







RADIO TEST REPORT

Test Report No. 14202031S-D-R1

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

| | |
|--|--|
| Representative Test Engineer | Approved By |
|  |  |
| Shiro Kobayashi Engineer | Toyokazu Imamura Leader |
|  | |
|  | |
| CERTIFICATE 1266.03 | |
| <input type="checkbox"/> The testing in which "Non-accreditation" is displayed is outside the accreditation scopes in UL Japan, Inc. | |
| <input checked="" type="checkbox"/> There is no testing item of "Non-accreditation". | |

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

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

REVISION HISTORY

Original Test Report No.: 14202031S-D

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

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

Reference: Abbreviations (Including words undescribed in this report)

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

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SECTION 1: Customer Information

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

The information provided from the customer is as follows;

- Customer, Description of EUT, Model Number of EUT, FCC ID on the cover and other relevant pages
- Operating/Test Mode(s) (Mode(s)) on all the relevant pages
- SECTION 1: Customer Information
- SECTION 2: Equipment Under Test (EUT) other than the Receipt Date and Test Date
- SECTION 4: Operation of EUT during testing
- * The laboratory is exempted from liability of any test results affected from the above information in SECTION 2 and 4.

SECTION 2: Equipment Under Test (EUT)

2.1 Identification of EUT

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

2.2 Product Description

General Specification

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

Radio Specification

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

SECTION 3: Test specification, Procedures & Results

3.1 Test Specification

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

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

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

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

3.2 Procedures and Results

| Item | Test Procedure | Specification | Worst Margin | Results | Remarks |
|--|---|--|--|----------------|-------------------------------|
| Conducted Emission | FCC: ANSI C63.10-2013 | FCC: 15.407 (b) (6) / 15.207 | - | N/A | - |
| | ISED: RSS-Gen 8.8 | ISED: RSS-Gen 8.8 | | | |
| Spurious Emission Restricted Band Edge | FCC: ANSI C63.10-2013 KDB Publication Number 789033 | FCC: 15.407 (b), 15.205 and 15.209 | 5.4 dB 5382.000 MHz, AV, Vertical Mode: Tx 11n-20 5745 MHz | Complied a) | Radiated (> 30 MHz) *1) |
| | ISED: - | ISED: RSS-247 6.2.1.2 6.2.2.2 6.2.3.2 6.2.4.2 | | | |

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

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

*1) The test is not applicable since the EUT has no AC mains. Wireless LAN does not operate during charging.

*2) Radiated test was selected over 30 MHz based on RSS-247 6.2 and KDB 789033 D02 G.3.b).

a) Refer to APPENDIX 1 (data of Radiated Spurious Emission)

Symbols:

Complied The data of this test item has enough margin, more than the measurement uncertainty.

Complied# The data of this test item meets the limits unless the measurement uncertainty is taken into consideration

FCC Part 15.31 (e)

This EUT provides the stable voltage constantly to RF Module regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

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

3.3 Addition to Standard

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

3.4 Uncertainty

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

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

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

SAC=Semi-Anechoic Chamber

SR= Shielded Room is applied besides radiated emission

3.5 Test Location

UL Japan, Inc. Shonan EMC Lab.

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

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

A2LA Certificate Number: 1266.03

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

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

3.6 Test Data, Test Instruments, and Test Set Up

Refer to APPENDIX.

SECTION 4: Operation of EUT during testing

4.1 Operating Mode(s)

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

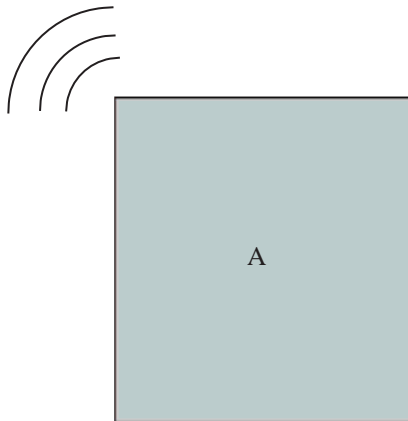
| Mode | Remarks* |
|--|-----------------------|
| IEEE 802.11a (11a) | 18 Mbps, PN9 |
| IEEE 802.11n MIMO 20 MHz BW (11n-20) | MCS 11 (Long GI), PN9 |
| IEEE 802.11n MIMO 40 MHz BW (11n-40) | MCS 10 (Long GI), PN9 |
| *The worst condition was determined based on the test result of Maximum Peak Output Power (Mid Channel) (Reference test report No.: Refer to 3.1) | |
| *Power of the EUT was set by the software as follows; Power Setting: 8 dBm Software: Refer to the below table. | |
| *This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product. | |

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

*The Details of Operation Mode(s)

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

4.2 Configuration and Peripherals



Description of EUT and Support Equipment

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

SECTION 5: Radiated Spurious Emission and Band Edge Compliance

Test Procedure

< Below 1GHz >

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

< Above 1GHz >

EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 1.5 m above the conducting ground plane.

The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with absorbent materials lined on a ground plane.

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

Test antenna was aimed at the EUT for receiving the maximum signal and always kept within the illumination area of the 3 dB beamwidth of the antenna.

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

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

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

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

< Below 1GHz >

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

< Above 1GHz >

Inside of restricted bands (Section 15.205):

Apply to limit in the Section 15.209 (a).

Outside of the restricted bands:

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

For U-NII-3 Bandedge

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

to

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

Restricted band edge:

Apply to limit in the Section 15.209 (a).

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

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

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

Test Antennas are used as below;

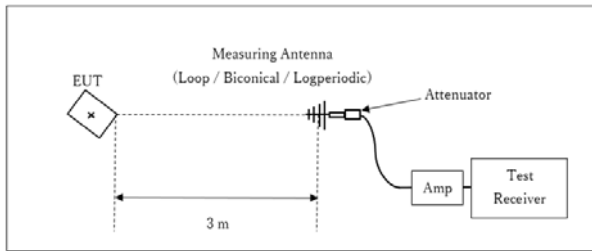
| | | | |
|--------------|-------------------|------------------|-------------|
| Frequency | 30 MHz to 200 MHz | 200 MHz to 1 GHz | Above 1 GHz |
| Antenna Type | Biconical | Logperiodic | Horn |

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

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

Figure 1: Test Setup

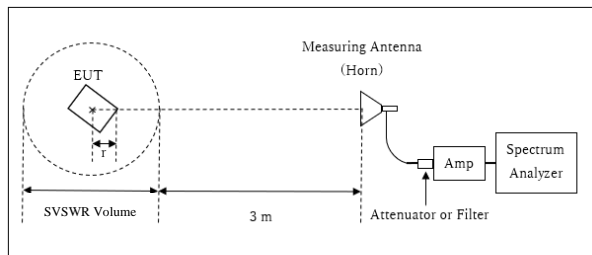
Below 1 GHz



× : Center of turn table

Test Distance: 3 m

1 GHz to 10 GHz



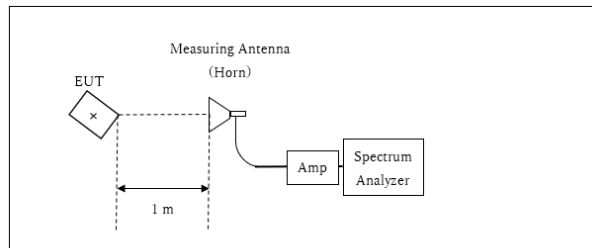
r : Radius of an outer periphery of EUT
× : Center of turn table

