RADIO TEST REPORT

Test Report No. : 11253018S-B-R1

Applicant	:	**KONICA MINOLTA, INC.**
Type of Equipment	:	**SKR 3000**
Model No.	:	**P-61**
FCC ID	:	**YR7SKR3000P6**
Test regulation	:	**FCC Part 15 Subpart E: 2016**
Test Result	:	**Complied**

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2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the above regulation.
4. The test results in this report are traceable to the national or international standards.
5. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
6. This test report covers Radio technical requirements. It does not cover administrative issues such as Manual or non-Radio test related Requirements. (if applicable)
7. This report is a revised version of 11253018S-B. 11253018S-B is replaced with this report.

Date of test: July 7 to 17, 2016

Representative test engineer:
Hiroyuki Morikawa
Engineer
Consumer Technology Division

Approved by:
Toyokazu Imamura
Leader
Consumer Technology Division

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

RTL02610

UL Japan, Inc.
Shonan EMC Lab.
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN
Telephone : +81 463 50 6400
Facsimile : +81 463 50 6401

REVISION HISTORY

Original Test Report No.: 11253018S-B

Revision	Test report No.	Date	Page revised	Contents
- (Original)	11253018S-B	August 30, 2016	-	-
1	11253018S-B-R1	November 7, 2016	4	Correction of radio specification

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1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN
Telephone : +81 463 50 6400
Facsimile : +81 463 50 6401

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SECTION 1: Customer information

Company Name	:	KONICA MINOLTA, INC.
Address	:	1, Sakura-machi, Hino-shi, Tokyo, Japan 191-8511
Telephone Number	:	+81-42-589-8429
Facsimile Number	:	+81-42-589-8053
Contact Person	:	Masayoshi Inoue

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

2.1 Identification of E.U.T.

Type of Equipment	:	SKR 3000
Model No.	:	P-61
Serial No.	:	Refer to Section 4, Clause 4.2
Rating	:	DC 15 V
Receipt Date of Sample	:	June 17, 2016
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: P-61 (referred to as the EUT in this report) is a SKR 3000.

General Specification

Clock frequency(ies) in the system : 532 MHz (Maximum)

Radio Specification

Radio Type : Transceiver

WLAN

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

SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification	:	FCC Part 15 Subpart E FCC part 15 final revised on April 6, 2016.
Title	:	FCC 47CFR Part15 Radio Frequency Device Subpart E Unlicensed National Information Infrastructure Devices Section 15.407 General technical requirements

3.2 Procedures and results

Item	Test Procedure	Specification	Worst margin	Results	Remarks
Conducted Emission	**FCC:** ANSI C63.10-2013	**FCC:** 15.407 (b) (6) / 15.207	N/A	N/A *1)	-
	IC: RSS-Gen 8.8	**IC:** RSS-Gen 8.8			
26 dB Emission Bandwidth	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)	See data	N/A	Conducted
	IC: -	**IC:** -			
Maximum Conducted Output Power	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)		Complied	Conducted
	IC: -	**IC:** RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)			
Maximum Power Spectral Density	**FCC:** KDB Publication Number 789033	**FCC :** 15.407 (a) (1) (2) (3)		Complied	Conducted
	IC: -	**IC:** RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)			
Spurious Emission Restricted Band Edge	**FCC:** ANSI C63.10-2013 KDB Publication Number 789033	**FCC:** 15.407 (b), 15.205 and 15.209	4.0 dB 5350.000 MHz, AV, Vert. Tx 11n-40 5310 MHz	Complied	Conducted (< 30 MHz) / Radiated (> 30 MHz) *2)
	IC: -	**IC:** RSS-247 6.2.1 (2) 6.2.2 (2) 6.2.3 (2) 6.2.4 (2)			
6 dB Emission Bandwidth	**FCC:** ANSI C63.10-2013	**FCC:** 15.407 (e)	See data	Complied	Conducted
	IC: -	**IC:** RSS-247 6.2.4 (1)			

Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.
* For DFS tests, please see the test report number 11253018S-C issued by UL Japan, Inc.
*1) The test is not applicable since the EUT has no AC mains. Wireless LAN does not operate during charging.
*2) Radiated test was selected over 30 MHz based on section FCC 15.407 (b) and KDB 789033 D02 G.3.b).

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

FCC Part 15.31 (e)

This EUT provides stable voltage (DC3.3 V/1.8 V) constantly to RF part regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

3.3 Addition to standard

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

Other than above, no addition, exclusion nor deviation has been made from the standard.

3.4 Uncertainty

EMI

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

Shonan EMC Lab.

Item	Frequency range	Uncertainty (+/-)			
		No. 1 SAC / SR	No. 2 SAC / SR	No. 3 SAC / SR	No. 4 SAC / SR
Conducted emission (AC Mains) LISN	150 kHz-30 MHz	2.1 dB	2.1 dB	2.6 dB	2.2 dB
Radiated emission (Measurement distance: 3 m)	9 kHz-30 MHz	2.7 dB	2.7 dB	3.1 dB	-
	30 MHz-300 MHz	4.4 dB	4.4 dB	4.6 dB	-
	300 MHz-1 GHz	5.6 dB	5.5 dB	5.3 dB	-
	1 GHz-13 GHz	5.2 dB	5.2 dB	5.2 dB	-
Radiated emission (Measurement distance: 1 m)	13 GHz-18 GHz	4.9 dB	4.9 dB	4.9 dB	-
	18 GHz-40 GHz	4.9 dB	4.9 dB	4.9 dB	-

SAC=Semi-Anechoic Chamber

SR= Shielded Room is applied besides radiated emission

Antenna terminal test	Uncertainty (+/-)
Power Measurement above 1 GHz (Average Detector)_SPM-06	0.76 dB
Power Measurement above 1 GHz (Peak Detector)_SPM-06	0.79 dB
Power Measurement above 1 GHz (Average Detector)_SPM-07	0.74 dB
Power Measurement above 1 GHz (Peak Detector)_SPM-07	1.08 dB
Spurious emission (Conducted) below 1GHz	1.5 dB
Spurious emission (Conducted) 1 GHz-3 GHz	1.7 dB
Spurious emission (Conducted) 3 GHz-18 GHz	2.4 dB
Spurious emission (Conducted) 18 GHz-26.5 GHz	2.5 dB
Spurious emission (Conducted) 26.5 GHz-40 GHz	2.5 dB
Bandwidth Measurement	0.66 %
Duty cycle and Time Measurement	0.012 %

Radiated emission test

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

3.5 Test Location

UL Japan, Inc. Shonan EMC Lab.
1-22-3, Megumigaoka, Hiratsuka-shi, Kanagawa-ken 259-1220 JAPAN
Telephone: +81 463 50 6400, Facsimile: +81 463 50 6401
JAB Accreditation No. RTL02610

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

3.6 Test data, Test instruments, and Test set up

Refer to APPENDIX.

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

4.1 Operating Mode(s)

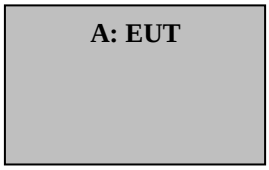
Mode	Remarks*
IEEE 802.11a (11a)	18 Mbps, PN9
IEEE 802.11n MIMO 20 MHz BW (11n-20)	MCS 11 (Long GI), PN9
IEEE 802.11n SISO 20 MHz BW (11n-20)	MCS 3 (Long GI), PN9
IEEE 802.11n MIMO 40 MHz BW (11n-40)	MCS 10 (Long GI), PN9
IEEE 802.11n SISO 40 MHz BW (11n-40)	MCS 3 (Long GI), PN9
*Power of the EUT was set by the software as follows; Software: WLAN Auth Tool ver.1.3.0 *This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product.	

*The details of Operation mode(s)

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

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

4.2 Configuration and peripherals



* Test data was taken under worse case conditions.

Description of EUT

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	SKR 3000	P-61	A8CE-S002 *1) A8CE-S003 *2)	KONICA MINOLTA	EUT

*1) Used for Antenna Terminal conducted test
*2) Used for Radiated Emission test

SECTION 5: Radiated Spurious Emission and Band Edge Compliance

Test Procedure

< Below 1 GHz >
EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 0.8 m above the conducting ground plane. The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

< Above 1 GHz >
EUT was placed on a urethane platform of nominal size, 0.5 m by 0.5 m, raised 1.5 m above the conducting ground plane.
The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with absorbent materials lined on a ground plane.

The height of the measuring antenna varied between 1 and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field strength.
The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer.
The measurements were made with the following detector function of the test receiver and the Spectrum analyzer (in linear mode).
The test was made with the detector (RBW/VBW) in the following table.
When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

< Below 1 GHz >

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

< Above 1 GHz >

Inside of restricted bands (Section 15.205):

Apply to limit in the Section 15.209 (a).

Outside of the restricted bands:

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

Restricted band edge:

Apply to limit in the Section 15.209 (a).
Since this limit is severer than the limit of the inside of restricted bands.

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

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

Test Antennas are used as below;

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

Frequency	Below 1 GHz	Above 1 GHz	
Instrument used	Test Receiver	Spectrum Analyzer	
Detector	QP	Peak	Average
IF Bandwidth	BW: 120 kHz	RBW: 1 MHz VBW: 3 MHz	Detector: Power Averaging (Linear voltage) Trace: ≥ 100 traces Duty factor was added to the results.
Test Distance	3 m	3 m (below 1 GHz), 3 m*2) (1 GHz – 13 GHz), 1 m*3) (13 GHz – 26.5 GHz),	

*1) The test method was also referred to KDB 789033 D01 General UNII Test Procedures 1 Old Rules v01r04 "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 x log (3.705/3.0 m) = 1.83 dB
*3) Distance Factor: 20 x log (1.0 m/3.0 m) = -9.54 dB

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

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

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

SECTION 6: Antenna Terminal Conducted Tests

Test Procedure

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

Test	Span	RBW	VBW	Sweep time	Detector	Trace	Instrument used and Test method
26 dB Bandwidth	Enough to capture the emission	Close to 1 % of EBW	> RBW	Auto	Peak	Max Hold	Spectrum Analyzer
99 % Occupied Bandwidth	Enough width to display emission skirts	1 % to 5 % of OBW	≥ 3 RBW	Auto	Sample	Max Hold	Spectrum Analyzer
20 dB Bandwidth	Enough to capture the emission	430 kHz	1.3 MHz	Auto	Peak	Max Hold	Spectrum Analyzer
6 dB Bandwidth	Enough to capture the emission	100 kHz	300 kHz	Auto	Peak	Max Hold	Spectrum Analyzer
Maximum Conducted Output Power	-	-	-	Auto	Average	-	Power Meter (Sensor: 80 MHz BW) (Method PM)
Maximum Power Spectral Density	Encompass the entire EBW	1 MHz or 100 kHz *1)	≥ 3 RBW	Auto	RMS Power Averaging (100 times)	Clear Write	Spectrum Analyzer
Conducted Spurious Emission*2)	9 kHz – 150 kHz	200 Hz	620 Hz	Auto	Peak	Max Hold	Spectrum Analyzer
	150 kHz – 30 MHz	10 kHz	30 kHz				

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

*1) KDB 789033 D02 says that RBW is set to be 500 kHz for 5.725 GHz-5.850 GHz, but it is not possible with spectrum analyzer, so RBW Correction Factor (10 log(500 kHz / 100 kHz)) was added to the test result.
*2) In the frequency range below 30 MHz, RBW was narrowed to separate the noise contents.
Then, wide-band noise near the limit was checked separately, however the noise was not detected as shown in the chart. (9 kHz-150 kHz: RBW = 200 Hz, 150 kHz-30 MHz: RBW = 10 kHz)

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

Test data : APPENDIX
Test result : Pass

APPENDIX 1: Test data

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11a

Antenna	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Sub Antenna	5180	-	16.779	-
	5220	-	16.841	-
	5240	-	16.744	-
	5260	19.548	16.820	-
	5300	20.091	16.781	-
	5320	20.135	16.779	-
	5500	20.141	16.744	-
	5580	20.742	16.821	-
	5700	20.099	16.809	-
	5745	-	16.848	-
	5785	-	16.898	-
	5825	-	16.977	-

11n-20 (SISO)

Antenna	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Sub Antenna	5180	-	18.116	-
	5220	-	18.096	-
	5240	-	18.094	-
	5260	21.443	18.096	-
	5300	22.242	18.040	-
	5320	21.989	18.059	-
	5500	22.411	18.113	-
	5580	22.973	18.063	-
	5700	22.374	18.064	-
	5745	-	18.305	-
	5785	-	18.331	-
	5825	-	18.478	-

* The test was carried out by worst antenna port.

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (SISO)

Antenna	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Main Antenna	5190	-	36.655	-
	-	-	-	-
	5230	-	36.923	-
	5270	44.720	36.811	-
	-	-	-	-
	5310	44.104	36.650	-
	5510	44.097	36.571	-
	5550	47.252	36.752	-
	5670	49.838	36.682	-
	5755	-	36.733	-
	-	-	-	-
	5795	-	36.545	-

11n-20 (MIMO)

Antenna	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Main Antenna	5180	-	17.997	-
	5220	-	17.977	-
	5240	-	17.985	-
	5260	21.156	17.992	-
	5300	21.939	18.007	-
	5320	20.827	17.996	-
	5500	21.388	18.064	-
	5580	21.587	18.004	-
	5700	20.139	17.960	-
	5745	-	18.050	-
	5785	-	18.081	-
	5825	-	18.328	-

* The test was carried out by worst antenna port.

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (MIMO)

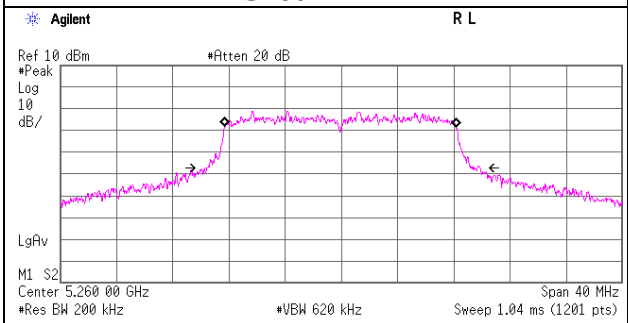
Antenna	Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
Main Antenna	5190	-	36.575	-
	-	-	-	-
	5230	-	36.090	-
	5270	47.186	36.736	-
	-	-	-	-
	5310	44.153	36.620	-
	5510	39.906	35.872	-
	5550	43.580	35.928	-
	5670	42.482	35.842	-
	5755	-	36.881	-
	-	-	-	-
	5795	-	36.747	-

* The test was carried out by worst antenna port.

