

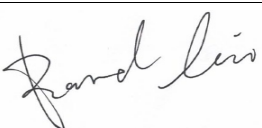
# FCC PART 15.247 TEST REPORT

For

**Ningbo Jinlida Lamp Decoration Co.,Ltd**

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

**FCC ID: 2BLOQ-10810-2**

|                                        |                                                                                                                                                                                                                             |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Report Type:</b><br>Original Report | <b>Product Name:</b><br>Speaker                                                                                                                                                                                             |
| <b>Report Number:</b>                  | RQDA250509003-00B                                                                                                                                                                                                           |
| <b>Report Date:</b>                    | 2025-06-03                                                                                                                                                                                                                  |
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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<br>$\pi/4$ -DQPSK: 0.38 dBm<br>8DPSK: 0.87 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                                    |
| ★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°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: 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**

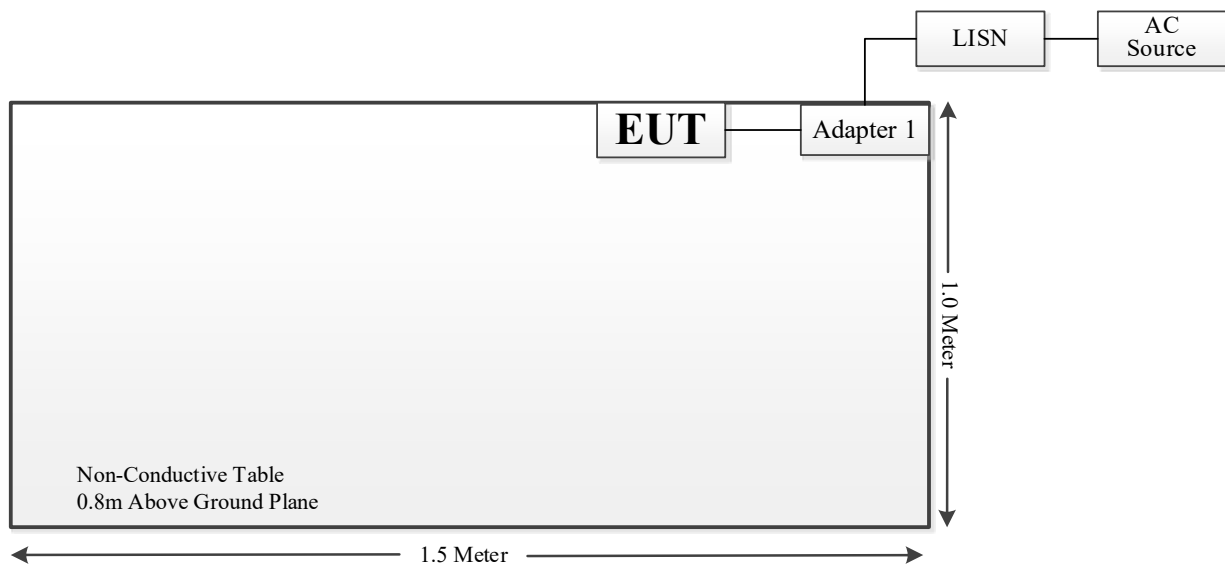
| Manufacturer           | Description | Model            | Serial Number |
|------------------------|-------------|------------------|---------------|
| Power on Tools Co.,Ltd | Adapter 1   | DA-00052000EU001 | Unknown       |
| Power on Tools Co.,Ltd | Adapter 2   | DA-00052000EU002 | Unknown     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

**External I/O Cable**

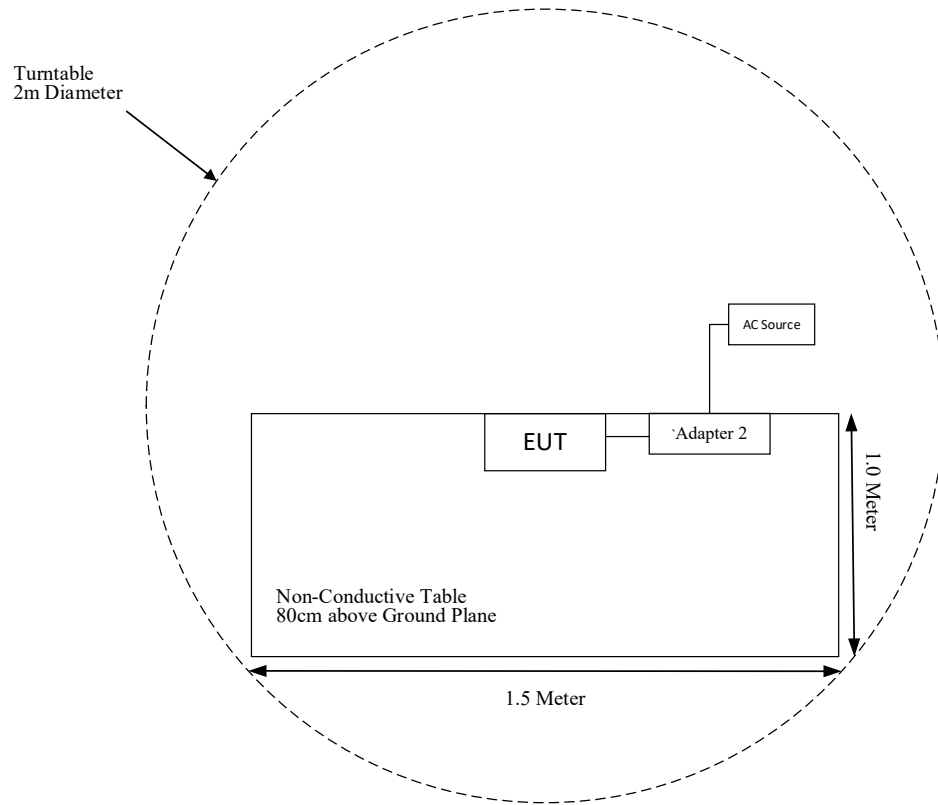
| Cable Description | Length (m) | From Port   | To Port     |
|-------------------|------------|-------------|-------------|
| Power Cable 1     | 1.5        | AC Source   | Adapter     |
| Power Cable 2     | 1.5        | Debug board | Notebook    |
| USB Cable         | 0.2        | EUT         |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

**Block Diagram of Test Setup**

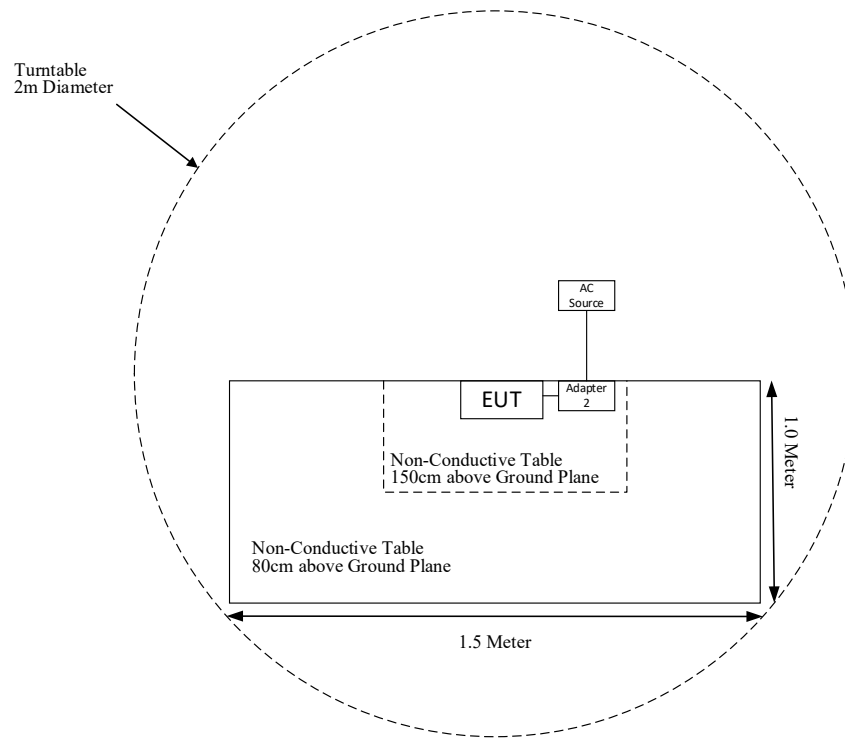
For Conducted Emissions:



For Radiated Emissions (Below 1GHz):



For Radiated Emissions (Above 1GHz):



**SUMMARY OF TEST RESULTS**

| <b>FCC Rules</b>               | <b>Description of Test</b>                      | <b>Result</b> |
|--------------------------------|-------------------------------------------------|---------------|
| §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 |
|--------------------------------------------|---------------------|-----------|---------------|------------------|----------------------|
| <b>Radiated Emission Test (Chamber #1)</b> |                     |           |               |                  |                      |
| 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           |
| <b>Radiated Emission Test (Chamber #2)</b> |                     |           |               |                  |                      |
| 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           |
| <b>RF Conducted Test</b>                   |                     |           |               |                  |                      |
| 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 <sup>2</sup> ) | Averaging Time (minutes) |
| 0.3-1.34                                                | 614                           | 1.63                          | *(100)                              | 30                       |
| 1.34-30                                                 | 824/f                         | 2.19/f                        | *(180/f <sup>2</sup> )              | 30                       |
| 30-300                                                  | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300-1500                                                | /                             | /                             | f/1500                              | 30                       |
| 1500-100,000                                            | /                             | /                             | 1.0                                 | 30                       |

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

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

### Calculated Formulary

Predication of MPE limit at a given distance

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

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

### Calculated Data:

| Mode       | Frequency Range (MHz) | Antenna Gain |           | ★Tune-up Output Power |      | Evaluation Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | MPE Limit (mW/cm <sup>2</sup> ) |
|------------|-----------------------|--------------|-----------|-----------------------|------|--------------------------|-------------------------------------|---------------------------------|
|            |                       | (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**

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**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.

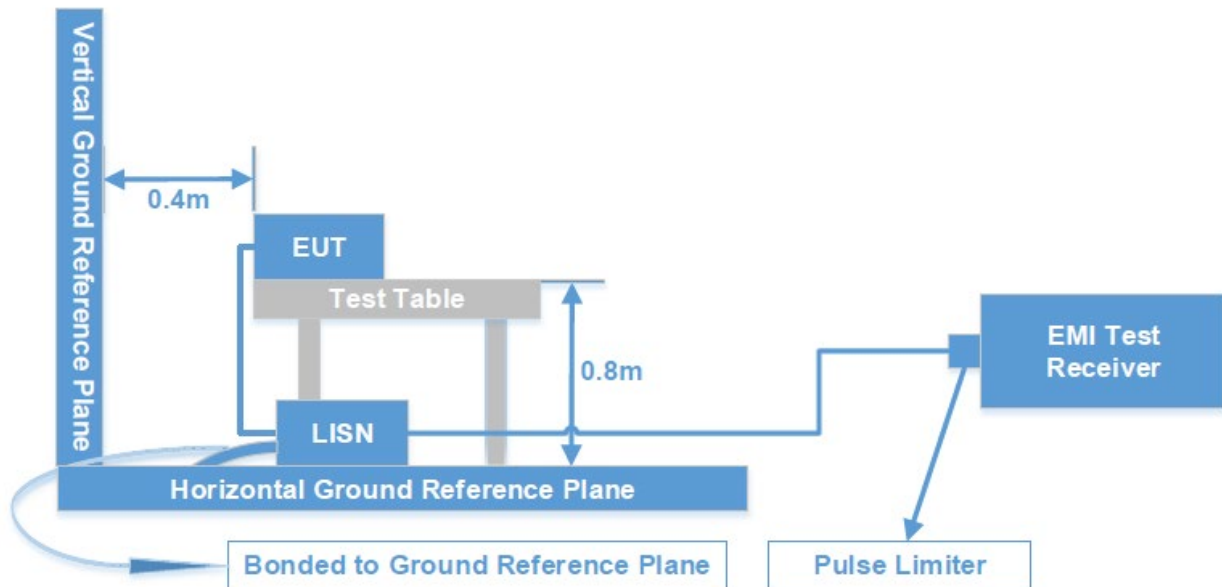
**Result:** Compliant.

