FCC PART 15.247
TEST REPORT

For

Ningbo Jinlida Lamp Decoration Co,.Ltd

98 Zhenxing(W) Road, YuYao Economic Development Zone, YuYao, China

FCC ID: 2BLOQ-10810-2

Report Type:	**Product Name:**
Original Report	Speaker

Report Number:	RQDA250509003-00B
Report Date:	2025-06-03
Reviewed By:	Bard Liu
Approved By:	Kyle Xu
Prepared By:	Bay Area Compliance Laboratories Corp. (Kunshan) No.248 Chenghu Road, Kunshan, Jiangsu Province, China Tel: +86-512-86175000 Fax: +86-512-88934268 www.baclcorp.com.cn

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

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REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	RQDA250509003-00B	R1V1	2025-06-03	Initial Release

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Applicant:	Ningbo Jinlida Lamp Decoration Co,.Ltd
Product Name:	Speaker
Tested Model:	10810-2
Power Supply:	DC 5V
Maximum Output Power:	GFSK: -0.27 dBm π/4-DQPSK: 0.38 dBm 8DPSK: 0.87 dBm
RF Function:	Classic BT
Operating Band/Frequency:	2402-2480 MHz
Channel Number:	79
Channel Separation:	1 MHz
Modulation Type:	GFSK, π/4-DQPSK, 8DPSK
★Maximum Antenna Gain:	-0.58 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: RQDA250509003-1 (Assigned by the BACL (Kunshan). The EUT supplied by the applicant was received on 2025-05-09.)

Objective

This test report is prepared for *Ningbo Jinlida Lamp Decoration 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 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 C63.10-2020, 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℃
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: FCC Assist 1.0.4

★Power level: 10

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

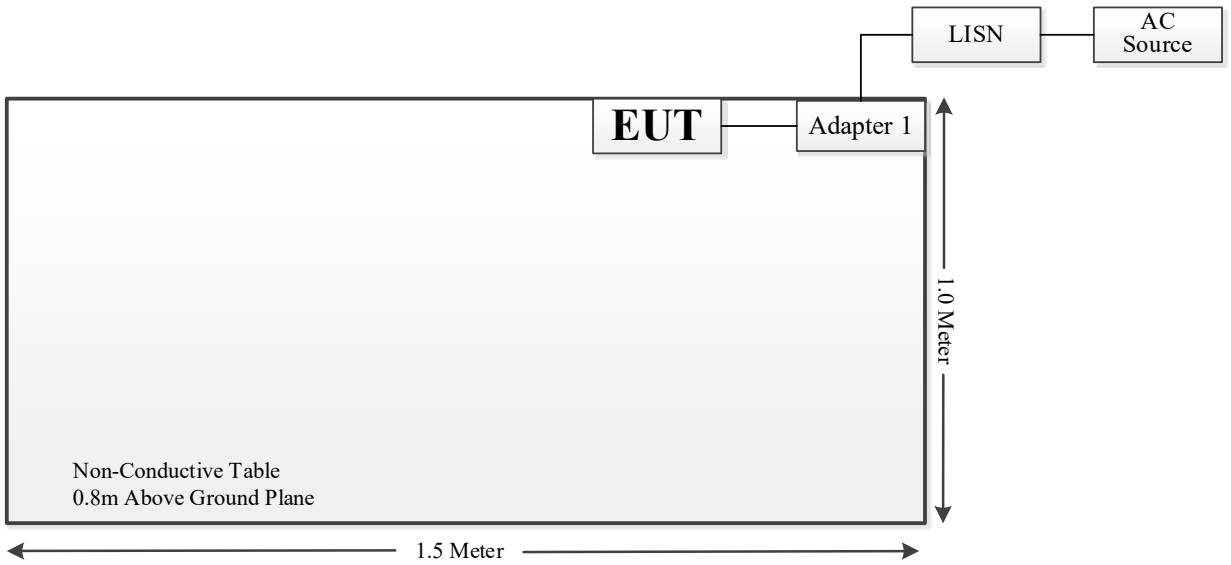
Manufacturer	Description	Model	Serial Number
Power on Tools Co.,Ltd	Adapter 1	DA-00052000EU001	Unknown
Power on Tools Co.,Ltd	Adapter 2	DA-00052000EU002	Unknown

External I/O Cable

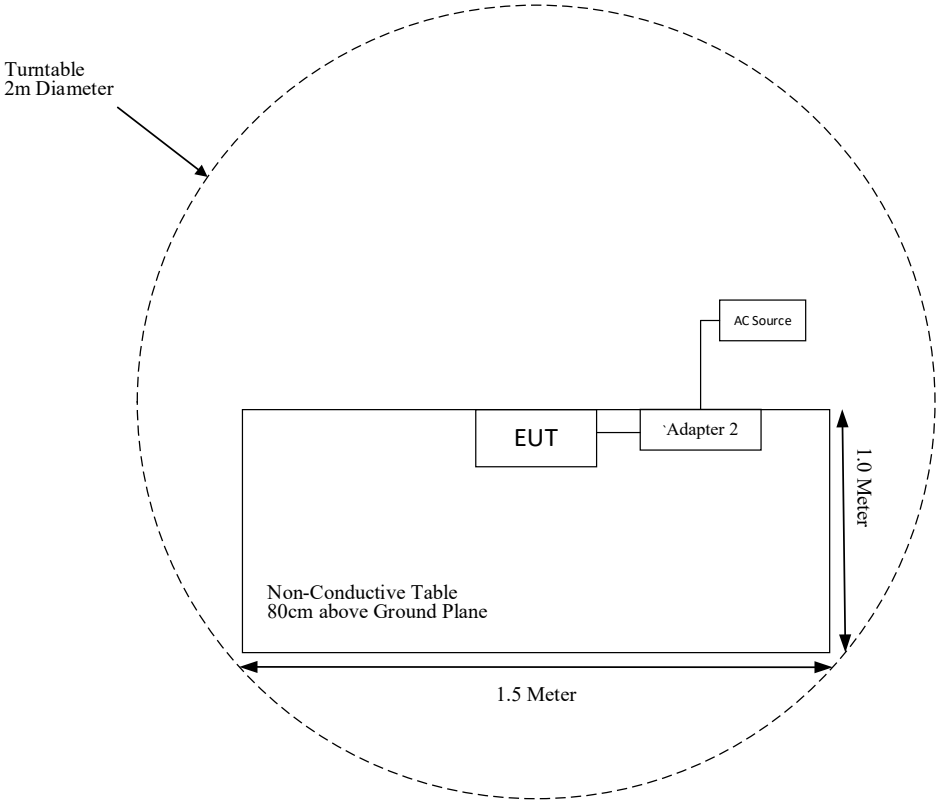
Cable Description	Length (m)	From Port	To Port
Power Cable 1	1.5	AC Source	Adapter
Power Cable 2	1.5	Debug board	Notebook
USB Cable	0.2	EUT	Debug board

Block Diagram of Test Setup

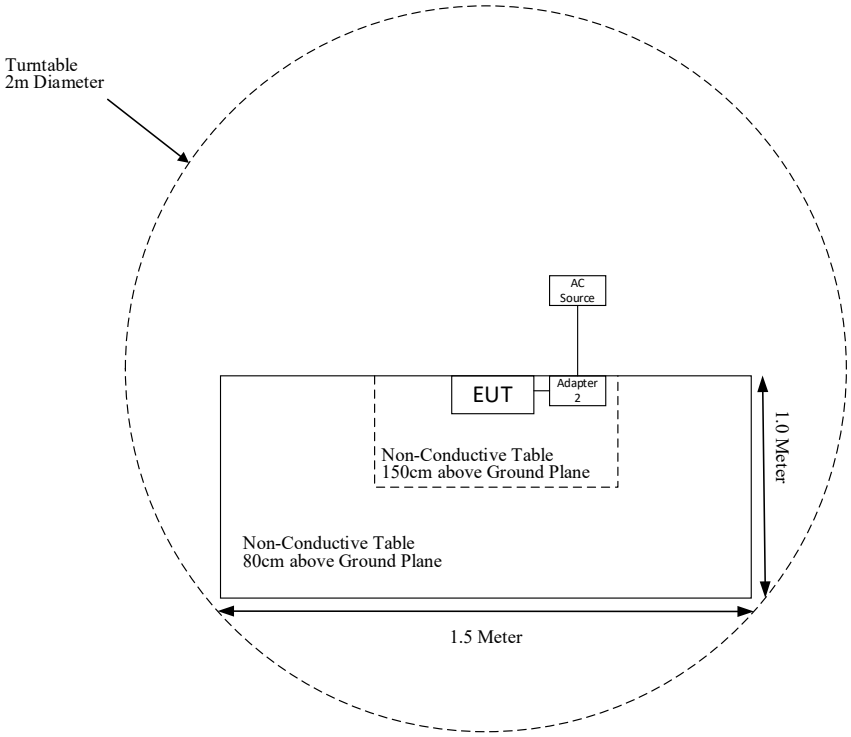
For Conducted Emissions:



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	Compliant
§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

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	2025-04-09	2026-04-08
Sunol Sciences	Broadband Antenna	JB3	A090314-1	2024-11-08	2027-11-07
Narda	6dB Attenuator	773-6	10690812-2-1	2024-10-29	2027-10-28
BACL	Active Loop Antenna	1313-1A	4041511	2024-11-22	2027-11-21
Sonoma Instrument	Pre-amplifier	310N	171205	2025-04-09	2026-04-08
Rohde & Schwarz	Auto Test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-8	008	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-9	009	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-10	010	2025-04-09	2026-04-08
Radiated Emission Test (Chamber #2)					
Rohde & Schwarz	EMI Test Receiver	ESU40	100207/040	2025-04-09	2026-04-08
ETS-LINDGREN	Horn Antenna	3115	9207-3900	2024-11-03	2027-11-02
ETS-LINDGREN	Horn Antenna	3116	2516	2024-12-12	2027-12-11
A.H.Systems, inc	Amplifier	PAM-0118P	512	2025-04-09	2026-04-08
SELECTOR	Amplifier	EM18G40G	060726	2025-04-09	2026-04-08
MICRO-TRONICS	Band Reject Filter	BRM50702	G024	2025-04-09	2026-04-08
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
Rohde & Schwarz	Auto test Software	EMC32	100361	N/A	N/A
MICRO-COAX	Coaxial Cable	Cable-6	006	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-11	011	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-12	012	2025-04-09	2026-04-08
MICRO-COAX	Coaxial Cable	Cable-13	013	2025-04-09	2026-04-08
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSU26	200103	2025-04-09	2026-04-08
Narda	Attenuator	10dB	010	2025-04-08	2026-04-07
XHFDZ	RG316 Coaxial Cable	SMA-316	XHF-1175	Each time	N/A

Conducted Emission Test					
Rohde & Schwarz	EMI Test Receiver	ESR	101746	2025-04-08	2026-04-07
Rohde & Schwarz	LISN	ENV216	101115	2025-04-08	2026-04-07
Audix	Test Software	e3	V9	N/A	N/A
Rohde & Schwarz	Pulse Limiter	ESH3-Z2	0357.8810.54	2025-02-20	2026-02-19
MICRO-COAX	Coaxial Cable	Cable-15	015	2025-04-08	2026-04-07

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^2)**	**Averaging Time (minutes)**
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

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

Calculated Formulary

Predication of MPE limit at a given distance
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data:

Mode	Frequency Range (MHz)	Antenna Gain		★Tune-up Output Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
Classic BT	2402-2480	-0.58	0.87	1.0	1.26	20	0.0002	1.0

Note: For the above tune up power were declared by the manufacturer.

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

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 have a PCB antenna which permanently attached to the unit. fulfill the requirement of this section. Please refer to the EUT photos.

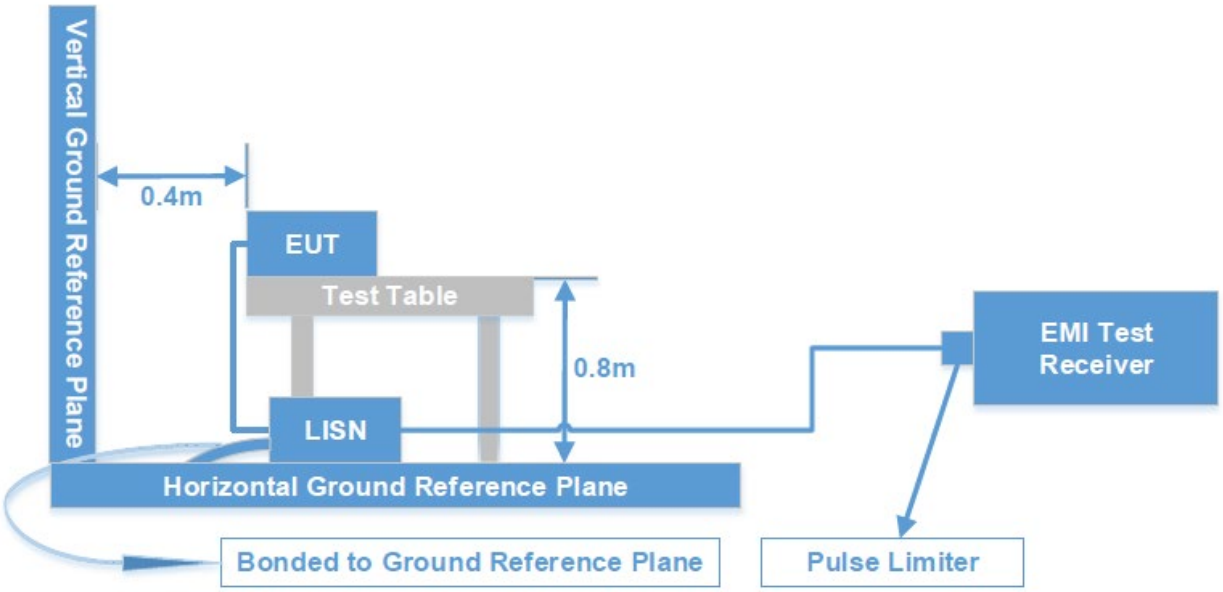
Result: Compliant.

