



RADIO TEST REPORT

Test Report No. : 14007298H-C-R1

Applicant : Honda Motor Co., Ltd.
Type of EUT : 4.0G LET
Model Number of EUT : E4000-01
FCC ID : N43E400001
Test regulation : FCC Part 15 Subpart E: 2021
(Except for DFS test)
*For Permissive Change
Test Result : Complied (Refer to SECTION 3.2)
*Radiated Spurious Emission tests only

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3. This sample tested is in compliance with the limits of the above regulation.
4. The test results in this test report are traceable to the national or international standards.
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6. This test report covers Radio technical requirements.
It does not cover administrative issues such as Manual or non-Radio test related Requirements. (if applicable)
7. The all test items in this test report are conducted by UL Japan, Inc. Ise EMC Lab.
8. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan, Inc. has been accredited.
9. The information provided from the customer for this report is identified in Section 1.
10. This report is a revised version of 14007298H-C. 14007298H-C is replaced with this report.

Date of test: September 10 to 28, 2021

Representative test engineer:


Nachi Konegawa
Engineer

Approved by:


Satofumi Matsuyama
Engineer



CERTIFICATE 5107.02

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

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REVISION HISTORY

Original Test Report No.: 14007298H-C

Revision	Test report No.	Date	Page Revised Contents
- (Original)	14007298H-B	January 28, 2022	-
1	14007298H-C-R1	February 25, 2022	Correction of Type of EUT and Model Number of EUT Type of EUT: Embedded wireless module → 4.0G LET Model Number of EUT: SX-SDPAC → E4000-01
1	14007298H-C-R1	February 25, 2022	Correction of Rating of Section 2.2. DC 5 V → DC 3.3 V
1	14007298H-C -R1	February 25, 2022	Addition of below frequency band in the table for Section 2.2. <u>20Mband</u> 5500 MHz to 5580 MHz → 5500 MHz to 5700 MHz 5660 MHz to 5700 MHz <u>40Mband</u> 2422 MHz - 2452 MHz 5510 MHz, 5550 MHz → 5510 MHz to 5670 MHz 5670 MHz <u>80Mband</u> 5530 MHz → 5530 MHz to 5610 MHz
1	14007298H-C-R1	February 25, 2022	Addition of explanatory note *2) in Section 2.2. *2) Tests were not performed following channels, because this antenna is not used these channels. - WLAN 11n40 (2.4GHz band) - 20 MHz Bandwidth (5600 MHz - 5640 MHz) - 40 MHz Bandwidth (5590 MHz - 5630 MHz) - 80 MHz Bandwidth (5610 MHz MHz)
1	14007298H-C-R1	February 25, 2022	Correction of FCC Part 15.31 (e) of Section 3.2. The stable voltage was provided to the EUT during the tests. Therefore, this EUT complies with the requirement. → The RF Module has its own regulator. The RF Module is constantly provided voltage through the regulator regardless of input voltage. Therefore, this EUT complies with the requirement.
1	14007298H-C-R1	February 25, 2022	Correction of power supply voltage of Section 4.2. DC 14 V → DC 12 V
1	14007298H-C-R1	February 25, 2022	Addition of below explanatory note in Section 4.2. RF Module and Host device have the same product name: 4.0G LET and model number: E4000-01. The EUT of this test report is RF Module. In order to distinguish between RF Module and Host device, this test report shows as follows. RF Module: 4.0G LET Host device: 4.0G LET (Host) 4.0G LET only works with 4.0G LET (Host). Therefore, the tests were performed on the RF module built into the Host device. The RF Module is constantly provided with regulated voltage of DC 3.3 V from Host device.

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Reference: Abbreviations (Including words undescribed in this report)

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

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CONTENTS	PAGE
SECTION 1: Customer information.....	5
SECTION 2: Equipment under test (EUT).....	5
SECTION 3: Test specification, procedures & results.....	7
SECTION 4: Operation of EUT during testing	10
SECTION 5: Radiated Spurious Emission and Band Edge Compliance	13
APPENDIX 1: Test data	16
Burst rate confirmation	16
Radiated Spurious Emission	18
APPENDIX 2: Test instruments	71
APPENDIX 3: Photographs of test setup	73
Radiated Spurious Emission	73
Worst Case Position	74
Antenna Terminal conducted test.....	75

SECTION 1: Customer information

Company Name	:	Honda Motor Co., Ltd.
Address	:	No.6-1, Hagadai, Haga-Machi, Haga-Gun, Tochigi-ken 321-3395 Japan
Telephone Number	:	+81-28-687-0707
Contact Person	:	Kazumori Sakai

The information provided from the customer is as follows;

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

SECTION 2: Equipment under test (EUT)

2.1 Identification of EUT

Type of EUT	:	4.0G LET
Model Number of EUT	:	E4000-01
Serial No.	:	Refer to SECTION 4.2
Receipt Date	:	September 9, 2021
Condition	:	Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification	:	No Modification by the test lab.

2.2 Product Description

Model Number of EUT: E4000-01 (referred to as the EUT in this report) is a 4.0G LET.

Product Specification

Rating : DC 3.3 V

Specification of Wireless LAN (IEEE802.11b/g/a/n-20/n-40/11ac-20/11ac-40/11ac-80)

	IEEE802.11b	IEEE802.11g/n (20 M band)	IEEE802.11a/n/ac (20 M band) *1)	IEEE802.11n/ac (40 M band) *1)	IEEE802.11ac (80 M band) *1)
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	2422 MHz - 2452 MHz 5190 MHz - 5230 MHz 5270 MHz - 5310 MHz 5510 MHz - 5670 MHz	5210 MHz 5290 MHz 5530 MHz - 5610 MHz 5775 MHz
Type of modulation	DSSS (CCK, DQPSK, DBPSK)	OFDM-CCK (64QAM, 16QAM, QPSK, BPSK)	11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK) 11ac: OFDM (64QAM, 16QAM, QPSK, BPSK, 256QAM)		
Channel spacing	5 MHz		20 MHz	40 MHz	80 MHz
Antenna type	PCB antenna *2)				
Antenna Gain	2.4 GHz: 3.5 dBi 5 GHz: 3.5 dBi				

Bluetooth

	Bluetooth
Frequency of operation	2402 MHz - 2480 MHz
Type of modulation	BT: FHSS (GFSK, $\pi/4$ DQPSK, 8DPSK) LE: GFSK
Channel spacing	BT: 1 MHz LE: 2 MHz
Antenna type	PCB antenna
Antenna Gain	3.5 dBi

*1) This test report applies to WLAN (5 GHz band) part.

*2) Tests were not performed following channels, because this antenna is not used these channels.

- WLAN 11n40 (2.4GHz band)
- 20 MHz Bandwidth (5600 MHz - 5640 MHz)
- 40 MHz Bandwidth (5590 MHz - 5630 MHz)
- 80 MHz Bandwidth (5610 MHz - 5650 MHz)

SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part 15 Subpart E
FCC Part 15 final revised on May 3, 2021 and effective July 2, 2021

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

3.2 Procedures and results

Item	Test Procedure	Specification	Worst margin	Results	Remarks
Spurious Emission Restricted Band Edge	FCC: ANSI C63.10-2013 KDB Publication Number 789033	FCC: 15.407 (b), 15.205 and 15.209	1.2 dB 5150.0 MHz, AV, Horizontal	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 No. 13-EM-W0420 and 13-EM-W0422. *1) Radiated test was selected over 30 MHz based on FCC 15.407 (b) and KDB 789033 D02 G.3.b).					
a) Refer to APPENDIX 1 (data of Radiated Spurious Emission)					
Symbols:					
Complied		The data of this test item has enough margin, more than the measurement uncertainty.			
Complied#		The data of this test item meets the limits unless the measurement uncertainty is taken into consideration.			

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

FCC Part 15.31 (e)

The RF Module has its own regulator.

The RF Module is constantly provided voltage through the regulator regardless of input voltage.

Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

The antenna is not removable from the EUT.

Therefore, the equipment complies with the antenna requirement of Section 15.203.

3.3 Addition to standard

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

3.4 Uncertainty

There is no applicable rule of uncertainty in this applied standard. Therefore, the 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 $k=2$.

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Radiated emission

Measurement distance	Frequency range	Uncertainty (+/-)
3 m	9 kHz to 30 MHz	3.3 dB
10 m		3.2 dB
3 m	30 MHz to 200 MHz (Horizontal)	4.8 dB
		5.0 dB
	200 MHz to 1000 MHz (Horizontal)	5.2 dB
		6.3 dB
10 m	30 MHz to 200 MHz (Horizontal)	4.8 dB
		4.8 dB
	200 MHz to 1000 MHz (Horizontal)	5.0 dB
		5.0 dB
3 m	1 GHz to 6 GHz	4.9 dB
	6 GHz to 18 GHz	5.2 dB
1 m	10 GHz to 26.5 GHz	5.5 dB
	26.5 GHz to 40 GHz	5.5 dB
0.5 m	26.5 GHz to 40 GHz	5.5 dB
10 m	1 GHz to 18 GHz	5.2 dB

Antenna Terminal test

Test Item	Uncertainty (+/-)
26 dB Emission Bandwidth / 6 dB Emission Bandwidth /	0.96 %
Maximum Conducted Output Power / Average Output Power	1.4 dB
Burst Rate	0.10 %
Maximum Power Spectral Density	2.6 dB
Spurious Emission (Conducted)	2.6 dB

3.5 Test Location

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*A2LA Certificate Number: 5107.02 / FCC Test Firm Registration Number: 884919

ISED Lab Company Number: 2973C / CAB identifier: JP0002

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Test site	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms	Maximum measurement distance
No.1 semi-anechoic chamber	19.2 x 11.2 x 7.7	7.0 x 6.0	No.1 Power source room	10 m
No.2 semi-anechoic chamber	7.5 x 5.8 x 5.2	4.0 x 4.0	-	3 m
No.3 semi-anechoic chamber	12.0 x 8.5 x 5.9	6.8 x 5.75	No.3 Preparation room	3 m
No.3 shielded room	4.0 x 6.0 x 2.7	N/A	-	-
No.4 semi-anechoic chamber	12.0 x 8.5 x 5.9	6.8 x 5.75	No.4 Preparation room	3 m
No.4 shielded room	4.0 x 6.0 x 2.7	N/A	-	-
No.5 semi-anechoic chamber	6.0 x 6.0 x 3.9	6.0 x 6.0	-	-
No.5 measurement room	6.4 x 6.4 x 3.0	6.4 x 6.4	-	-
No.6 shielded room	4.0 x 4.5 x 2.7	4.0 x 4.5	-	-
No.6 measurement room	4.75 x 5.4 x 3.0	4.75 x 4.15	-	-
No.7 shielded room	4.7 x 7.5 x 2.7	4.7 x 7.5	-	-
No.8 measurement room	3.1 x 5.0 x 2.7	3.1 x 5.0	-	-
No.9 measurement room	8.8 x 4.6 x 2.8	2.4 x 2.4	-	-
No.10 shielded room	3.8 x 2.8 x 2.8	3.8 x 2.8	-	-
No.11 measurement room	4.0 x 3.4 x 2.5	N/A	-	-
No.12 measurement room	2.6 x 3.4 x 2.5	N/A	-	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0 m for No.1, No.2, No.3, and No.4 semi-anechoic chambers and No.3 and No.4 shielded rooms.

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)	54 Mbps, PN9
IEEE 802.11n 20MHz BW (11n-20)	MCS 6, PN9
IEEE 802.11n 40MHz BW (11n-40)	MCS 6, PN9
IEEE 802.11ac 80MHz BW (11ac-80)	MCS 7, PN9
*The worst condition was determined based on the test result of Maximum Conducted Output Power.	
*Power of the EUT was set by the software as follows; Power settings: Refer to the following table Software: Qualcomm Radio Control Tool Vert.4.0.00104.0 (WLAN) (Date: 2021.8.18, Storage location: Driven by connected PC)	
*This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product.	

Power settings;

	Ch	Frequency	Power Setting [dBm]
11a	36	5180 MHz	12
	52	5260 MHz	11
	64	5320 MHz	12
	100	5500 MHz	12
	116	5580 MHz	11
	140	5700 MHz	11
	149	5745 MHz	11
	157	5785 MHz	12
	165	5825 MHz	12
11n-20	36	5180 MHz	12
	52	5260 MHz	11
	64	5320 MHz	12
	100	5500 MHz	12
	116	5580 MHz	11
	140	5700 MHz	11
	149	5745 MHz	11
	157	5785 MHz	12
	165	5825 MHz	12
11n-40	38	5190 MHz	11
	54	5270 MHz	11
	62	5310 MHz	10
	102	5510 MHz	12
	110	5550 MHz	11
	134	5670 MHz	12
	151	5755 MHz	12
	159	5795 MHz	12
11ac-80	42	5210 MHz	10
	58	5290 MHz	9
	106	5530 MHz	10
	155	5775 MHz	10

*The details of Operation mode(s)

Test Item	Operating Mode	Tested Frequency			
		Lower Band	Middle Band	Additional Band	Upper Band
Radiated Spurious Emission (Below 1 GHz)	11n-40 Tx *1)	-	-	-	5795 MHz
Radiated Spurious Emission (Above 1 GHz)	11a Tx	5180 MHz	5260 MHz	5500 MHz	5745 MHz
	11n-20 Tx *2)		5320 MHz	5580 MHz	5785 MHz
				5700 MHz	5825 MHz
	11n-40 Tx *2)	5190 MHz	5270 MHz	5510 MHz	5755 MHz
			5310 MHz	5550 MHz	5795 MHz
				5670 MHz	
	11ac-80 Tx	5210 MHz	5290 MHz	5530 MHz	5775 MHz

*1) The mode was tested as a representative, because it had the highest power at antenna terminal test.

*2) Since each of 20 MHz BW (11n-20 /11ac-20) and 40 MHz BW (11n-40 /11ac-40) have the same modulation method and no differences in transmitting specification, the test was performed on the representative mode that is worst mode of test report for module installed in EUT.

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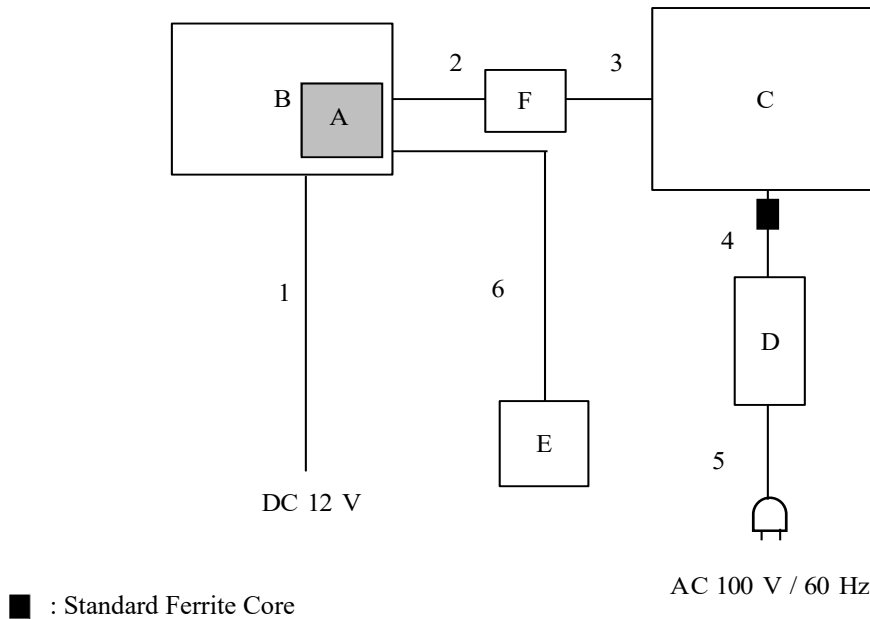
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4.2 Configuration and peripherals



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

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	4.0G LET	E4000-01	001	Honda Motor Co., Ltd.	EUT
B	4.0G LET(Host)	E4000-01	13116	Honda Motor Co., Ltd.	-
C	Laptop PC	CF-MX4	5FKSA17992	PANASONIC	-
D	AC Adapter	CF-AA62J2C	62J2CM21522514 38SB	Panasonic	-
E	Mouse	BSMOU27SM	A10517	Buffalo Inc.	-
F	USB 3.0 to Gigabit Ethernet Adapter	USB31000S	210513005254	StarTech.coom	-

List of cables used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	DC Cable	3.3	Unshielded	Unshielded	-
2	USB Cable	0.1	Shielded	Shielded	-
3	LAN Cable	3.0	Unshielded	Unshielded	-
4	DC Cable	1.6	Unshielded	Unshielded	-
5	AC Cable	0.8	Unshielded	Unshielded	-
6	USB Cable	1.5	Shielded	Shielded	-

<Note>

RF Module and Host device have the same product name: 4.0G LET and model number: E4000-01.

The EUT of this test report is RF Module.

In order to distinguish between RF Module and Host device, this test report shows as follows.

RF Module: 4.0G LET

Host device: 4.0G LET (Host)

4.0G LET only works with 4.0G LET (Host).

Therefore, the tests were performed on the RF module built into the Host device.

The RF Module is constantly provided with regulated voltage of DC 3.3 V from Host device.

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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 1.0 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

< Above 1GHz >

EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 1.5 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with absorbent materials lined on a ground plane.

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

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

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

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

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

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

< Below 1GHz >

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

< Above 1GHz >

Inside of restricted bands (Section 15.205):

Apply to limit in the Section 15.209 (a).

