RADIO TEST REPORT

Test Report No. : 11834855S-C-R3

Applicant	:	**OLYMPUS CORPORATION**
Type of Equipment	:	**Wireless LAN/Bluetooth Module**
Model No.	:	**S080WIFI-PCA**
FCC ID	:	**YSKW80**
Test regulation	:	**FCC Part 15 Subpart E: 2018**
Test Result	:	**Complied**

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
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 11834855S-C-R2. 11834855S-C-R2 is replaced with this report.

Date of test: September 8, 2017 to March 5, 2018

Representative test engineer:

Shiro Kobayashi
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.: 11834855S-C

Revision	Test report No.	Date	Page revised	Contents
- (Original)	11834855S-C	February 19, 2018	-	-
1	11834855S-C-R1	February 21, 2018	9	Correction of Lower Band
2	11834855S-C-R2	March 1, 2018	4 47	Correction of Radio Specification Correction of data
3	11834855S-C-R3	March 5, 2018	17,23,34,44,49, 52,57,69 5 8 9 14 180	Correction of data Correction of Procedures and results Correction of 4.1 Correction of Additional Band Correction of note Add equipment

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

CONTENTS **PAGE**

SECTION 1: Customer information....4
SECTION 2: Equipment under test (E.U.T.)....4
SECTION 3: Test specification, procedures & results....5
SECTION 4: Operation of E.U.T. during testing....8
SECTION 5: Conducted Emission....11
SECTION 6: Radiated Spurious Emission and Band Edge Compliance....12
SECTION 7: Antenna Terminal Conducted Tests....14
APPENDIX 1: Test data....15
Conducted Emission....15
26 dB Emission Bandwidth and 99 % Occupied Bandwidth....16
6 dB Bandwidth....35
Maximum Conducted Output Power....39
Average Output Power....47
Maximum Power Spectral Density....52
Radiated Spurious Emission....69
Conducted Spurious Emission....175
APPENDIX 2: Test instruments....176
APPENDIX 3: Photographs of test setup....179
Conducted Emission....179
Radiated Spurious Emission....180
Worst Case Position....181

SECTION 1: Customer information

Company Name	:	OLYMPUS CORPORATION
Address	:	2951 Ishikawa-machi Hachioji-shi Tokyo 192-8507 Japan
Telephone Number	:	+81-42-642-2283
Facsimile Number	:	+81-42-642-2398
Contact Person	:	Kazuma Tajiri

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

2.1 Identification of E.U.T.

Type of Equipment	:	Wireless LAN/Bluetooth Module
Model No.	:	S080WIFI-PCA
Serial No.	:	Refer to Section 4, Clause 4.2
Rating	:	DC 3.35 V - 4.2 V
Receipt Date of Sample	:	June 24, 2017
Country of Mass-production	:	Vietnam
Condition of EUT	:	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT	:	No Modification by the test lab

2.2 Product Description

Model: S080WIFI-PCA (referred to as the EUT in this report) is a Wireless LAN/Bluetooth Module.

Radio Specification

Radio Type	:	Transceiver	
Frequency of Operation	:	2.4 GHz:	2402 MHz - 2480 MHz (Bluetooth BDR/EDR, Bluetooth Low Energy)
			2412 MHz - 2462 MHz (Wireless LAN)
		U-NII-1 /	5180 MHz - 5320 MHz (IEEE 802.11a/n-20/ac-20)
		U-NII-2A:	5190 MHz - 5310 MHz (IEEE 802.11n-40/ac-40)
			5210 MHz - 5290 MHz (IEEE 802.11ac-80)
		U-NII-2C:	5500 MHz - 5700 MHz (IEEE 802.11a/n-20/ac-20)
			5510 MHz - 5670 MHz (IEEE 802.11n-40/ac-40)
			5530 MHz (IEEE 802.11ac-80)
		U-NII-3:	5745 MHz - 5825 MHz (IEEE 802.11a/n-20/ac-20)
			5755 MHz - 5795 MHz (IEEE 802.11n-40/ac-40)
			5775 MHz (IEEE 802.11ac-80)
Modulation	:	DSSS (IEEE 802.11b), OFDM (IEEE 802.11g/n/a/ac) FHSS (Bluetooth BDR/EDR), GFSK (Bluetooth Low Energy)	
Power Supply (inner)	:	VBAT: DC 3.8 V (3.35 V – 4.2 V), VIO: DC 1.8 V, DC 3.3 V (1.62 V - 3.63 V)	
Antenna type	:	Pattern Antenna	
Antenna Gain	:	2.4 GHz:	-2.9 dBi
		5 GHz:	+1.3 dBi
Operating Temperature	:	-10 deg. C to +40 deg. C	
Clock frequency (Maximum)	:	37.4 MHz	

SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification	:	FCC Part 15 Subpart E FCC Part 15 final revised on February 2, 2018 and effective March 5, 2018
Title	:	FCC 47CFR Part15 Radio Frequency Device Subpart E Unlicensed National Information Infrastructure Devices Section 15.407 General technical requirements

* The revisions made after testing date do not affect the test specification applied to the EUT.

3.2 Procedures and results

Item	Test Procedure	Specification	Worst margin	Results	Remarks
Conducted Emission	**FCC:** ANSI C63.10-2013	**FCC:** 15.407 (b) (6) / 15.207	33.3 dB 0.61200 MHz, N,AV IEEE802 11a Tx 5300 MHz	Complied	-
	IC: RSS-Gen 8.8	**IC:** RSS-Gen 8.8			
26 dB Emission Bandwidth	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)	See data	N/A	Conducted
	IC: -	**IC:** -			
Maximum Conducted Output Power	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)		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	0.5 dB 5470.000 MHz PK, Vert. Tx 11ac-20 5500 MHz	Complied	Conducted (< 30 MHz) / Radiated (> 30 MHz) *1)
	IC: -	**IC:** RSS-247 6.2.1.2 6.2.2.2 6.2.3.2 6.2.4.2			
6 dB Emission Bandwidth	**FCC:** ANSI C63.10-2013	**FCC:** 15.407 (e)	See data	Complied	Conducted
	IC: -	**IC:** RSS-247 6.2.4.1			

Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.
* For DFS tests, please see the test report number 11834855S-D issued by UL Japan, Inc.
*1) Radiated test was selected over 30 MHz based on section FCC 15.407 (b) and KDB 789033 D02 G.3.b).

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

FCC Part 15.31 (e)
The RF Module has its own regulator.
The RF Module is constantly provided voltage (DC 3.8 V) through the regulator regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement
The antenna is not removable from the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

3.3 Addition to standard

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	No. 5,6,8 SR
Conducted emission (AC Mains) LISN	150 kHz-30 MHz	2.5 dB	2.5 dB	2.6 dB	2.6 dB	2.6 dB
Radiated emission (Measurement distance: 3 m)	30 MHz-200 MHz	4.3 dB	4.3 dB	4.3 dB	-	-
	200 MHz-1 GHz	5.9 dB	5.9 dB	5.9 dB	-	-
	1 GHz-6 GHz	4.7 dB	4.7 dB	4.7 dB	-	-
	6 GHz-18 GHz	5.3 dB	5.3 dB	5.3 dB	-	-
	18 GHz-40 GHz	5.6 dB	5.6 dB	5.6 dB	-	-
Radiated emission (Measurement distance: 1 m)	13 GHz-18 GHz	5.6 dB	5.6 dB	5.6 dB	-	-
	18 GHz-40 GHz	5.9 dB	5.9 dB	5.9 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	0.72 dB
Power Measurement above 1 GHz (Peak Detector)_SPM-06	0.85 dB
Power Measurement above 1 GHz (Average Detector)_SPM-07	0.74 dB
Power Measurement above 1 GHz (Peak Detector)_SPM-07	0.91 dB
Spurious emission (Conducted) below 1GHz	1.6 dB
Spurious emission (Conducted) 1 GHz-3 GHz	1.3 dB
Spurious emission (Conducted) 3 GHz-18 GHz	2.2 dB
Spurious emission (Conducted) 18 GHz-26.5 GHz	2.3 dB
Spurious emission (Conducted) 26.5 GHz-40 GHz	2.4 dB
Bandwidth Measurement	1.01 %
Duty cycle and Time Measurement	0.012 %

Conducted Emission test

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

Radiated emission test

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

3.5 Test Location

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
FCC Test Firm Registration Number: 839876

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)

Test operating mode was determined as follows according to "Section 1 of 6 802.11 a/b/g/n testing - Managing Complex Regulatory Approvals -" of TCB Council Workshop October 2009 and also was judged the necessity of 802.11ac mode by the pre-test.

Mode	Power setting	Remarks*
IEEE 802.11a (11a)	5180 – 5320 MHz: 8 dBm 5500 – 5825 MHz: 7 dBm	54Mbps, PN9
IEEE 802.11n 20 MHz BW (11n-20)	5180 – 5320 MHz: 8 dBm 5500 – 5825 MHz: 7 dBm	MCS 4, PN9
IEEE 802.11n 40 MHz BW (11n-40)	5190 – 5310 MHz: 8 dBm 5510 – 5795 MHz: 7 dBm	MCS 1, PN9
IEEE 802.11ac 20 MHz BW (11ac-20)	5180 – 5320 MHz: 8 dBm 5500 – 5825 MHz: 7 dBm	MCS 6, PN9
IEEE 802.11ac 40 MHz BW (11ac-40)	5190 – 5310 MHz: 8 dBm 5510 – 5795 MHz: 7 dBm	MCS 3, PN9
IEEE 802.11ac 80 MHz BW (11ac-80)	5210 – 5290 MHz: 8 dBm 5530 – 5775 MHz: 7 dBm	MCS 0, PN9
The worst condition was determined based on the test result of Maximum Conducted Output Power.		

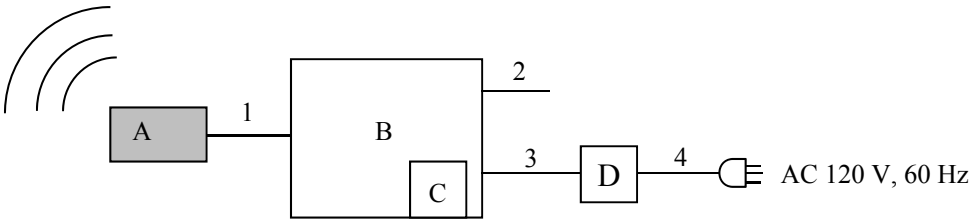
Software: TeraTerm.exe version 4.83 for IEEE 802.11
Bluetool version 1.9.6.5
*This setting of software is the worst case of the product (or module).
Any conditions under the normal use do not exceed the condition of setting.
In addition, end users cannot change the settings of the output power of the product.
Regarding SAR report for the product in which the module is installed (11834856S-A-R1), the RF output power is adjusted to be within 2 dB of the maximum specification based on KDB 447498 D01 (v06) and tested.

*The details of Operation mode(s)

Test Item	Operating Mode	Tested Frequency			
		Lower Band	Middle Band	Additional Band	Upper Band
Conducted emission	11a Tx *1)	-	5300 MHz	-	-
26 dB Emission Bandwidth	11a Tx 11n-20 Tx 11ac-20 Tx	-	5260 MHz 5300 MHz 5320 MHz	5500 MHz 5580 MHz 5700 MHz	-
	11n-40 Tx 11ac-40 Tx		5270 MHz 5310 MHz	5510 MHz 5550 MHz 5670 MHz	
	11ac-80 Tx		5290 MHz	5530 MHz	
99 % Occupied Bandwidth, Maximum Conducted Output Power, Maximum Power Spectral Density	11a Tx 11n-20 Tx 11ac-20 Tx	5180 MHz 5180 MHz 5180 MHz	5260 MHz 5300 MHz 5320 MHz	5500 MHz 5580 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11n-40 Tx 11ac-40 Tx	5190 MHz 5190 MHz	5270 MHz 5310 MHz	5510 MHz 5550 MHz 5670 MHz	5755 MHz 5795 MHz
	11ac-80 Tx	5210 MHz	5290 MHz	5530 MHz	5755 MHz
6 dB Bandwidth	11a Tx 11n-20 Tx 11ac-20 Tx	-	-	-	5745 MHz 5785 MHz 5825 MHz
	11n-40 Tx 11ac-40 Tx	-	-	-	5755 MHz 5795 MHz
	11ac-80 Tx	-	-	-	5755 MHz
Radiated Spurious Emission (Below 1 GHz)	11a Tx *1)	-	5300 MHz	-	-
Radiated Spurious Emission (Above 1 GHz)	11a Tx 11n-20 Tx 11ac-20 Tx	5180 MHz 5200 MHz 5240 MHz	5300 MHz 5320 MHz	5500 MHz 5520 MHz 5580 MHz 5680 MHz 5700 MHz	5745 MHz 5785 MHz 5825 MHz
	11n-40 Tx 11ac-40 Tx	5190 MHz 5230 MHz	5310 MHz	5510 MHz 5550 MHz 5670 MHz	5755 MHz 5795 MHz
	11ac-80 Tx	5210 MHz	5290 MHz	5530 MHz	5755 MHz
Conducted Spurious Emission	11a Tx *1)	-	5300 MHz	-	-

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

4.2 Configuration and peripherals



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

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Wireless LAN/Bluetooth Module	S080WIFI-PCA	2 *1) 5 *2)	OLYMPUS CORPORATION	EUT
B	Jig Board	T3050TB	-	OLYMPUS CORPORATION	-
C	SD Card	SD-K08G	1572 CS00156	TOSHIBA	-
D	Power Supply(DC)	PAN35-10A	NA000955	Kikusui	-

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

List of cables used

No.	Name	Length (m)	Shield		Remark
			Cable	Connector	
1	Signal	0.2	Unshielded	Unshielded	-
2	DC	0.3	Unshielded	Unshielded	-
3	DC	1.5	Unshielded	Unshielded	-
4	AC	1.8	Unshielded	Unshielded	-

SECTION 5: Conducted Emission

Test Procedure and conditions

EUT was placed on a platform of nominal size, 1.0 m by 1.5 m, raised 0.8 m above the conducting ground plane.
The table is made of expanded polystyrol and expanded polypropylene and the table top is covered with polycarbonate. That has very low permittivity.
The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from a Line Impedance Stabilization Network (LISN) / Artificial mains Network (AMN) and excess AC cable was bundled in center.

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

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Shielded room.
The EUT was connected to a LISN (AMN).
An overview sweep with peak detection has been performed.

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

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

SECTION 6: Radiated Spurious Emission and Band Edge Compliance

Test Procedure

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

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

< Below 1GHz >

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

< Above 1GHz >

Inside of restricted bands (Section 15.205):

Apply to limit in the Section 15.209 (a).

Outside of the restricted bands:

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

For W58 Bandedge
-27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge in the section 15.407(b)(4)(i).

Restricted band edge:

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

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

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

Test Antennas are used as below;

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

Frequency	Below 1 GHz	Above 1 GHz	
Instrument used	Test Receiver	Spectrum Analyzer	
Detector	QP	Peak	Average
IF Bandwidth	BW: 120 kHz	RBW: 1 MHz VBW: 3 MHz	Method VB *1) RBW: 1 MHz VBW: 1/T (T: burst length, refer to APPENDIX) Detector: Peak Trace: ≥ 100 traces
Test Distance	3 m	3 m (below 1 GHz), 3 m*2) (1 GHz – 13 GHz), 1 m*3) (13 GHz – 40 GHz)	

*1) The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E".
*2) Distance Factor: 20 x log (3.99 m/3.0 m) = 2.47 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.

Antenna polarization	Carrier	Spurious (Below 1 GHz)	Spurious (1 GHz – 6.4 GHz)	Spurious (6.4 GHz – 18 GHz)	Spurious (13 GHz – 18 GHz)	Spurious (18 GHz – 26 GHz)	Spurious (26 GHz – 40 GHz)
Horizontal	Y	Z	Y	X	X	X	X
Vertical	Z	Z	Z	X	X	X	X

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

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

SECTION 7: Antenna Terminal Conducted Tests

Test Procedure

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

Test	Span	RBW	VBW	Sweep time	Detector	Trace	Instrument used and Test method
26 dB Bandwidth	Enough to capture the emission	Close to 1 % of EBW	> RBW	Auto	Peak	Max Hold	Spectrum Analyzer
99 % Occupied Bandwidth *1)	Enough width to display emission skirts	1 % to 5 % of OBW	≥ 3 RBW	Auto	Peak	Max Hold	Spectrum Analyzer
6 dB Bandwidth	Enough to capture the emission	100 kHz	300 kHz	Auto	Peak	Max Hold	Spectrum Analyzer
Maximum Conducted Output Power	-	-	-	Auto	Average	-	Power Meter (Sensor: 120 MHz BW) (Method PM)
Maximum Power Spectral Density	Encompass the entire EBW	1 MHz or 100 KHz *2)	≥ 3 RBW	Auto	Power Averaging (100 times)	Clear Write	Spectrum Analyzer
Conducted Spurious Emission*3)	9 kHz – 150 kHz	200 Hz	620 Hz	Auto	Peak	Max Hold	Spectrum Analyzer
	150 kHz – 30 MHz	10 kHz	30 kHz				

* The test method was also referred to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E".

*1) Peak hold was applied as Worst-case measurement.
*2) KDB 789033 D02 says that RBW is set to be 500 kHz for 5.725 GHz-5.850 GHz, but it is not possible with spectrum analyzer, so RBW Correction Factor (10 log(500 kHz / 100 kHz)) was added to the test result.
*3) In the frequency range below 30 MHz, RBW was narrowed to separate the noise contents.
Then, wide-band noise near the limit was checked separately, however the noise was 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

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2017/11/22

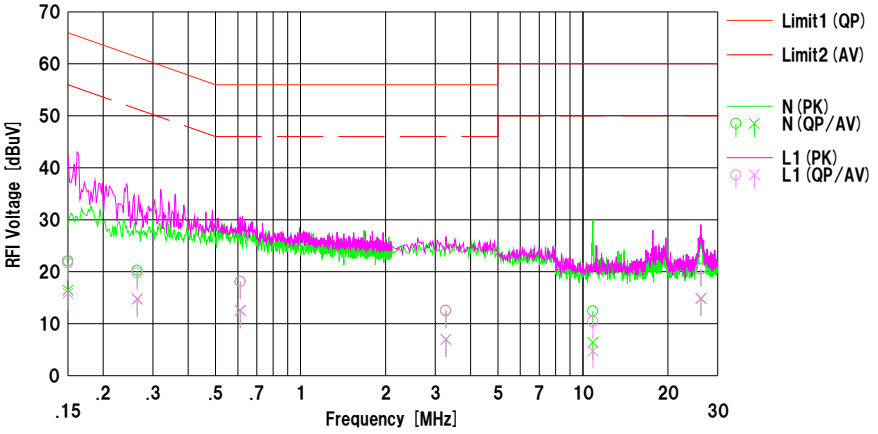
IEEE802.11a, Tx 5300 MHz

Power : AC 120 V / 60 Hz
Temp./Humi. : 21 deg.C / 38 %RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Kazutaka Takeyama



No.	Freq.	Reading <QP>	Reading <AV>	C.Fac	Results <QP>	Results <AV>	Limit <QP>	Limit <AV>	Margin <QP>	Margin <AV>	Phase	Comment
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.15000	9.60	4.00	12.46	22.06	16.46	66.00	56.00	43.9	39.5	N	
2	0.26400	7.80	2.30	12.48	20.28	14.78	61.30	51.30	41.0	36.5	N	
3	0.61200	5.60	0.10	12.51	18.11	12.61	56.00	46.00	37.8	33.3	N	
4	3.27200	-0.20	-5.70	12.70	12.50	7.00	56.00	46.00	43.5	39.0	N	
5	10.84800	-0.70	-6.70	13.13	12.43	6.43	60.00	50.00	47.5	43.5	N	
6	26.16300	6.70	1.00	13.83	20.53	14.83	60.00	50.00	39.4	35.1	N	
7	0.15000	9.20	3.40	12.46	21.66	15.86	66.00	56.00	44.3	40.1	L1	
8	0.26400	7.30	2.20	12.48	19.78	14.68	61.30	51.30	41.5	36.6	L1	
9	0.61200	5.60	0.00	12.51	18.11	12.51	56.00	46.00	37.8	33.4	L1	
10	3.27200	-0.10	-5.70	12.70	12.60	7.00	56.00	46.00	43.4	39.0	L1	
11	10.84800	-2.70	-8.40	13.13	10.43	4.73	60.00	50.00	49.5	45.2	L1	
12	26.16300	6.70	1.10	13.83	20.53	14.93	60.00	50.00	39.4	35.0	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN (AMN) +Cable+ATT) [dB]
LISN (AMN) =SLS-03

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11a

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	16.868	-
5220	-	16.849	-
5240	-	16.831	-
5260	19.706	16.848	-
5300	19.643	16.843	-
5320	19.762	16.830	-
5500	19.653	16.841	-
5580	19.658	16.854	-
5700	19.613	16.865	-
5745	-	16.874	-
5785	-	16.850	-
5825	-	16.906	-

11n-20

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	18.215	-
5220	-	18.197	-
5240	-	18.169	-
5260	20.811	18.168	-
5300	20.782	18.185	-
5320	20.862	18.160	-
5500	20.958	18.228	-
5580	20.911	18.143	-
5700	21.122	18.200	-
5745	-	18.256	-
5785	-	18.167	-
5825	-	18.227	-

11n-40

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5190	-	36.451	-
-	-	-	-
5230	-	36.467	-
5270	38.998	36.489	-
-	-	-	-
5310	39.163	36.438	-
5510	39.177	36.429	-
5550	39.392	36.471	-
5670	39.261	36.503	-
5755	-	36.477	-
-	-	-	-
5795	-	36.415	-

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11ac-20

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	18.173	-
5220	-	18.139	-
5240	-	18.219	-
5260	20.790	18.179	-
5300	20.700	18.183	-
5320	20.667	18.191	-
5500	21.071	18.260	-
5580	20.978	18.181	-
5700	20.661	18.117	-
5745	-	18.194	-
5785	-	18.141	-
5825	-	18.203	-

11ac-40

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5190	-	36.488	-
-	-	-	-
5230	-	36.556	-
5270	39.510	36.535	-
-	-	-	-
5310	39.488	36.528	-
5510	39.424	36.518	-
5550	39.593	36.570	-
5670	39.344	36.517	-
5755	-	36.588	-
-	-	-	-
5795	-	36.455	-

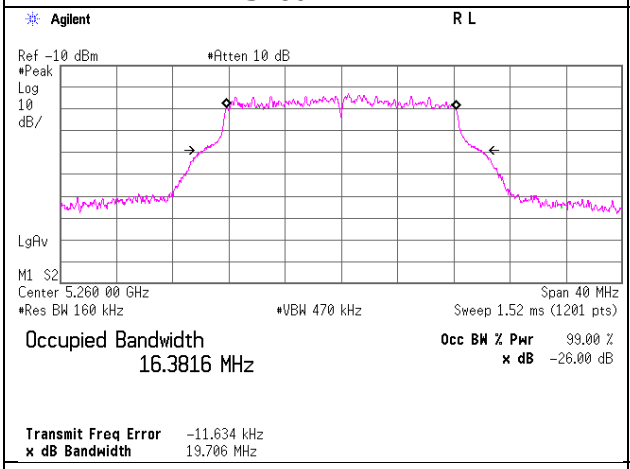
11ac-80

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5210	-	75.713	-
-	-	-	-
-	-	-	-
5290	80.367	75.718	-
-	-	-	-
-	-	-	-
5530	80.830	75.641	-
-	-	-	-
5755	-	75.735	-
-	-	-	-
-	-	-	-

