RADIO TEST REPORT

Test Report No. : 13568152S-N-R1

Applicant	:	**KONICA MINOLTA, INC.**
Type of EUT	:	**SKR 3000**
Model Number of EUT	:	**P-65**
FCC ID	:	**YR7SKR3000P7**
Test regulation	:	**FCC Part 15 Subpart E: 2021**
Test item	:	**Radiated emission test**
Test Result	:	**Complied (Refer to SECTION 3.2)**

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by the A2LA accreditation body.
6. This test report covers Radio technical requirements.
   It does not cover administrative issues such as Manual or non-Radio test related Requirements. (if applicable)
7. The all test items in this test report are conducted by UL Japan, Inc. Shonan EMC Lab.
8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
9. The information provided from the customer for this report is identified in SECTION 1.
10. This report is a revised version of 13568152S-N. 13568152S-N is replaced with this report.

Date of test: January 5 to 12, 2021

Representative test engineer: Yosuke Murakami
Engineer

Approved by: Toyokazu Imamura
Leader

CERTIFICATE 1266.03

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

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

REVISION HISTORY

Original Test Report No.: 13568152S-N

Revision	Test report No.	Date	Page revised	Contents
- (Original)	13568152S-N	March 1, 2021	-	-
1	13568152S-N-R1	May 26, 2021	6	Correction of "Worst margin": Maximum Power Spectral Density: From "See data" to "-" Spurious Emission Restricted Band Edge: From "-" to "5.4 dB 5381.928 MHz, AV, Horizontal Tx 11a 5500 MHz"
			13	Correction of formula for 1 GHz - 10 GHz: From "Distance Factor: 20 x log (3.81 m / 3.0 m) = 2.08 dB * Test Distance: (3 + SVSWR Volume /2) - r = 3.81 m SVSWR Volume : 2.0 m (SVSWR Volume has been calibrated based on CISPR 16-1- 4.) r = 0.19 m" to "Distance Factor: 20 x log (3.7 m / 3.0 m) = 1.82 dB * Test Distance: (3 + SVSWR Volume /2) - r = 3.7m SVSWR Volume : 2.0 m (SVSWR Volume has been calibrated based on CISPR 16-1- 4.) r = 0.3 m" Correction of Antenna polarization: From "Spurious (1 GHz -2.8 GHz)" to "Spurious (1 GHz -6.4 GHz)", From "Spurious (2.8 GHz -10 GHz)" to "Spurious (6.4 GHz -10 GHz)",
			14,16-17, 19,21-22, 24,26-27, 29,31-32, 34,36-37, 39,41-42, 44,46-47, 49,51-52, 54,56	Replacement of Test data by correction of Distance Factor for 1 GHz - 10 GHz: From "20 x log (3.81 m / 3.0 m) = 2.08 dB" to "20 x log (3.70 m / 3.0 m) = 1.82 dB"

Reference: Abbreviations (Including words undescribed in this report)

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

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

CONTENTS **PAGE**

SECTION 1: Customer information

Company Name	:	KONICA MINOLTA, INC.
Address	:	1, Sakura-machi, Hino-shi, Tokyo, Japan 191-8511
Telephone Number	:	+81-42-589-8429
Facsimile Number	:	+81-42-589-8053
Contact Person	:	Yukihiro Niekawa

The information provided from the customer is as follows;
- Applicant, Type 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
- 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

Type	:	SKR 3000
Model Number	:	P-65
Serial Number	:	Refer to SECTION 4.2
Rating	:	DC 15 V
Receipt Date	:	November 24, 2020
Country of Mass-production	:	Japan
Condition	:	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	:	No Modification by the test lab.

2.2 Product Description

Model: P-65 (referred to as the EUT in this report) is SKR 3000.

Clock frequency(ies) in the system : 532 MHz

Radio Specification:
Equipment Type : Transceiver

Type of radio	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	2.4 GHz band: 5 MHz 5 GHz band: 20 MHz	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 (chain 0) /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 January 12, 2021 and effective February 11, 2021

Title : FCC 47 CFR Part 15 Radio Frequency Device Subpart E
Unlicensed National Information Infrastructure Devices
Section 15.407 General technical requirements

* The revisions do 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.

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	*1)
26 dB Emission Bandwidth	**FCC:** KDB Publication Number 789033 **ISED:** -	**FCC:** 15.407 (a) (1) (2) (3) **ISED:** -	-	N/A	*2)
Maximum Conducted Output Power	**FCC:** KDB Publication Number 789033 **ISED:** -	**FCC:** 15.407 (a) (1) (2) (3) **ISED:** RSS-247 6.2.1.1 6.2.2.1 6.2.3.1 6.2.4.1	-	N/A	*2)
Maximum Power Spectral Density	**FCC:** KDB Publication Number 789033 **ISED:** -	**FCC :** 15.407 (a) (1) (2) (3) **ISED:** RSS-247 6.2.1.1 6.2.2.1 6.2.3.1 6.2.4.1	-	N/A	*2)
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 5381.928 MHz, AV, Horizontal Tx 11a 5500 MHz	Complied a)	Conducted (< 30 MHz) *2) *3)
6 dB Emission Bandwidth	**FCC:** ANSI C63.10-2013 **ISED:** -	**FCC:** 15.407 (e) **ISED:** RSS-247 6.2.4.1	-	N/A	*2)

Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.
*1) The test is not applicable since the EUT has no AC mains. Wireless LAN does not operate during charging.
*2) For these items, refer to the test report: 13568152S-L. The test was carried out with the same module (SX-SDMAN2) which is installed in the EUT.
*3) Radiated test was selected over 30 MHz based on FCC 15.407 (b) 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.

* In case any questions arise about test procedure, ANSI C63.10: 2013 is also referred.

* For test report(s) referred in this report, the latest version (including any revisions) is always referred.

FCC Part 15.31 (e)
This EUT provides the stable voltage constantly to RF part regardless of input voltage. Therefore, this EUT complies with the requirement.

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

3.3 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 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	2.56dB	2.9 dB
Radiated emission (Measurement distance: 3 m)	9 kHz-30 MHz	3.0 dB	2.7 dB	2.7 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	5.3 dB	5.3 dB	5.3 dB	-
Radiated emission (Measurement distance: 1 m)	1 GHz-18 GHz	5.7 dB	5.7 dB	5.7 dB	-
	18 GHz-40 GHz	5.6 dB	5.6 dB	5.6 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)

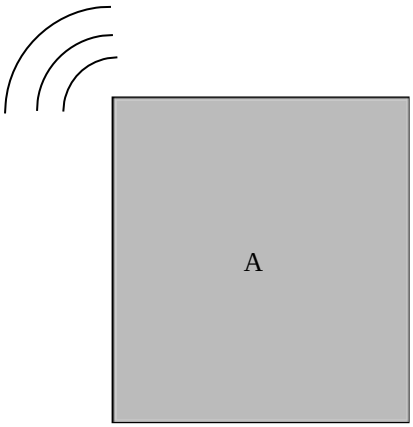
Test operating mode was determined as follows according to "Section 1 of 6 802.11 a/b/g/n testing - Managing Complex Regulatory Approvals - " of TCB Council Workshop October 2009.

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 SISO 20 MHz BW (11n-20)	MCS 2 (Long GI), PN9
IEEE 802.11n MIMO 40 MHz BW (11n-40)	MCS 10 (Long GI), PN9
IEEE 802.11n SISO 40 MHz BW (11n-40)	MCS 2 (Long GI), PN9
*The worst antenna (Ant: x) and condition was determined based on the test result of Maximum Conducted Output Power. (Report No. 13568152S-L)	
*Power of the EUT was set by the software as follows; Power settings: 8 dBm Software: Wireless authentication test tool: Version 1.3.0.3, Date: 2017.4.18 (Storage location: Driven by connected PC) *This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product.	

*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

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	SKR 3000	P-65	A9YH-S003	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, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

< 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 W58 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:

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

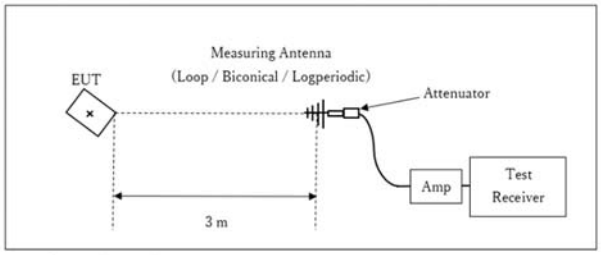
Test Antennas are used as below;

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 Appendix [Report No. 13568152S-L]) 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".

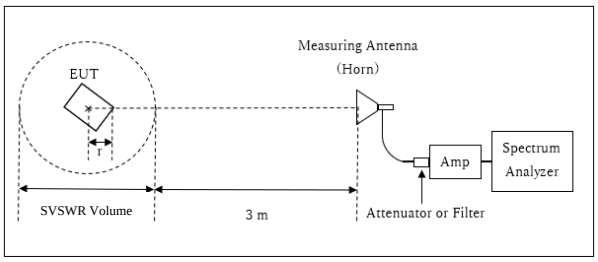
Below 1 GHz



× : Center of turn table

Test Distance: 3 m

1 GHz - 10 GHz

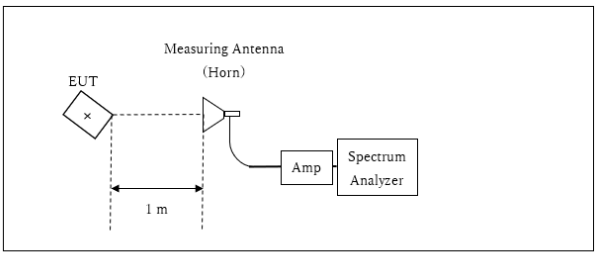


r : Radius of an outer periphery of EUT
× : Center of turn table

Distance Factor: 20 x log (3.7 m / 3.0 m) = 1.82 dB
* Test Distance: (3 + SVSWR Volume /2) - r = 3.7m

SVSWR Volume : 2.0 m
(SVSWR Volume has been calibrated based on CISPR 16-1-4.)
r = 0.3 m

10 GHz - 40 GHz



× : Center of turn table

Distance Factor: 20 x log (1.0 m / 3.0 m) = -9.54 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.

Antenna polarization	Carrier	Spurious (30 MHz - 1 GHz)	Spurious (1 GHz - 6.4 GHz)	Spurious (6.4 GHz - 10 GHz)	Spurious (10 GHz - 18 GHz)	Spurious (18 GHz - 26.5 GHz)	Spurious (26.5 GHz - 40 GHz)
Horizontal	Z	X	Z	Y	X	X	X
Vertical	X	X	X	Y	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 - 40 GHz**
Test data : **APPENDIX**
Test result : **Pass**

APPENDIX 1: Test data

Radiated Spurious Emission

Test place	Shonan EMC Lab.			
Semi Anechoic Chamber	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Yohsuke Matsuzawa	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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	45.83	32.25	16.76	39.72	1.82	56.94	73.9	16.9	279	91	-
Hori.	15540.000	PK	47.80	39.51	11.35	37.21	-9.54	51.91	73.9	21.9	150	0	-
Hori.	5150.000	AV	34.29	32.25	16.76	39.72	1.82	45.40	53.9	8.5	279	91	VBW : 1.5 kHz
Hori.	15540.000	AV	36.71	39.51	11.35	37.21	-9.54	40.82	53.9	13.0	150	0	VBW : 1.5 kHz
Vert.	5150.000	PK	45.60	32.25	16.76	39.72	1.82	56.71	73.9	17.1	101	24	-
Vert.	15540.000	PK	48.71	39.51	11.35	37.21	-9.54	52.82	73.9	21.0	150	0	-
Vert.	5150.000	AV	34.39	32.25	16.76	39.72	1.82	45.50	53.9	**8.4**	101	24	VBW : 1.5 kHz
Vert.	15540.000	AV	37.03	39.51	11.35	37.21	-9.54	41.14	53.9	12.7	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

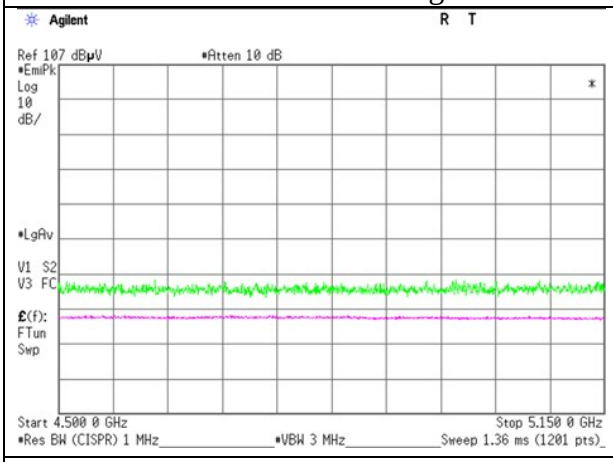
(* PK: Peak, AV: Average, QP: Quasi-Peak)

