

**FCC PART 15.247
TEST REPORT**

For

Waylens Inc.

2711 Centerville Road - Suite 400, Wilmington, Delaware, United States 19808

FCC ID: 2AKAF-CAM15

Report Type: Original Report	Product Name: AI Recorder I
Report Number:	RSHA240229004-00C
Report Date:	2024-04-25
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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.

TABLE OF CONTENTS

REPORT REVISION HISTORY.....	4
GENERAL INFORMATION.....	5
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	5
OBJECTIVE	5
TEST METHODOLOGY	5
MEASUREMENT UNCERTAINTY	6
TEST FACILITY	6
SYSTEM TEST CONFIGURATION.....	7
DESCRIPTION OF TEST CONFIGURATION	7
EUT EXERCISE SOFTWARE	7
SPECIAL ACCESSORIES.....	7
EQUIPMENT MODIFICATIONS	7
SUPPORT EQUIPMENT LIST AND DETAILS	8
EXTERNAL I/O CABLE.....	8
BLOCK DIAGRAM OF TEST SETUP	8
SUMMARY OF TEST RESULTS	10
TEST EQUIPMENT LIST	11
FCC §15.203 – ANTENNA REQUIREMENT	12
APPLICABLE STANDARD	12
ANTENNA CONNECTOR CONSTRUCTION	12
FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS	13
APPLICABLE STANDARD	13
TEST SYSTEM SETUP.....	13
EMI TEST RECEIVER SETUP.....	13
TEST PROCEDURE	14
TEST RESULTS SUMMARY	14
TEST DATA: N/A.....	14
FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS.....	15
APPLICABLE STANDARD	15
TEST SYSTEM SETUP.....	15
EMI TEST RECEIVER SETUP.....	16
TEST PROCEDURE	17
TEST RESULTS SUMMARY	17
TEST DATA: SEE APPENDIX	17
FCC §15.247(a) (1)-CHANNEL SEPARATION TEST	18
APPLICABLE STANDARD	18
TEST PROCEDURE	18
TEST DATA: SEE APPENDIX	18
FCC §15.247(a) (1) – 20 dB EMISSION BANDWIDTH.....	19
APPLICABLE STANDARD	19
TEST PROCEDURE	19
TEST DATA: SEE APPENDIX	19
FCC §15.247(a) (1) (iii)-QUANTITY OF HOPPING CHANNEL TEST	20
APPLICABLE STANDARD	20
TEST PROCEDURE	20
TEST DATA: SEE APPENDIX	20
FCC §15.247(a) (1) (iii) - TIME OF OCCUPANCY (DWELL TIME).....	21
APPLICABLE STANDARD	21

TEST PROCEDURE	21
TEST DATA: SEE APPENDIX	21
FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT	22
APPLICABLE STANDARD	22
TEST PROCEDURE	22
TEST DATA: SEE APPENDIX	22
FCC §15.247(d) - BAND EDGES TESTING	23
APPLICABLE STANDARD	23
TEST PROCEDURE	23
TEST DATA: SEE APPENDIX	23
Appendix - TEST DATA.....	24
ENVIRONMENTAL CONDITIONS & TEST INFORMATION.....	24
RADIATED EMISSIONS & RESTRICTED BANDS EMISSIONS	25
CHANNEL SEPARATION TEST	44
20 dB BANDWIDTH TEST	49
QUANTITY OF HOPPING CHANNEL TEST	54
TIME OF OCCUPANCY (DWELL TIME).....	56
PEAK OUTPUT POWER MEASUREMENT.....	62
BAND EDGES.....	68
EUT PHOTOGRAPHS	75
TEST SETUP PHOTOGRAPHS	76

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RSHA240229004-00C	R1V1	2024-04-25	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Waylens Inc.
Product Name:	AI Recorder I
Tested Model:	CAM15
Power Supply:	DC 12V
Maximum Peak Output Power:	GFSK: 4.59 dBm $\pi/4$ -DQPSK: 5.47 dBm 8DPSK: 5.91 dBm
RF Function:	Classic BT
Operating Band/Frequency:	2402-2480 MHz
Channel Number:	79
Channel Separation:	1 MHz
Modulation Type:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Antenna Type:	FPC Antenna
★Maximum Antenna Gain:	2.93 dBi

Note: The maximum antenna gain was declared by the manufacturer.

All measurement and test data in this report was gathered from production sample serial number: RSHA240229004-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2024-02-29.)

Objective

This test report is prepared for *Waylens Inc.* 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 Compliance with FCC Part 15, Subpart C, section 15.203, 15.205, 15.207, 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 Compliance Testing of Unlicensed Wireless Devices and 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	3.8dB
	150 kHz~30 MHz	3.4dB
	30MHz~1GHz	6.11dB
	1GHz~6GHz	4.45dB
	6GHz~18GHz	5.23dB
	18GHz~40GHz	5.65dB
Occupied Bandwidth		0.5kHz
Temperature		1.0°C
Humidity		6%

Test Facility

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

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

SYSTEM TEST CONFIGURATION

Description of Test Configuration

Channel list:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	40	2442
1	2403	...	...
...	...	...	...
...	...	78	2480
39	2441	/	/

EUT was tested with Channel 0, 39 and 78.

EUT Exercise Software

RF Test Tool: xshell 4

★Power level: Default

Note: The power level was declared by the applicant.

Special Accessories

No special accessory.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

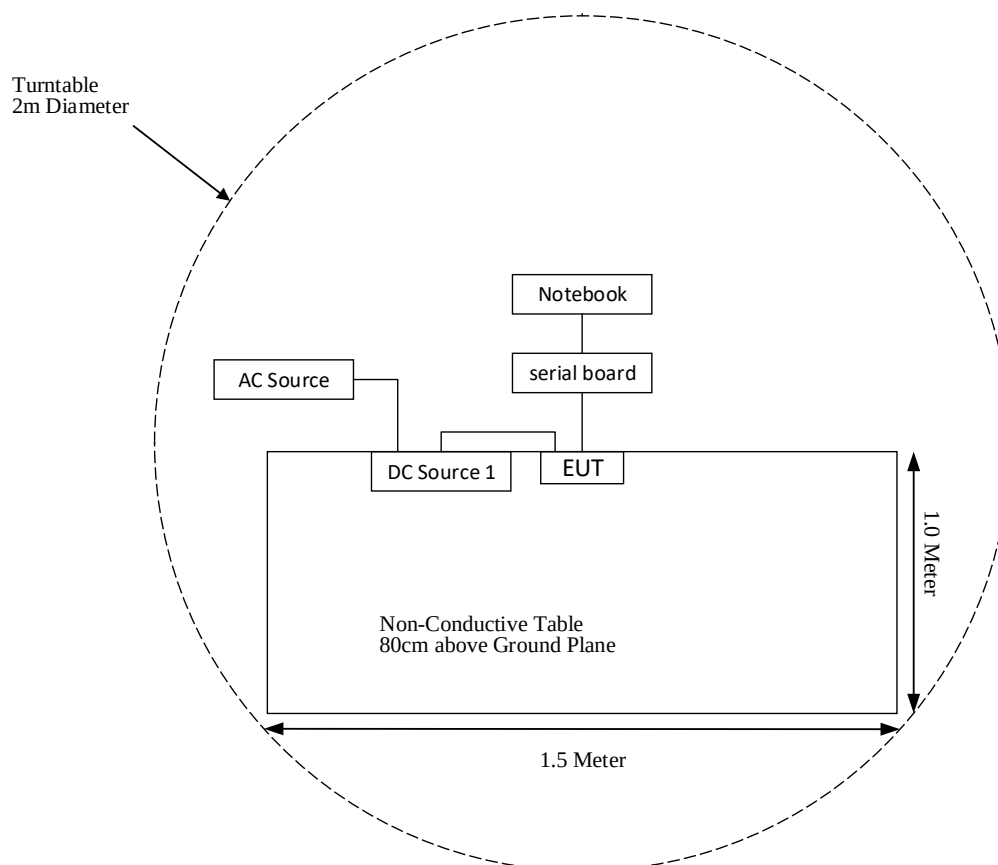
Manufacturer	Description	Model	Serial Number
ZHAOXIN	DC Source 1	PS-6005D	18P6005D10724
ZHAOXIN	DC Source 2	RXN-605D	DC002
Unknown	Serial board	Unknown	Unknown
DELL	Notebook	E6410	3094742521

External I/O Cable

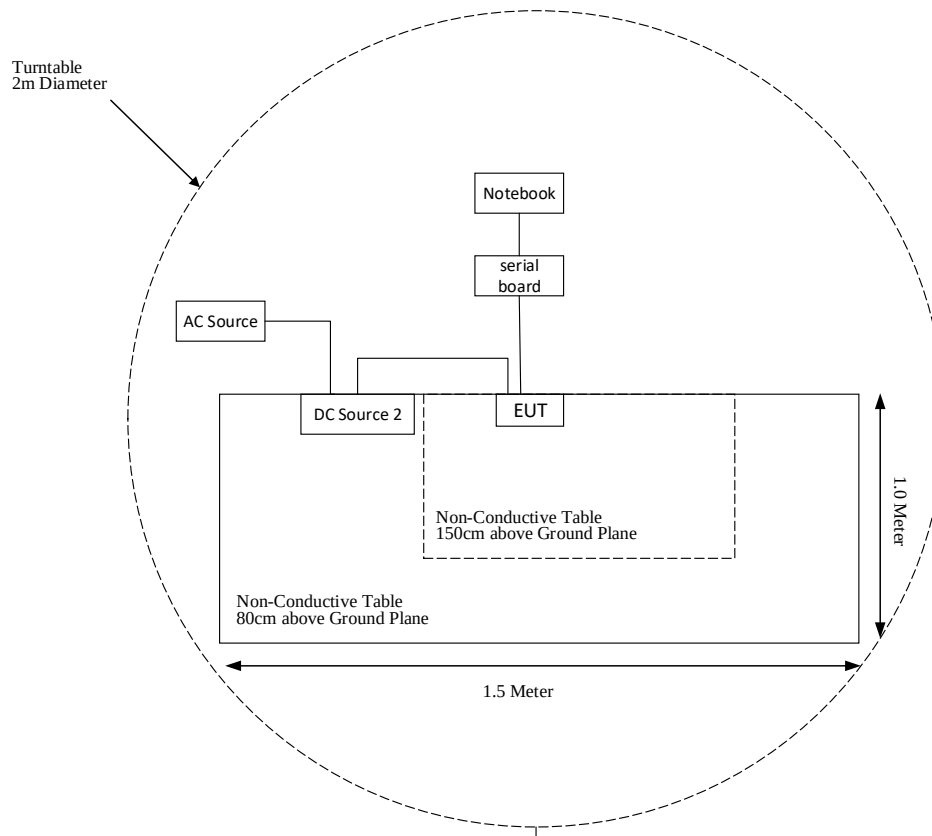
Cable Description	Length (m)	From Port	To
Power Cable 1	3.0	DC Source	EUT
Power Cable 2	1.5	DC Source	AC Source
Data Cable	0.1	EUT	Serial board
USB Cable	8.0	Serial board	Notebook

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
§15.203	Antenna Requirement	Compliant
§15.207(a)	AC Line Conducted Emissions	Not Applicable (See Note)
§15.205, §15.209 & §15.247(d)	Radiated Emissions & Restricted Bands Emissions	Compliant
§15.247(a)(1)	20 dB Emission Bandwidth	Compliant
§15.247(a)(1)	Channel Separation Test	Compliant
§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliant
§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliant
§15.247(b)(1)	Peak Output Power Measurement	Compliant
§15.247(d)	Band edges	Compliant

Note: The equipment is used on the vehicle.

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	2023-05-23	2024-05-22
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2023-11-11	2024-11-10
Narda	6dB Attenuator	773-6	10690812-2-1	2023-11-11	2024-11-10
ETS-LINDGREN	Loop Antenna	6512	108100	2023-11-09	2024-11-08
Sonoma Instrument	Pre-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	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-9	009	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-10	010	2023-05-23	2024-05-22
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2023-05-19	2024-05-18
ETS-LINDGREN	Horn Antenna	3115	9311-4159	2023-12-02	2024-12-01
ETS-LINDGREN	Horn Antenna	3116	2516	2023-12-08	2024-12-07
A.H.Systems, inc	Amplifier	PAM-0118P	512	2023-05-23	2024-05-22
SELECTOR	Amplifier	EM18G40G	060726	2023-05-23	2024-05-22
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2023-08-05	2024-08-04
Narda	Attenuator	10dB	010	2023-08-15	2024-08-14
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-11	011	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-12	012	2023-05-23	2024-05-22
MICRO-COAX	Coaxial Cable	Cable-13	013	2023-05-23	2024-05-22
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2023-05-23	2024-05-22
Narda	Attenuator	10dB	010	2023-05-23	2024-05-22
XHFDZ	RG178 Coaxial Cable	SMA-178	XHF-1102	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 §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to FCC § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Antenna Connector Construction

The EUT has an FPC for Bluetooth, and the antenna gain is 2.93 dBi, which is permanently attached to the unit, fulfill the requirement of this section. Please refer to the EUT photos.

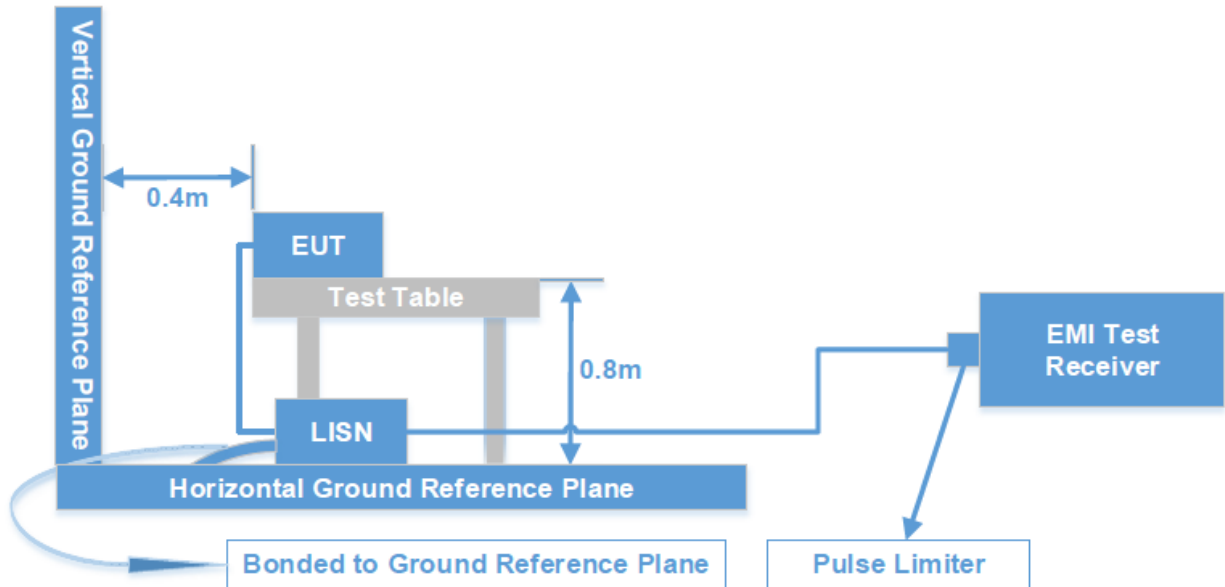
Result: Compliant.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

Test System Setup



The measurement procedure of EUT setup is according with ANSI C63.10-2013. The related limit was specified in FCC Part 15.207.