Distance Factor: $20 \times \log((3.77 \text{ m} / 3.0 \text{ m}) = 1.99 \text{ dB}$
* Test Distance: $(3 + \text{SVSWR Volume} / 2) - r = 3.77 \text{ m}$

SVSWR Volume : 2.0 m
(SVSWR Volume has been calibrated based on CISPR 16-1-4.)
 $r = 0.23 \text{ m} * 1)$

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

10 GHz to 40 GHz



× : Center of turn table

Distance Factor: $20 \times \log(1.0 \text{ m} / 3.0 \text{ m}) = -9.54 \text{ dB}$
*Test Distance: 1 m

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

Module SISO

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

Module MIMO

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

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

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

APPENDIX 1: Test Data

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

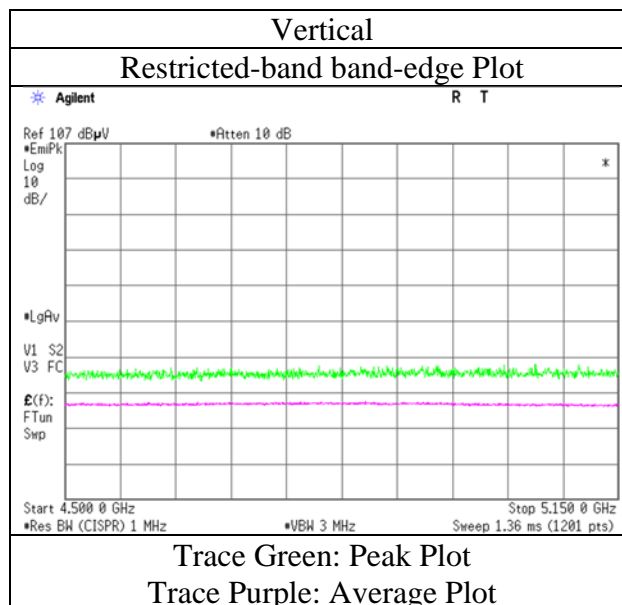
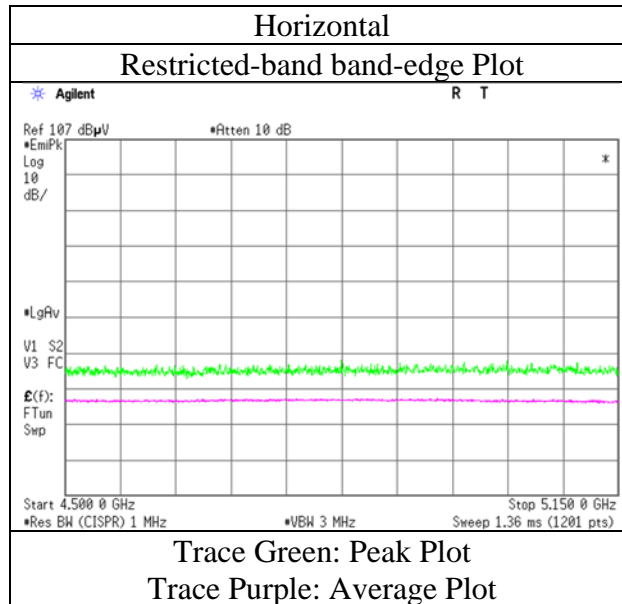
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

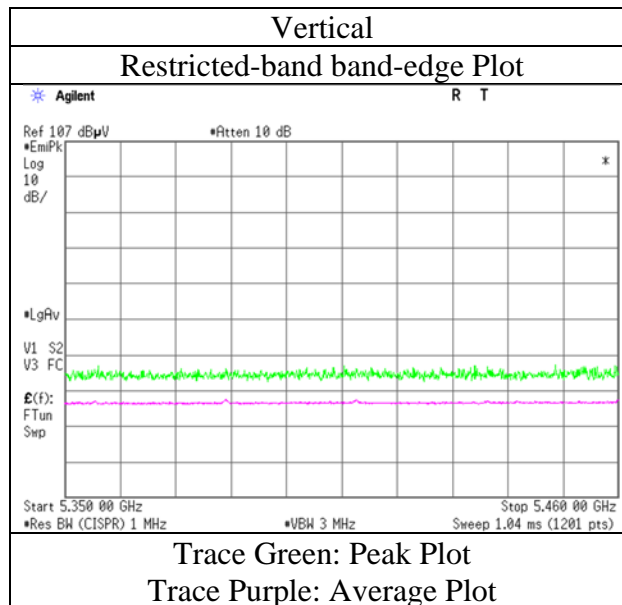
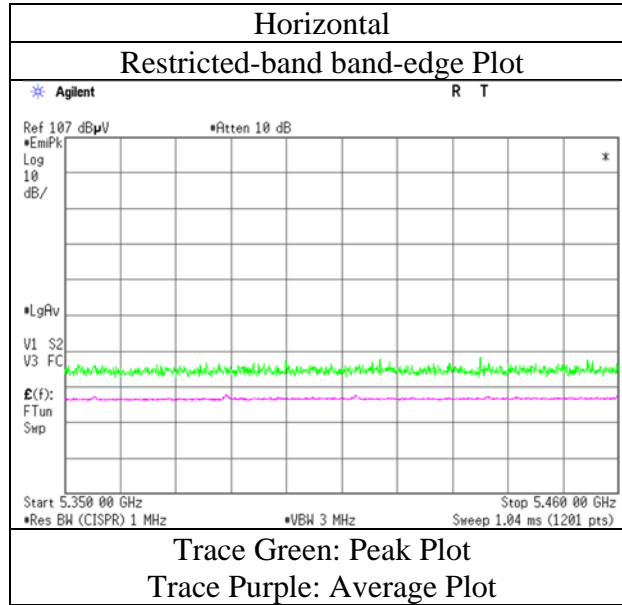
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

