



# RADIO TEST REPORT


Test Report No. : 10852538H-A

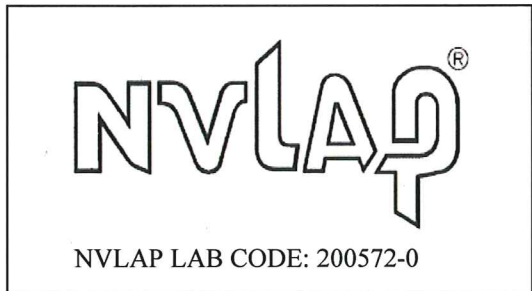
**Applicant** : silex technology, Inc.  
**Type of Equipment** : PCI Express mini card WLAN module  
**Model No.** : SX-PCEAC  
**FCC ID** : N6C-PCEAC  
**Test regulation** : FCC Part 15 Subpart E: 2015  
(Except for DFS test)  
**Test Result** : Complied

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2. The results in this report apply only to the sample tested.
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6. This test report covers Radio technical requirements. It does not cover administrative issues such as Manual or non-Radio test related Requirements. (if applicable)

**Date of test:** June 10 to August 30, 2015

**Representative test engineer:**   
Yutaka Yoshida  
Engineer  
Consumer Technology Division

**Approved by:**   
Takahiro Hatakeda  
Leader  
Consumer Technology Division



This laboratory is accredited by the NVLAP LAB CODE 200572-0, U.S.A. The tests reported herein have been performed in accordance with its terms of accreditation.  
\*As for the range of Accreditation in NVLAP, you may refer to the WEB address,  
<http://www.ul.com/japan/jpn/pages/services/emc/about/mark1/index.jsp#nvlap>

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**REVISION HISTORY**

**Original Test Report No.: 10852538H-A**

Revision	Test report No.	Date	Page revised	Contents
- (Original)	10852538H-A	September 2, 2015	-	-

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## **SECTION 1: Customer information**

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

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

### **2.1 Identification of E.U.T.**

Type of Equipment : PCI Express mini card WLAN module  
Model No. : SX-PCEAC  
Serial No. : Refer to Clause 4.2  
Rating : DC 3.3 V  
Receipt Date of Sample : June 1, 2015  
Country of Mass-production : Japan  
Condition of EUT : Engineering prototype  
(Not for Sale: This sample is equivalent to mass-produced items.)  
Modification of EUT : No Modification by the test lab

### **2.2 Product Description**

Model: SX-PCEAC (referred to as the EUT in this report) is a PCI Express mini card WLAN module.

#### **General Specification**

Clock frequency(ies) in the system : 40 MHz  
Operating Temperature : 0 deg. C - +60 deg. C

#### **Radio Specification**

Radio Type : Transceiver  
Method of Frequency Generation : Synthesizer  
Power Supply (inner) : DC 1.2 V

Type of radio	IEEE802.11a/n/ac (20 M band)	IEEE802.11n/ac (40 M band)	IEEE802.11ac (80 M band)
Frequency of operation	5180 MHz - 5240 MHz 5260 MHz - 5320 MHz 5500 MHz - 5700 MHz 5745 MHz - 5825 MHz	5190 MHz - 5230 MHz 5270 MHz - 5310 MHz 5510 MHz - 5670 MHz 5755 MHz - 5795 MHz	5210 MHz 5290 MHz 5530 MHz - 5610 MHz 5775 MHz
Type of modulation	11a/n: OFDM (64QAM, 16QAM, QPSK, BPSK) 11ac: OFDM (64QAM, 16QAM, QPSK, BPSK, 256QAM)		
Channel spacing	20 MHz	40 MHz	80 MHz
Antenna type	External Antenna		
Antenna connector type	U.FL Alternative connector		
Antenna Gain	W52: 3.5 dBi W53: 3.7 dBi W56: 3.4 dBi W58: 3.1 dBi		

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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 June 12, 2015 and effective July 13, 2015

Title : FCC 47CFR Part15 Radio Frequency Device Subpart E  
Unlicensed National Information Infrastructure Devices  
Section 15.407 General technical requirements

\* The revision on June 12, 2015 does not affect the test specification applied to the EUT.

### **3.2 Procedures and results**

Item	Test Procedure	Specification	Worst margin	Results	Remarks
Conducted Emission	FCC: ANSI C63.4-2009	FCC: 15.407 (b) (6) / 15.207	QP 16.3 dB, 0.38915 MHz, N AV 11.5 dB, 0.38915 MHz, N	Complied	-
	IC: RSS-Gen 8.8	IC: RSS-Gen 8.8			
26 dB Emission Bandwidth	FCC: KDB Publication Number 789033 IC: -	FCC: 15.407 (a) (1) (2) (3) IC: -	See data	N/A	Conducted
Maximum Conducted Output Power	FCC: KDB Publication Number 789033 IC: -	FCC: 15.407 (a) (1) (2) (3) IC: RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)		Complied	Conducted
Maximum Power Spectral Density	FCC: KDB Publication Number 789033 IC: -	FCC : 15.407 (a) (1) (2) (3) IC: RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)		Complied	Conducted
Spurious Emission Restricted Band Edge	FCC: ANSI C63.4-2009 KDB Publication Number 789033 IC: -	FCC: 15.407 (b), 15.205 and 15.209 IC: RSS-247 6.2.1 (2) 6.2.2 (2) 6.2.3 (2) 6.2.4 (2)		2.0 dB 5360.820 MHz, AV, Hori. 5350.000 MHz, 5470.000 MHz, AV, Vert.	Complied
6 dB Emission Bandwidth	FCC: ANSI C63.4-2009 IC: -	FCC: 15.407 (e) IC: RSS-247 6.2.4 (1)	See data	Complied	Conducted

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 10852538H-B 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).

#### **FCC Part 15.31 (e)**

This EUT provides stable voltage (DC 1.2 V) constantly to RF Module regardless of input voltage. Therefore, this EUT complies with the requirement.

#### **FCC Part 15.203/212 Antenna requirement**

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

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### 3.3 Addition to standard

Item	Test Procedure	Specification	Worst margin	Results	Remarks
99% Occupied Band Width	RSS-Gen 6.6	IC: -	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.

Test room (semi-anechoic chamber)	Conducted emission (+dB)
	150kHz-30MHz
No.1	3.5dB
No.2	3.5dB
No.3	3.4dB
No.4	3.5dB

Test room (semi-anechoic chamber)	Radiated emission (10m*)(±dB)		
	9kHz -30MHz	30MHz -300MHz	300MHz -1GHz
No.1	4.2dB	5.3dB	4.9dB
No.2	-	-	-
No.3	-	-	-
No.4	-	-	-

\*10m = Measurement distance

Test room (semi-anechoic chamber)	Radiated emission						
	(3m*)(+dB)				(1m*)(+dB)		(0.5m*)(+dB)
	9kHz -30MHz	30MHz -300MHz	300MHz -1GHz	1GHz -10GHz	10GHz -18GHz	18GHz -26.5GHz	26.5GHz -40GHz
No.1	4.3dB	5.5dB	6.3dB	5.5dB	5.8dB	5.8dB	4.3dB
No.2	4.2dB	5.4dB	6.3dB	5.4dB	5.7dB	5.9dB	5.6dB
No.3	4.4dB	5.4dB	6.4dB	5.2dB	5.5dB	5.8dB	5.5dB
No.4	4.7dB	5.6dB	6.4dB	5.3dB	5.7dB	5.9dB	5.5dB

\*3m/1m/0.5m = Measurement distance

Antenna terminal conducted emission and Power density (+dB)			Antenna terminal conducted emission (+dB)		Channel power (±dB)
Below 1GHz	1GHz-3GHz	3GHz-18GHz	18GHz-26.5GHz	26.5GHz-40GHz	
1.5dB	1.7dB	2.8dB	2.8dB	2.9dB	2.6dB

#### Conducted Emission test

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

#### Radiated emission test(3m)

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

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### 3.5 Test Location

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	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	2973C-1	19.2 x 11.2 x 7.7m	7.0 x 6.0m	No.1 Power source room
No.2 semi-anechoic chamber	2973C-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 semi-anechoic chamber	2973C-3	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.3 Preparation room
No.3 shielded room	-	4.0 x 6.0 x 2.7m	N/A	-
No.4 semi-anechoic chamber	2973C-4	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.4 Preparation room
No.4 shielded room	-	4.0 x 6.0 x 2.7m	N/A	-
No.5 semi-anechoic chamber	-	6.0 x 6.0 x 3.9m	6.0 x 6.0m	-
No.6 shielded room	-	4.0 x 4.5 x 2.7m	4.0 x 4.5 m	-
No.6 measurement room	-	4.75 x 5.4 x 3.0m	4.75 x 4.15 m	-
No.7 shielded room	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.8 measurement room	-	3.1 x 5.0 x 2.7m	N/A	-
No.9 measurement room	-	8.8 x 4.6 x 2.8m	2.4 x 2.4m	-
No.11 measurement room	-	6.2 x 4.7 x 3.0m	4.8 x 4.6m	-

\* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m 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.

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## **SECTION 4: Operation of E.U.T. during testing**

### **4.1 Operating Modes**

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.

<b>Mode</b>	<b>Remarks*</b>
IEEE 802.11a (11a)	6Mbps, PN9
IEEE 802.11n MIMO 20MHz BW (11n-20)	MCS 19(3 stream), PN9
IEEE 802.11n MIMO 40MHz BW (11n-40)	MCS 16(3 stream), PN9
IEEE 802.11ac MIMO 20MHz BW (11ac-20)	MCS 3(3 stream), PN9
IEEE 802.11ac MIMO 40MHz BW (11ac-40)	MCS 0(3 stream), PN9
IEEE 802.11ac MIMO 80MHz BW (11ac-80)	MCS 6(3 stream), PN9
*The worst antenna(Ant: x) and condition was determined based on the test result of Maximum Conducted Output Power.	

\*EUT has the power settings by the software as follows;  
Power settings:

	Power Setting			Power Setting			Power Setting	
	11a	11n-20	11ac-20	11n-40	11ac-40		11ac-80	
5180MHz	14.0	14.0	14.0	5190MHz	14.5	14.5	5210MHz	8.0
5220MHz	14.0	14.0	14.0	5230MHz	16.0	16.0	5290MHz	5.0
5240MHz	14.0	14.0	14.0	5270MHz	16.0	16.0	5530MHz	8.0
5260MHz	14.0	14.0	14.0	5310MHz	14.0	14.0	5610MHz	13.0
5300MHz	14.0	14.0	14.0	5510MHz	13.5	13.5	5775MHz	9.5
5320MHz	14.0	14.0	14.0	5550MHz	16.0	16.0		
5500MHz	12.0	12.0	12.0	5670MHz	11.0	11.0		
5580MHz	12.0	12.0	12.0	5755MHz	9.0	9.0		
5700MHz	8.0	8.0	8.0	5795MHz	9.0	9.0		
5745MHz	7.0	7.0	7.0					
5785MHz	7.0	7.0	7.0					
5825MHz	7.0	7.0	7.0					

Software: ART2\_ver\_4\_9\_802\_1

\*This setting of software is the worst case.  
Any conditions under the normal use do not exceed the condition of setting.  
In addition, end users cannot change the settings of the output power of the product.

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\*The details of Operating mode(s)

Test Item	Operating Mode	Tested Antenna Port *3)	Tested Frequency			
			Low Band	Middle Band	Additional Band	Upper Band
Conducted emission, Radiated Spurious Emission (Below 1GHz)	11n-40 Tx *1)	0+1+2	-	5270MHz *1)	-	-
26dB Emission Bandwidth, 99% Occupied Bandwidth	11a Tx	0	5180MHz	5260MHz	5500MHz	5745MHz
	11n-20 Tx	0	5220MHz	5300MHz	5580MHz	5785MHz
	11ac-20 Tx		5240MHz	5320MHz	5700MHz	5825MHz
	11n-40 Tx	0	5190MHz	5270MHz	5510MHz	5755MHz
	11ac-40 Tx	0	5230MHz	5310MHz	5550MHz	5795MHz
	11ac-80 Tx	0	5210MHz	5290MHz	5530MHz	5775MHz
Maximum Conducted Output Power, Maximum Power Spectral Density	11a Tx	2	5180MHz	5260MHz	5500MHz	5745MHz
	11n-20 Tx	0+1+2	5220MHz	5300MHz	5580MHz	5785MHz
	11ac-20 Tx		5240MHz	5320MHz	5700MHz	5825MHz
	11n-40 Tx	0+1+2	5190MHz	5270MHz	5510MHz	5755MHz
	11ac-40 Tx	0+1+2	5230MHz	5310MHz	5550MHz	5795MHz
	11ac-80 Tx	0+1+2	5210MHz	5290MHz	5530MHz	5775MHz
Radiated Spurious Emission (Above 1GHz)  Band Edge confirmation (Radiated)	11n-20 Tx *4)	0+1+2	5180MHz	5260MHz 5320MHz	5500MHz 5580MHz 5700MHz	5745MHz 5785MHz 5825MHz
	11n-40 Tx *4)	0+1+2	5190MHz	5270MHz 5310MHz	5510MHz 5550MHz 5670MHz	5755MHz 5795MHz
	11ac-80 Tx	0+1+2	5210MHz	5290MHz	5530MHz 5610MHz	5775MHz
Conducted Spurious Emission	11n-40 Tx *1)	0+1+2	-	5270MHz *1)	-	-
6dB Bandwidth	11a Tx	0	-	-	-	5745MHz
	11n-20 Tx					5785MHz
	11ac-20 Tx					5825MHz
	11n-40 Tx	0	-	-	-	5755MHz
	11ac-40 Tx					5795MHz
	11ac-80 Tx	0	-	-	-	5775MHz

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

\*2) Only band edge was tested on this mode 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.

\*3) After the comparison between SISO and MIMO, test was performed with the worst condition as a representative.

\*4) The operating mode was tested as a representative, because it had the highest power at antenna terminal test.

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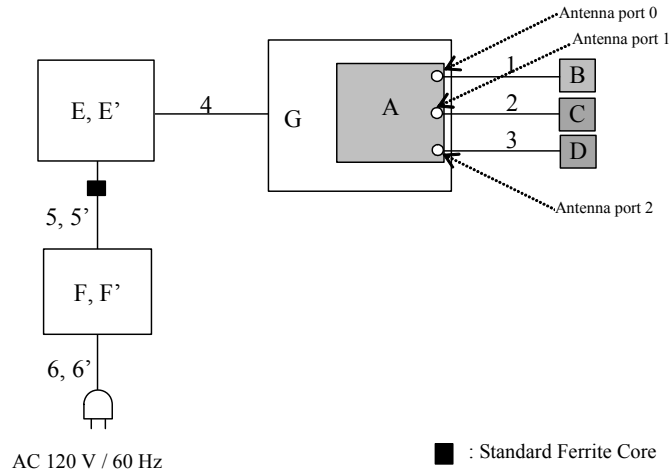
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## 4.2 Configuration and peripherals



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

### Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	PCI Express mini card WLAN module	SX-PCEAC	84253F0107B1	silex technology, Inc.	EUT
B	External antenna	H2B1PC1A1C	1	Unictron Technologies Corporation	EUT
C	External antenna	H2B1PC1A1C	2	Unictron Technologies Corporation	EUT
D	External antenna	H2B1PC1A1C	3	Unictron Technologies Corporation	EUT
E	Laptop PC	Com paq 67306	CNU0092TPJ	HP	-
E'	Laptop PC	E6510	CN-02K3Y4-12961-04P-024E-A00	DELL	*1)
F	AC Adapter	PPP014H-S	F3-0711065670C	HP	-
F'	AC Adapter	LA90PE0-01	CN-03T6XF-71615-1AK-0927-A01	DELL	*1)
G	Jig Board	-	-	silex technology, Inc.	-

\*1) Used for Radiated emission (Below 1GHz) test only

### List of cables used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	Antenna Cable	0.15	Unshielded	Unshielded	-
2	Antenna Cable	0.15	Unshielded	Unshielded	-
3	Antenna Cable	0.15	Unshielded	Unshielded	-
4	Mini PCI Cable	1.00	Shielded	Shielded	-
5	DC Cable	1.80	Unshielded	Unshielded	-
5'	DC Cable	1.80	Unshielded	Unshielded	*1)
6	AC Cable	1.80	Unshielded	Unshielded	-
6'	AC Cable	0.90	Unshielded	Unshielded	*1)

\*1) Used for Radiated emission (Below 1GHz) test only

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## **SECTION 5: Conducted Emission**

### **Test Procedure**

EUT was placed on a urethane platform of nominal size, 1.0m by 1.5m, raised 0.8m 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 cable and AC cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane. All unused 50ohm connectors of the LISN(AMN) were resistivity terminated in 50ohm 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 or a Measurement Room.

The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

<b>Detector</b>	<b>: QP and CISPR AV</b>
<b>Measurement range</b>	<b>: 0.15-30MHz</b>
<b>Test data</b>	<b>: APPENDIX</b>
<b>Test result</b>	<b>: Pass</b>

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## **SECTION 6: Radiated Spurious Emission and Band Edge Compliance**

### **Test Procedure**

EUT was placed on a urethane platform of nominal size, 0.5m by 1.0m, raised 0.8m above the conducting ground plane.

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

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

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

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

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

Apply to limit 68.2dBuV/m(-27dBm e.i.r.p. \*) or  
78.2dBuV/m(-17dBm e.i.r.p. \*) in the Section 15.407(b).

Restricted bandedge:

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	30MHz to 300MHz	300MHz to 1GHz	Above 1GHz
Antenna Type	Biconical	Logperiodic	Horn

Frequency	Below 1GHz	Above 1GHz	
Instrument used	Test Receiver	Spectrum Analyzer	
Detector	QP	PK	AV
IF Bandwidth	BW 120kHz(T/R)	RBW: 1MHz VBW: 3MHz	Method AD *1) RBW: 1MHz VBW: 3MHz Detector: Power Averaging (RMS) Duty factor was added to the results.
Test Distance	3m	3m (below 10GHz), 1m*2) (above 10GHz), 0.5m*3) (above 26.5GHz)	

\*1) The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v01 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E (Issued on June 6, 2014)".

\*2) Distance Factor:  $20 \times \log(3.0m/1.0m) = 9.5dB$

\*3) Distance Factor:  $20 \times \log(3.0m/0.5m) = 15.6dB$

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- 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** : 30M-40GHz  
**Test data** : APPENDIX  
**Test result** : Pass

---

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## **SECTION 7: Antenna Terminal Conducted Tests**

### **Test Procedure**

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

<b>Test</b>	<b>Span</b>	<b>RBW</b>	<b>VBW</b>	<b>Sweep time</b>	<b>Detector</b>	<b>Trace</b>	<b>Instrument used and Test method</b>
Emission Bandwidth	28, 56, 100 MHz	Close to 1% of EBW	Greater than 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
6dB Bandwidth	20, 42, 84 MHz	100kHz	300kHz	Auto	Peak	Max Hold	Spectrum Analyzer
Maximum Conducted Output Power	> Emission Bandwidth	1MHz	3MHz	Auto	Power Averaging (RMS), 150 times	Clear Write	Spectrum Analyzer
Maximum Power Spectral Density	30, 50, 85 MHz	1MHz or 300kHz *2)	3MHz or 910kHz	Auto	Power Averaging (RMS), 150 times	Clear Write	Spectrum Analyzer
Conducted Spurious Emission*3)	9kHz-150kHz 150kHz-30MHz	200Hz 9.1kHz	620Hz 27kHz	Auto	Peak	Max Hold	Spectrum Analyzer

\* The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v01 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E (Issued on June 6, 2014)".

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

\*2) FCC standard says that RBW is set to be 500kHz for 5.725-5.850GHz, but it is not possible with spectrum analyzer, so  $10\log(500\text{kHz}/300\text{kHz})$  was added to the test result.

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

Then, wide-band noise near the limit was checked separately, however the noise was not detected as shown in the chart.(9kHz-150kHz:RBW=200Hz, 150kHz-30MHz:RBW=9.1kHz)

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

**Test data** : **APPENDIX**  
**Test result** : **Pass**

**APPENDIX 1: Test data**

**Conducted Emission**

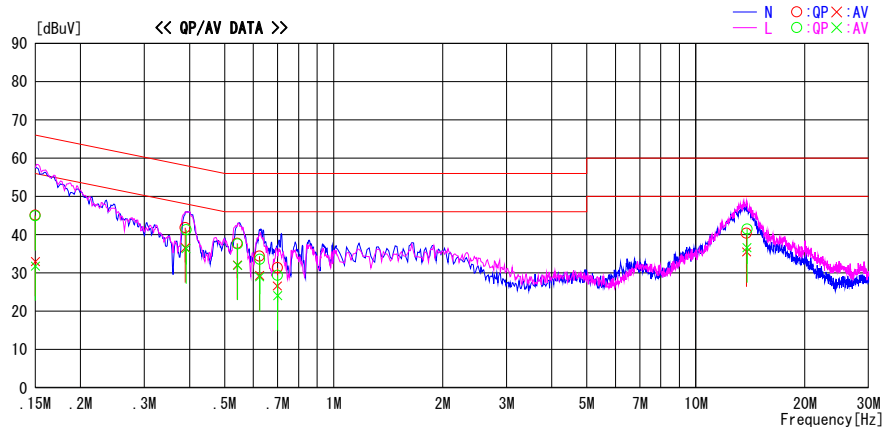
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Ise EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2015/08/19

Report No. : 10852538H  
Temp./Humi. : 21deg. C / 61% RH  
Engineer : Kazuya Yoshioka

Mode / Remarks : WLAN Tx 11n-40(3stream) MCS16 5270MHz

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	31.9	19.8	13.2	45.1	33.0	66.0	56.0	20.9	23.0	N	
0.38915	28.6	23.4	13.2	41.8	36.6	58.1	48.1	16.3	11.5	N	
0.54170	24.5	18.9	13.2	37.7	32.1	56.0	46.0	18.3	13.9	N	
0.62395	21.1	16.0	13.3	34.4	29.3	56.0	46.0	21.6	16.7	N	
0.69915	18.1	13.3	13.3	31.4	26.6	56.0	46.0	24.6	19.4	N	
13.79493	25.9	21.0	14.5	40.4	35.5	60.0	50.0	19.6	14.5	N	
0.15000	31.7	18.6	13.2	44.9	31.8	66.0	56.0	21.1	24.2	L	
0.39155	28.1	23.1	13.2	41.3	36.3	58.0	48.0	16.7	11.7	L	
0.54309	24.4	18.8	13.2	37.6	32.0	56.0	46.0	18.4	14.0	L	
0.62488	20.3	15.7	13.3	33.6	29.0	56.0	46.0	22.4	17.0	L	
0.70026	16.1	10.8	13.3	29.4	24.1	56.0	46.0	26.6	21.9	L	
13.84025	27.0	22.1	14.5	41.5	36.6	60.0	50.0	18.5	13.4	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.

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## 26dB Emission Bandwidth and 99% Occupied Bandwidth

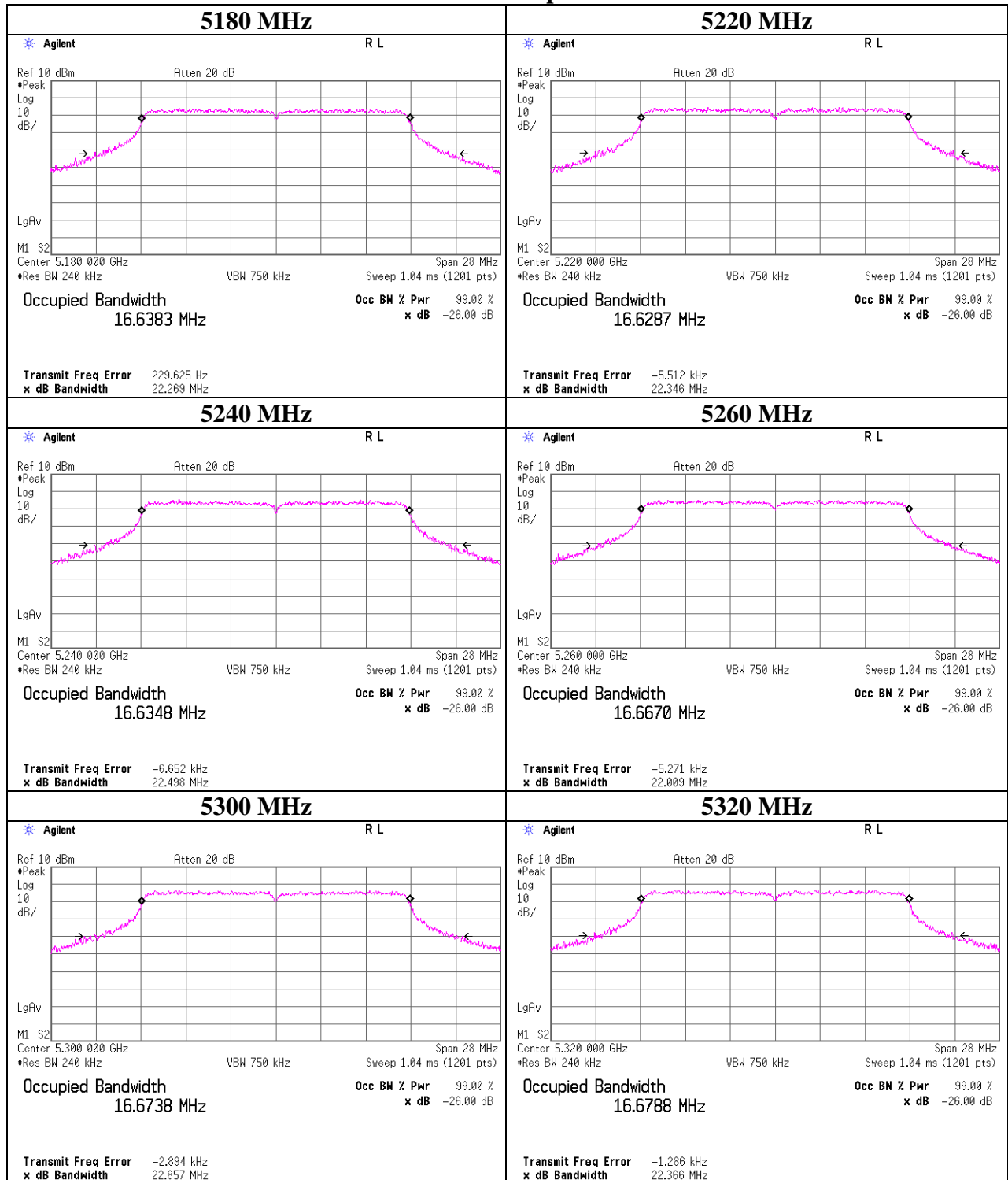
Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/23/2014  
Temperature/ Humidity : 23deg. C / 64% RH  
Engineer : Yutaka Yoshida  
Mode : 11a Tx

Antenna port	Tested Frequency [MHz]	26dB Emission Bandwidth [MHz]	99% Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port 0	5180	22.269	16.638	-
	5220	22.346	16.629	-
	5240	22.498	16.635	-
	5260	22.009	16.667	-
	5300	22.857	16.674	-
	5320	22.366	16.679	-
	5500	23.906	16.689	-
	5580	23.398	16.691	-
	5700	22.277	16.666	-
	5745	22.284	16.678	-
	5785	22.907	16.678	-
5825	22.230	16.653	-	



## 26dB Emission Bandwidth and 99% Occupied Bandwidth

### 11a Antenna port 0



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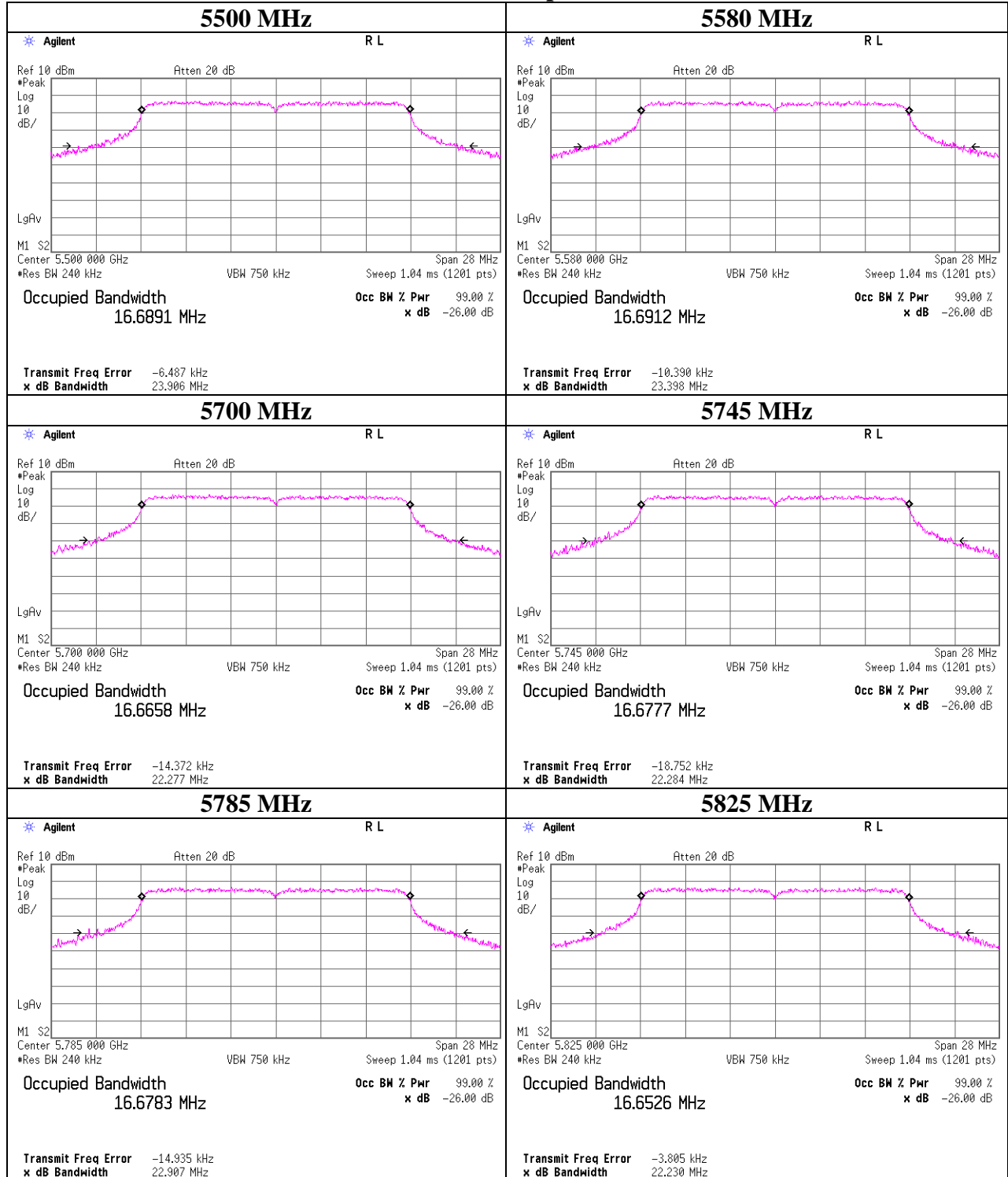
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**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11a Antenna port 0**



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## 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/23/2014  
Temperature/ Humidity : 23deg. C / 64% RH  
Engineer : Yutaka Yoshida  
Mode : 11n-20 Tx

Antenna port	Tested Frequency [MHz]	26dB Emission Bandwidth [MHz]	99% Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port 0	5180	22.965	17.788	-
	5220	23.168	17.786	-
	5240	23.131	17.802	-
	5260	23.058	17.801	-
	5300	23.137	17.792	-
	5320	23.227	17.803	-
	5500	23.086	17.816	-
	5580	23.478	17.790	-
	5700	23.215	17.775	-
	5745	23.318	17.794	-
	5785	23.188	17.810	-
	5825	23.026	17.808	-

---

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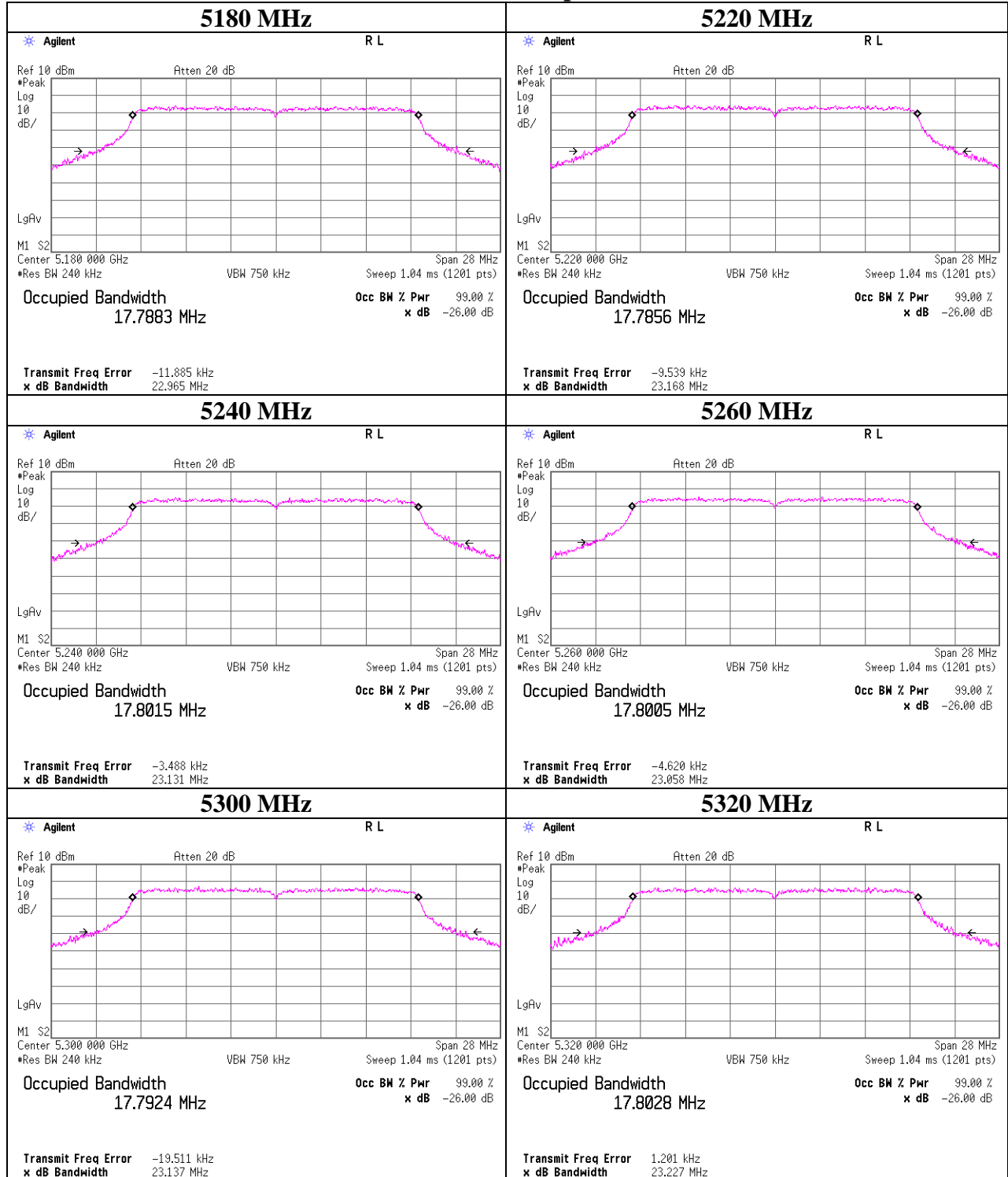
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11n-20 Antenna port 0**



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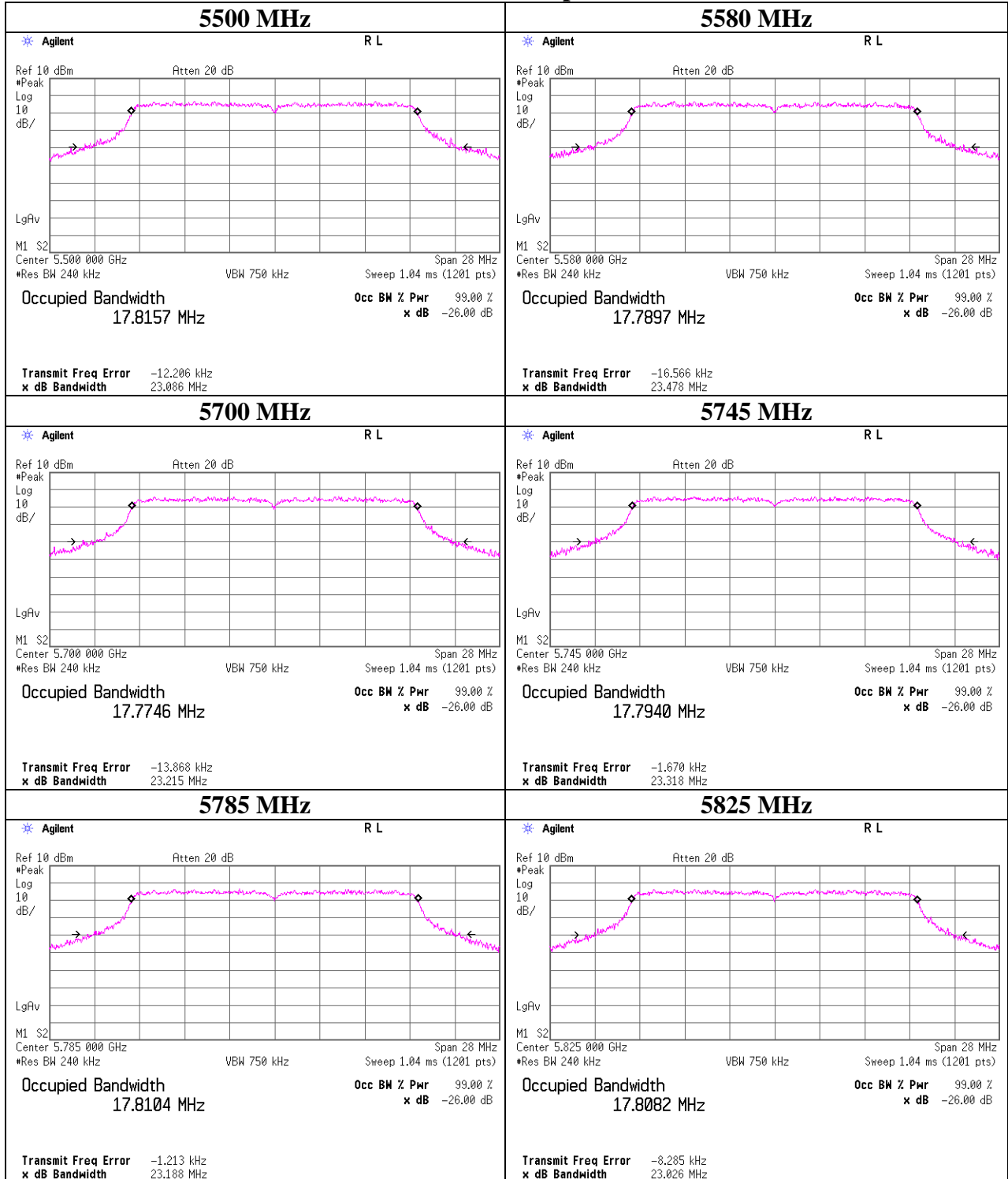
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**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11n-20 Antenna port 0**



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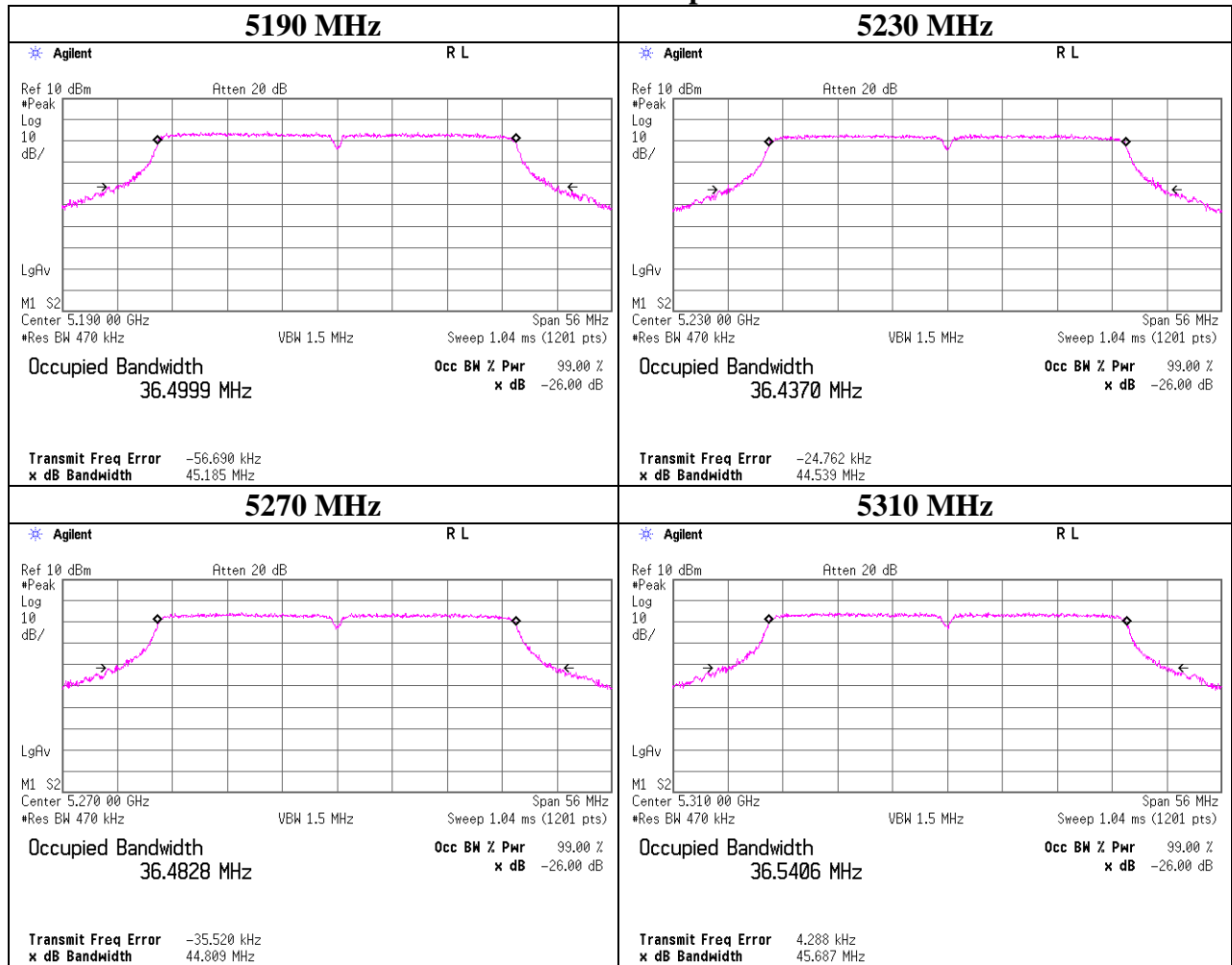
## 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/23/2014  
Temperature/ Humidity : 23deg. C / 64% RH  
Engineer : Yutaka Yoshida  
Mode : 11n-40 Tx

Antenna port	Tested Frequency [MHz]	26dB Emission Bandwidth [MHz]	99% Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port 0	5190	45.185	36.500	-
	5230	44.539	36.437	-
	5270	44.809	36.483	-
	5310	45.687	36.541	-
	5510	45.046	36.526	-
	5550	45.954	36.397	-
	5670	44.189	36.425	-
	5755	45.251	36.457	-
	5795	44.037	36.436	-

**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11n-40 Antenna port 0**

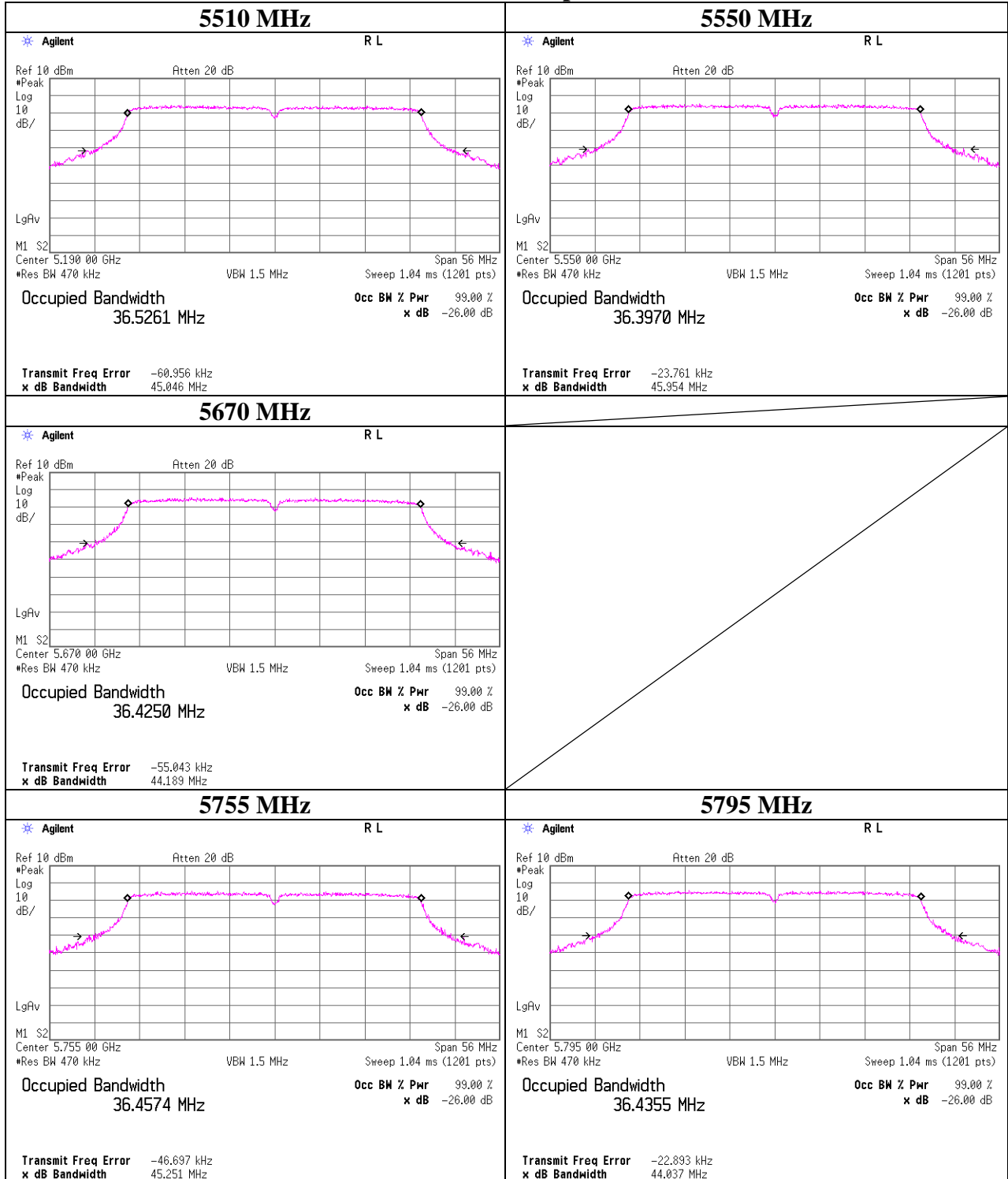


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**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11n-40 Antenna port 0**



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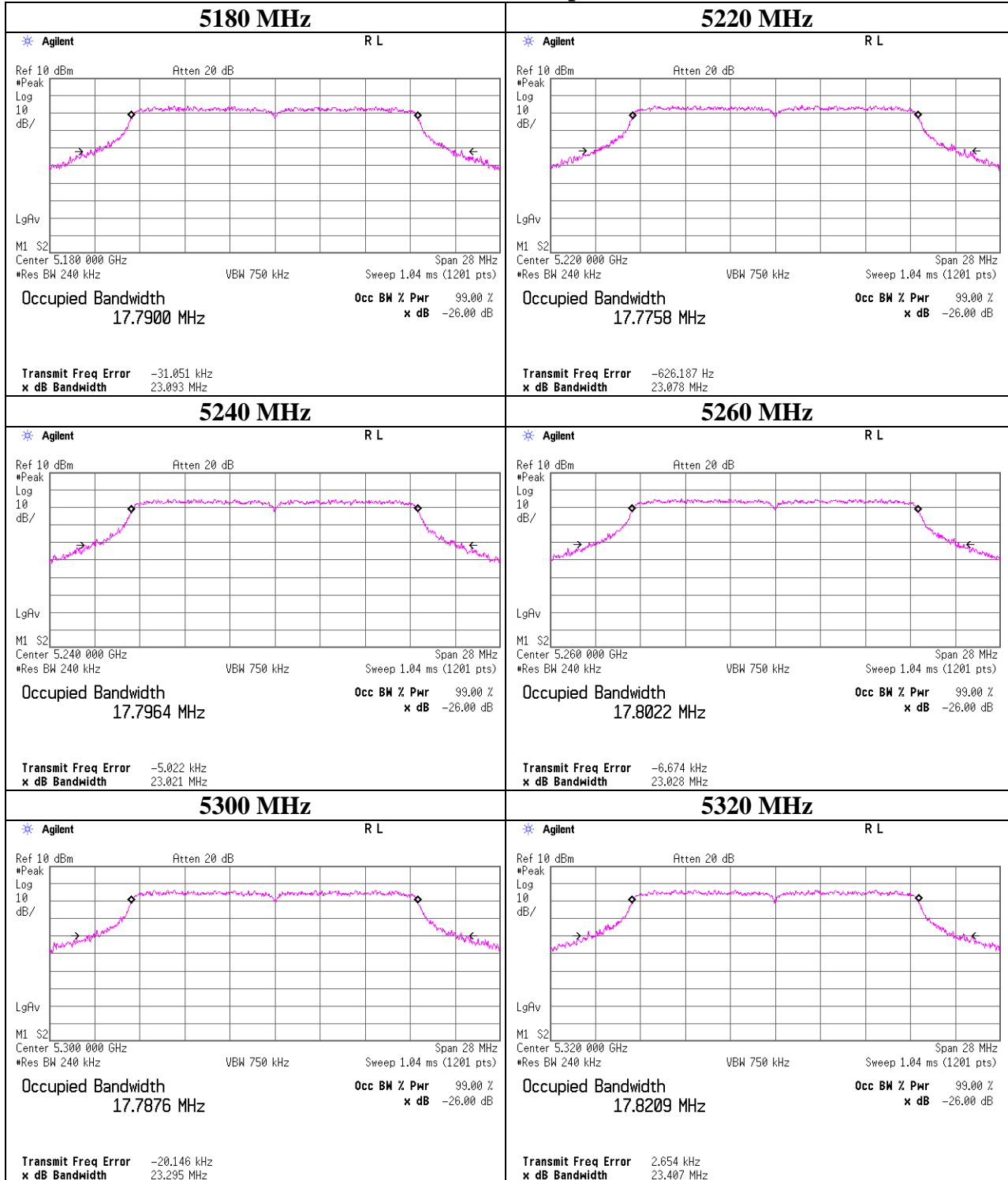
## 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test place Ise EMC Lab. No.11 Measurement Room  
Report No. 10852538H  
Date 06/23/2014  
Temperature/ Humidity 23deg. C / 64% RH  
Engineer Yutaka Yoshida  
Mode 11ac-20 Tx