Outside of the restricted bands:

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

For W58 Bandedge

-27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge in the section 15.407(b)(4)(i).

Restricted band edge:

Apply to limit in the Section 15.209 (a).

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

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

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

Test Antennas are used as below;

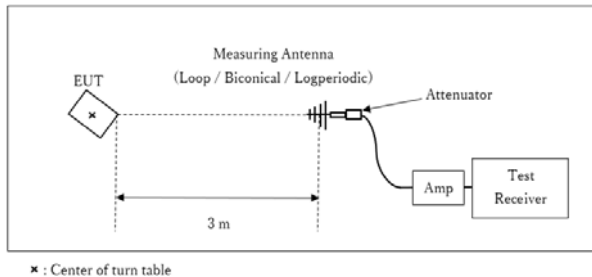
Frequency	30 MHz to 200 MHz	200 MHz to 1 GHz	Above 1 GHz
Antenna Type	Biconical	Logperiodic	Horn

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 AD *1) RBW: 1 MHz VBW: 3 MHz Detector: Power Averaging (RMS) Trace: ≥ 100 traces If duty cycle was less than 98%, a duty factor was added to the results.

*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".

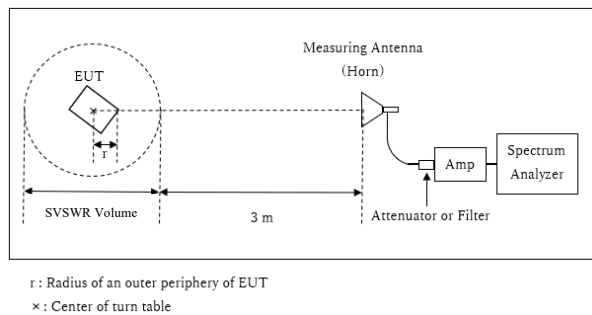
Figure 2: Test Setup

Below 1 GHz



Test Distance: 3 m

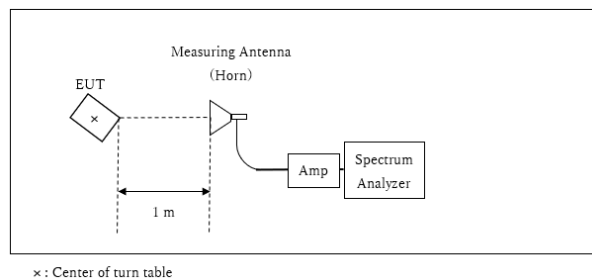
1 GHz - 10 GHz



Distance Factor: $20 \times \log (3.9 \text{ m} / 3.0 \text{ m}) = 2.28 \text{ dB}$
* Test Distance: $(3 + \text{SVSWR Volume} / 2) - r = 3.9 \text{ m}$

SVSWR Volume : 2.0 m
(SVSWR Volume has been calibrated based on CISPR 16-1-4.)
 $r = 0.1 \text{ m}$

10 GHz - 40 GHz



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

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

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

Measurement range	: 30 MHz - 40 GHz
Test data	: APPENDIX
Test result	: Pass

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APPENDIX 1: Test data

Burst rate confirmation

Report No.	14007298H
Test place	Ise EMC Lab. No.4 Measurement Room
Date	September 10, 2021
Temperature / Humidity	21 deg. C / 47 % RH
Engineer	Akihiko Maeda
Mode	Tx

11a 5180 MHz

Mode	Rate Mbps	Reading Burst power [dBm]	Remarks
11a	6	-0.63	
	9	-0.64	
	12	-0.53	
	18	-0.55	
	24	-0.03	
	36	0.03	
	48	0.05	
	54	0.15	*

* Worst rate

11n-40 5190 MHz

Mode	MCS Number	Reading Burst power [dBm]	Remarks
11n-40	0	-0.95	
	1	-0.92	
	2	-0.95	
	3	-0.85	
	4	-0.84	
	5	-0.83	
	6	-0.79	*
	7	-1.70	

* Worst rate

11n-20 5180 MHz

Mode	MCS Number	Reading Burst power [dBm]	Remarks
11n-20	0	-0.80	
	1	-0.83	
	2	-0.70	
	3	-0.03	
	4	0.08	
	5	-0.02	
	6	0.14	*
	7	-0.85	

* Worst rate

11ac-80 5210 MHz

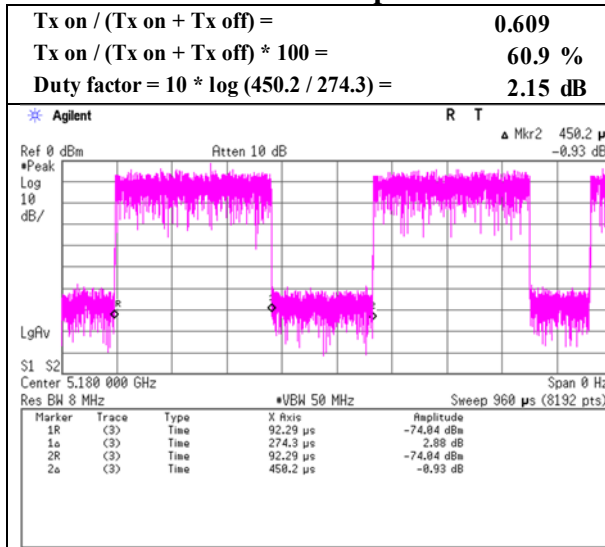
Mode	MCS Number	Reading Burst power [dBm]	Remarks
11ac-80	0	-2.11	
	1	-2.16	
	2	-2.04	
	3	-1.83	
	4	-1.81	
	5	-1.76	
	6	-1.79	
	7	-1.71	*
	8	-2.73	

* Worst rate

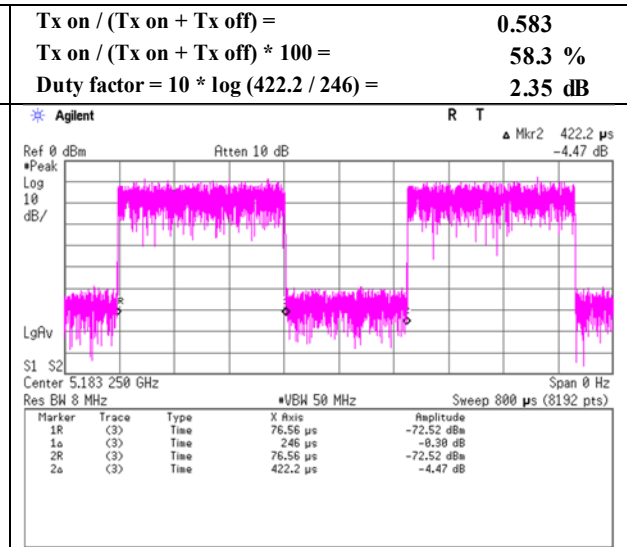
Burst rate confirmation

Report No. 14007298H
Test place Ise EMC Lab. No.4 Semi Anechoic Chamber
Date September 12, 2021
Temperature / Humidity 23 deg. C / 57 % RH
Engineer Hiroki Nunata
Mode Tx

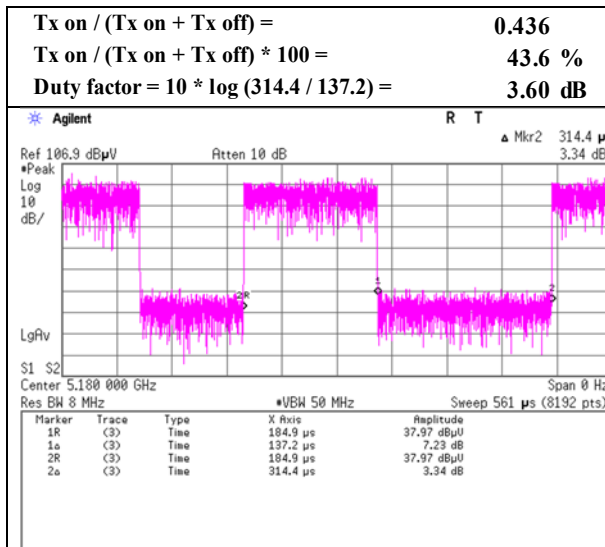
11a 54 Mbps



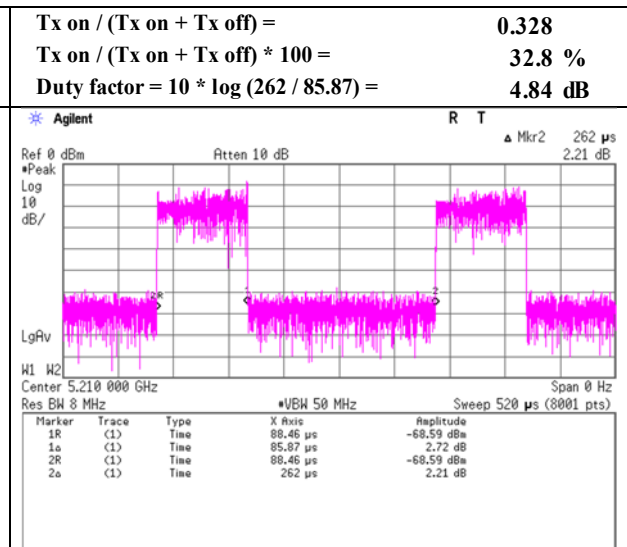
11n-20 MCS 6



11n-40 MCS 6



11ac-80 MCS 7



Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5180 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	49.0	35.6	32.2	5.8	31.2	-	55.8	42.4	73.9	53.9	18.1	11.5	
Hori.	10360.0	42.3	-	39.7	-1.9	32.9	-	47.2	-	68.2	-	21.0	-	Floor noise
Hori.	15540.0	43.3	35.0	38.0	-0.7	32.5	-	48.1	39.8	73.9	53.9	25.8	14.1	Floor noise
Hori.	20720.0	44.1	36.4	37.9	-1.8	33.0	-	47.2	39.5	73.9	53.9	26.7	14.4	Floor noise
Hori.	25900.0	47.2	-	39.4	-0.6	32.4	-	53.5	-	68.2	-	14.7	-	Floor noise
Vert.	5150.0	49.5	34.4	32.2	5.8	31.2	-	56.3	41.2	73.9	53.9	17.6	12.7	
Vert.	10360.0	43.0	-	39.7	-1.9	32.9	-	47.8	-	68.2	-	20.4	-	Floor noise
Vert.	15540.0	44.0	35.2	38.0	-0.7	32.5	-	48.8	40.0	73.9	53.9	25.1	13.9	Floor noise
Vert.	20720.0	44.1	36.4	37.9	-1.8	33.0	-	47.2	39.5	73.9	53.9	26.7	14.4	Floor noise
Vert.	25900.0	47.2	-	39.4	-0.6	32.4	-	53.5	-	68.2	-	14.7	-	Floor noise

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

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

*QP detector was used up to 1GHz.

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Ise EMC Lab.

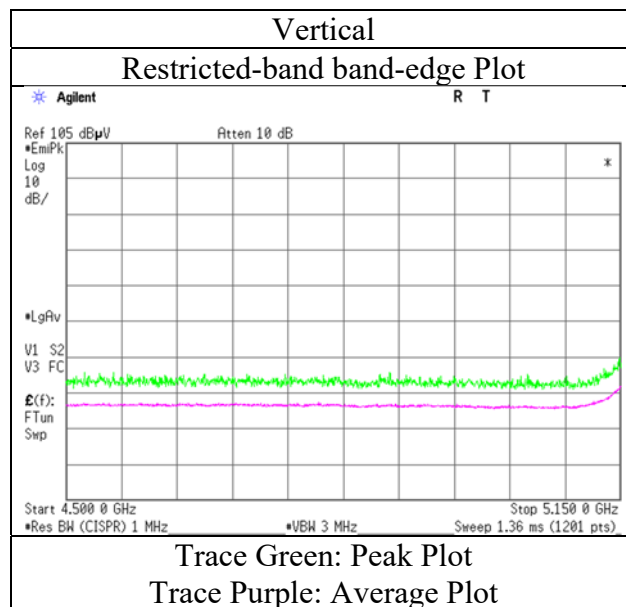
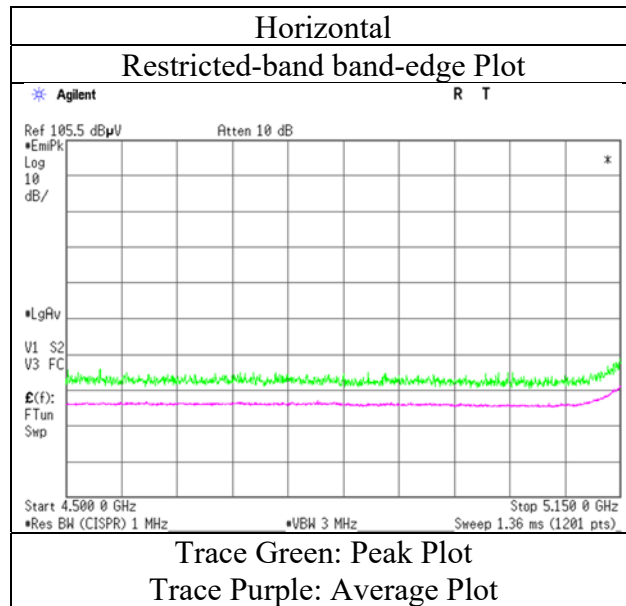
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
	(1 GHz - 10 GHz)
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.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5260 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	10520.0	42.1	-	39.7	-1.8	33.0	-	47.0	-	68.2	-	21.2	-	Floor noise
Hori.	15780.0	43.3	35.1	37.8	-0.7	32.5	-	47.9	39.6	73.9	53.9	26.0	14.3	Floor noise
Hori.	21040.0	43.7	35.8	38.0	-1.8	33.1	-	46.8	38.9	73.9	53.9	27.1	15.0	Floor noise
Hori.	26300.0	47.0	-	39.3	-0.7	32.3	-	53.3	-	68.2	-	14.9	-	Floor noise
Vert.	10520.0	42.6	-	39.7	-1.8	33.0	-	47.5	-	68.2	-	20.8	-	Floor noise
Vert.	15780.0	43.7	35.2	37.8	-0.7	32.5	-	48.3	39.8	73.9	53.9	25.6	14.1	Floor noise
Vert.	21040.0	43.7	35.8	38.0	-1.8	33.1	-	46.8	38.9	73.9	53.9	27.1	15.0	Floor noise
Vert.	26300.0	47.0	-	39.3	-0.7	32.3	-	53.3	-	68.2	-	14.9	-	Floor noise

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

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

*QP detector was used up to 1GHz.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5320 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	48.6	37.4	31.8	5.9	31.2	-	55.1	43.8	73.9	53.9	18.8	10.1	
Hori.	10640.0	42.2	33.7	39.7	-1.8	33.0	-	47.1	38.6	73.9	53.9	26.8	15.3	Floor noise
Hori.	15960.0	43.6	35.3	37.9	-0.7	32.6	-	48.3	40.0	73.9	53.9	25.6	13.9	Floor noise
Hori.	21280.0	43.5	36.4	38.1	-1.7	33.1	-	46.7	39.7	73.9	53.9	27.2	14.2	Floor noise
Vert.	5350.0	49.6	37.9	31.8	5.9	31.2	-	56.0	44.4	73.9	53.9	17.9	9.5	
Vert.	10640.0	42.5	33.8	39.7	-1.8	33.0	-	47.3	38.7	73.9	53.9	26.6	15.3	Floor noise
Vert.	15960.0	43.7	35.6	37.9	-0.7	32.6	-	48.4	40.3	73.9	53.9	25.5	13.6	Floor noise
Vert.	21280.0	43.5	36.4	38.1	-1.7	33.1	-	46.7	39.7	73.9	53.9	27.2	14.2	Floor noise

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

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

*QP detector was used up to 1GHz.

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Ise EMC Lab.

