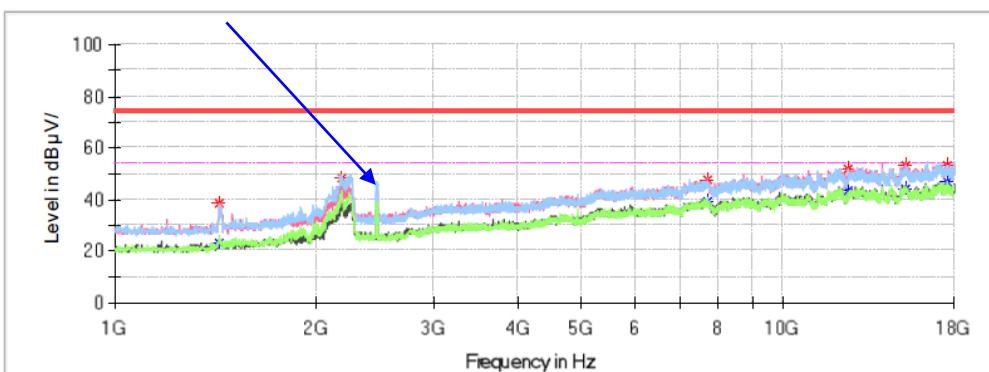
Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1440.300000	---	24.07	54.00	29.93	V	-14.8
1440.300000	38.46	---	74.00	35.54	V	-14.8
2149.200000	---	34.69	54.00	19.31	H	-11.3
2149.200000	41.38	---	74.00	32.62	H	-11.3
5144.600000	---	33.23	54.00	20.77	V	-1.8
5144.600000	41.42	---	74.00	32.58	V	-1.8
9945.400000	---	40.70	54.00	13.30	H	7.0
9945.400000	49.82	---	74.00	24.18	H	7.0
14050.900000	---	43.42	54.00	10.58	V	9.8
14050.900000	52.80	---	74.00	21.20	V	9.8
17651.500000	---	44.19	54.00	9.81	V	11.7
17651.500000	53.56	---	74.00	20.44	V	11.7

## Common Information

Project No.: RSHA240322002  
 Test Mode: SRD  
 Standard: FCC Part 12.205&FCC 15.209&FCC 15.247  
 Test Engineer: Klein Zhu

### Fundamental Test with notch filter

Full Spectrum



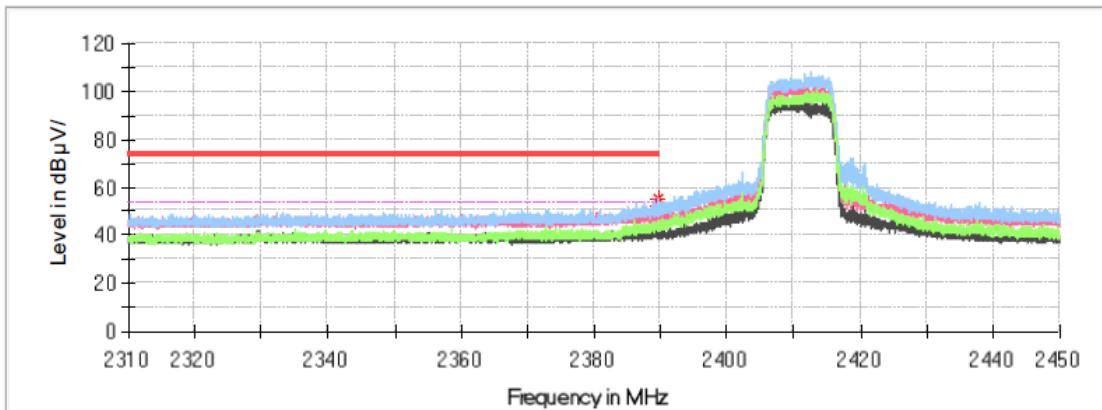
### Critical\_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1435.200000	38.69	---	74.00	35.31	V	-14.8
1435.200000	---	23.41	54.00	30.59	V	-14.8
2184.900000	---	43.47	54.00	10.53	H	-11.2
2184.900000	48.54	---	74.00	25.46	H	-11.2
7696.300000	47.80	---	74.00	26.20	V	3.9
7696.300000	---	39.21	54.00	14.79	V	3.9
12500.500000	51.78	---	74.00	22.22	V	9.7
12500.500000	---	43.22	54.00	10.78	V	9.7
15261.300000	53.40	---	74.00	20.60	H	9.6
15261.300000	---	44.11	54.00	9.89	H	9.6
17602.200000	53.43	---	74.00	20.57	H	11.6
17602.200000	---	46.88	54.00	7.12	H	11.6

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

Project No.: RSHA240322002  
Test Mode: SRD  
Standard: FCC Part 12.205&FCC 15.209&FCC 15.247  
Test Engineer: Klein Zhu

