RADIO TEST REPORT

Test Report No. : 11306371S-C-R1

Applicant	:	**Sony Corporation**
Type of Equipment	:	**Digital Paper**
Model No.	:	**DPT-RP1**
FCC ID	:	**AK8DPTRP1**
Test regulation	:	**FCC Part 15 Subpart E: 2016**
Test item	:	**Antenna terminal conducted tests**
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 11306371S-C. 11306371S-C is replaced with this report.

Date of test: June 6 to July 10, 2016

Representative test engineer:
Kazutaka Takeyama
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

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REVISION HISTORY

Original Test Report No.: 11306371S-C

Revision	Test report No.	Date	Page revised	Contents
- (Original)	11306371S-C	July 25, 2016	-	-
1	11306371S-C-R1	July 27, 2016	4	Update of clock frequency

CONTENTS **PAGE**

SECTION 1: Customer information

Company Name	:	Sony Corporation
Brand Name	:	SONY
Address	:	1-7-1 Konan, Minato-ku, Tokyo 108-0075, Japan

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

2.1 Identification of E.U.T.

Type of Equipment	:	Digital Paper
Model No.	:	DPT-RP1
Serial No.	:	Refer to Section 4, Clause 4.2
Rating	:	DC 3.7 V
Receipt Date of Sample	:	May 30, 2016
Country of Mass-production	:	Japan
Condition of EUT	:	Production prototype (Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT	:	No Modification by the test lab.

2.2 Product Description

Model: DPT-RP1 (referred to as the EUT in this report) is a Digital Paper.

Clock frequency : 156 MHz (CPLD), 667 MHz (LPDDR3), 200 MHz (eMMC), 40 MHz (WLAN/BT)
208 MHz (WLAN/BT), 32.768 kHz (clock) , 26 MHz (CPU), 27 MHz (NFC)

Radio Specification

Equipment name		IEEE 802.11 2×2 MIMO a/b/g/n/ac Wireless LAN + Bluetooth + NFC
Frequency of operation	Bluetooth	2.4GHz band: 2402-2480 MHz (BDR (Basic Data Rate), EDR (Enhanced Data Rate), LE (Low Energy mode)
	WLAN	2.4GHz band: 2412-2462 MHz (b,g,n(HT20)); W52 (U-NII-1): 5180-5240 MHz (a,n(HT20),ac(VHT20)) / 5190-5230 MHz (n(HT40),ac(VHT40)) / 5210 MHz (ac(VHT80)); W53 (U-NII-2A): 5260-5320 MHz (a,n(HT20),ac(VHT20)) / 5270-5310 MHz (n(HT40),ac(VHT40)) / 5290 MHz (ac(VHT80)); W56 (U-NII-2C): 5500-5720 MHz (a,n(HT20),ac(VHT20)) / 5510-5710 MHz (n(HT40),ac(VHT40)) / 5530-5690 MHz (ac(VHT80)) W58 (U-NII-3): 5745-5825 MHz (a,n(HT20),ac(VHT20)) / 5755-5795 MHz (n(HT40),ac(VHT40)) / 5775 MHz (ac(VHT80))
	NFC	13.56 MHz

Operation mode	Wi-Fi	Bluetooth	NFC
Channel spacing	5 MHz (2.4 GHz band), 20 MHz (W52, W53, W56, W58)	1 MHz (BDR, EDR), 2 MHz (LE)	-
Bandwidth	20 MHz (b,g,a,n(HT20),ac(VHT20)), 40 MHz (n(HT40),ac(VTH40)), 80 MHz (ac(VHT80))	79 MHz	-
Type of modulation	DSSS: DBPSK, DQPSK, CCK OFDM: BPSK, QPSK, 16QAM, 64QAM, 256QAM(*1) (*1. 256QAM is only supported by 11ac mode.)	FHSS: GFSK (*. EDR: GFSK+ π/4-DQPSK, GFSK+ 8DPSK)	ASK

Antenna	antenna #A (Wi-Fi)	antenna #B (Wi-Fi+Bluetooth)
Antenna type	Loop	
Antenna gain (Peak)	3.75 dBi (2.4 GHz), 2.81 dBi (5 GHz) (*.including cable loss)	1.38 dBi (2.4 GHz), 4.29 dBi (5 GHz) (*.including cable loss)

Antenna	NFC antenna
Antenna type	Loop
Card type	type A, type F

SECTION 3: Test specification, procedures & results

3.1 Test Specification

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

The EUT has been tested for compliance with FCC Part 15 Subpart B. Refer to the test report 11306371S-F.

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	-	*1)	-
	IC: RSS-Gen 8.8	**IC:** RSS-Gen 8.8			
26 dB Emission Bandwidth	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)	See data	N/A	Conducted
	IC: -	**IC:** -			
Maximum Conducted Output Power	**FCC:** KDB Publication Number 789033	**FCC:** 15.407 (a) (1) (2) (3)		Complied	Conducted
	IC: -	**IC:** RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)			
Maximum Power Spectral Density	**FCC:** KDB Publication Number 789033	**FCC :** 15.407 (a) (1) (2) (3)		Complied	Conducted
	IC: -	**IC:** RSS-247 6.2.1 (1) 6.2.2 (1) 6.2.3 (1) 6.2.4 (1)			
Spurious Emission Restricted Band Edge	**FCC:** ANSI C63.10-2013 KDB Publication Number 789033	**FCC:** 15.407 (b), 15.205 and 15.209	-	Complied (< 30 MHz)	Conducted *2)
	IC: -	**IC:** RSS-247 6.2.1 (2) 6.2.2 (2) 6.2.3 (2) 6.2.4 (2)			
6 dB Emission Bandwidth	**FCC:** ANSI C63.10-2013	**FCC:** 15.407 (e)	See data	Complied	Conducted
	IC: -	**IC:** RSS-247 6.2.4 (1)			

Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.
*1) Refer to the test report: 11306372M-C.
*2) Refer to the test report: 11306372M-C for Radiated emission (above 30 MHz).
* Refer to the test report: 11306371S-D for DFS test.

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

FCC Part 15.31 (e)

This EUT provides stable voltage (DC 3.3 V and 1.8 V) constantly to RF transmitter regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

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

3.3 Addition to standard

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

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

3.4 Uncertainty

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

Shonan EMC Lab.

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

3.5 Test Location

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

Test site	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measurement distance
No.1 Semi-anechoic chamber	2973D-1	20.6 x 11.3 x 7.65	20.6 x 11.3	10m
No.2 Semi-anechoic chamber	2973D-2	20.6 x 11.3 x 7.65	20.6 x 11.3	10m
No.3 Semi-anechoic chamber	2973D-3	12.7 x 7.7 x 5.35	12.7 x 7.7	5m
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	Remarks*	Power setting
IEEE 802.11a	6 Mbps, PN9	11
IEEE 802.11n SISO 20 MHz BW	MCS 0, PN9	11
IEEE 802.11n MIMO 20 MHz BW	MCS 8, PN9	11
IEEE 802.11n SISO 40 MHz BW	MCS 0, PN9	10
IEEE 802.11n MIMO 40 MHz BW	MCS 8, PN9	10
IEEE 802.11ac SISO 20 MHz BW	MCS 0, PN9	11
IEEE 802.11ac MIMO 20 MHz BW	MCS 0, PN9	11
IEEE 802.11ac SISO 40 MHz BW	MCS 0, PN9	9
IEEE 802.11ac MIMO 40 MHz BW	MCS 0, PN9	9
IEEE 802.11ac SISO 80 MHz BW	MCS 0, PN9	8
IEEE 802.11ac MIMO 80 MHz BW	MCS 0, PN9	8

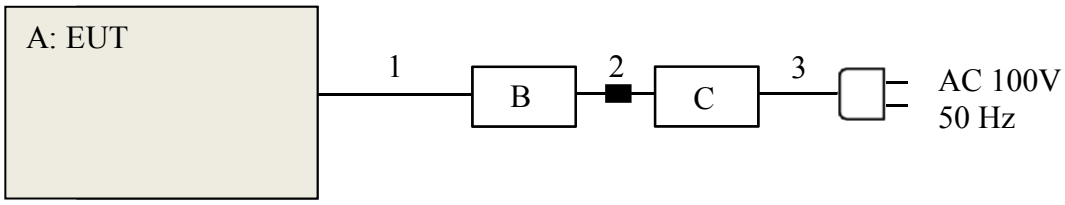
*The worst condition was determined based on the test result of Maximum Peak Output Power (Mid Channel)
*Power of the EUT was set by the software: DutApiMimoBtFmBridgeEth.exe Version 2.0.0.75
*This setting of software is the worst case.
Any conditions under the normal use do not exceed the condition of setting.
In addition, end users cannot change the settings of the output power of the product.

*The details of Operation mode(s)

Item	Operating mode	Frequency	Antenna*
All items	Transmitting(Tx) IEEE 802.11a	W52/W53: 5180 MHz, 5220 MHz, 5240 MHz, 5260 MHz, 5300 MHz, 5320 MHz	B
		W56: 5500 MHz, 5580 MHz, 5700 MHz, 5720 MHz	
		W58: 5745 MHz, 5785 MHz, 5825 MHz	
	Transmitting(Tx) IEEE 802.11n (HT20)	W52/W53: 5180 MHz, 5220 MHz, 5240 MHz, 5260 MHz, 5300 MHz, 5320 MHz	B, A+B
		W56: 5500 MHz, 5580 MHz, 5700 MHz, 5720 MHz	
		W58: 5745 MHz, 5785 MHz, 5825 MHz	
	Transmitting(Tx) IEEE 802.11n (HT40)	W52/W53: 5190 MHz, 5230 MHz, 5270 MHz, 5310 MHz	B, A+B
		W56: 5510 MHz, 5550 MHz, 5670 MHz, 5710 MHz	
		W58: 5755 MHz, 5795 MHz	
	(VHT20)Transmitting(Tx) IEEE 802.11ac	W52/W53: 5180 MHz, 5220 MHz, 5240 MHz, 5260 MHz, 5300 MHz, 5320 MHz	B, A+B
		W56: 5500 MHz, 5580 MHz, 5700 MHz, 5720 MHz	
		W58: 5745 MHz, 5785 MHz, 5825 MHz	
	(VHT40)Transmitting(Tx) IEEE 802.11ac	W52/W53: 5190 MHz, 5230 MHz, 5270 MHz, 5310 MHz	B, A+B
		W56: 5510 MHz, 5550 MHz, 5670 MHz, 5710 MHz	
		W58: 5755 MHz, 5795 MHz	
	(VHT80)Transmitting(Tx) IEEE 802.11ac	W52/W53: 5210 MHz, 5290 MHz	B, A+B
		W56: 5530 MHz, 5610 MHz, 5690 MHz	
		W58: 5775 MHz	

* The test was performed with the antenna that had higher power as a representative.

4.2 Configuration and peripherals



■ : Standard Ferrite Core

Description of EUT and support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	Digital Paper	DPT-RP1	9002565	Sony Corporation	EUT
B	Laptop PC	7666-77J	LV-B8PZ8 08/05	Lenovo	-
C	AC Adaptor	92P1213	11S92P1213Z1ZDDZ92C2B0	Lenovo	-

List of cables used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	USB	1.0	Shielded	Shielded	-
2	DC	1.8	Unshielded	Unshielded	-
3	AC	1.0	Unshielded	Unshielded	-

SECTION 5: 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: 160 MHz BW) (Method PM)
Maximum Power Spectral Density	Encompass the entire EBW	1 MHz or 100 kHz *2)	≥ 3 RBW	Auto	RMS 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 v01r02 "Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices Part 15, Subpart E (Issued on April 8, 2016)".

*1) Peak hold was applied as Worst-case measurement.
*2) KDB 789033 D02 says that RBW is set to be 500 kHz for 5.725 GHz-5.850 GHz, but it is not possible with spectrum analyzer, so RBW Correction Factor (10 log(500 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

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

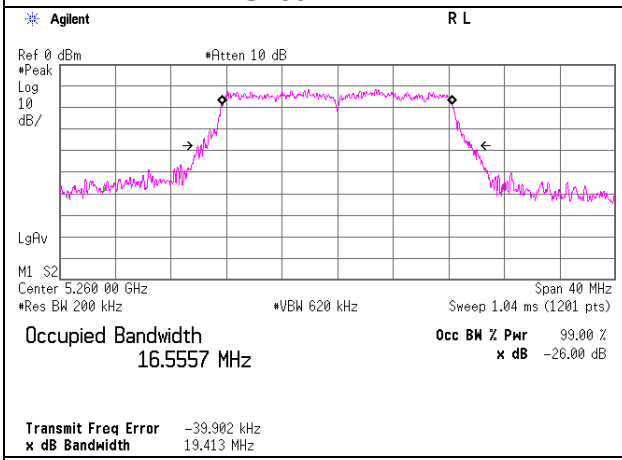
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11a, PN9, worst antenna port B, worst data mode 6Mbps

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	16.928	-
5220	-	17.010	-
5240	-	16.954	-
5260	19.413	17.048	-
5300	19.265	16.986	-
5320	19.068	16.933	-
5500	19.167	16.911	-
5580	19.330	16.966	-
5700	19.305	16.979	-
5720	19.189	16.888	-
5745	-	17.061	-
5785	-	17.034	-
5825	-	16.922	-

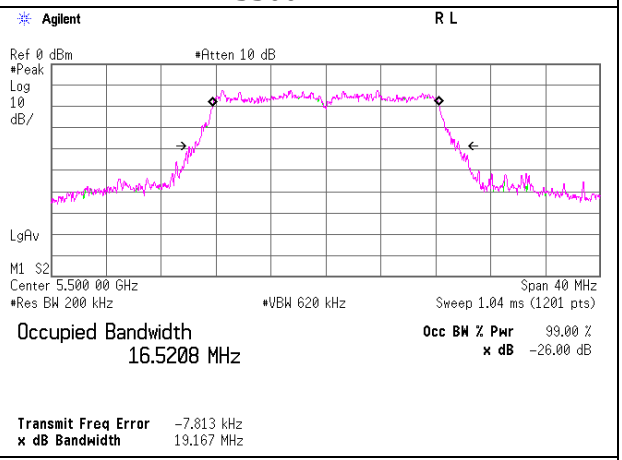
26 dB Emission Bandwidth

11a

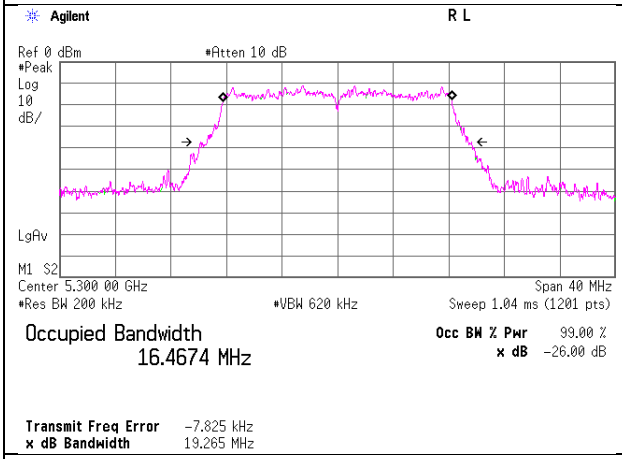
5260 MHz



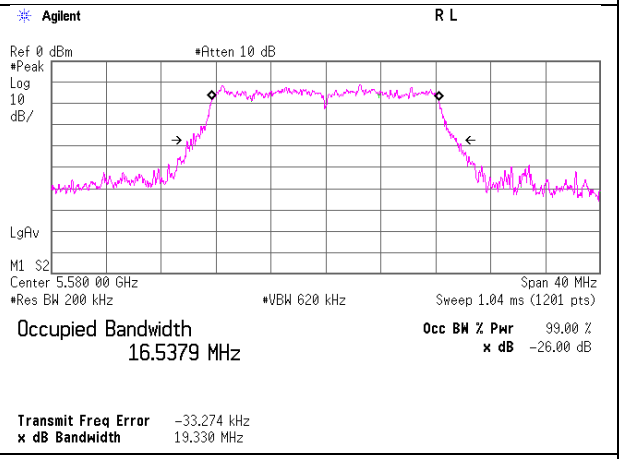
5500 MHz



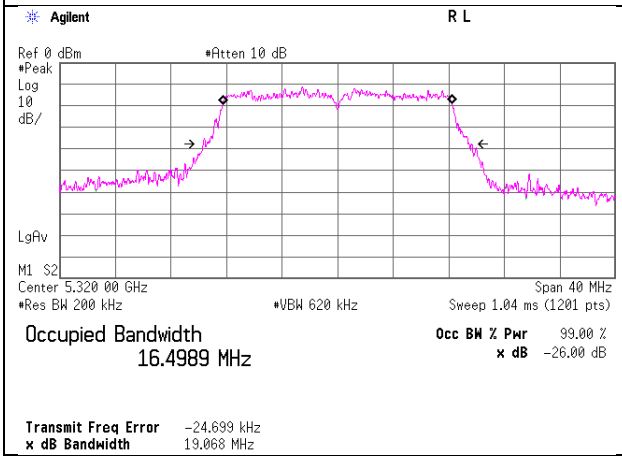
5300 MHz



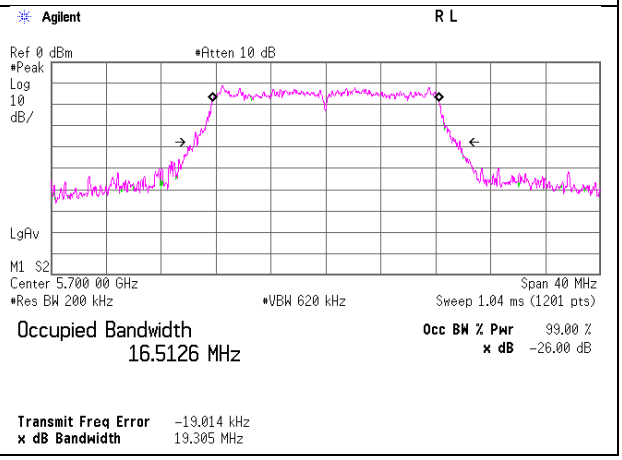
5580 MHz



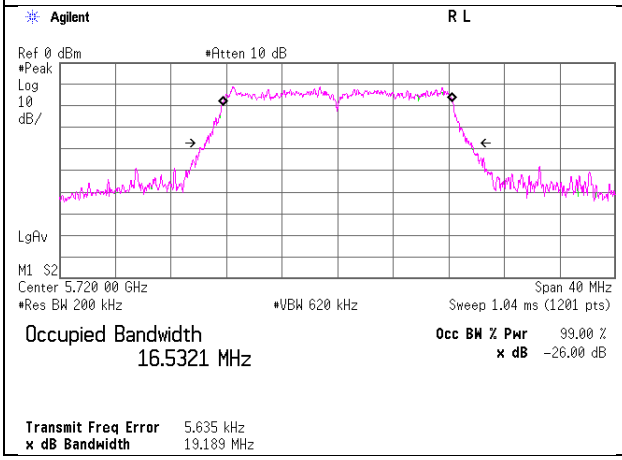
5320 MHz



5700 MHz



11a

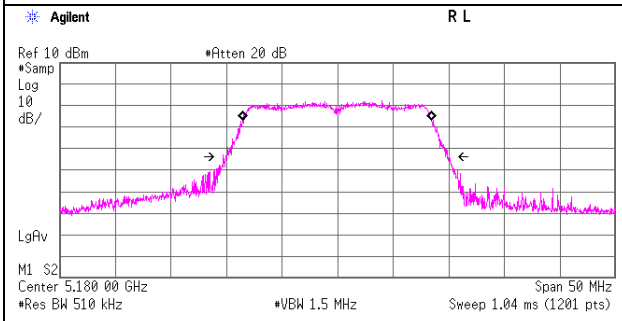
5720 MHz	
	

Agilent
R L
Ref 0 dBm
#Atten 10 dB
#Peak
Log
10
dB/
LgAv
M1 S2
Center 5.720 00 GHz
Span 40 MHz
#Res BW 200 kHz
#VBW 620 kHz
Sweep 1.04 ms (1201 pts)
Occupied Bandwidth
16.5321 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 5.635 kHz
x dB Bandwidth 19.189 MHz

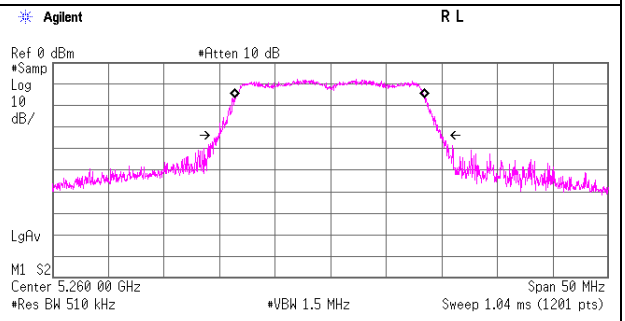
99 % Occupied Bandwidth

11a

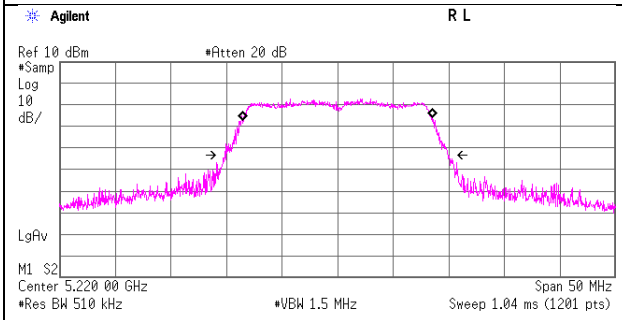
5180 MHz



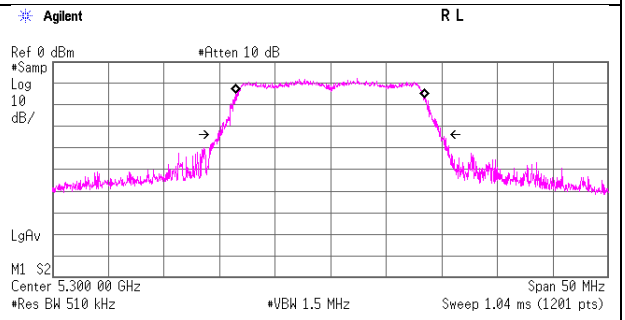
5260 MHz



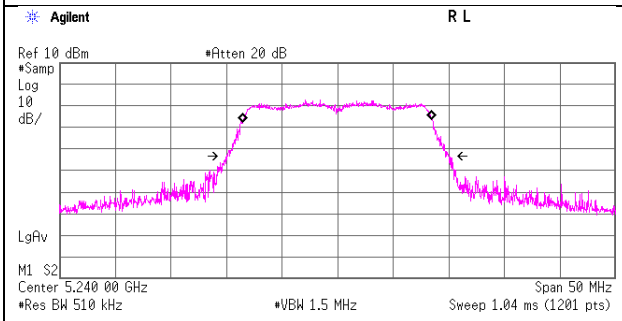
5220 MHz



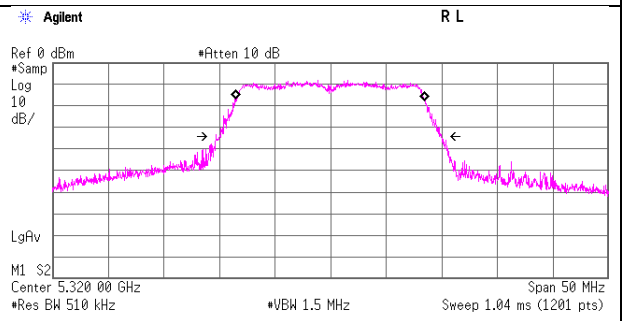
5300 MHz



5240 MHz



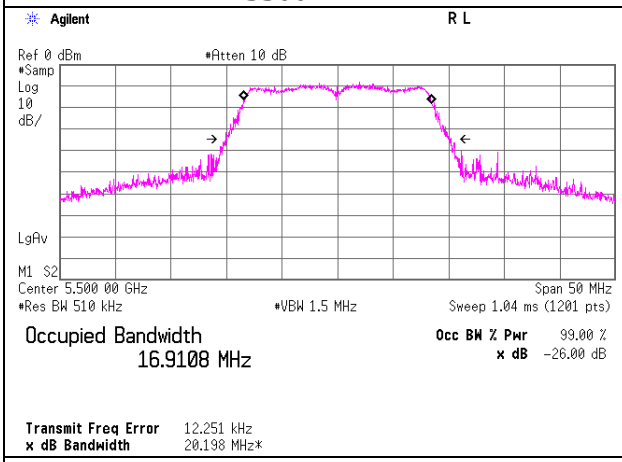
5320 MHz



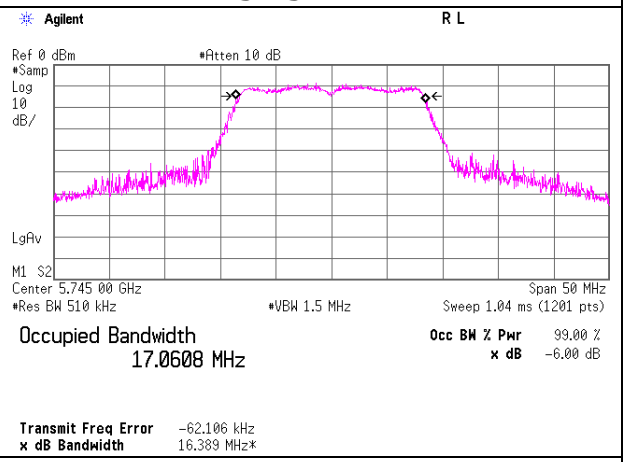
99 % Occupied Bandwidth

11a

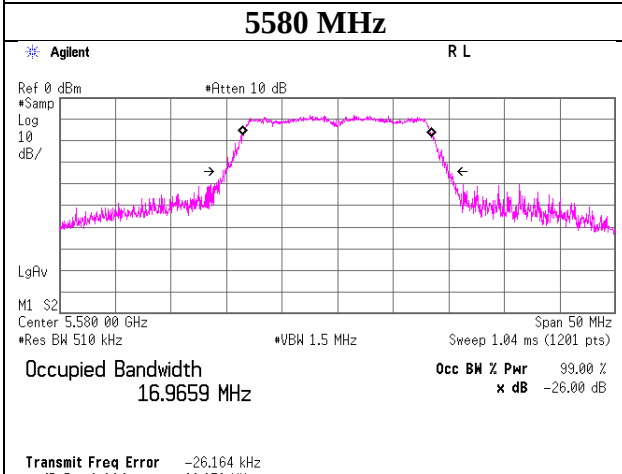
5500 MHz



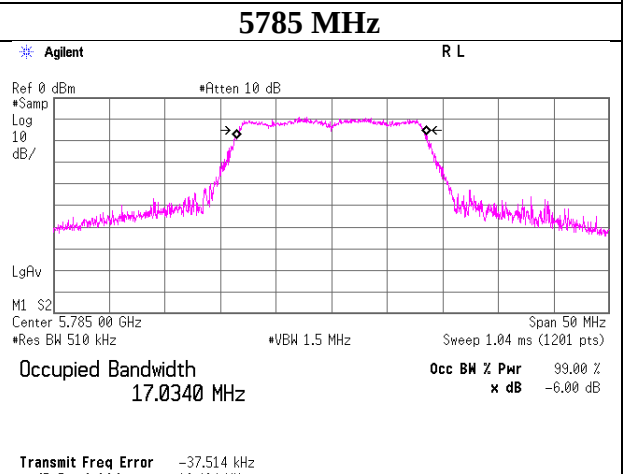
5745 MHz



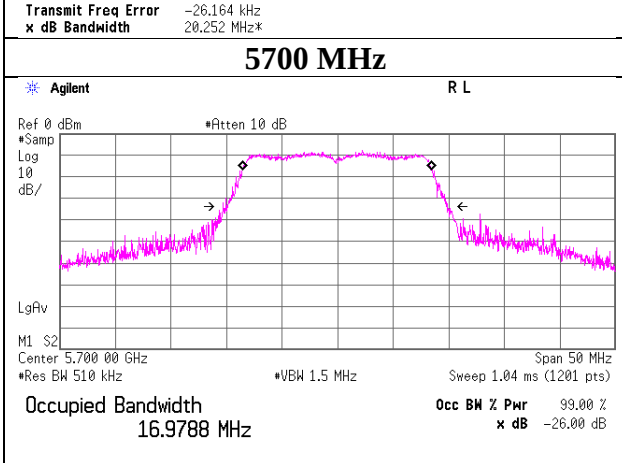
5580 MHz



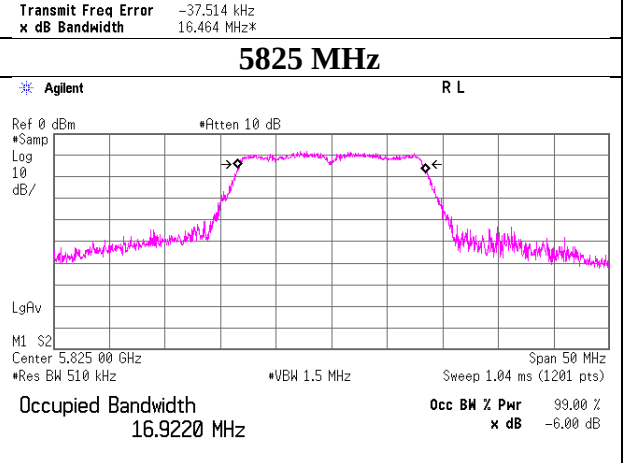
5785 MHz



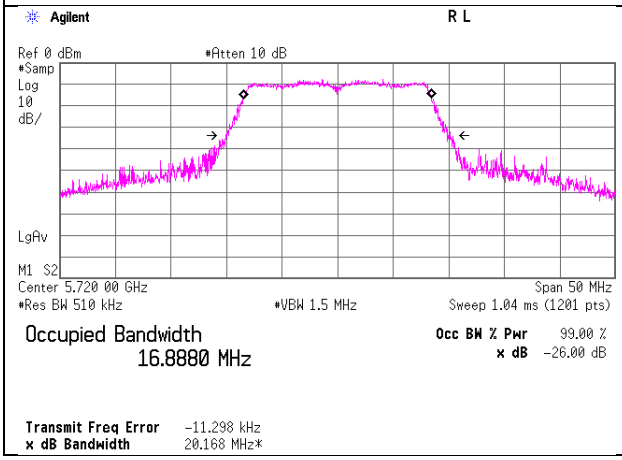
5700 MHz



5825 MHz



11a

5720 MHz	
	

Agilent
R L
Ref 0 dBm
#Atten 10 dB
#Samp
Log
10
dB/
LgAv
M1 S2
Center 5.720 00 GHz
Span 50 MHz
#Res BW 510 kHz
#VBW 1.5 MHz
Sweep 1.04 ms (1201 pts)
Occupied Bandwidth
16.8880 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error -11.298 kHz
x dB Bandwidth 20.168 MHz*

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

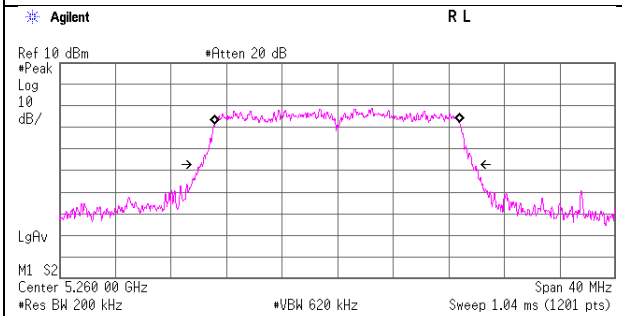
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT20 SISO, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	17.757	-
5220	-	17.786	-
5240	-	17.785	-
5260	19.405	17.814	-
5300	19.268	17.828	-
5320	19.722	17.760	-
5500	19.746	17.774	-
5580	19.751	17.798	-
5700	19.348	17.795	-
5720	19.496	17.817	-
5745	-	17.782	-
5785	-	17.773	-
5825	-	17.810	-

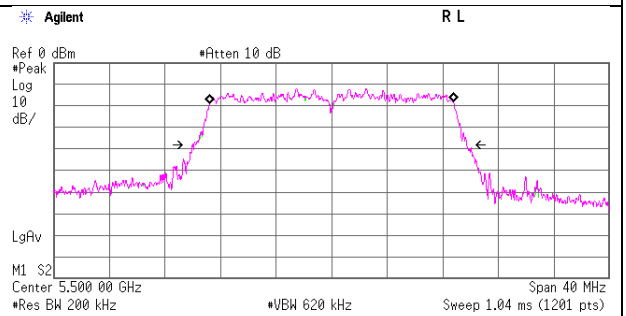
26 dB Emission Bandwidth

11n HT20 SISO

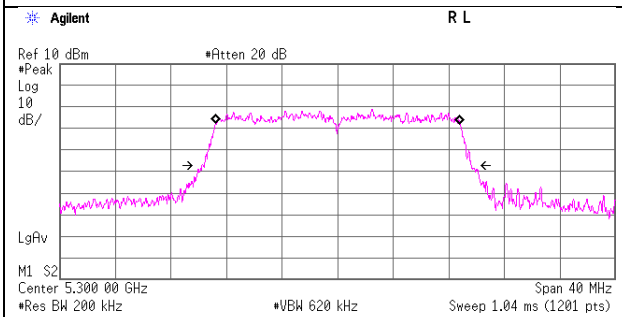
5260 MHz



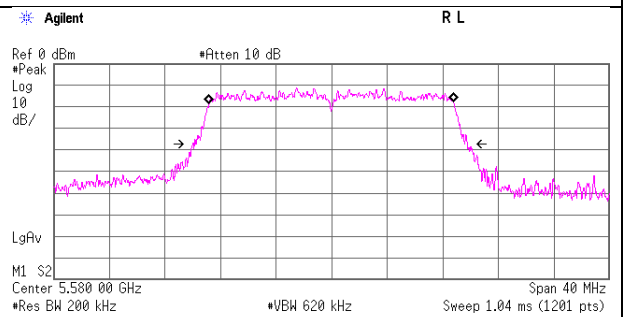
5500 MHz



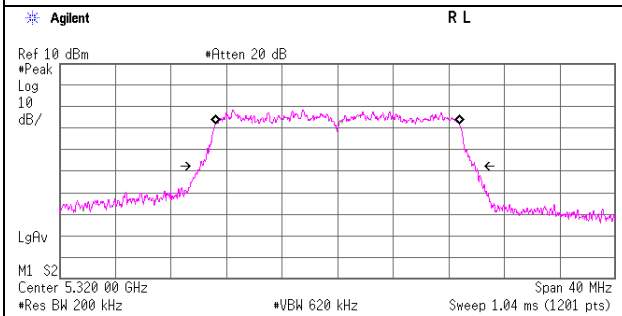
5300 MHz



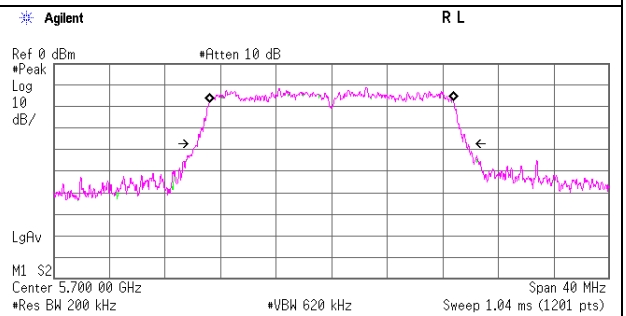
5580 MHz



5320 MHz

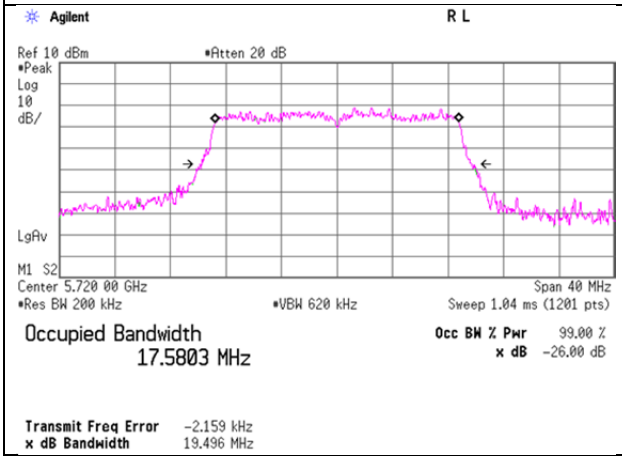


5700 MHz



26 dB Emission Bandwidth

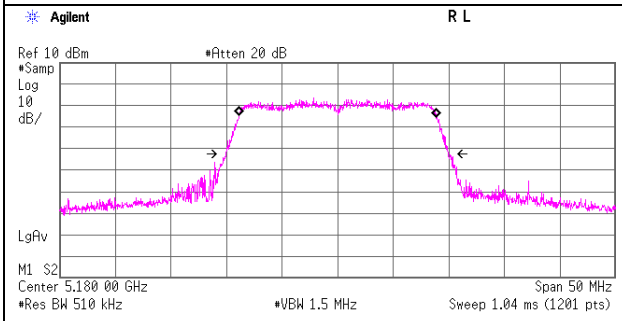
11n HT20 SISO

5720 MHz	
	

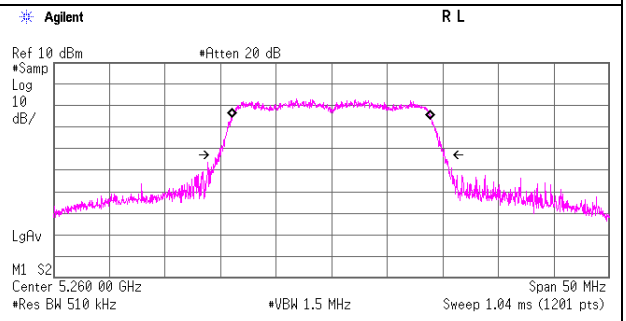
99 % Occupied Bandwidth

11n HT20 SISO

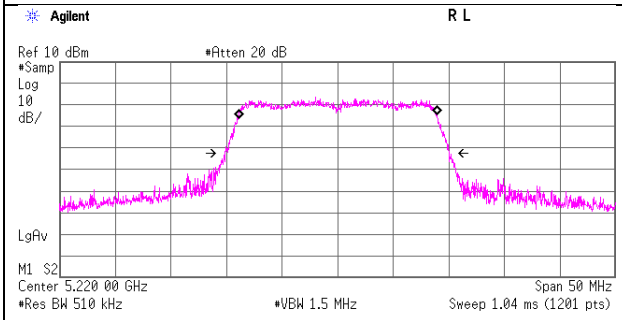
5180 MHz



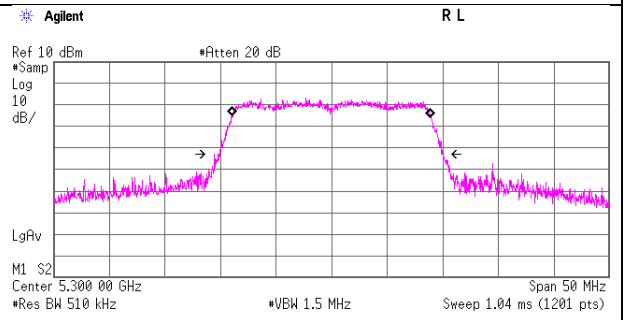
5260 MHz



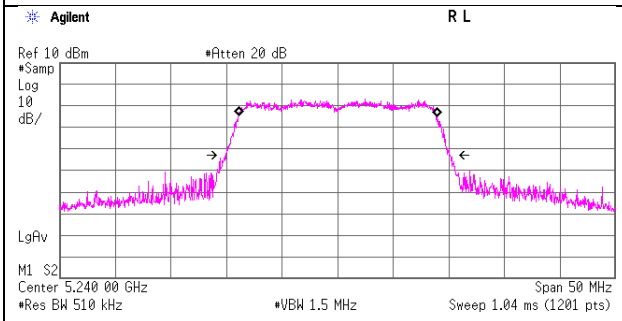
5220 MHz



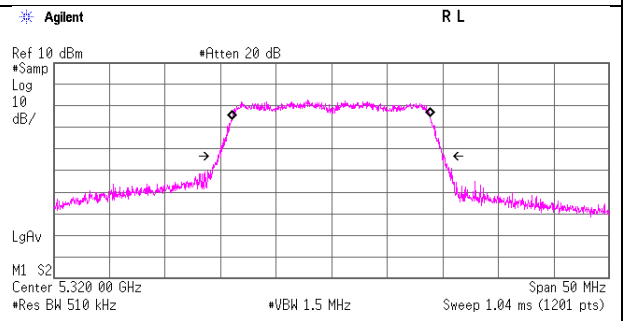
5300 MHz



5240 MHz



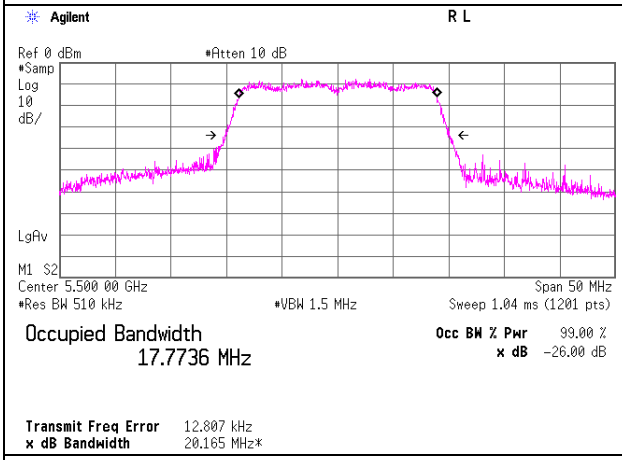
5320 MHz



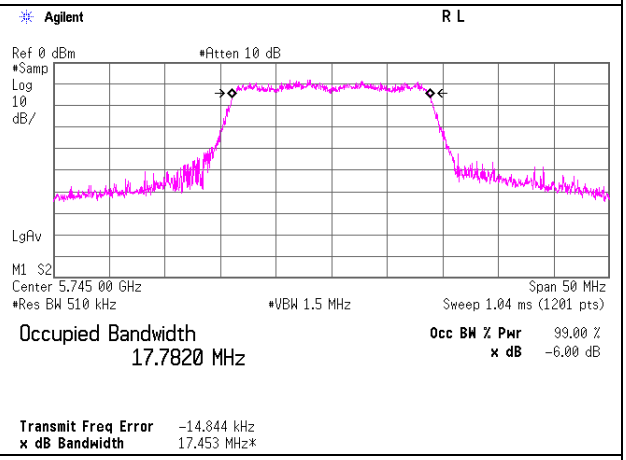
99 % Occupied Bandwidth

11n HT20 SISO

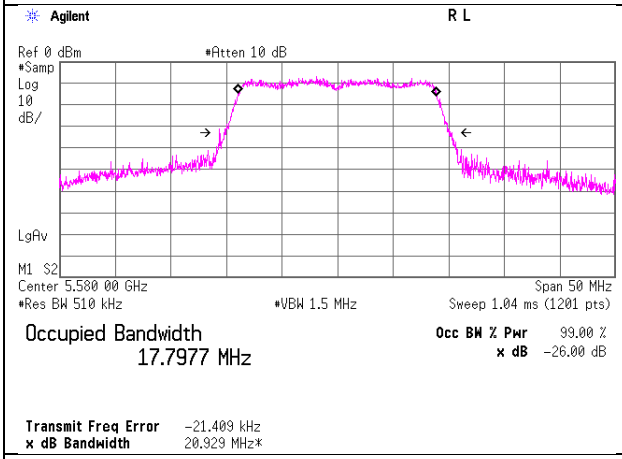
5500 MHz



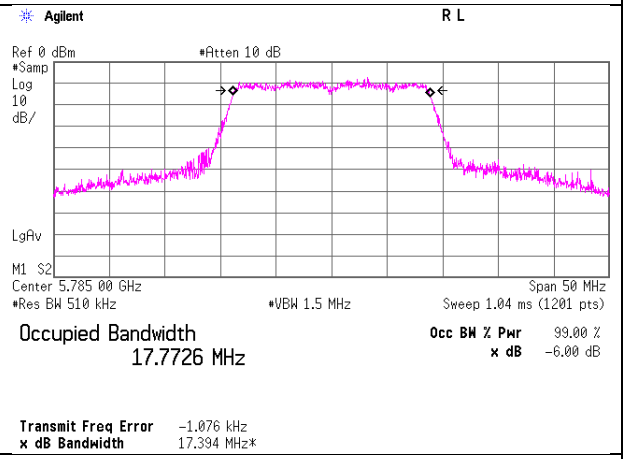
5745 MHz



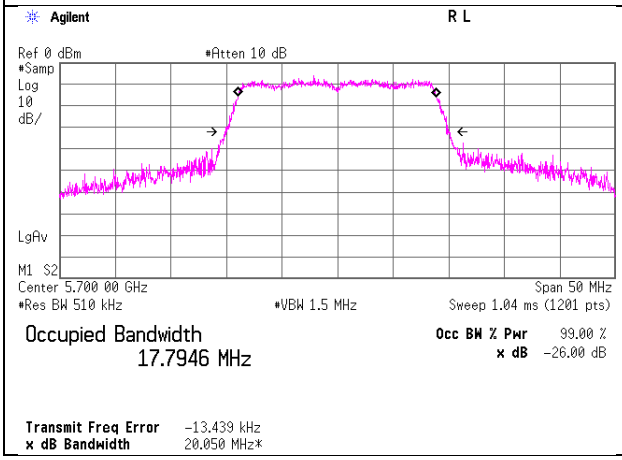
5580 MHz



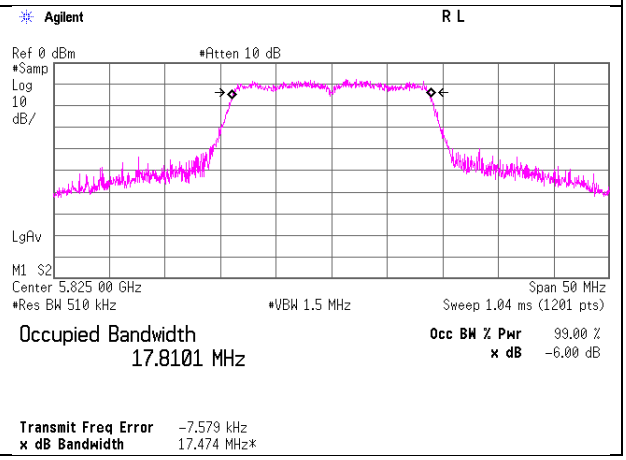
5785 MHz



5700 MHz

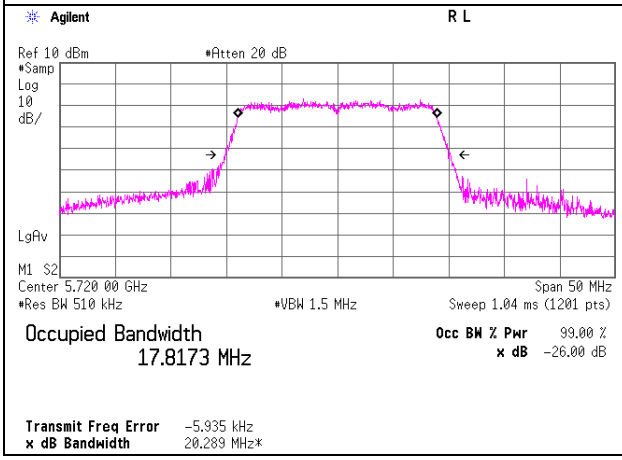


5825 MHz



99 % Occupied Bandwidth

11n HT20 SISO

5720 MHz	
	

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

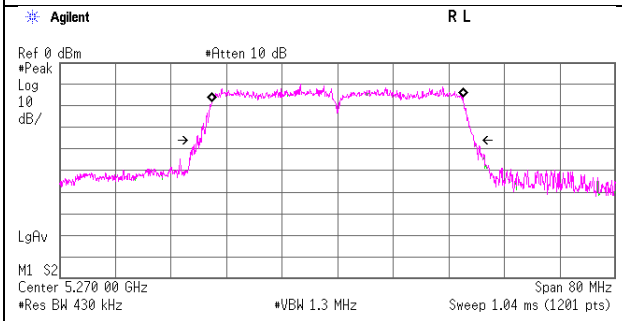
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT40 SISO, PN9, worst antenna port B, worst data mode 6Mbps

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5190	-	36.365	-
-	-	-	-
5230	-	36.428	-
5270	39.873	36.406	-
-	-	-	-
5310	40.172	36.369	-
5510	39.871	36.420	-
5550	39.987	36.421	-
5670	40.463	36.320	-
5710	39.737	36.338	-
5755	-	36.540	-
-	-	-	-
5795	-	36.343	-

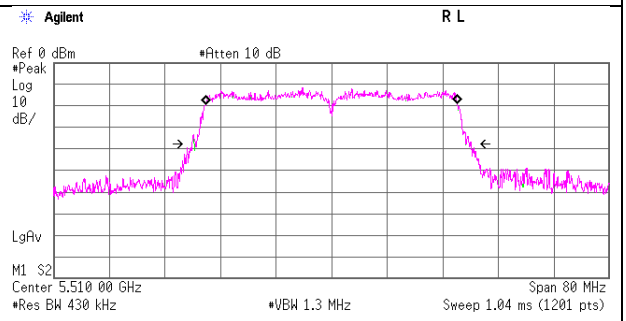
26 dB Emission Bandwidth

11n HT40 SISO

5270 MHz

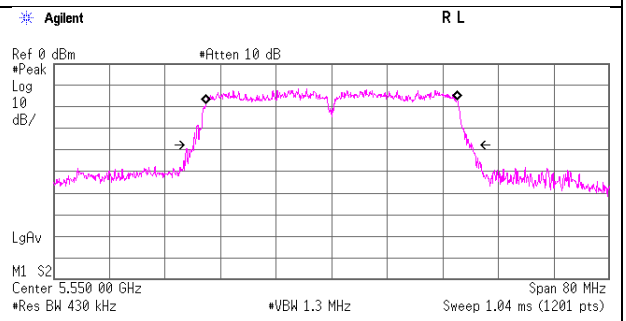


5510 MHz

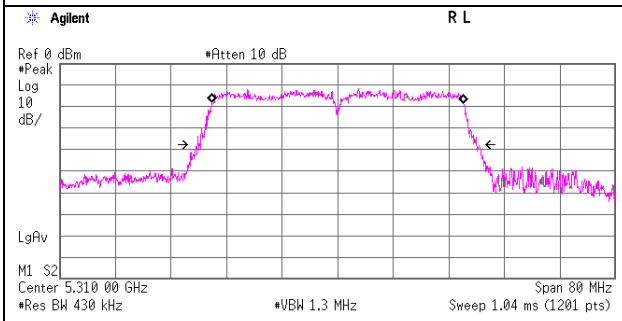


-

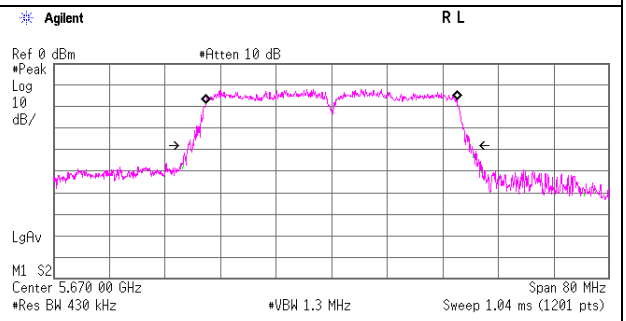
5550 MHz



5310 MHz

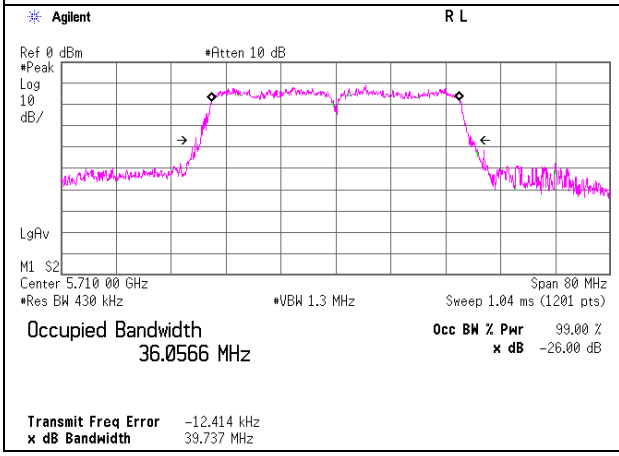


5670 MHz



26 dB Emission Bandwidth

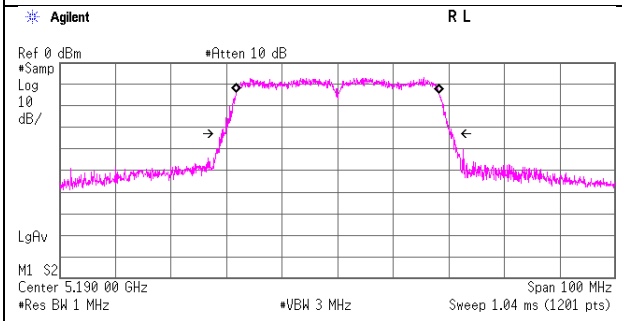
11n HT40 SISO

5710 MHz	-
	

99 % Occupied Bandwidth

11n HT40 SISO

5190 MHz



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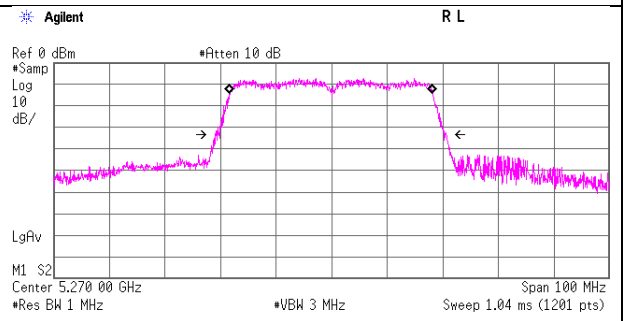
5270 MHz