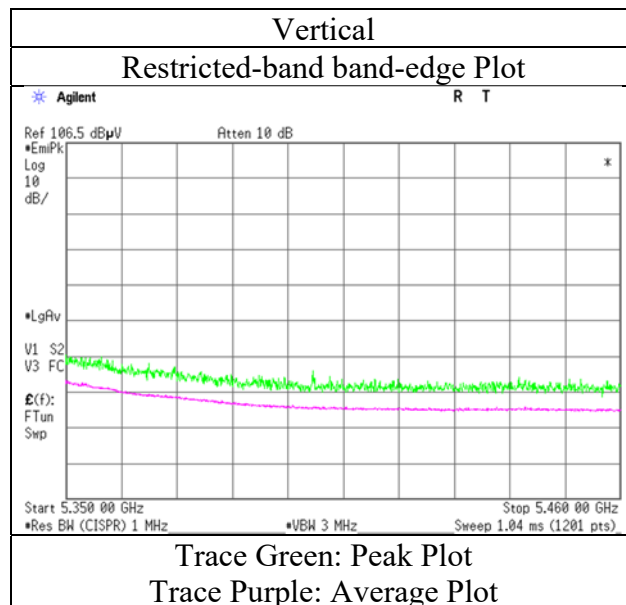
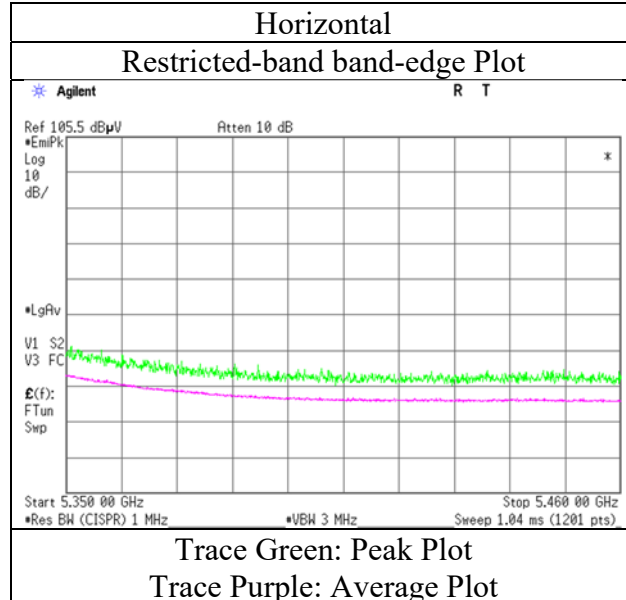
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5500 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5460.0	44.3	35.1	32.0	5.9	31.3	-	51.0	41.8	73.9	53.9	22.9	12.1	
Hori.	5470.0	48.0	-	32.1	5.9	31.3	-	54.7	-	68.2	-	13.5	-	
Hori.	11000.0	42.8	34.2	39.9	-1.6	33.2	-	47.9	39.3	73.9	53.9	26.0	14.6	Floor noise
Hori.	16500.0	43.3	-	39.5	-0.6	32.6	-	49.5	-	68.2	-	18.7	-	Floor noise
Hori.	22000.0	45.3	-	38.1	-1.6	33.1	-	48.7	-	68.2	-	19.5	-	Floor noise
Vert.	5460.0	45.3	35.6	32.0	5.9	31.3	-	52.0	42.3	73.9	53.9	21.9	11.6	
Vert.	5470.0	48.6	-	32.1	5.9	31.3	-	55.3	-	68.2	-	12.9	-	
Vert.	11000.0	43.2	34.2	39.9	-1.6	33.2	-	48.3	39.3	73.9	53.9	25.7	14.6	Floor noise
Vert.	16500.0	43.4	-	39.5	-0.6	32.6	-	49.6	-	68.2	-	18.6	-	Floor noise
Vert.	22000.0	45.3	-	38.1	-1.6	33.1	-	48.7	-	68.2	-	19.5	-	Floor noise

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

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

*QP detector was used up to 1GHz.

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Ise EMC Lab.

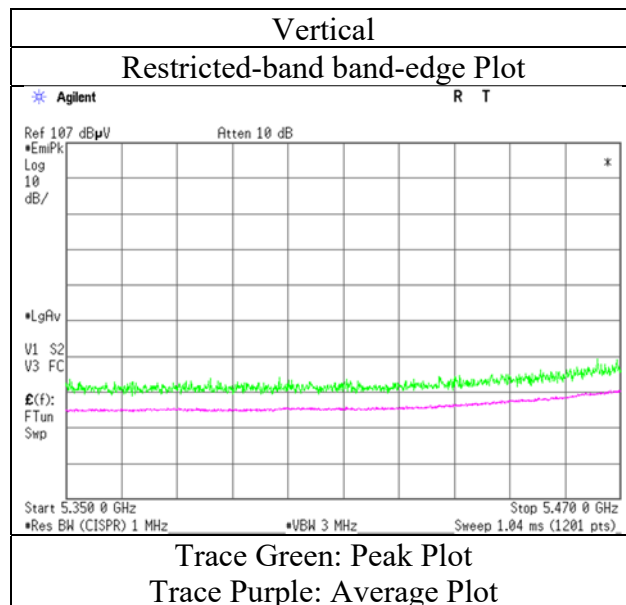
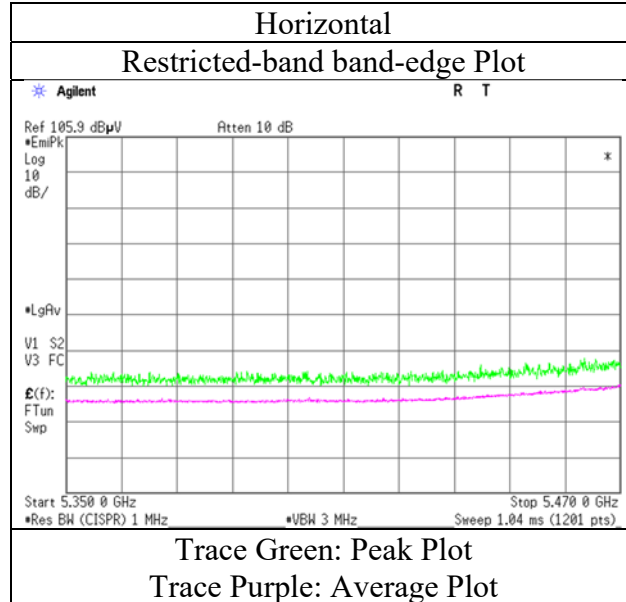
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5580 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	11160.0	42.7	34.8	39.7	-1.7	33.1	-	47.5	39.7	73.9	53.9	26.4	14.2	Floor noise
Hori.	16740.0	43.1	-	40.2	-0.6	32.6	-	50.1	-	73.9	-	23.8	-	Floor noise
Hori.	22320.0	45.6	37.4	38.2	-1.5	33.2	-	49.1	40.8	73.9	53.9	24.9	13.1	Floor noise
Vert.	11160.0	42.8	34.8	39.7	-1.7	33.1	-	47.7	39.7	73.9	53.9	26.2	14.2	Floor noise
Vert.	16740.0	43.3	-	40.2	-0.6	32.6	-	50.3	-	73.9	-	23.7	-	Floor noise
Vert.	22320.0	45.6	37.4	38.2	-1.5	33.2	-	49.1	40.8	73.9	53.9	24.9	13.1	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5700 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5725.0	48.4	-	32.4	6.1	31.3	-	55.6	-	68.2	-	12.6	-	
Hori.	11400.0	42.4	34.5	39.9	-1.7	33.1	-	47.6	39.6	73.9	53.9	26.3	14.3	Floor noise
Hori.	17100.0	43.9	-	41.0	-0.6	32.6	-	51.7	-	73.9	-	22.2	-	Floor noise
Hori.	22800.0	44.8	37.0	38.3	-1.5	33.3	-	48.4	40.5	73.9	53.9	25.5	13.4	Floor noise
Vert.	5725.0	48.2	-	32.4	6.1	31.3	-	55.4	-	68.2	-	12.9	-	
Vert.	11400.0	42.7	34.6	39.9	-1.7	33.1	-	47.9	39.8	73.9	53.9	26.0	14.1	Floor noise
Vert.	17100.0	44.0	-	41.0	-0.6	32.6	-	51.9	-	73.9	-	22.1	-	Floor noise
Vert.	22800.0	44.8	37.0	38.3	-1.5	33.3	-	48.4	40.5	73.9	53.9	25.5	13.4	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

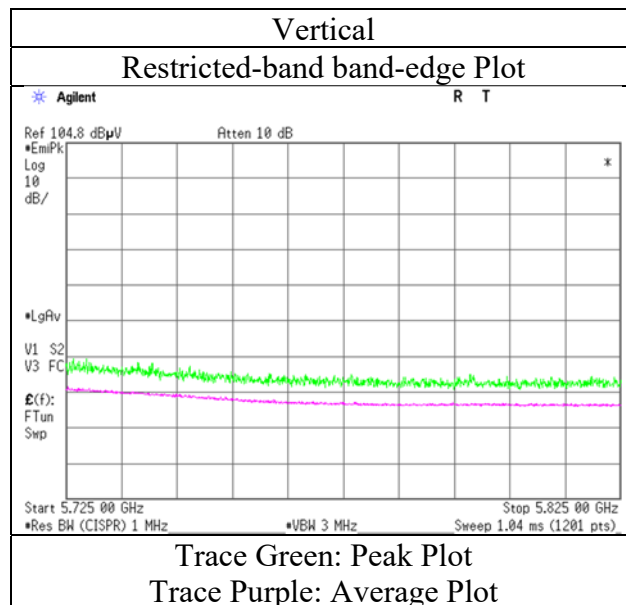
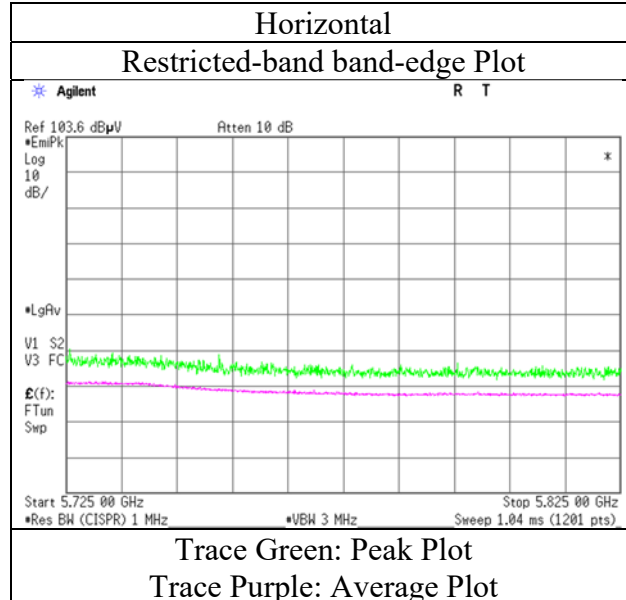
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5745 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5650.0	40.3	-	32.3	6.0	31.3	-	47.3	-	68.2	-	20.9	-	
Hori.	5700.0	43.2	-	32.4	6.0	31.3	-	50.2	-	105.2	-	55.0	-	
Hori.	5720.0	49.0	-	32.4	6.1	31.3	-	56.2	-	110.8	-	54.6	-	
Hori.	5725.0	53.9	-	32.4	6.1	31.3	-	61.0	-	122.2	-	61.2	-	
Hori.	11490.0	42.2	34.2	39.9	-1.7	33.1	-	47.4	39.4	73.9	53.9	26.5	14.6	Floor noise
Hori.	17235.0	44.0	-	41.8	-0.5	32.6	-	52.7	-	73.9	-	21.2	-	Floor noise
Hori.	22980.0	43.7	36.3	38.4	-1.5	33.3	-	47.3	39.9	73.9	53.9	26.6	14.0	Floor noise
Vert.	5650.0	41.0	-	32.3	6.0	31.3	-	48.0	-	68.2	-	20.2	-	
Vert.	5700.0	44.2	-	32.4	6.0	31.3	-	51.3	-	105.2	-	53.9	-	
Vert.	5720.0	50.2	-	32.4	6.1	31.3	-	57.4	-	110.8	-	53.5	-	
Vert.	5725.0	54.8	-	32.4	6.1	31.3	-	62.0	-	122.2	-	60.2	-	
Vert.	11490.0	42.3	34.4	39.9	-1.7	33.1	-	47.4	39.6	73.9	53.9	26.5	14.3	Floor noise
Vert.	17235.0	44.6	-	41.8	-0.5	32.6	-	53.3	-	73.9	-	20.6	-	Floor noise
Vert.	22980.0	43.7	36.3	38.4	-1.5	33.3	-	47.3	39.9	73.9	53.9	26.6	14.0	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

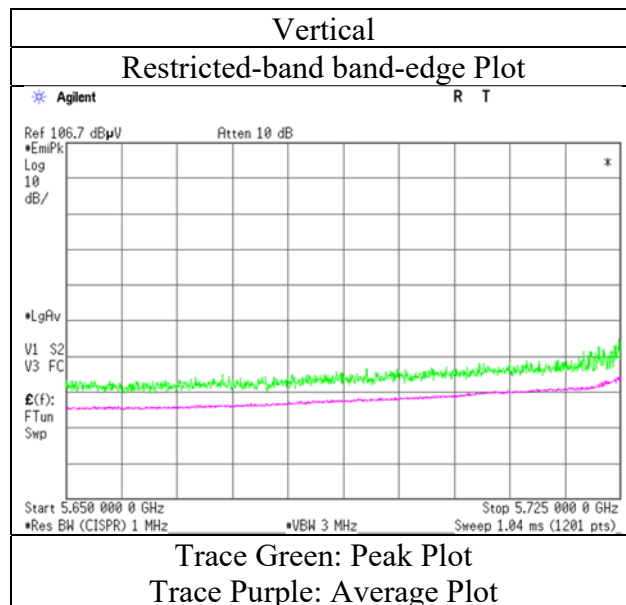
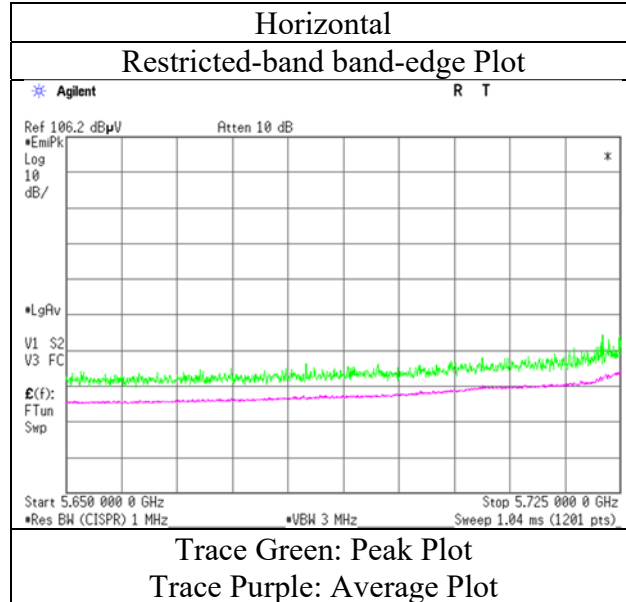
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Telephone : +81 596 24 8999

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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5785 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	11570.0	41.5	33.5	39.7	-1.7	33.0	-	46.5	38.5	73.9	53.9	27.4	15.5	Floor noise
Hori.	17355.0	44.1	-	42.8	-0.5	32.6	-	53.8	-	73.9	-	20.1	-	Floor noise
Hori.	23140.0	44.7	-	38.5	-1.4	33.3	-	48.4	-	68.2	-	19.8	-	Floor noise
Vert.	11570.0	42.1	33.7	39.7	-1.7	33.0	-	47.1	38.7	73.9	53.9	26.8	15.2	Floor noise
Vert.	17355.0	44.3	-	42.8	-0.5	32.6	-	54.0	-	73.9	-	19.9	-	Floor noise
Vert.	23140.0	44.7	-	38.5	-1.4	33.3	-	48.4	-	68.2	-	19.8	-	Floor noise

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

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

*QP detector was used up to 1GHz.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.4
Date	September 12, 2021	September 14, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	23 deg. C / 65 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Nachi Konegawa	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 18 GHz)	(18 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11a 5825 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5850.0	53.1	-	32.7	6.1	31.4	-	60.6	-	122.2	-	61.6	-	
Hori.	5855.0	51.3	-	32.7	6.1	31.4	-	58.8	-	110.8	-	52.0	-	
Hori.	5875.0	42.2	-	32.7	6.1	31.4	-	49.7	-	105.2	-	55.5	-	
Hori.	5925.0	40.7	-	32.7	6.1	31.4	-	48.2	-	68.2	-	20.0	-	
Hori.	11650.0	42.1	34.0	39.4	-1.7	33.0	-	46.8	38.7	73.9	53.9	27.1	15.2	Floor noise
Hori.	17475.0	43.4	-	43.8	-0.5	32.6	-	54.1	-	73.9	-	19.8	-	Floor noise
Hori.	23300.0	44.5	-	38.6	-1.4	33.4	-	48.3	-	68.2	-	19.9	-	Floor noise
Vert.	5850.0	54.9	-	32.7	6.1	31.4	-	62.4	-	122.2	-	59.8	-	
Vert.	5855.0	52.1	-	32.7	6.1	31.4	-	59.6	-	110.8	-	51.2	-	
Vert.	5875.0	42.7	-	32.7	6.1	31.4	-	50.1	-	105.2	-	55.1	-	
Vert.	5925.0	41.0	-	32.7	6.1	31.4	-	48.5	-	68.2	-	19.7	-	
Vert.	11650.0	42.1	34.0	39.4	-1.7	33.0	-	46.8	38.7	73.9	53.9	27.1	15.2	Floor noise
Vert.	17475.0	43.7	-	43.8	-0.5	32.6	-	54.4	-	73.9	-	19.5	-	Floor noise
Vert.	23300.0	44.5	-	38.6	-1.4	33.4	-	48.3	-	68.2	-	19.9	-	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