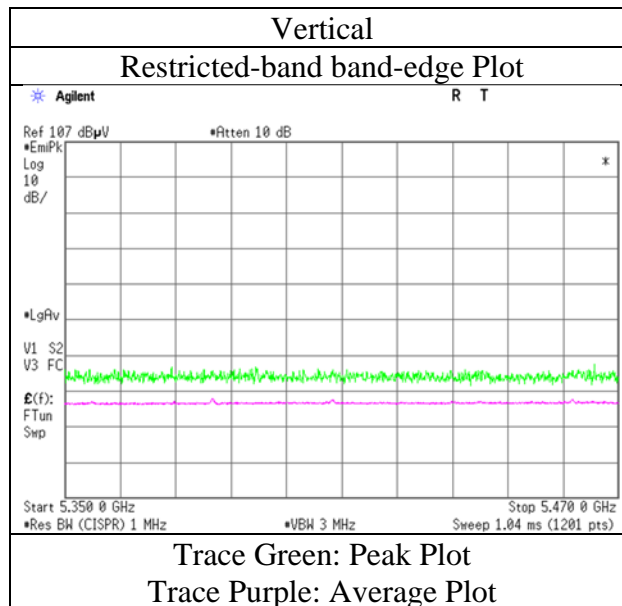
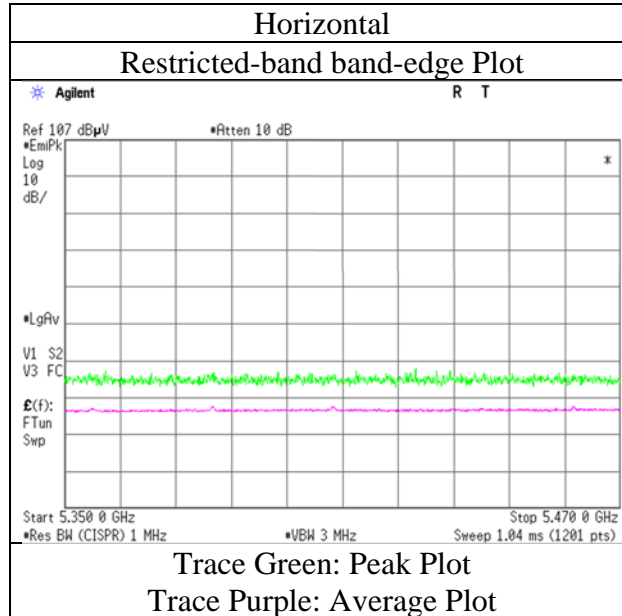
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

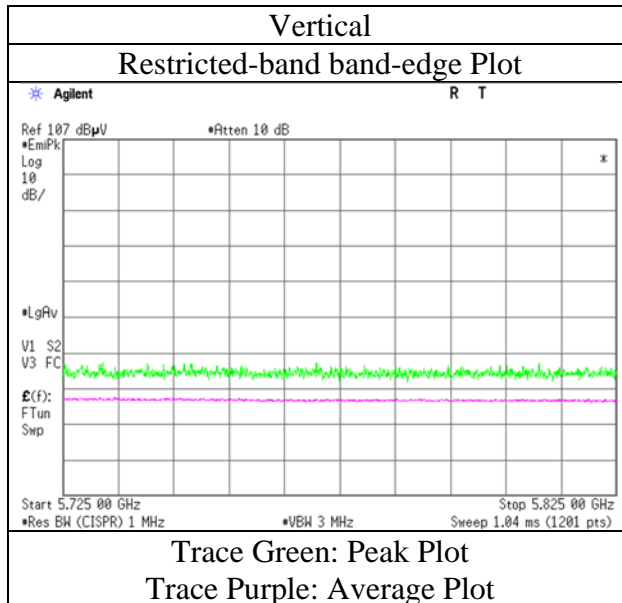
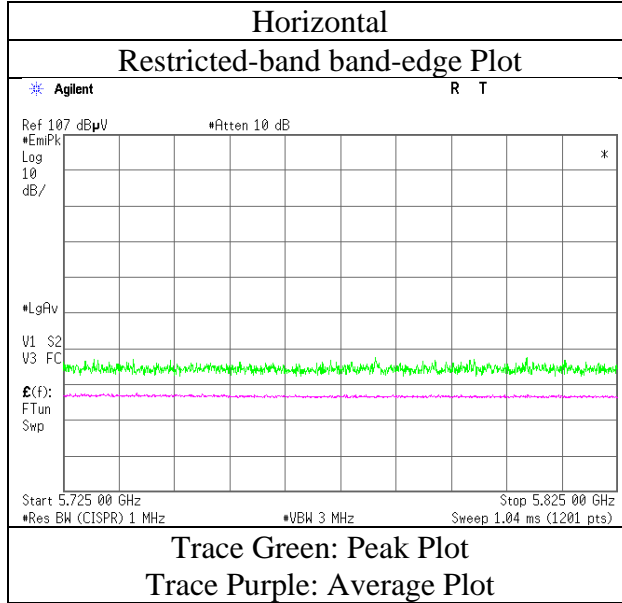
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

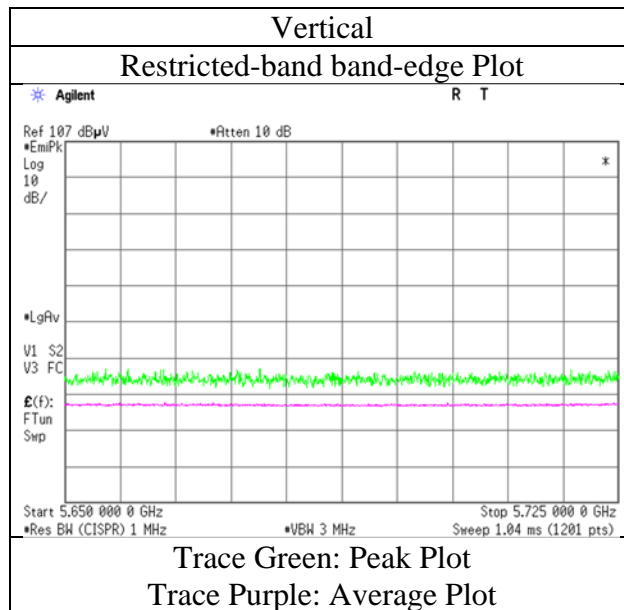
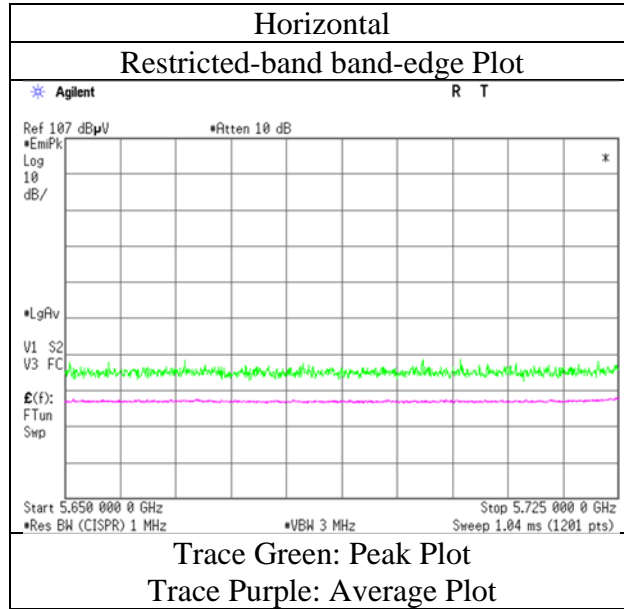
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