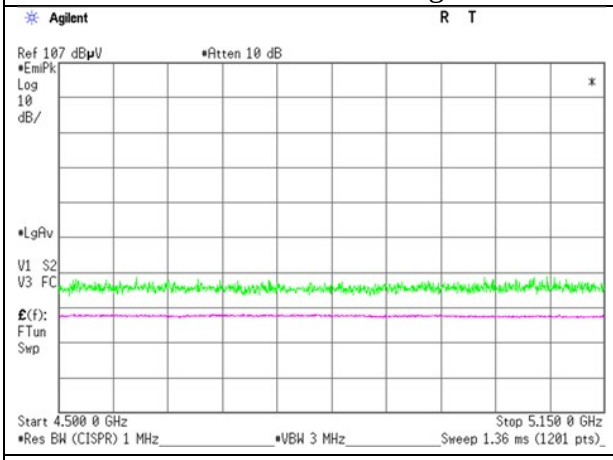
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6906.592	PK	49.29	35.35	8.49	39.50	1.82	55.45	-39.78	-27.0	12.7	166	107	-
Hori.	10360.000	PK	47.19	36.35	9.15	40.03	-9.54	43.12	-52.11	-27.0	25.1	150	0	-
Vert.	6906.593	PK	48.68	35.35	8.49	39.50	1.82	54.84	-40.39	-27.0	13.3	100	87	-
Vert.	10360.000	PK	47.88	36.35	9.15	40.03	-9.54	43.81	-51.42	-27.0	24.4	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor
Result (EIRP [dBm]) = 10 * 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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11a 5180 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Yohsuke Matsuzawa	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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.	15720.000	PK	48.81	39.76	11.34	37.24	-9.54	53.13	73.9	20.7	150	0	-
Hori.	15720.000	AV	37.10	39.76	11.34	37.24	-9.54	41.42	53.9	12.4	150	0	VBW : 1.5 kHz
Vert.	15720.000	PK	48.06	39.76	11.34	37.24	-9.54	52.38	73.9	21.5	150	0	-
Vert.	15720.000	AV	37.21	39.76	11.34	37.24	-9.54	41.53	53.9	**12.3**	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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.	6986.584	PK	48.22	35.95	8.52	39.42	1.82	55.09	-40.14	-27.0	13.1	140	107	-
Hori.	10480.000	PK	46.71	36.57	9.21	40.22	-9.54	42.73	-52.50	-27.0	25.5	150	0	-
Vert.	6986.629	PK	48.52	35.95	8.52	39.42	1.82	55.39	-39.84	-27.0	12.8	107	90	-
Vert.	10480.000	PK	46.81	36.57	9.21	40.22	-9.54	42.83	-52.40	-27.0	25.4	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor
Result (EIRP [dBm]) = 10 * 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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Yohsuke Matsuzawa	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(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	45.57	31.99	16.91	39.74	1.82	56.55	73.9	17.3	155	83	-
Hori.	10640.000	PK	46.82	37.28	9.27	40.20	-9.54	43.63	73.9	30.2	150	0	-
Hori.	15960.000	PK	47.57	39.97	11.33	37.27	-9.54	52.06	73.9	21.8	150	0	-
Hori.	5350.000	AV	34.44	31.99	16.91	39.74	1.82	45.42	53.9	**8.4**	155	83	VBW : 1.5 kHz
Hori.	10640.000	AV	35.24	37.28	9.27	40.20	-9.54	32.05	53.9	21.8	150	0	VBW : 1.5 kHz
Hori.	15960.000	AV	35.74	39.97	11.33	37.27	-9.54	40.23	53.9	13.6	150	0	VBW : 1.5 kHz
Vert.	5350.000	PK	45.00	31.99	16.91	39.74	1.82	55.98	73.9	17.9	144	3	-
Vert.	10640.000	PK	46.68	37.28	9.27	40.20	-9.54	43.49	73.9	30.4	150	0	-
Vert.	15960.000	PK	47.63	39.97	11.33	37.27	-9.54	52.12	73.9	21.7	150	0	-
Vert.	5350.000	AV	34.43	31.99	16.91	39.74	1.82	45.41	53.9	**8.4**	144	3	VBW : 1.5 kHz
Vert.	10640.000	AV	35.21	37.28	9.27	40.20	-9.54	32.02	53.9	21.8	150	0	VBW : 1.5 kHz
Vert.	15960.000	AV	35.82	39.97	11.33	37.27	-9.54	40.31	53.9	13.5	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

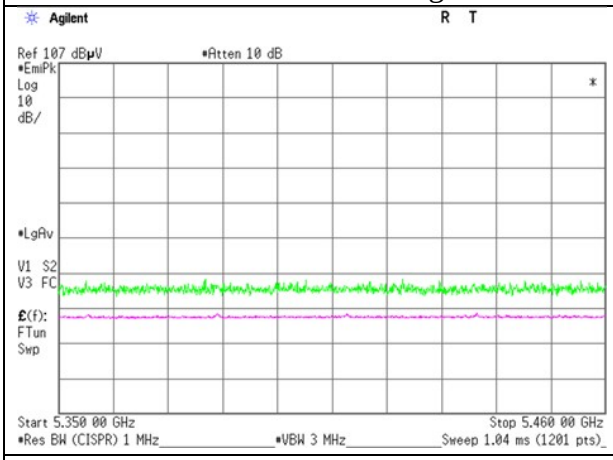
(* PK: Peak, AV: Average, QP: Quasi-Peak)

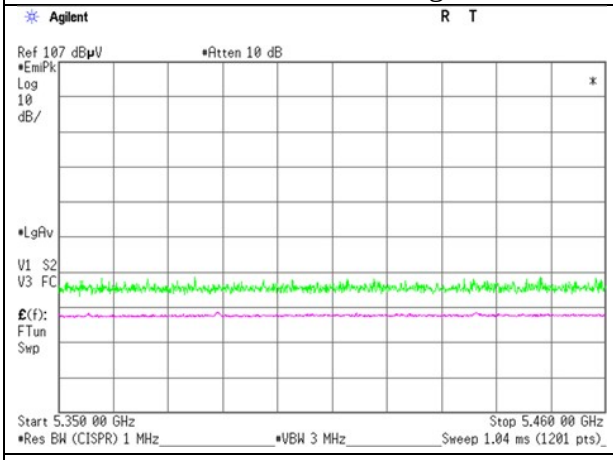
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7093.256	PK	47.76	36.59	8.59	39.45	1.82	55.31	-39.92	-27.0	12.9	178	105	-
Vert.	7093.271	PK	47.31	36.59	8.59	39.45	1.82	54.86	-40.37	-27.0	13.3	125	88	-

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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11a 5320 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Yohsuke Matsuzawa	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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.	5381.928	PK	46.26	32.06	16.93	39.74	1.82	57.33	73.9	16.5	148	71	-
Hori.	5460.000	PK	45.83	32.22	16.99	39.75	1.82	57.11	73.9	16.7	127	93	-
Hori.	11000.000	PK	46.86	37.41	9.38	40.08	-9.54	44.03	73.9	29.8	150	0	-
Hori.	5381.928	AV	37.34	32.06	16.93	39.74	1.82	48.41	53.9	**5.4**	148	71	VBW : 1.5 kHz
Hori.	5460.000	AV	34.81	32.22	16.99	39.75	1.82	46.09	53.9	7.8	127	93	VBW : 1.5 kHz
Hori.	11000.000	AV	35.29	37.41	9.38	40.08	-9.54	32.46	53.9	21.4	150	0	VBW : 1.5 kHz
Vert.	5381.940	PK	46.11	32.06	16.93	39.74	1.82	57.18	73.9	16.7	147	6	-
Vert.	5460.000	PK	45.84	32.22	16.99	39.75	1.82	57.12	73.9	16.7	161	356	-
Vert.	11000.000	PK	46.93	37.41	9.38	40.08	-9.54	44.10	73.9	29.8	150	0	-
Vert.	5381.940	AV	36.80	32.06	16.93	39.74	1.82	47.87	53.9	6.0	147	6	VBW : 1.5 kHz
Vert.	5460.000	AV	35.06	32.22	16.99	39.75	1.82	46.34	53.9	7.5	161	356	VBW : 1.5 kHz
Vert.	11000.000	AV	35.66	37.41	9.38	40.08	-9.54	32.83	53.9	21.0	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

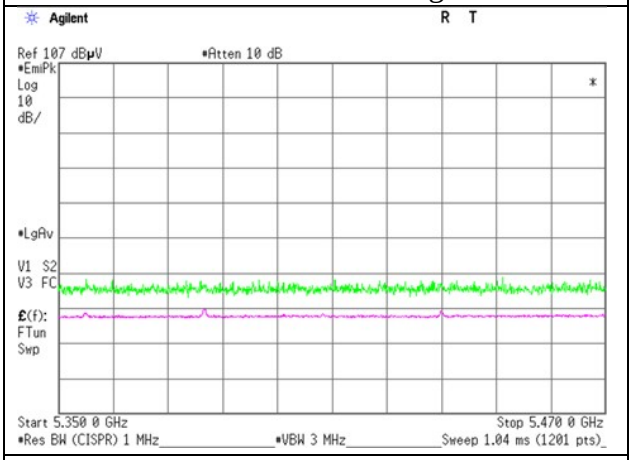
(* PK: Peak, AV: Average, QP: Quasi-Peak)

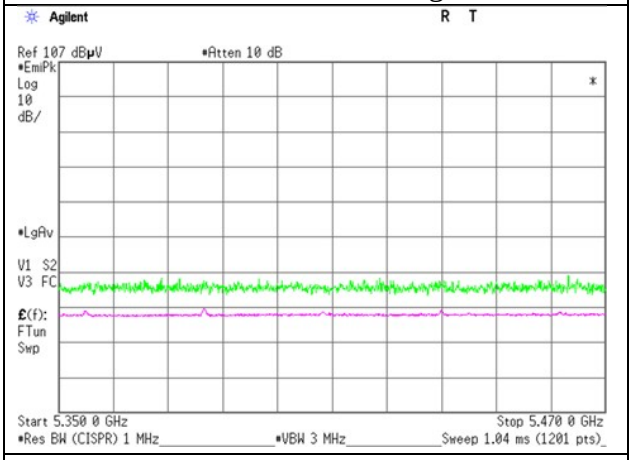
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	44.97	32.24	16.99	39.75	1.82	56.27	-38.96	-27.0	11.9	127	93	-
Hori.	16500.000	PK	48.46	39.94	11.85	37.27	-9.54	53.44	-41.79	-27.0	14.7	150	0	-
Vert.	5470.000	PK	46.13	32.24	16.99	39.75	1.82	57.43	-37.80	-27.0	10.8	161	356	-
Vert.	16500.000	PK	48.75	39.94	11.85	37.27	-9.54	53.73	-41.50	-27.0	14.5	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Yohsuke Matsuzawa
Mode	Tx 11a 5500 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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.	5381.978	PK	47.31	32.06	16.93	39.74	1.82	58.38	73.9	15.5	149	99	-
Hori.	11160.000	PK	46.88	37.26	9.45	40.08	-9.54	43.97	73.9	29.9	150	0	-
Hori.	5381.978	AV	37.17	32.06	16.93	39.74	1.82	48.24	53.9	**5.6**	149	99	VBW : 1.5 kHz
Hori.	11160.000	AV	35.44	37.26	9.45	40.08	-9.54	32.53	53.9	21.3	150	0	VBW : 1.5 kHz
Vert.	5381.633	PK	46.94	32.06	16.93	39.74	1.82	58.01	73.9	15.8	156	0	-
Vert.	11160.000	PK	46.78	37.26	9.45	40.08	-9.54	43.87	73.9	30.0	150	0	-
Vert.	5381.633	AV	36.14	32.06	16.93	39.74	1.82	47.21	53.9	6.6	156	0	VBW : 1.5 kHz
Vert.	11160.000	AV	35.50	37.26	9.45	40.08	-9.54	32.59	53.9	21.3	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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	48.86	39.53	12.01	37.20	-9.54	53.66	-41.57	-27.0	14.5	150	0	-
Vert.	16740.000	PK	48.97	39.53	12.01	37.20	-9.54	53.77	-41.46	-27.0	14.4	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor
Result (EIRP [dBm]) = 10 * 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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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.	5381.864	PK	47.20	32.06	16.93	39.74	1.82	58.27	73.9	15.6	196	110	-
Hori.	11400.000	PK	47.38	37.82	9.56	40.08	-9.54	45.14	73.9	28.7	150	0	-
Hori.	5381.864	AV	36.22	32.06	16.93	39.74	1.82	47.29	53.9	**6.6**	196	110	VBW : 1.5 kHz
Hori.	11400.000	AV	36.09	37.82	9.56	40.08	-9.54	33.85	53.9	20.0	150	0	VBW : 1.5 kHz
Vert.	5381.934	PK	46.71	32.06	16.93	39.74	1.82	57.78	73.9	16.1	186	0	-
Vert.	11400.000	PK	46.75	37.82	9.56	40.08	-9.54	44.51	73.9	29.3	150	0	-
Vert.	5381.934	AV	35.75	32.06	16.93	39.74	1.82	46.82	53.9	7.0	186	0	VBW : 1.5 kHz
Vert.	11400.000	AV	35.76	37.82	9.56	40.08	-9.54	33.52	53.9	20.3	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