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 C63.10-2020. The related limit was specified in FCC Part 15.207.

EMI Test Receiver Setup

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

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

Test Procedure

ANSI C63.10-2020 clause 6.2

During the conducted emission test, the EUT or adapter was connected to the outlet of the LISN.

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

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

Level & Over Limit Calculation

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

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: See Appendix

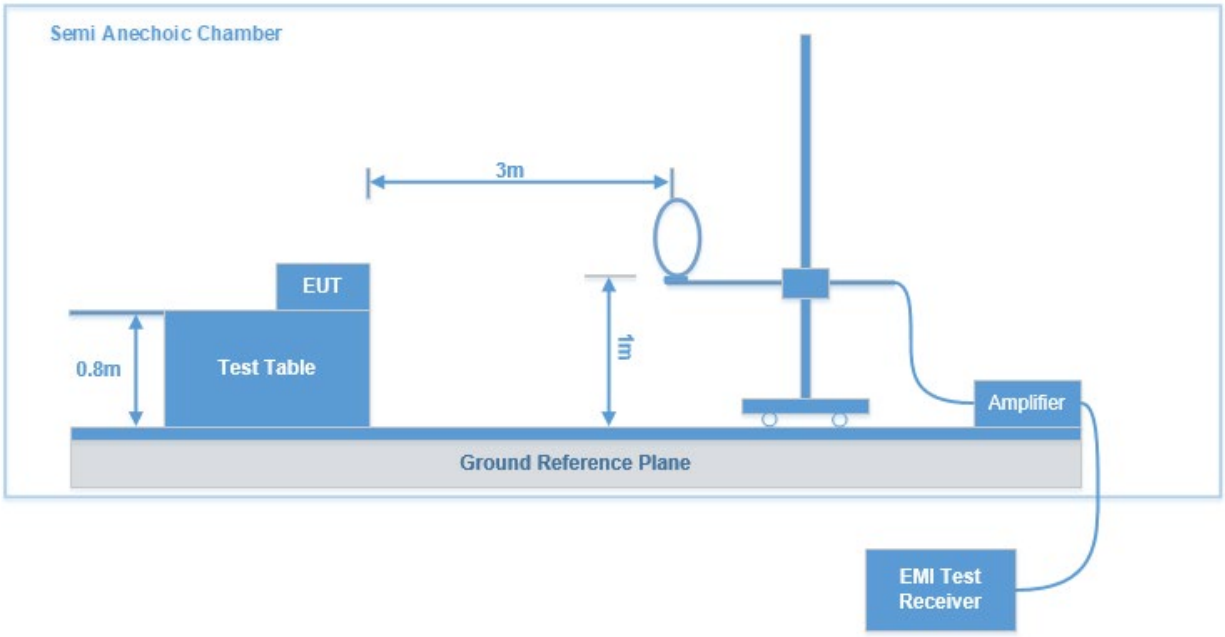
FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS

Applicable Standard

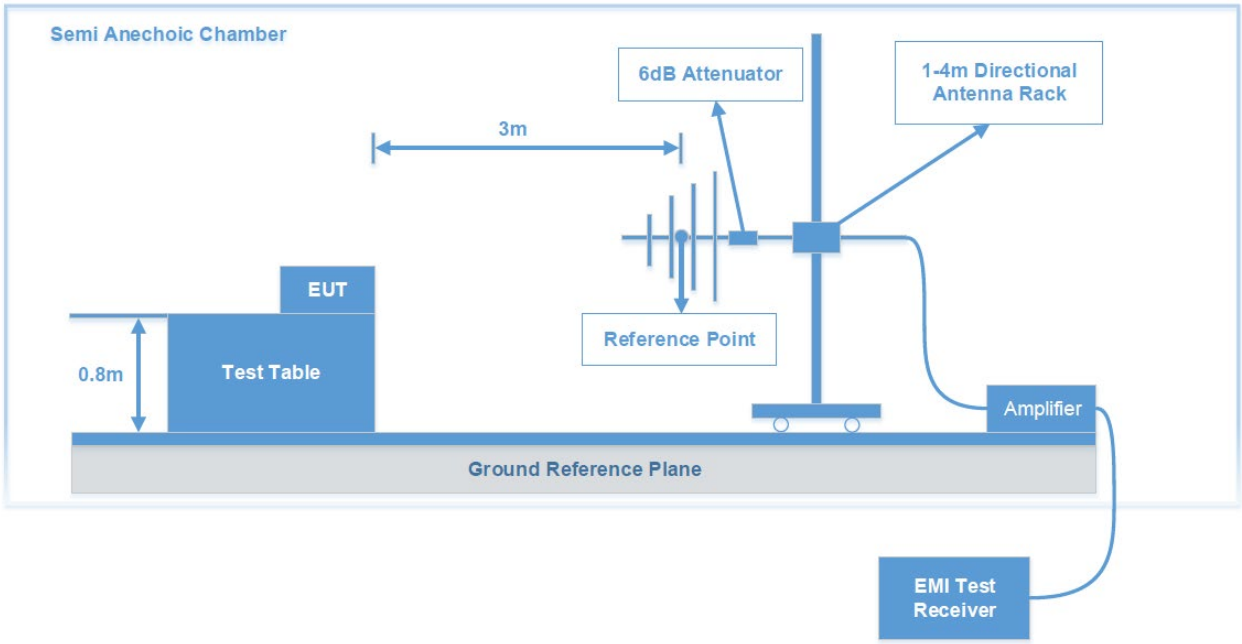
FCC §15.205; §15.209; §15.247(d)

Test System Setup

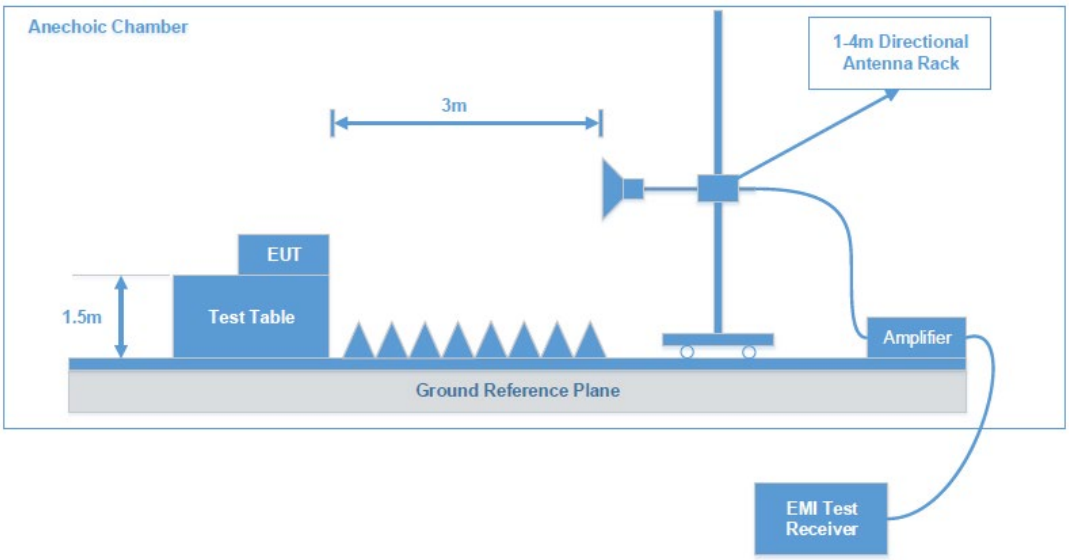
9 kHz – 30 MHz:



30 MHz - 1 GHz:



Above 1 GHz:



The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.10-2020. 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 1 GHz	1MHz	3 MHz	/	Peak
	1MHz	3 MHz	/	Average

Test Procedure

According to ANSI C63.10-2020 clause 6.4, 6.5 and 6.6.

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 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.

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 hoping 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.

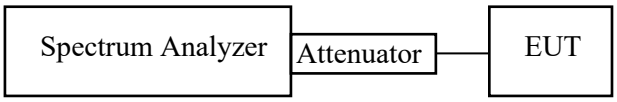
Test Procedure

According to ANSI C63.10-2020 sub-clause 7.8.2

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) ≥ 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.



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

Test Data: See Appendix

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

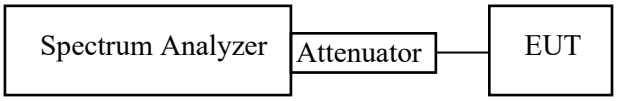
Applicable Standard

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

According to ANSI C63.10-2020 sub-clause 6.9.2

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.



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

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.

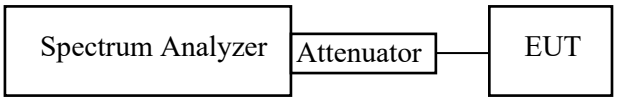
Test Procedure

According to ANSI C63.10-2020 sub-clause 7.8.3

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 ≥ 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.



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

Test Data: See Appendix

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

Applicable Standard

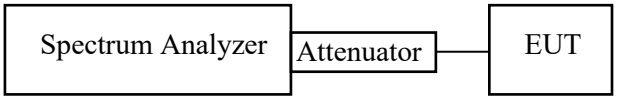
Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions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

Test Procedure

According to ANSI C63.10-2020 sub-clause 7.8.4

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 ≤ channel spacing and where possible RBW should be set ≥ 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.



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

Test Data: See Appendix

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

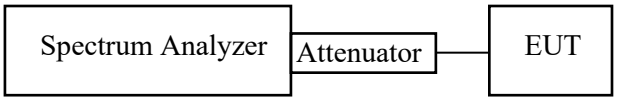
Applicable Standard

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

According to ANSI C63.10-2020 sub-clause 7.8.5

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 ≥ 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.



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

Test Data: See Appendix

FCC §15.247(d) - BAND EDGES TESTING

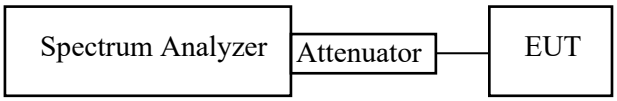
Applicable Standard

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

According to ANSI C63.10-2020 sub-clause 7.8.7

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.



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

Test Data: See Appendix

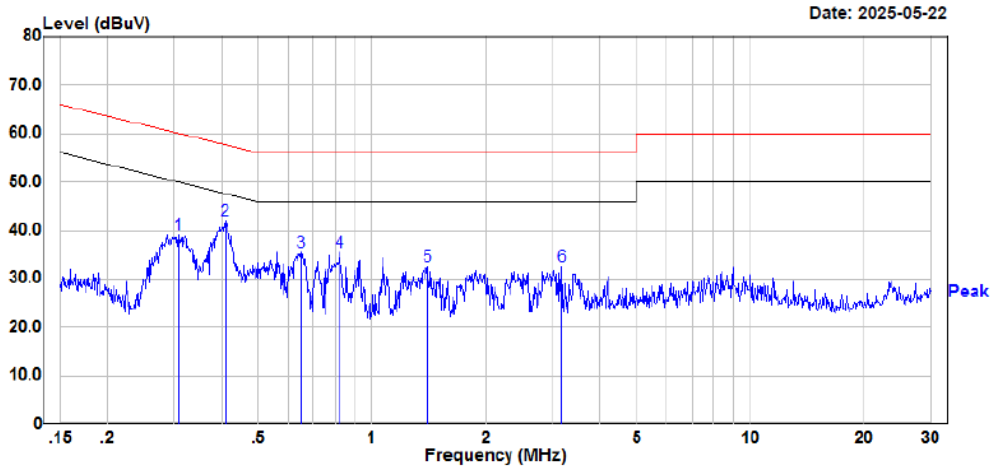
APPENDIX - TEST DATA

AC LINE CONDUCTED EMISSIONS

Test Date:	2025-05-22
Temperature:	25.3 ℃
Relative Humidity:	59 %
ATM Pressure:	101.1 kPa
Test Result:	Pass
Test Engineer:	Myles Miao

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

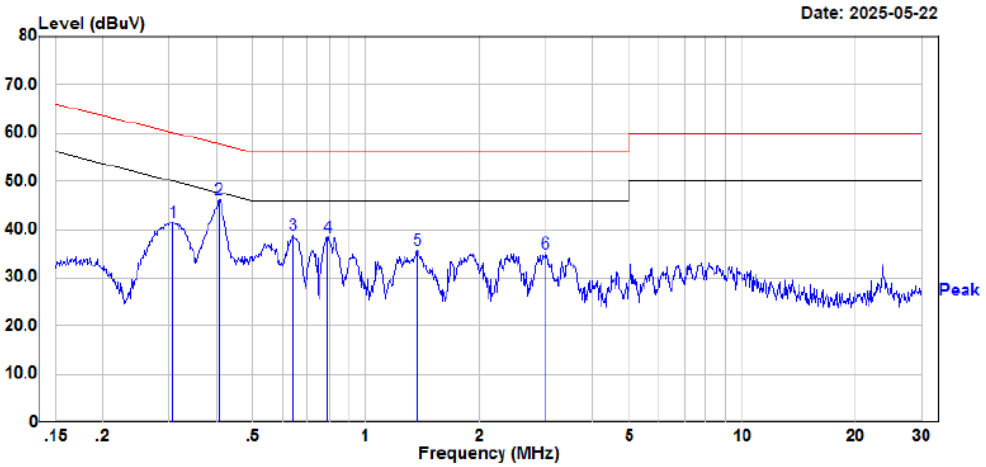
AC 120V/60 Hz, Line




```
Site                 : CE
Condition            : limit\FCC PART 15.207
                     : DET:Peak
Project No.          : RQDA250509003
Model                : 10810-2
Phase                : L
Voltage              : 120V/60Hz
Mode                 : BT
Test Equipment       : ENV216,ESR
Receiver Setting     : RBW: 9 kHz,Sweep Time: Auto
Temperature          : 25.3℃
Humidity             : 59%
Atmospheric pressure: 101.1KPa
Test Engineer        : Myles Miao
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.307	18.93	20.17	39.10	60.04	-20.94	Peak
2	0.408	21.84	20.21	42.05	57.68	-15.63	Peak
3	0.649	15.47	20.08	35.55	56.00	-20.45	Peak
4	0.821	15.71	19.91	35.62	56.00	-20.38	Peak
5	1.399	12.71	19.93	32.64	56.00	-23.36	Peak
6	3.169	12.32	20.23	32.55	56.00	-23.45	Peak

AC 120V/60 Hz, Neutral




