

RADIO TEST REPORT

Test Report No. 15486544S-A

Customer	ALPS ALPINE CO., LTD.
Description of EUT	Vehicle equipment
Model Number of EUT	AH00CDC
FCC ID	A269ZUA174
Test Regulation	FCC Part 15 Subpart C
Test Result	Complied
Issue Date	August 6, 2025
Remarks	Bluetooth (BR / EDR) parts

Representative Test EngineerYosuke Murakami
Engineer**Approved By**Kazuya Noda
Leader

CERTIFICATE 1266.03

- ☐ 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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- For test report(s) referred in this report, the latest version (including any revisions) is always referred.
- 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)	15486544S-A	August 6, 2025	-

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

CONTENTS	PAGE
SECTION 1: Customer Information	5
SECTION 2: Equipment Under Test (EUT).....	5
SECTION 3: Test Summary	7
SECTION 4: Operation of EUT during testing	10
SECTION 5: Radiated Spurious Emission.....	16
SECTION 6: Antenna Terminal Conducted Tests	18
APPENDIX 1: Test data	19
20 dB Bandwidth, 99 %Occupied Bandwidth and Carrier Frequency Separation	19
Number of Hopping Frequency	23
Dwell time	25
Maximum Peak Output Power	28
Radiated Spurious Emission.....	30
Conducted Spurious Emission.....	43
Conducted Emission Band Edge compliance	49
APPENDIX 2: Test Instruments	51
APPENDIX 3: Photographs of test setup.....	53
Radiated Spurious Emission.....	53
Antenna Terminal Conducted Tests	54

SECTION 1: Customer Information

Company Name	ALPS ALPINE CO., LTD.
Address	20-1 Yoshima Industrial park, Iwaki, Fukushima, Japan 970-1192
Telephone Number	+81-246-36-4111
Contact Person	Kenji Nagase

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	Vehicle equipment
Model Number	AH00CDC
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	December 17, 2024
Test Date	December 19, 2024 to April 17, 2025

2.2 Product Description

General Specification

Rating	DC 13.5 V
Operating temperature	-30 deg. C to +70 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.

WLAN (IEEE802.11b/11g/11n-20/11ax-20)

Equipment Type	Transceiver	
Frequency of Operation	20 MHz Band: 2412 MHz to 2462 MHz	
Type of Modulation	DSSS, OFDM	
	OFDMA (IEEE802.11ax Only)	20 MHz: 26/52/106/242-tone RU
Antenna Type	Printed Inverted F Antenna	
Antenna Gain ^{a)}	ANT1: -1.70 dBi	
	ANT2: -1.70 dBi	

Bluetooth (BR/EDR/Low Energy)

Equipment Type	Transceiver	
Frequency of Operation	2402 MHz to 2480 MHz	
Type of Modulation	BT: FHSS (GFSK, $\pi/4$ DQPSK, 8 DPSK) BT LE: GFSK	
Antenna Type	Printed Inverted F Antenna	
Antenna Gain ^{a)}	-1.70 dBi	

WLAN (IEEE802.11a/11n-20/11ac-20/11ax-20/11n-40/11ac-40/11ax-40/11ac-80/11ax-80/11ac-160/11ax-160)

Equipment Type	Transceiver	
Frequency of Operation	20 MHz Band	5180 MHz to 5240 MHz 5260 MHz to 5320 MHz 5500 MHz to 5720 MHz 5745 MHz to 5825 MHz 5955 MHz to 6415 MHz 6535 MHz to 6855 MHz
	40 MHz Band	5190 MHz to 5230 MHz 5270 MHz to 5310 MHz 5510 MHz to 5710 MHz 5755 MHz to 5795 MHz 5965 MHz to 6405 MHz 6565 MHz to 6845 MHz
	80 MHz Band	5210 MHz, 5290 MHz 5530 MHz to 5690 MHz 5775 MHz 5985 MHz to 6385 MHz 6625 MHz to 6785 MHz
	160 MHz Band	5250 MHz, 5570 MHz 6025 MHz to 6345 MHz 6665 MHz
Type of Modulation	OFDM	
	OFDMA (IEEE802.11ax Only)	20 MHz: 26/52/106/242-tone RU
		40 MHz: 26/52/106/242/484-tone RU
		80 MHz: 26/52/106/242/484/996-tone RU
		160 MHz: 26/52/106/242/484/996/2x996-tone RU
Antenna Type	Printed Inverted F Antenna	
Antenna Gain ^{a)}	U-NII-1, -2A, -2C, -3	ANT1: 2.73 dBi
		ANT2: 3.30 dBi
	U-NII-5, 7	ANT1: 4.67 dBi
		ANT2: 4.42 dBi

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

* 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 for ISED
ANSI C63.25.1-2018
KDB 558074 D01 v05r02
KDB 662911 D01 v02r01 for FCC MIMO device
RSS-Gen Issue 5/Amendment 1/Amendment 2 for ISED

3.3 Summary of Test Results

Item	Specification	Results	Remarks
Conducted Emission	FCC: Section 15.207 ISED: RSS-Gen 8.8	N/A	*1)
Carrier Frequency Separation	FCC: Section 15.247(a)(1) ISED: RSS-247 5.1 (b)	Complied	Conducted
20dB Bandwidth	FCC: Section 15.247(a)(1) ISED: RSS-247 5.1 (a)	Complied	Conducted
Number of Hopping Frequency	FCC: Section 15.247(a)(1)(iii) ISED: RSS-247 5.1 (d)	Complied	Conducted
Dwell time	FCC: Section 15.247(a)(1)(iii) ISED: RSS-247 5.1 (d)	Complied	Conducted
Maximum Peak Output Power	FCC: Section 15.247(b)(1) ISED: RSS-247 5.4 (b)	Complied	Conducted
Spurious Emission & Band Edge Compliance	FCC: Section 15.247(d) ISED: RSS-247 5.5 RSS-Gen 8.9 RSS-Gen 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 does not have AC Mains.

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

FCC Part 15.31 (e)

The EUT provides stable voltage constantly to the RF Part regardless of input voltage. Instead of a new battery, DC power supply was used for the test. That does not affect the test result, therefore the 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 $k = 2$.

Item	Frequency range	Uncertainty (+/-)
Conducted Emission (AC Mains) LISN	150 kHz to 30 MHz	3.0 dB
Radiated Emission (Measurement distance: 3 m)	9 kHz to 30 MHz	3.3 dB
	30 MHz to 200 MHz	4.8 dB
	200 MHz to 1 GHz	6.1 dB
	1 GHz to 6 GHz	4.7 dB
	6 GHz to 18 GHz	5.3 dB
	18 GHz to 40 GHz	5.5 dB
Radiated Emission (Measurement distance: 1 m)	1 GHz to 18 GHz	5.6 dB
	18 GHz to 40 GHz	5.8 dB
Antenna terminal test		Uncertainty (+/-)
Power Measurement above 1 GHz (Average Detector)		1.3 dB
Power Measurement above 1 GHz (Peak Detector)		1.5 dB
Spurious Emission (Conducted) below 1 GHz		0.93 dB
Conducted Emissions Power Density Measurement 1 GHz to 3 GHz		0.93 dB
Conducted Emissions Power Density Measurement 3 GHz to 18 GHz		3.0 dB
Spurious Emission (Conducted) 18 GHz to 26.5 GHz		2.8 dB
Spurious Emission (Conducted) 26.5 GHz to 40 GHz		2.3 dB
Bandwidth Measurement		0.012 %
Duty Cycle and Time Measurement		0.27 %
Temperature		2.2 deg.C.
Humidity		3.4 %
Voltage		0.92 %

3.6 Test Location

UL Japan, Inc. Shonan EMC Lab.

1-22-3, Megumigaoka, Hiratsuka-shi, Kanagawa-ken 259-1220 Japan

Telephone: +81-463-50-6400

A2LA Certificate Number: 1266.03

(FCC test firm registration number: 626366, ISED lab company number: 2973D / CAB identifier: JP0001)

Test room	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measurement distance
No.1 Semi-anechoic chamber (SAC1)	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.2 Semi-anechoic chamber (SAC2)	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.3 Semi-anechoic chamber (SAC3)	12.7 x 7.7 x 5.35	12.7 x 7.7	5 m
No.4 Semi-anechoic chamber (SAC4)	8.1 x 5.1 x 3.55	8.1 x 5.1	-
Wireless anechoic chamber 1 (WAC1)	9.5 x 6.0 x 5.4	9.5 x 6.0	3 m
Wireless anechoic chamber 2 (WAC2)	9.5 x 6.0 x 5.4	9.5 x 6.0	3 m
No.1 Shielded room (SR1)	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.2 Shielded room (SR2)	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.3 Shielded room (SR3)	6.3 x 4.7 x 2.7	6.3 x 4.7	-
No.4 Shielded room (SR4)	4.4 x 4.7 x 2.7	4.4 x 4.7	-
No.5 Shielded room (SR5)	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.6 Shielded room (SR6)	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.8 Shielded room (SR8)	3.45 x 5.5 x 2.4	3.45 x 5.5	-
No.1 Measurement room (MR1)	2.55 x 4.1 x 2.5	-	-
No.2 Measurement room (MR2)	4.5 x 3.5 x 2.5	-	-
Wireless shielded room 1 (WSR1)	3.0 x 4.5 x 2.7	3.0 x 4.5	-
Wireless shielded room 2 (WSR2)	3.0 x 4.5 x 2.7	3.0 x 4.5	-

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: 9 (Setting Value) Software: QRCT Version: 4.0.125.1 (Date: 2024.12.17, 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)	Tx 3DH5 *1)	Off	2441 MHz
Radiated Spurious Emission (Above 1 GHz), Conducted Spurious Emission	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
20 dB 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

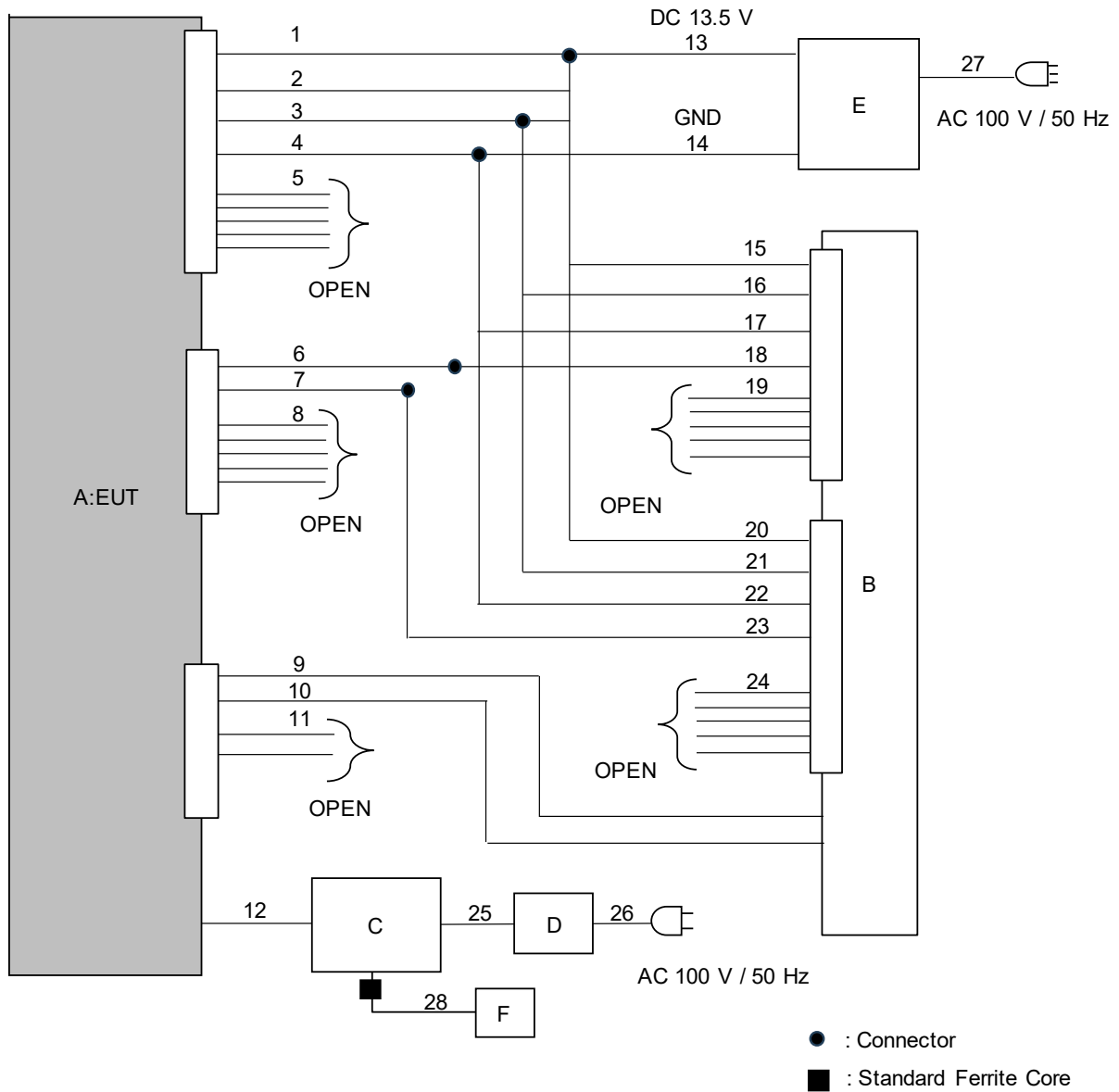
*As a result of preliminary test, the formal test was performed with the above modes, which had the maximum payload length (except Dwell time test)
*2DH mode (2 Mb/s EDR: pi/4DQPSK) was excluded for other tests than power measurement by using 3DH mode (3 Mb/s EDR: 8DPSK) as a representative.
*It is considered 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) 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.

Simultaneous transmission

Test Item	Operating Mode *1)	Tested Antenna
Radiated Spurious Emission	Tx DH5 2441 MHz with 11ac-20 5825 MHz	BT: ANT1 5 GHz WLAN: ANT1 + ANT2
	Tx DH5 2441 MHz with 11ax-160(OFDM) 6665 MHz	BT: ANT1 6 GHz WLAN: ANT1 + ANT2
*1) This test was conducted using a combination of the worst mode above 1 GHz in the BT spurious emissions test and the highest power mode in the antenna terminal conducted test as the representative mode.		

4.2 Configuration and Peripherals

[Antenna Terminal Conducted test]



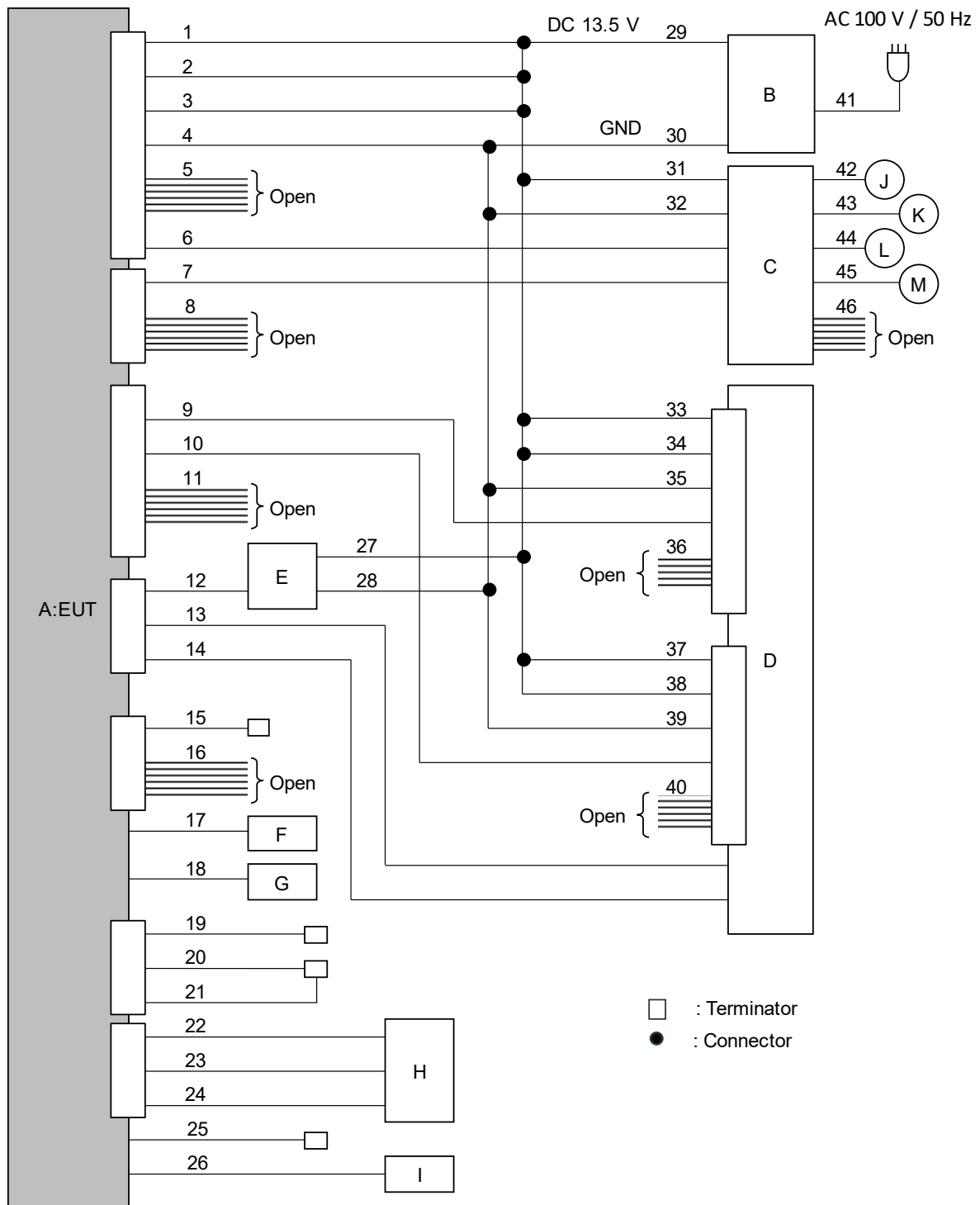
Description of EUT and Support Equipment