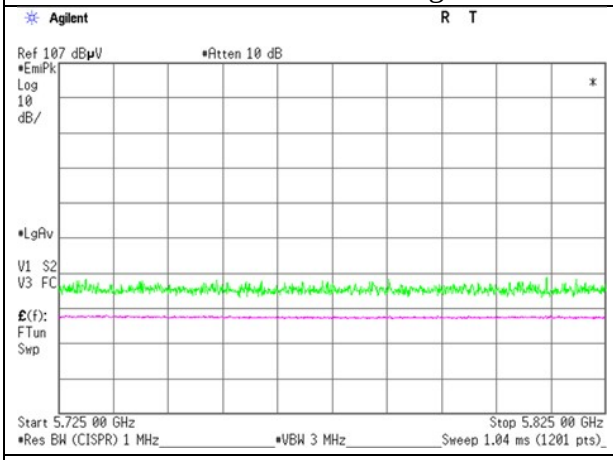
(* PK: Peak, AV: Average, QP: Quasi-Peak)

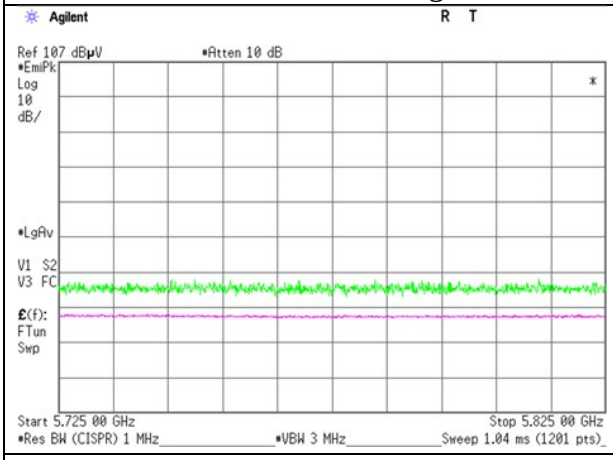
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	46.12	32.64	17.16	39.92	1.82	57.82	-37.41	-27.0	10.4	157	65	-
Hori.	17100.000	PK	49.47	39.69	12.24	37.18	-9.54	54.68	-40.55	-27.0	13.5	150	0	-
Vert.	5725.000	PK	46.30	32.64	17.16	39.92	1.82	58.00	-37.23	-27.0	10.2	170	0	-
Vert.	17100.000	PK	49.14	39.69	12.24	37.18	-9.54	54.35	-40.88	-27.0	13.8	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11a 5700 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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.	5381.937	PK	47.70	32.06	16.93	39.74	1.82	58.77	73.9	15.1	171	75	-
Hori.	11490.000	PK	46.51	37.98	9.61	40.08	-9.54	44.48	73.9	29.4	150	0	-
Hori.	5381.937	AV	36.40	32.06	16.93	39.74	1.82	47.47	53.9	**6.4**	171	75	VBW : 1.5 kHz
Hori.	11490.000	AV	35.60	37.98	9.61	40.08	-9.54	33.57	53.9	20.3	150	0	VBW : 1.5 kHz
Vert.	5382.003	PK	46.42	32.06	16.93	39.74	1.82	57.49	73.9	16.4	133	5	-
Vert.	11490.000	PK	46.75	37.98	9.61	40.08	-9.54	44.72	73.9	29.1	150	0	-
Vert.	5382.003	AV	35.34	32.06	16.93	39.74	1.82	46.41	53.9	7.4	133	5	VBW : 1.5 kHz
Vert.	11490.000	AV	35.14	37.98	9.61	40.08	-9.54	33.11	53.9	20.7	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

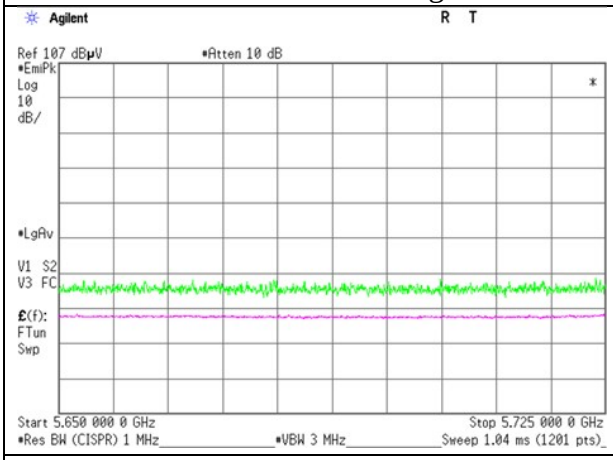
(* PK: Peak, AV: Average, QP: Quasi-Peak)

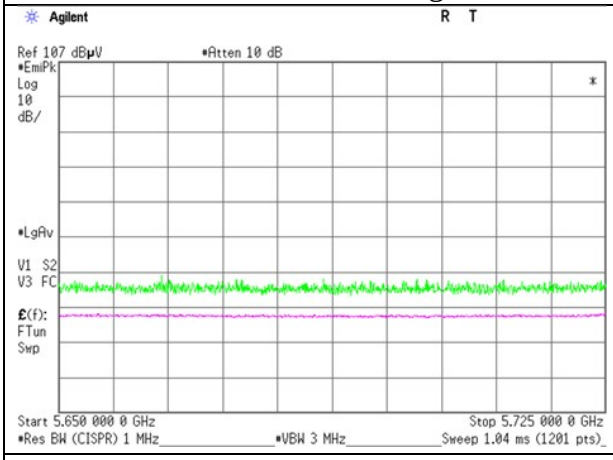
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	45.88	32.44	17.11	39.86	1.82	57.39	-37.84	-27.0	10.8	154	72	-
Hori.	5700.000	PK	45.90	32.56	17.14	39.90	1.82	57.52	-37.71	10.0	47.7	154	72	-
Hori.	5720.000	PK	46.66	32.62	17.15	39.92	1.82	58.33	-36.90	15.6	52.5	154	72	-
Hori.	5725.000	PK	46.52	32.64	17.16	39.92	1.82	58.22	-37.01	27.0	64.0	154	72	-
Hori.	17235.000	PK	49.19	39.94	12.29	37.25	-9.54	54.63	-40.60	-27.0	13.6	150	0	-
Vert.	5650.000	PK	45.81	32.44	17.11	39.86	1.82	57.32	-37.91	-27.0	10.9	168	0	-
Vert.	5700.000	PK	46.19	32.56	17.14	39.90	1.82	57.81	-37.42	10.0	47.4	168	0	-
Vert.	5720.000	PK	46.74	32.62	17.15	39.92	1.82	58.41	-36.82	15.6	52.4	168	0	-
Vert.	5725.000	PK	46.13	32.64	17.16	39.92	1.82	57.83	-37.40	27.0	64.4	168	0	-
Vert.	17235.000	PK	49.40	39.94	12.29	37.25	-9.54	54.84	-40.39	-27.0	13.3	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11a 5745 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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.	5381.997	PK	47.96	32.06	16.93	39.74	1.82	59.03	73.9	14.8	159	92	-
Hori.	11570.000	PK	47.17	38.06	9.65	40.13	-9.54	45.21	73.9	28.6	150	0	-
Hori.	5381.997	AV	36.14	32.06	16.93	39.74	1.82	47.21	53.9	**6.6**	159	92	VBW : 1.5 kHz
Hori.	11570.000	AV	35.27	38.06	9.65	40.13	-9.54	33.31	53.9	20.5	150	0	VBW : 1.5 kHz
Vert.	5381.934	PK	46.89	32.06	16.93	39.74	1.82	57.96	73.9	15.9	190	351	-
Vert.	11570.000	PK	46.36	38.06	9.65	40.13	-9.54	44.40	73.9	29.5	150	0	-
Vert.	5381.934	AV	35.63	32.06	16.93	39.74	1.82	46.70	53.9	7.2	190	351	VBW : 1.5 kHz
Vert.	11570.000	AV	35.23	38.06	9.65	40.13	-9.54	33.27	53.9	20.6	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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	49.07	40.15	12.34	37.31	-9.54	54.71	-40.52	-27.0	13.5	150	0	-
Vert.	17355.000	PK	49.69	40.15	12.34	37.31	-9.54	55.33	-39.90	-27.0	12.9	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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 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.	5381.971	PK	46.70	32.06	16.93	39.74	1.82	57.77	73.9	16.1	160	91	-
Hori.	11650.000	PK	46.93	38.11	9.71	40.19	-9.54	45.02	73.9	28.8	150	0	-
Hori.	5381.971	AV	35.73	32.06	16.93	39.74	1.82	46.80	53.9	**7.1**	160	91	VBW : 1.5 kHz
Hori.	11650.000	AV	35.03	38.11	9.71	40.19	-9.54	33.12	53.9	20.7	150	0	VBW : 1.5 kHz
Vert.	5381.999	PK	47.14	32.06	16.93	39.74	1.82	58.21	73.9	15.6	191	0	-
Vert.	11650.000	PK	47.54	38.11	9.71	40.19	-9.54	45.63	73.9	28.2	150	0	-
Vert.	5381.999	AV	35.60	32.06	16.93	39.74	1.82	46.67	53.9	7.2	191	0	VBW : 1.5 kHz
Vert.	11650.000	AV	34.94	38.11	9.71	40.19	-9.54	33.03	53.9	20.8	150	0	VBW : 1.5 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

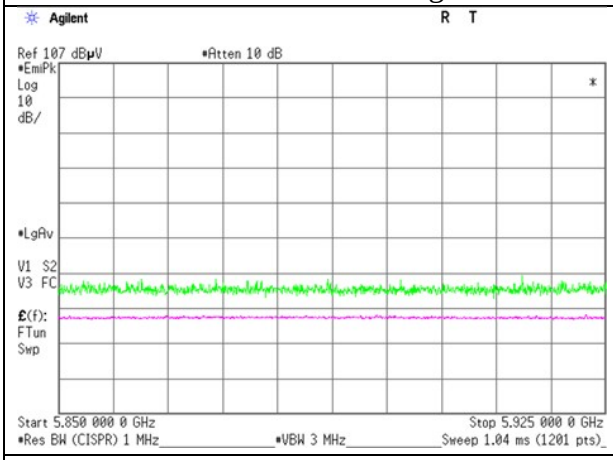
(* PK: Peak, AV: Average, QP: Quasi-Peak)

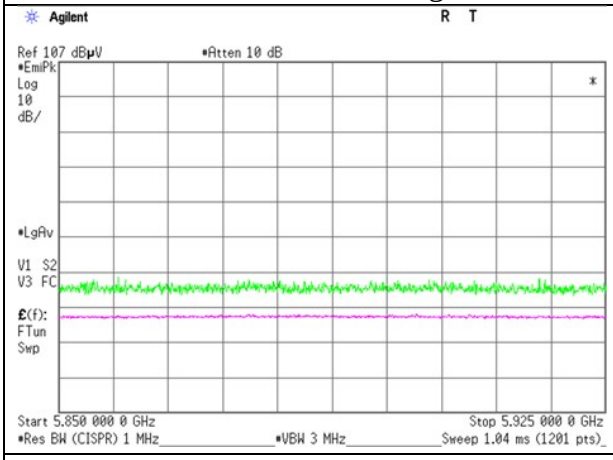
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	45.83	32.91	17.24	40.02	1.82	57.78	-37.45	27.0	64.4	170	73	-
Hori.	5855.000	PK	45.64	32.92	17.24	40.02	1.82	57.60	-37.63	15.6	53.2	170	73	-
Hori.	5875.000	PK	46.37	32.95	17.27	40.04	1.82	58.37	-36.86	10.0	46.8	170	73	-
Hori.	5925.000	PK	45.81	32.99	17.29	40.07	1.82	57.84	-37.39	-27.0	10.3	170	73	-
Hori.	17475.000	PK	48.71	40.25	12.38	37.37	-9.54	54.43	-40.80	-27.0	13.8	150	0	-
Vert.	5850.000	PK	47.30	32.91	17.24	40.02	1.82	59.25	-35.98	27.0	62.9	156	4	-
Vert.	5855.000	PK	45.78	32.92	17.24	40.02	1.82	57.74	-37.49	15.6	53.0	156	4	-
Vert.	5875.000	PK	45.93	32.95	17.27	40.04	1.82	57.93	-37.30	10.0	47.3	156	4	-
Vert.	5925.000	PK	45.35	32.99	17.29	40.07	1.82	57.38	-37.85	-27.0	10.8	156	4	-
Vert.	17475.000	PK	49.30	40.25	12.38	37.37	-9.54	55.02	-40.21	-27.0	13.2	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11a 5825 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	1	2	1	1
Date	January 12, 2021	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 29 %RH	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Yosuke Murakami	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(30 MHz -1 GHz)	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	249.996	QP	29.20	11.78	6.20	31.76	0.00	15.42	46.0	30.5	127	308	-
Hori.	449.991	QP	27.70	16.45	7.47	31.93	0.00	19.69	46.0	26.3	100	358	-
Hori.	549.996	QP	32.10	17.81	8.02	32.09	0.00	25.84	46.0	20.1	173	4	-
Hori.	799.996	QP	23.20	20.74	9.18	32.03	0.00	21.09	46.0	24.9	166	236	-
Hori.	849.994	QP	24.40	21.49	9.43	31.72	0.00	23.60	46.0	22.4	100	23	-
Hori.	899.985	QP	28.50	22.07	9.64	31.49	0.00	28.72	46.0	17.2	100	66	-
Hori.	949.991	QP	26.80	22.07	9.81	31.12	0.00	27.56	46.0	18.4	100	346	-
Hori.	5150.000	PK	45.50	32.25	16.76	39.72	1.82	56.61	73.9	17.2	343	67	-
Hori.	15540.000	PK	48.00	39.51	11.35	37.21	-9.54	52.11	73.9	21.7	150	0	-
Hori.	5150.000	AV	35.28	32.25	16.76	39.72	1.82	46.39	53.9	7.5	343	67	VBW : 3.6 kHz
Hori.	15540.000	AV	37.35	39.51	11.35	37.21	-9.54	41.46	53.9	12.4	150	0	VBW : 3.6 kHz
Vert.	249.999	QP	26.10	11.78	6.20	31.76	0.00	12.32	46.0	33.6	100	94	-
Vert.	449.996	QP	27.40	16.45	7.47	31.93	0.00	19.39	46.0	26.6	126	156	-
Vert.	549.992	QP	27.50	17.81	8.02	32.09	0.00	21.24	46.0	24.7	100	153	-
Vert.	799.993	QP	23.30	20.74	9.18	32.03	0.00	21.19	46.0	24.8	100	88	-
Vert.	899.990	QP	25.70	22.07	9.64	31.49	0.00	25.92	46.0	20.0	177	264	-
Vert.	949.994	QP	24.90	22.07	9.81	31.12	0.00	25.66	46.0	20.3	154	254	-
Vert.	5150.000	PK	45.94	32.25	16.76	39.72	1.82	57.05	73.9	16.8	266	90	-
Vert.	15540.000	PK	48.14	39.51	11.35	37.21	-9.54	52.25	73.9	21.6	150	0	-
Vert.	5150.000	AV	35.31	32.25	16.76	39.72	1.82	46.42	53.9	**7.4**	266	90	VBW : 3.6 kHz
Vert.	15540.000	AV	37.38	39.51	11.35	37.21	-9.54	41.49	53.9	12.4	150	0	VBW : 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