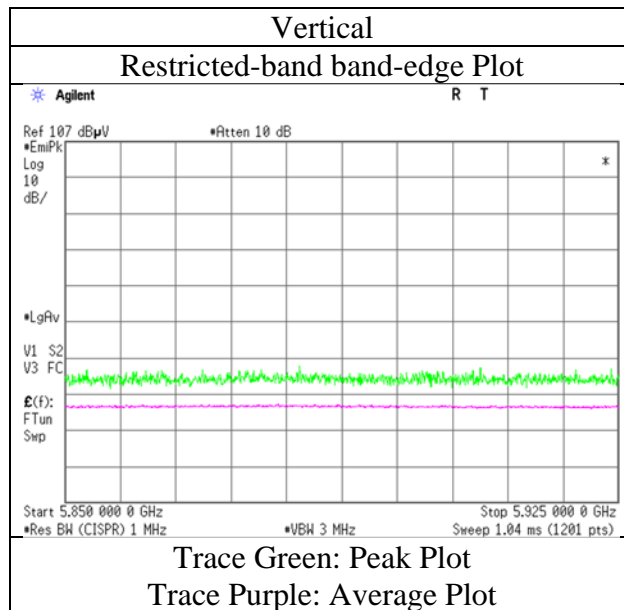
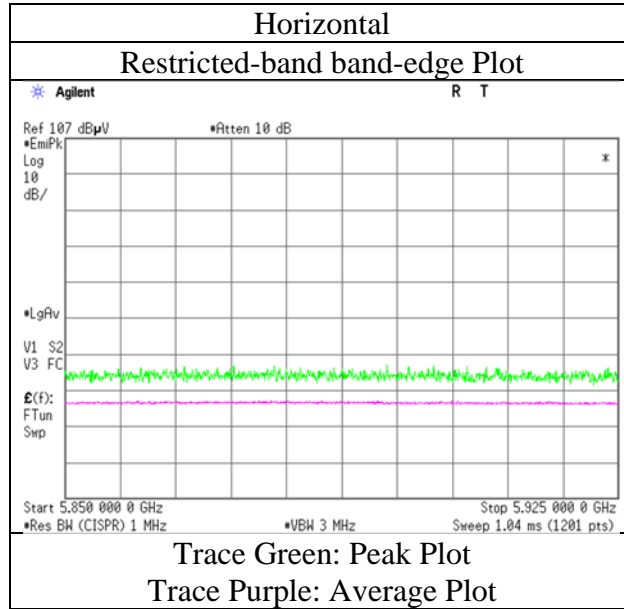
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

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

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

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

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

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

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

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

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

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

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

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

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

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

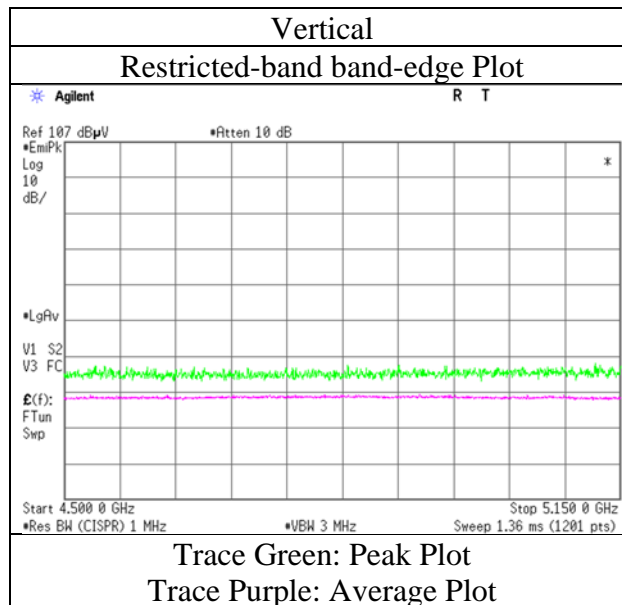
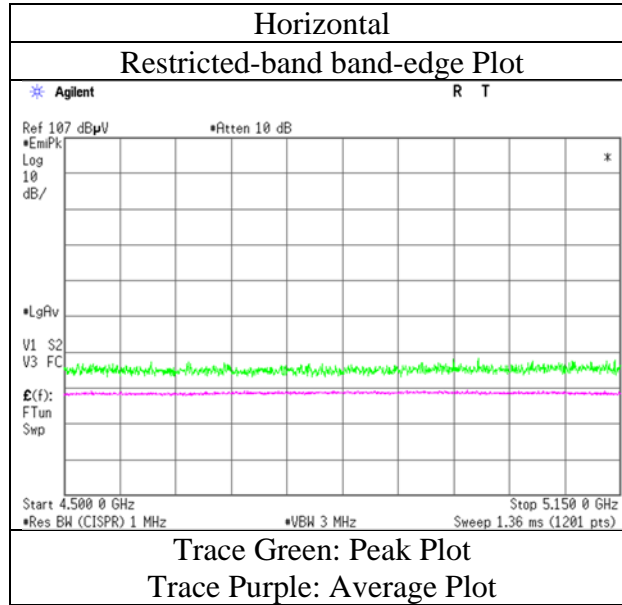
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

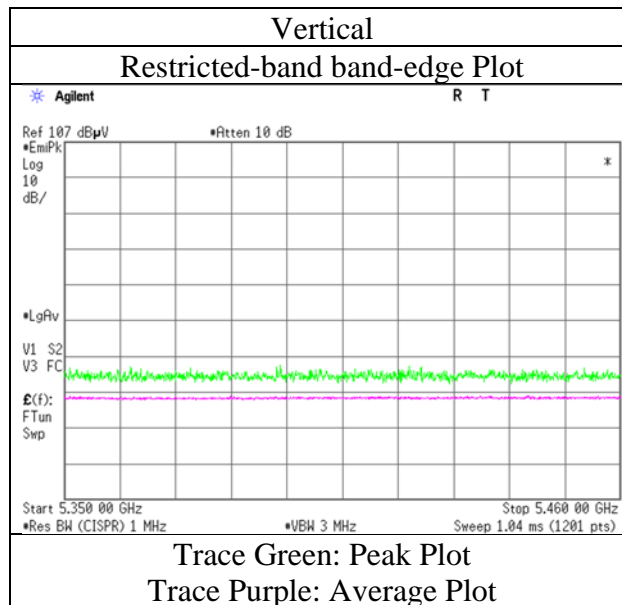
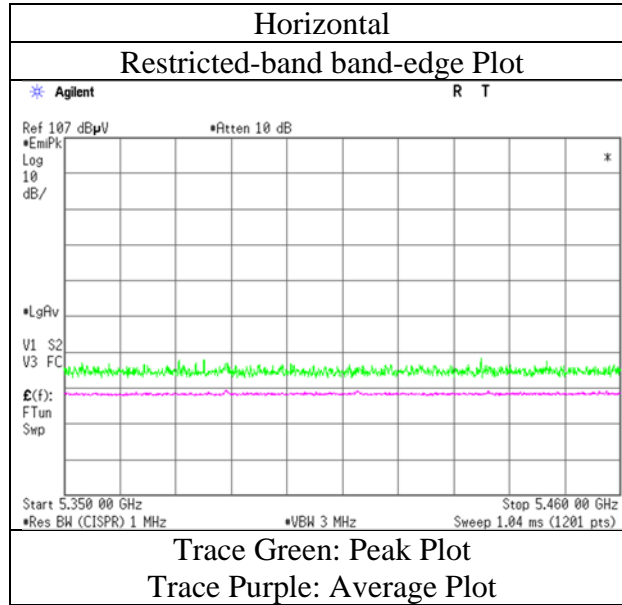
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

