



RADIO TEST REPORT

Test Report No. 14202031S-D-R1

Customer	KONICA MINOLTA, INC.
Description of EUT	SKR 3000
Model Number of EUT	P-95
FCC ID	YR7SKR3000P8
Test Regulation	FCC Part 15 Subpart E: 2022
Test Result	Complied (Refer to SECTION 3)
Issue Date	July 28, 2022
Remarks	Radiated Spurious Emission only

Representative Test Engineer	Approved By
	
Shiro Kobayashi Engineer	Toyokazu Imamura 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".	

Report Cover Page - Form-ULID-003532 (DCS:13-EM-F0429) Issue# 20.0

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- The information provided from the applicant for this report is identified in Section 1.
- For test report(s) referred in this report, the latest version (including any revisions) is always referred.

REVISION HISTORY

Original Test Report No.: 14202031S-D

This report is a revised version of 14202031S-D. 14202031S-D is replaced with this report.

Revision	Test Report No.	Date	Page Revised Contents
- (Original)	14202031S-D	May 10, 2022	-
1	14202031S-D-R1	July 28, 2022	P.5 Correction of Antenna Connector type: From “ULF” To “U.FL” P.8 Correction of Wlan Auth Tool’s Released Date: From “2022/2/24” To “2017/4/18” P.12 Addition of comment: “*1): r applied the diagonal length that maximizes the Distance Factor.”

Reference: Abbreviations (Including words undescribed in this report)

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

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SECTION 1: Customer Information

Company Name	KONICA MINOLTA, INC.
Address	1, Sakura-machi, Hino-shi, Tokyo, 191-8511 Japan
Telephone Number	+81-42-589-8429
Contact Person	Yukihiro Niekawa

The information provided from 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
- * The laboratory is exempted from liability of any test results affected from the above information in SECTION 2 and 4.

SECTION 2: Equipment Under Test (EUT)

2.1 Identification of EUT

Description	SKR 3000
Model Number	P-95
Serial Number	Refer to SECTION 4.2
Condition	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	No Modification by the test lab.
Receipt Date	February 8, 2022
Test Date	February 9 to 23, 2022

2.2 Product Description

General Specification

Rating	DC 15 V
Operating temperature	+10 deg. C to +35 deg. C

Radio Specification

	IEEE802.11b	IEEE802.11g	IEEE802.11a	IEEE802.11n (20 M band)	IEEE802.11n (40 M band)
Frequency of operation	2412 MHz - 2462 MHz	2412 MHz - 2462 MHz	5180 MHz - 5240 MHz 5260 MHz - 5320 MHz 5500 MHz - 5700 MHz 5745 MHz - 5825 MHz	2412 MHz - 2462 MHz 5180 MHz - 5240 MHz 5260 MHz - 5320 MHz 5500 MHz - 5700 MHz 5745 MHz - 5825 MHz	5190 MHz - 5230 MHz 5270 MHz - 5310 MHz 5510 MHz - 5670 MHz 5755 MHz - 5795 MHz
Type of modulation	DSSS (CCK, DQPSK, DBPSK)	OFDM-CCK (64QAM, 16QAM, QPSK, BPSK)	OFDM (64QAM, 16QAM, QPSK, BPSK)		OFDM (BPSK, QPSK, 16QAM, 64QAM)
Channel spacing	5 MHz		20 MHz	5 MHz (2.4 GHz band) 20 MHz (5 GHz band)	40 MHz
Antenna Type	[Main Antenna (chain 0)/Sub Antenna(chain 1)]PIFA (Planar Inverted F Antenna)				
Antenna gain	[Main Antenna (chain 0)] -1.95 dBi (2.4 GHz Band), -0.98 dBi (5 GHz Band)				
	[Sub Antenna (chain 1)] -2.21 dBi (2.4 GHz Band), -1.54 dBi (5 GHz Band)				
Antenna Connector type	[Main Antenna (chain0)/Sub Antenna(chain 1)] Connector PCB side: U.FL, Antenna side: Soldered				

SECTION 3: Test specification, Procedures & Results

3.1 Test Specification

Test Specification	FCC Part 15 Subpart E FCC Part 15 final revised on April 1, 2022 and effective May 2, 2022
Title	FCC 47 CFR Part 15 Radio Frequency Device Subpart E Unlicensed National Information Infrastructure Devices Section 15.407 General technical requirements

* The revision does not affect the test result conducted before its effective date.

The customer has declared that the EUT has complies with FCC Part 15 Subpart B as SDoC.

Following test items were performed in this report (See clause 3.2). The rest of the test items required were conducted with wireless module SX-SDMAN2. Refer to the test report 13568152S-L.

3.2 Procedures and Results

Item	Test Procedure	Specification	Worst Margin	Results	Remarks
Conducted Emission	FCC: ANSI C63.10-2013 ISED: RSS-Gen 8.8	FCC: 15.407 (b) (6) / 15.207 ISED: RSS-Gen 8.8	-	N/A	-
Spurious Emission Restricted Band Edge	FCC: ANSI C63.10-2013 KDB Publication Number 789033 ISED: -	FCC: 15.407 (b), 15.205 and 15.209 ISED: RSS-247 6.2.1.2 6.2.2.2 6.2.3.2 6.2.4.2	5.4 dB 5382.000 MHz, AV, Vertical Mode: Tx 11n-20 5745 MHz	Complied a)	Radiated (> 30 MHz) *1)
Note: UL Japan, Inc.'s EMI Work Procedures: Work Instructions-ULID-003591 and Work Instructions-ULID-003593. * In case any questions arise about test procedure, ANSI C63.10: 2013 is also referred.					
*1) The test is not applicable since the EUT has no AC mains. Wireless LAN does not operate during charging. *2) Radiated test was selected over 30 MHz based on RSS-247 6.2 and KDB 789033 D02 G.3.b).					
a) Refer to APPENDIX 1 (data of Radiated Spurious Emission)					
Symbols: Complied The data of this test item has enough margin, more than the measurement uncertainty. Complied# The data of this test item meets the limits unless the measurement uncertainty is taken into consideration					

FCC Part 15.31 (e)

This EUT provides the stable voltage constantly to RF Module 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.

3.3 Addition to Standard

No addition, exclusion nor deviation has been made from the standard.

3.4 Uncertainty

There is no applicable rule of uncertainty in this applied standard. Therefore, the following results are derived depending on whether or not laboratory uncertainty is applied.

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

Item	Frequency range	Uncertainty (+/-)			
		No. 1 SAC / SR	No. 2 SAC / SR	No. 3 SAC / SR	No. 4,5,6,8 SR
Conducted emission (AC Mains) LISN	150 kHz-30 MHz	2.6 dB	2.6 dB	2.7 dB	2.7 dB
Radiated emission (Measurement distance: 3 m)	9 kHz-30 MHz	2.9 dB	2.9 dB	2.9 dB	-
	30 MHz-200 MHz	4.6 dB	4.6 dB	4.6 dB	-
	200 MHz-1 GHz	6.0 dB	6.0 dB	6.0 dB	-
	1 GHz-6 GHz	4.8 dB	4.8 dB	4.8 dB	-
	6 GHz-18 GHz	5.4 dB	5.4 dB	5.4 dB	-
	18 GHz-40 GHz	5.6 dB	5.6 dB	5.7 dB	-
Radiated emission (Measurement distance: 1 m)	1 GHz-18 GHz	5.7 dB	5.7 dB	5.7 dB	-
	18 GHz-40 GHz	5.9 dB	5.9 dB	5.9 dB	-

SAC=Semi-Anechoic Chamber

SR= Shielded Room is applied besides radiated emission

3.5 Test Location

UL Japan, Inc. Shonan EMC Lab.

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

Telephone: +81 463 50 6400, Facsimile: +81 463 50 6401

A2LA Certificate Number: 1266.03

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

Test site	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measurement distance
No.1 Semi-anechoic chamber	2973D-1	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.2 Semi-anechoic chamber	2973D-2	20.6 x 11.3 x 7.65	20.6 x 11.3	10 m
No.3 Semi-anechoic chamber	2973D-3	12.7 x 7.7 x 5.35	12.7 x 7.7	5 m
No.4 Semi-anechoic chamber	-	8.1 x 5.1 x 3.55	8.1 x 5.1	-
No.1 Shielded room	-	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.2 Shielded room	-	6.8 x 4.1 x 2.7	6.8 x 4.1	-
No.3 Shielded room	-	6.3 x 4.7 x 2.7	6.3 x 4.7	-
No.4 Shielded room	-	4.4 x 4.7 x 2.7	4.4 x 4.7	-
No.5 Shielded room	-	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.6 Shielded room	-	7.8 x 6.4 x 2.7	7.8 x 6.4	-
No.8 Shielded room	-	3.45 x 5.5 x 2.4	3.45 x 5.5	-
No.1 Measurement room	-	2.55 x 4.1 x 2.5	-	-

3.6 Test Data, Test Instruments, and Test Set Up

Refer to APPENDIX.

SECTION 4: Operation of EUT during testing

4.1 Operating Mode(s)

Test operating mode was determined as follows according to “Section 1 of 6 802.11 a/b/g/n testing - Managing Complex Regulatory Approvals -” of TCB Council Workshop October 2009.

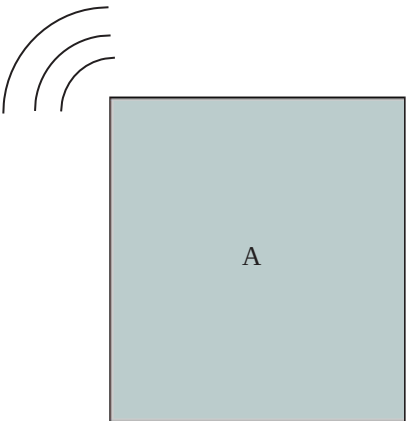
Mode	Remarks*
IEEE 802.11a (11a)	18 Mbps, PN9
IEEE 802.11n MIMO 20 MHz BW (11n-20)	MCS 11 (Long GI), PN9
IEEE 802.11n MIMO 40 MHz BW (11n-40)	MCS 10 (Long GI), PN9
*The worst condition was determined based on the test result of Maximum Peak Output Power (Mid Channel) (Reference test report No.: Refer to 3.1)	
*Power of the EUT was set by the software as follows; Power Setting: 8 dBm Software: Refer to the below table.	
*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.	

Software name	Version	Released Date	Storage location
Panel Firmware	V4.20R00.000	2022/2/8	EUT memory (*. operated by connected host PC)
Wlan Auth Tool	1.3.0.2	2017/4/18	Connected host PC

*The Details of Operation Mode(s)

Test Item	Operating Mode	Tested Antenna *2)	Tested Frequency			
			Lower Band	Middle Band	Additional Band	Upper Band
Radiated Spurious Emission (Below 1 GHz)	11n-20 (MIMO) *1)	Main +Sub	5180 MHz	-	-	-
Radiated Spurious Emission (Above 1 GHz)	11a	Sub	5180 MHz 5240 MHz	5320 MHz	5500 MHz 5580 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11n-20 (MIMO)	Main +Sub	5180 MHz 5240 MHz	5320 MHz	5500 MHz 5580 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11n-40 (MIMO)	Main +Sub	5190 MHz 5230 MHz	5310 MHz	5510 MHz 5550 MHz 5670 MHz	5755 MHz 5795 MHz
*1) The mode was tested as a representative, because it had the highest power at antenna terminal test.						
*2) The test was performed with the antenna that had higher power as a representative.						

4.2 Configuration and Peripherals



Description of EUT and Support Equipment

No.	Item	Model Number	Serial Number	Manufacturer	Remarks
A	SKR 3000	P-95	ADU1-S0001	KONICA MINOLTA Inc.	EUT

SECTION 5: Radiated Spurious Emission and Band Edge Compliance

Test Procedure

< Below 1GHz >

EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

< Above 1GHz >

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.

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.

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 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.

< Below 1GHz >

The result also satisfied with the general limits specified in section 15.209 (a).

< Above 1GHz >

Inside of restricted bands (Section 15.205):

Apply to limit in the Section 15.209 (a).

Outside of the restricted bands:

Apply to limit 68.2 dBuV/m, 3 m (-27 dBm e.i.r.p.*) in the Section 15.407 (b) (1) (2) (3).

For U-NII-3 Bandedge

-27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly

to

a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge in the section 15.407(b)(4)(i).

Restricted band edge:

Apply to limit in the Section 15.209 (a).

Since this limit is severer than the limit of the inside of restricted bands.

*Electric field strength to e.i.r.p. conversion:

$$E = \frac{1000000 \sqrt{30P}}{3} \text{ (uV/m)} \quad : P \text{ is the e.i.r.p. (Watts)}$$

Test Antennas are used as below;

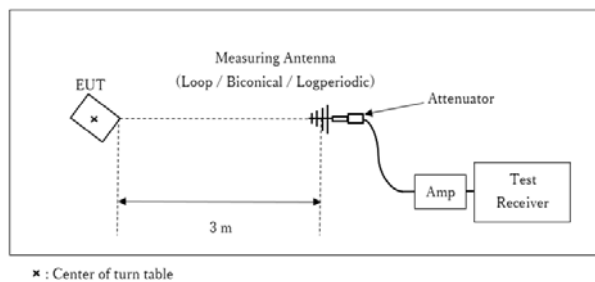
Frequency	30 MHz to 200 MHz	200 MHz to 1 GHz	Above 1 GHz
Antenna Type	Biconical	Logperiodic	Horn

Frequency	Below 1 GHz	Above 1 GHz	
Instrument Used	Test Receiver	Spectrum Analyzer	
Detector	QP	Peak	Average
IF Bandwidth	BW: 120 kHz	RBW: 1 MHz VBW: 3 MHz	Method VB *1) RBW: 1 MHz VBW: 1/T MHz (T: Burst length, refer to the reference test report mentioned in 3.1.) Detector: Peak Trace mode: Max hold

*1) The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E".

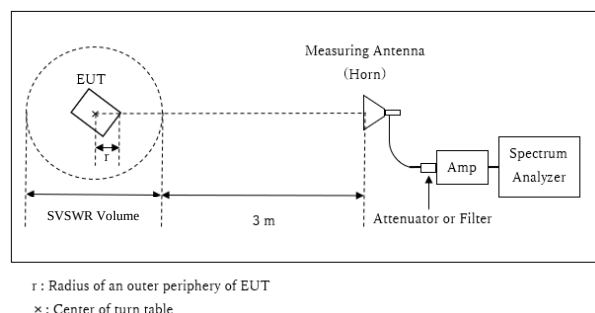
Figure 1: Test Setup

Below 1 GHz



Test Distance: 3 m

1 GHz to 10 GHz



Distance Factor: $20 \times \log ((3.77 \text{ m} / 3.0 \text{ m}) = 1.99 \text{ dB}$

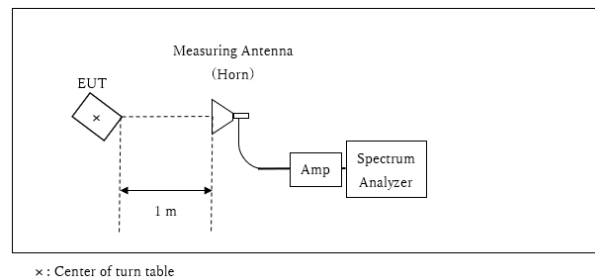
* Test Distance: $(3 + \text{SVSWR Volume} / 2) - r = 3.77 \text{ m}$

SVSWR Volume : 2.0 m

(SVSWR Volume has been calibrated based on CISPR 16-1-4.)
 $r = 0.23 \text{ m} *1)$

*1): r applied the diagonal length that maximizes the Distance Factor.

10 GHz to 40 GHz



Distance Factor: $20 \times \log (1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$

*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.

Module SISO

Antenna polarization	Carrier	Spurious (30 MHz - 1 GHz)	Spurious (1 GHz - 2.8 GHz)	Spurious (2.8 GHz - 10 GHz)	Spurious (10 GHz - 18 GHz)	Spurious (18 GHz - 26.5 GHz)	Spurious (26.5 GHz - 40 GHz)
Horizontal	Z	-	Z	X	X	X	X
Vertical	X	-	X	Y	X	X	X

Module MIMO

Antenna polarization	Carrier	Spurious (30 MHz - 1 GHz)	Spurious (1 GHz - 2.8 GHz)	Spurious (2.8 GHz - 10 GHz)	Spurious (10 GHz - 18 GHz)	Spurious (18 GHz - 26.5 GHz)	Spurious (26.5 GHz - 40 GHz)
Horizontal	Z	X	Z	X	X	X	X
Vertical	X	X	X	X	X	X	X

The test results and limit are rounded off to one decimal place, so some differences might be observed.

