



RADIO TEST REPORT

Test Report No. : 11240438H-C-R1

Applicant : Sony Interactive Entertainment Inc.
Type of Equipment : Wireless communication module
Model No. : AW-CB262
FCC ID : AK8M16DAM2
Test regulation : FCC Part 15 Subpart E: 2015
(Except for DFS test)
Test Result : Complied

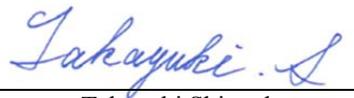
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3. This sample tested is in compliance with the above regulation.
4. The test results in this report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, 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 11240438H-C. 11240438H-C is replaced with this report.

Date of test: April 11 to 22, 2016

Representative test engineer:


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NVLAP LAB CODE: 200572-0

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SECTION 1: Customer information

Company Name	Sony Interactive Entertainment Inc.
Brand Name	SONY
Address	1-7-1 Konan, Minato-ku, Tokyo, 108-0075 Japan
Telephone Number	+81-3-6748-6333
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Contact Person	Kiyoto Sasaki

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

2.1 Identification of E.U.T.

Type of Equipment	Wireless communication module
Model No	AW-CB262
Serial No	Refer to Clause 4.2
Country of Manufacture	China/Japan
Receipt Date of Sample	April 12, 2016
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

AW-CB262 is the Wireless communication module.

Product Specification

Clock frequency in the system (radio part)	40MHz
Operating Temperature	-10 - +85 deg. C
Power Supply	DC 3.3 V / DC 1.8 V
Size	20 x 18 x 3.0mm , 55pin LGA

Radio Specification

WLAN (IEEE802.11b/g/n-20)

Equipment Type	Transceiver
Frequency of Operation	2412-2462MHz
Type of Modulation	DSSS, OFDM
Bandwidth & Channel spacing	Less than 20MHz & 5MHz
Method of frequency generation	Synthesizer
Power Supply (inner)	DC 3.3 V / DC 1.8 V / DC 1.1 V
Antenna Type	PIFA (Antenna port WA for 2.4GHz / Antenna port WB)
Antenna Gain: G _{ANT}	5.6dBi (Antenna port WA for 2.4GHz / Antenna port WB)
Directional Gain *1)	8.61dBi

WLAN (IEEE802.11a/11n-20/11ac-20/11n-40/11ac-40/11ac-80)

Equipment Type	Transceiver
Frequency of Operation	W52: 5180-5240MHz W53: 5260-5320MHz W56: 5500-5700MHz W58: 5745-5825MHz
Type of Modulation	OFDM
Bandwidth & Channel spacing	Less than 20MHz/40MHz/80MHz&20MHz/40MHz/80MHz
Method of frequency generation	Synthesizer
Power Supply (inner)	DC 3.3 V / DC 1.8 V / DC 1.1 V
Antenna Type	PIFA (Antenna port WA for 5GHz / Antenna port WC for 5GHz)
Antenna Gain: G _{ANT}	5.0dBi (Antenna port WA for 5GHz) 3.5dBi (Antenna port WC for 5GHz)
Directional Gain *1)	7.29dBi

Bluetooth (BDR/EDR)

Equipment Type	Transceiver
Frequency of Operation	2402-2480MHz
Type of Modulation	FHSS (GFSK, $\pi/4$ DQPSK, 8DPSK)
Bandwidth & Channel spacing	79MHz & 1MHz
Method of frequency generation	Synthesizer
Power Supply (inner)	DC 3.3 V / DC 1.8 V / DC 1.1 V
Antenna Type	PIFA (Antenna port WC for 2.4 GHz)
Antenna Gain	6.4dBi (Antenna port WC for 2.4 GHz)

Bluetooth (Low Energy)

Equipment Type	Transceiver
Frequency of Operation	2402-2480MHz
Type of Modulation	GFSK
Bandwidth & Channel spacing	1MHz & 2MHz
Method of frequency generation	Synthesizer
Power Supply (inner)	DC 3.3 V / DC 1.8 V / DC 1.1 V
Antenna Type	PIFA (Antenna port WC for 2.4 GHz)
Antenna Gain	6.4dBi (Antenna port WC for 2.4 GHz)

*1) Directional antenna gain = $10 \log \left(\frac{G_{ANT1}}{10^{20}} + \frac{G_{ANT2}}{10^{20}} \right)^2 / 2$

*This test report applies to WLAN (5 GHz 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

* The EUT complies with FCC Part 15 Subpart B: 2015, final revised on November 23, 2015

3.2 Procedures and results

Item	Test Procedure	Specification	Worst margin	Results	Remarks
Conducted Emission	FCC: ANSI C63.10-2013	FCC: 15.407 (b) (6) / 15.207	QP 30.3 dB, 0.15000 MHz, L AV 35.6 dB, 0.66620 MHz, L	Complied	-
	IC: RSS-Gen 8.8	IC: RSS-Gen 8.8			
26 dB Emission Bandwidth	FCC: KDB Publication Number 789033	FCC: 15.407 (a) (1) (2) (3)	See data	N/A	Conducted
	IC: -	IC: -			
Maximum Conducted Output Power	FCC: KDB Publication Number 789033	FCC: 15.407 (a) (1) (2) (3)	See data	Complied	Conducted
	IC: -	IC: RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)			
Maximum Power Spectral Density	FCC: KDB Publication Number 789033	FCC : 15.407 (a) (1) (2) (3)	See data	Complied	Conducted
	IC: -	IC: RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)			
Spurious Emission Restricted Band Edge	FCC: ANSI C63.10-2013 KDB Publication Number 789033	FCC: 15.407 (b), 15.205 and 15.209	2.4 dB 5725.000 MHz, PK, Hori.	Complied	Conducted (< 30 MHz) / Radiated (> 30 MHz) *1)
	IC: -	IC: RSS-247 6.2.1 (2) 6.2.2 (2) 6.2.3 (2) 6.2.4 (2)			
6 dB Emission Bandwidth	FCC: ANSI C63.10-2013	FCC: 15.407 (e)	See data	Complied	Conducted
	IC: -	IC: RSS-247 6.2.4 (1)			

Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.

* For DFS tests, please see the test report number 11240438H-D issued by UL Japan, Inc.

*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 Part 15.31 (e)

The EUT has the power supply regulator. However one of the input voltages to RF part doesn't go through the regulator. The stable voltage will be supplied by the end product, which will be required to have a power supply regulator. Therefore, the EUT complies with the requirement.

FCC Part 15.203/212 Antenna requirement

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

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3.3 Addition to standard

Item	Test Procedure	Specification	Worst margin	Results	Remarks
99 % Occupied Band Width	RSS-Gen 6.6	IC: -	N/A	N/A	Conducted

Other than above, 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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Antenna terminal test Uncertainty (+/-)							
Power meter		Conducted emission and Power density			Conducted emission		Channel power
Below 1 GHz	Above 1 GHz	Below 1 GHz	1 GHz - 3 GHz	3 GHz - 18 GHz	18 GHz - 26.5 GHz	26.5 GHz - 40 GHz	
0.9 dB	1.0 dB	1.4 dB	1.7 dB	2.8 dB	2.8 dB	2.9 dB	2.6 dB

Frequency range	Conducted emission using AMN(LISN) (+dB)
0.009 – 0.15MHz	3.5 dB
0.15 – 30MHz	2.9 dB

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 – 200 MHz	200 – 1000MHz	30 – 200 MHz	200 – 1000MHz
Horizontal	4.9 dB	5.2 dB	4.9 dB	5.0 dB
Vertical	4.6 dB	5.9 dB	5.0 dB	5.0 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	1 -18 GHz
5.0 dB	5.2 dB	5.1 dB	5.0 dB	5.2 dB

*Measurement distance

Conducted Emission test

The data listed in this test report has enough margin, more than the site margin.

Radiated emission test

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

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 and also was judged the necessity of 802.11ac mode by the pre-test.

Mode	Remarks*
IEEE 802.11a (11a)	6 Mbps, PN9
IEEE 802.11n MIMO 20 MHz BW (11n-20)	MCS 0, PN9
IEEE 802.11ac MIMO 20 MHz BW (11ac-20)	MCS 0 (1Tx), PN9
IEEE 802.11n MIMO 40 MHz BW (11n-40)	MCS 0, PN9
IEEE 802.11ac MIMO 40 MHz BW (11ac-40)	MCS 0 (1Tx), PN9
IEEE 802.11ac MIMO 80 MHz BW (11ac-80)	MCS 0 (1Tx), PN9
*The worst antenna and condition was determined based on the test result of Maximum Conducted Output Power.	
*The power value of the EUT was set for testing as follows (setting value might be different from product specification value); Power settings: 20 M band: 8 dBm 40 M band: 5 dBm 80 M band: 3 dBm Software: Opro_DOS_Labtool_Ver2.0.0.88 *This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product.	

*The details of Operation mode(s)

Test Item	Operating Mode	Tested Antenna port	Tested Frequency			
			Lower Band	Middle Band	Additional Band	Upper Band
Conducted emission, Radiated Spurious Emission (Below 1 GHz)	11a Tx *1)	WA+WC	5180 MHz	-	-	-
26 dB Emission Bandwidth	11a Tx 11n-20 Tx 11ac-20 Tx	WA	-	5260 MHz 5300 MHz 5320 MHz	5500 MHz 5580 MHz 5700 MHz	-
	11n-40 Tx 11ac-40 Tx	WA	-	5270 MHz 5310 MHz	5510 MHz 5550 MHz 5670 MHz	-
	11ac-80 Tx	WA	-	5290 MHz	5530 MHz 5610 MHz	-
99 % Occupied Bandwidth	11a Tx 11n-20 Tx 11ac-20 Tx	WA	5180 MHz 5220 MHz 5240 MHz	5260 MHz 5300 MHz 5320 MHz	5500 MHz 5580 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11n-40 Tx 11ac-40 Tx	WA	5190 MHz 5230 MHz	5270 MHz 5310 MHz	5510 MHz 5550 MHz 5670 MHz	5755 MHz 5795 MHz
	11ac-80 Tx	WA	5210 MHz	5290 MHz	5530 MHz 5610 MHz	5775 MHz
Maximum Conducted Output Power, Maximum Power Spectral Density	11a Tx 11n-20 Tx 11ac-20 Tx	WA+WC, WA, WC	5180 MHz 5220 MHz 5240 MHz	5260 MHz 5300 MHz 5320 MHz	5500 MHz 5580 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11n-40 Tx 11ac-40 Tx	WA+WC, WA, WC	5190 MHz 5230 MHz	5270 MHz 5310 MHz	5510 MHz 5550 MHz 5670 MHz	5755 MHz 5795 MHz
	11ac-80 Tx	WA	5210 MHz	5290 MHz	5530 MHz 5610 MHz	5775 MHz
6 dB Bandwidth	11a Tx 11n-20 Tx 11ac-20 Tx	WA	-	-	-	5745 MHz 5785 MHz 5825 MHz
	11n-40 Tx 11ac-40 Tx					5755 MHz 5795 MHz
	11ac-80 Tx					5775 MHz
Radiated Spurious Emission (Above 1 GHz)	11a Tx *2) 11ac-20 Tx	WA+WC	5180 MHz	5260 MHz 5320 MHz	5500 MHz 5580 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11ac-40 Tx *3)	WA+WC	5190 MHz	5270 MHz 5310 MHz	5510 MHz 5550 MHz 5670 MHz	5755 MHz 5795 MHz
	11ac-80 Tx	WA	5210 MHz	5290 MHz	5530 MHz 5610 MHz	5775 MHz
Conducted Spurious Emission	11a Tx *1)	WA	5180 MHz	-	-	-

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

*2) 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 peak output power

*3) Since 11n-40 and 11ac-40 have the same modulation method and no differences in transmitting specification, test was performed on the representative mode that had the highest peak output power.

*Simultaneously transmission

Test Item	Operating Mode *1)	Tested Antenna port	Tested Frequency			
			Lower Band	Middle Band	Additional Band	Upper Band
Radiated Spurious Emission	Hopping on 3DH5 + 11ac-20	WA+WC	-	-	5700	-

*1) The mode was tested as a representative, because it had the worst margin of 5GHz at radiated emission test.

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4.2 Configuration and peripherals

This page has been submitted for a separate exhibit.

SECTION 5: Conducted Emission

Test Procedure and conditions

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 rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from a Line Impedance Stabilization Network (LISN) / Artificial mains Network (AMN) and excess AC cable was bundled in center.

For the tests on EUT with other peripherals (as a whole system)

I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30 cm to 40 cm long and were hanged at a 40 cm height to the ground plane. All unused 50 ohm connectors of the LISN (AMN) were resistivity terminated in 50 ohm when not connected to the measuring equipment.

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Semi Anechoic Chamber.

The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

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

Detector : QP and CISPR Average
Measurement range : 0.15 MHz-30 MHz
Test data : APPENDIX
Test result : Pass

SECTION 6: 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 1.0 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:

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

Test Antennas are used as below;

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

Frequency	Below 1 GHz	Above 1 GHz	
Instrument used	Test Receiver	Spectrum Analyzer	
Detector	QP	Peak	Average
IF Bandwidth	BW: 120 kHz	RBW: 1 MHz VBW: 3 MHz	Method AD *1) RBW: 1 MHz VBW: 3 MHz Detector: Power Averaging (RMS) Trace: ≥ 100 traces If duty cycle was less than 98%, a duty factor was added to the results.
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: $20 \times \log(4.45 \text{ m}/3.0 \text{ m}) = 3.42 \text{ dB}$

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

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

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

SECTION 7: Antenna Terminal Conducted Tests

Test Procedure

The tests were made with below setting connected to the antenna port.

Test	Span	RBW	VBW	Sweep time	Detector	Trace	Instrument used and Test method
26 dB Bandwidth	Enough to capture the emission	Close to 1 % of EBW	> RBW	Auto	Peak	Max Hold	Spectrum Analyzer
99 % Occupied Bandwidth *1)	Enough width to display emission skirts	1 % to 5 % of OBW	≥ 3 RBW	Auto	Peak	Max Hold	Spectrum Analyzer
6 dB Bandwidth	Enough to capture the emission	100 kHz	300 kHz	Auto	Peak	Max Hold	Spectrum Analyzer
Maximum Conducted Output Power	-	-	-	Auto	Average	-	Power Meter (Sensor: 80 MHz BW) (Method PM)
Maximum Power Spectral Density	Encompass the entire EBW	1 MHz or 470 kHz *2)	≥ 3 RBW	Auto	RMS Power Averaging (200 times)	Clear Write	Spectrum Analyzer
Conducted Spurious Emission*3)	9 kHz – 150 kHz	200 Hz	620 Hz	Auto	Peak	Max Hold	Spectrum Analyzer
	150 kHz – 30 MHz	9.1 kHz	27 kHz				

* 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)".

*1) Peak hold was applied as Worst-case measurement.

*2) KDB 789033 D02 says that RBW is set to be 500 kHz for 5.725 GHz-5.850 GHz, but it is not possible with spectrum analyzer, so RBW Correction Factor ($10 \log(500 \text{ kHz} / 470 \text{ kHz})$) was added to the test result.

*3) In the frequency range below 30 MHz, RBW was narrowed to separate the noise contents.

Then, wide-band noise near the limit was checked separately, however the noise was low enough as shown in the chart. (9 kHz-150 kHz: RBW = 200 Hz, 150 kHz-30 MHz: RBW = 9.1 kHz).

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

Test data : APPENDIX
Test result : Pass

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APPENDIX 1: Test data

Conducted Emission

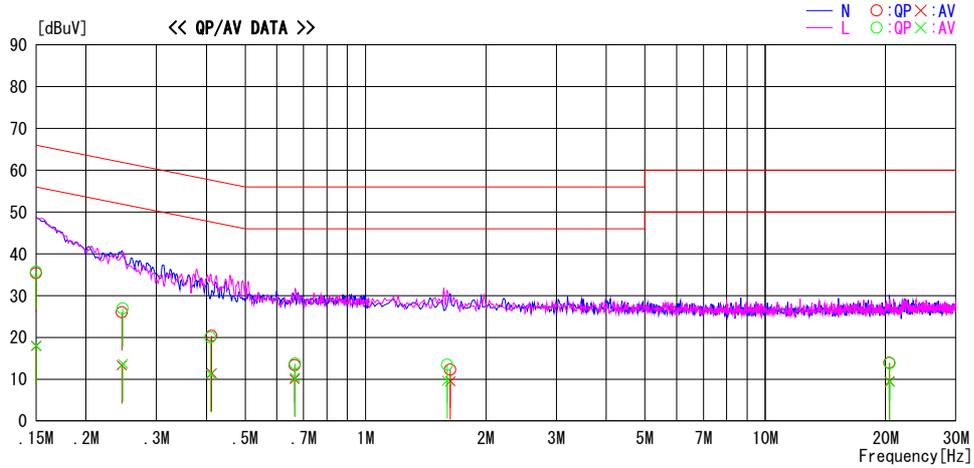
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Ise EMC Lab. No.3 Semi Anechoic Chamber
Date : 2016/04/13

Report No. : 11240438H
 Temp./Humi. : 24deg. C / 52% RH
 Engineer : Yuta Moriya

Mode / Remarks : Tx WLAN 11a 5180MHz

LIMIT : FCC15.207 QP
 FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15000	22.2	4.8	13.2	35.4	18.0	66.0	56.0	30.6	38.0	N	
0.24570	12.8	0.1	13.2	26.0	13.3	61.9	51.9	35.9	38.6	N	
0.41245	7.1	-1.9	13.3	20.4	11.4	57.6	47.6	37.2	36.2	N	
0.66475	0.1	-3.2	13.3	13.4	10.1	56.0	46.0	42.6	35.9	N	
1.63002	-1.1	-3.9	13.4	12.3	9.5	56.0	46.0	43.7	36.5	N	
20.44286	-0.7	-5.1	14.6	13.9	9.5	60.0	50.0	46.1	40.5	N	
0.15000	22.5	4.9	13.2	35.7	18.1	66.0	56.0	30.3	37.9	L	
0.24715	13.7	0.5	13.2	26.9	13.7	61.9	51.9	35.0	38.2	L	
0.40955	6.7	-2.1	13.3	20.0	11.2	57.7	47.7	37.7	36.5	L	
0.66620	0.4	-2.9	13.3	13.7	10.4	56.0	46.0	42.3	35.6	L	
1.59978	0.1	-3.7	13.4	13.5	9.7	56.0	46.0	42.5	36.3	L	
20.47627	-0.8	-5.3	14.6	13.8	9.3	60.0	50.0	46.2	40.7	L	

CHART : WITH FACTOR, Peak hold data. CALCULATION : RESULT = READING + C.F (LISN + ATTEN + CABLE)
 Except for the above table : adequate margin data below the limits.

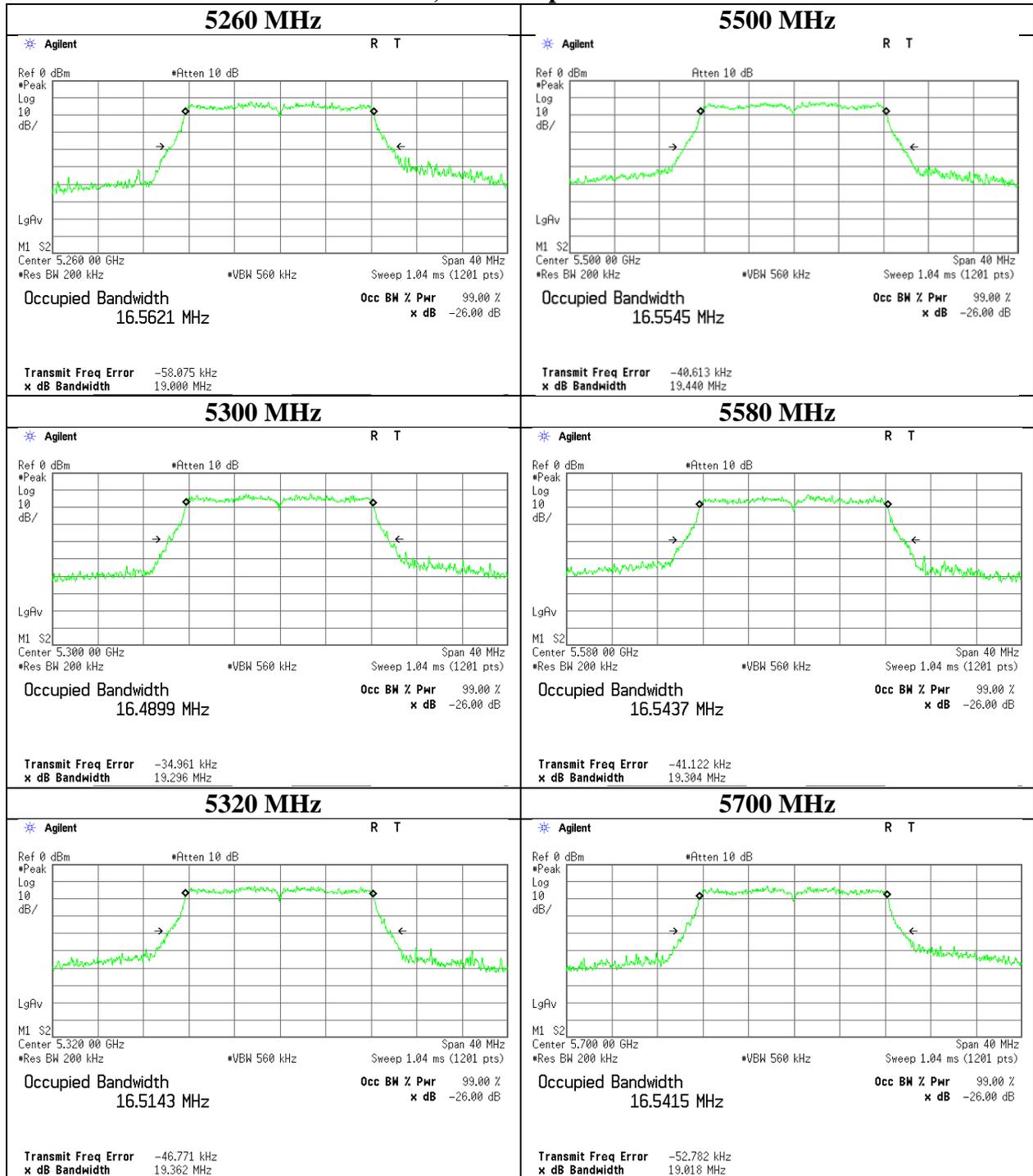
26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place Ise EMC Lab. No.6 Shielded Room
Report No. 11240438H
Date April 15, 2016
Temperature / Humidity 24deg. C / 32 % RH
Engineer Takafumi Noguchi
Mode Tx 11a

Antenna port	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port WA	5180	-	16.825	-
	5220	-	16.849	-
	5240	-	16.849	-
	5260	19.000	16.832	-
	5300	19.296	16.775	-
	5320	19.362	16.742	-
	5500	19.440	16.906	-
	5580	19.304	16.859	-
	5700	19.018	16.768	-
	5745	-	16.819	-
	5785	-	16.803	-
	5825	-	16.822	-

26 dB Emission Bandwidth

11a, Antenna port WA



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Ise EMC Lab.

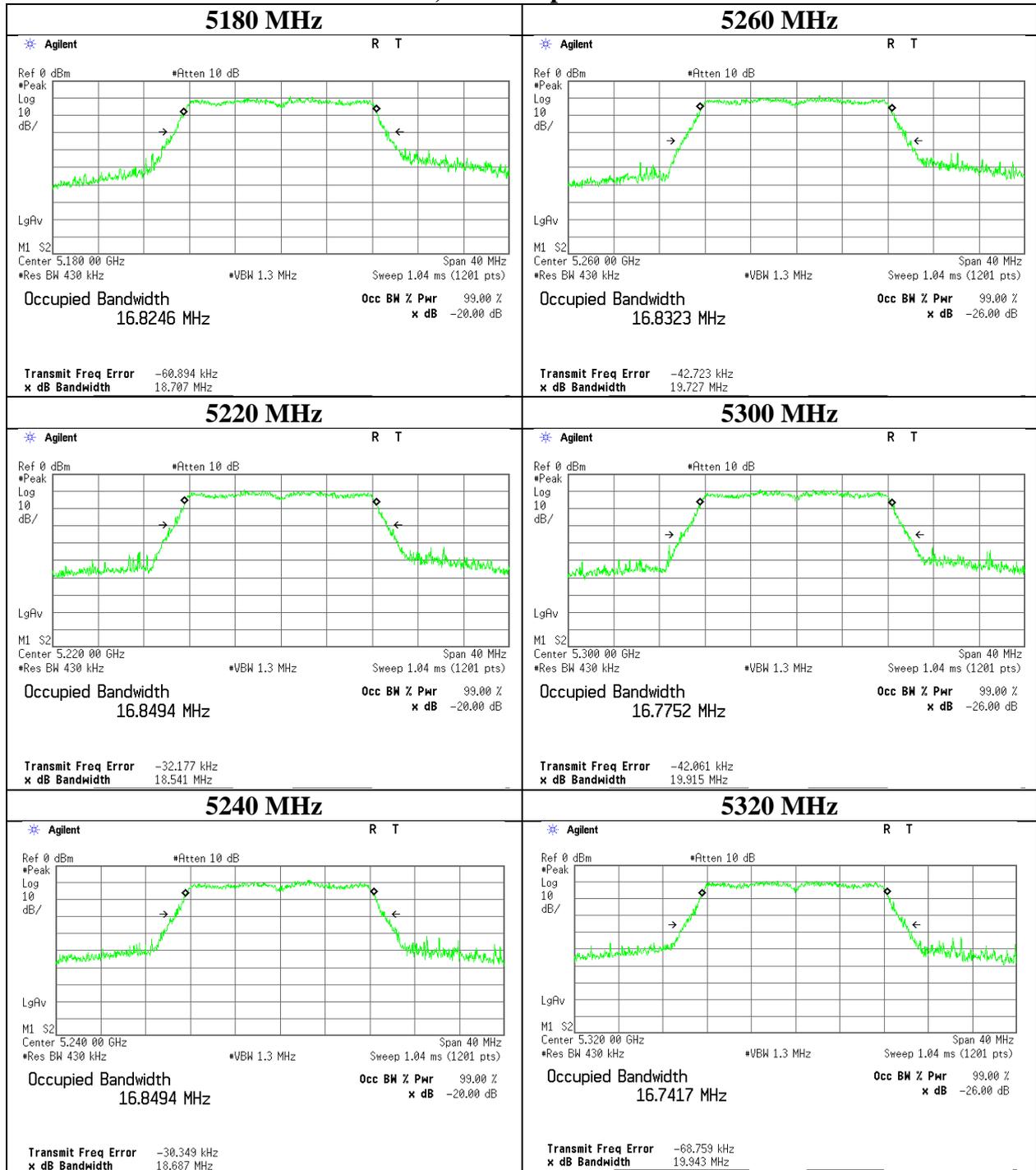
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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Facsimile : +81 596 24 8124

99 % Occupied Bandwidth

11a, Antenna port WA



UL Japan, Inc.

Ise EMC Lab.

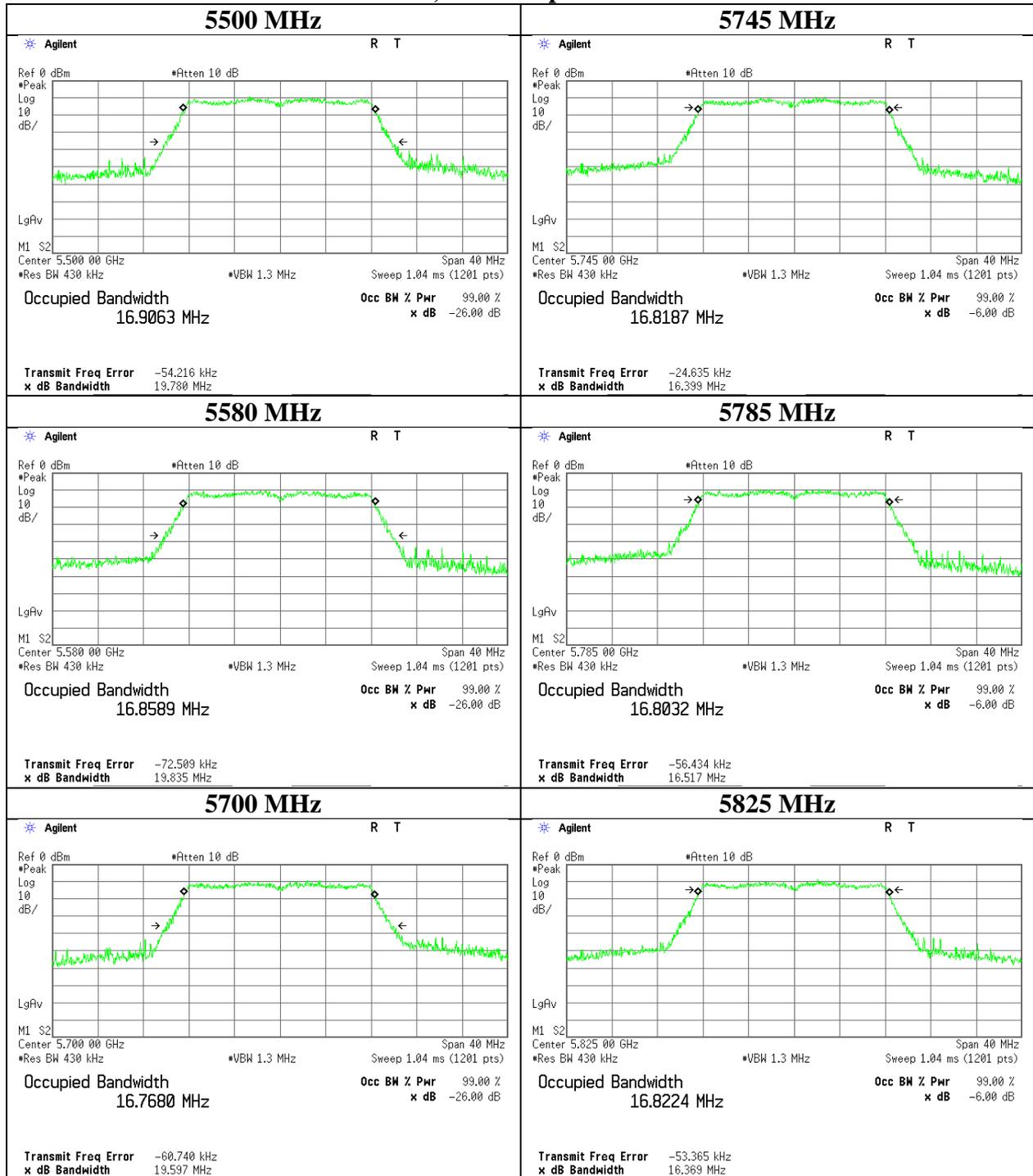
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Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

99 % Occupied Bandwidth

11a, Antenna port WA



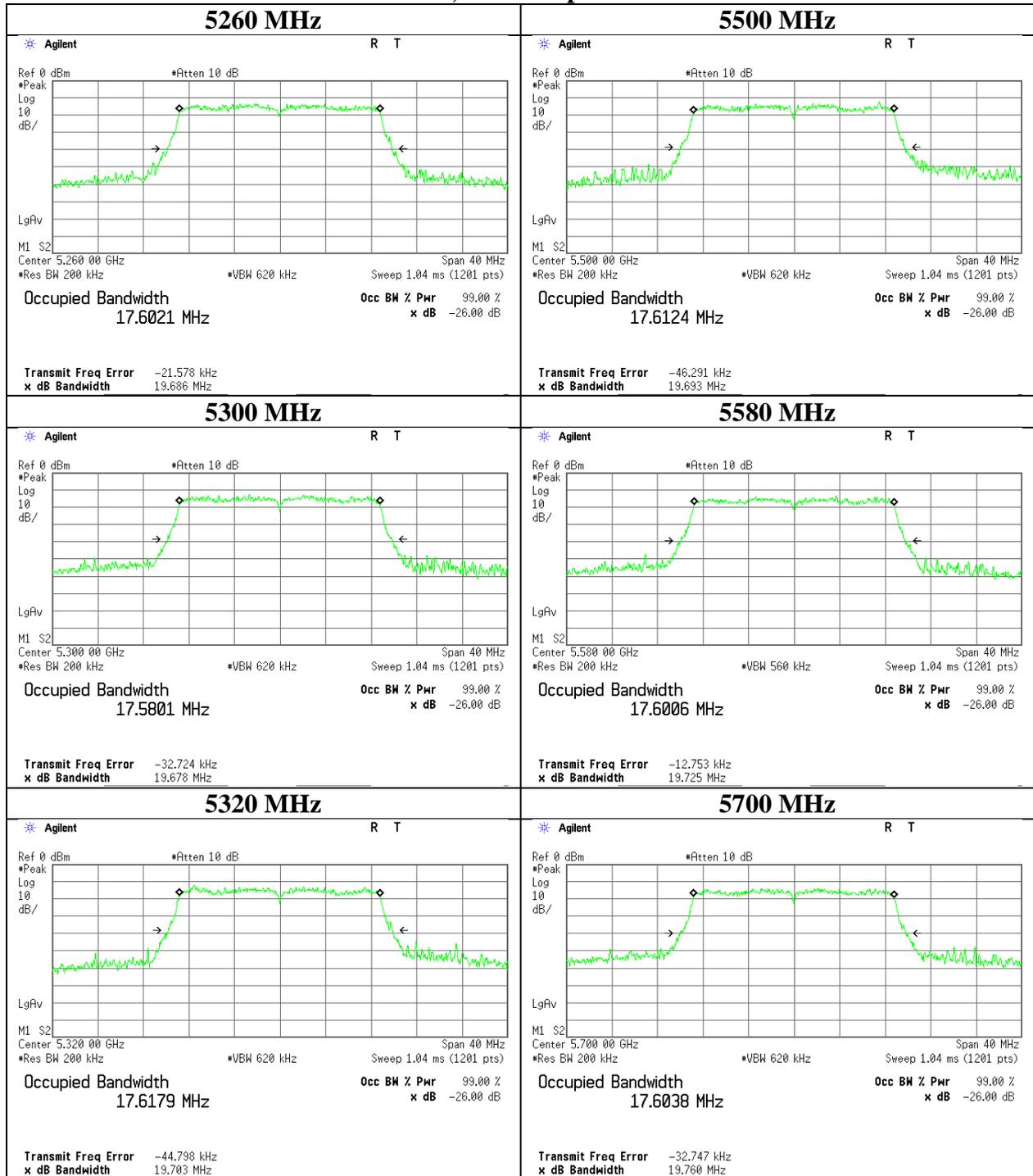
26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place : Ise EMC Lab. No.6 Shielded Room
Report No. : 11240438H
Date : April 15, 2016
Temperature / Humidity : 24deg. C / 32 % RH
Engineer : Takafumi Noguchi
Mode : Tx 11n-20

Antenna port	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port WA	5180	-	17.762	-
	5220	-	17.756	-
	5240	-	17.741	-
	5260	19.686	17.763	-
	5300	19.678	17.812	-
	5320	19.703	17.733	-
	5500	19.693	17.784	-
	5580	19.725	17.795	-
	5700	19.760	17.750	-
	5745	-	17.774	-
	5785	-	17.782	-
	5825	-	17.780	-

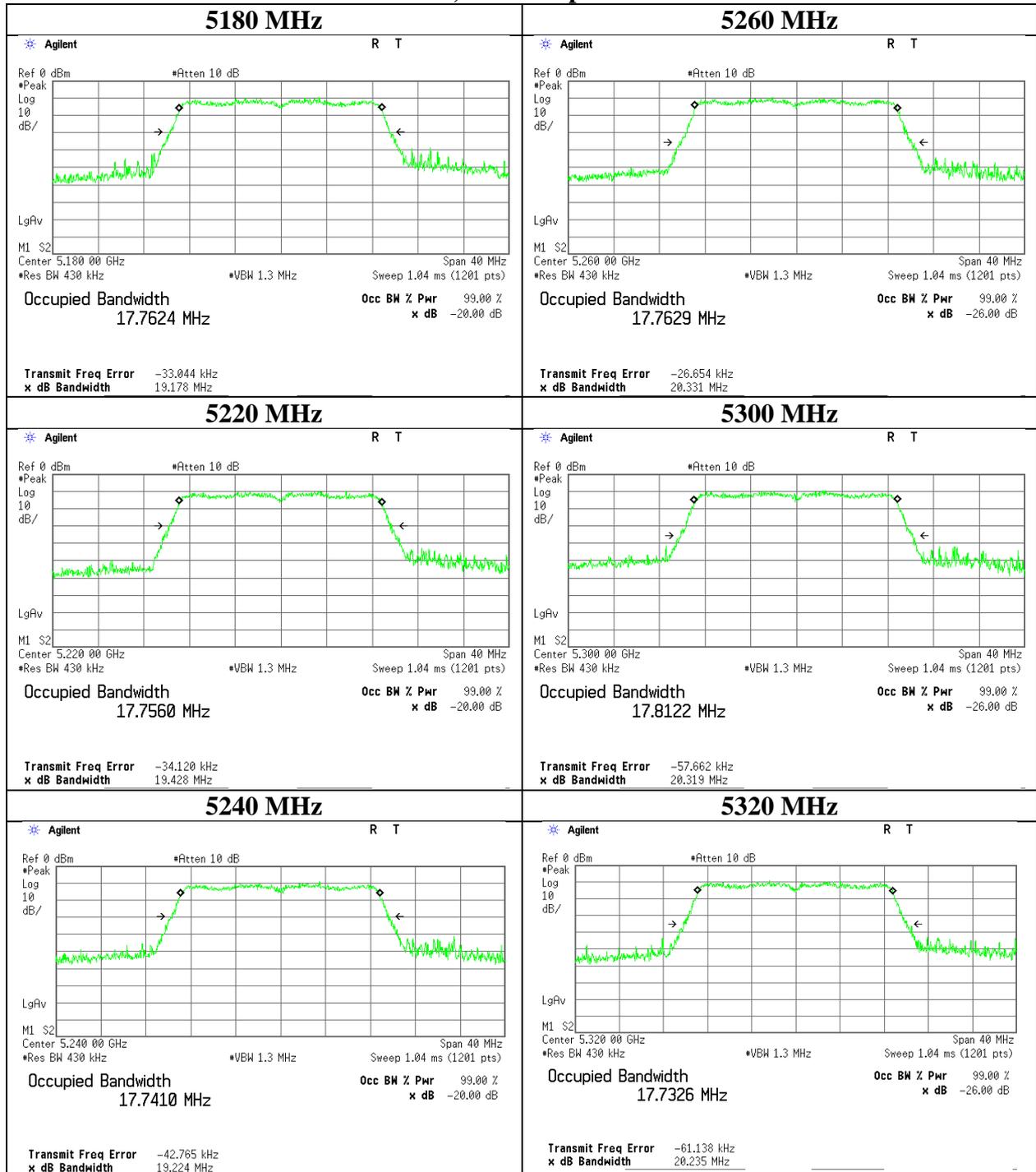
26 dB Emission Bandwidth

11n-20, Antenna port WA



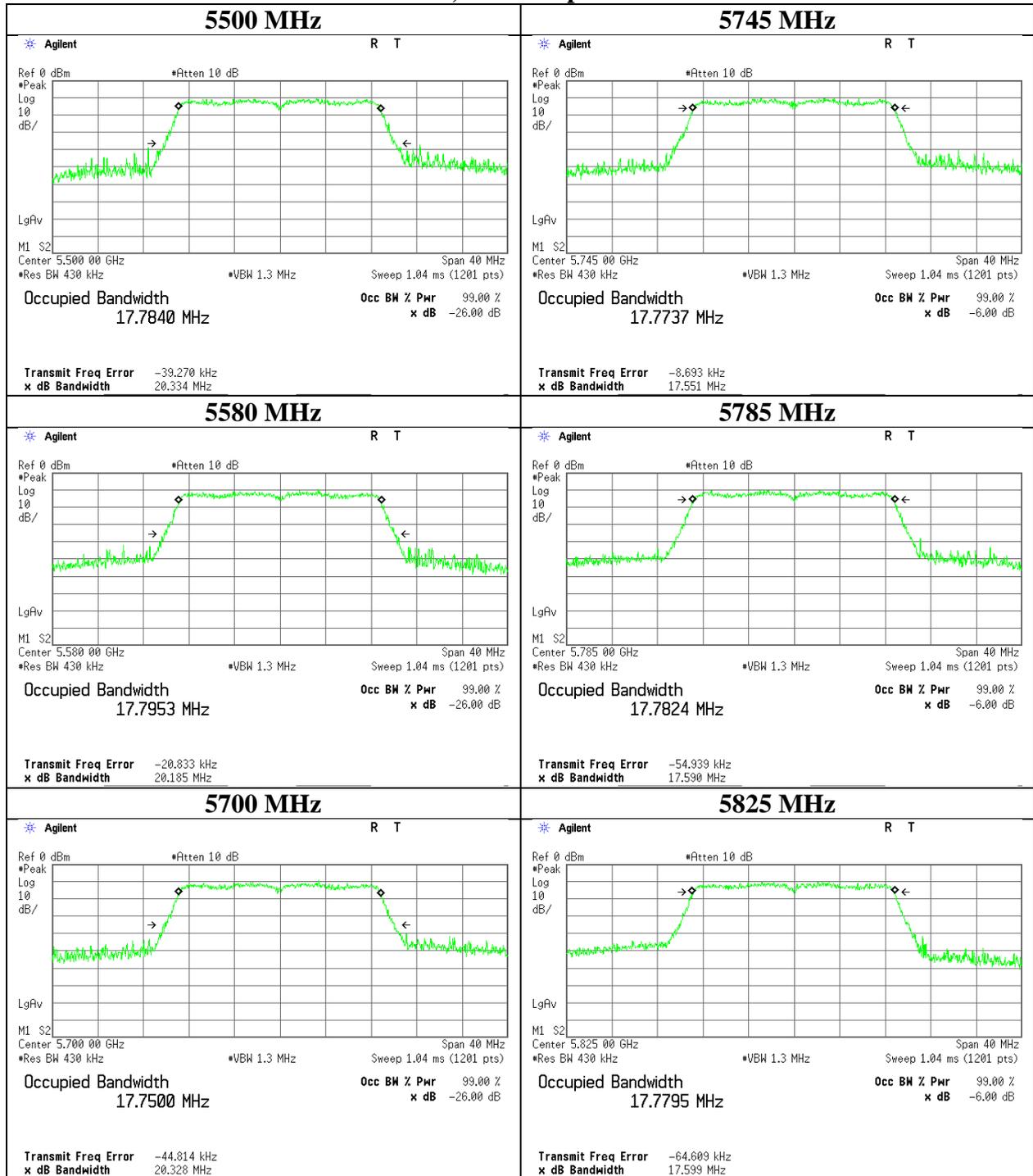
99 % Occupied Bandwidth

11n-20, Antenna port WA



99 % Occupied Bandwidth

11n-20, Antenna port WA



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Ise EMC Lab.