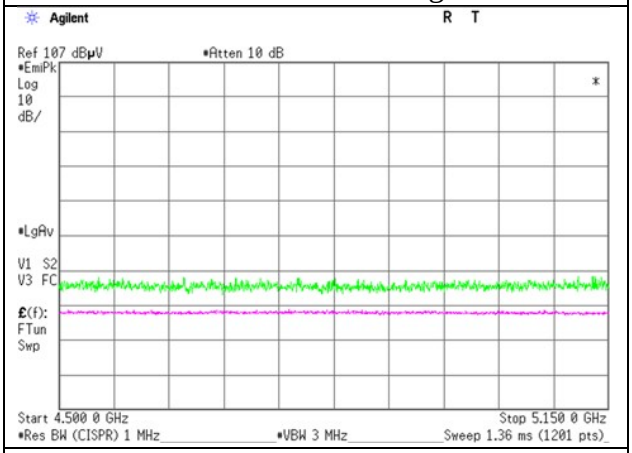
(* PK: Peak, AV: Average, QP: Quasi-Peak)

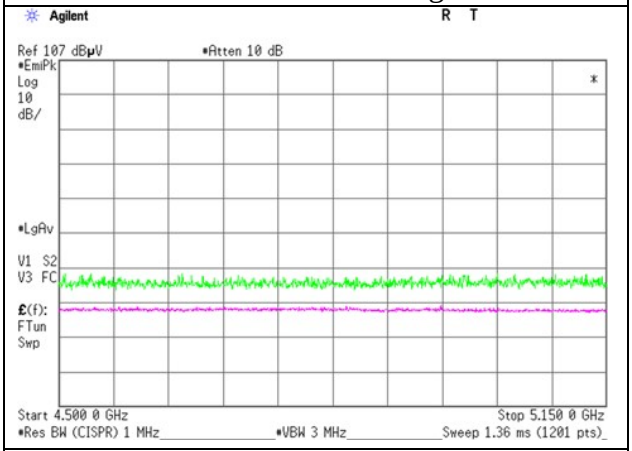
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6906.569	PK	50.11	35.35	8.49	39.50	1.82	56.27	-38.96	-27.0	11.9	147	104	-
Hori.	10360.000	PK	47.09	36.35	9.15	40.03	-9.54	43.02	-52.21	-27.0	25.2	150	0	-
Vert.	6906.700	PK	49.42	35.35	8.49	39.50	1.82	55.58	-39.65	-27.0	12.6	100	89	-
Vert.	10360.000	PK	47.10	36.35	9.15	40.03	-9.54	43.03	-52.20	-27.0	25.2	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11n-20 5180 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	15720.000	PK	49.72	39.76	11.34	37.24	-9.54	54.04	73.9	19.8	150	0	-
Hori.	15720.000	AV	38.09	39.76	11.34	37.24	-9.54	42.41	53.9	11.4	150	0	VBW : 3.6 kHz
Vert.	15720.000	PK	48.46	39.76	11.34	37.24	-9.54	52.78	73.9	21.1	150	0	-
Vert.	15720.000	AV	38.19	39.76	11.34	37.24	-9.54	42.51	53.9	**11.3**	150	0	VBW : 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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.	6986.570	PK	48.98	35.95	8.52	39.42	1.82	55.85	-39.38	-27.0	12.3	142	102	-
Hori.	10480.000	PK	46.86	36.57	9.21	40.22	-9.54	42.88	-52.35	-27.0	25.3	150	0	-
Vert.	6986.566	PK	49.07	35.95	8.52	39.42	1.82	55.94	-39.29	-27.0	12.2	100	89	-
Vert.	10480.000	PK	47.43	36.57	9.21	40.22	-9.54	43.45	-51.78	-27.0	24.7	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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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	46.10	31.99	16.91	39.74	1.82	57.08	73.9	16.8	155	104	-
Hori.	10640.000	PK	46.57	37.28	9.27	40.20	-9.54	43.38	73.9	30.5	150	0	-
Hori.	15960.000	PK	47.71	39.97	11.33	37.27	-9.54	52.20	73.9	21.7	150	0	-
Hori.	5350.000	AV	35.26	31.99	16.91	39.74	1.82	46.24	53.9	**7.6**	155	104	VBW : 3.6 kHz
Hori.	10640.000	AV	36.28	37.28	9.27	40.20	-9.54	33.09	53.9	20.8	150	0	VBW : 3.6 kHz
Hori.	15960.000	AV	37.01	39.97	11.33	37.27	-9.54	41.50	53.9	12.4	150	0	VBW : 3.6 kHz
Vert.	5350.000	PK	46.16	31.99	16.91	39.74	1.82	57.14	73.9	16.7	130	107	-
Vert.	10640.000	PK	46.69	37.28	9.27	40.20	-9.54	43.50	73.9	30.4	150	0	-
Vert.	15960.000	PK	47.13	39.97	11.33	37.27	-9.54	51.62	73.9	22.2	150	0	-
Vert.	5350.000	AV	35.17	31.99	16.91	39.74	1.82	46.15	53.9	7.7	130	107	VBW : 3.6 kHz
Vert.	10640.000	AV	35.77	37.28	9.27	40.20	-9.54	32.58	53.9	21.3	150	0	VBW : 3.6 kHz
Vert.	15960.000	AV	37.04	39.97	11.33	37.27	-9.54	41.53	53.9	12.3	150	0	VBW : 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

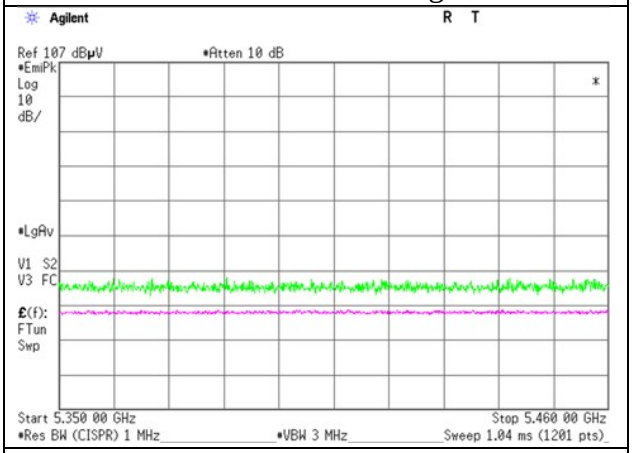
(* PK: Peak, AV: Average, QP: Quasi-Peak)

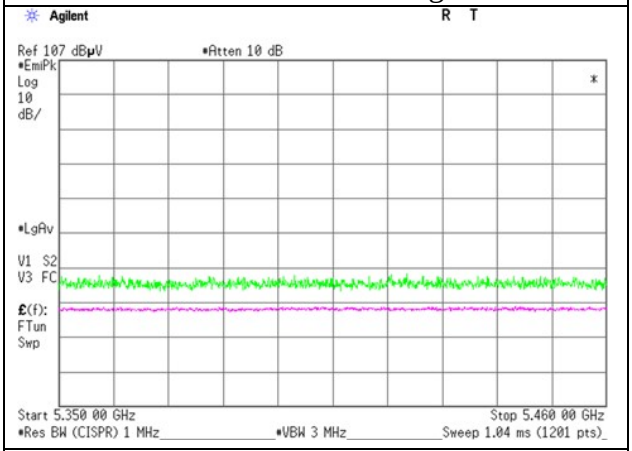
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7093.235	PK	48.13	36.59	8.59	39.45	1.82	55.68	-39.55	-27.0	12.5	143	103	-
Vert.	7093.235	PK	47.66	36.59	8.59	39.45	1.82	55.21	-40.02	-27.0	13.0	102	90	-

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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11n-20 5320 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.936	PK	46.60	32.06	16.93	39.74	1.82	57.67	73.9	16.2	185	99	-
Hori.	5460.000	PK	46.60	32.22	16.99	39.75	1.82	57.88	73.9	16.0	137	106	-
Hori.	11000.000	PK	47.33	37.41	9.38	40.08	-9.54	44.50	73.9	29.4	150	0	-
Hori.	5381.936	AV	35.88	32.06	16.93	39.74	1.82	46.95	53.9	6.9	185	99	VBW : 3.6 kHz
Hori.	5460.000	AV	36.06	32.22	16.99	39.75	1.82	47.34	53.9	**6.5**	137	106	VBW : 3.6 kHz
Hori.	11000.000	AV	36.21	37.41	9.38	40.08	-9.54	33.38	53.9	20.5	150	0	VBW : 3.6 kHz
Vert.	5381.927	PK	46.95	32.06	16.93	39.74	1.82	58.02	73.9	15.8	129	0	-
Vert.	5460.000	PK	46.14	32.22	16.99	39.75	1.82	57.42	73.9	16.4	244	351	-
Vert.	11000.000	PK	47.16	37.41	9.38	40.08	-9.54	44.33	73.9	29.5	150	0	-
Vert.	5381.927	AV	36.11	32.06	16.93	39.74	1.82	47.18	53.9	6.7	129	0	VBW : 3.6 kHz
Vert.	5460.000	AV	35.72	32.22	16.99	39.75	1.82	47.00	53.9	6.9	244	351	VBW : 3.6 kHz
Vert.	11000.000	AV	35.97	37.41	9.38	40.08	-9.54	33.14	53.9	20.7	150	0	VBW : 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

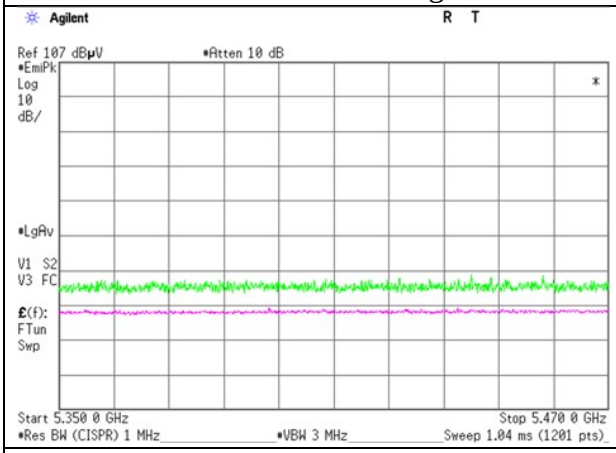
(* PK: Peak, AV: Average, QP: Quasi-Peak)