Measurement Range : 30 MHz to 40 GHz
Test Data : APPENDIX
Test Result : Pass

APPENDIX 1: Test Data

Radiated Spurious Emission

Test place	Shonan EMC Lab.	No.1	No.1	No.3	No.3
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5180 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	45.51	31.95	17.22	39.76	1.99	56.91	73.9	16.9	207	102	-
Hori.	5382.000	PK	45.18	31.70	17.39	39.81	1.99	56.45	73.9	17.4	179	105	-
Hori.	15540.000	PK	44.21	39.58	13.26	39.18	-9.54	48.33	73.9	25.5	150	0	-
Hori.	5150.000	AV	33.63	31.95	17.22	39.76	1.99	45.03	53.9	8.8	207	102	VBW: 1.5 kHz
Hori.	5382.000	AV	35.28	31.70	17.39	39.81	1.99	46.55	53.9	7.3	179	105	VBW: 1.5 kHz*1)
Hori.	15540.000	AV	33.04	39.58	13.26	39.18	-9.54	37.16	53.9	16.7	150	0	VBW: 1.5 kHz Floor noise
Vert.	5150.000	PK	45.29	31.95	17.22	39.76	1.99	56.69	73.9	17.2	127	1	-
Vert.	5382.000	PK	45.44	31.70	17.39	39.81	1.99	56.71	73.9	17.1	148	350	-
Vert.	15540.000	PK	44.73	39.58	13.26	39.18	-9.54	48.85	73.9	25.0	150	0	-
Vert.	5150.000	AV	33.37	31.95	17.22	39.76	1.99	44.77	53.9	9.1	127	1	VBW: 1.5 kHz
Vert.	5382.000	AV	35.59	31.70	17.39	39.81	1.99	46.86	53.9	7.0	148	350	VBW: 1.5 kHz*1)
Vert.	15540.000	AV	33.86	39.58	13.26	39.18	-9.54	37.98	53.9	15.9	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6906.592	PK	47.75	35.17	9.05	39.62	1.99	54.34	-40.89	-27.0	13.8	114	80	-
Hori.	10360.000	PK	44.47	36.38	10.53	39.69	-9.54	42.15	-53.08	-27.0	26.0	150	0	-
Vert.	6906.592	PK	48.14	35.17	9.05	39.62	1.99	54.73	-40.50	-27.0	13.5	288	272	-
Vert.	10360.000	PK	44.66	36.38	10.53	39.69	-9.54	42.34	-52.89	-27.0	25.8	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

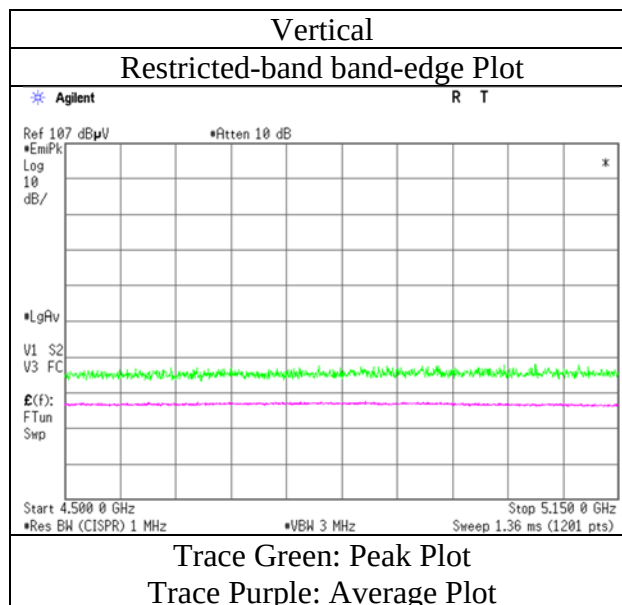
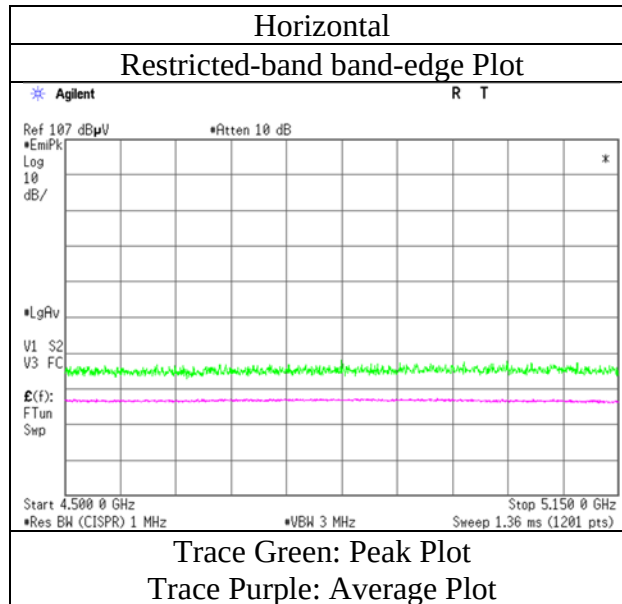
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	23 deg. C / 38 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a 5180 MHz



* 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

Test place	Shonan EMC Lab.	No.1	No.1	No.3	No.3
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5240 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.82	31.70	17.39	39.81	1.99	57.09	73.9	16.8	186	99	-
Hori.	15720.000	PK	45.41	39.85	13.22	39.57	-9.54	49.37	73.9	24.5	150	0	-
Hori.	5382.000	AV	35.63	31.70	17.39	39.81	1.99	46.90	53.9	7.0	186	99	VBW: 1.5 kHz *1)
Hori.	15720.000	AV	33.84	39.85	13.22	39.57	-9.54	37.80	53.9	16.1	150	0	VBW: 1.5 kHz Floor noise
Vert.	5382.000	PK	45.66	31.70	17.39	39.81	1.99	56.93	73.9	16.9	145	344	-
Vert.	15720.000	PK	45.52	39.85	13.22	39.57	-9.54	49.48	73.9	24.4	150	0	-
Vert.	5382.000	AV	35.83	31.70	17.39	39.81	1.99	47.10	53.9	6.8	145	344	VBW: 1.5 kHz *1)
Vert.	15720.000	AV	33.94	39.85	13.22	39.57	-9.54	37.90	53.9	16.0	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6986.591	PK	45.42	35.67	9.09	39.57	1.99	52.60	-42.63	-27.0	15.6	113	78	-
Hori.	10480.000	PK	43.61	36.57	10.58	39.76	-9.54	41.46	-53.77	-27.0	26.7	150	0	-
Vert.	6986.591	PK	45.94	35.67	9.09	39.57	1.99	53.12	-42.11	-27.0	15.1	271	272	-
Vert.	10480.000	PK	43.29	36.57	10.58	39.76	-9.54	41.14	-54.09	-27.0	27.0	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20)) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Takahiro Kawakami (18 GHz -26.5 GHz)	Hiromasa Sato (26.5 GHz -40 GHz)
Mode	Tx 11a 5320 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	44.54	31.65	17.36	39.80	1.99	55.74	73.9	18.1	153	89	-
Hori.	5382.000	PK	45.29	31.70	17.39	39.81	1.99	56.56	73.9	17.3	188	100	-
Hori.	10640.000	PK	43.24	37.13	10.67	39.71	-9.54	41.79	73.9	32.1	150	0	-
Hori.	15960.000	PK	45.33	40.10	13.14	40.10	-9.54	48.93	73.9	24.9	150	0	-
Hori.	5350.000	AV	33.34	31.65	17.36	39.80	1.99	44.54	53.9	9.3	153	89	VBW: 1.5 kHz
Hori.	5382.000	AV	35.60	31.70	17.39	39.81	1.99	46.87	53.9	7.0	188	100	VBW: 1.5 kHz *1)
Hori.	10640.000	AV	32.26	37.13	10.67	39.71	-9.54	30.81	53.9	23.0	150	0	VBW: 1.5 kHz Floor noise
Hori.	15960.000	AV	33.69	40.10	13.14	40.10	-9.54	37.29	53.9	16.6	150	0	VBW: 1.5 kHz Floor noise
Vert.	5350.000	PK	45.18	31.65	17.36	39.80	1.99	56.38	73.9	17.5	105	1	-
Vert.	5382.000	PK	45.41	31.70	17.39	39.81	1.99	56.68	73.9	17.2	149	352	-
Vert.	10640.000	PK	43.01	37.13	10.67	39.71	-9.54	41.56	73.9	32.3	150	0	-
Vert.	15960.000	PK	45.14	40.10	13.14	40.10	-9.54	48.74	73.9	25.1	150	0	-
Vert.	5350.000	AV	33.25	31.65	17.36	39.80	1.99	44.45	53.9	9.4	105	1	VBW: 1.5 kHz
Vert.	5382.000	AV	35.70	31.70	17.39	39.81	1.99	46.97	53.9	6.9	149	352	VBW: 1.5 kHz *1)
Vert.	10640.000	AV	32.27	37.13	10.67	39.71	-9.54	30.82	53.9	23.0	150	0	VBW: 1.5 kHz Floor noise
Vert.	15960.000	AV	33.70	40.10	13.14	40.10	-9.54	37.30	53.9	16.6	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7093.258	PK	46.02	36.29	9.15	39.53	1.99	53.92	-41.31	-27.0	14.3	113	89	-
Vert.	7093.258	PK	44.49	36.29	9.15	39.53	1.99	52.39	-42.84	-27.0	15.8	291	275	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6) * \text{Distance : 3 [m]})^{\wedge}2 / 30 * 10^{\wedge}3)$

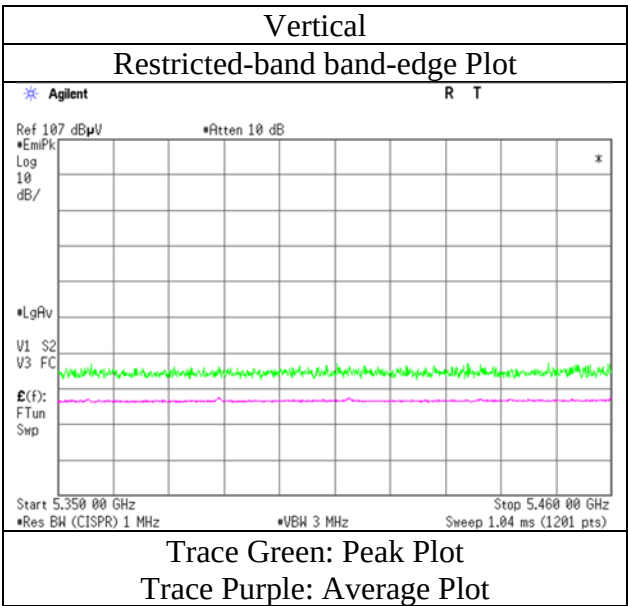
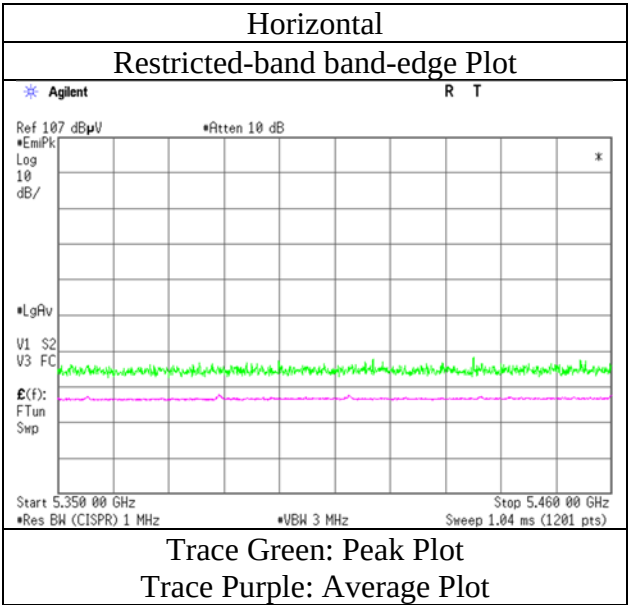
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	23 deg. C / 38 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a 5320 MHz



* 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

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5500 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.27	31.70	17.39	39.81	1.99	56.54	73.9	17.3	176	105	-
Hori.	5460.000	PK	45.05	31.83	17.45	39.82	1.99	56.50	73.9	17.4	105	106	-
Hori.	7333.256	PK	45.73	36.70	9.32	39.45	1.99	54.29	73.9	19.6	102	90	-
Hori.	11000.000	PK	43.71	37.35	10.83	39.54	-9.54	42.81	73.9	31.0	150	0	-
Hori.	5382.000	AV	35.28	31.70	17.39	39.81	1.99	46.55	53.9	7.3	176	105	VBW: 1.5 kHz *1)
Hori.	5460.000	AV	34.46	31.83	17.45	39.82	1.99	45.91	53.9	7.9	105	106	VBW: 1.5 kHz
Hori.	7333.256	AV	38.13	36.70	9.32	39.45	1.99	46.69	53.9	7.2	102	90	VBW: 1.5 kHz
Hori.	11000.000	AV	32.56	37.35	10.83	39.54	-9.54	31.66	53.9	22.2	150	0	VBW: 1.5 kHz Floor noise
Vert.	5382.000	PK	45.48	31.70	17.39	39.81	1.99	56.75	73.9	17.1	156	352	-
Vert.	5460.000	PK	45.50	31.83	17.45	39.82	1.99	56.95	73.9	16.9	175	354	-
Vert.	7333.256	PK	45.37	36.70	9.32	39.45	1.99	53.93	73.9	19.9	274	271	-
Vert.	11000.000	PK	43.70	37.35	10.83	39.54	-9.54	42.80	73.9	31.1	150	0	-
Vert.	5382.000	AV	35.70	31.70	17.39	39.81	1.99	46.97	53.9	6.9	156	352	VBW: 1.5 kHz *1)
Vert.	5460.000	AV	34.54	31.83	17.45	39.82	1.99	45.99	53.9	7.9	175	354	VBW: 1.5 kHz
Vert.	7333.256	AV	37.06	36.70	9.32	39.45	1.99	45.62	53.9	8.2	274	271	VBW: 1.5 kHz
Vert.	11000.000	AV	32.36	37.35	10.83	39.54	-9.54	31.46	53.9	22.4	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	44.19	31.84	17.45	39.82	1.99	55.65	-39.58	-27.0	12.5	105	106	-
Hori.	16500.000	PK	45.65	40.03	13.98	40.26	-9.54	49.86	-45.37	-27.0	18.3	150	0	-
Vert.	5470.000	PK	44.78	31.84	17.45	39.82	1.99	56.24	-38.99	-27.0	11.9	175	354	-
Vert.	16500.000	PK	44.90	40.03	13.98	40.26	-9.54	49.11	-46.12	-27.0	19.1	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

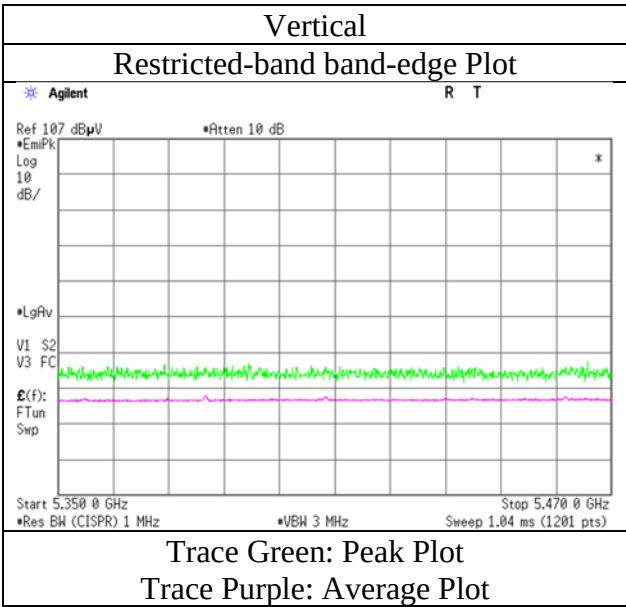
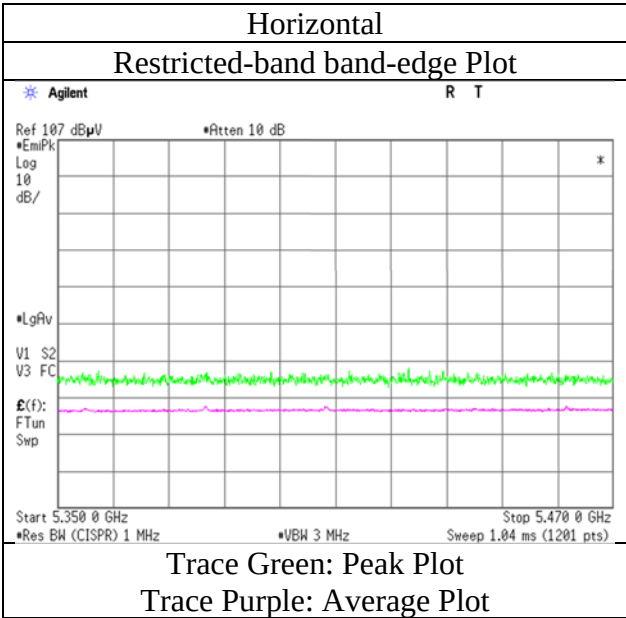
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place Shonan EMC Lab.
Semi Anechoic Chamber No.1
Date February 9, 2022
Temperature / Humidity 23 deg. C / 38 % RH
Engineer Yosuke Murakami
Mode Tx 11a 5500 MHz