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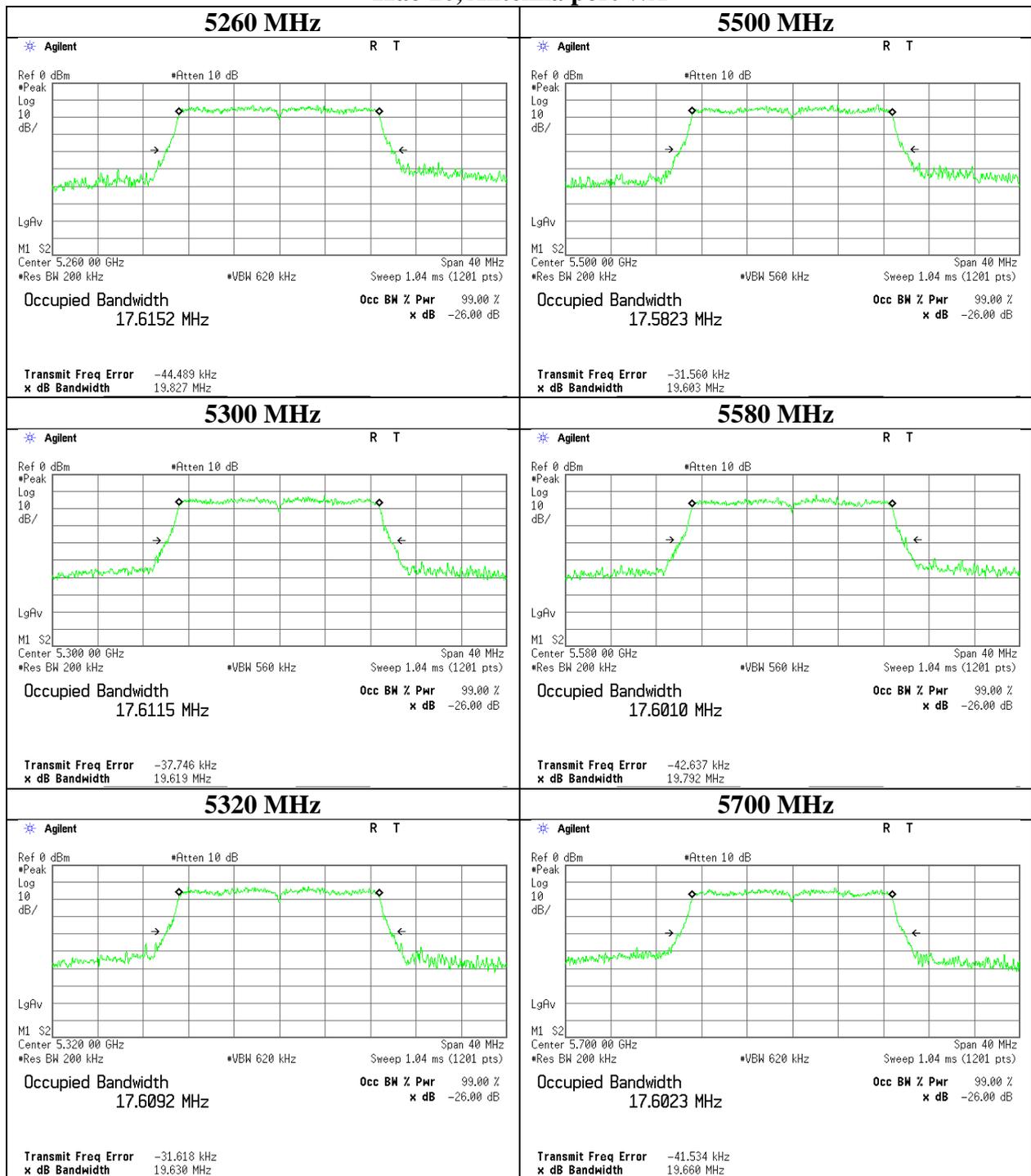
26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place Ise EMC Lab. No.6 Shielded Room
Report No. 11240438H
Date April 15, 2016
Temperature / Humidity 24deg. C / 32 % RH
Engineer Takafumi Noguchi
Mode Tx 11ac-20

Antenna port	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port WA	5180	-	17.746	-
	5220	-	17.729	-
	5240	-	17.732	-
	5260	19.827	17.788	-
	5300	19.619	17.769	-
	5320	19.630	17.735	-
	5500	19.603	17.722	-
	5580	19.792	17.732	-
	5700	19.660	17.769	-
	5745	-	17.732	-
	5785	-	17.734	-
	5825	-	17.731	-

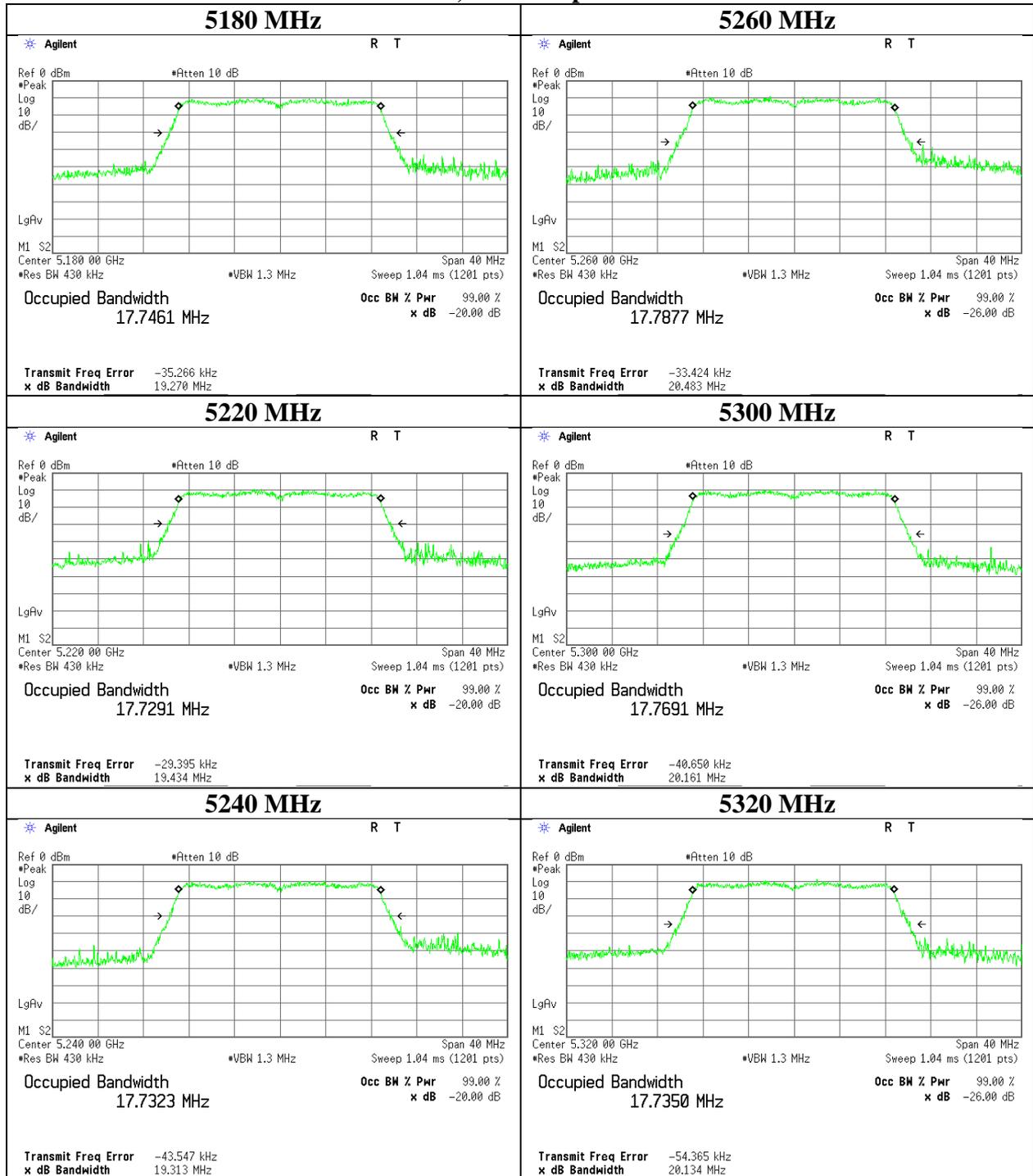
26 dB Emission Bandwidth

11ac-20, Antenna port WA



99 % Occupied Bandwidth

11ac-20, Antenna port WA



UL Japan, Inc.

Ise EMC Lab.

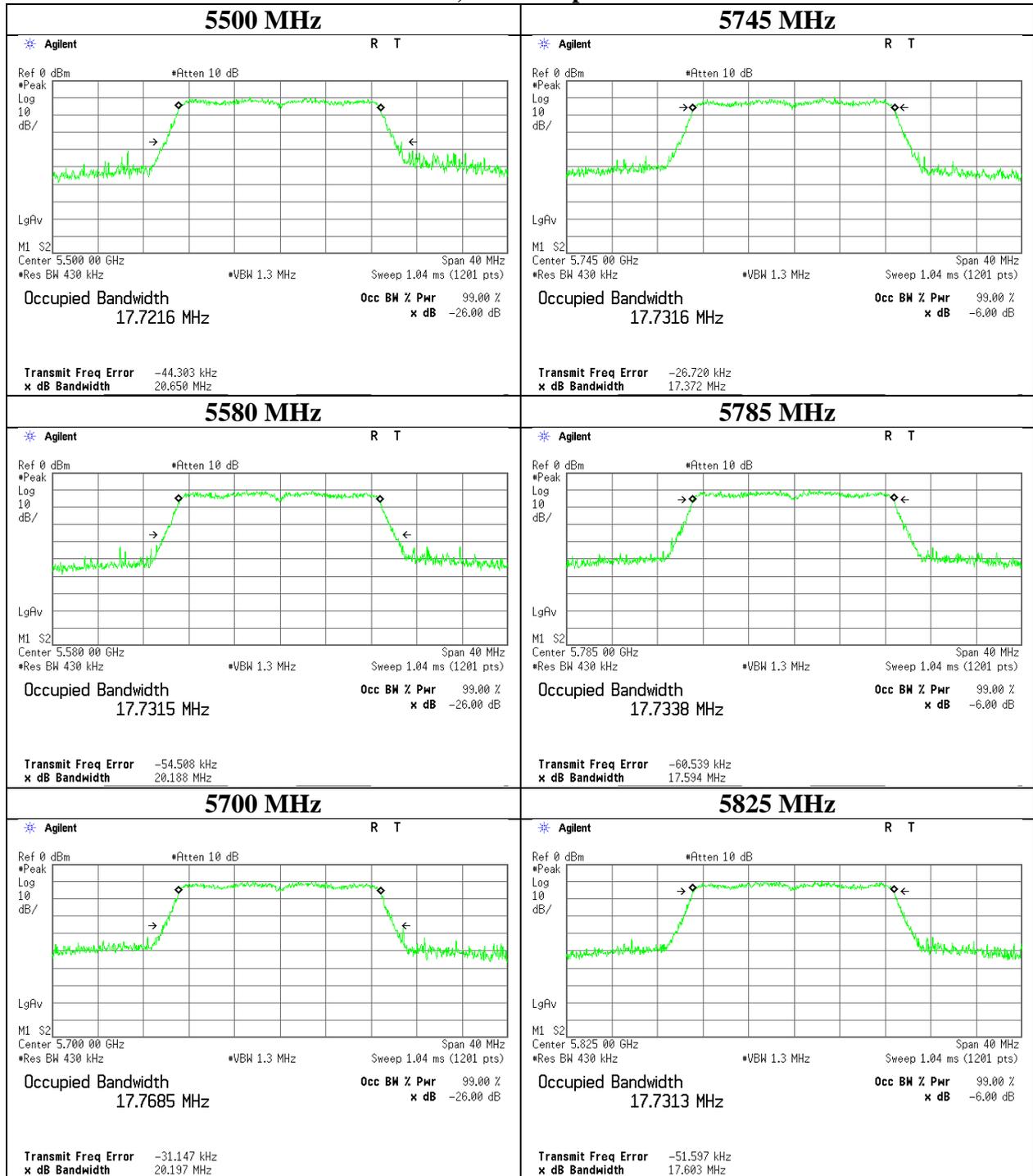
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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99 % Occupied Bandwidth

11ac-20, Antenna port WA



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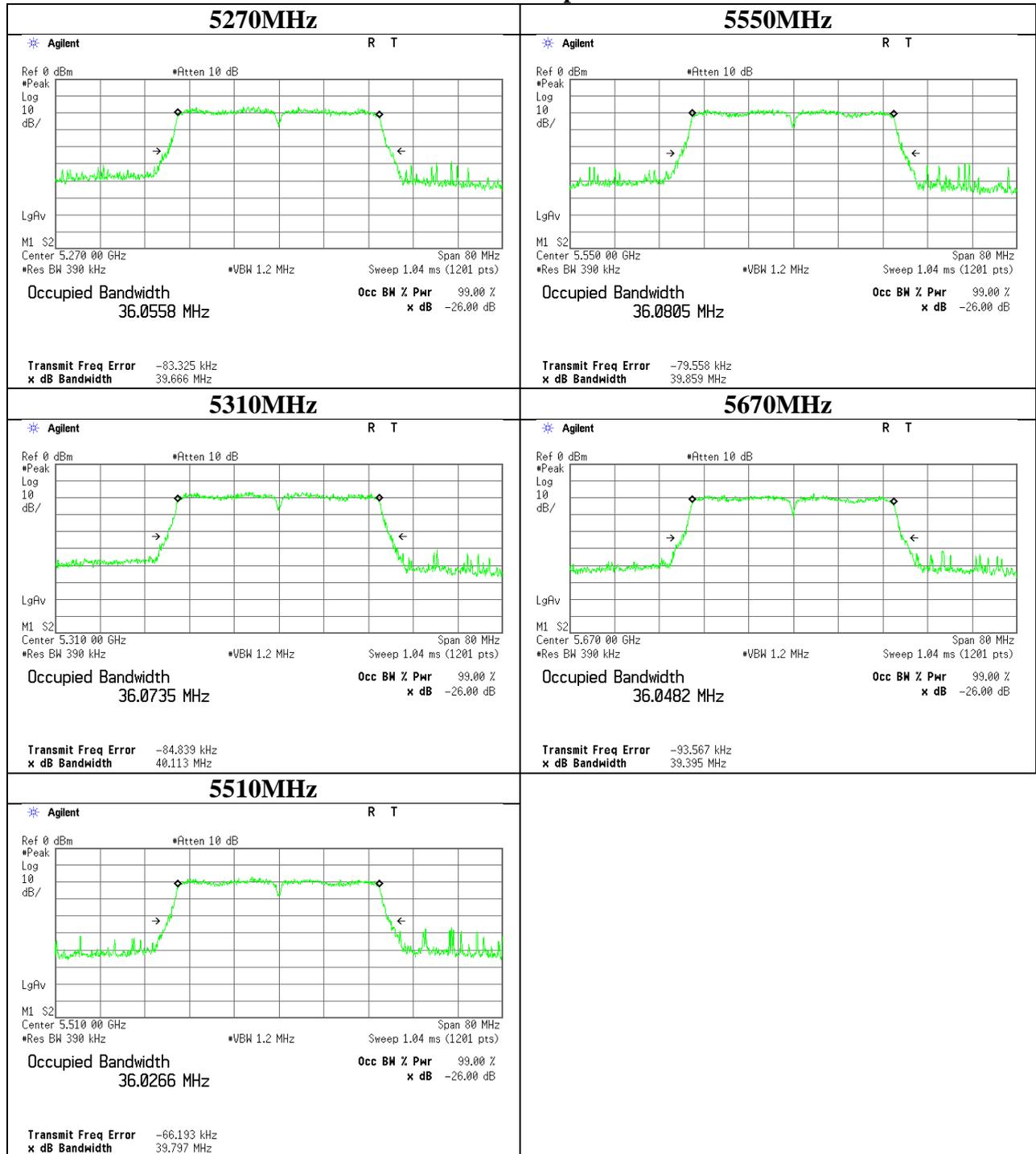
26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place Ise EMC Lab. No.11 Measurement Room
Report No. 11240438H
Date April 18, 2016
Temperature / Humidity 29deg. C / 26 % RH
Engineer Takafumi Noguchi
Mode Tx 11n-40

Antenna port	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port WA	5190	-	36.126	-
	5230	-	36.126	-
	5270	39.666	36.194	-
	5310	40.113	36.109	-
	5510	39.797	36.101	-
	5550	39.859	36.102	-
	5670	39.395	36.114	-
	5755	-	36.149	-
	5795	-	36.138	-

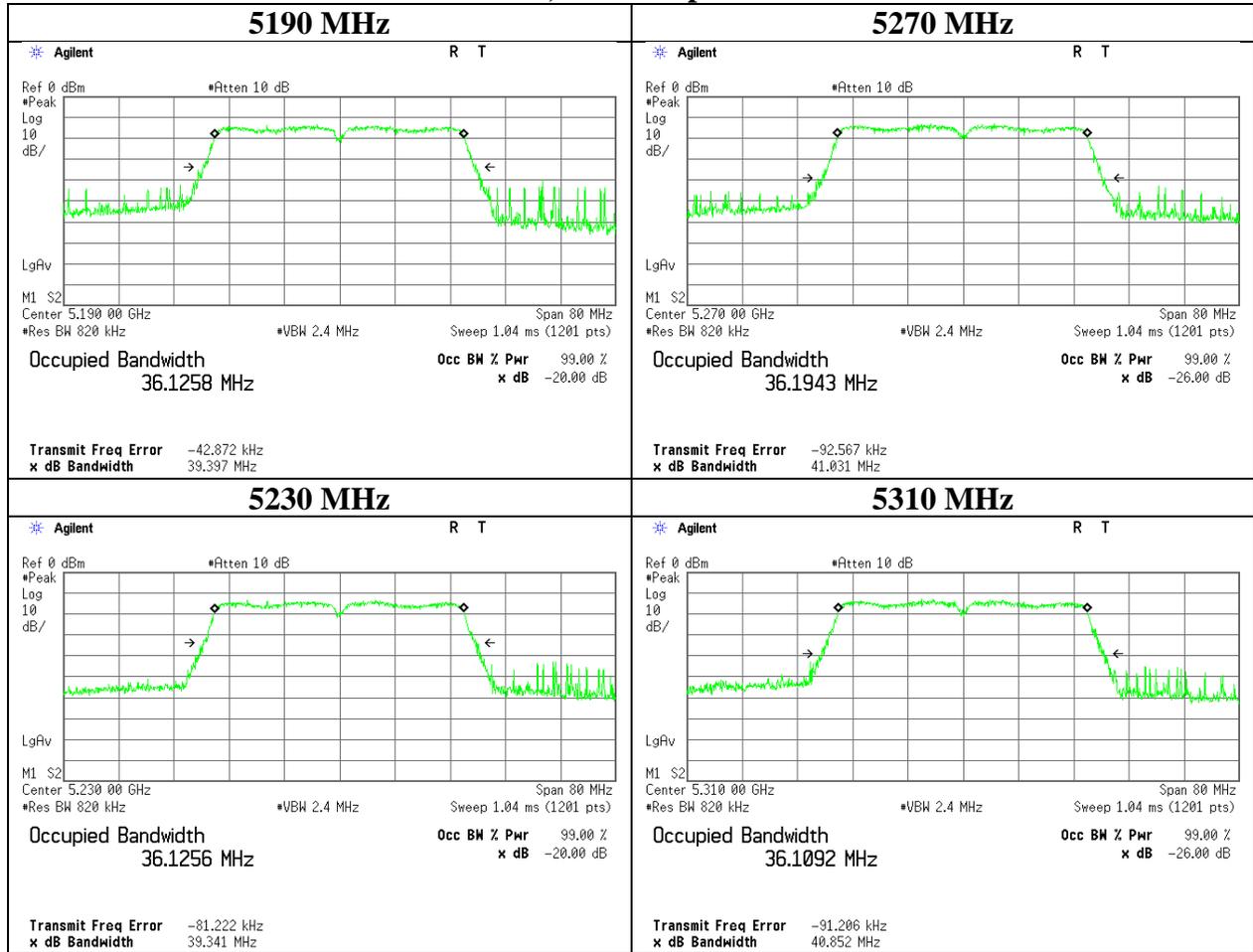
26 dB Emission Bandwidth

11n-40 Antenna port WA



99 % Occupied Bandwidth

11n-40, Antenna port WA



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Ise EMC Lab.

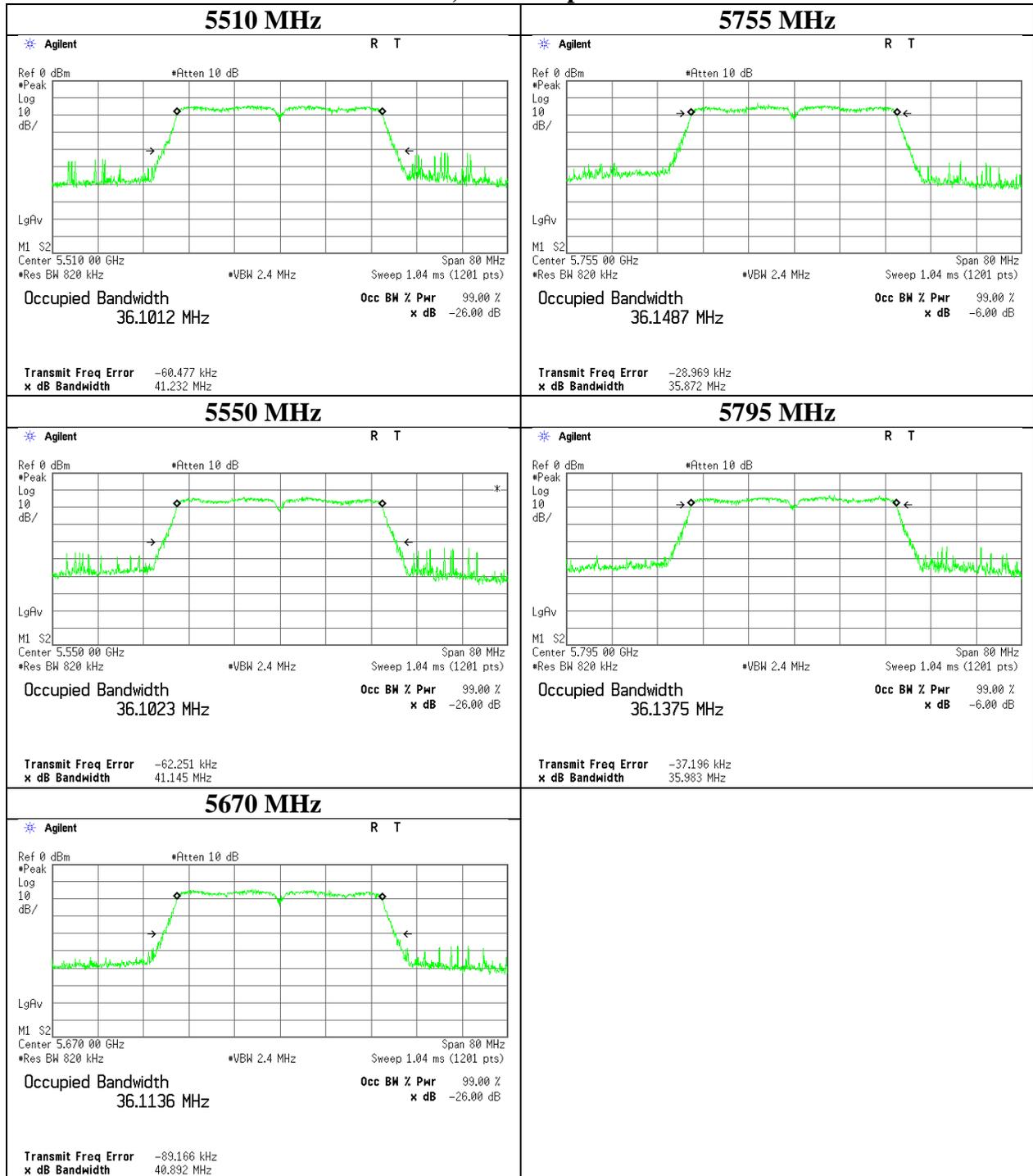
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99 % Occupied Bandwidth

11n-40, Antenna port WA



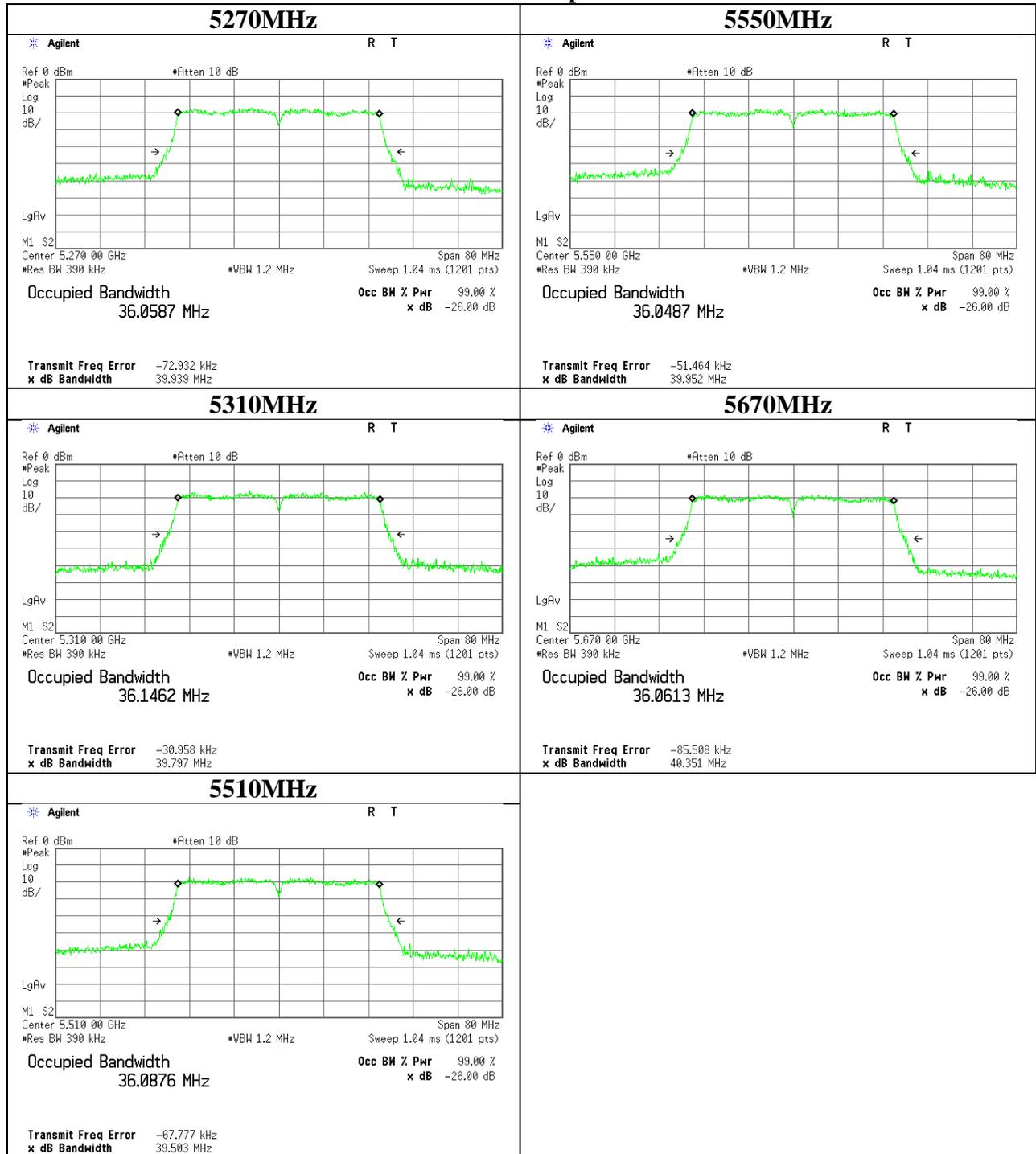
26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place Ise EMC Lab. No.11 Measurement Room
Report No. 11240438H
Date April 18, 2016
Temperature / Humidity 29deg. C / 26 % RH
Engineer Takafumi Noguchi
Mode Tx 11ac-40

Antenna port	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port WA	5190	-	36.129	-
	5230	-	36.206	-
	5270	39.939	36.161	-
	5310	39.797	36.167	-
	5510	39.503	36.201	-
	5550	39.952	36.117	-
	5670	40.351	36.289	-
	5755	-	36.095	-
	5795	-	36.203	-

26 dB Emission Bandwidth

11ac-40 Antenna port WA



UL Japan, Inc.

Ise EMC Lab.

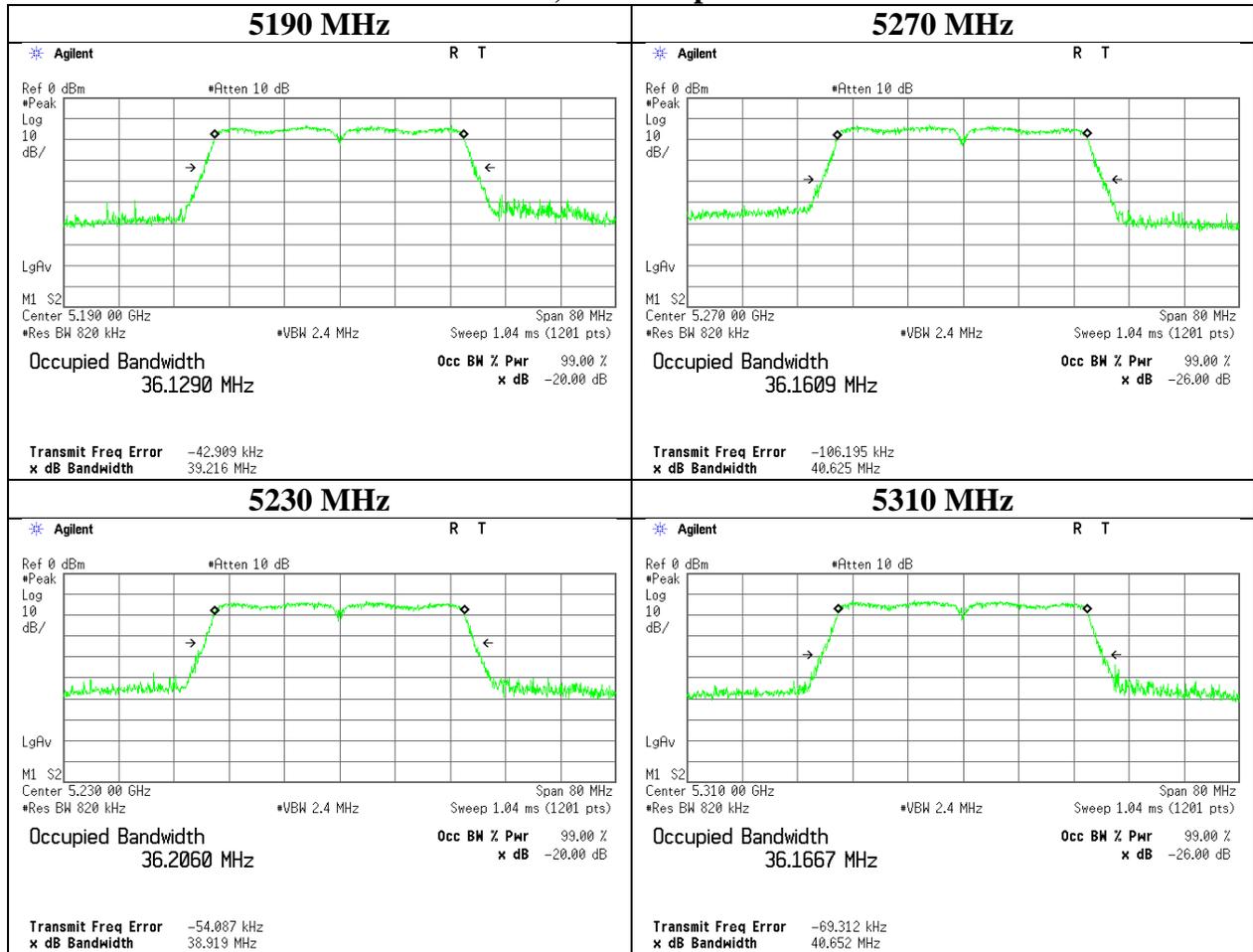
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99 % Occupied Bandwidth

11ac-40, Antenna port WA



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Ise EMC Lab.

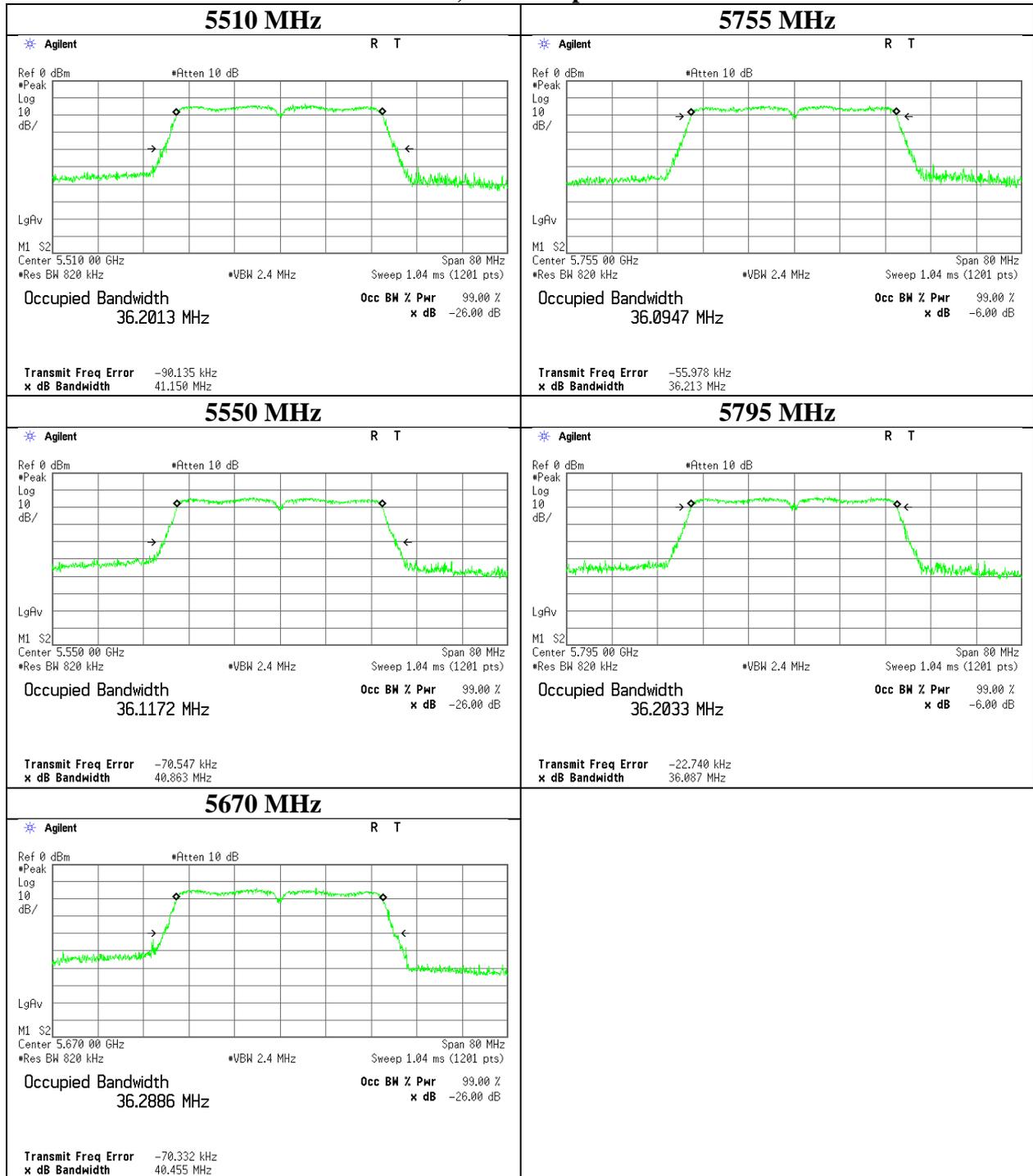
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99 % Occupied Bandwidth

11ac-40, Antenna port WA



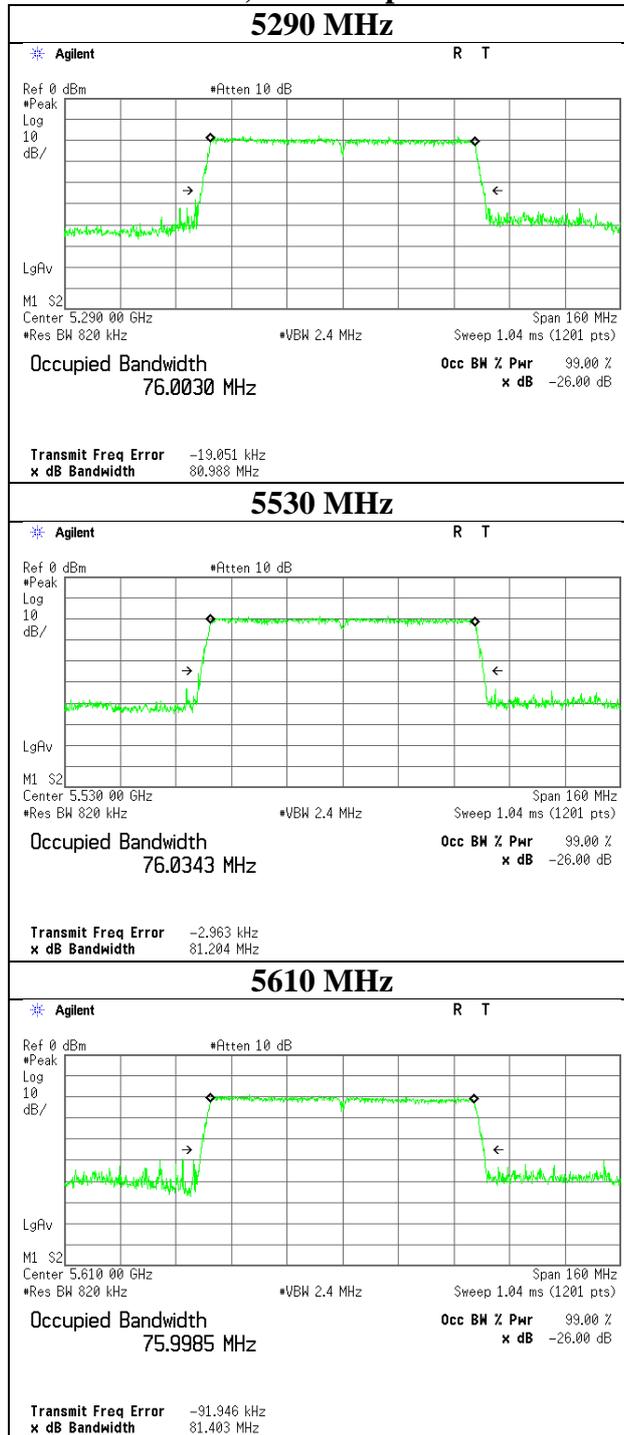
26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 18, 2016
Temperature / Humidity : 29deg. C / 26 % RH
Engineer : Takafumi Noguchi
Mode : Tx 11ac-80

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5210	-	76.338	-
5290	80.988	76.228	-
5530	81.204	76.179	-
5610	81.403	76.340	-
5775	-	76.159	-

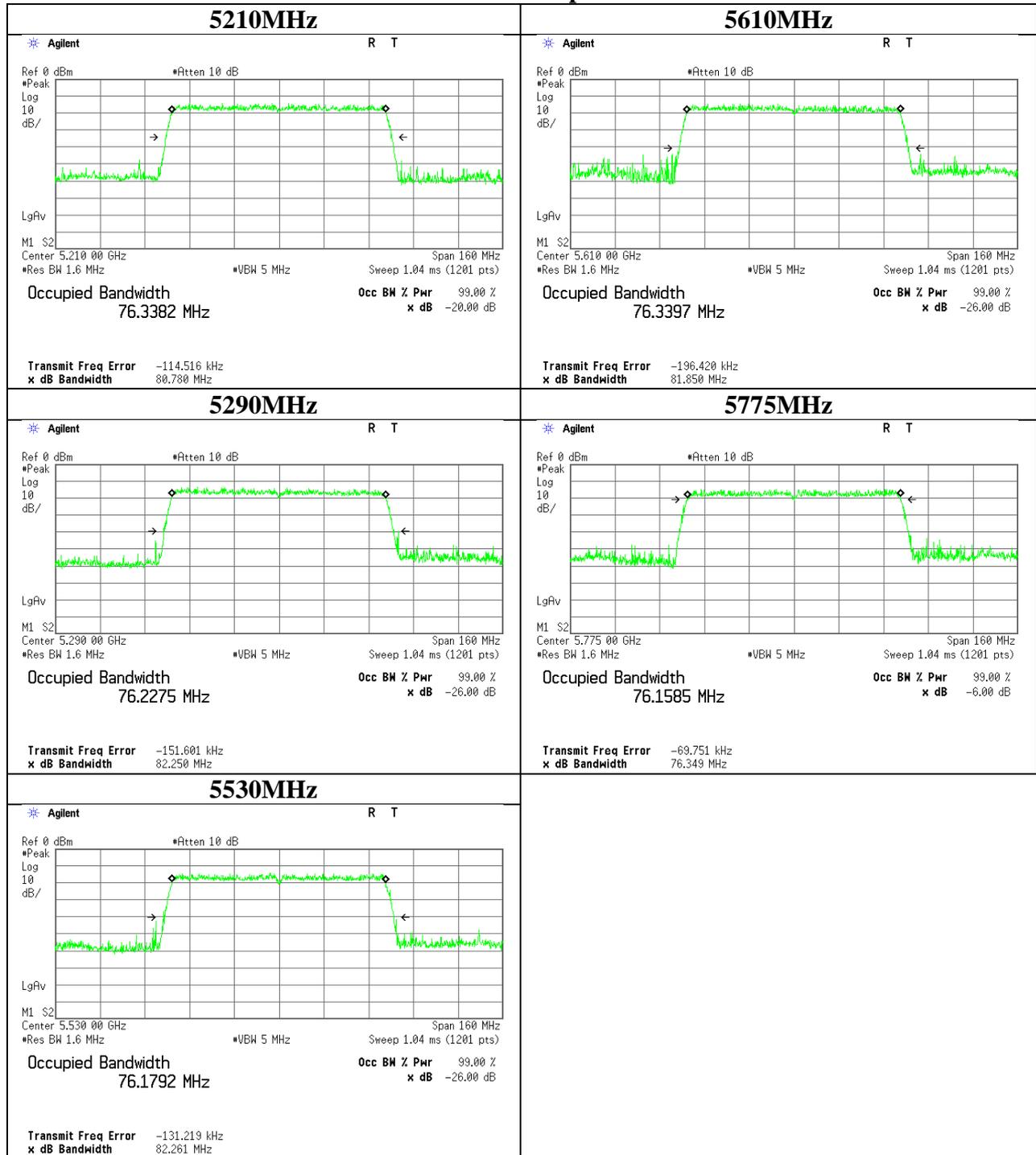
26 dB Emission Bandwidth

11ac-80, Antenna port WA



99 % Occupied Bandwidth

11ac-80 Antenna port WA



6 dB Bandwidth

Test place Ise EMC Lab. No.6 Shielded Room
and No.11 Measurement Room
Report No. 11240438H
Date April 15, 2016 April 18, 2016
Temperature / Humidity 24deg. C / 32 % RH 29deg. C / 26 % RH
Engineer Takafumi Noguchi Takafumi Noguchi
Mode Tx

11a

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	16.383	> 500
5785	16.368	> 500
5825	16.496	> 500

11n-20

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	17.431	> 500
5785	17.595	> 500
5825	17.659	> 500

11ac-20

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	17.391	> 500
5785	17.638	> 500
5825	17.396	> 500

11n-40

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5755	35.012	> 500
5795	35.346	> 500

11ac-40

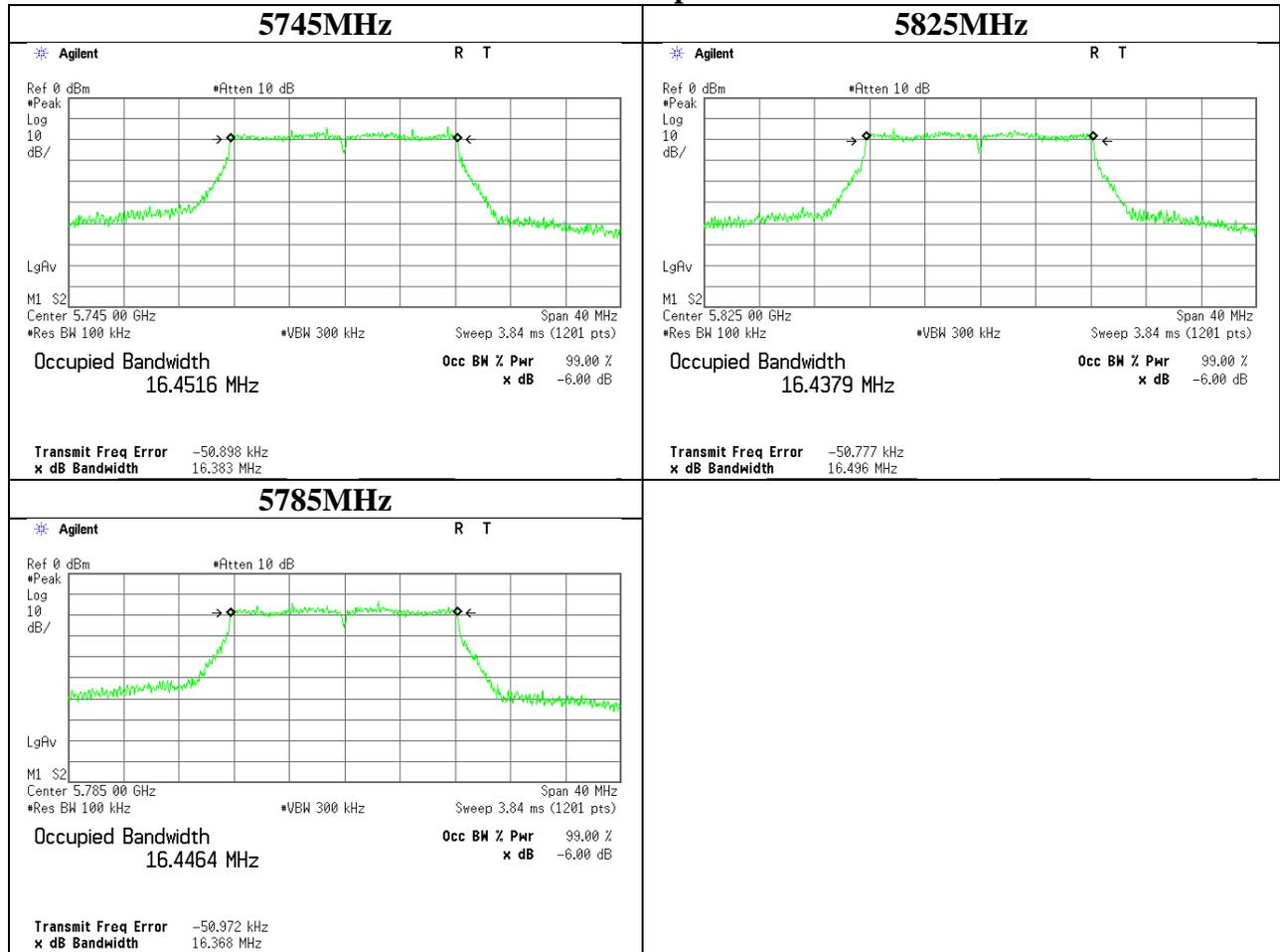
Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5755	35.360	> 500
5795	35.598	> 500

11ac-80

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5775	76.457	> 500

6dB Bandwidth

11a Antenna port WA



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Ise EMC Lab.