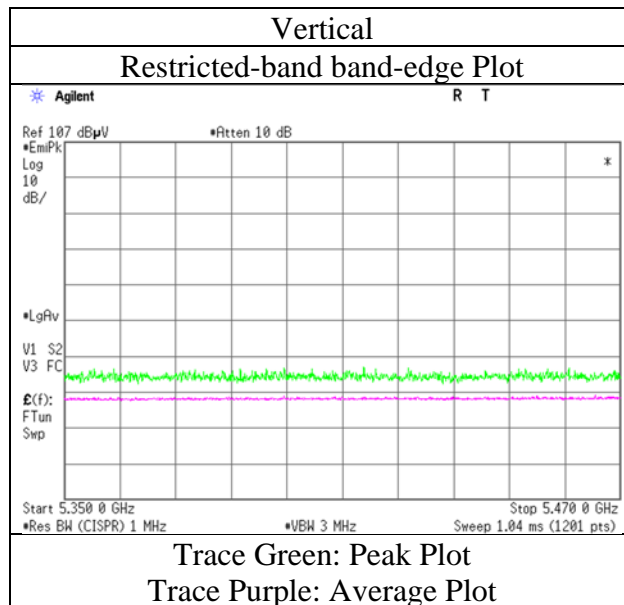
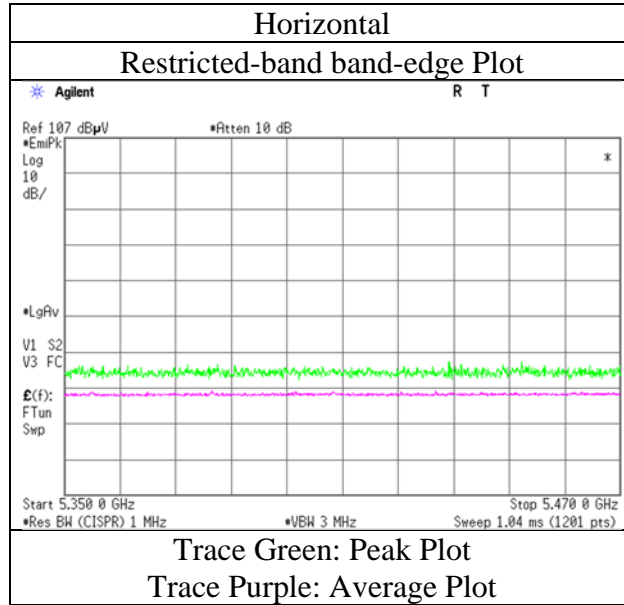
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

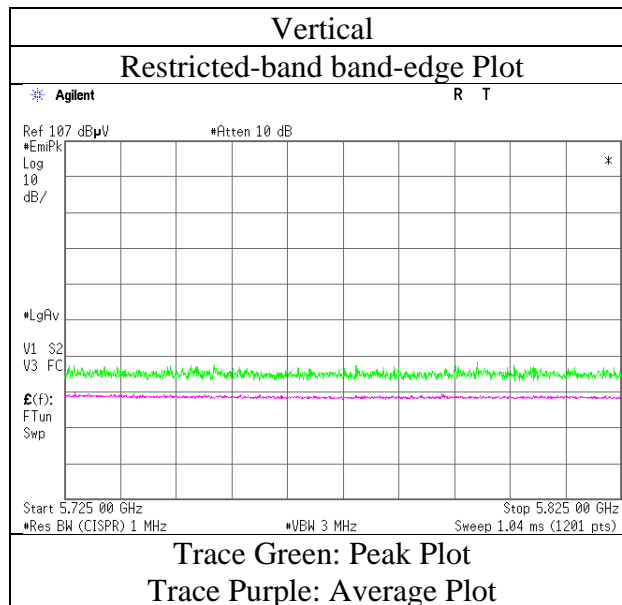
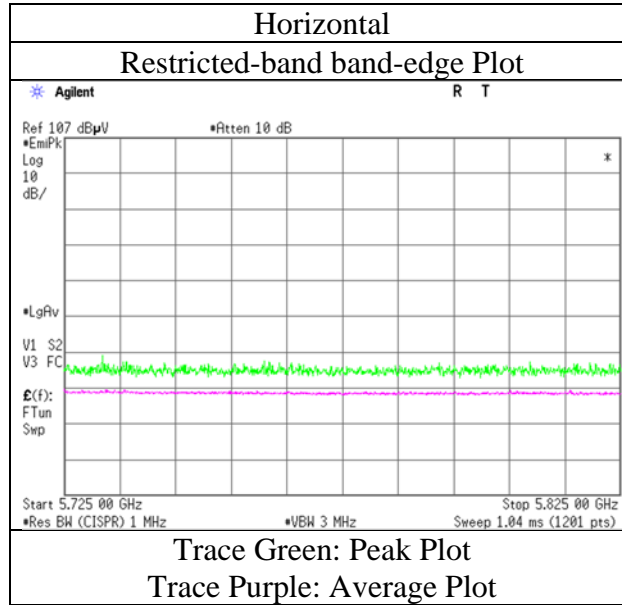
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

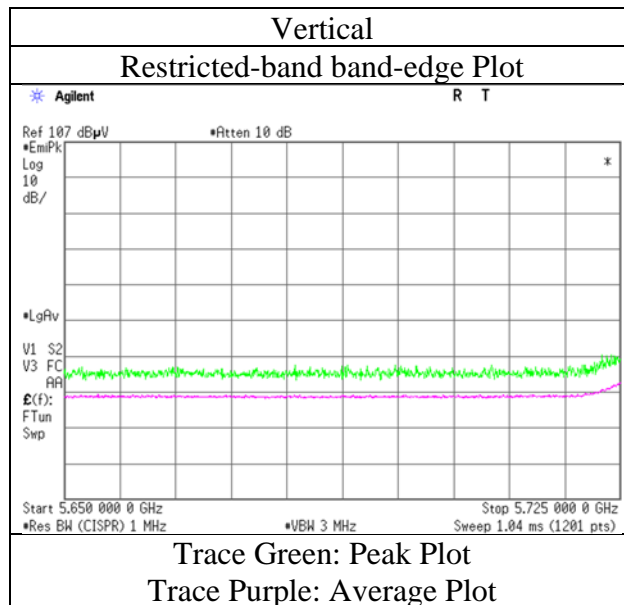
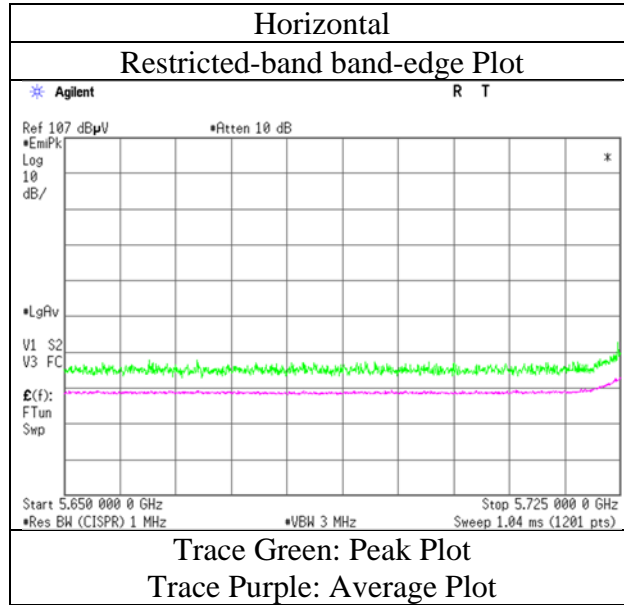
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