* 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

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5580 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.56	31.70	17.39	39.81	1.99	56.83	73.9	17.0	178	104	-
Hori.	7439.923	PK	44.42	36.84	9.40	39.42	1.99	53.23	73.9	20.6	102	87	-
Hori.	11160.000	PK	43.25	37.32	10.92	39.58	-9.54	42.37	73.9	31.5	150	0	-
Hori.	5382.000	AV	35.28	31.70	17.39	39.81	1.99	46.55	53.9	7.3	178	104	VBW: 1.5 kHz *1)
Hori.	7439.923	AV	35.49	36.84	9.40	39.42	1.99	44.30	53.9	9.6	102	87	VBW: 1.5 kHz
Hori.	11160.000	AV	32.18	37.32	10.92	39.58	-9.54	31.30	53.9	22.6	150	0	VBW: 1.5 kHz Floor noise
Vert.	5382.000	PK	45.70	31.70	17.39	39.81	1.99	56.97	73.9	16.9	155	355	-
Vert.	7439.923	PK	44.18	36.84	9.40	39.42	1.99	52.99	73.9	20.9	271	276	-
Vert.	11160.000	PK	43.58	37.32	10.92	39.58	-9.54	42.70	73.9	31.2	150	0	-
Vert.	5382.000	AV	35.56	31.70	17.39	39.81	1.99	46.83	53.9	7.0	155	355	VBW: 1.5 kHz *1)
Vert.	7439.923	AV	34.21	36.84	9.40	39.42	1.99	43.02	53.9	10.8	271	276	VBW: 1.5 kHz
Vert.	11160.000	AV	32.45	37.32	10.92	39.58	-9.54	31.57	53.9	22.3	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	16740.000	PK	44.67	39.62	14.04	39.80	-9.54	48.99	-46.24	-27.0	19.2	150	0	-
Vert.	16740.000	PK	45.01	39.62	14.04	39.80	-9.54	49.33	-45.90	-27.0	18.9	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5700 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.06	31.70	17.39	39.81	1.99	56.33	73.9	17.5	181	105	-
Hori.	7599.918	PK	43.47	36.68	9.46	39.32	1.99	52.28	73.9	21.6	107	89	-
Hori.	11400.000	PK	42.92	37.76	11.07	39.63	-9.54	42.58	73.9	31.3	150	0	-
Hori.	5382.000	AV	35.33	31.70	17.39	39.81	1.99	46.60	53.9	7.3	181	105	VBW: 1.5 kHz *1)
Hori.	7599.918	AV	33.78	36.68	9.46	39.32	1.99	42.59	53.9	11.3	107	89	VBW: 1.5 kHz
Hori.	11400.000	AV	31.61	37.76	11.07	39.63	-9.54	31.27	53.9	22.6	150	0	VBW: 1.5 kHz Floor noise
Vert.	5382.000	PK	45.70	31.70	17.39	39.81	1.99	56.97	73.9	16.9	150	351	-
Vert.	7599.918	PK	43.68	36.68	9.46	39.32	1.99	52.49	73.9	21.4	275	273	-
Vert.	11400.000	PK	43.78	37.76	11.07	39.63	-9.54	43.44	73.9	30.4	150	0	-
Vert.	5382.000	AV	35.50	31.70	17.39	39.81	1.99	46.77	53.9	7.1	150	351	VBW: 1.5 kHz *1)
Vert.	7599.918	AV	33.84	36.68	9.46	39.32	1.99	42.65	53.9	11.2	275	273	VBW: 1.5 kHz
Vert.	11400.000	AV	31.58	37.76	11.07	39.63	-9.54	31.24	53.9	22.6	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	46.29	32.14	17.63	39.89	1.99	58.16	-37.07	-27.0	10.0	118	114	-
Hori.	17100.000	PK	43.72	39.89	14.20	39.09	-9.54	49.18	-46.05	-27.0	19.0	150	0	-
Vert.	5725.000	PK	45.76	32.14	17.63	39.89	1.99	57.63	-37.60	-27.0	10.6	109	353	-
Vert.	17100.000	PK	43.05	39.89	14.20	39.09	-9.54	48.51	-46.72	-27.0	19.7	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20)) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

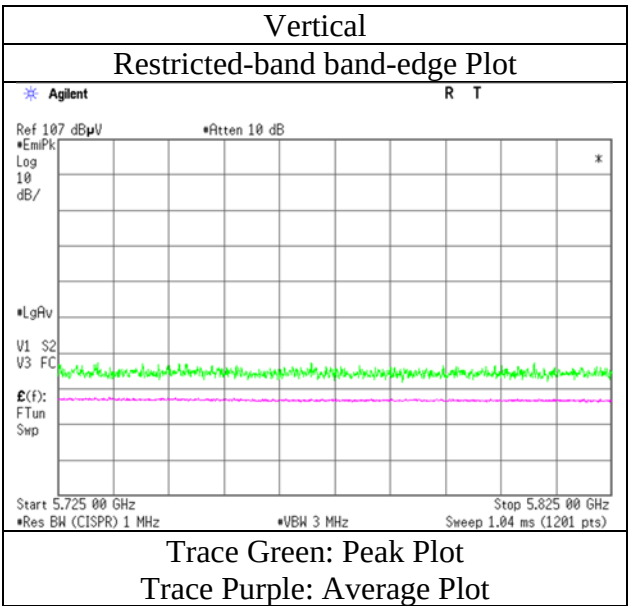
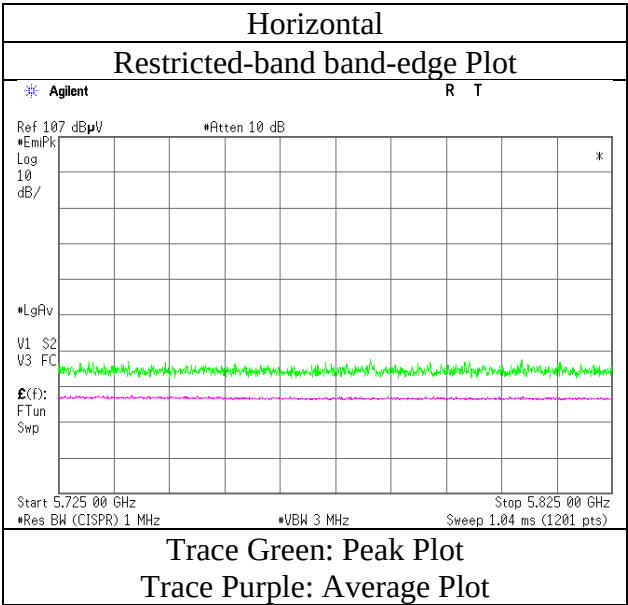
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place Shonan EMC Lab.
Semi Anechoic Chamber No.1
Date February 9, 2022
Temperature / Humidity 23 deg. C / 38 % RH
Engineer Yosuke Murakami
Mode Tx 11a 5700 MHz



* 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

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5745 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	44.88	31.70	17.39	39.81	1.99	56.15	73.9	17.7	172	108	-
Hori.	7659.919	PK	44.04	36.61	9.48	39.27	1.99	52.85	73.9	21.0	102	78	-
Hori.	11490.000	PK	42.74	37.89	11.13	39.65	-9.54	42.57	73.9	31.3	150	0	-
Hori.	5382.000	AV	35.51	31.70	17.39	39.81	1.99	46.78	53.9	7.1	172	108	VBW: 1.5 kHz *1)
Hori.	7659.919	AV	33.35	36.61	9.48	39.27	1.99	42.16	53.9	11.7	102	78	VBW: 1.5 kHz
Hori.	11490.000	AV	31.71	37.89	11.13	39.65	-9.54	31.54	53.9	22.3	150	0	VBW: 1.5 kHz Floor noise
Vert.	5382.000	PK	45.36	31.70	17.39	39.81	1.99	56.63	73.9	17.2	148	156	-
Vert.	7659.919	PK	44.22	36.61	9.48	39.27	1.99	53.03	73.9	20.8	272	275	-
Vert.	11490.000	PK	42.90	37.89	11.13	39.65	-9.54	42.73	73.9	31.1	150	0	-
Vert.	5382.000	AV	36.09	31.70	17.39	39.81	1.99	47.36	53.9	6.5	148	156	VBW: 1.5 kHz *1)
Vert.	7659.919	AV	33.43	36.61	9.48	39.27	1.99	42.24	53.9	11.6	272	275	VBW: 1.5 kHz
Vert.	11490.000	AV	31.83	37.89	11.13	39.65	-9.54	31.66	53.9	22.2	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	45.65	31.95	17.58	39.87	1.99	57.30	-37.93	-27.0	10.9	127	102	-
Hori.	5700.000	PK	44.93	32.07	17.62	39.89	1.99	56.72	-38.51	10.0	48.5	127	102	-
Hori.	5720.000	PK	44.99	32.12	17.63	39.89	1.99	56.84	-38.39	15.6	53.9	127	102	-
Hori.	5725.000	PK	45.66	32.14	17.63	39.89	1.99	57.53	-37.70	27.0	64.7	127	102	-
Hori.	17235.000	PK	44.19	40.12	14.35	38.80	-9.54	50.32	-44.91	-27.0	17.9	150	0	-
Vert.	5650.000	PK	45.03	31.95	17.58	39.87	1.99	56.68	-38.55	-27.0	11.5	103	358	-
Vert.	5667.813	PK	45.94	31.99	17.59	39.88	1.99	57.63	-37.60	-13.8	23.7	103	358	-
Vert.	5700.000	PK	46.05	32.07	17.62	39.89	1.99	57.84	-37.39	10.0	47.3	103	358	-
Vert.	5720.000	PK	46.15	32.12	17.63	39.89	1.99	58.00	-37.23	15.6	52.8	103	358	-
Vert.	5725.000	PK	46.18	32.14	17.63	39.89	1.99	58.05	-37.18	27.0	64.1	103	358	-
Vert.	17235.000	PK	44.20	40.12	14.35	38.80	-9.54	50.33	-44.90	-27.0	17.9	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

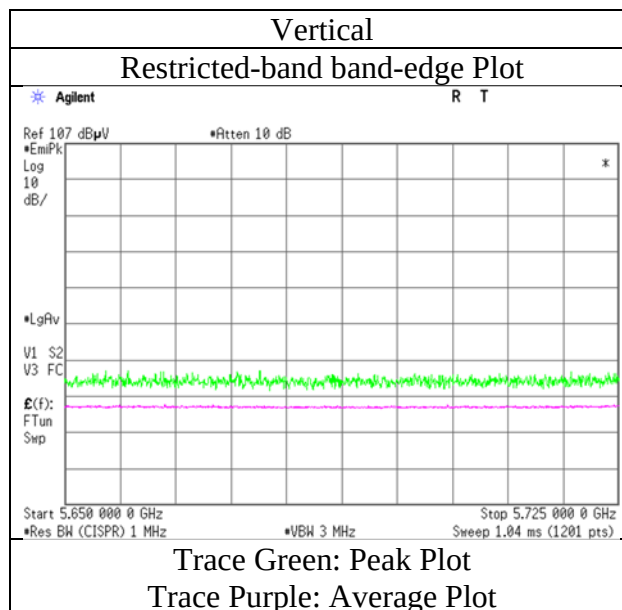
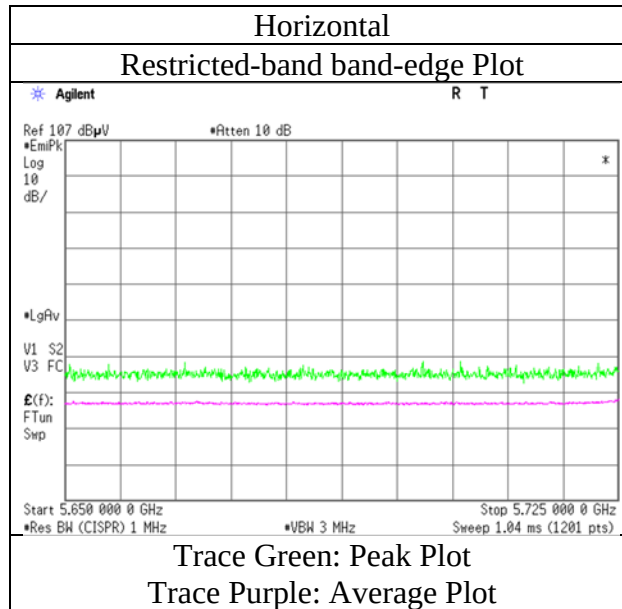
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	23 deg. C / 38 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a 5745 MHz



* 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

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5785 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.53	31.70	17.39	39.81	1.99	56.80	73.9	17.1	184	103	-
Hori.	7713.252	PK	43.64	36.63	9.48	39.23	1.99	52.51	73.9	21.3	104	79	-
Hori.	11570.000	PK	42.87	37.97	11.18	39.49	-9.54	42.99	73.9	30.9	150	0	-
Hori.	5382.000	AV	36.02	31.70	17.39	39.81	1.99	47.29	53.9	6.6	184	103	VBW: 1.5 kHz *1)
Hori.	7713.252	AV	33.09	36.63	9.48	39.23	1.99	41.96	53.9	11.9	104	79	VBW: 1.5 kHz
Hori.	11570.000	AV	31.99	37.97	11.18	39.49	-9.54	32.11	53.9	21.7	150	0	VBW: 1.5 kHz Floor noise
Vert.	5382.000	PK	45.60	31.70	17.39	39.81	1.99	56.87	73.9	17.0	152	349	-
Vert.	7713.252	PK	43.78	36.63	9.48	39.23	1.99	52.65	73.9	21.2	272	273	-
Vert.	11570.000	PK	42.77	37.97	11.18	39.49	-9.54	42.89	73.9	31.0	150	0	-
Vert.	5382.000	AV	35.76	31.70	17.39	39.81	1.99	47.03	53.9	6.8	152	349	VBW: 1.5 kHz *1)
Vert.	7713.252	AV	33.16	36.63	9.48	39.23	1.99	42.03	53.9	11.8	272	273	VBW: 1.5 kHz
Vert.	11570.000	AV	31.79	37.97	11.18	39.49	-9.54	31.91	53.9	21.9	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	17355.000	PK	45.05	40.26	14.48	38.54	-9.54	51.71	-43.52	-27.0	16.5	150	0	-
Vert.	17355.000	PK	45.26	40.26	14.48	38.54	-9.54	51.92	-43.31	-27.0	16.3	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.1	No.1	No.1	No.3	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	23 deg. C / 38 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yosuke Murakami	Kenichi Adachi	Miku Ikudome	Takahiro Kawakami	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 GHz -40 GHz)
Mode	Tx 11a 5825 MHz				

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.38	31.70	17.39	39.81	1.99	56.65	73.9	17.2	174	105	-
Hori.	11650.000	PK	42.90	38.02	11.25	39.31	-9.54	43.32	73.9	30.5	150	0	-
Hori.	5382.000	AV	36.24	31.70	17.39	39.81	1.99	47.51	53.9	6.3	174	105	VBW: 1.5 kHz *1)
Hori.	11650.000	AV	32.09	38.02	11.25	39.31	-9.54	32.51	53.9	21.3	150	0	VBW: 1.5 kHz Floor noise
Vert.	5382.000	PK	44.99	31.70	17.39	39.81	1.99	56.26	73.9	17.6	151	346	-
Vert.	11650.000	PK	43.01	38.02	11.25	39.31	-9.54	43.43	73.9	30.4	150	0	-
Vert.	5382.000	AV	36.09	31.70	17.39	39.81	1.99	47.36	53.9	6.5	151	346	VBW: 1.5 kHz *1)
Vert.	11650.000	AV	32.38	38.02	11.25	39.31	-9.54	32.80	53.9	21.1	150	0	VBW: 1.5 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	47.58	32.46	17.72	39.93	1.99	59.82	-35.41	27.0	62.4	152	100	-
Hori.	5855.000	PK	47.15	32.47	17.73	39.93	1.99	59.41	-35.82	15.6	51.4	152	100	-
Hori.	5875.000	PK	46.64	32.50	17.75	39.94	1.99	58.94	-36.29	10.0	46.2	152	100	-
Hori.	5925.000	PK	45.79	32.57	17.78	39.95	1.99	58.18	-37.05	-27.0	10.0	152	100	-
Hori.	7766.585	PK	43.34	36.73	9.50	39.19	1.99	52.37	-42.86	-27.0	15.8	104	79	-
Hori.	17475.000	PK	45.26	40.34	14.61	38.28	-9.54	52.39	-42.84	-27.0	15.8	150	0	-
Vert.	5850.000	PK	45.57	32.46	17.72	39.93	1.99	57.81	-37.42	27.0	64.4	122	1	-
Vert.	5855.000	PK	45.39	32.47	17.73	39.93	1.99	57.65	-37.58	15.6	53.1	122	1	-
Vert.	5875.000	PK	45.13	32.50	17.75	39.94	1.99	57.43	-37.80	10.0	47.8	122	1	-
Vert.	5925.000	PK	45.48	32.57	17.78	39.95	1.99	57.87	-37.36	-27.0	10.3	122	1	-
Vert.	7766.585	PK	43.47	36.73	9.50	39.19	1.99	52.50	-42.73	-27.0	15.7	271	274	-
Vert.	17475.000	PK	44.55	40.34	14.61	38.28	-9.54	51.68	-43.55	-27.0	16.5	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10 \wedge (\text{Electric Field Strength [dBuV/m]} / 20)) * 10 \wedge (-6) * \text{Distance : 3 [m]}) \wedge 2 / 30 * 10 \wedge 3)$