## 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:

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

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

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

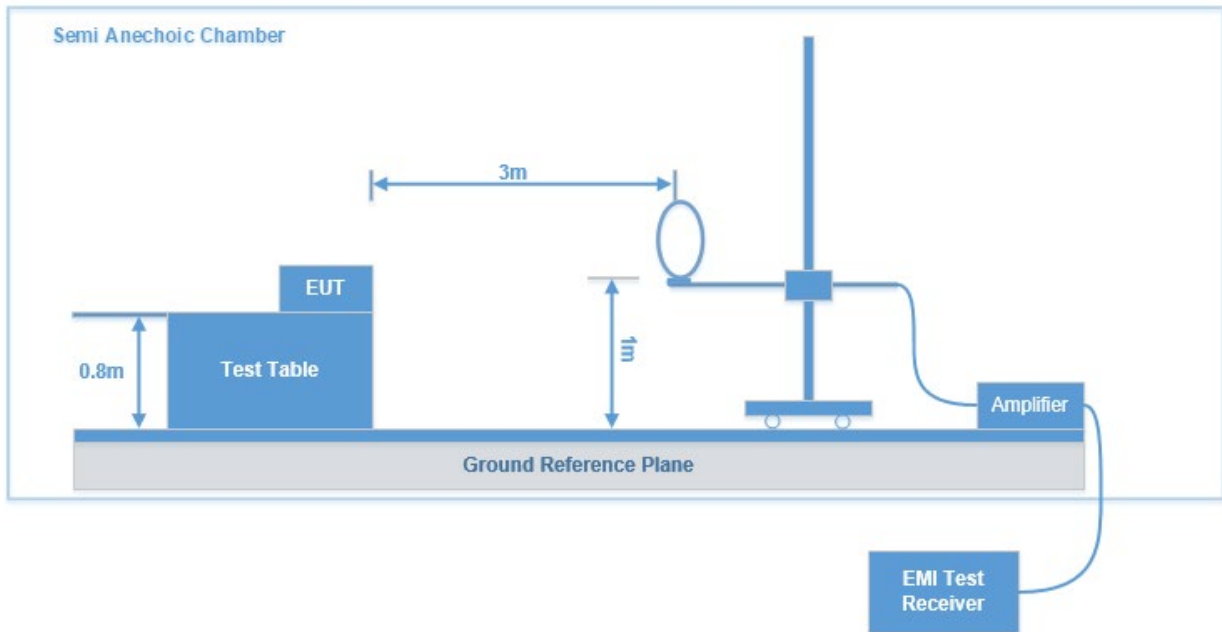
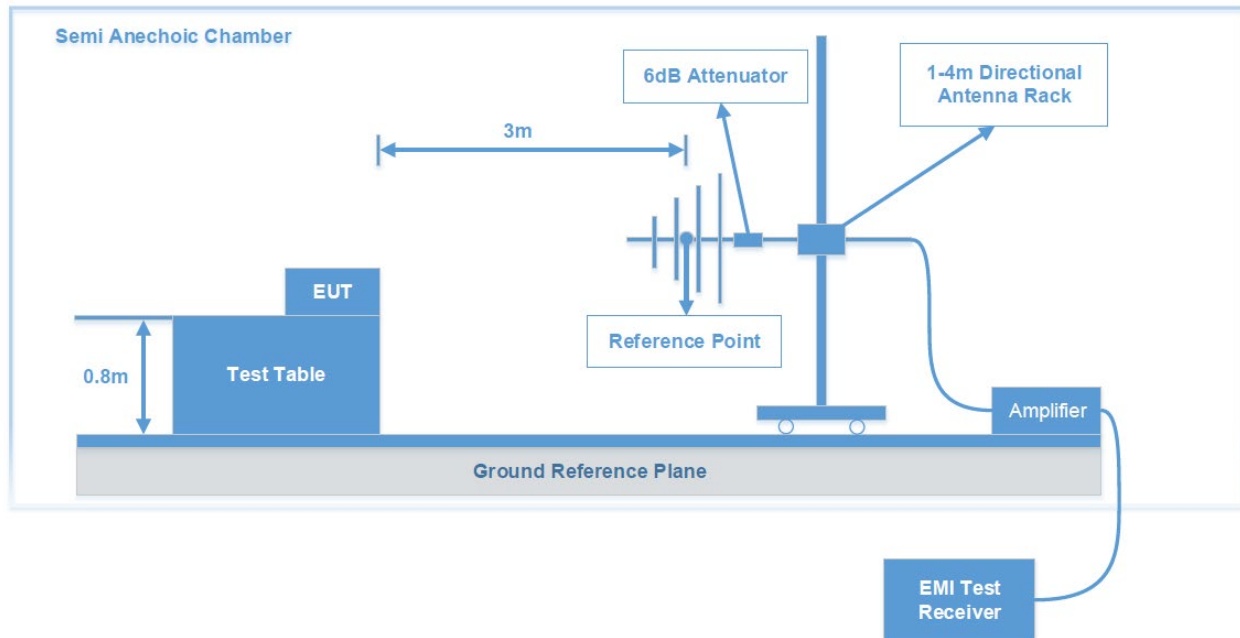
## Test Results Summary

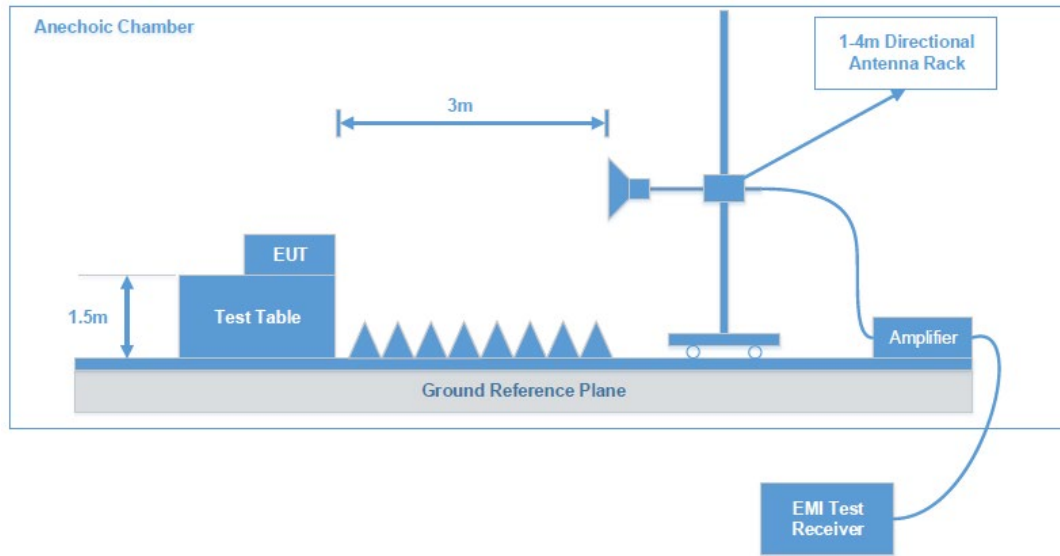
According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

**Test Data: See Appendix**

**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 (dB $\mu$ V/m) = Meter Reading (dB $\mu$ V) + Antenna Factor (dB/m) + Cable Loss (dB) - Amplifier Gain (dB)

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

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

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

**Test Results Summary**

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

**Test Data: See Appendix**

## FCC §15.247(a) (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.

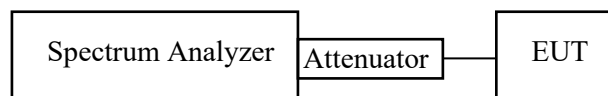
### Test Procedure

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:

- Span: Wide enough to capture the peaks of two adjacent channels.
- 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.
- Video (or average) bandwidth (VBW)  $\geq$  RBW.
- Sweep: Auto.
- Detector function: Peak.
- Trace: Max hold.
- 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

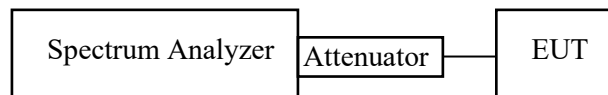
### Applicable Standard

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.

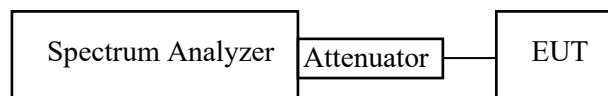
### Test Procedure

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  $\geq$  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.



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

**Test Data: See Appendix**

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

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**Applicable Standard**

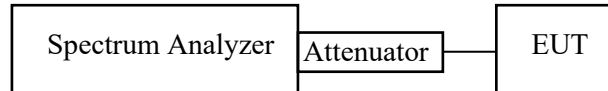
Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions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



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

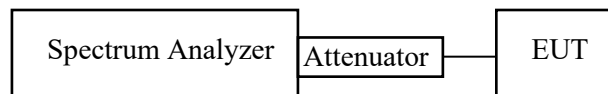
According to §15.247(b) (1), for frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. And for all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125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



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

**Test Data: See Appendix**

## FCC §15.247(d) - BAND EDGES TESTING

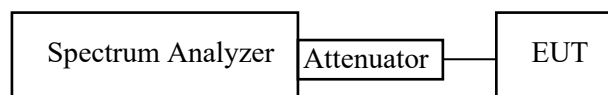
### Applicable Standard

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**

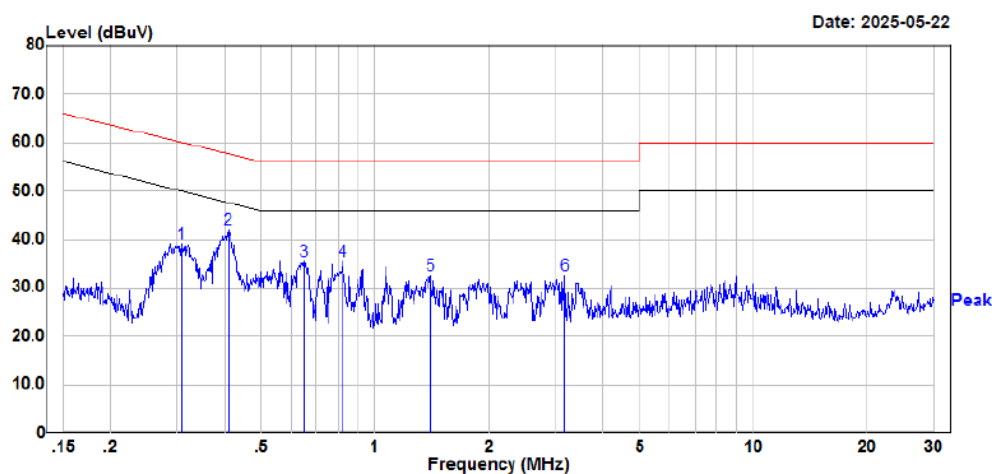
## APPENDIX - TEST DATA

### AC LINE CONDUCTED EMISSIONS

|                           |            |
|---------------------------|------------|
| <b>Test Date:</b>         | 2025-05-22 |
| <b>Temperature:</b>       | 25.3 °C    |
| <b>Relative Humidity:</b> | 59 %       |
| <b>ATM Pressure:</b>      | 101.1 kPa  |
| <b>Test Result:</b>       | Pass       |
| <b>Test Engineer:</b>     | Myles Miao |