EMI Test Receiver Setup

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

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

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

Test Procedure

ANSI C63.10-2013 clause 6.2

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

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

Level & Over Limit Calculation

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

Factor (dB) = LISN VDF (dB) + Cable Loss (dB) + Transient Limiter Attenuation (dB)

Level (dBμV) = Read level (dBμV) + Factor (dB)

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

Over Limit (dB) = Level (dBμV) - Limit (dBμV)

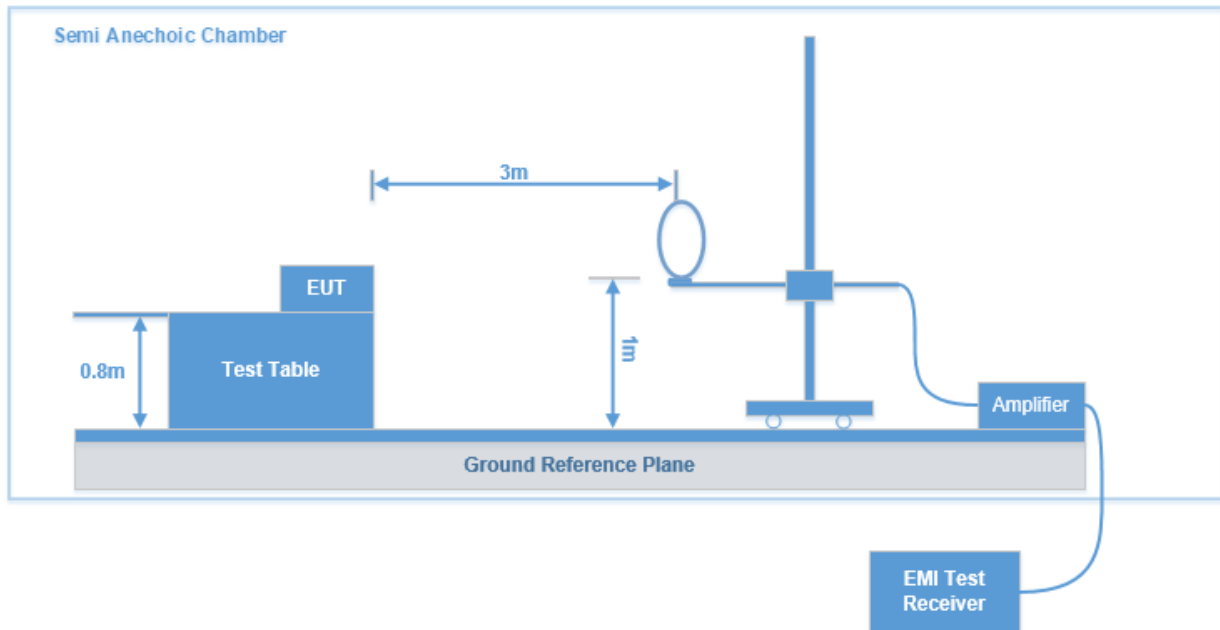
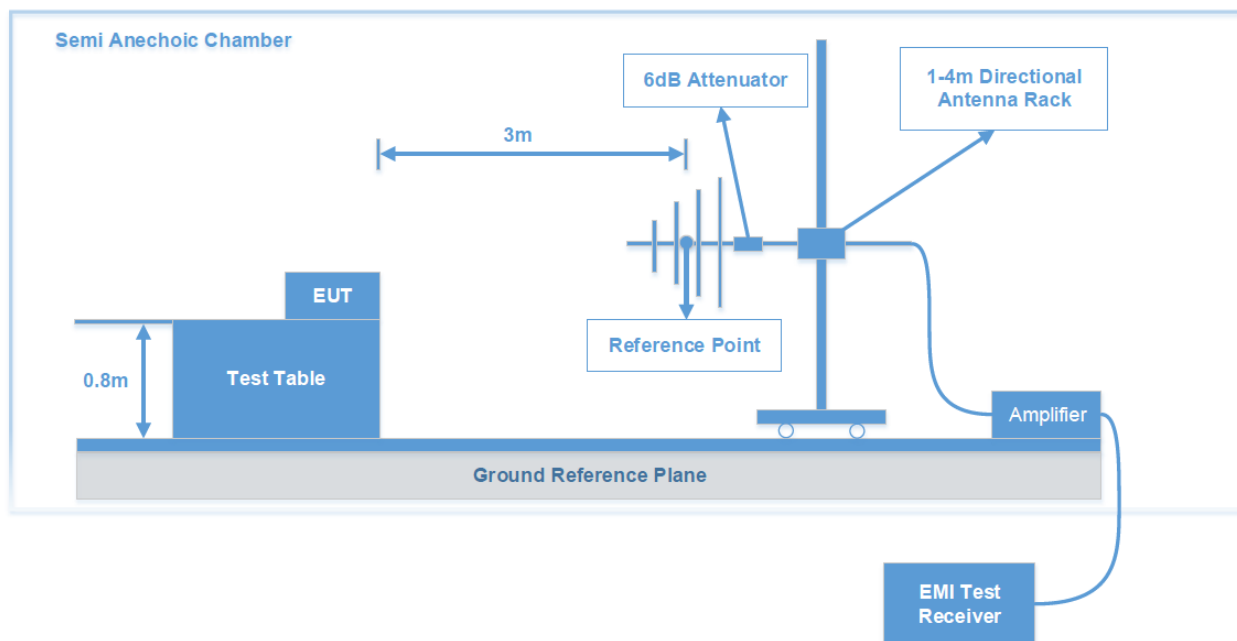
Test Results Summary

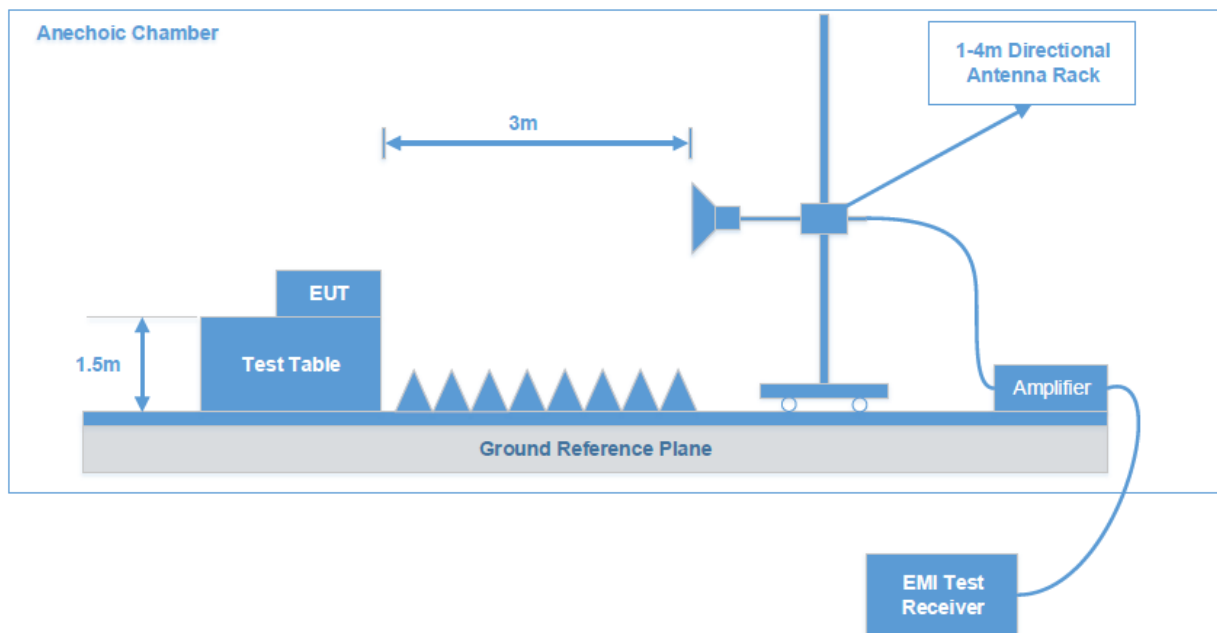
According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Test Data: N/A

FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS**Applicable Standard**

FCC §15.205; §15.209; §15.247(d)

Test System Setup**9k - 30MHz:****30 MHz - 1 GHz:**

Above 1GHz:

The radiated emission tests were performed in the 3 meters, 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

The system was investigated from 9 kHz to 25 GHz.

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

Test Procedure

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.

For 9kHz-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.

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 (dBμV/m) = Meter Reading (dBμV) + 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 (dBμV/m) – Corrected Amplitude (dBμV/m)

Note: The QuasiPeak (dBμV/m), MaxPeak (dBμV/m), Average (dBμV/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) (1)-CHANNEL SEPARATION TEST

Applicable Standard

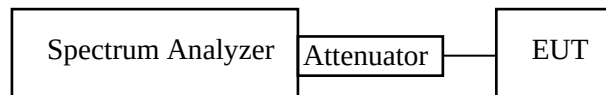
Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW.

Test Procedure

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

- a. Span: Wide enough to capture the peaks of two adjacent channels.
- b. RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel.
- c. Video (or average) bandwidth (VBW) $\geq$ RBW.
- d. Sweep: Auto.
- e. Detector function: Peak.
- f. Trace: Max hold.
- g. Allow the trace to stabilize.

Use the marker-delta function to determine the separation between the peaks of the adjacent channels.



Test Data: See Appendix

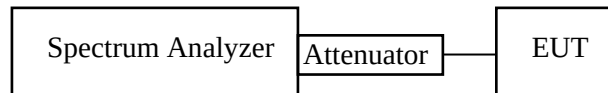
FCC §15.247(a) (1) – 20 dB EMISSION BANDWIDTH

Applicable Standard

Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

Test Procedure

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 it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.



Test Data: See Appendix

FCC §15.247(a) (1) (iii)-QUANTITY OF HOPPING CHANNEL TEST

Applicable Standard

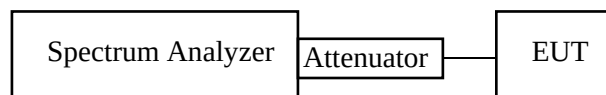
Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

- a. Span: The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
- b. RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
- c. VBW $\geq$ RBW.
- d. Sweep: Auto.
- e. Detector function: Peak.
- f. Trace: Max hold.
- g. Allow the trace to stabilize.

It might prove necessary to break the span up into subranges to show clearly all of the hopping frequencies.



Test Data: See Appendix

FCC §15.247(a) (1) (iii) - TIME OF OCCUPANCY (DWELL TIME)

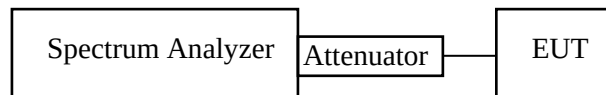
Applicable Standard

Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Procedure

The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings:

- a Span: Zero span, centered on a hopping channel.
- b RBW shall be $\leq$ channel spacing and where possible RBW should be set $\geq 1 / T$, where T is the expected dwell time per channel.
- c Sweep: As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel; a second plot might be needed with a longer sweep time to show two successive hops on a channel.
- d Detector function: Peak.
- e Trace: Max hold.



Test Data: See Appendix

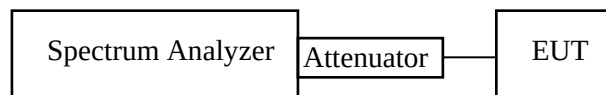
FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to §15.247(b) (1), for frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. And for all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

Test Procedure

- a. Use the following spectrum analyzer settings:
 - 1) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel.
 - 2) RBW > 20 dB bandwidth of the emission being measured.
 - 3) VBW $\geq$ RBW.
 - 4) Sweep: Auto.
 - 5) Detector function: Peak.
 - 6) Trace: Max hold.
- b. Allow trace to stabilize.
- c. Use the marker-to-peak function to set the marker to the peak of the emission.
- d. The indicated level is the peak output power, after any corrections for external attenuators and cables.
- e. A plot of the test results and setup description shall be included in the test report.



Test Data: See Appendix

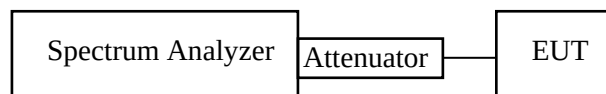
FCC §15.247(d) - BAND EDGES TESTING

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 Compliance 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

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 100 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.



Test Data: See Appendix

Appendix - TEST DATA

Environmental Conditions & Test Information

Test Item:	RADIATED EMISSIONS	
	9 kHz-1 GHz	1 GHz -25 GHz
Test Date:	2024-03-27	2024-03-08 to 2024-04-23
Temperature:	16.4 °C	20.3-22.5 °C
Relative Humidity:	51 %	48-52 %
ATM Pressure:	102.2 kPa	101.5-102.6 kPa
Test Result:	Pass	Pass
Test Engineer:	Leah Li	Peter Wang

Test Item:	20 DB BANDWIDTH TEST	CHANNEL SEPARATION TEST	QUANTITY OF HOPPING CHANNEL TEST	TIME OF OCCUPANCY (DWELL TIME)	PEAK OUTPUT POWER MEASUREMENT	BAND EDGES
Test Date:	2024-03-20	2024-04-16	2024-03-20	2024-04-16	2024-03-20	2024-04-16
Temperature:	21.7 °C	22.6 °C	21.7 °C	22.6 °C	21.7 °C	22.6 °C
Relative Humidity:	43 %	50 %	43 %	50 %	43 %	50 %
ATM Pressure:	101.6kPa	101.5kPa	101.6kPa	101.5kPa	101.6kPa	101.5kPa
Test Result:	Pass	Pass	Pass	Pass	Pass	Pass
Test Engineer:	Hardy Huang	Hardy Huang	Hardy Huang	Hardy Huang	Hardy Huang	Hardy Huang

RADIATED EMISSIONS & RESTRICTED BANDS EMISSIONS

EUT operation mode: Transmitting

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

9 kHz-30MHz: (Transmitting in maximum output power mode and channel)

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

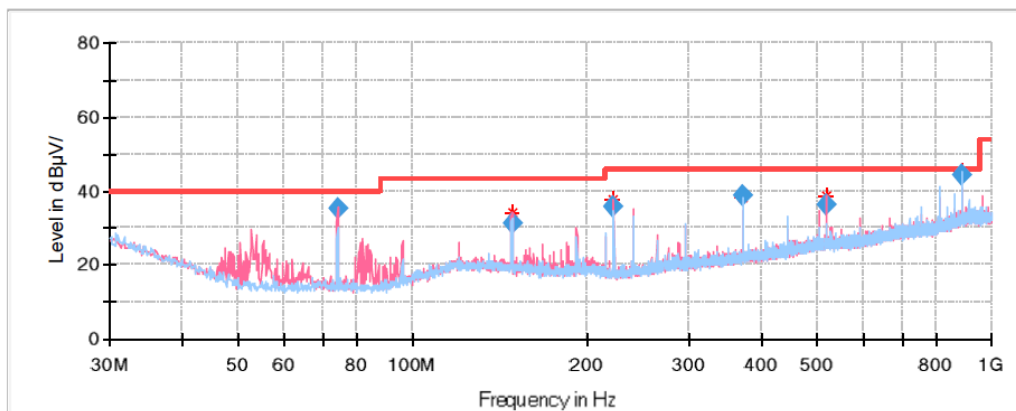
30MHz-1GHz:

EUT operation mode: Transmitting in 8DPSK Mode (maximum output power mode)

Low Channel: 2402 MHz

Common Information

Project No:	RSHA240229004
Test Mode:	BT Mode of Low Channel
Standard:	FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer:	Leah Li

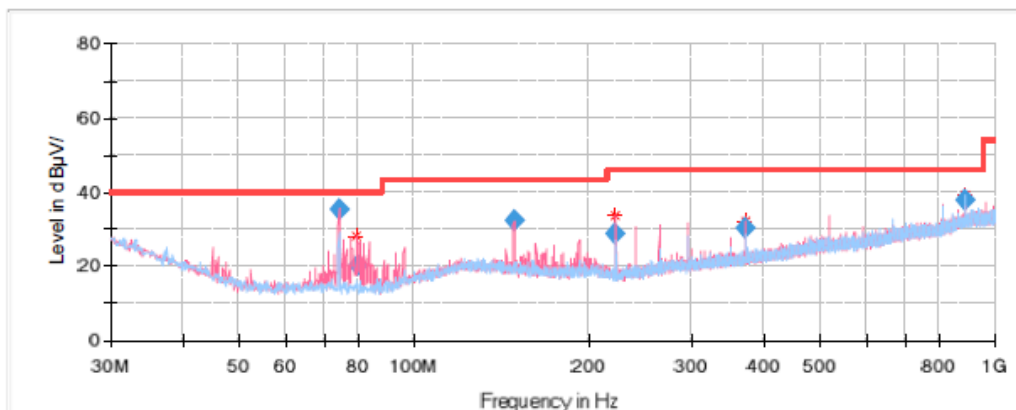


Final Result

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
74.130000	35.39	40.00	4.61	V	-17.1
148.340000	31.12	43.50	12.38	V	-12.0
222.540000	35.88	46.00	10.12	V	-13.7
370.830000	38.61	46.00	7.39	H	-9.3
519.240000	36.14	46.00	9.86	V	-5.6
890.140000	44.06	46.00	1.94	H	1.1

Middle Channel: 2441 MHz**Common Information**

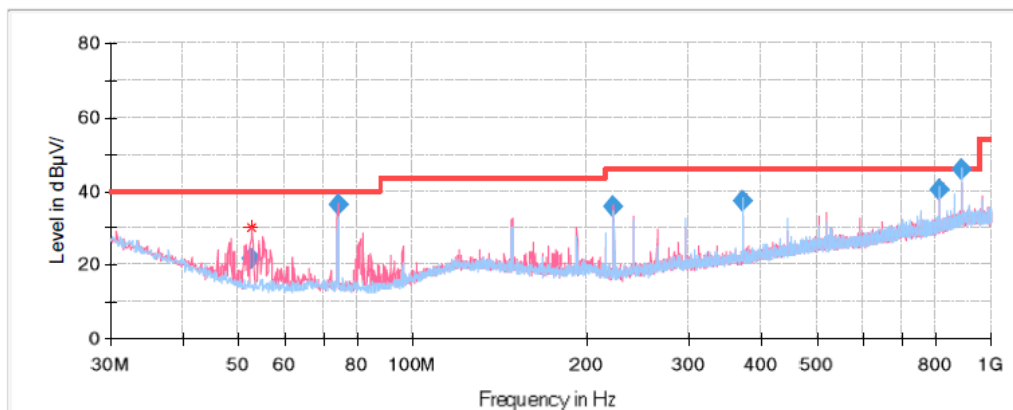
Project No: RSHA240229004
Test Mode: BT Mode of Middle Channel
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Leah Li

**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
74.130000	35.28	40.00	4.72	V	-17.1
79.590000	20.22	40.00	19.78	V	-17.6
148.340000	32.14	43.50	11.36	V	-12.0
222.420000	28.61	46.00	17.39	V	-13.7
370.830000	30.27	46.00	15.73	V	-9.3
890.140000	37.95	46.00	8.05	H	1.1

High Channel: 2480 MHz**Common Information**

Project No: RSHA240229004
Test Mode: BT Mode of High Channel
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Leah Li