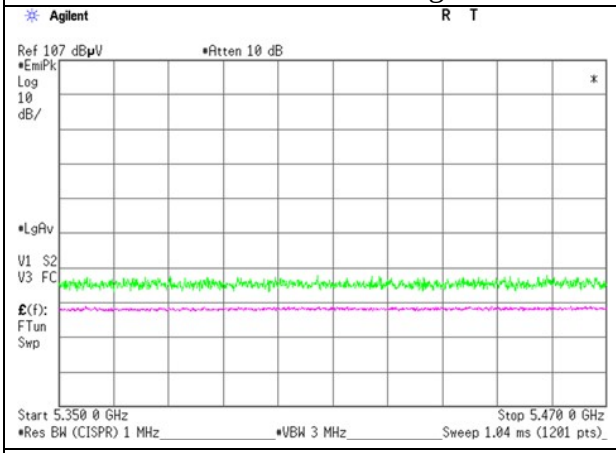
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	46.41	32.24	16.99	39.75	1.82	57.71	-37.52	-27.0	10.5	137	106	-
Hori.	16500.000	PK	48.54	39.94	11.85	37.27	-9.54	53.52	-41.71	-27.0	14.7	150	0	-
Vert.	5470.000	PK	45.78	32.24	16.99	39.75	1.82	57.08	-38.15	-27.0	11.1	244	351	-
Vert.	16500.000	PK	48.50	39.94	11.85	37.27	-9.54	53.48	-41.75	-27.0	14.7	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11n-20 5500 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.998	PK	46.64	32.06	16.93	39.74	1.82	57.71	73.9	16.1	152	112	-
Hori.	11160.000	PK	46.95	37.26	9.45	40.08	-9.54	44.04	73.9	29.8	150	0	-
Hori.	5381.998	AV	35.68	32.06	16.93	39.74	1.82	46.75	53.9	**7.1**	152	112	VBW : 3.6 kHz
Hori.	11160.000	AV	36.31	37.26	9.45	40.08	-9.54	33.40	53.9	20.5	150	0	VBW : 3.6 kHz
Vert.	5381.980	PK	46.05	32.06	16.93	39.74	1.82	57.12	73.9	16.7	114	0	-
Vert.	11160.000	PK	46.66	37.26	9.45	40.08	-9.54	43.75	73.9	30.1	150	0	-
Vert.	5381.980	AV	35.71	32.06	16.93	39.74	1.82	46.78	53.9	**7.1**	114	0	VBW : 3.6 kHz
Vert.	11160.000	AV	36.19	37.26	9.45	40.08	-9.54	33.28	53.9	20.6	150	0	VBW : 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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	49.12	39.53	12.01	37.20	-9.54	53.92	-41.31	-27.0	14.3	150	0	-
Vert.	16740.000	PK	48.79	39.53	12.01	37.20	-9.54	53.59	-41.64	-27.0	14.6	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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5382.011	PK	47.23	32.06	16.93	39.74	1.82	58.30	73.9	15.6	100	86	-
Hori.	11400.000	PK	47.54	37.82	9.56	40.08	-9.54	45.30	73.9	28.6	150	0	-
Hori.	5382.011	AV	36.31	32.06	16.93	39.74	1.82	47.38	53.9	**6.5**	100	86	VBW : 3.6 kHz
Hori.	11400.000	AV	36.62	37.82	9.56	40.08	-9.54	34.38	53.9	19.5	150	0	VBW : 3.6 kHz
Vert.	5381.565	PK	46.41	32.06	16.93	39.74	1.82	57.48	73.9	16.4	171	4	-
Vert.	11400.000	PK	46.83	37.82	9.56	40.08	-9.54	44.59	73.9	29.3	150	0	-
Vert.	5381.565	AV	36.21	32.06	16.93	39.74	1.82	47.28	53.9	6.6	171	4	VBW : 3.6 kHz
Vert.	11400.000	AV	36.42	37.82	9.56	40.08	-9.54	34.18	53.9	19.7	150	0	VBW : 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

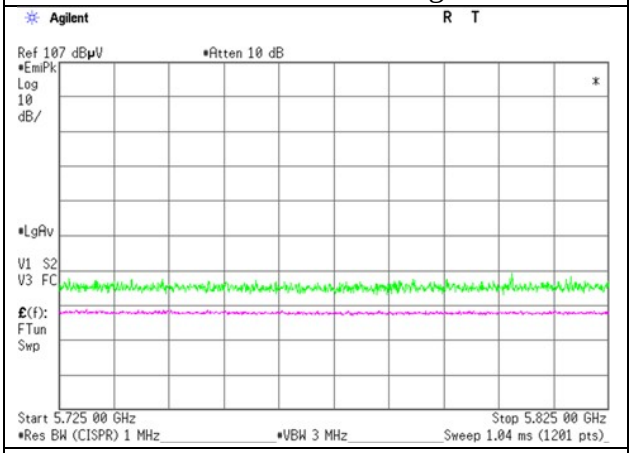
(* PK: Peak, AV: Average, QP: Quasi-Peak)

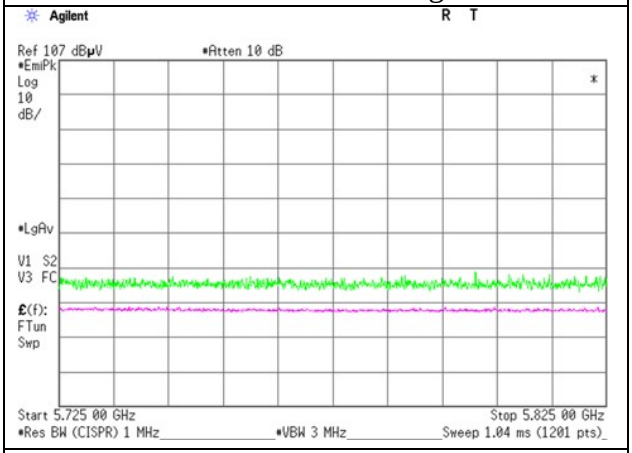
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	46.83	32.64	17.16	39.92	1.82	58.53	-36.70	-27.0	9.7	126	105	-
Hori.	17100.000	PK	49.30	39.69	12.24	37.18	-9.54	54.51	-40.72	-27.0	13.7	150	0	-
Vert.	5725.000	PK	46.29	32.64	17.16	39.92	1.82	57.99	-37.24	-27.0	10.2	250	91	-
Vert.	17100.000	PK	48.99	39.69	12.24	37.18	-9.54	54.20	-41.03	-27.0	14.0	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11n-20 5700 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 9, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.225	PK	46.07	32.06	16.93	39.74	1.82	57.14	73.9	16.7	140	87	-
Hori.	11490.000	PK	47.09	37.98	9.61	40.08	-9.54	45.06	73.9	28.8	150	0	-
Hori.	5381.225	AV	35.11	32.06	16.93	39.74	1.82	46.18	53.9	7.7	140	87	VBW: 3.6 kHz
Hori.	11490.000	AV	36.16	37.98	9.61	40.08	-9.54	34.13	53.9	19.7	150	0	VBW: 3.6 kHz
Vert.	5381.694	PK	46.41	32.06	16.93	39.74	1.82	57.48	73.9	16.4	252	157	-
Vert.	11490.000	PK	46.66	37.98	9.61	40.08	-9.54	44.63	73.9	29.2	150	0	-
Vert.	5381.694	AV	35.20	32.06	16.93	39.74	1.82	46.27	53.9	**7.6**	252	157	VBW: 3.6 kHz
Vert.	11490.000	AV	36.30	37.98	9.61	40.08	-9.54	34.27	53.9	19.6	150	0	VBW: 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

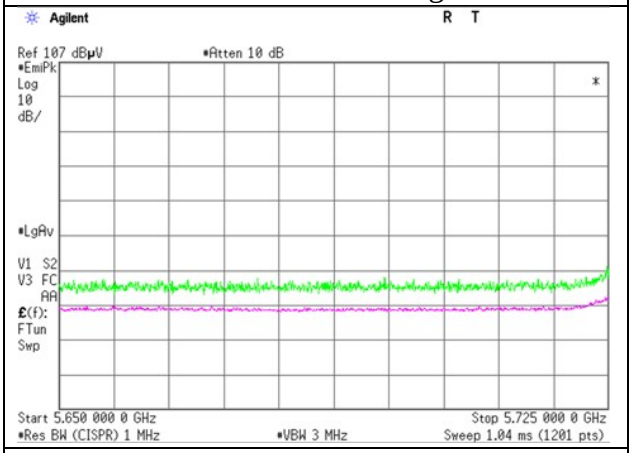
(* PK: Peak, AV: Average, QP: Quasi-Peak)

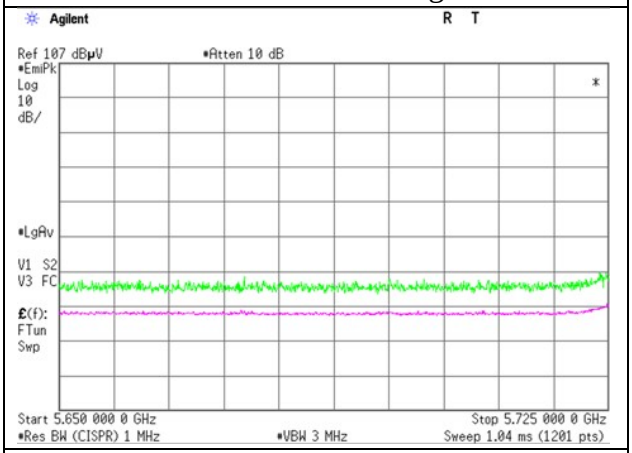
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	46.55	32.44	17.11	39.86	1.82	58.06	-37.17	-27.0	10.1	150	106	-
Hori.	5700.000	PK	46.84	32.56	17.14	39.90	1.82	58.46	-36.77	10.0	46.7	150	106	-
Hori.	5720.000	PK	45.55	32.62	17.15	39.92	1.82	57.22	-38.01	15.6	53.6	150	106	-
Hori.	5725.000	PK	51.93	32.64	17.16	39.92	1.82	63.63	-31.60	27.0	58.6	150	106	-
Hori.	17235.000	PK	50.73	39.94	12.29	37.25	-9.54	56.17	-39.06	-27.0	12.0	150	0	-
Vert.	5650.000	PK	45.08	32.44	17.11	39.86	1.82	56.59	-38.64	-27.0	11.6	290	100	-
Vert.	5700.000	PK	45.17	32.56	17.14	39.90	1.82	56.79	-38.44	10.0	48.4	290	100	-
Vert.	5720.000	PK	45.86	32.62	17.15	39.92	1.82	57.53	-37.70	15.6	53.3	290	100	-
Vert.	5725.000	PK	49.45	32.64	17.16	39.92	1.82	61.15	-34.08	27.0	61.0	290	100	-
Vert.	17235.000	PK	49.71	39.94	12.29	37.25	-9.54	55.15	-40.08	-27.0	13.0	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 9, 2021
Temperature / Humidity	24 deg.C, 36 %RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 5745 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 9, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5379.237	PK	46.54	32.06	16.93	39.74	1.82	57.61	73.9	16.2	150	135	-
Hori.	11570.000	PK	46.45	38.06	9.65	40.13	-9.54	44.49	73.9	29.4	150	0	-
Hori.	5379.237	AV	35.28	32.06	16.93	39.74	1.82	46.35	53.9	7.5	150	135	VBW: 3.6 kHz
Hori.	11570.000	AV	35.55	38.06	9.65	40.13	-9.54	33.59	53.9	20.3	150	0	VBW: 3.6 kHz
Vert.	5382.103	PK	46.16	32.06	16.93	39.74	1.82	57.23	73.9	16.6	143	97	-
Vert.	11570.000	PK	46.31	38.06	9.65	40.13	-9.54	44.35	73.9	29.5	150	0	-
Vert.	5382.103	AV	35.47	32.06	16.93	39.74	1.82	46.54	53.9	**7.3**	143	97	VBW: 3.6 kHz
Vert.	11570.000	AV	36.37	38.06	9.65	40.13	-9.54	34.41	53.9	19.4	150	0	VBW: 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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	49.74	40.15	12.34	37.31	-9.54	55.38	-39.85	-27.0	12.8	150	0	-
Vert.	17355.000	PK	49.25	40.15	12.34	37.31	-9.54	54.89	-40.34	-27.0	13.3	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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 9, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.895	PK	46.51	32.06	16.93	39.74	1.82	57.58	73.9	16.3	141	87	-
Hori.	11650.000	PK	46.42	38.11	9.71	40.19	-9.54	44.51	73.9	29.3	150	0	-
Hori.	5381.895	AV	35.71	32.06	16.93	39.74	1.82	46.78	53.9	7.1	141	87	VBW: 3.6 kHz
Hori.	11650.000	AV	35.77	38.11	9.71	40.19	-9.54	33.86	53.9	20.0	150	0	VBW: 3.6 kHz
Vert.	5381.700	PK	46.21	32.06	16.93	39.74	1.82	57.28	73.9	16.6	235	91	-
Vert.	11650.000	PK	46.88	38.11	9.71	40.19	-9.54	44.97	73.9	28.9	150	0	-
Vert.	5381.700	AV	35.76	32.06	16.93	39.74	1.82	46.83	53.9	**7.0**	235	91	VBW: 3.6 kHz
Vert.	11650.000	AV	35.49	38.11	9.71	40.19	-9.54	33.58	53.9	20.3	150	0	VBW: 3.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