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

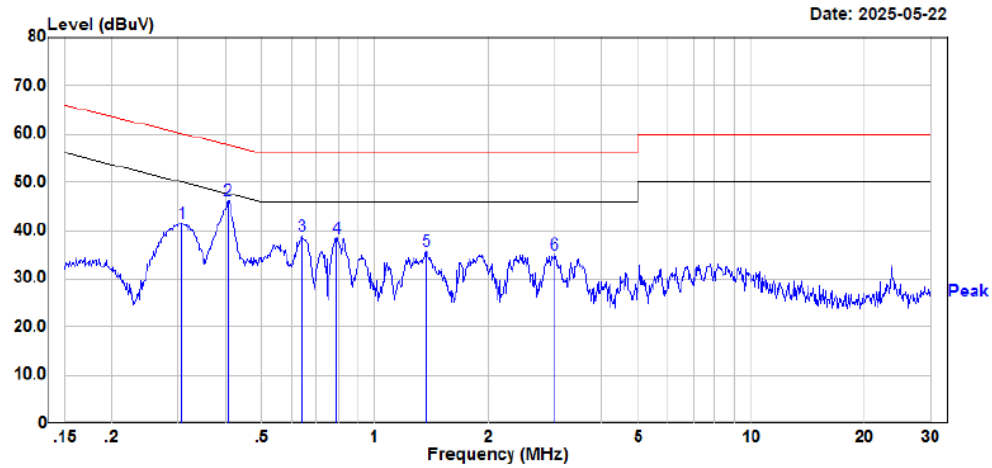
#### AC 120V/60 Hz, Line



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°C  
 Humidity : 59%  
 Atmospheric pressure: 101.1KPa  
 Test Engineer : Myles Miao

|   | Read  |       |        | Limit | Over  |              |
|---|-------|-------|--------|-------|-------|--------------|
|   | Freq  | Level | Factor | Level | Line  | 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°C  
Humidity : 59%  
Atmospheric pressure: 101.1KPa  
Test Engineer : Myles Miao

|   | Freq  | Read<br>Level | Factor | Level | Limit<br>Line | Over<br>Limit | Remark |
|---|-------|---------------|--------|-------|---------------|---------------|--------|
|   | MHz   | dBuV          |        | dB    | 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**

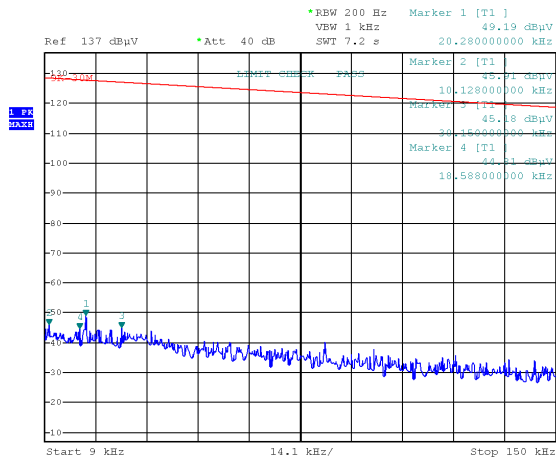
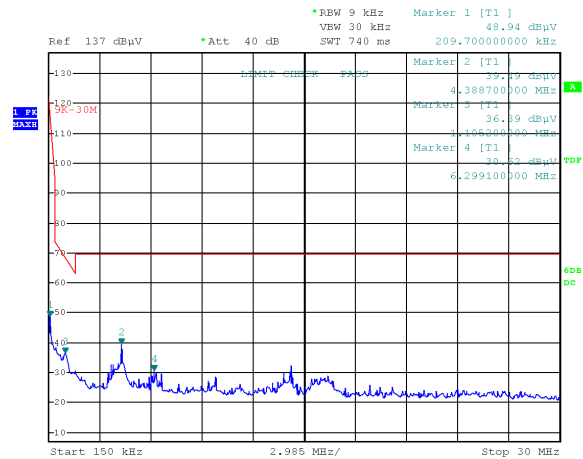
| Frequency Range:   | 9 kHz - 30 MHz | 30 MHz - 1 GHz | 1 GHz - 18 GHz | 18 GHz - 25 GHz |
|--------------------|----------------|----------------|----------------|-----------------|
| Test Date:         | 2025-05-17     | 2025-05-17     | 2025-05-14     | 2025-05-22      |
| Temperature:       | 26.8 °C        | 26.8 °C        | 24.8 °C        | 25.2 °C         |
| 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****150kHz-30MHz**

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

Tester:Jonathan

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

Tester:Jonathan

**9 kHz - 150 kHz:**

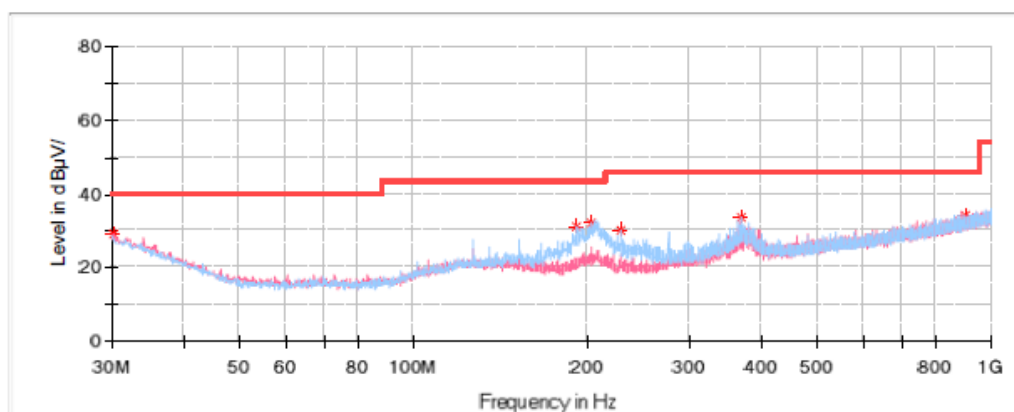
| Frequency (MHz) | Corrected Amplitude (dB $\mu$ V/m) @3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dB $\mu$ V/m) @3m | Margin (dB) |
|-----------------|----------------------------------------|---------------------|-------------------------|--------------------------|-------------|
| 0.010128        | 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 (dB $\mu$ V/m) @3m | Detector PK/QP/Ave. | Corrected Factor (dB/m) | Limit (dB $\mu$ V/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°C  
Humidity: 54%  
Barometric Pressure: 101.1 kPa  
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          |

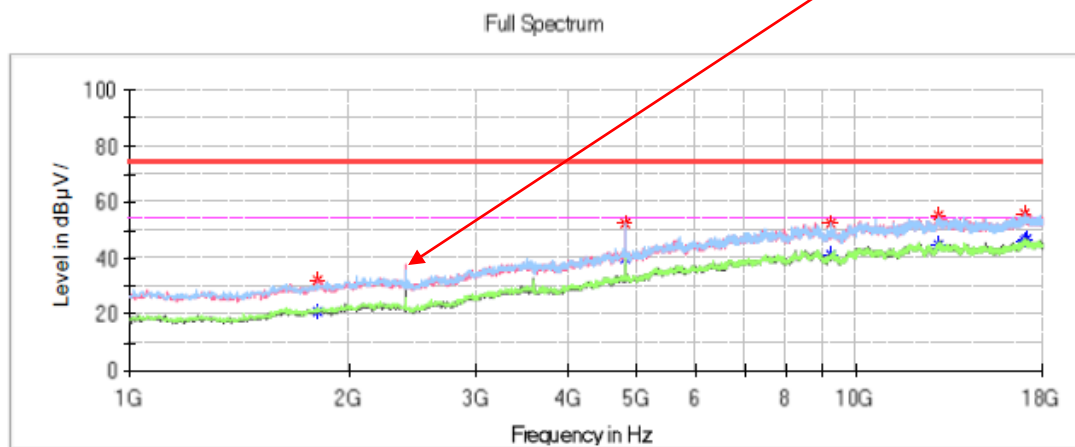
1 GHz - 18 GHz:

GFSK:

Low Channel: 2402 MHz

**Common Information**

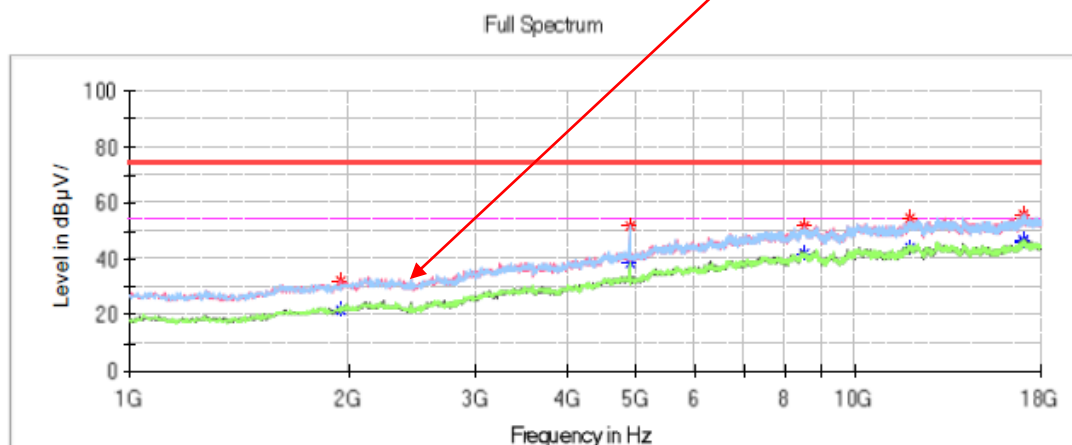
|                       |                                                   |
|-----------------------|---------------------------------------------------|
| Project No.:          | RQDA250509003                                     |
| EUT Model:            | 10810-2                                           |
| 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

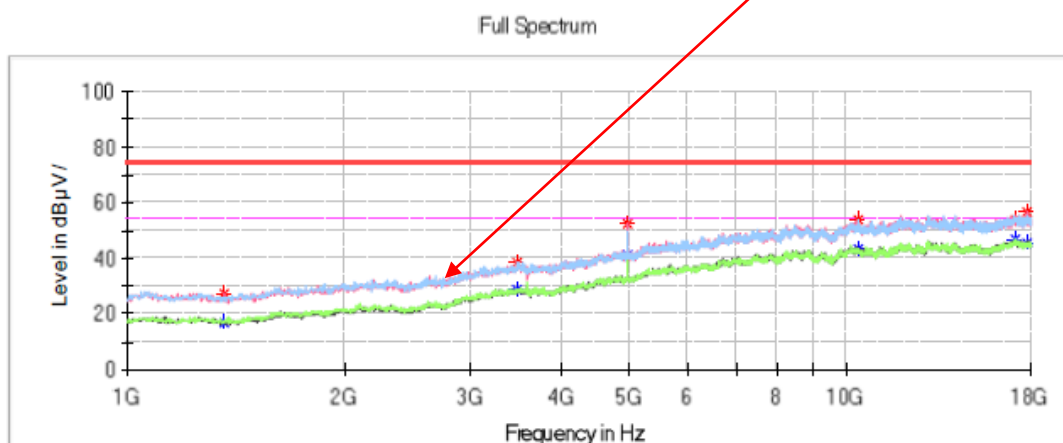
**Critical\_Freqs**

| 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°C  
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         |