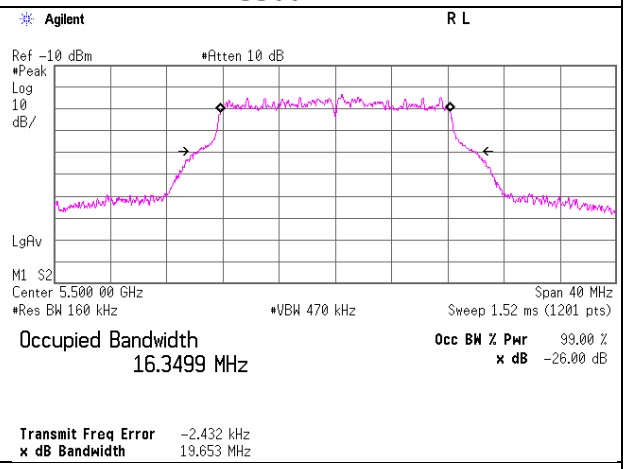
26 dB Emission Bandwidth

11a

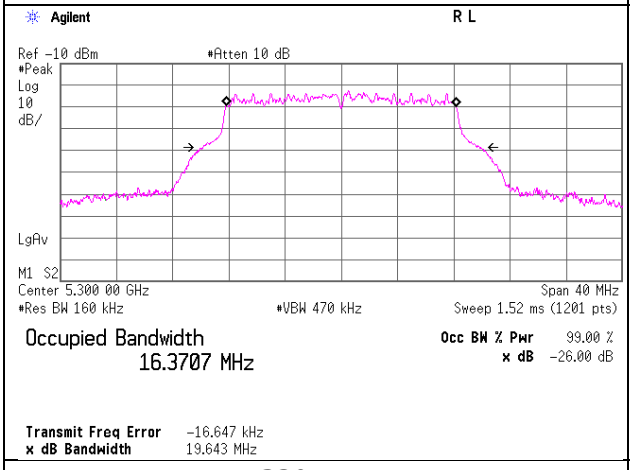
5260 MHz



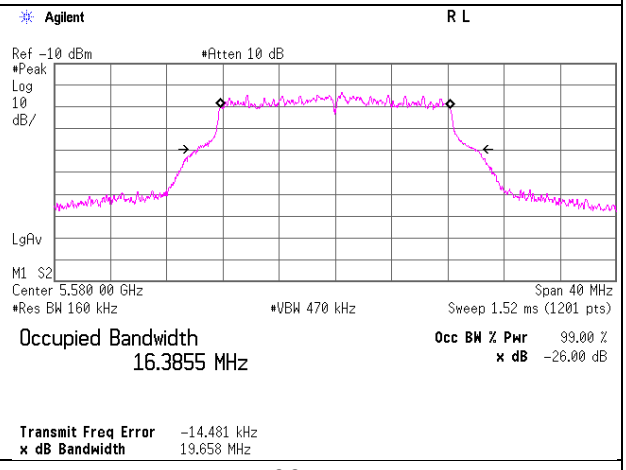
5500 MHz



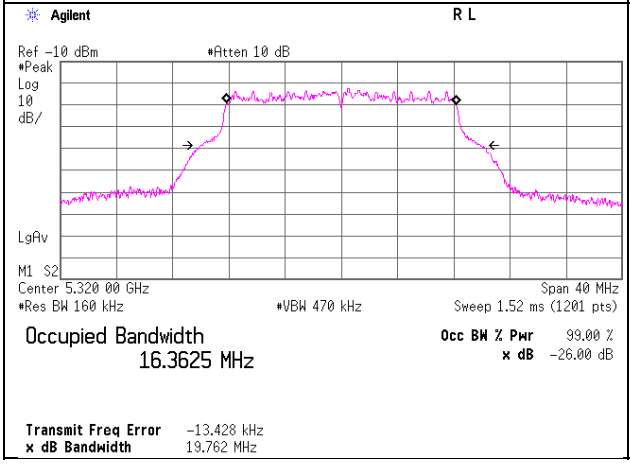
5300 MHz



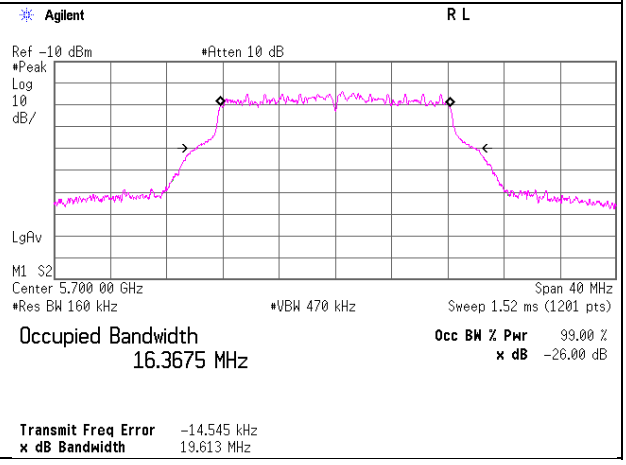
5580 MHz



5320 MHz



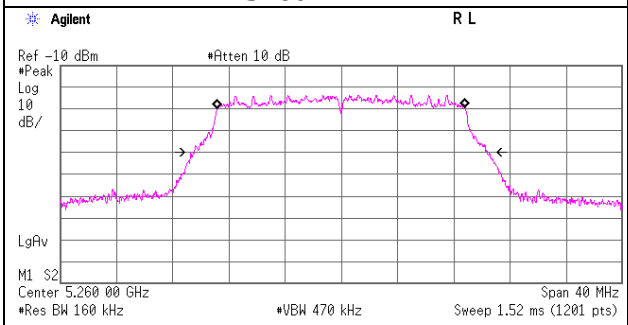
5700 MHz



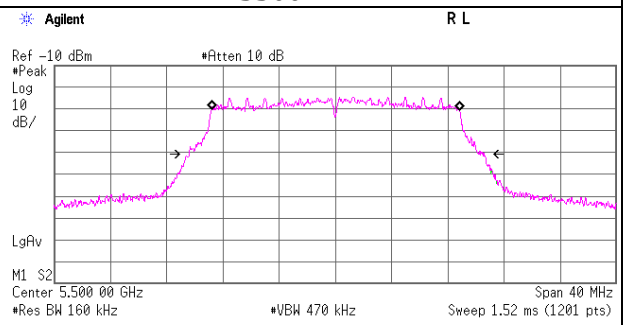
26 dB Emission Bandwidth

11n-20

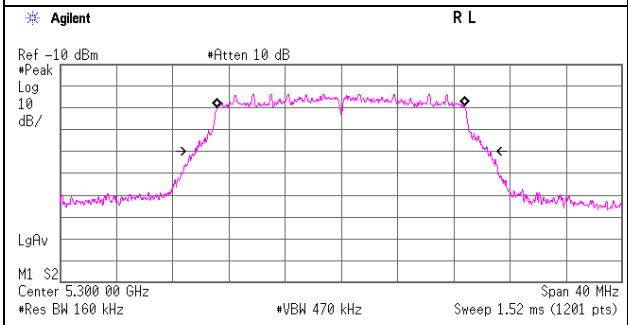
5260 MHz



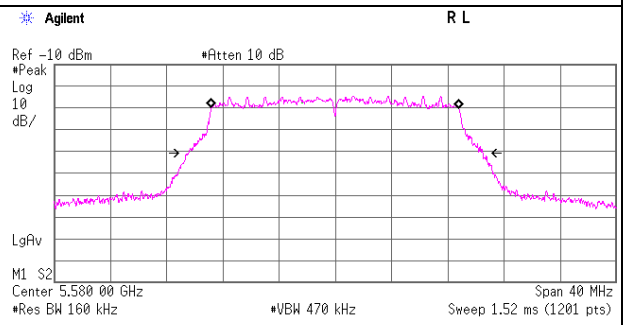
5500 MHz



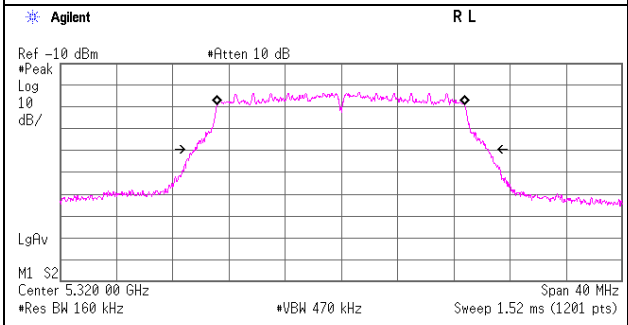
5300 MHz



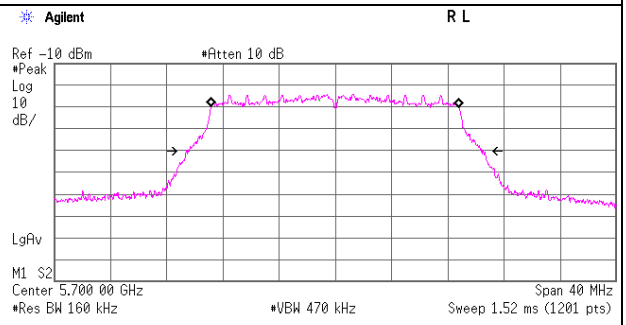
5580 MHz



5320 MHz



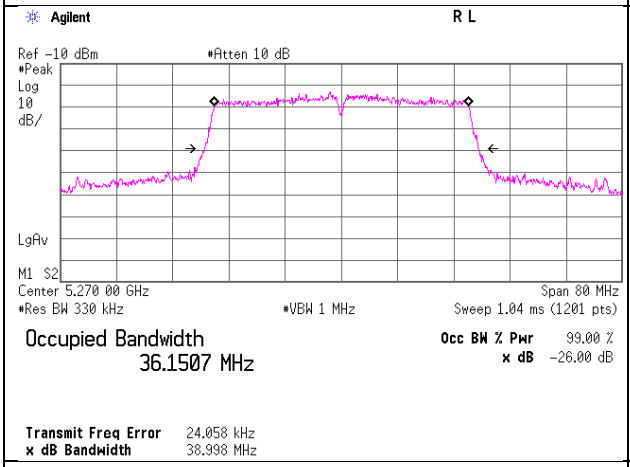
5700 MHz



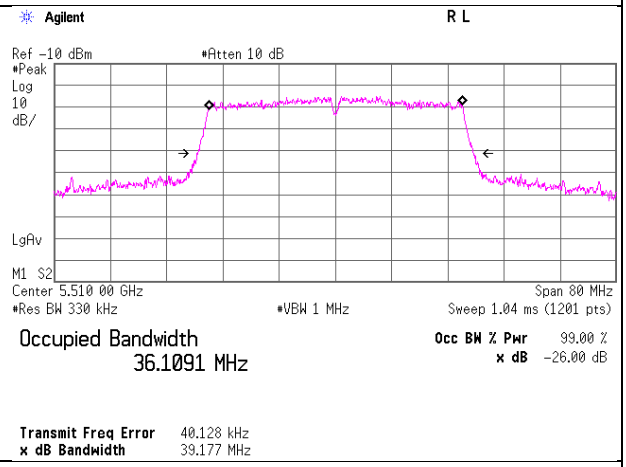
26 dB Emission Bandwidth

11n-40

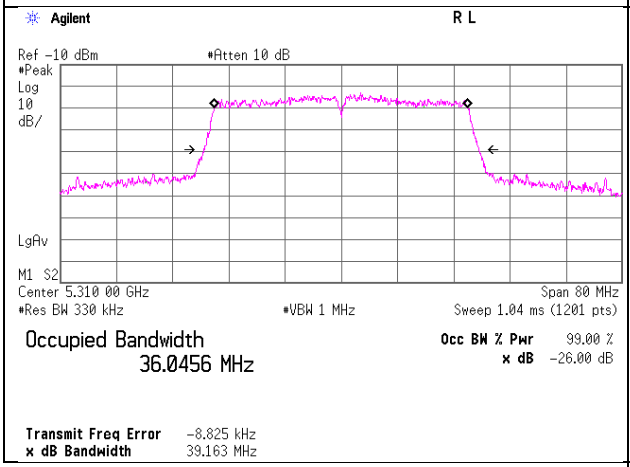
5270 MHz



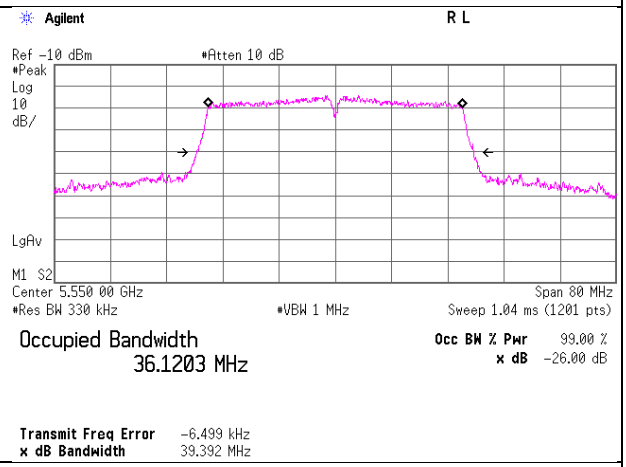
5510 MHz



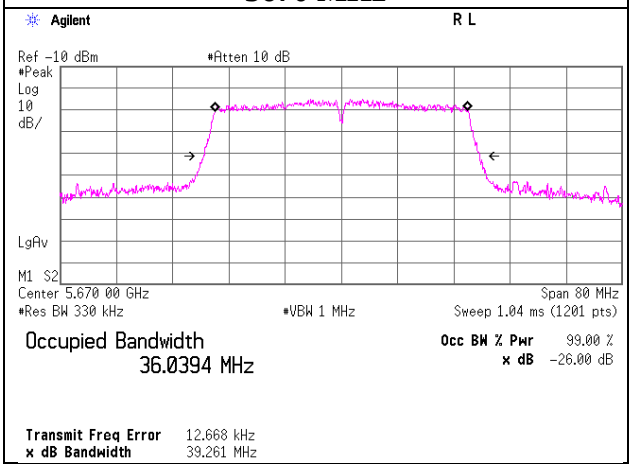
5310 MHz -



5550 MHz



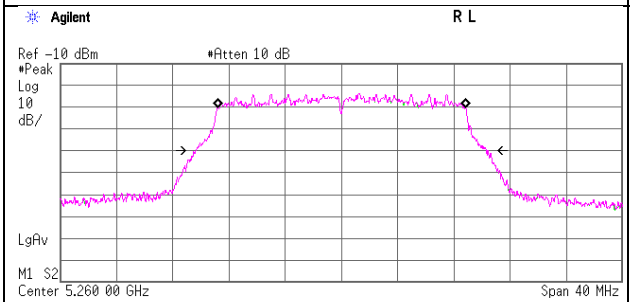
5670 MHz



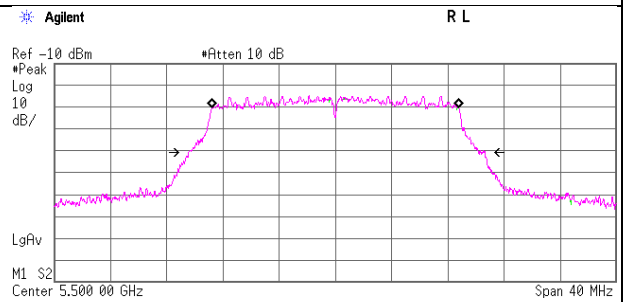
26 dB Emission Bandwidth

11ac-20

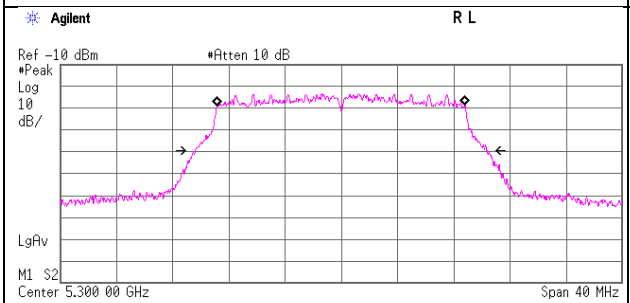
5260 MHz



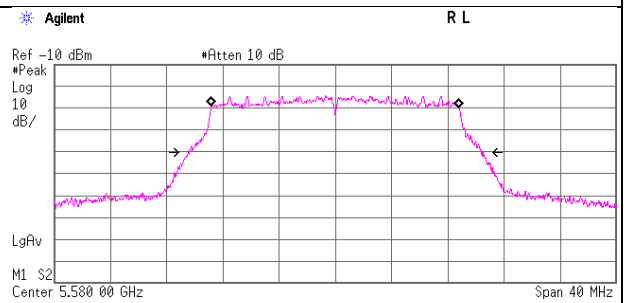
5500 MHz



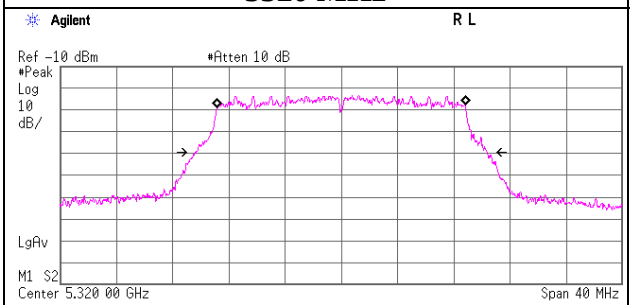
5300 MHz



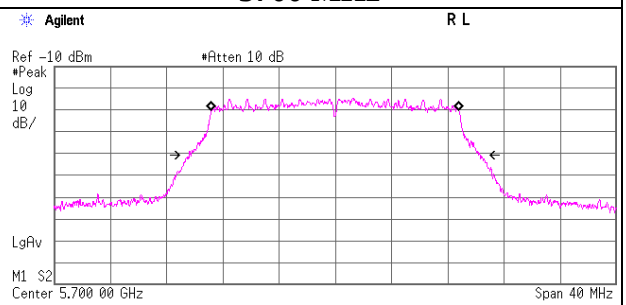
5580 MHz



5320 MHz



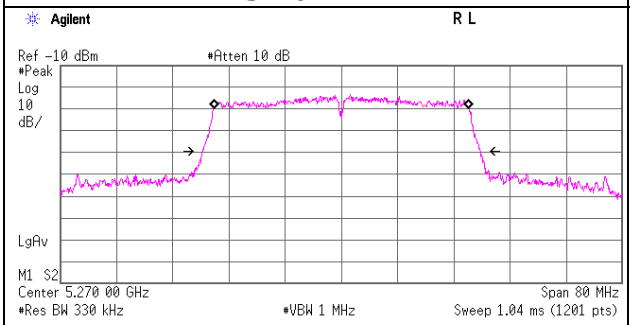
5700 MHz



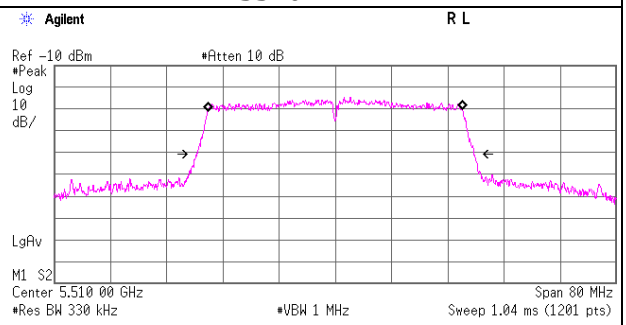
26 dB Emission Bandwidth

11ac-40

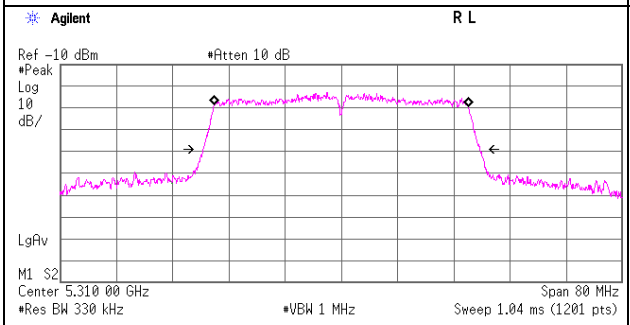
5270 MHz



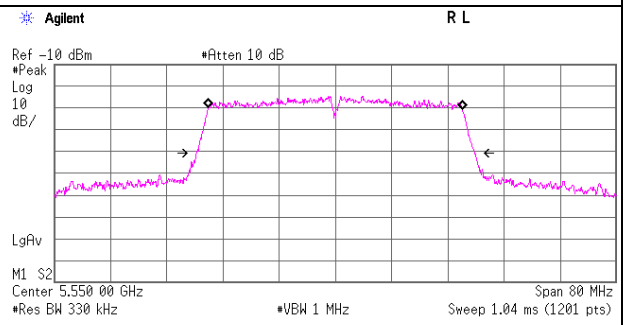
5510 MHz



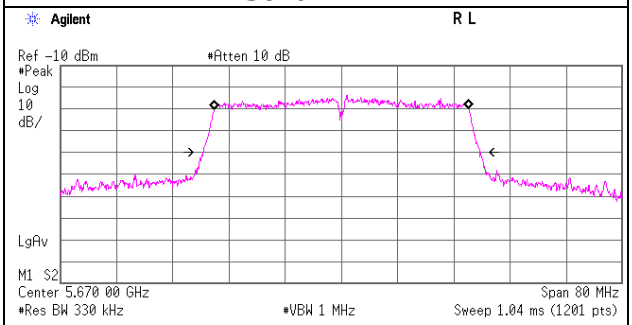
5310 MHz -



5550 MHz



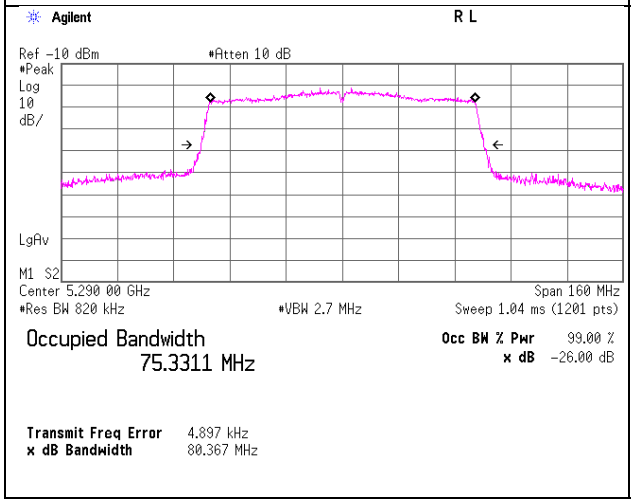
5670 MHz



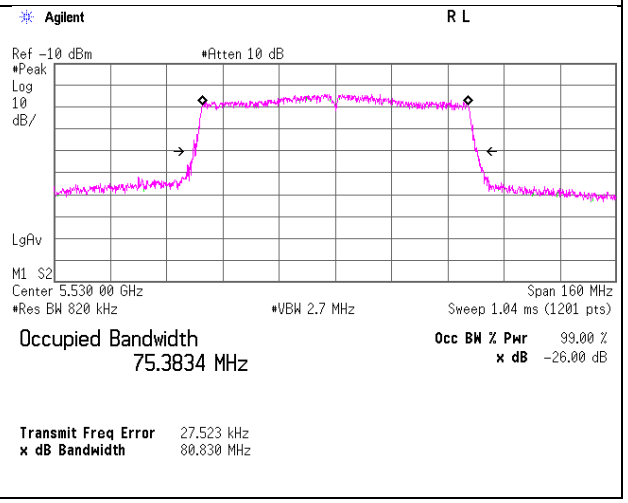
26 dB Emission Bandwidth

11ac-80

5290 MHz



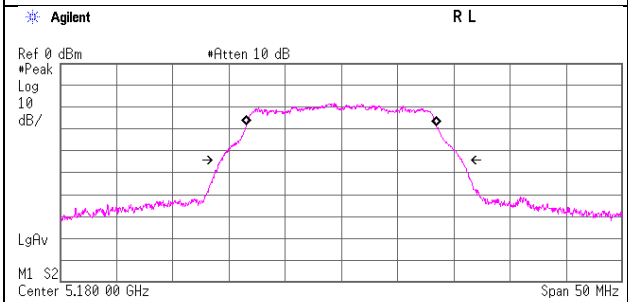
5530 MHz



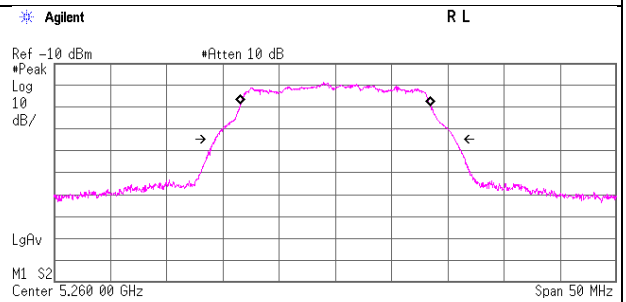
99 % Occupied Bandwidth

11a

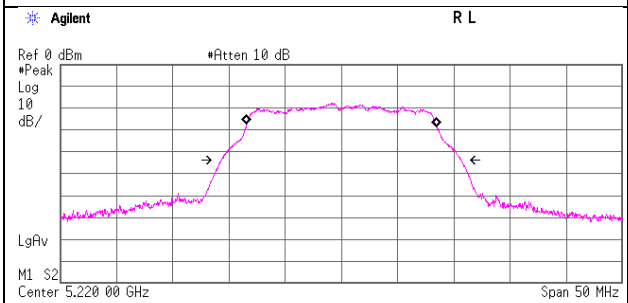
5180 MHz



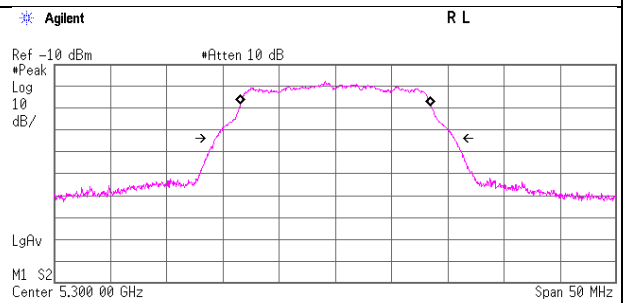
5260 MHz



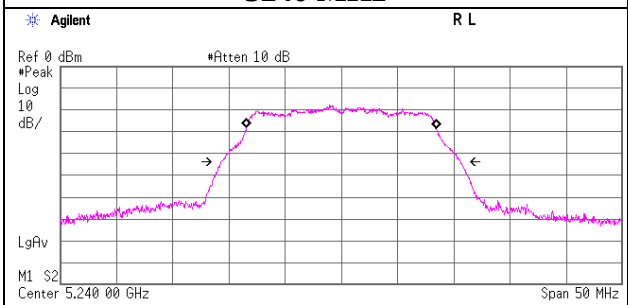
5220 MHz



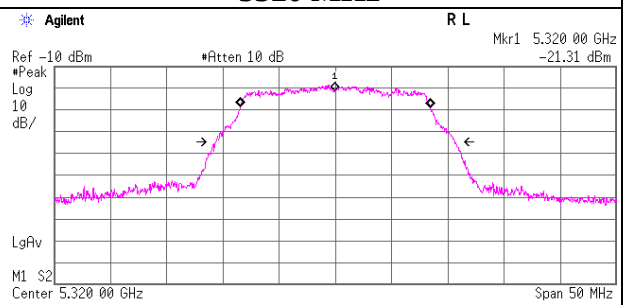
5300 MHz



5240 MHz



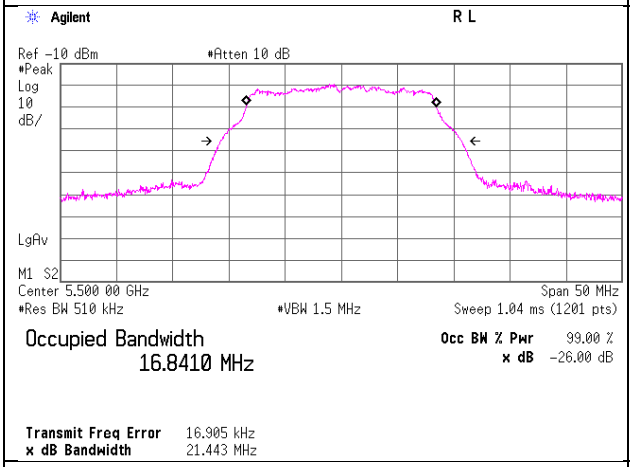
5320 MHz



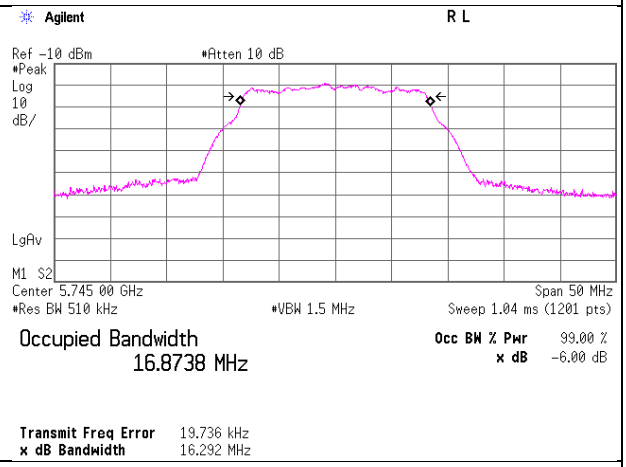
99 % Occupied Bandwidth

11a

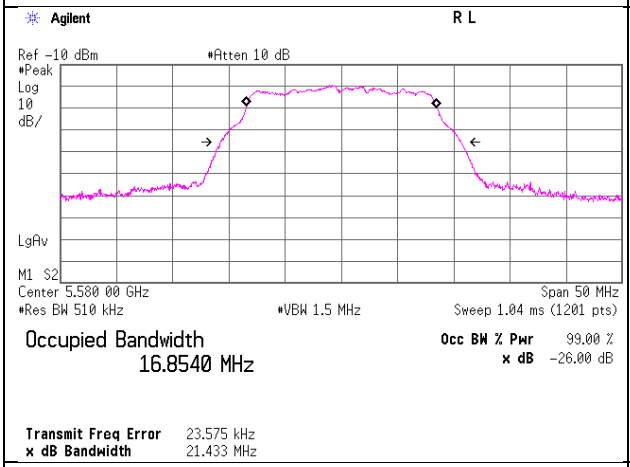
5500 MHz



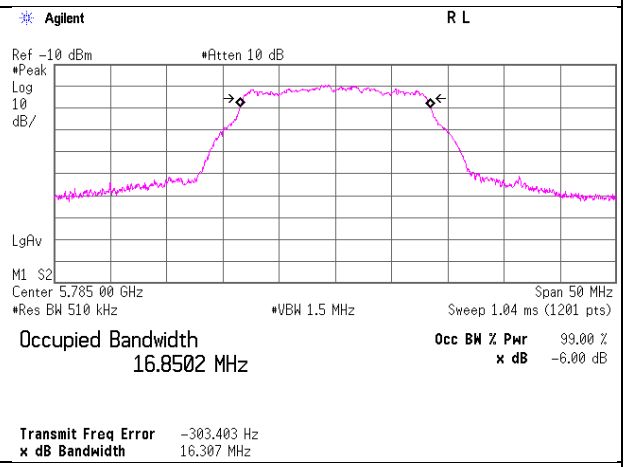
5745 MHz



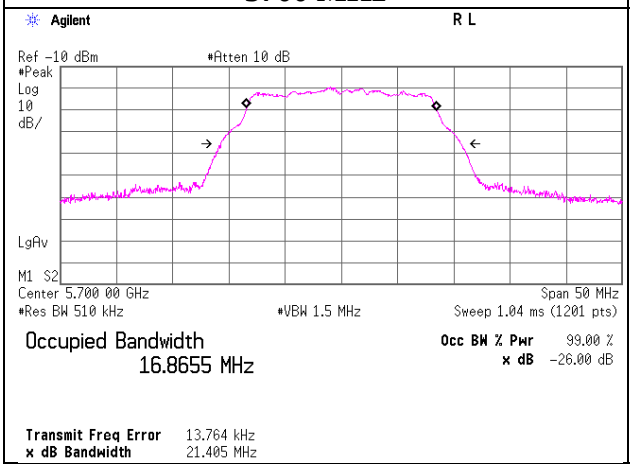
5580 MHz



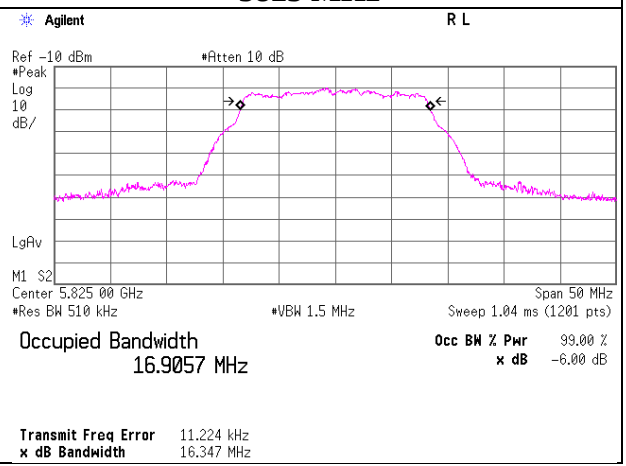
5785 MHz



5700 MHz



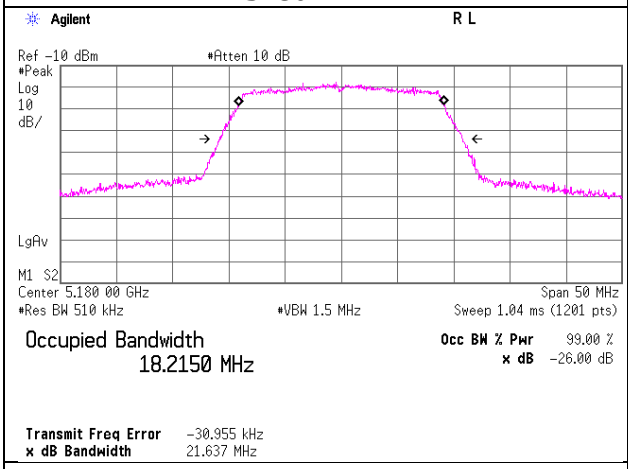
5825 MHz



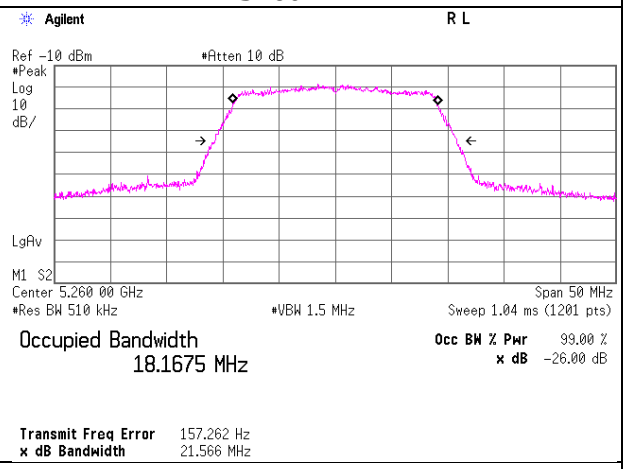
99 % Occupied Bandwidth

11n-20

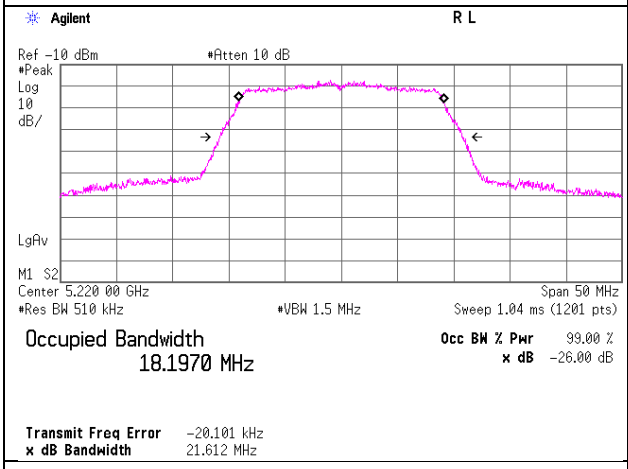
5180 MHz



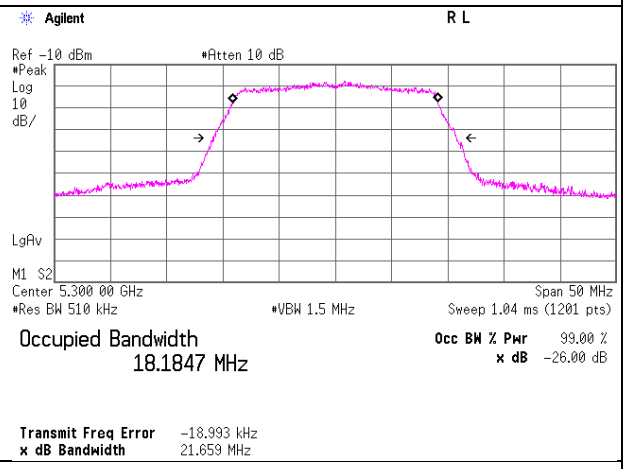
5260 MHz



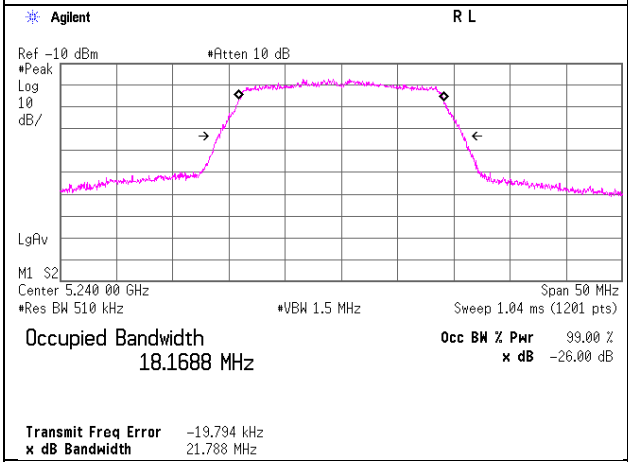
5220 MHz



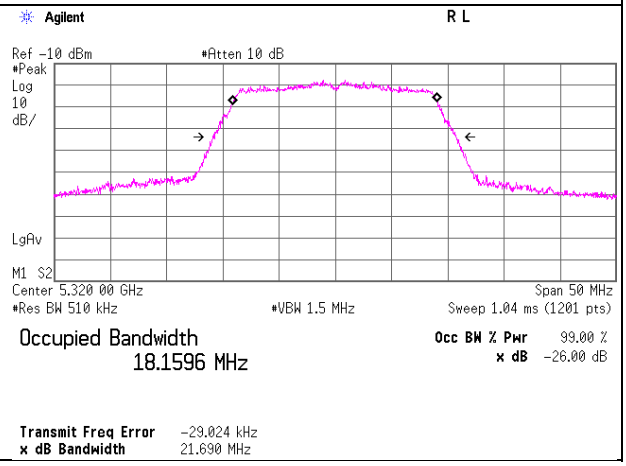
5300 MHz



5240 MHz



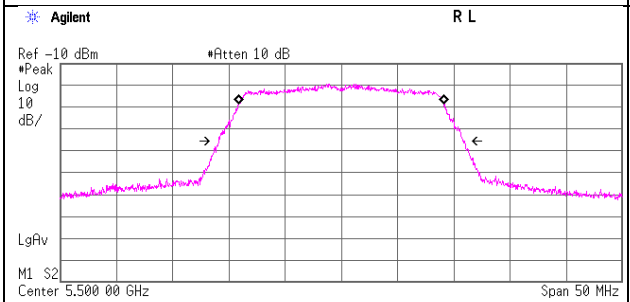
5320 MHz



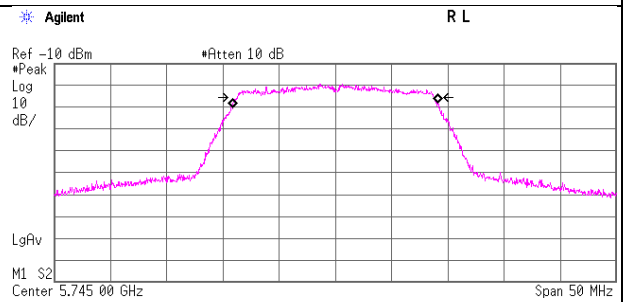
99 % Occupied Bandwidth

11n-20

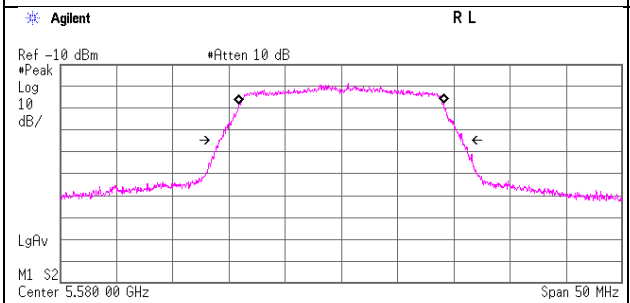
5500 MHz



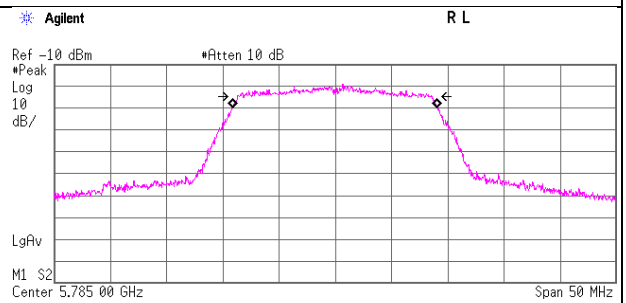
5745 MHz



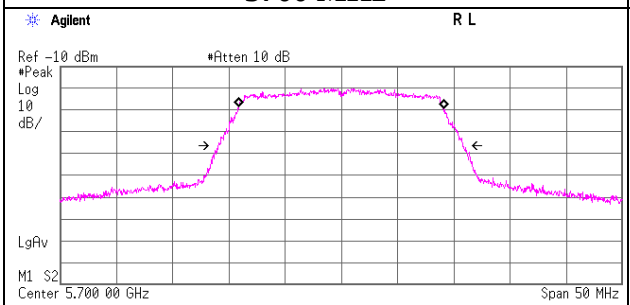
5580 MHz



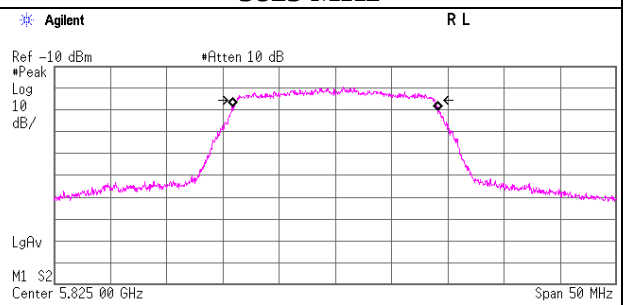
5785 MHz



5700 MHz



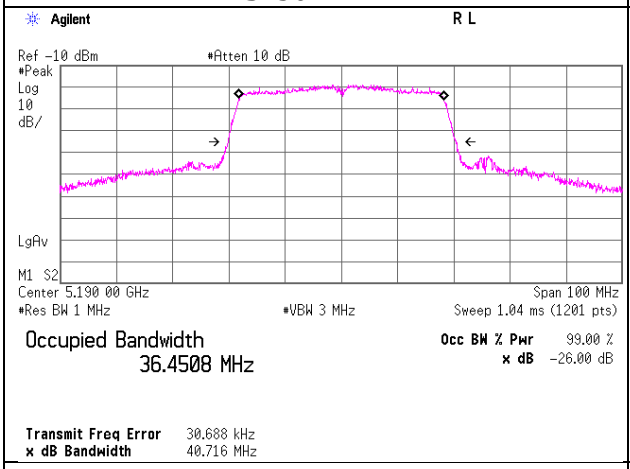
5825 MHz



99 % Occupied Bandwidth

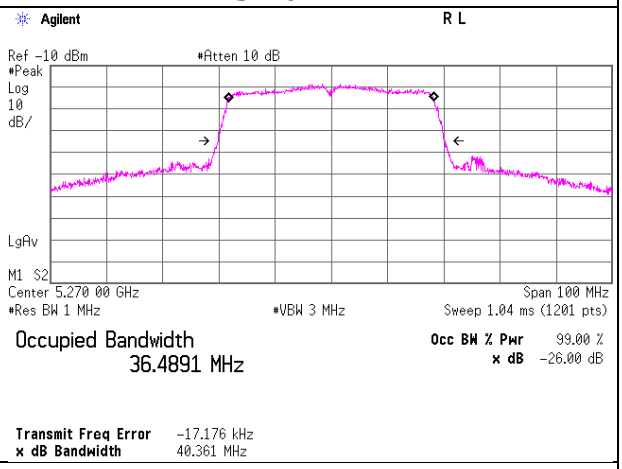
11n-40

5190 MHz



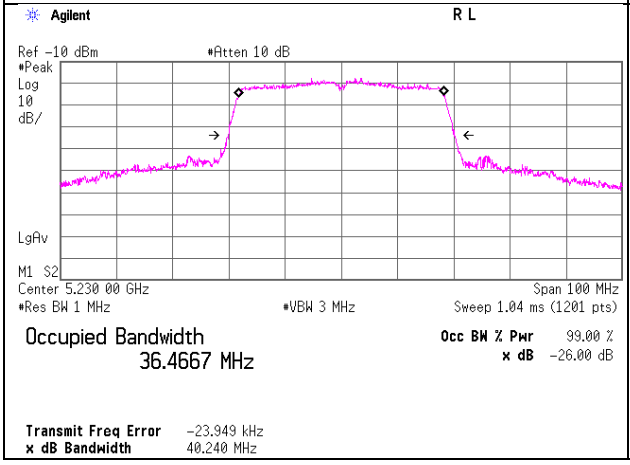
-

5270 MHz

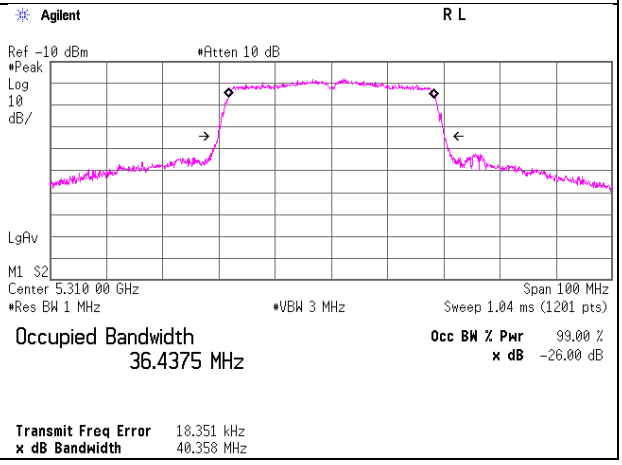


-

5230 MHz



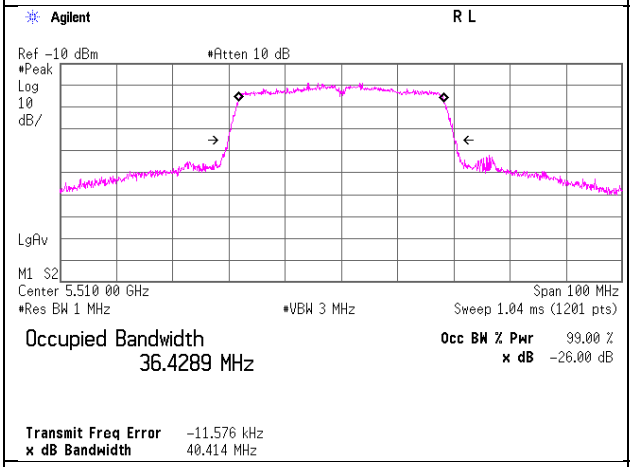
5310 MHz



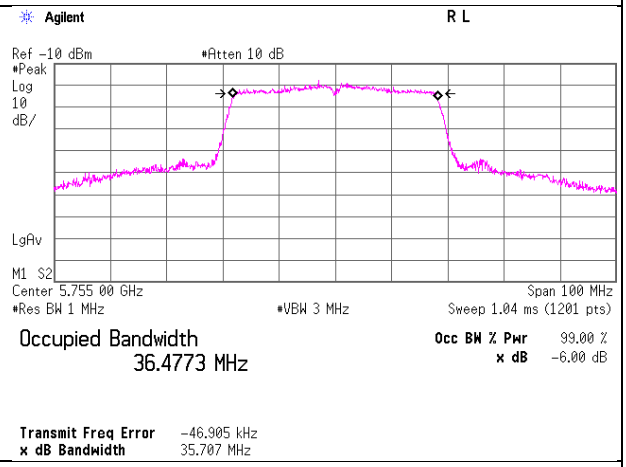
99 % Occupied Bandwidth

11n-40

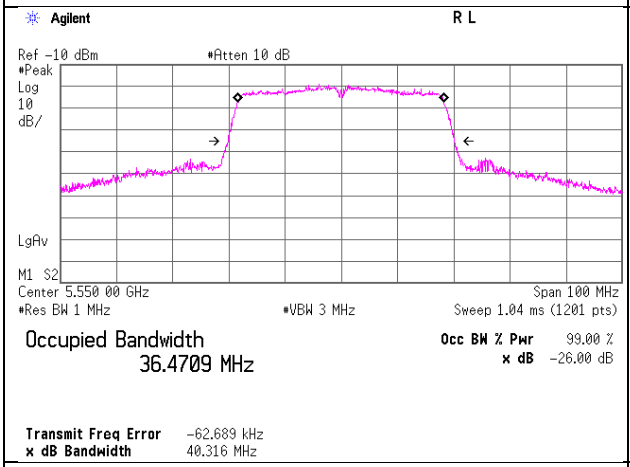
5510 MHz



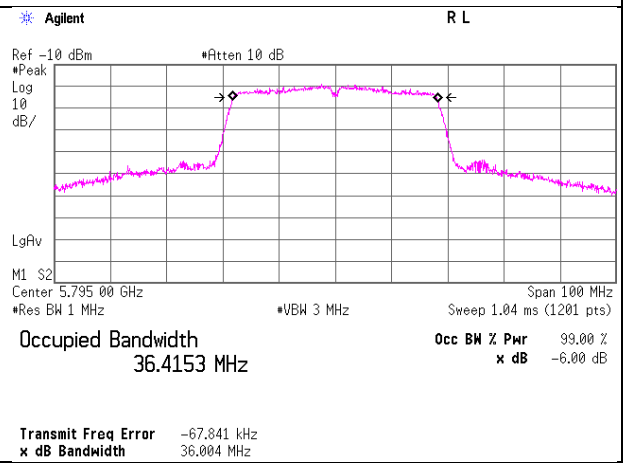
5755 MHz



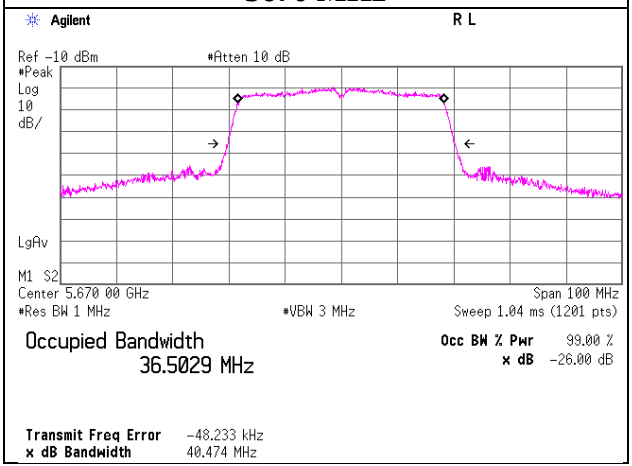
5550 MHz



5795 MHz



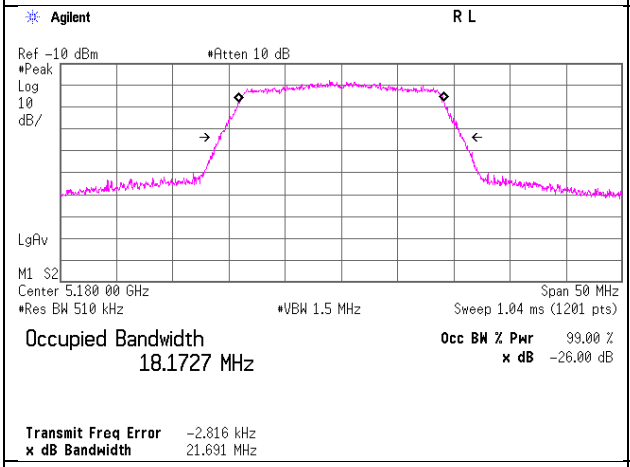
5670 MHz



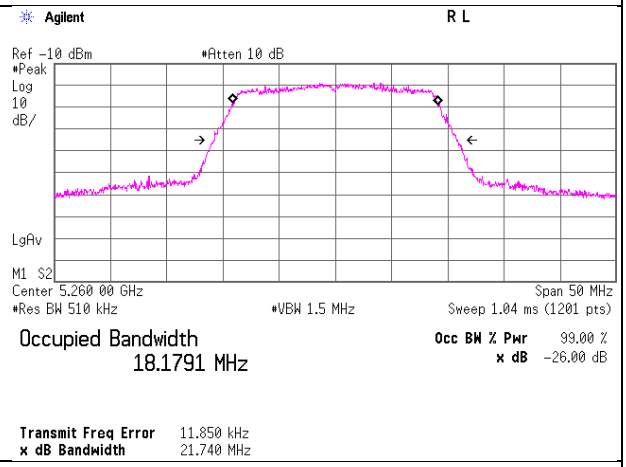
99 % Occupied Bandwidth

11ac-20

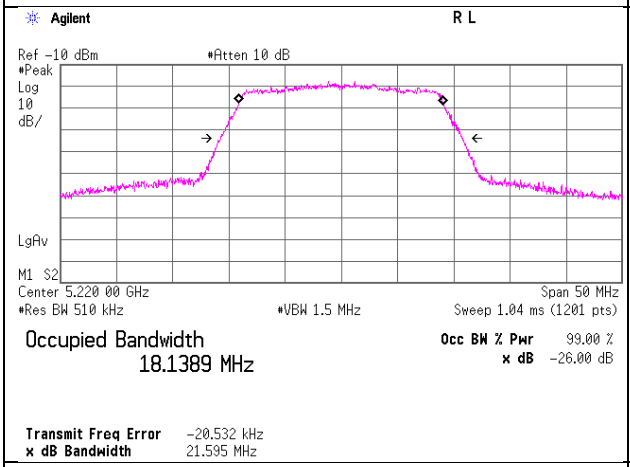
5180 MHz



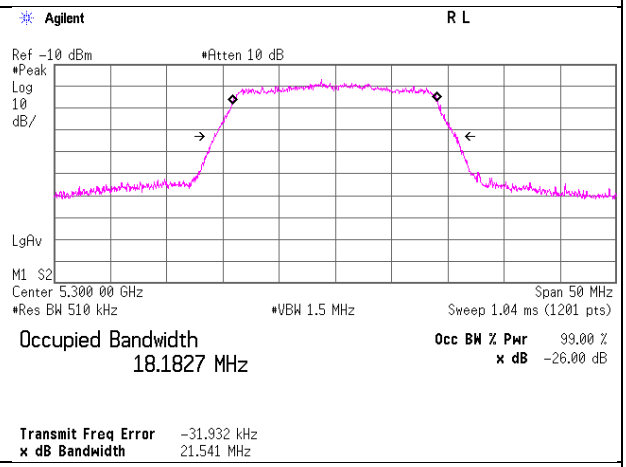
5260 MHz



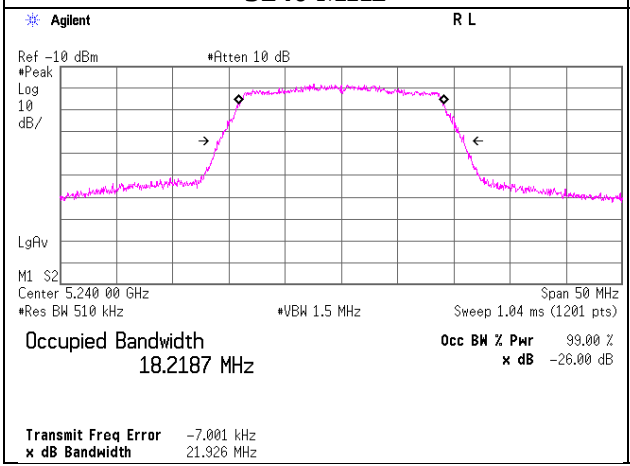
5220 MHz



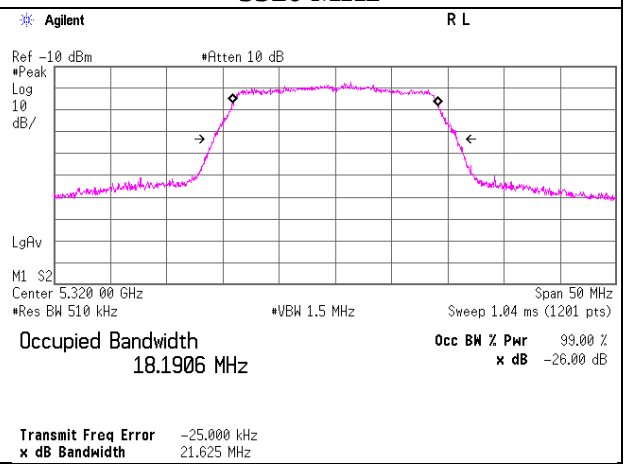
5300 MHz



5240 MHz



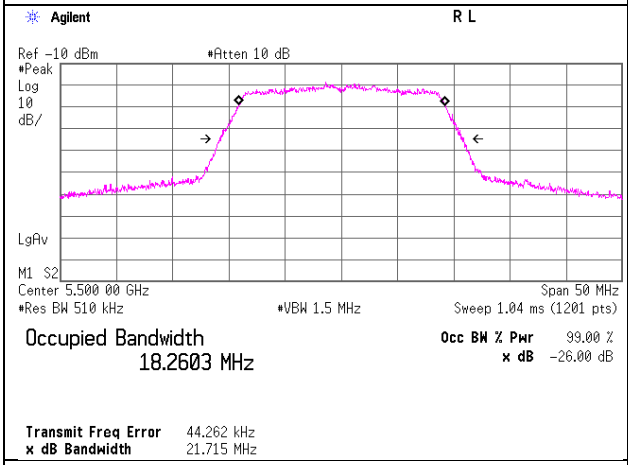
5320 MHz



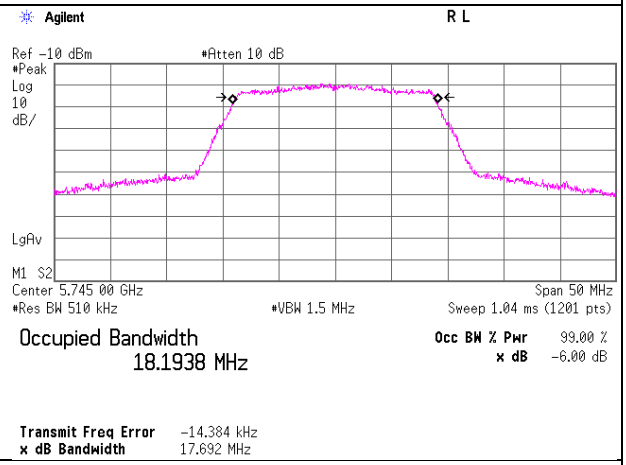
99 % Occupied Bandwidth

11ac-20

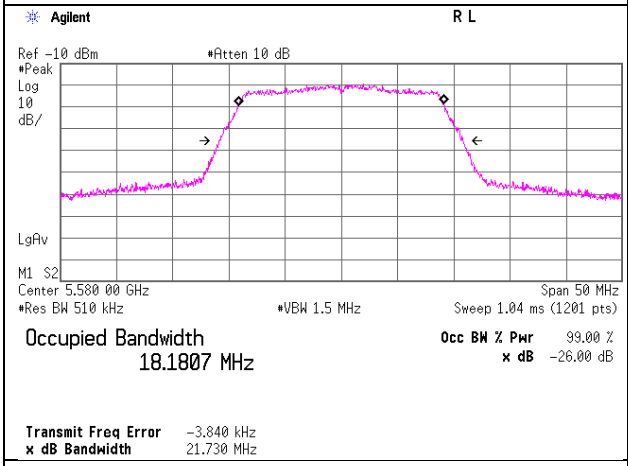
5500 MHz



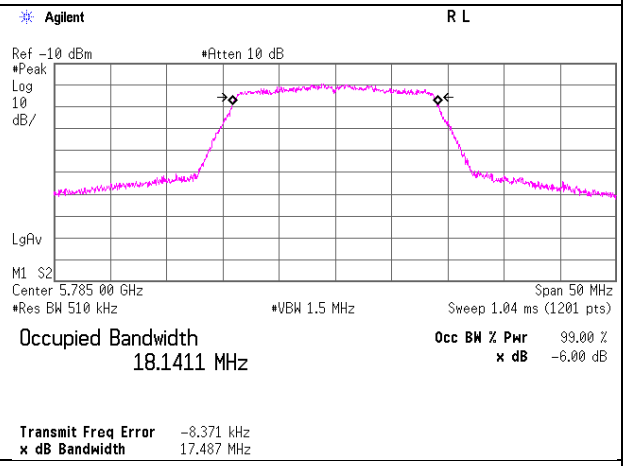
5745 MHz



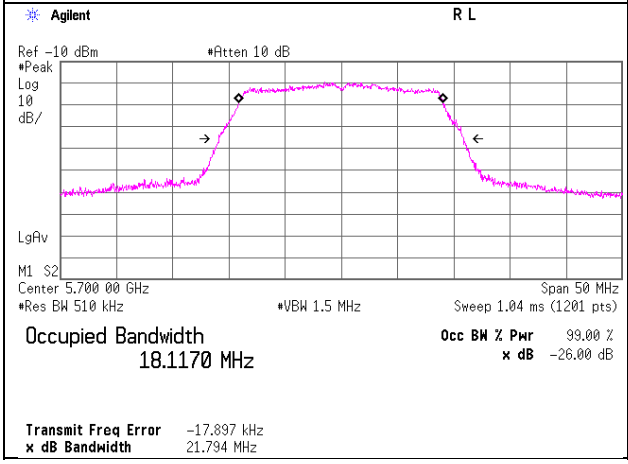
5580 MHz



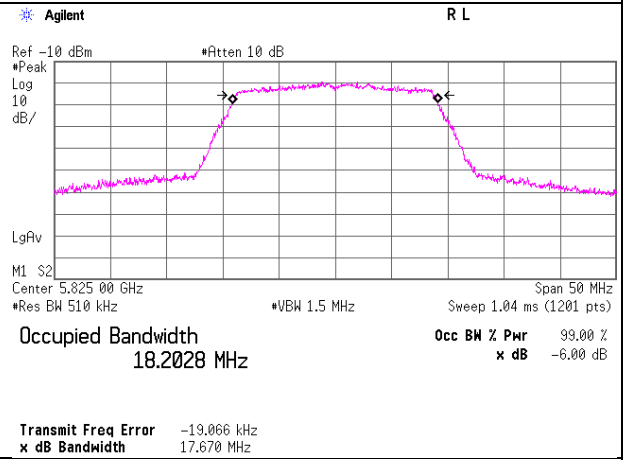
5785 MHz



5700 MHz



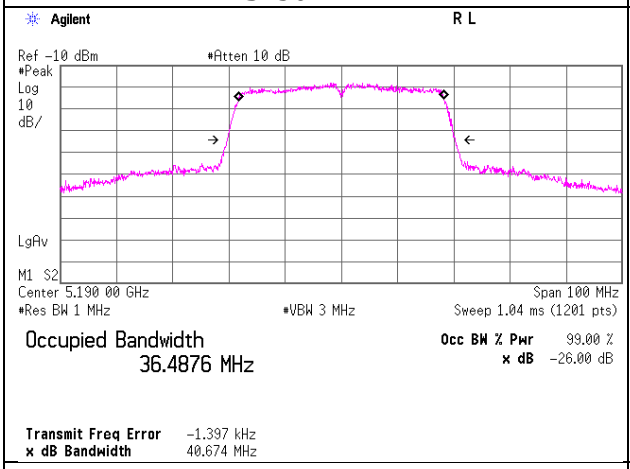
5825 MHz



99 % Occupied Bandwidth

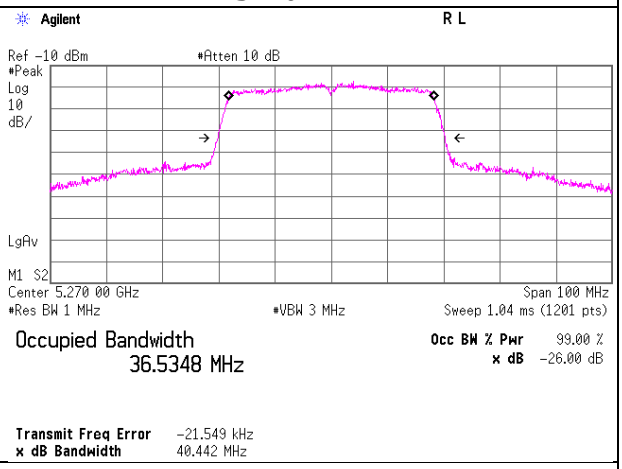
11ac-40

5190 MHz



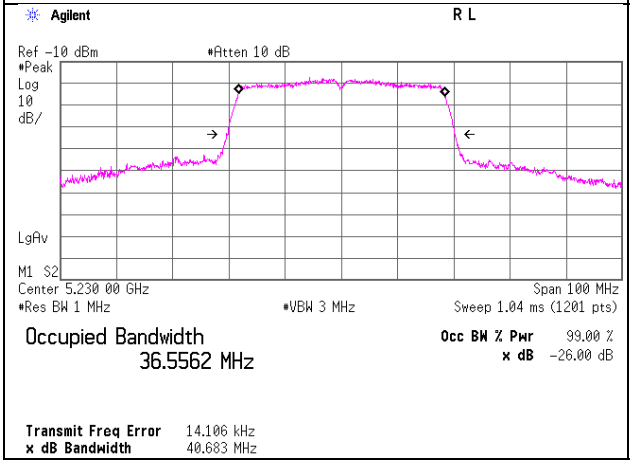
-

5270 MHz

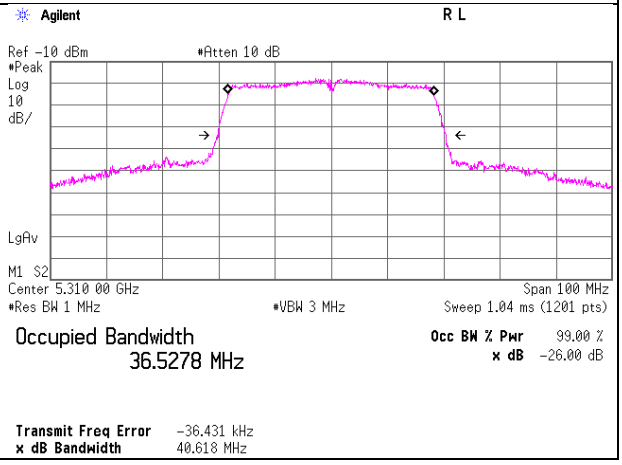


-

5230 MHz



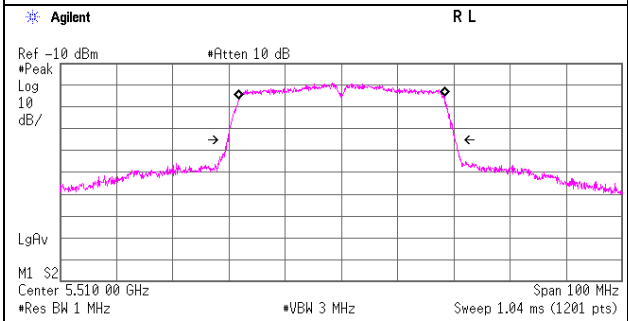
5310 MHz



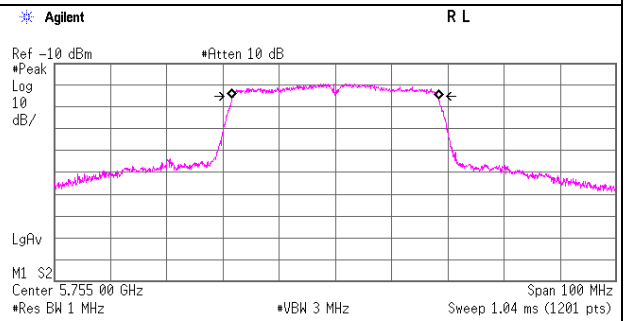
99 % Occupied Bandwidth

11ac-40

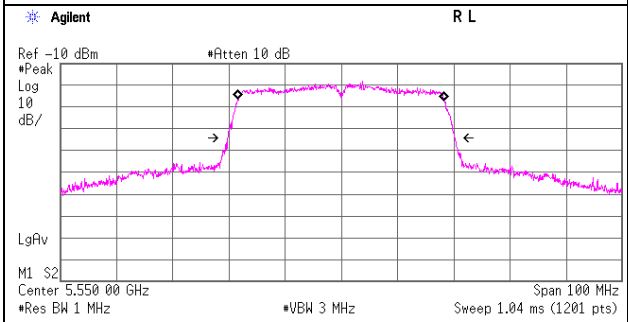
5510 MHz



5755 MHz

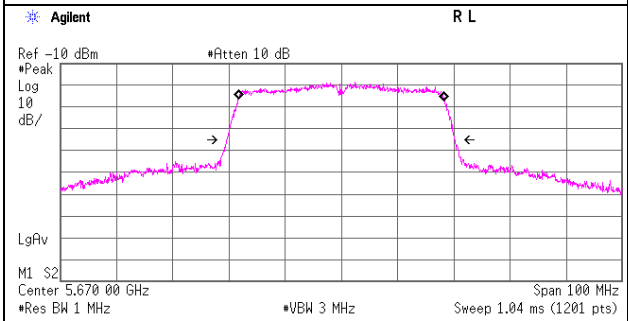


5550 MHz

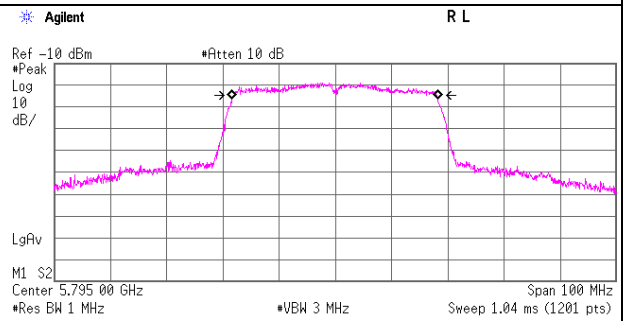


-

5670 MHz



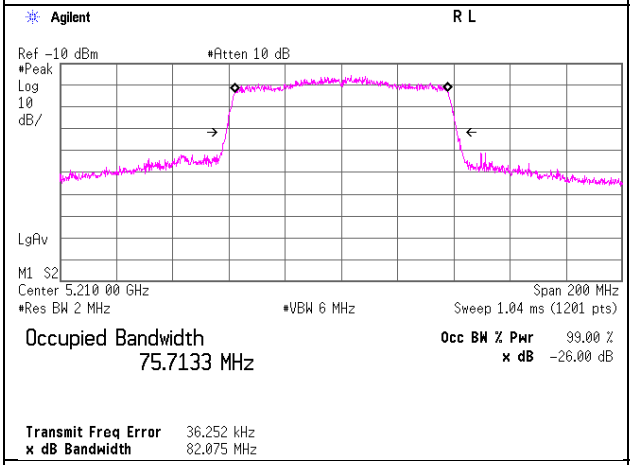
5795 MHz



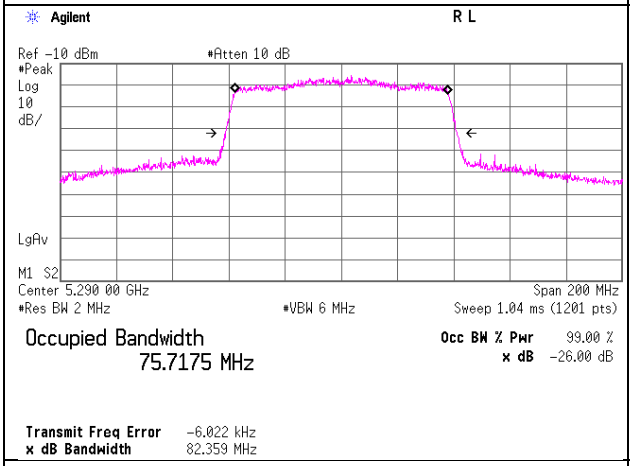
99 % Occupied Bandwidth

11ac-80

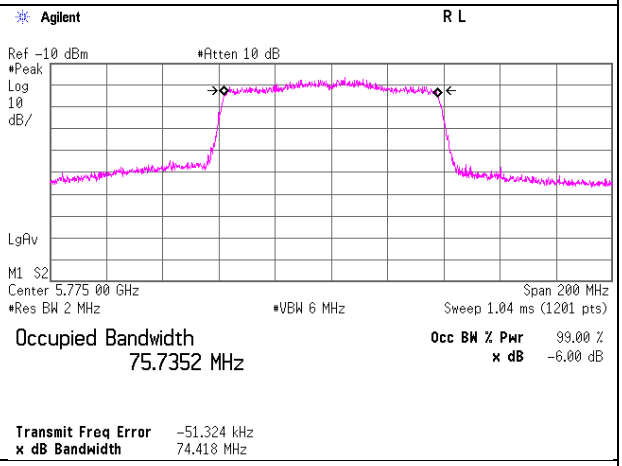
5210 MHz



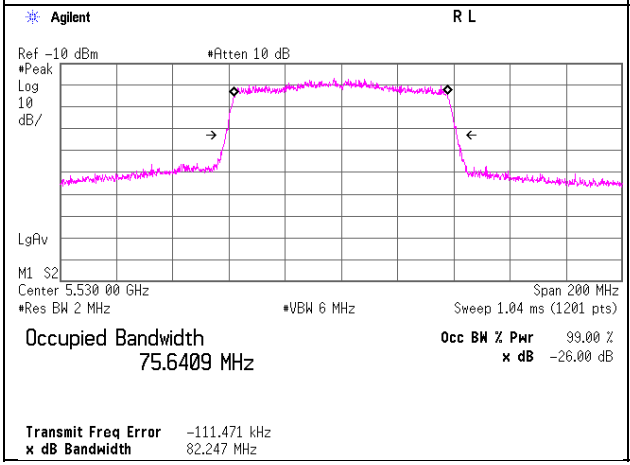
5290 MHz



5755 MHz



5530 MHz



-

6 dB Bandwidth

Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 26, 2018
Temperature / Humidity	22 deg. C / 32 % RH
Engineer	Tatsuya Arai
Mode	Tx

11a

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	16.312	> 500
5785	16.295	> 500
5825	16.313	> 500

11n-20

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	17.600	> 500
5785	17.607	> 500
5825	17.703	> 500

11n-40

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5755	36.347	> 500
5795	35.507	> 500

11ac-20

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	17.655	> 500
5785	17.688	> 500
5825	17.582	> 500

11ac-40

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5755	36.466	> 500
5795	36.332	> 500

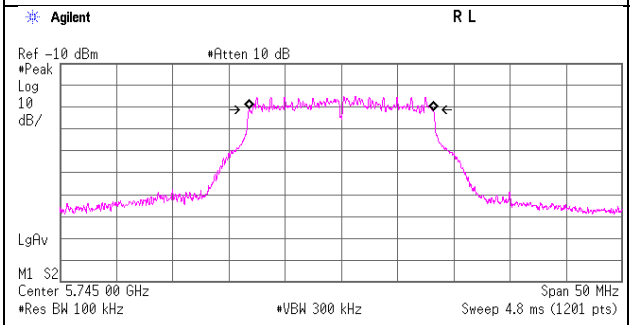
11ac-80

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5775	75.361	> 500

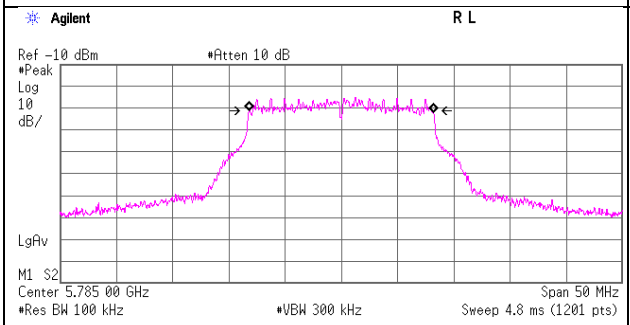
6 dB Bandwidth

11a

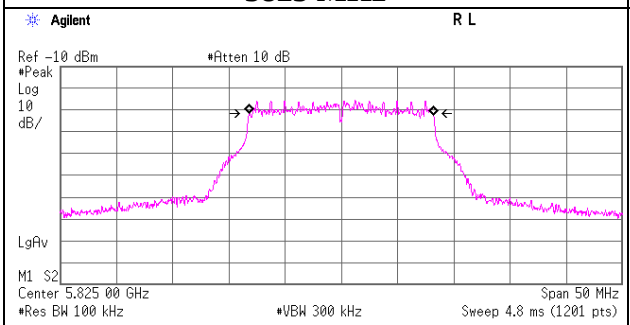
5745 MHz



5785 MHz

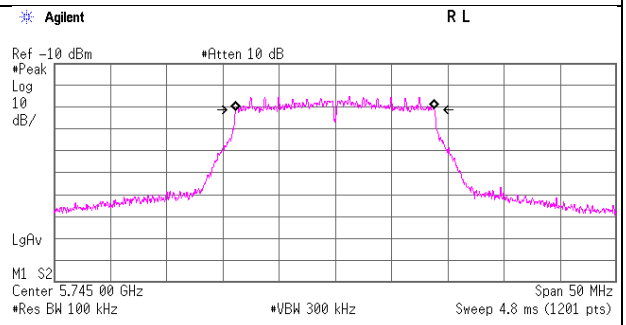


5825 MHz

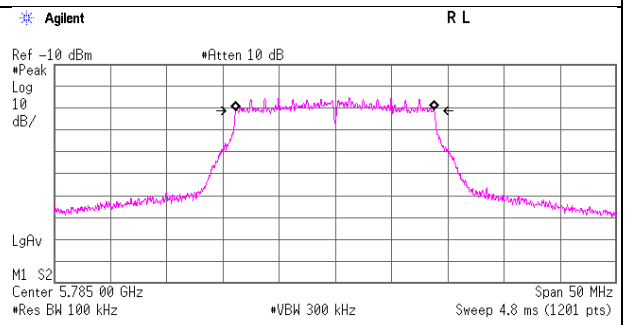


11n-20

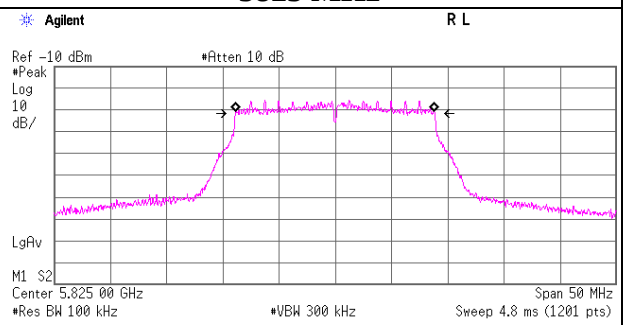
5745 MHz



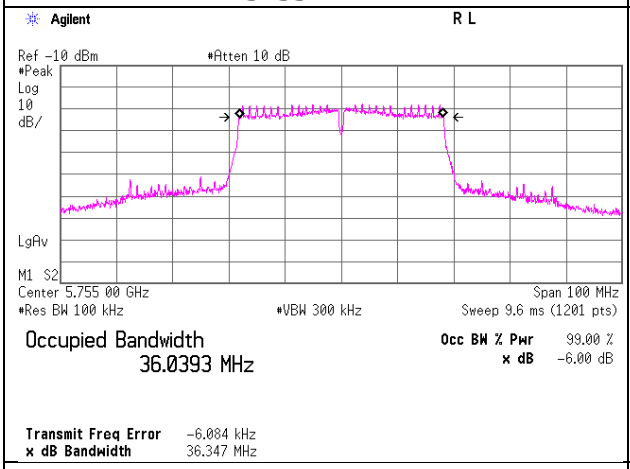
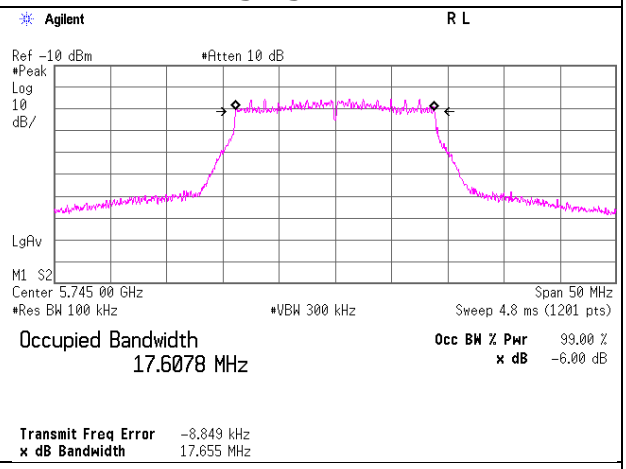
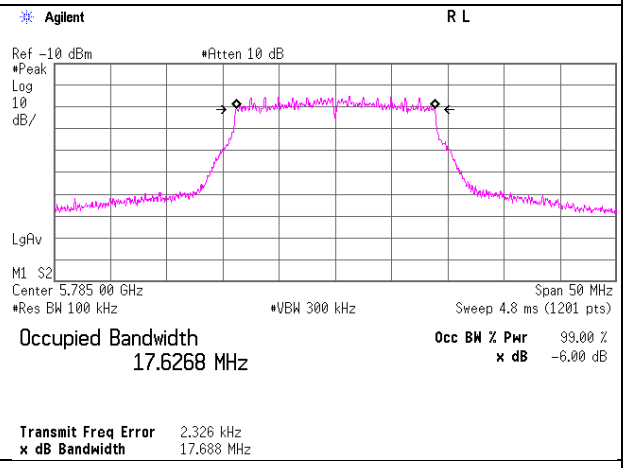
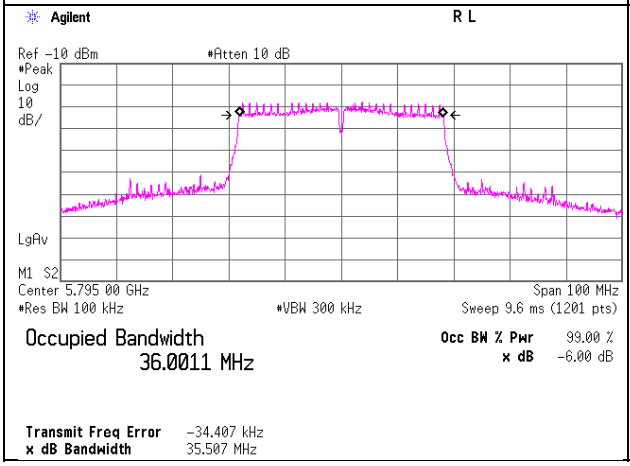
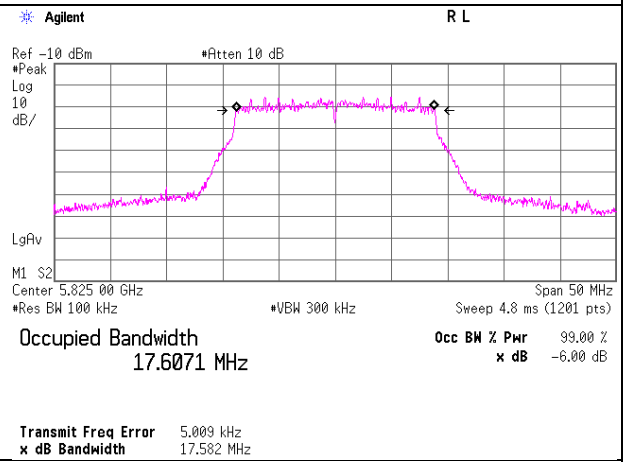
5785 MHz