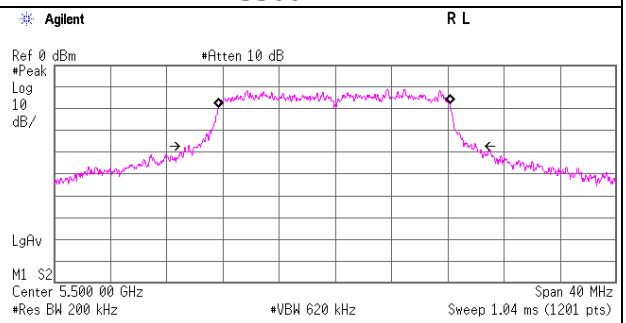
26 dB Emission Bandwidth

11a, Sub Antenna

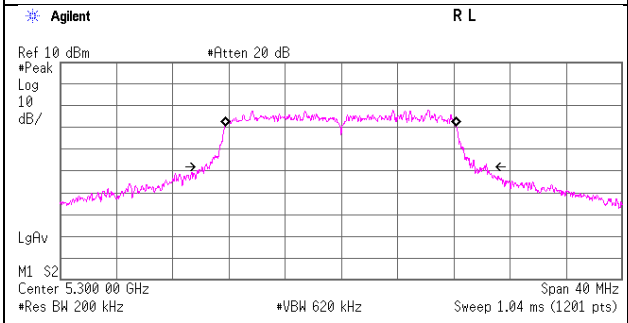
5260 MHz



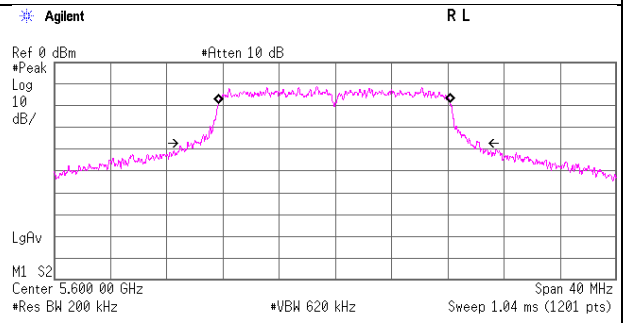
5500 MHz



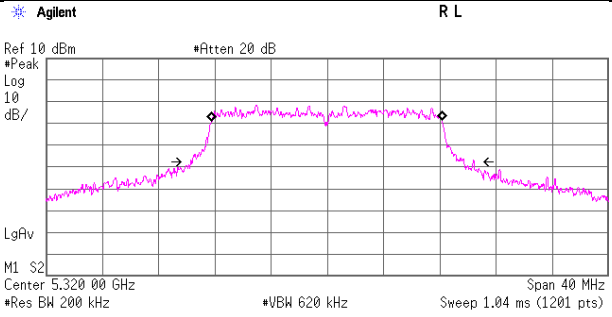
5300 MHz



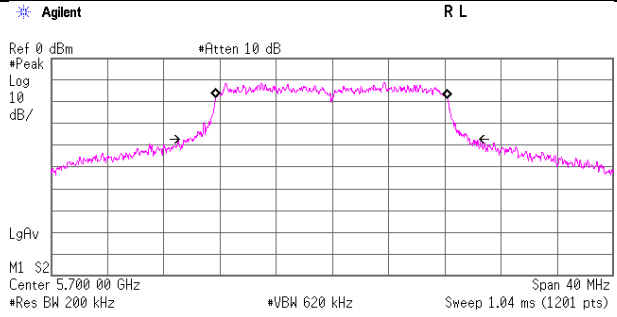
5580 MHz



5320 MHz



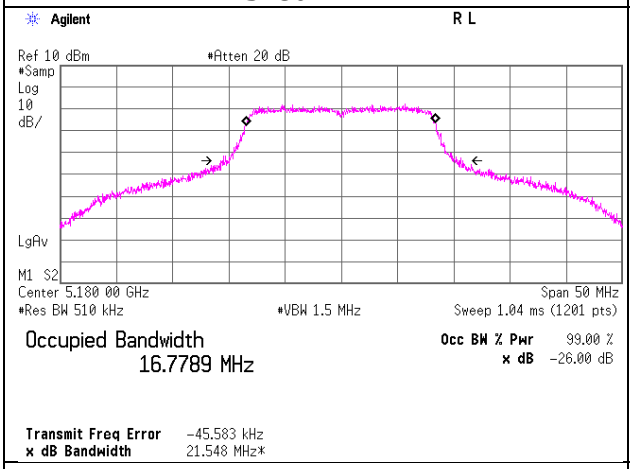
5700 MHz



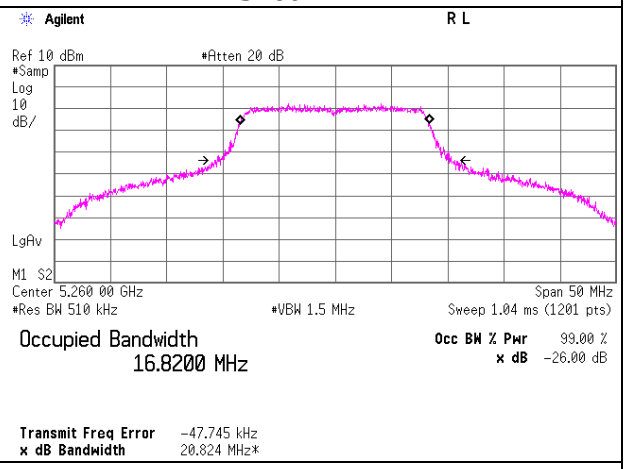
99 % Occupied Bandwidth

11a, Sub Antenna

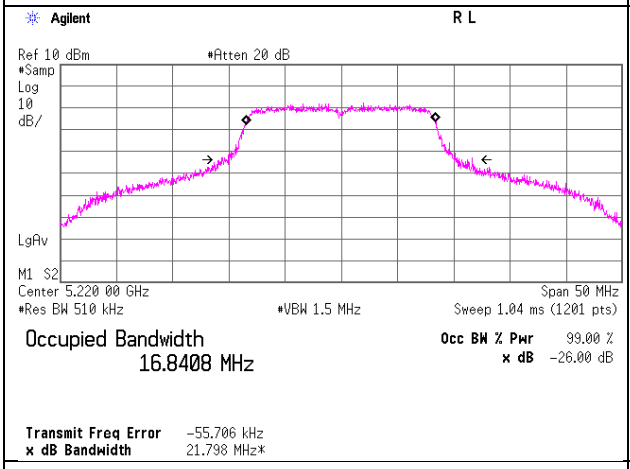
5180 MHz



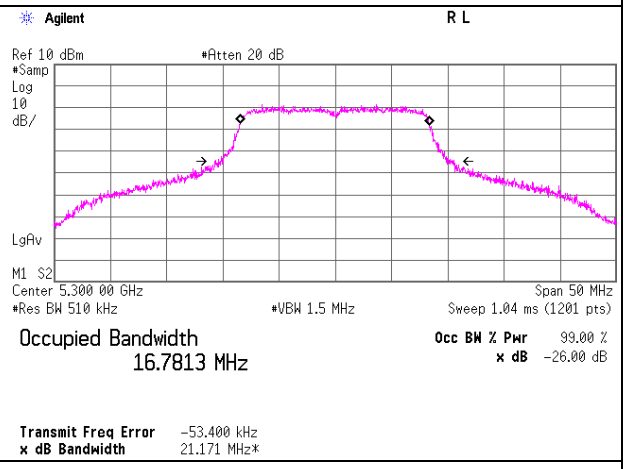
5260 MHz



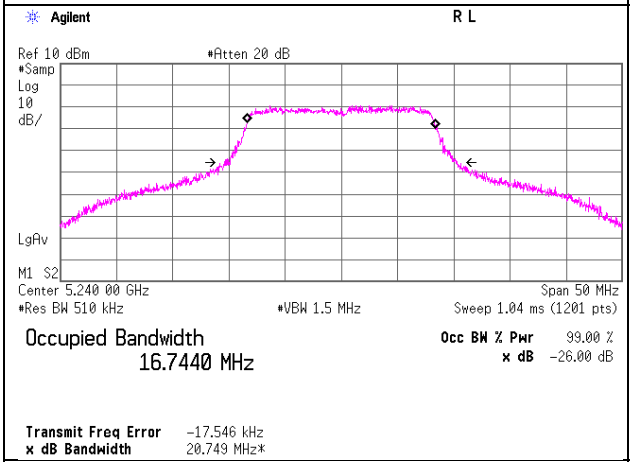
5220 MHz



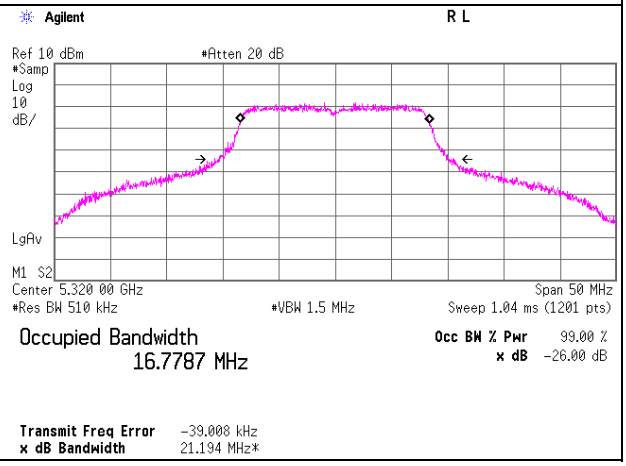
5300 MHz



5240 MHz



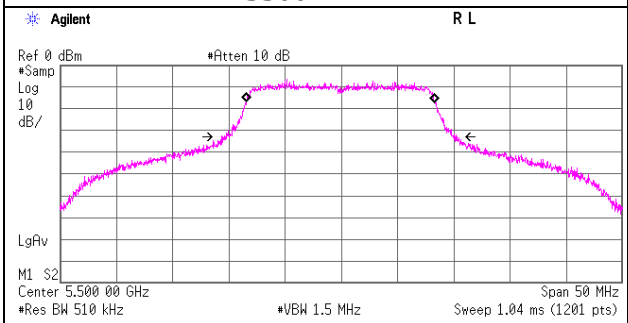
5320 MHz



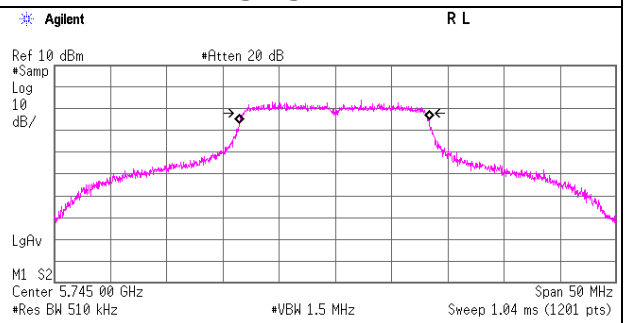
99 % Occupied Bandwidth

11a, Sub Antenna

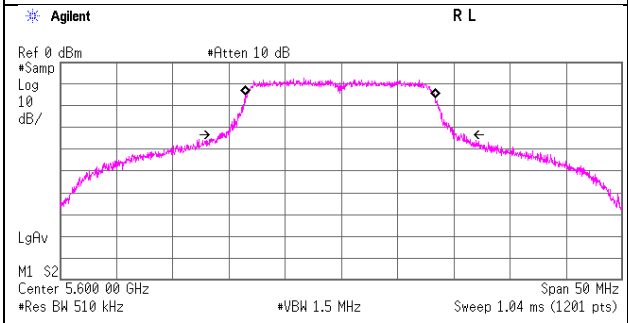
5500 MHz



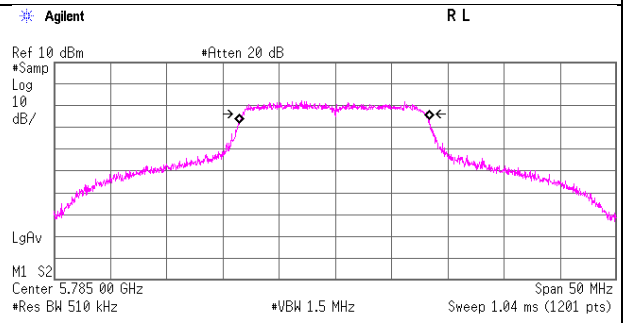
5745 MHz



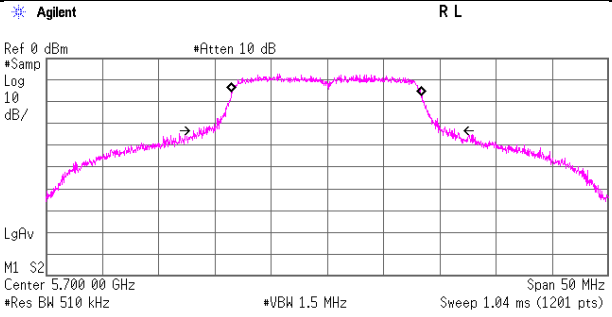
5580 MHz



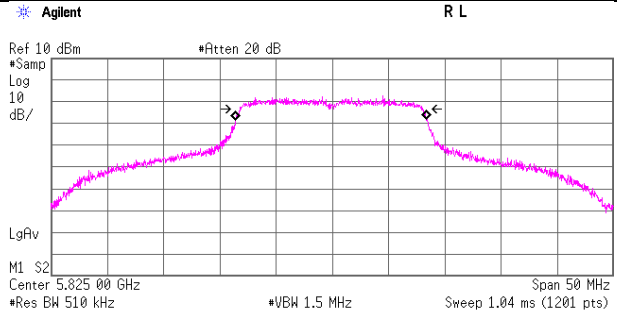
5785 MHz



5700 MHz



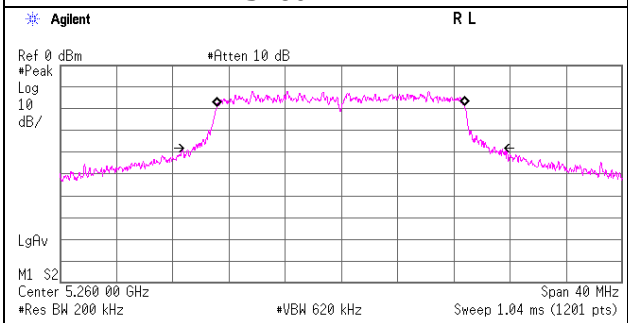
5825 MHz



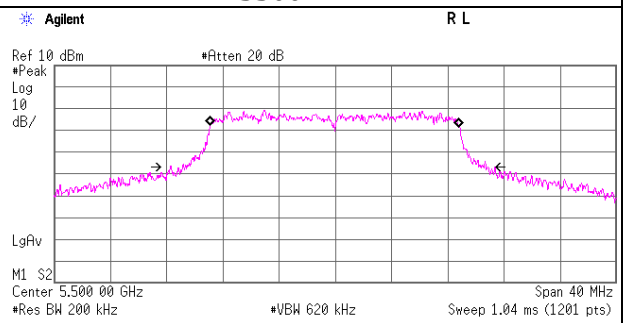
26 dB Emission Bandwidth

11n-20 (SISO), Sub Antenna

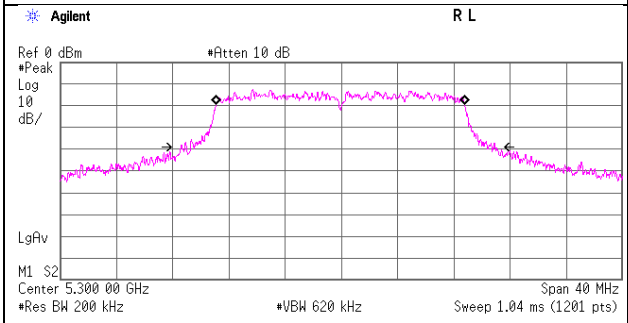
5260 MHz



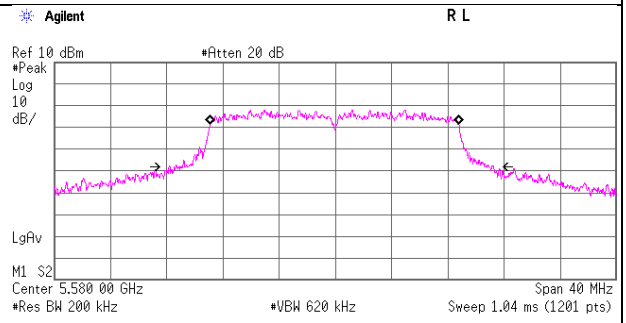
5500 MHz



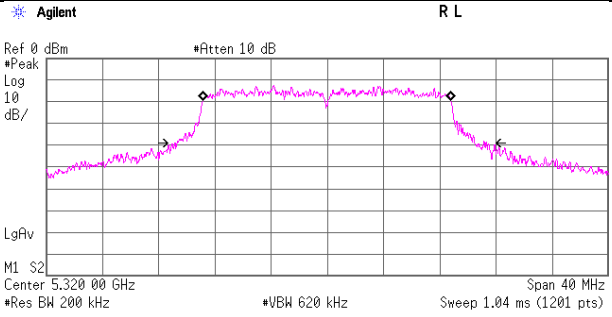
5300 MHz



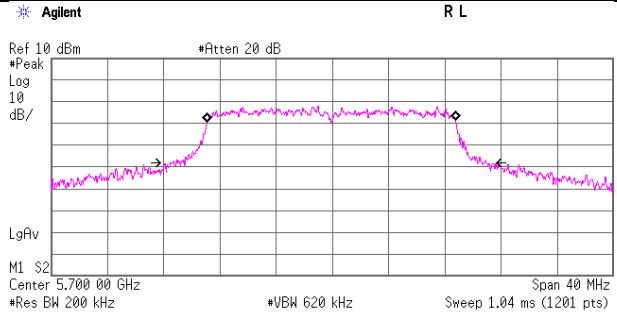
5580 MHz



5320 MHz



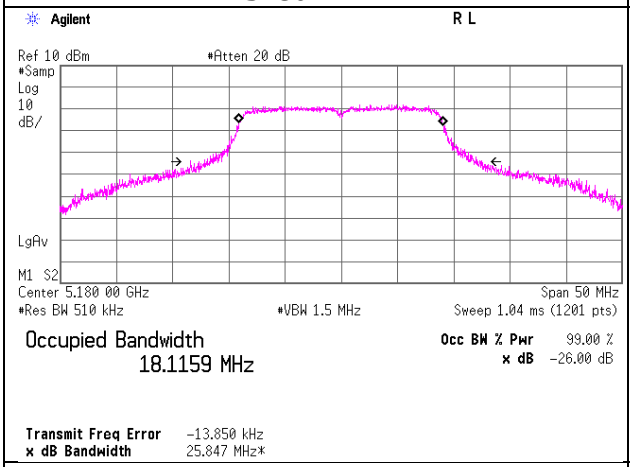
5700 MHz



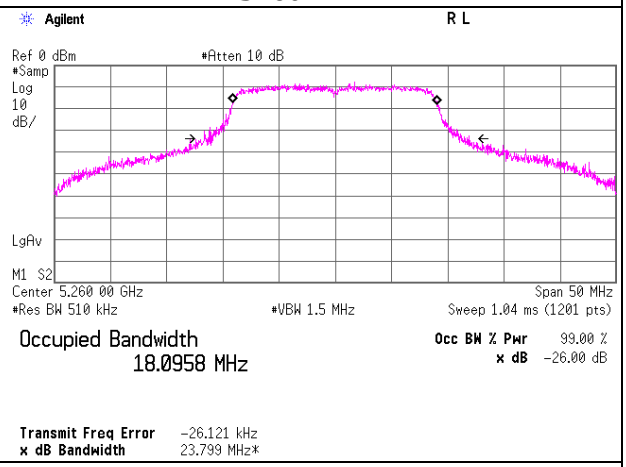
99 % Occupied Bandwidth

11n-20 (SISO), Sub Antenna

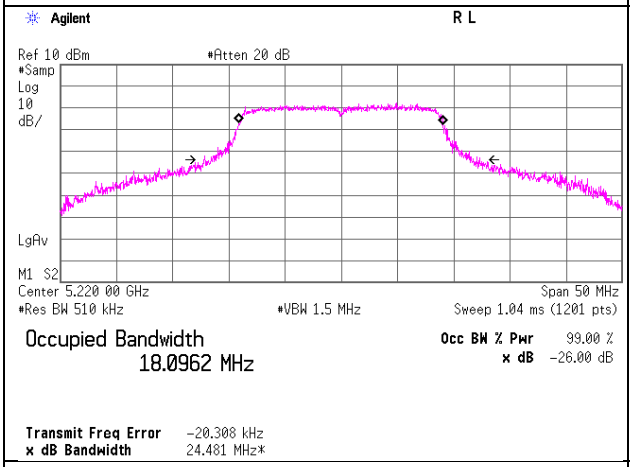
5180 MHz



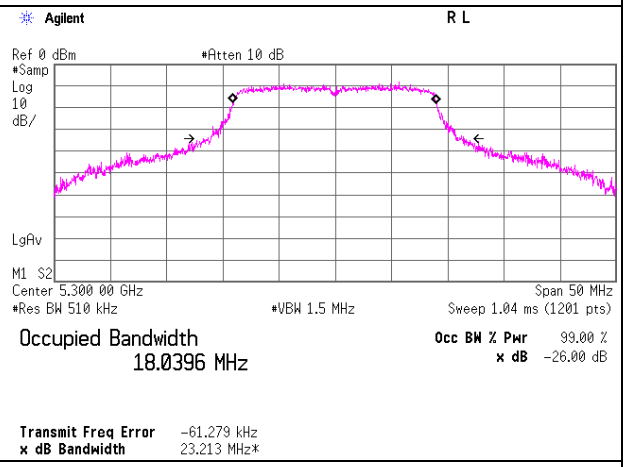
5260 MHz



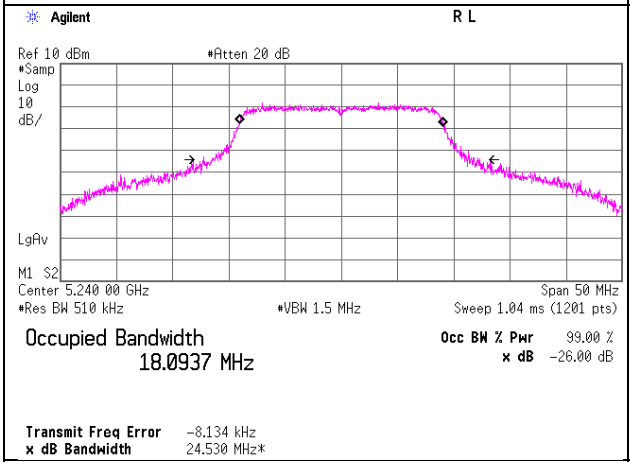
5220 MHz



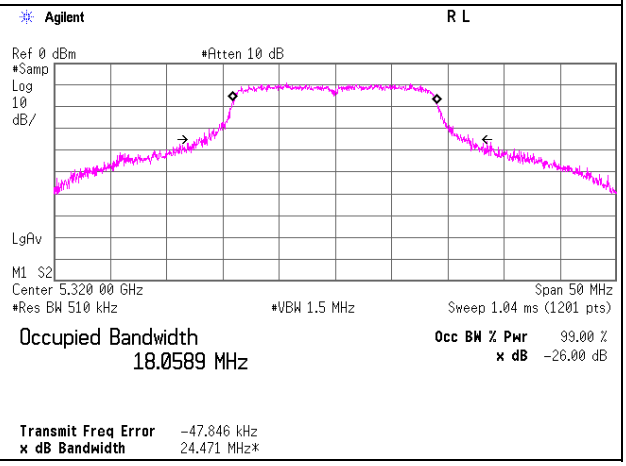
5300 MHz



5240 MHz



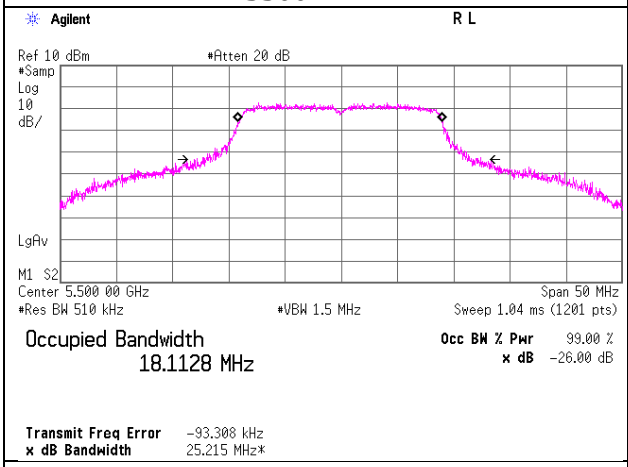
5320 MHz



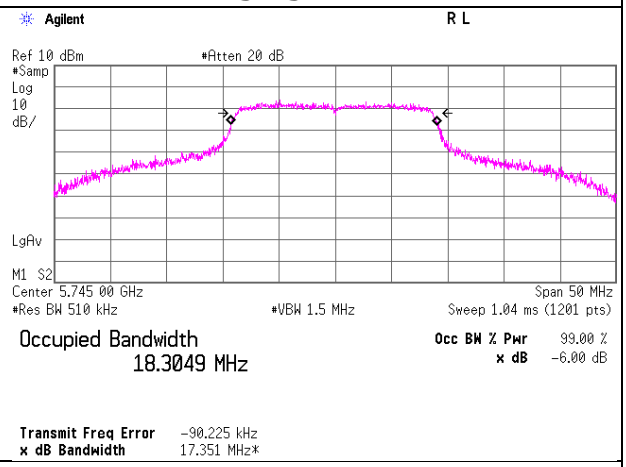
99 % Occupied Bandwidth

11n-20 (SISO), Sub Antenna

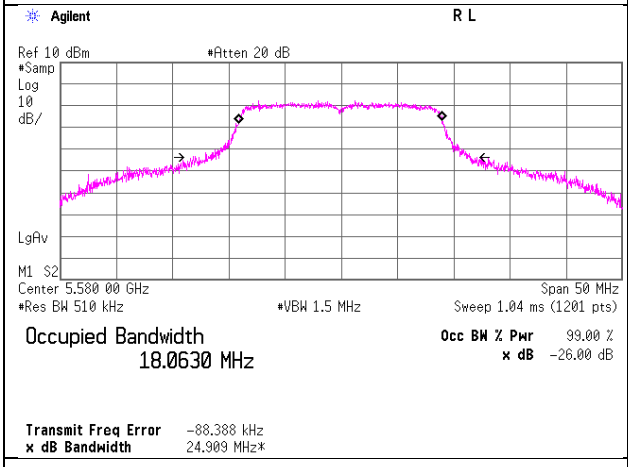
5500 MHz



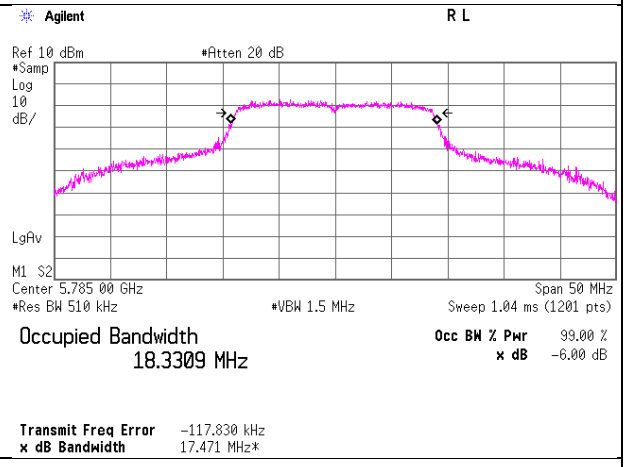
5745 MHz



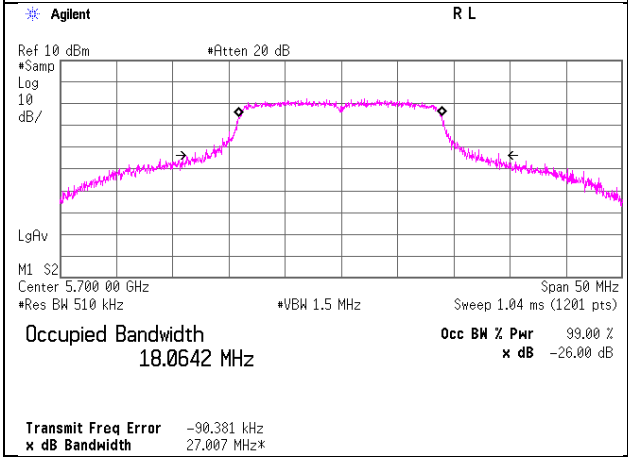
5580 MHz



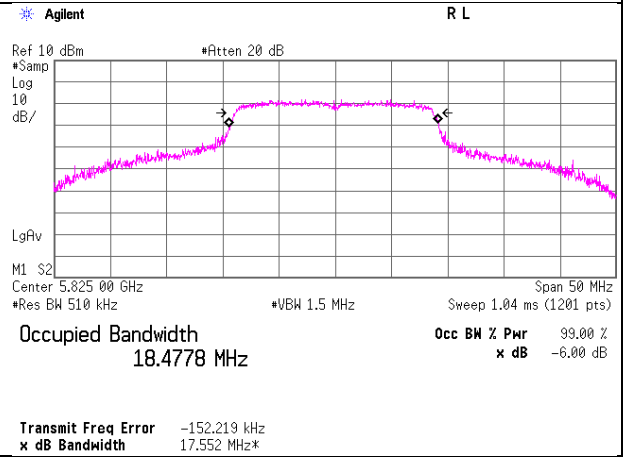
5785 MHz



5700 MHz



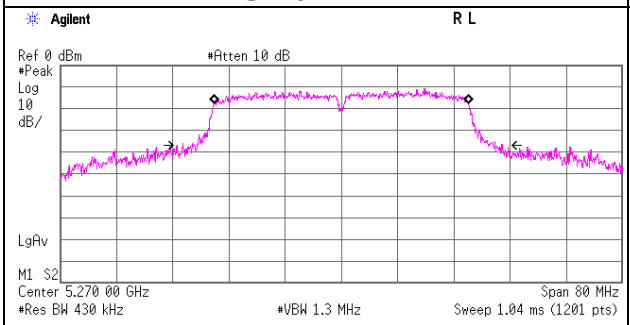
5825 MHz



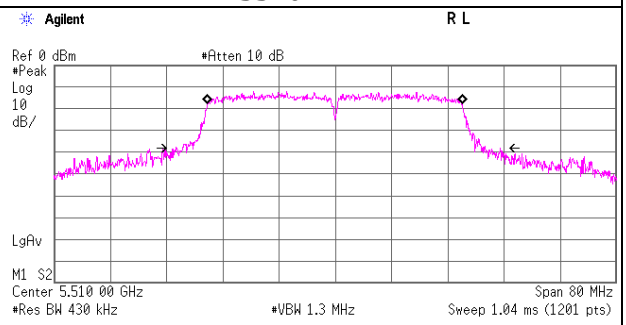
26 dB Emission Bandwidth

11n-40 (SISO), Main Antenna

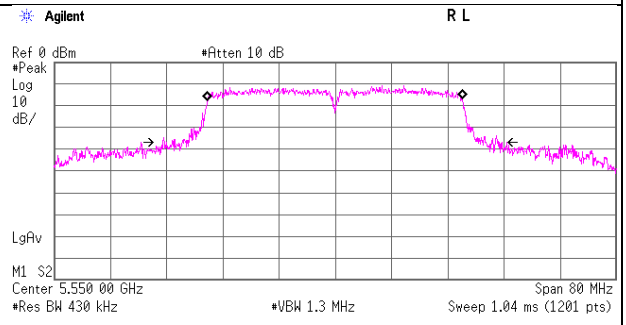
5270 MHz



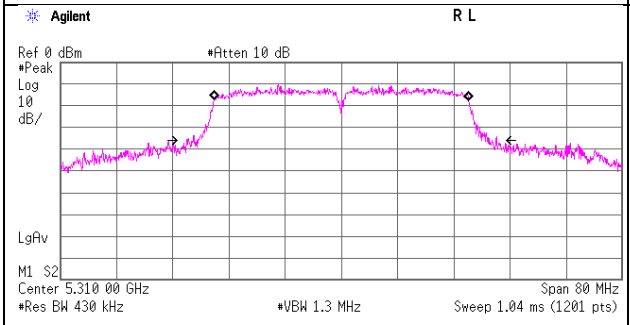
5510 MHz



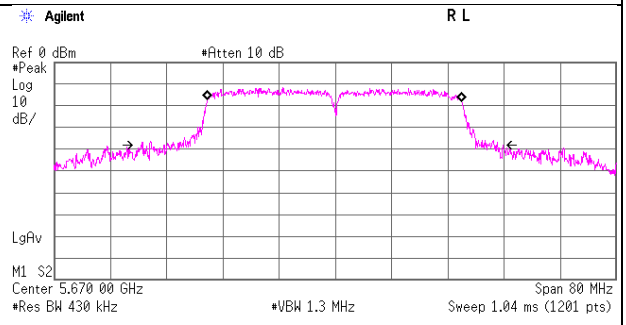
5550 MHz



5310 MHz



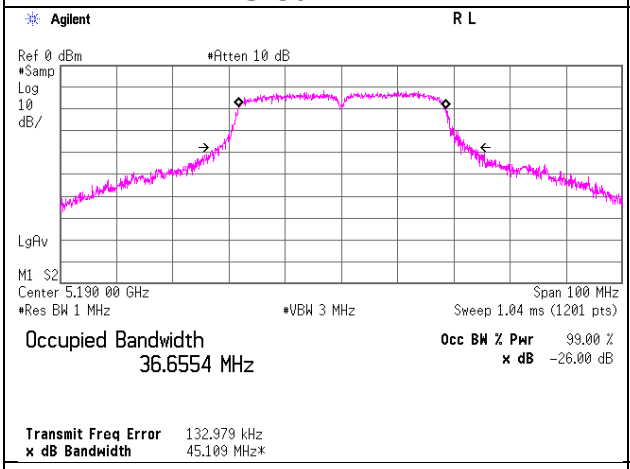
5670 MHz



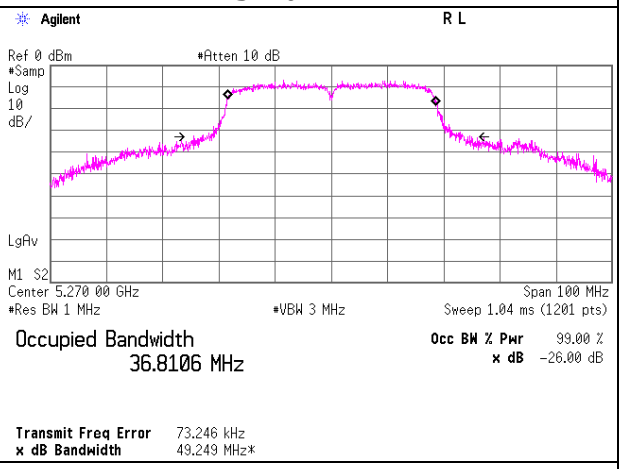
99 % Occupied Bandwidth

11n-40 (SISO), Main Antenna

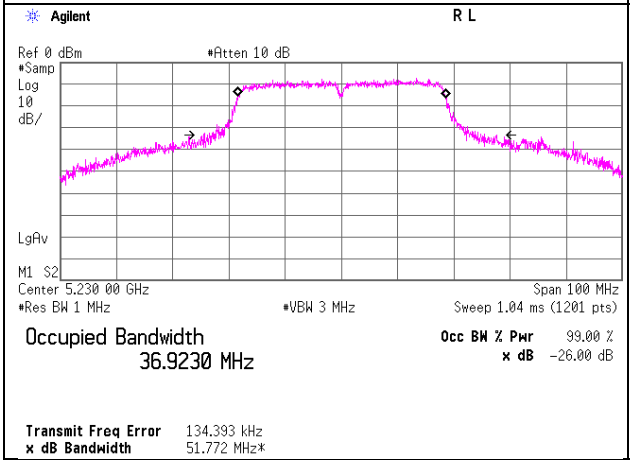
5190 MHz



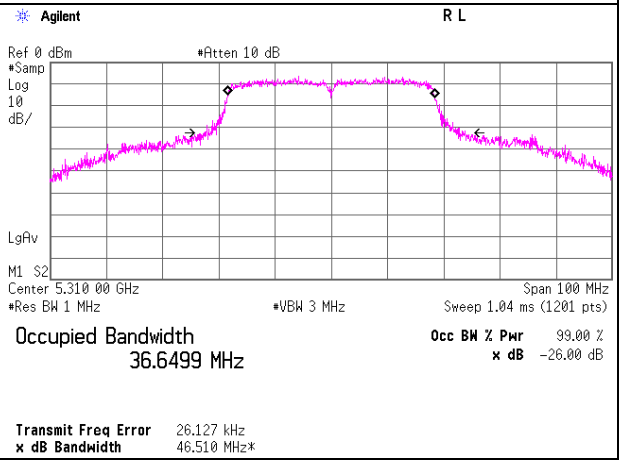
5270 MHz



5230 MHz



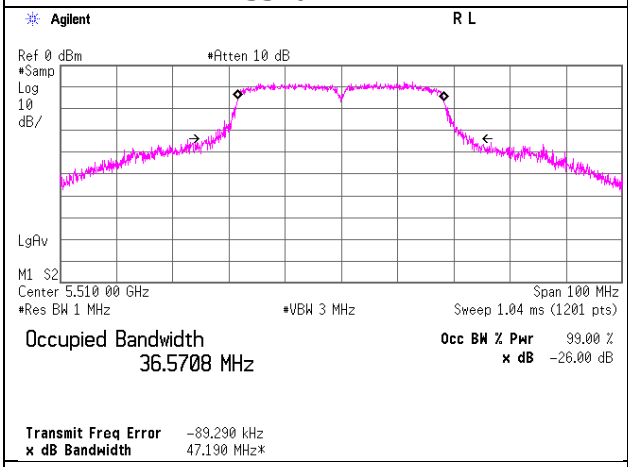
5310 MHz



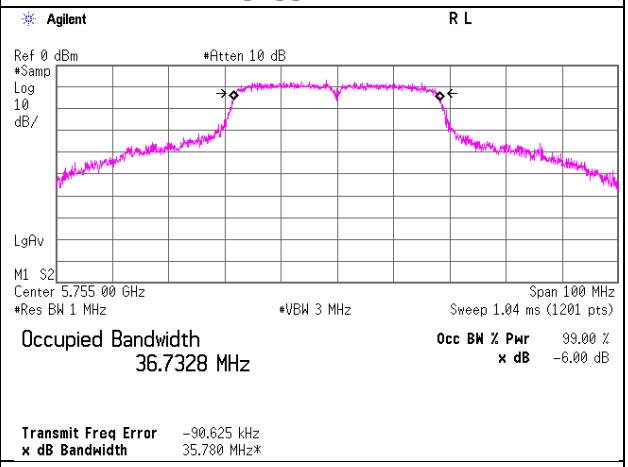
99 % Occupied Bandwidth

11n-40 (SISO), Main Antenna

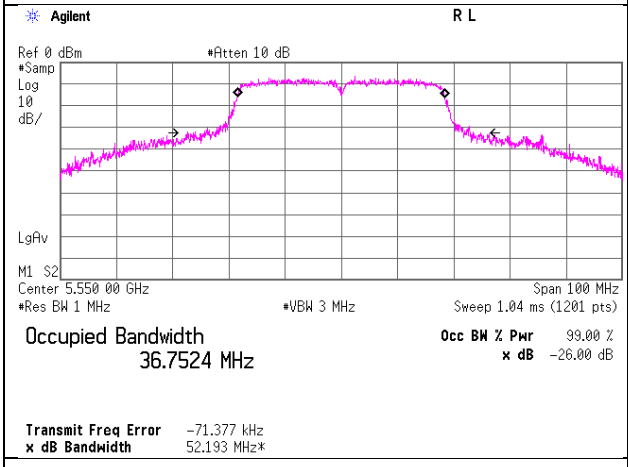
5510 MHz



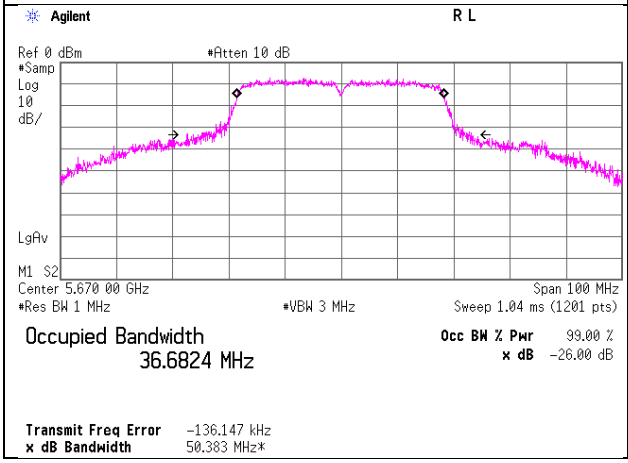
5755 MHz



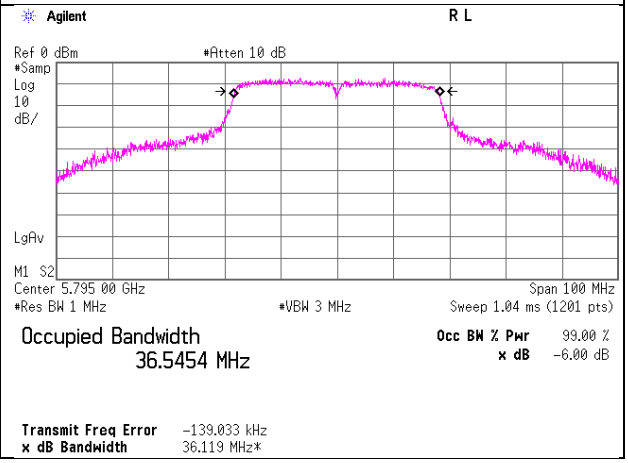
5550 MHz



5670 MHz



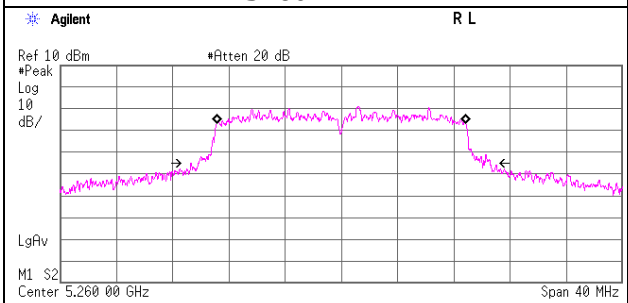
5795 MHz



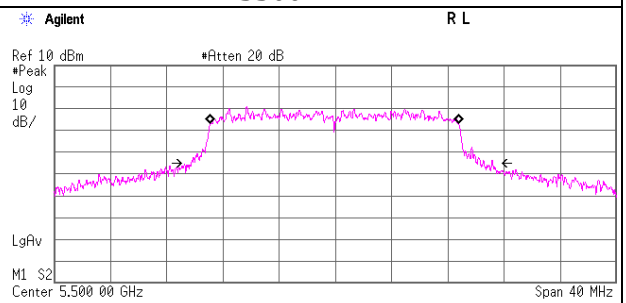
26 dB Emission Bandwidth

11n-20 (MIMO), Main Antenna

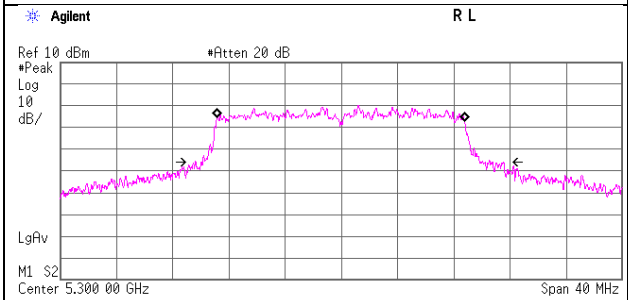
5260 MHz



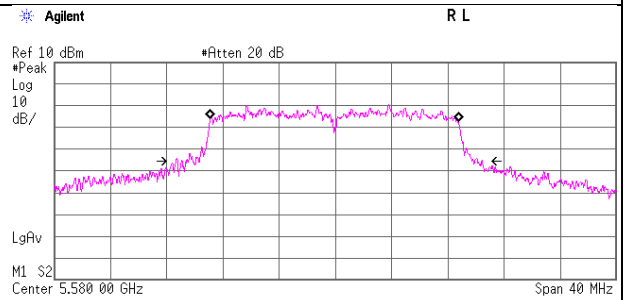
5500 MHz



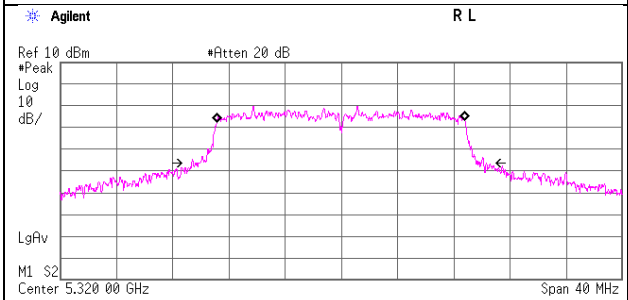
5300 MHz



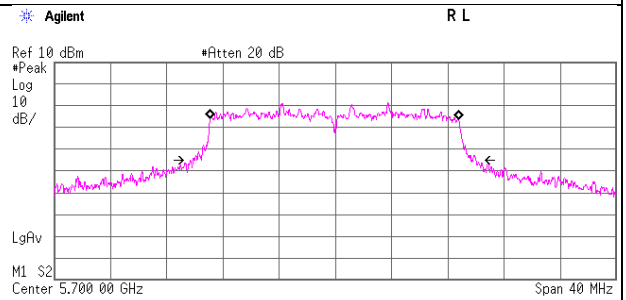
5580 MHz



5320 MHz



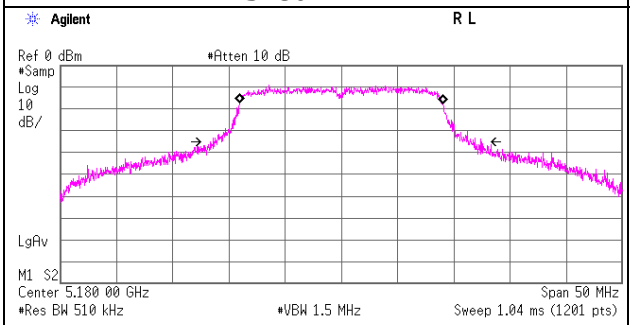
5700 MHz



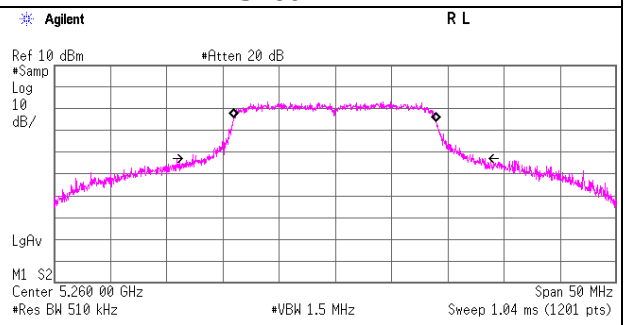
99 % Occupied Bandwidth

11n-20 (MIMO), Main Antenna

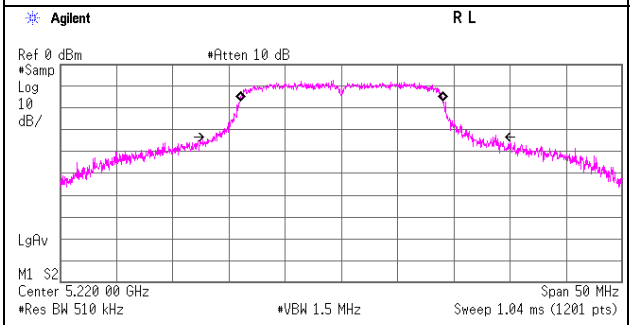
5180 MHz



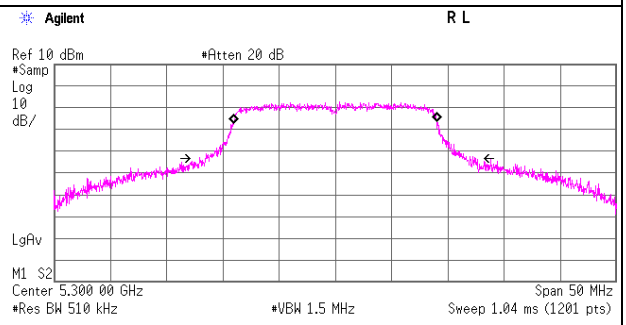
5260 MHz



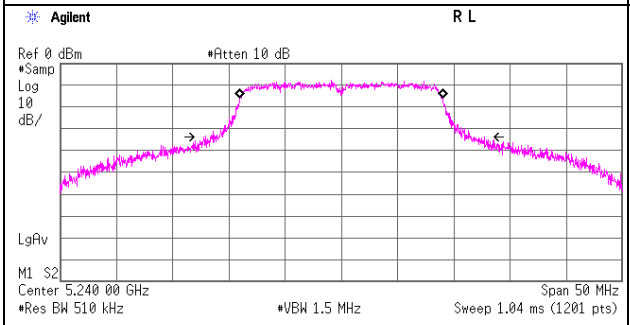
5220 MHz



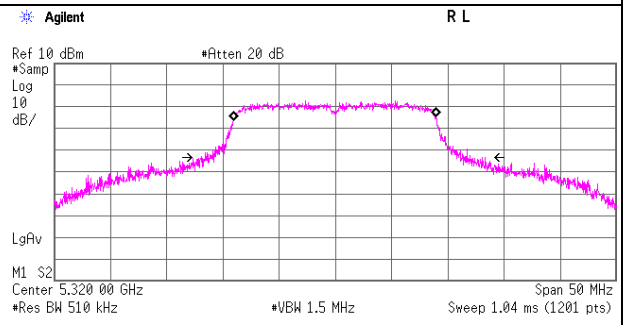
5300 MHz



5240 MHz



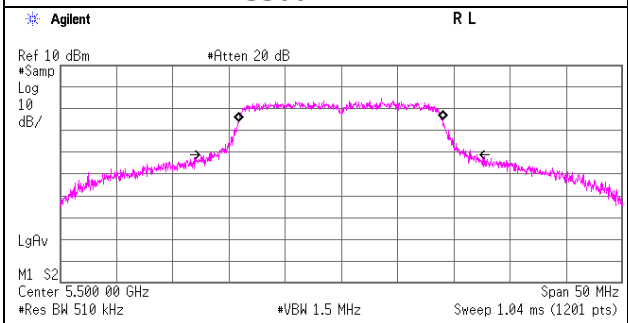
5320 MHz



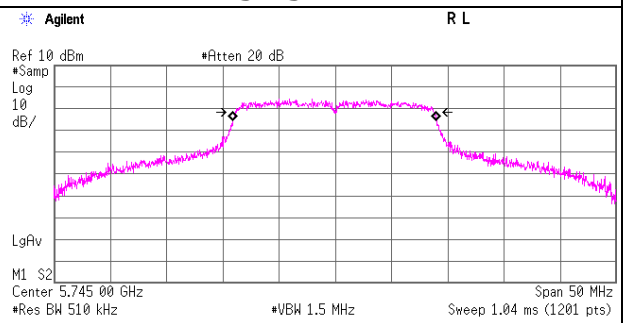
99 % Occupied Bandwidth

11n-20 (MIMO), Main Antenna

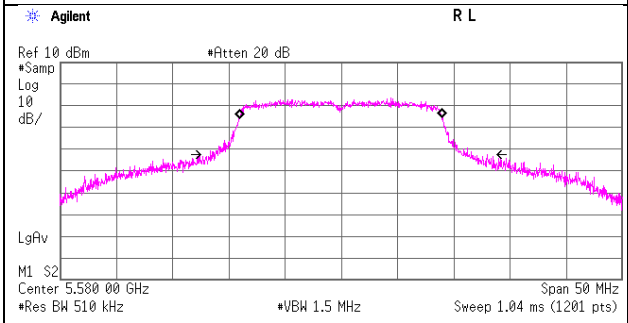
5500 MHz



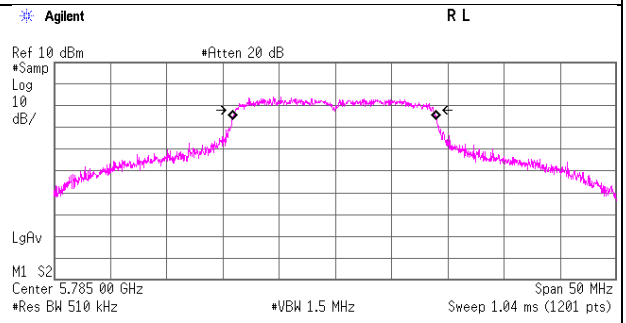
5745 MHz



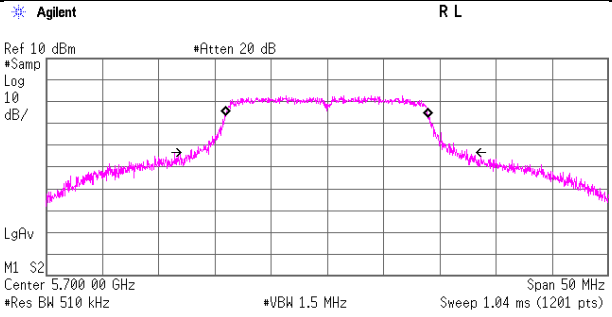
5580 MHz



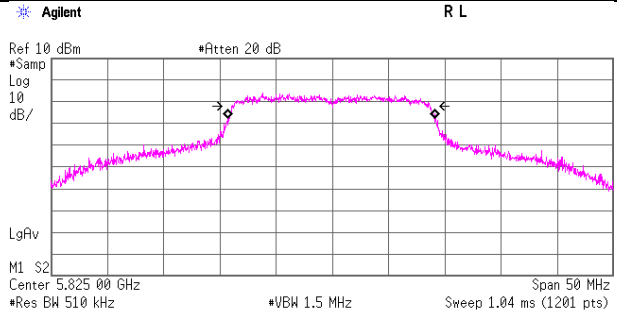
5785 MHz



5700 MHz



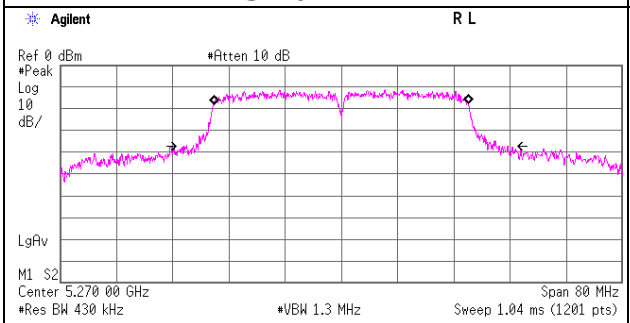
5825 MHz



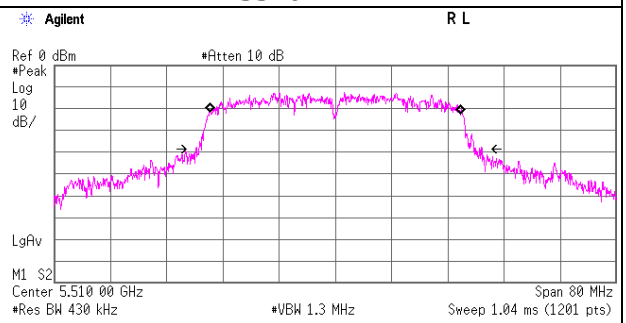
26 dB Emission Bandwidth

11n-40 (MIMO), Main Antenna

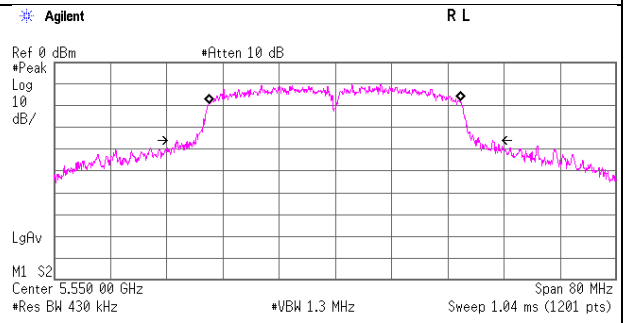
5270 MHz



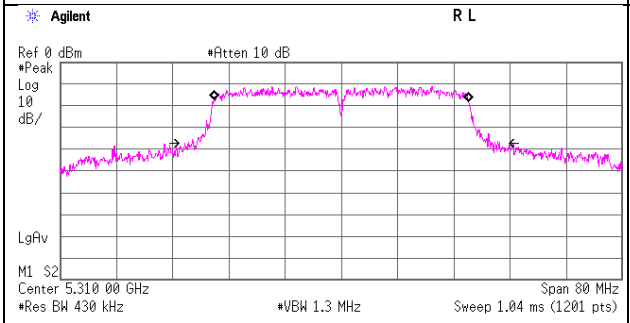
5510 MHz



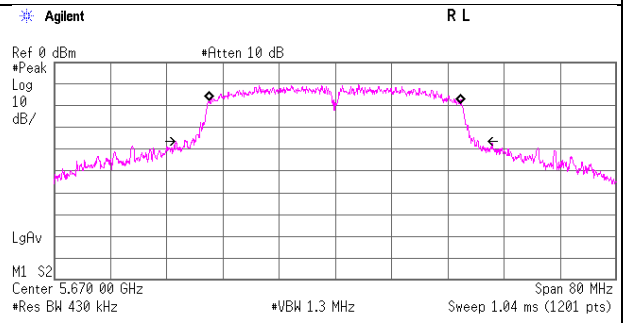
5550 MHz



5310 MHz



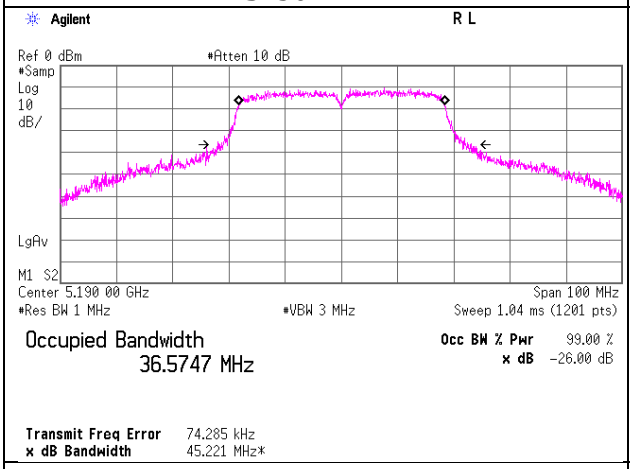
5670 MHz



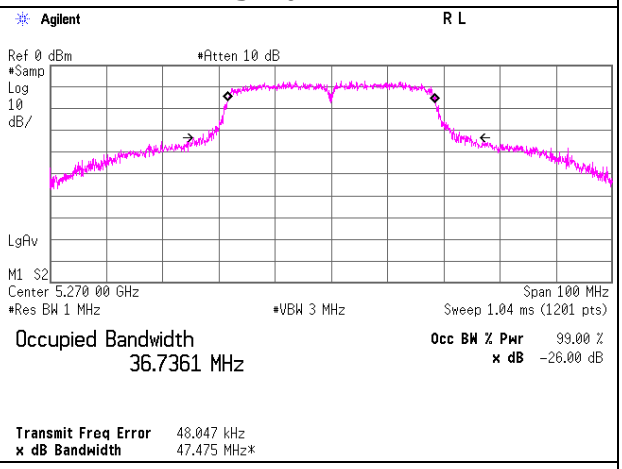
99 % Occupied Bandwidth

11n-40 (MIMO), Main Antenna

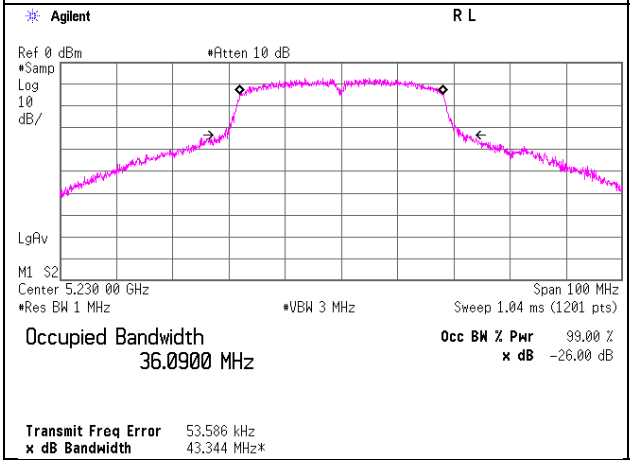
5190 MHz



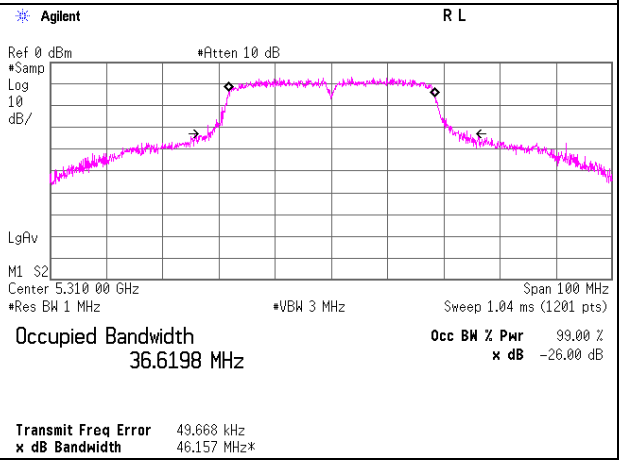
5270 MHz



5230 MHz



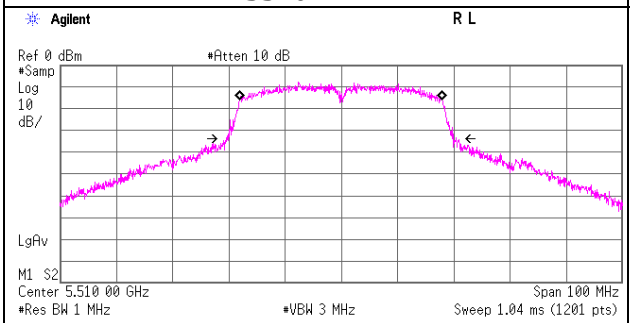
5310 MHz



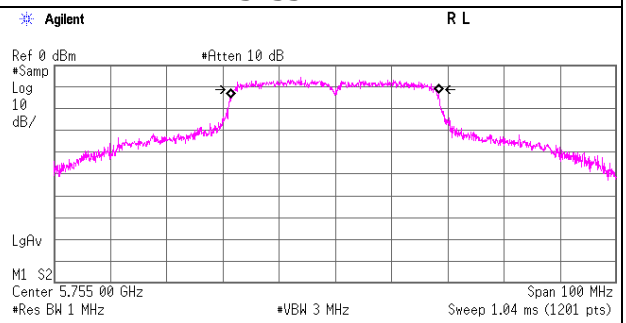
99 % Occupied Bandwidth

11n-40 (MIMO), Main Antenna

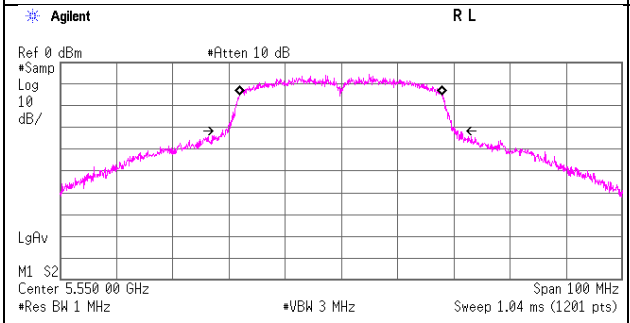
5510 MHz



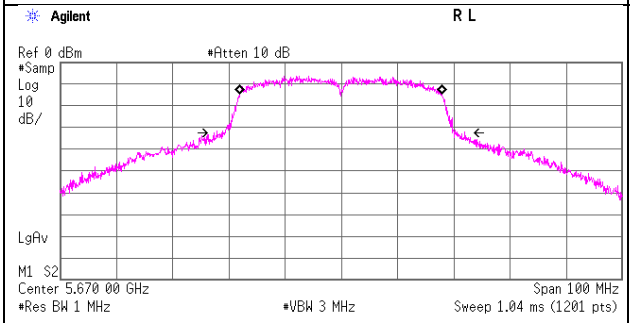
5755 MHz



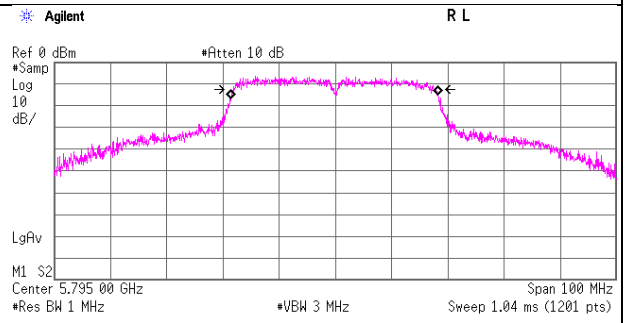
5550 MHz



5670 MHz



5795 MHz



20 dB Bandwidth

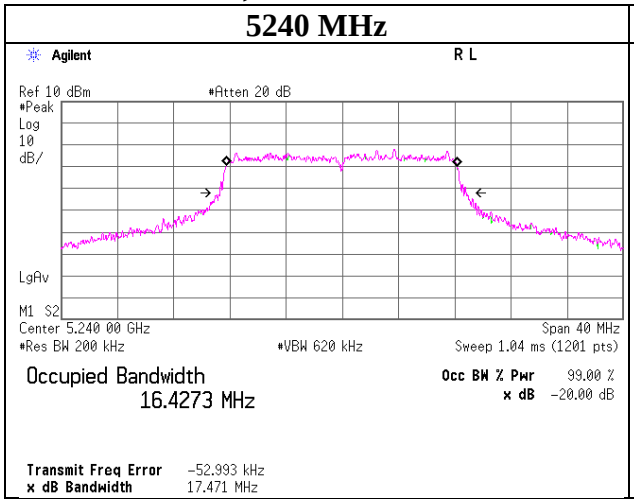
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

