

# RADIO TEST REPORT

## Test Report No. 15799350H-B-R1

|                     |                                     |
|---------------------|-------------------------------------|
| Customer            | Sony Interactive Entertainment Inc. |
| Description of EUT  | Wireless Speaker                    |
| Model Number of EUT | CFI-ZWS1 L                          |
| FCC ID              | AK8CFIZWS1L                         |
| Test Regulation     | FCC Part 15 Subpart C               |
| Test Result         | Complied                            |
| Issue Date          | September 26, 2025                  |
| Remarks             | Bluetooth (BR / EDR) parts          |

**Representative Test Engineer**Takafumi Noguchi  
Engineer**Approved By**Takayuki Shimada  
Leader

CERTIFICATE 5107.02

- ☐ The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan, Inc.
- ☒ There is no testing item of "Non-accreditation".

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- If the latest version is a revision, it replaces the previous version. See the table below for revisions and versions.

## **REVISION HISTORY**

| Revision     | Test Report No. | Date               | Page Revised Contents                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------|-----------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| - (Original) | 15799350H-B     | August 22, 2025    | -                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1            | 15799350H-B-R1  | September 26, 2025 | <b>Clause 2.2</b> <ul style="list-style-type: none"><li>• Corrected Rating:<br/>DC 3.9 V (Battery) → DC 3.6 V (Battery)</li><li>• Corrected Antenna Type of Bluetooth (BR/EDR):<br/>PIFA (Diversity) → PIFA</li></ul> <b>Clause 3.2</b><br>Deleted reference standard:<br>RSS-Gen Issue 5/Amendment 1/Amendment 2 for ISED<br><b>APPENDIX 1</b><br>Corrected Plot data for Radiated Spurious Emission (page 38) |

## Reference: Abbreviations (Including words undescribed in this report)

|                |                                                                 |         |                                                     |
|----------------|-----------------------------------------------------------------|---------|-----------------------------------------------------|
| A2LA           | The American Association for Laboratory Accreditation           | IEC     | International Electrotechnical Commission           |
| AC             | Alternating Current                                             | IEEE    | Institute of Electrical and Electronics Engineers   |
| AFH            | Adaptive Frequency Hopping                                      | IF      | Intermediate Frequency                              |
| AM             | Amplitude Modulation                                            | ILAC    | International Laboratory Accreditation Conference   |
| Amp, AMP       | Amplifier                                                       | ISED    | Innovation, Science and Economic Development Canada |
| ANSI           | American National Standards Institute                           | ISO     | International Organization for Standardization      |
| Ant, ANT       | Antenna                                                         | JAB     | Japan Accreditation Board                           |
| AP             | Access Point                                                    | LAN     | Local Area Network                                  |
| ASK            | Amplitude Shift Keying                                          | LIMS    | Laboratory Information Management System            |
| Atten., ATT    | Attenuator                                                      | MCS     | Modulation and Coding Scheme                        |
| AV             | Average                                                         | MRA     | Mutual Recognition Arrangement                      |
| BPSK           | Binary Phase-Shift Keying                                       | N/A     | Not Applicable                                      |
| BR             | Bluetooth Basic Rate                                            | NIST    | National Institute of Standards and Technology      |
| BT             | Bluetooth                                                       | NS      | No signal detect.                                   |
| BT LE          | Bluetooth Low Energy                                            | NSA     | Normalized Site Attenuation                         |
| BW             | BandWidth                                                       | NVLAP   | National Voluntary Laboratory Accreditation Program |
| Cal Int        | Calibration Interval                                            | OBW     | Occupied Band Width                                 |
| CCK            | Complementary Code Keying                                       | OFDM    | Orthogonal Frequency Division Multiplexing          |
| Ch., CH        | Channel                                                         | OFDMA   | Orthogonal Frequency Division Multiple Access       |
| CISPR          | Comite International Special des Perturbations Radioelectriques | P/M     | Power meter                                         |
| CW             | Continuous Wave                                                 | PCB     | Printed Circuit Board                               |
| DBPSK          | Differential BPSK                                               | PER     | Packet Error Rate                                   |
| DC             | Direct Current                                                  | PHY     | Physical Layer                                      |
| D-factor       | Distance factor                                                 | PK      | Peak                                                |
| DFS            | Dynamic Frequency Selection                                     | PN      | Pseudo random Noise                                 |
| DQPSK          | Differential QPSK                                               | PP      | Preamble Puncturing                                 |
| DSSS           | Direct Sequence Spread Spectrum                                 | PRBS    | Pseudo-Random Bit Sequence                          |
| EDR            | Enhanced Data Rate                                              | PSD     | Power Spectral Density                              |
| EIRP, e.i.r.p. | Equivalent Isotropically Radiated Power                         | QAM     | Quadrature Amplitude Modulation                     |
| EMC            | ElectroMagnetic Compatibility                                   | QP      | Quasi-Peak                                          |
| EMI            | ElectroMagnetic Interference                                    | QPSK    | Quadri-Phase Shift Keying                           |
| EN             | European Norm                                                   | RBW     | Resolution Band Width                               |
| ERP, e.r.p.    | Effective Radiated Power                                        | RDS     | Radio Data System                                   |
| EU             | European Union                                                  | RE      | Radio Equipment                                     |
| EUT            | Equipment Under Test                                            | RF      | Radio Frequency                                     |
| Fac.           | Factor                                                          | RMS     | Root Mean Square                                    |
| FCC            | Federal Communications Commission                               | RSS     | Radio Standards Specifications                      |
| FHSS           | Frequency Hopping Spread Spectrum                               | Rx      | Receiving                                           |
| FM             | Frequency Modulation                                            | SA, S/A | Spectrum Analyzer                                   |
| Freq.          | Frequency                                                       | SG      | Signal Generator                                    |
| FSK            | Frequency Shift Keying                                          | SVSWR   | Site-Voltage Standing Wave Ratio                    |
| GFSK           | Gaussian Frequency-Shift Keying                                 | TR      | Test Receiver                                       |
| GNSS           | Global Navigation Satellite System                              | Tx      | Transmitting                                        |
| GPS            | Global Positioning System                                       | VBW     | Video BandWidth                                     |
| Hori.          | Horizontal                                                      | Vert.   | Vertical                                            |
| ICES           | Interference-Causing Equipment Standard                         | WLAN    | Wireless LAN                                        |

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## **SECTION 1: Customer Information**

|                  |                                               |
|------------------|-----------------------------------------------|
| Company Name     | Sony Interactive Entertainment Inc.           |
| Brand Name       | SONY                                          |
| Address          | 1-7-1 Konan, Minato-ku, Tokyo, 108-0075 Japan |
| Telephone Number | +81-50-3807-5639                              |
| Contact Person   | Miho Nakamura                                 |

The information provided by the customer is as follows;

- Customer, Description of EUT, Model Number of EUT, FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer Information
- SECTION 2: Equipment Under Test (EUT) other than the Receipt Date and Test Date
- SECTION 4: Operation of EUT during testing

## **SECTION 2: Equipment Under Test (EUT)**

### **2.1 Identification of EUT**

|               |                                                                                            |
|---------------|--------------------------------------------------------------------------------------------|
| Description   | Wireless Speaker                                                                           |
| Model Number  | CFI-ZWS1 L                                                                                 |
| Serial Number | Refer to SECTION 4.2                                                                       |
| Condition     | Engineering prototype<br>(Not for Sale: This sample is equivalent to mass-produced items.) |
| Modification  | No Modification by the test lab                                                            |
| Receipt Date  | April 20, 2025                                                                             |
| Test Date     | May 7 to June 5, 2025                                                                      |

### **2.2 Product Description**

#### **General Specification**

|                       |                                                     |
|-----------------------|-----------------------------------------------------|
| Rating                | DC 3.6 V (Battery)<br>DC 5.0 V (USB, Charging Dock) |
| Operating temperature | 5 deg. C to 35 deg. C                               |

#### **Radio Specification**

This report contains data provided by the customer which can impact the validity of results. UL Japan, Inc. is only responsible for the validity of results after the integration of the data provided by the customer. The data provided by the customer is marked "a)" in the table below.

#### **2.4 GHz proprietary**

|                        |                                            |
|------------------------|--------------------------------------------|
| Equipment Type         | Transceiver                                |
| Frequency of Operation | 2404.35 MHz to 2474.35 MHz                 |
| Type of Modulation     | $\pi/4$ DQPSK                              |
| Antenna Type           | PIFA (Diversity)                           |
| Antenna Gain           | Antenna 1: 1.25 dBi<br>Antenna 2: 1.09 dBi |

#### **Bluetooth (BR/EDR)**

|                            |                                    |
|----------------------------|------------------------------------|
| Equipment Type             | Transceiver                        |
| Frequency of Operation     | 2402 MHz to 2480 MHz               |
| Type of Modulation         | FHSS (GFSK, $\pi/4$ DQPSK, 8 DPSK) |
| Antenna Type               | PIFA                               |
| Antenna Gain <sup>a)</sup> | 1.38 dBi                           |

## SECTION 3: Test Summary

### 3.1 Test Specification

|                    |                                                                                                                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Specification | FCC Part 15 Subpart C<br>The latest version on the first day of the testing period                                                                                                                           |
| Title              | FCC 47 CFR Part 15 Radio Frequency Device Subpart C Intentional Radiators<br>Section 15.207 Conducted limits<br>Section 15.247 Operation within the bands 902-928 MHz, 2400-2483.5 MHz,<br>and 5725-5850 MHz |

\* Also the EUT complies with FCC Part 15 Subpart B.

### 3.2 Reference Standards

ANSI/USEMCSC C63.2-2023  
ANSI C63.4-2014/C63.4a-2017  
ANSI C63.5-2017  
ANSI C63.10-2020  
ANSI/USEMCSC C63.10/Cor 1-2023  
ANSI/USEMCSC C63.10a-2024(incl. Errata) for ISED  
ANSI C63.25.1-2018  
KDB 558074 D01 v05r02  
KDB 662911 D01 v02r01 for FCC MIMO device

### 3.3 Procedures and Results

| Item                                                                                                         | Specification                                                              | Results  | Remarks                                      |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------|----------------------------------------------|
| Conducted Emission                                                                                           | FCC: Section 15.207<br>ISED: RSS-Gen 8.8                                   | Complied | -                                            |
| Carrier Frequency Separation                                                                                 | FCC: Section 15.247(a)(1)<br>ISED: RSS-247 5.1 (b)                         | Complied | Conducted                                    |
| 20 dB Bandwidth                                                                                              | FCC: Section 15.247(a)(1)<br>ISED: RSS-247 5.1 (a)                         | Complied | Conducted                                    |
| Number of Hopping Frequency                                                                                  | FCC: Section 15.247(a)(1)(iii)<br>ISED: RSS-247 5.1 (d)                    | Complied | Conducted                                    |
| Dwell time                                                                                                   | FCC: Section 15.247(a)(1)(iii)<br>ISED: RSS-247 5.1 (d)                    | Complied | Conducted                                    |
| Maximum Peak Output Power                                                                                    | FCC: Section 15.247(b)(1)<br>ISED: RSS-247 5.4 (b)                         | Complied | Conducted                                    |
| Spurious Emission & Band Edge Compliance                                                                     | FCC: Section 15.247(d)<br>ISED: RSS-247 5.5<br>RSS-Gen 8.9<br>RSS-Gen 8.10 | Complied | Conducted/<br>Radiated<br>(above 30 MHz) *1) |
| Note: UL Japan, Inc.'s EMI Work Procedures: Work Instructions-ULID-003591 and Work Instructions-ULID-003593. |                                                                            |          |                                              |
| *1) Radiated test was selected over 30 MHz based on section 15.247(d).                                       |                                                                            |          |                                              |

#### **FCC Part 15.31 (e)**

The EUT is USB and battery-operated device, and test was performed with the USB and full-charged battery. It was also confirmed that the RF characteristics were stable regardless of the input voltage of the RF part. Therefore, this EUT complies with the requirement.

#### **FCC Part 15.203 Antenna requirement**

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

### 3.4 Addition to Standard

| Item                    | Specification | Results | Remarks   |
|-------------------------|---------------|---------|-----------|
| 99 % Occupied Bandwidth | ISED: -       | -       | Conducted |

Other than above, no addition, exclusion nor deviation has been made from the standard.

### 3.5 Uncertainty

Measurement uncertainty is not taken into account when stating conformity with a specified requirement.  
Note: When margins obtained from test results are less than the measurement uncertainty, the test results may exceed the limit.

The following uncertainties have been calculated to provide a confidence level of 95 % using a coverage factor  $k = 2$ .

#### Conducted emission

| Item       | Frequency range    | Unit | Calculated Uncertainty (+/-) |
|------------|--------------------|------|------------------------------|
| AMN (LISN) | 0.15 MHz to 30 MHz | dB   | 3.3                          |

#### Radiated emission

| Measurement distance | Frequency range     | Unit       | Calculated Uncertainty (+/-) |
|----------------------|---------------------|------------|------------------------------|
| 3 m                  | 9 kHz to 30 MHz     | dB         | 3.3                          |
| 10 m                 |                     | dB         | 3.1                          |
| 3 m                  | 30 MHz to 200 MHz   | Horizontal | 5.0                          |
|                      |                     | Vertical   | 5.0                          |
|                      | 200 MHz to 1000 MHz | Horizontal | 5.2                          |
|                      |                     | Vertical   | 6.2                          |
| 10 m                 | 30 MHz to 200 MHz   | Horizontal | 5.5                          |
|                      |                     | Vertical   | 5.4                          |
|                      | 200 MHz to 1000 MHz | Horizontal | 5.5                          |
|                      |                     | Vertical   | 5.5                          |
| 3 m                  | 1 GHz to 6 GHz      | dB         | 5.1                          |
|                      | 6 GHz to 18 GHz     | dB         | 5.4                          |
| 1 m                  | 10 GHz to 18 GHz    | dB         | 5.4                          |
|                      | 18 GHz to 26.5 GHz  | dB         | 5.3                          |
|                      | 26.5 GHz to 40 GHz  | dB         | 4.8                          |
| 0.5 m                | 26.5 GHz to 40 GHz  | dB         | 5.0                          |

#### Antenna Terminal Conducted

| Item                                                                | Unit   | Calculated Uncertainty (+/-) |
|---------------------------------------------------------------------|--------|------------------------------|
| Antenna terminated conducted emission / Power density / Burst power | dB     | 3.50                         |
| Adjacent channel power (ACP)                                        | dB     | 2.32                         |
| Bandwidth (OBW)                                                     | %      | 0.96                         |
| Time readout (time span upto 100 msec)                              | %      | 0.11                         |
| Time readout (time span upto 1000 msec)                             | %      | 0.11                         |
| Time readout (time span upto 60 sec)                                | %      | 0.02                         |
| Power measurement (Power meter < 8 GHz)                             | dB     | 1.43                         |
| Power measurement (Call box < 6 GHz)                                | dB     | 1.89                         |
| Frequency readout (Frequency counter)                               | ppm    | 0.67                         |
| Frequency readout (Spectrum analyzer frequency readout function)    | ppm    | 2.13                         |
| Temperature (constant temperature bath)                             | deg. C | 0.69                         |
| Humidity (constant temperature bath)                                | %RH    | 2.98                         |
| Modulation characteristics                                          | %      | 6.93                         |
| Frequency for mobile                                                | ppm    | 0.08                         |
| Contention-based protocol                                           | dB     | 2.97                         |

### 3.6 Test Location

UL Japan, Inc. Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 Japan

Telephone: +81-596-24-8999

A2LA Certificate Number: 5107.02 / FCC Test Firm Registration Number: 884919

ISED Lab Company Number: 2973C / CAB identifier: JP0002

| Test site                         | Width x Depth x Height (m) | Size of reference ground plane (m) / horizontal conducting plane | Other rooms                 | Maximum measurement distance |
|-----------------------------------|----------------------------|------------------------------------------------------------------|-----------------------------|------------------------------|
| No.1 semi-anechoic chamber (SAC1) | 19.2 x 11.2 x 7.7          | 7.0 x 6.0                                                        | No.1 Power source room      | 10 m                         |
| No.2 semi-anechoic chamber (SAC2) | 7.5 x 5.8 x 5.2            | 4.0 x 4.0                                                        | -                           | 3 m                          |
| No.3 semi-anechoic chamber (SAC3) | 12.0 x 8.5 x 5.9           | 6.8 x 5.75                                                       | No.3 Preparation room (PR3) | 3 m                          |
| No.3 shielded room (SR3)          | 4.0 x 6.0 x 2.7            | N/A                                                              | -                           | -                            |
| No.4 semi-anechoic chamber (SAC4) | 12.0 x 8.5 x 5.9           | 6.8 x 5.75                                                       | No.4 Preparation room (PR4) | 3 m                          |
| No.4 shielded room (SR4)          | 4.0 x 6.0 x 2.7            | N/A                                                              | -                           | -                            |
| No.5 semi-anechoic chamber (SAC5) | 6.0 x 6.0 x 3.9            | 6.0 x 6.0                                                        | -                           | -                            |
| No.5 measurement room (MR5)       | 6.4 x 6.4 x 3.0            | 6.4 x 6.4                                                        | -                           | -                            |
| No.6 shielded room (SR6)          | 4.0 x 4.5 x 2.7            | 4.0 x 4.5                                                        | -                           | -                            |
| No.6 measurement room (MR6)       | 4.75 x 5.4 x 3.0           | 4.75 x 4.15                                                      | -                           | -                            |
| No.7 shielded room (SR7)          | 4.7 x 7.5 x 2.7            | 4.7 x 7.5                                                        | -                           | -                            |
| No.8 measurement room (MR8)       | 3.1 x 5.0 x 2.7            | 3.1 x 5.0                                                        | -                           | -                            |
| No.9 measurement room (MR9)       | 8.8 x 4.6 x 2.8            | 2.4 x 2.4                                                        | -                           | -                            |
| No.10 shielded room (SR10)        | 3.8 x 2.8 x 2.8            | 3.8 x 2.8                                                        | -                           | -                            |
| No.11 measurement room (MR11)     | 4.0 x 3.4 x 2.5            | N/A                                                              | -                           | -                            |
| No.12 measurement room (MR12)     | 2.6 x 3.4 x 2.5            | N/A                                                              | -                           | -                            |
| Large Chamber                     | 16.9 x 22.1 x 10.17        | 16.9 x 22.1                                                      | -                           | 10 m                         |
| Small Chamber                     | 5.3 x 6.69 x 3.59          | 5.3 x 6.69                                                       | -                           | -                            |

\* Size of vertical conducting plane (for Conducted Emission test): 2.0 x 2.0 m for No.1, No.2, No.3, No.4, and No.5 semi-anechoic chambers and No.3 and No.4 shielded rooms.

### 3.7 Test Data, Test Instruments, and Test Set Up

Refer to APPENDIX.

## SECTION 4: Operation of EUT during testing

### 4.1 Operating Mode(s)

| Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Remarks*                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Bluetooth (BT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | BR / EDR, Payload: PRBS9 |
| <p>*EUT has the power settings by the software as follows;<br/> Power Setting: 55 (Maximum Peak Output Power)<br/> 61 (Other than Maximum Peak Output Power)<br/> Software: AB1565/68 Lab Test Tool Version: 5.2.0.3<br/> (Date: May 7, 2025, Storage location: Driven by connected PC)</p> <p>*This setting of software is the worst case.<br/> Any conditions under the normal use do not exceed the condition of setting.<br/> In addition, end users cannot change the settings of the output power of the product.</p> |                          |

#### Details of Operating Mode(s)

| Test Item                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mode                                    | Hopping            | Tested Frequency                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------|----------------------------------|
| Conducted Emission *1),<br>Radiated Spurious Emission (Below 1 GHz) *1)                                                                                                                                                                                                                                                                                                                                                                                                                     | Tx 3DH5                                 | Off                | 2402 MHz                         |
| Radiated Spurious Emission (Above 1 GHz),<br>Conducted Spurious Emission                                                                                                                                                                                                                                                                                                                                                                                                                    | Tx DH5<br>Tx 3DH5                       | Off                | 2402 MHz<br>2441 MHz<br>2480 MHz |
| Carrier Frequency Separation                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Tx DH5<br>Tx 3DH5                       | On                 | 2402 MHz<br>2441 MHz<br>2480 MHz |
| 20 dB Bandwidth                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Tx DH5<br>Tx 3DH5                       | Off                | 2402 MHz<br>2441 MHz<br>2480 MHz |
| Number of Hopping Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Tx DH5<br>Tx 3DH5                       | On                 | -                                |
| Dwell time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Tx DH1, DH3, DH5<br>Tx 3DH1, 3DH3, 3DH5 | On                 | -                                |
| Maximum Peak Output Power                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Tx DH5<br>Tx 2DH5<br>Tx 3DH5            | Off                | 2402 MHz<br>2441 MHz<br>2480 MHz |
| Band Edge Compliance<br>(Conducted)                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Tx DH5<br>Tx 3DH5                       | On<br>-----<br>Off | 2402 MHz<br>2480 MHz             |
| 99 % Occupied Bandwidth                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Tx DH5<br>Tx 3DH5                       | On<br>-----<br>Off | 2402 MHz<br>2441 MHz<br>2480 MHz |
| <p>*As a result of preliminary test, the formal test was performed with the above modes, which had the maximum payload length (except Dwell time test)<br/> *2DH mode (2Mb/s EDR: pi/4DQPSK) was excluded for other tests than power measurement by using 3DH mode (3 Mb/s EDR: 8DPSK) as a representative.<br/> *It is considered that the non-tested packet type (e.g. inquiry) can be omitted as it is complied with above all the test items based on Bluetooth Core specification.</p> |                                         |                    |                                  |
| <p>*1) Conducted emissions and Spurious emissions for frequencies below 1 GHz were limited to the channel that had the highest power during the antenna terminal test, as preliminary testing indicated that changing the operating frequency had no significant impact on the emissions in those frequency bands.</p>                                                                                                                                                                      |                                         |                    |                                  |

### 4.2 Configuration and Peripherals

This clause has been submitted for separate exhibit (refer to APPENDIX 4).