5825 MHz



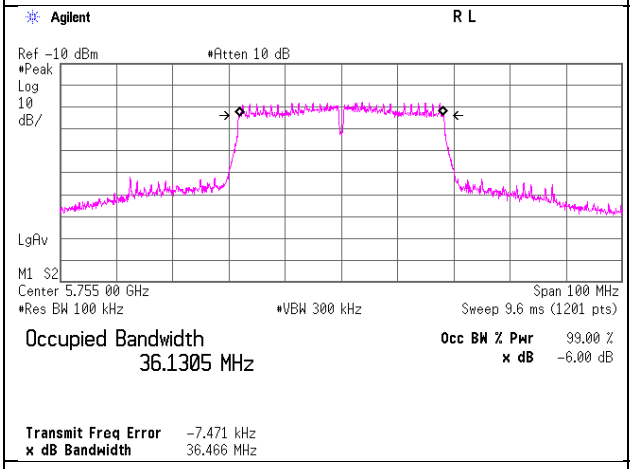
6 dB Bandwidth

11n-40	11ac-20
5755 MHz	**5745 MHz**
	
-	**5785 MHz**
	
5795 MHz	**5825 MHz**
	

6 dB Bandwidth

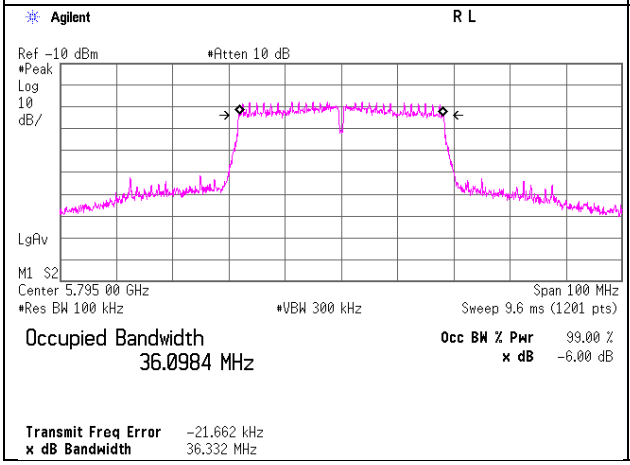
11ac-40

5755 MHz



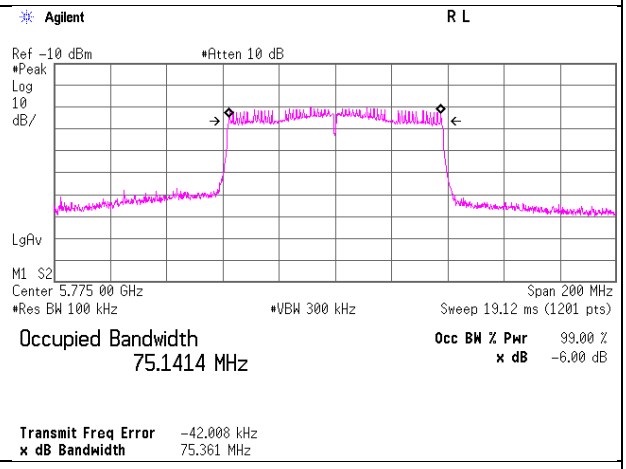
-

5795 MHz



11ac-80

5775 MHz



-

-

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11834855S-C-R3
Date	January 23, 2018
Temperature / Humidity	23 deg. C / 38 % RH
Engineer	Tatsuya Arai
Mode	Tx 11a

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				e.i.r.p.			
								Result		Limit	Margin	Result		Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-14.77	2.43	19.98	1.91	1.30	-	16.624	9.55	9.02	23.97	14.42	10.85	12.17	29.97	19.12
5220	-14.83	2.43	19.97	1.91	1.30	-	16.617	9.48	8.88	23.97	14.49	10.78	11.97	29.97	19.19
5240	-14.79	2.43	19.96	1.91	1.30	-	16.594	9.51	8.94	23.97	14.46	10.81	12.06	29.97	19.16
5260	-14.72	2.43	19.95	1.91	1.30	20.055	16.818	9.57	9.06	23.97	14.40	10.87	12.22	29.97	19.10
5300	-14.32	2.43	19.94	1.91	1.30	20.185	16.814	9.96	9.91	23.97	14.01	11.26	13.37	29.97	18.71
5320	-15.19	2.43	19.93	1.91	1.30	20.603	16.849	9.08	8.09	23.97	14.89	10.38	10.92	29.97	19.59
5500	-15.85	2.43	19.87	1.91	1.30	20.494	16.806	8.36	6.86	23.97	15.61	9.66	9.25	29.97	20.31
5580	-15.84	2.47	19.90	1.91	1.30	20.280	16.808	8.44	6.99	23.97	15.53	9.74	9.42	29.97	20.23
5700	-15.95	2.52	19.95	1.91	1.30	20.555	16.818	8.43	6.97	23.97	15.54	9.73	9.40	29.97	20.24
5745	-15.75	2.54	19.96	1.91	1.30	-	16.829	8.66	7.35	30.00	21.34	9.96	9.91	36.00	26.04
5785	-15.78	2.56	19.98	1.91	1.30	-	16.820	8.67	7.37	30.00	21.33	9.97	9.94	36.00	26.03
5825	-15.92	2.57	19.99	1.91	1.30	-	16.862	8.55	7.16	30.00	21.45	9.85	9.66	36.00	26.15

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx 11n-20	

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	-14.31	2.43	19.98	1.41	1.30	-	18.058	9.51	8.94	23.97	14.46	10.81	12.06	29.97	19.16
5220	-14.67	2.43	19.97	1.41	1.30	-	18.068	9.14	8.21	23.97	14.83	10.44	11.07	29.97	19.53
5240	-14.50	2.43	19.96	1.41	1.30	-	18.081	9.30	8.52	23.97	14.67	10.60	11.49	29.97	19.37
5260	-14.71	2.43	19.95	1.41	1.30	20.900	18.025	9.08	8.09	23.97	14.89	10.38	10.92	29.97	19.59
5300	-14.53	2.43	19.94	1.41	1.30	20.914	18.095	9.25	8.42	23.97	14.72	10.55	11.36	29.97	19.42
5320	-14.65	2.43	19.93	1.41	1.30	21.049	18.101	9.12	8.17	23.97	14.85	10.42	11.02	29.97	19.55
5500	-15.68	2.43	19.87	1.41	1.30	20.791	18.047	8.03	6.36	23.97	15.94	9.33	8.57	29.97	20.64
5580	-15.62	2.47	19.90	1.41	1.30	20.107	18.058	8.16	6.55	23.97	15.81	9.46	8.83	29.97	20.51
5700	-15.33	2.52	19.95	1.41	1.30	20.894	18.062	8.55	7.16	23.97	15.42	9.85	9.66	29.97	20.12
5745	-15.40	2.54	19.96	1.41	1.30	-	18.062	8.51	7.10	30.00	21.49	9.81	9.58	36.00	26.19
5785	-15.46	2.56	19.98	1.41	1.30	-	18.113	8.49	7.07	30.00	21.51	9.79	9.53	36.00	26.21
5825	-15.53	2.57	19.99	1.41	1.30	-	18.060	8.44	6.99	30.00	21.56	9.74	9.42	36.00	26.26

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx 11n-40	

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	-13.81	2.43	19.98	1.09	1.30	-	36.344	9.69	9.32	23.97	14.28	10.99	12.57	29.97	18.98
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-13.57	2.43	19.96	1.09	1.30	-	36.296	9.91	9.80	23.97	14.06	11.21	13.22	29.97	18.76
5270	-13.78	2.43	19.95	1.09	1.30	39.041	36.264	9.69	9.32	23.97	14.28	10.99	12.57	29.97	18.98
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-13.67	2.43	19.93	1.09	1.30	39.017	36.382	9.78	9.51	23.97	14.19	11.08	12.83	29.97	18.89
5510	-15.48	2.43	19.87	1.09	1.30	39.314	36.361	7.91	6.19	23.97	16.06	9.21	8.34	29.97	20.76
5550	-15.35	2.45	19.89	1.09	1.30	39.085	36.322	8.08	6.43	23.97	15.89	9.38	8.67	29.97	20.59
5670	-15.06	2.50	19.93	1.09	1.30	38.692	36.382	8.46	7.02	23.97	15.51	9.76	9.47	29.97	20.21
5755	-15.28	2.54	19.97	1.09	1.30	-	36.374	8.32	6.80	30.00	21.68	9.62	9.17	36.00	26.38
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-15.19	2.56	19.98	1.09	1.30	-	36.416	8.44	6.99	30.00	21.56	9.74	9.43	36.00	26.26

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx 11ac-20	

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	-14.97	2.43	19.98	1.85	1.30	-	18.009	9.29	8.50	23.97	14.68	10.59	11.46	29.97	19.38
5220	-15.03	2.43	19.97	1.85	1.30	-	18.019	9.22	8.36	23.97	14.75	10.52	11.28	29.97	19.45
5240	-14.98	2.43	19.96	1.85	1.30	-	18.041	9.26	8.44	23.97	14.71	10.56	11.38	29.97	19.41
5260	-14.51	2.43	19.95	1.85	1.30	20.591	18.097	9.72	9.38	23.97	14.25	11.02	12.65	29.97	18.95
5300	-15.00	2.43	19.94	1.85	1.30	20.814	18.025	9.22	8.36	23.97	14.75	10.52	11.28	29.97	19.45
5320	-15.32	2.43	19.93	1.85	1.30	20.779	18.014	8.89	7.75	23.97	15.08	10.19	10.45	29.97	19.78
5500	-16.00	2.43	19.87	1.85	1.30	20.873	18.033	8.15	6.53	23.97	15.82	9.45	8.81	29.97	20.52
5580	-15.95	2.47	19.90	1.85	1.30	20.645	18.119	8.27	6.72	23.97	15.70	9.57	9.06	29.97	20.40
5700	-15.71	2.52	19.95	1.85	1.30	20.962	18.122	8.61	7.26	23.97	15.36	9.91	9.80	29.97	20.06
5745	-15.96	2.54	19.96	1.85	1.30	-	18.138	8.39	6.91	30.00	21.61	9.69	9.32	36.00	26.31
5785	-15.85	2.56	19.98	1.85	1.30	-	18.055	8.54	7.15	30.00	21.46	9.84	9.64	36.00	26.16
5825	-15.91	2.57	19.99	1.85	1.30	-	18.072	8.50	7.08	30.00	21.50	9.80	9.55	36.00	26.20

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx 11ac-40	

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				e.i.r.p.			
								Result		Limit	Margin	Result		Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5190	-14.56	2.43	19.98	1.76	1.30	-	36.421	9.61	9.15	23.97	14.36	10.91	12.34	29.97	19.06
-					-	-	-	-	-	-	-	-	-	-	-
5230	-14.36	2.43	19.96	1.76	1.30	-	36.339	9.79	9.53	23.97	14.18	11.09	12.86	29.97	18.88
5270	-15.27	2.43	19.95	1.76	1.30	39.631	36.346	8.87	7.71	23.97	15.10	10.17	10.40	29.97	19.80
-						-	-	-	-	-	-	-	-	-	-
5310	-14.98	2.43	19.93	1.76	1.30	39.544	36.380	9.14	8.21	23.97	14.83	10.44	11.07	29.97	19.53
5510	-15.68	2.43	19.87	1.76	1.30	39.695	36.420	8.38	6.89	23.97	15.59	9.68	9.29	29.97	20.29
5550	-16.09	2.45	19.89	1.76	1.30	39.430	36.435	8.01	6.33	23.97	15.96	9.31	8.53	29.97	20.66
5670	-16.07	2.50	19.93	1.76	1.30	39.522	36.510	8.12	6.49	23.97	15.85	9.42	8.75	29.97	20.55
5755	-15.96	2.54	19.97	1.76	1.30	-	36.438	8.31	6.78	30.00	21.69	9.61	9.15	36.00	26.39
-					-	-	-	-	-	-	-	-	-	-	-
5795	-16.03	2.56	19.98	1.76	1.30	-	36.414	8.27	6.72	30.00	21.73	9.57	9.06	36.00	26.43

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

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx 11ac-80	

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]
5210	-14.10	2.43	19.97	1.15	1.3	-	36.421	9.45	8.81	23.97	14.52	10.75	11.89	29.97	19.22
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5290	-14.38	2.43	19.94	1.15	1.3	39.631	36.346	9.14	8.21	23.97	14.83	10.44	11.07	29.97	19.53
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5530	-15.53	2.44	19.88	1.15	1.3	39.695	36.420	7.94	6.23	23.97	16.03	9.24	8.40	29.97	20.73
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5775	-15.16	2.55	19.97	1.15	1.3	-	36.438	8.51	7.10	30.00	21.49	9.81	9.58	36.00	26.19
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx	

5180 MHz

Mode	Rate Mbps	Reading (timed average) [dBm]	Duty factor [dB]	Burst power [dBm]	Remarks
11a	6	-13.40	0.29	-13.11	
	9	-13.64	0.43	-13.21	
	12	-13.43	0.56	-12.87	
	18	-13.73	0.81	-12.92	
	24	-14.11	1.04	-13.07	
	36	-14.60	1.41	-13.19	
	48	-14.81	1.80	-13.01	
	54	-14.77	1.91	-12.86	*

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

5180 MHz

Mode	MCS Number	Reading (timed average) [dBm]	Duty factor [dB]	Burst power [dBm]	Remarks
11n-20	0	-13.35	0.31	-13.04	
	1	-13.95	0.59	-13.36	
	2	-14.14	0.84	-13.30	
	3	-14.30	1.04	-13.26	
	4	-14.31	1.41	-12.90	*
	5	-14.68	1.76	-12.92	
	6	-15.01	1.88	-13.13	
	7	-15.08	2.02	-13.06	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

5190 MHz

Mode	MCS Number	Reading (timed average) [dBm]	Duty factor [dB]	Burst power [dBm]	Remarks
11n-40	0	-13.63	0.55	-13.08	
	1	-13.81	1.09	-12.72	*
	2	-14.63	1.46	-13.17	
	3	-14.52	1.76	-12.76	
	4	-15.09	2.22	-12.87	
	5	-15.42	2.63	-12.79	
	6	-15.68	2.79	-12.89	
	7	-15.72	2.92	-12.80	

* 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.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx	

5180 MHz

Mode	MCS Number	Reading (timed average) [dBm]	Duty factor [dB]	Burst power [dBm]	Remarks
11ac-20	0	-13.61	0.31	-13.30	
	1	-13.83	0.59	-13.24	
	2	-14.25	0.82	-13.43	
	3	-14.34	1.04	-13.30	
	4	-14.56	1.41	-13.15	
	5	-15.00	1.69	-13.31	
	6	-14.97	1.85	-13.12	*
	7	-15.17	1.98	-13.19	
	8	-15.36	2.22	-13.14	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

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

5190 MHz

Mode	MCS Number	Reading (timed average) [dBm]	Duty factor [dB]	Burst power [dBm]	Remarks
11ac-40	0	-13.44	0.60	-12.84	
	1	-13.92	1.06	-12.86	
	2	-14.30	1.46	-12.84	
	3	-14.56	1.76	-12.80	*
	4	-15.05	2.22	-12.83	
	5	-15.53	2.63	-12.90	
	6	-15.72	2.72	-13.00	
	7	-15.85	2.86	-12.99	
	8	-15.94	3.01	-12.93	
	9	-16.11	3.25	-12.86	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

5210 MHz

Mode	MCS Number	Reading (timed average) [dBm]	Duty factor [dB]	Burst power [dBm]	Remarks
11ac-80	0	-14.10	1.15	-12.95	*
	1	-15.21	1.84	-13.37	
	2	-15.70	2.34	-13.36	
	3	-16.01	2.63	-13.38	
	4	-16.42	3.25	-13.17	
	5	-16.71	3.52	-13.19	
	6	-16.74	3.54	-13.20	
	7	-16.85	3.66	-13.19	
	8	-17.08	3.85	-13.23	
	9	-17.48	3.85	-13.63	

* Worst rate

Sample Calculation:

Burst power = Reading (timed average) + Duty factor

Average Output Power
(Reference data for RF Exposure)

Test place	Shonan EMC Lab. No5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx	

11a

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5180	-14.77	2.43	19.98	7.64	5.81
5220	-14.83	2.43	19.97	7.57	5.72
5240	-14.79	2.43	19.96	7.60	5.76
5260	-14.72	2.43	19.95	7.66	5.84
5300	-14.32	2.43	19.94	8.05	6.39
5320	-15.19	2.43	19.93	7.17	5.21
5500	-15.85	2.43	19.87	6.45	4.42
5580	-15.84	2.47	19.90	6.53	4.50
5700	-15.95	2.52	19.95	6.52	4.49
5745	-15.75	2.54	19.96	6.75	4.73
5785	-15.78	2.56	19.98	6.76	4.74
5825	-15.92	2.57	19.99	6.64	4.62

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

11ac-20

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5180	-14.97	2.43	19.98	7.44	5.55
5220	-15.03	2.43	19.97	7.37	5.46
5240	-14.98	2.43	19.96	7.41	5.51
5260	-14.51	2.43	19.95	7.87	6.13
5300	-15.00	2.43	19.94	7.37	5.46
5320	-15.32	2.43	19.93	7.04	5.06
5500	-16.00	2.43	19.87	6.30	4.27
5580	-15.95	2.47	19.90	6.42	4.39
5700	-15.71	2.52	19.95	6.76	4.74
5745	-15.96	2.54	19.96	6.54	4.51
5785	-15.85	2.56	19.98	6.69	4.67
5825	-15.91	2.57	19.99	6.65	4.63

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

Average Output Power
(Reference data for RF Exposure)

Test place	Shonan EMC Lab. No5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx	

11n-20

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5180	-14.31	2.43	19.98	8.10	6.46
5220	-14.67	2.43	19.97	7.73	5.93
5240	-14.50	2.43	19.96	7.89	6.15
5260	-14.71	2.43	19.95	7.67	5.85
5300	-14.53	2.43	19.94	7.84	6.08
5320	-14.65	2.43	19.93	7.71	5.90
5500	-15.68	2.43	19.87	6.62	4.59
5580	-15.62	2.47	19.90	6.75	4.73
5700	-15.33	2.52	19.95	7.14	5.18
5745	-15.40	2.54	19.96	7.10	5.13
5785	-15.46	2.56	19.98	7.08	5.11
5825	-15.53	2.57	19.99	7.03	5.05

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

11n-40

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5190	-13.81	2.43	19.98	8.60	7.25
				-	-
5230	-13.57	2.43	19.96	8.82	7.62
5270	-13.78	2.43	19.95	8.60	7.25
-	-	-	-	-	-
5310	-13.67	2.43	19.93	8.69	7.40
5510	-15.48	2.43	19.87	6.82	4.81
5550	-15.35	2.45	19.89	6.99	5.00
5670	-15.06	2.50	19.93	7.37	5.46
5755	-15.28	2.54	19.97	7.23	5.29
-	-	-	-	-	-
5795	-15.19	2.56	19.98	7.35	5.44

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

Average Output Power
(Reference data for RF Exposure)

Test place	Shonan EMC Lab. No5 Shielded Room	
Report No.	11834855S-C-R3	
Date	January 23, 2018	January 25, 2018
Temperature / Humidity	23 deg. C / 38 % RH	22 deg. C / 40 % RH
Engineer	Tatsuya Arai	Tatsuya Arai
Mode	Tx	

11ac-40

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5190	-14.56	2.43	19.98	7.85	6.10
-				-	-
5230	-14.36	2.43	19.96	8.03	6.36
5270	-15.27	2.43	19.95	7.11	5.14
-				-	-
5310	-14.98	2.43	19.93	7.38	5.47
5510	-15.68	2.43	19.87	6.62	4.59
5550	-16.09	2.45	19.89	6.25	4.22
5670	-16.07	2.50	19.93	6.36	4.33
5755	-15.96	2.54	19.97	6.55	4.52
-				-	-
5795	-16.03	2.56	19.98	6.51	4.48

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

11ac-80

Tested Frequency [MHz]	Power Meter Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result (Timed average) [dBm]	[mW]
5210	-14.10	2.43	19.97	8.30	6.76
-	-	-	-	-	-
-	-	-	-	-	-
5290	-14.38	2.43	19.94	7.99	6.30
-	-	-	-	-	-
-	-	-	-	-	-
5530	-15.53	2.44	19.88	6.79	4.78
-	-	-	-	-	-
5775	-15.16	2.55	19.97	7.36	5.45
-	-	-	-	-	-
-	-	-	-	-	-

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

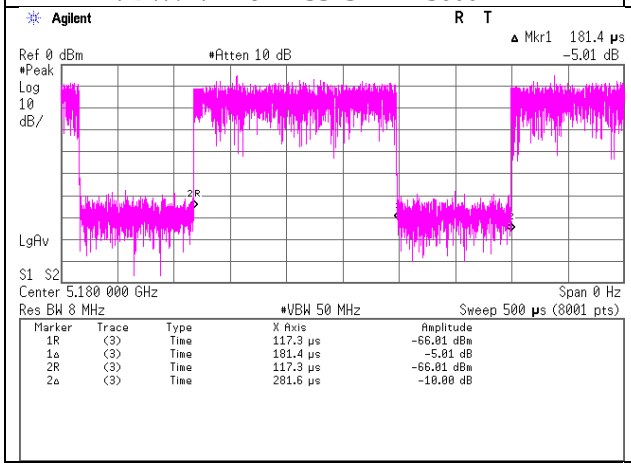
Burst rate confirmation

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11834855S-C-R3
Date	January 23, 2018
Temperature / Humidity	23 deg. C / 38 % RH
Engineer	Tatsuya Arai
Mode	Tx

11a 54 Mbps

Tx on / (Tx on + Tx off) =	**0.643**
Tx on / (Tx on + Tx off) * 100 =	**64.3 %**
Duty factor = 10 * log (0.28 / 0.18) =	**1.91 dB**

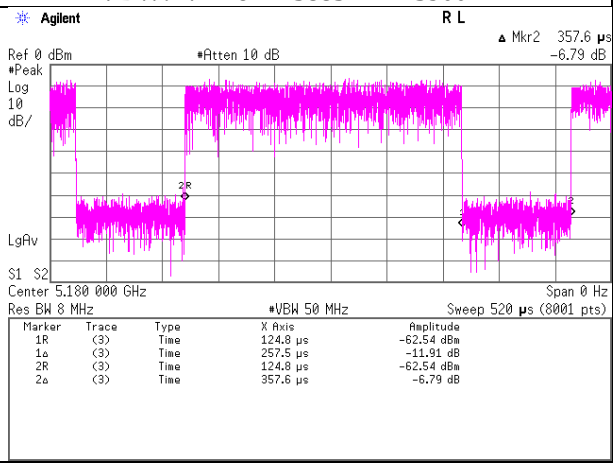
VBW: 1/Tx on = 5513 Hz < 5600 Hz



11n-20 MCS4

Tx on / (Tx on + Tx off) =	**0.722**
Tx on / (Tx on + Tx off) * 100 =	**72.2 %**
Duty factor = 10 * log (0.36 / 0.26) =	**1.41 dB**

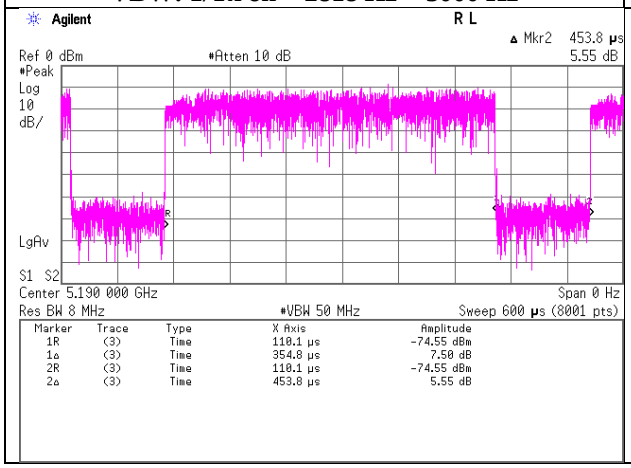
VBW: 1/Tx on = 3883 Hz < 3900 Hz



11n-40 MCS1

Tx on / (Tx on + Tx off) =	**0.778**
Tx on / (Tx on + Tx off) * 100 =	**77.8 %**
Duty factor = 10 * log (0.45 / 0.35) =	**1.09 dB**

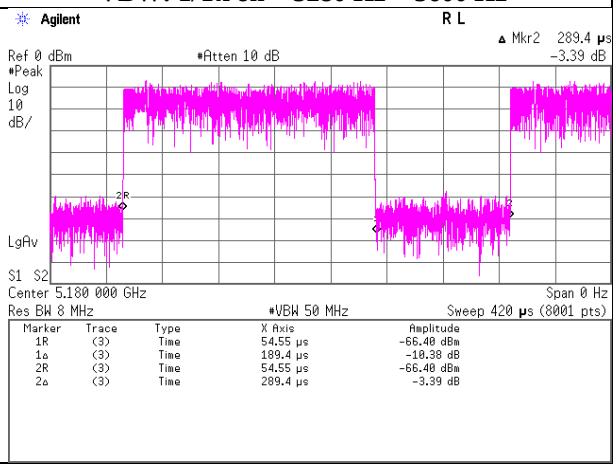
VBW: 1/Tx on = 2818 Hz < 3000 Hz



11ac-20 MCS6

Tx on / (Tx on + Tx off) =	**0.655**
Tx on / (Tx on + Tx off) * 100 =	**65.5 %**
Duty factor = 10 * log (0.29 / 0.19) =	**1.85 dB**

VBW: 1/Tx on = 5280 Hz < 5600 Hz



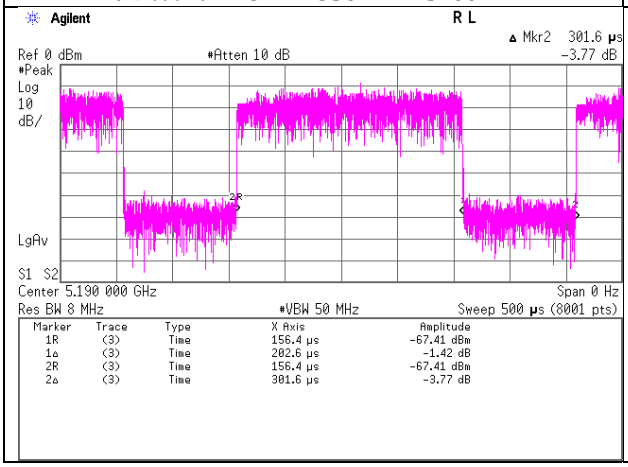
Burst rate confirmation

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11834855S-C-R3
Date	January 23, 2018
Temperature / Humidity	23 deg. C / 38 % RH
Engineer	Tatsuya Arai
Mode	Tx

11ac-40 MCS3

Tx on / (Tx on + Tx off) =	**0.667**
Tx on / (Tx on + Tx off) * 100 =	**66.7 %**
Duty factor = 10 * log (0.3 / 0.2) =	**1.76 dB**

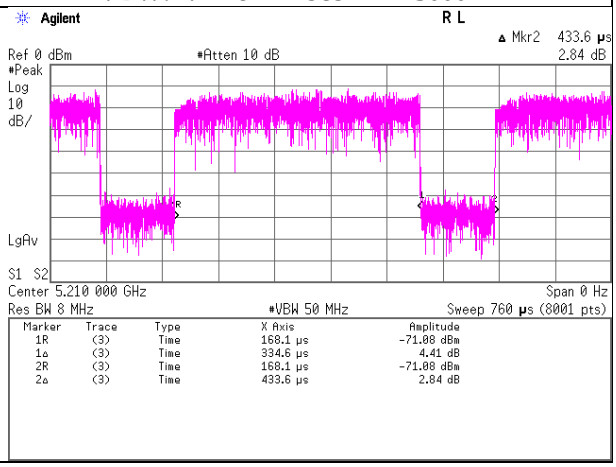
VBW: 1/Tx on = 4936 Hz < 5100 Hz



11ac-80 MCS0

Tx on / (Tx on + Tx off) =	**0.767**
Tx on / (Tx on + Tx off) * 100 =	**76.7 %**
Duty factor = 10 * log (0.43 / 0.33) =	**1.15 dB**

VBW: 1/Tx on = 2989 Hz < 3000 Hz



Maximum Power Spectral Density

Test place	Shonan EMC Lab.	
	No.2 Shielded Room	No.5 Shielded Room
Report No.	11834855S-C-R3	
Date	January 25, 2018	March 5, 2018
Temperature / Humidity	22 deg. C / 40 % RH	24 deg. C / 42 % RH
Engineer	Tatsuya Arai	Makoto Hosaka
Mode	Tx 11a	

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	-25.16	2.43	19.99	1.91	1.30	0.00	-0.83	11.00	11.83	0.47	17.00	16.53
5220	-24.83	2.43	19.97	1.91	1.30	0.00	-0.52	11.00	11.52	0.78	17.00	16.22
5240	-24.50	2.43	19.96	1.91	1.30	0.00	-0.20	11.00	11.20	1.11	17.00	15.90
5260	-24.56	2.43	19.95	1.91	1.30	0.00	-0.27	11.00	11.27	1.03	17.00	15.97
5300	-24.30	2.43	19.94	1.91	1.30	0.00	-0.01	11.00	11.01	1.29	17.00	15.71
5320	-24.17	2.43	19.93	1.91	1.30	0.00	0.10	11.00	10.90	1.40	17.00	15.60
5500	-24.92	2.43	19.87	1.91	1.30	0.00	-0.71	11.00	11.71	0.59	17.00	16.41
5580	-25.46	2.47	19.90	1.91	1.30	0.00	-1.18	11.00	12.18	0.12	17.00	16.88
5700	-25.23	2.52	19.95	1.91	1.30	0.00	-0.85	11.00	11.85	0.45	17.00	16.55
5745	-32.95	2.54	19.96	1.91	1.30	6.99	-1.55	30.00	31.55	-0.25	36.00	36.25
5785	-32.88	2.56	19.98	1.91	1.30	6.99	-1.44	30.00	31.44	-0.14	36.00	36.14
5825	-34.02	2.57	19.99	1.91	1.30	6.99	-2.56	30.00	32.56	-1.26	36.00	37.26

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.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx 11n-20

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	-24.48	2.43	19.98	1.41	1.30	0.00	-0.66	11.00	11.66	0.64	17.00	16.36
5220	-24.08	2.43	19.97	1.41	1.30	0.00	-0.27	11.00	11.27	1.03	17.00	15.97
5240	-24.11	2.43	19.96	1.41	1.30	0.00	-0.31	11.00	11.31	0.99	17.00	16.01
5260	-24.90	2.43	19.95	1.41	1.30	0.00	-1.11	11.00	12.11	0.19	17.00	16.81
5300	-24.46	2.43	19.94	1.41	1.30	0.00	-0.68	11.00	11.68	0.62	17.00	16.38
5320	-24.47	2.43	19.93	1.41	1.30	0.00	-0.70	11.00	11.70	0.61	17.00	16.40
5500	-25.72	2.43	19.87	1.41	1.30	0.00	-2.01	11.00	13.01	-0.71	17.00	17.71
5580	-25.58	2.47	19.90	1.41	1.30	0.00	-1.80	11.00	12.80	-0.50	17.00	17.50
5700	-25.74	2.52	19.95	1.41	1.30	0.00	-1.85	11.00	12.85	-0.55	17.00	17.55
5745	-34.48	2.54	19.96	1.41	1.30	6.99	-3.57	30.00	33.57	-2.27	36.00	38.27
5785	-34.54	2.56	19.98	1.41	1.30	6.99	-3.60	30.00	33.60	-2.30	36.00	38.30
5825	-34.65	2.57	19.99	1.41	1.30	6.99	-3.68	30.00	33.68	-2.38	36.00	38.38

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.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx 11n-40

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	-27.50	2.43	19.98	1.09	1.30	0.00	-3.99	11.00	14.99	-2.69	17.00	19.69
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-27.13	2.43	19.96	1.09	1.30	0.00	-3.65	11.00	14.65	-2.35	17.00	19.35
5270	-27.21	2.43	19.95	1.09	1.30	0.00	-3.74	11.00	14.74	-2.44	17.00	19.44
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-27.03	2.43	19.93	1.09	1.30	0.00	-3.58	11.00	14.58	-2.28	17.00	19.28
5510	-27.75	2.43	19.87	1.09	1.30	0.00	-4.36	11.00	15.36	-3.06	17.00	20.06
5550	-28.20	2.45	19.89	1.09	1.30	0.00	-4.77	11.00	15.77	-3.47	17.00	20.47
5670	-27.97	2.50	19.93	1.09	1.30	0.00	-4.45	11.00	15.45	-3.15	17.00	20.15
5755	-37.06	2.54	19.97	1.09	1.30	6.99	-6.47	30.00	36.47	-5.17	36.00	41.17
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-36.93	2.56	19.98	1.09	1.30	6.99	-6.31	30.00	36.31	-5.01	36.00	41.01

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.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx 11ac-20

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	-25.00	2.43	19.98	1.85	1.30	0.00	-0.73	11.00	11.73	0.57	17.00	16.43
5220	-24.50	2.43	19.97	1.85	1.30	0.00	-0.25	11.00	11.25	1.05	17.00	15.95
5240	-24.64	2.43	19.96	1.85	1.30	0.00	-0.39	11.00	11.39	0.91	17.00	16.09
5260	-24.62	2.43	19.95	1.85	1.30	0.00	-0.39	11.00	11.39	0.91	17.00	16.09
5300	-24.76	2.43	19.94	1.85	1.30	0.00	-0.54	11.00	11.54	0.76	17.00	16.24
5320	-25.11	2.43	19.93	1.85	1.30	0.00	-0.90	11.00	11.90	0.40	17.00	16.60
5500	-25.16	2.43	19.87	1.85	1.30	0.00	-1.01	11.00	12.01	0.29	17.00	16.71
5580	-25.84	2.47	19.90	1.85	1.30	0.00	-1.62	11.00	12.62	-0.32	17.00	17.32
5700	-25.74	2.52	19.95	1.85	1.30	0.00	-1.41	11.00	12.41	-0.11	17.00	17.11
5745	-34.53	2.54	19.96	1.85	1.30	6.99	-3.19	30.00	33.19	-1.89	36.00	37.89
5785	-34.07	2.56	19.98	1.85	1.30	6.99	-2.69	30.00	32.69	-1.39	36.00	37.39
5825	-34.77	2.57	19.99	1.85	1.30	6.99	-3.37	30.00	33.37	-2.07	36.00	38.07

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.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx 11ac-40

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	-27.22	2.43	19.98	1.76	1.30	0.00	-3.05	11.00	14.05	-1.75	17.00	18.75
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-26.92	2.43	19.96	1.76	1.30	0.00	-2.76	11.00	13.76	-1.46	17.00	18.46
5270	-27.61	2.43	19.95	1.76	1.30	0.00	-3.47	11.00	14.47	-2.17	17.00	19.17
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-27.34	2.43	19.93	1.76	1.30	0.00	-3.22	11.00	14.22	-1.92	17.00	18.92
5510	-28.76	2.43	19.87	1.76	1.30	0.00	-4.70	11.00	15.70	-3.40	17.00	20.40
5550	-28.17	2.45	19.89	1.76	1.30	0.00	-4.07	11.00	15.07	-2.77	17.00	19.77
5670	-28.84	2.50	19.93	1.76	1.30	0.00	-4.64	11.00	15.64	-3.34	17.00	20.34
5755	-36.78	2.54	19.97	1.76	1.30	6.99	-5.52	30.00	35.52	-4.22	36.00	40.22
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-36.12	2.56	19.98	1.76	1.30	6.99	-4.83	30.00	34.83	-3.53	36.00	39.53

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.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx 11ac-80

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]
5210	-29.88	2.43	19.97	1.15	1.30	0.00	-6.33	11.00	17.33	-5.03	17.00	22.03
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
5290	-29.91	2.43	19.94	1.15	1.30	0.00	-6.39	11.00	17.39	-5.09	17.00	22.09
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
5530	-30.68	2.44	19.88	1.15	1.30	0.00	-7.21	11.00	18.21	-5.91	17.00	22.91
-	-	-	-	-	-	-	-	-	-	-	-	-
5775	-40.05	2.55	19.97	1.15	1.30	6.99	-9.39	30.00	39.39	-8.09	36.00	44.09
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

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

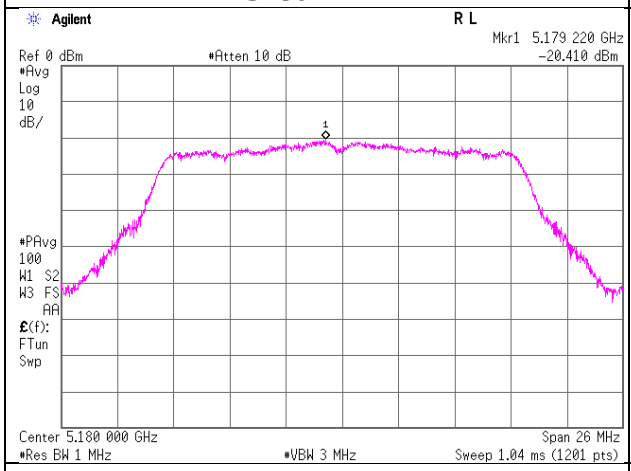
Although the EUT operates on Master mode, more stringent limit for Client device was applied. (W52 for FCC)

Maximum Power Spectral Density

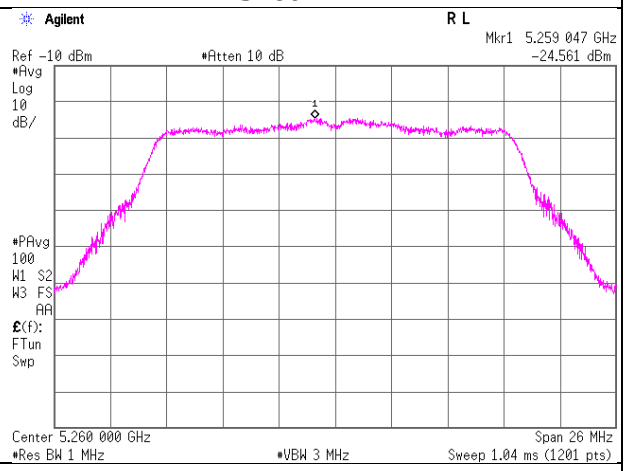
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11a

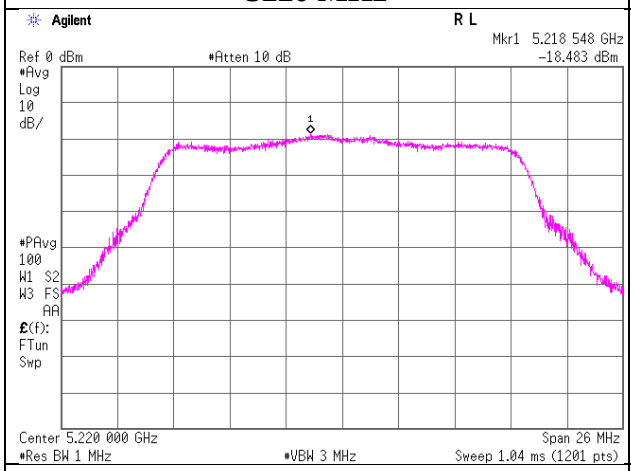
5180 MHz



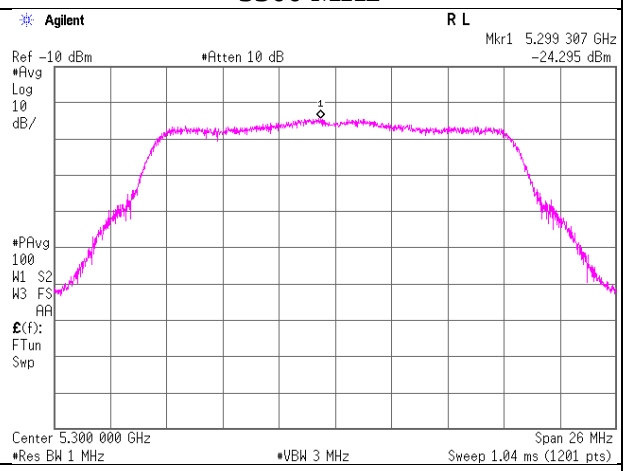
5260 MHz



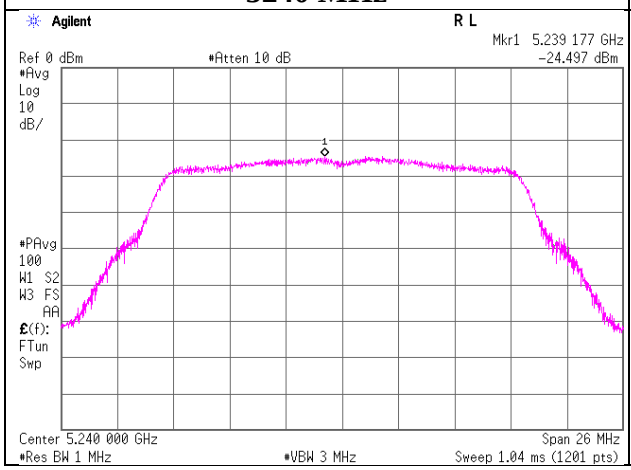
5220 MHz



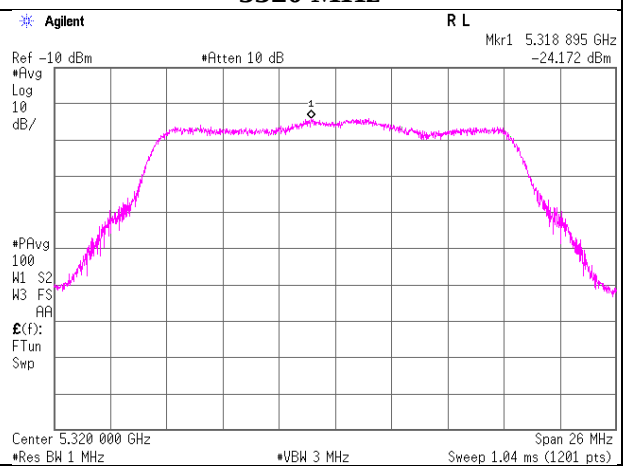
5300 MHz



5240 MHz



5320 MHz

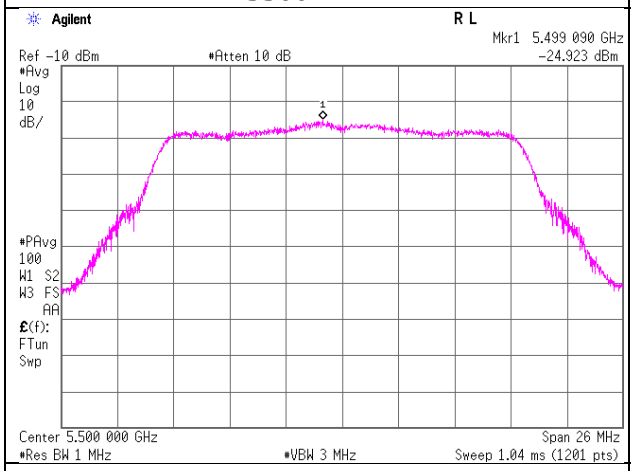


Maximum Power Spectral Density

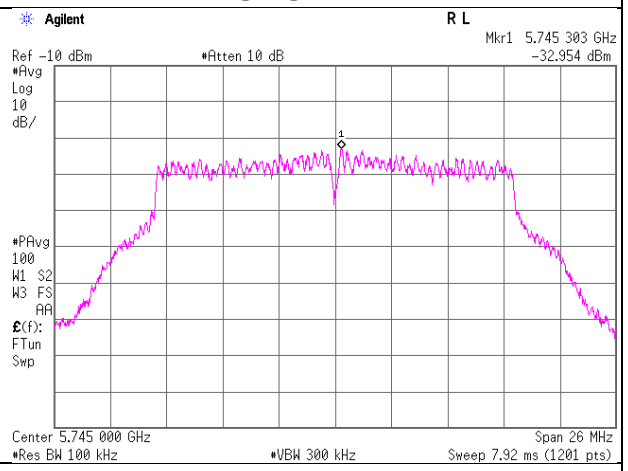
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11a

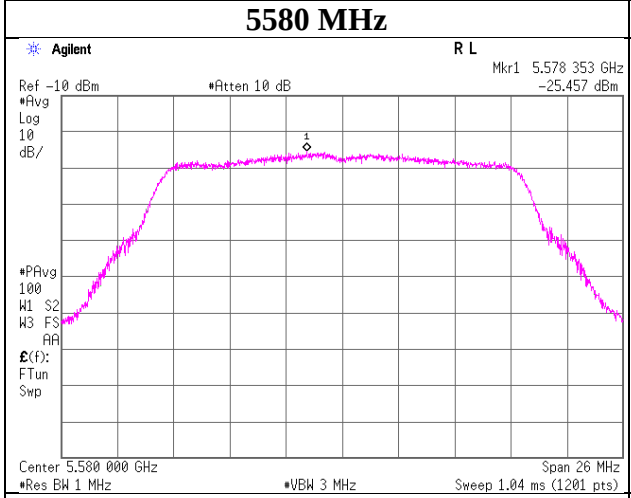
5500 MHz



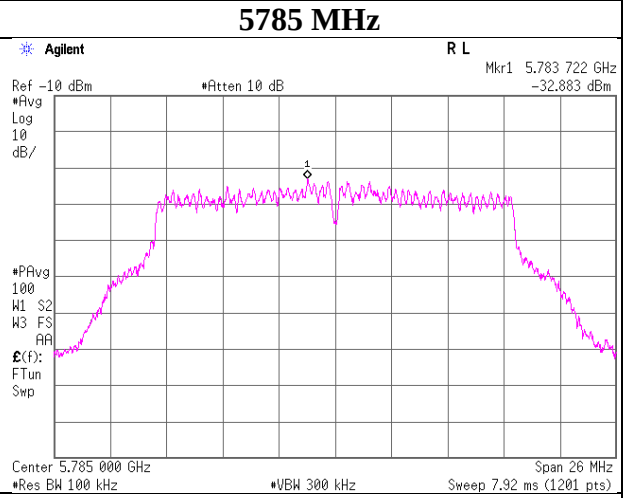
5745 MHz



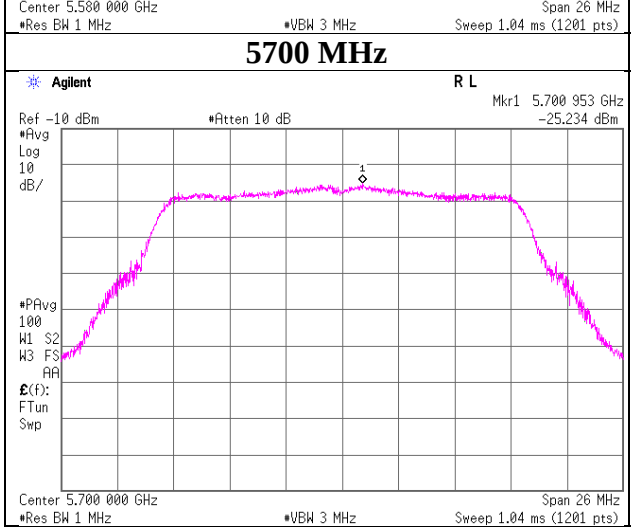
5580 MHz



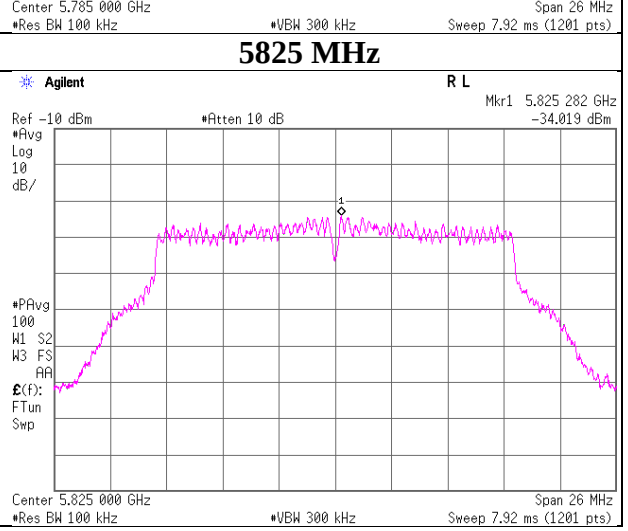
5785 MHz



5700 MHz



5825 MHz

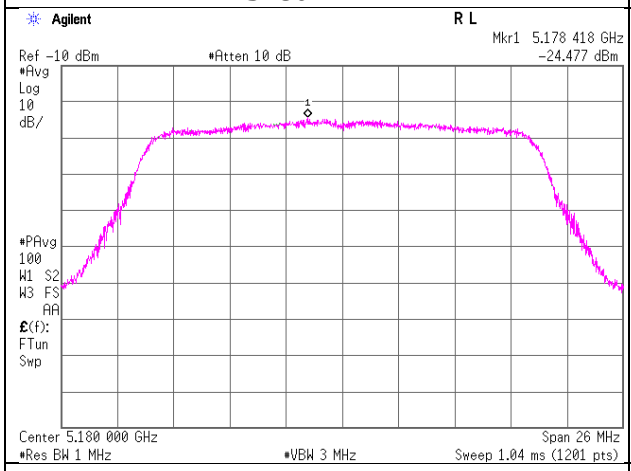


Maximum Power Spectral Density

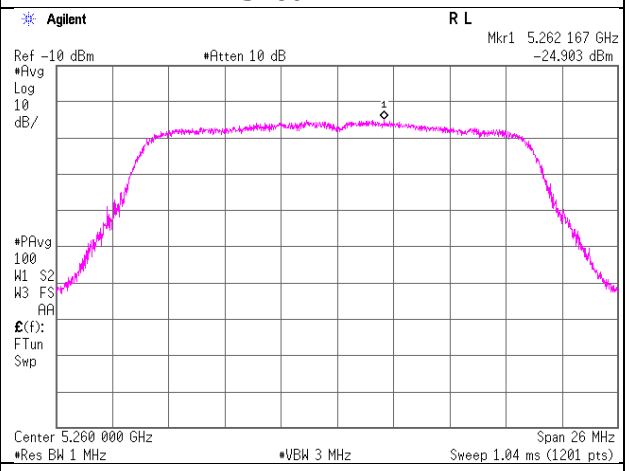
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11n-20

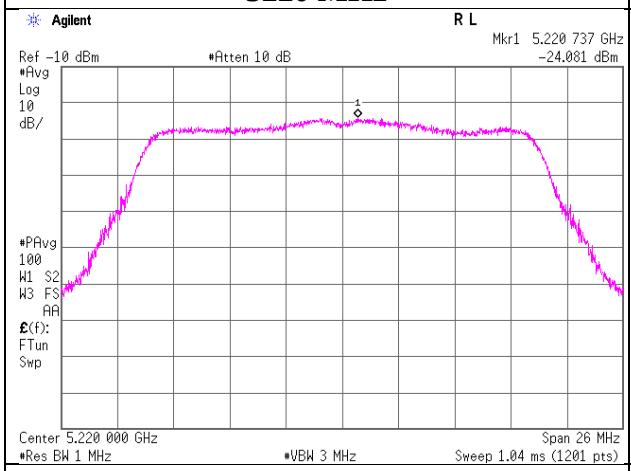
5180 MHz



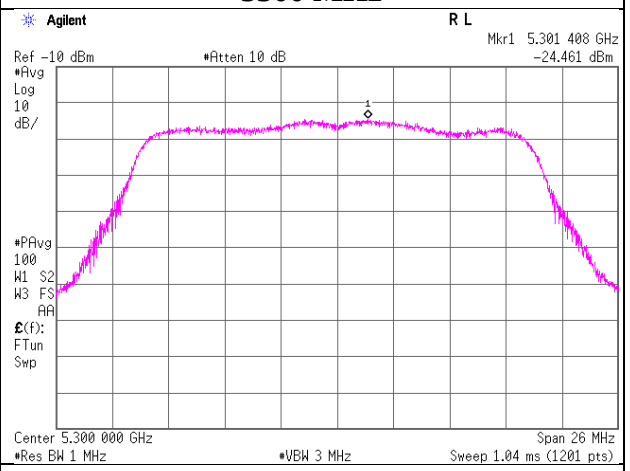
5260 MHz



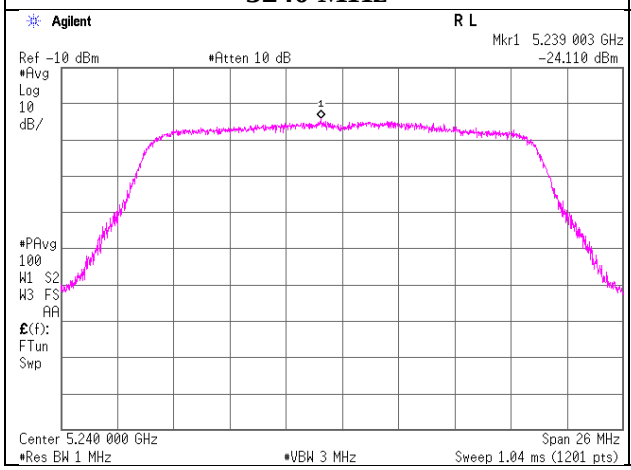
5220 MHz



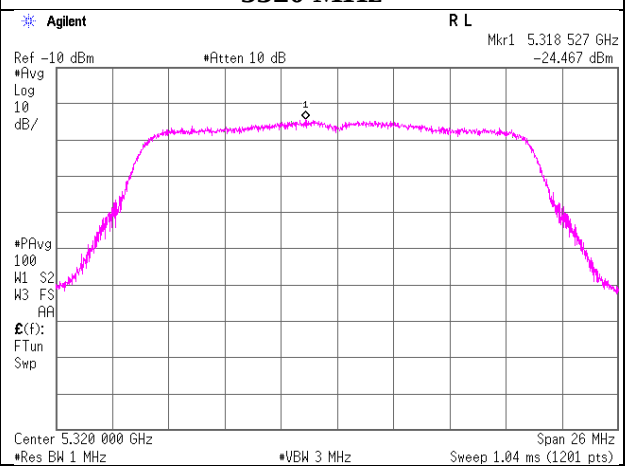
5300 MHz



5240 MHz



5320 MHz

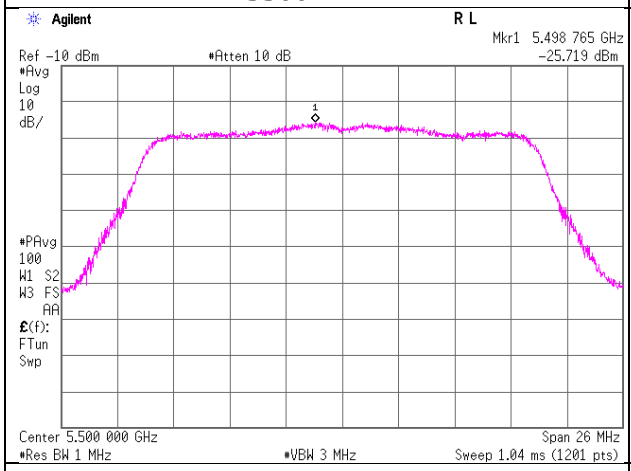


Maximum Power Spectral Density

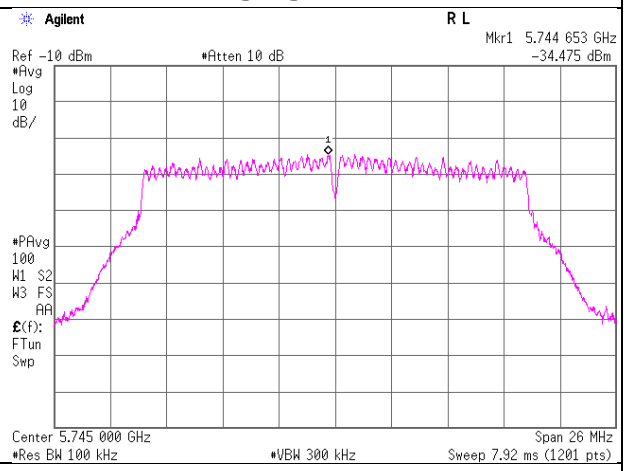
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11n-20

