

RADIO TEST REPORT

Test Report No. 15724270H-C-R1

Customer	Tokai Rika Create Corporation
Description of EUT	Car Audio Radio Receiver, TK-CR6
Model Number of EUT	347-3519-000
FCC ID	2AD4R347-3519-000
Test Regulation	FCC Part 15 Subpart C
Test Result	Complied
Issue Date	September 30, 2026
Remarks	-

Representative Test EngineerShousei Hamaguchi
Engineer**Approved By**Satofumi Matsuyama
Test report signatory

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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- The information provided by the customer for this report is identified in SECTION 1.
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- For any test report referred in this report, the latest version (including any revisions) is always referred to.
- 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)	15724270H-C	September 3, 2026	-
1	15724270H-C-R1	September 30, 2026	APPENDIX 1: Test data Burst Rate Confirmation (P.26) Corrected date: April 2, 2024 → April 2, 2025 4.2 Configuration and Peripherals List of Cables Used Corrected shield information of No.9 (Mic Cable): Cable/Connector: Unshielded → Shielded
			SECTION 5: Radiated Spurious Emission Updated RSS-Gen table references: RSS-Gen 8.9: Table 4 → Table 5 and 6 RSS-Gen 8.10: Table 6 → Table 7

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 LE	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	Tokai Rika Create Corporation
Address	2-3-10 Aoi, Higashi-ku, Nagoya, Aichi 461-0004 Japan
Telephone Number	+81-52-934-2111
Contact Person	Syohei Yamamoto

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	Car Audio Radio Receiver, TK-CR6
Model Number	347-3519-000
Serial Number	Refer to SECTION 4.2
Condition	Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	No Modification by the test lab
Receipt Date	March 3 and May 22, 2025
Test Date	March 23 to August 19, 2025

2.2 Product Description

General Specification

Rating	DC 10 V to 32 V
Operating temperature	-30 deg. C to 77 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.

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 Gain ^{a)}	1.6 dBi

AM/FM/DAB

Equipment Type	Receiver
Frequency of Operation	AM: 530 kHz to 1710 kHz FM: 87.5 MHz to 107.9 MHz DAB: 174.928 MHz to 239.200 MHz
Type of Modulation	AM FM DAB: OFDM

2.3 Variant model(s)

The EUT has variant model, Model No. 347-3518-000.

The difference between the EUT and the variant model is whether DAB is present or not.

Model No. 347-3518-000 does not include DAB.

SECTION 3: Test Summary

3.1 Test Specification

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

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)
ANSI C63.25.1-2018
KDB 558074 D01 v05r02
KDB 662911 D01 v02r01 for FCC MIMO device

3.3 Summary of Test Results

Item	Specification	Results	Remarks
Conducted Emission	FCC: Section 15.207 ISED: RSS-Gen section 8.8	N/A	*1)
Carrier Frequency Separation	FCC: Section 15.247 (a)(1) ISED: RSS-247 section 6.2.3.1 (a)	Complied	Conducted
20 dB Bandwidth	FCC: Section 15.247 (a)(1) ISED: RSS-247 section 6.2.1 (a)	Complied	Conducted
Number of Hopping Frequency	FCC: Section 15.247 (a)(1)(iii) ISED: RSS-247 section 6.2.3.1 (b)	Complied	Conducted
Dwell time	FCC: Section 15.247 (a)(1)(iii) ISED: RSS-247 section 6.2.3.1 (b)	Complied	Conducted
Maximum Peak Output Power	FCC: Section 15.247 (b)(1) ISED: RSS-247 section 6.2.3.2 (a)(b)(c)	Complied	Conducted
Spurious Emission & Band Edge Compliance	FCC: Section 15.247 (d) ISED: RSS-247 section 6.6 RSS-Gen section 8.9 RSS-Gen section 8.10	Complied	Conducted/ Radiated (above 30 MHz) *2)

Note: UL Japan, Inc.'s EMI Work Procedures: Work Instructions-ULID-003591 and Work Instructions-ULID-003593.

*1) The test is not applicable since the EUT is not the device that is designed to be connected to the public utility (AC) power line.

*2) Radiated test was selected over 30 MHz based on section 15.247(d).

FCC Part 15.31 (e)

This EUT provides the stable voltage constantly to RF Part regardless of input voltage.
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	-	-

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
*EUT has the power settings by the software as follows; Power Setting: 6 Software: CSR BlueSuite BlueTest Version 3.3.18 (Date: 2023.9.13, Storage location: Driven by connected PC) *This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product.	

Details of Operating Mode(s)

Test Item	Mode	Hopping	Tested Frequency
Radiated Spurious Emission (Below 1 GHz), Conducted Spurious Emission	Tx 3DH5 *1)	Off	2480 MHz
Radiated Spurious Emission (Above 1 GHz)	Tx DH5 Tx 3DH5	Off	2402 MHz 2441 MHz 2480 MHz
Carrier Frequency Separation	Tx DH5 Tx 3DH5	On	2402 MHz 2441 MHz 2480 MHz
20dB Bandwidth	Tx DH5 Tx 3DH5	Off	2402 MHz 2441 MHz 2480 MHz
Number of Hopping Frequency	Tx DH5 Tx 3DH5	On	-
Dwell time	Tx DH1, DH3, DH5 Tx 3DH1, 3DH3, 3DH5	On	-
Maximum Peak Output Power	Tx DH5 Tx 2DH5 Tx 3DH5	Off	2402 MHz 2441 MHz 2480 MHz
Band Edge Compliance (Conducted)	Tx DH5 Tx 3DH5	On ----- Off	2402 MHz 2480 MHz
99% Occupied Bandwidth	Tx DH5 Tx 3DH5	On ----- Off	2402 MHz 2441 MHz 2480 MHz

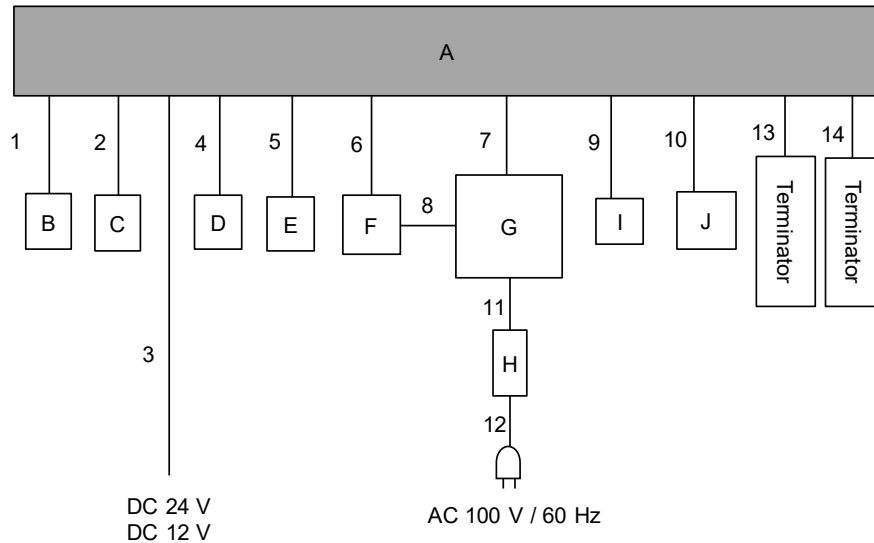
*As a result of preliminary test, the formal test was performed with the above modes, which had the maximum payload length (except Dwell time test)

*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.

*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.

*1) Conducted Spurious Emission 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.

4.2 Configuration and Peripherals



* Cabling and setup(s) were taken into consideration and test data was taken under worse case conditions.

*As a result of comparing DC 12 V and DC 24 V at pre-check, all tests were performed with DC 24 V of the worst voltage as representative.

Description of EUT and Support Equipment

No.	Item	Model number	Serial Number	Manufacturer	Remarks
A	Car Audio Radio Receiver, TK-CR6	347-3519-000	No.41 for RE* No.44 for AT*	Tokai Rika Create Corporation	EUT
B	Resistor	HS25 5R J	-	Ohmite Manufacturing Company	-
C	Resistor	HS25 5R J	-	Ohmite Manufacturing Company	-
D	Speaker	F04010H0	-	-	-
E	Speaker	F04010H0	-	-	-
F	Jig Board	-	-	-	-
G	Laptop PC	X1 Carbon	R9-OH8OBW 15/9	LENOVO	-
H	AC Adapter	ADXL45NCC2A	11S45N0299Z1ZS944B6KBR	LENOVO	-
I	Mic	-	-	-	-
J	MUSIC PLAYER	M2	-	JOLIKE	-

List of Cables Used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	USB Cable	2.0	Shielded	Shielded	-
2	USB Cable	2.0	Shielded	Shielded	-
3	DC Cable	3.0	Unshielded	Unshielded	-
4	Speaker Cable	3.0	Unshielded	Unshielded	-
5	Speaker Cable	3.0	Unshielded	Unshielded	-
6	DC Cable	2.0	Unshielded	Unshielded	-
7	USB Cable	1.0	Shielded	Shielded	-
8	USB Cable	1.0	Shielded	Shielded	-
9	Mic Cable	0.3	Shielded	Shielded	-
10	Audio Cable	3.5	Shielded	Shielded	-
11	DC Cable	1.7	Unshielded	Unshielded	-
12	AC Cable	1.0	Unshielded	Unshielded	-
13	AM/FM Cable	0.1	Shielded	Shielded	-
14	DAB Cable	0.1	Shielded	Shielded	-

*RE: Radiated Spurious Emission

*AT: Antenna Terminal Conducted Tests

SECTION 5: Radiated Spurious Emission

Test Procedure

[For below 1 GHz]

EUT was placed on the platform of nominal size, 0.5 m by 1.0 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.

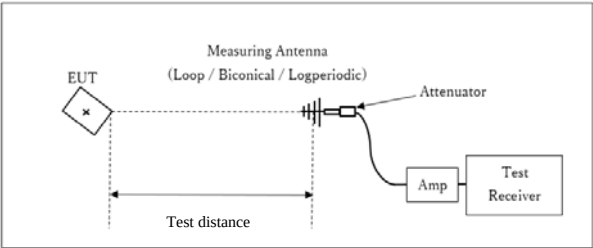
20 dBc was applied to the frequency over the limit of FCC 15.209 /Table 5 and 6 of RSS-Gen 8.9 (ISED) and outside the restricted band of FCC15.205 / Table 7 of RSS-Gen 8.10 (ISED).

It was measured with the settings below based on ANSI C63.10.