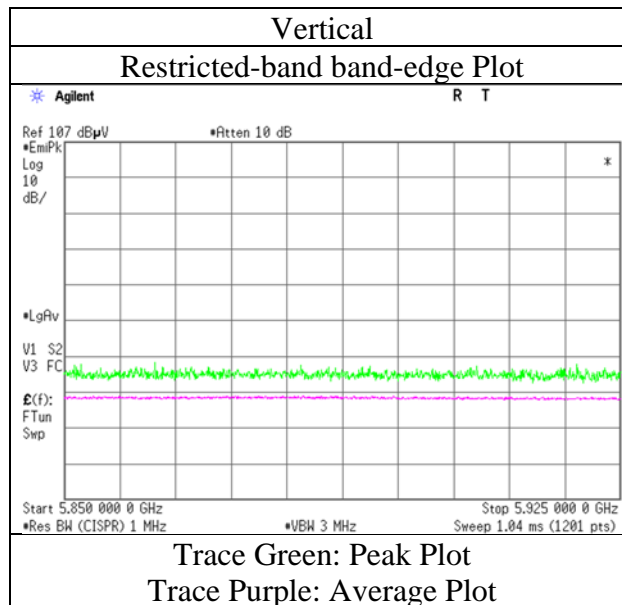
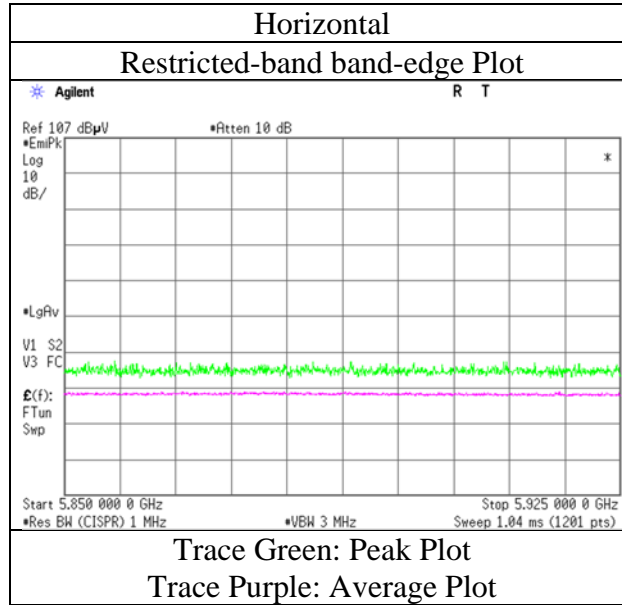
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

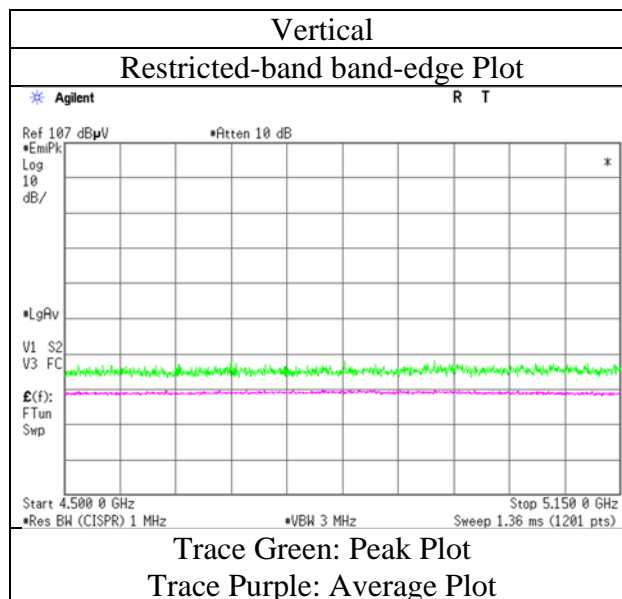
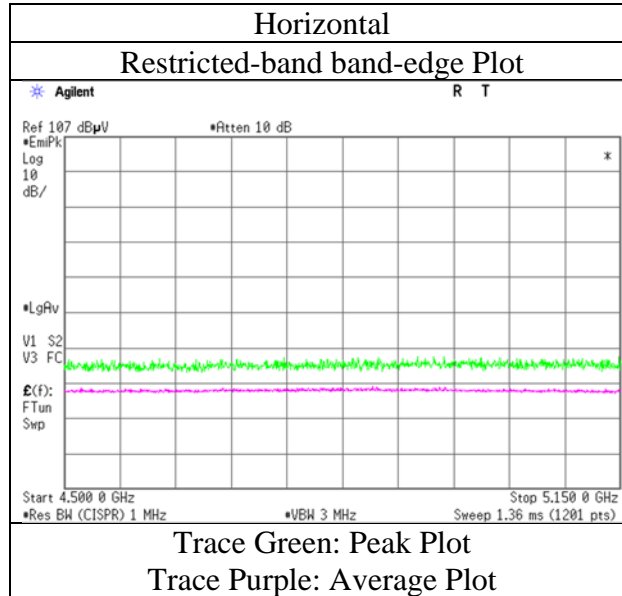
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

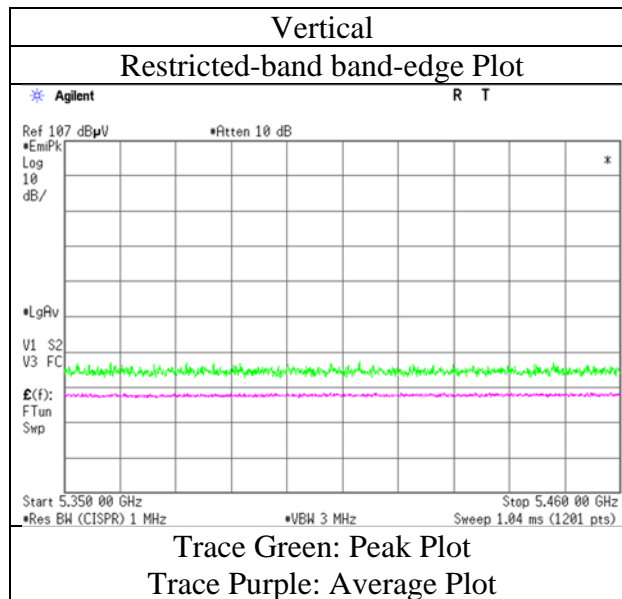
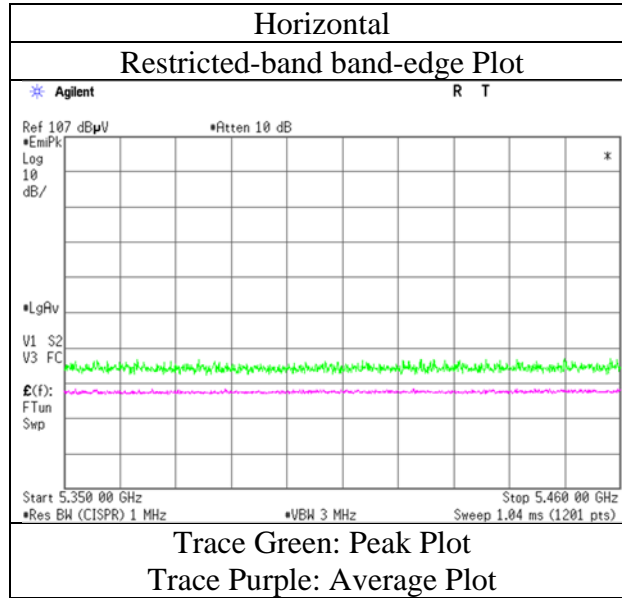
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