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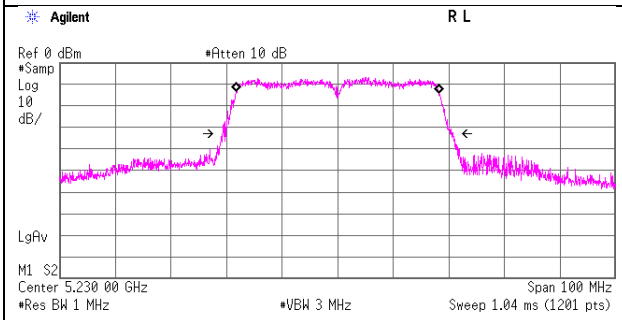
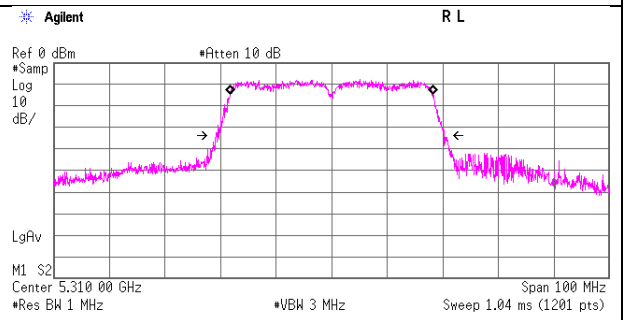
5230 MHz



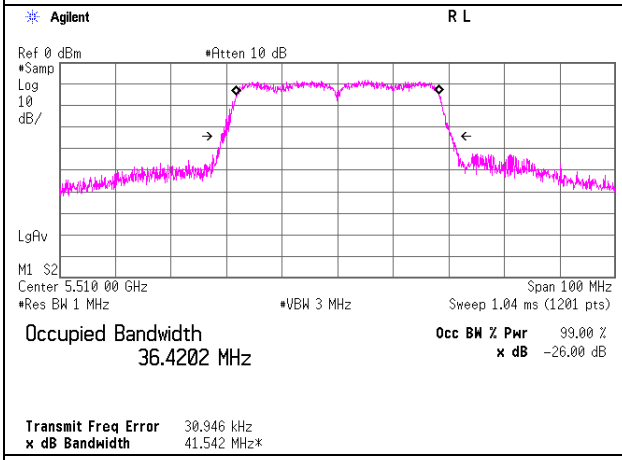
5310 MHz



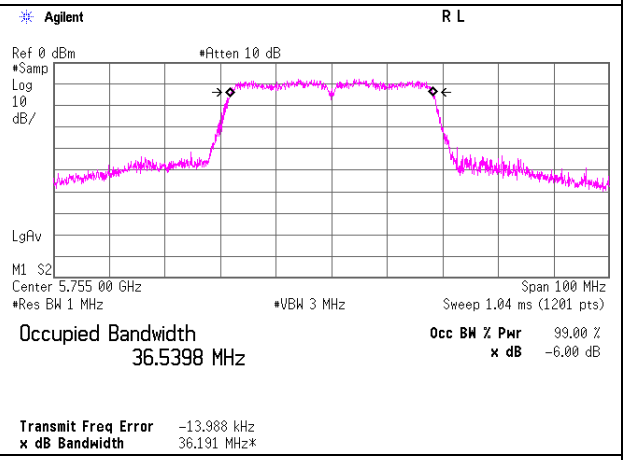
99 % Occupied Bandwidth

11n HT40 SISO

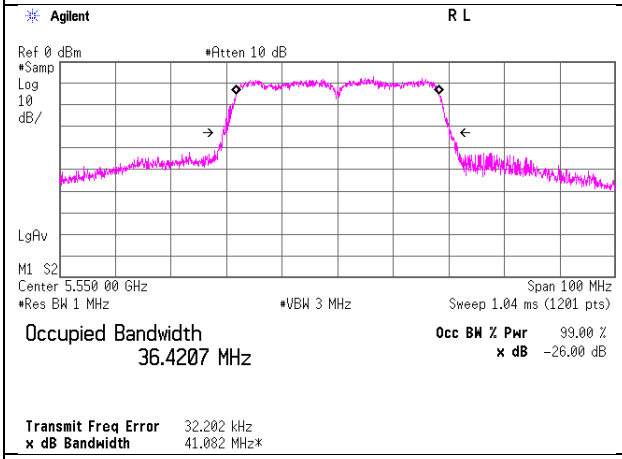
5510 MHz



5755 MHz



5550 MHz



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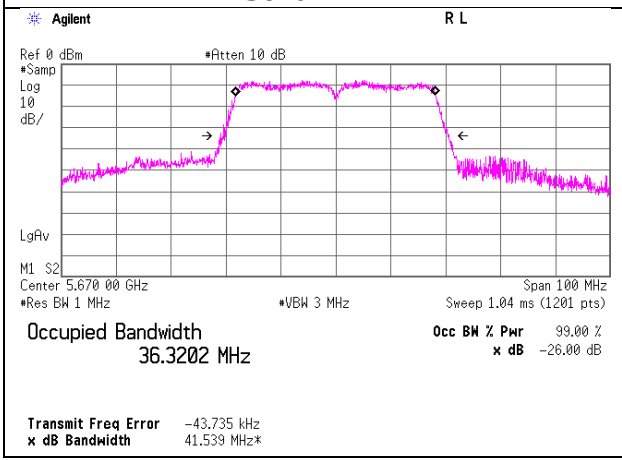
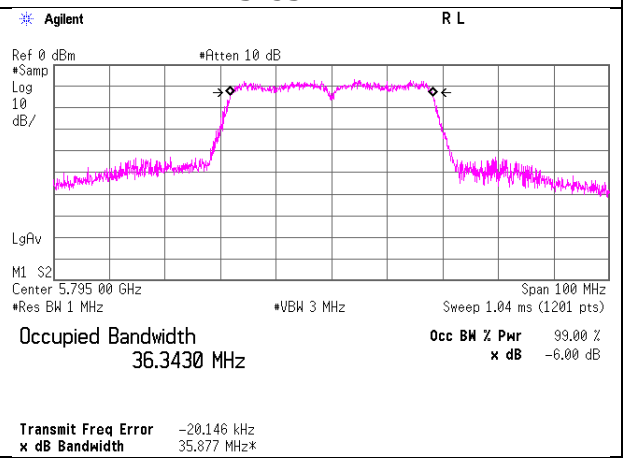
5670 MHz

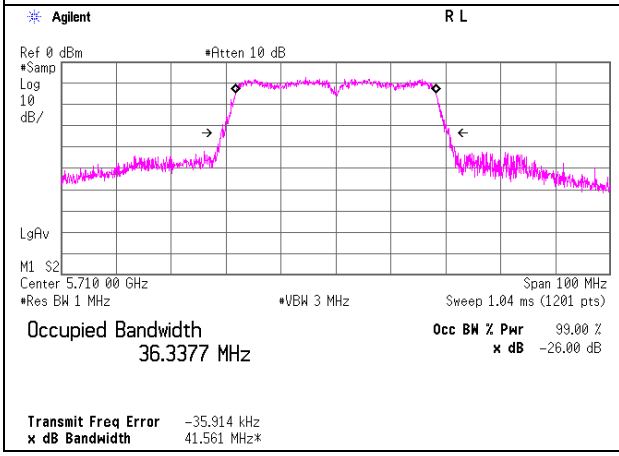


5795 MHz



99 % Occupied Bandwidth

11n HT40 SISO

5710 MHz	-
	

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

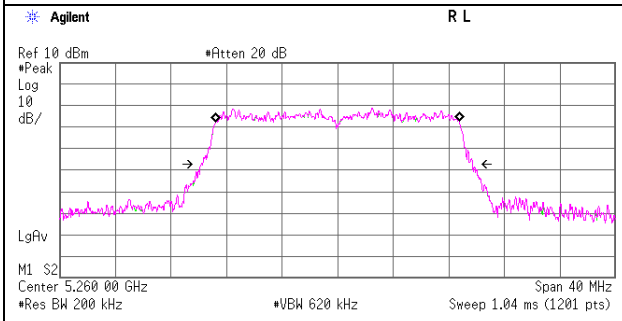
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT20 SISO, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	17.776	-
5220	-	17.768	-
5240	-	17.755	-
5260	19.381	17.800	-
5300	19.683	17.817	-
5320	19.418	17.780	-
5500	19.562	17.762	-
5580	19.617	17.795	-
5700	19.538	17.792	-
5720	19.491	17.759	-
5745	-	17.791	-
5785	-	17.754	-
5825	-	17.770	-

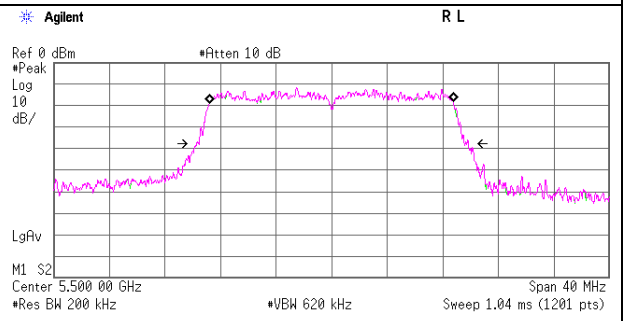
26 dB Emission Bandwidth

11ac VHT20

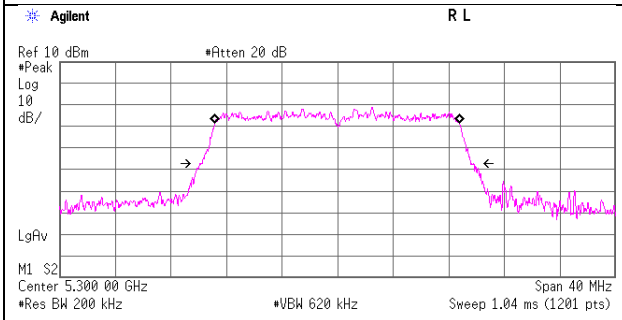
5260 MHz



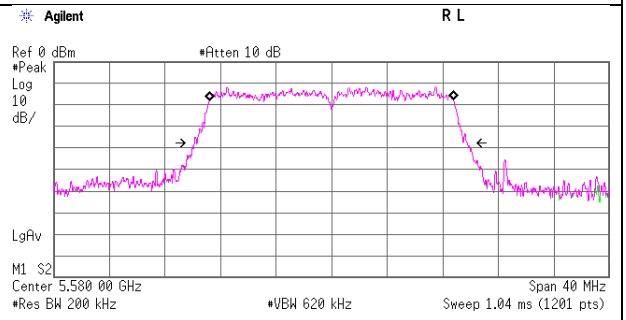
5500 MHz



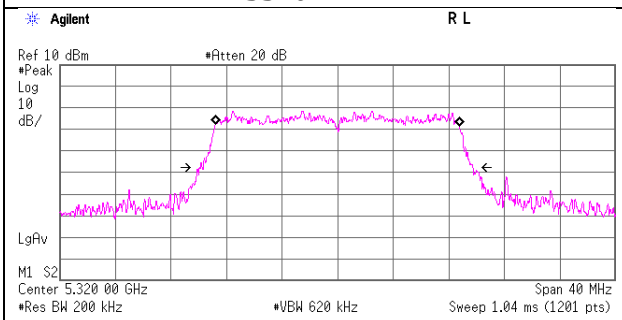
5300 MHz



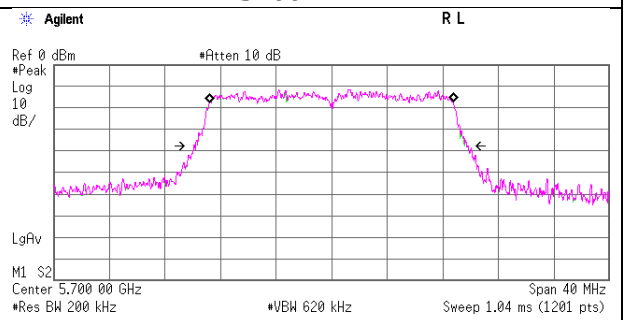
5580 MHz



5320 MHz

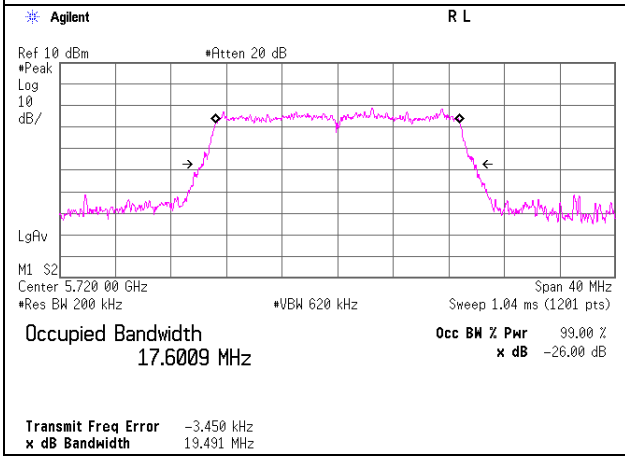


5700 MHz



26 dB Emission Bandwidth

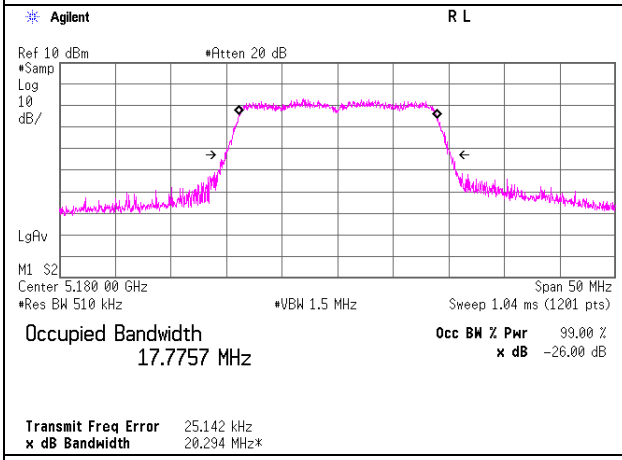
11ac VHT20

5720 MHz	
	

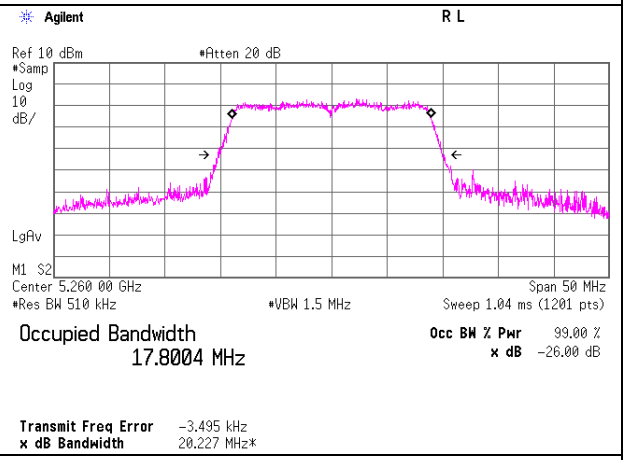
99 % Occupied Bandwidth

11ac VHT20

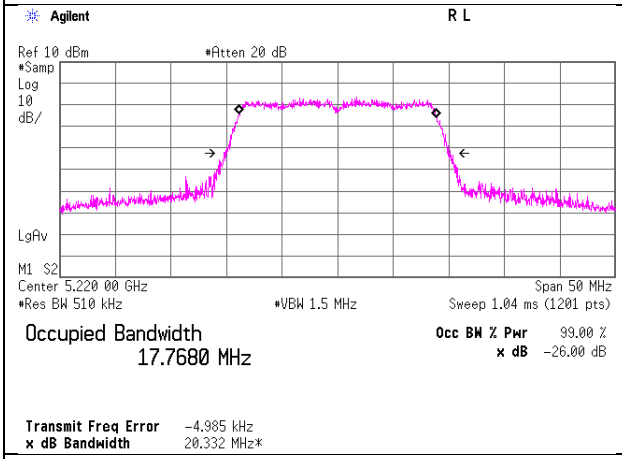
5180 MHz



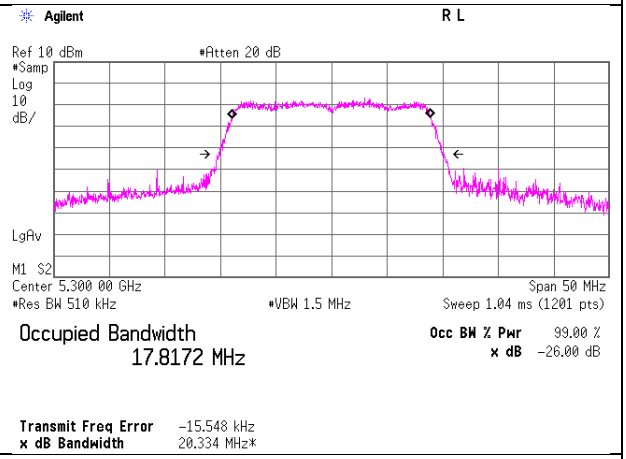
5260 MHz



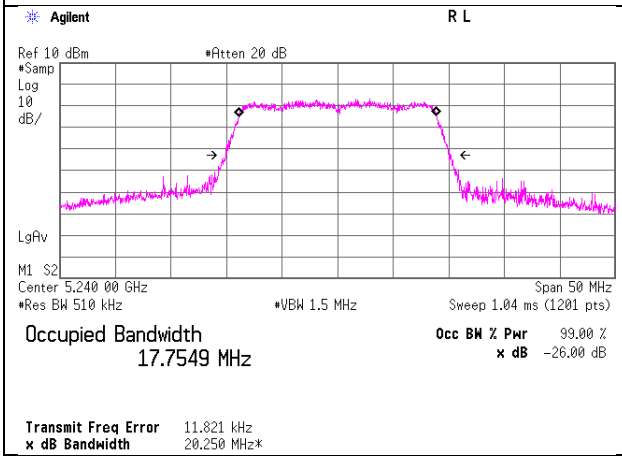
5220 MHz



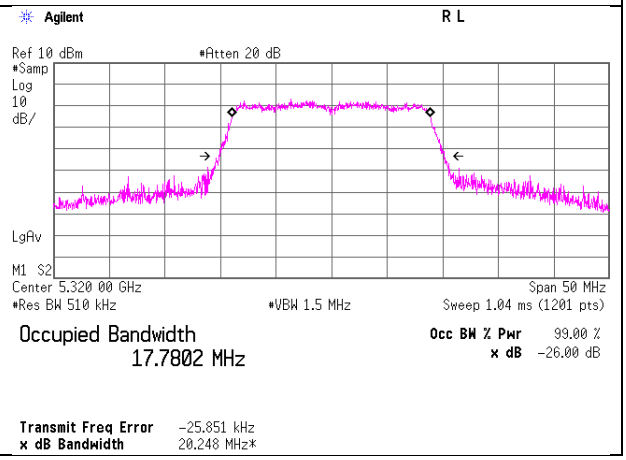
5300 MHz



5240 MHz



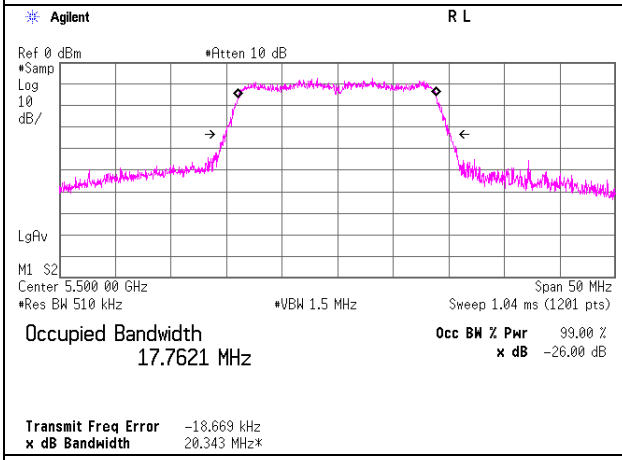
5320 MHz



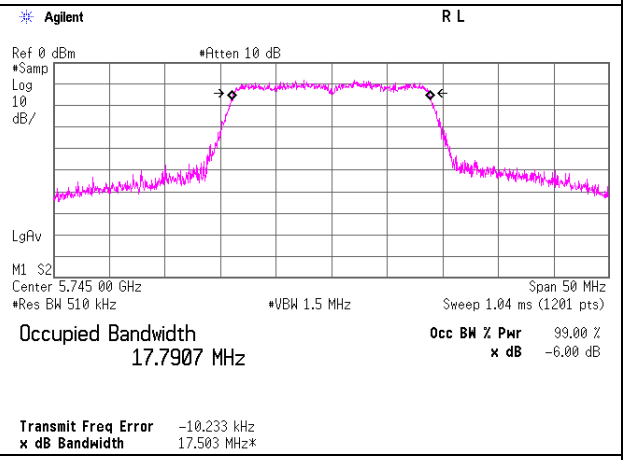
99 % Occupied Bandwidth

11ac VHT20

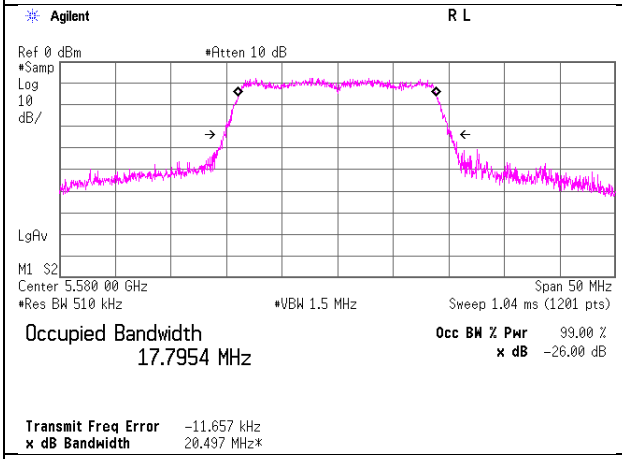
5500 MHz



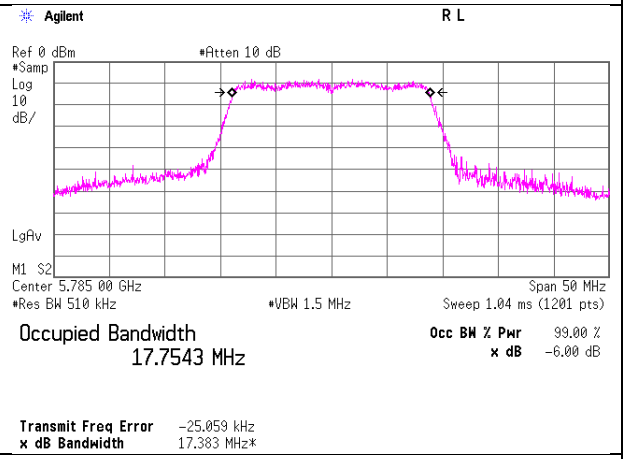
5745 MHz



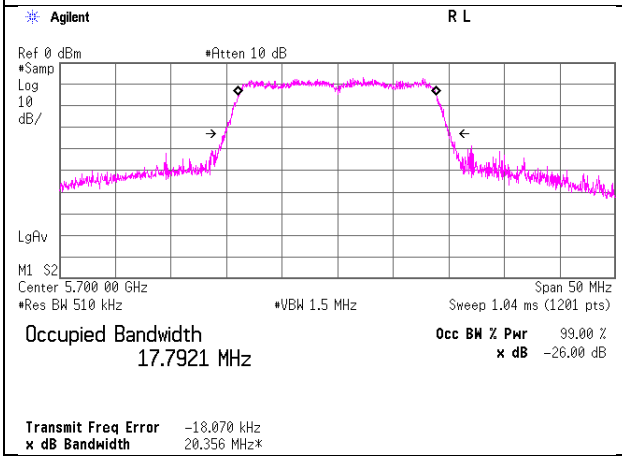
5580 MHz



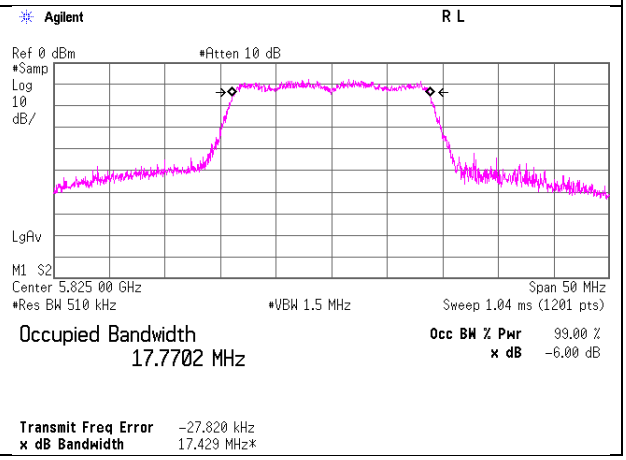
5785 MHz



5700 MHz

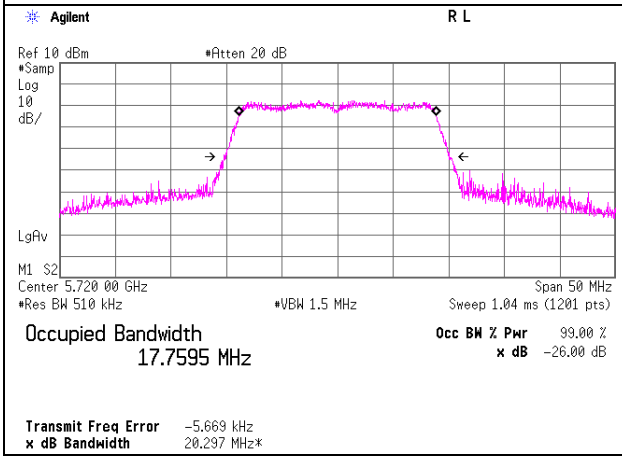


5825 MHz



99 % Occupied Bandwidth

11ac VHT20

5720 MHz	
	

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

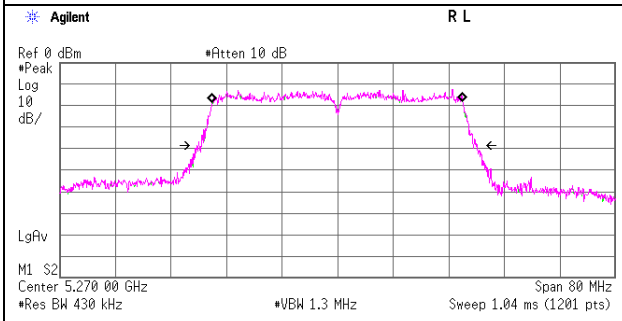
Test place	Shonan EMC Lab. No.6 Shielded Room	
Report No.	11306371S-C-R1	
Date	June 19, 2016	June 20, 2016
Temperature / Humidity	22 deg. C / 42 % RH	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT40 SISO, PN9, worst antenna port B, worst data mode MCS0	

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5190	-	36.264	-
-	-	-	-
5230	-	36.310	-
5270	39.996	36.275	-
-	-	-	-
5310	40.008	36.298	-
5510	39.834	36.305	-
5550	39.952	36.259	-
5670	39.823	36.271	-
5710	39.929	36.286	-
5755	-	36.290	-
-	-	-	-
5795	-	36.325	-

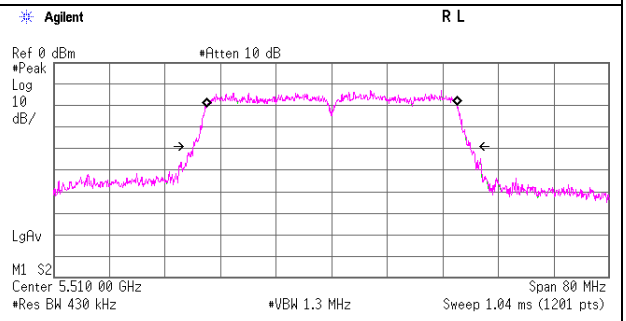
26 dB Emission Bandwidth

11ac VHT40

5270 MHz

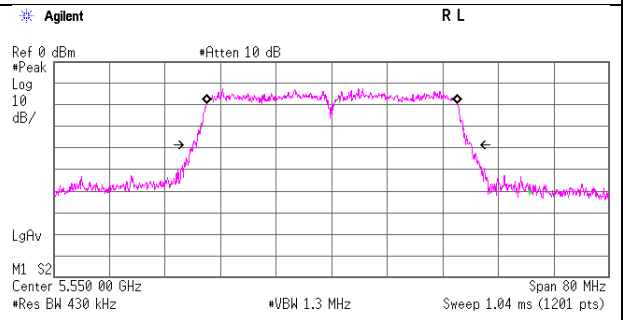


5510 MHz

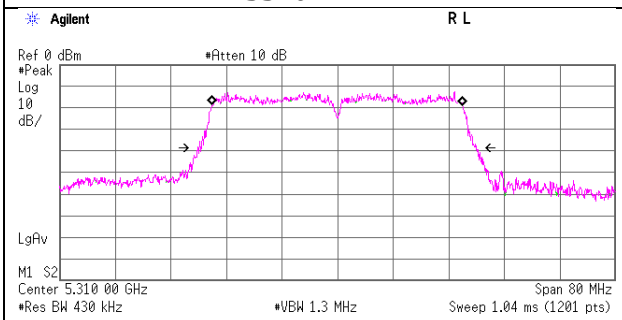


-

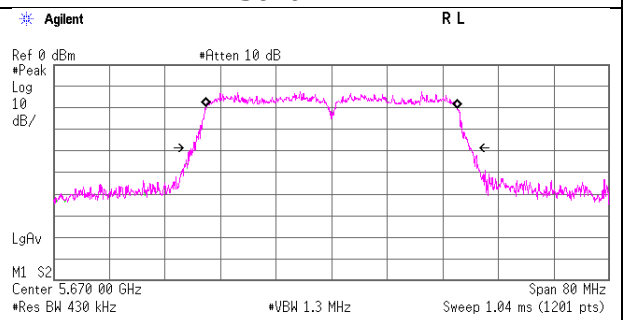
5550 MHz



5310 MHz

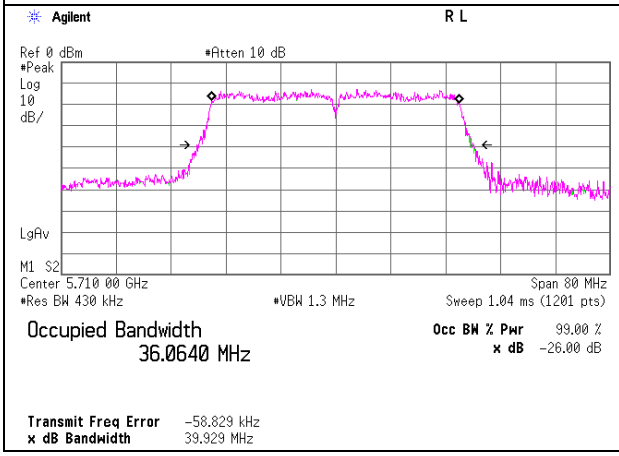


5670 MHz



26 dB Emission Bandwidth

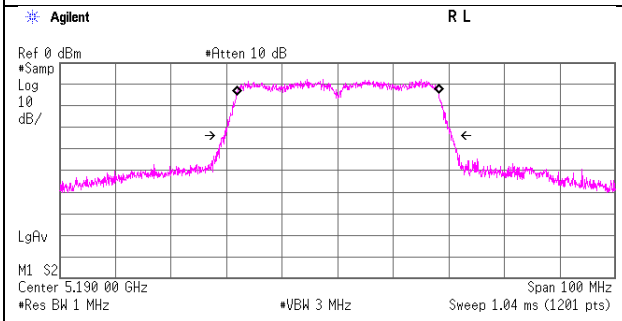
11ac VHT40

5710 MHz	-
	

99 % Occupied Bandwidth

11ac VHT40

5190 MHz



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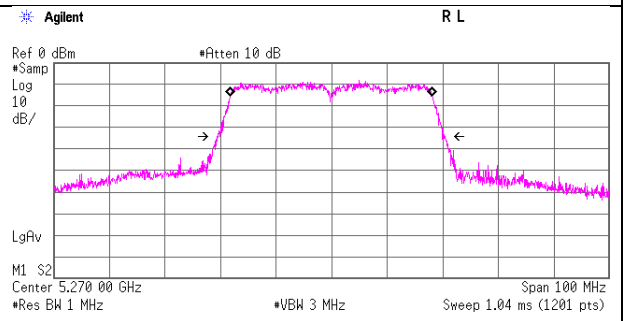
5270 MHz



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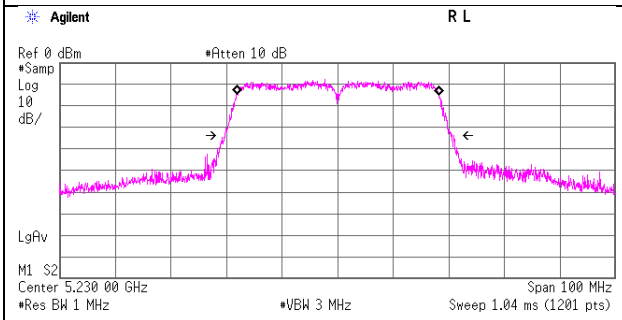
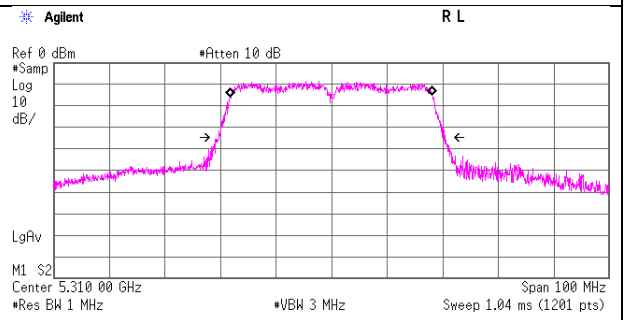
5230 MHz



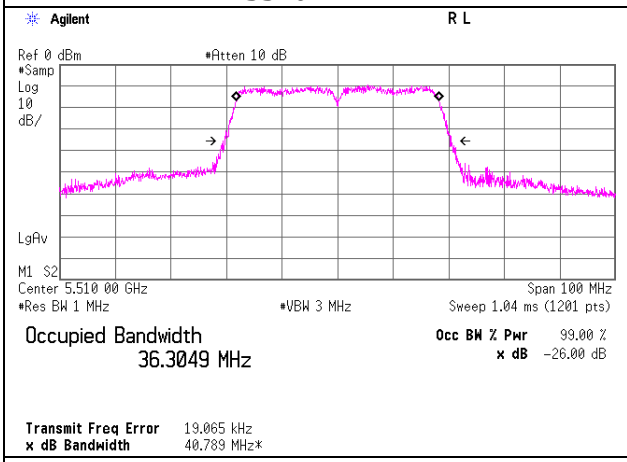
5310 MHz



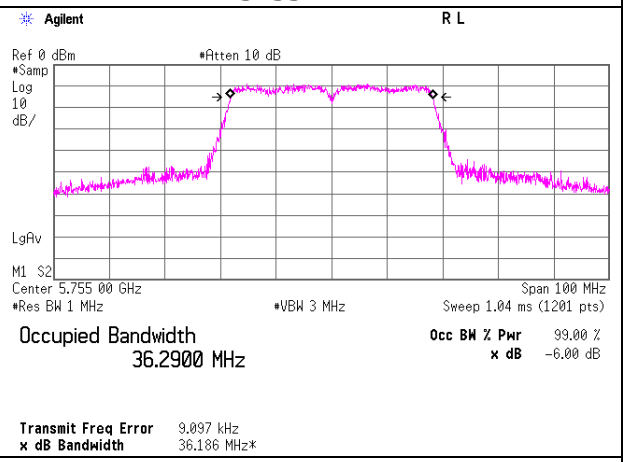
99 % Occupied Bandwidth

11ac VHT40

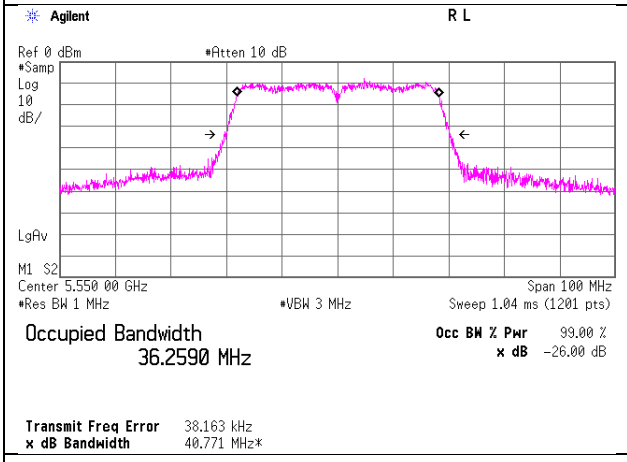
5510 MHz



5755 MHz

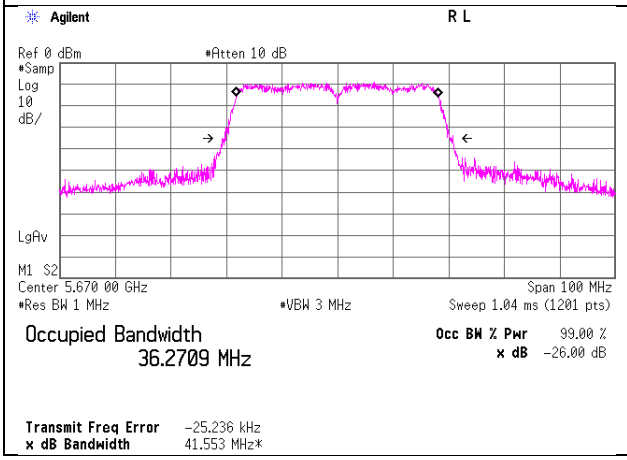


5550 MHz

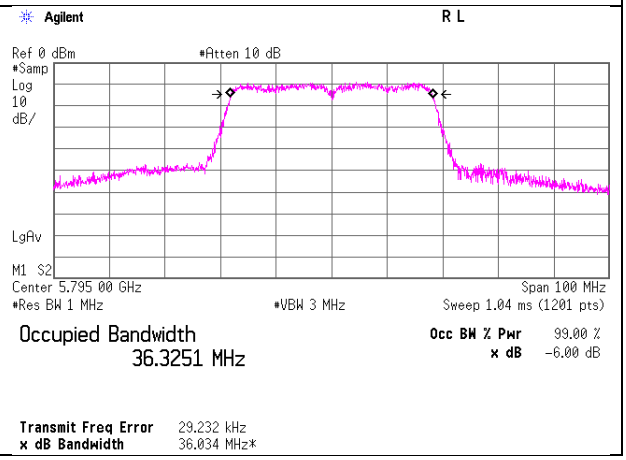


-

5670 MHz

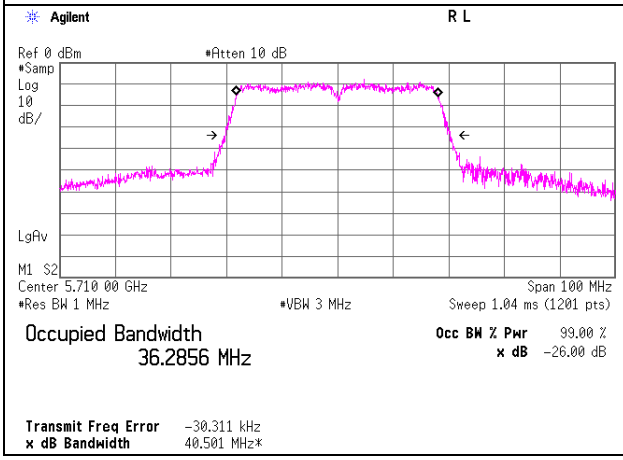


5795 MHz



99 % Occupied Bandwidth

11ac VHT40

5710 MHz	
	

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

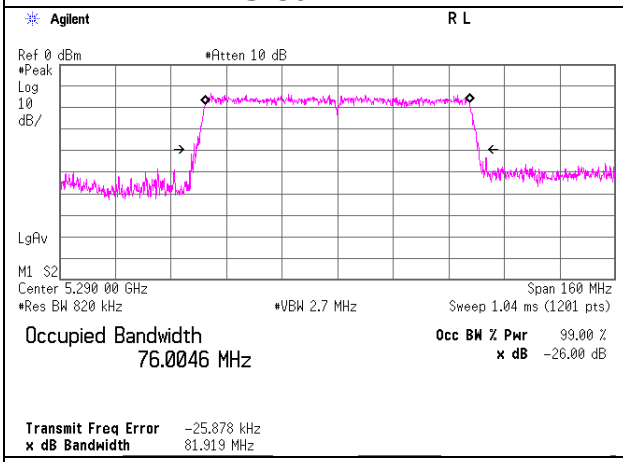
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11306371S-C-R1
Date	July 1, 2016
Temperature / Humidity	25 deg. C / 61 % RH
Engineer	Yosuke Ishikawa
Mode	Tx IEEE802.11ac VHT80, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5210	-	76.422	-
-	-	-	-
-	-	-	-
5290	81.919	76.314	-
-	-	-	-
-	-	-	-
5530	80.795	76.724	-
5610	80.994	76.712	-
5690	81.089	76.425	-
5755	-	76.639	-
-	-	-	-
-	-	-	-

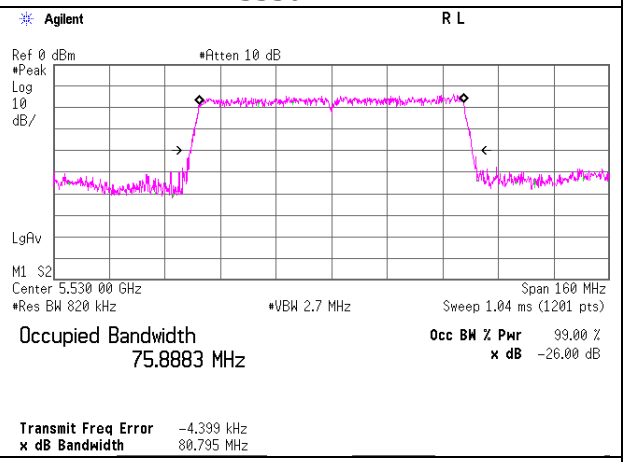
26 dB Emission Bandwidth

11ac VHT80

5290 MHz

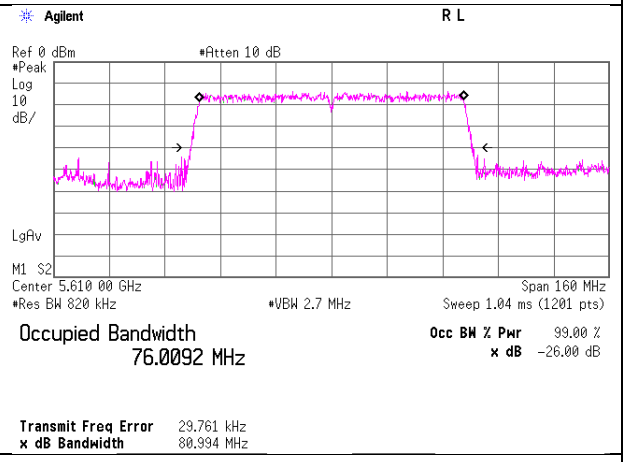


5530 MHz



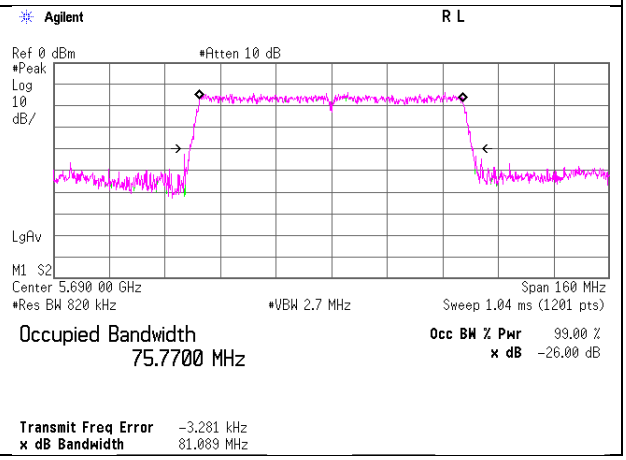
-

5610 MHz



-

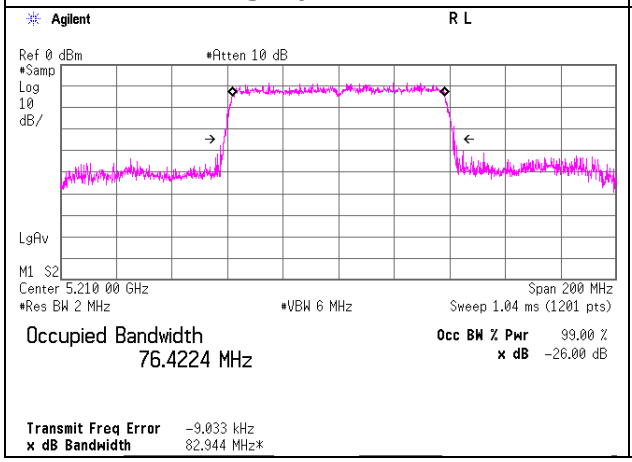
5690 MHz



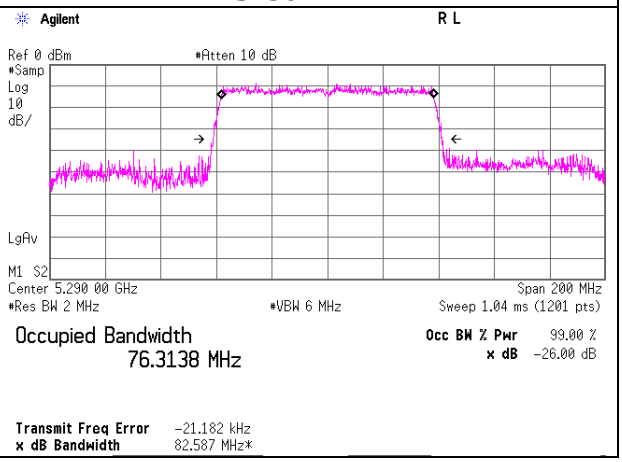
99 % Occupied Bandwidth

11ac VHT80

5210 MHz



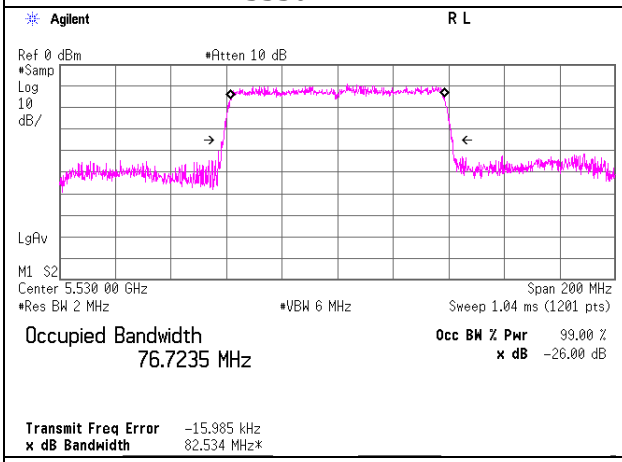
5290 MHz



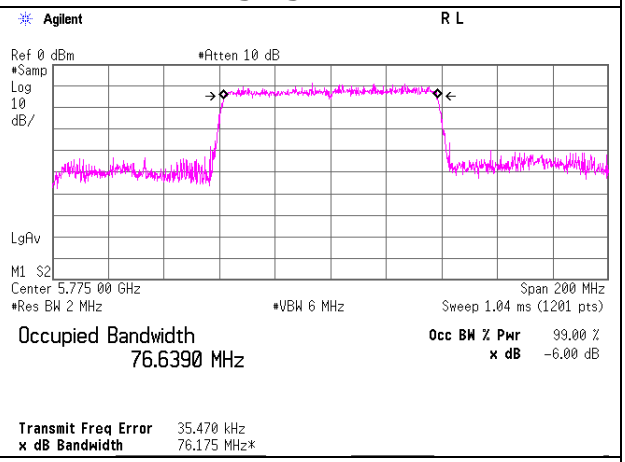
99 % Occupied Bandwidth

11ac VHT80

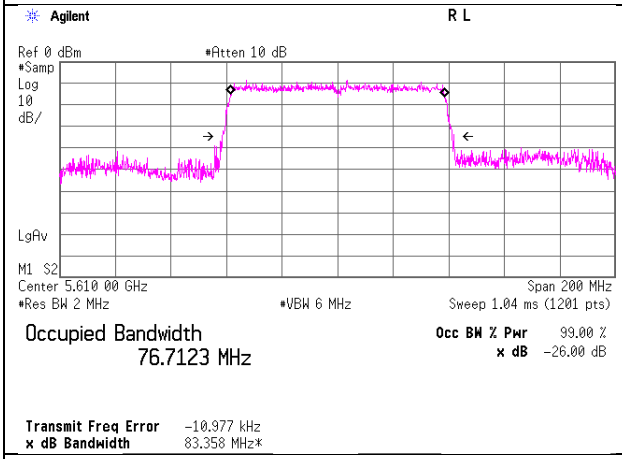
5530 MHz



5775 MHz



5610 MHz



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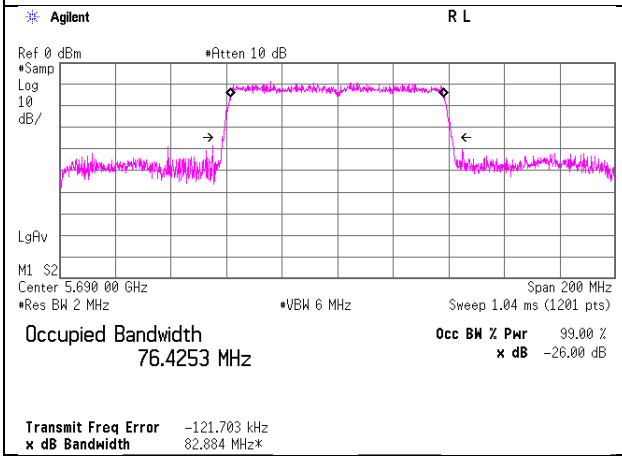
5690 MHz



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26 dB Emission Bandwidth and 99 % Occupied Bandwidth

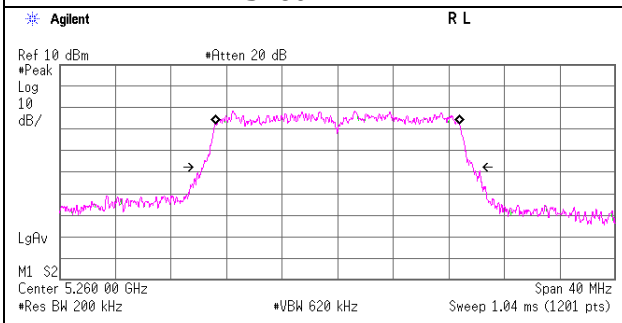
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT20(MIMO), PN9, worst antenna port B, worst data mode MCS8

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	17.773	-
5220	-	17.775	-
5240	-	17.748	-
5260	19.420	17.734	-
5300	19.679	17.768	-
5320	19.469	17.722	-
5500	19.421	17.754	-
5580	19.526	17.769	-
5700	19.435	17.761	-
5720	19.603	17.734	-
5745	-	17.745	-
5785	-	17.794	-
5825	-	17.770	-

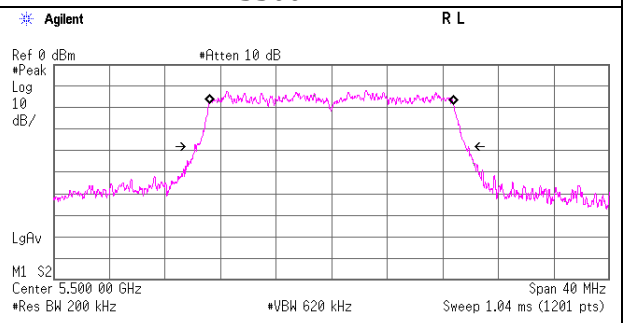
26 dB Emission Bandwidth

11n HT20(MIMO)