## **SECTION 5: Conducted Emission**

### **Test Procedure and Conditions**

EUT was placed on the platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane.

The rear of the platform was located 40 cm to the vertical conducting plane. The rear of EUT, including peripherals was aligned and flushed with rear of the platform. All other surfaces of the platform were at least 80 cm from any other grounded conducting surface. EUT was located 80 cm from a Line Impedance Stabilization Network (LISN) / Artificial mains Network (AMN) and excess AC cable was bundled in center.

For the tests on EUT with other peripherals (as a whole system)

I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30 cm to 40 cm long and were hanged at a 40 cm height to the ground plane. All unused 50 ohm connectors of the LISN (AMN) were resistivity terminated in 50 ohm when not connected to the measuring equipment.

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Semi Anechoic Chamber.

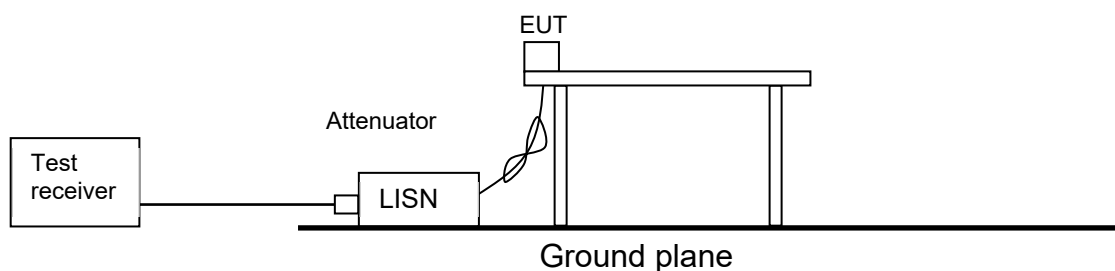
The EUT was connected to a LISN (Via AC adapter).

An overview sweep with peak detection has been performed.

Test results are rounded off and limit are rounded down, so some differences might be observed.

|                          |                             |
|--------------------------|-----------------------------|
| <b>Detector</b>          | <b>: QP and CISPR AV</b>    |
| <b>Measurement Range</b> | <b>: 0.15 MHz to 30 MHz</b> |
| <b>Test Data</b>         | <b>: APPENDIX</b>           |
| <b>Test Result</b>       | <b>: Pass</b>               |

**Figure 1: Test Setup**



## **SECTION 6: Radiated Spurious Emission**

### **Test Procedure**

[For below 1 GHz]

EUT was placed on the platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

[For above 1 GHz]

EUT was placed on the platform of nominal size, 0.5 m by 0.5 m, raised 1.5 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with absorbent materials lined on a ground plane. Test antenna was aimed at the EUT for receiving the maximum signal and always kept within the illumination area of the 3 dB beamwidth of the antenna.

The height of the measuring antenna varied between 1 m and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field strength.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer.

The measurements were made with the following detector function of the test receiver and the Spectrum analyzer (in linear mode).

The test was made with the detector (RBW/VBW) in the following table.

When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

### **Test Antennas are used as below;**

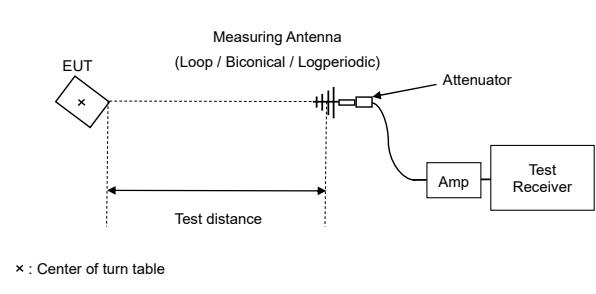
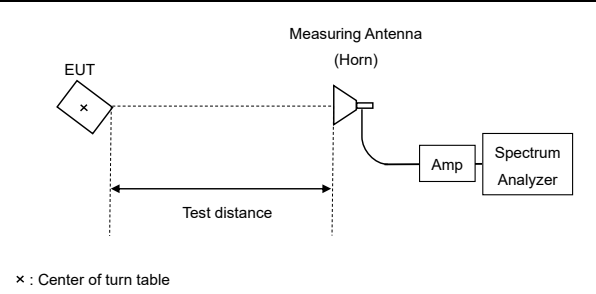
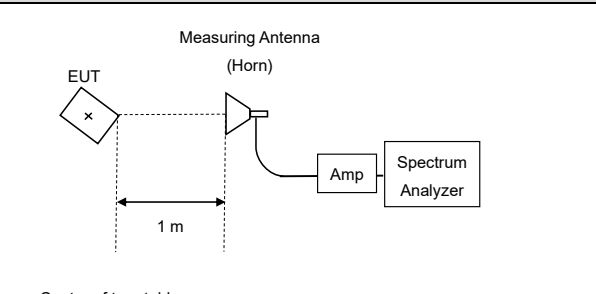
|              |                   |                  |             |
|--------------|-------------------|------------------|-------------|
| Frequency    | 30 MHz to 200 MHz | 200 MHz to 1 GHz | Above 1 GHz |
| Antenna Type | Biconical         | Logperiodic      | Horn        |

In any 100 kHz bandwidth outside the restricted band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

### **20 dBc was applied to the frequency over the limit of FCC 15.209 / Table 4 of RSS-Gen 8.9 (ISED) and outside the restricted band of FCC15.205 / Table 6 of RSS-Gen 8.10 (ISED).**

|                 |               |                          |                                                                                                                              |                              |
|-----------------|---------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| Frequency       | Below 1 GHz   | Above 1 GHz              |                                                                                                                              | 20 dBc                       |
| Instrument used | Test Receiver | Spectrum Analyzer        |                                                                                                                              | Spectrum Analyzer            |
| Detector        | QP            | PK                       | AV *1)                                                                                                                       | PK                           |
| IF Bandwidth    | BW 120 kHz    | RBW: 1 MHz<br>VBW: 3 MHz | RBW: 1 MHz<br>VBW: 3 MHz<br>Detector:<br>Power Averaging (RMS)<br>Trace: 100 traces<br>Duty factor was added to the results. | RBW: 100 kHz<br>VBW: 300 kHz |

Figure 2: Test Setup

|                                                                                                                    |                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Below 1 GHz                                                                                                        |                                                                                                            |
|  <p>× : Center of turn table</p>  | Test Distance: 3 m                                                                                         |
| 1 GHz to 18 GHz                                                                                                    |                                                                                                            |
|  <p>× : Center of turn table</p>  | Test Distance: 3 m                                                                                         |
| 18 GHz to 26.5 GHz                                                                                                 |                                                                                                            |
|  <p>× : Center of turn table</p> | Distance Factor: $20 \times \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.5 \text{ dB}$<br>*Test Distance: 1 m |

The carrier level and noise levels were confirmed at each position of X, Y, Z axes of EUT, and EUT with Charging Dock to see the position of maximum noise, and the test was made at the position that has the maximum noise.

Test results are rounded off and limit are rounded down, so some differences might be observed.

Measurement Range : 30 MHz to 26.5 GHz  
Test Data : APPENDIX  
Test Result : Pass

## SECTION 7: Antenna Terminal Conducted Tests

### Test Procedure

The tests were made with below setting connected to the antenna port.

| Test                                             | Span                                           | RBW             | VBW                | Sweep time                                                     | Detector         | Trace       | Instrument Used                |
|--------------------------------------------------|------------------------------------------------|-----------------|--------------------|----------------------------------------------------------------|------------------|-------------|--------------------------------|
| 20 dB Bandwidth                                  | 3 MHz                                          | 30 kHz          | 100 kHz            | Auto                                                           | Peak             | Max Hold    | Spectrum Analyzer              |
| 99 % Occupied Bandwidth *1)                      | Enough width to display emission skirts        | 1 to 5 % of OBW | Three times of RBW | Auto                                                           | Peak             | Max Hold    | Spectrum Analyzer              |
| Maximum Peak Output Power                        | -                                              | -               | -                  | Auto                                                           | Peak/Average *2) | -           | Power Meter (Sensor: 50MHz BW) |
| Carrier Frequency Separation                     | 3 MHz                                          | 30 kHz          | 100 kHz            | Auto                                                           | Peak             | Max Hold    | Spectrum Analyzer              |
| Number of Hopping Frequency                      | 30 MHz                                         | 200 kHz         | 620 kHz            | Auto                                                           | Peak             | Max Hold    | Spectrum Analyzer              |
| Dwell Time                                       | Zero Span                                      | 100 kHz         | 300 kHz            | As necessary capture the entire dwell time per hopping channel | Peak             | Clear Write | Spectrum Analyzer              |
| Conducted Spurious Emission *3) *4)              | 9 kHz to 150 kHz                               | 200 Hz          | 620 Hz             | Auto                                                           | Peak             | Max Hold    | Spectrum Analyzer              |
|                                                  | 150 kHz to 30 MHz                              | 10 kHz          | 30 kHz             |                                                                |                  |             |                                |
|                                                  | 30 MHz to 25 GHz                               | 100 kHz         | 300 kHz            |                                                                |                  |             |                                |
| Conducted Spurious Emission Band Edge compliance | 2390 MHz to 2403 MHz<br>2479 MHz to 2493.5 MHz | 100 kHz         | 300 kHz            | Auto                                                           | Peak             | Max Hold    | Spectrum Analyzer              |

\*1) Peak hold was applied as Worst-case measurement.

\*2) Reference data

\*3) In the frequency range below 30MHz, RBW was narrowed to separate the noise contents.

Then, wide-band noise near the limit was checked separately, however the noise was not detected as shown in the chart.

(9 kHz -150 kHz: RBW = 200 Hz, 150 kHz - 30 MHz: RBW = 10 kHz)

\*4) The limits in CFR 47, Part 15, Subpart C, paragraph 15.209(a), are identical to those in RSS-Gen section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377 Ohms. For example, the measurement at frequency 9 kHz resulted in a level of 45.5 dBuV/m, which is equivalent to  $45.5 - 51.5 = -6.0$  dBuA/m, which has the same margin, 3 dB, to the corresponding RSS-Gen Table 6 limit as it has to 15.209(a) limit.

Test results are rounded off and limit are rounded down, so some differences might be observed.  
The equipment and cables were not used for factor 0 dB of the data sheets.

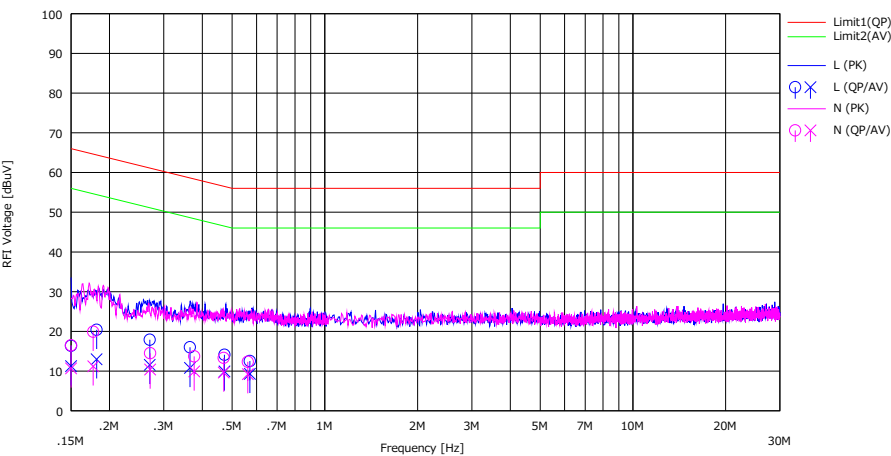
Test Data : APPENDIX  
Test Result : Pass

APPENDIX 1: Test data

Conducted Emission

|              |                                |             |          |                  |
|--------------|--------------------------------|-------------|----------|------------------|
| Mode         | Tx, Hopping Off, 3DH5 2402 MHz |             |          |                  |
| Date         | Test site                      | Temperature | Humidity | Engineer         |
| May 19, 2025 | SAC3                           | 23 deg. C   | 52 % RH  | Takafumi Noguchi |

Limit : FCC\_Part 15 Subpart C(15.207)



| No. | Freq.<br>[MHz] | Reading        |                | LISN<br>[dB] | LOSS<br>[dB] | Results        |                | Limit          |                | Margin       |              | Phase | Comment |
|-----|----------------|----------------|----------------|--------------|--------------|----------------|----------------|----------------|----------------|--------------|--------------|-------|---------|
|     |                | <QP><br>[dBuV] | <AV><br>[dBuV] |              |              | <QP><br>[dBuV] | <AV><br>[dBuV] | <QP><br>[dBuV] | <AV><br>[dBuV] | <QP><br>[dB] | <AV><br>[dB] |       |         |
| 1   | 0.15000        | 3.20           | -1.90          | 0.04         | 13.12        | 16.36          | 11.26          | 66.00          | 56.00          | 49.64        | 44.74        | L     |         |
| 2   | 0.18160        | 7.20           | -0.20          | 0.04         | 13.13        | 20.37          | 12.97          | 64.41          | 54.41          | 44.04        | 41.44        | L     |         |
| 3   | 0.27021        | 4.70           | -1.60          | 0.04         | 13.14        | 17.88          | 11.58          | 61.11          | 51.11          | 43.23        | 39.53        | L     |         |
| 4   | 0.36496        | 2.80           | -2.40          | 0.04         | 13.15        | 15.99          | 10.79          | 58.61          | 48.61          | 42.62        | 37.82        | L     |         |
| 5   | 0.47222        | 0.90           | -3.30          | 0.04         | 13.16        | 14.10          | 9.90           | 56.47          | 46.47          | 42.37        | 36.57        | L     |         |
| 6   | 0.57105        | -0.70          | -3.90          | 0.04         | 13.17        | 12.51          | 9.31           | 56.00          | 46.00          | 43.49        | 36.69        | L     |         |
| 7   | 0.15000        | 3.30           | -2.50          | 0.06         | 13.12        | 16.48          | 10.68          | 66.00          | 56.00          | 49.52        | 45.32        | N     |         |
| 8   | 0.17704        | 6.70           | -2.00          | 0.05         | 13.13        | 19.88          | 11.18          | 64.62          | 54.62          | 44.74        | 43.44        | N     |         |
| 9   | 0.27096        | 1.30           | -2.80          | 0.05         | 13.14        | 14.49          | 10.39          | 61.09          | 51.09          | 46.60        | 40.70        | N     |         |
| 10  | 0.37671        | 0.50           | -3.30          | 0.05         | 13.15        | 13.70          | 9.90           | 58.35          | 48.35          | 44.65        | 38.45        | N     |         |
| 11  | 0.46952        | 0.10           | -3.60          | 0.06         | 13.16        | 13.32          | 9.62           | 56.52          | 46.52          | 43.20        | 36.90        | N     |         |
| 12  | 0.56265        | -0.90          | -4.00          | 0.06         | 13.17        | 12.33          | 9.23           | 56.00          | 46.00          | 43.67        | 36.77        | N     |         |

CHART: WITH FACTOR Peak hold data. CALCULATION : RESULT = READING + LISN + LOSS (CABLE + ATT)  
Except for the above table: adequate margin data below the limits.

## 20 dB Bandwidth, 99 % Occupied Bandwidth and Carrier Frequency Separation

|      |                      |
|------|----------------------|
| Mode | Tx, Hopping Off / On |
|------|----------------------|

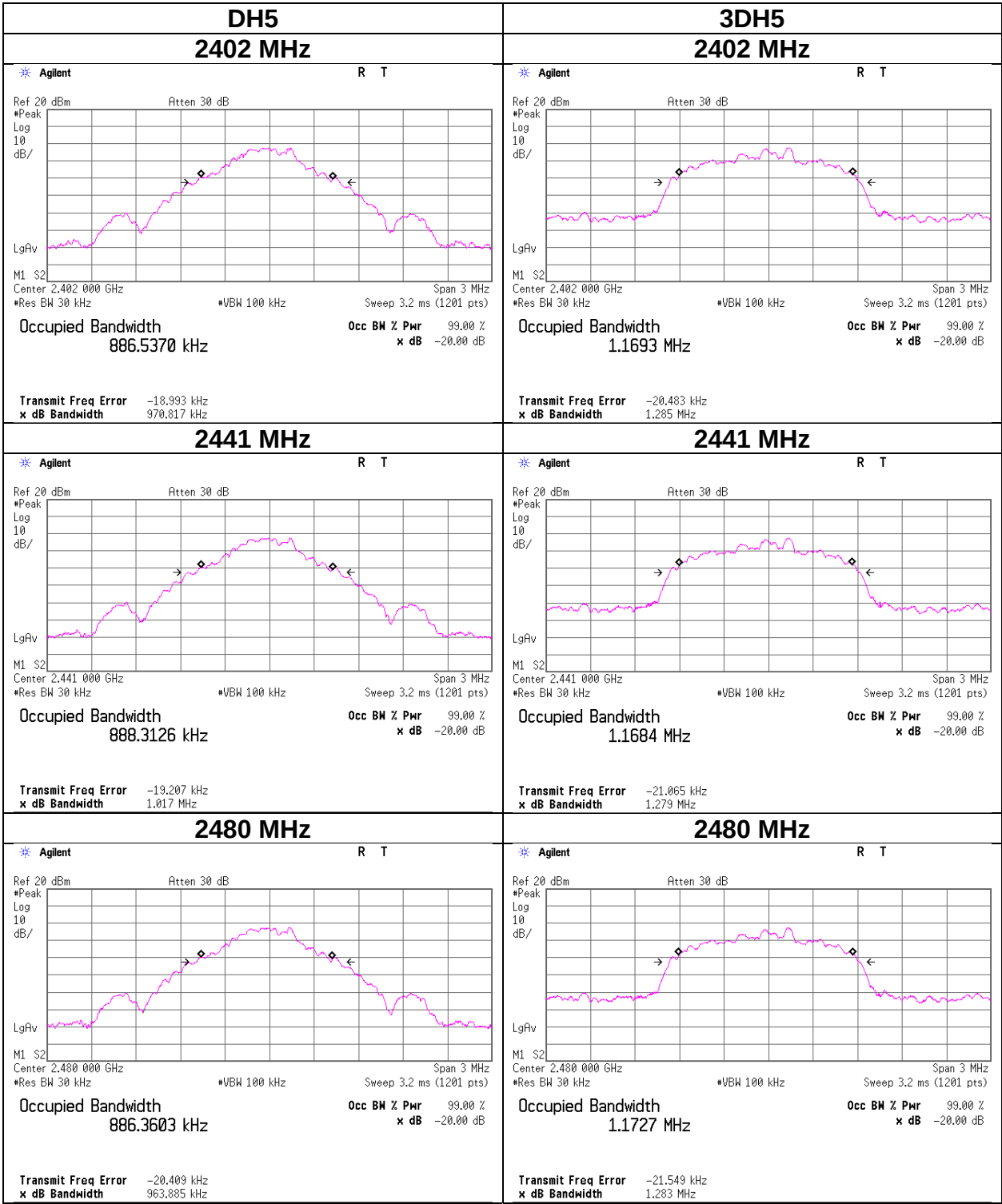
|             |           |             |          |                  |
|-------------|-----------|-------------|----------|------------------|
| Date        | Test site | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6       | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

| Mode | Freq.<br>[MHz] | 20 dB Bandwidth<br>[MHz] | 99 % Occupied<br>Bandwidth<br>[kHz] | Carrier Frequency<br>Separation<br>[MHz] | Limit for Carrier<br>Frequency separation<br>[MHz] |
|------|----------------|--------------------------|-------------------------------------|------------------------------------------|----------------------------------------------------|
| DH5  | 2402.0         | 0.971                    | 886.537                             | 1.000                                    | >= 0.647                                           |
| DH5  | 2441.0         | 1.017                    | <b>888.313</b>                      | 1.000                                    | >= 0.678                                           |
| DH5  | 2480.0         | 0.964                    | 886.360                             | 1.000                                    | >= 0.643                                           |
| DH5  | Hopping On     | -                        | 78634.800                           | -                                        | -                                                  |
| 3DH5 | 2402.0         | 1.285                    | 1169.300                            | 1.000                                    | >= 0.857                                           |
| 3DH5 | 2441.0         | 1.279                    | 1168.400                            | 1.000                                    | >= 0.853                                           |
| 3DH5 | 2480.0         | 1.283                    | <b>1172.700</b>                     | 1.000                                    | >= 0.855                                           |
| 3DH5 | Hopping On     | -                        | 78737.100                           | -                                        | -                                                  |

