



RADIO TEST REPORT

Test Report No. : 11166416H-B-R1

Applicant : silex technology, Inc.
Type of Equipment : Wireless LAN SDIO module
Model No. : SX-SDMAN2
FCC ID : N6C-SDMAN2
Test regulation : FCC Part 15 Subpart E: 2015
(Class II permissive change)
*Spurious emission test only
Test Result : Complied

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2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the above regulation.
4. The test results in this report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.
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. This report is a revised version of 11166416H-B. 11166416H-B is replaced with this report.

Date of test: March 27 to 31, 2016

Representative test engineer:

Tomoki Matsui
Engineer
Consumer Technology Division

Approved by:

Tsubasa Takayama
Engineer
Consumer Technology Division



NVLAP LAB CODE: 200572-0

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13-EM-F0429

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SECTION 1: Customer information

Company Name : silex technology, Inc.
Address : 2-3-1 Hikaridai, Seika-cho, Kyoto 619-0237, Japan
Telephone Number : +81-774-98-3878
Facsimile Number : +81-774-98-3758
Contact Person : Toshiro Kometani

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : Wireless LAN SDIO module
Model No. : SX-SDMAN2
Serial No. : Refer to Section 4, Clause 4.2
Rating : DC 3.3 V, DC 1.8 V
Receipt Date of Sample : March 29, 2016
Country of Mass-production : Japan
Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT : No Modification by the test lab

2.2 Product Description

Model: SX-SDMAN2 (referred to as the EUT in this report) is a Wireless LAN SDIO module.

General Specification

Clock frequency(ies) in the system : 26 MHz
Operating Temperature : -20 deg. C - +85 deg. C

Radio Specification

Radio Type : Transceiver
Method of Frequency Generation : Synthesizer
Power Supply (inner) : DC 1.27 V

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	IEEE802.11b	IEEE802.11g/n (20 M band)	IEEE802.11a/n (20 M band)	IEEE802.11n (40 M band)
Frequency of operation	2412 MHz - 2462 MHz	2412 MHz - 2462 MHz	5180 MHz - 5240 MHz *1) 5260 MHz - 5320 MHz *1) 5500 MHz - 5700 MHz *1) 5745 MHz - 5825 MHz *1)	5190 MHz - 5230 MHz *1) 5270 MHz - 5310 MHz *1) 5510 MHz - 5670 MHz *1) 5755 MHz - 5795 MHz *1)
Type of modulation	DSSS (CCK, DQPSK, DBPSK)	OFDM-CCK (64QAM, 16QAM, QPSK, BPSK)	OFDM (64QAM, 16QAM, QPSK, BPSK)	
Channel spacing	5 MHz		20 MHz	40 MHz
Antenna type	[Antenna 1] Antenna port 0: Sleeve antenna: SANSEI ELECTRIC CO.,LTD. Antenna port 1: Sleeve antenna: SANSEI ELECTRIC CO.,LTD. [Antenna 2] Antenna port 0: Embedded antenna: Ethertronics Antenna port 1: Embedded antenna: Ethertronics			
Antenna Connector type	Antenna 1: U.FL Alternative connector Antenna 2: U.FL Alternative connector			
Antenna Gain	Antenna 1: 2.0 dBi (2.4 GHz Band), 2.1 dBi (5 GHz Band) Antenna 2: 2.5 dBi (2.4 GHz Band), 3.5 dBi (5 GHz Band)			

*1) This test report applies to IEEE802.11a / n-20 / n-40 (5GHz band).

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SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part 15 Subpart E: 2015, final revised on November 23, 2015
 *Some parts are effective on and after December 17, 2015 or December 23, 2015. The revision does not affect the test specification applied to the EUT.

Title : FCC 47CFR Part15 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 IC: -	FCC: 15.407 (b), 15.205 and 15.209 IC: RSS-247 6.2.1 (2) 6.2.2 (2) 6.2.3 (2) 6.2.4 (2)	0.7 dB 5350.000 MHz, AV, Vert.	Complied	Radiated (> 30 MHz) *1)

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 section FCC 15.407 (b) and KDB 789033 D02 G.3.b).

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

FCC 15.31 (e)

The RF Module has own regulator.

The RF Module is constantly provided voltage through own regulator regardless of input voltage (DC 3.3 V, DC 1.8 V).

Therefore, this EUT complies with the requirement.

FCC Part 15.203/212 Antenna requirement

The EUT has a unique coupling/antenna connector (U.FL Alternative connector). Therefore the equipment complies with the requirement of 15.203/212.

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3.3 Addition to standard

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

3.4 Uncertainty

EMI

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

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Test distance	Radiated emission (±dB) 9 kHz - 30 MHz
3m	3.8 dB
10m	3.7 dB

Polarity	Radiated emission (Below 1GHz)			
	(3 m*)(±dB)		(10 m*)(±dB)	
	30 – 300 MHz	300 – 1000MHz	30 – 300 MHz	300 – 1000MHz
Horizontal	4.8 dB	5.2 dB	4.8 dB	5.0 dB
Vertical	4.5 dB	5.9 dB	4.8 dB	5.1 dB

Radiated emission				
	(3 m*)(±dB)	(1 m*)(±dB)	(0.5 m*)(±dB)	(10 m*)(±dB)
	1 – 6GHz	6 – 18GHz	10 – 26.5 GHz	26.5 – 40GHz
	5.1 dB	5.3 dB	5.1 dB	5.3 dB

*Measurement distance

Radiated emission test

The data listed in this report meets the limits unless the uncertainty is taken into consideration.

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3.5 Test Location

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Test site	IC Registration Number	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	2973C-1	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	2973C-2	7.5 x 5.8 x 5.2	4.0 x 4.0	-	3 m
No.3 semi-anechoic chamber	2973C-3	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	2973C-4	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.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	N/A	-	-
No.9 measurement room	-	8.8 x 4.6 x 2.8	2.4 x 2.4	-	-
No.11 measurement room	-	6.2 x 4.7 x 3.0	4.8 x 4.6	-	-

* 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 E.U.T. 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)	24 Mbps, PN9
IEEE 802.11n MIMO 20MHz BW (11n-20)	MCS 11 (Long GI), PN9
IEEE 802.11n MIMO 40MHz BW (11n-40)	MCS 8 (Long GI), PN9
*The worst condition was determined based on the test result of Maximum Conducted Output Power (Refer to Original test report: 10748020H-C-R1).	
*The power value of the EUT was set for testing as follows (setting value might be different from product specification value); Power settings: Refer to the following table - Software: Atheros Radio Test Tool (ART-2-GUI) Version 2.3 *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.	

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[Power setting]

	Rate	Antenna port		Target Power	Power Setting
11a	24Mbps	Antenna port 0	5180 MHz	10.5	11
			5260 MHz	10.5	12
			5320 MHz	10.5	12
			5500 MHz	10.5	11
			5580 MHz	10.5	11.5
			5700 MHz	10.5	11.5
			5745 MHz	10	11
			5785 MHz	10	11
			5825 MHz	10	10.5
11n-20	MCS11 (Long GI)	Antenna port 0+1	5180 MHz	10.5	11.5
			5260 MHz	10.5	12
			5320 MHz	10.5	12
			5500 MHz	11	11
			5580 MHz	11	11.5
			5700 MHz	11	11.5
			5745 MHz	10	11
			5785 MHz	10	11
			5825 MHz	10	10.5
11n-40	MCS8 (Long GI)	Antenna port 0+1	5190 MHz	7	7
			5270 MHz	10.5	12.5
			5310 MHz	8	9.5
			5510 MHz	9.5	10.5
			5550 MHz	10.5	12
			5670 MHz	10.5	12
			5755 MHz	10	11.5
			5795 MHz	10	11.5

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*The details of Operating mode(s)

Test Item	Operating Mode	Tested Antenna port	Tested Frequency			
			Lower Band	Middle Band	Additional Band	Upper Band
Radiated Spurious Emission (Below 1GHz) *1)	11n-20 Tx	0+1 *2)	-	-	5550 MHz	-
Radiated Spurious Emission (Above 1GHz)	11n-20 Tx *3)	0+1 *2)	5180 MHz	5260 MHz 5320 MHz	5500 MHz 5580 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11n-40 Tx	0+1 *2)	5190 MHz	5270 MHz 5310 MHz	5510 MHz 5550 MHz 5670 MHz	5755 MHz 5795 MHz

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

*2) After the comparison MIMO and SISO in pre-check, test was performed with MIMO as a representative as it had worst case.

*3) Since 11a and 11n-20 have the same modulation method and no differences in transmitting specification, test was performed on the representative mode that had the highest conducted output power.

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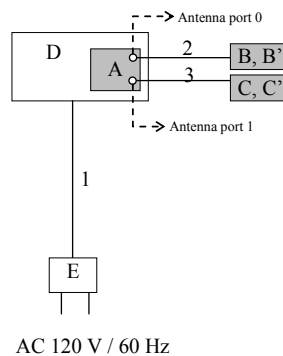
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4.2 Configuration and peripherals



* 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	Remark
A	Wireless LAN SDIO module	SX-SDMAN2	84253F-01053E	silex technology, Inc.	EUT
B	External antenna	Presta_WLAN_1000418	001	Ethertronic	EUT
B'	External antenna	ANT DC-081A0	001	SANSEI ELECTRIC CO.,LTD.	EUT
C	External antenna	Presta_WLAN_1000418	002	Ethertronic	EUT
C'	External antenna	ANT DC-081A0	002	SANSEI ELECTRIC CO.,LTD.	EUT
D	Jig	-	-	silex technology, Inc.	-
E	AC Adapter	US115-05	B12-0112765	UNIFIVE	-

List of cables used

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	DC Cable	1.8	Unshielded	Unshielded	-
2	RF Cable	0.1	Shielded	Shielded	-
3	RF Cable	0.1	Shielded	Shielded	-

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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 and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field strength.

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

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

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

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

< 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).

Apply to limit 68.2 dBuV/m, 3 m (-27 dBm e.i.r.p.*) or

78.2 dBuV/m, 3 m (-17 dBm e.i.r.p.*) in the Section 15.407 (b).

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:

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

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Test Antennas are used as below;

Frequency	30 MHz to 300 MHz	300 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.
Test Distance	3 m	4.45 m*2) (1 GHz – 10GHz), 1 m*3) (10 GHz – 26.5 GHz), 0.5 m*4) (26.5 GHz – 40 GHz)	

*1) The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v01r02 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E (Issued on April 8, 2016)".

*2) Distance Factor: $20 \times \log(4.45 \text{ m}/3.0 \text{ m}) = 3.4 \text{ dB}$

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

*4) Distance Factor: $20 \times \log(0.5 \text{ m}/3.0 \text{ m}) = -15.6 \text{ dB}$

[Antenna]

- The carrier level and noise levels were confirmed at each position of X0, X90, Y0, Y90, Z0, Z90, X, Y and Z axes of Antenna to see the position of maximum noise, and the test was made at the position that has the maximum noise.

[Module]

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of Module 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

Radiated Spurious Emission

[Antenna 1]

Test place Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No. 11166416H
Date March 27, 2016 March 28, 2016 March 28, 2016
Temperature / Humidity 20deg. C / 31 % RH 19deg. C / 33 % RH 24deg. C / 31 % RH
Engineer Tomoki Matsui Tomoki Matsui Keisuke Kawamura
(1 GHz-10 GHz) (10GHz-18 GHz) (18 GHz-40 GHz)
Mode Tx 11n-20 5180 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	47.0	33.3	7.5	31.3	-	56.5	73.9	17.4	
Hori	6907.333	PK	44.6	36.4	8.3	32.4	-	56.9	68.2	11.3	
Hori	10360.000	PK	44.2	39.2	-1.8	32.9	-	48.7	68.2	19.5	
Hori	15540.000	PK	42.1	40.0	0.0	32.7	-	49.4	73.9	24.5	Floor Noise
Hori	20720.000	PK	44.6	37.8	-1.1	33.3	-	48.0	73.9	25.9	Floor Noise
Hori	5150.000	AV	37.6	33.3	7.5	31.3	0.5	47.6	53.9	6.3	
Hori	15540.000	AV	33.6	40.0	0.0	32.7	-	40.9	53.9	13.0	Floor Noise
Hori	20720.000	AV	33.7	37.8	-1.1	33.3	-	37.1	53.9	16.8	Floor Noise
Vert	5150.000	PK	48.5	33.3	7.5	31.3	-	58.0	73.9	15.9	
Vert	6907.333	PK	46.0	36.4	8.3	32.4	-	58.3	68.2	9.9	
Vert	10360.000	PK	47.1	39.2	-1.8	32.9	-	51.6	68.2	16.6	
Vert	15540.000	PK	42.0	40.0	0.0	32.7	-	49.3	73.9	24.6	Floor Noise
Vert	20720.000	PK	44.8	37.8	-1.1	33.3	-	48.2	73.9	25.7	Floor Noise
Vert	5150.000	AV	40.2	33.3	7.5	31.3	0.5	50.2	53.9	3.7	
Vert	15540.000	AV	33.5	40.0	0.0	32.7	-	40.8	53.9	13.1	Floor Noise
Vert	20720.000	AV	33.9	37.8	-1.1	33.3	-	37.3	53.9	16.6	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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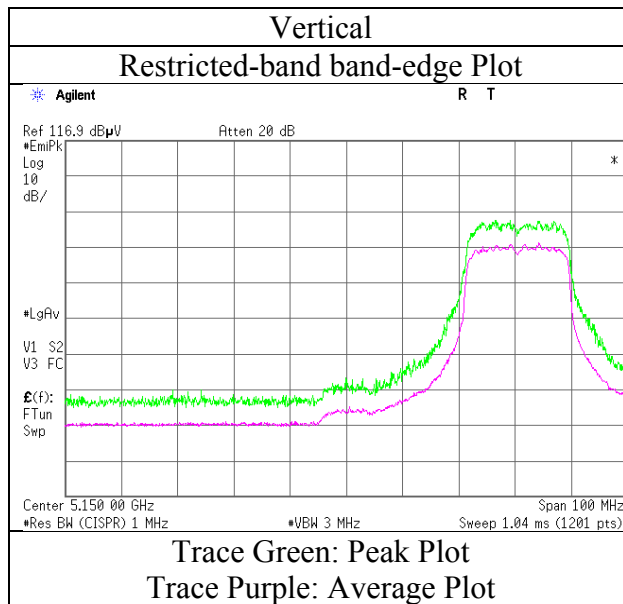
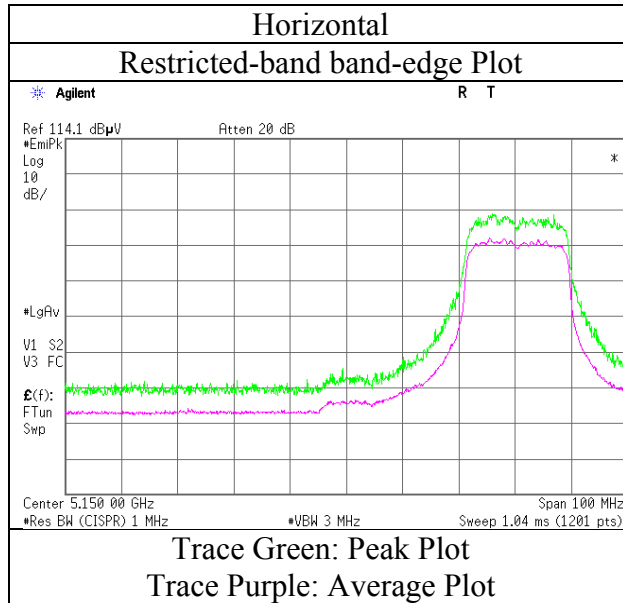
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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-20 5180 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5260 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	7013.980	PK	44.3	36.7	8.3	32.5	-	56.8	68.2	11.4	
Hori	10520.000	PK	39.5	39.6	-1.8	32.9	-	44.4	68.2	23.8	
Hori	15780.000	PK	41.9	39.3	0.0	32.7	-	48.5	73.9	25.4	Floor Noise
Hori	21040.000	PK	44.6	37.9	-1.1	33.3	-	48.1	73.9	25.8	Floor Noise
Hori	15780.000	AV	33.4	39.3	0.0	32.7	-	40.0	53.9	13.9	Floor Noise
Hori	21040.000	AV	33.8	37.9	-1.1	33.3	-	37.3	53.9	16.6	Floor Noise
Vert	7013.980	PK	42.7	36.7	8.3	32.5	-	55.2	68.2	13.0	
Vert	10520.000	PK	44.2	39.6	-1.8	32.9	-	49.1	68.2	19.1	
Vert	15780.000	PK	41.2	39.3	0.0	32.7	-	47.8	73.9	26.1	Floor Noise
Vert	21040.000	PK	45.0	37.9	-1.1	33.3	-	48.5	73.9	25.4	Floor Noise
Vert	15780.000	AV	33.3	39.3	0.0	32.7	-	39.9	53.9	14.0	Floor Noise
Vert	21040.000	AV	33.9	37.9	-1.1	33.3	-	37.4	53.9	16.5	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 20dB).