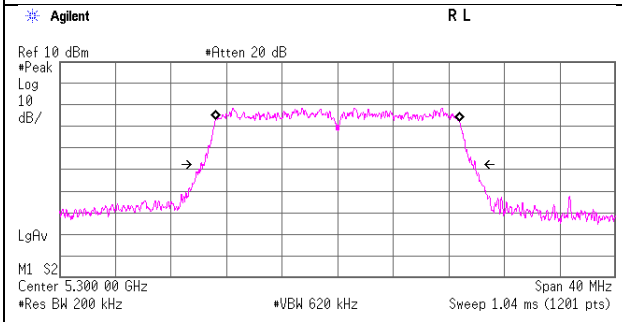
5260 MHz



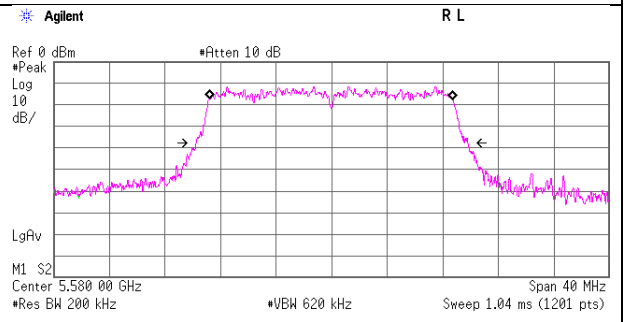
5500 MHz



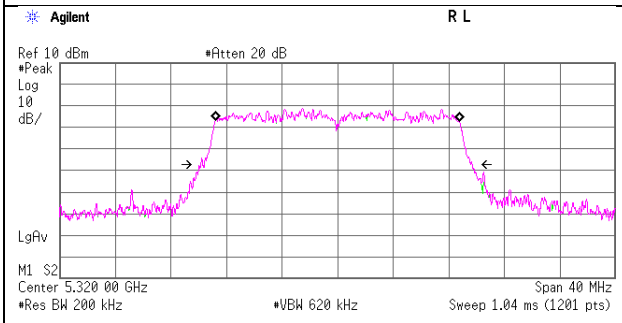
5300 MHz



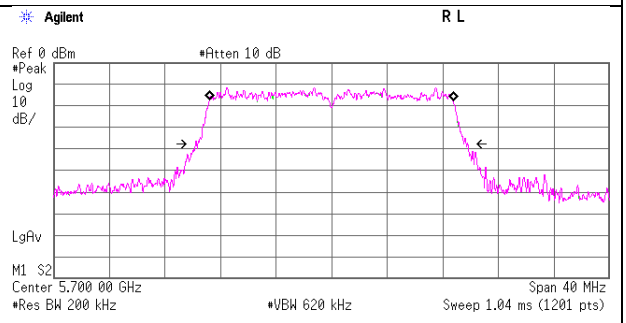
5580 MHz



5320 MHz

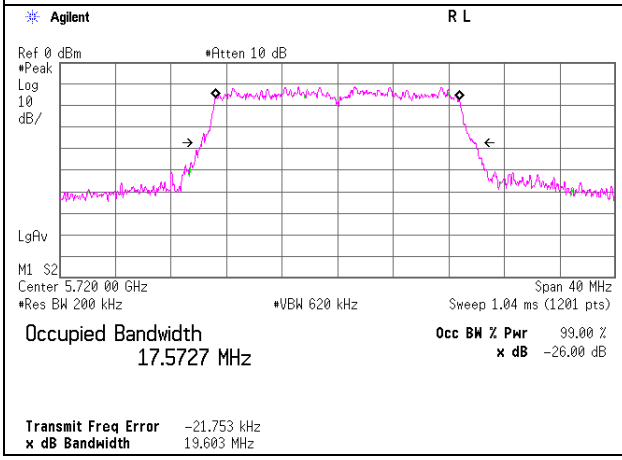


5700 MHz



26 dB Emission Bandwidth

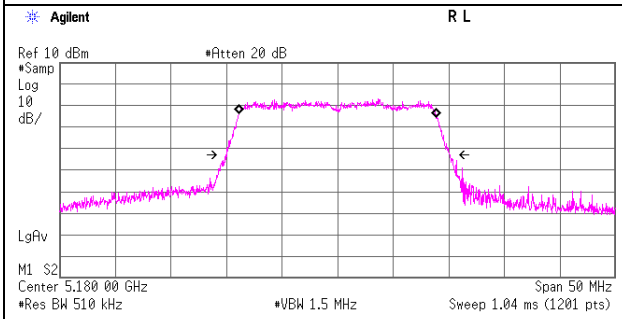
11n HT20(MIMO)

5720 MHz	-
	

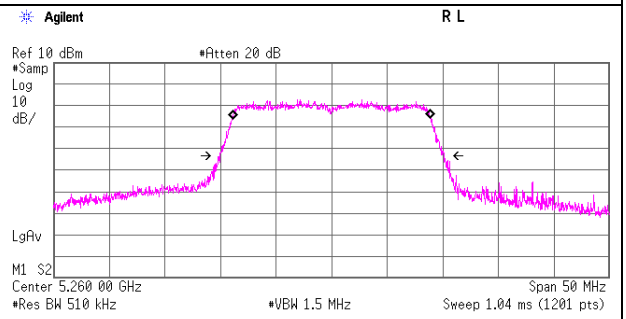
99 % Occupied Bandwidth

11n HT20(MIMO)

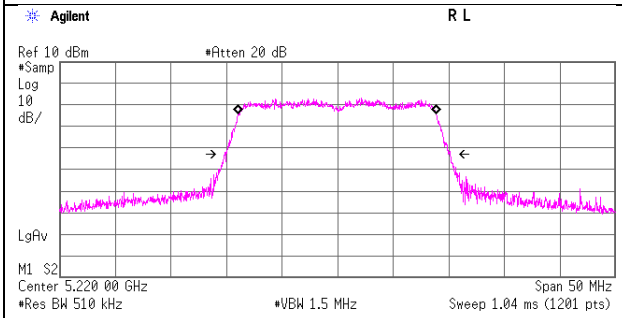
5180 MHz



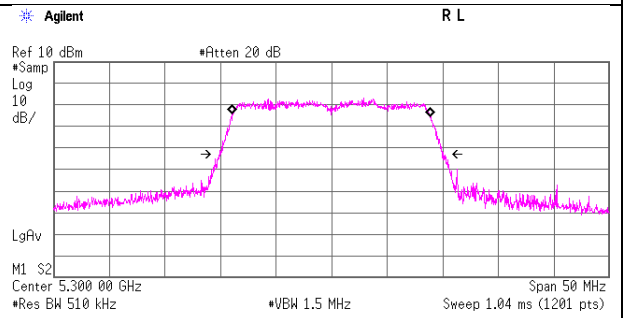
5260 MHz



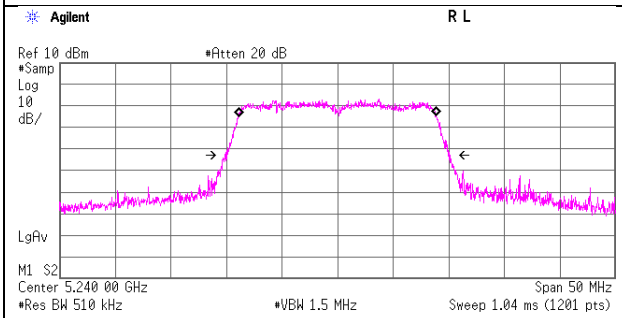
5220 MHz



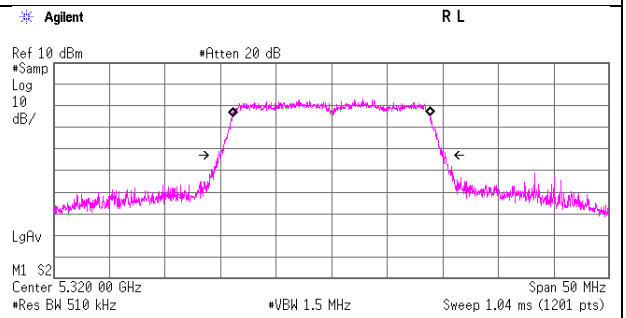
5300 MHz



5240 MHz



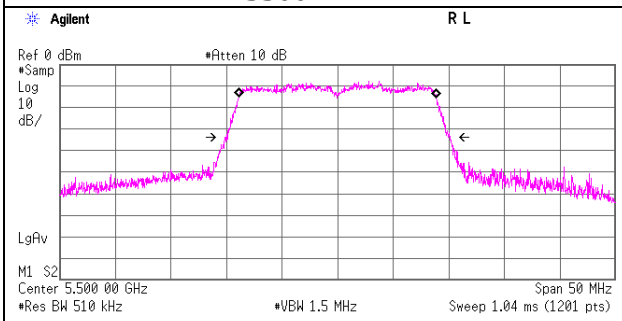
5320 MHz



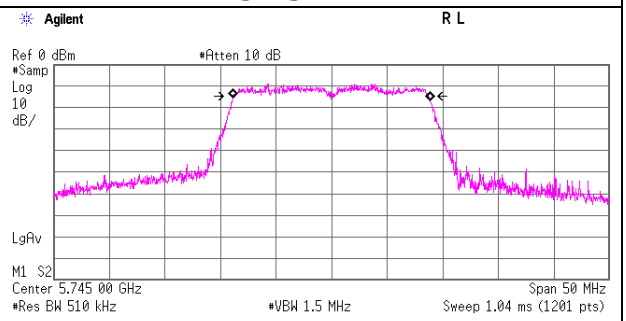
99 % Occupied Bandwidth

11n HT20(MIMO)

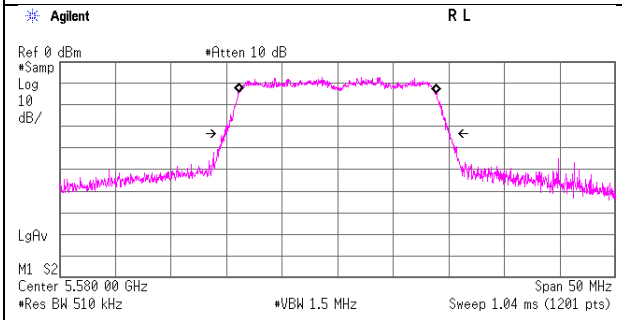
5500 MHz



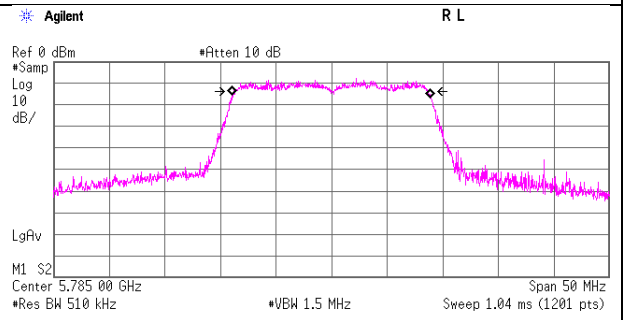
5745 MHz



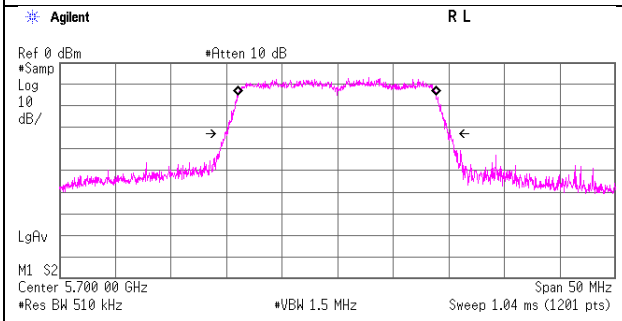
5580 MHz



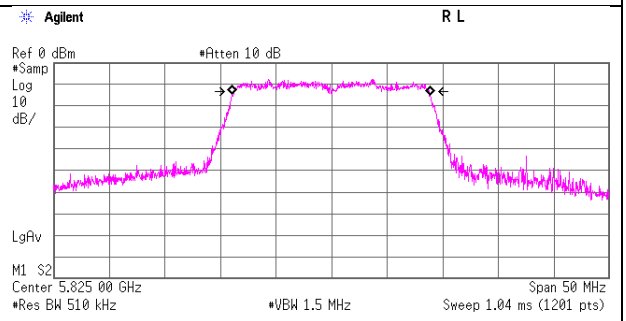
5785 MHz



5700 MHz

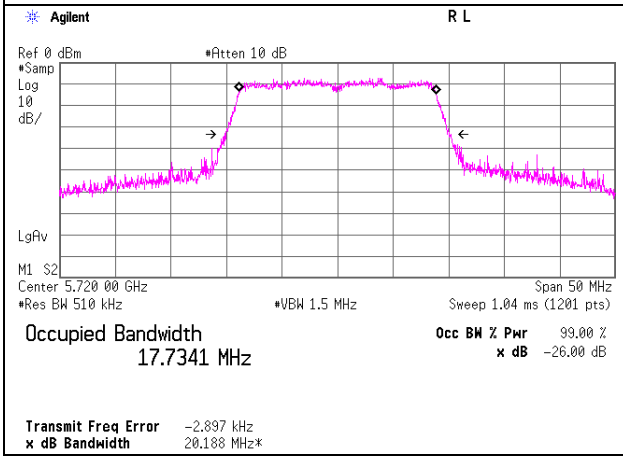


5825 MHz



99 % Occupied Bandwidth

11n HT20(MIMO)

5720 MHz	-
	

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

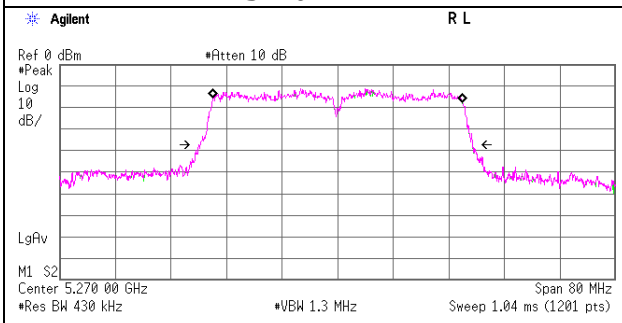
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT40(MIMO), PN9, worst antenna port B, worst data mode MCS8

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5190	-	36.232	-
-	-	-	-
5230	-	36.230	-
5270	39.352	36.196	-
-	-	-	-
5310	39.479	36.207	-
5510	38.980	36.231	-
5550	39.294	36.183	-
5670	39.342	36.247	-
5710	39.327	36.218	-
5755	-	36.195	-
-	-	-	-
5795	-	36.218	-

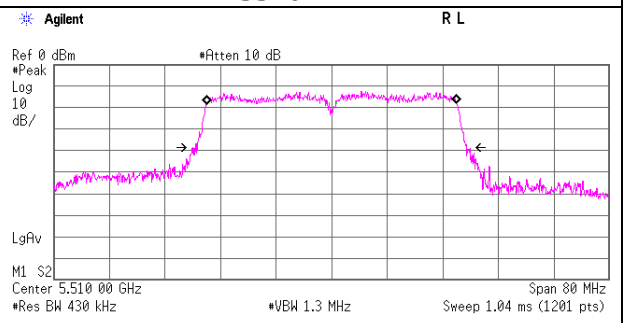
26 dB Emission Bandwidth

11n HT40(MIMO)

5270 MHz

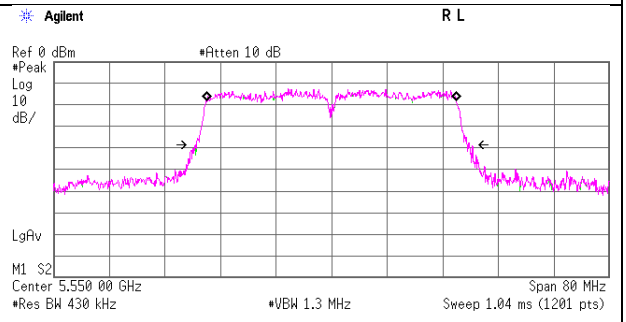


5510 MHz

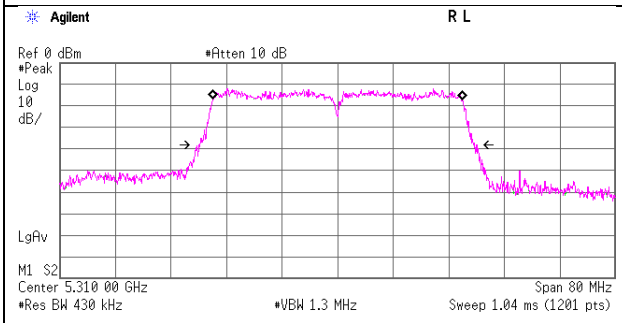


-

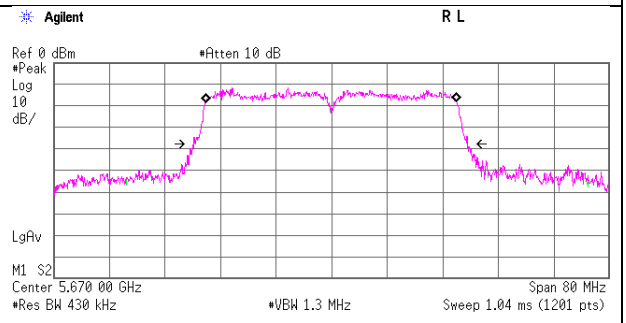
5550 MHz



5310 MHz

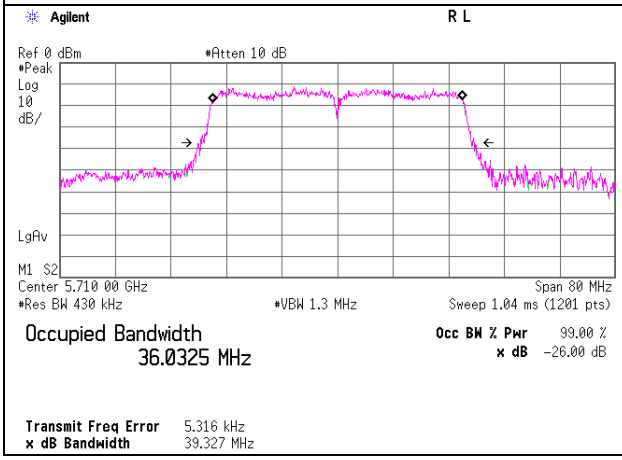


5670 MHz



26 dB Emission Bandwidth

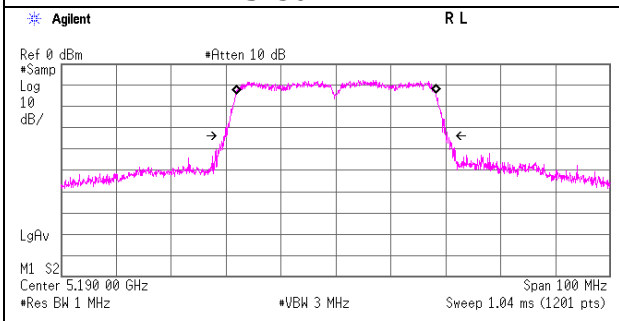
11n HT40(MIMO)

5710 MHz	-
	

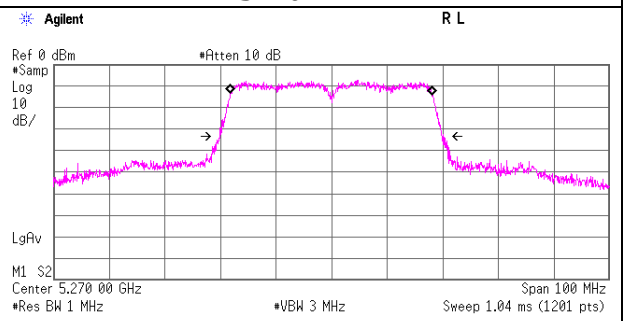
99 % Occupied Bandwidth

11n HT40(MIMO)

5190 MHz



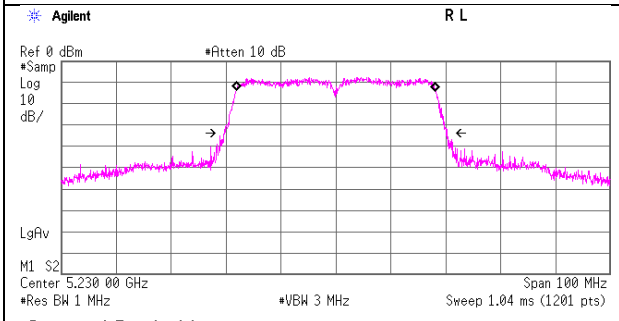
5270 MHz



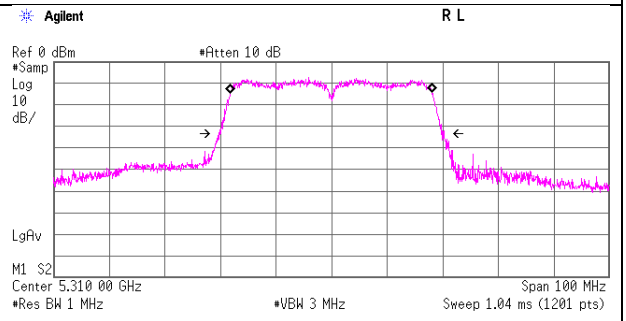
-

-

5230 MHz



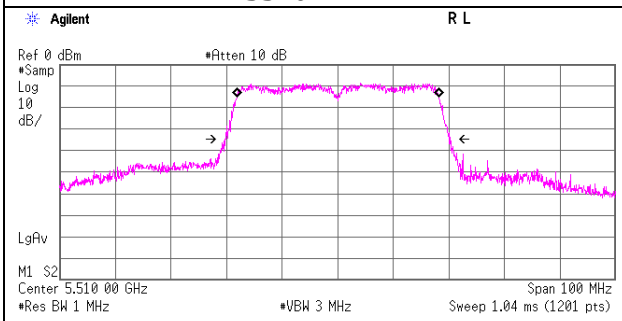
5310 MHz



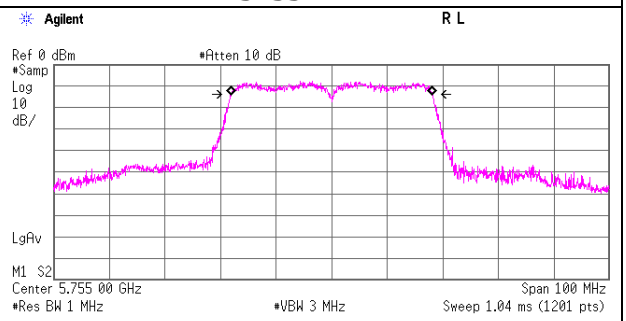
99 % Occupied Bandwidth

11n HT40(MIMO)

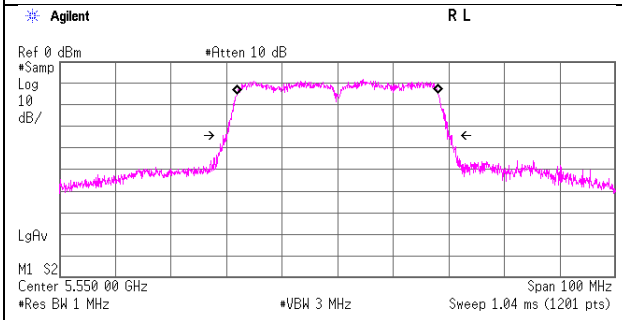
5510 MHz



5755 MHz

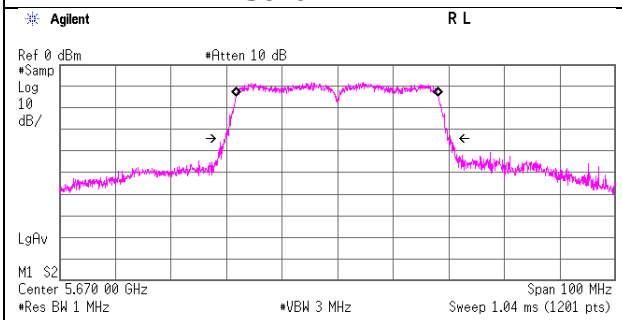


5550 MHz

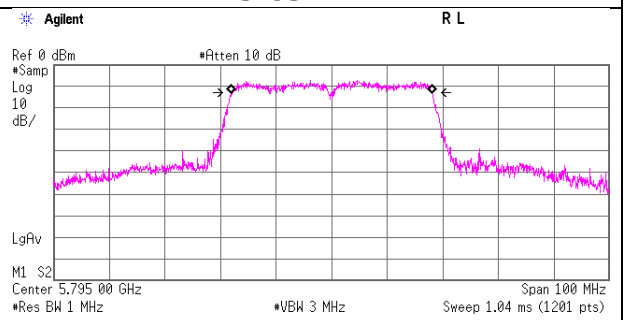


-

5670 MHz

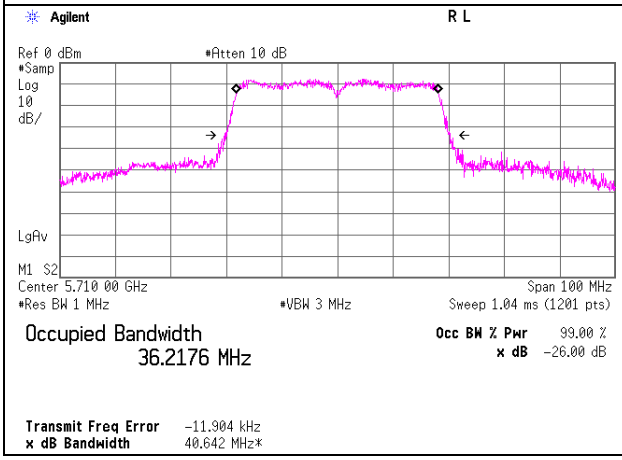


5795 MHz



99 % Occupied Bandwidth

11n HT40(MIMO)

5710 MHz	-
	

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

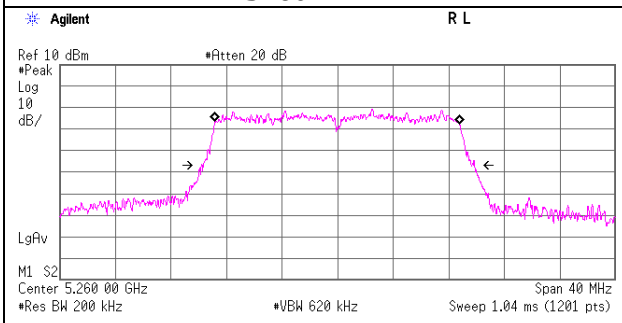
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT20(MIMO), PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5180	-	17.745	-
5220	-	17.771	-
5240	-	17.793	-
5260	19.622	17.792	-
5300	19.799	17.752	-
5320	19.535	17.748	-
5500	19.503	17.758	-
5580	19.445	17.779	-
5700	19.460	17.789	-
5720	19.532	17.763	
5745	-	17.755	-
5785	-	17.766	-
5825	-	17.742	-

26 dB Emission Bandwidth

11ac VHT20(MIMO)

5260 MHz

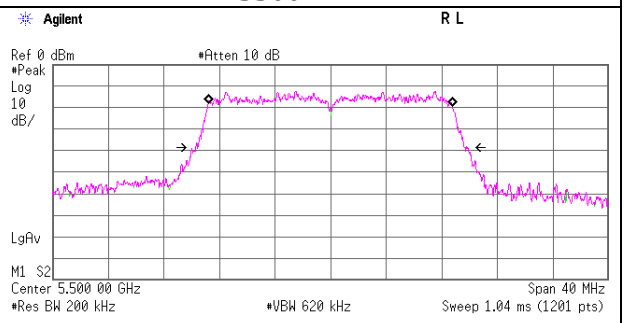


Occupied Bandwidth
17.6038 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -27.994 kHz
x dB Bandwidth 19.622 MHz

5500 MHz

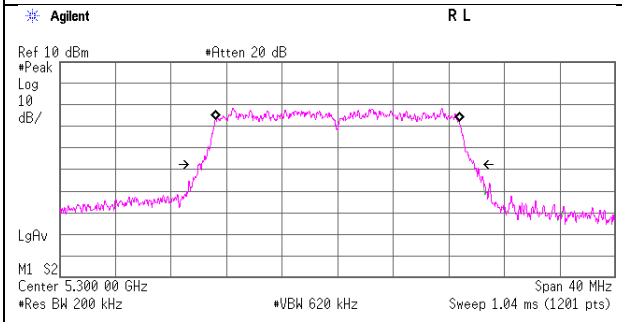


Occupied Bandwidth
17.5515 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -28.666 kHz
x dB Bandwidth 19.503 MHz

5300 MHz

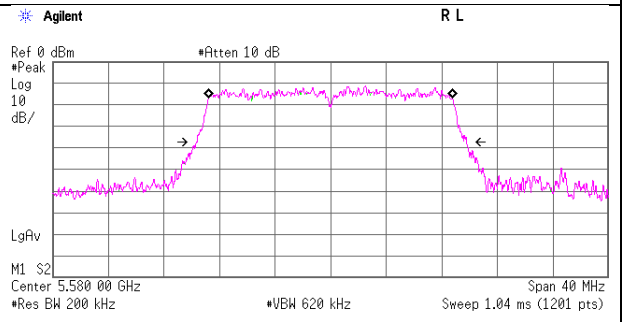


Occupied Bandwidth
17.5665 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -29.546 kHz
x dB Bandwidth 19.799 MHz

5580 MHz

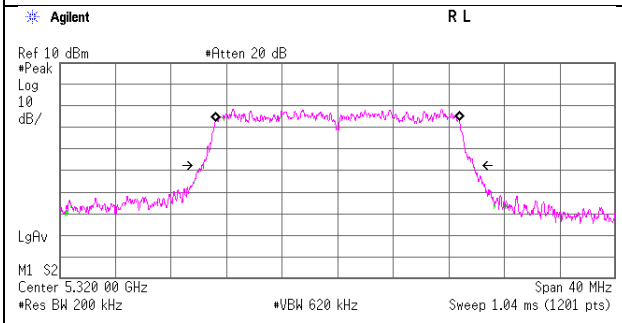


Occupied Bandwidth
17.5926 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error 1.279 kHz
x dB Bandwidth 19.445 MHz

5320 MHz

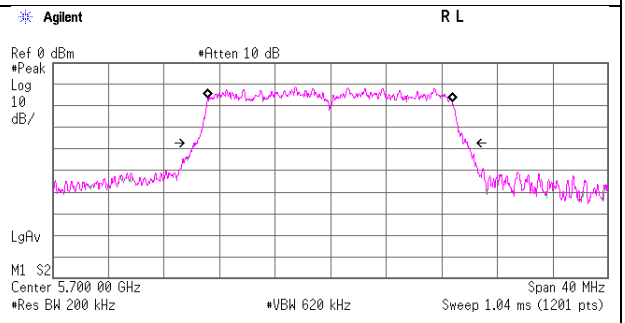


Occupied Bandwidth
17.5642 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -18.841 kHz
x dB Bandwidth 19.535 MHz

5700 MHz



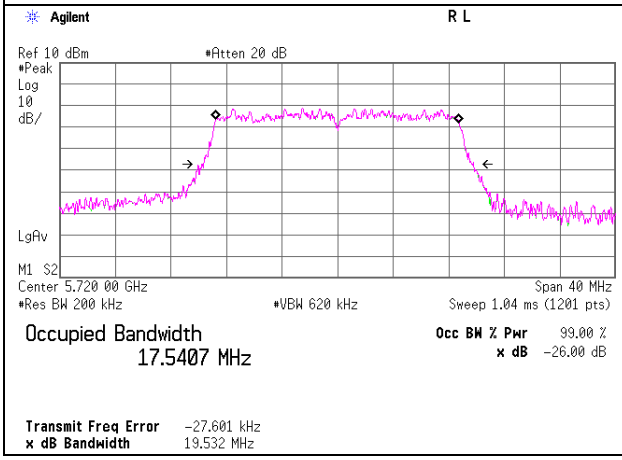
Occupied Bandwidth
17.6730 MHz

Occ BW % Pwr 99.00 %
x dB -26.00 dB

Transmit Freq Error -47.204 kHz
x dB Bandwidth 19.460 MHz

26 dB Emission Bandwidth

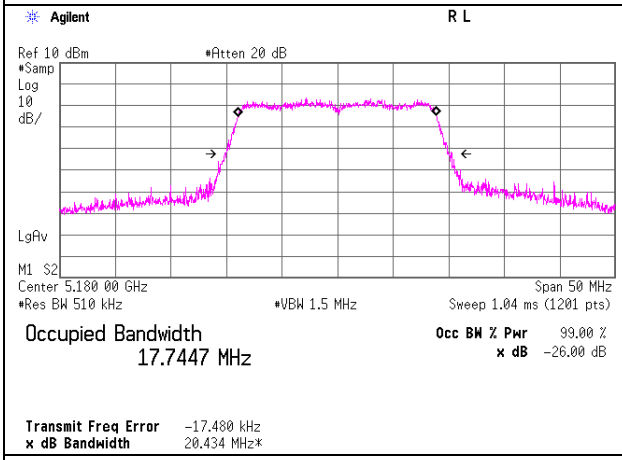
11ac VHT20(MIMO)

5720 MHz	-
	

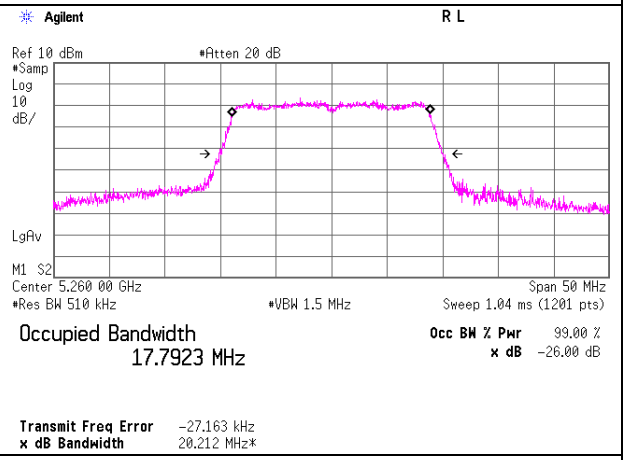
99 % Occupied Bandwidth

11ac VHT20(MIMO)

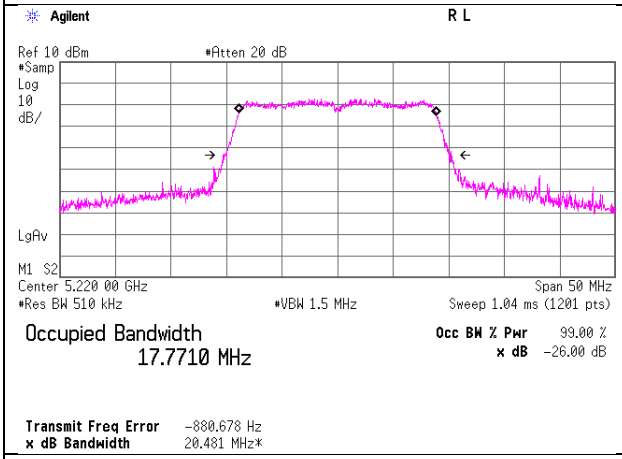
5180 MHz



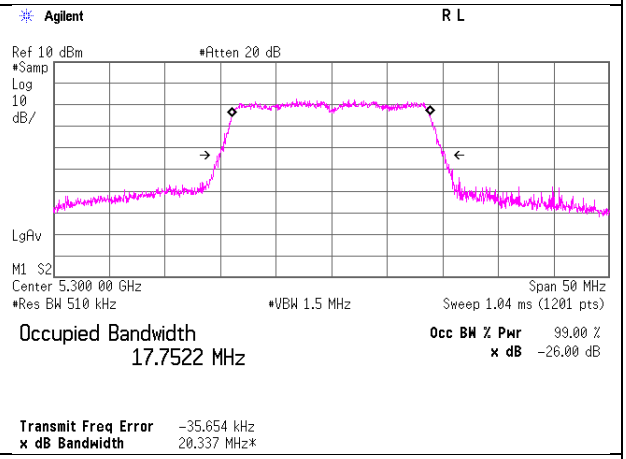
5260 MHz



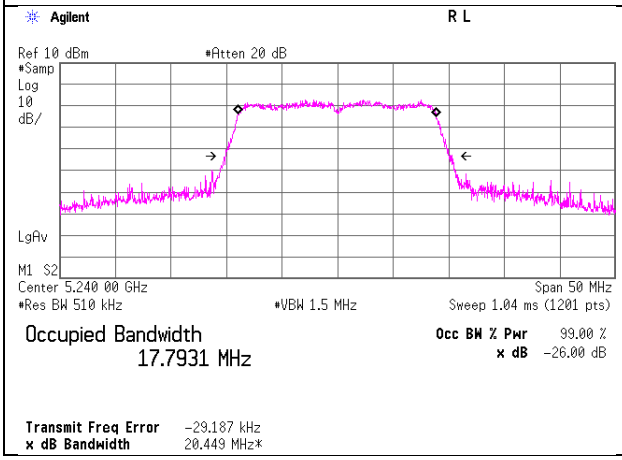
5220 MHz



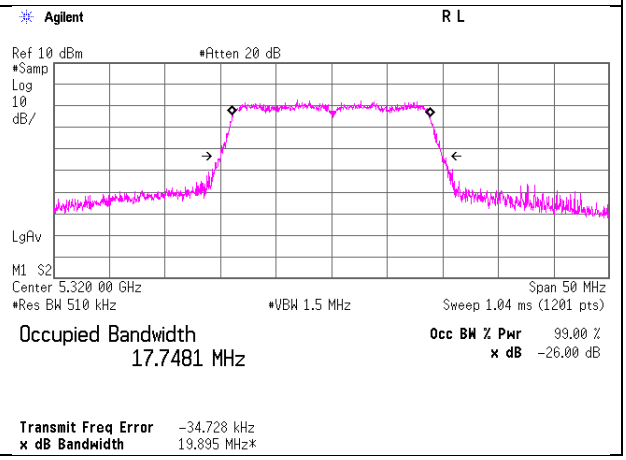
5300 MHz



5240 MHz



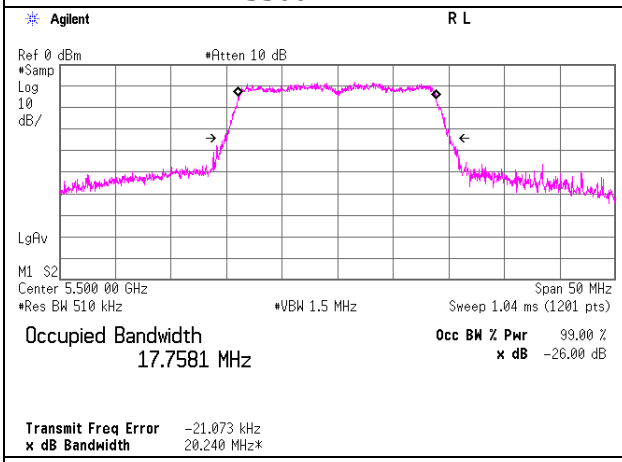
5320 MHz



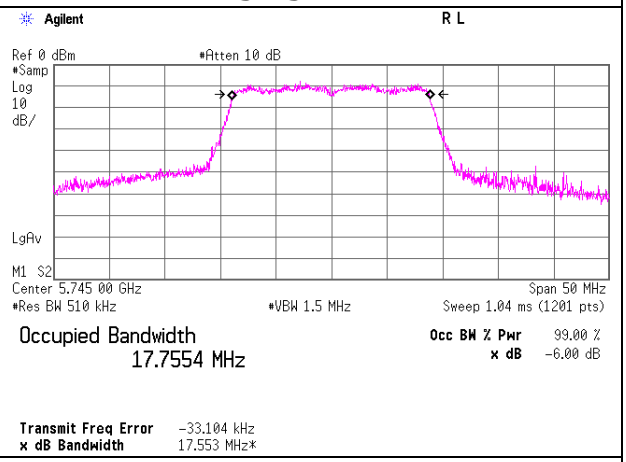
99 % Occupied Bandwidth

11ac VHT20(MIMO)

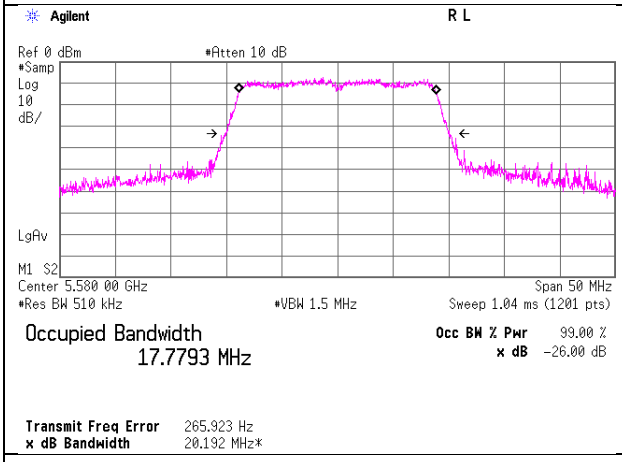
5500 MHz



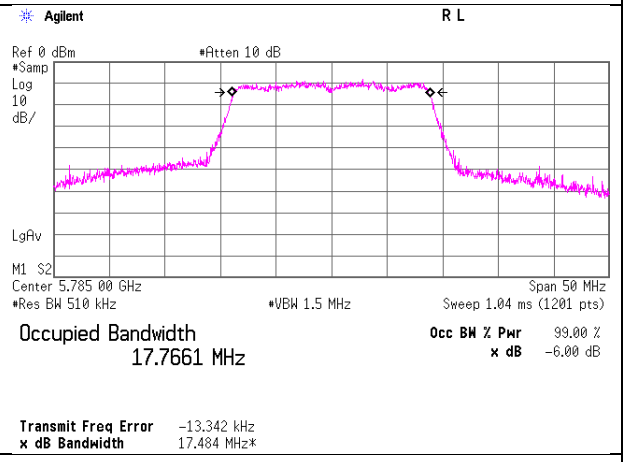
5745 MHz



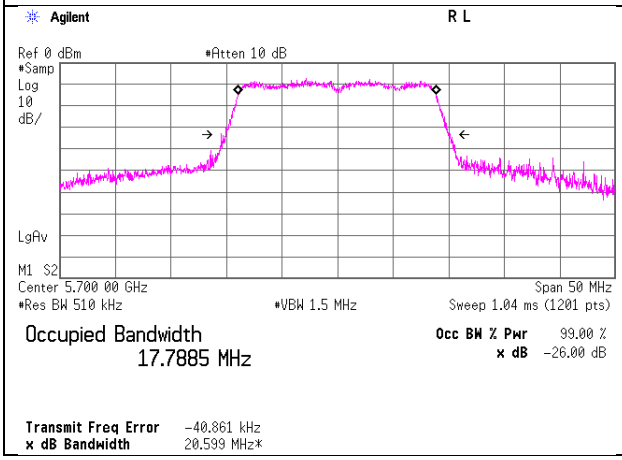
5580 MHz



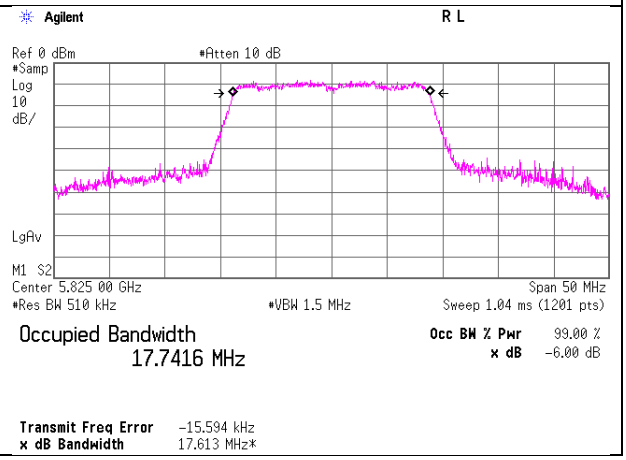
5785 MHz



5700 MHz

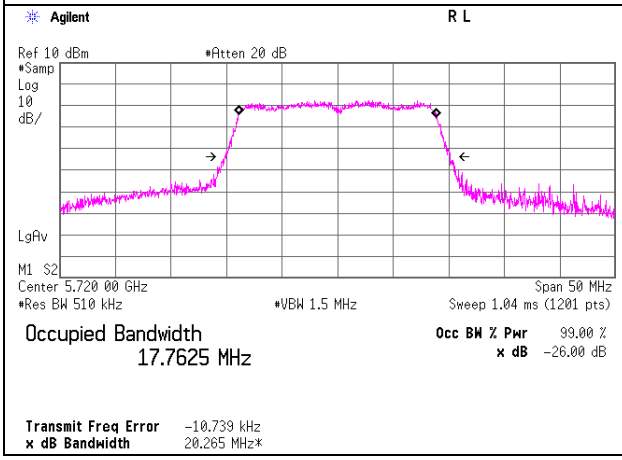


5825 MHz



99 % Occupied Bandwidth

11ac VHT20(MIMO)

5720 MHz	-
	

26 dB Emission Bandwidth and 99 % Occupied Bandwidth

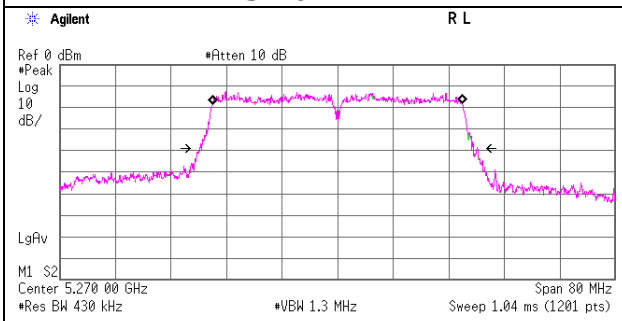
Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11306371S-C-R1
Date	July 1, 2016
Temperature / Humidity	25 deg. C / 61 % RH
Engineer	Yosuke Ishikawa
Mode	Tx IEEE802.11ac VHT40(MIMO), PN9, worst antenna port B, worst data mode 6Mbps

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5190	-	36.217	-
-	-	-	-
5230	-	36.203	-
5270	39.867	36.198	-
-	-	-	-
5310	38.811	36.191	-
5510	39.359	36.269	-
5550	39.550	36.248	-
5670	39.267	36.190	-
5710	39.466	36.314	-
5755	-	36.222	-
-	-	-	-
5795	-	36.253	-

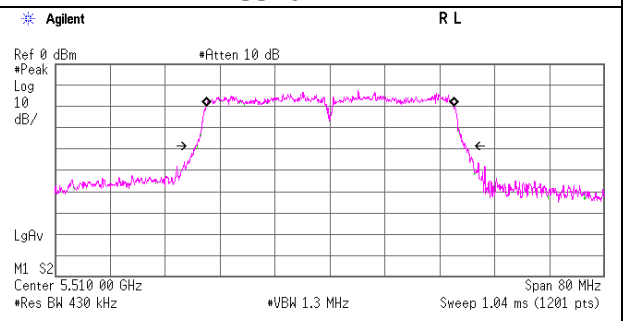
26 dB Emission Bandwidth

11ac VHT40(MIMO)

5270 MHz



5510 MHz



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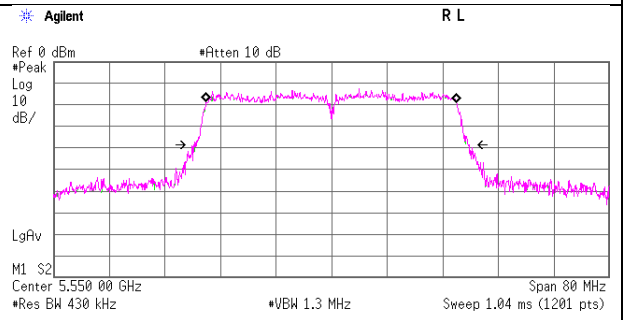
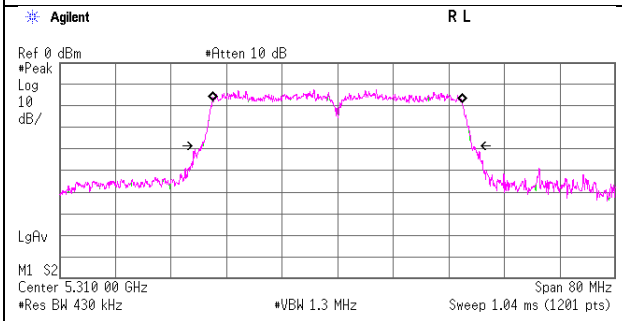
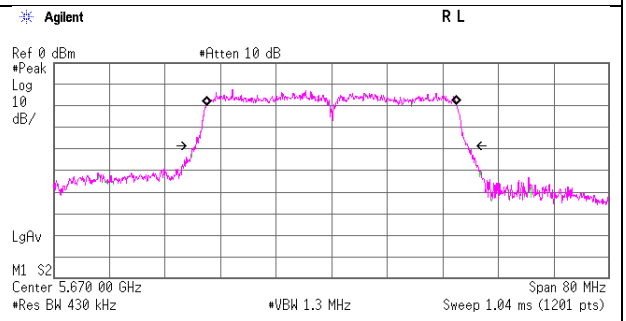
5550 MHz



5310 MHz

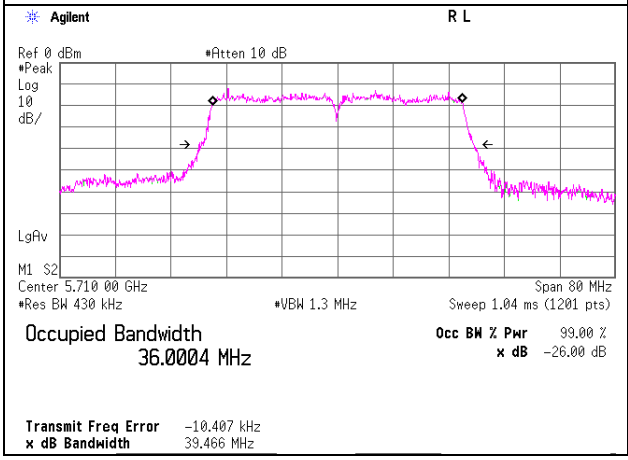


5670 MHz



26 dB Emission Bandwidth

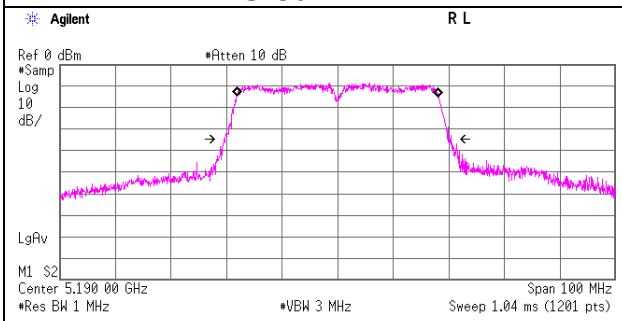
11ac VHT40(MIMO)

5710 MHz	-
	

99 % Occupied Bandwidth

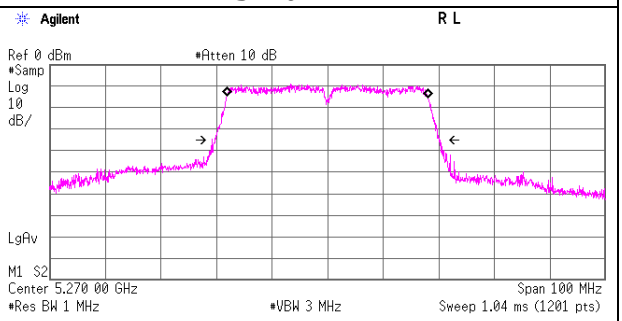
11ac VHT40(MIMO)

5190 MHz



-

5270 MHz



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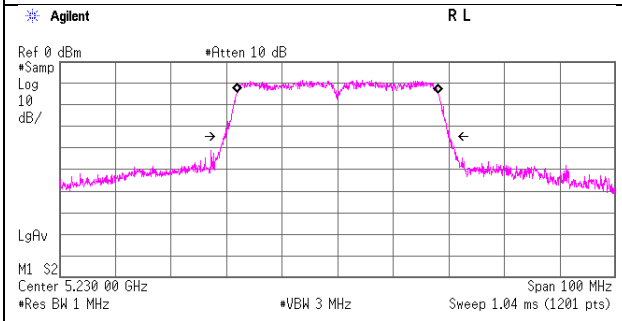
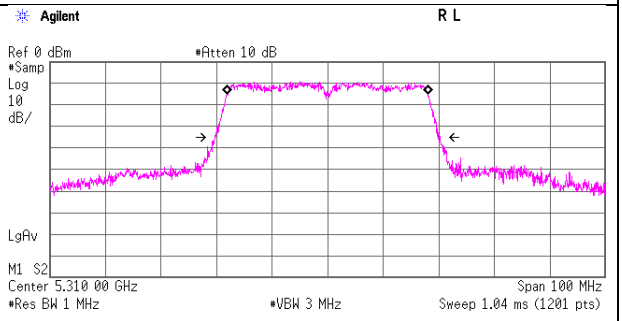
5230 MHz



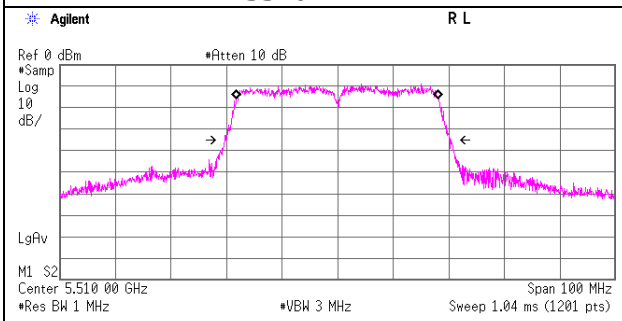
5310 MHz



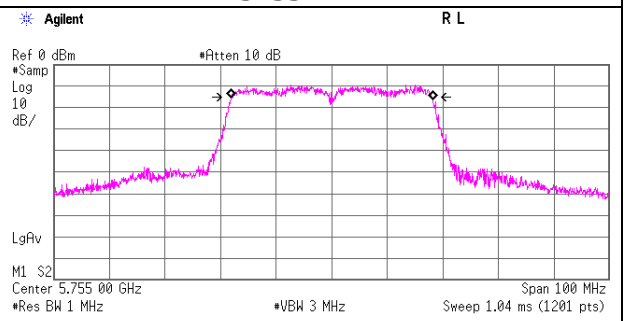
99 % Occupied Bandwidth

11ac VHT40(MIMO)

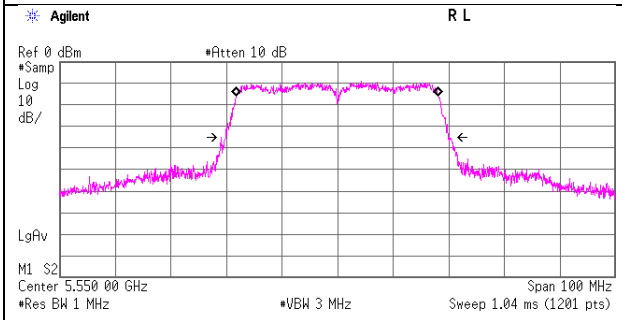
5510 MHz



5755 MHz

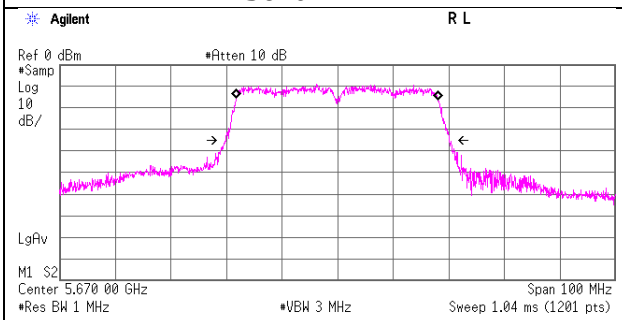


5550 MHz

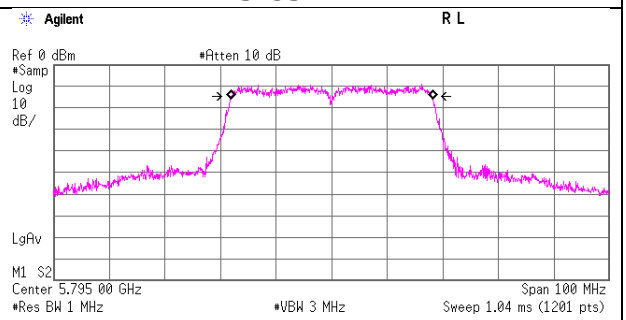


-

5670 MHz

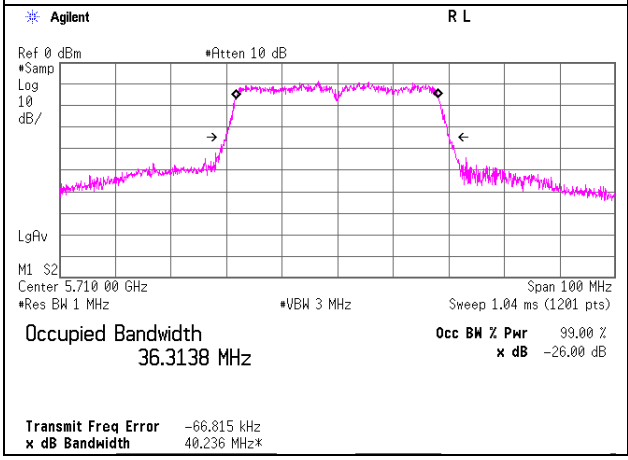


5795 MHz



99 % Occupied Bandwidth

11ac VHT40(MIMO)