No.	Item	Model Number	Serial Number	Manufacturer	Remarks
A	Vehicle equipment	AH00CDC	No.020	ALPS ALPINE CO., LTD.	EUT
B	Display Unit	QH00287A	WK2 379 307	ALPS ALPINE CO., LTD.	-
C	Laptop PC	HP 255 G10	5CD4407TJY	HP	-
D	AC Adapter	TPN-CA14	WHGRE0EV2JWJRT	HP	-
E	Power Supply(DC)	PNA16-10A	ER001077	Kikusui Electronics Corp.	-
F	Mouse	4YH-00003	9170523025388	Microsoft	-

List of Cables Used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	IG	0.5+0.1	Unshielded	Unshielded	-
2	ACC	0.5+0.5	Unshielded	Unshielded	-
3	+B	0.5+0.5	Unshielded	Unshielded	-
4	GND	0.5+0.5	Unshielded	Unshielded	-
5	Signal	0.5	Unshielded	Unshielded	-
6	CENTER DISP CONT	0.5	Unshielded	Unshielded	-
7	METER DISP CONT	0.5	Unshielded	Unshielded	-
8	Signal	0.5	Unshielded	Unshielded	-
9	GVIF	0.5	Shielded	Shielded	-
10	GMSL	0.5	Shielded	Shielded	-
11	Signal	0.5	Shielded	Shielded	-
12	USB	0.45 + 2.0	Shielded	Shielded	-
13	DC(+)	1.4	Unshielded	Unshielded	-
14	GND	1.4	Unshielded	Unshielded	-
15	IG1 CID	0.9	Unshielded	Unshielded	-
16	+B CID	0.9	Unshielded	Unshielded	-
17	GND	0.9	Unshielded	Unshielded	-
18	CENTER DISP CONT	0.9	Unshielded	Unshielded	-
19	Signal	0.9	Unshielded	Unshielded	-
20	IG1 METER	0.9	Unshielded	Unshielded	-
21	+B METER	0.9	Unshielded	Unshielded	-
22	GND	0.9	Unshielded	Unshielded	-
23	METER DISP CONT	0.9	Unshielded	Unshielded	-
24	Signal	0.9	Unshielded	Unshielded	-
25	DC	0.9	Unshielded	Unshielded	-
26	AC	1.8	Unshielded	Unshielded	-
27	AC	2.0	Unshielded	Unshielded	-
28	USB	1.8	Shielded	Shielded	-

[Radiated Emission test]



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

Description of EUT and Support Equipment

No.	Item	Model Number	Serial Number	Manufacturer	Remarks
A	Vehicle equipment	AH00CDC	No.030	ALPS ALPINE CO., LTD.	EUT
B	Power Supply(DC)	PAN35-10A	CY002948	KIKUSUI	-
C	Amplifier	AMP ASSY 17CH	No.03	HARMAN	-
D	Display Unit	QH00287A	E239Z1QH00 287A26000062	ALPS ALPINE CO., LTD.	-
E	Ether Jig	-	-	-	-
F	USB Memory	USM4GL-W	-	Sony Corporation	-
G	GPS Antenna	8B550-T20-A111- M1-03N10907	-	ALPS ALPINE CO., LTD.	-
H	HUD Jig	-	-	-	-
I	Tablet Computer	JDN2-L09	D89E61C92966	Huawei	-
J	Speaker	KFC-RS160	-	KENWOOD	-
K	Speaker	KFC-RS160	-	KENWOOD	-
L	Speaker	KFC-RS160	-	KENWOOD	-
M	Speaker	KFC-RS160	-	KENWOOD	-

List of Cables Used [1/2]

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	IG	0.5+0.2	Unshielded	Unshielded	-
2	ACC	0.5+0.1	Unshielded	Unshielded	-
3	+B	0.5+0.5	Unshielded	Unshielded	-
4	GND	0.5+0.2	Unshielded	Unshielded	-
5	Signal	0.5+1.0	Unshielded	Unshielded	-
6	SWD +B	0.5+1.0	Unshielded	Unshielded	-
7	A2B AUDIO B+/-	0.5+1.0	Unshielded	Unshielded	-
8	Signal	0.5+1.0	Unshielded	Unshielded	-
9	CTR DISP CONT	0.5+1.0	Unshielded	Unshielded	-
10	METER DISP CONT	0.5+1.0	Unshielded	Unshielded	-
11	Signal	0.5+1.0	Unshielded	Unshielded	-
12	Ether	2.2+0.6	Shielded	Shielded	-
13	GVIF	2.2	Shielded	Shielded	-
14	GMLS	2.2	Shielded	Shielded	-
15	Camera	1.1	Shielded	Shielded	-
16	Camera	1.1	Shielded	Shielded	-
17	USB	0.5+2.0	Shielded	Shielded	-
18	GPS	0.4+0.4	Shielded	Shielded	-
19	FM/AM	0.2+2.0	Shielded	Shielded	Main
20	FM/AM	0.3	Shielded	Shielded	Sub
21	AMT+B	0.2+1.0	Unshielded	Unshielded	-
22	Signal	0.8	Shielded	Shielded	-
23	DC(+)	0.8	Unshielded	Unshielded	-
24	GND	0.8	Unshielded	Unshielded	-
25	SiriusXM	0.5+2.0	Shielded	Shielded	-
26	HDMI	0.2+2.9	Shielded	Shielded	-
27	DC(+)	0.5+0.4	Unshielded	Unshielded	-
28	GND	0.5+0.2	Unshielded	Unshielded	-
29	DC(+)	1.5	Unshielded	Unshielded	-
30	GND	1.5	Unshielded	Unshielded	-
31	DC(+)	1.0+0.9	Unshielded	Unshielded	-
32	GND	1.0+0.5	Unshielded	Unshielded	-
33	IG1 CID	1.0+0.4	Unshielded	Unshielded	-
34	+B CID	1.0+0.6	Unshielded	Unshielded	-
35	GND	1.0+0.1	Unshielded	Unshielded	-
36	Signal	1.0	Unshielded	Unshielded	-

List of Cables Used [2/2]

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
37	IG1 METER	1.0+0.3	Unshielded	Unshielded	-
38	+B METER	1.0+0.7	Unshielded	Unshielded	-
39	GND	1.0+0.3	Unshielded	Unshielded	-
40	Signal	1.0	Unshielded	Unshielded	-
41	AC	2.9	Unshielded	Unshielded	-
42	Speaker	1.0+2.0	Unshielded	Unshielded	-
43	Speaker	1.0+2.0	Unshielded	Unshielded	-
44	Speaker	1.0+2.0	Unshielded	Unshielded	-
45	Speaker	1.0+2.0	Unshielded	Unshielded	-
46	Signal	1.0	Unshielded	Unshielded	-

SECTION 5: Radiated Spurious Emission

Test Procedure

[For below 1 GHz]

EUT was placed on a urethane platform of nominal size, 1.0 m by 2.0 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 a urethane 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

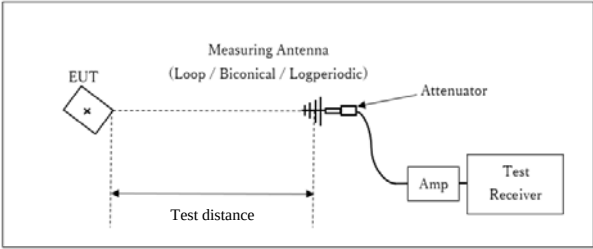
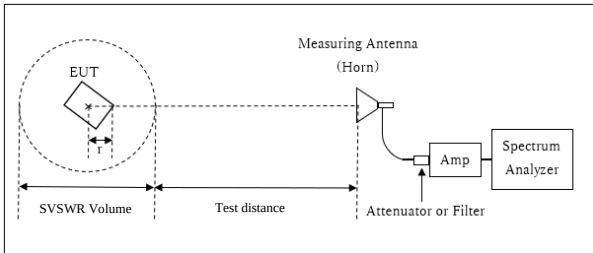
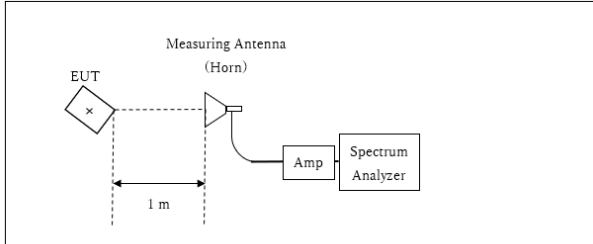
In any 100 kHz bandwidth outside the restricted band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired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

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 2: Test Setup

Below 1 GHz	
 × : Center of turn table	Test Distance: 3 m
1 GHz to 10 GHz	
 r : Radius of an outer periphery of EUT × : Center of turn table	Distance Factor: $20 \times \log (3.87 \text{ m}^* / 3.0 \text{ m}) = 2.22 \text{ dB}$ *(Test Distance + SVSWR Volume / 2) - r = 3.87 m Test Distance: 3 m SVSWR Volume: 2 m (SVSWR Volume has been calibrated based on CISPR 16-1-4.) r: 0.13 m
10 GHz to 40 GHz	
 × : Center of turn table	Distance Factor: $20 \times \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$ *Test Distance: 1 m

The test was made on EUT at the normal use position.

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 *1)	Spectrum Analyzer
Maximum Peak Output Power	-	-	-	Auto	Peak/Average *2)	-	Power Meter (Sensor: 160 MHz BW)
Carrier Frequency Separation	3 MHz	100 kHz	300 kHz	Auto	Peak	Max Hold	Spectrum Analyzer
Number of Hopping Frequency	30 MHz	100 kHz	300 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	13 MHz	100 kHz	300 kHz	Auto	Peak	Max Hold	Spectrum Analyzer
*1) The measurement was performed with Max Hold since the duty cycle was not 100 %. 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	Tx, Hopping Off, Tx, Hopping On
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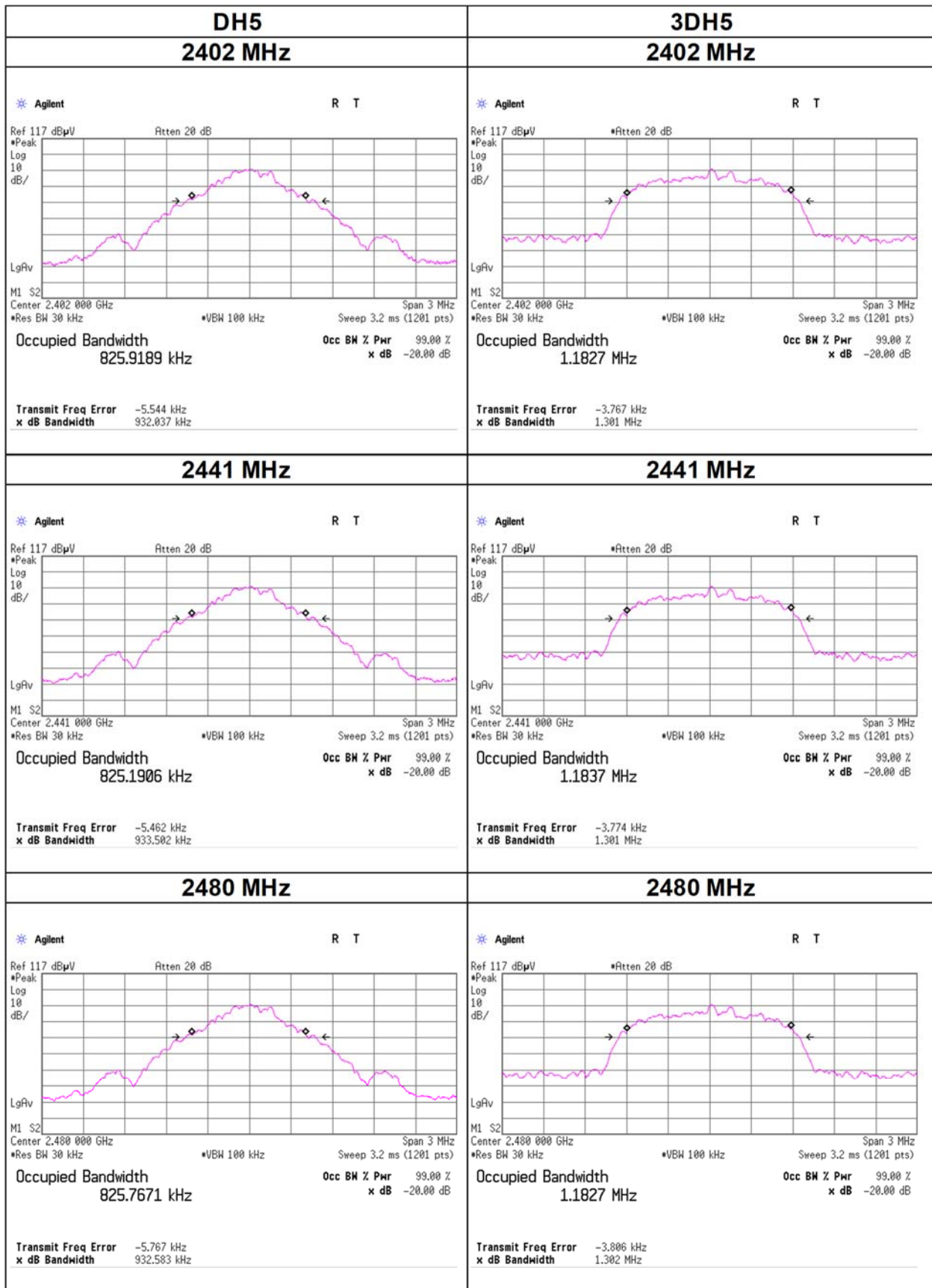
Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

Mode	Freq. [MHz]	20 dB Bandwidth [MHz]	99 % Occupied Bandwidth [kHz]	Carrier Frequency Separation [MHz]	Limit for Carrier Frequency separation [MHz]
DH5	2402.0	0.932	825.9	1.005	>= 0.621
DH5	2441.0	0.934	825.2	1.003	>= 0.623
DH5	2480.0	0.933	825.8	1.000	>= 0.622
DH5	Hopping On	-	78626.4	-	-
3DH5	2402.0	1.301	1182.7	1.008	>= 0.867
3DH5	2441.0	1.301	1183.7	1.003	>= 0.867
3DH5	2480.0	1.302	1182.7	1.008	>= 0.868
3DH5	Hopping On	-	78730.0	-	-

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

No limit applies to 20 dB Bandwidth.

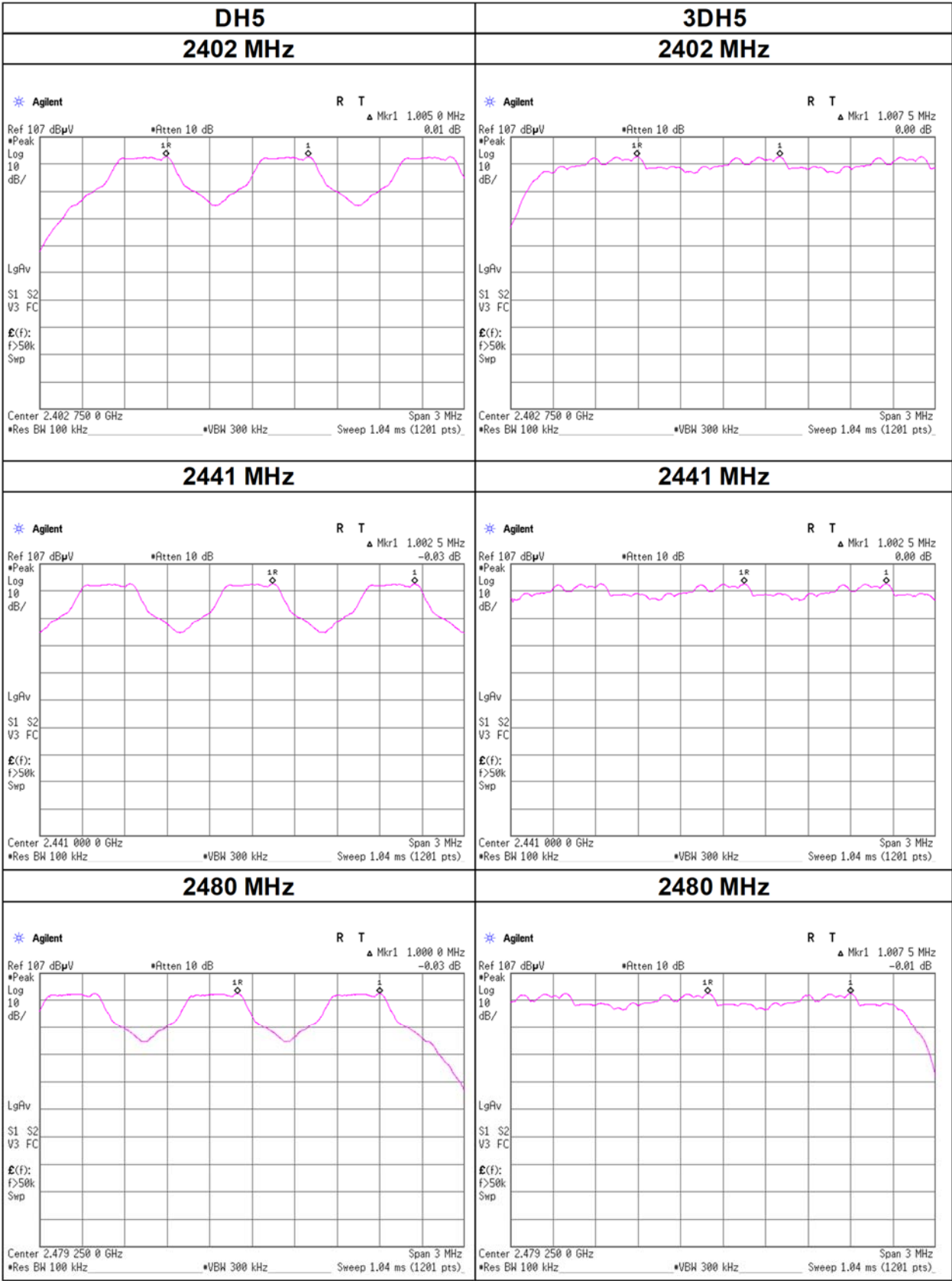
20dB Bandwidth and 99% Occupied Bandwidth