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5320 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	51.2	33.1	7.6	31.3	-	60.6	73.9	13.3	
Hori	7094.067	PK	42.6	36.7	8.3	32.5	-	55.1	68.2	13.1	
Hori	10640.000	PK	41.8	39.7	-1.7	33.0	-	46.8	73.9	27.1	Floor Noise
Hori	15960.000	PK	41.8	38.9	0.0	32.7	-	48.0	73.9	25.9	Floor Noise
Hori	21280.000	PK	44.6	38.0	-1.0	33.3	-	48.3	73.9	25.6	Floor Noise
Hori	5350.000	AV	41.2	33.1	7.6	31.3	0.5	51.1	53.9	2.8	Integration
Hori	10640.000	AV	32.7	39.7	-1.7	33.0	-	37.7	53.9	16.2	Floor Noise
Hori	15960.000	AV	33.4	38.9	0.0	32.7	-	39.6	53.9	14.3	Floor Noise
Hori	21280.000	AV	33.7	38.0	-1.0	33.3	-	37.4	53.9	16.5	Floor Noise
Vert	5350.000	PK	49.6	33.1	7.6	31.3	-	59.0	73.9	14.9	
Vert	7094.067	PK	42.9	36.7	8.3	32.5	-	55.4	68.2	12.8	
Vert	10640.000	PK	42.1	39.7	-1.7	33.0	-	47.1	73.9	26.8	Floor Noise
Vert	15960.000	PK	41.9	38.9	0.0	32.7	-	48.1	73.9	25.8	Floor Noise
Vert	21280.000	PK	44.8	38.0	-1.0	33.3	-	48.5	73.9	25.4	Floor Noise
Vert	5350.000	AV	40.4	33.1	7.6	31.3	0.5	50.3	53.9	3.6	Integration
Vert	10640.000	AV	32.3	39.7	-1.7	33.0	-	37.3	53.9	16.6	Floor Noise
Vert	15960.000	AV	33.3	38.9	0.0	32.7	-	39.5	53.9	14.4	Floor Noise
Vert	21280.000	AV	33.9	38.0	-1.0	33.3	-	37.6	53.9	16.3	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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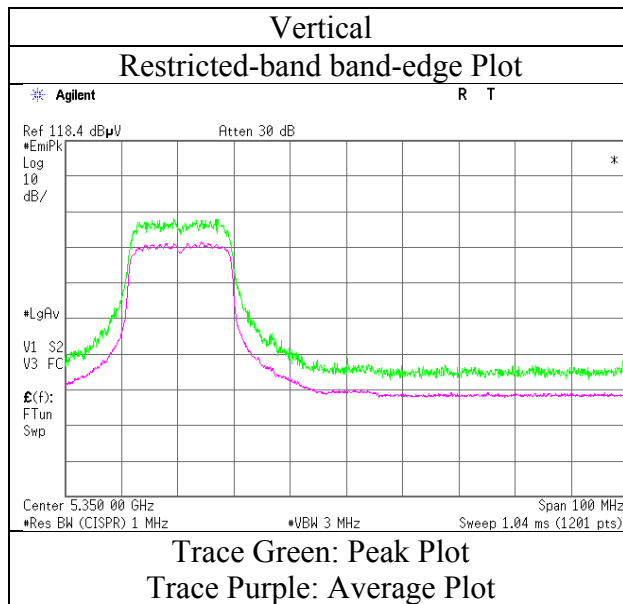
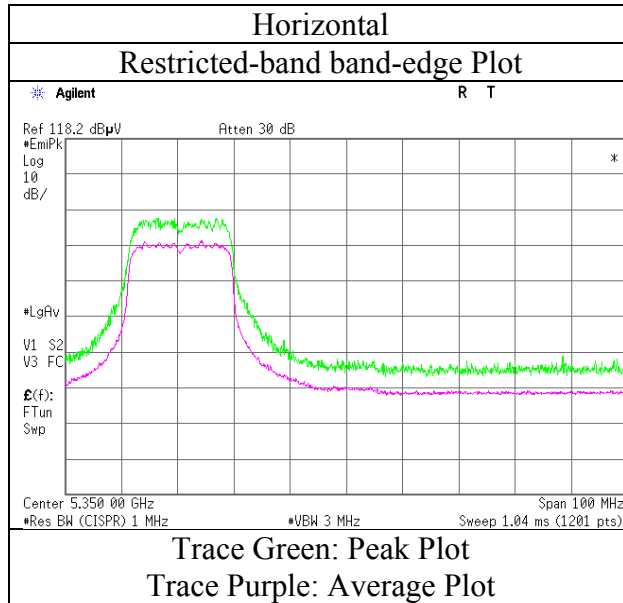
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-20 5320 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place : Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 11166416H
Date : March 27, 2016 March 28, 2016 March 28, 2016
Temperature / Humidity : 20deg. C / 31 % RH 19deg. C / 33 % RH 24deg. C / 31 % RH
Engineer : Tomoki Matsui Tomoki Matsui Keisuke Kawamura
(1 GHz-10 GHz) (10GHz-18 GHz) (18 GHz-40 GHz & Below 1GHz)
Mode : Tx 11n-20 5500 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	37.575	QP	24.3	15.0	7.2	32.1	-	14.4	40.0	25.6	
Hori	349.996	QP	38.5	18.0	10.3	31.9	-	34.9	46.0	11.1	
Hori	399.994	QP	33.6	18.4	10.6	32.1	-	30.5	46.0	15.5	
Hori	411.421	QP	36.4	18.5	10.7	32.1	-	33.5	46.0	12.5	
Hori	449.987	QP	28.2	18.9	10.9	32.2	-	25.8	46.0	20.2	
Hori	499.990	QP	31.0	19.5	11.2	32.2	-	29.5	46.0	16.5	
Hori	3666.998	PK	43.9	29.2	6.8	31.6	-	48.3	73.9	25.6	
Hori	5447.575	PK	42.9	33.0	7.6	31.4	-	52.1	73.9	21.8	
Hori	5460.000	PK	41.8	33.0	7.6	31.4	-	51.0	73.9	22.9	
Hori	5470.000	PK	50.2	33.0	7.6	31.4	-	59.4	68.2	8.8	
Hori	11000.000	PK	41.3	40.1	-1.6	33.0	-	46.8	73.9	27.1	Floor Noise
Hori	16500.000	PK	42.4	40.3	0.0	32.6	-	50.1	68.2	18.1	Floor Noise
Hori	22000.000	PK	44.6	38.2	-0.7	33.3	-	48.8	68.2	19.4	Floor Noise
Hori	3666.998	AV	37.7	29.2	6.8	31.6	0.5	42.6	53.9	11.3	
Hori	5447.575	AV	33.7	33.0	7.6	31.4	0.5	43.4	53.9	10.5	
Hori	5460.000	AV	33.3	33.0	7.6	31.4	0.5	43.0	53.9	10.9	
Hori	11000.000	AV	33.3	40.1	-1.6	33.0	-	38.8	53.9	15.1	Floor Noise
Vert	37.575	QP	39.1	15.0	7.2	32.1	-	29.2	40.0	10.8	
Vert	349.996	QP	30.5	18.0	10.3	31.9	-	26.9	46.0	19.1	
Vert	399.994	QP	28.3	18.4	10.6	32.1	-	25.2	46.0	20.8	
Vert	411.421	QP	29.7	18.5	10.7	32.1	-	26.8	46.0	19.2	
Vert	449.987	QP	23.2	18.9	10.9	32.2	-	20.8	46.0	25.2	
Vert	499.990	QP	23.1	19.5	11.2	32.2	-	21.6	46.0	24.4	
Vert	3666.998	PK	44.5	29.2	6.8	31.6	-	48.9	73.9	25.0	
Vert	5445.250	PK	43.7	33.0	7.6	31.4	-	52.9	73.9	21.0	
Vert	5460.000	PK	42.3	33.0	7.6	31.4	-	51.5	73.9	22.4	
Vert	5470.000	PK	52.7	33.0	7.6	31.4	-	61.9	68.2	6.3	
Vert	11000.000	PK	42.0	40.1	-1.6	33.0	-	47.5	73.9	26.4	Floor Noise
Vert	16500.000	PK	42.4	40.3	0.0	32.6	-	50.1	68.2	18.1	Floor Noise
Vert	22000.000	PK	44.8	38.2	-0.7	33.3	-	49.0	68.2	19.2	Floor Noise
Vert	3666.998	AV	38.6	29.2	6.8	31.6	0.5	43.5	53.9	10.4	
Vert	5445.250	AV	34.8	33.0	7.6	31.4	0.5	44.5	53.9	9.4	
Vert	5460.000	AV	33.9	33.0	7.6	31.4	0.5	43.6	53.9	10.3	
Vert	11000.000	AV	33.0	40.1	-1.6	33.0	-	38.5	53.9	15.4	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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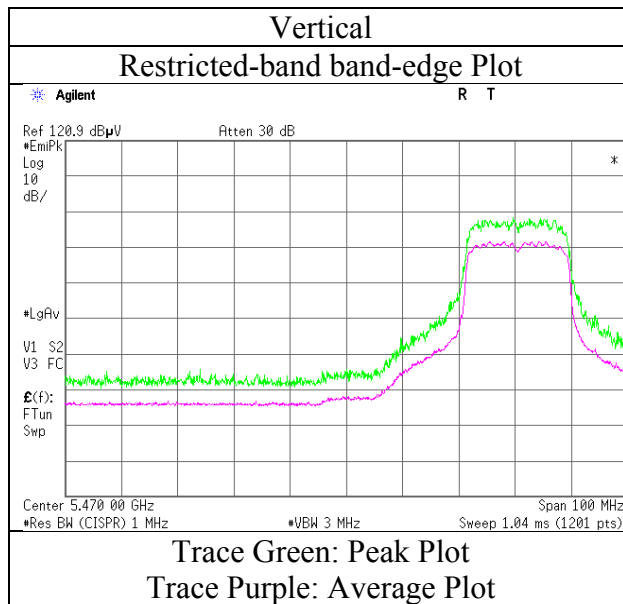
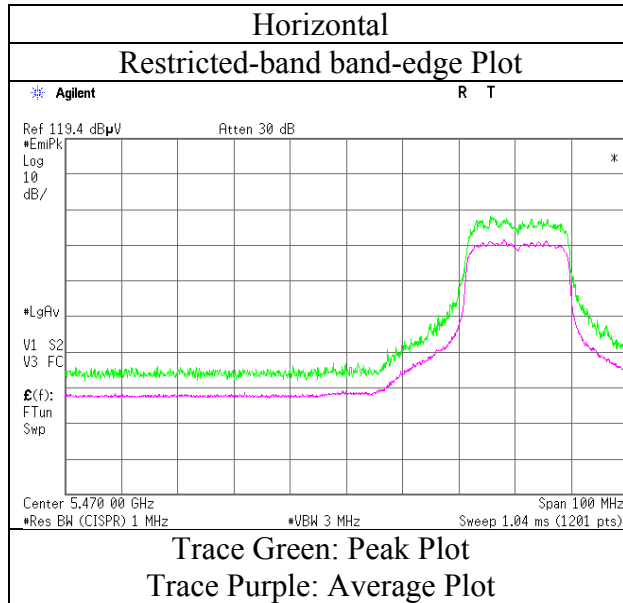
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-20 5500 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5580 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3720.343	PK	44.7	29.4	6.8	31.6	-	49.3	73.9	24.6	
Hori	11160.000	PK	41.0	40.1	-1.6	33.1	-	46.4	73.9	27.5	Floor Noise
Hori	16740.000	PK	41.0	41.0	0.0	32.6	-	49.4	68.2	18.8	Floor Noise
Hori	22320.000	PK	44.7	38.3	-0.7	33.4	-	48.9	73.9	25.0	Floor Noise
Hori	3720.343	AV	37.5	29.4	6.8	31.6	0.5	42.6	53.9	11.3	
Hori	11160.000	AV	33.1	40.1	-1.6	33.1	-	38.5	53.9	15.4	Floor Noise
Hori	22320.000	AV	33.8	38.3	-0.7	33.4	-	38.0	53.9	15.9	Floor Noise
Vert	3720.343	PK	44.0	29.4	6.8	31.6	-	48.6	73.9	25.3	
Vert	11160.000	PK	41.4	40.1	-1.6	33.1	-	46.8	73.9	27.1	Floor Noise
Vert	16740.000	PK	40.3	41.0	0.0	32.6	-	48.7	68.2	19.5	Floor Noise
Vert	22320.000	PK	44.8	38.3	-0.7	33.4	-	49.0	73.9	24.9	Floor Noise
Vert	3720.343	AV	37.6	29.4	6.8	31.6	0.5	42.7	53.9	11.2	
Vert	11160.000	AV	33.0	40.1	-1.6	33.1	-	38.4	53.9	15.5	Floor Noise
Vert	22320.000	AV	33.9	38.3	-0.7	33.4	-	38.1	53.9	15.8	Floor Noise

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

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

Distance factor: 1GHz-10GHz $20\log(4.45\text{m}/3.0\text{m})= 3.4\text{dB}$
 10GHz-26.5GHz $20\log(1.0\text{m}/3.0\text{m})= -9.5\text{dB}$
 26.5GHz-40GHz $20\log(0.5\text{m}/3.0\text{m})= -15.6\text{dB}$

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5700 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3800.343	PK	43.3	29.6	6.9	31.6	-	48.2	73.9	25.7	
Hori	5725.000	PK	51.2	33.1	7.7	31.4	-	60.6	68.2	7.6	
Hori	11400.000	PK	39.8	40.2	-1.6	33.1	-	45.3	73.9	28.6	Floor Noise
Hori	17100.000	PK	41.5	42.0	0.0	32.6	-	50.9	68.2	17.3	Floor Noise
Hori	22800.000	PK	45.0	38.4	-0.6	33.5	-	49.3	73.9	24.6	Floor Noise
Hori	3800.343	AV	38.1	29.6	6.9	31.6	0.5	43.5	53.9	10.4	
Hori	11400.000	AV	32.0	40.2	-1.6	33.1	-	37.5	53.9	16.4	Floor Noise
Hori	22800.000	AV	34.6	38.4	-0.6	33.5	-	38.9	53.9	15.0	Floor Noise
Vert	3800.343	PK	43.3	29.6	6.9	31.6	-	48.2	73.9	25.7	
Vert	5725.000	PK	51.7	33.1	7.7	31.4	-	61.1	68.2	7.1	
Vert	11400.000	PK	40.5	40.2	-1.6	33.1	-	46.0	73.9	27.9	Floor Noise
Vert	17100.000	PK	42.3	42.0	0.0	32.6	-	51.7	68.2	16.5	Floor Noise
Vert	22800.000	PK	44.8	38.4	-0.6	33.5	-	49.1	73.9	24.8	Floor Noise
Vert	3800.343	AV	38.1	29.6	6.9	31.6	0.5	43.5	53.9	10.4	
Vert	11400.000	AV	32.1	40.2	-1.6	33.1	-	37.6	53.9	16.3	Floor Noise
Vert	22800.000	AV	34.9	38.4	-0.6	33.5	-	39.2	53.9	14.7	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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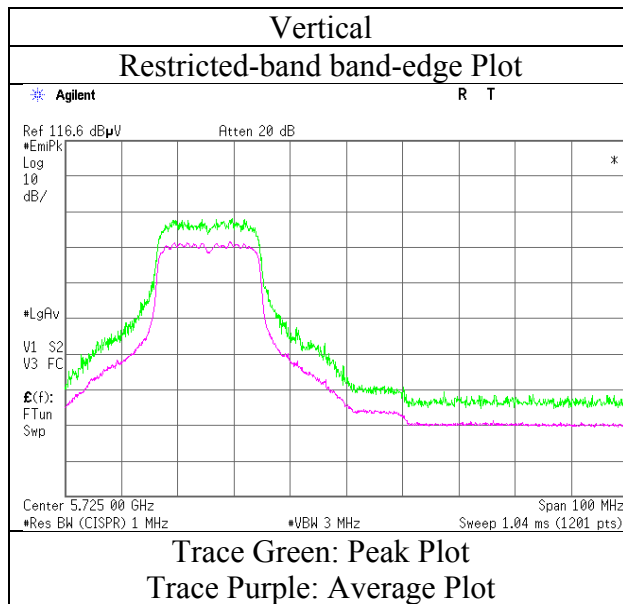
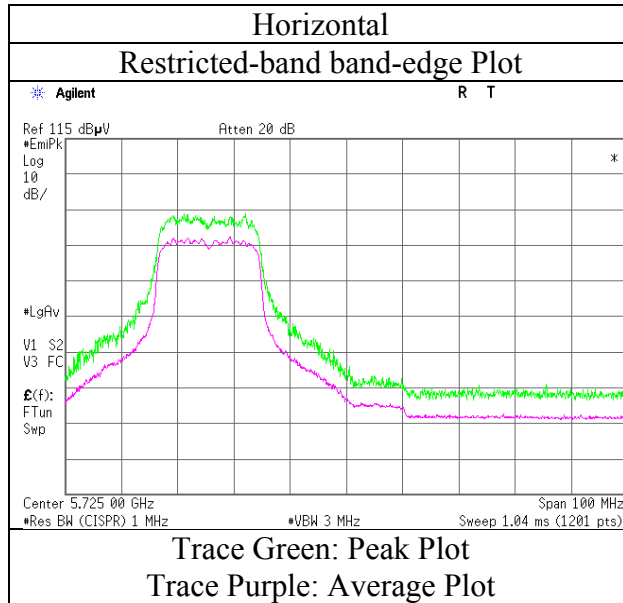
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-20 5700 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5745 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3830.315	PK	45.5	29.7	6.9	31.6	-	50.5	73.9	23.4	
Hori	5715.000	PK	46.0	33.1	7.7	31.4	-	55.4	68.2	12.8	
Hori	5725.000	PK	53.5	33.1	7.7	31.4	-	62.9	78.2	15.3	
Hori	11490.000	PK	39.5	40.2	-1.7	33.1	-	44.9	73.9	29.0	Floor Noise
Hori	17235.000	PK	41.7	42.2	0.1	32.6	-	51.4	68.2	16.8	Floor Noise
Hori	22980.000	PK	44.2	38.4	-0.6	33.5	-	48.5	73.9	25.4	Floor Noise
Hori	3830.315	AV	39.6	29.7	6.9	31.6	0.5	45.1	53.9	8.8	
Hori	11490.000	AV	31.2	40.2	-1.7	33.1	-	36.6	53.9	17.3	Floor Noise
Hori	22980.000	AV	35.2	38.4	-0.6	33.5	-	39.5	53.9	14.4	Floor Noise
Vert	3830.315	PK	45.1	29.7	6.9	31.6	-	50.1	73.9	23.8	
Vert	5715.000	PK	46.4	33.1	7.7	31.4	-	55.8	68.2	12.4	
Vert	5725.000	PK	52.5	33.1	7.7	31.4	-	61.9	78.2	16.3	
Vert	11490.000	PK	39.8	40.2	-1.7	33.1	-	45.2	73.9	28.7	Floor Noise
Vert	17235.000	PK	41.9	42.2	0.1	32.6	-	51.6	68.2	16.6	Floor Noise
Vert	22980.000	PK	43.8	38.4	-0.6	33.5	-	48.1	73.9	25.8	Floor Noise
Vert	3830.315	AV	40.2	29.7	6.9	31.6	0.5	45.7	53.9	8.2	
Vert	11490.000	AV	31.5	40.2	-1.7	33.1	-	36.9	53.9	17.0	Floor Noise
Vert	22980.000	AV	35.0	38.4	-0.6	33.5	-	39.3	53.9	14.6	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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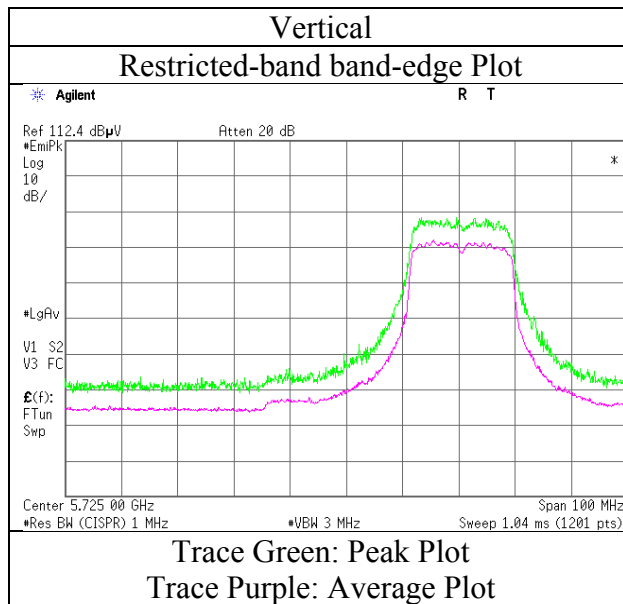
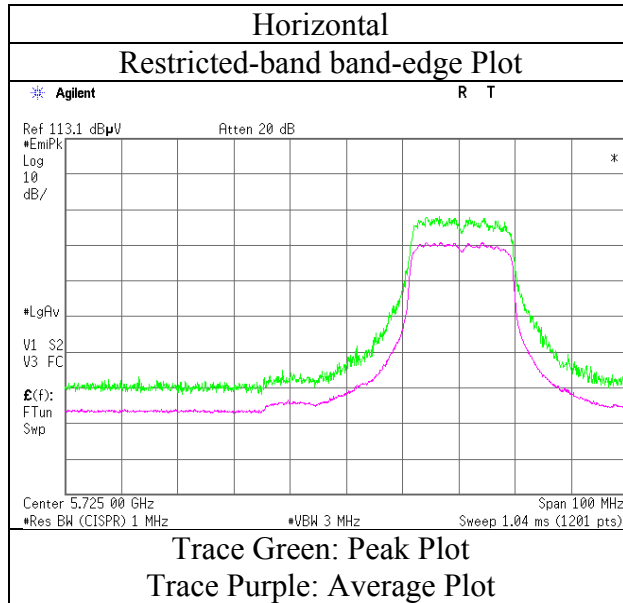
Telephone : +81 596 24 8999