5710 MHz	-
	

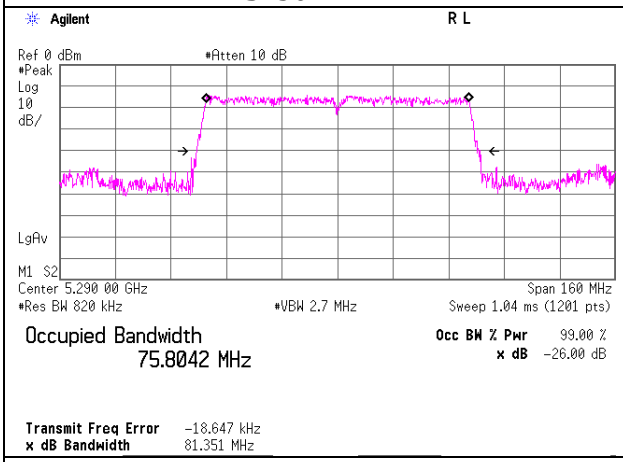
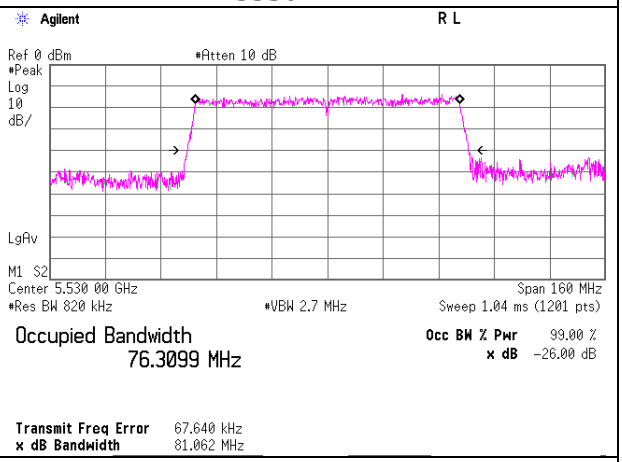
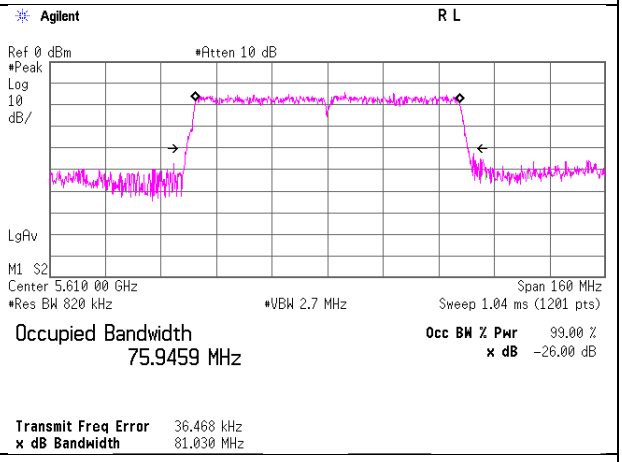
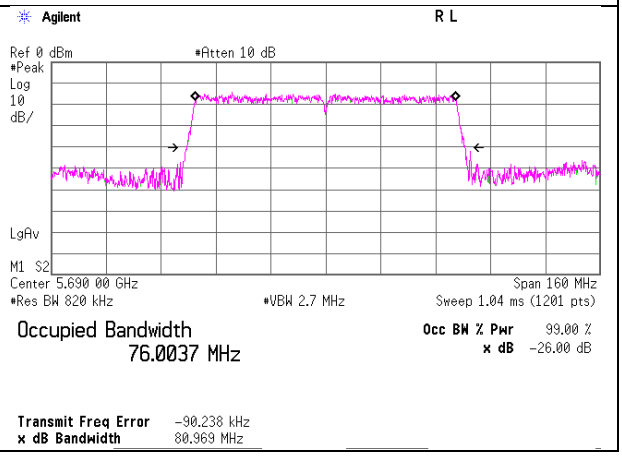
26 dB Emission Bandwidth and 99 % Occupied Bandwidth

Test place	Shonan EMC Lab. No.5 Shielded Room
Report No.	11306371S-C-R1
Date	July 1, 2016
Temperature / Humidity	21 deg. C / 61 % RH
Engineer	Yosuke Ishikawa
Mode	Tx IEEE802.11ac VHT80(MIMO), PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	26 dB Emission Bandwidth [MHz]	99 % Occupied Bandwidth [MHz]	Limit [MHz]
5210	-	76.505	-
-	-	-	-
-	-	-	-
5290	81.351	76.479	-
-	-	-	-
-	-	-	-
5530	81.062	76.903	-
5610	81.030	76.808	-
5690	80.969	76.540	-
5775	-	76.833	-
-	-	-	-
-	-	-	-

26 dB Emission Bandwidth

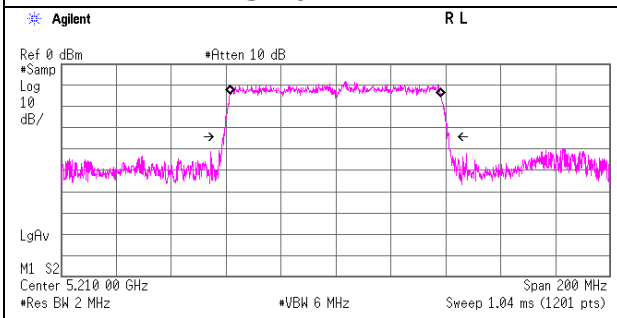
11ac VHT80(MIMO)

5290 MHz	5530 MHz
	
-	5610 MHz
	
-	5690 MHz
	

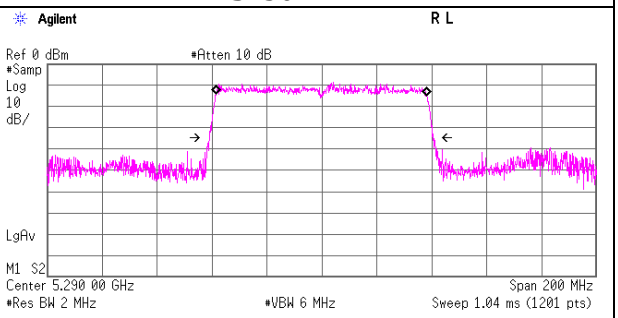
99 % Occupied Bandwidth

11ac VHT80(MIMO)

5210 MHz



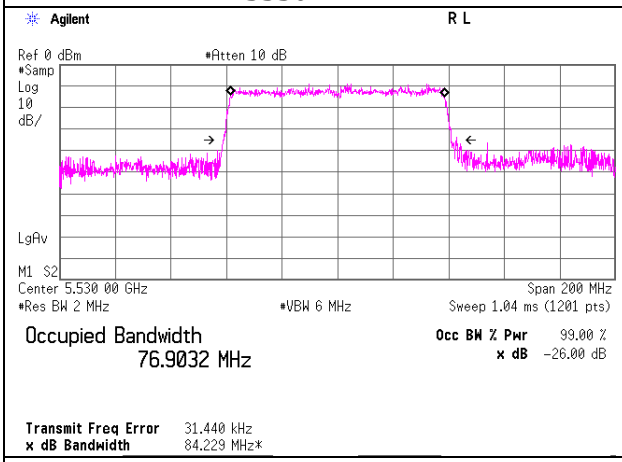
5290 MHz



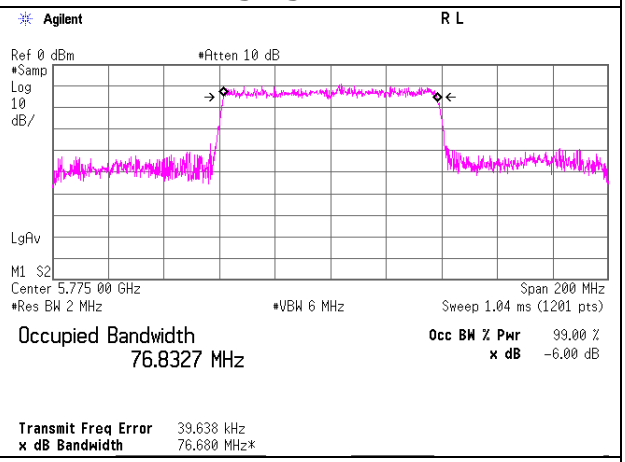
99 % Occupied Bandwidth

11ac VHT80(MIMO)

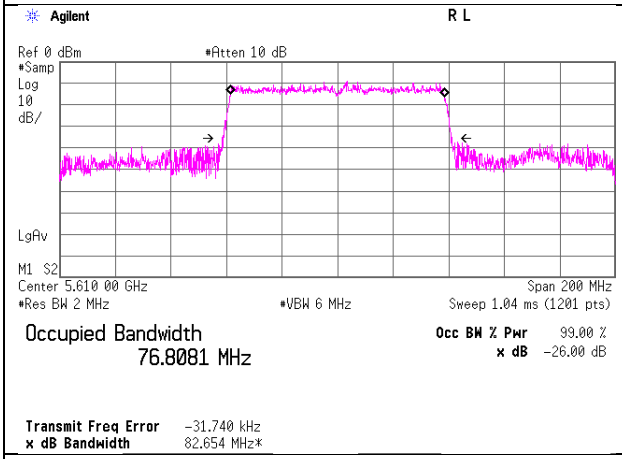
5530 MHz



5775 MHz



5610 MHz



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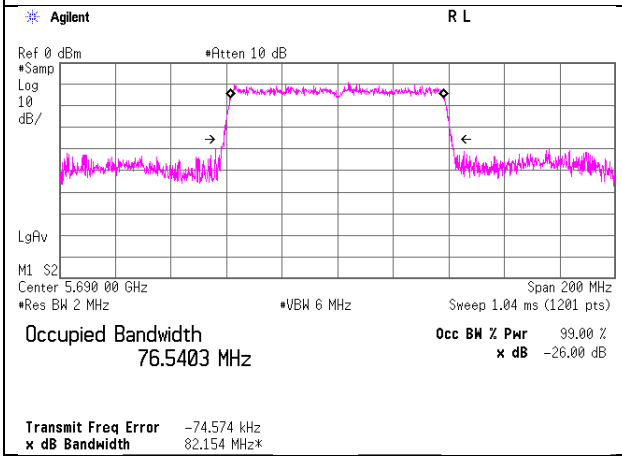
5690 MHz



-

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11a, PN9, worst antenna port B, worst data mode 6Mbps

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	16.350	> 500
5785	16.344	> 500
5825	16.369	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT20 SISO, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	17.240	> 500
5785	17.419	> 500
5825	17.537	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT40 SISO, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5755	35.597	> 500
-	-	> 500
5795	35.651	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT20 SISO, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	17.307	> 500
5785	17.529	> 500
5825	17.347	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT40 SISO, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5755	35.587	> 500
-	-	> 500
5795	35.455	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT80 SISO, PN9, worst antenna port B, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5775	76.429	> 500
-	-	> 500
-	-	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT20 MIMO, PN9, worst data mode MCS8

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	17.284	> 500
5785	17.412	> 500
5825	17.591	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT40 MIMO, PN9, worst data mode MCS8

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5755	35.244	> 500
-	-	> 500
5795	35.230	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT20 MIMO, PN9, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5745	17.537	> 500
5785	17.558	> 500
5825	17.564	> 500

6 dB Bandwidth

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT40 MIMO, PN9, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5755	35.519	> 500
-	-	> 500
5795	35.306	> 500

6 dB Bandwidth

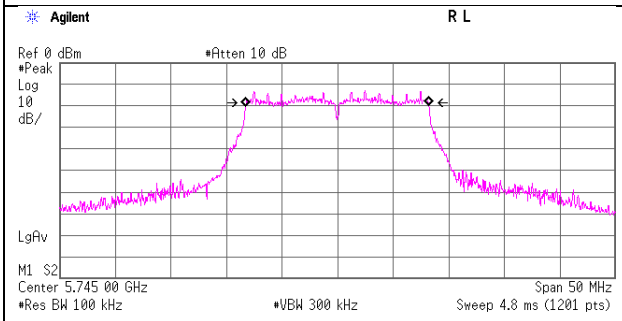
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT80 MIMO, PN9, worst data mode MCS0

Tested Frequency [MHz]	6 dB Bandwidth [MHz]	Limit [kHz]
5775	76.441	> 500
-	-	> 500
-	-	> 500

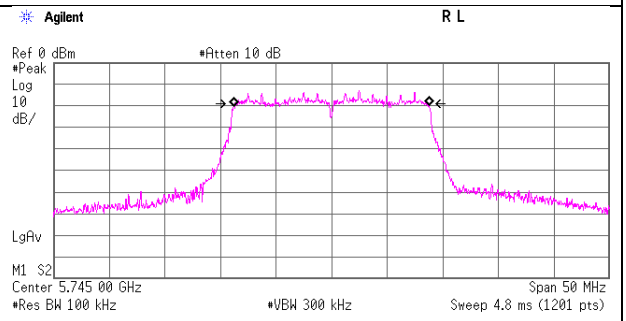
6 dB Bandwidth

11a	11n HT20 SISO

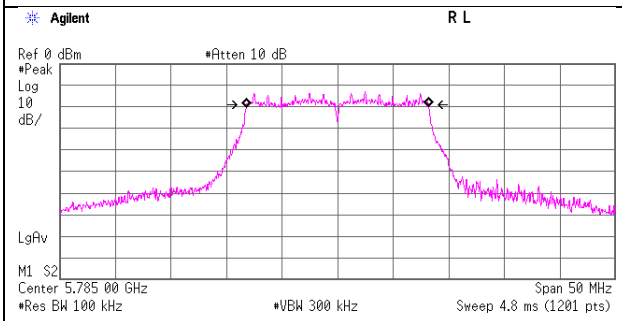
5745 MHz



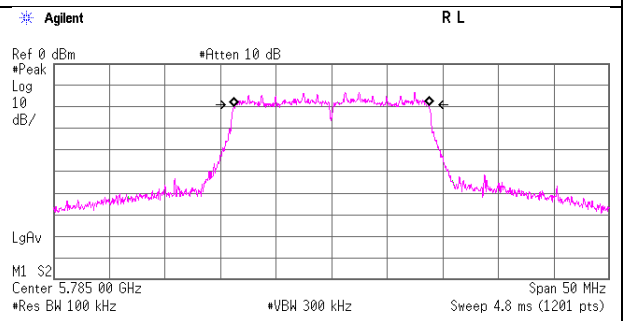
5745 MHz



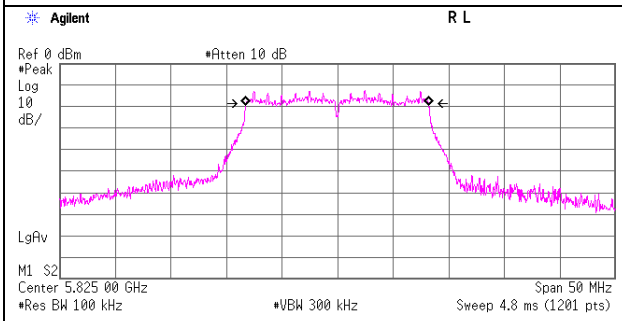
5785 MHz



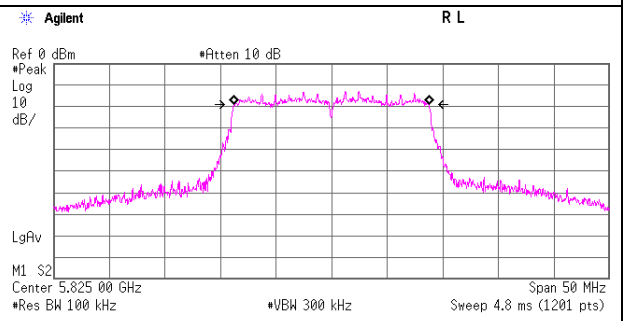
5785 MHz



5825 MHz



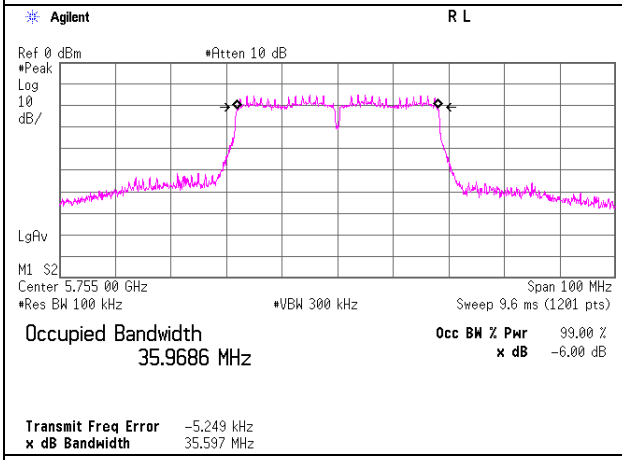
5825 MHz



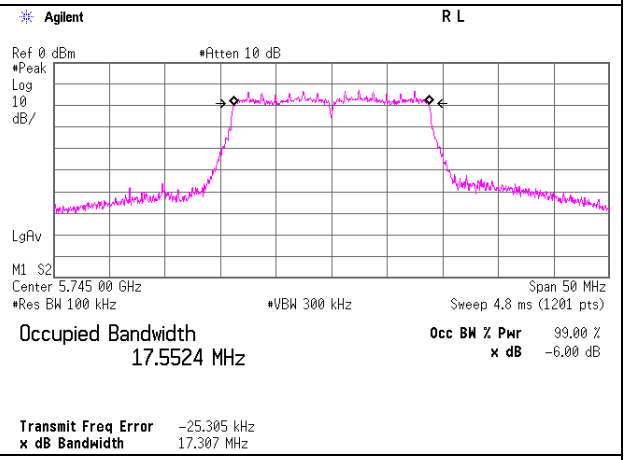
6 dB Bandwidth

11n HT40 SISO

5755 MHz

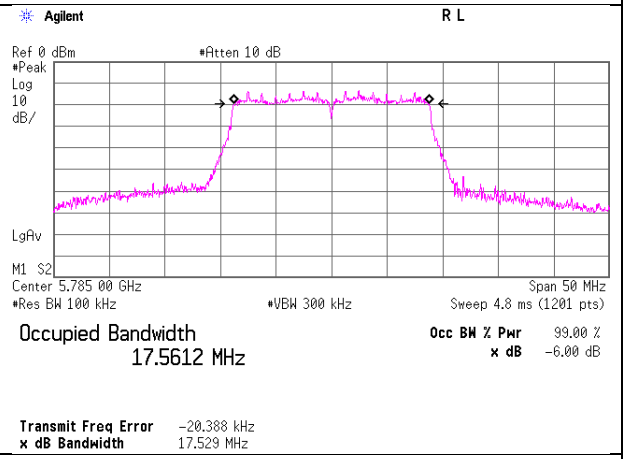


5745 MHz

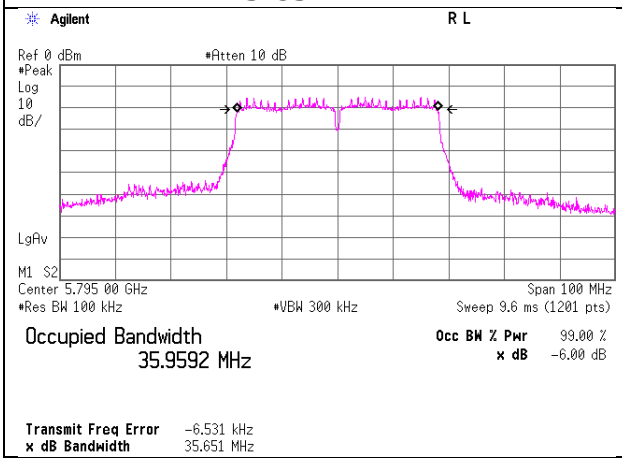


-

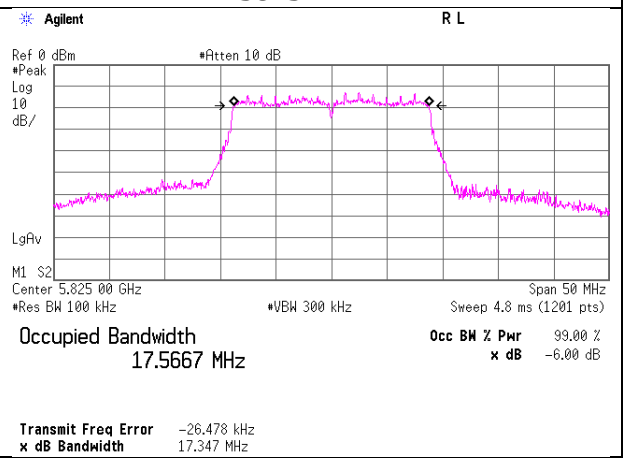
5785 MHz



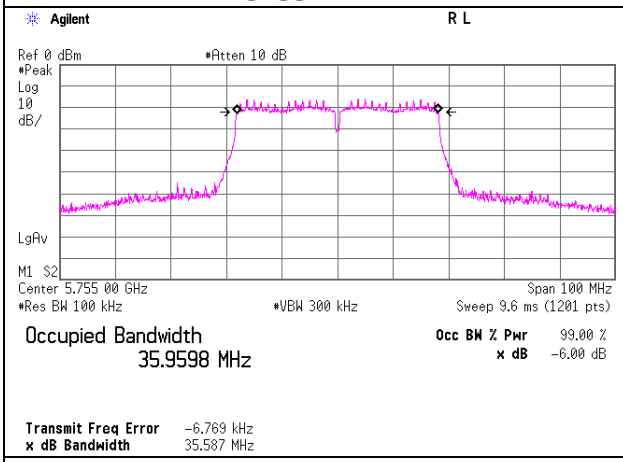
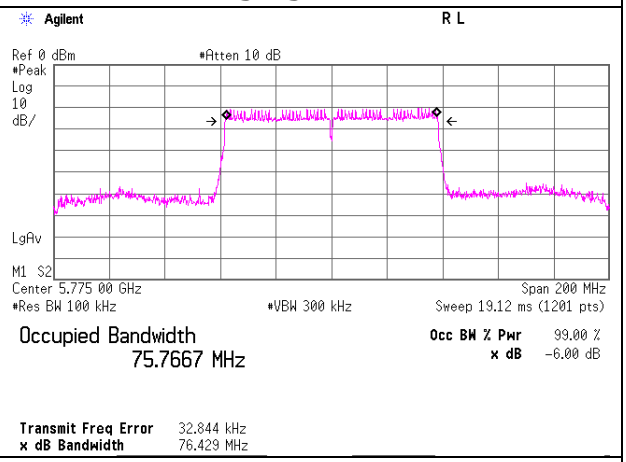
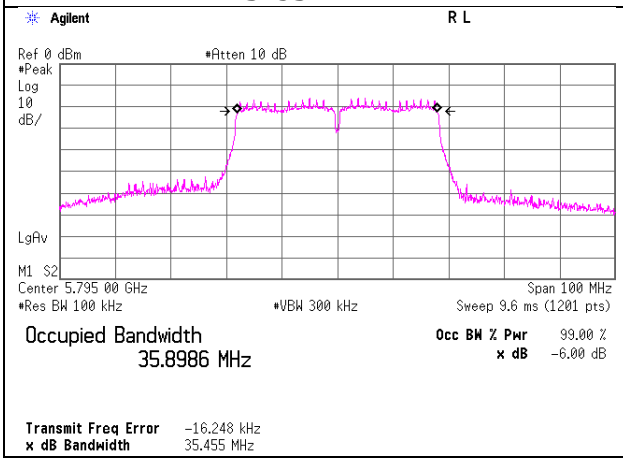
5795 MHz



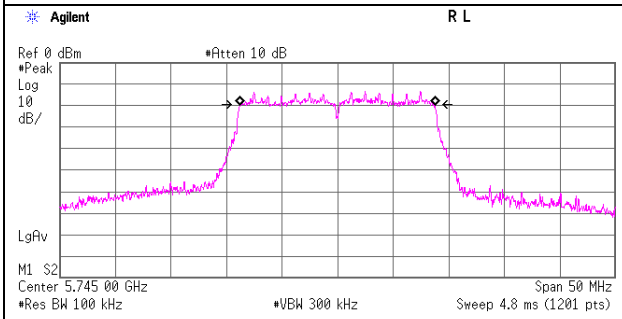
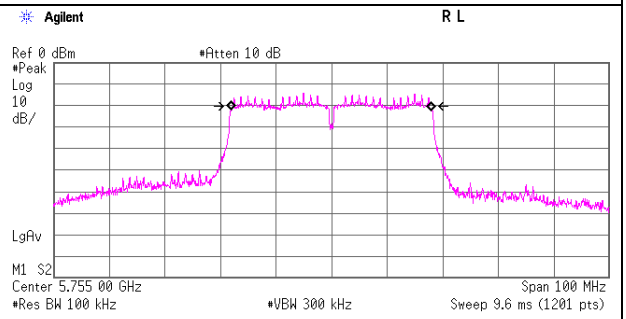
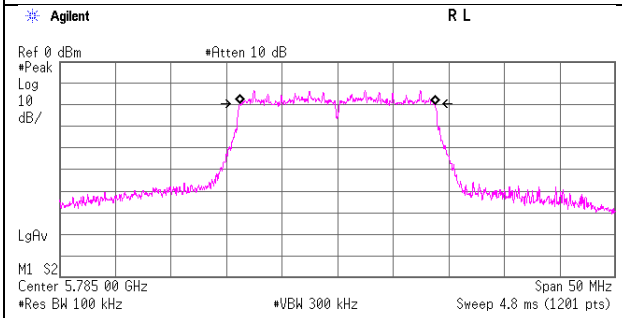
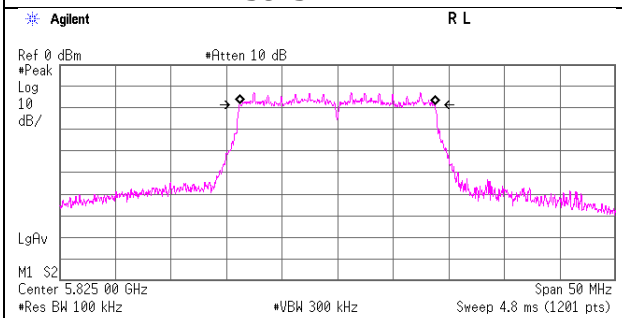
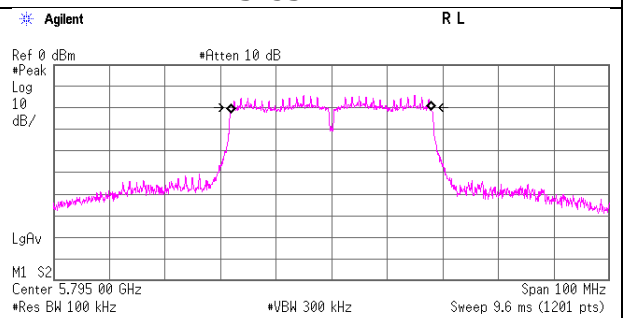
5825 MHz



6 dB Bandwidth

11ac VHT40 SISO	11ac VHT80 SISO
5755 MHz	**5775 MHz**
	
-	-
5795 MHz	-
	

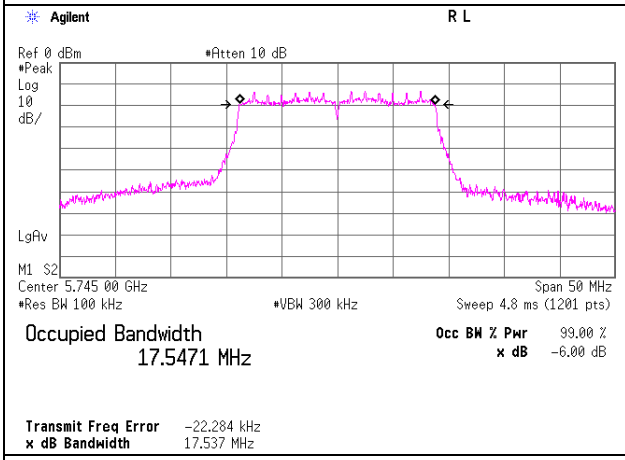
6 dB Bandwidth

11n HT20 MIMO	11n HT40 MIMO
5745 MHz	**5755 MHz**
	
5785 MHz	**-**
	
5825 MHz	**5795 MHz**
	

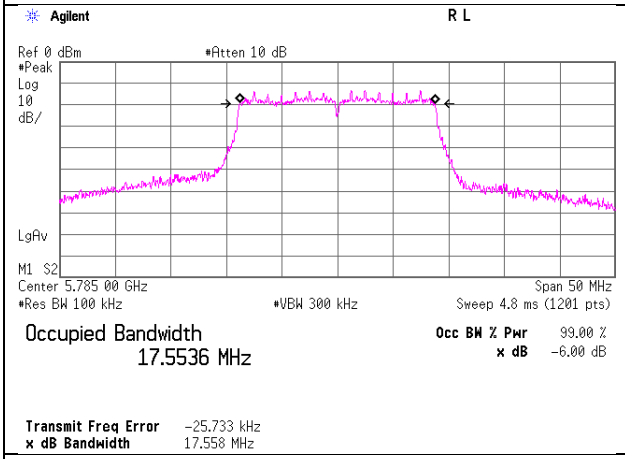
6 dB Bandwidth

11ac VHT20 MIMO

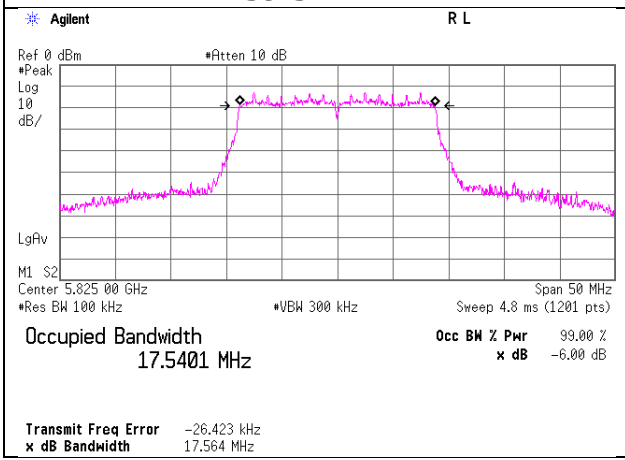
5745 MHz



5785 MHz

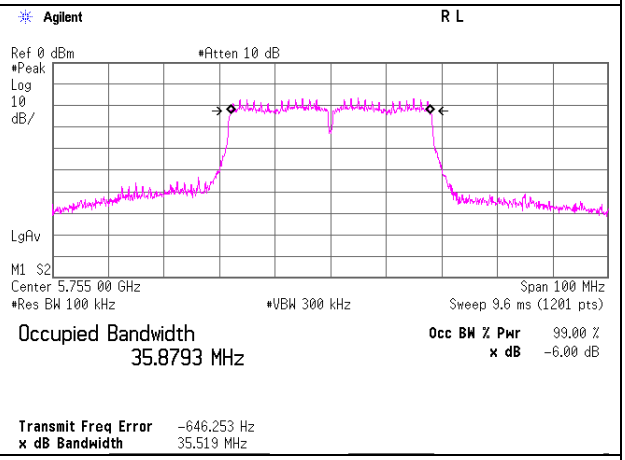


5825 MHz



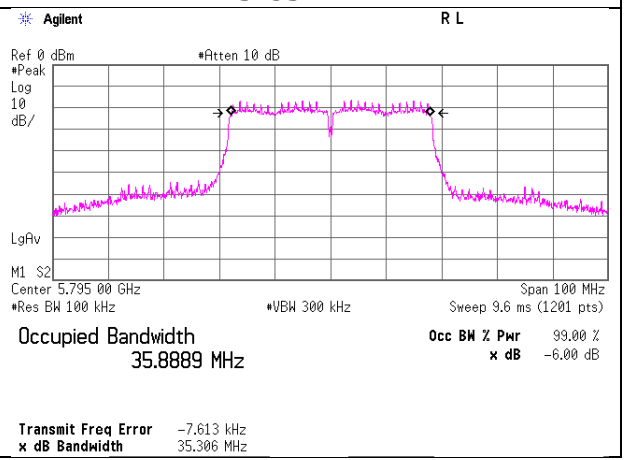
11ac VHT40 MIMO

5755 MHz



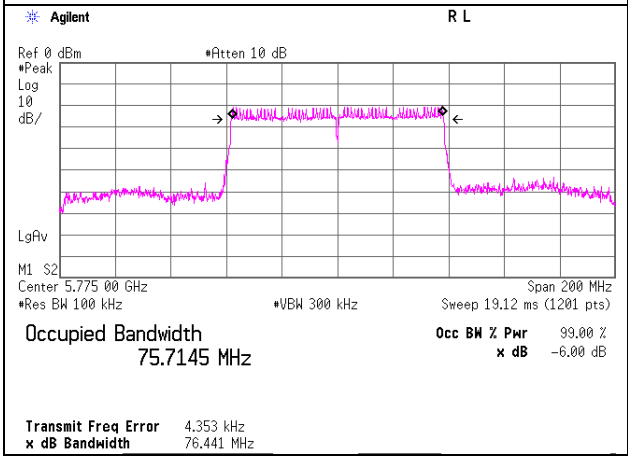
-

5795 MHz



6 dB Bandwidth

11ac VHT80 MIMO

5755 MHz	-
	

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11a, PN9, worst antenna port B, worst data mode 6Mbps

Antenna B

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	-1.97	2.90	9.99	0.21	4.29	-	18.901	11.13	12.97	23.97	12.84	15.42	34.83	29.97	14.55
5220	-2.08	2.91	9.99	0.21	4.29	-	19.281	11.03	12.68	23.97	12.94	15.32	34.04	29.97	14.65
5240	-1.84	2.92	9.99	0.21	4.29	-	19.308	11.28	13.43	23.97	12.69	15.57	36.06	29.97	14.40
5260	-2.27	2.94	10.00	0.21	4.29	19.413	17.048	10.88	12.25	23.88	13.00	15.17	32.89	29.97	14.80
5300	-2.35	2.97	10.00	0.21	4.29	19.265	16.986	10.83	12.11	23.84	13.01	15.12	32.51	29.97	14.85
5320	-2.44	2.98	10.00	0.21	4.29	19.068	16.933	10.75	11.89	23.80	13.05	15.04	31.92	29.97	14.93
5500	-2.46	3.03	10.01	0.21	4.29	19.167	16.911	10.79	11.99	23.82	13.03	15.08	32.21	29.97	14.89
5580	-2.18	3.06	10.00	0.21	4.29	19.330	16.966	11.09	12.85	23.86	12.77	15.38	34.51	29.97	14.59
5700	-2.40	3.20	9.99	0.21	4.29	19.305	16.979	11.00	12.59	23.85	12.85	15.29	33.81	29.97	14.68
5720	-2.35	3.16	9.99	0.21	4.29	19.189	16.888	11.01	12.62	23.83	12.82	15.30	33.88	29.97	14.67
5745	-3.34	3.18	9.99	0.21	4.29	-	17.061	10.04	10.09	30.00	19.96	14.33	27.10	36.00	21.67
5785	-3.47	3.21	9.99	0.21	4.29	-	17.034	9.94	9.86	30.00	20.06	14.23	26.49	36.00	21.77
5825	-3.13	3.24	9.98	0.21	4.29	-	16.922	10.30	10.72	30.00	19.70	14.59	28.77	36.00	21.41

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.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT20 SISO, PN9, worst antenna port B, worst data mode MCS0

Antenna B

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power Result		Limit	Margin	e.i.r.p. Result		Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-1.84	2.90	9.99	0.23	4.29	-	17.757	11.28	13.43	23.97	12.69	15.57	36.06	29.97	14.40
5220	-1.95	2.91	9.99	0.23	4.29	-	17.786	11.18	13.12	23.97	12.79	15.47	35.24	29.97	14.50
5240	-2.09	2.92	9.99	0.23	4.29	-	17.785	11.05	12.74	23.97	12.92	15.34	34.20	29.97	14.63
5260	-2.45	2.94	10.00	0.23	4.29	19.405	17.814	10.72	11.80	23.87	13.15	15.01	31.70	29.97	14.96
5300	-2.32	2.97	10.00	0.23	4.29	19.268	17.828	10.88	12.25	23.84	12.96	15.17	32.89	29.97	14.80
5320	-2.47	2.98	10.00	0.23	4.29	19.722	17.760	10.74	11.86	23.94	13.20	15.03	31.84	29.97	14.94
5500	-2.57	3.03	10.01	0.23	4.29	19.746	17.774	10.70	11.75	23.95	13.25	14.99	31.55	29.97	14.98
5580	-2.30	3.06	10.00	0.23	4.29	19.751	17.798	10.99	12.56	23.95	12.96	15.28	33.73	29.97	14.69
5700	-2.19	3.20	9.99	0.23	4.29	19.348	17.795	11.23	13.27	23.86	12.63	15.52	35.65	29.97	14.45
5720	-2.09	3.16	9.99	0.23	4.29	19.496	17.817	11.29	13.46	23.89	12.60	15.58	36.14	29.97	14.39
5745	-3.76	3.18	9.99	0.23	4.29	-	17.782	9.64	9.20	30.00	20.36	13.93	24.72	36.00	22.07
5785	-3.78	3.21	9.99	0.23	4.29	-	17.7726	9.65	9.23	30.00	20.35	13.94	24.77	36.00	22.06
5825	-3.02	3.24	9.98	0.23	4.29	-	17.8101	10.43	11.04	30.00	19.57	14.72	29.65	36.00	21.28

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.	11306371S-C-R1
Date	June 10, 2016
Temperature / Humidity	23 deg. C / 48 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx IEEE802.11n HT40 SISO, PN9, worst antenna port B, worst data mode 6Mbps

Antenna B

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	-2.25	2.89	9.99	0.55	4.29	-	36.365	11.18	13.12	23.97	12.79	15.47	35.24	29.97	14.50
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-2.40	2.92	9.99	0.55	4.29	-	36.428	11.06	12.76	23.97	12.91	15.35	34.28	29.97	14.62
5270	-2.56	2.95	10.00	0.64	4.29	39.873	36.406	11.03	12.68	23.97	12.94	15.32	34.04	29.97	14.65
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-2.72	2.97	10.00	0.64	4.29	40.172	36.369	10.89	12.27	23.97	13.08	15.18	32.96	29.97	14.79
5510	-3.43	3.03	10.01	0.64	4.29	39.871	36.420	10.25	10.59	23.97	13.72	14.54	28.44	29.97	15.43
5550	-2.94	3.05	10.01	0.64	4.29	39.987	36.421	10.76	11.91	23.97	13.21	15.05	31.99	29.97	14.92
5670	-2.70	3.16	10.00	0.64	4.29	40.463	36.320	11.10	12.88	23.97	12.87	15.39	34.59	29.97	14.58
5710	-2.67	3.16	9.99	0.64	4.29	39.737	36.338	11.12	12.94	23.97	12.85	15.41	34.75	29.97	14.56
5755	-3.09	3.19	9.99	0.64	4.29	-	36.540	10.73	11.83	30.00	19.27	15.02	31.77	36.00	20.98
-	-	-	-	-	4.29	-	-	-	-	-	-	-	-	-	-
5795	-3.19	3.22	9.99	0.64	4.29	-	36.343	10.66	11.64	30.00	19.34	14.95	31.26	36.00	21.05

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.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT20 SISO, PN9, worst antenna port B, worst data mode MCS0

Antenna B

Applied limit: 15.407, mobile and portable client device

Tested Frequency	Power Meter Reading	Cable Loss	Atten. Loss	Duty Factor	Antenna Gain	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted Power Result		Limit	Margin	e.i.r.p. Result		Limit	Margin
[MHz]	[dBm]	[dB]	[dB]	[dB]	[dBi]	[MHz]	[MHz]	[dBm]	[mW]	[dBm]	[dB]	[dBm]	[mW]	[dBm]	[dB]
5180	-1.98	2.90	9.99	0.12	4.29	-	17.776	11.03	12.68	23.97	12.94	15.32	34.04	29.97	14.65
5220	-1.94	2.90	9.99	0.12	4.29	-	17.768	11.07	12.79	23.97	12.90	15.36	34.36	29.97	14.61
5240	-1.96	2.90	9.99	0.12	4.29	-	17.755	11.05	12.74	23.97	12.92	15.34	34.20	29.97	14.63
5260	-2.40	2.94	10.00	0.12	4.29	19.381	17.800	10.66	11.64	23.87	13.21	14.95	31.26	29.97	15.02
5300	-2.15	2.97	10.00	0.12	4.29	19.683	17.817	10.94	12.42	23.94	13.00	15.23	33.34	29.97	14.74
5320	-2.34	2.98	10.00	0.12	4.29	19.418	17.780	10.76	11.91	23.88	13.12	15.05	31.99	29.97	14.92
5500	-2.48	3.03	10.01	0.12	4.29	19.562	17.762	10.68	11.69	23.91	13.23	14.97	31.41	29.97	15.00
5580	-2.13	3.06	10.00	0.12	4.29	19.617	17.795	11.05	12.74	23.92	12.87	15.34	34.20	29.97	14.63
5700	-2.46	3.20	9.99	0.12	4.29	19.538	17.792	10.85	12.16	23.90	13.05	15.14	32.66	29.97	14.83
5720	-2.31	3.16	9.99	0.12	4.29	19.491	17.759	10.96	12.47	23.89	12.93	15.25	33.50	29.97	14.72
5745	-3.54	3.18	9.99	0.12	4.29	-	17.7907	9.75	9.44	30.00	20.25	14.04	25.35	36.00	21.96
5785	-3.58	3.21	9.99	0.12	4.29	-	17.7543	9.74	9.42	30.00	20.26	14.03	25.29	36.00	21.97
5825	-3.32	3.24	9.98	0.12	4.29	-	17.7702	10.02	10.05	30.00	19.98	14.31	26.98	36.00	21.69

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.6 Shielded Room	
Report No.	11306371S-C-R1	
Date	June 9, 2016	June 10, 2016
Temperature / Humidity	24 deg. C / 50 % RH	23 deg. C / 48 % RH
Engineer	Kazutaka Takeyama	Hiroyuki Morikawa
Mode	Tx IEEE802.11ac VHT40 SISO, PN9, worst antenna port B, worst data mode MCS0	

Antenna B

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	-3.66	2.89	9.99	0.21	4.29	-	36.264	9.43	8.77	23.97	14.54	13.72	23.55	29.97	16.25
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-3.49	2.92	9.99	0.21	4.29	-	36.310	9.63	9.18	23.97	14.34	13.92	24.66	29.97	16.05
5270	-3.20	2.95	10.00	0.21	4.29	39.996	36.275	9.96	9.91	23.97	14.01	14.25	26.61	29.97	15.72
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-3.71	2.97	10.00	0.21	4.29	40.008	36.298	9.47	8.85	23.97	14.50	13.76	23.77	29.97	16.21
5510	-4.26	3.03	10.01	0.21	4.29	39.834	36.305	8.99	7.93	23.97	14.98	13.28	21.28	29.97	16.69
5550	-3.80	3.05	10.01	0.21	4.29	39.952	36.259	9.47	8.85	23.97	14.50	13.76	23.77	29.97	16.21
5670	-3.79	3.16	10.00	0.21	4.29	39.823	36.271	9.58	9.08	23.97	14.39	13.87	24.38	29.97	16.10
5710	-3.30	3.16	9.99	0.21	4.29	39.929	36.286	10.06	10.14	23.97	13.91	14.35	27.23	29.97	15.62
5755	-4.05	3.19	9.99	0.21	4.29	-	36.29	9.34	8.59	30.00	20.66	13.63	23.07	36.00	22.37
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-4.14	3.22	9.99	0.21	4.29	-	36.3251	9.28	8.47	30.00	20.72	13.57	22.75	36.00	22.43

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.	11306371S-C-R1	
Date	July 6, 2016	June 10, 2016
Temperature / Humidity	22 deg. C / 45 % RH	23 deg. C / 48 % RH
Engineer	Kazutaka Takeyama	Hiroyuki Morikawa
Mode	Tx IEEE802.11ac VHT80, PN9, worst antenna port B, worst data mode MCS0	

Antenna B

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	-4.39	2.91	9.99	0.35	4.29	-	76.422	8.86	7.69	23.97	15.11	13.15	20.65	29.97	16.82
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5290	-4.40	2.96	10.00	0.35	4.29	81.919	76.314	8.91	7.78	23.97	15.06	13.20	20.89	29.97	16.77
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5530	-5.20	3.04	10.01	0.35	4.29	80.795	76.724	8.20	6.61	23.97	15.77	12.49	17.74	29.97	17.48
5610	-4.69	3.08	10.00	0.35	4.29	80.994	76.712	8.74	7.48	23.97	15.23	13.03	20.09	29.97	16.94
5690	-4.62	3.14	9.99	0.35	4.29	81.089	76.425	8.86	7.69	23.97	15.11	13.15	20.65	29.97	16.82
5755	-4.77	3.21	9.99	0.35	4.29	-	76.639	8.78	7.55	30.00	21.22	13.07	20.28	36.00	22.93
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

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

Maximum Conducted Output Power

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT20(MIMO), PN9, worst data mode MCS8

Antenna A+B Applied limit: 15.407, mobile and portable client device

Tested Frequency	26 dB EBW (B for FCC)	99% OBW (B for IC)	Conducted power Antenna 1	Antenna 2	Sum	Result	Limit	Margin	e.i.r.p. Antenna 1	Antenna 2	Sum	Result	Limit	Margin
[MHz]	[MHz]	[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]
5180	-	17.773	11.14	13.00	24.14	13.83	23.97	10.14	21.28	34.91	56.20	17.50	29.97	12.47
5220	-	17.775	12.27	13.27	25.55	14.07	23.97	9.90	23.44	35.65	59.09	17.71	29.97	12.26
5240	-	17.748	12.42	13.71	26.13	14.17	23.97	9.80	23.71	36.81	60.53	17.82	29.97	12.15
5260	19.420	17.734	11.61	13.55	25.17	14.01	23.88	9.87	22.18	36.39	58.57	17.68	29.97	12.29
5300	19.679	17.768	12.02	12.88	24.91	13.96	23.94	9.98	22.96	34.59	57.56	17.60	29.97	12.37
5320	19.469	17.722	11.91	13.65	25.56	14.08	23.89	9.81	22.75	36.64	59.39	17.74	29.97	12.23
5500	19.421	17.754	11.25	12.50	23.75	13.76	23.88	10.12	21.48	33.57	55.05	17.41	29.97	12.56
5580	19.526	17.769	11.43	12.76	24.19	13.84	23.90	10.06	21.83	34.28	56.10	17.49	29.97	12.48
5700	19.435	17.761	11.27	13.77	25.04	13.99	23.88	9.89	21.53	36.98	58.51	17.67	29.97	12.30
5720	19.603	17.734	15.70	13.55	29.26	14.66	23.92	9.26	29.99	36.39	66.38	18.22	29.97	11.75
5745	-	17.745	9.73	10.12	19.84	12.98	30.00	17.02	18.58	27.16	45.74	16.60	36.00	19.40
5785	-	17.794	9.04	10.05	19.08	12.81	30.00	17.19	17.26	26.98	44.24	16.46	36.00	19.54
5825	-	17.770	9.55	10.47	20.02	13.01	30.00	16.99	18.24	28.12	46.36	16.66	36.00	19.34

		Antenna A						**Antenna B**					
Tested Frequency	Duty Factor	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.	Power Meter Reading	Cable Loss	Atten. Loss	Antenna Gain	Result Cond. Power	Result e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5180	0.45	-2.87	2.90	9.99	2.81	10.47	13.28	-2.20	2.90	9.99	4.29	11.14	15.43
5220	0.45	-2.46	2.91	9.99	2.81	10.89	13.70	-2.12	2.91	9.99	4.29	11.23	15.52
5240	0.45	-2.42	2.92	9.99	2.81	10.94	13.75	-1.99	2.92	9.99	4.29	11.37	15.66
5260	0.45	-2.74	2.94	10.00	2.81	10.65	13.46	-2.07	2.94	10.00	4.29	11.32	15.61
5300	0.45	-2.62	2.97	10.00	2.81	10.80	13.61	-2.32	2.97	10.00	4.29	11.10	15.39
5320	0.45	-2.67	2.98	10.00	2.81	10.76	13.57	-2.08	2.98	10.00	4.29	11.35	15.64
5500	0.45	-2.98	3.03	10.01	2.81	10.51	13.32	-2.52	3.03	10.01	4.29	10.97	15.26
5580	0.45	-2.93	3.06	10.00	2.81	10.58	13.39	-2.45	3.06	10.00	4.29	11.06	15.35
5700	0.45	-3.12	3.20	9.99	2.81	10.52	13.33	-2.25	3.20	9.99	4.29	11.39	15.68
5720	0.45	-1.64	3.16	9.99	2.81	11.96	14.77	-2.28	3.16	9.99	4.29	11.32	15.61
5745	0.45	-3.74	3.18	9.99	2.81	9.88	12.69	-3.57	3.18	9.99	4.29	10.05	14.34
5785	0.45	-4.09	3.21	9.99	2.81	9.56	12.37	-3.63	3.21	9.99	4.29	10.02	14.31
5825	0.45	-3.87	3.24	9.98	2.81	9.80	12.61	-3.47	3.24	9.98	4.29	10.20	14.49

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.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 10, 2016
Temperature / Humidity	23 deg. C / 48 % RH
Engineer	'Hiroyuki Morikawa
Mode	Tx IEEE802.11n HT40(MIMO), PN9, worst data mode MCS8

Antenna A+B Applied limit: 15.407, mobile and portable client device

Tested	26 dB	99%	Conducted power						e.i.r.p.					
Frequency	EBW	OBW	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	(B for FCC)	(B for IC)	1	2	Sum				1	2	Sum			
[MHz]	[MHz]	[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]
5190	-	36.232	11.64	13.12	24.76	13.94	23.97	10.03	22.23	35.24	57.47	17.59	29.97	12.38
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-	36.230	11.75	13.09	24.84	13.95	23.97	10.02	22.44	35.16	57.59	17.60	29.97	12.37
5270	39.352	36.196	11.35	9.73	21.08	13.24	23.97	10.73	21.68	26.12	47.80	16.79	29.97	13.18
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	39.479	36.207	10.30	11.38	21.68	13.36	23.97	10.61	19.68	30.55	50.23	17.01	29.97	12.96
5510	38.980	36.231	10.33	11.30	21.63	13.35	23.97	10.62	19.72	30.34	50.06	17.00	29.97	12.97
5550	39.294	36.183	11.40	12.30	23.71	13.75	23.97	10.22	21.78	33.04	54.81	17.39	29.97	12.58
5670	39.342	36.247	11.02	12.62	23.63	13.74	23.97	10.23	21.04	33.88	54.92	17.40	29.97	12.57
5710	39.327	36.218	16.14	13.55	29.70	14.73	23.97	9.24	30.83	36.39	67.22	18.28	29.97	11.69
5755	-	36.195	10.30	12.82	23.13	13.64	30.00	16.36	19.68	34.43	54.11	17.33	36.00	18.67
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-	36.218	9.98	12.85	22.83	13.59	30.00	16.41	19.05	34.51	53.57	17.29	36.00	18.71

		Antenna A						**Antenna B**					
Tested	Duty	Power	Cable	Atten.	Antenna	Result		Power	Cable	Atten.	Antenna	Result	
Frequency	Factor	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5190	0.70	-2.92	2.89	9.99	2.81	10.66	13.47	-2.40	2.89	9.99	4.29	11.18	15.47
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.70	-2.91	2.92	9.99	2.81	10.70	13.51	-2.44	2.92	9.99	4.29	11.17	15.46
5270	0.70	-3.10	2.95	10.00	2.81	10.55	13.36	-3.77	2.95	10.00	4.29	9.88	14.17
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.70	-3.54	2.97	10.00	2.81	10.13	12.94	-3.11	2.97	10.00	4.29	10.56	14.85
5510	0.70	-3.60	3.03	10.01	2.81	10.14	12.95	-3.21	3.03	10.01	4.29	10.53	14.82
5550	0.70	-3.19	3.05	10.01	2.81	10.57	13.38	-2.86	3.05	10.01	4.29	10.90	15.19
5670	0.70	-3.44	3.16	10.00	2.81	10.42	13.23	-2.85	3.16	10.00	4.29	11.01	15.30
5710	0.70	-1.77	3.16	9.99	2.81	12.08	14.89	-2.55	3.16	9.99	4.29	11.32	15.61
5755	0.70	-3.75	3.19	9.99	2.81	10.13	12.94	-2.80	3.19	9.99	4.29	11.08	15.37
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.70	-3.92	3.22	9.99	2.81	9.99	12.80	-2.82	3.22	9.99	4.29	11.09	15.38

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.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11ac VHT20(MIMO), PN9, worst data mode MCS0