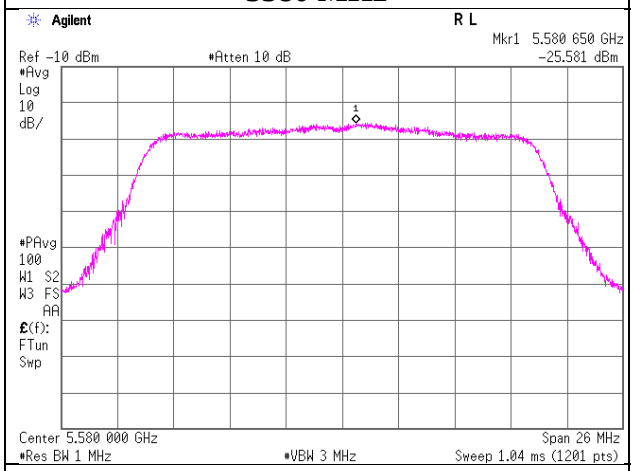
5500 MHz



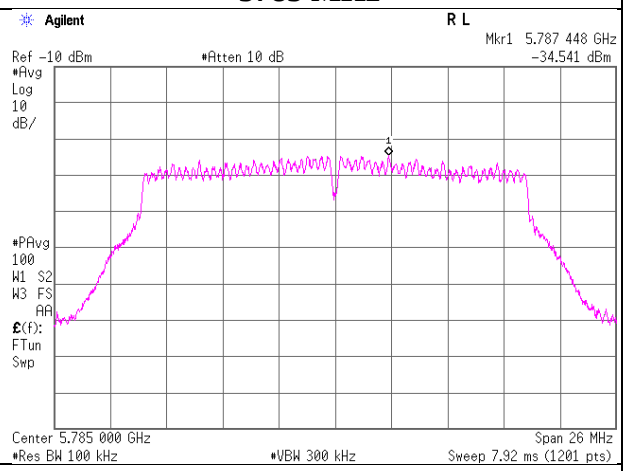
5745 MHz



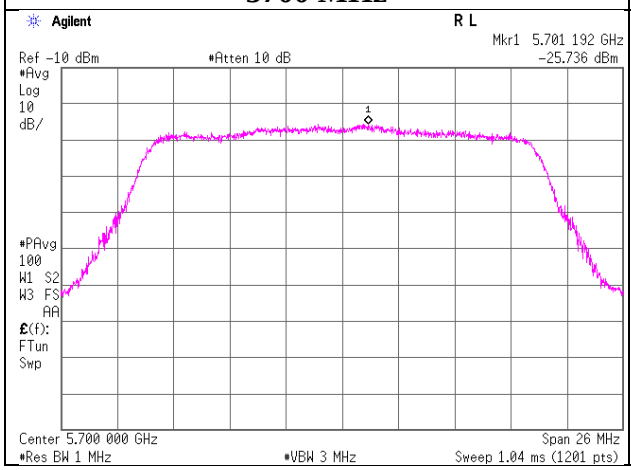
5580 MHz



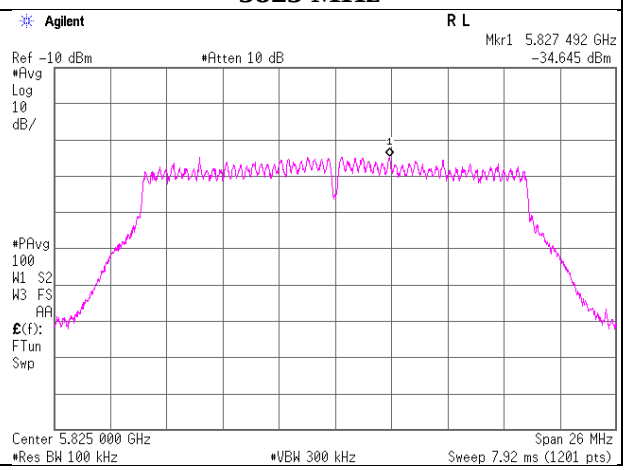
5785 MHz



5700 MHz



5825 MHz

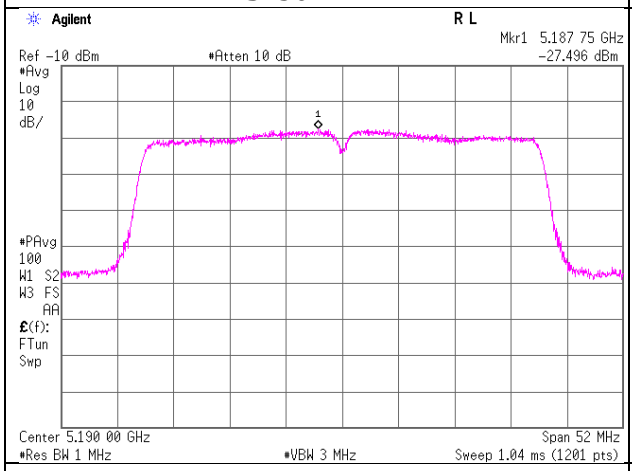


Maximum Power Spectral Density

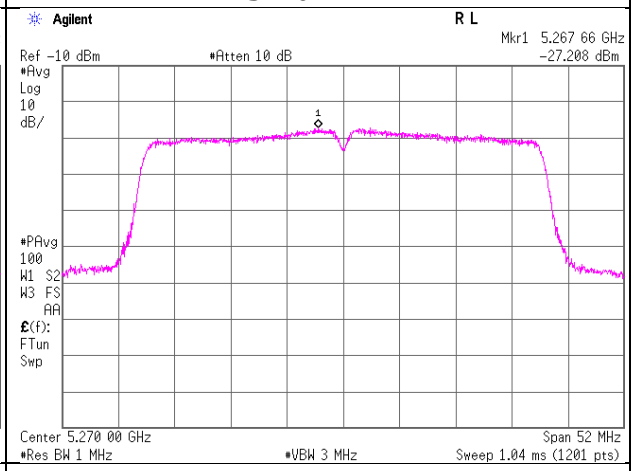
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11n-40

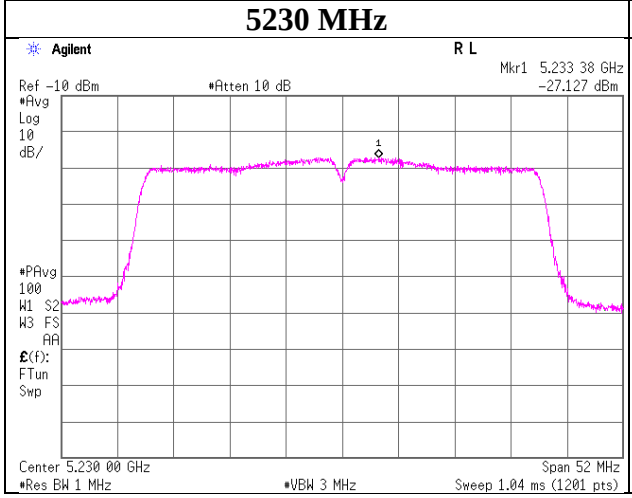
5190 MHz



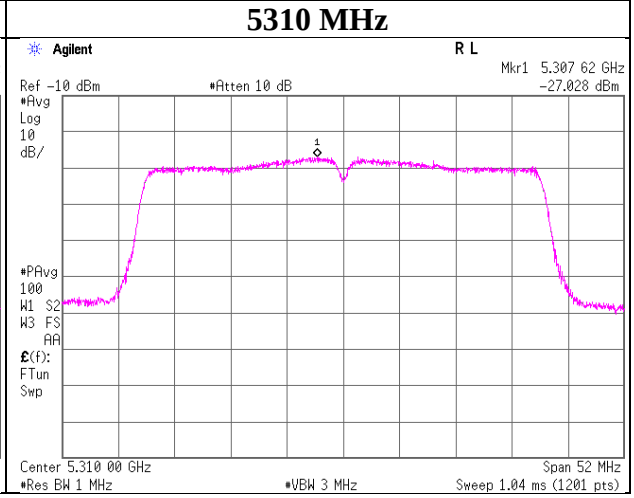
5270 MHz



5230 MHz



5310 MHz

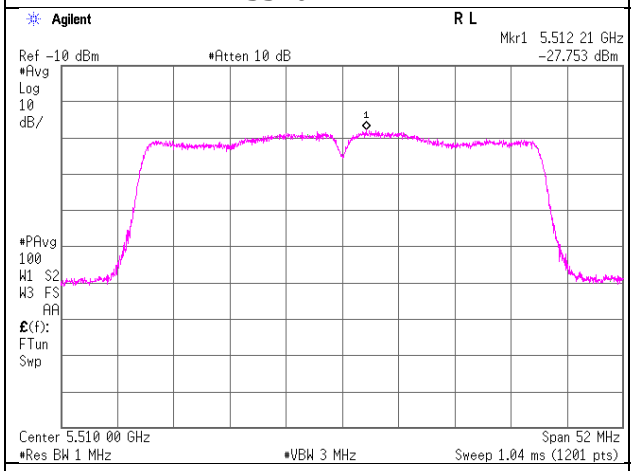


Maximum Power Spectral Density

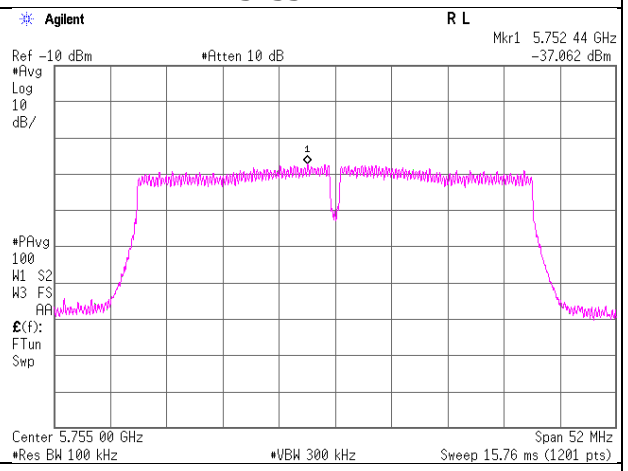
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11n-40

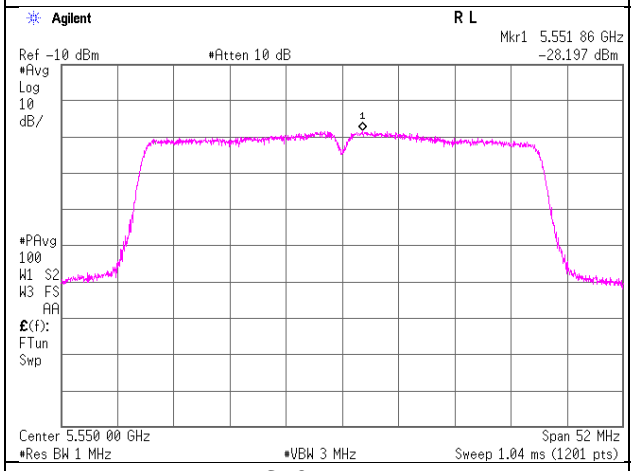
5510 MHz



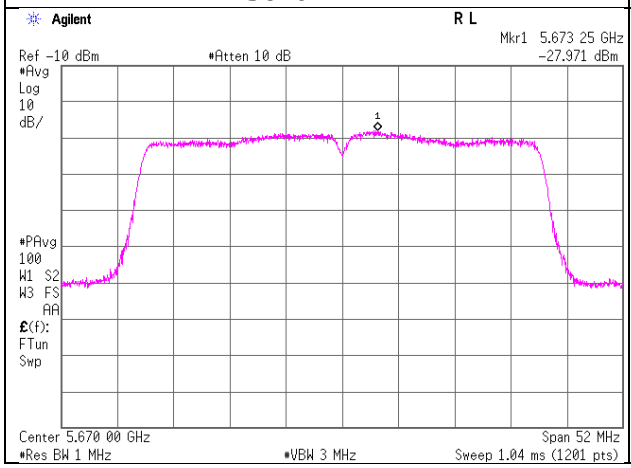
5755 MHz



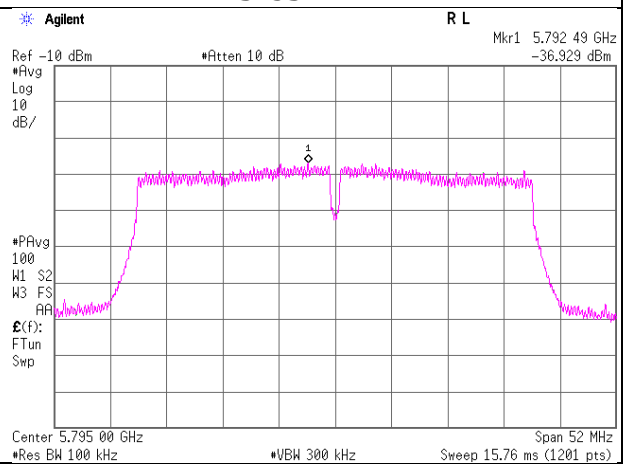
5550 MHz



5670 MHz



5795 MHz

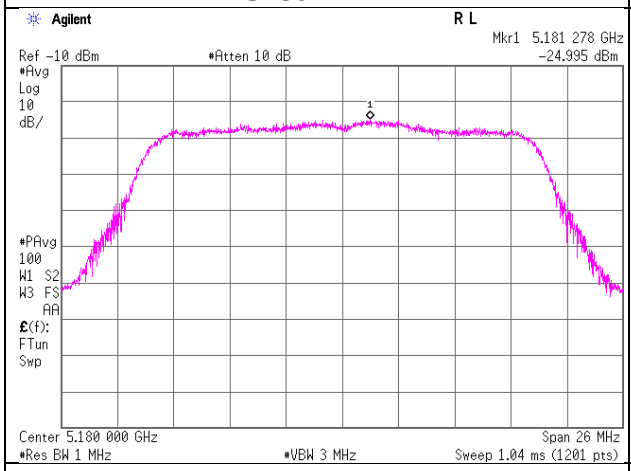


Maximum Power Spectral Density

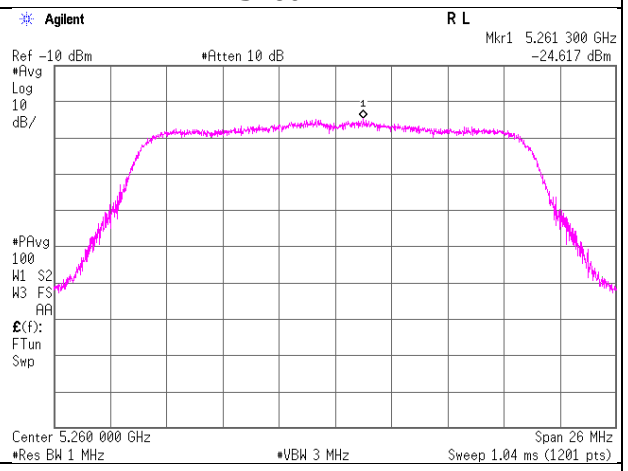
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11ac-20

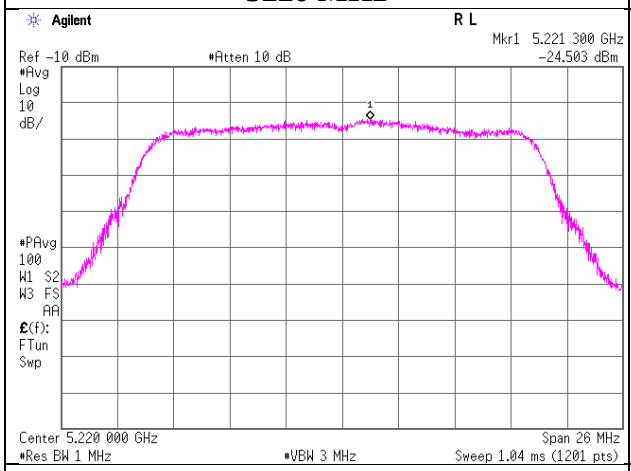
5180 MHz



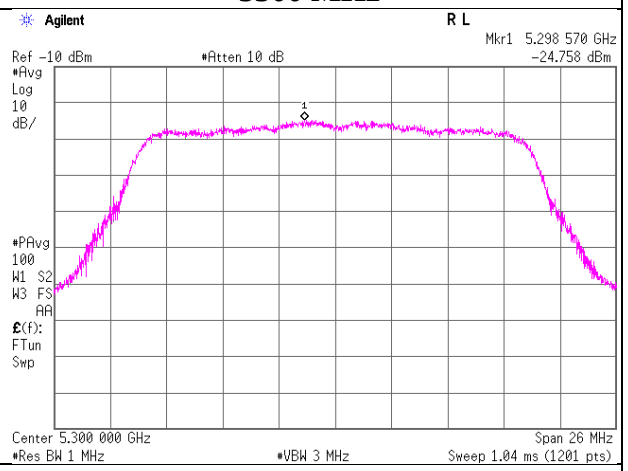
5260 MHz



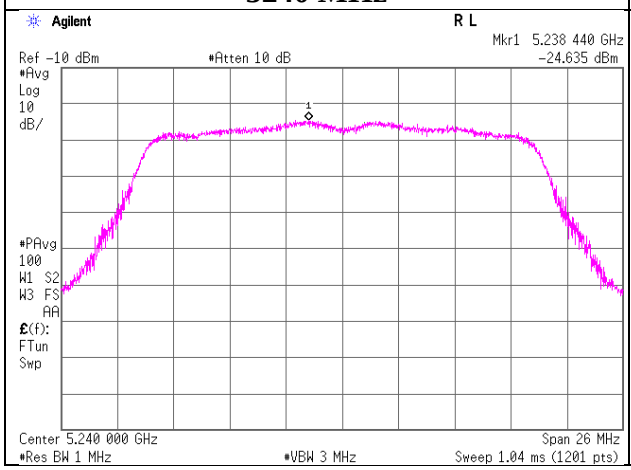
5220 MHz



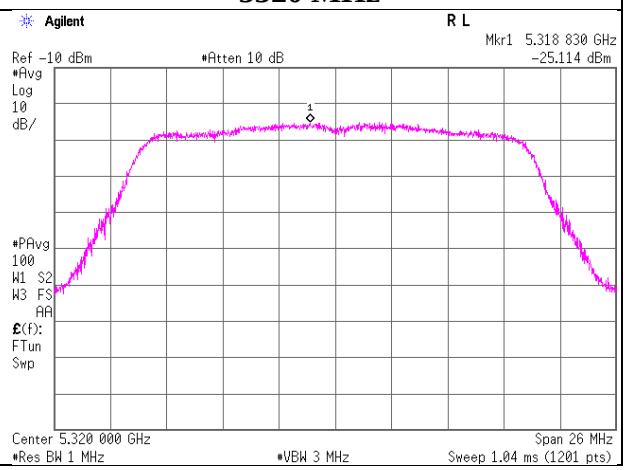
5300 MHz



5240 MHz



5320 MHz

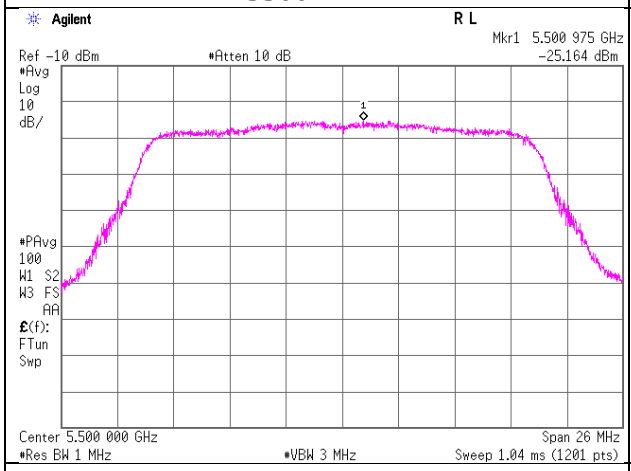


Maximum Power Spectral Density

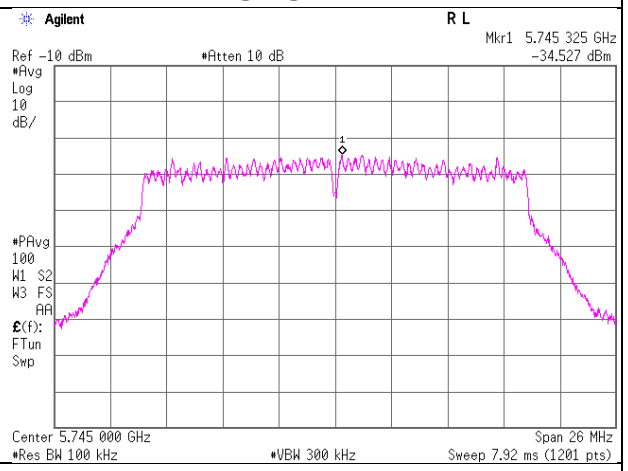
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11ac-20

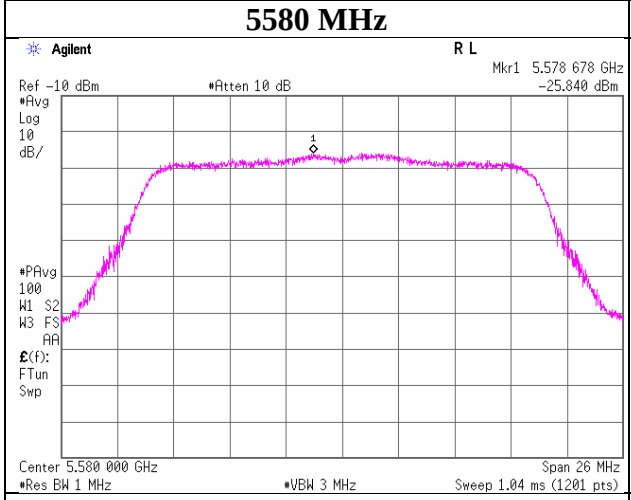
5500 MHz



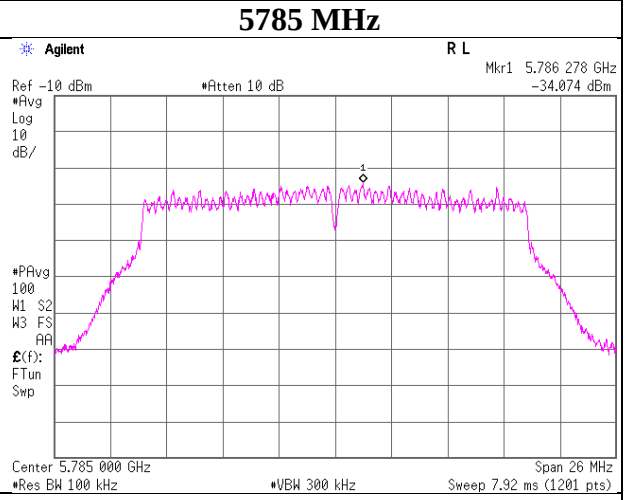
5745 MHz



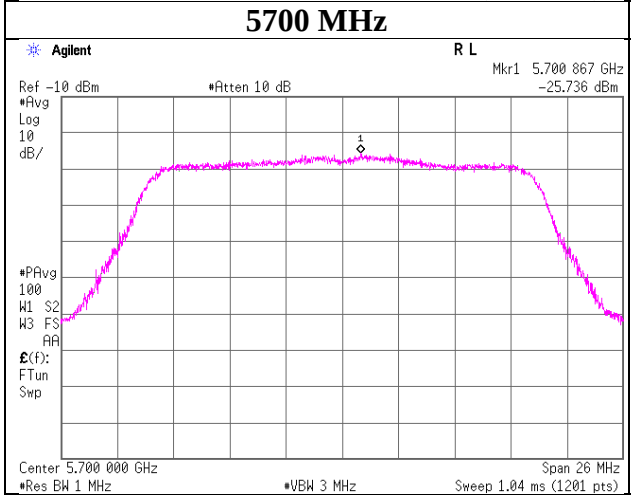
5580 MHz



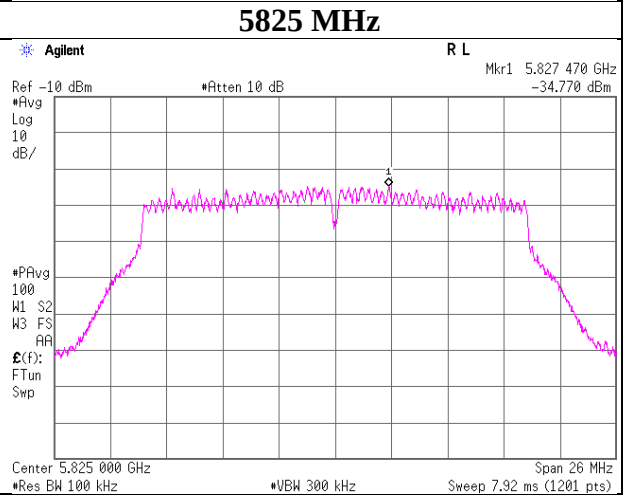
5785 MHz



5700 MHz



5825 MHz

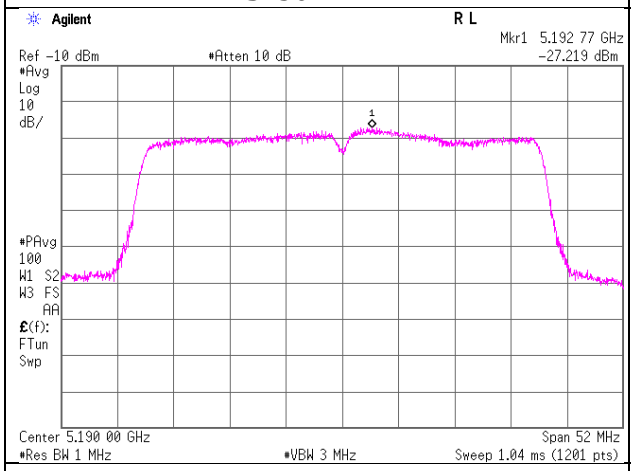


Maximum Power Spectral Density

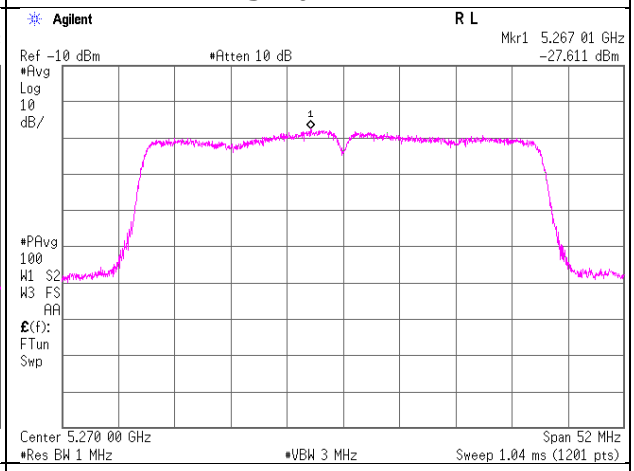
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11ac-40

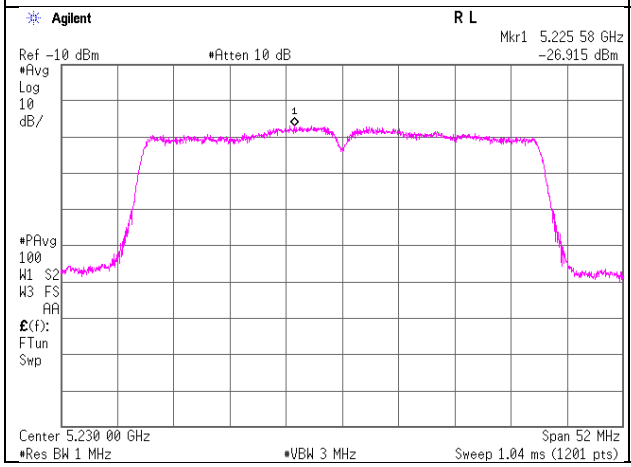
5190 MHz



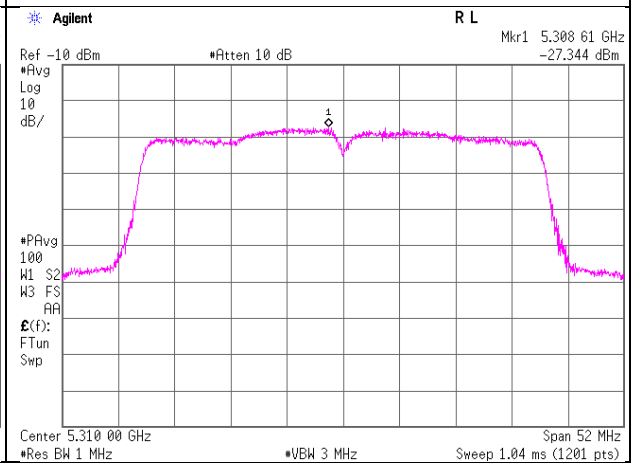
5270 MHz



5230 MHz



5310 MHz

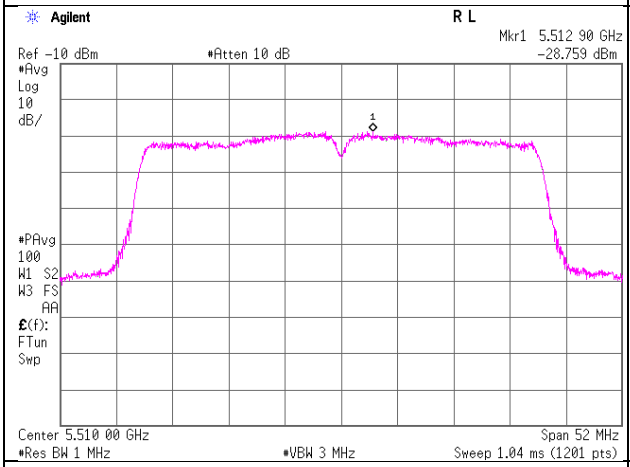


Maximum Power Spectral Density

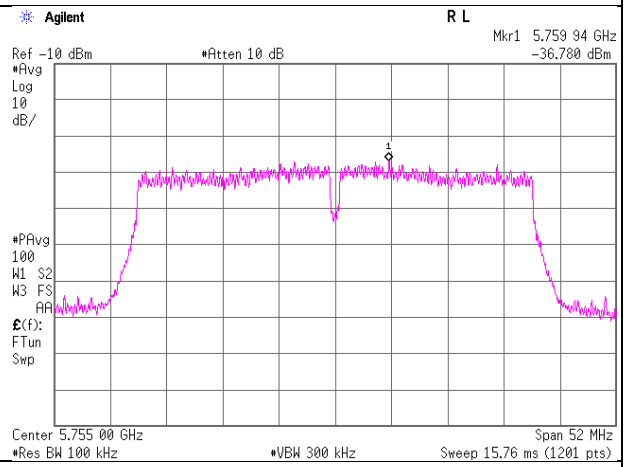
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11ac-40

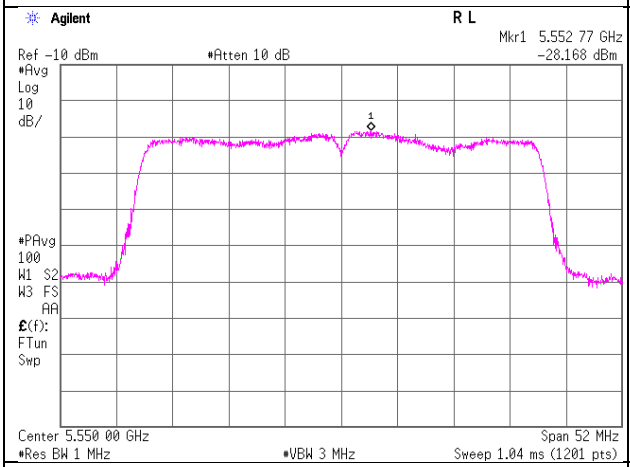
5510 MHz



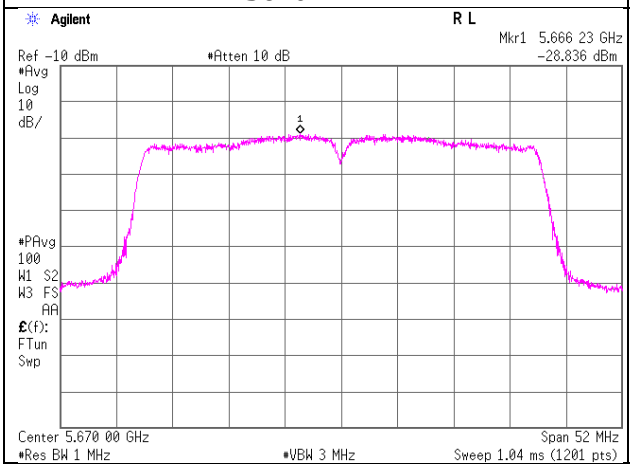
5755 MHz



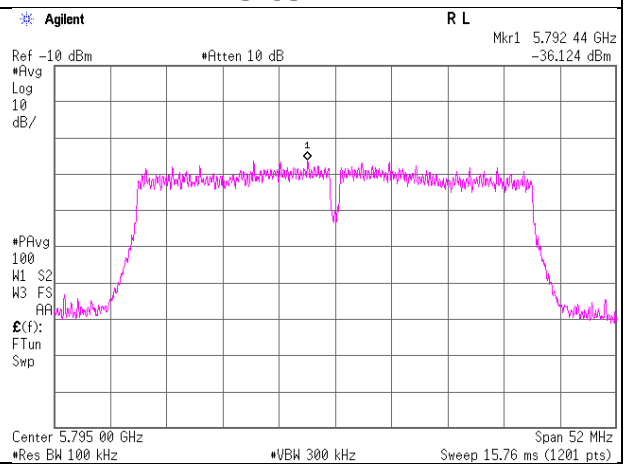
5550 MHz



5670 MHz



5795 MHz

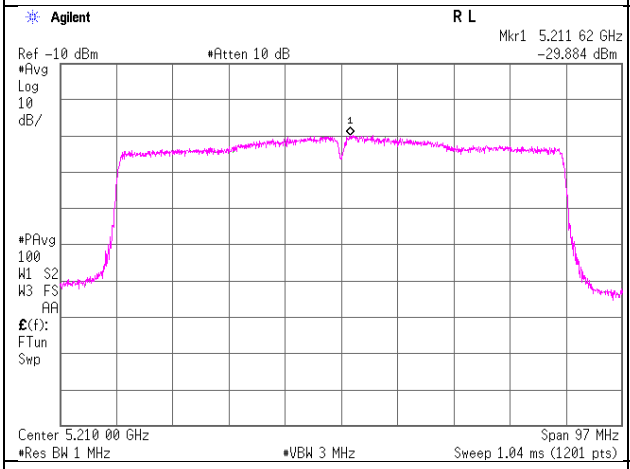


Maximum Power Spectral Density

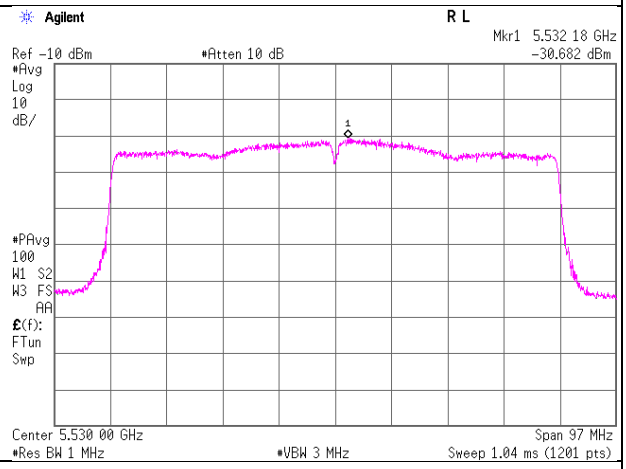
Test place	Shonan EMC Lab. No.2 Shielded Room
Report No.	11834855S-C-R3
Date	January 25, 2018
Temperature / Humidity	22 deg. C / 40 % RH
Engineer	Tatsuya Arai
Mode	Tx

11ac-80

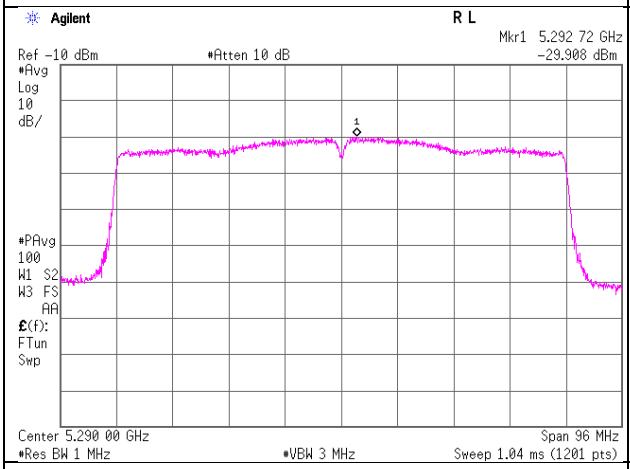
5210 MHz



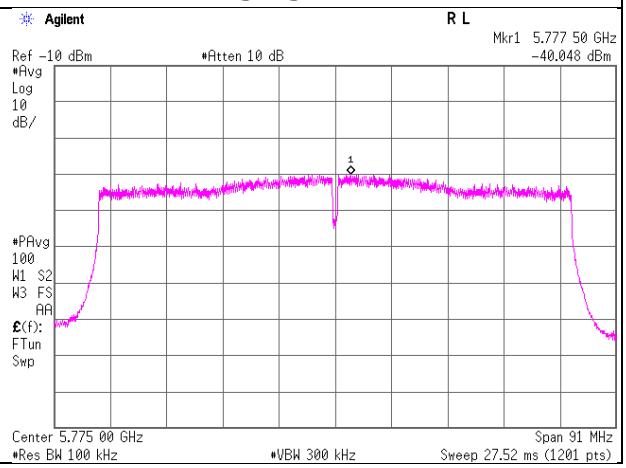
5530 MHz



5290 MHz



5775 MHz



Radiated Spurious Emission

Report No.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	3	3	3	3	3
Date	September 8, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 64 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Takahiro Suzuki (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5180 MHz				

(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	56.17	32.01	15.36	37.17	2.47	68.84	73.97	5.1	148	358	
Hori.	10360.000	PK	47.53	39.68	7.75	38.69	2.47	58.74	73.97	15.2	150	0	
Hori.	15540.000	PK	47.28	40.23	9.88	38.73	-9.54	49.12	73.90	24.7	150	1	
Hori.	20720.000	PK	47.80	40.21	8.76	45.55	-9.54	41.68	73.90	32.2	121	61	
Hori.	25900.000	PK	45.33	40.39	10.05	47.08	-9.54	39.15	73.90	34.7	150	0	
Hori.	5150.000	AV	39.97	32.01	15.36	37.17	2.47	52.64	53.97	**1.3**	148	358	VBW:5.6 kHz
Hori.	10360.000	AV	36.95	39.68	7.75	38.69	2.47	48.16	53.97	5.8	150	0	VBW:5.6 kHz
Hori.	15540.000	AV	37.51	40.23	9.88	38.73	-9.54	39.35	53.90	14.5	150	1	VBW:5.6 kHz
Hori.	20720.000	AV	41.73	40.21	8.76	45.55	-9.54	35.61	53.90	18.2	121	61	VBW:5.6 kHz
Hori.	25900.000	AV	35.36	40.39	10.05	47.08	-9.54	29.18	53.90	24.7	150	0	VBW:5.6 kHz
Vert.	5150.000	PK	56.04	32.01	15.36	37.17	2.47	68.71	73.97	5.2	126	292	
Vert.	10360.000	PK	48.14	39.68	7.75	38.69	2.47	59.35	73.97	14.6	150	0	
Vert.	15540.000	PK	47.57	40.23	9.88	38.73	-9.54	49.41	73.90	24.4	150	1	
Vert.	20720.000	PK	47.16	40.21	8.76	45.55	-9.54	41.04	73.90	32.8	132	75	
Vert.	25900.000	PK	45.45	40.39	10.05	47.08	-9.54	39.27	73.90	34.6	150	359	
Vert.	5150.000	AV	39.83	32.01	15.36	37.17	2.47	52.50	53.97	1.4	126	292	VBW:5.6 kHz
Vert.	10360.000	AV	36.82	39.68	7.75	38.69	2.47	48.03	53.97	5.9	150	0	VBW:5.6 kHz
Vert.	15540.000	AV	37.43	40.23	9.88	38.73	-9.54	39.27	53.90	14.6	150	1	VBW:5.6 kHz
Vert.	20720.000	AV	41.82	40.21	8.76	45.55	-9.54	35.70	53.90	18.2	132	75	VBW:5.6 kHz
Vert.	25900.000	AV	35.89	40.39	10.05	47.08	-9.54	29.71	53.90	24.1	150	359	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 (3.99 m / 3.0 m) = 2.47 dB

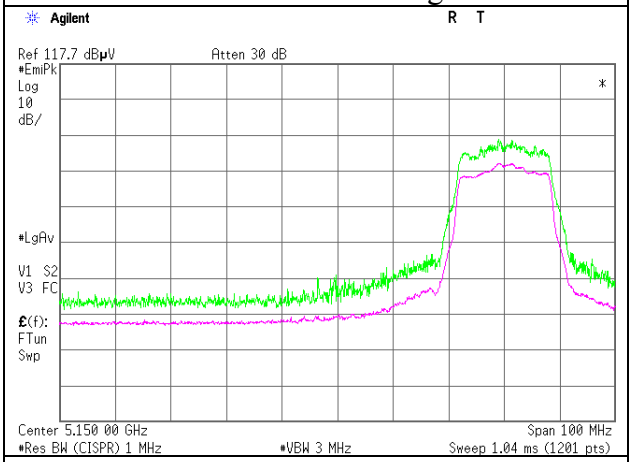
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a 5180 MHz

Horizontal

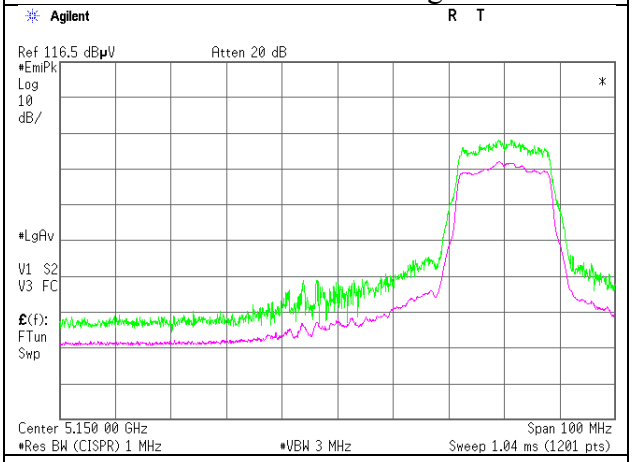
Restricted-band band-edge Plot



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.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)
Mode	Tx 11a 5200 MHz

(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	53.95	32.01	15.36	37.17	2.47	66.62	73.97	7.3	145	356	
Hori.	5150.000	AV	40.19	32.01	15.36	37.17	2.47	52.86	53.97	**1.1**	145	356	VBW:5.6 kHz
Vert.	5150.000	PK	53.65	32.01	15.36	37.17	2.47	66.32	73.97	7.6	112	284	
Vert.	5150.000	AV	39.77	32.01	15.36	37.17	2.47	52.44	53.97	1.5	112	284	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 (3.99 m / 3.0 m) = 2.47 dB

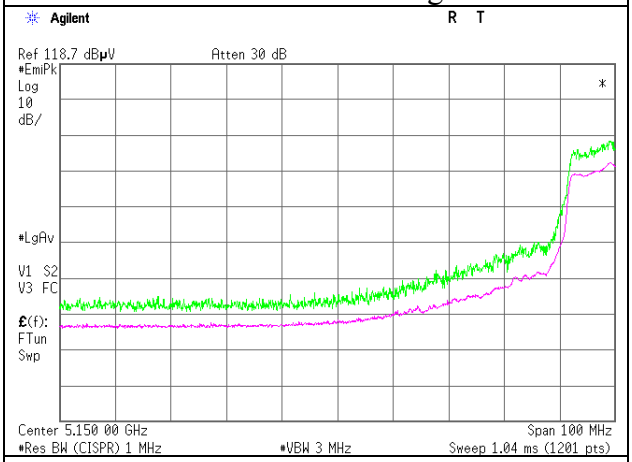
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a 5200 MHz

Horizontal

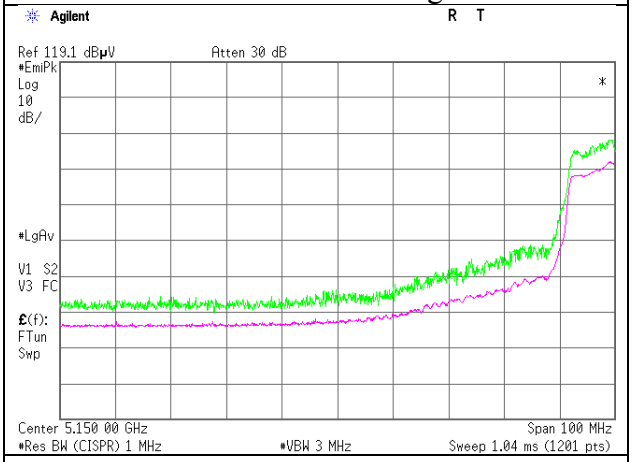
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	3	3	3	3	3
Date	September 18, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	23 deg. C / 63 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Hikaru Shirasawa (1 GHz – 6.4 GHz)	Takahiro Suzuki (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5240 MHz				

(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.	10480.000	PK	48.46	39.88	7.74	38.60	2.47	59.95	73.90	13.9	150	1	
Hori.	15720.000	PK	47.07	39.49	9.96	38.57	-9.54	48.41	73.90	25.4	150	2	
Hori.	20960.000	PK	47.18	40.22	8.85	45.74	-9.54	40.97	73.90	32.9	128	73	
Hori.	26200.000	PK	44.96	40.37	10.18	46.79	-9.54	39.18	73.90	34.7	150	0	
Hori.	10480.000	AV	37.06	39.88	7.74	38.60	2.47	48.55	53.90	**5.3**	150	1	VBW:5.6 kHz
Hori.	15720.000	AV	36.91	39.49	9.96	38.57	-9.54	38.25	53.90	15.6	150	2	VBW:5.6 kHz
Hori.	20960.000	AV	41.47	40.22	8.85	45.74	-9.54	35.26	53.90	18.6	128	73	VBW:5.6 kHz
Hori.	26200.000	AV	35.44	40.37	10.18	46.79	-9.54	29.66	53.90	24.2	150	0	VBW:5.6 kHz
Vert.	10480.000	PK	48.83	39.88	7.74	38.60	2.47	60.32	73.90	13.5	150	2	
Vert.	15720.000	PK	47.15	39.49	9.96	38.57	-9.54	48.49	73.90	25.4	150	1	
Vert.	20960.000	PK	47.64	40.22	8.85	45.74	-9.54	41.43	73.90	32.4	129	61	
Vert.	26200.000	PK	46.02	40.37	10.18	46.79	-9.54	40.24	73.90	33.6	150	0	
Vert.	10480.000	AV	37.04	39.88	7.74	38.60	2.47	48.53	53.90	**5.3**	150	2	VBW:5.6 kHz
Vert.	15720.000	AV	36.96	39.49	9.96	38.57	-9.54	38.30	53.90	15.6	150	1	VBW:5.6 kHz
Vert.	20960.000	AV	43.97	40.22	8.85	45.74	-9.54	37.76	53.90	16.1	129	61	VBW:5.6 kHz
Vert.	26200.000	AV	36.33	40.37	10.18	46.79	-9.54	30.55	53.90	23.3	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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3	
Test place	Shonan EMC Lab.	
Test Place(AC No)	1	3
Date	November 17, 2017	September 8, 2017
Temperature / Humidity	21 deg. C / 38 % RH	20 deg. C / 64 % RH
Engineer	Kazutaka Takeyama (30 MHz – 1 GHz)	Shiro Kobayashi (1 GHz – 6.4 GHz)
Mode	Tx 11a 5300 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.	73.702	QP	37.16	6.15	7.86	31.81	0.00	19.36	40.00	20.6	145	5	
Hori.	337.526	QP	36.03	14.36	7.10	31.75	0.00	25.74	46.00	20.2	100	128	
Hori.	5350.000	PK	51.03	32.09	15.40	37.27	2.47	63.72	73.97	10.2	108	357	
Hori.	5350.000	AV	38.72	32.09	15.40	37.27	2.47	51.41	53.97	2.5	108	357	VBW:5.6 kHz
Vert.	42.955	QP	36.35	13.53	7.33	31.82	0.00	25.39	40.00	14.6	100	33	
Vert.	46.618	QP	37.72	12.26	7.41	31.82	0.00	25.57	40.00	14.4	100	359	
Vert.	53.991	QP	37.58	9.73	7.43	31.82	0.00	22.92	40.00	17.0	100	333	
Vert.	67.929	QP	39.24	6.44	7.39	31.81	0.00	21.26	40.00	18.7	100	82	
Vert.	74.121	QP	44.66	6.15	7.90	31.81	0.00	26.90	40.00	13.1	100	179	
Vert.	601.728	QP	21.94	19.16	8.60	31.95	0.00	17.75	46.00	28.2	100	359	
Vert.	5350.000	PK	51.26	32.09	15.40	37.27	2.47	63.95	73.97	10.0	114	73	
Vert.	5350.000	AV	39.01	32.09	15.40	37.27	2.47	51.70	53.97	**2.2**	114	73	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 (3.99 m / 3.0 m) = 2.47 dB

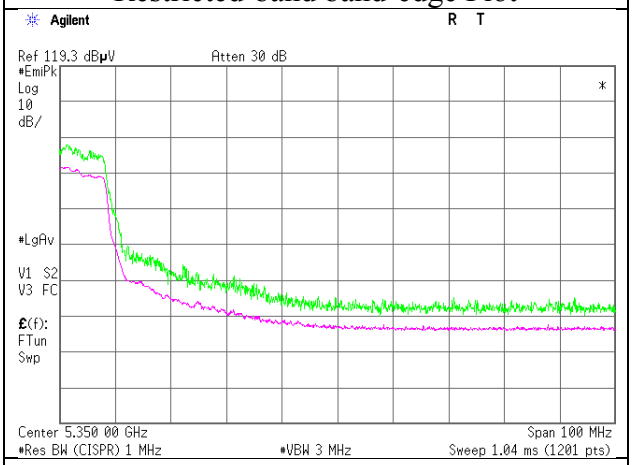
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)
Mode	Tx 11a 5300 MHz

Horizontal

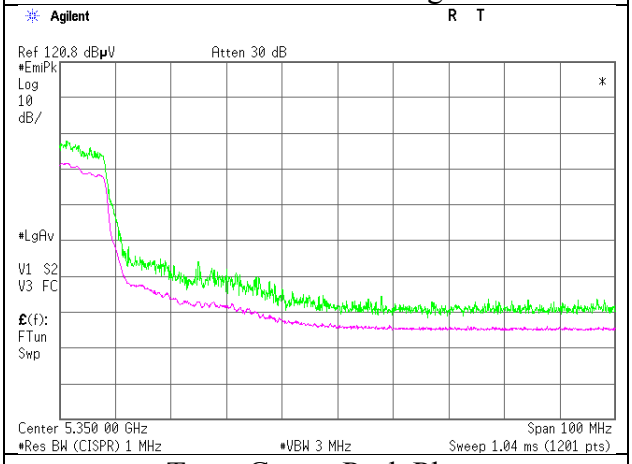
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	3	3	3	3	3
Date	September 8, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 64 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Takahiro Suzuki (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5320 MHz				

(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	55.82	32.09	15.40	37.27	2.47	68.51	73.97	5.4	105	353	
Hori.	10640.000	PK	46.63	39.97	7.84	38.75	2.47	58.16	73.97	15.8	150	0	
Hori.	15960.000	PK	46.50	38.50	10.06	38.35	-9.54	47.17	73.90	26.7	150	1	
Hori.	21280.000	PK	47.17	40.23	8.94	45.92	-9.54	40.88	73.90	33.0	123	63	
Hori.	5350.000	AV	38.47	32.09	15.40	37.27	2.47	51.16	53.97	2.8	105	353	VBW:5.6 kHz
Hori.	10640.000	AV	36.05	39.97	7.84	38.75	2.47	47.58	53.97	6.3	150	0	VBW:5.6 kHz
Hori.	15960.000	AV	36.24	38.50	10.06	38.35	-9.54	36.91	53.90	16.9	150	1	VBW:5.6 kHz
Hori.	21280.000	AV	41.46	40.23	8.94	45.92	-9.54	35.17	53.90	18.7	123	63	VBW:5.6 kHz
Vert.	5350.000	PK	54.96	32.09	15.40	37.27	2.47	67.65	73.97	6.3	122	78	
Vert.	10640.000	PK	46.66	39.97	7.84	38.75	2.47	58.19	73.97	15.7	150	0	
Vert.	15960.000	PK	46.26	38.50	10.06	38.35	-9.54	46.93	73.90	26.9	150	1	
Vert.	21280.000	PK	47.50	40.23	8.94	45.92	-9.54	41.21	73.90	32.6	127	63	
Vert.	5350.000	AV	38.95	32.09	15.40	37.27	2.47	51.64	53.97	**2.3**	122	78	VBW:5.6 kHz
Vert.	10640.000	AV	35.71	39.97	7.84	38.75	2.47	47.24	53.97	6.7	150	0	VBW:5.6 kHz
Vert.	15960.000	AV	36.17	38.50	10.06	38.35	-9.54	36.84	53.90	17.0	150	1	VBW:5.6 kHz
Vert.	21280.000	AV	41.89	40.23	8.94	45.92	-9.54	35.60	53.90	18.3	127	63	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 (3.99 m / 3.0 m) = 2.47 dB

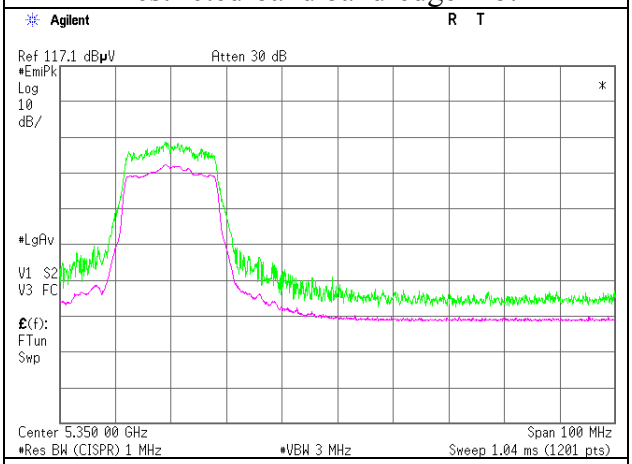
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a 5320 MHz