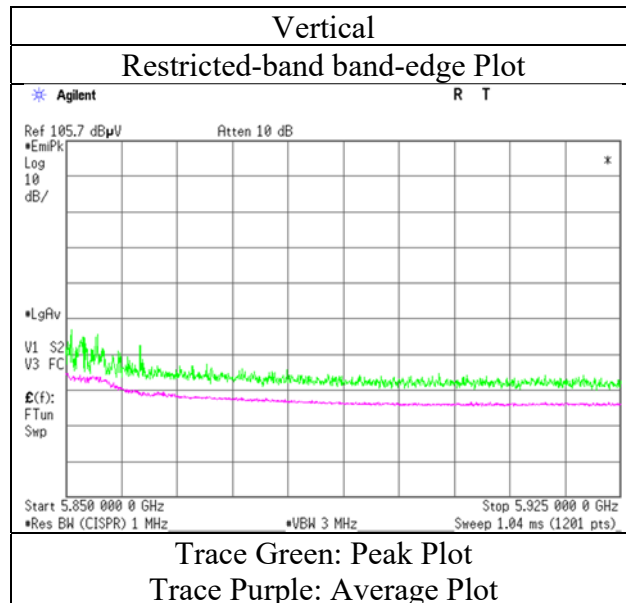
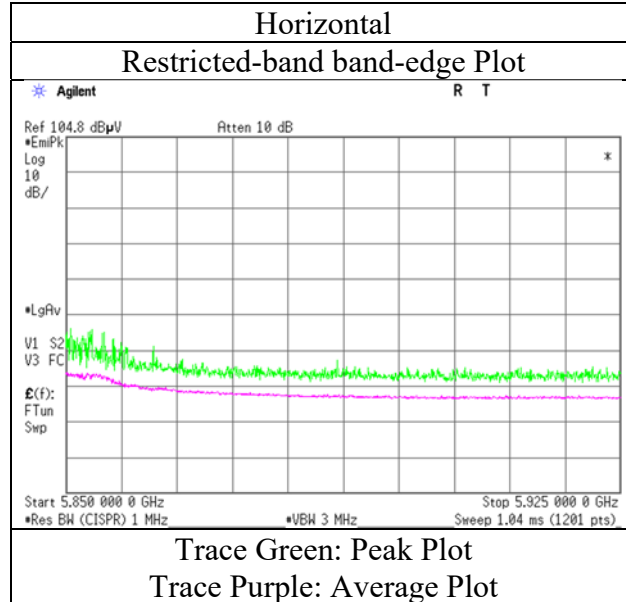
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

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Ise EMC Lab.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5180 MHz		

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	5150.0	50.2	39.8	32.2	5.8	31.2	-	57.0	46.7	73.9	53.9	16.9	7.2	
Hori.	10360.0	41.3	-	39.7	-1.9	32.9	-	46.2	-	68.2	-	22.0	-	Floor noise
Hori.	15540.0	42.8	35.1	38.0	-0.7	32.5	-	47.6	39.9	73.9	53.9	26.3	14.0	Floor noise
Hori.	20720.0	44.1	36.4	37.9	-1.8	33.0	-	47.2	39.5	73.9	53.9	26.7	14.4	Floor noise
Hori.	25900.0	47.4	-	39.4	-0.6	32.4	-	53.7	-	68.2	-	14.5	-	Floor noise
Vert.	5150.0	48.3	36.5	32.2	5.8	31.2	-	55.2	43.3	73.9	53.9	18.7	10.6	
Vert.	10360.0	41.3	-	39.7	-1.9	32.9	-	46.2	-	68.2	-	22.0	-	Floor noise
Vert.	15540.0	42.8	35.1	38.0	-0.7	32.5	-	47.6	39.9	73.9	53.9	26.3	14.0	Floor noise
Vert.	20720.0	44.1	36.4	37.9	-1.8	33.0	-	47.2	39.5	73.9	53.9	26.7	14.4	Floor noise
Vert.	25900.0	47.4	-	39.4	-0.6	32.4	-	53.7	-	68.2	-	14.5	-	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

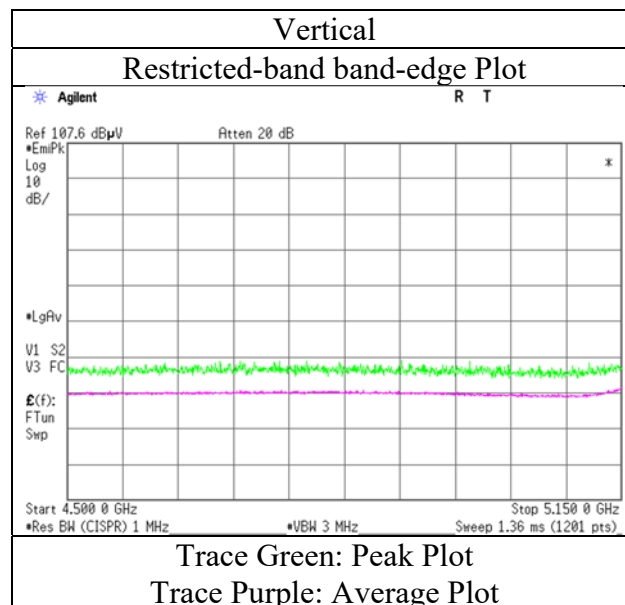
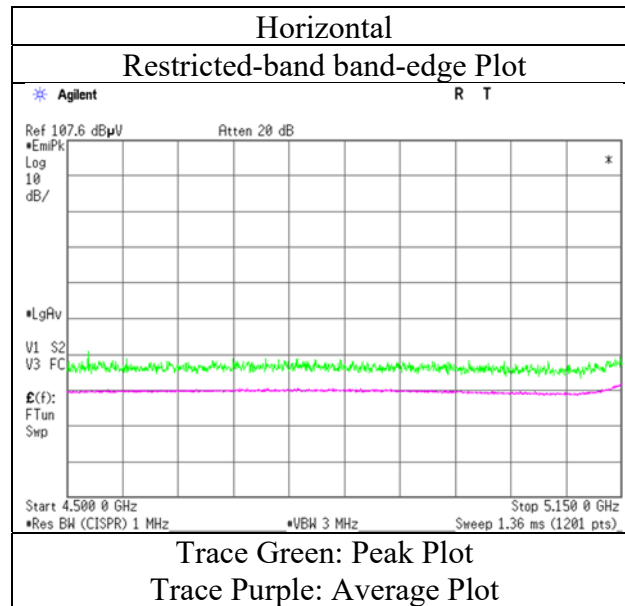
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
	(1 GHz - 10 GHz)
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.

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5260 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	10520.0	41.0	-	39.7	-1.8	33.0	-	45.9	-	68.2	-	22.3	-	Floor noise
Hori.	15780.0	42.4	35.1	37.8	-0.7	32.5	-	47.0	39.7	73.9	53.9	26.9	14.2	Floor noise
Hori.	21040.0	43.7	35.7	38.0	-1.8	33.1	-	46.9	38.8	73.9	53.9	27.0	15.1	Floor noise
Hori.	26300.0	46.6	-	39.3	-0.7	32.3	-	52.9	-	68.2	-	15.3	-	Floor noise
Vert.	10520.0	41.0	-	39.7	-1.8	33.0	-	45.9	-	68.2	-	22.3	-	Floor noise
Vert.	15780.0	42.4	35.1	37.8	-0.7	32.5	-	47.0	39.7	73.9	53.9	26.9	14.2	Floor noise
Vert.	21040.0	43.7	35.7	38.0	-1.8	33.1	-	46.9	38.8	73.9	53.9	27.0	15.1	Floor noise
Vert.	26300.0	46.6	-	39.3	-0.7	32.3	-	52.9	-	68.2	-	15.3	-	Floor noise

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

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

*QP detector was used up to 1GHz.

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Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5320 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	50.2	38.8	31.8	5.9	31.2	-	56.6	45.3	73.9	53.9	17.3	8.6	
Hori.	10640.0	41.2	35.3	39.7	-1.8	33.0	-	46.0	40.2	73.9	53.9	27.9	13.7	Floor noise
Hori.	15960.0	42.7	35.4	37.9	-0.7	32.6	-	47.4	40.1	73.9	53.9	26.5	13.8	Floor noise
Hori.	21280.0	43.6	36.5	38.1	-1.7	33.1	-	46.9	39.8	73.9	53.9	27.0	14.1	Floor noise
Vert.	5350.0	49.1	38.2	31.8	5.9	31.2	-	55.5	44.7	73.9	53.9	18.4	9.2	
Vert.	10640.0	41.2	35.3	39.7	-1.8	33.0	-	46.0	40.2	73.9	53.9	27.9	13.7	Floor noise
Vert.	15960.0	42.7	35.4	37.9	-0.7	32.6	-	47.4	40.1	73.9	53.9	26.5	13.8	Floor noise
Vert.	21280.0	43.6	36.5	38.1	-1.7	33.1	-	46.9	39.8	73.9	53.9	27.0	14.1	Floor noise

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Ise EMC Lab.

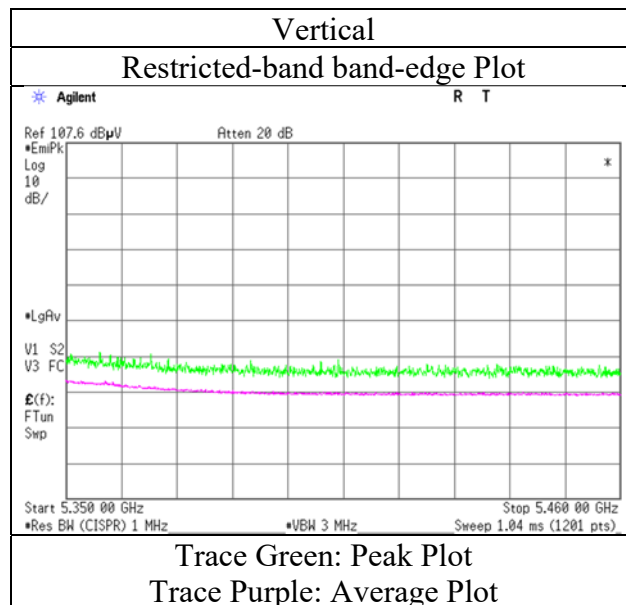
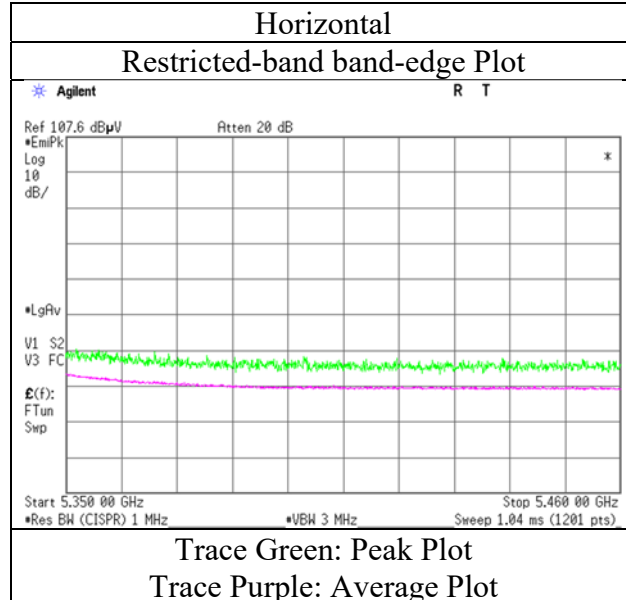
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

UL Japan, Inc.

Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5500 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5460.0	43.7	36.5	32.0	5.9	31.3	-	50.4	43.2	73.9	53.9	23.5	10.8	
Hori.	5470.0	48.5	38.0	32.1	5.9	31.3	-	55.2	44.7	68.2	-	13.0	-	
Hori.	11000.0	41.6	34.4	39.9	-1.6	33.2	-	46.7	39.5	73.9	53.9	27.2	14.5	Floor noise
Hori.	16500.0	43.1	-	39.5	-0.6	32.6	-	49.3	-	68.2	-	18.9	-	Floor noise
Hori.	22000.0	45.6	-	38.1	-1.6	33.1	-	49.0	-	68.2	-	19.2	-	Floor noise
Vert.	5460.0	44.3	36.0	32.0	5.9	31.3	-	51.0	42.7	73.9	53.9	22.9	11.2	
Vert.	5470.0	50.2	38.4	32.1	5.9	31.3	-	56.9	45.1	68.2	-	11.3	-	
Vert.	11000.0	41.6	34.4	39.9	-1.6	33.2	-	46.7	39.5	73.9	53.9	27.2	14.5	Floor noise
Vert.	16500.0	43.1	-	39.5	-0.6	32.6	-	49.3	-	68.2	-	18.9	-	Floor noise
Vert.	22000.0	45.6	-	38.1	-1.6	33.1	-	49.0	-	68.2	-	19.2	-	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

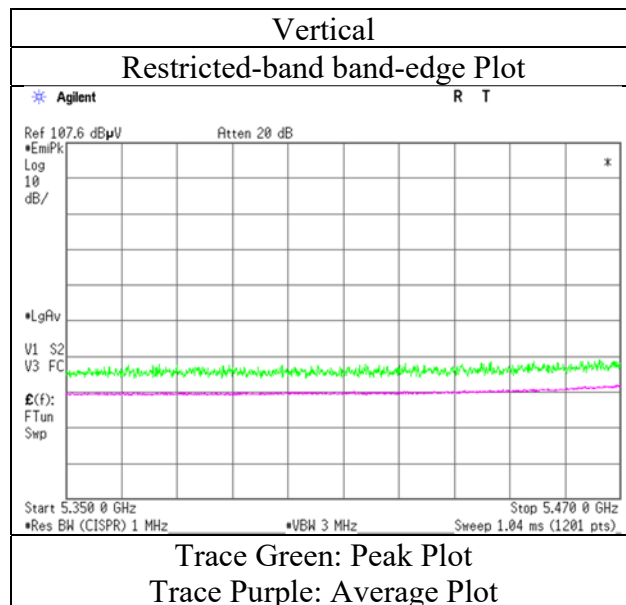
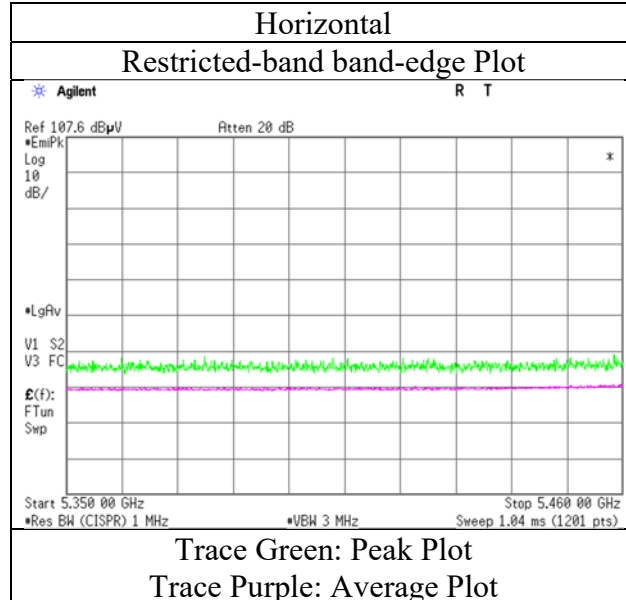
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5580 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	11160.0	41.9	34.7	39.7	-1.7	33.1	-	46.8	39.6	73.9	53.9	27.1	14.3	Floor noise
Hori.	16740.0	42.8	34.9	40.2	-0.6	32.6	-	49.8	41.8	73.9	53.9	24.1	12.1	Floor noise
Hori.	22320.0	45.6	37.8	38.2	-1.5	33.2	-	49.1	41.3	73.9	53.9	24.8	12.6	Floor noise
Vert.	11160.0	41.9	34.7	39.7	-1.7	33.1	-	46.8	39.6	73.9	53.9	27.1	14.3	Floor noise
Vert.	16740.0	42.8	34.9	40.2	-0.6	32.6	-	49.8	41.8	73.9	53.9	24.1	12.1	Floor noise
Vert.	22320.0	45.6	37.8	38.2	-1.5	33.2	-	49.1	41.3	73.9	53.9	24.8	12.6	Floor noise

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

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

*QP detector was used up to 1GHz.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5700 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5725.0	46.7	-	32.4	6.1	31.3	-	53.9	-	68.2	-	14.3	-	
Hori.	11400.0	42.1	34.3	39.9	-1.7	33.1	-	47.3	39.5	73.9	53.9	26.6	14.4	Floor noise
Hori.	17100.0	42.7	-	41.0	-0.6	32.6	-	50.6	-	68.2	-	17.7	-	Floor noise
Hori.	22800.0	44.9	36.3	38.3	-1.5	33.3	-	48.5	39.8	73.9	53.9	25.5	14.1	Floor noise
Vert.	5725.0	49.1	-	32.4	6.1	31.3	-	56.2	-	68.2	-	12.0	-	
Vert.	11400.0	42.1	34.3	39.9	-1.7	33.1	-	47.3	39.5	73.9	53.9	26.6	14.4	Floor noise
Vert.	17100.0	42.7	-	41.0	-0.6	32.6	-	50.6	-	68.2	-	17.7	-	Floor noise
Vert.	22800.0	44.9	36.3	38.3	-1.5	33.3	-	48.5	39.8	73.9	53.9	25.5	14.1	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