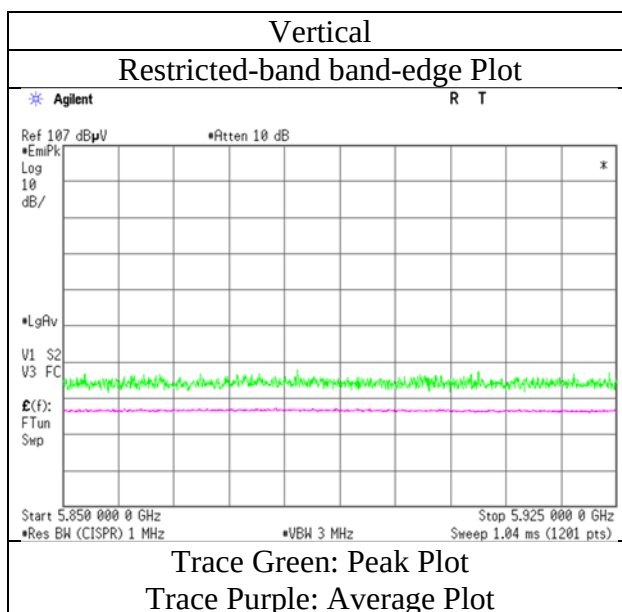
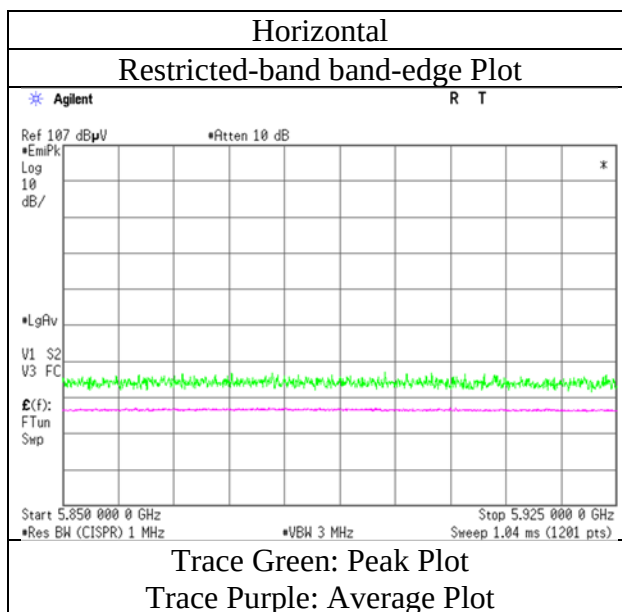
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	23 deg. C / 38 % RH
Engineer	Yosuke Murakami
Mode	Tx 11a 5825 MHz



* 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

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.3	No.1	No.1	No.1	No.3
Date	February 23, 2022	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 29 % RH	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Miku Ikudome (30 MHz -1 GHz)	Shiro Kobayashi (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-20 5180 MHz				

(below 1 GHz and above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	349.999	QP	28.70	15.23	8.83	31.92	0.00	20.84	46.0	25.1	100	189	-
Hori.	450.001	QP	30.37	16.59	9.30	31.93	0.00	24.33	46.0	21.6	102	284	-
Hori.	849.999	QP	25.87	21.48	10.79	31.33	0.00	26.81	46.0	19.1	100	47	-
Hori.	950.000	QP	26.61	22.07	11.11	30.59	0.00	29.20	46.0	16.8	100	37	-
Hori.	5150.000	PK	44.56	31.95	17.22	39.76	1.99	55.96	73.9	17.9	215	68	-
Hori.	5382.000	PK	44.78	31.70	17.39	39.81	1.99	56.05	73.9	17.8	136	125	-
Hori.	15540.000	PK	45.70	39.58	13.26	39.18	-9.54	49.82	73.9	24.0	150	0	-
Hori.	5150.000	AV	35.41	31.95	17.22	39.76	1.99	46.81	53.9	7.0	215	68	VBW: 3.6 kHz
Hori.	5382.000	AV	36.49	31.70	17.39	39.81	1.99	47.76	53.9	6.1	136	125	VBW: 3.6 kHz *1)
Hori.	15540.000	AV	34.49	39.58	13.26	39.18	-9.54	38.61	53.9	15.2	150	0	VBW: 3.6 kHz Floor noise
Vert.	350.001	QP	27.12	15.23	8.83	31.92	0.00	19.26	46.0	26.7	152	166	-
Vert.	450.004	QP	36.61	16.59	9.30	31.93	0.00	30.57	46.0	15.4	130	195	-
Vert.	850.005	QP	23.68	21.48	10.79	31.33	0.00	24.62	46.0	21.3	182	334	-
Vert.	949.997	QP	24.43	22.07	11.11	30.59	0.00	27.02	46.0	18.9	103	341	-
Vert.	5150.000	PK	44.77	31.95	17.22	39.76	1.99	56.17	73.9	17.7	187	100	-
Vert.	5382.000	PK	44.52	31.70	17.39	39.81	1.99	55.79	73.9	18.1	159	346	-
Vert.	15540.000	PK	45.43	39.58	13.26	39.18	-9.54	49.55	73.9	24.3	150	0	-
Vert.	5150.000	AV	35.39	31.95	17.22	39.76	1.99	46.79	53.9	7.1	187	100	VBW: 3.6 kHz
Vert.	5382.000	AV	36.79	31.70	17.39	39.81	1.99	48.06	53.9	5.8	159	346	VBW: 3.6 kHz *1)
Vert.	15540.000	AV	34.18	39.58	13.26	39.18	-9.54	38.30	53.9	15.6	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6906.654	PK	47.88	35.17	9.05	39.62	1.99	54.47	-40.76	-27.0	13.7	100	86	-
Hori.	10360.000	PK	44.66	36.38	10.53	39.69	-9.54	42.34	-52.89	-27.0	25.8	150	0	-
Vert.	6906.654	PK	47.66	35.17	9.05	39.62	1.99	54.25	-40.98	-27.0	13.9	100	89	-
Vert.	10360.000	PK	44.17	36.38	10.53	39.69	-9.54	41.85	-53.38	-27.0	26.3	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6) * \text{Distance} : 3\text{ [m]})^2 / 30 * 10^{\wedge}3)$

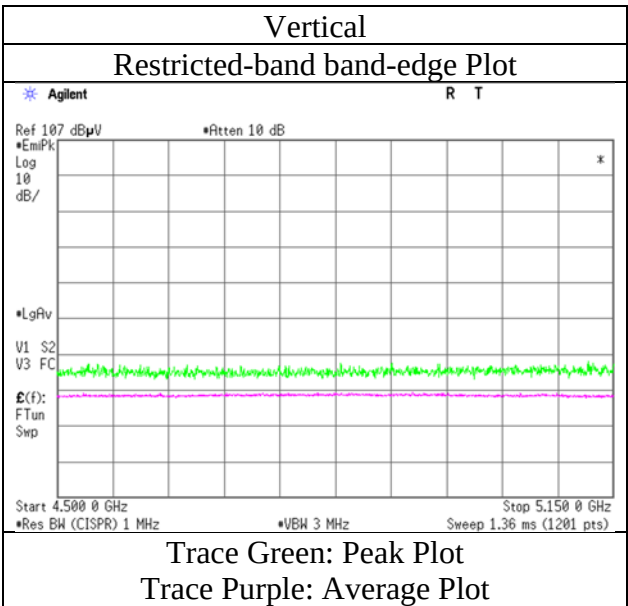
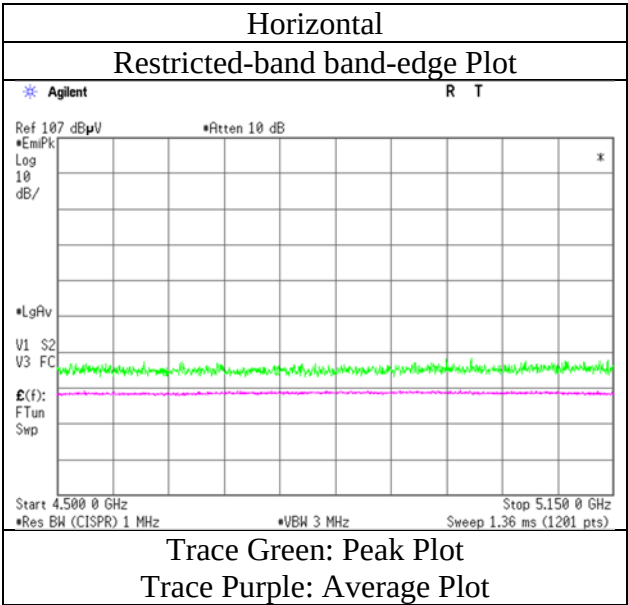
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	25 deg. C / 31 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 5180 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-20 5240 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	44.63	31.70	17.39	39.81	1.99	55.90	73.9	18.0	146	62	-
Hori.	15720.000	PK	46.00	39.85	13.22	39.57	-9.54	49.96	73.9	23.9	150	0	-
Hori.	5382.000	AV	36.06	31.70	17.39	39.81	1.99	47.33	53.9	6.5	146	62	VBW: 3.6 kHz *1)
Hori.	15720.000	AV	34.15	39.85	13.22	39.57	-9.54	38.11	53.9	15.7	150	0	VBW: 3.6 kHz Floor noise
Vert.	5382.000	PK	44.62	31.70	17.39	39.81	1.99	55.89	73.9	18.0	159	345	-
Vert.	15720.000	PK	45.63	39.85	13.22	39.57	-9.54	49.59	73.9	24.3	150	0	-
Vert.	5382.000	AV	36.13	31.70	17.39	39.81	1.99	47.40	53.9	6.5	159	345	VBW: 3.6 kHz *1)
Vert.	15720.000	AV	34.23	39.85	13.22	39.57	-9.54	38.19	53.9	15.7	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6986.668	PK	46.38	35.67	9.09	39.57	1.99	53.56	-41.67	-27.0	14.6	127	86	-
Hori.	10480.000	PK	43.74	36.57	10.58	39.76	-9.54	41.59	-53.64	-27.0	26.6	150	0	-
Vert.	6986.668	PK	46.11	35.67	9.09	39.57	1.99	53.29	-41.94	-27.0	14.9	272	88	-
Vert.	10480.000	PK	44.46	36.57	10.58	39.76	-9.54	42.31	-52.92	-27.0	25.9	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-20 5320 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	44.51	31.65	17.36	39.80	1.99	55.71	73.9	18.1	177	78	-
Hori.	5382.000	PK	44.91	31.70	17.39	39.81	1.99	56.18	73.9	17.7	144	111	-
Hori.	10640.000	PK	43.57	37.13	10.67	39.71	-9.54	42.12	73.9	31.7	150	0	-
Hori.	15960.000	PK	45.11	40.10	13.14	40.10	-9.54	48.71	73.9	25.1	150	0	-
Hori.	5350.000	AV	35.00	31.65	17.36	39.80	1.99	46.20	53.9	7.7	177	78	VBW: 3.6 kHz
Hori.	5382.000	AV	36.69	31.70	17.39	39.81	1.99	47.96	53.9	5.9	144	111	VBW: 3.6 kHz *1)
Hori.	10640.000	AV	32.53	37.13	10.67	39.71	-9.54	31.08	53.9	22.8	150	0	VBW: 3.6 kHz Floor noise
Hori.	15960.000	AV	33.69	40.10	13.14	40.10	-9.54	37.29	53.9	16.6	150	0	VBW: 3.6 kHz Floor noise
Vert.	5350.000	PK	45.32	31.65	17.36	39.80	1.99	56.52	73.9	17.3	206	104	-
Vert.	5382.000	PK	45.47	31.70	17.39	39.81	1.99	56.74	73.9	17.1	163	357	-
Vert.	10640.000	PK	43.39	37.13	10.67	39.71	-9.54	41.94	73.9	31.9	150	0	-
Vert.	15960.000	PK	45.53	40.10	13.14	40.10	-9.54	49.13	73.9	24.7	150	0	-
Vert.	5350.000	AV	35.45	31.65	17.36	39.80	1.99	46.65	53.9	7.2	206	104	VBW: 3.6 kHz
Vert.	5382.000	AV	36.91	31.70	17.39	39.81	1.99	48.18	53.9	5.7	163	357	VBW: 3.6 kHz *1)
Vert.	10640.000	AV	32.30	37.13	10.67	39.71	-9.54	30.85	53.9	23.0	150	0	VBW: 3.6 kHz Floor noise
Vert.	15960.000	AV	33.91	40.10	13.14	40.10	-9.54	37.51	53.9	16.3	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7093.331	PK	44.37	36.29	9.15	39.53	1.99	52.27	-42.96	-27.0	15.9	108	77	-
Vert.	7093.331	PK	43.98	36.29	9.15	39.53	1.99	51.88	-43.35	-27.0	16.3	243	91	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

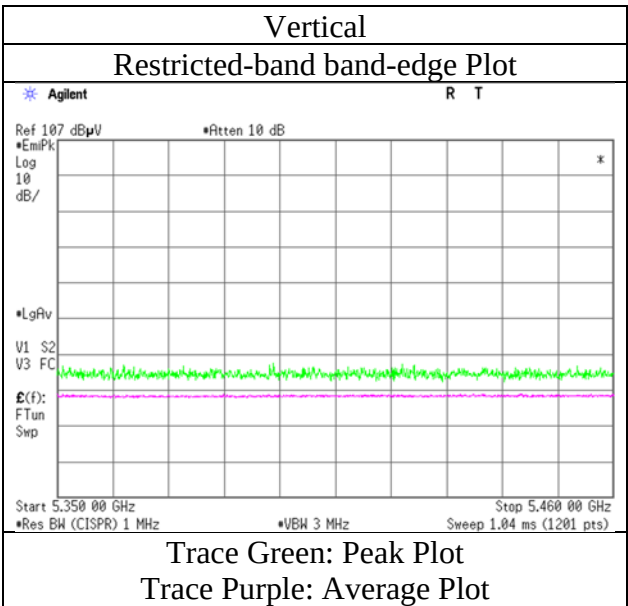
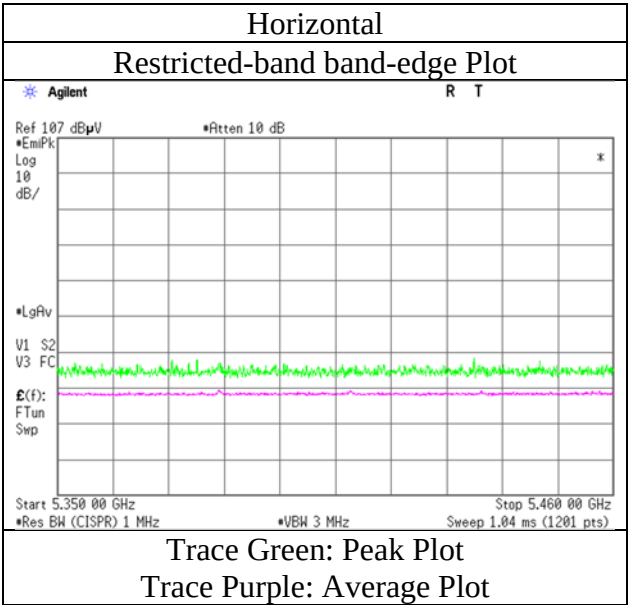
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	25 deg. C / 31 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 5320 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-20 5500 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.73	31.70	17.39	39.81	1.99	57.00	73.9	16.9	208	48	-
Hori.	5460.000	PK	44.48	31.83	17.45	39.82	1.99	55.93	73.9	17.9	198	96	-
Hori.	7333.329	PK	44.23	36.70	9.32	39.45	1.99	52.79	73.9	21.1	123	56	-
Hori.	11000.000	PK	44.20	37.35	10.83	39.54	-9.54	43.30	73.9	30.6	150	0	-
Hori.	5382.000	AV	36.40	31.70	17.39	39.81	1.99	47.67	53.9	6.2	208	48	VBW: 3.6 kHz *1)
Hori.	5460.000	AV	35.30	31.83	17.45	39.82	1.99	46.75	53.9	7.1	198	96	VBW: 3.6 kHz
Hori.	7333.329	AV	35.12	36.70	9.32	39.45	1.99	43.68	53.9	10.2	123	56	VBW: 3.6 kHz
Hori.	11000.000	AV	32.65	37.35	10.83	39.54	-9.54	31.75	53.9	22.1	150	0	VBW: 3.6 kHz Floor noise
Vert.	5382.000	PK	45.51	31.70	17.39	39.81	1.99	56.78	73.9	17.1	173	351	-
Vert.	5460.000	PK	44.86	31.83	17.45	39.82	1.99	56.31	73.9	17.5	240	103	-
Vert.	7333.329	PK	44.49	36.70	9.32	39.45	1.99	53.05	73.9	20.8	231	93	-
Vert.	11000.000	PK	43.94	37.35	10.83	39.54	-9.54	43.04	73.9	30.8	150	0	-
Vert.	5382.000	AV	36.83	31.70	17.39	39.81	1.99	48.10	53.9	5.8	173	351	VBW: 3.6 kHz *1)
Vert.	5460.000	AV	35.37	31.83	17.45	39.82	1.99	46.82	53.9	7.0	240	103	VBW: 3.6 kHz
Vert.	7333.329	AV	35.45	36.70	9.32	39.45	1.99	44.01	53.9	9.8	231	93	VBW: 3.6 kHz
Vert.	11000.000	AV	32.94	37.35	10.83	39.54	-9.54	32.04	53.9	21.8	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor: 1 GHz - 10 GHz: 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz: 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	44.50	31.84	17.45	39.82	1.99	55.96	-39.27	-27.0	12.2	198	96	-
Hori.	16500.000	PK	45.52	40.03	13.98	40.26	-9.54	49.73	-45.50	-27.0	18.5	150	0	-
Vert.	5470.000	PK	44.36	31.84	17.45	39.82	1.99	55.82	-39.41	-27.0	12.4	240	103	-
Vert.	16500.000	PK	45.76	40.03	13.98	40.26	-9.54	49.97	-45.26	-27.0	18.2	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