Full Spectrum

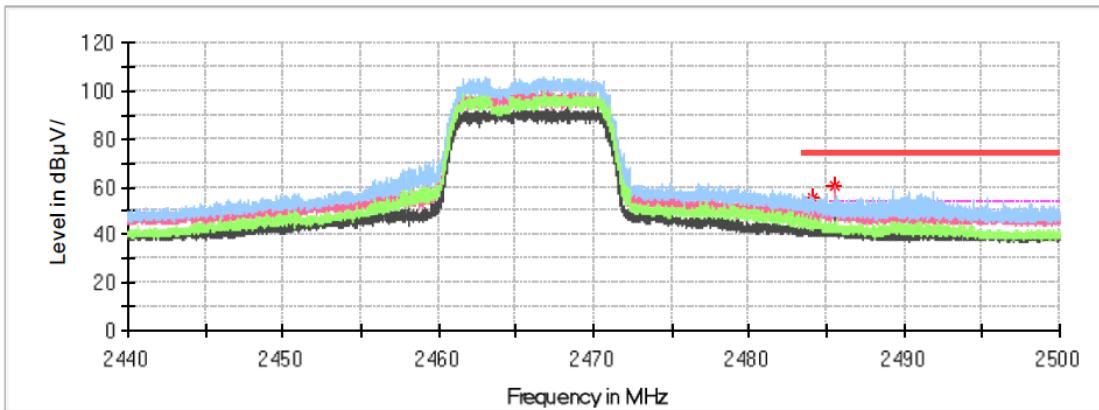
**Critical\_Freqs**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2389.646000	---	46.17	54.00	7.83	H	-0.6
2389.646000	51.85	---	74.00	22.15	H	-0.6
2389.744000	---	45.61	54.00	8.39	H	-0.6
2389.744000	55.30	---	74.00	18.70	H	-0.6

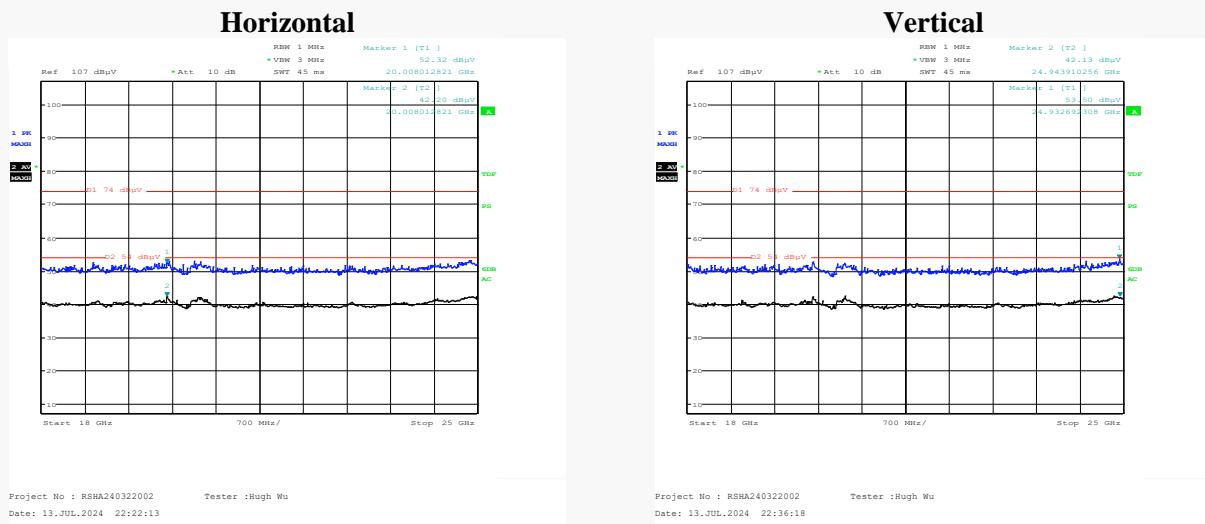
**High Channel****Common Information**

Project No.: RSHA240322002  
Test Mode: SRD  
Standard: FCC Part 12.205&FCC 15.209&FCC 15.247  
Test Engineer: Klein Zhu

Full Spectrum

**Critical\_Freqs**

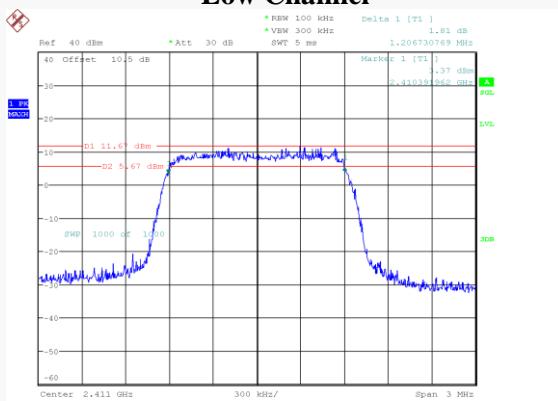
Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2484.154000	---	45.31	54.00	8.69	H	-0.3
2484.154000	55.37	---	74.00	18.63	H	-0.3
2485.546000	---	48.44	54.00	5.56	V	-0.2
2485.546000	60.15	---	74.00	13.85	V	-0.2