Antenna A+B

Applied limit: 15.407, mobile and portable client device

Tested	26 dB	99%	Conducted power						e.i.r.p.					
Frequency	EBW	OBW	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	(B for FCC)	(B for IC)	1	2	Sum				1	2	Sum			
[MHz]	[MHz]	[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]
5180	-	17.745	11.69	13.46	25.15	14.01	23.97	9.96	22.34	36.14	58.48	17.67	29.97	12.30
5220	-	17.771	11.53	12.50	24.04	13.81	23.97	10.16	22.03	33.57	55.60	17.45	29.97	12.52
5240	-	17.793	12.02	12.36	24.38	13.87	23.97	10.10	22.96	33.19	56.15	17.49	29.97	12.48
5260	19.622	17.792	12.47	12.88	25.36	14.04	23.92	9.88	23.82	34.59	58.42	17.67	29.97	12.30
5300	19.799	17.752	12.19	12.39	24.58	13.91	23.96	10.05	23.28	33.27	56.55	17.52	29.97	12.45
5320	19.535	17.748	11.83	12.05	23.88	13.78	23.90	10.12	22.59	32.36	54.95	17.40	29.97	12.57
5500	19.503	17.758	10.69	11.91	22.60	13.54	23.90	10.36	20.42	31.99	52.41	17.19	29.97	12.78
5580	19.445	17.779	10.91	13.55	24.47	13.89	23.88	9.99	20.84	36.39	57.24	17.58	29.97	12.39
5700	19.460	17.789	11.61	13.49	25.10	14.00	23.89	9.89	22.18	36.22	58.41	17.66	29.97	12.31
5720	19.532	17.763	15.52	13.55	29.08	14.64	23.90	9.26	29.65	36.39	66.04	18.20	29.97	11.77
5745	-	17.755	8.57	9.59	18.16	12.59	30.00	17.41	16.37	25.76	42.13	16.25	36.00	19.75
5785	-	17.766	9.04	9.79	18.83	12.75	30.00	17.25	17.26	26.30	43.56	16.39	36.00	19.61
5825	-	17.742	9.10	10.99	20.09	13.03	30.00	16.97	17.38	29.51	46.89	16.71	36.00	19.29

		Antenna A						**Antenna B**					
Tested	Duty	Power	Cable	Atten.	Antenna	Result		Power	Cable	Atten.	Antenna	Result	
Frequency	Factor	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5180	0.17	-2.38	2.90	9.99	2.81	10.68	13.49	-1.77	2.90	9.99	4.29	11.29	15.58
5220	0.17	-2.45	2.91	9.99	2.81	10.62	13.43	-2.10	2.91	9.99	4.29	10.97	15.26
5240	0.17	-2.28	2.92	9.99	2.81	10.80	13.61	-2.16	2.92	9.99	4.29	10.92	15.21
5260	0.17	-2.15	2.94	10.00	2.81	10.96	13.77	-2.01	2.94	10.00	4.29	11.10	15.39
5300	0.17	-2.28	2.97	10.00	2.81	10.86	13.67	-2.21	2.97	10.00	4.29	10.93	15.22
5320	0.17	-2.42	2.98	10.00	2.81	10.73	13.54	-2.34	2.98	10.00	4.29	10.81	15.10
5500	0.17	-2.92	3.03	10.01	2.81	10.29	13.10	-2.45	3.03	10.01	4.29	10.76	15.05
5580	0.17	-2.85	3.06	10.00	2.81	10.38	13.19	-1.91	3.06	10.00	4.29	11.32	15.61
5700	0.17	-2.71	3.20	9.99	2.81	10.65	13.46	-2.06	3.20	9.99	4.29	11.30	15.59
5720	0.17	-1.41	3.16	9.99	2.81	11.91	14.72	-2.30	3.16	9.99	4.29	11.32	15.61
5745	0.17	-4.01	3.18	9.99	2.81	9.33	12.14	-3.52	3.18	9.99	4.29	9.82	14.11
5785	0.17	-3.81	3.21	9.99	2.81	9.56	12.37	-3.46	3.21	9.99	4.29	9.91	14.20
5825	0.17	-3.80	3.24	9.98	2.81	9.59	12.40	-2.98	3.24	9.98	4.29	10.41	14.70

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.	11306371S-C-R1
Date	July 10, 2016
Temperature / Humidity	23 deg. C / 48 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx IEEE802.11ac VHT40(MIMO), PN9, worst data mode 6Mbps

Antenna A+B Applied limit: 15.407, mobile and portable client device

Tested	26 dB	99%	Conducted power						e.i.r.p.					
Frequency	EBW	OBW	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	(B for FCC)	(B for IC)	1	2	Sum				1	2	Sum			
[MHz]	[MHz]	[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]
5190	-	36.217	9.33	9.66	18.99	12.79	23.97	11.18	17.82	25.94	43.77	16.41	29.97	13.56
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-	36.203	9.44	9.89	19.33	12.86	23.97	11.11	18.03	26.55	44.58	16.49	29.97	13.48
5270	39.867	36.198	8.26	8.81	17.07	12.32	23.97	11.65	15.78	23.66	39.44	15.96	29.97	14.01
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	38.811	36.191	8.17	8.36	16.52	12.18	23.97	11.79	15.60	22.44	38.03	15.80	29.97	14.17
5510	39.359	36.269	8.61	8.73	17.34	12.39	23.97	11.58	16.44	23.44	39.89	16.01	29.97	13.96
5550	39.550	36.248	9.35	9.68	19.04	12.80	23.97	11.17	17.86	26.00	43.87	16.42	29.97	13.55
5670	39.267	36.190	9.31	9.71	19.02	12.79	23.97	11.18	17.78	26.06	43.84	16.42	29.97	13.55
5710	39.466	36.314	13.09	13.55	26.64	14.26	23.97	9.71	25.00	36.39	61.39	17.88	29.97	12.09
5755	-	36.222	7.93	9.31	17.24	12.36	30.00	17.64	15.14	25.00	40.14	16.04	36.00	19.96
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-	36.253	8.17	9.95	18.12	12.58	30.00	17.42	15.60	26.73	42.33	16.27	36.00	19.73

		Antenna A						**Antenna B**					
Tested	Duty	Power	Cable	Atten.	Antenna	Result		Power	Cable	Atten.	Antenna	Result	
Frequency	Factor	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5190	0.27	-3.45	2.89	9.99	2.81	9.70	12.51	-3.30	2.89	9.99	4.29	9.85	14.14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.27	-3.43	2.92	9.99	2.81	9.75	12.56	-3.23	2.92	9.99	4.29	9.95	14.24
5270	0.27	-4.05	2.95	10.00	2.81	9.17	11.98	-3.77	2.95	10.00	4.29	9.45	13.74
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.27	-4.12	2.97	10.00	2.81	9.12	11.93	-4.02	2.97	10.00	4.29	9.22	13.51
5510	0.27	-3.96	3.03	10.01	2.81	9.35	12.16	-3.90	3.03	10.01	4.29	9.41	13.70
5550	0.27	-3.62	3.05	10.01	2.81	9.71	12.52	-3.47	3.05	10.01	4.29	9.86	14.15
5670	0.27	-3.74	3.16	10.00	2.81	9.69	12.50	-3.56	3.16	10.00	4.29	9.87	14.16
5720	0.27	-2.25	3.16	9.99	2.81	11.17	13.98	-3.03	3.16	9.99	4.29	11.32	15.61
5755	0.27	-4.46	3.19	9.99	2.81	8.99	11.80	-3.76	3.19	9.99	4.29	9.69	13.98
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.27	-4.36	3.22	9.99	2.81	9.12	11.93	-3.50	3.22	9.99	4.29	9.98	14.27

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.	11306371S-C-R1
Date	July 10, 2016
Temperature / Humidity	23 deg. C / 48 % RH
Engineer	Hiroyuki Morikawa
Mode	Tx IEEE802.11ac VHT80(MIMO), PN9, worst data mode MCS0

Antenna A+B

Applied limit: 15.407, mobile and portable client device

Tested	26 dB	99%	Conducted power						e.i.r.p.					
Frequency	EBW	OBW	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	(B for FCC)	(B for IC)	1	2	Sum				1	2	Sum			
[MHz]	[MHz]	[MHz]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]	[mW]	[mW]	[mW]	[dBm]	[dBm]	[dB]
5210	-	76.505	7.35	8.32	15.66	11.95	23.97	12.02	14.03	22.34	36.36	15.61	29.97	14.36
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5290	81.351	76.479	7.76	7.57	15.33	11.86	23.97	12.11	14.83	20.32	35.15	15.46	29.97	14.51
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5530	81.062	76.903	6.98	7.21	14.19	11.52	23.97	12.45	13.34	19.36	32.70	15.15	29.97	14.82
5610	81.030	76.808	7.23	8.07	15.30	11.85	23.97	12.12	13.80	21.68	35.48	15.50	29.97	14.47
5690	80.969	76.540	7.35	8.22	15.57	11.92	23.97	12.05	14.03	22.08	36.11	15.58	29.97	14.39
5775	-	76.833	6.95	7.60	14.55	11.63	23.97	12.34	13.27	20.42	33.69	15.28	29.97	14.69
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		Antenna A						**Antenna B**					
Tested	Duty	Power	Cable	Atten.	Antenna	Result		Power	Cable	Atten.	Antenna	Result	
Frequency	Factor	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.	Meter Reading	Loss	Loss	Gain	Cond. Power	e.i.r.p.
[MHz]	[dB]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]	[dBm]	[dB]	[dB]	[dBi]	[dBm]	[dBm]
5210	0.40	-4.64	2.91	9.99	2.81	8.66	11.47	-4.10	2.91	9.99	4.29	9.20	13.49
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5290	0.40	-4.46	2.96	10.00	2.81	8.90	11.71	-4.57	2.96	10.00	4.29	8.79	13.08
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5530	0.40	-5.01	3.04	10.01	2.81	8.44	11.25	-4.87	3.04	10.01	4.29	8.58	12.87
5610	0.40	-4.89	3.08	10.00	2.81	8.59	11.40	-4.41	3.08	10.00	4.29	9.07	13.36
5690	0.40	-4.87	3.14	9.99	2.81	8.66	11.47	-4.38	3.14	9.99	4.29	9.15	13.44
5775	0.40	-5.18	3.21	9.99	2.81	8.42	11.23	-4.79	3.21	9.99	4.29	8.81	13.10
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

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.6 Shielded Room	
Report No.	11306371S-C-R1	
Date	June 6, 2016	June 7, 2016
Temperature / Humidity	22 deg. C / 45 % RH	25 deg. C / 50 % RH
Engineer	Makoto Hosaka	Makoto Hosaka
Mode	Tx	

11a

[Pre check]

Antenna A

Data rate [Mbps]	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]
6	5220.0	-2.79	2.91	9.99	0.21	10.32
9	5220.0	-2.95	2.91	9.99	0.30	10.25
12	5220.0	-2.99	2.91	9.99	0.38	10.29
18	5220.0	-3.20	2.91	9.99	0.51	10.21
24	5220.0	-3.57	2.91	9.99	0.67	10.00
36	5220.0	-3.83	2.91	9.99	0.87	9.94
48	5220.0	-3.95	2.91	9.99	1.10	10.05
54	5220.0	-4.14	2.91	9.99	1.25	10.01

Antenna B

Data rate [Mbps]	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]	
6	5220.0	-2.08	2.91	9.99	0.21	11.03	**Worst**
9	5220.0	-2.24	2.91	9.99	0.30	10.96	
12	5220.0	-2.32	2.91	9.99	0.38	10.96	
18	5220.0	-2.51	2.91	9.99	0.51	10.90	
24	5220.0	-2.67	2.91	9.99	0.67	10.90	
36	5220.0	-3.29	2.91	9.99	0.87	10.48	
48	5220.0	-3.47	2.91	9.99	1.10	10.53	
54	5220.0	-3.61	2.91	9.99	1.25	10.54	

Sample Calculation: Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Dutyfactor

11n HT20

[Pre check]

Antenna A

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]
0	5220.0	-2.48	2.91	9.99	0.23	10.65
1	5220.0	-2.71	2.91	9.99	0.41	10.60
2	5220.0	-2.91	2.91	9.99	0.54	10.53
3	5220.0	-3.04	2.91	9.99	0.67	10.53
4	5220.0	-3.65	2.91	9.99	0.92	10.17
5	5220.0	-3.77	2.91	9.99	0.97	10.10
6	5220.0	-3.88	2.91	9.99	1.11	10.13
7	5220.0	-3.84	2.91	9.99	1.16	10.22

Antenna B

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]	
0	5220.0	-1.95	2.91	9.99	0.23	11.18	**Worst**
1	5220.0	-2.20	2.91	9.99	0.41	11.11	
2	5220.0	-2.39	2.91	9.99	0.54	11.05	
3	5220.0	-2.50	2.91	9.99	0.67	11.07	
4	5220.0	-2.70	2.91	9.99	0.92	11.12	
5	5220.0	-3.24	2.91	9.99	0.97	10.63	
6	5220.0	-3.30	2.91	9.99	1.11	10.71	
7	5220.0	-3.37	2.91	9.99	1.16	10.69	

Sample Calculation: Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Dutyfactor

11n HT40

[Pre check]

Antenna A

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]
0	5190.0	-2.91	2.89	9.99	0.64	10.61
1	5190.0	-3.28	2.89	9.99	0.67	10.27
2	5190.0	-3.47	2.89	9.99	0.87	10.28
3	5190.0	-3.55	2.89	9.99	0.97	10.30
4	5190.0	-4.02	2.89	9.99	1.09	9.95
5	5190.0	-3.94	2.89	9.99	1.25	10.19
6	5190.0	-4.23	2.89	9.99	1.45	10.10
7	5190.0	-3.92	2.89	9.99	1.42	10.38

Antenna B

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]	
0	5190.0	-2.25	2.89	9.99	0.64	11.27	**Worst**
1	5190.0	-2.53	2.89	9.99	0.67	11.02	
2	5190.0	-2.73	2.89	9.99	0.87	11.02	
3	5190.0	-2.91	2.89	9.99	0.97	10.94	
4	5190.0	-3.05	2.89	9.99	1.09	10.92	
5	5190.0	-3.10	2.89	9.99	1.25	11.03	
6	5190.0	-3.32	2.89	9.99	1.45	11.01	
7	5190.0	-3.27	2.89	9.99	1.42	11.03	

Sample Calculation: Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Dutyfactor

11ac VHT20

[Pre check]

Antenna A

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]
0	5220.0	-2.29	2.90	9.99	0.12	10.72
1	5220.0	-2.42	2.90	9.99	0.20	10.67
2	5220.0	-2.48	2.90	9.99	0.28	10.69
3	5220.0	-2.56	2.90	9.99	0.30	10.63
4	5220.0	-2.65	2.90	9.99	0.41	10.65
5	5220.0	-2.75	2.90	9.99	0.46	10.60
6	5220.0	-2.78	2.90	9.99	0.44	10.55
7	5220.0	-2.81	2.90	9.99	0.45	10.53
8	5220.0	-3.03	2.90	9.99	0.51	10.37
9	5220.0	-3.03	2.90	9.99	0.50	10.36

Antenna B

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]	
0	5220.0	-1.94	2.90	9.99	0.12	11.07	**Worst**
1	5220.0	-2.04	2.90	9.99	0.20	11.05	
2	5220.0	-2.17	2.90	9.99	0.28	11.00	
3	5220.0	-2.17	2.90	9.99	0.30	11.02	
4	5220.0	-2.32	2.90	9.99	0.41	10.98	
5	5220.0	-2.36	2.90	9.99	0.46	10.99	
6	5220.0	-2.39	2.90	9.99	0.44	10.94	
7	5220.0	-2.42	2.90	9.99	0.45	10.92	
8	5220.0	-2.52	2.90	9.99	0.51	10.88	
9	5220.0	-2.47	2.90	9.99	0.50	10.92	

Sample Calculation: Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Dutyfactor

11ac VHT40

[Pre check]

Antenna A

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]
0	5190.0	-3.82	2.89	9.99	0.21	9.27
1	5190.0	-3.83	2.89	9.99	0.35	9.40
2	5190.0	-3.88	2.89	9.99	0.41	9.41
3	5190.0	-4.19	2.89	9.99	0.51	9.20
4	5190.0	-4.04	2.89	9.99	0.46	9.30
5	5190.0	-4.24	2.89	9.99	0.50	9.14
6	5190.0	-4.12	2.89	9.99	0.56	9.32
7	5190.0	-4.32	2.89	9.99	0.57	9.13
8	5190.0	-4.05	2.89	9.99	0.59	9.42
9	5190.0	-4.07	2.89	9.99	0.57	9.38

Antenna B

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]	
0	5190.0	-3.66	2.89	9.99	0.21	9.43	**Worst**
1	5190.0	-3.82	2.89	9.99	0.35	9.41	
2	5190.0	-4.22	2.89	9.99	0.41	9.07	
3	5190.0	-4.39	2.89	9.99	0.51	9.00	
4	5190.0	-4.51	2.89	9.99	0.46	8.83	
5	5190.0	-4.70	2.89	9.99	0.50	8.68	
6	5190.0	-4.74	2.89	9.99	0.56	8.70	
7	5190.0	-4.64	2.89	9.99	0.57	8.81	
8	5190.0	-4.06	2.89	9.99	0.59	9.41	
9	5190.0	-4.26	2.89	9.99	0.57	9.19	

Sample Calculation: Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Dutyfactor

11ac VHT80

[Pre check]

Antenna A

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]
0	5210.0	-4.40	2.91	9.99	0.35	8.85
1	5210.0	-4.70	2.91	9.99	0.51	8.71
2	5210.0	-4.74	2.91	9.99	0.58	8.74
3	5210.0	-4.79	2.91	9.99	0.67	8.78
4	5210.0	-4.85	2.91	9.99	0.67	8.72
5	5210.0	-4.90	2.91	9.99	0.79	8.79
6	5210.0	-5.09	2.91	9.99	0.58	8.39
7	5210.0	-4.97	2.91	9.99	0.53	8.46
8	5210.0	-5.11	2.91	9.99	0.65	8.44
9	5210.0	-5.17	2.91	9.99	0.65	8.38

Antenna B

Mode (MCS)	Freq. [MHz]	P/M (AV) Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Duty factor [dB]	Result [dBm]	
0	5210.0	-4.39	2.91	9.99	0.35	8.86	**Worst**
1	5210.0	-4.60	2.91	9.99	0.51	8.81	
2	5210.0	-4.71	2.91	9.99	0.58	8.77	
3	5210.0	-4.75	2.91	9.99	0.67	8.82	
4	5210.0	-4.80	2.91	9.99	0.67	8.77	
5	5210.0	-4.88	2.91	9.99	0.79	8.81	
6	5210.0	-4.90	2.91	9.99	0.58	8.58	
7	5210.0	-4.98	2.91	9.99	0.53	8.45	
8	5210.0	-4.81	2.91	9.99	0.65	8.74	
9	5210.0	-5.13	2.91	9.99	0.65	8.42	

Sample Calculation: Result = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Dutyfactor

11n HT20 MIMO

[Pre check]

Mode	Freq.	Duty factor	Antenna A			Antenna B			Antenna A + B		
			Reading	Result		Reading	Result		Result		
(MCS)	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dBm]	[mW]	[dBm]	[mW]	
8	5220.0	0.45	**-2.46**	**-2.01**	0.63	**-2.12**	**-1.67**	0.68	1.17	1.31	**Worst**
9	5220.0	0.70	-2.79	-2.09	0.62	-2.45	-1.75	0.67	1.11	1.29	
10	5220.0	0.90	-2.99	-2.09	0.62	-2.63	-1.73	0.67	1.11	1.29	
11	5220.0	0.98	-3.48	-2.50	0.56	-2.81	-1.83	0.66	0.86	1.22	
12	5220.0	1.19	-3.65	-2.46	0.57	-3.06	-1.87	0.65	0.86	1.22	
13	5220.0	1.28	-3.65	-2.37	0.58	-3.39	-2.11	0.62	0.79	1.20	
14	5220.0	1.35	-3.81	-2.46	0.57	-3.49	-2.14	0.61	0.72	1.18	
15	5220.0	1.35	-3.79	-2.44	0.57	-3.48	-2.13	0.61	0.72	1.18	

Sample Calculation: Result = Duty factor + Reading

11n HT 40 MIMO

[Pre check]

Mode	Freq.	Duty factor	Antenna A			Antenna B			Antenna A + B		
			Reading	Result		Reading	Result		Result		
(MCS)	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dBm]	[mW]	[dBm]	[mW]	
8	5190.0	0.70	**-2.92**	**-2.22**	0.60	**-2.40**	**-1.70**	0.68	1.07	1.28	**Worst**
9	5190.0	1.06	-3.34	-2.28	0.59	-2.83	-1.77	0.67	1.00	1.26	
10	5190.0	1.16	-3.55	-2.39	0.58	-2.94	-1.78	0.66	0.93	1.24	
11	5190.0	1.30	-3.59	-2.29	0.59	-3.11	-1.81	0.66	0.97	1.25	
12	5190.0	1.43	-3.70	-2.27	0.59	-3.18	-1.75	0.67	1.00	1.26	
13	5190.0	1.51	-3.74	-2.23	0.60	-3.33	-1.82	0.66	1.00	1.26	
14	5190.0	1.52	-3.80	-2.28	0.59	-3.29	-1.77	0.67	1.00	1.26	
15	5190.0	1.51	-3.86	-2.35	0.58	-3.33	-1.82	0.66	0.93	1.24	

Sample Calculation: Result = Duty factor + Reading

11ac VHT20 MIMO

[Pre check]

Mode	Freq.	Duty factor	Antenna A			Antenna B			Antenna A + B		
			Reading	Result		Reading	Result		Result		
(MCS)	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dBm]	[mW]	[dBm]	[mW]	
0	5220.0	0.17	**-2.45**	**-2.28**	0.59	**-2.10**	**-1.93**	0.64	0.90	1.23	**Worst**
1	5220.0	0.27	-2.57	-2.30	0.59	-2.25	-1.98	0.63	0.86	1.22	
2	5220.0	0.33	-2.75	-2.42	0.57	-2.36	-2.03	0.63	0.79	1.20	
3	5220.0	0.38	-2.82	-2.44	0.57	-2.50	-2.12	0.61	0.72	1.18	
4	5220.0	0.48	-2.93	-2.45	0.57	-2.62	-2.14	0.61	0.72	1.18	
5	5220.0	0.53	-3.04	-2.51	0.56	-2.67	-2.14	0.61	0.68	1.17	
6	5220.0	0.54	-3.03	-2.49	0.56	-2.74	-2.20	0.60	0.64	1.16	
7	5220.0	0.55	-3.04	-2.49	0.56	-2.70	-2.15	0.61	0.68	1.17	
8	5220.0	0.60	-3.05	-2.45	0.57	-2.75	-2.15	0.61	0.72	1.18	
9	5220.0	0.60	-3.18	-2.58	0.55	-2.82	-2.22	0.60	0.61	1.15	

Sample Calculation: Result = Duty factor + Reading

11ac VHT40 MIMO

[Pre check]

Mode	Freq.	Duty factor	Antenna A			Antenna B			Antenna A + B		
			Reading	Result		Reading	Result		Result		
(MCS)	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dBm]	[mW]	[dBm]	[mW]	
0	5190.0	0.27	**-3.45**	**-3.18**	0.48	**-3.30**	**-3.03**	0.50	-0.09	0.98	**Worst**
1	5190.0	0.41	-3.73	-3.32	0.47	-3.57	-3.16	0.48	-0.22	0.95	
2	5190.0	0.48	-3.89	-3.41	0.46	-3.94	-3.46	0.45	-0.41	0.91	
3	5190.0	0.49	-4.05	-3.56	0.44	-4.10	-3.61	0.44	-0.56	0.88	
4	5190.0	0.58	-3.96	-3.38	0.46	-4.23	-3.65	0.43	-0.51	0.89	
5	5190.0	0.59	-4.00	-3.41	0.46	-4.40	-3.81	0.42	-0.56	0.88	
6	5190.0	0.63	-3.97	-3.34	0.46	-4.42	-3.79	0.42	-0.56	0.88	
7	5190.0	0.60	-4.00	-3.40	0.46	-4.47	-3.87	0.41	-0.60	0.87	
8	5190.0	0.62	-4.15	-3.53	0.44	-3.75	-3.13	0.49	-0.32	0.93	
9	5190.0	0.63	-4.18	-3.55	0.44	-4.04	-3.41	0.46	-0.46	0.90	

Sample Calculation: Result = Duty factor + Reading

11ac VHT80 MIMO

[Pre check]

Mode	Freq.	Duty factor	Antenna A			Antenna B			Antenna A + B		
			Reading	Result		Reading	Result		Result		
(MCS)	[MHz]	[dB]	[dBm]	[dBm]	[mW]	[dBm]	[dBm]	[mW]	[dBm]	[mW]	
0	5210.0	0.40	**-4.64**	-4.24	0.38	**-4.10**	**-3.70**	0.43	-0.92	0.81	**Worst**
1	5210.0	0.51	-4.81	-4.30	0.37	-4.28	-3.77	0.42	-1.02	0.79	
2	5210.0	0.59	-4.93	-4.34	0.37	-4.36	-3.77	0.42	-1.02	0.79	
3	5210.0	0.62	-4.94	-4.32	0.37	-4.36	-3.74	0.42	-1.02	0.79	
4	5210.0	0.67	-4.84	**-4.17**	0.38	-4.45	-3.78	0.42	-0.97	0.80	
5	5210.0	0.65	-4.89	-4.24	0.38	-4.44	-3.79	0.42	-0.97	0.80	
6	5210.0	0.66	-4.83	**-4.17**	0.38	-4.39	-3.73	0.42	-0.97	0.80	
7	5210.0	0.66	-5.03	-4.37	0.37	-4.45	-3.79	0.42	-1.02	0.79	
8	5210.0	0.72	-5.02	-4.30	0.37	-4.44	-3.72	0.42	-1.02	0.79	
9	5210.0	0.71	-4.97	-4.26	0.37	-4.59	-3.88	0.41	-1.08	0.78	

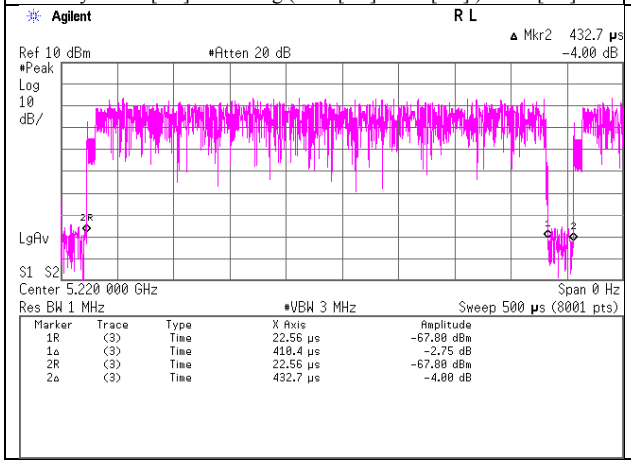
Sample Calculation: Result = Duty factor + Reading

Burst rate confirmation

Test place	Shonan EMC Lab. No.6 Shielded Room	
Report No.	11306371S-C-R1	
Date	June 6, 2016	June 7, 2016
Temperature / Humidity	22 deg. C / 45 % RH	25 deg. C / 50 % RH
Engineer	Makoto Hosaka	Makoto Hosaka
Mode	Tx	

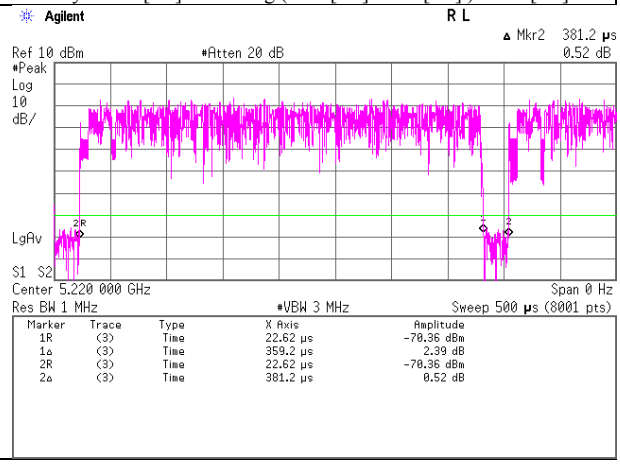
11a 6Mbps

duty factor [dB] = 10 x log (0.43[ms] / 0.41[ms]) =0.21[dB]



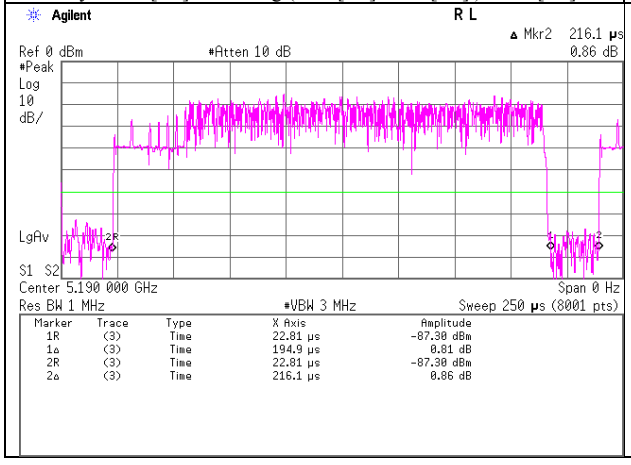
11n HT20 MCS0

duty factor [dB] = 10 x log (0.38[ms] / 0.36[ms]) =0.23[dB]



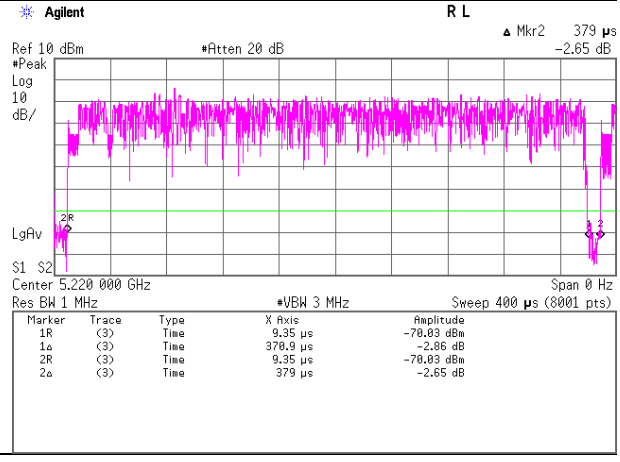
11n HT40 MCS0

duty factor [dB] = 10 x log (0.22[ms] / 0.19[ms]) =0.64[dB]



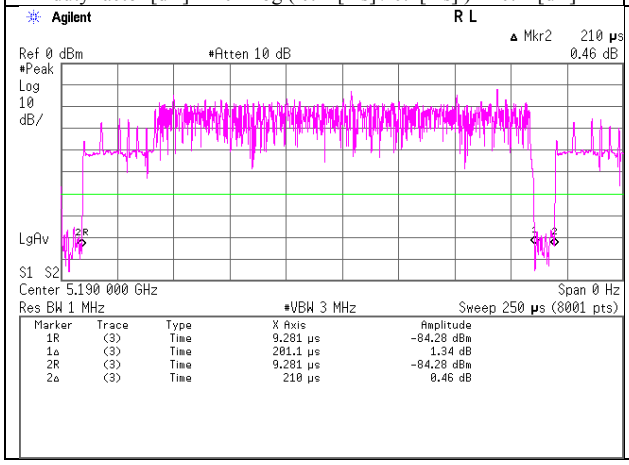
11ac VHT20 MCS0

duty factor [dB] = 10 x log (0.38[ms] / 0.37[ms]) =0.12[dB]



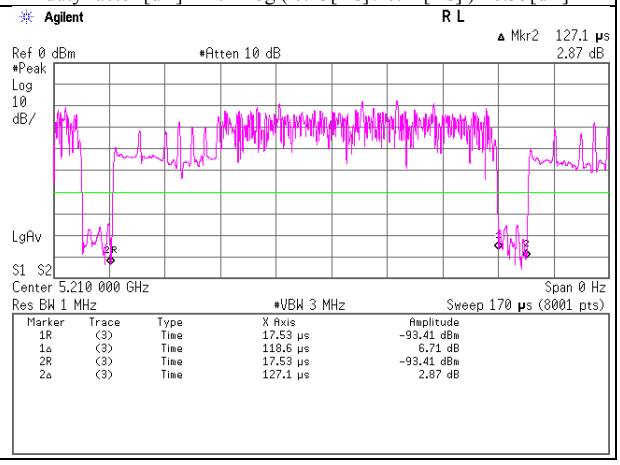
11ac VHT40 MCS0

duty factor [dB] = 10 x log (0.21[ms] / 0.2[ms]) = 0.21[dB]



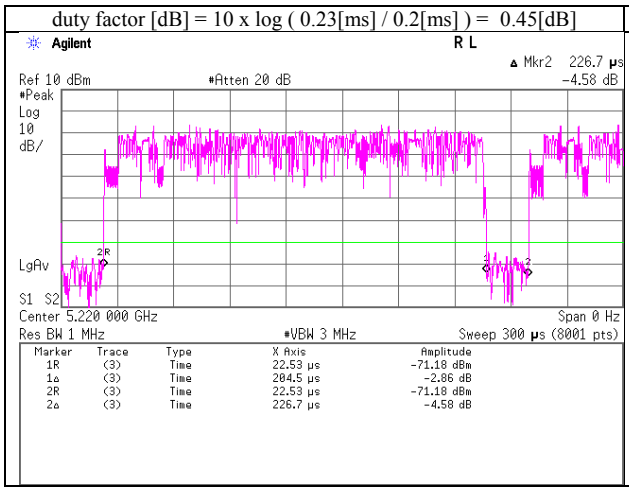
11ac VHT80 MCS0

duty factor [dB] = 10 x log (0.13[ms] / 0.12[ms]) =0.35[dB]



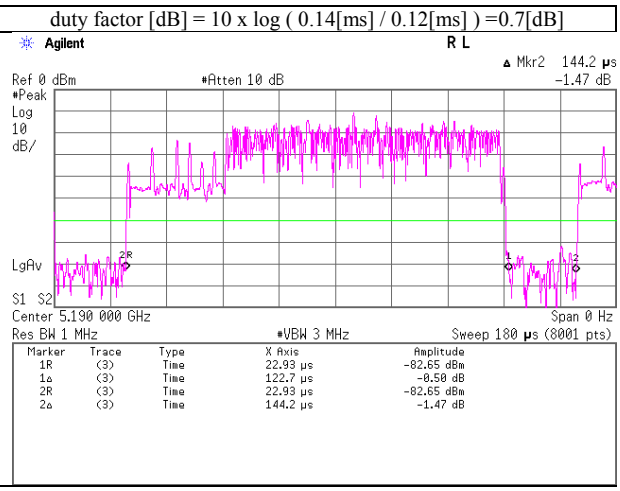
11n HT20 MCS8 MIMO

duty factor [dB] = 10 x log (0.23[ms] / 0.2[ms]) = 0.45[dB]



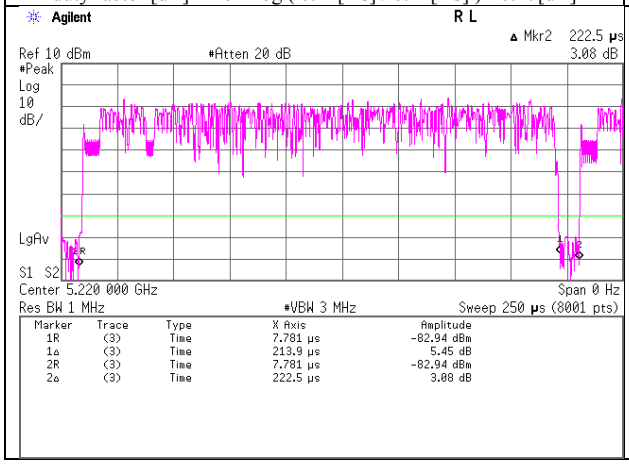
11n HT40 MCS8 MIMO

duty factor [dB] = 10 x log (0.14[ms] / 0.12[ms]) =0.7[dB]



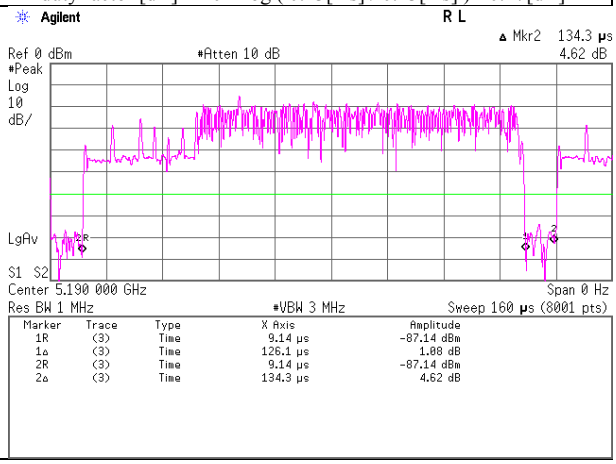
11ac VHT20 MCS0 MIMO

duty factor [dB] = 10 x log (0.22[ms] / 0.21[ms]) =0.17[dB]



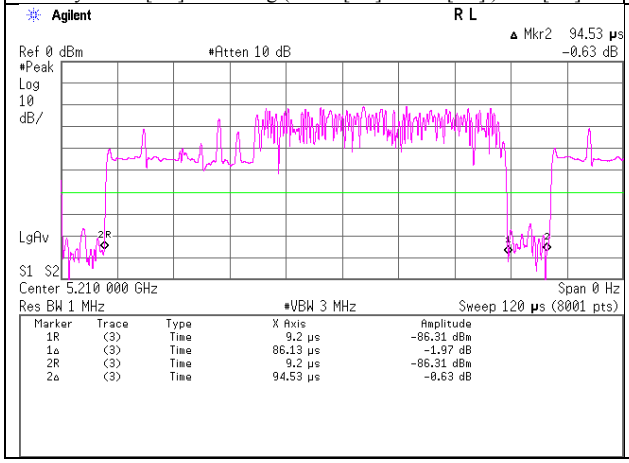
11ac VHT40 MCS0 MIMO

duty factor [dB] = 10 x log (0.13[ms] / 0.13[ms]) =0.27[dB]



11ac VHT80 MCS0 MIMO

duty factor [dB] = 10 x log (0.095[ms] / 0.086[ms]) =0.4[dB]



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Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11a PN9, worst antenna port B, worst data mode 6Mbps

Antenna B

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	-11.87	2.90	9.99	0.21	4.29	0.00	1.23	11.00	9.77	5.52	17.00	11.48
5220	-11.42	2.91	9.99	0.21	4.29	0.00	1.69	11.00	9.31	5.98	17.00	11.02
5240	-11.86	2.92	9.99	0.21	4.29	0.00	1.26	11.00	9.74	5.55	17.00	11.45
5260	-12.01	2.94	10.00	0.21	4.29	0.00	1.14	11.00	9.86	5.43	17.00	11.57
5300	-12.29	2.97	10.00	0.21	4.29	0.00	0.89	11.00	10.11	5.18	17.00	11.82
5320	-11.72	2.98	10.00	0.21	4.29	0.00	1.47	11.00	9.53	5.76	17.00	11.24
5500	-12.78	3.03	10.01	0.21	4.29	0.00	0.47	11.00	10.53	4.76	17.00	12.24
5580	-11.71	3.06	10.00	0.21	4.29	0.00	1.56	11.00	9.44	5.85	17.00	11.15
5700	-12.36	3.20	9.99	0.21	4.29	0.00	1.04	11.00	9.96	5.33	17.00	11.67
5720	-11.59	3.16	9.99	0.21	4.29	0.00	1.77	11.00	9.23	6.06	17.00	10.94
5745	-21.76	3.18	9.99	0.21	4.29	6.99	-1.39	30.00	31.39	2.90	36.00	33.10
5785	-22.38	3.21	9.99	0.21	4.29	6.99	-1.98	30.00	31.98	2.31	36.00	33.69
5825	-21.36	3.24	9.98	0.21	4.29	6.99	-0.94	30.00	30.94	3.35	36.00	32.65

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 PN9, worst antenna port B, worst data mode MCS0

Antenna B

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	-11.88	2.90	9.99	0.23	4.29	0.00	1.24	11.00	9.76	5.53	17.00	11.47
5220	-11.96	2.91	9.99	0.23	4.29	0.00	1.17	11.00	9.83	5.46	17.00	11.54
5240	-11.81	2.92	9.99	0.23	4.29	0.00	1.33	11.00	9.67	5.62	17.00	11.38
5260	-11.98	2.94	10.00	0.23	4.29	0.00	1.19	11.00	9.81	5.48	17.00	11.52
5300	-11.87	2.97	10.00	0.23	4.29	0.00	1.33	11.00	9.67	5.62	17.00	11.38
5320	-12.20	2.98	10.00	0.23	4.29	0.00	1.01	11.00	9.99	5.30	17.00	11.70
5500	-13.15	3.03	10.01	0.23	4.29	0.00	0.12	11.00	10.88	4.41	17.00	12.59
5580	-12.26	3.06	10.00	0.23	4.29	0.00	1.04	11.00	9.97	5.33	17.00	11.68
5700	-12.12	3.20	9.99	0.23	4.29	0.00	1.30	11.00	9.70	5.59	17.00	11.41
5720	-12.07	3.16	9.99	0.23	4.29	0.00	1.31	11.00	9.69	5.60	17.00	11.40
5745	-22.00	3.18	9.99	0.23	4.29	6.99	-1.61	30.00	31.61	2.68	36.00	33.32
5785	-22.03	3.21	9.99	0.23	4.29	6.99	-1.61	30.00	31.61	2.68	36.00	33.32
5825	-21.58	3.24	9.98	0.23	4.29	6.99	-1.14	30.00	31.14	3.16	36.00	32.85

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 PN9, worst antenna port B, worst data mode MCS0

Antenna B

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	-15.21	2.89	9.99	0.55	4.29	0.00	-1.78	11.00	12.78	2.51	17.00	14.49
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	-14.62	2.92	9.99	0.55	4.29	0.00	-1.16	11.00	12.16	3.13	17.00	13.87
5270	-15.51	2.95	10.00	0.64	4.29	0.00	-1.92	11.00	12.92	2.37	17.00	14.63
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-15.67	2.97	10.00	0.64	4.29	0.00	-2.06	11.00	13.06	2.23	17.00	14.77
5510	-15.85	3.03	10.01	0.64	4.29	0.00	-2.17	11.00	13.17	2.13	17.00	14.88
5550	-15.47	3.05	10.01	0.64	4.29	0.00	-1.77	11.00	12.77	2.52	17.00	14.48
5670	-15.44	3.16	10.00	0.64	4.29	0.00	-1.64	11.00	12.64	2.65	17.00	14.35
5710	-15.42	3.16	9.99	0.64	4.29	0.00	-1.63	11.00	12.63	2.66	17.00	14.34
5755	-23.88	3.19	9.99	0.64	4.29	0.00	-10.06	30.00	40.06	-5.77	36.00	41.77
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-23.48	3.22	9.99	0.64	4.29	0.00	-9.63	30.00	39.63	-5.34	36.00	41.34

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 PN9, worst antenna port B, worst data mode MCS0

Antenna B

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	-11.67	2.90	9.99	0.12	4.29	0.00	1.34	11.00	9.66	5.63	17.00	11.37
5220	-11.87	2.90	9.99	0.12	4.29	0.00	1.15	11.00	9.86	5.44	17.00	11.57
5240	-11.79	2.90	9.99	0.12	4.29	0.00	1.22	11.00	9.78	5.51	17.00	11.49
5260	-11.86	2.94	10.00	0.12	4.29	0.00	1.20	11.00	9.80	5.49	17.00	11.51
5300	-11.97	2.97	10.00	0.12	4.29	0.00	1.12	11.00	9.88	5.41	17.00	11.59
5320	-12.42	2.98	10.00	0.12	4.29	0.00	0.68	11.00	10.32	4.97	17.00	12.03
5500	-12.68	3.03	10.01	0.12	4.29	0.00	0.49	11.00	10.52	4.78	17.00	12.23
5580	-11.97	3.06	10.00	0.12	4.29	0.00	1.21	11.00	9.79	5.50	17.00	11.50
5700	-11.80	3.20	9.99	0.12	4.29	0.00	1.51	11.00	9.49	5.80	17.00	11.20
5720	-12.16	3.16	9.99	0.12	4.29	0.00	1.11	11.00	9.89	5.40	17.00	11.60
5745	-22.09	3.18	9.99	0.12	4.29	6.99	-1.81	30.00	31.81	2.48	36.00	33.52
5785	-21.86	3.21	9.99	0.12	4.29	6.99	-1.55	30.00	31.55	2.74	36.00	33.26
5825	-21.63	3.24	9.98	0.12	4.29	6.99	-1.30	30.00	31.30	2.99	36.00	33.01

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 PN9, worst antenna port B, worst data mode MCS0

Antenna B

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	-15.68	2.89	9.99	0.21	4.29	0.00	-2.59	11.00	13.59	1.70	17.00	15.30
-	-	-	-	-	-	-	-	-	-	-	-	-
5240	-15.88	2.92	9.99	0.21	4.29	0.00	-2.76	11.00	13.76	1.53	17.00	15.47
5270	-16.38	2.95	10.00	0.21	4.29	0.00	-3.22	11.00	14.22	1.07	17.00	15.93
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	-16.49	2.97	10.00	0.21	4.29	0.00	-3.31	11.00	14.31	0.98	17.00	16.02
5510	-17.16	3.03	10.01	0.21	4.29	0.00	-3.91	11.00	14.91	0.38	17.00	16.62
5550	-16.05	3.05	10.01	0.21	4.29	0.00	-2.78	11.00	13.78	1.51	17.00	15.49
5670	-16.39	3.16	10.00	0.21	4.29	0.00	-3.02	11.00	14.02	1.27	17.00	15.73
5710	-16.68	3.16	9.99	0.21	4.29	0.00	-3.32	11.00	14.32	0.97	17.00	16.03
5755	-23.70	3.19	9.99	0.21	4.29	6.99	-3.32	30.00	33.32	0.97	36.00	35.03
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	-24.33	3.22	9.99	0.21	4.29	6.99	-3.92	30.00	33.92	0.37	36.00	35.63

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT80 PN9, worst antenna port B, worst data mode MCS0

Antenna B

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	-21.10	2.91	9.99	0.35	4.29	0.00	-7.85	11.00	18.85	-3.56	17.00	20.56
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
5290	-21.07	2.96	10.00	0.35	4.29	0.00	-7.76	11.00	18.76	-3.47	17.00	20.47
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
5530	-21.28	3.04	10.01	0.35	4.29	0.00	-7.88	11.00	18.88	-3.59	17.00	20.59
-	-	-	-	-	-	-	-	-	-	-	-	-
5610	-21.32	3.08	10.00	0.35	4.29	0.00	-7.89	11.00	18.89	-3.60	17.00	20.60
5690	-21.22	3.14	9.99	0.35	4.29	0.00	-7.74	11.00	18.74	-3.45	17.00	20.45
5775	-28.36	3.21	9.99	0.35	4.29	6.99	-7.82	30.00	37.82	-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 Correct
PSD Result (e.i.r.p.) = Conducted PSD Result + Antenna Gain

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 MIMO PN9, worst data mode MCS8

Antenna A+B Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	1	2	Sum				1	2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5180	1.11	1.45	2.56	4.08	11.00	6.92	2.11	3.90	6.01	7.79	17.00	9.21
5220	1.25	1.28	2.53	4.03	11.00	6.97	2.38	3.44	5.82	7.65	17.00	9.35
5240	1.12	1.19	2.31	3.63	11.00	7.37	2.14	3.19	5.33	7.27	17.00	9.73
5260	1.32	1.19	2.51	4.00	11.00	7.00	2.51	3.21	5.72	7.57	17.00	9.43
5300	1.06	1.27	2.33	3.68	11.00	7.32	2.03	3.42	5.44	7.36	17.00	9.64
5320	1.16	1.16	2.32	3.66	11.00	7.34	2.21	3.13	5.34	7.28	17.00	9.72
5500	0.95	0.99	1.95	2.89	11.00	8.11	1.82	2.66	4.48	6.52	17.00	10.48
5580	1.08	1.17	2.25	3.52	11.00	7.48	2.06	3.14	5.20	7.16	17.00	9.84
5700	1.10	1.21	2.31	3.63	11.00	7.37	2.10	3.24	5.35	7.28	17.00	9.72
5720	1.58	1.19	2.77	4.43	11.00	6.57	3.02	3.20	6.22	7.94	17.00	9.06
5745	0.63	0.74	1.37	1.36	30.00	28.64	1.19	1.99	3.19	5.04	36.00	30.96
5785	0.53	0.77	1.29	1.11	30.00	28.89	1.00	2.05	3.06	4.85	36.00	31.15
5825	0.62	0.83	1.45	1.61	30.00	28.39	1.18	2.23	3.41	5.33	36.00	30.67

			Antenna A						**Antenna B**					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result		PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result	
							Cond.	e.i.r.p.					Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5180	0.45	0.00	-12.90	2.90	9.99	2.81	0.44	3.25	-11.72	2.90	9.99	4.29	1.62	5.91
5220	0.45	0.00	-12.39	2.91	9.99	2.81	0.96	3.77	-12.27	2.91	9.99	4.29	1.08	5.37
5240	0.45	0.00	-12.87	2.92	9.99	2.81	0.49	3.30	-12.61	2.92	9.99	4.29	0.75	5.04
5260	0.45	0.00	-12.20	2.94	10.00	2.81	1.19	4.00	-12.62	2.94	10.00	4.29	0.77	5.06
5300	0.45	0.00	-13.16	2.97	10.00	2.81	0.26	3.07	-12.38	2.97	10.00	4.29	1.05	5.34
5320	0.45	0.00	-12.79	2.98	10.00	2.81	0.64	3.45	-12.77	2.98	10.00	4.29	0.66	4.95
5500	0.45	0.00	-13.69	3.03	10.01	2.81	-0.20	2.61	-13.53	3.03	10.01	4.29	-0.04	4.25
5580	0.45	0.00	-13.18	3.06	10.00	2.81	0.33	3.14	-12.83	3.06	10.00	4.29	0.68	4.98
5700	0.45	0.00	-13.22	3.20	9.99	2.81	0.42	3.23	-12.82	3.20	9.99	4.29	0.82	5.11
5720	0.45	0.00	-11.61	3.16	9.99	2.81	1.99	4.80	-12.84	3.16	9.99	4.29	0.76	5.06
5745	0.45	6.99	-22.65	3.18	9.99	2.81	-2.04	0.77	-21.90	3.18	9.99	4.29	-1.29	3.00
5785	0.45	6.99	-23.44	3.21	9.99	2.81	-2.80	0.01	-21.80	3.21	9.99	4.29	-1.16	3.13
5825	0.45	6.99	-22.77	3.24	9.98	2.81	-2.11	0.70	-21.46	3.24	9.98	4.29	-0.80	3.49

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 MIMO PN9, worst data mode MCS8

Antenna A+B

Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	1	2	Sum				1	2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5190	0.51	0.62	1.13	0.52	11.00	10.48	0.97	1.67	2.64	4.21	17.00	12.79
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.55	0.68	1.23	0.89	11.00	10.11	1.05	1.82	2.87	4.58	17.00	12.42
5270	0.52	0.60	1.12	0.49	11.00	10.51	1.00	1.60	2.60	4.15	17.00	12.85
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.55	0.57	1.12	0.49	11.00	10.51	1.05	1.54	2.58	4.12	17.00	12.88
5510	0.38	0.48	0.87	-0.62	11.00	11.62	0.73	1.30	2.03	3.07	17.00	13.93
5550	0.50	0.53	1.03	0.13	11.00	10.87	0.96	1.42	2.38	3.76	17.00	13.24
5670	0.49	0.51	1.00	-0.01	11.00	11.01	0.93	1.37	2.30	3.62	17.00	13.38
5710	0.48	0.61	1.09	0.36	11.00	10.64	0.91	1.63	2.55	4.06	17.00	12.94
5755	0.41	0.64	1.04	0.18	30.00	29.82	0.78	1.71	2.48	3.95	36.00	32.05
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.45	0.54	0.99	-0.04	30.00	30.04	0.86	1.45	2.31	3.64	36.00	32.36

			Antenna A						**Antenna B**					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result		PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result	
							Cond.	e.i.r.p.					Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5190	0.70	0.00	-16.53	2.89	9.99	2.81	-2.95	-0.14	-15.65	2.89	9.99	4.29	-2.07	2.22
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.70	0.00	-16.22	2.92	9.99	2.81	-2.61	0.20	-15.29	2.92	9.99	4.29	-1.68	2.61
5270	0.70	0.00	-16.47	2.95	10.00	2.81	-2.82	-0.01	-15.89	2.95	10.00	4.29	-2.24	2.05
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.70	0.00	-16.29	2.97	10.00	2.81	-2.62	0.19	-16.10	2.97	10.00	4.29	-2.43	1.86
5510	0.70	0.00	-17.89	3.03	10.01	2.81	-4.15	-1.34	-16.91	3.03	10.01	4.29	-3.17	1.12
5550	0.70	0.00	-16.75	3.05	10.01	2.81	-2.99	-0.18	-16.53	3.05	10.01	4.29	-2.77	1.52
5670	0.70	0.00	-16.97	3.16	10.00	2.81	-3.11	-0.30	-16.79	3.16	10.00	4.29	-2.93	1.36
5720	0.70	0.00	-17.05	3.16	9.99	2.81	-3.20	-0.39	-16.01	3.16	9.99	4.29	-2.16	2.13
5755	0.70	6.99	-24.77	3.19	9.99	2.81	-3.90	-1.09	-22.84	3.19	9.99	4.29	-1.97	2.32
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.70	6.99	-24.37	3.22	9.99	2.81	-3.47	-0.66	-23.57	3.22	9.99	4.29	-2.67	1.62

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 MIMO PN9, worst data mode MCS0