```
Site                  : CE
Condition             : limit\FCC PART 15.207
                      : DET:Peak
Project No.           : RQDA250509003
Model                 : 10810-2
Phase                 : N
Voltage               : 120V/60Hz
Mode                  : BT
Test Equipment        : ENV216,ESR
Receiver Setting      : RBW: 9 kHz,Sweep Time: Auto
Temperature           : 25.3℃
Humidity              : 59%
Atmospheric pressure: 101.1KPa
Test Engineer         : Myles Miao
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.306	21.40	20.17	41.57	60.08	-18.51	Peak
2	0.406	25.98	20.21	46.19	57.72	-11.53	Peak
3	0.640	18.83	20.09	38.92	56.00	-17.08	Peak
4	0.789	18.61	19.95	38.56	56.00	-17.44	Peak
5	1.365	15.78	19.91	35.69	56.00	-20.31	Peak
6	3.000	14.92	20.22	35.14	56.00	-20.86	Peak

RADIATED EMISSIONS & RESTRICTED BANDS EMISSIONS

Environmental Conditions & Test Information

Frequency Range:	9 kHz - 30 MHz	30 MHz - 1 GHz	1 GHz - 18 GHz	18 GHZ - 25 GHZ
Test Date:	2025-05-17	2025-05-17	2025-05-14	2025-05-22
Temperature:	26.8 ℃	26.8 ℃	24.8 ℃	25.2℃
Relative Humidity:	54 %	54 %	51 %	55 %
ATM Pressure:	101.1 kPa	101.1 kPa	101.3 kPa	101.3 kPa
Test Result:	Pass	Pass	Pass	Pass
Test Engineer:	Jonathan	Jonathan	Destine Hu	Hugh Wu

EUT operation mode: Transmitting

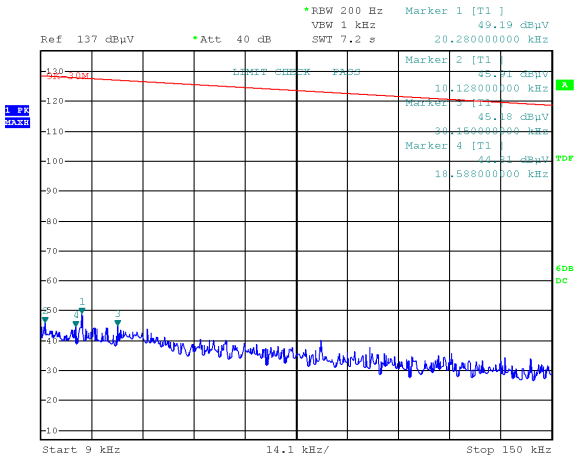
After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

Dipole Antenna:

9 kHz-30 MHz: *(Transmitting maximum output power 8DPSK Mode low channel)*

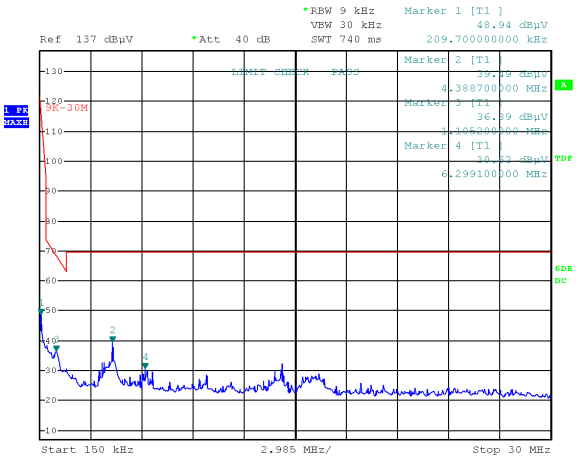
Parallel(worst case)

9kHz-150kHz



Project No.RQDA250509003 Tester:Jonathan
Date: 17.MAY.2025 14:43:05

150kHz-30MHz



Project No.RQDA250509003 Tester:Jonathan
Date: 17.MAY.2025 14:46:18

9 kHz - 150 kHz:

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.010128	45.91	PK	-0.51	127.49	81.58
0.018588	44.81	PK	-0.55	122.22	77.41
0.020280	49.19	PK	-0.56	121.46	72.27
0.030150	45.18	PK	-0.63	118.02	72.83

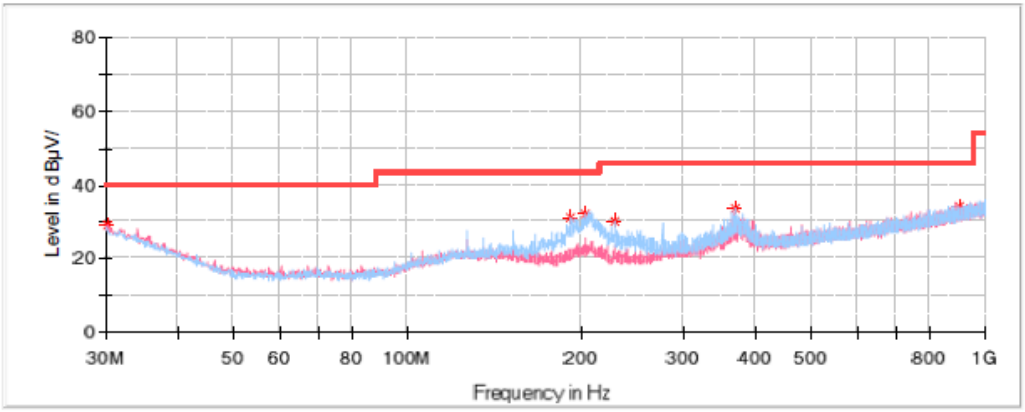
150 kHz - 30 MHz:

Frequency (MHz)	Corrected Amplitude (dBµV/m) @3m	Detector PK/QP/Ave.	Corrected Factor (dB/m)	Limit (dBµV/m) @3m	Margin (dB)
0.20970	48.94	PK	-13.87	101.17	52.23
1.10520	36.39	PK	-37.96	66.74	30.35
4.38870	39.49	PK	-31.97	69.54	30.05
6.29910	30.62	PK	-32.26	69.54	38.92

30 MHz - 1 GHz (Transmitting in maximum output power 8DPSK mode low channel):
Low Channel: 2402 MHz

Common Information

Project No:	RQDA250509003
EUT Model:	10810-2
Test Mode:	Transmitting in BT mode low channel
Standard:	FCC Part 15.205 &FCC Part 15.209&FCC Part 15.247
Test Equipment:	ESCI, JB3, 310N
Receiver Setting:	RBW:100 kHz, VBW: 300 kHz, Sweep Time: Auto
Temperature:	26.8℃
Humidity:	54%
Barometric Pressure:	101.1kPa
Test Engineer:	Jonathan
Test Date:	2025/5/17



Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
30.121250	28.97	40.00	11.03	V	-4.8
191.990000	30.97	43.50	12.53	H	-12.5
202.417500	32.23	43.50	11.27	H	-12.3
228.001250	30.12	46.00	15.88	H	-13.0
368.893750	33.60	46.00	12.40	H	-8.7
903.242500	34.21	46.00	11.79	V	1.1

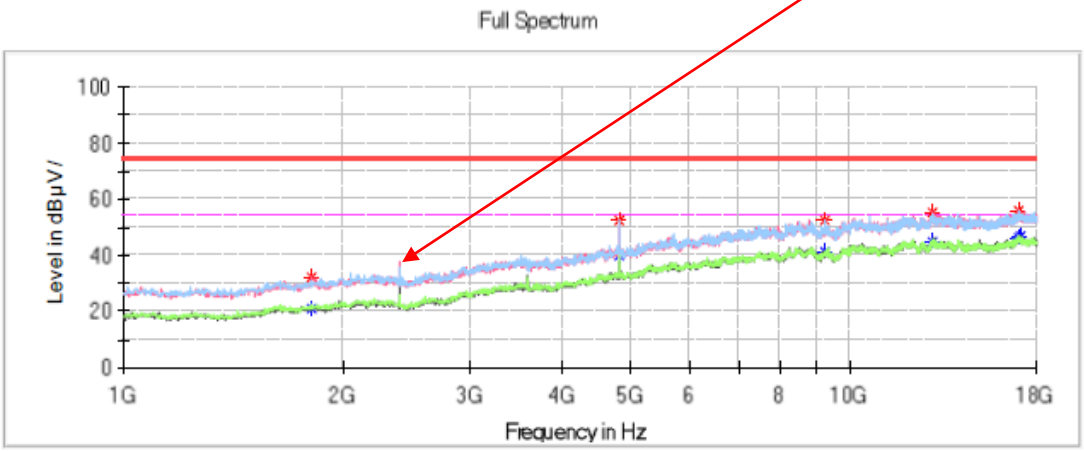
1 GHz - 18 GHz:
GFSK:

Low Channel: 2402 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Fundamental Test with Band Reject Filter



Critical_Freqs

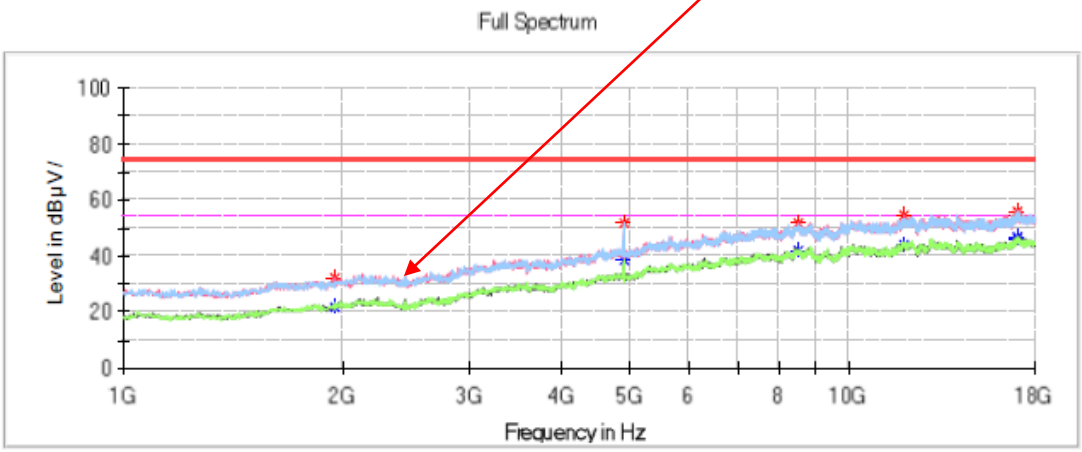
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1809.200000	32.14	---	74.00	41.86	V	-12.9
1809.200000	---	20.78	54.00	33.22	V	-12.9
4804.600000	---	39.67	54.00	14.33	H	-3.2
4804.600000	52.55	---	74.00	21.45	H	-3.2
9221.200000	---	41.19	54.00	12.81	H	5.4
9221.200000	52.39	---	74.00	21.61	H	5.4
12927.200000	55.23	---	74.00	18.77	V	9.7
12927.200000	---	44.69	54.00	9.31	V	9.7
17071.800000	55.62	---	74.00	18.38	H	12.2
17071.800000	---	45.99	54.00	8.01	H	12.2
17095.600000	---	46.76	54.00	7.24	V	12.1
17095.600000	54.19	---	74.00	19.81	V	12.1

Middle Channel: 2441 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Fundamental Test with Band Reject Filter



Critical_Freqs

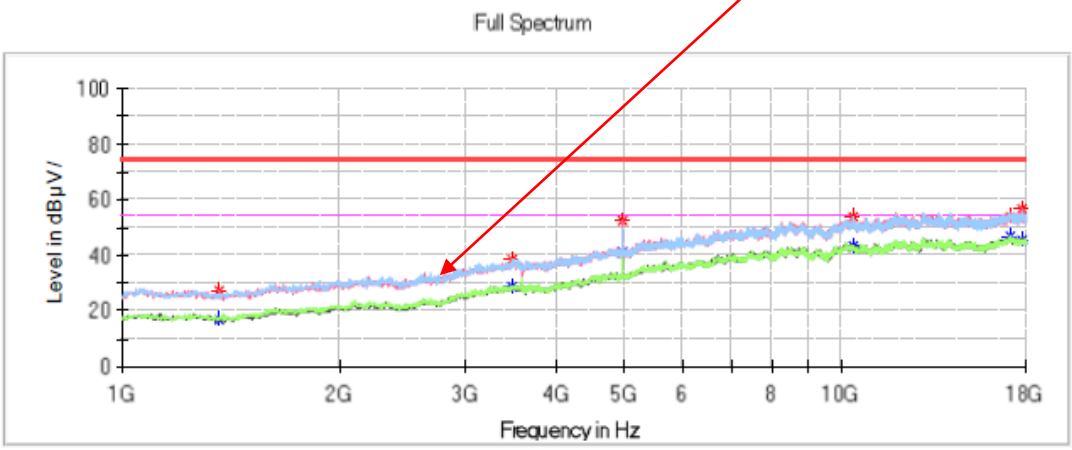
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1948.600000	---	21.90	54.00	32.10	V	-12.0
1948.600000	32.21	---	74.00	41.79	V	-12.0
4882.800000	---	38.65	54.00	15.35	H	-2.9
4882.800000	51.76	---	74.00	22.24	H	-2.9
8476.600000	---	41.80	54.00	12.20	V	5.3
8476.600000	51.74	---	74.00	22.26	V	5.3
11869.800000	---	43.86	54.00	10.14	V	8.9
11869.800000	54.36	---	74.00	19.64	V	8.9
17000.400000	54.74	---	74.00	19.26	V	12.3
17000.400000	---	46.63	54.00	7.37	V	12.3
17061.600000	56.14	---	74.00	17.86	H	12.2
17061.600000	---	46.15	54.00	7.85	H	12.2