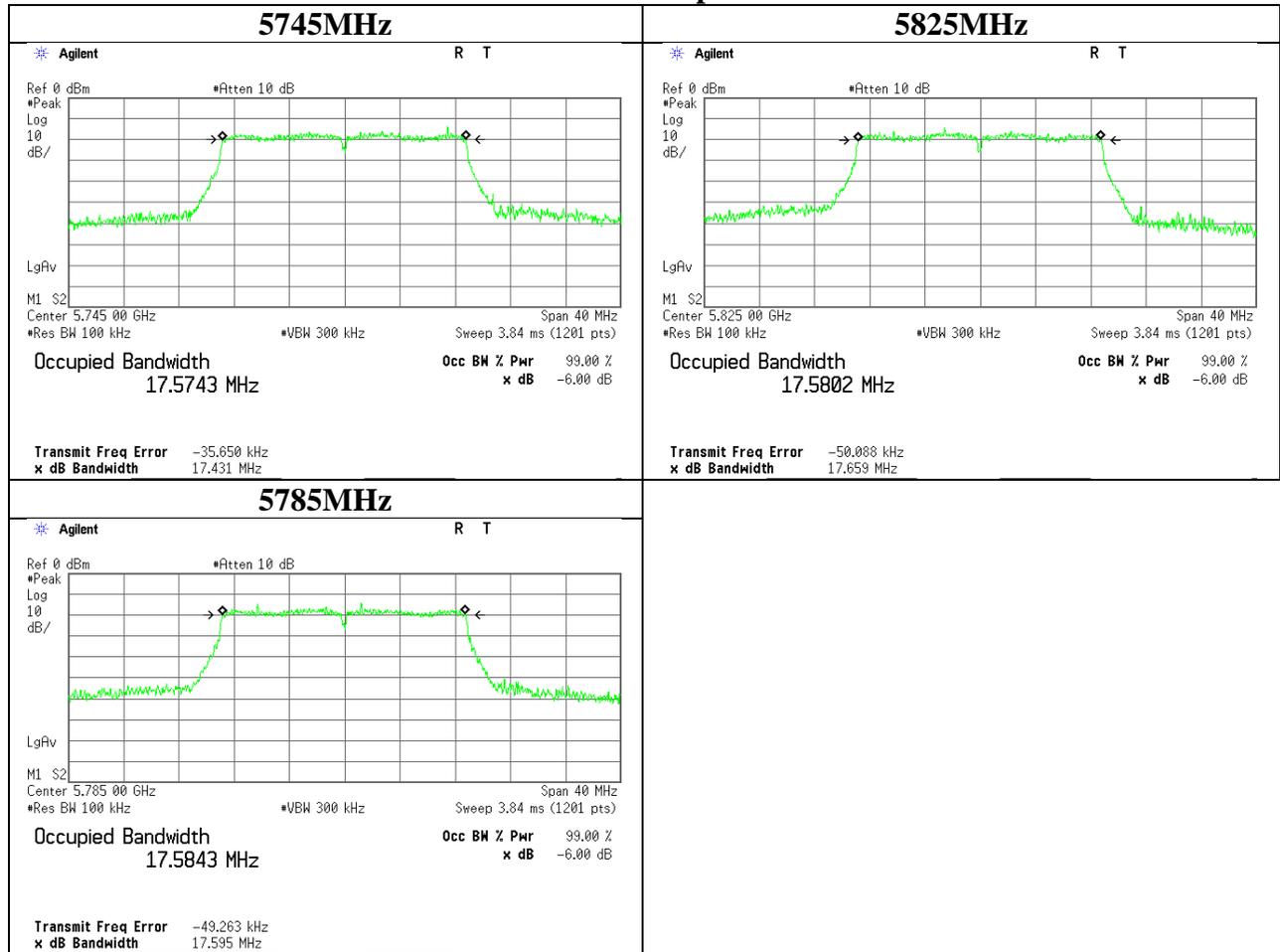
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6dB Bandwidth

11n-20 Antenna port WA



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Ise EMC Lab.

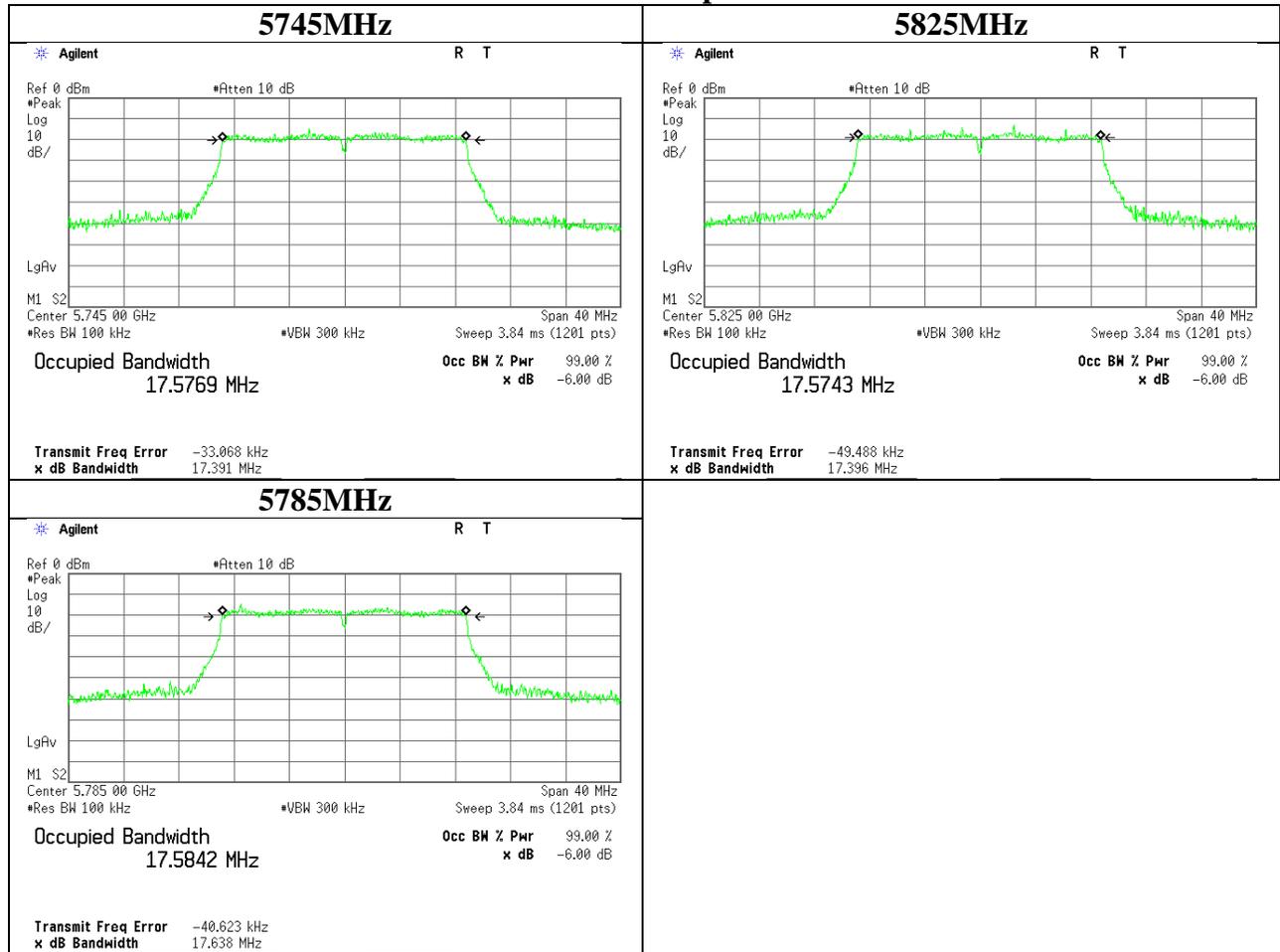
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

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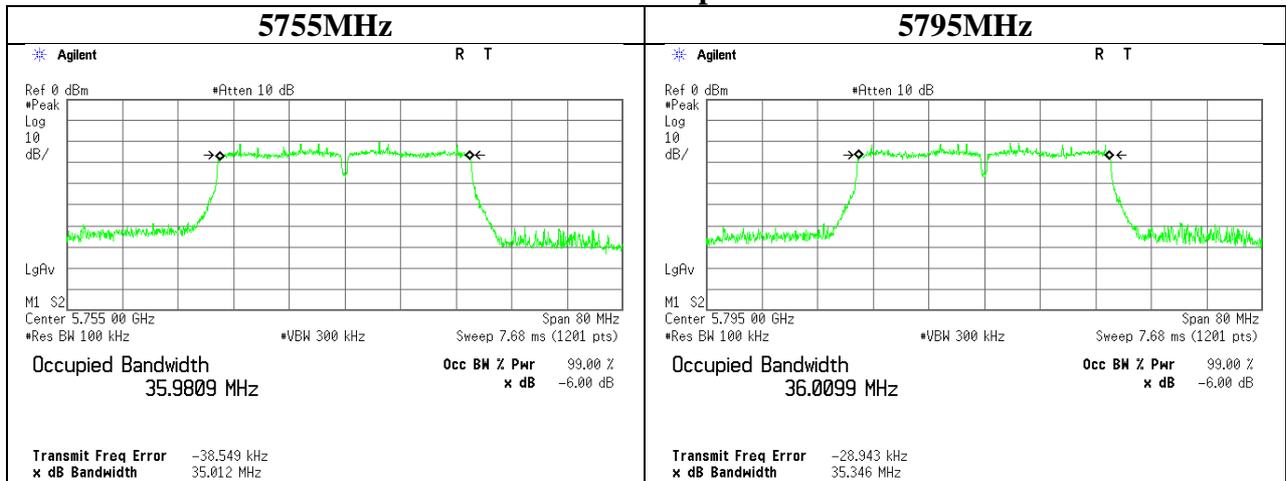
6dB Bandwidth

11ac-20 Antenna port WA

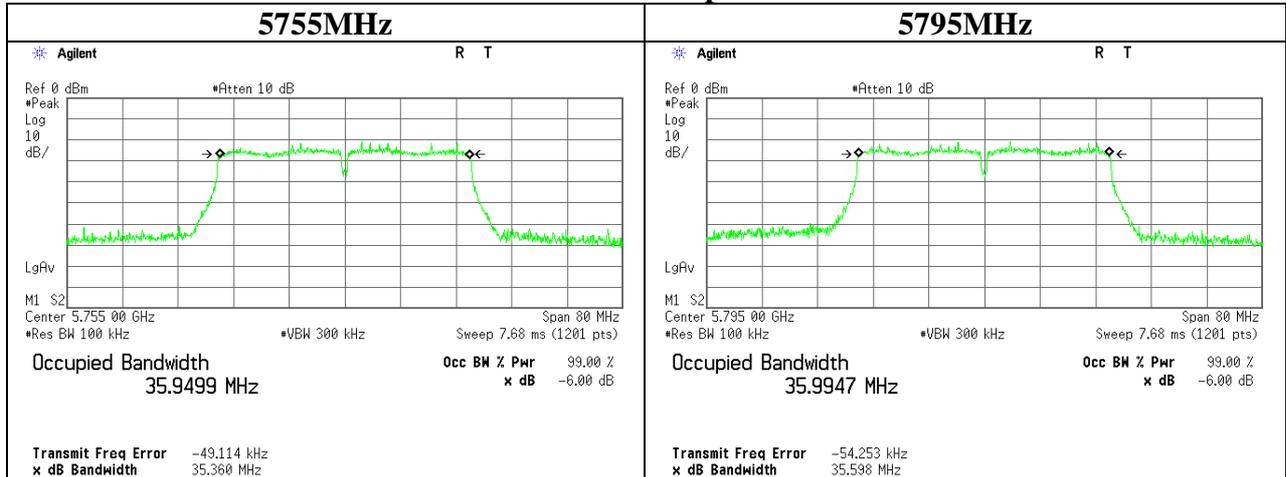


6dB Bandwidth

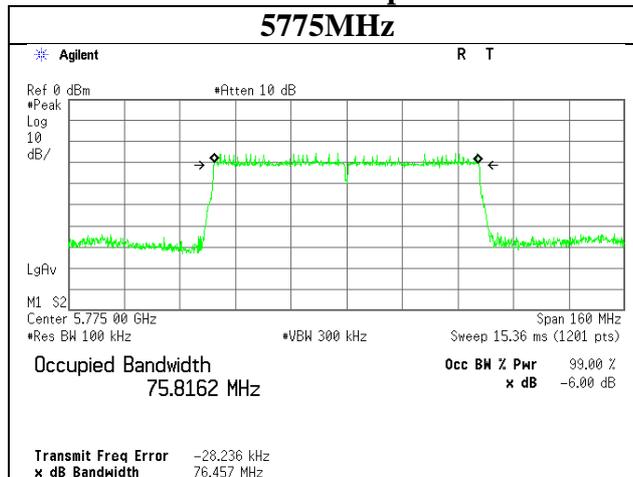
11n-40 Antenna port WA



11ac-40 Antenna port WA



11ac-80 Antenna port WA



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Ise EMC Lab.

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

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 22, 2016
Temperature / Humidity : 24deg. C / 43 % RH
Engineer : Masafumi Niwa
Mode : Tx 11a

Antenna port WA+WC

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted power						e.i.r.p.					
			Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]	Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]
WA [mW]	WC [mW]	Sum [mW]	WA [mW]	WC [mW]	Sum [mW]									
5180	-	16.825	7.41	9.16	16.58	12.19	22.68	10.49	39.72	49.09	88.81	19.48	29.97	10.49
5220	-	16.849	7.43	8.17	15.60	11.93	22.68	10.75	39.81	43.75	83.56	19.22	29.97	10.75
5240	-	16.849	7.26	8.36	15.62	11.94	22.68	10.74	38.90	44.77	83.68	19.23	29.97	10.74
5260	19.000	16.832	6.93	7.64	14.57	11.64	22.49	10.85	37.15	40.93	78.08	18.93	29.97	11.04
5300	19.296	16.775	7.60	8.00	15.60	11.93	22.56	10.63	40.74	42.85	83.59	19.22	29.97	10.75
5320	19.362	16.742	7.78	7.64	15.42	11.88	22.57	10.69	41.69	40.93	82.61	19.17	29.97	10.80
5500	19.440	16.906	7.43	4.52	11.95	10.77	22.59	11.82	39.81	24.21	64.02	18.06	29.97	11.91
5580	19.304	16.859	6.78	4.63	11.41	10.57	22.56	11.99	36.31	24.83	61.14	17.86	29.97	12.11
5700	19.018	16.768	6.93	6.24	13.17	11.20	22.50	11.30	37.15	33.42	70.57	18.49	29.97	11.48
5745	-	-	6.61	5.19	11.79	10.72	28.71	17.99	35.40	27.80	63.20	18.01	36.00	17.99
5785	-	-	7.08	6.22	13.30	11.24	28.71	17.47	37.93	33.34	71.27	18.53	36.00	17.47
5825	-	-	6.92	6.08	13.00	11.14	28.71	17.57	37.07	32.58	69.65	18.43	36.00	17.57

Antenna port WA							Antenna port WC						
Tested Frequency [MHz]	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result		Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result	
						Cond. Power [dBm]	e.i.r.p. [dBm]					Cond. Power [dBm]	e.i.r.p. [dBm]
5180	0.02	-11.90	0.80	19.78	7.29	8.70	15.99	-11.00	0.80	19.80	7.29	9.62	16.91
5220	0.02	-11.90	0.80	19.79	7.29	8.71	16.00	-11.50	0.80	19.80	7.29	9.12	16.41
5240	0.02	-12.00	0.80	19.79	7.29	8.61	15.90	-11.40	0.80	19.80	7.29	9.22	16.51
5260	0.02	-12.20	0.80	19.79	7.29	8.41	15.70	-11.80	0.80	19.81	7.29	8.83	16.12
5300	0.02	-11.80	0.80	19.79	7.29	8.81	16.10	-11.60	0.80	19.81	7.29	9.03	16.32
5320	0.02	-11.70	0.80	19.79	7.29	8.91	16.20	-11.80	0.80	19.81	7.29	8.83	16.12
5500	0.02	-11.90	0.80	19.79	7.29	8.71	16.00	-14.10	0.80	19.83	7.29	6.55	13.84
5580	0.02	-12.30	0.80	19.79	7.29	8.31	15.60	-14.00	0.80	19.84	7.29	6.66	13.95
5700	0.02	-12.20	0.80	19.79	7.29	8.41	15.70	-12.70	0.80	19.83	7.29	7.95	15.24
5745	0.02	-12.40	0.80	19.78	7.29	8.20	15.49	-13.50	0.80	19.83	7.29	7.15	14.44
5785	0.02	-12.10	0.80	19.78	7.29	8.50	15.79	-12.70	0.80	19.82	7.29	7.94	15.23
5825	0.02	-12.20	0.80	19.78	7.29	8.40	15.69	-12.80	0.80	19.82	7.29	7.84	15.13

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor
e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

The conducted power limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 22, 2016
Temperature / Humidity : 24deg. C / 43 % RH
Engineer : Masafumi Niwa
Mode : Tx 11n-20

Antenna port WA+WC

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted power						e.i.r.p.					
			Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]	Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]
WA [mW]	WC [mW]	Sum [mW]	WA [mW]	WC [mW]	Sum [mW]									
5180	-	17.762	6.78	8.38	15.15	11.80	22.68	10.88	36.31	44.87	81.18	19.09	29.97	10.88
5220	-	17.756	6.79	7.64	14.43	11.59	22.68	11.09	36.39	40.93	77.32	18.88	29.97	11.09
5240	-	17.741	7.45	8.77	16.22	12.10	22.68	10.58	39.90	46.99	86.89	19.39	29.97	10.58
5260	19.686	17.763	7.98	8.20	16.18	12.09	22.65	10.56	42.76	43.95	86.71	19.38	29.97	10.59
5300	19.678	17.812	7.80	8.02	15.82	11.99	22.64	10.65	41.78	42.95	84.74	19.28	29.97	10.69
5320	19.703	17.733	7.80	7.66	15.45	11.89	22.65	10.76	41.78	41.02	82.80	19.18	29.97	10.79
5500	19.693	17.784	7.45	4.33	11.77	10.71	22.65	11.94	39.90	23.17	63.08	18.00	29.97	11.97
5580	19.725	17.795	6.49	4.65	11.13	10.47	22.66	12.19	34.75	24.89	59.64	17.76	29.97	12.21
5700	19.760	17.750	6.79	5.97	12.76	11.06	22.66	11.60	36.39	31.99	68.38	18.35	29.97	11.62
5745	-	-	7.10	5.57	12.67	11.03	28.71	17.68	38.02	29.85	67.87	18.32	36.00	17.68
5785	-	-	7.10	5.82	12.92	11.11	28.71	17.60	38.02	31.19	69.21	18.40	36.00	17.60
5825	-	-	6.78	6.10	12.87	11.10	28.71	17.61	36.31	32.66	68.97	18.39	36.00	17.61

Antenna port WA							Antenna port WC						
Tested Frequency [MHz]	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result		Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result	
						Cond. Power [dBm]	e.i.r.p. [dBm]					Cond. Power [dBm]	e.i.r.p. [dBm]
5180	0.03	-12.30	0.80	19.78	7.29	8.31	15.60	-11.40	0.80	19.80	7.29	9.23	16.52
5220	0.03	-12.30	0.80	19.79	7.29	8.32	15.61	-11.80	0.80	19.80	7.29	8.83	16.12
5240	0.03	-11.90	0.80	19.79	7.29	8.72	16.01	-11.20	0.80	19.80	7.29	9.43	16.72
5260	0.03	-11.60	0.80	19.79	7.29	9.02	16.31	-11.50	0.80	19.81	7.29	9.14	16.43
5300	0.03	-11.70	0.80	19.79	7.29	8.92	16.21	-11.60	0.80	19.81	7.29	9.04	16.33
5320	0.03	-11.70	0.80	19.79	7.29	8.92	16.21	-11.80	0.80	19.81	7.29	8.84	16.13
5500	0.03	-11.90	0.80	19.79	7.29	8.72	16.01	-14.30	0.80	19.83	7.29	6.36	13.65
5580	0.03	-12.50	0.80	19.79	7.29	8.12	15.41	-14.00	0.80	19.84	7.29	6.67	13.96
5700	0.03	-12.30	0.80	19.79	7.29	8.32	15.61	-12.90	0.80	19.83	7.29	7.76	15.05
5745	0.03	-12.10	0.80	19.78	7.29	8.51	15.80	-13.20	0.80	19.83	7.29	7.46	14.75
5785	0.03	-12.10	0.80	19.78	7.29	8.51	15.80	-13.00	0.80	19.82	7.29	7.65	14.94
5825	0.03	-12.30	0.80	19.78	7.29	8.31	15.60	-12.80	0.80	19.82	7.29	7.85	15.14

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor
e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

The conducted power limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 22, 2016
Temperature / Humidity : 24deg. C / 43 % RH
Engineer : Masafumi Niwa
Mode : Tx 11ac-20

Antenna port WA+WC

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted power						e.i.r.p.					
			Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]	Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]
WA [mW]	WC [mW]	Sum [mW]	WA [mW]	WC [mW]	Sum [mW]									
5180	-	17.746	6.93	8.57	15.50	11.90	22.68	10.78	37.15	45.92	83.07	19.19	29.97	10.78
5220	-	17.729	7.11	8.77	15.88	12.01	22.68	10.67	38.11	46.99	85.10	19.30	29.97	10.67
5240	-	17.732	7.80	8.57	16.37	12.14	22.68	10.54	41.78	45.92	87.70	19.43	29.97	10.54
5260	19.827	17.788	8.17	8.20	16.37	12.14	22.68	10.54	43.75	43.95	87.71	19.43	29.97	10.54
5300	19.619	17.769	7.80	8.20	16.00	12.04	22.63	10.59	41.78	43.95	85.74	19.33	29.97	10.64
5320	19.630	17.735	7.98	7.83	15.81	11.99	22.63	10.64	42.76	41.98	84.73	19.28	29.97	10.69
5500	19.603	17.722	7.45	4.53	11.98	10.78	22.63	11.85	39.90	24.27	64.17	18.07	29.97	11.90
5580	19.792	17.732	6.64	4.75	11.39	10.57	22.67	12.10	35.56	25.47	61.03	17.86	29.97	12.11
5700	19.660	17.768	6.95	6.11	13.06	11.16	22.64	11.48	37.24	32.73	69.97	18.45	29.97	11.52
5745	-	-	6.93	5.83	12.77	11.06	28.71	17.65	37.15	31.26	68.41	18.35	36.00	17.65
5785	-	-	7.43	5.96	13.39	11.27	28.71	17.44	39.81	31.92	71.73	18.56	36.00	17.44
5825	-	-	7.60	6.24	13.84	11.41	28.71	17.30	40.74	33.42	74.16	18.70	36.00	17.30

Antenna port WA							Antenna port WC						
Tested Frequency [MHz]	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result		Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result	
						Cond. Power [dBm]	e.i.r.p. [dBm]					Cond. Power [dBm]	e.i.r.p. [dBm]
5180	0.03	-12.20	0.80	19.78	7.29	8.41	15.70	-11.30	0.80	19.80	7.29	9.33	16.62
5220	0.03	-12.10	0.80	19.79	7.29	8.52	15.81	-11.20	0.80	19.80	7.29	9.43	16.72
5240	0.03	-11.70	0.80	19.79	7.29	8.92	16.21	-11.30	0.80	19.80	7.29	9.33	16.62
5260	0.03	-11.50	0.80	19.79	7.29	9.12	16.41	-11.50	0.80	19.81	7.29	9.14	16.43
5300	0.03	-11.70	0.80	19.79	7.29	8.92	16.21	-11.50	0.80	19.81	7.29	9.14	16.43
5320	0.03	-11.60	0.80	19.79	7.29	9.02	16.31	-11.70	0.80	19.81	7.29	8.94	16.23
5500	0.03	-11.90	0.80	19.79	7.29	8.72	16.01	-14.10	0.80	19.83	7.29	6.56	13.85
5580	0.03	-12.40	0.80	19.79	7.29	8.22	15.51	-13.90	0.80	19.84	7.29	6.77	14.06
5700	0.03	-12.20	0.80	19.79	7.29	8.42	15.71	-12.80	0.80	19.83	7.29	7.86	15.15
5745	0.03	-12.20	0.80	19.78	7.29	8.41	15.70	-13.00	0.80	19.83	7.29	7.66	14.95
5785	0.03	-11.90	0.80	19.78	7.29	8.71	16.00	-12.90	0.80	19.82	7.29	7.75	15.04
5825	0.03	-11.80	0.80	19.78	7.29	8.81	16.10	-12.70	0.80	19.82	7.29	7.95	15.24

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor
e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

The conducted power limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 12, 2016
Temperature / Humidity : 23deg. C / 48 % RH
Engineer : Takumi Shimada
Mode : Tx 11n-40

Antenna port WA+WC

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted power						e.i.r.p.					
			Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]	Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]
WA [mW]	WC [mW]	Sum [mW]	WA [mW]	WC [mW]	Sum [mW]									
5190	-	36.126	3.54	3.85	7.39	8.69	22.68	13.99	18.97	20.65	39.62	15.98	29.97	13.99
5230	-	36.126	3.67	3.85	7.53	8.77	22.68	13.91	19.68	20.65	40.33	16.06	29.97	13.91
5270	39.666	36.194	3.94	3.69	7.63	8.82	22.68	13.86	21.09	19.77	40.86	16.11	29.97	13.86
5310	40.113	36.109	3.85	3.78	7.62	8.82	22.68	13.86	20.61	20.23	40.84	16.11	29.97	13.86
5510	39.797	36.101	3.46	2.20	5.66	7.53	22.68	15.15	18.54	11.80	30.34	14.82	29.97	15.15
5550	39.859	36.102	3.35	2.29	5.64	7.51	22.68	15.17	17.95	12.27	30.22	14.80	29.97	15.17
5670	39.395	36.114	2.92	2.69	5.60	7.48	22.68	15.20	15.63	14.39	30.02	14.77	29.97	15.20
5755	-	-	3.01	2.83	5.84	7.66	28.71	21.05	16.11	15.17	31.28	14.95	36.00	21.05
5795	-	-	3.42	2.37	5.79	7.62	28.71	21.09	18.32	12.68	31.00	14.91	36.00	21.09

Antenna port WA							Antenna port WC						
Tested Frequency [MHz]	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	Result e.i.r.p. [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	Result e.i.r.p. [dBm]
5190	0.06	-15.10	0.80	19.73	7.29	5.49	12.78	-14.80	0.80	19.80	7.29	5.86	13.15
5230	0.06	-15.00	0.80	19.79	7.29	5.65	12.94	-14.80	0.80	19.80	7.29	5.86	13.15
5270	0.06	-14.70	0.80	19.79	7.29	5.95	13.24	-15.00	0.80	19.81	7.29	5.67	12.96
5310	0.06	-14.80	0.80	19.79	7.29	5.85	13.14	-14.90	0.80	19.81	7.29	5.77	13.06
5510	0.00	-15.20	0.80	19.79	7.29	5.39	12.68	-17.20	0.80	19.83	7.29	3.43	10.72
5550	0.06	-15.40	0.80	19.79	7.29	5.25	12.54	-17.10	0.80	19.84	7.29	3.60	10.89
5670	0.06	-16.00	0.80	19.79	7.29	4.65	11.94	-16.40	0.80	19.83	7.29	4.29	11.58
5755	0.00	-15.80	0.80	19.78	7.29	4.78	12.07	-16.10	0.80	19.82	7.29	4.52	11.81
5795	0.06	-15.30	0.80	19.78	7.29	5.34	12.63	-16.40	0.80	19.28	7.29	3.74	11.03

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

The conducted power limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

UL Japan, Inc.

Ise EMC Lab.

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

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 12, 2016
Temperature / Humidity : 23deg. C / 48 % RH
Engineer : Takumi Shimada
Mode : Tx 11ac-40

Antenna port WA+WC

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted power						e.i.r.p.					
			Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]	Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]
WA [mW]	WC [mW]	Sum [mW]	WA [mW]	WC [mW]	Sum [mW]									
5190	-	36.129	4.06	4.04	8.10	9.09	22.68	13.59	21.78	21.63	43.40	16.38	29.97	13.59
5230	-	36.206	4.12	3.94	8.07	9.07	22.68	13.61	22.08	21.13	43.21	16.36	29.97	13.61
5270	39.939	36.161	4.03	3.95	7.98	9.02	22.68	13.66	21.58	21.18	42.76	16.31	29.97	13.66
5310	39.797	36.167	3.94	3.86	7.80	8.92	22.68	13.76	21.09	20.70	41.79	16.21	29.97	13.76
5510	39.503	36.201	3.43	2.34	5.77	7.61	22.68	15.07	18.37	12.53	30.90	14.90	29.97	15.07
5550	39.952	36.117	3.35	2.29	5.64	7.51	22.68	15.17	17.95	12.27	30.22	14.80	29.97	15.17
5670	40.351	36.289	2.99	2.81	5.80	7.63	22.68	15.05	16.00	15.07	31.06	14.92	29.97	15.05
5755	-	-	3.12	2.81	5.92	7.73	28.71	20.98	16.71	15.03	31.74	15.02	36.00	20.98
5795	-	-	3.50	2.59	6.09	7.85	28.71	20.86	18.75	13.90	32.65	15.14	36.00	20.86

Antenna port WA							Antenna port WC						
Tested Frequency [MHz]	Duty Factor [dB]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	Result e.i.r.p. [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	Result e.i.r.p. [dBm]
5190	0.06	-14.50	0.80	19.73	7.29	6.09	13.38	-14.60	0.80	19.80	7.29	6.06	13.35
5230	0.06	-14.50	0.80	19.79	7.29	6.15	13.44	-14.70	0.80	19.80	7.29	5.96	13.25
5270	0.06	-14.60	0.80	19.79	7.29	6.05	13.34	-14.70	0.80	19.81	7.29	5.97	13.26
5310	0.06	-14.70	0.80	19.79	7.29	5.95	13.24	-14.80	0.80	19.81	7.29	5.87	13.16
5510	0.06	-15.30	0.80	19.79	7.29	5.35	12.64	-17.00	0.80	19.83	7.29	3.69	10.98
5550	0.06	-15.40	0.80	19.79	7.29	5.25	12.54	-17.10	0.80	19.84	7.29	3.60	10.89
5670	0.06	-15.90	0.80	19.79	7.29	4.75	12.04	-16.20	0.80	19.83	7.29	4.49	11.78
5755	0.06	-15.70	0.80	19.78	7.29	4.94	12.23	-16.20	0.80	19.82	7.29	4.48	11.77
5795	0.06	-15.20	0.80	19.78	7.29	5.44	12.73	-16.00	0.80	19.28	7.29	4.14	11.43

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

The conducted power limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

UL Japan, Inc.

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Facsimile : +81 596 24 8124

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
 Report No. : 11240438H
 Date : April 12, 2016
 Temperature / Humidity : 23deg. C / 48 % RH
 Engineer : Takumi Shimada
 Mode : Tx 11ac-80

Antenna port WA+WC

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW (B for FCC) [MHz]	99% OBW (B for IC) [MHz]	Conducted power						e.i.r.p.					
			Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]	Antenna port			Result [dBm]	Limit [dBm]	Margin [dB]
WA [mW]	WC [mW]	Sum [mW]	WA [mW]	WC [mW]	Sum [mW]									
5210	-	76.338	2.30	2.90	5.19	7.15	22.68	15.53	12.30	15.52	27.83	14.44	29.97	15.53
5290	80.988	76.228	2.70	2.59	5.29	7.23	22.68	15.45	14.45	13.87	28.32	14.52	29.97	15.45
5530	81.204	76.179	2.24	1.57	3.81	5.81	22.68	16.87	12.02	8.39	20.42	13.10	29.97	16.87
5610	81.403	76.340	2.05	1.64	3.69	5.67	22.68	17.01	10.96	8.81	19.78	12.96	29.97	17.01
5775	-	-	2.19	2.06	4.25	6.28	28.71	22.43	11.72	11.04	22.76	13.57	36.00	22.43

Tested Frequency [MHz]	Duty Factor [dB]	Antenna port WA						Antenna port WC					
		Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	Result e.i.r.p. [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	Result e.i.r.p. [dBm]
5210	0.12	-17.10	0.80	19.79	7.29	3.61	10.90	-16.10	0.80	19.80	7.29	4.62	11.91
5290	0.12	-16.40	0.80	19.79	7.29	4.31	11.60	-16.60	0.80	19.81	7.29	4.13	11.42
5530	0.12	-17.20	0.80	19.79	7.29	3.51	10.80	-18.80	0.80	19.83	7.29	1.95	9.24
5610	0.12	-17.60	0.80	19.79	7.29	3.11	10.40	-18.60	0.80	19.84	7.29	2.16	9.45
5775	0.12	-17.30	0.80	19.78	7.29	3.40	10.69	-17.60	0.80	19.82	7.29	3.14	10.43

Sample Calculation:

Conducted Power Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor

e.i.r.p. Result = Conducted Power Result + Antenna Gain

Conducted Power Limit (5250 MHz-5350 MHz, 5470 MHz-5725 MHz) = 250 mW or (11 + 10logB) dBm, whichever is lower

The conducted power limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

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

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
 Report No. : 11240438H
 Date : April 6, 2016
 Temperature / Humidity : 23deg. C / 40 % RH
 Engineer : Kazuya Yoshioka
 Mode : Tx

5180 MHz

mode	Rate [Mbps]	Antenna port WA Reading Average		Antenna port WC Reading Average		Total Reading Power		Remark [dB]
		[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	
11a	6	9.7	9.33	10.5	11.22	13.13	20.55	*
	9	9.3	8.51	10.4	10.96	12.90	19.48	
	12	9.3	8.51	10.2	10.47	12.78	18.98	
	18	9.3	8.51	10.4	10.96	12.90	19.48	
	24	9.4	8.71	10.3	10.72	12.88	19.42	
	36	9.5	8.91	10.3	10.72	12.93	19.63	
	48	9.6	9.12	10.2	10.47	12.92	19.59	
54	9.6	9.12	10.3	10.72	12.97	19.84		

*: Worst Rate

*1)The test was conducted by the use of Gate function.

All comparison were carried out on same frequency and measurement factors.

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 6, 2016
Temperature / Humidity : 23deg. C / 40 % RH
Engineer : Kazuya Yoshioka
Mode : Tx

5180 MHz

mode	MCS Number	Antenna port WA Reading Average		Antenna port WC Reading Average		Total Reading Power		Remark
		[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	
		11n-20	0	9.6	9.12	10.4	10.96	
1	9.1		8.13	10.3	10.72	12.75	18.84	
2	9.1		8.13	10.2	10.47	12.70	18.60	
3	9.1		8.13	10.1	10.23	12.64	18.36	
4	9.1		8.13	10.2	10.47	12.70	18.60	
5	9.1		8.13	10.2	10.47	12.70	18.60	
6	9.2		8.32	10.2	10.47	12.74	18.79	
7	9.2		8.32	10.3	10.72	12.80	19.03	
8	9.4		8.71	10.5	11.22	13.00	19.93	
9	9.4		8.71	10.5	11.22	13.00	19.93	
10	9.1		8.13	10.2	10.47	12.70	18.60	
11	9.4		8.71	10.5	11.22	13.00	19.93	
12	9.4		8.71	10.5	11.22	13.00	19.93	
13	9.1		8.13	10.6	11.48	12.92	19.61	
14	9.4		8.71	10.5	11.22	13.00	19.93	
15	9.5	8.91	10.3	10.72	12.93	19.63		

*Worst MCS

*1)The test was conducted by the use of Gate function.
All comparison were carried out on same frequency and measurement factors.

5180 MHz

mode	MCS Number	Antenna port WA Reading Average		Antenna port WC Reading Average		Total Reading Power		Remark
		[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	
		11ac-20 1TX	0	9.6	9.12	10.5	11.22	
1	9.2		8.32	10.5	11.22	12.91	19.54	
2	9.6		9.12	10.3	10.72	12.97	19.84	
3	9.2		8.32	10.4	10.96	12.85	19.28	
4	9.3		8.51	10.5	11.22	12.95	19.73	
5	9.3		8.51	10.3	10.72	12.84	19.23	
6	9.2		8.32	10.3	10.72	12.80	19.03	
7	9.2		8.32	10.3	10.72	12.80	19.03	
11ac-20 2TX	0	9.1	8.13	10.1	10.23	12.64	18.36	
	1	9.4	8.71	10.6	11.48	13.05	20.19	
	2	9.4	8.71	10.6	11.48	13.05	20.19	
	3	9.4	8.71	10.5	11.22	13.00	19.93	
	4	9.4	8.71	10.6	11.48	13.05	20.19	
	5	9.4	8.71	10.6	11.48	13.05	20.19	
	6	9.4	8.71	10.6	11.48	13.05	20.19	
	7	9.4	8.71	10.6	11.48	13.05	20.19	
8	9.4	8.71	10.6	11.48	13.05	20.19		

*Worst MCS

*1)The test was conducted by the use of Gate function.
All comparison were carried out on same frequency and measurement factors.

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
 Report No. : 11240438H
 Date : April 6, 2016
 Temperature / Humidity : 23deg. C / 40 % RH
 Engineer : Kazuya Yoshioka
 Mode : Tx

5190 MHz

mode	MCS Number	Antenna port WA		Antenna port WC		Total		Remark
		Reading Average		Reading Average		Reading Power		
		[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	
11n-40	0	5.7	3.72	6.0	3.98	8.86	7.70	*
	1	5.6	3.63	5.8	3.80	8.71	7.43	
	2	5.7	3.72	5.9	3.89	8.81	7.61	
	3	5.2	3.31	5.6	3.63	8.41	6.94	
	4	5.7	3.72	5.9	3.89	8.81	7.61	
	5	5.3	3.39	5.9	3.89	8.62	7.28	
	6	5.3	3.39	6.0	3.98	8.67	7.37	
	7	5.3	3.39	6.0	3.98	8.67	7.37	
	8	5.6	3.63	5.8	3.80	8.71	7.43	
	9	5.6	3.63	5.9	3.89	8.76	7.52	
	10	5.6	3.63	5.9	3.89	8.76	7.52	
	11	5.6	3.63	5.9	3.89	8.76	7.52	
	12	5.7	3.72	5.9	3.89	8.81	7.61	
	13	5.2	3.31	6.0	3.98	8.63	7.29	
	14	5.7	3.72	5.9	3.89	8.81	7.61	
15	5.4	3.47	6.0	3.98	8.72	7.45		

*Worst MCS

*1)The test was conducted by the use of Gate function.

All comparison were carried out on same frequency and measurement factors.

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
 Report No. : 11240438H
 Date : April 6, 2016
 Temperature / Humidity : 23deg. C / 40 % RH
 Engineer : Kazuya Yoshioka
 Mode : Tx

5190 MHz

mode	MCS Number	Antenna port WA Reading Average		Antenna port WC Reading Average		Total Reading Power		Remark
		[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	
11ac-40 1TX	0	5.7	3.72	6.0	3.98	8.86	7.70	*
	1	5.3	3.39	5.9	3.89	8.62	7.28	
	2	5.7	3.72	5.9	3.89	8.81	7.61	
	3	5.3	3.39	6.0	3.98	8.67	7.37	
	4	5.3	3.39	6.0	3.98	8.67	7.37	
	5	5.3	3.39	6.0	3.98	8.67	7.37	
	6	5.6	3.63	6.0	3.98	8.81	7.61	
	7	5.4	3.47	6.1	4.07	8.77	7.54	
	8	5.3	3.39	5.8	3.80	8.57	7.19	
	9	5.5	3.55	5.8	3.80	8.66	7.35	
11ac-40 2TX	0	5.6	3.63	5.9	3.89	8.76	7.52	
	1	5.7	3.72	5.9	3.89	8.81	7.61	
	2	5.7	3.72	5.9	3.89	8.81	7.61	
	3	5.2	3.31	6.0	3.98	8.63	7.29	
	4	5.7	3.72	5.9	3.89	8.81	7.61	
	5	5.3	3.39	6.0	3.98	8.67	7.37	
	6	5.4	3.47	6.1	4.07	8.77	7.54	
	7	5.4	3.47	6.1	4.07	8.77	7.54	
	8	5.5	3.55	5.8	3.80	8.66	7.35	
	9	5.5	3.55	5.9	3.89	8.71	7.44	

*Worst MCS

*1)The test was conducted by the use of Gate function.

All comparison were carried out on same frequency and measurement factors.

Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room
 Report No. : 11240438H
 Date : April 6, 2016
 Temperature / Humidity : 23deg. C / 40 % RH
 Engineer : Kazuya Yoshioka
 Mode : Tx

5210 MHz

mode	MCS Number	Antenna port WA Reading Average		Antenna port WC Reading Average		Total Reading Power		Remark
		[dBm]	[mW]	[dBm]	[mW]	[dBm]	[mW]	
11ac-80 1TX	0	4.0	2.51	4.5	2.82	7.27	5.33	*
	1	3.3	2.14	4.7	2.95	7.07	5.09	
	2	3.7	2.34	4.6	2.88	7.18	5.23	
	3	3.6	2.29	4.6	2.88	7.14	5.17	
	4	3.7	2.34	4.6	2.88	7.18	5.23	
	5	3.5	2.24	4.8	3.02	7.21	5.26	
	6	3.6	2.29	4.7	2.95	7.20	5.24	
	7	3.7	2.34	4.7	2.95	7.24	5.30	
	8	3.7	2.34	4.6	2.88	7.18	5.23	
	9	3.6	2.29	4.7	2.95	7.20	5.24	
11ac-80 2TX	0	3.7	2.34	4.8	3.02	7.30	5.36	
	1	3.2	2.09	4.6	2.88	6.97	4.97	
	2	3.6	2.29	4.2	2.63	6.92	4.92	
	3	3.9	2.45	4.0	2.51	6.96	4.97	
	4	3.7	2.34	4.2	2.63	6.97	4.97	
	5	3.8	2.40	4.3	2.69	7.07	5.09	
	6	3.7	2.34	4.2	2.63	6.97	4.97	
	7	3.6	2.29	4.2	2.63	6.92	4.92	
	8	3.7	2.34	4.2	2.63	6.97	4.97	
	9	3.8	2.40	4.3	2.69	7.07	5.09	

*Worst MCS

*1)The test was conducted by the use of Gate function.

All comparison were carried out on same frequency and measurement factors.