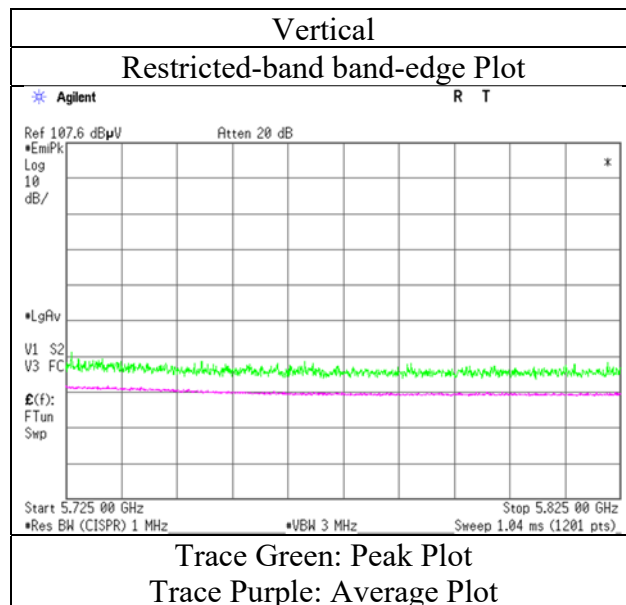
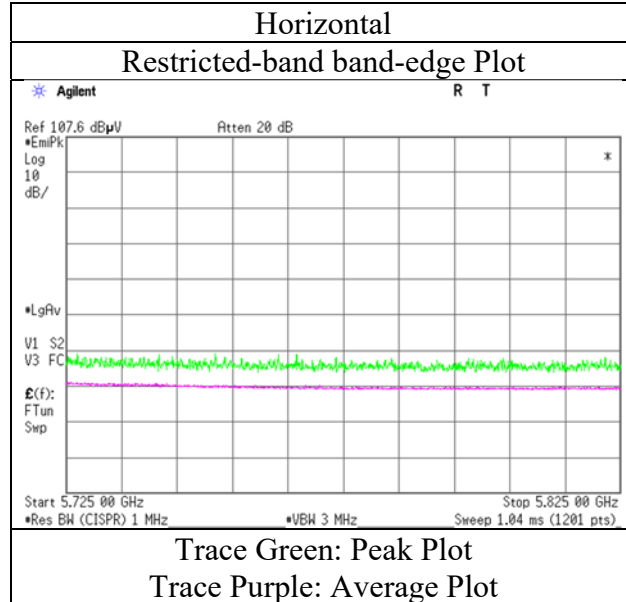
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5745 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5650.0	40.8	-	32.3	6.0	31.3	-	47.8	-	68.2	-	20.4	-	
Hori.	5700.0	43.0	-	32.4	6.0	31.3	-	50.1	-	105.2	-	55.1	-	
Hori.	5720.0	48.2	-	32.4	6.1	31.3	-	55.4	-	110.8	-	55.5	-	
Hori.	5725.0	48.4	-	32.4	6.1	31.3	-	55.6	-	122.2	-	66.7	-	
Hori.	11490.0	42.1	34.3	39.9	-1.7	33.1	-	47.3	39.5	73.9	53.9	26.6	14.4	Floor noise
Hori.	17235.0	43.6	-	41.8	-0.5	32.6	-	52.3	-	68.2	-	15.9	-	Floor noise
Hori.	22980.0	43.1	36.4	38.4	-1.5	33.3	-	46.7	40.0	73.9	53.9	27.2	13.9	Floor noise
Vert.	5650.0	41.8	-	32.3	6.0	31.3	-	48.8	-	68.2	-	19.4	-	
Vert.	5700.0	43.8	-	32.4	6.0	31.3	-	50.9	-	105.2	-	54.3	-	
Vert.	5720.0	47.9	-	32.4	6.1	31.3	-	55.0	-	110.8	-	55.8	-	
Vert.	5725.0	48.5	-	32.4	6.1	31.3	-	55.7	-	122.2	-	66.5	-	Floor noise
Vert.	11490.0	42.1	34.3	39.9	-1.7	33.1	-	47.3	39.5	73.9	53.9	26.6	14.4	Floor noise
Vert.	17235.0	43.6	-	41.8	-0.5	32.6	-	52.3	-	68.2	-	15.9	-	Floor noise
Vert.	22980.0	43.1	36.4	38.4	-1.5	33.3	-	46.7	40.0	73.9	53.9	27.2	13.9	Floor noise

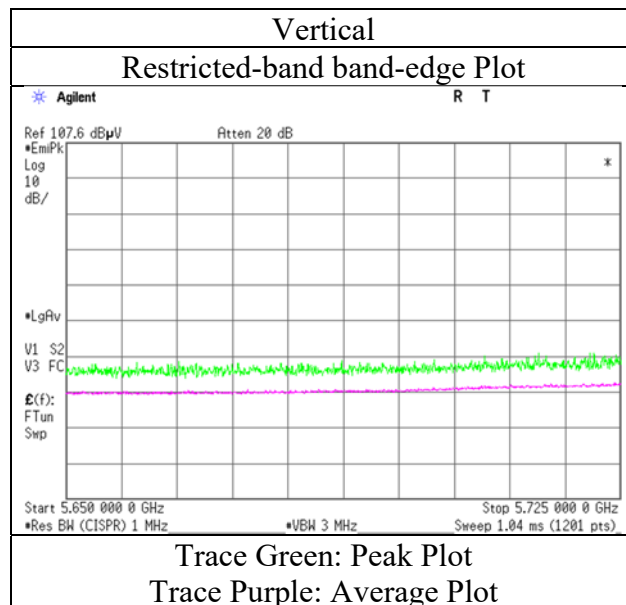
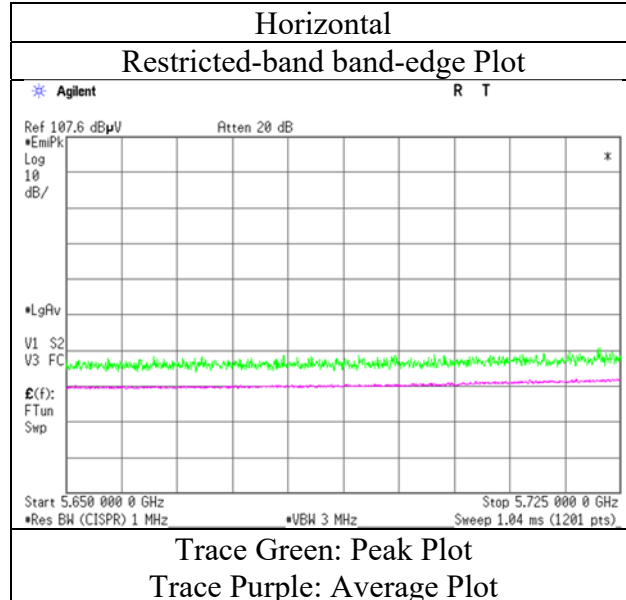
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

*QP detector was used up to 1GHz.

Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5785 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	11570.0	42.3	35.0	39.7	-1.7	33.0	-	47.3	40.0	73.9	53.9	26.6	13.9	Floor noise
Hori.	17355.0	43.7	-	42.8	-0.5	32.6	-	53.4	-	68.2	-	14.8	-	Floor noise
Hori.	23140.0	44.5	-	38.5	-1.4	33.3	-	48.2	-	68.2	-	20.0	-	Floor noise
Vert.	11570.0	42.3	35.0	39.7	-1.7	33.0	-	47.3	40.0	73.9	53.9	26.6	13.9	Floor noise
Vert.	17355.0	43.7	-	42.8	-0.5	32.6	-	53.4	-	68.2	-	14.8	-	Floor noise
Vert.	23140.0	44.5	-	38.5	-1.4	33.3	-	48.2	-	68.2	-	20.0	-	Floor noise

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

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

*QP detector was used up to 1GHz.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.	No.4	No.4
Semi Anechoic Chamber			
Date	September 12, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 57 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Hiroki Numata	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-20 5825 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5850.0	52.5	-	32.7	6.1	31.4	-	59.9	-	122.2	-	62.3	-	
Hori.	5855.0	49.1	-	32.7	6.1	31.4	-	56.5	-	110.8	-	54.3	-	
Hori.	5875.0	42.5	-	32.7	6.1	31.4	-	49.9	-	105.2	-	55.3	-	
Hori.	5925.0	41.1	-	32.7	6.1	31.4	-	48.6	-	68.2	-	19.6	-	
Hori.	11650.0	42.5	35.1	39.4	-1.7	33.0	-	47.2	39.8	73.9	53.9	26.7	14.1	Floor noise
Hori.	17475.0	43.8	-	43.8	-0.5	32.6	-	54.4	-	68.2	-	13.8	-	Floor noise
Hori.	23300.0	44.7	-	38.6	-1.4	33.4	-	48.5	-	68.2	-	19.7	-	Floor noise
Vert.	5850.0	54.4	-	32.7	6.1	31.4	-	61.8	-	122.2	-	60.4	-	
Vert.	5855.0	50.1	-	32.7	6.1	31.4	-	57.5	-	110.8	-	53.3	-	
Vert.	5875.0	41.7	-	32.7	6.1	31.4	-	49.2	-	105.2	-	56.0	-	
Vert.	5925.0	40.9	-	32.7	6.1	31.4	-	48.4	-	68.2	-	19.9	-	
Vert.	11650.0	42.5	35.1	39.4	-1.7	33.0	-	47.2	39.8	73.9	53.9	26.7	14.1	Floor noise
Vert.	17475.0	43.8	-	43.8	-0.5	32.6	-	54.4	-	68.2	-	13.8	-	Floor noise
Vert.	23300.0	44.7	-	38.6	-1.4	33.4	-	48.5	-	68.2	-	19.7	-	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

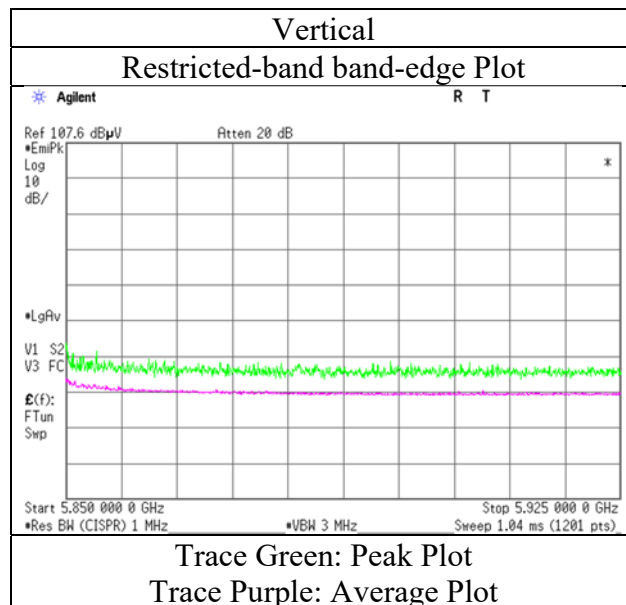
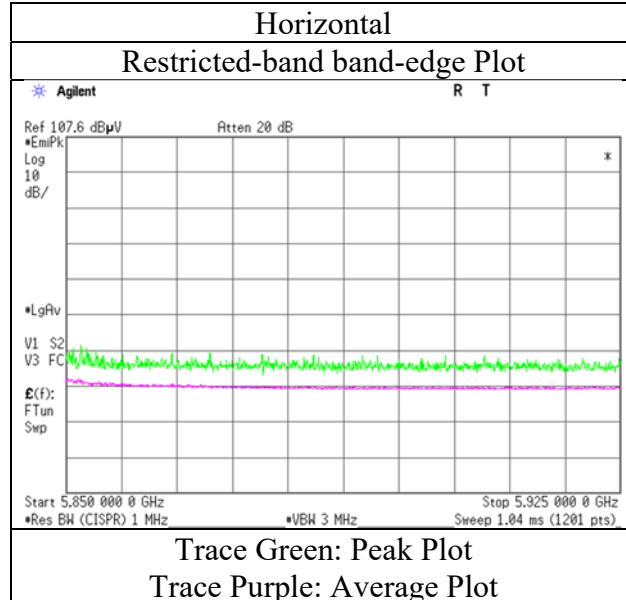
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12, 2021
Temperature / Humidity	23 deg. C / 57 % RH
Engineer	Hiroki Numata
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.

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12_N, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Kiyoshiro Okazaki	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-40 5190 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	55.8	45.8	32.2	5.8	31.2	-	62.7	52.7	73.9	53.9	11.2	1.2	
Hori.	10380.0	41.8	-	39.7	-1.9	32.9	-	46.6	-	68.2	-	21.6	-	Floor noise
Hori.	15570.0	42.8	35.1	38.0	-0.7	32.5	-	47.6	39.9	73.9	53.9	26.3	14.0	Floor noise
Hori.	20760.0	44.1	36.8	37.9	-1.8	33.0	-	47.2	39.9	73.9	53.9	26.7	14.1	Floor noise
Hori.	25950.0	47.8	-	39.4	-0.6	32.4	-	54.2	-	68.2	-	14.0	-	Floor noise
Vert.	5150.0	58.2	43.8	32.2	5.8	31.2	-	65.0	50.6	73.9	53.9	8.9	3.3	
Vert.	10380.0	41.8	-	39.7	-1.9	32.9	-	46.6	-	68.2	-	21.6	-	Floor noise
Vert.	15570.0	42.8	35.1	38.0	-0.7	32.5	-	47.6	39.9	73.9	53.9	26.3	14.0	Floor noise
Vert.	20760.0	44.1	36.8	37.9	-1.8	33.0	-	47.2	39.9	73.9	53.9	26.7	14.1	Floor noise
Vert.	25950.0	47.8	-	39.4	-0.6	32.4	-	54.2	-	68.2	-	14.0	-	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

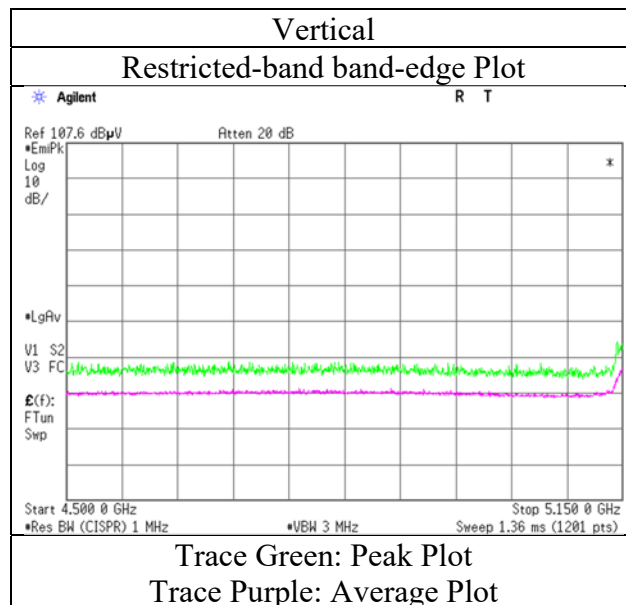
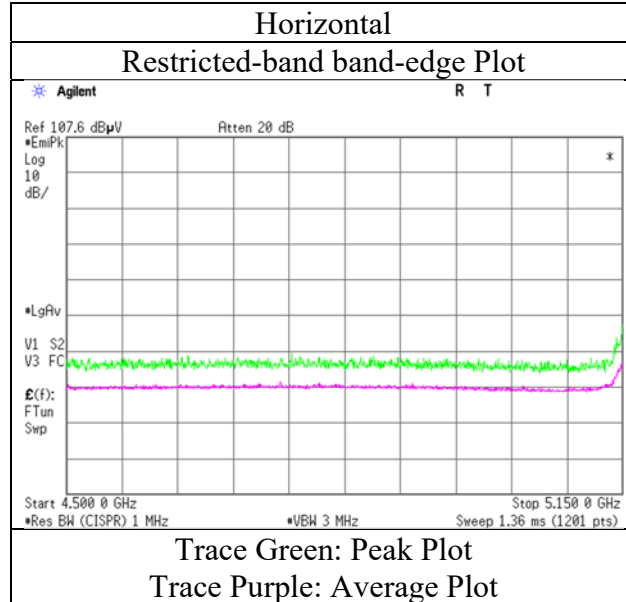
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Radiated Spurious Emission

Report No. 14007298H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date September 12_N, 2021
Temperature / Humidity 23 deg. C / 54 % RH
Engineer Kiyoshiro Okazaki
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.

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12_N, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Kiyoshiro Okazaki	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-40 5270 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	10540.0	42.1	-	39.7	-1.8	33.0	-	47.0	-	68.2	-	21.2	-	Floor noise
Hori.	15810.0	42.8	35.1	37.8	-0.7	32.5	-	47.3	39.6	73.9	53.9	26.6	14.3	Floor noise
Hori.	21080.0	43.5	35.8	38.0	-1.7	33.1	-	46.7	39.0	73.9	53.9	27.2	14.9	Floor noise
Hori.	26350.0	46.9	-	39.4	-0.7	32.3	-	53.2	-	68.2	-	15.0	-	Floor noise
Vert.	10540.0	42.1	-	39.7	-1.8	33.0	-	47.0	-	68.2	-	21.2	-	Floor noise
Vert.	15810.0	42.8	35.1	37.8	-0.7	32.5	-	47.3	39.6	73.9	53.9	26.6	14.3	Floor noise
Vert.	21080.0	43.5	35.8	38.0	-1.7	33.1	-	46.7	39.0	73.9	53.9	27.2	14.9	Floor noise
Vert.	26350.0	46.9	-	39.4	-0.7	32.3	-	53.2	-	68.2	-	15.0	-	Floor noise

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

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

*QP detector was used up to 1GHz.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12_N, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Kiyoshiro Okazaki	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-40 5310 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5350.0	52.6	43.8	31.8	5.9	31.2	-	59.0	50.3	73.9	53.9	14.9	3.6	
Hori.	10620.0	41.2	35.4	39.7	-1.8	33.0	-	46.1	40.3	73.9	53.9	27.9	13.6	Floor noise
Hori.	15930.0	42.7	35.4	37.9	-0.7	32.6	-	47.4	40.1	73.9	53.9	26.5	13.9	Floor noise
Hori.	21240.0	43.6	35.8	38.1	-1.7	33.1	-	46.9	39.1	73.9	53.9	27.1	14.9	Floor noise
Vert.	5350.0	53.5	42.3	31.8	5.9	31.2	-	60.0	48.7	73.9	53.9	13.9	5.2	
Vert.	10620.0	41.2	35.4	39.7	-1.8	33.0	-	46.1	40.3	73.9	53.9	27.9	13.6	Floor noise
Vert.	15930.0	42.7	35.4	37.9	-0.7	32.6	-	47.4	40.1	73.9	53.9	26.5	13.9	Floor noise
Vert.	21240.0	43.6	35.8	38.1	-1.7	33.1	-	46.9	39.1	73.9	53.9	27.1	14.9	Floor noise

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

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

*QP detector was used up to 1GHz.