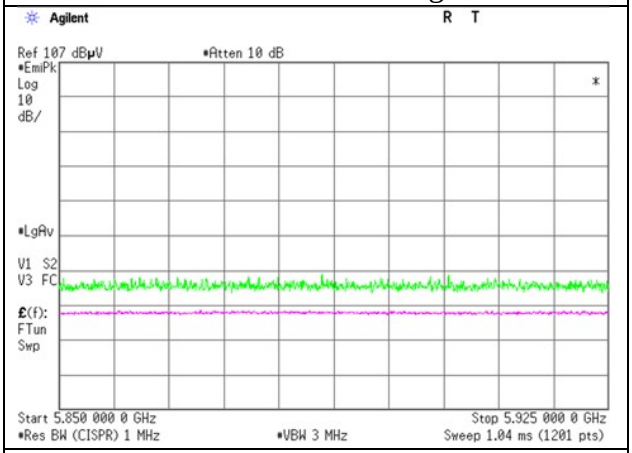
(* PK: Peak, AV: Average, QP: Quasi-Peak)

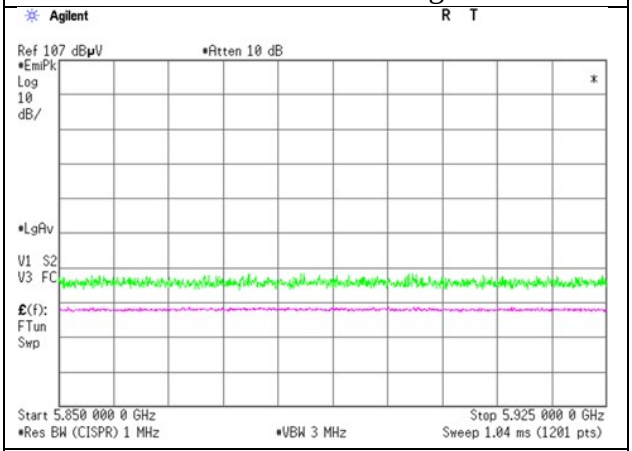
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	45.35	32.91	17.24	40.02	1.82	57.30	-37.93	27.0	64.9	151	109	-
Hori.	5855.000	PK	45.29	32.92	17.24	40.02	1.82	57.25	-37.98	15.6	53.5	151	109	-
Hori.	5875.000	PK	45.06	32.95	17.27	40.04	1.82	57.06	-38.17	10.0	48.1	151	109	-
Hori.	5925.000	PK	45.10	32.99	17.29	40.07	1.82	57.13	-38.10	-27.0	11.1	151	109	-
Hori.	17475.000	PK	50.34	40.25	12.38	37.37	-9.54	56.06	-39.17	-27.0	12.1	150	0	-
Vert.	5850.000	PK	45.76	32.91	17.24	40.02	1.82	57.71	-37.52	27.0	64.5	281	103	-
Vert.	5855.000	PK	46.28	32.92	17.24	40.02	1.82	58.24	-36.99	15.6	52.5	281	103	-
Vert.	5875.000	PK	45.73	32.95	17.27	40.04	1.82	57.73	-37.50	10.0	47.5	281	103	-
Vert.	5925.000	PK	45.63	32.99	17.29	40.07	1.82	57.66	-37.57	-27.0	10.5	281	103	-
Vert.	17475.000	PK	49.43	40.25	12.38	37.37	-9.54	55.15	-40.08	-27.0	13.0	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 9, 2021
Temperature / Humidity	24 deg.C, 36 %RH
Engineer	Hiromasa Sato
Mode	Tx 11n-20 5825 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 9, 2021	January 10, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	25 deg.C, 31 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Kenichi Adachi	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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	45.68	32.25	16.76	39.72	1.82	56.79	73.9	17.1	151	109	-
Hori.	15570.000	PK	46.07	39.68	12.66	39.17	-9.54	49.70	73.9	24.2	150	0	-
Hori.	5150.000	AV	35.46	32.25	16.76	39.72	1.82	46.57	53.9	7.3	151	109	VBW : 5.6 kHz
Hori.	15570.000	AV	35.83	39.68	12.66	39.17	-9.54	39.46	53.9	14.4	150	0	VBW : 5.6 kHz
Vert.	5150.000	PK	45.82	32.25	16.76	39.72	1.82	56.93	73.9	16.9	255	103	-
Vert.	15570.000	PK	45.75	39.68	12.66	39.17	-9.54	49.38	73.9	24.5	150	0	-
Vert.	5150.000	AV	35.97	32.25	16.76	39.72	1.82	47.08	53.9	**6.8**	255	103	VBW : 5.6 kHz
Vert.	15570.000	AV	35.96	39.68	12.66	39.17	-9.54	39.59	53.9	14.3	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

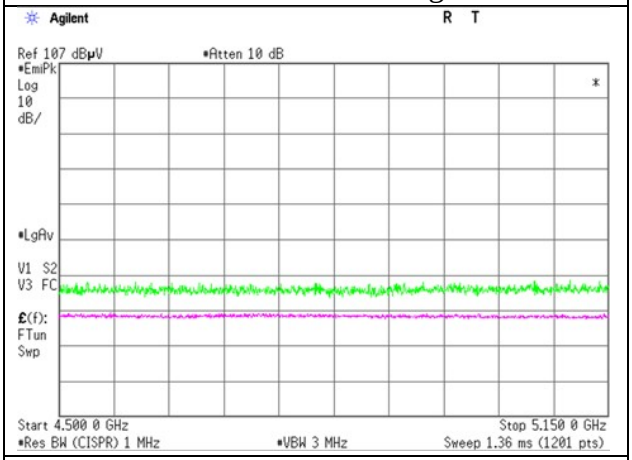
(* PK: Peak, AV: Average, QP: Quasi-Peak)

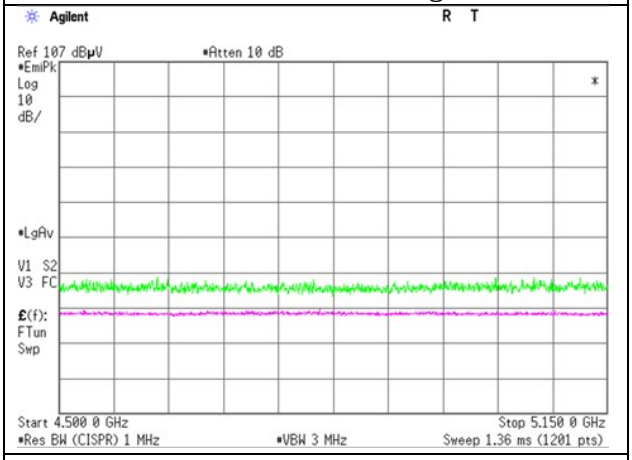
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6920.241	PK	47.28	35.46	8.49	39.48	1.82	53.57	-41.66	-27.0	14.6	109	63	-
Hori.	10380.000	PK	45.15	36.57	10.01	39.92	-9.54	42.27	-52.96	-27.0	25.9	150	0	-
Vert.	6920.016	PK	47.78	35.46	8.49	39.48	1.82	54.07	-41.16	-27.0	14.1	202	2	-
Vert.	10380.000	PK	45.45	36.57	10.01	39.92	-9.54	42.57	-52.66	-27.0	25.6	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 9, 2021
Temperature / Humidity	24 deg.C, 36 %RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 5190 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 9, 2021	January 10, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	25 deg.C, 31 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Kenichi Adachi	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	15690.000	PK	46.63	39.82	12.65	39.33	-9.54	50.23	73.9	23.6	150	0	-
Hori.	15690.000	AV	35.55	39.82	12.65	39.33	-9.54	39.15	53.9	**14.7**	150	0	VBW : 5.6 kHz
Vert.	15690.000	PK	45.16	39.82	12.65	39.33	-9.54	48.76	73.9	25.1	150	0	-
Vert.	15690.000	AV	35.41	39.82	12.65	39.33	-9.54	39.01	53.9	14.8	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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.	6973.310	PK	46.01	35.85	8.51	39.43	1.82	52.76	-42.47	-27.0	15.4	153	79	-
Hori.	10460.000	PK	46.11	36.69	10.03	40.07	-9.54	43.22	-52.01	-27.0	25.0	150	0	-
Vert.	6973.302	PK	46.23	35.85	8.51	39.43	1.82	52.98	-42.25	-27.0	15.2	193	148	-
Vert.	10460.000	PK	45.86	36.69	10.03	40.07	-9.54	42.97	-52.26	-27.0	25.2	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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 9, 2021	January 10, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	25 deg.C, 31 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Kenichi Adachi	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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	44.56	31.99	16.91	39.74	1.82	55.54	73.9	18.3	155	110	-
Hori.	10620.000	PK	46.33	37.30	10.11	40.04	-9.54	44.16	73.9	29.7	150	0	-
Hori.	15930.000	PK	45.73	40.17	12.63	39.66	-9.54	49.33	73.9	24.5	150	0	-
Hori.	5350.000	AV	35.34	31.99	16.91	39.74	1.82	46.32	53.9	7.5	155	110	VBW : 5.6 kHz
Hori.	10620.000	AV	35.73	37.30	10.11	40.04	-9.54	33.56	53.9	20.3	150	0	VBW : 5.6 kHz
Hori.	15930.000	AV	35.91	40.17	12.63	39.66	-9.54	39.51	53.9	14.3	150	0	VBW : 5.6 kHz
Vert.	5350.000	PK	44.93	31.99	16.91	39.74	1.82	55.91	73.9	17.9	262	113	-
Vert.	10620.000	PK	46.13	37.30	10.11	40.04	-9.54	43.96	73.9	29.9	150	0	-
Vert.	15930.000	PK	45.55	40.17	12.63	39.66	-9.54	49.15	73.9	24.7	150	0	-
Vert.	5350.000	AV	35.71	31.99	16.91	39.74	1.82	46.69	53.9	**7.2**	262	113	VBW : 5.6 kHz
Vert.	10620.000	AV	35.56	37.30	10.11	40.04	-9.54	33.39	53.9	20.5	150	0	VBW : 5.6 kHz
Vert.	15930.000	AV	35.50	40.17	12.63	39.66	-9.54	39.10	53.9	14.8	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

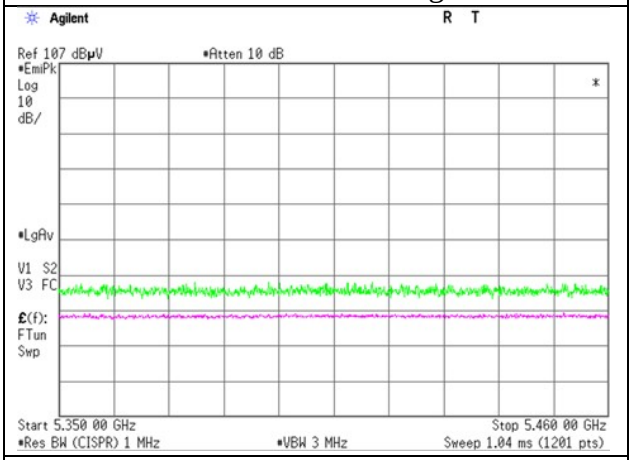
(* PK: Peak, AV: Average, QP: Quasi-Peak)

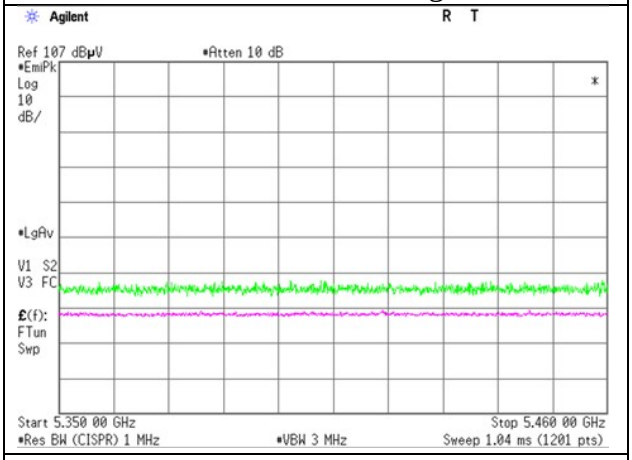
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7080.266	PK	46.42	36.52	8.57	39.45	1.82	53.88	-41.35	-27.0	14.3	155	110	-
Vert.	7080.204	PK	46.49	36.52	8.57	39.45	1.82	53.95	-41.28	-27.0	14.2	237	316	-

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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 9, 2021
Temperature / Humidity	24 deg.C, 36 %RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 5310 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 9, 2021	January 10, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	25 deg.C, 31 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Kenichi Adachi	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.111	PK	44.77	32.06	16.93	39.74	1.82	55.84	73.9	18.0	146	99	-
Hori.	5460.000	PK	44.78	32.22	16.99	39.75	1.82	56.06	73.9	17.8	146	99	-
Hori.	11020.000	PK	45.66	37.58	10.33	39.67	-9.54	44.36	73.9	29.5	150	0	-
Hori.	5381.111	AV	35.30	32.06	16.93	39.74	1.82	46.37	53.9	7.5	146	99	VBW:5.6 kHz
Hori.	5460.000	AV	35.57	32.22	16.99	39.75	1.82	46.85	53.9	**7.0**	146	99	VBW:5.6 kHz
Hori.	11020.000	AV	35.77	37.58	10.33	39.67	-9.54	34.47	53.9	19.4	150	0	VBW : 5.6 kHz
Vert.	5381.261	PK	46.35	32.06	16.93	39.74	1.82	57.42	73.9	16.4	219	72	-
Vert.	5460.000	PK	45.03	32.22	16.99	39.75	1.82	56.31	73.9	17.5	219	72	-
Vert.	11020.000	PK	45.66	37.58	10.33	39.67	-9.54	44.36	73.9	29.5	150	0	-
Vert.	5381.261	AV	35.52	32.06	16.93	39.74	1.82	46.59	53.9	7.3	219	72	VBW:5.6 kHz
Vert.	5460.000	AV	35.42	32.22	16.99	39.75	1.82	46.70	53.9	7.2	219	72	VBW:5.6 kHz
Vert.	11020.000	AV	35.64	37.58	10.33	39.67	-9.54	34.34	53.9	19.5	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