Average Output Power
(Reference data for RF Exposure)

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 22, 2016
Temperature / Humidity : 24deg. C / 43 % RH
Engineer : Masafumi Niwa
Mode : Tx 11a

Tested Frequency [MHz]	Antenna port WA				Antenna port WC				Antenna port WA+WC			
	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Time average)			
									Antenna port WA [mW]	Antenna port WC [mW]	Sum WA+WC [mW] [dBm]	
5180	-11.90	0.80	19.78	8.68	-11.00	0.80	19.80	9.60	7.38	9.12	16.50	12.17
5220	-11.90	0.80	19.79	8.69	-11.50	0.80	19.80	9.10	7.40	8.13	15.52	11.91
5240	-12.00	0.80	19.79	8.59	-11.40	0.80	19.80	9.20	7.23	8.32	15.55	11.92
5260	-12.20	0.80	19.79	8.39	-11.80	0.80	19.81	8.81	6.90	7.60	14.51	11.62
5300	-11.80	0.80	19.79	8.79	-11.60	0.80	19.81	9.01	7.57	7.96	15.53	11.91
5320	-11.70	0.80	19.79	8.89	-11.80	0.80	19.81	8.81	7.74	7.60	15.35	11.86
5500	-11.90	0.80	19.79	8.69	-14.10	0.80	19.83	6.53	7.40	4.50	11.89	10.75
5580	-12.30	0.80	19.79	8.29	-14.00	0.80	19.84	6.64	6.75	4.61	11.36	10.55
5700	-12.20	0.80	19.79	8.39	-12.70	0.80	19.83	7.93	6.90	6.21	13.11	11.18
5745	-12.40	0.80	19.78	8.18	-13.50	0.80	19.83	7.13	6.58	5.16	11.74	10.70
5785	-12.10	0.80	19.78	8.48	-12.70	0.80	19.82	7.92	7.05	6.19	13.24	11.22
5825	-12.20	0.80	19.78	8.38	-12.80	0.80	19.82	7.82	6.89	6.05	12.94	11.12

Sample Calculation:

Result (Time average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 22, 2016
Temperature / Humidity : 24deg. C / 43 % RH
Engineer : Masafumi Niwa
Mode : Tx 11n-20

Tested Frequency [MHz]	Antenna port WA				Antenna port WC				Antenna port WA+WC			
	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Time average)			
									Antenna port		Sum	
								WA [mW]	WC [mW]	WA+WC [mW]	[dBm]	
5180	-12.30	0.80	19.78	8.28	-11.40	0.80	19.80	9.20	6.73	8.32	15.05	11.77
5220	-12.30	0.80	19.79	8.29	-11.80	0.80	19.80	8.80	6.75	7.59	14.33	11.56
5240	-11.90	0.80	19.79	8.69	-11.20	0.80	19.80	9.40	7.40	8.71	16.11	12.07
5260	-11.60	0.80	19.79	8.99	-11.50	0.80	19.81	9.11	7.93	8.15	16.07	12.06
5300	-11.70	0.80	19.79	8.89	-11.60	0.80	19.81	9.01	7.74	7.96	15.71	11.96
5320	-11.70	0.80	19.79	8.89	-11.80	0.80	19.81	8.81	7.74	7.60	15.35	11.86
5500	-11.90	0.80	19.79	8.69	-14.30	0.80	19.83	6.33	7.40	4.30	11.69	10.68
5580	-12.50	0.80	19.79	8.09	-14.00	0.80	19.84	6.64	6.44	4.61	11.05	10.44
5700	-12.30	0.80	19.79	8.29	-12.90	0.80	19.83	7.73	6.75	5.93	12.67	11.03
5745	-12.10	0.80	19.78	8.48	-13.20	0.80	19.83	7.43	7.05	5.53	12.58	11.00
5785	-12.10	0.80	19.78	8.48	-13.00	0.80	19.82	7.62	7.05	5.78	12.83	11.08
5825	-12.30	0.80	19.78	8.28	-12.80	0.80	19.82	7.82	6.73	6.05	12.78	11.07

Sample Calculation:

Result (Time average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 22, 2016
Temperature / Humidity : 24deg. C / 43 % RH
Engineer : Masafumi Niwa
Mode : Tx 11ac-20

Tested Frequency [MHz]	Antenna port WA				Antenna port WC				Antenna port WA+WC			
	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Time average)			
									Antenna port		Sum	
								WA [mW]	WC [mW]	WA+WC [mW]	[dBm]	
5180	-12.20	0.80	19.78	8.38	-11.30	0.80	19.80	9.30	6.89	8.51	15.40	11.87
5220	-12.10	0.80	19.79	8.49	-11.20	0.80	19.80	9.40	7.06	8.71	15.77	11.98
5240	-11.70	0.80	19.79	8.89	-11.30	0.80	19.80	9.30	7.74	8.51	16.26	12.11
5260	-11.50	0.80	19.79	9.09	-11.50	0.80	19.81	9.11	8.11	8.15	16.26	12.11
5300	-11.70	0.80	19.79	8.89	-11.50	0.80	19.81	9.11	7.74	8.15	15.89	12.01
5320	-11.60	0.80	19.79	8.99	-11.70	0.80	19.81	8.91	7.93	7.78	15.71	11.96
5500	-11.90	0.80	19.79	8.69	-14.10	0.80	19.83	6.53	7.40	4.50	11.89	10.75
5580	-12.40	0.80	19.79	8.19	-13.90	0.80	19.84	6.74	6.59	4.72	11.31	10.54
5700	-12.20	0.80	19.79	8.39	-12.80	0.80	19.83	7.83	6.90	6.07	12.97	11.13
5745	-12.20	0.80	19.78	8.38	-13.00	0.80	19.83	7.63	6.89	5.79	12.68	11.03
5785	-11.90	0.80	19.78	8.68	-12.90	0.80	19.82	7.72	7.38	5.92	13.29	11.24
5825	-11.80	0.80	19.78	8.78	-12.70	0.80	19.82	7.92	7.55	6.19	13.75	11.38

Sample Calculation:

Result (Time average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 12, 2016
Temperature / Humidity	23deg. C / 48 % RH
Engineer	Takumi Shimada
Mode	Tx 11n-40

Tested Frequency [MHz]	Antenna port WA				Antenna port WC				Antenna port WA+WC			
	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Time average)			
									Antenna port WA [mW]	WC [mW]	Sum WA+WC [mW] [dBm]	
5190	-15.10	0.80	19.73	5.43	-14.80	0.80	19.80	5.80	3.49	3.80	7.29	8.63
5230	-15.00	0.80	19.79	5.59	-14.80	0.80	19.80	5.80	3.62	3.80	7.42	8.71
5270	-14.70	0.80	19.79	5.89	-15.00	0.80	19.81	5.61	3.88	3.64	7.52	8.76
5310	-14.80	0.80	19.79	5.79	-14.90	0.80	19.81	5.71	3.79	3.72	7.52	8.76
5510	-15.20	0.80	19.79	5.39	-17.20	0.80	19.83	3.43	3.46	2.20	5.66	7.53
5550	-15.40	0.80	19.79	5.19	-17.10	0.80	19.84	3.54	3.30	2.26	5.56	7.45
5670	-16.00	0.80	19.79	4.59	-16.40	0.80	19.83	4.23	2.88	2.65	5.53	7.42
5755	-15.80	0.80	19.78	4.78	-16.10	0.80	19.82	4.52	3.01	2.83	5.84	7.66
5795	-15.30	0.80	19.78	5.28	-16.40	0.80	19.28	3.68	3.37	2.33	5.71	7.56

Sample Calculation:

Result (Time average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Test place : Ise EMC Lab. No.11 Measurement Room
 Report No. : 11240438H
 Date : April 12, 2016
 Temperature / Humidity : 23deg. C / 48 % RH
 Engineer : Takumi Shimada
 Mode : Tx 11ac-40

Tested Frequency [MHz]	Antenna port WA				Antenna port WC				Antenna port WA+WC			
	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Time average)			
									Antenna port WA [mW]	WC [mW]	Sum WA+WC [mW] [dBm]	
5190	-14.50	0.80	19.73	6.03	-14.60	0.80	19.80	6.00	4.01	3.98	7.99	9.03
5230	-14.50	0.80	19.79	6.09	-14.70	0.80	19.80	5.90	4.06	3.89	7.95	9.01
5270	-14.60	0.80	19.79	5.99	-14.70	0.80	19.81	5.91	3.97	3.90	7.87	8.96
5310	-14.70	0.80	19.79	5.89	-14.80	0.80	19.81	5.81	3.88	3.81	7.69	8.86
5510	-15.30	0.80	19.79	5.29	-17.00	0.80	19.83	3.63	3.38	2.31	5.69	7.55
5550	-15.40	0.80	19.79	5.19	-17.10	0.80	19.84	3.54	3.30	2.26	5.56	7.45
5670	-15.90	0.80	19.79	4.69	-16.20	0.80	19.83	4.43	2.94	2.77	5.72	7.57
5755	-15.70	0.80	19.78	4.88	-16.20	0.80	19.82	4.42	3.08	2.77	5.84	7.67
5795	-15.20	0.80	19.78	5.38	-16.00	0.80	19.28	4.08	3.45	2.56	6.01	7.79

Sample Calculation:

Result (Time average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

Average Output Power
(Reference data for RF Exposure)

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 12, 2016
Temperature / Humidity	23deg. C / 48 % RH
Engineer	Takumi Shimada
Mode	Tx 11ac-80

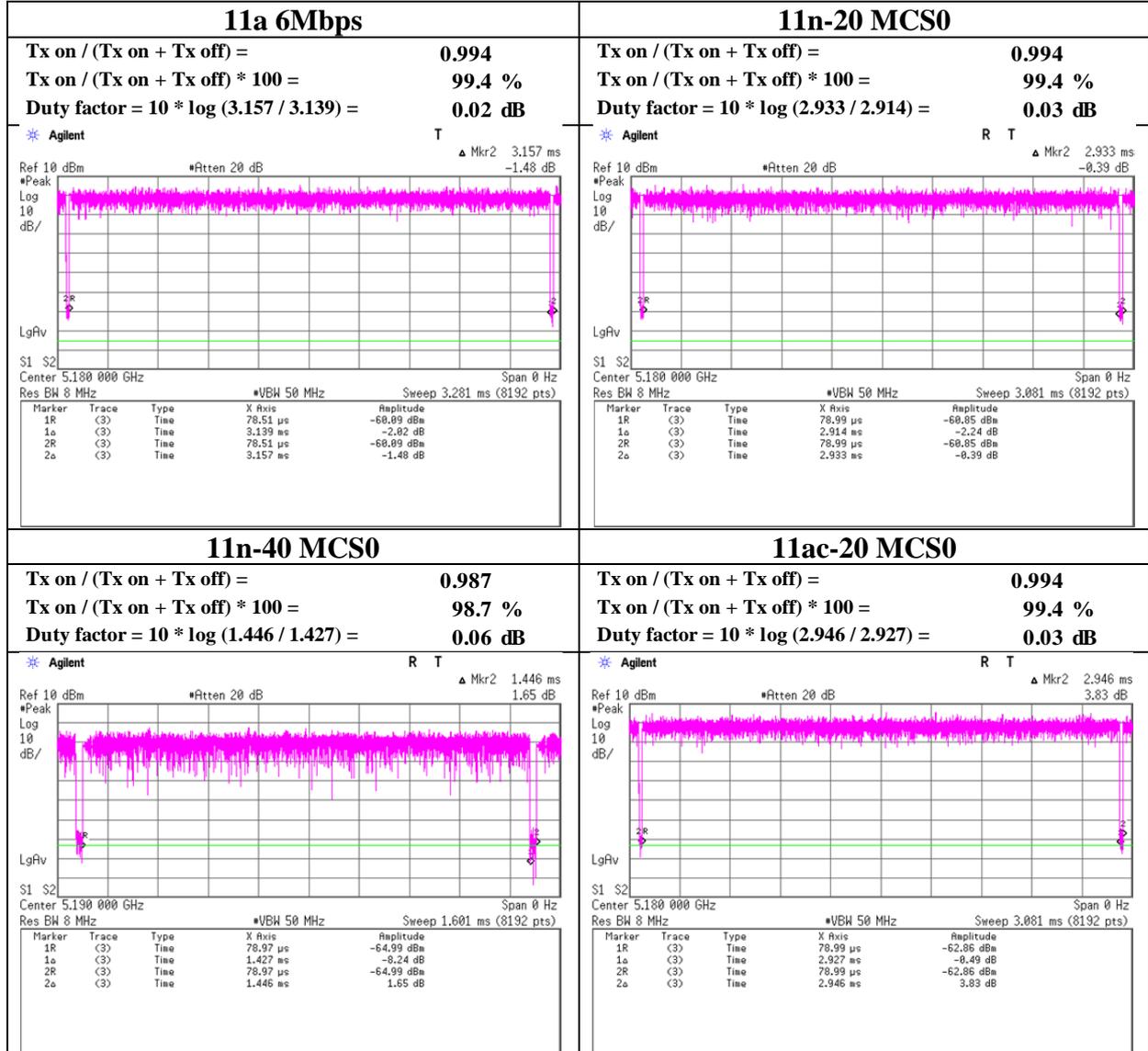
Tested Frequency [MHz]	Antenna port WA				Antenna port WC				Antenna port WA+WC			
	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Time average)			
									Antenna port		Sum	
								WA [mW]	WC [mW]	WA+WC [mW]	WA+WC [dBm]	
5210	-17.10	0.80	19.79	3.49	-16.10	0.80	19.80	4.50	2.23	2.82	5.05	7.03
5290	-16.40	0.80	19.79	4.19	-16.60	0.80	19.81	4.01	2.62	2.52	5.14	7.11
5530	-17.20	0.80	19.79	3.39	-18.80	0.80	19.83	1.83	2.18	1.52	3.71	5.69
5610	-17.60	0.80	19.79	2.99	-18.60	0.80	19.84	2.04	1.99	1.60	3.59	5.55
5775	-17.30	0.80	19.78	3.28	-17.60	0.80	19.82	3.02	2.13	2.00	4.13	6.16

Sample Calculation:

Result (Time average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss

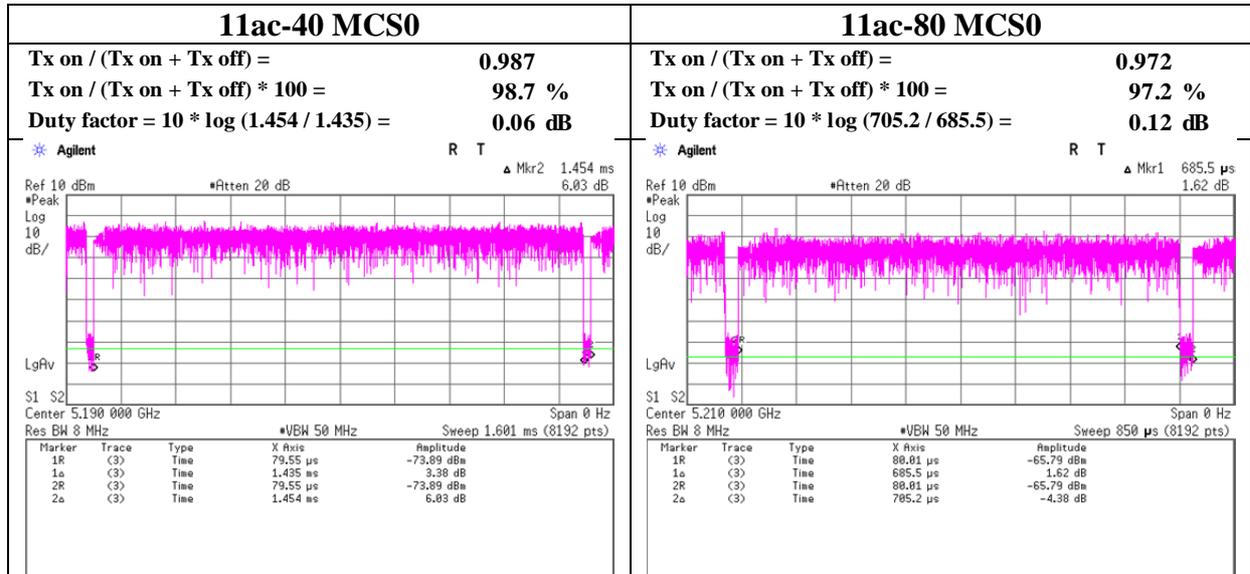
Burst rate confirmation

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx



Burst rate confirmation

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx



Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11a	

Tested Frequency [MHz]	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna port			Result	Limit	Margin	Antenna port			Result	Limit	Margin
	WA	WC	Sum				WA	WC	Sum			
[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	
5180	0.69	0.85	1.54	1.87	9.71	7.84	3.69	4.56	8.25	9.16	17.00	7.84
5220	0.73	0.79	1.52	1.81	9.71	7.90	3.90	4.24	8.14	9.10	17.00	7.90
5240	0.76	0.81	1.57	1.96	9.71	7.75	4.09	4.33	8.41	9.25	17.00	7.75
5260	0.76	0.87	1.63	2.11	9.71	7.60	4.06	4.65	8.71	9.40	17.00	7.60
5300	0.76	0.78	1.53	1.86	9.71	7.85	4.05	4.16	8.22	9.15	17.00	7.85
5320	0.82	0.74	1.55	1.91	9.71	7.80	4.38	3.95	8.32	9.20	17.00	7.80
5500	0.79	0.50	1.29	1.11	9.71	8.60	4.21	2.70	6.91	8.40	17.00	8.60
5580	0.72	0.50	1.21	0.84	9.71	8.87	3.85	2.66	6.50	8.13	17.00	8.87
5700	0.63	0.54	1.17	0.68	9.71	9.03	3.39	2.88	6.27	7.97	17.00	9.03
5745	0.32	0.26	0.58	-2.34	28.71	31.05	1.74	1.38	3.12	4.95	36.00	31.05
5785	0.34	0.25	0.59	-2.28	28.71	30.99	1.80	1.36	3.17	5.01	36.00	30.99
5825	0.35	0.27	0.62	-2.07	28.71	30.78	1.87	1.45	3.33	5.22	36.00	30.78

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port WA					Antenna port WC						
			PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]
5180	0.02	0.00	-14.05	2.25	10.16	7.29	-1.62	5.67	-13.14	2.25	10.16	7.29	-0.71	6.59
5220	0.02	0.00	-13.82	2.26	10.16	7.29	-1.38	5.91	-13.46	2.26	10.16	7.29	-1.02	6.27
5240	0.02	0.00	-13.64	2.27	10.17	7.29	-1.18	6.11	-13.39	2.27	10.17	7.29	-0.93	6.36
5260	0.02	0.00	-13.88	2.72	9.93	7.29	-1.21	6.08	-13.28	2.72	9.93	7.29	-0.61	6.68
5300	0.02	0.00	-13.89	2.73	9.93	7.29	-1.21	6.08	-13.78	2.73	9.93	7.29	-1.10	6.19
5320	0.02	0.00	-13.57	2.74	9.93	7.29	-0.88	6.41	-14.02	2.74	9.93	7.29	-1.33	5.96
5500	0.02	0.00	-13.80	2.78	9.95	7.29	-1.05	6.24	-15.72	2.78	9.95	7.29	-2.97	4.32
5580	0.02	0.00	-14.20	2.79	9.95	7.29	-1.44	5.85	-15.80	2.79	9.95	7.29	-3.04	4.25
5700	0.02	0.00	-14.76	2.80	9.95	7.29	-1.99	5.30	-15.46	2.80	9.95	7.29	-2.69	4.60
5745	0.02	0.27	-17.94	2.81	9.95	7.29	-4.89	2.40	-18.93	2.81	9.95	7.29	-5.88	1.41
5785	0.02	0.27	-17.78	2.81	9.95	7.29	-4.73	2.56	-18.99	2.81	9.95	7.29	-5.94	1.35
5825	0.02	0.27	-17.61	2.81	9.95	7.29	-4.56	2.73	-18.72	2.81	9.95	7.29	-5.67	1.62

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

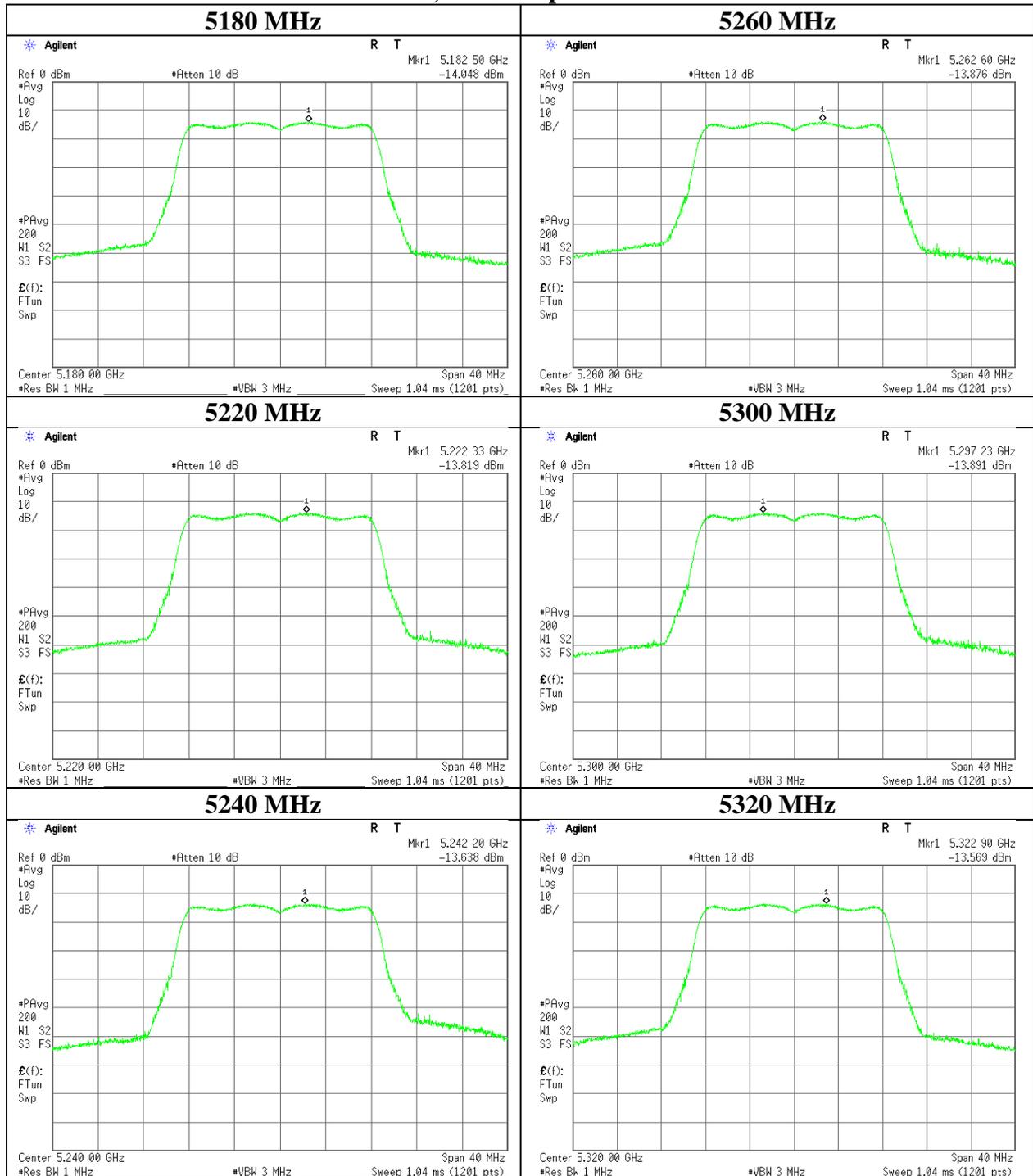
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The conducted PSD limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11a	

11a, Antenna port WA



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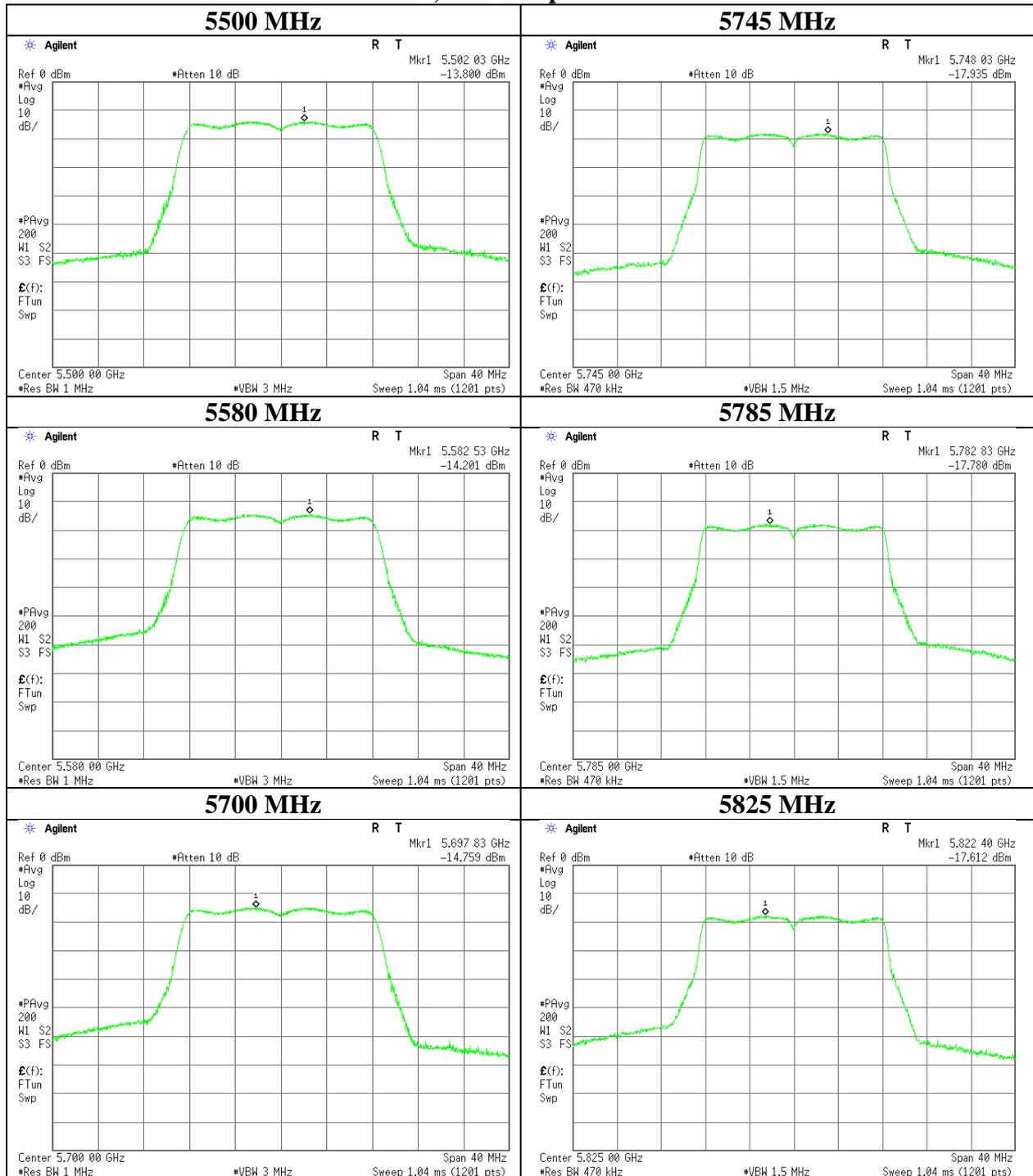
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11a	

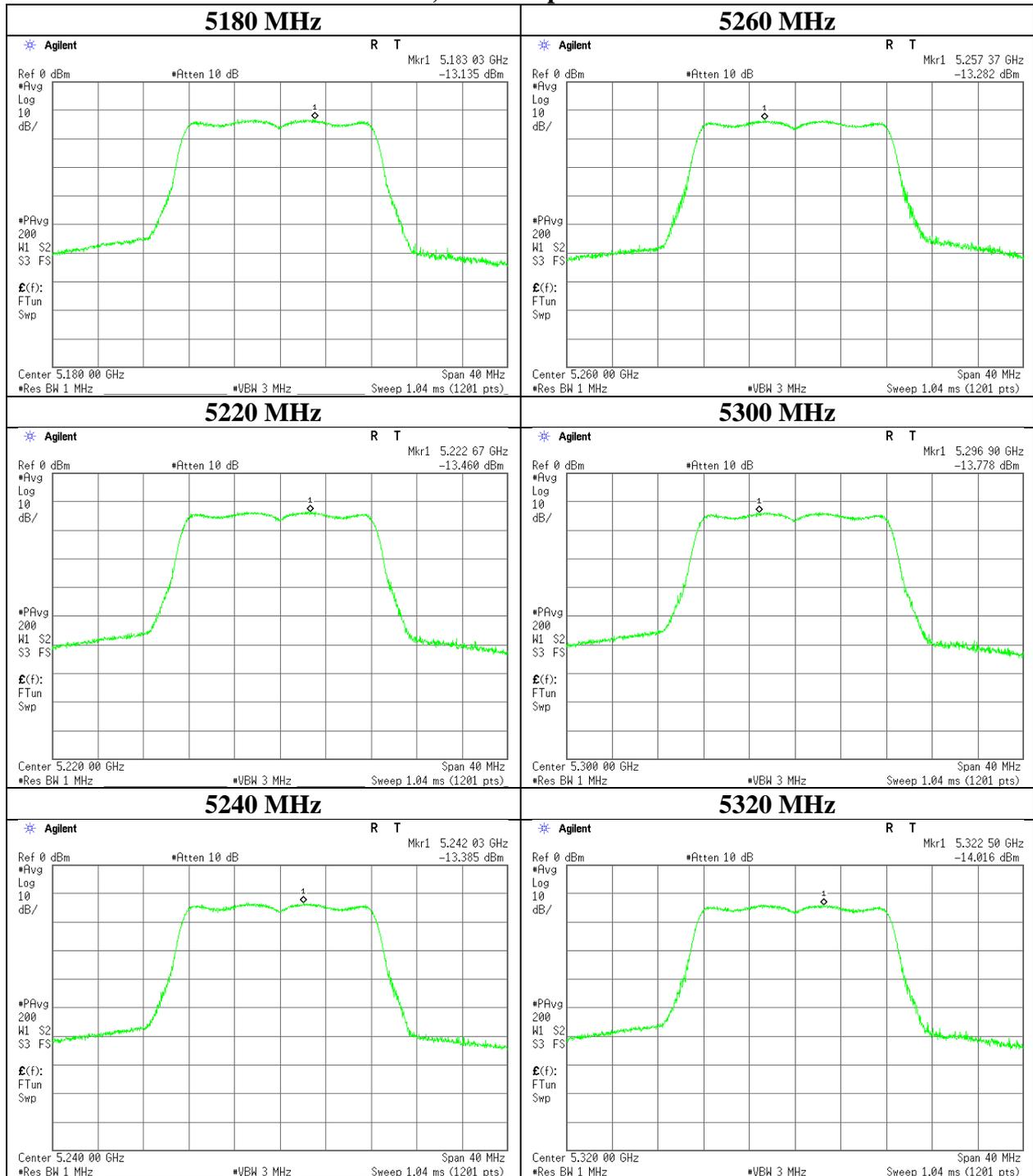
11a, Antenna port WA



Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11a	

11a, Antenna port WC



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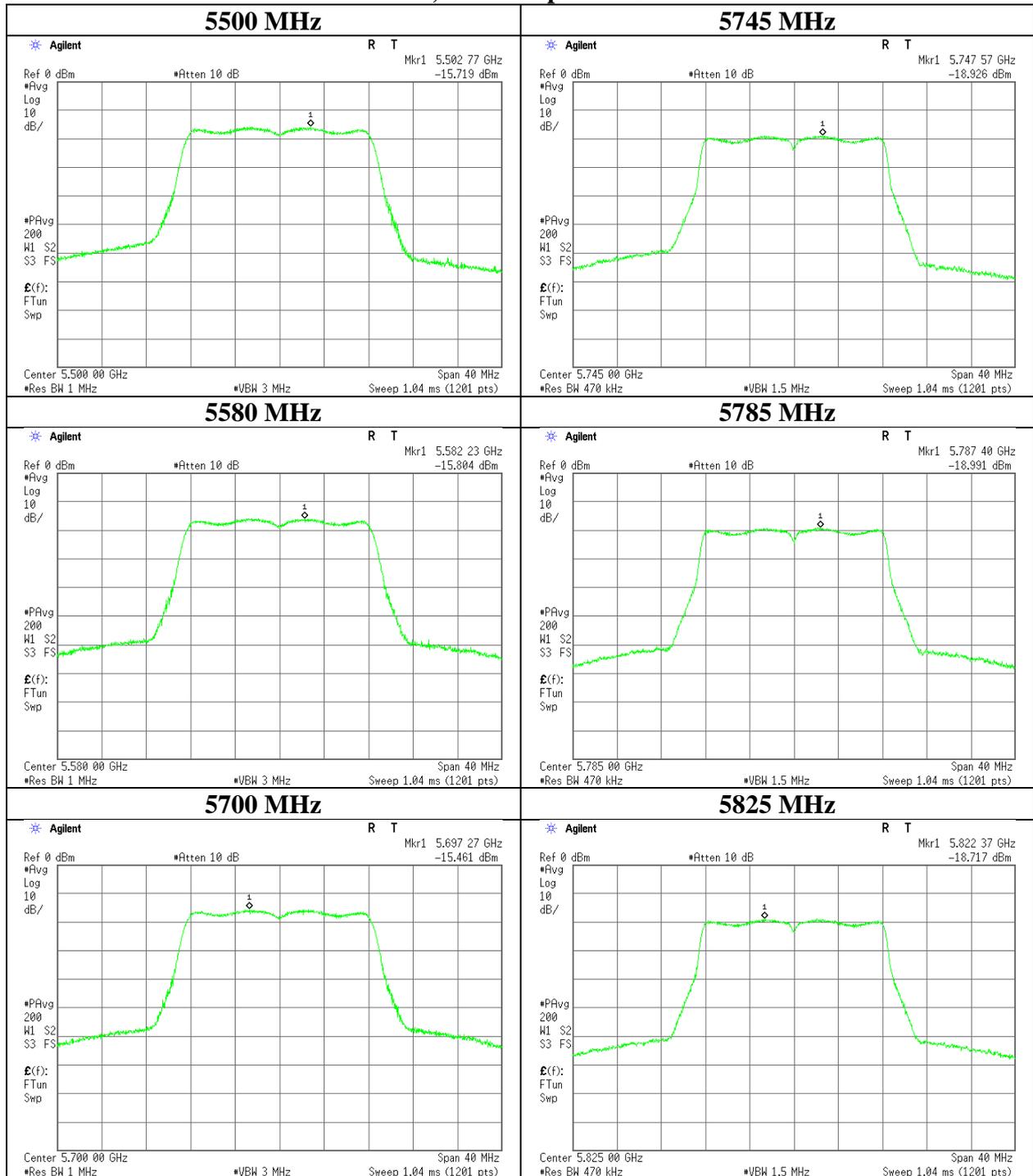
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11a	

11a, Antenna port WC



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Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11n-20	

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna port			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	Antenna port			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
	WA [mW/MHz]	WC [mW/MHz]	Sum [mW/MHz]				WA [mW/MHz]	WC [mW/MHz]	Sum [mW/MHz]			
5180	0.65	0.75	1.40	1.46	9.71	8.25	3.50	3.99	7.50	8.75	17.00	8.25
5220	0.72	0.79	1.50	1.77	9.71	7.94	3.85	4.22	8.06	9.06	17.00	7.94
5240	0.76	0.77	1.54	1.86	9.71	7.85	4.10	4.13	8.23	9.15	17.00	7.85
5260	0.73	0.74	1.46	1.65	9.71	8.06	3.90	3.94	7.84	8.94	17.00	8.06
5300	0.73	0.79	1.52	1.82	9.71	7.89	3.90	4.25	8.15	9.11	17.00	7.89
5320	0.75	0.74	1.49	1.72	9.71	7.99	4.00	3.97	7.97	9.01	17.00	7.99
5500	0.74	0.45	1.19	0.77	9.71	8.94	3.98	2.41	6.39	8.06	17.00	8.94
5580	0.64	0.47	1.11	0.45	9.71	9.26	3.42	2.52	5.94	7.74	17.00	9.26
5700	0.60	0.52	1.11	0.47	9.71	9.24	3.20	2.77	5.97	7.76	17.00	9.24
5745	0.31	0.23	0.53	-2.72	28.71	31.43	1.64	1.22	2.86	4.57	36.00	31.43
5785	0.30	0.22	0.52	-2.86	28.71	31.57	1.60	1.18	2.77	4.43	36.00	31.57
5825	0.33	0.24	0.57	-2.45	28.71	31.16	1.75	1.29	3.05	4.84	36.00	31.16

Tested Frequency [MHz]	Antenna port WA						Antenna port WC							
	Duty Factor [dB]	RBW Correction Factor [dB]	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.
			[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5180	0.03	0.00	-14.29	2.25	10.16	7.29	-1.85	5.44	-13.72	2.25	10.16	7.29	-1.28	6.01
5220	0.03	0.00	-13.89	2.26	10.16	7.29	-1.44	5.85	-13.49	2.26	10.16	7.29	-1.04	6.25
5240	0.03	0.00	-13.64	2.27	10.17	7.29	-1.17	6.12	-13.60	2.27	10.17	7.29	-1.13	6.16
5260	0.03	0.00	-14.06	2.72	9.93	7.29	-1.38	5.91	-14.01	2.72	9.93	7.29	-1.33	5.96
5300	0.03	0.00	-14.07	2.73	9.93	7.29	-1.38	5.91	-13.70	2.73	9.93	7.29	-1.01	6.28
5320	0.03	0.00	-13.97	2.74	9.93	7.29	-1.27	6.02	-14.01	2.74	9.93	7.29	-1.31	5.98
5500	0.03	0.00	-14.05	2.78	9.95	7.29	-1.29	6.00	-16.23	2.78	9.95	7.29	-3.47	3.82
5580	0.03	0.00	-14.72	2.79	9.95	7.29	-1.95	5.34	-16.04	2.79	9.95	7.29	-3.27	4.02
5700	0.03	0.00	-15.03	2.80	9.95	7.29	-2.25	5.05	-15.65	2.80	9.95	7.29	-2.87	4.43
5745	0.03	0.27	-18.20	2.81	9.95	7.29	-5.14	2.15	-19.48	2.81	9.95	7.29	-6.42	0.87
5785	0.03	0.27	-18.32	2.81	9.95	7.29	-5.26	2.03	-19.64	2.81	9.95	7.29	-6.58	0.71
5825	0.03	0.27	-17.91	2.81	9.95	7.29	-4.85	2.44	-19.23	2.81	9.95	7.29	-6.17	1.12

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

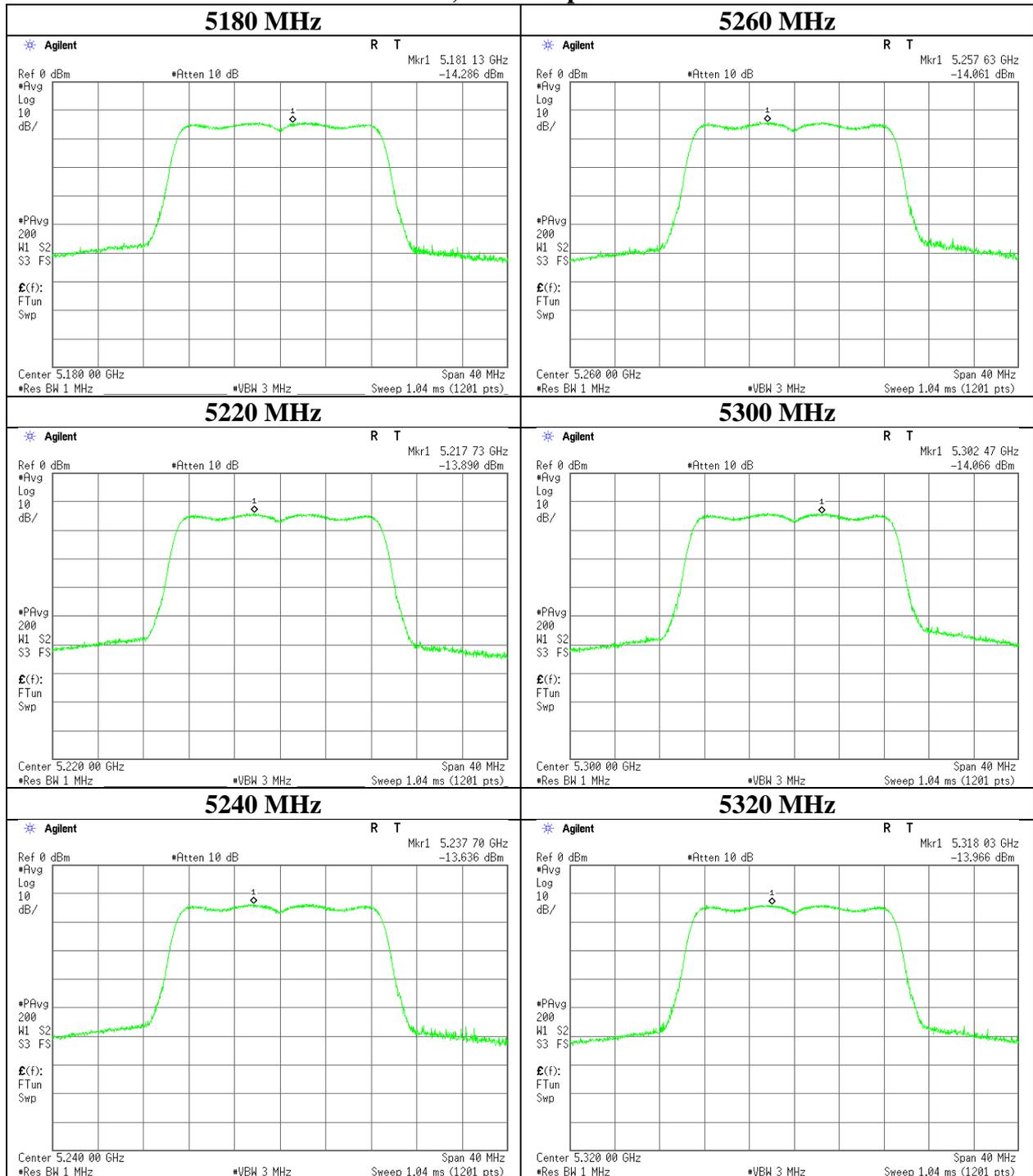
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The conducted PSD limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11n-20	

11n-20, Antenna port WA



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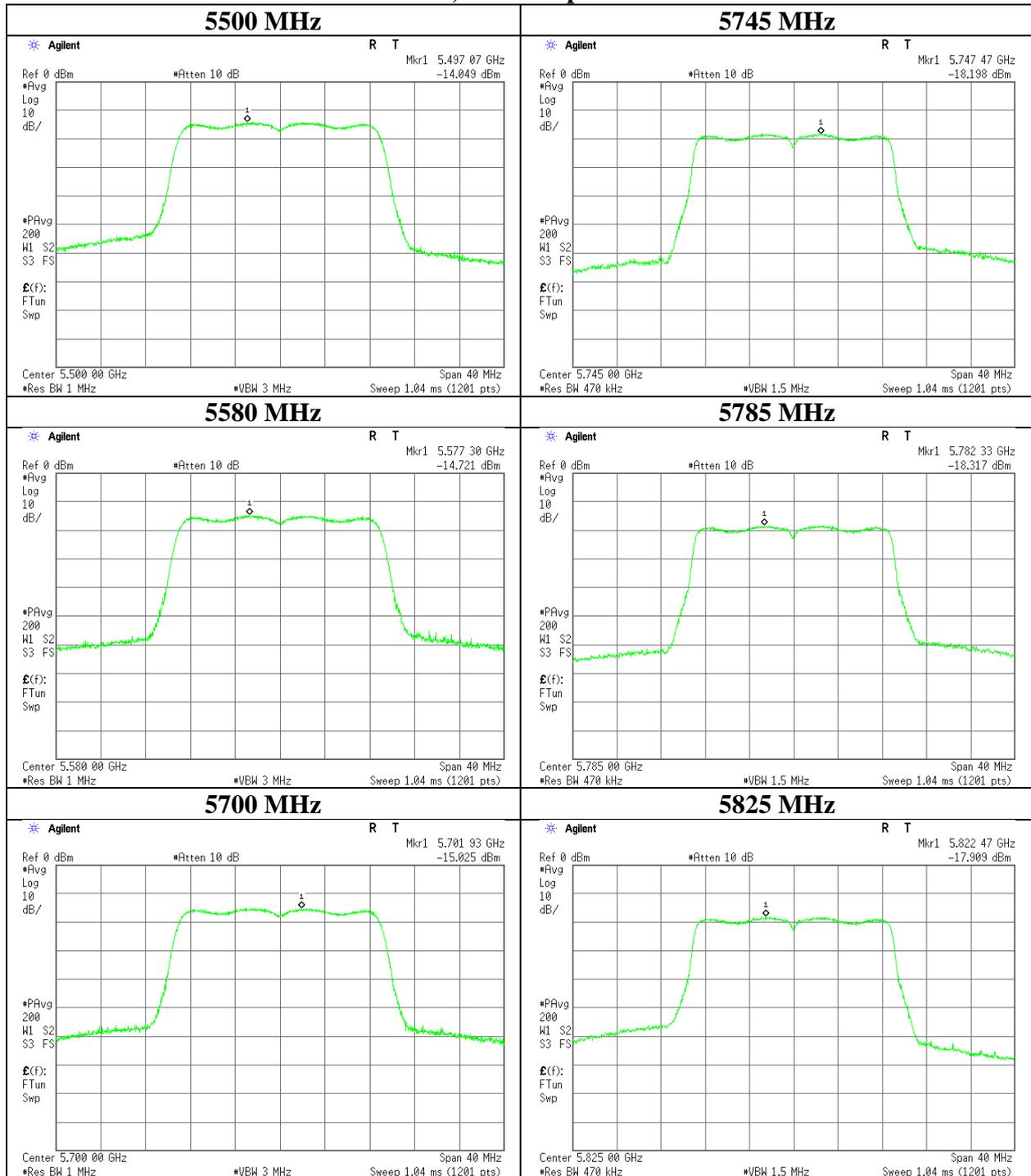
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11n-20	