Mode	Antenna	Tested Frequency [MHz]	20 dB Emission Bandwidth [MHz]
11a	Sub Antenna	5240	17.471
11n-20 (SISO)	Sub Antenna	5240	18.999
11n-40 (SISO)	Main Antenna	5230	39.907
11n-20 (MIMO)	Main Antenna	5240	18.833
11n-40 (MIMO)	Main Antenna	5230	38.018

20dB Bandwdth

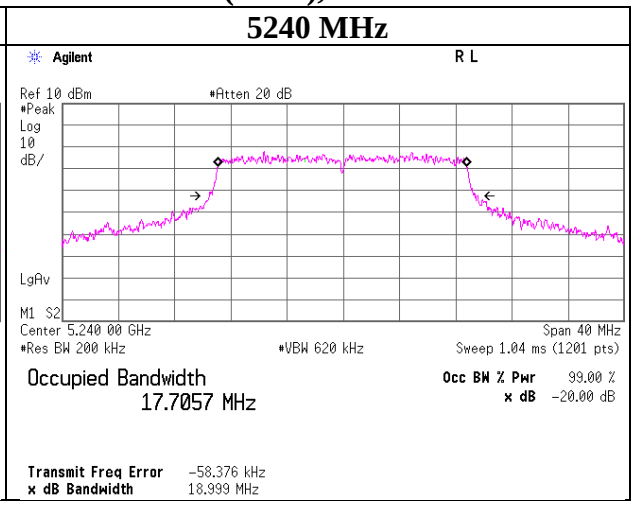
11a, Sub Antenna

5240 MHz



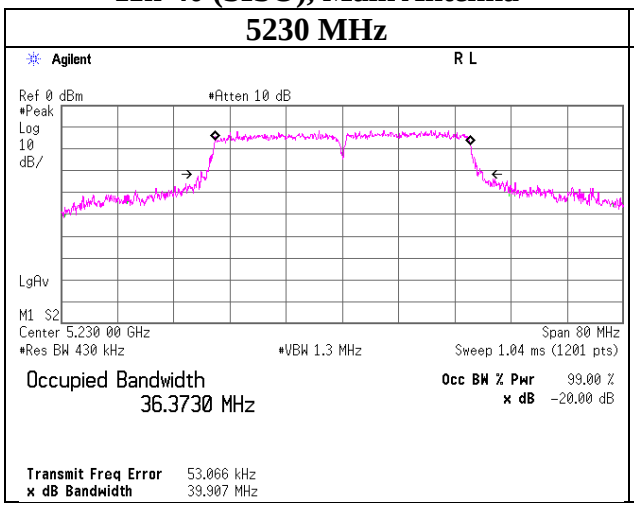
11n-20 (SISO), Sub Antenna

5240 MHz



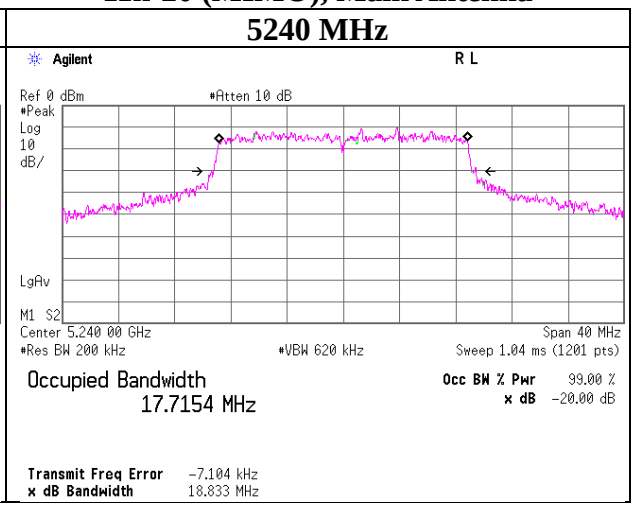
11n-40 (SISO), Main Antenna

5230 MHz



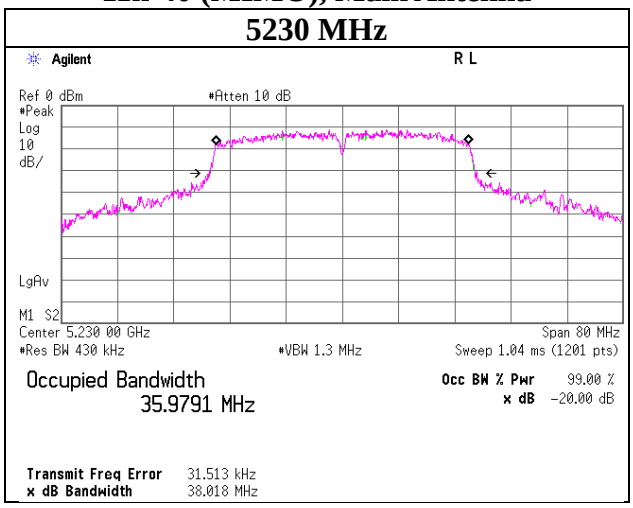
11n-20 (MIMO), Main Antenna

5240 MHz



11n-40 (MIMO), Main Antenna

5230 MHz



6 dB Bandwidth

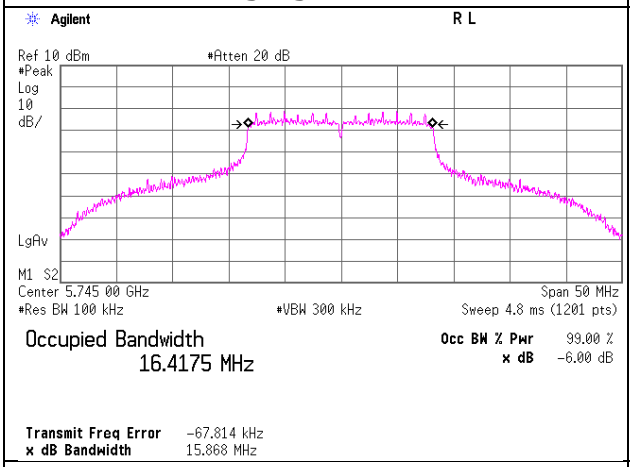
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

Mode	Antenna	Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
11a	Sub Antenna	5745	15.868	> 500
		5785	16.007	> 500
		5825	16.289	> 500
11n-20 (SISO)	Sub Antenna	5745	17.230	> 500
		5785	17.271	> 500
		5825	17.245	> 500
11n-40 (SISO)	Main Antenna	5755	35.813	> 500
		5795	35.447	> 500
11n-20 (MIMO)	Main Antenna	5745	17.670	> 500
		5785	17.624	> 500
		5825	16.954	> 500
11n-40 (MIMO)	Main Antenna	5755	35.846	> 500
		5795	35.691	> 500

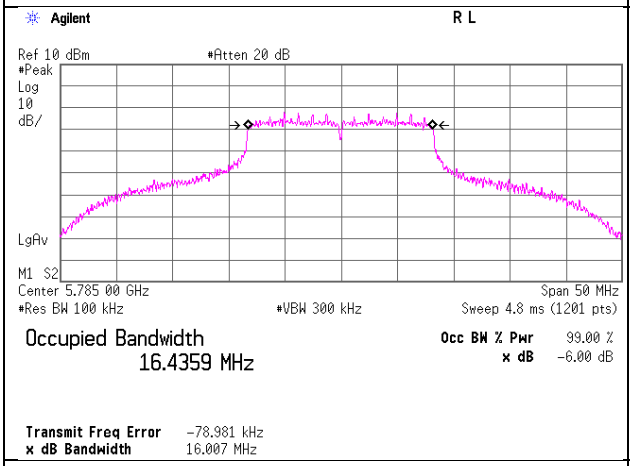
6 dB Bandwidth

11a, Sub Antenna

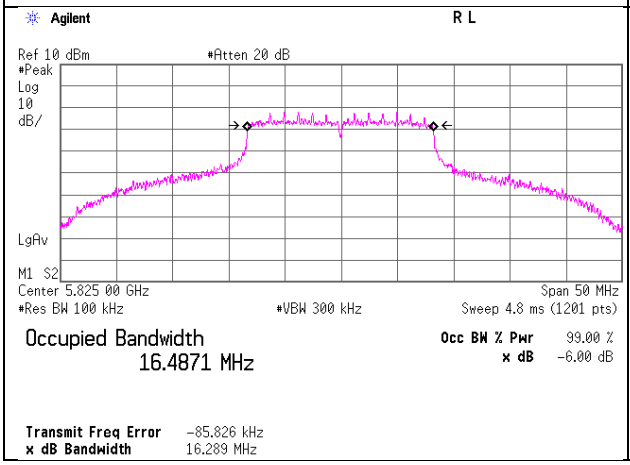
5745 MHz



5785 MHz

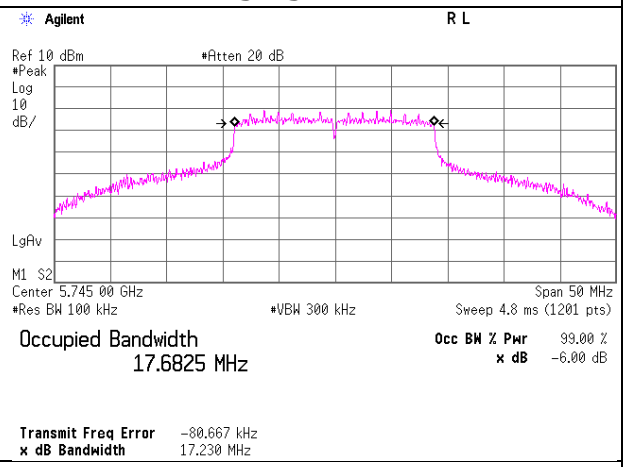


5825 MHz

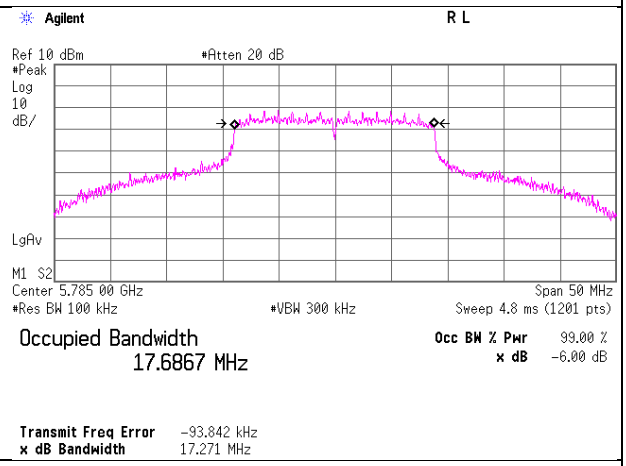


11n-20, Sub Antenna

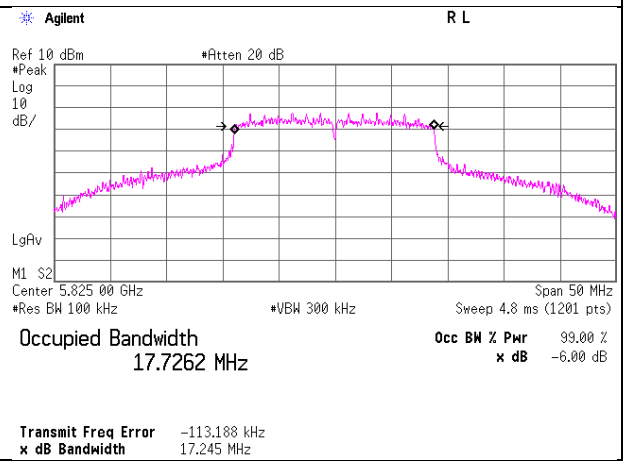
5745 MHz



5785 MHz



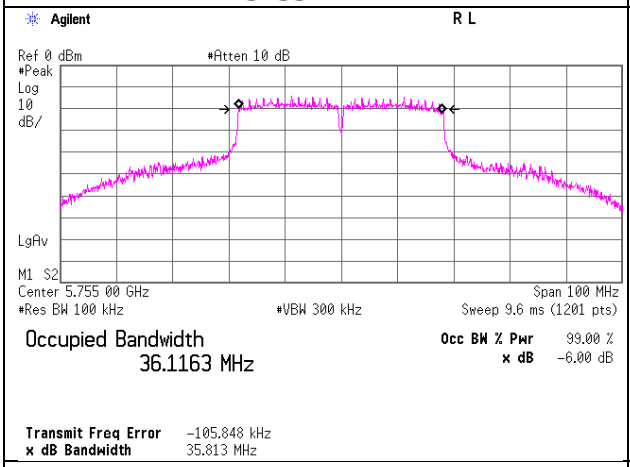
5825 MHz



6 dB Bandwidth

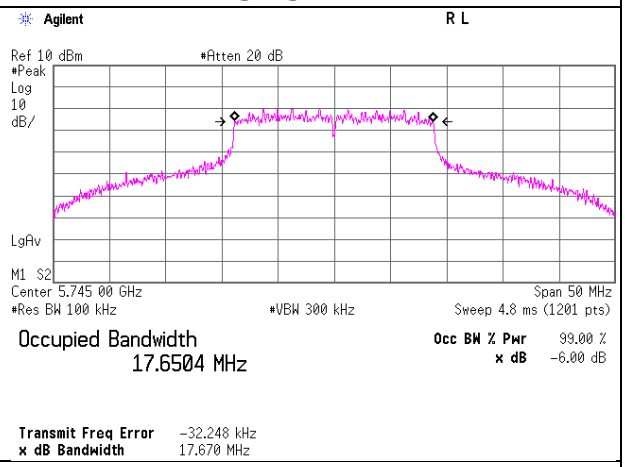
11n-40 (SISO), Main Antenna

5755 MHz

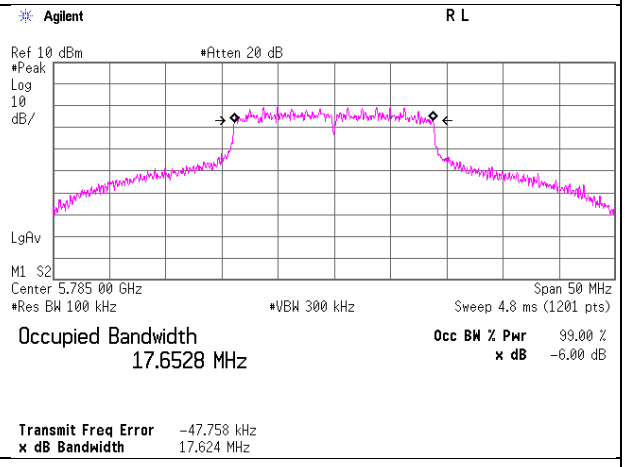


11n-20 (MIMO), Sub Antenna

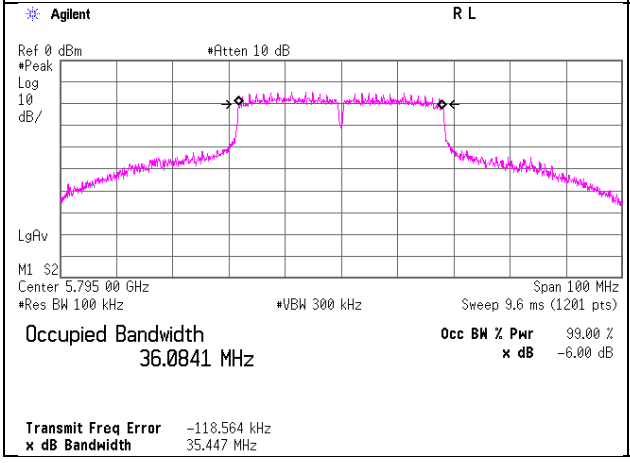
5745 MHz



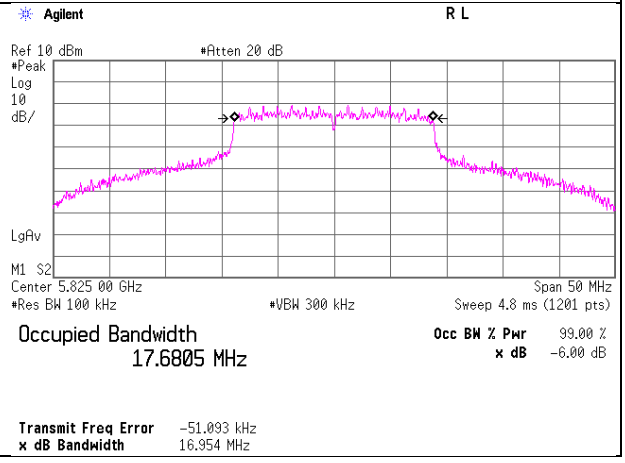
5785 MHz



5795 MHz



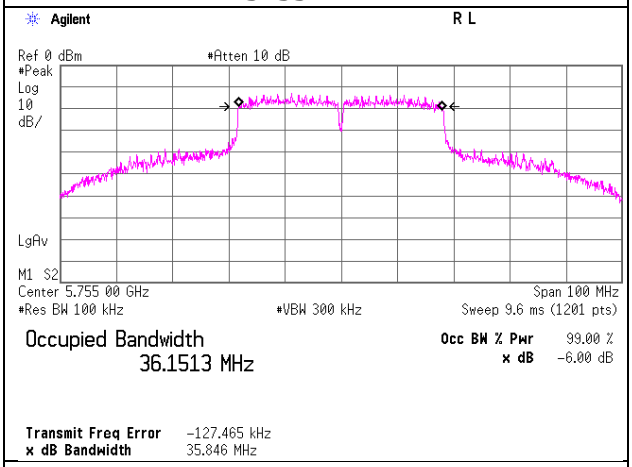
5825 MHz



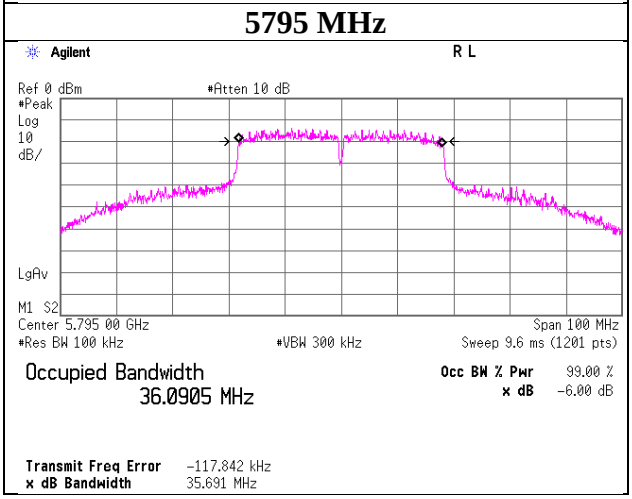
6 dB Bandwidth

11n-40 (MIMO), Main Antenna

5755 MHz



5795 MHz



Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11253018S-B-R1	
Date	July 7, 2016	July 11, 2016
Temperature / Humidity	25 deg. C / 54 % RH	23 deg. C / 45 % RH
Engineer	Hiroyuki Morikawa	Yosuke Ishikawa
Mode	Tx	

11a, Sub Antenna

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power Result		Limit	Margin	e.i.r.p. Result		Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-1.61	3.97	9.99	0.18	-1.61	-	16.779	12.53	17.91	23.97	11.44	10.92	12.36	29.97	19.05
5220	-1.78	3.98	9.99	0.18	-1.70	-	16.841	12.37	17.26	23.97	11.60	10.67	11.67	29.97	19.30
5240	-2.91	3.98	9.99	0.18	-1.75	-	16.744	11.24	13.30	23.97	12.73	9.49	8.90	29.97	20.48
5260	-2.31	3.98	10.00	0.18	-1.79	19.548	16.820	11.85	15.31	23.91	12.06	10.06	10.13	29.97	19.91
5300	-2.48	3.99	10.00	0.18	-1.89	20.081	16.781	11.69	14.76	23.97	12.28	9.81	9.56	29.97	20.17
5320	-2.55	3.99	10.00	0.18	-1.93	20.135	16.779	11.62	14.52	23.97	12.35	9.69	9.31	29.97	20.28
5500	-1.86	4.02	10.01	0.18	-2.34	20.141	17.744	12.35	17.18	23.97	11.62	10.01	10.03	29.97	19.96
5580	-2.02	4.06	10.00	0.18	-2.50	20.742	16.821	12.22	16.67	23.97	11.75	9.72	9.38	29.97	20.25
5700	-2.35	4.11	9.99	0.18	-2.73	20.099	16.809	11.93	15.60	23.97	12.04	9.20	8.32	29.97	20.77
5745	-1.70	4.13	9.99	0.18	-2.71	-	-	12.60	18.20	30.00	17.40	9.89	9.75	36.00	26.11
5785	-2.06	4.15	9.99	0.18	-2.57	-	-	12.26	16.83	30.00	17.74	9.69	9.32	36.00	26.31
5825	-1.83	4.17	9.98	0.18	-2.43	-	-	12.50	17.78	30.00	17.50	10.07	10.17	36.00	25.93

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

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

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11253018S-B-R1	
Date	July 7, 2016	July 11, 2016
Temperature / Humidity	25 deg. C / 54 % RH	23 deg. C / 45 % RH
Engineer	Hiroyuki Morikawa	Yosuke Ishikawa
Mode	Tx	

11n-20 (SISO), Sub Antenna

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power Result		Limit	Margin	e.i.r.p. Result		Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-1.80	3.97	9.99	0.25	-1.61	-	18.116	12.41	17.42	23.97	11.56	10.80	12.03	29.97	19.17
5220	-1.80	3.98	9.99	0.25	-1.70	-	18.096	12.42	17.46	23.97	11.55	10.72	11.80	29.97	19.25
5240	-2.54	3.98	9.99	0.25	-1.75	-	18.094	11.68	14.72	23.97	12.29	9.93	9.85	29.97	20.04
5260	-2.19	3.98	10.00	0.25	-1.79	21.443	18.096	12.04	16.00	23.97	11.93	10.25	10.59	29.97	19.72
5300	-2.59	3.99	10.00	0.25	-1.89	22.242	18.040	11.65	14.62	23.97	12.32	9.77	9.47	29.97	20.21
5320	-2.52	3.99	10.00	0.25	-1.93	21.989	18.059	11.72	14.86	23.97	12.25	9.79	9.53	29.97	20.18
5500	-1.89	4.02	10.01	0.25	-2.34	22.411	18.113	12.39	17.34	23.97	11.58	10.05	10.12	29.97	19.92
5580	-2.16	4.06	10.00	0.25	-2.50	22.973	18.063	12.15	16.41	23.97	11.82	9.65	9.23	29.97	20.32
5700	-2.19	4.11	9.99	0.25	-2.73	22.374	18.064	12.16	16.44	23.97	11.81	9.43	8.77	29.97	20.54
5745	-1.55	4.13	9.99	0.25	-2.71	-	-	12.82	19.14	30.00	17.18	10.11	10.26	36.00	25.89
5785	-1.84	4.15	9.99	0.25	-2.57	-	-	12.55	17.99	30.00	17.45	9.98	9.96	36.00	26.02
5825	-2.22	4.17	9.98	0.25	-2.43	-	-	12.18	16.52	30.00	17.82	9.75	9.45	36.00	26.25

Sample Calculation:

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

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

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

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 7, 2016
Temperature / Humidity	25 deg. C / 54 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx

11n-40 (SISO), Main Antenna Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power Result		Limit	Margin	e.i.r.p. Result		Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5190	-5.18	3.97	9.99	0.46	-2.26	-	36.655	9.24	8.39	23.97	14.73	6.98	4.99	29.97	22.99
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-1.79	3.98	9.99	0.46	-1.94	-	36.545	12.64	18.37	23.97	11.33	10.70	11.75	29.97	19.27
5270	-2.19	3.98	10.00	0.46	-1.62	44.720	36.811	12.25	16.79	23.97	11.72	10.63	11.56	29.97	19.34
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-4.39	3.99	10.00	0.46	-1.30	44.104	36.650	10.06	10.14	23.97	13.91	8.76	7.52	29.97	21.21
5510	-3.19	4.02	10.01	0.46	-2.48	44.097	36.571	11.30	13.49	23.97	12.67	8.82	7.62	29.97	21.15
5550	-1.72	4.04	10.01	0.46	-2.54	47.252	36.752	12.79	19.01	23.97	11.18	10.25	10.59	29.97	19.72
5670	-2.41	4.10	10.00	0.46	-2.73	49.838	36.682	12.15	16.41	23.97	11.82	9.42	8.76	29.97	20.55
5755	-1.78	4.14	9.99	0.46	-2.60	-	-	12.81	19.10	30.00	17.19	10.21	10.49	36.00	25.79
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-2.27	4.16	9.99	0.46	-2.33	-	-	12.34	17.14	30.00	17.66	10.01	10.02	36.00	25.99

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

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

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11253018S-B-R1	
Date	July 7, 2016	July 11, 2016
Temperature / Humidity	25 deg. C / 54 % RH	23 deg. C / 45 % RH
Engineer	Hiroyuki Morikawa	Yosuke Ishikawa
Mode	Tx	

11n-20 (MIMO), Main+Sub Antenna

Applied limit: 15.407, mobile and portable client device

Tested	26 dB	99%	Conducted power						e.i.r.p.					
Frequency	EBW	OBW	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	(B for FCC)	(B for IC)	Main	Sub	Total				Main	Sub	Total			
[MHz]	[MHz]	[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]
5180	-	17.997	18.07	16.26	34.33	15.36	23.97	8.61	10.54	11.22	21.77	13.38	29.97	16.59
5220	-	17.977	16.29	14.55	30.85	14.89	23.97	9.08	10.23	9.84	20.07	13.03	29.97	16.94
5240	-	17.985	14.35	12.56	26.92	14.30	23.97	9.67	9.35	8.40	17.75	12.49	29.97	17.48
5260	21.156	17.992	18.41	15.03	33.44	15.24	23.97	8.73	12.45	9.95	22.39	13.50	29.97	16.47
5300	21.939	18.007	16.11	14.42	30.53	14.85	23.97	9.12	11.72	9.34	21.07	13.24	29.97	16.73
5320	20.827	17.996	16.11	13.30	29.41	14.69	23.97	9.28	12.16	8.53	20.69	13.16	29.97	16.81
5500	21.388	18.064	16.52	17.95	34.47	15.37	23.97	8.60	9.36	10.47	19.84	12.97	29.97	17.00
5580	21.587	18.004	16.79	16.33	33.12	15.20	23.97	8.77	9.25	9.19	18.44	12.66	29.97	17.31
5700	20.139	17.960	16.37	17.06	33.43	15.24	23.97	8.73	8.65	9.10	17.74	12.49	29.97	17.48
5745	-	-	26.92	23.44	50.36	17.02	30.00	12.98	14.55	12.56	27.11	14.33	36.00	21.67
5785	-	-	22.34	21.73	44.06	16.44	30.00	13.56	12.86	12.03	24.89	13.96	36.00	22.04
5825	-	-	21.78	20.61	42.38	16.27	30.00	13.73	13.36	11.79	25.14	14.00	36.00	22.00

		Main Antenna						**Sub Antenna**					
Tested	Duty	Power	Cable	Atten.	Antenna	Result		Power	Cable	Atten.	Antenna	Result	
Frequency	Factor	Meter	Loss	Loss	Gain	Cond.	e.i.r.p.	Meter	Loss	Loss	Gain	Cond.	e.i.r.p.
		Reading				Power		Reading				Power	
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5180	0.49	-1.88	3.97	9.99	-2.34	12.57	10.23	-2.34	3.97	9.99	-1.61	12.11	10.50
5220	0.49	-2.34	3.98	9.99	-2.02	12.12	10.10	-2.83	3.98	9.99	-1.70	11.63	9.93
5240	0.49	-2.89	3.98	9.99	-1.86	11.57	9.71	-3.47	3.98	9.99	-1.75	10.99	9.24
5260	0.49	-1.82	3.98	10.00	-1.70	12.65	10.95	-2.70	3.98	10.00	-1.79	11.77	9.98
5300	0.49	-2.41	3.99	10.00	-1.38	12.07	10.69	-2.89	3.99	10.00	-1.89	11.59	9.71
5320	0.49	-2.41	3.99	10.00	-1.22	12.07	10.85	-3.24	3.99	10.00	-1.93	11.24	9.31
5500	0.49	-2.34	4.02	10.01	-2.47	12.18	9.71	-1.98	4.02	10.01	-2.34	12.54	10.20
5580	0.49	-2.30	4.06	10.00	-2.59	12.25	9.66	-2.42	4.06	10.00	-2.50	12.13	9.63
5700	0.49	-2.45	4.11	9.99	-2.77	12.14	9.37	-2.27	4.11	9.99	-2.73	12.32	9.59
5745	0.49	-0.31	4.13	9.99	-2.67	14.30	11.63	-0.91	4.13	9.99	-2.71	13.70	10.99
5785	0.49	-1.14	4.15	9.99	-2.40	13.49	11.09	-1.26	4.15	9.99	-2.57	13.37	10.80
5825	0.49	-1.26	4.17	9.98	-2.12	13.38	11.26	-1.50	4.17	9.98	-2.43	13.14	10.71

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

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

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 7, 2016
Temperature / Humidity	25 deg. C / 54 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx

11n-40 (MIMO), Main+Sub Antenna Applied limit: 15.407, mobile and portable client device

Tested Frequency	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted power Antenna Main	Antenna Sub	Antenna Total	Result	Limit	Margin	e.i.r.p. Antenna Main	Antenna Sub	Antenna Total	Result	Limit	Margin
[MHz]	[MHz]	[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]
5190	-	36.575	8.87	6.30	15.17	11.81	23.97	12.16	5.27	4.32	9.60	9.82	29.97	20.15
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-	36.551	18.54	16.22	34.75	15.41	23.97	8.56	11.86	10.90	22.76	13.57	29.97	16.40
5270	47.186	36.736	18.66	15.42	34.08	15.33	23.97	8.64	12.85	10.15	23.00	13.62	29.97	16.35
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	44.153	36.620	9.33	7.76	17.10	12.33	23.97	11.64	6.92	5.00	11.92	10.76	29.97	19.21
5510	39.906	35.872	13.52	15.21	28.73	14.58	23.97	9.39	7.64	8.83	16.47	12.17	29.97	17.80
5550	43.580	35.928	19.63	20.00	39.63	15.98	23.97	7.99	10.93	11.41	22.34	13.49	29.97	16.48
5670	42.482	35.842	17.06	15.38	32.44	15.11	23.97	8.86	9.11	8.31	17.42	12.41	29.97	17.56
5755	-	-	22.70	16.67	39.37	15.95	30.00	14.05	12.46	9.01	21.47	13.32	36.00	22.68
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-	-	20.99	18.88	39.87	16.01	30.00	13.99	12.28	10.54	22.81	13.58	36.00	22.42

		Main Antenna						**Sub Antenna**					
Tested Frequency	Duty Factor	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5190	0.68	-5.16	3.97	9.99	-2.26	9.48	7.22	-6.65	3.97	9.99	-1.63	7.99	6.36
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.68	-1.97	3.98	9.99	-1.94	12.68	10.74	-2.55	3.98	9.99	-1.72	12.10	10.38
5270	0.68	-1.95	3.98	10.00	-1.62	12.71	11.09	-2.78	3.98	10.00	-1.82	11.88	10.06
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.68	-4.97	3.99	10.00	-1.30	9.70	8.40	-5.77	3.99	10.00	-1.91	8.90	6.99
5510	0.68	-3.40	4.02	10.01	-2.48	11.31	8.83	-2.89	4.02	10.01	-2.36	11.82	9.46
5550	0.68	-1.80	4.04	10.01	-2.54	12.93	10.39	-1.72	4.04	10.01	-2.44	13.01	10.57
5670	0.68	-2.46	4.10	10.00	-2.73	12.32	9.59	-2.91	4.10	10.00	-2.67	11.87	9.20
5755	0.68	-1.25	4.14	9.99	-2.60	13.56	10.96	-2.59	4.14	9.99	-2.67	12.22	9.55
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.68	-1.61	4.16	9.99	-2.33	13.22	10.89	-2.07	4.16	9.99	-2.53	12.76	10.23

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

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

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 7, 2016
Temperature / Humidity	25 deg. C / 54 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx

11a, 5220 MHz

-	Rate	Reading (timed average) Antenna						Duty factor	Burst power Antenna			Remarks
		Main [dBm]	Sub [dBm]	Main [mW]	Sub [mW]	Total [mW]	Total [dBm]	[dB]	Main [dBm]	Sub [dBm]	Total [dBm]	
-	6	-2.47	-1.75	-	-	-	-	0.06	-2.41	-1.69	-	
	9	-1.96	-1.97	-	-	-	-	0.09	-1.87	-1.88	-	
	12	-1.99	-2.03	-	-	-	-	0.12	-1.87	-1.91	-	
	18	-2.06	-1.78	-	-	-	-	0.18	-1.88	-1.60	-	* TX
	24	-2.19	-1.91	-	-	-	-	0.24	-1.95	-1.67	-	
	36	-2.35	-2.05	-	-	-	-	0.35	-2.00	-1.70	-	
	48	-3.93	-3.67	-	-	-	-	0.50	-3.43	-3.17	-	
	54	-4.90	-4.66	-	-	-	-	0.56	-4.34	-4.10	-	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

11n-20 (SISO), 5220 MHz

GI	MCS Number	Reading (timed average) Antenna						Duty factor	Burst power Antenna			Remarks
		Main [dBm]	Sub [dBm]	Main [mW]	Sub [mW]	Total [mW]	Total [dBm]	[dB]	Main [dBm]	Sub [dBm]	Total [dBm]	
long	0	-2.51	-2.04	-	-	-	-	0.07	-2.44	-1.97	-	
	1	-2.42	-2.17	-	-	-	-	0.13	-2.29	-2.04	-	
	2	-2.31	-1.96	-	-	-	-	0.19	-2.12	-1.77	-	
	3	-2.21	-1.80	-	-	-	-	0.25	-1.96	-1.55	-	* TX
	4	-2.33	-1.93	-	-	-	-	0.36	-1.97	-1.57	-	
	5	-4.06	-3.79	-	-	-	-	0.46	-3.60	-3.33	-	
	6	-5.92	-5.78	-	-	-	-	0.55	-5.37	-5.23	-	
	7	-7.41	-6.93	-	-	-	-	0.60	-6.81	-6.33	-	
short	0	-2.25	-2.16	-	-	-	-	0.05	-2.20	-2.11	-	
	1	-2.44	-2.42	-	-	-	-	0.20	-2.24	-2.22	-	
	2	-2.48	-2.05	-	-	-	-	0.21	-2.27	-1.84	-	
	3	-2.25	-1.92	-	-	-	-	0.27	-1.98	-1.65	-	
	4	-2.43	-2.11	-	-	-	-	0.39	-2.04	-1.72	-	
	5	-4.10	-3.82	-	-	-	-	0.49	-3.61	-3.33	-	
	6	-6.06	-6.01	-	-	-	-	0.60	-5.46	-5.41	-	
	7	-7.06	-7.00	-	-	-	-	0.66	-6.40	-6.34	-	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 7, 2016
Temperature / Humidity	25 deg. C / 54 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx

11n-40 (SISO), 5190 MHz

GI	MCS Number	Reading (timed average) Antenna						Duty factor	Burst power Antenna			Remarks
		Main [dBm]	Sub [dBm]	Main [mW]	Sub [mW]	Total [mW]	Total [dBm]	[dB]	Main [dBm]	Sub [dBm]	Total [dBm]	
long	0	-4.97	-6.54	-	-	-	-	0.14	-4.83	-6.40	-	
	1	-5.13	-6.79	-	-	-	-	0.34	-4.79	-6.45	-	
	2	-5.22	-6.82	-	-	-	-	0.37	-4.85	-6.45	-	
	3	-5.18	-5.76	-	-	-	-	0.46	-4.72	-5.30	-	* TX
	4	-5.57	-5.95	-	-	-	-	0.64	-4.93	-5.31	-	
	5	-5.68	-6.22	-	-	-	-	0.82	-4.86	-5.40	-	
	6	-5.72	-6.35	-	-	-	-	0.90	-4.82	-5.45	-	
	7	-6.49	-7.74	-	-	-	-	0.98	-5.51	-6.76	-	
short	0	-6.58	-6.58	-	-	-	-	0.15	-6.43	-6.43	-	
	1	-5.40	-6.73	-	-	-	-	0.28	-5.12	-6.45	-	
	2	-5.53	-6.85	-	-	-	-	0.40	-5.13	-6.45	-	
	3	-5.44	-5.85	-	-	-	-	0.67	-4.77	-5.18	-	
	4	-5.79	-6.07	-	-	-	-	0.75	-5.04	-5.32	-	
	5	-5.94	-6.21	-	-	-	-	0.84	-5.10	-5.37	-	
	6	-5.91	-6.50	-	-	-	-	0.98	-4.93	-5.52	-	
	7	-6.78	-7.77	-	-	-	-	1.06	-5.72	-6.71	-	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

11n-20 (MIMO), 5220 MHz

GI	MCS Number	Reading (timed average) Antenna						Duty factor	Burst power Antenna			Remarks
		Main [dBm]	Sub [dBm]	Main [mW]	Sub [mW]	Total [mW]	Total [dBm]	[dB]	Main [dBm]	Sub [dBm]	Total [dBm]	
long	8	-2.18	-2.75	0.61	0.53	1.14	0.55	0.14	-	-	0.69	
	9	-2.31	-2.87	0.59	0.52	1.10	0.43	0.27	-	-	0.70	
	10	-2.46	-2.87	0.57	0.52	1.08	0.35	0.39	-	-	0.74	
	11	-2.34	-2.83	0.58	0.52	1.10	0.43	0.49	-	-	0.92	* TX
	12	-2.59	-2.99	0.55	0.50	1.05	0.22	0.65	-	-	0.87	
	13	-4.26	-4.70	0.37	0.34	0.71	-1.46	0.82	-	-	-0.64	
	14	-5.95	-6.33	0.25	0.23	0.49	-3.13	0.89	-	-	-2.24	
	15	-6.89	-7.27	0.20	0.19	0.39	-4.07	0.95	-	-	-3.12	
short	8	-2.20	-2.65	0.60	0.54	1.15	0.59	0.15	-	-	0.74	
	9	-2.42	-2.83	0.57	0.52	1.09	0.39	0.30	-	-	0.69	
	10	-2.61	-2.92	0.55	0.51	1.06	0.25	0.42	-	-	0.67	
	11	-2.40	-2.88	0.58	0.52	1.09	0.37	0.54	-	-	0.91	
	12	-2.68	-3.02	0.54	0.50	1.04	0.16	0.73	-	-	0.89	
	13	-4.35	-4.64	0.37	0.34	0.71	-1.48	0.88	-	-	-0.60	
	14	-6.01	-6.35	0.25	0.23	0.48	-3.17	0.95	-	-	-2.22	
	15	-7.09	-7.58	0.20	0.17	0.37	-4.32	1.02	-	-	-3.30	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 7, 2016
Temperature / Humidity	25 deg. C / 54 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx

11n-40 (MIMO), 5190 MHz

GI	MCS Number	Reading (timed average) Antenna						Duty factor	Burst power Antenna			Remarks
		Main [dBm]	Sub [dBm]	Main [mW]	Sub [mW]	Total [mW]	Total [dBm]	[dB]	Main [dBm]	Sub [dBm]	Total [dBm]	
long	8	-4.95	-6.50	0.32	0.22	0.54	-2.65	0.14	-	-	-2.51	
	9	-5.14	-6.61	0.31	0.22	0.52	-2.80	0.27	-	-	-2.53	
	10	-5.16	-6.65	0.30	0.22	0.52	-2.83	0.39	-	-	-2.44	* TX
	11	-5.60	-6.55	0.28	0.22	0.50	-3.04	0.49	-	-	-2.55	
	12	-5.98	-6.90	0.25	0.20	0.46	-3.41	0.65	-	-	-2.76	
	13	-5.94	-6.98	0.25	0.20	0.46	-3.42	0.82	-	-	-2.60	
	14	-6.07	-7.03	0.25	0.20	0.45	-3.51	0.89	-	-	-2.62	
	15	-7.17	-7.84	0.19	0.16	0.36	-4.48	0.95	-	-	-3.53	
short	8	-5.04	-6.54	0.31	0.22	0.54	-2.72	0.15	-	-	-2.57	
	9	-5.22	-6.69	0.30	0.21	0.51	-2.88	0.30	-	-	-2.58	
	10	-5.53	-6.84	0.28	0.21	0.49	-3.13	0.42	-	-	-2.71	
	11	-5.71	-6.84	0.27	0.21	0.48	-3.23	0.54	-	-	-2.69	
	12	-6.04	-6.92	0.25	0.20	0.45	-3.45	0.73	-	-	-2.72	
	13	-5.98	-7.05	0.25	0.20	0.45	-3.47	0.88	-	-	-2.59	
	14	-6.27	-7.12	0.24	0.19	0.43	-3.66	0.95	-	-	-2.71	
	15	-7.20	-7.92	0.19	0.16	0.35	-4.53	1.02	-	-	-3.51	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

Average Output Power
(Reference data for SAR testing)

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11a, 6 Mbps, Sub Antenna

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5180	-2.39	3.97	9.99	11.57	14.35
5220	-1.75	3.98	9.99	12.22	16.67
5240	-2.43	3.98	9.99	11.54	14.26
5260	-0.83	3.98	10.00	13.15	20.65
5300	-1.04	3.99	10.00	12.95	19.72
5320	-0.63	3.99	10.00	13.36	21.68
5500	-1.03	4.02	10.01	13.00	19.95
5580	-0.96	4.06	10.00	13.10	20.42
5700	-1.51	4.11	9.99	12.59	18.16
5745	-1.20	4.13	9.99	12.92	19.59
5785	-1.29	4.15	9.99	12.85	19.28
5825	-1.63	4.17	9.98	12.52	17.86

Sample Calculation:
Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
*The equipment and cables were not used for factor 0 dB of the data sheets.