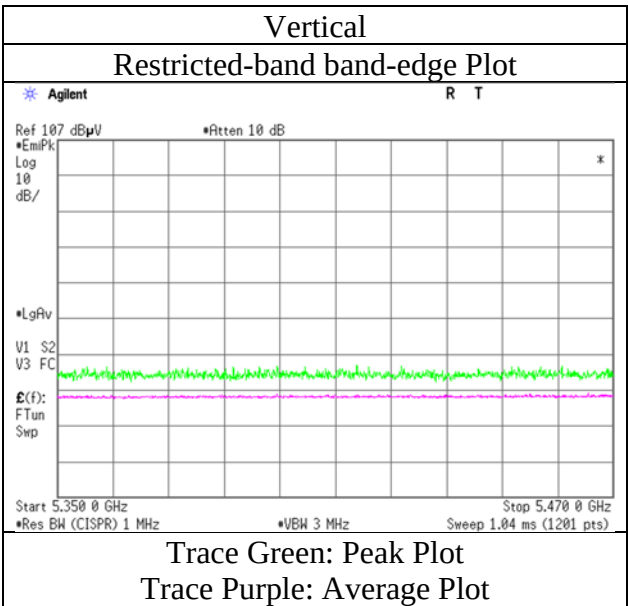
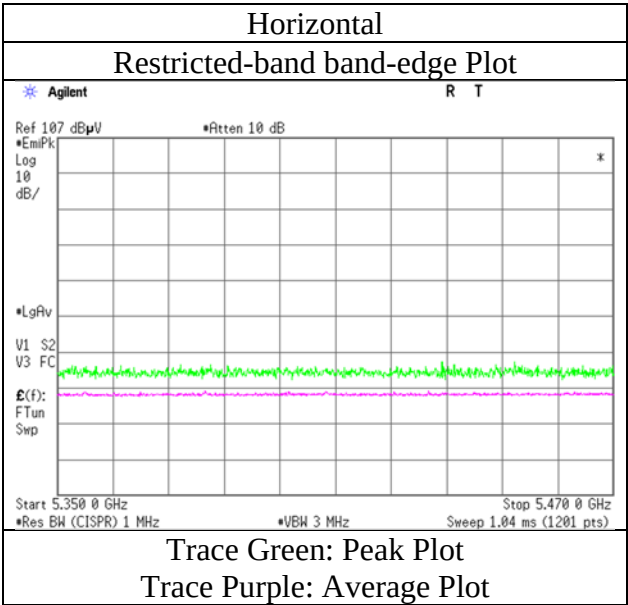
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz: 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz: 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	25 deg. C / 31 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 5500 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi	Kenichi Adachi	Miku Ikudome	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -40 GHz)
Mode	Tx 11n-20 5580 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.62	31.70	17.39	39.81	1.99	56.89	73.9	17.0	191	101	-
Hori.	7439.997	PK	45.79	36.84	9.40	39.42	1.99	54.60	73.9	19.3	119	53	-
Hori.	11160.000	PK	43.34	37.32	10.92	39.58	-9.54	42.46	73.9	31.4	150	0	-
Hori.	5382.000	AV	36.28	31.70	17.39	39.81	1.99	47.55	53.9	6.3	191	101	VBW: 3.6 kHz *1)
Hori.	7439.997	AV	35.09	36.84	9.40	39.42	1.99	43.90	53.9	10.0	119	53	VBW: 3.6 kHz
Hori.	11160.000	AV	32.14	37.32	10.92	39.58	-9.54	31.26	53.9	22.6	150	0	VBW: 3.6 kHz Floor noise
Vert.	5382.000	PK	45.30	31.70	17.39	39.81	1.99	56.57	73.9	17.3	148	355	-
Vert.	7439.997	PK	45.58	36.84	9.40	39.42	1.99	54.39	73.9	19.5	235	92	-
Vert.	11160.000	PK	43.32	37.32	10.92	39.58	-9.54	42.44	73.9	31.4	150	0	-
Vert.	5382.000	AV	36.02	31.70	17.39	39.81	1.99	47.29	53.9	6.6	148	355	VBW: 3.6 kHz *1)
Vert.	7439.997	AV	34.94	36.84	9.40	39.42	1.99	43.75	53.9	10.1	235	92	VBW: 3.6 kHz
Vert.	11160.000	AV	32.21	37.32	10.92	39.58	-9.54	31.33	53.9	22.5	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor: 1 GHz - 10 GHz: $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz: $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	16740.000	PK	44.99	39.62	14.04	39.80	-9.54	49.31	-45.92	-27.0	18.9	150	0	-
Vert.	16740.000	PK	44.61	39.62	14.04	39.80	-9.54	48.93	-46.30	-27.0	19.3	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6) * \text{Distance : } 3[\text{m}])^{\wedge}2 / 30 * 10^{\wedge}3)$

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

Distance factor: 1 GHz - 10 GHz: $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz: $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-20 5700 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.81	31.70	17.39	39.81	1.99	57.08	73.9	16.8	203	83	-
Hori.	7599.985	PK	44.28	36.68	9.46	39.32	1.99	53.09	73.9	20.8	129	54	-
Hori.	11400.000	PK	42.84	37.76	11.07	39.63	-9.54	42.50	73.9	31.4	150	0	-
Hori.	5382.000	AV	36.72	31.70	17.39	39.81	1.99	47.99	53.9	5.9	203	83	VBW: 3.6 kHz *1)
Hori.	7599.985	AV	33.86	36.68	9.46	39.32	1.99	42.67	53.9	11.2	129	54	VBW: 3.6 kHz
Hori.	11400.000	AV	32.15	37.76	11.07	39.63	-9.54	31.81	53.9	22.0	150	0	VBW: 3.6 kHz Floor noise
Vert.	5382.000	PK	45.60	31.70	17.39	39.81	1.99	56.87	73.9	17.0	154	356	-
Vert.	7599.985	PK	43.97	36.68	9.46	39.32	1.99	52.78	73.9	21.1	236	96	-
Vert.	11400.000	PK	43.00	37.76	11.07	39.63	-9.54	42.66	73.9	31.2	150	0	-
Vert.	5382.000	AV	36.69	31.70	17.39	39.81	1.99	47.96	53.9	5.9	154	356	VBW: 3.6 kHz *1)
Vert.	7599.985	AV	33.56	36.68	9.46	39.32	1.99	42.37	53.9	11.5	236	96	VBW: 3.6 kHz
Vert.	11400.000	AV	32.01	37.76	11.07	39.63	-9.54	31.67	53.9	22.2	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	45.48	32.14	17.63	39.89	1.99	57.35	-37.88	-27.0	10.8	177	106	-
Hori.	17100.000	PK	44.60	39.89	14.20	39.09	-9.54	50.06	-45.17	-27.0	18.1	150	0	-
Vert.	5725.000	PK	45.08	32.14	17.63	39.89	1.99	56.95	-38.28	-27.0	11.2	245	94	-
Vert.	17100.000	PK	45.45	39.89	14.20	39.09	-9.54	50.91	-44.32	-27.0	17.3	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

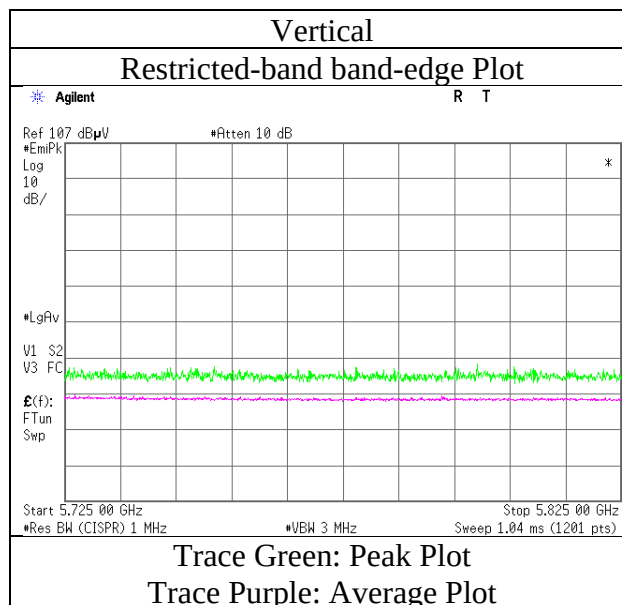
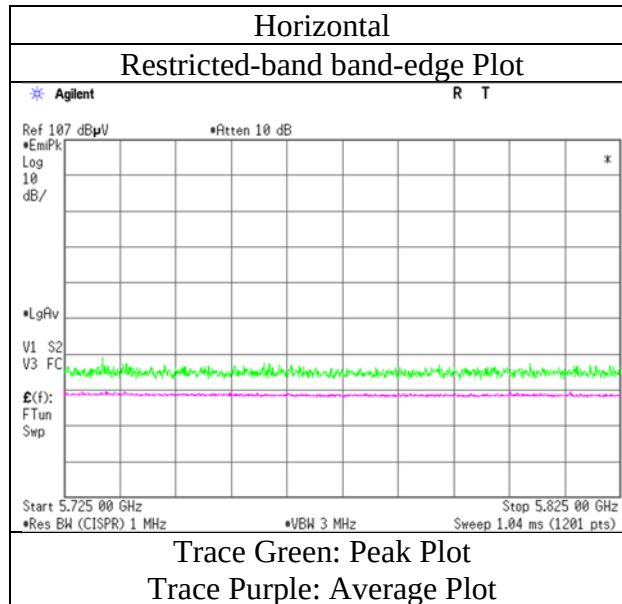
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	25 deg. C / 31 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 5700 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-20 5745 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.60	31.70	17.39	39.81	1.99	56.87	73.9	17.0	192	83	-
Hori.	7659.991	PK	46.26	36.61	9.48	39.27	1.99	55.07	73.9	18.8	128	55	-
Hori.	11490.000	PK	42.94	37.89	11.13	39.65	-9.54	42.77	73.9	31.1	150	0	-
Hori.	5382.000	AV	36.95	31.70	17.39	39.81	1.99	48.22	53.9	5.6	192	83	VBW: 3.6 kHz *1)
Hori.	7659.991	AV	35.25	36.61	9.48	39.27	1.99	44.06	53.9	9.8	128	55	VBW: 3.6 kHz
Hori.	11490.000	AV	31.91	37.89	11.13	39.65	-9.54	31.74	53.9	22.1	150	0	VBW: 3.6 kHz Floor noise
Vert.	5382.000	PK	45.97	31.70	17.39	39.81	1.99	57.24	73.9	16.6	156	354	-
Vert.	7659.991	PK	45.92	36.61	9.48	39.27	1.99	54.73	73.9	19.1	269	93	-
Vert.	11490.000	PK	43.04	37.89	11.13	39.65	-9.54	42.87	73.9	31.0	150	0	-
Vert.	5382.000	AV	37.15	31.70	17.39	39.81	1.99	48.42	53.9	5.4	156	354	VBW: 3.6 kHz *1)
Vert.	7659.991	AV	34.92	36.61	9.48	39.27	1.99	43.73	53.9	10.1	269	93	VBW: 3.6 kHz
Vert.	11490.000	AV	31.84	37.89	11.13	39.65	-9.54	31.67	53.9	22.2	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	44.77	31.95	17.58	39.87	1.99	56.42	-38.81	-27.0	11.8	178	106	-
Hori.	5700.000	PK	44.33	32.07	17.62	39.89	1.99	56.12	-39.11	10.0	49.1	178	106	-
Hori.	5720.000	PK	44.65	32.12	17.63	39.89	1.99	56.50	-38.73	15.6	54.3	178	106	-
Hori.	5725.000	PK	50.65	32.14	17.63	39.89	1.99	62.52	-32.71	27.0	59.7	178	106	-
Hori.	17235.000	PK	44.61	40.12	14.35	38.80	-9.54	50.74	-44.49	-27.0	17.4	150	0	-
Vert.	5650.000	PK	44.66	31.95	17.58	39.87	1.99	56.31	-38.92	-27.0	11.9	233	92	-
Vert.	5700.000	PK	44.73	32.07	17.62	39.89	1.99	56.52	-38.71	10.0	48.7	233	92	-
Vert.	5720.000	PK	45.07	32.12	17.63	39.89	1.99	56.92	-38.31	15.6	53.9	233	92	-
Vert.	5725.000	PK	51.12	32.14	17.63	39.89	1.99	62.99	-32.24	27.0	59.2	233	92	-
Vert.	17235.000	PK	45.05	40.12	14.35	38.80	-9.54	51.18	-44.05	-27.0	17.0	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

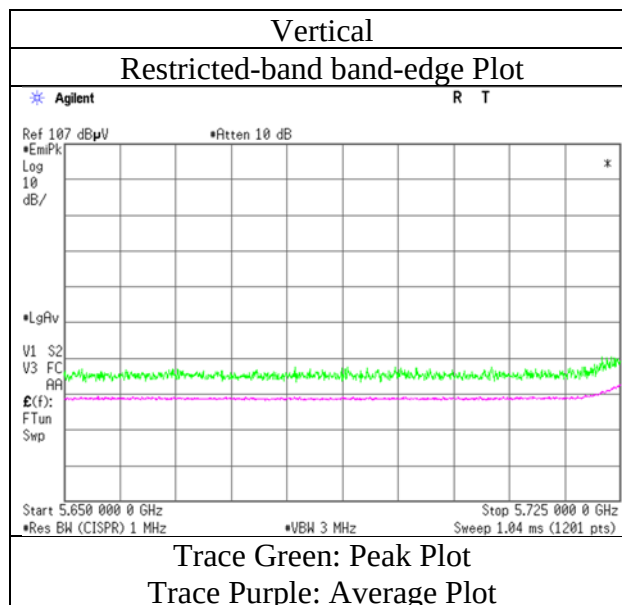
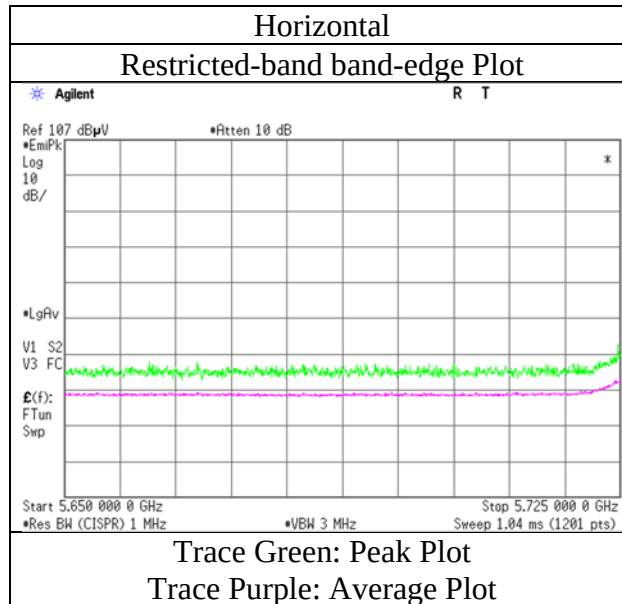
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	25 deg. C / 31 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 5745 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Miku Ikudome (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-20 5785 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.63	31.70	17.39	39.81	1.99	56.90	73.9	17.0	199	101	-
Hori.	7713.357	PK	45.36	36.63	9.48	39.23	1.99	54.23	73.9	19.6	117	53	-
Hori.	11570.000	PK	42.85	37.97	11.18	39.49	-9.54	42.97	73.9	30.9	150	0	-
Hori.	5382.000	AV	36.23	31.70	17.39	39.81	1.99	47.50	53.9	6.4	199	101	VBW: 3.6 kHz *1)
Hori.	7713.357	AV	34.53	36.63	9.48	39.23	1.99	43.40	53.9	10.5	117	53	VBW: 3.6 kHz
Hori.	11570.000	AV	31.82	37.97	11.18	39.49	-9.54	31.94	53.9	21.9	150	0	VBW: 3.6 kHz Floor noise
Vert.	5382.000	PK	45.35	31.70	17.39	39.81	1.99	56.62	73.9	17.2	160	357	-
Vert.	7713.357	PK	45.22	36.63	9.48	39.23	1.99	54.09	73.9	19.8	238	92	-
Vert.	11570.000	PK	43.67	37.97	11.18	39.49	-9.54	43.79	73.9	30.1	150	0	-
Vert.	5382.000	AV	36.71	31.70	17.39	39.81	1.99	47.98	53.9	5.9	160	357	VBW: 3.6 kHz *1)
Vert.	7713.357	AV	34.48	36.63	9.48	39.23	1.99	43.35	53.9	10.5	238	92	VBW: 3.6 kHz
Vert.	11570.000	AV	31.80	37.97	11.18	39.49	-9.54	31.92	53.9	21.9	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	17355.000	PK	45.43	40.26	14.48	38.54	-9.54	52.09	-43.14	-27.0	16.1	150	0	-
Vert.	17355.000	PK	45.19	40.26	14.48	38.54	-9.54	51.85	-43.38	-27.0	16.3	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6)) * \text{Distance} : 3[\text{m}])^{\wedge}2 / 30 * 10^{\wedge}3)$