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 VBW: 3 MHz	RBW: 1 MHz VBW: 3 MHz Detector: Power Averaging (RMS) Trace: 100 traces Duty factor was added to the results.	RBW: 100 kHz VBW: 300 kHz

Figure 1: Test Setup

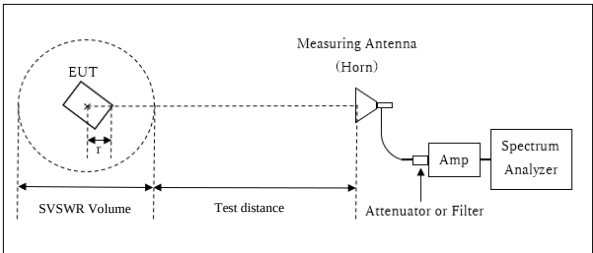
Below 1 GHz



x : Center of turn table

Test Distance: 3 m

1 GHz to 10 GHz



r : Radius of an outer periphery of EUT
x : Center of turn table

[1 GHz to 6 GHz]

Distance Factor: $20 \times \log (3.90 \text{ m}^* / 3.00 \text{ m}) = 2.28 \text{ dB}$
*(Test Distance + SVSWR Volume / 2) - r = 3.90 m

Test Distance: 3.00 m
SVSWR Volume: 2.00 m

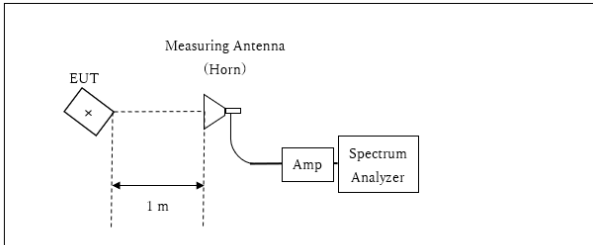
[6 GHz to 10 GHz]

Distance Factor: $20 \times \log (4.90 \text{ m}^* / 3.00 \text{ m}) = 4.27 \text{ dB}$
*(Test Distance + SVSWR Volume / 2) - r = 4.90 m

Test Distance: 4.30 m
SVSWR Volume: 1.40 m

(SVSWR Volume has been calibrated based on CISPR 16-1-4.)
r: 0.10 m

10 GHz to 26.5 GHz



x : Center of turn table

Distance Factor: $20 \times \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.5 \text{ dB}$
*Test Distance: 1 m

The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT 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 6: 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
20dB 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, 1 MHz	300 kHz, 3 MHz	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 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 low enough 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

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

Mode	Hopping On / Off
------	------------------

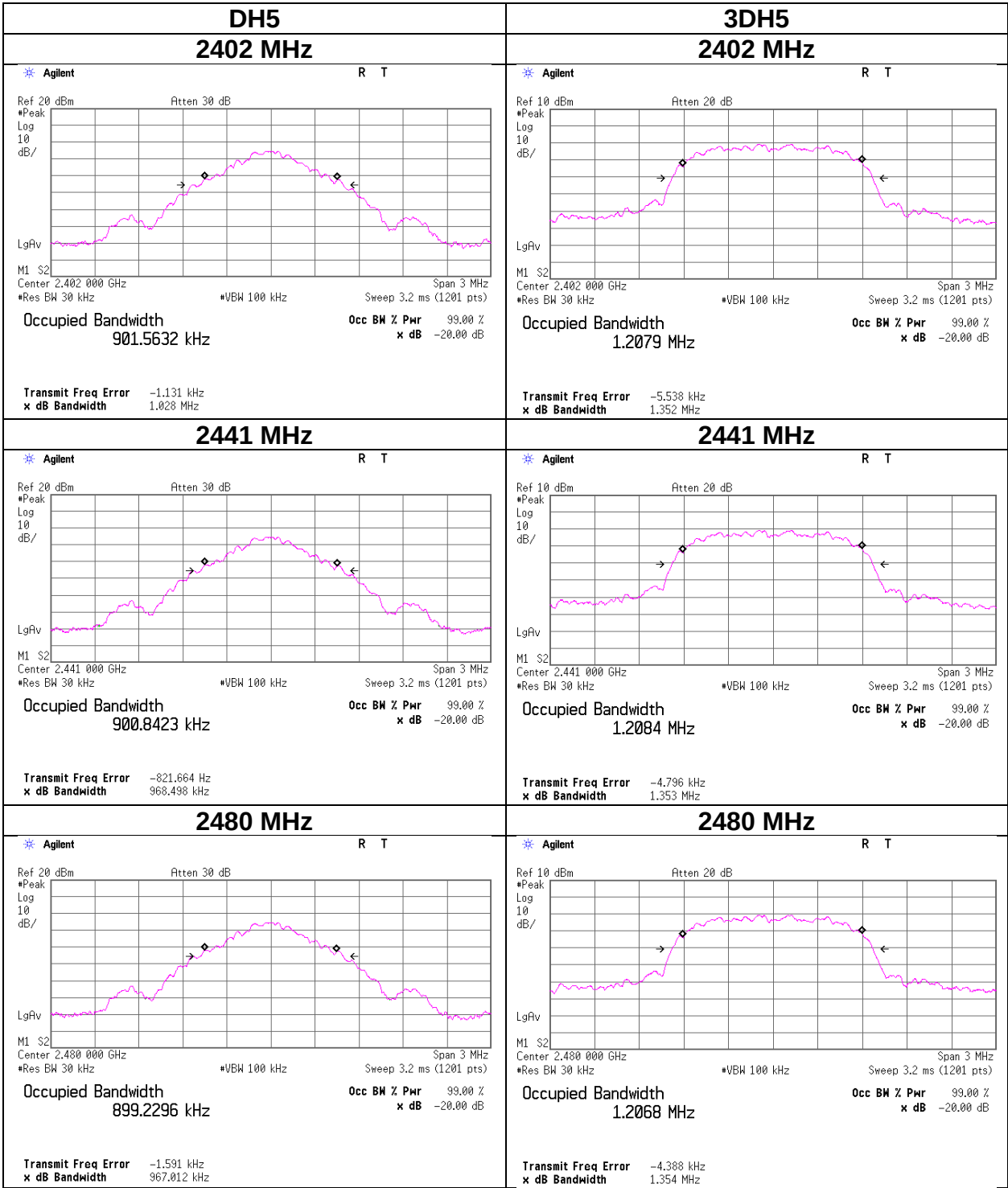
Date	Test site	Temperature	Humidity	Engineer
August 19, 2025	MR8	23 deg. C	64 % RH	Shousei Hamaguchi

Mode	Freq. [MHz]	20 dB Bandwidth [MHz]	99 % Occupied Bandwidth [kHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency separation [MHz]
DH5	2402.0	1.028	901.563	1.000	>= 0.685
DH5	2441.0	0.968	900.842	1.000	>= 0.645
DH5	2480.0	0.967	899.230	1.000	>= 0.645
DH5	Hopping On	-	-	-	-
3DH5	2402.0	1.352	1207.866	1.000	>= 0.901
3DH5	2441.0	1.353	1208.439	1.000	>= 0.902
3DH5	2480.0	1.354	1206.781	1.000	>= 0.903
3DH5	Hopping On	-	-	-	-

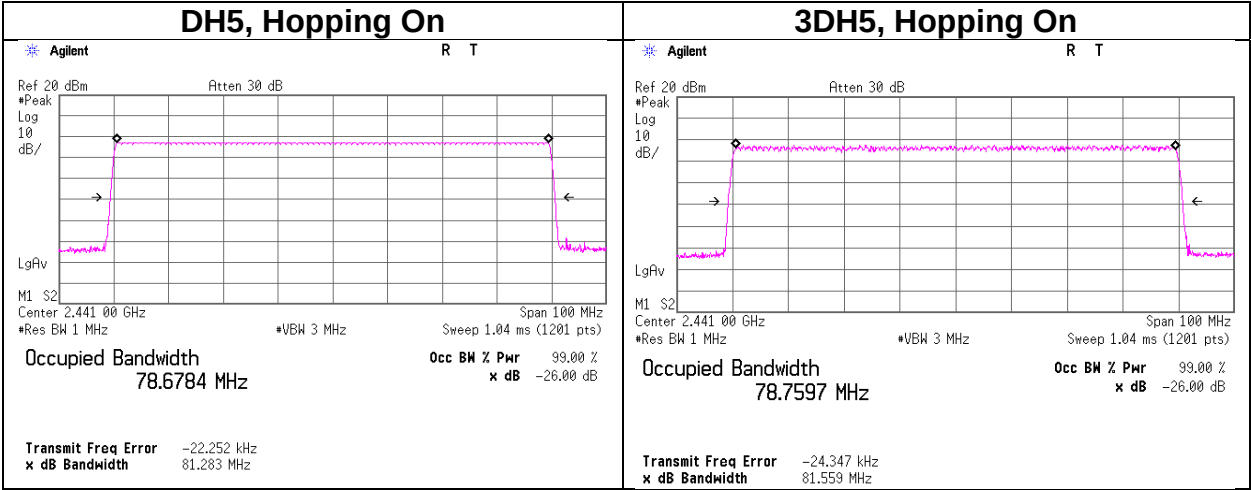
Limit: Two-thirds of 20 dB Bandwidth or 25 kHz (whichever is greater).

No limit applies to 20 dB Bandwidth.

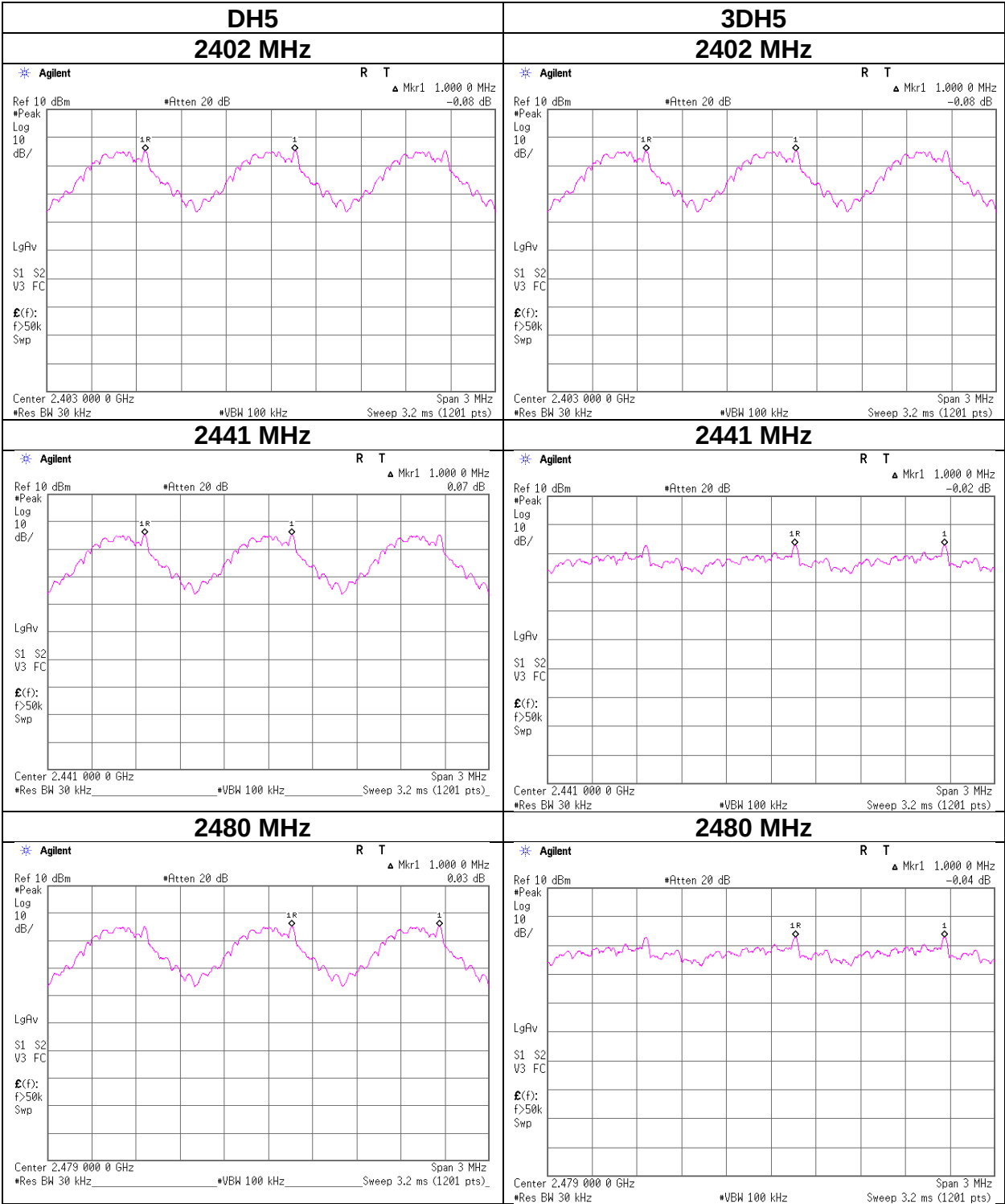
20 dB Bandwidth and 99 % Occupied Bandwidth