20dB Bandwidth and 99% Occupied Bandwidth



Carrier Frequency Separation



Number of Hopping Frequency

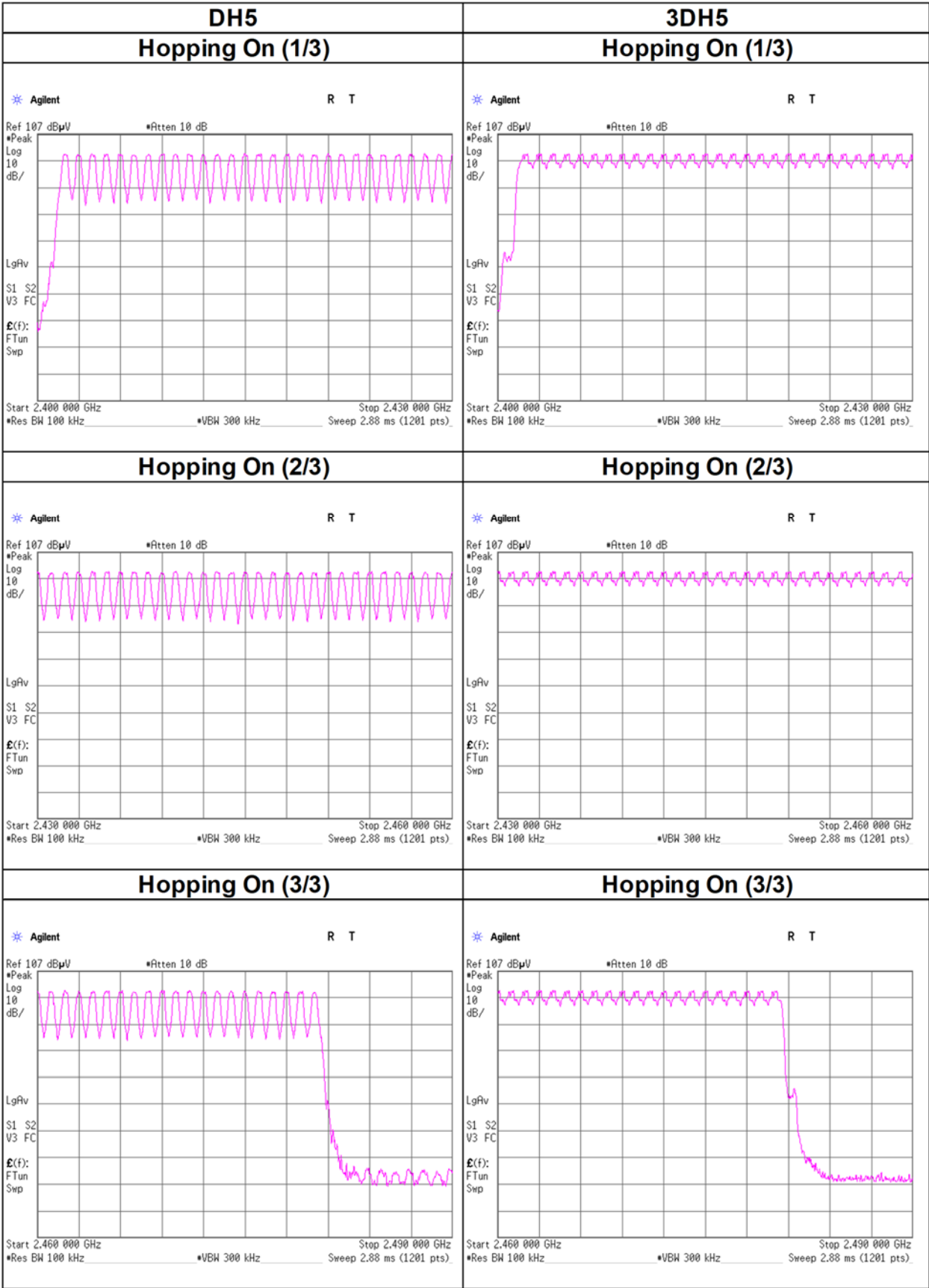
Mode	Tx, Hopping On
------	----------------

Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

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
------	----------------

Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

Mode	Number of transmission in a 31.6 (79 Hopping x 0.4)	Length of transmission [ms]	Result [ms]	Limit [ms]
DH1	49.6 times / 5 s x 31.6 s = 314 times	0.404	127	400
DH3	25.8 times / 5 s x 31.6 s = 164 times	1.661	272	400
DH5	20.0 times / 5 s x 31.6 s = 127 times	2.911	370	400
3DH1	50.8 times / 5 s x 31.6 s = 322 times	0.410	132	400
3DH3	25.4 times / 5 s x 31.6 s = 161 times	1.663	268	400
3DH5	19.2 times / 5 s x 31.6 s = 122 times	2.914	356	400

Sample Calculation

Result = Number of transmission x Length of transmission

*Average data of 5 tests.

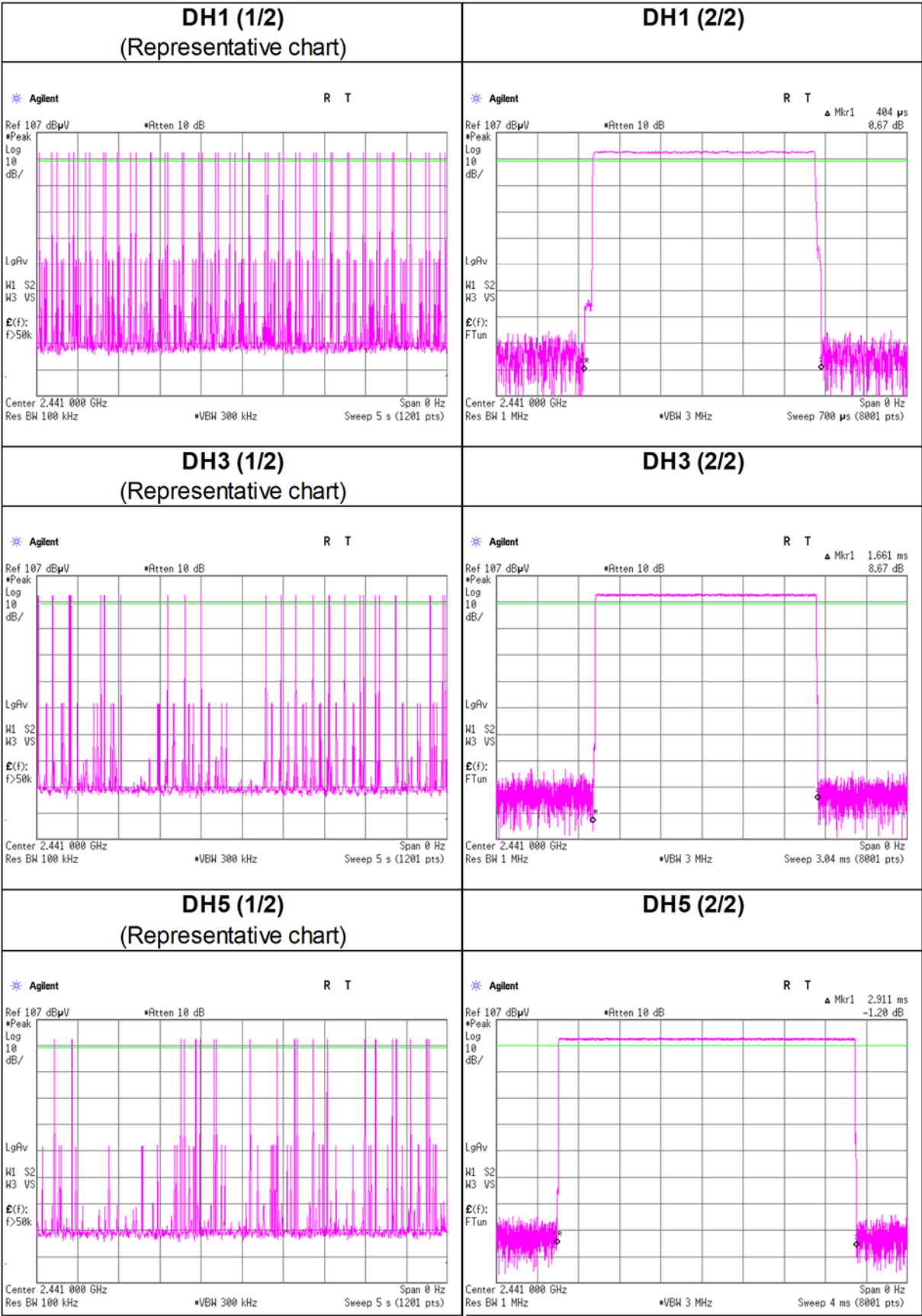
Mode	Sampling [times]					Average [times]
	1	2	3	4	5	
DH1	50	49	49	49	51	49.6
DH3	25	26	26	26	26	25.8
DH5	21	20	19	19	21	20
3DH1	50	51	51	51	51	50.8
3DH3	26	26	24	26	25	25.4
3DH5	21	18	20	19	18	19.2

Sample Calculation

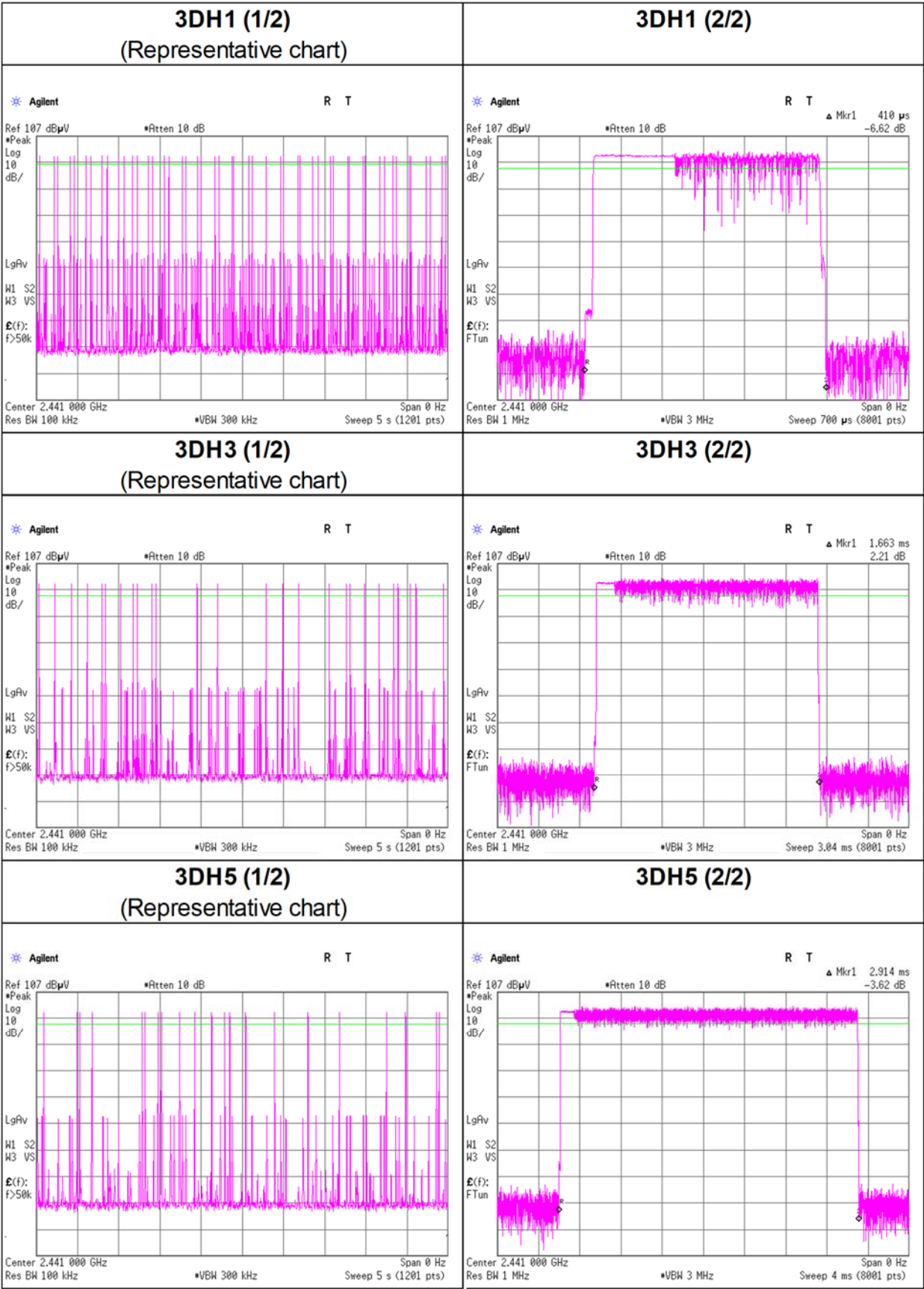
Average = Summation (Sampling 1 to 5) / 5

This device complies with the Bluetooth protocol for FHSS operation, employing a pseudo random channel selection and hopping rate to ensure that the occupancy time in $N \times 0.4$ s, where N is the number of channels being used in the hopping sequence ($20 \leq N \leq 79$), is always less than 0.4 s regardless of packet size. This is confirmed in the test report for $N = 79$.

Dwell time



Dwell time



Maximum Peak Output Power

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

Date	Test Place	Temperature	Humidity	Engineer
December 19, 2024	SR5	21 deg. C	45 % RH	Yohsuke Matsuzawa

Maximum peak output power

					Conducted Power					e.i.r.p. for RSS-247					
Mode	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result		Limit		Margin [dB]	Antenna Gain [dBi]	Result		Limit		Margin [dB]
					[dBm]	[mW]	[dBm]	[mW]			[dBm]	[mW]	[dBm]	[mW]	
DH5	2402	-6.92	1.01	10.18	4.27	2.67	20.97	125	16.70	-1.70	2.57	1.81	36.02	4000	33.45
DH5	2441	-6.89	1.03	10.18	4.32	2.70	20.97	125	16.65	-1.70	2.62	1.83	36.02	4000	33.40
DH5	2480	-7.01	1.06	10.18	4.23	2.65	20.97	125	16.74	-1.70	2.53	1.79	36.02	4000	33.49
2DH5	2402	-5.43	1.01	10.18	5.76	3.77	20.97	125	15.21	-1.70	4.06	2.55	36.02	4000	31.96
2DH5	2441	-5.36	1.03	10.18	5.85	3.85	20.97	125	15.12	-1.70	4.15	2.60	36.02	4000	31.87
2DH5	2480	-5.56	1.06	10.18	5.68	3.70	20.97	125	15.29	-1.70	3.98	2.50	36.02	4000	32.04
3DH5	2402	-4.99	1.01	10.18	6.20	4.17	20.97	125	14.77	-1.70	4.50	2.82	36.02	4000	31.52
3DH5	2441	-4.95	1.03	10.18	6.26	4.23	20.97	125	14.71	-1.70	4.56	2.86	36.02	4000	31.46
3DH5	2480	-5.08	1.06	10.18	6.16	4.13	20.97	125	14.81	-1.70	4.46	2.79	36.02	4000	31.56

Sample Calculation:
Result = Reading + Cable Loss + 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 power (Reference data for RF Exposure)

Mode	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result	
					[dBm]	[mW]
DH5	2402	-7.43	1.01	10.18	3.76	2.38
DH5	2441	-7.39	1.03	10.18	3.82	2.41
DH5	2480	-7.56	1.06	10.18	3.68	2.33
2DH5	2402	-7.93	1.01	10.18	3.26	2.12
2DH5	2441	-7.90	1.03	10.18	3.31	2.14
2DH5	2480	-8.08	1.06	10.18	3.16	2.07
3DH5	2402	-7.92	1.01	10.18	3.27	2.12
3DH5	2441	-7.89	1.03	10.18	3.32	2.15
3DH5	2480	-8.07	1.06	10.18	3.17	2.07

Sample Calculation:
Result = Reading + Cable Loss + Attenuator Loss
*The test was performed with Gate function.