**Final Result**

Frequency (MHz)	QuasiPeak (dBμ V/m)	Limit (dBμ V/m)	Margin (dB)	Pol	Corr. (dB/m)
52.670000	21.75	40.00	18.25	V	-16.9
74.130000	36.42	40.00	3.58	V	-17.1
222.540000	35.70	46.00	10.30	V	-13.7
370.830000	37.31	46.00	8.69	H	-9.3
815.940000	40.02	46.00	5.98	H	-1.0
890.140000	45.87	46.00	0.13	H	1.1

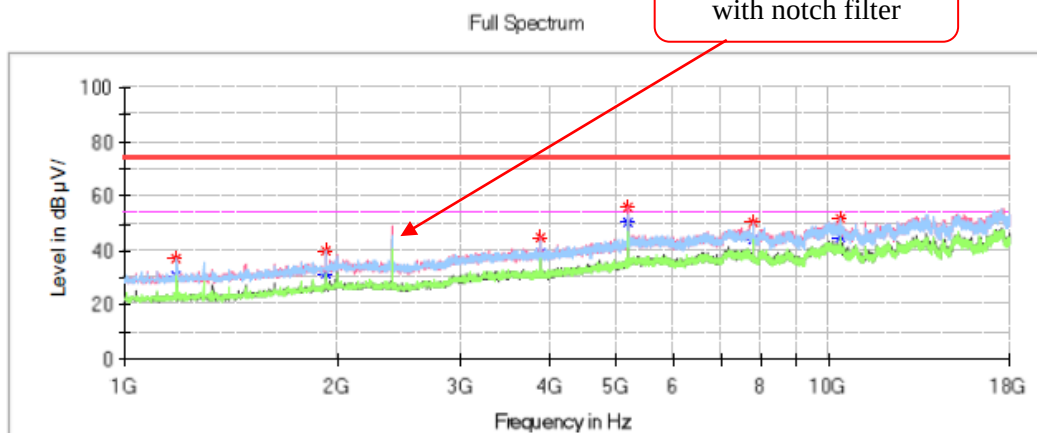
1 GHz - 18 GHz:

GFSK:

Low Channel: 2402 MHz

Common Information

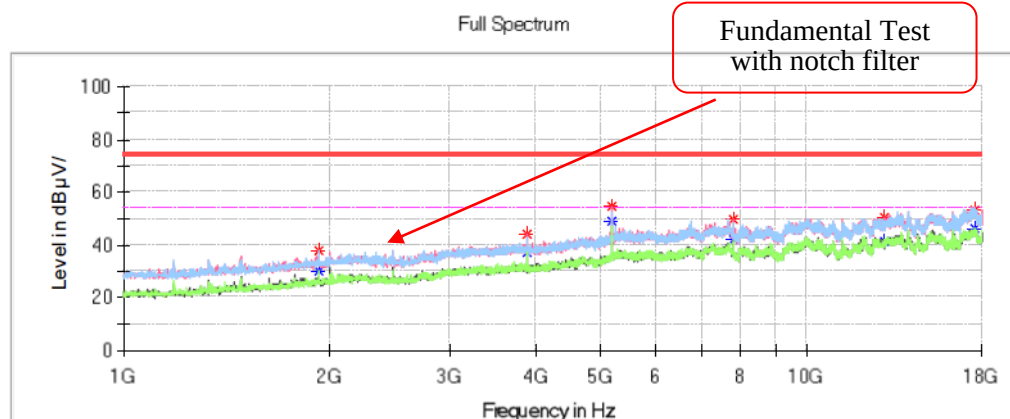
Project No: RSHA240229004
 Test Mode: BT
 Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
 Test Engineer: Peter Wang

**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)
1185.300000	---	31.11	54.00	22.89	H	-14.9
1185.300000	37.38	---	74.00	36.62	H	-14.9
1928.200000	---	31.68	54.00	22.32	H	-11.1
1928.200000	39.80	---	74.00	34.20	H	-11.1
3886.600000	---	38.98	54.00	15.02	V	-5.3
3886.600000	45.06	---	74.00	28.94	V	-5.3
5183.700000	---	50.01	54.00	3.99	V	-0.5
5183.700000	55.85	---	74.00	18.15	V	-0.5
7774.500000	---	43.79	54.00	10.21	H	4.0
7774.500000	50.46	---	74.00	23.54	H	4.0
10367.000000	---	44.65	54.00	9.35	H	7.4
10367.000000	51.74	---	74.00	22.26	H	7.4

Middle Channel: 2441 MHz**Common Information**

Project No: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**Critical_Freqs**

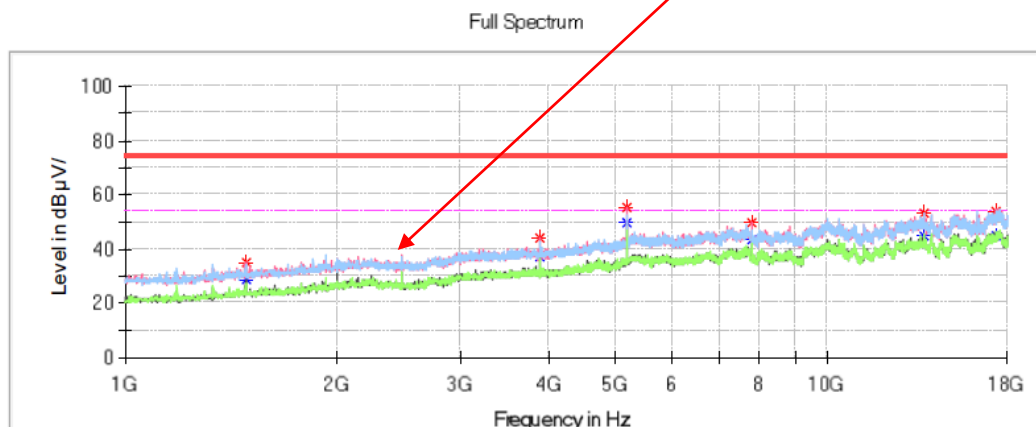
Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1928.200000	---	30.24	54.00	23.76	H	-11.1
1928.200000	37.79	---	74.00	36.21	H	-11.1
3886.600000	---	37.38	54.00	16.62	V	-5.3
3886.600000	43.71	---	74.00	30.29	V	-5.3
5183.700000	---	49.04	54.00	4.96	V	-0.5
5183.700000	54.77	---	74.00	19.23	V	-0.5
7774.500000	---	42.29	54.00	11.71	V	4.0
7774.500000	49.63	---	74.00	24.37	V	4.0
12993.500000	---	41.02	54.00	12.98	V	9.0
12993.500000	50.70	---	74.00	23.30	V	9.0
17558.000000	---	46.07	54.00	7.93	V	13.4
17558.000000	52.89	---	74.00	21.11	V	13.4

High Channel: 2480 MHz**Common Information**

Project No:
EUT Model:
Standard:
Test Engineer:

RSHA240229004
CAM15
FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Peter Wang

Fundamental Test
with notch filter

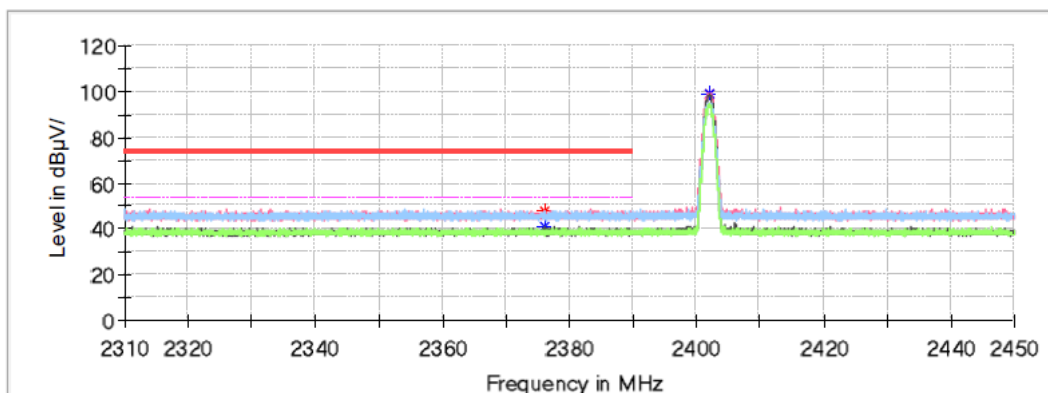
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1482.800000	---	28.98	54.00	25.02	V	-14.0
1482.800000	35.10	---	74.00	38.90	V	-14.0
3886.600000	---	37.31	54.00	16.69	V	-5.3
3886.600000	43.83	---	74.00	30.17	V	-5.3
5183.700000	---	49.34	54.00	4.66	V	-0.5
5183.700000	55.35	---	74.00	18.65	V	-0.5
7774.500000	---	43.54	54.00	10.46	V	4.0
7774.500000	49.98	---	74.00	24.02	V	4.0
13678.600000	53.04	---	74.00	20.96	H	10.8
13678.600000	---	44.90	54.00	9.10	H	10.8
17345.500000	---	44.48	54.00	9.52	H	13.2
17345.500000	53.96	---	74.00	20.04	H	13.2

Band Edge:**Left Side****Common Information**

Project No: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum

**Critical_Freqs**

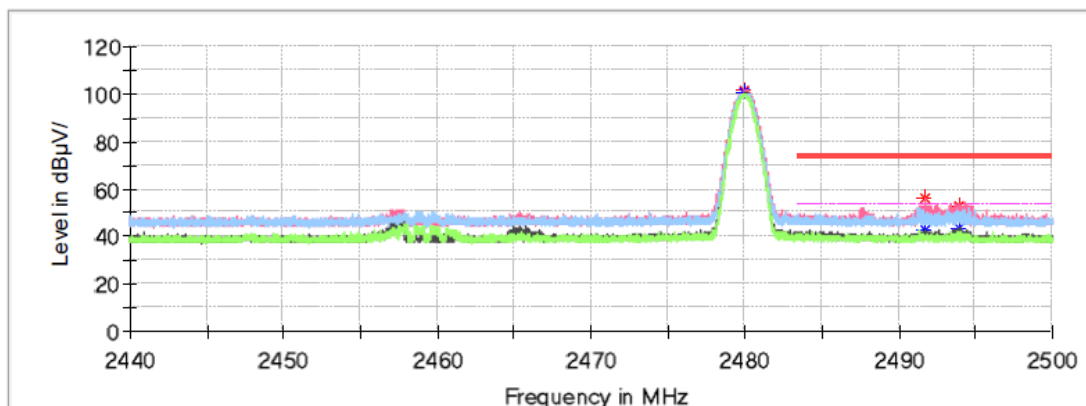
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2376.024000	47.46	---	74.00	26.54	V	0.0
2376.024000	---	41.29	54.00	12.71	V	0.0
2401.938000	---	98.68	---	---	V	0.1
2401.938000	98.93	---	---	---	V	0.1

Right Side

Common Information

Project No: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

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)
2480.020000	101.29	---	---	---	V	0.2
2480.020000	---	100.51	---	---	V	0.2
2491.714000	---	42.61	54.00	11.39	V	0.2
2491.714000	56.24	---	74.00	17.76	V	0.2
2493.976000	---	43.66	54.00	10.34	V	0.2
2493.976000	53.19	---	74.00	20.81	V	0.2

$\pi/4$ -DQPSK:

Low Channel: 2402 MHz

Common Information

Project No.:

RSHA240229004

Test Mode:

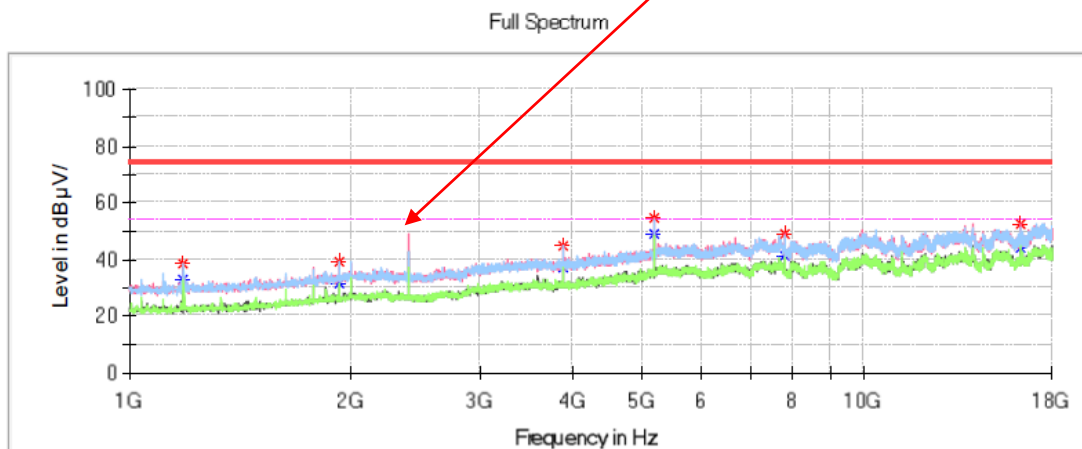
BT

Standard:

FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209

Test Engineer:

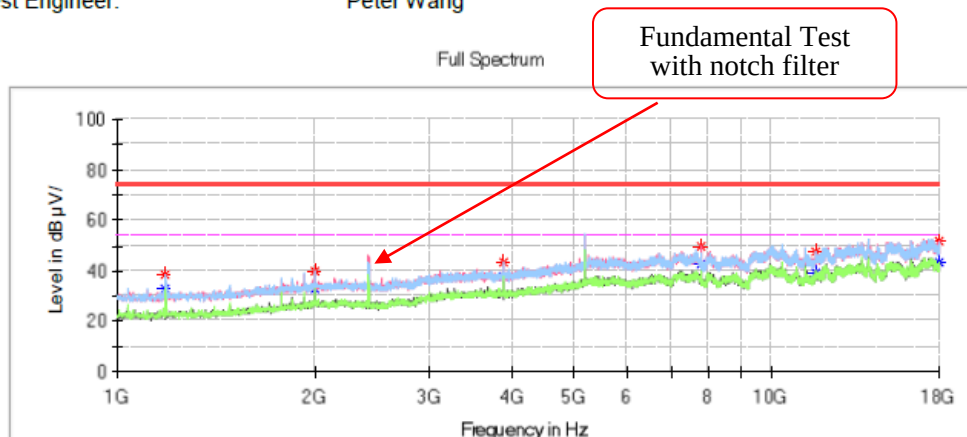
Peter Wang

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)
1185.300000	38.55	---	74.00	35.45	H	-14.9
1185.300000	---	32.96	54.00	21.04	H	-14.9
1926.500000	---	31.21	54.00	22.79	H	-11.1
1926.500000	39.30	---	74.00	34.70	H	-11.1
3886.600000	---	37.07	54.00	16.93	H	-5.3
3886.600000	44.60	---	74.00	29.40	H	-5.3
5182.000000	54.36	---	74.00	19.64	V	-0.5
5183.700000	---	48.91	54.00	5.09	V	-0.5
7774.500000	---	41.22	54.00	12.78	V	4.0
7774.500000	49.07	---	74.00	24.93	V	4.0
16301.700000	---	44.30	54.00	9.70	H	9.7
16301.700000	52.41	---	74.00	21.59	V	9.7

Middle Channel: 2441 MHz**Common Information**

Project No.: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**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)
1185.300000	---	32.80	54.00	21.20	H	-14.9
1185.300000	38.46	---	74.00	35.54	H	-14.9
2001.300000	---	33.21	54.00	20.79	H	-10.6
2001.300000	39.60	---	74.00	34.40	H	-10.6
3886.600000	---	38.08	54.00	15.92	H	-5.3
3886.600000	43.58	---	74.00	30.42	H	-5.3
7774.500000	---	42.61	54.00	11.39	V	4.0
7774.500000	49.52	---	74.00	24.48	V	4.0
11648.800000	---	39.42	54.00	14.58	H	7.2
11648.800000	47.54	---	74.00	26.46	H	7.2
17998.300000	---	43.56	54.00	10.44	V	11.5
17998.300000	52.08	---	74.00	21.92	V	11.5

High Channel: 2480 MHz**Common Information**

Project No.:

RSHA240229004

Test Mode:

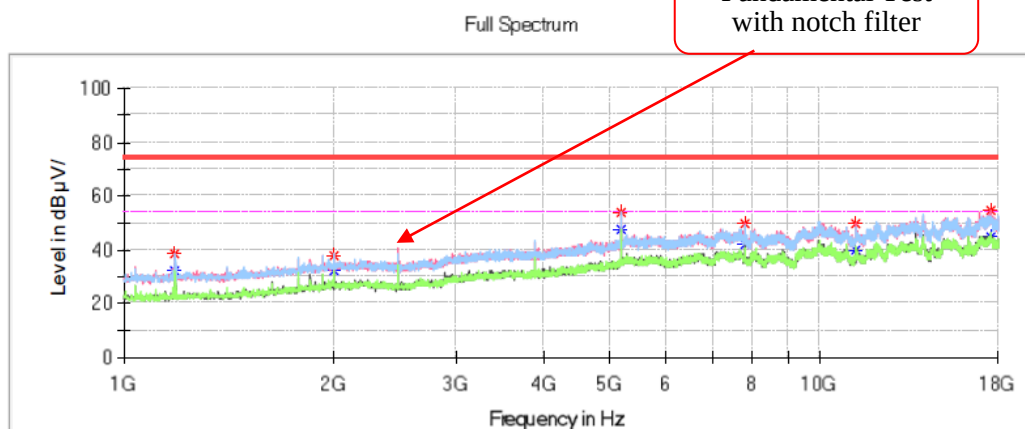
BT

Standard:

FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209

Test Engineer:

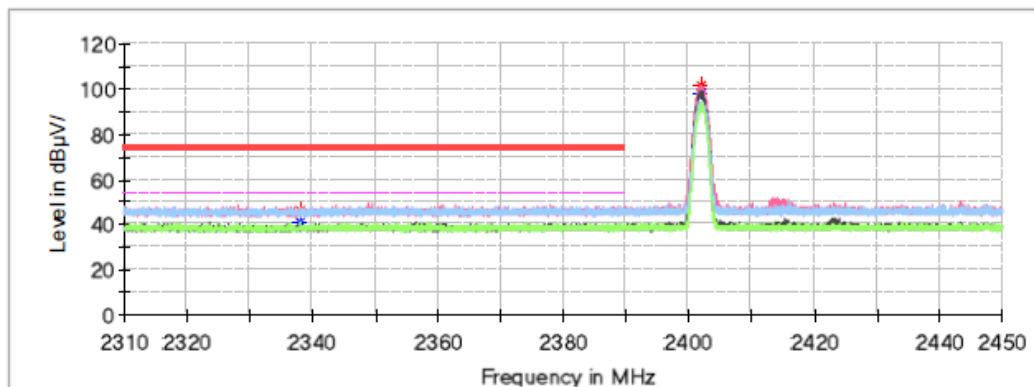
Peter Wang

**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)
1185.300000	38.12	---	74.00	35.88	H	-14.9
1185.300000	---	32.42	54.00	21.58	H	-14.9
2001.300000	38.07	---	74.00	35.93	H	-10.6
2001.300000	---	32.50	54.00	21.50	H	-10.6
5183.700000	---	47.87	54.00	6.13	V	-0.5
5183.700000	54.01	---	74.00	19.99	V	-0.5
7774.500000	49.84	---	74.00	24.16	V	4.0
7774.500000	---	42.20	54.00	11.80	V	4.0
11210.200000	---	39.92	54.00	14.08	V	6.7
11210.200000	49.32	---	74.00	24.68	V	6.7
17578.400000	---	44.66	54.00	9.34	V	13.3
17578.400000	54.50	---	74.00	19.50	V	13.3

Band Edge:**Left Side****Common Information**

Project No.: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

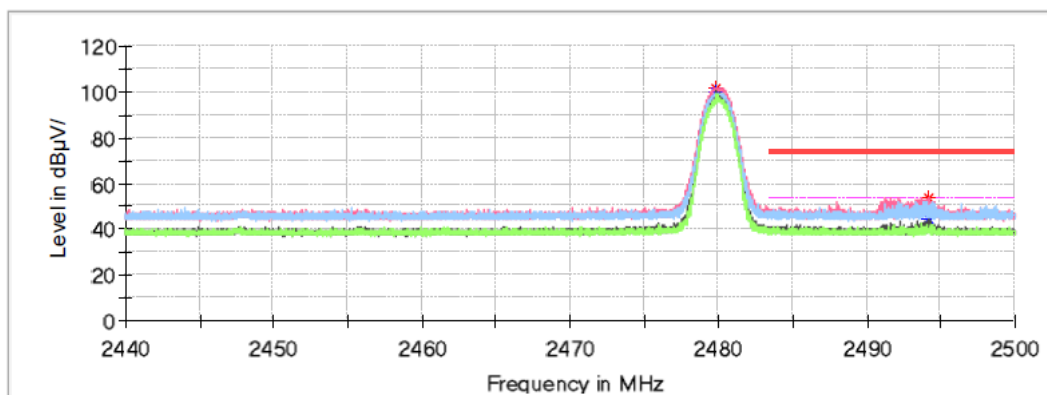
Full Spectrum**Critical Freqs**

Frequency (MHz)	MaxPeak (dB μ V/m)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2337.944000	46.21	---	74.00	27.79	H	0.0
2337.944000	---	41.27	54.00	12.73	H	0.0
2401.882000	---	98.34	---	---	V	0.1
2401.882000	101.21	---	---	---	V	0.1

Right Side**Common Information**

Project No.: RSHA24022900
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

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)
2479.846000	---	100.11	---	---	V	0.2
2479.846000	101.25	---	---	---	V	0.2
2494.120000	54.06	---	74.00	19.94	V	0.2
2494.120000	---	44.19	54.00	9.81	V	0.2

8DPSK:**Low Channel: 2402 MHz****Common Information**

Project No.:

RSHA240229004

Test Mode:

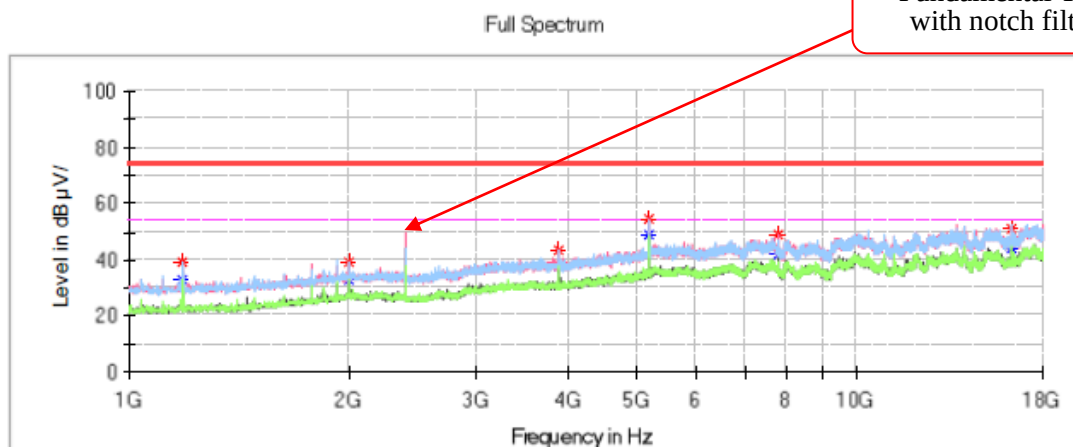
BT

Standard:

FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209

Test Engineer:

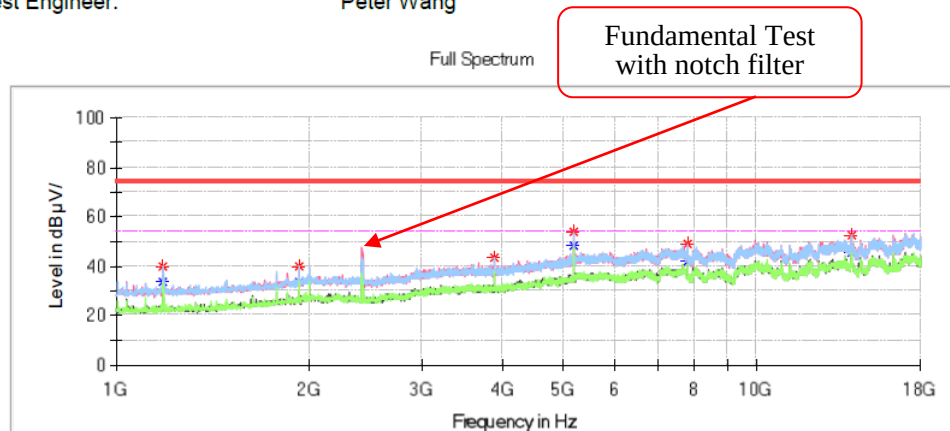
Peter Wang

**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)
1185.300000	---	33.19	54.00	20.81	H	-14.9
1185.300000	39.23	---	74.00	34.77	H	-14.9
2001.300000	---	33.18	54.00	20.82	H	-10.6
2001.300000	39.24	---	74.00	34.76	H	-10.6
3886.600000	---	37.43	54.00	16.57	H	-5.3
3886.600000	43.32	---	74.00	30.68	V	-5.3
5183.700000	---	49.12	54.00	4.88	V	-0.5
5183.700000	54.50	---	74.00	19.50	V	-0.5
7774.500000	---	42.07	54.00	11.93	V	4.0
7774.500000	49.12	---	74.00	24.88	V	4.0
16301.700000	---	43.84	54.00	10.16	H	9.7
16301.700000	51.08	---	74.00	22.92	V	9.7

Middle Channel: 2441 MHz**Common Information**

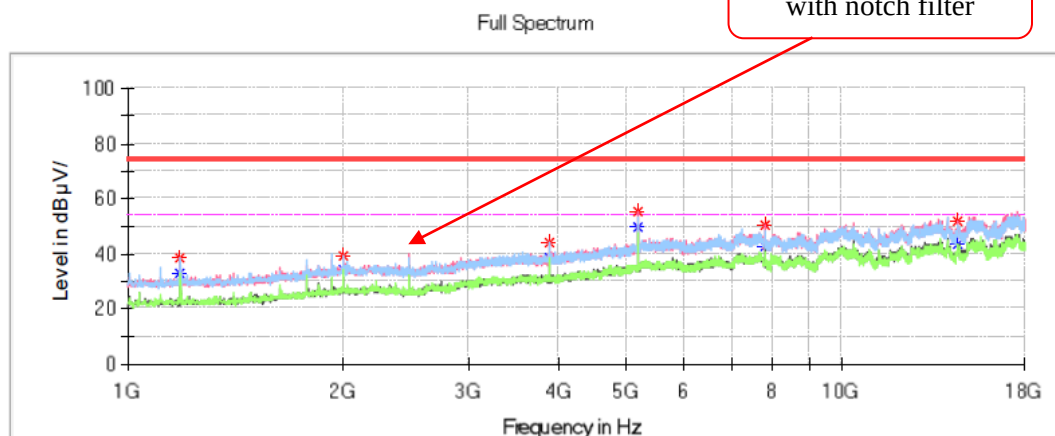
Project No.: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

**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)
1185.300000	---	33.32	54.00	20.68	H	-14.9
1185.300000	39.70	---	74.00	34.30	H	-14.9
1928.200000	---	33.27	54.00	20.73	H	-11.1
1928.200000	39.66	---	74.00	34.34	H	-11.1
3886.600000	---	37.92	54.00	16.08	H	-5.3
3886.600000	43.37	---	74.00	30.63	H	-5.3
5183.700000	---	48.51	54.00	5.49	V	-0.5
5183.700000	54.11	---	74.00	19.89	V	-0.5
7774.500000	49.16	---	74.00	24.84	V	4.0
7774.500000	---	41.74	54.00	12.26	V	4.0
14001.600000	---	45.49	54.00	8.51	V	10.5
14001.600000	52.55	---	74.00	21.45	V	10.5

High Channel: 2480 MHz**Common Information**

Project No.: RSHA240229004
 Test Mode: BT
 Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
 Test Engineer: Peter Wang

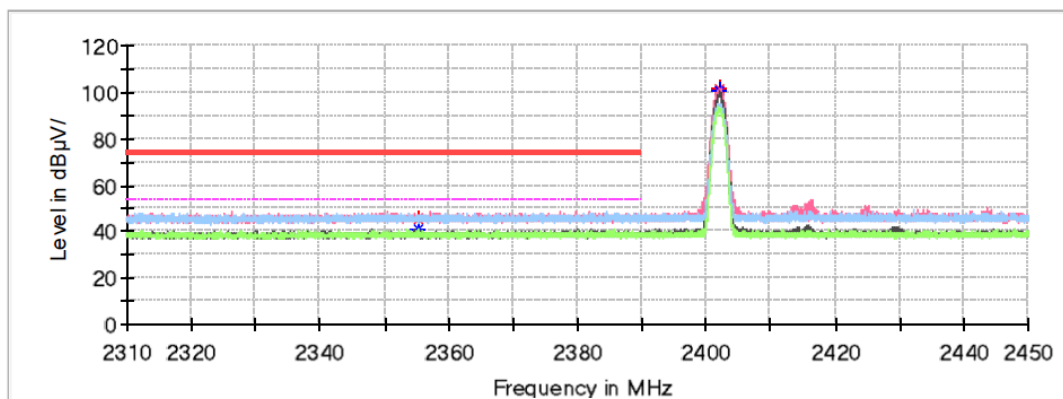
**Critical_Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1185.300000	---	32.74	54.00	21.26	H	-14.9
1185.300000	38.69	---	74.00	35.31	H	-14.9
2001.300000	---	34.11	54.00	19.89	H	-10.6
2001.300000	39.31	---	74.00	34.69	H	-10.6
3886.600000	---	38.25	54.00	15.75	H	-5.3
3886.600000	44.39	---	74.00	29.61	H	-5.3
5183.700000	---	49.72	54.00	4.28	V	-0.5
5183.700000	55.57	---	74.00	18.43	V	-0.5
7774.500000	---	42.81	54.00	11.19	V	4.0
7774.500000	50.34	---	74.00	23.66	V	4.0
14486.100000	---	43.07	54.00	10.93	V	8.2
14486.100000	51.94	---	74.00	22.06	V	8.2

Band Edge:**Left Side****Common Information**

Project No.: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

Full Spectrum

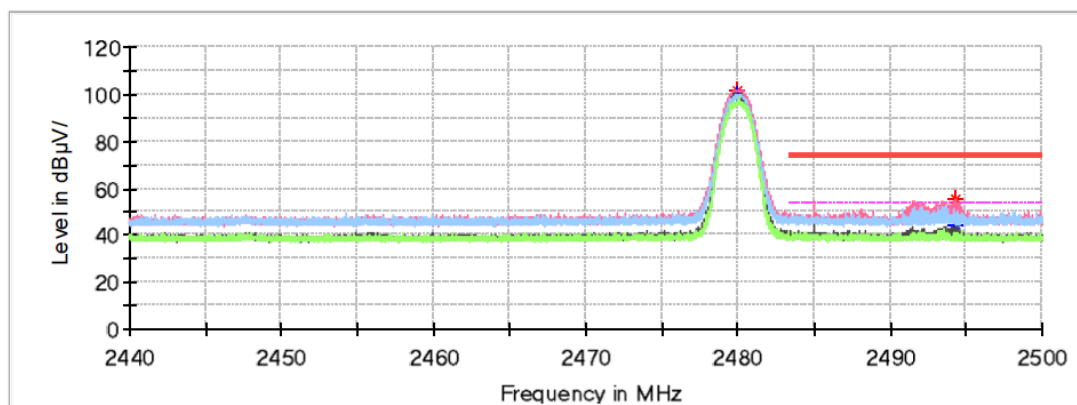
**Critical Freqs**

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2355.178000	---	41.04	54.00	12.96	H	0.0
2355.178000	45.28	---	74.00	28.72	V	0.0
2402.036000	---	100.84	---	---	V	0.1
2402.036000	101.25	---	---	---	V	0.1

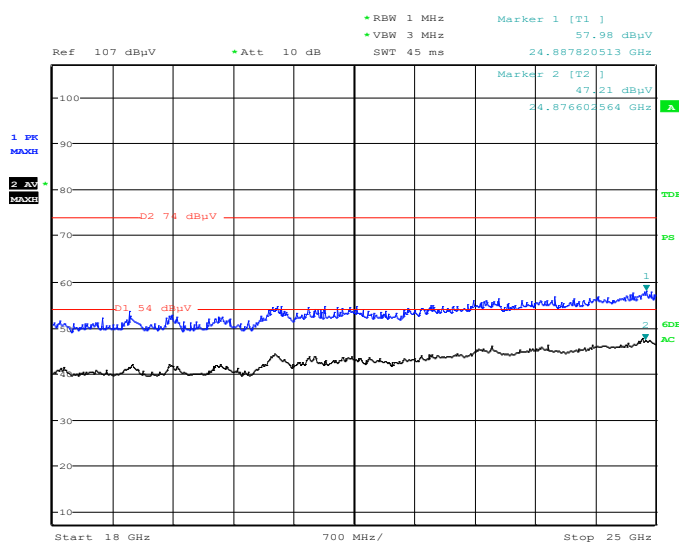
Right Side**Common Information**

Project No.: RSHA240229004
Test Mode: BT
Standard: FCC Part 15.247 & FCC Part 15.205 & FCC Part 15.209
Test Engineer: Peter Wang

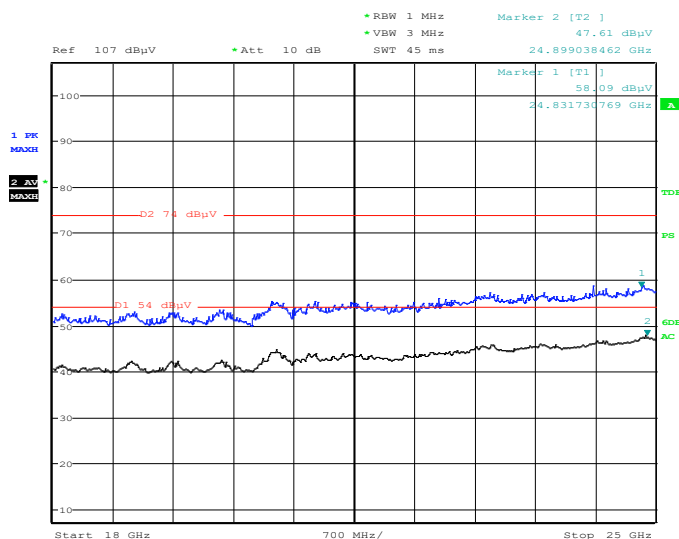
Full Spectrum

**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)
2479.948000	---	99.67	---	---	V	0.2
2479.948000	101.36	---	---	---	V	0.2
2494.318000	---	44.08	54.00	9.92	V	0.2
2494.318000	55.06	---	74.00	18.94	V	0.2

18GHz-25GHz:*EUT operation mode: Transmitting in high channel of 8DPSK mode (Worst case)***Horizontal**

Project No.: RSHA240229004 Tester: Peter Wang
Date: 23.APR.2024 10:36:06

Vertical

Project No.: RSHA240229004 Tester: Peter Wang
Date: 23.APR.2024 10:20:38

Note: The test distance is 3m. The limit is 74dBμV/m(Peak) and 54dBμV/m(Average).