20 dB Bandwidth and 99 % Occupied Bandwidth



Carrier Frequency Separation



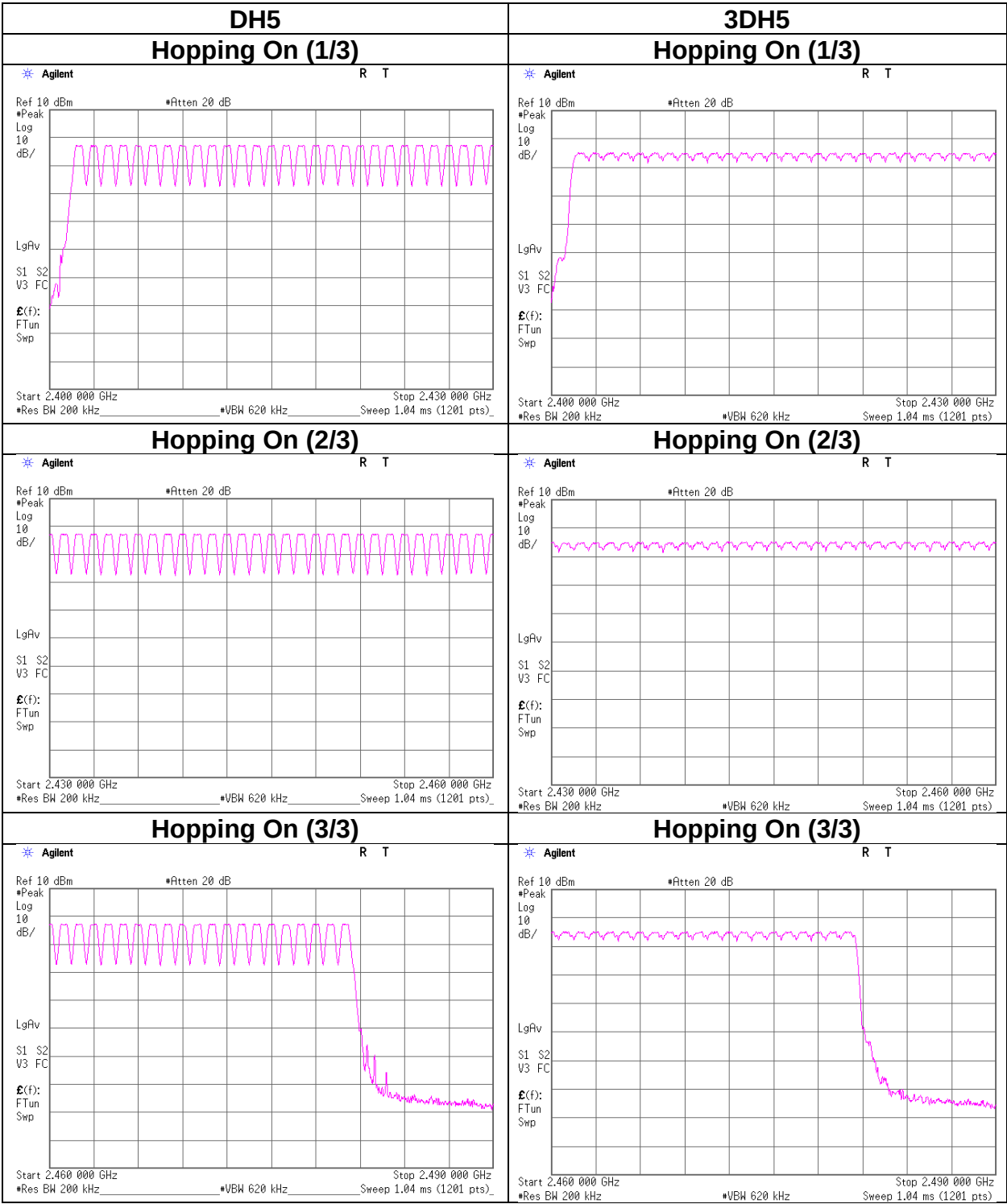
Number of Hopping Frequency

Mode	Tx, Hopping On			
Date	Test site	Temperature	Humidity	Engineer
August 19, 2025	MR8	23 deg. C	64 % RH	Shousei Hamaguchi

Mode	Number of channel [channels]	Limit [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			
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Date	Test site	Temperature	Humidity	Engineer
August 19, 2025	MR8	23 deg. C	64 % RH	Shousei Hamaguchi

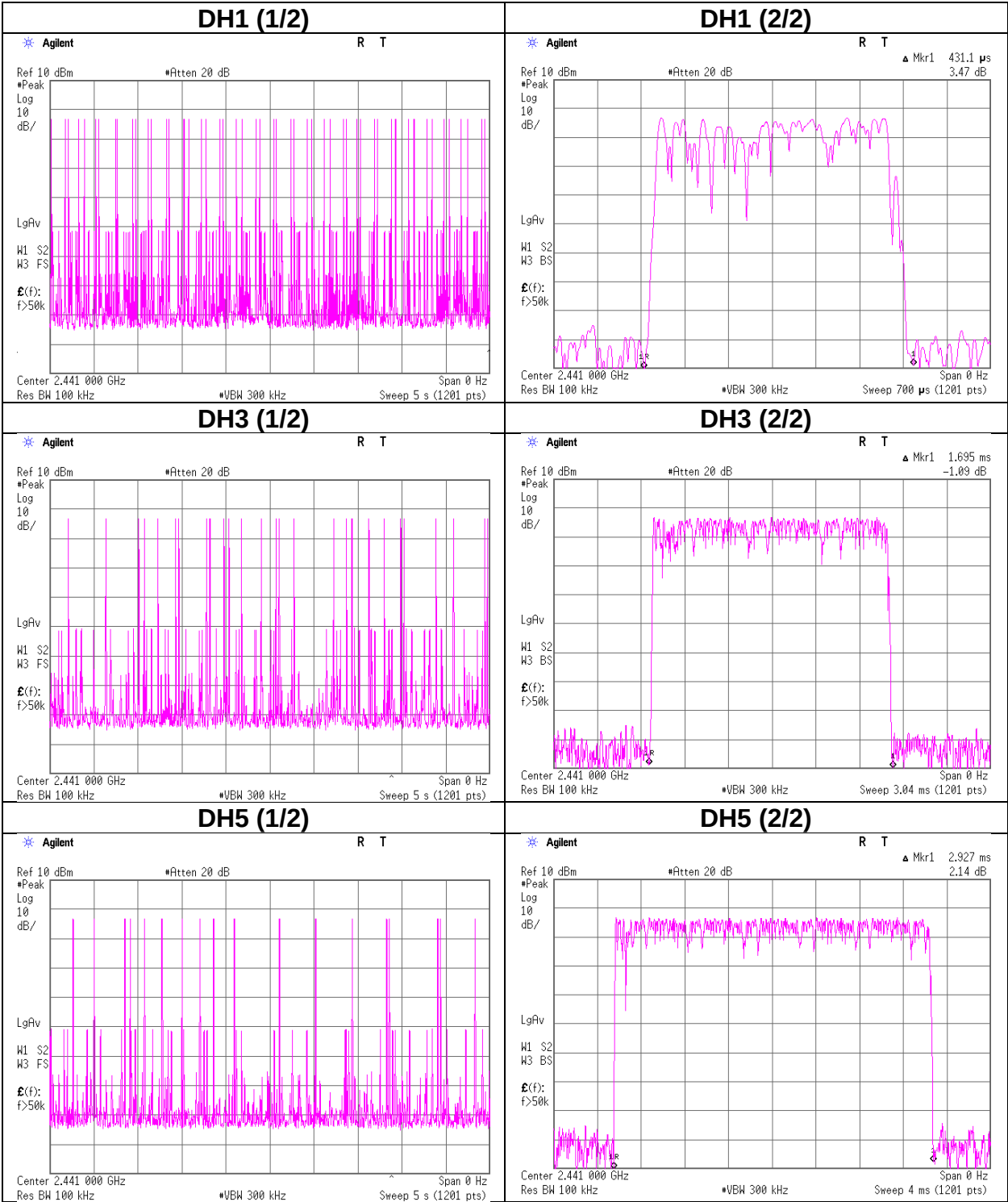
Mode	Dwell time per hop [ms]	Number of hops in a 5.0 second period	Average number of hops in a 31.6 (79 Hopping x 0.4) second period	Result [ms]
DH1	0.431	51	51.0 [times] / 5.0 [s] x 31.6 [s] = 323	139
DH3	1.695	27	27.0 [times] / 5.0 [s] x 31.6 [s] = 171	290
DH5	2.927	18	18.0 [times] / 5.0 [s] x 31.6 [s] = 114	334
3DH1	0.419	51	51.0 [times] / 5.0 [s] x 31.6 [s] = 323	135
3DH3	1.687	26	26.0 [times] / 5.0 [s] x 31.6 [s] = 165	278
3DH5	2.933	18	18.0 [times] / 5.0 [s] x 31.6 [s] = 114	334