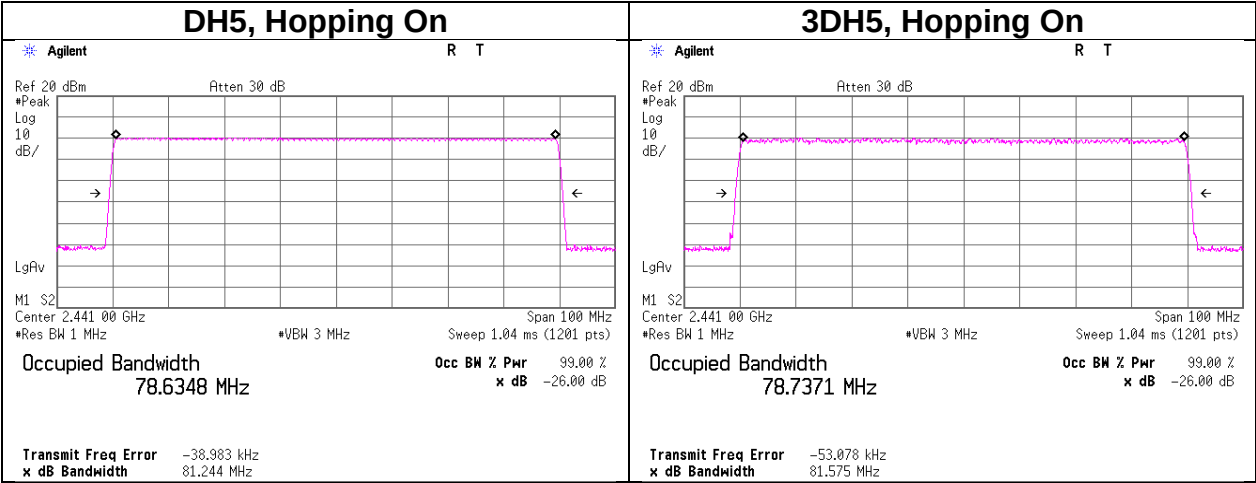
Limit: Two-thirds of 20 dB Bandwidth or 25 kHz (whichever is greater).

No limit applies to 20 dB Bandwidth.

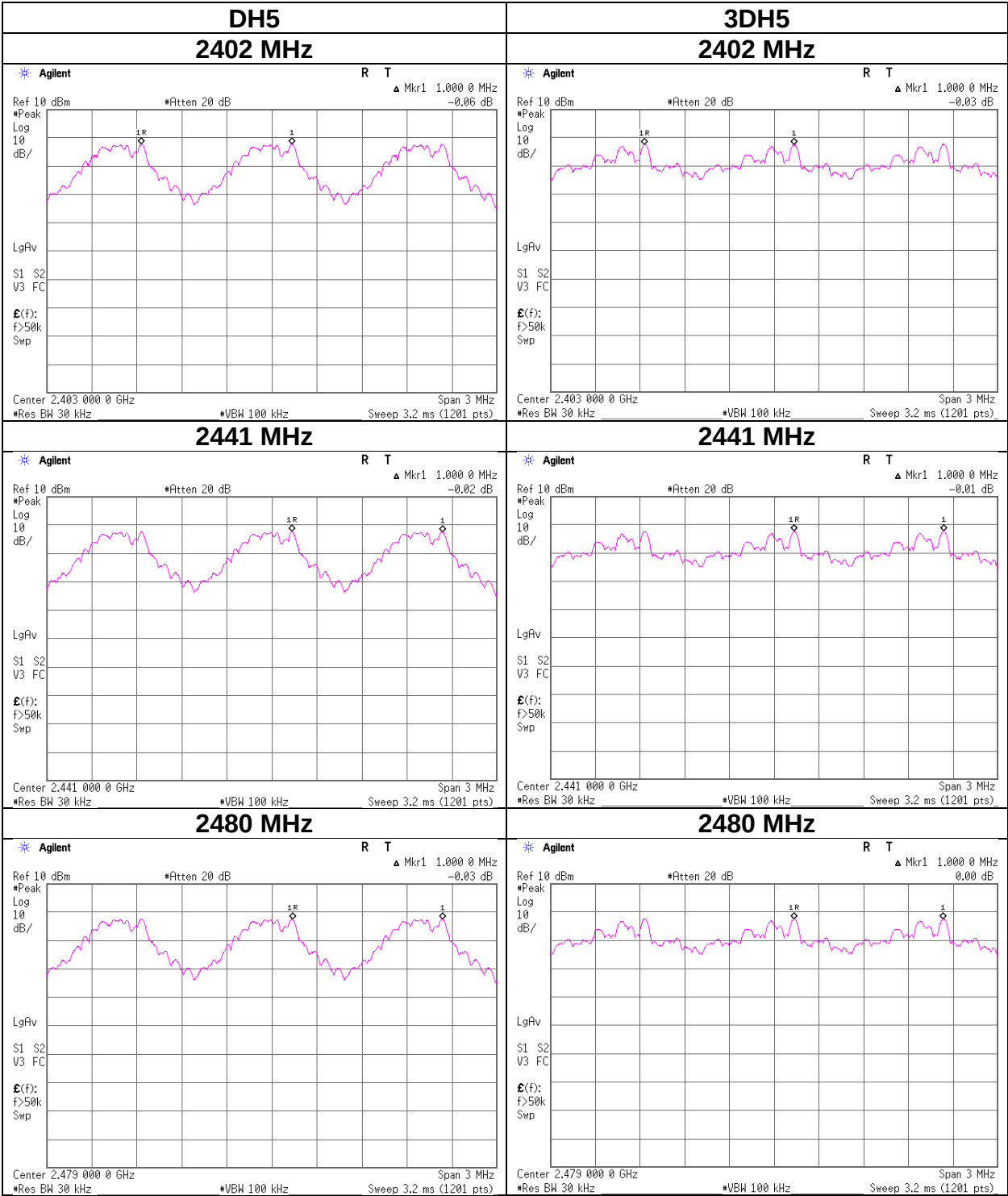
**20 dB Bandwidth and 99 % Occupied Bandwidth**



20 dB Bandwidth and 99 % Occupied Bandwidth



Carrier Frequency Separation



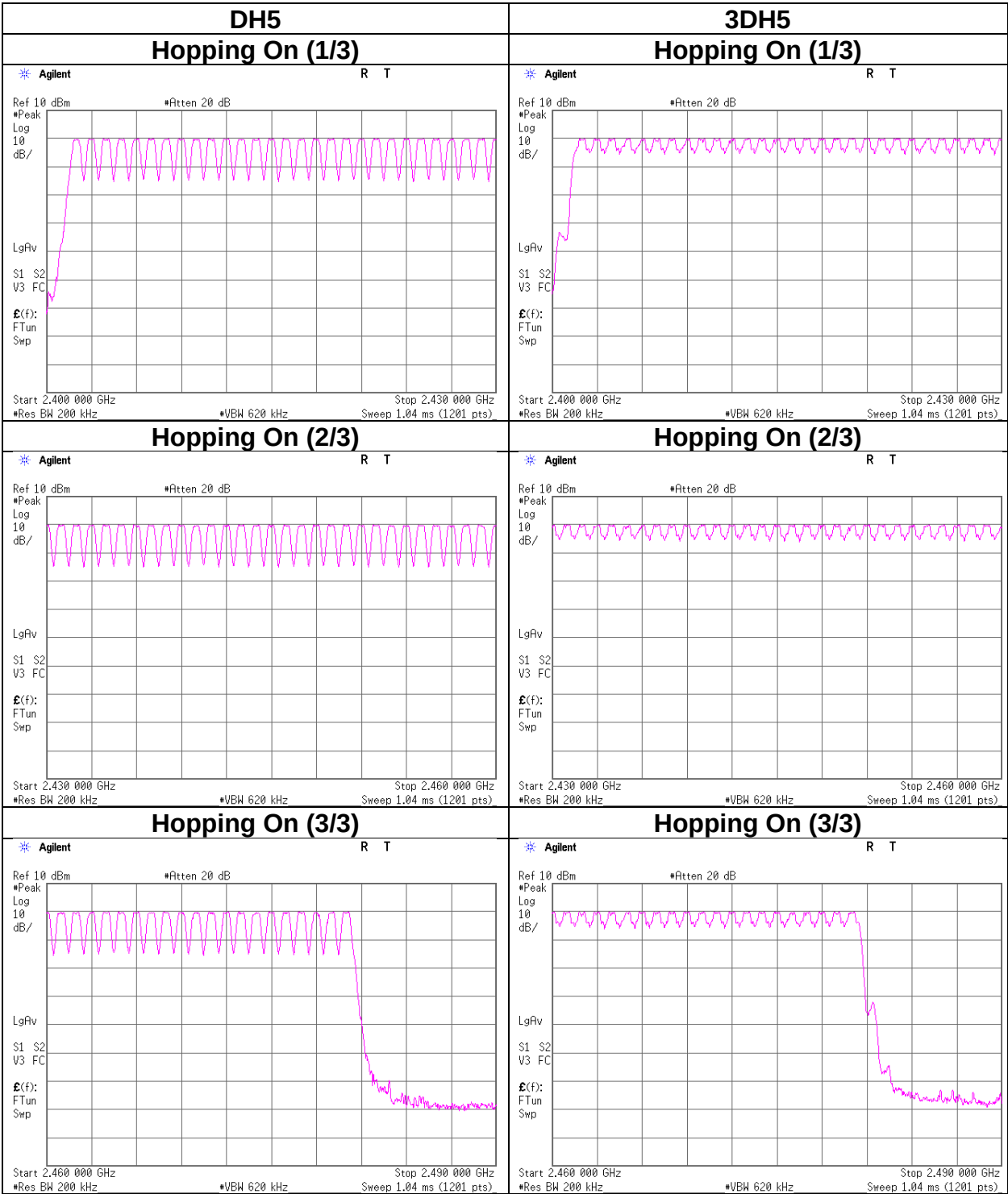
### Number of Hopping Frequency

|             |                |             |          |                  |
|-------------|----------------|-------------|----------|------------------|
| Mode        | Tx, Hopping On |             |          |                  |
| Date        | Test site      | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6            | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

| Mode | Number of channel<br>[channels] | Limit<br>[channels] |
|------|---------------------------------|---------------------|
| DH5  | 79                              | >= 15               |
| 3DH5 | 79                              | >= 15               |

Test was not performed at AFH mode whose number of hopping channel is 20 channels because this Bluetooth radio is in compliance of Bluetooth Specification.

Number of Hopping Frequency



## Dwell time

|      |                |  |  |  |
|------|----------------|--|--|--|
| Mode | Tx, Hopping On |  |  |  |
|------|----------------|--|--|--|

|              |           |             |          |                  |
|--------------|-----------|-------------|----------|------------------|
| Date         | Test site | Temperature | Humidity | Engineer         |
| May 13, 2025 | MR6       | 24 deg. C   | 47 % RH  | Takafumi Noguchi |

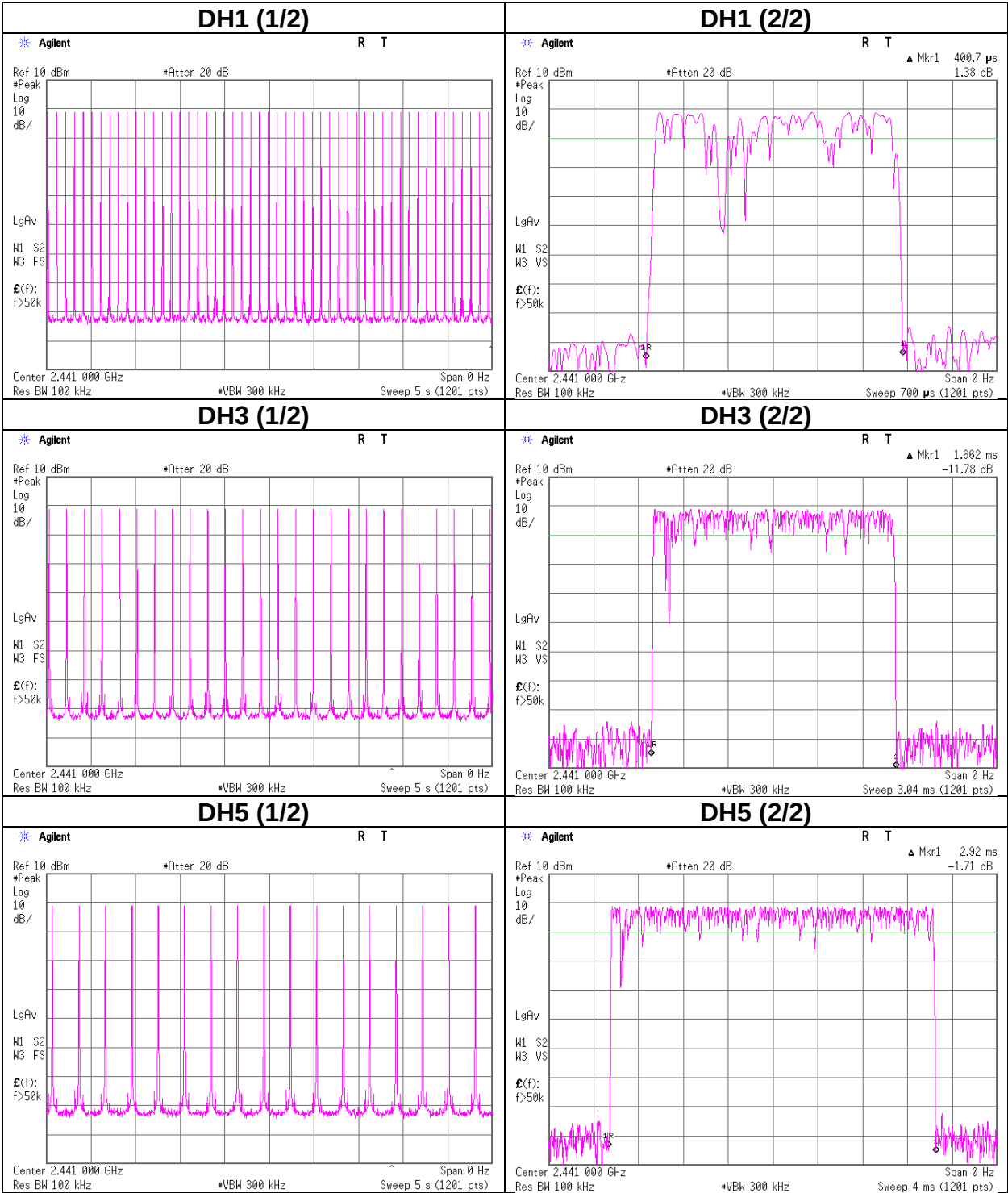
| Mode | Dwell time per hop [ms] | Number of hops in a 5.0 second period | Average number of hops in a 31.6 (79 Hopping x 0.4) second period | Result [ms] |
|------|-------------------------|---------------------------------------|-------------------------------------------------------------------|-------------|
| DH1  | 0.401                   | 51                                    | 51.0 [times] / 5.0 [s] x 31.6 [s] = 323                           | 129         |
| DH3  | 1.662                   | 26                                    | 26.0 [times] / 5.0 [s] x 31.6 [s] = 165                           | 274         |
| DH5  | 2.920                   | 17                                    | 17.0 [times] / 5.0 [s] x 31.6 [s] = 108                           | 315         |
| 3DH1 | 0.408                   | 51                                    | 51.0 [times] / 5.0 [s] x 31.6 [s] = 323                           | 132         |
| 3DH3 | 1.672                   | 26                                    | 26.0 [times] / 5.0 [s] x 31.6 [s] = 165                           | 276         |
| 3DH5 | 2.917                   | 17                                    | 17.0 [times] / 5.0 [s] x 31.6 [s] = 108                           | 315         |

Sample Calculation

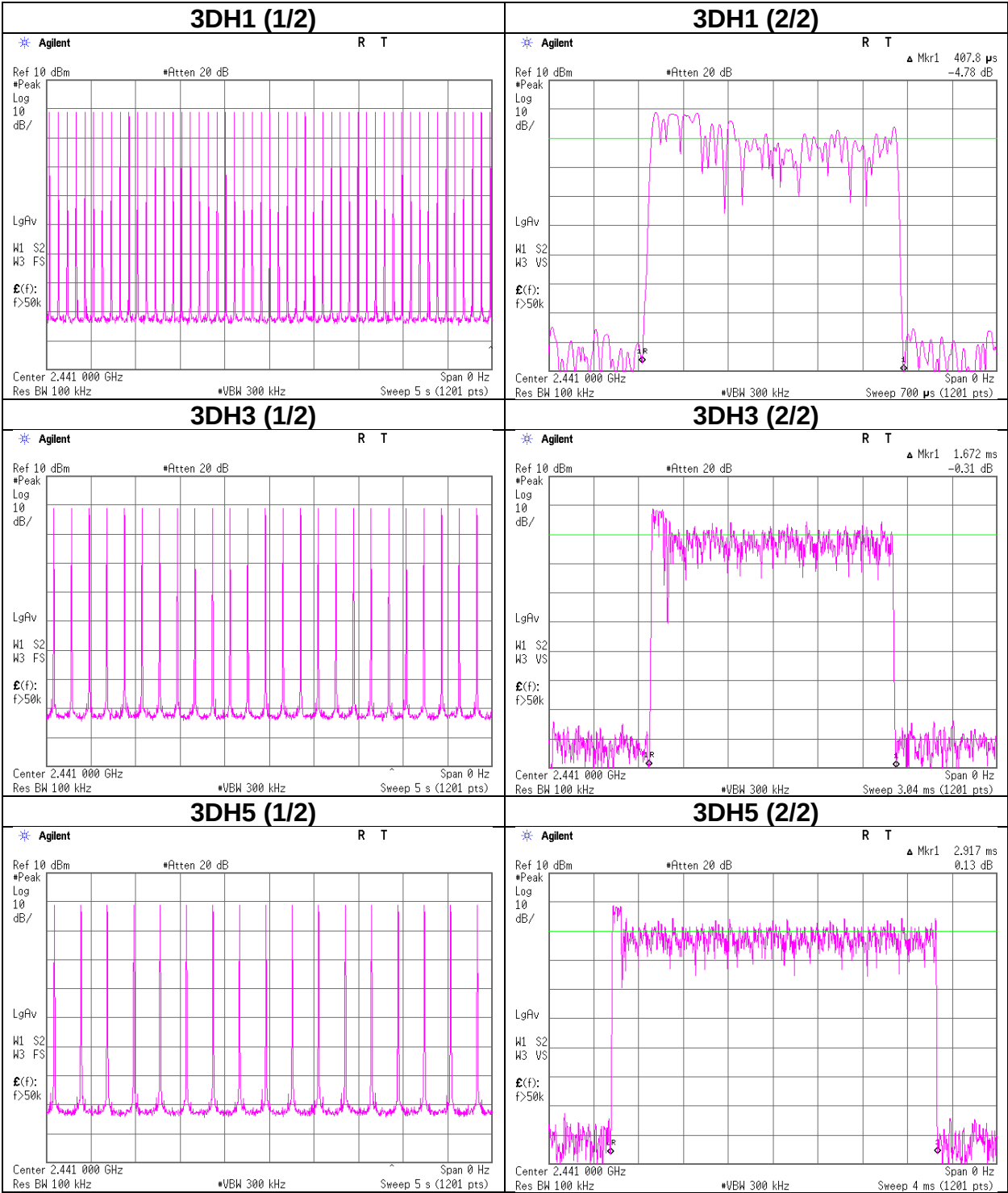
Result = Dwell time per hop x Average number of hops in a 31.6 (79 Hopping x 0.4) second period

\*Also compliance with the requirements for minimum number of channels(20 hops) made by Bluetooth AFH Specification.