**18GHz-25GHz: Antenna 1+Antenna 2 SRD (BW: 1.25 MHz) High Channel**

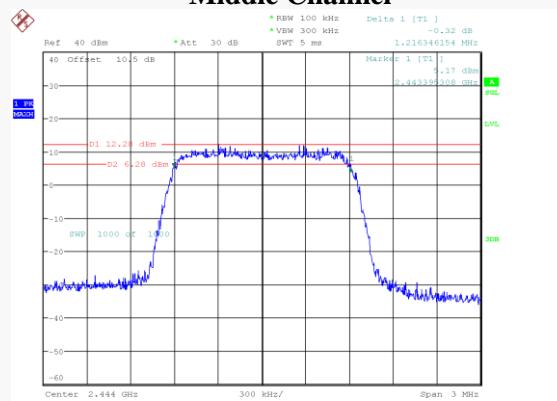
Note: The test distance is 3m. The limit is 74dB $\mu$ V/m (Peak) and 54dB $\mu$ V/m (Average).

**6 dB EMISSION BANDWIDTH***EUT operation mode: Transmitting*

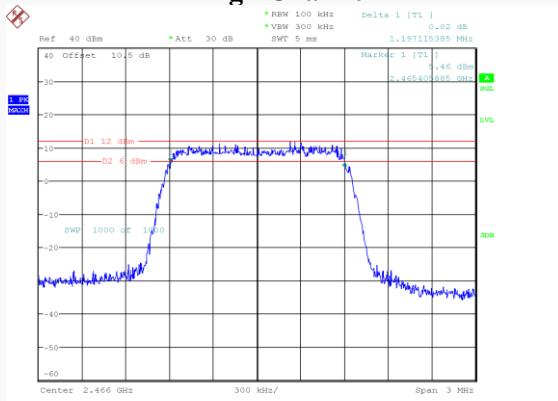
Antenna	Mode	Channel	Frequency (MHz)	Result (MHz)	Limit (MHz)
Antenna 1	SRD (BW: 1.25 MHz)	Low	2411	1.207	0.5
		Middle	2444	1.216	
		High	2466	1.197	
	SRD (BW: 10 MHz)	Low	2411	9.487	0.5
		Middle	2444	9.487	
		High	2466	9.487	
Antenna 2	SRD (BW: 1.25 MHz)	Low	2411	1.197	0.5
		Middle	2444	1.202	
		High	2466	1.192	
	SRD (BW: 10 MHz)	Low	2411	9.455	0.5
		Middle	2444	9.487	
		High	2466	9.519	

**Antenna 1 1.25 MHz****Low Channel**

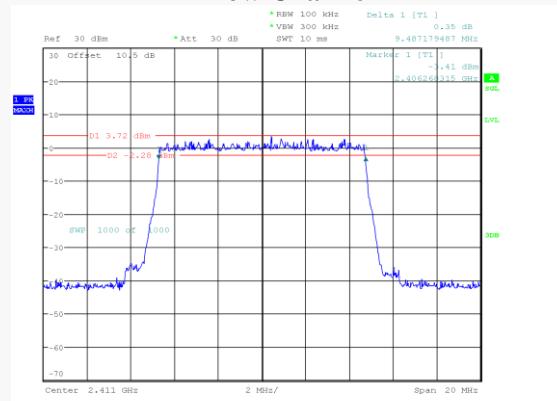
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 11:56:26

**Middle Channel**

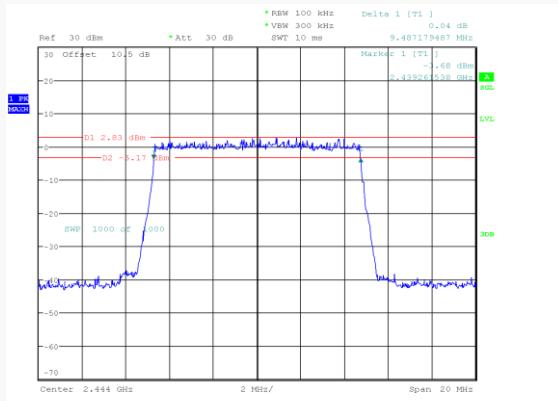
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 13:09:19

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

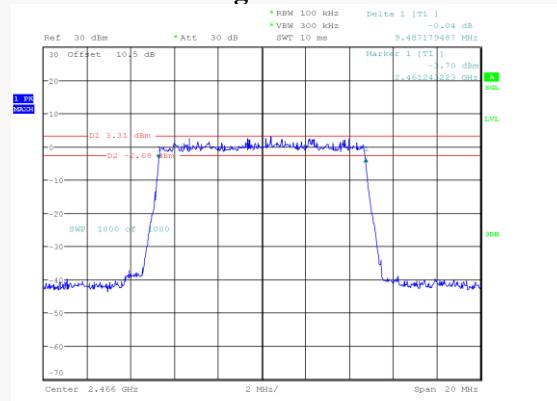
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 13:20:27