Sample Calculation

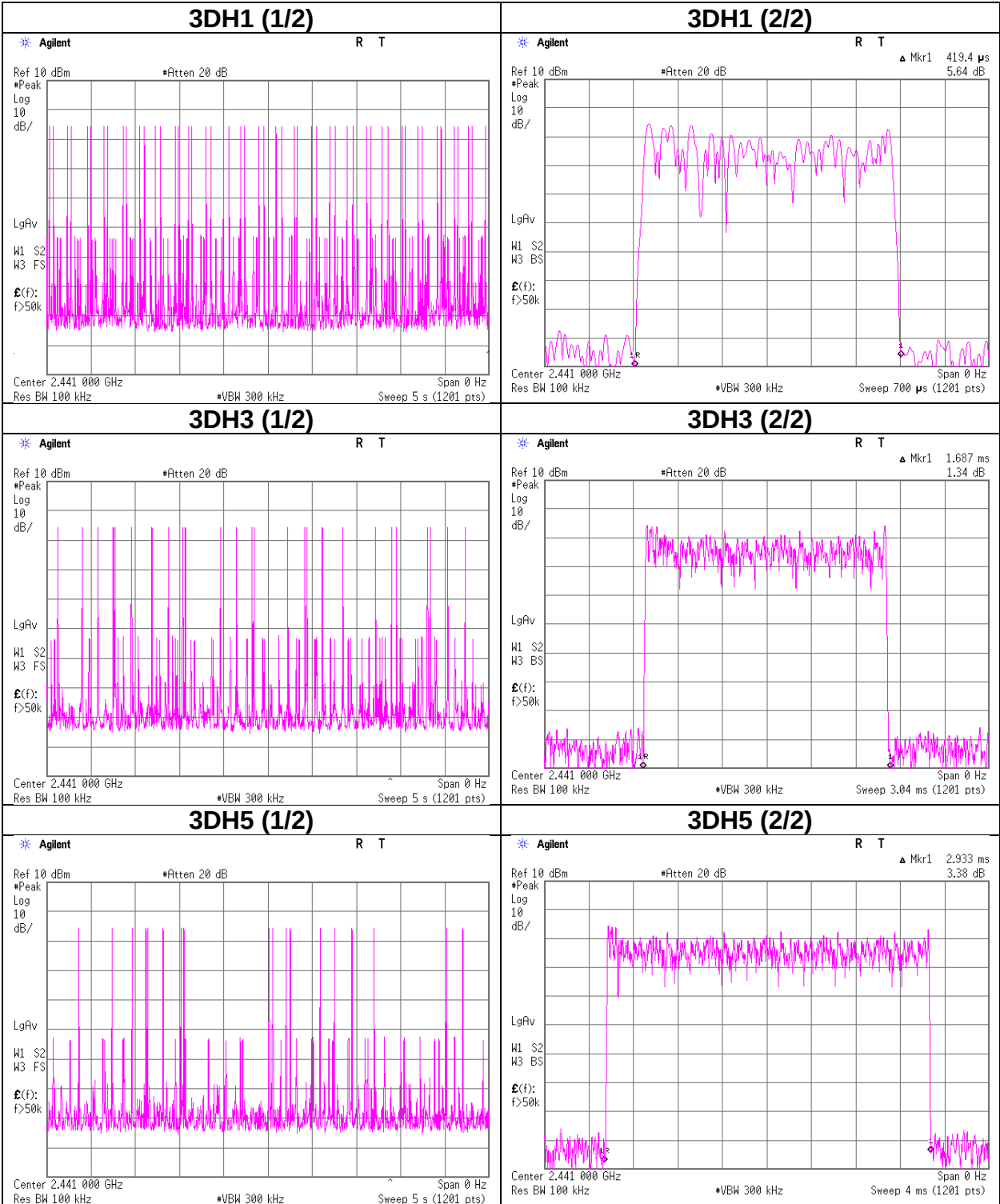
Result = Dwell time per hop x Average number of hops in a 31.6 (79 Hopping x 0.4) second period

*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
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Date	Test site	Temperature	Humidity	Engineer
August 18, 2025	MR8	23 deg. C	73 % RH	Junki Nagatomi

Mode	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Conducted Power					Antenna Gain [dBi]	e.i.r.p. for RSS-247				
					Result		Limit		Margin		Result		Limit		Margin
					[dBm]	[mW]	[dBm]	[mW]			[dB]	[dBm]	[mW]	[dBm]	
DH5	2402.0	-2.77	1.45	10.03	8.71	7.43	20.96	125	12.25	1.60	10.31	10.73	36.02	4000	25.71
DH5	2441.0	-2.75	1.46	10.03	8.74	7.48	20.96	125	12.22	1.60	10.34	10.81	36.02	4000	25.68
DH5	2480.0	-2.73	1.47	10.03	8.77	7.53	20.96	125	12.19	1.60	10.37	10.88	36.02	4000	25.65
2DH5	2402.0	-2.42	1.45	10.03	9.06	8.05	20.96	125	11.90	1.60	10.66	11.63	36.02	4000	25.36
2DH5	2441.0	-2.40	1.46	10.03	9.09	8.10	20.96	125	11.87	1.60	10.69	11.72	36.02	4000	25.33
2DH5	2480.0	-2.39	1.47	10.03	9.11	8.14	20.96	125	11.85	1.60	10.71	11.77	36.02	4000	25.31
3DH5	2402.0	-1.88	1.45	10.03	9.60	9.11	20.96	125	11.36	1.60	11.20	13.17	36.02	4000	24.82
3DH5	2441.0	-1.85	1.46	10.03	9.64	9.20	20.96	125	11.32	1.60	11.24	13.30	36.02	4000	24.78
3DH5	2480.0	-1.84	1.47	10.03	9.66	9.24	20.96	125	11.30	1.60	11.26	13.36	36.02	4000	24.76

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			
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Date	Test site	Temperature	Humidity	Engineer
August 18, 2025	MR8	23 deg. C	73 % RH	Junki Nagatomi

Mode	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Time average)		Duty factor [dB]	Result (Burst power average)	
					[dBm]	[mW]		[dBm]	[mW]
DH5	2402.0	-3.03	1.45	10.03	8.45	7.00	0.00	8.45	7.00
DH5	2441.0	-2.98	1.46	10.03	8.51	7.10	0.00	8.51	7.10
DH5	2480.0	-2.95	1.47	10.03	8.55	7.16	0.00	8.55	7.16
2DH5	2402.0	-5.25	1.45	10.03	6.23	4.20	0.00	6.23	4.20
2DH5	2441.0	-5.17	1.46	10.03	6.32	4.29	0.00	6.32	4.29
2DH5	2480.0	-5.15	1.47	10.03	6.35	4.32	0.00	6.35	4.32
3DH5	2402.0	-5.24	1.45	10.03	6.24	4.21	0.00	6.24	4.21
3DH5	2441.0	-5.16	1.46	10.03	6.33	4.30	0.00	6.33	4.30
3DH5	2480.0	-5.13	1.47	10.03	6.37	4.34	0.00	6.37	4.34

Sample Calculation:

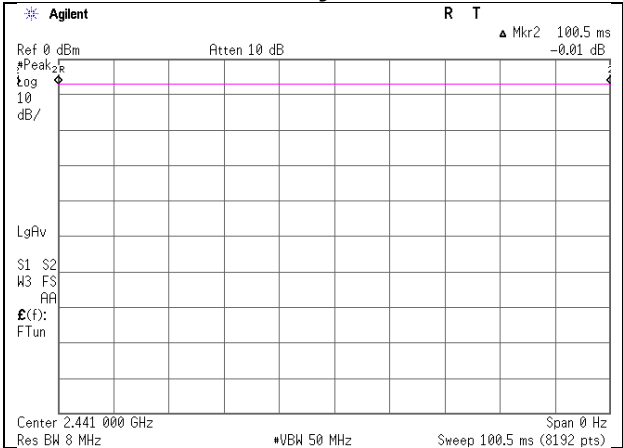
Result (Time average) = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator Lo:

Result (Burst power average) = Time average + Duty factor

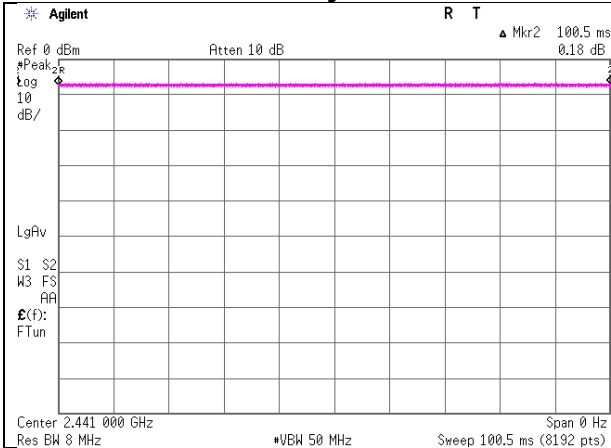
Burst Rate Confirmation

Mode	Tx, Hopping Off			
Date	Test site	Temperature	Humidity	Engineer
April 2, 2025	SR7	20 deg. C	41 % RH	Takafumi Noguchi

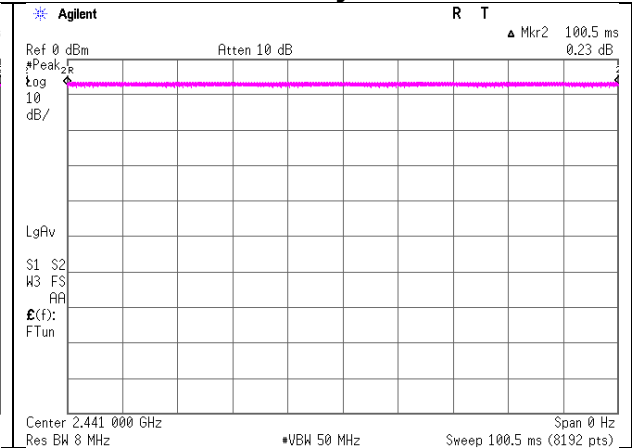
DH5 Duty 100 %



2DH5 Duty 100 %



3DH5 Duty 100 %



Radiated Spurious Emission

Mode	Tx, Hopping Off, DH5, 2402 MHz
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
March 23, 2025	SAC4	23 deg. C	43 % RH	Nachi Konegawa	6 GHz to 10 GHz
March 24, 2025	SAC4	21 deg. C	45 % RH	Tomoya Sone	Above 10 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	2390.0	46.8	36.5	27.8	5.2	32.0	-	47.8	37.5	73.9	53.9	26.1	16.4	
Hori.	4804.0	41.8	37.1	31.5	7.5	31.0	-	49.8	45.1	73.9	53.9	24.2	8.8	
Hori.	7206.0	42.5	32.8	35.6	10.6	32.1	-	56.6	46.9	73.9	53.9	17.3	7.0	Floor noise
Hori.	9608.0	42.4	32.9	35.6	11.3	32.5	-	56.8	47.2	73.9	53.9	17.1	6.7	Floor noise
Vert.	2390.0	44.0	35.4	27.8	5.2	32.0	-	45.0	36.4	73.9	53.9	28.9	17.5	
Vert.	4804.0	42.2	36.9	31.5	7.5	31.0	-	50.1	44.8	73.9	53.9	23.8	9.1	
Vert.	7206.0	42.5	32.8	35.6	10.6	32.1	-	56.6	46.9	73.9	53.9	17.3	7.0	Floor noise
Vert.	9608.0	42.4	32.9	35.6	11.3	32.5	-	56.8	47.2	73.9	53.9	17.1	6.7	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.