High Channel: 2480 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Fundamental Test with Band Reject 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)
1363.800000	---	17.01	54.00	36.99	V	-14.9
1363.800000	27.57	---	74.00	46.43	V	-14.9
3485.400000	---	28.72	54.00	25.28	H	-6.4
3485.400000	38.50	---	74.00	35.50	H	-6.4
4957.600000	---	41.03	54.00	12.97	V	-2.6
4957.600000	52.22	---	74.00	21.78	V	-2.6
10373.800000	---	43.24	54.00	10.76	V	7.1
10373.800000	53.89	---	74.00	20.11	V	7.1
17133.000000	---	46.98	54.00	7.02	H	12.1
17133.000000	53.50	---	74.00	20.50	H	12.1
17819.800000	---	45.56	54.00	8.44	V	11.8
17819.800000	56.37	---	74.00	17.63	V	11.8

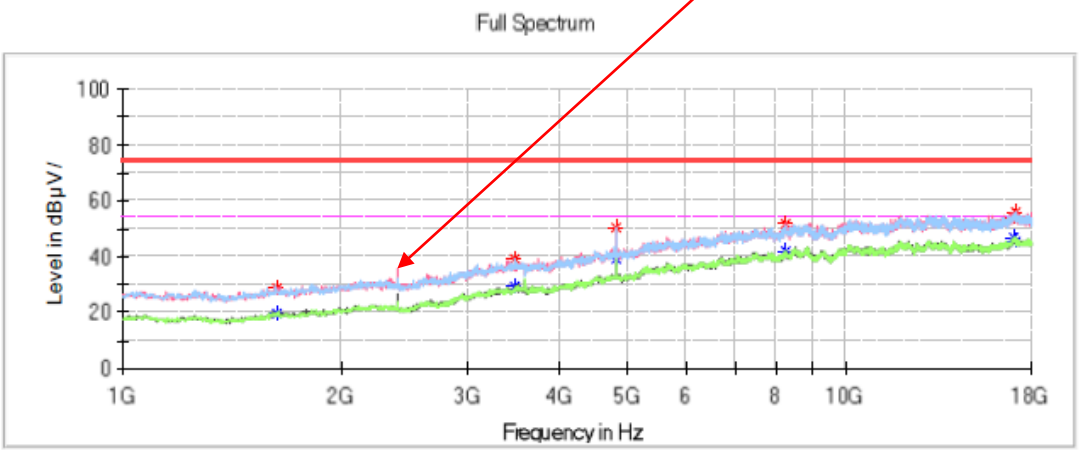
π/4-DQPSK:

Low Channel: 2402 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Fundamental Test with Band Reject Filter



Critical_Freqs

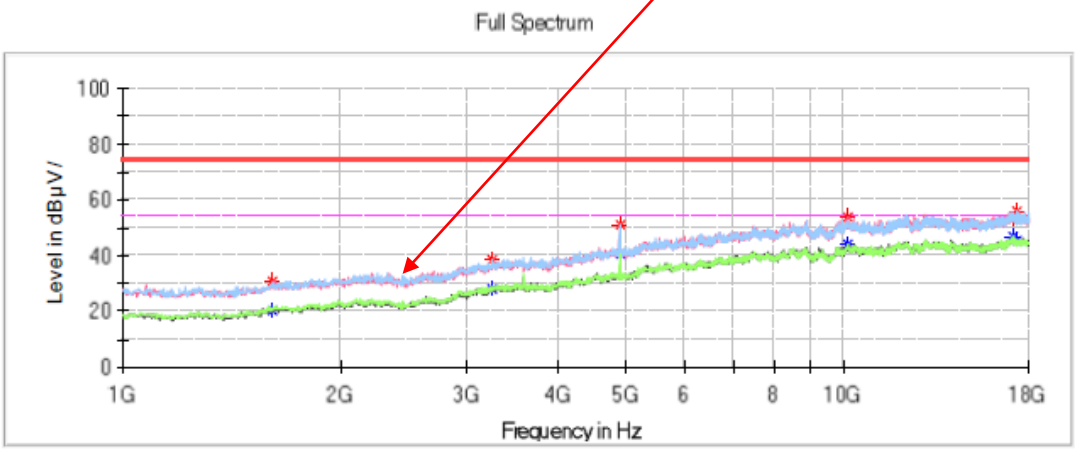
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1635.800000	---	19.86	54.00	34.14	V	-13.9
1635.800000	28.96	---	74.00	45.04	V	-13.9
3485.400000	---	29.03	54.00	24.97	V	-6.4
3485.400000	39.04	---	74.00	34.96	V	-6.4
4804.600000	---	39.19	54.00	14.81	H	-3.2
4804.600000	50.27	---	74.00	23.73	H	-3.2
8231.800000	---	41.88	54.00	12.12	V	4.6
8231.800000	51.92	---	74.00	22.08	V	4.6
17000.400000	54.13	---	74.00	19.87	H	12.3
17000.400000	---	47.18	54.00	6.82	H	12.3
17153.400000	---	45.56	54.00	8.44	H	12.0
17153.400000	55.67	---	74.00	18.33	H	12.0

Middle Channel: 2441 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Fundamental Test with Band Reject Filter



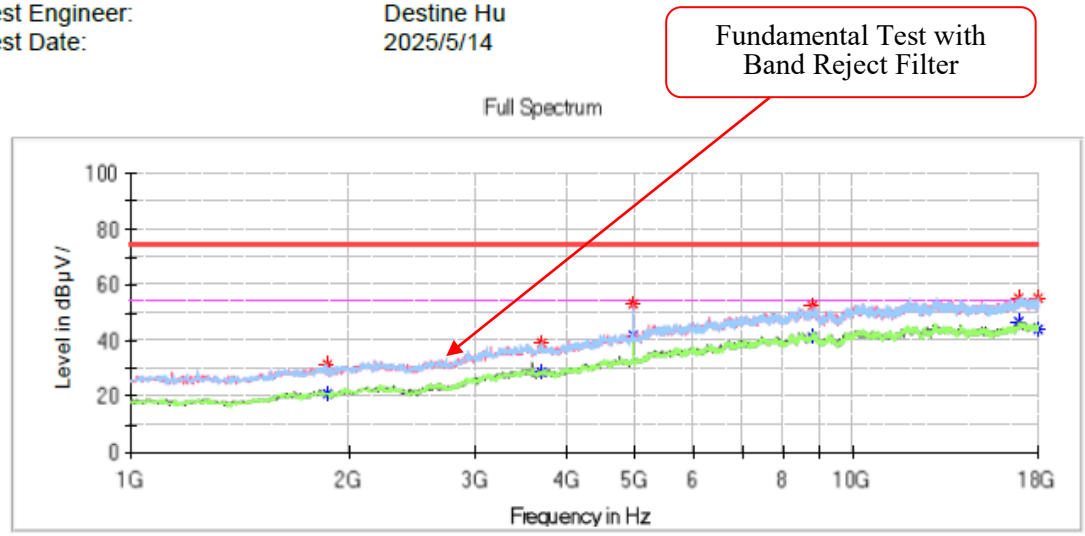
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1608.600000	---	20.52	54.00	33.48	V	-14.1
1608.600000	31.01	---	74.00	42.99	V	-14.1
3244.000000	---	28.32	54.00	25.68	H	-7.4
3244.000000	38.34	---	74.00	35.66	H	-7.4
4879.400000	---	40.85	54.00	13.15	H	-2.9
4879.400000	50.98	---	74.00	23.02	H	-2.9
10118.800000	---	44.20	54.00	9.80	V	7.2
10118.800000	54.00	---	74.00	20.00	V	7.2
17109.200000	---	46.93	54.00	7.07	H	12.1
17109.200000	53.17	---	74.00	20.83	H	12.1
17309.800000	---	45.42	54.00	8.58	H	11.8
17309.800000	55.97	---	74.00	18.03	H	11.8

High Channel: 2480 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14



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)
1870.400000	31.38	---	74.00	42.62	V	-12.5
1870.400000	---	21.06	54.00	32.94	V	-12.5
3692.800000	39.45	---	74.00	34.55	H	-6.2
3692.800000	---	28.50	54.00	25.50	H	-6.2
4957.600000	---	42.02	54.00	11.98	V	-2.6
4957.600000	53.23	---	74.00	20.77	V	-2.6
8782.600000	---	41.46	54.00	12.54	V	5.4
8782.600000	52.13	---	74.00	21.87	V	5.4
16963.000000	---	46.59	54.00	7.41	V	12.2
16963.000000	55.04	---	74.00	18.96	V	12.2
17979.600000	---	44.09	54.00	9.91	H	11.9
17979.600000	55.46	---	74.00	18.54	H	11.9

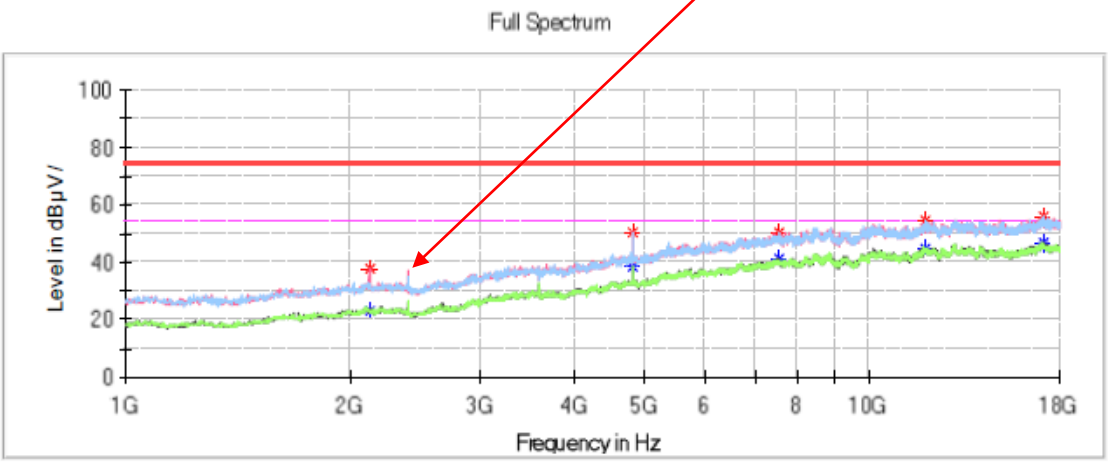
8DPSK:

Low Channel: 2402 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Fundamental Test with Band Reject Filter



Critical_Freqs

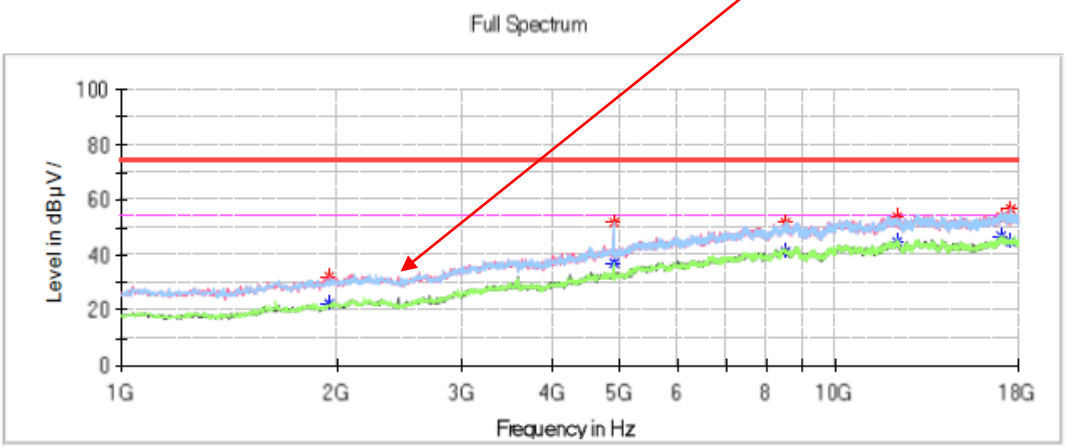
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2125.400000	---	23.29	54.00	30.71	V	-11.3
2125.400000	37.69	---	74.00	36.31	V	-11.3
4804.600000	---	38.59	54.00	15.41	H	-3.2
4804.600000	50.01	---	74.00	23.99	H	-3.2
7538.200000	---	40.96	54.00	13.04	V	3.9
7538.200000	50.31	---	74.00	23.69	V	3.9
11883.400000	---	44.65	54.00	9.35	H	8.9
11883.400000	54.63	---	74.00	19.37	H	8.9
17129.600000	---	47.20	54.00	6.80	V	12.1
17129.600000	53.62	---	74.00	20.38	V	12.1
17143.200000	---	45.36	54.00	8.64	H	12.1
17143.200000	56.29	---	74.00	17.71	H	12.1

Middle Channel: 2441 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Fundamental Test with Band Reject Filter