Dwell time



Dwell time



## Maximum Peak Output Power

|      |                 |
|------|-----------------|
| Mode | Tx, Hopping Off |
|------|-----------------|

|              |           |             |          |             |
|--------------|-----------|-------------|----------|-------------|
| Date         | Test site | Temperature | Humidity | Engineer    |
| June 5, 2025 | MR6       | 24 deg. C   | 50 % RH  | Yuta Moriya |

| Mode | Freq.  | Reading | Cable Loss | Atten. Loss | Conducted Power |      |       |      |        | e.i.r.p. for RSS-247 |        |       |       |      |        |       |
|------|--------|---------|------------|-------------|-----------------|------|-------|------|--------|----------------------|--------|-------|-------|------|--------|-------|
|      |        |         |            |             | Result          |      | Limit |      | Margin | Antenna Gain         | Result |       | Limit |      | Margin |       |
|      |        |         |            |             | [dBm]           | [mW] | [dBm] | [mW] |        |                      | [dB]   | [dBi] | [dBm] | [mW] |        | [dBm] |
|      | [MHz]  | [dBm]   | [dB]       | [dB]        |                 |      |       |      |        |                      |        |       |       |      |        |       |
| DH5  | 2402.0 | -3.63   | 1.67       | 9.57        | 7.61            | 5.77 | 20.96 | 125  | 13.35  | 1.38                 | 8.99   | 7.93  | 36.02 | 4000 | 27.03  |       |
| DH5  | 2441.0 | -3.67   | 1.68       | 9.57        | 7.58            | 5.73 | 20.96 | 125  | 13.38  | 1.38                 | 8.96   | 7.87  | 36.02 | 4000 | 27.06  |       |
| DH5  | 2480.0 | -3.77   | 1.69       | 9.57        | 7.49            | 5.61 | 20.96 | 125  | 13.47  | 1.38                 | 8.87   | 7.71  | 36.02 | 4000 | 27.15  |       |
| 2DH5 | 2402.0 | -3.65   | 1.67       | 9.57        | 7.59            | 5.74 | 20.96 | 125  | 13.37  | 1.38                 | 8.97   | 7.89  | 36.02 | 4000 | 27.05  |       |
| 2DH5 | 2441.0 | -3.72   | 1.68       | 9.57        | 7.53            | 5.66 | 20.96 | 125  | 13.43  | 1.38                 | 8.91   | 7.78  | 36.02 | 4000 | 27.11  |       |
| 2DH5 | 2480.0 | -3.81   | 1.69       | 9.57        | 7.45            | 5.56 | 20.96 | 125  | 13.51  | 1.38                 | 8.83   | 7.64  | 36.02 | 4000 | 27.19  |       |
| 3DH5 | 2402.0 | -3.49   | 1.67       | 9.57        | 7.75            | 5.96 | 20.96 | 125  | 13.21  | 1.38                 | 9.13   | 8.18  | 36.02 | 4000 | 26.89  |       |
| 3DH5 | 2441.0 | -3.53   | 1.68       | 9.57        | 7.72            | 5.92 | 20.96 | 125  | 13.24  | 1.38                 | 9.10   | 8.13  | 36.02 | 4000 | 26.92  |       |
| 3DH5 | 2480.0 | -3.65   | 1.69       | 9.57        | 7.61            | 5.77 | 20.96 | 125  | 13.35  | 1.38                 | 8.99   | 7.93  | 36.02 | 4000 | 27.03  |       |

Sample Calculation:

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator Loss

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Test was not performed at AFH mode, because the decrease of number of channel (min: 20 ch) at AFH mode does not influence on the output power and bandwidth of the EUT.

As this device had AFH mode and frequency separation could not meet the requirement of over 20 dB BW without 2/3 relaxation, 125 mW power limit was applied to it.

## Average Output Power (Reference data for RF Exposure)

|      |                 |
|------|-----------------|
| Mode | Tx, Hopping Off |
|------|-----------------|

|              |           |             |          |             |
|--------------|-----------|-------------|----------|-------------|
| Date         | Test site | Temperature | Humidity | Engineer    |
| June 5, 2025 | MR6       | 24 deg. C   | 50 % RH  | Yuta Moriya |

| Mode | Freq.<br>[MHz] | Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Result<br>(Time average) |             | Duty<br>factor<br>[dB] | Result<br>(Burst power average) |             |
|------|----------------|------------------|-----------------------|------------------------|--------------------------|-------------|------------------------|---------------------------------|-------------|
|      |                |                  |                       |                        | [dBm]                    | [mW]        |                        | [dBm]                           | [mW]        |
| DH5  | 2402.0         | -5.03            | 1.67                  | 9.57                   | <b>6.21</b>              | <b>4.18</b> | 1.15                   | <b>7.36</b>                     | <b>5.45</b> |
| DH5  | 2441.0         | -5.08            | 1.68                  | 9.57                   | 6.17                     | 4.14        | 1.15                   | 7.32                            | 5.40        |
| DH5  | 2480.0         | -5.18            | 1.69                  | 9.57                   | 6.08                     | 4.06        | 1.15                   | 7.23                            | 5.28        |
| 2DH5 | 2402.0         | -7.42            | 1.67                  | 9.57                   | <b>3.82</b>              | <b>2.41</b> | 1.15                   | <b>4.97</b>                     | <b>3.14</b> |
| 2DH5 | 2441.0         | -7.45            | 1.68                  | 9.57                   | 3.80                     | 2.40        | 1.15                   | 4.95                            | 3.13        |
| 2DH5 | 2480.0         | -7.55            | 1.69                  | 9.57                   | 3.71                     | 2.35        | 1.15                   | 4.86                            | 3.06        |
| 3DH5 | 2402.0         | -7.41            | 1.67                  | 9.57                   | <b>3.83</b>              | <b>2.42</b> | 1.16                   | <b>4.99</b>                     | <b>3.16</b> |
| 3DH5 | 2441.0         | -7.45            | 1.68                  | 9.57                   | 3.80                     | 2.40        | 1.16                   | 4.96                            | 3.13        |
| 3DH5 | 2480.0         | -7.54            | 1.69                  | 9.57                   | 3.72                     | 2.36        | 1.16                   | 4.88                            | 3.08        |

Sample Calculation:

Sample Calculation:

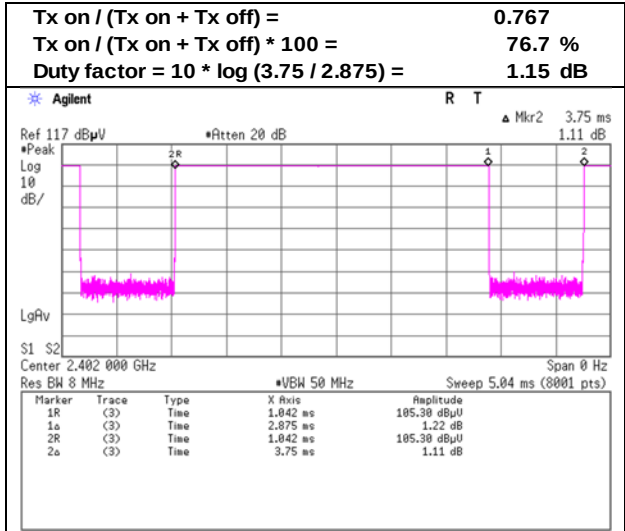
Result (Burst power average) = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator Loss

\*The equipment and cables were not used for factor 0 dB of the data sheets.

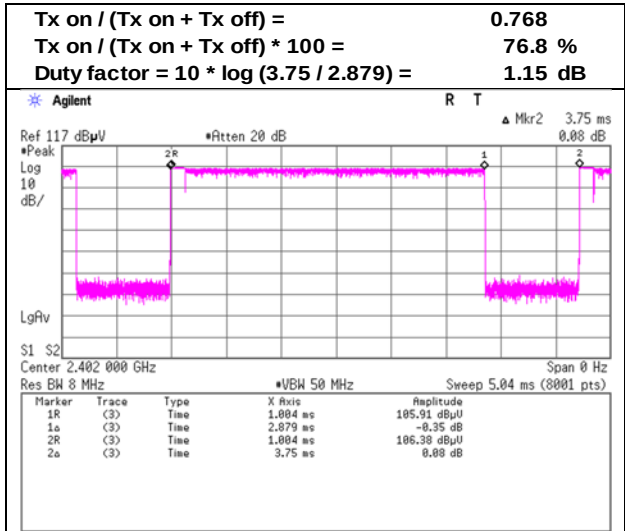
**Burst Rate Confirmation**

|             |                 |             |          |             |
|-------------|-----------------|-------------|----------|-------------|
| Mode        | Tx, Hopping Off |             |          |             |
| Date        | Test site       | Temperature | Humidity | Engineer    |
| May 7, 2025 | SAC2            | 24 deg. C   | 56 % RH  | Yuta Moriya |

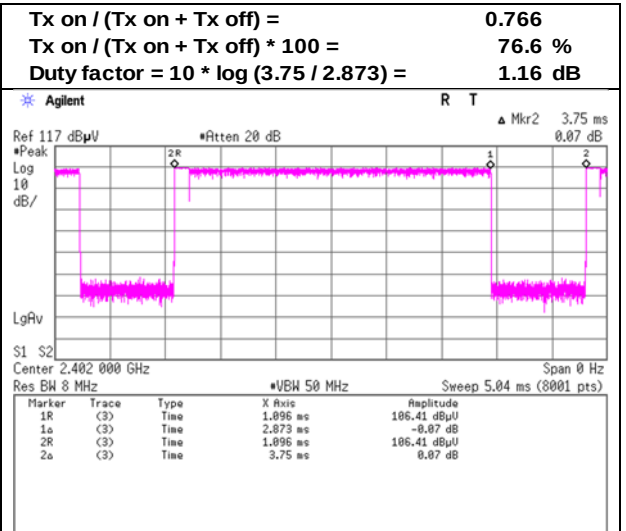
**DH5**



**2DH5**

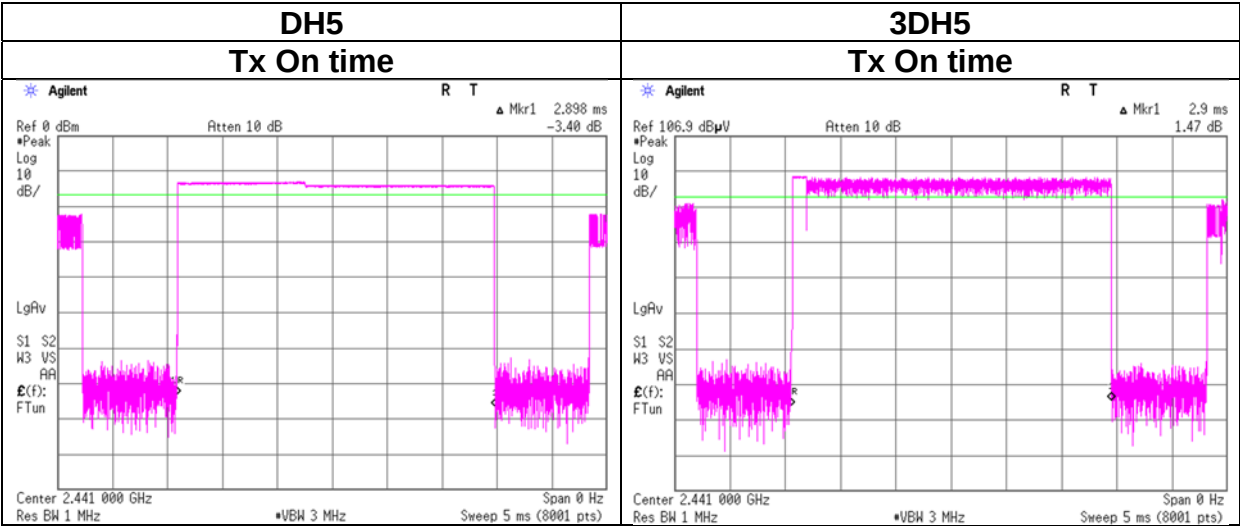
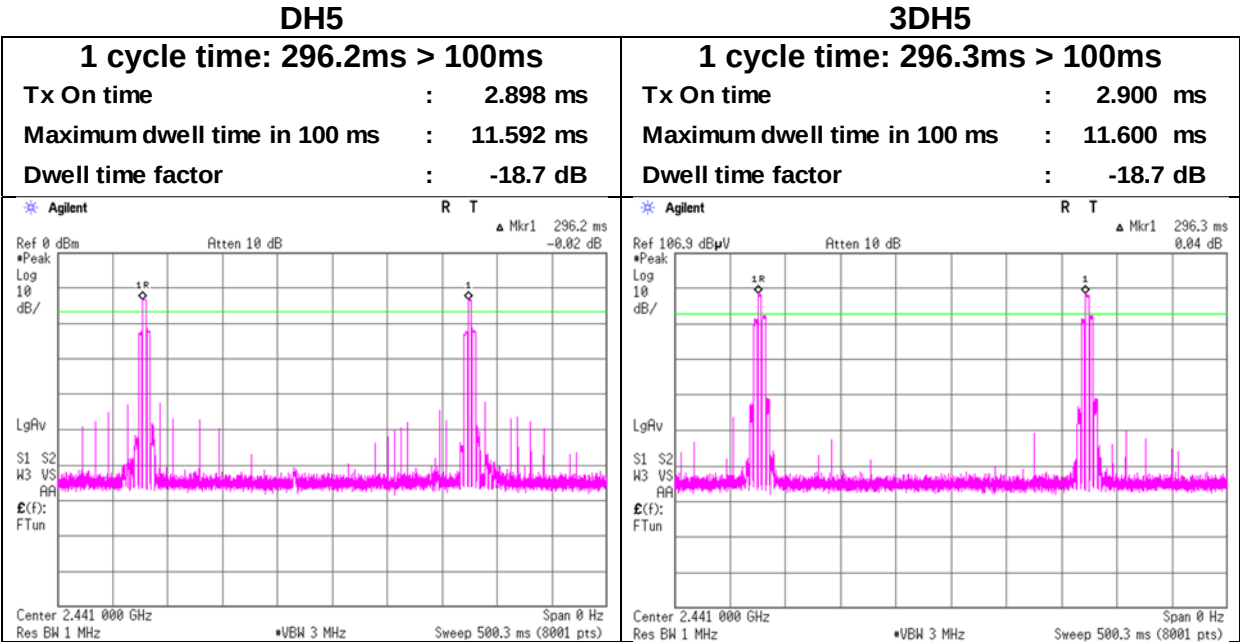


**3DH5**



Dwell time factor

|             |                |             |          |                |
|-------------|----------------|-------------|----------|----------------|
| Mode        | Tx, Hopping On |             |          |                |
| Date        | Test site      | Temperature | Humidity | Engineer       |
| May 7, 2025 | SAC2           | 24 deg. C   | 56 % RH  | Yuta Moriya    |
| May 9, 2025 | SAC2           | 23 deg. C   | 59 % RH  | Takeshi Hiyaji |



Calculation:  
Maximum dwell time in 100 ms = 2 × Tx On time × (channel separation correction + overlapping channel correction)  
Dwell time factor = 20log (maximum dwell time in 100 ms / 100)

A hopping channel might be occupied 2 times within 100 ms on minimum hopping mode (AFH). Therefore Tx On time was multiplied by 2.  
channel separation correction = 1 for channel separation >= 1 MHz  
overlapping channel correction = 1 for the 20 dB bandwidth > channel separation

**Radiated Spurious Emission**

|      |                                |
|------|--------------------------------|
| Mode | Tx, Hopping Off, DH5, 2402 MHz |
|------|--------------------------------|

| Date         | Test site | Temperature | Humidity | Engineer    | Measurement Range |
|--------------|-----------|-------------|----------|-------------|-------------------|
| May 7, 2025  | SAC2      | 24 deg. C   | 56 % RH  | Yuta Moriya | 1 GHz to 10 GHz   |
| May 9, 2025  | SAC2      | 23 deg. C   | 60 % RH  | Yuta Moriya | Above 10 GHz      |
| May 30, 2025 | SAC4      | 21 deg. C   | 61 % RH  | Yuta Moriya | Band-edge         |

| Polarity    | Frequency | Reading (QP / PK) | Reading (AV) | Ant. Factor | Loss | Gain | Duty Factor | Result (QP / PK) | Result (AV) | Limit (QP / PK) | Limit (AV) | Margin (QP / PK) | Margin (AV) | Remark      |
|-------------|-----------|-------------------|--------------|-------------|------|------|-------------|------------------|-------------|-----------------|------------|------------------|-------------|-------------|
| [Hori/Vert] | [MHz]     | [dBuV]            | [dBuV]       | [dB/m]      | [dB] | [dB] | [dB]        | [dBuV/m]         | [dBuV/m]    | [dBuV/m]        | [dBuV/m]   | [dB]             | [dB]        |             |
| Hori.       | 2390.0    | 46.0              | 35.1         | 27.6        | 3.0  | 32.0 | 1.2         | 44.7             | 34.8        | 73.9            | 53.9       | 29.3             | 19.1        | *1)         |
| Hori.       | 4804.0    | 43.6              | 37.0         | 31.4        | 5.2  | 32.6 | 1.2         | 47.5             | 42.1        | 73.9            | 53.9       | 26.4             | 11.8        | *2)         |
| Hori.       | 12010.0   | 45.4              | 37.0         | 38.2        | 6.1  | 36.6 | 1.2         | 53.1             | 45.8        | 73.9            | 53.9       | 20.8             | 8.1         | *2)         |
| Hori.       | 14412.0   | 43.2              | 36.2         | 39.1        | 6.8  | 37.3 | -           | 51.7             | 44.8        | 73.9            | 53.9       | 22.2             | 9.1         | Floor noise |
| Vert.       | 2390.0    | 45.8              | 34.7         | 27.6        | 3.0  | 32.0 | 1.2         | 44.4             | 34.5        | 73.9            | 53.9       | 29.5             | 19.4        | *1)         |
| Vert.       | 4804.0    | 43.6              | 36.6         | 31.4        | 5.2  | 32.6 | 1.2         | 47.5             | 41.7        | 73.9            | 53.9       | 26.4             | 12.2        | *2)         |
| Vert.       | 12010.0   | 44.6              | 36.9         | 38.2        | 6.1  | 36.6 | 1.2         | 52.3             | 45.7        | 73.9            | 53.9       | 21.6             | 8.2         | *2)         |
| Vert.       | 14412.0   | 43.2              | 36.2         | 39.1        | 6.8  | 37.3 | -           | 51.7             | 44.8        | 73.9            | 53.9       | 22.2             | 9.1         | Floor noise |

Result (QP / PK) = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)  
Result (AV) = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor  
\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).  
\*QP detector was used up to 1GHz.  
\*1) Not Out of Band emission(Leakage Power)  
\*2) Noise synchronized with duty of carrier frequency