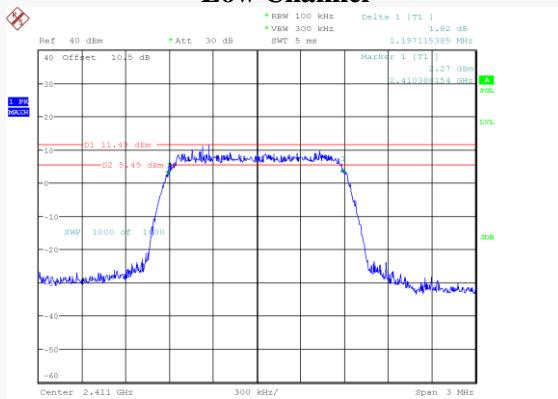
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 17.JUL.2024 18:49:51

**Middle Channel**

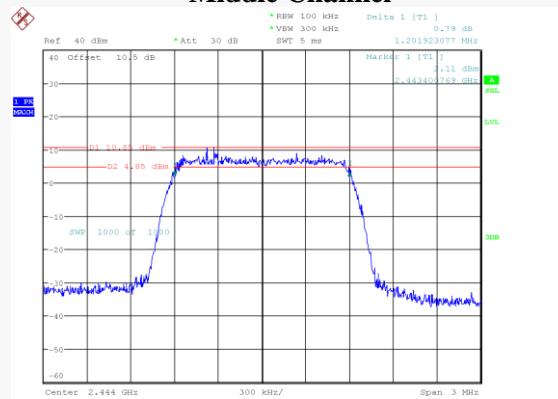
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 17.JUL.2024 18:09:28

**High Channel**

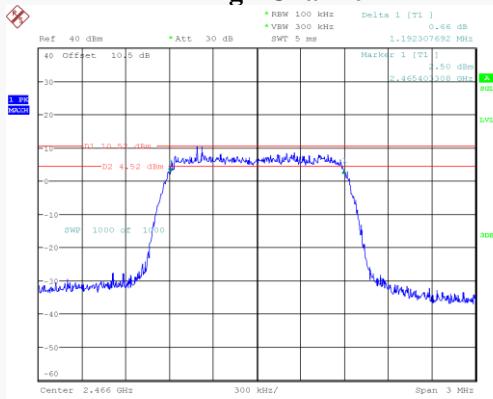
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 17.JUL.2024 18:02:18

**Antenna 2 1.25 MHz****Low Channel**

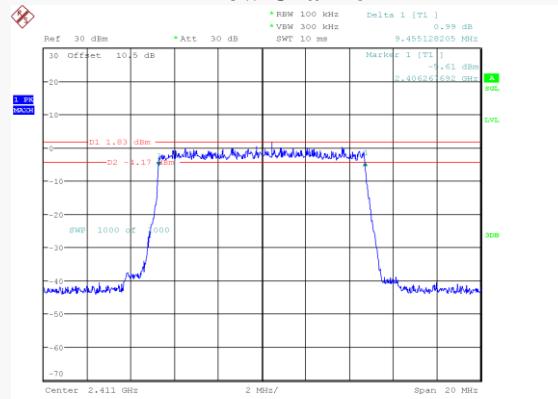
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 11:25:20

**Middle Channel**

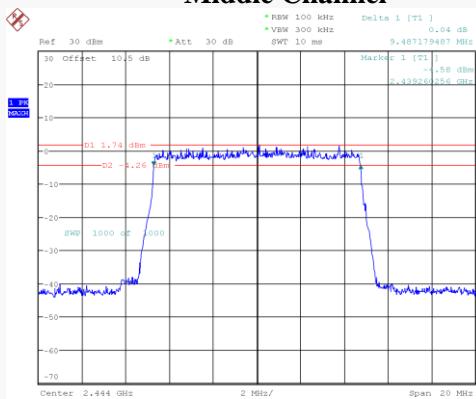
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 11:36:21

**High Channel**

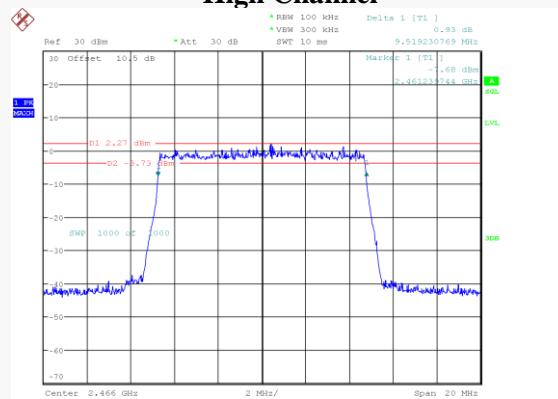
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 11:45:19