Antenna port	Tested Frequency [MHz]	26dB Emission Bandwidth [MHz]	99% Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port 0	5180	23.093	17.790	-
	5220	23.078	17.776	-
	5240	23.021	17.796	-
	5260	23.028	17.800	-
	5300	23.295	17.788	-
	5320	23.407	17.821	-
	5500	23.318	17.834	-
	5580	23.427	17.816	-
	5700	23.339	17.807	-
	5745	23.464	17.801	-
	5785	23.182	17.807	-
	5825	23.453	17.809	-

**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11ac-20 Antenna port 0**



**UL Japan, Inc.**

**Ise EMC Lab.**

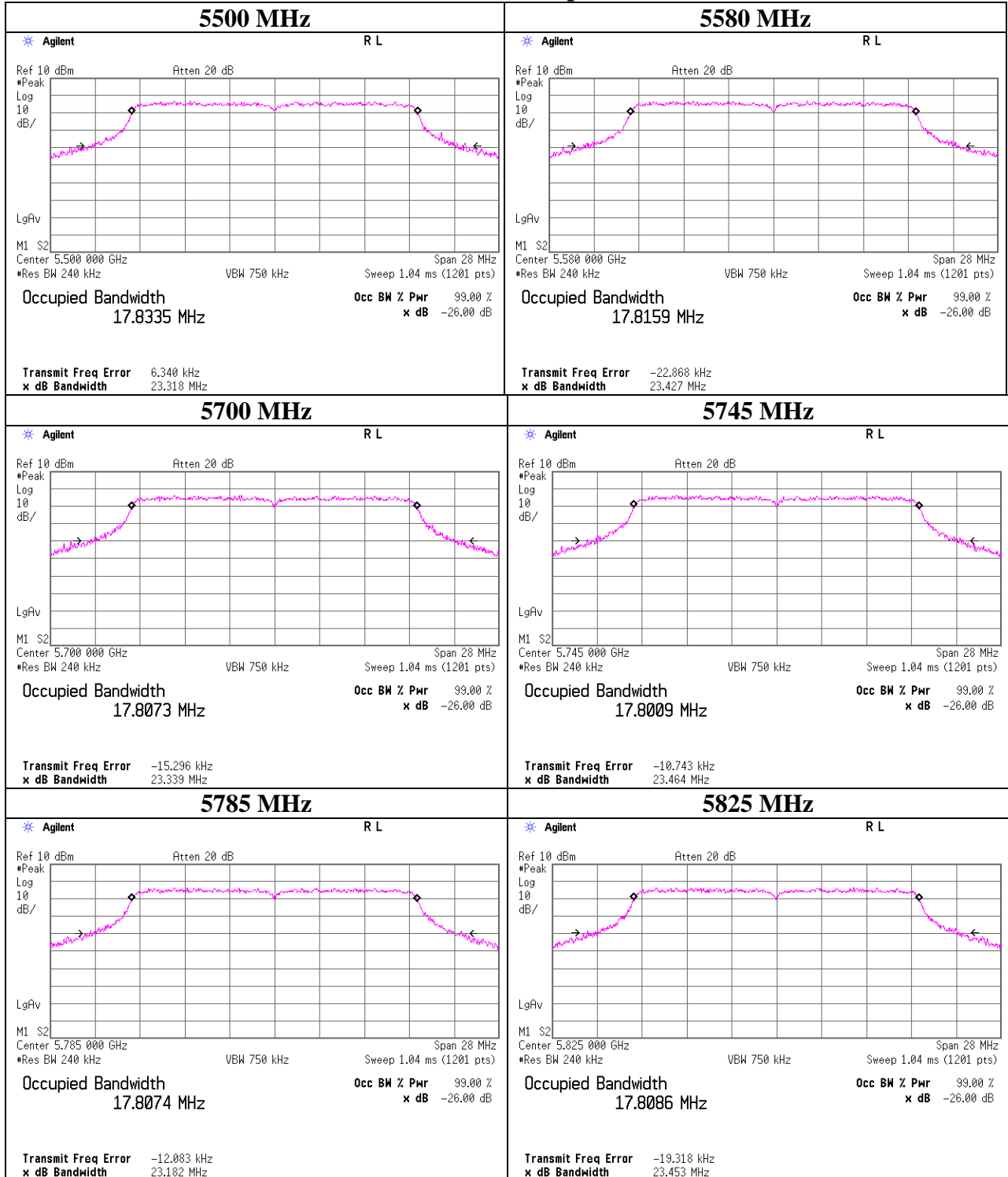
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**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11ac-20 Antenna port 0**



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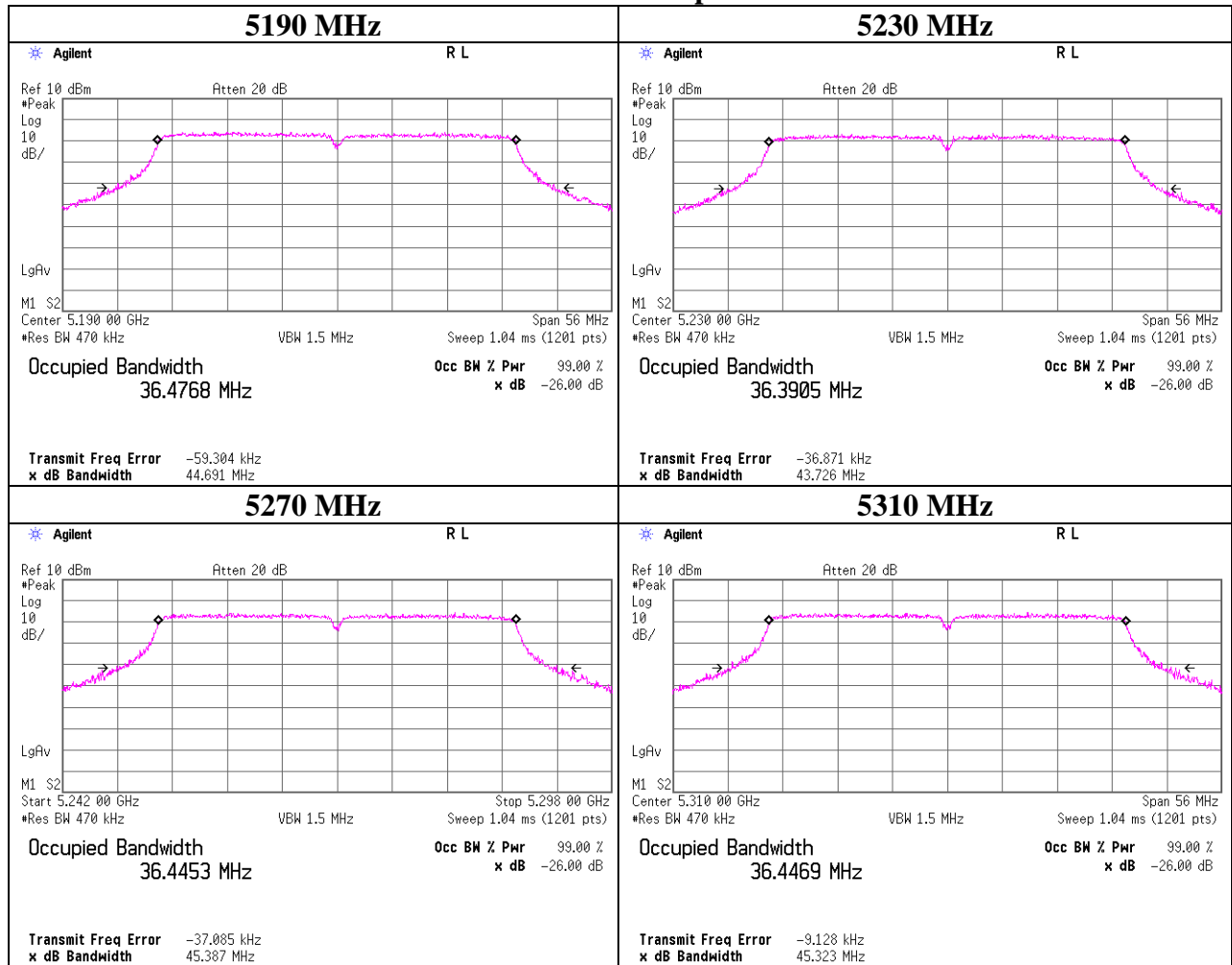
## 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/23/2014  
Temperature/ Humidity : 23deg. C / 64% RH  
Engineer : Yutaka Yoshida  
Mode : 11ac-40 Tx

Antenna port	Tested Frequency [MHz]	26dB Emission Bandwidth [MHz]	99% Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port 0	5190	44.691	36.477	-
	5230	43.726	36.391	-
	5270	45.387	36.445	-
	5310	45.323	36.447	-
	5510	45.185	36.436	-
	5550	45.468	36.406	-
	5670	44.050	36.371	-
	5755	44.941	36.399	-
	5795	44.551	36.450	-

## 26dB Emission Bandwidth and 99% Occupied Bandwidth

### 11ac-40 Antenna port 0

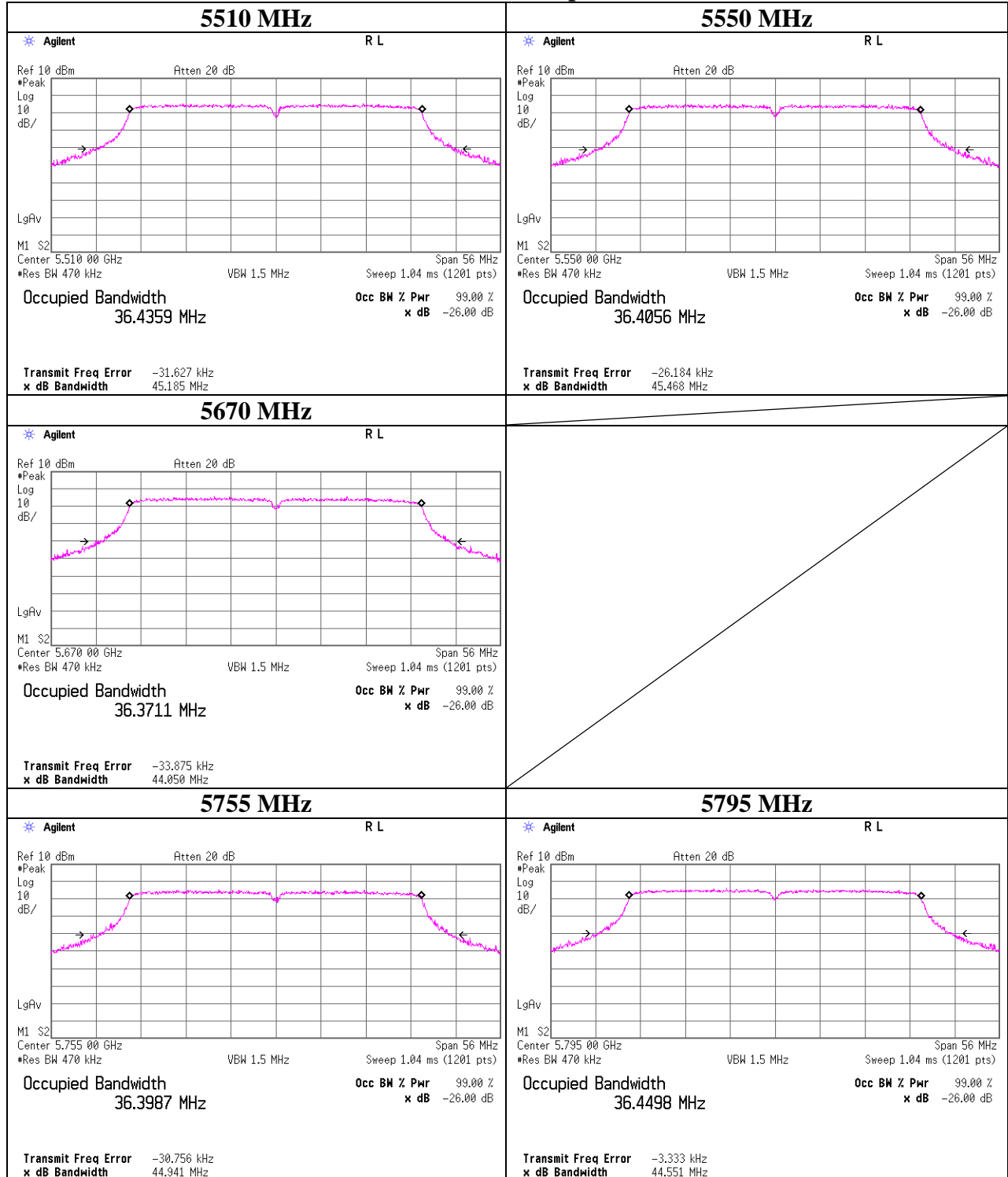


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**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11ac-40 Antenna port 0**



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## 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test place Ise EMC Lab. No.11 Measurement Room  
Report No. 10852538H  
Date 06/23/2014 07/02/2015  
Temperature/ Humidity 23deg. C / 64% RH 23deg. C / 54% RH  
Engineer Yutaka Yoshida Yutaka Yoshida  
Mode 11ac-80 Tx

Antenna port	Tested Frequency [MHz]	26dB Emission Bandwidth [MHz]	99% Occupied Bandwidth [MHz]	Limit [MHz]
Antenna port 0	5210	80.662	75.609	-
	5290	80.812	75.594	-
	5530	80.686	75.534	-
	5610	79.965	75.669	-
	5775	80.449	75.477	-

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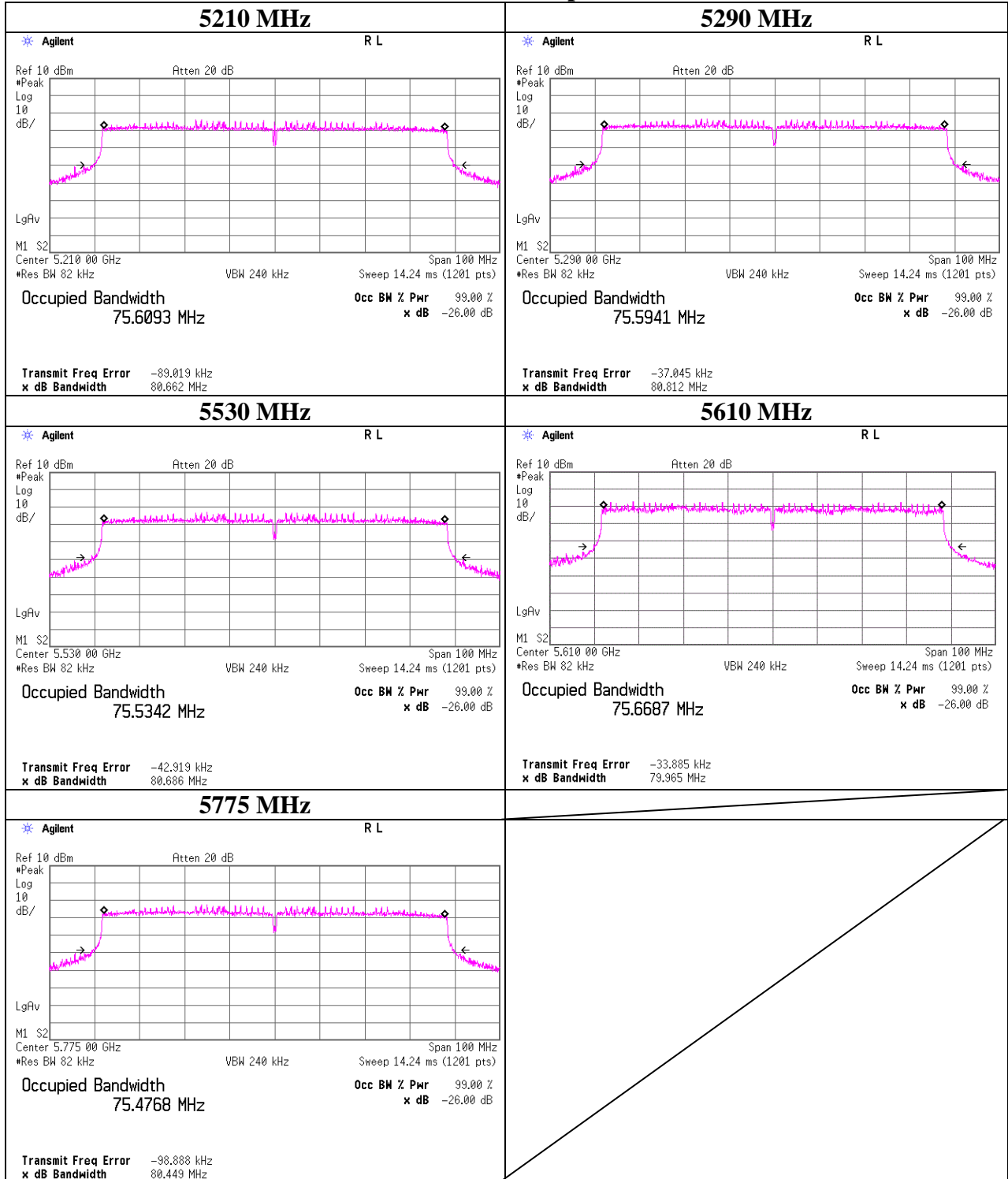
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**26dB Emission Bandwidth and 99% Occupied Bandwidth**

**11ac-80 Antenna port 0**



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## 6dB Bandwidth

Test place Ise EMC Lab. No.11 Measurement Room  
Report No. 10852538H  
Date 6/24/2014  
Temperature/ Humidity 26deg. C / 33% RH  
Engineer Yutaka Yoshida  
Mode Tx

11a

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	16.355	>500
5785	16.322	>500
5825	16.342	>500

11n-20

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	17.596	>500
5785	17.580	>500
5825	17.574	>500

11n-40

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5755	36.301	>500
5795	35.940	>500

11ac-20

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5745	17.572	>500
5785	17.571	>500
5825	17.349	>500

11ac40

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5755	36.098	>500
5795	35.739	>500

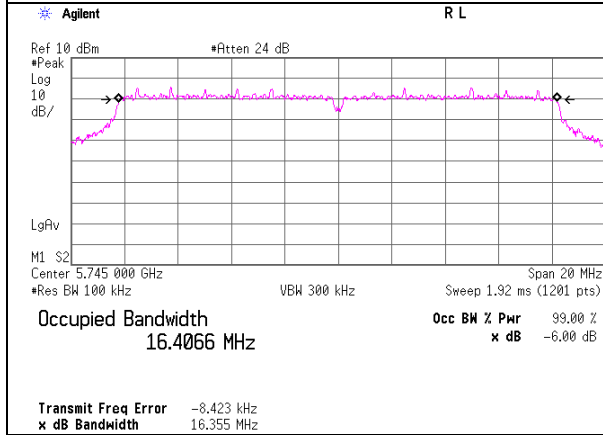
11ac-80

Frequency [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
5775	75.729	>500

**6dB Bandwidth**

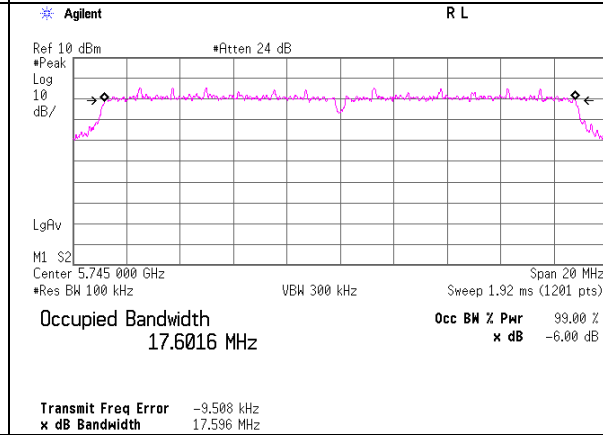
**11a(Antenna port 0)**

**5745 MHz**

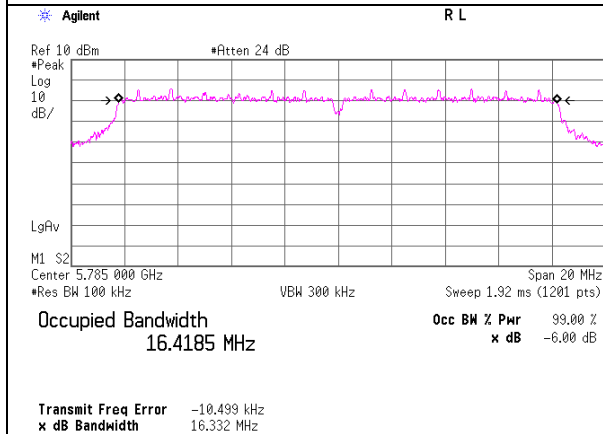


**11n-20(Antenna port 0)**

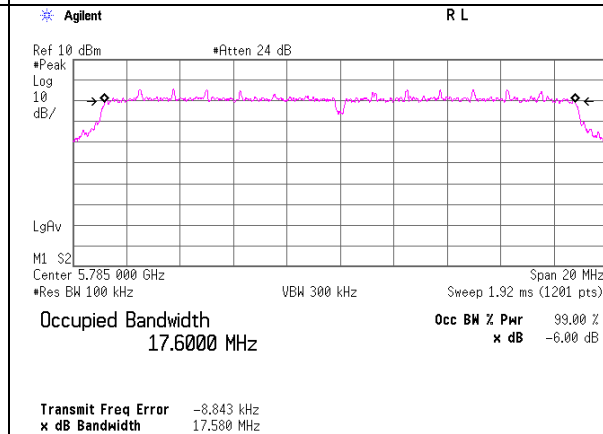
**5745 MHz**



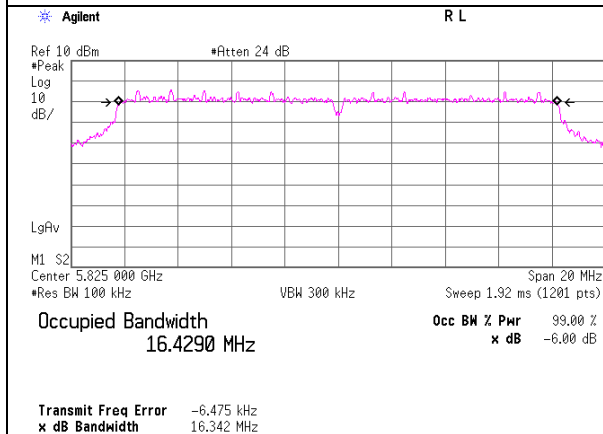
**5785 MHz**



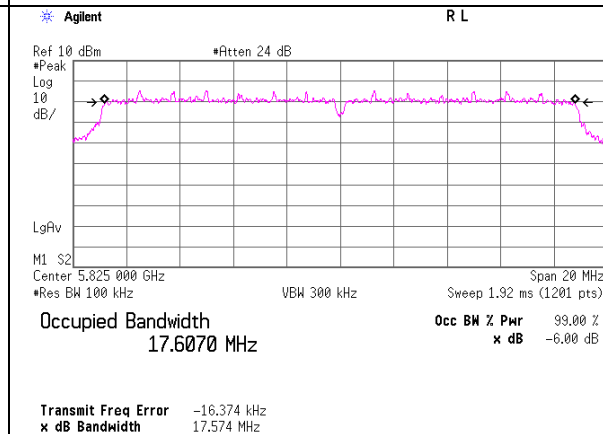
**5785 MHz**



**5825 MHz**



**5825 MHz**

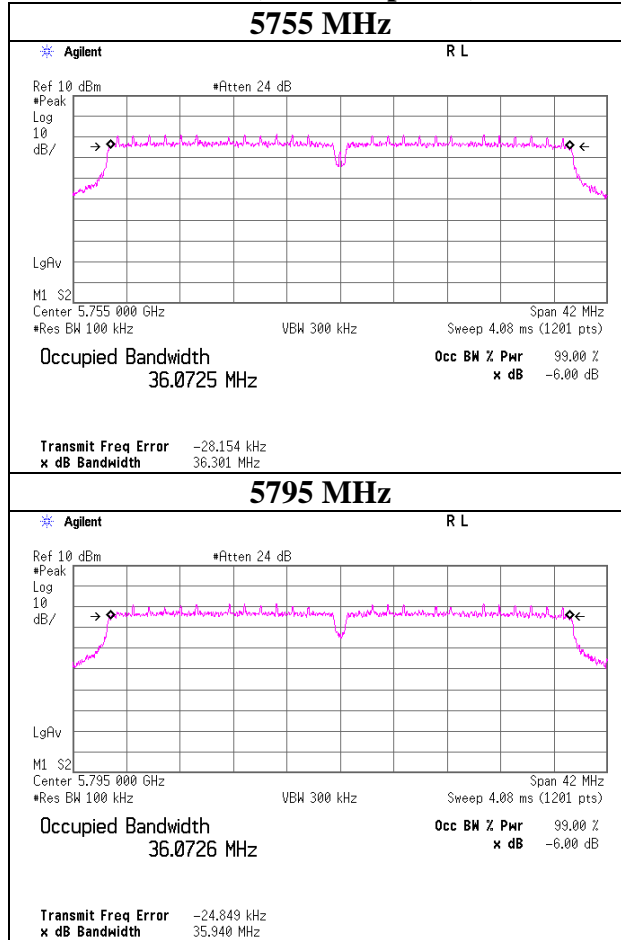


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## 6dB Bandwidth

### 11n-40(Antenna port 0)



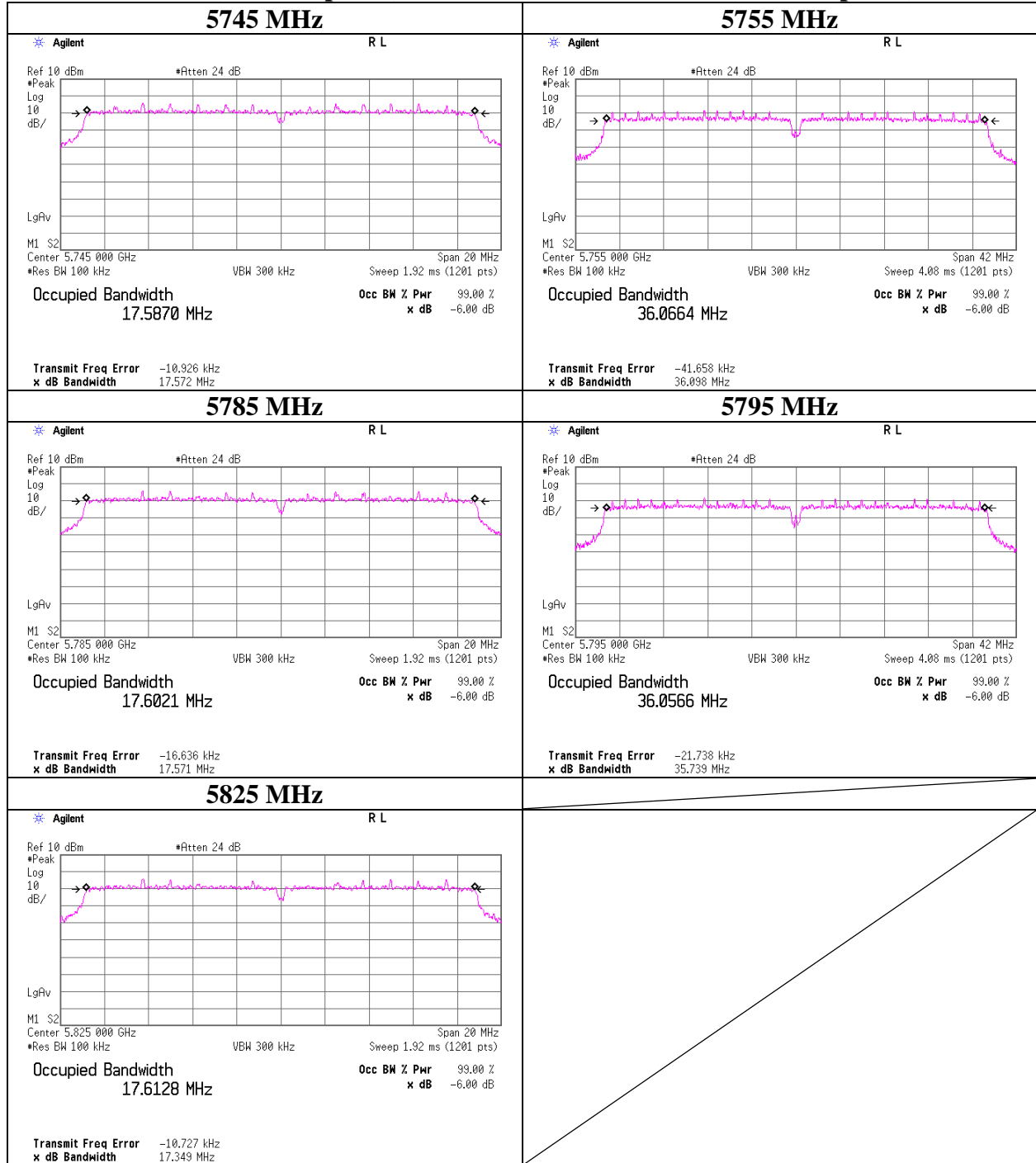
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**6dB Bandwidth**

**11ac-20(Antenna port 0)**

**11ac-40(Antenna port 0)**

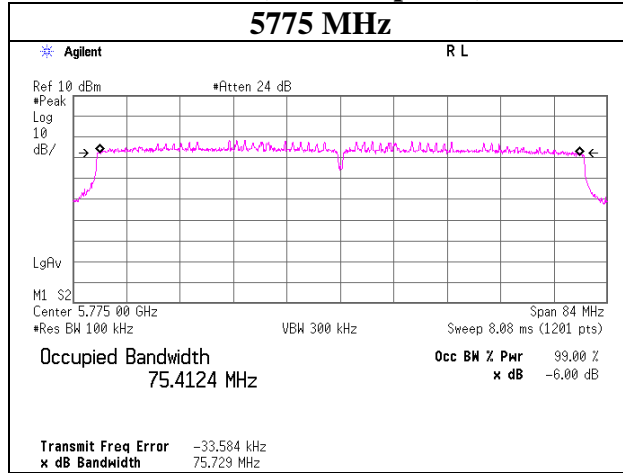


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## 6dB Bandwidth

### 11ac-80(Antenna port 0)



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## Maximum Conducted Output Power

Test place Ise EMC Lab. No.6 Measurement Room  
Report No. 10852538H  
Date 08/20/2015 08/25/2015  
Temperature/ Humidity 24deg. C / 66% RH 25deg. C / 68% RH  
Engineer Yutaka Yoshida Shinichi Miyazono  
Mode 11a Tx

**Antenna port 2(6Mbps)** Gating ON(Test Method: SA-1) Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	26 dB EBW [MHz]	99% OBW [MHz]	Conducted Power			e.i.r.p.				
								Result [dBm]	Limit [dBm]	Margin [dB]	Result [dBm]	Limit [dBm]	Margin [dB]		
5180	4.97	0.56	6.16	0.00	3.5	-	16.638	11.69	14.76	23.97	12.28	15.19	33.04	29.97	14.78
5220	3.65	0.57	6.16	0.00	3.5	-	16.629	10.37	10.90	23.97	13.60	13.87	24.41	29.97	16.10
5240	3.50	0.57	6.16	0.00	3.5	-	16.635	10.22	10.52	23.97	13.75	13.72	23.56	29.97	16.25
5260	5.06	0.57	6.16	0.00	3.7	22.009	16.667	11.79	15.09	23.97	12.18	15.49	35.38	29.97	14.48
5300	6.08	0.57	6.16	0.00	3.7	22.857	16.674	12.81	19.08	23.97	11.16	16.51	44.74	29.97	13.46
5320	6.07	0.57	6.16	0.00	3.7	22.366	16.679	12.81	19.08	23.97	11.16	16.51	44.72	29.97	13.46
5500	4.30	0.58	6.17	0.00	3.4	23.906	16.689	11.04	12.70	23.97	12.93	14.44	27.78	29.97	15.53
5580	4.28	0.57	6.16	0.00	3.4	23.398	16.691	11.00	12.60	23.97	12.97	14.40	27.57	29.97	15.57
5700	4.20	0.57	6.16	0.00	3.4	22.277	16.666	10.93	12.38	23.97	13.04	14.33	27.09	29.97	15.64
5745	-0.70	0.57	6.16	0.00	3.1	-	-	6.03	4.01	30.00	23.97	9.13	8.18	36.00	26.87
5785	-0.66	0.57	6.16	0.00	3.1	-	-	6.07	4.05	30.00	23.93	9.17	8.26	36.00	26.83
5825	-0.59	0.57	6.16	0.00	3.1	-	-	6.14	4.11	30.00	23.86	9.24	8.39	36.00	26.76

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + 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

**UL Japan, Inc.**

**Ise EMC Lab.**

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## Maximum Conducted Output Power

Test place : Ise EMC Lab. No.6 Measurement Room  
Report No. : 10852538H  
Date : 06/10/2014                      08/20/2015                      08/25/2015  
Temperature/ Humidity : 26deg.C / 56% RH                      24deg.C / 66% RH                      25deg. C / 68% RH  
Engineer : Yutaka Yoshida                      Yutaka Yoshida                      Shinichi Miyazono  
Mode : 11n-20 Tx

**Antenna port 0+1+2 (MCS 19)**                      Gating OFF(Test Method: SA-2)                      Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW [MHz]	99% OBW [MHz]	Conducted Power							e.i.r.p.						
			Antenna				Result [dBm]	Limit [dBm]	Margin [dB]	Antenna				Result [dBm]	Limit [dBm]	Margin [dB]
			0 [mW]	1 [mW]	2 [mW]	Sum [mW]				0 [mW]	1 [mW]	2 [mW]	Sum [mW]			
5180	-	17.788	12.34	15.95	10.50	38.79	15.89	23.97	8.08	27.61	35.71	23.50	86.83	19.39	29.97	10.58
5220	-	17.786	11.74	16.82	11.93	40.49	16.07	23.97	7.90	26.28	37.66	26.70	90.64	19.57	29.97	10.40
5240	-	17.802	12.24	17.79	10.78	40.80	16.11	23.97	7.86	27.40	39.82	24.13	91.35	19.61	29.97	10.36
5260	23.058	17.801	32.87	30.74	33.74	97.35	19.88	23.97	4.09	77.06	72.05	79.09	228.20	23.58	29.97	6.39
5300	23.137	17.792	36.07	31.49	34.65	102.21	20.09	23.97	3.88	84.56	73.82	81.22	239.61	23.79	29.97	6.18
5320	23.227	17.803	37.10	31.07	33.76	101.92	20.08	23.97	3.89	86.97	72.84	79.13	238.93	23.78	29.97	6.19
5500	23.086	17.816	14.14	15.13	14.07	43.35	16.37	23.97	7.60	30.95	33.10	30.78	94.83	19.77	29.97	10.20
5580	23.478	17.790	12.85	14.29	13.77	40.91	16.12	23.97	7.85	28.11	31.27	30.12	89.50	19.52	29.97	10.45
5700	23.215	17.775	5.30	5.93	5.07	16.31	12.12	23.97	11.85	11.60	12.98	11.10	35.68	15.52	29.97	14.45
5745	-	-	4.52	4.50	4.08	13.11	11.18	30.00	18.82	9.24	9.19	8.34	26.77	14.28	36.00	21.72
5785	-	-	4.42	4.69	4.32	13.43	11.28	30.00	18.72	9.03	9.57	8.83	27.43	14.38	36.00	21.62
5825	-	-	4.25	4.62	4.17	13.04	11.15	30.00	18.85	8.67	9.43	8.51	26.62	14.25	36.00	21.75

Tested Frequency [MHz]	Duty Factor [dB]	Antenna port 0					Antenna port 1						
		Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]	Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]
5180	1.41	2.78	0.56	6.16	3.50	10.91	14.41	3.90	0.56	6.16	3.50	12.03	15.53
5220	1.41	2.56	0.57	6.16	3.50	10.70	14.20	4.12	0.57	6.16	3.50	12.26	15.76
5240	1.41	2.74	0.57	6.16	3.50	10.88	14.38	4.36	0.57	6.16	3.50	12.50	16.00
5260	1.41	7.03	0.57	6.16	3.70	15.17	18.87	6.74	0.57	6.16	3.70	14.88	18.58
5300	1.41	7.43	0.57	6.16	3.70	15.57	19.27	6.84	0.57	6.16	3.70	14.98	18.68
5320	1.41	7.55	0.57	6.16	3.70	15.69	19.39	6.78	0.57	6.16	3.70	14.92	18.62
5500	1.41	3.35	0.58	6.17	3.40	11.51	14.91	3.65	0.58	6.17	3.40	11.80	15.20
5580	1.41	2.95	0.57	6.16	3.40	11.09	14.49	3.42	0.57	6.16	3.40	11.55	14.95
5700	1.41	-0.90	0.57	6.16	3.40	7.25	10.65	-0.41	0.57	6.16	3.40	7.73	11.13
5745	1.41	-1.58	0.57	6.16	3.10	6.56	9.66	-1.60	0.57	6.16	3.10	6.53	9.63
5785	1.41	-1.68	0.57	6.16	3.10	6.46	9.56	-1.43	0.57	6.16	3.10	6.71	9.81
5825	1.41	-1.85	0.57	6.16	3.10	6.28	9.38	-1.49	0.57	6.16	3.10	6.65	9.75

Tested Frequency [MHz]	Duty Factor [dB]	Antenna port 2					
		Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]
5180	1.41	2.08	0.56	6.16	3.50	10.21	13.71
5220	1.41	2.63	0.57	6.16	3.50	10.76	14.26
5240	1.41	2.19	0.57	6.16	3.50	10.33	13.83
5260	1.41	7.14	0.57	6.16	3.70	15.28	18.98
5300	1.41	7.26	0.57	6.16	3.70	15.40	19.10
5320	1.41	7.14	0.57	6.16	3.70	15.28	18.98
5500	1.41	3.33	0.58	6.17	3.40	11.48	14.88
5580	1.41	3.25	0.57	6.16	3.40	11.39	14.79
5700	1.41	-1.09	0.57	6.16	3.40	7.05	10.45
5745	1.41	-2.03	0.57	6.16	3.10	6.11	9.21
5785	1.41	-1.78	0.57	6.16	3.10	6.36	9.46
5825	1.41	-1.93	0.57	6.16	3.10	6.20	9.30

Sample Calculation:  
Conducted Power Result = Reading + Cable Loss + 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

## Maximum Conducted Output Power

Test place : Ise EMC Lab. No.6 Measurement Room  
Report No. : 10852538H  
Date : 06/11/2015                      08/20/2015                      08/25/2015  
Temperature/ Humidity : 23deg.C / 72% RH      25deg.C / 60% RH      25deg. C / 68% RH  
Engineer : Yutaka Yoshida              Kazuya Yoshioka              Shinichi Miyazono  
Mode : 11n-40 Tx

**Antenna port 0+1+2 (MCS 16)**                      Gating OFF(Test Method: SA-2)                      Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW [MHz]	99% OBW [MHz]	Conducted Power							e.i.r.p.						
			Antenna				Result [dBm]	Limit [dBm]	Margin [dB]	Antenna				Result [dBm]	Limit [dBm]	Margin [dB]
			0 [mW]	1 [mW]	2 [mW]	Sum [mW]				0 [mW]	1 [mW]	2 [mW]	Sum [mW]			
5190	-	36.500	17.59	23.72	15.42	56.73	17.54	23.97	6.43	39.38	53.10	34.53	127.01	21.04	29.97	8.93
5230	-	36.437	19.38	24.98	13.95	58.31	17.66	23.97	6.31	43.39	55.93	31.22	130.54	21.16	29.97	8.81
5270	44.809	36.483	54.76	31.13	33.52	119.41	20.77	23.97	3.20	128.37	72.97	78.57	279.91	24.47	29.97	5.50
5310	45.687	36.541	16.79	21.94	18.02	56.76	17.54	23.97	6.43	39.37	51.44	42.24	133.05	21.24	29.97	8.73
5510	45.046	36.526	19.95	19.30	19.79	59.03	17.71	23.97	6.26	43.64	42.22	43.29	129.15	21.11	29.97	8.86
5550	45.954	36.397	40.24	30.28	34.96	105.47	20.23	23.97	3.74	88.03	66.24	76.48	230.75	23.63	29.97	6.34
5670	44.189	36.425	10.89	11.23	9.76	31.88	15.04	23.97	8.93	23.83	24.57	21.35	69.75	18.44	29.97	11.53
5755	-	-	6.64	6.91	6.15	19.70	12.94	30.00	17.06	13.55	14.12	12.55	40.22	16.04	36.00	19.96
5795	-	-	6.49	7.27	6.54	20.29	13.07	30.00	16.93	13.24	14.84	13.35	41.43	16.17	36.00	19.83

Tested Frequency [MHz]	Duty Factor [dB]	Antenna port 0					Antenna port 1						
		Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]	Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]
5190	0.99	4.74	0.57	6.16	3.50	12.45	15.95	6.04	0.57	6.16	3.50	13.75	17.25
5230	0.99	5.16	0.57	6.16	3.50	12.87	16.37	6.26	0.57	6.16	3.50	13.98	17.48
5270	0.99	9.66	0.57	6.16	3.70	17.38	21.08	7.21	0.57	6.16	3.70	14.93	18.63
5310	0.99	4.51	0.58	6.17	3.70	12.25	15.95	5.68	0.58	6.17	3.70	13.41	17.11
5510	0.99	5.26	0.58	6.17	3.40	13.00	16.40	5.12	0.58	6.17	3.40	12.86	16.26
5550	0.99	8.31	0.58	6.17	3.40	16.05	19.45	7.08	0.58	6.17	3.40	14.81	18.21
5670	0.99	2.65	0.57	6.16	3.40	10.37	13.77	2.78	0.57	6.16	3.40	10.50	13.90
5755	0.99	0.50	0.57	6.16	3.10	8.22	11.32	0.68	0.57	6.16	3.10	8.40	11.50
5795	0.99	0.41	0.57	6.16	3.10	8.12	11.22	0.90	0.57	6.16	3.10	8.61	11.71

Tested Frequency [MHz]	Duty Factor [dB]	Antenna port 2						
		Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]	
5190	0.99	4.17	0.57	6.16	3.50	11.88	15.38	
5230	0.99	3.73	0.57	6.16	3.50	11.44	14.94	
5270	0.99	7.53	0.57	6.16	3.70	15.25	18.95	
5310	0.99	4.82	0.58	6.17	3.70	12.56	16.26	
5510	0.99	5.23	0.58	6.17	3.40	12.96	16.36	
5550	0.99	7.70	0.58	6.17	3.40	15.44	18.84	
5670	0.99	2.17	0.57	6.16	3.40	9.89	13.29	
5755	0.99	0.17	0.57	6.16	3.10	7.89	10.99	
5795	0.99	0.44	0.57	6.16	3.10	8.15	11.25	

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + 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



### Maximum Conducted Output Power

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/26/2015                                  08/24/2015  
Temperature/ Humidity : 24deg.C / 75% RH                  25deg.C. / 59% RH  
Engineer : Yutaka Yoshida                                  Shinichi Miyazono  
Mode : 11ac-20 Tx

Antenna port 0+1+2 (MCS 3)                                  Gating OFF(Test Method: SA-2)                                  Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW [MHz]	99% OBW [MHz]	Conducted Power							e.i.r.p.						
			Antenna				Result [dBm]	Limit [dBm]	Margin [dB]	Antenna				Result [dBm]	Limit [dBm]	Margin [dB]
			0 [mW]	1 [mW]	2 [mW]	Sum [mW]				0 [mW]	1 [mW]	2 [mW]	Sum [mW]			
5180	-	17.790	11.47	15.30	9.53	36.30	15.60	23.97	8.37	25.68	34.25	21.34	81.26	19.10	29.97	10.87
5220	-	17.776	11.11	15.93	10.88	37.91	15.79	23.97	8.18	24.87	35.65	24.36	84.88	19.29	29.97	10.68
5240	-	17.796	11.31	16.89	10.02	38.22	15.82	23.97	8.15	25.33	37.81	22.44	85.57	19.32	29.97	10.65
5260	23.028	17.800	23.35	22.69	25.68	71.72	18.56	23.97	5.41	54.73	53.19	60.21	168.13	22.26	29.97	7.71
5300	23.295	17.788	25.19	24.06	26.05	75.30	18.77	23.97	5.20	59.04	56.41	61.06	176.52	22.47	29.97	7.50
5320	23.407	17.821	35.58	23.77	25.61	84.96	19.29	23.97	4.68	83.42	55.71	60.03	199.15	22.99	29.97	6.98
5500	23.318	17.834	12.82	11.95	11.55	36.32	15.60	23.97	8.37	28.04	26.14	25.27	79.45	19.00	29.97	10.97
5580	23.427	17.816	10.74	11.88	11.68	34.30	15.35	23.97	8.62	23.49	25.99	25.55	75.03	18.75	29.97	11.22
5700	23.339	17.807	5.22	5.02	4.28	14.53	11.62	23.97	12.35	11.42	10.99	9.37	31.78	15.02	29.97	14.95
5745	-	-	3.68	3.83	3.54	11.05	10.43	30.00	19.57	7.51	7.82	7.23	22.57	13.53	36.00	22.47
5785	-	-	4.15	4.17	3.68	12.00	10.79	30.00	19.21	8.47	8.52	7.52	24.51	13.89	36.00	22.11
5825	-	-	3.49	3.91	3.63	11.02	10.42	30.00	19.58	7.12	7.98	7.40	22.50	13.52	36.00	22.48

Tested Frequency [MHz]	Duty Factor [dB]	Antenna port 0					Antenna port 1						
		Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]	Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]
5180	0.66	3.21	0.56	6.16	3.50	10.60	14.10	4.47	0.56	6.16	3.50	11.85	15.35
5220	0.66	3.07	0.57	6.16	3.50	10.46	13.96	4.64	0.57	6.16	3.50	12.02	15.52
5240	0.66	3.15	0.57	6.16	3.50	10.54	14.04	4.89	0.57	6.16	3.50	12.28	15.78
5260	0.66	6.29	0.57	6.16	3.70	13.68	17.38	6.17	0.57	6.16	3.70	13.56	17.26
5300	0.66	6.62	0.57	6.16	3.70	14.01	17.71	6.42	0.57	6.16	3.70	13.81	17.51
5320	0.66	8.12	0.57	6.16	3.70	15.51	19.21	6.37	0.57	6.16	3.70	13.76	17.46
5500	0.66	3.68	0.58	6.17	3.40	11.08	14.48	3.37	0.58	6.17	3.40	10.77	14.17
5580	0.66	2.92	0.57	6.16	3.40	10.31	13.71	3.36	0.57	6.16	3.40	10.75	14.15
5700	0.66	-0.22	0.57	6.16	3.40	7.18	10.58	-0.38	0.57	6.16	3.40	7.01	10.41
5745	0.66	-1.73	0.57	6.16	3.10	5.66	8.76	-1.56	0.57	6.16	3.10	5.83	8.93
5785	0.66	-1.21	0.57	6.16	3.10	6.18	9.28	-1.18	0.57	6.16	3.10	6.20	9.30
5825	0.66	-1.96	0.57	6.16	3.10	5.43	8.53	-1.47	0.57	6.16	3.10	5.92	9.02

Tested Frequency [MHz]	Duty Factor [dB]	Antenna port 2					
		Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Result Cond. Power [dBm]	e.i.r.p. [dBm]
5180	0.66	2.41	0.56	6.16	3.50	9.79	13.29
5220	0.66	2.98	0.57	6.16	3.50	10.37	13.87
5240	0.66	2.62	0.57	6.16	3.50	10.01	13.51
5260	0.66	6.71	0.57	6.16	3.70	14.10	17.80
5300	0.66	6.77	0.57	6.16	3.70	14.16	17.86
5320	0.66	6.69	0.57	6.16	3.70	14.08	17.78
5500	0.66	3.22	0.58	6.17	3.40	10.63	14.03
5580	0.66	3.29	0.57	6.16	3.40	10.67	14.07
5700	0.66	-1.08	0.57	6.16	3.40	6.32	9.72
5745	0.66	-1.90	0.57	6.16	3.10	5.49	8.59
5785	0.66	-1.72	0.57	6.16	3.10	5.66	8.76
5825	0.66	-1.79	0.57	6.16	3.10	5.59	8.69

Sample Calculation:  
Conducted Power Result = Reading + Cable Loss + 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



## Maximum Conducted Output Power

Test place : Ise EMC Lab. No.6 Measurement Room  
Report No. : 10852538H  
Date : 08/20/2015  
Temperature/ Humidity : 25deg.C / 60% RH  
Engineer : Kazuya Yoshioka  
Mode : 11ac-80 Tx