11n-20 (SISO), MCS3 (GI long) Sub Antenna

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5180	-1.80	3.97	9.99	12.16	16.44
5220	-1.80	3.98	9.99	12.17	16.48
5240	-2.54	3.98	9.99	11.43	13.90
5260	-2.19	3.98	10.00	11.79	15.10
5300	-2.59	3.99	10.00	11.40	13.80
5320	-2.52	3.99	10.00	11.47	14.03
5500	-1.86	4.02	10.01	12.17	16.48
5580	-2.02	4.06	10.00	12.04	16.00
5700	-2.35	4.11	9.99	11.75	14.96
5745	-1.55	4.13	9.99	12.57	18.07
5785	-1.84	4.15	9.99	12.30	16.98
5825	-2.22	4.17	9.98	11.93	15.60

Sample Calculation:
Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
*The equipment and cables were not used for factor 0 dB of the data sheets.

The test was performed with condition that obtained the maximum frame power in pre-check.

Average Output Power
(Reference data for RF Exposure)

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (SISO), MCS0 (GI long), Main Antenna

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Timed average) [mW]
5190	-4.97	3.97	9.99	8.99	7.93
-	-	-	-	-	-
5230	-1.01	3.98	9.99	12.96	19.77
5270	-1.20	3.98	10.00	12.78	18.97
-	-	-	-	-	-
5310	-0.90	3.99	10.00	13.09	20.37
5510	-2.40	4.02	10.01	11.63	14.55
5550	-0.63	4.04	10.01	13.42	21.98
5670	-1.37	4.10	10.00	12.73	18.75
5755	-1.27	4.14	9.99	12.86	19.32
-	-	-	-	-	-
5795	-1.19	4.16	9.99	12.96	19.77

Sample Calculation:
Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
*The equipment and cables were not used for factor 0 dB of the data sheets.

11n-20 (MIMO), MCS8 (GI short)

	Main Antenna				Sub Antenna				Main+Sub Antenna			
Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	Result (Timed average) Antenna Main [mW]	Sub [mW]	Total [mW]	[dBm]
5180	-2.13	3.97	9.99	11.83	-2.23	3.97	9.99	11.73	15.24	14.89	30.13	14.79
5220	-2.20	3.98	9.99	11.77	-2.65	3.98	9.99	11.32	15.03	13.55	28.58	14.56
5240	-2.50	3.98	9.99	11.47	-3.19	3.98	9.99	10.78	14.03	11.97	26.00	14.15
5260	-1.26	3.98	10.00	12.72	-2.50	3.98	10.00	11.48	18.71	14.06	32.77	15.15
5300	-1.98	3.99	10.00	12.01	-2.68	3.99	10.00	11.31	15.89	13.52	29.41	14.68
5320	-1.95	3.99	10.00	12.04	-2.48	3.99	10.00	11.51	16.00	14.16	30.15	14.79
5500	-1.93	4.02	10.01	12.10	-2.02	4.02	10.01	12.01	16.22	15.89	32.10	15.07
5580	-1.89	4.06	10.00	12.17	-2.39	4.06	10.00	11.67	16.48	14.69	31.17	14.94
5700	-2.14	4.11	9.99	11.96	-2.36	4.11	9.99	11.74	15.70	14.93	30.63	14.86
5745	-0.39	4.13	9.99	13.73	-0.80	4.13	9.99	13.32	23.60	21.48	45.08	16.54
5785	-0.94	4.15	9.99	13.20	-1.32	4.15	9.99	12.82	20.89	19.14	40.04	16.02
5825	-1.09	4.17	9.98	13.06	-1.66	4.17	9.98	12.49	20.23	17.74	37.97	15.79

Sample Calculation:
Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
*The equipment and cables were not used for factor 0 dB of the data sheets.

The test was performed with condition that obtained the maximum frame power in pre-check.

Average Output Power
(Reference data for RF Exposure)

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (MIMO), MCS8 (GI long)

	Main Antenna				**Sub Antenna**				**Main+Sub Antenna**			
Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Result (Timed average)	Power Meter Reading	Cable Loss	Atten. Loss	Result (Timed average)	Result (Timed average) Antenna			
									Main	Sub	Total	
[MHz]	[dBm]	[dB]	[dB]	[dBm]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[mW]	[mW]	[dBm]
5190	-4.95	3.97	9.99	9.01	-6.50	3.97	9.99	7.46	7.96	5.57	13.53	11.31
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-1.69	3.98	9.99	12.28	-2.26	3.98	9.99	11.71	16.90	14.83	31.73	15.01
5270	-1.63	3.98	10.00	12.35	-2.50	3.98	10.00	11.48	17.18	14.06	31.24	14.95
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-1.55	3.99	10.00	12.44	-2.29	3.99	10.00	11.70	17.54	14.79	32.33	15.10
5510	-2.99	4.02	10.01	11.04	-2.76	4.02	10.01	11.27	12.71	13.40	26.10	14.17
5550	-0.95	4.04	10.01	13.10	-1.64	4.04	10.01	12.41	20.42	17.42	37.84	15.78
5670	-2.18	4.10	10.00	11.92	-2.63	4.10	10.00	11.47	15.56	14.03	29.59	14.71
5755	-0.90	4.14	9.99	13.23	-1.76	4.14	9.99	12.37	21.04	17.26	38.30	15.83
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-1.06	4.16	9.99	13.09	-2.12	4.16	9.99	12.03	20.37	15.96	36.33	15.60

Sample Calculation:
Result (Timed average) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss
*The equipment and cables were not used for factor 0 dB of the data sheets.

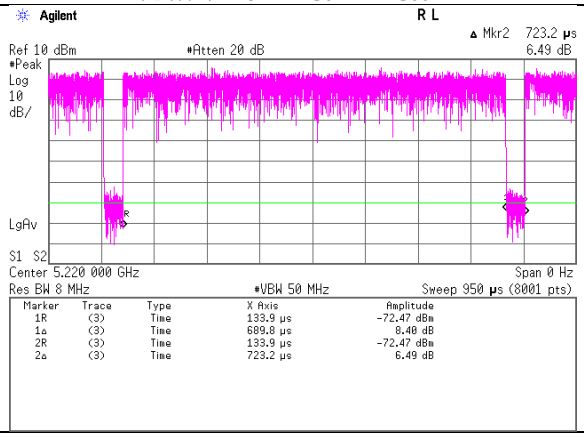
The test was performed with condition that obtained the maximum frame power in pre-check.

Burst rate confirmation

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 7, 2016
Temperature / Humidity	25 deg. C / 54 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx

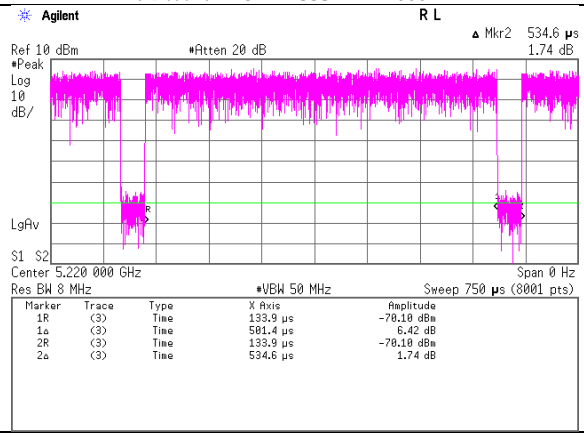
11a 18Mbps

Tx on / (Tx on + Tx off) = 0.972
Tx on / (Tx on + Tx off) * 100 = 97.2 %
Duty factor = 10 * log (1.06 / 1.03) = 0.12 dB
VBW: 1/Tx on = 1450 Hz < 1500 Hz



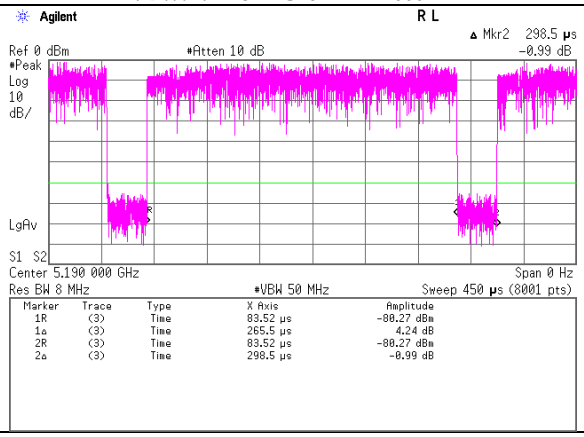
11n-20 (SISO) MCS0 (GI long)

Tx on / (Tx on + Tx off) = 0.943
Tx on / (Tx on + Tx off) * 100 = 94.3 %
Duty factor = 10 * log (0.53 / 0.5) = 0.25 dB
VBW: 1/Tx on = 1995 Hz < 2000 Hz



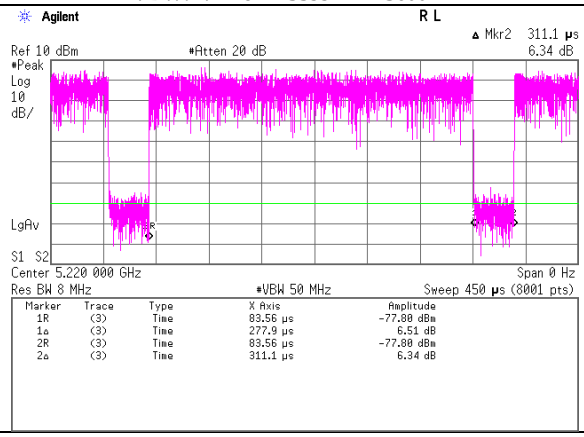
11n-40 (SISO) MCS3 (GI long)

Tx on / (Tx on + Tx off) = 0.900
Tx on / (Tx on + Tx off) * 100 = 90.0 %
Duty factor = 10 * log (0.3 / 0.27) = 0.46 dB
VBW: 1/Tx on = 3767 Hz < 4000 Hz



11n-20 (MIMO) MCS11 (GI long)

Tx on / (Tx on + Tx off) = 0.894
Tx on / (Tx on + Tx off) * 100 = 89.4 %
Duty factor = 10 * log (0.311 / 0.278) = 0.49 dB
VBW: 1/Tx on = 3599 Hz < 3600 Hz



Burst rate confirmation

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 7, 2016
Temperature / Humidity	25 deg. C / 54 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx

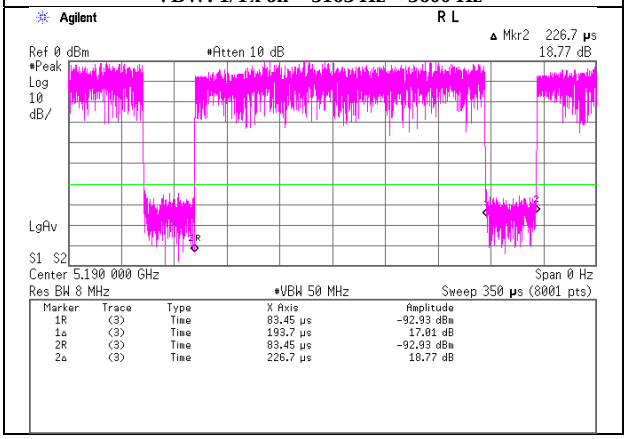
11n-40 (MIMO) MCS (GI long)

Tx on / (Tx on + Tx off) = 0.855

Tx on / (Tx on + Tx off) * 100 = 85.5 %

Duty factor = 10 * log (0.227 / 0.194) = 0.68 dB

VBW: 1/Tx on = 5163 Hz < 5600 Hz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11a, Sub Antenna

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) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5180	-12.17	3.97	9.99	0.18	-1.61	0.00	1.97	11.00	9.03	0.36	17.00	16.64
5220	-12.44	3.98	9.99	0.18	-1.70	0.00	1.71	11.00	9.29	0.00	17.00	17.00
5240	-13.43	3.98	9.99	0.18	-1.75	0.00	0.72	11.00	10.28	-1.02	17.00	18.02
5260	-12.70	3.98	10.00	0.18	-1.79	0.00	1.46	11.00	9.54	-0.33	17.00	17.33
5300	-13.04	3.99	10.00	0.18	-1.89	0.00	1.13	11.00	9.87	-0.75	17.00	17.76
5320	-12.85	3.99	10.00	0.18	-1.93	0.00	1.32	11.00	9.68	-0.61	17.00	17.61
5500	-12.01	4.02	10.01	0.18	-2.34	0.00	2.20	11.00	8.80	-0.14	17.00	17.14
5580	-12.05	4.06	10.00	0.18	-2.50	0.00	2.19	11.00	8.81	-0.30	17.00	17.30
5700	-12.30	4.11	9.99	0.18	-2.73	0.00	1.98	11.00	9.02	-0.75	17.00	17.75
5745	-21.17	4.13	9.99	0.18	-2.71	6.99	0.12	30.00	29.88	-2.59	36.00	38.59
5785	-21.56	4.15	9.99	0.18	-2.57	6.99	-0.25	30.00	30.25	-2.82	36.00	38.82
5825	-22.26	4.17	9.98	0.18	-2.43	6.99	-0.94	30.00	30.94	-3.37	36.00	39.37

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (SISO), Sub Antenna 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) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5180	-12.51	3.97	9.99	0.25	-1.61	0.00	1.71	11.00	9.30	0.10	17.00	16.90
5220	-12.81	3.98	9.99	0.25	-1.70	0.00	1.42	11.00	9.59	-0.29	17.00	17.29
5240	-13.35	3.98	9.99	0.25	-1.75	0.00	0.87	11.00	10.13	-0.88	17.00	17.88
5260	-13.01	3.98	10.00	0.25	-1.79	0.00	1.22	11.00	9.78	-0.57	17.00	17.57
5300	-13.75	3.99	10.00	0.25	-1.89	0.00	0.49	11.00	10.51	-1.40	17.00	18.40
5320	-13.44	3.99	10.00	0.25	-1.93	0.00	0.80	11.00	10.20	-1.13	17.00	18.13
5500	-12.08	4.02	10.01	0.25	-2.34	0.00	2.20	11.00	8.80	-0.14	17.00	17.14
5580	-11.97	4.06	10.00	0.25	-2.50	0.00	2.34	11.00	8.66	-0.15	17.00	17.15
5700	-12.69	4.11	9.99	0.25	-2.73	0.00	1.66	11.00	9.34	-1.07	17.00	18.07
5745	-21.39	4.13	9.99	0.25	-2.71	6.99	-0.03	30.00	30.03	-2.74	36.00	38.74
5785	-21.80	4.15	9.99	0.25	-2.57	6.99	-0.42	30.00	30.42	-2.99	36.00	38.99
5825	-21.89	4.17	9.98	0.25	-2.43	6.99	-0.50	30.00	30.50	-2.93	36.00	38.93

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (SISO), Main Antenna

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) Result [dBm /MHz]	PSD (Conducted) Limit [dBm /MHz]	PSD (Conducted) Margin [dB]	PSD (e.i.r.p.) Result [dBm /MHz]	PSD (e.i.r.p.) Limit [dBm /MHz]	PSD (e.i.r.p.) Margin [dB]
5190	-19.81	3.97	9.99	0.46	-2.26	0.00	-5.39	11.00	16.39	-7.65	17.00	24.65
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-15.30	3.98	9.99	0.46	-1.94	0.00	-0.87	11.00	11.87	-2.81	17.00	19.81
5270	-15.19	3.98	10.00	0.46	-1.62	0.00	-0.75	11.00	11.75	-2.37	17.00	19.37
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-14.99	3.99	10.00	0.46	-1.30	0.00	-0.54	11.00	11.54	-1.84	17.00	18.84
5510	-16.45	4.02	10.01	0.46	-2.48	0.00	-1.96	11.00	12.96	-4.44	17.00	21.44
5550	-14.99	4.04	10.01	0.46	-2.54	0.00	-0.48	11.00	11.48	-3.02	17.00	20.02
5670	-15.14	4.10	10.00	0.46	-2.73	0.00	-0.58	11.00	11.58	-3.31	17.00	20.31
5755	-23.54	4.14	9.99	0.46	-2.60	6.99	-1.96	30.00	31.96	-4.56	36.00	40.56
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-24.34	4.16	9.99	0.46	-2.33	6.99	-2.74	30.00	32.74	-5.07	36.00	41.07

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (MIMO), Main+Sub Antenna Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Main	Sub	Total				Main	Sub	Total			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5180	0.94	1.28	2.22	3.46	11.00	7.54	0.55	0.88	1.43	1.55	17.00	15.45
5220	1.45	1.23	2.68	4.28	11.00	6.72	0.91	0.83	1.74	2.41	17.00	14.59
5240	1.33	1.01	2.34	3.70	11.00	7.30	0.87	0.68	1.55	1.89	17.00	15.11
5260	1.91	1.23	3.14	4.96	11.00	6.04	1.29	0.81	2.10	3.23	17.00	13.77
5300	1.58	1.26	2.84	4.54	11.00	6.46	1.15	0.82	1.97	2.94	17.00	14.06
5320	1.46	1.39	2.85	4.55	11.00	6.45	1.10	0.89	1.99	2.99	17.00	14.01
5500	1.94	2.21	4.15	6.18	11.00	4.82	1.10	1.29	2.39	3.78	17.00	13.22
5580	1.76	1.54	3.30	5.18	11.00	5.82	0.97	0.87	1.84	2.64	17.00	14.36
5700	1.63	1.74	3.37	5.27	11.00	5.73	0.86	0.93	1.79	2.52	17.00	14.48
5745	1.58	1.65	3.23	5.09	30.00	24.91	0.85	0.89	1.74	2.40	36.00	33.60
5785	1.60	1.44	3.04	4.82	30.00	25.18	0.92	0.79	1.72	2.34	36.00	33.66
5825	1.71	1.38	3.09	4.90	30.00	25.10	1.05	0.79	1.84	2.64	36.00	33.36

			Main Antenna						**Sub Antenna**					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result		PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result	
							Cond.	e.i.r.p.					Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5180	0.49	0.00	-14.73	3.97	9.99	-2.34	-0.28	-2.62	-13.38	3.97	9.99	-1.61	1.07	-0.54
5220	0.49	0.00	-12.84	3.98	9.99	-2.02	1.62	-0.40	-13.57	3.98	9.99	-1.70	0.89	-0.81
5240	0.49	0.00	-13.22	3.98	9.99	-1.86	1.24	-0.62	-14.40	3.98	9.99	-1.75	0.06	-1.69
5260	0.49	0.00	-11.67	3.98	10.00	-1.70	2.80	1.10	-13.57	3.98	10.00	-1.79	0.90	-0.89
5300	0.49	0.00	-12.49	3.99	10.00	-1.38	1.99	0.61	-13.47	3.99	10.00	-1.89	1.01	-0.88
5320	0.49	0.00	-12.84	3.99	10.00	-1.22	1.64	0.42	-13.05	3.99	10.00	-1.93	1.43	-0.50
5500	0.49	0.00	-11.64	4.02	10.01	-2.47	2.88	0.41	-11.08	4.02	10.01	-2.34	3.44	1.10
5580	0.49	0.00	-12.10	4.06	10.00	-2.59	2.45	-0.14	-12.67	4.06	10.00	-2.50	1.88	-0.62
5700	0.49	0.00	-12.47	4.11	9.99	-2.77	2.12	-0.65	-12.19	4.11	9.99	-2.73	2.40	-0.33
5745	0.49	6.99	-19.62	4.13	9.99	-2.67	1.98	-0.69	-19.42	4.13	9.99	-2.71	2.18	-0.53
5785	0.49	6.99	-19.58	4.15	9.99	-2.40	2.04	-0.36	-20.05	4.15	9.99	-2.57	1.57	-1.00
5825	0.49	6.99	-19.31	4.17	9.98	-2.12	2.32	0.20	-20.22	4.17	9.98	-2.43	1.41	-1.02

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (MIMO), Main+Sub Antenna Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	Main	Sub	Total				Main	Sub	Total			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5190	0.35	0.27	0.62	-2.07	11.00	13.07	0.21	0.19	0.39	-4.04	17.00	21.04
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.80	0.96	1.76	2.46	11.00	8.54	0.51	0.64	1.16	0.64	17.00	16.36
5270	0.77	0.61	1.38	1.39	11.00	9.61	0.53	0.40	0.93	-0.32	17.00	17.32
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.73	0.65	1.38	1.38	11.00	9.62	0.54	0.42	0.96	-0.19	17.00	17.19
5510	0.63	0.86	1.49	1.72	11.00	9.28	0.35	0.50	0.85	-0.68	17.00	17.68
5550	0.99	1.08	2.06	3.14	11.00	7.86	0.55	0.61	1.16	0.66	17.00	16.34
5670	0.90	0.86	1.75	2.44	11.00	8.56	0.48	0.46	0.94	-0.26	17.00	17.26
5755	0.97	0.69	1.66	2.20	30.00	27.80	0.53	0.37	0.90	-0.44	36.00	36.44
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.78	0.92	1.70	2.30	30.00	27.70	0.46	0.51	0.97	-0.14	36.00	36.14

			Main Antenna						**Sub Antenna**					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result		PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result	
							Cond.	e.i.r.p.					Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5190	0.68	0.00	-19.18	3.97	9.99	-2.26	-4.54	-6.80	-20.33	3.97	9.99	-1.63	-5.69	-7.32
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.68	0.00	-15.60	3.98	9.99	-1.94	-0.95	-2.89	-14.84	3.98	9.99	-1.72	-0.19	-1.91
5270	0.68	0.00	-15.79	3.98	10.00	-1.62	-1.13	-2.75	-16.84	3.98	10.00	-1.82	-2.18	-4.00
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.68	0.00	-16.04	3.99	10.00	-1.30	-1.37	-2.67	-16.57	3.99	10.00	-1.91	-1.90	-3.81
5510	0.68	0.00	-16.74	4.02	10.01	-2.48	-2.03	-4.51	-15.36	4.02	10.01	-2.36	-0.65	-3.01
5550	0.68	0.00	-14.79	4.04	10.01	-2.54	-0.06	-2.60	-14.41	4.04	10.01	-2.44	0.32	-2.12
5670	0.68	0.00	-15.25	4.10	10.00	-2.73	-0.47	-3.20	-15.45	4.10	10.00	-2.67	-0.67	-3.34
5755	0.68	6.99	-21.94	4.14	9.99	-2.60	-0.14	-2.74	-23.41	4.14	9.99	-2.67	-1.61	-4.28
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.68	6.99	-22.90	4.16	9.99	-2.33	-1.08	-3.41	-22.19	4.16	9.99	-2.53	-0.37	-2.90

Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty Factor + RBW Correction Factor
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

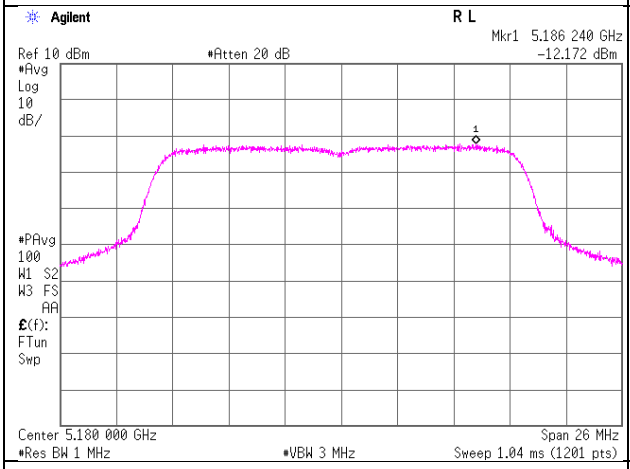
Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Power Spectral Density

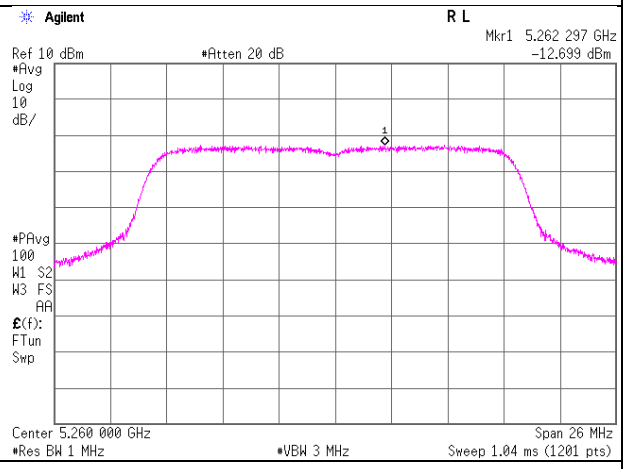
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11a, Sub Antenna

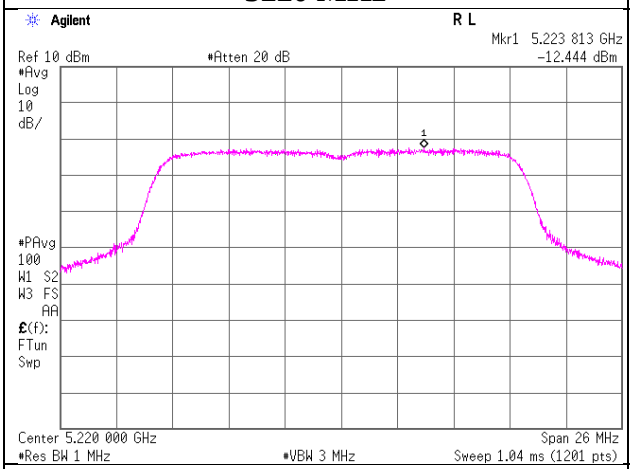
5180 MHz



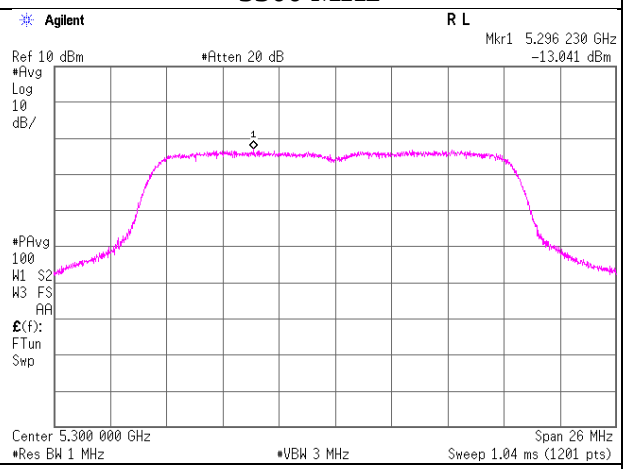
5260 MHz



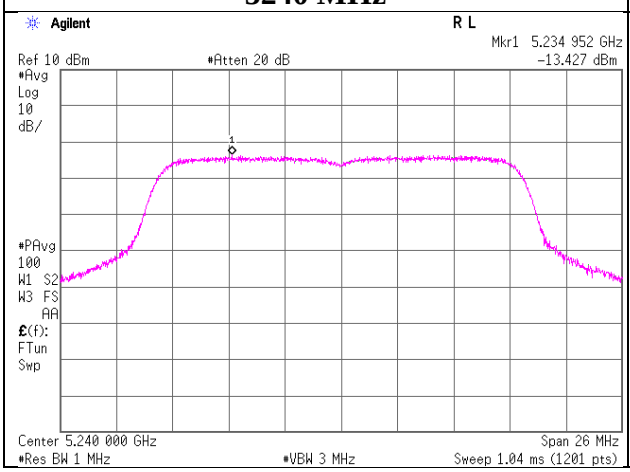
5220 MHz



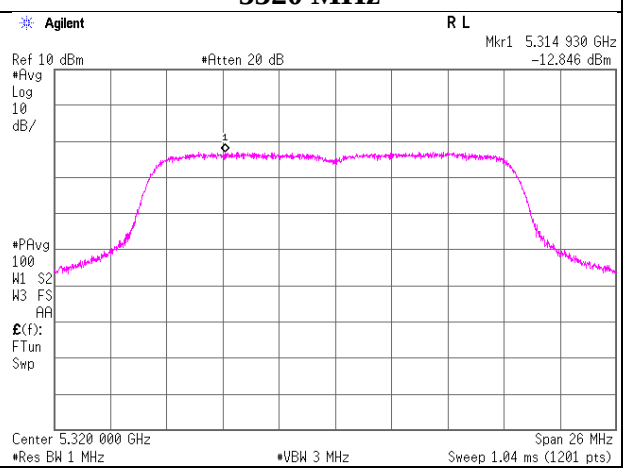
5300 MHz



5240 MHz



5320 MHz

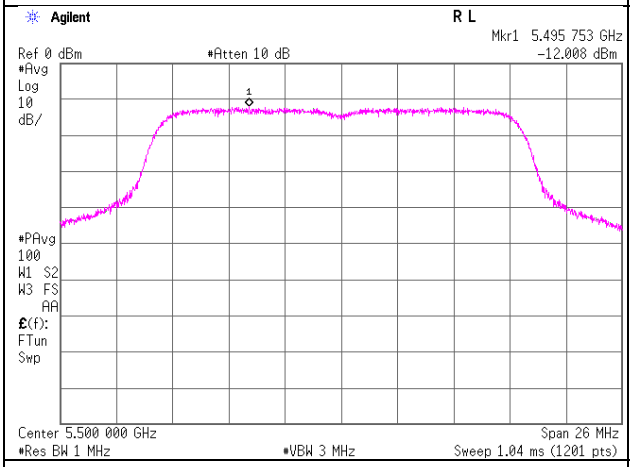


Maximum Power Spectral Density

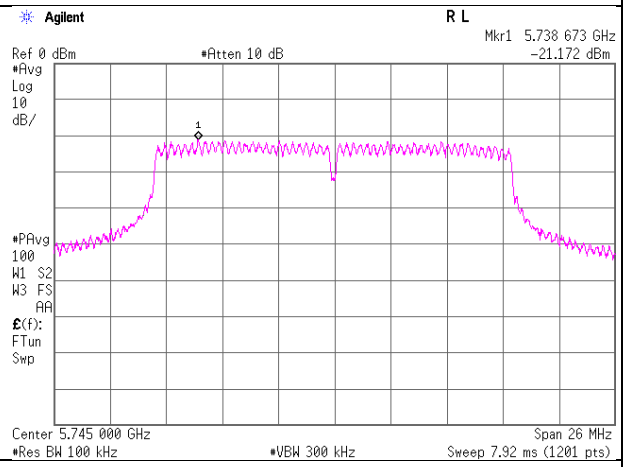
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11a, Sub Antenna

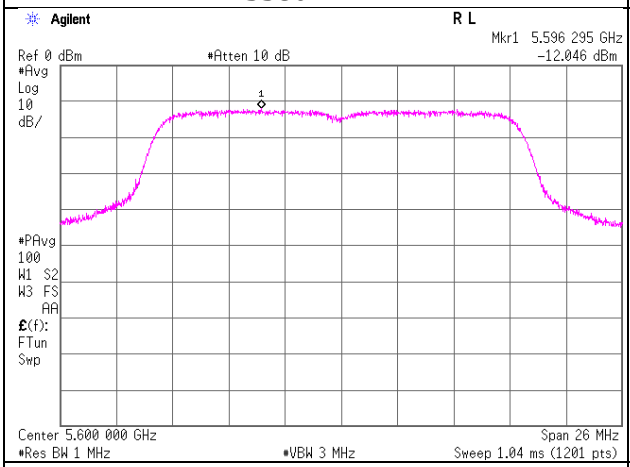
5500 MHz



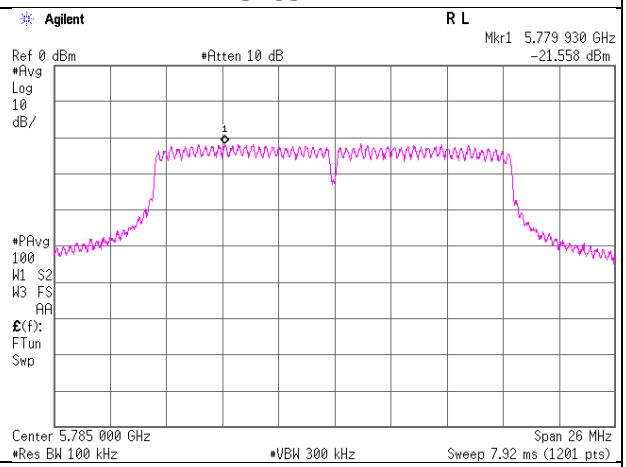
5745 MHz



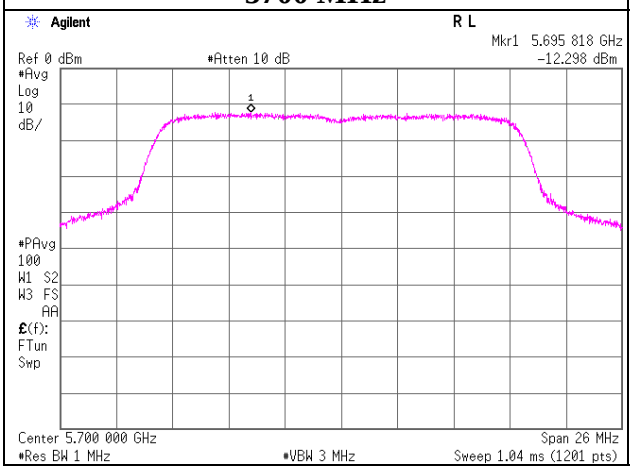
5580 MHz



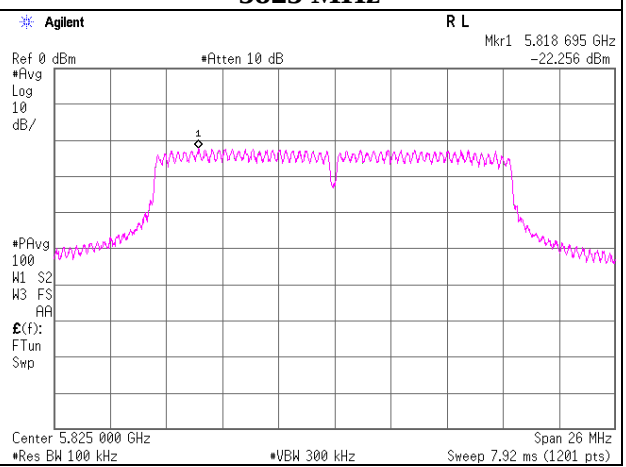
5785 MHz



5700 MHz



5825 MHz

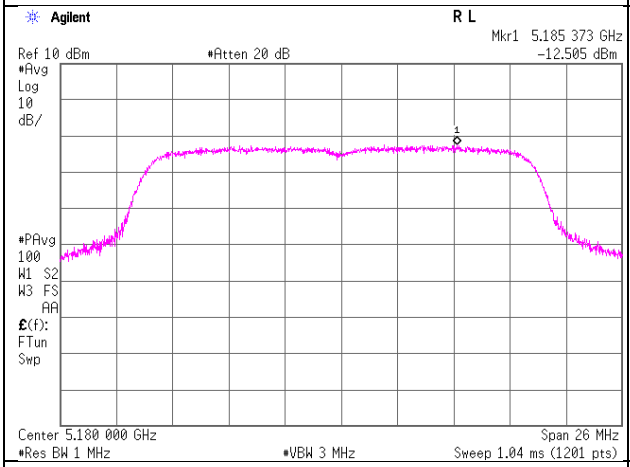


Maximum Power Spectral Density

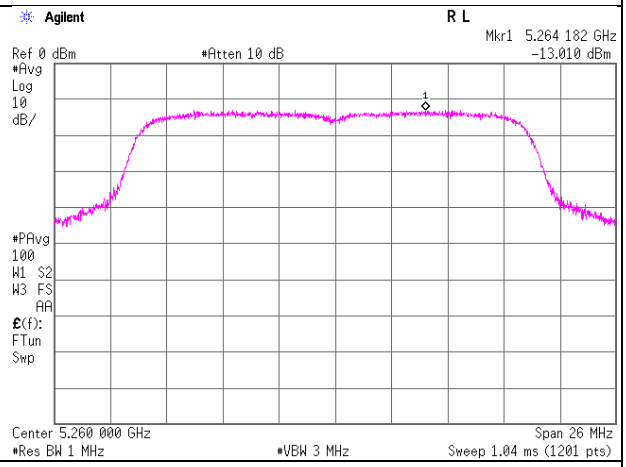
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (SISO), Sub Antenna