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.1	No.3
Date	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Shiro Kobayashi	Kenichi Adachi	Miku Ikudome	Hiromasa Sato
	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -40 GHz)
Mode	Tx 11n-20 5825 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.65	31.70	17.39	39.81	1.99	56.92	73.9	16.9	183	89	-
Hori.	11650.000	PK	43.57	38.02	11.25	39.31	-9.54	43.99	73.9	29.9	150	0	-
Hori.	5382.000	AV	36.36	31.70	17.39	39.81	1.99	47.63	53.9	6.2	183	89	VBW: 3.6 kHz *1)
Hori.	11650.000	AV	32.14	38.02	11.25	39.31	-9.54	32.56	53.9	21.3	150	0	VBW: 3.6 kHz Floor noise
Vert.	5382.000	PK	45.34	31.70	17.39	39.81	1.99	56.61	73.9	17.2	152	358	-
Vert.	11650.000	PK	43.43	38.02	11.25	39.31	-9.54	43.85	73.9	30.0	150	0	-
Vert.	5382.000	AV	37.02	31.70	17.39	39.81	1.99	48.29	53.9	5.6	152	358	VBW: 3.6 kHz *1)
Vert.	11650.000	AV	32.10	38.02	11.25	39.31	-9.54	32.52	53.9	21.3	150	0	VBW: 3.6 kHz Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$ 10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	45.05	32.46	17.72	39.93	1.99	57.29	-37.94	27.0	64.9	144	105	-
Hori.	5855.000	PK	44.57	32.47	17.73	39.93	1.99	56.83	-38.40	15.6	54.0	144	105	-
Hori.	5875.000	PK	44.84	32.50	17.75	39.94	1.99	57.14	-38.09	10.0	48.0	144	105	-
Hori.	5925.000	PK	44.15	32.57	17.78	39.95	1.99	56.54	-38.69	-27.0	11.6	144	105	-
Hori.	7766.674	PK	45.94	36.73	9.50	39.19	1.99	54.97	-40.26	-27.0	13.2	123	53	-
Hori.	17475.000	PK	44.74	40.34	14.61	38.28	-9.54	51.87	-43.36	-27.0	16.3	150	0	-
Vert.	5850.000	PK	44.37	32.46	17.72	39.93	1.99	56.61	-38.62	27.0	65.6	232	93	-
Vert.	5855.000	PK	44.74	32.47	17.73	39.93	1.99	57.00	-38.23	15.6	53.8	232	93	-
Vert.	5875.000	PK	45.00	32.50	17.75	39.94	1.99	57.30	-37.93	10.0	47.9	232	93	-
Vert.	5925.000	PK	44.53	32.57	17.78	39.95	1.99	56.92	-38.31	-27.0	11.3	232	93	-
Vert.	7766.674	PK	46.28	36.73	9.50	39.19	1.99	55.31	-39.92	-27.0	12.9	269	93	-
Vert.	17475.000	PK	44.51	40.34	14.61	38.28	-9.54	51.64	-43.59	-27.0	16.5	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

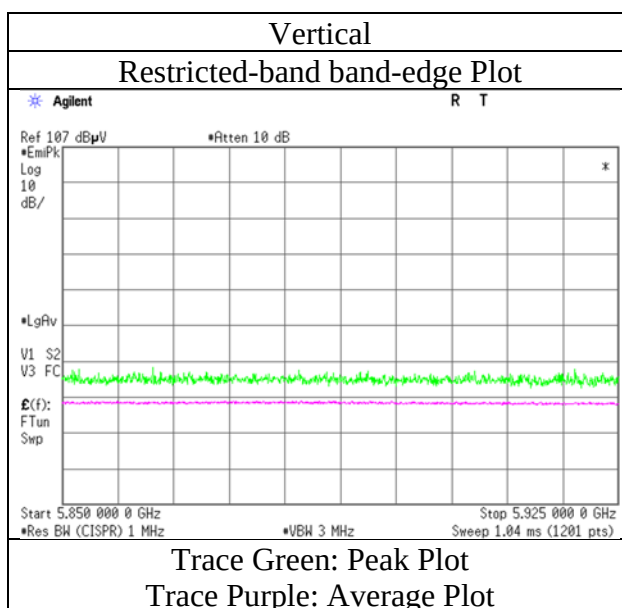
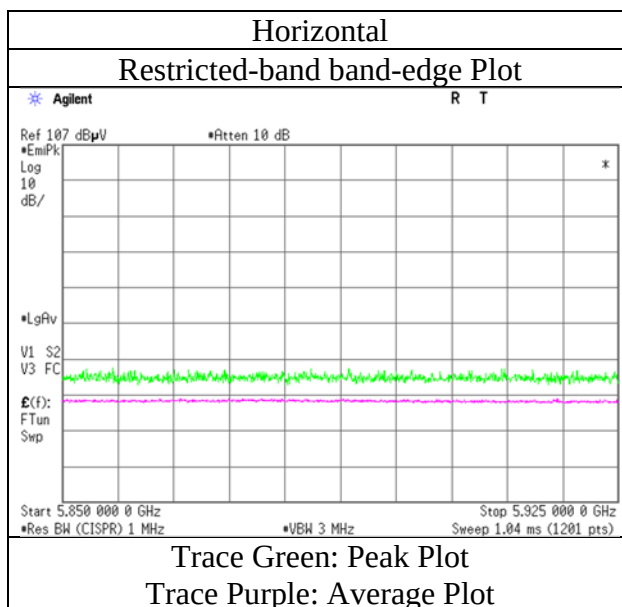
Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6) * \text{Distance : 3 [m]})^{\wedge}2 / 30 * 10^{\wedge}3)$

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$ 10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 9, 2022
Temperature / Humidity	25 deg. C / 31 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11n-20 5825 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5190 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	44.07	31.95	17.22	39.76	1.99	55.47	73.9	18.4	195	67	-
Hori.	5382.000	PK	45.77	31.70	17.39	39.81	1.99	57.04	73.9	16.8	128	130	-
Hori.	15570.000	PK	47.10	39.58	11.58	40.63	-9.54	48.09	73.9	25.8	150	0	-
Hori.	5150.000	AV	34.87	31.95	17.22	39.76	1.99	46.27	53.9	7.6	195	67	VBW: 5.6 kHz
Hori.	5382.000	AV	34.68	31.70	17.39	39.81	1.99	45.95	53.9	7.9	128	130	VBW: 5.6 kHz *1)
Hori.	15570.000	AV	37.07	39.58	11.58	40.63	-9.54	38.06	53.9	15.8	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5150.000	PK	44.66	31.95	17.22	39.76	1.99	56.06	73.9	17.8	137	105	-
Vert.	5382.000	PK	45.62	31.70	17.39	39.81	1.99	56.89	73.9	17.0	152	133	-
Vert.	15570.000	PK	47.50	39.58	11.58	40.63	-9.54	48.49	73.9	25.4	150	0	-
Vert.	5150.000	AV	35.11	31.95	17.22	39.76	1.99	46.51	53.9	7.3	137	105	VBW: 5.6 kHz
Vert.	5382.000	AV	35.48	31.70	17.39	39.81	1.99	46.75	53.9	7.1	152	133	VBW: 5.6 kHz *1)
Vert.	15570.000	AV	37.09	39.58	11.58	40.63	-9.54	38.08	53.9	15.8	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6919.974	PK	46.59	35.26	9.06	39.61	1.99	53.29	-41.94	-27.0	14.9	113	76	-
Hori.	10380.000	PK	48.32	36.21	9.28	42.88	-9.54	41.39	-53.84	-27.0	26.8	150	0	-
Vert.	6919.974	PK	47.14	35.26	9.06	39.61	1.99	53.84	-41.39	-27.0	14.3	231	93	-
Vert.	10380.000	PK	48.41	36.21	9.28	42.88	-9.54	41.48	-53.75	-27.0	26.7	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6) * \text{Distance : 3 [m]})^{\wedge}2 / 30 * 10^{\wedge}3)$

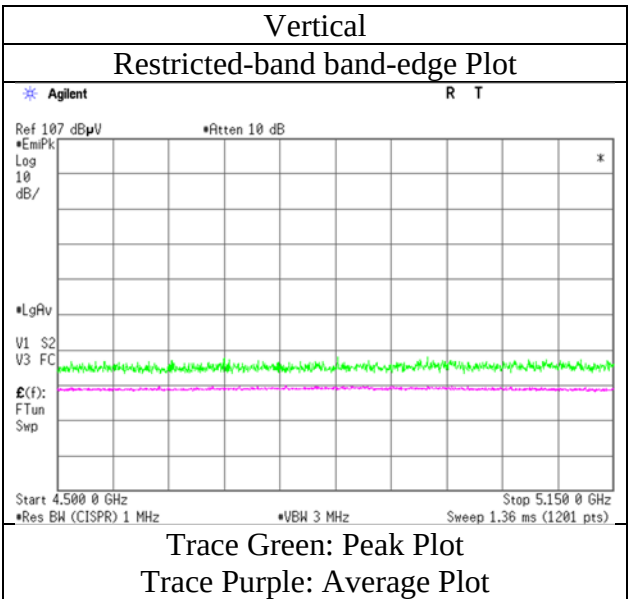
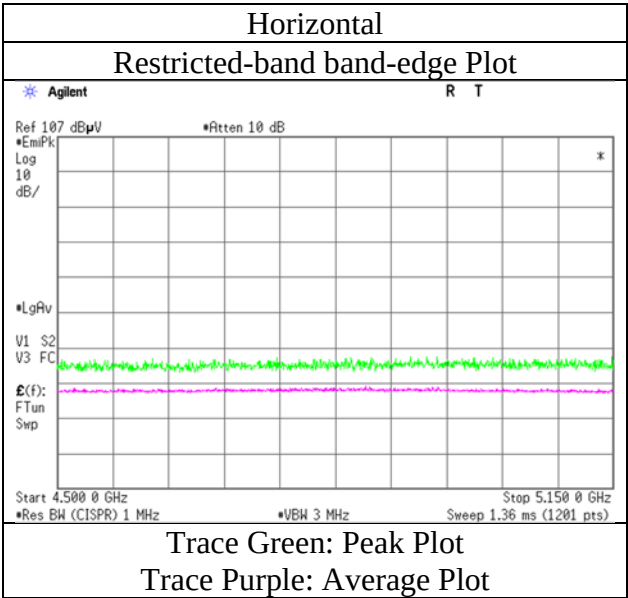
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 10, 2022
Temperature / Humidity	22 deg. C / 37 % RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11n-40 5190 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5230 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.81	31.70	17.39	39.81	1.99	57.08	73.9	16.8	225	97	-
Hori.	15690.000	PK	46.69	39.76	11.55	40.63	-9.54	47.83	73.9	26.0	150	0	-
Hori.	5382.000	AV	34.71	31.70	17.39	39.81	1.99	45.98	53.9	7.9	225	97	VBW: 5.6 kHz *1)
Hori.	15690.000	AV	36.46	39.76	11.55	40.63	-9.54	37.60	53.9	16.3	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5382.000	PK	45.81	31.70	17.39	39.81	1.99	57.08	73.9	16.8	153	96	-
Vert.	15690.000	PK	47.40	39.76	11.55	40.63	-9.54	48.54	73.9	25.3	150	0	-
Vert.	5382.000	AV	35.37	31.70	17.39	39.81	1.99	46.64	53.9	7.2	153	96	VBW: 5.6 kHz *1)
Vert.	15690.000	AV	36.63	39.76	11.55	40.63	-9.54	37.77	53.9	16.1	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6973.322	PK	46.74	35.60	9.08	39.58	1.99	53.83	-41.40	-27.0	14.4	119	79	-
Hori.	10460.000	PK	48.55	36.27	9.30	42.91	-9.54	41.67	-53.56	-27.0	26.5	150	0	-
Vert.	6973.322	PK	47.08	35.60	9.08	39.58	1.99	54.17	-41.06	-27.0	14.0	229	92	-
Vert.	10460.000	PK	48.03	36.27	9.30	42.91	-9.54	41.15	-54.08	-27.0	27.0	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6) * \text{Distance : 3 [m]})^2 / 30 * 10^{\wedge}3)$

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5310 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	43.73	31.65	17.36	39.80	1.99	54.93	73.9	18.9	155	70	-
Hori.	5382.000	PK	45.72	31.70	17.39	39.81	1.99	56.99	73.9	16.9	114	143	-
Hori.	10620.000	PK	48.56	36.75	9.35	42.97	-9.54	42.15	73.9	31.7	150	0	-
Hori.	15930.000	PK	45.08	40.20	11.48	40.63	-9.54	46.59	73.9	27.3	150	0	-
Hori.	5350.000	AV	34.58	31.65	17.36	39.80	1.99	45.78	53.9	8.1	155	70	VBW: 5.6 kHz
Hori.	5382.000	AV	35.57	31.70	17.39	39.81	1.99	46.84	53.9	7.0	114	143	VBW: 5.6 kHz *1)
Hori.	10620.000	AV	38.55	36.75	9.35	42.97	-9.54	32.14	53.9	21.7	150	0	VBW: 5.6 kHz, Floor noise
Hori.	15930.000	AV	35.55	40.20	11.48	40.63	-9.54	37.06	53.9	16.8	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5350.000	PK	44.34	31.65	17.36	39.80	1.99	55.54	73.9	18.3	146	95	-
Vert.	5382.000	PK	45.12	31.70	17.39	39.81	1.99	56.39	73.9	17.5	190	187	-
Vert.	10620.000	PK	48.32	36.75	9.35	42.97	-9.54	41.91	73.9	31.9	150	0	-
Vert.	15930.000	PK	45.91	40.20	11.48	40.63	-9.54	47.42	73.9	26.4	150	0	-
Vert.	5350.000	AV	34.85	31.65	17.36	39.80	1.99	46.05	53.9	7.8	146	95	VBW: 5.6 kHz
Vert.	5382.000	AV	35.13	31.70	17.39	39.81	1.99	46.40	53.9	7.5	190	187	VBW: 5.6 kHz *1)
Vert.	10620.000	AV	38.11	36.75	9.35	42.97	-9.54	31.70	53.9	22.2	150	0	VBW: 5.6 kHz, Floor noise
Vert.	15930.000	AV	35.83	40.20	11.48	40.63	-9.54	37.34	53.9	16.5	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7079.982	PK	44.21	36.22	9.15	39.53	1.99	52.04	-43.19	-27.0	16.1	117	71	-
Vert.	7079.982	PK	44.48	36.22	9.15	39.53	1.99	52.31	-42.92	-27.0	15.9	221	91	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20)) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