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

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 26.NOV.2024 10:31:38

**Middle Channel**

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 26.NOV.2024 10:35:23

**High Channel**

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 26.NOV.2024 10:40:41

## MAXIMUM CONDUCTED OUTPUT POWER

*EUT operation mode: Transmitting*

Antenna	Mode	Channel	Frequency (MHz)	Max Conducted Peak Output Power (dBm)	Limit (dBm)
Antenna 1	SRD (BW: 1.25 MHz)	Low	2411	22.31	30
		Middle	2444	22.52	
		High	2466	22.13	
	SRD (BW: 10 MHz)	Low	2411	19.95	30
		Middle	2444	20.80	
		High	2466	20.39	
Antenna 2	SRD (BW: 1.25 MHz)	Low	2411	20.29	30
		Middle	2444	19.15	
		High	2466	18.92	
	SRD (BW: 10 MHz)	Low	2411	19.16	30
		Middle	2444	19.55	
		High	2466	18.75	
Antenna 1+Antenna 2	SRD (BW: 1.25 MHz)	Low	2411	24.43	30
		Middle	2444	24.16	
		High	2466	23.83	
	SRD (BW: 10 MHz)	Low	2411	22.58	30
		Middle	2444	23.23	
		High	2466	22.66	

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

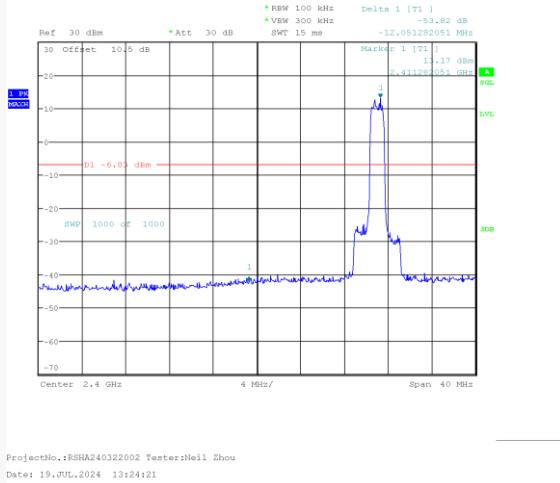
2. All transmit signals are completely uncorrelated with each other, Directional gain = G<sub>ANT</sub>