Antenna A+B Applied limit: 15.407, mobile and portable client device

Tested	PSD (Conducted)						PSD (e.i.r.p.)					
Frequency	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	1	2	Sum				1	2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5180	1.00	1.25	2.24	3.51	11.00	7.49	1.90	3.35	5.25	7.20	17.00	9.80
5220	1.14	1.35	2.49	3.96	11.00	7.04	2.18	3.62	5.79	7.63	17.00	9.37
5240	1.16	1.17	2.33	3.67	11.00	7.33	2.22	3.13	5.35	7.28	17.00	9.72
5260	1.21	1.22	2.43	3.86	11.00	7.14	2.31	3.29	5.60	7.48	17.00	9.52
5300	1.14	1.21	2.34	3.70	11.00	7.30	2.17	3.24	5.41	7.33	17.00	9.67
5320	1.22	1.15	2.37	3.74	11.00	7.26	2.32	3.09	5.41	7.33	17.00	9.67
5500	0.99	1.10	2.09	3.20	11.00	7.80	1.89	2.95	4.84	6.85	17.00	10.15
5580	1.01	1.27	2.28	3.57	11.00	7.43	1.92	3.41	5.34	7.27	17.00	9.73
5700	1.06	1.17	2.22	3.47	11.00	7.53	2.02	3.13	5.15	7.12	17.00	9.88
5720	1.53	1.24	2.77	4.43	11.00	6.57	2.92	3.34	6.26	7.96	17.00	9.04
5745	0.70	0.80	1.50	1.75	30.00	28.25	1.33	2.15	3.48	5.41	36.00	30.59
5785	0.64	0.85	1.50	1.76	30.00	28.24	1.23	2.30	3.53	5.47	36.00	30.53
5825	0.64	0.90	1.54	1.88	30.00	28.12	1.23	2.42	3.65	5.62	36.00	30.38

			Antenna A						**Antenna B**					
Tested	Duty	RBW	PSD	Cable	Atten.	Antenna	PSD Result		PSD	Cable	Atten.	Antenna	PSD Result	
Frequency	Factor	Correction Factor	Reading	Loss	Loss	Gain	Cond.	e.i.r.p.	Reading	Loss	Loss	Gain	Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5180	0.17	0.00	-13.08	2.90	9.99	2.81	-0.02	2.79	-12.10	2.90	9.99	4.29	0.96	5.25
5220	0.17	0.00	-12.50	2.91	9.99	2.81	0.57	3.38	-11.78	2.91	9.99	4.29	1.29	5.58
5240	0.17	0.00	-12.44	2.92	9.99	2.81	0.64	3.45	-12.41	2.92	9.99	4.29	0.67	4.96
5260	0.17	0.00	-12.28	2.94	10.00	2.81	0.83	3.64	-12.23	2.94	10.00	4.29	0.88	5.17
5300	0.17	0.00	-12.58	2.97	10.00	2.81	0.56	3.37	-12.33	2.97	10.00	4.29	0.81	5.10
5320	0.17	0.00	-12.30	2.98	10.00	2.81	0.85	3.66	-12.54	2.98	10.00	4.29	0.61	4.90
5500	0.17	0.00	-13.26	3.03	10.01	2.81	-0.05	2.76	-12.80	3.03	10.01	4.29	0.41	4.70
5580	0.17	0.00	-13.20	3.06	10.00	2.81	0.03	2.84	-12.19	3.06	10.00	4.29	1.04	5.33
5700	0.17	0.00	-13.12	3.20	9.99	2.81	0.24	3.05	-12.69	3.20	9.99	4.29	0.67	4.96
5720	0.17	0.00	-11.47	3.16	9.99	2.81	1.85	4.66	-12.38	3.16	9.99	4.29	0.94	5.23
5745	0.17	6.99	-21.90	3.18	9.99	2.81	-1.57	1.24	-21.30	3.18	9.99	4.29	-0.97	3.32
5785	0.17	6.99	-22.27	3.21	9.99	2.81	-1.91	0.90	-21.04	3.21	9.99	4.29	-0.68	3.61
5825	0.17	6.99	-22.30	3.24	9.98	2.81	-1.92	0.89	-20.83	3.24	9.98	4.29	-0.45	3.84

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 MIMO PN9, worst data mode MCS0

Antenna A+B Applied limit: 15.407, mobile and portable client device

Tested	PSD (Conducted)						PSD (e.i.r.p.)					
Frequency	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	1	2	Sum				1	2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5190	0.46	0.46	0.92	-0.35	11.00	11.35	0.88	1.23	2.12	3.25	17.00	13.75
-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.39	0.49	0.88	-0.55	11.00	11.55	0.75	1.31	2.06	3.14	17.00	13.86
5270	0.46	0.45	0.91	-0.41	11.00	11.41	0.87	1.21	2.09	3.20	17.00	13.80
-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.48	0.43	0.91	-0.40	11.00	11.40	0.91	1.16	2.08	3.17	17.00	13.83
5510	0.42	0.33	0.75	-1.25	11.00	12.25	0.80	0.89	1.69	2.28	17.00	14.72
5550	0.40	0.40	0.81	-0.93	11.00	11.93	0.77	1.09	1.86	2.69	17.00	14.31
5670	0.42	0.43	0.85	-0.72	11.00	11.72	0.80	1.16	1.95	2.91	17.00	14.09
5710	0.41	0.44	0.85	-0.70	11.00	11.70	0.78	1.19	1.97	2.95	17.00	14.05
5755	0.35	0.48	0.83	-0.82	30.00	30.82	0.67	1.28	1.95	2.90	36.00	33.10
-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.36	0.47	0.83	-0.81	30.00	30.81	0.68	1.27	1.95	2.91	36.00	33.09

			Antenna A						**Antenna B**					
Tested	Duty	RBW	PSD	Cable	Atten.	Antenna	PSD Result		PSD	Cable	Atten.	Antenna	PSD Result	
Frequency	Factor	Correction Factor	Reading	Loss	Loss	Gain	Cond.	e.i.r.p.	Reading	Loss	Loss	Gain	Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5190	0.27	0.00	-16.49	2.89	9.99	2.81	-3.34	-0.53	-16.54	2.89	9.99	4.29	-3.39	0.90
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5230	0.27	0.00	-17.22	2.92	9.99	2.81	-4.04	-1.23	-16.31	2.92	9.99	4.29	-3.13	1.16
5270	0.27	0.00	-16.62	2.95	10.00	2.81	-3.40	-0.59	-16.67	2.95	10.00	4.29	-3.45	0.84
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5310	0.27	0.00	-16.45	2.97	10.00	2.81	-3.21	-0.40	-16.87	2.97	10.00	4.29	-3.63	0.66
5510	0.27	0.00	-17.10	3.03	10.01	2.81	-3.79	-0.98	-18.10	3.03	10.01	4.29	-4.79	-0.50
5550	0.27	0.00	-17.28	3.05	10.01	2.81	-3.95	-1.14	-17.26	3.05	10.01	4.29	-3.93	0.36
5670	0.27	0.00	-17.23	3.16	10.00	2.81	-3.80	-0.99	-17.09	3.16	10.00	4.29	-3.66	0.63
5710	0.27	0.00	-17.32	3.16	9.99	2.81	-3.90	-1.09	-16.95	3.16	9.99	4.29	-3.53	0.76
5755	0.27	6.99	-24.98	3.19	9.99	2.81	-4.54	-1.73	-23.66	3.19	9.99	4.29	-3.22	1.07
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5795	0.27	6.99	-24.96	3.22	9.99	2.81	-4.49	-1.68	-23.71	3.22	9.99	4.29	-3.24	1.05

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

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT80 MIMO PN9, worst data mode MCS0

Antenna A+B

Applied limit: 15.407, mobile and portable client device

Tested Frequency	PSD (Conducted)						PSD (e.i.r.p.)					
	Antenna			Result	Limit	Margin	Antenna			Result	Limit	Margin
	1	2	Sum				1	2	Sum			
[MHz]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[mW/MHz]	[mW/MHz]	[mW/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]
5210	0.16	0.19	0.35	-4.57	11.00	15.57	0.31	0.51	0.81	-0.90	17.00	17.90
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
5290	0.15	0.17	0.31	-5.05	11.00	16.05	0.28	0.44	0.73	-1.39	17.00	18.39
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-
5530	0.14	0.15	0.29	-5.31	11.00	16.31	0.27	0.40	0.68	-1.68	17.00	18.68
5610	0.12	0.13	0.25	-5.96	11.00	16.96	0.23	0.35	0.59	-2.32	17.00	19.32
5690	0.15	0.14	0.28	-5.46	11.00	16.46	0.28	0.36	0.65	-1.88	17.00	18.88
5755	0.14	0.15	0.29	-5.40	30.00	35.40	0.27	0.39	0.66	-1.77	36.00	37.77
-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-

			Antenna A						**Antenna B**					
Tested Frequency	Duty Factor	RBW Correction Factor	PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result		PSD Reading	Cable Loss	Atten. Loss	Antenna Gain	PSD Result	
							Cond.	e.i.r.p.					Cond.	e.i.r.p.
[MHz]	[dB]	[dB]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]	[dBm/MHz]	[dB]	[dB]	[dBi]	[dBm/MHz]	[dBm/MHz]
5210	0.40	0.00	-21.24	2.91	9.99	2.81	-7.94	-5.13	-20.54	2.91	9.99	4.29	-7.24	-2.95
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5290	0.40	0.00	-21.67	2.96	10.00	2.81	-8.31	-5.50	-21.18	2.96	10.00	4.29	-7.82	-3.53
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5530	0.40	0.00	-21.87	3.04	10.01	2.81	-8.42	-5.61	-21.68	3.04	10.01	4.29	-8.23	-3.94
5610	0.40	0.00	-22.62	3.08	10.00	2.81	-9.14	-6.33	-22.28	3.08	10.00	4.29	-8.80	-4.51
5690	0.40	0.00	-21.80	3.14	9.99	2.81	-8.27	-5.46	-22.21	3.14	9.99	4.29	-8.68	-4.39
5755	0.40	6.99	-29.06	3.21	9.99	2.81	-8.47	-5.66	-28.93	3.21	9.99	4.29	-8.34	-4.05
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

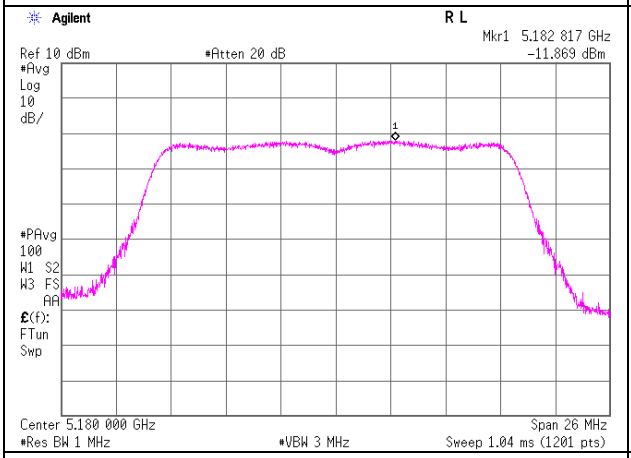
Sample Calculation:
PSD: Power Spectral Density
The PSD within 5725 MHz to 5825 MHz are based on any 500 kHz band.
RBW Correction Factor = 10 * log (Specified bandwidth / Measured bandwidth)
PSD Result (Conducted) = Reading + Cable Loss (including the cable(s) customer supplied) + Atten. Loss + Duty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

Maximum Power Spectral Density

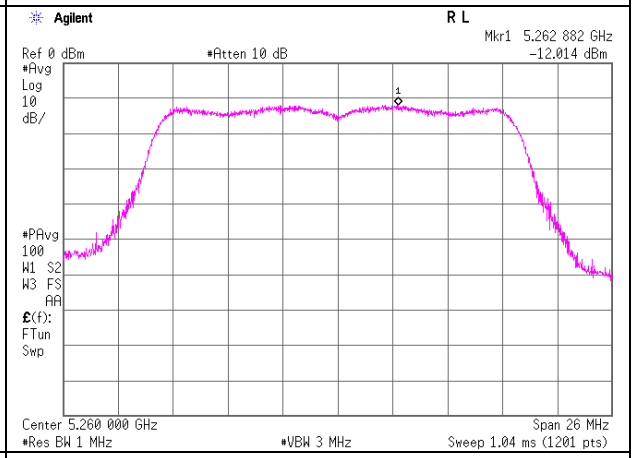
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11a PN9, worst antenna port B, worst data mode 6Mbps

11a, Antenna B

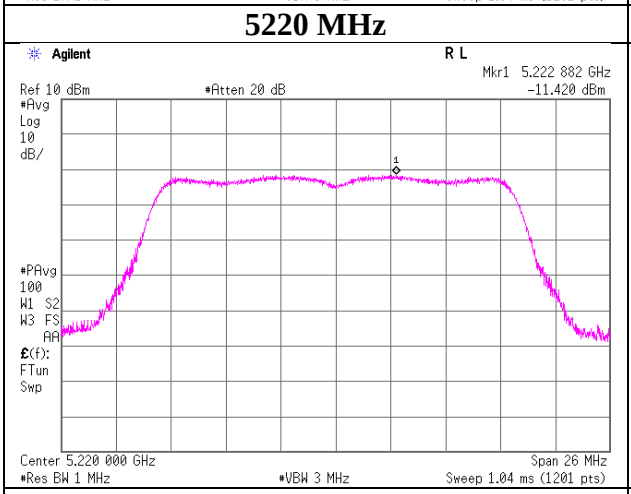
5180 MHz



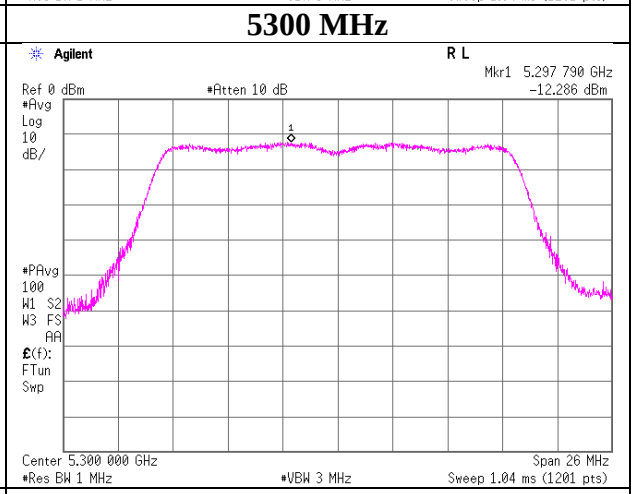
5260 MHz



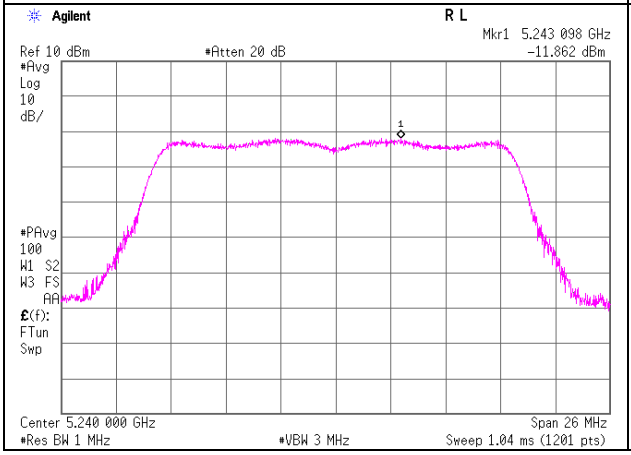
5220 MHz



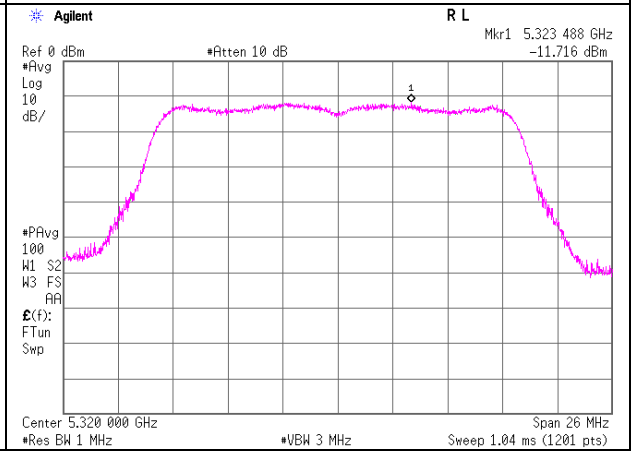
5300 MHz



5240 MHz



5320 MHz

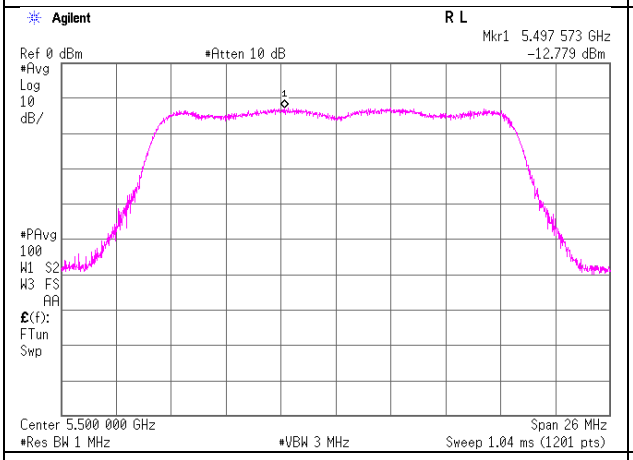


Maximum Power Spectral Density

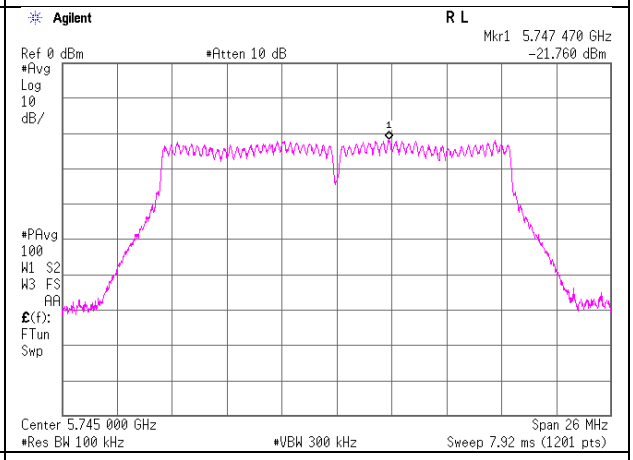
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11a PN9, worst antenna port B, worst data mode 6Mbps

11a, Antenna B

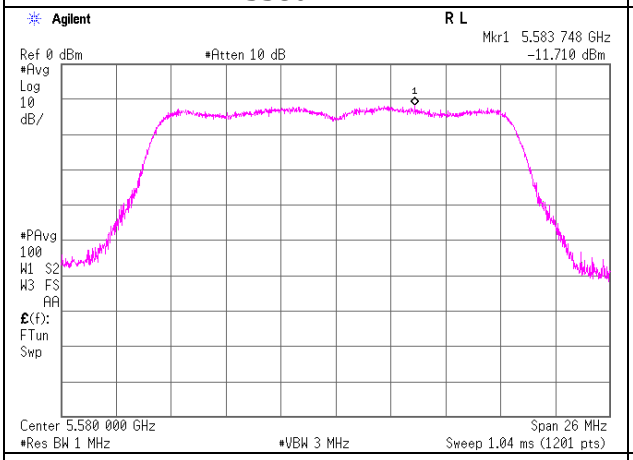
5500 MHz



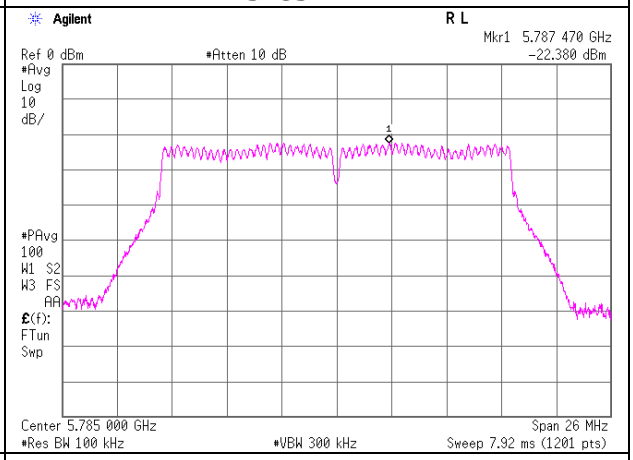
5745 MHz



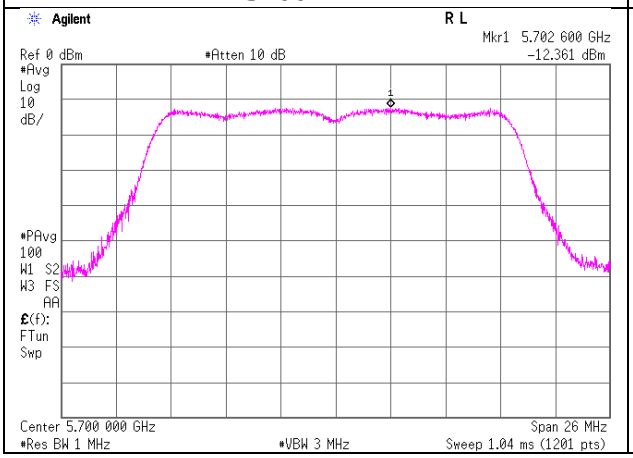
5580 MHz



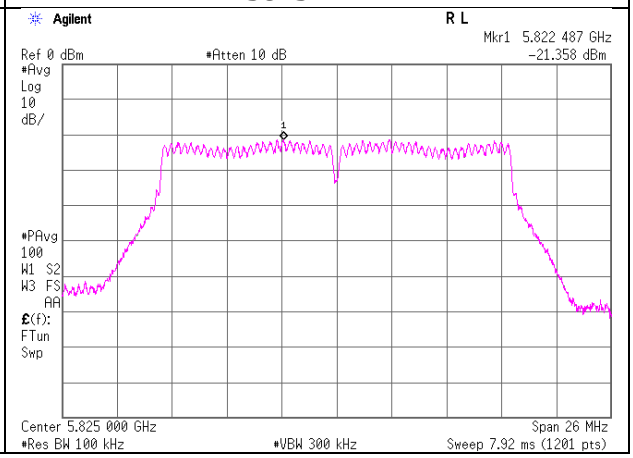
5785 MHz



5700 MHz



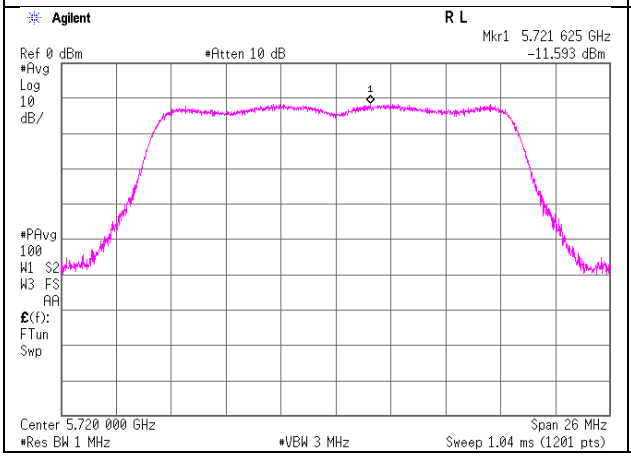
5825 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11a PN9, worst antenna port B, worst data mode 6Mbps

11a, Antenna B

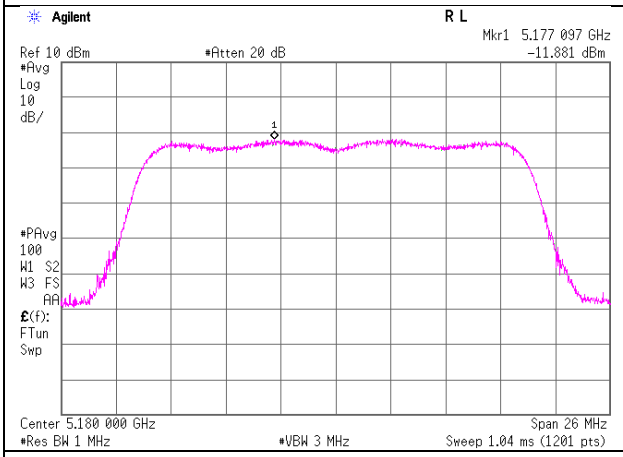
5720 MHz	-
	

Maximum Power Spectral Density

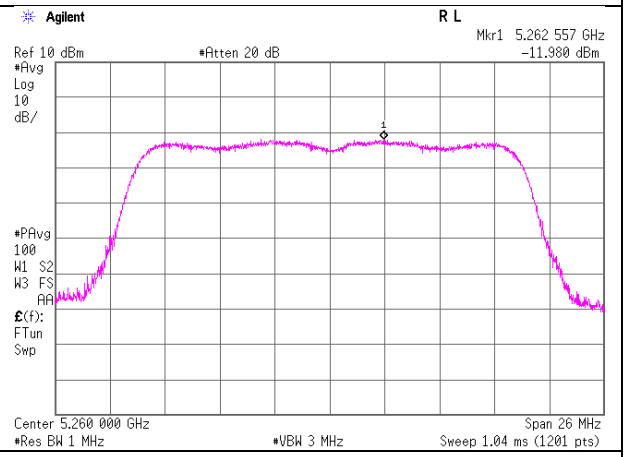
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 PN9, worst antenna port B, worst data mode MCS0

11n HT20, Antenna B

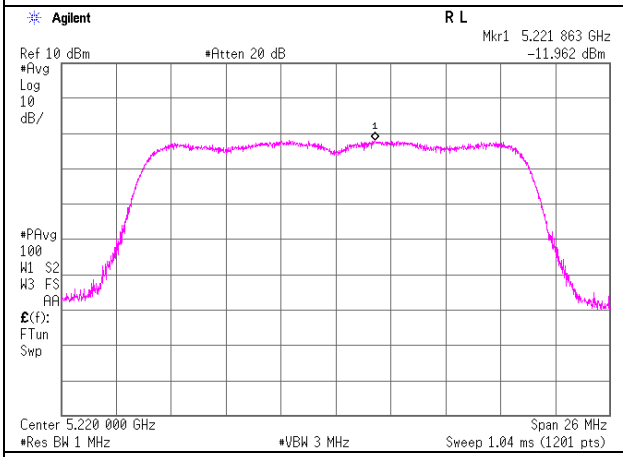
5180 MHz



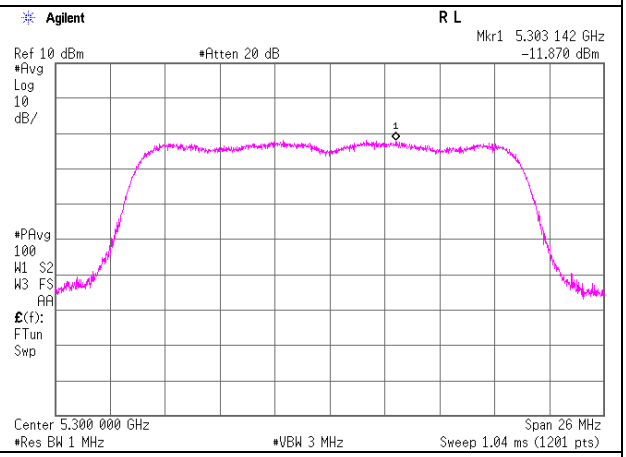
5260 MHz



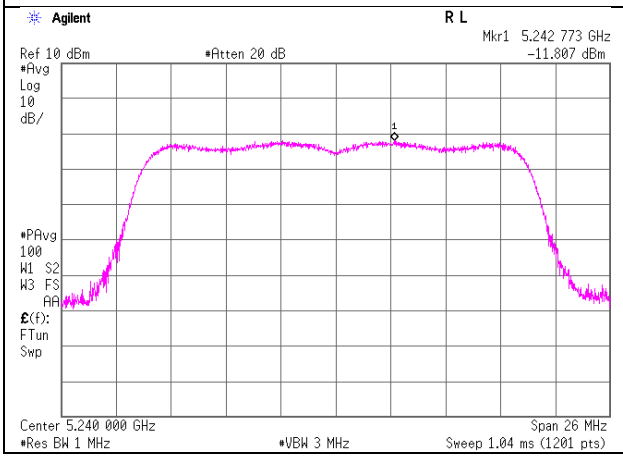
5220 MHz



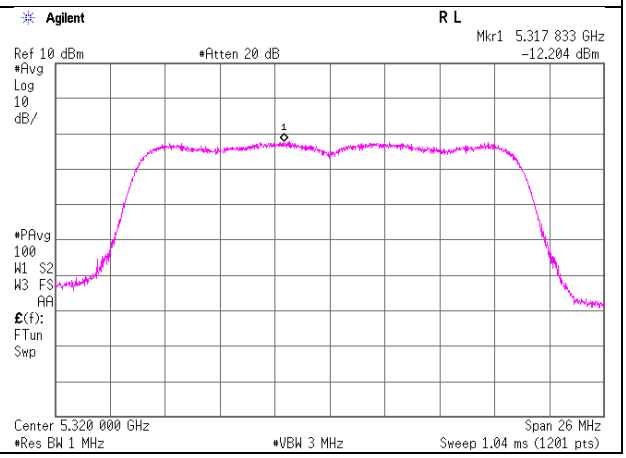
5300 MHz



5240 MHz



5320 MHz

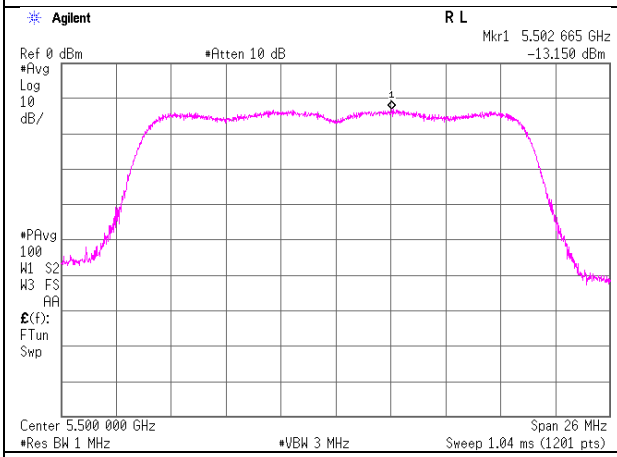


Maximum Power Spectral Density

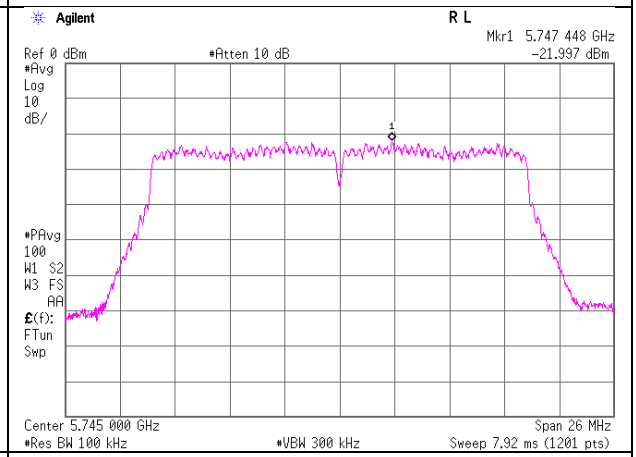
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 PN9, worst antenna port B, worst data mode MCS0

11n HT20, Antenna B

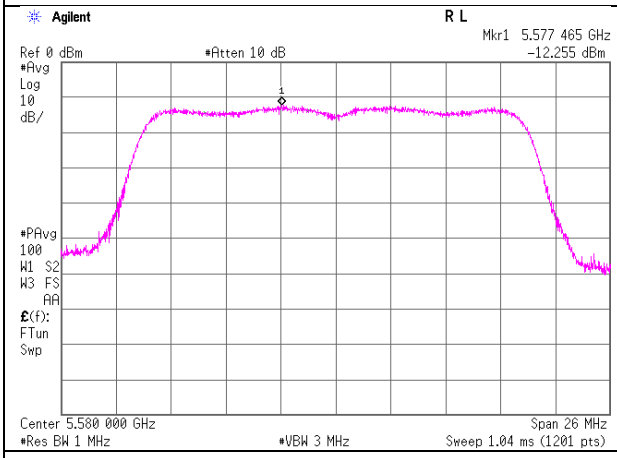
5500 MHz



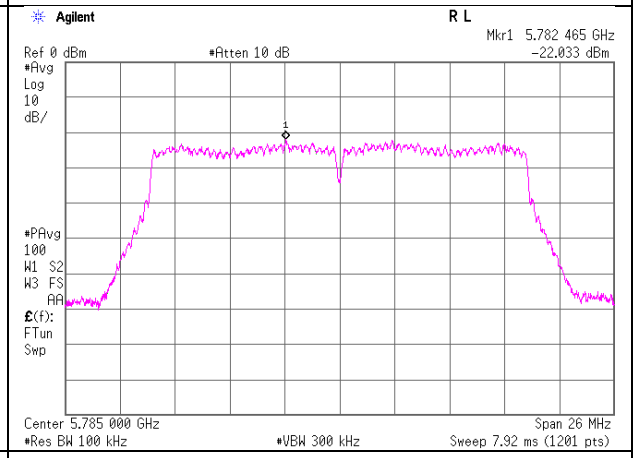
5745 MHz



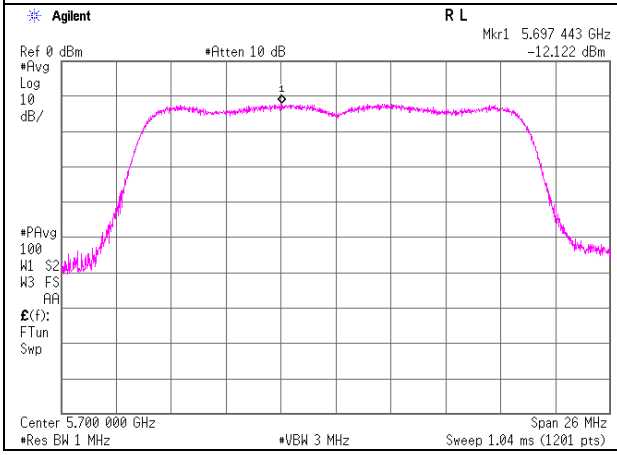
5580 MHz



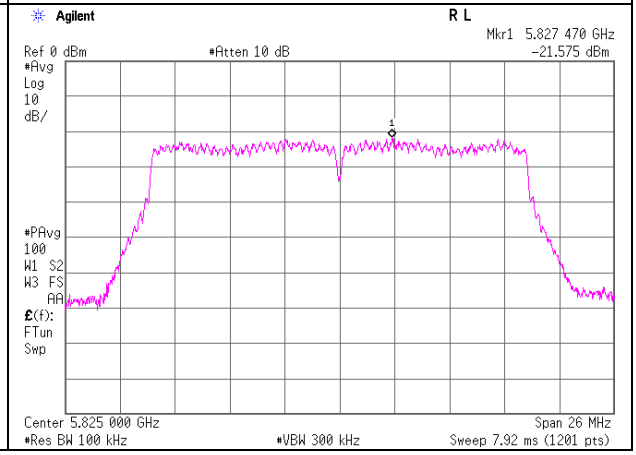
5785 MHz



5700 MHz



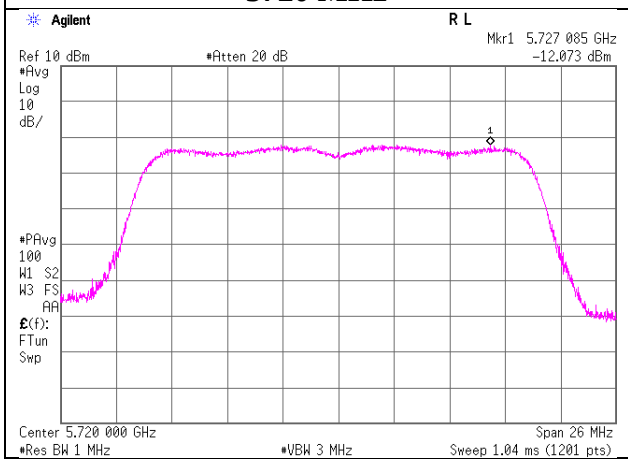
5825 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 PN9, worst antenna port B, worst data mode MCS0

11n HT20, Antenna B

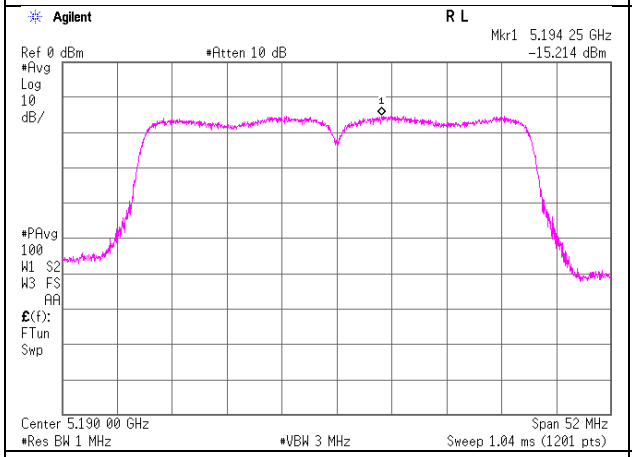
5720 MHz	-
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 PN9, worst antenna port B, worst data mode MCS0

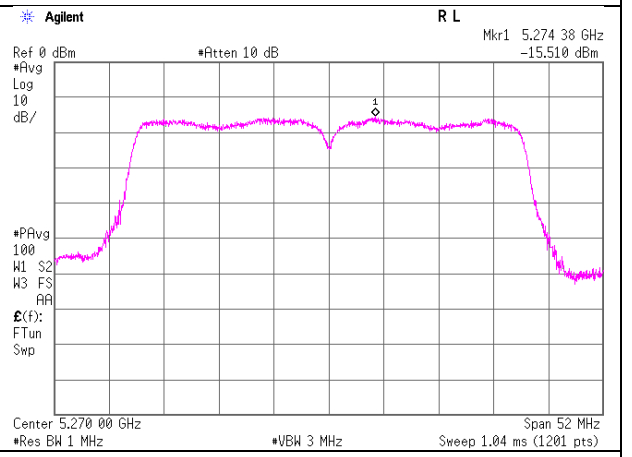
11n HT40, Antenna B

5190 MHz



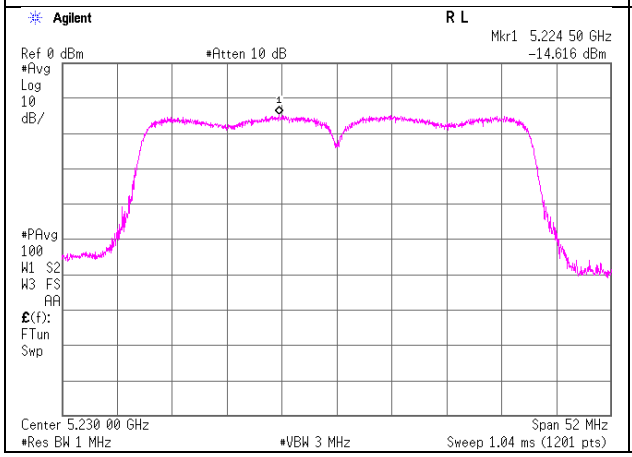
-

5270 MHz

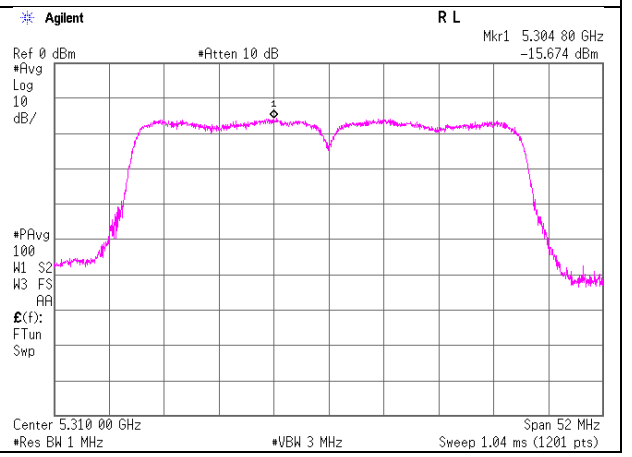


-

5230 MHz



5310 MHz

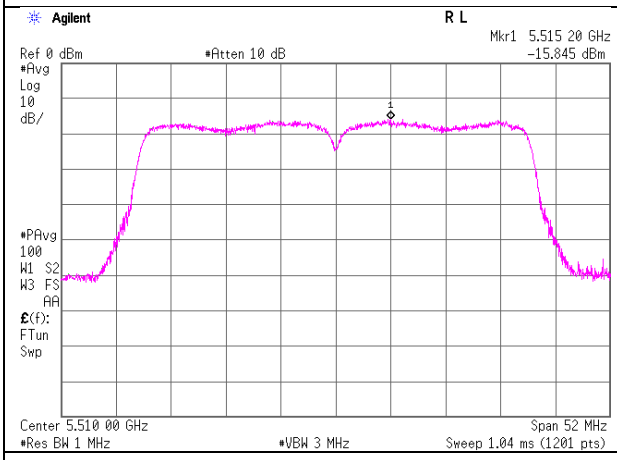


Maximum Power Spectral Density

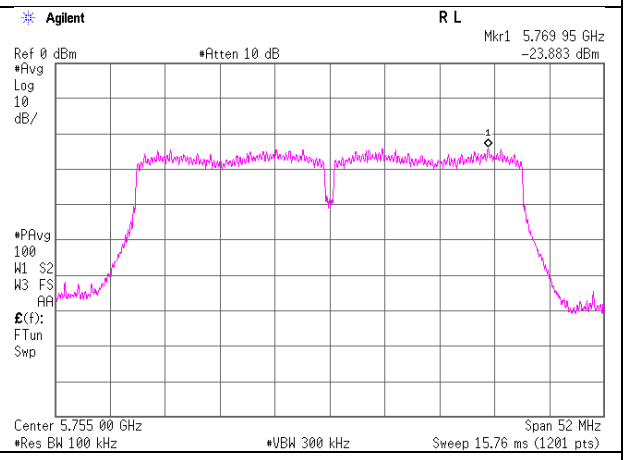
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 PN9, worst antenna port B, worst data mode MCS0

11n HT40, Antenna B

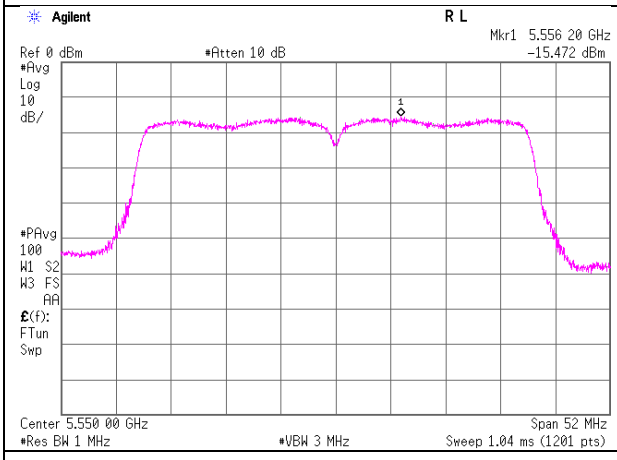
5510 MHz



5755 MHz



5550 MHz



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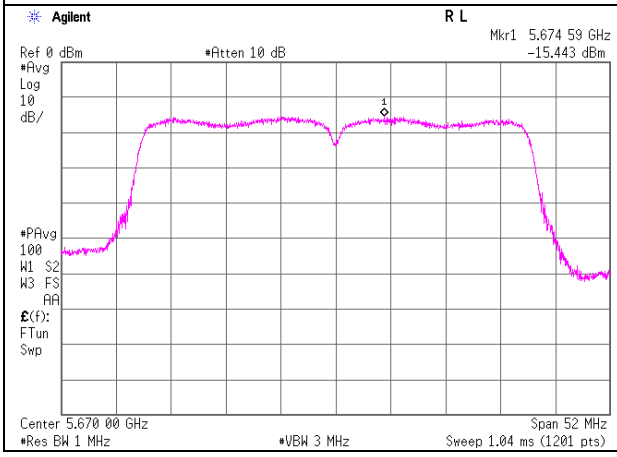
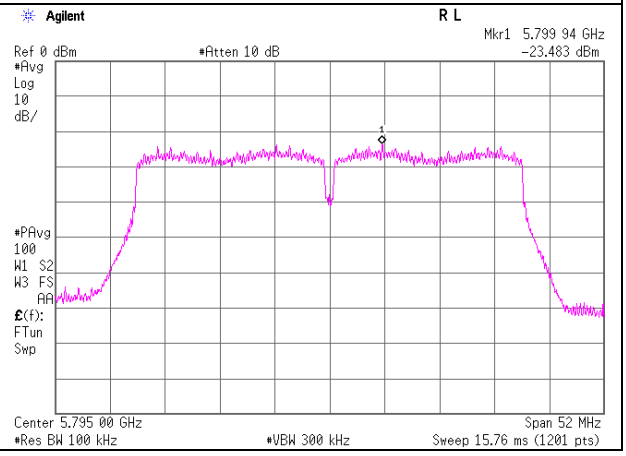
5670 MHz



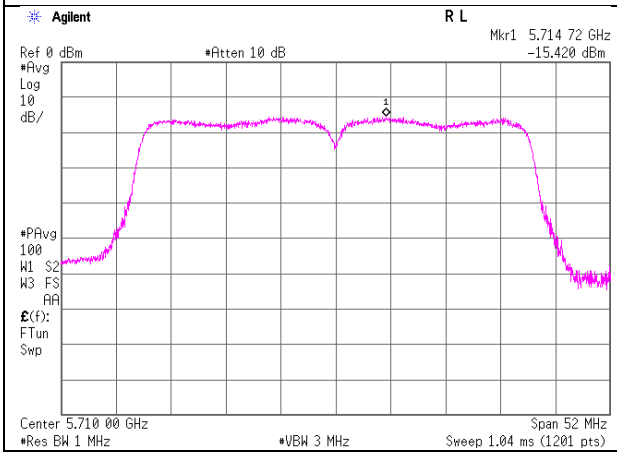
5795 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 PN9, worst antenna port B, worst data mode MCS0

11n HT40, Antenna B

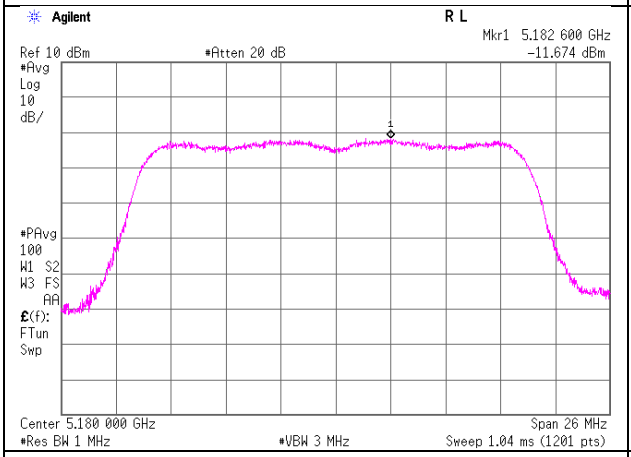
5710 MHz	-
	

Maximum Power Spectral Density

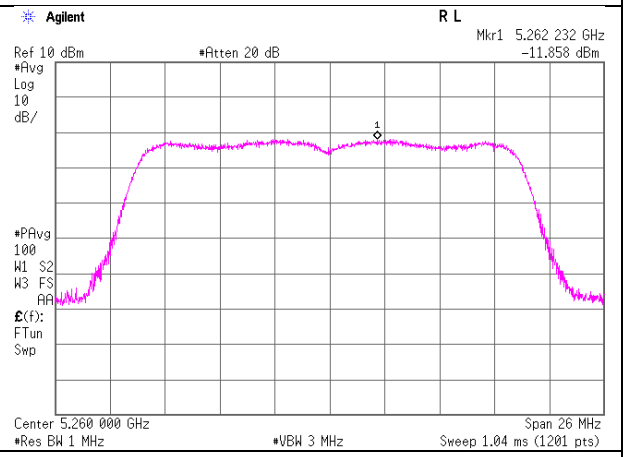
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 PN9, worst antenna port B, worst data mode MCS0

11ac VHT20, Antenna B

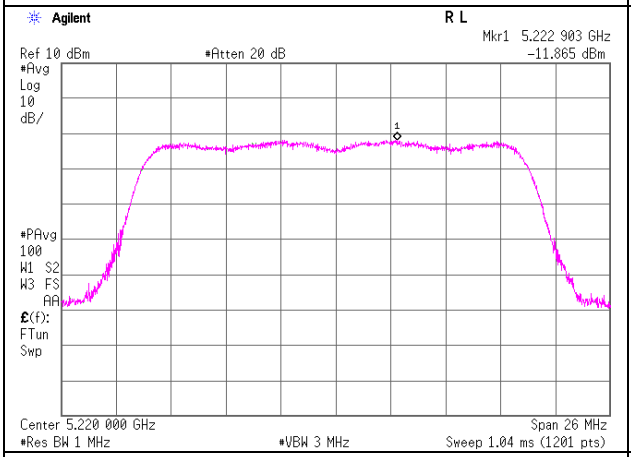
5180 MHz



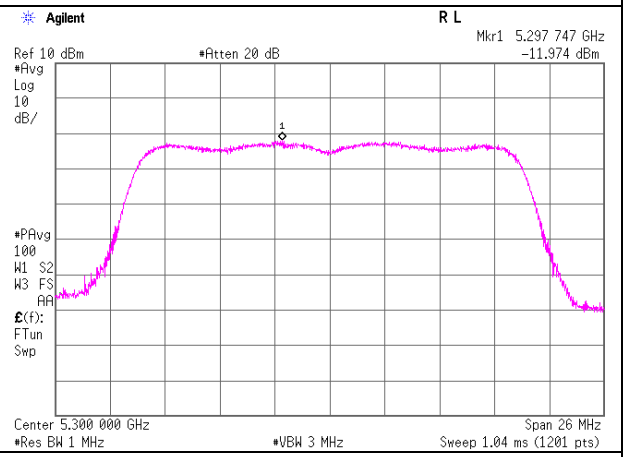
5260 MHz



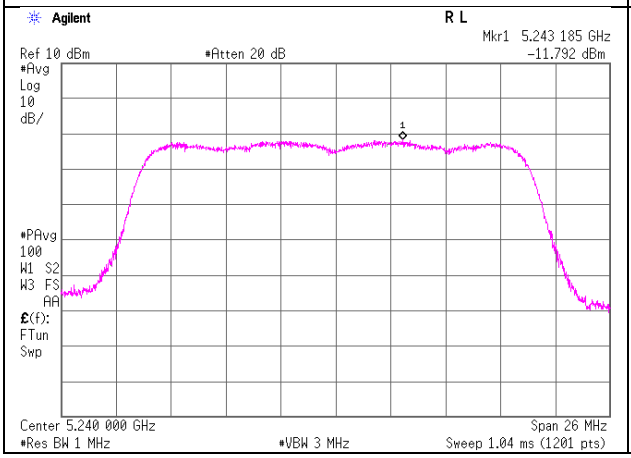
5220 MHz



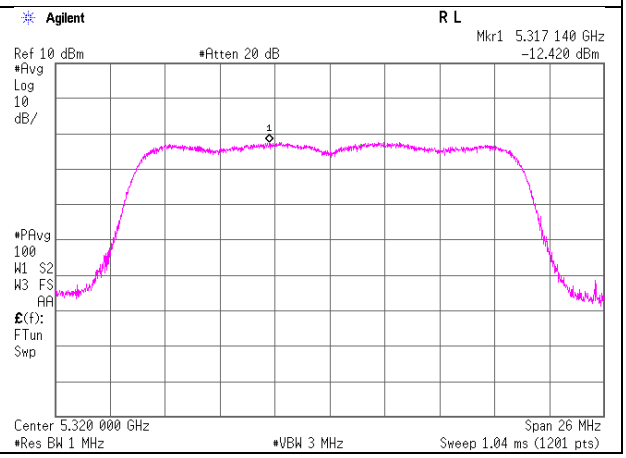
5300 MHz



5240 MHz



5320 MHz

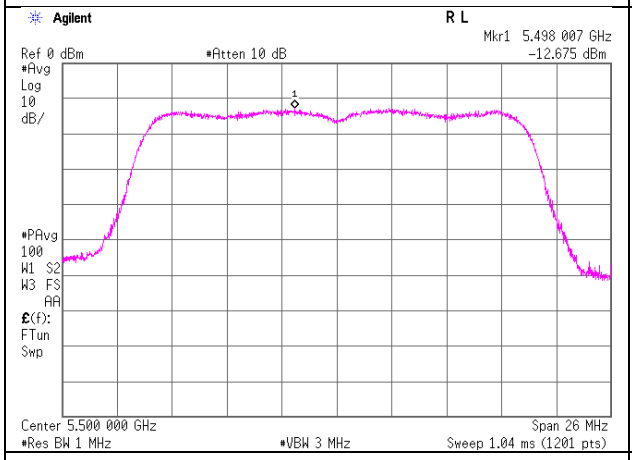


Maximum Power Spectral Density

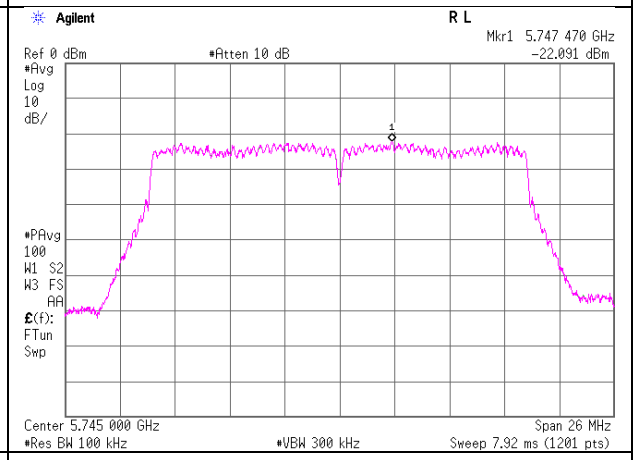
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 PN9, worst antenna port B, worst data mode MCS0