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-20 5745 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5785 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3856.991	PK	45.0	29.7	6.9	31.6	-	50.0	73.9	23.9	
Hori	11570.000	PK	39.5	40.1	-1.7	33.1	-	44.8	73.9	29.1	Floor Noise
Hori	17355.000	PK	42.1	42.4	0.0	32.6	-	51.9	68.2	16.3	Floor Noise
Hori	23140.000	PK	44.2	38.5	-0.5	33.4	-	48.8	68.2	19.4	Floor Noise
Hori	3856.991	AV	39.6	29.7	6.9	31.6	0.5	45.1	53.9	8.8	
Hori	11570.000	AV	31.9	40.1	-1.7	33.1	-	37.2	53.9	16.7	Floor Noise
Vert	3856.991	PK	45.3	29.7	6.9	31.6	-	50.3	73.9	23.6	
Vert	11570.000	PK	41.1	40.1	-1.7	33.1	-	46.4	73.9	27.5	Floor Noise
Vert	17355.000	PK	41.3	42.4	0.0	32.6	-	51.1	68.2	17.1	Floor Noise
Vert	23140.000	PK	44.0	38.5	-0.5	33.4	-	48.6	68.2	19.6	Floor Noise
Vert	3856.991	AV	39.7	29.7	6.9	31.6	0.5	45.2	53.9	8.7	
Vert	11570.000	AV	32.2	40.1	-1.7	33.1	-	37.5	53.9	16.4	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5825 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3883.650	PK	48.7	29.8	6.9	31.6	-	53.8	73.9	20.1	
Hori	5850.000	PK	53.9	33.2	7.8	31.5	-	63.4	78.2	14.8	
Hori	5860.000	PK	45.2	33.2	7.8	31.5	-	54.7	68.2	13.5	
Hori	11650.000	PK	40.3	40.1	-1.6	33.1	-	45.7	73.9	28.2	Floor Noise
Hori	17475.000	PK	41.7	42.6	0.0	32.6	-	51.7	68.2	16.5	Floor Noise
Hori	23300.000	PK	44.1	38.6	-0.5	33.4	-	48.8	68.2	19.4	Floor Noise
Hori	3883.650	AV	44.6	29.8	6.9	31.6	0.5	50.2	53.9	3.7	
Hori	11650.000	AV	32.7	40.1	-1.6	33.1	-	38.1	53.9	15.8	Floor Noise
Vert	3883.650	PK	46.2	29.8	6.9	31.6	-	51.3	73.9	22.6	
Vert	5850.000	PK	54.1	33.2	7.8	31.5	-	63.6	78.2	14.6	
Vert	5860.000	PK	45.4	33.2	7.8	31.5	-	54.9	68.2	13.3	
Vert	11650.000	PK	42.0	40.1	-1.6	33.1	-	47.4	73.9	26.5	Floor Noise
Vert	17475.000	PK	41.4	42.6	0.0	32.6	-	51.4	68.2	16.8	Floor Noise
Vert	23300.000	PK	43.8	38.6	-0.5	33.4	-	48.5	68.2	19.7	Floor Noise
Vert	3883.650	AV	41.6	29.8	6.9	31.6	0.5	47.2	53.9	6.7	
Vert	11650.000	AV	33.2	40.1	-1.6	33.1	-	38.6	53.9	15.3	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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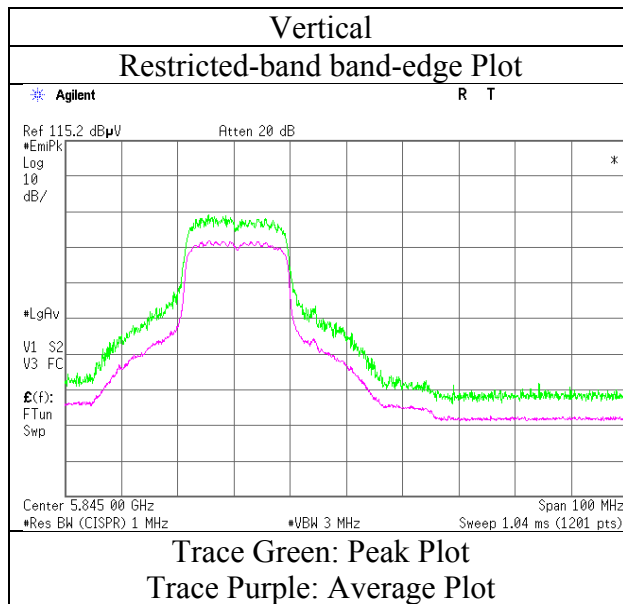
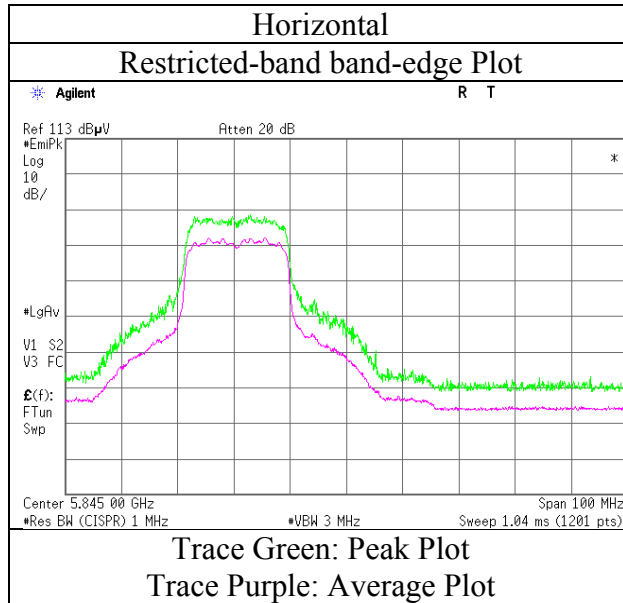
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-20 5825 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5190 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	49.4	33.3	7.5	31.3	-	58.9	73.9	15.0	
Hori	6920.750	PK	43.2	36.5	8.3	32.4	-	55.6	68.2	12.6	
Hori	10380.000	PK	42.0	39.3	-1.8	32.9	-	46.6	68.2	21.6	Floor Noise
Hori	15570.000	PK	41.9	39.9	-0.1	32.7	-	49.0	73.9	24.9	Floor Noise
Hori	20760.000	PK	44.6	37.8	-1.1	33.3	-	48.0	73.9	25.9	Floor Noise
Hori	5150.000	AV	39.8	33.3	7.5	31.3	0.3	49.6	53.9	4.3	
Hori	15570.000	AV	33.0	39.9	-0.1	32.7	-	40.1	53.9	13.8	Floor Noise
Hori	20760.000	AV	33.7	37.8	-1.1	33.3	-	37.1	53.9	16.8	Floor Noise
Vert	5150.000	PK	50.3	33.3	7.5	31.3	-	59.8	73.9	14.1	
Vert	6920.750	PK	44.7	36.5	8.3	32.4	-	57.1	68.2	11.1	
Vert	10380.000	PK	42.0	39.3	-1.8	32.9	-	46.6	68.2	21.6	Floor Noise
Vert	15570.000	PK	41.2	39.9	-0.1	32.7	-	48.3	73.9	25.6	Floor Noise
Vert	20760.000	PK	44.8	37.8	-1.1	33.3	-	48.2	73.9	25.7	Floor Noise
Vert	5150.000	AV	40.6	33.3	7.5	31.3	0.3	50.4	53.9	3.5	
Vert	15570.000	AV	33.1	39.9	-0.1	32.7	-	40.2	53.9	13.7	Floor Noise
Vert	20760.000	AV	33.9	37.8	-1.1	33.3	-	37.3	53.9	16.6	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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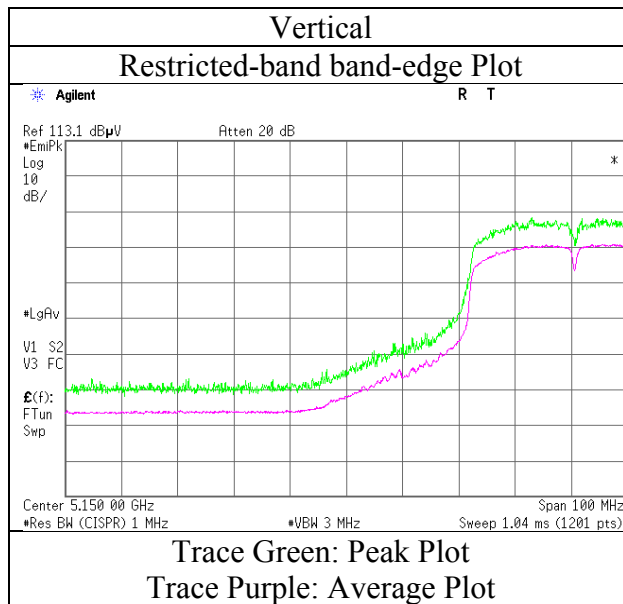
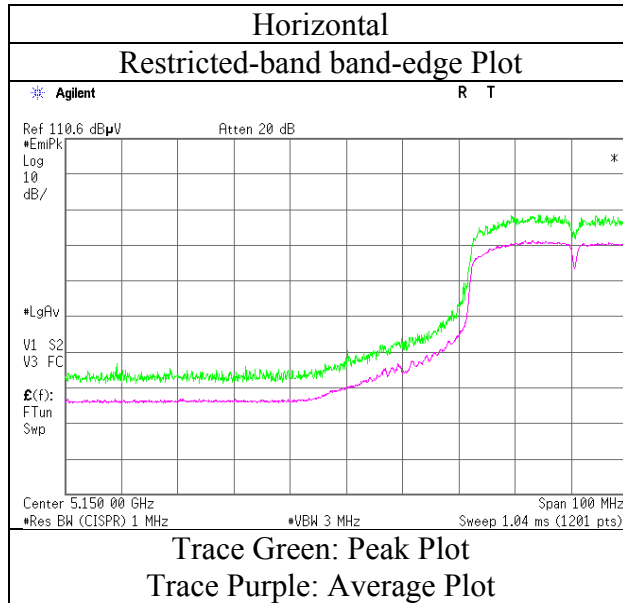
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-40 5190 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5270 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	7027.523	PK	42.6	36.7	8.3	32.5	-	55.1	68.2	13.1	
Hori	10540.000	PK	42.0	39.6	-1.8	32.9	-	46.9	68.2	21.3	Floor Noise
Hori	15810.000	PK	41.9	39.3	0.0	32.7	-	48.5	73.9	25.4	Floor Noise
Hori	21080.000	PK	44.6	37.9	-1.0	33.3	-	48.2	73.9	25.7	Floor Noise
Hori	15810.000	AV	33.0	39.3	0.0	32.7	-	39.6	53.9	14.3	Floor Noise
Hori	21080.000	AV	35.6	37.9	-1.0	33.3	-	39.2	53.9	14.7	Floor Noise
Vert	7027.523	PK	42.9	36.7	8.3	32.5	-	55.4	68.2	12.8	
Vert	10540.000	PK	42.0	39.6	-1.8	32.9	-	46.9	68.2	21.3	Floor Noise
Vert	15810.000	PK	41.2	39.3	0.0	32.7	-	47.8	73.9	26.1	Floor Noise
Vert	21080.000	PK	44.8	37.9	-1.0	33.3	-	48.4	73.9	25.5	Floor Noise
Vert	15810.000	AV	33.1	39.3	0.0	32.7	-	39.7	53.9	14.2	Floor Noise
Vert	21080.000	AV	35.3	37.9	-1.0	33.3	-	38.9	53.9	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 20dB).