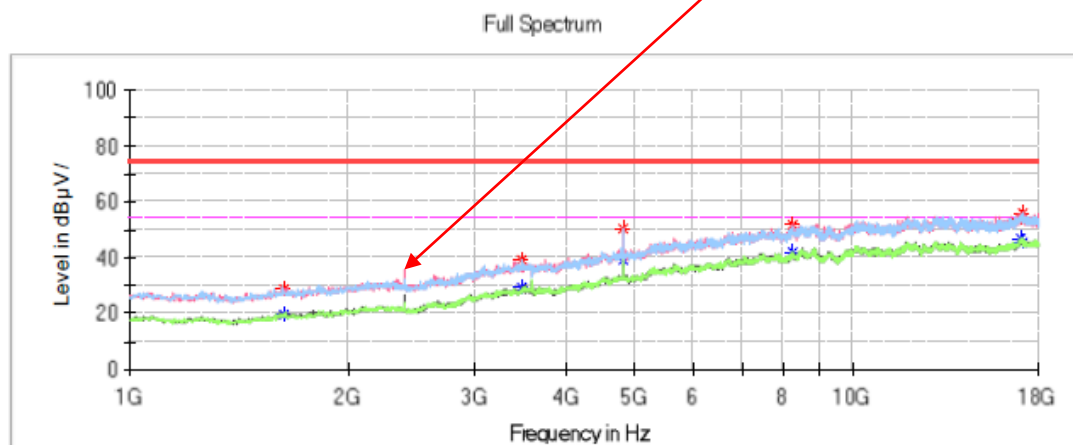
$\pi/4$ -DQPSK:

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

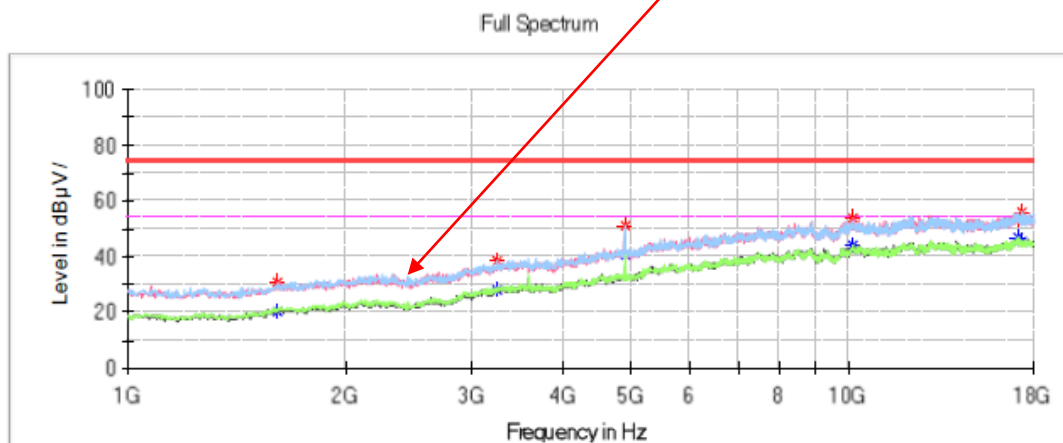
**Critical Freqs**

| Frequency (MHz) | MaxPeak (dB $\mu$ V/m) | Average (dB $\mu$ V/m) | Limit (dB $\mu$ 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                                         |

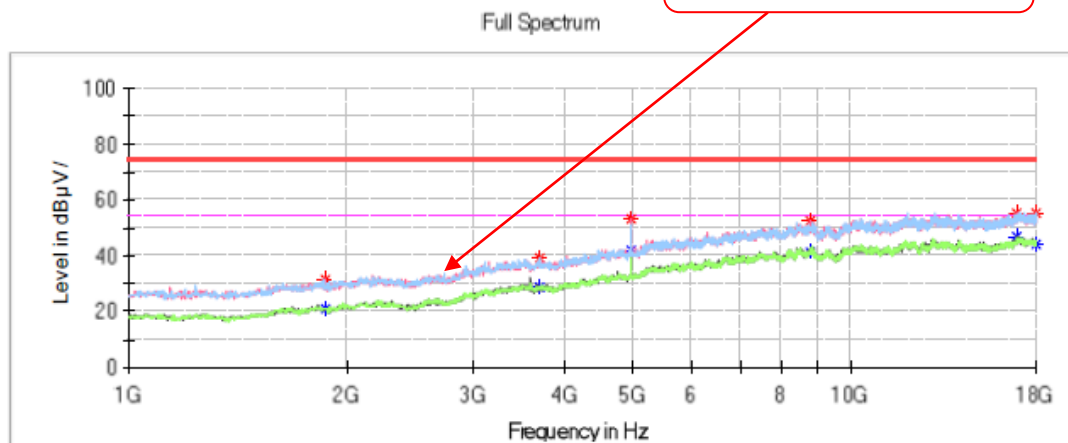
Fundamental Test with  
Band Reject Filter

**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°C  
 Humidity: 51%  
 Atmospheric Pressure: 101.3kPa  
 Test Engineer: Destine Hu  
 Test Date: 2025/5/14

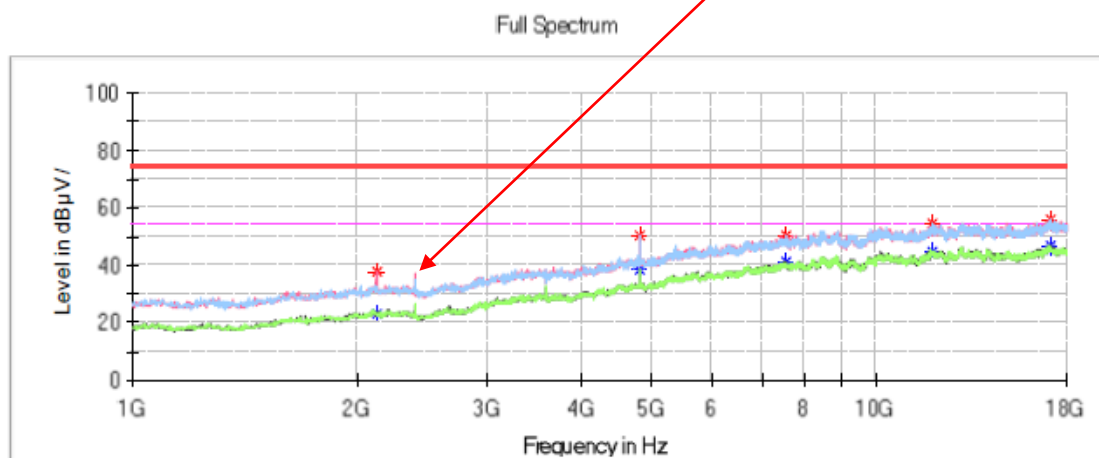
**Critical Freqs**

| 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°C  
Humidity: 51%  
Atmospheric Pressure: 101.3kPa  
Test Engineer: Destine Hu  
Test Date: 2025/5/14

Fundamental Test with  
Band Reject Filter

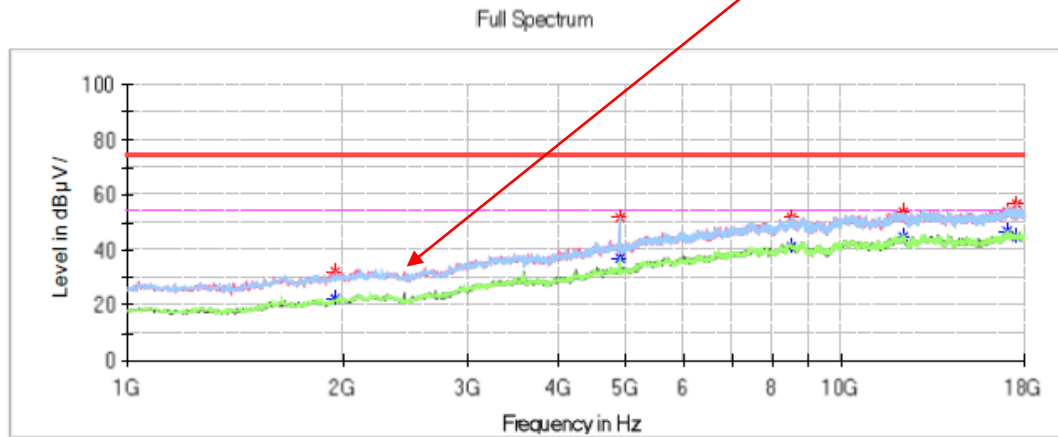
**Critical Freqs**

| 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°C  
Humidity: 51%  
Atmospheric Pressure: 101.3kPa  
Test Engineer: Destine Hu  
Test Date: 2025/5/14

Fundamental Test with  
Band Reject Filter

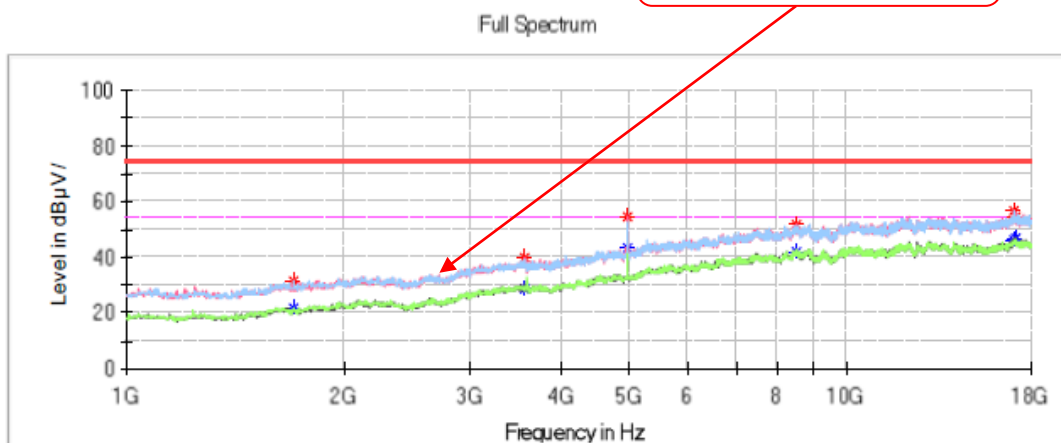
**Critical Freqs**

| 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°C                                            |
| Humidity:             | 51%                                               |
| Atmospheric Pressure: | 101.3kPa                                          |
| Test Engineer:        | Destine Hu                                        |
| Test Date:            | 2025/5/14                                         |

Fundamental Test with  
Band Reject Filter

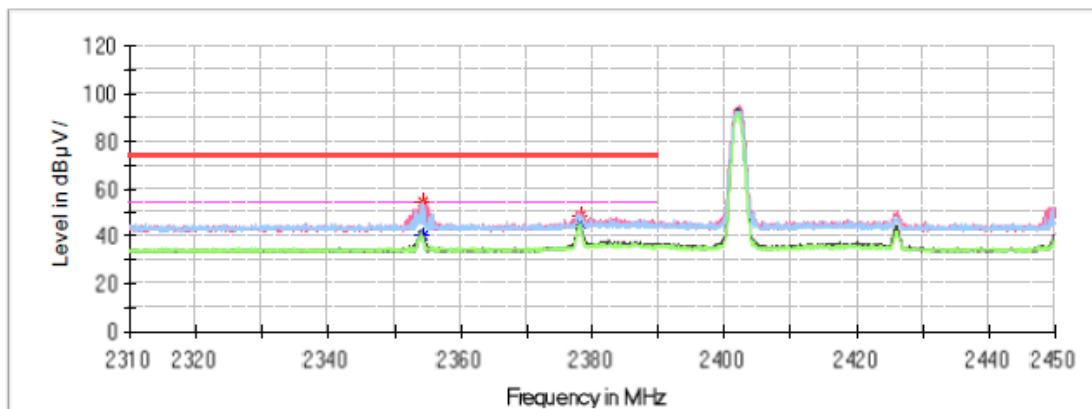
**Critical Freqs**

| Frequency (MHz) | MaxPeak (dB µ V/m) | Average (dB µ V/m) | Limit (dB µ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|--------------------|--------------------|------------------|-------------|-----|--------------|
| 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°C                                            |
| Humidity:             | 51%                                               |
| Atmospheric Pressure: | 101.3kPa                                          |
| Test Engineer:        | Destine Hu                                        |
| Test Date:            | 2025/5/14                                         |