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Ise EMC Lab.

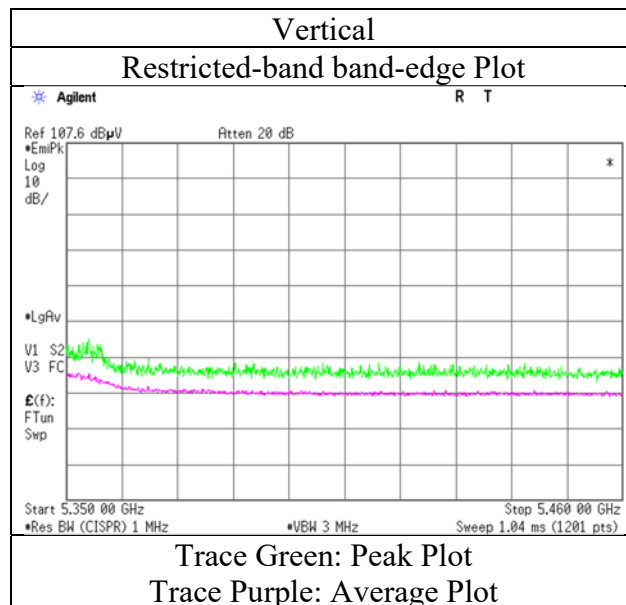
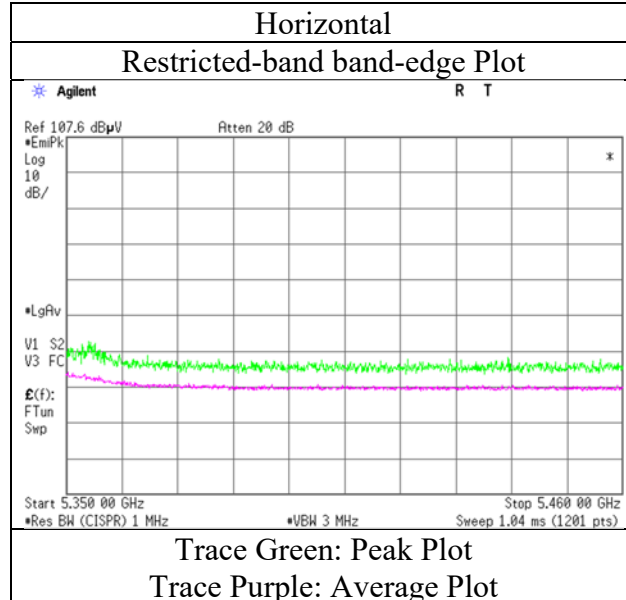
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Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12_N, 2021
Temperature / Humidity	23 deg. C / 54 % RH
Engineer	Kiyoshiro Okazaki
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.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12_N, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Kiyoshiro Okazaki	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-40 5510 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5460.0	54.3	45.3	32.0	5.9	31.3	-	61.0	52.0	73.9	53.9	12.9	1.9	
Hori.	5470.0	59.3	-	32.1	5.9	31.3	-	66.0	-	68.2	-	2.2	-	
Hori.	11020.0	41.6	34.3	39.9	-1.6	33.2	-	46.7	39.3	73.9	53.9	27.2	14.6	Floor noise
Hori.	16530.0	43.2	-	39.6	-0.6	32.6	-	49.5	-	68.2	-	18.7	-	Floor noise
Hori.	22040.0	43.4	35.9	38.1	-1.6	33.1	-	46.9	39.3	73.9	53.9	27.0	14.6	Floor noise
Vert.	5460.0	55.0	43.3	32.0	5.9	31.3	-	61.7	50.0	73.9	53.9	12.2	3.9	
Vert.	5470.0	59.6	-	32.1	5.9	31.3	-	66.3	-	68.2	-	1.9	-	
Vert.	11020.0	41.6	34.3	39.9	-1.6	33.2	-	46.7	39.3	73.9	53.9	27.2	14.6	Floor noise
Vert.	16530.0	43.2	-	39.6	-0.6	32.6	-	49.5	-	68.2	-	18.7	-	Floor noise
Vert.	22040.0	43.4	35.9	38.1	-1.6	33.1	-	46.9	39.3	73.9	53.9	27.0	14.6	Floor noise

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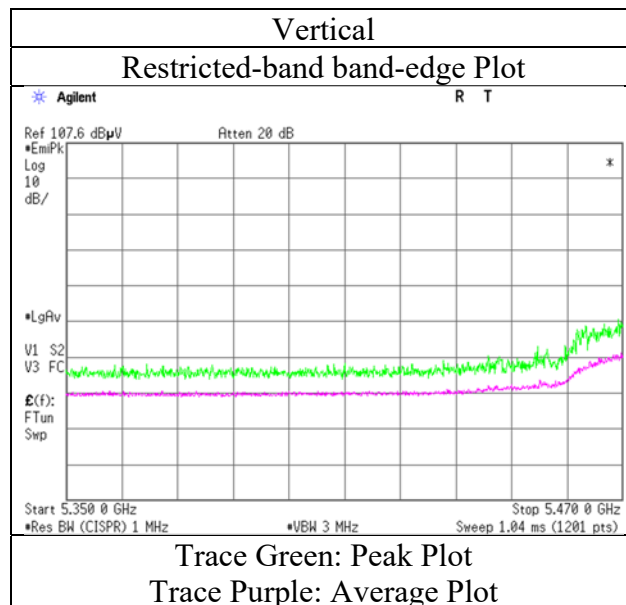
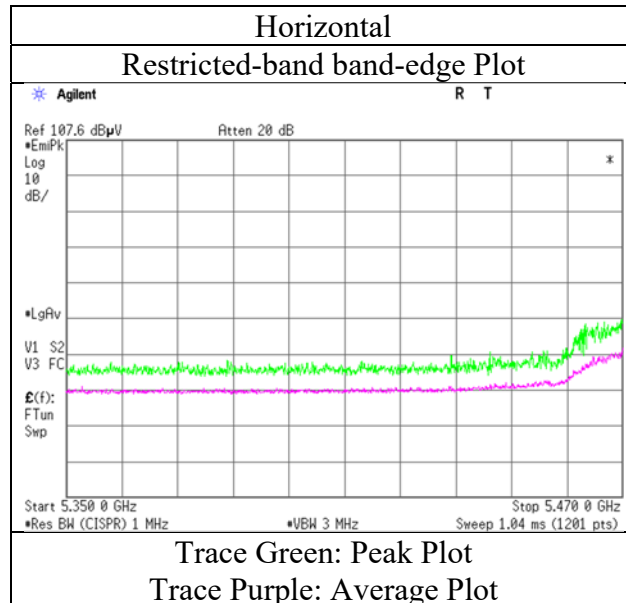
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Radiated Spurious Emission

Report No. 14007298H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date September 12_N, 2021
Temperature / Humidity 23 deg. C / 54 % RH
Engineer Kiyoshiro Okazaki
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.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12_N, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Kiyoshiro Okazaki	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-40 5550 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	11100.0	42.0	34.5	39.7	-1.6	33.2	-	46.9	39.4	73.9	53.9	27.0	14.5	Floor noise
Hori.	16650.0	42.9	-	39.9	-0.6	32.6	-	49.6	-	68.2	-	18.6	-	Floor noise
Hori.	22200.0	43.5	36.0	38.1	-1.5	33.2	-	47.0	39.5	73.9	53.9	26.9	14.4	Floor noise
Vert.	11100.0	42.0	34.5	39.7	-1.6	33.2	-	46.9	39.4	73.9	53.9	27.0	14.5	Floor noise
Vert.	16650.0	42.9	-	39.9	-0.6	32.6	-	49.6	-	68.2	-	18.6	-	Floor noise
Vert.	22200.0	43.5	36.0	38.1	-1.5	33.2	-	47.0	39.5	73.9	53.9	26.9	14.4	Floor noise

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

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

*QP detector was used up to 1GHz.

Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12_N, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Kiyoshiro Okazaki	Kiyoshiro Okazaki	Nachi Konegawa
	(1 GHz - 10 GHz)	(10 GHz - 26.5 GHz)	(26.5 GHz - 40 GHz)
Mode	Tx 11n-40 5670 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5725.0	47.3	-	32.4	6.1	31.3	-	54.5	-	68.2	-	13.7	-	
Hori.	11340.0	41.9	34.6	39.9	-1.7	33.1	-	47.0	39.8	73.9	53.9	26.9	14.2	Floor noise
Hori.	17010.0	42.9	-	40.7	-0.6	32.6	-	50.5	-	68.2	-	17.7	-	Floor noise
Hori.	22680.0	43.4	36.1	38.2	-1.5	33.2	-	46.9	39.6	73.9	53.9	27.0	14.3	Floor noise
Vert.	5725.0	48.4	-	32.4	6.1	31.3	-	55.6	-	68.2	-	12.7	-	
Vert.	11340.0	41.9	34.6	39.9	-1.7	33.1	-	47.0	39.8	73.9	53.9	26.9	14.2	Floor noise
Vert.	17010.0	42.9	-	40.7	-0.6	32.6	-	50.5	-	68.2	-	17.7	-	Floor noise
Vert.	22680.0	43.4	36.1	38.2	-1.5	33.2	-	46.9	39.6	73.9	53.9	27.0	14.3	Floor noise

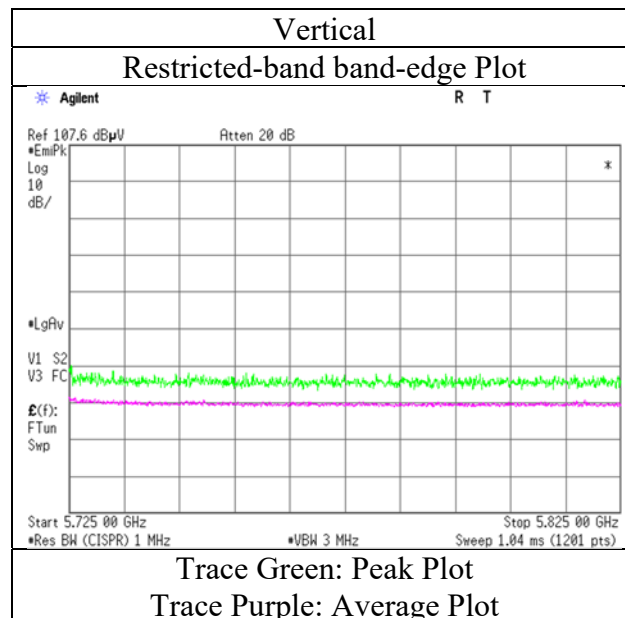
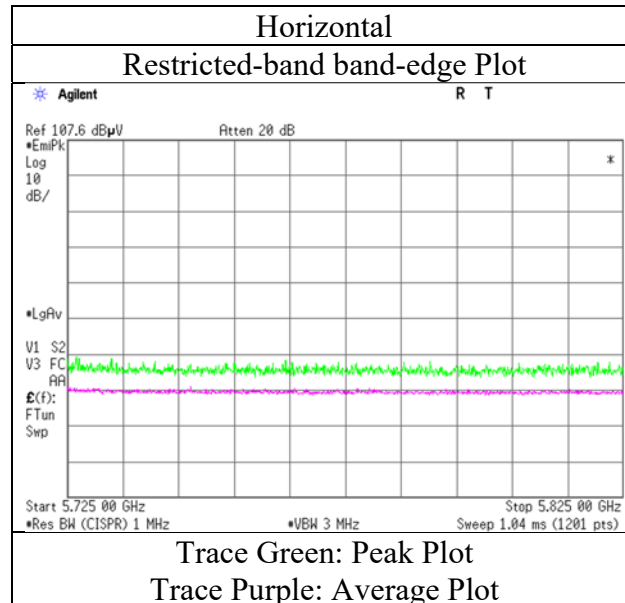
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

*QP detector was used up to 1GHz.

Radiated Spurious Emission

Report No. 14007298H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date September 12_N, 2021
Temperature / Humidity 23 deg. C / 54 % RH
Engineer Kiyoshiro Okazaki
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.

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 12_N, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Kiyoshiro Okazaki (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11n-40 5755 MHz		

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	5650.0	42.1	-	32.3	6.0	31.3	-	49.0	-	68.2	-	19.2	-	
Hori.	5700.0	44.4	-	32.4	6.0	31.3	-	51.5	-	105.2	-	53.7	-	
Hori.	5720.0	55.3	-	32.4	6.1	31.3	-	62.5	-	110.8	-	48.4	-	
Hori.	5725.0	55.9	-	32.4	6.1	31.3	-	63.0	-	122.2	-	59.2	-	
Hori.	11510.0	42.3	34.7	39.9	-1.7	33.0	-	47.5	39.9	73.9	53.9	26.5	14.0	Floor noise
Hori.	17265.0	42.7	-	42.1	-0.5	32.6	-	51.7	-	68.2	-	16.6	-	Floor noise
Hori.	23020.0	43.2	36.3	38.4	-1.5	33.3	-	46.9	39.9	73.9	53.9	27.1	14.0	Floor noise
Vert.	5650.0	40.1	-	32.3	6.0	31.3	-	47.1	-	68.2	-	21.1	-	
Vert.	5700.0	45.0	-	32.4	6.0	31.3	-	52.1	-	105.2	-	53.1	-	
Vert.	5720.0	56.5	-	32.4	6.1	31.3	-	63.6	-	110.8	-	47.2	-	
Vert.	5725.0	57.5	-	32.4	6.1	31.3	-	64.7	-	122.2	-	57.5	-	
Vert.	11510.0	42.3	34.7	39.9	-1.7	33.0	-	47.5	39.9	73.9	53.9	26.5	14.0	Floor noise
Vert.	17265.0	42.7	-	42.1	-0.5	32.6	-	51.7	-	68.2	-	16.6	-	Floor noise
Vert.	23020.0	43.2	36.3	38.4	-1.5	33.3	-	46.9	39.9	73.9	53.9	27.1	14.0	Floor noise

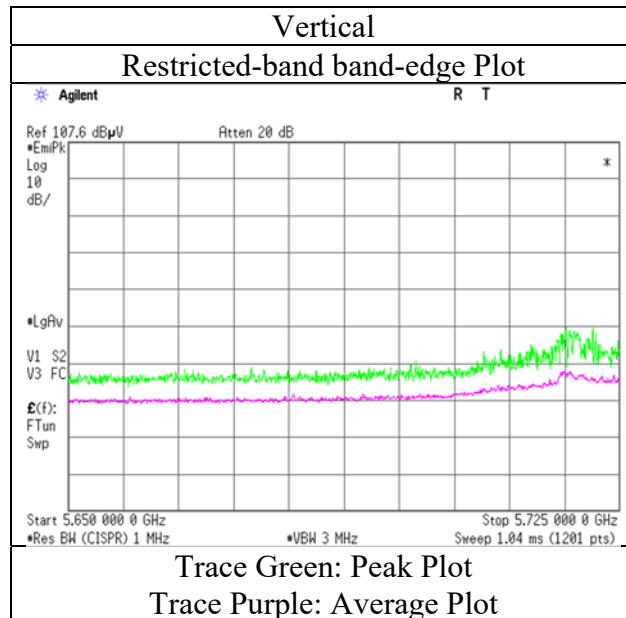
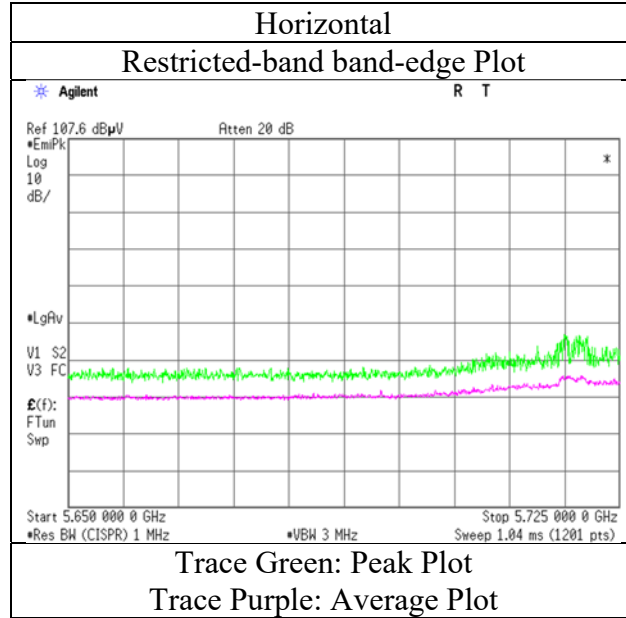
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

*QP detector was used up to 1GHz.

Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 12_N, 2021
Temperature / Humidity	23 deg. C / 54 % RH
Engineer	Kiyoshiro Okazaki
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.