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5310 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	48.7	33.1	7.6	31.3	-	58.1	73.9	15.8	
Hori	7080.667	PK	42.8	36.7	8.3	32.5	-	55.3	68.2	12.9	
Hori	10620.000	PK	41.8	39.7	-1.7	33.0	-	46.8	73.9	27.1	Floor Noise
Hori	15930.000	PK	42.0	39.0	0.0	32.7	-	48.3	73.9	25.6	Floor Noise
Hori	21240.000	PK	44.6	37.9	-1.0	33.3	-	48.2	73.9	25.7	Floor Noise
Hori	5350.000	AV	39.5	33.1	7.6	31.3	0.3	49.2	53.9	4.7	
Hori	10620.000	AV	33.1	39.7	-1.7	33.0	-	38.1	53.9	15.8	Floor Noise
Hori	15930.000	AV	33.2	39.0	0.0	32.7	-	39.5	53.9	14.4	Floor Noise
Hori	21240.000	AV	35.6	37.9	-1.0	33.3	-	39.2	53.9	14.7	Floor Noise
Vert	5350.000	PK	48.3	33.1	7.6	31.3	-	57.7	73.9	16.2	
Vert	7080.667	PK	41.7	36.7	8.3	32.5	-	54.2	68.2	14.0	
Vert	10620.000	PK	42.0	39.7	-1.7	33.0	-	47.0	73.9	26.9	Floor Noise
Vert	15930.000	PK	41.3	39.0	0.0	32.7	-	47.6	73.9	26.3	Floor Noise
Vert	21240.000	PK	44.8	37.9	-1.0	33.3	-	48.4	73.9	25.5	Floor Noise
Vert	5350.000	AV	40.3	33.1	7.6	31.3	0.3	50.0	53.9	3.9	
Vert	10620.000	AV	33.0	39.7	-1.7	33.0	-	38.0	53.9	15.9	Floor Noise
Vert	15930.000	AV	33.0	39.0	0.0	32.7	-	39.3	53.9	14.6	Floor Noise
Vert	21240.000	AV	35.3	37.9	-1.0	33.3	-	38.9	53.9	15.0	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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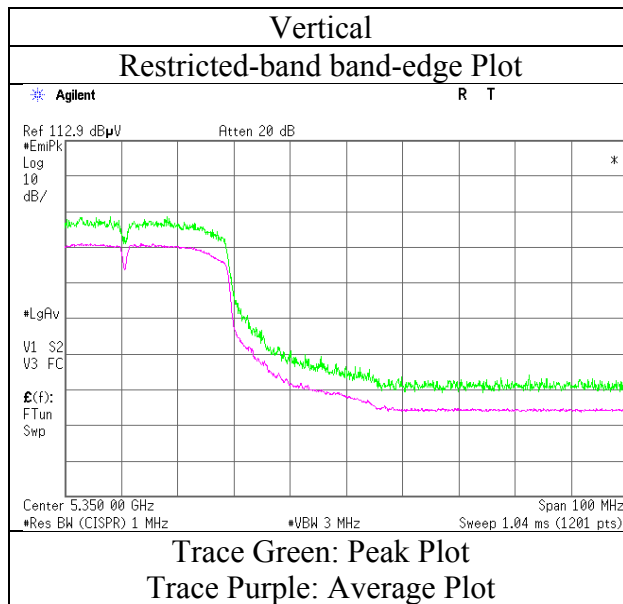
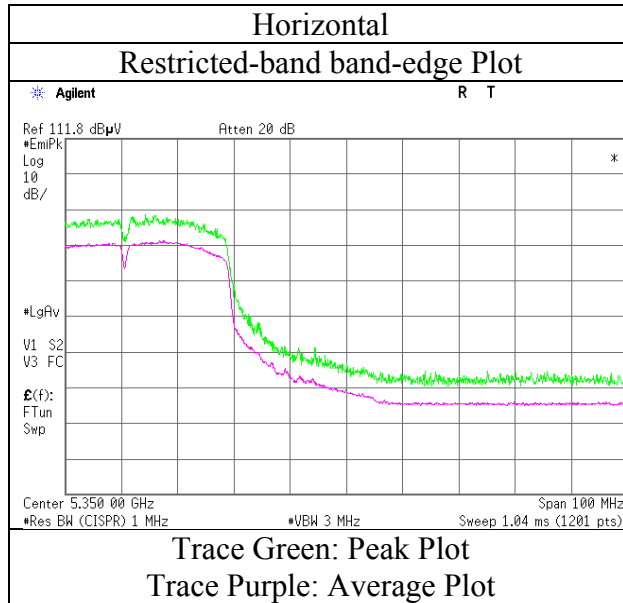
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-40 5310 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5510 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3673.781	PK	43.4	29.2	6.8	31.6	-	47.8	73.9	26.1	
Hori	5460.000	PK	42.5	33.0	7.6	31.4	-	51.7	73.9	22.2	
Hori	5470.000	PK	49.7	33.0	7.6	31.4	-	58.9	68.2	9.3	
Hori	11020.000	PK	41.8	40.1	-1.7	33.0	-	47.2	73.9	26.7	Floor Noise
Hori	16530.000	PK	42.0	40.4	0.0	32.6	-	49.8	68.2	18.4	Floor Noise
Hori	22040.000	PK	44.6	38.2	-0.7	33.3	-	48.8	73.9	25.1	Floor Noise
Hori	3673.781	AV	36.7	29.2	6.8	31.6	0.3	41.4	53.9	12.5	
Hori	5460.000	AV	33.5	33.0	7.6	31.4	0.3	43.0	53.9	10.9	
Hori	11020.000	AV	33.1	40.1	-1.7	33.0	-	38.5	53.9	15.4	Floor Noise
Hori	22040.000	AV	35.6	38.2	-0.7	33.3	-	39.8	53.9	14.1	Floor Noise
Vert	3673.781	PK	43.8	29.2	6.8	31.6	-	48.2	73.9	25.7	
Vert	5460.000	PK	42.8	33.0	7.6	31.4	-	52.0	73.9	21.9	
Vert	5470.000	PK	51.3	33.0	7.6	31.4	-	60.5	68.2	7.7	
Vert	11020.000	PK	42.0	40.1	-1.7	33.0	-	47.4	73.9	26.5	Floor Noise
Vert	16530.000	PK	41.3	40.4	0.0	32.6	-	49.1	68.2	19.1	Floor Noise
Vert	22040.000	PK	44.7	38.2	-0.7	33.3	-	48.9	73.9	25.0	Floor Noise
Vert	3673.781	AV	38.2	29.2	6.8	31.6	0.3	42.9	53.9	11.0	
Vert	5460.000	AV	34.0	33.0	7.6	31.4	0.3	43.5	53.9	10.4	
Vert	11020.000	AV	33.0	40.1	-1.7	33.0	-	38.4	53.9	15.5	Floor Noise
Vert	22040.000	AV	35.2	38.2	-0.7	33.3	-	39.4	53.9	14.5	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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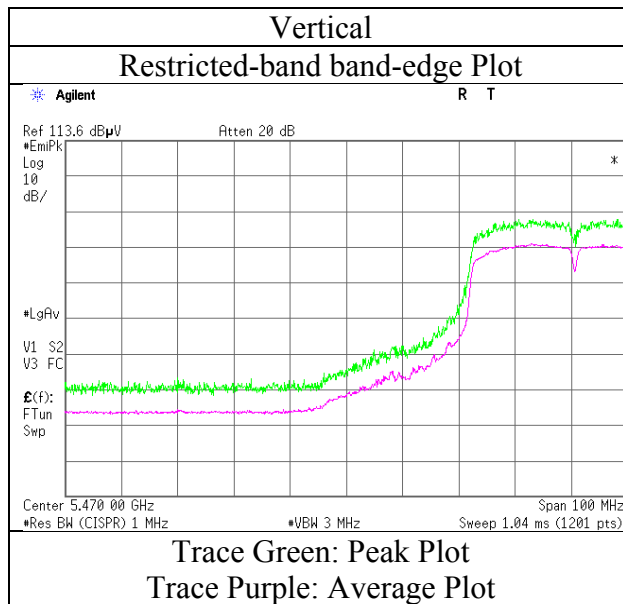
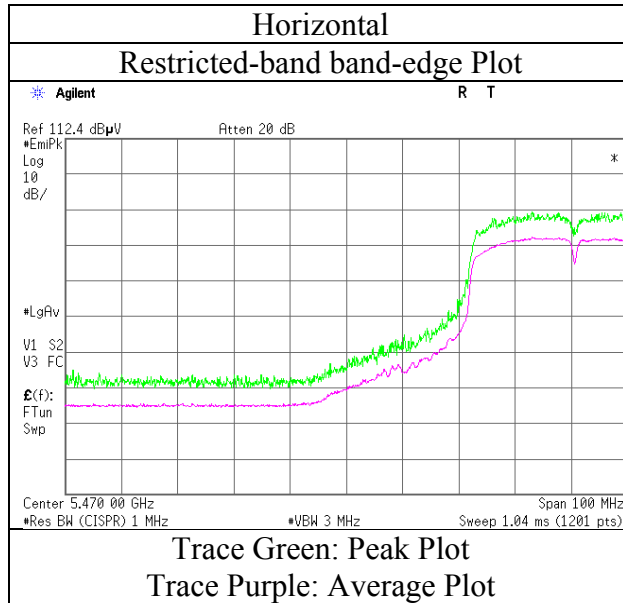
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-40 5510 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5550 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3700.450	PK	42.7	29.3	6.8	31.6	-	47.2	73.9	26.7	
Hori	11100.000	PK	41.8	40.1	-1.7	33.1	-	47.1	73.9	26.8	Floor Noise
Hori	16650.000	PK	42.1	40.8	0.0	32.6	-	50.3	68.2	17.9	Floor Noise
Hori	22200.000	PK	44.8	38.2	-0.7	33.3	-	49.0	73.9	24.9	Floor Noise
Hori	3700.450	AV	36.7	29.3	6.8	31.6	0.3	41.5	53.9	12.4	
Hori	11100.000	AV	33.0	40.1	-1.7	33.1	-	38.3	53.9	15.6	Floor Noise
Hori	22200.000	AV	35.5	38.2	-0.7	33.3	-	39.7	53.9	14.2	Floor Noise
Vert	3700.450	PK	43.2	29.3	6.8	31.6	-	47.7	73.9	26.2	
Vert	11100.000	PK	42.2	40.1	-1.7	33.1	-	47.5	73.9	26.4	Floor Noise
Vert	16650.000	PK	41.3	40.8	0.0	32.6	-	49.5	68.2	18.7	Floor Noise
Vert	22200.000	PK	44.7	38.2	-0.7	33.3	-	48.9	73.9	25.0	Floor Noise
Vert	3700.450	AV	37.7	29.3	6.8	31.6	0.3	42.5	53.9	11.4	
Vert	11100.000	AV	33.1	40.1	-1.7	33.1	-	38.4	53.9	15.5	Floor Noise
Vert	22200.000	AV	35.6	38.2	-0.7	33.3	-	39.8	53.9	14.1	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5670 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3780.368	PK	43.1	29.5	6.8	31.6	-	47.8	73.9	26.1	
Hori	5725.000	PK	41.2	33.1	7.7	31.4	-	50.6	68.2	17.6	
Hori	11340.000	PK	42.0	40.1	-1.6	33.1	-	47.4	73.9	26.5	Floor Noise
Hori	17010.000	PK	42.2	41.8	0.0	32.6	-	51.4	68.2	16.8	Floor Noise
Hori	22680.000	PK	44.7	38.4	-0.6	33.4	-	49.1	73.9	24.8	Floor Noise
Hori	3780.368	AV	37.1	29.5	6.8	31.6	0.3	42.1	53.9	11.8	
Hori	11340.000	AV	33.1	40.1	-1.6	33.1	-	38.5	53.9	15.4	Floor Noise
Hori	22680.000	AV	35.4	38.4	-0.6	33.4	-	39.8	53.9	14.1	Floor Noise
Vert	3780.368	PK	43.4	29.5	6.8	31.6	-	48.1	73.9	25.8	
Vert	5725.000	PK	41.6	33.1	7.7	31.4	-	51.0	68.2	17.2	
Vert	11340.000	PK	42.2	40.1	-1.6	33.1	-	47.6	73.9	26.3	Floor Noise
Vert	17010.000	PK	41.8	41.8	0.0	32.6	-	51.0	68.2	17.2	Floor Noise
Vert	22680.000	PK	44.7	38.4	-0.6	33.4	-	49.1	73.9	24.8	Floor Noise
Vert	3780.368	AV	37.4	29.5	6.8	31.6	0.3	42.4	53.9	11.5	
Vert	11340.000	AV	33.1	40.1	-1.6	33.1	-	38.5	53.9	15.4	Floor Noise
Vert	22680.000	AV	35.7	38.4	-0.6	33.4	-	40.1	53.9	13.8	Floor Noise

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

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

Distance factor:	1GHz-10GHz	$20\log(4.45\text{m}/3.0\text{m})= 3.4\text{dB}$
	10GHz-26.5GHz	$20\log(1.0\text{m}/3.0\text{m})= -9.5\text{dB}$
	26.5GHz-40GHz	$20\log(0.5\text{m}/3.0\text{m})= -15.6\text{dB}$

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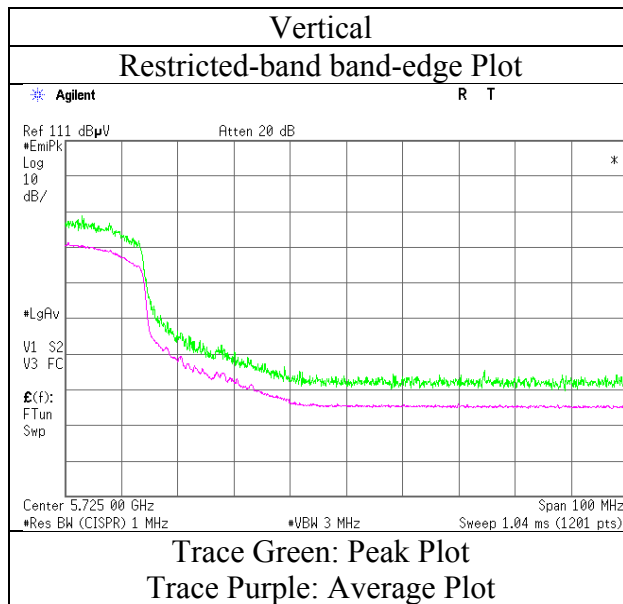
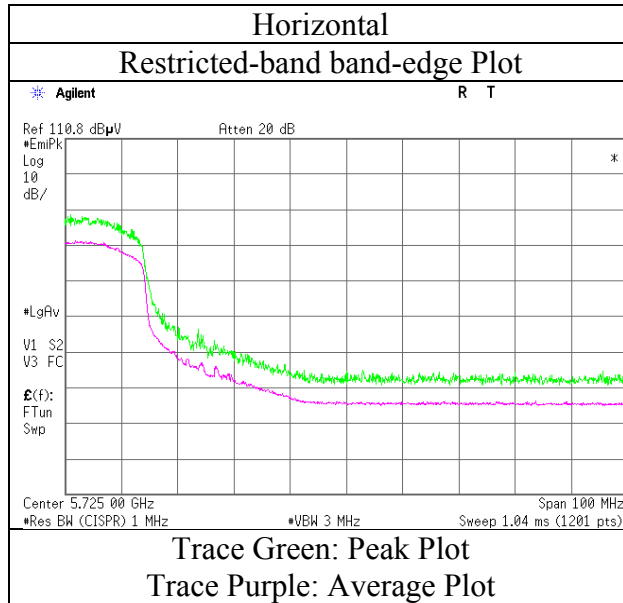
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-40 5670 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5755 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3837.054	PK	45.2	29.7	6.9	31.6	-	50.2	73.9	23.7	
Hori	5715.000	PK	47.8	33.1	7.7	31.4	-	57.2	68.2	11.0	
Hori	5725.000	PK	55.3	33.1	7.7	31.4	-	64.7	78.2	13.5	
Hori	11510.000	PK	42.0	40.2	-1.7	33.1	-	47.4	73.9	26.5	Floor Noise
Hori	17265.000	PK	42.2	42.3	0.0	32.6	-	51.9	68.2	16.3	Floor Noise
Hori	23020.000	PK	44.7	38.5	-0.6	33.5	-	49.1	73.9	24.8	Floor Noise
Hori	3837.054	AV	40.8	29.7	6.9	31.6	0.3	46.1	53.9	7.8	
Hori	11510.000	AV	33.1	40.2	-1.7	33.1	-	38.5	53.9	15.4	Floor Noise
Hori	23020.000	AV	35.5	38.5	-0.6	33.5	-	39.9	53.9	14.0	Floor Noise
Vert	3837.054	PK	44.7	29.7	6.9	31.6	-	49.7	73.9	24.2	
Vert	5715.000	PK	47.2	33.1	7.7	31.4	-	56.6	68.2	11.6	
Vert	5725.000	PK	54.2	33.1	7.7	31.4	-	63.6	78.2	14.6	
Vert	11510.000	PK	42.2	40.2	-1.7	33.1	-	47.6	73.9	26.3	Floor Noise
Vert	17265.000	PK	41.8	42.3	0.0	32.6	-	51.5	68.2	16.7	Floor Noise
Vert	23020.000	PK	44.8	38.5	-0.6	33.5	-	49.2	73.9	24.7	Floor Noise
Vert	3837.054	AV	39.9	29.7	6.9	31.6	0.3	45.2	53.9	8.7	
Vert	11510.000	AV	33.1	40.2	-1.7	33.1	-	38.5	53.9	15.4	Floor Noise
Vert	23020.000	AV	35.7	38.5	-0.6	33.5	-	40.1	53.9	13.8	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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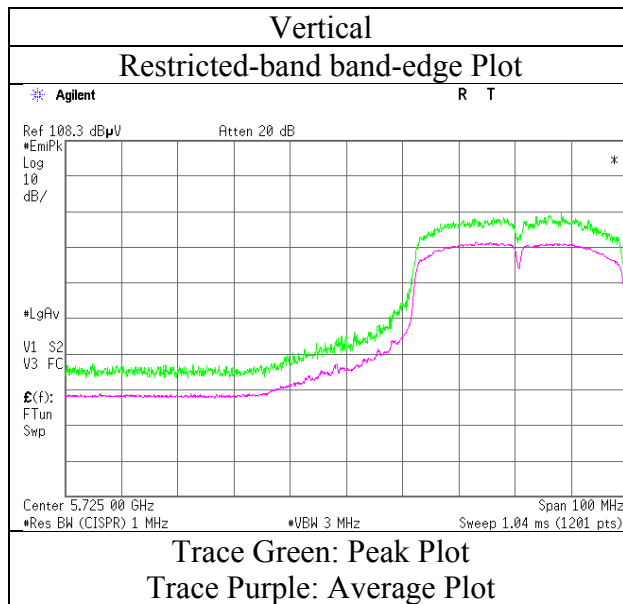
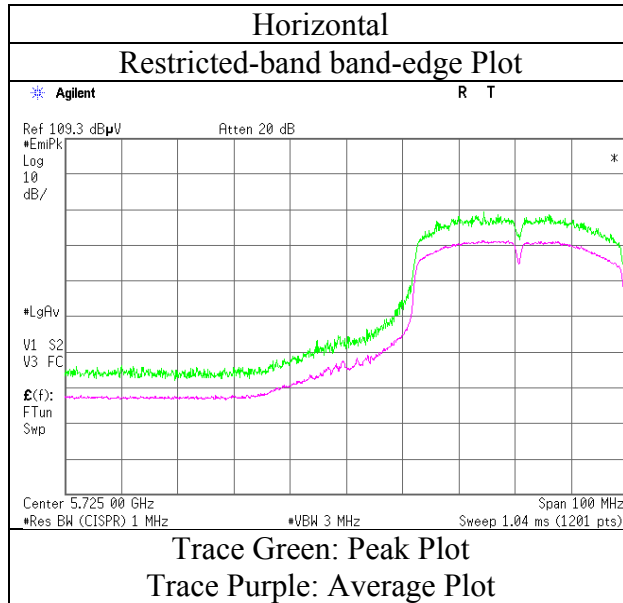
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-40 5755 MHz



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

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Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber	
Report No.	11166416H	
Date	March 27, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui	Keisuke Kawamura
	(1 GHz-10 GHz)	(10 GHz-40 GHz)
Mode	Tx 11n-40 5795 MHz	

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3863.734	PK	44.7	29.8	6.9	31.6	-	49.8	73.9	24.1	
Hori	5850.000	PK	41.4	33.2	7.8	31.5	-	50.9	78.2	27.3	
Hori	5860.000	PK	41.4	33.2	7.8	31.5	-	50.9	68.2	17.3	
Hori	11590.000	PK	42.1	40.1	-1.6	33.1	-	47.5	73.9	26.4	Floor Noise
Hori	17385.000	PK	42.2	42.5	0.0	32.6	-	52.1	68.2	16.1	Floor Noise
Hori	23180.000	PK	44.6	38.6	-0.5	33.4	-	49.3	68.2	18.9	Floor Noise
Hori	3863.734	AV	40.4	29.8	6.9	31.6	0.3	45.8	53.9	8.1	
Hori	11590.000	AV	33.0	40.1	-1.6	33.1	-	38.4	53.9	15.5	Floor Noise
Vert	3863.734	PK	44.5	29.8	6.9	31.6	-	49.6	73.9	24.3	
Vert	5850.000	PK	40.9	33.2	7.8	31.5	-	50.4	78.2	27.8	
Vert	5860.000	PK	41.1	33.2	7.8	31.5	-	50.6	68.2	17.6	
Vert	11590.000	PK	42.0	40.1	-1.6	33.1	-	47.4	73.9	26.5	Floor Noise
Vert	17385.000	PK	41.3	42.5	0.0	32.6	-	51.2	68.2	17.0	Floor Noise
Vert	23180.000	PK	44.8	38.6	-0.5	33.4	-	49.5	68.2	18.7	Floor Noise
Vert	3863.734	AV	39.3	29.8	6.9	31.6	0.3	44.7	53.9	9.2	
Vert	11590.000	AV	33.0	40.1	-1.6	33.1	-	38.4	53.9	15.5	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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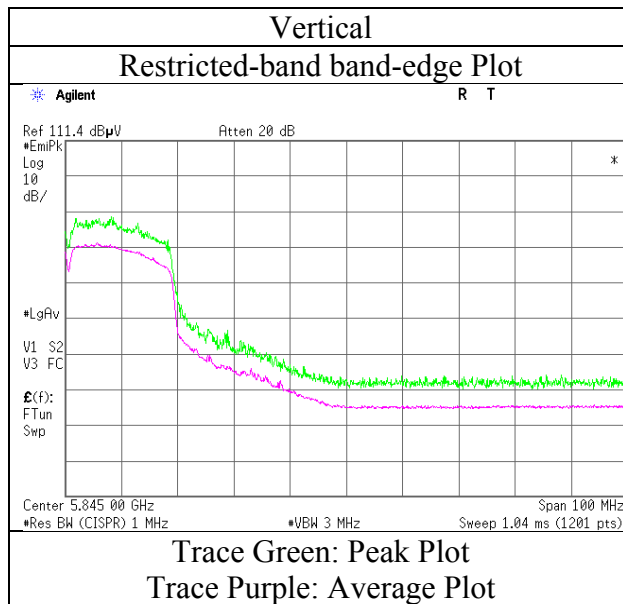
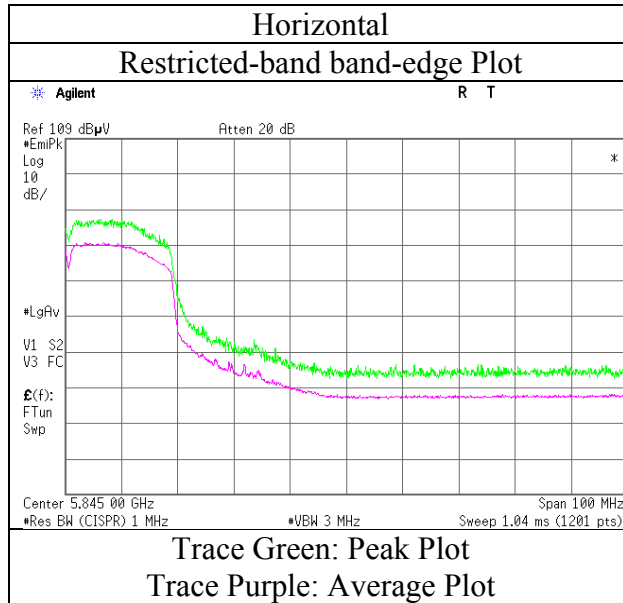
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 27, 2016
Temperature / Humidity	20deg. C / 31 % RH
Engineer	Tomoki Matsui
Mode	Tx 11n-40 5795 MHz