Full Spectrum

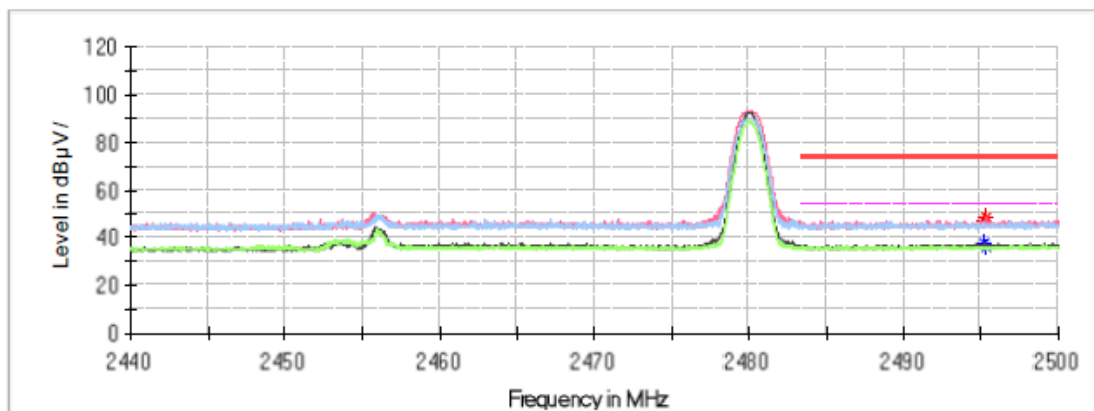
**Critical Freqs**

| Frequency (MHz) | MaxPeak (dB $\mu$ V/m) | Average (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|------------------------|----------------------|-------------|-----|--------------|
| 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

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) |
|-----------------|--------------------|--------------------|------------------|-------------|-----|--------------|
| 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         |

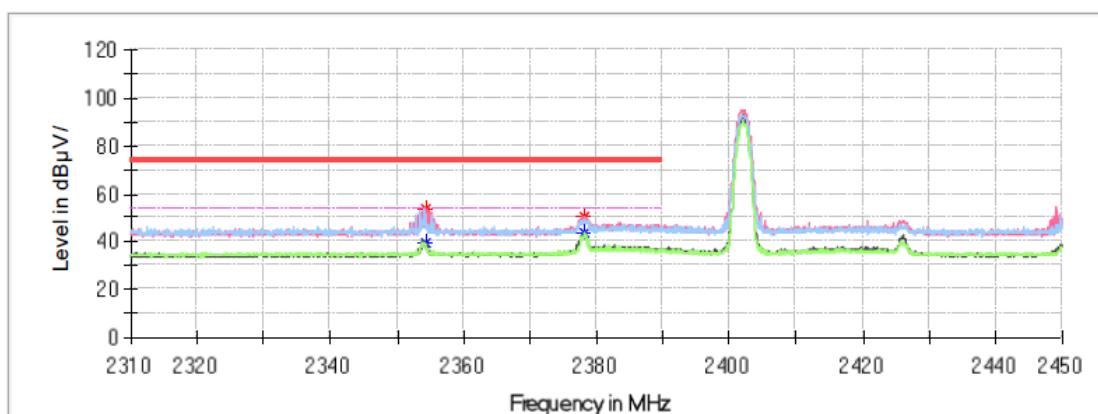
$\pi/4$ -DQPSK:

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°C  
Humidity: 51%  
Atmospheric Pressure: 101.3kPa  
Test Engineer: Destine Hu  
Test Date: 2025/5/14

Full Spectrum

**Critical\_Freqs**

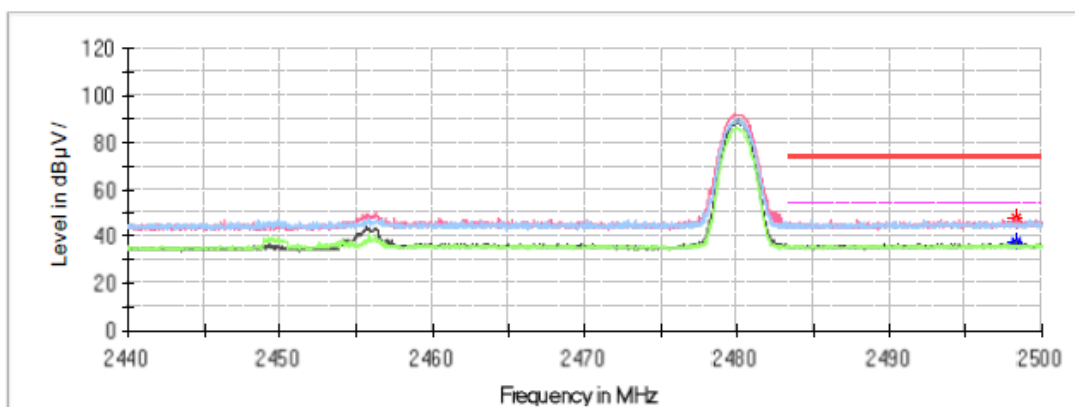
| Frequency (MHz) | MaxPeak (dB μ V/m) | Average (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|--------------------|--------------------|------------------|-------------|-----|--------------|
| 2354.408000     | 53.63              | ---                | 74.00            | 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



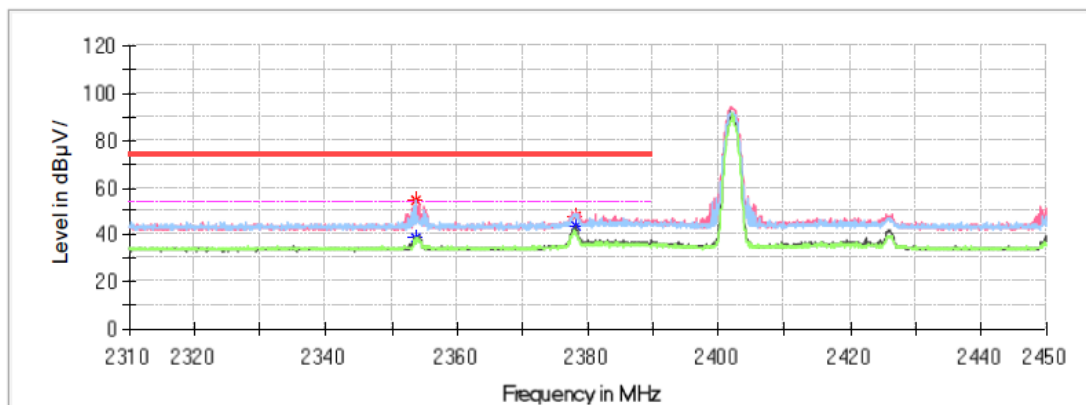
## Critical Freqs

| Frequency (MHz) | MaxPeak (dB µV/m) | Average (dB µV/m) | Limit (dB µV/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

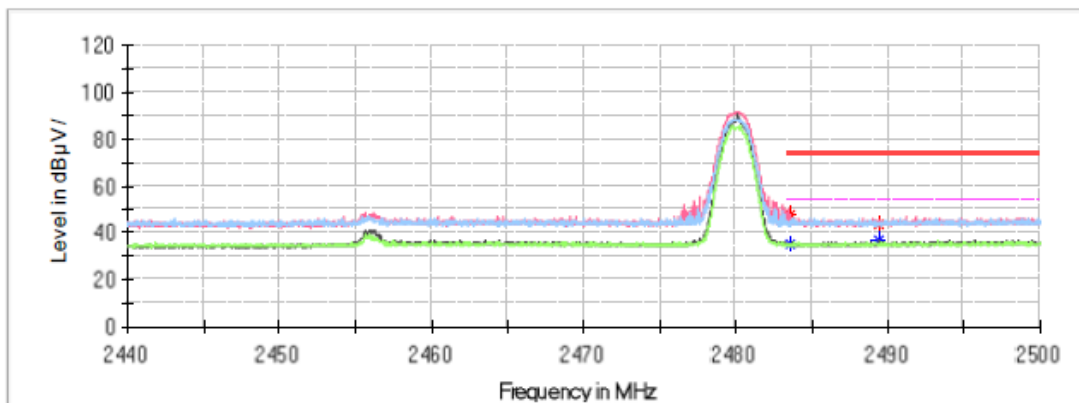
**Critical Freqs**

| 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         |

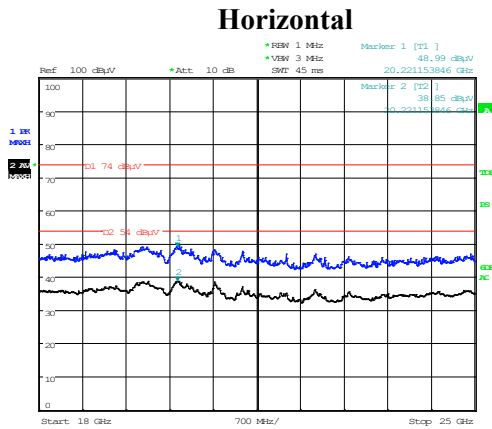
**Right Side****Common Information**

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°C  
Humidity: 51%  
Atmospheric Pressure: 101.3kPa  
Test Engineer: Destine Hu  
Test Date: 2025/5/14

Full Spectrum

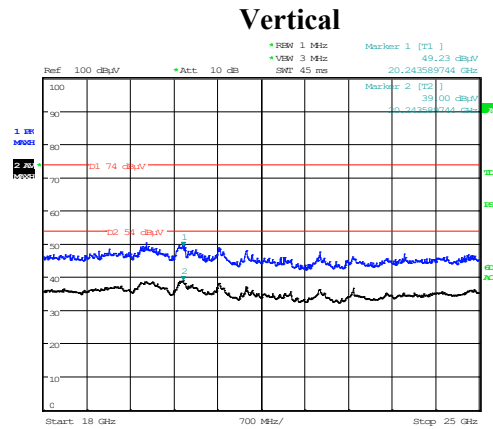
**Critical Freqs**

| 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):**

Project No.: RQDA250509003  
Date: 22.MAY.2025 14:45:16

Tester: Hugh Wu



Project No.: RQDA250509003  
Date: 22.MAY.2025 15:20:19

Tester: Hugh Wu

| 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).