11n-20, Antenna port WA



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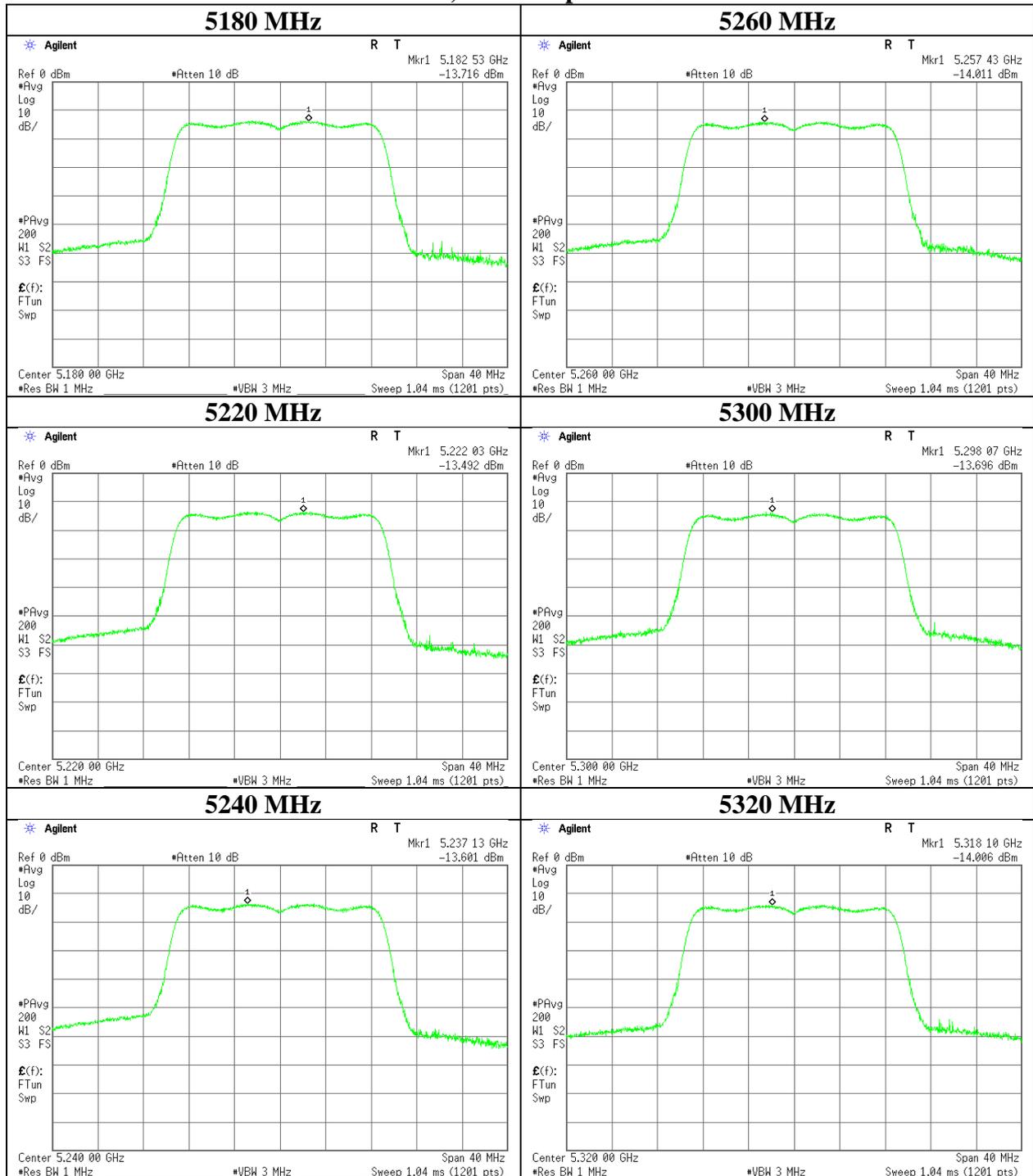
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11n-20	

11n-20, Antenna port WC



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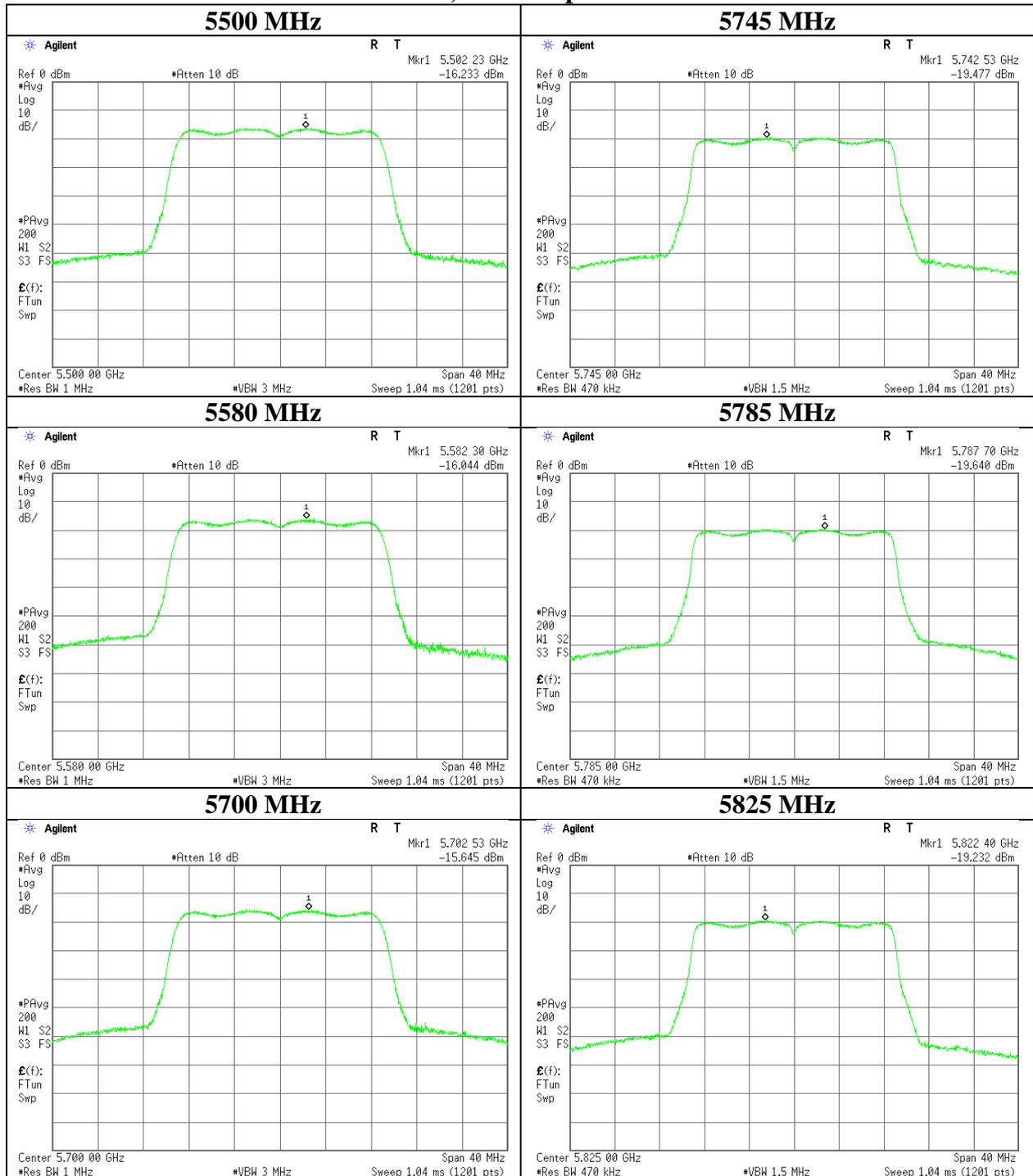
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Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11n-20	

11n-20, Antenna port WC



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Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11ac-20	

Antenna port WA+WC Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna port			Result	Limit	Margin	Antenna port			Result	Limit	Margin
	WA	WC	Sum				WA	WC	Sum			
[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	
5180	0.70	0.82	1.52	1.82	9.71	7.89	3.75	4.39	8.14	9.11	17.00	7.89
5220	0.71	0.77	1.48	1.70	9.71	8.01	3.79	4.14	7.93	8.99	17.00	8.01
5240	0.74	0.82	1.56	1.94	9.71	7.77	3.97	4.42	8.38	9.23	17.00	7.77
5260	0.74	0.82	1.56	1.94	9.71	7.77	3.97	4.40	8.37	9.23	17.00	7.77
5300	0.75	0.77	1.51	1.80	9.71	7.91	4.01	4.11	8.12	9.09	17.00	7.91
5320	0.78	0.76	1.53	1.85	9.71	7.86	4.15	4.06	8.21	9.14	17.00	7.86
5500	0.80	0.48	1.27	1.05	9.71	8.66	4.26	2.57	6.82	8.34	17.00	8.66
5580	0.63	0.50	1.13	0.55	9.71	9.16	3.39	2.69	6.08	7.84	17.00	9.16
5700	0.61	0.49	1.10	0.43	9.71	9.28	3.26	2.65	5.91	7.72	17.00	9.28
5745	0.31	0.22	0.53	-2.78	28.71	31.49	1.63	1.19	2.83	4.51	36.00	31.49
5785	0.33	0.22	0.55	-2.60	28.71	31.31	1.76	1.19	2.95	4.69	36.00	31.31
5825	0.31	0.23	0.54	-2.71	28.71	31.42	1.64	1.23	2.87	4.58	36.00	31.42

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port WA					Antenna port WC						
			PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Result Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]
5180	0.03	0.00	-13.99	2.25	10.16	7.29	-1.55	5.74	-13.31	2.25	10.16	7.29	-0.87	6.43
5220	0.03	0.00	-13.95	2.26	10.16	7.29	-1.50	5.79	-13.57	2.26	10.16	7.29	-1.12	6.17
5240	0.03	0.00	-13.78	2.27	10.17	7.29	-1.31	5.98	-13.31	2.27	10.17	7.29	-0.84	6.45
5260	0.03	0.00	-13.98	2.72	9.93	7.29	-1.30	5.99	-13.54	2.72	9.93	7.29	-0.86	6.44
5300	0.03	0.00	-13.95	2.73	9.93	7.29	-1.26	6.03	-13.84	2.73	9.93	7.29	-1.15	6.14
5320	0.03	0.00	-13.81	2.74	9.93	7.29	-1.11	6.18	-13.91	2.74	9.93	7.29	-1.21	6.08
5500	0.03	0.00	-13.76	2.78	9.95	7.29	-1.00	6.29	-15.96	2.78	9.95	7.29	-3.20	4.09
5580	0.03	0.00	-14.76	2.79	9.95	7.29	-1.99	5.30	-15.76	2.79	9.95	7.29	-2.99	4.30
5700	0.03	0.00	-14.93	2.80	9.95	7.29	-2.15	5.14	-15.84	2.80	9.95	7.29	-3.06	4.23
5745	0.03	0.27	-18.22	2.81	9.95	7.29	-5.16	2.13	-19.58	2.81	9.95	7.29	-6.52	0.77
5785	0.03	0.27	-17.90	2.81	9.95	7.29	-4.85	2.44	-19.59	2.81	9.95	7.29	-6.53	0.76
5825	0.03	0.27	-18.21	2.81	9.95	7.29	-5.15	2.14	-19.44	2.81	9.95	7.29	-6.38	0.91

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

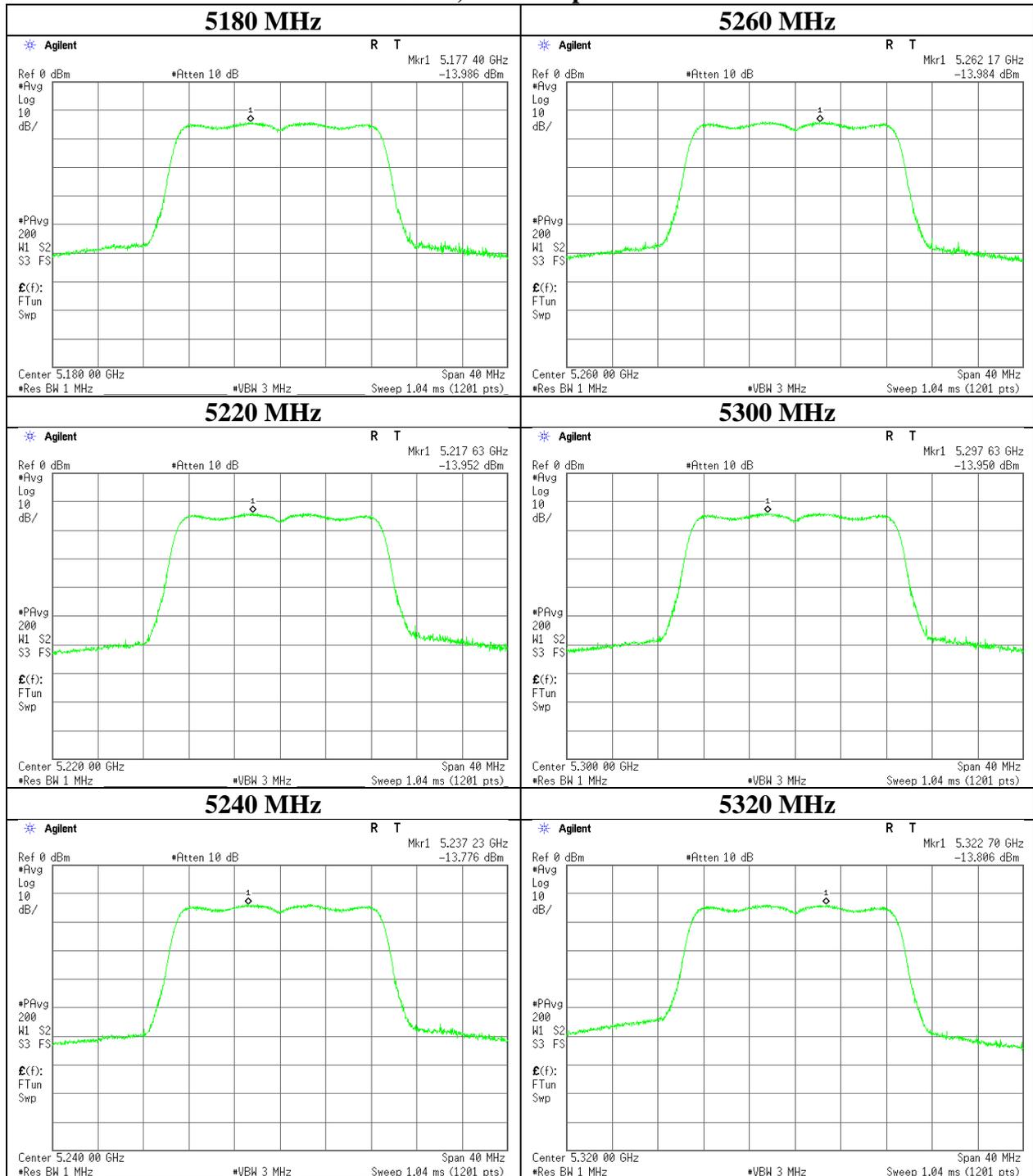
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The conducted PSD limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11ac-20	

11ac-20, Antenna port WA



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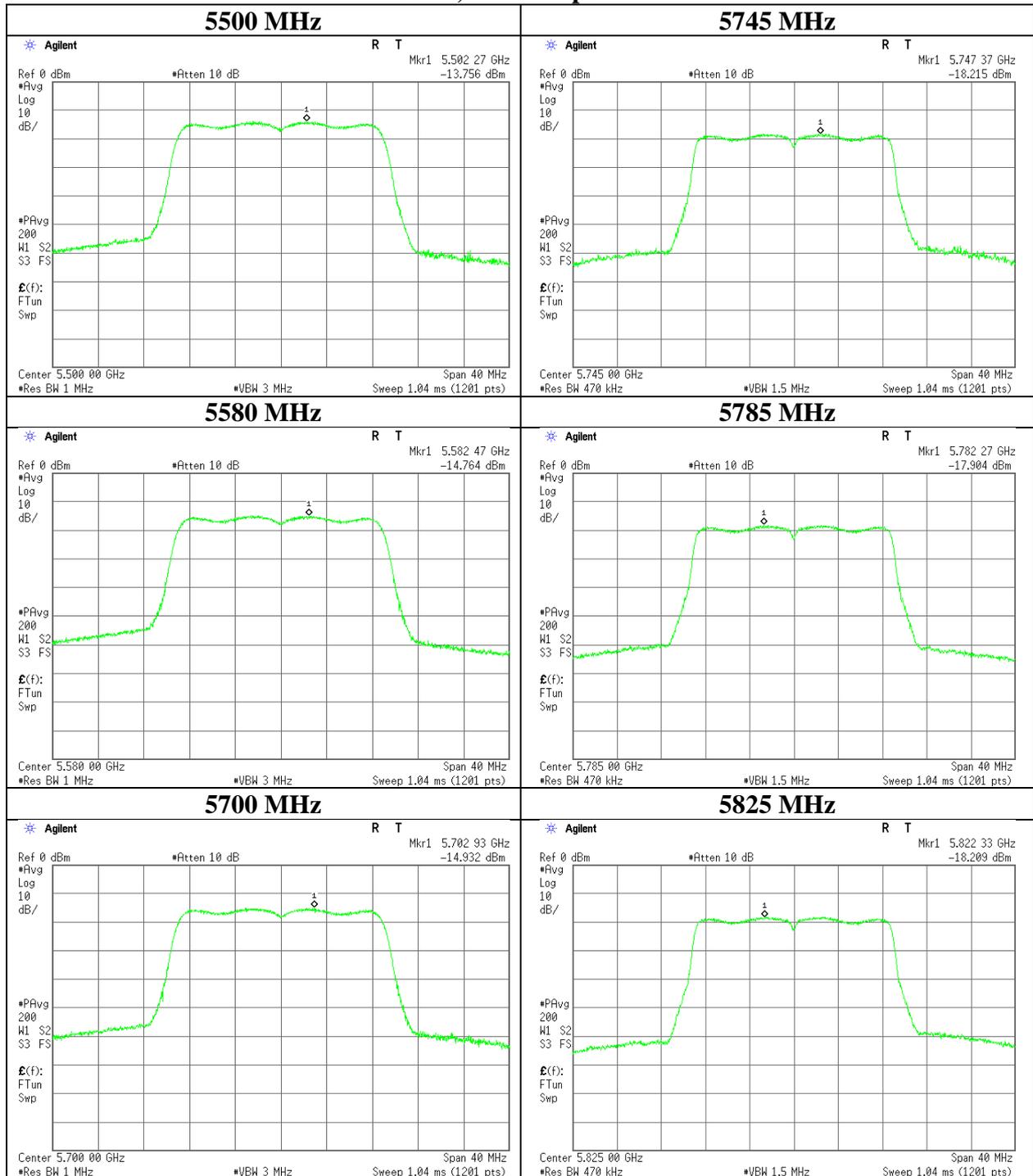
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11ac-20	

11ac-20, Antenna port WA



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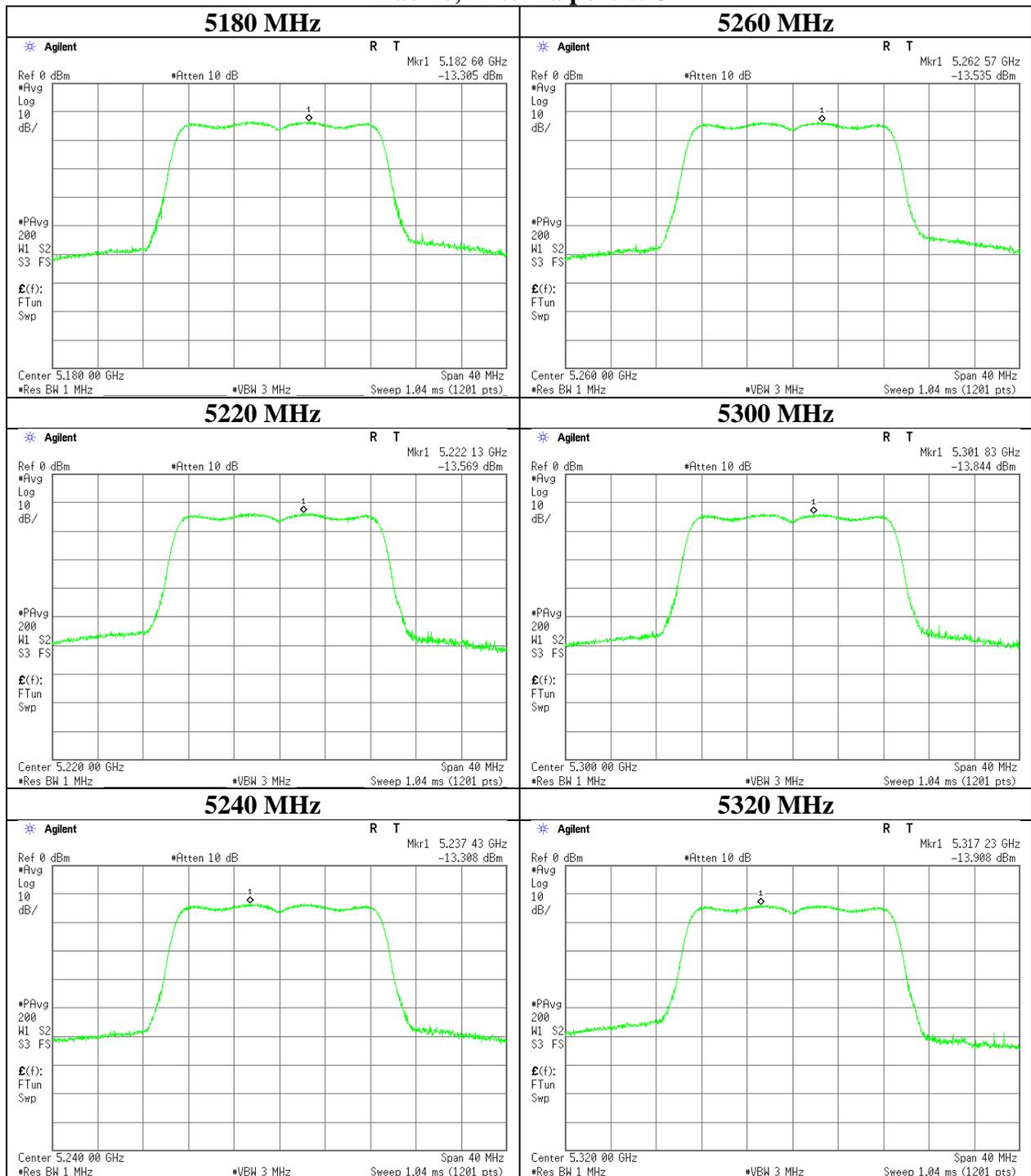
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11ac-20	

11ac-20, Antenna port WC



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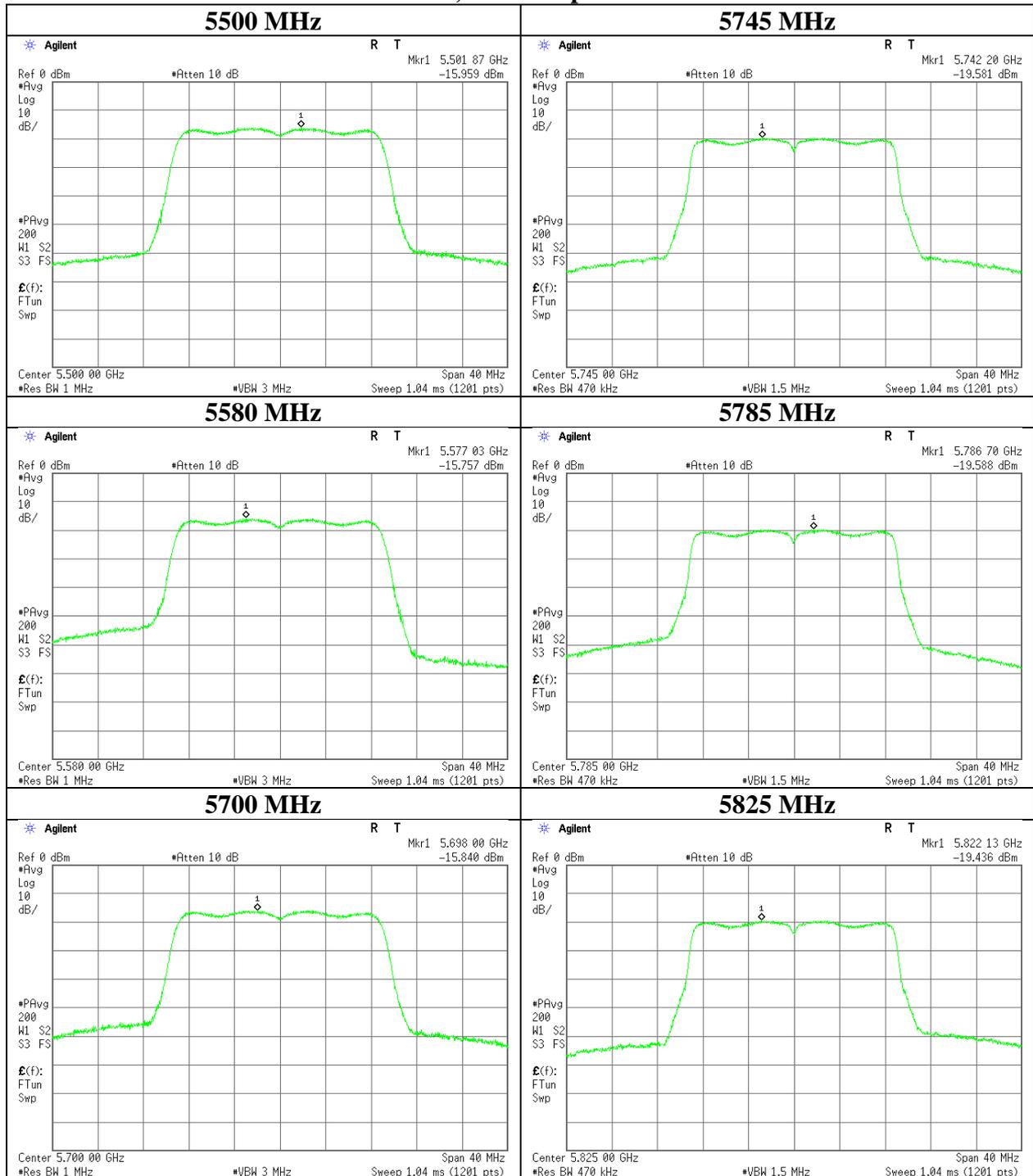
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	11240438H	
Date	April 20, 2016	April 22, 2016
Temperature / Humidity	25deg. C / 51 % RH	24deg. C / 43 % RH
Engineer	Takafumi Noguchi	Masafumi Niwa
Mode	Tx 11ac-20	

11ac-20, Antenna port WC



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Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 18, 2016
Temperature / Humidity : 29deg. C / 26 % RH
Engineer : Takafumi Noguchi
Mode : Tx 11n-40

Antenna port WA+WC Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna port			Result	Limit	Margin	Antenna port			Result	Limit	Margin
	WA	WC	Sum				WA	WC	Sum			
[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	
5190	0.17	0.19	0.35	-4.54	9.71	14.25	0.88	1.00	1.88	2.75	17.00	14.25
5230	0.17	0.17	0.34	-4.71	9.71	14.42	0.89	0.92	1.81	2.58	17.00	14.42
5270	0.19	0.18	0.36	-4.39	9.71	14.10	1.01	0.94	1.95	2.90	17.00	14.10
5310	0.19	0.17	0.36	-4.40	9.71	14.11	1.02	0.93	1.95	2.89	17.00	14.11
5510	0.15	0.11	0.26	-5.86	9.71	15.57	0.79	0.59	1.39	1.43	17.00	15.57
5550	0.16	0.10	0.26	-5.87	9.71	15.58	0.84	0.55	1.39	1.42	17.00	15.58
5670	0.16	0.12	0.28	-5.55	9.71	15.26	0.87	0.63	1.49	1.74	17.00	15.26
5755	0.08	0.07	0.14	-8.49	28.71	37.20	0.40	0.35	0.76	-1.20	36.00	37.20
5795	0.09	0.06	0.15	-8.29	28.71	37.00	0.46	0.33	0.79	-1.00	36.00	37.00

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port WA					Antenna port WC							
			PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	e.i.r.p.	
			[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5190	0.06	0.00	-20.30	2.26	10.16	7.29	-7.82	-0.53	-19.78	2.26	10.16	7.29	-7.30	-0.01	
5230	0.06	0.00	-20.28	2.27	10.16	7.29	-7.79	-0.50	-20.15	2.27	10.16	7.29	-7.66	-0.37	
5270	0.06	0.00	-19.73	2.27	10.17	7.29	-7.23	0.06	-20.07	2.27	10.17	7.29	-7.57	-0.28	
5310	0.06	0.00	-19.74	2.28	10.17	7.29	-7.23	0.07	-20.11	2.28	10.17	7.29	-7.60	-0.31	
5510	0.06	0.00	-20.87	2.33	10.19	7.29	-8.29	-1.00	-22.13	2.33	10.19	7.29	-9.55	-2.26	
5550	0.06	0.00	-20.63	2.33	10.19	7.29	-8.05	-0.76	-22.48	2.33	10.19	7.29	-9.90	-2.61	
5670	0.06	0.00	-20.49	2.34	10.18	7.29	-7.91	-0.62	-21.90	2.34	10.18	7.29	-9.32	-2.03	
5755	0.06	0.27	-24.08	2.35	10.17	7.29	-11.23	-3.94	-24.64	2.35	10.17	7.29	-11.79	-4.50	
5795	0.06	0.27	-23.48	2.35	10.16	7.29	-10.64	-3.35	-24.92	2.35	10.16	7.29	-12.08	-4.79	

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

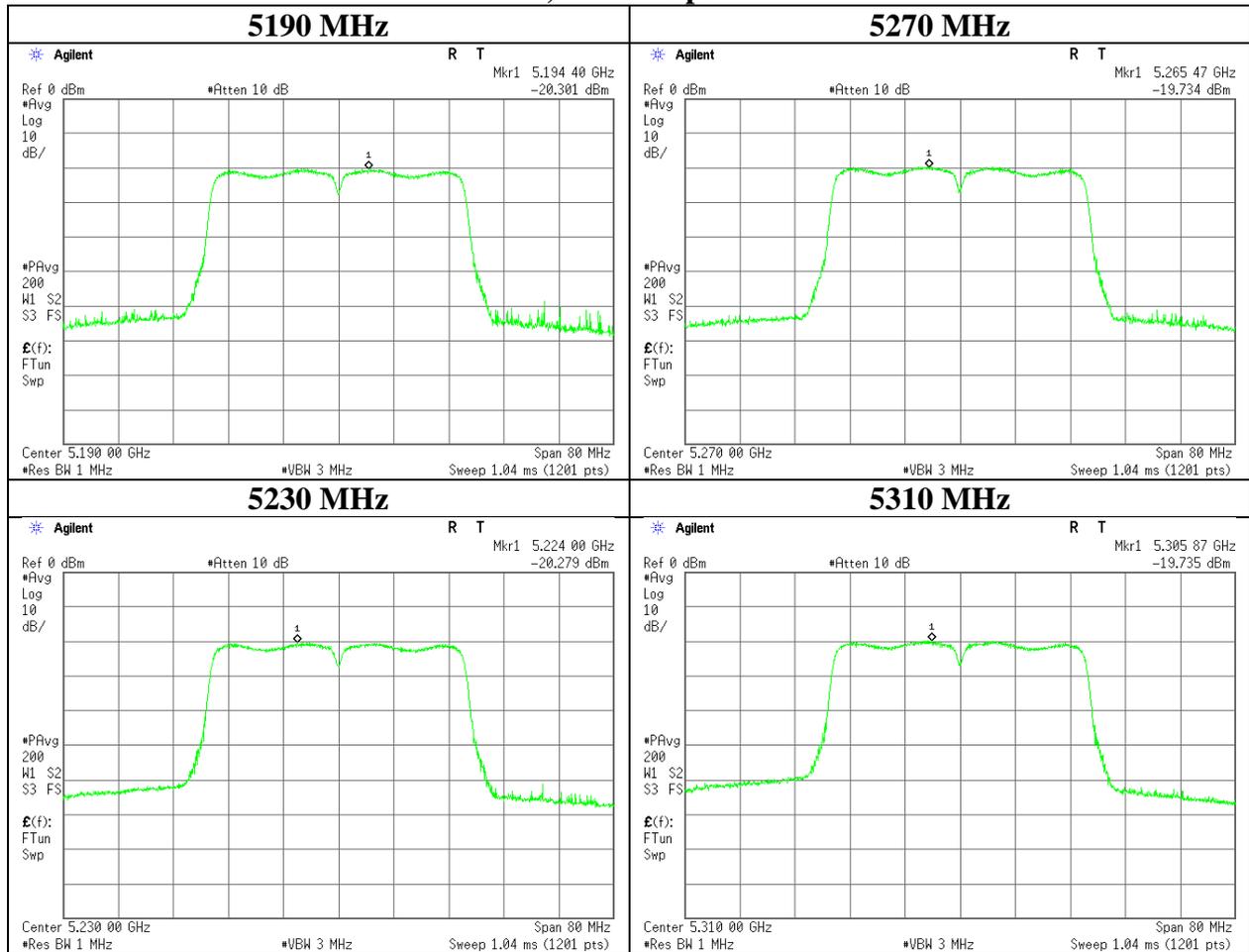
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The conducted PSD limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11n-40

11n-40, Antenna port WA



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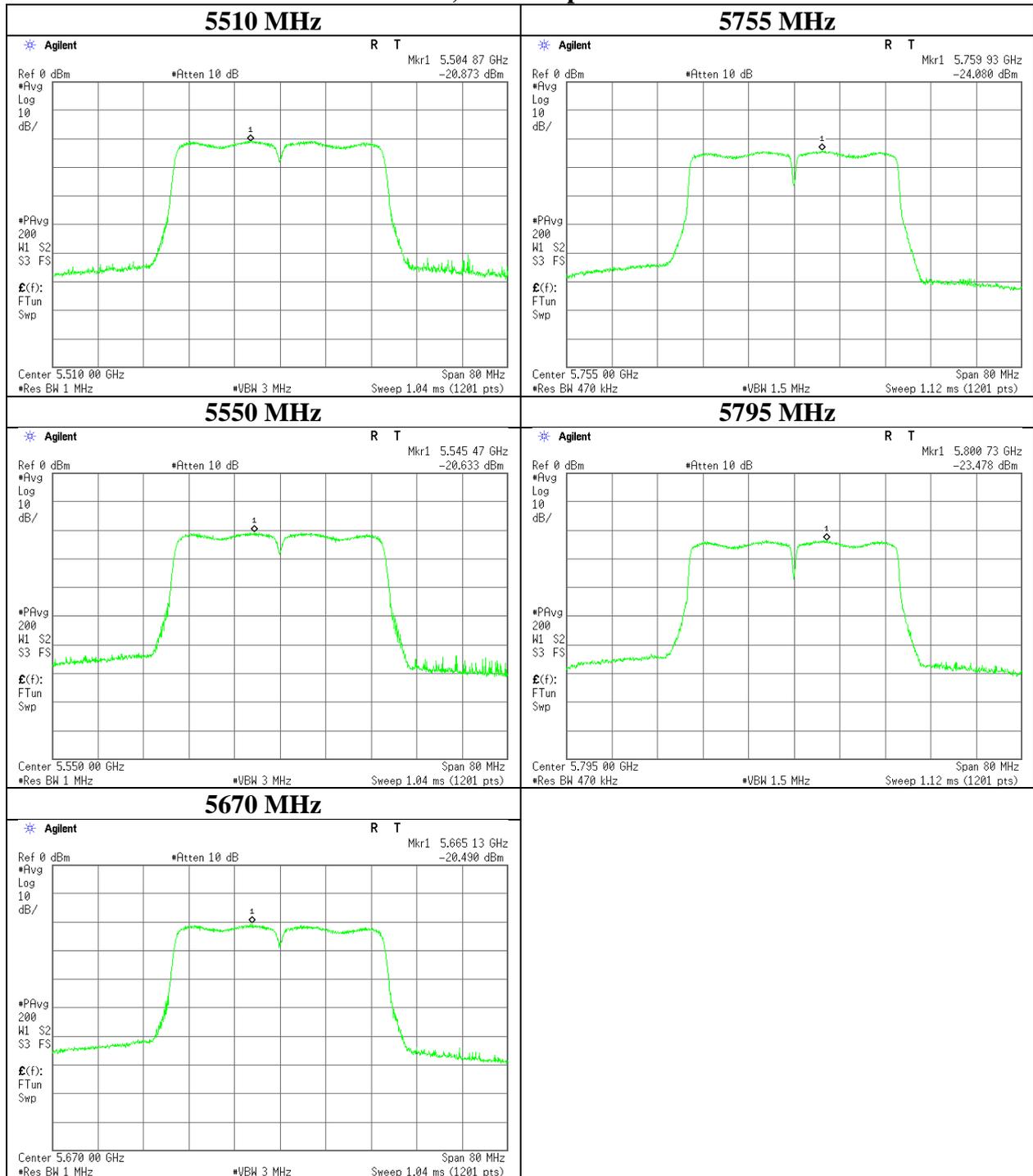
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11n-40

11n-40, Antenna port WA



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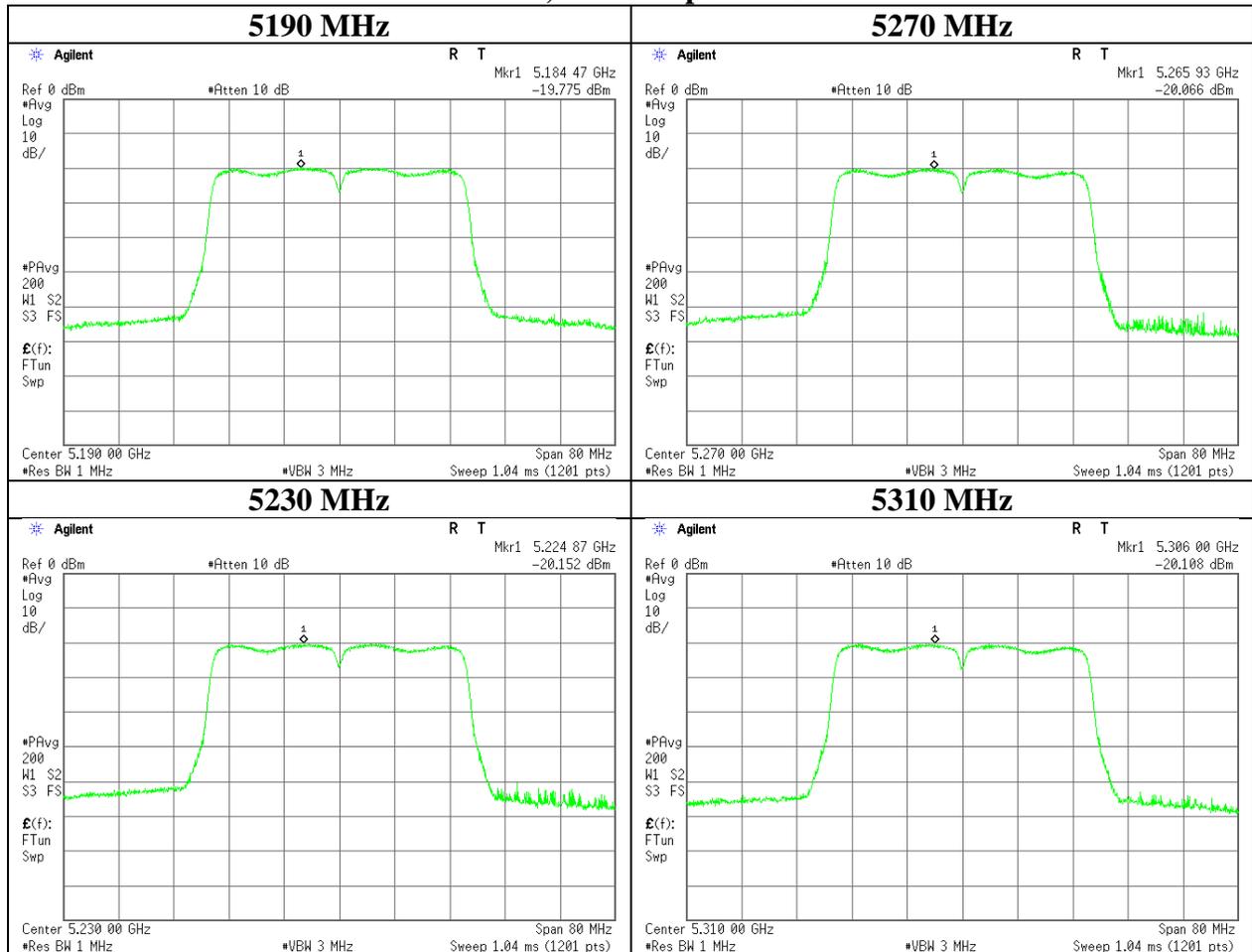
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11n-40

11n-40, Antenna port WC



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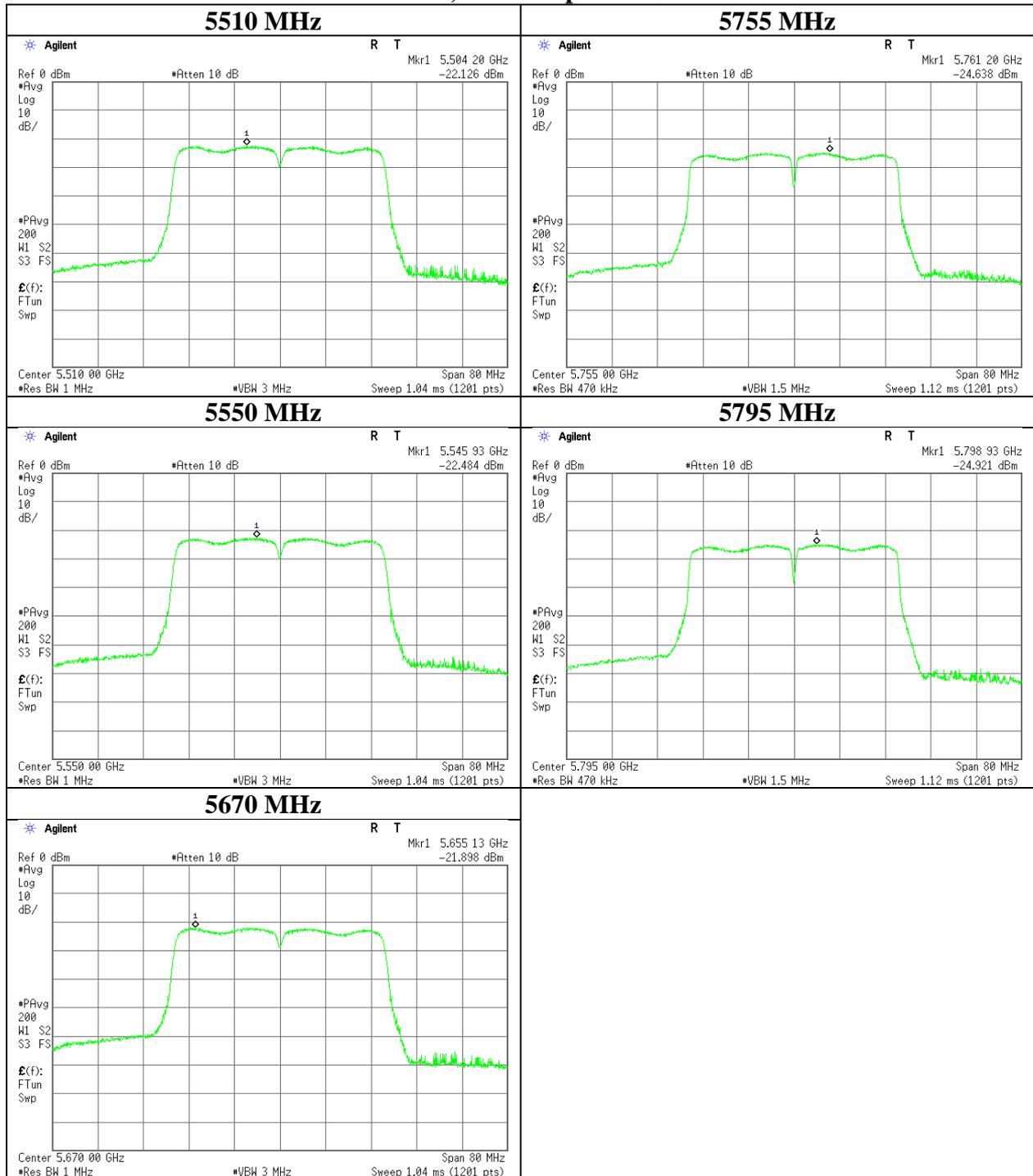
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11n-40