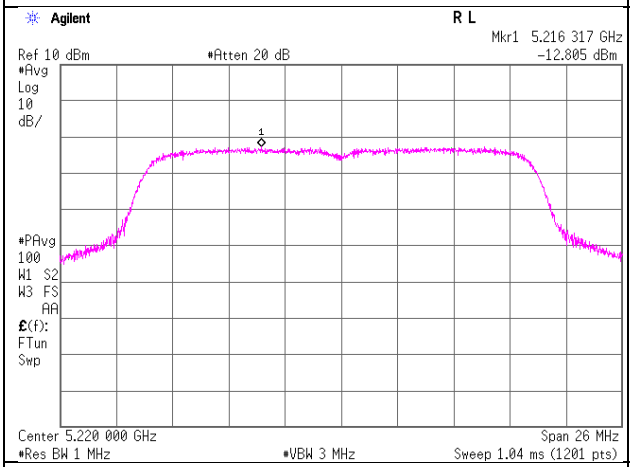
5180 MHz



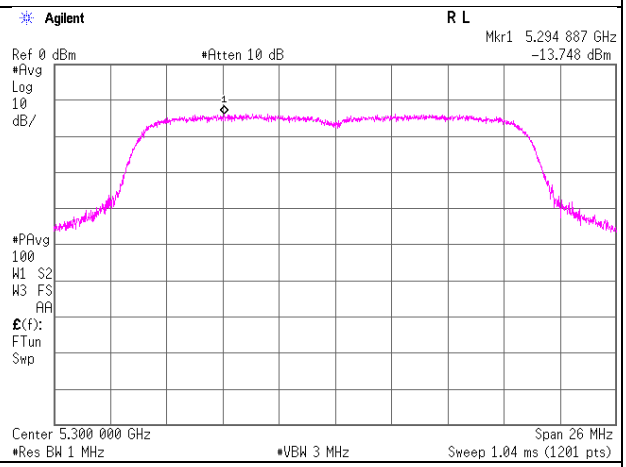
5260 MHz



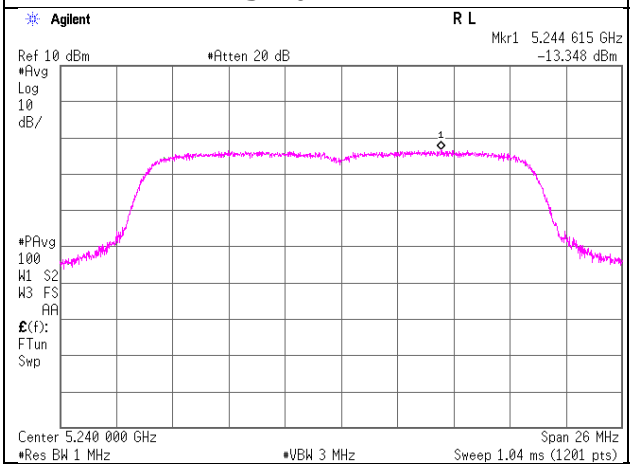
5220 MHz



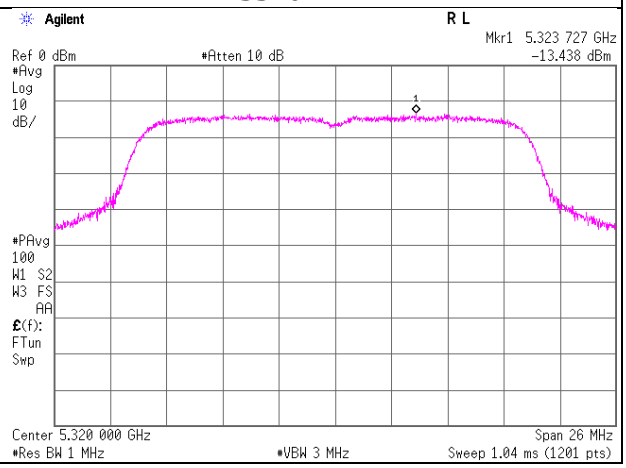
5300 MHz



5240 MHz



5320 MHz

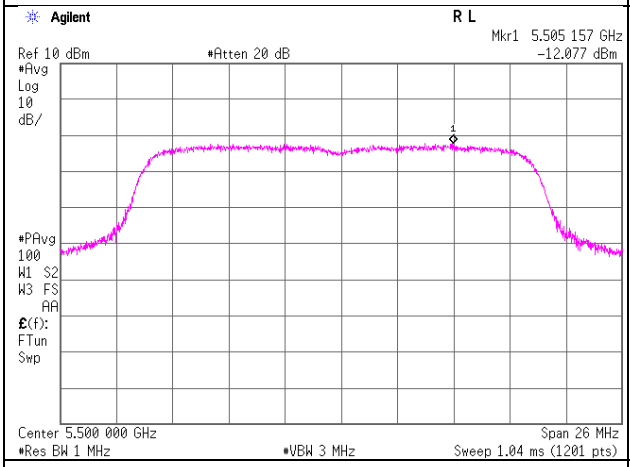


Maximum Power Spectral Density

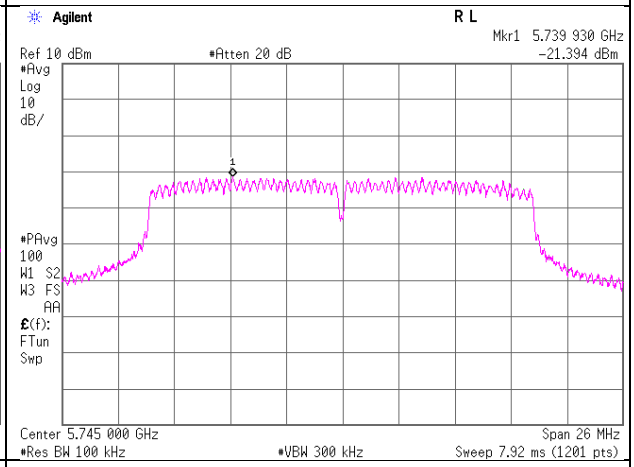
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (SISO), Sub Antenna

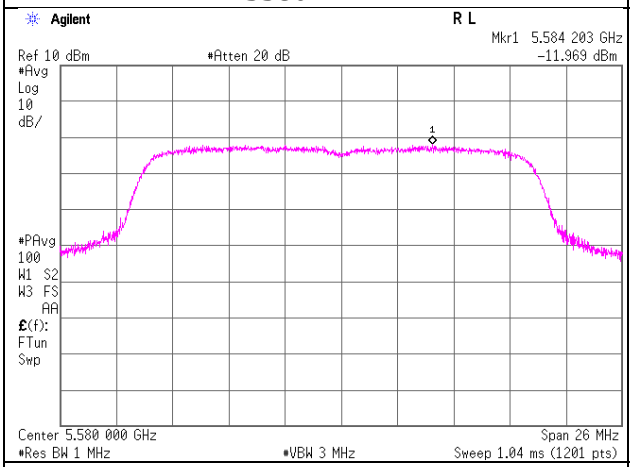
5500 MHz



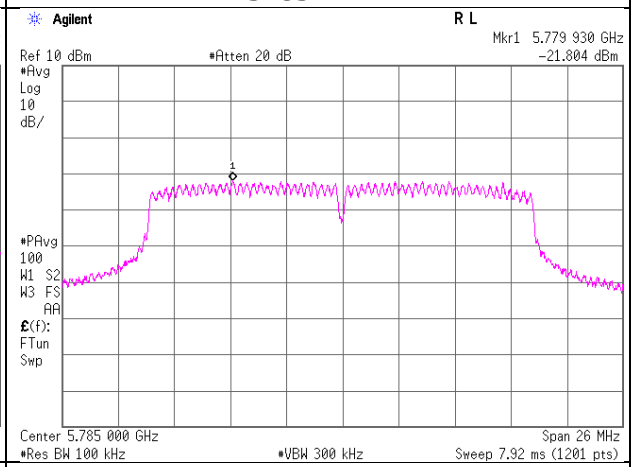
5745 MHz



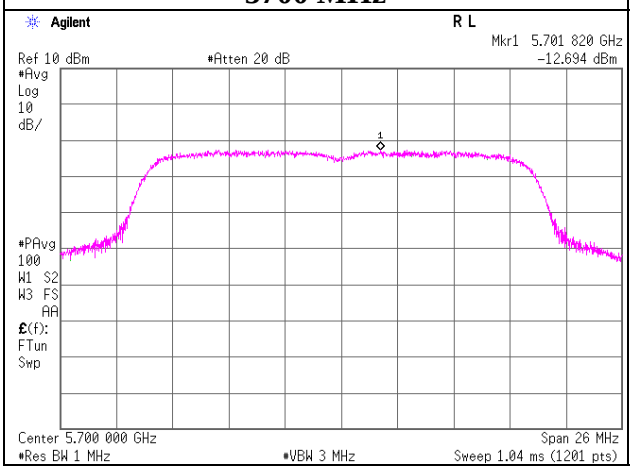
5580 MHz



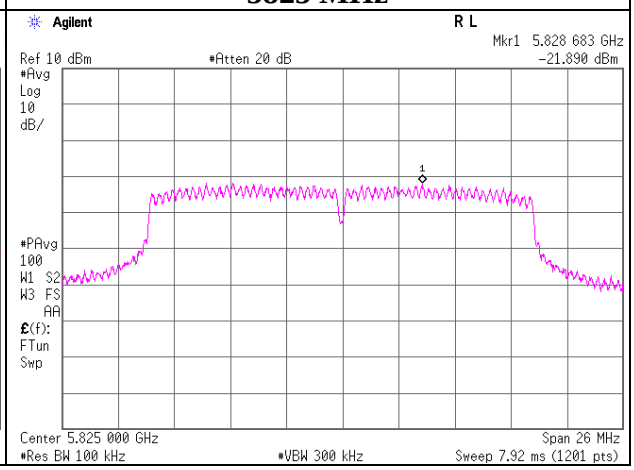
5785 MHz



5700 MHz



5825 MHz

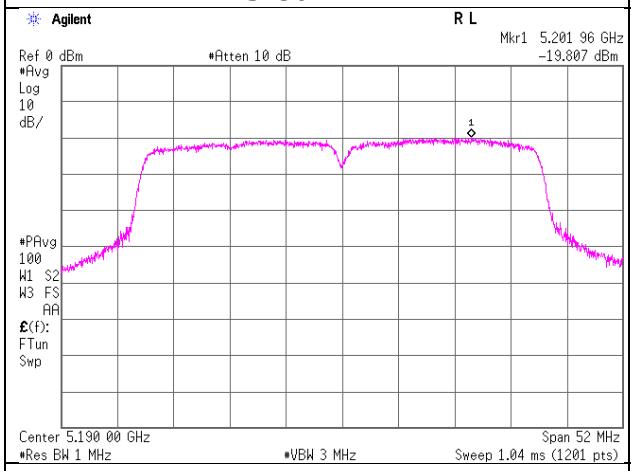


Maximum Power Spectral Density

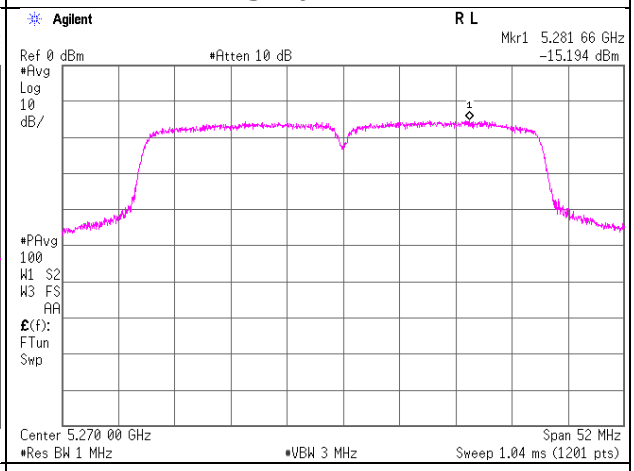
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (SISO), Main Antenna

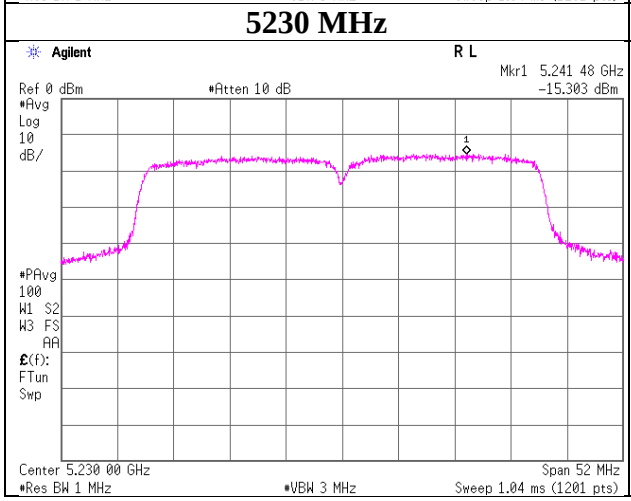
5190 MHz



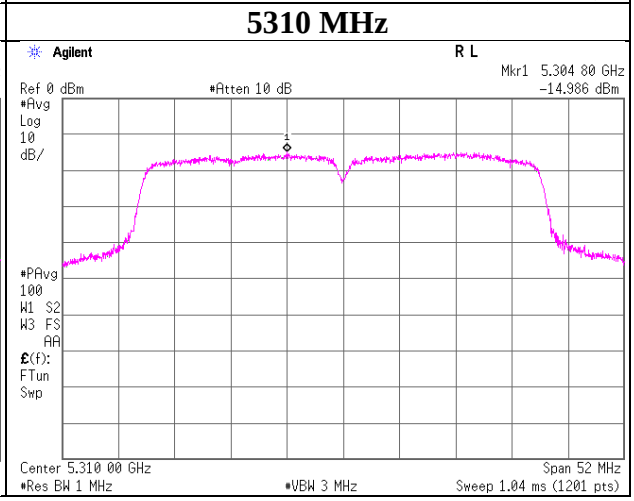
5270 MHz



5230 MHz



5310 MHz

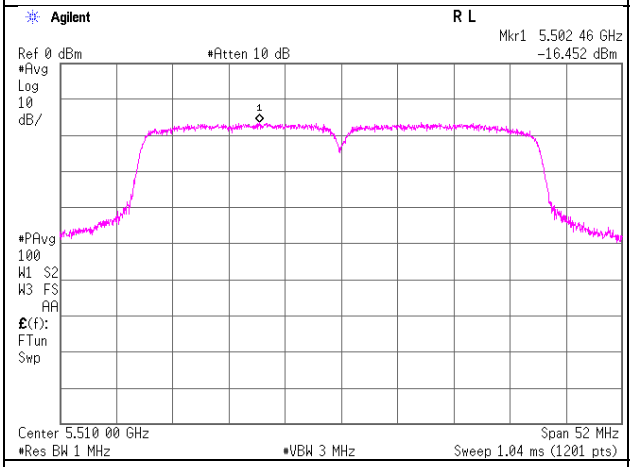


Maximum Power Spectral Density

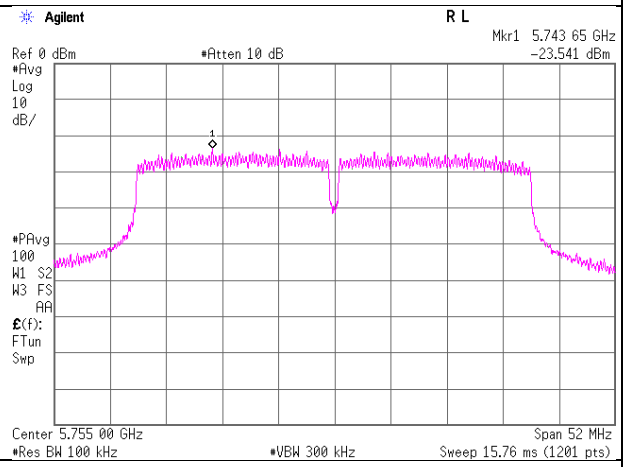
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (SISO), Main Antenna

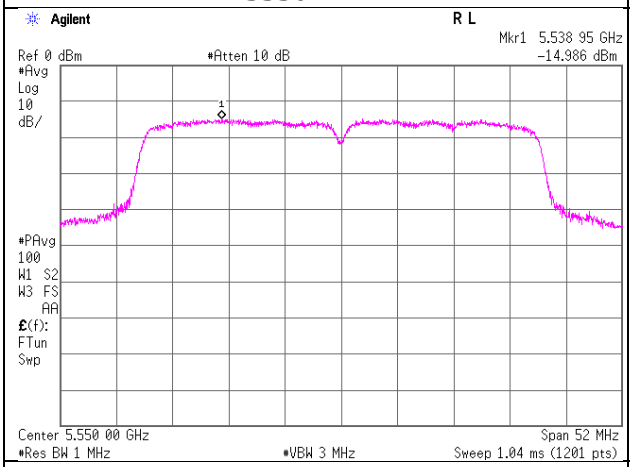
5510 MHz



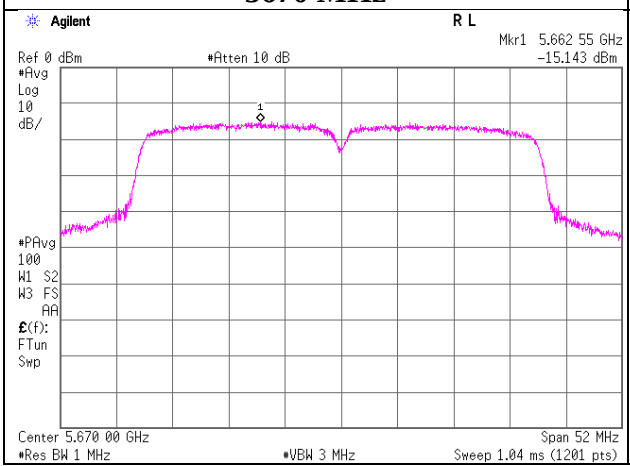
5755 MHz



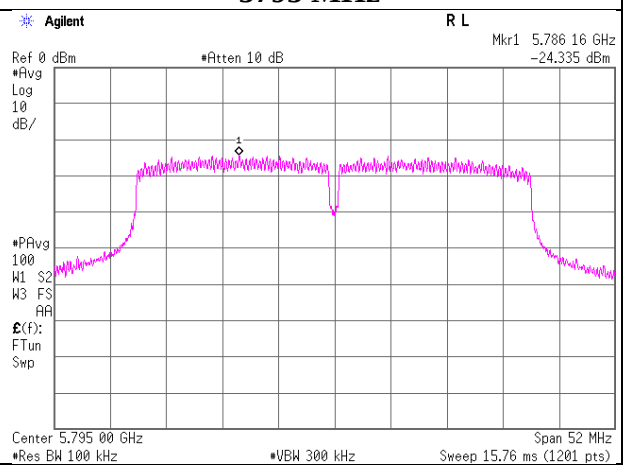
5550 MHz



5670 MHz



5795 MHz

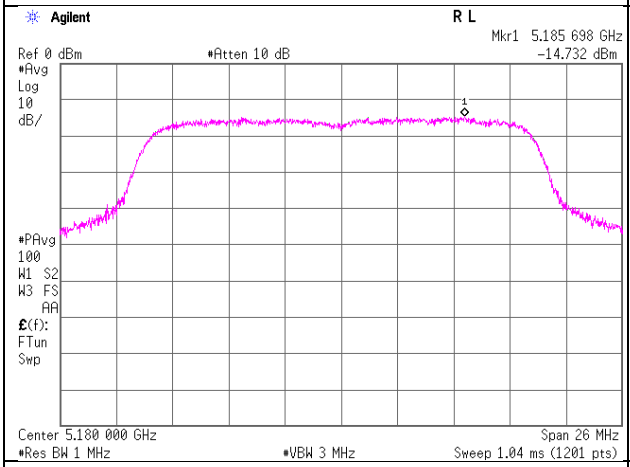


Maximum Power Spectral Density

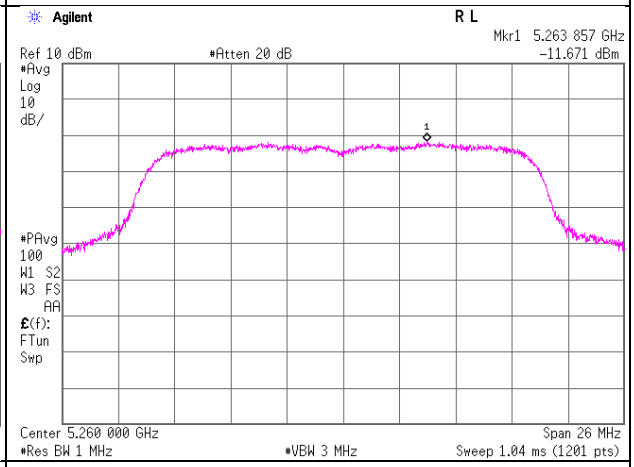
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (MIMO), Main Antenna

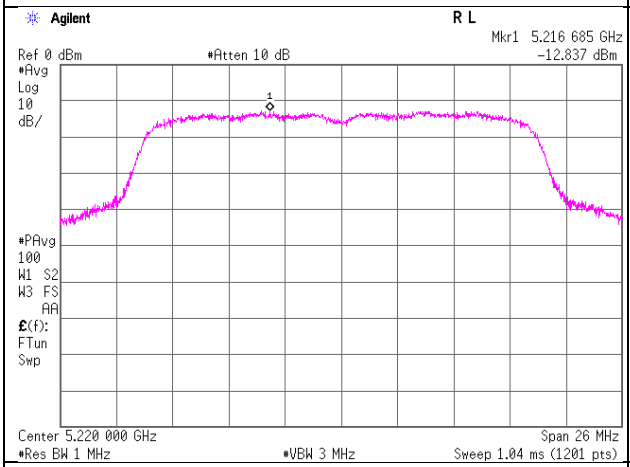
5180 MHz



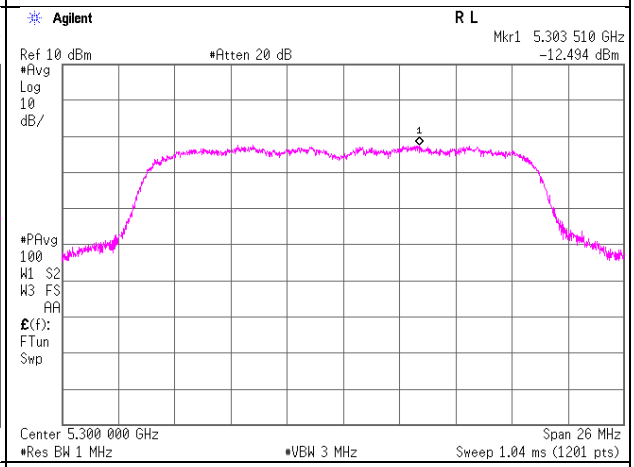
5260 MHz



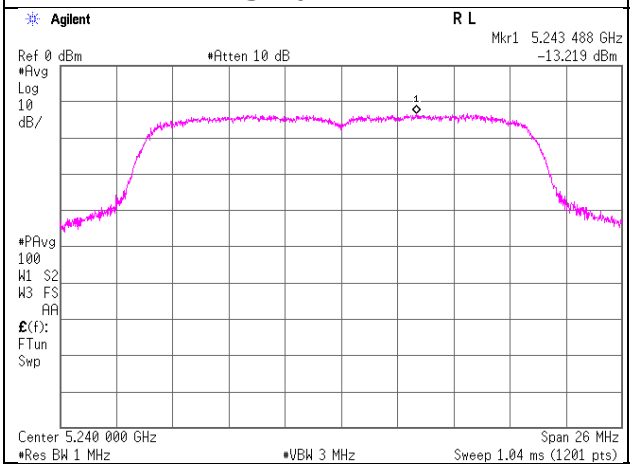
5220 MHz



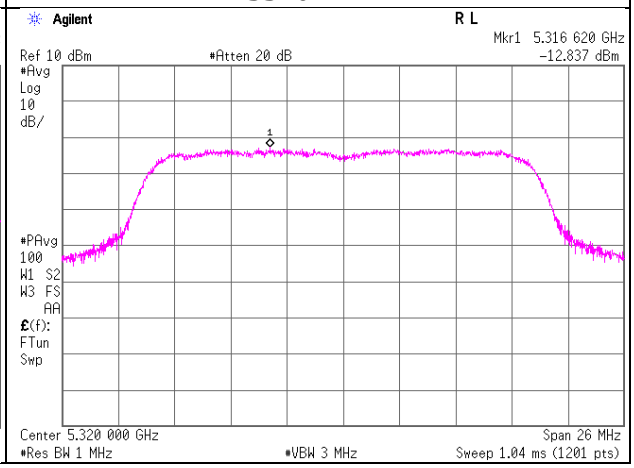
5300 MHz



5240 MHz



5320 MHz

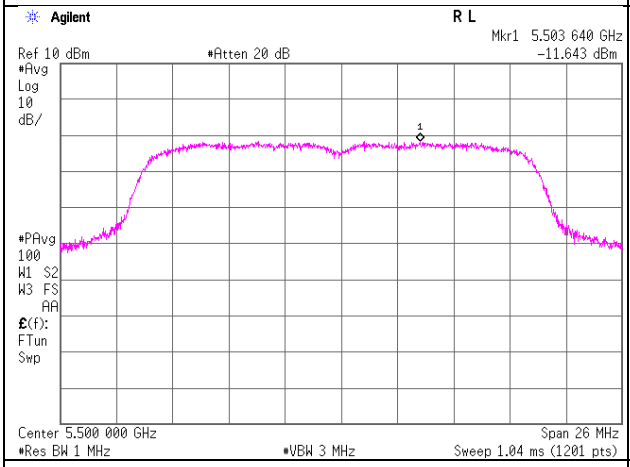


Maximum Power Spectral Density

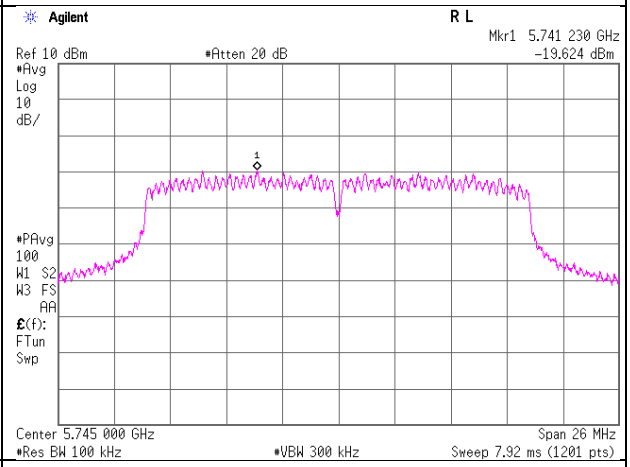
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (MIMO), Main Antenna

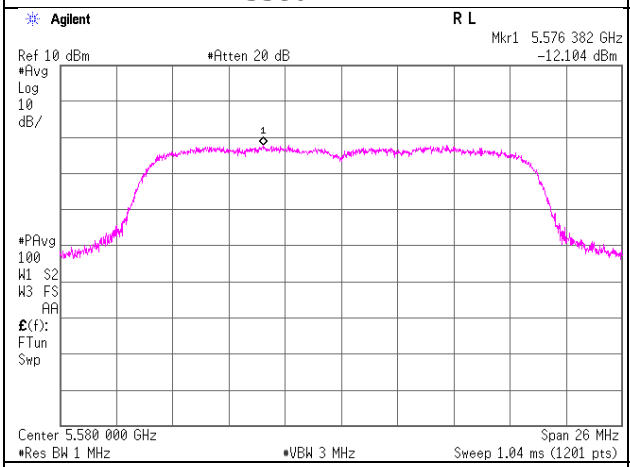
5500 MHz



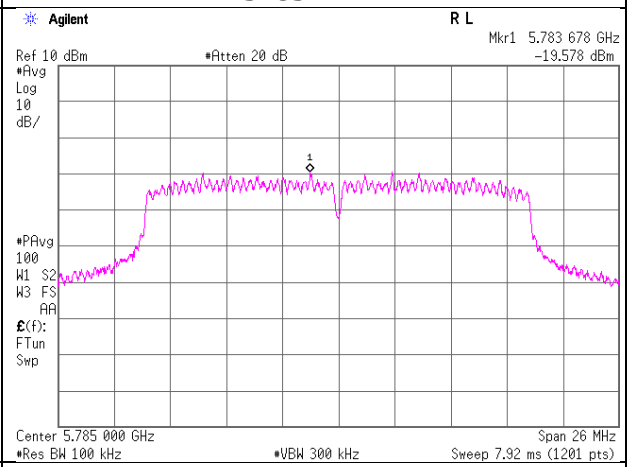
5745 MHz



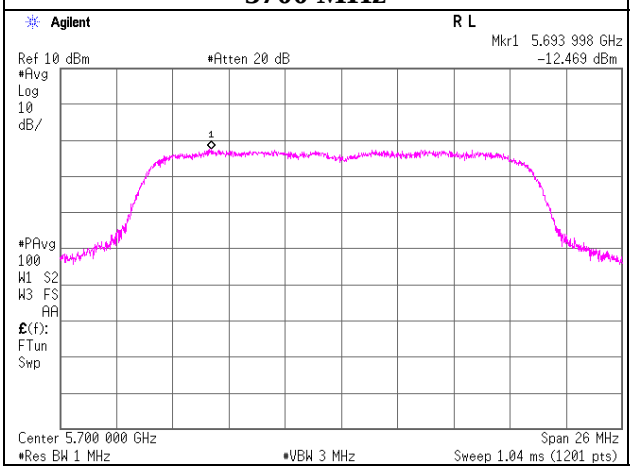
5580 MHz



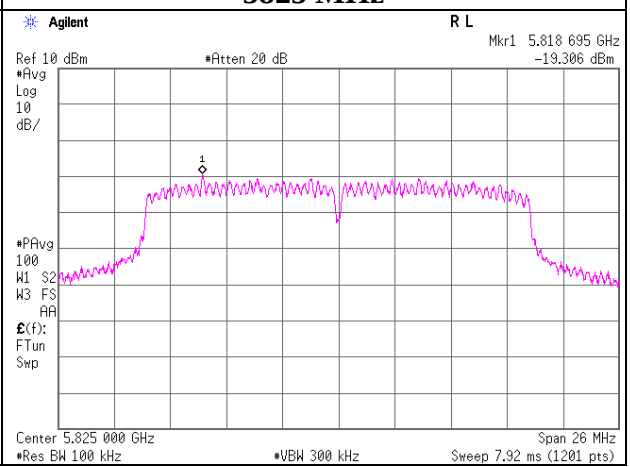
5785 MHz



5700 MHz



5825 MHz

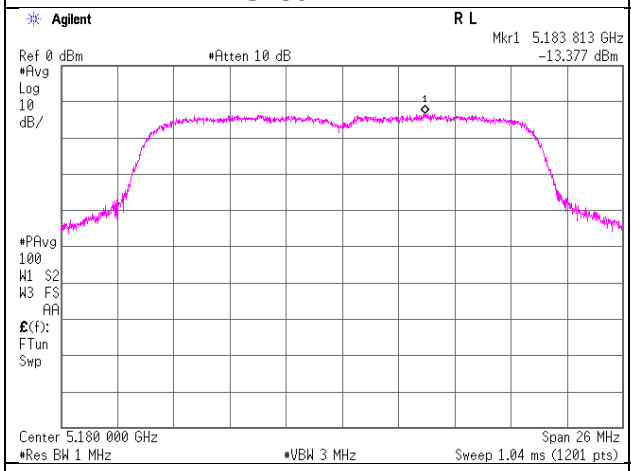


Maximum Power Spectral Density

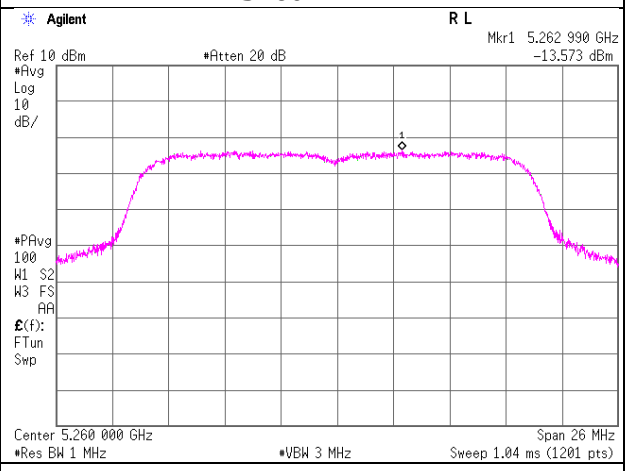
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (MIMO), Sub Antenna

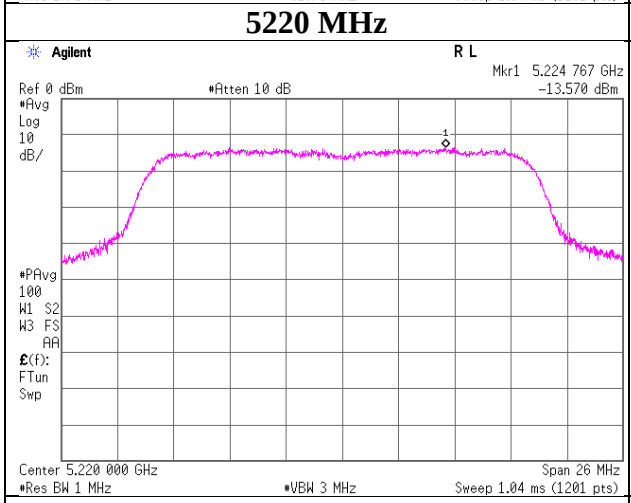
5180 MHz



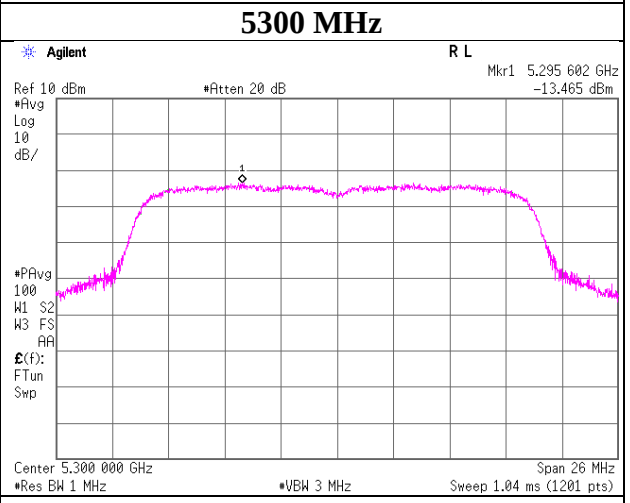
5260 MHz



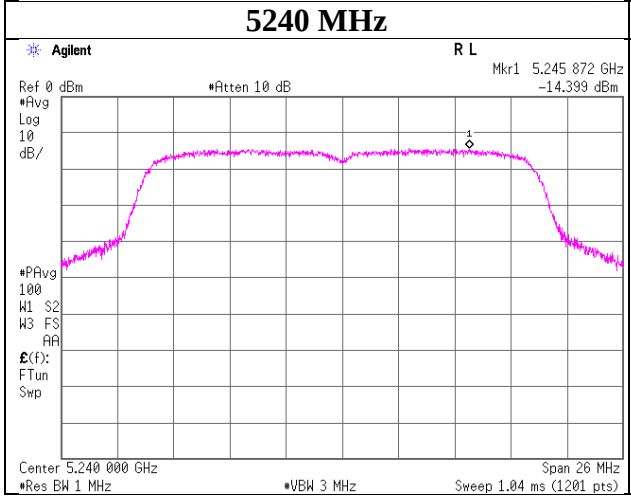
5220 MHz



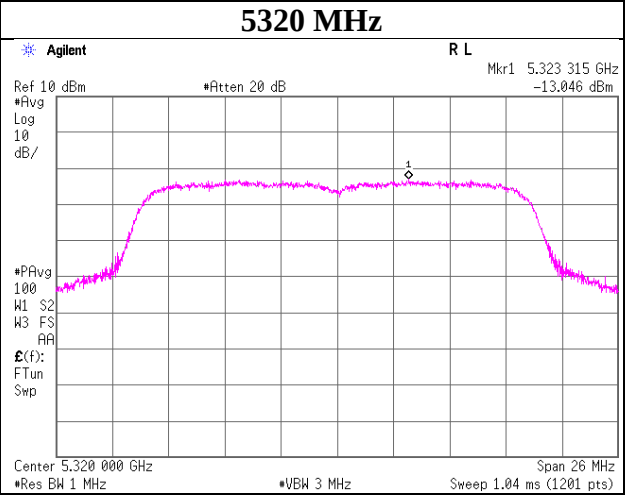
5300 MHz



5240 MHz



5320 MHz

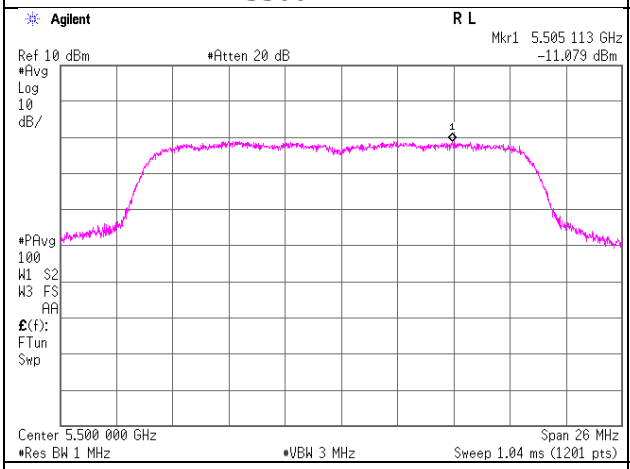


Maximum Power Spectral Density

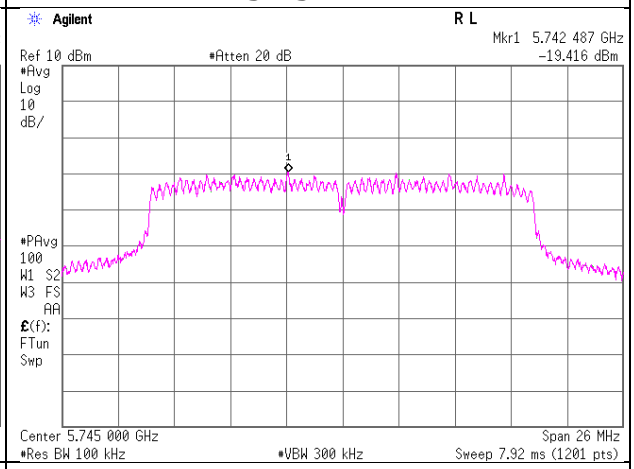
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-20 (MIMO), Sub Antenna

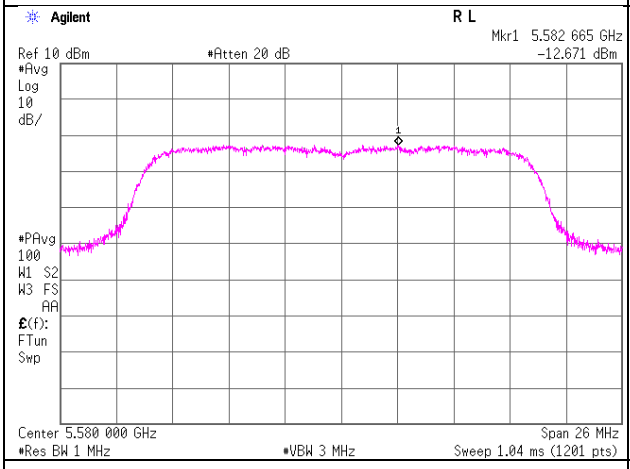
5500 MHz



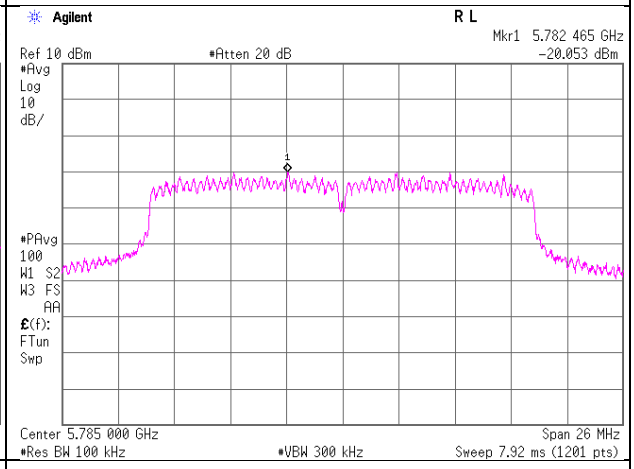
5745 MHz



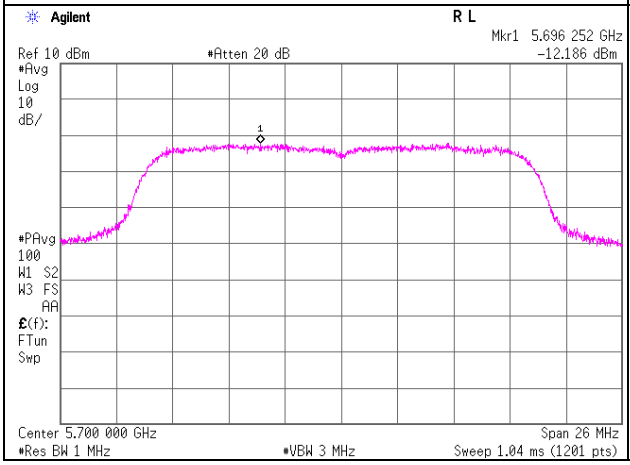
5580 MHz



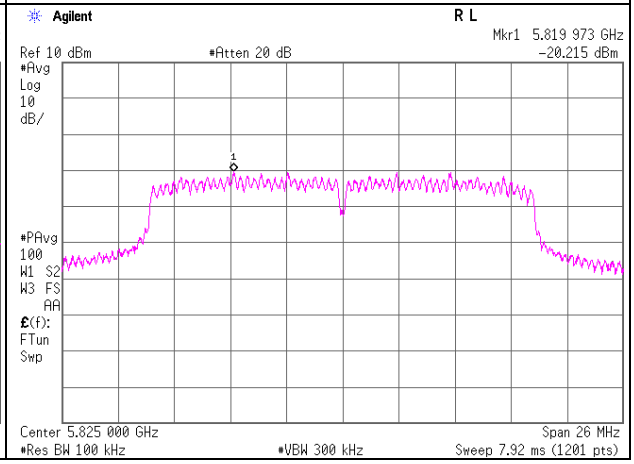
5785 MHz



5700 MHz



5825 MHz

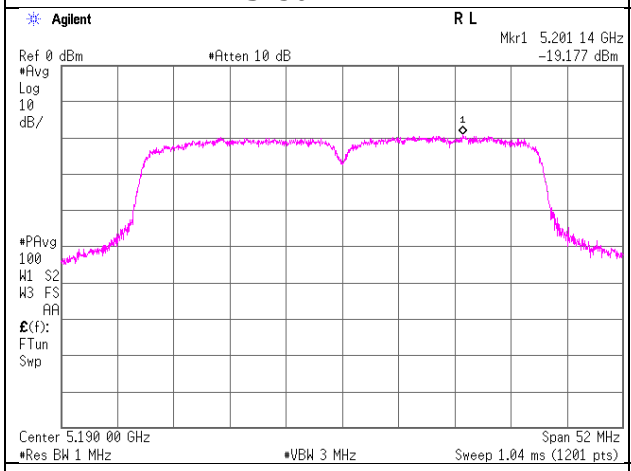


Maximum Power Spectral Density

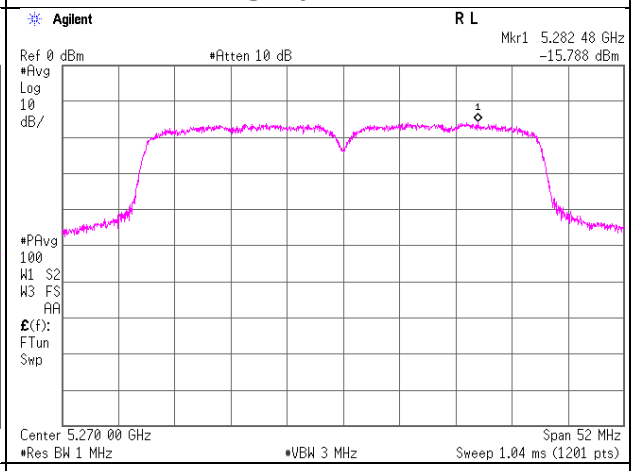
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (MIMO), Main Antenna