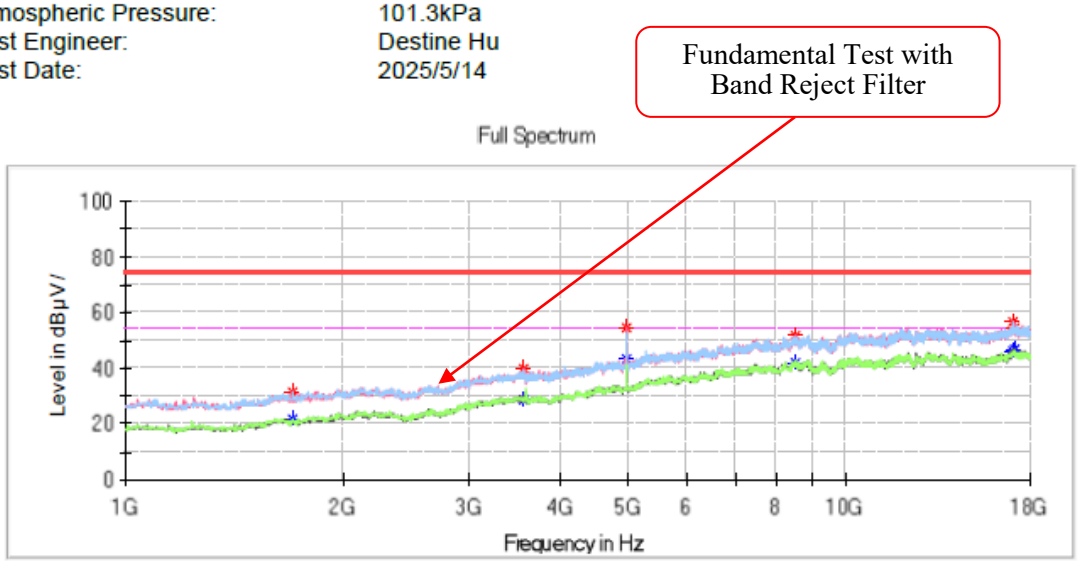
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
1955.400000	---	22.29	54.00	31.71	V	-12.0
1955.400000	32.13	---	74.00	41.87	V	-12.0
4879.400000	---	37.40	54.00	16.60	H	-2.9
4879.400000	51.64	---	74.00	22.36	H	-2.9
8486.800000	---	41.60	54.00	12.40	V	5.4
8486.800000	51.47	---	74.00	22.53	V	5.4
12169.000000	---	44.47	54.00	9.53	H	9.2
12169.000000	54.09	---	74.00	19.91	H	9.2
16986.800000	---	47.01	54.00	6.99	H	12.2
16986.800000	54.11	---	74.00	19.89	H	12.2
17513.800000	---	44.65	54.00	9.35	H	11.5
17513.800000	56.32	---	74.00	17.68	H	11.5

High Channel: 2480 MHz

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14



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)
1703.800000	31.37	---	74.00	42.63	H	-13.5
1703.800000	---	21.72	54.00	32.28	H	-13.5
3556.800000	40.14	---	74.00	33.86	V	-6.3
3556.800000	---	28.44	54.00	25.56	V	-6.3
4957.600000	54.32	---	74.00	19.68	V	-2.6
4957.600000	---	43.33	54.00	10.67	V	-2.6
8493.600000	---	42.05	54.00	11.95	H	5.4
8493.600000	52.08	---	74.00	21.92	H	5.4
17024.200000	---	45.88	54.00	8.12	H	12.2
17024.200000	56.48	---	74.00	17.52	H	12.2
17085.400000	54.56	---	74.00	19.44	V	12.2
17085.400000	---	46.65	54.00	7.35	V	12.2

Band Edge:

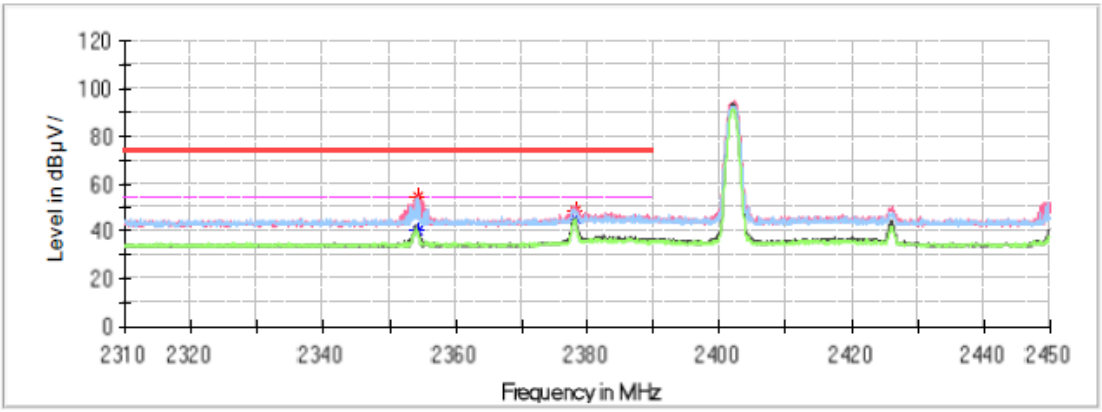
GFSK:

Left Side

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Full Spectrum



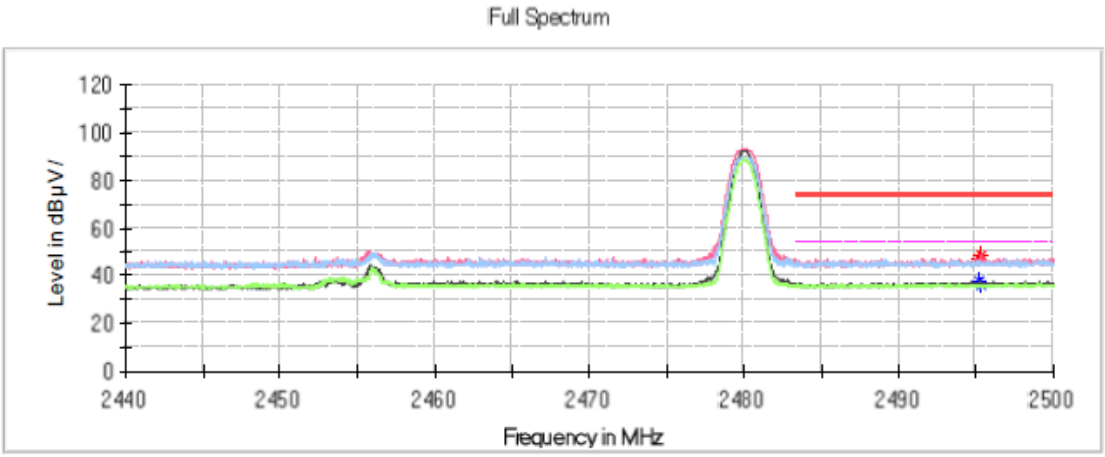
Critical_Freqs

Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2354.352000	54.47	---	74.00	19.53	V	-0.7
2354.352000	---	40.00	54.00	14.00	V	-0.7
2378.040000	48.96	---	74.00	25.04	V	-0.6
2378.040000	---	45.27	54.00	8.73	V	-0.6

Right Side

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14



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)
2495.272000	---	37.80	54.00	16.20	V	-0.2
2495.272000	46.86	---	74.00	27.14	V	-0.2
2495.344000	---	36.40	54.00	17.60	V	-0.2
2495.344000	48.38	---	74.00	25.62	V	-0.2

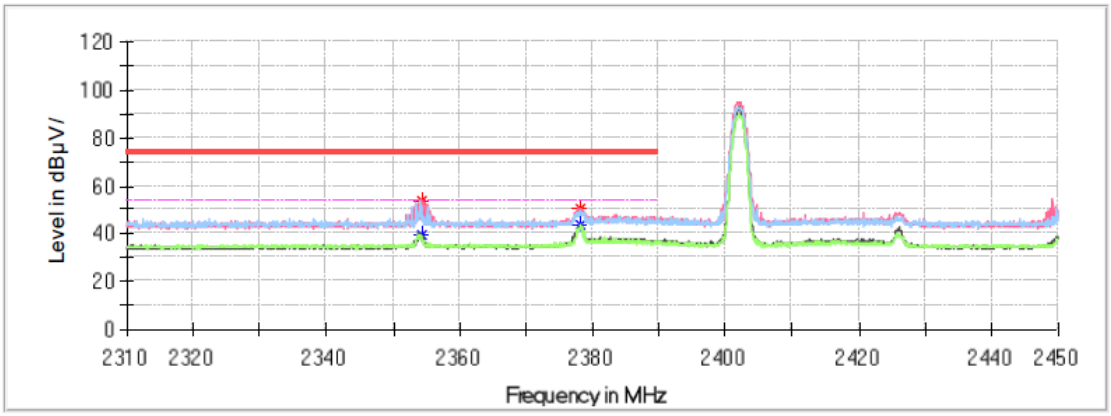
π/4-DQPSK:

Left Side

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Full Spectrum



Critical_Freqs

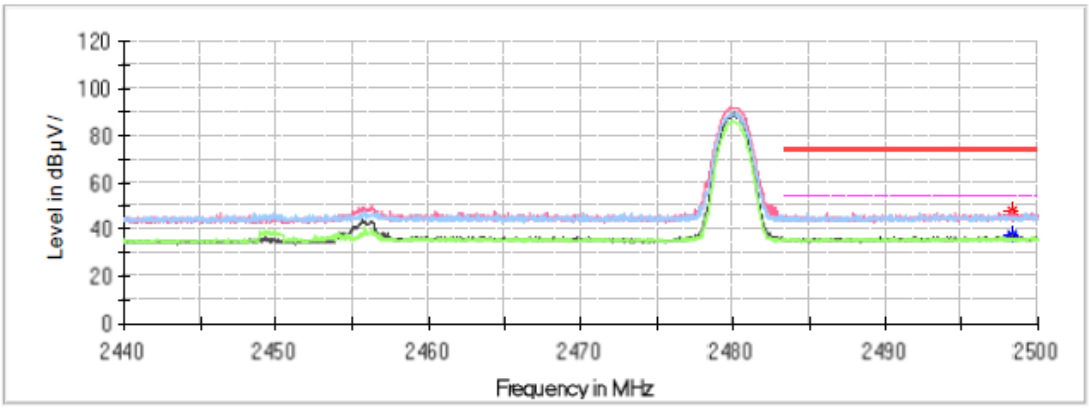
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2354.408000	53.63	---	74.00	20.37	V	-0.7
2354.408000	---	39.57	54.00	14.43	V	-0.7
2378.096000	50.71	---	74.00	23.29	H	-0.6
2378.096000	---	44.00	54.00	10.00	H	-0.6

Right Side

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

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)
2498.272000	47.44	---	74.00	26.56	V	-0.2
2498.272000	---	36.66	54.00	17.34	V	-0.2
2498.320000	45.77	---	74.00	28.23	V	-0.2
2498.320000	---	37.43	54.00	16.57	V	-0.2

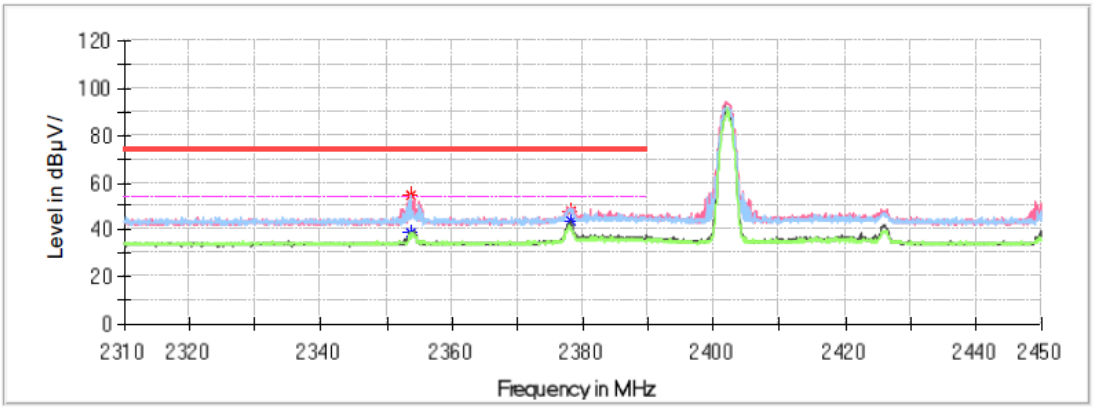
8DPSK:

Left Side

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Full Spectrum



Critical_Freqs

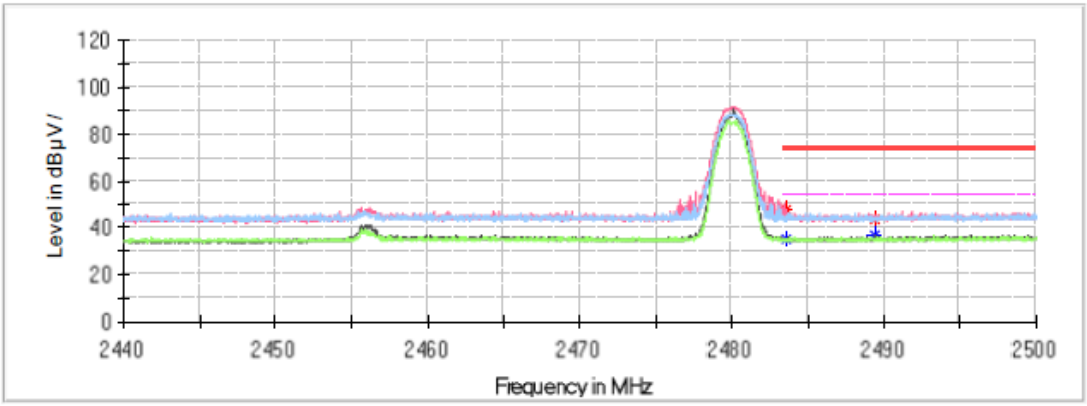
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2353.736000	54.17	---	74.00	19.83	H	-0.7
2353.736000	---	38.34	54.00	15.66	H	-0.7
2378.096000	47.94	---	74.00	26.06	V	-0.6
2378.096000	---	43.33	54.00	10.67	V	-0.6