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

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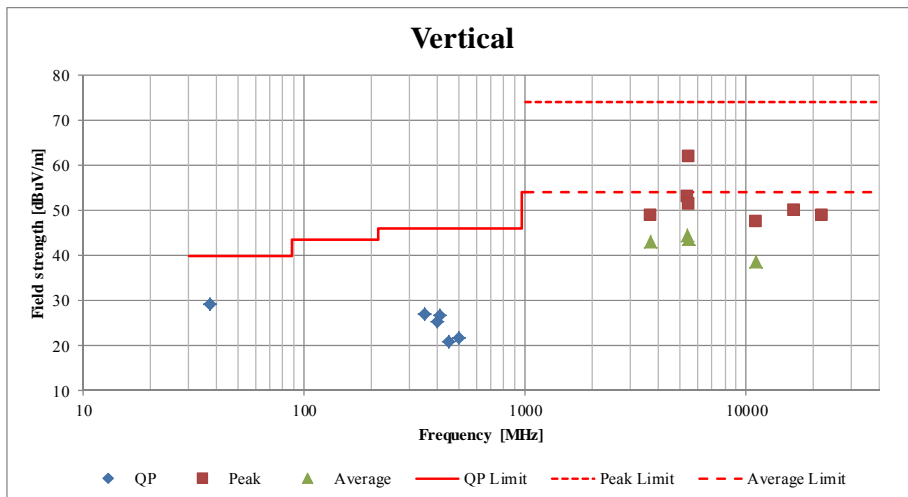
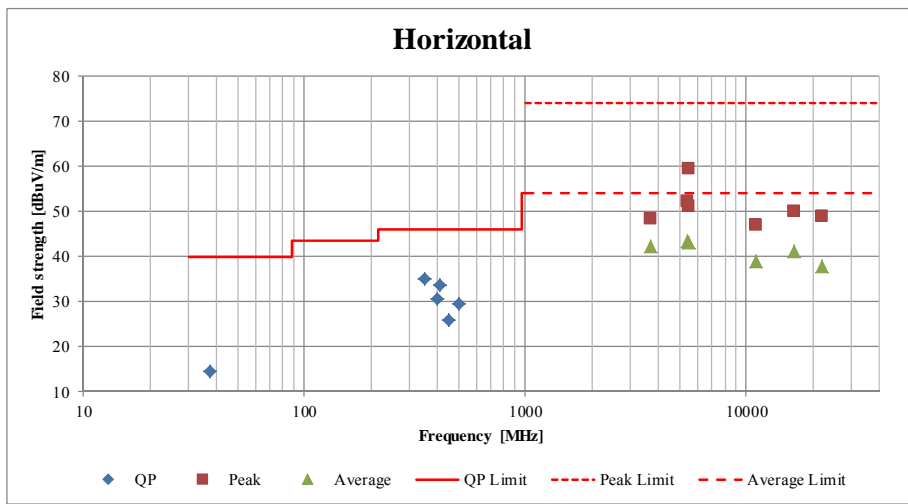
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission
(Plot data, Worst case)

[Antenna 1]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 27, 2016	March 28, 2016	March 28, 2016
Temperature / Humidity	20deg. C / 31 % RH	19deg. C / 33 % RH	24deg. C / 31 % RH
Engineer	Tomoki Matsui (1 GHz-10 GHz)	Tomoki Matsui (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz & Below 1GHz)
Mode	Tx 11n-20 5500 MHz		



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

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	22deg. C / 34 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Ken Fujita	Ken Fujita	Keisuke Kawamura
	(1 GHz-10 GHz)	(10GHz-26.5 GHz)	(18 GHz-40 GHz)
Mode	Tx 11n-20 5180 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	47.4	33.3	7.5	31.3	-	56.9	73.9	17.0	
Hori	6907.433	PK	44.5	36.4	8.3	32.4	-	56.8	68.2	11.4	
Hori	10360.000	PK	42.4	39.2	-1.8	32.9	-	46.9	68.2	21.3	Floor Noise
Hori	15540.000	PK	42.5	40.0	0.0	32.7	-	49.8	73.9	24.1	Floor Noise
Hori	20720.000	PK	44.3	37.8	-1.1	33.3	-	47.7	73.9	26.2	Floor Noise
Hori	25900.000	PK	44.5	38.7	0.2	32.4	-	51.0	73.9	22.9	Floor Noise
Hori	5150.000	AV	39.3	33.3	7.5	31.3	0.5	49.3	53.9	4.6	
Hori	10360.000	AV	33.2	39.2	-1.8	32.9	-	37.7	53.9	16.2	Floor Noise
Hori	15540.000	AV	33.1	40.0	0.0	32.7	-	40.4	53.9	13.5	Floor Noise
Hori	20720.000	AV	33.6	37.8	-1.1	33.3	-	37.0	53.9	16.9	Floor Noise
Hori	25900.000	AV	34.8	38.7	0.2	32.4	-	41.3	53.9	12.6	Floor Noise
Vert	5150.000	PK	47.7	33.3	7.5	31.3	-	57.2	68.2	11.0	
Vert	6907.433	PK	46.1	36.4	8.3	32.4	-	58.4	68.2	9.8	
Vert	10360.000	PK	42.3	39.2	-1.8	32.9	-	46.8	73.9	27.1	Floor Noise
Vert	15540.000	PK	42.4	40.0	0.0	32.7	-	49.7	73.9	24.2	Floor Noise
Vert	20720.000	PK	44.6	37.8	-1.1	33.3	-	48.0	73.9	25.9	Floor Noise
Vert	25900.000	PK	44.8	38.7	0.2	32.4	-	51.3	73.9	22.6	Floor Noise
Vert	5150.000	AV	39.2	33.3	7.5	31.3	0.5	49.2	53.9	4.7	
Vert	10360.000	AV	33.5	39.2	-1.8	32.9	-	38.0	53.9	15.9	Floor Noise
Vert	15540.000	AV	33.4	40.0	0.0	32.7	-	40.7	53.9	13.2	Floor Noise
Vert	20720.000	AV	34.0	37.8	-1.1	33.3	-	37.4	53.9	16.5	Floor Noise
Vert	25900.000	AV	35.2	38.7	0.2	32.4	-	41.7	53.9	12.2	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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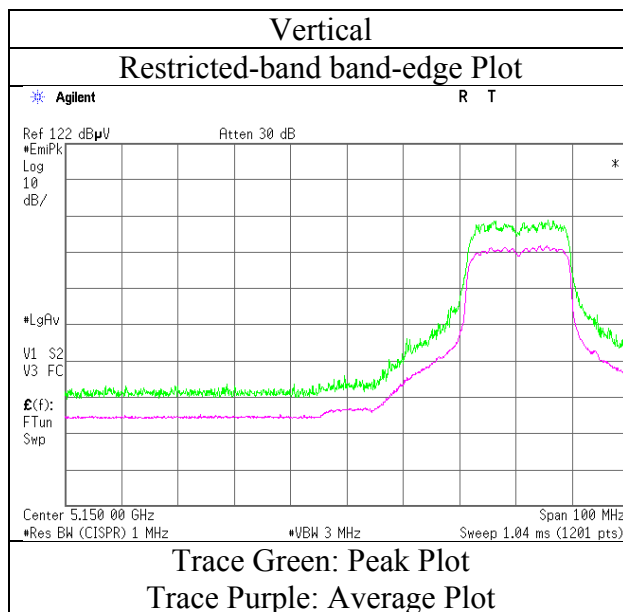
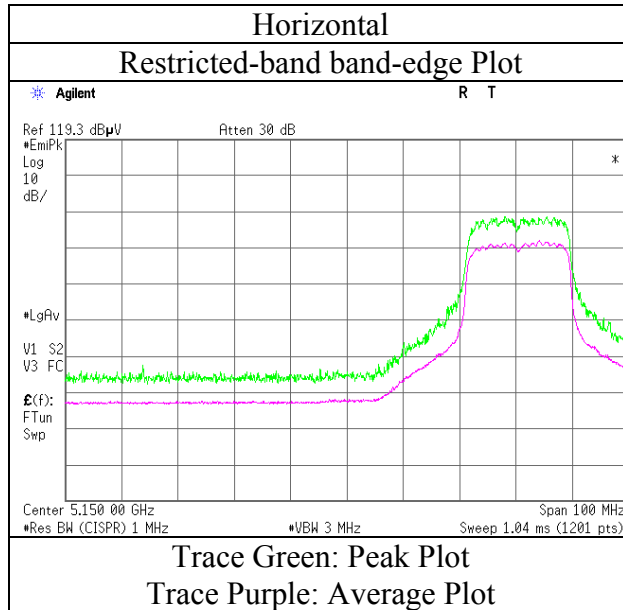
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Ken Fujita
Mode	Tx 11n-20 5180 MHz



* 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

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5260 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	7013.980	PK	43.9	36.7	8.3	32.5	-	56.4	68.2	11.8	
Hori	10520.000	PK	42.2	39.6	-1.8	32.9	-	47.1	68.2	21.1	Floor Noise
Hori	15780.000	PK	42.0	39.3	0.0	32.7	-	48.6	73.9	25.3	Floor Noise
Hori	21040.000	PK	44.2	37.9	-1.1	33.3	-	47.7	73.9	26.2	Floor Noise
Hori	26300.000	PK	44.7	38.8	0.3	31.8	-	52.0	73.9	21.9	Floor Noise
Hori	15780.000	AV	33.4	39.3	0.0	32.7	-	40.0	53.9	13.9	Floor Noise
Hori	21040.000	AV	33.7	37.9	-1.1	33.3	-	37.2	53.9	16.7	Floor Noise
Hori	26300.000	AV	35.0	38.8	0.3	31.8	-	42.3	53.9	11.6	Floor Noise
Vert	7013.980	PK	44.8	36.7	8.3	32.5	-	57.3	68.2	10.9	
Vert	10520.000	PK	44.3	39.6	-1.8	32.9	-	49.2	68.2	19.0	Floor Noise
Vert	15780.000	PK	42.1	39.3	0.0	32.7	-	48.7	73.9	25.2	Floor Noise
Vert	21040.000	PK	44.4	37.9	-1.1	33.3	-	47.9	73.9	26.0	Floor Noise
Vert	26300.000	PK	44.6	38.8	0.3	31.8	-	51.9	73.9	22.0	Floor Noise
Vert	15780.000	AV	33.1	39.3	0.0	32.7	-	39.7	53.9	14.2	Floor Noise
Vert	21040.000	AV	34.2	37.9	-1.1	33.3	-	37.7	53.9	16.2	Floor Noise
Vert	26300.000	AV	35.2	38.8	0.3	31.8	-	42.5	53.9	11.4	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 20dB).

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5320 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	48.5	33.1	7.6	31.3	-	57.9	73.9	16.0	
Hori	7094.067	PK	42.6	36.7	8.3	32.5	-	55.1	68.2	13.1	
Hori	10640.000	PK	42.3	39.7	-1.7	33.0	-	47.3	73.9	26.6	Floor Noise
Hori	15960.000	PK	42.0	38.9	0.0	32.7	-	48.2	73.9	25.7	Floor Noise
Hori	21280.000	PK	43.1	38.0	-1.0	33.3	-	46.8	73.9	27.1	Floor Noise
Hori	5350.000	AV	40.8	33.1	7.6	31.3	0.5	50.7	53.9	3.2	
Hori	10640.000	AV	32.8	39.7	-1.7	33.0	-	37.8	53.9	16.1	Floor Noise
Hori	15960.000	AV	33.1	38.9	0.0	32.7	-	39.3	53.9	14.6	Floor Noise
Hori	21280.000	AV	33.6	38.0	-1.0	33.3	-	37.3	53.9	16.6	Floor Noise
Vert	5350.000	PK	52.3	33.1	7.6	31.3	-	61.7	73.9	12.2	
Vert	7094.067	PK	43.8	36.7	8.3	32.5	-	56.3	68.2	11.9	
Vert	10640.000	PK	42.2	39.7	-1.7	33.0	-	47.2	73.9	26.7	Floor Noise
Vert	15960.000	PK	42.1	38.9	0.0	32.7	-	48.3	73.9	25.6	Floor Noise
Vert	21280.000	PK	43.2	38.0	-1.0	33.3	-	46.9	73.9	27.0	Floor Noise
Vert	5350.000	AV	43.3	33.1	7.6	31.3	0.5	53.2	53.9	0.7	Integration
Vert	10640.000	AV	32.6	39.7	-1.7	33.0	-	37.6	53.9	16.3	Floor Noise
Vert	15960.000	AV	33.0	38.9	0.0	32.7	-	39.2	53.9	14.7	Floor Noise
Vert	21280.000	AV	33.6	38.0	-1.0	33.3	-	37.3	53.9	16.6	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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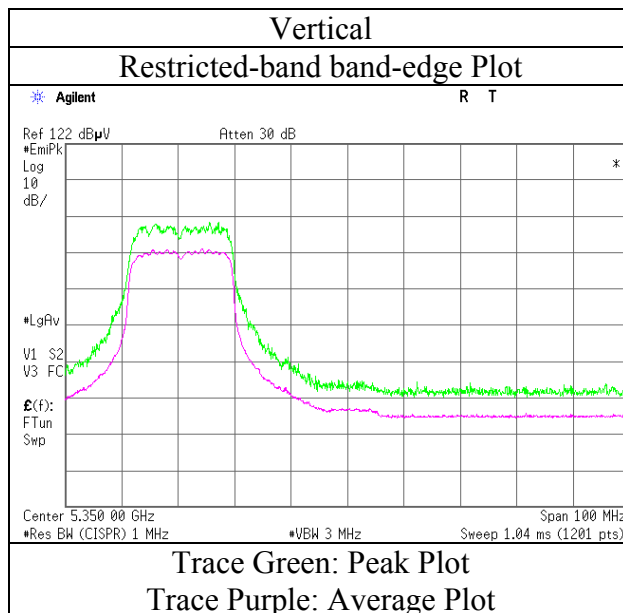
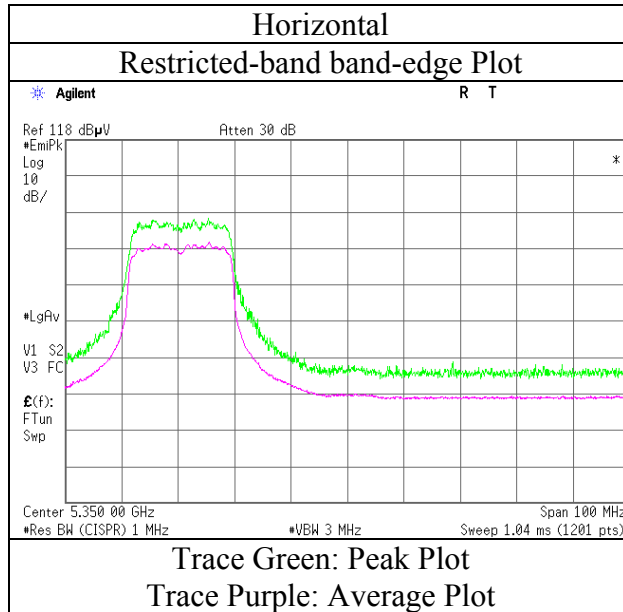
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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-20 5320 MHz



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

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Radiated Spurious Emission

[Antenna 2]

Test place : Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 11166416H
Date : March 30, 2016 March 31, 2016 March 31, 2016
Temperature / Humidity : 26deg. C / 31 % RH 23deg. C / 33 % RH 26deg. C / 31 % RH
Engineer : Keisuke Kawamura Ken Fujita Keisuke Kawamura
(1 GHz-10 GHz) (10GHz-26.5 GHz) (18 GHz-40 GHz & Below 1GHz)
Mode : Tx 11n-20 5500 MHz

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	49.959	QP	26.9	10.7	7.4	32.1	-	12.9	40.0	27.1	
Hori	97.075	QP	24.8	9.5	8.1	32.1	-	10.3	43.5	33.2	
Hori	399.995	QP	35.6	18.4	10.6	32.1	-	32.5	46.0	13.5	
Hori	411.423	QP	36.1	18.5	10.7	32.1	-	33.2	46.0	12.8	
Hori	499.995	QP	35.0	19.5	11.2	32.2	-	33.5	46.0	12.5	
Hori	636.675	QP	30.9	21.2	12.0	32.2	-	31.9	46.0	14.1	
Hori	3666.998	PK	44.6	29.2	6.8	31.6	-	49.0	73.9	24.9	
Hori	5460.000	PK	42.3	33.0	7.6	31.4	-	51.5	73.9	22.4	
Hori	5470.000	PK	50.3	33.0	7.6	31.4	-	59.5	68.2	8.7	
Hori	11000.000	PK	42.3	40.1	-1.6	33.0	-	47.8	73.9	26.1	Floor Noise
Hori	16500.000	PK	42.3	40.3	0.0	32.6	-	50.0	68.2	18.2	Floor Noise
Hori	22000.000	PK	43.0	38.2	-0.7	33.3	-	47.2	68.2	21.0	Floor Noise
Hori	3666.998	AV	39.5	29.2	6.8	31.6	0.5	44.4	53.9	9.5	
Hori	5460.000	AV	33.8	33.0	7.6	31.4	0.5	43.5	53.9	10.4	
Hori	11000.000	AV	33.2	40.1	-1.6	33.0	-	38.7	53.9	15.2	Floor Noise
Vert	49.959	QP	42.6	10.7	7.4	32.1	-	28.6	40.0	11.4	
Vert	97.075	QP	34.1	9.5	8.1	32.1	-	19.6	43.5	23.9	
Vert	399.995	QP	31.0	18.4	10.6	32.1	-	27.9	46.0	18.1	
Vert	411.423	QP	33.1	18.5	10.7	32.1	-	30.2	46.0	15.8	
Vert	499.995	QP	32.0	19.5	11.2	32.2	-	30.5	46.0	15.5	
Vert	636.675	QP	24.6	21.2	12.0	32.2	-	25.6	46.0	20.4	
Vert	3666.998	PK	45.1	29.2	6.8	31.6	-	49.5	73.9	24.4	
Vert	5460.000	PK	40.5	33.0	7.6	31.4	-	49.7	73.9	24.2	
Vert	5470.000	PK	51.7	33.0	7.6	31.4	-	60.9	68.2	7.3	
Vert	11000.000	PK	42.2	40.1	-1.6	33.0	-	47.7	73.9	26.2	Floor Noise
Vert	16500.000	PK	42.1	40.3	0.0	32.6	-	49.8	68.2	18.4	Floor Noise
Vert	22000.000	PK	43.3	38.2	-0.7	33.3	-	47.5	68.2	20.7	Floor Noise
Vert	3666.998	AV	39.6	29.2	6.8	31.6	0.5	44.5	53.9	9.4	
Vert	5460.000	AV	32.3	33.0	7.6	31.4	0.5	42.0	53.9	11.9	
Vert	11000.000	AV	33.4	40.1	-1.6	33.0	-	38.9	53.9	15.0	Floor Noise