Horizontal

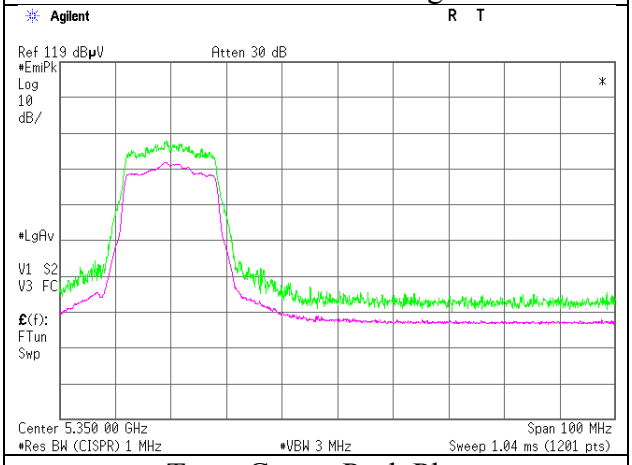
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	3	3	3	3	3
Date	September 8, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 64 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Takahiro Suzuki (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5500 MHz				

(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	49.67	32.14	15.41	37.32	2.47	62.37	73.97	11.6	114	351	
Hori.	11000.000	PK	47.62	40.11	8.13	39.18	2.47	59.15	73.97	14.8	150	0	
Hori.	16500.000	PK	46.90	39.24	10.49	38.14	-9.54	48.95	73.90	24.9	150	2	
Hori.	22000.000	PK	47.32	40.26	9.21	46.59	-9.54	40.66	73.90	33.2	121	329	
Hori.	5460.000	AV	37.53	32.14	15.41	37.32	2.47	50.23	53.97	**3.7**	114	351	VBW:5.6 kHz
Hori.	11000.000	AV	36.37	40.11	8.13	39.18	2.47	47.90	53.97	6.0	150	0	VBW:5.6 kHz
Hori.	16500.000	AV	37.00	39.24	10.49	38.14	-9.54	39.05	53.90	14.8	150	2	VBW:5.6 kHz
Hori.	22000.000	AV	40.56	40.26	9.21	46.59	-9.54	33.90	53.90	20.0	121	329	VBW:5.6 kHz
Vert.	5460.000	PK	50.09	32.14	15.41	37.32	2.47	62.79	73.97	11.1	120	75	
Vert.	11000.000	PK	47.91	40.11	8.13	39.18	2.47	59.44	73.97	14.5	150	0	
Vert.	16500.000	PK	47.17	39.24	10.49	38.14	-9.54	49.22	73.90	24.6	150	1	
Vert.	22000.000	PK	47.63	40.26	9.21	46.59	-9.54	40.97	73.90	32.9	131	357	
Vert.	5460.000	AV	37.25	32.14	15.41	37.32	2.47	49.95	53.97	4.0	120	75	VBW:5.6 kHz
Vert.	11000.000	AV	36.87	40.11	8.13	39.18	2.47	48.40	53.97	5.5	150	0	VBW:5.6 kHz
Vert.	16500.000	AV	37.01	39.24	10.49	38.14	-9.54	39.06	53.90	14.8	150	1	VBW:5.6 kHz
Vert.	22000.000	AV	41.97	40.26	9.21	46.59	-9.54	35.31	53.90	18.5	131	357	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 (3.99 m / 3.0 m) = 2.47 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	53.38	32.15	15.41	37.33	2.47	66.08	-29.12	-27.00	**2.1**	114	351	
Vert.	5470.000	PK	51.43	32.15	15.41	37.33	2.47	64.13	-31.07	-27.00	4.1	120	75	

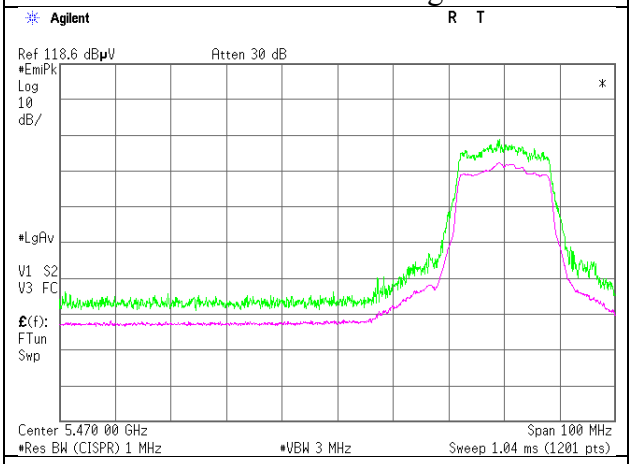
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a 5500 MHz

Horizontal

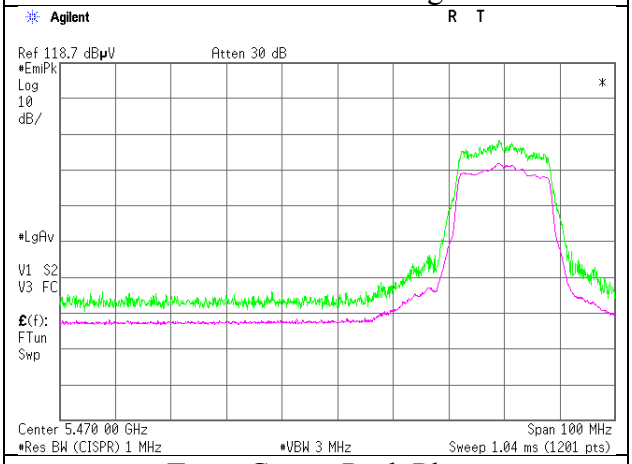
Restricted-band band-edge Plot



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.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)
Mode	Tx 11a 5520 MHz

(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	46.00	32.14	15.41	37.32	2.47	58.70	73.97	15.2	101	352	
Hori.	5460.000	AV	36.24	32.14	15.41	37.32	2.47	48.94	53.97	5.0	101	352	VBW:5.6 kHz
Vert.	5460.000	PK	46.24	32.14	15.41	37.32	2.47	58.94	73.97	15.0	105	74	
Vert.	5460.000	AV	36.36	32.14	15.41	37.32	2.47	49.06	53.97	**4.9**	105	74	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 (3.99 m / 3.0 m) = 2.47 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	48.86	32.15	15.41	37.33	2.47	61.56	-33.64	-27.00	**6.6**	101	352	
Vert.	5470.000	PK	48.41	32.15	15.41	37.33	2.47	61.11	-34.09	-27.00	7.1	105	74	

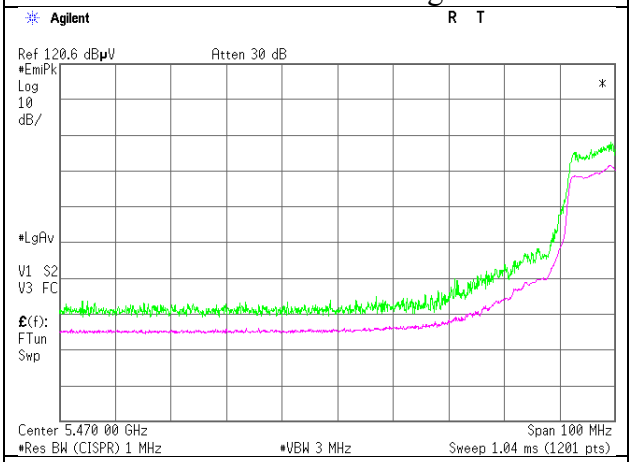
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a 5520 MHz

Horizontal

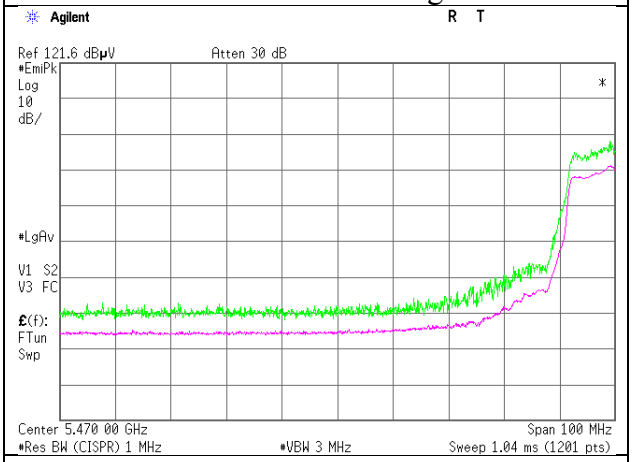
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	3	3	3	3	3
Date	September 18, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	23 deg. C / 63 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Hikaru Shirasawa (1 GHz – 6.4 GHz)	Takahiro Suzuki (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5580 MHz				

(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.	11160.000	PK	47.25	40.12	8.11	39.13	2.47	58.82	73.90	15.0	150	1	
Hori.	16740.000	PK	46.18	39.68	10.45	38.11	-9.54	48.66	73.90	25.2	150	1	
Hori.	22320.000	PK	47.02	40.29	9.22	46.95	-9.54	40.04	73.90	33.8	120	329	
Hori.	11160.000	AV	37.16	40.12	8.11	39.13	2.47	48.73	53.90	**5.1**	150	1	VBW:5.6 kHz
Hori.	16740.000	AV	36.05	39.68	10.45	38.11	-9.54	38.53	53.90	15.3	150	1	VBW:5.6 kHz
Hori.	22320.000	AV	40.65	40.29	9.22	46.95	-9.54	33.67	53.90	20.2	120	329	VBW:5.6 kHz
Vert.	11160.000	PK	47.83	40.12	8.11	39.13	2.47	59.40	73.90	14.5	150	1	
Vert.	16740.000	PK	46.83	39.68	10.45	38.11	-9.54	49.31	73.90	24.5	150	2	
Vert.	22320.000	PK	46.13	40.29	9.22	46.95	-9.54	39.15	73.90	34.7	127	352	
Vert.	11160.000	AV	37.03	40.12	8.11	39.13	2.47	48.60	53.90	5.3	150	1	VBW:5.6 kHz
Vert.	16740.000	AV	36.29	39.68	10.45	38.11	-9.54	38.77	53.90	15.1	150	2	VBW:5.6 kHz
Vert.	22320.000	AV	39.48	40.29	9.22	46.95	-9.54	32.50	53.90	21.4	127	352	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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
	(1 GHz – 6.4 GHz)
Mode	Tx 11a 5680 MHz

(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	50.39	32.53	15.54	37.46	2.47	63.47	-31.73	-27.00	**4.7**	118	352	
Vert.	5725.000	PK	49.66	32.53	15.54	37.46	2.47	62.74	-32.46	-27.00	5.5	100	70	

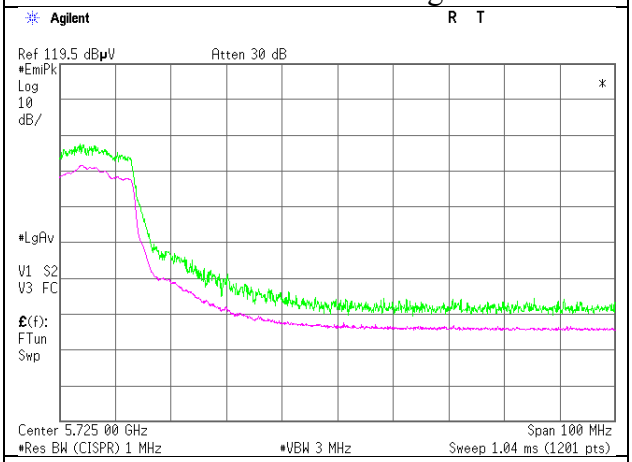
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a 5680 MHz

Horizontal

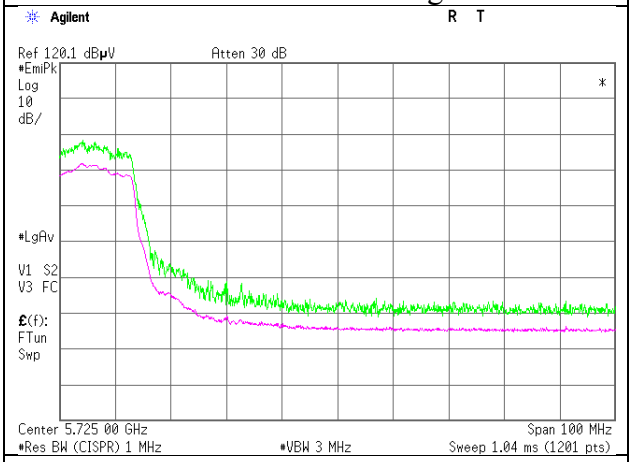
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	3	3	3	3	3
Date	September 8, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 64 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Takahiro Suzuki (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5700 MHz				

(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.	11400.000	PK	46.17	40.13	8.08	39.06	2.47	57.79	73.97	16.1	150	0	
Hori.	17100.000	PK	46.47	40.92	10.47	38.03	-9.54	50.29	73.90	23.6	150	2	
Hori.	22800.000	PK	47.33	40.33	9.34	47.19	-9.54	40.27	73.90	33.6	125	337	
Hori.	11400.000	AV	34.36	40.13	8.08	39.06	2.47	45.98	53.97	7.9	150	0	VBW:5.6 kHz
Hori.	17100.000	AV	36.33	40.92	10.47	38.03	-9.54	40.15	53.90	13.7	150	2	VBW:5.6 kHz
Hori.	22800.000	AV	39.74	40.33	9.34	47.19	-9.54	32.68	53.90	21.2	125	337	VBW:5.6 kHz
Vert.	11400.000	PK	46.99	40.13	8.08	39.06	2.47	58.61	73.97	15.3	150	0	
Vert.	17100.000	PK	46.43	40.92	10.47	38.03	-9.54	50.25	73.90	23.6	150	1	
Vert.	22800.000	PK	46.70	40.33	9.34	47.19	-9.54	39.64	73.90	34.2	125	325	
Vert.	11400.000	AV	34.67	40.13	8.08	39.06	2.47	46.29	53.97	**7.6**	150	0	VBW:5.6 kHz
Vert.	17100.000	AV	36.24	40.92	10.47	38.03	-9.54	40.06	53.90	13.8	150	1	VBW:5.6 kHz
Vert.	22800.000	AV	39.52	40.33	9.34	47.19	-9.54	32.46	53.90	21.4	125	325	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 (3.99 m / 3.0 m) = 2.47 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	50.68	32.53	15.54	37.46	2.47	63.76	-31.44	-27.00	**4.4**	117	344	
Vert.	5725.000	PK	50.32	32.53	15.54	37.46	2.47	63.40	-31.80	-27.00	4.8	104	72	

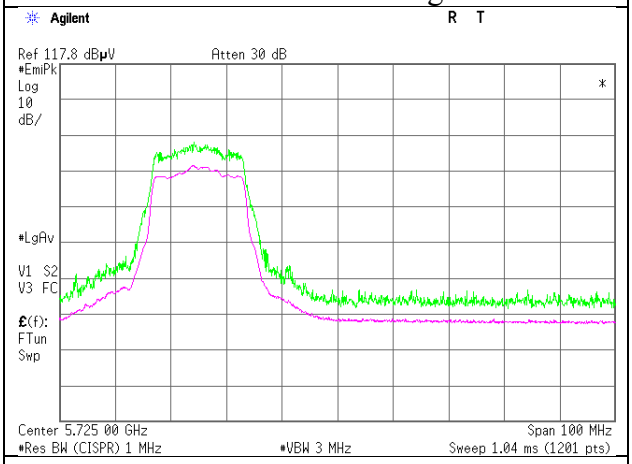
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	3
Date	September 8, 2017
Temperature / Humidity	20 deg. C / 64 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11a 5700 MHz

Horizontal

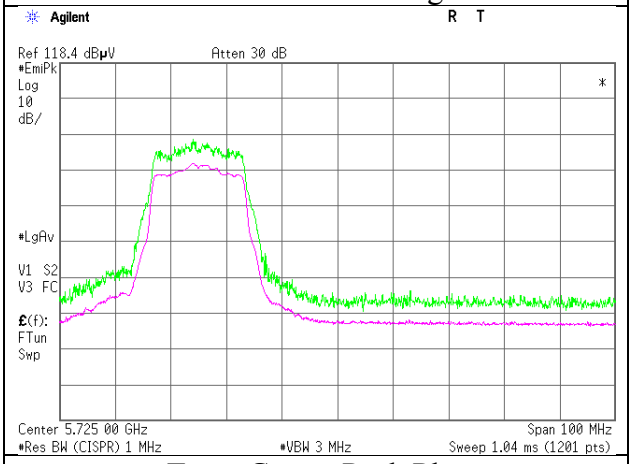
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	3	3	3
Date	October 19, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazutaka Takeyama (1 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5745 MHz			

(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.	11490.000	PK	45.49	40.06	9.87	39.67	2.47	58.22	73.90	15.6	150	0	
Hori.	17235.000	PK	46.53	41.96	10.57	37.97	-9.54	51.55	73.90	22.3	150	1	
Hori.	22980.000	PK	48.44	40.35	9.42	47.21	-9.54	41.46	73.90	32.4	122	334	
Hori.	11490.000	AV	36.24	40.06	9.87	39.67	2.47	48.97	53.90	**4.9**	150	0	VBW:5.6 kHz
Hori.	17235.000	AV	36.26	41.96	10.57	37.97	-9.54	41.28	53.90	12.6	150	1	VBW:5.6 kHz
Hori.	22980.000	AV	42.26	40.35	9.42	47.21	-9.54	35.28	53.90	18.6	122	334	VBW:5.6 kHz
Vert.	11490.000	PK	45.16	40.06	9.87	39.67	2.47	57.89	73.90	16.0	150	0	
Vert.	17235.000	PK	46.44	41.96	10.57	37.97	-9.54	51.46	73.90	22.4	150	2	
Vert.	22980.000	PK	47.80	40.35	9.42	47.21	-9.54	40.82	73.90	33.0	122	337	
Vert.	11490.000	AV	36.10	40.06	9.87	39.67	2.47	48.83	53.90	5.0	150	0	VBW:5.6 kHz
Vert.	17235.000	AV	36.56	41.96	10.57	37.97	-9.54	41.58	53.90	12.3	150	2	VBW:5.6 kHz
Vert.	22980.000	AV	41.17	40.35	9.42	47.21	-9.54	34.19	53.90	19.7	122	337	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 (3.99 m / 3.0 m) = 2.47 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	46.64	32.22	16.66	41.36	2.47	56.63	-38.57	-27.00	11.6	130	350	
Hori.	5700.000	PK	47.69	32.31	16.70	41.31	2.47	57.86	-37.34	10.00	47.3	130	350	
Hori.	5720.000	PK	51.68	32.34	16.72	41.29	2.47	61.92	-33.28	15.60	48.9	130	350	
Hori.	5725.000	PK	58.68	32.35	16.72	41.29	2.47	68.93	-26.27	27.00	53.3	130	350	
Vert.	5650.000	PK	47.46	32.22	16.66	41.36	2.47	57.45	-37.75	-27.00	**10.8**	100	355	
Vert.	5700.000	PK	48.71	32.31	16.70	41.31	2.47	58.88	-36.32	10.00	46.3	100	355	
Vert.	5720.000	PK	51.13	32.34	16.72	41.29	2.47	61.37	-33.83	15.60	49.4	100	355	
Vert.	5725.000	PK	56.28	32.35	16.72	41.29	2.47	66.53	-28.67	27.00	55.7	100	355	

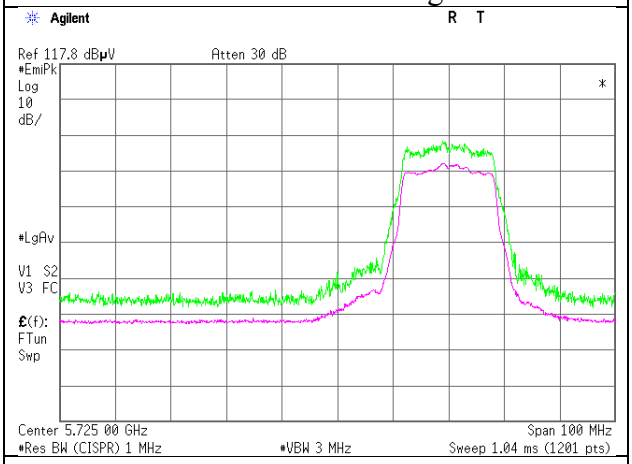
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11a 5745 MHz

Horizontal

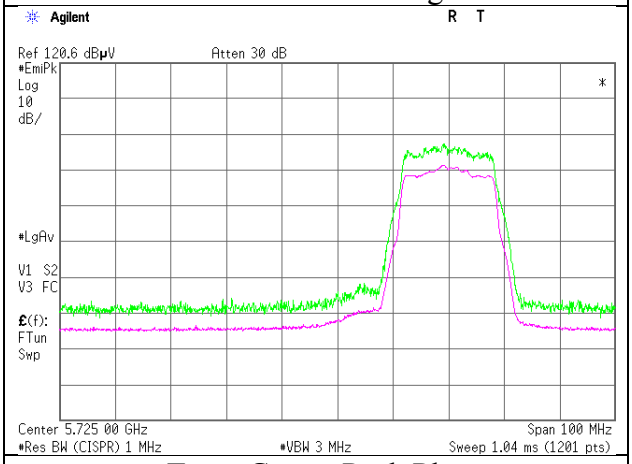
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	3	1	3	3	3
Date	September 18, 2017	October 19, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	23 deg. C / 63 % RH	20 deg. C / 51 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Hikaru Shirasawa (1 GHz – 6.4 GHz)	Takahiro Suzuki (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5785 MHz				

(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.	11570.000	PK	44.73	39.93	9.92	39.73	2.47	57.32	73.90	16.5	150	0	
Hori.	17355.000	PK	46.03	42.88	10.67	37.92	-9.54	52.12	73.90	21.7	150	1	
Hori.	23140.000	PK	47.60	40.33	9.46	47.28	-9.54	40.57	73.90	33.3	122	339	
Hori.	11570.000	AV	36.16	39.93	9.92	39.73	2.47	48.75	53.90	**5.1**	150	0	VBW:5.6 kHz
Hori.	17355.000	AV	35.99	42.88	10.67	37.92	-9.54	42.08	53.90	11.8	150	1	VBW:5.6 kHz
Hori.	23140.000	AV	41.30	40.33	9.46	47.28	-9.54	34.27	53.90	19.6	122	339	VBW:5.6 kHz
Vert.	11570.000	PK	45.11	39.93	9.92	39.73	2.47	57.70	73.90	16.2	150	0	
Vert.	17355.000	PK	46.13	42.88	10.67	37.92	-9.54	52.22	73.90	21.6	150	1	
Vert.	23140.000	PK	47.41	40.33	9.46	47.28	-9.54	40.38	73.90	33.5	126	332	
Vert.	11570.000	AV	36.04	39.93	9.92	39.73	2.47	48.63	53.90	5.2	150	0	VBW:5.6 kHz
Vert.	17355.000	AV	35.89	42.88	10.67	37.92	-9.54	41.98	53.90	11.9	150	1	VBW:5.6 kHz
Vert.	23140.000	AV	42.12	40.33	9.46	47.28	-9.54	35.09	53.90	18.8	126	332	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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	3	3	3
Date	October 19, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazutaka Takeyama (1 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11a 5825 MHz			

(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.	11650.000	PK	45.23	39.78	9.95	39.82	2.47	57.61	73.90	16.2	150	0	
Hori.	17475.000	PK	46.40	43.80	10.76	37.87	-9.54	53.55	73.90	20.3	150	1	
Hori.	23300.000	PK	47.65	40.31	9.51	47.35	-9.54	40.58	73.90	33.3	119	343	
Hori.	11650.000	AV	36.23	39.78	9.95	39.82	2.47	48.61	53.90	5.2	150	0	VBW:5.6 kHz
Hori.	17475.000	AV	35.84	43.80	10.76	37.87	-9.54	42.99	53.90	10.9	150	1	VBW:5.6 kHz
Hori.	23300.000	AV	41.40	40.31	9.51	47.35	-9.54	34.33	53.90	19.5	119	343	VBW:5.6 kHz
Vert.	11650.000	PK	45.55	39.78	9.95	39.82	2.47	57.93	73.90	15.9	150	0	
Vert.	17475.000	PK	46.22	43.80	10.76	37.87	-9.54	53.37	73.90	20.5	150	1	
Vert.	23300.000	PK	47.34	40.31	9.51	47.35	-9.54	40.27	73.90	33.6	126	331	
Vert.	11650.000	AV	36.34	39.78	9.95	39.82	2.47	48.72	53.90	**5.1**	150	0	VBW:5.6 kHz
Vert.	17475.000	AV	35.74	43.80	10.76	37.87	-9.54	42.89	53.90	11.0	150	1	VBW:5.6 kHz
Vert.	23300.000	AV	41.50	40.31	9.51	47.35	-9.54	34.43	53.90	19.4	126	331	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 (3.99 m / 3.0 m) = 2.47 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	54.13	32.57	16.83	41.16	2.47	64.84	-30.36	27.00	57.4	135	345	
Hori.	5855.000	PK	53.15	32.58	16.83	41.16	2.47	63.87	-31.33	15.60	46.9	135	345	
Hori.	5875.000	PK	48.12	32.61	16.86	41.14	2.47	58.92	-36.28	10.00	46.3	135	345	
Hori.	5925.000	PK	47.42	32.70	16.88	41.09	2.47	58.38	-36.82	-27.00	**9.8**	135	345	
Vert.	5850.000	PK	50.39	32.57	16.83	41.16	2.47	61.10	-34.10	27.00	61.1	104	354	
Vert.	5855.000	PK	48.90	32.58	16.83	41.16	2.47	59.62	-35.58	15.60	51.2	104	354	
Vert.	5875.000	PK	47.23	32.61	16.86	41.14	2.47	58.03	-37.17	10.00	47.2	104	354	
Vert.	5925.000	PK	47.26	32.70	16.88	41.09	2.47	58.22	-36.98	-27.00	10.0	104	354	

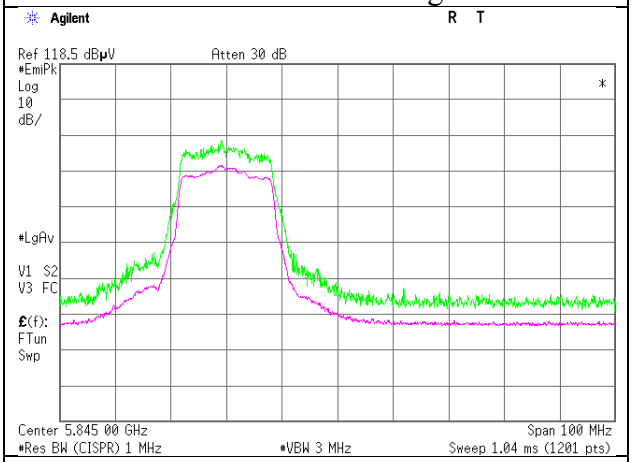
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11a 5825 MHz

Horizontal

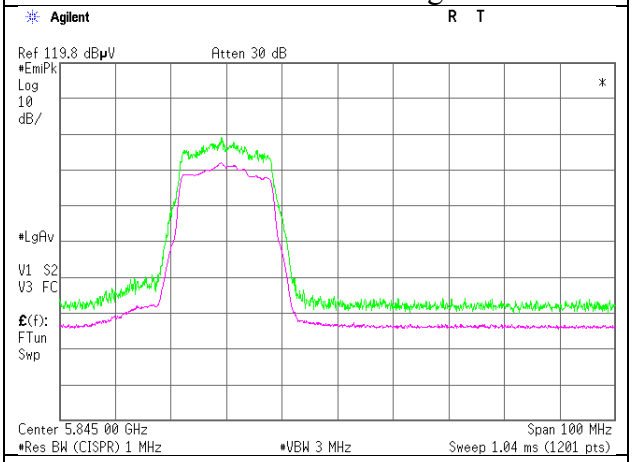
Restricted-band band-edge Plot



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

Report No.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	3	3	3
Date	September 12, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazuya Noda	Takahiro Suzuki	Yosuke Ishikawa	Hikaru Shirasawa	Hosaka Makoto
	(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				

(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	57.77	31.69	16.34	41.57	2.47	66.70	73.90	7.2	142	338	
Hori.	10360.000	PK	48.18	39.68	7.75	38.69	2.47	59.39	73.90	14.5	150	0	
Hori.	15540.000	PK	47.16	40.23	9.88	38.73	-9.54	49.00	73.90	24.9	150	1	
Hori.	20720.000	PK	47.44	40.21	8.76	45.55	-9.54	41.32	73.90	32.5	130	61	
Hori.	25900.000	PK	45.40	40.39	10.05	47.08	-9.54	39.22	73.90	34.6	150	0	
Hori.	5150.000	AV	41.21	31.69	16.34	41.57	2.47	50.14	53.90	3.7	142	338	VBW:3.9 kHz
Hori.	10360.000	AV	36.12	39.68	7.75	38.69	2.47	47.33	53.90	6.5	150	0	VBW:3.9 kHz
Hori.	15540.000	AV	36.62	40.23	9.88	38.73	-9.54	38.46	53.90	15.4	150	1	VBW:3.9 kHz
Hori.	20720.000	AV	41.50	40.21	8.76	45.55	-9.54	35.38	53.90	18.5	130	61	VBW:3.9 kHz
Hori.	25900.000	AV	35.13	40.39	10.05	47.08	-9.54	28.95	53.90	24.9	150	0	VBW:3.9 kHz
Vert.	5150.000	PK	58.92	31.69	16.34	41.57	2.47	67.85	73.90	6.0	100	356	
Vert.	10360.000	PK	48.12	39.68	7.75	38.69	2.47	59.33	73.90	14.5	150	0	
Vert.	15540.000	PK	47.05	40.23	9.88	38.73	-9.54	48.89	73.90	25.0	150	1	
Vert.	20720.000	PK	48.36	40.21	8.76	45.55	-9.54	42.24	73.90	31.6	127	63	
Vert.	25900.000	PK	45.84	40.39	10.05	47.08	-9.54	39.66	73.90	34.2	150	359	
Vert.	5150.000	AV	41.68	31.69	16.34	41.57	2.47	50.61	53.90	**3.2**	100	356	VBW:3.9 kHz
Vert.	10360.000	AV	35.83	39.68	7.75	38.69	2.47	47.04	53.90	6.8	150	0	VBW:3.9 kHz
Vert.	15540.000	AV	36.89	40.23	9.88	38.73	-9.54	38.73	53.90	15.1	150	1	VBW:3.9 kHz
Vert.	20720.000	AV	43.72	40.21	8.76	45.55	-9.54	37.60	53.90	16.3	127	63	VBW:3.9 kHz
Vert.	25900.000	AV	35.47	40.39	10.05	47.08	-9.54	29.29	53.90	24.6	150	359	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

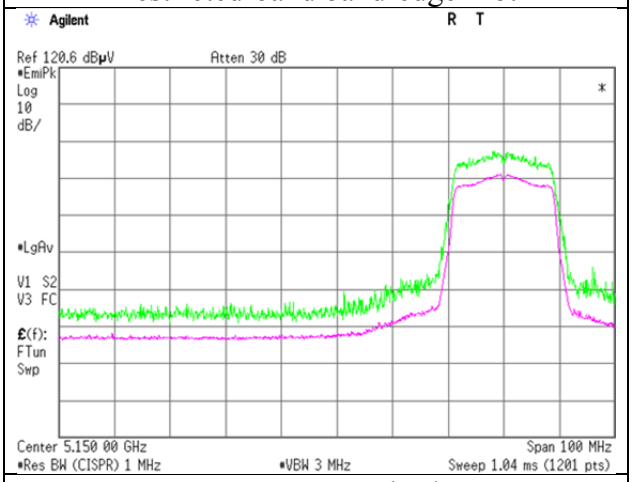
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5180 MHz

Horizontal

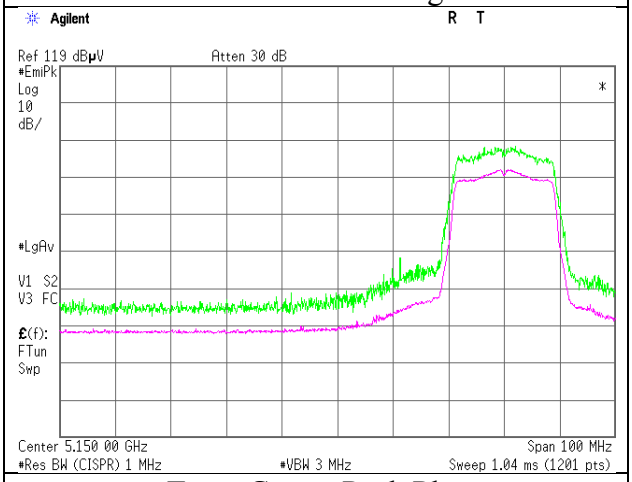
Restricted-band band-edge Plot



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.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda (1 GHz – 6.4 GHz)
Mode	Tx 11n-20 5200 MHz

(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	54.36	31.69	16.34	41.57	2.47	63.29	73.90	10.6	148	343	
Hori.	5150.000	AV	41.11	31.69	16.34	41.57	2.47	50.04	53.90	3.8	148	343	VBW:3.9 kHz
Vert.	5150.000	PK	55.13	31.69	16.34	41.57	2.47	64.06	73.90	9.8	148	343	
Vert.	5150.000	AV	41.40	31.69	16.34	41.57	2.47	50.33	53.90	**3.5**	148	343	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

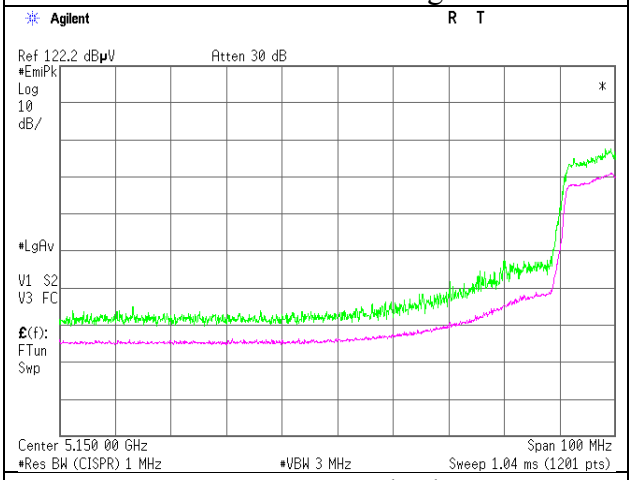
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5200 MHz

Horizontal

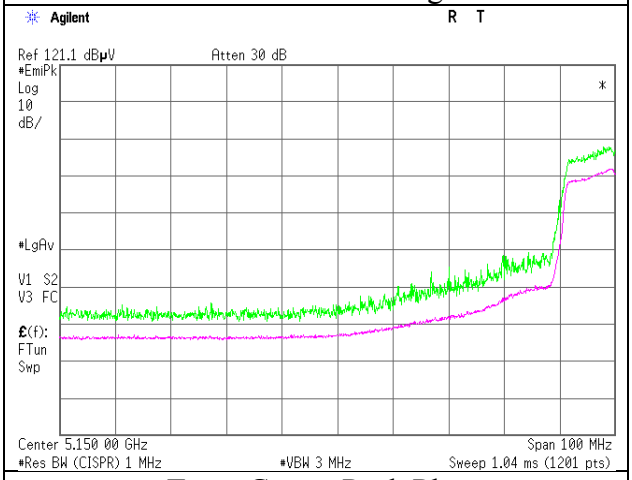
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	3	3	3
Date	September 12, 2017	September 19, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 63 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Hikaru Shirasawa	Hosaka Makoto
	(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				

(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.	10480.000	PK	48.25	39.88	7.74	38.60	2.47	59.74	73.90	14.1	150	2	
Hori.	15720.000	PK	47.28	39.49	9.96	38.57	-9.54	48.62	73.90	25.2	150	2	
Hori.	20960.000	PK	48.03	40.22	8.85	45.74	-9.54	41.82	73.90	32.0	129	57	
Hori.	26200.000	PK	45.39	40.37	10.18	46.79	-9.54	39.61	73.90	34.2	150	359	
Hori.	10480.000	AV	37.30	39.88	7.74	38.60	2.47	48.79	53.90	**5.1**	150	2	VBW:3.9 kHz
Hori.	15720.000	AV	36.66	39.49	9.96	38.57	-9.54	38.00	53.90	15.9	150	2	VBW:3.9 kHz
Hori.	20960.000	AV	41.32	40.22	8.85	45.74	-9.54	35.11	53.90	18.7	129	57	VBW:3.9 kHz
Hori.	26200.000	AV	35.09	40.37	10.18	46.79	-9.54	29.31	53.90	24.5	150	359	VBW:3.9 kHz
Vert.	10480.000	PK	48.09	39.88	7.74	38.60	2.47	59.58	73.90	14.3	150	1	
Vert.	15720.000	PK	47.37	39.49	9.96	38.57	-9.54	48.71	73.90	25.1	150	1	
Vert.	20960.000	PK	48.08	40.22	8.85	45.74	-9.54	41.87	73.90	32.0	127	60	
Vert.	26200.000	PK	45.94	40.37	10.18	46.79	-9.54	40.16	73.90	33.7	150	0	
Vert.	10480.000	AV	37.02	39.88	7.74	38.60	2.47	48.51	53.90	5.3	150	1	VBW:3.9 kHz
Vert.	15720.000	AV	36.63	39.49	9.96	38.57	-9.54	37.97	53.90	15.9	150	1	VBW:3.9 kHz
Vert.	20960.000	AV	41.92	40.22	8.85	45.74	-9.54	35.71	53.90	18.1	127	60	VBW:3.9 kHz
Vert.	26200.000	AV	35.48	40.37	10.18	46.79	-9.54	29.70	53.90	24.2	150	0	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
	(1 GHz – 6.4 GHz)
Mode	Tx 11n-20 5300 MHz

(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	54.56	31.84	16.45	41.53	2.47	63.79	73.90	10.1	144	347	
Hori.	5350.000	AV	40.15	31.84	16.45	41.53	2.47	49.38	53.90	**4.5**	144	347	VBW:3.9 kHz
Vert.	5350.000	PK	53.25	31.84	16.45	41.53	2.47	62.48	73.90	11.4	100	355	
Vert.	5350.000	AV	40.06	31.84	16.45	41.53	2.47	49.29	53.90	4.6	100	355	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

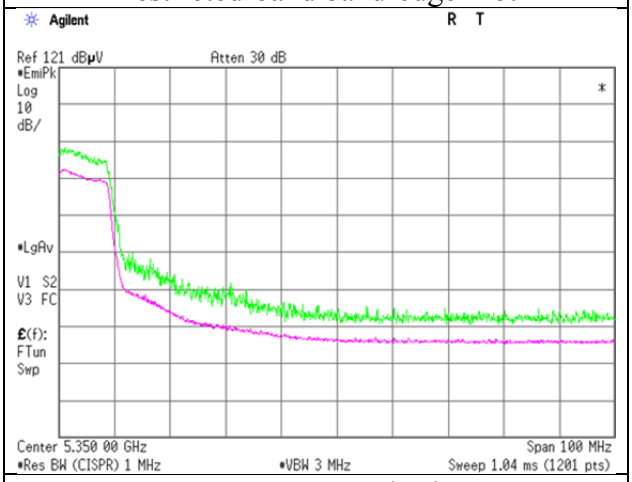
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5300 MHz

Horizontal

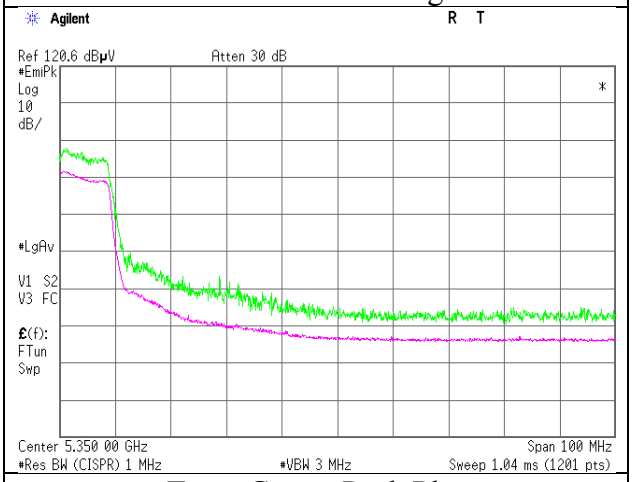
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	3	3	3
Date	September 12, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazuya Noda	Takahiro Suzuki	Yosuke Ishikawa	Hikaru Shirasawa	Hosaka Makoto
	(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				

(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	62.37	31.84	16.45	41.53	2.47	71.60	73.90	2.3	104	342	
Hori.	10640.000	PK	47.84	39.97	7.84	38.75	2.47	59.37	73.90	14.5	150	0	
Hori.	15960.000	PK	46.12	38.50	10.06	38.35	-9.54	46.79	73.90	27.1	150	2	
Hori.	21280.000	PK	47.56	40.23	8.94	45.92	-9.54	41.27	73.90	32.6	131	61	
Hori.	5350.000	AV	43.55	31.84	16.45	41.53	2.47	52.78	53.90	**1.1**	104	342	VBW:3.9 kHz
Hori.	10640.000	AV	36.91	39.97	7.84	38.75	2.47	48.44	53.90	5.4	150	0	VBW:3.9 kHz
Hori.	15960.000	AV	35.68	38.50	10.06	38.35	-9.54	36.35	53.90	17.5	150	2	VBW:3.9 kHz
Hori.	21280.000	AV	40.87	40.23	8.94	45.92	-9.54	34.58	53.90	19.3	131	61	VBW:3.9 kHz
Vert.	5350.000	PK	57.03	31.84	16.45	41.53	2.47	66.26	73.90	7.6	100	356	
Vert.	10640.000	PK	48.26	39.97	7.84	38.75	2.47	59.79	73.90	14.1	150	0	
Vert.	15960.000	PK	46.08	38.50	10.06	38.35	-9.54	46.75	73.90	27.1	150	1	
Vert.	21280.000	PK	47.68	40.23	8.94	45.92	-9.54	41.39	73.90	32.5	132	62	
Vert.	5350.000	AV	43.19	31.84	16.45	41.53	2.47	52.42	53.90	1.4	100	356	VBW:3.9 kHz
Vert.	10640.000	AV	35.84	39.97	7.84	38.75	2.47	47.37	53.90	6.5	150	0	VBW:3.9 kHz
Vert.	15960.000	AV	35.83	38.50	10.06	38.35	-9.54	36.50	53.90	17.4	150	1	VBW:3.9 kHz
Vert.	21280.000	AV	40.58	40.23	8.94	45.92	-9.54	34.29	53.90	19.6	132	62	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

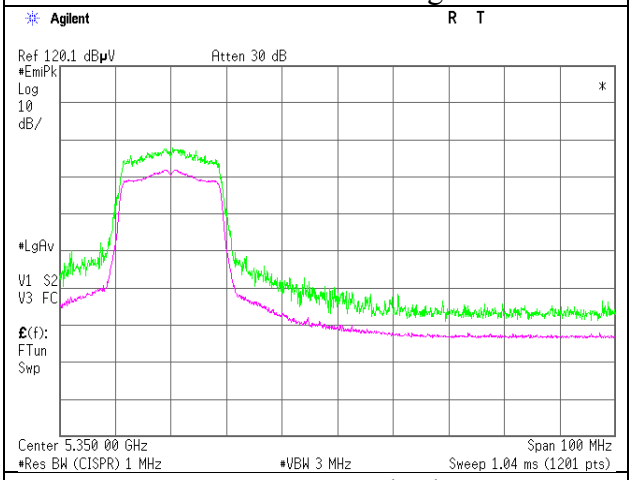
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5320 MHz

Horizontal

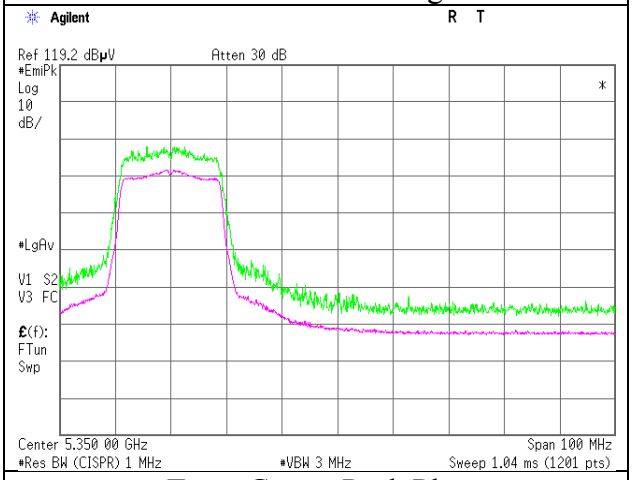
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	3	3	3
Date	September 12, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazuya Noda	Takahiro Suzuki	Yosuke Ishikawa	Hikaru Shirasawa	Hosaka Makoto
	(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				

(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	51.71	31.93	16.51	41.52	2.47	61.10	73.90	12.8	118	342	
Hori.	11000.000	PK	47.74	40.11	8.13	39.18	2.47	59.27	73.90	14.6	150	0	
Hori.	16500.000	PK	46.45	39.24	10.49	38.14	-9.54	48.50	73.90	25.4	150	1	
Hori.	22000.000	PK	46.68	40.26	9.21	46.59	-9.54	40.02	73.90	33.8	125	332	
Hori.	5460.000	AV	38.42	31.93	16.51	41.52	2.47	47.81	53.90	6.0	118	342	VBW:3.9 kHz
Hori.	11000.000	AV	36.98	40.11	8.13	39.18	2.47	48.51	53.90	**5.3**	150	0	VBW:3.9 kHz
Hori.	16500.000	AV	36.37	39.24	10.49	38.14	-9.54	38.42	53.90	15.4	150	1	VBW:3.9 kHz
Hori.	22000.000	AV	38.32	40.26	9.21	46.59	-9.54	31.66	53.90	22.2	125	332	VBW:3.9 kHz
Vert.	5460.000	PK	51.38	31.93	16.51	41.52	2.47	60.77	73.90	13.1	100	1	
Vert.	11000.000	PK	47.17	40.11	8.13	39.18	2.47	58.70	73.90	15.2	150	0	
Vert.	16500.000	PK	46.71	39.24	10.49	38.14	-9.54	48.76	73.90	25.1	150	1	
Vert.	22000.000	PK	47.99	40.26	9.21	46.59	-9.54	41.33	73.90	32.5	125	340	
Vert.	5460.000	AV	38.47	31.93	16.51	41.52	2.47	47.86	53.90	6.0	100	1	VBW:3.9 kHz
Vert.	11000.000	AV	35.62	40.11	8.13	39.18	2.47	47.15	53.90	6.7	150	0	VBW:3.9 kHz
Vert.	16500.000	AV	36.46	39.24	10.49	38.14	-9.54	38.51	53.90	15.3	150	1	VBW:3.9 kHz
Vert.	22000.000	AV	41.26	40.26	9.21	46.59	-9.54	34.60	53.90	19.3	125	340	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 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	57.63	31.94	16.51	41.51	2.47	67.04	-28.16	-27.00	**1.2**	118	342	
Vert.	5470.000	PK	56.15	31.94	16.51	41.51	2.47	65.56	-29.64	-27.00	2.6	100	1	

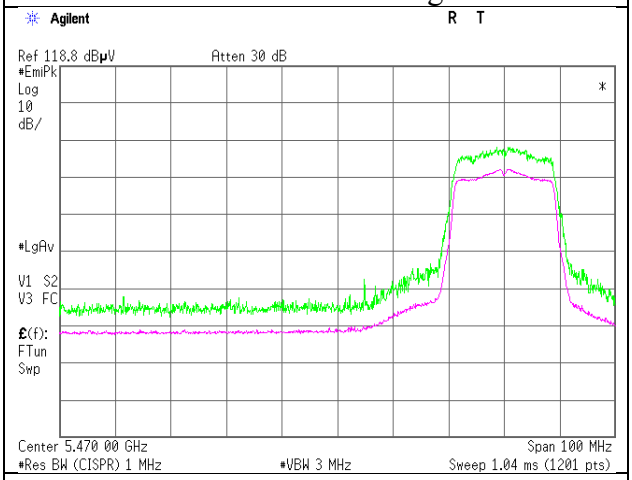
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5500 MHz

Horizontal

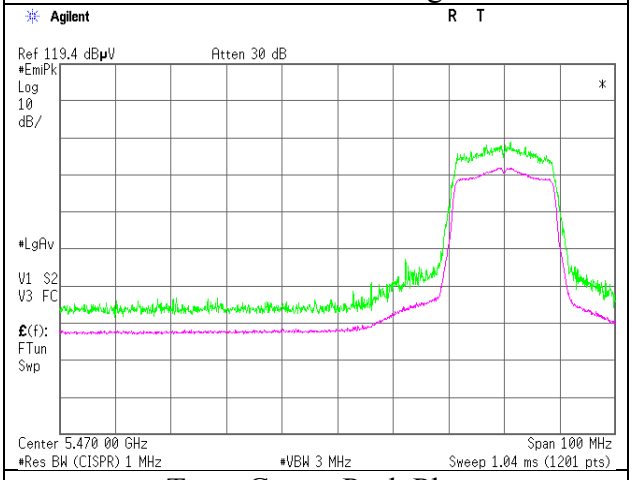
Restricted-band band-edge Plot



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.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
	(1 GHz – 6.4 GHz)
Mode	Tx 11n-20 5520 MHz

(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	49.04	31.93	16.51	41.52	2.47	58.43	73.90	15.4	144	343	
Hori.	5460.000	AV	37.89	31.93	16.51	41.52	2.47	47.28	53.90	6.6	144	343	VBW:3.9 kHz
Vert.	5460.000	PK	48.55	31.93	16.51	41.52	2.47	57.94	73.90	15.9	100	355	
Vert.	5460.000	AV	37.98	31.93	16.51	41.52	2.47	47.37	53.90	**6.5**	100	355	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 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	51.03	31.94	16.51	41.51	2.47	60.44	-34.76	-27.00	7.8	144	343	
Vert.	5470.000	PK	51.74	31.94	16.51	41.51	2.47	61.15	-34.05	-27.00	**7.1**	100	355	

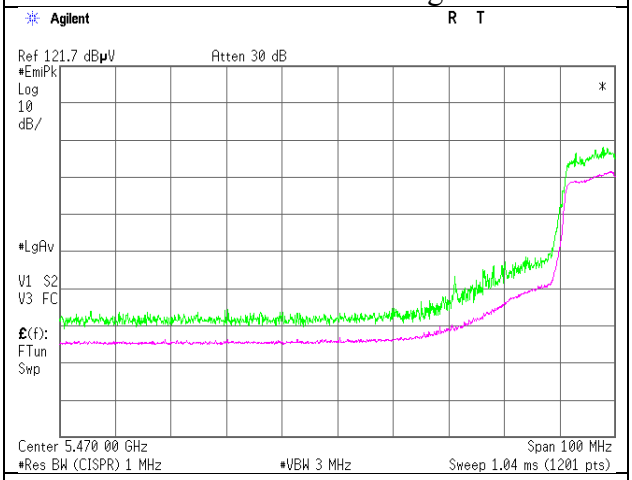
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5520 MHz

Horizontal

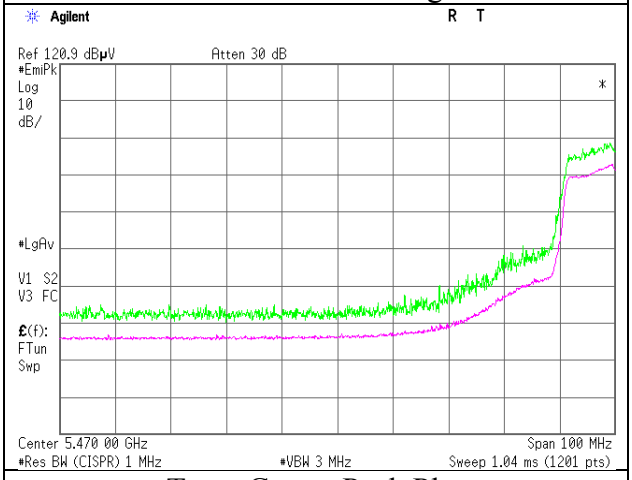
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	3	3	3
Date	September 18, 2017	September 19, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	23 deg. C / 63 % RH	22 deg. C / 63 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Hikaru Shirasawa	Yosuke Ishikawa	Yosuke Ishikawa	Hikaru Shirasawa	Hosaka Makoto
	(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				

(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.	11160.000	PK	46.98	40.12	8.11	39.13	2.47	58.55	73.90	15.3	150	1	
Hori.	16740.000	PK	45.75	39.68	10.45	38.11	-9.54	48.23	73.90	25.6	150	2	
Hori.	22320.000	PK	46.30	40.29	9.22	46.95	-9.54	39.32	73.90	34.5	125	344	
Hori.	11160.000	AV	36.52	40.12	8.11	39.13	2.47	48.09	53.90	**5.8**	150	1	VBW:3.9 kHz
Hori.	16740.000	AV	35.73	39.68	10.45	38.11	-9.54	38.21	53.90	15.6	150	2	VBW:3.9 kHz
Hori.	22320.000	AV	40.89	40.29	9.22	46.95	-9.54	33.91	53.90	19.9	125	344	VBW:3.9 kHz
Vert.	11160.000	PK	47.76	40.12	8.11	39.13	2.47	59.33	73.90	14.5	150	2	
Vert.	16740.000	PK	45.79	39.68	10.45	38.11	-9.54	48.27	73.90	25.6	150	1	
Vert.	22320.000	PK	47.23	40.29	9.22	46.95	-9.54	40.25	73.90	33.6	123	332	
Vert.	11160.000	AV	36.35	40.12	8.11	39.13	2.47	47.92	53.90	5.9	150	2	VBW:3.9 kHz
Vert.	16740.000	AV	35.44	39.68	10.45	38.11	-9.54	37.92	53.90	15.9	150	1	VBW:3.9 kHz
Vert.	22320.000	AV	40.50	40.29	9.22	46.95	-9.54	33.52	53.90	20.3	123	332	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
	(1 GHz – 6.4 GHz)
Mode	Tx 11n-20 5680 MHz