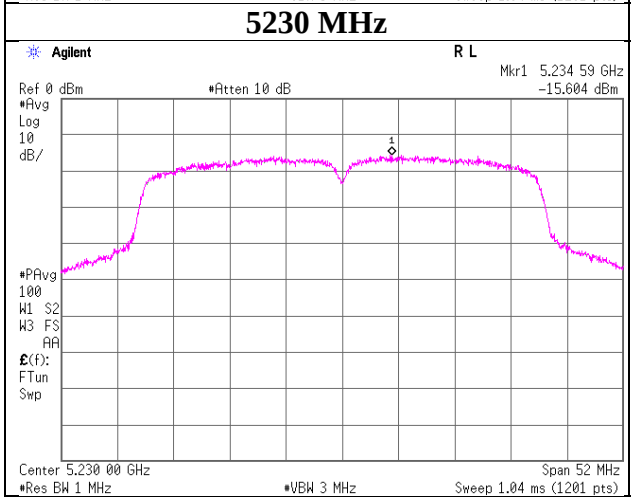
5190 MHz



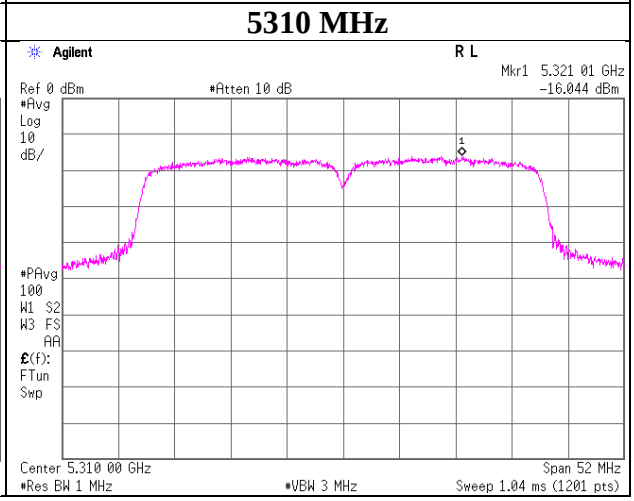
5270 MHz



5230 MHz



5310 MHz

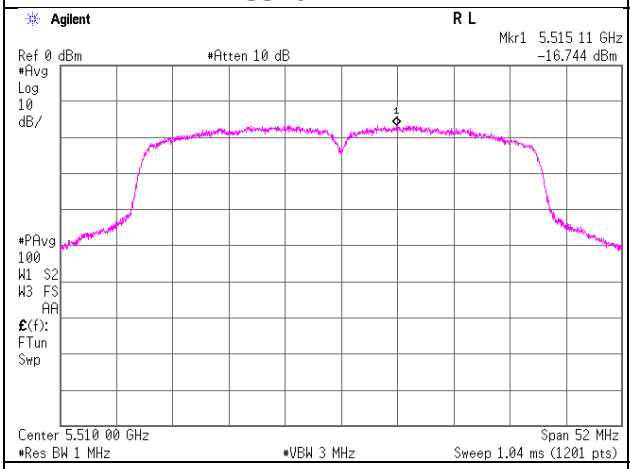


Maximum Power Spectral Density

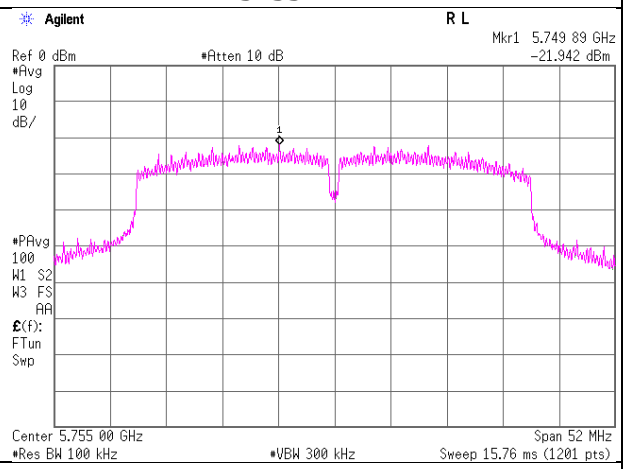
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (MIMO), Main Antenna

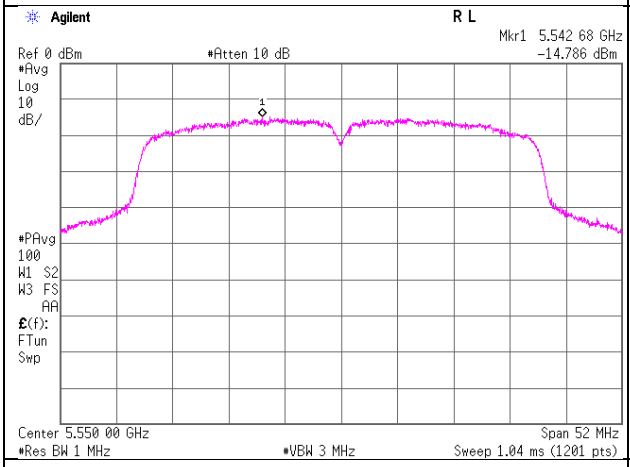
5510 MHz



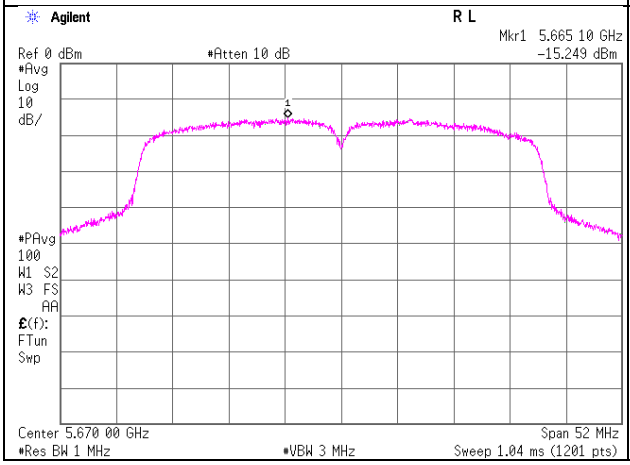
5755 MHz



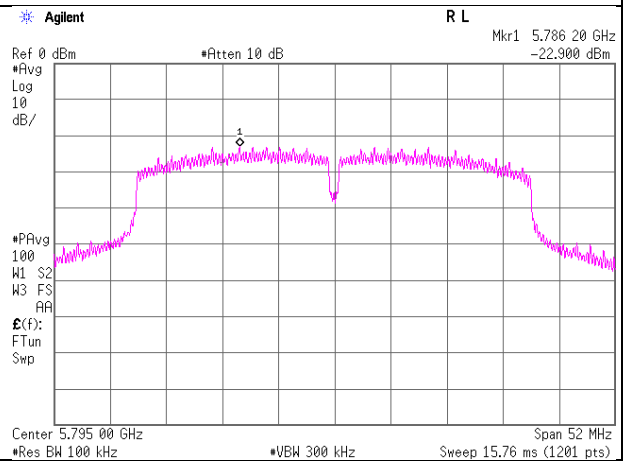
5550 MHz



5670 MHz



5795 MHz

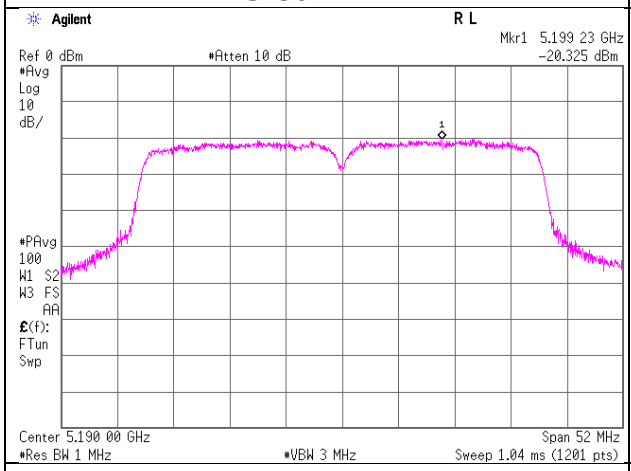


Maximum Power Spectral Density

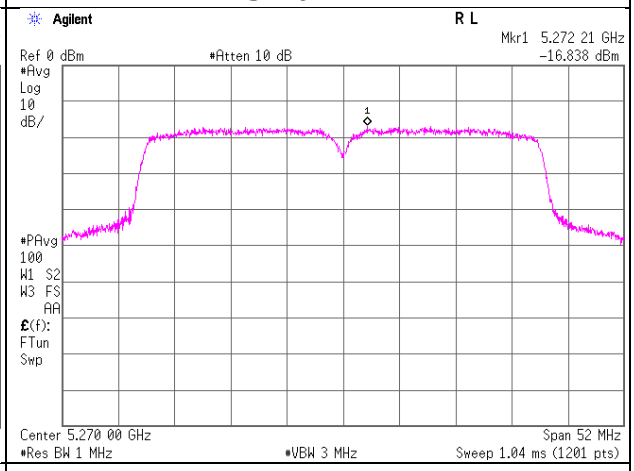
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (MIMO), Sub Antenna

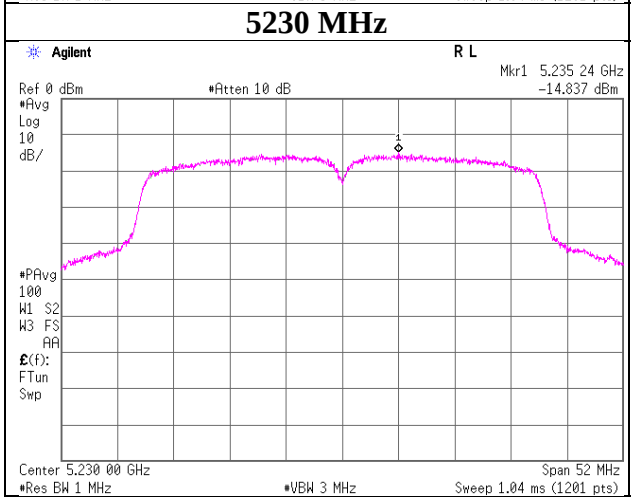
5190 MHz



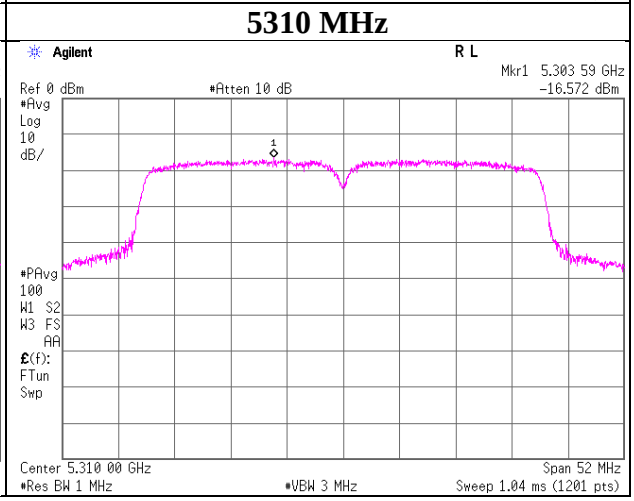
5270 MHz



5230 MHz



5310 MHz

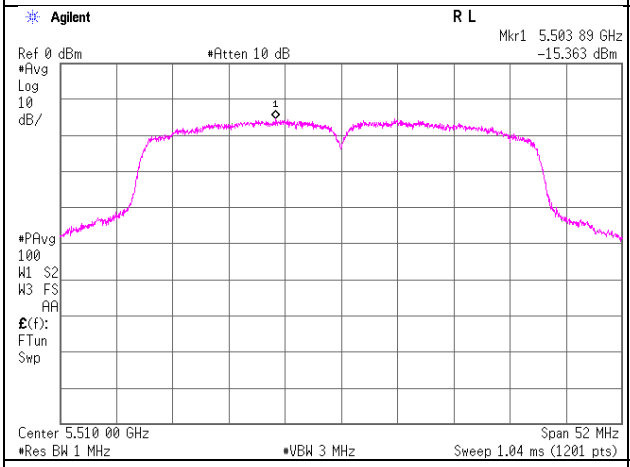


Maximum Power Spectral Density

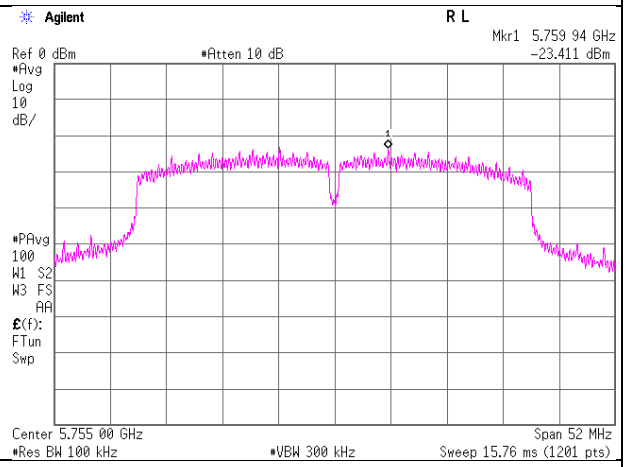
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx

11n-40 (MIMO), Sub Antenna

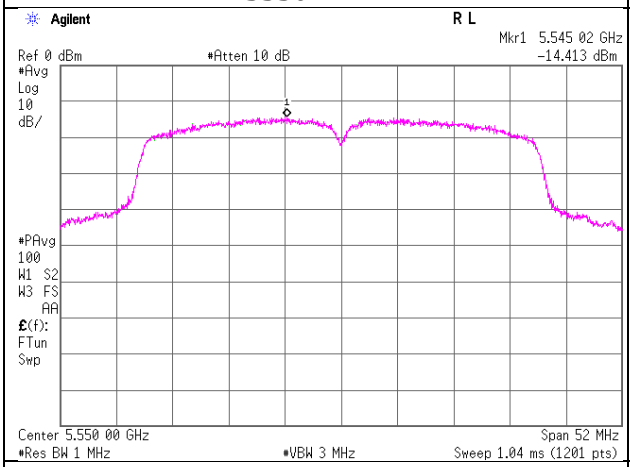
5510 MHz



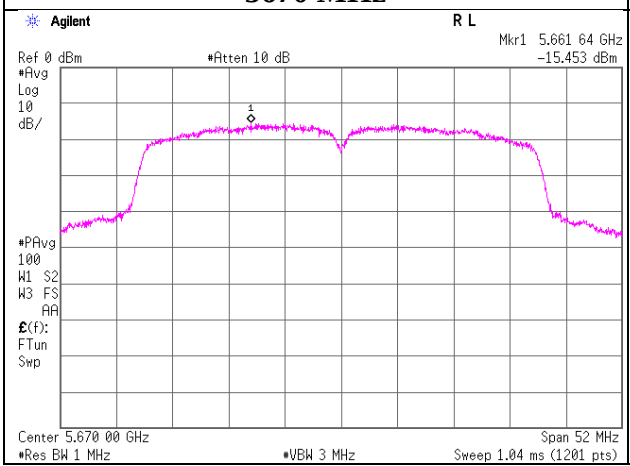
5755 MHz



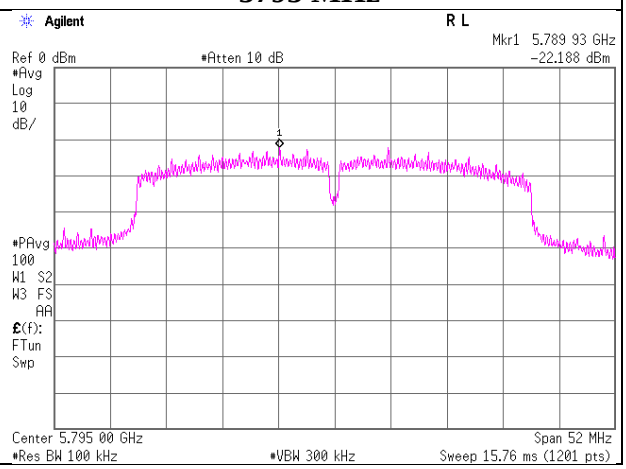
5550 MHz



5670 MHz



5795 MHz



Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5180 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	47.10	32.04	15.63	41.02	1.83	55.58	73.90	18.3	112	214	
Hori.	6906.653	PK	51.51	36.22	6.86	40.88	1.83	55.54	73.90	18.3	157	107	
Hori.	10360.000	PK	46.74	39.15	8.00	40.37	1.83	55.35	73.90	18.5	150	0	
Hori.	15540.000	PK	45.41	40.44	10.48	40.23	-9.54	46.56	73.90	27.3	150	0	
Hori.	5150.000	AV	35.65	32.04	15.63	41.02	1.83	44.13	53.90	9.8	112	214	VBW:1.5 kHz
Hori.	6906.653	AV	45.59	36.22	6.86	40.88	1.83	49.62	53.90	**4.2**	157	107	VBW:1.5 kHz
Hori.	10360.000	AV	35.52	39.15	8.00	40.37	1.83	44.13	53.90	9.7	150	0	VBW:1.5 kHz
Hori.	15540.000	AV	36.60	40.44	10.48	40.23	-9.54	37.75	53.90	16.1	150	0	VBW:1.5 kHz
Vert.	5150.000	PK	47.76	32.04	15.63	41.02	1.83	56.24	73.90	17.7	133	294	
Vert.	6906.649	PK	51.56	36.22	6.86	40.88	1.83	55.59	73.90	18.3	100	86	
Vert.	10360.000	PK	45.56	39.15	8.00	40.37	1.83	54.17	73.90	19.7	150	0	
Vert.	15540.000	PK	44.81	40.44	10.48	40.23	-9.54	45.96	73.90	27.9	150	0	
Vert.	5150.000	AV	36.04	32.04	15.63	41.02	1.83	44.52	53.90	9.4	133	294	VBW:1.5 kHz
Vert.	6906.649	AV	45.31	36.22	6.86	40.88	1.83	49.34	53.90	4.5	100	86	VBW:1.5 kHz
Vert.	10360.000	AV	35.90	39.15	8.00	40.37	1.83	44.51	53.90	9.3	150	0	VBW:1.5 kHz
Vert.	15540.000	AV	36.80	40.44	10.48	40.23	-9.54	37.95	53.90	15.9	150	0	VBW:1.5 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

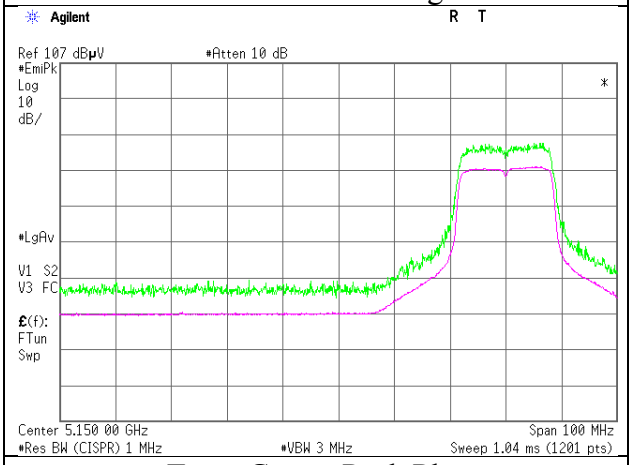
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11a 5180 MHz

Horizontal

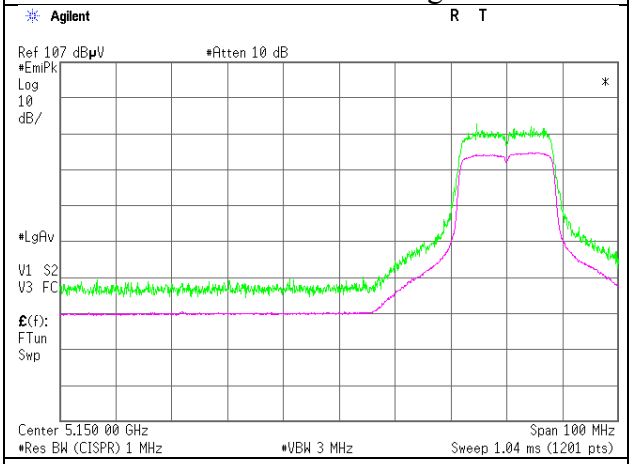
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5240 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6986.638	PK	49.76	36.46	6.87	40.91	1.83	54.01	73.90	19.8	155	105	
Hori.	10480.000	PK	45.93	39.48	7.97	40.40	1.83	54.81	73.90	19.0	150	0	
Hori.	15720.000	PK	43.56	40.04	10.53	40.09	-9.54	44.50	73.90	29.4	150	0	
Hori.	6986.638	AV	42.14	36.46	6.87	40.91	1.83	46.39	53.90	7.5	155	105	VBW:1.5 kHz
Hori.	10480.000	AV	35.96	39.48	7.97	40.40	1.83	44.84	53.90	9.0	150	0	VBW:1.5 kHz
Hori.	15720.000	AV	35.73	40.04	10.53	40.09	-9.54	36.67	53.90	17.2	150	0	VBW:1.5 kHz
Vert.	6986.649	PK	50.18	36.46	6.87	40.91	1.83	54.43	73.90	19.4	109	87	
Vert.	10480.000	PK	47.28	39.48	7.97	40.40	1.83	56.16	73.90	17.7	150	0	
Vert.	15720.000	PK	44.42	40.04	10.53	40.09	-9.54	45.36	73.90	28.5	150	0	
Vert.	6986.649	AV	42.63	36.46	6.87	40.91	1.83	46.88	53.90	**7.0**	109	87	VBW:1.5 kHz
Vert.	10480.000	AV	35.84	39.48	7.97	40.40	1.83	44.72	53.90	9.1	150	0	VBW:1.5 kHz
Vert.	15720.000	AV	36.36	40.04	10.53	40.09	-9.54	37.30	53.90	16.6	150	0	VBW:1.5 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5320 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	46.89	32.09	15.78	40.84	1.83	55.75	73.90	18.2	141	217	
Hori.	7093.318	PK	50.89	36.55	6.93	41.01	1.83	55.19	73.90	18.7	143	105	
Hori.	10640.000	PK	45.54	39.71	8.05	40.50	1.83	54.63	73.90	19.2	150	0	
Hori.	15960.000	PK	44.68	39.51	10.59	39.91	-9.54	45.33	73.90	28.5	150	0	
Hori.	5350.000	AV	35.31	32.09	15.78	40.84	1.83	44.17	53.90	9.7	141	217	VBW:1.5 kHz
Hori.	7093.318	AV	44.06	36.55	6.93	41.01	1.83	48.36	53.90	**5.5**	143	105	VBW:1.5 kHz
Hori.	10640.000	AV	34.99	39.71	8.05	40.50	1.83	44.08	53.90	9.8	150	0	VBW:1.5 kHz
Hori.	15960.000	AV	36.22	39.51	10.59	39.91	-9.54	36.87	53.90	17.0	150	0	VBW:1.5 kHz
Vert.	5350.000	PK	47.11	32.09	15.78	40.84	1.83	55.97	73.90	17.9	186	260	
Vert.	7093.316	PK	51.54	36.55	6.93	41.01	1.83	55.84	73.90	18.0	100	85	
Vert.	10640.000	PK	44.21	39.71	8.05	40.50	1.83	53.30	73.90	20.6	150	0	
Vert.	15960.000	PK	44.13	39.51	10.59	39.91	-9.54	44.78	73.90	29.1	150	0	
Vert.	5350.000	AV	35.68	32.09	15.78	40.84	1.83	44.54	53.90	9.4	186	260	VBW:1.5 kHz
Vert.	7093.316	AV	43.93	36.55	6.93	41.01	1.83	48.23	53.90	5.6	100	85	VBW:1.5 kHz
Vert.	10640.000	AV	34.80	39.71	8.05	40.50	1.83	43.89	53.90	10.0	150	0	VBW:1.5 kHz
Vert.	15960.000	AV	36.13	39.51	10.59	39.91	-9.54	36.78	53.90	17.1	150	0	VBW:1.5 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

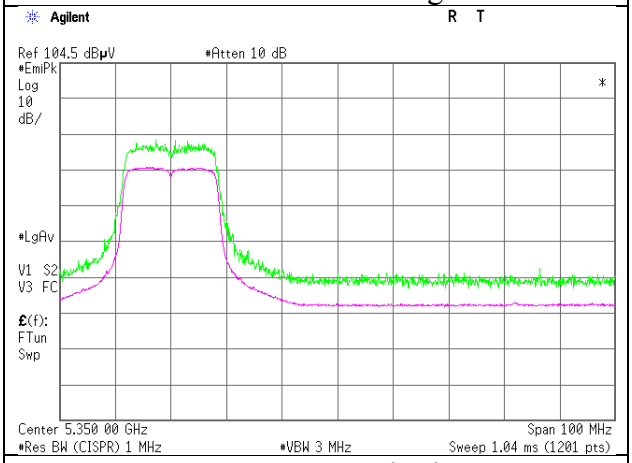
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11a 5320 MHz

Horizontal

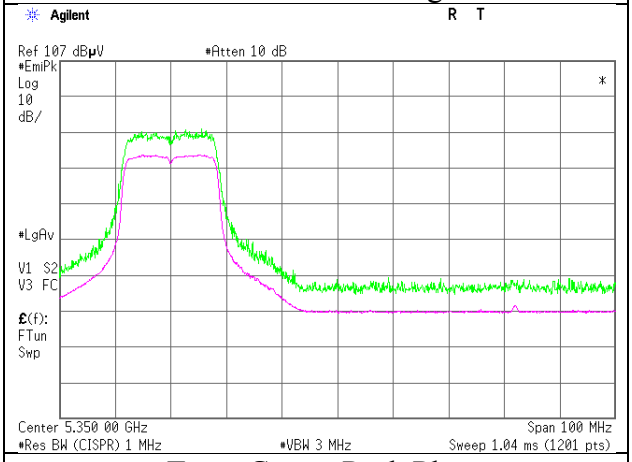
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5500 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5460.000	PK	47.20	32.12	15.86	40.74	1.83	56.27	73.90	17.6	136	242	
Hori.	7333.324	PK	47.66	36.68	7.08	41.26	1.83	51.99	73.90	21.9	139	108	
Hori.	11000.000	PK	45.08	40.19	8.29	40.74	1.83	54.65	73.90	19.2	150	0	
Hori.	16500.000	PK	44.37	40.46	10.87	39.86	-9.54	46.30	73.90	27.6	150	0	
Hori.	5460.000	AV	35.90	32.12	15.86	40.74	1.83	44.97	53.90	8.9	136	242	VBW:1.5 kHz
Hori.	7333.324	AV	38.49	36.68	7.08	41.26	1.83	42.82	53.90	11.0	139	108	VBW:1.5 kHz
Hori.	11000.000	AV	35.39	40.19	8.29	40.74	1.83	44.96	53.90	8.9	150	0	VBW:1.5 kHz
Hori.	16500.000	AV	36.09	40.46	10.87	39.86	-9.54	38.02	53.90	15.8	150	0	VBW:1.5 kHz
Vert.	5460.000	PK	47.08	32.12	15.86	40.74	1.83	56.15	73.90	17.8	173	265	
Vert.	7333.318	PK	47.98	36.68	7.08	41.26	1.83	52.31	73.90	21.5	100	89	
Vert.	11000.000	PK	45.41	40.19	8.29	40.74	1.83	54.98	73.90	18.9	150	0	
Vert.	16500.000	PK	44.70	40.46	10.87	39.86	-9.54	46.63	73.90	27.2	150	0	
Vert.	5460.000	AV	36.04	32.12	15.86	40.74	1.83	45.11	53.90	**8.8**	173	265	VBW:1.5 kHz
Vert.	7333.318	AV	38.26	36.68	7.08	41.26	1.83	42.59	53.90	11.3	100	89	VBW:1.5 kHz
Vert.	11000.000	AV	35.31	40.19	8.29	40.74	1.83	44.88	53.90	9.0	150	0	VBW:1.5 kHz
Vert.	16500.000	AV	36.60	40.46	10.87	39.86	-9.54	38.53	53.90	15.3	150	0	VBW:1.5 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	46.53	32.12	15.87	40.73	1.83	55.62	-39.61	-27.00	12.6	136	242	
Vert.	5470.000	PK	47.25	32.12	15.87	40.73	1.83	56.34	-38.89	-27.00	**11.9**	173	265	

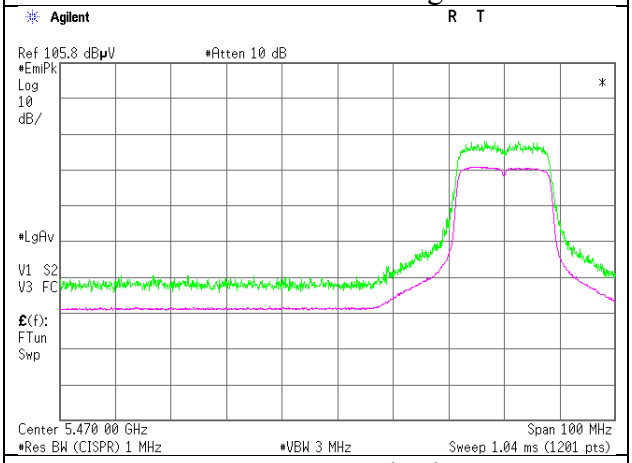
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG （({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11a 5500 MHz

Horizontal

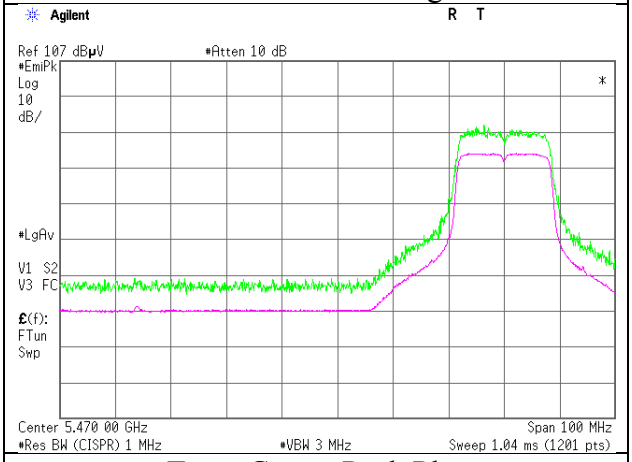
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5580 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7439.972	PK	47.00	36.74	7.14	41.37	1.83	51.34	73.90	22.5	173	104	
Hori.	11160.000	PK	45.28	40.15	8.38	40.61	1.83	55.03	73.90	18.8	150	0	
Hori.	16740.000	PK	44.44	40.96	10.94	39.94	-9.54	46.86	73.90	27.0	150	0	
Hori.	7439.972	AV	36.93	36.74	7.14	41.37	1.83	41.27	53.90	12.6	173	104	VBW:1.5 kHz
Hori.	11160.000	AV	35.61	40.15	8.38	40.61	1.83	45.36	53.90	**8.5**	150	0	VBW:1.5 kHz
Hori.	16740.000	AV	36.73	40.96	10.94	39.94	-9.54	39.15	53.90	14.7	150	0	VBW:1.5 kHz
Vert.	7439.984	PK	46.73	36.74	7.14	41.37	1.83	51.07	73.90	22.8	100	91	
Vert.	11160.000	PK	45.24	40.15	8.38	40.61	1.83	54.99	73.90	18.9	150	0	
Vert.	16740.000	PK	44.83	40.96	10.94	39.94	-9.54	47.25	73.90	26.6	150	0	
Vert.	7439.984	AV	36.32	36.74	7.14	41.37	1.83	40.66	53.90	13.2	100	91	VBW:1.5 kHz
Vert.	11160.000	AV	35.64	40.15	8.38	40.61	1.83	45.39	53.90	**8.5**	150	0	VBW:1.5 kHz
Vert.	16740.000	AV	36.09	40.96	10.94	39.94	-9.54	38.51	53.90	15.3	150	0	VBW:1.5 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5700 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7599.930	PK	46.95	36.94	7.15	41.45	1.83	51.42	73.90	22.4	139	101	
Hori.	11400.000	PK	44.80	40.10	8.51	40.41	1.83	54.83	73.90	19.0	150	0	
Hori.	17100.000	PK	44.52	41.85	11.03	40.01	-9.54	47.85	73.90	26.0	150	0	
Hori.	7599.930	AV	36.49	36.94	7.15	41.45	1.83	40.96	53.90	12.9	139	101	VBW:1.5 kHz
Hori.	11400.000	AV	33.73	40.10	8.51	40.41	1.83	43.76	53.90	10.1	150	0	VBW:1.5 kHz
Hori.	17100.000	AV	36.13	41.85	11.03	40.01	-9.54	39.46	53.90	14.4	150	0	VBW:1.5 kHz
Vert.	7599.948	PK	46.81	36.94	7.15	41.45	1.83	51.28	73.90	22.6	100	96	
Vert.	11400.000	PK	45.86	40.10	8.51	40.41	1.83	55.89	73.90	18.0	150	0	
Vert.	17100.000	PK	45.23	41.85	11.03	40.01	-9.54	48.56	73.90	25.3	150	0	
Vert.	7599.948	AV	36.52	36.94	7.15	41.45	1.83	40.99	53.90	12.9	100	96	VBW:1.5 kHz
Vert.	11400.000	AV	34.01	40.10	8.51	40.41	1.83	44.04	53.90	**9.8**	150	0	VBW:1.5 kHz
Vert.	17100.000	AV	36.25	41.85	11.03	40.01	-9.54	39.58	53.90	14.3	150	0	VBW:1.5 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	46.43	32.58	16.04	40.62	1.83	56.26	-38.97	-27.00	12.0	124	256	
Vert.	5725.000	PK	46.45	32.58	16.04	40.62	1.83	56.28	-38.95	-27.00	**12.0**	209	262	

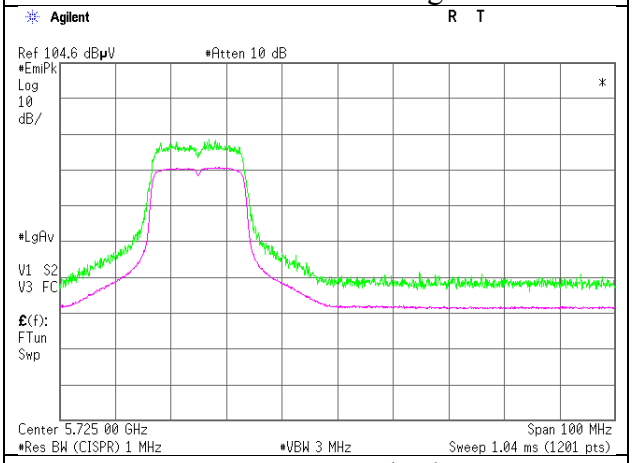
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11a 5700 MHz

Horizontal

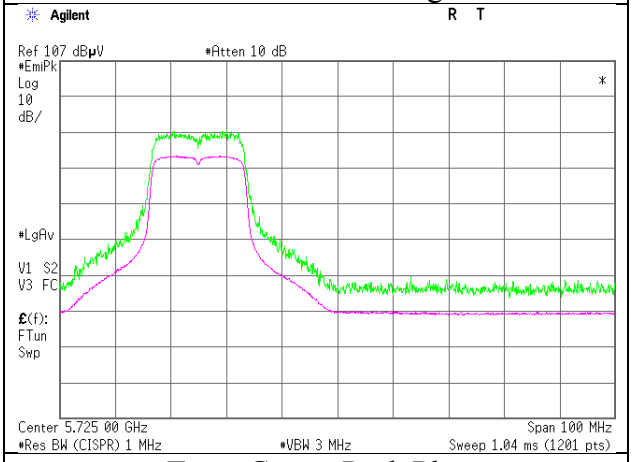
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5745 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7660.000	PK	47.14	37.05	7.13	41.47	1.83	51.68	73.90	22.2	154	103	
Hori.	11490.000	PK	44.48	40.08	8.56	40.34	1.83	54.61	73.90	19.2	150	0	
Hori.	17235.000	PK	44.35	42.32	11.03	39.98	-9.54	48.18	73.90	25.7	150	0	
Hori.	7660.000	AV	35.86	37.05	7.13	41.47	1.83	40.40	53.90	13.5	154	103	VBW:1.5 kHz
Hori.	11490.000	AV	33.40	40.08	8.56	40.34	1.83	43.53	53.90	**10.3**	150	0	VBW:1.5 kHz
Hori.	17235.000	AV	35.65	42.32	11.03	39.98	-9.54	39.48	53.90	14.4	150	0	VBW:1.5 kHz
Vert.	7659.905	PK	46.36	37.05	7.13	41.47	1.83	50.90	73.90	23.0	153	86	
Vert.	11490.000	PK	43.90	40.08	8.56	40.34	1.83	54.03	73.90	19.8	150	0	
Vert.	17235.000	PK	43.77	42.32	11.03	39.98	-9.54	47.60	73.90	26.3	150	0	
Vert.	7659.905	AV	36.09	37.05	7.13	41.47	1.83	40.63	53.90	13.2	153	86	VBW:1.5 kHz
Vert.	11490.000	AV	33.47	40.08	8.56	40.34	1.83	43.60	53.90	**10.3**	150	0	VBW:1.5 kHz
Vert.	17235.000	AV	35.83	42.32	11.03	39.98	-9.54	39.66	53.90	14.2	150	0	VBW:1.5 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	46.68	32.43	15.99	40.65	1.83	56.28	-38.95	-27.00	**12.0**	126	254	
Hori.	5700.000	PK	46.65	32.53	16.02	40.63	1.83	56.40	-38.83	10.00	48.8	126	254	
Hori.	5720.000	PK	46.18	32.57	16.03	40.62	1.83	55.99	-39.24	15.60	54.8	126	254	
Hori.	5725.000	PK	51.82	32.58	16.04	40.62	1.83	61.65	-33.58	27.00	60.6	126	254	
Vert.	5650.000	PK	46.25	32.43	15.99	40.65	1.83	55.85	-39.38	-27.00	12.4	172	248	
Vert.	5700.000	PK	46.26	32.53	16.02	40.63	1.83	56.01	-39.22	10.00	49.2	172	248	
Vert.	5720.000	PK	46.66	32.57	16.03	40.62	1.83	56.47	-38.76	15.60	54.4	172	248	
Vert.	5725.000	PK	55.44	32.58	16.04	40.62	1.83	65.27	-29.96	27.00	57.0	172	248	

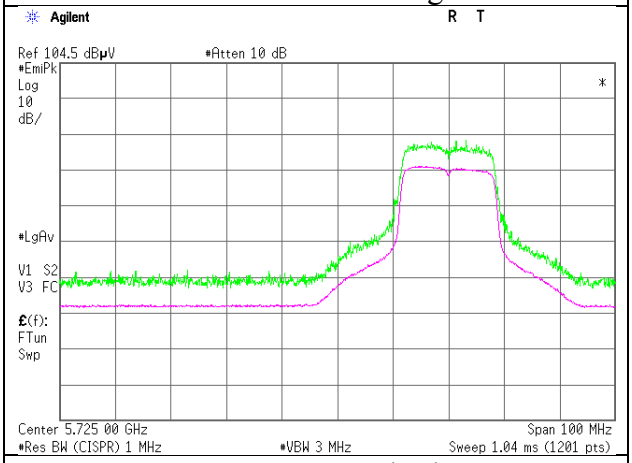
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG （({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11a 5745 MHz