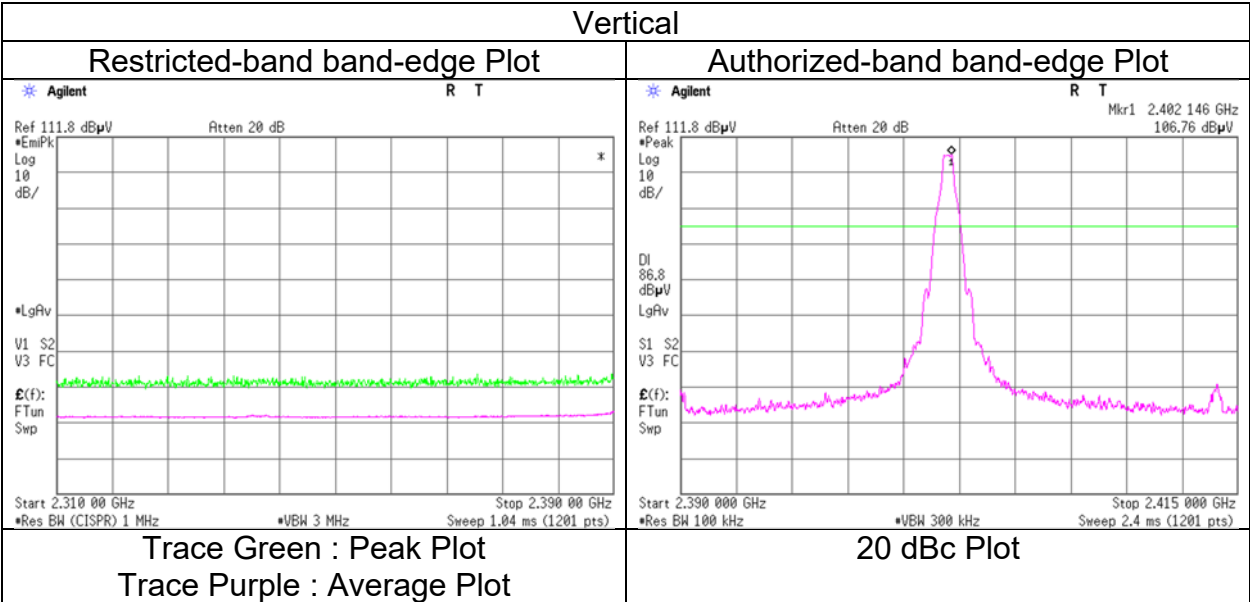
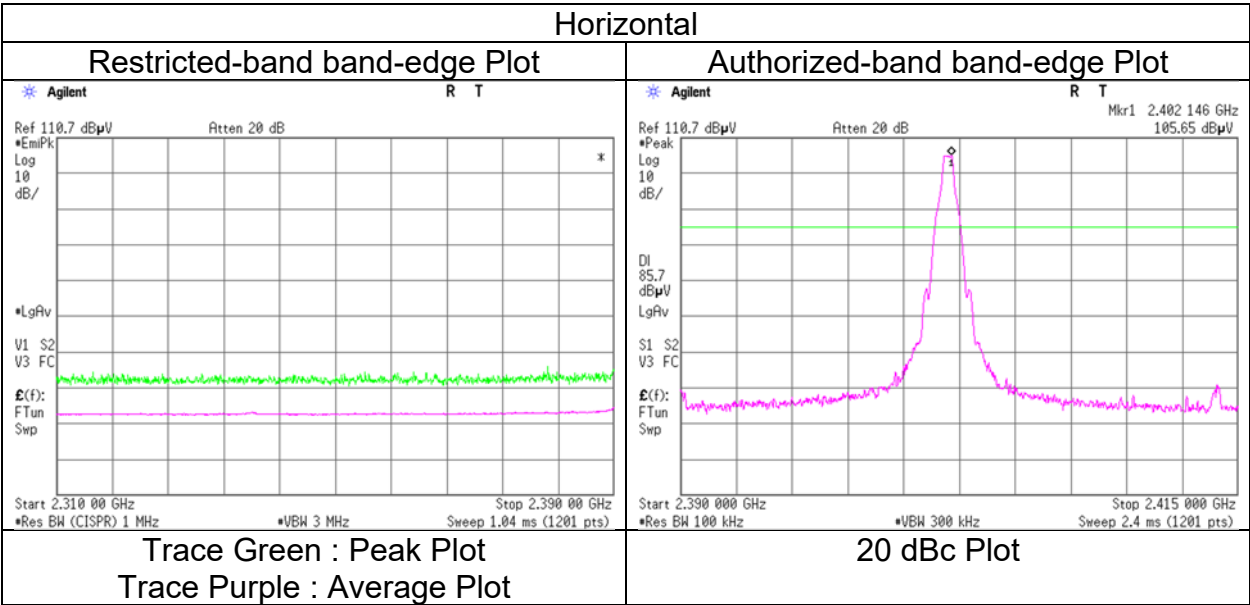
**20dBc Data Sheet**

| Polarity    | Frequency | Reading (PK) | Ant. Factor | Loss | Gain | Result   | Limit    | Margin | Remark  |
|-------------|-----------|--------------|-------------|------|------|----------|----------|--------|---------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]      | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   |         |
| Hori.       | 2402.0    | 105.7        | 27.6        | 3.0  | 31.9 | 104.3    | -        | -      | Carrier |
| Hori.       | 2400.0    | 46.9         | 27.6        | 3.0  | 31.9 | 45.5     | 84.3     | 38.8   |         |
| Hori.       | 7206.0    | 40.0         | 35.9        | 6.4  | 32.5 | 49.8     | 84.3     | 34.5   |         |
| Hori.       | 9608.0    | 37.7         | 38.9        | 6.9  | 33.2 | 50.2     | 84.3     | 34.0   |         |
| Hori.       | 16814.0   | 37.6         | 39.2        | 7.4  | 38.4 | 45.8     | 84.3     | 38.5   |         |
| Vert.       | 2402.0    | 106.8        | 27.6        | 3.0  | 31.9 | 105.4    | -        | -      | Carrier |
| Vert.       | 2400.0    | 47.6         | 27.6        | 3.0  | 31.9 | 46.2     | 85.4     | 39.2   |         |
| Vert.       | 7206.0    | 45.0         | 35.9        | 6.4  | 32.5 | 54.8     | 85.4     | 30.6   |         |
| Vert.       | 9608.0    | 38.5         | 38.9        | 6.9  | 33.2 | 51.0     | 85.4     | 34.4   |         |
| Vert.       | 16814.0   | 38.9         | 39.2        | 7.4  | 38.4 | 47.1     | 85.4     | 38.3   |         |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)  
Distance factor: 18 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

**Radiated Spurious Emission**  
**(Reference Plot for band-edge)**

|              |                                |             |          |             |                   |
|--------------|--------------------------------|-------------|----------|-------------|-------------------|
| Mode         | Tx, Hopping Off, DH5, 2402 MHz |             |          |             |                   |
| Date         | Test site                      | Temperature | Humidity | Engineer    | Measurement Range |
| May 30, 2025 | SAC4                           | 21 deg. C   | 61 % RH  | Yuta Moriya | Band-edge         |



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.  
Final result of restricted band edge and authorized band edge were shown in tabular data.

## Radiated Spurious Emission

|      |                                |
|------|--------------------------------|
| Mode | Tx, Hopping Off, DH5, 2441 MHz |
|------|--------------------------------|

| Date        | Test site | Temperature | Humidity | Engineer       | Measurement Range |
|-------------|-----------|-------------|----------|----------------|-------------------|
| May 7, 2025 | SAC2      | 22 deg. C   | 58 % RH  | Takeshi Hiyaji | 1 GHz to 10 GHz   |
| May 9, 2025 | SAC2      | 23 deg. C   | 60 % RH  | Yuta Moriya    | Above 10 GHz      |

| Polarity    | Frequency | Reading (QP / PK) | Reading (AV) | Ant. Factor | Loss | Gain | Duty Factor | Result (QP / PK) | Result (AV) | Limit (QP / PK) | Limit (AV) | Margin (QP / PK) | Margin (AV) | Remark      |
|-------------|-----------|-------------------|--------------|-------------|------|------|-------------|------------------|-------------|-----------------|------------|------------------|-------------|-------------|
| [Hori/Vert] | [MHz]     | [dBuV]            | [dBuV]       | [dB/m]      | [dB] | [dB] | [dB]        | [dBuV/m]         | [dBuV/m]    | [dBuV/m]        | [dBuV/m]   | [dB]             | [dB]        |             |
| Hori.       | 4882.0    | 47.2              | 38.0         | 31.5        | 5.2  | 32.6 | 1.2         | 51.2             | 43.2        | 73.9            | 53.9       | 22.7             | 10.7        | *1)         |
| Hori.       | 7323.0    | 49.3              | -            | 36.0        | 6.4  | 32.5 | -           | 59.2             | -           | 73.9            | -          | 14.7             | -           | -           |
| Hori.       | 12205.0   | 48.2              | 41.7         | 38.2        | 6.2  | 36.6 | 1.2         | 55.9             | 50.6        | 73.9            | 53.9       | 18.0             | 3.3         | *1)         |
| Hori.       | 14646.0   | 43.4              | 36.6         | 39.3        | 6.8  | 37.4 | -           | 52.2             | 45.4        | 73.9            | 53.9       | 21.7             | 8.5         | Floor noise |
| Vert.       | 4882.0    | 47.7              | 38.1         | 31.5        | 5.2  | 32.6 | 1.2         | 51.7             | 43.3        | 73.9            | 53.9       | 22.2             | 10.6        | *1)         |
| Vert.       | 7323.0    | 53.1              | -            | 36.0        | 6.4  | 32.5 | -           | 63.0             | -           | 73.9            | -          | 10.9             | -           | -           |
| Vert.       | 12205.0   | 48.4              | 41.5         | 38.2        | 6.2  | 36.6 | 1.2         | 56.2             | 50.4        | 73.9            | 53.9       | 17.7             | 3.5         | *1)         |
| Vert.       | 14646.0   | 43.4              | 36.6         | 39.3        | 6.8  | 37.4 | -           | 52.2             | 45.4        | 73.9            | 53.9       | 21.7             | 8.5         | Floor noise |

Result (QP / PK) = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

Result (AV)= Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

\*QP detector was used up to 1GHz.

\*1) Noise synchronized with duty of carrier frequency

### 20dBc Data Sheet

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Result   | Limit    | Margin | Remark  |
|-------------|-----------|--------------|------------|------|------|----------|----------|--------|---------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   |         |
| Hori.       | 2441.0    | 106.1        | 27.4       | 3.0  | 33.2 | 103.4    | -        | -      | Carrier |
| Hori.       | 9764.0    | 44.4         | 39.3       | 6.9  | 33.2 | 57.4     | 83.4     | 26.0   |         |
| Hori.       | 17087.0   | 39.0         | 39.4       | 7.5  | 38.4 | 47.4     | 83.4     | 36.0   |         |
| Vert.       | 2441.0    | 106.5        | 27.4       | 3.0  | 33.2 | 103.7    | -        | -      | Carrier |
| Vert.       | 9764.0    | 42.5         | 39.3       | 6.9  | 33.2 | 55.5     | 83.7     | 28.3   |         |
| Vert.       | 17087.0   | 39.8         | 39.4       | 7.5  | 38.4 | 48.2     | 83.7     | 35.5   |         |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

### Dwell time factor relaxation

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Duty Factor | Dwell Factor | Result   | Limit    | Margin | Remark |
|-------------|-----------|--------------|------------|------|------|-------------|--------------|----------|----------|--------|--------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dB]        | [dB]         | [dBuV/m] | [dBuV/m] | [dB]   |        |
| Hori.       | 7323.000  | 49.3         | 36.0       | 6.4  | 32.5 | -           | -18.7        | 40.5     | 53.9     | 13.4   | *      |
| Vert.       | 7323.000  | 53.1         | 36.0       | 6.4  | 32.5 | -           | -18.7        | 44.3     | 53.9     | 9.6    | *      |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor + Dwell time factor (Refer to dwell time data sheet)

\*Above noise was synchronized with carrier frequency.

Distance factor: 18 GHz - 26.5 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

## Radiated Spurious Emission

|      |                                |
|------|--------------------------------|
| Mode | Tx, Hopping Off, DH5, 2480 MHz |
|------|--------------------------------|

| Date         | Test site | Temperature | Humidity | Engineer       | Measurement Range |
|--------------|-----------|-------------|----------|----------------|-------------------|
| May 7, 2025  | SAC2      | 22 deg. C   | 58 % RH  | Takeshi Hiyaji | 1 GHz to 10 GHz   |
| May 9, 2025  | SAC2      | 23 deg. C   | 60 % RH  | Yuta Moriya    | Above 10 GHz      |
| May 30, 2025 | SAC4      | 21 deg. C   | 61 % RH  | Yuta Moriya    | Band-edge         |

| Polarity    | Frequency | Reading (QP / PK) | Reading (AV) | Ant. Factor | Loss | Gain | Duty Factor | Result (QP / PK) | Result (AV) | Limit (QP / PK) | Limit (AV) | Margin (QP / PK) | Margin (AV) | Remark      |
|-------------|-----------|-------------------|--------------|-------------|------|------|-------------|------------------|-------------|-----------------|------------|------------------|-------------|-------------|
| [Hori/Vert] | [MHz]     | [dBuV]            | [dBuV]       | [dB/m]      | [dB] | [dB] | [dB]        | [dBuV/m]         | [dBuV/m]    | [dBuV/m]        | [dBuV/m]   | [dB]             | [dB]        |             |
| Hori.       | 2483.5    | 46.1              | 37.0         | 27.4        | 3.0  | 31.9 | 1.2         | 44.6             | 36.6        | 73.9            | 53.9       | 29.3             | 17.3        | *1)         |
| Hori.       | 4960.0    | 47.1              | 35.1         | 31.6        | 5.2  | 32.6 | 1.2         | 51.3             | 40.4        | 73.9            | 53.9       | 22.6             | 13.5        | *2)         |
| Hori.       | 7440.0    | 48.0              | -            | 36.2        | 6.4  | 32.5 | -           | 58.0             | -           | 73.9            | -          | 15.9             | -           | -           |
| Hori.       | 12400.0   | 47.1              | 41.3         | 37.9        | 6.2  | 36.7 | 1.2         | 54.5             | 49.9        | 73.9            | 53.9       | 19.4             | 4.0         | *2)         |
| Hori.       | 14880.0   | 43.3              | 36.0         | 39.1        | 6.9  | 37.5 | -           | 51.8             | 44.6        | 73.9            | 53.9       | 22.1             | 9.3         | Floor noise |
| Hori.       | 17360.0   | 44.1              | 37.1         | 39.9        | 7.6  | 38.4 | -           | 53.2             | 46.2        | 73.9            | 53.9       | 20.7             | 7.7         | Floor noise |
| Vert.       | 2483.5    | 47.7              | 37.9         | 27.4        | 3.0  | 31.9 | 1.2         | 46.2             | 37.5        | 73.9            | 53.9       | 27.7             | 16.4        | *1)         |
| Vert.       | 4960.0    | 46.9              | 37.5         | 31.6        | 5.2  | 32.6 | 1.2         | 51.1             | 42.8        | 73.9            | 53.9       | 22.9             | 11.1        | *2)         |
| Vert.       | 7440.0    | 50.8              | -            | 36.2        | 6.4  | 32.5 | -           | 60.8             | -           | 73.9            | -          | 13.1             | -           | -           |
| Vert.       | 12400.0   | 47.1              | 40.8         | 37.9        | 6.2  | 36.7 | 1.2         | 54.6             | 49.4        | 73.9            | 53.9       | 19.3             | 4.5         | *2)         |
| Vert.       | 14880.0   | 43.3              | 36.0         | 39.1        | 6.9  | 37.5 | -           | 51.8             | 44.6        | 73.9            | 53.9       | 22.1             | 9.3         | Floor noise |
| Vert.       | 17360.0   | 44.1              | 37.1         | 39.9        | 7.6  | 38.4 | -           | 53.2             | 46.2        | 73.9            | 53.9       | 20.7             | 7.7         | Floor noise |

Result (QP / PK) = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

Result (AV)= Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

\*QP detector was used up to 1GHz

\*1) Not Out of Band emission(Leakage Power)

\*2) Noise synchronized with duty of carrier frequency

### 20dBc Data Sheet

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Result   | Limit    | Margin | Remark  |
|-------------|-----------|--------------|------------|------|------|----------|----------|--------|---------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   |         |
| Hori.       | 2480.0    | 102.3        | 27.4       | 3.0  | 31.9 | 100.8    | -        | -      | Carrier |
| Hori.       | 9920.0    | 41.4         | 39.2       | 7.0  | 33.2 | 54.4     | 80.8     | 26.4   |         |
| Vert.       | 2480.0    | 103.7        | 27.4       | 3.0  | 31.9 | 102.2    | -        | -      | Carrier |
| Vert.       | 9920.0    | 42.7         | 39.2       | 7.0  | 33.2 | 55.7     | 82.2     | 26.5   |         |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

### Dwell time factor relaxation

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Duty Factor | Dwell Factor | Result   | Limit    | Margin | Remark |
|-------------|-----------|--------------|------------|------|------|-------------|--------------|----------|----------|--------|--------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dB]        | [dB]         | [dBuV/m] | [dBuV/m] | [dB]   |        |
| Hori.       | 7440.000  | 48.0         | 36.2       | 6.4  | 32.5 | -           | -18.7        | 39.3     | 53.9     | 14.6   | *      |
| Vert.       | 7440.000  | 50.8         | 36.2       | 6.4  | 32.5 | -           | -18.7        | 42.1     | 53.9     | 11.8   | *      |

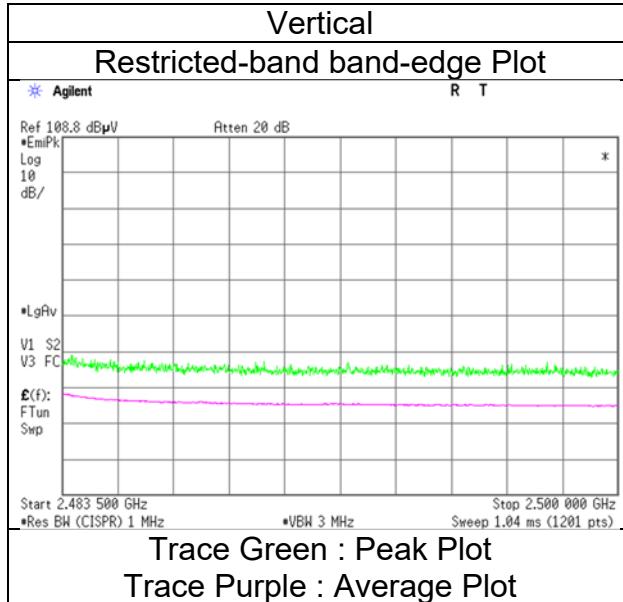
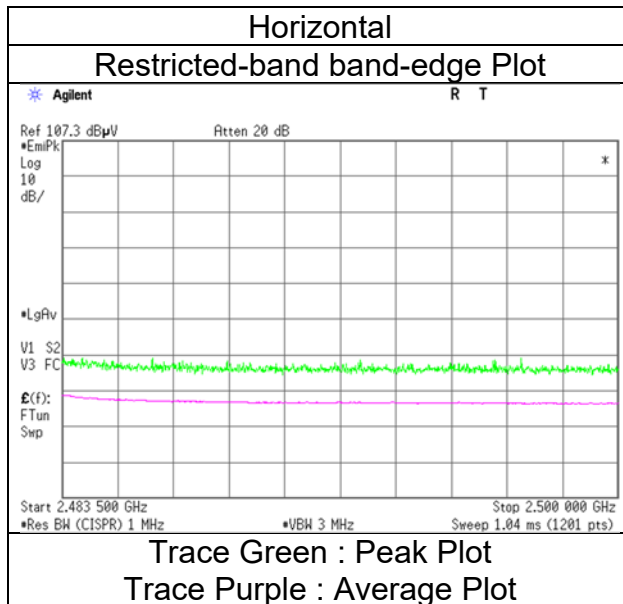
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor + Dwell time factor (Refer to dwell time data sheet)

\*Above noise was synchronized with carrier frequency.

Distance factor: 18 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

## Radiated Spurious Emission (Reference Plot for band-edge)

|              |                                |             |          |             |                   |
|--------------|--------------------------------|-------------|----------|-------------|-------------------|
| Mode         | Tx, Hopping Off, DH5, 2480 MHz |             |          |             |                   |
| Date         | Test site                      | Temperature | Humidity | Engineer    | Measurement Range |
| May 30, 2025 | SAC4                           | 21 deg. C   | 61 % RH  | Yuta Moriya | Band-edge         |



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.

Final result of restricted band edge was shown in tabular data.