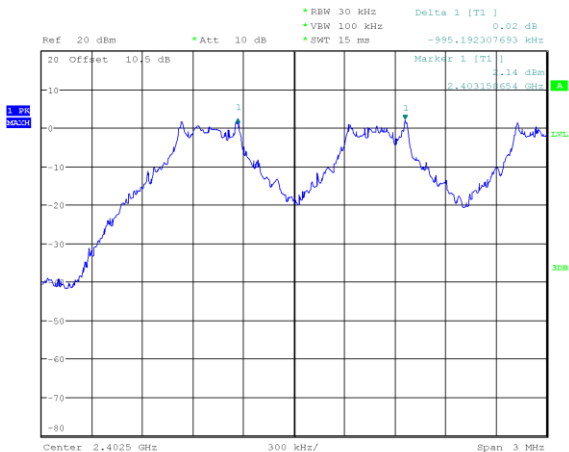
CHANNEL SEPARATION TEST

EUT operation mode: Transmitting

Mode	Channel	Channel frequency (MHz)	Result (MHz)	Limit (MHz)
GFSK	Low	2402-2403	0.995	0.64
	Middle	2441-2442	1.010	0.61
	High	2480-2479	1.000	0.56
$\pi/4$ DQPSK	Low	2402-2403	1.000	0.8
	Middle	2441-2442	1.005	0.81
	High	2480-2479	1.000	0.82
8DPSK	Low	2402-2403	1.000	0.83
	Middle	2441-2442	0.995	0.85
	High	2480-2479	1.000	0.84

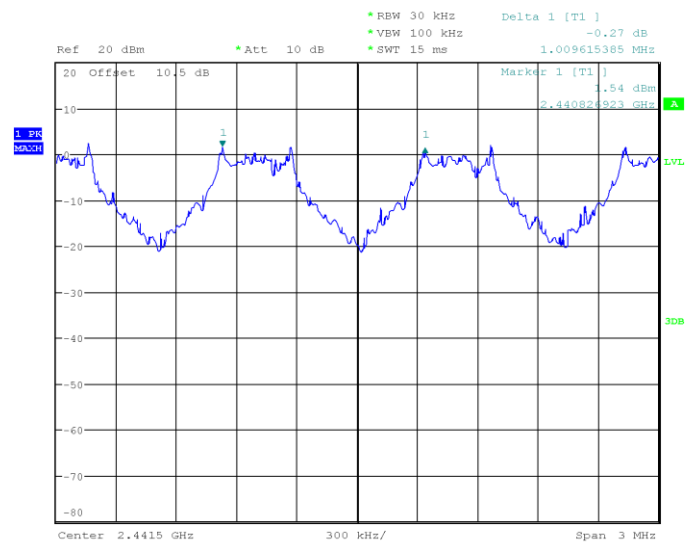
Note: Limit = 20 dB bandwidth*2/3

BDR (GFSK): Low Channel



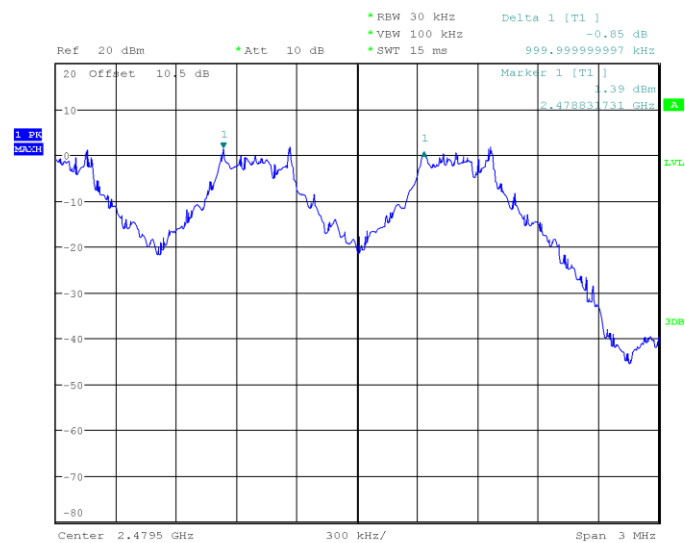
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:51:46

BDR (GFSK): Middle Channel



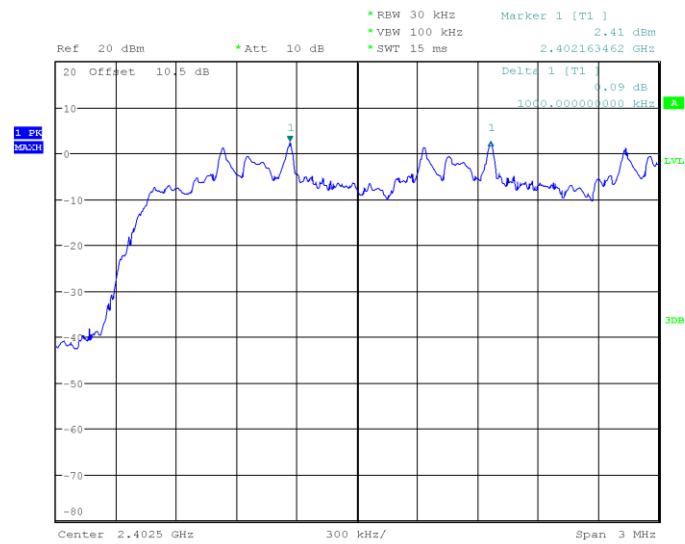
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:55:28

BDR (GFSK): High Channel



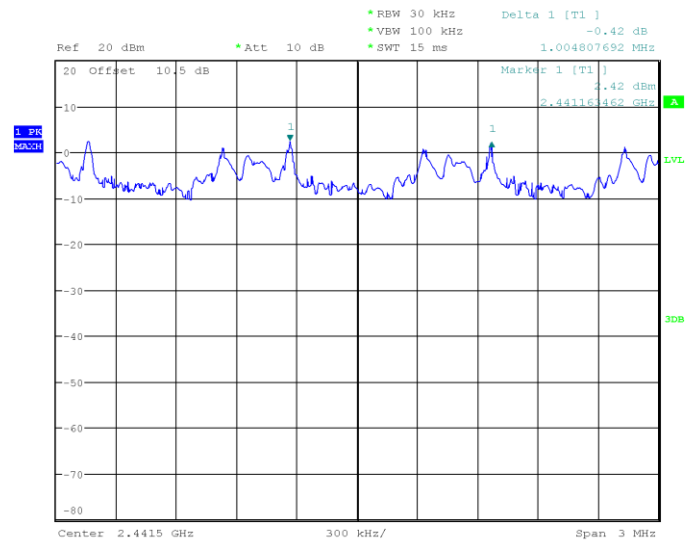
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:57:57

EDR ($\pi/4$ -DQPSK): Low Channel



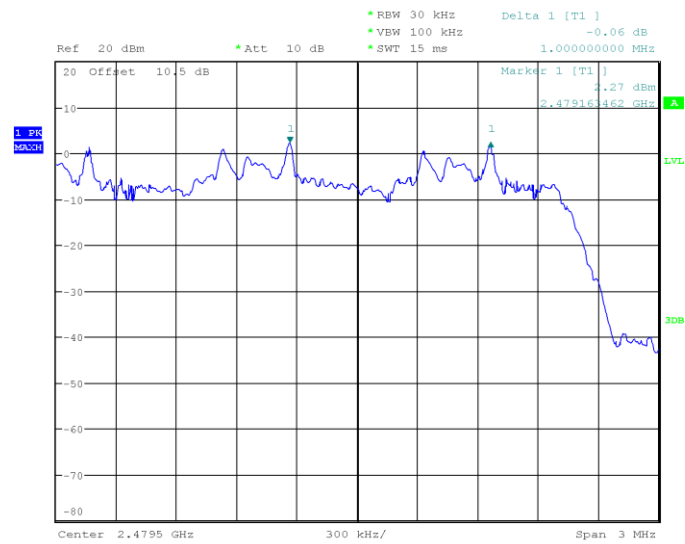
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 14:24:25

EDR ($\pi/4$ -DQPSK): Middle Channel



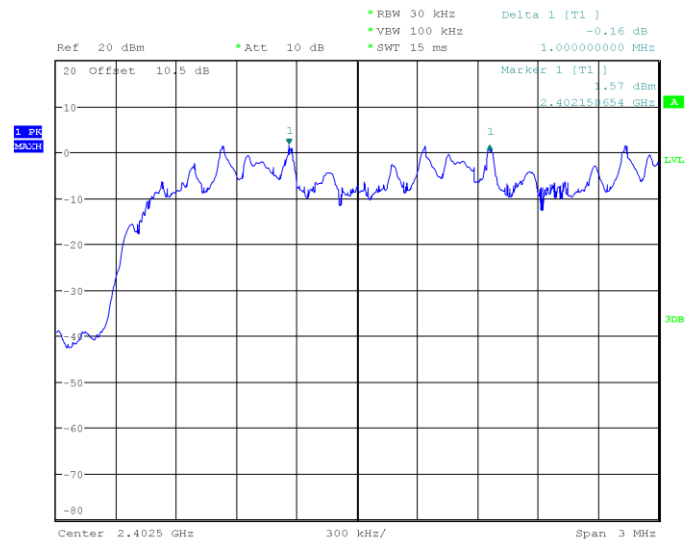
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 14:16:25

EDR ($\pi/4$ -DQPSK): High Channel



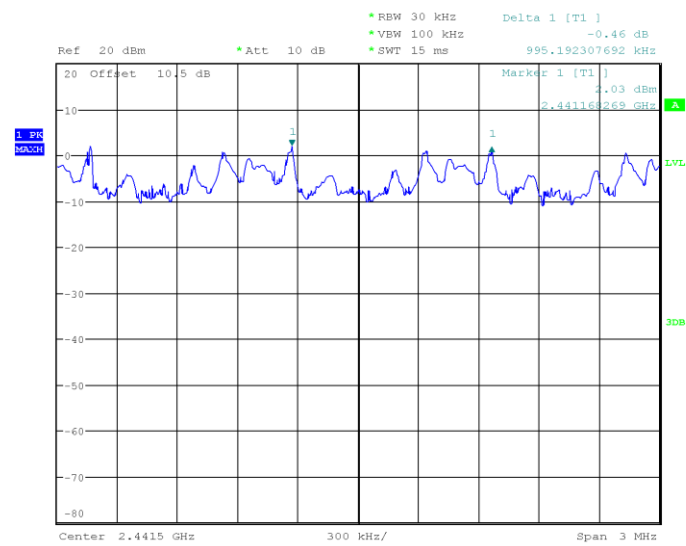
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 14:08:11

EDR (8DPSK): Low Channel



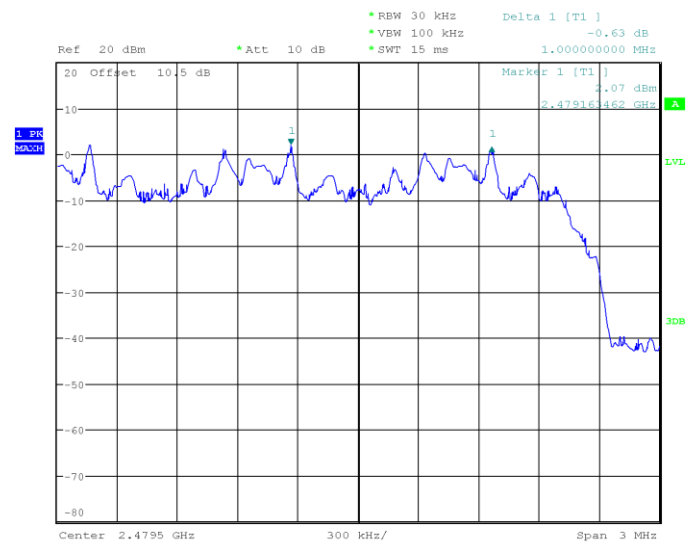
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 14:27:01

EDR (8DPSK): Middle Channel



ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 14:40:31

EDR (8DPSK): High Channel



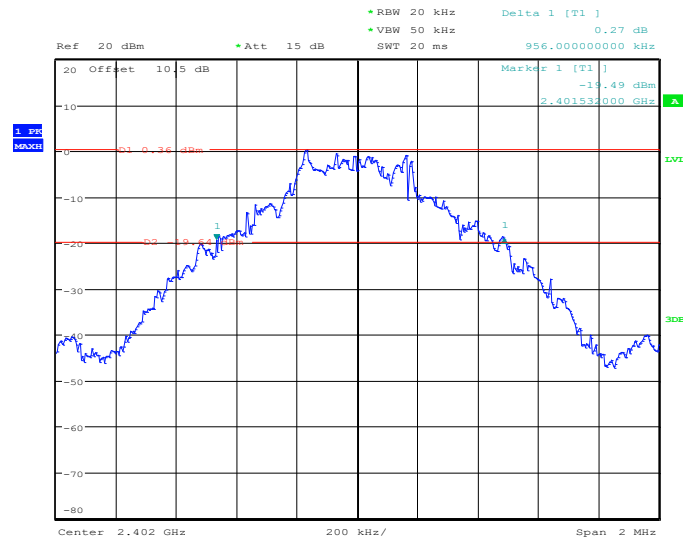
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 14:44:24

20 dB BANDWIDTH TEST

EUT operation mode: Transmitting

Mode	Channel	Frequency (MHz)	20 dB Emission Bandwidth (MHz)
BDR (GFSK)	Low	2402	0.956
	Middle	2441	0.920
	High	2480	0.844
EDR ($\pi/4$ -DQPSK)	Low	2402	1.204
	Middle	2441	1.216
	High	2480	1.236
EDR (8DPSK)	Low	2402	1.244
	Middle	2441	1.268
	High	2480	1.260

BDR (GFSK): Low Channel



ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 18:55:39

Ref 20 dBm • Att 15 dB SWT 20 ms 920.000000000 kHz

20 Offset 10 5 dB

Marker 1 [T1]
-1.27 dBm
2.440564000 GHz

-10
-18.65 dBm
2.440564000 GHz

1 1.27 dBm

2 -18.73 dBm

Center 2.441 GHz 200 kHz/ Span 2 MHz

Ref 20 dBm Att 15 dB SWT 20 ms Delta 1 [T1] 0.71 dB 844.000000000 kHz

20 Offset 10 5 dB

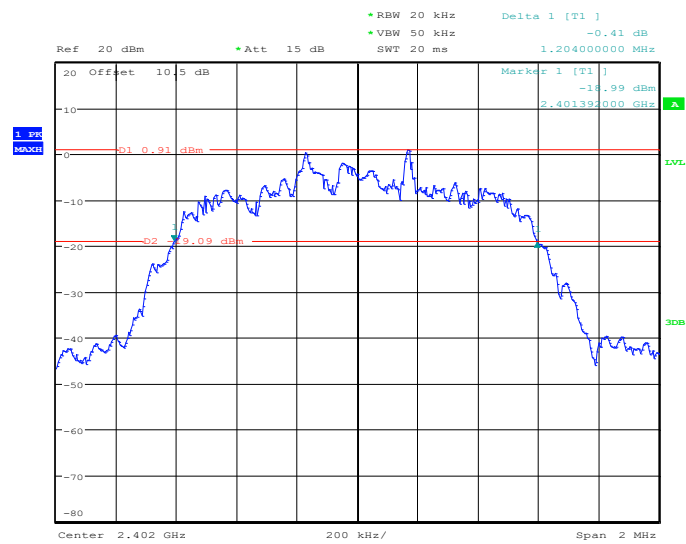
Marker 1 [T1] -17.99 dBm 2.479568000 GHz