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

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

Distance factor: 1GHz-10GHz $20\log(4.45\text{m}/3.0\text{m})= 3.4\text{dB}$
 10GHz-26.5GHz $20\log(1.0\text{m}/3.0\text{m})= -9.5\text{dB}$
 26.5GHz-40GHz $20\log(0.5\text{m}/3.0\text{m})= -15.6\text{dB}$

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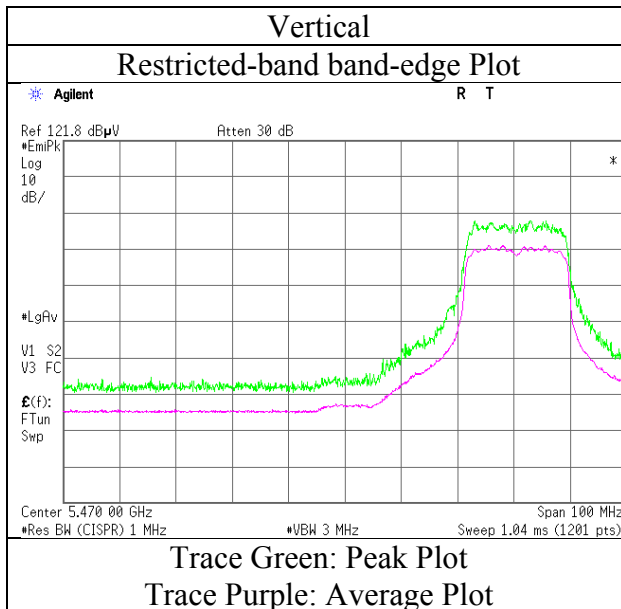
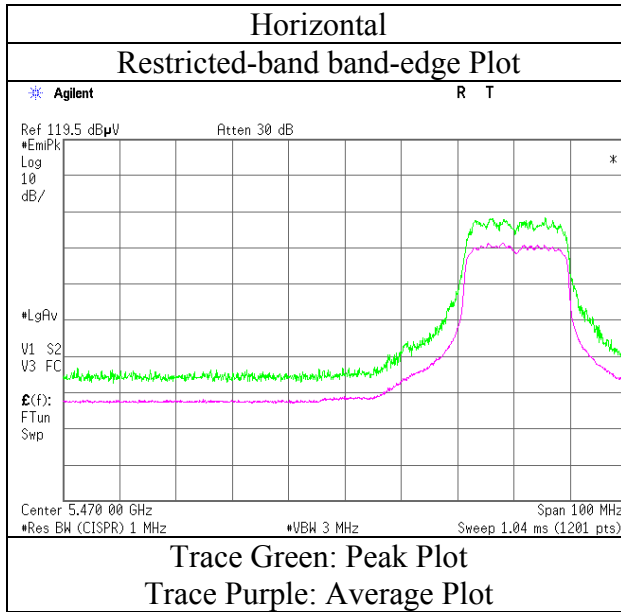
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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-20 5500 MHz



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

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5580 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3720.343	PK	46.2	29.4	6.8	31.6	-	50.8	73.9	23.1	
Hori	11160.000	PK	42.3	40.1	-1.6	33.1	-	47.7	73.9	26.2	Floor Noise
Hori	16740.000	PK	42.1	41.0	0.0	32.6	-	50.5	68.2	17.7	Floor Noise
Hori	22320.000	PK	43.0	38.3	-0.7	33.4	-	47.2	73.9	26.7	Floor Noise
Hori	3720.343	AV	41.0	29.4	6.8	31.6	0.5	46.1	53.9	7.8	
Hori	11160.000	AV	33.3	40.1	-1.6	33.1	-	38.7	53.9	15.2	Floor Noise
Hori	16740.000	AV	33.4	41.0	0.0	32.6	-	41.8	53.9	12.1	Floor Noise
Hori	22320.000	AV	34.0	38.3	-0.7	33.4	-	38.2	53.9	15.7	Floor Noise
Vert	3720.343	PK	46.1	29.4	6.8	31.6	-	50.7	73.9	23.2	
Vert	11160.000	PK	42.3	40.1	-1.6	33.1	-	47.7	73.9	26.2	Floor Noise
Vert	16740.000	PK	42.2	41.0	0.0	32.6	-	50.6	68.2	17.6	Floor Noise
Vert	22320.000	PK	43.3	38.3	-0.7	33.4	-	47.5	73.9	26.4	Floor Noise
Vert	3720.343	AV	41.3	29.4	6.8	31.6	0.5	46.4	53.9	7.5	
Vert	11160.000	AV	33.4	40.1	-1.6	33.1	-	38.8	53.9	15.1	Floor Noise
Vert	16740.000	AV	33.5	41.0	0.0	32.6	-	41.9	53.9	12.0	Floor Noise
Vert	22320.000	AV	33.7	38.3	-0.7	33.4	-	37.9	53.9	16.0	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5700 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3800.343	PK	44.2	29.6	6.9	31.6	-	49.1	73.9	24.8	
Hori	5725.000	PK	53.6	33.1	7.7	31.4	-	63.0	68.2	5.2	
Hori	11400.000	PK	42.0	40.2	-1.6	33.1	-	47.5	73.9	26.4	Floor Noise
Hori	17100.000	PK	42.1	42.0	0.0	32.6	-	51.5	68.2	16.7	Floor Noise
Hori	22800.000	PK	43.1	38.4	-0.6	33.5	-	47.4	73.9	26.5	Floor Noise
Hori	3800.343	AV	39.3	29.6	6.9	31.6	0.5	44.7	53.9	9.2	
Hori	11400.000	AV	33.2	40.2	-1.6	33.1	-	38.7	53.9	15.2	Floor Noise
Hori	17100.000	AV	33.6	42.0	0.0	32.6	-	43.0	53.9	10.9	Floor Noise
Hori	22800.000	AV	33.8	38.4	-0.6	33.5	-	38.1	53.9	15.8	Floor Noise
Vert	3800.343	PK	44.4	29.6	6.9	31.6	-	49.3	73.9	24.6	
Vert	5725.000	PK	52.5	33.1	7.7	31.4	-	61.9	68.2	6.3	
Vert	11400.000	PK	42.3	40.2	-1.6	33.1	-	47.8	73.9	26.1	Floor Noise
Vert	17100.000	PK	42.1	42.0	0.0	32.6	-	51.5	68.2	16.7	Floor Noise
Vert	22800.000	PK	44.1	38.4	-0.6	33.5	-	48.4	73.9	25.5	Floor Noise
Vert	3800.343	AV	39.1	29.6	6.9	31.6	0.5	44.5	53.9	9.4	
Vert	11400.000	AV	32.6	40.2	-1.6	33.1	-	38.1	53.9	15.8	Floor Noise
Vert	17100.000	AV	33.4	42.0	0.0	32.6	-	42.8	53.9	11.1	Floor Noise
Vert	22800.000	AV	33.9	38.4	-0.6	33.5	-	38.2	53.9	15.7	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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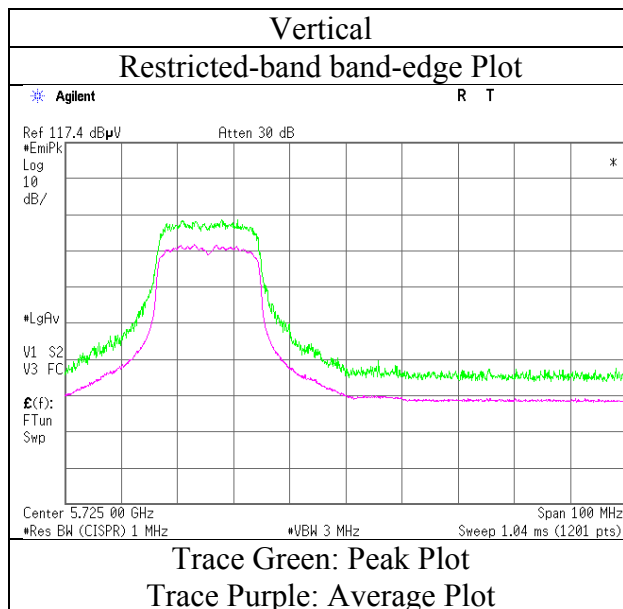
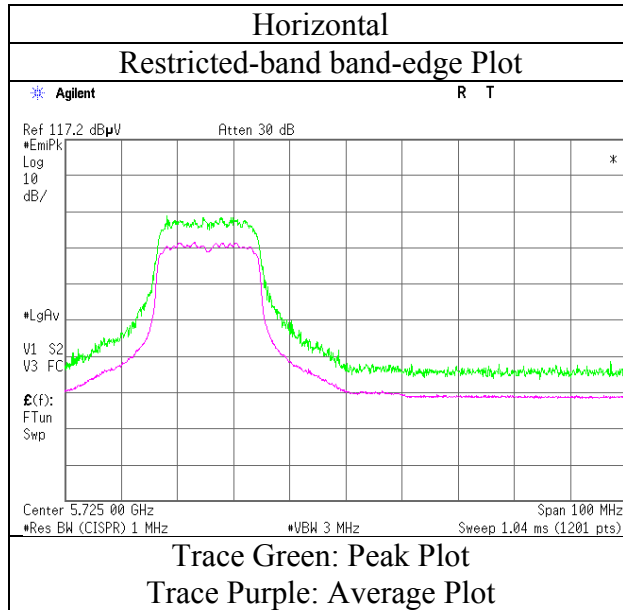
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-20 5700 MHz



* 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

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1GHz-10GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5745 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3830.315	PK	44.0	29.7	6.9	31.6	-	49.0	73.9	24.9	
Hori	5715.000	PK	49.5	33.1	7.7	31.4	-	58.9	68.2	9.3	
Hori	5725.000	PK	59.4	33.1	7.7	31.4	-	68.8	78.2	9.4	
Hori	11490.000	PK	42.3	40.2	-1.7	33.1	-	47.7	73.9	26.2	Floor Noise
Hori	17325.000	PK	42.1	42.4	0.0	32.6	-	51.9	68.2	16.3	Floor Noise
Hori	22980.000	PK	44.4	38.4	-0.6	33.5	-	48.7	73.9	25.2	Floor Noise
Hori	3830.315	AV	38.4	29.7	6.9	31.6	0.5	43.9	53.9	10.0	
Hori	11490.000	AV	33.1	40.2	-1.7	33.1	-	38.5	53.9	15.4	Floor Noise
Hori	22980.000	AV	33.7	38.4	-0.6	33.5	-	38.0	53.9	15.9	Floor Noise
Vert	3830.315	PK	44.8	29.7	6.9	31.6	-	49.8	73.9	24.1	
Vert	5715.000	PK	50.6	33.1	7.7	31.4	-	60.0	68.2	8.2	
Vert	5725.000	PK	60.8	33.1	7.7	31.4	-	70.2	78.2	8.0	
Vert	11490.000	PK	42.1	40.2	-1.7	33.1	-	47.5	73.9	26.4	Floor Noise
Vert	17325.000	PK	42.0	42.4	0.0	32.6	-	51.8	68.2	16.4	Floor Noise
Vert	22980.000	PK	43.4	38.4	-0.6	33.5	-	47.7	73.9	26.2	Floor Noise
Vert	3830.315	AV	39.5	29.7	6.9	31.6	0.5	45.0	53.9	8.9	
Vert	11490.000	AV	33.2	40.2	-1.7	33.1	-	38.6	53.9	15.3	Floor Noise
Vert	22980.000	AV	33.8	38.4	-0.6	33.5	-	38.1	53.9	15.8	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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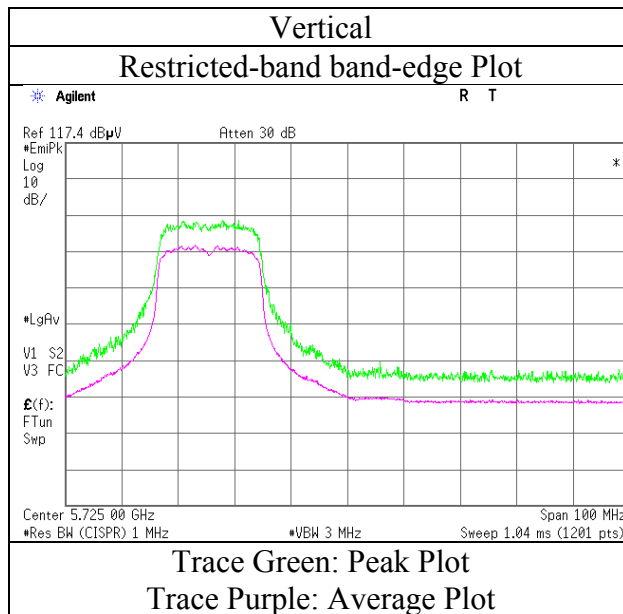
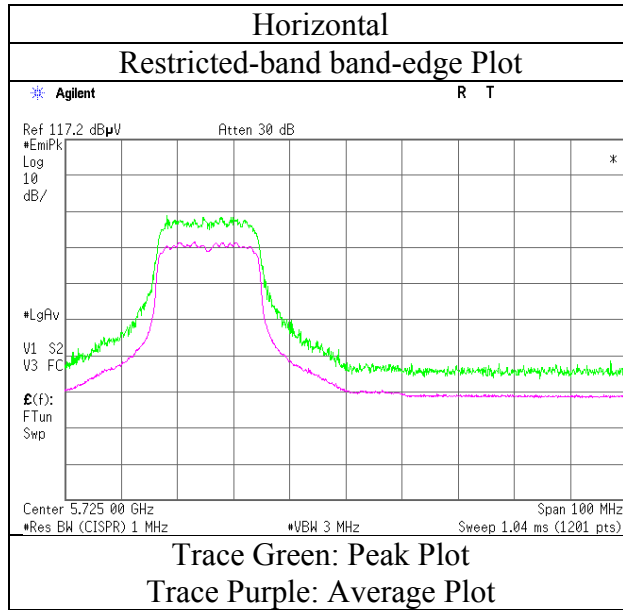
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-20 5745 MHz



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

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5785 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3856.991	PK	43.9	29.7	6.9	31.6	-	48.9	73.9	25.0	
Hori	11570.000	PK	42.2	40.1	-1.7	33.1	-	47.5	73.9	26.4	Floor Noise
Hori	17355.000	PK	42.3	42.4	0.0	32.6	-	52.1	68.2	16.1	Floor Noise
Hori	23140.000	PK	44.2	38.5	-0.5	33.4	-	48.8	68.2	19.4	Floor Noise
Hori	3856.991	AV	38.8	29.7	6.9	31.6	0.5	44.3	53.9	9.6	
Hori	11570.000	AV	33.2	40.1	-1.7	33.1	-	38.5	53.9	15.4	Floor Noise
Vert	3856.991	PK	44.3	29.7	6.9	31.6	-	49.3	73.9	24.6	
Vert	11570.000	PK	43.0	40.1	-1.7	33.1	-	48.3	73.9	25.6	Floor Noise
Vert	17355.000	PK	42.5	42.4	0.0	32.6	-	52.3	68.2	15.9	Floor Noise
Vert	23140.000	PK	43.5	38.5	-0.5	33.4	-	48.1	68.2	20.1	Floor Noise
Vert	3856.991	AV	38.3	29.7	6.9	31.6	0.5	43.8	53.9	10.1	
Vert	11570.000	AV	33.2	40.1	-1.7	33.1	-	38.5	53.9	15.4	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-20 5825 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3883.650	PK	46.8	29.8	6.9	31.6	-	51.9	73.9	22.0	
Hori	5850.000	PK	52.1	33.2	7.8	31.5	-	61.6	78.2	16.6	
Hori	5860.000	PK	45.0	33.2	7.8	31.5	-	54.5	68.2	13.7	
Hori	11650.000	PK	42.4	40.1	-1.6	33.1	-	47.8	73.9	26.1	Floor Noise
Hori	17475.000	PK	42.1	42.6	0.0	32.6	-	52.1	68.2	16.1	Floor Noise
Hori	23300.000	PK	43.9	38.6	-0.5	33.4	-	48.6	68.2	19.6	Floor Noise
Hori	3883.650	AV	42.1	29.8	6.9	31.6	0.5	47.7	53.9	6.2	
Hori	11650.000	AV	33.3	40.1	-1.6	33.1	-	38.7	53.9	15.2	Floor Noise
Vert	3883.650	PK	45.7	29.8	6.9	31.6	-	50.8	73.9	23.1	
Vert	5850.000	PK	53.1	33.2	7.8	31.5	-	62.6	78.2	15.6	
Vert	5860.000	PK	47.7	33.2	7.8	31.5	-	57.2	68.2	11.0	
Vert	11650.000	PK	42.3	40.1	-1.6	33.1	-	47.7	73.9	26.2	Floor Noise
Vert	17475.000	PK	42.2	42.6	0.0	32.6	-	52.2	68.2	16.0	Floor Noise
Vert	23300.000	PK	42.9	38.6	-0.5	33.4	-	47.6	68.2	20.6	Floor Noise
Vert	3883.650	AV	41.8	29.8	6.9	31.6	0.5	47.4	53.9	6.5	
Vert	11650.000	AV	32.9	40.1	-1.6	33.1	-	38.3	53.9	15.6	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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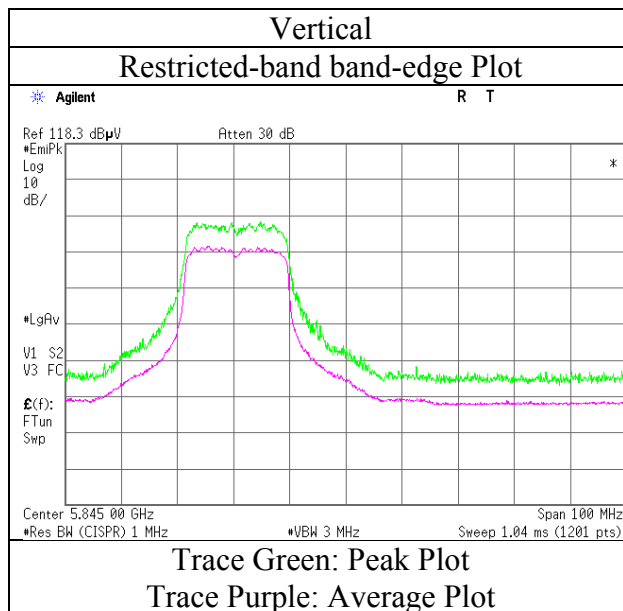
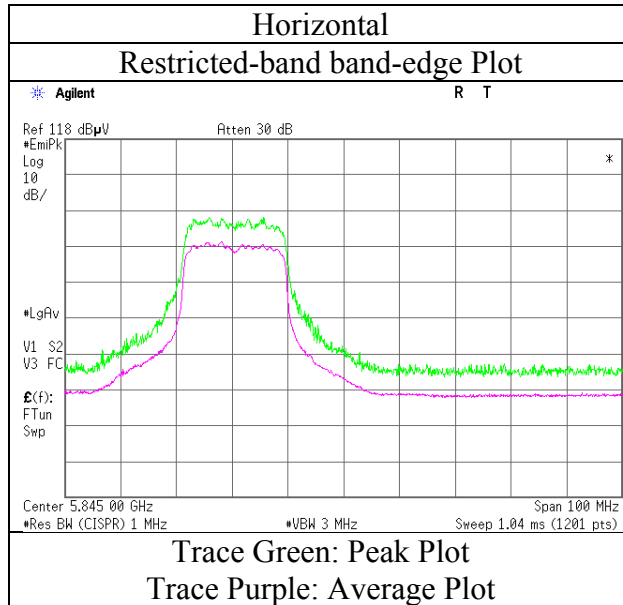
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-20 5825 MHz