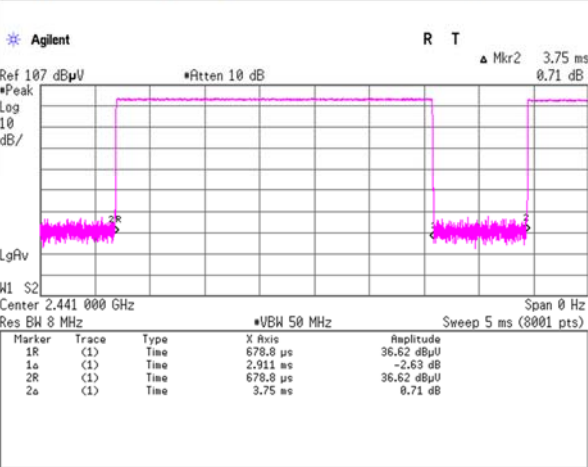
Burst Rate Confirmation

Mode	Tx, Hopping Off
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

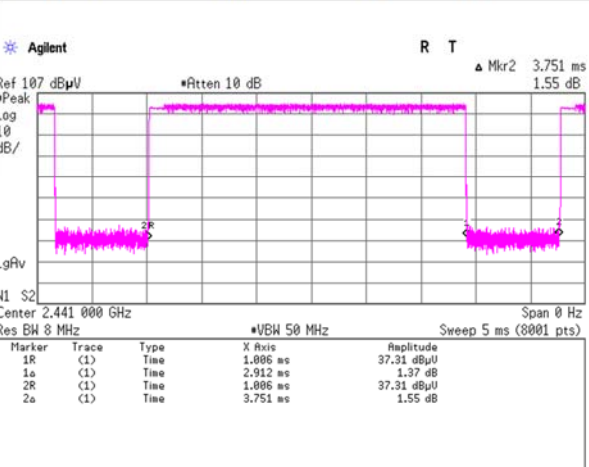
DH5

Tx on / (Tx on + Tx off) =	0.776
Tx on / (Tx on + Tx off) * 100 =	77.6 %
Duty factor = 10 * log (3.75 / 2.911) =	1.10 dB



3DH5

Tx on / (Tx on + Tx off) =	0.776
Tx on / (Tx on + Tx off) * 100 =	77.6 %
Duty factor = 10 * log (3.751 / 2.912) :	1.10 dB



Radiated Spurious Emission

Mode	Tx, Hopping Off, DH5, 2402 MHz
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 GHz
March 4, 2025	WAC2	21 deg. C	29 % RH	Shiro Kobayashi	2.8 GHz to 10 GHz
March 5, 2025	WAC2	22 deg. C	44 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 7, 2025	WAC2	21 deg. C	32 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency	Detector	Reading	Ant.Fac.	Loss	Gain	Distance	Result	Limit	Margin	Height	Angle	Remark
	[MHz]		[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[deg.]	
Hori.	2248.465	PK	52.68	27.25	-28.68	-	2.22	53.47	73.9	20.4	150	58	-
Hori.	2274.175	PK	53.46	27.35	-28.66	-	2.22	54.37	73.9	19.5	190	56	-
Hori.	2390.000	PK	47.68	27.75	-28.59	-	2.22	49.06	73.9	24.8	190	56	-
Hori.	4804.000	PK	47.09	31.56	-36.43	-	2.22	44.44	73.9	29.4	150	0	Floor Noise
Hori.	7206.000	PK	46.48	36.21	-34.86	-	2.22	50.05	73.9	23.8	150	0	Floor Noise
Hori.	9608.000	PK	45.26	38.14	-31.99	-	2.22	53.63	73.9	20.2	150	0	Floor Noise
Hori.	4804.000	AV	36.00	31.56	-36.43	-	2.22	33.35	53.9	20.5	150	0	Floor Noise
Hori.	7206.000	AV	36.02	36.21	-34.86	-	2.22	39.59	53.9	14.3	150	0	Floor Noise
Hori.	9608.000	AV	34.24	38.14	-31.99	-	2.22	42.61	53.9	11.2	150	0	Floor Noise
Vert.	2248.530	PK	50.93	27.25	-28.68	-	2.22	51.72	73.9	22.1	235	94	-
Vert.	2274.014	PK	53.38	27.35	-28.66	-	2.22	54.29	73.9	19.6	235	94	-
Vert.	2390.000	PK	47.24	27.75	-28.59	-	2.22	48.62	73.9	25.2	235	94	-
Vert.	4804.000	PK	46.99	31.56	-36.43	-	2.22	44.34	73.9	29.5	150	0	Floor Noise
Vert.	7206.000	PK	46.60	36.21	-34.86	-	2.22	50.17	73.9	23.7	150	0	Floor Noise
Vert.	9608.000	PK	45.51	38.14	-31.99	-	2.22	53.88	73.9	20.0	150	0	Floor Noise
Vert.	4804.000	AV	35.85	31.56	-36.43	-	2.22	33.20	53.9	20.7	150	0	Floor Noise
Vert.	7206.000	AV	35.70	36.21	-34.86	-	2.22	39.27	53.9	14.6	150	0	Floor Noise
Vert.	9608.000	AV	34.29	38.14	-31.99	-	2.22	42.66	53.9	11.2	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Average measurement value with Duty Factor

Polarity	Frequency	Detector	Reading	Ant.Fac.	Loss	Gain	Duty Fac.	Distance Fac.	Result	Limit	Margin	Remark
	[MHz]		[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
Hori.	2248.465	AV	42.57	27.25	-28.68	-	1.10	2.22	44.46	53.9	9.4	*2)
Hori.	2274.175	AV	47.60	27.35	-28.66	-	1.10	2.22	49.61	53.9	4.2	*2)
Hori.	2390.000	AV	36.34	27.75	-28.59	-	1.10	2.22	38.82	53.9	15.0	*1)
Vert.	2248.530	AV	44.26	27.25	-28.68	-	1.10	2.22	46.15	53.9	7.7	*2)
Vert.	2274.014	AV	47.59	27.35	-28.66	-	1.10	2.22	49.60	53.9	4.3	*2)
Vert.	2390.000	AV	36.25	27.75	-28.59	-	1.10	2.22	38.73	53.9	15.1	*1)

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Duty factor refer to "Burst rate confirmation" sheet.

*1) Not out of band emission (Leakage Power)

*2) Noise synchronized with duty of carrier frequency.

20 dBc Data Sheet

(RBW 100 kHz, VBW 300 kHz)

Polarity	Frequency	Detector	Reading	Ant.Fac.	Loss	Gain	Distance Fac.	Result	Limit	Margin	Remark
	[MHz]		[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	
Hori.	2402.000	PK	94.56	27.77	-28.58	-	2.22	95.97	-	-	Carrier
Hori.	2400.000	PK	37.88	27.77	-28.58	-	2.22	39.29	75.9	36.6	-
Vert.	2402.000	PK	96.16	27.77	-28.58	-	2.22	97.57	-	-	Carrier
Vert.	2400.000	PK	38.52	27.77	-28.58	-	2.22	39.93	77.5	37.5	-

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

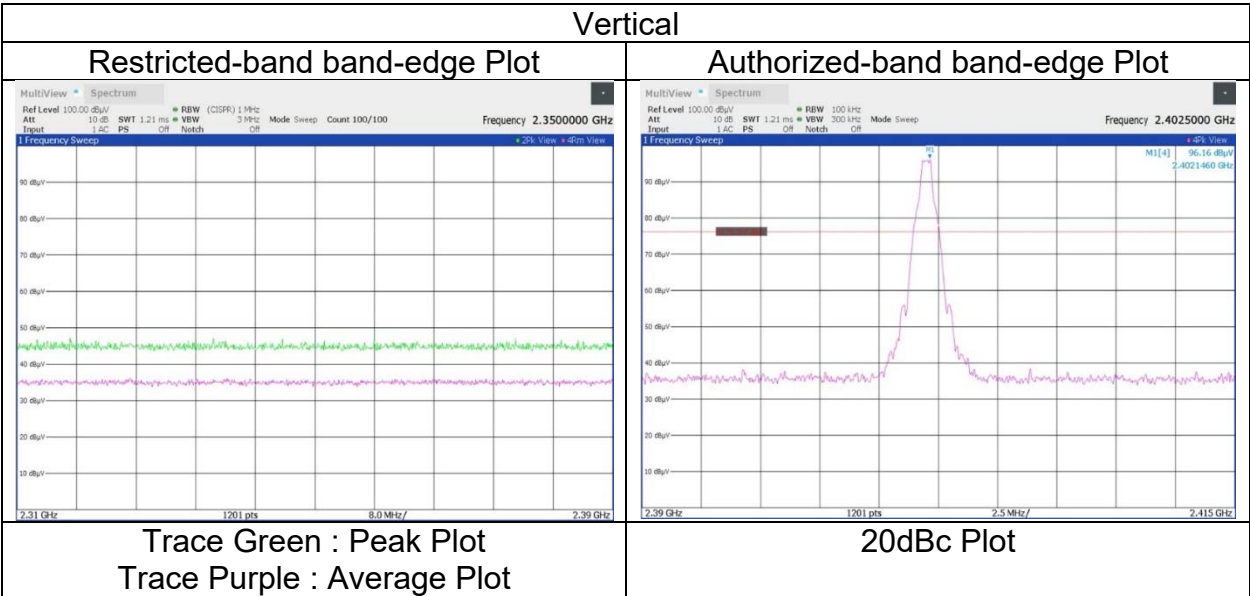
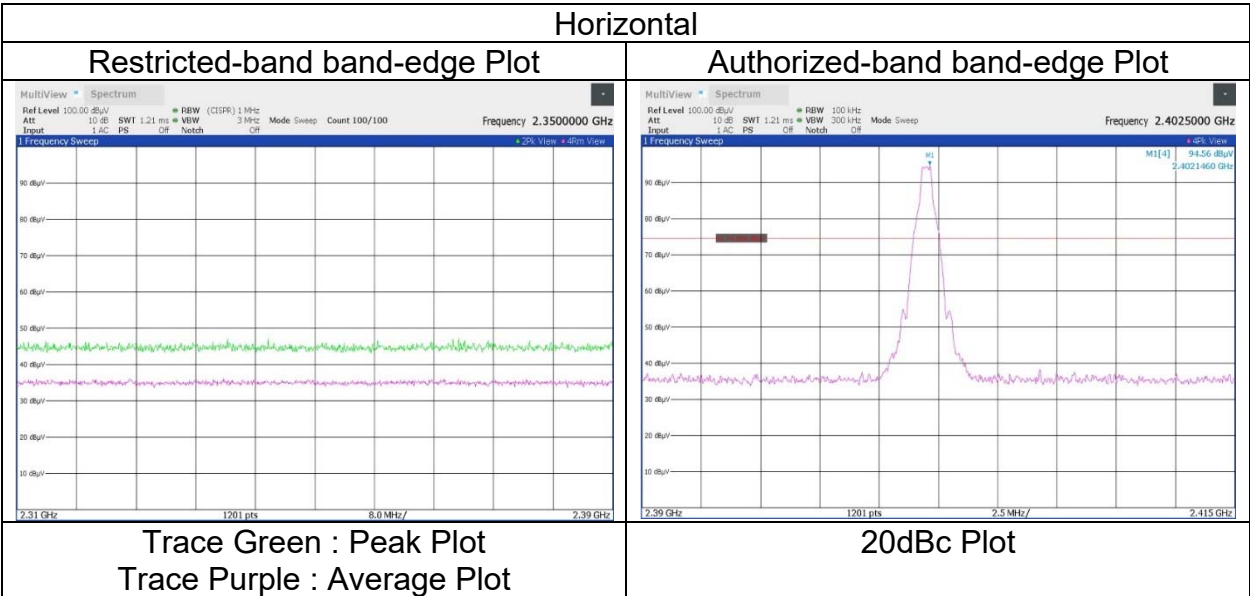
Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

*These results have sufficient margin without taking account Duty cycle correction factor.

Radiated Spurious Emission
(Reference Plot for band-edge)

Mode	Tx, Hopping Off, DH5, 2402 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 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
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 10 GHz
March 5, 2025	WAC2	22 deg. C	44 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 7, 2025	WAC2	21 deg. C	32 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2287.440	PK	50.94	27.40	-28.65	-	2.22	51.91	73.9	21.9	150	67	-
Hori.	2313.101	PK	54.09	27.49	-28.64	-	2.22	55.16	73.9	18.7	150	60	-
Hori.	4882.000	PK	46.26	31.96	-36.41	-	2.22	44.03	73.9	29.8	150	0	Floor Noise
Hori.	7323.000	PK	46.38	36.67	-34.67	-	2.22	50.60	73.9	23.3	150	0	Floor Noise
Hori.	9764.000	PK	45.69	38.10	-31.77	-	2.22	54.24	73.9	19.6	150	0	Floor Noise
Hori.	4882.000	AV	35.71	31.96	-36.41	-	2.22	33.48	53.9	20.4	150	0	Floor Noise
Hori.	7323.000	AV	35.82	36.67	-34.67	-	2.22	40.04	53.9	13.8	150	0	Floor Noise
Hori.	9764.000	AV	33.78	38.10	-31.77	-	2.22	42.33	53.9	11.5	150	0	Floor Noise
Vert.	2287.394	PK	51.80	27.40	-28.65	-	2.22	52.77	73.9	21.1	286	87	-
Vert.	2313.161	PK	55.36	27.49	-28.64	-	2.22	56.43	73.9	17.4	286	87	-
Vert.	4882.000	PK	46.29	31.96	-36.41	-	2.22	44.06	73.9	29.8	150	0	Floor Noise
Vert.	7323.000	PK	47.05	36.67	-34.67	-	2.22	51.27	73.9	22.6	150	0	Floor Noise
Vert.	9764.000	PK	44.23	38.10	-31.77	-	2.22	52.78	73.9	21.1	150	0	Floor Noise
Vert.	4882.000	AV	35.65	31.96	-36.41	-	2.22	33.42	53.9	20.4	150	0	Floor Noise
Vert.	7323.000	AV	35.76	36.67	-34.67	-	2.22	39.98	53.9	13.9	150	0	Floor Noise
Vert.	9764.000	AV	33.73	38.10	-31.77	-	2.22	42.28	53.9	11.6	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac.: 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Average measurement value with Duty Factor

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2287.440	AV	43.60	27.40	-28.65	-	1.10	2.22	45.67	53.9	8.2	*2)
Hori.	2313.101	AV	49.18	27.49	-28.64	-	1.10	2.22	51.35	53.9	2.5	*2)
Vert.	2287.394	AV	45.08	27.40	-28.65	-	1.10	2.22	47.15	53.9	6.7	*2)
Vert.	2313.161	AV	50.88	27.49	-28.64	-	1.10	2.22	53.05	53.9	0.8	*2)

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac.: 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Duty factor refer to "Burst rate confirmation" sheet.

*2) Noise synchronized with duty of carrier frequency.

Radiated Spurious Emission

Mode	Tx, Hopping Off, DH5, 2480 MHz
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 GHz
March 4, 2025	WAC2	21 deg. C	29 % RH	Shiro Kobayashi	2.8 GHz to 10 GHz
March 5, 2025	WAC2	22 deg. C	44 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 7, 2025	WAC2	21 deg. C	32 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2326.596	PK	51.25	27.54	-28.63	-	2.22	52.38	73.9	21.5	264	58	-
Hori.	2352.040	PK	54.88	27.63	-28.61	-	2.22	56.12	73.9	17.7	264	58	-
Hori.	2483.500	PK	47.50	27.80	-28.53	-	2.22	48.99	73.9	24.9	264	58	-
Hori.	4960.000	PK	46.45	32.23	-36.40	-	2.22	44.50	73.9	29.4	150	0	Floor Noise
Hori.	7440.000	PK	46.44	36.81	-34.46	-	2.22	51.01	73.9	22.8	150	0	Floor Noise
Hori.	9920.000	PK	45.83	38.04	-31.57	-	2.22	54.52	73.9	19.3	150	0	Floor Noise
Hori.	4960.000	AV	36.43	32.23	-36.40	-	2.22	34.48	53.9	19.4	150	0	Floor Noise
Hori.	7440.000	AV	35.53	36.81	-34.46	-	2.22	40.10	53.9	13.8	150	0	Floor Noise
Hori.	9920.000	AV	34.46	38.04	-31.57	-	2.22	43.15	53.9	10.7	150	0	Floor Noise
Vert.	2326.375	PK	51.68	27.54	-28.63	-	2.22	52.81	73.9	21.0	400	100	-
Vert.	2352.025	PK	54.77	27.63	-28.61	-	2.22	56.01	73.9	17.8	400	100	-
Vert.	2483.500	PK	47.78	27.80	-28.53	-	2.22	49.27	73.9	24.6	400	95	-
Vert.	4960.000	PK	47.78	32.23	-36.40	-	2.22	45.83	73.9	28.0	150	0	Floor Noise
Vert.	7440.000	PK	46.06	36.81	-34.46	-	2.22	50.63	73.9	23.2	150	0	Floor Noise
Vert.	9920.000	PK	45.69	38.04	-31.57	-	2.22	54.38	73.9	19.5	150	0	Floor Noise
Vert.	4960.000	AV	36.86	32.23	-36.40	-	2.22	34.91	53.9	18.9	150	0	Floor Noise
Vert.	7440.000	AV	36.65	36.81	-34.46	-	2.22	41.22	53.9	12.6	150	0	Floor Noise
Vert.	9920.000	AV	34.39	38.04	-31.57	-	2.22	43.08	53.9	10.8	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22[dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54[dB]$

Average measurement value with Duty Factor

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2326.596	AV	44.02	27.54	-28.63	-	1.10	2.22	46.25	53.9	7.6	*2)
Hori.	2352.040	AV	49.73	27.63	-28.61	-	1.10	2.22	52.07	53.9	1.8	*2)
Hori.	2483.500	AV	36.35	27.80	-28.53	-	1.10	2.22	38.94	53.9	14.9	*1)
Vert.	2326.375	AV	45.31	27.54	-28.63	-	1.10	2.22	47.54	53.9	6.3	*2)
Vert.	2352.025	AV	49.84	27.63	-28.61	-	1.10	2.22	52.18	53.9	1.7	*2)
Vert.	2483.500	AV	36.43	27.80	-28.53	-	1.10	2.22	39.02	53.9	14.8	*1)

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22[dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54[dB]$

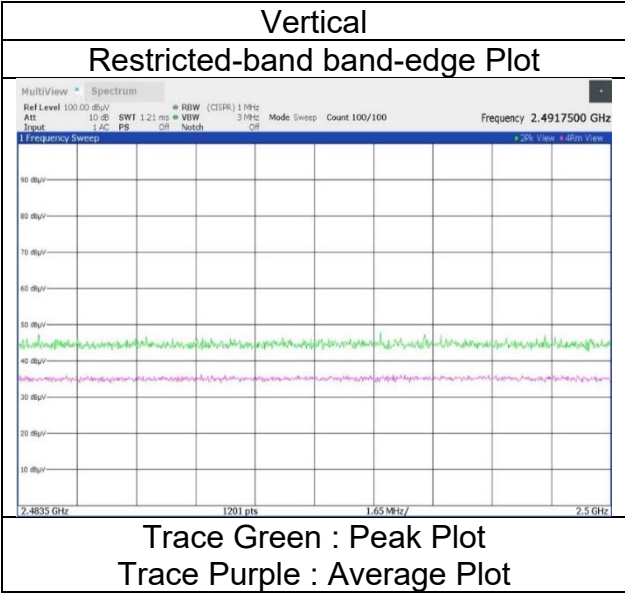
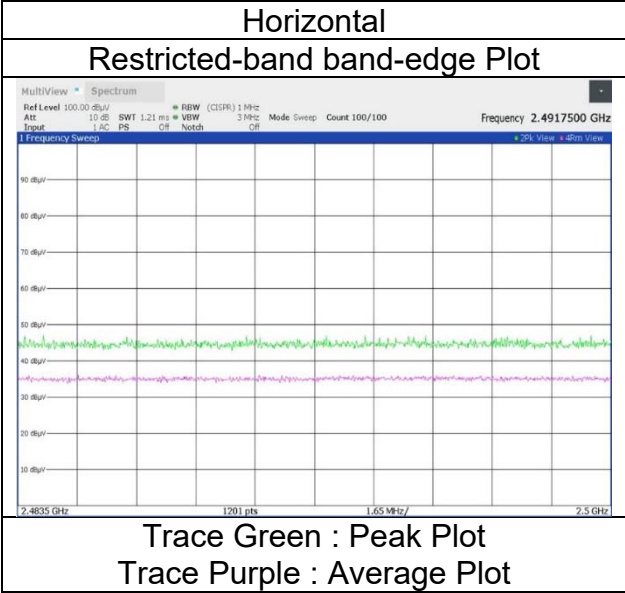
Duty factor refer to "Burst rate confirmation" sheet.