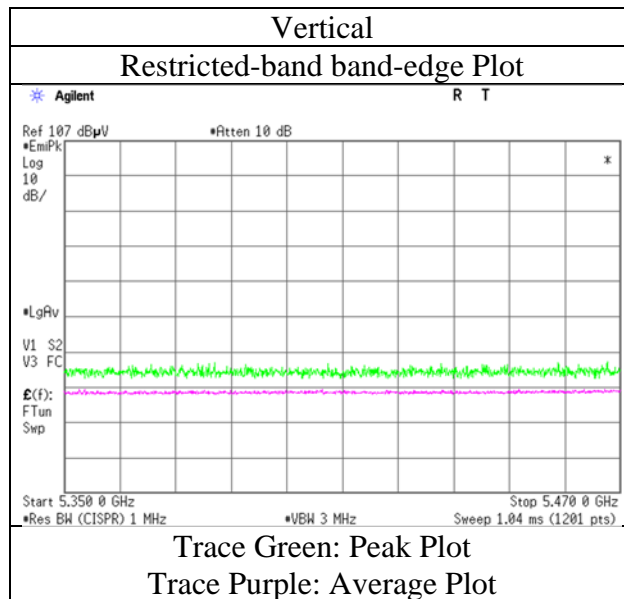
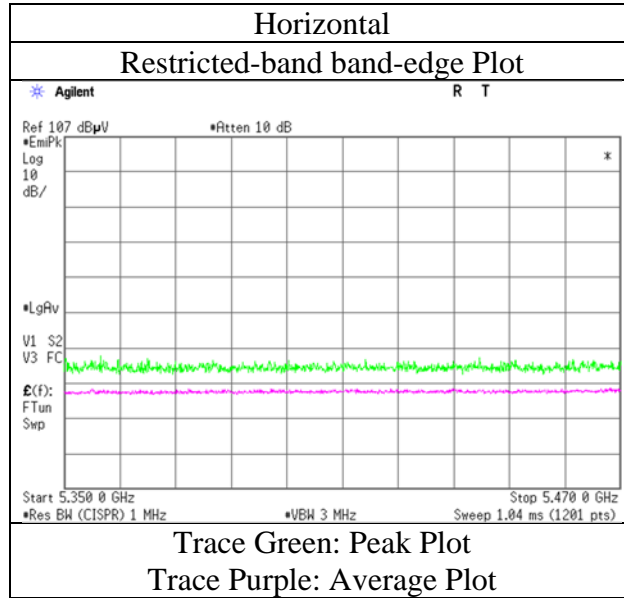
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

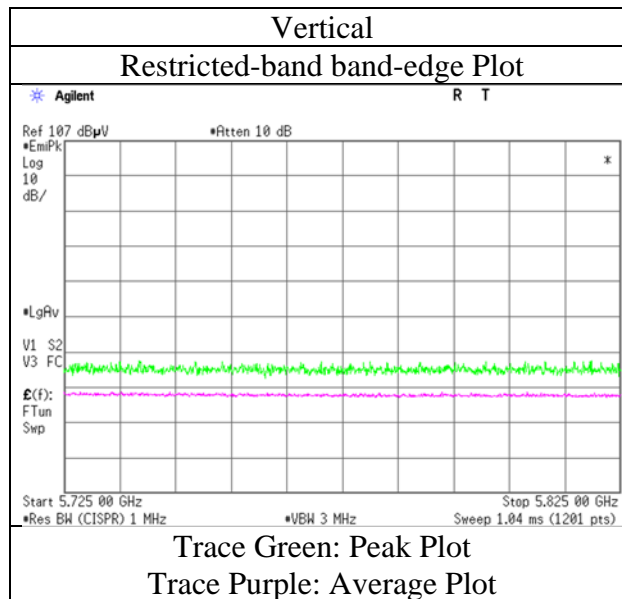
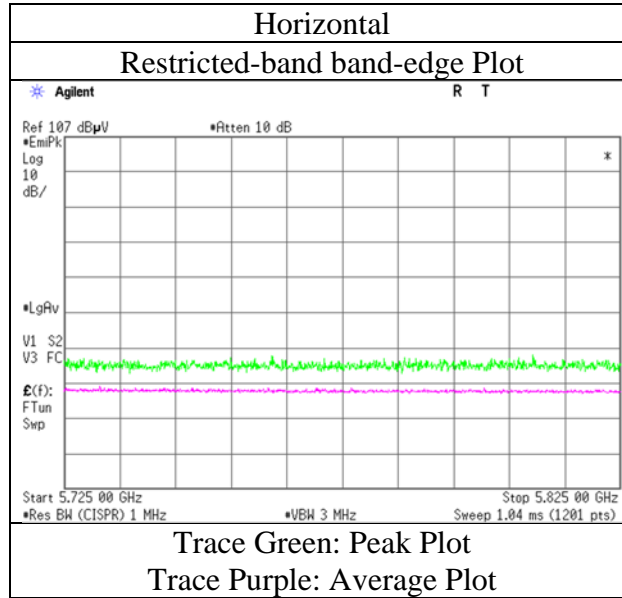
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