20dBc Data Sheet

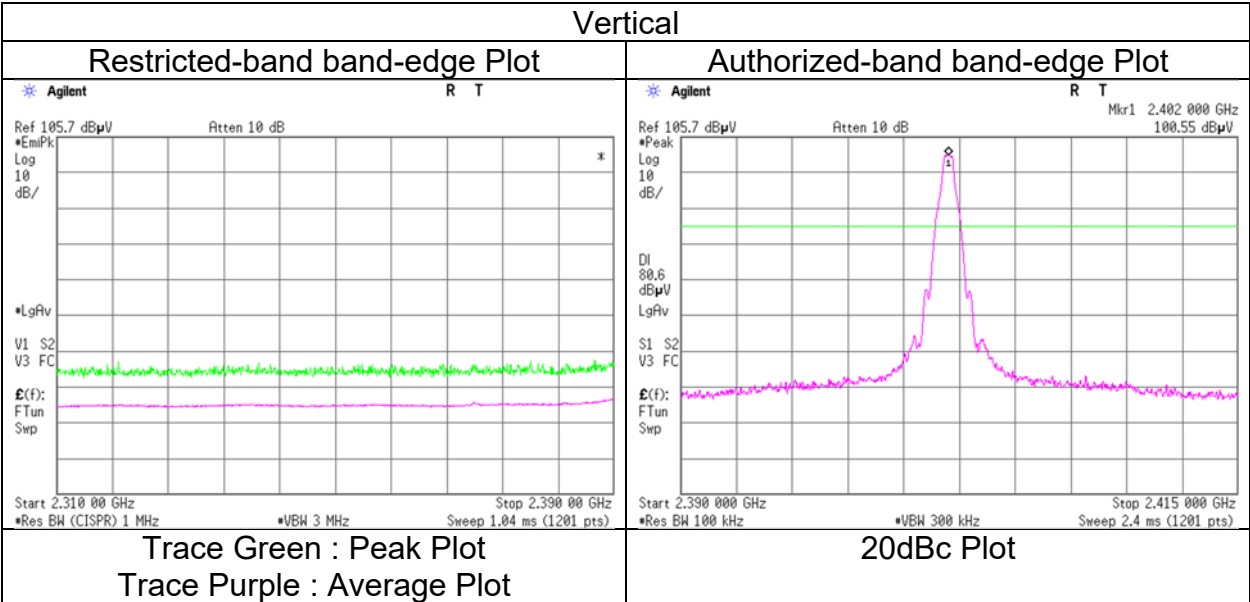
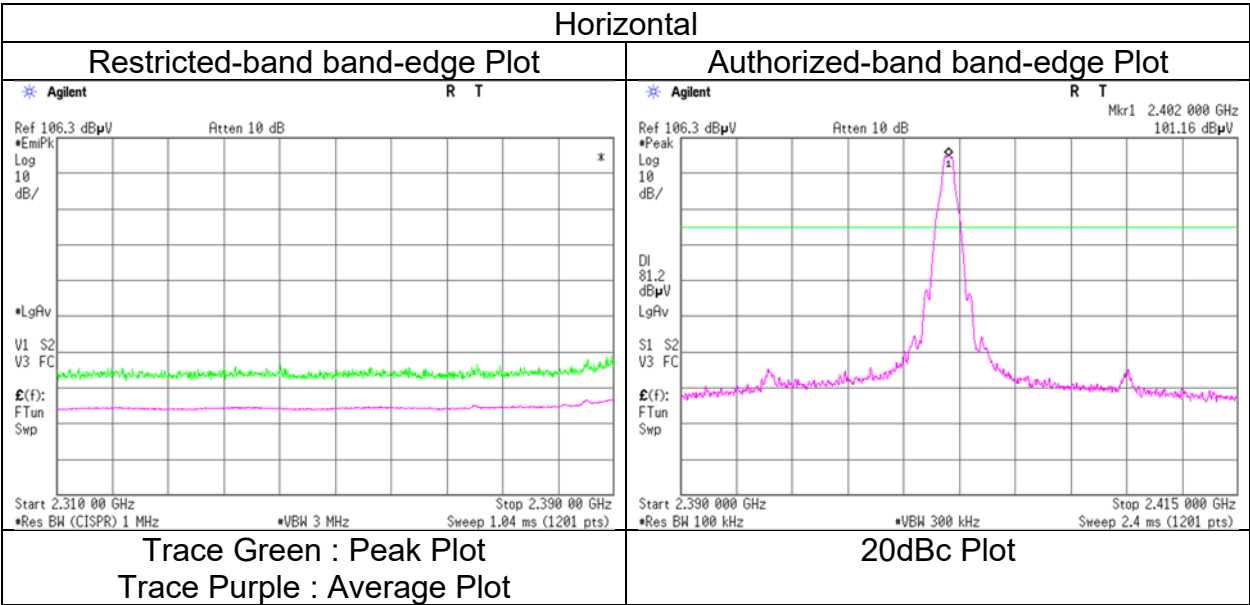
Polarity	Frequency	Reading (PK)	Ant Factor	Loss	Gain	Result	Limit	Margin	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dB/m]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
Hori.	2402.0	101.2	27.7	5.2	31.9	102.2	-	-	Carrier
Hori.	2400.0	45.8	27.8	5.2	31.9	46.9	82.2	35.3	
Vert.	2402.0	100.6	27.7	5.2	31.9	101.6	-	-	Carrier
Vert.	2400.0	45.7	27.8	5.2	31.9	46.8	81.6	34.8	

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

Distance factor: 1 GHz - 6 GHz 20log (3.9 m / 3.0 m) = 2.28 dB
 6 GHz - 10 GHz 20log (4.9 m / 3.0 m) = 4.27 dB
 10 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
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz



* 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
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
March 23, 2025	SAC4	23 deg. C	43 % RH	Nachi Konegawa	6 GHz to 10 GHz
March 24, 2025	SAC4	21 deg. C	45 % RH	Tomoya Sone	Above 10 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	4882.0	44.3	38.9	31.6	7.5	31.0	-	52.3	47.0	73.9	53.9	21.6	6.9	
Hori.	7323.0	42.3	33.1	35.6	10.6	32.2	-	56.4	47.1	73.9	53.9	17.5	6.8	Floor noise
Hori.	9764.0	42.5	32.2	35.9	11.4	32.6	-	57.2	46.8	73.9	53.9	16.8	7.1	Floor noise
Vert.	4882.0	41.8	36.4	31.6	7.5	31.0	-	49.9	44.4	73.9	53.9	24.1	9.5	
Vert.	7323.0	42.3	33.1	35.6	10.6	32.2	-	56.4	47.1	73.9	53.9	17.5	6.8	Floor noise
Vert.	9764.0	42.5	32.2	35.9	11.4	32.6	-	57.2	46.8	73.9	53.9	16.8	7.1	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.

Distance factor: 1 GHz - 6 GHz $20\log(3.9\text{ m} / 3.0\text{ m}) = 2.28\text{ dB}$
 6 GHz - 10 GHz $20\log(4.9\text{ m} / 3.0\text{ m}) = 4.27\text{ dB}$
 10 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
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
March 23, 2025	SAC4	23 deg. C	43 % RH	Nachi Konegawa	6 GHz to 10 GHz
March 24, 2025	SAC4	21 deg. C	45 % RH	Tomoya Sone	Above 10 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	2483.5	49.3	39.4	27.7	5.3	31.9	-	50.4	40.5	73.9	53.9	23.5	13.4	
Hori.	4960.0	43.0	38.2	31.7	7.5	30.9	-	51.3	46.5	73.9	53.9	22.6	7.4	
Hori.	7440.0	42.3	32.4	35.5	10.6	32.2	-	56.2	46.3	73.9	53.9	17.7	7.7	Floor noise
Hori.	9920.0	42.5	32.5	36.1	11.4	32.7	-	57.3	47.3	73.9	53.9	16.6	6.6	Floor noise
Vert.	2483.5	47.2	38.2	27.7	5.3	31.9	-	48.2	39.3	73.9	53.9	25.7	14.6	
Vert.	4960.0	44.4	39.1	31.7	7.5	30.9	-	52.7	47.4	73.9	53.9	21.2	6.5	
Vert.	7440.0	42.3	32.4	35.5	10.6	32.2	-	56.2	46.3	73.9	53.9	17.7	7.7	Floor noise
Vert.	9920.0	42.5	32.5	36.1	11.4	32.7	-	57.3	47.3	73.9	53.9	16.6	6.6	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

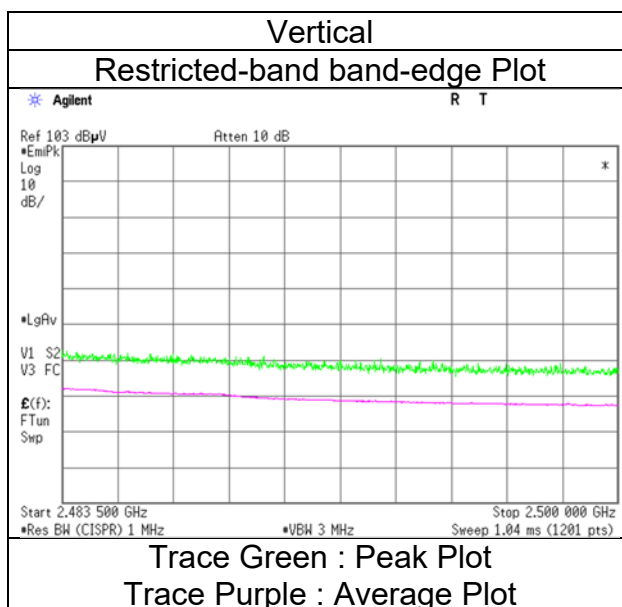
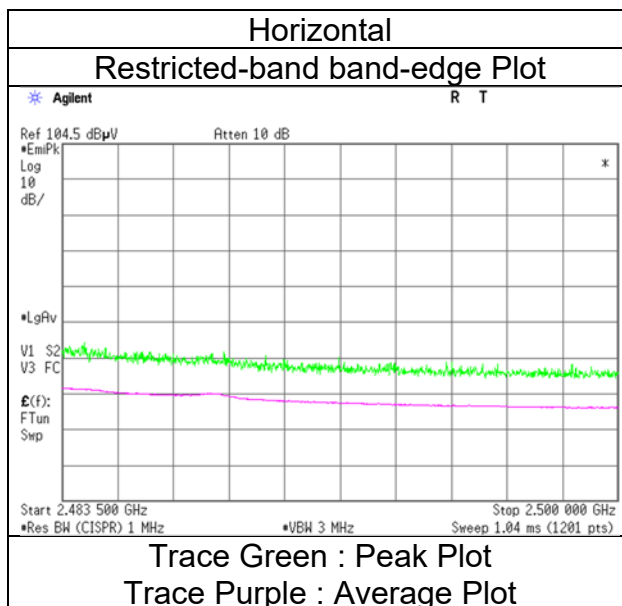
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

*QP detector was used up to 1GHz.