*1) Not out of band emission (Leakage Power)

*2) Noise synchronized with duty of carrier frequency.

Radiated Spurious Emission
(Reference Plot for band-edge)

Mode	Tx, Hopping Off, DH5, 2480 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 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
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 GHz
March 4, 2025	WAC2	21 deg. C	29 % RH	Shiro Kobayashi	2.8 GHz to 10 GHz
March 5, 2025	WAC2	22 deg. C	44 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 7, 2025	WAC2	21 deg. C	32 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2248.531	PK	52.42	27.25	-28.68	-	2.22	53.21	73.9	20.6	108	53	-
Hori.	2273.948	PK	52.59	27.35	-28.66	-	2.22	53.50	73.9	20.4	108	53	-
Hori.	2390.000	PK	47.47	27.75	-28.59	-	2.22	48.85	73.9	25.0	108	59	-
Hori.	4804.000	PK	47.07	31.56	-36.43	-	2.22	44.42	73.9	29.4	150	0	Floor Noise
Hori.	7206.000	PK	46.70	36.21	-34.86	-	2.22	50.27	73.9	23.6	150	0	Floor Noise
Hori.	9608.000	PK	45.05	38.14	-31.99	-	2.22	53.42	73.9	20.4	150	0	Floor Noise
Hori.	4804.000	AV	36.10	31.56	-36.43	-	2.22	33.45	53.9	20.4	150	0	Floor Noise
Hori.	7206.000	AV	35.80	36.21	-34.86	-	2.22	39.37	53.9	14.5	150	0	Floor Noise
Hori.	9608.000	AV	34.31	38.14	-31.99	-	2.22	42.68	53.9	11.2	150	0	Floor Noise
Vert.	2248.526	PK	51.51	27.25	-28.68	-	2.22	52.30	73.9	21.6	150	348	-
Vert.	2274.189	PK	53.48	27.35	-28.66	-	2.22	54.39	73.9	19.5	150	85	-
Vert.	2390.000	PK	47.48	27.75	-28.59	-	2.22	48.86	73.9	25.0	232	92	-
Vert.	4804.000	PK	46.68	31.56	-36.43	-	2.22	44.03	73.9	29.8	150	0	Floor Noise
Vert.	7206.000	PK	46.45	36.21	-34.86	-	2.22	50.02	73.9	23.8	150	0	Floor Noise
Vert.	9608.000	PK	44.84	38.14	-31.99	-	2.22	53.21	73.9	20.6	150	0	Floor Noise
Vert.	4804.000	AV	36.17	31.56	-36.43	-	2.22	33.52	53.9	20.3	150	0	Floor Noise
Vert.	7206.000	AV	35.98	36.21	-34.86	-	2.22	39.55	53.9	14.3	150	0	Floor Noise
Vert.	9608.000	AV	34.49	38.14	-31.99	-	2.22	42.86	53.9	11.0	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22[dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54[dB]$

Average measurement value with Duty Factor

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2248.531	AV	40.92	27.25	-28.68	-	1.10	2.22	42.81	53.9	11.0	*2)
Hori.	2273.948	AV	45.41	27.35	-28.66	-	1.10	2.22	47.42	53.9	6.4	*2)
Hori.	2390.000	AV	36.81	27.75	-28.59	-	1.10	2.22	39.29	53.9	14.6	*1)
Vert.	2248.526	AV	42.42	27.25	-28.68	-	1.10	2.22	44.31	53.9	9.5	*2)
Vert.	2274.189	AV	46.55	27.35	-28.66	-	1.10	2.22	48.56	53.9	5.3	*2)
Vert.	2390.000	AV	36.38	27.75	-28.59	-	1.10	2.22	38.86	53.9	15.0	*1)

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22[dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54[dB]$

Duty factor refer to "Burst rate confirmation" sheet.

*1) Not out of band emission (Leakage Power)

*2) Noise synchronized with duty of carrier frequency.

20 dBc Data Sheet

(RBW 100 kHz, VBW 300 kHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2402.000	PK	94.57	27.77	-28.58	-	2.22	95.98	-	-	Carrier
Hori.	2400.000	PK	38.91	27.77	-28.58	-	2.22	40.32	75.9	35.5	-
Vert.	2402.000	PK	95.78	27.77	-28.58	-	2.22	97.19	-	-	Carrier
Vert.	2400.000	PK	38.67	27.77	-28.58	-	2.22	40.08	77.1	37.0	-

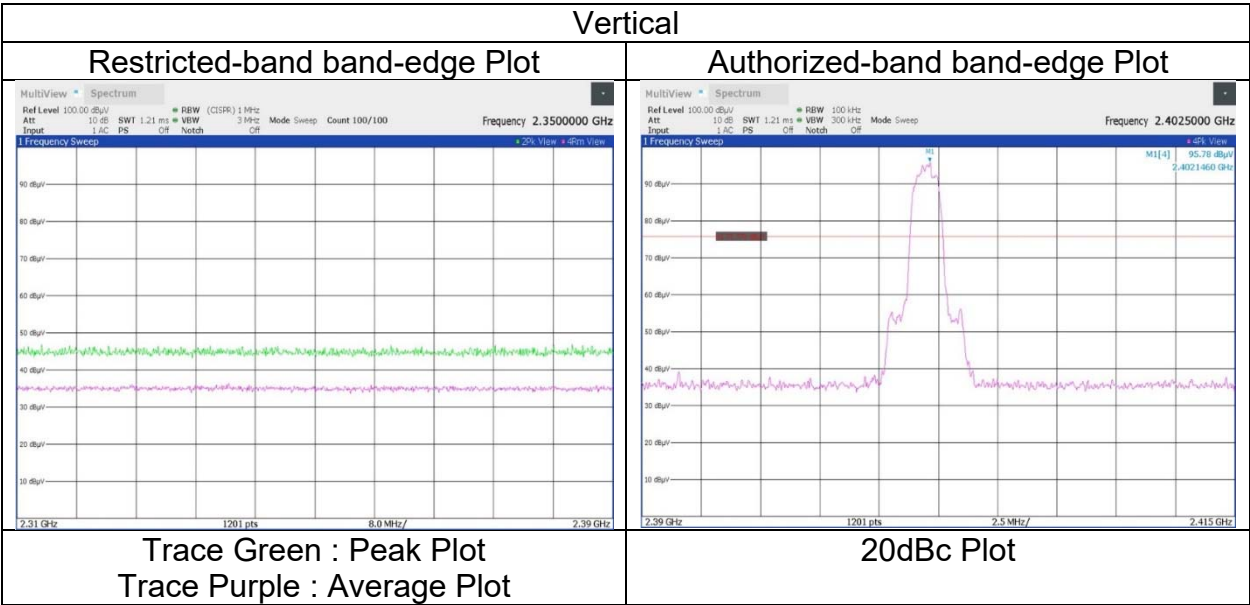
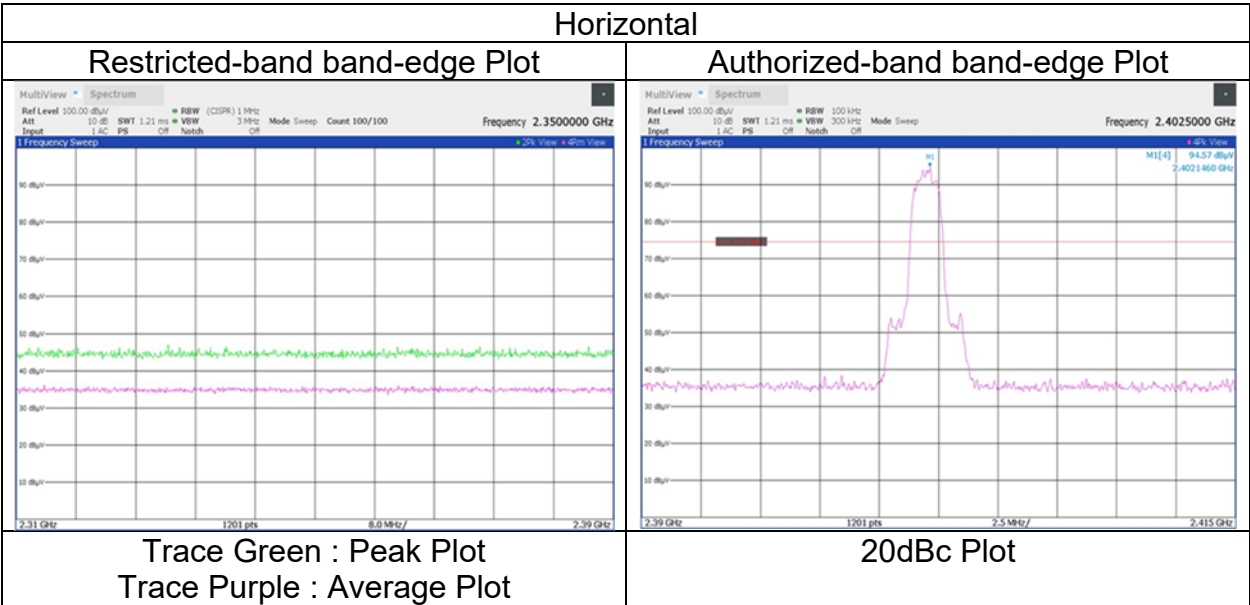
Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22[dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54[dB]$

Radiated Spurious Emission
(Reference Plot for band-edge)

Mode	Tx, Hopping Off, 3DH5, 2402 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 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
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
April 15, 2025	SAC3	23 deg. C	33 % RH	Yosuke Murakami	Below 1 GHz
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 10 GHz
March 5, 2025	WAC2	22 deg. C	44 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 7, 2025	WAC2	21 deg. C	32 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	47.518	QP	42.10	12.04	6.75	32.18	0.00	28.71	40.0	11.2	400	307	-
Hori.	57.482	QP	45.80	8.77	6.64	32.17	0.00	29.04	40.0	10.9	378	148	-
Hori.	62.614	QP	49.20	7.61	6.51	32.17	0.00	31.15	40.0	8.8	359	217	-
Hori.	63.529	QP	49.80	7.47	6.50	32.17	0.00	31.60	40.0	8.4	360	220	-
Hori.	67.255	QP	50.90	6.85	6.61	32.17	0.00	32.19	40.0	7.8	275	91	-
Hori.	72.275	QP	46.90	6.35	6.98	32.16	0.00	28.07	40.0	11.9	248	78	-
Hori.	2287.450	PK	50.38	27.40	-28.65	-	2.22	51.35	73.9	22.5	150	91	-
Hori.	2313.001	PK	54.02	27.49	-28.64	-	2.22	55.09	73.9	18.8	150	54	-
Hori.	4882.000	PK	46.69	31.96	-36.41	-	2.22	44.46	73.9	29.4	150	0	Floor Noise
Hori.	7323.000	PK	46.48	36.67	-34.67	-	2.22	50.70	73.9	23.2	150	0	Floor Noise
Hori.	9764.000	PK	44.32	38.10	-31.77	-	2.22	52.87	73.9	21.0	150	0	Floor Noise
Hori.	4882.000	AV	35.70	31.96	-36.41	-	2.22	33.47	53.9	20.4	150	0	Floor Noise
Hori.	7323.000	AV	35.72	36.67	-34.67	-	2.22	39.94	53.9	13.9	150	0	Floor Noise
Hori.	9764.000	AV	33.80	38.10	-31.77	-	2.22	42.35	53.9	11.5	150	0	Floor Noise
Vert.	41.462	QP	38.90	14.25	6.64	32.18	0.00	27.61	40.0	12.3	100	281	-
Vert.	67.316	QP	49.10	6.85	6.61	32.17	0.00	30.39	40.0	9.6	100	83	-
Vert.	68.322	QP	49.00	6.73	6.67	32.17	0.00	30.23	40.0	9.7	100	88	-
Vert.	71.871	QP	47.20	6.38	6.94	32.16	0.00	28.36	40.0	11.6	100	152	-
Vert.	476.553	QP	41.10	16.77	9.68	31.98	0.00	35.57	46.0	10.4	131	306	-
Vert.	2287.344	PK	51.38	27.40	-28.65	-	2.22	52.35	73.9	21.5	281	88	-
Vert.	2312.999	PK	55.63	27.49	-28.64	-	2.22	56.70	73.9	17.2	292	88	-
Vert.	4882.000	PK	46.50	31.96	-36.41	-	2.22	44.27	73.9	29.6	150	0	Floor Noise
Vert.	7323.000	PK	46.62	36.67	-34.67	-	2.22	50.84	73.9	23.0	150	0	Floor Noise
Vert.	9764.000	PK	44.58	38.10	-31.77	-	2.22	53.13	73.9	20.7	150	0	Floor Noise
Vert.	4882.000	AV	35.75	31.96	-36.41	-	2.22	33.52	53.9	20.3	150	0	Floor Noise
Vert.	7323.000	AV	36.00	36.67	-34.67	-	2.22	40.22	53.9	13.6	150	0	Floor Noise
Vert.	9764.000	AV	33.72	38.10	-31.77	-	2.22	42.27	53.9	11.6	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Attenu or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Average measurement value with Duty Factor

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2287.450	AV	41.82	27.40	-28.65	-	1.10	2.22	43.89	53.9	10.0	*2)
Hori.	2313.001	AV	47.22	27.49	-28.64	-	1.10	2.22	49.39	53.9	4.5	*2)
Vert.	2287.344	AV	44.09	27.40	-28.65	-	1.10	2.22	46.16	53.9	7.7	*2)
Vert.	2312.999	AV	49.40	27.49	-28.64	-	1.10	2.22	51.57	53.9	2.3	*2)

Result = Reading + Ant.Fac. + Loss (Cable + (Attenu or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Duty factor refer to "Burst rate confirmation" sheet.

Radiated Spurious Emission

Mode	Tx, Hopping Off, 3DH5, 2480 MHz
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 GHz
March 4, 2025	WAC2	21 deg. C	29 % RH	Shiro Kobayashi	2.8 GHz to 10 GHz
March 5, 2025	WAC2	22 deg. C	44 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 7, 2025	WAC2	21 deg. C	32 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	2326.398	PK	50.85	27.54	-28.63	-	2.22	51.98	73.9	21.9	265	60	-
Hori.	2352.023	PK	55.05	27.63	-28.61	-	2.22	56.29	73.9	17.6	265	60	-
Hori.	2483.500	PK	48.51	27.80	-28.53	-	2.22	50.00	73.9	23.9	265	57	-
Hori.	4960.000	PK	46.68	32.23	-36.40	-	2.22	44.73	73.9	29.1	150	0	Floor Noise
Hori.	7440.000	PK	47.20	36.81	-34.46	-	2.22	51.77	73.9	22.1	150	0	Floor Noise
Hori.	9920.000	PK	45.11	38.04	-31.57	-	2.22	53.80	73.9	20.1	150	0	Floor Noise
Hori.	4960.000	AV	36.26	32.23	-36.40	-	2.22	34.31	53.9	19.5	150	0	Floor Noise
Hori.	7440.000	AV	36.19	36.81	-34.46	-	2.22	40.76	53.9	13.1	150	0	Floor Noise
Hori.	9920.000	AV	34.22	38.04	-31.57	-	2.22	42.91	53.9	10.9	150	0	Floor Noise
Vert.	2326.368	PK	52.33	27.54	-28.63	-	2.22	53.46	73.9	20.4	245	100	-
Vert.	2352.050	PK	55.31	27.63	-28.61	-	2.22	56.55	73.9	17.3	245	100	-
Vert.	2483.500	PK	48.38	27.80	-28.53	-	2.22	49.87	73.9	24.0	400	95	-
Vert.	4960.000	PK	46.86	32.23	-36.40	-	2.22	44.91	73.9	28.9	150	0	Floor Noise
Vert.	7440.000	PK	46.98	36.81	-34.46	-	2.22	51.55	73.9	22.3	150	0	Floor Noise
Vert.	9920.000	PK	44.96	38.04	-31.57	-	2.22	53.65	73.9	20.2	150	0	Floor Noise
Vert.	4960.000	AV	36.22	32.23	-36.40	-	2.22	34.27	53.9	19.6	150	0	Floor Noise
Vert.	7440.000	AV	35.10	36.81	-34.46	-	2.22	39.67	53.9	14.2	150	0	Floor Noise
Vert.	9920.000	AV	34.13	38.04	-31.57	-	2.22	42.82	53.9	11.0	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m] / 3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m] / 3.0[m]) = -9.54 [dB]$

Average measurement value with Duty Factor

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2326.398	AV	42.82	27.54	-28.63	-	1.10	2.22	45.05	53.9	8.8	*2)
Hori.	2352.023	AV	48.75	27.63	-28.61	-	1.10	2.22	51.09	53.9	2.8	*2)
Hori.	2483.500	AV	36.17	27.80	-28.53	-	1.10	2.22	38.76	53.9	15.1	*1)
Vert.	2326.368	AV	44.72	27.54	-28.63	-	1.10	2.22	46.95	53.9	6.9	*2)
Vert.	2352.050	AV	49.63	27.63	-28.61	-	1.10	2.22	51.97	53.9	1.9	*2)
Vert.	2483.500	AV	36.47	27.80	-28.53	-	1.10	2.22	39.06	53.9	14.8	*1)