Horizontal

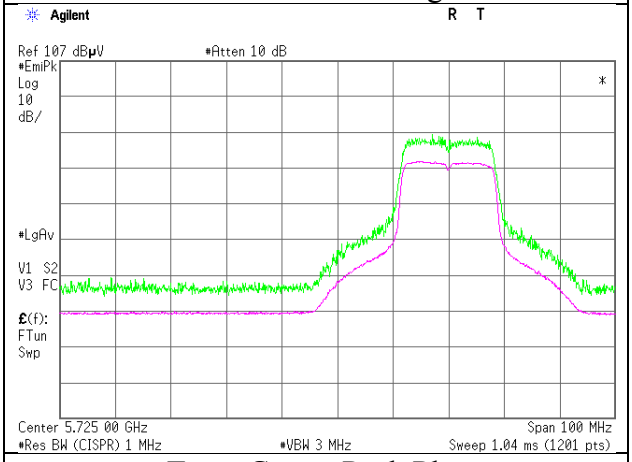
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5785 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7713.193	PK	48.19	37.14	7.12	41.48	1.83	52.80	73.90	21.1	151	107	
Hori.	11570.000	PK	42.88	40.01	8.57	40.27	1.83	53.02	73.90	20.8	150	0	
Hori.	17355.000	PK	44.02	42.75	11.03	39.96	-9.54	48.30	73.90	25.6	150	0	
Hori.	7713.193	AV	37.18	37.14	7.12	41.48	1.83	41.79	53.90	12.1	151	107	VBW:1.5 kHz
Hori.	11570.000	AV	32.57	40.01	8.57	40.27	1.83	42.71	53.90	11.1	150	0	VBW:1.5 kHz
Hori.	17355.000	AV	35.86	42.75	11.03	39.96	-9.54	40.14	53.90	13.7	150	0	VBW:1.5 kHz
Vert.	7713.333	PK	47.86	37.14	7.11	41.48	1.83	52.46	73.90	21.4	153	92	
Vert.	11570.000	PK	43.84	40.01	8.57	40.27	1.83	53.98	73.90	19.9	100	0	
Vert.	17355.000	PK	44.72	42.75	11.03	39.96	-9.54	49.00	73.90	24.9	150	0	
Vert.	7713.333	AV	37.17	37.14	7.11	41.48	1.83	41.77	53.90	12.1	153	92	VBW:1.5 kHz
Vert.	11570.000	AV	32.73	40.01	8.57	40.27	1.83	42.87	53.90	**11.0**	100	0	VBW:1.5 kHz
Vert.	17355.000	AV	35.96	42.75	11.03	39.96	-9.54	40.24	53.90	13.6	150	0	VBW:1.5 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11a 5825 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7766.658	PK	47.62	37.23	7.11	41.49	1.83	52.30	73.90	21.6	152	110	
Hori.	11650.000	PK	43.76	39.94	8.59	40.20	1.83	53.92	73.90	19.9	150	0	
Hori.	17475.000	PK	45.16	43.17	11.03	39.94	-9.54	49.88	73.90	24.0	150	0	
Hori.	7766.658	AV	36.85	37.23	7.11	41.49	1.83	41.53	53.90	12.3	152	110	VBW:1.5 kHz
Hori.	11650.000	AV	32.37	39.94	8.59	40.20	1.83	42.53	53.90	**11.3**	150	0	VBW:1.5 kHz
Hori.	17475.000	AV	36.37	43.17	11.03	39.94	-9.54	41.09	53.90	12.8	150	0	VBW:1.5 kHz
Vert.	7766.597	PK	47.45	37.23	7.11	41.49	1.83	52.13	73.90	21.7	155	93	
Vert.	11650.000	PK	42.58	39.94	8.59	40.20	1.83	52.74	73.90	21.1	150	0	
Vert.	17475.000	PK	45.51	43.17	11.03	39.94	-9.54	50.23	73.90	23.6	150	0	
Vert.	7766.597	AV	36.83	37.23	7.11	41.49	1.83	41.51	53.90	12.3	155	93	VBW:1.5 kHz
Vert.	11650.000	AV	32.44	39.94	8.59	40.20	1.83	42.60	53.90	**11.3**	150	0	VBW:1.5 kHz
Vert.	17475.000	AV	36.32	43.17	11.03	39.94	-9.54	41.04	53.90	12.8	150	0	VBW:1.5 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	46.10	32.82	16.13	40.57	1.83	56.31	-38.92	27.00	65.9	135	259	
Hori.	5855.000	PK	46.27	32.83	16.13	40.57	1.83	56.49	-38.74	15.60	54.3	135	259	
Hori.	5875.000	PK	45.69	32.87	16.15	40.57	1.83	55.97	-39.26	10.00	49.3	135	259	
Hori.	5925.000	PK	45.91	32.97	16.19	40.55	1.83	56.35	-38.88	-27.00	**11.9**	135	259	
Vert.	5850.000	PK	45.98	32.82	16.13	40.57	1.83	56.19	-39.04	27.00	66.0	213	267	
Vert.	5855.000	PK	45.41	32.83	16.13	40.57	1.83	55.63	-39.60	15.60	55.2	213	267	
Vert.	5875.000	PK	45.52	32.87	16.15	40.57	1.83	55.80	-39.43	10.00	49.4	213	267	
Vert.	5925.000	PK	45.31	32.97	16.19	40.55	1.83	55.75	-39.48	-27.00	12.5	213	267	

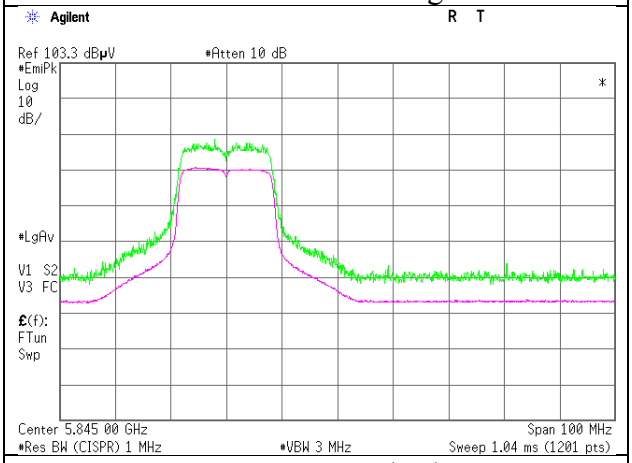
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG （({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11a 5825 MHz

Horizontal

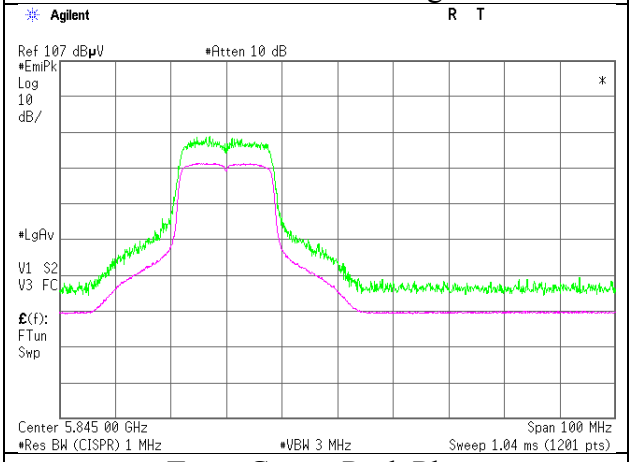
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

UL Japan, Inc.
Shonan EMC Lab.
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa-ken, 259-1220 JAPAN
Telephone : +81 463 50 6400
Facsimile : +81 463 50 6401

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5180 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	47.02	32.04	15.63	41.02	1.83	55.50	73.90	18.4	100	24	
Hori.	6906.685	PK	50.26	36.22	6.86	40.88	1.83	54.29	73.90	19.6	161	105	
Hori.	10360.000	PK	40.03	39.15	8.00	40.37	1.83	48.64	73.90	25.2	150	0	
Hori.	15540.000	PK	44.79	40.44	10.48	40.23	-9.54	45.94	73.90	27.9	150	0	
Hori.	5150.000	AV	36.36	32.04	15.63	41.02	1.83	44.84	53.90	9.1	100	24	VBW:3.6 kHz
Hori.	6906.685	AV	42.78	36.22	6.86	40.88	1.83	46.81	53.90	**7.0**	161	105	VBW:3.6 kHz
Hori.	10360.000	AV	36.63	39.15	8.00	40.37	1.83	45.24	53.90	8.6	150	0	VBW:3.6 kHz
Hori.	15540.000	AV	36.70	40.44	10.48	40.23	-9.54	37.85	53.90	16.0	150	0	VBW:3.6 kHz
Vert.	5150.000	PK	47.71	32.04	15.63	41.02	1.83	56.19	73.90	17.7	100	359	
Vert.	6906.685	PK	51.38	36.22	6.86	40.88	1.83	55.41	73.90	18.4	100	99	
Vert.	10360.000	PK	49.06	39.15	8.00	40.37	1.83	57.67	73.90	16.2	150	0	
Vert.	15540.000	PK	45.11	40.44	10.48	40.23	-9.54	46.26	73.90	27.6	150	0	
Vert.	5150.000	AV	36.65	32.04	15.63	41.02	1.83	45.13	53.90	8.8	100	359	VBW:3.6 kHz
Vert.	6906.685	AV	42.57	36.22	6.86	40.88	1.83	46.60	53.90	7.3	100	99	VBW:3.6 kHz
Vert.	10360.000	AV	36.74	39.15	8.00	40.37	1.83	45.35	53.90	8.5	150	0	VBW:3.6 kHz
Vert.	15540.000	AV	36.34	40.44	10.48	40.23	-9.54	37.49	53.90	16.4	150	0	VBW:3.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

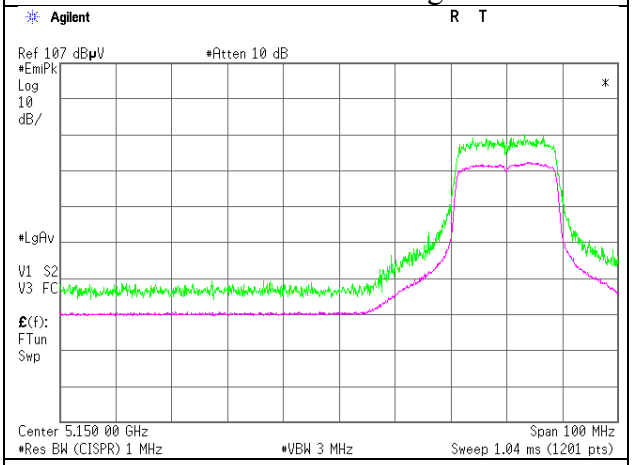
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-20 5180 MHz

Horizontal

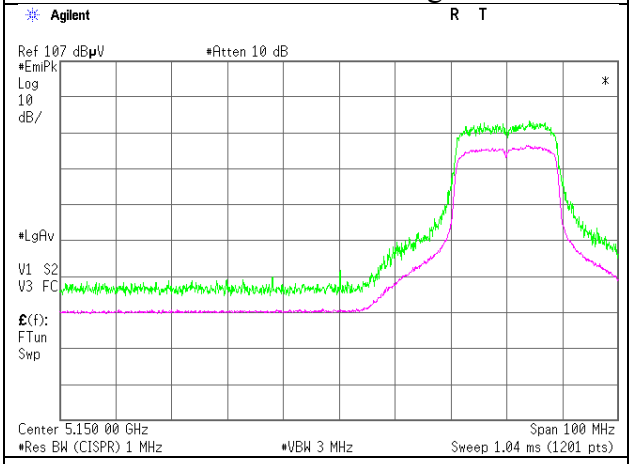
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5240 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6986.769	PK	51.11	36.46	6.87	40.91	1.83	55.36	73.90	18.5	154	111	
Hori.	10480.000	PK	49.13	39.48	7.97	40.40	1.83	58.01	73.90	15.8	150	0	
Hori.	15720.000	PK	44.38	40.04	10.53	40.09	-9.54	45.32	73.90	28.5	150	0	
Hori.	6986.769	AV	42.54	36.46	6.87	40.91	1.83	46.79	53.90	**7.1**	154	111	VBW:3.6 kHz
Hori.	10480.000	AV	37.10	39.48	7.97	40.40	1.83	45.98	53.90	7.9	150	0	VBW:3.6 kHz
Hori.	15720.000	AV	35.67	40.04	10.53	40.09	-9.54	36.61	53.90	17.2	150	0	VBW:3.6 kHz
Vert.	6986.769	PK	50.95	36.46	6.87	40.91	1.83	55.20	73.90	18.7	110	96	
Vert.	10480.000	PK	47.46	39.48	7.97	40.40	1.83	56.34	73.90	17.5	150	0	
Vert.	15720.000	PK	44.75	40.04	10.53	40.09	-9.54	45.69	73.90	28.2	150	0	
Vert.	6986.769	AV	40.90	36.46	6.87	40.91	1.83	45.15	53.90	8.7	110	96	VBW:3.6 kHz
Vert.	10480.000	AV	37.53	39.48	7.97	40.40	1.83	46.41	53.90	7.4	150	0	VBW:3.6 kHz
Vert.	15720.000	AV	35.66	40.04	10.53	40.09	-9.54	36.60	53.90	17.3	150	0	VBW:3.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5320 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	47.97	32.09	15.78	40.84	1.83	56.83	73.90	17.1	100	54	
Hori.	7093.459	PK	51.75	36.55	6.93	41.01	1.83	56.05	73.90	17.8	139	107	
Hori.	10640.000	PK	48.27	39.71	8.05	40.50	1.83	57.36	73.90	16.5	150	0	
Hori.	15960.000	PK	44.80	39.51	10.59	39.91	-9.54	45.45	73.90	28.4	150	0	
Hori.	5350.000	AV	36.82	32.09	15.78	40.84	1.83	45.68	53.90	8.2	100	54	VBW:3.6 kHz
Hori.	7093.459	AV	42.46	36.55	6.93	41.01	1.83	46.76	53.90	**7.1**	139	107	VBW:3.6 kHz
Hori.	10640.000	AV	35.83	39.71	8.05	40.50	1.83	44.92	53.90	8.9	150	0	VBW:3.6 kHz
Hori.	15960.000	AV	36.11	39.51	10.59	39.91	-9.54	36.76	53.90	17.1	150	0	VBW:3.6 kHz
Vert.	5350.000	PK	46.97	32.09	15.78	40.84	1.83	55.83	73.90	18.1	100	359	
Vert.	7093.459	PK	51.83	36.55	6.93	41.01	1.83	56.13	73.90	17.7	106	91	
Vert.	10640.000	PK	47.26	39.71	8.05	40.50	1.83	56.35	73.90	17.5	150	0	
Vert.	15960.000	PK	44.99	39.51	10.59	39.91	-9.54	45.64	73.90	28.2	150	0	
Vert.	5350.000	AV	36.84	32.09	15.78	40.84	1.83	45.70	53.90	8.2	100	359	VBW:3.6 kHz
Vert.	7093.459	AV	42.35	36.55	6.93	41.01	1.83	46.65	53.90	7.2	106	91	VBW:3.6 kHz
Vert.	10640.000	AV	35.98	39.71	8.05	40.50	1.83	45.07	53.90	8.8	150	0	VBW:3.6 kHz
Vert.	15960.000	AV	35.95	39.51	10.59	39.91	-9.54	36.60	53.90	17.3	150	0	VBW:3.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

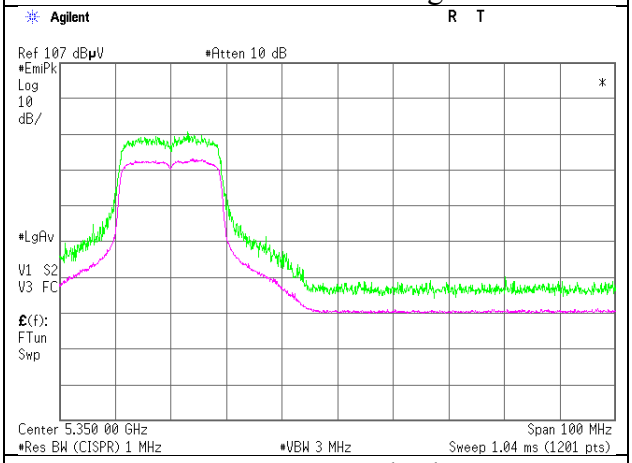
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-20 5320 MHz

Horizontal

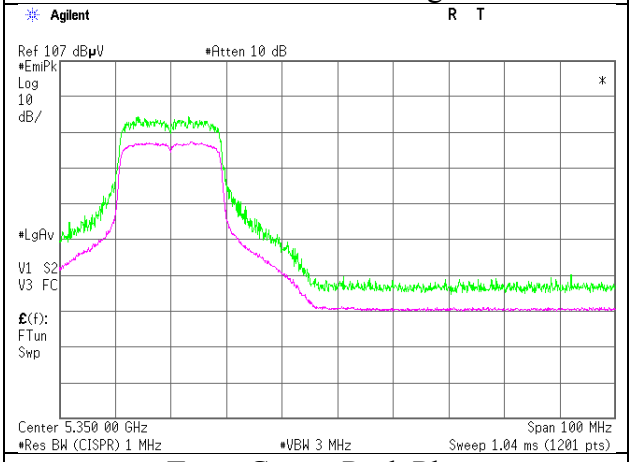
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5500 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5460.000	PK	47.20	32.12	15.86	40.74	1.83	56.27	73.90	17.6	136	242	
Hori.	7333.383	PK	48.31	36.68	7.08	41.26	1.83	52.64	73.90	21.2	119	107	
Hori.	11000.000	PK	47.49	40.19	8.29	40.74	1.83	57.06	73.90	16.8	150	0	
Hori.	16500.000	PK	44.23	40.46	10.87	39.86	-9.54	46.16	73.90	27.7	150	0	
Hori.	5460.000	AV	35.90	32.12	15.86	40.74	1.83	44.97	53.90	8.9	136	242	VBW:3.6 kHz
Hori.	7333.383	AV	38.29	36.68	7.08	41.26	1.83	42.62	53.90	11.2	119	107	VBW:3.6 kHz
Hori.	11000.000	AV	36.77	40.19	8.29	40.74	1.83	46.34	53.90	**7.5**	150	0	VBW:3.6 kHz
Hori.	16500.000	AV	36.82	40.46	10.87	39.86	-9.54	38.75	53.90	15.1	150	0	VBW:3.6 kHz
Vert.	5460.000	PK	47.08	32.12	15.86	40.74	1.83	56.15	73.90	17.8	173	265	
Vert.	7333.383	PK	47.98	36.68	7.08	41.26	1.83	52.31	73.90	21.5	100	93	
Vert.	11000.000	PK	40.04	40.19	8.29	40.74	1.83	49.61	73.90	24.2	150	0	
Vert.	16500.000	PK	44.65	40.46	10.87	39.86	-9.54	46.58	73.90	27.3	150	0	
Vert.	5460.000	AV	36.04	32.12	15.86	40.74	1.83	45.11	53.90	8.8	173	265	VBW:3.6 kHz
Vert.	7333.383	AV	37.62	36.68	7.08	41.26	1.83	41.95	53.90	11.9	100	93	VBW:3.6 kHz
Vert.	11000.000	AV	36.46	40.19	8.29	40.74	1.83	46.03	53.90	7.8	150	0	VBW:3.6 kHz
Vert.	16500.000	AV	36.03	40.46	10.87	39.86	-9.54	37.96	53.90	15.9	150	0	VBW:3.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	46.53	32.12	15.87	40.73	1.83	55.62	-39.61	-27.00	12.6	136	242	
Vert.	5470.000	PK	47.25	32.12	15.87	40.73	1.83	56.34	-38.89	-27.00	**11.9**	173	265	

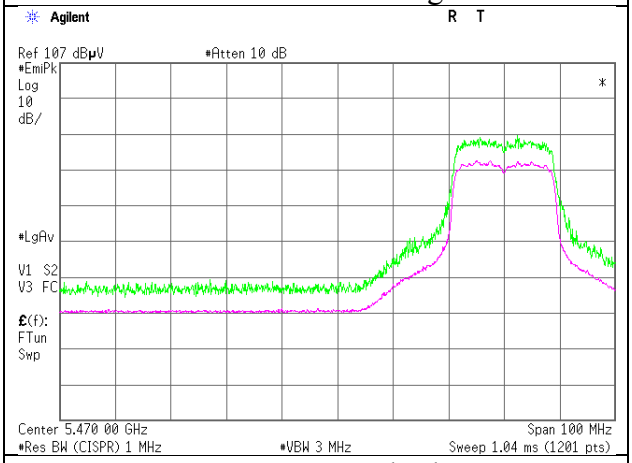
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG （({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-20 5500 MHz

Horizontal

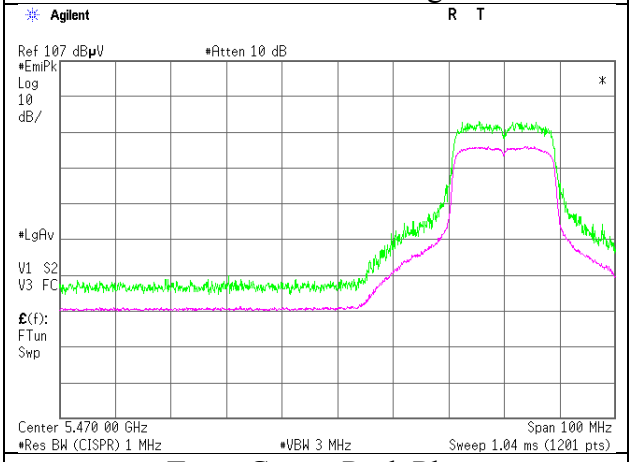
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5580 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7440.000	PK	49.14	36.74	7.14	41.37	1.83	53.48	73.90	20.4	148	99	
Hori.	11160.000	PK	49.06	40.15	8.38	40.61	1.83	58.81	73.90	15.0	150	0	
Hori.	16740.000	PK	44.33	40.96	10.94	39.94	-9.54	46.75	73.90	27.1	150	0	
Hori.	7440.000	AV	37.11	36.74	7.14	41.37	1.83	41.45	53.90	12.4	148	99	VBW:3.6 kHz
Hori.	11160.000	AV	36.77	40.15	8.38	40.61	1.83	46.52	53.90	**7.3**	150	0	VBW:3.6 kHz
Hori.	16740.000	AV	36.13	40.96	10.94	39.94	-9.54	38.55	53.90	15.3	150	0	VBW:3.6 kHz
Vert.	7440.000	PK	48.76	36.74	7.14	41.37	1.83	53.10	73.90	20.8	100	95	
Vert.	11160.000	PK	49.12	40.15	8.38	40.61	1.83	58.87	73.90	15.0	150	0	
Vert.	16740.000	PK	44.27	40.96	10.94	39.94	-9.54	46.69	73.90	27.2	150	0	
Vert.	7440.000	AV	36.75	36.74	7.14	41.37	1.83	41.09	53.90	12.8	100	95	VBW:3.6 kHz
Vert.	11160.000	AV	36.78	40.15	8.38	40.61	1.83	46.53	53.90	**7.3**	150	0	VBW:3.6 kHz
Vert.	16740.000	AV	36.22	40.96	10.94	39.94	-9.54	38.64	53.90	15.2	150	0	VBW:3.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5700 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7599.235	PK	48.98	36.94	7.15	41.45	1.83	53.45	73.90	20.4	141	97	
Hori.	11400.000	PK	46.85	40.10	8.51	40.41	1.83	56.88	73.90	17.0	150	0	
Hori.	17100.000	PK	44.66	41.85	11.03	40.01	-9.54	47.99	73.90	25.9	150	0	
Hori.	7599.235	AV	37.73	36.94	7.15	41.45	1.83	42.20	53.90	11.7	141	97	VBW:3.6 kHz
Hori.	11400.000	AV	35.76	40.10	8.51	40.41	1.83	45.79	53.90	8.1	150	0	VBW:3.6 kHz
Hori.	17100.000	AV	35.97	41.85	11.03	40.01	-9.54	39.30	53.90	14.6	150	0	VBW:3.6 kHz
Vert.	7599.235	PK	49.98	36.94	7.15	41.45	1.83	54.45	73.90	19.4	100	98	
Vert.	11400.000	PK	46.94	40.10	8.51	40.41	1.83	56.97	73.90	16.9	150	0	
Vert.	17100.000	PK	44.54	41.85	11.03	40.01	-9.54	47.87	73.90	26.0	150	0	
Vert.	7599.235	AV	37.53	36.94	7.15	41.45	1.83	42.00	53.90	11.9	100	98	VBW:3.6 kHz
Vert.	11400.000	AV	35.82	40.10	8.51	40.41	1.83	45.85	53.90	**8.0**	150	0	VBW:3.6 kHz
Vert.	17100.000	AV	36.18	41.85	11.03	40.01	-9.54	39.51	53.90	14.3	150	0	VBW:3.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	47.40	32.58	16.04	40.62	1.83	57.23	-38.00	-27.00	11.0	100	289	
Vert.	5725.000	PK	50.05	32.58	16.04	40.62	1.83	59.88	-35.35	-27.00	**8.4**	100	8	

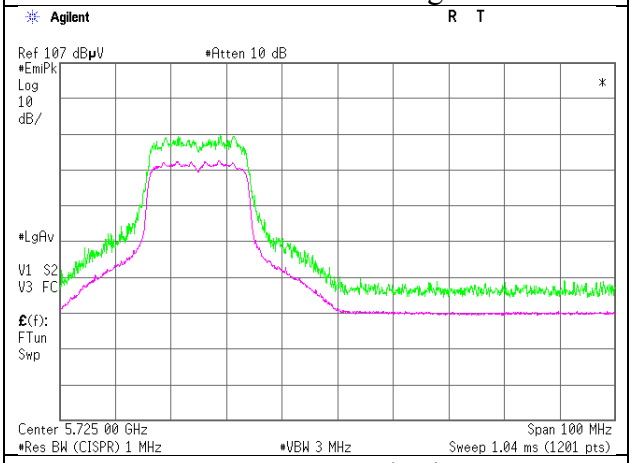
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-20 5700 MHz

Horizontal

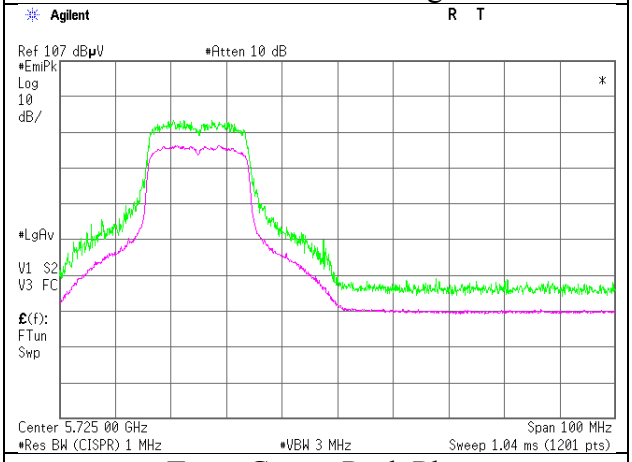
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1					
Test place(AC No.)	3	1	1	1	3	3
Date	July 17, 2016	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 58 % RH	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Wataru Kojima	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	30 MHz – 1 GHz	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5745 MHz					

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	70.000	QP	25.20	5.88	7.17	32.16	0.00	6.09	40.00	33.9	200	217	
Hori.	100.000	QP	29.90	9.71	7.44	32.14	0.00	14.91	43.52	28.6	150	83	
Hori.	500.000	QP	22.20	17.39	9.58	31.92	0.00	17.25	46.02	28.7	150	299	
Hori.	700.000	QP	22.10	20.24	10.37	31.83	0.00	20.88	46.02	25.1	100	267	
Hori.	7660.000	PK	49.26	37.05	7.13	41.47	1.83	53.80	73.90	20.1	147	107	
Hori.	11490.000	PK	45.74	40.08	8.56	40.34	1.83	55.87	73.90	18.0	150	0	
Hori.	17235.000	PK	43.98	42.32	11.03	39.98	-9.54	47.81	73.90	26.0	150	0	
Hori.	7660.000	AV	37.55	37.05	7.13	41.47	1.83	42.09	53.90	11.8	147	107	VBW:3.6 kHz
Hori.	11490.000	AV	34.63	40.08	8.56	40.34	1.83	44.76	53.90	9.1	150	0	VBW:3.6 kHz
Hori.	17235.000	AV	35.45	42.32	11.03	39.98	-9.54	39.28	53.90	14.6	150	0	VBW:3.6 kHz
Vert.	40.000	QP	2.30	13.85	6.87	32.18	0.00	-9.16	40.00	49.1	100	34	
Vert.	70.000	QP	23.20	5.88	7.17	32.16	0.00	4.09	40.00	35.9	100	320	
Vert.	250.000	QP	22.50	17.10	8.41	31.99	0.00	16.02	46.02	30.0	100	47	
Vert.	366.258	QP	22.20	15.28	9.02	31.93	0.00	14.57	46.02	31.4	100	101	
Vert.	484.470	QP	22.00	17.17	9.52	31.93	0.00	16.76	46.02	29.2	100	106	
Vert.	7660.000	PK	48.32	37.05	7.13	41.47	1.83	52.86	73.90	21.0	145	100	
Vert.	11490.000	PK	46.81	40.08	8.56	40.34	1.83	56.94	73.90	16.9	150	0	
Vert.	17235.000	PK	44.26	42.32	11.03	39.98	-9.54	48.09	73.90	25.8	150	0	
Vert.	7660.000	AV	38.34	37.05	7.13	41.47	1.83	42.88	53.90	11.0	145	100	VBW:3.6 kHz
Vert.	11490.000	AV	34.75	40.08	8.56	40.34	1.83	44.88	53.90	**9.0**	150	0	VBW:3.6 kHz
Vert.	17235.000	AV	35.58	42.32	11.03	39.98	-9.54	39.41	53.90	14.4	150	0	VBW:3.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	46.44	32.43	15.99	40.65	1.83	56.04	-39.19	-27.00	**12.2**	100	278	
Hori.	5700.000	PK	47.15	32.53	16.02	40.63	1.83	56.90	-38.33	10.00	48.3	100	278	
Hori.	5720.000	PK	51.15	32.57	16.03	40.62	1.83	60.96	-34.27	15.60	49.9	100	278	
Hori.	5725.000	PK	59.90	32.58	16.04	40.62	1.83	69.73	-25.50	27.00	52.5	100	278	
Vert.	5650.000	PK	46.44	32.43	15.99	40.65	1.83	56.04	-39.19	-27.00	**12.2**	100	7	
Vert.	5700.000	PK	47.14	32.53	16.02	40.63	1.83	56.89	-38.34	10.00	48.3	100	7	
Vert.	5720.000	PK	56.79	32.57	16.03	40.62	1.83	66.60	-28.63	15.60	44.2	100	7	
Vert.	5725.000	PK	64.88	32.58	16.04	40.62	1.83	74.71	-20.52	27.00	47.5	100	7	

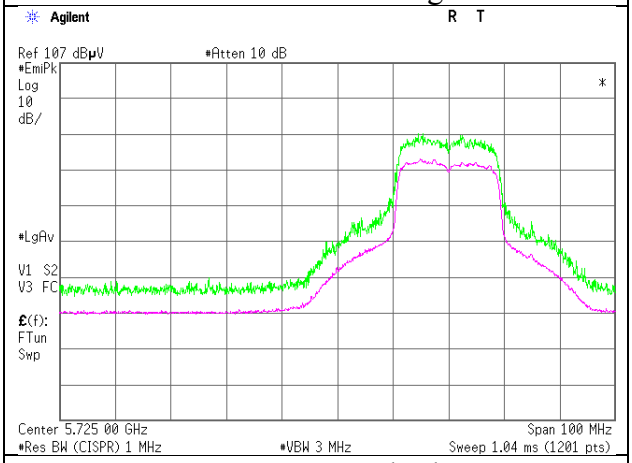
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-20 5745 MHz

Horizontal

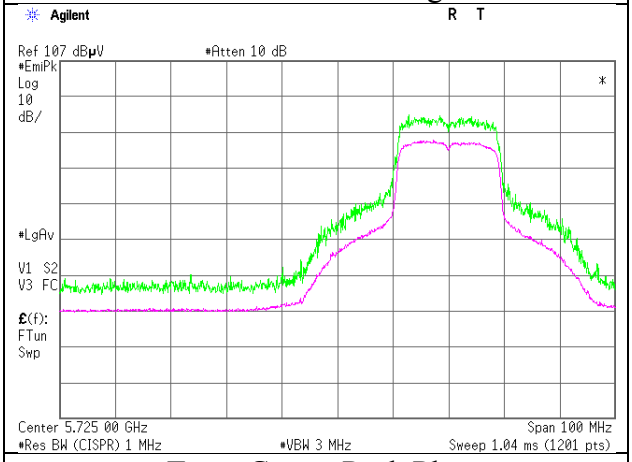
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5785 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7713.322	PK	50.23	37.14	7.11	41.48	1.83	54.83	73.90	19.0	148	114	
Hori.	11570.000	PK	45.83	40.01	8.57	40.27	1.83	55.97	73.90	17.9	150	0	
Hori.	17355.000	PK	44.45	42.75	11.03	39.96	-9.54	48.73	73.90	25.1	150	0	
Hori.	7713.322	AV	38.65	37.14	7.11	41.48	1.83	43.25	53.90	10.6	148	114	VBW:3.6 kHz
Hori.	11570.000	AV	34.44	40.01	8.57	40.27	1.83	44.58	53.90	9.3	150	0	VBW:3.6 kHz
Hori.	17355.000	AV	35.82	42.75	11.03	39.96	-9.54	40.10	53.90	13.8	150	0	VBW:3.6 kHz
Vert.	7713.322	PK	49.58	37.14	7.11	41.48	1.83	54.18	73.90	19.7	148	87	
Vert.	11570.000	PK	44.97	40.01	8.57	40.27	1.83	55.11	73.90	18.7	150	0	
Vert.	17355.000	PK	43.80	42.75	11.03	39.96	-9.54	48.08	73.90	25.8	150	0	
Vert.	7713.322	AV	39.04	37.14	7.11	41.48	1.83	43.64	53.90	10.2	148	87	VBW:3.6 kHz
Vert.	11570.000	AV	34.51	40.01	8.57	40.27	1.83	44.65	53.90	**9.2**	150	0	VBW:3.6 kHz
Vert.	17355.000	AV	35.91	42.75	11.03	39.96	-9.54	40.19	53.90	13.7	150	0	VBW:3.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	1	3	3
Date	July 9, 2016	July 10, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 73 % RH	25 deg. C / 68 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Yosuke Ishikawa	Shinichi Takano	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5825 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7766.678	PK	51.24	37.23	7.11	41.49	1.83	55.92	73.90	17.9	129	116	
Hori.	11650.000	PK	44.87	39.94	8.59	40.20	1.83	55.03	73.90	18.8	150	0	
Hori.	17475.000	PK	44.59	43.17	11.03	39.94	-9.54	49.31	73.90	24.5	150	0	
Hori.	7766.678	AV	38.90	37.23	7.11	41.49	1.83	43.58	53.90	10.3	129	116	VBW:3.6 kHz
Hori.	11650.000	AV	34.29	39.94	8.59	40.20	1.83	44.45	53.90	9.4	150	0	VBW:3.6 kHz
Hori.	17475.000	AV	36.33	43.17	11.03	39.94	-9.54	41.05	53.90	12.8	150	0	VBW:3.6 kHz
Vert.	7766.678	PK	50.03	37.23	7.11	41.49	1.83	54.71	73.90	19.1	138	89	
Vert.	11650.000	PK	46.16	39.94	8.59	40.20	1.83	56.32	73.90	17.5	150	0	
Vert.	17475.000	PK	45.07	43.17	11.03	39.94	-9.54	49.79	73.90	24.1	150	0	
Vert.	7766.678	AV	38.68	37.23	7.11	41.49	1.83	43.36	53.90	10.5	138	89	VBW:3.6 kHz
Vert.	11650.000	AV	34.86	39.94	8.59	40.20	1.83	45.02	53.90	**8.8**	150	0	VBW:3.6 kHz
Vert.	17475.000	AV	36.51	43.17	11.03	39.94	-9.54	41.23	53.90	12.6	150	0	VBW:3.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	50.28	32.82	16.13	40.57	1.83	60.49	-34.74	27.00	61.7	100	288	
Hori.	5855.000	PK	46.60	32.83	16.13	40.57	1.83	56.82	-38.41	15.60	54.0	100	288	
Hori.	5875.000	PK	46.80	32.87	16.15	40.57	1.83	57.08	-38.15	10.00	48.2	100	288	
Hori.	5925.000	PK	46.96	32.97	16.19	40.55	1.83	57.40	-37.83	-27.00	**10.8**	100	288	
Vert.	5850.000	PK	53.86	32.82	16.13	40.57	1.83	64.07	-31.16	27.00	58.2	100	5	
Vert.	5855.000	PK	48.29	32.83	16.13	40.57	1.83	58.51	-36.72	15.60	52.3	100	5	
Vert.	5875.000	PK	45.76	32.87	16.15	40.57	1.83	56.04	-39.19	10.00	49.2	100	5	
Vert.	5925.000	PK	46.10	32.97	16.19	40.55	1.83	56.54	-38.69	-27.00	11.7	100	5	

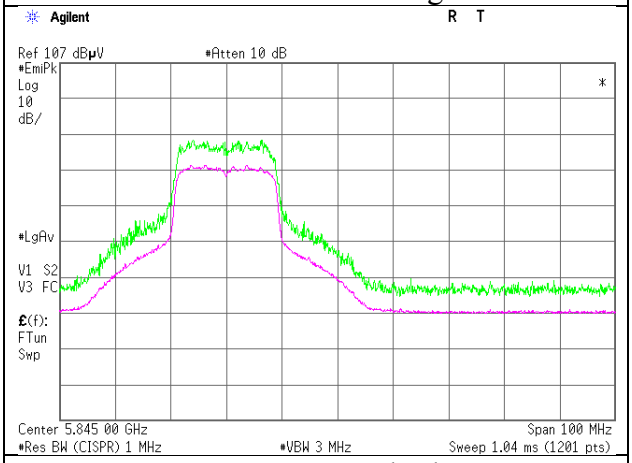
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG （({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-20 5825 MHz

Horizontal

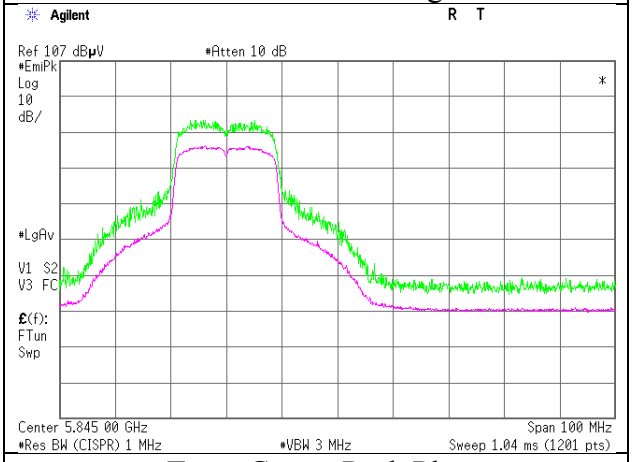
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5190 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5150.000	PK	46.98	32.04	15.63	41.02	1.83	55.46	73.90	18.4	100	27	
Hori.	6919.724	PK	51.15	36.26	6.85	40.89	1.83	55.20	73.90	18.7	124	104	
Hori.	10380.000	PK	47.96	39.21	8.00	40.37	1.83	56.63	73.90	17.2	150	0	
Hori.	15570.000	PK	45.33	39.88	10.65	40.21	-9.54	46.11	73.90	27.7	150	0	
Hori.	5150.000	AV	37.86	32.04	15.63	41.02	1.83	46.34	53.90	7.5	100	27	VBW:5.6 kHz
Hori.	6919.724	AV	42.66	36.26	6.85	40.89	1.83	46.71	53.90	**7.1**	124	104	VBW:5.6 kHz
Hori.	10380.000	AV	36.97	39.21	8.00	40.37	1.83	45.64	53.90	8.2	150	0	VBW:5.6 kHz
Hori.	15570.000	AV	35.80	39.88	10.65	40.21	-9.54	36.58	53.90	17.3	150	0	VBW:5.6 kHz
Vert.	5150.000	PK	46.87	32.04	15.63	41.02	1.83	55.35	73.90	18.5	127	359	
Vert.	6919.724	PK	50.43	36.26	6.85	40.89	1.83	54.48	73.90	19.4	100	98	
Vert.	10380.000	PK	46.95	39.21	8.00	40.37	1.83	55.62	73.90	18.2	150	0	
Vert.	15570.000	PK	44.87	39.88	10.65	40.21	-9.54	45.65	73.90	28.2	150	0	
Vert.	5150.000	AV	37.74	32.04	15.63	41.02	1.83	46.22	53.90	7.6	127	359	VBW:5.6 kHz
Vert.	6919.724	AV	42.57	36.26	6.85	40.89	1.83	46.62	53.90	7.2	100	98	VBW:5.6 kHz
Vert.	10380.000	AV	37.03	39.21	8.00	40.37	1.83	45.70	53.90	8.2	150	0	VBW:5.6 kHz
Vert.	15570.000	AV	35.85	39.88	10.65	40.21	-9.54	36.63	53.90	17.2	150	0	VBW:5.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