**Antenna port 0+1+2 (MCS 6)**      Gating OFF(Test Method: SA-2)      Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	26 dB EBW [MHz]	99% OBW [MHz]	Conducted Power									e.i.r.p.					
			Antenna				Result [dBm]	Limit [dBm]	Margin [dB]	Antenna				Result [dBm]	Limit [dBm]	Margin [dB]	
			0 [mW]	1 [mW]	2 [mW]	Sum [mW]				0 [mW]	1 [mW]	2 [mW]	Sum [mW]				
5210	-	75.609	5.15	5.27	4.12	14.54	11.62	23.97	12.35	11.52	11.79	9.23	32.54	15.12	29.97	14.85	
5290	80.812	75.594	2.15	2.44	2.05	6.64	8.22	23.97	15.75	5.05	5.73	4.80	15.58	11.92	29.97	18.05	
5530	80.686	75.534	5.10	5.34	5.67	16.11	12.07	23.97	11.90	11.16	11.68	12.41	35.25	15.47	29.97	14.50	
5610	79.965	75.669	15.56	17.26	18.83	51.65	17.13	23.97	6.84	34.04	37.75	41.20	112.99	20.53	29.97	9.44	
5755	-	-	7.53	8.10	7.49	23.12	13.64	30.00	16.36	15.37	16.54	15.30	47.21	16.74	36.00	19.26	

Antenna port 0								Antenna port 1							
Tested Frequency [MHz]	Duty Factor [dB]	Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Cond. Power [dBm]	Result e.i.r.p. [dBm]	Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Cond. Power [dBm]	Result e.i.r.p. [dBm]		
5210	2.58	-2.19	0.57	6.16	3.50	7.11	10.61	-2.09	0.57	6.16	3.50	7.21	10.71		
5290	2.58	-5.98	0.57	6.16	3.70	3.33	7.03	-5.43	0.57	6.16	3.70	3.88	7.58		
5530	2.58	-2.25	0.58	6.17	3.40	7.08	10.48	-2.05	0.58	6.17	3.40	7.28	10.68		
5610	2.58	2.60	0.57	6.17	3.40	11.92	15.32	3.05	0.57	6.17	3.40	12.37	15.77		
5755	2.58	-0.54	0.57	6.16	3.10	8.77	11.87	-0.22	0.57	6.16	3.10	9.09	12.19		

Antenna port 2							
Tested Frequency [MHz]	Duty Factor [dB]	Spectrum Analyzer Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	Cond. Power [dBm]	Result e.i.r.p. [dBm]
5210	2.58	-3.15	0.57	6.16	3.50	6.15	9.65
5290	2.58	-6.20	0.57	6.16	3.70	3.11	6.81
5530	2.58	-1.79	0.58	6.17	3.40	7.54	10.94
5610	2.58	3.43	0.57	6.17	3.40	12.75	16.15
5755	2.58	-0.56	0.57	6.16	3.10	8.75	11.85

Sample Calculation:

Conducted Power Result = Reading + Cable Loss + 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

## Maximum Power Spectral Density

Test place	Ise EMC Lab. No.6 Measurement Room	
Report No.	10852538H	
Date	08/20/2015	08/25/2015
Temperature/ Humidity	24deg. C / 66% RH	25deg. C / 68% RH
Engineer	Yutaka Yoshida	Shinichi Miyazono
Mode	11a Tx	

**Antenna port 2(6Mbps)**                      Gating ON(Test Method: SA-1) Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD Reading [dBm /MHz]	Cable Loss [dB]	Atten. Loss [dB]	Duty Factor [dB]	Antenna Gain [dBi]	RBW Correction Factor [dB]	PSD (Conducted)			PSD (e.i.r.p.)		
							Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]	Result [dBm /MHz]	Limit [dBm /MHz]	Margin [dB]
5180	-5.66	0.56	6.16	0.00	3.5	0.00	1.06	11.00	9.94	4.56	17.00	12.44
5220	-7.28	0.57	6.16	0.00	3.5	0.00	-0.56	11.00	11.56	2.94	17.00	14.06
5240	-7.37	0.57	6.16	0.00	3.5	0.00	-0.64	11.00	11.64	2.86	17.00	14.14
5260	-5.75	0.57	6.16	0.00	3.7	0.00	0.98	11.00	10.02	4.68	17.00	12.32
5300	-4.78	0.57	6.16	0.00	3.7	0.00	1.95	11.00	9.05	5.65	17.00	11.35
5320	-4.84	0.57	6.16	0.00	3.7	0.00	1.89	11.00	9.11	5.59	17.00	11.41
5500	-6.42	0.58	6.17	0.00	3.4	0.00	0.32	11.00	10.68	3.72	17.00	13.28
5580	-6.47	0.57	6.16	0.00	3.4	0.00	0.26	11.00	10.74	3.66	17.00	13.34
5700	-6.42	0.57	6.16	0.00	3.4	0.00	0.31	11.00	10.69	3.71	17.00	13.29
5745	-16.17	0.57	6.16	0.00	3.1	2.22	-7.22	30.00	37.22	-4.12	36.00	40.12
5785	-16.49	0.57	6.16	0.00	3.1	2.22	-7.55	30.00	37.55	-4.45	36.00	40.45
5825	-16.70	0.57	6.16	0.00	3.1	2.22	-7.76	30.00	37.76	-4.66	36.00	40.66

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 + Atten. Loss + Duty Factor + RBW Correction Factor

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

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## Maximum Power Spectral Density

Test place : Ise EMC Lab. No.6 Measurement Room  
Report No. : 10852538H  
Date : 06/11/2015                      08/20/2015                      08/25/2015  
Temperature/ Humidity : 23deg.C / 72% RH                      25deg.C / 60% RH                      25deg.C / 68% RH  
Engineer : Yutaka Yoshida                      Kazuya Yoshioka                      Shinichi Miyazono  
Mode : 11n-40 Tx

Antenna port 0+1+2(MCS 16)                      Gating OFF(Test Method: SA-2)                      Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD (Conducted)							PSD (e.i.r.p.)						
	Antenna				Result	Limit	Margin	Antenna				Result	Limit	Margin
	0	1	2	Sum	[dBm/MHz]	[dBm/MHz]	[dB]	0	1	2	Sum	[dBm/MHz]	[dBm/MHz]	[dB]
5190	0.76	0.96	0.64	2.36	3.72	11.00	7.28	1.70	2.15	1.42	5.28	7.22	17.00	9.78
5230	0.83	1.03	0.55	2.41	3.81	11.00	7.19	1.86	2.31	1.22	5.39	7.31	17.00	9.69
5270	2.14	1.25	1.35	4.75	6.76	11.00	4.24	5.01	2.94	3.17	11.13	10.46	17.00	6.54
5310	0.68	0.92	0.71	2.32	3.65	11.00	7.35	1.60	2.17	1.67	5.43	7.35	17.00	9.65
5510	0.82	0.80	0.80	2.42	3.84	11.00	7.16	1.80	1.76	1.74	5.30	7.24	17.00	9.76
5550	1.54	1.23	1.41	4.19	6.22	11.00	4.78	3.38	2.70	3.09	9.17	9.62	17.00	7.38
5670	0.42	0.46	0.41	1.28	1.08	11.00	9.92	0.92	1.00	0.89	2.80	4.48	17.00	12.52
5755	0.14	0.15	0.15	0.44	-3.55	30.00	33.55	0.29	0.31	0.31	0.90	-0.45	36.00	36.45
5795	0.15	0.18	0.14	0.47	-3.27	30.00	33.27	0.30	0.37	0.29	0.96	-0.17	36.00	36.17

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port 0					Antenna port 1						
			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]
5190	0.99	0.00	-8.91	0.57	6.16	3.50	-1.19	2.31	-7.89	0.57	6.16	3.50	-0.17	3.33
5230	0.99	0.00	-8.53	0.57	6.16	3.50	-0.81	2.69	-7.59	0.57	6.16	3.50	0.13	3.63
5270	0.99	0.00	-4.42	0.57	6.16	3.70	3.30	7.00	-6.74	0.57	6.16	3.70	0.98	4.68
5310	0.99	0.00	-9.41	0.58	6.17	3.70	-1.67	2.03	-8.08	0.58	6.17	3.70	-0.34	3.36
5510	0.99	0.00	-8.59	0.58	6.17	3.40	-0.86	2.54	-8.68	0.58	6.17	3.40	-0.95	2.45
5550	0.99	0.00	-5.85	0.58	6.17	3.40	1.88	5.28	-6.82	0.58	6.17	3.40	0.91	4.31
5670	0.99	0.00	-11.51	0.57	6.16	3.40	-3.79	-0.39	-11.12	0.57	6.16	3.40	-3.40	0.00
5755	0.99	2.22	-18.48	0.57	6.16	3.10	-8.54	-5.44	-18.10	0.57	6.16	3.10	-8.16	-5.06
5795	0.99	2.22	-18.31	0.57	6.16	3.10	-8.38	-5.28	-17.33	0.57	6.16	3.10	-7.40	-4.30

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port 2					
			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]
5190	0.99	0.00	-9.68	0.57	6.16	3.50	-1.96	1.54
5230	0.99	0.00	-10.34	0.57	6.16	3.50	-2.62	0.88
5270	0.99	0.00	-6.41	0.57	6.16	3.70	1.31	5.01
5310	0.99	0.00	-9.21	0.58	6.17	3.70	-1.47	2.23
5510	0.99	0.00	-8.73	0.58	6.17	3.40	-1.00	2.40
5550	0.99	0.00	-6.23	0.58	6.17	3.40	1.50	4.90
5670	0.99	0.00	-11.64	0.57	6.16	3.40	-3.92	-0.52
5755	0.99	2.22	-18.19	0.57	6.16	3.10	-8.25	-5.15
5795	0.99	2.22	-18.35	0.57	6.16	3.10	-8.42	-5.32

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 + Atten. Loss + Duty Factor + RBW Correction Factor  
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

## Maximum Power Spectral Density

Test place : Ise EMC Lab. No.6 and No.3 Measurement Room  
Report No. : 10852538H  
Date : 06/26/2015      08/20/2015      08/24/2015  
Temperature/ Humidity : 24deg.C. / 75% RH    24deg.C. / 66% RH    25deg.C. / 59% RH  
Engineer : Yutaka Yoshida      Yutaka Yoshida      Shinichi Miyazono  
Mode : 11ac-20 Tx

Tested Frequency [MHz]	PSD (Conducted)								PSD (e.i.r.p.)							
	Antenna				Result	Limit	Margin	Antenna				Result	Limit	Margin		
	0	1	2	Sum				0	1	2	Sum					
[mW/MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]			
5180	0.94	1.35	0.82	3.11	4.92	11.00	6.08	2.09	3.02	1.84	6.96	8.42	17.00	8.58		
5220	0.93	1.34	0.93	3.21	5.07	11.00	5.93	2.09	3.01	2.09	7.19	8.57	17.00	8.43		
5240	0.99	1.51	0.80	3.30	5.18	11.00	5.82	2.21	3.38	1.79	7.38	8.68	17.00	8.32		
5260	1.33	1.89	2.14	5.35	7.29	11.00	3.71	3.12	4.42	5.01	12.55	10.99	17.00	6.01		
5300	2.04	2.04	2.29	6.37	8.04	11.00	2.96	4.79	4.79	5.36	14.94	11.74	17.00	5.26		
5320	2.90	1.26	2.26	6.42	8.08	11.00	2.92	6.80	2.95	5.30	15.05	11.78	17.00	5.22		
5500	1.10	1.00	0.94	3.04	4.83	11.00	6.17	2.41	2.18	2.06	6.65	8.23	17.00	8.77		
5580	0.94	0.93	1.02	2.90	4.62	11.00	6.38	2.06	2.04	2.23	6.34	8.02	17.00	8.98		
5700	0.43	0.42	0.35	1.21	0.82	11.00	10.18	0.95	0.91	0.78	2.64	4.22	17.00	12.78		
5745	0.19	0.17	0.16	0.52	-2.85	30.00	32.85	0.38	0.35	0.32	1.06	0.25	36.00	35.75		
5785	0.18	0.18	0.17	0.53	-2.76	30.00	32.76	0.36	0.38	0.35	1.08	0.34	36.00	35.66		
5825	0.17	0.19	0.18	0.54	-2.70	30.00	32.70	0.34	0.38	0.38	1.10	0.40	36.00	35.60		

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port 0					Antenna port 1						
			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	0.66	0.00	-7.67	0.56	6.16	3.50	-0.29	3.21	-6.08	0.56	6.16	3.50	1.30	4.80
5220	0.66	0.00	-7.68	0.57	6.16	3.50	-0.30	3.20	-6.10	0.57	6.16	3.50	1.28	4.78
5240	0.66	0.00	-7.44	0.57	6.16	3.50	-0.05	3.45	-5.60	0.57	6.16	3.50	1.79	5.29
5260	0.66	0.00	-6.15	0.57	6.16	3.70	1.24	4.94	-4.63	0.57	6.16	3.70	2.76	6.46
5300	0.66	0.00	-4.29	0.57	6.16	3.70	3.10	6.80	-4.29	0.57	6.16	3.70	3.10	6.80
5320	0.66	0.00	-2.77	0.57	6.16	3.70	4.62	8.32	-6.39	0.57	6.16	3.70	1.00	4.70
5500	0.66	0.00	-6.98	0.58	6.17	3.40	0.42	3.82	-7.42	0.58	6.17	3.40	-0.02	3.38
5580	0.66	0.00	-7.64	0.57	6.16	3.40	-0.25	3.15	-7.68	0.57	6.16	3.40	-0.29	3.11
5700	0.66	0.00	-11.02	0.57	6.16	3.40	-3.63	-0.23	-11.18	0.57	6.16	3.40	-3.79	-0.39
5745	0.66	2.22	-16.86	0.57	6.16	3.10	-7.25	-4.15	-17.23	0.57	6.16	3.10	-7.62	-4.52
5785	0.66	2.22	-17.17	0.57	6.16	3.10	-7.57	-4.47	-16.93	0.57	6.16	3.10	-7.33	-4.23
5825	0.66	2.22	-17.38	0.57	6.16	3.10	-7.78	-4.68	-16.93	0.57	6.16	3.10	-7.33	-4.23

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port 2					
			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	0.66	0.00	-8.23	0.56	6.16	3.50	-0.85	2.65
5220	0.66	0.00	-7.69	0.57	6.16	3.50	-0.31	3.19
5240	0.66	0.00	-8.35	0.57	6.16	3.50	-0.96	2.54
5260	0.66	0.00	-4.09	0.57	6.16	3.70	3.30	7.00
5300	0.66	0.00	-3.80	0.57	6.16	3.70	3.59	7.29
5320	0.66	0.00	-3.85	0.57	6.16	3.70	3.54	7.24
5500	0.66	0.00	-7.67	0.58	6.17	3.40	-0.27	3.13
5580	0.66	0.00	-7.30	0.57	6.16	3.40	0.09	3.49
5700	0.66	0.00	-11.89	0.57	6.16	3.40	-4.50	-1.10
5745	0.66	2.22	-17.65	0.57	6.16	3.10	-8.04	-4.94
5785	0.66	2.22	-17.32	0.57	6.16	3.10	-7.71	-4.61
5825	0.66	2.22	-16.93	0.57	6.16	3.10	-7.33	-4.23

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 + Atten. Loss + Duty Factor + RBW Correction Factor  
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

## Maximum Power Spectral Density

Test place : Ise EMC Lab. No.6 and No.3 Measurement Room  
Report No. : 10852538H  
Date : 06/11/2015      08/20/2015      08/24/2015  
Temperature/ Humidity : 23deg.C / 72% RH    25deg.C / 60% RH    25deg.C. / 59% RH  
Engineer : Yutaka Yoshida      Kazuya Yoshioka      Shinichi Miyazono  
Mode : 11ac-40 Tx

Antenna port 0+1+2(MCS 0)      Gating OFF(Test Method: SA-2)      Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD (Conducted)								PSD (e.i.r.p.)							
	Antenna				Result	Limit	Margin	Antenna				Result	Limit	Margin		
	0	1	2	Sum	[dBm/MHz]	[dBm/MHz]	[dB]	0	1	2	Sum	[dBm/MHz]	[dBm/MHz]	[dB]		
5190	0.82	1.05	0.69	2.56	4.08	11.00	6.92	1.83	2.35	1.55	5.73	7.58	17.00	9.42		
5230	0.84	1.09	0.66	2.59	4.13	11.00	6.87	1.88	2.43	1.48	5.79	7.63	17.00	9.37		
5270	2.13	1.27	1.26	4.66	6.68	11.00	4.32	4.99	2.98	2.95	10.92	10.38	17.00	6.62		
5310	0.67	0.86	0.78	2.31	3.64	11.00	7.36	1.56	2.02	1.84	5.42	7.34	17.00	9.66		
5510	0.77	0.77	0.78	2.31	3.64	11.00	7.36	1.68	1.68	1.70	5.06	7.04	17.00	9.96		
5550	1.29	1.43	1.63	4.35	6.38	11.00	4.62	2.83	3.12	3.56	9.51	9.78	17.00	7.22		
5670	0.44	0.44	0.41	1.29	1.10	11.00	9.90	0.95	0.97	0.89	2.82	4.50	17.00	12.50		
5755	0.14	0.15	0.14	0.43	-3.64	30.00	33.64	0.28	0.31	0.29	0.88	-0.54	36.00	36.54		
5795	0.14	0.16	0.14	0.44	-3.54	30.00	33.54	0.29	0.33	0.28	0.90	-0.44	36.00	36.44		

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port 0					Antenna port 1						
			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]
5190	0.96	0.00	-8.55	0.57	6.16	3.50	-0.87	2.63	-7.47	0.57	6.16	3.50	0.21	3.71
5230	0.96	0.00	-8.44	0.57	6.16	3.50	-0.75	2.75	-7.33	0.57	6.16	3.50	0.36	3.86
5270	0.96	0.00	-4.41	0.57	6.16	3.70	3.28	6.98	-6.65	0.57	6.16	3.70	1.04	4.74
5310	0.96	0.00	-9.47	0.58	6.17	3.70	-1.76	1.94	-8.35	0.58	6.17	3.70	-0.64	3.06
5510	0.96	0.00	-8.85	0.58	6.17	3.40	-1.15	2.25	-8.86	0.58	6.17	3.40	-1.16	2.24
5550	0.96	0.00	-6.59	0.58	6.17	3.40	1.11	4.51	-6.16	0.58	6.17	3.40	1.54	4.94
5670	0.96	0.00	-11.30	0.57	6.16	3.40	-3.61	-0.21	-11.22	0.57	6.16	3.40	-3.53	-0.13
5755	0.96	2.22	-18.58	0.57	6.16	3.10	-8.67	-5.57	-18.07	0.57	6.16	3.10	-8.16	-5.06
5795	0.96	2.22	-18.42	0.57	6.16	3.10	-8.52	-5.42	-17.80	0.57	6.16	3.10	-7.90	-4.80

Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	Antenna port 2					
			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]
5190	0.96	0.00	-9.29	0.57	6.16	3.50	-1.60	1.90
5230	0.96	0.00	-9.49	0.57	6.16	3.50	-1.80	1.70
5270	0.96	0.00	-6.70	0.57	6.16	3.70	0.99	4.69
5310	0.96	0.00	-8.77	0.58	6.17	3.70	-1.06	2.64
5510	0.96	0.00	-8.80	0.58	6.17	3.40	-1.10	2.30
5550	0.96	0.00	-5.59	0.58	6.17	3.40	2.11	5.51
5670	0.96	0.00	-11.60	0.57	6.16	3.40	-3.91	-0.51
5755	0.96	2.22	-18.33	0.57	6.16	3.10	-8.42	-5.32
5795	0.96	2.22	-18.46	0.57	6.16	3.10	-8.56	-5.46

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 + Atten. Loss + Duty Factor + RBW Correction Factor  
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain



## Maximum Power Spectral Density

Test place : Ise EMC Lab. No.6 Measurement Room  
Report No. : 10852538H  
Date : 08/20/2015  
Temperature/ Humidity : 25deg.C / 60% RH  
Engineer : Kazuya Yoshioka  
Mode : 11ac-80 Tx

Antenna port 0+1+2(MCS 6)      Gating OFF(Test Method: SA-2)      Applied limit: 15.407, mobile and portable client device

Tested Frequency [MHz]	PSD (Conducted)							PSD (e.i.r.p.)						
	Antenna				Result	Limit	Margin	Antenna				Result	Limit	Margin
	0	1	2	Sum				0	1	2	Sum			
[mW/MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	
5210	0.14	0.12	0.10	0.35	-4.51	11.00	15.51	0.30	0.27	0.22	0.79	-1.01	17.00	18.01
5290	0.05	0.06	0.05	0.15	-8.16	11.00	19.16	0.12	0.13	0.11	0.36	-4.46	17.00	21.46
5530	0.12	0.13	0.13	0.38	-4.26	11.00	15.26	0.26	0.28	0.27	0.82	-0.86	17.00	17.86
5610	0.40	0.44	0.45	1.30	1.13	11.00	9.87	0.88	0.96	1.00	2.84	4.53	17.00	12.47
5775	0.12	0.13	0.12	0.37	-4.29	30.00	34.29	0.25	0.27	0.24	0.76	-1.19	36.00	37.19

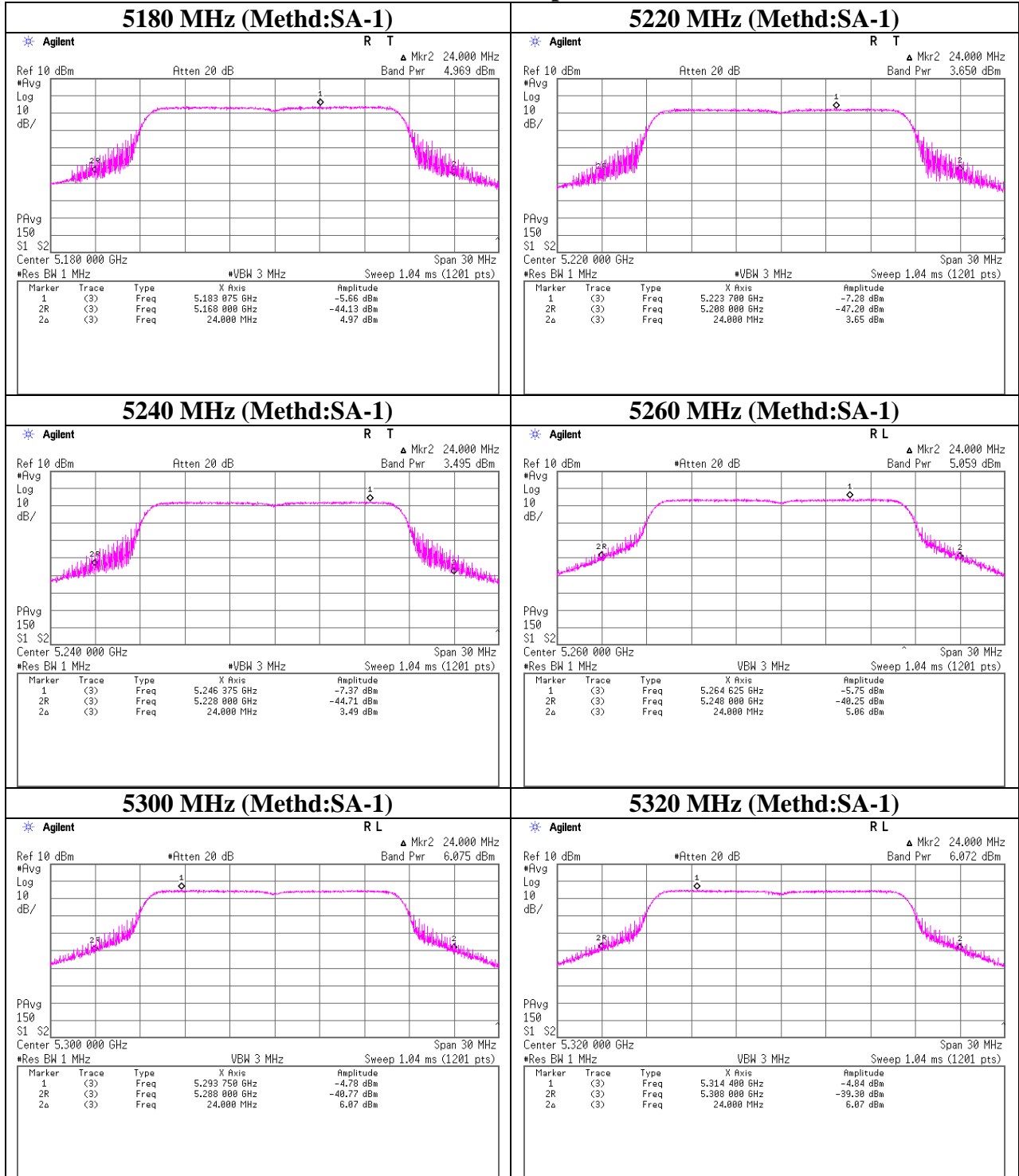
Antenna port 0										Antenna port 1					
Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	
5210	2.58	0.00	-17.99	0.57	6.16	3.50	-8.69	-5.19	-18.50	0.57	6.16	3.50	-9.20	-5.70	
5290	2.58	0.00	-22.37	0.57	6.16	3.70	-13.06	-9.36	-21.73	0.57	6.16	3.70	-12.42	-8.72	
5530	2.58	0.00	-18.52	0.58	6.17	3.40	-9.19	-5.79	-18.21	0.58	6.17	3.40	-8.88	-5.48	
5610	2.58	0.00	-13.28	0.57	6.17	3.40	-3.96	-0.56	-12.89	0.57	6.17	3.40	-3.57	-0.17	
5775	2.58	2.22	-20.64	0.57	6.16	3.10	-9.12	-6.02	-20.30	0.57	6.16	3.10	-8.78	-5.68	

Antenna port 2									
Tested Frequency [MHz]	Duty Factor [dB]	RBW Correction Factor [dB]	PSD Reading [dBm/MHz]	Cable Loss [dB]	Atten. Loss [dB]	Antenna Gain [dBi]	PSD Cond. [dBm/MHz]	PSD Result e.i.r.p. [dBm/MHz]	
5210	2.58	0.00	-19.38	0.57	6.16	3.50	-10.08	-6.58	
5290	2.58	0.00	-22.67	0.57	6.16	3.70	-13.36	-9.66	
5530	2.58	0.00	-18.34	0.58	6.17	3.40	-9.01	-5.61	
5610	2.58	0.00	-12.74	0.57	6.17	3.40	-3.42	-0.02	
5775	2.58	2.22	-20.82	0.57	6.16	3.10	-9.30	-6.20	

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 + Atten. Loss + Duty Factor + RBW Correction Factor  
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11a Antenna port 2**



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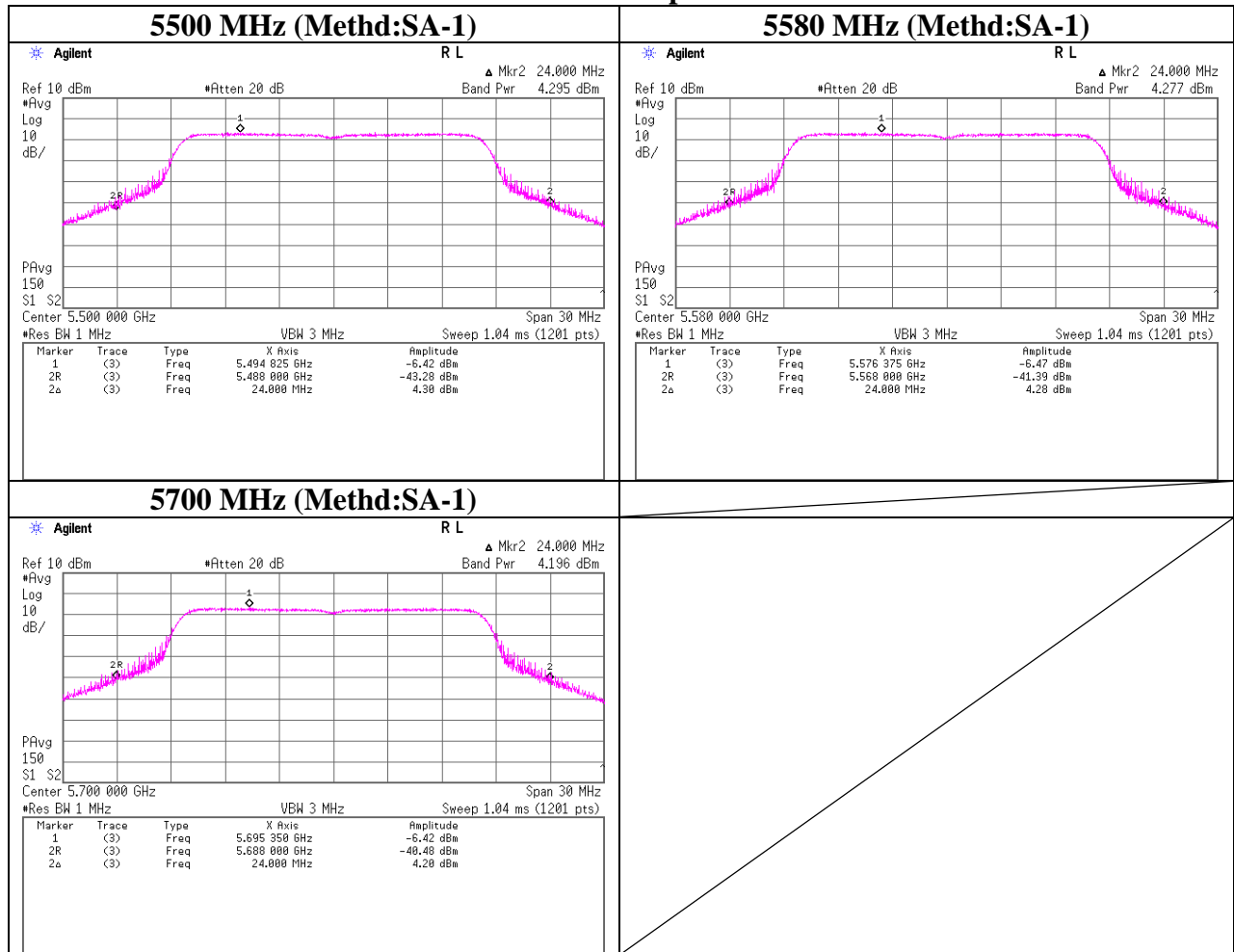
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**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11a Antenna port 2**



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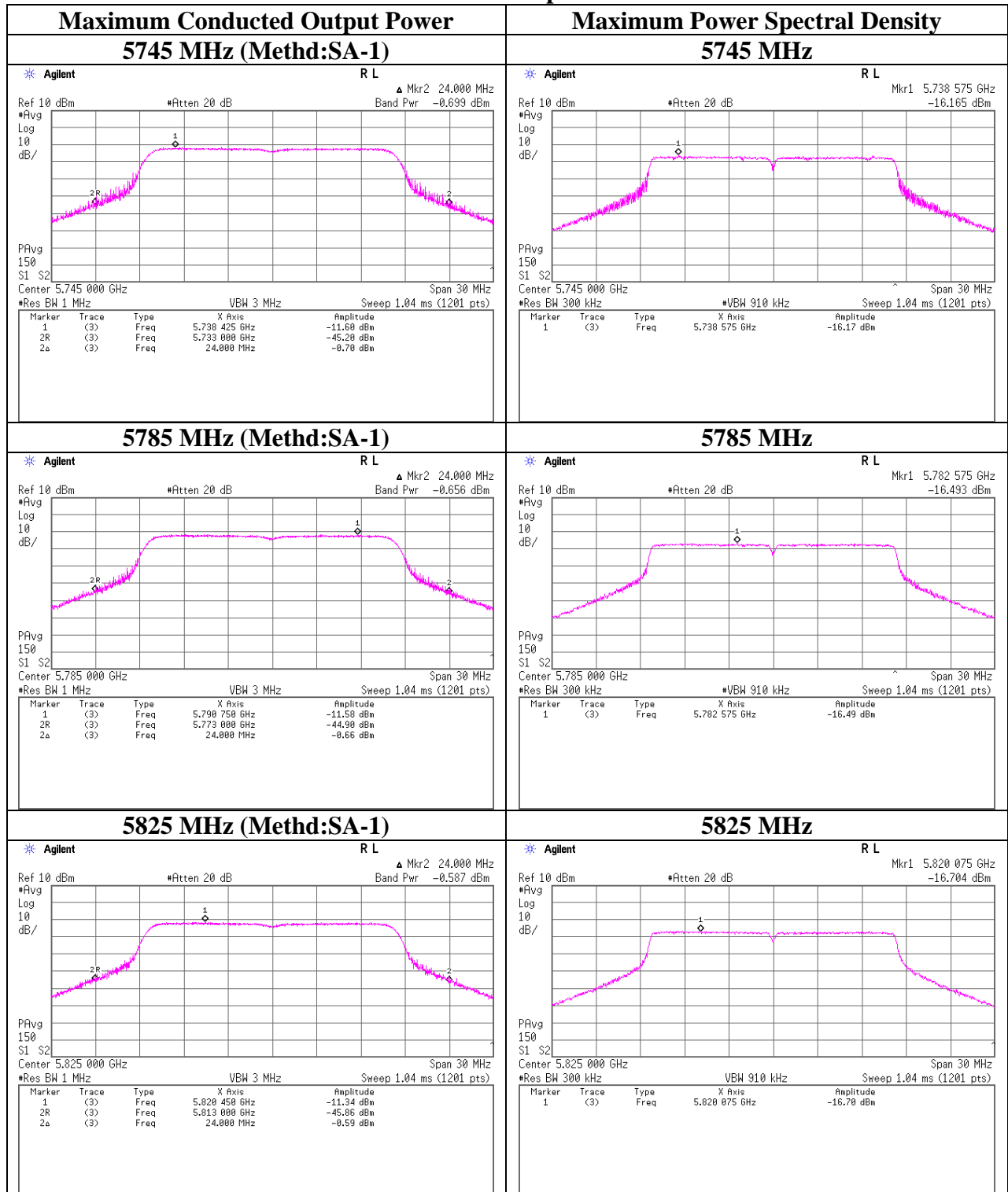
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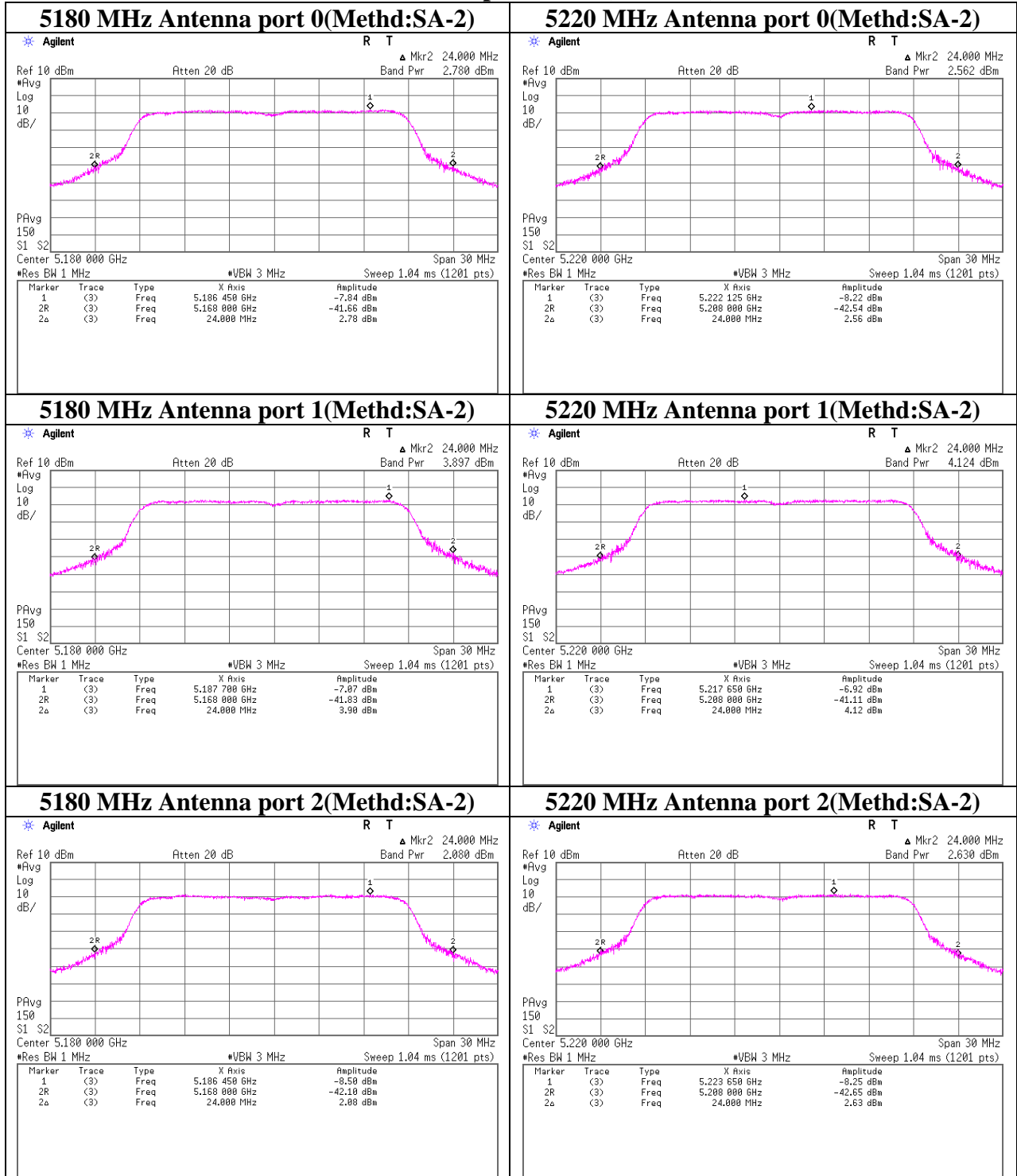
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11a Antenna port 2**



## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11n-20 Antenna port 0+1+2(3 Stream)



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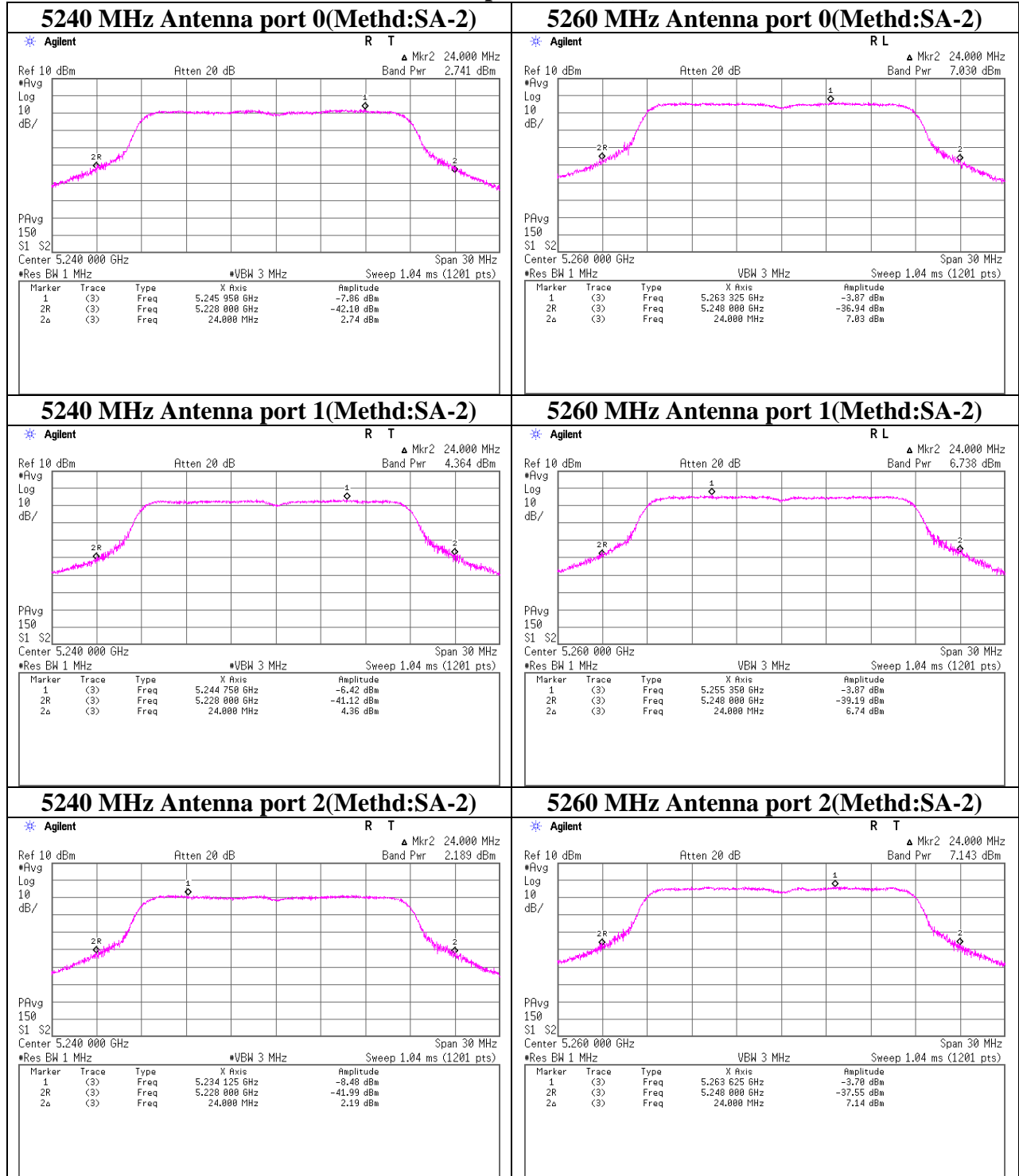
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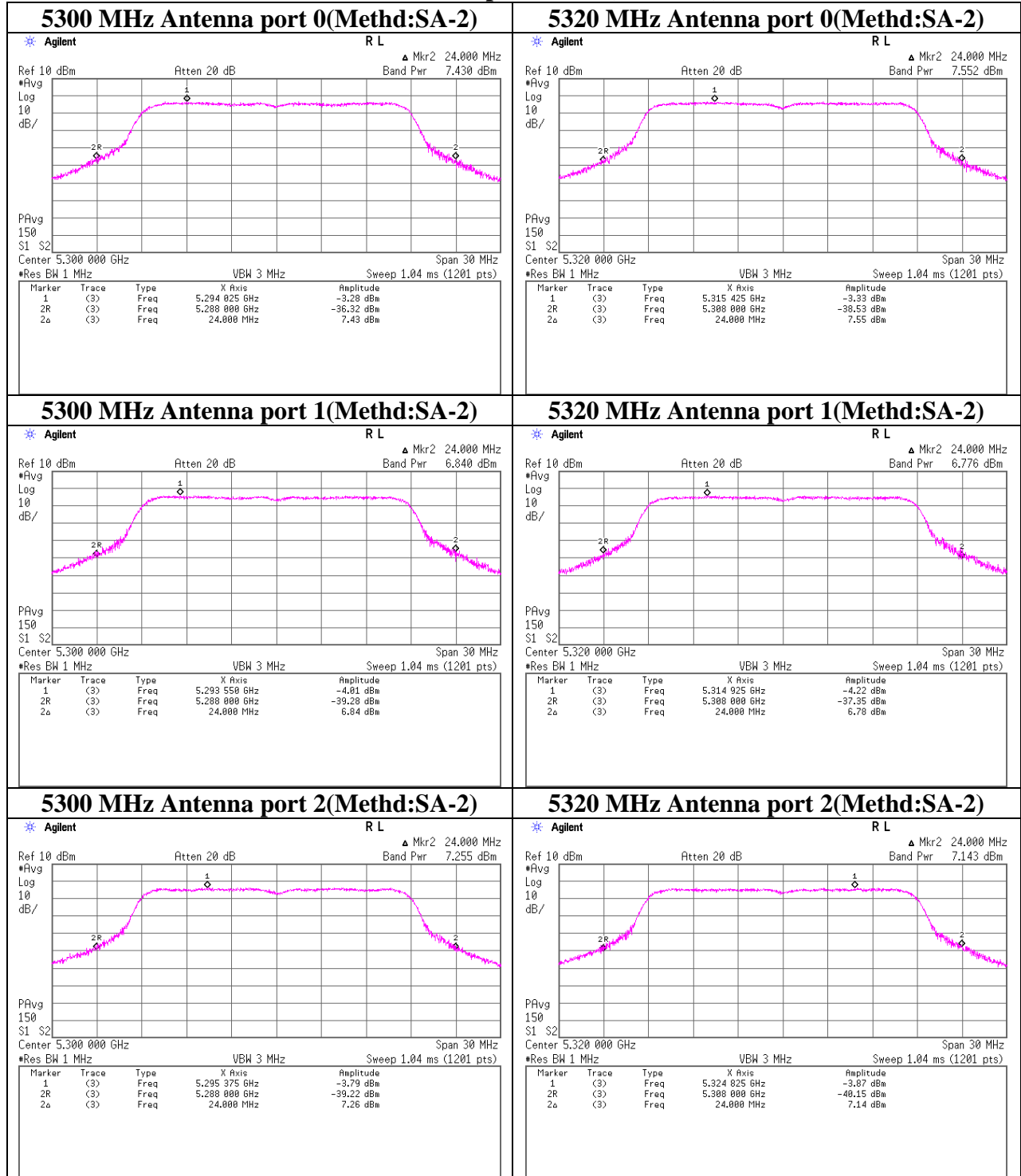
## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11n-20 Antenna port 0+1+2(3 Stream)



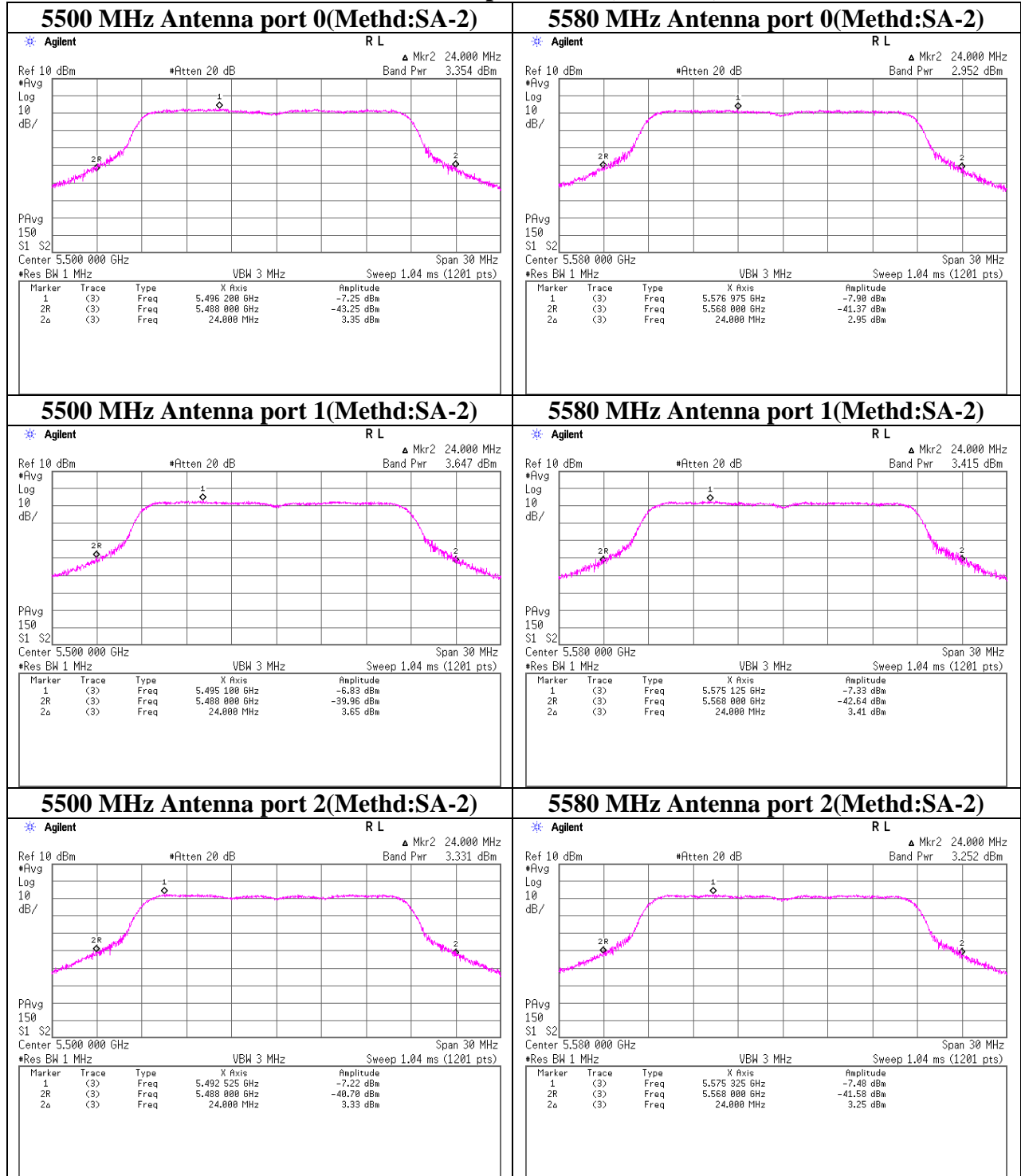
## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11n-20 Antenna port 0+1+2(3 Stream)



## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11n-20 Antenna port 0+1+2(3 Stream)