## Radiated Spurious Emission

|      |                                 |
|------|---------------------------------|
| Mode | Tx, Hopping Off, 3DH5, 2402 MHz |
|------|---------------------------------|

| Date         | Test site | Temperature | Humidity | Engineer         | Measurement Range |
|--------------|-----------|-------------|----------|------------------|-------------------|
| May 7, 2025  | SAC2      | 22 deg. C   | 58 % RH  | Takeshi Hiyaji   | 1 GHz to 10 GHz   |
| May 9, 2025  | SAC2      | 23 deg. C   | 60 % RH  | Yuta Moriya      | Above 10 GHz      |
| May 14, 2025 | SAC2      | 22 deg. C   | 51 % RH  | Takafumi Noguchi | Below 1 GHz       |
| May 30, 2025 | SAC4      | 21 deg. C   | 61 % RH  | Yuta Moriya      | Band-edge         |

| Polarity    | Frequency | Reading (QP / PK) | Reading (AV) | Ant. Factor | Loss | Gain | Duty Factor | Result (QP / PK) | Result (AV) | Limit (QP / PK) | Limit (AV) | Margin (QP / PK) | Margin (AV) | Remark |
|-------------|-----------|-------------------|--------------|-------------|------|------|-------------|------------------|-------------|-----------------|------------|------------------|-------------|--------|
| [Hori/Vert] | [MHz]     | [dBuV]            | [dBuV]       | [dB/m]      | [dB] | [dB] | [dB]        | [dBuV/m]         | [dBuV/m]    | [dBuV/m]        | [dBuV/m]   | [dB]             | [dB]        |        |
| Hori.       | 55.8      | 31.7              | -            | 9.1         | 7.1  | 28.5 | -           | 19.4             | -           | 40.0            | -          | 20.6             | -           |        |
| Hori.       | 82.4      | 22.3              | -            | 7.3         | 7.4  | 28.5 | -           | 8.6              | -           | 40.0            | -          | 31.5             | -           |        |
| Hori.       | 479.9     | 31.3              | -            | 17.3        | 9.9  | 29.0 | -           | 29.5             | -           | 46.0            | -          | 16.5             | -           |        |
| Hori.       | 672.0     | 30.7              | -            | 19.6        | 10.6 | 29.3 | -           | 31.6             | -           | 46.0            | -          | 14.5             | -           |        |
| Hori.       | 864.0     | 30.8              | -            | 21.8        | 11.3 | 29.0 | -           | 34.9             | -           | 46.0            | -          | 11.1             | -           |        |
| Hori.       | 960.0     | 29.2              | -            | 22.1        | 11.6 | 28.7 | -           | 34.2             | -           | 46.0            | -          | 11.8             | -           |        |
| Hori.       | 2390.0    | 46.6              | 34.9         | 27.6        | 3.0  | 32.0 | 1.2         | 45.2             | 34.7        | 73.9            | 53.9       | 28.7             | 19.2        | *1)    |
| Hori.       | 4804.0    | 46.7              | 36.1         | 31.4        | 5.2  | 32.6 | 1.2         | 50.6             | 41.2        | 73.9            | 53.9       | 23.3             | 12.7        | *2)    |
| Vert.       | 55.8      | 44.1              | -            | 9.1         | 7.1  | 28.5 | -           | 31.8             | -           | 40.0            | -          | 8.2              | -           |        |
| Vert.       | 82.4      | 33.7              | -            | 7.3         | 7.4  | 28.5 | -           | 20.0             | -           | 40.0            | -          | 20.1             | -           |        |
| Vert.       | 479.9     | 33.5              | -            | 17.3        | 9.9  | 29.0 | -           | 31.7             | -           | 46.0            | -          | 14.3             | -           |        |
| Vert.       | 672.0     | 29.1              | -            | 19.6        | 10.6 | 29.3 | -           | 30.0             | -           | 46.0            | -          | 16.1             | -           |        |
| Vert.       | 864.0     | 28.0              | -            | 21.8        | 11.3 | 29.0 | -           | 32.1             | -           | 46.0            | -          | 13.9             | -           |        |
| Vert.       | 960.0     | 30.4              | -            | 22.1        | 11.6 | 28.7 | -           | 35.4             | -           | 46.0            | -          | 10.6             | -           |        |
| Vert.       | 2390.0    | 46.4              | 34.7         | 27.6        | 3.0  | 32.0 | 1.2         | 45.1             | 34.5        | 73.9            | 53.9       | 28.9             | 19.4        | *1)    |
| Vert.       | 4804.0    | 47.2              | 34.9         | 31.4        | 5.2  | 32.6 | 1.2         | 51.1             | 39.9        | 73.9            | 53.9       | 22.8             | 14.0        | *2)    |

Result (QP / PK) = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

Result (AV)= Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

\*QP detector was used up to 1GHz.

\*1) Not Out of Band emission(Leakage Power)

\*2) Noise synchronized with duty of carrier frequency

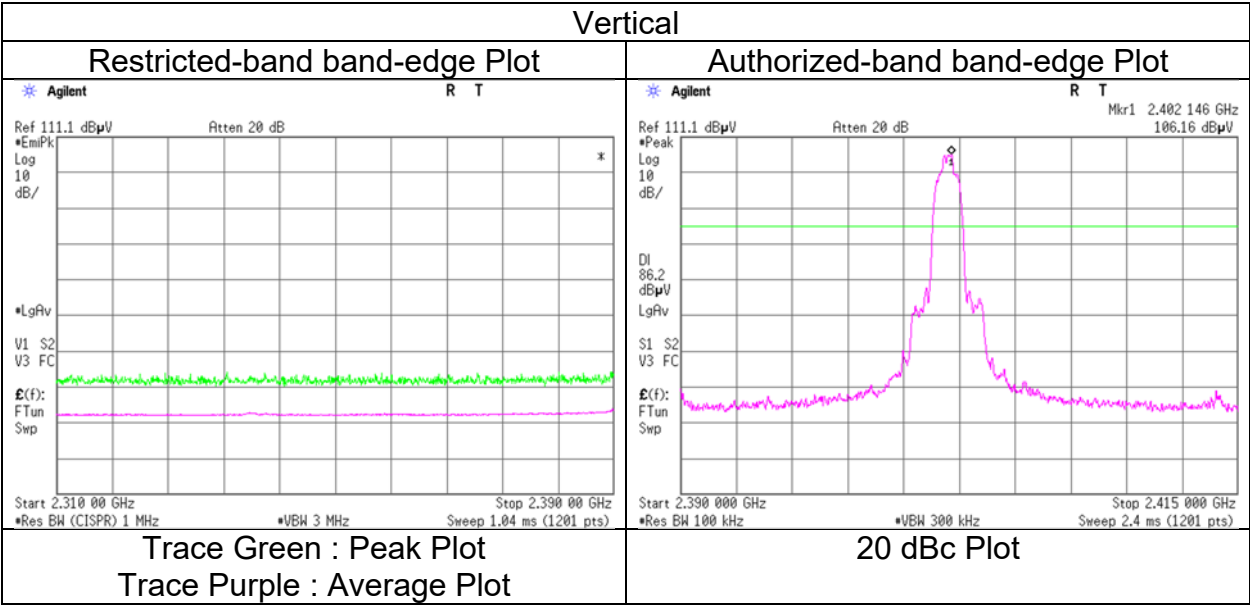
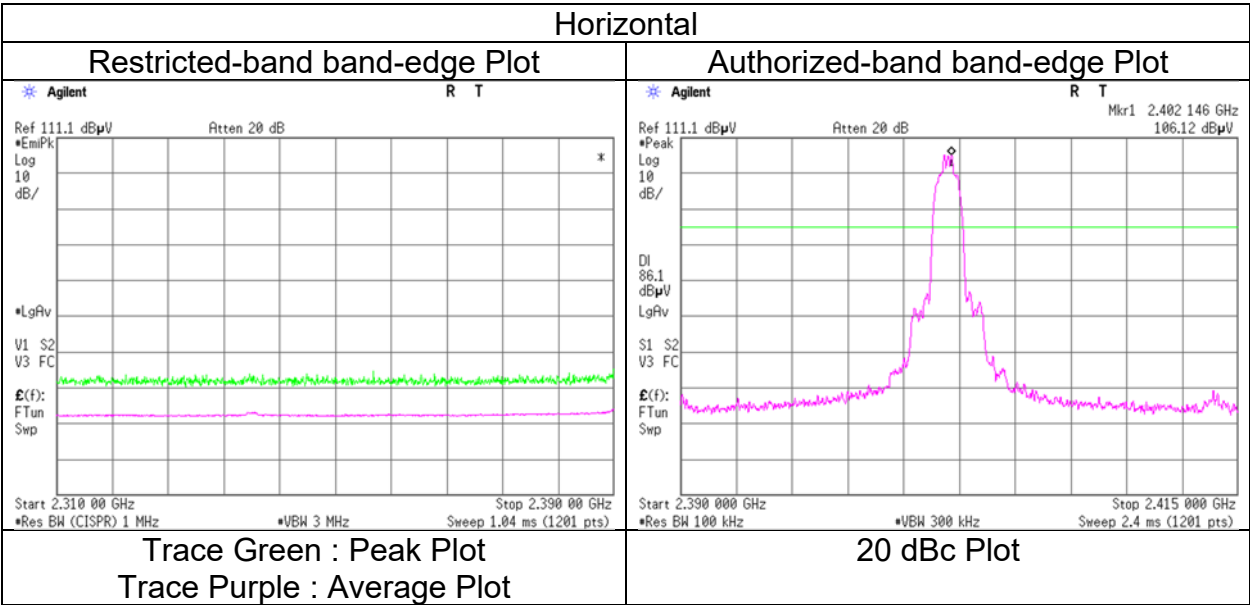
### 20dBc Data Sheet

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Result   | Limit    | Margin | Remark  |
|-------------|-----------|--------------|------------|------|------|----------|----------|--------|---------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   |         |
| Hori.       | 2402.0    | 106.1        | 27.6       | 3.0  | 31.9 | 104.7    | -        | -      | Carrier |
| Hori.       | 2400.0    | 51.1         | 27.6       | 3.0  | 31.9 | 49.8     | 84.7     | 35.0   |         |
| Hori.       | 7206.0    | 39.9         | 35.9       | 6.4  | 32.5 | 49.7     | 84.7     | 35.0   |         |
| Hori.       | 9608.0    | 38.3         | 38.9       | 6.9  | 33.2 | 50.8     | 84.7     | 33.9   |         |
| Vert.       | 2402.0    | 106.2        | 27.6       | 3.0  | 31.9 | 104.8    | -        | -      | Carrier |
| Vert.       | 2400.0    | 50.7         | 27.6       | 3.0  | 31.9 | 49.3     | 84.8     | 35.5   |         |
| Vert.       | 7206.0    | 44.2         | 35.9       | 6.4  | 32.5 | 53.9     | 84.8     | 30.8   |         |
| Vert.       | 9608.0    | 38.6         | 38.9       | 6.9  | 33.2 | 51.1     | 84.8     | 33.6   |         |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

**Radiated Spurious Emission**  
**(Reference Plot for band-edge)**

|              |                                 |             |          |             |                   |
|--------------|---------------------------------|-------------|----------|-------------|-------------------|
| Mode         | Tx, Hopping Off, 3DH5, 2402 MHz |             |          |             |                   |
| Date         | Test site                       | Temperature | Humidity | Engineer    | Measurement Range |
| May 30, 2025 | SAC4                            | 21 deg. C   | 61 % RH  | Yuta Moriya | Band-edge         |



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.  
Final result of restricted band edge and authorized band edge were shown in tabular data.

## Radiated Spurious Emission

|      |                                 |
|------|---------------------------------|
| Mode | Tx, Hopping Off, 3DH5, 2441 MHz |
|------|---------------------------------|

| Date        | Test site | Temperature | Humidity | Engineer       | Measurement Range |
|-------------|-----------|-------------|----------|----------------|-------------------|
| May 7, 2025 | SAC2      | 22 deg. C   | 58 % RH  | Takeshi Hiyaji | 1 GHz to 10 GHz   |
| May 9, 2025 | SAC2      | 23 deg. C   | 60 % RH  | Yuta Moriya    | Above 10 GHz      |

| Polarity    | Frequency | Reading (QP / PK) | Reading (AV) | Ant. Factor | Loss | Gain | Duty Factor | Result (QP / PK) | Result (AV) | Limit (QP / PK) | Limit (AV) | Margin (QP / PK) | Margin (AV) | Remark |
|-------------|-----------|-------------------|--------------|-------------|------|------|-------------|------------------|-------------|-----------------|------------|------------------|-------------|--------|
| [Hori/Vert] | [MHz]     | [dBuV]            | [dBuV]       | [dB/m]      | [dB] | [dB] | [dB]        | [dBuV/m]         | [dBuV/m]    | [dBuV/m]        | [dBuV/m]   | [dB]             | [dB]        |        |
| Hori.       | 4882.0    | 46.1              | 36.6         | 31.5        | 5.2  | 32.6 | 1.2         | 50.2             | 41.7        | 73.9            | 53.9       | 23.7             | 12.2        | *1)    |
| Hori.       | 7323.0    | 48.8              | -            | 36.0        | 6.4  | 32.5 | -           | 58.7             | -           | 73.9            | -          | 15.2             | -           | -      |
| Vert.       | 4882.0    | 46.2              | 37.0         | 31.5        | 5.2  | 32.6 | 1.2         | 50.2             | 42.2        | 73.9            | 53.9       | 23.7             | 11.7        | *1)    |
| Vert.       | 7323.0    | 52.6              | -            | 36.0        | 6.4  | 32.5 | -           | 62.5             | -           | 73.9            | -          | 11.4             | -           | -      |

Result (QP / PK) = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

Result (AV)= Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

\*QP detector was used up to 1 GHz

\*1) Noise synchronized with duty of carrier frequency

### 20dBc Data Sheet

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Result   | Limit    | Margin | Remark  |
|-------------|-----------|--------------|------------|------|------|----------|----------|--------|---------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   |         |
| Hori.       | 2441.0    | 106.3        | 27.4       | 3.0  | 33.2 | 103.6    | -        | -      | Carrier |
| Hori.       | 9764.0    | 43.3         | 39.3       | 6.9  | 33.2 | 56.3     | 83.6     | 27.3   | -       |
| Vert.       | 2441.0    | 107.2        | 27.4       | 3.0  | 33.2 | 104.4    | -        | -      | Carrier |
| Vert.       | 9764.0    | 43.2         | 39.3       | 6.9  | 33.2 | 56.2     | 84.4     | 28.2   | -       |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

### Dwell time factor relaxation

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Duty Factor | Dwell Factor | Result   | Limit    | Margin | Remark |
|-------------|-----------|--------------|------------|------|------|-------------|--------------|----------|----------|--------|--------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dB]        | [dB]         | [dBuV/m] | [dBuV/m] | [dB]   |        |
| Hori.       | 7323.000  | 48.8         | 36.0       | 6.4  | 32.5 | -           | -18.7        | 40.0     | 53.9     | 13.9   | *      |
| Vert.       | 7323.000  | 52.6         | 36.0       | 6.4  | 32.5 | -           | -18.7        | 43.8     | 53.9     | 10.1   | *      |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor + Dwell time factor (Refer to dwell time data sheet)

\*Above noise was synchronized with carrier frequency.

Distance factor: 18 GHz - 26.5 GHz  $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.5\text{ dB}$

## Radiated Spurious Emission

|      |                                 |
|------|---------------------------------|
| Mode | Tx, Hopping Off, 3DH5, 2480 MHz |
|------|---------------------------------|

| Date         | Test site | Temperature | Humidity | Engineer       | Measurement Range |
|--------------|-----------|-------------|----------|----------------|-------------------|
| May 7, 2025  | SAC2      | 22 deg. C   | 58 % RH  | Takeshi Hiyaji | 1 GHz to 10 GHz   |
| May 9, 2025  | SAC2      | 23 deg. C   | 60 % RH  | Yuta Moriya    | Above 10 GHz      |
| May 30, 2025 | SAC4      | 21 deg. C   | 61 % RH  | Yuta Moriya    | Band-edge         |

| Polarity    | Frequency | Reading (QP / PK) | Reading (AV) | Ant. Factor | Loss | Gain | Duty Factor | Result (QP / PK) | Result (AV) | Limit (QP / PK) | Limit (AV) | Margin (QP / PK) | Margin (AV) | Remark |
|-------------|-----------|-------------------|--------------|-------------|------|------|-------------|------------------|-------------|-----------------|------------|------------------|-------------|--------|
| [Hori/Vert] | [MHz]     | [dBuV]            | [dBuV]       | [dB/m]      | [dB] | [dB] | [dB]        | [dBuV/m]         | [dBuV/m]    | [dBuV/m]        | [dBuV/m]   | [dB]             | [dB]        |        |
| Hori.       | 2483.5    | 55.6              | 44.5         | 27.4        | 3.0  | 31.9 | 1.2         | 54.1             | 44.1        | 73.9            | 53.9       | 19.9             | 9.8         | *1)    |
| Hori.       | 4960.0    | 46.2              | 34.6         | 31.6        | 5.2  | 32.6 | 1.2         | 50.4             | 39.9        | 73.9            | 53.9       | 23.5             | 14.0        | *2)    |
| Hori.       | 7440.0    | 47.6              | -            | 36.2        | 6.4  | 32.5 | -           | 57.5             | -           | 73.9            | -          | 16.4             | -           | -      |
| Vert.       | 2483.5    | 56.7              | 45.6         | 27.4        | 3.0  | 31.9 | 1.2         | 55.2             | 45.2        | 73.9            | 53.9       | 18.7             | 8.7         | *1)    |
| Vert.       | 4960.0    | 46.2              | 36.9         | 31.6        | 5.2  | 32.6 | 1.2         | 50.4             | 42.2        | 73.9            | 53.9       | 23.5             | 11.7        | *2)    |
| Vert.       | 7440.0    | 50.3              | -            | 36.2        | 6.4  | 32.5 | -           | 60.3             | -           | 73.9            | -          | 13.6             | -           | -      |

Result (QP / PK) = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

Result (AV)= Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier) + Duty factor

\*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

\*QP detector was used up to 1GHz.

\*1) Not Out of Band emission(Leakage Power)

\*2) Noise synchronized with duty of carrier frequency

### 20dBc Data Sheet

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Result   | Limit    | Margin | Remark  |
|-------------|-----------|--------------|------------|------|------|----------|----------|--------|---------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dBuV/m] | [dBuV/m] | [dB]   |         |
| Hori.       | 2480.0    | 102.0        | 27.4       | 3.0  | 31.9 | 100.5    | -        | -      | Carrier |
| Hori.       | 9920.0    | 40.5         | 39.2       | 7.0  | 33.2 | 53.5     | 80.5     | 27.0   | -       |
| Vert.       | 2480.0    | 103.6        | 27.4       | 3.0  | 31.9 | 102.1    | -        | -      | Carrier |
| Vert.       | 9920.0    | 43.3         | 39.2       | 7.0  | 33.2 | 56.3     | 82.1     | 25.9   | -       |

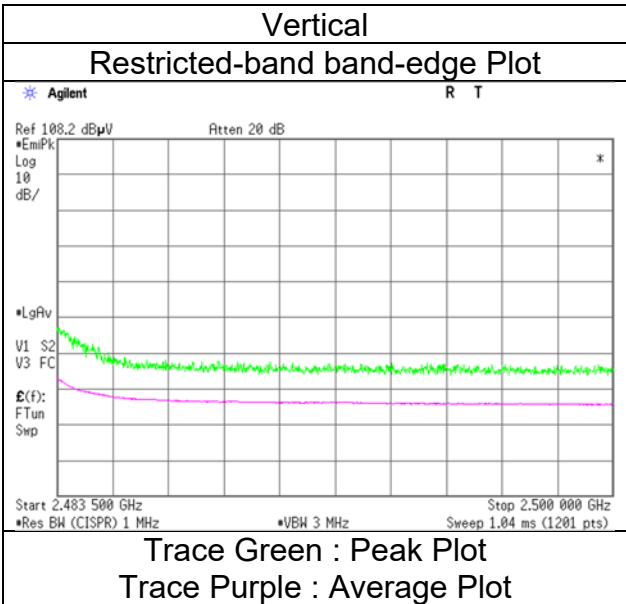
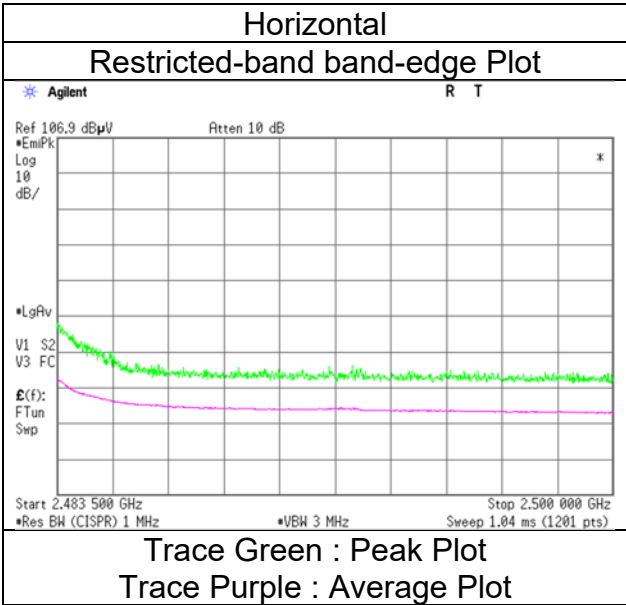
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

### Dwell time factor relaxation

| Polarity    | Frequency | Reading (PK) | Ant Factor | Loss | Gain | Duty Factor | Dwell Factor | Result   | Limit    | Margin | Remark |
|-------------|-----------|--------------|------------|------|------|-------------|--------------|----------|----------|--------|--------|
| [Hori/Vert] | [MHz]     | [dBuV]       | [dB/m]     | [dB] | [dB] | [dB]        | [dB]         | [dBuV/m] | [dBuV/m] | [dB]   |        |
| Hori.       | 7440.000  | 47.6         | 36.2       | 6.4  | 32.5 | -           | -18.7        | 38.9     | 53.9     | 15.0   | *      |
| Vert.       | 7440.000  | 50.3         | 36.2       | 6.4  | 32.5 | -           | -18.7        | 41.6     | 53.9     | 12.3   | *      |