D1 1.9 dBm D2 -18.1 dBm

Center 2.48 GHz 200 kHz/ Span 2 MHz

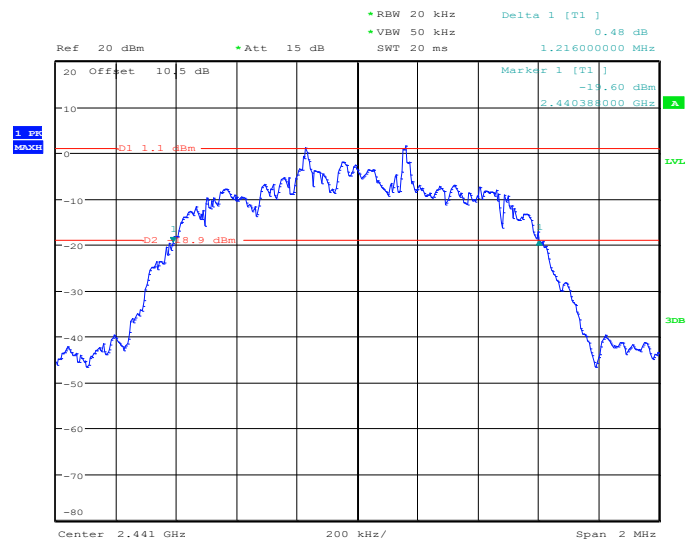
Page 50 of 77

EDR ($\pi/4$ -DQPSK): Low Channel



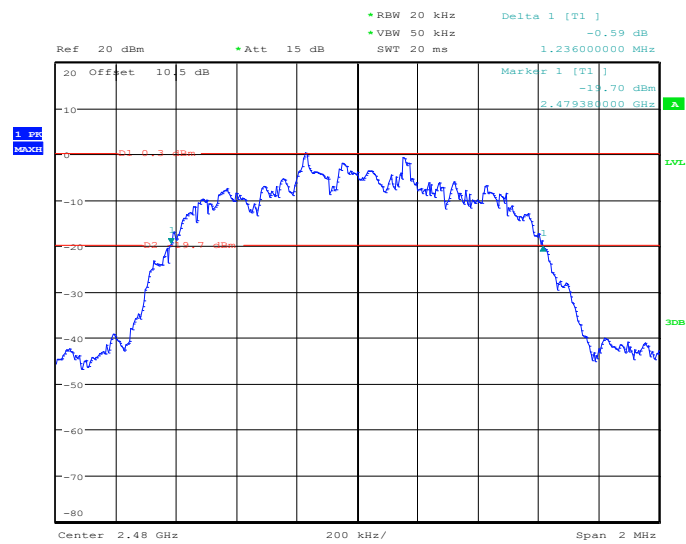
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:05:42

EDR($\pi/4$ -DQPSK): Middle Channel



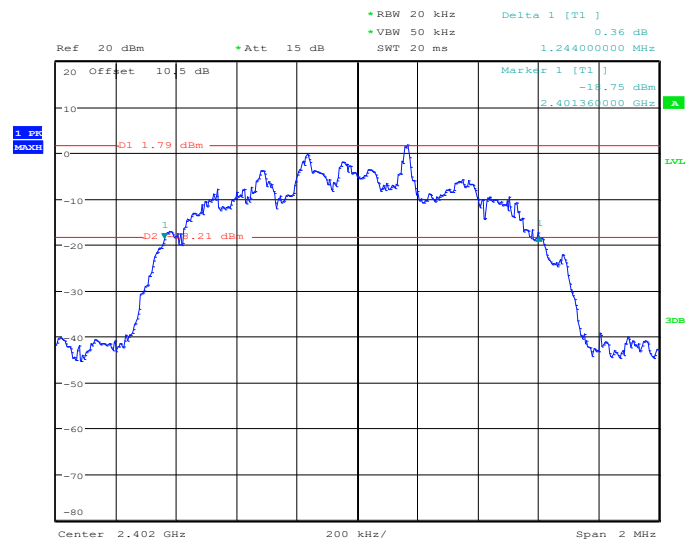
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:07:58

EDR ($\pi/4$ -DQPSK): High Channel



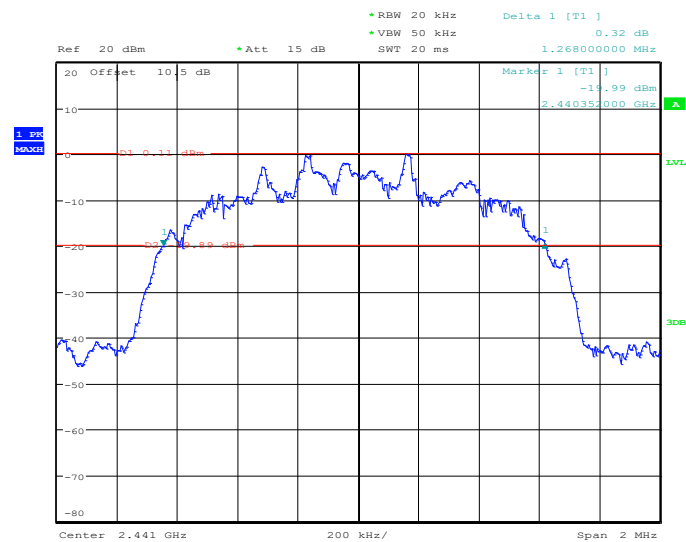
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:10:33

EDR (8DPSK): Low Channel



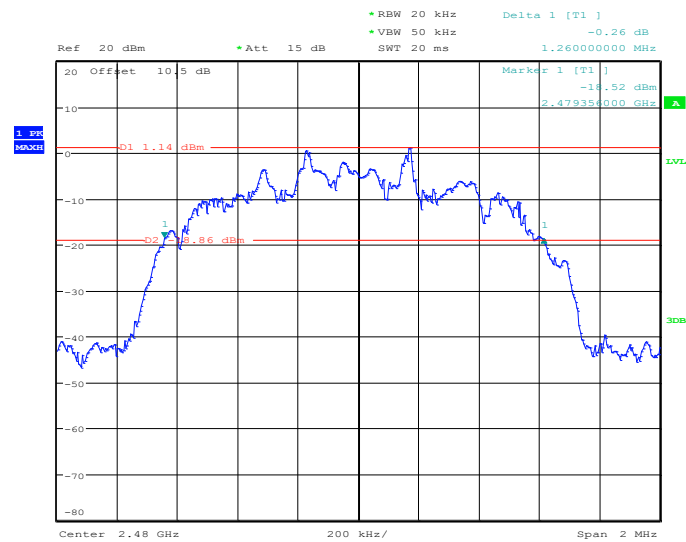
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:13:08

EDR (8DPSK): Middle Channel



ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:15:26

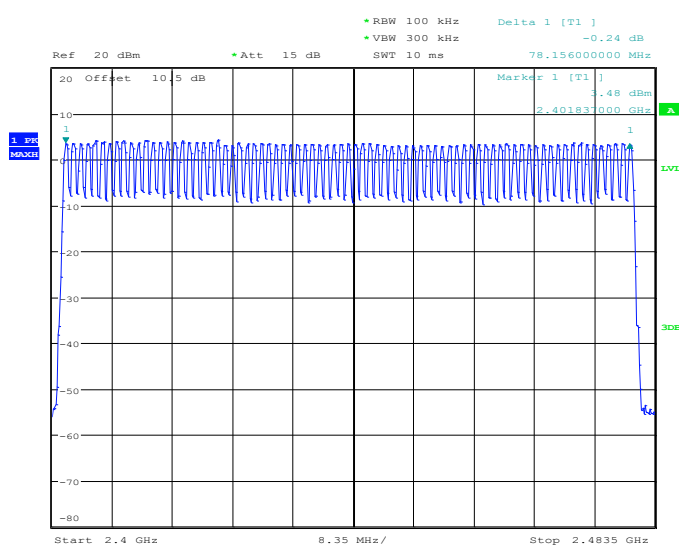
EDR (8DPSK): High Channel



ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:19:40

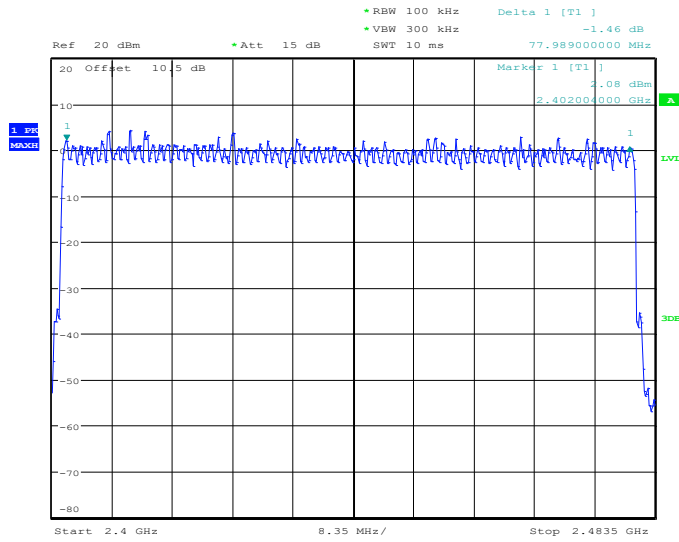
QUANTITY OF HOPPING CHANNEL TEST*EUT operation mode: Hopping*

Mode	Frequency Range (MHz)	Number of Hopping Channel (CH)	Limit (CH)
BDR (GFSK)	2400-2483.5	79	15
EDR ($\pi/4$ -DQPSK)	2400-2483.5	79	15
EDR (8DPSK)	2400-2483.5	79	15

BDR (GFSK): Number of Hopping Channels

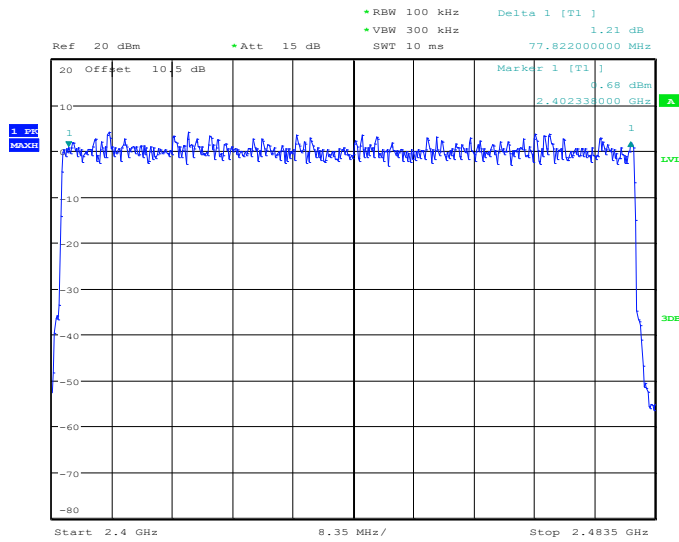
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:34:00

EDR ($\pi/4$ -DQPSK): Number of Hopping Channels



ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 20.MAR.2024 19:42:26

EDR (8DPSK): Number of Hopping Channels

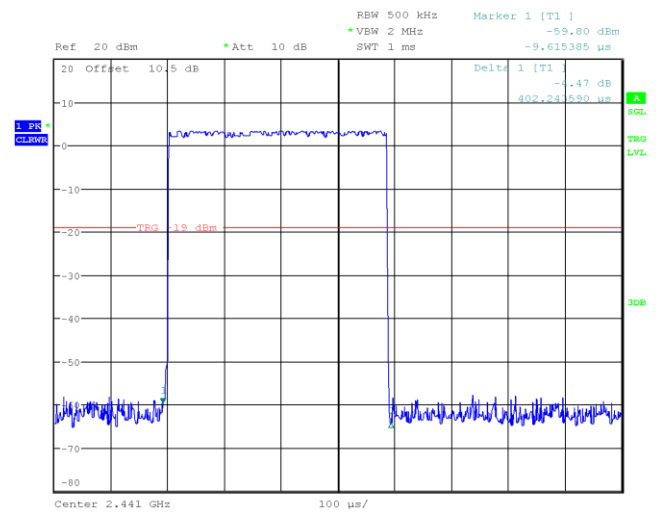


ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 20.MAR.2024 19:45:58

TIME OF OCCUPANCY (DWELL TIME)*EUT operation mode: Hopping*

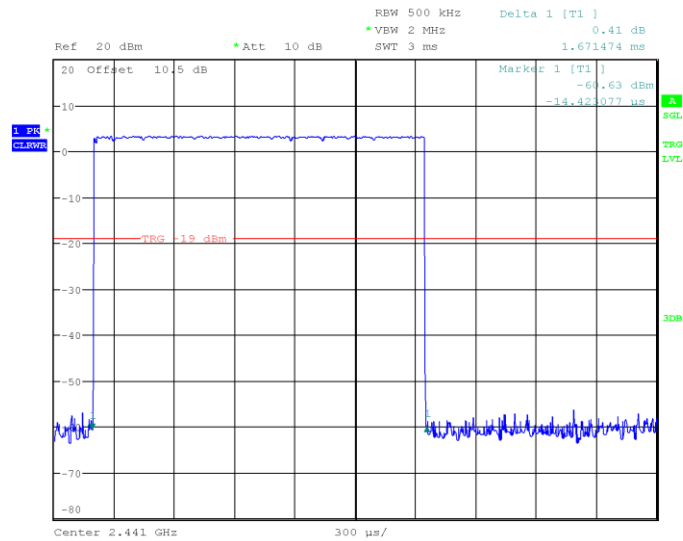
Mode		Channel	Pulse Width (ms)	Dwell Time (s)	Limit (s)	Result
BDR (GFSK)	DH1	Middle	0.402	0.129	0.4	Pass
		Note: DH1: Dwell time = Pulse time*(1600/2/79)*31.6S				
	DH3	Middle	1.671	0.267	0.4	Pass
		Note: DH3: Dwell time = Pulse time*(1600/4/79)*31.6S				
	DH5	Middle	2.913	0.311	0.4	Pass
		Note: DH5: Dwell time = Pulse time*(1600/6/79)*31.6S				
EDR ($\pi/4$ -DQPSK)	2DH1	Middle	0.407	0.130	0.4	Pass
		Note: 2DH1: Dwell time = Pulse time*(1600/2/79)*31.6S				
	2DH3	Middle	1.672	0.267	0.4	Pass
		Note: 2DH3: Dwell time = Pulse time*(1600/4/79)*31.6S				
	2DH5	Middle	2.922	0.312	0.4	Pass
		Note: 2DH5: Dwell time = Pulse time*(1600/6/79)*31.6S				
EDR (8DPSK)	3DH1	Middle	0.407	0.130	0.4	Pass
		Note: 3 DH1: Dwell time = Pulse time*(1600/2/79)*31.6S				
	3DH3	Middle	1.672	0.267	0.4	Pass
		Note: 3DH3: Dwell time = Pulse time*(1600/4/79)*31.6S				
	3DH5	Middle	2.922	0.312	0.4	Pass
		Note: 3DH5: Dwell time = Pulse time*(1600/6/79)*31.6S				

BDR (GFSK): Pulse time, Middle Channel, DH1



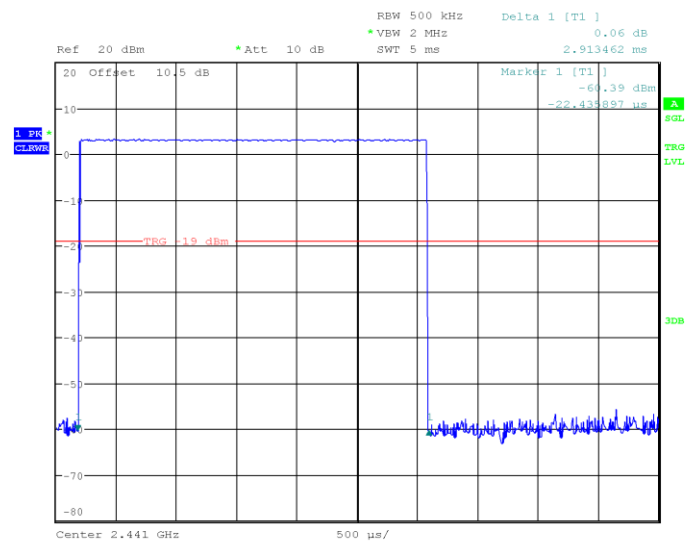
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 11:51:40

BDR (GFSK): Pulse time, Middle Channel, DH3



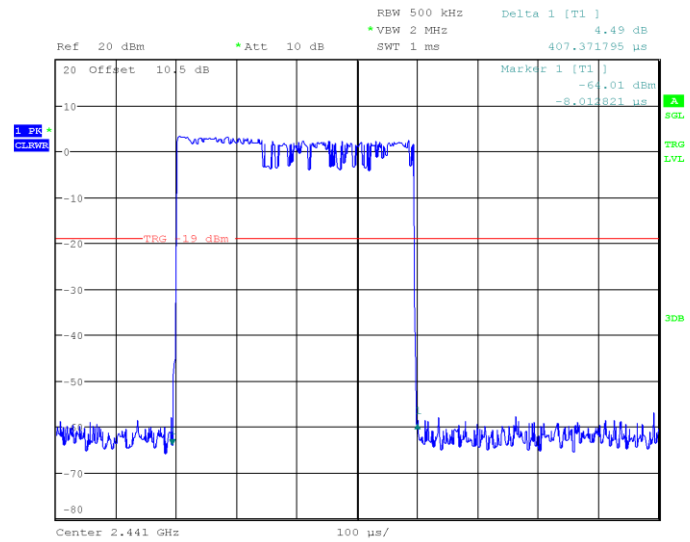
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 11:57:12

BDR (GFSK): Pulse time, Middle Channel, DH5



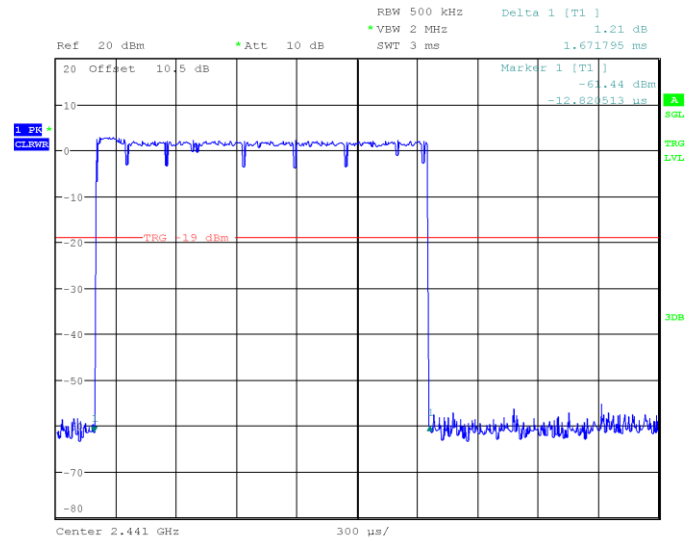
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 11:58:40