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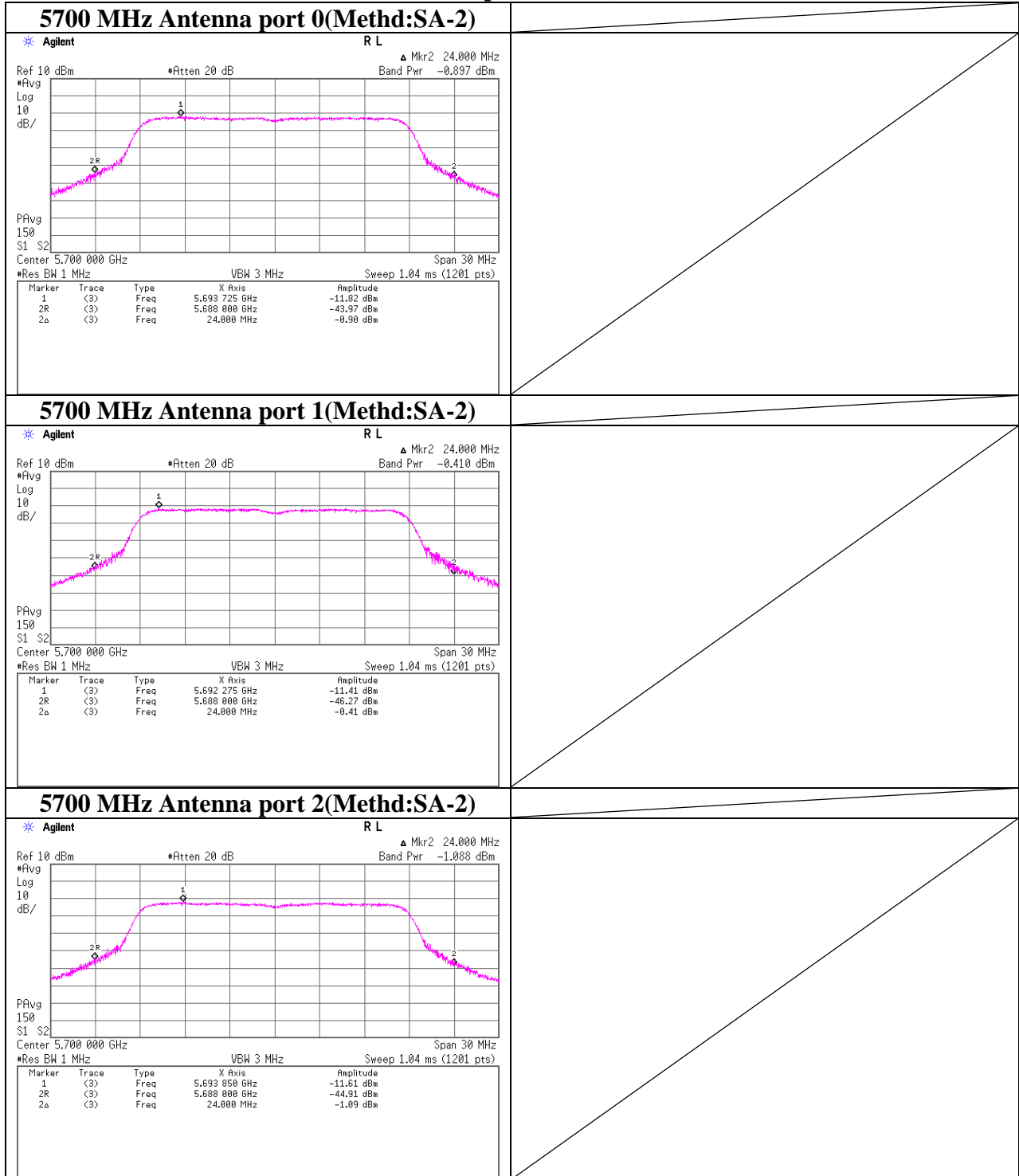
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**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-20 Antenna port 0+1+2(3 Stream)**



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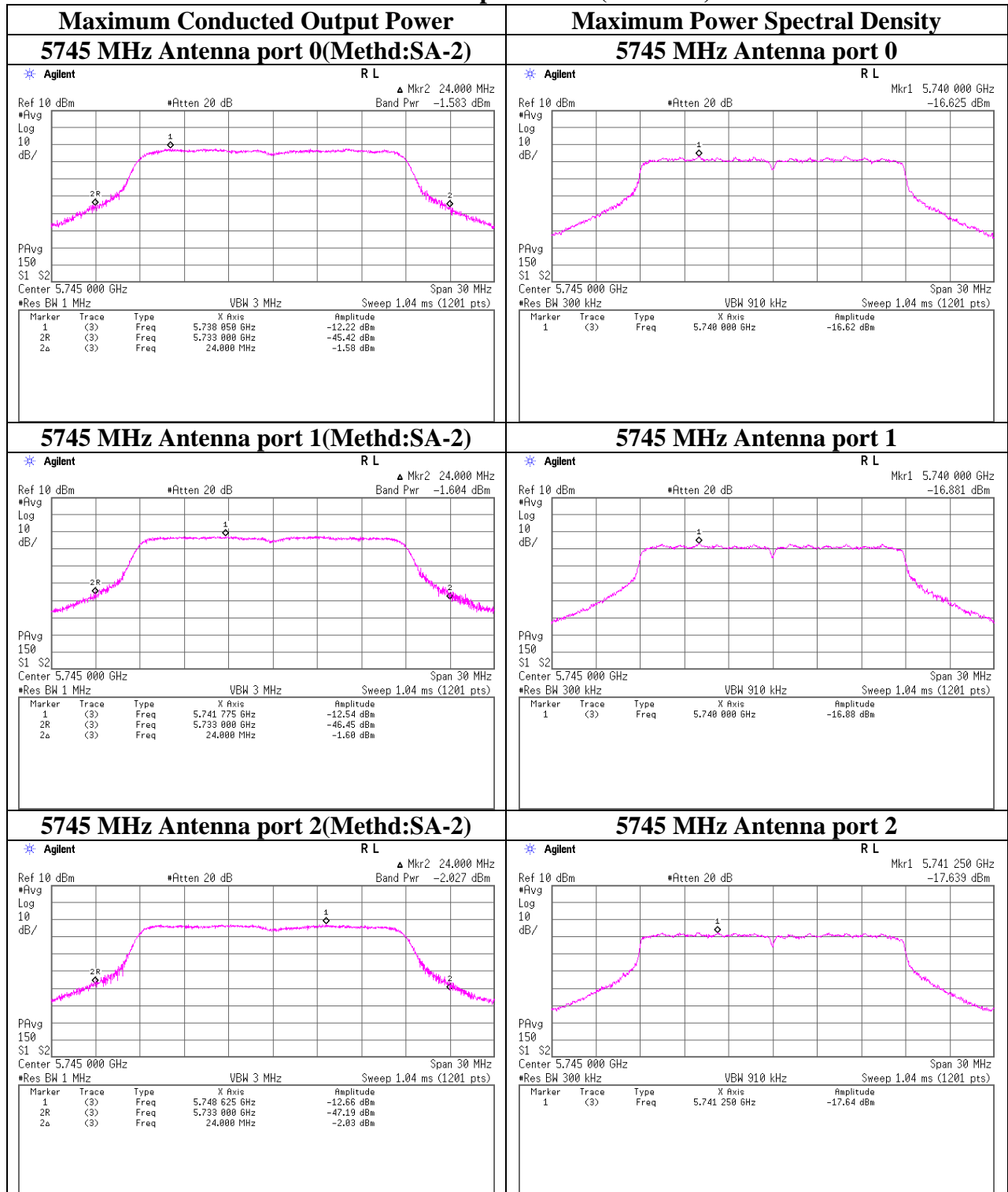
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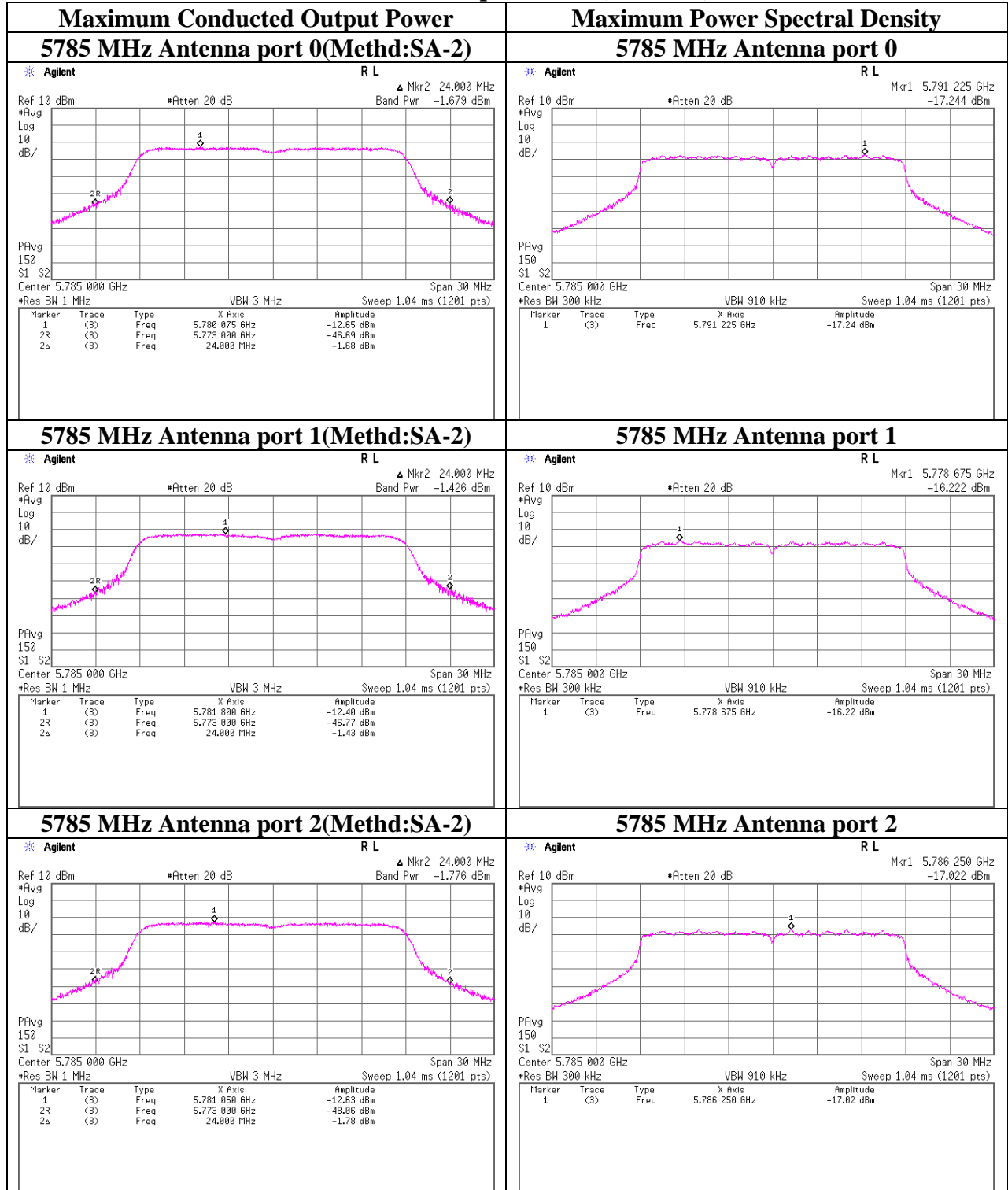
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-20 Antenna port 0+1+2(3 Stream)**



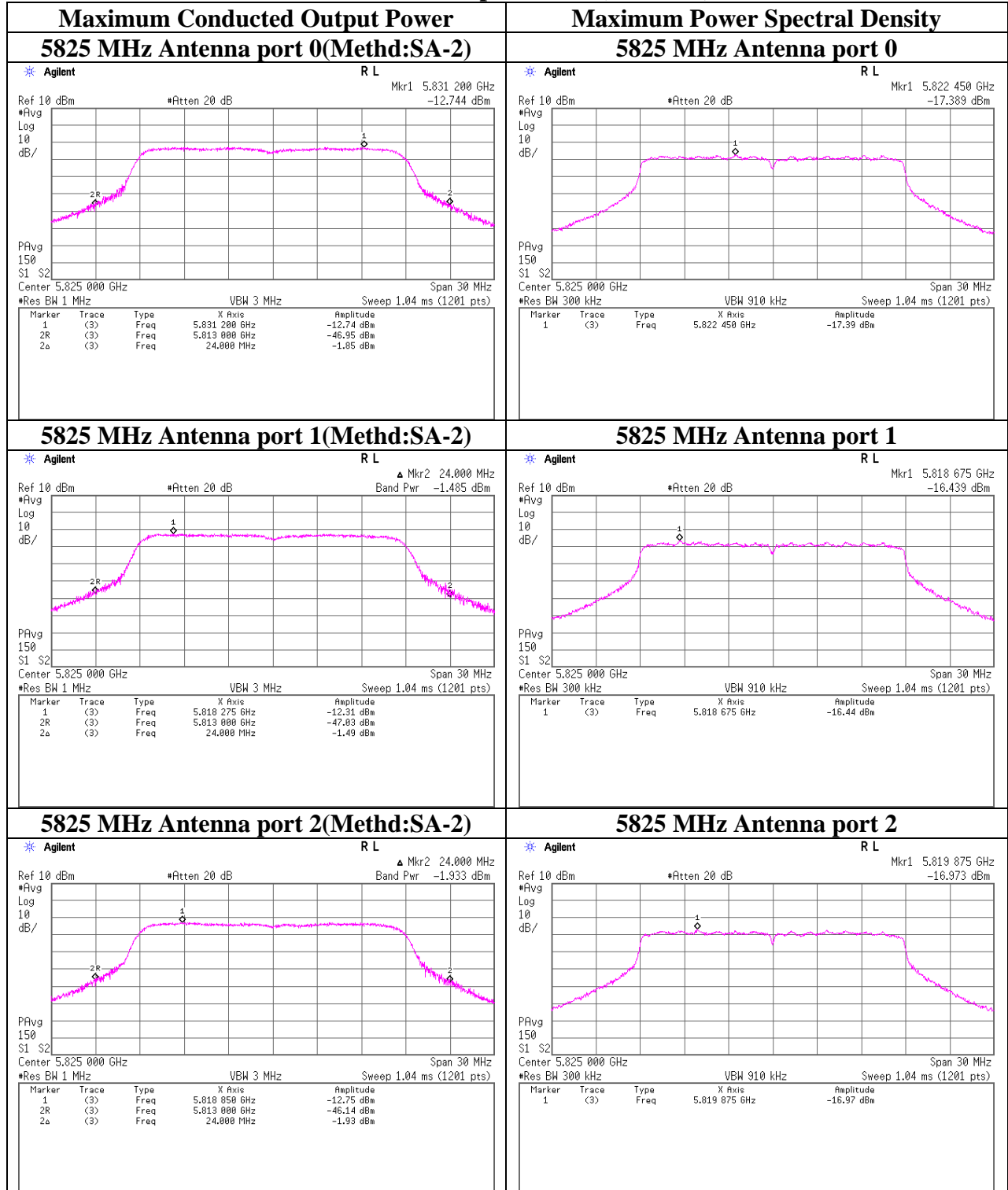
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-20 Antenna port 0+1+2(3 Stream)**



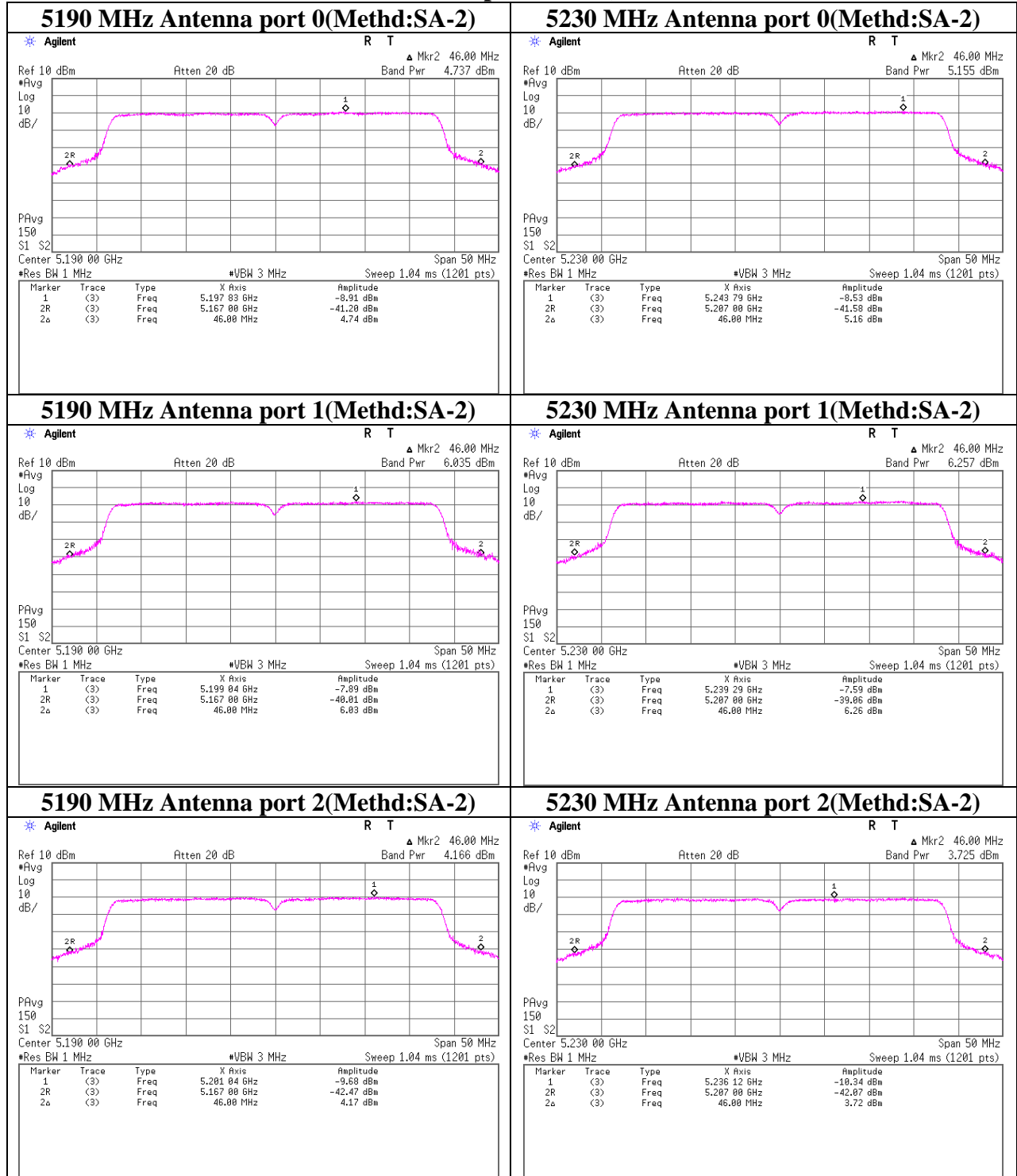
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-20 Antenna port 0+1+2(3 Stream)**



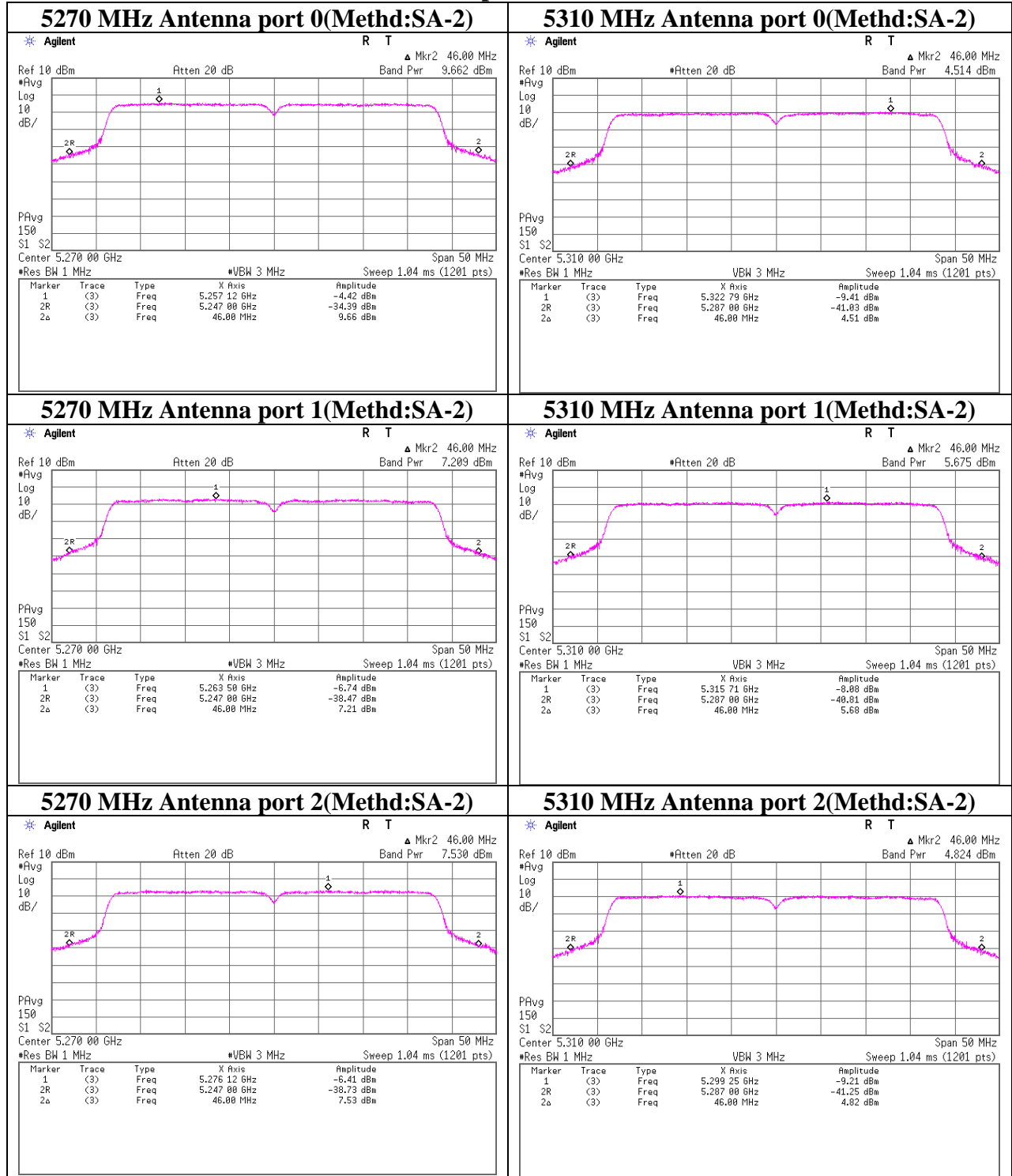
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-40 Antenna port 0+1+2(3 Stream)**



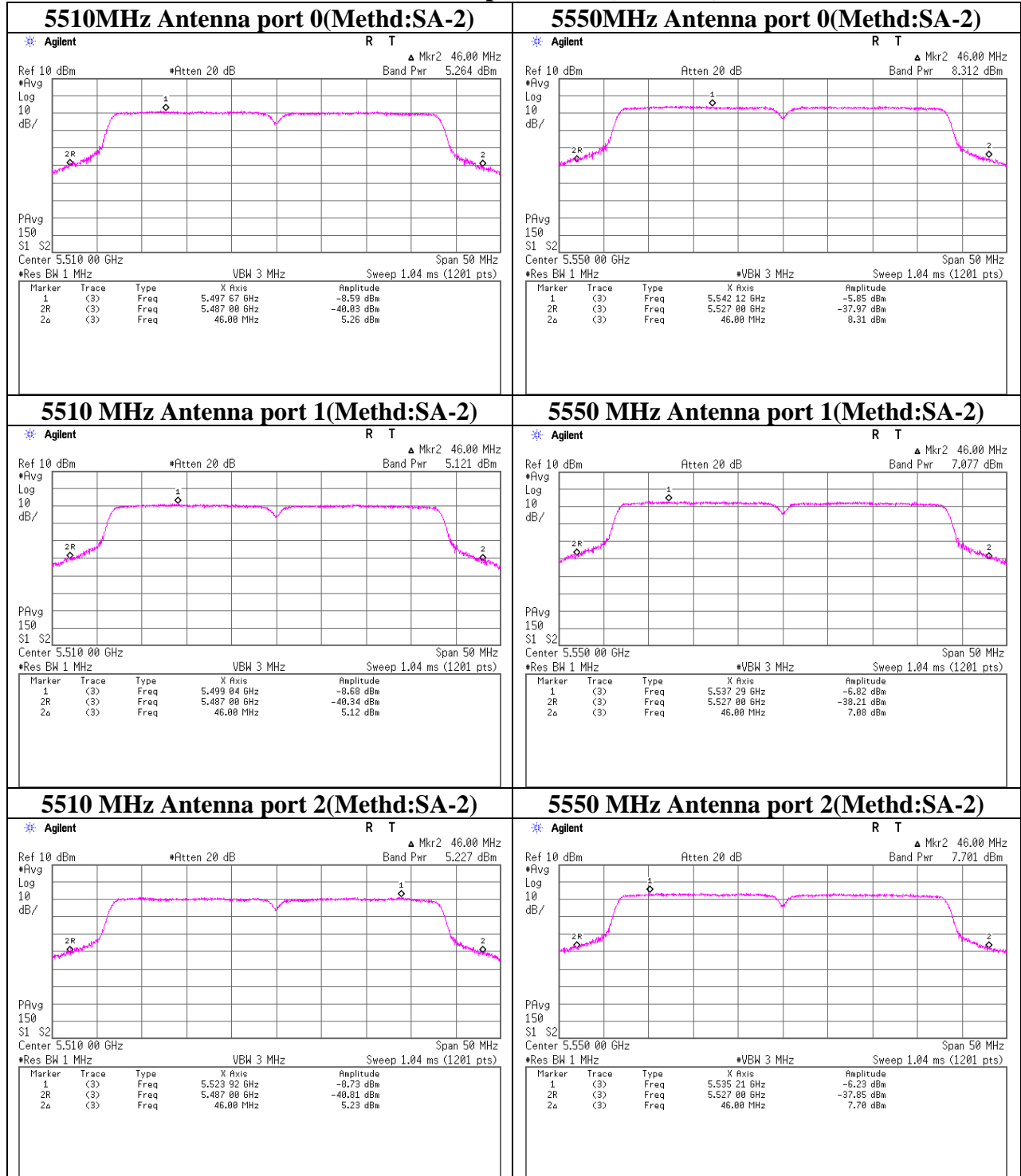
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-40 Antenna port 0+1+2(3 Stream)**



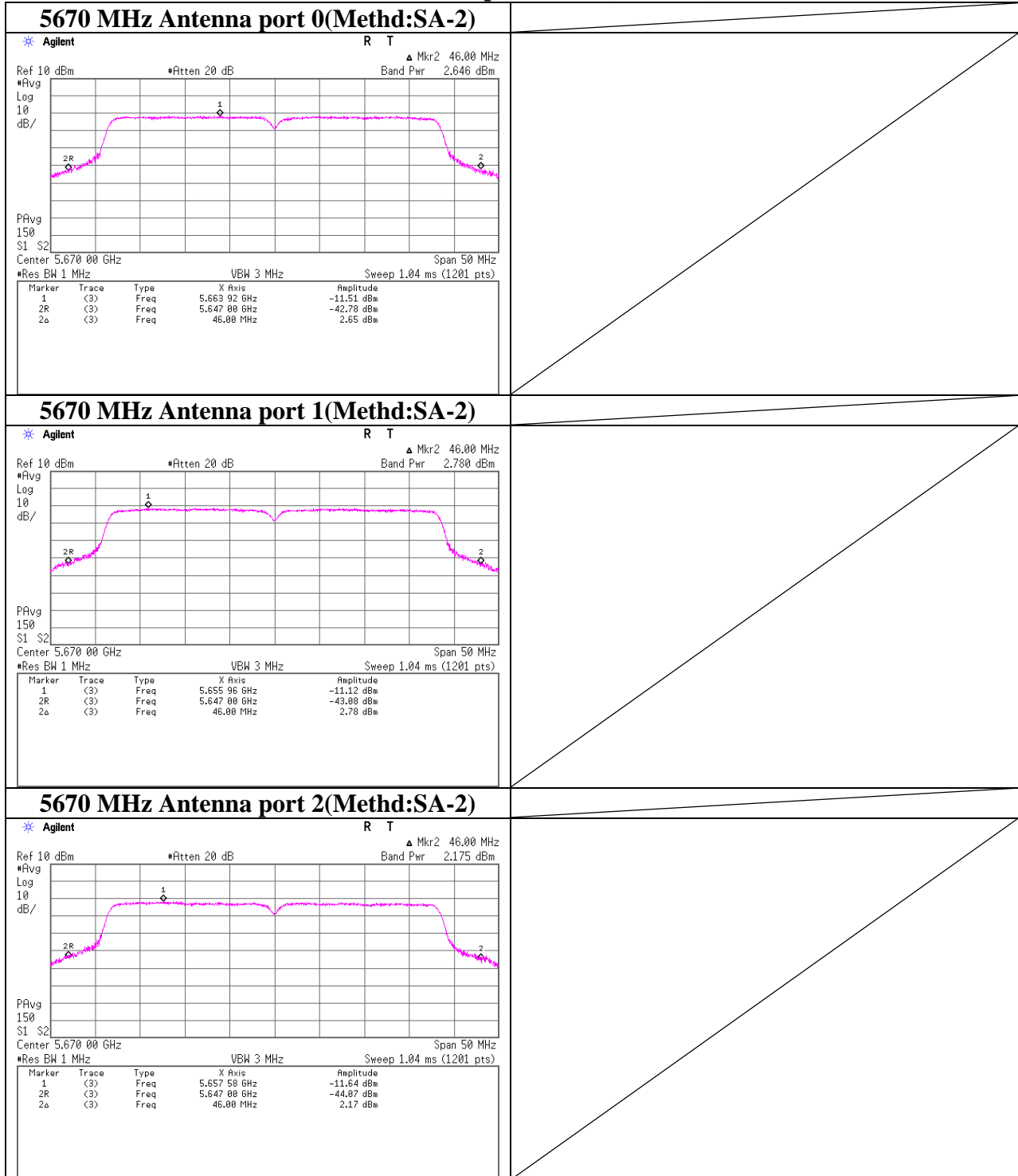
## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11n-40 Antenna port 0+1+2(3 Stream)



**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-40 Antenna port 0+1+2(3 Stream)**



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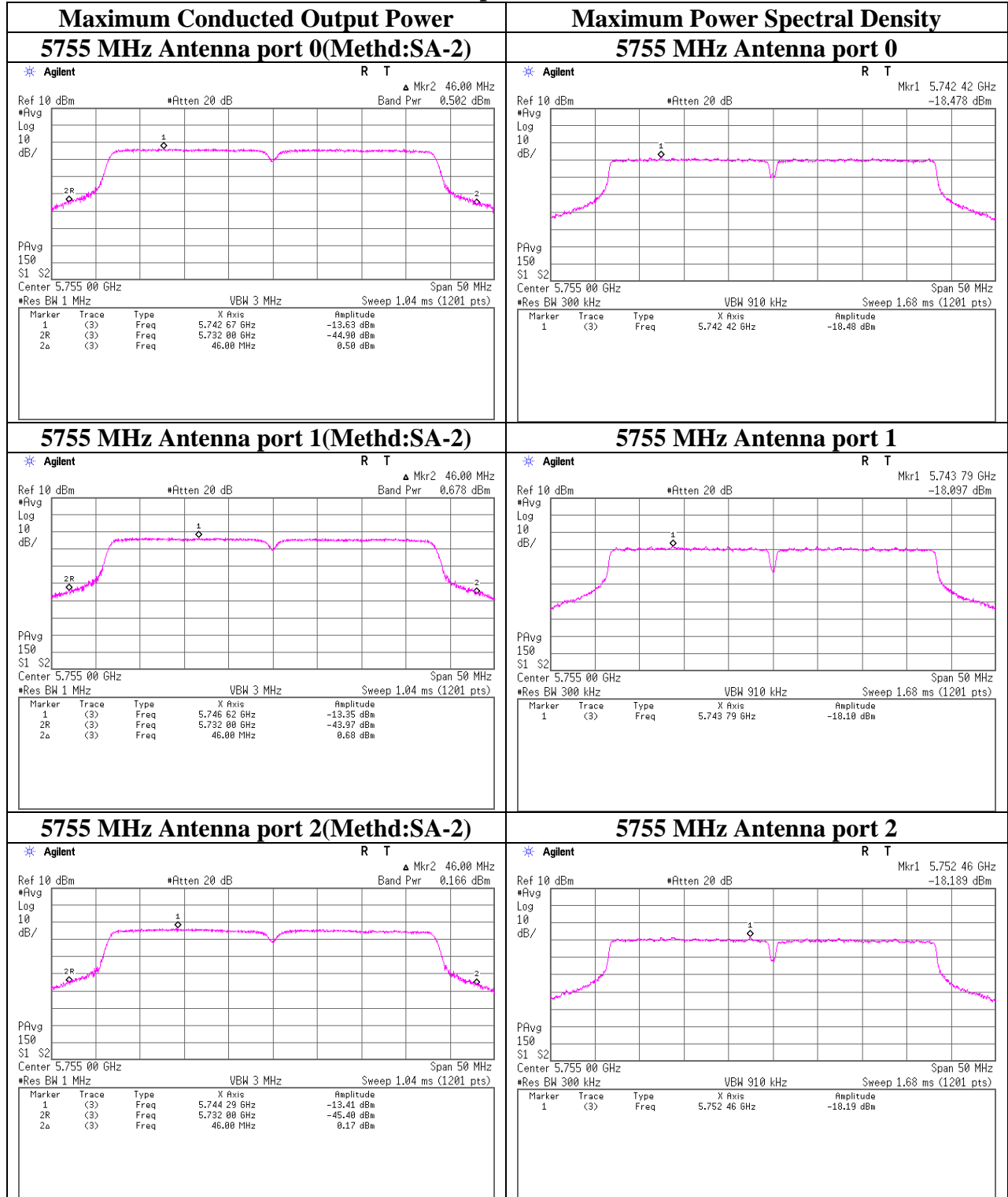
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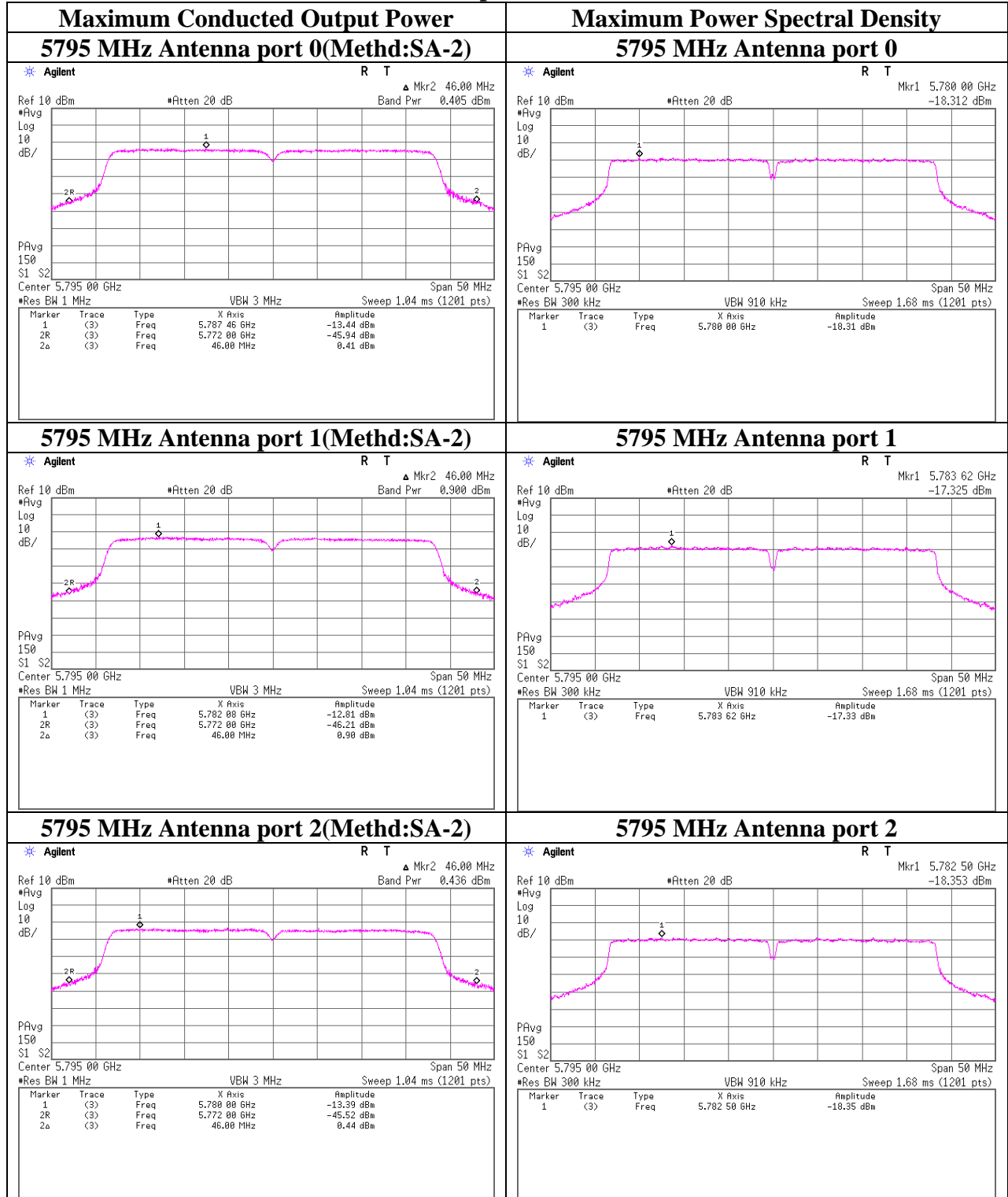
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-40 Antenna port 0+1+2(3 Stream)**



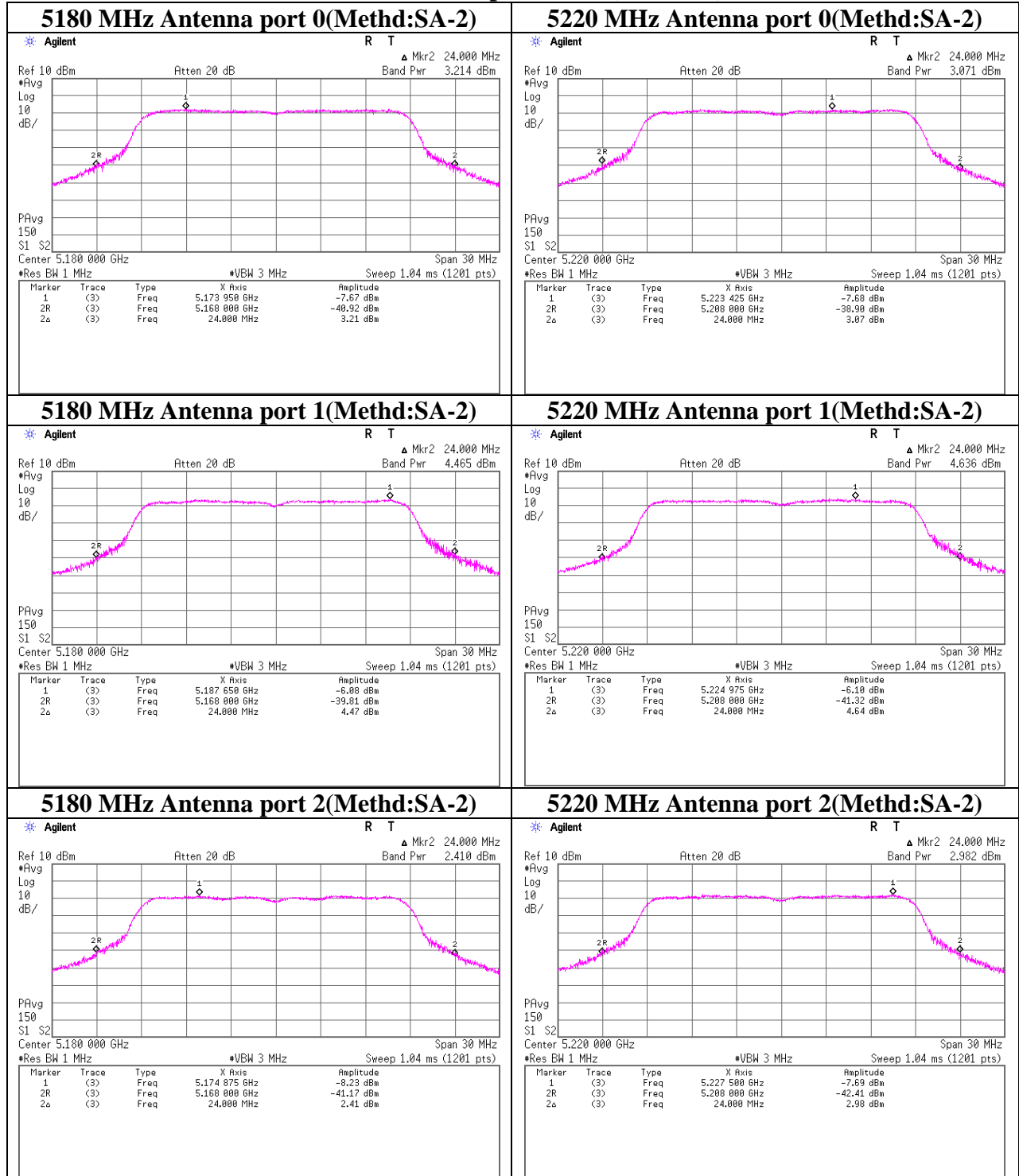
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11n-40 Antenna port 0+1+2(3 Stream)**



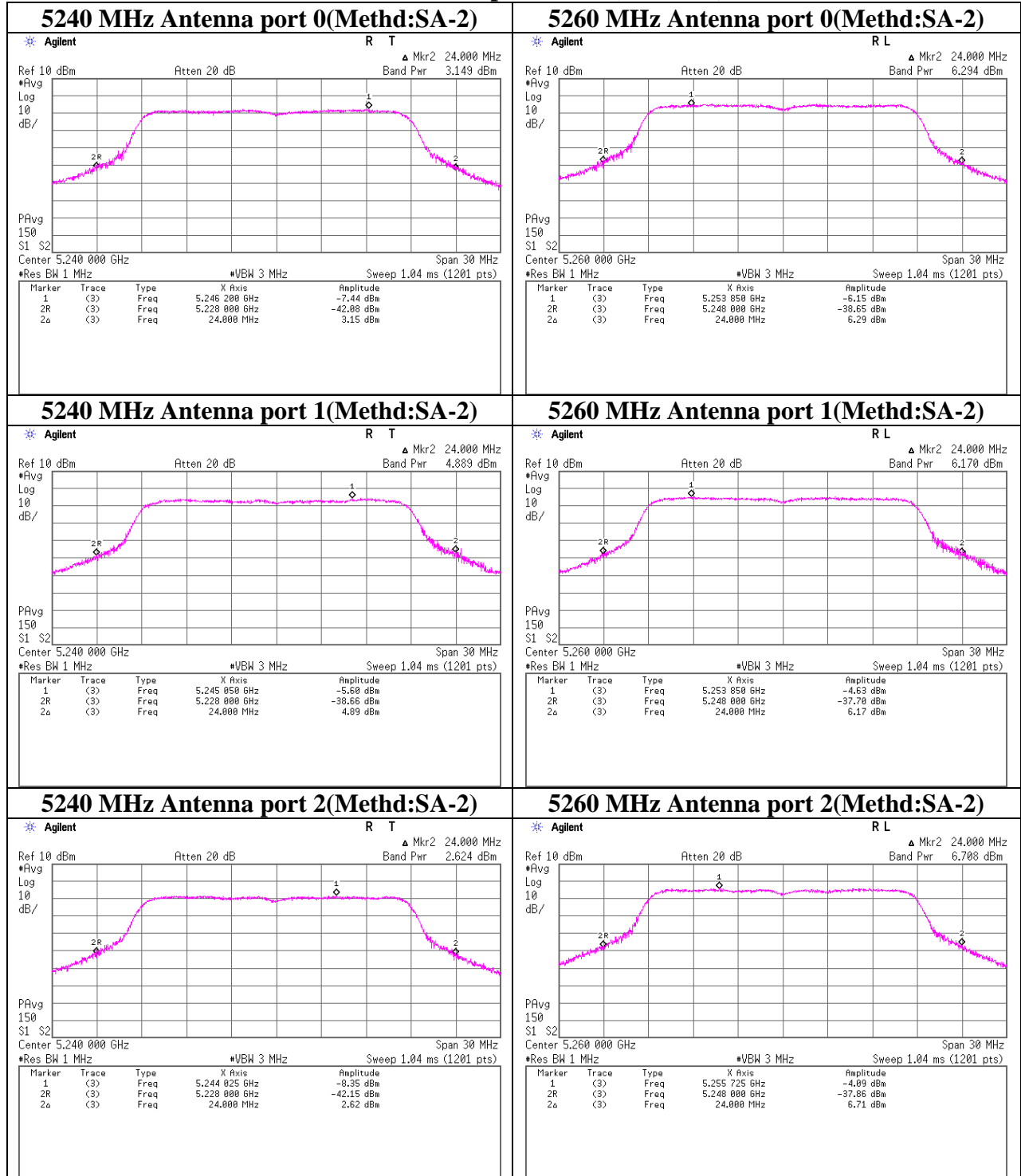
## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11ac-20 Antenna port 0+1+2(3 Stream)



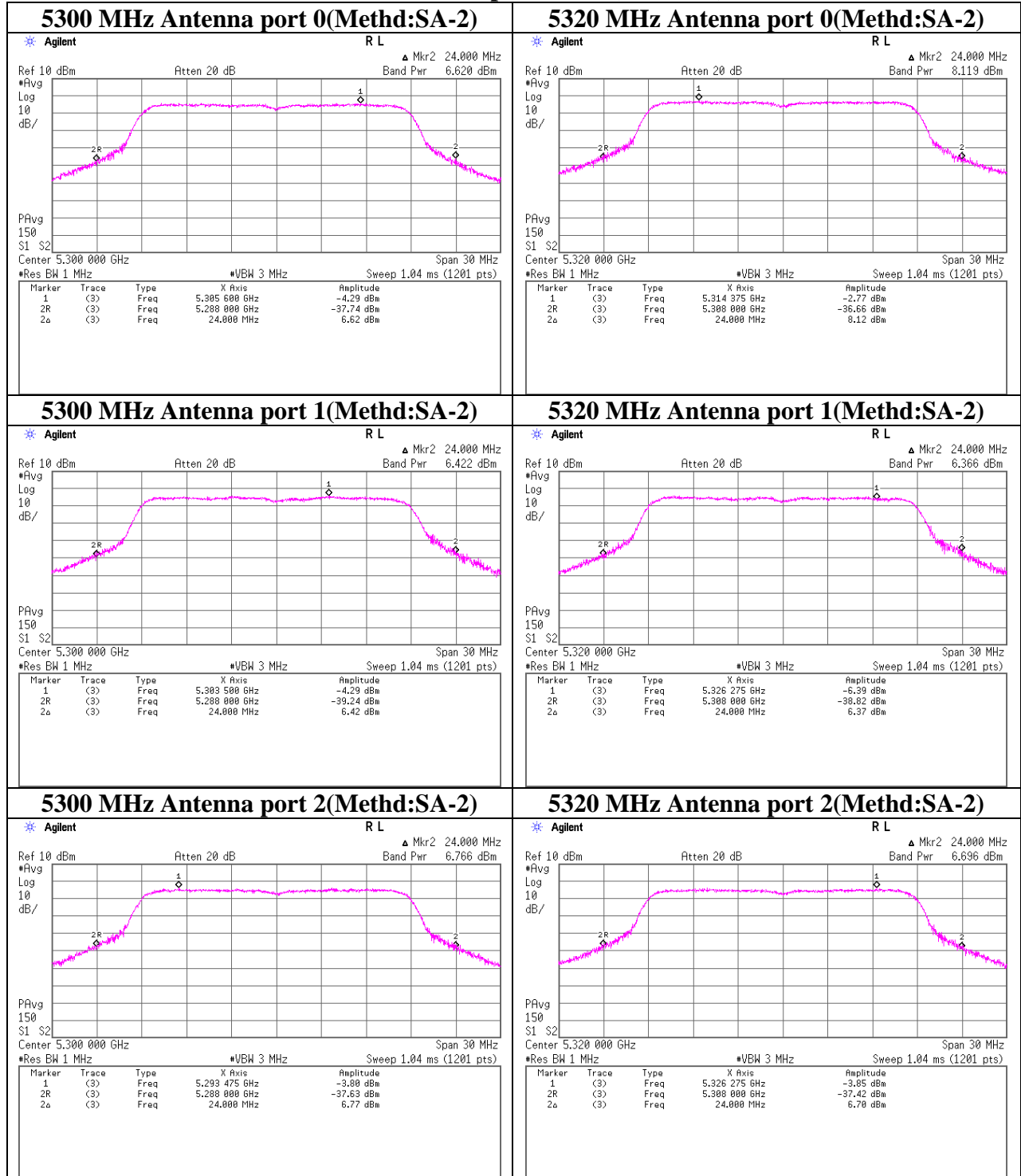
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-20 Antenna port 0+1+2(3 Stream)**