11n-40, Antenna port WC



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Telephone : +81 596 24 8999

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Maximum Power Spectral Density

Test place : Ise EMC Lab. No.11 Measurement Room
 Report No. : 11240438H
 Date : April 18, 2016
 Temperature / Humidity : 29deg. C / 26 % RH
 Engineer : Takafumi Noguchi
 Mode : Tx 11ac-40

Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna port			Result	Limit	Margin	Antenna port			Result	Limit	Margin
	WA	WC	Sum				WA	WC	Sum			
[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	
5190	0.17	0.17	0.34	-4.71	9.71	14.42	0.92	0.89	1.81	2.58	17.00	14.42
5230	0.17	0.18	0.35	-4.59	9.71	14.30	0.90	0.96	1.86	2.70	17.00	14.30
5270	0.18	0.19	0.37	-4.36	9.71	14.07	0.97	0.99	1.96	2.93	17.00	14.07
5310	0.19	0.18	0.37	-4.38	9.71	14.09	1.01	0.94	1.96	2.91	17.00	14.09
5510	0.16	0.10	0.26	-5.83	9.71	15.54	0.84	0.56	1.40	1.46	17.00	15.54
5550	0.15	0.11	0.25	-5.95	9.71	15.66	0.80	0.56	1.36	1.34	17.00	15.66
5670	0.15	0.13	0.28	-5.53	9.71	15.24	0.82	0.68	1.50	1.76	17.00	15.24
5755	0.08	0.06	0.14	-8.58	28.71	37.29	0.41	0.34	0.74	-1.29	36.00	37.29
5795	0.08	0.06	0.15	-8.33	28.71	37.04	0.45	0.33	0.79	-1.04	36.00	37.04

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port WA					Antenna port WC						
			PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result Cond.	PSD Result e.i.r.p.
			[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dB]	[dBi]	[dBm/MHz]
5190	0.06	0.00	-20.11	2.26	10.16	7.29	-7.63	-0.34	-20.28	2.26	10.16	7.29	-7.80	-0.51
5230	0.06	0.00	-20.24	2.27	10.16	7.29	-7.75	-0.46	-19.94	2.27	10.16	7.29	-7.45	-0.16
5270	0.06	0.00	-19.92	2.27	10.17	7.29	-7.42	-0.13	-19.82	2.27	10.17	7.29	-7.32	-0.03
5310	0.06	0.00	-19.74	2.28	10.17	7.29	-7.23	0.06	-20.06	2.28	10.17	7.29	-7.55	-0.26
5510	0.06	0.00	-20.64	2.33	10.19	7.29	-8.06	-0.77	-22.37	2.33	10.19	7.29	-9.79	-2.50
5550	0.06	0.00	-20.84	2.33	10.19	7.29	-8.26	-0.97	-22.37	2.33	10.19	7.29	-9.79	-2.50
5670	0.06	0.00	-20.72	2.34	10.18	7.29	-8.14	-0.85	-21.56	2.34	10.18	7.29	-8.98	-1.69
5755	0.06	0.27	-24.04	2.35	10.17	7.29	-11.19	-3.90	-24.89	2.35	10.17	7.29	-12.04	-4.75
5795	0.06	0.27	-23.58	2.35	10.16	7.29	-10.74	-3.45	-24.88	2.35	10.16	7.29	-12.04	-4.75

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

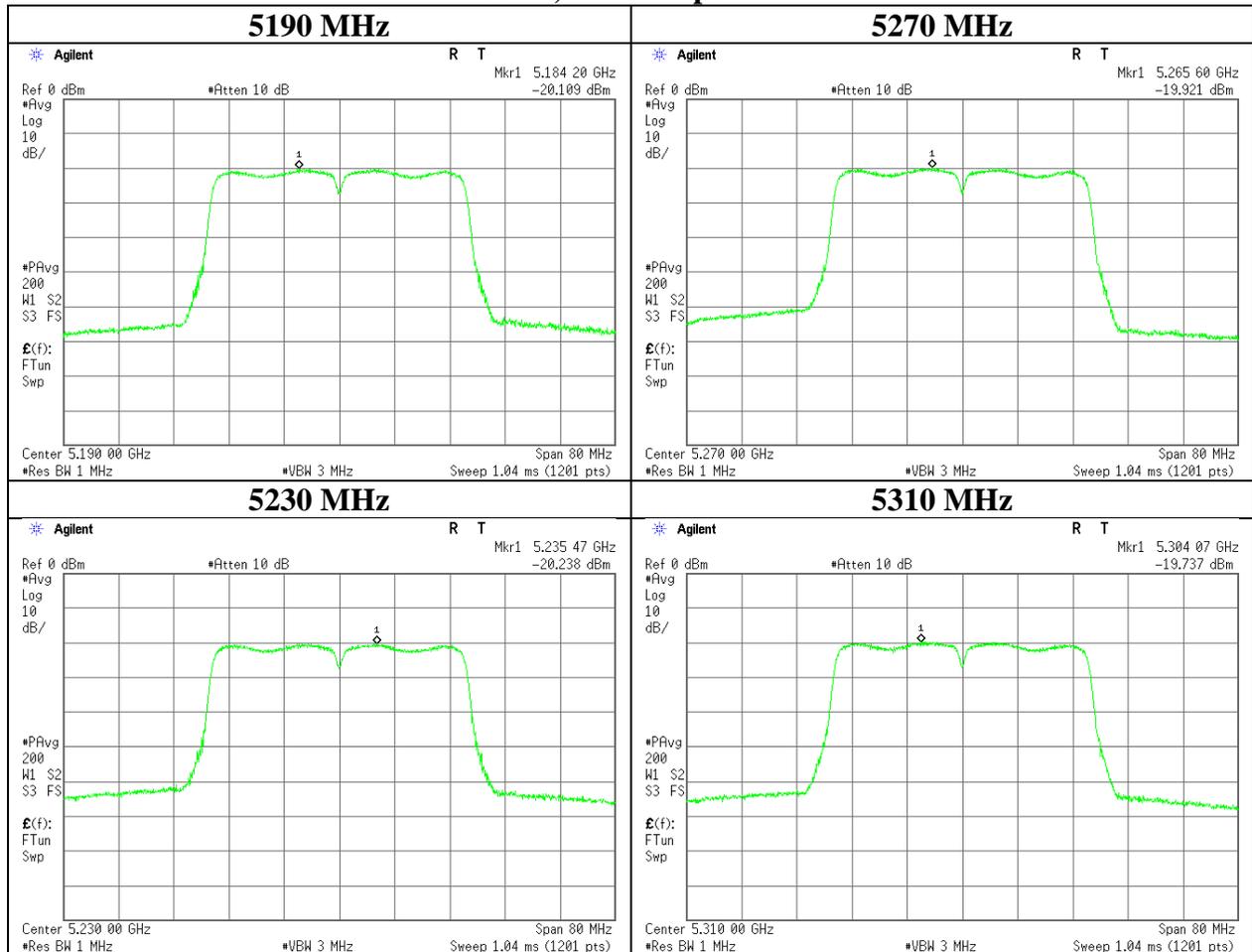
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The conducted PSD limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-40

11ac-40, Antenna port WA



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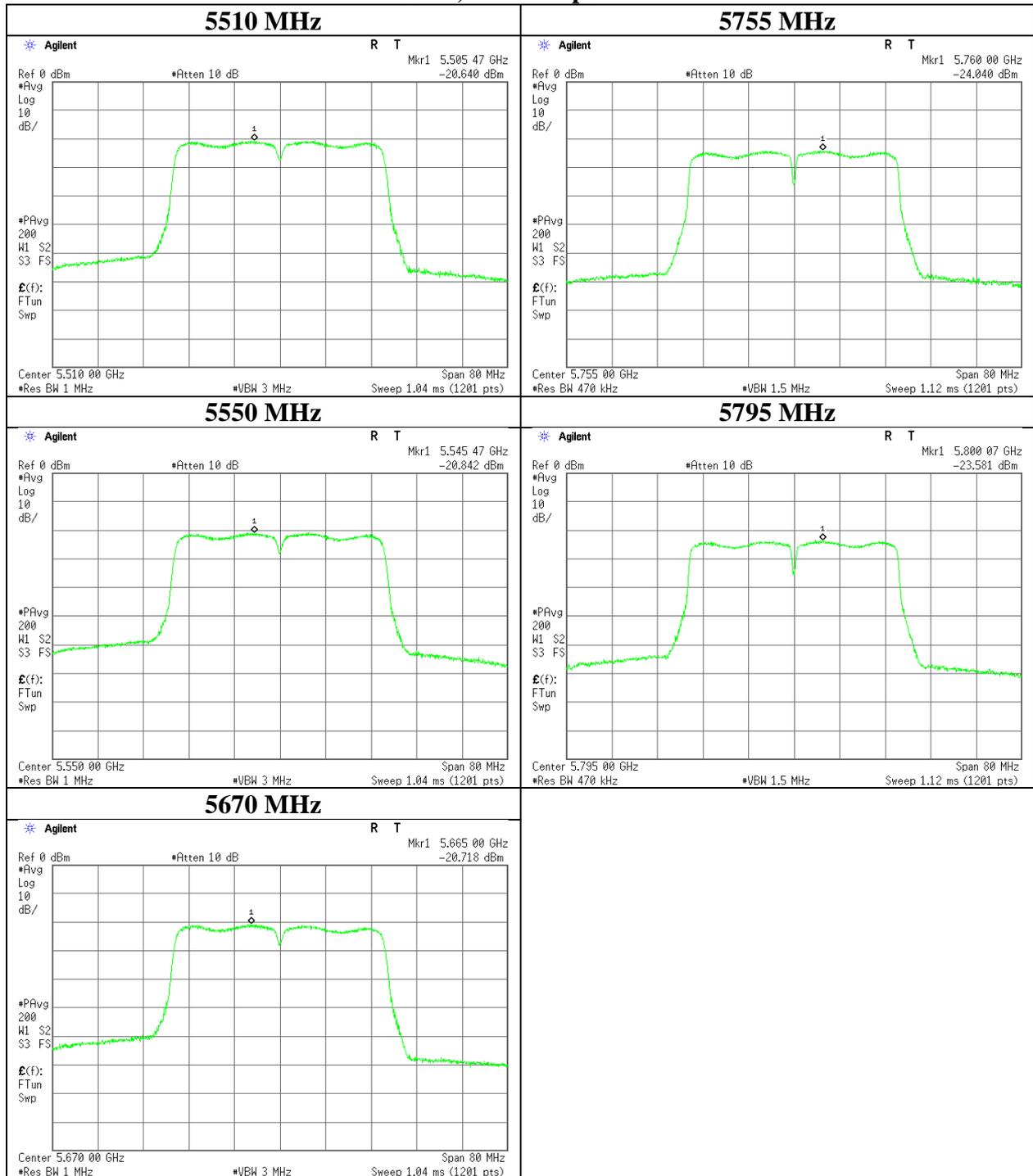
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-40

11ac-40, Antenna port WA



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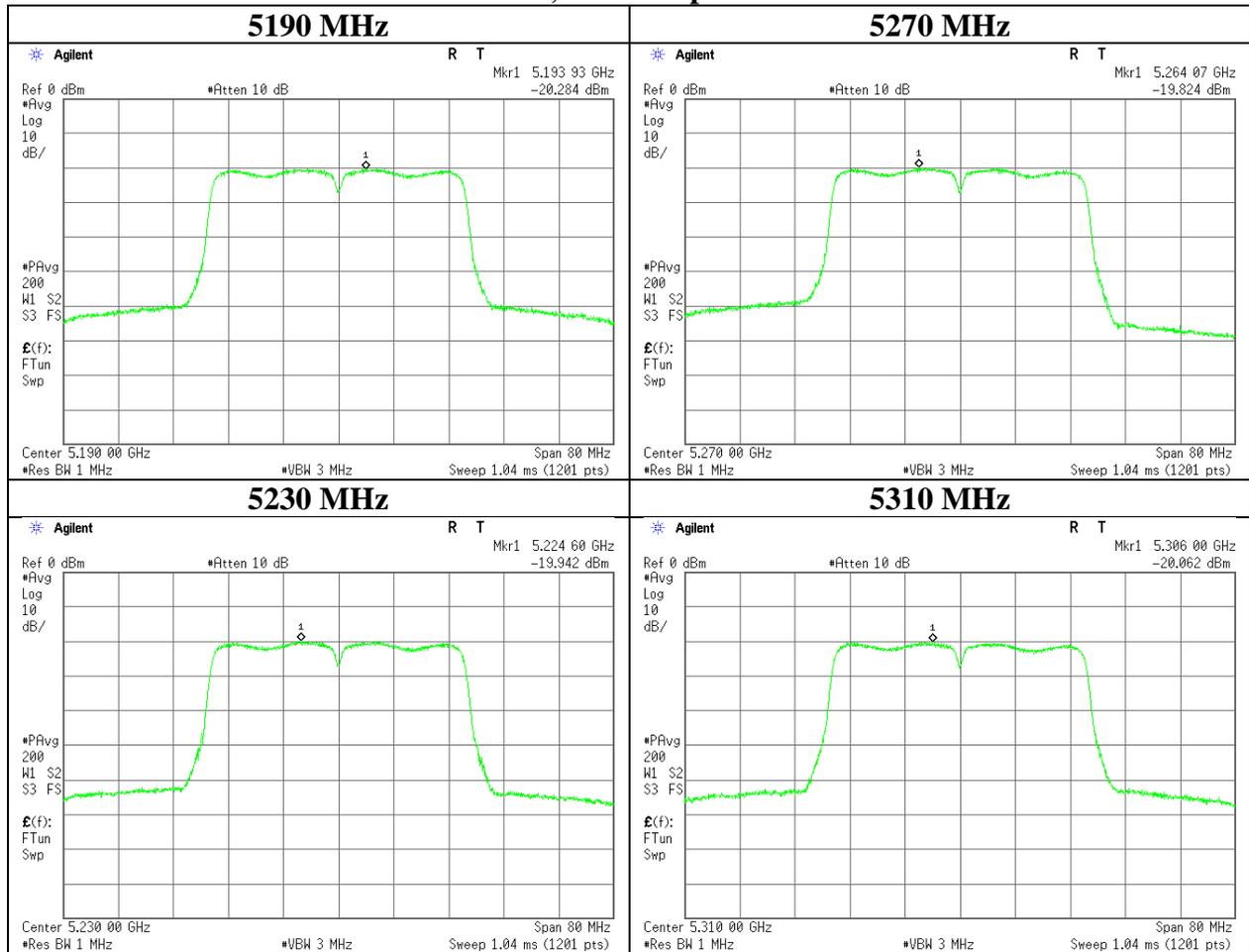
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-40

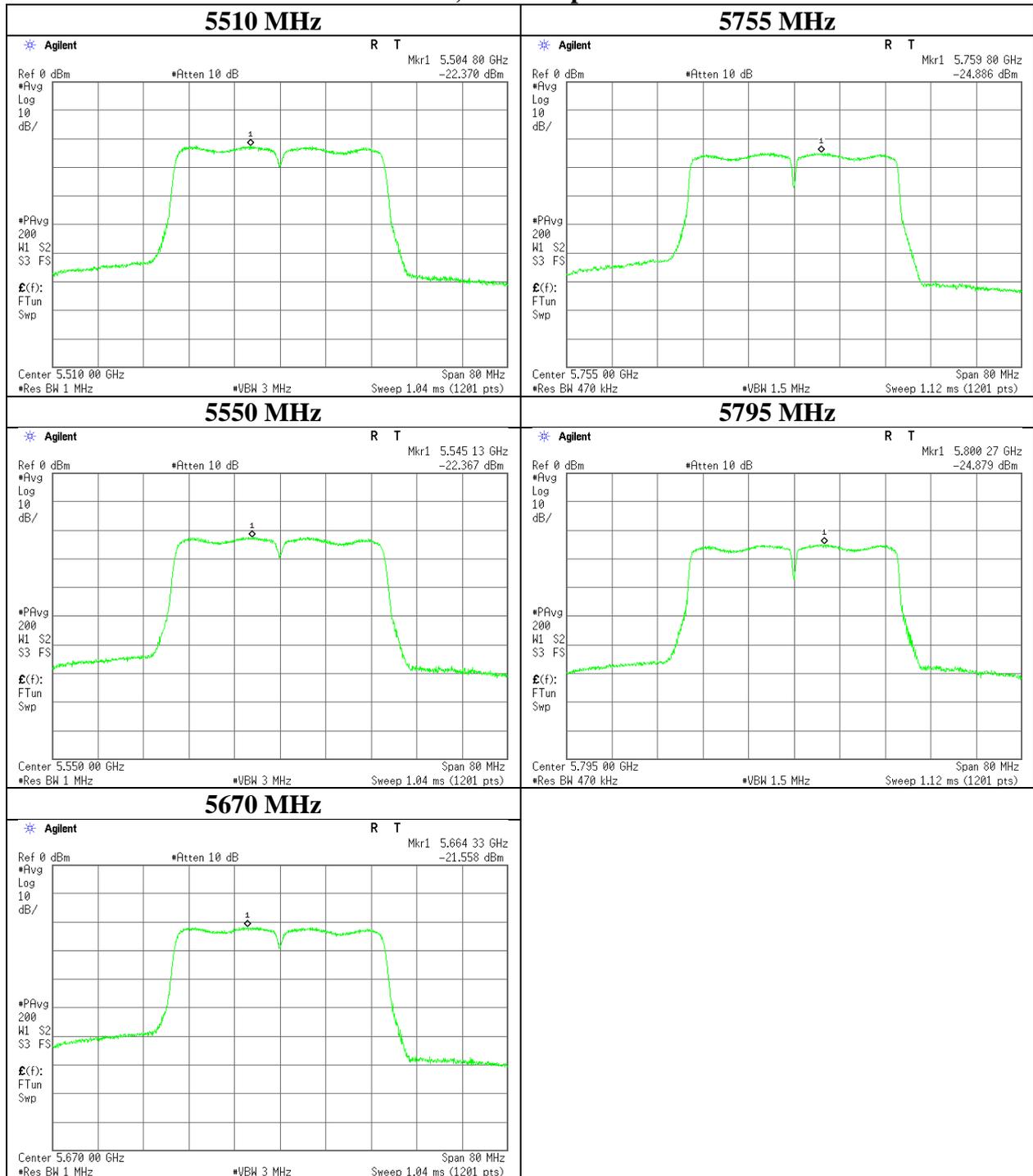
11ac-40, Antenna port WC



Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-40

11ac-40, Antenna port WC



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Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place : Ise EMC Lab. No.11 Measurement Room
Report No. : 11240438H
Date : April 18, 2016
Temperature / Humidity : 29deg. C / 26 % RH
Engineer : Takafumi Noguchi
Mode : Tx 11ac-80

Tested Frequency [MHz]	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna port			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]	Antenna port			Result [dBm/MHz]	Limit [dBm/MHz]	Margin [dB]
	WA [mW/MHz]	WC [mW/MHz]	Sum [mW/MHz]				WA [mW/MHz]	WC [mW/MHz]	Sum [mW/MHz]			
5210	0.05	0.05	0.10	-9.95	9.71	19.66	0.26	0.29	0.54	-2.66	17.00	19.66
5290	0.06	0.06	0.12	-9.06	9.71	18.77	0.32	0.34	0.67	-1.77	17.00	18.77
5530	0.05	0.03	0.08	-10.97	9.71	20.68	0.25	0.18	0.43	-3.68	17.00	20.68
5610	0.05	0.03	0.08	-10.95	9.71	20.66	0.24	0.19	0.43	-3.66	17.00	20.66
5775	0.02	0.02	0.05	-13.25	28.71	41.96	0.12	0.13	0.25	-5.96	36.00	41.96

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port WA					Antenna port WC					PSD Result	
			PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Cond. [dBm/MHz]	PSD e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Cond. [dBm/MHz]	PSD e.i.r.p. [dBm/MHz]
5210	0.12	0.00	-25.74	2.26	10.16	7.29	-13.20	-5.91	-25.26	2.26	10.16	7.29	-12.72	-5.43
5290	0.12	0.00	-24.79	2.28	10.17	7.29	-12.22	-4.93	-24.49	2.28	10.17	7.29	-11.92	-4.63
5530	0.12	0.00	-26.00	2.33	10.19	7.29	-13.36	-6.07	-27.35	2.33	10.19	7.29	-14.71	-7.42
5610	0.12	0.00	-26.05	2.34	10.18	7.29	-13.41	-6.12	-27.24	2.34	10.18	7.29	-14.60	-7.31
5775	0.12	0.27	-29.27	2.35	10.17	7.29	-16.36	-9.07	-29.08	2.35	10.17	7.29	-16.17	-8.88

Sample Calculation:

PSD: Power Spectral Density

The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.

RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)

PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor

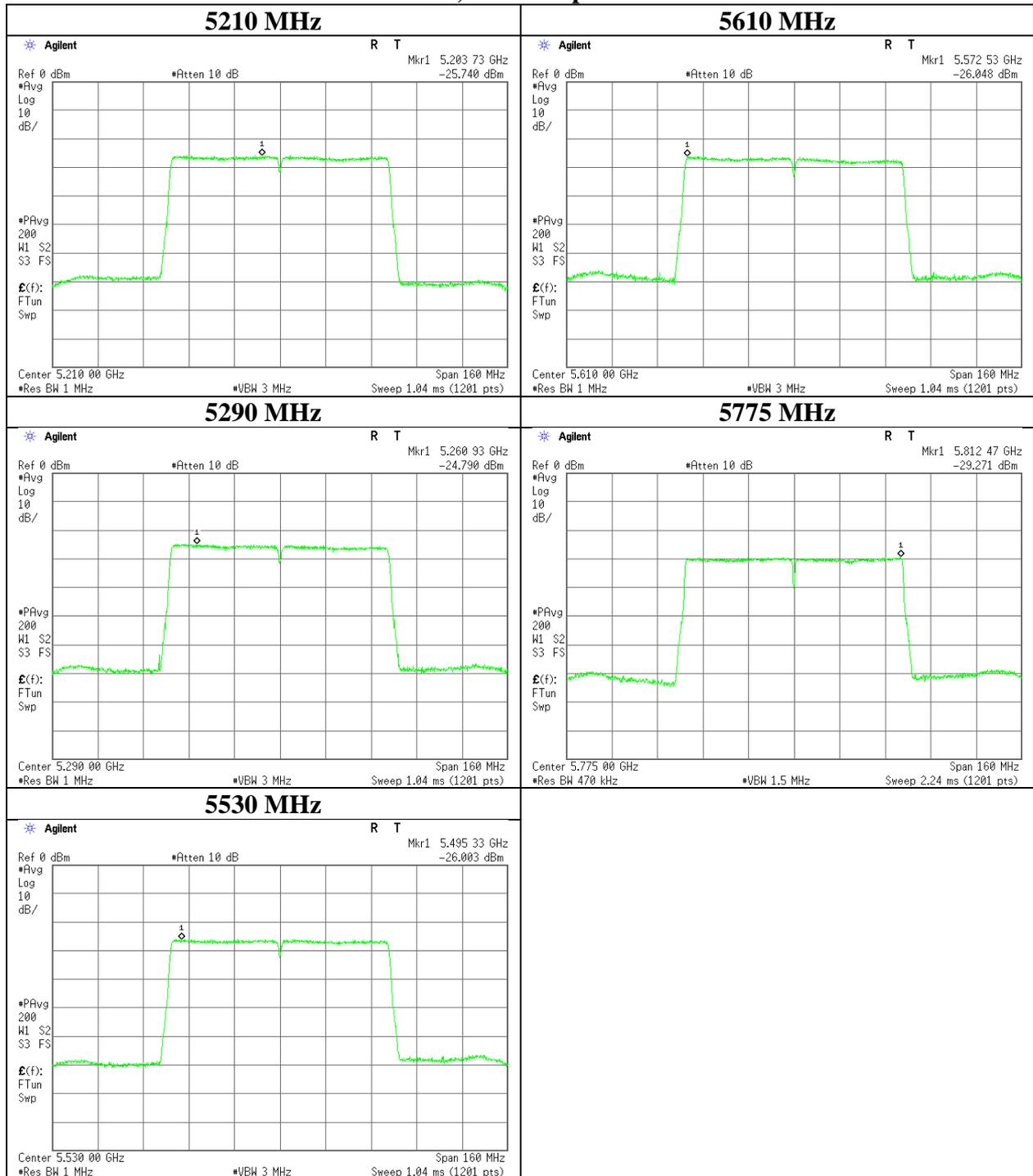
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

The conducted PSD limit was reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. (All frequencies for FCC, 5725 MHz-5850 MHz for IC)

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80

11ac-80, Antenna port WA



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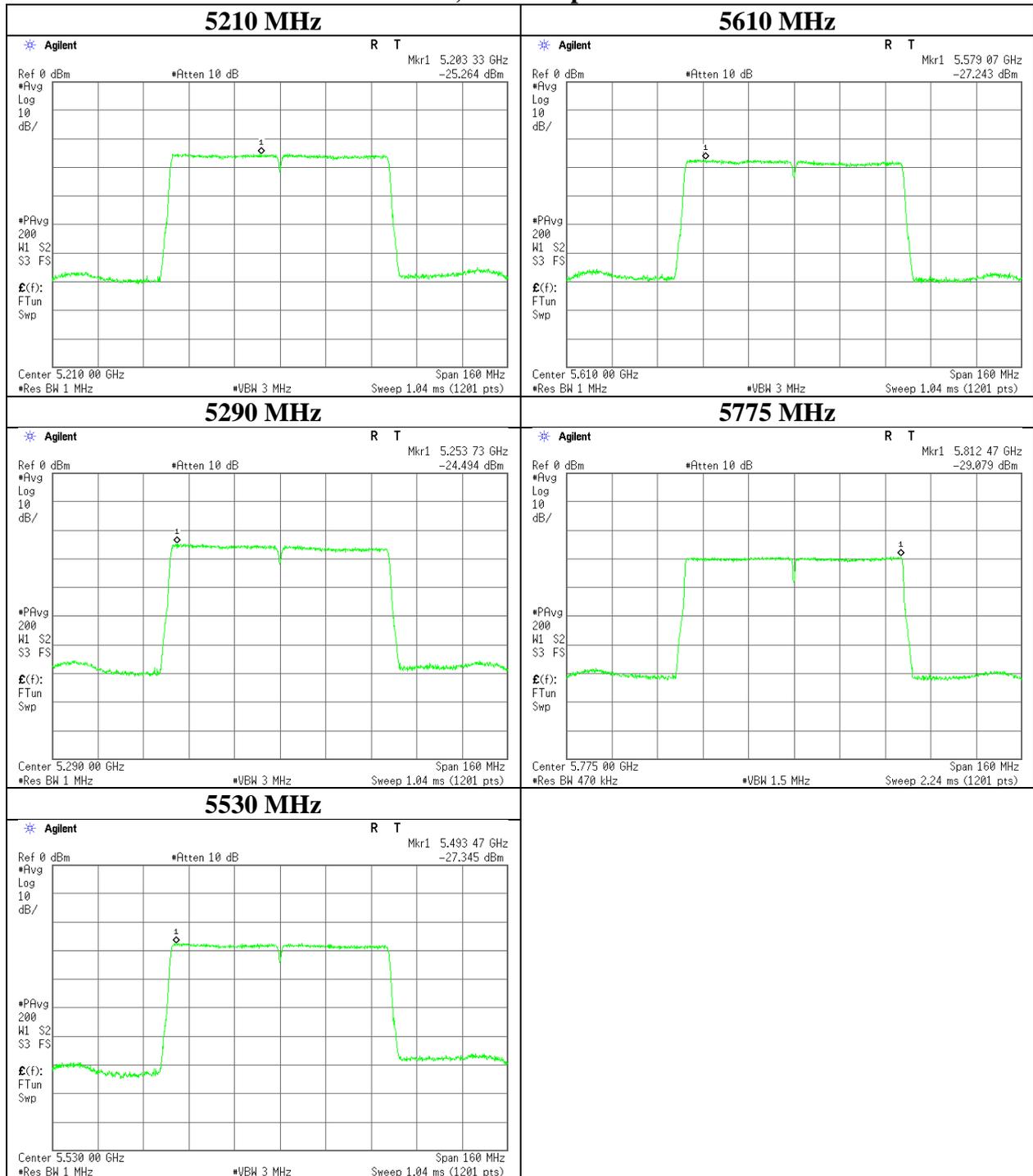
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Maximum Power Spectral Density

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11ac-80

11ac-80, Antenna port WC



UL Japan, Inc.

Ise EMC Lab.

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Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Test place Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. 11240438H
Date April 11, 2016 April 12, 2016 April 12, 2016 April 13, 2016
Temperature / Humidity 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH 21deg. C / 51 % RH
Engineer Tomoki Matsui Tomoki Matsui Yuta Moriya Tomoki Matsui
(1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz) (Below 1GHz)
Mode Tx 11a 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	36.590	QP	22.7	15.1	7.1	32.2	-	12.7	40.0	27.3	
Hori	54.239	QP	22.6	8.8	7.4	32.2	-	6.6	40.0	33.4	
Hori	57.997	QP	22.6	7.6	7.5	32.2	-	5.5	40.0	34.5	
Hori	89.576	QP	23.3	8.1	7.9	32.2	-	7.1	43.5	36.4	
Hori	196.552	QP	22.0	16.5	9.0	32.1	-	15.4	43.5	28.1	
Hori	951.995	QP	21.1	22.3	13.6	30.7	-	26.3	46.0	19.7	
Hori	5150.000	PK	50.0	32.2	7.3	31.7	-	57.8	73.9	16.1	
Hori	10360.000	PK	41.0	38.7	-2.0	33.5	-	44.2	73.9	29.7	Floor Noise
Hori	15540.000	PK	41.3	39.8	-0.2	32.7	-	48.2	73.9	25.7	Floor Noise
Hori	5150.000	AV	37.3	32.2	7.3	31.7	-	45.1	53.9	8.8	
Hori	10360.000	AV	32.1	38.7	-2.0	33.5	-	35.3	53.9	18.6	Floor Noise
Hori	15540.000	AV	33.0	39.8	-0.2	32.7	-	39.9	53.9	14.0	Floor Noise
Vert	36.520	QP	32.4	15.1	7.1	32.2	-	22.4	40.0	17.6	
Vert	53.010	QP	28.5	9.2	7.4	32.2	-	12.9	40.0	27.1	
Vert	57.996	QP	35.0	7.6	7.5	32.2	-	17.9	40.0	22.1	
Vert	89.436	QP	24.6	8.1	7.9	32.2	-	8.4	43.5	35.1	
Vert	196.552	QP	22.1	16.5	9.0	32.1	-	15.5	43.5	28.0	
Vert	951.995	QP	21.0	22.3	13.6	30.7	-	26.2	46.0	19.8	
Vert	5150.000	PK	46.2	32.2	7.3	31.7	-	54.0	73.9	19.9	
Vert	10360.000	PK	41.2	38.7	-2.0	33.5	-	44.4	73.9	29.5	Floor Noise
Vert	15540.000	PK	41.2	39.8	-0.2	32.7	-	48.1	73.9	25.8	Floor Noise
Vert	5150.000	AV	36.5	32.2	7.3	31.7	-	44.3	53.9	9.6	
Vert	10360.000	AV	32.2	38.7	-2.0	33.5	-	35.4	53.9	18.5	Floor Noise
Vert	15540.000	AV	33.2	39.8	-0.2	32.7	-	40.1	53.9	13.8	Floor Noise

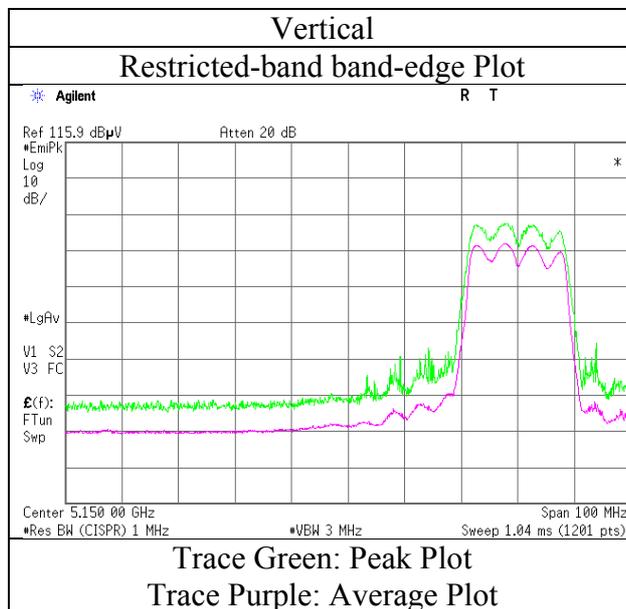
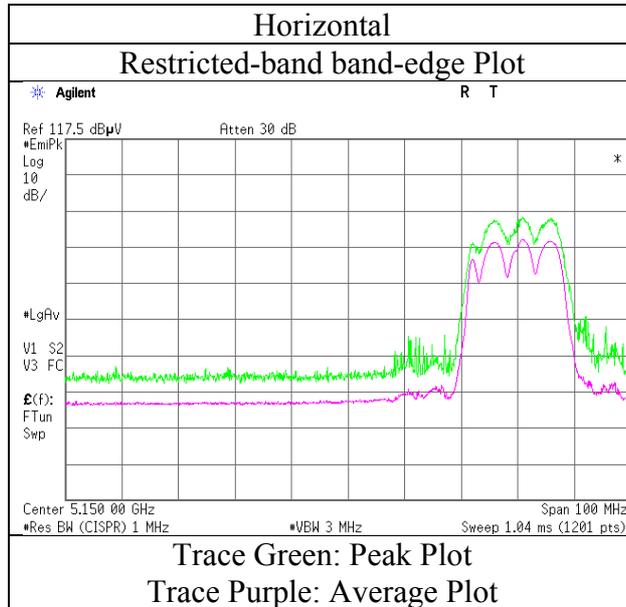
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11a 5180 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11a 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	49.4	32.2	7.4	31.8	-	57.2	73.9	16.7	
Hori	10640.000	PK	40.3	39.1	-2.0	33.5	-	43.9	73.9	30.0	Floor Noise
Hori	15960.000	PK	40.1	39.4	0.1	32.9	-	46.7	73.9	27.2	Floor Noise
Hori	5350.000	AV	40.0	32.2	7.4	31.8	-	47.8	53.9	6.1	
Hori	10640.000	AV	32.0	39.1	-2.0	33.5	-	35.6	53.9	18.3	Floor Noise
Hori	15960.000	AV	32.6	39.4	0.1	32.9	-	39.2	53.9	14.7	Floor Noise
Vert	5350.000	PK	49.3	32.2	7.4	31.8	-	57.1	73.9	16.8	
Vert	10640.000	PK	40.8	39.1	-2.0	33.5	-	44.4	73.9	29.5	Floor Noise
Vert	15960.000	PK	40.7	39.4	0.1	32.9	-	47.3	73.9	26.6	Floor Noise
Vert	5350.000	AV	40.1	32.2	7.4	31.8	-	47.9	53.9	6.0	
Vert	10640.000	AV	32.2	39.1	-2.0	33.5	-	35.8	53.9	18.1	Floor Noise
Vert	15960.000	AV	32.8	39.4	0.1	32.9	-	39.4	53.9	14.5	Floor Noise

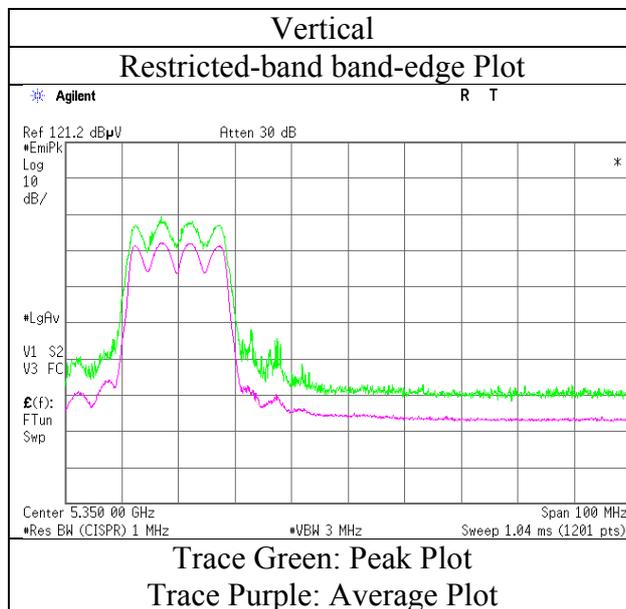
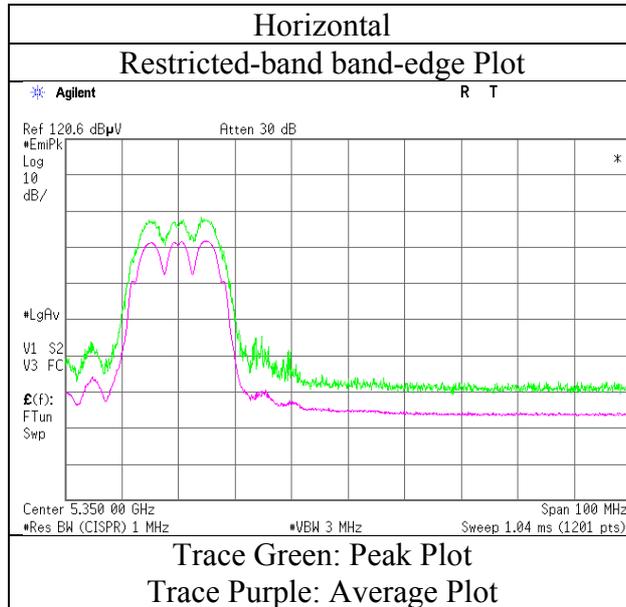
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11a 5320 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11a 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	5460.000	PK	42.4	32.2	7.4	31.8	-	50.2	73.9	23.7	
Hori	5470.000	PK	47.2	32.2	7.4	31.8	-	55.0	68.2	13.2	
Hori	11000.000	PK	41.8	39.9	-2.0	33.6	-	46.1	73.9	27.8	Floor Noise
Hori	16500.000	PK	41.8	40.4	-0.1	32.8	-	49.3	73.9	24.6	Floor Noise
Hori	5460.000	AV	34.4	32.2	7.4	31.8	-	42.2	53.9	11.7	
Hori	11000.000	AV	31.8	39.9	-2.0	33.6	-	36.1	53.9	17.8	Floor Noise
Hori	16500.000	AV	33.1	40.4	-0.1	32.8	-	40.6	53.9	13.3	Floor Noise
Vert	5460.000	PK	42.6	32.2	7.4	31.8	-	50.4	73.9	23.5	
Vert	5470.000	PK	45.4	32.2	7.4	31.8	-	53.2	68.2	15.0	
Vert	11000.000	PK	41.4	39.9	-2.0	33.6	-	45.7	73.9	28.2	Floor Noise
Vert	16500.000	PK	41.7	40.4	-0.1	32.8	-	49.2	73.9	24.7	Floor Noise
Vert	5460.000	AV	33.6	32.2	7.4	31.8	-	41.4	53.9	12.5	
Vert	11000.000	AV	31.8	39.9	-2.0	33.6	-	36.1	53.9	17.8	Floor Noise
Vert	16500.000	AV	33.3	40.4	-0.1	32.8	-	40.8	53.9	13.1	Floor Noise

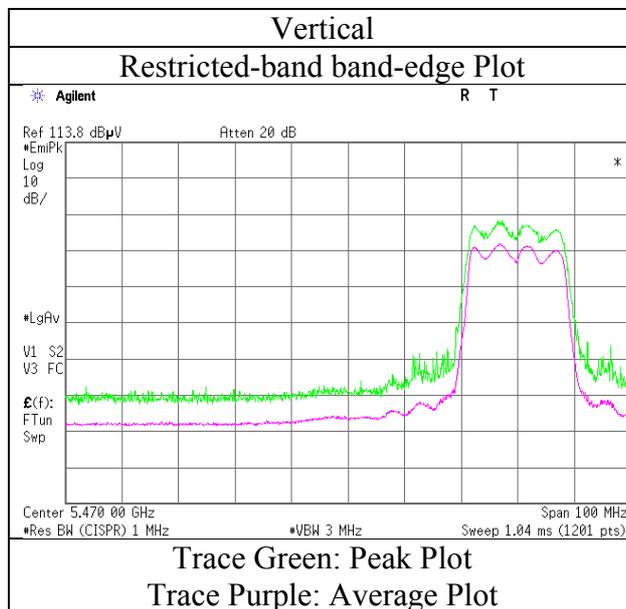
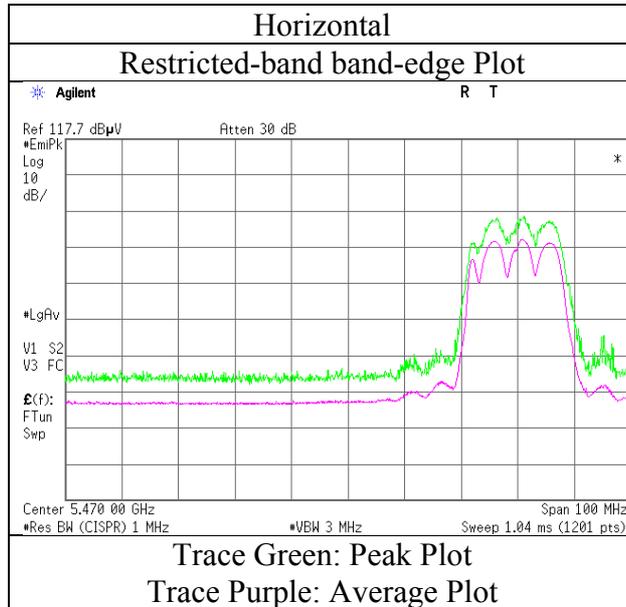
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11a 5500 MHz



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

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Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11a 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	5725.000	PK	56.9	32.6	7.6	31.8	-	65.3	68.2	2.9	
Hori	11400.000	PK	40.5	40.8	-1.7	33.4	-	46.2	73.9	27.7	Floor Noise
Hori	17100.000	PK	41.5	41.8	-0.2	32.8	-	50.3	73.9	23.6	Floor Noise
Hori	11400.000	AV	31.9	40.8	-1.7	33.4	-	37.6	53.9	16.3	Floor Noise
Hori	17100.000	AV	33.1	41.8	-0.2	32.8	-	41.9	53.9	12.0	Floor Noise
Vert	5725.000	PK	54.8	32.6	7.6	31.8	-	63.2	68.2	5.0	
Vert	11400.000	PK	40.8	40.8	-1.7	33.4	-	46.5	73.9	27.4	Floor Noise
Vert	17100.000	PK	41.8	41.8	-0.2	32.8	-	50.6	73.9	23.3	Floor Noise
Vert	11400.000	AV	31.8	40.8	-1.7	33.4	-	37.5	53.9	16.4	Floor Noise
Vert	17100.000	AV	33.3	41.8	-0.2	32.8	-	42.1	53.9	11.8	Floor Noise