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m] / 3.0[m]) = 2.22 [dB]$

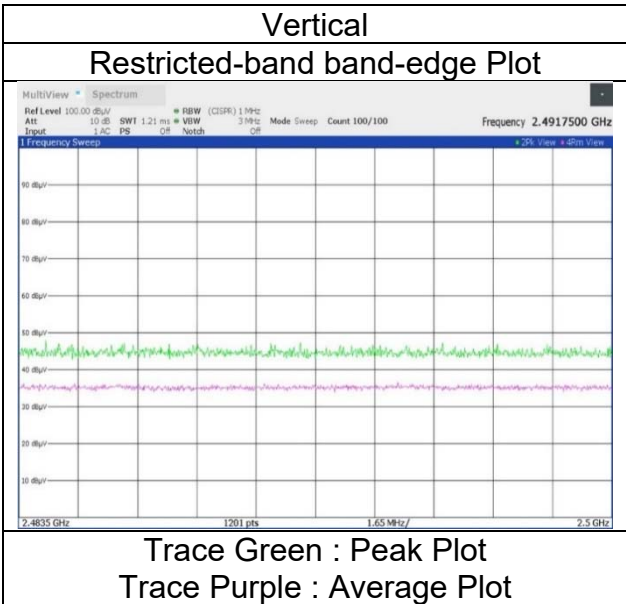
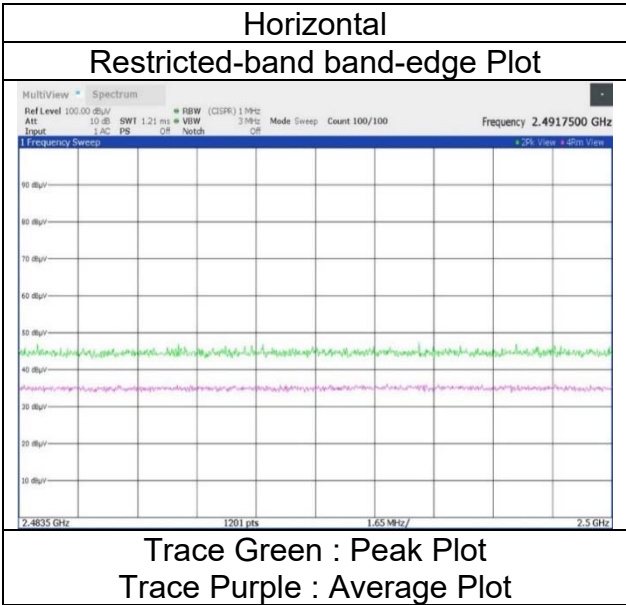
10 GHz to 40 GHz : $20\log(1.00[m] / 3.0[m]) = -9.54 [dB]$

Duty factor refer to "Burst rate confirmation" sheet.

*1) Not out of band emission (Leakage Power)

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

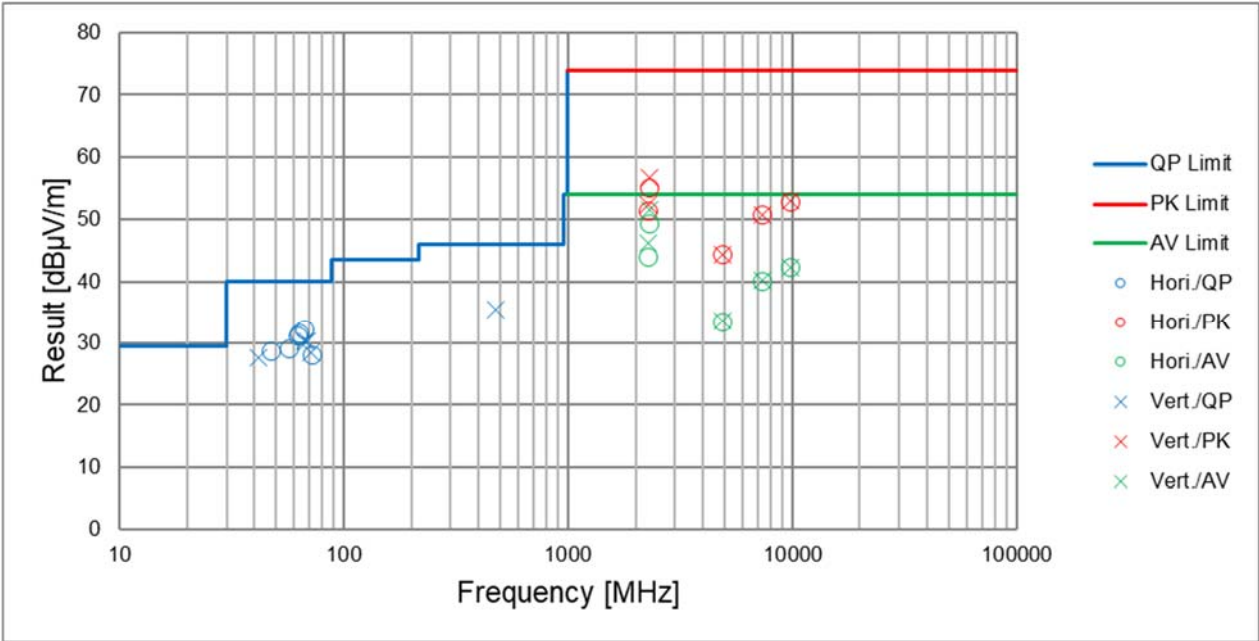
Mode	Tx, Hopping Off, 3DH5, 2480 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 2.8 GHz



* 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, 2441 MHz				
Date	Test site	Temperature	Humidity	Engineer	Measurement Range
April 15, 2025	SAC3	23 deg. C	33 % RH	Yosuke Murakami	Below 1 GHz
February 21, 2025	WAC2	18 deg. C	25 % RH	Hiromasa Sato	1 GHz to 10 GHz
March 5, 2025	WAC2	22 deg. C	44 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 7, 2025	WAC2	21 deg. C	32 % RH	Miku Ikudome	18 GHz to 26.5 GHz



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

Radiated Spurious Emission

Mode	Tx, Hopping Off, DH5, 2441 MHz with 11ac-20 5825 MHz
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
April 15, 2025	SAC3	23 deg. C	33 % RH	Yosuke Murakami	Below 1 GHz
April 17, 2025	WAC2	28 deg. C	33 % RH	Kouki Yamada	1 GHz to 10 GHz
March 11, 2025	WAC2	23 deg. C	35 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 11, 2025	WAC2	23 deg. C	38 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	47.518	QP	42.20	12.04	6.75	32.18	0.00	28.81	40.0	11.1	400	308	-
Hori.	57.482	QP	45.60	8.77	6.64	32.17	0.00	28.84	40.0	11.1	379	151	-
Hori.	62.614	QP	49.10	7.61	6.51	32.17	0.00	31.05	40.0	8.9	360	218	-
Hori.	63.529	QP	49.70	7.47	6.50	32.17	0.00	31.50	40.0	8.5	359	219	-
Hori.	67.255	QP	51.00	6.85	6.61	32.17	0.00	32.29	40.0	7.7	275	90	-
Hori.	72.275	QP	47.10	6.35	6.98	32.16	0.00	28.27	40.0	11.7	249	80	-
Hori.	2287.409	PK	50.71	27.32	-28.65	-	2.22	51.60	73.9	22.3	125	58	-
Hori.	2313.016	PK	53.61	27.39	-28.64	-	2.22	54.58	73.9	19.3	151	49	-
Hori.	4882.000	PK	46.47	31.92	-36.41	-	2.22	44.20	73.9	29.7	150	0	Floor Noise
Hori.	7323.000	PK	46.98	36.25	-34.67	-	2.22	50.78	73.9	23.1	150	0	Floor Noise
Hori.	9764.000	PK	45.90	37.52	-31.77	-	2.22	53.87	73.9	20.0	150	0	Floor Noise
Hori.	4882.000	AV	35.14	31.92	-36.41	-	2.22	32.87	53.9	21.0	150	0	Floor Noise
Hori.	7323.000	AV	35.74	36.25	-34.67	-	2.22	39.54	53.9	14.3	150	0	Floor Noise
Hori.	9764.000	AV	34.52	37.52	-31.77	-	2.22	42.49	53.9	11.4	150	0	Floor Noise
Vert.	41.462	QP	39.40	14.25	6.64	32.18	0.00	28.11	40.0	11.8	100	281	-
Vert.	67.316	QP	48.90	6.85	6.61	32.17	0.00	30.19	40.0	9.8	100	84	-
Vert.	68.322	QP	49.20	6.73	6.67	32.17	0.00	30.43	40.0	9.5	100	88	-
Vert.	71.871	QP	47.40	6.38	6.94	32.16	0.00	28.56	40.0	11.4	100	153	-
Vert.	476.553	QP	41.00	16.77	9.68	31.98	0.00	35.47	46.0	10.5	131	305	-
Vert.	2287.409	PK	51.37	27.32	-28.65	-	2.22	52.26	73.9	21.6	146	337	-
Vert.	2313.063	PK	55.73	27.39	-28.64	-	2.22	56.70	73.9	17.2	293	81	-
Vert.	4882.000	PK	46.53	31.92	-36.41	-	2.22	44.26	73.9	29.6	150	0	Floor Noise
Vert.	7323.000	PK	47.20	36.25	-34.67	-	2.22	51.00	73.9	22.9	150	0	Floor Noise
Vert.	9764.000	PK	45.38	37.52	-31.77	-	2.22	53.35	73.9	20.5	150	0	Floor Noise
Vert.	4882.000	AV	35.00	31.92	-36.41	-	2.22	32.73	53.9	21.1	150	0	Floor Noise
Vert.	7323.000	AV	35.69	36.25	-34.67	-	2.22	39.49	53.9	14.4	150	0	Floor Noise
Vert.	9764.000	AV	34.55	37.52	-31.77	-	2.22	42.52	53.9	11.3	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22$ [dB]

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54$ [dB]

Average measurement value with Duty Factor

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2287.409	AV	43.34	27.32	-28.65	-	1.10	2.22	45.33	53.9	8.5	*2)
Hori.	2313.016	AV	47.77	27.39	-28.64	-	1.10	2.22	49.84	53.9	4.0	*2)
Vert.	2287.409	AV	43.64	27.32	-28.65	-	1.10	2.22	45.63	53.9	8.2	*2)
Vert.	2313.063	AV	50.12	27.39	-28.64	-	1.10	2.22	52.19	53.9	1.7	*2)

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22$ [dB]

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54$ [dB]

Duty factor refer to "Burst rate confirmation" sheet.

*2) Noise synchronized with duty of carrier frequency.

Radiated Spurious Emission

Mode	Tx, Hopping Off, DH5, 2441 MHz with 11ax-160(OFDM) 6665 MHz
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Date	Test site	Temperature	Humidity	Engineer	Measurement Range
April 15, 2025	SAC3	23 deg. C	33 % RH	Yosuke Murakami	Below 1 GHz
April 17, 2025	WAC2	28 deg. C	33 % RH	Kouki Yamada	1 GHz to 10 GHz
March 11, 2025	WAC2	23 deg. C	35 % RH	Shiro Kobayashi	10 GHz to 18 GHz
March 11, 2025	WAC2	23 deg. C	38 % RH	Miku Ikudome	18 GHz to 26.5 GHz

(* PK: Peak, AV: Average, QP: Quasi-Peak)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	47.518	QP	41.90	12.04	6.75	32.18	0.00	28.51	40.0	11.4	400	308	-
Hori.	57.482	QP	45.50	8.77	6.64	32.17	0.00	28.74	40.0	11.2	380	150	-
Hori.	62.614	QP	49.00	7.61	6.51	32.17	0.00	30.95	40.0	9.0	359	218	-
Hori.	63.529	QP	49.50	7.47	6.50	32.17	0.00	31.30	40.0	8.7	359	217	-
Hori.	67.255	QP	50.10	6.85	6.61	32.17	0.00	31.39	40.0	8.6	274	91	-
Hori.	72.275	QP	46.80	6.35	6.98	32.16	0.00	27.97	40.0	12.0	249	79	-
Hori.	2287.399	PK	50.54	27.32	-28.65	-	2.22	51.43	73.9	22.4	125	58	-
Hori.	2313.035	PK	54.00	27.39	-28.64	-	2.22	54.97	73.9	18.9	151	48	-
Hori.	4882.000	PK	46.93	31.92	-36.41	-	2.22	44.66	73.9	29.2	150	0	Floor Noise
Hori.	7323.000	PK	46.91	36.25	-34.67	-	2.22	50.71	73.9	23.1	150	0	Floor Noise
Hori.	9764.000	PK	45.19	37.52	-31.77	-	2.22	53.16	73.9	20.7	150	0	Floor Noise
Hori.	4882.000	AV	35.13	31.92	-36.41	-	2.22	32.86	53.9	21.0	150	0	Floor Noise
Hori.	7323.000	AV	35.59	36.25	-34.67	-	2.22	39.39	53.9	14.5	150	0	Floor Noise
Hori.	9764.000	AV	34.42	37.52	-31.77	-	2.22	42.39	53.9	11.5	150	0	Floor Noise
Vert.	41.462	QP	39.00	14.25	6.64	32.18	0.00	27.71	40.0	12.2	100	277	-
Vert.	67.316	QP	49.30	6.85	6.61	32.17	0.00	30.59	40.0	9.4	100	85	-
Vert.	68.322	QP	48.80	6.73	6.67	32.17	0.00	30.03	40.0	9.9	100	89	-
Vert.	71.871	QP	47.00	6.38	6.94	32.16	0.00	28.16	40.0	11.8	100	148	-
Vert.	476.553	QP	40.70	16.77	9.68	31.98	0.00	35.17	46.0	10.8	130	306	-
Vert.	2287.399	PK	51.35	27.32	-28.65	-	2.22	52.24	73.9	21.6	146	337	-
Vert.	2313.036	PK	55.71	27.39	-28.64	-	2.22	56.68	73.9	17.2	293	81	-
Vert.	4882.000	PK	46.63	31.92	-36.41	-	2.22	44.36	73.9	29.5	150	0	Floor Noise
Vert.	7323.000	PK	47.07	36.25	-34.67	-	2.22	50.87	73.9	23.0	150	0	Floor Noise
Vert.	9764.000	PK	45.37	37.52	-31.77	-	2.22	53.34	73.9	20.5	150	0	Floor Noise
Vert.	4882.000	AV	35.05	31.92	-36.41	-	2.22	32.78	53.9	21.1	150	0	Floor Noise
Vert.	7323.000	AV	35.75	36.25	-34.67	-	2.22	39.55	53.9	14.3	150	0	Floor Noise
Vert.	9764.000	AV	34.46	37.52	-31.77	-	2.22	42.43	53.9	11.4	150	0	Floor Noise

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Distance Fac.

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

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Average measurement value with Duty Factor

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Fac. [dB]	Distance Fac. [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori.	2287.399	AV	43.04	27.32	-28.65	-	1.10	2.22	45.03	53.9	8.8	*2)
Hori.	2313.035	AV	48.84	27.39	-28.64	-	1.10	2.22	50.91	53.9	2.9	*2)
Vert.	2287.399	AV	43.61	27.32	-28.65	-	1.10	2.22	45.60	53.9	8.2	*2)
Vert.	2313.036	AV	50.44	27.39	-28.64	-	1.10	2.22	52.51	53.9	1.3	*2)

Result = Reading + Ant.Fac. + Loss (Cable + (Atten or Filter)(below 18 GHz) - Gain(Amp) (1 GHz to 18 GHz)) - Gain(Amp) (only below 1 GHz & above 18 GHz) + Duty Fac. + Distance Fac.

Distance Fac. : 1 GHz to 10 GHz : $20\log(3.87[m]/3.0[m]) = 2.22 [dB]$

10 GHz to 40 GHz : $20\log(1.00[m]/3.0[m]) = -9.54 [dB]$

Duty factor refer to "Burst rate confirmation" sheet.