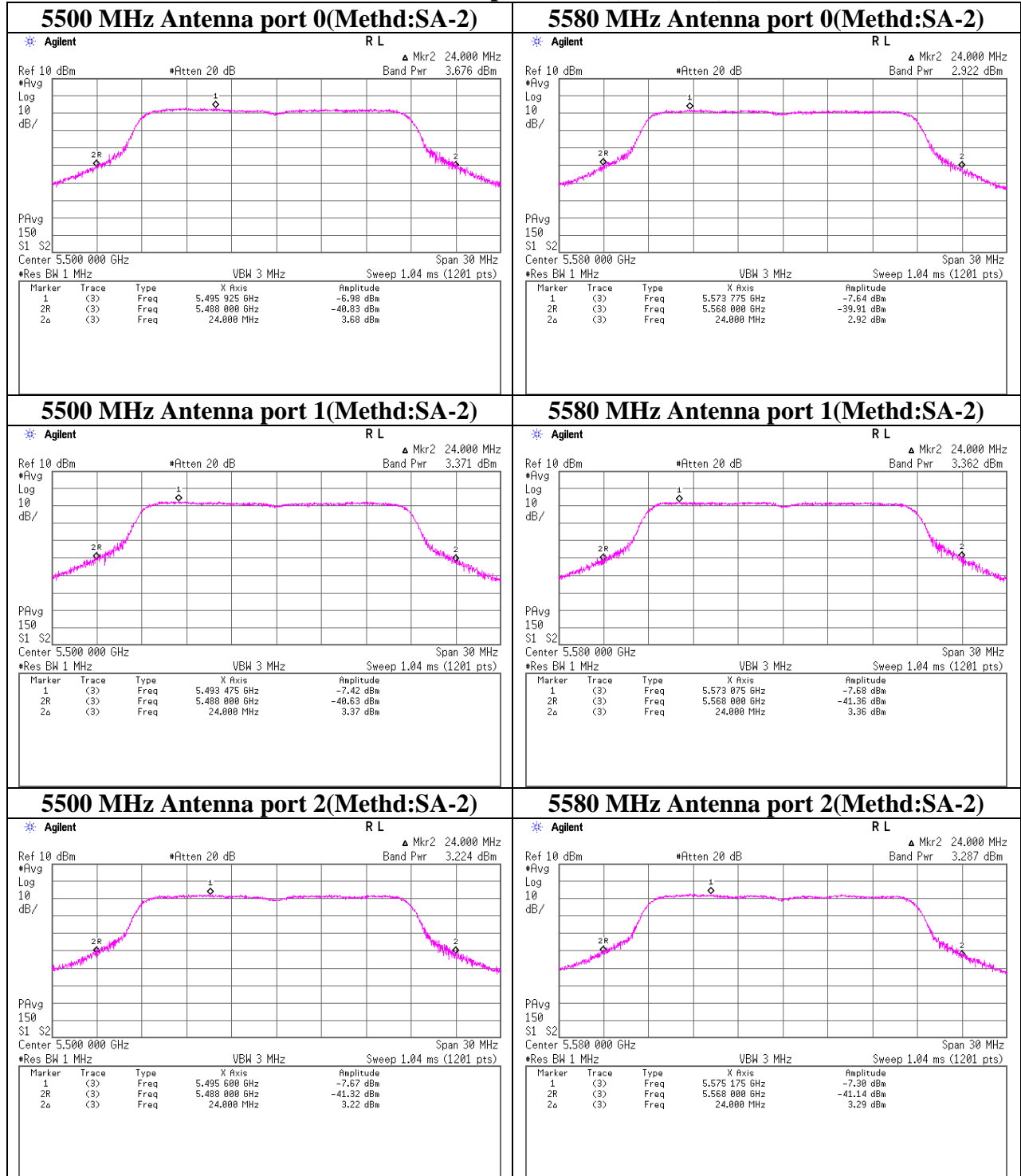
## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11ac-20 Antenna port 0+1+2(3 Stream)



## Maximum Conducted Output Power & Maximum Power Spectral Density

### 11ac-20 Antenna port 0+1+2(3 Stream)



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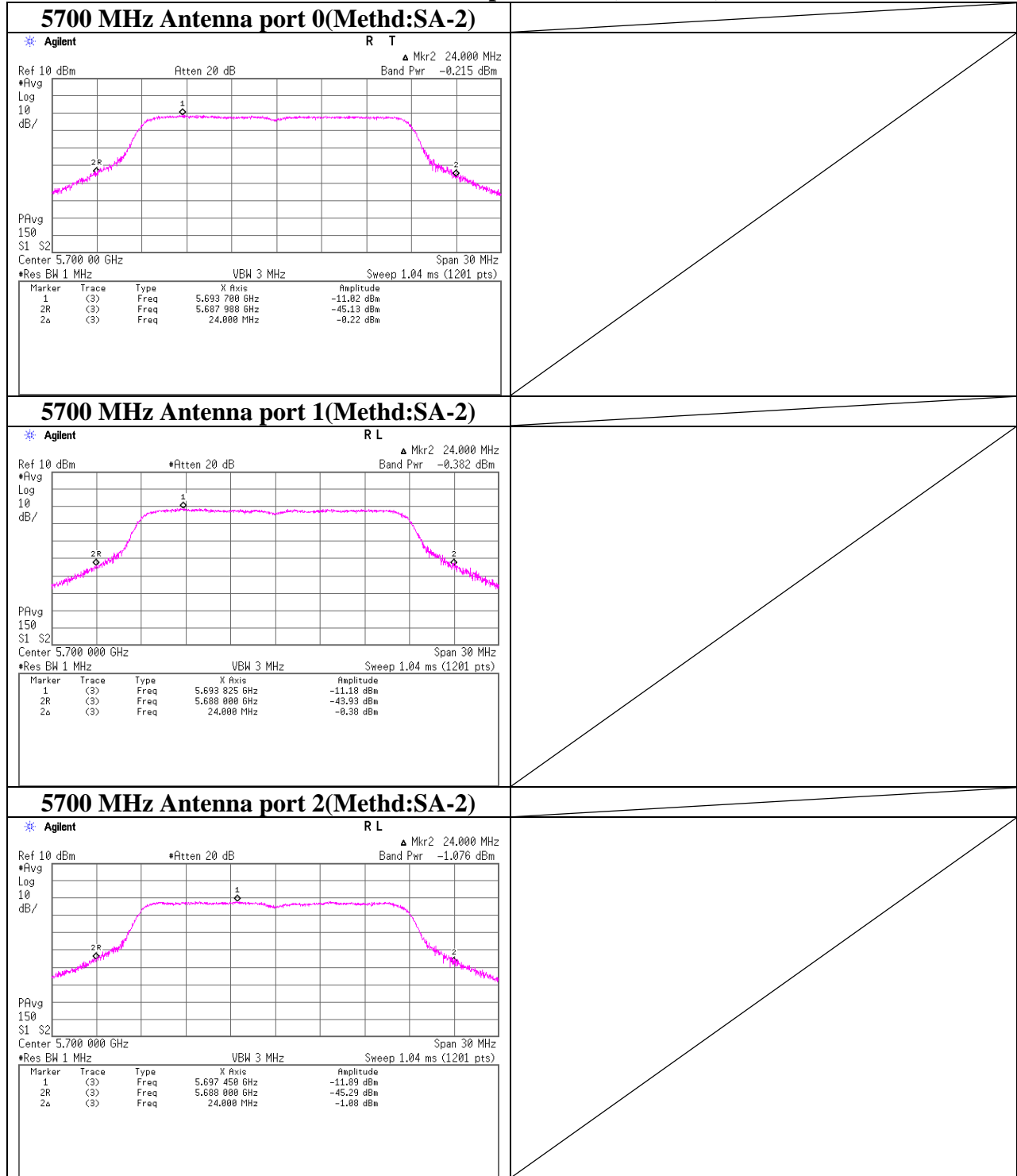
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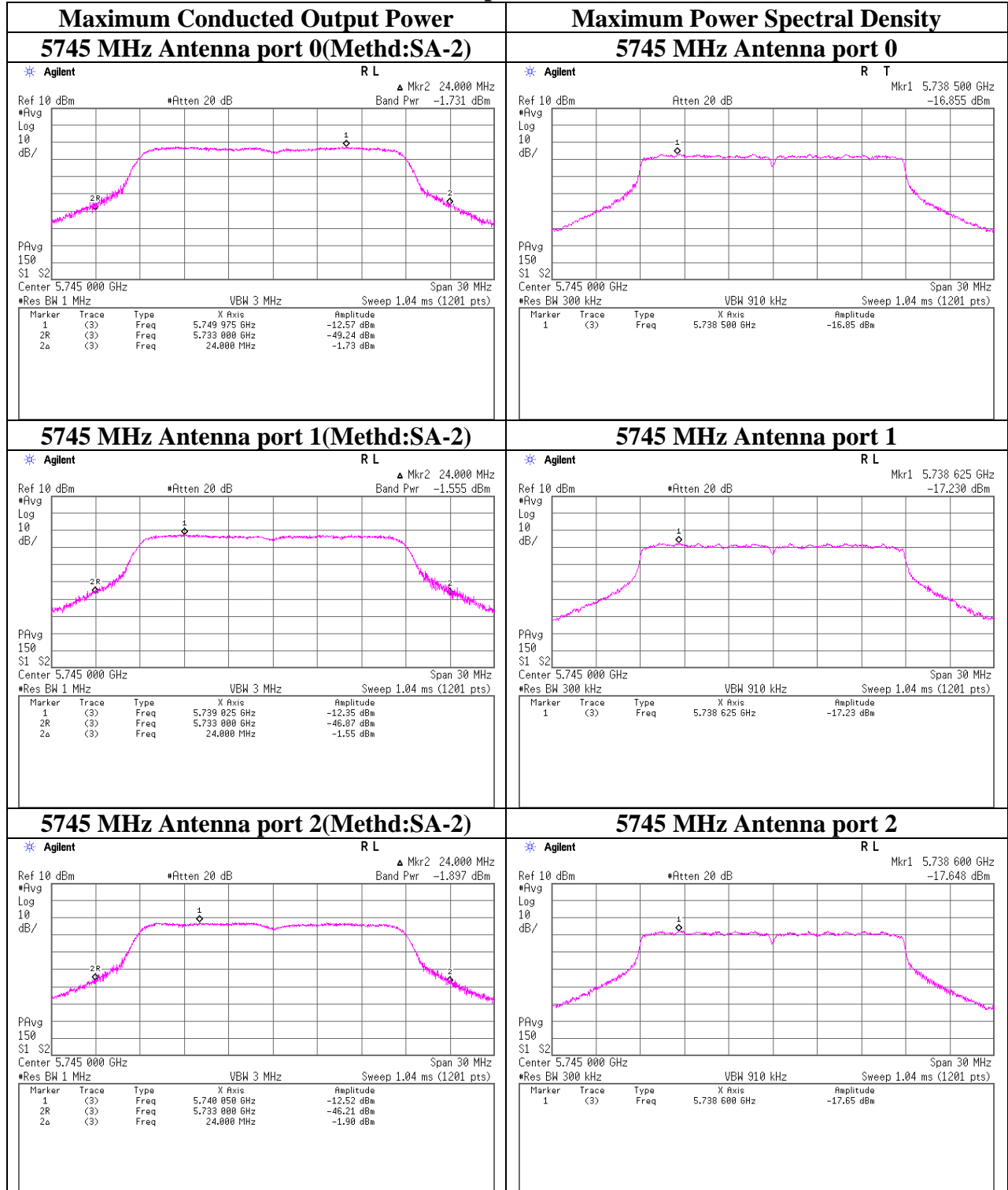
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-20 Antenna port 0+1+2(3 Stream)**



**Maximum Conducted Output Power & Maximum Power Spectral Density**

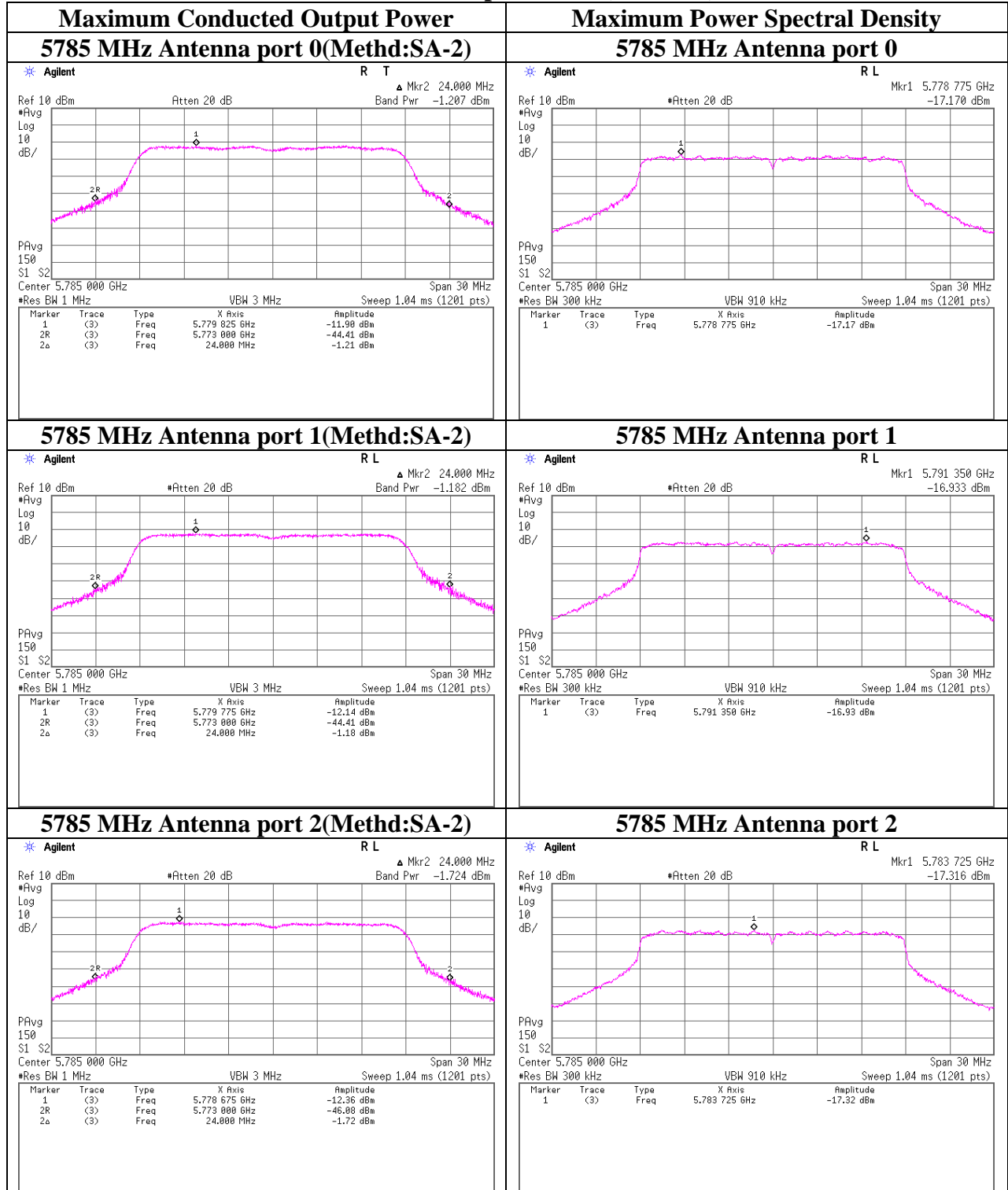
**11ac-20 Antenna port 0+1+2(3 Stream)**





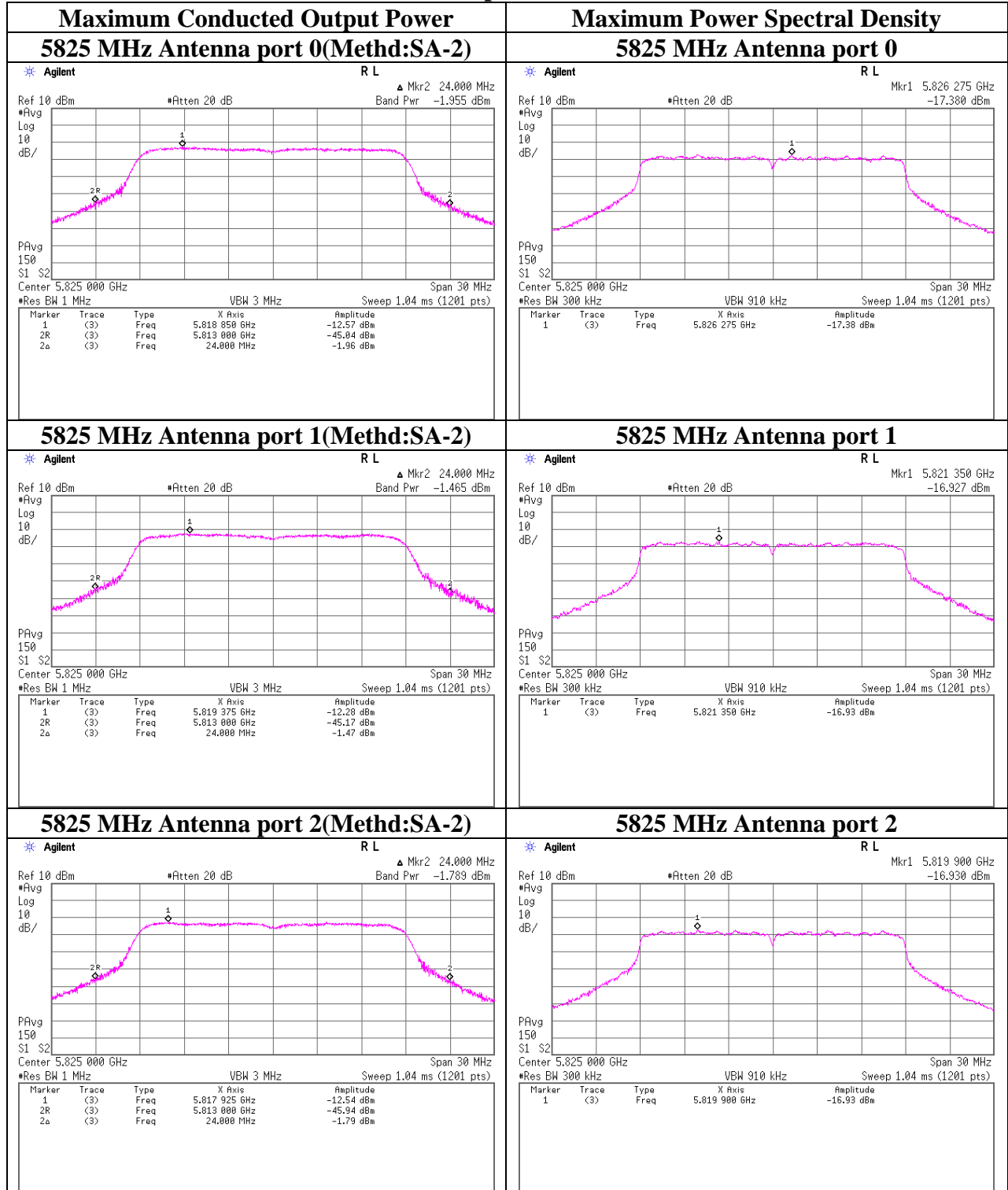
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-20 Antenna port 0+1+2(3 Stream)**



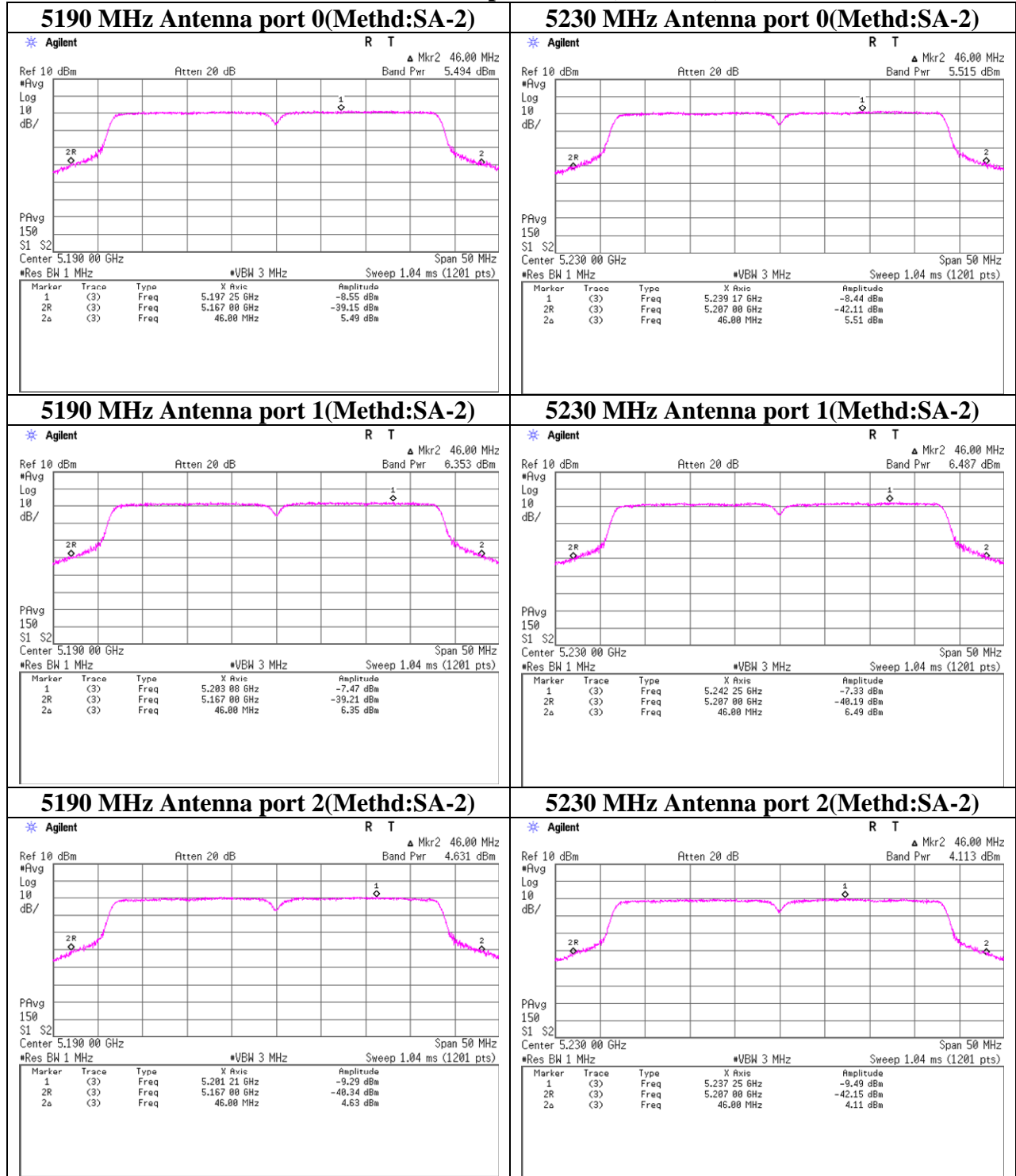
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-20 Antenna port 0+1+2(3 Stream)**



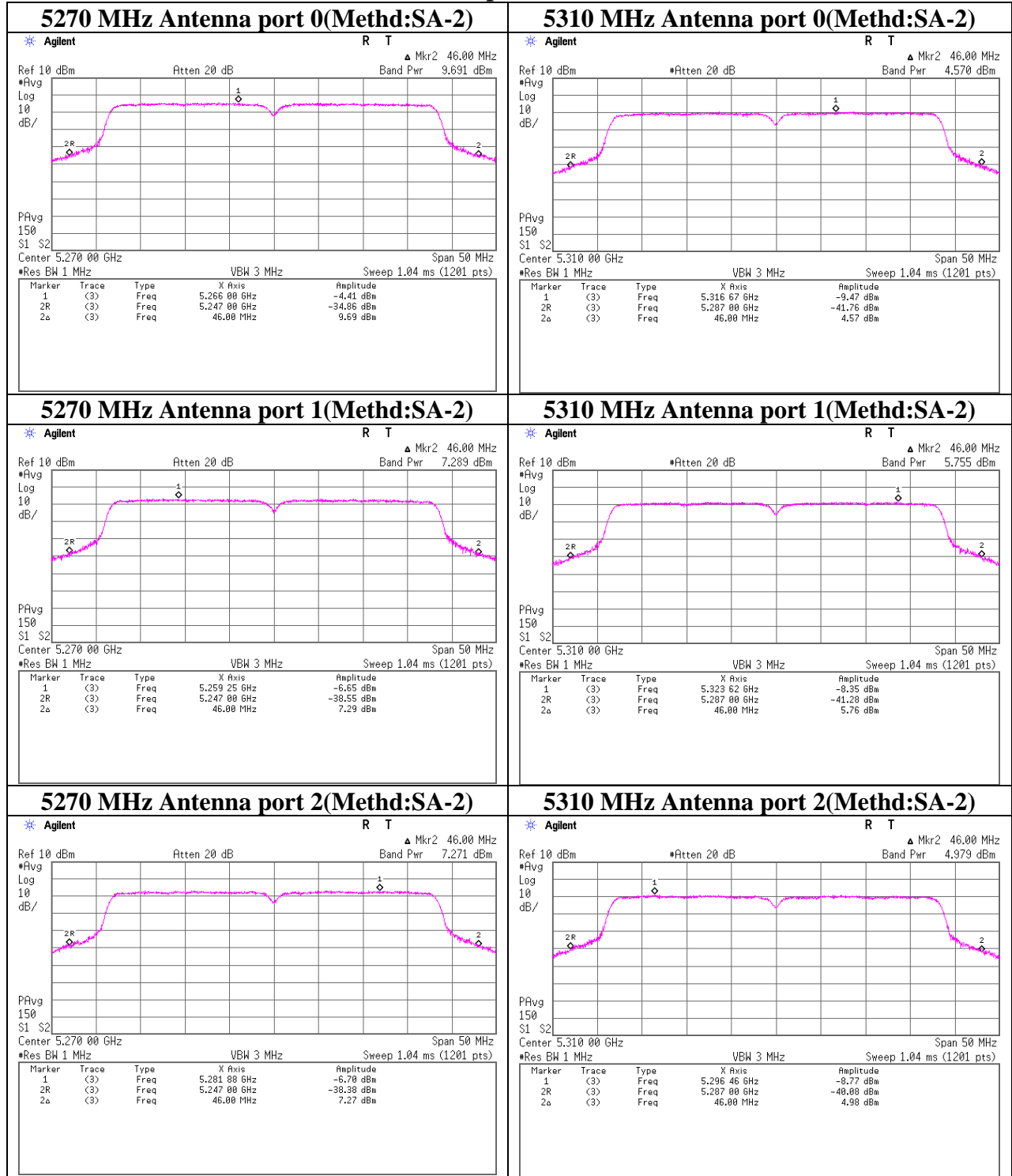
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-40 Antenna port 0+1+2(3 Stream)**



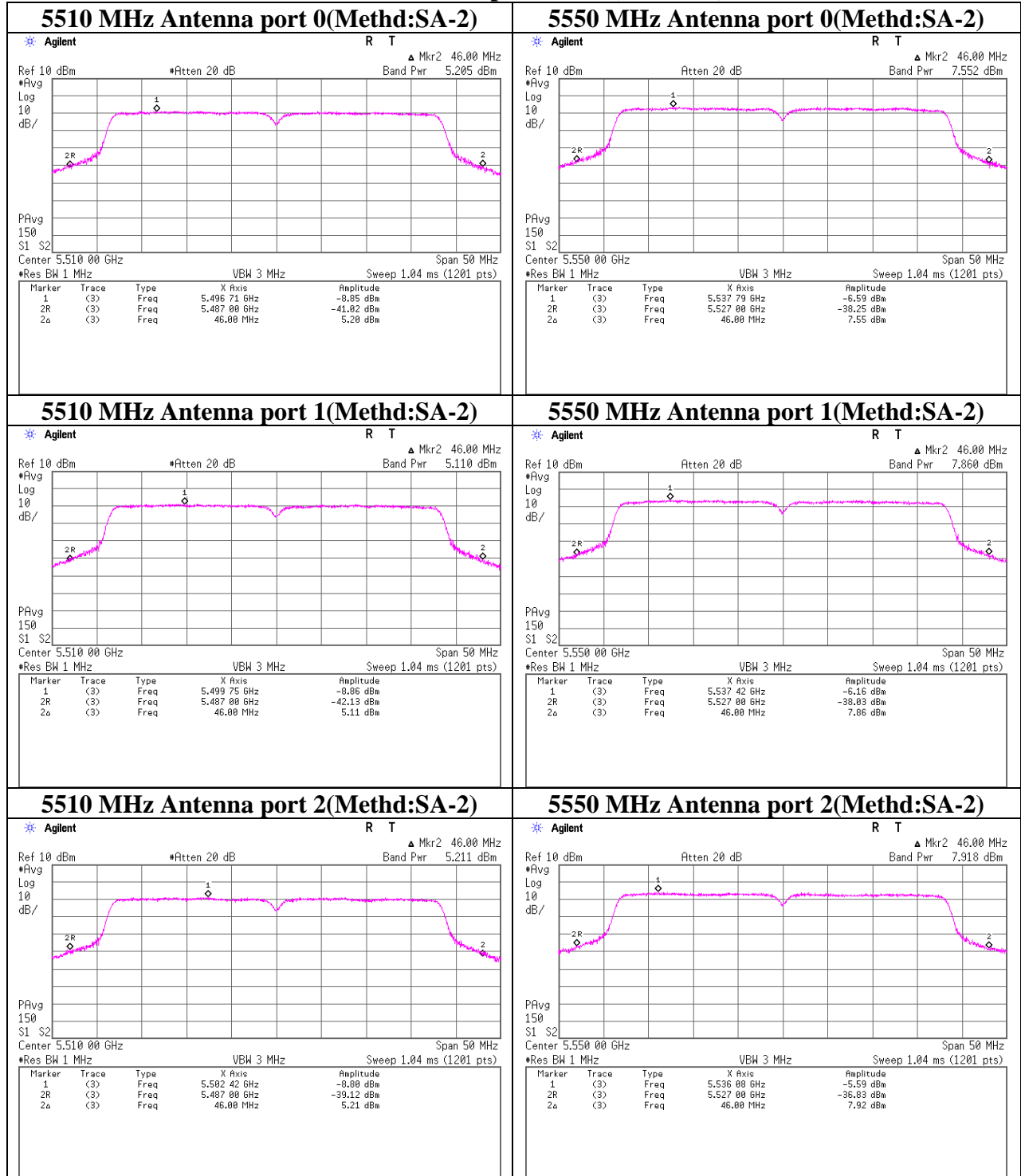
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-40 Antenna port 0+1+2(3 Stream)**



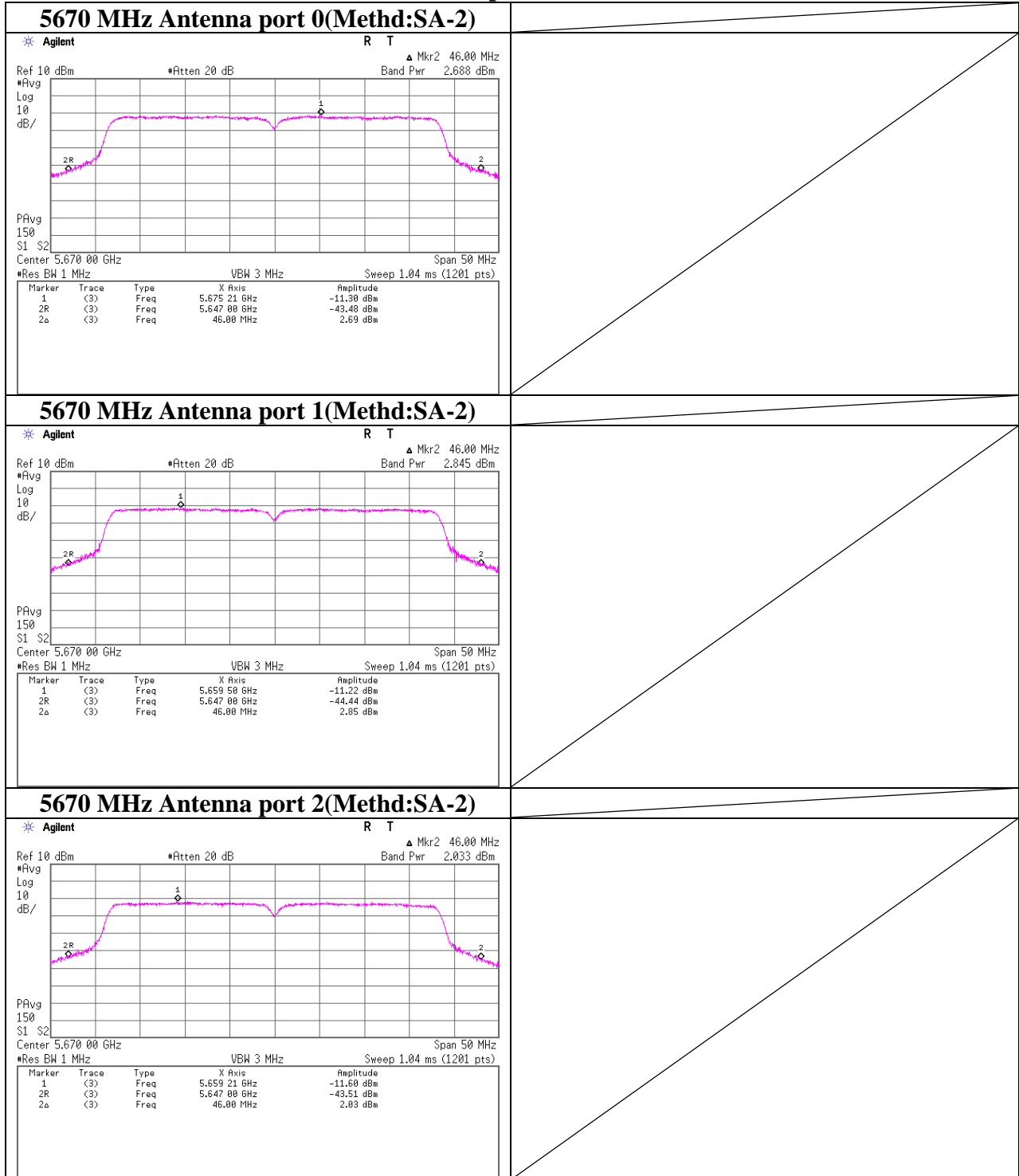
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-40 Antenna port 0+1+2(3 Stream)**



**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-40 Antenna port 0+1+2(3 Stream)**

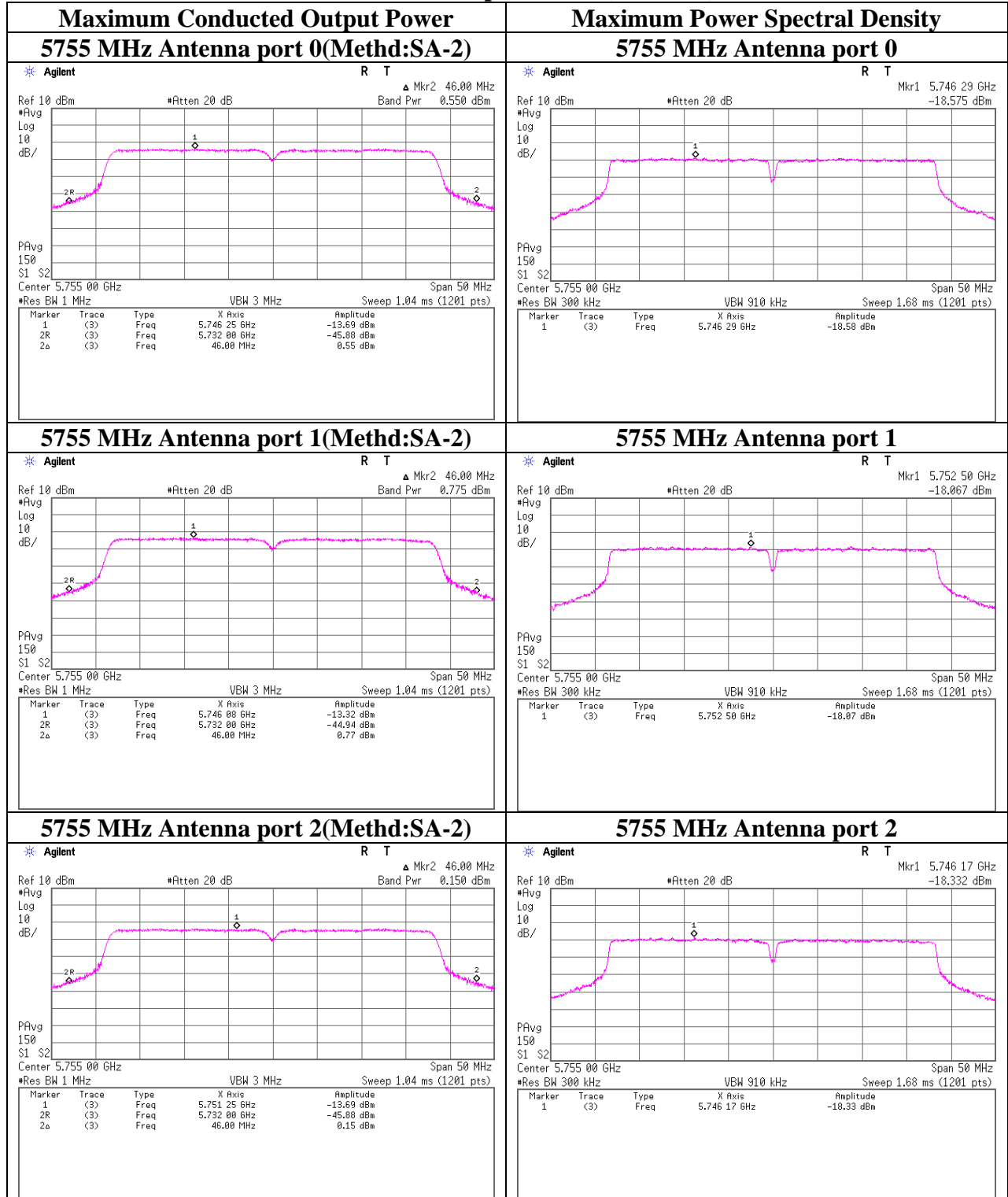


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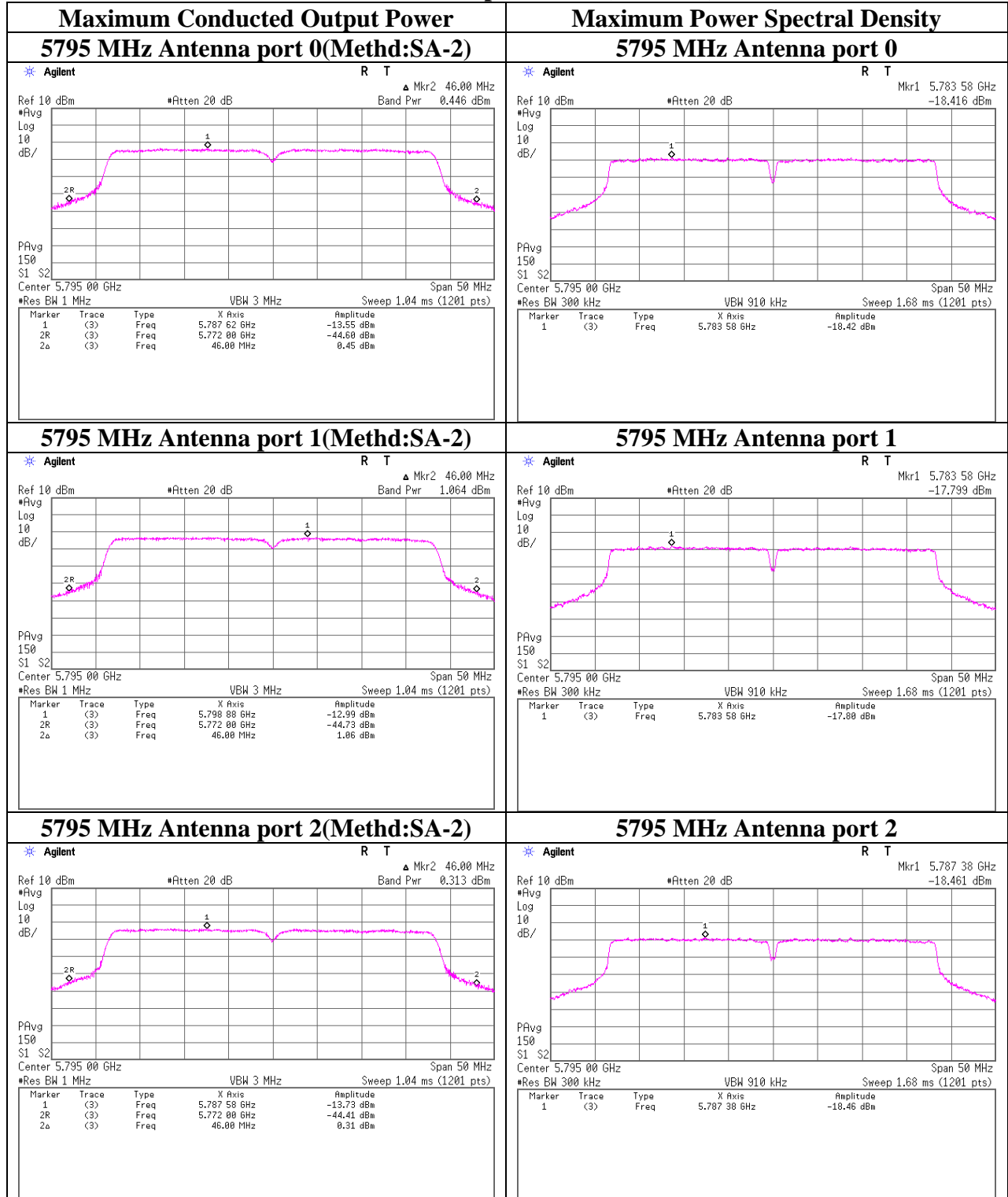
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-40 Antenna port 0+1+2(3 Stream)**



**Maximum Conducted Output Power & Maximum Power Spectral Density**

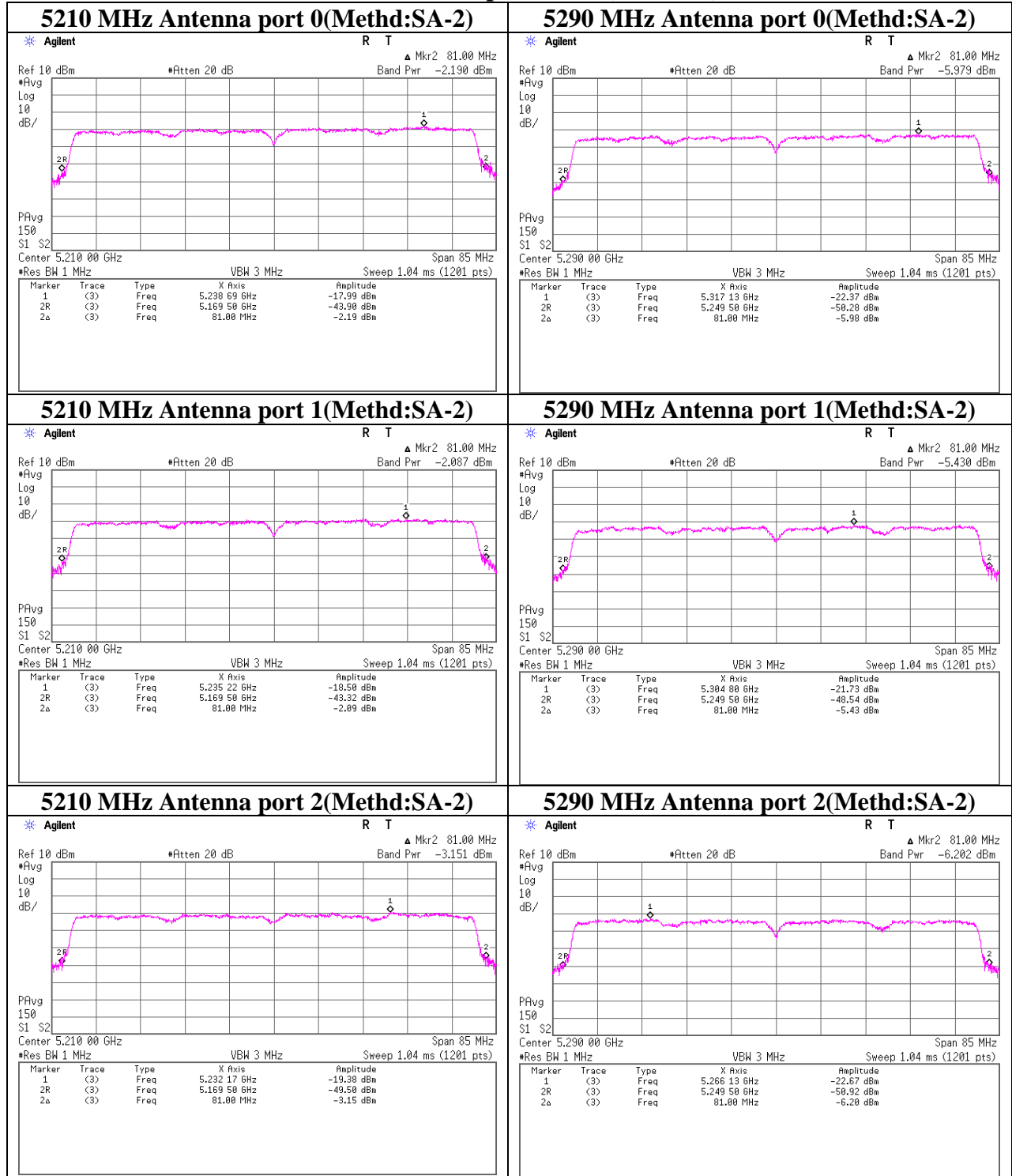
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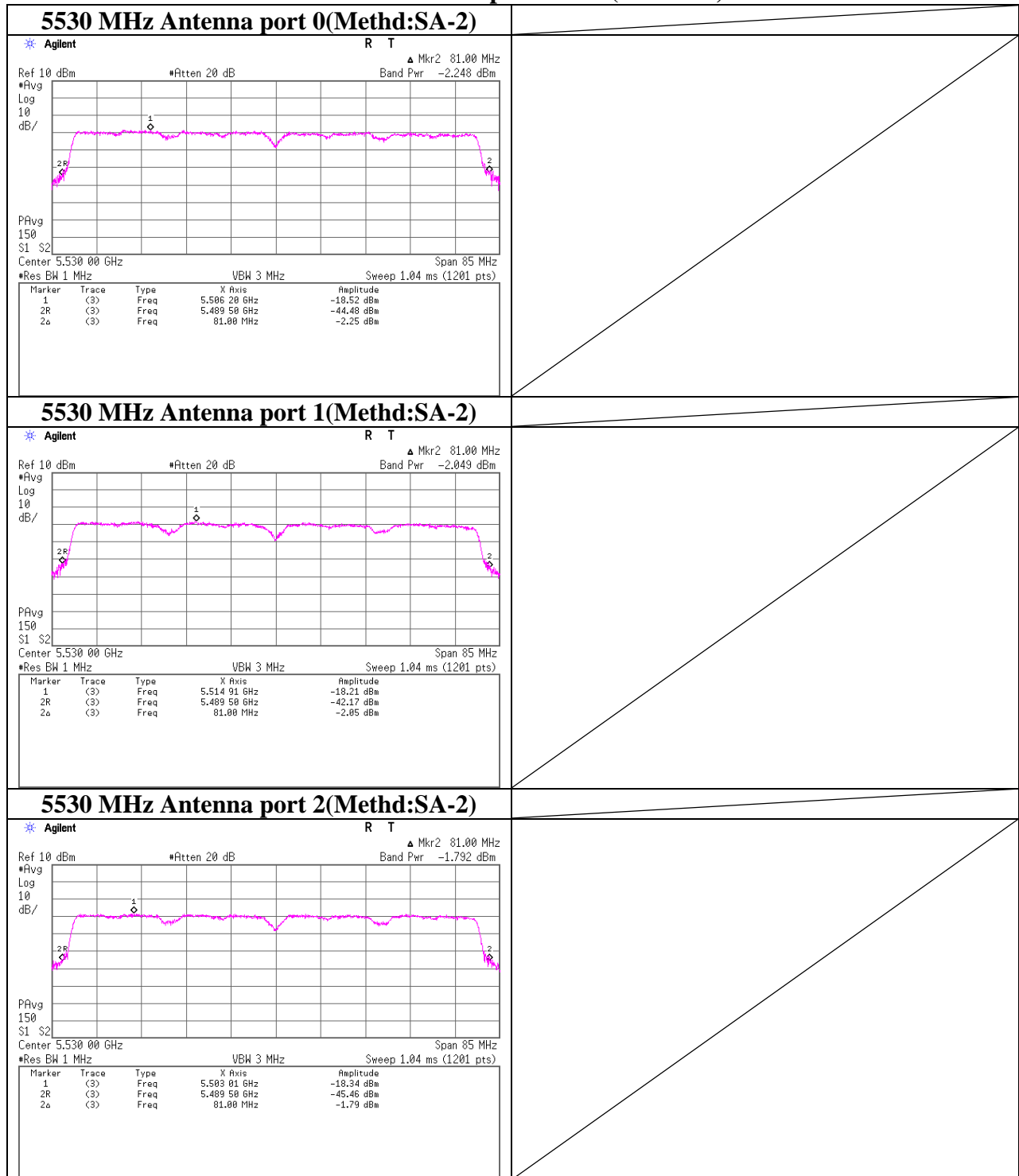
**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-80 Antenna port 0+1+2(3 Stream)**