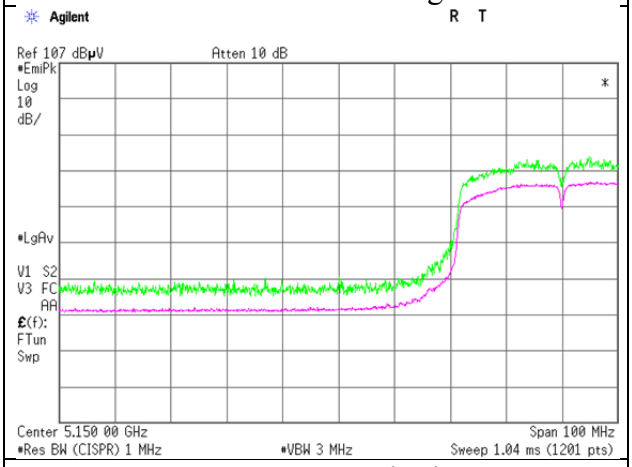
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 10, 2016
Temperature / Humidity	25 deg. C / 68 % RH
Engineer	Shinichi Takano
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-40 5190 MHz

Horizontal

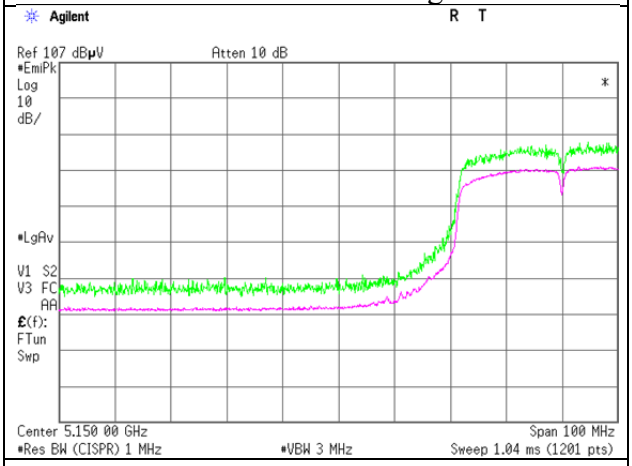
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5230 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	6973.275	PK	49.49	36.42	6.87	40.90	1.83	53.71	73.90	20.1	126	107	
Hori.	10460.000	PK	46.61	39.42	7.97	40.39	1.83	55.44	73.90	18.4	150	0	
Hori.	15690.000	PK	44.48	39.69	10.72	40.12	-9.54	45.23	73.90	28.6	150	0	
Hori.	6973.275	AV	41.38	36.42	6.87	40.90	1.83	45.60	53.90	8.3	126	107	VBW:5.6 kHz
Hori.	10460.000	AV	37.36	39.42	7.97	40.39	1.83	46.19	53.90	7.7	150	0	VBW:5.6 kHz
Hori.	15690.000	AV	35.94	39.69	10.72	40.12	-9.54	36.69	53.90	17.2	150	0	VBW:5.6 kHz
Vert.	6973.275	PK	48.36	36.42	6.87	40.90	1.83	52.58	73.90	21.3	100	98	
Vert.	10460.000	PK	45.94	39.42	7.97	40.39	1.83	54.77	73.90	19.1	150	0	
Vert.	15690.000	PK	44.50	39.69	10.72	40.12	-9.54	45.25	73.90	28.6	150	0	
Vert.	6973.275	AV	39.73	36.42	6.87	40.90	1.83	43.95	53.90	9.9	100	98	VBW:5.6 kHz
Vert.	10460.000	AV	37.47	39.42	7.97	40.39	1.83	46.30	53.90	**7.6**	150	0	VBW:5.6 kHz
Vert.	15690.000	AV	36.08	39.69	10.72	40.12	-9.54	36.83	53.90	17.0	150	0	VBW:5.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5310 MHz				

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5350.000	PK	47.59	32.09	15.78	40.84	1.83	56.45	73.90	17.4	123	52	
Hori.	7080.000	PK	51.58	36.54	6.93	40.99	1.83	55.89	73.90	18.0	152	110	
Hori.	10620.000	PK	46.78	39.69	8.04	40.48	1.83	55.86	73.90	18.0	150	0	
Hori.	15930.000	PK	45.92	39.31	10.85	39.93	-9.54	46.61	73.90	27.2	150	0	
Hori.	5350.000	AV	38.24	32.09	15.78	40.84	1.83	47.10	53.90	6.8	123	52	VBW:5.6 kHz
Hori.	7080.000	AV	42.48	36.54	6.93	40.99	1.83	46.79	53.90	7.1	152	110	VBW:5.6 kHz
Hori.	10620.000	AV	36.50	39.69	8.04	40.48	1.83	45.58	53.90	8.3	150	0	VBW:5.6 kHz
Hori.	15930.000	AV	36.12	39.31	10.85	39.93	-9.54	36.81	53.90	17.0	150	0	VBW:5.6 kHz
Vert.	5350.000	PK	50.78	32.09	15.78	40.84	1.83	59.64	73.90	14.2	154	359	
Vert.	7080.000	PK	51.29	36.54	6.93	40.99	1.83	55.60	73.90	18.3	100	92	
Vert.	10620.000	PK	48.48	39.69	8.04	40.48	1.83	57.56	73.90	16.3	150	0	
Vert.	15930.000	PK	44.27	39.31	10.85	39.93	-9.54	44.96	73.90	28.9	150	0	
Vert.	5350.000	AV	40.97	32.09	15.78	40.84	1.83	49.83	53.90	**4.0**	154	359	VBW:5.6 kHz
Vert.	7080.000	AV	42.24	36.54	6.93	40.99	1.83	46.55	53.90	7.3	100	92	VBW:5.6 kHz
Vert.	10620.000	AV	35.25	39.69	8.04	40.48	1.83	44.33	53.90	9.5	150	0	VBW:5.6 kHz
Vert.	15930.000	AV	36.32	39.31	10.85	39.93	-9.54	37.01	53.90	16.8	150	0	VBW:5.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

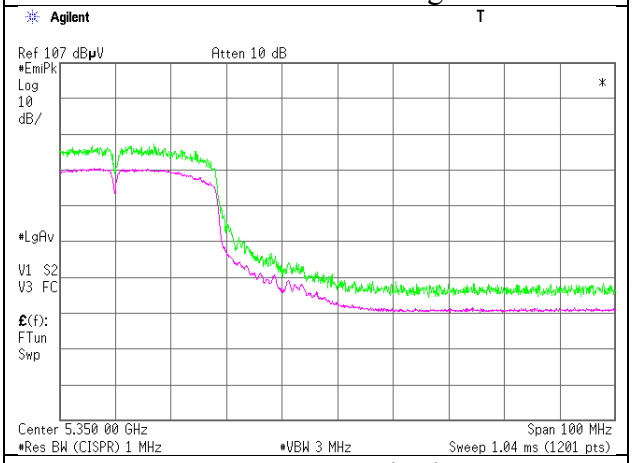
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 10, 2016
Temperature / Humidity	25 deg. C / 68 % RH
Engineer	Shinichi Takano
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-40 5320 MHz

Horizontal

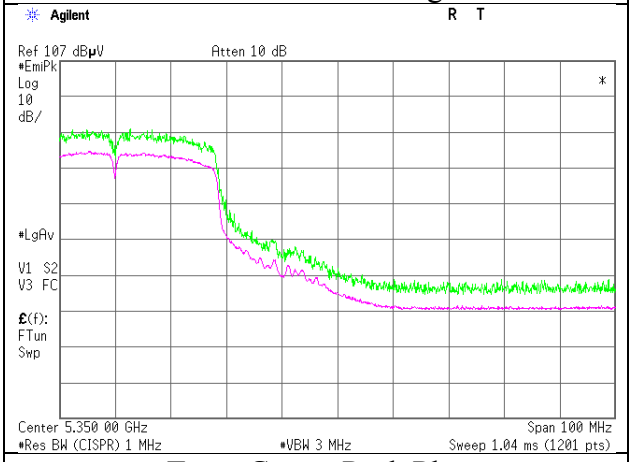
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5510 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5460.000	PK	46.64	32.12	15.86	40.74	1.83	55.71	73.90	18.1	153	275	
Hori.	7293.298	PK	47.91	36.66	7.06	41.22	1.83	52.24	73.90	21.6	149	120	
Hori.	11020.000	PK	46.95	40.19	8.30	40.72	1.83	56.55	73.90	17.3	150	0	
Hori.	16530.000	PK	44.33	40.28	11.19	39.87	-9.54	46.39	73.90	27.5	150	0	
Hori.	5460.000	AV	36.87	32.12	15.86	40.74	1.83	45.94	53.90	7.9	153	275	VBW:5.6 kHz
Hori.	7293.298	AV	38.07	36.66	7.06	41.22	1.83	42.40	53.90	11.5	149	120	VBW:5.6 kHz
Hori.	11020.000	AV	36.68	40.19	8.30	40.72	1.83	46.28	53.90	7.6	150	0	VBW:5.6 kHz
Hori.	16530.000	AV	35.98	40.28	11.19	39.87	-9.54	38.04	53.90	15.8	150	0	VBW:5.6 kHz
Vert.	5460.000	PK	47.21	32.12	15.86	40.74	1.83	56.28	73.90	17.6	153	267	
Vert.	7293.298	PK	48.26	36.66	7.06	41.22	1.83	52.59	73.90	21.3	100	89	
Vert.	11020.000	PK	47.74	40.19	8.30	40.72	1.83	57.34	73.90	16.5	150	0	
Vert.	16530.000	PK	44.32	40.28	11.19	39.87	-9.54	46.38	73.90	27.5	150	0	
Vert.	5460.000	AV	37.79	32.12	15.86	40.74	1.83	46.86	53.90	**7.0**	153	267	VBW:5.6 kHz
Vert.	7293.298	AV	37.73	36.66	7.06	41.22	1.83	42.06	53.90	11.8	100	89	VBW:5.6 kHz
Vert.	11020.000	AV	36.89	40.19	8.30	40.72	1.83	46.49	53.90	7.4	150	0	VBW:5.6 kHz
Vert.	16530.000	AV	35.84	40.28	11.19	39.87	-9.54	37.90	53.90	16.0	150	0	VBW:5.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5470.000	PK	48.18	32.12	15.87	40.73	1.83	57.27	-37.93	-27.00	10.9	153	275	
Vert.	5470.000	PK	50.30	32.12	15.87	40.73	1.83	59.39	-35.81	-27.00	**8.8**	153	267	

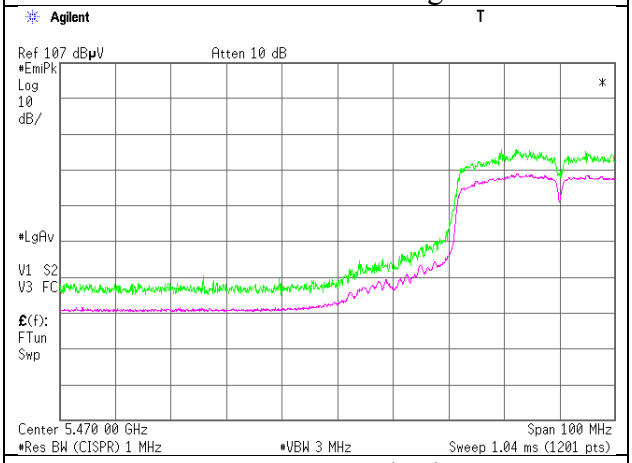
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG （({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 10, 2016
Temperature / Humidity	25 deg. C / 68 % RH
Engineer	Shinichi Takano
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-40 5510 MHz

Horizontal

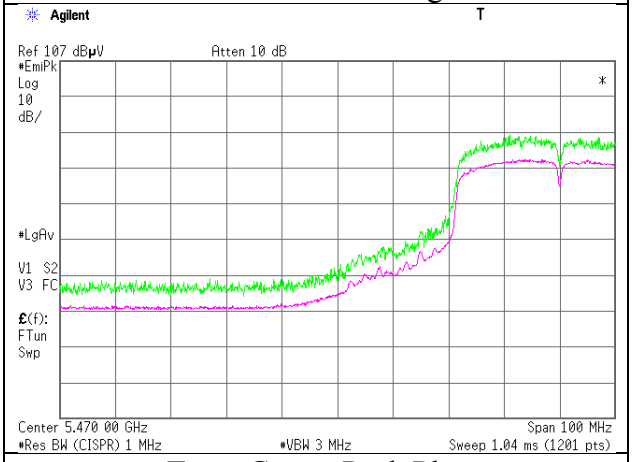
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5550 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7440.789	PK	46.99	36.74	7.14	41.37	1.83	51.33	73.90	22.5	153	127	
Hori.	11100.000	PK	47.04	40.17	8.34	40.66	1.83	56.72	73.90	17.1	150	0	
Hori.	16650.000	PK	45.26	40.52	11.21	39.91	-9.54	47.54	73.90	26.3	150	0	
Hori.	7440.789	AV	35.75	36.74	7.14	41.37	1.83	40.09	53.90	13.8	153	127	VBW:5.6 kHz
Hori.	11100.000	AV	36.98	40.17	8.34	40.66	1.83	46.66	53.90	**7.2**	150	0	VBW:5.6 kHz
Hori.	16650.000	AV	36.50	40.52	11.21	39.91	-9.54	38.78	53.90	15.1	150	0	VBW:5.6 kHz
Vert.	7440.789	PK	46.96	36.74	7.14	41.37	1.83	51.30	73.90	22.6	100	96	
Vert.	11100.000	PK	47.14	40.17	8.34	40.66	1.83	56.82	73.90	17.0	150	0	
Vert.	16650.000	PK	44.48	40.52	11.21	39.91	-9.54	46.76	73.90	27.1	150	0	
Vert.	7440.789	AV	35.82	36.74	7.14	41.37	1.83	40.16	53.90	13.7	100	96	VBW:5.6 kHz
Vert.	11100.000	AV	36.93	40.17	8.34	40.66	1.83	46.61	53.90	**7.2**	150	0	VBW:5.6 kHz
Vert.	16650.000	AV	36.28	40.52	11.21	39.91	-9.54	38.56	53.90	15.3	150	0	VBW:5.6 kHz

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

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

*The 4th harmonic was not seen so the result was its base noise level.

Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5670 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7596.062	PK	47.45	36.94	7.15	41.45	1.83	51.92	73.90	21.9	141	114	
Hori.	11340.000	PK	46.09	40.12	8.47	40.46	1.83	56.05	73.90	17.8	150	0	
Hori.	17010.000	PK	44.28	41.26	11.28	40.03	-9.54	47.25	73.90	26.6	150	0	
Hori.	7596.062	AV	36.77	36.94	7.15	41.45	1.83	41.24	53.90	12.6	141	114	VBW:5.6 kHz
Hori.	11340.000	AV	35.59	40.12	8.47	40.46	1.83	45.55	53.90	8.3	150	0	VBW:5.6 kHz
Hori.	17010.000	AV	36.51	41.26	11.28	40.03	-9.54	39.48	53.90	14.4	150	0	VBW:5.6 kHz
Vert.	7596.062	PK	48.39	36.94	7.15	41.45	1.83	52.86	73.90	21.0	100	89	
Vert.	11340.000	PK	47.44	40.12	8.47	40.46	1.83	57.40	73.90	16.5	150	0	
Vert.	17010.000	PK	44.52	41.26	11.28	40.03	-9.54	47.49	73.90	26.4	150	0	
Vert.	7596.062	AV	37.02	36.94	7.15	41.45	1.83	41.49	53.90	12.4	100	89	VBW:5.6 kHz
Vert.	11340.000	AV	36.56	40.12	8.47	40.46	1.83	46.52	53.90	**7.3**	150	0	VBW:5.6 kHz
Vert.	17010.000	AV	36.49	41.26	11.28	40.03	-9.54	39.46	53.90	14.4	150	0	VBW:5.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5725.000	PK	46.82	32.58	16.04	40.62	1.83	56.65	-38.55	-27.00	11.6	159	286	
Vert.	5725.000	PK	46.87	32.58	16.04	40.62	1.83	56.70	-38.50	-27.00	**11.5**	110	349	

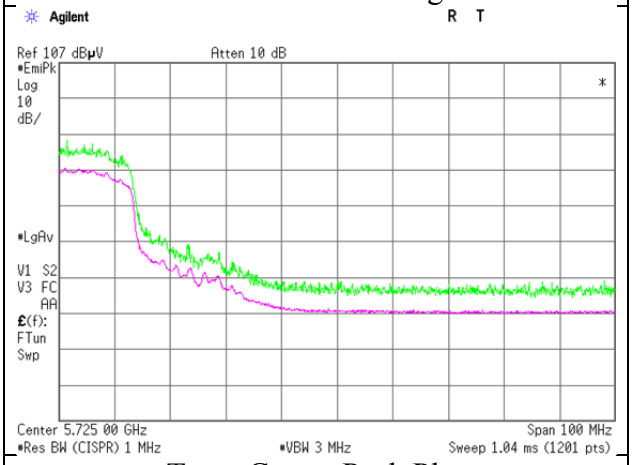
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 10, 2016
Temperature / Humidity	25 deg. C / 68 % RH
Engineer	Shinichi Takano
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-40 5670 MHz

Horizontal

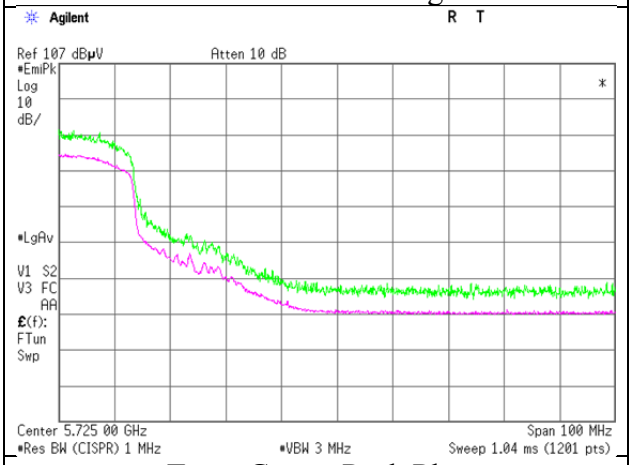
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5755 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7660.596	PK	47.89	37.05	7.13	41.47	1.83	52.43	73.90	21.4	160	125	
Hori.	11510.000	PK	46.03	40.07	8.56	40.32	1.83	56.17	73.90	17.7	150	0	
Hori.	17265.000	PK	44.28	42.10	11.34	39.98	-9.54	48.20	73.90	25.7	150	0	
Hori.	7660.596	AV	37.24	37.05	7.13	41.47	1.83	41.78	53.90	12.1	160	125	VBW:5.6 kHz
Hori.	11510.000	AV	34.87	40.07	8.56	40.32	1.83	45.01	53.90	**8.8**	150	0	VBW:5.6 kHz
Hori.	17265.000	AV	35.75	42.10	11.34	39.98	-9.54	39.67	53.90	14.2	150	0	VBW:5.6 kHz
Vert.	7660.596	PK	47.88	37.05	7.13	41.47	1.83	52.42	73.90	21.4	100	97	
Vert.	11510.000	PK	45.46	40.07	8.56	40.32	1.83	55.60	73.90	18.3	150	0	
Vert.	17265.000	PK	43.94	42.10	11.34	39.98	-9.54	47.86	73.90	26.0	150	0	
Vert.	7660.596	AV	37.76	37.05	7.13	41.47	1.83	42.30	53.90	11.6	100	97	VBW:5.6 kHz
Vert.	11510.000	AV	34.78	40.07	8.56	40.32	1.83	44.92	53.90	8.9	150	0	VBW:5.6 kHz
Vert.	17265.000	AV	35.64	42.10	11.34	39.98	-9.54	39.56	53.90	14.3	150	0	VBW:5.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	47.88	32.43	15.99	40.65	1.83	57.48	-37.72	-27.00	**10.7**	134	283	
Hori.	5700.000	PK	46.26	32.53	16.02	40.63	1.83	56.01	-39.19	10.00	49.2	134	283	
Hori.	5720.000	PK	57.11	32.57	16.03	40.62	1.83	66.92	-28.28	15.60	43.9	134	283	
Hori.	5723.644	PK	57.79	32.57	16.03	40.62	1.83	67.60	-27.60	23.91	51.5	134	283	
Hori.	5725.000	PK	57.78	32.58	16.04	40.62	1.83	67.61	-27.59	27.00	54.6	134	283	
Vert.	5650.000	PK	46.79	32.43	15.99	40.65	1.83	56.39	-38.81	-27.00	11.8	158	359	
Vert.	5700.000	PK	46.87	32.53	16.02	40.63	1.83	56.62	-38.58	10.00	48.6	158	359	
Vert.	5720.000	PK	59.64	32.57	16.03	40.62	1.83	69.45	-25.75	15.60	41.4	158	359	
Vert.	5723.644	PK	62.12	32.57	16.03	40.62	1.83	71.93	-23.27	23.91	47.2	158	359	
Vert.	5725.000	PK	61.51	32.58	16.04	40.62	1.83	71.34	-23.86	27.00	50.9	158	359	

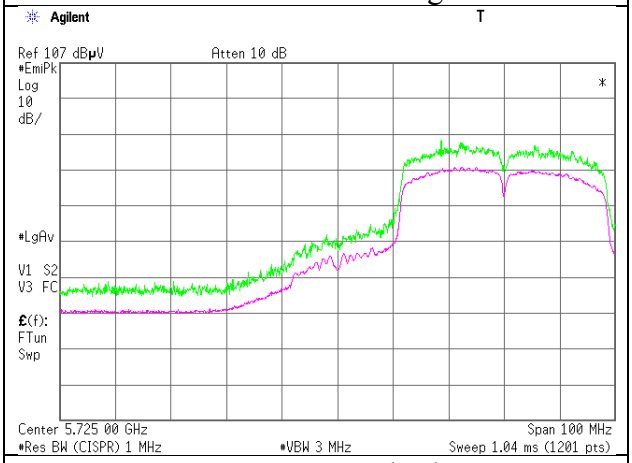
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 10, 2016
Temperature / Humidity	25 deg. C / 68 % RH
Engineer	Shinichi Takano
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11n-40 5755 MHz

Horizontal

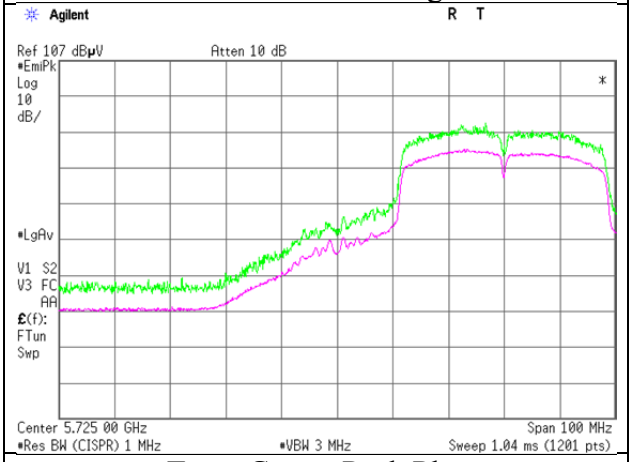
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission

Report No.	11253018S-B-R1				
Test place(AC No.)	1	1	3	3	3
Date	July 10, 2016	July 11, 2016	July 13, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	25 deg. C / 68 % RH	23 deg. C / 61 % RH	24 deg. C / 62 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Shinichi Takano	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-40 5795 MHz				

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	7713.039	PK	49.89	37.14	7.12	41.48	1.83	54.50	73.90	19.4	156	127	
Hori.	11590.000	PK	44.61	40.00	8.57	40.25	1.83	54.76	73.90	19.1	150	0	
Hori.	17385.000	PK	45.29	42.49	11.37	39.95	-9.54	49.66	73.90	24.2	150	0	
Hori.	7713.039	AV	38.77	37.14	7.12	41.48	1.83	43.38	53.90	10.5	156	127	VBW:5.6 kHz
Hori.	11590.000	AV	34.75	40.00	8.57	40.25	1.83	44.90	53.90	**9.0**	150	0	VBW:5.6 kHz
Hori.	17385.000	AV	36.07	42.49	11.37	39.95	-9.54	40.44	53.90	13.4	150	0	VBW:5.6 kHz
Vert.	7713.039	PK	48.82	37.14	7.12	41.48	1.83	53.43	73.90	20.4	100	85	
Vert.	11590.000	PK	44.92	40.00	8.57	40.25	1.83	55.07	73.90	18.8	150	0	
Vert.	17385.000	PK	44.94	42.49	11.37	39.95	-9.54	49.31	73.90	24.5	150	0	
Vert.	7713.039	AV	38.44	37.14	7.12	41.48	1.83	43.05	53.90	10.8	100	85	VBW:5.6 kHz
Vert.	11590.000	AV	34.50	40.00	8.57	40.25	1.83	44.65	53.90	9.2	150	0	VBW:5.6 kHz
Vert.	17385.000	AV	36.17	42.49	11.37	39.95	-9.54	40.54	53.90	13.3	150	0	VBW:5.6 kHz

Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

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

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5850.000	PK	46.44	32.82	16.13	40.57	1.83	56.65	-38.55	27.00	65.6	137	290	
Hori.	5855.000	PK	46.26	32.83	16.13	40.57	1.83	56.48	-38.72	15.60	54.3	137	290	
Hori.	5875.000	PK	46.39	32.87	16.15	40.57	1.83	56.67	-38.53	10.00	48.5	137	290	
Hori.	5925.000	PK	46.82	32.97	16.19	40.55	1.83	57.26	-37.94	-27.00	10.9	137	290	
Vert.	5850.000	PK	46.20	32.82	16.13	40.57	1.83	56.41	-38.79	27.00	65.8	161	348	
Vert.	5855.000	PK	45.62	32.83	16.13	40.57	1.83	55.84	-39.36	15.60	55.0	161	348	
Vert.	5875.000	PK	45.85	32.87	16.15	40.57	1.83	56.13	-39.07	10.00	49.1	161	348	
Vert.	5925.000	PK	47.36	32.97	16.19	40.55	1.83	57.80	-37.40	-27.00	**10.4**	161	348	

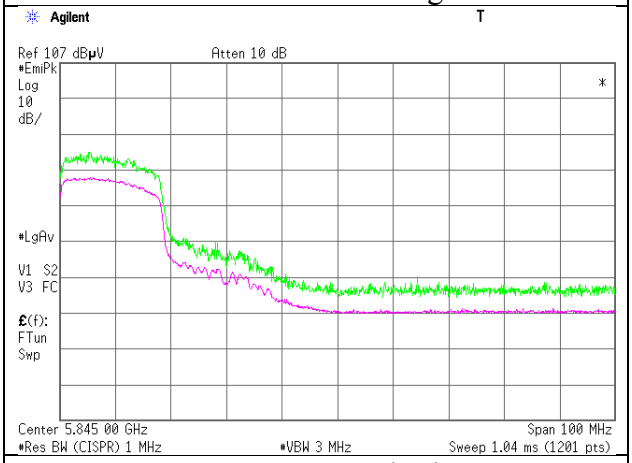
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.705 m / 3.0 m) = 1.83 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11253018S-B-R1
Test place(AC No.)	1
Date	July 9, 2016
Temperature / Humidity	24 deg. C / 73 % RH
Engineer	Yosuke Ishikawa
Test frequency band	1 GHz – 6.4 GHz
Mode	Tx 11a 5825 MHz

Horizontal

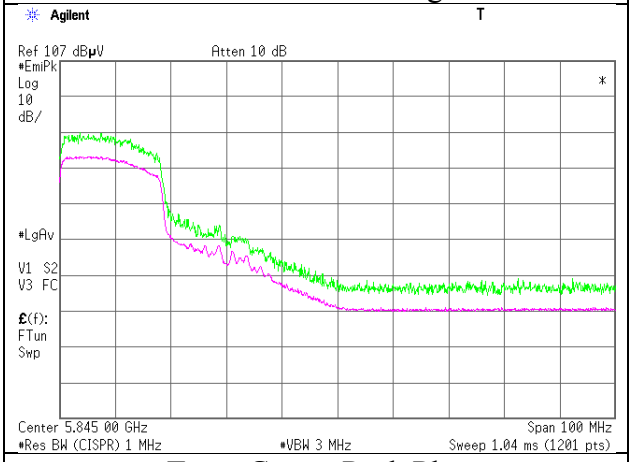
Restricted-band band-edge Plot



Trace Green: Peak Plot
Trace Purple: Average Plot

Vertical

Restricted-band band-edge Plot

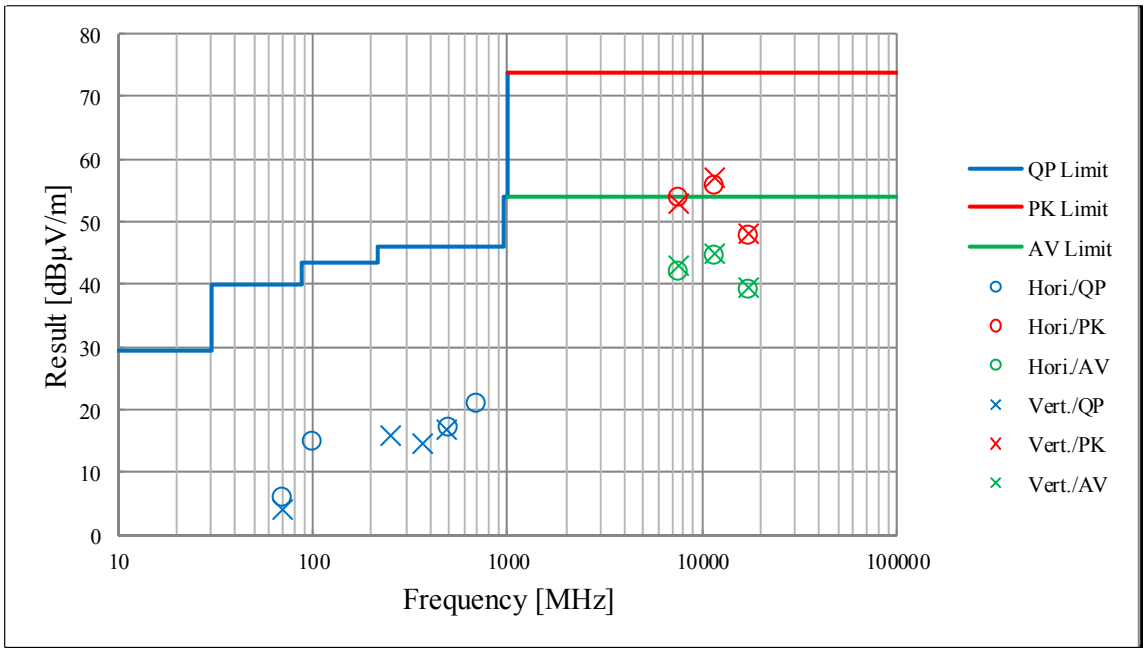


Trace Green: Peak Plot
Trace Purple: Average Plot

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

Radiated Spurious Emission
(Plot data, Worst case)

Report No.	11253018S-B-R1					
Test place(AC No.)	3	1	1	1	3	3
Date	July 17, 2016	July 9, 2016	July 11, 2016	July 11, 2016	July 14, 2016	July 16, 2016
Temperature / Humidity	24 deg. C / 58 % RH	24 deg. C / 73 % RH	23 deg. C / 61 % RH	23 deg. C / 63 % RH	23 deg. C / 60 % RH	23 deg. C / 60 % RH
Engineer	Wataru Kojima	Yosuke Ishikawa	Takahiro Suzuki	Shinichi Takano	Shinichi Takano	Yosuke Ishikawa
Test frequency band	30 MHz – 1 GHz	1 GHz – 6.4 GHz	6.4 GHz – 13 GHz	13 GHz – 18 GHz	18 GHz – 26 GHz	26 GHz – 40 GHz
Mode	Tx 11n-20 5745 MHz					

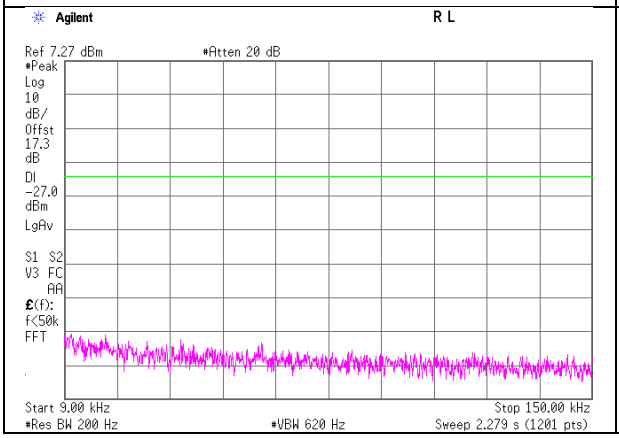


*These plots data contains sufficient number to show the trend of characteristic features for EUT.

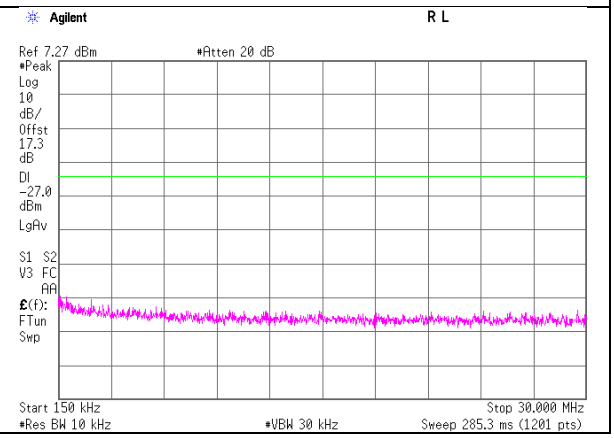
Conducted Spurious Emission

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11253018S-B-R1
Date	July 11, 2016
Temperature / Humidity	23 deg. C / 45 % RH
Engineer	Yosuke Ishikawa
Mode	Tx 11n-20 (MIMO) 5745 MHz

9 kHz-150 kHz



150 kHz-30 MHz



APPENDIX 2: Test instruments

Test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	AT	2016/03/28 * 12
SPM-07	Power Meter	Agilent	8990B	MY5100272	AT	2016/04/04 * 12
SPSS-04	Power sensor	Agilent	N1923A	MY5326009	AT	2016/04/04 * 12
SCC-G13	Coaxial Cable	Suhner	SUCOFLEX 102	31599/2	AT	2016/03/23 * 12
SAT10-10	Attenuator	Weinschel Corp.	54A-10	37584	AT	2016/04/18 * 12
STM-G4	Terminator	Weinschel	M1459A	U6592	AT	2015/07/14 * 12
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	AT	2015/12/07 * 12
STS-05	Digital Hitester	Hioki	3805-50	080997828	AT	2015/11/18 * 12
SAF-04	Pre Amplifier	TOYO Corporation	TPA0118-36	1440489	RE	2016/03/22 * 12
SCC-G06	Coaxial Cable	Junkosha	J12J102207-00	MAY-23-16-091	RE	2016/06/14 * 12
SCC-G21	Coaxial Cable	Suhner	SUCOFLEX 104	296169/4	RE	2016/05/11 * 12
SHA-01	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-725	RE	2015/08/10 * 12
SOS-01	Humidity Indicator	A&D	AD-5681	4062555	RE	2015/10/22 * 12
SSA-02	Spectrum Analyzer	Agilent	E4448A	MY48250106	RE	2016/03/23 * 12
SJM-02	Measure	KOMELON	KMC-36	-	RE	-
SAEC-01(SVSWR)	Semi-Anechoic Chamber	TDK	SAEC-01(SVSWR)	1	RE	2015/07/08 * 12
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV(RE,CE,RFI,MF)	-	RE	-
STS-01	Digital Hitester	Hioki	3805-50	080997812	RE	2015/11/18 * 12
SAT10-05	Attenuator(above1GHz)	Agilent	8493C-010	74864	RE	2015/11/04 * 12
SFL-03	Highpass Filter	MICRO-TRONICS	HPM50112	028	RE	2015/11/16 * 12
SCC-G04	Coaxial Cable	Junkosha	J12J102207-00	JUN-12-14-018	RE	2016/06/23 * 12
SCC-G23	Coaxial Cable	Suhner	SUCOFLEX 104	297342/4	RE	2016/05/11 * 12
SHA-03	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-739	RE	2015/08/11 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2015/10/22 * 12
SJM-15	Measure	ASKUL	-	-	RE	-
SAEC-03(SVSWR)	Semi-Anechoic Chamber	TDK	SAEC-03(SVSWR)	3	RE	2015/08/28 * 12
STS-03	Digital Hitester	Hioki	3805-50	080997823	RE	2015/11/18 * 12
SHA-04	Horn Antenna	ETS LINDGREN	3160-09	LM3640	RE	2016/03/15 * 12
SAF-08	Pre Amplifier	TOYO Corporation	HAP18-26W	00000019	RE	2016/03/23 * 12
SCC-G15	Coaxial Cable	Suhner	SUCOFLEX 102	32703/2	RE	2016/03/08 * 12
SCC-G33	Coaxial Cable	Junkosha	MWX241-01000KMSKMS	-	RE	2016/04/18 * 12
SHA-06	Horn Antenna	ETS LINDGREN	3160-10	LM3459	RE	2016/03/24 * 12
SAF-10	Pre Amplifier	TOYO Corporation	HAP26-40W	00000010	RE	2016/03/23 * 12
SSA-03	Spectrum Analyzer	Agilent	E4448A	MY48250152	RE	2015/09/16 * 12
SCC-G19	Coaxial Cable	Suhner	SUCOFLEX 102A	1188/2A	RE	2016/03/08 * 12
SAJ-01	Antenna Tilt Jig	Intelligent System Engineering Co., Ltd	Antenna Tilt Jig	T-S001	RE	Pre Check

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SAEC-03(NSA)	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	RE	2015/07/16 * 12
SBA-03	Biconical Antenna	Schwarzbeck	BBA9106	91032666	RE	2015/10/11 * 12
SLA-03	Logperiodic Antenna	Schwarzbeck	UHALP9108A	UHALP 9108-A 0901	RE	2015/10/11 * 12
SAT6-08	Attenuator	HIROSE ELECTRIC CO.,LTD.	AT-406(40)	-	RE	2015/08/31 * 12
SCC-C1/C2/C3/ C4/C5/C10/SRS E-03	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/ TOYO	8D2W/12DSFA/141 PE/141PE/141PE/14 1PE/NS4906	-/0901-271(R F Selector)	RE	2016/04/22 * 12
SAF-03	Pre Amplifier	SONOMA	310N	290213	RE	2016/02/25 * 12
STR-06	Test Receiver	Rohde & Schwarz	ESCI	101259	RE	2016/03/28 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2015/10/22 * 12
SJM-15	Measure	ASKUL	-	-	RE	-
STS-03	Digital Hitester	Hioki	3805-50	080997823	RE	2015/11/18 * 12

The expiration date of the calibration is the end of the expired month.
All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

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

Test Item: **RE: Radiated Emission**
AT: Antenna Terminal Conducted test