(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	53.75	32.35	16.72	41.29	2.47	64.00	-31.20	-27.00	**4.2**	153	340	
Vert.	5725.000	PK	53.06	32.35	16.72	41.29	2.47	63.31	-31.89	-27.00	4.9	100	349	

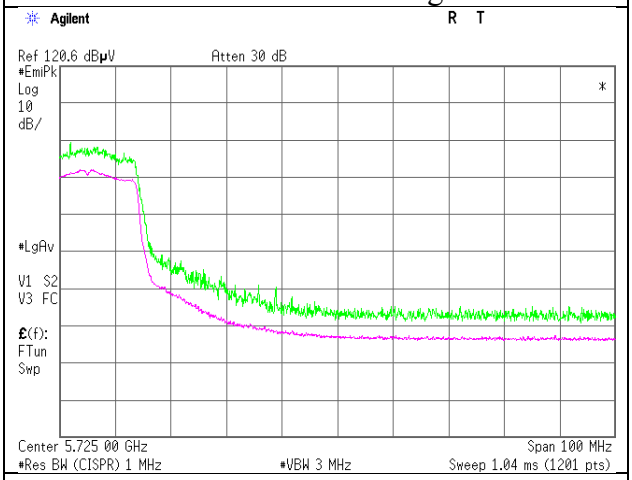
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5680 MHz

Horizontal

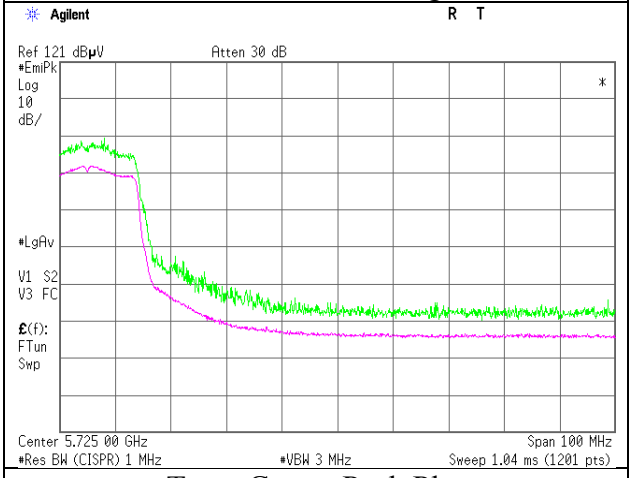
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	3	3	3
Date	September 12, 2017	September 16, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 56 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazuya Noda	Takahiro Suzuki	Yosuke Ishikawa	Hikaru Shirasawa	Hosaka Makoto
	(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				

(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.	5725.000	PK	59.91	32.35	16.72	41.29	2.47	70.16	73.90	3.7	129	342	
Hori.	11400.000	PK	46.64	40.13	8.08	39.06	2.47	58.26	73.90	15.6	150	0	
Hori.	17100.000	PK	46.39	40.92	10.47	38.03	-9.54	50.21	73.90	23.6	150	1	
Hori.	22800.000	PK	46.64	40.33	9.34	47.19	-9.54	39.58	73.90	34.3	126	336	
Hori.	5725.000	AV	42.40	32.35	16.72	41.29	2.47	52.65	53.90	1.2	129	342	VBW:3.9 kHz
Hori.	11400.000	AV	36.49	40.13	8.08	39.06	2.47	48.11	53.90	5.7	150	0	VBW:3.9 kHz
Hori.	17100.000	AV	35.66	40.92	10.47	38.03	-9.54	39.48	53.90	14.4	150	1	VBW:3.9 kHz
Hori.	22800.000	AV	38.82	40.33	9.34	47.19	-9.54	31.76	53.90	22.1	126	336	VBW:3.9 kHz
Vert.	5725.000	PK	60.59	32.35	16.72	41.29	2.47	70.84	73.90	3.0	129	342	
Vert.	11400.000	PK	47.11	40.13	8.08	39.06	2.47	58.73	73.90	15.1	150	0	
Vert.	17100.000	PK	46.22	40.92	10.47	38.03	-9.54	50.04	73.90	23.8	150	2	
Vert.	22800.000	PK	46.73	40.33	9.34	47.19	-9.54	39.67	73.90	34.2	122	327	
Vert.	5725.000	AV	42.67	32.35	16.72	41.29	2.47	52.92	53.90	**0.9**	129	342	VBW:3.9 kHz
Vert.	11400.000	AV	36.53	40.13	8.08	39.06	2.47	48.15	53.90	5.7	150	0	VBW:3.9 kHz
Vert.	17100.000	AV	35.74	40.92	10.47	38.03	-9.54	39.56	53.90	14.3	150	2	VBW:3.9 kHz
Vert.	22800.000	AV	38.68	40.33	9.34	47.19	-9.54	31.62	53.90	22.2	122	327	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

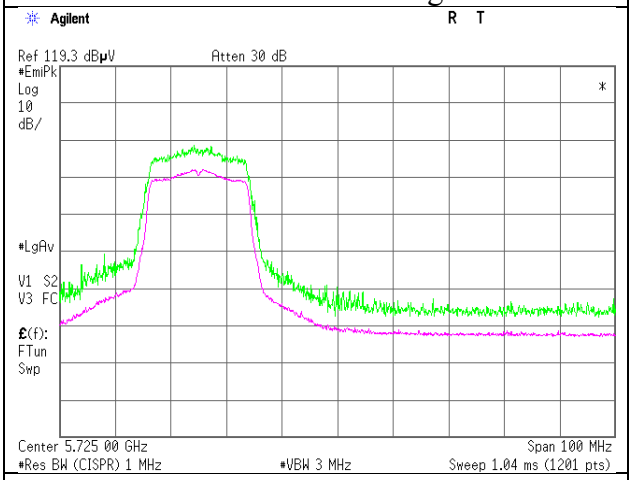
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-20 5700 MHz

Horizontal

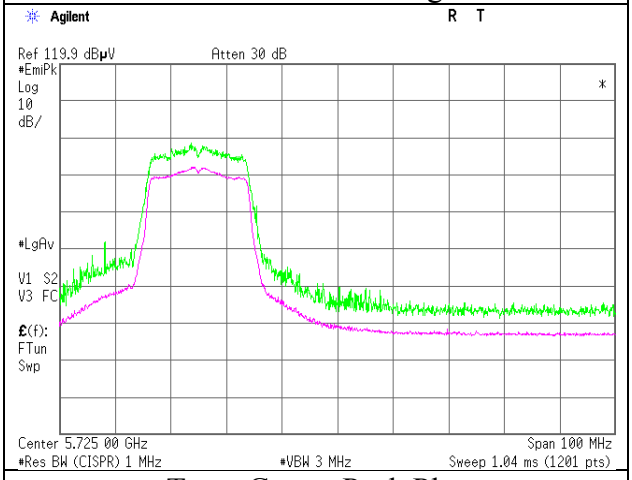
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	3	3	3
Date	October 19, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazutaka Takeyama (1 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11n-20 5745 MHz			

(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.	11490.000	PK	45.48	40.06	9.87	39.67	2.47	58.21	73.90	15.6	150	0	
Hori.	17235.000	PK	45.76	41.96	10.57	37.97	-9.54	50.78	73.90	23.1	150	2	
Hori.	22980.000	PK	47.81	40.35	9.42	47.21	-9.54	40.83	73.90	33.0	126	342	
Hori.	11490.000	AV	36.18	40.06	9.87	39.67	2.47	48.91	53.90	4.9	150	0	VBW:3.9 kHz
Hori.	17235.000	AV	35.70	41.96	10.57	37.97	-9.54	40.72	53.90	13.1	150	2	VBW:3.9 kHz
Hori.	22980.000	AV	41.91	40.35	9.42	47.21	-9.54	34.93	53.90	18.9	126	342	VBW:3.9 kHz
Vert.	11490.000	PK	45.48	40.06	9.87	39.67	2.47	58.21	73.90	15.6	150	0	
Vert.	17235.000	PK	45.78	41.96	10.57	37.97	-9.54	50.80	73.90	23.1	150	1	
Vert.	22980.000	PK	48.15	40.35	9.42	47.21	-9.54	41.17	73.90	32.7	118	327	
Vert.	11490.000	AV	36.56	40.06	9.87	39.67	2.47	49.29	53.90	**4.6**	150	0	VBW:3.9 kHz
Vert.	17235.000	AV	35.79	41.96	10.57	37.97	-9.54	40.81	53.90	13.0	150	1	VBW:3.9 kHz
Vert.	22980.000	AV	41.20	40.35	9.42	47.21	-9.54	34.22	53.90	19.6	118	327	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 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	47.02	32.22	16.66	41.36	2.47	57.01	-38.19	-27.00	11.2	121	333	
Hori.	5700.000	PK	49.53	32.31	16.70	41.31	2.47	59.70	-35.50	10.00	45.5	121	333	
Hori.	5720.000	PK	58.46	32.34	16.72	41.29	2.47	68.70	-26.50	15.60	42.1	121	333	
Hori.	5725.000	PK	62.91	32.35	16.72	41.29	2.47	73.16	-22.04	27.00	49.0	121	333	
Vert.	5650.000	PK	47.69	32.22	16.66	41.36	2.47	57.68	-37.52	-27.00	**10.5**	124	354	
Vert.	5700.000	PK	49.41	32.31	16.70	41.31	2.47	59.58	-35.62	10.00	45.6	124	354	
Vert.	5720.000	PK	60.21	32.34	16.72	41.29	2.47	70.45	-24.75	15.60	40.4	124	354	
Vert.	5725.000	PK	61.57	32.35	16.72	41.29	2.47	71.82	-23.38	27.00	50.4	124	354	

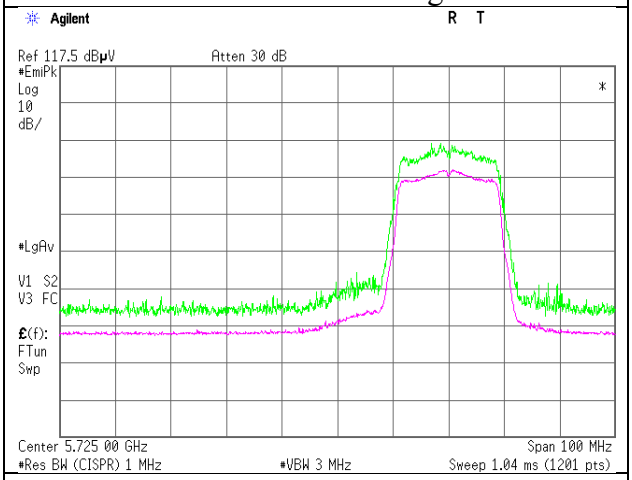
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG ({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n-20 5745 MHz

Horizontal

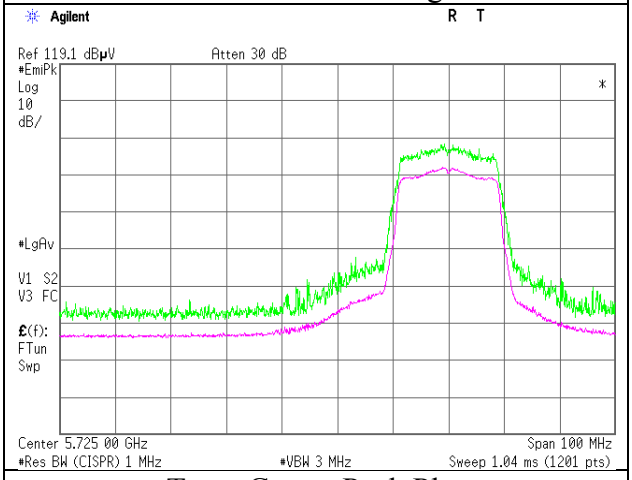
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	3	3	3
Date	September 14, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	22 deg. C / 63 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Hikaru Shirasawa	Hosaka Makoto
	(1 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11n-20 5785 MHz			

(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.	11570.000	PK	45.24	39.93	9.92	39.73	2.47	57.83	73.90	16.0	150	0	
Hori.	17355.000	PK	46.34	42.88	10.67	37.92	-9.54	52.43	73.90	21.4	150	2	
Hori.	23140.000	PK	46.55	40.33	9.46	47.28	-9.54	39.52	73.90	34.3	126	338	
Hori.	11570.000	AV	35.23	39.93	9.92	39.73	2.47	47.82	53.90	6.0	150	0	VBW:3.9 kHz
Hori.	17355.000	AV	35.94	42.88	10.67	37.92	-9.54	42.03	53.90	11.8	150	2	VBW:3.9 kHz
Hori.	23140.000	AV	39.89	40.33	9.46	47.28	-9.54	32.86	53.90	21.0	126	338	VBW:3.9 kHz
Vert.	11570.000	PK	44.88	39.93	9.92	39.73	2.47	57.47	73.90	16.4	150	0	
Vert.	17355.000	PK	46.37	42.88	10.67	37.92	-9.54	52.46	73.90	21.4	150	1	
Vert.	23140.000	PK	47.46	40.33	9.46	47.28	-9.54	40.43	73.90	33.4	124	337	
Vert.	11570.000	AV	35.65	39.93	9.92	39.73	2.47	48.24	53.90	**5.6**	150	0	VBW:3.9 kHz
Vert.	17355.000	AV	35.73	42.88	10.67	37.92	-9.54	41.82	53.90	12.0	150	1	VBW:3.9 kHz
Vert.	23140.000	AV	39.94	40.33	9.46	47.28	-9.54	32.91	53.90	20.9	124	337	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	3	3	3
Date	October 19, 2017	September 20, 2017	September 17, 2017	September 26, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 52 % RH	24 deg. C / 61 % RH	22 deg. C / 56 % RH
Engineer	Kazutaka Takeyama (1 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Hikaru Shirasawa (18 GHz – 26 GHz)	Hosaka Makoto (26 GHz – 40 GHz)
Mode	Tx 11n-20 5825 MHz			

(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.	11650.000	PK	45.08	39.78	9.95	39.82	2.47	57.46	73.90	16.4	150	0	
Hori.	17475.000	PK	45.51	43.80	10.76	37.87	-9.54	52.66	73.90	21.2	150	1	
Hori.	23300.000	PK	46.06	40.31	9.51	47.35	-9.54	38.99	73.90	34.9	123	341	
Hori.	11650.000	AV	35.85	39.78	9.95	39.82	2.47	48.23	53.90	**5.6**	150	0	VBW:3.9 kHz
Hori.	17475.000	AV	35.25	43.80	10.76	37.87	-9.54	42.40	53.90	11.5	150	1	VBW:3.9 kHz
Hori.	23300.000	AV	41.00	40.31	9.51	47.35	-9.54	33.93	53.90	19.9	123	341	VBW:3.9 kHz
Vert.	11650.000	PK	45.07	39.78	9.95	39.82	2.47	57.45	73.90	16.4	150	0	
Vert.	17475.000	PK	45.86	43.80	10.76	37.87	-9.54	53.01	73.90	20.8	150	2	
Vert.	23300.000	PK	46.80	40.31	9.51	47.35	-9.54	39.73	73.90	34.1	123	333	
Vert.	11650.000	AV	35.61	39.78	9.95	39.82	2.47	47.99	53.90	5.9	150	0	VBW:3.9 kHz
Vert.	17475.000	AV	35.30	43.80	10.76	37.87	-9.54	42.45	53.90	11.4	150	2	VBW:3.9 kHz
Vert.	23300.000	AV	39.67	40.31	9.51	47.35	-9.54	32.60	53.90	21.3	123	333	VBW:3.9 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 (3.99 m / 3.0 m) = 2.47 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	59.25	32.57	16.83	41.16	2.47	69.96	-25.24	27.00	52.2	127	335	
Hori.	5855.000	PK	55.76	32.58	16.83	41.16	2.47	66.48	-28.72	15.60	44.3	127	335	
Hori.	5875.000	PK	48.37	32.61	16.86	41.14	2.47	59.17	-36.03	10.00	46.0	127	335	
Hori.	5925.000	PK	47.25	32.70	16.88	41.09	2.47	58.21	-36.99	-27.00	**10.0**	127	335	
Vert.	5850.000	PK	55.73	32.57	16.83	41.16	2.47	66.44	-28.76	27.00	55.8	103	352	
Vert.	5855.000	PK	54.46	32.58	16.83	41.16	2.47	65.18	-30.02	15.60	45.6	103	352	
Vert.	5875.000	PK	47.59	32.61	16.86	41.14	2.47	58.39	-36.81	10.00	46.8	103	352	
Vert.	5925.000	PK	46.92	32.70	16.88	41.09	2.47	57.88	-37.32	-27.00	10.3	103	352	

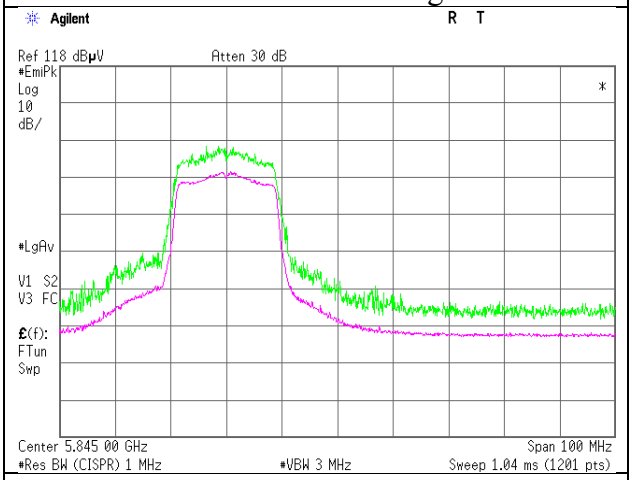
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n-20 5825 MHz

Horizontal

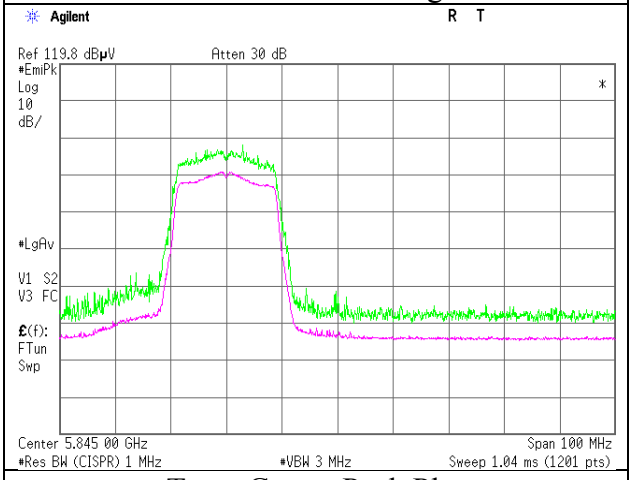
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	2	2
Date	September 12, 2017	September 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 63 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Yosuke Ishikawa	Shiro Kobayashi
	(1 GHz – 6.4 GHz)	(6.4 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-20 5180 MHz				

(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	59.34	31.69	16.34	41.57	2.47	68.27	73.90	5.6	163	339	
Hori.	10360.000	PK	46.14	39.68	7.75	38.69	2.47	57.35	73.90	16.5	150	2	
Hori.	15540.000	PK	46.87	39.15	11.90	38.73	-9.54	49.65	73.90	24.2	150	2	
Hori.	20720.590	PK	46.81	39.82	14.08	47.11	-9.54	44.06	73.90	29.8	138	62	
Hori.	25900.000	PK	45.84	40.00	16.39	47.42	-9.54	45.27	73.90	28.6	150	1	
Hori.	5150.000	AV	42.47	31.69	16.34	41.57	2.47	51.40	53.90	2.5	163	339	VBW:5.6 kHz
Hori.	10360.000	AV	36.24	39.68	7.75	38.69	2.47	47.45	53.90	6.4	150	2	VBW:5.6 kHz
Hori.	15540.000	AV	36.19	39.15	11.90	38.73	-9.54	38.97	53.90	14.9	150	2	VBW:5.6 kHz
Hori.	20720.590	AV	38.62	39.82	14.08	47.11	-9.54	35.87	53.90	18.0	138	62	VBW:5.6 kHz
Hori.	25900.000	AV	35.47	40.00	16.39	47.42	-9.54	34.90	53.90	19.0	150	1	VBW:5.6 kHz
Vert.	5150.000	PK	59.97	31.69	16.34	41.57	2.47	68.90	73.90	5.0	105	309	
Vert.	10360.000	PK	46.32	39.68	7.75	38.69	2.47	57.53	73.90	16.3	150	1	
Vert.	15540.000	PK	47.03	39.15	11.90	38.73	-9.54	49.81	73.90	24.0	150	1	
Vert.	20720.580	PK	47.12	39.82	14.08	47.11	-9.54	44.37	73.90	29.5	141	61	
Vert.	25900.000	PK	45.50	40.00	16.39	47.42	-9.54	44.93	73.90	28.9	150	1	
Vert.	5150.000	AV	42.84	31.69	16.34	41.57	2.47	51.77	53.90	**2.1**	105	309	VBW:5.6 kHz
Vert.	10360.000	AV	36.44	39.68	7.75	38.69	2.47	47.65	53.90	6.2	150	1	VBW:5.6 kHz
Vert.	15540.000	AV	35.99	39.15	11.90	38.73	-9.54	38.77	53.90	15.1	150	1	VBW:5.6 kHz
Vert.	20720.580	AV	40.49	39.82	14.08	47.11	-9.54	37.74	53.90	16.1	141	61	VBW:5.6 kHz
Vert.	25900.000	AV	35.89	40.00	16.39	47.42	-9.54	35.32	53.90	18.5	150	1	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 (3.99 m / 3.0 m) = 2.47 dB

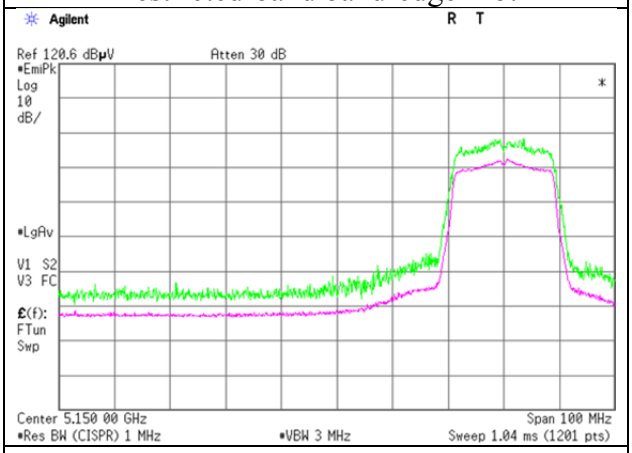
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-20 5180 MHz

Horizontal

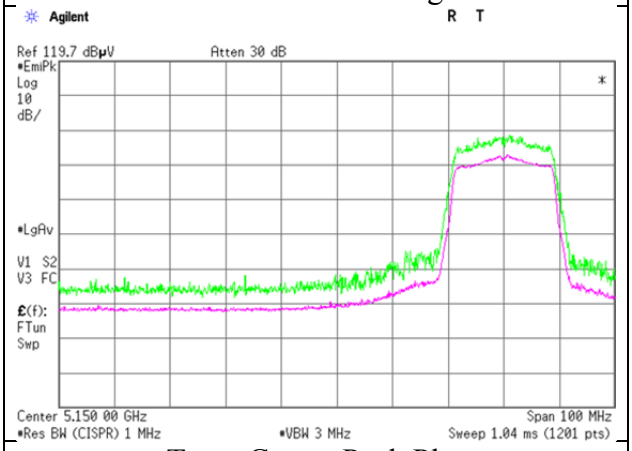
Restricted-band band-edge Plot



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.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
	(1 GHz – 6.4 GHz)
Mode	Tx 11ac-20 5200 MHz

(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	54.12	31.69	16.34	41.57	2.47	63.05	73.90	10.8	155	343	
Hori.	5150.000	AV	40.95	31.69	16.34	41.57	2.47	49.88	53.90	4.0	155	343	VBW:5.6 kHz
Vert.	5150.000	PK	55.73	31.69	16.34	41.57	2.47	64.66	73.90	9.2	103	196	
Vert.	5150.000	AV	42.05	31.69	16.34	41.57	2.47	50.98	53.90	**2.9**	103	196	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 (3.99 m / 3.0 m) = 2.47 dB

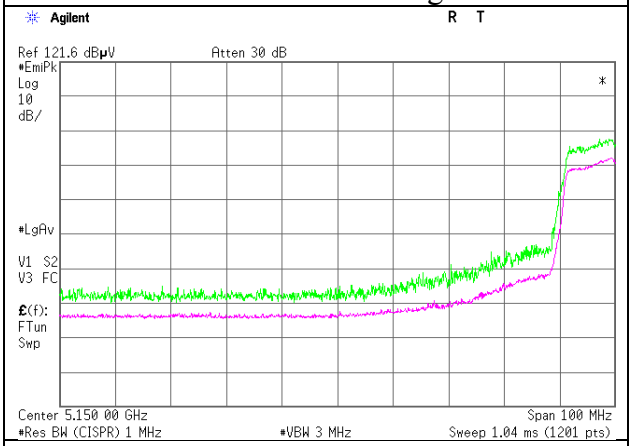
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 12, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-20 5200 MHz

Horizontal

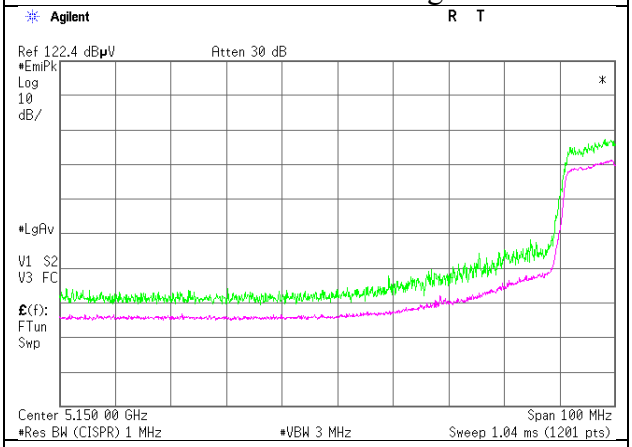
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	2	2
Date	September 18, 2017	September 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	23 deg. C / 63 % RH	22 deg. C / 63 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Hikaru Shirasawa	Yosuke Ishikawa	Yosuke Ishikawa	Yosuke Ishikawa	Shiro Kobayashi
	(1 GHz – 6.4 GHz)	(6.4 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-20 5240 MHz				

(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.	10480.000	PK	46.72	39.88	7.74	38.60	2.47	58.21	73.90	15.6	150	2	
Hori.	15720.000	PK	46.71	38.53	11.98	38.57	-9.54	49.11	73.90	24.7	150	2	
Hori.	20960.590	PK	45.02	39.77	14.10	47.10	-9.54	42.25	73.90	31.6	135	62	
Hori.	26200.000	PK	44.89	39.98	16.53	47.77	-9.54	44.09	73.90	29.8	150	1	
Hori.	10480.000	AV	36.92	39.88	7.74	38.60	2.47	48.41	53.90	**5.4**	150	2	VBW:5.6 kHz
Hori.	15720.000	AV	36.78	38.53	11.98	38.57	-9.54	39.18	53.90	14.7	150	2	VBW:5.6 kHz
Hori.	20960.590	AV	37.34	39.77	14.10	47.10	-9.54	34.57	53.90	19.3	135	62	VBW:5.6 kHz
Hori.	26200.000	AV	34.82	39.98	16.53	47.77	-9.54	34.02	53.90	19.8	150	1	VBW:5.6 kHz
Vert.	10480.000	PK	46.88	39.88	7.74	38.60	2.47	58.37	73.90	15.5	150	1	
Vert.	15720.000	PK	46.92	38.53	11.98	38.57	-9.54	49.32	73.90	24.5	150	1	
Vert.	20960.590	PK	45.81	39.77	14.10	47.10	-9.54	43.04	73.90	30.8	141	61	
Vert.	26200.000	PK	45.01	39.98	16.53	47.77	-9.54	44.21	73.90	29.6	150	1	
Vert.	10480.000	AV	36.71	39.88	7.74	38.60	2.47	48.20	53.90	5.7	150	1	VBW:5.6 kHz
Vert.	15720.000	AV	36.75	38.53	11.98	38.57	-9.54	39.15	53.90	14.7	150	1	VBW:5.6 kHz
Vert.	20960.590	AV	38.05	39.77	14.10	47.10	-9.54	35.28	53.90	18.6	141	61	VBW:5.6 kHz
Vert.	26200.000	AV	35.26	39.98	16.53	47.77	-9.54	34.46	53.90	19.4	150	1	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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)
Mode	Tx 11ac-20 5300 MHz

(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	53.74	31.84	16.45	41.53	2.47	62.97	73.90	10.9	156	341	
Hori.	5350.000	AV	39.62	31.84	16.45	41.53	2.47	48.85	53.90	**5.0**	156	341	VBW:5.6 kHz
Vert.	5350.000	PK	53.36	31.84	16.45	41.53	2.47	62.59	73.90	11.3	119	294	
Vert.	5350.000	AV	39.55	31.84	16.45	41.53	2.47	48.78	53.90	5.1	119	294	VBW:5.6 kHz

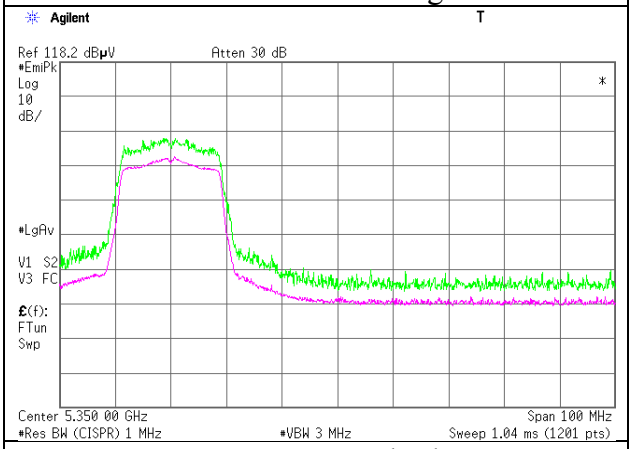
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
*Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).
*The 4th harmonic was not seen so the result was its base noise level.
Distance factor : 1 GHz - 13 GHz : 20log (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 5300 MHz

Horizontal

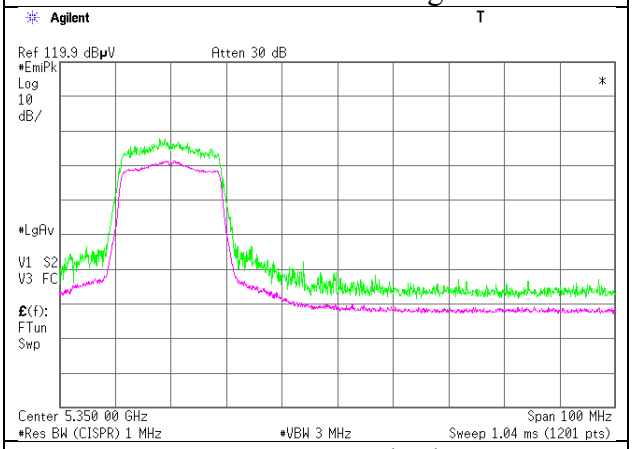
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	2	2
Date	September 14, 2017	September 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	22 deg. C / 63 % RH	22 deg. C / 63 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Yosuke Ishikawa	Shiro Kobayashi
	(1 GHz – 6.4 GHz)	(6.4 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-20 5320 MHz				

(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	54.58	31.84	16.45	41.53	2.47	63.81	73.90	10.0	147	15	
Hori.	10640.000	PK	45.49	39.97	7.84	38.75	2.47	57.02	73.90	16.8	150	1	
Hori.	15960.000	PK	45.58	37.72	12.08	38.35	-9.54	47.49	73.90	26.4	150	2	
Hori.	21280.580	PK	47.43	39.82	14.25	47.25	-9.54	44.71	73.90	29.1	138	60	
Hori.	5350.000	AV	40.31	31.84	16.45	41.53	2.47	49.54	53.90	4.3	147	15	VBW:5.6 kHz
Hori.	10640.000	AV	35.55	39.97	7.84	38.75	2.47	47.08	53.90	6.8	150	1	VBW:5.6 kHz
Hori.	15960.000	AV	35.71	37.72	12.08	38.35	-9.54	37.62	53.90	16.2	150	2	VBW:5.6 kHz
Hori.	21280.580	AV	37.92	39.82	14.25	47.25	-9.54	35.20	53.90	18.7	138	60	VBW:5.6 kHz
Vert.	5350.000	PK	59.67	31.84	16.45	41.53	2.47	68.90	73.90	5.0	119	282	
Vert.	10640.000	PK	45.52	39.97	7.84	38.75	2.47	57.05	73.90	16.8	150	1	
Vert.	15960.000	PK	45.51	37.72	12.08	38.35	-9.54	47.42	73.90	26.4	150	1	
Vert.	21280.580	PK	48.43	39.82	14.25	47.25	-9.54	45.71	73.90	28.1	140	61	
Vert.	5350.000	AV	40.52	31.84	16.45	41.53	2.47	49.75	53.90	**4.1**	119	282	VBW:5.6 kHz
Vert.	10640.000	AV	35.26	39.97	7.84	38.75	2.47	46.79	53.90	7.1	150	1	VBW:5.6 kHz
Vert.	15960.000	AV	35.96	37.72	12.08	38.35	-9.54	37.87	53.90	16.0	150	1	VBW:5.6 kHz
Vert.	21280.580	AV	40.12	39.82	14.25	47.25	-9.54	37.40	53.90	16.5	140	61	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 (3.99 m / 3.0 m) = 2.47 dB

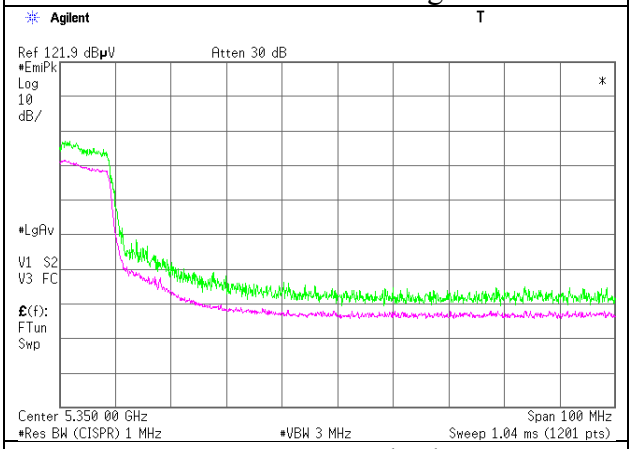
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	22 deg. C / 63 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-20 5320 MHz

Horizontal

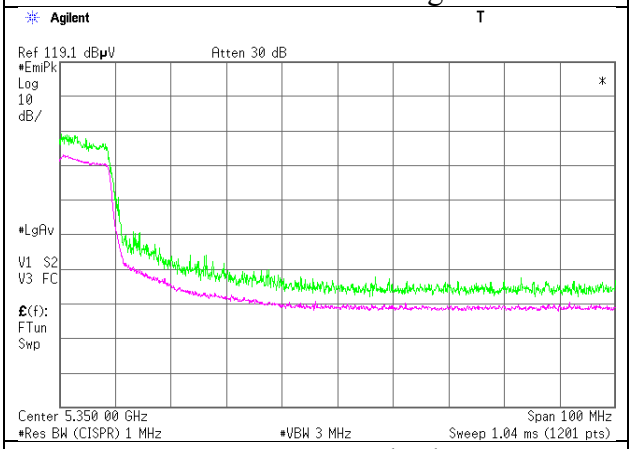
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	2	2
Date	September 14, 2017	September 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	22 deg. C / 63 % RH	22 deg. C / 63 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Yosuke Ishikawa	Shiro Kobayashi
	(1 GHz – 6.4 GHz)	(6.4 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-20 5500 MHz				

(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	50.23	31.93	16.51	41.52	2.47	59.62	73.90	14.2	152	347	
Hori.	11000.000	PK	46.19	40.11	8.13	39.18	2.47	57.72	73.90	16.1	150	1	
Hori.	16500.000	PK	46.18	38.80	12.50	38.14	-9.54	49.80	73.90	24.1	150	2	
Hori.	22000.510	PK	44.03	39.99	14.99	47.72	-9.54	41.75	73.90	32.1	136	61	
Hori.	5460.000	AV	38.27	31.93	16.51	41.52	2.47	47.66	53.90	6.2	152	347	VBW:5.6 kHz
Hori.	11000.000	AV	36.20	40.11	8.13	39.18	2.47	47.73	53.90	6.1	150	1	VBW:5.6 kHz
Hori.	16500.000	AV	36.33	38.80	12.50	38.14	-9.54	39.95	53.90	13.9	150	2	VBW:5.6 kHz
Hori.	22000.510	AV	35.04	39.99	14.99	47.72	-9.54	32.76	53.90	21.1	136	61	VBW:5.6 kHz
Vert.	5460.000	PK	49.67	31.93	16.51	41.52	2.47	59.06	73.90	14.8	134	284	
Vert.	11000.000	PK	46.23	40.11	8.13	39.18	2.47	57.76	73.90	16.1	150	1	
Vert.	16500.000	PK	46.04	38.80	12.50	38.14	-9.54	49.66	73.90	24.2	150	1	
Vert.	22000.520	PK	44.42	39.99	14.99	47.72	-9.54	42.14	73.90	31.7	139	61	
Vert.	5460.000	AV	38.21	31.93	16.51	41.52	2.47	47.60	53.90	6.3	134	284	VBW:5.6 kHz
Vert.	11000.000	AV	36.58	40.11	8.13	39.18	2.47	48.11	53.90	**5.7**	150	1	VBW:5.6 kHz
Vert.	16500.000	AV	36.28	38.80	12.50	38.14	-9.54	39.90	53.90	14.0	150	1	VBW:5.6 kHz
Vert.	22000.520	AV	35.24	39.99	14.99	47.72	-9.54	32.96	53.90	20.9	139	61	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 (3.99 m / 3.0 m) = 2.47 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	57.35	31.94	16.51	41.51	2.47	66.76	-28.44	-27.00	1.4	152	347	
Vert.	5470.000	PK	58.27	31.94	16.51	41.51	2.47	67.68	-27.52	-27.00	**0.5**	134	284	

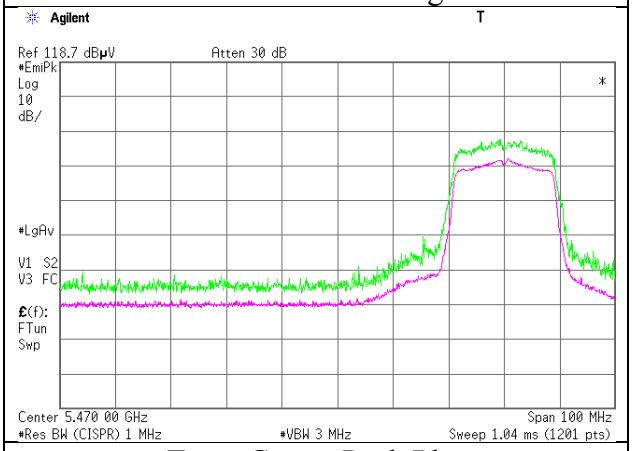
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	22 deg. C / 63 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-20 5500 MHz

Horizontal

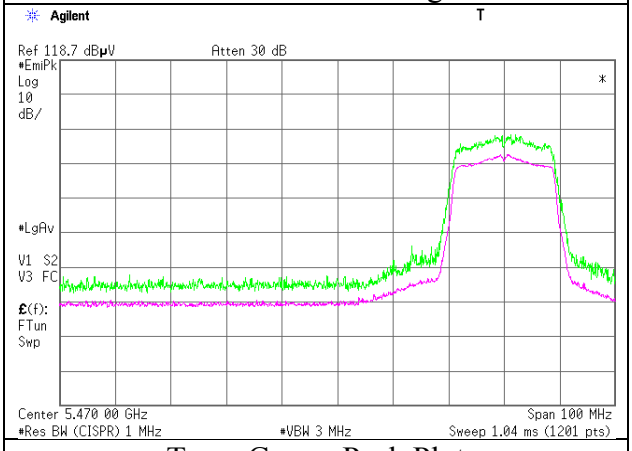
Restricted-band band-edge Plot



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.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)
Mode	Tx 11ac-20 5520 MHz

(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	47.53	31.93	16.51	41.52	2.47	56.92	73.90	16.9	137	338	
Hori.	5460.000	AV	37.21	31.93	16.51	41.52	2.47	46.60	53.90	7.3	137	338	VBW:5.6 kHz
Vert.	5460.000	PK	47.63	31.93	16.51	41.52	2.47	57.02	73.90	16.8	125	284	
Vert.	5460.000	AV	37.25	31.93	16.51	41.52	2.47	46.64	53.90	**7.2**	125	284	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 (3.99 m / 3.0 m) = 2.47 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	49.11	31.94	16.51	41.51	2.47	58.52	-36.68	-27.00	9.7	137	338	
Vert.	5470.000	PK	50.41	31.94	16.51	41.51	2.47	59.82	-35.38	-27.00	**8.4**	125	284	

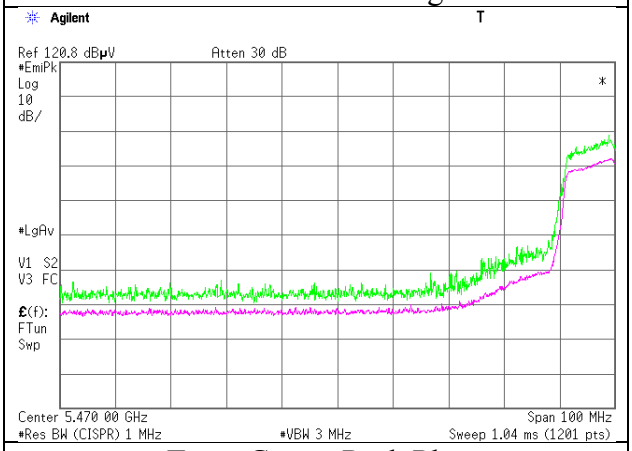
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 5520 MHz

Horizontal

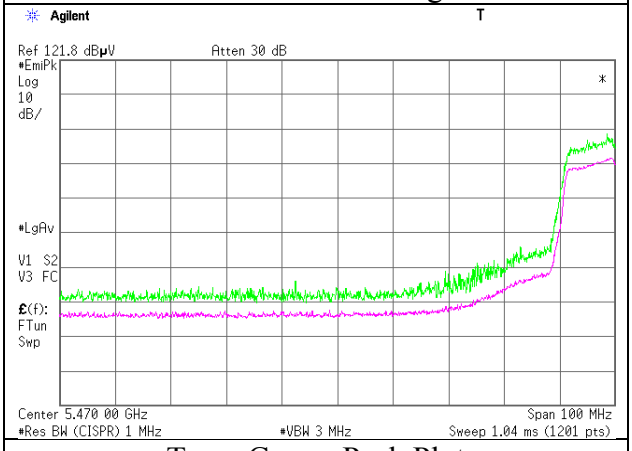
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	2	2
Date	September 18, 2017	September 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	23 deg. C / 63 % RH	22 deg. C / 63 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Hikaru Shirasawa (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Yosuke Ishikawa (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-20 5580 MHz				

(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.	11160.000	PK	47.34	40.12	8.11	39.13	2.47	58.91	73.90	14.9	150	1	
Hori.	16740.000	PK	45.55	39.39	12.57	38.11	-9.54	49.86	73.90	24.0	150	1	
Hori.	22320.670	PK	44.48	39.97	15.06	48.16	-9.54	41.81	73.90	32.0	138	61	
Hori.	11160.000	AV	37.21	40.12	8.11	39.13	2.47	48.78	53.90	**5.1**	150	1	VBW:5.6 kHz
Hori.	16740.000	AV	35.60	39.39	12.57	38.11	-9.54	39.91	53.90	13.9	150	1	VBW:5.6 kHz
Hori.	22320.670	AV	35.78	39.97	15.06	48.16	-9.54	33.11	53.90	20.7	138	61	VBW:5.6 kHz
Vert.	11160.000	PK	47.23	40.12	8.11	39.13	2.47	58.80	73.90	15.1	150	1	
Vert.	16740.000	PK	45.63	39.39	12.57	38.11	-9.54	49.94	73.90	23.9	150	2	
Vert.	22320.680	PK	45.25	39.97	15.06	48.16	-9.54	42.58	73.90	31.3	140	60	
Vert.	11160.000	AV	37.13	40.12	8.11	39.13	2.47	48.70	53.90	5.2	150	1	VBW:5.6 kHz
Vert.	16740.000	AV	35.62	39.39	12.57	38.11	-9.54	39.93	53.90	13.9	150	2	VBW:5.6 kHz
Vert.	22320.680	AV	36.12	39.97	15.06	48.16	-9.54	33.45	53.90	20.4	140	60	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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)
Mode	Tx 11ac-20 5680 MHz

(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	51.85	32.35	16.72	41.29	2.47	62.10	-33.10	-27.00	6.1	137	339	
Vert.	5725.000	PK	52.18	32.35	16.72	41.29	2.47	62.43	-32.77	-27.00	**5.8**	142	282	

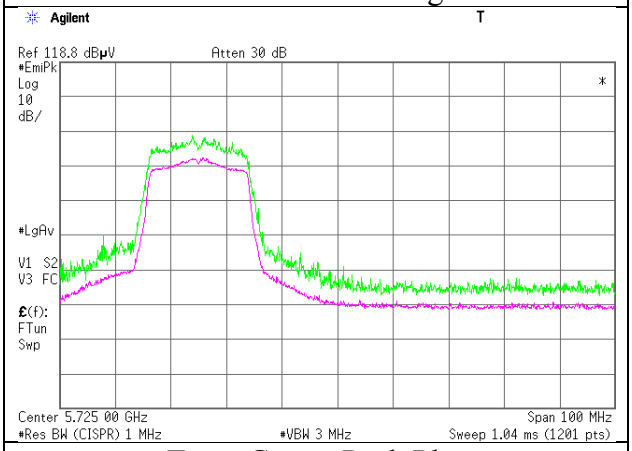
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 5680 MHz

Horizontal

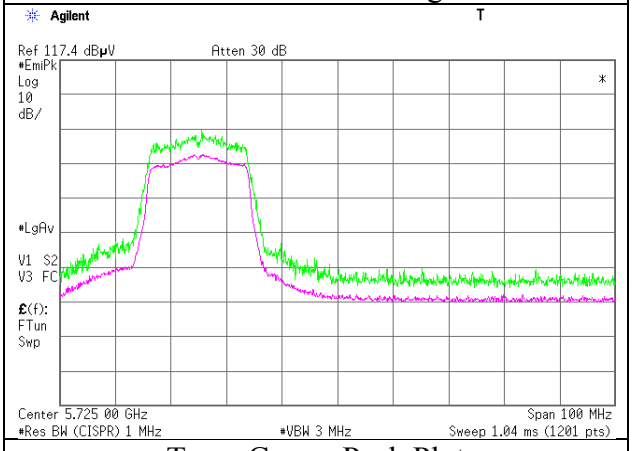
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	2	2
Date	September 14, 2017	September 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 61 % RH	22 deg. C / 63 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Yosuke Ishikawa (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-20 5700 MHz				

(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.	5725.000	PK	59.32	32.35	16.72	41.29	2.47	69.57	73.90	4.3	143	347	
Hori.	11400.000	PK	45.53	40.13	8.08	39.06	2.47	57.15	73.90	16.7	150	1	
Hori.	17100.000	PK	45.77	40.92	12.68	38.03	-9.54	51.80	73.90	22.1	150	2	
Hori.	22800.600	PK	45.07	39.94	15.10	48.08	-9.54	42.49	73.90	31.4	140	42	
Hori.	5725.000	AV	40.25	32.35	16.72	41.29	2.47	50.50	53.90	**3.4**	143	347	VBW:5.6 kHz
Hori.	11400.000	AV	36.27	40.13	8.08	39.06	2.47	47.89	53.90	6.0	150	1	VBW:5.6 kHz
Hori.	17100.000	AV	35.62	40.92	12.68	38.03	-9.54	41.65	53.90	12.2	150	2	VBW:5.6 kHz
Hori.	22800.600	AV	35.77	39.94	15.10	48.08	-9.54	33.19	53.90	20.7	140	42	VBW:5.6 kHz
Vert.	5725.000	PK	58.68	32.35	16.72	41.29	2.47	68.93	73.90	4.9	140	314	
Vert.	11400.000	PK	45.44	40.13	8.08	39.06	2.47	57.06	73.90	16.8	150	2	
Vert.	17100.000	PK	45.87	40.92	12.68	38.03	-9.54	51.90	73.90	22.0	150	1	
Vert.	22800.570	PK	45.84	39.94	15.10	48.08	-9.54	43.26	73.90	30.6	137	41	
Vert.	5725.000	AV	40.20	32.35	16.72	41.29	2.47	50.45	53.90	**3.4**	140	314	VBW:5.6 kHz
Vert.	11400.000	AV	36.20	40.13	8.08	39.06	2.47	47.82	53.90	6.0	150	2	VBW:5.6 kHz
Vert.	17100.000	AV	35.56	40.92	12.68	38.03	-9.54	41.59	53.90	12.3	150	1	VBW:5.6 kHz
Vert.	22800.570	AV	35.97	39.94	15.10	48.08	-9.54	33.39	53.90	20.5	137	41	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 (3.99 m / 3.0 m) = 2.47 dB

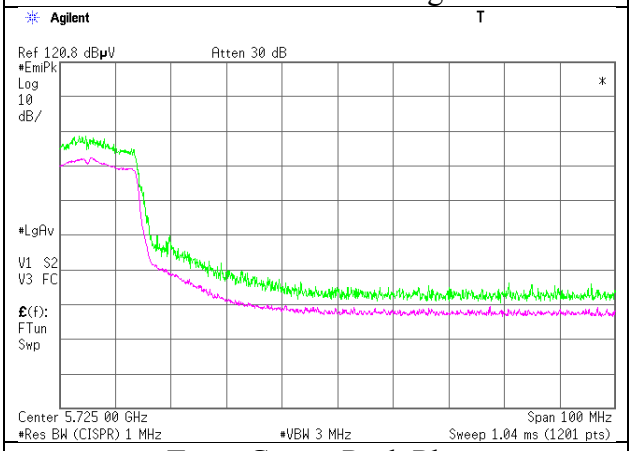
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-20 5700 MHz

Horizontal

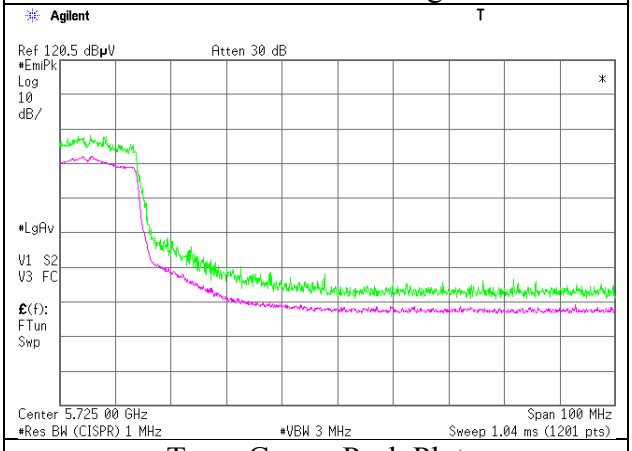
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	2	2	2
Date	October 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Kazutaka Takeyama	Yosuke Ishikawa	Yosuke Ishikawa	Shiro Kobayashi
	(1 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-20 5745 MHz			

(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.	11490.000	PK	45.95	40.06	9.87	39.67	2.47	58.68	73.90	15.2	150	0	
Hori.	17235.000	PK	45.23	42.13	12.73	37.97	-9.54	52.58	73.90	21.3	150	2	
Hori.	22980.700	PK	45.32	39.93	15.11	47.88	-9.54	42.94	73.90	30.9	138	52	
Hori.	11490.000	AV	36.34	40.06	9.87	39.67	2.47	49.07	53.90	**4.8**	150	0	VBW:5.6 kHz
Hori.	17235.000	AV	35.89	42.13	12.73	37.97	-9.54	43.24	53.90	10.6	150	2	VBW:5.6 kHz
Hori.	22980.700	AV	36.16	39.93	15.11	47.88	-9.54	33.78	53.90	20.1	138	52	VBW:5.6 kHz
Vert.	11490.000	PK	45.85	40.06	9.87	39.67	2.47	58.58	73.90	15.3	150	0	
Vert.	17235.000	PK	45.71	42.13	12.73	37.97	-9.54	53.06	73.90	20.8	150	1	
Vert.	22980.720	PK	47.31	39.93	15.11	47.88	-9.54	44.93	73.90	28.9	135	49	
Vert.	11490.000	AV	36.22	40.06	9.87	39.67	2.47	48.95	53.90	4.9	150	0	VBW:5.6 kHz
Vert.	17235.000	AV	36.05	42.13	12.73	37.97	-9.54	43.40	53.90	10.5	150	1	VBW:5.6 kHz
Vert.	22980.720	AV	38.17	39.93	15.11	47.88	-9.54	35.79	53.90	18.1	135	49	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 (3.99 m / 3.0 m) = 2.47 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	47.02	32.22	16.66	41.36	2.47	57.01	-38.19	-27.00	11.2	121	333	
Hori.	5700.000	PK	49.53	32.31	16.70	41.31	2.47	59.70	-35.50	10.00	45.5	121	333	
Hori.	5720.000	PK	58.46	32.34	16.72	41.29	2.47	68.70	-26.50	15.60	42.1	121	333	
Hori.	5725.000	PK	62.91	32.35	16.72	41.29	2.47	73.16	-22.04	27.00	49.0	121	333	
Vert.	5650.000	PK	47.69	32.22	16.66	41.36	2.47	57.68	-37.52	-27.00	**10.5**	124	354	
Vert.	5700.000	PK	49.41	32.31	16.70	41.31	2.47	59.58	-35.62	10.00	45.6	124	354	
Vert.	5720.000	PK	60.21	32.34	16.72	41.29	2.47	70.45	-24.75	15.60	40.4	124	354	
Vert.	5725.000	PK	61.57	32.35	16.72	41.29	2.47	71.82	-23.38	27.00	50.4	124	354	

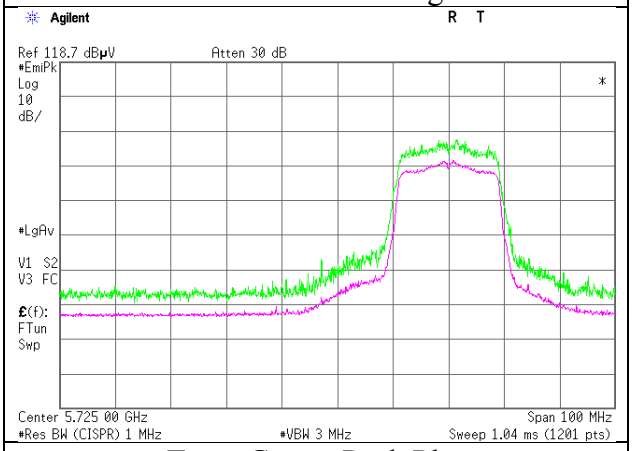
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac-20 5745 MHz