11ac VHT20, Antenna B

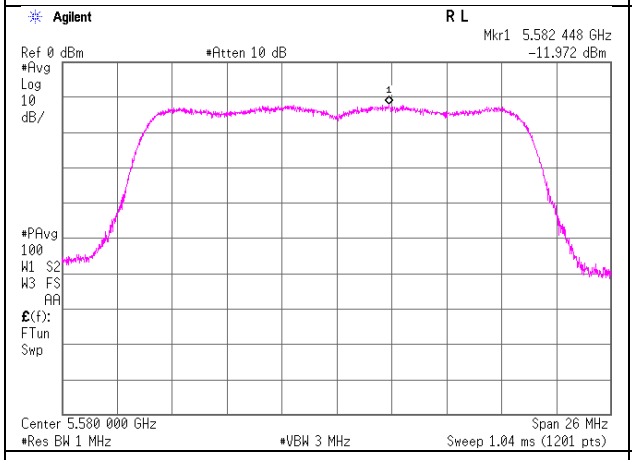
5500 MHz



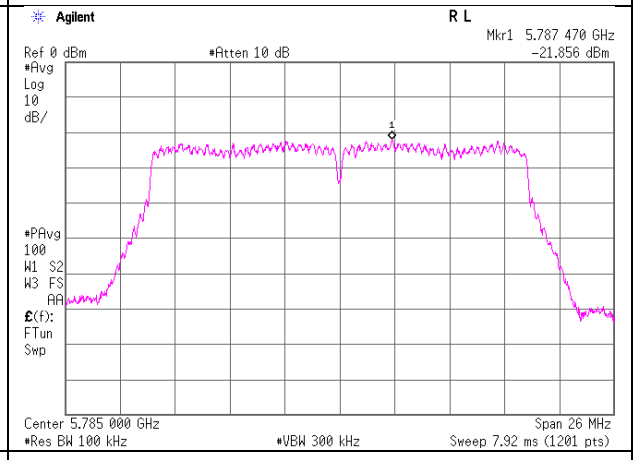
5745 MHz



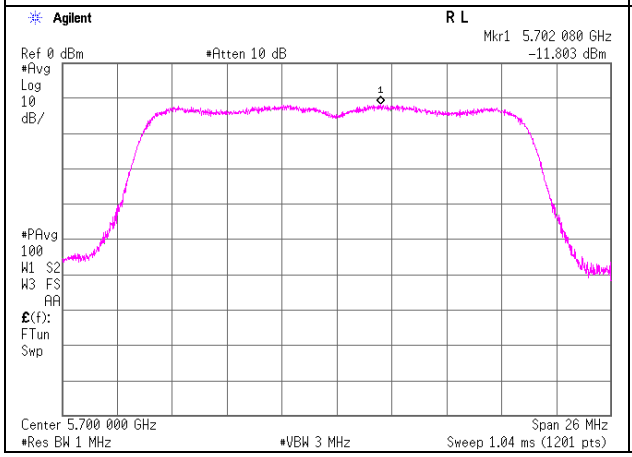
5580 MHz



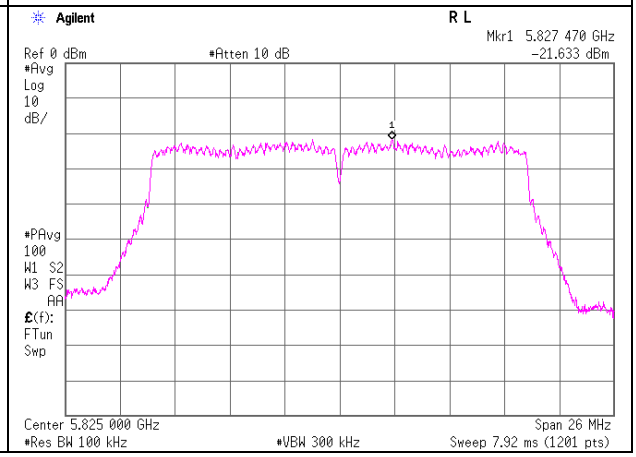
5785 MHz



5700 MHz



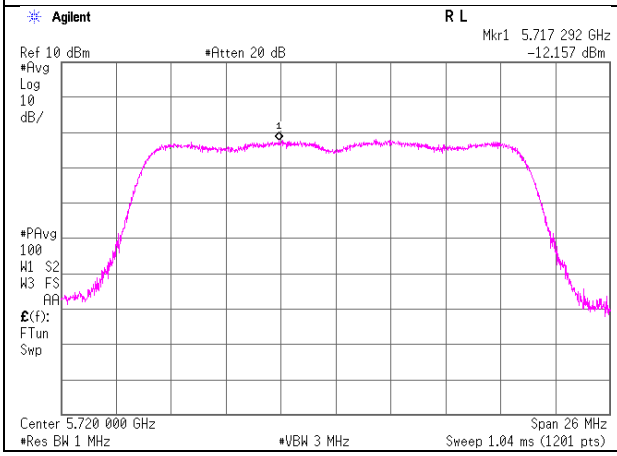
5825 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 PN9, worst antenna port B, worst data mode MCS0

11ac VHT20, Antenna B

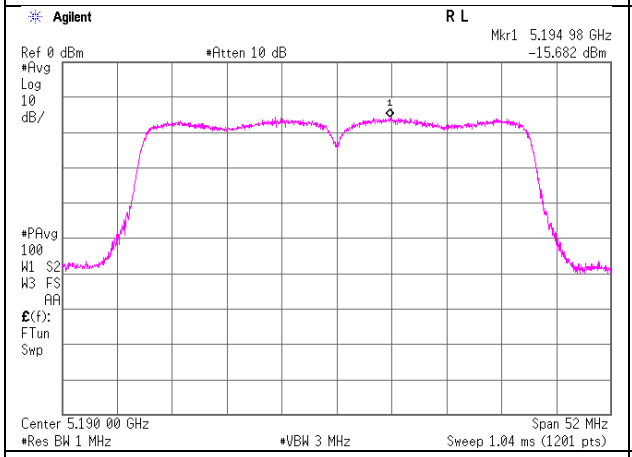
5720 MHz	-
	

Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 PN9, worst antenna port B, worst data mode MCS0

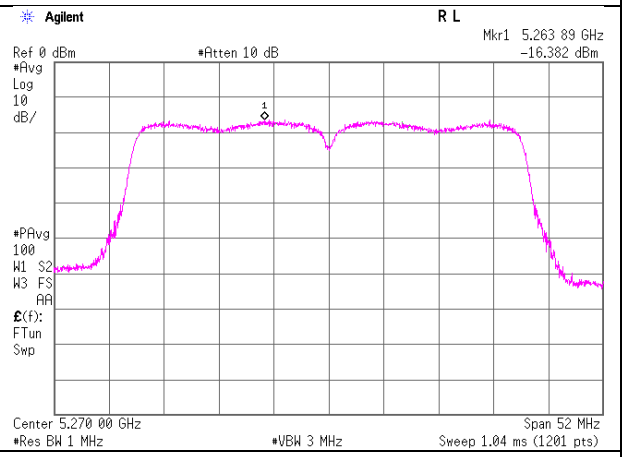
11ac VHT40, Antenna B

5190 MHz



-

5270 MHz



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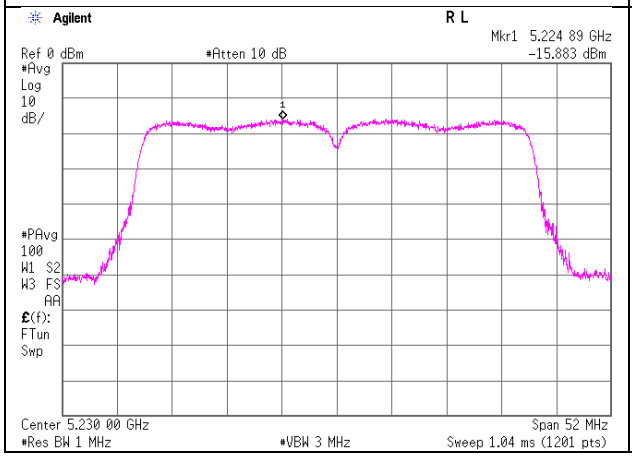
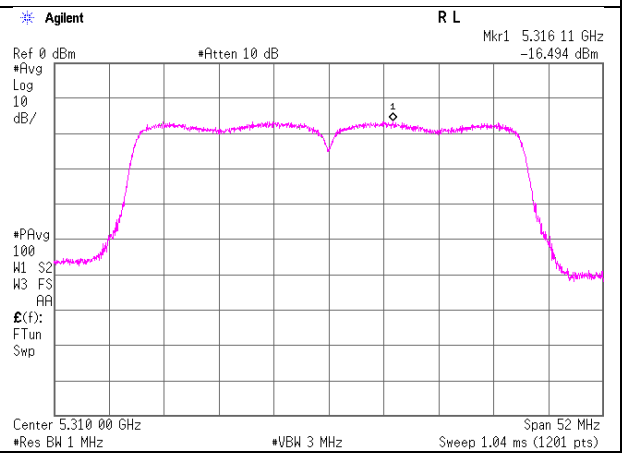
5230 MHz



5310 MHz

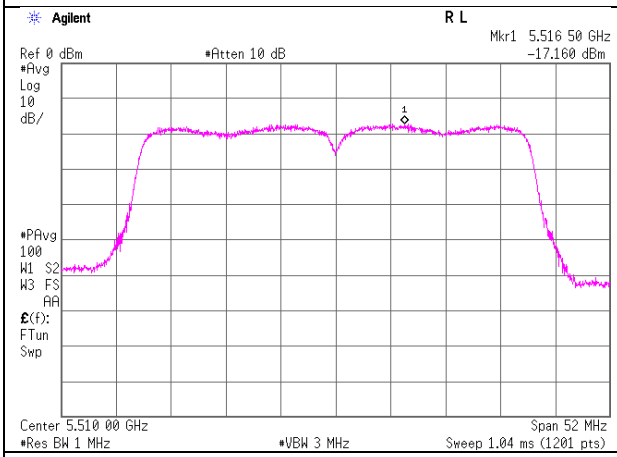


Maximum Power Spectral Density

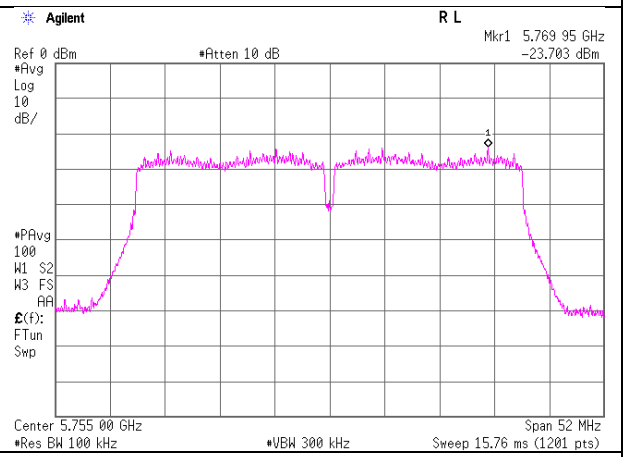
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 PN9, worst antenna port B, worst data mode MCS0

11ac VHT40, Antenna B

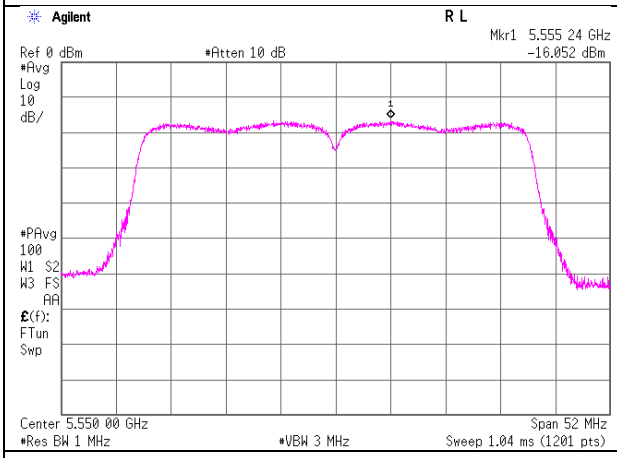
5510 MHz



5755 MHz



5550 MHz



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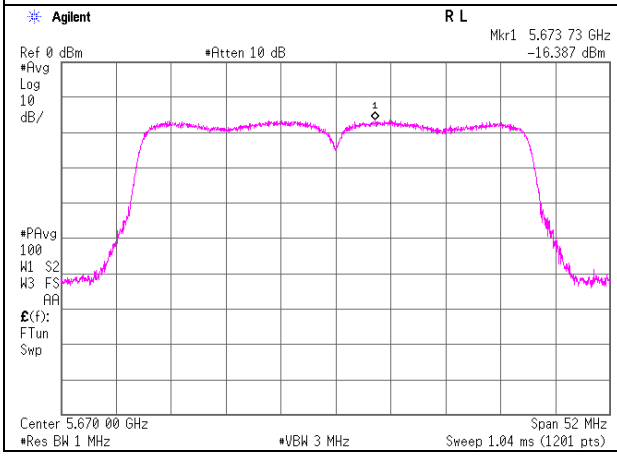
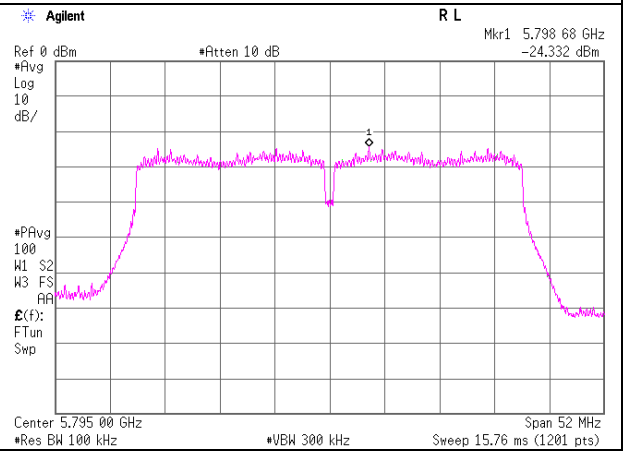
5670 MHz



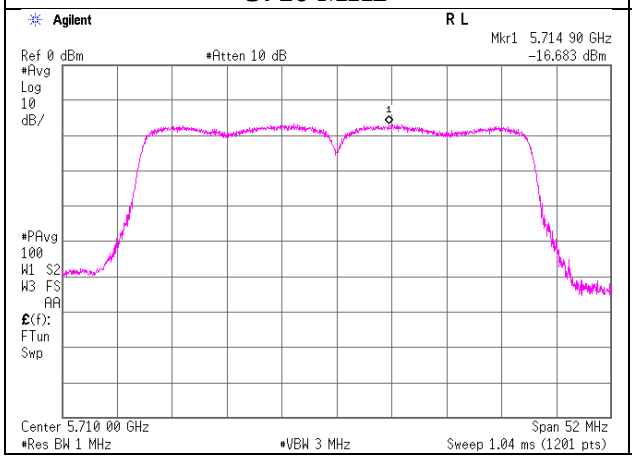
5795 MHz



Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 PN9, worst antenna port B, worst data mode MCS0

11ac VHT40, Antenna B

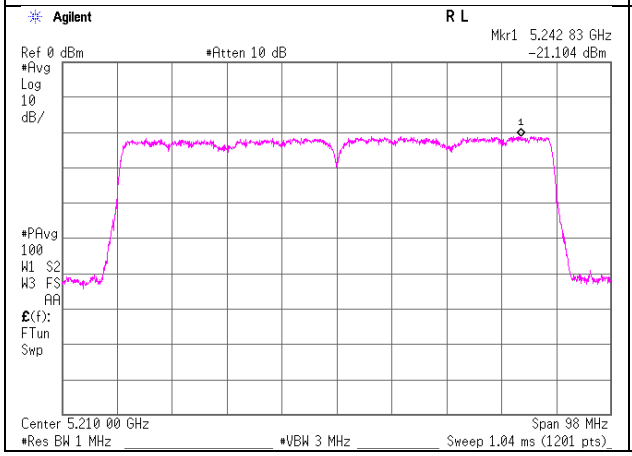
5710 MHz	-
	

Maximum Power Spectral Density

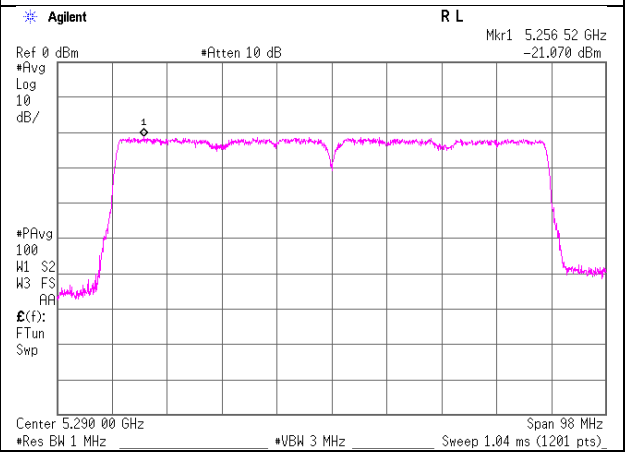
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT80 PN9, worst antenna port B, worst data mode MCS0

11ac VHT80, Antenna B

5210 MHz



5290 MHz

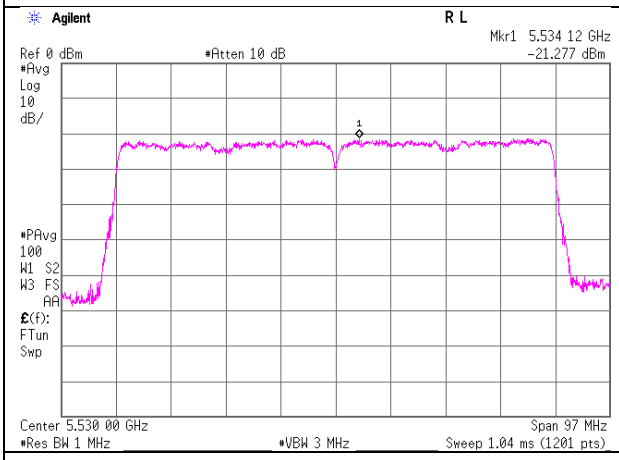


Maximum Power Spectral Density

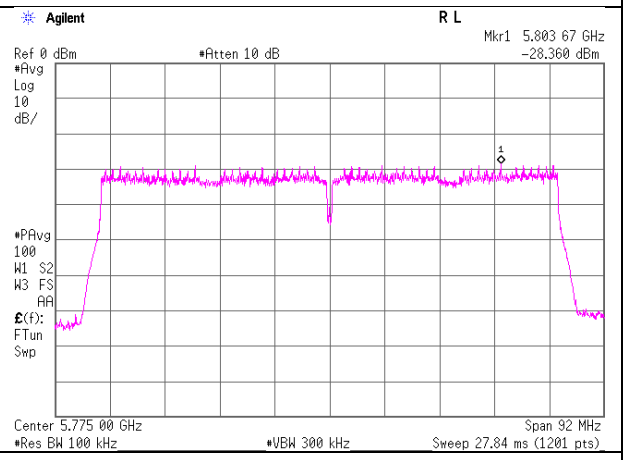
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 19, 2016
Temperature / Humidity	22 deg. C / 42 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT80 PN9, worst antenna port B, worst data mode MCS0

11ac VHT80, Antenna B

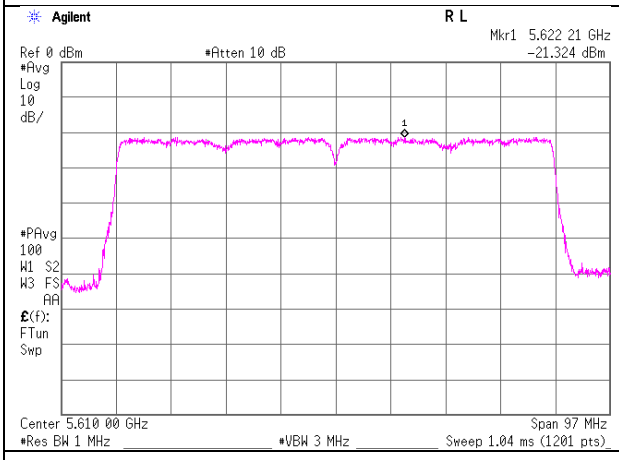
5530 MHz



5755 MHz



5610 MHz



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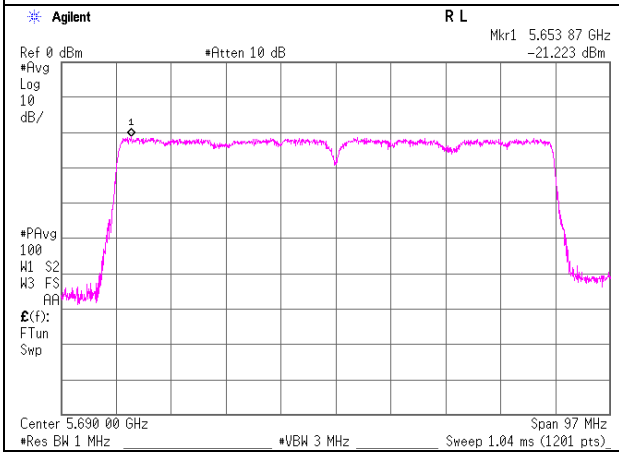
5690 MHz



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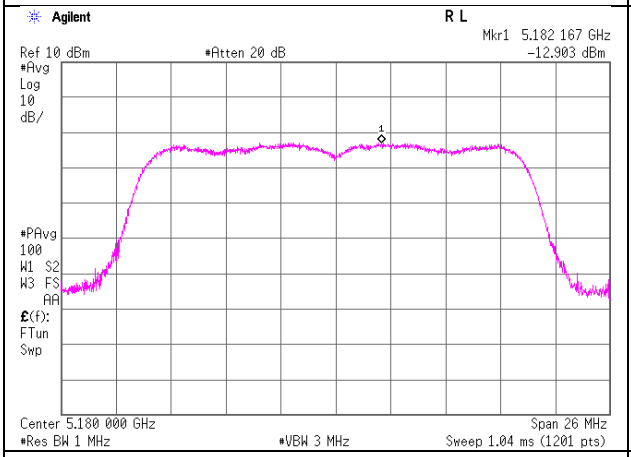
Maximum Power Spectral Density

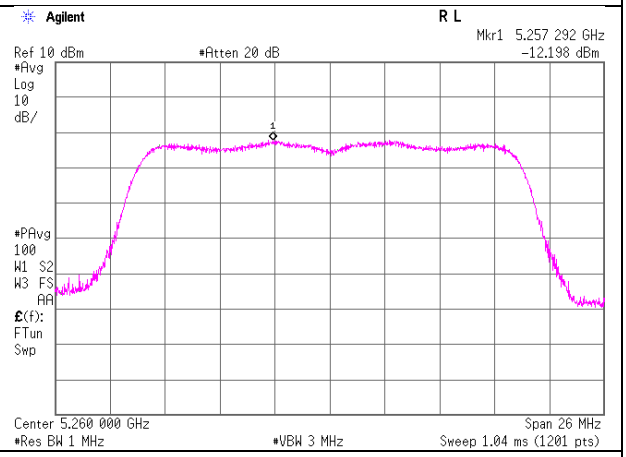
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 MIMO PN9, worst data mode MCS8

11n HT20 MIMO, Antenna A

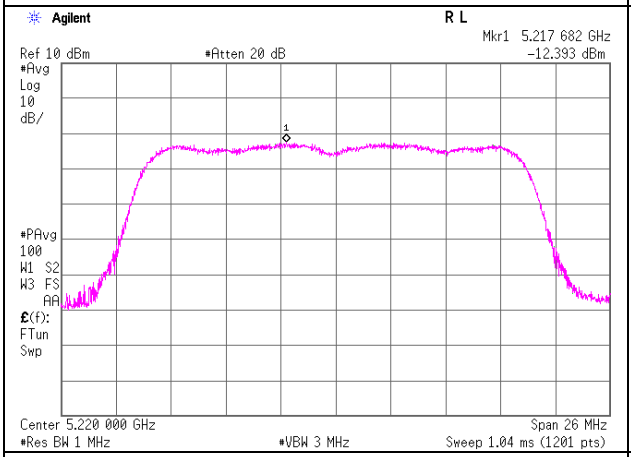
5180 MHz



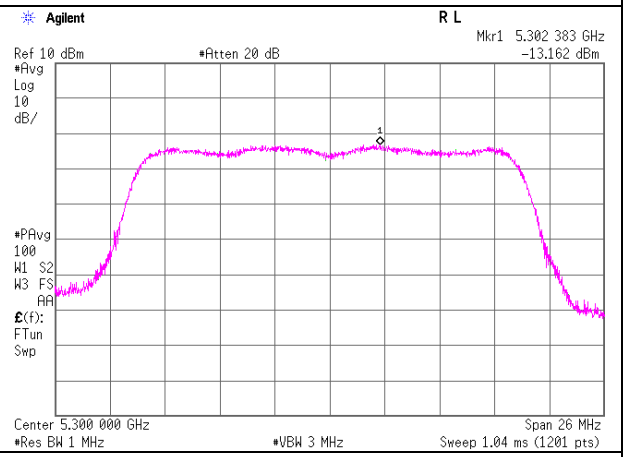
5260 MHz



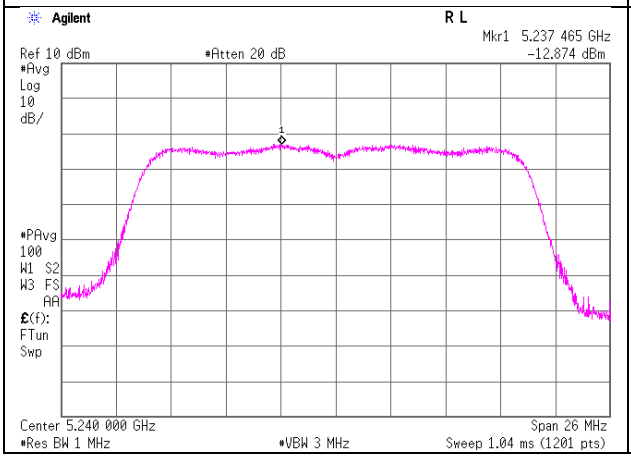
5220 MHz



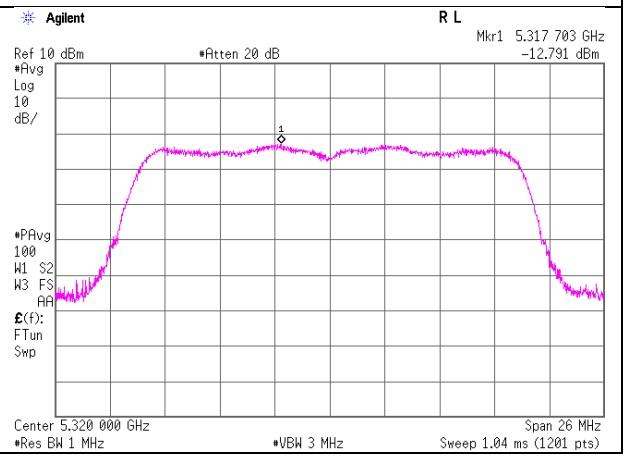
5300 MHz



5240 MHz



5320 MHz

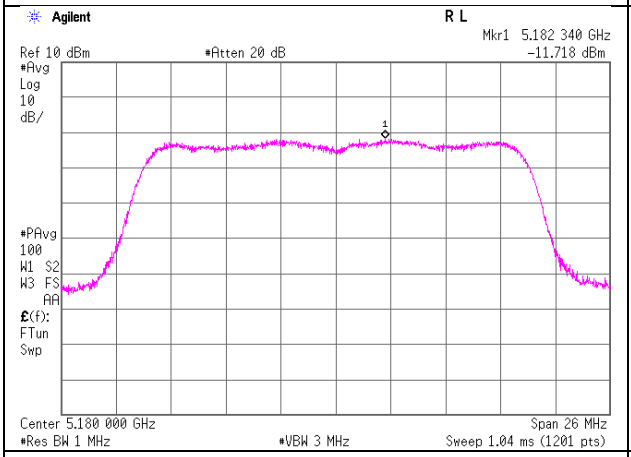


Maximum Power Spectral Density

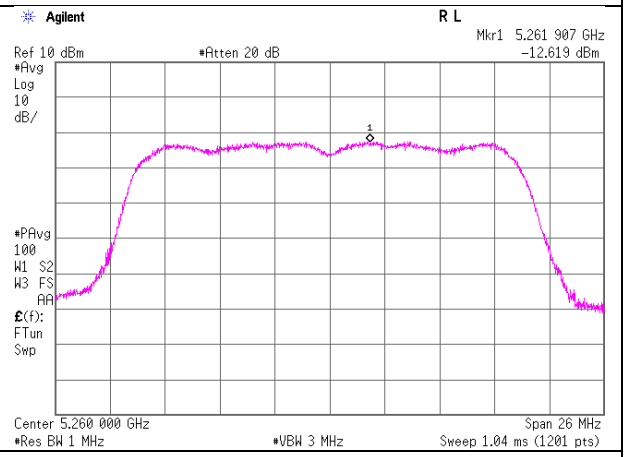
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 MIMO PN9, worst data mode MCS8

11n HT20 MIMO, Antenna B

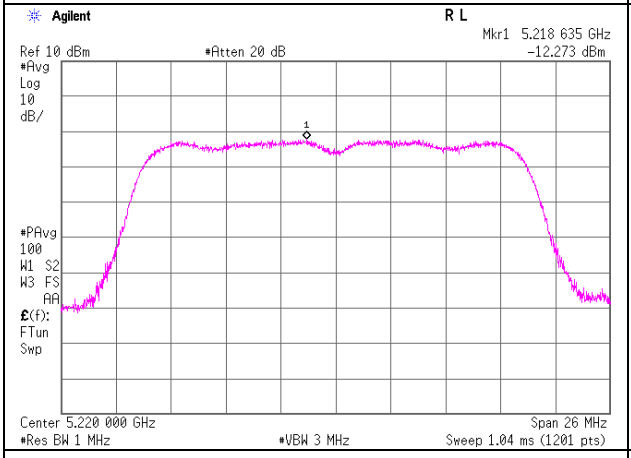
5180 MHz



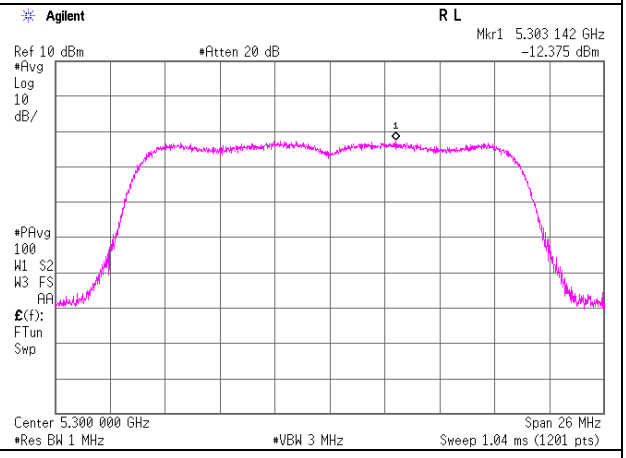
5260 MHz



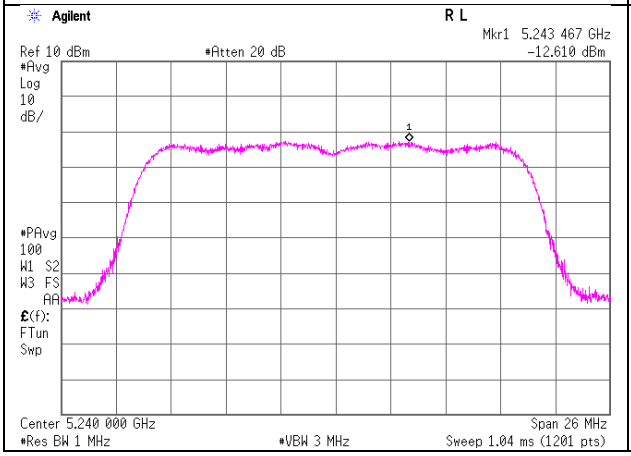
5220 MHz



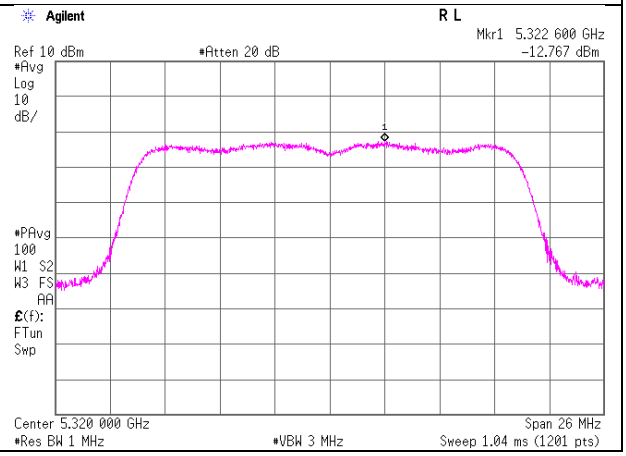
5300 MHz



5240 MHz



5320 MHz

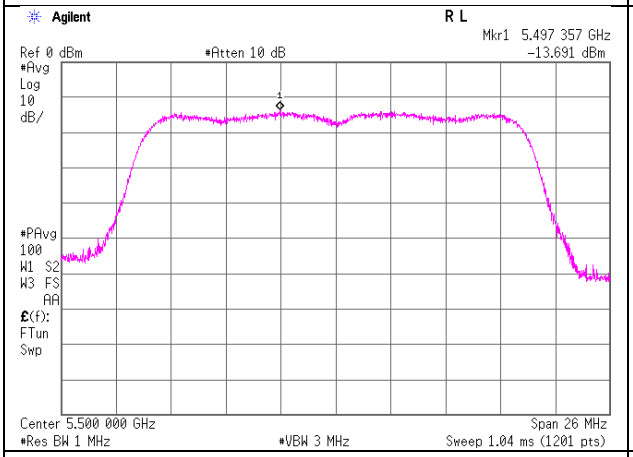


Maximum Power Spectral Density

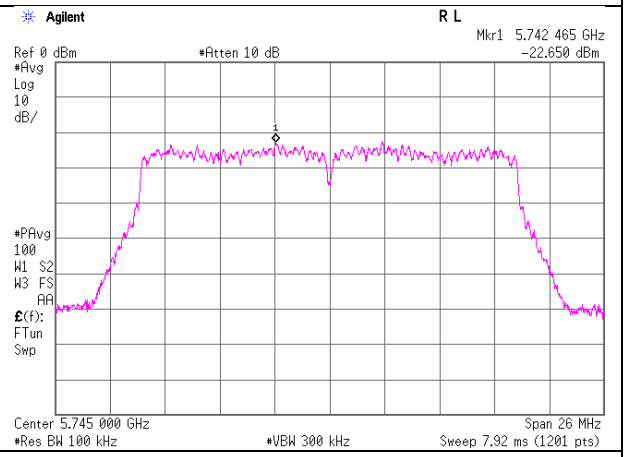
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 MIMO PN9, worst data mode MCS8

11n HT20 MIMO, Antenna A

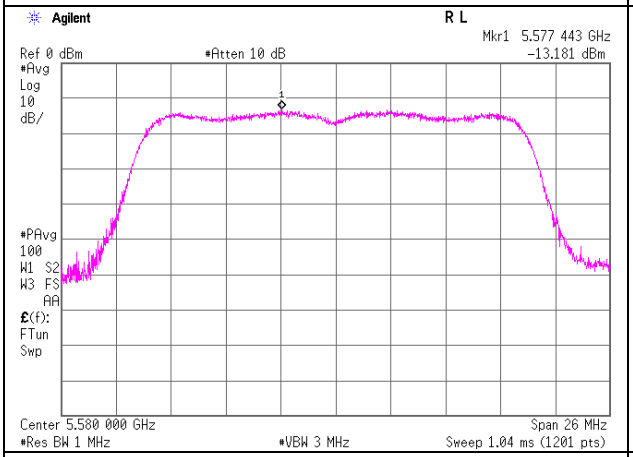
5500 MHz



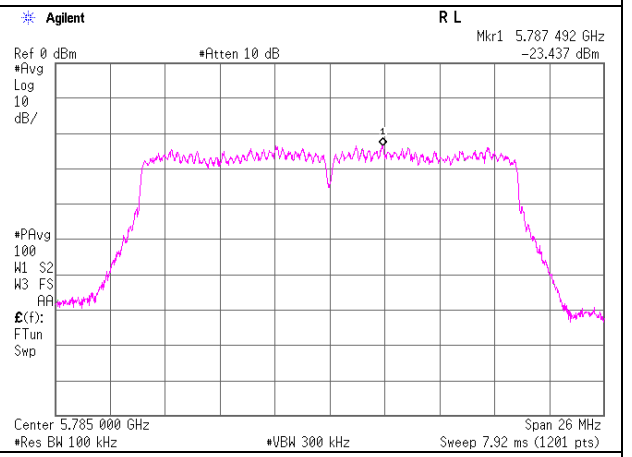
5745 MHz



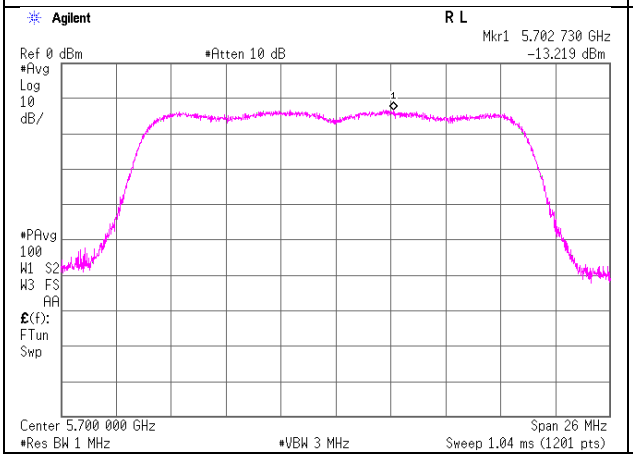
5580 MHz



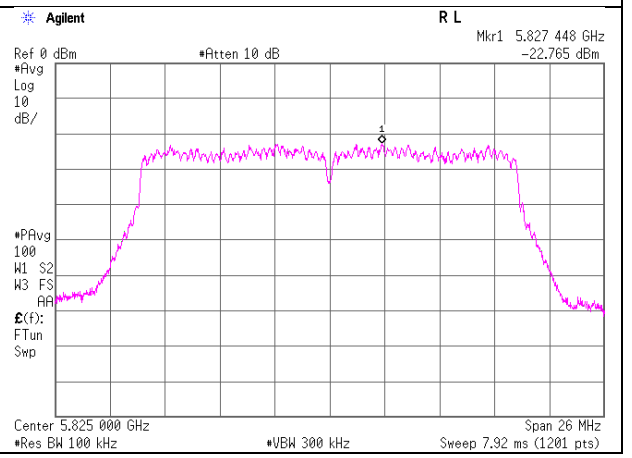
5785 MHz



5700 MHz



5825 MHz

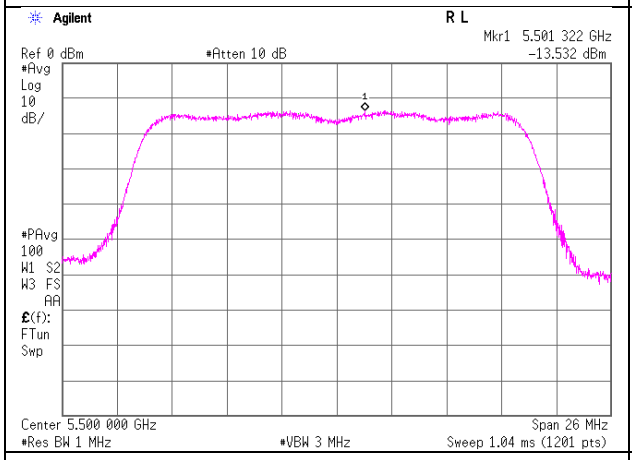


Maximum Power Spectral Density

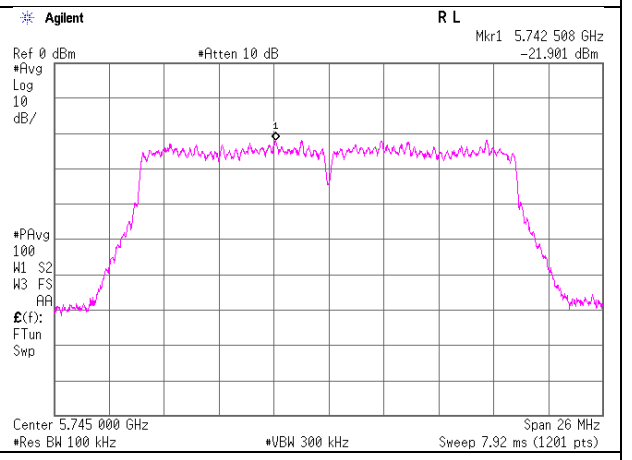
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 MIMO PN9, worst data mode MCS8

11n HT20 MIMO, Antenna B

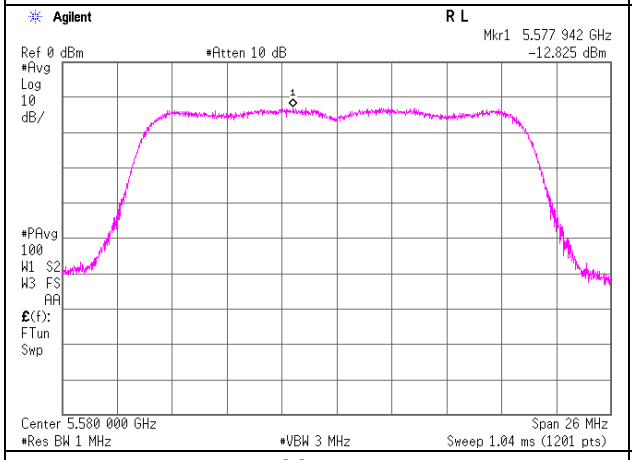
5500 MHz



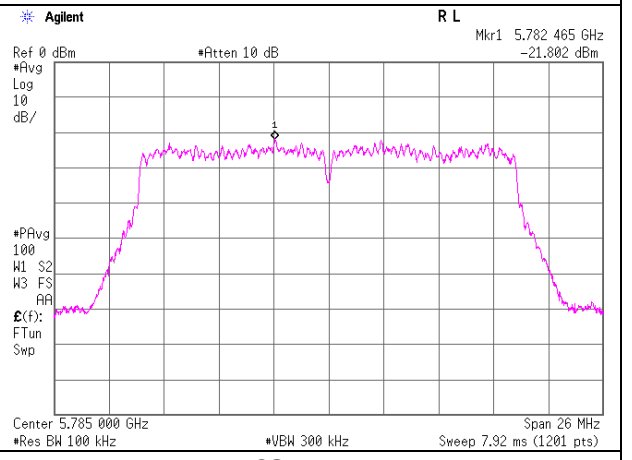
5745 MHz



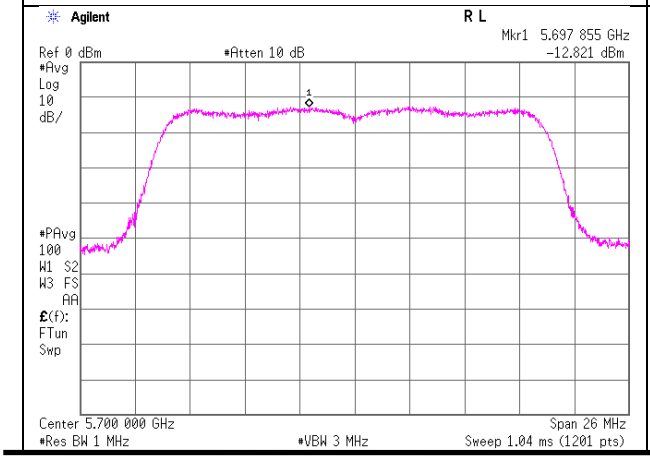
5580 MHz



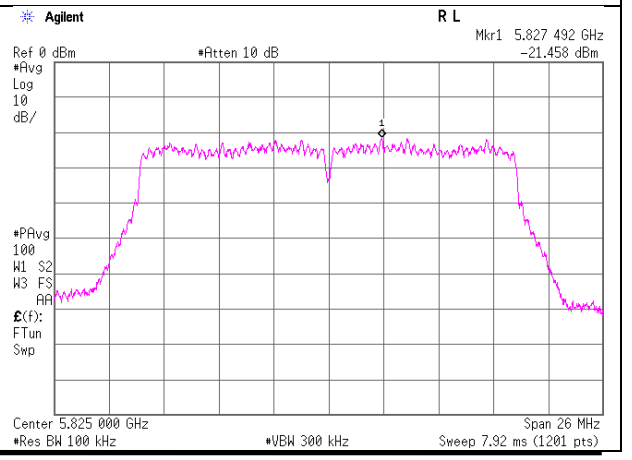
5785 MHz



5700 MHz



5825 MHz

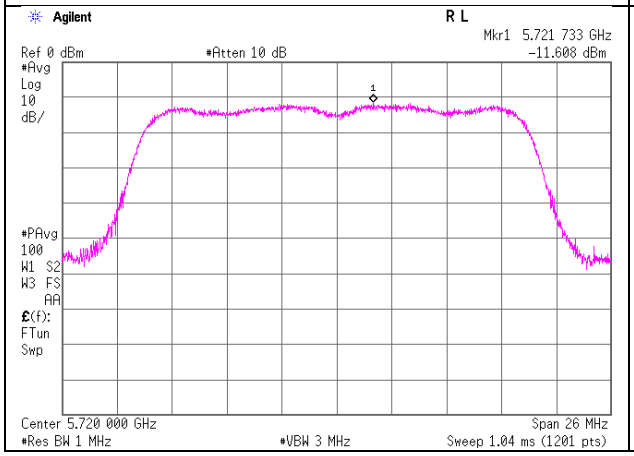


Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT20 MIMO PN9, worst data mode MCS8

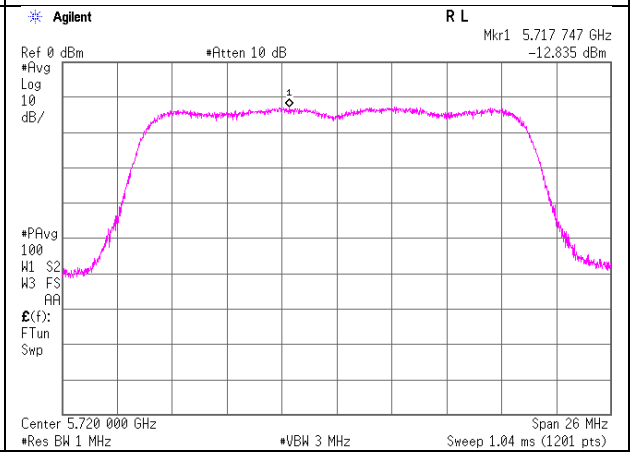
11n HT20 MIMO, Antenna A

5720 MHz



11n HT20 MIMO, Antenna B

5720 MHz

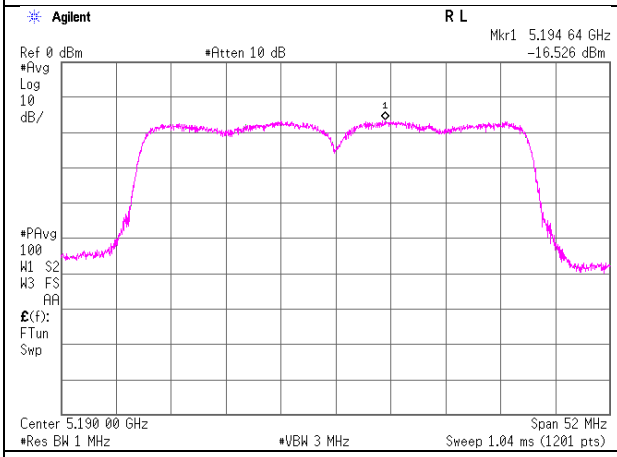


Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 MIMO PN9, worst data mode MCS8

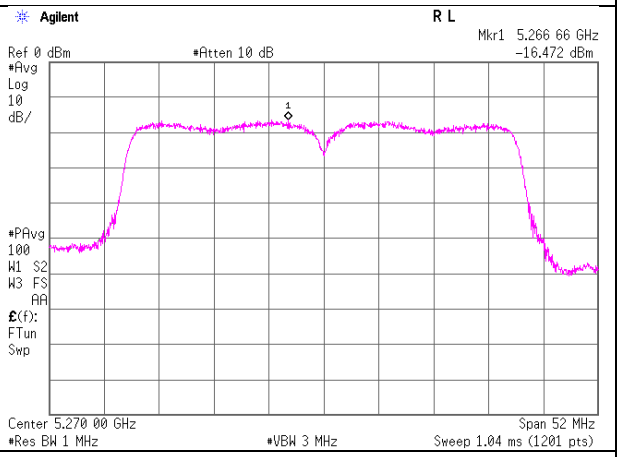
11n HT40 MIMO, Antenna A

5190 MHz



-

5270 MHz



-

5230 MHz

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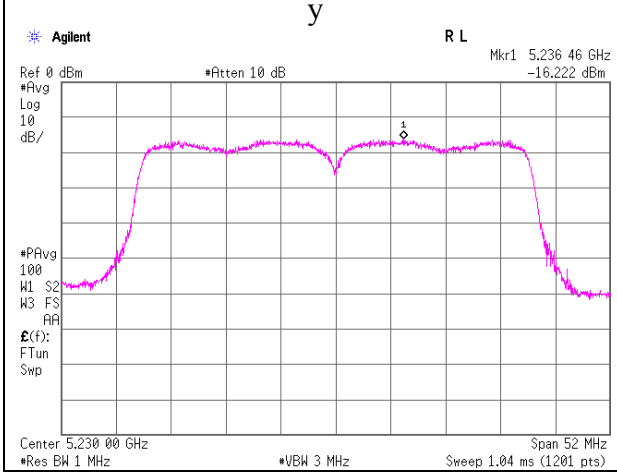

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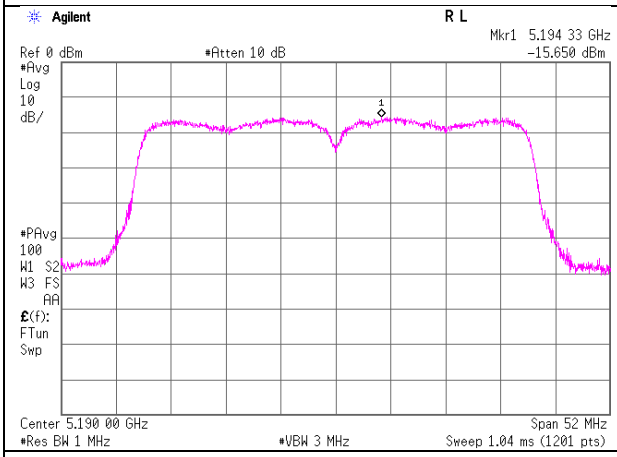
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 MIMO PN9, worst data mode MCS8

11n HT40 MIMO, Antenna B

5180 MHz



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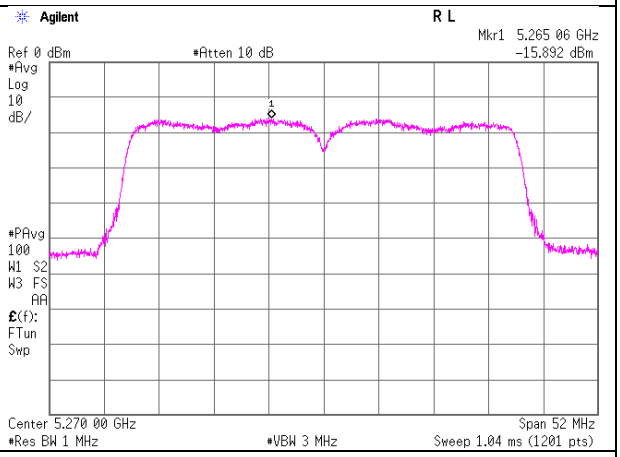
5270 MHz



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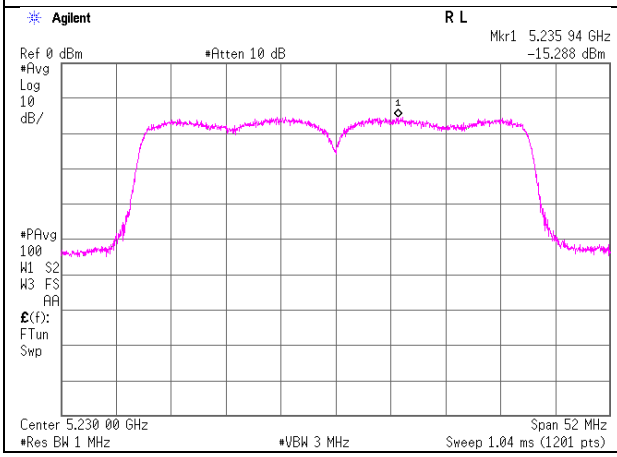
5230 MHz



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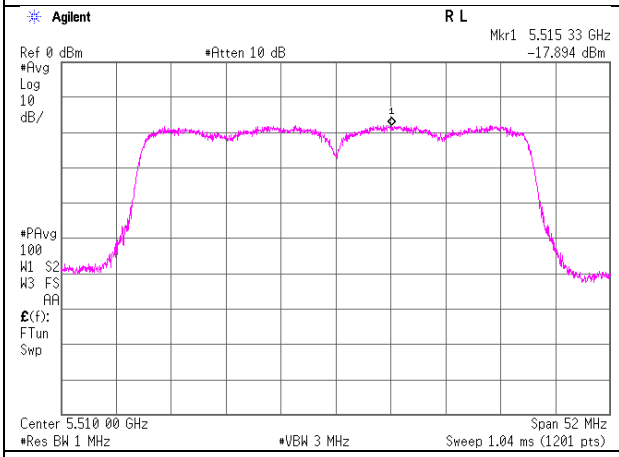
Maximum Power Spectral Density