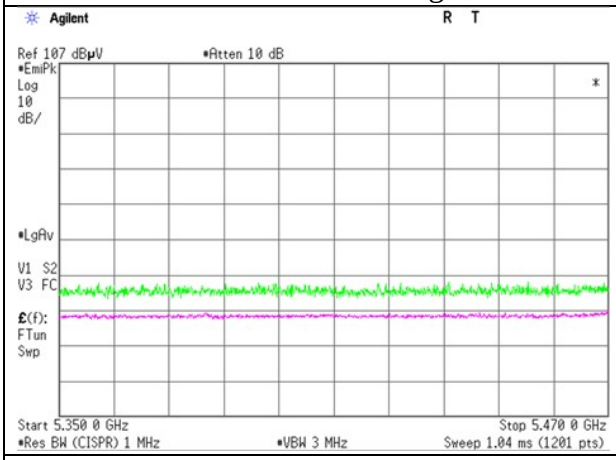
(* PK: Peak, AV: Average, QP: Quasi-Peak)

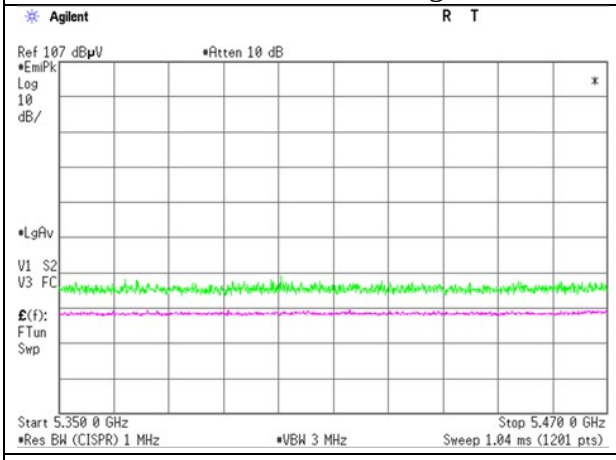
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	46.56	32.24	16.99	39.75	1.82	57.86	-37.37	-27.0	10.3	146	99	-
Hori.	16530.000	PK	45.33	40.05	13.35	40.42	-9.54	48.77	-46.46	-27.0	19.4	150	0	-
Vert.	5470.000	PK	45.66	32.24	16.99	39.75	1.82	56.96	-38.27	-27.0	11.2	219	72	-
Vert.	16530.000	PK	45.47	40.05	13.35	40.42	-9.54	48.91	-46.32	-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 * 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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11n-40 5510 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.462	PK	45.09	32.06	16.93	39.74	1.82	56.16	73.9	17.7	150	106	-
Hori.	11100.000	PK	46.46	37.49	10.37	39.64	-9.54	45.14	73.9	28.7	150	0	-
Hori.	5381.462	AV	35.54	32.06	16.93	39.74	1.82	46.61	53.9	**7.2**	150	106	VBW : 5.6 kHz
Hori.	11100.000	AV	35.66	37.49	10.37	39.64	-9.54	34.34	53.9	19.5	150	0	VBW : 5.6 kHz
Vert.	5381.913	PK	45.11	32.06	16.93	39.74	1.82	56.18	73.9	17.7	307	93	-
Vert.	11100.000	PK	46.28	37.49	10.37	39.64	-9.54	44.96	73.9	28.9	150	0	-
Vert.	5381.913	AV	35.47	32.06	16.93	39.74	1.82	46.54	53.9	7.3	307	93	VBW : 5.6 kHz
Vert.	11100.000	AV	35.89	37.49	10.37	39.64	-9.54	34.57	53.9	19.3	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

(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	45.94	39.86	13.38	40.24	-9.54	49.40	-45.83	-27.0	18.8	150	0	-
Vert.	16650.000	PK	45.51	39.86	13.38	40.24	-9.54	48.97	-46.26	-27.0	19.2	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 (3.70 m / 3.0 m) = 1.82 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	1	2	1	1
Date	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.220	PK	45.24	32.06	16.93	39.74	1.82	56.31	73.9	17.5	148	101	-
Hori.	11340.000	PK	44.72	37.97	10.51	39.53	-9.54	44.13	73.9	29.7	150	0	-
Hori.	5381.220	AV	36.16	32.06	16.93	39.74	1.82	47.23	53.9	**6.6**	148	101	VBW : 5.6 kHz
Hori.	11340.000	AV	34.38	37.97	10.51	39.53	-9.54	33.79	53.9	20.1	150	0	VBW : 5.6 kHz
Vert.	5381.615	PK	45.29	32.06	16.93	39.74	1.82	56.36	73.9	17.5	274	92	-
Vert.	11340.000	PK	45.10	37.97	10.51	39.53	-9.54	44.51	73.9	29.3	150	0	-
Vert.	5381.615	AV	35.62	32.06	16.93	39.74	1.82	46.69	53.9	7.2	274	92	VBW : 5.6 kHz
Vert.	11340.000	AV	35.01	37.97	10.51	39.53	-9.54	34.42	53.9	19.4	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

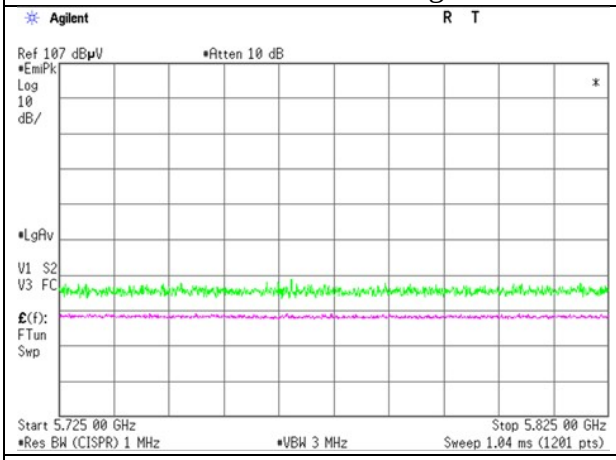
(* PK: Peak, AV: Average, QP: Quasi-Peak)

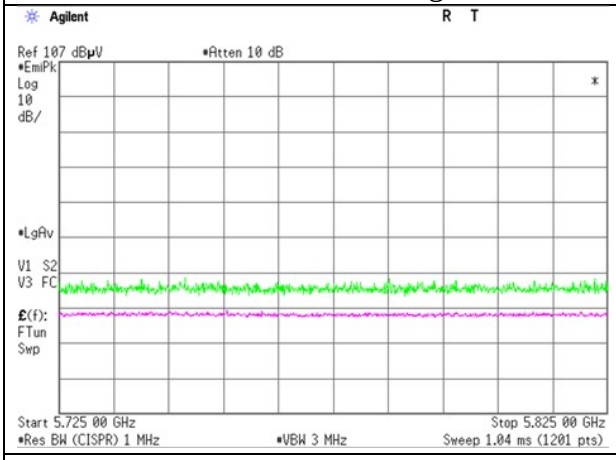
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	17010.000	PK	45.09	39.75	13.48	39.68	-9.54	49.10	-46.13	-27.0	19.1	150	0	-
Vert.	17010.000	PK	45.77	39.75	13.48	39.68	-9.54	49.78	-45.45	-27.0	18.4	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor
Result (EIRP [dBm]) = 10 * 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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 8, 2021
Temperature / Humidity	20 deg.C, 29 %RH
Engineer	Takahiro Kawakami
Mode	Tx 11n-40 5670 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 9, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.935	PK	46.81	32.06	16.93	39.74	1.82	57.88	73.9	16.0	148	127	-
Hori.	11510.000	PK	44.12	38.27	10.58	39.45	-9.54	43.98	73.9	29.9	150	0	-
Hori.	5381.935	AV	36.51	32.06	16.93	39.74	1.82	47.58	53.9	**6.3**	148	127	VBW : 5.6 kHz
Hori.	11510.000	AV	33.56	38.27	10.58	39.45	-9.54	33.42	53.9	20.4	150	0	VBW : 5.6 kHz
Vert.	5381.319	PK	44.84	32.06	16.93	39.74	1.82	55.91	73.9	17.9	189	165	-
Vert.	11510.000	PK	44.37	38.27	10.58	39.45	-9.54	44.23	73.9	29.6	150	0	-
Vert.	5381.319	AV	35.52	32.06	16.93	39.74	1.82	46.59	53.9	7.3	189	165	VBW : 5.6 kHz
Vert.	11510.000	AV	33.54	38.27	10.58	39.45	-9.54	33.40	53.9	20.5	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

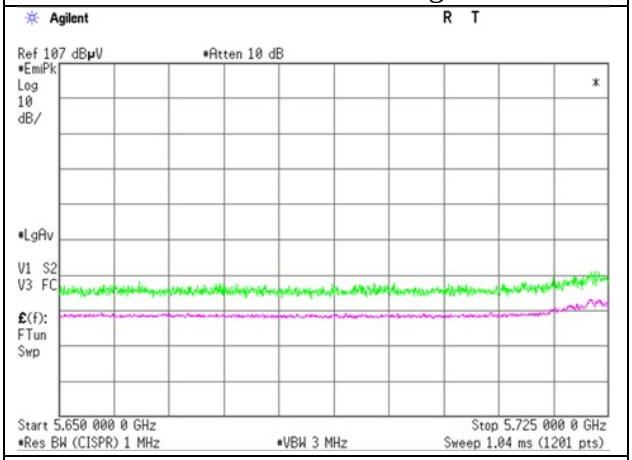
(* PK: Peak, AV: Average, QP: Quasi-Peak)

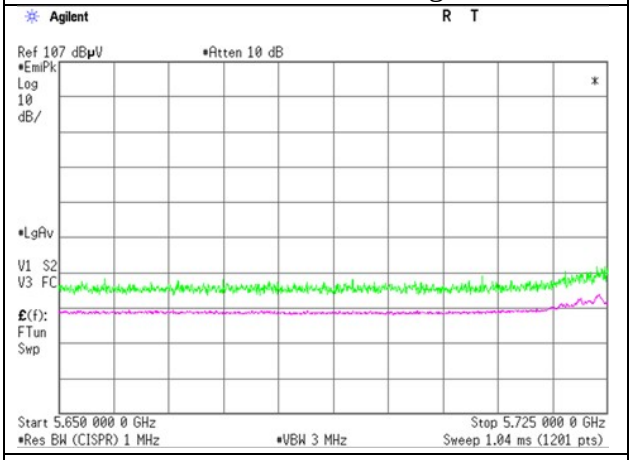
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	45.22	32.44	17.11	39.86	1.82	56.73	-38.50	-27.0	11.5	152	101	-
Hori.	5700.000	PK	45.38	32.56	17.14	39.90	1.82	57.00	-38.23	10.0	48.2	152	101	-
Hori.	5720.000	PK	47.19	32.62	17.15	39.92	1.82	58.86	-36.37	15.6	51.9	152	101	-
Hori.	5722.375	PK	49.58	32.63	17.16	39.92	1.82	61.27	-33.96	21.1	55.0	152	101	-
Hori.	5725.000	PK	49.29	32.64	17.16	39.92	1.82	60.99	-34.24	27.0	61.2	152	101	-
Hori.	17265.000	PK	45.84	40.22	13.57	38.92	-9.54	51.17	-44.06	-27.0	17.0	150	0	-
Vert.	5650.000	PK	44.94	32.44	17.11	39.86	1.82	56.45	-38.78	-27.0	11.7	273	173	-
Vert.	5700.000	PK	45.43	32.56	17.14	39.90	1.82	57.05	-38.18	10.0	48.1	273	173	-
Vert.	5720.000	PK	46.01	32.62	17.15	39.92	1.82	57.68	-37.55	15.6	53.1	273	173	-
Vert.	5723.813	PK	48.93	32.63	17.16	39.92	1.82	60.62	-34.61	24.3	58.9	273	173	-
Vert.	5725.000	PK	48.51	32.64	17.16	39.92	1.82	60.21	-35.02	27.0	62.0	273	173	-
Vert.	17265.000	PK	45.41	40.22	13.57	38.92	-9.54	50.74	-44.49	-27.0	17.4	150	0	-