EDR ($\pi/4$ -DQPSK): Pulse time, Middle Channel, 2DH1



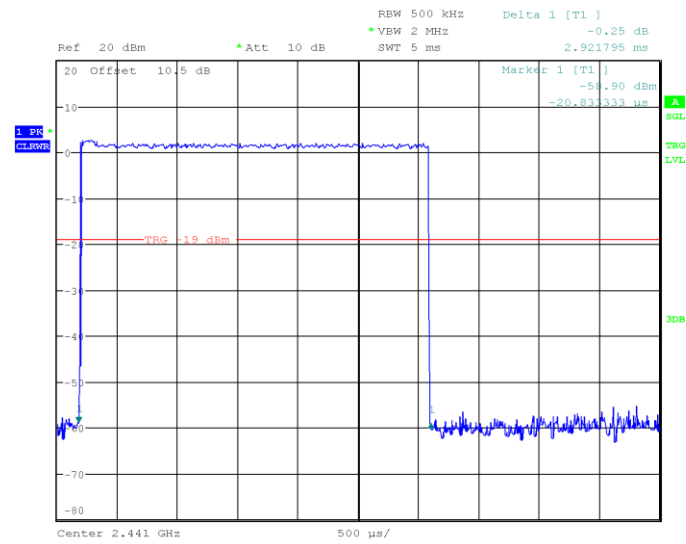
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:08:12

EDR ($\pi/4$ -DQPSK): Pulse time, Middle Channel, 2DH3



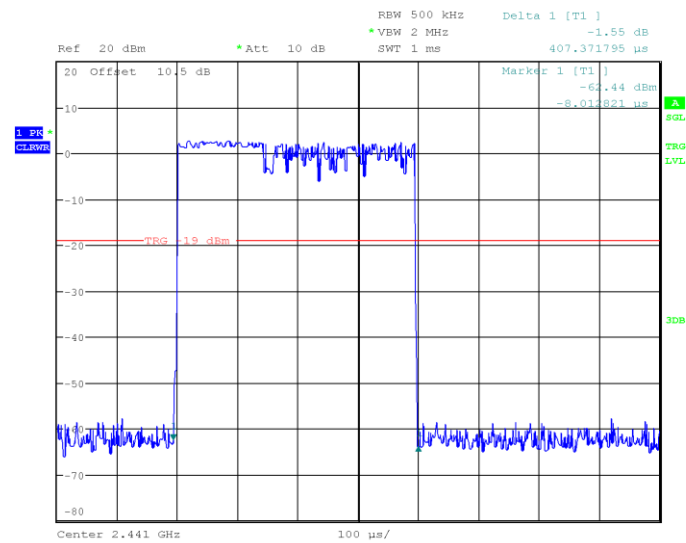
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:09:35

EDR ($\pi/4$ -DQPSK): Pulse time, Middle Channel, 2DH5

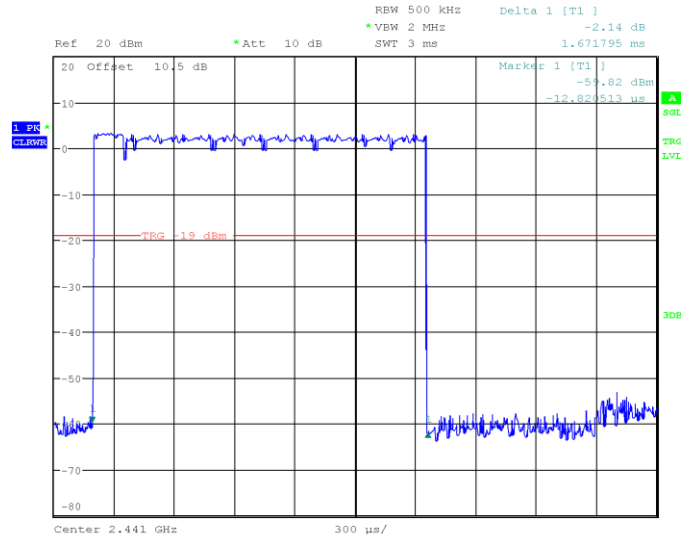


ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:10:41

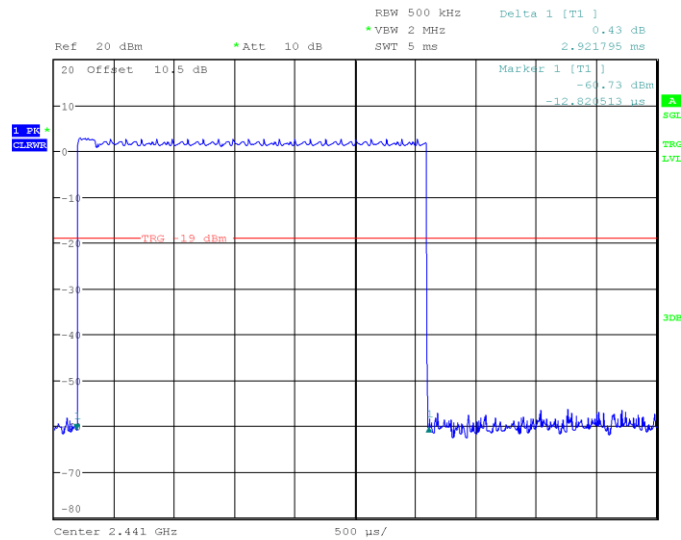
EDR (8DPSK): Pulse time, Middle Channel, 3DH1



ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:12:45

EDR (8DPSK): Pulse time, Middle Channel, 3DH3

ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:14:30

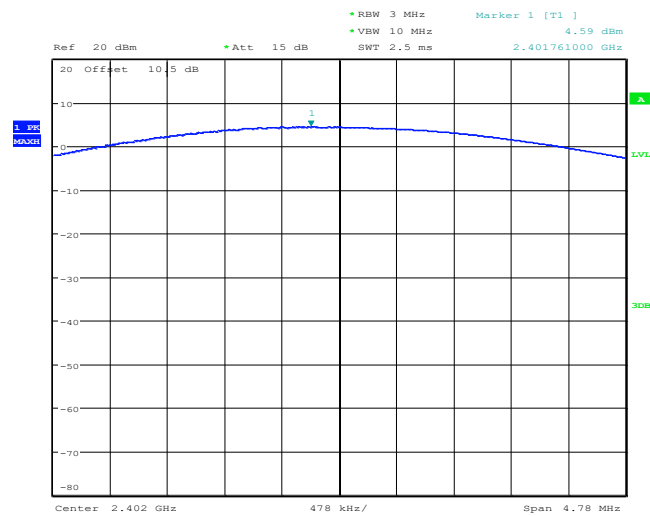
EDR (8DPSK): Pulse time, Middle Channel, 3DH5

ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 13:21:35

PEAK OUTPUT POWER MEASUREMENT*EUT operation mode: Transmitting*

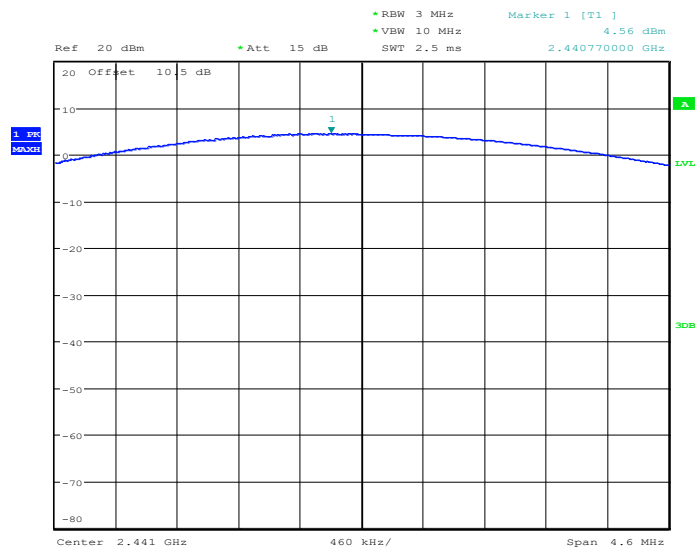
Mode	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)
GFSK	Low	2402	4.59	21
	Middle	2441	4.56	
	High	2480	4.53	
$\pi/4$ DQPSK	Low	2402	5.45	
	Middle	2441	5.46	
	High	2480	5.47	
8DPSK	Low	2402	5.84	
	Middle	2441	5.84	
	High	2480	5.91	

BDR (GFSK): 2402MHz



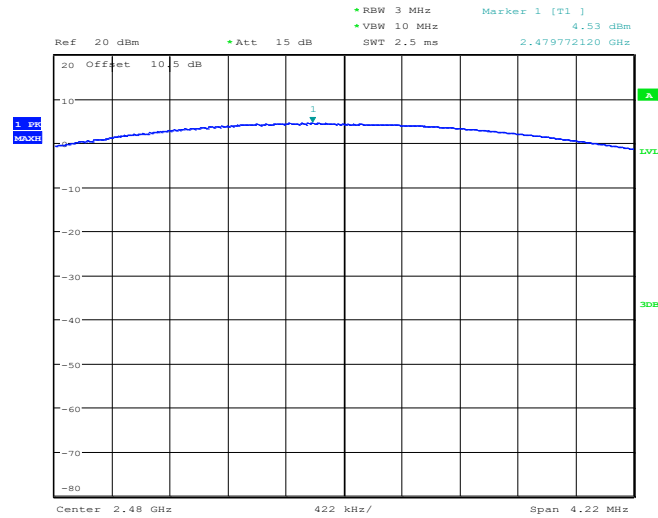
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 18:56:04

BDR (GFSK): 2441MHz



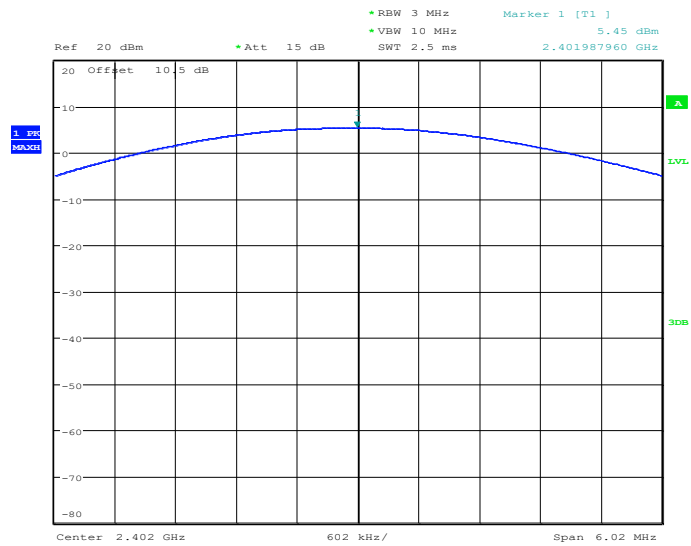
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 18:58:35

BDR (GFSK): 2480MHz



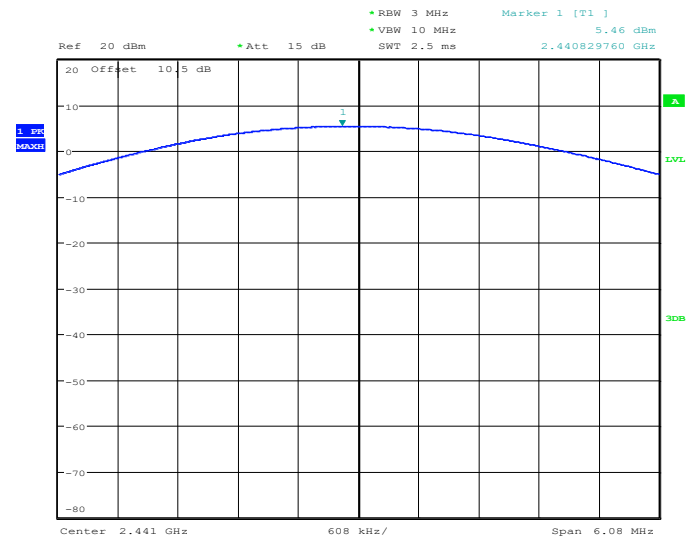
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:02:26

EDR($\pi/4$ -DQPSK): 2402MHz



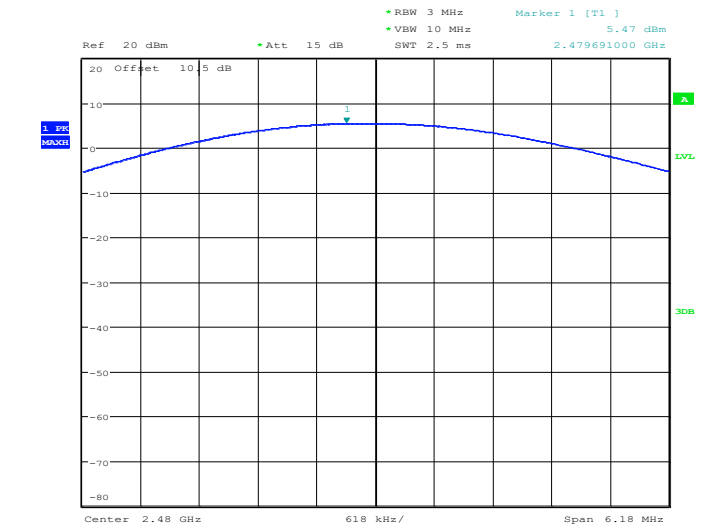
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:06:07

EDR($\pi/4$ -DQPSK): 2441MHz



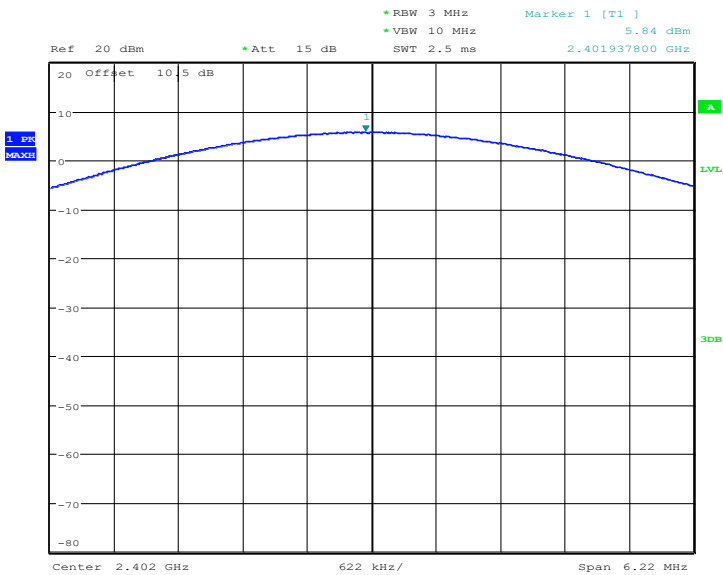
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:08:23

EDR($\pi/4$ -DQPSK): 2480MHz



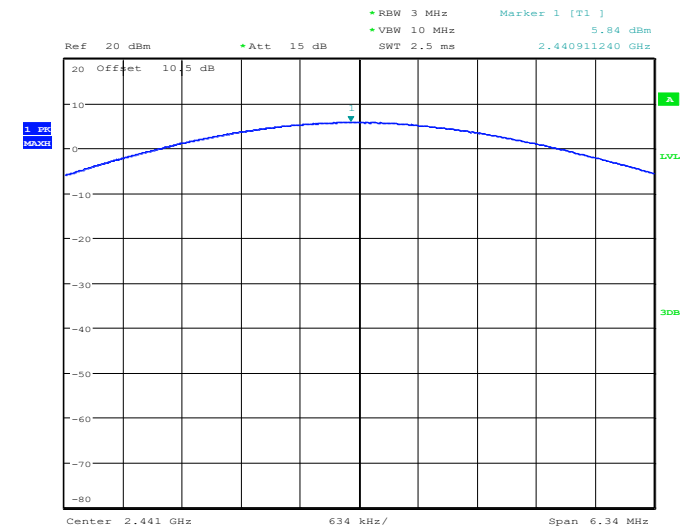
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:11:01

EDR(8DPSK): 2402MHz



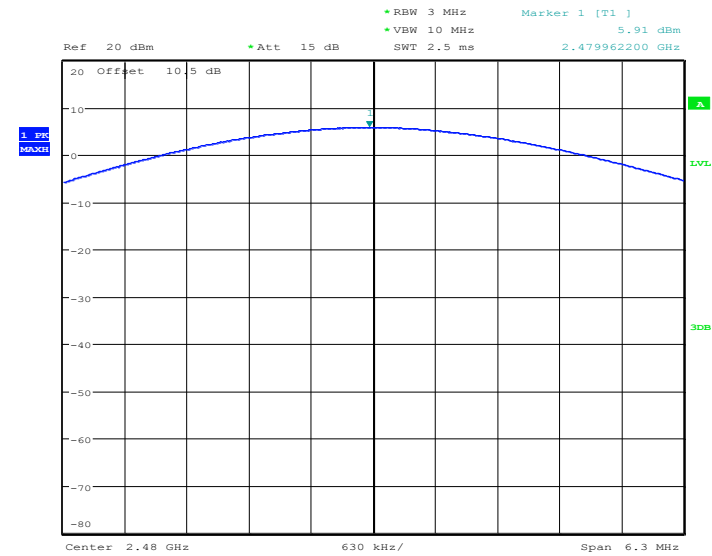
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:13:33