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Radiated Spurious Emission

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.3
Date	September 12_N, 2021	September 15, 2021	September 16, 2021	September 28, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH	23 deg. C / 61 % RH
Engineer	Kiyoshiro Okazaki (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)	Hiroki Numata (Below 1 GHz)
Mode	Tx 11n-40 5795 MHz			

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	61.5	38.6	-	7.5	7.8	32.3	-	21.6	-	40.0	-	18.4	-	
Hori.	250.0	50.7	-	12.1	9.8	32.1	-	40.4	-	46.0	-	5.6	-	
Hori.	350.0	49.2	-	15.3	10.5	32.1	-	43.0	-	46.0	-	3.1	-	
Hori.	450.0	43.4	-	16.7	11.2	32.1	-	39.2	-	46.0	-	6.8	-	
Hori.	550.0	43.5	-	18.0	11.8	32.1	-	41.2	-	46.0	-	4.8	-	
Hori.	750.0	41.9	-	20.4	12.9	31.8	-	43.4	-	46.0	-	2.6	-	
Hori.	5850.0	47.3	-	32.7	6.1	31.4	-	54.8	-	122.2	-	67.5	-	
Hori.	5855.0	44.4	-	32.7	6.1	31.4	-	51.9	-	110.8	-	59.0	-	
Hori.	5875.0	42.4	-	32.7	6.1	31.4	-	49.9	-	105.2	-	55.3	-	
Hori.	5925.0	40.6	-	32.7	6.1	31.4	-	48.1	-	68.2	-	20.1	-	
Hori.	11590.0	42.2	34.7	39.6	-1.7	33.0	-	47.1	39.6	73.9	53.9	26.8	14.3	Floor noise
Hori.	17385.0	43.5	-	43.1	-0.5	32.6	-	53.5	-	68.2	-	14.7	-	Floor noise
Hori.	23180.0	43.2	-	38.5	-1.4	33.3	-	46.9	-	68.2	-	21.3	-	Floor noise
Vert.	61.5	51.8	-	7.5	7.8	32.3	-	34.8	-	40.0	-	5.3	-	
Vert.	250.0	53.5	-	12.1	9.8	32.1	-	43.2	-	46.0	-	2.8	-	
Vert.	350.0	44.9	-	15.3	10.5	32.1	-	38.6	-	46.0	-	7.4	-	
Vert.	450.0	41.5	-	16.7	11.2	32.1	-	37.3	-	46.0	-	8.7	-	
Vert.	550.0	40.5	-	18.0	11.8	32.1	-	38.2	-	46.0	-	7.8	-	
Vert.	750.0	42.5	-	20.4	12.9	31.8	-	44.0	-	46.0	-	2.0	-	
Vert.	5850.0	46.3	-	32.7	6.1	31.4	-	53.7	-	122.2	-	68.5	-	
Vert.	5855.0	45.4	-	32.7	6.1	31.4	-	52.9	-	110.8	-	57.9	-	
Vert.	5875.0	43.3	-	32.7	6.1	31.4	-	50.8	-	105.2	-	54.4	-	
Vert.	5925.0	40.6	-	32.7	6.1	31.4	-	48.1	-	68.2	-	20.1	-	
Vert.	11590.0	42.2	34.7	39.6	-1.7	33.0	-	47.1	39.6	73.9	53.9	26.8	14.3	Floor noise
Vert.	17385.0	43.5	-	43.1	-0.5	32.6	-	53.5	-	68.2	-	14.7	-	Floor noise
Vert.	23180.0	43.2	-	38.5	-1.4	33.3	-	46.9	-	68.2	-	21.3	-	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

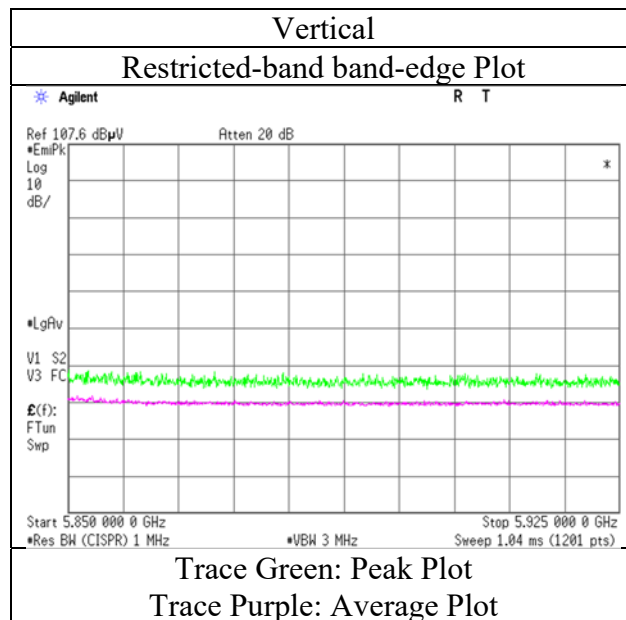
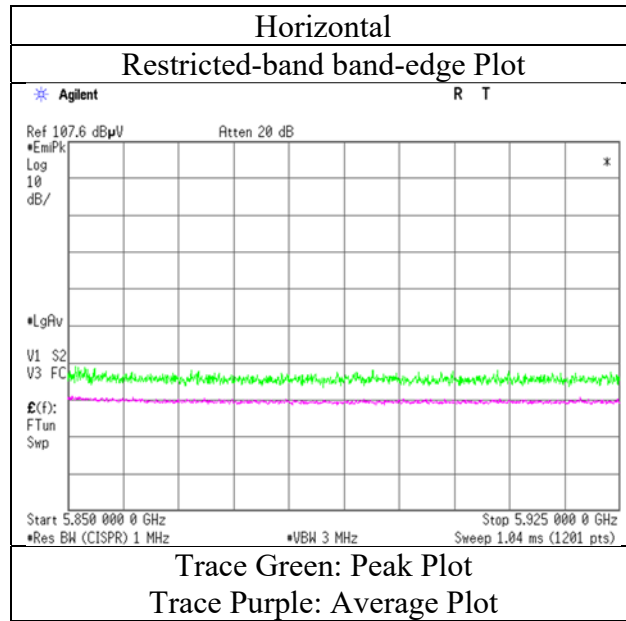
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No. 14007298H
Test place Ise EMC Lab.
Semi Anechoic Chamber No.4
Date September 12_N, 2021
Temperature / Humidity 23 deg. C / 54 % RH
Engineer Kiyoshiro Okazaki
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.

UL Japan, Inc.

Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 13, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	22 deg. C / 70 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Akihiko Maeda (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11ac-80 5210 MHz		

Polarity	Frequency	Reading (QP / PK)	Reading (AV)	Ant. Factor	Loss	Gain	Duty Factor	Result (QP / PK)	Result (AV)	Limit (QP / PK)	Limit (AV)	Margin (QP / PK)	Margin (AV)	Remark
[Hori/Vert]	[MHz]	[dBuV]	[dBuV]	[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	
Hori.	5150.0	54.7	42.9	32.2	5.8	31.2	-	61.6	49.8	73.9	53.9	12.3	4.1	
Hori.	10420.0	41.7	-	39.7	-1.9	33.0	-	46.6	-	68.2	-	21.6	-	Floor noise
Hori.	15630.0	42.2	35.1	37.9	-0.7	32.5	-	46.8	39.7	73.9	53.9	27.1	14.2	Floor noise
Hori.	20840.0	43.1	35.1	37.9	-1.8	33.0	-	46.2	38.2	73.9	53.9	27.7	15.7	Floor noise
Hori.	26050.0	44.8	-	39.4	-0.6	32.4	-	51.2	-	68.2	-	17.0	-	Floor noise
Vert.	5150.0	55.2	43.8	32.2	5.8	31.2	-	62.1	50.7	73.9	53.9	11.8	3.2	
Vert.	10420.0	41.7	-	39.7	-1.9	33.0	-	46.6	-	68.2	-	21.6	-	Floor noise
Vert.	15630.0	42.2	35.1	37.9	-0.7	32.5	-	46.8	39.7	73.9	53.9	27.1	14.2	Floor noise
Vert.	20840.0	43.1	35.1	37.9	-1.8	33.0	-	46.2	38.2	73.9	53.9	27.7	15.7	Floor noise
Vert.	26050.0	44.8	-	39.4	-0.6	32.4	-	51.2	-	68.2	-	17.0	-	Floor noise

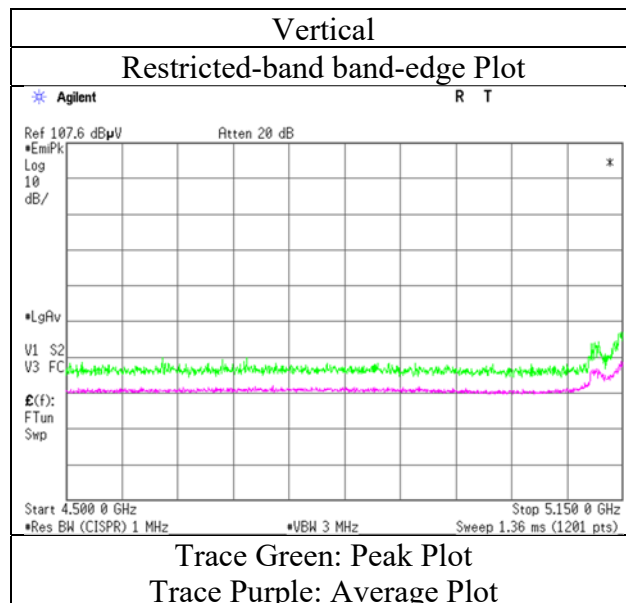
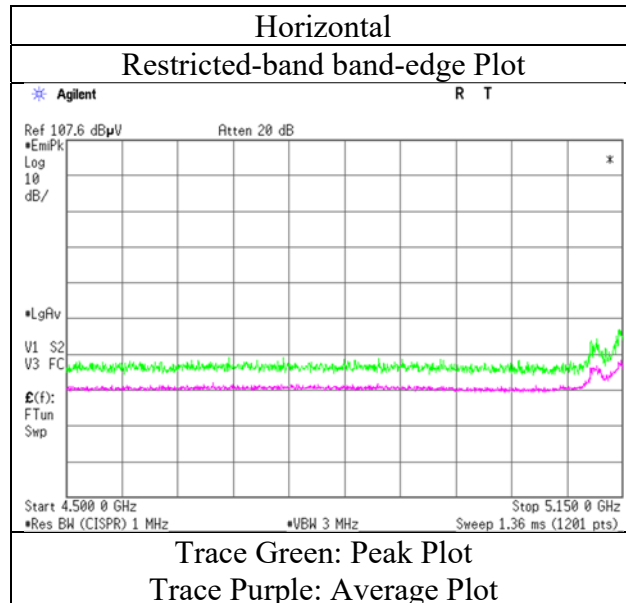
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

*QP detector was used up to 1GHz.

Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 13, 2021
Temperature / Humidity	22 deg. C / 70 % RH
Engineer	Akihiko Maeda
Mode	Tx 11ac-80 5210 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.

UL Japan, Inc.

Ise EMC Lab.

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Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 13, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	22 deg. C / 70 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Akihiko Maeda (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11ac-80 5290 MHz		

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	5350.0	51.9	38.2	31.8	5.9	31.2	-	58.4	44.7	73.9	53.9	15.5	9.2	
Hori.	10580.0	41.6	-	39.7	-1.8	33.0	-	46.5	-	68.2	-	21.7	-	Floor noise
Hori.	15870.0	42.4	35.4	37.8	-0.7	32.5	-	47.0	40.0	73.9	53.9	26.9	13.9	Floor noise
Hori.	21160.0	43.4	35.4	38.0	-1.7	33.1	-	46.6	38.6	73.9	53.9	27.3	15.3	Floor noise
Hori.	26450.0	44.3	-	39.4	-0.7	32.3	-	50.7	-	68.2	-	17.5	-	Floor noise
Vert.	5350.0	51.5	38.1	31.8	5.9	31.2	-	58.0	44.6	73.9	53.9	15.9	9.3	
Vert.	10580.0	41.6	-	39.7	-1.8	33.0	-	46.5	-	68.2	-	21.7	-	Floor noise
Vert.	15870.0	42.4	35.4	37.8	-0.7	32.5	-	47.0	40.0	73.9	53.9	26.9	13.9	Floor noise
Vert.	21160.0	43.4	35.4	38.0	-1.7	33.1	-	46.6	38.6	73.9	53.9	27.3	15.3	Floor noise
Vert.	26450.0	44.3	-	39.4	-0.7	32.3	-	50.7	-	68.2	-	17.5	-	Floor noise

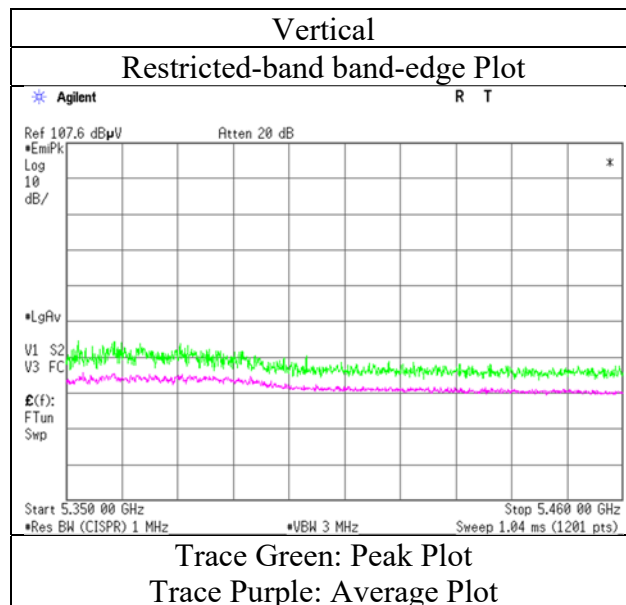
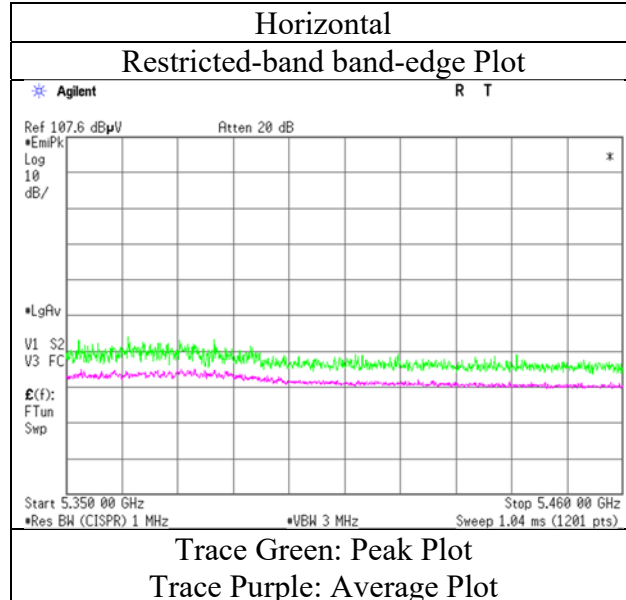
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

*QP detector was used up to 1GHz.

Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 13, 2021
Temperature / Humidity	22 deg. C / 70 % RH
Engineer	Akihiko Maeda
Mode	Tx 11ac-80 5290 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.

UL Japan, Inc.

Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 13, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	22 deg. C / 70 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Akihiko Maeda (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11ac-80 5530 MHz		

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	5460.0	54.6	40.8	32.0	5.9	31.3	-	61.3	47.5	73.9	53.9	12.6	6.4	
Hori.	5470.0	54.7	-	32.1	5.9	31.3	-	61.4	-	68.2	-	6.8	-	
Hori.	11060.0	42.4	34.2	39.8	-1.6	33.2	-	47.4	39.2	73.9	53.9	26.5	14.7	Floor noise
Hori.	16590.0	43.5	35.3	39.7	-0.6	32.6	-	50.0	41.8	73.9	53.9	23.9	12.1	Floor noise
Hori.	22120.0	43.3	35.4	38.1	-1.5	33.1	-	46.7	38.9	73.9	53.9	27.2	15.1	Floor noise
Vert.	5460.0	54.2	40.2	32.0	5.9	31.3	-	60.9	46.9	73.9	53.9	13.0	7.0	
Vert.	5470.0	55.4	-	32.1	5.9	31.3	-	62.1	-	68.2	-	6.1	-	
Vert.	11060.0	42.4	34.2	39.8	-1.6	33.2	-	47.4	39.2	73.9	53.9	26.5	14.7	Floor noise
Vert.	16590.0	43.5	35.3	39.7	-0.6	32.6	-	50.0	41.8	73.9	53.9	23.9	12.1	Floor noise
Vert.	22120.0	43.3	35.4	38.1	-1.5	33.1	-	46.7	38.9	73.9	53.9	27.2	15.1	Floor noise

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

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

*QP detector was used up to 1GHz.

UL Japan, Inc.

Ise EMC Lab.