Right Side

Common Information

Project No.:	RQDA250509003
EUT Model:	10810-2
Test Mode:	BT
Standard:	FCC Part 15.247& FCC Part 15.205& FCC Part 15.209
Test Equipment:	ESU40,3115,PAM-0118P
Receiver Setting:	RBW: 1MHz, VBW: 3MHz, Sweep Time: Auto
Temperature:	24.8℃
Humidity:	51%
Atmospheric Pressure:	101.3kPa
Test Engineer:	Destine Hu
Test Date:	2025/5/14

Full Spectrum

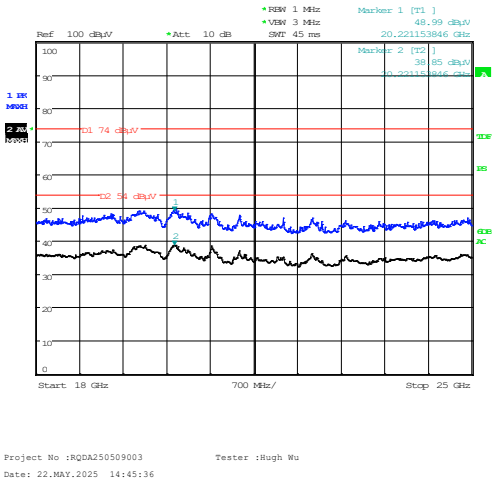


Critical_Freqs

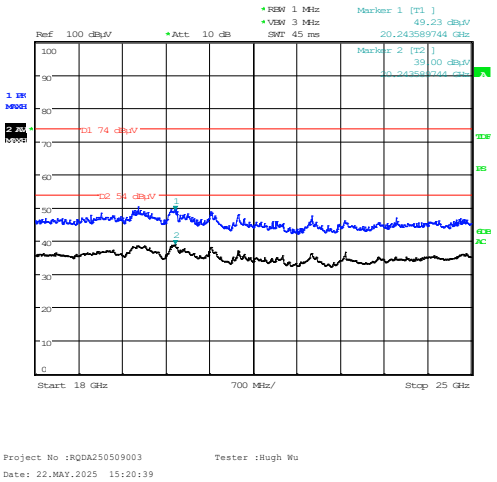
Frequency (MHz)	MaxPeak (dB µ V/m)	Average (dB µ V/m)	Limit (dB µ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2483.560000	47.68	---	74.00	26.32	V	-0.3
2483.560000	---	35.26	54.00	18.74	V	-0.3
2489.416000	43.92	---	74.00	30.08	V	-0.2
2489.416000	---	36.88	54.00	17.12	V	-0.2

18 GHz - 25 GHz (Transmitting maximum output power 8DPSK Mode low channel):

Horizontal



Vertical



Frequency (GHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
20.22	---	38.85	54	15.15	H	12.48
20.22	48.99	---	74	25.01	H	12.48
20.24	---	39	54	15	V	12.5
20.24	49.23	---	74	24.77	V	12.5

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

CHANNEL SEPARATION TEST

Environmental Conditions & Test Information

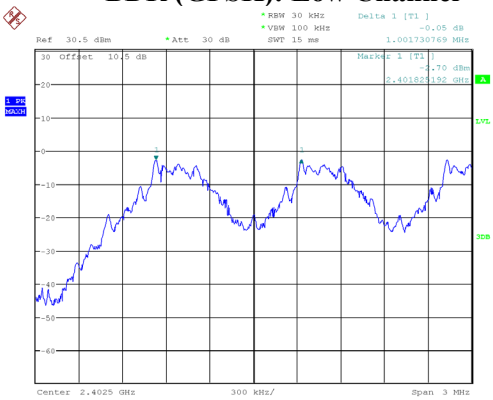
Test Date:	2025-05-27
Temperature:	24.7 °C
Relative Humidity:	57 %
ATM Pressure:	101.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

Mode	Channel	Result (MHz)	Limit (MHz)	Result
GFSK	Low	1.002	0.874	Pass
	Middle	1.005	0.874	Pass
	High	1.005	0.874	Pass

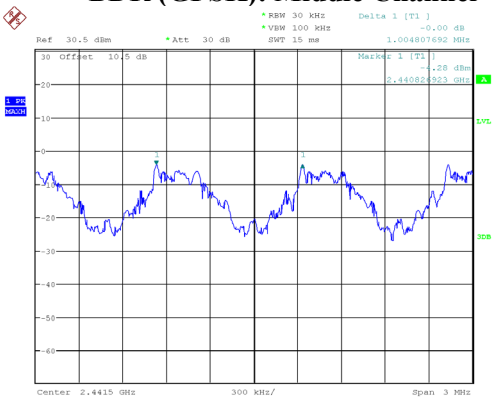
Note: Only GFSK mode result is reported since EDR(π/4-DQPSK, 8DPSK) has the exact same channel plan.
Limit = 20 dB bandwidth*2/3

BDR (GFSK): Low Channel



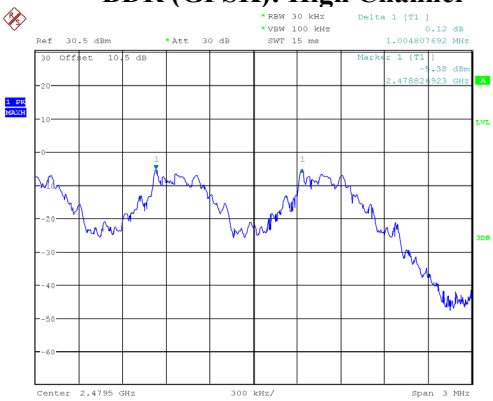
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:37:45

BDR (GFSK): Middle Channel



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:44:17

BDR (GFSK): High Channel



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 15:13:03

20 dB BANDWIDTH TEST

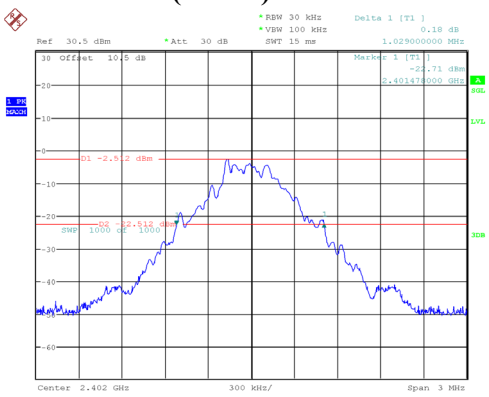
Environmental Conditions & Test Information

Test Date:	2025-05-27
Temperature:	24.7 °C
Relative Humidity:	57 %
ATM Pressure:	101.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

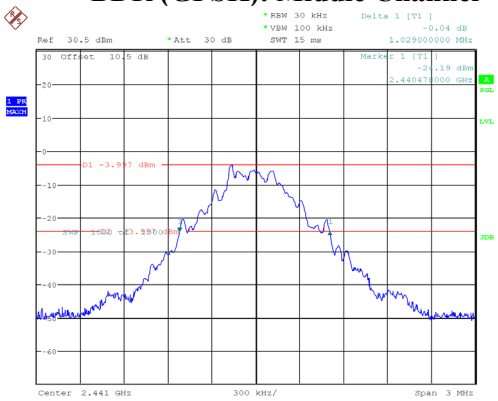
Mode	Channel	Frequency (MHz)	20 dB Emission Bandwidth (MHz)
BDR (GFSK)	Low	2402	1.029
	Middle	2441	1.029
	High	2480	1.035
EDR (π/4-DQPSK)	Low	2402	1.290
	Middle	2441	1.311
	High	2480	1.299
EDR (8DPSK)	Low	2402	1.266
	Middle	2441	1.272
	High	2480	1.260

BDR (GFSK): Low Channel



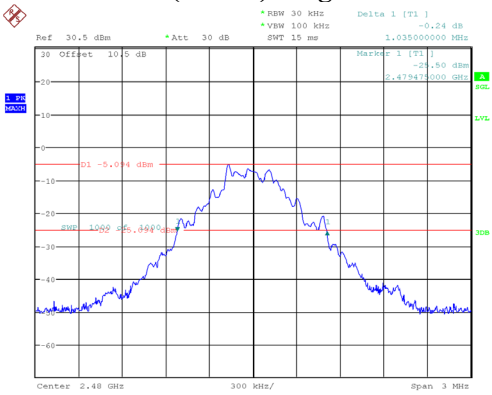
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 10:26:15

BDR (GFSK): Middle Channel



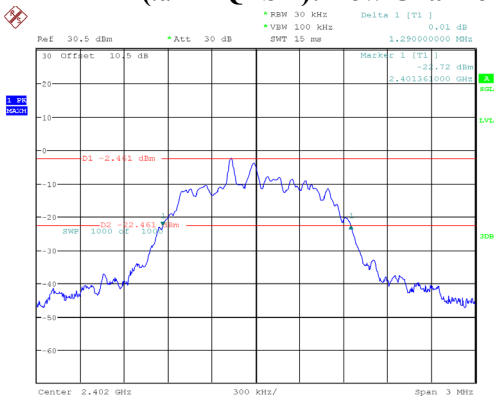
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 10:38:17

BDR (GFSK): High Channel



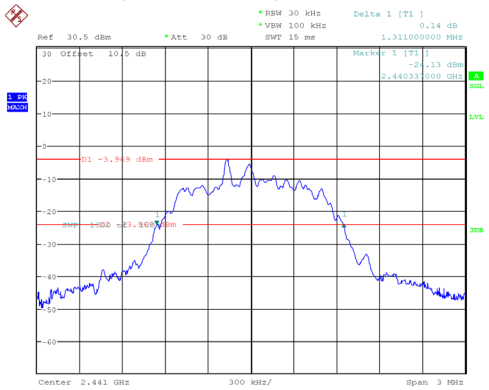
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 10:45:47

EDR (π/4-DQPSK): Low Channel



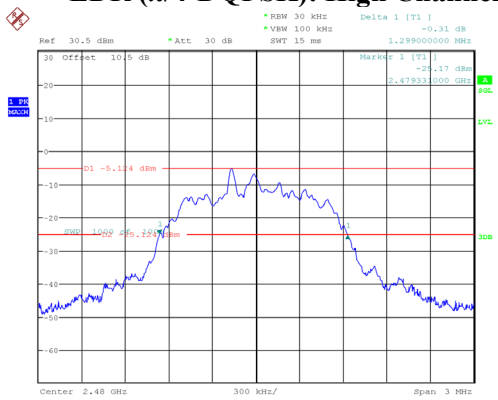
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:04:15

EDR(π/4-DQPSK): Middle Channel



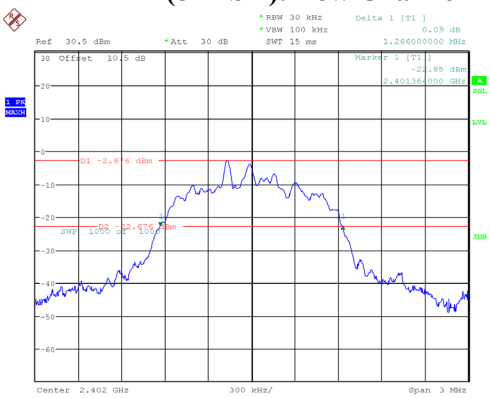
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:14:42

EDR (π/4-DQPSK): High Channel



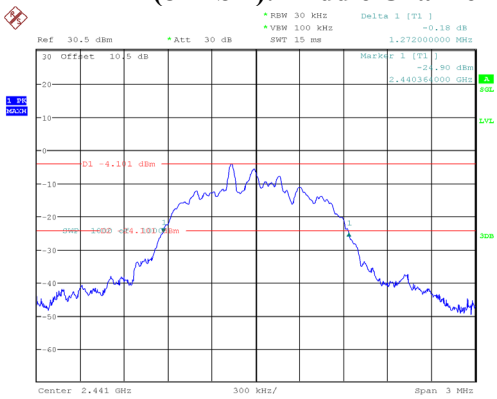
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:29:42

EDR (8DPSK): Low Channel



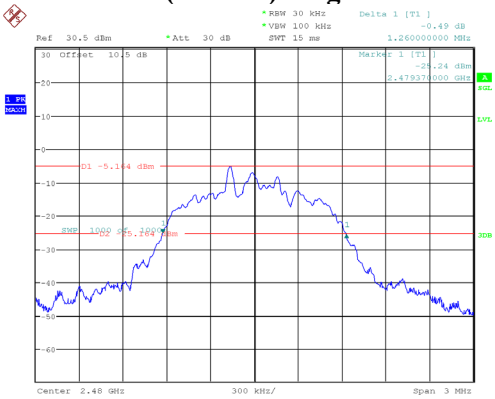
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:37:25

EDR (8DPSK): Middle Channel



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:45:20

EDR (8DPSK): High Channel



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:52:43

QUANTITY OF HOPPING CHANNEL TEST

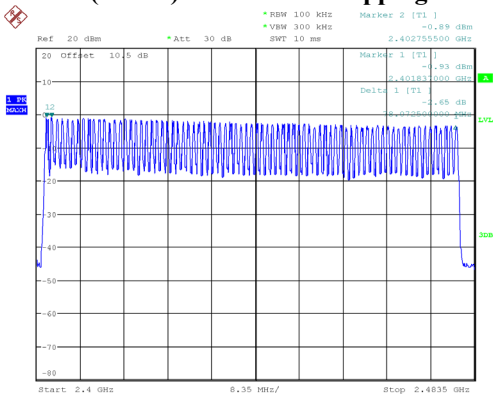
Environmental Conditions & Test Information