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

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5190 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5150.000	PK	45.2	33.3	7.5	31.3	-	54.7	73.9	19.2	
Hori	6920.810	PK	44.4	36.5	8.3	32.4	-	56.8	68.2	11.4	
Hori	10380.000	PK	42.0	39.3	-1.8	32.9	-	46.6	68.2	21.6	Floor Noise
Hori	15570.000	PK	42.0	39.9	-0.1	32.7	-	49.1	73.9	24.8	Floor Noise
Hori	20760.000	PK	43.0	37.8	-1.1	33.3	-	46.4	73.9	27.5	Floor Noise
Hori	5150.000	AV	36.5	33.3	7.5	31.3	0.3	46.3	53.9	7.6	
Hori	15570.000	AV	33.5	39.9	-0.1	32.7	-	40.6	53.9	13.3	Floor Noise
Hori	20760.000	AV	34.0	37.8	-1.1	33.3	-	37.4	53.9	16.5	
Vert	5150.000	PK	48.6	33.3	7.5	31.3	-	58.1	73.9	15.8	
Vert	6920.810	PK	45.2	36.5	8.3	32.4	-	57.6	68.2	10.6	
Vert	10380.000	PK	42.1	39.3	-1.8	32.9	-	46.7	68.3	21.6	Floor Noise
Vert	15570.000	PK	42.0	39.9	-0.1	32.7	-	49.1	73.9	24.8	Floor Noise
Vert	20760.000	PK	43.3	37.8	-1.1	33.3	-	46.7	73.9	27.2	Floor Noise
Vert	5150.000	AV	40.1	33.3	7.5	31.3	0.3	49.9	53.9	4.0	
Vert	15570.000	AV	33.4	39.9	-0.1	32.7	-	40.5	53.9	13.4	Floor Noise
Vert	20760.000	AV	33.7	37.8	-1.1	33.3	-	37.1	53.9	16.8	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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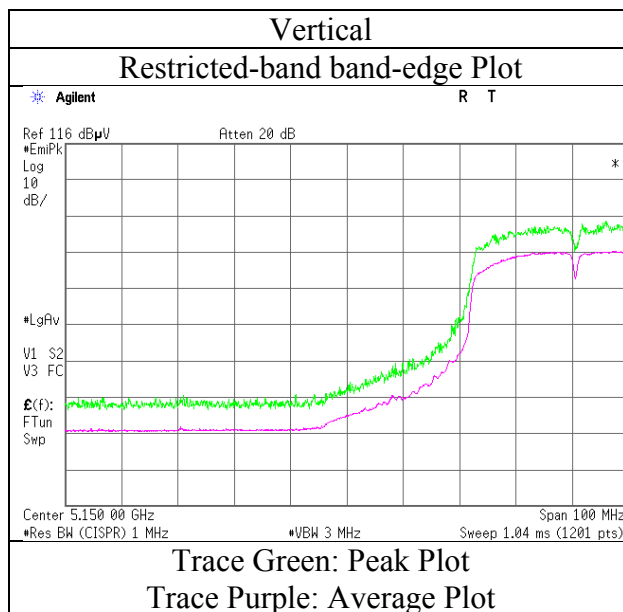
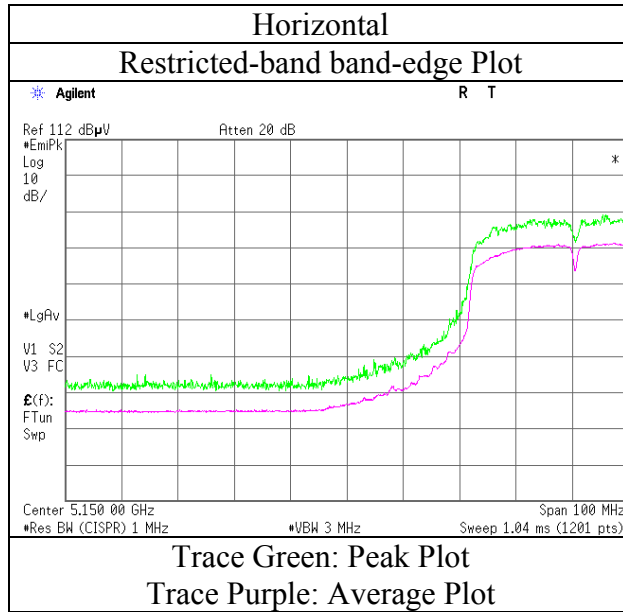
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-40 5190 MHz



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

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5270 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	7027.403	PK	42.7	36.7	8.3	32.5	-	55.2	68.2	13.0	
Hori	10540.000	PK	42.2	39.6	-1.8	32.9	-	47.1	68.2	21.1	Floor Noise
Hori	15810.000	PK	42.3	39.3	0.0	32.7	-	48.9	73.9	25.0	Floor Noise
Hori	21080.000	PK	43.2	37.9	-1.0	33.3	-	46.8	73.9	27.1	Floor Noise
Hori	15810.000	AV	33.3	39.3	0.0	32.7	-	39.9	53.9	14.0	Floor Noise
Hori	21080.000	AV	34.0	37.9	-1.0	33.3	-	37.6	53.9	16.3	Floor Noise
Vert	7027.403	PK	43.5	36.7	8.3	32.5	-	56.0	68.2	12.2	
Vert	10540.000	PK	42.2	39.6	-1.8	32.9	-	47.1	68.2	21.1	Floor Noise
Vert	15810.000	PK	42.0	39.3	0.0	32.7	-	48.6	73.9	25.3	Floor Noise
Vert	21080.000	PK	43.3	37.9	-1.0	33.3	-	46.9	73.9	27.0	Floor Noise
Vert	15810.000	AV	33.1	39.3	0.0	32.7	-	39.7	53.9	14.2	Floor Noise
Vert	21080.000	AV	34.1	37.9	-1.0	33.3	-	37.7	53.9	16.2	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 20dB).

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5310 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	5350.000	PK	46.9	33.1	7.6	31.3	-	56.3	73.9	17.6	
Hori	7080.834	PK	41.9	36.7	8.3	32.5	-	54.4	68.2	13.8	
Hori	10620.000	PK	42.2	39.7	-1.7	33.0	-	47.2	73.9	26.7	Floor Noise
Hori	15930.000	PK	42.1	39.0	0.0	32.7	-	48.4	73.9	25.5	Floor Noise
Hori	21240.000	PK	43.0	37.9	-1.0	33.3	-	46.6	73.9	27.3	Floor Noise
Hori	5350.000	AV	38.8	33.1	7.6	31.3	0.3	48.5	53.9	5.4	
Hori	10620.000	AV	33.9	39.7	-1.7	33.0	-	38.9	53.9	15.0	Floor Noise
Hori	15930.000	AV	33.6	39.0	0.0	32.7	-	39.9	53.9	14.0	Floor Noise
Hori	21240.000	AV	33.8	37.9	-1.0	33.3	-	37.4	53.9	16.5	Floor Noise
Vert	5350.000	PK	51.0	33.1	7.6	31.3	-	60.4	73.9	13.5	
Vert	7080.834	PK	43.1	36.7	8.3	32.5	-	55.6	68.2	12.6	
Vert	10620.000	PK	43.1	39.7	-1.7	33.0	-	48.1	73.9	25.8	Floor Noise
Vert	15930.000	PK	42.0	39.0	0.0	32.7	-	48.3	73.9	25.6	Floor Noise
Vert	21240.000	PK	43.3	37.9	-1.0	33.3	-	46.9	73.9	27.0	Floor Noise
Vert	5350.000	AV	43.3	33.1	7.6	31.3	0.3	53.0	53.9	0.9	
Vert	10620.000	AV	33.4	39.7	-1.7	33.0	-	38.4	53.9	15.5	Floor Noise
Vert	15930.000	AV	33.4	39.0	0.0	32.7	-	39.7	53.9	14.2	Floor Noise
Vert	21240.000	AV	34.1	37.9	-1.0	33.3	-	37.7	53.9	16.2	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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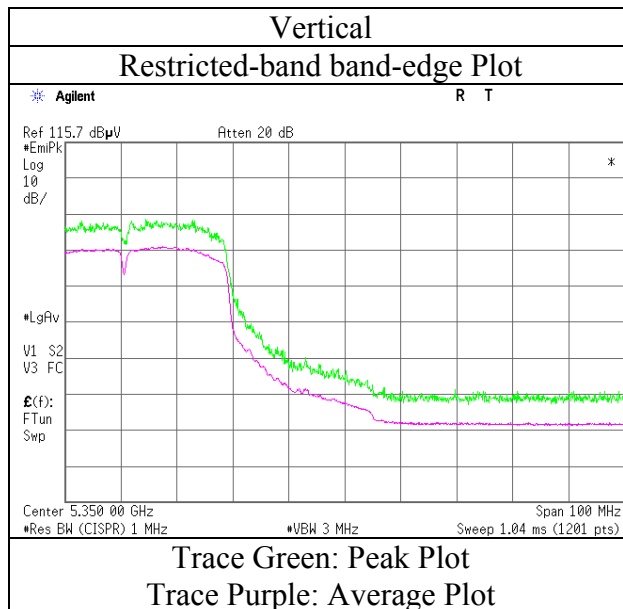
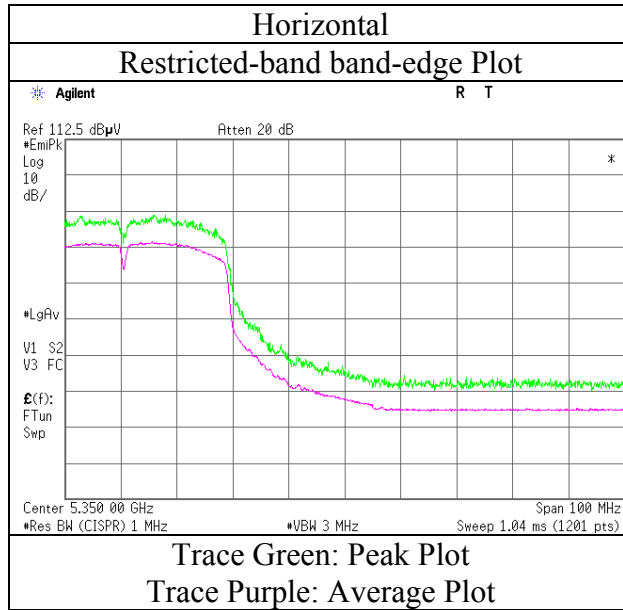
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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-40 5310 MHz



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

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5510 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3673.781	PK	44.0	29.2	6.8	31.6	-	48.4	73.9	25.5	
Hori	5460.000	PK	41.3	33.0	7.6	31.4	-	50.5	73.9	23.4	
Hori	5470.000	PK	50.1	33.0	7.6	31.4	-	59.3	68.2	8.9	
Hori	11020.000	PK	43.3	40.1	-1.7	33.0	-	48.7	73.9	25.2	Floor Noise
Hori	16530.000	PK	42.1	40.4	0.0	32.6	-	49.9	68.2	18.3	Floor Noise
Hori	22040.000	PK	43.0	38.2	-0.7	33.3	-	47.2	73.9	26.7	Floor Noise
Hori	3673.781	AV	38.6	29.2	6.8	31.6	0.3	43.3	53.9	10.6	
Hori	5460.000	AV	32.4	33.0	7.6	31.4	0.3	41.9	53.9	12.0	
Hori	11020.000	AV	33.4	40.1	-1.7	33.0	-	38.8	53.9	15.1	Floor Noise
Hori	22040.000	AV	33.8	38.2	-0.7	33.3	-	38.0	53.9	15.9	Floor Noise
Vert	3673.781	PK	44.4	29.2	6.8	31.6	-	48.8	73.9	25.1	
Vert	5460.000	PK	41.7	33.0	7.6	31.4	-	50.9	73.9	23.0	
Vert	5470.000	PK	51.7	33.0	7.6	31.4	-	60.9	68.2	7.3	
Vert	11020.000	PK	43.1	40.1	-1.7	33.0	-	48.5	73.9	25.4	Floor Noise
Vert	16530.000	PK	42.2	40.4	0.0	32.6	-	50.0	68.2	18.2	Floor Noise
Vert	22040.000	PK	43.3	38.2	-0.7	33.3	-	47.5	73.9	26.4	Floor Noise
Vert	3673.781	AV	38.4	29.2	6.8	31.6	0.3	43.1	53.9	10.8	
Vert	5460.000	AV	32.7	33.0	7.6	31.4	0.3	42.2	53.9	11.7	
Vert	11020.000	AV	33.5	40.1	-1.7	33.0	-	38.9	53.9	15.0	Floor Noise
Vert	22040.000	AV	34.1	38.2	-0.7	33.3	-	38.3	53.9	15.6	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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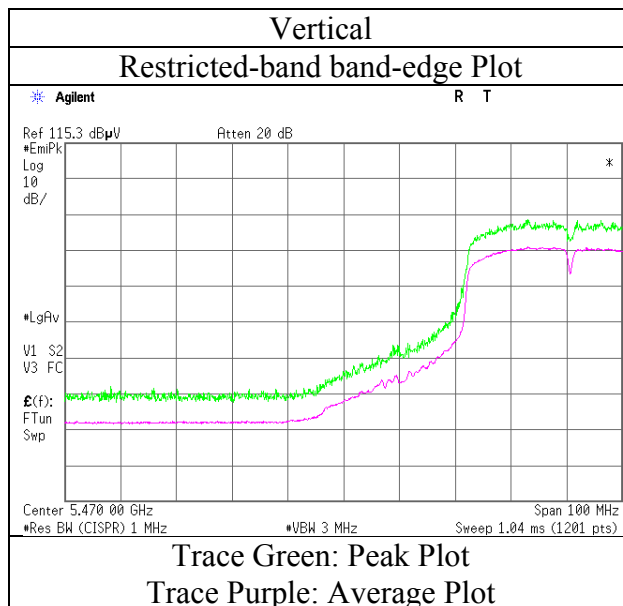
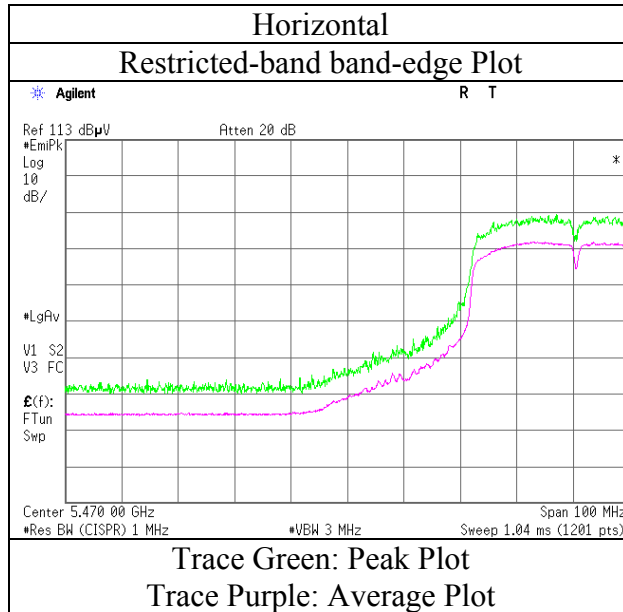
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-40 5510 MHz



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

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5550 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3700.450	PK	45.5	29.3	6.8	31.6	-	50.0	73.9	23.9	
Hori	11100.000	PK	42.3	40.1	-1.7	33.1	-	47.6	73.9	26.3	Floor Noise
Hori	16650.000	PK	42.1	40.8	0.0	32.6	-	50.3	68.2	17.9	Floor Noise
Hori	22200.000	PK	43.0	38.2	-0.7	33.3	-	47.2	73.9	26.7	Floor Noise
Hori	3700.450	AV	39.6	29.3	6.8	31.6	0.3	44.4	53.9	9.5	
Hori	11100.000	AV	33.3	40.1	-1.7	33.1	-	38.6	53.9	15.3	Floor Noise
Hori	22200.000	AV	33.8	38.2	-0.7	33.3	-	38.0	53.9	15.9	Floor Noise
Vert	3700.450	PK	44.7	29.3	6.8	31.6	-	49.2	73.9	24.7	
Vert	11100.000	PK	43.0	40.1	-1.7	33.1	-	48.3	73.9	25.6	Floor Noise
Vert	16650.000	PK	42.2	40.8	0.0	32.6	-	50.4	68.2	17.8	Floor Noise
Vert	22200.000	PK	43.3	38.2	-0.7	33.3	-	47.5	73.9	26.4	Floor Noise
Vert	3700.450	AV	39.1	29.3	6.8	31.6	0.3	43.9	53.9	10.0	
Vert	11100.000	AV	33.6	40.1	-1.7	33.1	-	38.9	53.9	15.0	Floor Noise
Vert	22200.000	AV	34.1	38.2	-0.7	33.3	-	38.3	53.9	15.6	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5670 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3780.368	PK	44.6	29.5	6.8	31.6	-	49.3	73.9	24.6	
Hori	5725.000	PK	40.9	33.1	7.7	31.4	-	50.3	68.2	17.9	
Hori	11340.000	PK	42.0	40.1	-1.6	33.1	-	47.4	73.9	26.5	Floor Noise
Hori	17010.000	PK	42.2	41.8	0.0	32.6	-	51.4	68.2	16.8	Floor Noise
Hori	22680.000	PK	43.0	38.4	-0.6	33.4	-	47.4	73.9	26.5	Floor Noise
Hori	3780.368	AV	39.0	29.5	6.8	31.6	0.3	44.0	53.9	9.9	
Hori	11340.000	AV	33.1	40.1	-1.6	33.1	-	38.5	53.9	15.4	Floor Noise
Hori	22680.000	AV	34.0	38.4	-0.6	33.4	-	38.4	53.9	15.5	Floor Noise
Vert	3780.368	PK	43.9	29.5	6.8	31.6	-	48.6	73.9	25.3	
Vert	5725.000	PK	40.2	33.1	7.7	31.4	-	49.6	68.2	18.6	
Vert	11340.000	PK	42.2	40.1	-1.6	33.1	-	47.6	73.9	26.3	Floor Noise
Vert	17010.000	PK	41.8	41.8	0.0	32.6	-	51.0	68.2	17.2	Floor Noise
Vert	22680.000	PK	43.4	38.4	-0.6	33.4	-	47.8	73.9	26.1	Floor Noise
Vert	3780.368	AV	38.3	29.5	6.8	31.6	0.3	43.3	53.9	10.6	
Vert	11340.000	AV	33.1	40.1	-1.6	33.1	-	38.5	53.9	15.4	Floor Noise
Vert	22680.000	AV	34.4	38.4	-0.6	33.4	-	38.8	53.9	15.1	Floor Noise