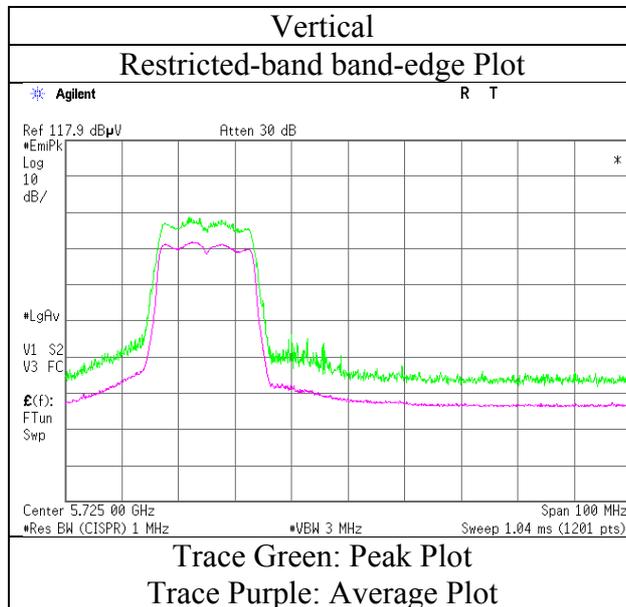
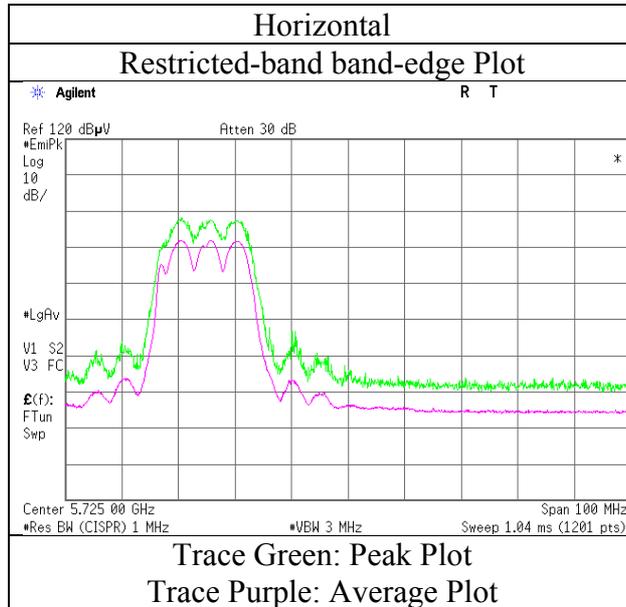
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11a 5700 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11a 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	5715.000	PK	50.0	32.6	7.5	31.8	-	58.3	68.2	9.9	
Hori	5725.000	PK	57.9	32.6	7.6	31.8	-	66.3	78.2	11.9	
Hori	11490.000	PK	41.2	41.0	-1.7	33.4	-	47.1	73.9	26.8	Floor Noise
Hori	17235.000	PK	41.8	42.4	-0.1	32.7	-	51.4	73.9	22.5	Floor Noise
Hori	11490.000	AV	32.2	41.0	-1.7	33.4	-	38.1	53.9	15.8	Floor Noise
Hori	17235.000	AV	33.5	42.4	-0.1	32.7	-	43.1	53.9	10.8	Floor Noise
Vert	5715.000	PK	46.7	32.6	7.5	31.8	-	55.0	68.2	13.2	
Vert	5725.000	PK	55.1	32.6	7.6	31.8	-	63.5	78.2	14.7	
Vert	11490.000	PK	41.1	41.0	-1.7	33.4	-	47.0	73.9	26.9	Floor Noise
Vert	17235.000	PK	42.5	42.4	-0.1	32.7	-	52.1	73.9	21.8	Floor Noise
Vert	11490.000	AV	32.3	41.0	-1.7	33.4	-	38.2	53.9	15.7	Floor Noise
Vert	17235.000	AV	33.6	42.4	-0.1	32.7	-	43.2	53.9	10.7	Floor Noise

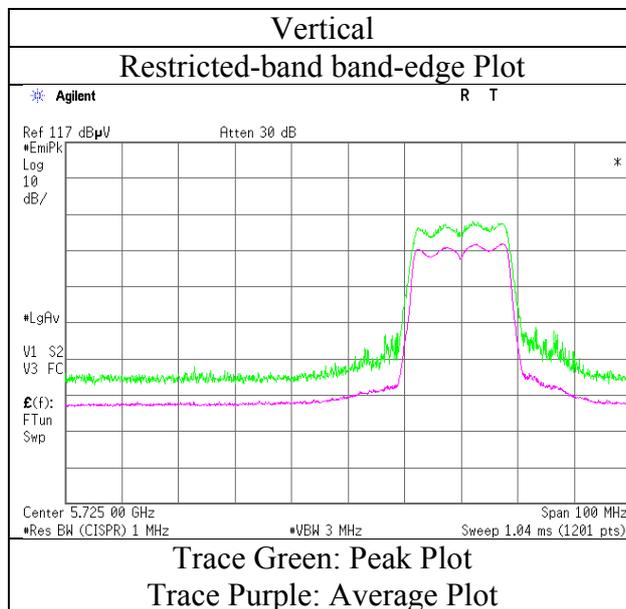
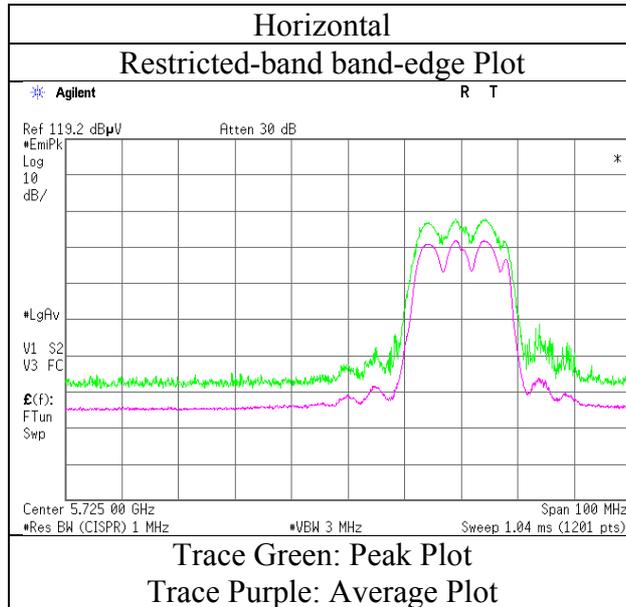
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11a 5745 MHz



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

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Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11a 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	11570.000	PK	40.2	40.9	-1.7	33.4	-	46.0	73.9	27.9	Floor Noise
Hori	17355.000	PK	42.0	42.9	0.0	32.7	-	52.2	73.9	21.7	Floor Noise
Hori	11570.000	AV	31.6	40.9	-1.7	33.4	-	37.4	53.9	16.5	Floor Noise
Hori	17355.000	AV	33.4	42.9	0.0	32.7	-	43.6	53.9	10.3	Floor Noise
Vert	11570.000	PK	40.4	40.9	-1.7	33.4	-	46.2	73.9	27.7	Floor Noise
Vert	17355.000	PK	42.1	42.9	0.0	32.7	-	52.3	73.9	21.6	Floor Noise
Vert	11570.000	AV	31.8	40.9	-1.7	33.4	-	37.6	53.9	16.3	Floor Noise
Vert	17355.000	AV	33.3	42.9	0.0	32.7	-	43.5	53.9	10.4	Floor Noise

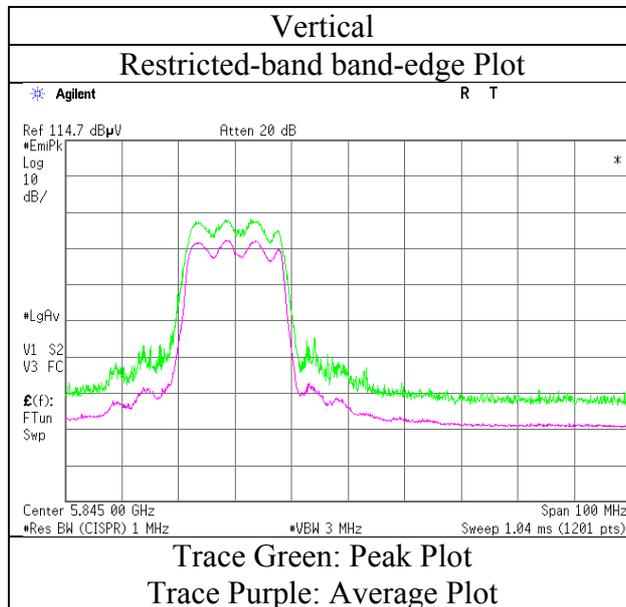
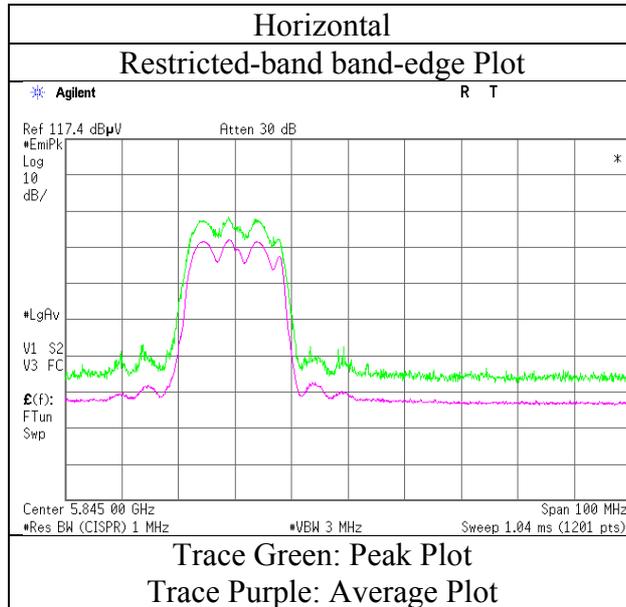
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11a 5825 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
(1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	49.6	32.2	7.3	31.7	-	57.4	73.9	16.5	
Hori	10360.000	PK	41.3	38.7	-2.0	33.5	-	44.5	73.9	29.4	Floor Noise
Hori	15540.000	PK	41.5	39.8	-0.2	32.7	-	48.4	73.9	25.5	Floor Noise
Hori	5150.000	AV	37.1	32.2	7.3	31.7	-	44.9	53.9	9.0	
Hori	10360.000	AV	32.0	38.7	-2.0	33.5	-	35.2	53.9	18.7	Floor Noise
Hori	15540.000	AV	32.9	39.8	-0.2	32.7	-	39.8	53.9	14.1	Floor Noise
Vert	5150.000	PK	46.9	32.2	7.3	31.7	-	54.7	73.9	19.2	
Vert	10360.000	PK	41.2	38.7	-2.0	33.5	-	44.4	73.9	29.5	Floor Noise
Vert	15540.000	PK	41.1	39.8	-0.2	32.7	-	48.0	73.9	25.9	Floor Noise
Vert	5150.000	AV	35.8	32.2	7.3	31.7	-	43.6	53.9	10.3	
Vert	10360.000	AV	32.2	38.7	-2.0	33.5	-	35.4	53.9	18.5	Floor Noise
Vert	15540.000	AV	33.2	39.8	-0.2	32.7	-	40.1	53.9	13.8	Floor Noise

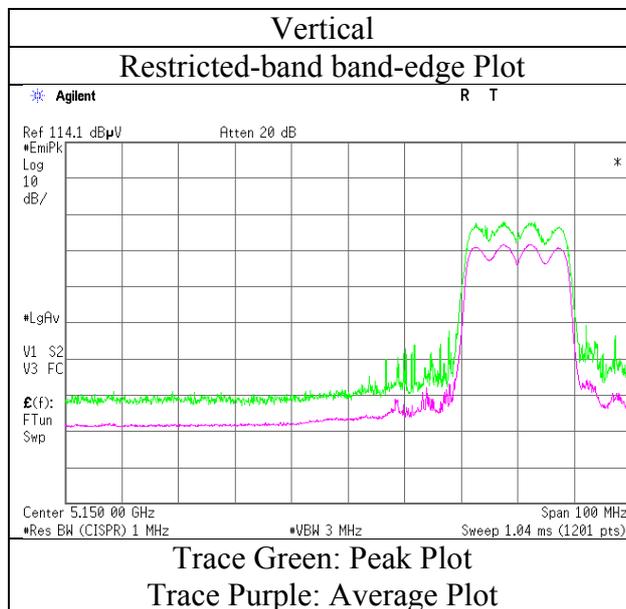
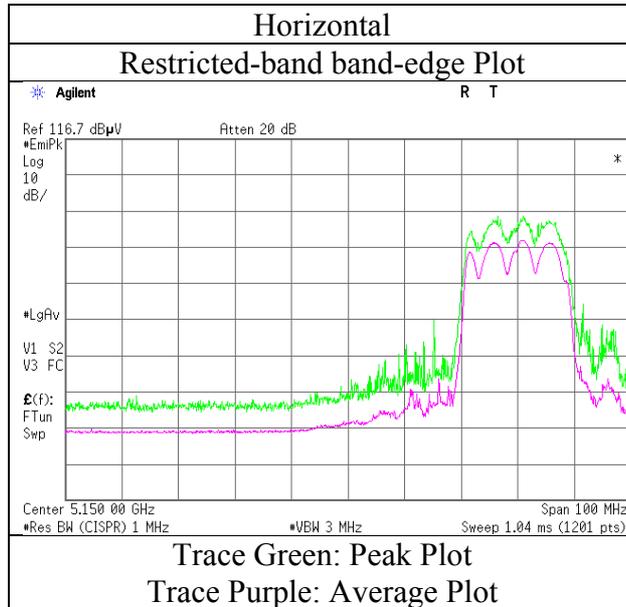
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz $20\log(4.45\text{m} / 3.0\text{m}) = 3.42\text{ dB}$
 10 GHz - 26.5 GHz $20\log(1.0\text{m} / 3.0\text{m}) = -9.5\text{ dB}$
 26.5 GHz - 40 GHz $20\log(0.5\text{m} / 3.0\text{m}) = -15.6\text{ dB}$

Radiated Spurious Emission

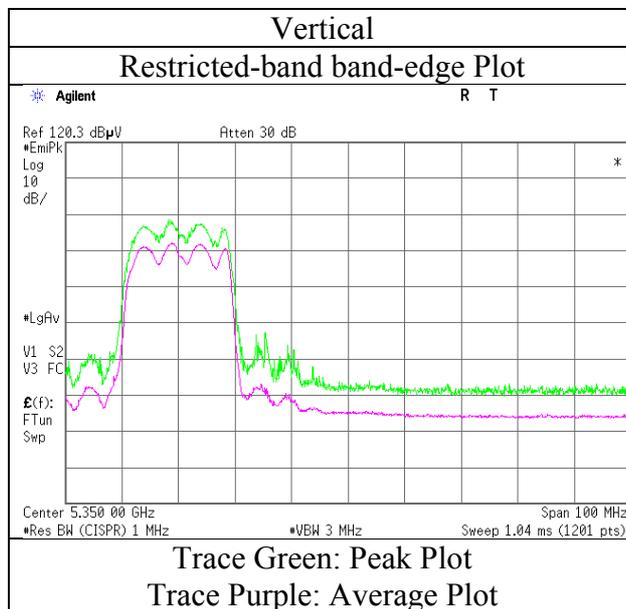
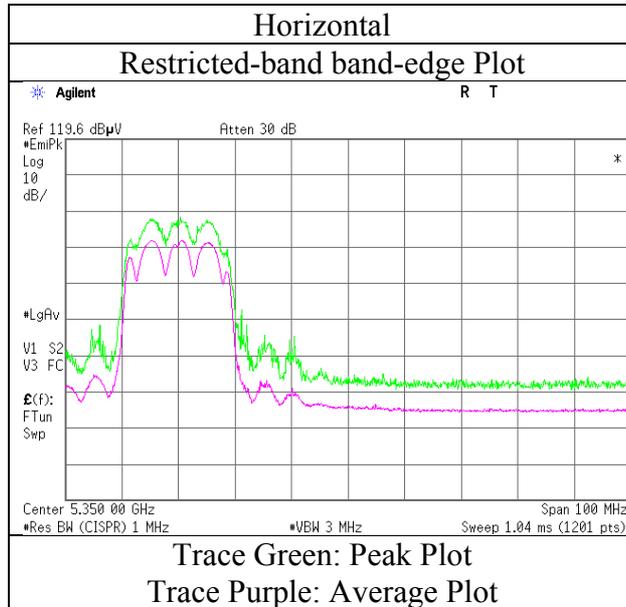
Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11ac-20 5180 MHz



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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11ac-20 5320 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	5460.000	PK	43.1	32.2	7.4	31.8	-	50.9	73.9	23.0	
Hori	5470.000	PK	50.4	32.2	7.4	31.8	-	58.2	68.2	10.0	
Hori	11000.000	PK	41.5	39.9	-2.0	33.6	-	45.8	73.9	28.1	Floor Noise
Hori	16500.000	PK	41.6	40.4	-0.1	32.8	-	49.1	73.9	24.8	Floor Noise
Hori	5460.000	AV	33.6	32.2	7.4	31.8	-	41.4	53.9	12.5	
Hori	11000.000	AV	31.5	39.9	-2.0	33.6	-	35.8	53.9	18.1	Floor Noise
Hori	16500.000	AV	33.1	40.4	-0.1	32.8	-	40.6	53.9	13.3	Floor Noise
Vert	5460.000	PK	42.1	32.2	7.4	31.8	-	49.9	73.9	24.0	
Vert	5470.000	PK	43.2	32.2	7.4	31.8	-	51.0	68.2	17.2	
Vert	11000.000	PK	41.6	39.9	-2.0	33.6	-	45.9	73.9	28.0	Floor Noise
Vert	16500.000	PK	41.8	40.4	-0.1	32.8	-	49.3	73.9	24.6	Floor Noise
Vert	5460.000	AV	33.3	32.2	7.4	31.8	-	41.1	53.9	12.8	
Vert	11000.000	AV	31.6	39.9	-2.0	33.6	-	35.9	53.9	18.0	Floor Noise
Vert	16500.000	AV	33.2	40.4	-0.1	32.8	-	40.7	53.9	13.2	Floor Noise

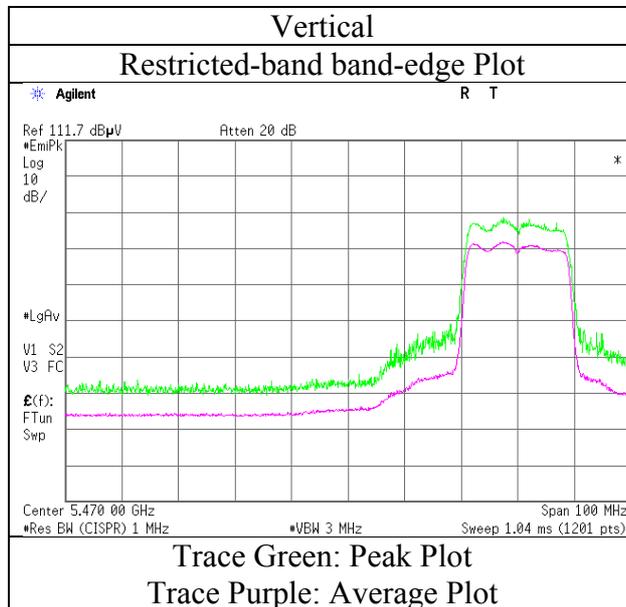
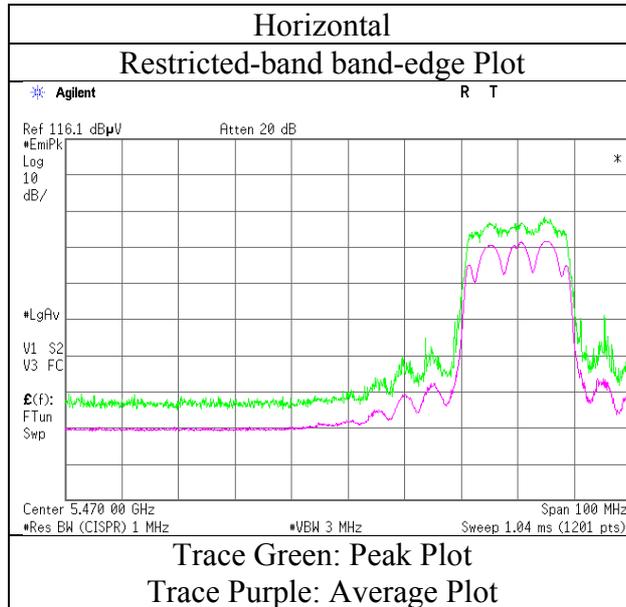
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11ac-20 5500 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	11160.000	PK	41.2	40.3	-1.9	33.5	-	46.1	73.9	27.8	Floor Noise
Hori	16740.000	PK	42.0	40.9	-0.1	32.8	-	50.0	73.9	23.9	Floor Noise
Hori	11160.000	AV	32.3	40.3	-1.9	33.5	-	37.2	53.9	16.7	Floor Noise
Hori	16740.000	AV	33.8	40.9	-0.1	32.8	-	41.8	53.9	12.1	Floor Noise
Vert	11160.000	PK	40.8	40.3	-1.9	33.5	-	45.7	73.9	28.2	Floor Noise
Vert	16740.000	PK	41.6	40.9	-0.1	32.8	-	49.6	73.9	24.3	Floor Noise
Vert	11160.000	AV	32.5	40.3	-1.9	33.5	-	37.4	53.9	16.5	Floor Noise
Vert	16740.000	AV	33.8	40.9	-0.1	32.8	-	41.8	53.9	12.1	Floor Noise

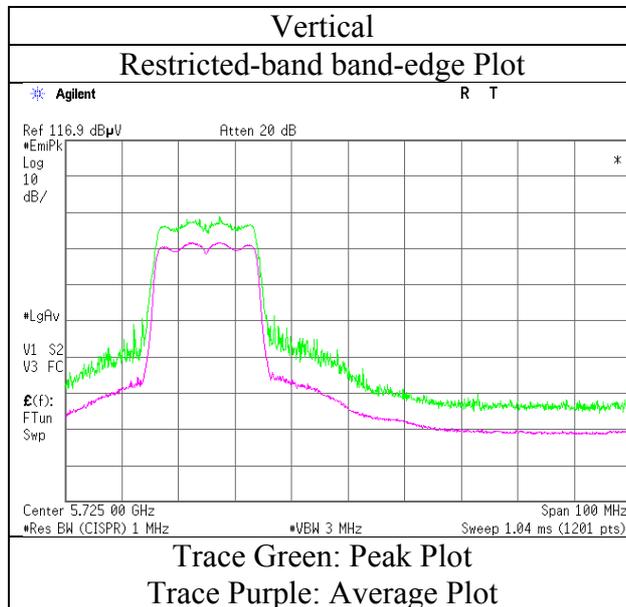
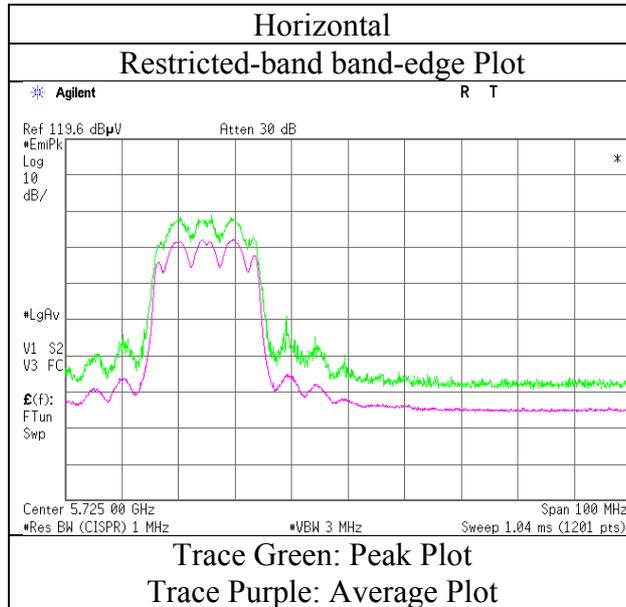
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11ac-20 5700 MHz



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

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Facsimile : +81 596 24 8124

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 20deg. C / 46 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Tomoki Matsui Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	5715.000	PK	51.9	32.6	7.5	31.8	-	60.2	68.2	8.0	
Hori	5725.000	PK	58.2	32.6	7.6	31.8	-	66.6	78.2	11.6	
Hori	11490.000	PK	41.3	41.0	-1.7	33.4	-	47.2	73.9	26.7	Floor Noise
Hori	17235.000	PK	41.9	42.4	-0.1	32.7	-	51.5	73.9	22.4	Floor Noise
Hori	11490.000	AV	32.1	41.0	-1.7	33.4	-	38.0	53.9	15.9	Floor Noise
Hori	17235.000	AV	33.5	42.4	-0.1	32.7	-	43.1	53.9	10.8	Floor Noise
Vert	5715.000	PK	50.0	32.6	7.5	31.8	-	58.3	68.2	9.9	
Vert	5725.000	PK	57.5	32.6	7.6	31.8	-	65.9	78.2	12.3	
Vert	11490.000	PK	41.3	41.0	-1.7	33.4	-	47.2	73.9	26.7	Floor Noise
Vert	17235.000	PK	41.8	42.4	-0.1	32.7	-	51.4	73.9	22.5	Floor Noise
Vert	11490.000	AV	32.0	41.0	-1.7	33.4	-	37.9	53.9	16.0	Floor Noise
Vert	17235.000	AV	33.4	42.4	-0.1	32.7	-	43.0	53.9	10.9	Floor Noise

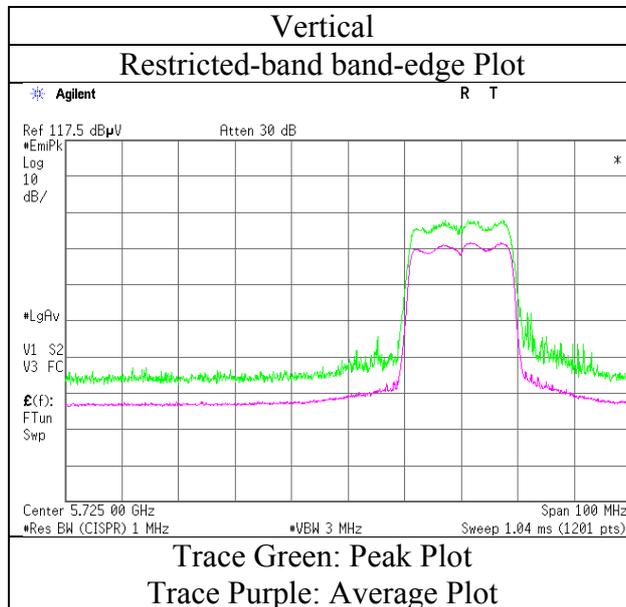
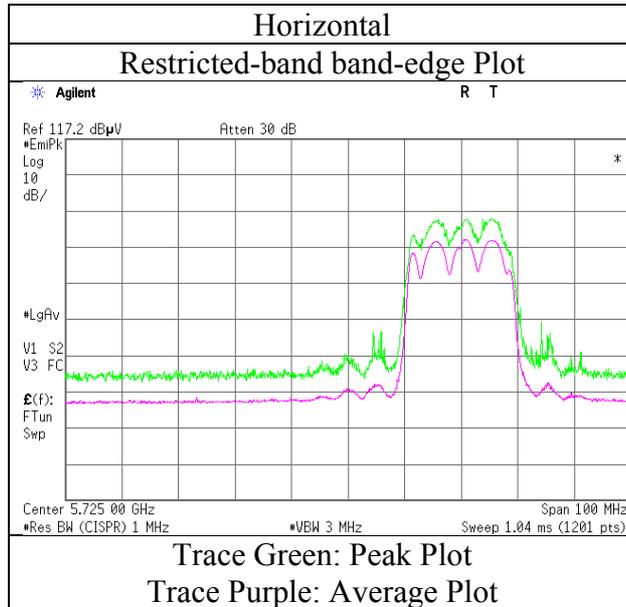
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

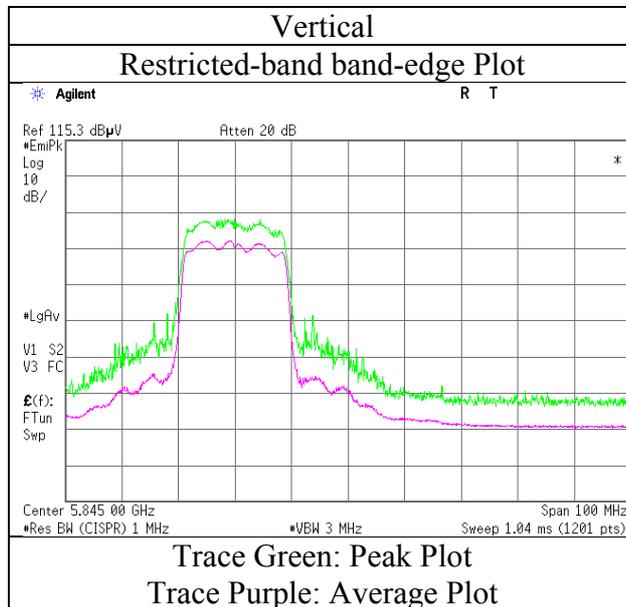
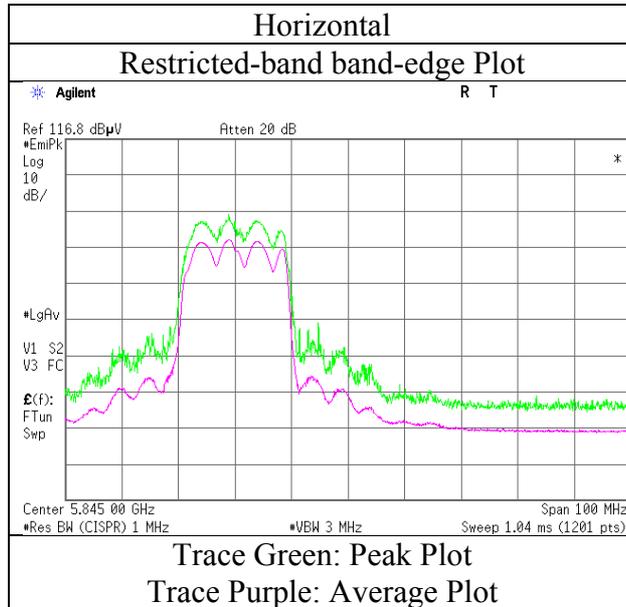
Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11ac-20 5745 MHz



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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	20deg. C / 46 % RH
Engineer	Tomoki Matsui
Mode	Tx 11ac-20 5825 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
 Report No. : 11240438H
 Date : April 11, 2016 April 12, 2016 April 12, 2016
 Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
 Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
 Mode : Tx 11ac-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	47.8	32.2	7.3	31.7	-	55.6	73.9	18.3	
Hori	10380.000	PK	40.2	38.7	-2.0	33.5	-	43.4	73.9	30.5	Floor Noise
Hori	15570.000	PK	41.0	39.8	-0.2	32.7	-	47.9	73.9	26.0	Floor Noise
Hori	5150.000	AV	35.6	32.2	7.3	31.7	-	43.4	53.9	10.5	
Hori	10380.000	AV	31.8	38.7	-2.0	33.5	-	35.0	53.9	18.9	Floor Noise
Hori	15570.000	AV	32.2	39.8	-0.2	32.7	-	39.1	53.9	14.8	Floor Noise
Vert	5150.000	PK	45.1	32.2	7.3	31.7	-	52.9	73.9	21.0	
Vert	10380.000	PK	41.2	38.7	-2.0	33.5	-	44.4	73.9	29.5	Floor Noise
Vert	15570.000	PK	40.5	39.8	-0.2	32.7	-	47.4	73.9	26.5	Floor Noise
Vert	5150.000	AV	34.6	32.2	7.3	31.7	-	42.4	53.9	11.5	
Vert	10380.000	AV	32.3	38.7	-2.0	33.5	-	35.5	53.9	18.4	Floor Noise
Vert	15570.000	AV	32.1	39.8	-0.2	32.7	-	39.0	53.9	14.9	Floor Noise

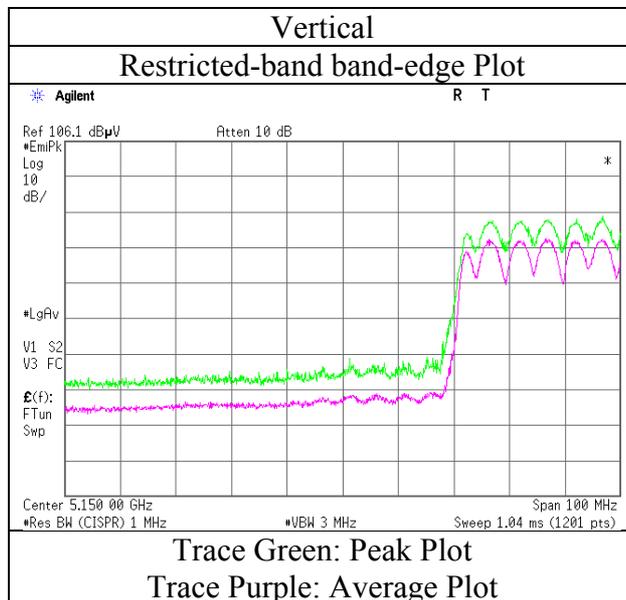
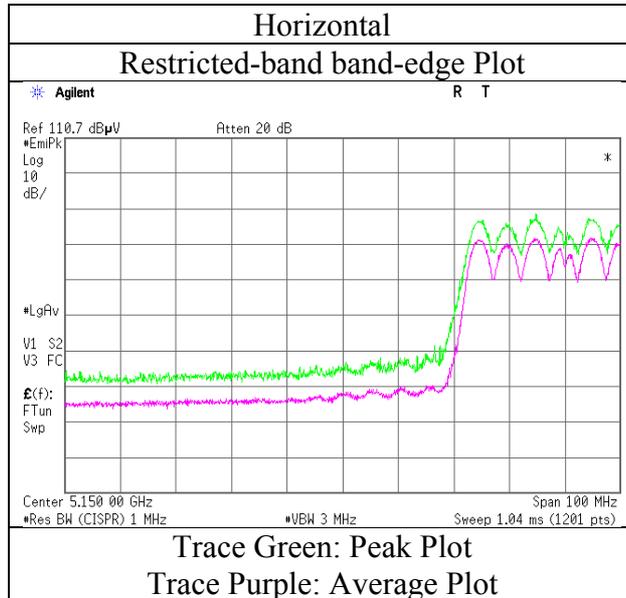
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-40 5190 MHz



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

UL Japan, Inc.

Ise EMC Lab.

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Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
 Report No. : 11240438H
 Date : April 11, 2016 April 12, 2016 April 12, 2016
 Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
 Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
 Mode : Tx 11ac-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	10540.000	PK	39.7	38.9	-2.0	33.5	-	43.1	73.9	30.8	Floor Noise
Hori	15810.000	PK	41.4	39.5	-0.1	32.8	-	48.0	73.9	25.9	Floor Noise
Hori	10540.000	AV	31.2	38.9	-2.0	33.5	-	34.6	53.9	19.3	Floor Noise
Hori	15810.000	AV	32.7	39.5	-0.1	32.8	-	39.3	53.9	14.6	Floor Noise
Vert	10540.000	PK	39.8	38.9	-2.0	33.5	-	43.2	73.9	30.7	Floor Noise
Vert	15810.000	PK	41.2	39.5	-0.1	32.8	-	47.8	73.9	26.1	Floor Noise
Vert	10540.000	AV	31.0	38.9	-2.0	33.5	-	34.4	53.9	19.5	Floor Noise
Vert	15810.000	AV	32.8	39.5	-0.1	32.8	-	39.4	53.9	14.5	Floor Noise

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

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

Distance factor: 1 GHz - 10 GHz $20\log(4.45\text{m} / 3.0\text{m}) = 3.42\text{ dB}$
 10 GHz - 26.5 GHz $20\log(1.0\text{m} / 3.0\text{m}) = -9.5\text{ dB}$
 26.5 GHz - 40 GHz $20\log(0.5\text{m} / 3.0\text{m}) = -15.6\text{ dB}$

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	54.4	32.2	7.4	31.8	-	62.2	73.9	11.7	
Hori	10620.000	PK	41.2	39.1	-2.0	33.5	-	44.8	73.9	29.1	Floor Noise
Hori	15930.000	PK	40.8	39.4	0.1	32.9	-	47.4	73.9	26.5	Floor Noise
Hori	5350.000	AV	41.3	32.2	7.4	31.8	-	49.1	53.9	4.8	
Hori	10620.000	AV	31.7	39.1	-2.0	33.5	-	35.3	53.9	18.6	Floor Noise
Hori	15930.000	AV	32.1	39.4	0.1	32.9	-	38.7	53.9	15.2	Floor Noise
Vert	5350.000	PK	52.5	32.2	7.4	31.8	-	60.3	73.9	13.6	
Vert	10620.000	PK	41.0	39.1	-2.0	33.5	-	44.6	73.9	29.3	Floor Noise
Vert	15930.000	PK	41.2	39.4	0.1	32.9	-	47.8	73.9	26.1	Floor Noise
Vert	5350.000	AV	38.5	32.2	7.4	31.8	-	46.3	53.9	7.6	
Vert	10620.000	AV	32.0	39.1	-2.0	33.5	-	35.6	53.9	18.3	Floor Noise
Vert	15930.000	AV	32.4	39.4	0.1	32.9	-	39.0	53.9	14.9	Floor Noise

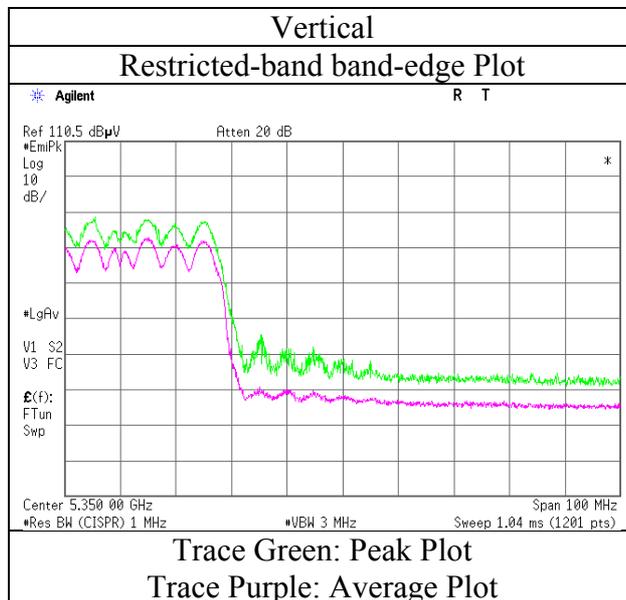
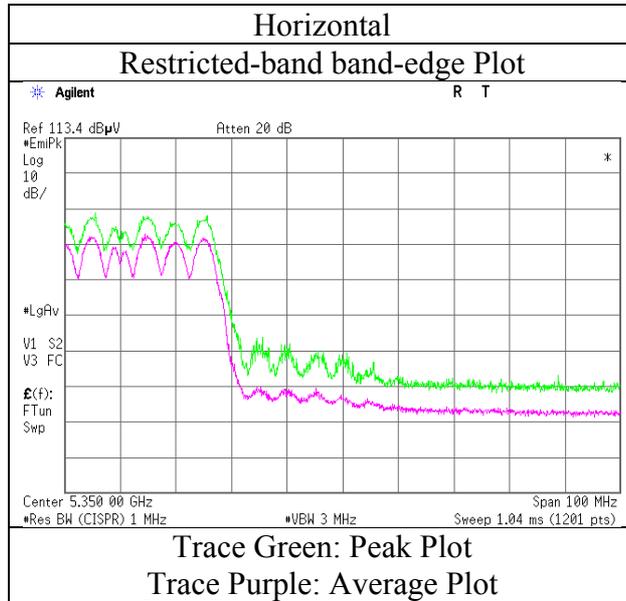
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz $20\log(4.45\text{m} / 3.0\text{m}) = 3.42\text{ dB}$
 10 GHz - 26.5 GHz $20\log(1.0\text{m} / 3.0\text{m}) = -9.5\text{ dB}$
 26.5 GHz - 40 GHz $20\log(0.5\text{m} / 3.0\text{m}) = -15.6\text{ dB}$

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-40 5310 MHz



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

UL Japan, Inc.

Ise EMC Lab.