Test Date:	2025-05-27
Temperature:	24.7 ℃
Relative Humidity:	57 %
ATM Pressure:	101.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

EUT operation mode: Hopping

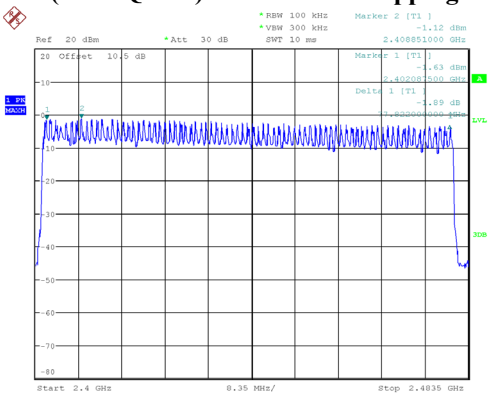
Mode	Frequency Range (MHz)	Number of Hopping Channel (CH)	Limit (CH)
BDR (GFSK)	2400-2483.5	79	≥15
EDR (π/4-DQPSK)	2400-2483.5	79	≥15
EDR (8DPSK)	2400-2483.5	79	≥15

BDR (GFSK):Number of Hopping Channels



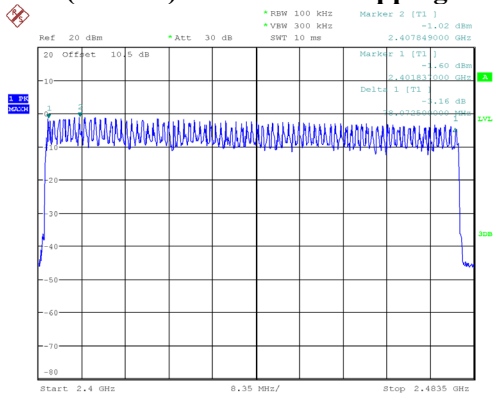
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:58:28

EDR (π/4-DQPSK): Number of Hopping Channels



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:03:05

EDR (8DPSK): Number of Hopping Channels



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:10:06

TIME OF OCCUPANCY (DWELL TIME)

Environmental Conditions & Test Information

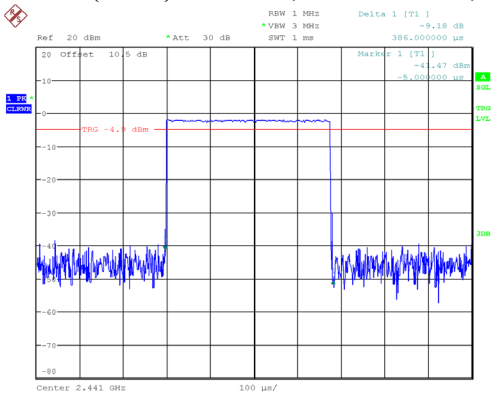
Test Date:	2025-05-27
Temperature:	24.7 °C
Relative Humidity:	57 %
ATM Pressure:	101.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

EUT operation mode: Hopping

Mode		Channel	Pulse Width (ms)	Dwell Time (s)	Limit (s)	Result
BDR (GFSK)	DH1	Middle	0.386	0.124	0.4	Pass
	DH3	Middle	1.644	0.263	0.4	Pass
	DH5	Middle	2.925	0.312	0.4	Pass
EDR (π/4-DQPSK)	2DH1	Middle	0.391	0.125	0.4	Pass
	2DH3	Middle	1.661	0.266	0.4	Pass
	2DH5	Middle	2.925	0.312	0.4	Pass
EDR (8DPSK)	3DH1	Middle	0.392	0.125	0.4	Pass
	3DH3	Middle	1.653	0.264	0.4	Pass
	3DH5	Middle	2.930	0.313	0.4	Pass

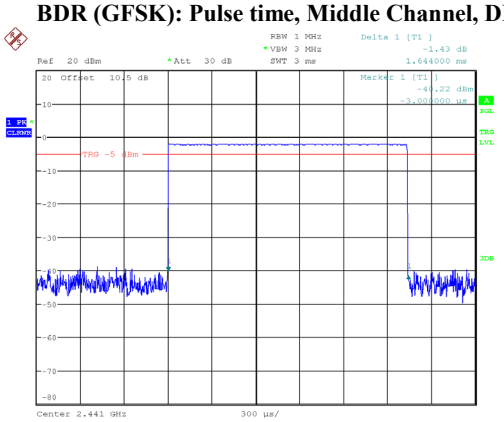
Note:
DH1: Dwell time = Pulse time*(1600/2/79)*31.6S
DH3: Dwell time = Pulse time*(1600/4/79)*31.6S
DH5: Dwell time = Pulse time*(1600/6/79)*31.6S
2DH1: Dwell time = Pulse time*(1600/2/79)*31.6S
2DH3: Dwell time = Pulse time*(1600/4/79)*31.6S
2DH5: Dwell time = Pulse time*(1600/6/79)*31.6S
3DH1: Dwell time = Pulse time*(1600/2/79)*31.6S
3DH3: Dwell time = Pulse time*(1600/4/79)*31.6S
3DH5: Dwell time = Pulse time*(1600/6/79)*31.6S

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



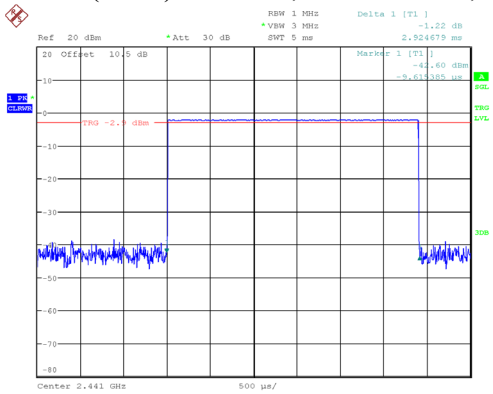
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:13:26

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



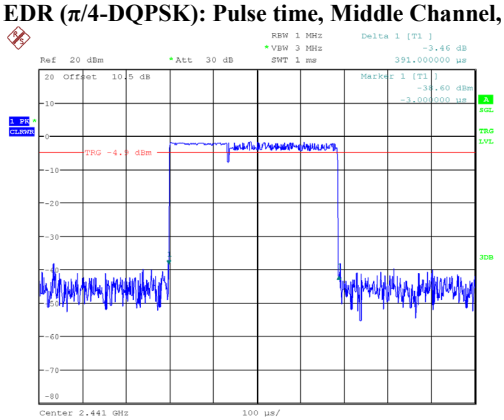
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:14:31

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



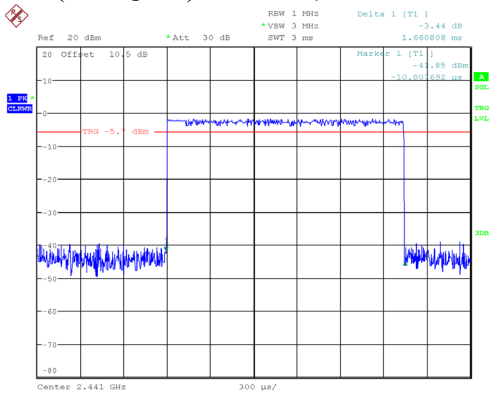
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:16:46

EDR (π/4-DQPSK): Pulse time, Middle Channel, 2DH1



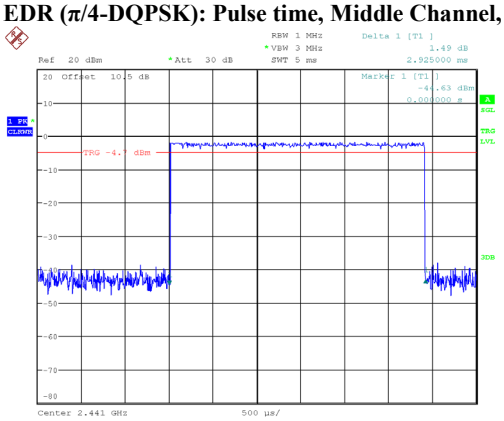
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:19:40

EDR (π/4-DQPSK): Pulse time, Middle Channel, 2DH3



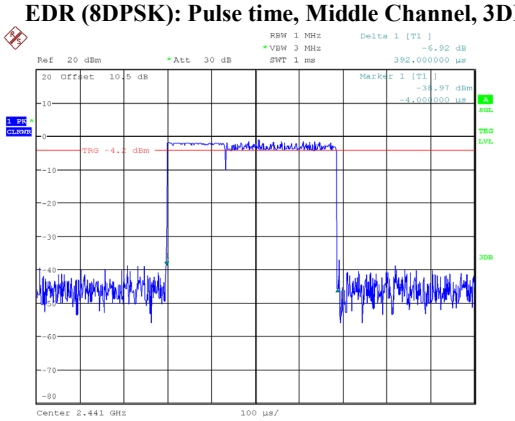
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:21:55

EDR (π/4-DQPSK): Pulse time, Middle Channel, 2DH5



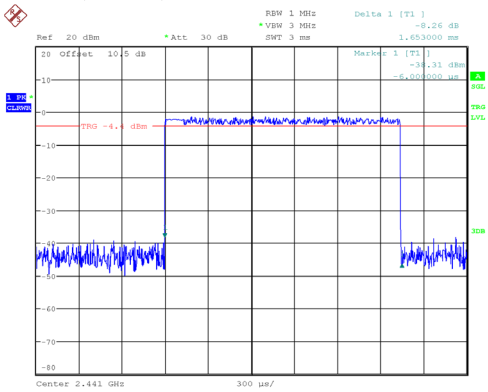
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:22:49

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



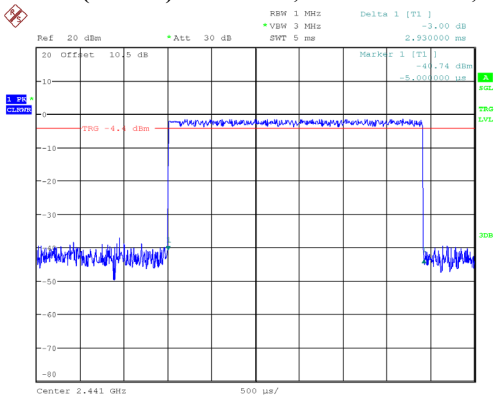
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:23:36

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



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:24:32

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



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 14:28:00

PEAK OUTPUT POWER MEASUREMENT

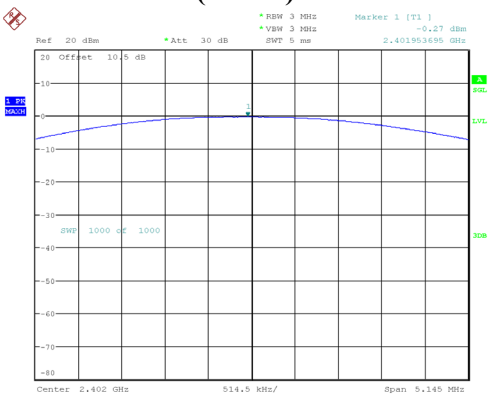
Environmental Conditions & Test Information

Test Date:	2025-05-27
Temperature:	24.7 ℃
Relative Humidity:	57 %
ATM Pressure:	101.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

EUT operation mode: Transmitting

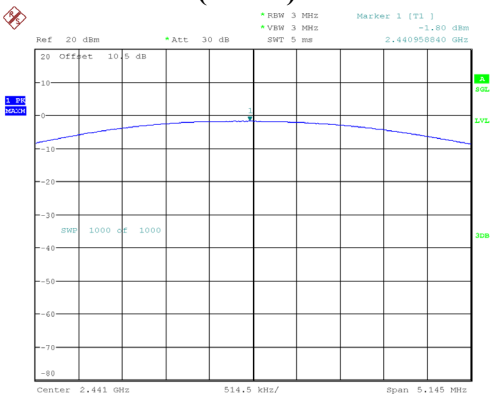
Mode	Channel	Frequency (MHz)	Result (dBm)	Limit (dBm)
GFSK	Low	2402	-0.27	21
	Middle	2441	-1.80	
	High	2480	-2.80	
π/4 DQPSK	Low	2402	0.38	
	Middle	2441	-1.09	
	High	2480	-2.10	
8DPSK	Low	2402	0.87	
	Middle	2441	-0.56	
	High	2480	-1.53	

BDR (GFSK): 2402MHz



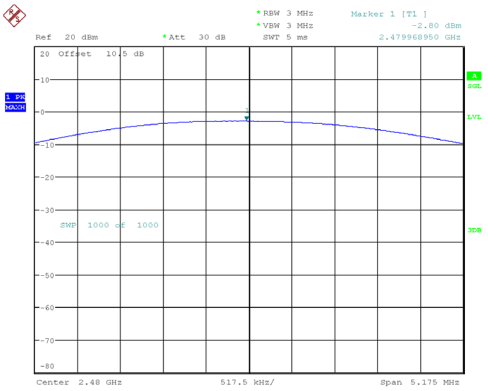
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 10:36:45

BDR (GFSK): 2441MHz



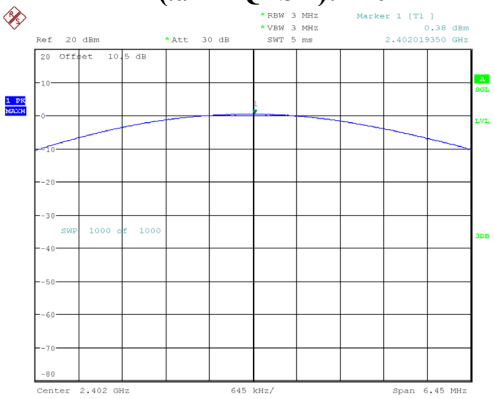
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 10:44:43