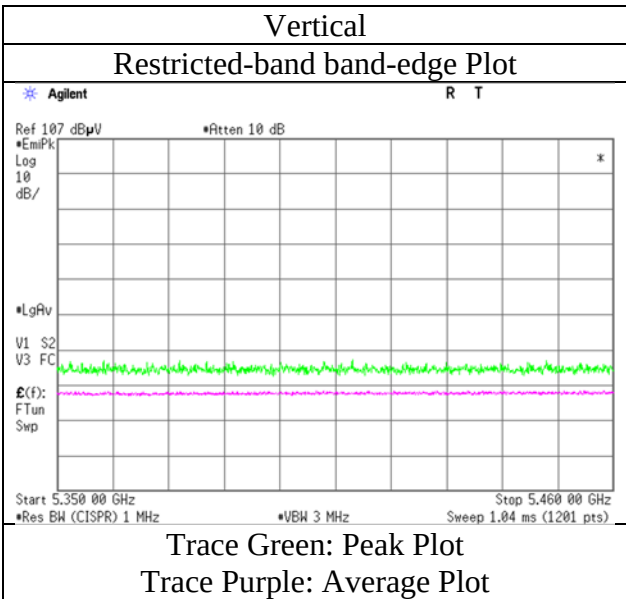
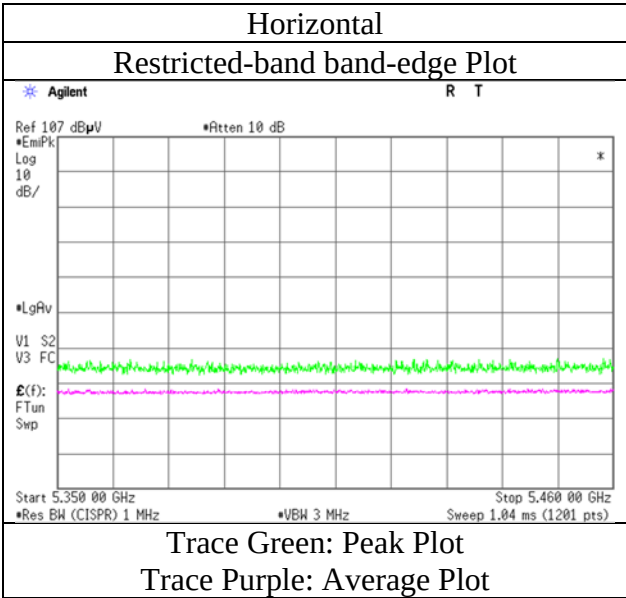
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 10, 2022
Temperature / Humidity	22 deg. C / 37 % RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11n-40 5310 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5510 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.42	31.70	17.39	39.81	1.99	56.69	73.9	17.2	142	174	-
Hori.	5460.000	PK	44.31	31.83	17.45	39.82	1.99	55.76	73.9	18.1	100	73	-
Hori.	7346.660	PK	46.26	36.71	9.33	39.45	1.99	54.84	73.9	19.0	114	78	-
Hori.	11020.000	PK	49.09	37.21	9.49	43.05	-9.54	43.20	73.9	30.7	150	0	-
Hori.	5382.000	AV	35.11	31.70	17.39	39.81	1.99	46.38	53.9	7.5	142	174	VBW: 5.6 kHz *1)
Hori.	5460.000	AV	35.01	31.83	17.45	39.82	1.99	46.46	53.9	7.4	100	73	VBW: 5.6 kHz
Hori.	7346.660	AV	37.20	36.71	9.33	39.45	1.99	45.78	53.9	8.1	114	78	VBW: 5.6 kHz
Hori.	11020.000	AV	38.43	37.21	9.49	43.05	-9.54	32.54	53.9	21.3	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5382.000	PK	44.63	31.70	17.39	39.81	1.99	55.90	73.9	18.0	135	144	-
Vert.	5460.000	PK	45.57	31.83	17.45	39.82	1.99	57.02	73.9	16.8	179	112	-
Vert.	7346.660	PK	46.83	36.71	9.33	39.45	1.99	55.41	73.9	18.4	231	97	-
Vert.	11020.000	PK	48.41	37.21	9.49	43.05	-9.54	42.52	73.9	31.3	150	0	-
Vert.	5382.000	AV	35.13	31.70	17.39	39.81	1.99	46.40	53.9	7.5	135	144	VBW: 5.6 kHz *1)
Vert.	5460.000	AV	35.27	31.83	17.45	39.82	1.99	46.72	53.9	7.1	179	112	VBW: 5.6 kHz
Vert.	7346.660	AV	35.95	36.71	9.33	39.45	1.99	44.53	53.9	9.3	231	97	VBW: 5.6 kHz
Vert.	11020.000	AV	37.88	37.21	9.49	43.05	-9.54	31.99	53.9	21.9	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	44.81	31.84	17.45	39.82	1.99	56.27	-38.96	-27.0	11.9	100	73	-
Hori.	16530.000	PK	46.78	39.86	12.24	40.58	-9.54	48.76	-46.47	-27.0	19.4	150	0	-
Vert.	5470.000	PK	45.11	31.84	17.45	39.82	1.99	56.57	-38.66	-27.0	11.6	179	112	-
Vert.	16530.000	PK	45.98	39.86	12.24	40.58	-9.54	47.96	-47.27	-27.0	20.2	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6)) * \text{Distance} : 3\text{ [m]})^{\wedge}2 / 30 * 10^{\wedge}3$

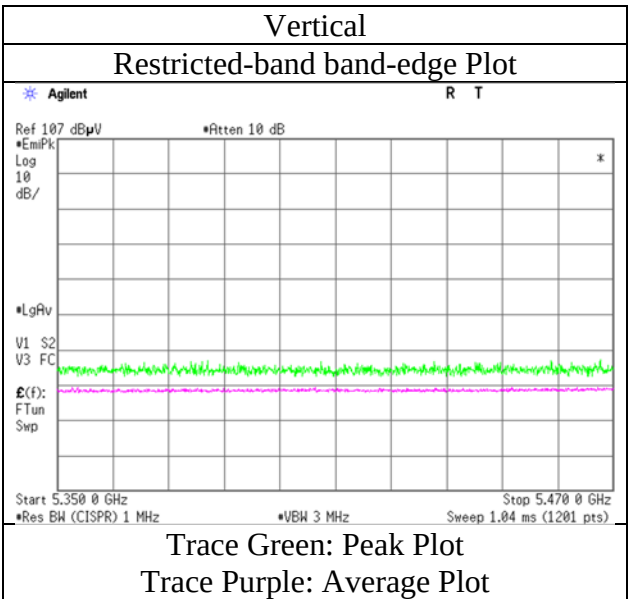
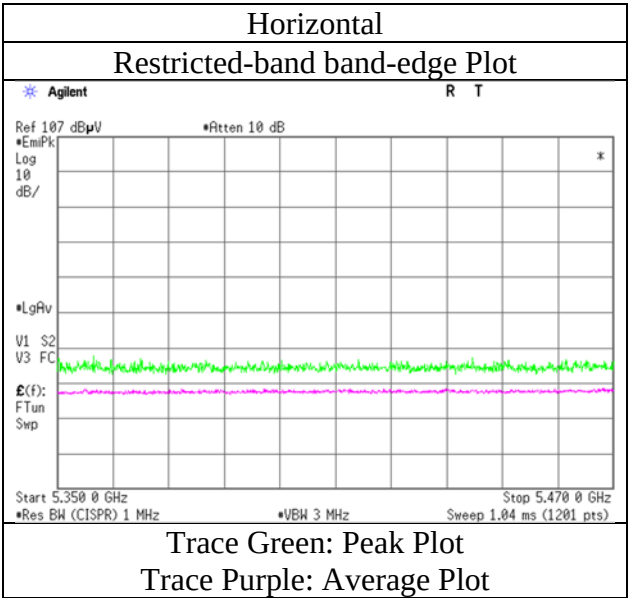
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz : $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 10, 2022
Temperature / Humidity	22 deg. C / 37 % RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11n-40 5510 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5550 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	46.12	31.70	17.39	39.81	1.99	57.39	73.9	16.5	201	82	-
Hori.	7399.990	PK	45.56	36.79	9.37	39.43	1.99	54.28	73.9	19.6	119	78	-
Hori.	11100.000	PK	47.45	37.19	9.55	42.95	-9.54	41.70	73.9	32.2	150	0	-
Hori.	5382.000	AV	36.65	31.70	17.39	39.81	1.99	47.92	53.9	5.9	201	82	VBW: 5.6 kHz *1)
Hori.	7399.990	AV	36.14	36.79	9.37	39.43	1.99	44.86	53.9	9.0	119	78	VBW: 5.6 kHz
Hori.	11100.000	AV	37.16	37.19	9.55	42.95	-9.54	31.41	53.9	22.4	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5382.000	PK	45.33	31.70	17.39	39.81	1.99	56.60	73.9	17.3	101	356	-
Vert.	7399.990	PK	45.84	36.79	9.37	39.43	1.99	54.56	73.9	19.3	228	95	-
Vert.	11100.000	PK	47.80	37.19	9.55	42.95	-9.54	42.05	73.9	31.8	150	0	-
Vert.	5382.000	AV	36.23	31.70	17.39	39.81	1.99	47.50	53.9	6.4	101	356	VBW: 5.6 kHz *1)
Vert.	7399.990	AV	36.03	36.79	9.37	39.43	1.99	44.75	53.9	9.1	228	95	VBW: 5.6 kHz
Vert.	11100.000	AV	37.88	37.19	9.55	42.95	-9.54	32.13	53.9	21.7	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor: 1 GHz - 10 GHz: $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz: $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	16650.000	PK	45.78	39.57	12.30	40.59	-9.54	47.52	-47.71	-27.0	20.7	150	0	-
Vert.	16650.000	PK	46.04	39.57	12.30	40.59	-9.54	47.78	-47.45	-27.0	20.4	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = $10 * \text{LOG}((10^{\wedge}(\text{Electric Field Strength [dBuV/m]} / 20)) * 10^{\wedge}(-6) * \text{Distance : 3 [m]})^{\wedge}2 / 30 * 10^{\wedge}3)$

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

Distance factor: 1 GHz - 10 GHz: $20\log(3.77\text{ m} / 3.0\text{ m}) = 1.99\text{ dB}$

10 GHz - 40 GHz: $20\log(1.0\text{ m} / 3.0\text{ m}) = -9.54\text{ dB}$

Radiated Spurious Emission

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5670 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	44.76	31.70	17.39	39.81	1.99	56.03	73.9	17.8	173	337	-
Hori.	7559.990	PK	44.89	36.76	9.46	39.35	1.99	53.75	73.9	20.1	120	78	-
Hori.	11340.000	PK	48.00	37.62	9.71	42.64	-9.54	43.15	73.9	30.7	150	0	-
Hori.	5382.000	AV	35.13	31.70	17.39	39.81	1.99	46.40	53.9	7.5	173	337	VBW: 5.6 kHz *1)
Hori.	7559.990	AV	35.18	36.76	9.46	39.35	1.99	44.04	53.9	9.8	120	78	VBW: 5.6 kHz
Hori.	11340.000	AV	37.86	37.62	9.71	42.64	-9.54	33.01	53.9	20.8	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5382.000	PK	45.72	31.70	17.39	39.81	1.99	56.99	73.9	16.9	127	8	-
Vert.	7559.990	PK	45.35	36.76	9.46	39.35	1.99	54.21	73.9	19.6	233	91	-
Vert.	11340.000	PK	47.51	37.62	9.71	42.64	-9.54	42.66	73.9	31.2	150	0	-
Vert.	5382.000	AV	35.33	31.70	17.39	39.81	1.99	46.60	53.9	7.3	127	8	VBW: 5.6 kHz *1)
Vert.	7559.990	AV	35.11	36.76	9.46	39.35	1.99	43.97	53.9	9.9	233	91	VBW: 5.6 kHz
Vert.	11340.000	AV	37.90	37.62	9.71	42.64	-9.54	33.05	53.9	20.8	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	45.42	32.14	17.63	39.89	1.99	57.29	-37.94	-27.0	10.9	152	103	-
Hori.	17010.000	PK	45.94	39.65	12.46	40.61	-9.54	47.90	-47.33	-27.0	20.3	150	0	-
Vert.	5725.000	PK	45.60	32.14	17.63	39.89	1.99	57.47	-37.76	-27.0	10.7	116	82	-
Vert.	17010.000	PK	45.48	39.65	12.46	40.61	-9.54	47.44	-47.79	-27.0	20.7	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

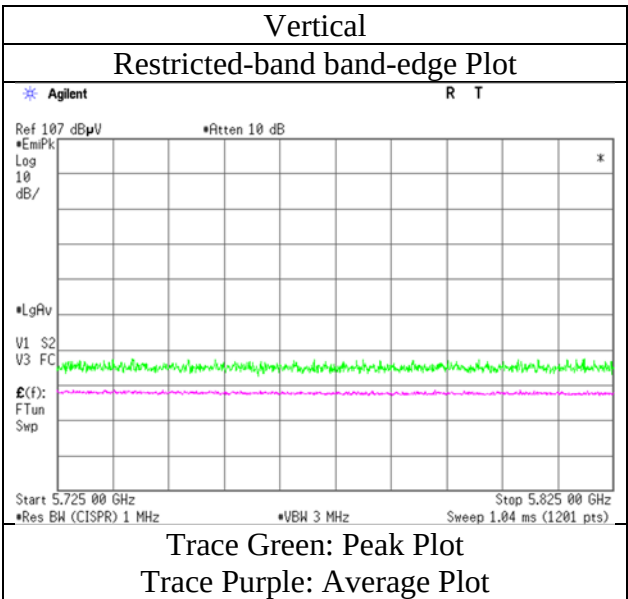
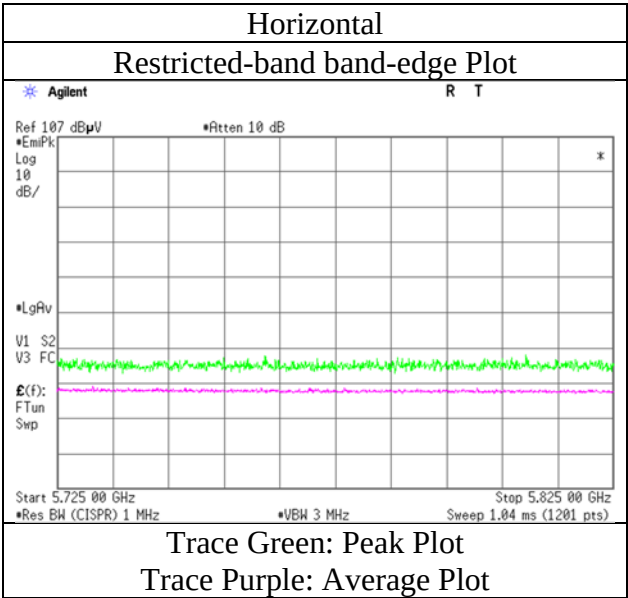
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 10, 2022
Temperature / Humidity	22 deg. C / 37 % RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11n-40 5670 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5755 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.65	31.70	17.39	39.81	1.99	56.92	73.9	16.9	212	94	-
Hori.	7673.333	PK	43.68	36.61	9.48	39.26	1.99	52.50	73.9	21.4	122	70	-
Hori.	11510.000	PK	48.59	37.93	9.82	42.43	-9.54	44.37	73.9	29.5	150	0	-
Hori.	5382.000	AV	35.91	31.70	17.39	39.81	1.99	47.18	53.9	6.7	212	94	VBW: 5.6 kHz *1)
Hori.	7673.333	AV	34.63	36.61	9.48	39.26	1.99	43.45	53.9	10.4	122	70	VBW: 5.6 kHz
Hori.	11510.000	AV	38.07	37.93	9.82	42.43	-9.54	33.85	53.9	20.0	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5382.000	PK	45.25	31.70	17.39	39.81	1.99	56.52	73.9	17.3	153	219	-
Vert.	7673.333	PK	44.58	36.61	9.48	39.26	1.99	53.40	73.9	20.5	224	93	-
Vert.	11510.000	PK	47.92	37.93	9.82	42.43	-9.54	43.70	73.9	30.2	150	0	-
Vert.	5382.000	AV	35.81	31.70	17.39	39.81	1.99	47.08	53.9	6.8	153	219	VBW: 5.6 kHz *1)
Vert.	7673.333	AV	34.72	36.61	9.48	39.26	1.99	43.54	53.9	10.3	224	93	VBW: 5.6 kHz
Vert.	11510.000	AV	37.61	37.93	9.82	42.43	-9.54	33.39	53.9	20.5	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	44.72	31.95	17.58	39.87	1.99	56.37	-38.86	-27.0	11.8	144	78	-
Hori.	5700.000	PK	44.18	32.07	17.62	39.89	1.99	55.97	-39.26	10.0	49.2	144	78	-
Hori.	5715.000	PK	45.88	32.11	17.62	39.89	1.99	57.71	-37.52	14.2	51.7	144	78	-
Hori.	5720.000	PK	47.71	32.12	17.63	39.89	1.99	59.56	-35.67	15.6	51.2	144	78	-
Hori.	5723.000	PK	49.52	32.13	17.63	39.89	1.99	61.38	-33.85	22.5	56.3	144	78	-
Hori.	5725.000	PK	48.93	32.14	17.63	39.89	1.99	60.80	-34.43	27.0	61.4	144	78	-
Hori.	17265.000	PK	45.50	40.08	12.55	40.45	-9.54	48.14	-47.09	-27.0	20.0	150	0	-
Vert.	5650.000	PK	43.88	31.95	17.58	39.87	1.99	55.53	-39.70	-27.0	12.7	133	90	-
Vert.	5700.000	PK	44.86	32.07	17.62	39.89	1.99	56.65	-38.58	10.0	48.5	133	90	-
Vert.	5715.000	PK	45.76	32.11	17.62	39.89	1.99	57.59	-37.64	14.2	51.8	133	90	-
Vert.	5720.000	PK	47.37	32.12	17.63	39.89	1.99	59.22	-36.01	15.6	51.6	133	90	-
Vert.	5723.000	PK	48.92	32.13	17.63	39.89	1.99	60.78	-34.45	22.5	56.9	133	90	-
Vert.	5725.000	PK	49.30	32.14	17.63	39.89	1.99	61.17	-34.06	27.0	61.0	133	90	-
Vert.	17265.000	PK	45.04	40.08	12.55	40.45	-9.54	47.68	-47.55	-27.0	20.5	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20)) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