**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-80 Antenna port 0+1+2(3 Stream)**

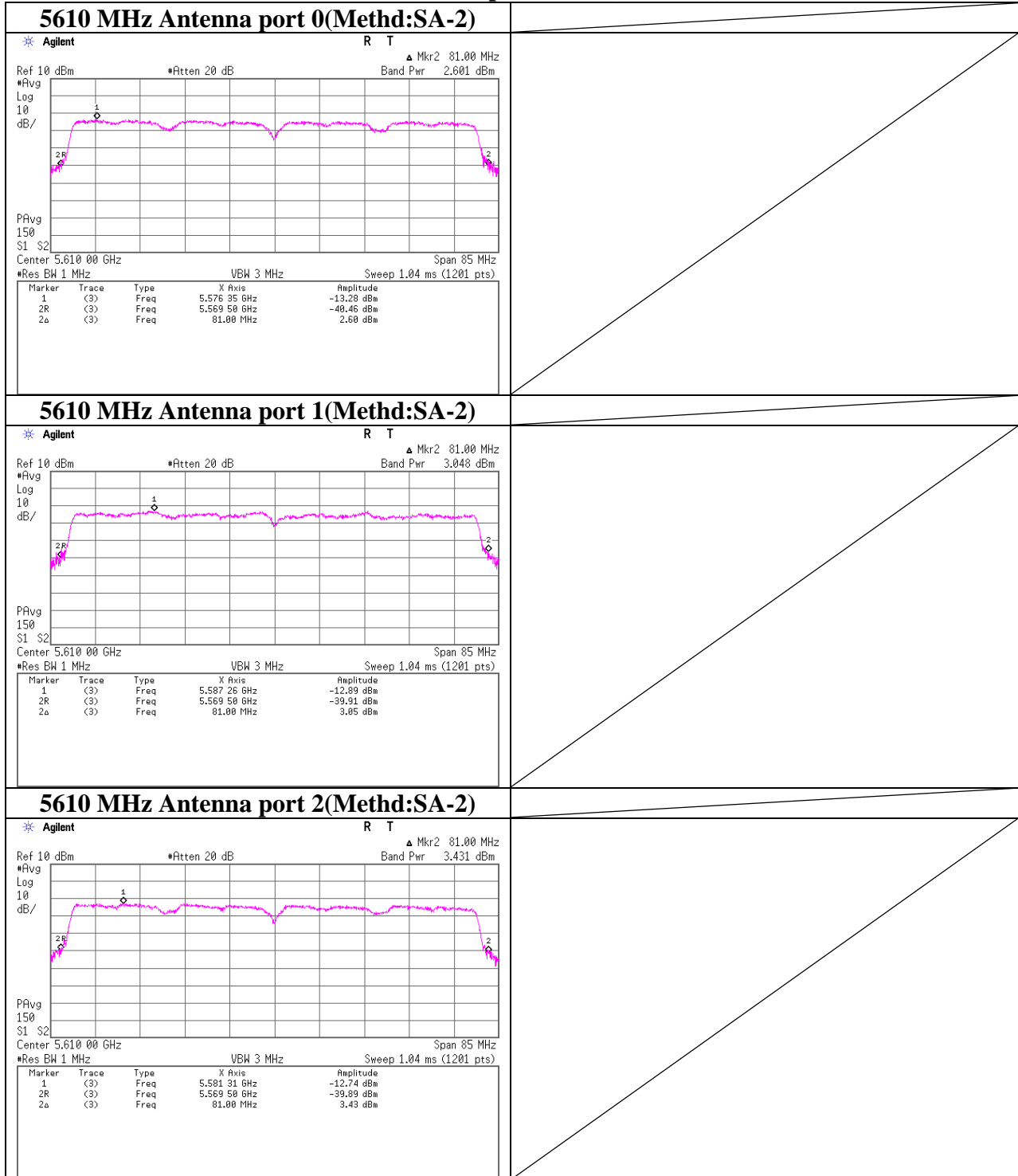


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**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-80 Antenna port 0+1+2(3 Stream)**

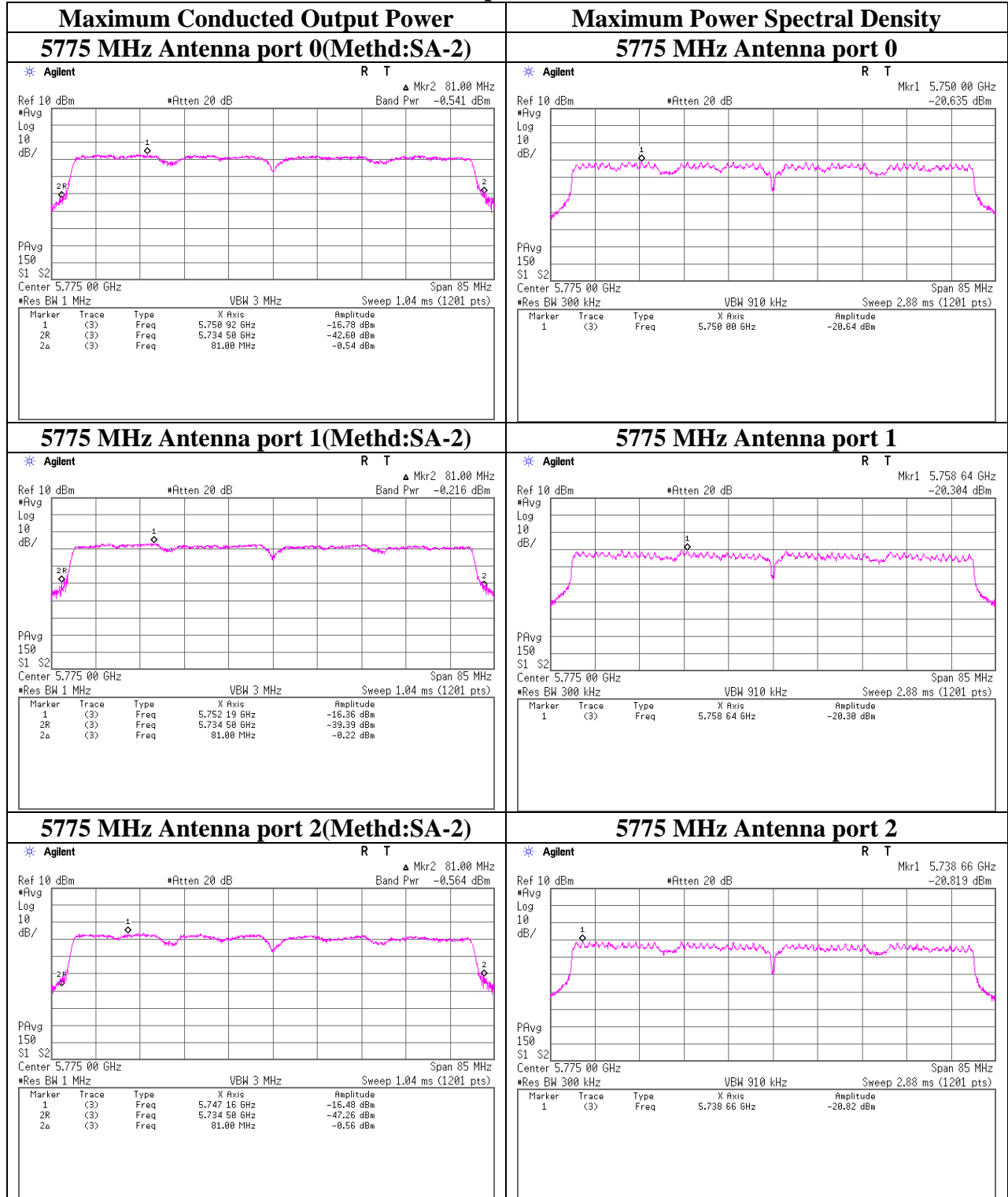


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**Maximum Conducted Output Power & Maximum Power Spectral Density**

**11ac-80 Antenna port 0+1+2(3 Stream)**



### Worst Data Rate Check

Test place	Ise EMC Lab. No.11 Measurement Room	
Report No.	10852538H	
Date	06/10/2015	06/29/2015
Temperature/ Humidity	26deg. C / 56% RH	24deg. C / 45% RH
Engineer	Yutaka Yoshida	Yutaka Yoshida
Mode	11a Tx	

11a Antenna port 0 Gating ON

Data Rate [Mbps]	Frequency [MHz]	Reading [dBm]	Remarks
6	5180	10.56	
9	5180	10.51	
12	5180	10.27	
18	5180	10.32	
24	5180	10.73	*
36	5180	10.70	
48	5180	10.66	
54	5180	8.82	

\*Worst Data Rate

Reference data for SAR testing

11a Antenna 0 Gating OFF

Data Rate [Mbps]	Frequency [MHz]	Reading [dBm]	Remarks
6	5180	9.19	*
9	5180	9.07	
12	5180	9.02	
18	5180	8.86	
24	5180	9.11	
36	5180	8.66	
48	5180	8.35	
54	5180	6.38	

\*Worst Data Rate

11a Antenna port 1 Gating ON

Data Rate [Mbps]	Frequency [MHz]	Reading [dBm]	Remarks
6	5180	12.19	*
9	5180	12.15	
12	5180	11.89	
18	5180	11.95	
24	5180	12.08	
36	5180	12.00	
48	5180	12.01	
54	5180	10.14	

\*Worst Data Rate

Reference data for SAR testing

11a Antenna port Gating OFF

Data Rate [Mbps]	Frequency [MHz]	Reading [dBm]	Remarks
6	5180	8.66	*
9	5180	8.61	
12	5180	8.55	
18	5180	8.18	
24	5180	8.33	
36	5180	8.06	
48	5180	7.00	
54	5180	5.45	

\*Worst Data Rate

11a Antenna port 2 Gating ON

Data Rate [Mbps]	Frequency [MHz]	Reading [dBm]	Remarks
6	5180	13.54	*
9	5180	13.53	
12	5180	13.35	
18	5180	13.35	
24	5180	14.10	
36	5180	14.08	
48	5180	12.25	
54	5180	10.99	

\*Worst Data Rate

Reference data for SAR testing

11a Antenna port 2 Gating OFF

Data Rate [Mbps]	Frequency [MHz]	Reading [dBm]	Remarks
6	5180	9.74	*
9	5180	9.61	
12	5180	9.58	
18	5180	9.42	
24	5180	10.72	
36	5180	10.51	
48	5180	8.56	
54	5180	6.95	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

**UL Japan, Inc.**

**Ise EMC Lab.**

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### Worst Data Rate Check

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/10/2015  
Temperature/ Humidity : 26deg. C / 56% RH  
Engineer : Yutaka Yoshida  
Mode : 11n-20 Tx

11n20 Gating ON

MCS Index	Frequency [MHz]	Stream	Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks	
			Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]				
0	5180	Single Stream	7.31	5.39	6.20	4.17	7.63	5.79				
1	5180		7.28	5.34	6.14	4.11	7.67	5.84				
2	5180		7.22	5.28	6.17	4.14	7.61	5.77				
3	5180		7.33	5.40	6.55	4.52	7.75	5.96				
4	5180		7.33	5.41	6.58	4.55	7.74	5.94				
5	5180		6.77	4.76	6.84	4.83	7.63	5.79				
6	5180		6.76	4.74	6.85	4.84	7.58	5.73				
7	5180		6.80	4.78	6.90	4.90	7.59	5.73				
8	5180	2 Stream	Antenna port 0+1	7.28	5.35		1.00			8.03	6.35	
9	5180			7.26	5.31		1.00			8.00	6.31	
10	5180			7.28	5.35		1.00			8.03	6.35	
11	5180			7.09	5.11		1.00			7.86	6.11	
12	5180		7.29	5.35		1.00			8.03	6.35		
13	5180		6.91	4.91		1.00			7.72	5.91		
14	5180		6.89	4.89		1.00			7.70	5.89		
15	5180		6.88	4.87		1.00			7.69	5.87		
8	5180	2 Stream	Antenna port 0+2	7.28	5.34			7.62	5.78	10.46	11.13	
9	5180			7.27	5.33			7.59	5.75	10.44	11.08	
10	5180			7.31	5.38			7.61	5.77	10.47	11.15	
11	5180			6.99	4.99			7.75	5.95	10.39	10.95	
12	5180		7.03	5.05			7.83	6.07	10.46	11.11		
13	5180		6.86	4.85			7.61	5.76	10.26	10.61		
14	5180		6.89	4.89			7.64	5.81	10.29	10.70		
15	5180		6.90	4.89			7.55	5.69	10.24	10.58		
8	5180	2 Stream	Antenna port 1+2			6.52	4.49	7.70	5.89	10.16	10.38	
9	5180					6.66	4.63	7.73	5.93	10.23	10.56	
10	5180					6.65	4.63	7.76	5.97	10.25	10.59	
11	5180					6.77	4.76	7.76	5.98	10.31	10.73	
12	5180					6.85	4.85	7.80	6.02	10.36	10.87	
13	5180					6.32	4.28	7.68	5.85	10.06	10.14	
14	5180					6.35	4.31	7.70	5.89	10.09	10.20	
15	5180					6.28	4.25	7.68	5.86	10.05	10.11	
16	5180	3 Stream	Antenna port 0+1+2	7.35	5.43	6.59	4.56	7.58	5.73	11.96	15.72	
17	5180			7.36	5.44	6.62	4.60	7.62	5.78	11.99	15.81	
18	5180			7.42	5.52	6.68	4.66	7.62	5.78	12.03	15.97	
19	5180			7.12	5.15	6.96	4.97	7.70	5.89	12.04	16.01	*
20	5180			7.05	5.07	7.01	5.02	7.68	5.86	12.03	15.95	
21	5180			6.97	4.98	6.20	4.17	7.60	5.76	11.73	14.91	
22	5180			6.92	4.92	6.21	4.18	7.59	5.74	11.72	14.85	
23	5180			6.93	4.93	6.24	4.20	7.55	5.69	11.71	14.82	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

**Worst Data Rate Check(Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/29/2015  
Temperature/ Humidity : 24deg. C / 45% RH  
Engineer : Yutaka Yoshida  
Mode : 11n-20 Tx

11n20 Gating OFF

MCS Index	Frequency [MHz]	Stream		Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks
				Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]			
16	5180	3 Stream	Antenna port 0+1+2	7.03	5.04	6.30	4.26	7.27	5.34	11.66	14.64	*
17	5180			6.66	4.64	5.90	3.89	6.89	4.88	11.27	13.41	
18	5180			6.40	4.36	5.68	3.70	6.65	4.62	11.03	12.68	
19	5180			5.81	3.81	5.62	3.64	6.37	4.34	10.72	11.79	
20	5180			5.41	3.47	5.37	3.45	6.07	4.05	10.40	10.97	
21	5180			5.16	3.28	4.38	2.74	5.70	3.72	9.89	9.74	
22	5180			4.95	3.13	4.26	2.66	5.61	3.64	9.74	9.43	
23	5180			4.92	3.11	4.13	2.59	5.51	3.55	9.66	9.25	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

### Worst Data Rate Check

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/10/2015  
Temperature/ Humidity : 26deg. C / 56% RH  
Engineer : Yutaka Yoshida  
Mode : 11n-40 Tx

11n40 Gating ON

MCS Index	Frequency [MHz]	Stream	Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks
			Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]			
0	5190	Single Stream	10.67	11.67	13.03	20.09	13.09	20.37			
1	5190		10.57	11.40	12.76	18.89	12.91	19.56			
2	5190		10.55	11.35	12.79	19.02	12.87	19.37			
3	5190		10.54	11.31	13.07	20.27	13.60	22.90			
4	5190		10.54	11.31	13.00	19.97	13.49	22.35			
5	5190		10.55	11.36	13.03	20.07	11.85	15.32			
6	5190		8.91	7.78	11.23	13.27	10.06	10.14			
7	5190		8.87	7.70	11.23	13.26	9.90	9.77			
8	5190	2 Stream	Antenna port 0+1	10.59	11.45	13.29	21.31		15.15	32.75	
9	5190			10.14	10.33	13.10	20.42		14.88	30.75	
10	5190			10.09	10.21	12.95	19.73		14.76	29.94	
11	5190			10.41	10.98	13.00	19.97		14.91	30.96	
12	5190		10.27	10.65	12.89	19.44		14.78	30.09		
13	5190		10.28	10.66	13.05	20.20		14.89	30.85		
14	5190		8.65	7.33	11.24	13.31		13.15	20.64		
15	5190		8.69	7.40	11.25	13.33		13.16	20.72		
8	5190	2 Stream	Antenna port 0+2	10.70	11.75			13.49	22.33	15.32	34.08
9	5190			10.35	10.85			13.02	20.05	14.90	30.90
10	5190			10.20	10.47			12.80	19.03	14.70	29.50
11	5190			10.36	10.87			12.42	17.47	14.52	28.34
12	5190		10.25	10.59			12.20	16.61	14.35	27.20	
13	5190		10.40	10.95			11.54	14.27	14.02	25.22	
14	5190		8.76	7.52			10.17	10.41	12.53	17.93	
15	5190		8.73	7.46			10.04	10.09	12.44	17.55	
8	5190	2 Stream	Antenna port 1+2			13.14	20.61	12.87	19.34	16.02	39.95
9	5190					12.97	19.82	11.34	13.60	15.24	33.42
10	5190					12.96	19.78	11.29	13.47	15.22	33.25
11	5190					13.19	20.84	11.50	14.12	15.43	34.95
12	5190				13.02	20.04	11.41	13.83	15.30	33.87	
13	5190				13.06	20.22	11.49	14.08	15.35	34.30	
14	5190				11.41	13.82	10.33	10.80	13.91	24.62	
15	5190				11.42	13.88	10.18	10.43	13.86	24.31	
16	5190	3 Stream	Antenna port 0+1+2	10.38	10.91	13.44	22.10	11.60	14.46	16.76	47.47 *
17	5190			10.13	10.30	13.07	20.29	11.18	13.11	16.40	43.69
18	5190			10.26	10.62	13.01	20.01	11.10	12.88	16.39	43.51
19	5190			10.24	10.57	12.93	19.65	11.22	13.23	16.38	43.45
20	5190			10.27	10.64	13.07	20.28	11.19	13.15	16.44	44.07
21	5190			10.26	10.62	13.16	20.72	11.25	13.34	16.50	44.68
22	5190			8.39	6.91	11.35	13.64	9.75	9.45	14.77	29.99
23	5190	8.28	6.73	11.11	12.92	9.90	9.77	14.69	29.41		

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.



**Worst Data Rate Check(Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/29/2015  
Temperature/ Humidity : 24deg. C / 45% RH  
Engineer : Yutaka Yoshida  
Mode : 11n-40 Tx

11n40 Gating OFF

MCS Index	Frequency [MHz]	Stream		Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks
				Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]			
16	5190	3 Stream	Antenna port 0+1+2	7.44	5.54	7.05	5.07	8.22	6.63	12.37	17.24	*
17	5190			7.03	5.05	6.43	4.39	7.68	5.86	11.85	15.30	
18	5190			6.63	4.61	6.21	4.18	7.38	5.48	11.54	14.26	
19	5190			6.61	4.58	6.02	4.00	7.20	5.24	11.40	13.82	
20	5190			6.65	4.62	5.77	3.78	6.90	4.90	11.24	13.29	
21	5190			6.84	4.83	5.68	3.70	6.82	4.81	11.25	13.34	
22	5190			3.99	2.51	3.53	2.25	4.60	2.88	8.83	7.64	
23	5190			3.97	2.49	3.59	2.29	4.69	2.94	8.88	7.72	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

### Worst Data Rate Check

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/10/2015  
Temperature/ Humidity : 26deg.C. / 56%  
Engineer : Yutaka Yoshida  
Mode : 11ac-20 Tx

11ac20 Gating ON

MCS Index	Frequency [MHz]	Stream	Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks	
			Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]				
0	5180	Single Stream	7.12	5.16	6.22	4.19	7.50	5.62				
1	5180		7.12	5.15	6.22	4.19	7.47	5.59				
2	5180		7.08	5.11	6.23	4.20	7.51	5.64				
3	5180		7.39	5.48	6.68	4.66	7.54	5.68				
4	5180		7.45	5.56	6.74	4.72	7.60	5.75				
5	5180		6.61	4.58	6.92	4.92	7.45	5.56				
6	5180		6.56	4.53	6.96	4.96	7.53	5.66				
7	5180		6.60	4.57	7.00	5.01	7.55	5.69				
8	5180		5.54	3.58	6.05	4.03	6.08	4.06				
0	5180	2 Stream	Antenna port 0+1	7.18	5.22	6.61	4.58			9.91	9.80	
1	5180			7.27	5.33	6.61	4.58			9.96	9.91	
2	5180			7.23	5.29	6.64	4.61			9.96	9.90	
3	5180			7.30	5.38	6.67	4.65			10.01	10.02	
4	5180			7.39	5.48	6.77	4.75			10.10	10.23	
5	5180			6.89	4.89	6.25	4.21			9.59	9.10	
6	5180			6.86	4.85	6.29	4.26			9.59	9.10	
7	5180			6.91	4.91	6.30	4.26			9.63	9.18	
8	5180			5.55	3.59	6.01	3.99			8.80	7.58	
0	5180		Antenna port 0+2	7.34	5.42			7.67	5.85	10.52	11.27	
1	5180			7.34	5.42			7.65	5.82	10.51	11.24	
2	5180			7.40	5.49			7.72	5.92	10.57	11.41	
3	5180			7.39	5.48			7.81	6.05	10.62	11.52	
4	5180			7.44	5.54			7.90	6.16	10.68	11.70	
5	5180			6.58	4.55			7.70	5.89	10.19	10.44	
6	5180			6.93	4.93			7.67	5.85	10.32	10.77	
7	5180			6.95	4.96			7.74	5.94	10.37	10.90	
8	5180			5.53	3.58			6.43	4.40	9.01	7.97	
0	5180	Antenna port 1+2			6.76	4.74	7.81	6.04	10.33	10.79		
1	5180				6.80	4.79	7.80	6.02	10.34	10.81		
2	5180				6.76	4.74	7.79	6.01	10.32	10.76		
3	5180				6.76	4.74	7.80	6.02	10.32	10.77		
4	5180				6.80	4.79	7.85	6.09	10.37	10.88		
5	5180				6.28	4.25	7.73	5.93	10.08	10.18		
6	5180				6.30	4.26	7.71	5.90	10.07	10.16		
7	5180				6.32	4.28	7.74	5.94	10.10	10.22		
8	5180				6.03	4.01	6.80	4.79	9.44	8.80		
0	5180	3 Stream	Antenna port 0+1+2	7.27	5.33	6.75	4.73	7.53	5.66	11.96	15.72	
1	5180			7.33	5.40	6.69	4.66	7.54	5.67	11.97	15.73	
2	5180			7.31	5.38	6.77	4.76	7.67	5.85	12.04	15.98	
3	5180			7.01	5.02	7.15	5.18	7.67	5.85	12.06	16.05	*
4	5180			7.05	5.07	7.08	5.10	7.64	5.81	12.04	15.99	
5	5180			6.93	4.93	6.29	4.25	7.57	5.72	11.73	14.90	
6	5180			6.94	4.94	6.26	4.23	7.58	5.72	11.73	14.89	
7	5180			6.96	4.97	6.28	4.25	7.64	5.81	11.77	15.03	
8	5180			5.76	3.77	6.01	3.99	6.51	4.48	10.88	12.24	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

**Worst Data Rate Check(Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/29/2015  
Temperature/ Humidity : 24deg. C / 45% RH  
Engineer : Yutaka Yoshida  
Mode : 11ac-20 Tx

11ac20 Gating OFF

MCS Index	Frequency [MHz]	Stream		Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks
				Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]			
0	5180	3 Stream	Antenna port 0+1+2	6.96	4.97	6.34	4.30	7.26	5.33	11.64	14.60	*
1	5180			6.81	4.80	6.10	4.08	6.93	4.93	11.40	13.80	
2	5180			6.47	4.43	5.75	3.76	6.71	4.68	11.10	12.87	
3	5180			5.80	3.80	5.76	3.77	6.44	4.40	10.78	11.97	
4	5180			5.53	3.57	5.55	3.59	6.14	4.11	10.52	11.28	
5	5180			5.17	3.29	4.41	2.76	5.71	3.72	9.90	9.77	
6	5180			5.20	3.31	4.39	2.75	5.79	3.79	9.93	9.85	
7	5180			4.97	3.14	4.16	2.61	5.59	3.62	9.71	9.36	
8	5180			3.52	2.25	3.68	2.34	4.45	2.79	8.67	7.37	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

### Worst Data Rate Check

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/10/2015  
Temperature/ Humidity : 26deg. C / 56% RH  
Engineer : Yutaka Yoshida  
Mode : 11ac-40 Tx

11ac40 Gating ON

MCS Index	Frequency [MHz]	Stream	Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks	
			Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]				
0	5190	Single Stream	10.82	12.07	13.00	19.97	11.18	13.13				
1	5190		10.61	11.52	12.83	19.18	11.02	12.64				
2	5190		10.66	11.64	12.79	19.03	12.58	18.09				
3	5190		10.66	11.64	13.11	20.45	13.57	22.74				
4	5190		10.63	11.55	13.03	20.09	13.56	22.72				
5	5190		10.70	11.75	13.18	20.82	11.82	15.20				
6	5190		10.66	11.64	13.16	20.71	11.72	14.86				
7	5190		7.92	6.20	10.27	10.65	8.51	7.09				
8	5190		8.02	6.33	10.30	10.71	8.49	7.06				
9	5190		7.48	5.60	9.82	9.59	7.93	6.21				
0	5190	2 Stream	Antenna port 0+1	10.61	11.52	13.41	21.95			15.25	33.47	
1	5190			10.45	11.09	13.17	20.76			15.03	31.85	
2	5190			10.30	10.71	13.10	20.40			14.93	31.10	
3	5190			10.38	10.90	13.19	20.86			15.02	31.76	
4	5190			10.20	10.47	13.18	20.81			14.95	31.27	
5	5190		10.39	10.94	13.31	21.43			15.10	32.37		
6	5190		10.41	11.00	13.11	20.47			14.98	31.47		
7	5190		7.71	5.90	10.31	10.74			12.21	16.64		
8	5190		7.77	5.99	10.31	10.74			12.24	16.73		
9	5190		7.21	5.26	9.79	9.52			11.70	14.78		
0	5190	2 Stream	Antenna port 0+2	10.76	11.90			13.35	21.61	15.25	33.51	
1	5190			10.53	11.31			12.37	17.25	14.56	28.56	
2	5190			10.53	11.31			11.51	14.15	14.06	25.46	
3	5190			10.37	10.89			11.38	13.74	13.92	24.63	
4	5190			10.33	10.79			11.37	13.69	13.89	24.49	
5	5190			10.48	11.17			11.51	14.16	14.04	25.34	
6	5190			10.30	10.72			11.38	13.73	13.88	24.46	
7	5190			7.80	6.03			8.64	7.31	11.25	13.34	
8	5190			7.64	5.80			8.43	6.97	11.06	12.77	
9	5190			7.27	5.33			8.05	6.38	10.69	11.72	
0	5190	2 Stream	Antenna port 1+2			13.24	21.09	13.17	20.74	16.21	41.83	
1	5190					13.19	20.85	11.33	13.58	15.37	34.43	
2	5190					13.12	20.51	11.21	13.20	15.28	33.70	
3	5190					13.23	21.04	11.45	13.97	15.44	35.01	
4	5190					13.10	20.44	11.40	13.80	15.35	34.24	
5	5190					13.20	20.89	11.49	14.10	15.44	34.98	
6	5190					13.27	21.23	11.42	13.87	15.45	35.10	
7	5190					10.47	11.14	8.73	7.46	12.70	18.60	
8	5190					10.59	11.46	8.61	7.25	12.72	18.71	
9	5190					9.97	9.92	7.97	6.27	12.09	16.19	
0	5190	3 Stream	Antenna port 0+1+2	10.46	11.11	13.70	23.43	11.56	14.32	16.89	48.85	*
1	5190			10.18	10.42	13.63	23.05	11.28	13.41	16.71	46.88	
2	5190			10.18	10.41	13.40	21.86	11.22	13.23	16.58	45.50	
3	5190			10.42	11.01	13.43	22.03	11.28	13.44	16.67	46.47	
4	5190			10.22	10.53	13.34	21.57	11.21	13.23	16.56	45.32	
5	5190			10.19	10.45	13.36	21.69	11.39	13.78	16.62	45.92	
6	5190			10.58	11.44	13.46	22.19	11.51	14.14	16.79	47.77	
7	5190			7.66	5.84	10.61	11.50	8.97	7.89	14.02	25.23	
8	5190			7.49	5.61	10.64	11.58	8.90	7.75	13.97	24.95	
9	5190			7.12	5.15	9.88	9.72	7.97	6.26	13.25	21.13	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

**Worst Data Rate Check(Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/29/2015  
Temperature/ Humidity : 24deg. C / 45% RH  
Engineer : Yutaka Yoshida  
Mode : 11ac-40 Tx

11ac40 Gating OFF

MCS Index	Frequency [MHz]	Stream		Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks
				Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]			
0	5190	3 Stream	Antenna port 0+1+2	7.80	6.02	7.27	5.33	8.32	6.80	12.59	18.15	*
1	5190			7.69	5.87	7.29	5.35	8.31	6.77	12.55	18.00	
2	5190			6.96	4.96	6.33	4.30	7.42	5.52	11.70	14.79	
3	5190			6.79	4.78	6.25	4.21	7.30	5.36	11.57	14.36	
4	5190			6.62	4.59	5.81	3.81	6.95	4.96	11.26	13.36	
5	5190			7.02	5.03	5.87	3.86	6.95	4.95	11.41	13.85	
6	5190			7.03	5.05	5.90	3.89	6.93	4.93	11.42	13.87	
7	5190			3.00	1.99	2.67	1.85	2.80	1.91	7.60	5.75	
8	5190			3.07	2.03	2.75	1.88	3.74	2.36	7.97	6.27	
9	5190			2.55	1.80	2.31	1.70	3.11	2.05	7.44	5.55	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

### Worst Data Rate Check

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/10/2015  
Temperature/ Humidity : 26deg. C / 56% RH  
Engineer : Yutaka Yoshida  
Mode : 11ac-80 Tx

11ac80	Gating ON	MCS Index	Frequency [MHz]	Stream	Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks
					Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]			
		0	5210	Single Stream	10.03	10.06	12.91	19.55	13.01	20.02			
		1	5210		9.90	9.77	12.91	19.56	12.89	19.44			
		2	5210		9.83	9.62	12.83	19.19	12.82	19.15			
		3	5210		10.14	10.33	13.03	20.10	13.49	22.33			
		4	5210		10.18	10.42	12.98	19.87	13.41	21.94			
		5	5210		10.29	10.69	13.06	20.24	11.81	15.18			
		6	5210		10.23	10.54	13.07	20.28	11.69	14.77			
		7	5210		8.25	6.68	10.31	10.73	8.43	6.96			
		8	5210		8.36	6.85	10.35	10.83	8.51	7.10			
		9	5210		7.75	5.95	9.81	9.57	7.96	6.25			
		0	5210	Antenna 0+1	10.42	11.02	13.55	22.64			15.27	33.66	
		1	5210		9.82	9.60	12.90	19.51			14.64	29.11	
		2	5210		9.82	9.60	13.19	20.83			14.83	30.43	
		3	5210		9.84	9.63	12.88	19.39			14.63	29.02	
		4	5210		9.83	9.61	12.78	18.97			14.56	28.59	
		5	5210		9.93	9.84	13.26	21.18			14.92	31.02	
		6	5210		9.95	9.88	13.06	20.23			14.79	30.11	
		7	5210		7.73	5.93	10.35	10.84			12.24	16.76	
		8	5210		8.01	6.33	10.41	10.99			12.39	17.32	
		9	5210		7.34	5.42	10.05	10.12			11.91	15.54	
		0	5210	Antenna 0+2	10.14	10.32			11.71	14.82	14.00	25.14	
		1	5210		9.83	9.61			11.16	13.05	13.55	22.66	
		2	5210		9.94	9.87			11.20	13.19	13.63	23.05	
		3	5210		9.87	9.70			11.31	13.53	13.66	23.23	
		4	5210		9.97	9.93			11.16	13.05	13.61	22.99	
		5	5210		10.03	10.07			11.47	14.01	13.82	24.09	
		6	5210		10.01	10.03			11.38	13.75	13.76	23.78	
		7	5210		7.93	6.21			8.28	6.72	11.12	12.93	
		8	5210		8.16	6.54			8.37	6.86	11.27	13.41	
		9	5210		7.51	5.63			7.92	6.19	10.73	11.82	
		0	5210	Antenna 1+2			10.01	10.03	13.34	21.55	14.99	31.58	
		1	5210				9.93	9.84	11.23	13.26	13.64	23.10	
		2	5210				10.01	10.02	11.29	13.46	13.71	23.48	
		3	5210				10.01	10.03	11.26	13.38	13.69	23.41	
		4	5210				10.04	10.08	11.37	13.72	13.77	23.80	
		5	5210				10.11	10.24	11.46	13.99	13.84	24.23	
		6	5210				9.95	9.88	11.37	13.72	13.73	23.60	
		7	5210				8.05	6.39	8.36	6.85	11.22	13.24	
		8	5210				8.17	6.56	8.51	7.10	11.36	13.66	
		9	5210				7.59	5.74	7.97	6.26	10.79	12.00	
		0	5210	3 Stream Antenna 0+1+2	9.99	9.99	13.39	21.82	11.35	13.65	16.58	45.46	
		1	5210		9.94	9.85	13.38	21.75	11.24	13.30	16.52	44.91	
		2	5210		10.00	9.99	13.29	21.32	11.09	12.84	16.45	44.15	
		3	5210		9.88	9.72	12.95	19.71	11.40	13.81	16.36	43.24	
		4	5210		9.98	9.96	13.33	21.54	11.18	13.13	16.50	44.64	
		5	5210		9.88	9.74	13.21	20.96	11.37	13.71	16.47	44.40	
		6	5210		10.15	10.35	13.32	21.49	11.66	14.65	16.67	46.49	*
		7	5210		7.62	5.78	10.11	10.25	8.82	7.62	13.74	23.66	
		8	5210		7.60	5.75	10.46	11.12	8.74	7.49	13.87	24.36	
		9	5210		7.33	5.41	9.83	9.62	7.80	6.03	13.23	21.05	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

**Worst Data Rate Check(Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 06/30/2015  
Temperature/ Humidity : 24deg. C / 67% RH  
Engineer : Yutaka Yoshida  
Mode : 11ac-80 Tx

11ac80 Gating ON

MCS Index	Frequency [MHz]	Stream		Antenna port 0		Antenna port 1		Antenna port 2		Total Result [dBm]	Total Result [mW]	Remarks
				Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]	Reading [dBm]	Reading [mW]			
0	5210	3 Stream	Antenna port 0+1+2	7.12	5.15	6.49	4.46	7.63	5.79	11.87	15.40	*
1	5210			6.71	4.69	6.06	4.04	7.13	5.17	11.43	13.89	
2	5210			6.36	4.33	5.77	3.78	6.87	4.86	11.13	12.96	
3	5210			7.96	6.25	5.55	3.59	6.55	4.52	11.57	14.36	
4	5210			7.72	5.91	5.35	3.43	6.27	4.24	11.33	13.58	
5	5210			6.96	4.96	5.79	3.80	6.69	4.67	11.28	13.43	
6	5210			6.92	4.92	5.83	3.83	6.91	4.91	11.35	13.66	
7	5210			3.29	2.13	2.83	1.92	3.84	2.42	8.11	6.47	
8	5210			3.06	2.02	2.82	1.91	3.58	2.28	7.94	6.22	
9	5210			2.53	1.79	2.18	1.65	3.09	2.04	7.39	5.48	

\*Worst Data Rate

All comparison were carried out on same frequency and measurement factors.  
Difference between worst rate check data and formal test result is due to the different test condition.

**Maximum Average Output Power (Reference data for SAR testing)**

Test place : Ise EMC Lab. No.6 and No.11 Measurement Room  
 Report No. : 10852538H  
 Date : 08/25/2015                      08/30/2015  
 Temperature/ Humidity : 25deg. C / 68% RH      22deg. C / 65% RH  
 Engineer : Shinichi Miyazono              Takafumi Noguchi  
 Mode : 11a Tx

[AV]

Antenna port 2    6Mbps				Gating OFF	
Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.)	
				[dBm]	[mW]
5180.0	4.10	0.56	6.16	10.82	12.07
5220.0	3.39	0.57	6.16	10.12	10.28
5240.0	3.28	0.57	6.16	10.00	10.00
5260.0	4.78	0.57	6.16	11.51	14.14
5300.0	5.75	0.57	6.16	12.48	17.69
5320.0	5.80	0.57	6.16	12.53	17.90
5500.0	3.78	0.58	6.17	10.52	11.27
5580.0	3.73	0.57	6.16	10.46	11.11
5700.0	3.62	0.57	6.16	10.35	10.84
5745.0	-1.18	0.57	6.16	5.55	3.59
5785.0	-1.20	0.57	6.16	5.52	3.57
5825.0	-1.02	0.57	6.16	5.71	3.72

Result(Cond.) = Reading + Cable Loss + Atten.Loss



**Maximum Average Output Power (Reference data for SAR testing)**

Test place Ise EMC Lab. No.6 and No.11 Measurement Room  
Report No. 10852538H  
Date 08/25/2015 08/30/2015  
Temperature/ Humidity 25deg. C / 68% RH 22deg. C / 65% RH  
Engineer Shinichi Miyazono Takafumi Noguchi  
Mode 11n-20 Tx

[AV]

Antenna port 0+1+2 (MCS 16)

Gating OFF

Freq. [MHz]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5180.0	15.62	36.50
5220.0	15.74	37.47
5240.0	15.75	37.56
5260.0	18.35	68.40
5300.0	18.18	65.69
5320.0	17.96	62.52
5500.0	16.24	42.11
5580.0	15.85	38.42
5700.0	11.68	14.72
5745.0	10.94	12.41
5785.0	10.88	12.23
5825.0	11.00	12.59

Antenna port 0

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5180.0	4.50	0.56	6.16	11.22	13.24
5220.0	4.52	0.57	6.16	11.25	13.33
5240.0	4.62	0.57	6.16	11.35	13.64
5260.0	5.43	0.57	6.16	12.16	16.45
5300.0	5.38	0.57	6.16	12.11	16.27
5320.0	5.22	0.57	6.16	11.95	15.66
5500.0	4.48	0.58	6.17	11.22	13.26
5580.0	3.67	0.57	6.16	10.39	10.94
5700.0	0.14	0.57	6.16	6.87	4.86
5745.0	-0.47	0.57	6.16	6.26	4.23
5785.0	-0.79	0.57	6.16	5.93	3.92
5825.0	-0.48	0.57	6.16	6.24	4.21

Antenna port 1

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5180.0	4.96	0.56	6.16	11.69	14.74
5220.0	5.05	0.57	6.16	11.78	15.06
5240.0	4.64	0.57	6.16	11.37	13.70
5260.0	8.61	0.57	6.16	15.34	34.20
5300.0	8.20	0.57	6.16	14.93	31.12
5320.0	7.79	0.57	6.16	14.53	28.35
5500.0	4.98	0.58	6.17	11.72	14.87
5580.0	4.71	0.57	6.16	11.44	13.92
5700.0	0.85	0.57	6.16	7.58	5.73
5745.0	-0.42	0.57	6.16	6.31	4.28
5785.0	-0.43	0.57	6.16	6.30	4.26
5825.0	-0.11	0.57	6.16	6.61	4.58

Antenna 2

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5180.0	2.58	0.56	6.16	9.30	8.52
5220.0	2.86	0.57	6.16	9.58	9.08
5240.0	3.36	0.57	6.16	10.09	10.21
5260.0	5.76	0.57	6.16	12.49	17.75
5300.0	5.89	0.57	6.16	12.63	18.31
5320.0	5.94	0.57	6.16	12.67	18.51
5500.0	4.72	0.58	6.17	11.46	13.99
5580.0	4.59	0.57	6.16	11.32	13.55
5700.0	-0.58	0.57	6.16	6.16	4.13
5745.0	-0.81	0.57	6.16	5.92	3.90
5785.0	-0.65	0.57	6.16	6.07	4.05
5825.0	-0.93	0.57	6.16	5.79	3.79

Result(Cond.)[dBm] = Reading + Cable Loss + Atten.Loss

**Maximum Average Output Power (Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 08/20/2015 08/25/2015  
Temperature/ Humidity : 25deg.C / 60% RH 25deg. C / 68% RH  
Engineer : Kazuya Yoshioka Shinichi Miyazono  
Mode : 11n-40 Tx

[AV]

Antenna port 0+1+2 (MCS 16)

Gating OFF

Freq. [MHz]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	15.42	34.84
5230.0	16.88	48.79
5270.0	19.78	95.07
5310.0	16.55	45.19
5510.0	16.72	47.00
5550.0	19.24	83.97
5670.0	14.05	25.38
5755.0	11.95	15.68
5795.0	12.08	16.16

Antenna port 0

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	3.76	0.57	6.16	10.49	11.19
5230.0	5.41	0.57	6.16	12.14	16.35
5270.0	9.66	0.57	6.16	16.39	43.60
5310.0	4.51	0.58	6.17	11.26	13.37
5510.0	5.26	0.58	6.17	12.01	15.88
5550.0	8.31	0.58	6.17	15.06	32.04
5670.0	2.65	0.57	6.16	9.38	8.67
5755.0	0.50	0.57	6.16	7.23	5.28
5795.0	0.41	0.57	6.16	7.13	5.16

Antenna port 1

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	4.71	0.57	6.16	11.44	13.92
5230.0	6.30	0.57	6.16	13.03	20.09
5270.0	7.21	0.57	6.16	13.94	24.78
5310.0	5.68	0.58	6.17	12.42	17.47
5510.0	5.12	0.58	6.17	11.87	15.37
5550.0	7.08	0.58	6.17	13.82	24.11
5670.0	2.78	0.57	6.16	9.51	8.94
5755.0	0.68	0.57	6.16	7.41	5.51
5795.0	0.90	0.57	6.16	7.62	5.79

Antenna port 2

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	3.15	0.57	6.16	9.88	9.72
5230.0	4.19	0.57	6.16	10.92	12.36
5270.0	7.53	0.57	6.16	14.26	26.68
5310.0	4.82	0.58	6.17	11.57	14.35
5510.0	5.23	0.58	6.17	11.97	15.76
5550.0	7.70	0.58	6.17	14.45	27.83
5670.0	2.17	0.57	6.16	8.90	7.77
5755.0	0.17	0.57	6.16	6.90	4.90
5795.0	0.44	0.57	6.16	7.16	5.21

Result(Cond.)[dBm] = Reading + Cable Loss + Atten.Loss

Result(e.i.r.p.)[dBm] = Reading + Cable Loss + Atten.Loss + Antenna Gain



**Maximum Average Output Power (Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 08/20/2015  
Temperature/ Humidity : 25deg.C / 60% RH  
Engineer : Kazuya Yoshioka  
Mode : 11ac-40 Tx

[AV]

**Antenna port 0+1+2 (MCS 20)**

Gating OFF

Freq. [MHz]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	17.37	54.62
5230.0	17.17	52.07
5270.0	19.74	94.27
5310.0	16.65	46.24
5510.0	16.69	46.66
5550.0	19.30	85.02
5670.0	14.04	25.37
5755.0	12.00	15.84
5795.0	12.11	16.27

**Antenna port 0**

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	5.66	0.57	6.16	12.39	17.32
5230.0	6.99	0.57	6.16	13.72	23.55
5270.0	9.69	0.57	6.16	16.42	43.89
5310.0	4.57	0.58	6.17	11.32	13.54
5510.0	5.20	0.58	6.17	11.94	15.65
5550.0	7.55	0.58	6.17	14.30	26.89
5670.0	2.69	0.57	6.16	9.42	8.76
5755.0	0.55	0.57	6.16	7.28	5.34
5795.0	0.45	0.57	6.16	7.17	5.22

**Antenna port 1**

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	6.72	0.57	6.16	13.45	22.11
5230.0	4.55	0.57	6.16	11.28	13.43
5270.0	7.29	0.57	6.16	14.02	25.24
5310.0	5.76	0.58	6.17	12.51	17.81
5510.0	5.11	0.58	6.17	11.85	15.33
5550.0	7.86	0.58	6.17	14.60	28.87
5670.0	2.85	0.57	6.16	9.58	9.09
5755.0	0.77	0.57	6.16	7.50	5.62
5795.0	1.06	0.57	6.16	7.78	6.00

**Antenna port 2**

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5190.0	5.09	0.57	6.16	11.82	15.19
5230.0	5.06	0.57	6.16	11.79	15.10
5270.0	7.27	0.57	6.16	14.00	25.14
5310.0	4.98	0.58	6.17	11.73	14.89
5510.0	5.21	0.58	6.17	11.95	15.68
5550.0	7.92	0.58	6.17	14.66	29.26
5670.0	2.03	0.57	6.16	8.76	7.52
5755.0	0.15	0.57	6.16	6.88	4.87
5795.0	0.31	0.57	6.16	7.03	5.05

Result(Cond.)[dBm] = Reading + Cable Loss + Atten.Loss

**Maximum Average Output Power (Reference data for SAR testing)**

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 08/20/2015  
Temperature/ Humidity : 25deg.C / 60% RH  
Engineer : Kazuya Yoshioka  
Mode : 11ac-80 Tx

[AV]

Antenna port 0+1+2 (MCS 20)

Gating OFF

Freq. [MHz]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5210.0	9.62	9.17
5290.0	6.47	4.44
5530.0	10.24	10.57
5610.0	15.21	33.18
5775.0	11.83	15.24

Antenna port 0

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5210.0	-2.02	0.57	6.16	4.70	2.95
5290.0	-5.95	0.57	6.16	0.78	1.20
5530.0	-1.48	0.58	6.17	5.27	3.36
5610.0	3.62	0.57	6.17	10.36	10.86
5775.0	0.22	0.57	6.16	6.95	4.95

Antenna port 1

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5210.0	-1.45	0.57	6.16	5.27	3.37
5290.0	-3.51	0.57	6.16	3.22	2.10
5530.0	-1.18	0.58	6.17	5.57	3.60
5610.0	3.28	0.57	6.17	10.02	10.04
5775.0	0.60	0.57	6.16	7.33	5.40

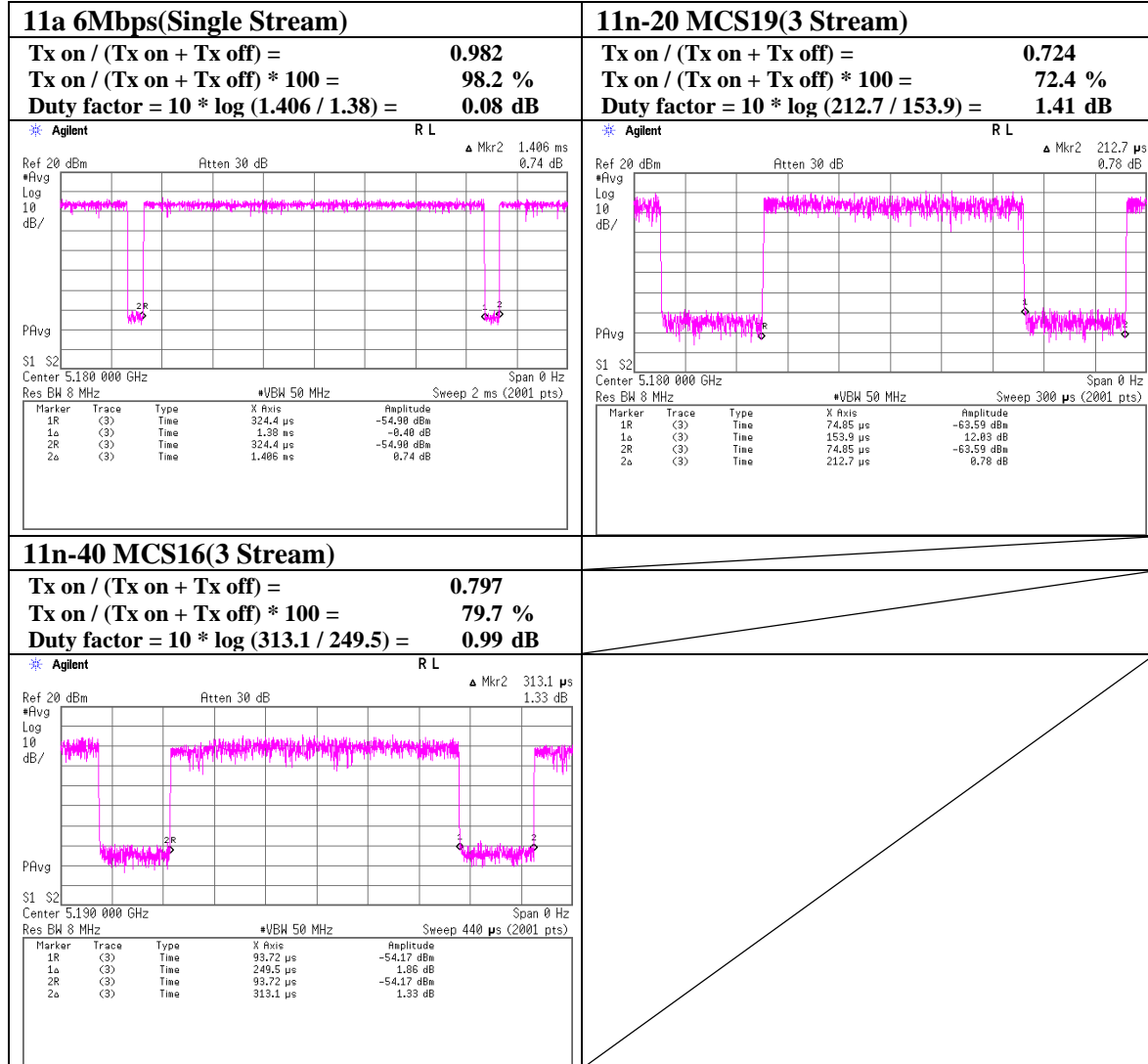
Antenna port 2

Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Cond.) [dBm]	Result (Cond.) [mW]
5210.0	-2.18	0.57	6.16	4.54	2.85
5290.0	-6.16	0.57	6.16	0.57	1.14
5530.0	-1.18	0.58	6.17	5.57	3.60
5610.0	4.15	0.57	6.17	10.89	12.27
5775.0	0.16	0.57	6.16	6.89	4.88