## 100 kHz Bandwidth of Frequency Band Edge

EUT operation mode: Transmitting

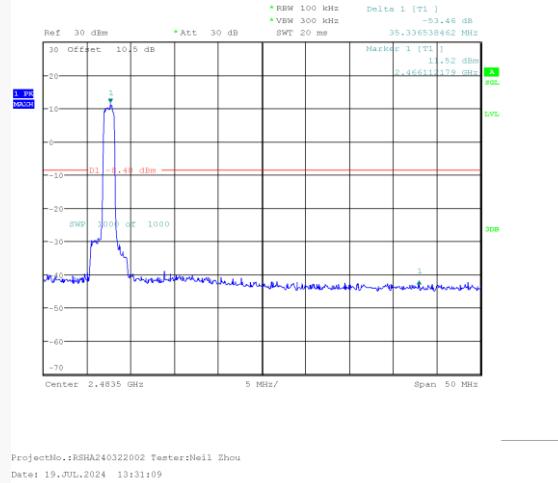
### Antenna 1 1.25 MHz

#### Left Side



ProjectNo.:RSHA240322002 Tester:Neill Zhou  
Date: 19.JUL.2024 13:24:21

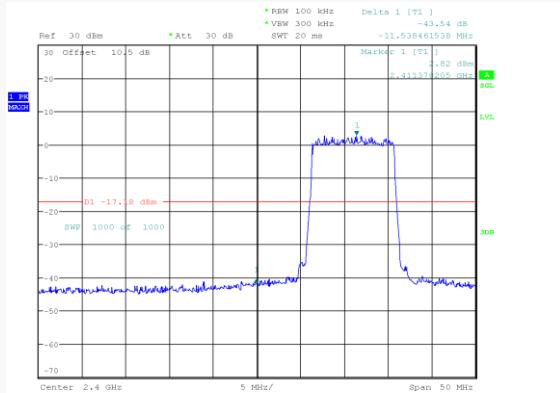
#### Right Side



ProjectNo.:RSHA240322002 Tester:Neill Zhou  
Date: 19.JUL.2024 13:31:09

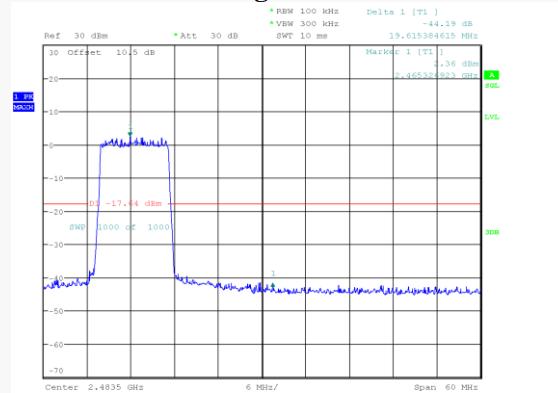
### Antenna 1 BW: 10 MHz

#### Left Side

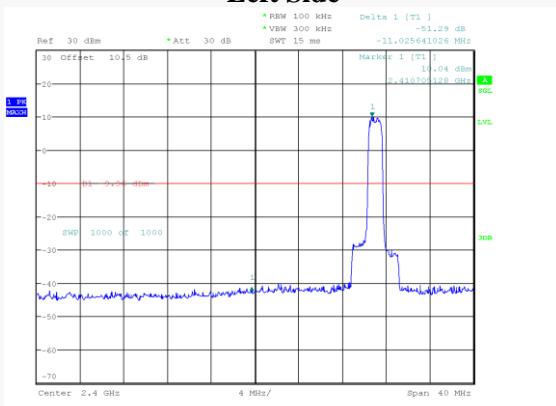


ProjectNo.:RSHA240322002 Tester:Neill Zhou  
Date: 19.JUL.2024 13:45:47

#### Right Side

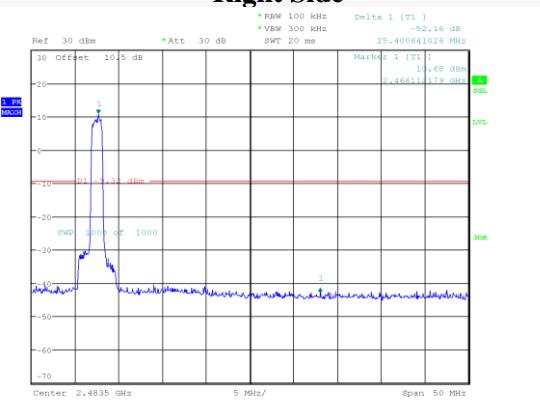


ProjectNo.:RSHA240322002 Tester:Neill Zhou  
Date: 19.JUL.2024 13:38:38

**Antenna 2 1.25 MHz****Left Side**

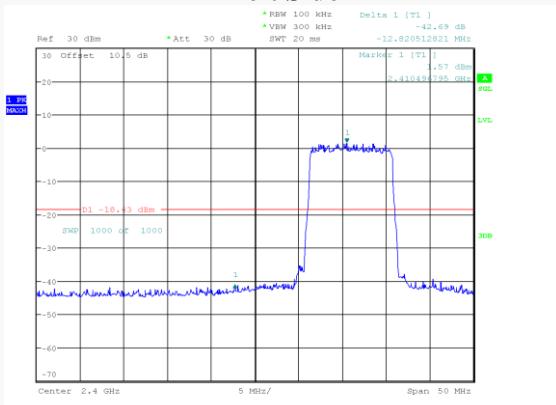
ProjectNo.:RSHA240322002 Tester:Neil Zhou

Date: 19.JUL.2024 13:11:12

**Right Side**

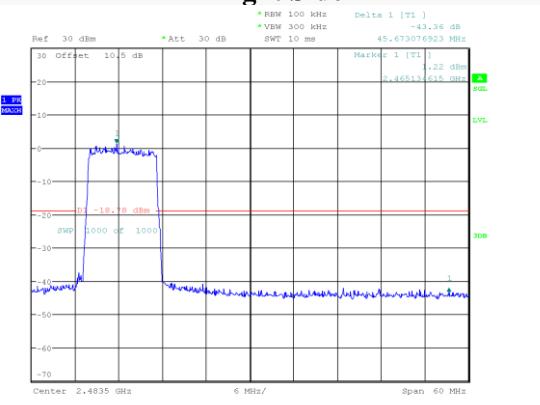
ProjectNo.:RSHA240322002 Tester:Neil Zhou