**Radiated Spurious Emission**  
**(Reference Plot for band-edge)**

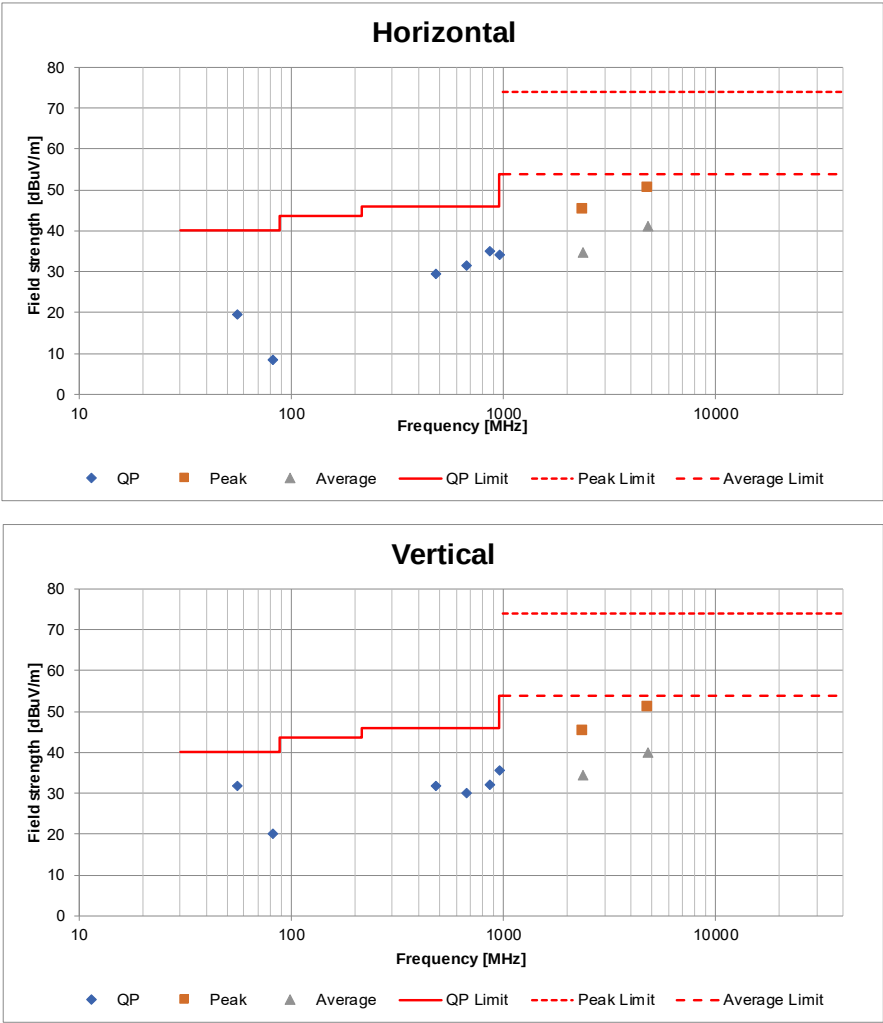
|              |                                 |             |          |             |                   |
|--------------|---------------------------------|-------------|----------|-------------|-------------------|
| Mode         | Tx, Hopping Off, 3DH5, 2480 MHz |             |          |             |                   |
| Date         | Test site                       | Temperature | Humidity | Engineer    | Measurement Range |
| May 30, 2025 | SAC4                            | 21 deg. C   | 61 % RH  | Yuta Moriya | Band-edge         |



\* The measurement was conducted for a sufficiently long enough time to detect any possible spurious emissions.  
Final result of restricted band edge was shown in tabular data.

**Radiated Spurious Emission**  
**(Plot data, Worst case mode for Maximum Peak Output Power)**

| Mode         | Tx, Hopping Off, 3DH5, 2402 MHz |             |          |                  |                   |
|--------------|---------------------------------|-------------|----------|------------------|-------------------|
| Date         | Test site                       | Temperature | Humidity | Engineer         | Measurement Range |
| May 7, 2025  | SAC2                            | 22 deg. C   | 58 % RH  | Takeshi Hiyaji   | 1 GHz to 10 GHz   |
| May 9, 2025  | SAC2                            | 23 deg. C   | 60 % RH  | Yuta Moriya      | Above 10 GHz      |
| May 14, 2025 | SAC2                            | 22 deg. C   | 51 % RH  | Takafumi Noguchi | Below 1 GHz       |
| May 30, 2025 | SAC4                            | 21 deg. C   | 61 % RH  | Yuta Moriya      | Band-edge         |

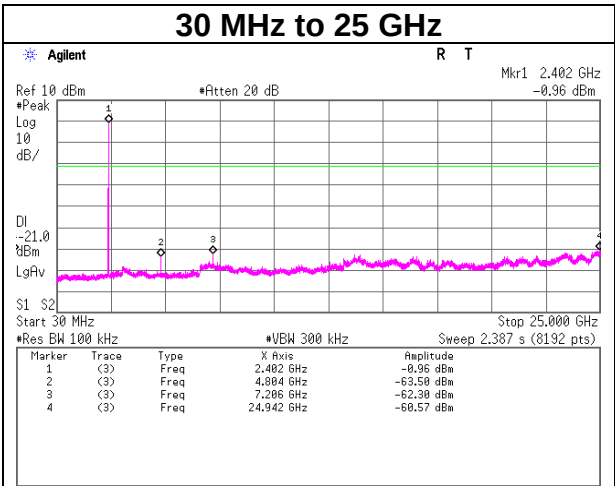
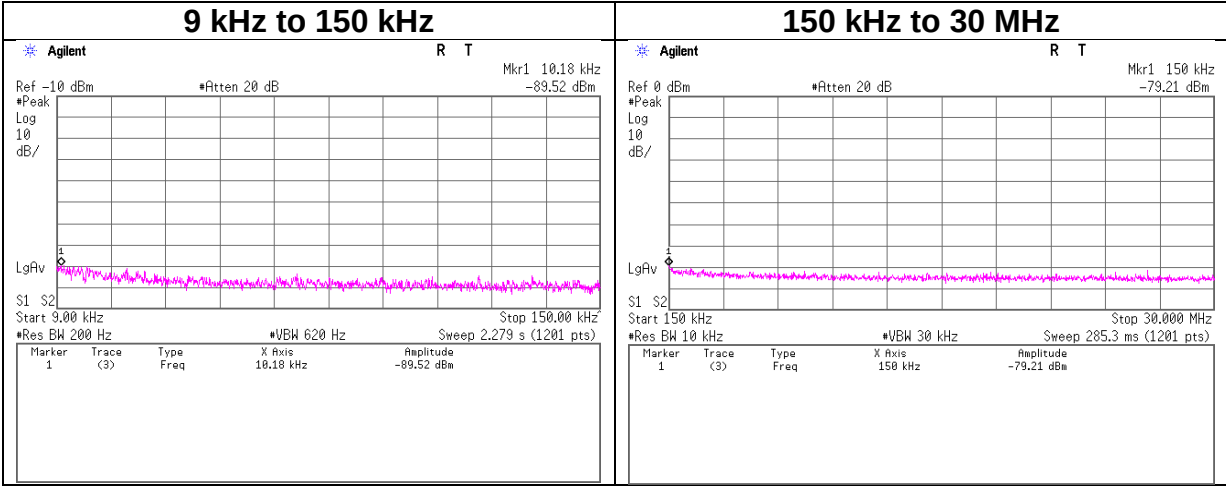


\*These plots data contain sufficient number to show the trend of characteristic features for EUT.

Conducted Spurious Emission

|             |                      |             |          |                  |
|-------------|----------------------|-------------|----------|------------------|
| Mode        | Tx, Hopping Off, DH5 |             |          |                  |
| Date        | Test site            | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6                  | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

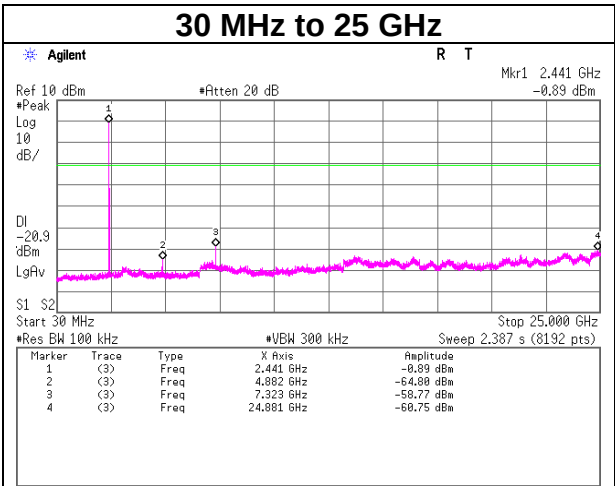
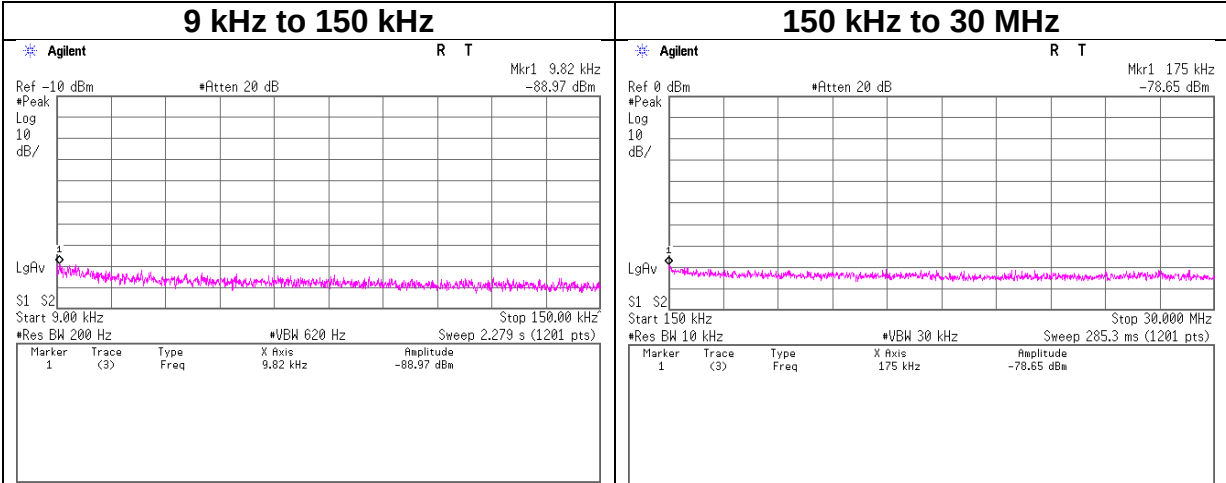
2402 MHz



Conducted Spurious Emission

|             |                      |             |          |                  |
|-------------|----------------------|-------------|----------|------------------|
| Mode        | Tx, Hopping Off, DH5 |             |          |                  |
| Date        | Test site            | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6                  | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

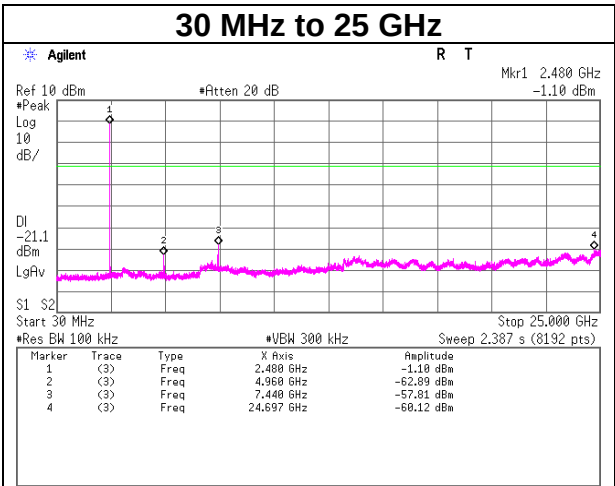
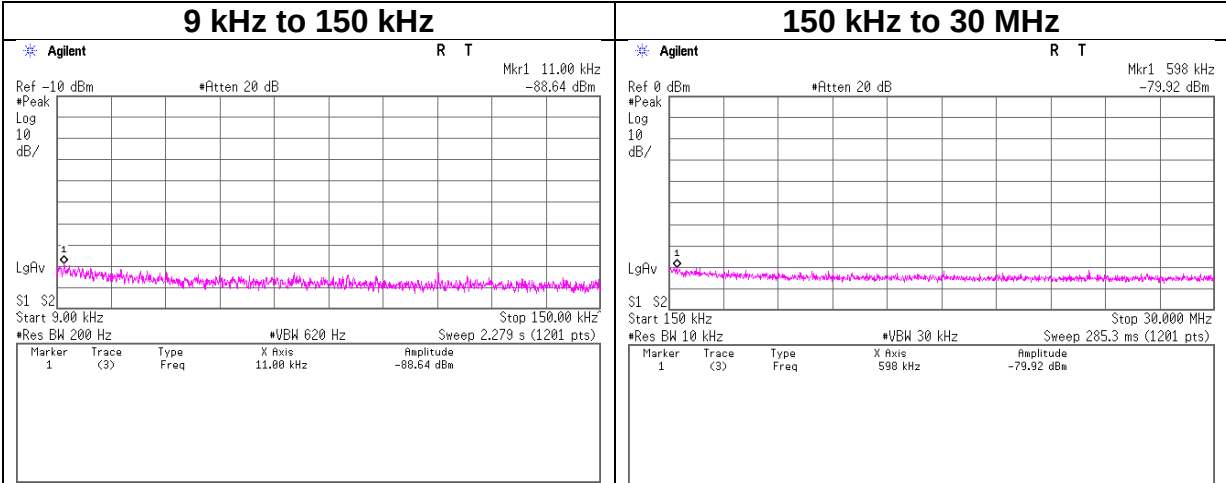
2441 MHz



Conducted Spurious Emission

|             |                      |             |          |                  |
|-------------|----------------------|-------------|----------|------------------|
| Mode        | Tx, Hopping Off, DH5 |             |          |                  |
| Date        | Test site            | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6                  | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

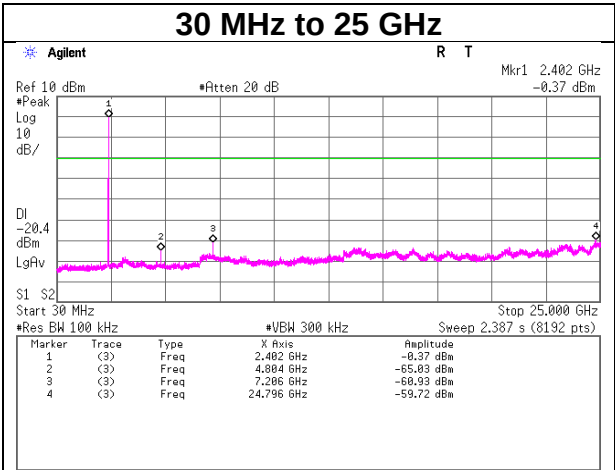
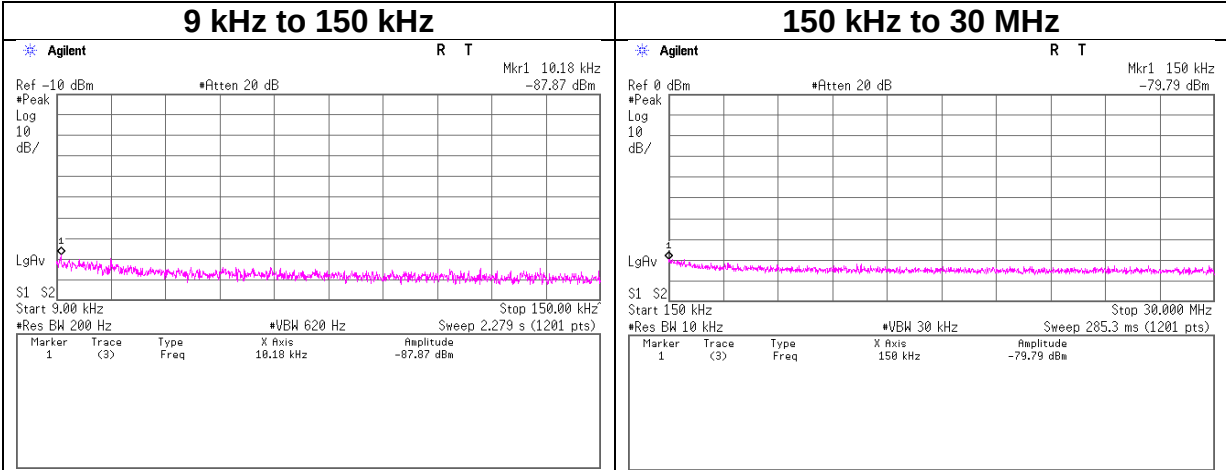
2480 MHz



Conducted Spurious Emission

|             |                       |             |          |                  |
|-------------|-----------------------|-------------|----------|------------------|
| Mode        | Tx, Hopping Off, 3DH5 |             |          |                  |
| Date        | Test site             | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6                   | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

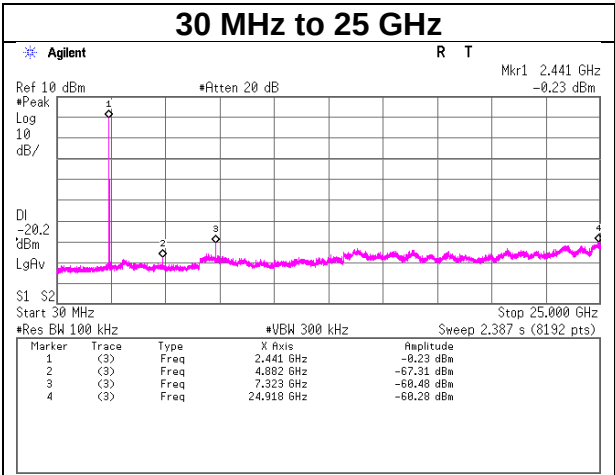
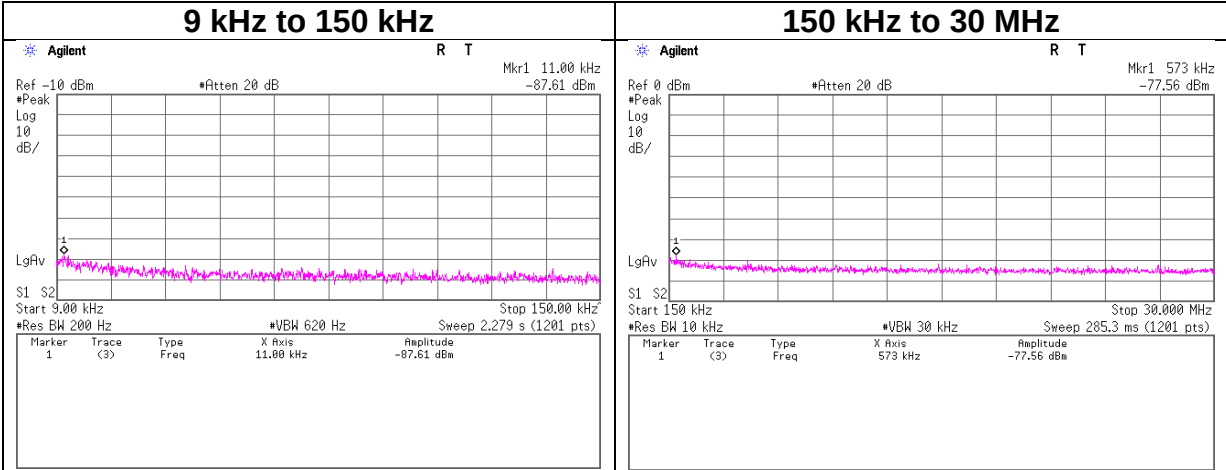
2402 MHz



Conducted Spurious Emission

|             |                       |             |          |                  |
|-------------|-----------------------|-------------|----------|------------------|
| Mode        | Tx, Hopping Off, 3DH5 |             |          |                  |
| Date        | Test site             | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6                   | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