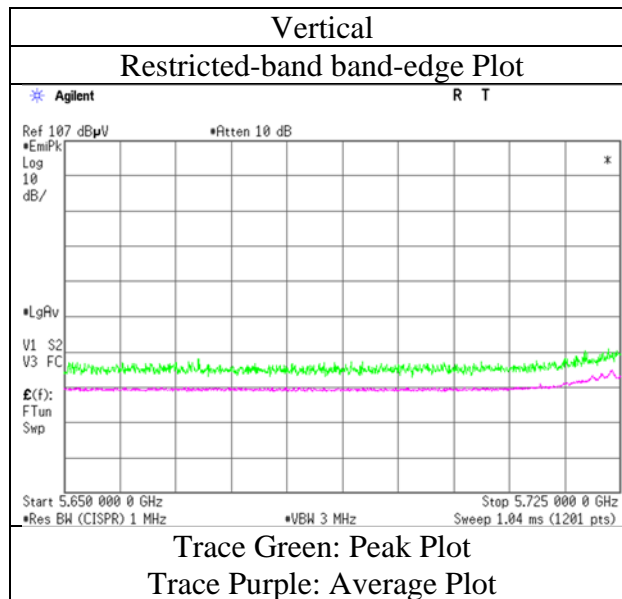
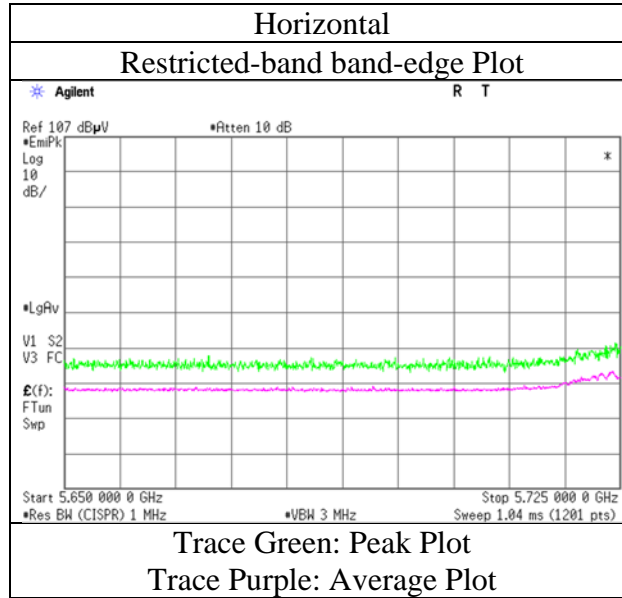
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

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



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

Radiated Spurious Emission

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

(above 1 GHz Inside of the restricted band)

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

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

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

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

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

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

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

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

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

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

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

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

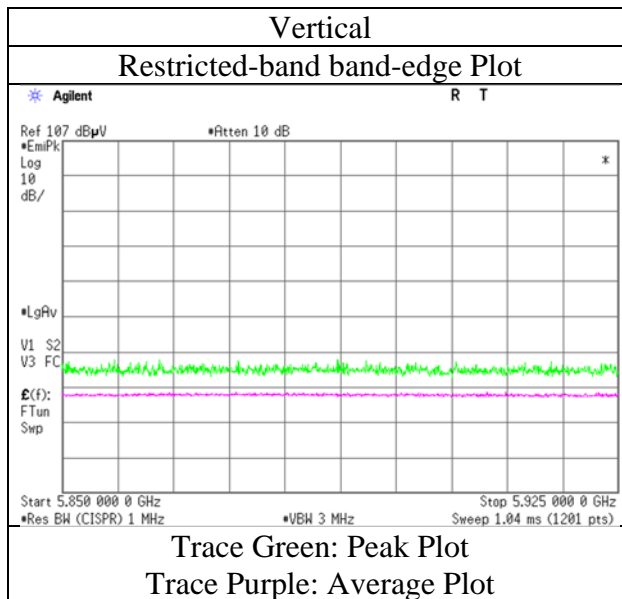
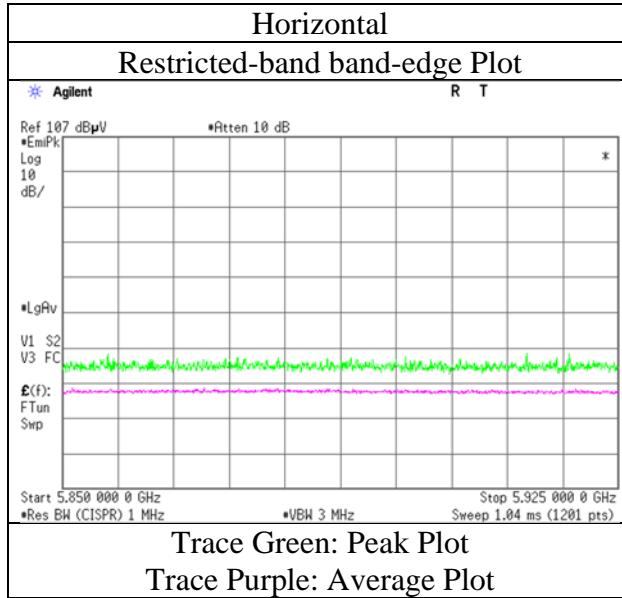
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20 dB).

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

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

Radiated Spurious Emission

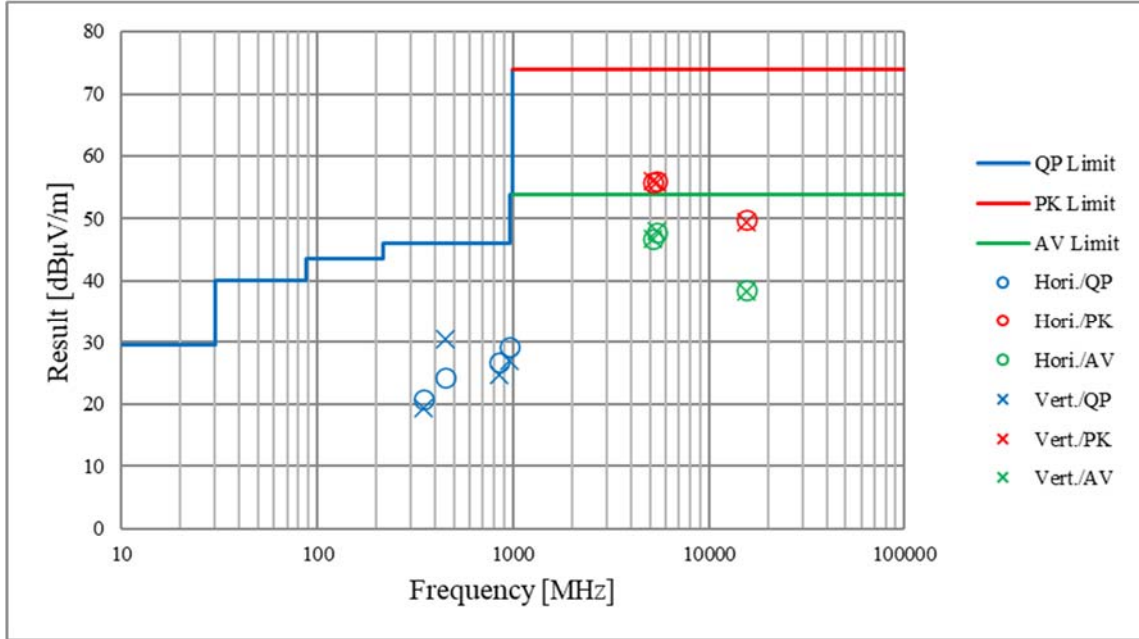
| | |
|------------------------|---------------------|
| Test place | Shonan EMC Lab. |
| Semi Anechoic Chamber | No.1 |
| Date | February 10, 2022 |
| Temperature / Humidity | 22 deg. C / 37 % RH |
| Engineer | Yohsuke Matsuzawa |
| Mode | Tx 11n-40 5795 MHz |



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

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

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



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

APPENDIX 2: Test Instruments

Test Equipment(1/2)

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

Test Equipment(2/2)

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

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

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

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

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

Test item:

RE: Radiated Emission