Date: 19.JUL.2024 13:14:32

**Antenna 2 BW: 10 MHz****Left Side**

ProjectNo.:RSHA240322002 Tester:Neil Zhou

Date: 19.JUL.2024 14:00:40

**Right Side**

ProjectNo.:RSHA240322002 Tester:Neil Zhou

Date: 19.JUL.2024 14:04:30

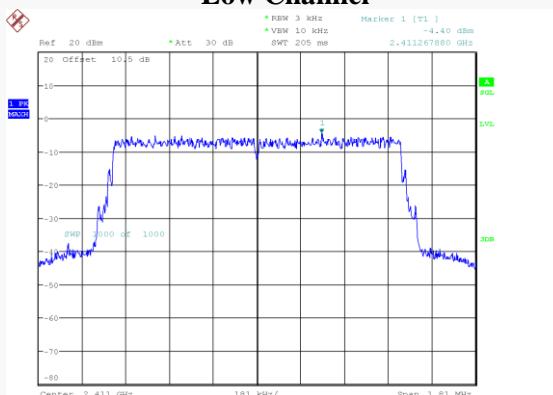
## Power Spectral Density

EUT operation mode: Transmitting

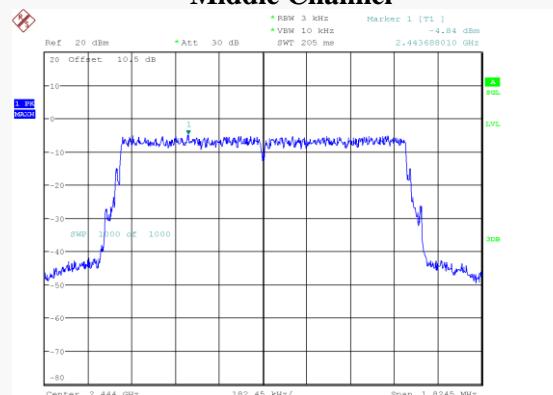
Antenna	Mode	Channel	Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)
Antenna 1	SRD (BW: 1.25 MHz)	Low	2411	-4.40	8
		Middle	2444	-4.84	
		High	2466	-4.82	
	SRD (BW: 10 MHz)	Low	2411	-14.54	8
		Middle	2444	-13.07	
		High	2466	-14.24	
Antenna 2	SRD (BW: 1.25 MHz)	Low	2411	-5.47	8
		Middle	2444	-6.39	
		High	2466	-6.43	
	SRD (BW: 10 MHz)	Low	2411	-13.97	8
		Middle	2444	-14.11	
		High	2466	-15.09	
Antenna 1+Antenna 2	SRD (BW: 1.25 MHz)	Low	2411	-1.89	8
		Middle	2444	-2.54	
		High	2466	-2.54	
	SRD (BW: 10 MHz)	Low	2411	-11.24	8
		Middle	2444	-10.55	
		High	2466	-11.63	

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

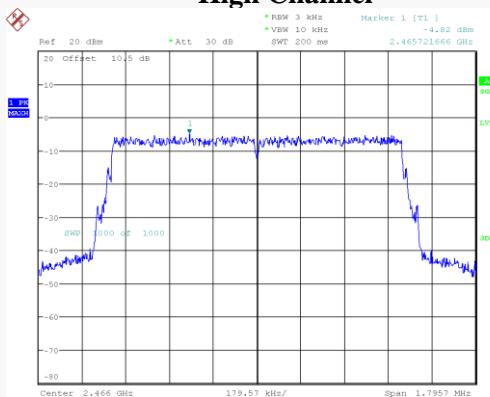
2. All transmit signals are completely uncorrelated with each other, Directional gain = G<sub>ANT</sub>

**Antenna 1 1.25 MHz****Low Channel**

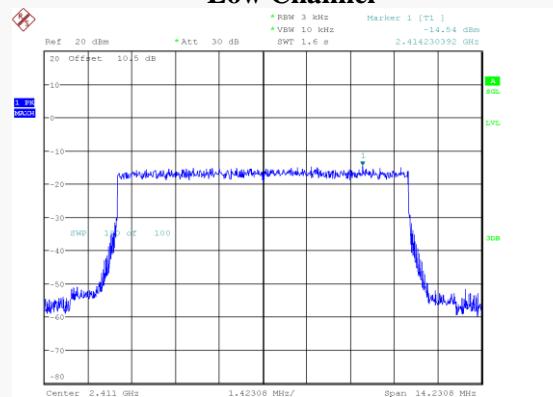
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 12:01:38

**Middle Channel**

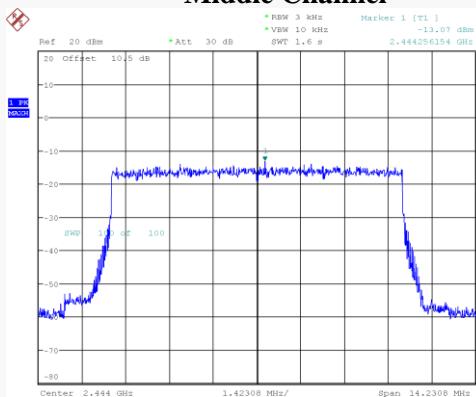
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 13:14:48

**High Channel**

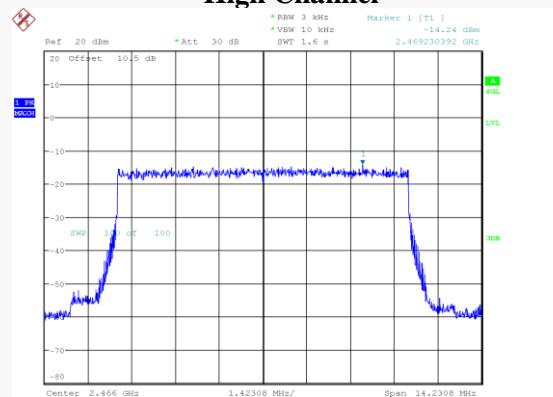
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 13:28:49