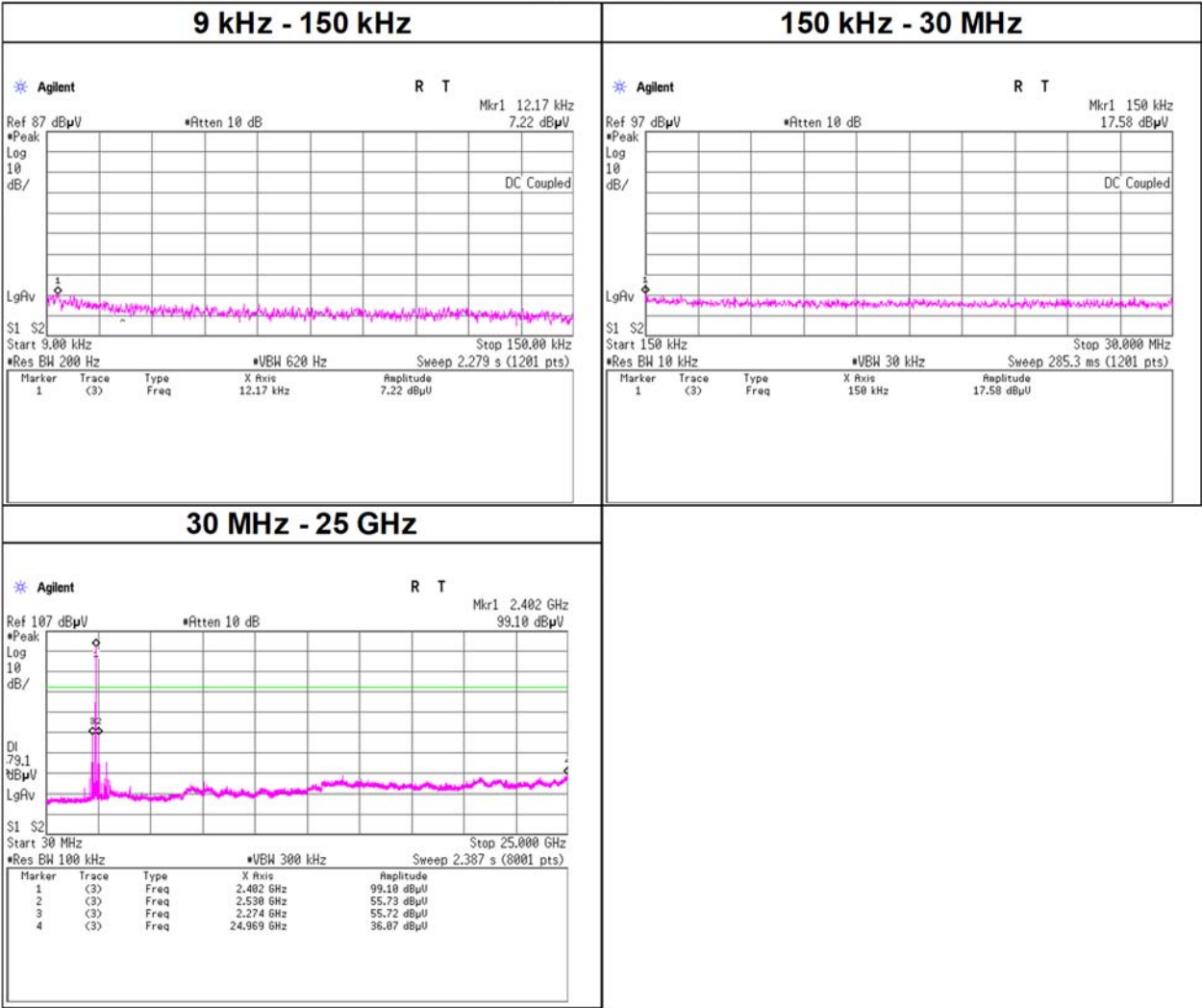
*2) Noise synchronized with duty of carrier frequency.

Conducted Spurious Emission

Mode	Tx, Hopping Off, DH5			
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