Result(Cond.)[dBm] = Reading + Cable Loss + Atten.Loss

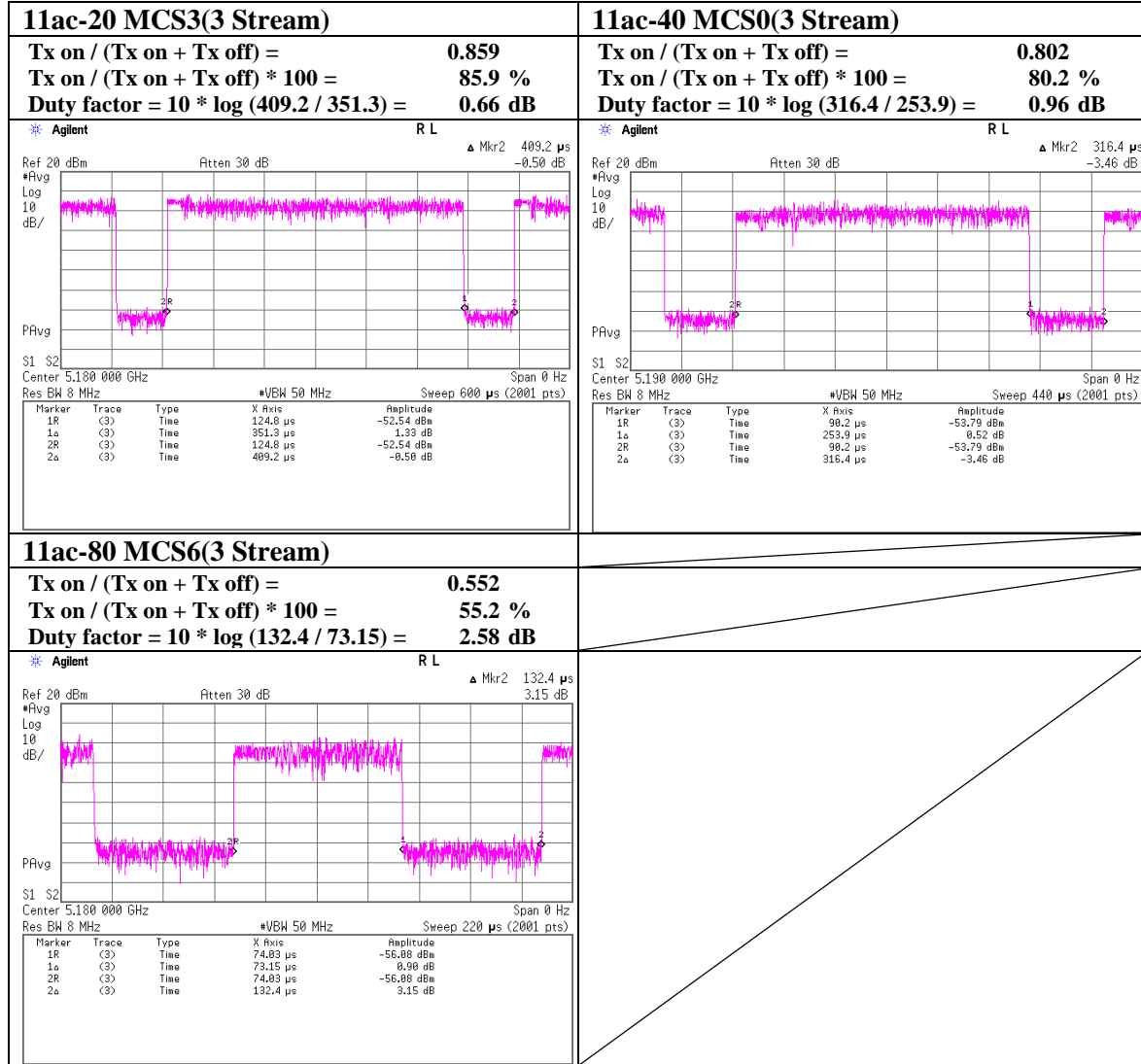
### Duty cycle

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10852538H
Date	06/10/2015
Temperature/ Humidity	26deg. C / 56% RH
Engineer	Yutaka Yoshida
Mode	11a / 11n-20 / 11n-40



### Duty cycle

Test place	Ise EMC Lab. No.11 Measurement Room
Report No.	10852538H
Date	06/10/2015
Temperature/ Humidity	26deg. C / 56% RH
Engineer	Yutaka Yoshida
Mode	11ac-20 / 11ac-20 / 11ac-80



## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/11/2015	08/13/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	23deg. C / 62% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa (1-10GHz)	Shinichi Miyazono (10-18GHz)	Shinya Watanabe (18-40GHz)
Mode	11n-20 Tx 5180MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.499	PK	57.4	29.3	2.8	34.9	-	54.6	73.9	19.3	Inside	
Hori	5150.000	PK	55.4	33.0	4.2	34.1	-	58.5	73.9	15.4	Bandedge	
Hori	5360.820	PK	56.9	32.9	4.3	34.0	-	60.1	73.9	13.8	Inside	
Hori	6906.600	PK	56.8	36.5	5.0	34.0	-	64.3	68.2	3.9	Outside	
Hori	10360.000	PK	52.3	40.0	-1.7	34.4	-	56.2	68.2	12.0	Outside	
Hori	2498.499	AV	36.7	29.3	2.8	34.9	1.4	35.3	53.9	18.6	Inside	
Hori	5150.000	AV	42.9	33.0	4.2	34.1	1.4	47.4	53.9	6.5	Bandedge	*1)
Hori	5360.820	AV	47.3	32.9	4.3	34.0	1.4	51.9	53.9	2.0	Inside	
Vert	2498.499	PK	55.5	29.3	2.8	34.9	-	52.7	73.9	21.2	Inside	
Vert	5150.000	PK	57.0	33.0	4.2	34.1	-	60.1	73.9	13.8	Bandedge	
Vert	5360.820	PK	59.0	32.9	4.3	34.0	-	62.2	73.9	11.7	Inside	
Vert	6906.600	PK	56.3	36.5	5.0	34.0	-	63.8	68.2	4.4	Outside	
Vert	10360.000	PK	52.1	40.0	-1.7	34.4	-	56.0	68.2	12.2	Outside	
Vert	2498.499	AV	37.2	29.3	2.8	34.9	1.4	35.8	53.9	18.1	Inside	
Vert	5150.000	AV	45.3	33.0	4.2	34.1	1.4	49.8	53.9	4.1	Bandedge	*1)
Vert	5360.820	AV	47.1	32.9	4.3	34.0	1.4	51.7	53.9	2.2	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/11/2015	08/13/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	23deg. C / 62% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Shinichi Miyazono	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11n-20 Tx 5320MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.499	PK	57.9	29.3	2.8	34.9	-	55.1	73.9	18.8	Inside	
Hori	5350.000	PK	59.7	32.9	4.3	34.0	-	62.9	73.9	11.0	Bandedge	
Hori	10640.000	PK	54.5	40.8	-1.7	34.2	-	59.4	73.9	14.5	Inside	
Hori	2498.499	AV	38.1	29.3	2.8	34.9	1.4	36.7	53.9	17.2	Inside	
Hori	5350.000	AV	46.6	32.9	4.3	34.0	1.4	51.2	53.9	2.7	Bandedge	*1)
Hori	10640.000	AV	44.7	40.8	-1.7	34.2	1.4	51.0	53.9	2.9	Inside	
Vert	2498.499	PK	58.2	29.3	2.8	34.9	-	55.4	73.9	18.5	Inside	
Vert	5350.000	PK	59.2	32.9	4.3	34.0	-	62.4	73.9	11.5	Bandedge	
Vert	10640.000	PK	50.3	40.8	-1.7	34.2	-	55.2	73.9	18.7	Inside	
Vert	2498.499	AV	37.5	29.3	2.8	34.9	1.4	36.1	53.9	17.8	Inside	
Vert	5350.000	AV	47.2	32.9	4.3	34.0	1.4	51.8	53.9	2.1	Bandedge	*1)
Vert	10640.000	AV	39.8	40.8	-1.7	34.2	1.4	46.1	53.9	7.8	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/12/2015	08/17/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	25deg. C / 61% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Satofumi Matsuyama	Shinya Watanabe
	(10-18GHz)	(1-10GHz)	(18-40GHz)
Mode	11n-20 Tx 5500MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.430	PK	55.3	29.3	2.8	34.9	-	52.5	73.9	21.4	Inside	
Hori	5150.000	PK	53.3	33.0	4.2	34.1	-	56.4	73.9	17.5	Inside	
Hori	5279.990	PK	59.5	32.9	4.2	34.0	-	62.6	68.2	5.6	Outside	
Hori	5350.000	PK	56.2	32.9	4.3	34.0	-	59.4	73.9	14.5	Inside	
Hori	5460.000	PK	54.7	32.9	4.3	33.9	-	58.0	73.9	15.9	Inside	
Hori	5470.000	PK	56.7	32.9	4.3	33.9	-	60.0	68.2	8.2	Outside	
Hori	11000.000	PK	52.5	42.0	-1.5	33.9	-	59.1	73.9	14.8	Inside	
Hori	2498.430	AV	45.3	29.3	2.8	34.9	1.4	43.9	53.9	10.0	Inside	
Hori	5150.000	AV	42.3	33.0	4.2	34.1	1.4	46.8	53.9	7.1	Inside	
Hori	5350.000	AV	44.8	32.9	4.3	34.0	1.4	49.4	53.9	4.5	Inside	
Hori	5460.000	AV	43.2	32.9	4.3	33.9	1.4	47.9	53.9	6.0	Inside	
Hori	11000.000	AV	42.4	42.0	-1.5	33.9	1.4	50.4	53.9	3.5	Inside	
Vert	2498.430	PK	58.7	29.3	2.8	34.9	-	55.9	73.9	18.0	Inside	
Vert	5150.000	PK	55.0	33.0	4.2	34.1	-	58.1	73.9	15.8	Inside	
Vert	5279.990	PK	62.3	32.9	4.2	34.0	-	65.4	68.2	-2.8	Outside	
Vert	5350.000	PK	57.0	32.9	4.3	34.0	-	60.2	73.9	13.7	Inside	
Vert	5460.000	PK	53.8	32.9	4.3	33.9	-	57.1	73.9	16.8	Inside	
Vert	5470.000	PK	55.1	32.9	4.3	33.9	-	58.4	68.2	9.8	Outside	
Vert	11000.000	PK	49.8	42.0	-1.5	33.9	-	56.4	73.9	17.5	Inside	
Vert	2498.430	AV	48.6	29.3	2.8	34.9	1.4	47.2	53.9	6.7	Inside	
Vert	5150.000	AV	43.5	33.0	4.2	34.1	1.4	48.0	53.9	5.9	Inside	
Vert	5350.000	AV	46.1	32.9	4.3	34.0	1.4	50.7	53.9	3.2	Inside	
Vert	5460.000	AV	43.2	32.9	4.3	33.9	1.4	47.9	53.9	6.0	Inside	
Vert	11000.000	AV	41.0	42.0	-1.5	33.9	1.4	49.0	53.9	4.9	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/12/2015	08/17/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	25deg. C / 61% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Satofumi Matsuyama	Shinya Watanabe
	(10-18GHz)	(1-10GHz)	(18-40GHz)
Mode	11n-20 Tx 5580MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.530	PK	55.0	29.3	2.8	34.9	-	52.2	73.9	21.7	Inside	
Hori	5150.000	PK	55.8	33.0	4.2	34.1	-	58.9	73.9	15.0	Inside	
Hori	5280.001	PK	59.6	32.9	4.2	34.0	-	62.7	68.2	5.5	Outside	
Hori	5350.000	PK	57.0	32.9	4.3	34.0	-	60.2	73.9	13.7	Inside	
Hori	5460.000	PK	54.9	32.9	4.3	33.9	-	58.2	73.9	15.7	Inside	
Hori	5470.000	PK	54.0	32.9	4.3	33.9	-	57.3	68.2	10.9	Outside	
Hori	11160.000	PK	53.7	41.7	-1.4	33.9	-	60.1	73.9	13.8	Inside	
Hori	2498.530	AV	45.5	28.6	2.8	34.9	1.4	43.4	53.9	10.5	Inside	
Hori	5150.000	AV	44.5	32.3	4.2	34.1	1.4	48.3	53.9	5.6	Inside	
Hori	5350.000	AV	46.3	32.2	4.3	34.0	1.4	50.2	53.9	3.7	Inside	
Hori	5460.000	AV	44.2	32.2	4.3	33.9	1.4	48.2	53.9	5.7	Inside	
Hori	11160.000	AV	44.4	41.0	-1.4	33.9	1.4	51.5	53.9	2.4	Inside	
Vert	2498.530	PK	58.1	29.3	2.8	34.9	-	55.3	73.9	18.6	Inside	
Vert	5150.000	PK	54.4	33.0	4.2	34.1	-	57.5	73.9	16.4	Inside	
Vert	5280.001	PK	62.5	32.9	4.2	34.0	-	65.6	68.2	-2.6	Outside	
Vert	5350.000	PK	58.1	32.9	4.3	34.0	-	61.3	73.9	12.6	Inside	
Vert	5460.000	PK	53.0	32.9	4.3	33.9	-	56.3	73.9	17.6	Inside	
Vert	5470.000	PK	52.9	32.9	4.3	33.9	-	56.2	68.2	12.0	Outside	
Vert	11160.000	PK	52.3	41.7	-1.4	33.9	-	58.7	73.9	15.2	Inside	
Vert	2498.530	AV	49.4	28.6	2.8	34.9	1.4	47.3	53.9	6.6	Inside	
Vert	5150.000	AV	43.4	32.3	4.2	34.1	1.4	47.2	53.9	6.7	Inside	
Vert	5350.000	AV	47.8	32.2	4.3	34.0	1.4	51.7	53.9	2.2	Inside	
Vert	5460.000	AV	42.3	32.2	4.3	33.9	1.4	46.3	53.9	7.6	Inside	
Vert	11160.000	AV	43.6	41.0	-1.4	33.9	1.4	50.7	53.9	3.2	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/12/2015	08/17/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	25deg. C / 61% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Satofumi Matsuyama	Shinya Watanabe
	(10-18GHz)	(1-10GHz)	(18-40GHz)
Mode	11n-20 Tx 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]	Inside or Outside of Restricted Bands	Remark
Hori	2497.670	PK	55.2	29.3	2.8	34.9	-	52.4	73.9	21.5	Inside	
Hori	5150.000	PK	53.5	33.0	4.2	34.1	-	56.6	73.9	17.3	Inside	
Hori	5280.002	PK	57.5	32.9	4.2	34.0	-	60.6	68.2	7.6	Outside	
Hori	5350.000	PK	56.3	32.9	4.3	34.0	-	59.5	73.9	14.4	Inside	
Hori	5725.000	PK	55.4	33.2	4.5	33.9	-	59.2	68.2	9.0	Outside	
Hori	11400.000	PK	53.0	41.3	-1.2	33.7	-	59.4	73.9	14.5	Inside	
Hori	2497.670	AV	45.3	29.3	2.8	34.9	1.4	43.9	53.9	10.0	Inside	
Hori	5150.000	AV	41.3	33.0	4.2	34.1	1.4	45.8	53.9	8.1	Inside	
Hori	5350.000	AV	44.7	32.9	4.3	34.0	1.4	49.3	53.9	4.6	Inside	
Hori	11400.000	AV	43.0	41.3	-1.2	33.7	1.4	50.8	53.9	3.1	Inside	
Vert	2497.670	PK	57.9	29.3	2.8	34.9	-	55.1	73.9	18.8	Inside	
Vert	5150.000	PK	53.2	33.0	4.2	34.1	-	56.3	73.9	17.6	Bandedge	
Vert	5280.002	PK	60.6	32.9	4.2	34.0	-	63.7	68.2	4.5	Outside	
Vert	5350.000	PK	57.9	32.9	4.3	34.0	-	61.1	73.9	12.8	Bandedge	
Vert	5725.000	PK	51.2	33.2	4.5	33.9	-	55.0	68.2	13.2	Outside	
Vert	11400.000	PK	51.5	41.3	-1.2	33.7	-	57.9	73.9	16.0	Inside	
Vert	2497.670	AV	45.4	29.3	2.8	34.9	1.4	44.0	53.9	9.9	Inside	
Vert	5150.000	AV	41.1	33.0	4.2	34.1	1.4	45.6	53.9	8.3	Inside	
Vert	5350.000	AV	46.1	32.9	4.3	34.0	1.4	50.7	53.9	3.2	Inside	
Vert	11400.000	AV	42.5	41.3	-1.2	33.7	1.4	50.3	53.9	3.6	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/12/2015	08/17/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	25deg. C / 61% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Satofumi Matsuyama	Shinya Watanabe
	(10-18GHz)	(1-10GHz)	(18-40GHz)
Mode	11n-20 Tx 5745MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2497.670	PK	55.3	29.3	2.8	34.9	-	52.5	73.9	21.4	Inside	
Hori	3830.047	PK	50.9	30.6	3.6	34.0	-	51.1	73.9	22.8	Inside	
Hori	5150.000	PK	53.6	33.0	4.2	34.1	-	56.7	73.9	17.2	Inside	
Hori	5280.002	PK	60.3	32.9	4.2	34.0	-	63.4	68.2	4.8	Outside	
Hori	5350.000	PK	56.7	32.9	4.3	34.0	-	59.9	73.9	14.0	Inside	
Hori	5715.000	PK	54.6	33.2	4.5	33.9	-	58.4	68.2	9.8	Outside	
Hori	5725.000	PK	58.7	33.2	4.5	33.9	-	62.5	78.2	15.7	Outside	
Hori	11490.000	PK	53.5	41.1	-1.2	33.7	-	59.7	73.9	14.2	Inside	
Hori	2497.670	AV	45.0	29.3	2.8	34.9	1.4	43.6	53.9	10.3	Inside	
Hori	3830.047	AV	45.0	30.6	3.6	34.0	1.4	46.6	53.9	7.3	Inside	
Hori	5150.000	AV	42.5	33.0	4.2	34.1	1.4	47.0	53.9	6.9	Inside	
Hori	5350.000	AV	46.3	32.9	4.3	34.0	1.4	50.9	53.9	3.0	Inside	
Hori	11490.000	AV	44.1	41.1	-1.2	33.7	1.4	51.7	53.9	2.2	Inside	
Vert	2497.670	PK	56.8	29.3	2.8	34.9	-	54.0	73.9	19.9	Inside	
Vert	3830.047	PK	50.5	30.6	3.6	34.0	-	50.7	73.9	23.2	Inside	
Vert	5150.000	PK	55.0	33.0	4.2	34.1	-	58.1	73.9	15.8	Inside	
Vert	5280.002	PK	62.9	32.9	4.2	34.0	-	66.0	68.2	2.2	Outside	
Vert	5350.000	PK	56.4	32.9	4.3	34.0	-	59.6	73.9	14.3	Inside	
Vert	5715.000	PK	51.5	33.2	4.5	33.9	-	55.3	68.2	12.9	Outside	
Vert	5725.000	PK	58.0	33.2	4.5	33.9	-	61.8	78.2	16.4	Outside	
Vert	11490.000	PK	53.3	41.1	-1.2	33.7	-	59.5	73.9	14.4	Inside	
Vert	2497.670	AV	46.7	29.3	2.8	34.9	1.4	45.3	53.9	8.6	Inside	
Vert	3830.047	AV	45.0	30.6	3.6	34.0	1.4	46.6	53.9	7.3	Inside	
Vert	5150.000	AV	42.0	33.0	4.2	34.1	1.4	46.5	53.9	7.4	Inside	
Vert	5350.000	AV	43.3	32.9	4.3	34.0	1.4	47.9	53.9	6.0	Inside	
Vert	11490.000	AV	43.7	41.1	-1.2	33.7	1.4	51.3	53.9	2.6	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/12/2015	08/17/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	25deg. C / 61% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Kazuya Yoshioka	Shinya Watanabe
	(10-18GHz)	(1-10GHz)	(18-40GHz)
Mode	11n-20 Tx 5785MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2497.613	PK	55.6	29.3	2.8	34.9	-	52.8	73.9	21.1	Inside	
Hori	3856.612	PK	50.5	30.7	3.6	34.0	-	50.8	73.9	23.1	Inside	
Hori	5150.000	PK	54.0	33.0	4.2	34.1	-	57.1	73.9	16.8	Inside	
Hori	5279.824	PK	58.1	32.9	4.2	34.0	-	61.2	68.2	7.0	Outside	
Hori	5350.000	PK	56.7	32.9	4.3	34.0	-	59.9	73.9	14.0	Inside	
Hori	11570.000	PK	54.5	41.0	-1.1	33.7	-	60.7	73.9	13.2	Inside	
Hori	2497.613	AV	45.6	29.3	2.8	34.9	1.4	44.2	53.9	9.7	Inside	
Hori	3856.612	AV	45.8	30.7	3.6	34.0	1.4	47.5	53.9	6.4	Inside	
Hori	5150.000	AV	43.6	33.0	4.2	34.1	1.4	48.1	53.9	5.8	Inside	
Hori	5350.000	AV	47.1	32.9	4.3	34.0	1.4	51.7	53.9	2.2	Inside	
Hori	11570.000	AV	43.9	41.0	-1.1	33.7	1.4	51.5	53.9	2.4	Inside	
Vert	2496.248	PK	56.6	29.3	2.8	34.9	-	53.8	73.9	20.1	Inside	
Vert	3856.601	PK	48.5	30.7	3.6	34.0	-	48.8	73.9	25.1	Inside	
Vert	5150.000	PK	56.0	33.0	4.2	34.1	-	59.1	73.9	14.8	Inside	
Vert	5279.884	PK	57.6	32.9	4.2	34.0	-	60.7	68.2	7.5	Outside	
Vert	5350.000	PK	57.4	32.9	4.3	34.0	-	60.6	73.9	13.3	Inside	
Vert	11570.000	PK	52.1	41.0	-1.1	33.7	-	58.3	73.9	15.6	Inside	
Vert	2496.248	AV	47.5	29.3	2.8	34.9	1.4	46.1	53.9	7.8	Inside	
Vert	3856.601	AV	42.5	30.7	3.6	34.0	1.4	44.2	53.9	9.7	Inside	
Vert	5150.000	AV	45.2	33.0	4.2	34.1	1.4	49.7	53.9	4.2	Inside	
Vert	5350.000	AV	47.2	32.9	4.3	34.0	1.4	51.8	53.9	2.1	Inside	
Vert	11570.000	AV	42.4	41.0	-1.1	33.7	1.4	50.0	53.9	3.9	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor  
\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*The 10th harmonic was not seen so the result was its base noise level.  
Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB  
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/11/2015	08/12/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	25deg. C / 68% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Tomohisa Nakagawa	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11n-20 Tx 5825MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2486.166	PK	57.0	29.3	2.8	34.9	-	54.2	73.9	19.7	Inside	
Hori	3883.344	PK	53.2	30.7	3.6	34.0	-	53.5	73.9	20.4	Inside	
Hori	5350.000	PK	59.8	32.9	4.3	34.0	-	63.0	73.9	10.9	Inside	
Hori	5850.000	PK	52.6	33.4	4.5	34.0	-	56.5	78.2	21.7	Outside	
Hori	5860.000	PK	48.8	33.4	4.5	34.0	-	52.7	68.2	15.5	Outside	
Hori	11650.000	PK	55.2	40.9	-1.1	33.6	-	61.4	73.9	12.5	Inside	
Hori	2486.166	AV	46.4	29.3	2.8	34.9	1.4	45.0	53.9	8.9	Inside	
Hori	3883.344	AV	48.6	30.7	3.6	34.0	1.4	50.3	53.9	3.6	Inside	
Hori	5350.000	AV	47.2	32.9	4.3	34.0	1.4	51.8	53.9	2.1	Inside	
Hori	11650.000	AV	43.8	40.9	-1.1	33.6	1.4	51.4	53.9	2.5	Inside	
Vert	2486.166	PK	58.5	29.3	2.8	34.9	-	55.7	73.9	18.2	Inside	
Vert	3883.344	PK	50.9	30.7	3.6	34.0	-	51.2	73.9	22.7	Inside	
Vert	5350.000	PK	60.1	32.9	4.3	34.0	-	63.3	73.9	10.6	Inside	
Vert	5850.000	PK	52.2	33.4	4.5	34.0	-	56.1	78.2	22.1	Outside	
Vert	5860.000	PK	49.0	33.4	4.5	34.0	-	52.9	68.2	15.3	Outside	
Vert	11650.000	PK	53.0	40.9	-1.1	33.6	-	59.2	73.9	14.7	Inside	
Vert	2486.166	AV	48.8	29.3	2.8	34.9	1.4	47.4	53.9	6.5	Inside	
Vert	3883.344	AV	45.4	30.7	3.6	34.0	1.4	47.1	53.9	6.8	Inside	
Vert	5350.000	AV	47.3	32.9	4.3	34.0	1.4	51.9	53.9	2.0	Inside	
Vert	11650.000	AV	42.1	40.9	-1.1	33.6	1.4	49.7	53.9	4.2	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/17/2015	08/18/2015	08/19/2015
Temperature/ Humidity	25deg. C / 61% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Kazuya Yoshioka	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11n-40 Tx 5190MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2496.855	PK	54.6	29.3	2.8	34.9	-	51.8	73.9	22.1	Inside	
Hori	5150.000	PK	58.6	33.0	4.2	34.1	-	61.7	73.9	12.2	Bandedge	
Hori	5350.000	PK	49.8	32.9	4.3	34.0	-	53.0	73.9	20.9	Inside	
Hori	6919.795	PK	49.3	36.5	5.0	34.0	-	56.8	68.2	11.4	Outside	
Hori	10380.020	PK	47.3	40.0	-1.7	34.4	-	51.2	68.2	17.0	Outside	
Hori	15570.000	PK	44.2	39.5	-0.1	33.5	-	50.1	73.9	23.8	Inside	
Hori	2496.855	AV	45.6	29.3	2.8	34.9	1.0	43.8	53.9	10.1	Inside	
Hori	5150.000	AV	45.3	33.0	4.2	34.1	1.0	49.4	53.9	4.5	Bandedge	*1)
Hori	5350.000	AV	41.4	32.9	4.3	34.0	1.0	45.6	53.9	8.3	Inside	
Hori	15570.000	AV	36.5	39.5	-0.1	33.5	-	42.4	53.9	11.5	Inside	Floor noise
Vert	2495.430	PK	57.0	29.3	2.8	34.9	-	54.2	73.9	19.7	Inside	
Vert	5150.000	PK	60.5	33.0	4.2	34.1	-	63.6	73.9	10.3	Bandedge	
Vert	5350.000	PK	51.5	32.9	4.3	34.0	-	54.7	73.9	19.2	Inside	
Vert	6920.085	PK	50.8	36.5	5.0	34.0	-	58.3	68.2	9.9	Outside	
Vert	10380.020	PK	49.4	40.0	-1.7	34.4	-	53.3	68.2	14.9	Outside	
Vert	15570.000	PK	44.0	39.5	-0.1	33.5	-	49.9	73.9	24.0	Inside	
Vert	2495.430	AV	47.5	29.3	2.8	34.9	1.0	45.7	53.9	8.2	Inside	
Vert	5150.000	AV	47.7	33.0	4.2	34.1	1.0	51.8	53.9	2.1	Bandedge	*1)
Vert	5350.000	AV	42.1	32.9	4.3	34.0	1.0	46.3	53.9	7.6	Inside	
Vert	15570.000	AV	36.5	39.5	-0.1	33.5	-	42.4	53.9	11.5	Inside	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/17/2015	08/18/2015	08/19/2015
Temperature/ Humidity	25deg. C / 61% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Kazuya Yoshioka	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11n-40 Tx 5270MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	99.610	QP	49.8	10.1	7.4	28.2	-	39.1	43.5	4.4	Outside	
Hori	199.808	QP	34.5	16.5	8.2	27.9	-	31.3	43.5	12.2	Outside	
Hori	298.781	QP	37.2	19.5	8.8	27.4	-	38.1	46.0	7.9	Outside	
Hori	499.573	QP	38.9	18.6	9.7	28.5	-	38.7	46.0	7.3	Outside	
Hori	600.011	QP	34.6	19.7	10.2	28.5	-	36.0	46.0	10.0	Outside	
Hori	780.005	QP	28.8	21.7	10.9	27.7	-	33.7	46.0	12.3	Outside	
Hori	2496.319	PK	54.9	29.3	2.8	34.9	-	52.1	73.9	21.8	Inside	
Hori	4927.708	PK	53.2	32.9	4.1	34.2	-	56.0	73.9	17.9	Inside	
Hori	5350.000	PK	52.4	32.9	4.3	34.0	-	55.6	73.9	18.3	Inside	
Hori	10540.000	PK	49.3	40.5	-1.7	34.3	-	53.8	68.2	14.4	Outside	
Hori	15810.000	PK	44.4	38.8	-0.2	33.6	-	49.4	73.9	24.5	Inside	
Hori	2496.319	AV	46.0	29.3	2.8	34.9	1.0	44.2	53.9	9.7	Inside	
Hori	4927.708	AV	44.6	32.9	4.1	34.2	1.0	48.4	53.9	5.5	Inside	
Hori	5350.000	AV	43.9	32.9	4.3	34.0	1.0	48.1	53.9	5.8	Inside	
Hori	15810.000	AV	36.4	38.8	-0.2	33.6	-	41.4	53.9	12.5	Inside	Floor noise
Vert	99.898	QP	49.5	10.1	7.4	28.2	-	38.8	43.5	4.7	Outside	
Vert	199.806	QP	33.1	16.5	8.2	27.9	-	29.9	43.5	13.6	Outside	
Vert	298.769	QP	41.4	19.5	8.8	27.4	-	42.3	46.0	3.7	Outside	
Vert	499.640	QP	28.4	18.6	9.7	28.5	-	28.2	46.0	17.8	Outside	
Vert	600.011	QP	33.7	19.7	10.2	28.5	-	35.1	46.0	10.9	Outside	
Vert	780.007	QP	31.3	21.7	10.9	27.7	-	36.2	46.0	9.8	Outside	
Vert	2498.811	PK	57.8	29.3	2.8	34.9	-	55.0	73.9	18.9	Inside	
Vert	4927.920	PK	53.8	32.9	4.1	34.2	-	56.6	73.9	17.3	Inside	
Vert	5350.000	PK	54.7	32.9	4.3	34.0	-	57.9	73.9	16.0	Inside	
Vert	10540.000	PK	50.3	40.5	-1.7	34.3	-	54.8	68.2	13.4	Outside	
Vert	15810.000	PK	44.2	38.8	-0.2	33.6	-	49.2	73.9	24.7	Inside	
Vert	2498.811	AV	49.4	29.3	2.8	34.9	1.0	47.6	53.9	6.3	Inside	
Vert	4927.920	AV	45.9	32.9	4.1	34.2	1.0	49.7	53.9	4.2	Inside	
Vert	5350.000	AV	45.7	32.9	4.3	34.0	1.0	49.9	53.9	4.0	Inside	
Vert	15810.000	AV	36.4	38.8	-0.2	33.6	-	41.4	53.9	12.5	Inside	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/17/2015	08/18/2015	08/19/2015
Temperature/ Humidity	25deg. C / 61% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Kazuya Yoshioka	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11n-40 Tx 5310MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.716	PK	53.8	29.3	2.8	34.9	-	51.0	73.9	22.9	Inside	
Hori	4978.730	PK	52.4	33.0	4.1	34.3	-	55.2	73.9	18.7	Inside	
Hori	5350.000	PK	59.8	32.9	4.3	34.0	-	63.0	73.9	10.9	Bandedge	
Hori	10620.000	PK	48.7	40.7	-1.7	34.2	-	53.5	73.9	20.4	Inside	
Hori	15930.000	PK	44.0	38.5	-0.1	33.7	-	48.7	73.9	25.2	Inside	
Hori	2498.716	AV	45.1	29.3	2.8	34.9	1.0	43.3	53.9	10.6	Inside	
Hori	4978.730	AV	40.0	33.0	4.1	34.3	1.0	43.8	53.9	10.1	Inside	
Hori	5350.000	AV	47.2	32.9	4.3	34.0	1.0	51.4	53.9	2.5	Bandedge	*1)
Hori	10620.000	AV	39.6	40.7	-1.7	34.2	1.0	45.4	53.9	8.5	Inside	
Hori	15930.000	AV	36.6	38.5	-0.1	33.7	-	41.3	53.9	12.6	Inside	Floor noise
Vert	2498.931	PK	58.1	29.3	2.8	34.9	-	55.3	73.9	18.6	Inside	
Vert	4928.279	PK	51.9	32.9	4.1	34.2	-	54.7	73.9	19.2	Inside	
Vert	5350.000	PK	59.7	32.9	4.3	34.0	-	62.9	73.9	11.0	Bandedge	
Vert	10620.000	PK	48.0	40.7	-1.7	34.2	-	52.8	73.9	21.1	Inside	
Vert	15930.000	PK	44.2	38.5	-0.1	33.7	-	48.9	73.9	25.0	Inside	
Vert	2498.931	AV	48.3	29.3	2.8	34.9	1.0	46.5	53.9	7.4	Inside	
Vert	4928.279	AV	45.6	32.9	4.1	34.2	1.0	49.4	53.9	4.5	Inside	
Vert	5350.000	AV	47.1	32.9	4.3	34.0	-	50.3	53.9	3.6	Bandedge	*1)
Vert	10620.000	AV	39.6	40.7	-1.7	34.2	1.0	45.4	53.9	8.5	Inside	
Vert	15930.000	AV	36.6	38.5	-0.1	33.7	-	41.3	53.9	12.6	Inside	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/18/2015	08/18/2015	08/19/2015
Temperature/ Humidity	24deg. C / 64% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Satofumi Matsuyama	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11n-40 Tx 5510MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2497.570	PK	55.2	29.3	2.8	34.9	-	52.4	73.9	21.5	Inside	
Hori	5280.001	PK	57.0	32.9	4.2	34.0	-	60.1	68.2	8.1	Outside	
Hori	5359.650	PK	55.1	32.9	4.3	34.0	-	58.3	73.9	15.6	Inside	
Hori	5460.000	PK	57.5	32.9	4.3	33.9	-	60.8	73.9	13.1	Inside	
Hori	5470.000	PK	60.6	32.9	4.3	33.9	-	63.9	68.2	4.3	Outside	
Hori	11020.000	PK	52.3	41.9	-1.5	33.9	-	58.8	73.9	15.1	Inside	
Hori	16530.000	PK	44.2	40.1	0.0	33.1	-	51.2	68.2	17.0	Outside	
Hori	2497.570	AV	45.9	29.3	2.8	34.9	1.0	44.1	53.9	9.8	Inside	
Hori	5359.650	AV	44.1	32.9	4.3	34.0	1.0	48.3	53.9	5.6	Inside	
Hori	5460.000	AV	45.2	32.9	4.3	33.9	1.0	49.5	53.9	4.4	Inside	
Hori	11020.000	AV	43.9	41.9	-1.5	33.9	1.0	51.4	53.9	2.5	Inside	
Vert	2497.570	PK	57.9	29.3	2.8	34.9	-	55.1	73.9	18.8	Inside	
Vert	5280.001	PK	58.0	32.9	4.2	34.0	-	61.1	68.2	7.1	Outside	
Vert	5359.650	PK	56.8	32.9	4.3	34.0	-	60.0	73.9	13.9	Inside	
Vert	5460.000	PK	59.1	32.9	4.3	33.9	-	62.4	73.9	11.5	Inside	
Vert	5470.000	PK	61.5	32.9	4.3	33.9	-	64.8	68.2	3.4	Outside	
Vert	11020.000	PK	50.6	41.9	-1.5	33.9	-	57.1	73.9	16.8	Inside	
Vert	16530.000	PK	44.4	40.1	0.0	33.1	-	51.4	68.2	16.8	Outside	
Vert	2497.570	AV	49.0	29.3	2.8	34.9	1.0	47.2	53.9	6.7	Inside	
Vert	5359.650	AV	46.6	32.9	4.3	34.0	1.0	50.8	53.9	3.1	Inside	
Vert	5460.000	AV	46.1	32.9	4.3	33.9	1.0	50.4	53.9	3.5	Inside	
Vert	11020.000	AV	41.0	41.9	-1.5	33.9	1.0	48.5	53.9	5.4	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/18/2015	08/18/2015	08/19/2015
Temperature/ Humidity	24deg. C / 64% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Satofumi Matsuyama	Kazuya Yoshioka	Shinya Watanabe
Mode	(1-10GHz) 11n-40 Tx 5550MHz	(10-18GHz)	(18-40GHz)

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]	Inside or Outside of Restricted Bands	Remark
Hori	2497.920	PK	54.8	29.3	2.8	34.9	-	52.0	73.9	21.9	Inside	
Hori	5280.013	PK	56.4	32.9	4.2	34.0	-	59.5	68.2	8.7	Outside	
Hori	5360.026	PK	55.0	32.9	4.3	34.0	-	58.2	73.9	15.7	Inside	
Hori	11100.000	PK	55.2	41.8	-1.5	33.9	-	61.6	73.9	12.3	Inside	
Hori	16650.000	PK	44.1	40.6	0.0	33.0	-	51.7	68.2	16.5	Outside	
Hori	2497.920	AV	44.5	29.3	2.8	34.9	1.0	42.7	53.9	11.2	Inside	
Hori	5360.026	AV	43.5	32.9	4.3	34.0	1.0	47.7	53.9	6.2	Inside	
Hori	11100.000	AV	44.0	41.8	-1.5	33.9	1.0	51.4	53.9	2.5	Inside	
Vert	2497.920	PK	57.2	29.3	2.8	34.9	-	54.4	73.9	19.5	Inside	
Vert	5280.013	PK	56.9	32.9	4.2	34.0	-	60.0	68.2	8.2	Outside	
Vert	5360.026	PK	57.5	32.9	4.3	34.0	-	60.7	73.9	13.2	Inside	
Vert	11100.000	PK	52.6	41.8	-1.5	33.9	-	59.0	73.9	14.9	Inside	
Vert	16650.000	PK	44.3	40.6	0.0	33.0	-	51.9	68.2	16.3	Outside	
Vert	2497.920	AV	48.5	29.3	2.8	34.9	1.0	46.7	53.9	7.2	Inside	
Vert	5360.026	AV	46.0	32.9	4.3	34.0	1.0	50.2	53.9	3.7	Inside	
Vert	11100.000	AV	42.6	41.8	-1.5	33.9	1.0	50.0	53.9	3.9	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/18/2015	08/18/2015	08/19/2015
Temperature/ Humidity	24deg. C / 64% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Satofumi Matsuyama	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11n-40 Tx 5670MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2496.470	PK	54.9	29.3	2.8	34.9	-	52.1	73.9	21.8	Inside	
Hori	5280.003	PK	55.1	32.9	4.2	34.0	-	58.2	68.2	10.0	Outside	
Hori	5350.000	PK	56.3	32.9	4.3	34.0	-	59.5	73.9	14.4	Inside	
Hori	5725.000	PK	51.8	33.2	4.5	33.9	-	55.6	68.2	12.6	Outside	
Hori	11340.000	PK	54.6	41.4	-1.3	33.8	-	60.9	73.9	13.0	Inside	
Hori	17010.000	PK	43.0	41.8	0.2	32.7	-	52.3	68.2	15.9	Outside	
Hori	2496.470	AV	45.8	29.3	2.8	34.9	1.0	44.0	53.9	9.9	Inside	
Hori	5350.000	AV	45.6	32.9	4.3	34.0	1.0	49.8	53.9	4.1	Inside	
Hori	11340.000	AV	43.8	41.4	-1.3	33.8	1.0	51.1	53.9	2.8	Inside	
Vert	2496.470	PK	57.4	29.3	2.8	34.9	-	54.6	73.9	19.3	Inside	
Vert	5280.003	PK	57.0	32.9	4.2	34.0	-	60.1	68.2	8.1	Outside	
Vert	5350.000	PK	56.7	32.9	4.3	34.0	-	59.9	73.9	14.0	Inside	
Vert	5725.000	PK	49.9	33.2	4.5	33.9	-	53.7	68.2	14.5	Outside	
Vert	11340.000	PK	52.5	41.4	-1.3	33.8	-	58.8	73.9	15.1	Inside	
Vert	17010.000	PK	43.3	41.8	0.2	32.7	-	52.6	68.2	15.6	Outside	
Vert	2496.470	AV	48.1	29.3	2.8	34.9	1.0	46.3	53.9	7.6	Inside	
Vert	5350.000	AV	46.8	32.9	4.3	34.0	1.0	51.0	53.9	2.9	Inside	
Vert	11340.000	AV	43.0	41.4	-1.3	33.8	1.0	50.3	53.9	3.6	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/18/2015	08/18/2015	08/19/2015
Temperature/ Humidity	24deg. C / 64% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Kazuya Yoshioka (10-18GHz)	Shinya Watanabe (18-40GHz)
Mode	11n-40 Tx 5755MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.070	PK	54.7	29.3	2.8	34.9	-	51.9	73.9	22.0	Inside	
Hori	4960.001	PK	51.1	33.0	4.1	34.3	-	53.9	73.9	20.0	Inside	
Hori	5280.002	PK	57.3	32.9	4.2	34.0	-	60.4	68.2	7.8	Outside	
Hori	5360.043	PK	58.1	32.9	4.3	34.0	-	61.3	73.9	12.6	Inside	
Hori	5715.000	PK	60.5	33.2	4.5	33.9	-	64.3	68.2	3.9	Outside	
Hori	5725.000	PK	69.6	33.2	4.5	33.9	-	73.4	78.2	4.8	Outside	
Hori	11510.000	PK	53.3	41.1	-1.1	33.7	-	59.6	73.9	14.3	Inside	
Hori	17265.000	PK	44.4	43.0	0.3	32.7	-	55.0	68.2	13.2	Outside	
Hori	2498.070	AV	45.8	29.3	2.8	34.9	1.0	44.0	53.9	9.9	Inside	
Hori	4960.001	AV	41.3	33.0	4.1	34.3	1.0	45.1	53.9	8.8	Inside	
Hori	5360.043	AV	46.6	32.9	4.3	34.0	1.0	50.8	53.9	3.1	Inside	
Hori	11510.000	AV	43.9	41.1	-1.1	33.7	1.0	51.2	53.9	2.7	Inside	
Vert	2498.070	PK	57.6	29.3	2.8	34.9	-	54.8	73.9	19.1	Inside	
Vert	4960.001	PK	58.2	33.0	4.1	34.3	-	61.0	73.9	12.9	Inside	
Vert	5280.002	PK	60.5	32.9	4.2	34.0	-	63.6	68.2	4.6	Outside	
Vert	5350.000	PK	58.8	32.9	4.3	34.0	-	62.0	73.9	11.9	Inside	
Vert	5715.000	PK	60.6	33.2	4.5	33.9	-	64.4	68.2	3.8	Outside	
Vert	5725.000	PK	67.0	33.2	4.5	33.9	-	70.8	78.2	7.4	Outside	
Vert	11510.000	PK	52.4	41.1	-1.1	33.7	-	58.7	73.9	15.2	Inside	
Vert	17265.000	PK	44.6	43.0	0.3	32.7	-	55.2	68.2	13.0	Outside	
Vert	2498.070	AV	47.8	29.3	2.8	34.9	1.0	46.0	53.9	7.9	Inside	
Vert	4960.001	AV	46.9	33.0	4.1	34.3	1.0	50.7	53.9	3.2	Inside	
Vert	5350.000	AV	46.5	32.9	4.3	34.0	1.0	50.7	53.9	3.2	Inside	
Vert	11510.000	AV	42.8	41.1	-1.1	33.7	1.0	50.1	53.9	3.8	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/18/2015	08/18/2015	08/19/2015
Temperature/ Humidity	24deg. C / 64% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Satofumi Matsuyama (1-10GHz)	Kazuya Yoshioka (10-18GHz)	Shinya Watanabe (18-40GHz)
Mode	11n-40 Tx 5795MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.570	PK	54.9	29.3	2.8	34.9	-	52.1	73.9	21.8	Inside	
Hori	4959.983	PK	52.4	33.0	4.1	34.3	-	55.2	73.9	18.7	Inside	
Hori	5279.950	PK	59.6	32.9	4.2	34.0	-	62.7	68.2	5.5	Outside	
Hori	5360.100	PK	58.7	32.9	4.3	34.0	-	61.9	73.9	12.0	Inside	
Hori	5850.000	PK	51.1	33.4	4.5	34.0	-	55.0	68.2	13.2	Outside	
Hori	5860.000	PK	48.7	33.4	4.5	34.0	-	52.6	68.2	15.6	Outside	
Hori	11590.000	PK	51.8	41.0	-1.1	33.7	-	58.0	73.9	15.9	Inside	
Hori	17385.000	PK	44.4	43.5	0.4	32.7	-	55.6	68.2	12.6	Outside	
Hori	2498.570	AV	45.7	29.3	2.8	34.9	1.0	43.9	53.9	10.0	Inside	
Hori	4959.983	AV	43.5	33.0	4.1	34.3	1.0	47.3	53.9	6.6	Inside	
Hori	5360.100	AV	47.6	32.9	4.3	34.0	1.0	51.8	53.9	2.1	Inside	
Hori	11590.000	AV	44.4	41.0	-1.1	33.7	1.0	51.6	53.9	2.3	Inside	
Vert	2498.570	PK	57.3	29.3	2.8	34.9	-	54.5	73.9	19.4	Inside	
Vert	4959.983	PK	53.3	33.0	4.1	34.3	-	56.1	73.9	17.8	Inside	
Vert	5279.950	PK	62.6	32.9	4.2	34.0	-	65.7	68.2	2.5	Outside	
Vert	5360.100	PK	58.5	32.9	4.3	34.0	-	61.7	73.9	12.2	Inside	
Vert	5850.000	PK	48.5	33.4	4.5	34.0	-	52.4	68.2	15.8	Outside	
Vert	5860.000	PK	47.5	33.4	4.5	34.0	-	51.4	68.2	16.8	Outside	
Vert	11590.000	PK	52.8	41.0	-1.1	33.7	-	59.0	73.9	14.9	Inside	
Vert	17385.000	PK	44.1	43.5	0.4	32.7	-	55.3	68.2	12.9	Outside	
Vert	2498.570	AV	48.3	29.3	2.8	34.9	1.0	46.5	53.9	7.4	Inside	
Vert	4959.983	AV	43.2	33.0	4.1	34.3	1.0	47.0	53.9	6.9	Inside	
Vert	5360.100	AV	47.6	32.9	4.3	34.0	1.0	51.8	53.9	2.1	Inside	
Vert	11590.000	AV	44.5	41.0	-1.1	33.7	1.0	51.7	53.9	2.2	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/11/2015	08/18/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11ac-80 Tx 5210MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2489.533	PK	57.6	29.3	2.8	34.9	-	54.8	73.9	19.1	Inside	
Hori	5150.000	PK	61.0	33.0	4.2	34.1	-	64.1	73.9	9.8	Bandedge	
Hori	5371.450	PK	49.7	32.9	4.3	34.0	-	52.9	73.9	21.0	Inside	
Hori	6946.866	PK	47.0	36.6	5.0	34.0	-	54.6	68.2	13.6	Outside	
Hori	10420.000	PK	42.6	40.1	-1.7	34.4	-	46.6	68.2	21.6	Outside	
Hori	15630.000	PK	44.3	39.3	-0.1	33.5	-	50.0	73.9	23.9	Inside	
Hori	2489.533	AV	38.4	29.3	2.8	34.9	2.6	38.2	53.9	15.7	Inside	
Hori	5150.000	AV	44.4	33.0	4.2	34.1	2.6	50.1	53.9	3.8	Bandedge	*1)
Hori	5371.450	AV	40.5	32.9	4.3	34.0	2.6	46.3	53.9	7.6	Inside	
Hori	15630.000	AV	36.4	39.3	-0.1	33.5	-	42.1	53.9	11.8	Inside	Floor noise
Vert	2489.533	PK	55.9	29.3	2.8	34.9	-	53.1	73.9	20.8	Inside	
Vert	5150.000	PK	60.5	33.0	4.2	34.1	-	63.6	73.9	10.3	Bandedge	
Vert	5371.450	PK	51.3	32.9	4.3	34.0	-	54.5	73.9	19.4	Inside	
Vert	6946.866	PK	48.2	36.6	5.0	34.0	-	55.8	68.2	12.4	Outside	
Vert	10420.000	PK	42.8	40.1	-1.7	34.4	-	46.8	68.2	21.4	Outside	
Vert	15630.000	PK	44.4	39.3	-0.1	33.5	-	50.1	73.9	23.8	Inside	
Vert	2489.533	AV	37.8	29.3	2.8	34.9	2.6	37.6	53.9	16.3	Inside	
Vert	5150.000	AV	45.0	33.0	4.2	34.1	2.6	50.7	53.9	3.2	Bandedge	*1)
Vert	5371.450	AV	40.9	32.9	4.3	34.0	2.6	46.7	53.9	7.2	Inside	
Vert	15630.000	AV	36.4	39.3	-0.1	33.5	-	42.1	53.9	11.8	Inside	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/11/2015	08/18/2015	08/19/2015
Temperature/ Humidity	25deg. C / 68% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Tomohisa Nakagawa (1-10GHz)	Kazuya Yoshioka (10-18GHz)	Shinya Watanabe (18-40GHz)
Mode	11ac-80 Tx 5290MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.566	PK	57.9	29.3	2.8	34.9	-	55.1	73.9	18.8	Inside	
Hori	5350.000	PK	59.9	32.9	4.3	34.0	-	63.1	73.9	10.8	Bandedge	
Hori	10580.000	PK	43.0	40.6	-1.7	34.3	-	47.6	68.2	20.6	Outside	
Hori	15870.000	PK	43.4	38.7	-0.2	33.6	-	48.3	73.9	25.6	Inside	
Hori	2498.566	AV	37.8	29.3	2.8	34.9	2.6	37.6	53.9	16.3	Inside	
Hori	5350.000	AV	44.0	32.9	4.3	34.0	2.6	49.8	53.9	4.1	Bandedge	*1)
Hori	15870.000	AV	36.3	38.7	-0.2	33.6	-	41.2	53.9	12.7	Inside	Floor noise
Vert	2498.566	PK	56.3	29.3	2.8	34.9	-	53.5	73.9	20.4	Inside	
Vert	5350.000	PK	61.1	32.9	4.3	34.0	-	64.3	73.9	9.6	Bandedge	
Vert	10580.000	PK	43.4	40.6	-1.7	34.3	-	48.0	68.2	20.2	Outside	
Vert	15870.000	PK	43.7	38.7	-0.2	33.6	-	48.6	73.9	25.3	Inside	
Vert	2498.566	AV	37.2	29.3	2.8	34.9	2.6	37.0	53.9	16.9	Inside	
Vert	5350.000	AV	36.3	32.9	4.3	34.0	2.6	42.1	53.9	11.8	Bandedge	*1)
Vert	15870.000	AV	36.3	38.7	-0.2	33.6	-	41.2	53.9	12.7	Inside	Floor noise

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/17/2015	08/18/2015	08/19/2015
Temperature/ Humidity	25deg. C / 61% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Kazuya Yoshioka	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11ac-80BW Tx 5610MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2488.915	PK	55.1	29.3	2.8	34.9	-	52.3	73.9	21.6	Inside	
Hori	3740.055	PK	50.3	30.5	3.5	34.1	-	50.2	73.9	23.7	Inside	
Hori	5350.000	PK	54.5	32.9	4.3	34.0	-	57.7	73.9	16.2	Inside	
Hori	5725.000	PK	50.5	33.2	4.5	33.9	-	54.3	68.2	13.9	Outside	
Hori	11220.000	PK	51.1	41.6	-1.4	33.8	-	57.5	73.9	16.4	Inside	
Hori	16830.000	PK	44.5	41.2	0.1	32.8	-	53.0	68.2	15.2	Outside	
Hori	2488.915	AV	44.7	29.3	2.8	34.9	2.6	44.5	53.9	9.4	Inside	
Hori	3740.055	AV	42.0	30.5	3.5	34.1	2.6	44.5	53.9	9.4	Inside	
Hori	5350.000	AV	44.8	32.9	4.3	34.0	2.6	50.6	53.9	3.3	Inside	
Hori	11220.000	AV	42.3	41.6	-1.4	33.8	2.6	51.3	53.9	2.6	Inside	
Vert	2488.718	PK	57.7	29.3	2.8	34.9	-	54.9	73.9	19.0	Inside	
Vert	3739.842	PK	48.0	30.5	3.5	34.1	-	47.9	73.9	26.0	Inside	
Vert	5350.000	PK	56.5	32.9	4.3	34.0	-	59.7	73.9	14.2	Inside	
Vert	5725.000	PK	49.9	33.2	4.5	33.9	-	53.7	68.2	14.5	Outside	
Vert	11220.000	PK	46.1	41.6	-1.4	33.8	-	52.5	73.9	21.4	Inside	
Vert	16830.000	PK	44.3	41.2	0.1	32.8	-	52.8	68.2	15.4	Outside	
Vert	2488.718	AV	49.6	29.3	2.8	34.9	2.6	49.4	53.9	4.5	Inside	
Vert	3739.842	AV	40.8	30.5	3.5	34.1	2.6	43.3	53.9	10.6	Inside	
Vert	5350.000	AV	45.7	32.9	4.3	34.0	2.6	51.5	53.9	2.4	Inside	
Vert	11220.000	AV	39.5	41.6	-1.4	33.8	2.6	48.5	53.9	5.4	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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## Radiated Spurious Emission

Test place	Ise EMC Lab. No.2 Anechoic Chamber		
Report No.	10852538H		
Date	08/18/2015(Day)	08/18/2015(Night)	08/19/2015
Temperature/ Humidity	24deg. C / 64% RH	24deg. C / 64% RH	23deg. C / 65% RH
Engineer	Satofumi Matsuyama	Kazuya Yoshioka	Shinya Watanabe
	(1-10GHz)	(10-18GHz)	(18-40GHz)
Mode	11ac-80 Tx 5775MHz		

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]	Inside or Outside of Restricted Bands	Remark
Hori	2498.970	PK	54.7	29.3	2.8	34.9	-	51.9	73.9	22.0	Inside	
Hori	4960.002	PK	53.6	33.0	4.1	34.3	-	56.4	73.9	17.5	Inside	
Hori	5280.004	PK	56.6	32.9	4.2	34.0	-	59.7	68.2	8.5	Outside	
Hori	5360.167	PK	57.5	32.9	4.3	34.0	-	60.7	73.9	13.2	Inside	
Hori	5725.000	PK	66.1	33.2	4.5	33.9	-	69.9	78.2	8.3	Outside	
Hori	5850.000	PK	52.2	33.4	4.5	34.0	-	56.1	78.2	22.1	Outside	
Hori	5860.000	PK	53.6	33.4	4.5	34.0	-	57.5	68.2	10.7	Outside	
Hori	11550.000	PK	51.9	41.0	-1.1	33.7	-	58.1	73.9	15.8	Inside	
Hori	17325.000	PK	44.2	43.2	0.3	32.7	-	55.0	68.2	13.2	Outside	
Hori	2498.970	AV	45.2	29.3	2.8	34.9	2.6	45.0	53.9	8.9	Inside	
Hori	4960.002	AV	41.8	33.0	4.1	34.3	2.6	47.2	53.9	6.7	Inside	
Hori	5360.167	AV	45.7	32.9	4.3	34.0	2.6	51.5	53.9	2.4	Inside	
Hori	11550.000	AV	42.8	41.0	-1.1	33.7	2.6	51.6	53.9	2.3	Inside	
Vert	2498.970	PK	56.9	29.3	2.8	34.9	-	54.1	73.9	19.8	Inside	
Vert	4960.002	PK	53.1	33.0	4.1	34.3	-	55.9	73.9	18.0	Inside	
Vert	5280.004	PK	57.3	32.9	4.2	34.0	-	60.4	68.2	7.8	Outside	
Vert	5360.167	PK	57.0	32.9	4.3	34.0	-	60.2	73.9	13.7	Inside	
Vert	5725.000	PK	68.6	33.2	4.5	33.9	-	72.4	78.2	5.8	Outside	
Vert	5850.000	PK	50.9	33.4	4.5	34.0	-	54.8	78.2	23.4	Outside	
Vert	5860.000	PK	51.8	33.4	4.5	34.0	-	55.7	68.2	12.5	Outside	
Vert	11550.000	PK	51.1	41.0	-1.1	33.7	-	57.3	73.9	16.6	Inside	
Vert	17325.000	PK	44.5	43.2	0.3	32.7	-	55.3	68.2	12.9	Outside	
Vert	2498.970	AV	47.3	29.3	2.8	34.9	2.6	47.1	53.9	6.8	Inside	
Vert	4960.002	AV	41.7	33.0	4.1	34.3	2.6	47.1	53.9	6.8	Inside	
Vert	5360.167	AV	44.4	32.9	4.3	34.0	2.6	50.2	53.9	3.7	Inside	
Vert	11550.000	AV	42.3	41.0	-1.1	33.7	2.6	51.1	53.9	2.8	Inside	

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier) + Duty factor

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

\*The 10th harmonic was not seen so the result was its base noise level.