Horizontal

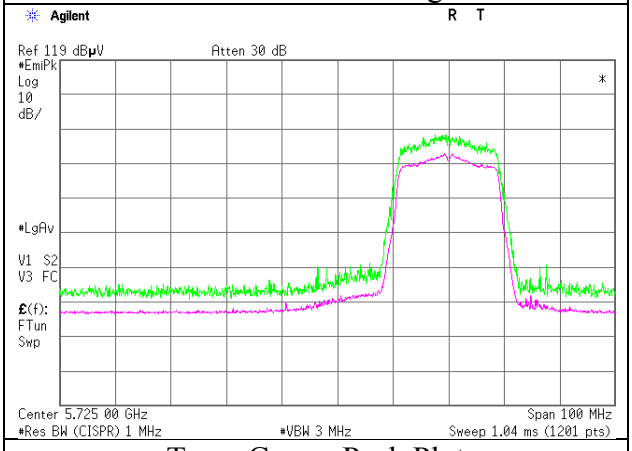
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	3	2	2	2
Date	September 15, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 65 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda (1 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Yosuke Ishikawa (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-20 5785 MHz			

(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.	11570.000	PK	44.74	39.93	9.92	39.73	2.47	57.33	73.90	16.5	150	0	
Hori.	17355.000	PK	45.70	43.21	12.78	37.92	-9.54	54.23	73.90	19.6	150	1	
Hori.	23140.590	PK	45.60	39.91	15.20	47.72	-9.54	43.45	73.90	30.4	138	64	
Hori.	11570.000	AV	35.94	39.93	9.92	39.73	2.47	48.53	53.90	**5.3**	150	0	VBW:5.6 kHz
Hori.	17355.000	AV	35.66	43.21	12.78	37.92	-9.54	44.19	53.90	9.7	150	1	VBW:5.6 kHz
Hori.	23140.590	AV	36.06	39.91	15.20	47.72	-9.54	33.91	53.90	19.9	138	64	VBW:5.6 kHz
Vert.	11570.000	PK	44.28	39.93	9.92	39.73	2.47	56.87	73.90	17.0	150	0	
Vert.	17355.000	PK	45.90	43.21	12.78	37.92	-9.54	54.43	73.90	19.4	150	2	
Vert.	23140.600	PK	45.61	39.91	15.20	47.72	-9.54	43.46	73.90	30.4	139	48	
Vert.	11570.000	AV	35.77	39.93	9.92	39.73	2.47	48.36	53.90	5.5	150	0	VBW:5.6 kHz
Vert.	17355.000	AV	35.80	43.21	12.78	37.92	-9.54	44.33	53.90	9.5	150	2	VBW:5.6 kHz
Vert.	23140.600	AV	35.84	39.91	15.20	47.72	-9.54	33.69	53.90	20.2	139	48	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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	2	2	2
Date	October 19, 2017	September 21, 2017	September 22, 2017	September 27, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 54 % RH	23 deg. C / 66 % RH	22 deg. C / 63 % RH
Engineer	Kazutaka Takeyama	Yosuke Ishikawa	Yosuke Ishikawa	Shiro Kobayashi
	(1 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-20 5825 MHz			

(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.	11650.000	PK	44.65	39.78	9.95	39.82	2.47	57.03	73.90	16.8	150	0	
Hori.	17475.000	PK	45.03	44.29	12.83	37.87	-9.54	54.74	73.90	19.1	150	2	
Hori.	23300.660	PK	46.34	39.88	15.32	47.57	-9.54	44.43	73.90	29.4	134	51	
Hori.	11650.000	AV	36.21	39.78	9.95	39.82	2.47	48.59	53.90	5.3	150	0	VBW:5.6 kHz
Hori.	17475.000	AV	35.18	44.29	12.83	37.87	-9.54	44.89	53.90	9.0	150	2	VBW:5.6 kHz
Hori.	23300.660	AV	36.06	39.88	15.32	47.57	-9.54	34.15	53.90	19.7	134	51	VBW:5.6 kHz
Vert.	11650.000	PK	45.12	39.78	9.95	39.82	2.47	57.50	73.90	16.4	150	0	
Vert.	17475.000	PK	45.05	44.29	12.83	37.87	-9.54	54.76	73.90	19.1	150	1	
Vert.	23300.680	PK	46.91	39.88	15.32	47.57	-9.54	45.00	73.90	28.9	136	57	
Vert.	11650.000	AV	36.38	39.78	9.95	39.82	2.47	48.76	53.90	**5.1**	150	0	VBW:5.6 kHz
Vert.	17475.000	AV	35.29	44.29	12.83	37.87	-9.54	45.00	53.90	8.9	150	1	VBW:5.6 kHz
Vert.	23300.680	AV	37.85	39.88	15.32	47.57	-9.54	35.94	53.90	17.9	136	57	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 (3.99 m / 3.0 m) = 2.47 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	54.03	32.57	16.83	41.16	2.47	64.74	-30.46	27.00	57.5	103	331	
Hori.	5855.000	PK	51.62	32.58	16.83	41.16	2.47	62.34	-32.86	15.60	48.5	103	331	
Hori.	5875.000	PK	47.72	32.61	16.86	41.14	2.47	58.52	-36.68	10.00	46.7	103	331	
Hori.	5925.000	PK	46.27	32.70	16.88	41.09	2.47	57.23	-37.97	-27.00	11.0	103	331	
Vert.	5850.000	PK	57.02	32.57	16.83	41.16	2.47	67.73	-27.47	27.00	54.5	104	355	
Vert.	5855.000	PK	53.13	32.58	16.83	41.16	2.47	63.85	-31.35	15.60	47.0	104	355	
Vert.	5875.000	PK	47.21	32.61	16.86	41.14	2.47	58.01	-37.19	10.00	47.2	104	355	
Vert.	5925.000	PK	47.04	32.70	16.88	41.09	2.47	58.00	-37.20	-27.00	**10.2**	104	355	

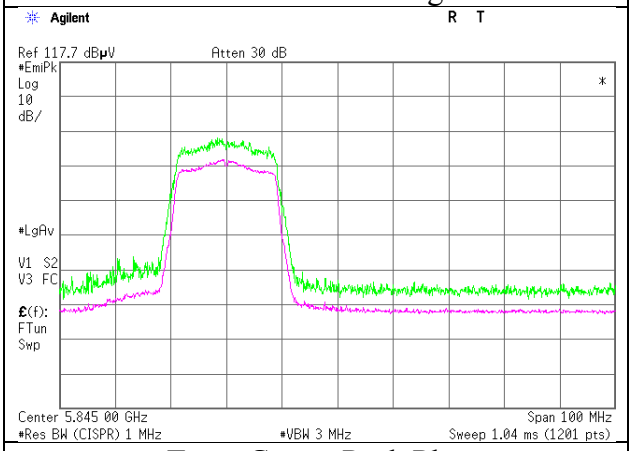
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG ({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac-20 5825 MHz

Horizontal

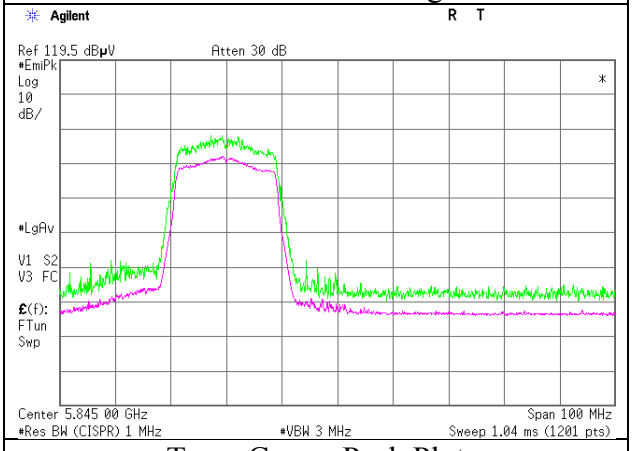
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(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				

(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	55.43	31.69	16.34	41.57	2.47	64.36	73.90	9.5	123	342	
Hori.	10380.000	PK	46.85	39.71	7.75	38.67	2.47	58.11	73.90	15.7	150	1	
Hori.	15570.000	PK	46.73	39.05	11.92	38.71	-9.54	49.45	73.90	24.4	150	1	
Hori.	20760.000	PK	45.08	39.81	14.09	47.10	-9.54	42.34	73.90	31.5	125	65	
Hori.	25950.000	PK	43.86	40.00	16.40	47.43	-9.54	43.29	73.90	30.6	150	1	
Hori.	5150.000	AV	43.13	31.69	16.34	41.57	2.47	52.06	53.90	**1.8**	123	342	VBW:3.0 kHz
Hori.	10380.000	AV	36.18	39.71	7.75	38.67	2.47	47.44	53.90	6.4	150	1	VBW:3.0 kHz
Hori.	15570.000	AV	36.05	39.05	11.92	38.71	-9.54	38.77	53.90	15.1	150	1	VBW:3.0 kHz
Hori.	20760.000	AV	36.20	39.81	14.09	47.10	-9.54	33.46	53.90	20.4	125	65	VBW:3.0 kHz
Hori.	25950.000	AV	33.07	40.00	16.40	47.43	-9.54	32.50	53.90	21.4	150	1	VBW:3.0 kHz
Vert.	5150.000	PK	53.58	31.69	16.34	41.57	2.47	62.51	73.90	11.3	132	334	
Vert.	10380.000	PK	46.94	39.71	7.75	38.67	2.47	58.20	73.90	15.7	150	1	
Vert.	15570.000	PK	46.46	39.05	11.92	38.71	-9.54	49.18	73.90	24.7	150	1	
Vert.	20760.000	PK	46.03	39.81	14.09	47.10	-9.54	43.29	73.90	30.6	125	51	
Vert.	25950.000	PK	43.46	40.00	16.40	47.43	-9.54	42.89	73.90	31.0	150	1	
Vert.	5150.000	AV	42.55	31.69	16.34	41.57	2.47	51.48	53.90	2.4	132	334	VBW:3.0 kHz
Vert.	10380.000	AV	36.13	39.71	7.75	38.67	2.47	47.39	53.90	6.5	150	1	VBW:3.0 kHz
Vert.	15570.000	AV	36.14	39.05	11.92	38.71	-9.54	38.86	53.90	15.0	150	1	VBW:3.0 kHz
Vert.	20760.000	AV	37.36	39.81	14.09	47.10	-9.54	34.62	53.90	19.2	125	51	VBW:3.0 kHz
Vert.	25950.000	AV	33.07	40.00	16.40	47.43	-9.54	32.50	53.90	21.4	150	1	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB

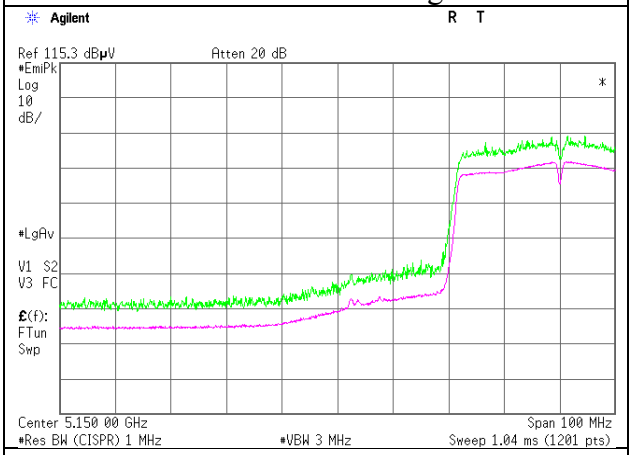
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-40 5190 MHz

Horizontal

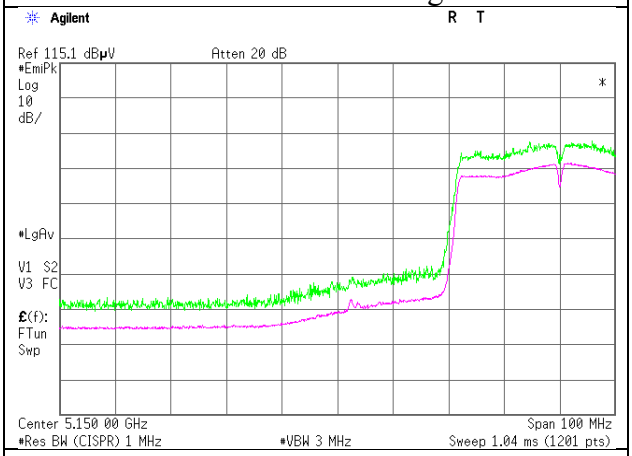
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 19, 2017	September 20, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	22 deg. C / 63 % RH	22 deg. C / 52 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Yosuke Ishikawa (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11n-40 5230 MHz				

(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.	10460.000	PK	46.88	39.84	7.74	38.61	2.47	58.32	73.90	15.5	150	2	
Hori.	15690.000	PK	46.66	38.64	11.96	38.60	-9.54	49.12	73.90	24.7	150	1	
Hori.	20920.000	PK	45.29	39.78	14.10	47.10	-9.54	42.53	73.90	31.3	126	56	
Hori.	26150.000	PK	43.92	39.98	16.50	47.68	-9.54	43.18	73.90	30.7	150	1	
Hori.	10460.000	AV	36.42	39.84	7.74	38.61	2.47	47.86	53.90	**6.0**	150	2	VBW:3.0 kHz
Hori.	15690.000	AV	36.16	38.64	11.96	38.60	-9.54	38.62	53.90	15.2	150	1	VBW:3.0 kHz
Hori.	20920.000	AV	35.12	39.78	14.10	47.10	-9.54	32.36	53.90	21.5	126	56	VBW:3.0 kHz
Hori.	26150.000	AV	32.96	39.98	16.50	47.68	-9.54	32.22	53.90	21.6	150	1	VBW:3.0 kHz
Vert.	10460.000	PK	47.04	39.84	7.74	38.61	2.47	58.48	73.90	15.4	150	1	
Vert.	15690.000	PK	46.47	38.64	11.96	38.60	-9.54	48.93	73.90	24.9	150	2	
Vert.	20920.000	PK	45.47	39.78	14.10	47.10	-9.54	42.71	73.90	31.1	130	53	
Vert.	26150.000	PK	43.94	39.98	16.50	47.68	-9.54	43.20	73.90	30.7	150	1	
Vert.	10460.000	AV	36.57	39.84	7.74	38.61	2.47	48.01	53.90	**5.8**	150	1	VBW:3.0 kHz
Vert.	15690.000	AV	36.26	38.64	11.96	38.60	-9.54	38.72	53.90	15.1	150	2	VBW:3.0 kHz
Vert.	20920.000	AV	36.06	39.78	14.10	47.10	-9.54	33.30	53.90	20.6	130	53	VBW:3.0 kHz
Vert.	26150.000	AV	32.74	39.98	16.50	47.68	-9.54	32.00	53.90	21.9	150	1	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(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				

(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	54.74	31.84	16.45	41.53	2.47	63.97	73.90	9.9	116	337	
Hori.	10620.000	PK	45.64	39.96	7.83	38.72	2.47	57.18	73.90	16.7	150	1	
Hori.	15930.000	PK	45.73	37.82	12.06	38.37	-9.54	47.70	73.90	26.2	150	1	
Hori.	21240.000	PK	43.66	39.82	14.24	47.22	-9.54	40.96	73.90	32.9	117	71	
Hori.	5350.000	AV	41.08	31.84	16.45	41.53	2.47	50.31	53.90	**3.5**	116	337	VBW:3.0 kHz
Hori.	10620.000	AV	34.54	39.96	7.83	38.72	2.47	46.08	53.90	7.8	150	1	VBW:3.0 kHz
Hori.	15930.000	AV	35.34	37.82	12.06	38.37	-9.54	37.31	53.90	16.5	150	1	VBW:3.0 kHz
Hori.	21240.000	AV	33.62	39.82	14.24	47.22	-9.54	30.92	53.90	22.9	117	71	VBW:3.0 kHz
Vert.	5350.000	PK	53.61	31.84	16.45	41.53	2.47	62.84	73.90	11.0	104	303	
Vert.	10620.000	PK	45.49	39.96	7.83	38.72	2.47	57.03	73.90	16.8	150	1	
Vert.	15930.000	PK	45.88	37.82	12.06	38.37	-9.54	47.85	73.90	26.0	150	2	
Vert.	21240.000	PK	45.49	39.82	14.24	47.22	-9.54	42.79	73.90	31.1	124	49	
Vert.	5350.000	AV	40.93	31.84	16.45	41.53	2.47	50.16	53.90	3.7	104	303	VBW:3.0 kHz
Vert.	10620.000	AV	34.45	39.96	7.83	38.72	2.47	45.99	53.90	7.9	150	1	VBW:3.0 kHz
Vert.	15930.000	AV	35.49	37.82	12.06	38.37	-9.54	37.46	53.90	16.4	150	2	VBW:3.0 kHz
Vert.	21240.000	AV	35.47	39.82	14.24	47.22	-9.54	32.77	53.90	21.1	124	49	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB

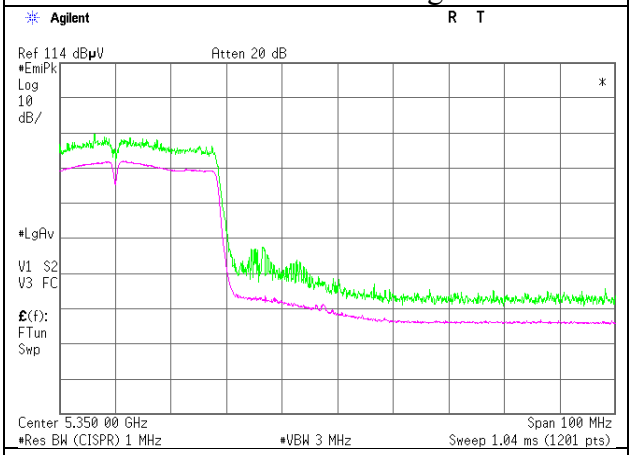
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-40 5310 MHz

Horizontal

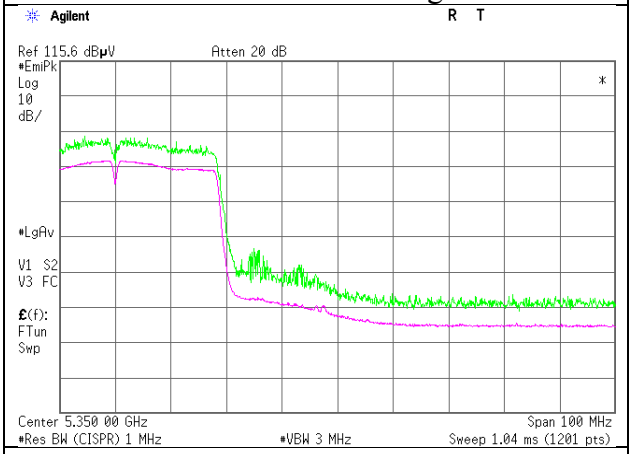
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(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				

(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	50.11	31.93	16.51	41.52	2.47	59.50	73.90	14.4	125	336	
Hori.	11020.000	PK	46.40	40.11	8.13	39.17	2.47	57.94	73.90	15.9	150	1	
Hori.	16530.000	PK	46.48	38.87	12.50	38.14	-9.54	50.17	73.90	23.7	150	2	
Hori.	22040.000	PK	44.13	39.99	15.00	47.77	-9.54	41.81	73.90	32.0	128	56	
Hori.	5460.000	AV	38.87	31.93	16.51	41.52	2.47	48.26	53.90	**5.6**	125	336	VBW:3.0 kHz
Hori.	11020.000	AV	35.55	40.11	8.13	39.17	2.47	47.09	53.90	6.8	150	1	VBW:3.0 kHz
Hori.	16530.000	AV	35.65	38.87	12.50	38.14	-9.54	39.34	53.90	14.5	150	2	VBW:3.0 kHz
Hori.	22040.000	AV	33.87	39.99	15.00	47.77	-9.54	31.55	53.90	22.3	128	56	VBW:3.0 kHz
Vert.	5460.000	PK	49.58	31.93	16.51	41.52	2.47	58.97	73.90	14.9	135	356	
Vert.	11020.000	PK	46.44	40.11	8.13	39.17	2.47	57.98	73.90	15.9	150	2	
Vert.	16530.000	PK	46.58	38.87	12.50	38.14	-9.54	50.27	73.90	23.6	150	1	
Vert.	22040.000	PK	44.53	39.99	15.00	47.77	-9.54	42.21	73.90	31.6	130	45	
Vert.	5460.000	AV	38.42	31.93	16.51	41.52	2.47	47.81	53.90	6.0	135	356	VBW:3.0 kHz
Vert.	11020.000	AV	35.47	40.11	8.13	39.17	2.47	47.01	53.90	6.8	150	2	VBW:3.0 kHz
Vert.	16530.000	AV	35.71	38.87	12.50	38.14	-9.54	39.40	53.90	14.5	150	1	VBW:3.0 kHz
Vert.	22040.000	AV	34.30	39.99	15.00	47.77	-9.54	31.98	53.90	21.9	130	45	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 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	54.76	31.94	16.51	41.51	2.47	64.17	-31.03	-27.00	**4.0**	125	336	
Vert.	5470.000	PK	54.16	31.94	16.51	41.51	2.47	63.57	-31.63	-27.00	4.6	135	356	

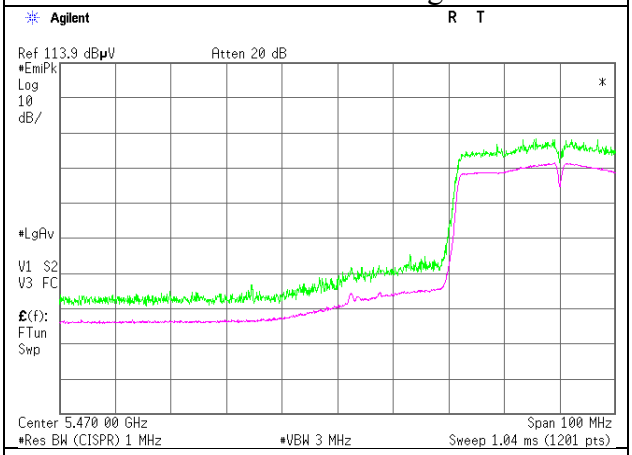
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-40 5510 MHz

Horizontal

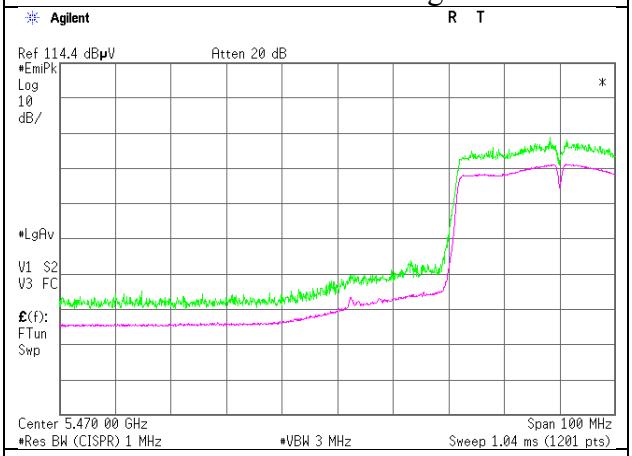
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 19, 2017	September 20, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	22 deg. C / 63 % RH	22 deg. C / 52 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Yosuke Ishikawa	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(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				

(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.	11100.000	PK	46.27	40.11	8.12	39.15	2.47	57.82	73.90	16.0	150	1	
Hori.	16650.000	PK	45.39	39.17	12.54	38.12	-9.54	49.44	73.90	24.4	150	2	
Hori.	22200.000	PK	44.96	39.98	15.04	47.99	-9.54	42.45	73.90	31.4	132	56	
Hori.	11100.000	AV	36.19	40.11	8.12	39.15	2.47	47.74	53.90	**6.1**	150	1	VBW:3.0 kHz
Hori.	16650.000	AV	35.05	39.17	12.54	38.12	-9.54	39.10	53.90	14.8	150	2	VBW:3.0 kHz
Hori.	22200.000	AV	33.15	39.98	15.04	47.99	-9.54	30.64	53.90	23.2	132	56	VBW:3.0 kHz
Vert.	11100.000	PK	46.37	40.11	8.12	39.15	2.47	57.92	73.90	15.9	150	1	
Vert.	16650.000	PK	45.40	39.17	12.54	38.12	-9.54	49.45	73.90	24.4	150	1	
Vert.	22200.000	PK	45.15	39.98	15.04	47.99	-9.54	42.64	73.90	31.2	125	61	
Vert.	11100.000	AV	36.12	40.11	8.12	39.15	2.47	47.67	53.90	6.2	150	1	VBW:3.0 kHz
Vert.	16650.000	AV	34.98	39.17	12.54	38.12	-9.54	39.03	53.90	14.8	150	1	VBW:3.0 kHz
Vert.	22200.000	AV	33.76	39.98	15.04	47.99	-9.54	31.25	53.90	22.6	125	61	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(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				

(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.	11340.000	PK	44.59	40.12	8.09	39.08	2.47	56.19	73.90	17.7	150	1	
Hori.	17010.000	PK	45.48	40.11	12.65	38.07	-9.54	50.63	73.90	23.2	150	2	
Hori.	22680.000	PK	43.51	39.95	15.11	48.21	-9.54	40.82	73.90	33.0	131	45	
Hori.	11340.000	AV	34.19	40.12	8.09	39.08	2.47	45.79	53.90	8.1	150	1	VBW:3.0 kHz
Hori.	17010.000	AV	35.35	40.11	12.65	38.07	-9.54	40.50	53.90	13.4	150	2	VBW:3.0 kHz
Hori.	22680.000	AV	34.01	39.95	15.11	48.21	-9.54	31.32	53.90	22.5	131	45	VBW:3.0 kHz
Vert.	11340.000	PK	44.82	40.12	8.09	39.08	2.47	56.42	73.90	17.4	150	1	
Vert.	17010.000	PK	45.59	40.11	12.65	38.07	-9.54	50.74	73.90	23.1	150	1	
Vert.	22680.000	PK	43.87	39.95	15.11	48.21	-9.54	41.18	73.90	32.7	126	50	
Vert.	11340.000	AV	34.26	40.12	8.09	39.08	2.47	45.86	53.90	**8.0**	150	1	VBW:3.0 kHz
Vert.	17010.000	AV	35.47	40.11	12.65	38.07	-9.54	40.62	53.90	13.2	150	1	VBW:3.0 kHz
Vert.	22680.000	AV	34.10	39.95	15.11	48.21	-9.54	31.41	53.90	22.4	126	50	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

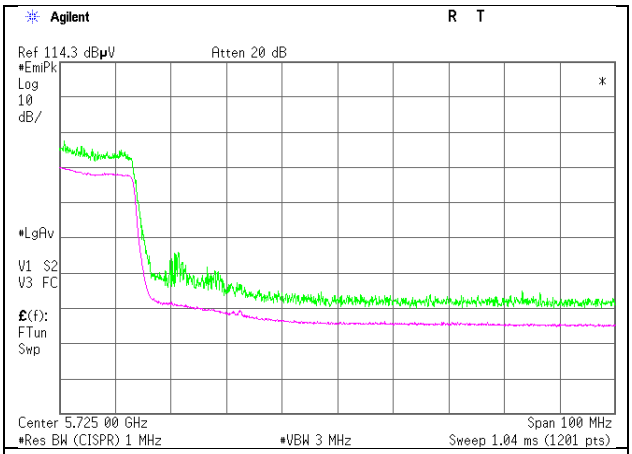
(* PK: Peak, AV: Average, QP: Quasi-Peak)

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	47.98	32.35	16.72	41.29	2.47	58.23	-36.97	-27.00	**10.0**	128	336	
Vert.	5725.000	PK	47.61	32.35	16.72	41.29	2.47	57.86	-37.34	-27.00	10.3	104	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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

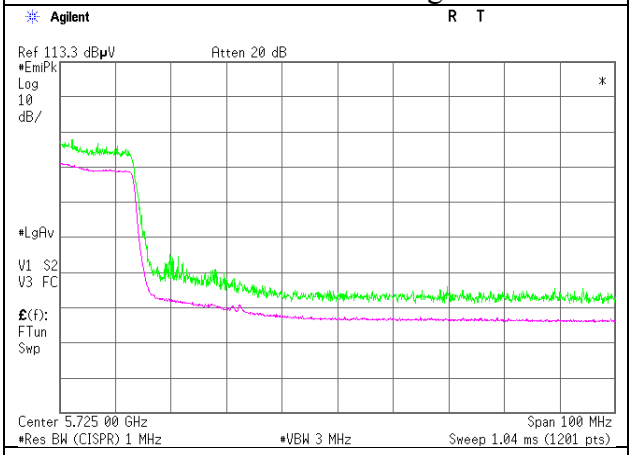
Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11n-40 5670 MHz



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	2	3	2
Date	October 19, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazutaka Takeyama (1 GHz –13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11n-40 5755 MHz			

(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.	11510.000	PK	45.27	40.04	9.88	39.66	2.47	58.00	73.90	15.9	150	0	
Hori.	17265.000	PK	45.36	42.40	12.75	37.96	-9.54	53.01	73.90	20.8	150	1	
Hori.	23020.000	PK	42.87	39.93	15.12	47.84	-9.54	40.54	73.90	33.3	127	43	
Hori.	11510.000	AV	35.73	40.04	9.88	39.66	2.47	48.46	53.90	**5.4**	150	0	VBW:3.0 kHz
Hori.	17265.000	AV	35.26	42.40	12.75	37.96	-9.54	42.91	53.90	10.9	150	1	VBW:3.0 kHz
Hori.	23020.000	AV	34.15	39.93	15.12	47.84	-9.54	31.82	53.90	22.0	127	43	VBW:3.0 kHz
Vert.	11510.000	PK	44.86	40.04	9.88	39.66	2.47	57.59	73.90	16.3	150	0	
Vert.	17265.000	PK	45.48	42.40	12.75	37.96	-9.54	53.13	73.90	20.7	150	2	
Vert.	23020.000	PK	43.83	39.93	15.12	47.84	-9.54	41.50	73.90	32.4	118	52	
Vert.	11510.000	AV	35.45	40.04	9.88	39.66	2.47	48.18	53.90	5.7	150	0	VBW:3.0 kHz
Vert.	17265.000	AV	35.13	42.40	12.75	37.96	-9.54	42.78	53.90	11.1	150	2	VBW:3.0 kHz
Vert.	23020.000	AV	33.91	39.93	15.12	47.84	-9.54	31.58	53.90	22.3	118	52	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 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	48.35	32.22	16.66	41.36	2.47	58.34	-36.86	-27.00	**9.9**	111	332	
Hori.	5700.000	PK	57.12	32.31	16.70	41.31	2.47	67.29	-27.91	10.00	37.9	111	332	
Hori.	5720.000	PK	64.03	32.34	16.72	41.29	2.47	74.27	-20.93	15.60	36.5	111	332	
Hori.	5725.000	PK	65.33	32.35	16.72	41.29	2.47	75.58	-19.62	27.00	46.6	111	332	
Vert.	5650.000	PK	47.58	32.22	16.66	41.36	2.47	57.57	-37.63	-27.00	10.6	111	353	
Vert.	5700.000	PK	53.30	32.31	16.70	41.31	2.47	63.47	-31.73	10.00	41.7	111	353	
Vert.	5720.000	PK	63.73	32.34	16.72	41.29	2.47	73.97	-21.23	15.60	36.8	111	353	
Vert.	5725.000	PK	63.83	32.35	16.72	41.29	2.47	74.08	-21.12	27.00	48.1	111	353	

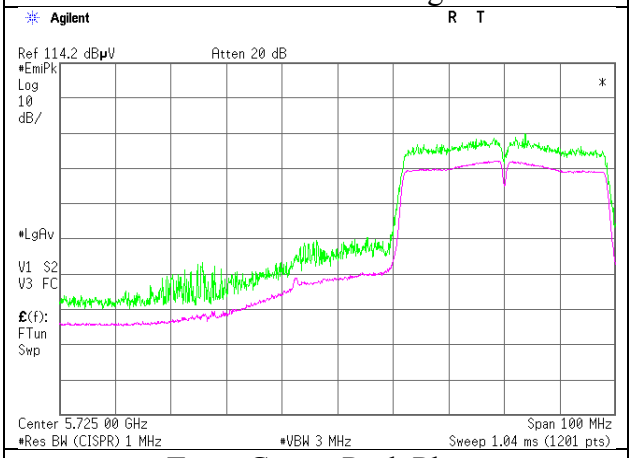
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG｛({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n-40 5755 MHz

Horizontal

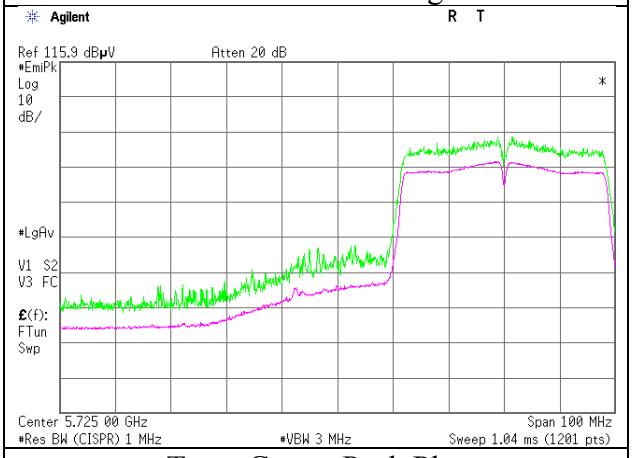
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	2	3	2
Date	October 19, 2017	September 21, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 54 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazutaka Takeyama (1 GHz –13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11n-40 5795 MHz			

(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.	11590.000	PK	44.55	39.89	9.92	39.75	2.47	57.08	73.90	16.8	150	0	
Hori.	17385.000	PK	45.30	43.48	12.78	37.91	-9.54	54.11	73.90	19.7	150	2	
Hori.	23180.000	PK	48.40	40.32	14.11	47.99	-9.54	45.30	73.90	28.6	132	67	
Hori.	11590.000	AV	35.39	39.89	9.92	39.75	2.47	47.92	53.90	**5.9**	150	0	VBW:3.0 kHz
Hori.	17385.000	AV	34.79	43.48	12.78	37.91	-9.54	43.60	53.90	10.3	150	2	VBW:3.0 kHz
Hori.	23180.000	AV	40.12	40.32	14.11	47.99	-9.54	37.02	53.90	16.8	132	67	VBW:3.0 kHz
Vert.	11590.000	PK	44.97	39.89	9.92	39.75	2.47	57.50	73.90	16.4	150	0	
Vert.	17385.000	PK	45.34	43.48	12.78	37.91	-9.54	54.15	73.90	19.7	150	1	
Vert.	23180.000	PK	47.18	40.32	14.11	47.99	-9.54	44.08	73.90	29.8	134	64	
Vert.	11590.000	AV	35.26	39.89	9.92	39.75	2.47	47.79	53.90	6.1	150	0	VBW:3.0 kHz
Vert.	17385.000	AV	34.81	43.48	12.78	37.91	-9.54	43.62	53.90	10.2	150	1	VBW:3.0 kHz
Vert.	23180.000	AV	38.40	40.32	14.11	47.99	-9.54	35.30	53.90	18.6	134	64	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 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	49.06	32.57	16.83	41.16	2.47	59.77	-35.43	27.00	62.4	117	333	
Hori.	5855.000	PK	48.83	32.58	16.83	41.16	2.47	59.55	-35.65	15.60	51.3	117	333	
Hori.	5875.000	PK	46.84	32.61	16.86	41.14	2.47	57.64	-37.56	10.00	47.6	117	333	
Hori.	5925.000	PK	47.99	32.70	16.88	41.09	2.47	58.95	-36.25	-27.00	**9.3**	117	333	
Vert.	5850.000	PK	48.57	32.57	16.83	41.16	2.47	59.28	-35.92	27.00	62.9	109	355	
Vert.	5855.000	PK	49.52	32.58	16.83	41.16	2.47	60.24	-34.96	15.60	50.6	109	355	
Vert.	5875.000	PK	47.56	32.61	16.86	41.14	2.47	58.36	-36.84	10.00	46.8	109	355	
Vert.	5925.000	PK	47.67	32.70	16.88	41.09	2.47	58.63	-36.57	-27.00	9.6	109	355	

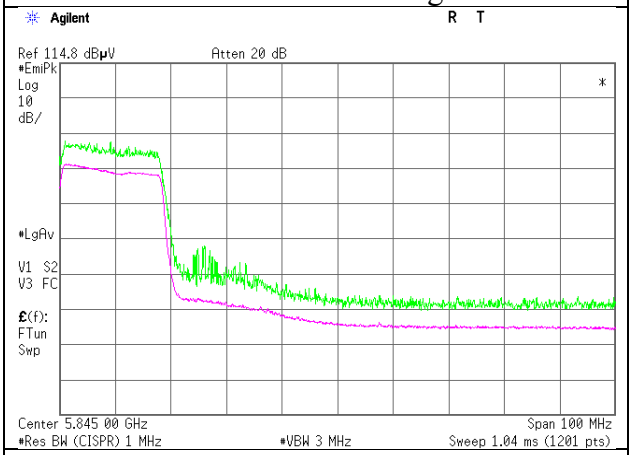
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG {({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n-40 5795 MHz

Horizontal

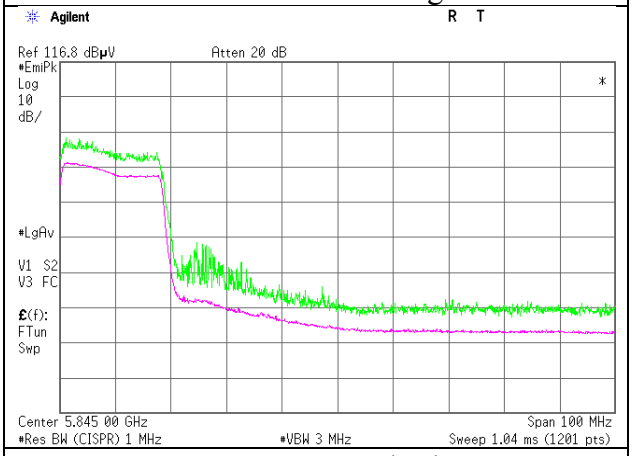
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(1 GHz – 6.4 GHz)	(6.4 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-40 5190 MHz				

(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	55.96	31.69	16.34	41.57	2.47	64.89	73.90	9.0	125	342	
Hori.	10380.000	PK	46.50	39.71	7.75	38.67	2.47	57.76	73.90	16.1	150	2	
Hori.	15570.000	PK	46.59	39.05	11.92	38.71	-9.54	49.31	73.90	24.5	150	1	
Hori.	20760.000	PK	44.46	39.81	14.09	47.10	-9.54	41.72	73.90	32.1	132	48	
Hori.	25950.000	PK	43.52	40.00	16.40	47.43	-9.54	42.95	73.90	30.9	150	2	
Hori.	5150.000	AV	43.96	31.69	16.34	41.57	2.47	52.89	53.90	**1.0**	125	342	VBW:5.1 kHz
Hori.	10380.000	AV	35.14	39.71	7.75	38.67	2.47	46.40	53.90	7.5	150	2	VBW:5.1 kHz
Hori.	15570.000	AV	36.77	39.05	11.92	38.71	-9.54	39.49	53.90	14.4	150	1	VBW:5.1 kHz
Hori.	20760.000	AV	34.61	39.81	14.09	47.10	-9.54	31.87	53.90	22.0	132	48	VBW:5.1 kHz
Hori.	25950.000	AV	33.27	40.00	16.40	47.43	-9.54	32.70	53.90	21.2	150	2	VBW:5.1 kHz
Vert.	5150.000	PK	55.17	31.69	16.34	41.57	2.47	64.10	73.90	9.8	125	342	
Vert.	10380.000	PK	46.24	39.71	7.75	38.67	2.47	57.50	73.90	16.4	150	1	
Vert.	15570.000	PK	46.70	39.05	11.92	38.71	-9.54	49.42	73.90	24.4	150	1	
Vert.	20760.000	PK	43.81	39.81	14.09	47.10	-9.54	41.07	73.90	32.8	124	53	
Vert.	25950.000	PK	42.67	40.00	16.40	47.43	-9.54	42.10	73.90	31.8	150	1	
Vert.	5150.000	AV	43.34	31.69	16.34	41.57	2.47	52.27	53.90	1.6	125	342	VBW:5.1 kHz
Vert.	10380.000	AV	35.17	39.71	7.75	38.67	2.47	46.43	53.90	7.4	150	1	VBW:5.1 kHz
Vert.	15570.000	AV	36.85	39.05	11.92	38.71	-9.54	39.57	53.90	14.3	150	1	VBW:5.1 kHz
Vert.	20760.000	AV	34.79	39.81	14.09	47.10	-9.54	32.05	53.90	21.8	124	53	VBW:5.1 kHz
Vert.	25950.000	AV	33.13	40.00	16.40	47.43	-9.54	32.56	53.90	21.3	150	1	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 dB

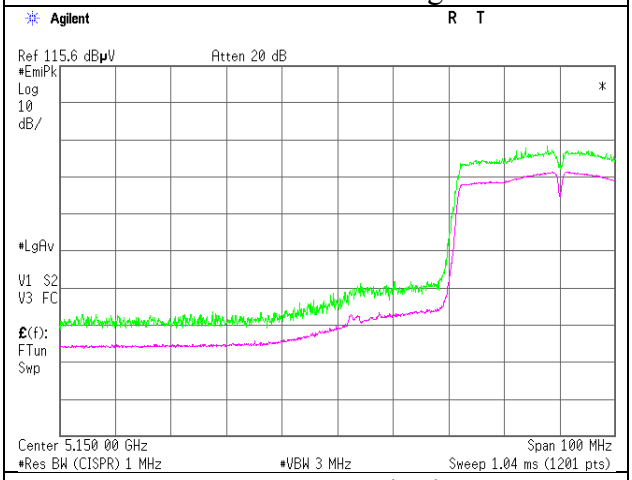
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-40 5190 MHz

Horizontal

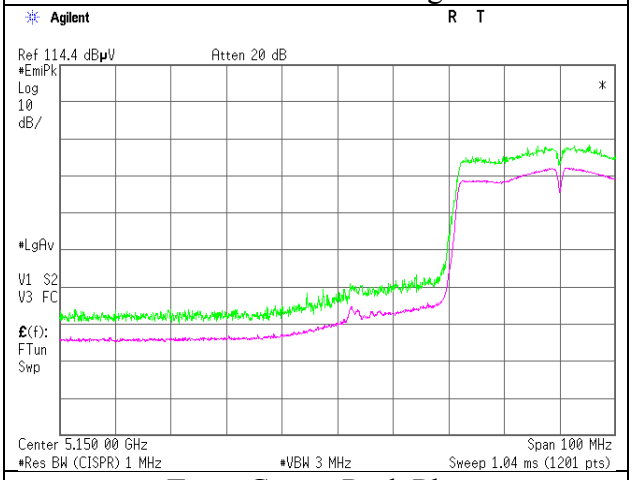
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 19, 2017	September 20, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	22 deg. C / 63 % RH	22 deg. C / 52 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Yosuke Ishikawa	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(1 GHz – 6.4 GHz)	(6.4 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-40 5230 MHz				

(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	45.04	32.01	15.33	37.17	2.47	57.68	73.90	16.2	110	341	
Hori.	10460.000	PK	45.33	39.84	7.74	38.61	2.47	56.77	73.90	17.1	150	1	
Hori.	15690.000	PK	46.77	38.64	11.96	38.60	-9.54	49.23	73.90	24.6	150	1	
Hori.	20920.000	PK	45.40	39.78	14.10	47.10	-9.54	42.64	73.90	31.2	136	54	
Hori.	26150.000	PK	44.37	39.98	16.50	47.68	-9.54	43.63	73.90	30.2	150	1	
Hori.	5150.000	AV	34.75	32.01	15.33	37.17	2.47	47.39	53.90	**6.5**	110	341	VBW:5.1 kHz
Hori.	10460.000	AV	34.84	39.84	7.74	38.61	2.47	46.28	53.90	7.6	150	1	VBW:5.1 kHz
Hori.	15690.000	AV	36.74	38.64	11.96	38.60	-9.54	39.20	53.90	14.7	150	1	VBW:5.1 kHz
Hori.	20920.000	AV	36.17	39.78	14.10	47.10	-9.54	33.41	53.90	20.4	136	54	VBW:5.1 kHz
Hori.	26150.000	AV	33.52	39.98	16.50	47.68	-9.54	32.78	53.90	21.1	150	1	VBW:5.1 kHz
Vert.	5150.000	PK	43.64	32.01	15.33	37.17	2.47	56.28	73.90	17.6	100	78	
Vert.	10460.000	PK	45.43	39.84	7.74	38.61	2.47	56.87	73.90	17.0	150	1	
Vert.	15690.000	PK	46.58	38.64	11.96	38.60	-9.54	49.04	73.90	24.8	150	2	
Vert.	20920.000	PK	45.30	39.78	14.10	47.10	-9.54	42.54	73.90	31.3	125	62	
Vert.	26150.000	PK	44.21	39.98	16.50	47.68	-9.54	43.47	73.90	30.4	150	1	
Vert.	5150.000	AV	33.93	32.01	15.33	37.17	2.47	46.57	53.90	7.3	100	78	VBW:5.1 kHz
Vert.	10460.000	AV	34.80	39.84	7.74	38.61	2.47	46.24	53.90	7.6	150	1	VBW:5.1 kHz
Vert.	15690.000	AV	36.66	38.64	11.96	38.60	-9.54	39.12	53.90	14.7	150	2	VBW:5.1 kHz
Vert.	20920.000	AV	35.95	39.78	14.10	47.10	-9.54	33.19	53.90	20.7	125	62	VBW:5.1 kHz
Vert.	26150.000	AV	33.63	39.98	16.50	47.68	-9.54	32.89	53.90	21.0	150	1	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-40 5310 MHz				

(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	52.06	31.84	16.45	41.53	2.47	61.29	73.90	12.6	103	343	
Hori.	10620.000	PK	45.47	39.96	7.83	38.72	2.47	57.01	73.90	16.8	150	1	
Hori.	15930.000	PK	46.53	37.82	12.06	38.37	-9.54	48.50	73.90	25.4	150	1	
Hori.	21240.000	PK	43.32	39.82	14.24	47.22	-9.54	40.62	73.90	33.2	123	65	
Hori.	5350.000	AV	41.41	31.84	16.45	41.53	2.47	50.64	53.90	3.2	103	343	VBW:5.1 kHz
Hori.	10620.000	AV	35.12	39.96	7.83	38.72	2.47	46.66	53.90	7.2	150	1	VBW:5.1 kHz
Hori.	15930.000	AV	35.92	37.82	12.06	38.37	-9.54	37.89	53.90	16.0	150	1	VBW:5.1 kHz
Hori.	21240.000	AV	33.24	39.82	14.24	47.22	-9.54	30.54	53.90	23.3	123	65	VBW:5.1 kHz
Vert.	5350.000	PK	52.29	31.84	16.45	41.53	2.47	61.52	73.90	12.3	104	300	
Vert.	10620.000	PK	45.25	39.96	7.83	38.72	2.47	56.79	73.90	17.1	150	1	
Vert.	15930.000	PK	46.73	37.82	12.06	38.37	-9.54	48.70	73.90	25.2	150	2	
Vert.	21240.000	PK	43.16	39.82	14.24	47.22	-9.54	40.46	73.90	33.4	131	61	
Vert.	5350.000	AV	41.70	31.84	16.45	41.53	2.47	50.93	53.90	**2.9**	104	300	VBW:5.1 kHz
Vert.	10620.000	AV	35.17	39.96	7.83	38.72	2.47	46.71	53.90	7.1	150	1	VBW:5.1 kHz
Vert.	15930.000	AV	35.65	37.82	12.06	38.37	-9.54	37.62	53.90	16.2	150	2	VBW:5.1 kHz
Vert.	21240.000	AV	33.59	39.82	14.24	47.22	-9.54	30.89	53.90	23.0	131	61	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 dB

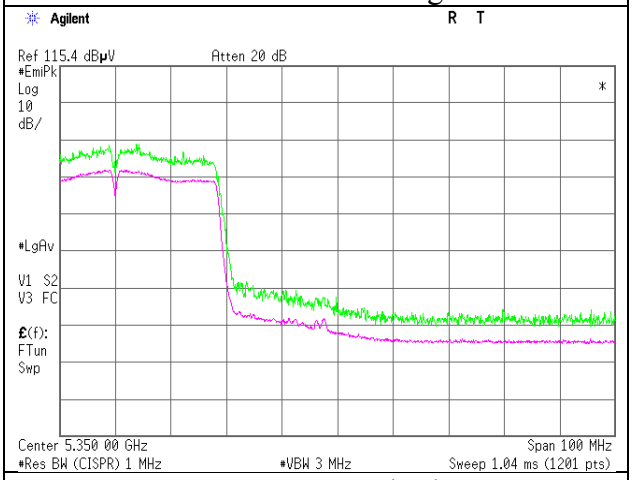
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-40 5310 MHz

Horizontal

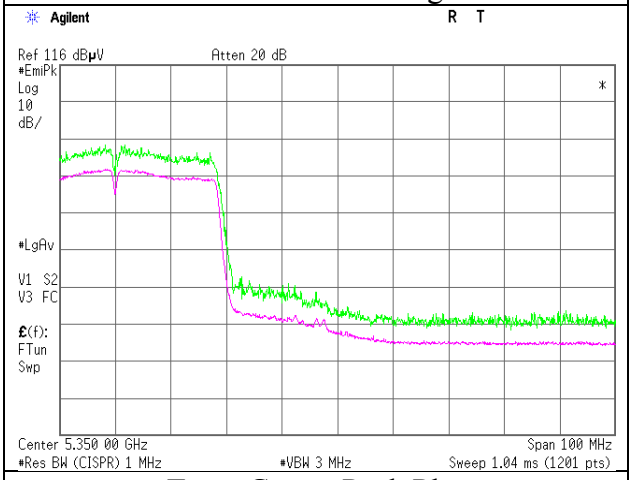
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda	Yosuke Ishikawa	Yosuke Ishikawa	Kazutaka Takeyama	Shiro Kobayashi
	(1 GHz – 6.4 GHz)	(6.4 GHz – 13 GHz)	(13 GHz – 18 GHz)	(18 GHz – 26 GHz)	(26 GHz – 40 GHz)
Mode	Tx 11ac-40 5510 MHz				

(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	51.98	31.93	16.51	41.52	2.47	61.37	73.90	12.5	116	344	
Hori.	11020.000	PK	45.31	40.11	8.13	39.17	2.47	56.85	73.90	17.0	150	1	
Hori.	16530.000	PK	46.44	38.87	12.50	38.14	-9.54	50.13	73.90	23.7	150	1	
Hori.	22040.000	PK	43.21	40.26	15.00	47.77	-9.54	41.16	73.90	32.7	133	55	
Hori.	5460.000	AV	39.53	31.93	16.51	41.52	2.47	48.92	53.90	**4.9**	116	344	VBW:5.1 kHz
Hori.	11020.000	AV	35.24	40.11	8.13	39.17	2.47	46.78	53.90	7.1	150	1	VBW:5.1 kHz
Hori.	16530.000	AV	36.38	38.87	12.50	38.14	-9.54	40.07	53.90	13.8	150	1	VBW:5.1 kHz
Hori.	22040.000	AV	32.56	40.26	15.00	47.77	-9.54	30.51	53.90	23.3	133	55	VBW:5.1 kHz
Vert.	5460.000	PK	49.23	31.93	16.51	41.52	2.47	58.62	73.90	15.2	148	348	
Vert.	11020.000	PK	45.74	40.11	8.13	39.17	2.47	57.28	73.90	16.6	150	1	
Vert.	16530.000	PK	46.64	38.87	12.50	38.14	-9.54	50.33	73.90	23.5	150	1	
Vert.	22040.000	PK	43.81	40.26	15.00	47.77	-9.54	41.76	73.90	32.1	124	45	
Vert.	5460.000	AV	38.84	31.93	16.51	41.52	2.47	48.23	53.90	5.6	148	348	VBW:5.1 kHz
Vert.	11020.000	AV	35.26	40.11	8.13	39.17	2.47	46.80	53.90	7.1	150	1	VBW:5.1 kHz
Vert.	16530.000	AV	36.77	38.87	12.50	38.14	-9.54	40.46	53.90	13.4	150	1	VBW:5.1 kHz
Vert.	22040.000	AV	32.45	40.26	15.00	47.77	-9.54	30.40	53.90	23.5	124	45	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 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	54.75	31.94	16.51	41.51	2.47	64.16	-31.04	-27.00	**4.0**	116	344	
Vert.	5470.000	PK	54.78	31.94	16.51	41.51	2.47	64.19	-31.01	-27.00	**4.0**	148	348	

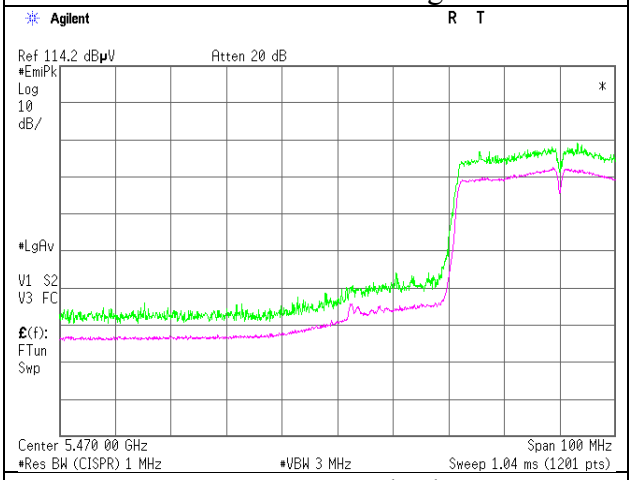
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG〈({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-40 5510 MHz