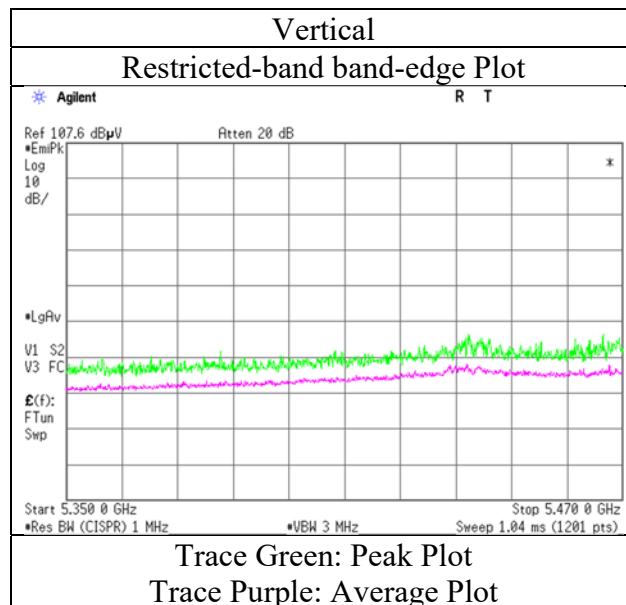
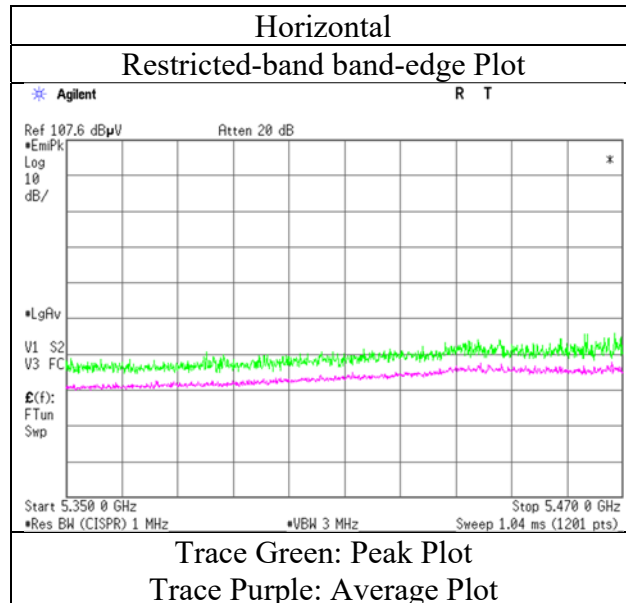
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 13, 2021
Temperature / Humidity	22 deg. C / 70 % RH
Engineer	Akihiko Maeda
Mode	Tx 11ac-80 5530 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.

UL Japan, Inc.

Ise EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Facsimile : +81 596 24 8124

Radiated Spurious Emission

Report No.	14007298H		
Test place	Ise EMC Lab.		
Semi Anechoic Chamber	No.4	No.4	No.4
Date	September 13, 2021	September 15, 2021	September 16, 2021
Temperature / Humidity	22 deg. C / 70 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH
Engineer	Akihiko Maeda (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)
Mode	Tx 11ac-80 5775 MHz		

Polarity [Hori/Vert]	Frequency [MHz]	Reading (QP / PK) [dBuV]	Reading (AV) [dBuV]	Ant. Factor [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result (QP / PK) [dBuV/m]	Result (AV) [dBuV/m]	Limit (QP / PK) [dBuV/m]	Limit (AV) [dBuV/m]	Margin (QP / PK) [dB]	Margin (AV) [dB]	Remark
Hori.	5650.0	46.1	-	32.3	6.0	31.3	-	53.1	-	68.2	-	15.1	-	
Hori.	5700.0	53.1	-	32.4	6.0	31.3	-	60.2	-	105.2	-	45.0	-	
Hori.	5720.0	58.5	-	32.4	6.1	31.3	-	65.7	-	110.8	-	45.2	-	
Hori.	5725.0	62.7	-	32.4	6.1	31.3	-	69.9	-	122.2	-	52.3	-	
Hori.	5850.0	54.5	-	32.7	6.1	31.4	-	61.9	-	122.2	-	60.3	-	
Hori.	5855.0	54.3	-	32.7	6.1	31.4	-	61.8	-	110.8	-	49.1	-	
Hori.	5875.0	49.5	-	32.7	6.1	31.4	-	57.0	-	105.2	-	48.2	-	
Hori.	5925.0	43.8	-	32.7	6.1	31.4	-	51.3	-	68.2	-	16.9	-	
Hori.	11550.0	42.1	35.1	39.8	-1.7	33.0	-	47.2	40.1	73.9	53.9	26.7	13.8	Floor noise
Hori.	17325.0	43.4	-	42.6	-0.5	32.6	-	52.9	-	68.2	-	15.3	-	Floor noise
Hori.	23100.0	43.4	35.8	38.4	-1.5	33.3	-	47.1	39.5	73.9	53.9	26.8	14.5	Floor noise
Vert.	5650.0	47.5	-	32.3	6.0	31.3	-	54.5	-	68.2	-	13.7	-	
Vert.	5700.0	53.0	-	32.4	6.0	31.3	-	60.1	-	105.2	-	45.1	-	
Vert.	5720.0	58.1	-	32.4	6.1	31.3	-	65.3	-	110.8	-	45.6	-	
Vert.	5725.0	62.9	-	32.4	6.1	31.3	-	70.1	-	122.2	-	52.1	-	
Vert.	5850.0	53.9	-	32.7	6.1	31.4	-	61.3	-	122.2	-	60.9	-	
Vert.	5855.0	53.9	-	32.7	6.1	31.4	-	61.4	-	110.8	-	49.5	-	
Vert.	5875.0	49.3	-	32.7	6.1	31.4	-	56.8	-	105.2	-	48.4	-	
Vert.	5925.0	42.6	-	32.7	6.1	31.4	-	50.1	-	68.2	-	18.1	-	
Vert.	11550.0	42.1	35.1	39.8	-1.7	33.0	-	47.2	40.1	73.9	53.9	26.7	13.8	Floor noise
Vert.	17325.0	43.4	-	42.6	-0.5	32.6	-	52.9	-	68.2	-	15.3	-	Floor noise
Vert.	23100.0	43.4	35.8	38.4	-1.5	33.3	-	47.1	39.5	73.9	53.9	26.8	14.5	Floor noise

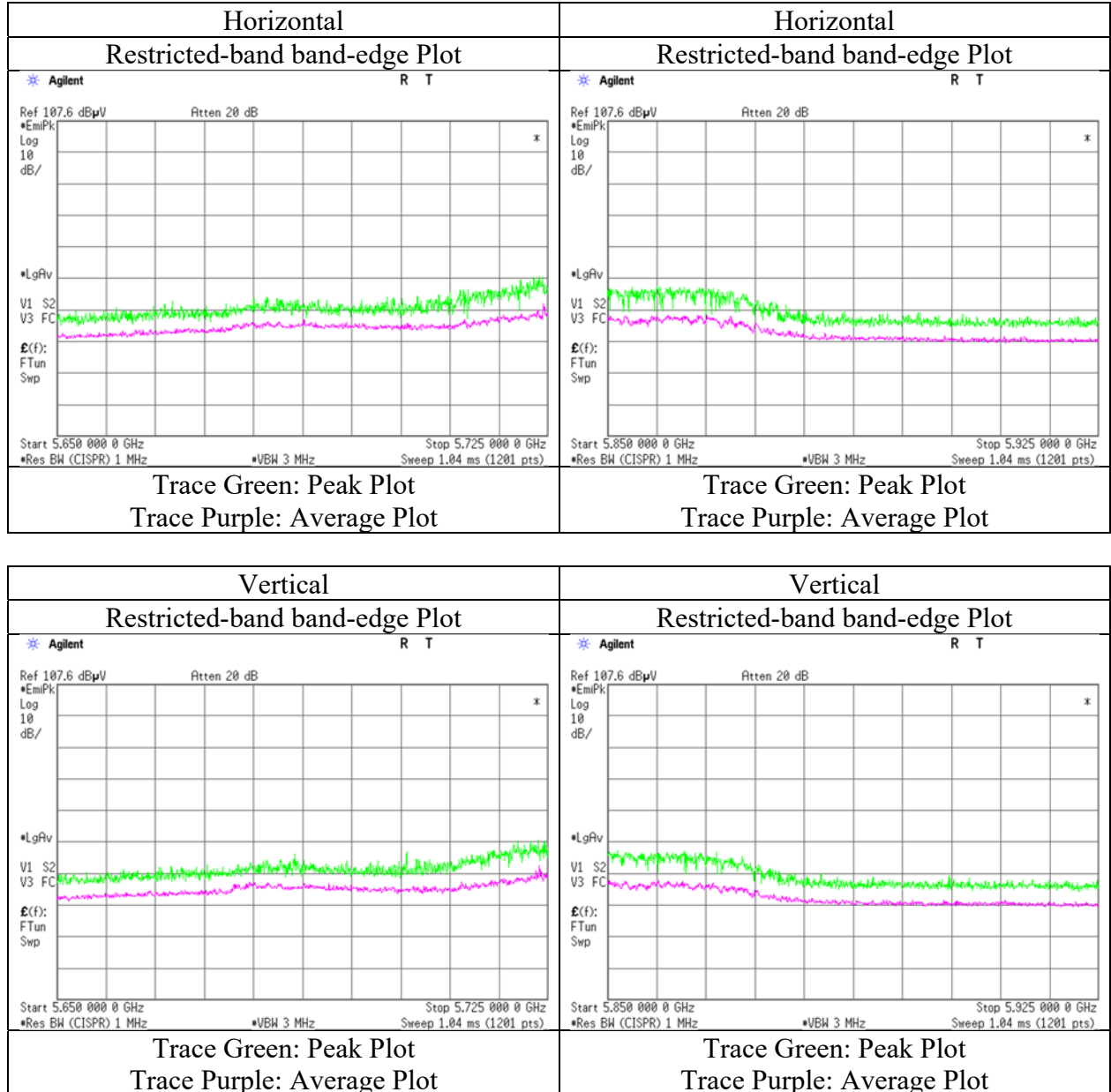
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

*QP detector was used up to 1GHz.

Radiated Spurious Emission

Report No.	14007298H
Test place	Ise EMC Lab.
Semi Anechoic Chamber	No.4
Date	September 13, 2021
Temperature / Humidity	22 deg. C / 70 % RH
Engineer	Akihiko Maeda
Mode	Tx 11ac-80 5775 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.

UL Japan, Inc.

Ise EMC Lab.

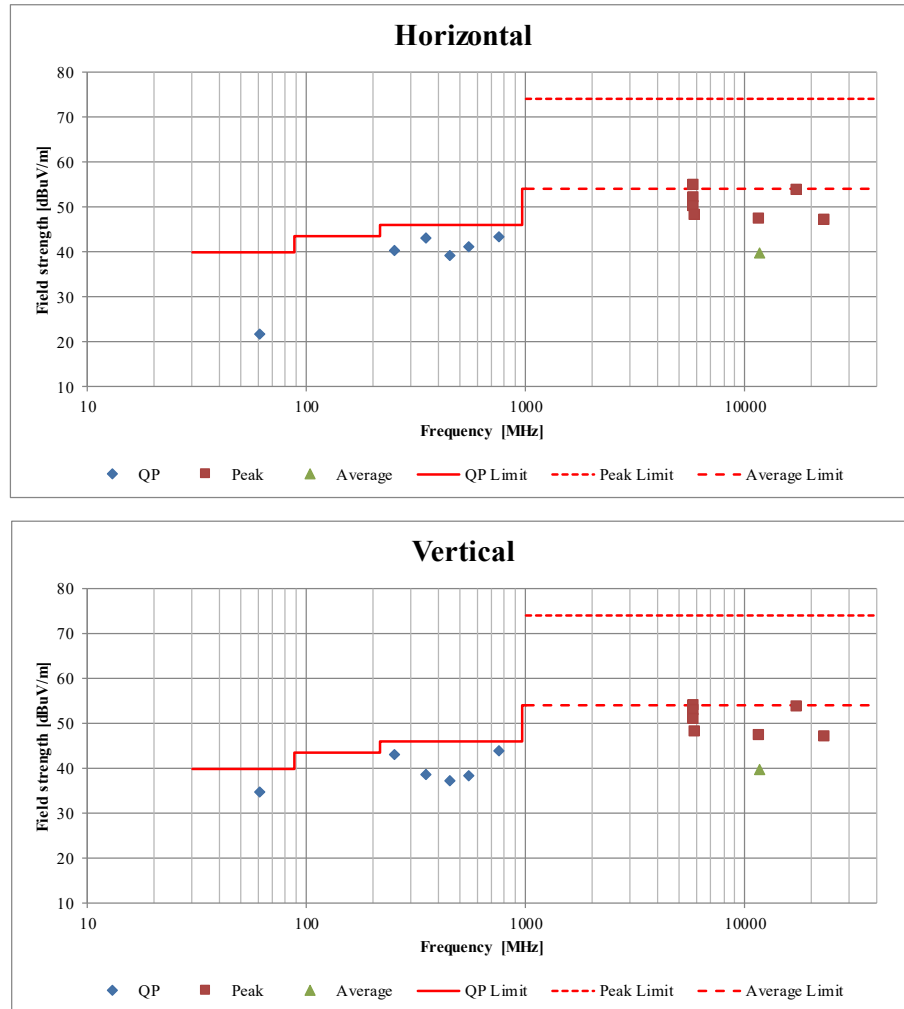
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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

Report No.	14007298H			
Test place	Ise EMC Lab.			
Semi Anechoic Chamber	No.4	No.4	No.4	No.3
Date	September 12_N, 2021	September 15, 2021	September 16, 2021	September 28, 2021
Temperature / Humidity	23 deg. C / 54 % RH	22 deg. C / 67 % RH	22 deg. C / 69 % RH	23 deg. C / 61 % RH
Engineer	Kiyoshiro Okazaki (1 GHz - 10 GHz)	Kiyoshiro Okazaki (10 GHz - 26.5 GHz)	Nachi Konegawa (26.5 GHz - 40 GHz)	Hiroki Numata (Below 1 GHz)
Mode	Tx 11n-40 5795 MHz			



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

APPENDIX 2: Test instruments

Test equipment

Test Item	Local ID	LIMS ID	Description	Manufacturer	Model	Serial	Last Calibration Date	Cal Int
RE	MOS-15	141562	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	0010	01/15/2021	12
RE	MMM-10	141545	DIGITAL HiTESTER	HIOKI E.E. CORPORATION	3805	51201148	01/07/2021	12
RE	MJM-29	142230	Measure	KOMELON	KMC-36	-	-	-
RE	COTS-MEMI-02	178648	EMI measurement program	TSJ (Techno Science Japan)	TEPTO-DV	-	-	-
RE	MAEC-04-SVSWR	142017	AC4 Semi Anechoic Chamber(SVSWR)	TDK	Semi Anechoic Chamber 3m	DA-10005	04/12/2021	24
RE	MSA-03	141884	Spectrum Analyzer	Keysight Technologies Inc	E4448A	MY44020357	03/10/2021	12
RE	MHA-21	141508	Horn Antenna 1-18GHz	Schwarzbeck Mess-Elektronik OHG	BBHA9120D	557	05/10/2021	12
RE	MPA-12	141581	MicroWave System Amplifier	Keysight Technologies Inc	83017A	00650	10/07/2021	12
RE	MCC-257	208936	Microwave Cable	Huber+Suhner	SF126E/11PC35/11PC35/1000M,5000M	537061/126E / 537076/126E	07/18/2021	12
RE	MHF-23	141294	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCC	603	02/18/2021	12
RE	MCC-92	141398	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	30813/2	05/11/2021	12
RE	MHA-17	141506	Horn Antenna 15-40GHz	Schwarzbeck Mess-Elektronik OHG	BBHA9170	BBHA9170307	07/20/2021	12
RE	MHA-29	141517	Horn Antenna 26.5-40GHz	ETS-Lindgren	3160-10	152399	08/27/2021	12
RE	MCC-224	160324	Coaxial Cable	Huber+Suhner	SUCOFLEX 102A	MY009/2A	11/19/2021	12
RE	MPA-22	141588	Pre Amplifier	MITEQ, Inc	AMF-6F-2600400-33-8P / AMF-4F-2600400-33-8P	1871355 /1871328	09/30/2021	12
RE	MAEC-04	142011	AC4 Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	05/25/2020	24
RE	MTR-08	141949	Test Receiver	Rohde & Schwarz	ESCI	100767	08/05/2021	12
RE	MLA-22	141266	Logperiodic Antenna(200-1000MHz)	Schwarzbeck Mess-Elektronik OHG	VUSLP9111B	9111B-191	08/21/2021	12
RE	MAT-07	141203	Attenuator(6dB)	Weinschel Corp	2	BK7970	11/09/2021	12
RE	MBA-03	141424	Biconical Antenna	Schwarzbeck Mess-Elektronik OHG	VHA9103+BBA9106	1915	08/21/2021	12
RE	MSA-04	141885	Spectrum Analyzer	Keysight Technologies Inc	E4448A	US44300523	11/10/2021	12
RE	MCC-51	141323	Coaxial cable	UL Japan	-	-	07/19/2021	12
RE	MPA-13	141582	Pre Amplifier	SONOMA INSTRUMENT	310	260834	02/18/2021	12
RE	MAEC-03	142008	AC3 Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	05/22/2020	24
RE	MOS-13	141554	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	1301	01/15/2021	12
RE	MMM-08	141532	DIGITAL HiTESTER	HIOKI E.E. CORPORATION	3805	51201197	01/07/2021	12
AT	MOS-15	141562	Thermo-Hygrometer	CUSTOM. Inc	CTH-201	0010	01/15/2021	12
AT	MMM-10	141545	DIGITAL HiTESTER	HIOKI E.E. CORPORATION	3805	51201148	01/07/2021	12
AT	MPM-16	141812	Power Meter	Keysight Technologies Inc	8990B	MY51000271	08/11/2021	12
AT	MPSE-23	141835	Power sensor	Keysight Technologies Inc	N1923A	MY54070004	08/11/2021	12
AT	MAT-90	141223	Attenuator	Weinschel Associates	WA56-10	56100306	05/14/2021	12

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*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

AT: Antenna Terminal Conducted test (Rate check only)