EDR(8DPSK): 2441MHz



ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:15:54

EDR(8DPSK): 2480MHz



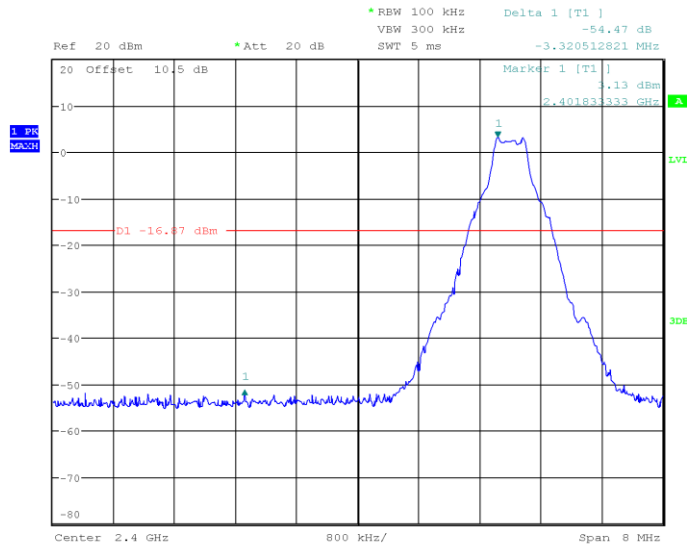
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 20.MAR.2024 19:20:05

BAND EDGES*EUT operation mode: Transmitting & Hopping**Test Result: Compliant.*

Mode	Channel	Frequency (MHz)	Result (dBc)	Limit (dBc)
GFSK	Low	2402	-54.47	20
	High	2480	-54.09	
$\pi/4$ DQPSK	Low	2402	-52.03	
	High	2480	-54.64	
8DPSK	Low	2402	-51.65	
	High	2480	-54.47	
GFSK (Hopping)	Low	2402	-54.92	
	High	2480	-53.75	
$\pi/4$ DQPSK (Hopping)	Low	2402	-54.16	
	High	2480	-53.96	
8DPSK (Hopping)	Low	2402	-53.27	
	High	2480	-54.79	

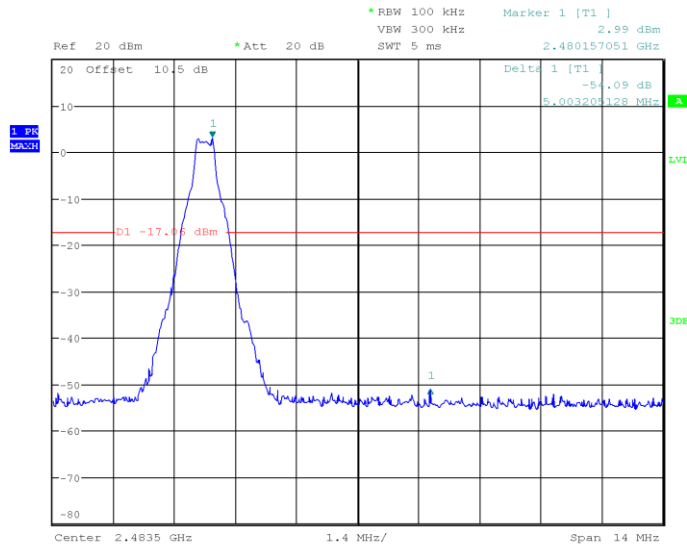
Band Edge

BDR (GFSK): Left Side

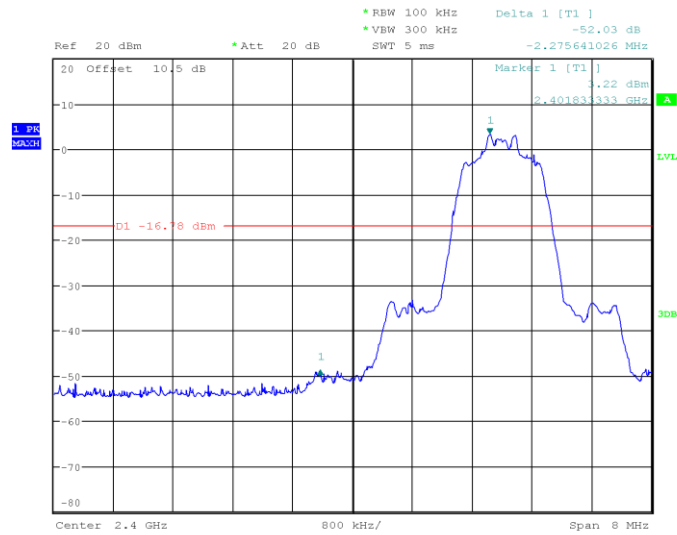


ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 11:34:21

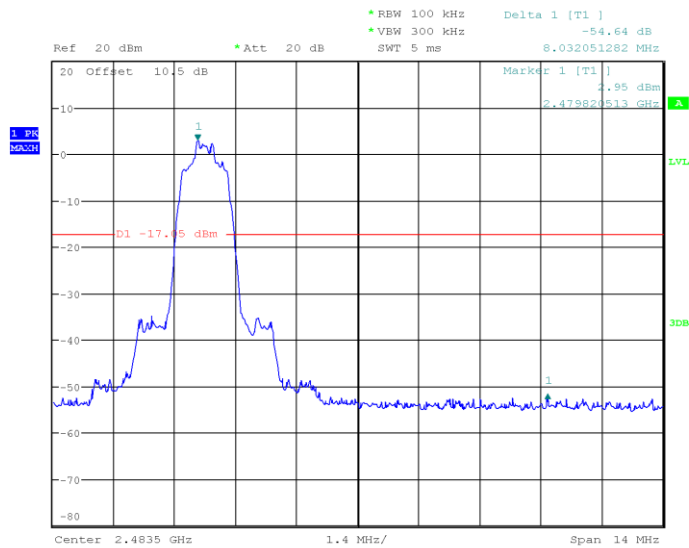
BDR (GFSK): Right Side



ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 11:37:00

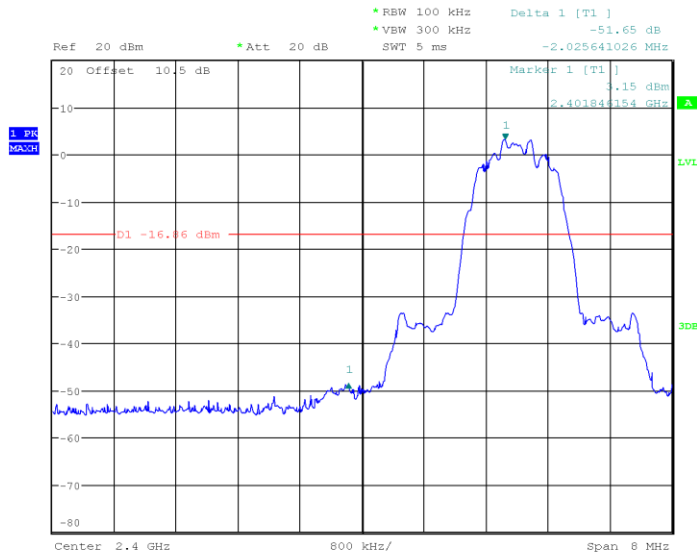
EDR ($\pi/4$ -DQPSK): Left Side

ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 11:28:34

EDR ($\pi/4$ -DQPSK): Right Side

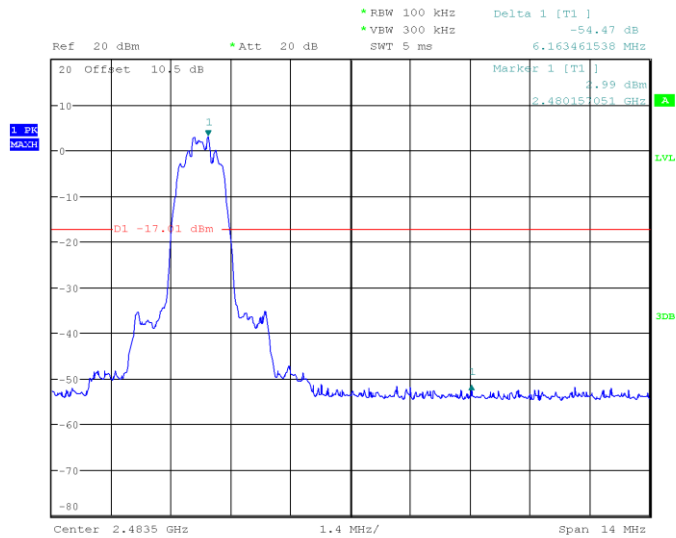
ProjectNo.:RSHA240229004 Tester:Hardy Huang
Date: 16.APR.2024 11:24:03

EDR (8DPSK): Left Side



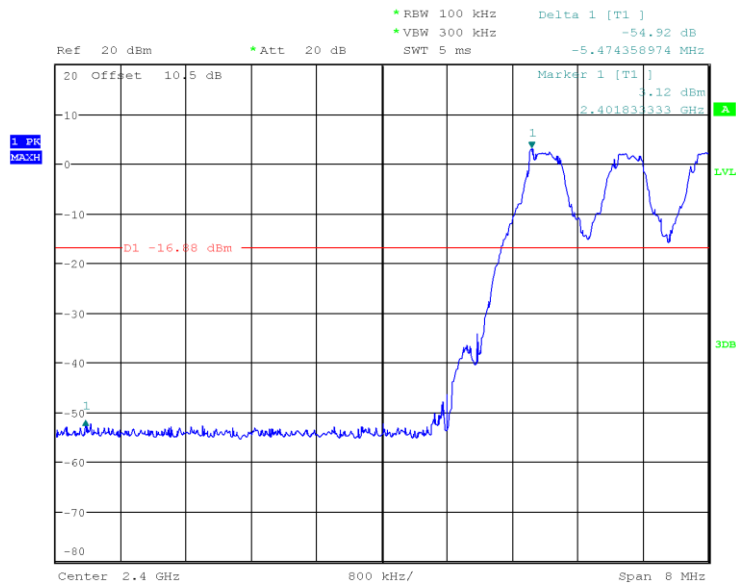
ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 16.APR.2024 11:14:01

EDR (8DPSK): Right Side



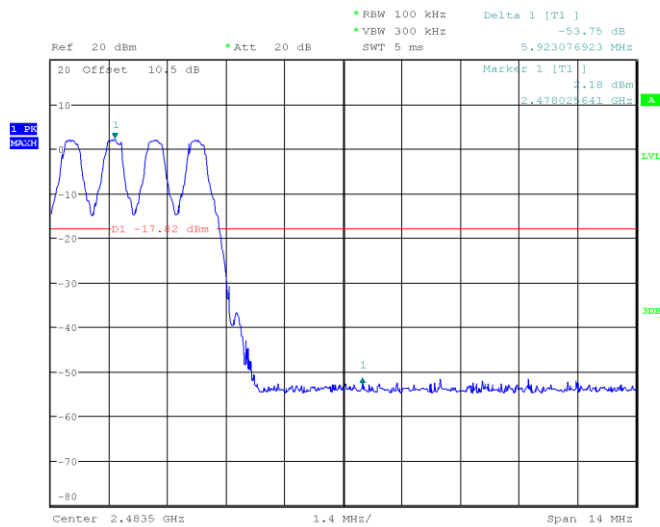
ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 16.APR.2024 11:19:50

BDR (GFSK): Left Side - Hopping



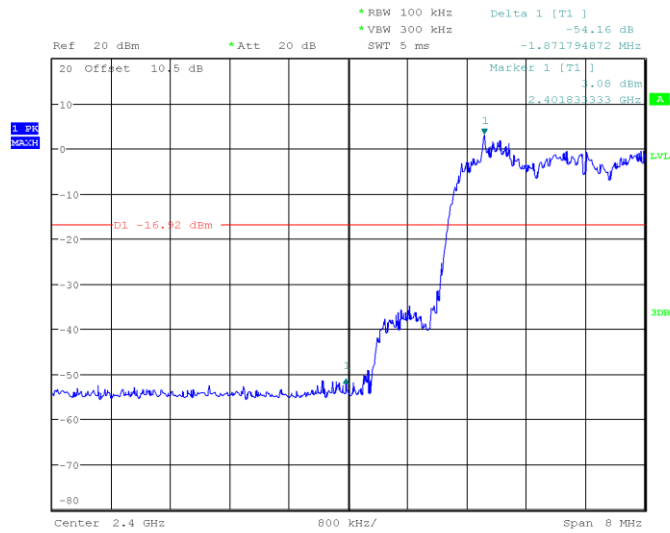
ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 16.APR.2024 11:12:08

BDR (GFSK): Right Side- Hopping



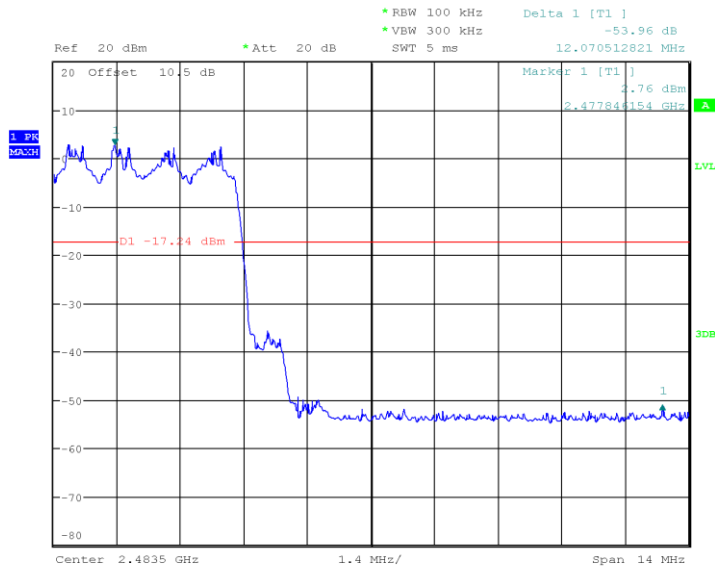
ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 16.APR.2024 11:07:14

EDR ($\pi/4$ -DQPSK): Left Side- Hopping



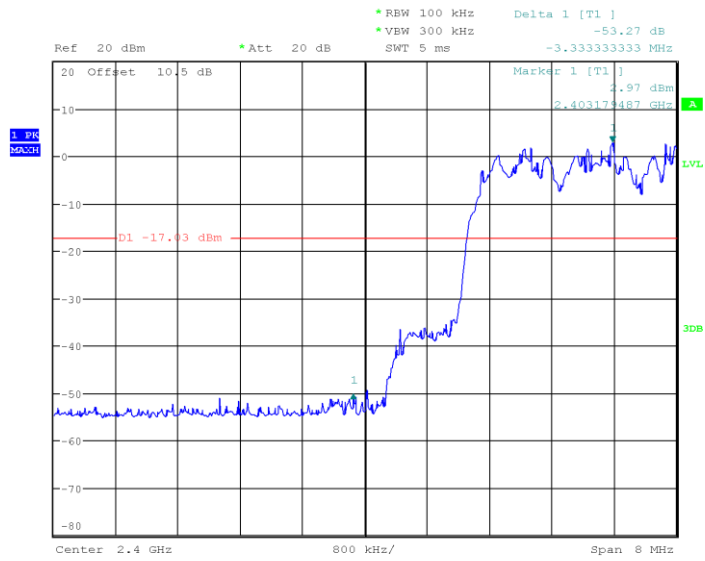
ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 16.APR.2024 10:56:15

EDR ($\pi/4$ -DQPSK): Right Side- Hopping



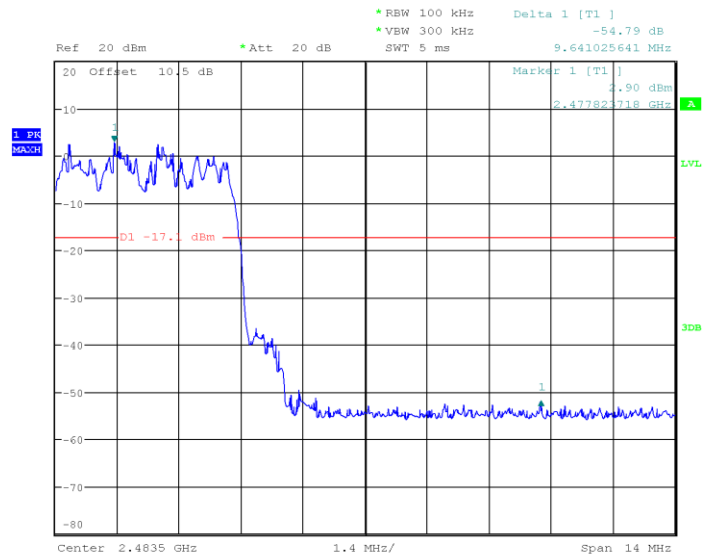
ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 23.MAR.2024 15:02:27

EDR (8DPSK): Left Side- Hopping



ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 16.APR.2024 10:59:55

EDR (8DPSK): Right Side- Hopping



ProjectNo.:RSHA240229004 Tester:Hardy Huang
 Date: 16.APR.2024 11:03:22

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 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 *******