Horizontal

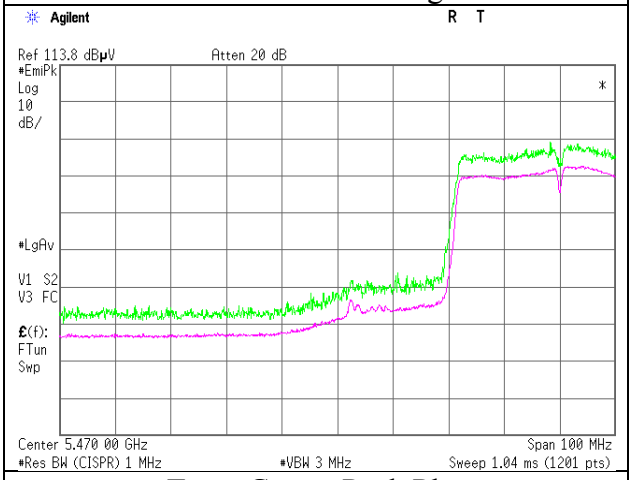
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 19, 2017	September 20, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	22 deg. C / 63 % RH	22 deg. C / 52 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Yosuke Ishikawa (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-40 5550 MHz				

(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.	11100.000	PK	45.37	40.11	8.12	39.15	2.47	56.92	73.90	16.9	150	2	
Hori.	16650.000	PK	46.51	39.17	12.54	38.12	-9.54	50.56	73.90	23.3	150	1	
Hori.	22200.000	PK	44.89	40.28	15.04	47.99	-9.54	42.68	73.90	31.2	132	56	
Hori.	11100.000	AV	35.33	40.11	8.12	39.15	2.47	46.88	53.90	**7.0**	150	2	VBW:5.1 kHz
Hori.	16650.000	AV	36.17	39.17	12.54	38.12	-9.54	40.22	53.90	13.6	150	1	VBW:5.1 kHz
Hori.	22200.000	AV	33.88	40.28	15.04	47.99	-9.54	31.67	53.90	22.2	132	56	VBW:5.1 kHz
Vert.	11100.000	PK	45.28	40.11	8.12	39.15	2.47	56.83	73.90	17.0	150	2	
Vert.	16650.000	PK	46.83	39.17	12.54	38.12	-9.54	50.88	73.90	23.0	150	1	
Vert.	22200.000	PK	45.03	40.28	15.04	47.99	-9.54	42.82	73.90	31.0	140	45	
Vert.	11100.000	AV	35.15	40.11	8.12	39.15	2.47	46.70	53.90	7.2	150	2	VBW:5.1 kHz
Vert.	16650.000	AV	36.01	39.17	12.54	38.12	-9.54	40.06	53.90	13.8	150	1	VBW:5.1 kHz
Vert.	22200.000	AV	34.61	40.28	15.04	47.99	-9.54	32.40	53.90	21.5	140	45	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 dB

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

Radiated Spurious Emission

Report No.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	3	2	3	2
Date	September 13, 2017	September 20, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 62 % RH	22 deg. C / 52 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazuya Noda (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-40 5670 MHz				

(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.	11340.000	PK	45.85	40.12	8.09	39.08	2.47	57.45	73.90	16.4	150	1	
Hori.	17010.000	PK	45.60	40.11	12.65	38.07	-9.54	50.75	73.90	23.1	150	2	
Hori.	22680.000	PK	43.88	40.32	15.11	48.21	-9.54	41.56	73.90	32.3	124	53	
Hori.	11340.000	AV	35.95	40.12	8.09	39.08	2.47	47.55	53.90	6.3	150	1	VBW:5.1 kHz
Hori.	17010.000	AV	35.76	40.11	12.65	38.07	-9.54	40.91	53.90	12.9	150	2	VBW:5.1 kHz
Hori.	22680.000	AV	34.34	40.32	15.11	48.21	-9.54	32.02	53.90	21.8	124	53	VBW:5.1 kHz
Vert.	11340.000	PK	45.43	40.12	8.09	39.08	2.47	57.03	73.90	16.8	150	1	
Vert.	17010.000	PK	45.61	40.11	12.65	38.07	-9.54	50.76	73.90	23.1	150	1	
Vert.	22680.000	PK	44.10	40.32	15.11	48.21	-9.54	41.78	73.90	32.1	135	45	
Vert.	11340.000	AV	36.03	40.12	8.09	39.08	2.47	47.63	53.90	**6.2**	150	1	VBW:5.1 kHz
Vert.	17010.000	AV	35.99	40.11	12.65	38.07	-9.54	41.14	53.90	12.7	150	1	VBW:5.1 kHz
Vert.	22680.000	AV	34.70	40.32	15.11	48.21	-9.54	32.38	53.90	21.5	135	45	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 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	47.58	32.35	16.72	41.29	2.47	57.83	-37.37	-27.00	10.4	121	343	
Vert.	5725.000	PK	48.42	32.35	16.72	41.29	2.47	58.67	-36.53	-27.00	**9.5**	147	349	

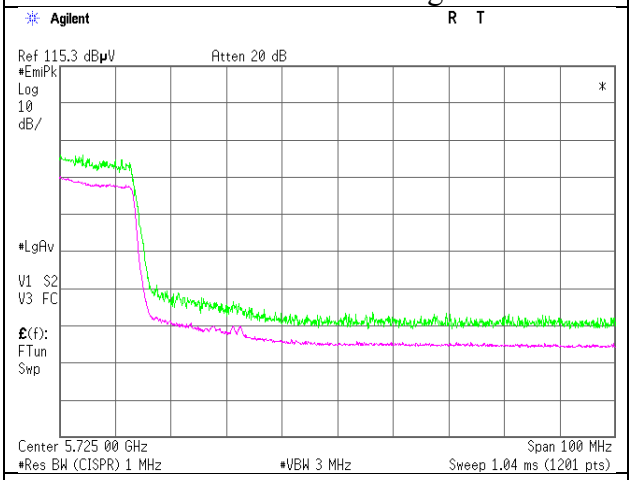
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 13, 2017
Temperature / Humidity	21 deg. C / 62 % RH
Engineer	Kazuya Noda
Mode	Tx 11ac-40 5670 MHz

Horizontal

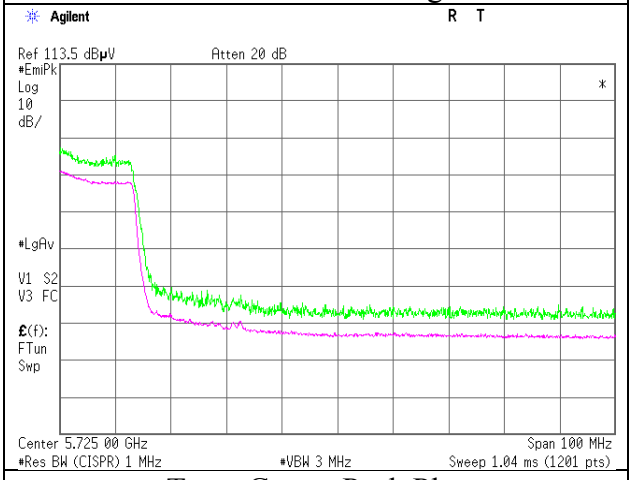
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	2	3	2
Date	October 19, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazutaka Takeyama (1 GHz –13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-40 5755 MHz			

(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.	11510.000	PK	45.24	40.04	9.88	39.66	2.47	57.97	73.90	15.9	150	0	
Hori.	17265.000	PK	46.33	42.40	12.75	37.96	-9.54	53.98	73.90	19.9	150	1	
Hori.	23020.000	PK	43.59	40.35	15.12	47.84	-9.54	41.68	73.90	32.2	132	51	
Hori.	11510.000	AV	36.01	40.04	9.88	39.66	2.47	48.74	53.90	**5.1**	150	0	VBW:5.1 kHz
Hori.	17265.000	AV	35.96	42.40	12.75	37.96	-9.54	43.61	53.90	10.2	150	1	VBW:5.1 kHz
Hori.	23020.000	AV	33.43	40.35	15.12	47.84	-9.54	31.52	53.90	22.3	132	51	VBW:5.1 kHz
Vert.	11510.000	PK	45.64	40.04	9.88	39.66	2.47	58.37	73.90	15.5	150	0	
Vert.	17265.000	PK	46.42	42.40	12.75	37.96	-9.54	54.07	73.90	19.8	150	1	
Vert.	23020.000	PK	43.87	40.35	15.12	47.84	-9.54	41.96	73.90	31.9	136	47	
Vert.	11510.000	AV	35.99	40.04	9.88	39.66	2.47	48.72	53.90	**5.1**	150	0	VBW:5.1 kHz
Vert.	17265.000	AV	35.87	42.40	12.75	37.96	-9.54	43.52	53.90	10.3	150	1	VBW:5.1 kHz
Vert.	23020.000	AV	33.90	40.35	15.12	47.84	-9.54	31.99	53.90	21.9	136	47	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 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	47.42	32.22	16.66	41.36	2.47	57.41	-37.79	-27.00	10.8	123	332	
Hori.	5700.000	PK	50.65	32.31	16.70	41.31	2.47	60.82	-34.38	10.00	44.4	123	332	
Hori.	5720.000	PK	58.36	32.34	16.72	41.29	2.47	68.60	-26.60	15.60	42.2	123	332	
Hori.	5725.000	PK	58.50	32.35	16.72	41.29	2.47	68.75	-26.45	27.00	53.5	123	332	
Vert.	5650.000	PK	48.34	32.22	16.66	41.36	2.47	58.33	-36.87	-27.00	**9.9**	109	350	
Vert.	5700.000	PK	50.87	32.31	16.70	41.31	2.47	61.04	-34.16	10.00	44.2	109	350	
Vert.	5720.000	AV	46.81	32.34	16.72	41.29	2.47	57.05	-38.15	15.60	53.8	109	350	
Vert.	5725.000	AV	47.45	32.35	16.72	41.29	2.47	57.70	-37.50	27.00	64.5	109	350	

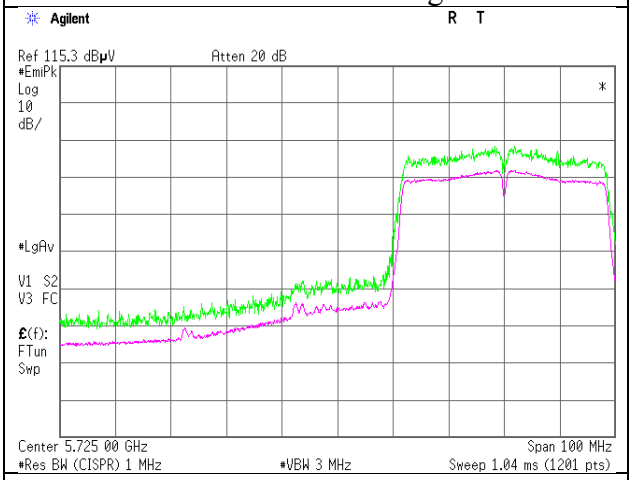
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac-40 5755 MHz

Horizontal

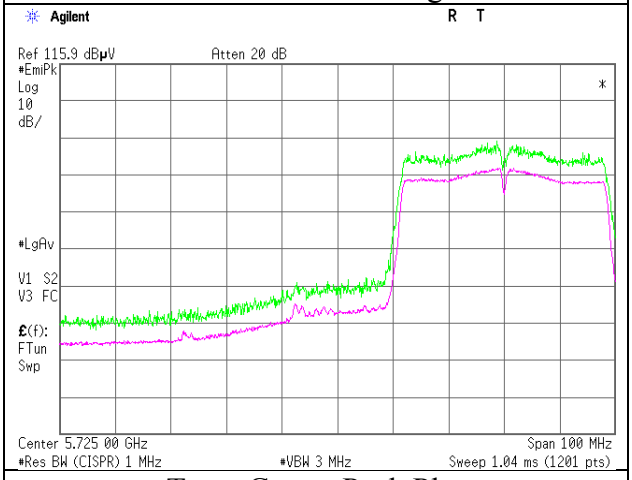
Restricted-band band-edge Plot



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.	11834855S-C-R3			
Test place	Shonan EMC Lab.			
Test Place(AC No)	1	2	3	2
Date	October 19, 2017	September 22, 2017	September 25, 2017	September 27, 2017
Temperature / Humidity	20 deg. C / 51 % RH	22 deg. C / 66 % RH	23 deg. C / 63 % RH	22 deg. C / 63 % RH
Engineer	Kazutaka Takeyama (1 GHz –13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Kazutaka Takeyama (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-40 5795 MHz			

(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.	11590.000	PK	44.18	39.89	9.92	39.75	2.47	56.71	73.90	17.1	150	0	
Hori.	17385.000	PK	46.01	43.48	12.78	37.91	-9.54	54.82	73.90	19.0	150	1	
Hori.	23180.000	PK	47.53	40.32	14.11	47.99	-9.54	44.43	73.90	29.4	132	59	
Hori.	11590.000	AV	35.96	39.89	9.92	39.75	2.47	48.49	53.90	**5.4**	150	0	VBW:5.1 kHz
Hori.	17385.000	AV	35.98	43.48	12.78	37.91	-9.54	44.79	53.90	9.1	150	1	VBW:5.1 kHz
Hori.	23180.000	AV	39.89	40.32	14.11	47.99	-9.54	36.79	53.90	17.1	132	59	VBW:5.1 kHz
Vert.	11590.000	PK	44.93	39.89	9.92	39.75	2.47	57.46	73.90	16.4	150	0	
Vert.	17385.000	PK	46.03	43.48	12.78	37.91	-9.54	54.84	73.90	19.0	150	2	
Vert.	23180.000	PK	46.95	40.32	14.11	47.99	-9.54	43.85	73.90	30.0	140	61	
Vert.	11590.000	AV	35.44	39.89	9.92	39.75	2.47	47.97	53.90	5.9	150	0	VBW:5.1 kHz
Vert.	17385.000	AV	35.72	43.48	12.78	37.91	-9.54	44.53	53.90	9.3	150	2	VBW:5.1 kHz
Vert.	23180.000	AV	38.50	40.32	14.11	47.99	-9.54	35.40	53.90	18.5	140	61	VBW:5.1 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 (3.99 m / 3.0 m) = 2.47 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	47.46	32.57	16.83	41.16	2.47	58.17	-37.03	27.00	64.0	105	332	
Hori.	5855.000	PK	47.71	32.58	16.83	41.16	2.47	58.43	-36.77	15.60	52.4	105	332	
Hori.	5875.000	PK	47.30	32.61	16.86	41.14	2.47	58.10	-37.10	10.00	47.1	105	332	
Hori.	5925.000	PK	46.28	32.70	16.88	41.09	2.47	57.24	-37.96	-27.00	11.0	105	332	
Vert.	5850.000	PK	48.58	32.57	16.83	41.16	2.47	59.29	-35.91	27.00	62.9	113	351	
Vert.	5855.000	PK	48.18	32.58	16.83	41.16	2.47	58.90	-36.30	15.60	51.9	113	351	
Vert.	5875.000	PK	47.28	32.61	16.86	41.14	2.47	58.08	-37.12	10.00	47.1	113	351	
Vert.	5925.000	PK	47.05	32.70	16.88	41.09	2.47	58.01	-37.19	-27.00	**10.2**	113	351	

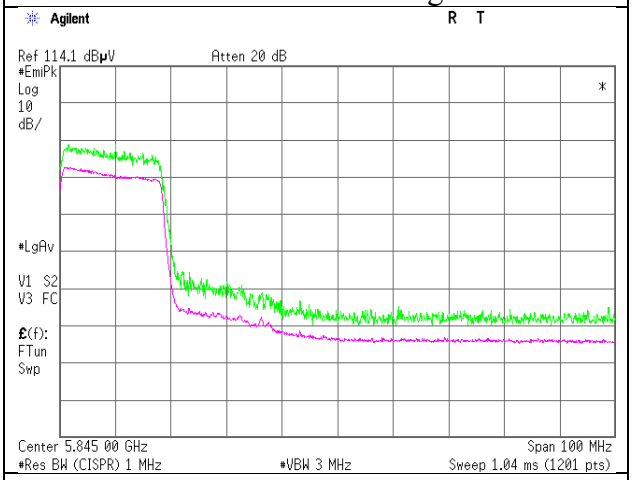
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（{ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	October 19, 2017
Temperature / Humidity	20 deg. C / 51 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n-40 5795 MHz

Horizontal

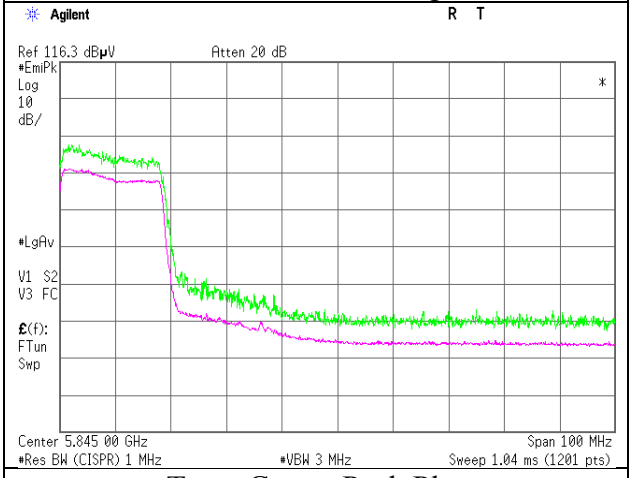
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	2	2	3	2
Date	September 14, 2017	September 21, 2017	September 22, 2017	September 26, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 61 % RH	22 deg. C / 54 % RH	22 deg. C / 66 % RH	22 deg. C / 56 % RH	22 deg. C / 63 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Makoto Hosaka (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-80 5210 MHz				

(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	57.02	31.69	16.34	41.57	2.47	65.95	73.90	7.9	139	350	
Hori.	10420.000	PK	45.80	39.70	9.41	38.64	2.47	58.74	73.90	15.1	150	1	
Hori.	15630.000	PK	46.83	38.84	11.95	38.65	-9.54	49.43	73.90	24.4	150	3	
Hori.	20840.000	PK	39.55	39.80	14.10	47.10	-9.54	36.81	73.90	37.0	124	60	
Hori.	26050.000	PK	38.47	39.99	16.43	47.51	-9.54	37.84	73.90	36.0	150	1	
Hori.	5150.000	AV	43.90	31.69	16.34	41.57	2.47	52.83	53.90	**1.0**	139	350	VBW:3.0 kHz
Hori.	10420.000	AV	35.54	39.70	9.41	38.64	2.47	48.48	53.90	5.4	150	1	VBW:3.0 kHz
Hori.	15630.000	AV	36.30	38.84	11.95	38.65	-9.54	38.90	53.90	15.0	150	3	VBW:3.0 kHz
Hori.	20840.000	AV	31.80	39.80	14.10	47.10	-9.54	29.06	53.90	24.8	124	60	VBW:3.0 kHz
Hori.	26050.000	AV	27.85	39.99	16.43	47.51	-9.54	27.22	53.90	26.6	150	1	VBW:3.0 kHz
Vert.	5150.000	PK	57.25	31.69	16.34	41.57	2.47	66.18	73.90	7.7	149	275	
Vert.	10420.000	PK	45.74	39.70	9.41	38.64	2.47	58.68	73.90	15.2	150	2	
Vert.	15630.000	PK	46.64	38.84	11.95	38.65	-9.54	49.24	73.90	24.6	150	1	
Vert.	20840.000	PK	40.38	39.80	14.10	47.10	-9.54	37.64	73.90	36.2	133	49	
Vert.	26050.000	PK	38.12	39.99	16.43	47.51	-9.54	37.49	73.90	36.4	150	1	
Vert.	5150.000	AV	41.91	31.69	16.34	41.57	2.47	50.84	53.90	3.0	149	275	VBW:3.0 kHz
Vert.	10420.000	AV	35.43	39.70	9.41	38.64	2.47	48.37	53.90	5.5	150	2	VBW:3.0 kHz
Vert.	15630.000	AV	36.01	38.84	11.95	38.65	-9.54	38.61	53.90	15.2	150	1	VBW:3.0 kHz
Vert.	20840.000	AV	31.94	39.80	14.10	47.10	-9.54	29.20	53.90	24.7	133	49	VBW:3.0 kHz
Vert.	26050.000	AV	27.63	39.99	16.43	47.51	-9.54	27.00	53.90	26.9	150	1	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB

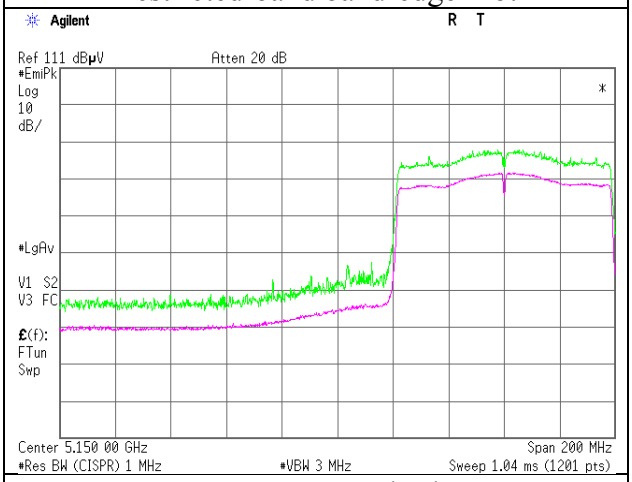
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 5210 MHz

Horizontal

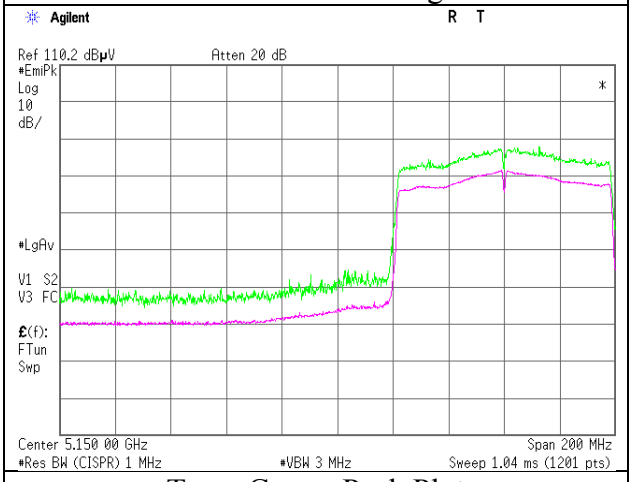
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	2	2	3	2
Date	September 14, 2017	September 21, 2017	September 22, 2017	September 26, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 61 % RH	22 deg. C / 54 % RH	22 deg. C / 66 % RH	22 deg. C / 56 % RH	22 deg. C / 63 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Makoto Hosaka (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-80 5290 MHz				

(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	57.55	31.84	16.45	41.53	2.47	66.78	73.90	7.1	121	348	
Hori.	10580.000	PK	45.82	39.89	9.44	38.68	2.47	58.94	73.90	14.9	150	1	
Hori.	15870.000	PK	45.88	38.02	12.03	38.43	-9.54	47.96	73.90	25.9	150	1	
Hori.	21160.000	PK	40.83	39.80	14.19	47.18	-9.54	38.10	73.90	35.8	139	60	
Hori.	26450.000	PK	38.58	39.95	16.69	48.19	-9.54	37.49	73.90	36.4	150	1	
Hori.	5350.000	AV	41.83	31.84	16.45	41.53	2.47	51.06	53.90	**2.8**	121	348	VBW:3.0 kHz
Hori.	10580.000	AV	35.29	39.89	9.44	38.68	2.47	48.41	53.90	5.4	150	1	VBW:3.0 kHz
Hori.	15870.000	AV	35.61	38.02	12.03	38.43	-9.54	37.69	53.90	16.2	150	1	VBW:3.0 kHz
Hori.	21160.000	AV	32.10	39.80	14.19	47.18	-9.54	29.37	53.90	24.5	139	60	VBW:3.0 kHz
Hori.	26450.000	AV	27.71	39.95	16.69	48.19	-9.54	26.62	53.90	27.2	150	1	VBW:3.0 kHz
Vert.	5350.000	PK	57.52	31.84	16.45	41.53	2.47	66.75	73.90	7.1	147	287	
Vert.	10580.000	PK	45.95	39.89	9.44	38.68	2.47	59.07	73.90	14.8	150	1	
Vert.	15870.000	PK	45.94	38.02	12.03	38.43	-9.54	48.02	73.90	25.8	150	1	
Vert.	21160.000	PK	40.69	39.80	14.19	47.18	-9.54	37.96	73.90	35.9	147	48	
Vert.	26450.000	PK	38.13	39.95	16.69	48.19	-9.54	37.04	73.90	36.8	150	1	
Vert.	5350.000	AV	41.58	31.84	16.45	41.53	2.47	50.81	53.90	3.0	147	287	VBW:3.0 kHz
Vert.	10580.000	AV	35.32	39.89	9.44	38.68	2.47	48.44	53.90	5.4	150	1	VBW:3.0 kHz
Vert.	15870.000	AV	35.42	38.02	12.03	38.43	-9.54	37.50	53.90	16.4	150	1	VBW:3.0 kHz
Vert.	21160.000	AV	34.47	39.80	14.19	47.18	-9.54	31.74	53.90	22.1	147	48	VBW:3.0 kHz
Vert.	26450.000	AV	27.39	39.95	16.69	48.19	-9.54	26.30	53.90	27.6	150	1	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB

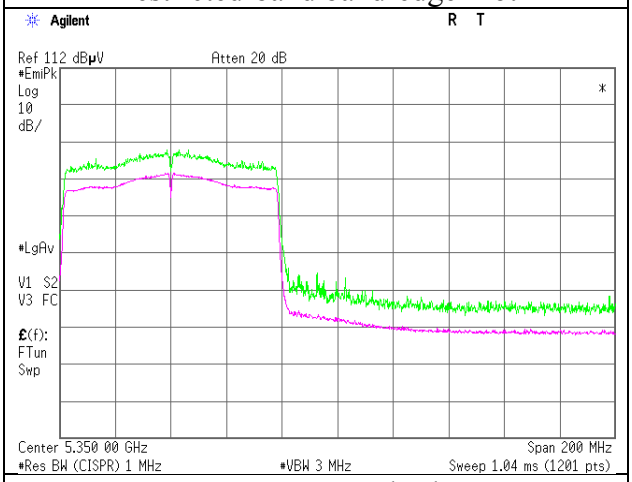
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 5290 MHz

Horizontal

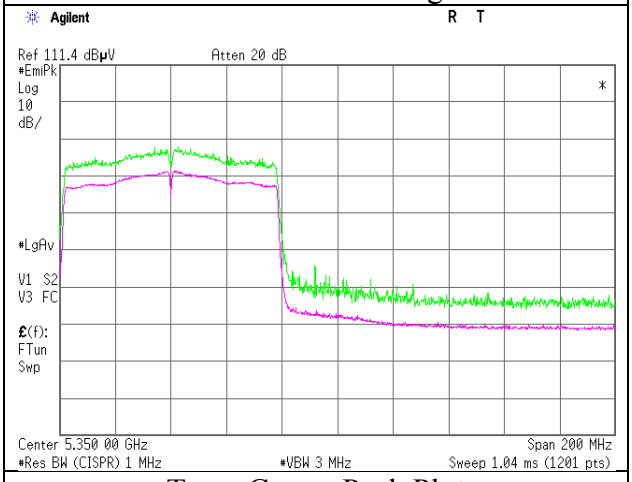
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	2	2	3	2
Date	September 14, 2017	September 21, 2017	September 22, 2017	September 26, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 61 % RH	22 deg. C / 54 % RH	22 deg. C / 66 % RH	22 deg. C / 56 % RH	22 deg. C / 63 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Makoto Hosaka (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-80 5530 MHz				

(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	53.61	31.93	16.51	41.52	2.47	63.00	73.90	10.9	130	351	
Hori.	11060.000	PK	46.24	40.16	9.64	39.16	2.47	59.35	73.90	14.5	150	1	
Hori.	16590.000	PK	46.07	39.02	12.53	38.13	-9.54	49.95	73.90	23.9	150	2	
Hori.	22120.000	PK	39.96	39.98	15.02	47.88	-9.54	37.54	73.90	36.3	146	60	
Hori.	5460.000	AV	42.62	31.93	16.51	41.52	2.47	52.01	53.90	**1.8**	130	351	VBW:3.0 kHz
Hori.	11060.000	AV	35.48	40.16	9.64	39.16	2.47	48.59	53.90	5.3	150	1	VBW:3.0 kHz
Hori.	16590.000	AV	35.49	39.02	12.53	38.13	-9.54	39.37	53.90	14.5	150	2	VBW:3.0 kHz
Hori.	22120.000	AV	30.48	39.98	15.02	47.88	-9.54	28.06	53.90	25.8	146	60	VBW:3.0 kHz
Vert.	5460.000	PK	55.94	31.93	16.51	41.52	2.47	65.33	73.90	8.5	148	278	
Vert.	11060.000	PK	46.12	40.16	9.64	39.16	2.47	59.23	73.90	14.6	150	1	
Vert.	16590.000	PK	46.15	39.02	12.53	38.13	-9.54	50.03	73.90	23.8	150	1	
Vert.	22120.000	PK	40.36	39.98	15.02	47.88	-9.54	37.94	73.90	35.9	142	49	
Vert.	5460.000	AV	41.90	31.93	16.51	41.52	2.47	51.29	53.90	2.6	148	278	VBW:3.0 kHz
Vert.	11060.000	AV	35.28	40.16	9.64	39.16	2.47	48.39	53.90	5.5	150	1	VBW:3.0 kHz
Vert.	16590.000	AV	35.57	39.02	12.53	38.13	-9.54	39.45	53.90	14.4	150	1	VBW:3.0 kHz
Vert.	22120.000	AV	32.08	39.98	15.02	47.88	-9.54	29.66	53.90	24.2	142	49	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 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	58.02	31.94	16.51	41.51	2.47	67.43	-27.77	-27.00	**0.8**	130	351	
Vert.	5470.000	PK	57.36	31.94	16.51	41.51	2.47	66.77	-28.43	-27.00	1.4	148	278	

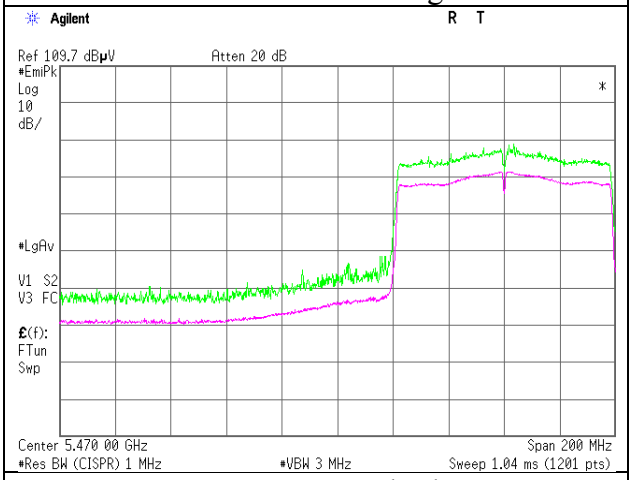
Result [dBuV/m] = Reading + Ant.Fac. + Loss (Cable+(Attenuator or Filter)(below 18 GHz)) - Gain(Amprifier) + Distance factor
Resrult(EIRP[dBm])=10*LOG（({ 10 ^ (Electric Field Strength [dBuV/m] / 20) * 10 ^ (-6) * Distance:3[m]) ^ 2 } / 30) *10^3)
*Other frequency noises omitted in this report were not 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 5530 MHz

Horizontal

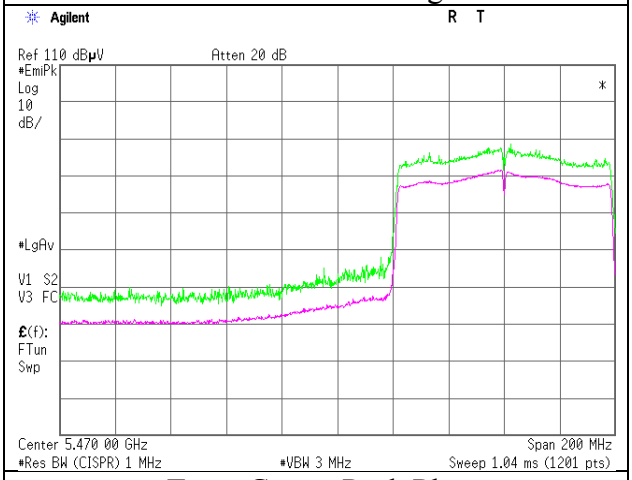
Restricted-band band-edge Plot



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.	11834855S-C-R3				
Test place	Shonan EMC Lab.				
Test Place(AC No)	1	2	2	3	2
Date	September 14, 2017	September 21, 2017	September 22, 2017	September 26, 2017	September 27, 2017
Temperature / Humidity	21 deg. C / 61 % RH	22 deg. C / 54 % RH	22 deg. C / 66 % RH	22 deg. C / 56 % RH	22 deg. C / 63 % RH
Engineer	Shiro Kobayashi (1 GHz – 6.4 GHz)	Yosuke Ishikawa (6.4 GHz – 13 GHz)	Yosuke Ishikawa (13 GHz – 18 GHz)	Makoto Hosaka (18 GHz – 26 GHz)	Shiro Kobayashi (26 GHz – 40 GHz)
Mode	Tx 11ac-80 5775 MHz				

(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.	11550.000	PK	45.61	39.93	9.95	39.05	2.47	58.91	73.90	14.9	150	2	
Hori.	17325.000	PK	45.43	42.94	12.77	37.93	-9.54	53.67	73.90	20.2	150	1	
Hori.	23100.000	PK	39.84	39.92	15.18	47.76	-9.54	37.64	73.90	36.2	133	71	
Hori.	11550.000	AV	35.35	39.93	9.95	39.05	2.47	48.65	53.90	**5.2**	150	2	VBW:3.0 kHz
Hori.	17325.000	AV	35.33	42.94	12.77	37.93	-9.54	43.57	53.90	10.3	150	1	VBW:3.0 kHz
Hori.	23100.000	AV	29.62	39.92	15.18	47.76	-9.54	27.42	53.90	26.4	133	71	VBW:3.0 kHz
Vert.	11550.000	PK	45.60	39.93	9.95	39.05	2.47	58.90	73.90	15.0	150	1	
Vert.	17325.000	PK	45.62	42.94	12.77	37.93	-9.54	53.86	73.90	20.0	150	2	
Vert.	23100.000	PK	40.97	39.92	15.18	47.76	-9.54	38.77	73.90	35.1	132	39	
Vert.	11550.000	AV	35.19	39.93	9.95	39.05	2.47	48.49	53.90	5.4	150	1	VBW:3.0 kHz
Vert.	17325.000	AV	35.21	42.94	12.77	37.93	-9.54	43.45	53.90	10.4	150	2	VBW:3.0 kHz
Vert.	23100.000	AV	32.24	39.92	15.18	47.76	-9.54	30.04	53.90	23.8	132	39	VBW:3.0 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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

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

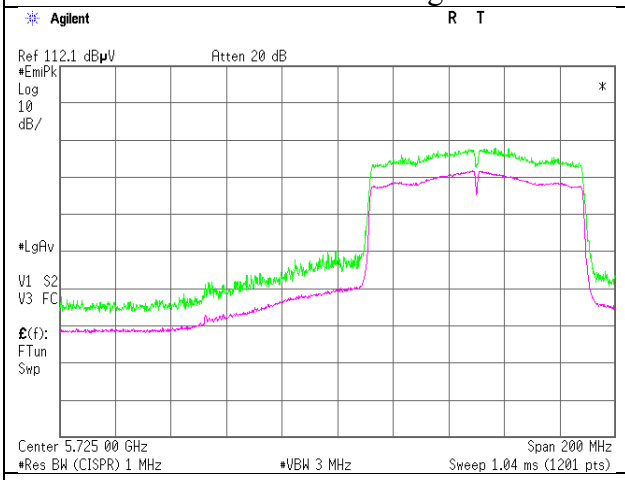
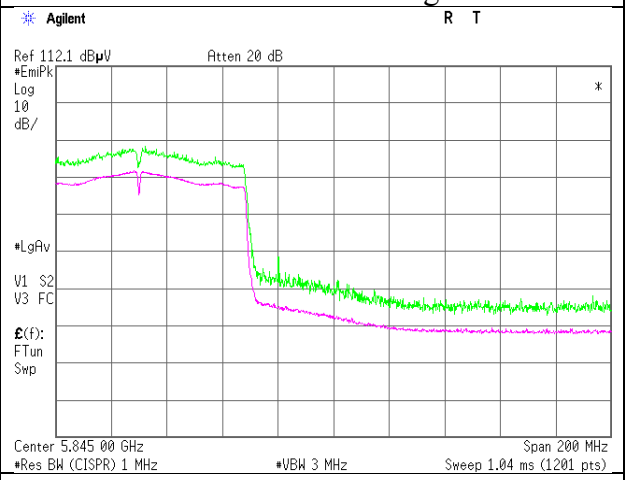
(* PK: Peak, AV: Average, QP: Quasi-Peak)

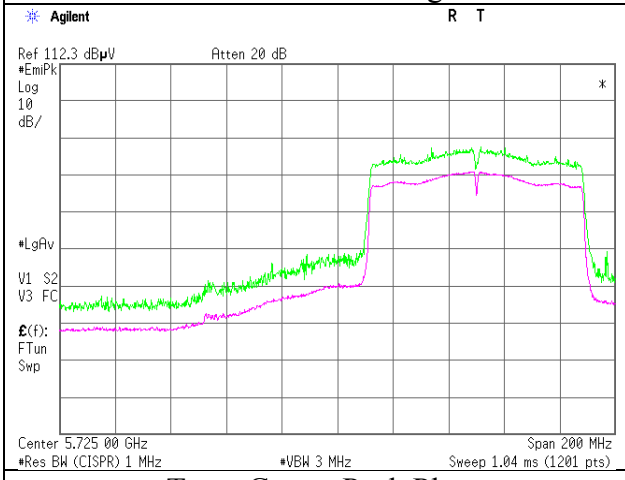
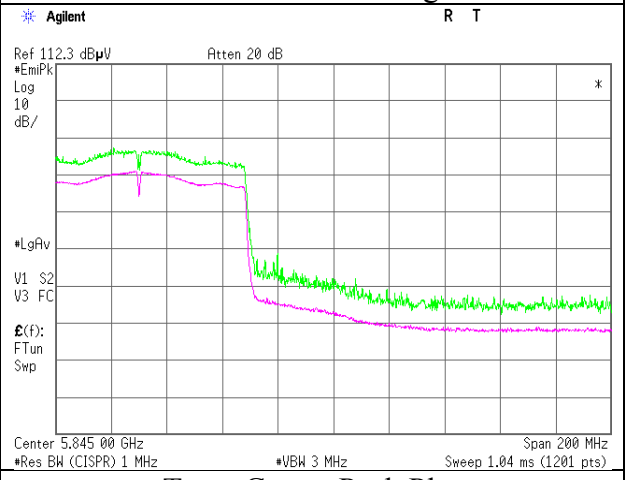
Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Result (EIRP) [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	5650.000	PK	49.60	32.22	16.66	41.36	2.47	59.59	-35.61	-27.00	8.6	138	348	
Hori.	5700.000	PK	57.92	32.31	16.70	41.31	2.47	68.09	-27.11	10.00	37.1	138	348	
Hori.	5720.000	PK	61.33	32.34	16.72	41.29	2.47	71.57	-23.63	15.60	39.2	138	348	
Hori.	5725.000	PK	62.44	32.35	16.72	41.29	2.47	72.69	-22.51	27.00	49.5	138	348	
Hori.	5850.000	PK	54.86	32.57	16.83	41.16	2.47	65.57	-29.63	27.00	56.6	138	348	
Hori.	5855.000	PK	53.17	32.58	16.83	41.16	2.47	63.89	-31.31	15.60	46.9	138	348	
Hori.	5875.000	PK	49.34	32.61	16.86	41.14	2.47	60.14	-35.06	10.00	45.1	138	348	
Hori.	5925.000	PK	48.59	32.70	16.88	41.09	2.47	59.55	-35.65	-27.00	8.7	138	348	
Vert.	5650.000	PK	48.49	32.22	16.66	41.36	2.47	58.48	-36.72	-27.00	9.7	149	284	
Vert.	5700.000	PK	58.15	32.31	16.70	41.31	2.47	68.32	-26.88	10.00	36.9	149	284	
Vert.	5720.000	PK	62.73	32.34	16.72	41.29	2.47	72.97	-22.23	15.60	37.8	149	284	
Vert.	5725.000	PK	64.32	32.35	16.72	41.29	2.47	74.57	-20.63	27.00	47.6	149	284	
Vert.	5850.000	PK	55.28	32.57	16.83	41.16	2.47	65.99	-29.21	27.00	56.2	149	284	
Vert.	5855.000	PK	53.66	32.58	16.83	41.16	2.47	64.38	-30.82	15.60	46.4	149	284	
Vert.	5875.000	PK	49.47	32.61	16.86	41.14	2.47	60.27	-34.93	10.00	44.9	149	284	
Vert.	5925.000	PK	49.03	32.70	16.88	41.09	2.47	59.99	-35.21	-27.00	**8.2**	149	284	

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 (3.99 m / 3.0 m) = 2.47 dB
13 GHz - 40 GHz : 20log (1.0 m / 3.0 m) = -9.54 dB

Radiated Spurious Emission

Report No.	11834855S-C-R3
Test place	Shonan EMC Lab.
Test Place(AC No)	1
Date	September 14, 2017
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Shiro Kobayashi
Mode	Tx 11ac-80 5775 MHz

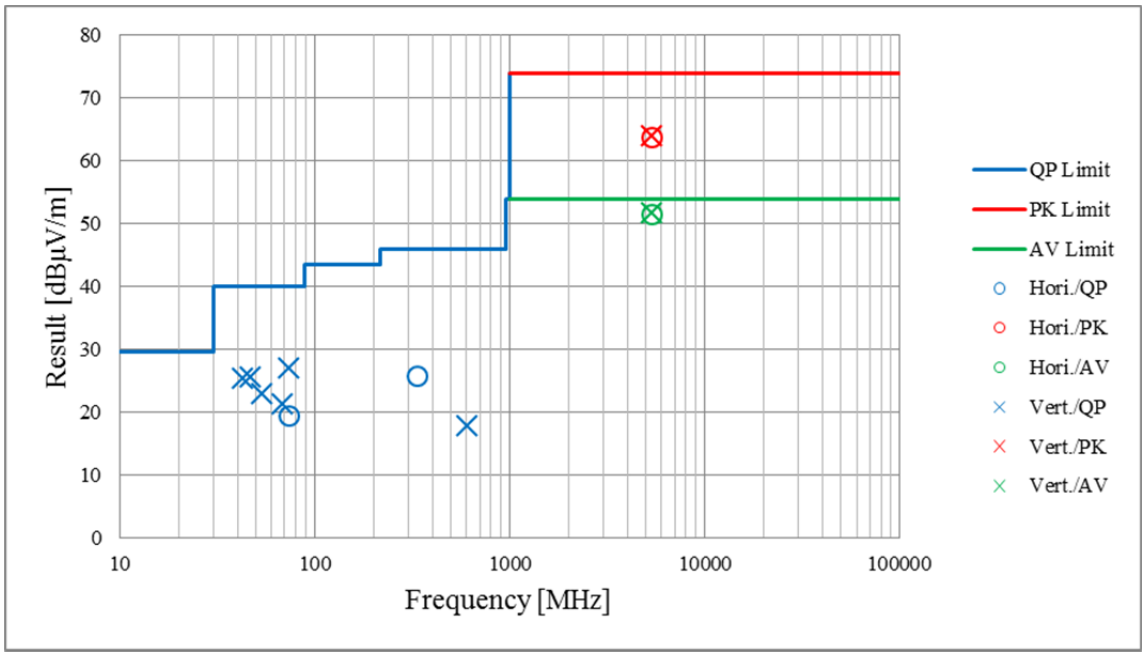
Horizontal	Horizontal
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average Plot	Trace Green: Peak Plot Trace Purple: Average Plot

Vertical	Vertical
Restricted-band band-edge Plot	Restricted-band band-edge Plot
	
Trace Green: Peak Plot Trace Purple: Average 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.	11834855S-C-R3	
Test place	Shonan EMC Lab.	
Test Place(AC No)	1	3
Date	November 17, 2017	September 8, 2017
Temperature / Humidity	21 deg. C / 38 % RH	20 deg. C / 64 % RH
Engineer	Kazutaka Takeyama	Shiro Kobayashi
	(30 MHz – 1 GHz)	(1 GHz – 6.4 GHz)
Mode	Tx 11a 5300 MHz	

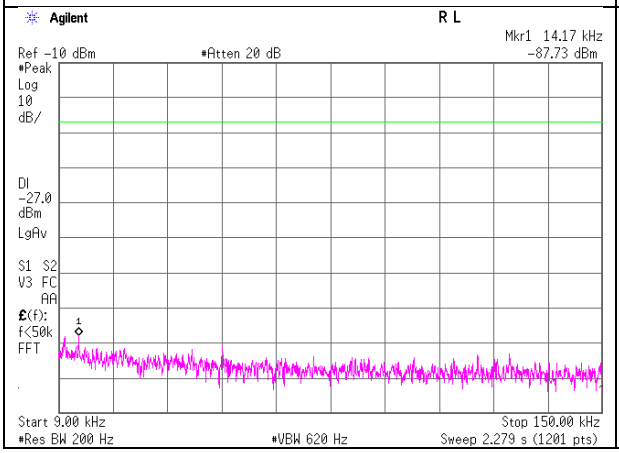


*These plots data contains sufficient number to show the trend of characteristic features for EUT.

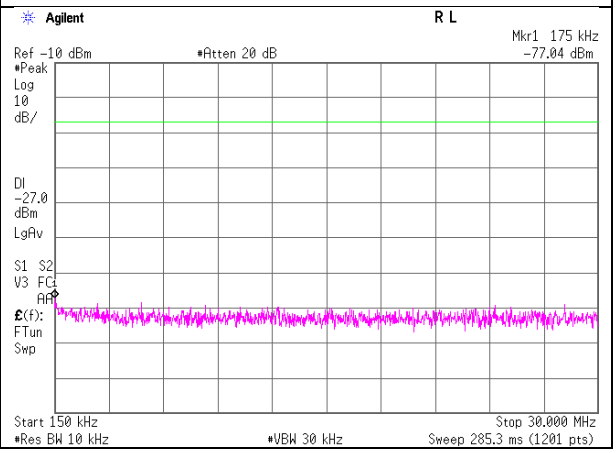
Conducted Spurious Emission

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11834855S-C-R3
Date	January 26, 2018
Temperature / Humidity	22deg. C / 32 % RH
Engineer	Tatsuya Arai
Mode	Tx 11a 5300 MHz

9 kHz-150 kHz



150 kHz-30 MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenuator [dB]	Antenna Gain* [dBi]	N (Number of Output)	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
14.17	-87.7	0.06	20.1	2.0	1	-65.6	300	6.0	-4.3	44.5	48.8	
175.00	-77.4	0.02	20.1	2.0	1	-55.3	300	6.0	6.0	22.7	16.7	

E [dBuV/m] = EIRP [dBm] - 20 log (Distance [m]) + Ground bounce [dB] + 104.8 [dBuV/m]

EIRP[dBm] = Reading [dBm] + Cable loss [dB] + Attenuator Loss [dB] + Antenna gain [dBi] + 10 * log (N)

N: Number of output

*2.0 dBi was applied to the test result based on KDB 558074 since antenna gain was less than 2.0 dBi.

APPENDIX 2: Test instruments

Test equipment (1/3)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV(RE,CE, RFI,MF)	-	RE, CE	-
SAF-04	Pre Amplifier	TOYO Corporation	TPA0118-36	1440489	RE	2017/03/17 * 12
SCC-G06	Coaxial Cable	Junkosha	J12J102207-00	MAY-23-16-091	RE	2017/06/13 * 12
SCC-G23	Coaxial Cable	Suhner	SUCOFLEX 104	297342/4	RE	2017/05/08 * 12
SHA-01	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-725	RE	2017/08/14 * 12
SOS-01	Humidity Indicator	A&D	AD-5681	4062555	RE	2017/10/30 * 12
SRENT-08	Spectrum Analyzer	Agilent	E4448A	MY50180019	RE,AT	2016/10/24 * 12
KJM-09	Measure	KOMELON	KMC-36	-	RE	-
SAEC-01(SVSW R)	Semi-Anechoic Chamber	TDK	SAEC-01(SVSWR)	1	RE	2017/07/20 * 12
STS-01	Digital Hitester	Hioki	3805-50	80997812	RE	2017/10/16 * 12
SAT10-05	Attenuator(above1GHz)	Agilent	8493C-010	74864	RE	2016/11/07 * 12 *1)
SCC-G40	Coaxial Cable	Junkosha	MWX221-01000NF SNMS/B	1612S005	RE	2017/01/08 * 12
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	RE	2016/10/11 * 12 *1)
SAF-05	Pre Amplifier	TOYO Corporation	TPA0118-36	1440490	RE	2017/02/17 * 12
SCC-G07	Coaxial Cable	Junkosha	J12J103316-00	MAY-25-17-008	RE	2017/06/13 * 12
SCC-G43	Coaxial Cable	HUBER+SUHNER	SUCOFLEX_104_E	SN MY 13406/4E	RE	2017/07/10 * 12
SHA-03	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-739	RE	2017/08/23 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2016/10/12 * 12 *1)
SSA-02	Spectrum Analyzer	Agilent	E4448A	MY48250106	RE	2017/03/07 * 12
SJM-02	Measure	KOMELON	KMC-36	-	RE	-
SAEC-03(SVSWR)	Semi-Anechoic Chamber	TDK	SAEC-03(SVSWR)	3	RE	2017/07/17 * 12
STS-03	Digital Hitester	Hioki	3805-50	80997823	RE	2016/10/17 * 12 *1)
SAT10-06	Attenuator	Agilent	8493C-010	74865	RE	2016/11/07 * 12 *1)
SFL-03	Highpass Filter	MICRO-TRONICS	HPM50112	28	RE	2016/11/29 * 12 *1)
SHA-05	Horn Antenna	ETS LINDGREN	Sep-60	LM4210	RE	2017/03/15 * 12
SAF-09	Pre Amplifier	TOYO Corporation	HAP18-26W	18	RE	2016/09/27 * 12 *1)
SCC-G20	Coaxial Cable	Junkosha	J12J102518-00	APR-15-15-003	RE	2017/04/20 * 12
SCC-G33	Coaxial Cable	Junkosha	MWX241-01000KMSKMS	-	RE	2017/04/20 * 12

Test equipment (2/3)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SCC-G05	Coaxial Cable	Junkosha	J12J102207-00	APR-30-15-037	RE	2017/01/08 * 12
SCC-G22	Coaxial Cable	Suhner	SUCOFLEX 104	296199/4	RE	2017/05/08 * 12
SAEC-02(SVSWR)	Semi-Anechoic Chamber	TDK	SAEC-02(SVSWR)	2	RE	2017/07/18 * 12
SHA-02	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-726	RE	2017/08/14 * 12
SOS-03	Humidity Indicator	A&D	AD-5681	4063325	RE	2016/10/12 * 12
SJM-09	Measure	PROMART	SEN1935	-	RE, CE	-
STS-02	Digital Hitester	Hioki	3805-50	80997819	RE, CE	2017/03/08 * 12
SHA-04	Horn Antenna	ETS LINDGREN	Sep-60	LM9861	RE	2017/07/11 * 12
SCC-G15	Coaxial Cable	Suhner	SUCOFLEX 102	32703/2	RE	2017/03/23 * 12
SAF-08	Pre Amplifier	TOYO Corporation	HAP18-26W	19	RE	2017/03/17 * 12
SHA-06	Horn Antenna	ETS LINDGREN	Oct-60	LM3459	RE	2017/03/15 * 12
SAF-10	Pre Amplifier	TOYO Corporation	HAP26-40W	10	RE	2017/03/17 * 12
SAF-01	Pre Amplifier	SONOMA	310N	290211	RE	2017/02/09 * 12
KAT6-04	Attenuator	INMET	18N-6dB	-	RE	2016/12/15 * 12 *1)
SAT3-09	Attenuator	JFW	50HF-003N	-	RE	2017/08/24 * 12
SBA-01	Biconical Antenna	Schwarzbeck	BBA9106	91032664	RE	2017/10/21 * 12
SCC-A1/A3/A5/A7/A8/A13/SRSE-01	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/NS4906	-/0901-269(RFSelector)	RE	2017/04/07 * 12
SCC-A2/A4/A6/A7/A8/A13/SRSE-01	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/NS4906	-/0901-269(RFSelector)	RE	2017/04/07 * 12
SLA-05	Logperiodic Antenna	Schwarzbeck	VUSLP9111B	193	RE	2017/01/05 * 12
STR-01	Test Receiver	Rohde & Schwarz	ESU40	100093	RE	2017/04/12 * 12
SAEC-01(NSA)	Semi-Anechoic Chamber	TDK	SAEC-01(NSA)	1	RE	2017/06/09 * 12

Test equipment (3/3)

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SCC-B12/B13/SRSE-02	Coaxial Cable&RF Selector	Suhner/Suhner/TOYO	RG223U/141PE/NS4906	-/0901-270(RF Selector)	CE	2017/04/07 * 12
SLS-03	LISN	Rohde & Schwarz	ENV216	100513	CE	2017/02/27 * 12
KAT3-12	Attenuator	JFW IND. INC.	50HF-003N	-	CE	2017/07/24 * 12
SOS-04	Humidity Indicator	A&D	AD-5681	4061512	CE	2016/12/13 * 12 *1)
STR-07	Test Receiver	Rohde & Schwarz	ESU26	100484	CE	2017/09/26 * 12
SPM-07	Power Meter	Agilent	8990B	MY5100272	AT	2017/05/01 * 12
SCC-G32	Coaxial Cable	Junkosha	MWX241-02000KMSKMS	OCT-09-13-005	AT	2017/11/22 * 12
SAT20-13	Attenuator	Weinschel Corp.	54A-20	87636	AT	2017/12/08 * 12
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	AT	2017/12/21 * 12
KTS-07	Digital Tester	SANWA	PC500	7019232	AT	2017/10/11 * 12
SAT20-12	Attenuator	Weinschel Corp.	54A-20	86752	AT	2017/12/08 * 12
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	AT	2017/10/10 * 12
SPSS-04	Power sensor	Agilent	N1923A	MY5326009	AT	2017/05/01 * 12
SOS-10	Humidity Indicator	A&D	AD-5681	4064561	AT	2017/10/30 * 12
STS-06	Digital Hitester	Hioki	3805-50	080997830	AT	2017/03/08 * 12
SPSS-05	Power sensor	Agilent	N1923A	MY5349008	AT	2017/05/01 * 12

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

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

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

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