2402 MHz

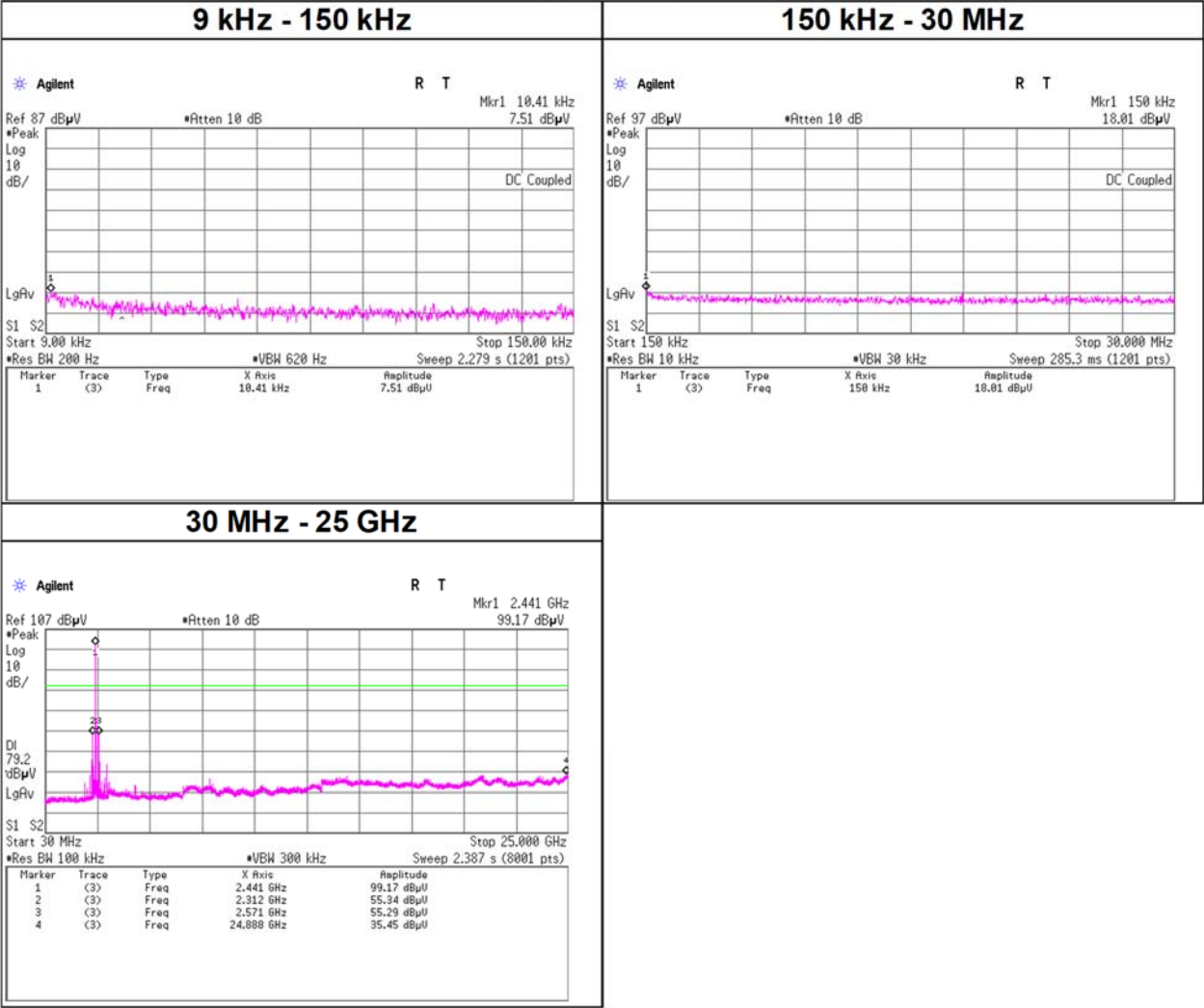


Conducted Spurious Emission

Mode	Tx, Hopping Off, DH5
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

2441 MHz

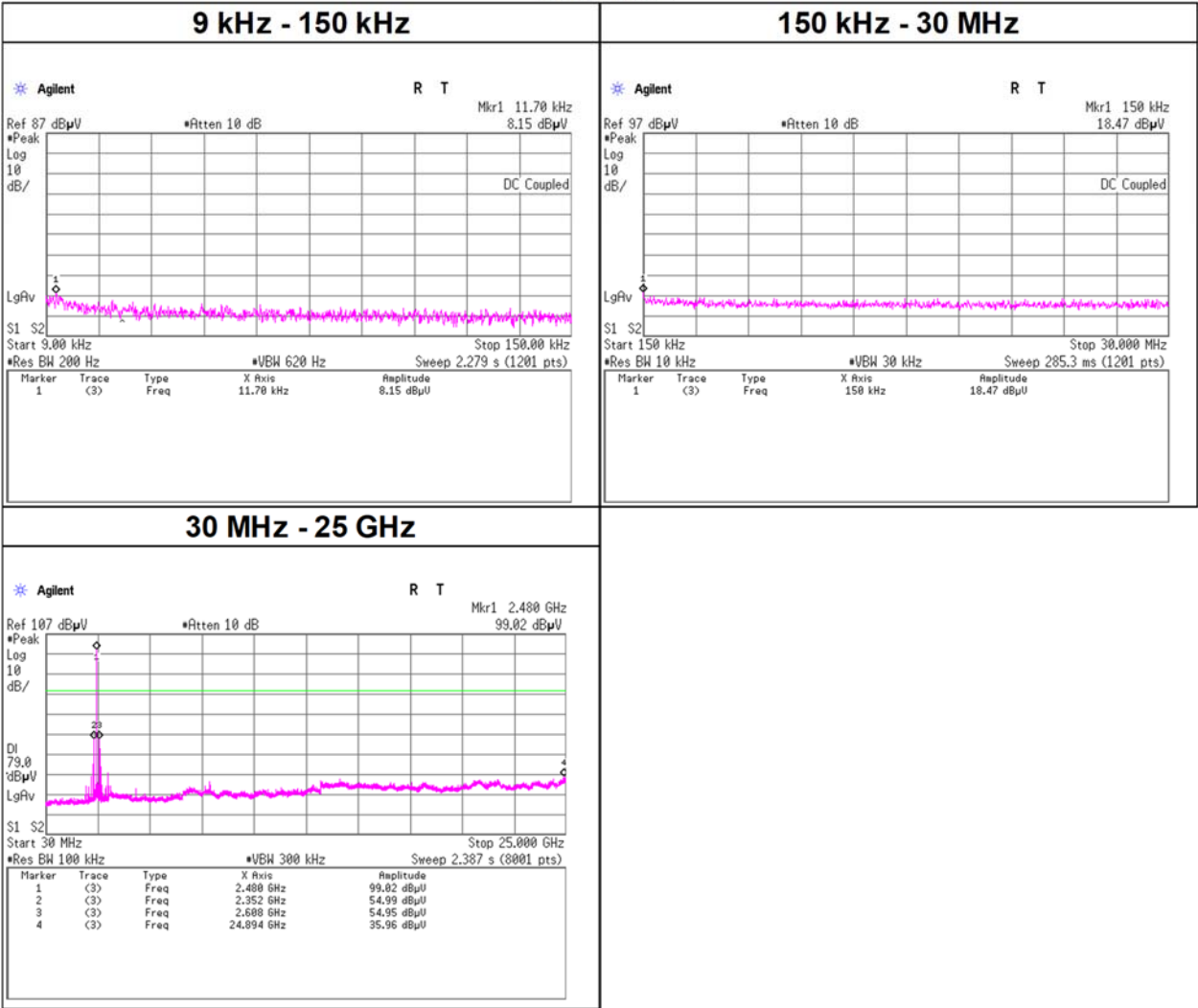


Conducted Spurious Emission

Mode	Tx, Hopping Off, DH5
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

2480 MHz

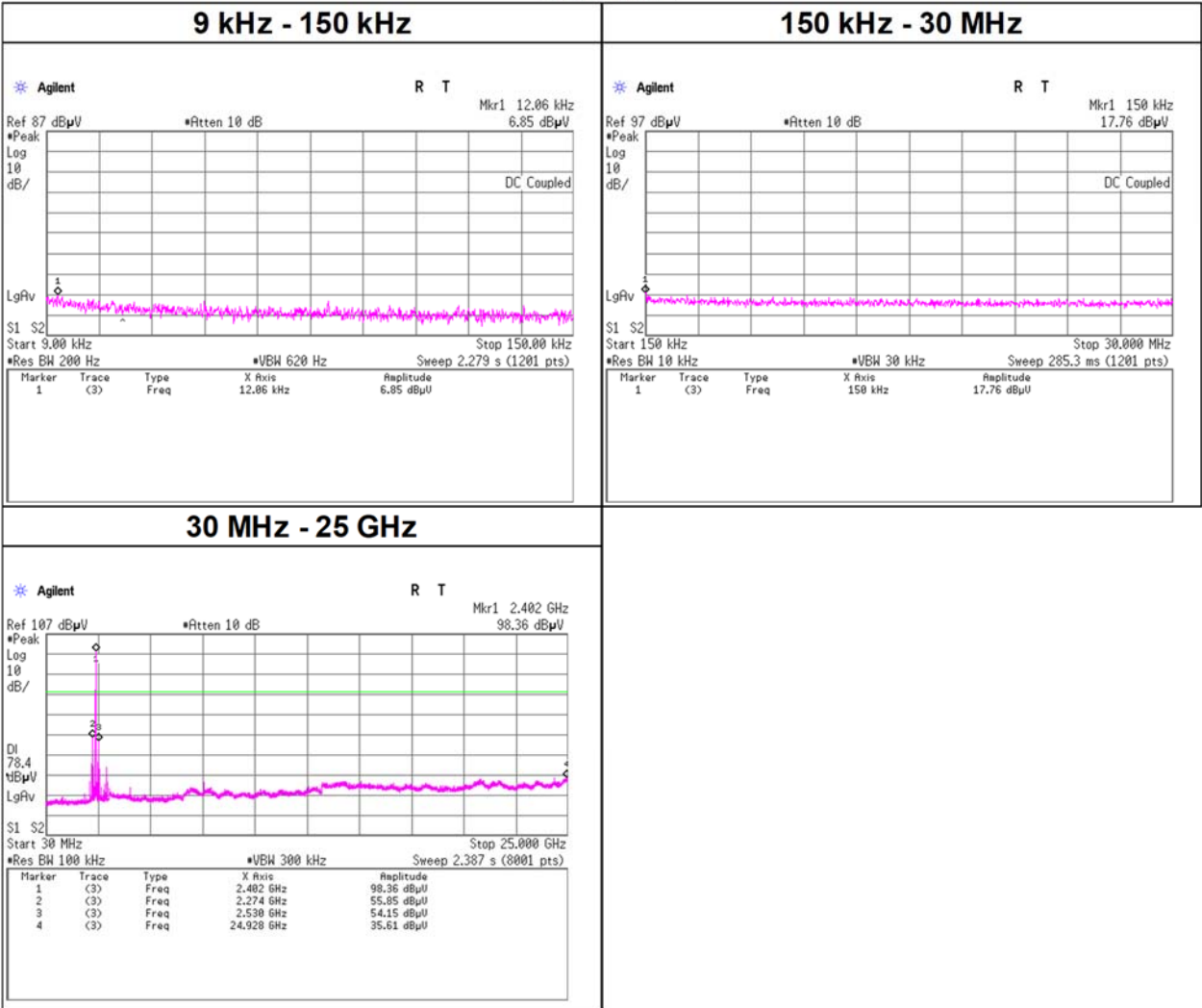


Conducted Spurious Emission

Mode	Tx, Hopping Off, 3DH5
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

2402 MHz

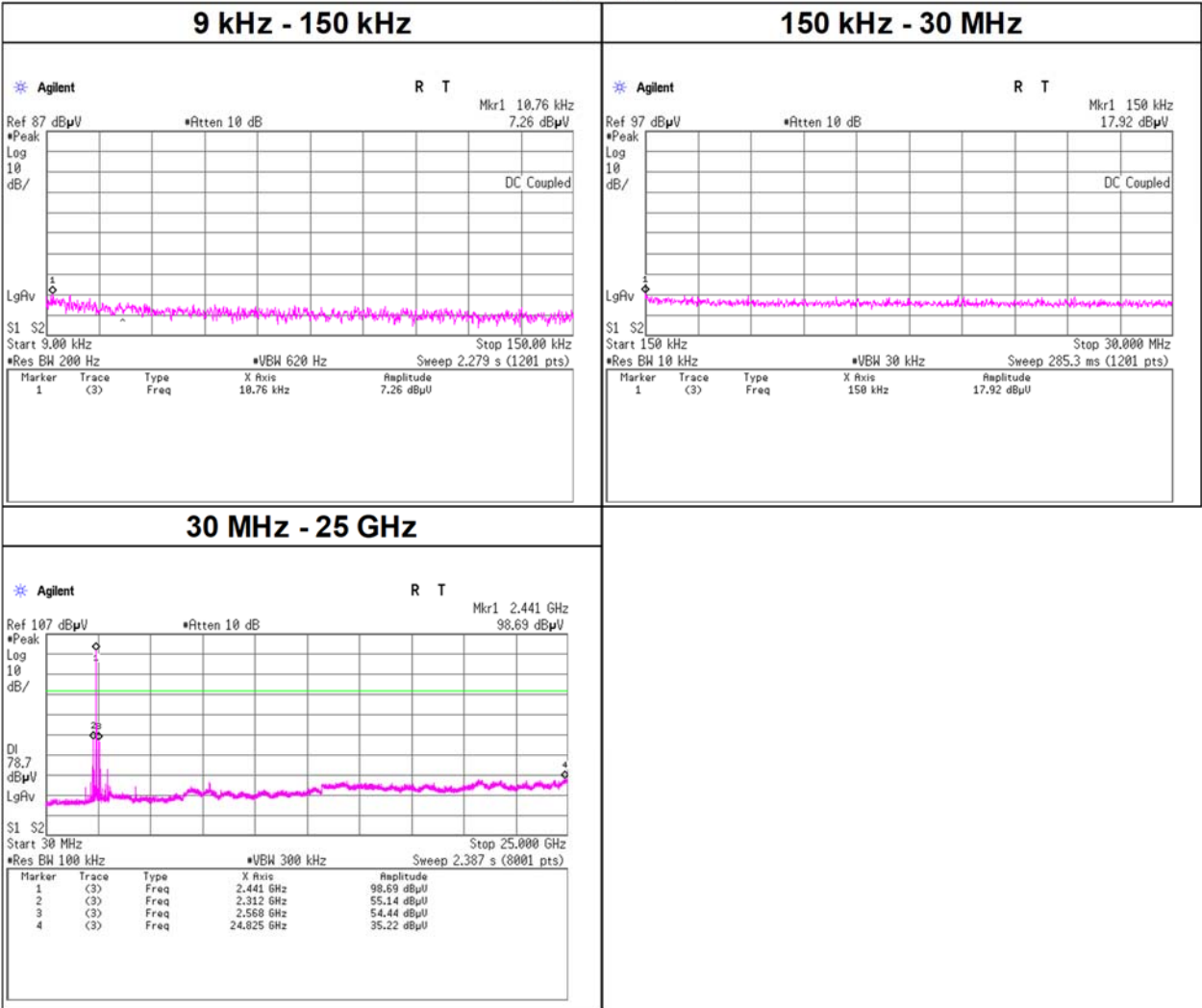


Conducted Spurious Emission

Mode	Tx, Hopping Off, 3DH5
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

2441 MHz

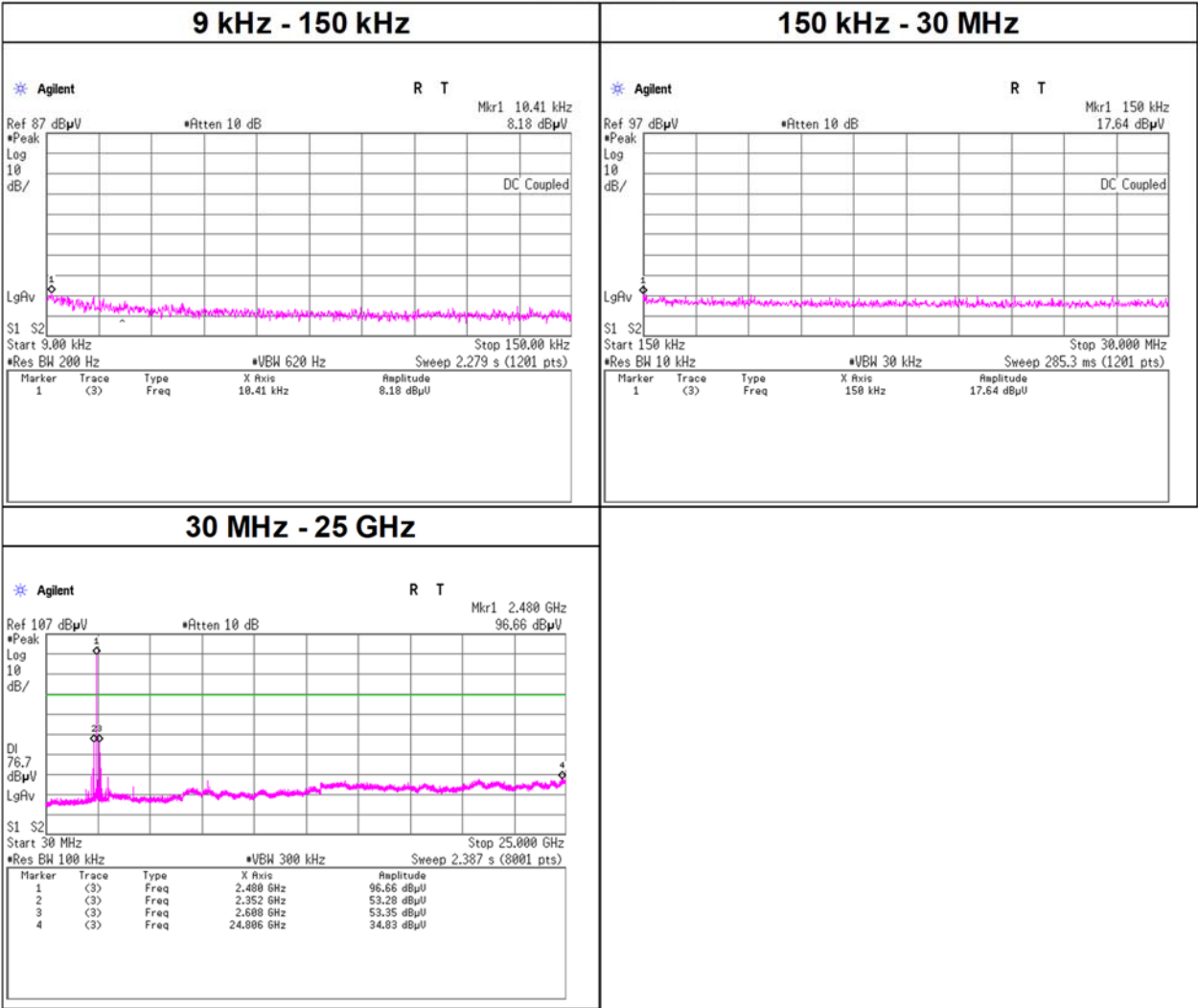


Conducted Spurious Emission

Mode	Tx, Hopping Off, 3DH5
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami

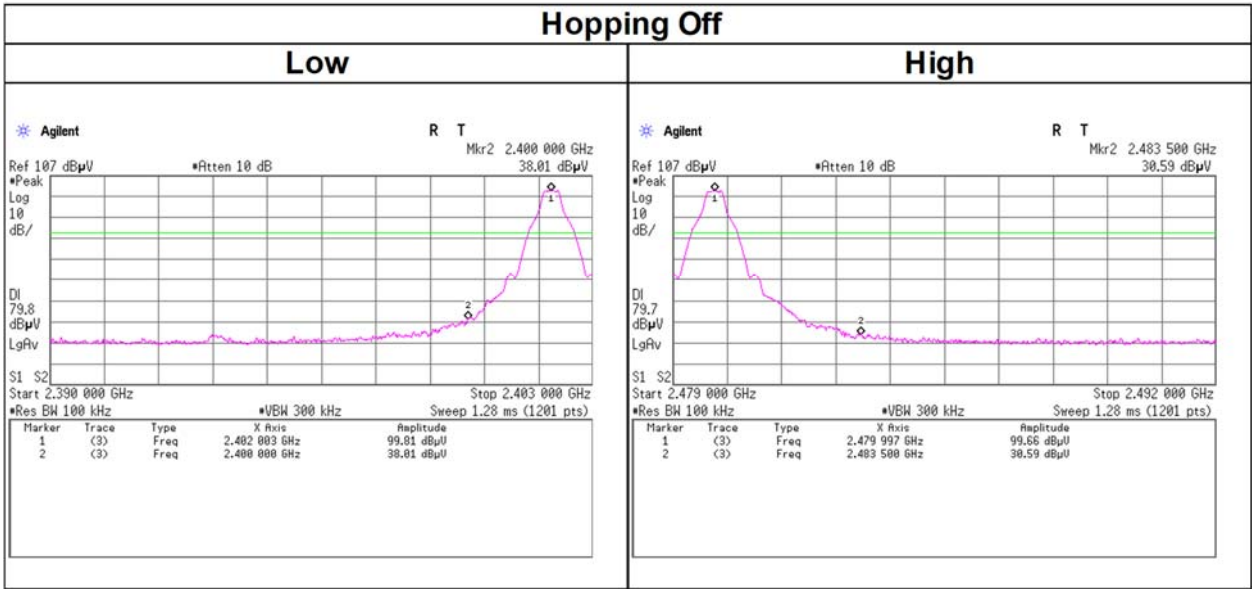
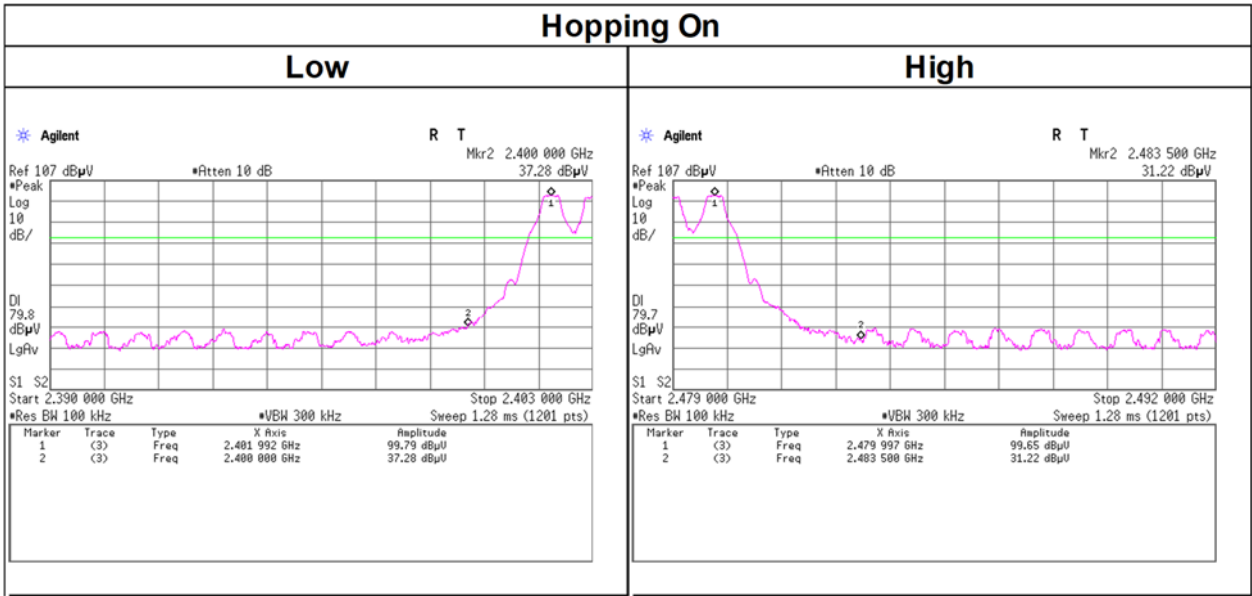
2480 MHz



Conducted Emission Band Edge compliance

Mode	Tx, DH5
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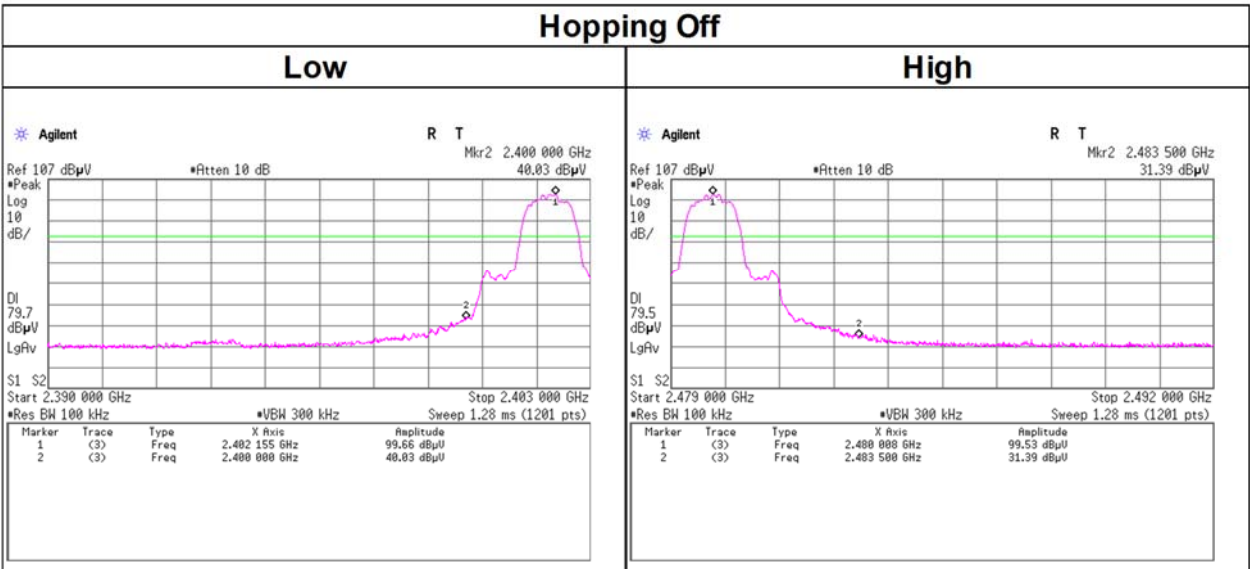
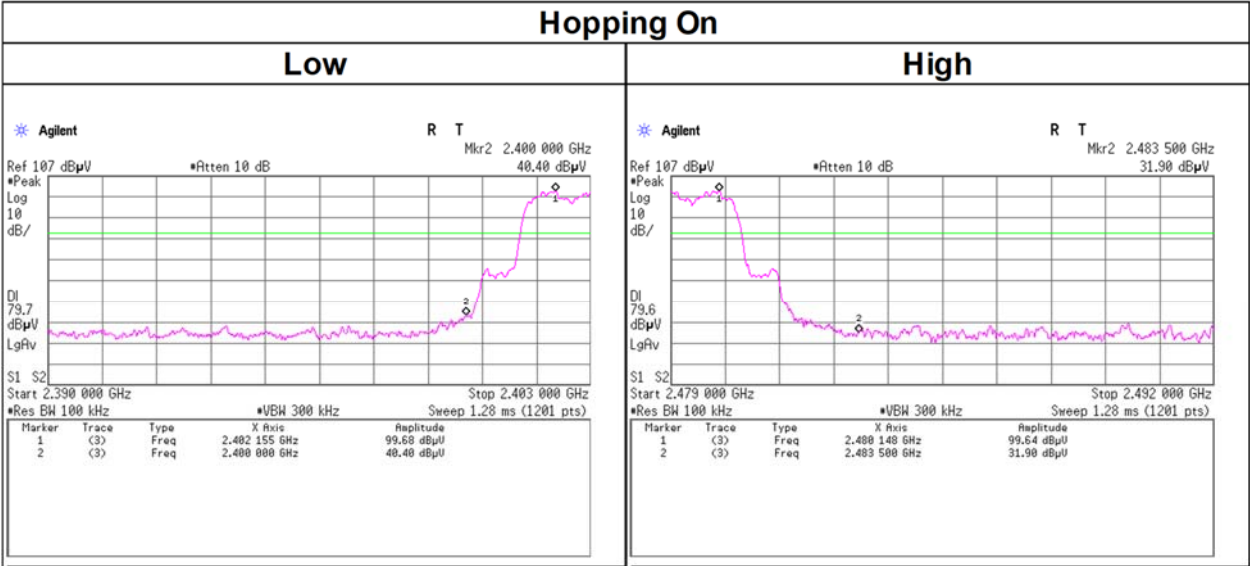
Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami



Conducted Emission Band Edge compliance

Mode	Tx, 3DH5
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Date	Test Place	Temperature	Humidity	Engineer
January 6, 2025	SR5	23 deg. C	36 % RH	Yosuke Murakami



APPENDIX 2: Test Instruments

Test Equipment [1/2]

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
AT	160493	Attenuator	Weinschel Corp.	54A-10	83406	2024/12/03	12
AT	204925	Attenuator	Weinschel Corp.	54A-10	109970	2025/02/18	12
AT	239651	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	2001219/2	2024/08/20	12
AT	239652	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	2001220/2	2024/08/20	12
AT	146212	Digital Hitester	HIOKI E. E. CORPORATION	3805-50	80997828	2024/09/24	12
AT	254939	Microwave cable	RS Pro	R-132G7210 100CO	-	2024/11/14	12
AT	254940	Microwave cable	RS Pro	R-132G7210 100CO	-	2024/11/14	12
AT	169910	Power Meter	Keysight Technologies Inc	8990B	MY51000448	2024/09/11	12
AT	169911	Power sensor	Keysight Technologies Inc	N1923A	MY57270004	2024/09/11	12
AT	145800	Spectrum Analyzer	Keysight Technologies Inc	E4448A	MY48250106	2025/03/31	12
AT	253774	Spectrum Analyzer	Keysight Technologies Inc	E4440A	MY46185398	2024/11/19	12
AT	249688	Terminator	To-Conne Co., Ltd.	SMA50-SP 1W	-	-	-
AT	175822	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	-	2024/08/11	12
RE	248303	Attenuator	JFW	50HFFA-006-2/18N	-	2024/05/06	12
RE	145023	Biconical Antenna	Schwarzbeck Mess-Elektronik OHG	BBA9106	91032666	2024/05/10	12
RE	236709	Coaxial Cable	Hayashi-Repic co., Ltd.	NMS079B-GL310C-SMS117B-2m	47256-02-04	2024/05/09	12
RE	236711	Coaxial Cable	Hayashi-Repic co., Ltd.	KMS020B-GL140sE-KMS020B-7.0m	47256-03-02	2024/05/09	12
RE	236720	Coaxial Cable	Huber+Suhner	SF106/SF106/SF106	2001167/2001168/2001161	2024/05/10	12
RE	236756	Coaxial Cable	Huber+Suhner	SF106/11N/11N/6000	2001167	2024/05/10	12
RE	239644	Coaxial Cable	Junkosha	MWX221-01000NFSNMS/B	2306S022	2024/08/21	12
RE	243210	Coaxial Cable	Hayashi-Repic co., Ltd.	SMS13-13A26-NFS13-1.0m	49190-01-02	2024/12/05	12
RE	253628	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	5D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-271(RF Selector)	2025/04/05	12
RE	146210	Digital Hitester	HIOKI E. E. CORPORATION	3805-50	80997823	2024/09/24	12
RE	235640	DIGITAL MULTIMETER	HIOKI E. E. CORPORATION	DT4261	230313157	2024/05/29	12
RE	170932	EMI Software	TSJ (Techno Science Japan)	TEPTO-DV3(RE,CE,ME,PE)	Ver 3.1.0546	-	-
RE	145512	Horn Antenna	ETS-Lindgren	3160-09	00094868	2024/06/20	12
RE	236584	Horn Antenna	AINFO Inc.	LB-8180-NF	2030013000112	2024/04/04	12
RE	236687	Horn Antenna	Schwarzbeck Mess-Elektronik OHG	BBHA 9120 C	788	2024/04/04	12
RE	236769	Horn Antenna	AINFO Inc.	LB-8180-NF	2030013000111	2025/04/01	12
RE	145529	Logperiodic Antenna	Schwarzbeck Mess-Elektronik OHG	VUSLP9111B	196	2024/05/10	12
RE	145007	Pre Amplifier	Toyo Corporation	HAP18-26W	19	2024/08/21	12
RE	145126	Pre Amplifier	SONOMA	310N	290213	2025/02/19	12
RE	237786	RF RELAY MATRIX with preamplifier	TSJ (Techno Science Japan)	RFM-E221261R	07796	2024/11/12	12
RE	145565	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	2025/04/07	12
RE	236617	Semi-Anechoic Chamber	TDK	SWAC-02(SVSWR)	2	2024/06/06	12

Test Equipment [2/2]

Test Item	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	146432	Tape Measure	TAJIMA	GL19-55	-	-	-
RE	207281	Tape Measure	ASKUL	-	-	-	-
RE	213530	Test Receiver	Rohde & Schwarz	ESW44	103068	2025/02/12	12
RE	235267	Test Receiver	Rohde & Schwarz	ESW44	103018	2025/03/18	12
RE	235268	Test Receiver	Rohde & Schwarz	ESW44	103212	2024/12/18	12
RE	191840	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	-	2024/08/12	12
RE	235738	Thermo-Hygrometer	CUSTOM. Inc	CTH-230	-	2024/04/28	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