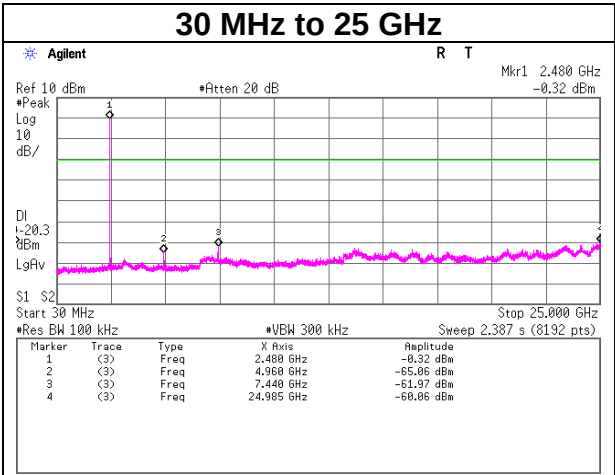
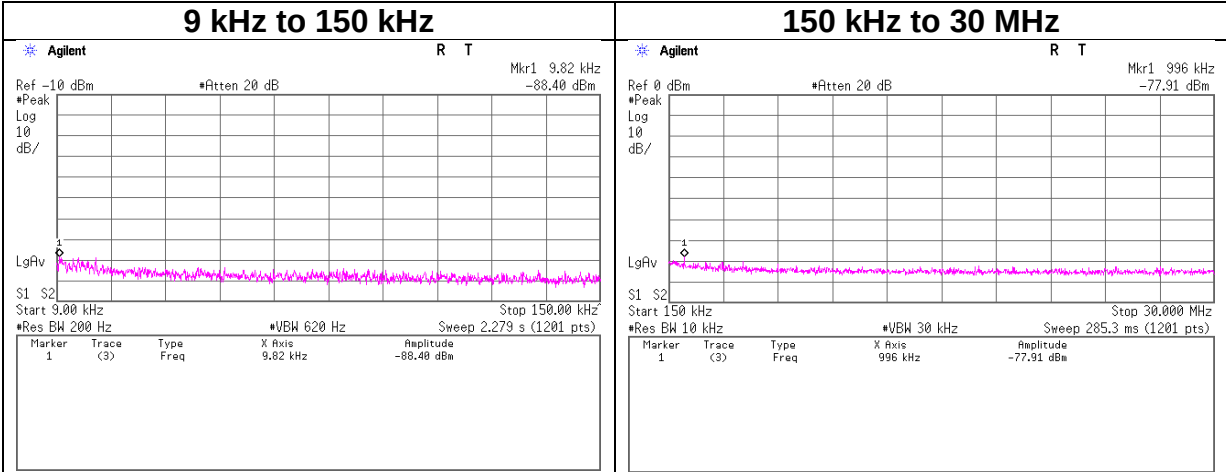
2441 MHz



Conducted Spurious Emission

|             |                       |             |          |                  |
|-------------|-----------------------|-------------|----------|------------------|
| Mode        | Tx, Hopping Off, 3DH5 |             |          |                  |
| Date        | Test site             | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6                   | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

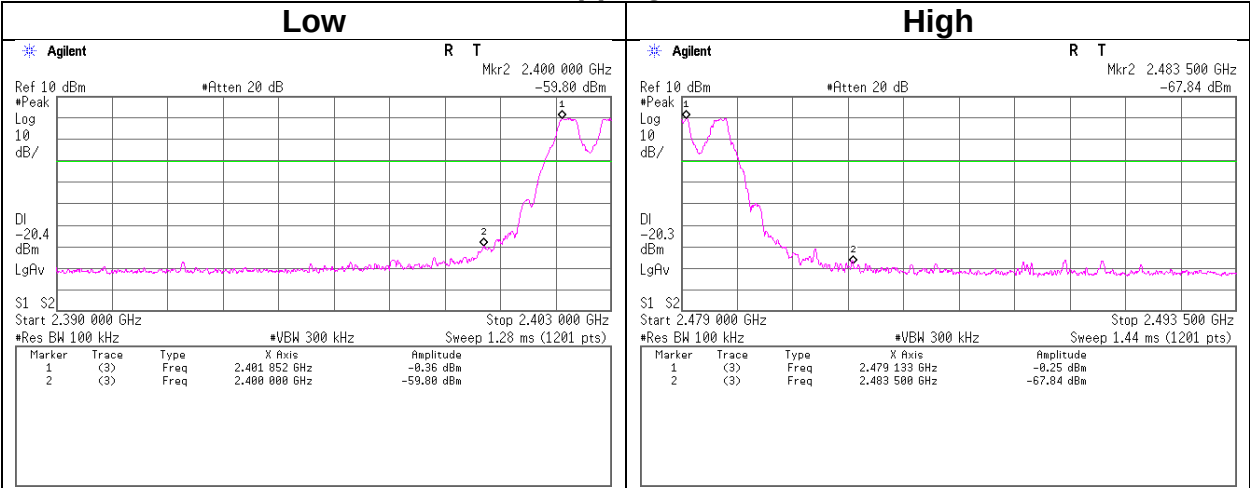
2480 MHz



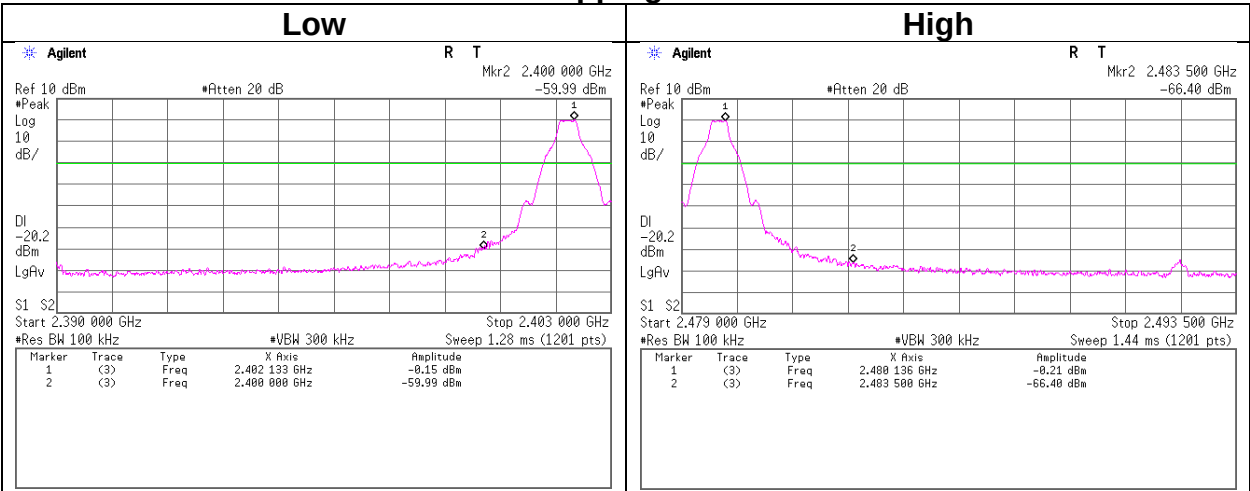
Conducted Emission Band Edge compliance

|             |           |             |          |                  |
|-------------|-----------|-------------|----------|------------------|
| Mode        | Tx DH5    |             |          |                  |
| Date        | Test site | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6       | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

Hopping On



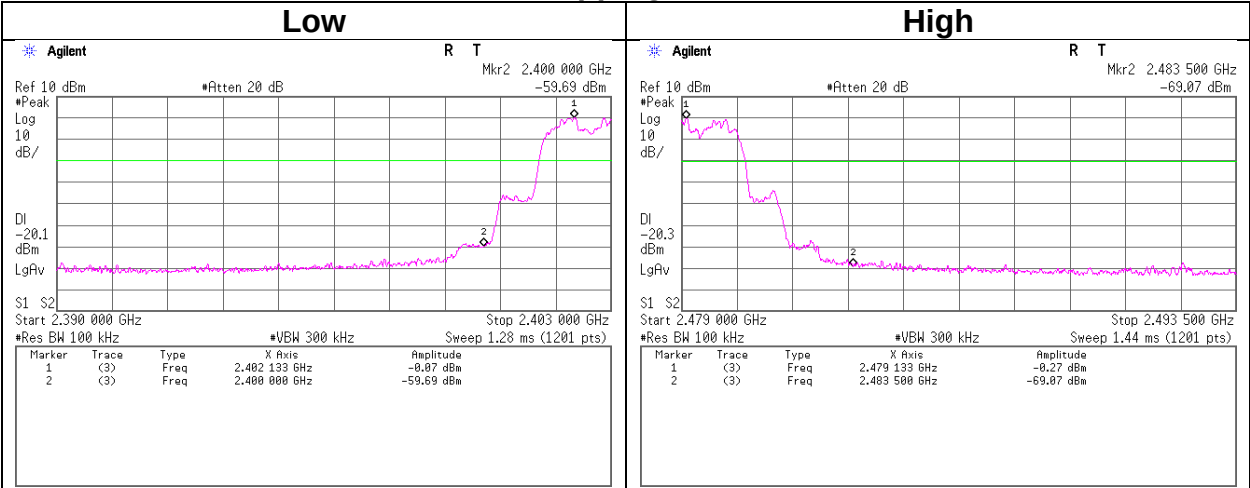
Hopping Off



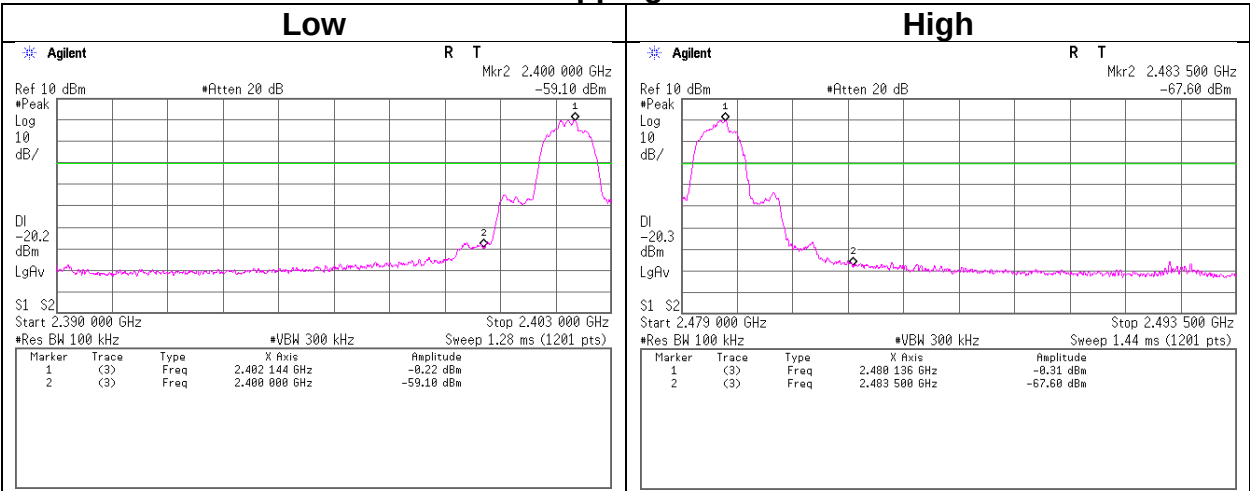
Conducted Emission Band Edge compliance

|             |           |             |          |                  |
|-------------|-----------|-------------|----------|------------------|
| Mode        | Tx 3DH5   |             |          |                  |
| Date        | Test site | Temperature | Humidity | Engineer         |
| May 8, 2025 | MR6       | 24 deg. C   | 40 % RH  | Takafumi Noguchi |

Hopping On



Hopping Off



## APPENDIX 2: Test Instruments

### Test Equipment (1/2)

| Test Item | LIMS ID | Description                         | Manufacturer                    | Model                                              | Serial      | Last Calibration Date | Cal Int |
|-----------|---------|-------------------------------------|---------------------------------|----------------------------------------------------|-------------|-----------------------|---------|
| AT        | 141156  | Attenuator(10dB)                    | Weinschel Corp                  | 2                                                  | BL1173      | 11/11/2024            | 12      |
| AT        | 141558  | Digital Tester(TRUE RMS MULTIMETER) | Fluke Corporation               | 115                                                | 17930030    | 05/13/2025            | 12      |
| AT        | 141805  | Power Meter                         | Anritsu Corporation             | ML2495A                                            | 6K00003338  | 08/22/2024            | 12      |
| AT        | 141810  | Power Meter                         | Anritsu Corporation             | ML2495A                                            | 824014      | 11/16/2024            | 12      |
| AT        | 141832  | Power sensor                        | Anritsu Corporation             | MA2411B                                            | 738174      | 11/16/2024            | 12      |
| AT        | 141840  | Power sensor                        | Anritsu Corporation             | MA2411B                                            | 011737      | 08/22/2024            | 12      |
| AT        | 141884  | Spectrum Analyzer                   | Keysight Technologies Inc       | E4448A                                             | MY44020357  | 05/15/2025            | 12      |
| AT        | 142820  | Terminator                          | Baumer                          | 50 Ω SMA                                           | -           | -                     | -       |
| AT        | 142822  | Terminator                          | Mini-Circuits                   | ANNE-50X+                                          | MUU3460140  | -                     | -       |
| AT        | 195231  | Microwave Cable                     | Huber+Suhner                    | SF102D/11PC24/11 PC24/1000mm                       | 537062/126E | 02/19/2025            | 12      |
| AT        | 244712  | Thermo-Hygrometer                   | HIOKI E. E. CORPORATION         | LR5001                                             | 231202106   | 01/19/2025            | 12      |
| AT        | 248893  | Attenuator                          | Weinschel Associates            | WA56-10-1112                                       | 2           | 05/21/2025            | 12      |
| AT        | 263326  | Microwave Cable                     | GigaLane Co., Ltd               | GL140sE                                            | 53043-01-02 | 05/20/2025            | 12      |
| CE        | 141216  | Coaxial cable                       | Fujikura/Suhner/TSJ             | 5D-2W/SFM14/ sucoform141- PE/421-010/ RFM-E321(SW) | -/00640     | 07/04/2025            | 12      |
| CE        | 141248  | Attenuator                          | JFW Industries, Inc.            | 50FP-013H2 N                                       | -           | 12/03/2024            | 12      |
| CE        | 141358  | LISN(AMN)                           | Schwarzbeck Mess-Elektronik OHG | NSLK8127                                           | 8127-730    | 07/03/2025            | 12      |
| CE        | 141532  | DIGITAL HiTESTER                    | HIOKI E. E. CORPORATION         | 3805                                               | 051201197   | 01/16/2025            | 12      |
| CE        | 141949  | Test Receiver                       | Rohde & Schwarz                 | ESCI                                               | 100767      | 06/30/2025            | 12      |
| CE        | 142008  | AC3_Semi Anechoic Chamber(NSA)      | TDK                             | Semi Anechoic Chamber 3m                           | DA-10005    | 07/09/2025            | 24      |
| CE        | 142183  | Measure                             | KOMELON                         | KMC-36                                             | -           | 10/21/2024            | 12      |
| CE        | 178648  | EMI measurement program             | TSJ (Techno Science Japan)      | TEPTO-DV                                           | -           | -                     | -       |
| CE        | 244709  | Thermo-Hygrometer                   | HIOKI E. E. CORPORATION         | LR5001                                             | 231202103   | 01/19/2025            | 12      |
| RE        | 141232  | High Pass Filter 3.5-18.0GHz        | UL-ISE                          | HPF SELECTOR                                       | 001         | 09/13/2024            | 12      |
| RE        | 141265  | Logperiodic Antenna (200-1000MHz)   | Schwarzbeck Mess-Elektronik OHG | VUSLP9111B                                         | 9111B-190   | 07/22/2025            | 12      |
| RE        | 141296  | High Pass Filter 3.5-18.0GHz        | UL-ISE                          | HPF SELECTOR                                       | 002         | 09/11/2024            | 12      |
| RE        | 141317  | Coaxial Cable                       | UL-ISE                          | -                                                  | -           | 09/11/2024            | 12      |
| RE        | 141331  | Attenuator(6dB)                     | TME                             | UFA-01                                             | -           | 02/19/2025            | 12      |
| RE        | 141404  | High Pass Filter 3.5-24GHz          | TOKIMEC                         | TF323DCA                                           | 601         | 05/12/2025            | 12      |
| RE        | 141427  | Biconical Antenna                   | Schwarzbeck Mess-Elektronik OHG | VHA9103B +BBA9106                                  | 08031       | 07/22/2025            | 12      |
| RE        | 141503  | Horn Antenna 18-26.5GHz             | EMCO                            | 3160-09                                            | 1265        | 06/18/2025            | 12      |
| RE        | 141507  | Horn Antenna 1-18GHz                | Schwarzbeck Mess-Elektronik OHG | BBHA9120D                                          | 258         | 11/11/2024            | 12      |
| RE        | 141512  | Horn Antenna 1-18GHz                | Schwarzbeck Mess-Elektronik OHG | BBHA9120D                                          | 254         | 10/17/2024            | 12      |
| RE        | 141542  | Digital Tester                      | Fluke Corporation               | FLUKE 26-3                                         | 78030611    | 08/01/2025            | 12      |
| RE        | 141545  | DIGITAL HiTESTER                    | HIOKI E. E. CORPORATION         | 3805                                               | 51201148    | 02/25/2025            | 12      |
| RE        | 141581  | MicroWave System Amplifier          | Keysight Technologies Inc       | 83017A                                             | 00650       | 10/30/2024            | 12      |
| RE        | 141594  | Pre Amplifier                       | Keysight Technologies Inc       | 8447D                                              | 2944A10150  | 02/19/2025            | 12      |
| RE        | 141885  | Spectrum Analyzer                   | Keysight Technologies Inc       | E4448A                                             | US44300523  | 01/24/2025            | 12      |
| RE        | 141901  | Spectrum Analyzer                   | Keysight Technologies Inc       | E4440A                                             | MY48250080  | 02/04/2025            | 12      |
| RE        | 141903  | Spectrum Analyzer                   | Keysight Technologies Inc       | E4440A                                             | MY46186390  | 01/30/2025            | 12      |
| RE        | 141951  | EMI Test Receiver                   | Rohde & Schwarz                 | ESR26                                              | 101408      | 05/07/2025            | 12      |
| RE        | 142004  | AC2_Semi Anechoic Chamber(NSA)      | TDK                             | Semi Anechoic Chamber 3m                           | DA-06902    | 07/08/2025            | 24      |

## Test Equipment (2/2)

| Test Item | LIMS ID | Description                      | Manufacturer                    | Model                                       | Serial                    | Last Calibration Date | Cal Int |
|-----------|---------|----------------------------------|---------------------------------|---------------------------------------------|---------------------------|-----------------------|---------|
| RE        | 142006  | AC2_Semi Anechoic Chamber(SVSWR) | TDK                             | Semi Anechoic Chamber 3m                    | DA-06902                  | 04/21/2025            | 24      |
| RE        | 142017  | AC4_Semi Anechoic Chamber(SVSWR) | TDK                             | Semi Anechoic Chamber 3m                    | DA-10005                  | 04/17/2025            | 24      |
| RE        | 142228  | Measure, Tape, Steel             | KOMELON                         | KMC-36                                      | -                         | -                     | -       |
| RE        | 142230  | Measure, Tape, Steel             | KOMELON                         | KMC-36                                      | -                         | -                     | -       |
| RE        | 178648  | EMI measurement program          | TSJ (Techno Science Japan)      | TEPTO-DV                                    | -                         | -                     | -       |
| RE        | 237927  | Broadband Amplifier              | ERAVANT                         | SBB-0115033218-2F2F-E3                      | 27554-01                  | 07/02/2025            | 12      |
| RE        | 238713  | Double Ridge Horn Antenna        | Schwarzbeck Mess-Elektronik OHG | BBHA 9120 C                                 | 688                       | 09/02/2024            | 12      |
| RE        | 244707  | Thermo-Hygrometer                | HIOKI E. E. CORPORATION         | LR5001                                      | 231202102                 | 01/19/2025            | 12      |
| RE        | 244710  | Thermo-Hygrometer                | HIOKI E. E. CORPORATION         | LR5001                                      | 231202104                 | 01/19/2025            | 12      |
| RE        | 246002  | Microwave Cable                  | Huber+Suhner                    | SF103/11PC35/11P C35/1000mm / SF126E/5000mm | 800674(1m) / 610205(5m)   | 03/18/2025            | 12      |
| RE        | 252663  | Microwave Cable                  | Huber+Suhner                    | SF126E/11PC35/11 PC35/1000MM,5000 MM        | 616276/126E / 616275/126E | 09/10/2024            | 12      |
| RE        | 253739  | Pre Amplifier                    | Keysight Technologies Inc       | 8449B                                       | 3008A01919                | 10/23/2024            | 12      |

\*Hyphens for Last Calibration Date and Cal Int (month) are instruments that Calibration is not required (e.g. software), or instruments checked in advance before use.

The expiration date of the calibration is the end of the expired month.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

Test item:

AT: Antenna Terminal Conducted test

CE: Conducted Emission

RE: Radiated Emission