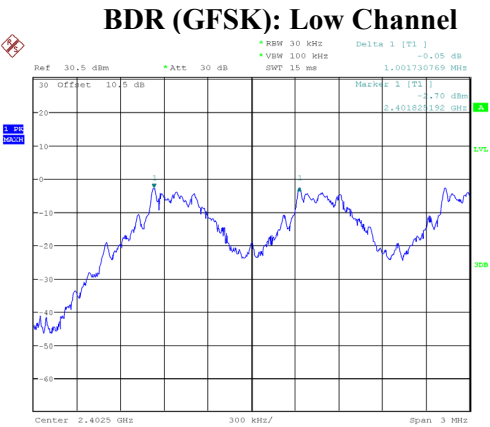
**CHANNEL SEPARATION TEST****Environmental Conditions & Test Information**

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

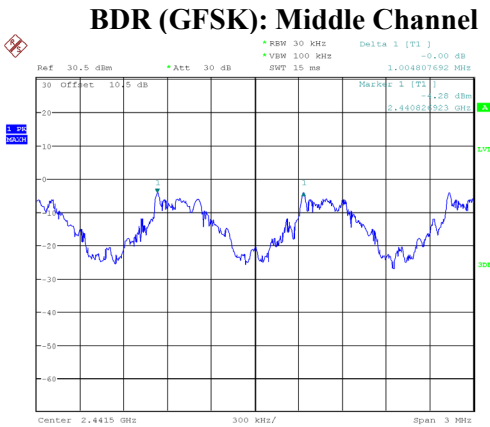
*EUT operation mode: Transmitting*

| 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   |

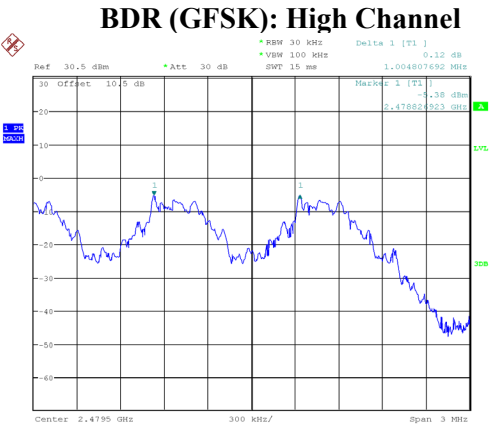
Note: Only GFSK mode result is reported since EDR( $\pi/4$ -DQPSK, 8DPSK) has the exact same channel plan.  
Limit = 20 dB bandwidth\*2/3



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



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



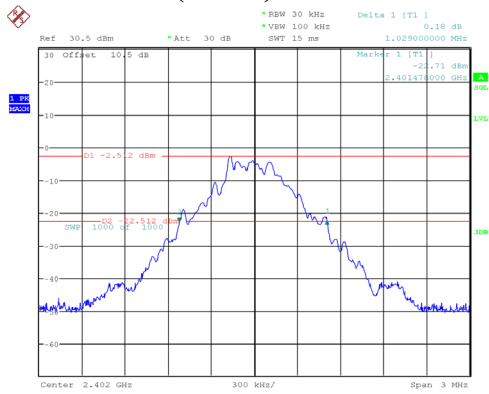
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 15:13:03

**20 dB BANDWIDTH TEST****Environmental Conditions & Test Information**

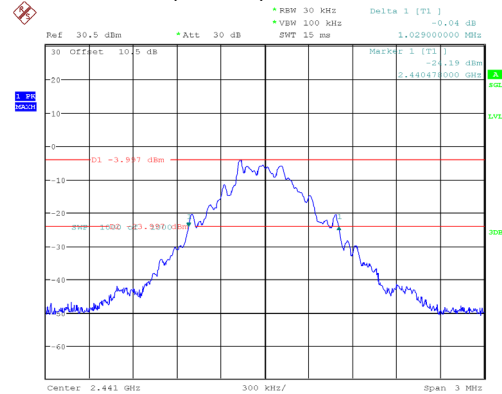
|                           |            |
|---------------------------|------------|
| <b>Test Date:</b>         | 2025-05-27 |
| <b>Temperature:</b>       | 24.7 °C    |
| <b>Relative Humidity:</b> | 57 %       |
| <b>ATM Pressure:</b>      | 101.7 kPa  |
| <b>Test Result:</b>       | Pass       |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

*EUT operation mode: Transmitting*

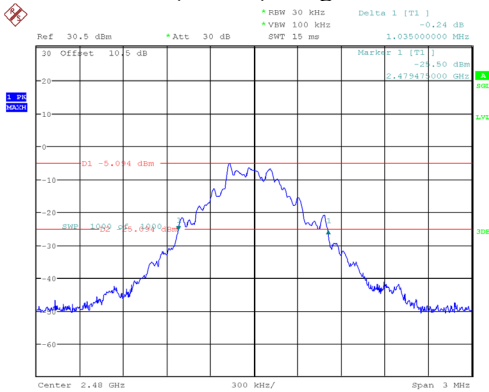
| <b>Mode</b>                               | <b>Channel</b> | <b>Frequency<br/>(MHz)</b> | <b>20 dB Emission<br/>Bandwidth<br/>(MHz)</b> |
|-------------------------------------------|----------------|----------------------------|-----------------------------------------------|
| <b>BDR<br/>(GFSK)</b>                     | Low            | 2402                       | 1.029                                         |
|                                           | Middle         | 2441                       | 1.029                                         |
|                                           | High           | 2480                       | 1.035                                         |
| <b>EDR<br/>(<math>\pi/4</math>-DQPSK)</b> | Low            | 2402                       | 1.290                                         |
|                                           | Middle         | 2441                       | 1.311                                         |
|                                           | High           | 2480                       | 1.299                                         |
| <b>EDR<br/>(8DPSK)</b>                    | Low            | 2402                       | 1.266                                         |
|                                           | Middle         | 2441                       | 1.272                                         |
|                                           | High           | 2480                       | 1.260                                         |

**BDR (GFSK): Low Channel**

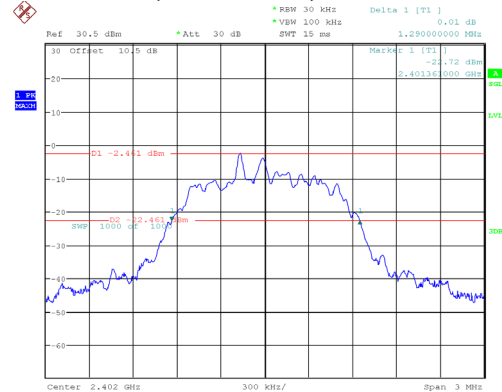
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 10:26:15

**BDR (GFSK): Middle Channel**

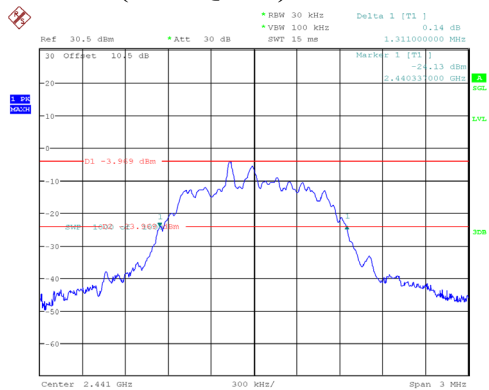
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 10:38:17

**BDR (GFSK): High Channel**

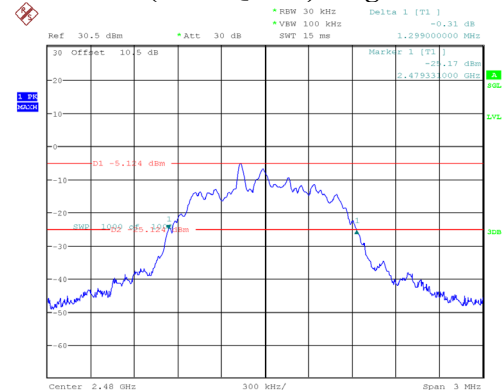
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 10:45:47

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

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

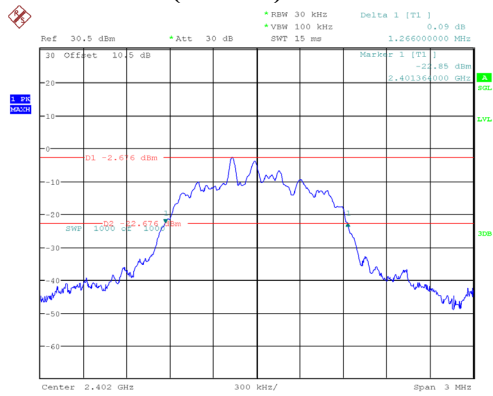
**EDR( $\pi/4$ -DQPSK): Middle Channel**

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

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

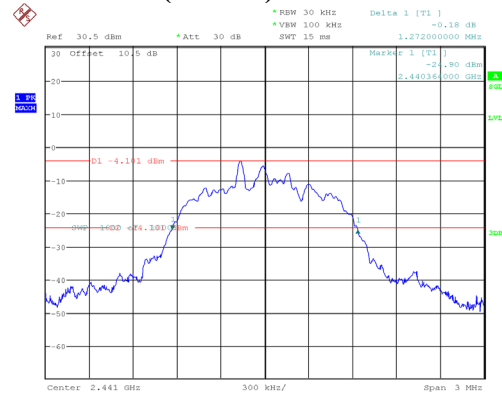
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 11:29:42

### EDR (8DPSK): Low Channel



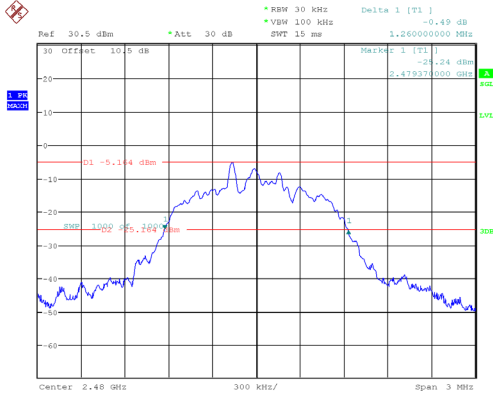
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 11:37:25

### 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

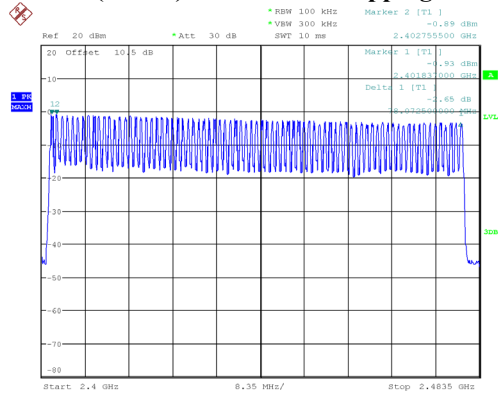
**QUANTITY OF HOPPING CHANNEL TEST****Environmental Conditions & Test Information**

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

*EUT operation mode: Hopping*

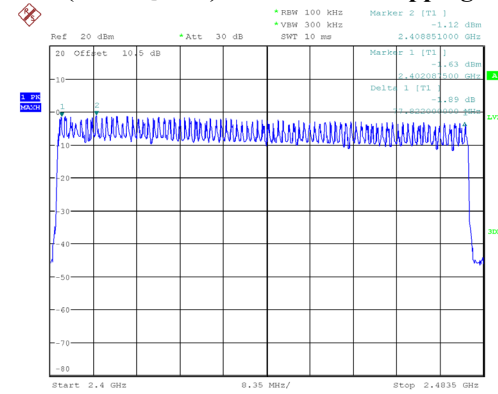
| <b>Mode</b>              | <b>Frequency Range<br/>(MHz)</b> | <b>Number of Hopping<br/>Channel<br/>(CH)</b> | <b>Limit<br/>(CH)</b> |
|--------------------------|----------------------------------|-----------------------------------------------|-----------------------|
| BDR<br>(GFSK)            |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