Distance factor: 1 GHz - 6 GHz 20log (3.9 m / 3.0 m) = 2.28 dB
 6 GHz - 10 GHz 20log (4.9 m / 3.0 m) = 4.27 dB
 10 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
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz



* 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
March 24, 2025	SAC4	21 deg. C	45 % RH	Tomoya Sone	Above 6 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 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.	2390.0	48.0	36.5	27.8	5.2	32.0	-	49.0	37.5	73.9	53.9	24.9	16.4	
Hori.	4804.0	41.9	36.0	31.5	7.5	31.0	-	49.9	43.9	73.9	53.9	24.1	10.0	
Hori.	7206.0	42.5	32.8	35.6	10.6	32.1	-	56.6	46.9	73.9	53.9	17.3	7.0	Floor noise
Hori.	9608.0	42.4	32.9	35.6	11.3	32.5	-	56.8	47.2	73.9	53.9	17.1	6.7	Floor noise
Vert.	2390.0	44.7	36.0	27.8	5.2	32.0	-	45.7	37.0	73.9	53.9	28.2	16.9	
Vert.	4804.0	41.6	34.8	31.5	7.5	31.0	-	49.6	42.7	73.9	53.9	24.3	11.2	
Vert.	7206.0	42.5	32.8	35.6	10.6	32.1	-	56.6	46.9	73.9	53.9	17.3	7.0	Floor noise
Vert.	9608.0	42.4	32.9	35.6	11.3	32.5	-	56.8	47.2	73.9	53.9	17.1	6.7	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.

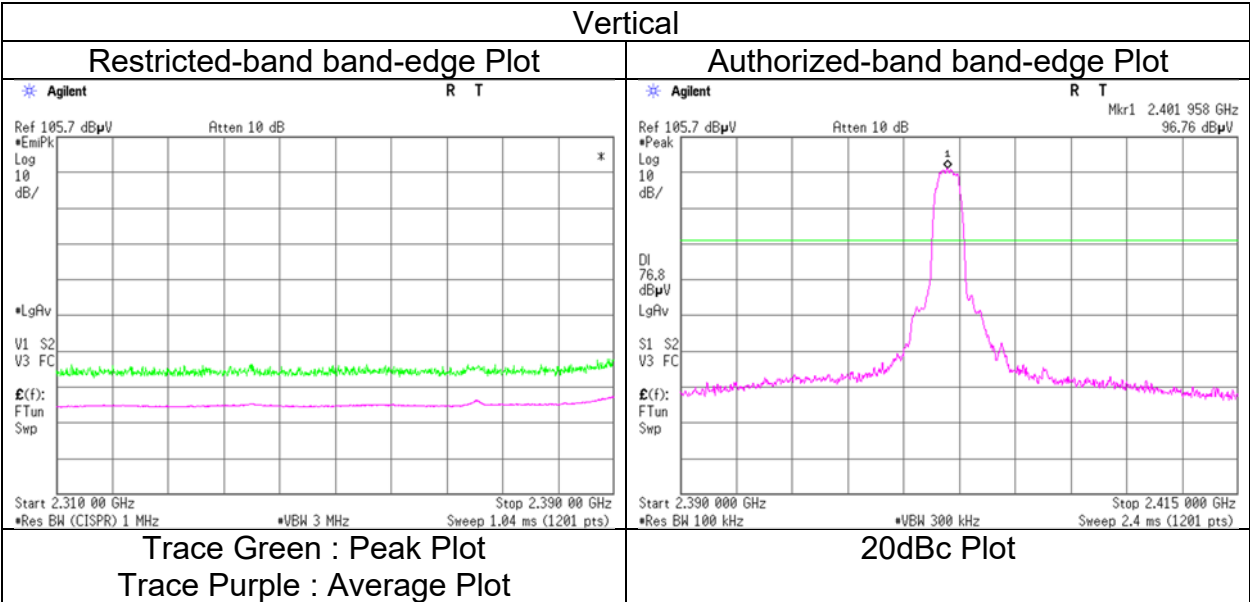
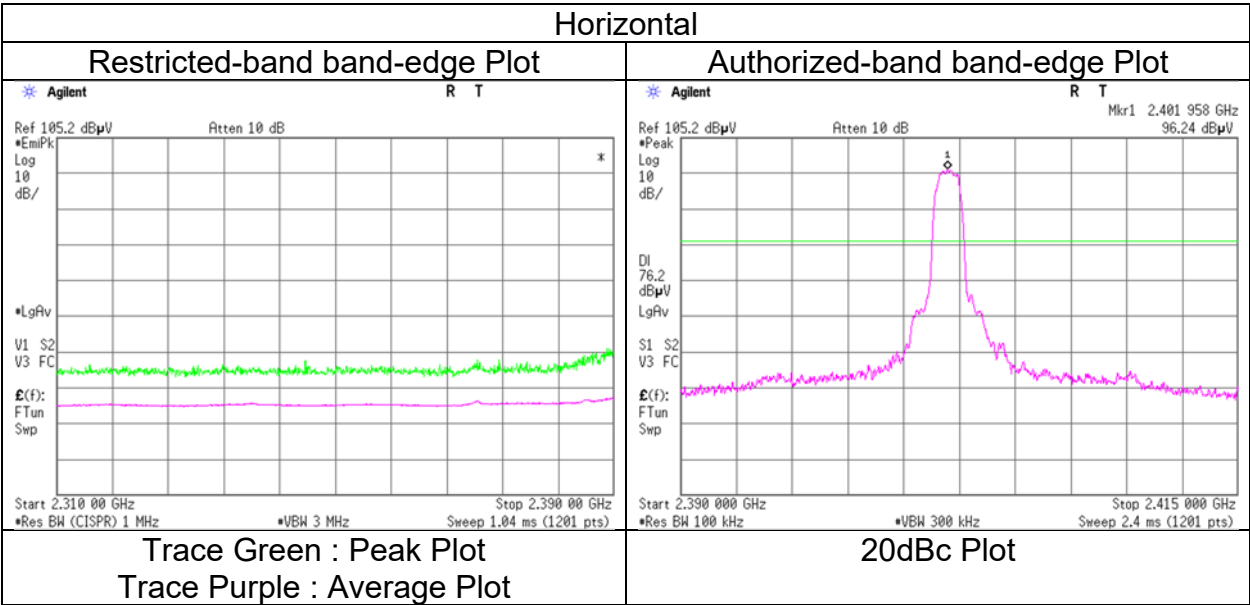
20dBc Data Sheet

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	96.2	27.7	5.2	31.9	97.3	-	-	Carrier
Hori.	2400.0	45.1	27.8	5.2	31.9	46.1	77.3	31.2	
Vert.	2402.0	96.8	27.7	5.2	31.9	97.8	-	-	Carrier
Vert.	2400.0	45.2	27.8	5.2	31.9	46.2	77.8	31.6	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)
Distance factor: 1 GHz - 6 GHz 20log (3.9 m / 3.0 m) = 2.28 dB
6 GHz - 10 GHz 20log (4.9 m / 3.0 m) = 4.27 dB
10 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, 3DH5, 2402 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz



* 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
March 24, 2025	SAC4	21 deg. C	45 % RH	Tomoya Sone	Above 6 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	4882.0	44.4	37.6	31.6	7.5	31.0	-	52.4	45.7	73.9	53.9	21.5	8.2	
Hori.	7323.0	42.3	33.1	35.6	10.6	32.2	-	56.4	47.1	73.9	53.9	17.5	6.8	Floor noise
Hori.	9764.0	42.5	32.2	35.9	11.4	32.6	-	57.2	46.8	73.9	53.9	16.8	7.1	Floor noise
Vert.	4882.0	43.2	37.5	31.6	7.5	31.0	-	51.3	45.6	73.9	53.9	22.6	8.3	
Vert.	7323.0	42.3	33.1	35.6	10.6	32.2	-	56.4	47.1	73.9	53.9	17.5	6.8	Floor noise
Vert.	9764.0	42.5	32.2	35.9	11.4	32.6	-	57.2	46.8	73.9	53.9	16.8	7.1	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.

Distance factor: 1 GHz - 6 GHz 20log (3.9 m / 3.0 m) = 2.28 dB
 6 GHz - 10 GHz 20log (4.9 m / 3.0 m) = 4.27 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission

Mode	Tx, Hopping Off, 3DH5, 2480 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
March 24, 2025	SAC4	21 deg. C	45 % RH	Tomoya Sone	Above 6 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Shousei Hamaguchi	Below 1 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz

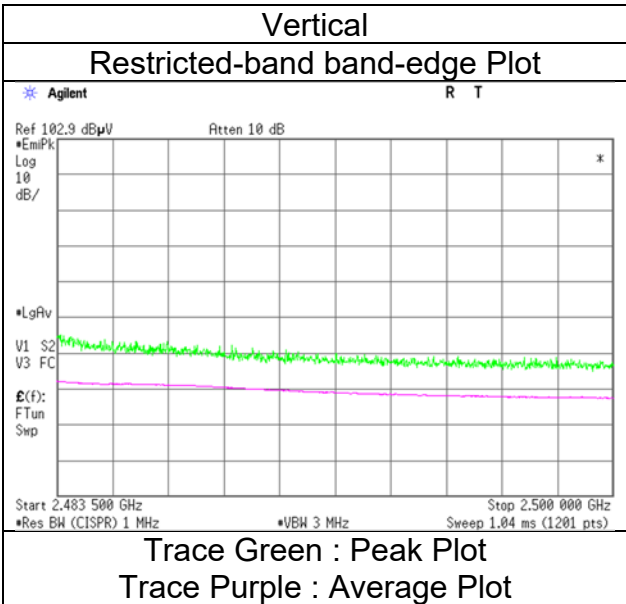
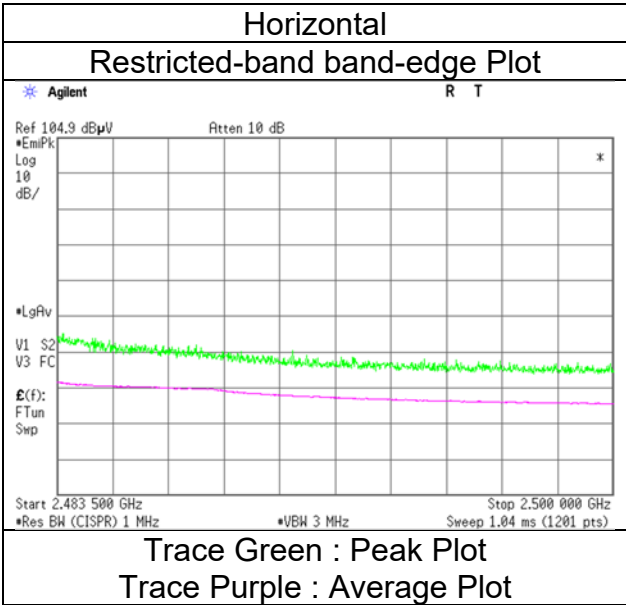
Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	111.2	39.9	-	11.9	7.8	32.1	-	27.5	-	43.5	-	16.0	-	
Hori.	149.8	34.2	-	15.0	8.1	32.0	-	25.3	-	43.5	-	18.2	-	
Hori.	161.9	35.4	-	15.5	8.2	32.0	-	27.1	-	43.5	-	16.4	-	
Hori.	172.0	32.6	-	15.9	8.3	32.0	-	24.8	-	43.5	-	18.7	-	
Hori.	256.0	41.3	-	12.2	9.0	32.0	-	30.5	-	46.0	-	15.5	-	
Hori.	320.0	44.0	-	14.3	9.6	32.0	-	35.9	-	46.0	-	10.2	-	
Hori.	2483.5	51.8	41.3	27.7	5.3	31.9	-	52.8	42.4	73.9	53.9	21.1	11.5	
Hori.	4960.0	42.7	36.6	31.7	7.5	30.9	-	51.0	44.9	73.9	53.9	23.0	9.0	
Hori.	7440.0	42.3	32.4	35.5	10.6	32.2	-	56.2	46.3	73.9	53.9	17.7	7.7	Floor noise
Hori.	9920.0	42.5	32.5	36.1	11.4	32.7	-	57.3	47.3	73.9	53.9	16.6	6.6	Floor noise
Vert.	111.2	44.9	-	11.9	7.8	32.1	-	32.5	-	43.5	-	11.0	-	
Vert.	149.8	44.0	-	15.0	8.1	32.0	-	35.1	-	43.5	-	8.4	-	
Vert.	161.9	41.9	-	15.5	8.2	32.0	-	33.6	-	43.5	-	9.9	-	
Vert.	172.0	41.0	-	15.9	8.3	32.0	-	33.2	-	43.5	-	10.3	-	
Vert.	256.0	43.5	-	12.2	9.0	32.0	-	32.7	-	46.0	-	13.3	-	
Vert.	320.0	40.7	-	14.3	9.6	32.0	-	32.6	-	46.0	-	13.5	-	
Vert.	2483.5	50.5	39.5	27.7	5.3	31.9	-	51.6	40.6	73.9	53.9	22.3	13.3	
Vert.	4960.0	43.2	37.9	31.7	7.5	30.9	-	51.5	46.2	73.9	53.9	22.4	7.8	
Vert.	7440.0	42.3	32.4	35.5	10.6	32.2	-	56.2	46.3	73.9	53.9	17.7	7.7	Floor noise
Vert.	9920.0	42.5	32.5	36.1	11.4	32.7	-	57.3	47.3	73.9	53.9	16.6	6.6	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.

Distance factor: 1 GHz - 6 GHz 20log (3.9 m / 3.0 m) = 2.28 dB
6 GHz - 10 GHz 20log (4.9 m / 3.0 m) = 4.27 dB
10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB

Radiated Spurious Emission
(Reference Plot for band-edge)

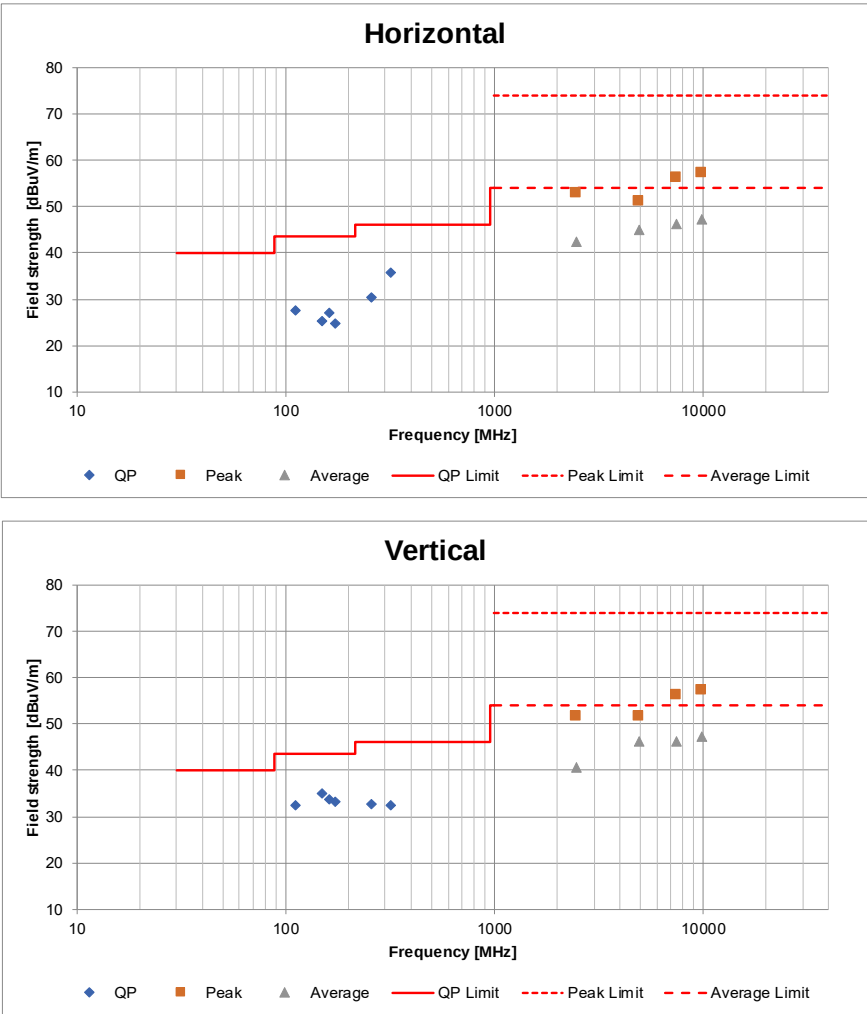
Mode	Tx, Hopping Off, 3DH5, 2480 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz



* 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, 2480 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
March 24, 2025	SAC4	21 deg. C	45 % RH	Tomoya Sone	Above 6 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Shousei Hamaguchi	Below 1 GHz
April 6, 2025	SAC4	20 deg. C	42 % RH	Yuta Moriya	1 GHz to 6 GHz

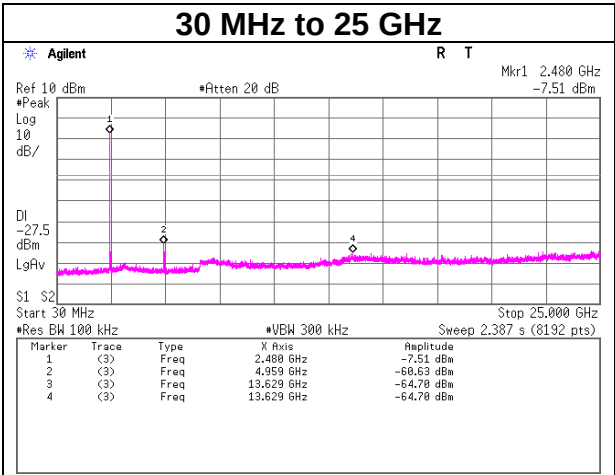
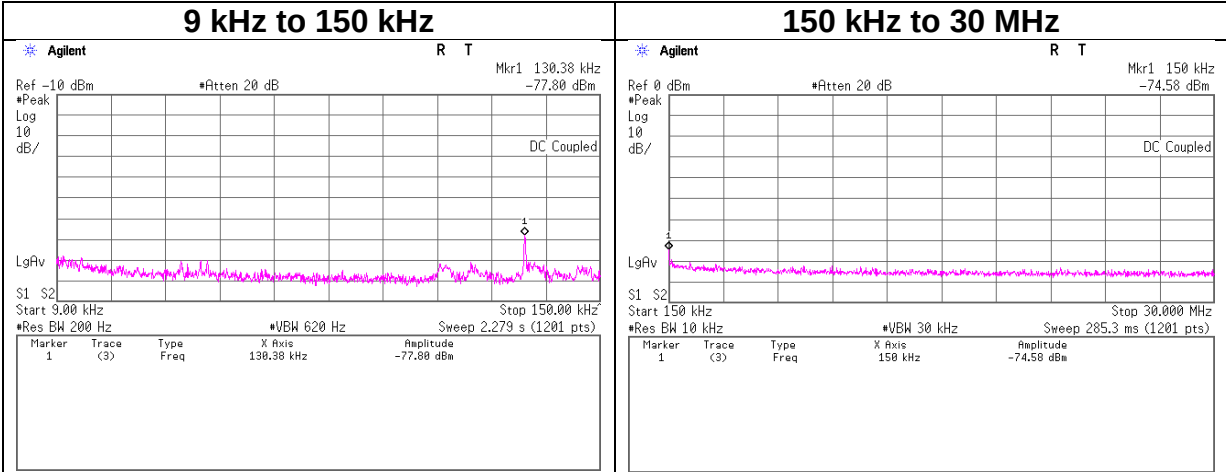


*These plots data contain sufficient number to show the trend of characteristic features for EUT.