BDR (GFSK): 2480MHz



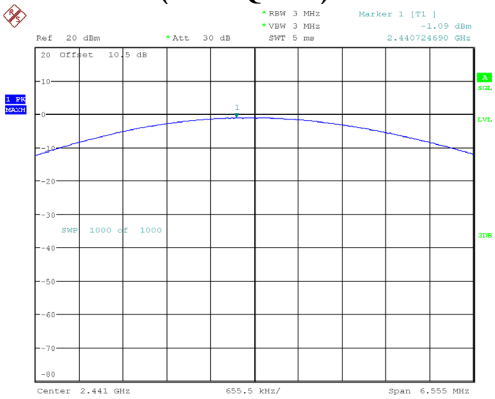
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:02:41

EDR(π/4-DQPSK): 2402MHz



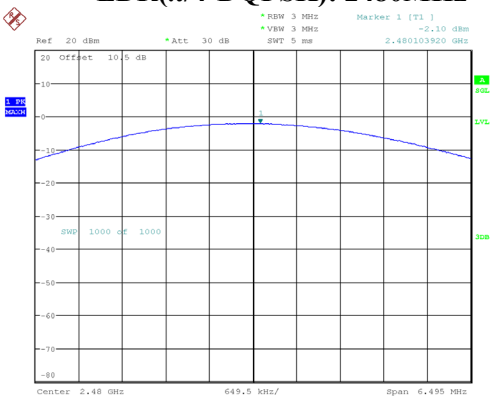
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:13:35

EDR(π/4-DQPSK): 2441MHz



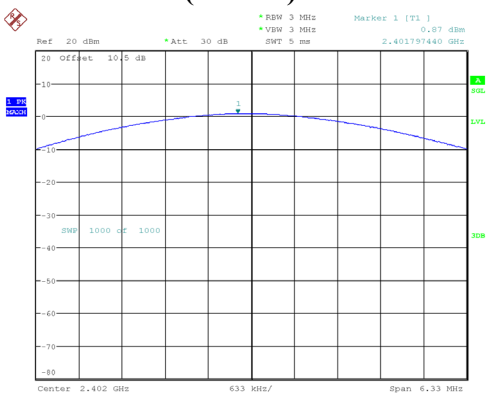
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:23:01

EDR(π/4-DQPSK): 2480MHz



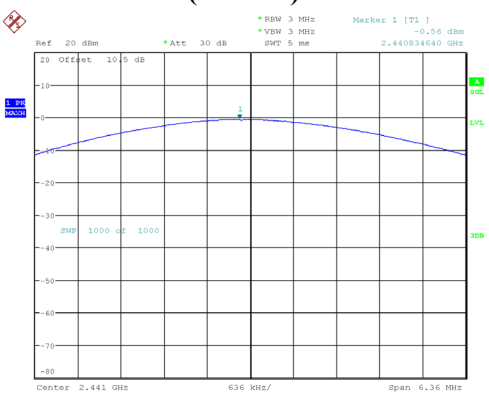
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:36:02

EDR(8DPSK): 2402MHz



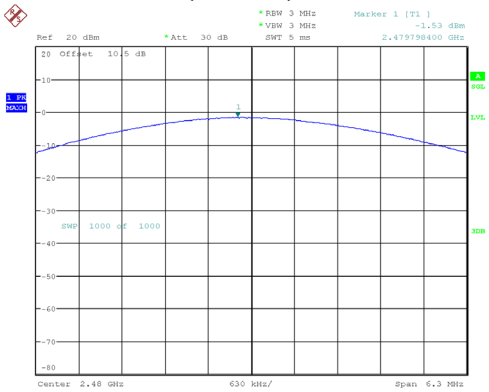
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:44:12

EDR(8DPSK):2441MHz



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:51:38

EDR(8DPSK): 2480MHz



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 11:59:43

BAND EDGES

Environmental Conditions & Test Information

Test Date:	2025-05-27
Temperature:	24.7 °C
Relative Humidity:	57 %
ATM Pressure:	101.7 kPa
Test Result:	Pass
Test Engineer:	Neil Zhou

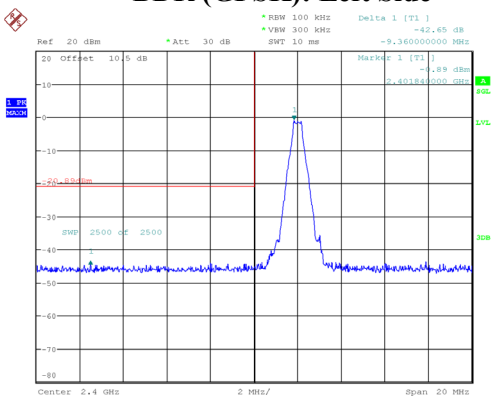
EUT operation mode: Transmitting & Hopping

Test Result: Compliant.

Mode	Channel	Frequency (MHz)	Result (dBc)	Limit (dBc)
GFSK	Low	2402	42.65	20
	High	2480	40.15	
π/4 DQPSK	Low	2402	41.72	
	High	2480	39.96	
8DPSK	Low	2402	43.22	
	High	2480	40.35	
GFSK (Hopping)	Low	2402	41.26	
	High	2480	40.30	
π/4 DQPSK (Hopping)	Low	2402	43.26	
	High	2480	40.70	
8DPSK (Hopping)	Low	2402	40.50	
	High	2480	39.64	

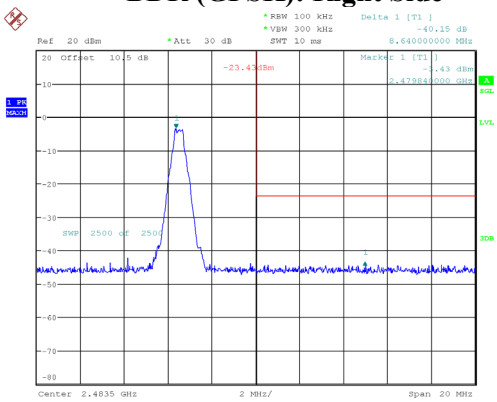
Band Edge

BDR (GFSK): Left Side



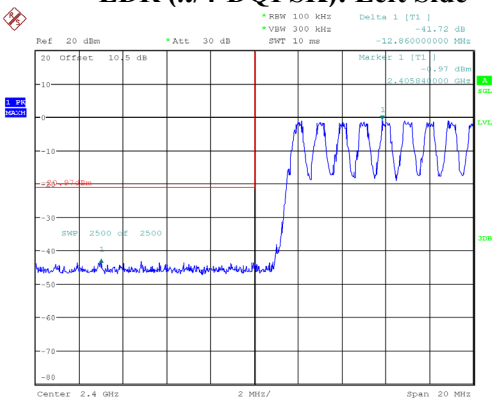
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:24:26

BDR (GFSK): Right Side



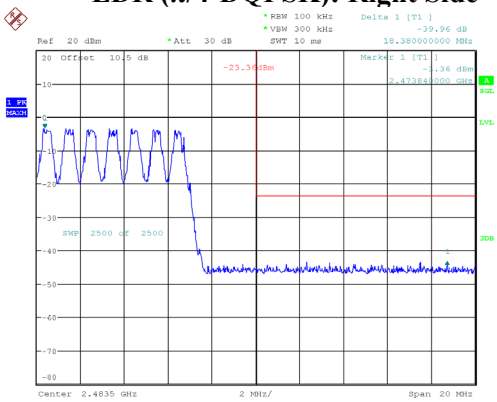
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:27:14

EDR (π/4-DQPSK): Left Side



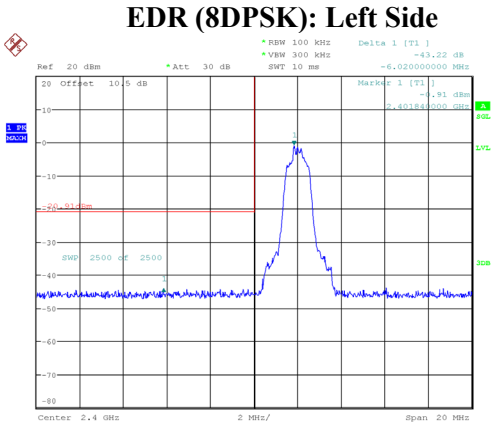
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:18:30

EDR (π/4-DQPSK): Right Side



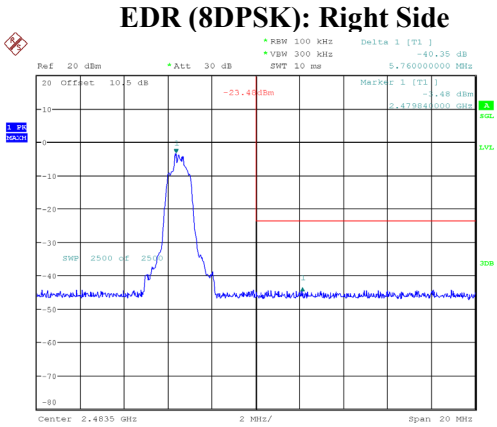
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:21:53

EDR (8DPSK): Left Side



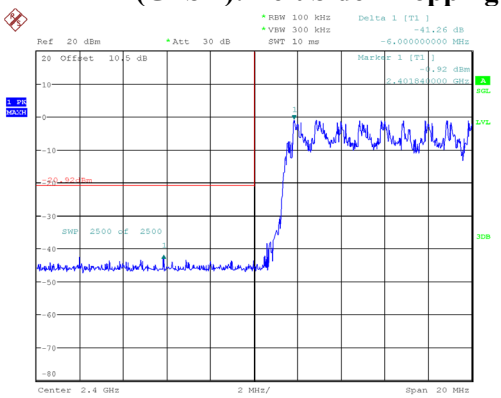
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:42:07

EDR (8DPSK): Right Side



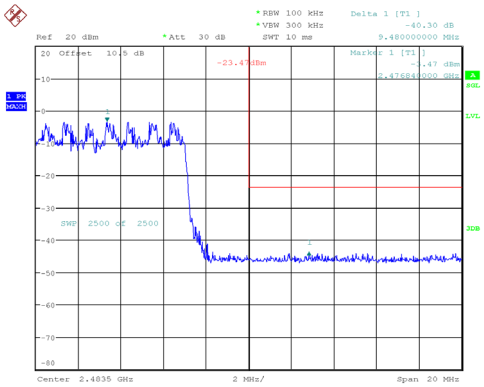
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:44:40

BDR (GFSK): Left Side - Hopping



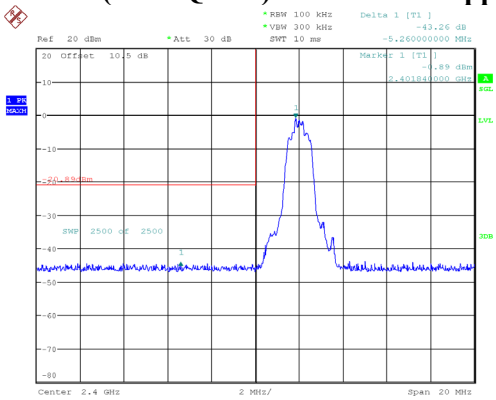
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:30:21

BDR (GFSK): Right Side - Hopping



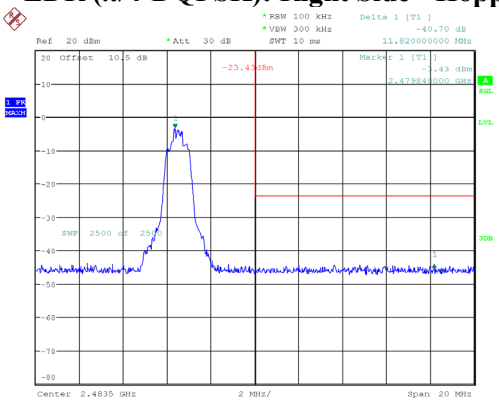
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:39:25

EDR (π/4-DQPSK): Left Side - Hopping



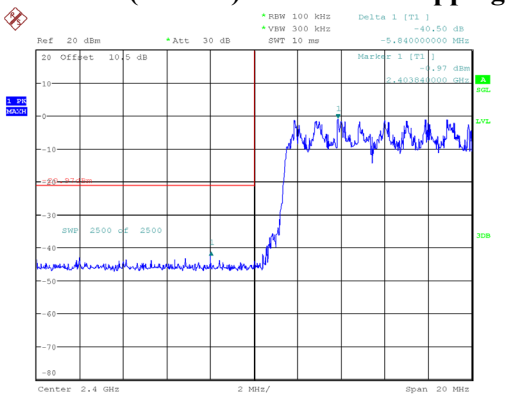
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:52:17

EDR (π/4-DQPSK): Right Side - Hopping



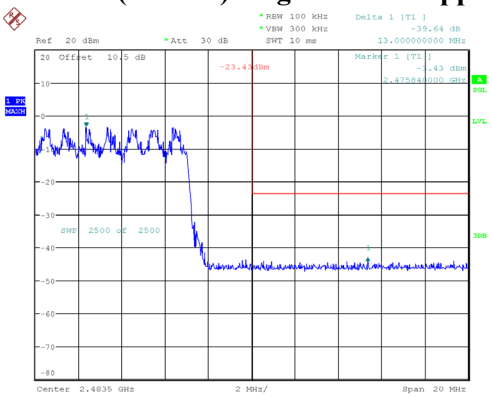
ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:54:48

EDR (8DPSK): Left Side - Hopping



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:47:18

EDR (8DPSK): Right Side - Hopping



ProjectNo.:RQDA250509003 Tester:Neil Zhou
Date: 27.MAY.2025 13:49:39

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 *******