**BDR (GFSK):Number of Hopping Channels**



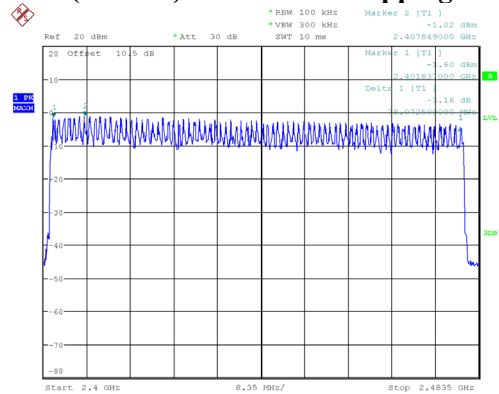
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:58:28

**EDR ( $\pi/4$ -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**

|                           |            |
|---------------------------|------------|
| <b>Test Date:</b>         | 2025-05-27 |
| <b>Temperature:</b>       | 24.7 °C    |
| <b>Relative Humidity:</b> | 57 %       |
| <b>ATM Pressure:</b>      | 101.7 kPa  |
| <b>Test Result:</b>       | Pass       |
| <b>Test Engineer:</b>     | 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 ( $\pi/4$ -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

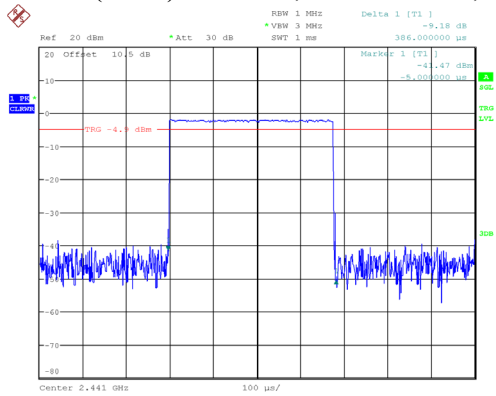
2DH3: Dwell time = Pulse time\*(1600/4/79)\*31.6S

2DH5: Dwell time = Pulse time\*(1600/6/79)\*31.6S

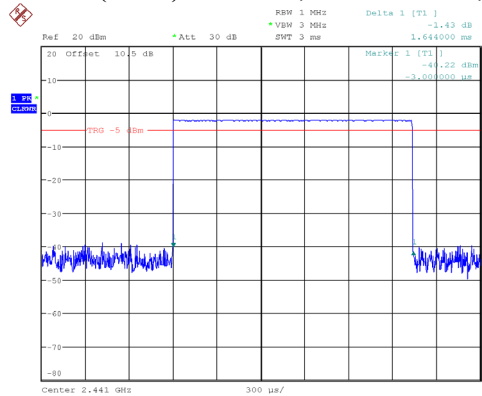
3DH1: Dwell time = Pulse time\*(1600/2/79)\*31.6S

3DH3: Dwell time = Pulse time\*(1600/4/79)\*31.6S

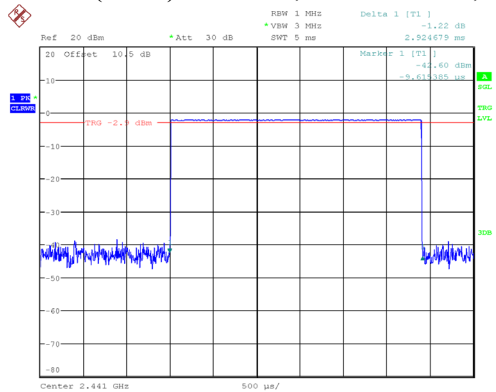
3DH5: Dwell time = Pulse time\*(1600/6/79)\*31.6S

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

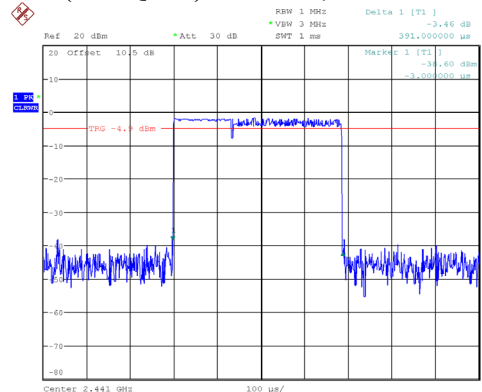
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 14:13:26

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

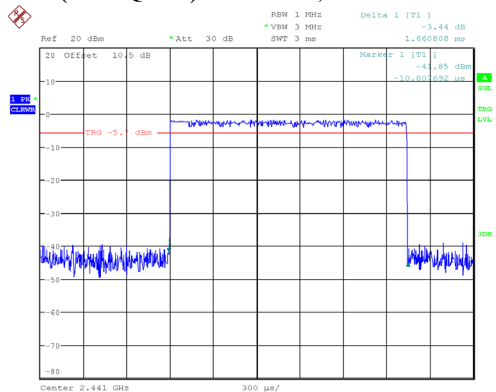
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 14:14:31

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

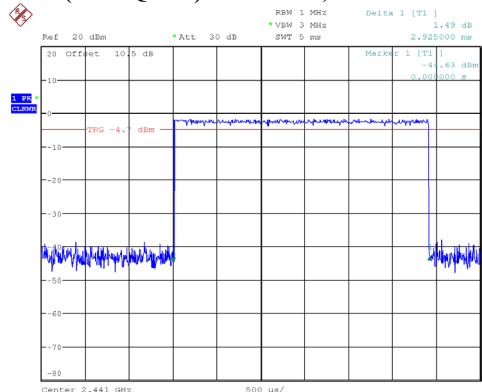
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 14:16:46

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

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

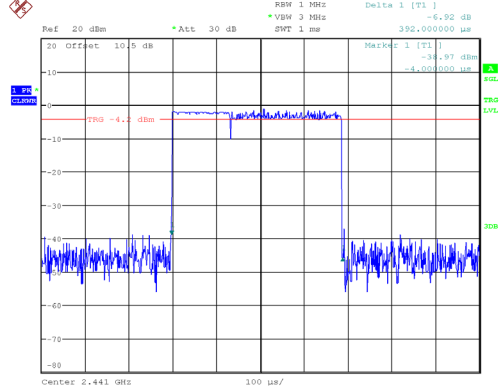
**EDR ( $\pi/4$ -DQPSK): Pulse time, Middle Channel, 2DH3**

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

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

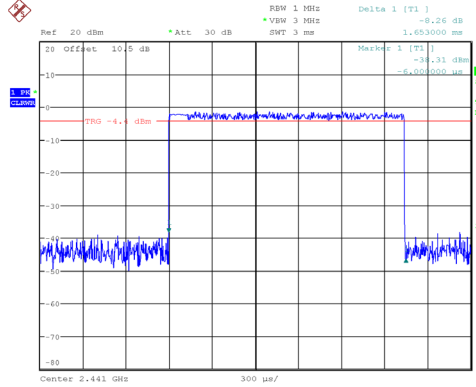
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 14:22:49

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



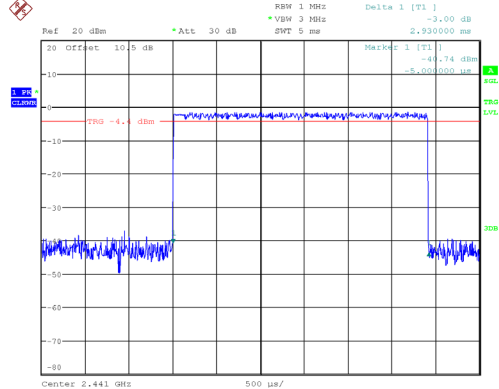
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 14:23:36

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

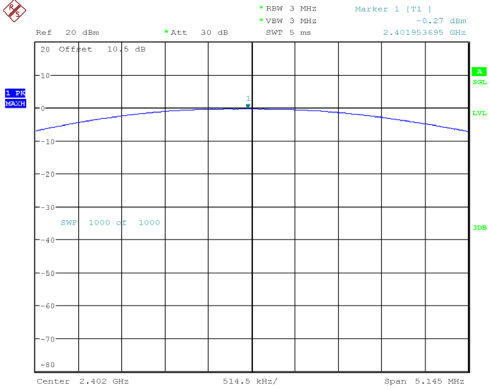
**PEAK OUTPUT POWER MEASUREMENT****Environmental Conditions & Test Information**

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

*EUT operation mode: Transmitting*

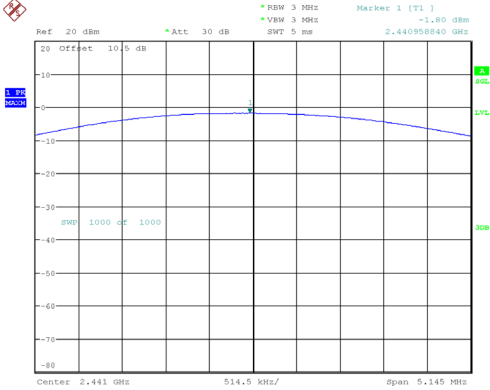
| Mode          | Channel | Frequency (MHz) | Result (dBm) | Limit (dBm) |
|---------------|---------|-----------------|--------------|-------------|
| GFSK          | Low     | 2402            | -0.27        | 21          |
|               | Middle  | 2441            | -1.80        |             |
|               | High    | 2480            | -2.80        |             |
| $\pi/4$ 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



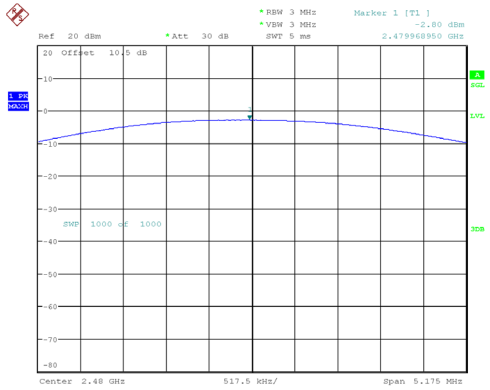
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 10:36:45

BDR (GFSK): 2441MHz



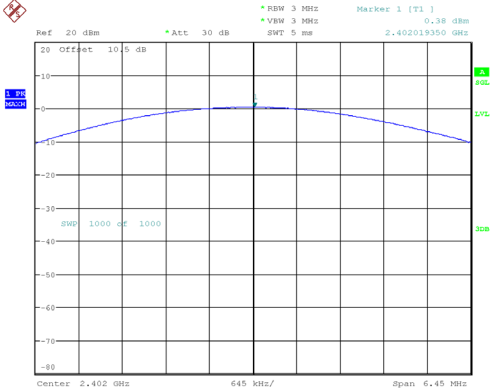
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 10:44:43

BDR (GFSK): 2480MHz



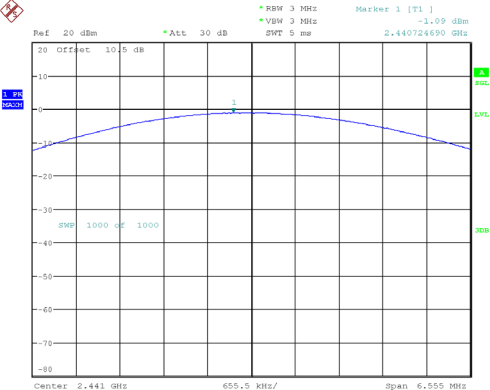
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 11:02:41