Conducted Spurious Emission

Mode	Tx, Hopping Off, 3DH5			
Date	Test site	Temperature	Humidity	Engineer
August 19, 2025	MR8	23 deg. C	64 % RH	Shousei Hamaguchi

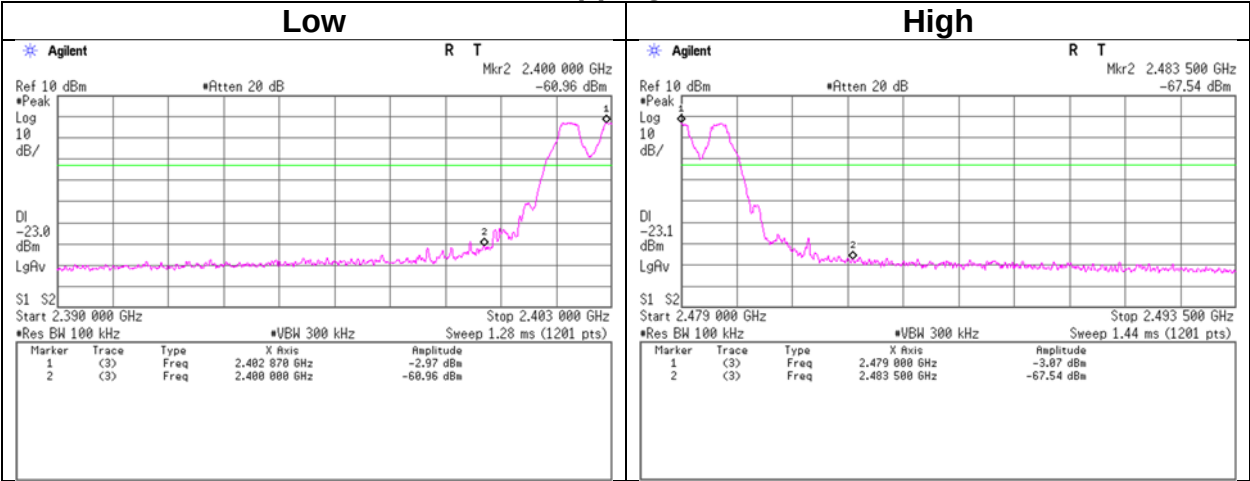
2480 MHz



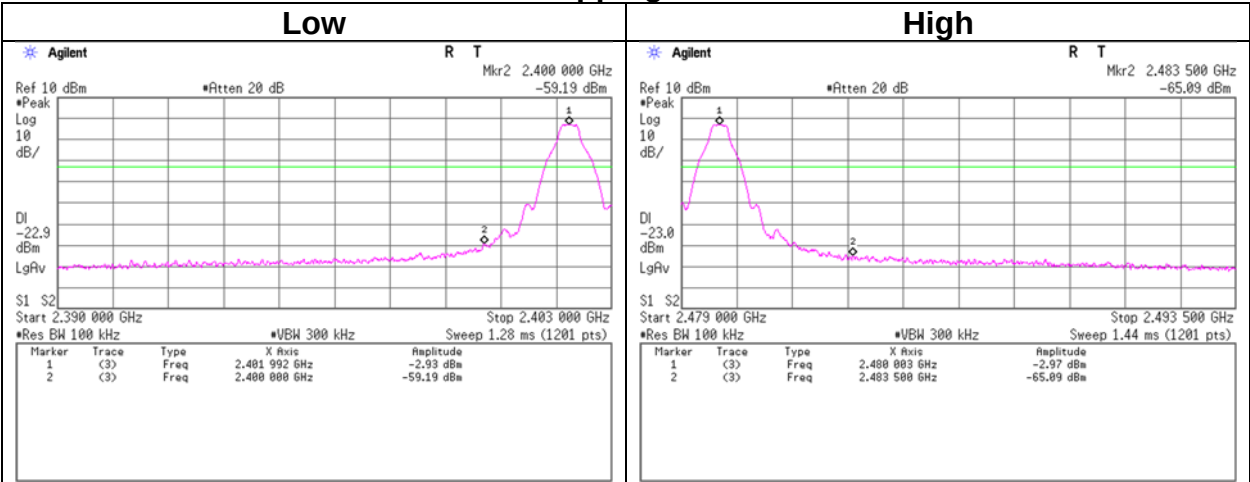
Conducted Emission Band Edge compliance

Mode	Tx DH5			
Date	Test site	Temperature	Humidity	Engineer
August 19, 2025	MR8	23 deg. C	64 % RH	Shousei Hamaguchi

Hopping On



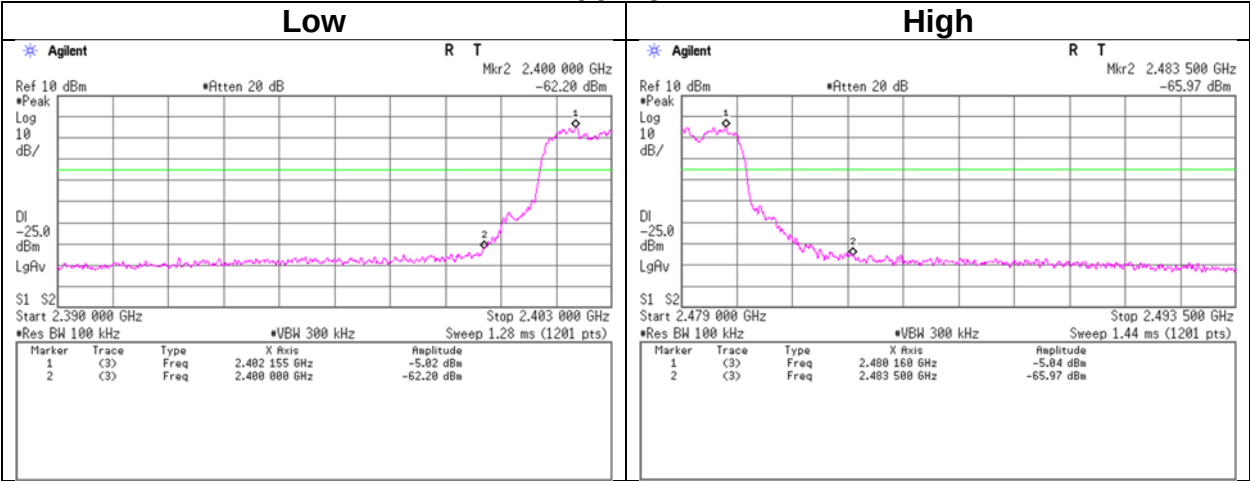
Hopping Off



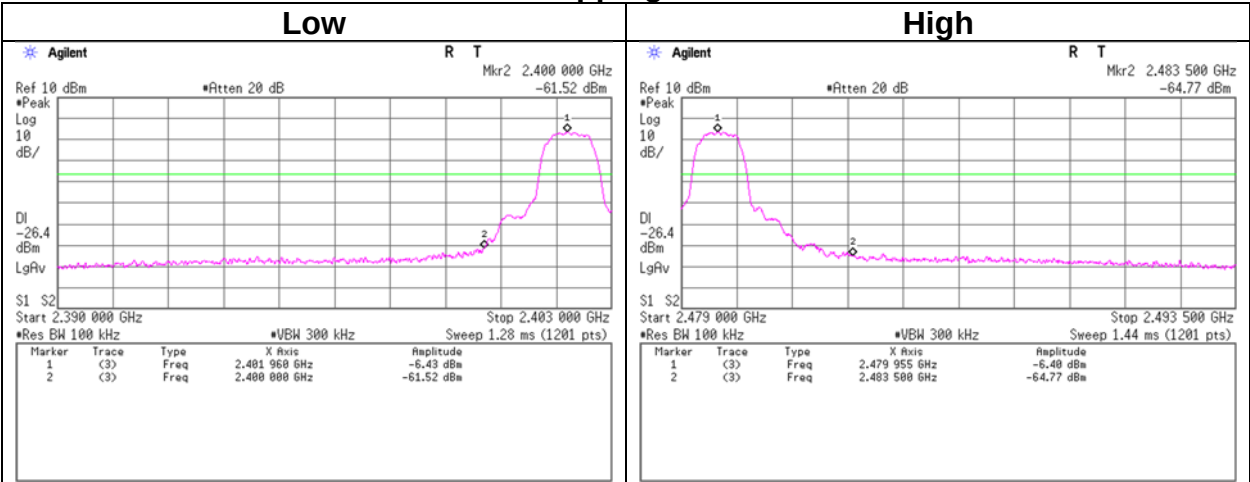
Conducted Emission Band Edge compliance

Mode	Tx 3DH5			
Date	Test site	Temperature	Humidity	Engineer
August 19, 2025	MR8	23 deg. C	64 % RH	Shousei Hamaguchi

Hopping On



Hopping Off



APPENDIX 2: Test Instruments

Test Equipment

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
AT	141269	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	03/03/2025	12
AT	141360	DIGITAL HiTESTER	HIOKI E. E. CORPORATION	3805	070900532	01/16/2025	12
AT	141410	Microwave cable	Huber+Suhner	SUCOFLEX 102	37953/2	09/03/2025	12
AT	141557	DIGITAL HiTESTER	HIOKI E. E. CORPORATION	3805	070900530	01/15/2025	12
AT	141572	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	3401	01/19/2025	12
AT	141805	Power Meter	Anritsu Corporation	ML2495A	6K00003338	08/26/2025	12
AT	141840	Power sensor	Anritsu Corporation	MA2411B	011737	08/26/2025	12
AT	141855	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46187750	11/14/2025	12
AT	141903	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46186390	01/30/2025	12
AT	195231	Microwave Cable	Huber+Suhner	SF102D/11PC24/11 PC24/1000mm	537062/126E	02/19/2025	12
AT	244711	Thermo-Hygrometer	HIOKI E. E. CORPORATION	LR5001	231202105	01/19/2025	12
RE	141267	Logperiodic Antenna (200-1000MHz)	Schwarzbeck Mess- Elektronik OHG	VUSLP9111B	9111B-192	09/12/2025	12
RE	141296	High Pass Filter 3.5-18.0GHz	UL-ISE	HPF SELECTOR	002	09/03/2025	12
RE	141397	Coaxial Cable	UL-ISE EMC	-	-	11/12/2025	12
RE	141425	Biconical Antenna	Schwarzbeck Mess- Elektronik OHG	VHA9103+BBA9106	VHA 91031302	08/14/2025	12
RE	141506	Horn Antenna 15-40GHz	Schwarzbeck Mess- Elektronik OHG	BBHA9170	BBHA9170307	08/13/2025	12
RE	141508	Horn Antenna 1-18GHz	Schwarzbeck Mess- Elektronik OHG	BBHA9120D	557	05/20/2025	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	10/17/2025	12
RE	141583	Pre Amplifier	SONOMA INSTRUMENT	310	260833	04/02/2025	12
RE	141855	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46187750	11/14/2025	12
RE	141900	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46185823	11/13/2024	12
RE	141951	EMI Test Receiver	Rohde & Schwarz	ESR26	101408	05/07/2025	12
RE	142011	AC4_Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	07/10/2025	24
RE	142017	AC4_Semi Anechoic Chamber(SVSWR)	TDK	Semi Anechoic Chamber 3m	DA-10005	04/17/2025	24
RE	142230	Measure, Tape, Steel	KOMELON	KMC-36	-	-	-
RE	178648	EMI measurement program	TSJ (Techno Science Japan)	TEPTO-DV	-	-	-
RE	220646	Attenuator	Huber+Suhner	6806 N-50-1	-	03/06/2025	12
RE	244710	Thermo-Hygrometer	HIOKI E. E. CORPORATION	LR5001	231202104	01/19/2025	12
RE	245787	Double Ridge Horn Antenna	Schwarzbeck Mess- Elektronik OHG	BBHA 9120 C	689	04/01/2025	12
RE	246002	Microwave Cable	Huber+Suhner	SF103/11PC35/11P C35/1000mm / SF126E/5000mm	800674(1m) / 610205(5m)	03/18/2025	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

RE: Radiated Emission