**Antenna 1 10 MHz****Low Channel**

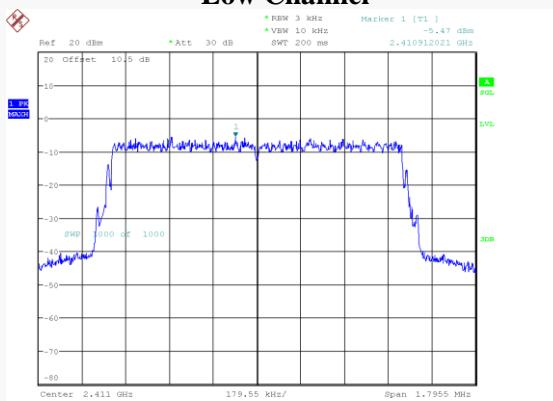
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 17:26:01

**Middle Channel**

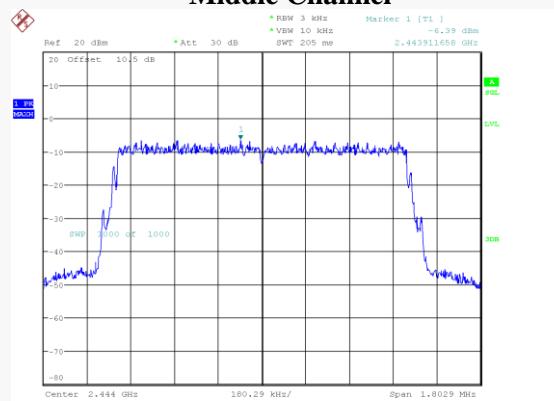
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 17:29:30

**High Channel**

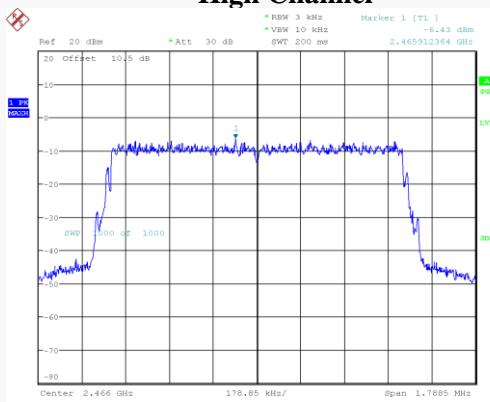
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 17:33:05

**Antenna 2 1.25 MHz****Low Channel**

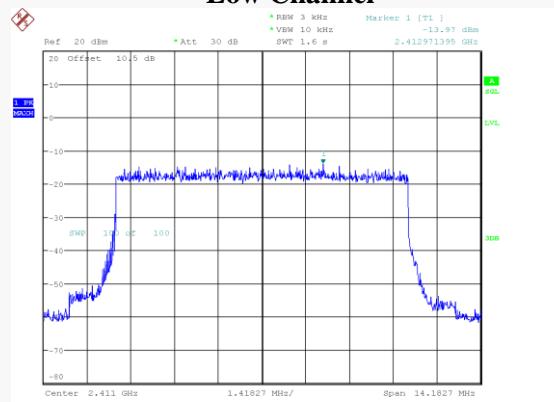
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 11:31:10

**Middle Channel**

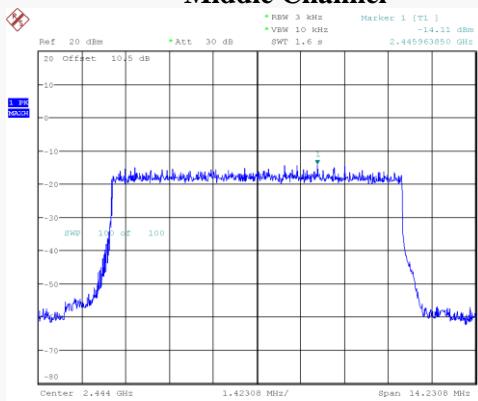
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 11:41:09

**High Channel**

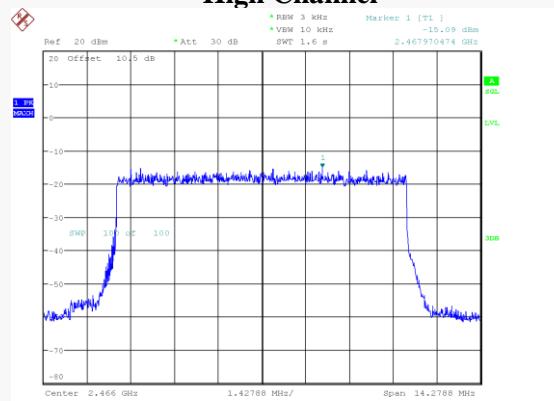
ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 11:50:20

**Antenna 2 10 MHz****Low Channel**

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 17:50:13

**Middle Channel**

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 17:42:57

**High Channel**

ProjectNo.:RSHA240322002 Tester:Neil Zhou  
Date: 30.DEC.2024 17:46:37

## **EUT PHOTOGRAPHS**

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

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## TEST SETUP PHOTOGRAPHS

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Please refer to the attachment EXHIBIT C - 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 \*\*\*\*\***