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



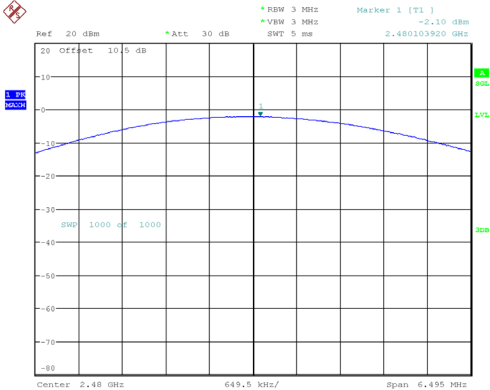
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 11:13:35

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



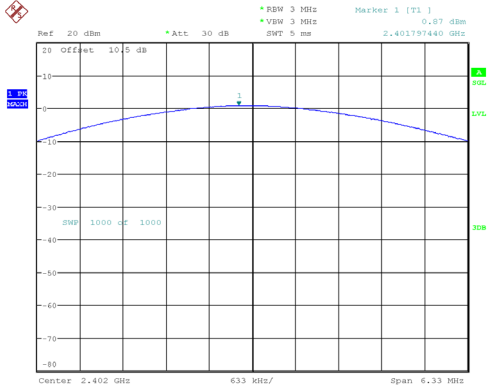
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 11:23:01

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



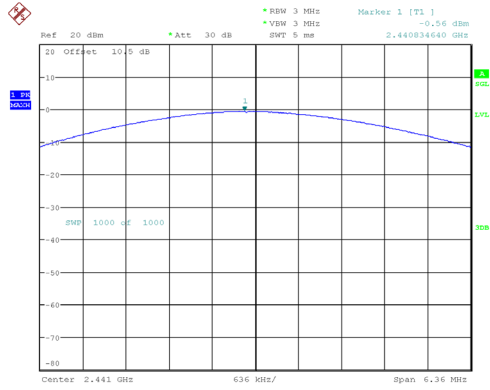
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 11:36:02

EDR(8DPSK): 2402MHz



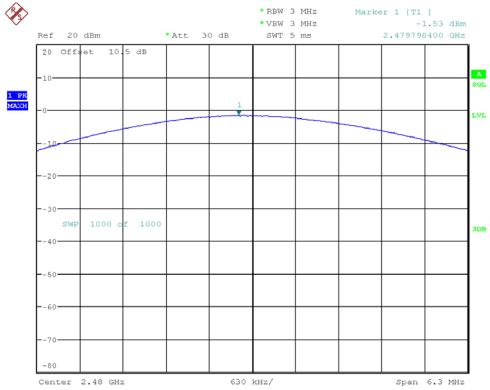
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 11:44:12

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**

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

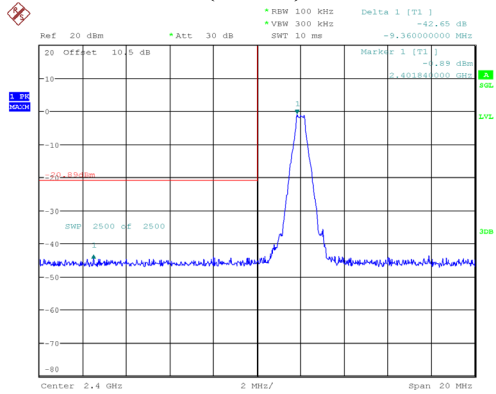
*EUT operation mode: Transmitting & Hopping*

*Test Result: Compliant.*

| Mode                    | Channel | Frequency (MHz) | Result (dBc) | Limit (dBc) |
|-------------------------|---------|-----------------|--------------|-------------|
| GFSK                    | Low     | 2402            | 42.65        | 20          |
|                         | High    | 2480            | 40.15        |             |
| $\pi/4$ 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        |             |
| $\pi/4$ DQPSK (Hopping) | Low     | 2402            | 43.26        |             |
|                         | High    | 2480            | 40.70        |             |
| 8DPSK (Hopping)         | Low     | 2402            | 40.50        |             |
|                         | High    | 2480            | 39.64        |             |

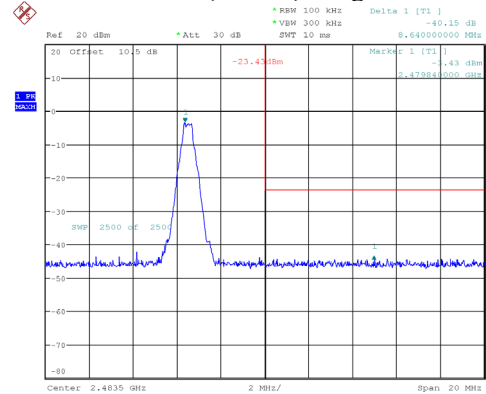
## Band Edge

## BDR (GFSK): Left Side

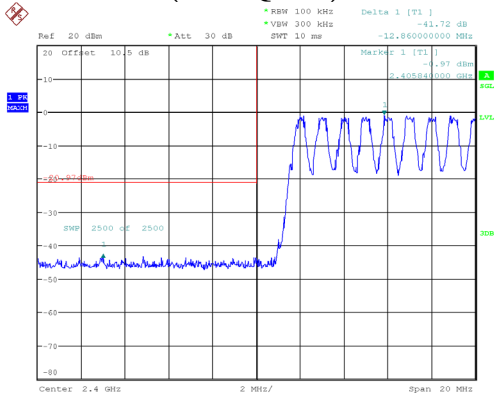


ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:24:26

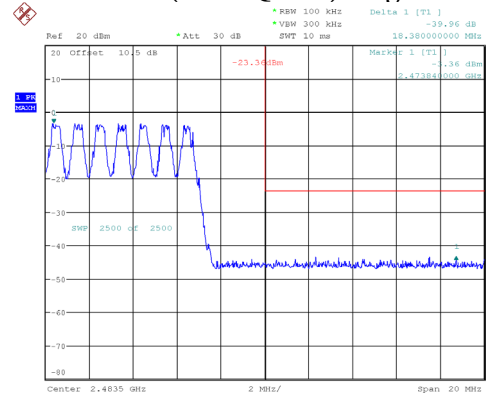
## BDR (GFSK): Right Side



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

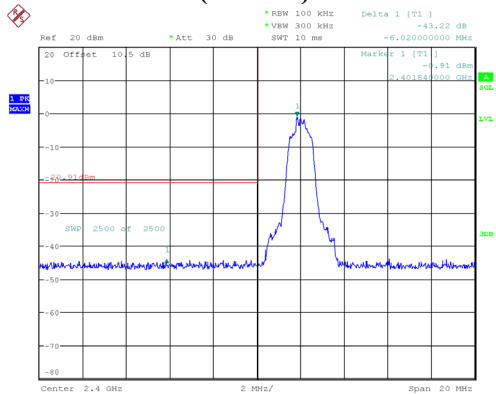
EDR ( $\pi/4$ -DQPSK): Left Side

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

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

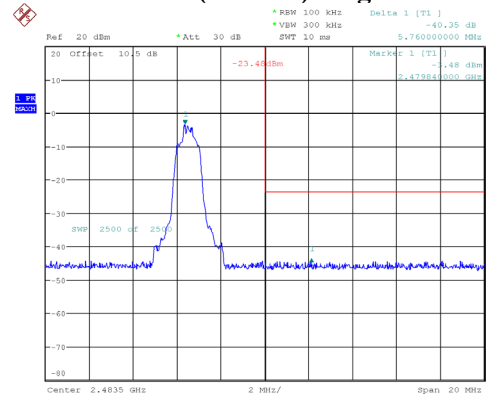
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:21:53

## EDR (8DPSK): Left Side

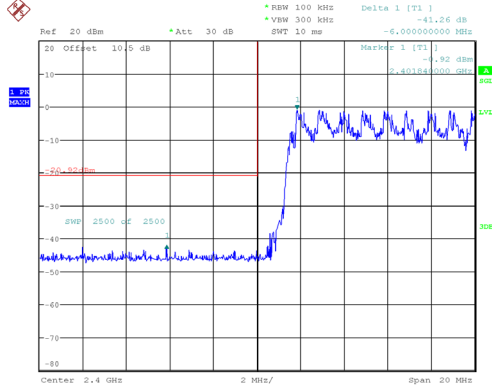


ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:42:07

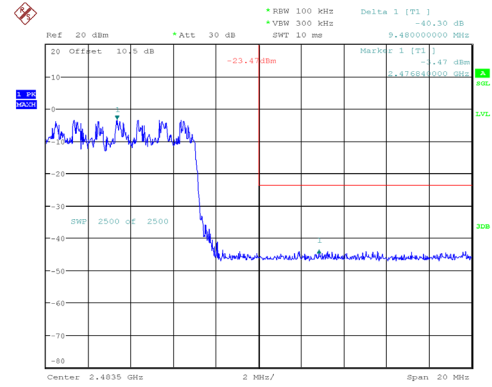
## EDR (8DPSK): Right Side



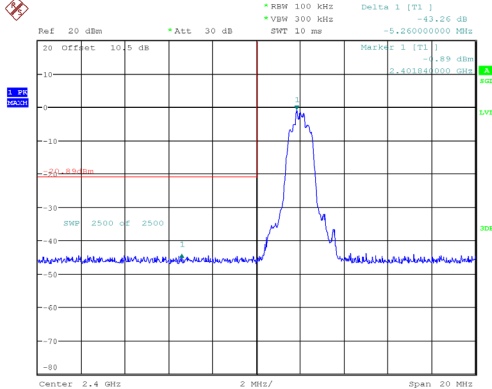
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:44:40

**BDR (GFSK): Left Side - Hopping**

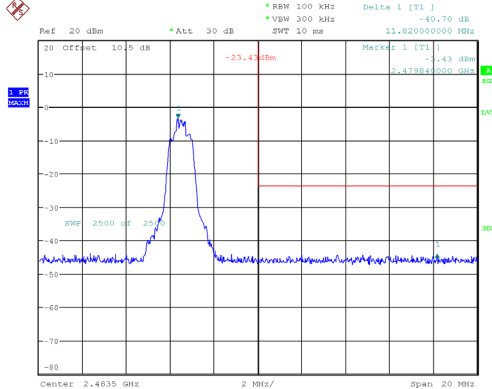
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:30:21

**BDR (GFSK): Right Side - Hopping**

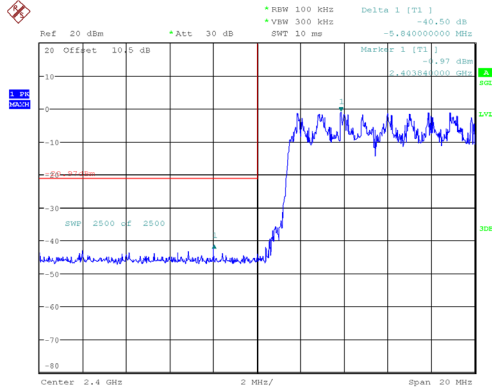
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:39:25

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

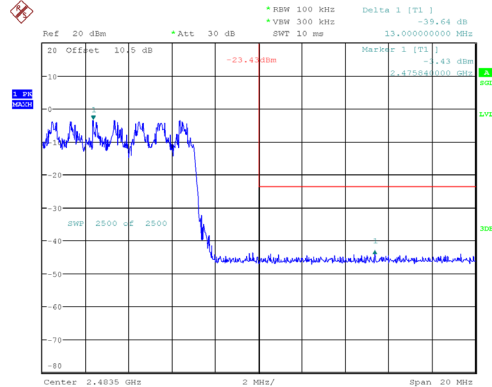
ProjectNo.:RQDA250509003 Tester:Neil Zhou  
Date: 27.MAY.2025 13:52:17

**EDR ( $\pi/4$ -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**

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

## **TEST SETUP PHOTOGRAPHS**

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

## Declarations

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

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