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amplifier) + Distance factor
Result (EIRP [dBm]) = 10 * 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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 9, 2021
Temperature / Humidity	24 deg.C, 36 %RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 5755 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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	1	2	1	1
Date	January 9, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 36 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Hiromasa Sato	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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.	5381.865	PK	45.81	32.06	16.93	39.74	1.82	56.88	73.9	17.0	150	113	-
Hori.	11590.000	PK	44.37	38.33	10.64	39.39	-9.54	44.41	73.9	29.4	150	0	-
Hori.	5381.865	AV	35.99	32.06	16.93	39.74	1.82	47.06	53.9	6.8	150	113	VBW : 5.6 kHz
Hori.	11590.000	AV	33.32	38.33	10.64	39.39	-9.54	33.36	53.9	20.5	150	0	VBW : 5.6 kHz
Vert.	5381.000	PK	46.33	32.06	16.93	39.74	1.82	57.40	73.9	16.5	245	150	-
Vert.	11590.000	PK	43.92	38.33	10.64	39.39	-9.54	43.96	73.9	29.9	150	0	-
Vert.	5381.000	AV	36.33	32.06	16.93	39.74	1.82	47.40	53.9	**6.5**	245	150	VBW : 5.6 kHz
Vert.	11590.000	AV	33.24	38.33	10.64	39.39	-9.54	33.28	53.9	20.6	150	0	VBW : 5.6 kHz

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 (3.70 m / 3.0 m) = 1.82 dB
10 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

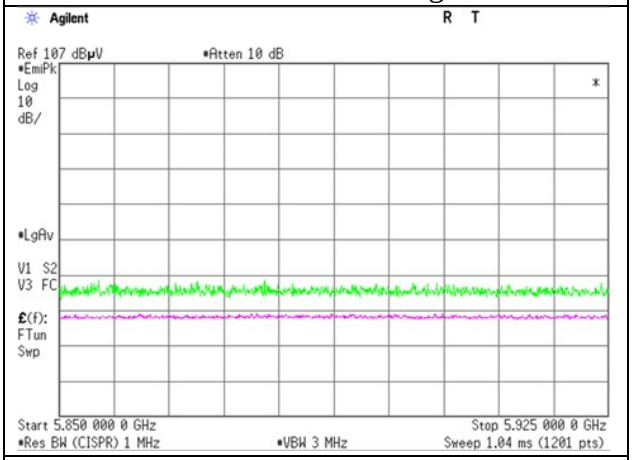
(* PK: Peak, AV: Average, QP: Quasi-Peak)

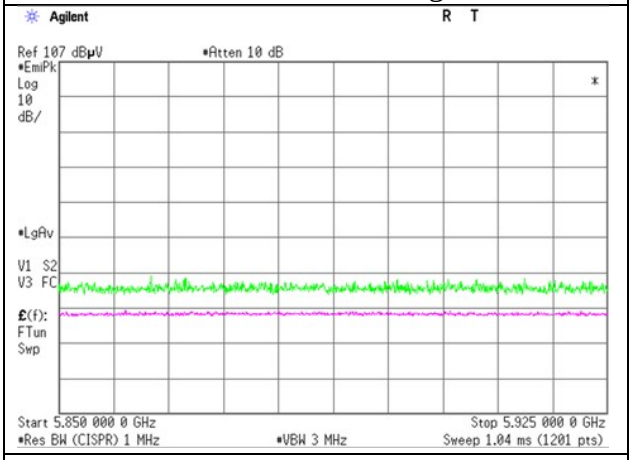
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	44.85	32.91	17.24	40.02	1.82	56.80	-38.43	27.0	65.4	154	102	-
Hori.	5855.000	PK	45.39	32.92	17.24	40.02	1.82	57.35	-37.88	15.6	53.4	154	102	-
Hori.	5875.000	PK	45.25	32.95	17.27	40.04	1.82	57.25	-37.98	10.0	47.9	154	102	-
Hori.	5925.000	PK	44.75	32.99	17.29	40.07	1.82	56.78	-38.45	-27.0	11.4	154	102	-
Hori.	17385.000	PK	45.65	40.41	13.63	38.56	-9.54	51.59	-43.64	-27.0	16.6	150	0	-
Vert.	5850.000	PK	44.97	32.91	17.24	40.02	1.82	56.92	-38.31	27.0	65.3	293	108	-
Vert.	5855.000	PK	45.13	32.92	17.24	40.02	1.82	57.09	-38.14	15.6	53.7	293	108	-
Vert.	5875.000	PK	45.77	32.95	17.27	40.04	1.82	57.77	-37.46	10.0	47.4	293	108	-
Vert.	5925.000	PK	45.50	32.99	17.29	40.07	1.82	57.53	-37.70	-27.0	10.7	293	108	-
Vert.	17385.000	PK	45.55	40.41	13.63	38.56	-9.54	51.49	-43.74	-27.0	16.7	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 (3.70 m / 3.0 m) = 1.82 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	1
Date	January 9, 2021
Temperature / Humidity	24 deg.C, 36 %RH
Engineer	Hiromasa Sato
Mode	Tx 11n-40 5795 MHz

Horizontal
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

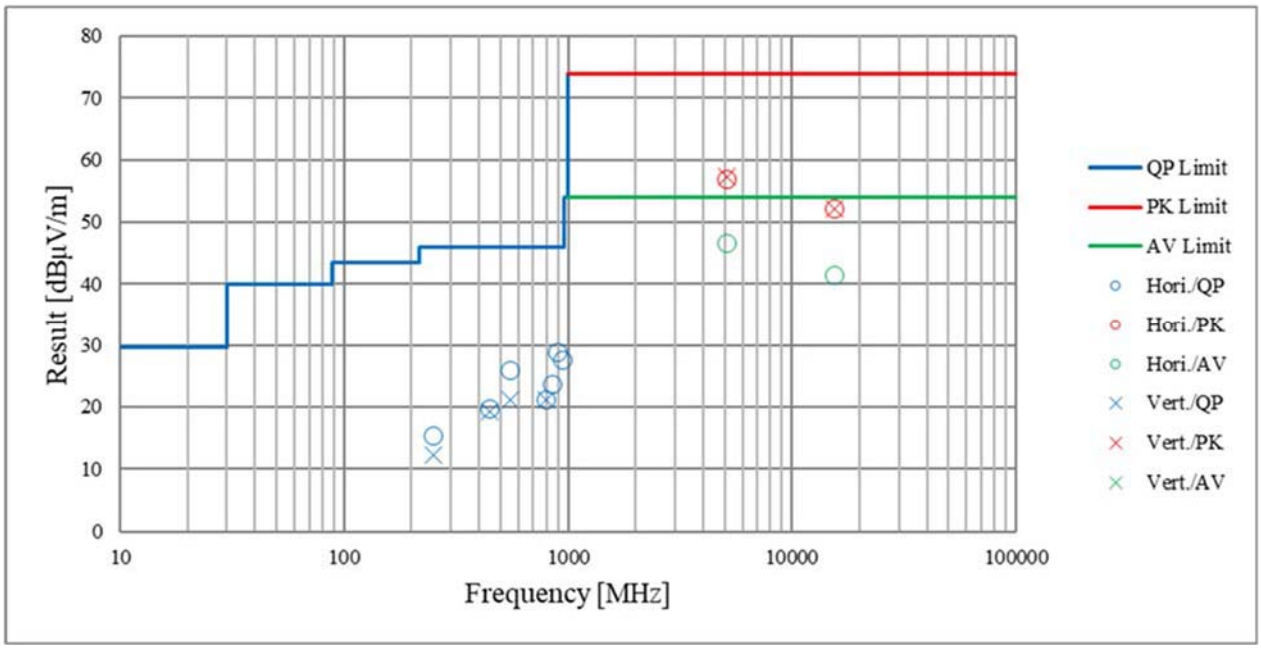
Vertical
Restricted-band band-edge Plot

Trace Green: Peak Plot Trace Purple: Average Plot

* 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)

Test place	Shonan EMC Lab.				
Semi Anechoic Chamber	1	1	2	1	1
Date	January 12, 2021	January 8, 2021	January 6, 2021	January 5, 2021	January 5, 2021
Temperature / Humidity	24 deg.C, 29 %RH	20 deg.C, 29 %RH	21 deg.C, 29 %RH	21 deg.C, 30 %RH	24 deg.C, 29 %RH
Engineer	Yosuke Murakami	Takahiro Kawakami	Toshinori Yamada	Toshinori Yamada	Takahiro Kawakami
	(30 MHz -1 GHz)	(1 GHz -10 GHz)	(10 GHz -18 GHz)	(18 GHz -26.5 GHz)	(26.5 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 ScienceJapan)	TEPTO-DV3(RE,CE,ME,PE)	-	-	-
RE	KAT6-04	144899	Attenuator	Inmet	18N-6dB	-	2020/12/10	12
RE	KFL-15	144938	Highpass Filter	MICRO-TRONICS	HPM50112	7	2020/10/05	12
RE	KJM-09	145929	Measure	KOMELON	KMC-36	-	-	-
RE	KJM-10	146454	Measure	KOMELON	KMC-36	-	-	-
RE	KSA-08	145089	Spectrum Analyzer	Keysight Technologies Inc	E4446A	MY46180525	2020/11/24	12
RE	SAEC-01(NSA)	145597	Semi-Anechoic Chamber	TDK	SAEC-01(NSA)	1	2020/04/08	12
RE	SAEC-01(SVSWR)	145561	Semi-Anechoic Chamber	TDK	SAEC-01(SVSWR)	1	2020/05/04	12
RE	SAEC-02(SVSWR)	145598	Semi-Anechoic Chamber	TDK	SAEC-02(SVSWR)	2	2020/05/07	12
RE	SAF-01	145003	Pre Amplifier	SONOMA	310N	290211	2020/02/19	12
RE	SAF-04	145127	Pre Amplifier	Toyo Corporation	TPA0118-36	2072554	2020/06/02	12
RE	SAF-05	145128	Pre Amplifier	Toyo Corporation	TPA0118-36	1440490	2020/06/03	12
RE	SAF-09	145008	Pre Amplifier	Toyo Corporation	HAP18-26W	18	2020/09/02	12
RE	SAF-10	145129	Pre Amplifier	Toyo Corporation	HAP26-40W	10	2020/03/03	12
RE	SAT10-06	145137	Attenuator	Keysight Technologies Inc	8493C-010	74865	2020/10/05	12
RE	SAT3-09	144959	Attenuator	JFW	50HF-003N	-	2020/08/18	12
RE	SBA-01	145161	Biconical Antenna	Schwarzbeck Mess Elektronik	BBA9106	91032664	2020/04/04	12
RE	SCC-A1/A3/A5/A7/A8/A13/SRSE-01	144967	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-269(RF Selector)	2020/04/12	12
RE	SCC-A2/A4/A6/A7/A8/A13/SRSE-01	144968	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-269(RF Selector)	2020/04/12	12
RE	SCC-G05	145039	Coaxial Cable	Junkosha	J12J102207-00	APR-30-15-037	2020/01/31	12
RE	SCC-G19	145178	Coaxial Cable	Suhner	SUCOFLEX 102A	1188/2A	2020/03/04	12
RE	SCC-G41	151617	Coaxial Cable	Junkosha	MWX221-01000NFSNMS/B	1612S006	2020/01/08	12
RE	SCC-G50	178573	Coaxial Cable	HUBER+SUNER	SUCOFLEX_104_E	MY13407/4E	2020/03/09	12
RE	SCC-G51	178572	Coaxial Cable	HUBER+SUNER	SUCOFLEX 104	800288 /4A	2020/03/09	12
RE	SCC-G62	196985	Coaxial Cable	HUBER+SUNER	SUCOFLEX 102	803650/2	2020/03/10	12
RE	SCC-G68	200008	Coaxial Cable	HUBER+SUNER	SUCOFLEX 104	575616/4	2020/07/07	12
RE	SCC-G69	200009	Coaxial Cable	HUBER+SUNER	SUCOFLEX 104	575617/4	2020/07/07	12
RE	SFL-03	145377	Highpass Filter	MICRO-TRONICS	HPM50112	28	2020/10/05	12
RE	SHA-01	145383	Horn Antenna	Schwarzbeck Mess Elektronik	BBHA9120D	9120D-725	2020/05/27	12
RE	SHA-05	145513	Horn Antenna	ETS LINDGREN	3160-09	00094867	2020/06/15	12
RE	SHA-06	145514	Horn Antenna	ETS LINDGREN	3160-10	00092383	2020/07/16	12
RE	SHA-08	194683	Horn Antenna	Schwarzbeck Mess Elektronik	BBHA 9120 C	694	2020/02/17	12
RE	SHA-09	194684	Horn Antenna	Schwarzbeck Mess Elektronik	BBHA 9120 C	695	2020/02/17	12
RE	SLA-05	145527	Logperiodic Antenna	Schwarzbeck Mess Elektronik	VUSLP9111B	193	2020/04/04	12
RE	SOS-20	191837	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2020/09/28	12
RE	SOS-21	191838	Humidity Indicator	CUSTOM. Inc	CTH-201	-	2020/09/28	12

Test equipment [2/2]

Test Item	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	SSA-01	146223	Spectrum Analyzer	Keysight Technologies Inc	N9010A-526	MY48031482	2020/11/23	12
RE	STR-01	145790	Test Receiver	Rohde & Schwarz	ESU40	100093	2020/04/24	12
RE	STS-01	145792	Digital Hitester	HIOKI E.E. CORPORATION	3805-50	80997812	2020/10/19	12
RE	STS-02	145793	Digital Hitester	HIOKI E.E. CORPORATION	3805-50	80997819	2020/04/09	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