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

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

Distance factor: 1GHz-10GHz $20\log(4.45\text{m}/3.0\text{m})= 3.4\text{dB}$
 10GHz-26.5GHz $20\log(1.0\text{m}/3.0\text{m})= -9.5\text{dB}$
 26.5GHz-40GHz $20\log(0.5\text{m}/3.0\text{m})= -15.6\text{dB}$

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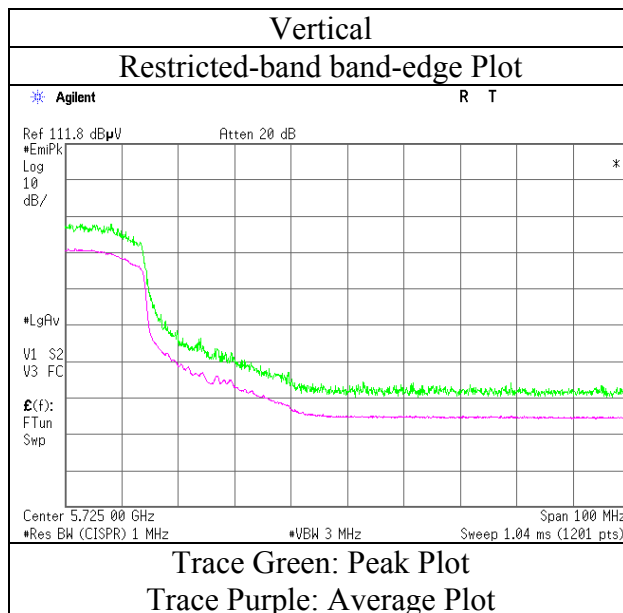
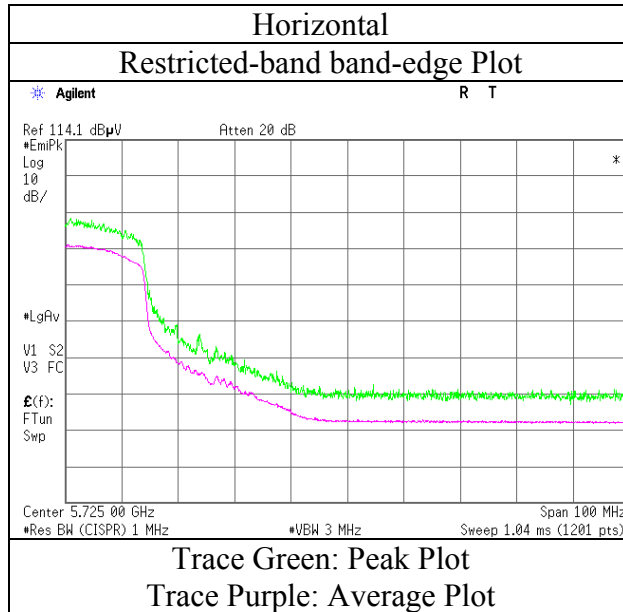
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-40 5670 MHz



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

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5755 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3837.054	PK	44.8	29.7	6.9	31.6	-	49.8	73.9	24.1	
Hori	5715.000	PK	49.8	33.1	7.7	31.4	-	59.2	68.2	9.0	
Hori	5725.000	PK	57.4	33.1	7.7	31.4	-	66.8	78.2	11.4	
Hori	11510.000	PK	43.1	40.2	-1.7	33.1	-	48.5	73.9	25.4	Floor Noise
Hori	17265.000	PK	42.2	42.3	0.0	32.6	-	51.9	68.2	16.3	Floor Noise
Hori	23020.000	PK	43.0	38.5	-0.6	33.5	-	47.4	73.9	26.5	Floor Noise
Hori	3837.054	AV	38.6	29.7	6.9	31.6	0.3	43.9	53.9	10.0	
Hori	11510.000	AV	33.4	40.2	-1.7	33.1	-	38.8	53.9	15.1	Floor Noise
Hori	23020.000	AV	34.0	38.5	-0.6	33.5	-	38.4	53.9	15.5	Floor Noise
Vert	3837.054	PK	43.7	29.7	6.9	31.6	-	48.7	73.9	25.2	
Vert	5715.000	PK	50.3	33.1	7.7	31.4	-	59.7	68.2	8.5	
Vert	5725.000	PK	57.3	33.1	7.7	31.4	-	66.7	78.2	11.5	
Vert	11510.000	PK	42.4	40.2	-1.7	33.1	-	47.8	73.9	26.1	Floor Noise
Vert	17265.000	PK	42.2	42.3	0.0	32.6	-	51.9	68.2	16.3	Floor Noise
Vert	23020.000	PK	43.4	38.5	-0.6	33.5	-	47.8	73.9	26.1	Floor Noise
Vert	3837.054	AV	38.2	29.7	6.9	31.6	0.3	43.5	53.9	10.4	
Vert	11510.000	AV	33.5	40.2	-1.7	33.1	-	38.9	53.9	15.0	Floor Noise
Vert	23020.000	AV	34.4	38.5	-0.6	33.5	-	38.8	53.9	15.1	Floor Noise

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

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

Distance factor: 1GHz-10GHz 20log(4.45m/3.0m)= 3.4dB
 10GHz-26.5GHz 20log(1.0m/3.0m)= -9.5dB
 26.5GHz-40GHz 20log(0.5m/3.0m)= -15.6dB

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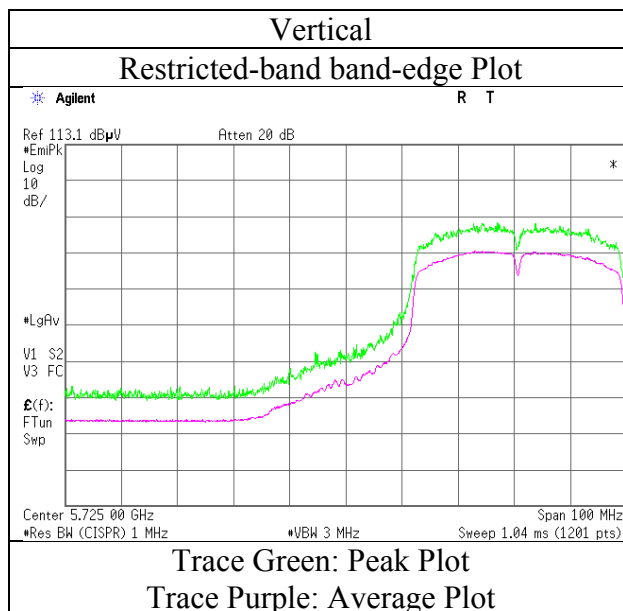
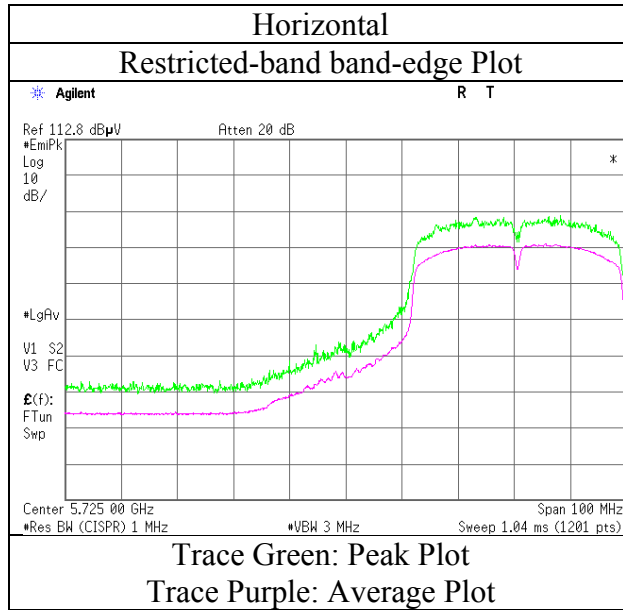
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-40 5755 MHz



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

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Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-18 GHz)	Keisuke Kawamura (18 GHz-40 GHz)
Mode	Tx 11n-40 5795 MHz		

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Duty Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
Hori	3863.734	PK	44.0	29.8	6.9	31.6	-	49.1	73.9	24.8	
Hori	5850.000	PK	40.7	33.2	7.8	31.5	-	50.2	78.2	28.0	
Hori	5860.000	PK	40.4	33.2	7.8	31.5	-	49.9	68.2	18.3	
Hori	11590.000	PK	42.1	40.1	-1.6	33.1	-	47.5	73.9	26.4	Floor Noise
Hori	11590.000	PK	42.1	40.1	-1.6	33.1	-	47.5	68.2	20.7	Floor Noise
Hori	23180.000	PK	43.2	38.6	-0.5	33.4	-	47.9	68.2	20.3	Floor Noise
Hori	3863.734	AV	38.1	29.8	6.9	31.6	0.3	43.5	53.9	10.4	
Hori	11590.000	AV	33.2	40.1	-1.6	33.1	-	38.6	53.9	15.3	Floor Noise
Vert	3863.734	PK	43.6	29.8	6.9	31.6	-	48.7	73.9	25.2	
Vert	5850.000	PK	41.8	33.2	7.8	31.5	-	51.3	78.2	26.9	
Vert	5860.000	PK	40.4	33.2	7.8	31.5	-	49.9	68.2	18.3	
Vert	11590.000	PK	42.1	40.1	-1.6	33.1	-	47.5	73.9	26.4	Floor Noise
Vert	11590.000	PK	42.0	40.1	-1.6	33.1	-	47.4	68.2	20.8	Floor Noise
Vert	23180.000	PK	43.4	38.6	-0.5	33.4	-	48.1	68.2	20.1	Floor Noise
Vert	3863.734	AV	37.6	29.8	6.9	31.6	0.3	43.0	53.9	10.9	
Vert	11590.000	AV	33.0	40.1	-1.6	33.1	-	38.4	53.9	15.5	Floor Noise

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

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

Distance factor:	1GHz-10GHz	20log(4.45m/3.0m)= 3.4dB
	10GHz-26.5GHz	20log(1.0m/3.0m)= -9.5dB
	26.5GHz-40GHz	20log(0.5m/3.0m)= -15.6dB

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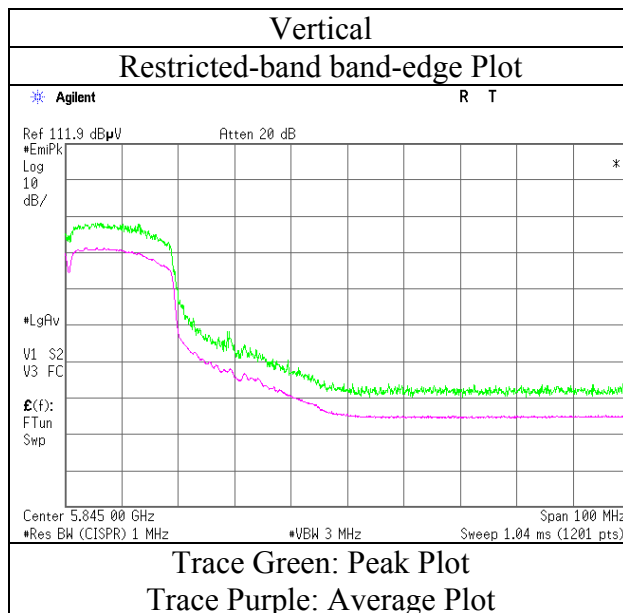
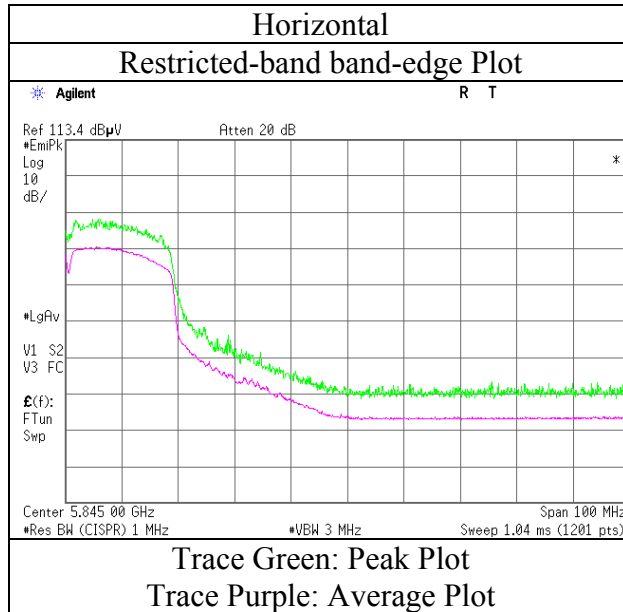
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber
Report No.	11166416H
Date	March 30, 2016
Temperature / Humidity	26deg. C / 31 % RH
Engineer	Keisuke Kawamura
Mode	Tx 11n-40 5795 MHz



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

UL Japan, Inc.

Ise EMC Lab.

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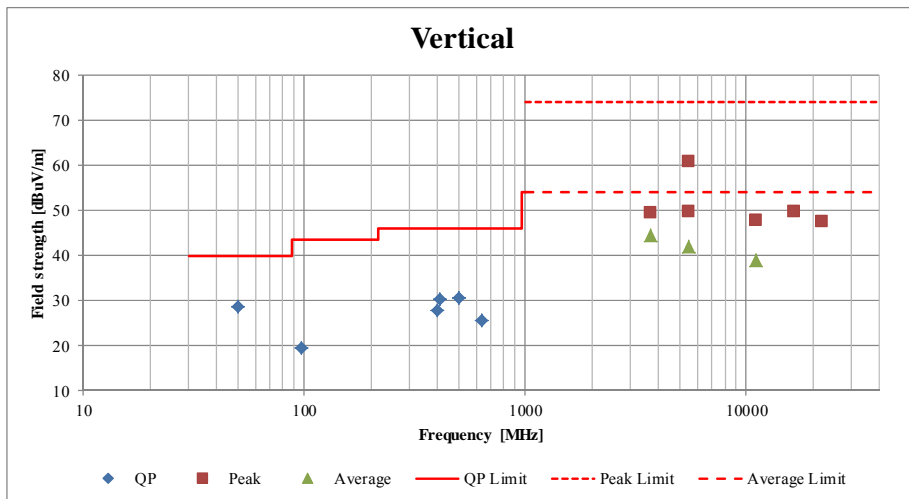
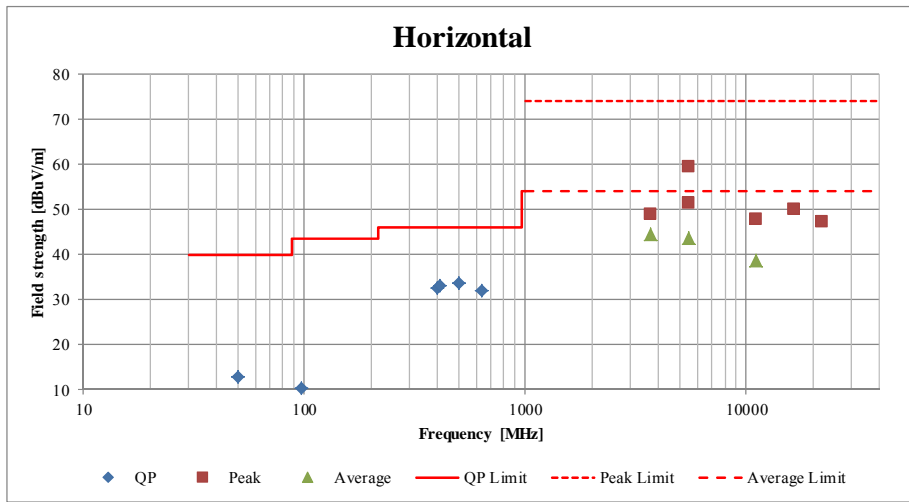
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission
(Plot data, Worst case)

[Antenna 2]

Test place	Ise EMC Lab. No.4 Semi Anechoic Chamber		
Report No.	11166416H		
Date	March 30, 2016	March 31, 2016	March 31, 2016
Temperature / Humidity	26deg. C / 31 % RH	23deg. C / 33 % RH	26deg. C / 31 % RH
Engineer	Keisuke Kawamura (1 GHz-10 GHz)	Ken Fujita (10GHz-26.5 GHz)	Keisuke Kawamura (18 GHz-40 GHz & Below 1GHz)
Mode	Tx 11n-20 5500 MHz		



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

APPENDIX 2: Test instruments

Test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2015/10/02 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	1501	RE	2016/01/21 * 12
MJM-26	Measure	KOMELON	KMC-36	-	RE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE	2015/11/06 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2015/08/10 * 12
MCC-141	Microwave Cable	Junkosha	MWX221	1305S002R(1m) / 1405S146(5m)	RE	2015/06/22 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	00650	RE	2015/10/01 * 12
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170307	RE	2015/06/06 * 12
MMM-10	DIGITAL HiTESTER	Hioki	3805	051201148	RE	2016/01/18 * 12
MCC-54	Microwave Cable	Suhner	SUCOFLEX101	2873(1m) / 2876(5m)	RE	2016/03/18 * 12
MHF-23	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCC	603	RE	2016/01/19 * 12
MCC-178	Microwave Cable	Junkosha	MMX221-00500D MSDMS	1502S305	RE	2016/03/10 * 12
MHA-29	Horn Antenna 26.5-40GHz	ETS LINDGREN	3160-10	00152399	RE	2015/09/04 * 12
MPA-22	Pre Amplifier	MITEQ, Inc	AMF-6F-2600400-3 3-8P / AMF-4F-2600400-3 3-8P	1871355 /1871328	RE	2015/09/03 * 12
MTR-10	EMI Test Receiver	Rohde & Schwarz	ESR26	101408	RE	2016/01/29 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	1302	RE	2015/11/02 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	N/A	RE	2015/11/03 * 12
MCC-50	Coaxial Cable	UL Japan	-	-	RE	2015/06/19 * 12
MAT-68	Attenuator	Anritsu	MP721B	6200961025	RE	2015/11/12 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2016/03/18 * 12

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

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

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

Test Item: RE: Radiated Emission

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