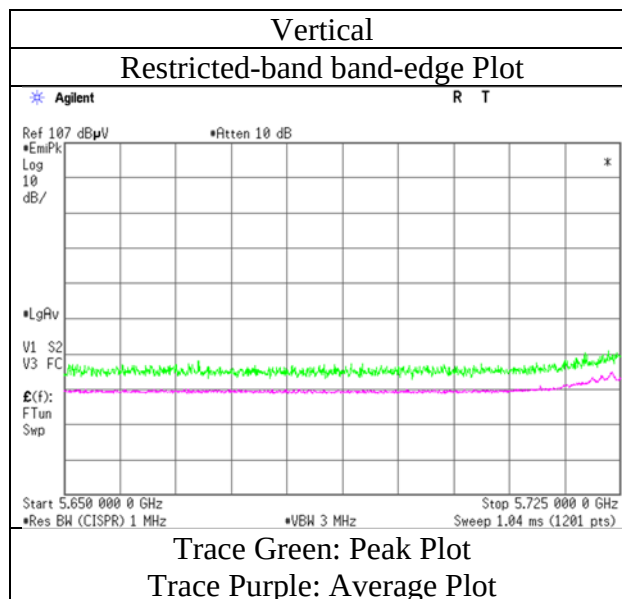
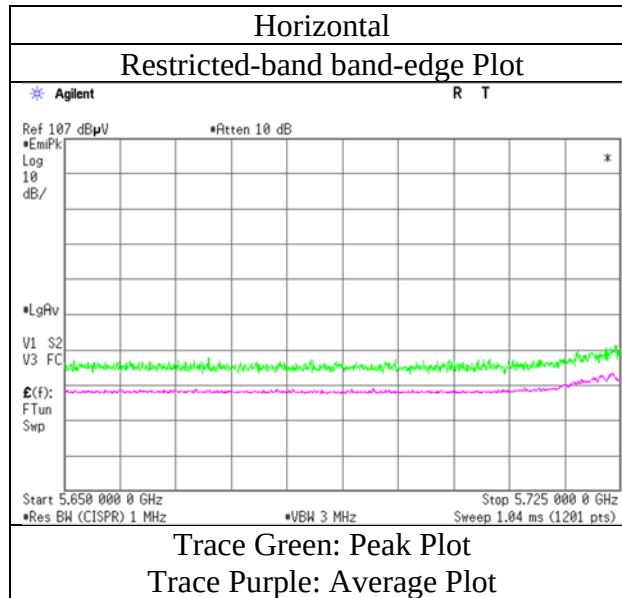
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m / 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 10, 2022
Temperature / Humidity	22 deg. C / 37 % RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11n-40 5755 MHz



* 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

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	No.1	No.1	No.3	No.3
Date	February 10, 2022	February 11, 2022	February 21, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 37 % RH	21 deg. C / 32 % RH	22 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Yohsuke Matsuzawa (1 GHz -6.4 GHz)	Kenichi Adachi (6.4 GHz -10 GHz)	Takahiro Kawakami (10 GHz -18 GHz)	Hiromasa Sato (18 GHz -40 GHz)
Mode	Tx 11n-40 5795 MHz			

(above 1 GHz Inside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5382.000	PK	45.27	31.70	17.39	39.81	1.99	56.54	73.9	17.3	160	279	-
Hori.	7726.667	PK	44.70	36.64	9.49	39.22	1.99	53.60	73.9	20.3	121	73	-
Hori.	11590.000	PK	47.18	37.98	9.88	42.42	-9.54	43.08	73.9	30.8	150	0	-
Hori.	5382.000	AV	35.38	31.70	17.39	39.81	1.99	46.65	53.9	7.2	160	279	VBW: 5.6 kHz *1)
Hori.	7726.667	AV	34.86	36.64	9.49	39.22	1.99	43.76	53.9	10.1	121	73	VBW: 5.6 kHz
Hori.	11590.000	AV	37.81	37.98	9.88	42.42	-9.54	33.71	53.9	20.1	150	0	VBW: 5.6 kHz, Floor noise
Vert.	5382.000	PK	45.13	31.70	17.39	39.81	1.99	56.40	73.9	17.5	141	317	-
Vert.	7726.667	PK	45.06	36.64	9.49	39.22	1.99	53.96	73.9	19.9	225	91	-
Vert.	11590.000	PK	47.93	37.98	9.88	42.42	-9.54	43.83	73.9	30.0	150	0	-
Vert.	5382.000	AV	35.28	31.70	17.39	39.81	1.99	46.55	53.9	7.3	141	317	VBW: 5.6 kHz *1)
Vert.	7726.667	AV	35.28	36.64	9.49	39.22	1.99	44.18	53.9	9.7	225	91	VBW: 5.6 kHz
Vert.	11590.000	AV	37.52	37.98	9.88	42.42	-9.54	33.42	53.9	20.4	150	0	VBW: 5.6 kHz, Floor noise

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

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

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

*1) These point are the same duty cycle as carrier.

(Calculation) (above 1 GHz Outside of the restricted band)

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	44.95	32.46	17.72	39.93	1.99	57.19	-38.04	27.0	65.0	141	13	-
Hori.	5855.000	PK	45.05	32.47	17.73	39.93	1.99	57.31	-37.92	15.6	53.5	141	13	-
Hori.	5860.000	PK	45.08	32.48	17.73	39.93	1.99	57.35	-37.88	14.2	52.0	141	13	-
Hori.	5875.000	PK	44.83	32.50	17.75	39.94	1.99	57.13	-38.10	10.0	48.1	141	13	-
Hori.	5925.000	PK	44.72	32.57	17.78	39.95	1.99	57.11	-38.12	-27.0	11.1	141	13	-
Hori.	17385.000	PK	46.32	40.24	12.59	40.37	-9.54	49.24	-45.99	-27.0	18.9	150	0	-
Vert.	5850.000	PK	45.18	32.46	17.72	39.93	1.99	57.42	-37.81	27.0	64.8	125	86	-
Vert.	5855.000	PK	44.57	32.47	17.73	39.93	1.99	56.83	-38.40	15.6	54.0	125	86	-
Vert.	5860.000	PK	45.00	32.48	17.73	39.93	1.99	57.27	-37.96	14.2	52.1	125	86	-
Vert.	5875.000	PK	45.27	32.50	17.75	39.94	1.99	57.57	-37.66	10.0	47.6	125	86	-
Vert.	5925.000	PK	44.75	32.57	17.78	39.95	1.99	57.14	-38.09	-27.0	11.0	125	86	-
Vert.	17385.000	PK	46.56	40.24	12.59	40.37	-9.54	49.48	-45.75	-27.0	18.7	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor

Result (EIRP [dBm]) = 10 * LOG ((10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance : 3 [m]) ^ 2 / 30 * 10 ^ 3)

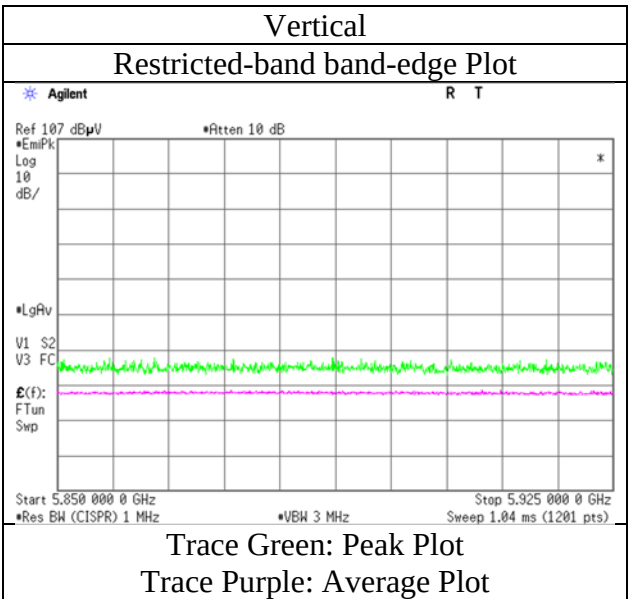
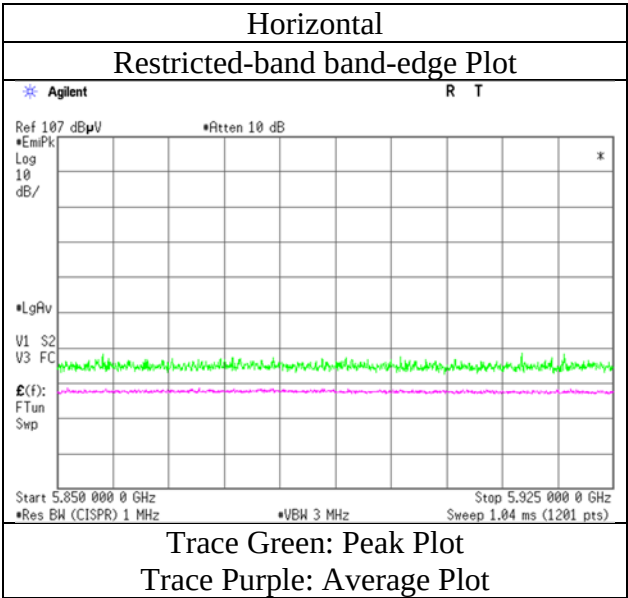
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

Distance factor : 1 GHz - 10 GHz : 20log (3.77 m/ 3.0 m) = 1.99 dB

10 GHz - 40 GHz : 20log (1.0 m/ 3.0 m) = -9.54 dB

Radiated Spurious Emission

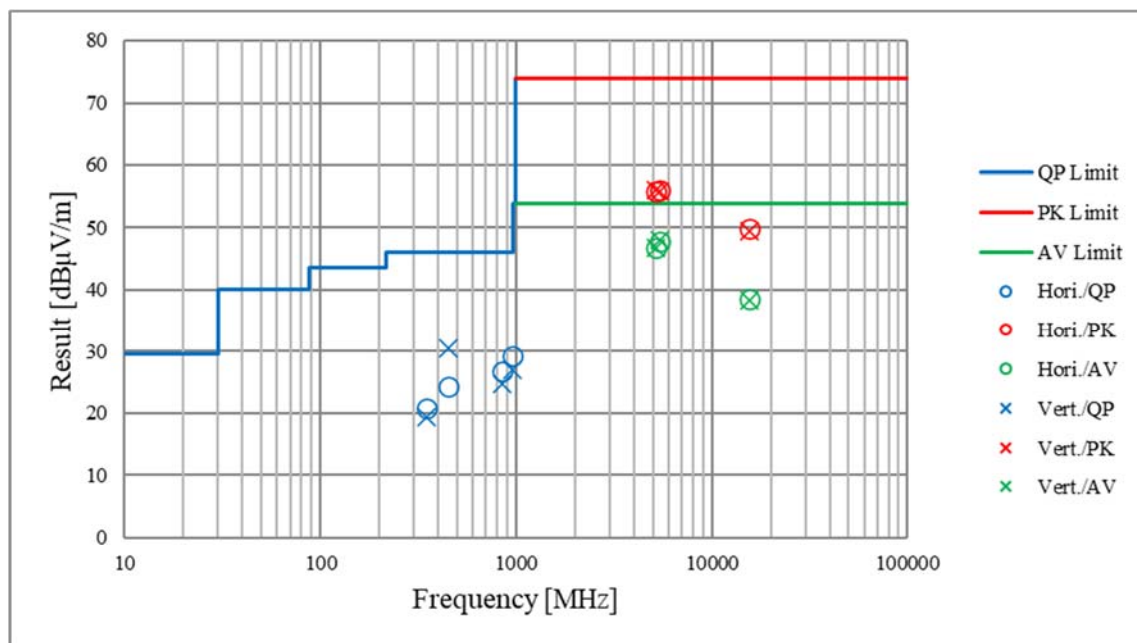
Test place	Shonan EMC Lab.
Semi Anechoic Chamber	No.1
Date	February 10, 2022
Temperature / Humidity	22 deg. C / 37 % RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11n-40 5795 MHz



* 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 Conducted Output Power)

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	No.3	No.1	No.1	No.1	No.3
Date	February 23, 2022	February 9, 2022	February 11, 2022	February 13, 2022	February 22, 2022
Temperature / Humidity	22 deg. C / 29 % RH	25 deg. C / 31 % RH	21 deg. C / 32 % RH	20 deg. C / 32 % RH	23 deg. C / 31 % RH
Engineer	Miku Ikudome	Shiro Kobayashi	Kenichi Adachi	Miku Ikudome	Hiromasa Sato
	(30 MHz -1 GHz)	(1 GHz -6.4 GHz)	(6.4 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -40 GHz)
Mode	Tx 11n-20 5180 MHz				



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

APPENDIX 2: Test Instruments

Test Equipment(1/2)

Test Item	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	COTS-SEMI-5	170932	EMI Software	TSJ (Techno Science Japan)	TEPTO-DV3 (RE,CE,ME,PE)	-	-	-
RE	KJM-02	146432	Measure	TAJIMA	GL19-55	-	-	-
RE	KSA-08	145089	Spectrum Analyzer	Keysight Technologies Inc	E4446A	MY46180525	2021/10/13	12
RE	SAEC-01 (NSA)	145597	Semi-Anechoic Chamber	TDK	SAEC-01(NSA)	1	2021/04/30	12
RE	SAEC-01 (SVSWR)	145561	Semi-Anechoic Chamber	TDK	SAEC-01(SVSWR)	1	2021/05/09	12
RE	SAEC-03 (NSA)	145565	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	2021/04/27	12
RE	SAEC03 (SVSWR)	145566	Semi-Anechoic Chamber	TDK	SAEC-03(SVSWR)	3	2021/05/21	12
RE	SAF-03	145126	Pre Amplifier	SONOMA	310N	290213	2021/02/10	12
RE	SAF-04	145127	Pre Amplifier	Toyo Corporation	TPA0118-36	2072554	2021/05/17	12
RE	SAF-06	145005	Pre Amplifier	Toyo Corporation	TPA0118-36	1440491	2022/02/04	12
RE	SAF-08	145007	Pre Amplifier	Toyo Corporation	HAP18-26W	19	2021/03/01	12
RE	SAF-10	145129	Pre Amplifier	Toyo Corporation	HAP26-40W	10	2021/03/01	12
RE	SAJ-02	146104	Antenna Tilt Jig	Intelligent System Engineering Co., Ltd	Antenna Tilt Jig	T-S002	-	-
RE	SAT10-06	145137	Attenuator	Keysight Technologies Inc	8493C-010	74865	2021/10/05	12
RE	SAT6-13	167094	Attenuator	JFW	50HF-006N	-	2022/02/21	12
RE	SBA-03	145023	Biconical Antenna	Schwarzbeck Mess-Elektronik OHG	BBA9106	91032666	2021/05/15	12
RE	SCC-C1/C2/C3/C4/C5/C10/SRSE-03	145171	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-271(RF Selector)	2021/04/12	12
RE	SCC-G05	145039	Coaxial Cable	Junkosha	J12J102207-00	APR-30-15-037	2022/01/06	12
RE	SCC-G15	145176	Coaxial Cable	Suhner	SUCOFLEX 102	32703/2	2021/03/01	12
RE	SCC-G41	151617	Coaxial Cable	Junkosha	MWX221-01000NFSNMS/B	1612S006	2022/01/06	12
RE	SCC-G43	156380	Coaxial Cable	Huber+Suhner	SUCOFLEX_104_E	SN MY 13406/4E	2021/05/17	12

Test Equipment(2/2)

Test Item	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	SCC-G57	179540	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	802815/2	2021/05/18	12
RE	SCC-G58	183047	Coaxial Cable	Huber+Suhner	SUCOFLEX 104	800287/4A	2021/05/17	12
RE	SCC-G62	196985	Coaxial Cable	Huber+Suhner	SUCOFLEX 102	803650/2	2021/03/01	12
RE	SCC-G68	200008	Coaxial Cable	Huber+Suhner	SUCOFLEX 104	575616/4	2021/07/06	12
RE	SCC-G70	200010	Coaxial Cable	Huber+Suhner	SUCOFLEX 104	575618/4	2021/07/06	12
RE	SFL-03	145377	Highpass Filter	MICRO-TRONICS	HPM50112	28	2021/10/05	12
RE	SHA-01	145383	Horn Antenna	Schwarzbeck Mess-Elektronik OHG	BBHA9120D	9120D-725	2021/05/20	12
RE	SHA-03	145501	Horn Antenna	Schwarzbeck Mess-Elektronik OHG	BBHA9120D	9120D-739	2021/06/14	12
RE	SHA-04	145512	Horn Antenna	ETS-Lindgren	3160-09	00094868	2021/06/14	12
RE	SHA-06	145514	Horn Antenna	ETS-Lindgren	3160-10	00092383	2021/06/14	12
RE	SHA-08	194683	Horn Antenna	Schwarzbeck Mess-Elektronik OHG	BBHA 9120 C	694	2021/03/03	12
RE	SJM-21	207278	Measuring Tool, Tape Measure	ASKUL	-	-	-	-
RE	SLA-07	145529	Logperiodic Antenna	Schwarzbeck Mess-Elektronik OHG	VUSLP9111B	196	2021/05/15	12
RE	SOS-20	191837	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2021/08/02	12
RE	SOS-23	191840	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2021/08/02	12
RE	SSA-02	145800	Spectrum Analyzer	Keysight Technologies Inc	E4448A	MY48250106	2021/04/13	12
RE	STR-01	145790	Test Receiver	Rohde & Schwarz	ESU40	100093	2021/04/27	12
RE	STR-09	213530	Test Receiver	Rohde & Schwarz	ESW44	103068	2022/01/17	12
RE	STS-01	145792	Digital Hitester	HIOKI E.E. CORPORATION	3805-50	80997812	2021/09/14	12
RE	STS-03	146210	Digital Hitester	HIOKI E.E. CORPORATION	3805-50	80997823	2021/09/14	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:

RE: Radiated Emission