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

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]	Inside or Outside of Restricted Bands	Remark
Hori	5715.000	PK	64.9	33.2	4.5	33.9	-	68.7	73.9	5.2	Outside	*1)
Hori	5715.000	AV	43.7	33.2	4.5	33.9	2.6	50.1	53.9	3.8	Outside	*1)
Vert	5715.000	PK	62.6	33.2	4.5	33.9	-	66.4	73.9	7.5	Outside	*1)
Vert	5715.000	AV	43.0	33.2	4.5	33.9	2.6	49.4	53.9	4.5	Outside	*1)

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

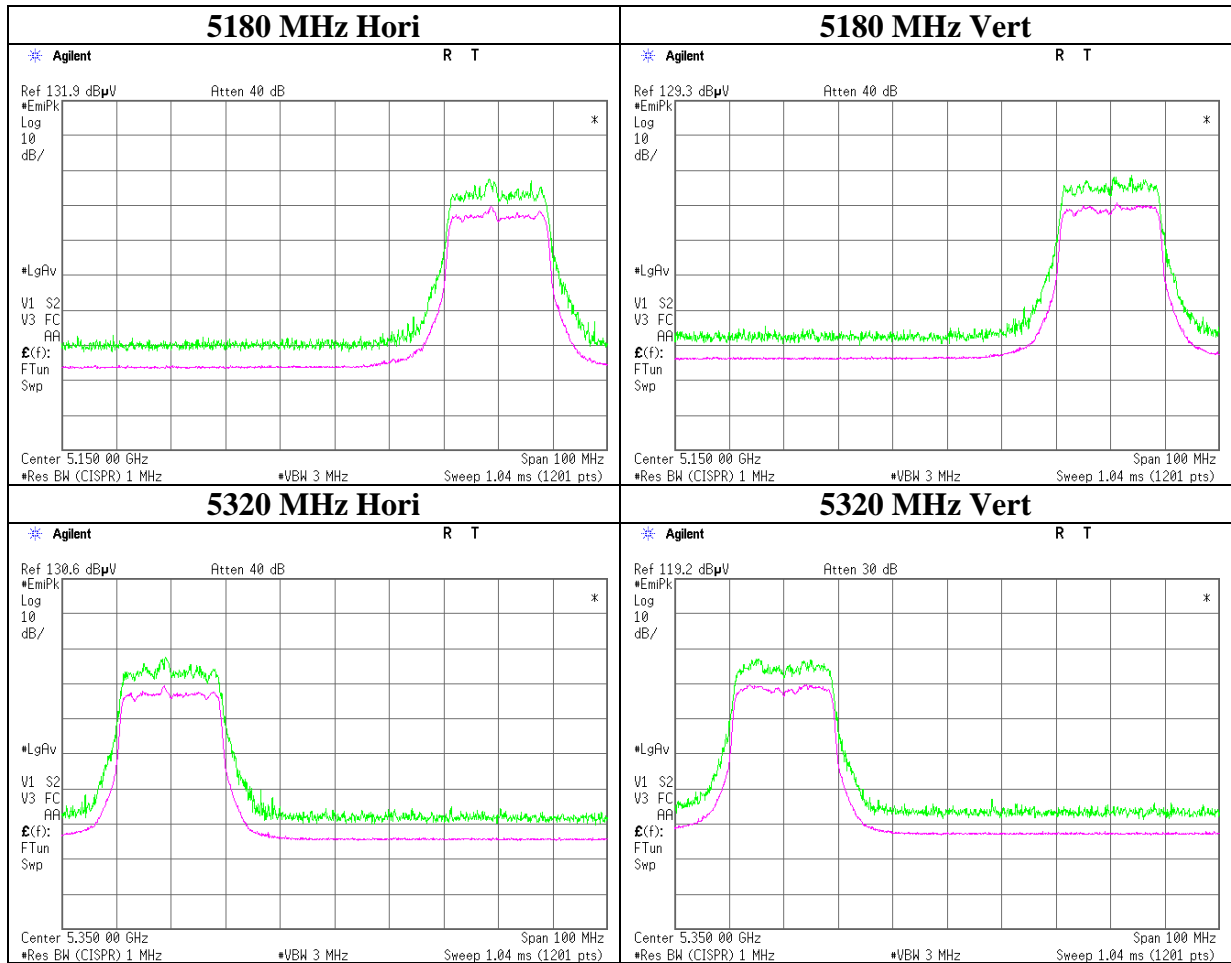
\*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

\*1) Limit of FCC15.209 was applied to this frequency even though it was out of restricted band.

**Radiated emission Band Edge compliance**

Test place : Ise EMC Lab. No.2 Anechoic Chamber  
 Report No. : 10852538H  
 Date : 08/11/2015  
 Temperature/ Humidity : 25deg. C / 68% RH  
 Engineer : Tomohisa Nakagawa  
 Mode : 11n-20

**11n-20**



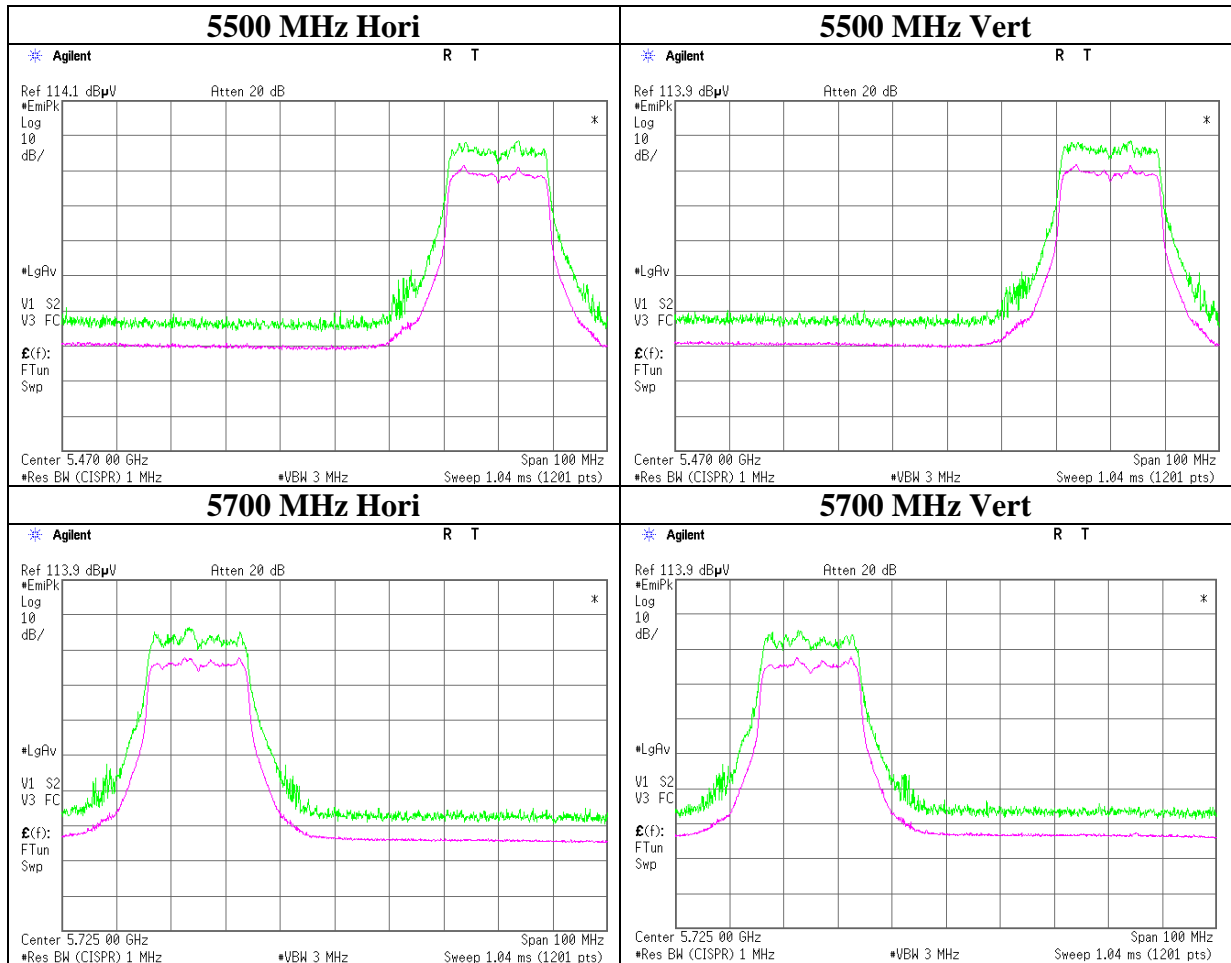
**UL Japan, Inc.**  
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## Radiated emission Band Edge compliance

Test place	Ise EMC Lab. No.2 Anechoic Chamber
Report No.	10852538H
Date	08/17/2015
Temperature/ Humidity	25deg. C / 61% RH
Engineer	Satofumi Matsuyama
Mode	11n-20

### 11n-20



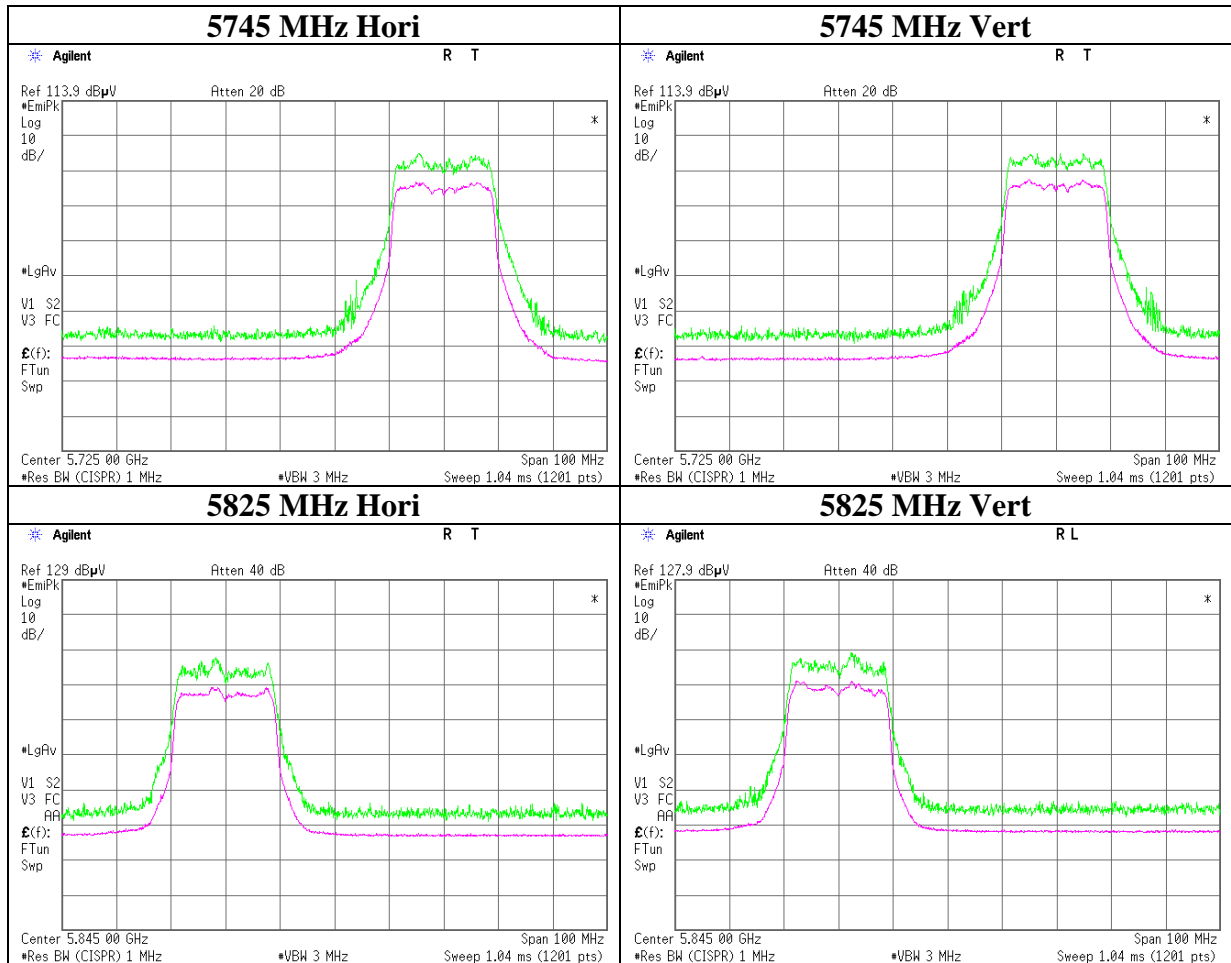
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**Radiated emission Band Edge compliance**

Test place	Ise EMC Lab. No.2 Anechoic Chamber	
Report No.	10852538H	
Date	08/11/2015	08/17/2015
Temperature/ Humidity	25deg. C / 68% RH	25deg. C / 61% RH
Engineer	Tomohisa Nakagawa	Satofumi Matsuyama
Mode	11n-20	

**11n-20**



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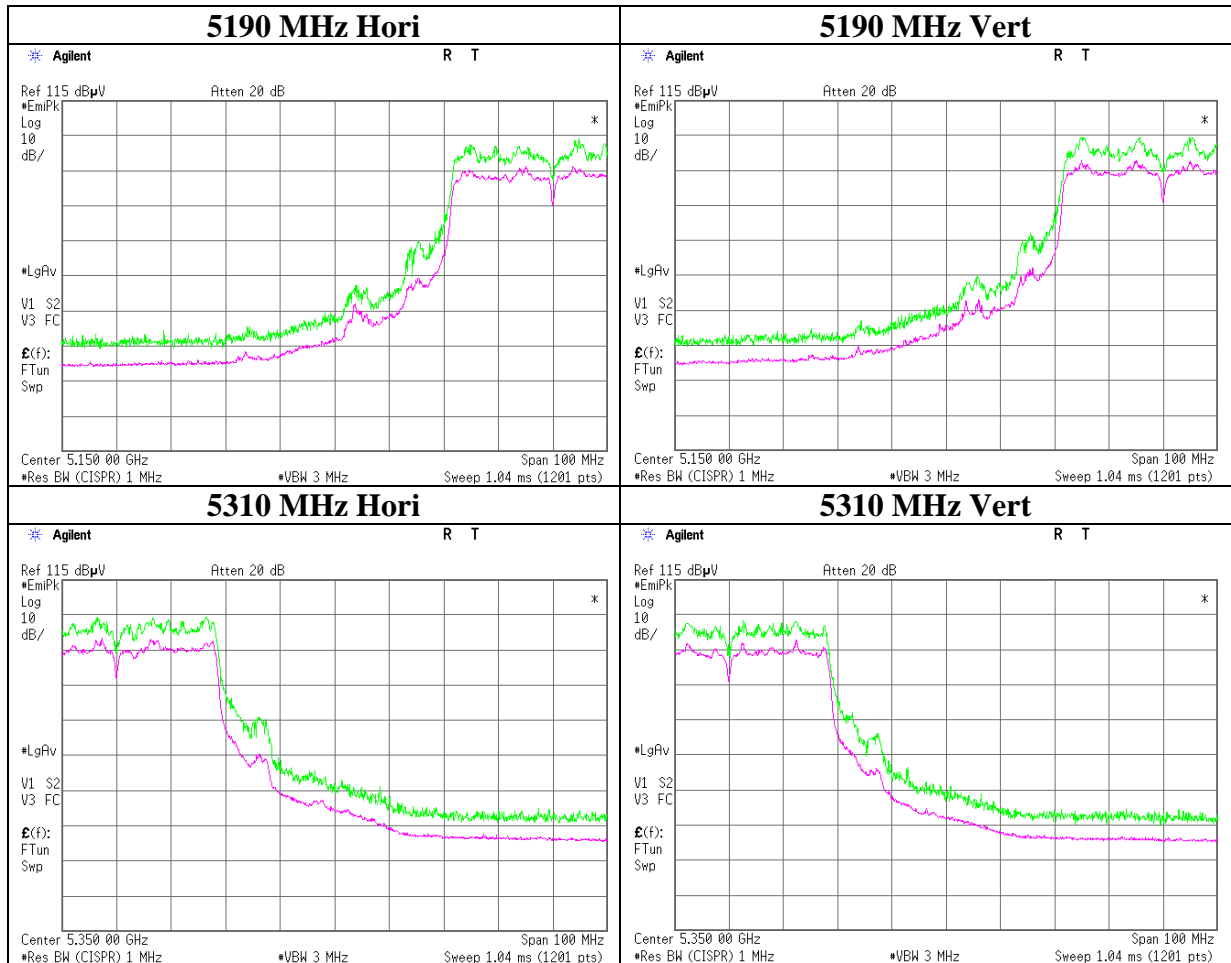
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## Radiated emission Band Edge compliance

Test place	Ise EMC Lab. No.2 Anechoic Chamber
Report No.	10852538H
Date	08/18/2015
Temperature/ Humidity	24deg. C / 64% RH
Engineer	Satofumi Matsuyama
Mode	11n-40

### 11n-40



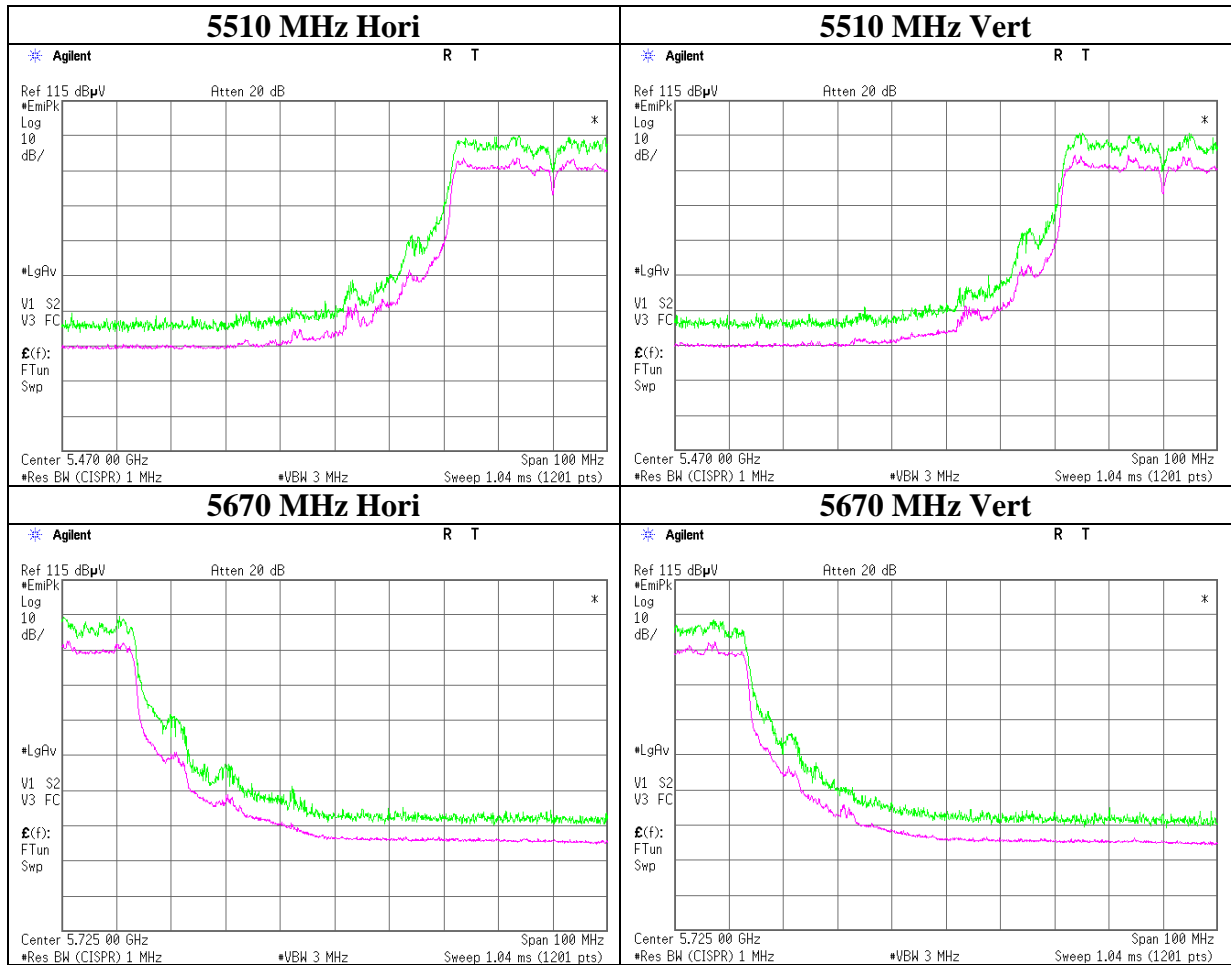
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**Ise EMC Lab.**

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## Radiated emission Band Edge compliance

Test place	Ise EMC Lab. No.2 Anechoic Chamber
Report No.	10852538H
Date	08/18/2015
Temperature/ Humidity	24deg. C / 64% RH
Engineer	Satofumi Matsuyama
Mode	11n-40

### 11n-40



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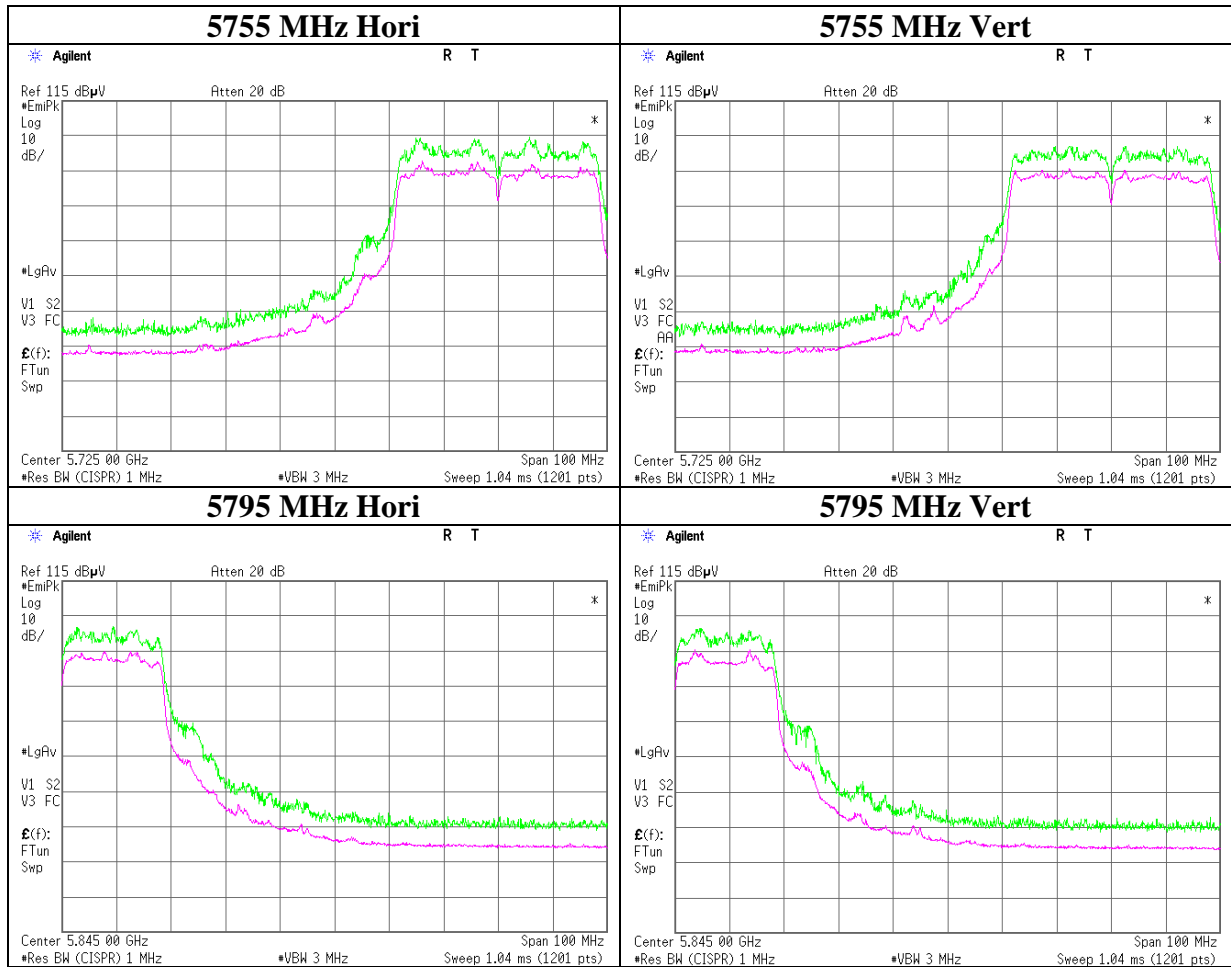
Telephone : +81 596 24 8999

Facsimile : +81 596 24 8124

## Radiated emission Band Edge compliance

Test place	Ise EMC Lab. No.2 Anechoic Chamber
Report No.	10852538H
Date	08/18/2015
Temperature/ Humidity	24deg. C / 64% RH
Engineer	Satofumi Matsuyama
Mode	11n-40

### 11n-40



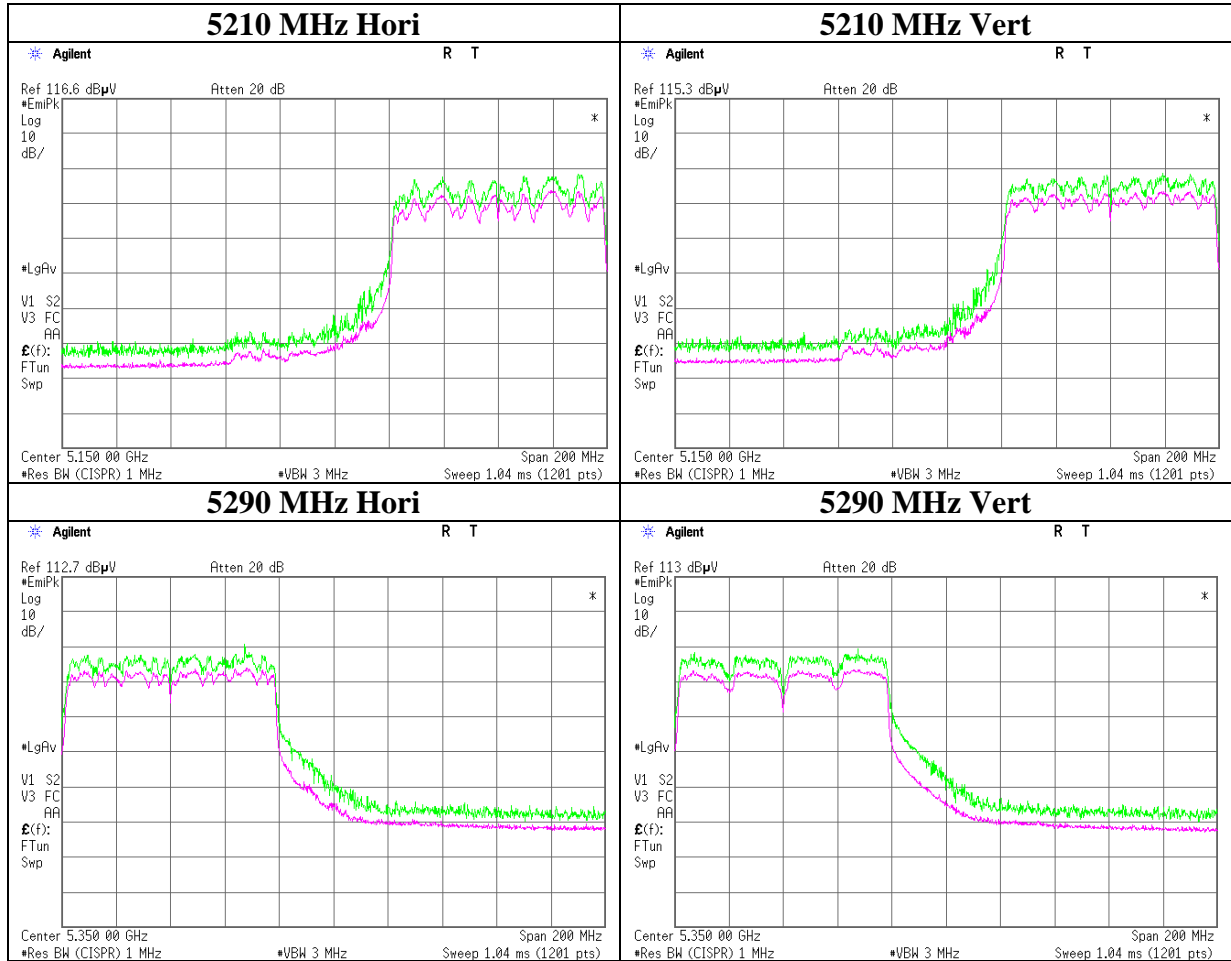
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**Radiated emission Band Edge compliance**

Test place : Ise EMC Lab. No.2 Anechoic Chamber  
 Report No. : 10852538H  
 Date : 08/11/2015  
 Temperature/ Humidity : 25deg. C / 68% RH  
 Engineer : Tomohisa Nakagawa  
 Mode : 11ac-80

**11ac-80**



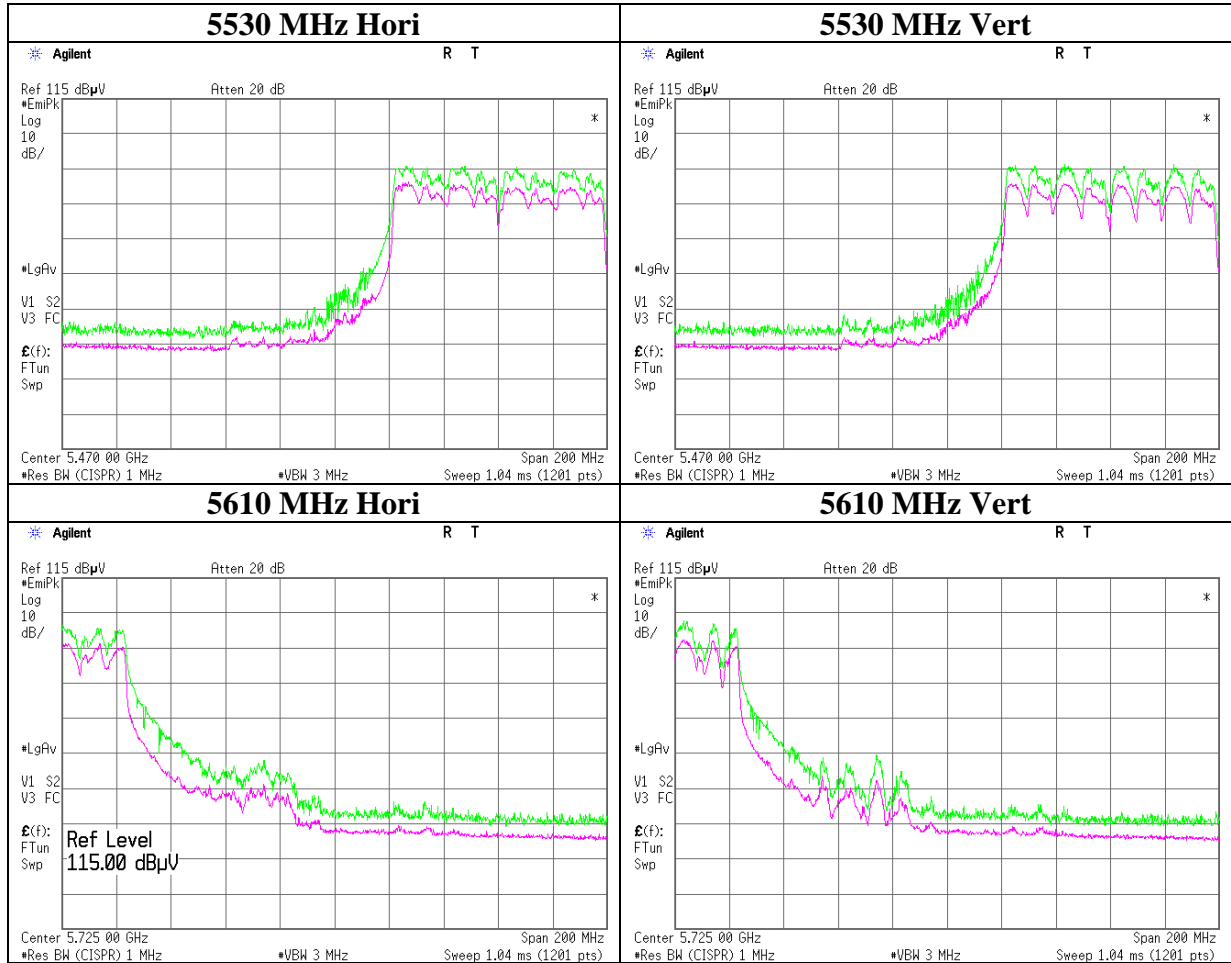
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**Radiated emission Band Edge compliance**

Test place	Ise EMC Lab. No.2 Anechoic Chamber	
Report No.	10852538H	
Date	08/11/2015	08/18/2015
Temperature/ Humidity	25deg. C / 68% RH	24deg. C / 64% RH
Engineer	Tomohisa Nakagawa	Satofumi Matsuyama
Mode	11ac-80	

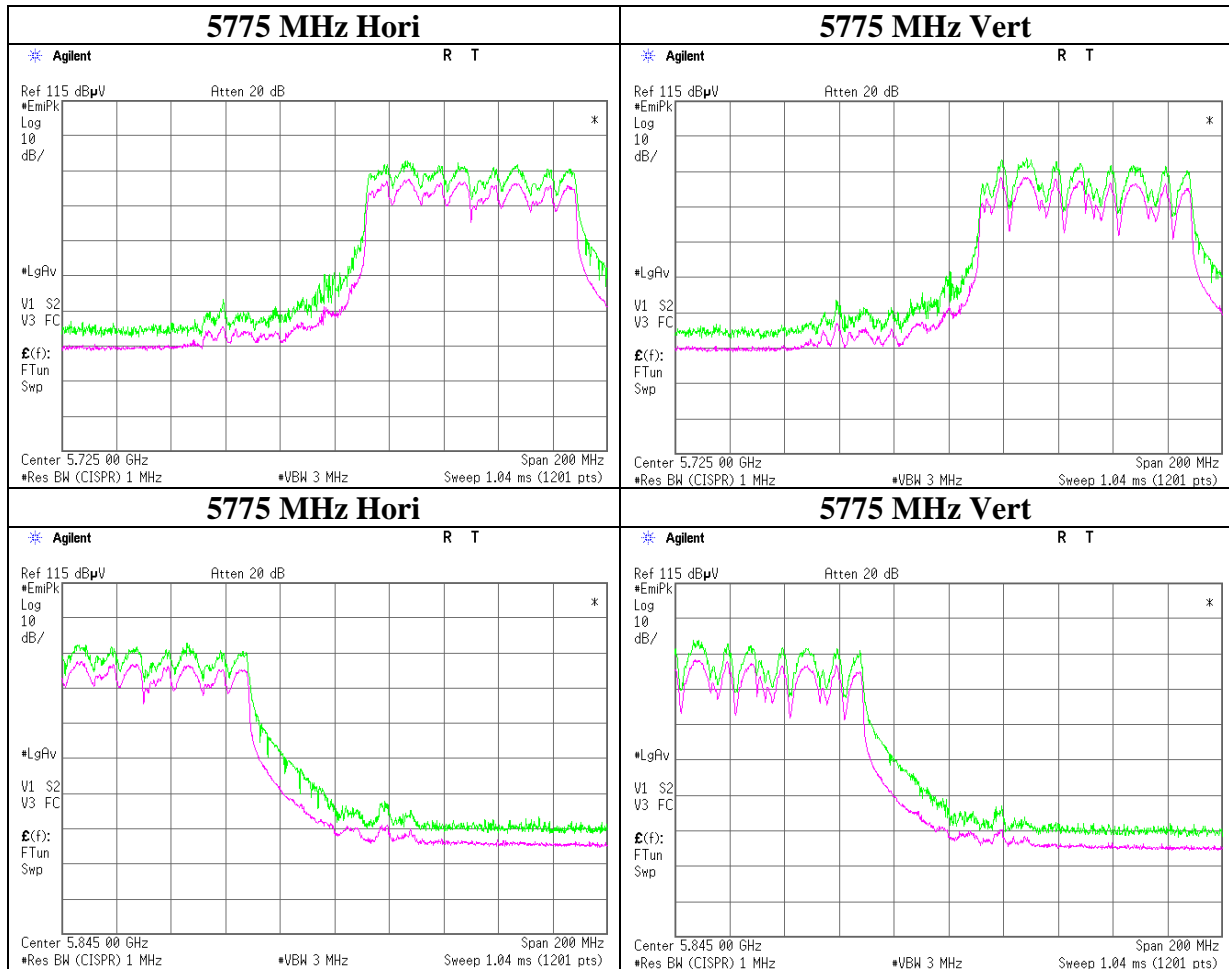
**11ac-80**



## Radiated emission Band Edge compliance

Test place	Ise EMC Lab. No.2 Anechoic Chamber
Report No.	10852538H
Date	08/18/2015
Temperature/ Humidity	24deg. C / 64% RH
Engineer	Satofumi Matsuyama
Mode	11ac-80

### 11ac-80



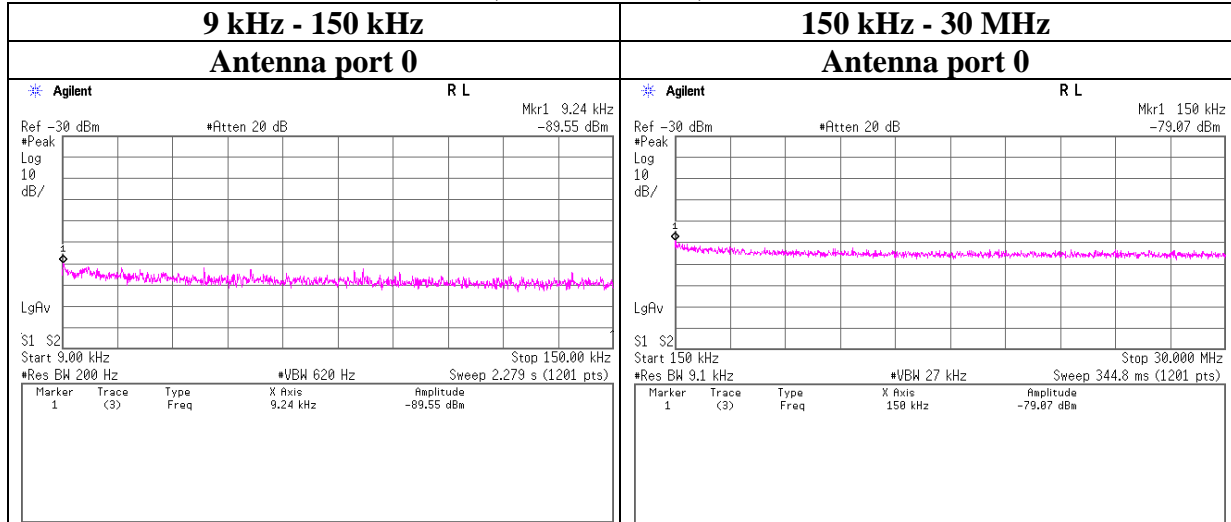
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### Conducted Spurious Emission

Test place : Ise EMC Lab. No.11 Measurement Room  
Report No. : 10852538H  
Date : 07/01/2015  
Temperature/ Humidity : 25deg. C / 66% RH  
Engineer : Yutaka Yoshida  
Mode : 11n-40 Tx

#### 11n-40, Tx 5270 MHz, 3 Stream



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
9.24	-89.6	0.26	6.10	3.7	3	-74.7	300	6.0	-13.5	48.2	61.7	
150.00	-79.1	0.26	6.10	3.7	3	-64.2	300	6.0	-3.0	24.0	27.0	

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

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

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## APPENDIX 2: Test instruments

### EMI test equipment (1/2)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-02	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE/CE	2015/07/01 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE/CE	2015/01/13 * 12
MJM-14	Measure	KOMELON	KMC-36	-	RE/CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE/CE	2014/11/12 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2015/02/05 * 12
MCC-166	Microwave Cable	Junkosha	MWX221	1303S120(1m) / 1311S167(5m)	RE	2014/09/24 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2015/01/28 * 12
MHF-16	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCA	7001	RE	2014/09/29 * 12
MCC-176	Microwave Cable	Junkosha	MMX221-00500DMSDMS	1502S303	RE	2015/03/27 * 12
MMM-01	Digital Tester	Fluke	FLUKE 26-3	78030611	RE/CE	2015/08/19 * 12
MHA-02	Horn Antenna 18-26.5GHz	EMCO	3160-09	1265	RE	2015/02/05 * 12
MPA-03	Microwave System Power Amplifier	Agilent	83050A	3950M00205	RE	2015/06/02 * 12
MCC-54	Microwave Cable	Suhner	SUCOFLEX101	2873(1m) / 2876(5m)	RE	2015/03/09 * 12
MHA-04	Horn Antenna 26.5-40GHz	EMCO	3160-10	1140	RE	2014/11/14 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	RE/CE	2015/06/08 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	VHA91032008	RE	2014/10/18 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	201	RE	2014/10/18 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	-	RE	2015/02/06 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	BK7970	RE	2014/11/11 * 12
MPA-09	Pre Amplifier	Agilent	8447D	2944A10845	RE	2014/09/26 * 12
MLS-24	LISN(AMN)	Schwarzbeck	NSLK8127	8127-730	CE(EUT)	2015/07/10 * 12
MCC-13	Coaxial Cable	Fujikura	3D-2W(12m)/5D-2W(5m)/5D-2W(0.8m)/5D-2W(1m)	-	CE	2015/02/06 * 12
MAT-65	Attenuator(13dB)	JFW Industries, Inc.	50FP-013H2 N	-	CE	2015/01/29 * 12
MSA-13	Spectrum Analyzer	Agilent	E4440A	MY46185823	AT	2015/06/02 * 12
MCC-99	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	30820/2	AT	2015/05/01 * 12
MAT-24	Attenuator(10dB)(above 1GHz)	Agilent	8493C	71389	AT	2014/06/30 * 12 *1)
MRENT-124	Spectrum Analyzer	KEYSIGHT	E4440A	MY46187750	AT	2015/06/24 * 12
MCC-92	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX102	30813/2	AT	2015/05/01 * 12
MAT-19	Attenuator(6dB)(above 1GHz)	HIROSE ELECTRIC CO.,LTD.	AT-106	-	AT	2015/01/07 * 12
MMM-12	DIGITAL HiTESTER	Hioki	3805	060500120	AT	2015/02/05 * 12
MDPS-04	DC Power Supply	KENWOOD TMI	PW18-1.3AT	08016530	AT	Pre Check
MTA-36	Terminator	-	50ΩSMA	-	AT	Pre Check
MTA-43	Terminator	Mini-Circuits	ANNE-50X+	MUU3460140	AT	Pre Check
MOS-14	Thermo-Hygrometer	Custom	CTH-201	1401	AT	2015/01/13 * 12
MCC-36	Microwave Cable	Hirose Electric	U.FL-2LP-066-A-(200)	-	AT	2014/09/12 * 12
MOS-19	Thermo-Hygrometer	Custom	CTH-201	0001	AT	2014/12/22 * 12

\*1) This test equipment was used for the tests before the expiration date of the calibration.

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**EMI test equipment (2/2)**

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-03	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE	2015/02/19 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	1301	RE	2015/01/13 * 12
MJM-16	Measure	KOMELON	KMC-36	-	RE	-
MSA-10	Spectrum Analyzer	Agilent	E4448A	MY46180655	RE	2015/02/26 * 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	2015/03/19 * 12
MMM-08	DIGITAL HiTESTER	Hioki	3805	051201197	RE	2015/01/16 * 12
MHF-22	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCB	602	RE	2015/01/27 * 12
MCC-177	Microwave Cable	Junkosha	MMX221-00500DMSDMS	1502S304	RE	2015/03/27 * 12
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170306	RE	2015/05/19 * 12
MHA-29	Horn Antenna 26.5-40GHz	ETS LINDGREN	3160-10	00152399	RE	2014/09/02 * 12
MPA-22	Pre Amplifier	MITEQ, Inc	AMF-6F-2600400-33-8P / AMF-4F-2600400-33-8P	1871355 /1871328	RE	2014/09/11 * 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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