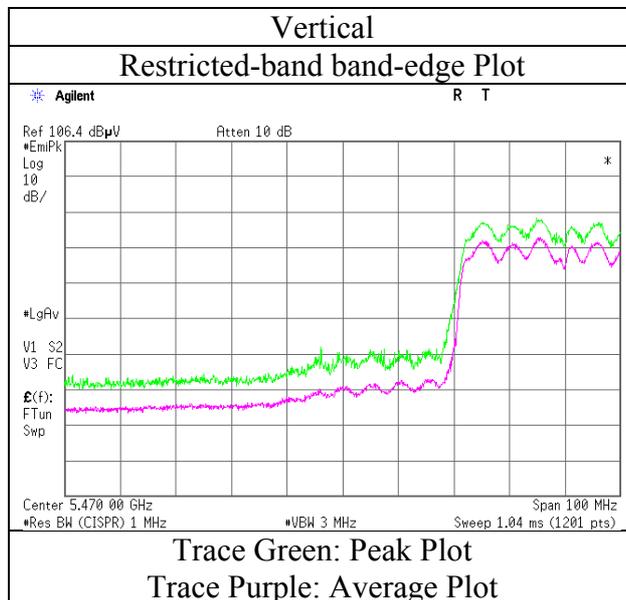
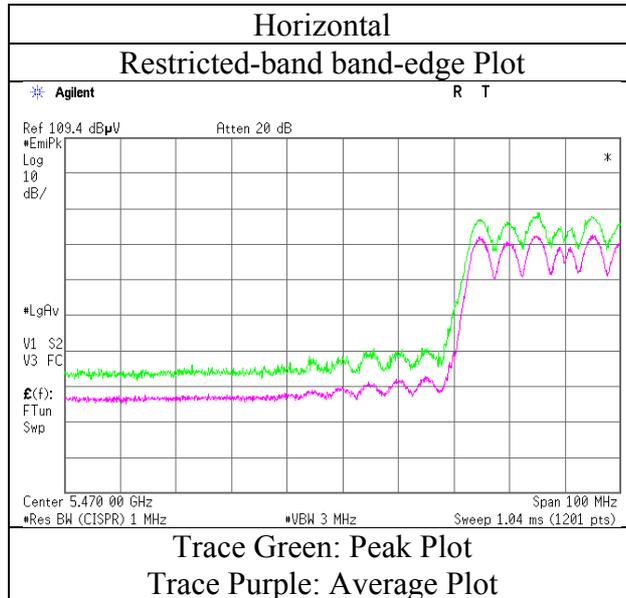
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-40 5510 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	11100.000	PK	40.6	40.1	-2.0	33.5	-	45.2	73.9	28.7	Floor Noise
Hori	16650.000	PK	40.9	40.7	0.0	32.8	-	48.8	73.9	25.1	Floor Noise
Hori	11100.000	AV	31.8	40.1	-2.0	33.5	-	36.4	53.9	17.5	Floor Noise
Hori	16650.000	AV	33.0	40.7	0.0	32.8	-	40.9	53.9	13.0	Floor Noise
Vert	11100.000	PK	40.2	40.1	-2.0	33.5	-	44.8	73.9	29.1	Floor Noise
Vert	16650.000	PK	41.0	40.7	0.0	32.8	-	48.9	73.9	25.0	Floor Noise
Vert	11100.000	AV	31.9	40.1	-2.0	33.5	-	36.5	53.9	17.4	Floor Noise
Vert	16650.000	AV	33.1	40.7	0.0	32.8	-	41.0	53.9	12.9	Floor Noise

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

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	5725.000	PK	42.7	32.6	7.6	31.8	-	51.1	73.9	22.8	
Hori	11340.000	PK	40.3	40.7	-1.8	33.5	-	45.7	73.9	28.2	Floor Noise
Hori	17010.000	PK	41.9	41.5	-0.2	32.8	-	50.4	73.9	23.5	Floor Noise
Hori	5725.000	AV	34.4	32.6	7.6	31.8	-	42.8	53.9	11.1	
Hori	11340.000	AV	32.3	40.7	-1.8	33.5	-	37.7	53.9	16.2	Floor Noise
Hori	17010.000	AV	32.9	41.5	-0.2	32.8	-	41.4	53.9	12.5	Floor Noise
Vert	5725.000	PK	42.8	32.6	7.6	31.8	-	51.2	73.9	22.7	
Vert	11340.000	PK	40.2	40.7	-1.8	33.5	-	45.6	73.9	28.3	Floor Noise
Vert	17010.000	PK	42.0	41.5	-0.2	32.8	-	50.5	73.9	23.4	Floor Noise
Vert	5725.000	AV	34.4	32.6	7.6	31.8	-	42.8	53.9	11.1	
Vert	11340.000	AV	32.2	40.7	-1.8	33.5	-	37.6	53.9	16.3	Floor Noise
Vert	17010.000	AV	33.5	41.5	-0.2	32.8	-	42.0	53.9	11.9	Floor Noise

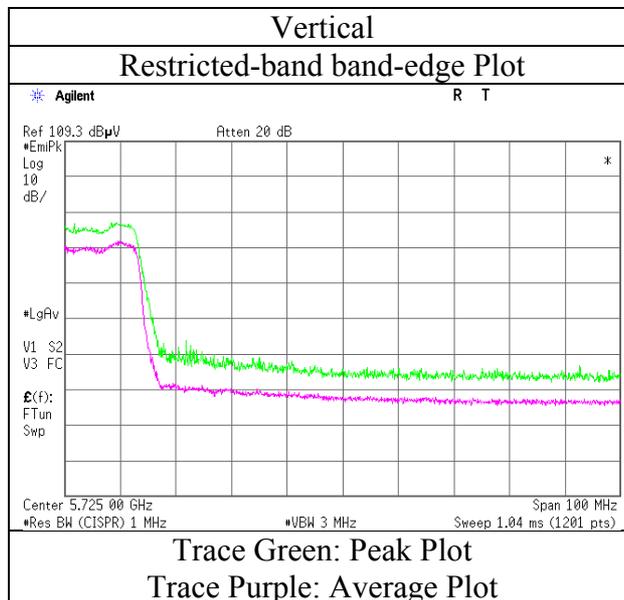
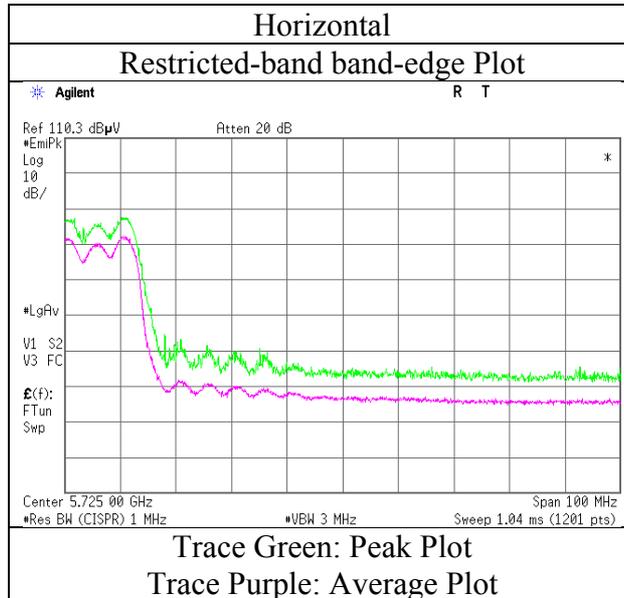
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-40 5670 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-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	5715.000	PK	49.7	32.6	7.5	31.8	-	58.0	68.2	10.2	
Hori	5725.000	PK	50.7	32.6	7.6	31.8	-	59.1	78.2	19.1	
Hori	11510.000	PK	40.1	41.0	-1.7	33.4	-	46.0	73.9	27.9	Floor Noise
Hori	17265.000	PK	42.5	42.5	0.0	32.7	-	52.3	73.9	21.6	Floor Noise
Hori	11510.000	AV	31.8	41.0	-1.7	33.4	-	37.7	53.9	16.2	Floor Noise
Hori	17265.000	AV	33.5	42.5	0.0	32.7	-	43.3	53.9	10.6	Floor Noise
Vert	5715.000	PK	50.1	32.6	7.5	31.8	-	58.4	68.2	9.8	
Vert	5725.000	PK	53.9	32.6	7.6	31.8	-	62.3	78.2	15.9	
Vert	11510.000	PK	40.3	41.0	-1.7	33.4	-	46.2	73.9	27.7	Floor Noise
Vert	17265.000	PK	42.1	42.5	0.0	32.7	-	51.9	73.9	22.0	Floor Noise
Vert	11510.000	AV	32.0	41.0	-1.7	33.4	-	37.9	53.9	16.0	Floor Noise
Vert	17265.000	AV	33.9	42.5	0.0	32.7	-	43.7	53.9	10.2	Floor Noise

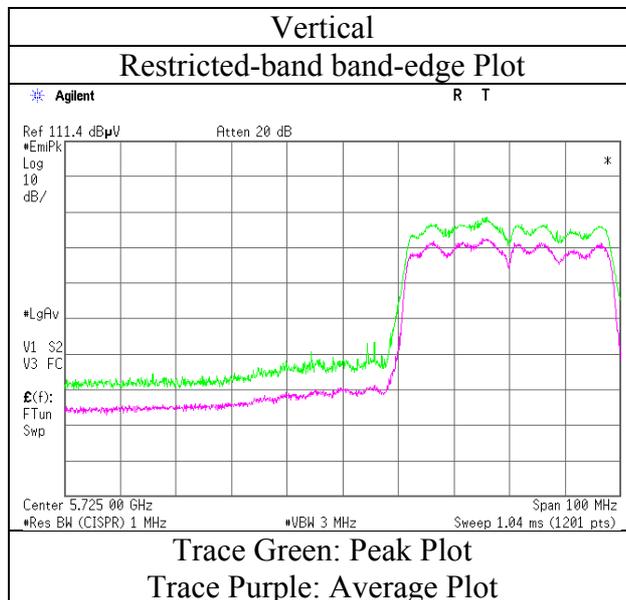
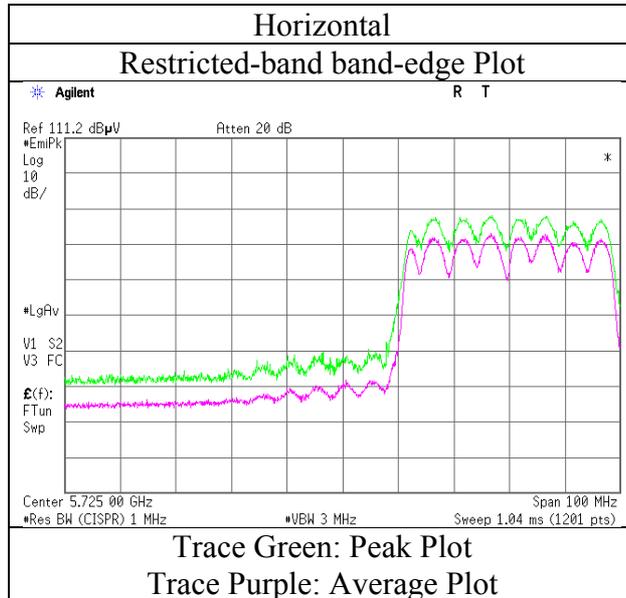
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

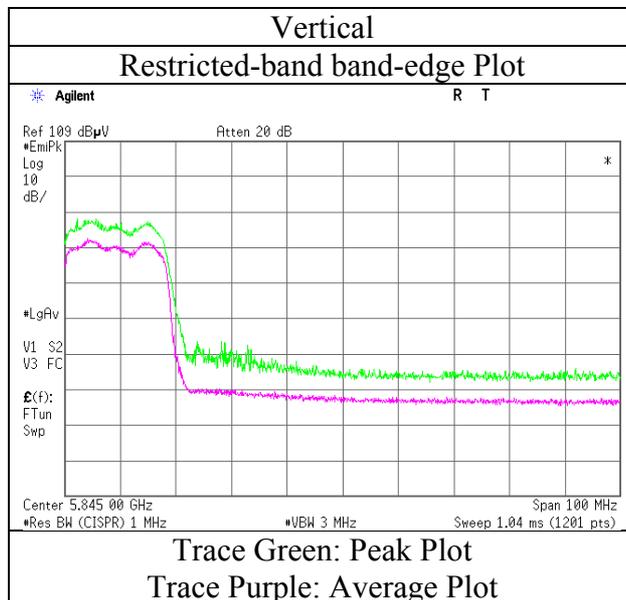
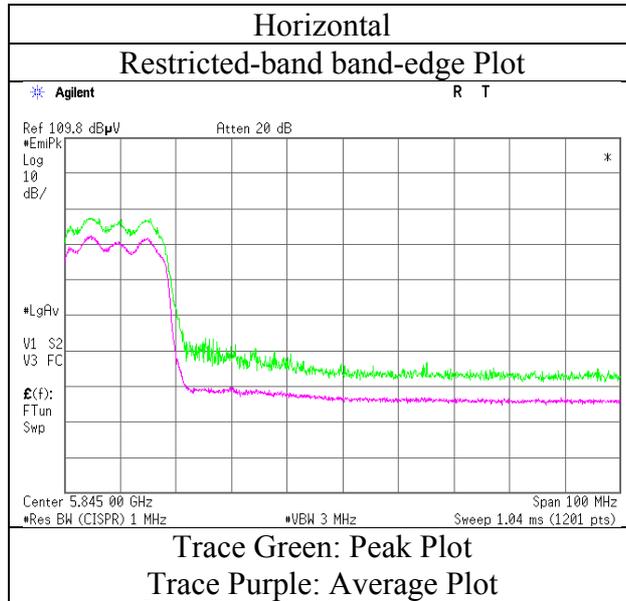
Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-40 5755 MHz



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

Radiated Spurious Emission

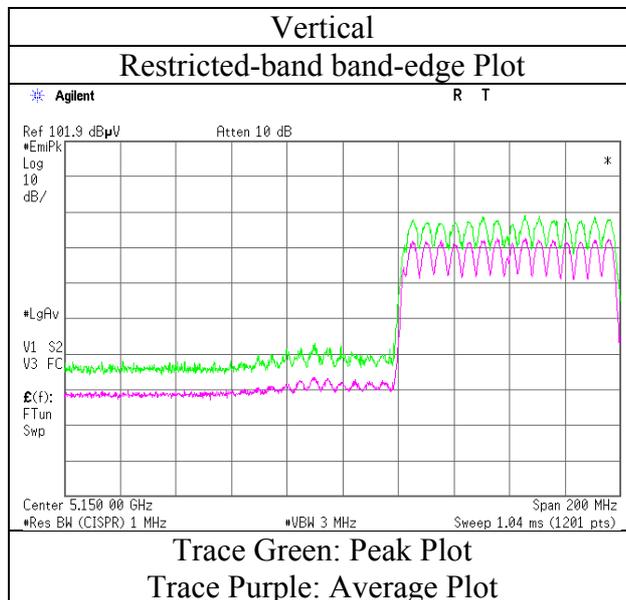
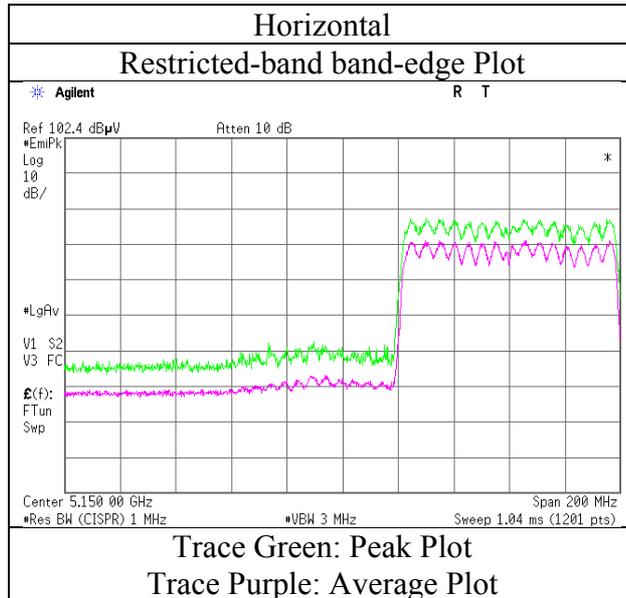
Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-40 5795 MHz



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

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-80 5210 MHz



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

UL Japan, Inc.

Ise EMC Lab.

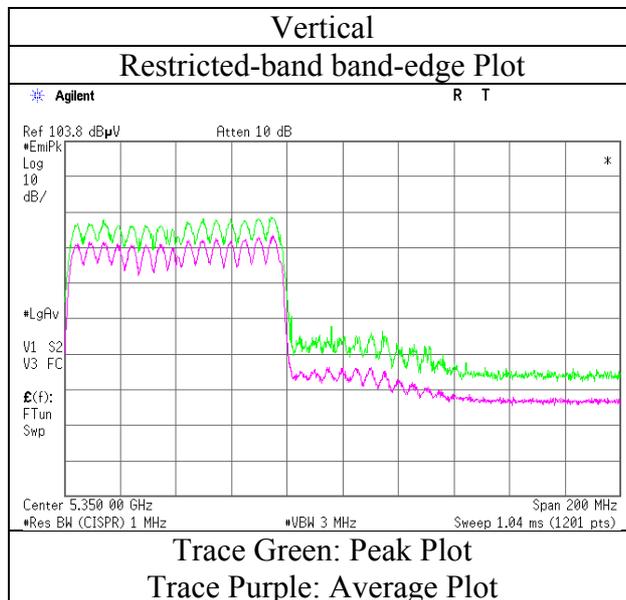
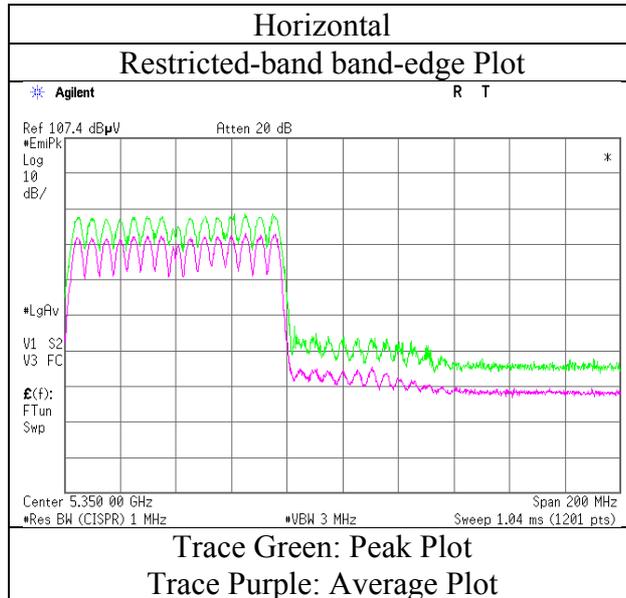
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-80 5290 MHz



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

UL Japan, Inc.

Ise EMC Lab.

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

Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-80 5530 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	5455.733	PK	46.3	32.2	7.4	31.8	-	54.1	73.9	19.8	
Hori	5470.000	PK	44.6	32.2	7.4	31.8	-	52.4	73.9	21.5	
Hori	11060.000	PK	40.3	40.0	-2.0	33.6	-	44.7	73.9	29.2	Floor Noise
Hori	16590.000	PK	42.6	40.6	-0.1	32.8	-	50.3	73.9	23.6	Floor Noise
Hori	5455.733	AV	36.3	32.2	7.4	31.8	0.1	44.2	53.9	9.7	*1)
Hori	5470.000	AV	35.5	32.2	7.4	31.8	0.1	43.4	53.9	10.5	*1)
Hori	11060.000	AV	31.0	40.0	-2.0	33.6	-	35.4	53.9	18.5	Floor Noise
Hori	16590.000	AV	32.9	40.6	-0.1	32.8	-	40.6	53.9	13.3	Floor Noise
Vert	5455.733	PK	46.2	32.2	7.4	31.8	-	54.0	73.9	19.9	
Vert	5470.000	PK	43.9	32.2	7.4	31.8	-	51.7	73.9	22.2	
Vert	11060.000	PK	40.2	40.0	-2.0	33.6	-	44.6	73.9	29.3	Floor Noise
Vert	16590.000	PK	42.1	40.6	-0.1	32.8	-	49.8	73.9	24.1	Floor Noise
Vert	5455.733	AV	35.6	32.2	7.4	31.8	0.1	43.5	53.9	10.4	*1)
Vert	5470.000	AV	35.2	32.2	7.4	31.8	0.1	43.1	53.9	10.8	*1)
Vert	11060.000	AV	31.2	40.0	-2.0	33.6	-	35.6	53.9	18.3	Floor Noise
Vert	16590.000	AV	33.1	40.6	-0.1	32.8	-	40.8	53.9	13.1	Floor Noise

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

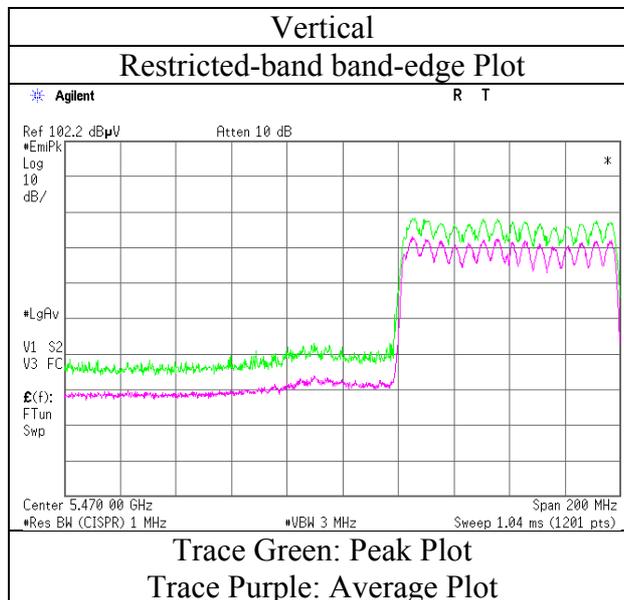
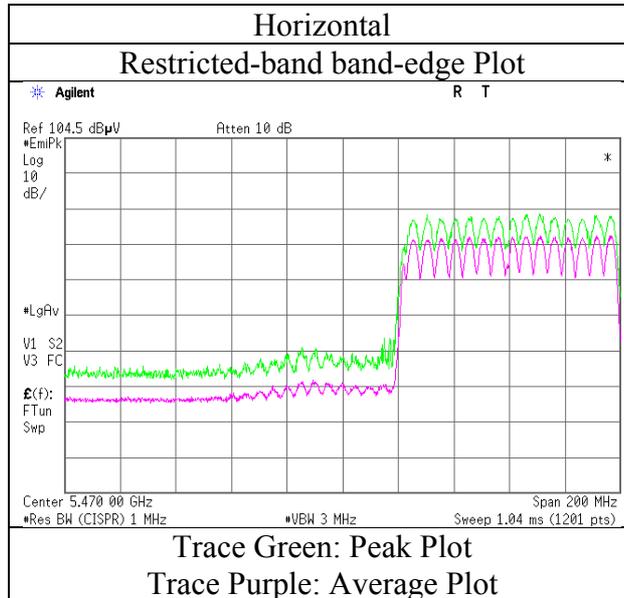
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz $20\log(4.45\text{m} / 3.0\text{m}) = 3.42\text{ dB}$
10 GHz - 26.5 GHz $20\log(1.0\text{m} / 3.0\text{m}) = -9.5\text{ dB}$
26.5 GHz - 40 GHz $20\log(0.5\text{m} / 3.0\text{m}) = -15.6\text{ dB}$

*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-80 5530 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-80 5610 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	5725.000	PK	40.4	32.6	7.6	31.8	-	48.8	73.9	25.1	
Hori	11220.000	PK	40.1	40.4	-1.8	33.5	-	45.2	73.9	28.7	Floor Noise
Hori	16830.000	PK	41.2	41.1	-0.2	32.8	-	49.3	73.9	24.6	Floor Noise
Hori	5725.000	AV	32.1	32.6	7.6	31.8	0.1	40.6	53.9	13.3	*1)
Hori	11220.000	AV	31.9	40.4	-1.8	33.5	-	37.0	53.9	16.9	Floor Noise
Hori	16830.000	AV	32.7	41.1	-0.2	32.8	-	40.8	53.9	13.1	Floor Noise
Vert	5725.000	PK	40.2	32.6	7.6	31.8	-	48.6	73.9	25.3	
Vert	11220.000	PK	40.0	40.4	-1.8	33.5	-	45.1	73.9	28.8	Floor Noise
Vert	16830.000	PK	41.6	41.1	-0.2	32.8	-	49.7	73.9	24.2	Floor Noise
Vert	5725.000	AV	32.0	32.6	7.6	31.8	0.1	40.5	53.9	13.4	*1)
Vert	11220.000	AV	31.7	40.4	-1.8	33.5	-	36.8	53.9	17.1	Floor Noise
Vert	16830.000	AV	33.2	41.1	-0.2	32.8	-	41.3	53.9	12.6	Floor Noise

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

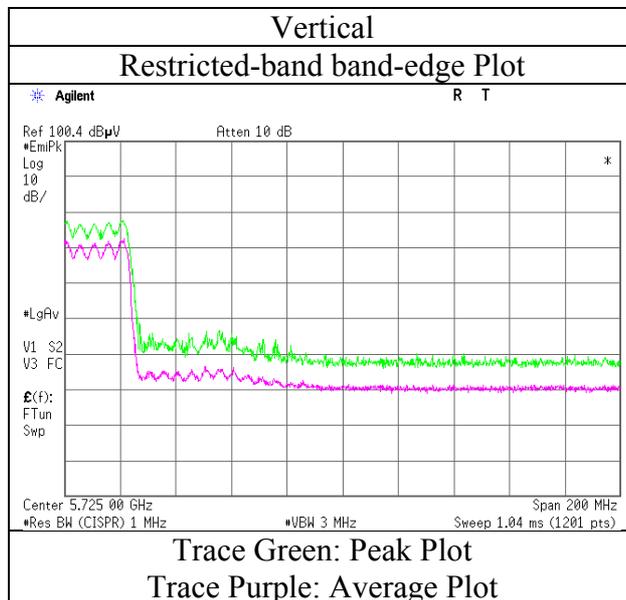
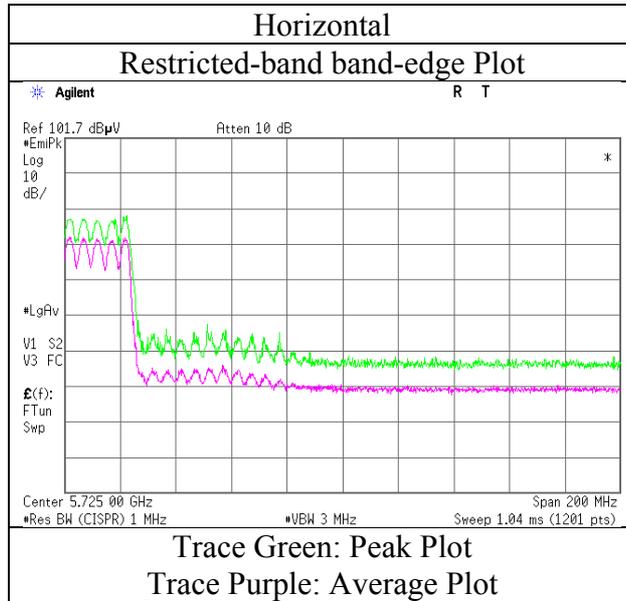
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz $20\log(4.45\text{m} / 3.0\text{m}) = 3.42\text{ dB}$
 10 GHz - 26.5 GHz $20\log(1.0\text{m} / 3.0\text{m}) = -9.5\text{ dB}$
 26.5 GHz - 40 GHz $20\log(0.5\text{m} / 3.0\text{m}) = -15.6\text{ dB}$

*1) Not Out of Band emission(Leakage Power)

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-80 5610 MHz



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

Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 11, 2016 April 12, 2016 April 12, 2016
Temperature / Humidity : 22deg. C / 34 % RH 18deg. C / 32 % RH 23deg. C / 32 % RH
Engineer : Yuta Moriya Tomoki Matsui Yuta Moriya
 (1 GHz-10 GHz) (10 GHz-26.5 GHz) (26.5GHz-40GHz)
Mode : Tx 11ac-80 5775 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	5707.485	PK	50.7	32.5	7.5	31.8	-	58.9	68.2	9.3	
Hori	5715.000	PK	49.1	32.6	7.5	31.8	-	57.4	68.2	10.8	
Hori	5725.000	PK	51.9	32.6	7.6	31.8	-	60.3	78.2	17.9	
Hori	5850.000	PK	49.8	32.8	7.6	31.8	-	58.4	78.2	19.8	
Hori	5860.000	PK	47.4	32.8	7.6	31.8	-	56.0	68.2	12.2	
Hori	11550.000	PK	40.8	40.9	-1.7	33.4	-	46.6	73.9	27.3	Floor Noise
Hori	17325.000	PK	41.8	42.8	0.0	32.7	-	51.9	73.9	22.0	Floor Noise
Hori	11550.000	AV	31.3	40.9	-1.7	33.4	-	37.1	53.9	16.8	Floor Noise
Hori	17325.000	AV	33.0	42.8	0.0	32.7	-	43.1	53.9	10.8	Floor Noise
Vert	5707.485	PK	51.1	32.5	7.5	31.8	-	59.3	68.2	8.9	
Vert	5715.000	PK	51.4	32.6	7.5	31.8	-	59.7	68.2	8.5	
Vert	5725.000	PK	53.6	32.6	7.6	31.8	-	62.0	78.2	16.2	
Vert	5850.000	PK	52.2	32.8	7.6	31.8	-	60.8	78.2	17.4	
Vert	5860.000	PK	47.2	32.8	7.6	31.8	-	55.8	68.2	12.4	
Vert	11550.000	PK	40.6	40.9	-1.7	33.4	-	46.4	73.9	27.5	Floor Noise
Vert	17325.000	PK	41.6	42.8	0.0	32.7	-	51.7	73.9	22.2	Floor Noise
Vert	11550.000	AV	31.6	40.9	-1.7	33.4	-	37.4	53.9	16.5	Floor Noise
Vert	17325.000	AV	33.1	42.8	0.0	32.7	-	43.2	53.9	10.7	Floor Noise

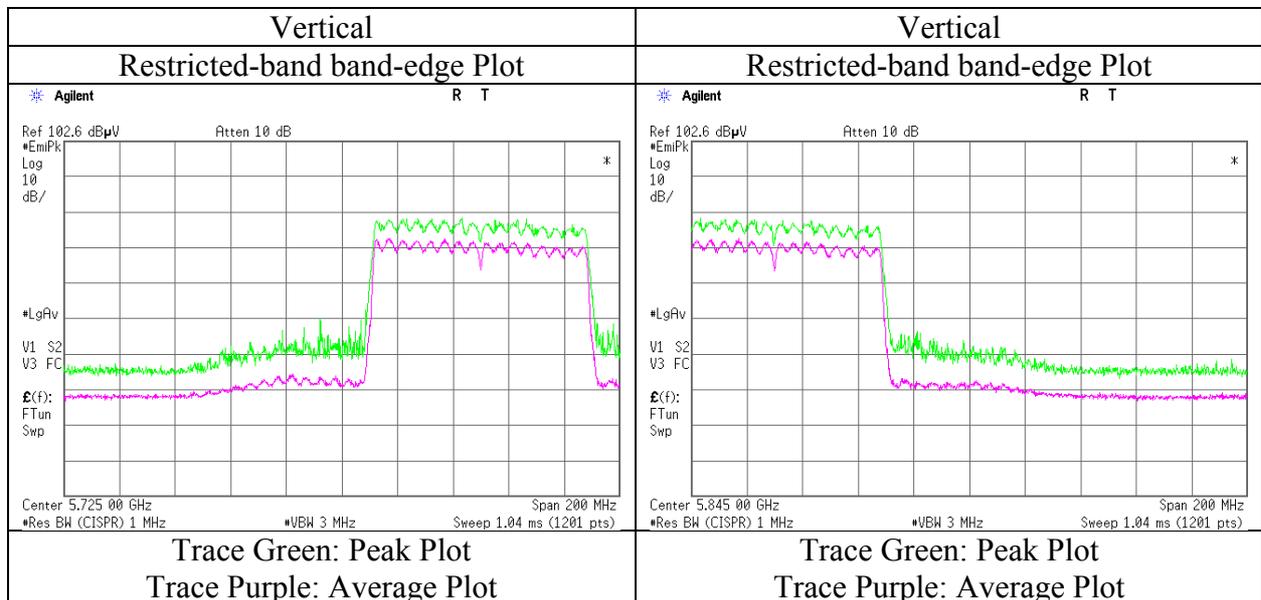
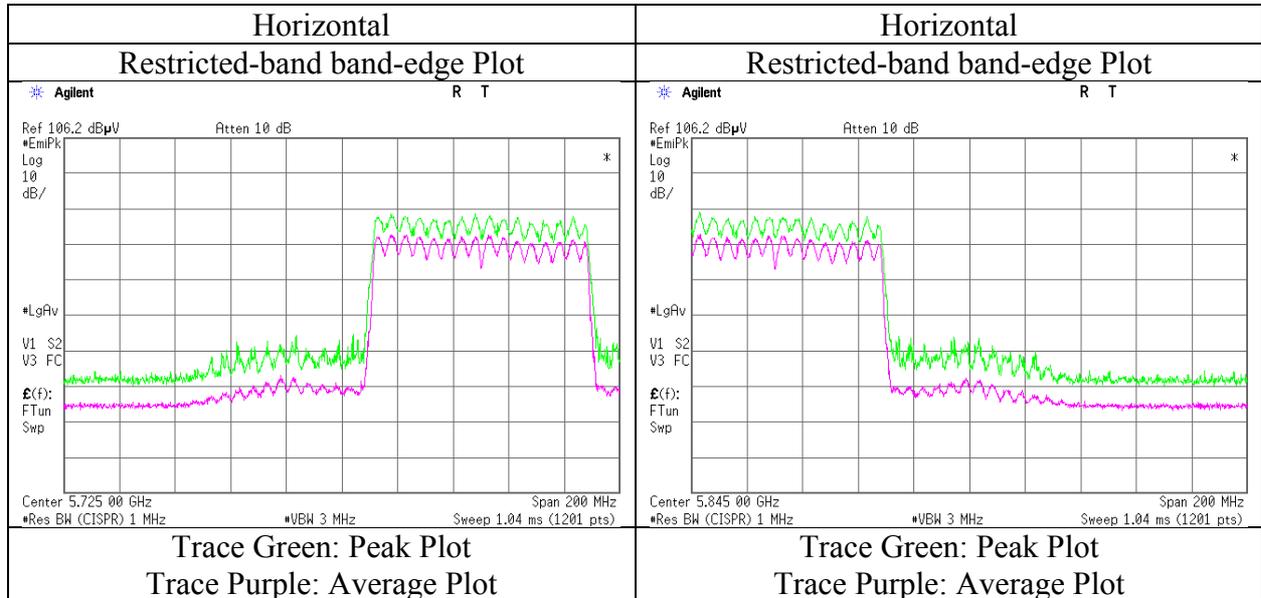
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter+Distance factor(above 1 GHz)) - Gain(Amplifier)

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

Distance factor: 1 GHz - 10 GHz 20log (4.45m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Radiated Spurious Emission

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No.	11240438H
Date	April 11, 2016
Temperature / Humidity	22deg. C / 34 % RH
Engineer	Yuta Moriya
Mode	Tx 11ac-80 5775 MHz



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

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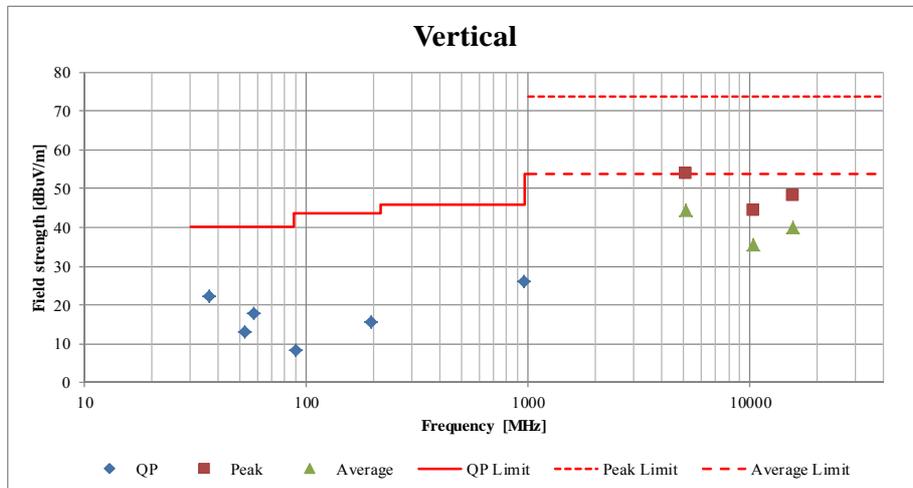
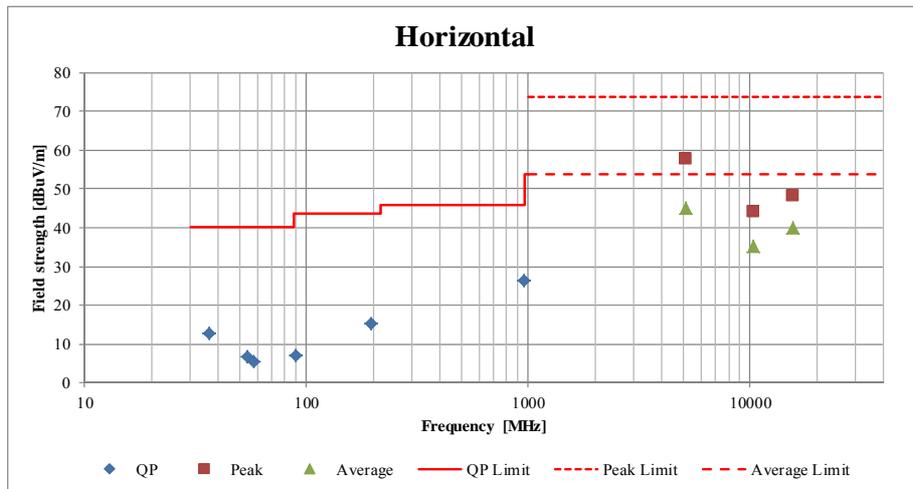
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Radiated Spurious Emission (Plot data, Worst case)

Test place	Ise EMC Lab. No.3 Semi Anechoic Chamber			
Report No.	11240438H			
Date	April 11, 2016	April 12, 2016	April 12, 2016	April 13, 2016
Temperature / Humidity	20deg. C / 46 % RH	18deg. C / 32 % RH	23deg. C / 32 % RH	21deg. C / 51 % RH
Engineer	Tomoki Matsui	Tomoki Matsui	Yuta Moriya	Tomoki Matsui
	(1 GHz-10 GHz)	(10 GHz-26.5 GHz)	(26.5GHz-40GHz)	(Below 1GHz)
Mode	Tx 11a 5180 MHz			



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

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Radiated Spurious Emission

Test place : Ise EMC Lab. No.3 Semi Anechoic Chamber
Report No. : 11240438H
Date : April 12, 2016 April 13, 2016
Temperature / Humidity : 23 deg. C / 32 % RH 24 deg. C / 51 % RH
Engineer : Yuta Moriya Yuta Moriya
(Above 1GHz) (Below 1GHz)
Mode : Tx, Hopping On, 3DH5 and 11ac-20 5700MHz

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	36.565	QP	22.5	15.1	7.1	32.2	-	12.5	40.0	27.5	
Hori	54.232	QP	22.4	8.8	7.4	32.2	-	6.4	40.0	33.6	
Hori	57.990	QP	22.4	7.6	7.5	32.2	-	5.3	40.0	34.7	
Hori	89.575	QP	23.6	8.1	7.9	32.2	-	7.4	43.5	36.1	
Hori	196.551	QP	22.1	16.5	9.0	32.1	-	15.5	43.5	28.0	
Hori	951.995	QP	21.1	22.3	13.6	30.7	-	26.3	46.0	19.7	
Hori	5725.000	PK	57.4	32.6	7.6	31.8	-	65.8	68.2	2.4	
Hori	11400.000	PK	40.7	40.8	-1.7	33.4	-	46.4	73.9	27.5	Floor Noise
Hori	17100.000	PK	41.8	41.8	-0.2	32.8	-	50.6	73.9	23.3	Floor Noise
Hori	11400.000	AV	31.7	40.8	-1.7	33.4	-	37.4	53.9	16.5	Floor Noise
Hori	17100.000	AV	33.0	41.8	-0.2	32.8	-	41.8	53.9	12.1	Floor Noise
Vert	36.555	QP	32.3	15.1	7.1	32.2	-	22.3	40.0	17.7	
Vert	53.012	QP	28.5	9.2	7.4	32.2	-	12.9	40.0	27.1	
Vert	57.990	QP	35.2	7.6	7.5	32.2	-	18.1	40.0	21.9	
Vert	89.432	QP	24.4	8.1	7.9	32.2	-	8.2	43.5	35.3	
Vert	196.551	QP	22.5	16.5	9.0	32.1	-	15.9	43.5	27.6	
Vert	951.995	QP	21.3	22.3	13.6	30.7	-	26.5	46.0	19.5	
Vert	5725.000	PK	55.3	32.6	7.6	31.8	-	63.7	68.2	4.5	
Vert	11400.000	PK	40.8	40.8	-1.7	33.4	-	46.5	73.9	27.4	Floor Noise
Vert	17100.000	PK	42.2	41.8	-0.2	32.8	-	51.0	73.9	22.9	Floor Noise
Vert	11400.000	AV	31.5	40.8	-1.7	33.4	-	37.2	53.9	16.7	Floor Noise
Vert	17100.000	AV	33.2	41.8	-0.2	32.8	-	42.0	53.9	11.9	Floor Noise

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

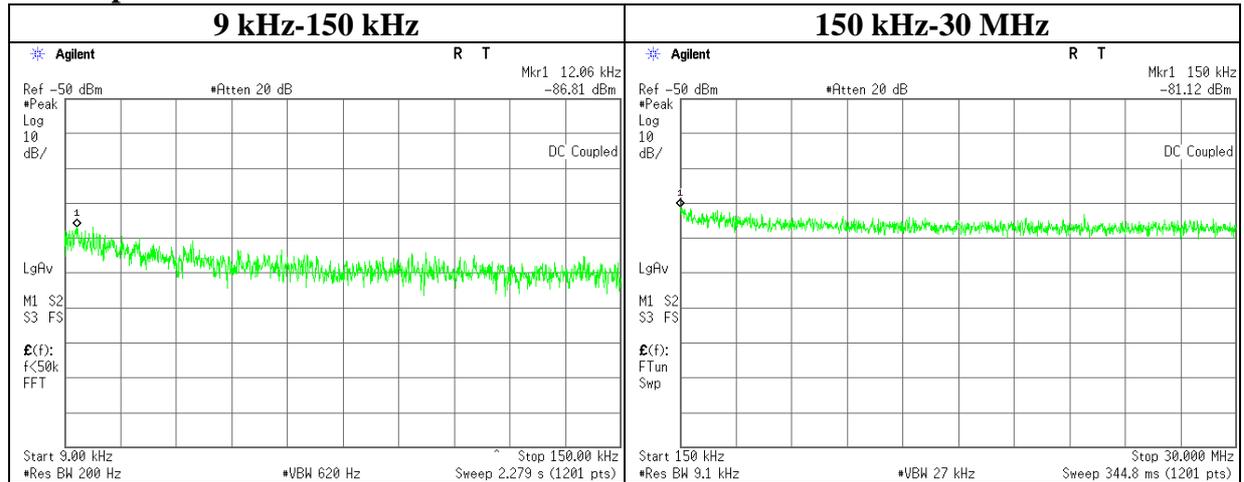
*Other frequency noises omitted in this report were not seen or had enough margin (more than 20 dB).

Distance factor: 1 GHz - 10 GHz 20log (4.45 m / 3.0 m) = 3.42 dB
 10 GHz - 26.5 GHz 20log (1.0 m / 3.0 m) = -9.5 dB
 26.5 GHz - 40 GHz 20log (0.5 m / 3.0 m) = -15.6 dB

Conducted Spurious Emission

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	11240438H
Date	April 18, 2016
Temperature / Humidity	29deg. C / 26 % RH
Engineer	Takafumi Noguchi
Mode	Tx 11a 5180 MHz

Antenna port WC



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator [dB]	Antenna Gain [dBi]	N (Number of Output)	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
12.06	-86.8	0.01	10.0	7.29	2	-66.5	300	6.0	-5.2	45.9	51.1	
150.00	-81.1	0.01	10.0	7.29	2	-60.8	300	6.0	0.5	24.0	23.5	

$$E = \text{EIRP} - 20 \cdot \log(D) + \text{Ground bounce} + 104.8 \text{ [dBuV/m]}$$

$$\text{EIRP} = \text{Reading} + \text{Cable Loss} + \text{Attenuator} + \text{Antenna Gain} + 10 \cdot \log(N)$$

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APPENDIX 2: Test instruments

Test equipment (1/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MMM-12	DIGITAL HiTESTER	Hioki	3805	060500120	RE	2016/02/23 * 12
MAT-23	Attenuator(10dB) 1-18GHz	Orient Microwave	BX10-0476-00	-	AT/RE	2016/03/18 * 12
MCC-173	Microwave Cable	Junkosha	MWX221	1409S496	AT/RE	2016/03/11 * 12
MSA-15	Spectrum Analyzer	Agilent	E4440A	MY46187105	AT/RE	2015/11/11 * 12
MPM-13	Power Meter	Anritsu	ML2495A	0824014	AT	2015/11/11 * 12
MPSE-18	Power sensor	Anritsu	MA2411B	0738174	AT	2015/11/11 * 12
MOS-24	Thermo-Hygrometer	Custom	CTH-201	0005	AT/RE	2016/01/21 * 12
MCC-138	Microwave cable	HUBER+SUHNER	SUCOFLEX 102	37953/2	AT	2015/10/08 * 12
MAT-92	Attenuator	Weinschel Associates	WA56-10	56100308	AT	2015/06/01 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	AT	2015/11/06 * 12
MPM-19	Power Meter	DARE!! Instruments	RPR3006W	14100048SNO0 83	AT	2015/11/09 * 12
MPM-20	Power Meter	DARE!! Instruments	RPR3006W	14100048SNO0 84	AT	2015/11/09 * 12
MAT-80	Attenuator	Weinschel Associates	WA1-20-33	100130	AT	2015/05/04 * 12
MAT-82	Attenuator	Weinschel Associates	WA1-20-33	100132	AT	2015/05/04 * 12
MTA-38	Terminator	OMC	BL01-6118-00 (50Ω SMA)	-	AT	Pre Check
MOS-19	Thermo-Hygrometer	Custom	CTH-201	0001	AT	2015/12/08 * 12
MPM-17	Power Meter	DARE!! Instruments	RPR3006W	14100048SNO0 81	AT	2015/11/09 * 12
MPM-18	Power Meter	DARE!! Instruments	RPR3006W	14100048SNO0 82	AT	2015/11/09 * 12
MAT-81	Attenuator	Weinschel Associates	WA1-20-33	100131	AT	2015/05/04 * 12
MAT-83	Attenuator	Weinschel Associates	WA1-20-33	100133	AT	2015/05/04 * 12
MAEC-03	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE/CE	2015/10/01 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	1301	RE/CE	2016/01/21 * 12
MJM-16	Measure	KOMELON	KMC-36	-	RE/CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MSA-16	Spectrum Analyzer	Agilent	E4440A	MY46186390	RE	2016/02/08 * 12
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	258	RE	2015/05/18 * 12
MCC-167	Microwave Cable	Junkosha	MWX221	1404S374(1m) / 1405S074(5m)	RE	2015/05/21 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	MY39500779	RE	2016/03/24 * 12
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170306	RE	2015/05/19 * 12
MMM-08	DIGITAL HiTESTER	Hioki	3805	051201197	RE/CE	2016/01/13 * 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
MHA-29	Horn Antenna 26.5-40GHz	ETS LINDGREN	3160-10	00152399	RE	2015/09/04 * 12
MHF-22	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCB	602	RE	2016/01/19 * 12
MCC-177	Microwave Cable	Junkosha	MMX221-00500D MSDMS	1502S304	RE	2016/03/10 * 12
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	RE/CE	2016/02/24 * 12
MCC-54	Microwave Cable	Suhner	SUCOFLEX101	2873(1m) / 2876(5m)	RE	2016/03/18 * 12
MTR-08	Test Receiver	Rohde & Schwarz	ESCI	100767	RE/CE	2015/09/02 * 12
MBA-03	Biconical Antenna	Schwarzbeck	BBA9106	1915	RE	2015/10/11 * 12
MLA-22	Logperiodic Antenna(200-1000MHz)	Schwarzbeck	VUSLP9111B	911B-191	RE	2016/01/30 * 12
MCC-51	Coaxial cable	UL Japan	-	-	RE	2015/07/13 * 12
MAT-70	Attenuator(6dB)	Agilent	8491A-006	MY52460153	RE	2016/04/05 * 12
MPA-13	Pre Amplifier	SONOMA INSTRUMENT	310	260834	RE	2016/03/24 * 12

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Test equipment (2/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MLS-23	LISN(AMN)	Schwarzbeck	NSLK8127	8127-729	CE(EUT)	2015/07/10 * 12
MCC-112	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/SFM141(3m)/sucoform141-PE(1m)/421-010(1.5m)/RFM-E321(Switcher)	-/00640	CE	2015/07/02 * 12
MAT-66	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2016/01/14 * 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:
CE: Conducted Emission
RE: Radiated Emission
AT: Antenna Terminal Conducted test

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