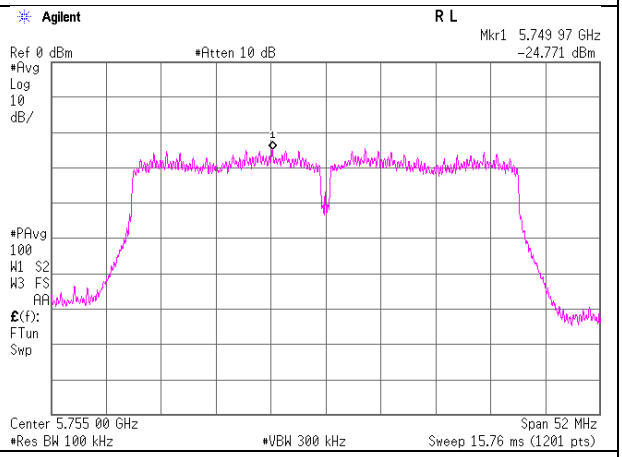
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 MIMO PN9, worst data mode MCS8

11n HT40 MIMO, Antenna A

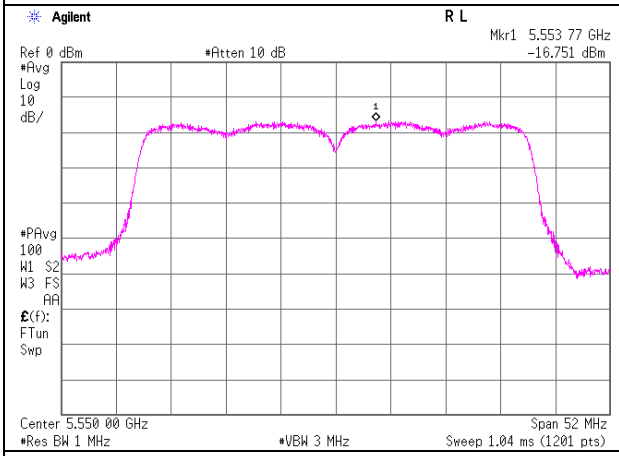
5510 MHz



5755 MHz



5550 MHz



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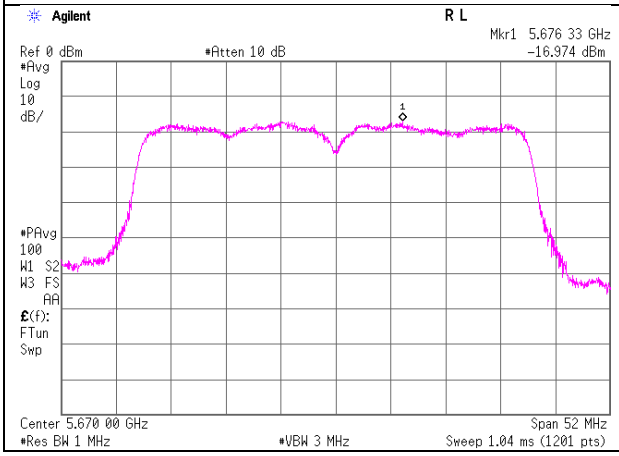
5670 MHz



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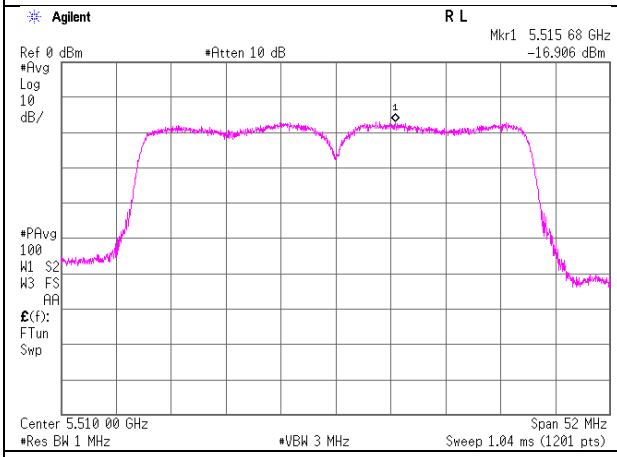
Maximum Power Spectral Density

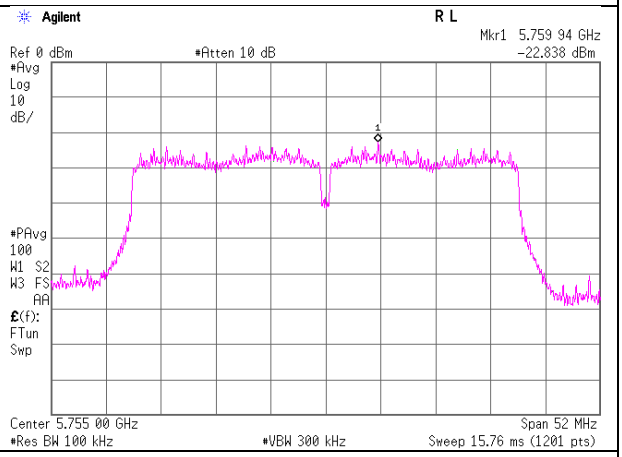
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 MIMO PN9, worst data mode MCS8

11n HT40 MIMO, Antenna B

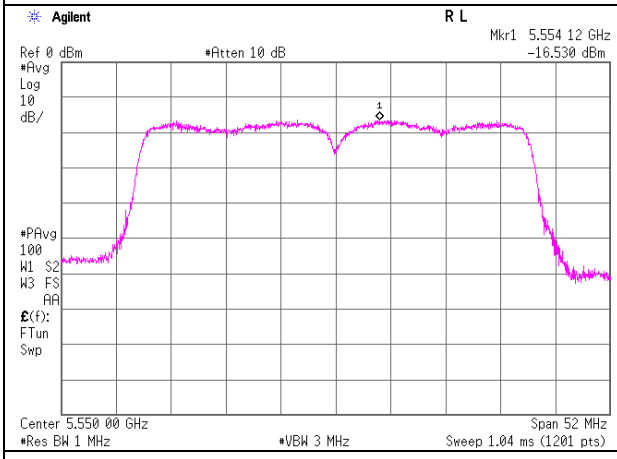
5510 MHz



5755 MHz



5550 MHz



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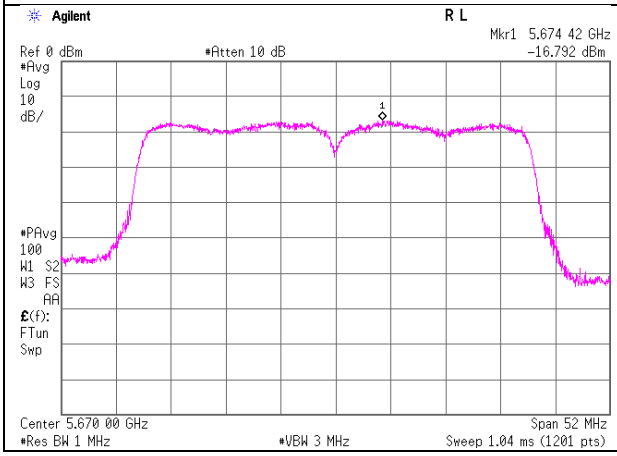
5670 MHz



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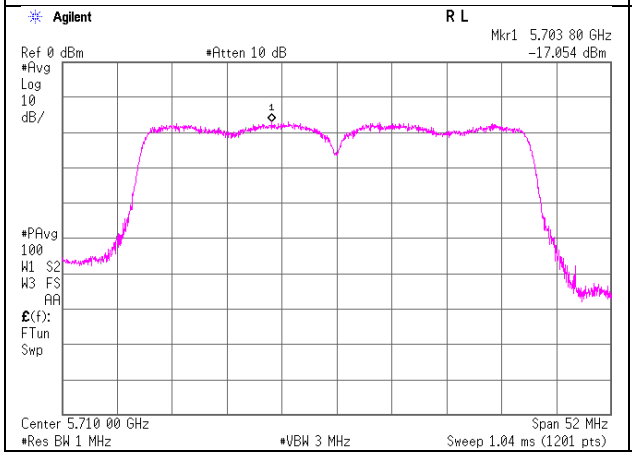
Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11n HT40 MIMO PN9, worst data mode MCS8

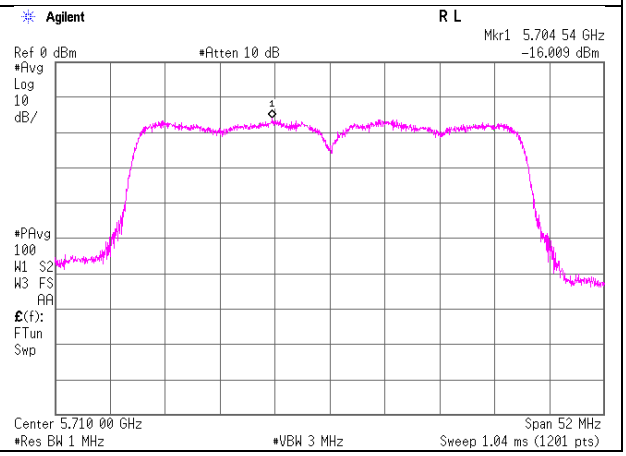
11n HT40 MIMO, Antenna A

5710 MHz



11n HT40 MIMO, Antenna B

5710 MHz

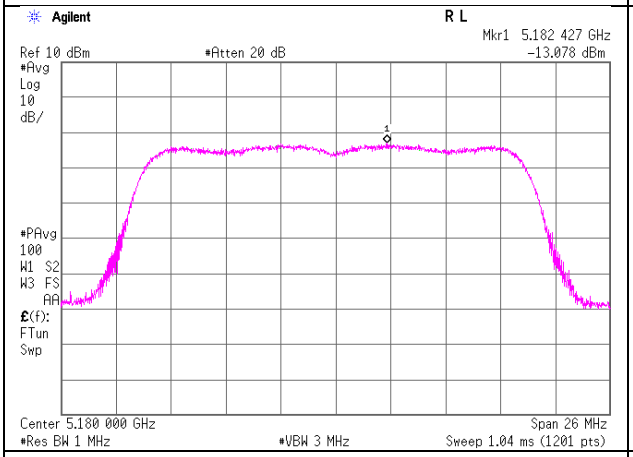


Maximum Power Spectral Density

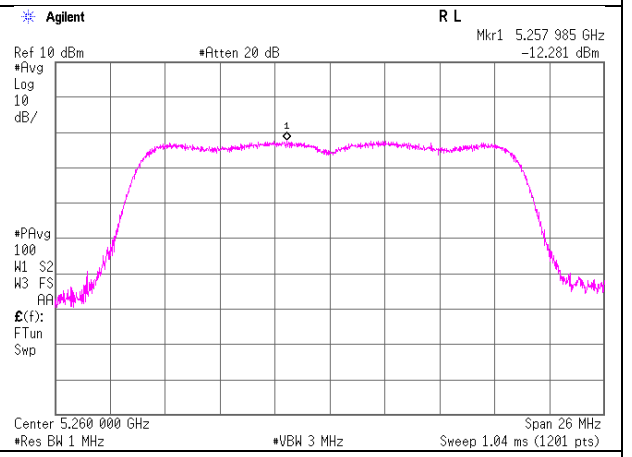
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 MIMO PN9, worst data mode MCS0

11ac VHT20 MIMO, Antenna A

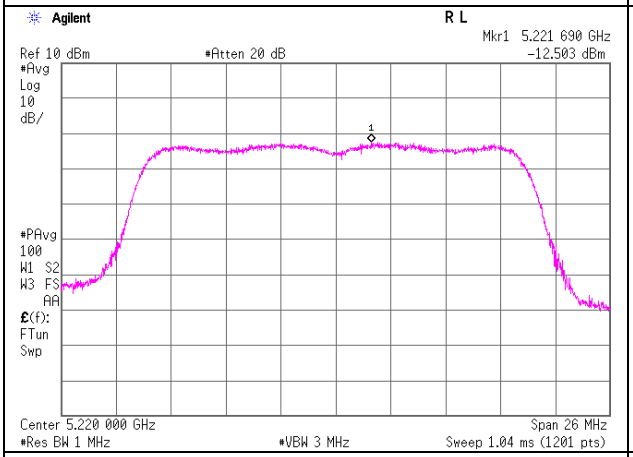
5180 MHz



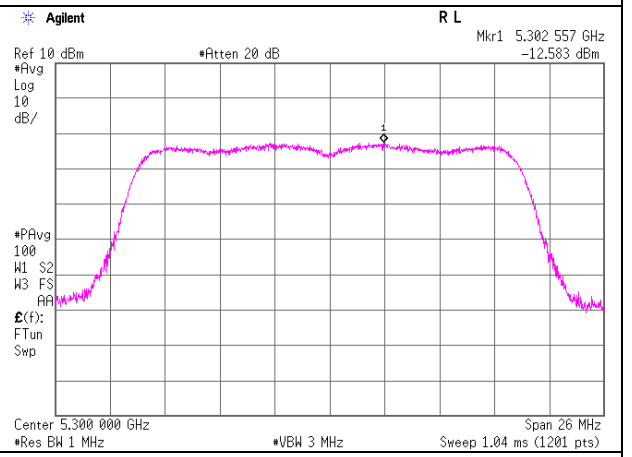
5260 MHz



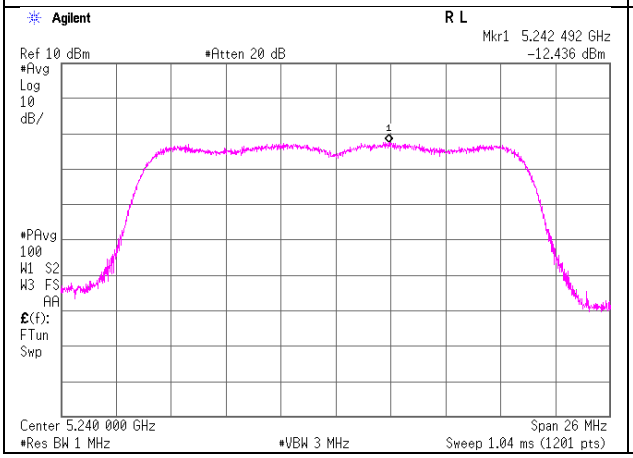
5220 MHz



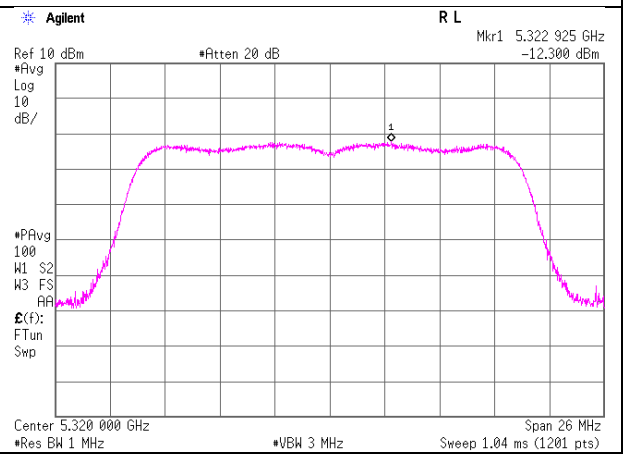
5300 MHz



5240 MHz



5320 MHz

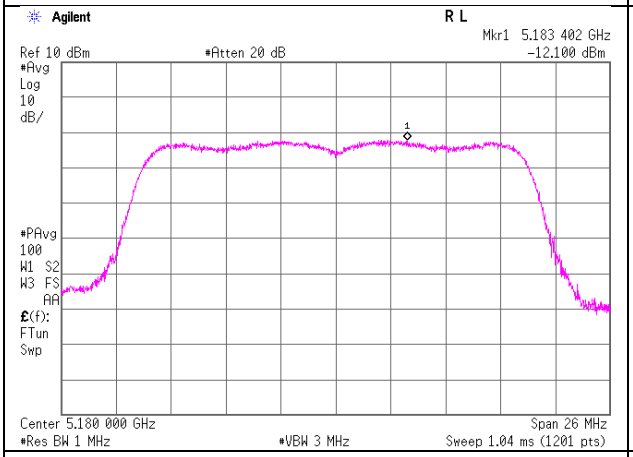


Maximum Power Spectral Density

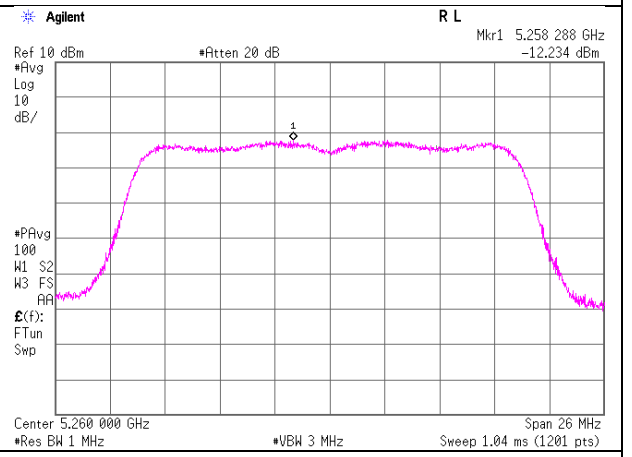
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 MIMO PN9, worst data mode MCS8

11ac VHT20 MIMO, Antenna B

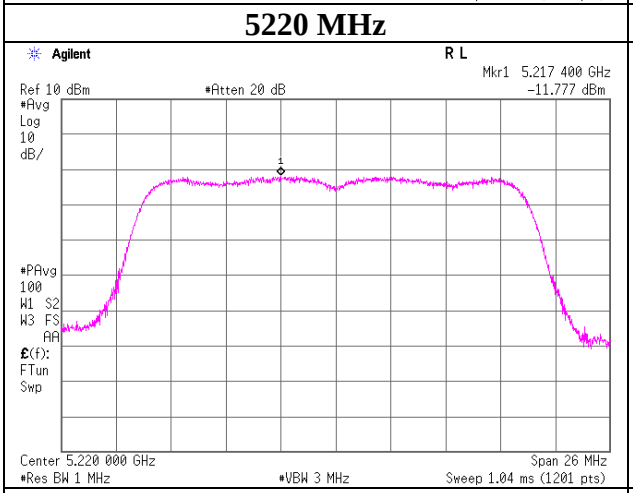
5180 MHz



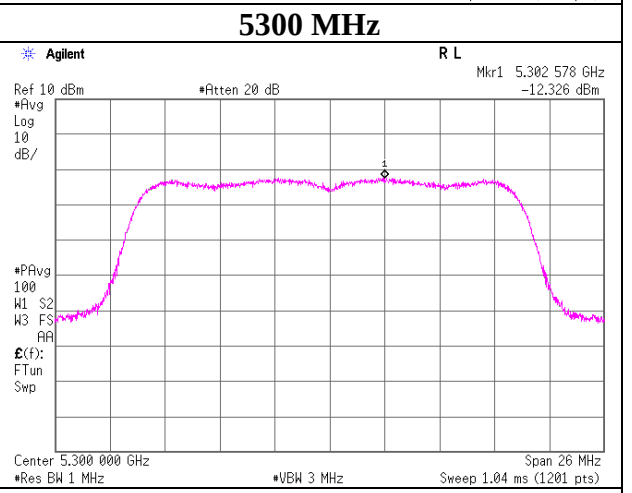
5260 MHz



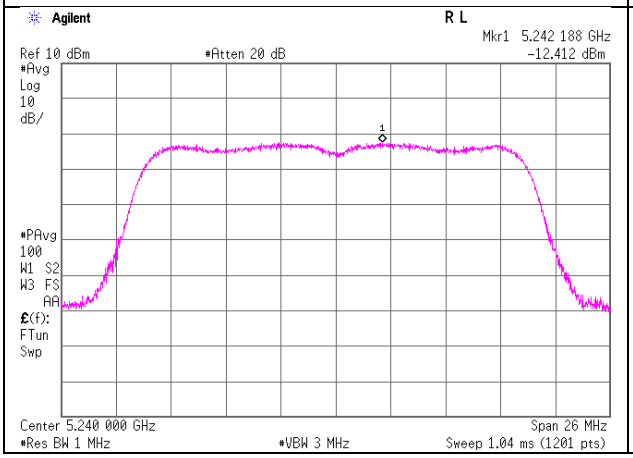
5220 MHz



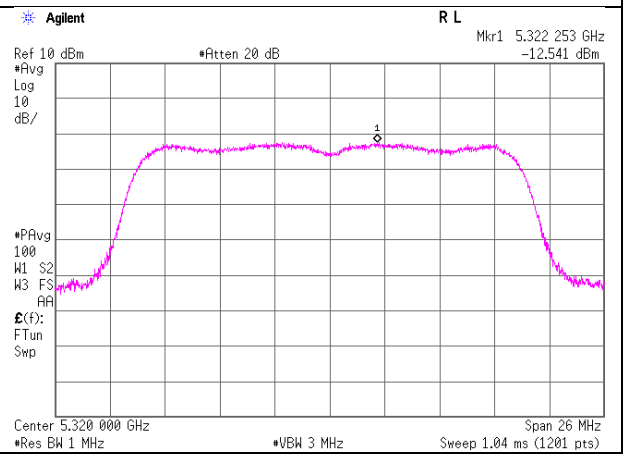
5300 MHz



5240 MHz



5320 MHz

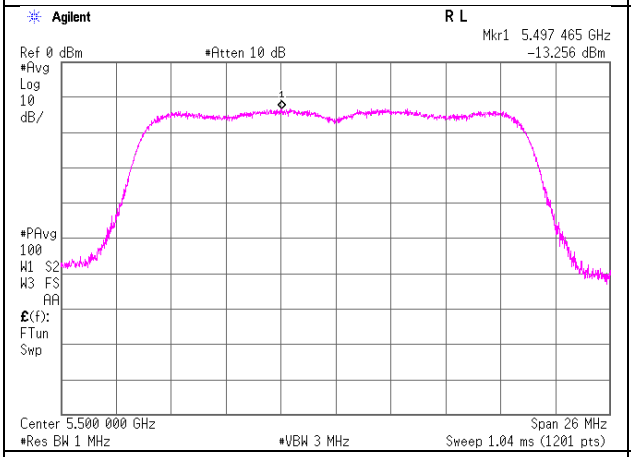


Maximum Power Spectral Density

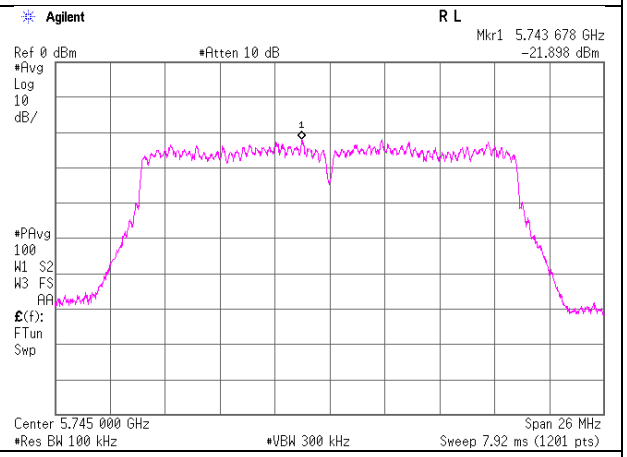
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 MIMO PN9, worst data mode MCS0

11ac VHT20 MIMO, Antenna A

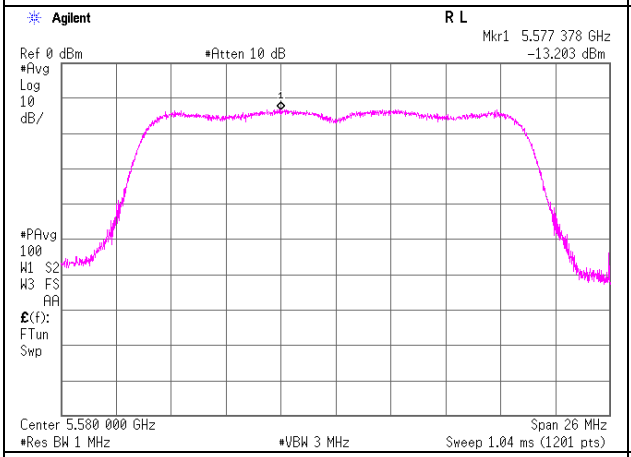
5500 MHz



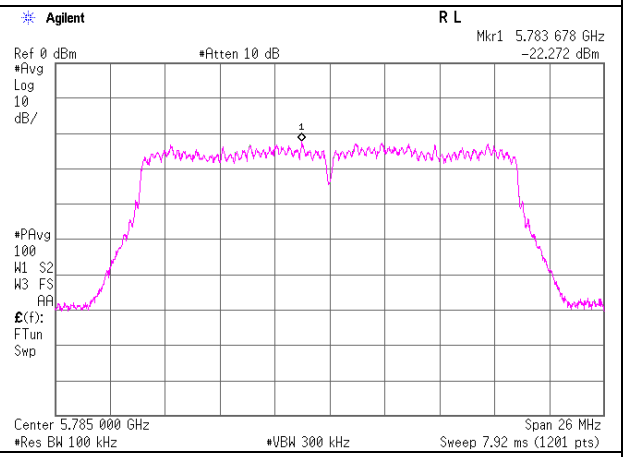
5745 MHz



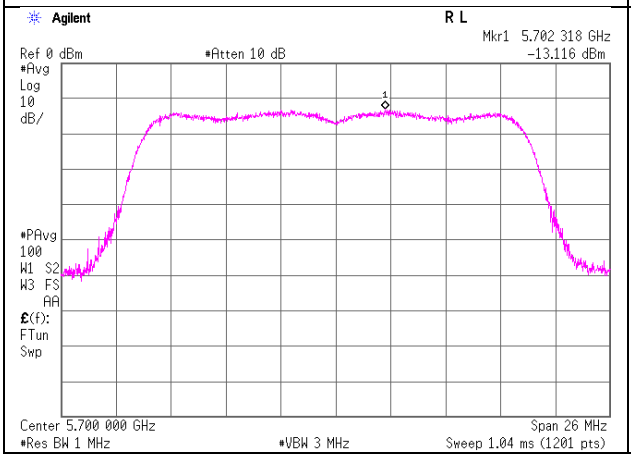
5580 MHz



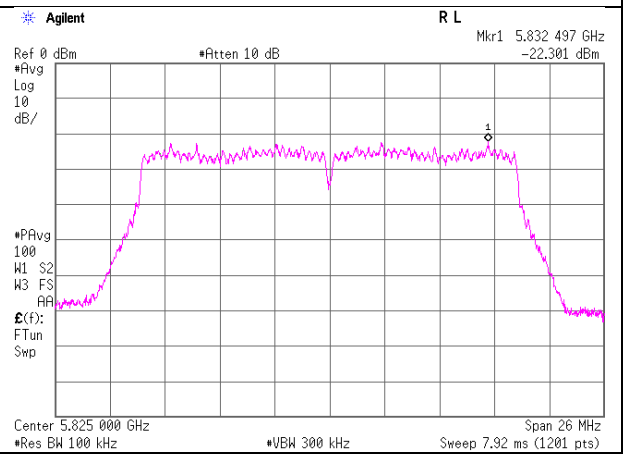
5785 MHz



5700 MHz



5825 MHz

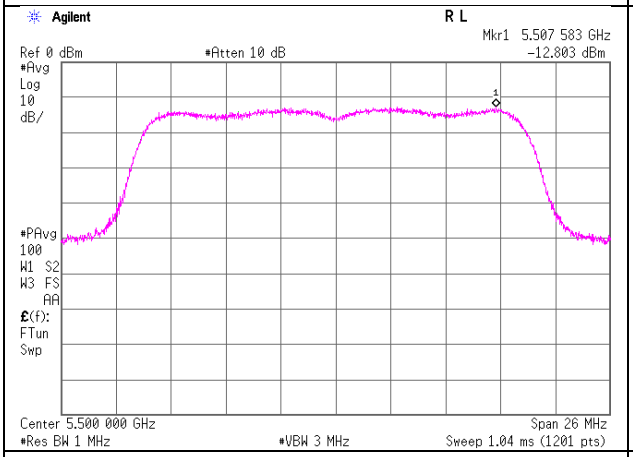


Maximum Power Spectral Density

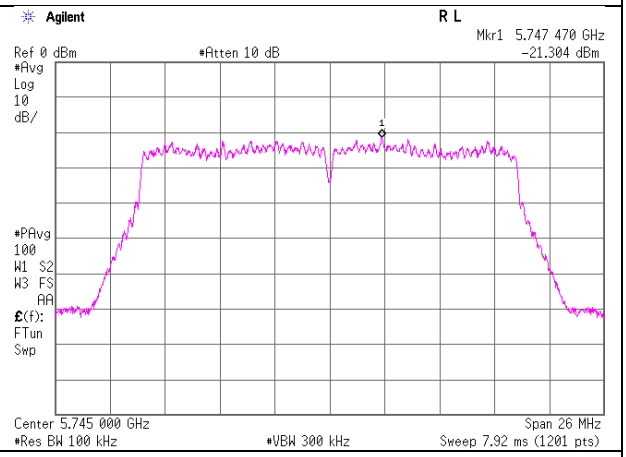
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 MIMO PN9, worst data mode MCS0

11ac VHT20 MIMO, Antenna B

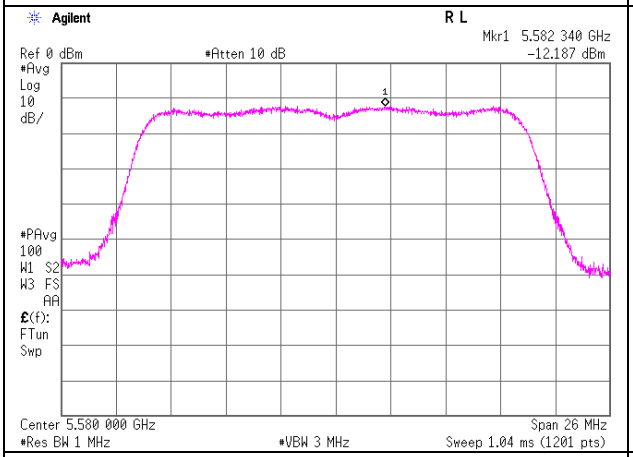
5500 MHz



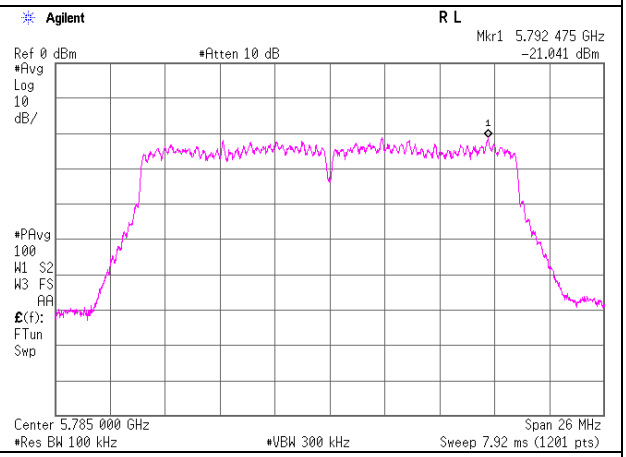
5745 MHz



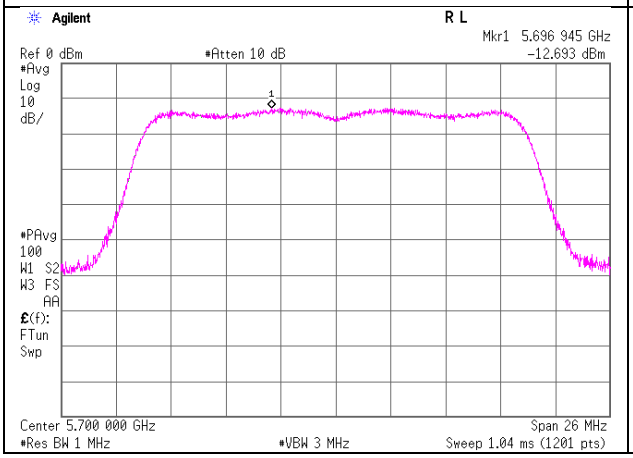
5580 MHz



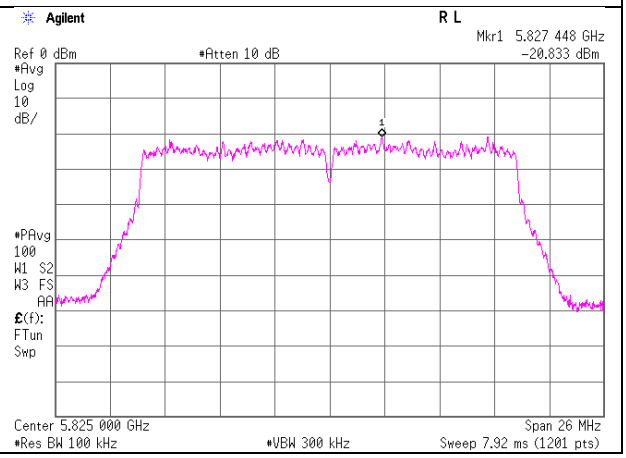
5785 MHz



5700 MHz



5825 MHz

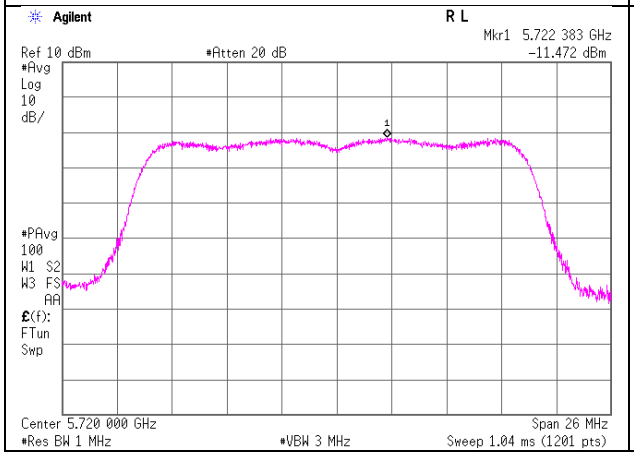


Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT20 MIMO PN9, worst data mode MCS0

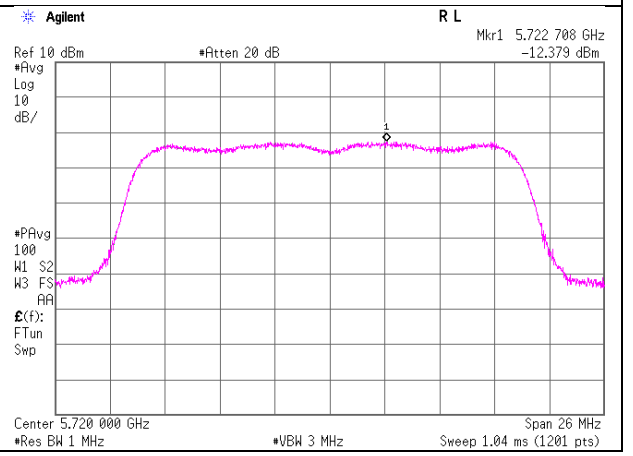
11ac VHT20 MIMO, Antenna A

5720 MHz



11ac VHT20 MIMO, Antenna B

5720 MHz

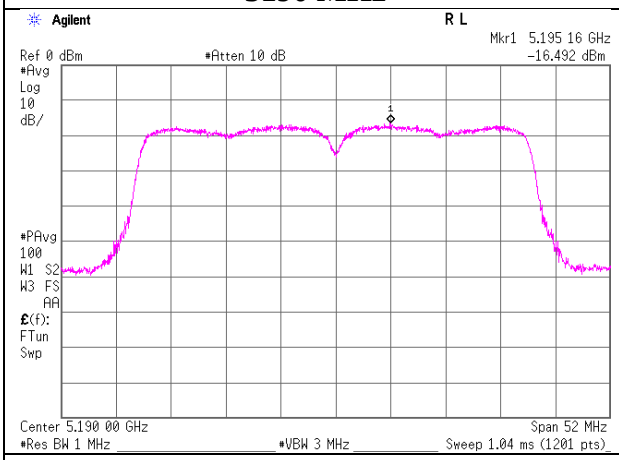


Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 MIMO PN9, worst data mode MCS0

11ac VHT40 MIMO, Antenna A

5190 MHz



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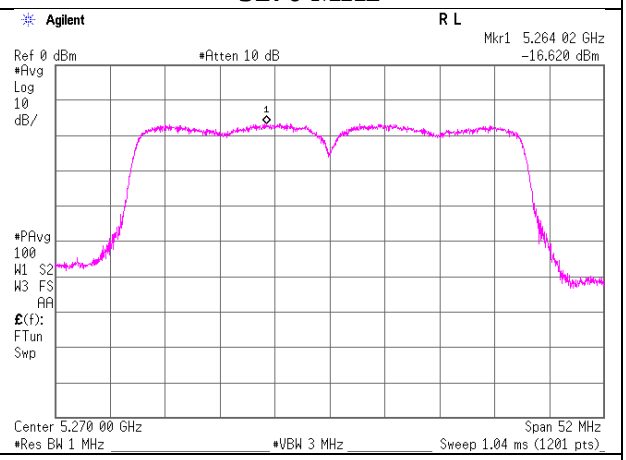
5270 MHz



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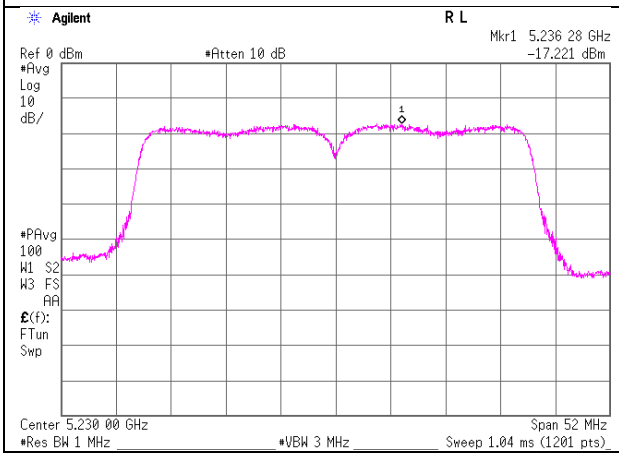
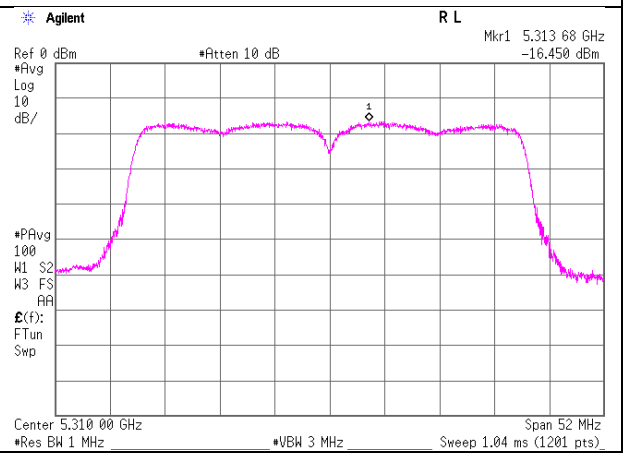
5230 MHz



5310 MHz

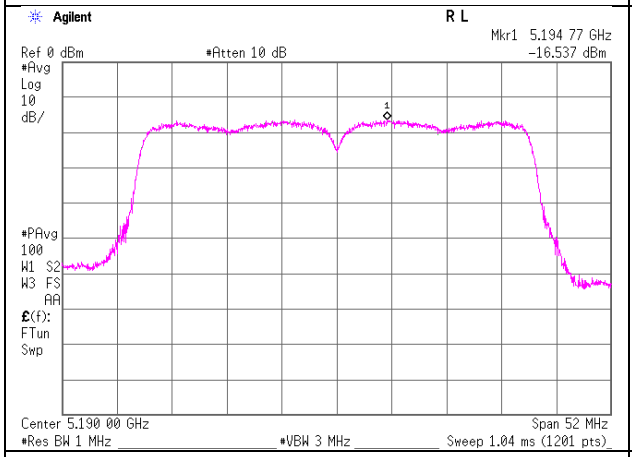


Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 MIMO PN9, worst data mode MCS0

11ac VHT40 MIMO, Antenna B

5190 MHz



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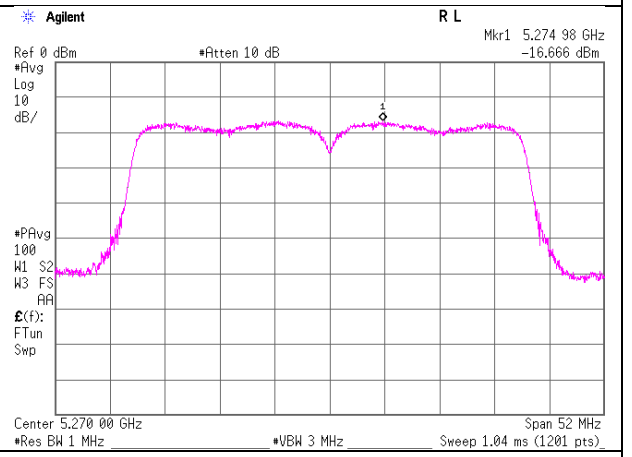
5270 MHz



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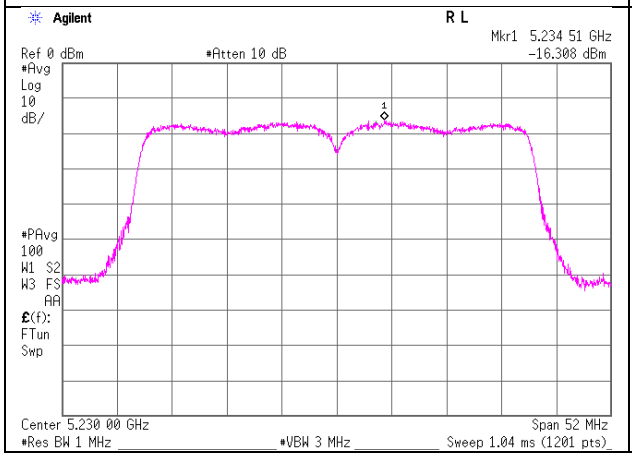
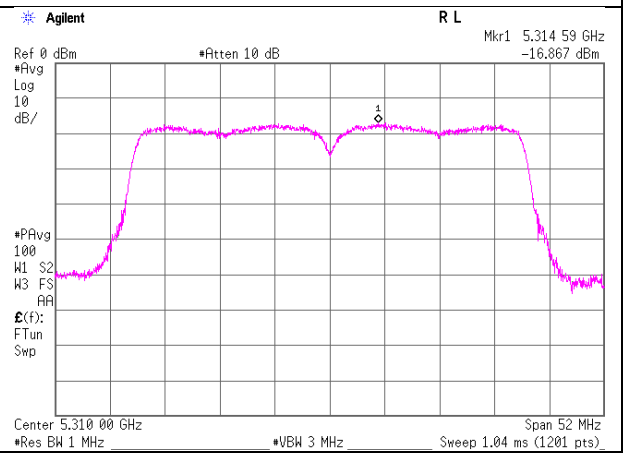
5230 MHz



5310 MHz

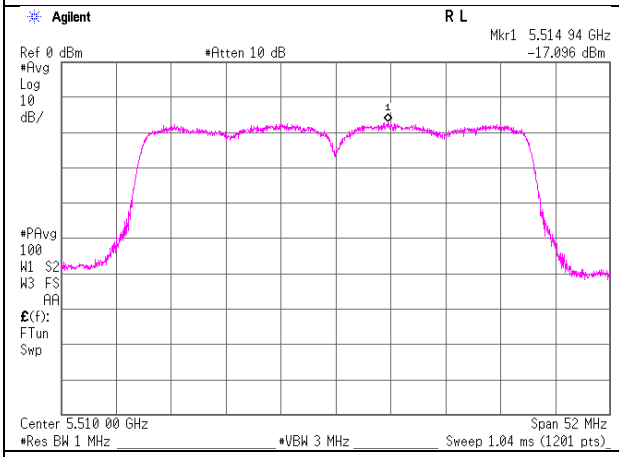


Maximum Power Spectral Density

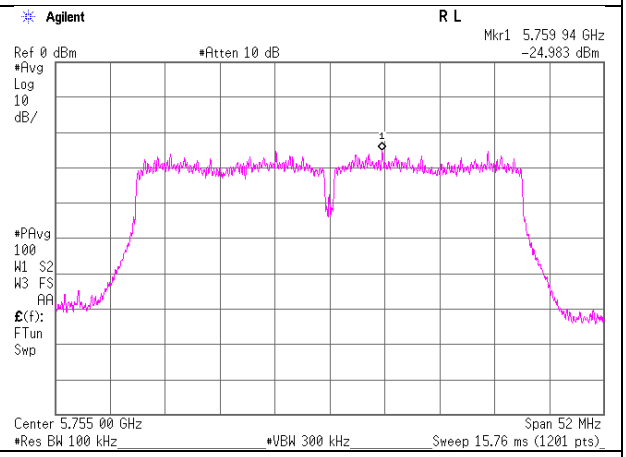
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 MIMO PN9, worst data mode MCS0

11ac HT40 MIMO, Antenna A

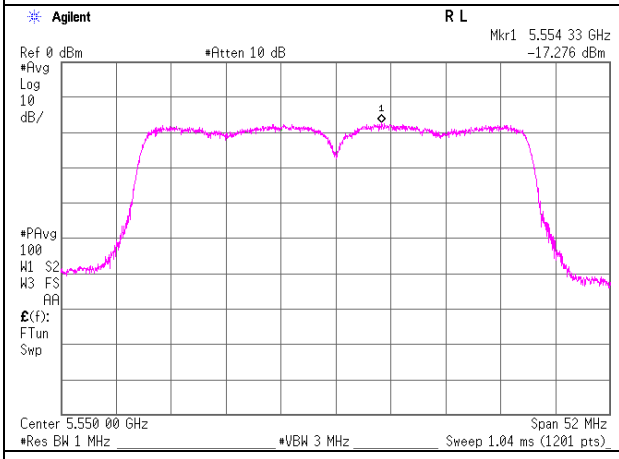
5510 MHz



5755 MHz



5550 MHz



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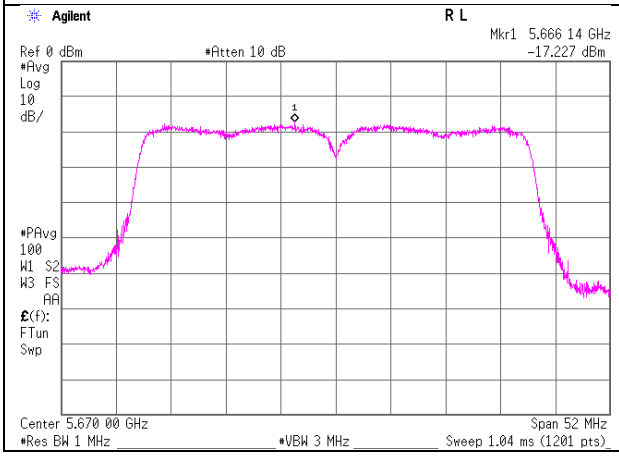
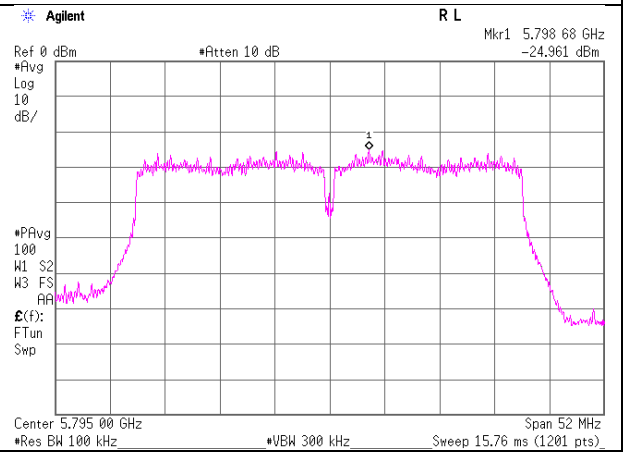
5670 MHz



5795 MHz

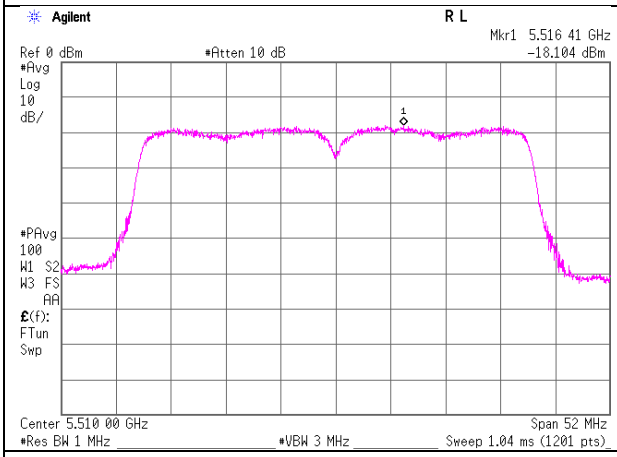


Maximum Power Spectral Density

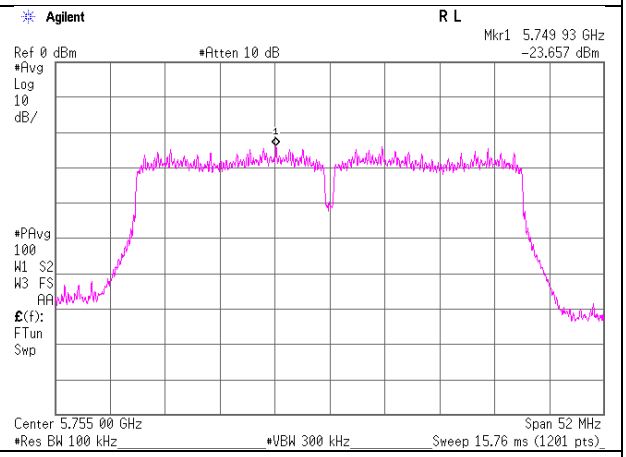
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 MIMO PN9, worst data mode MCS0

11ac HT40 MIMO, Antenna B

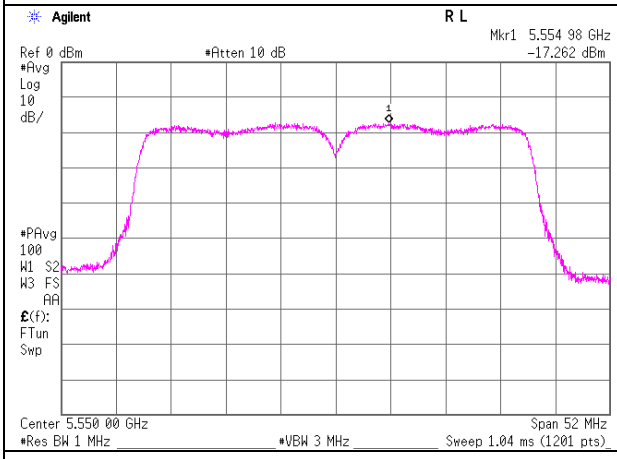
5510 MHz



5755 MHz



5550 MHz



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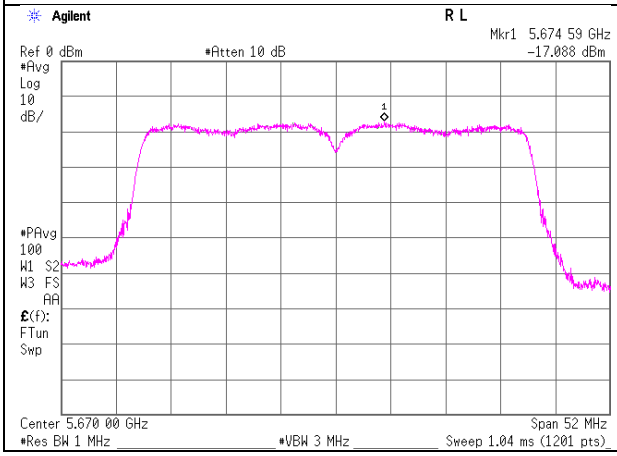
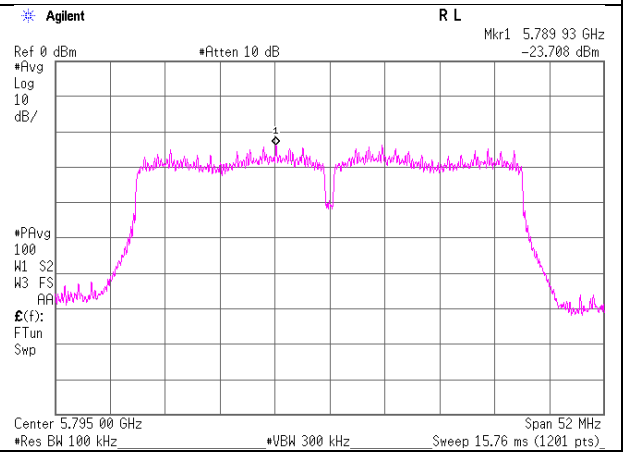
5670 MHz



5795 MHz

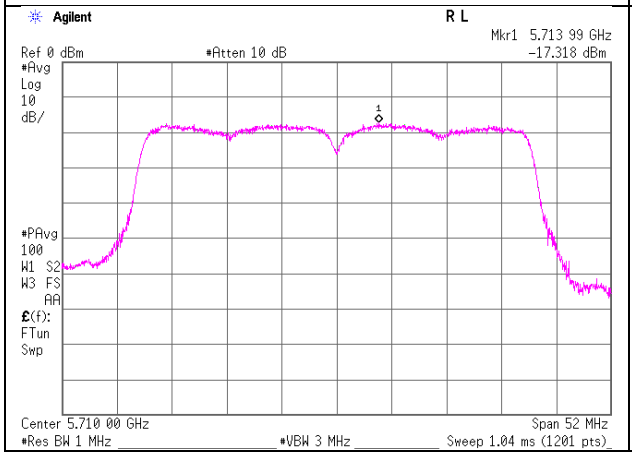


Maximum Power Spectral Density

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT40 MIMO PN9, worst data mode MCS0

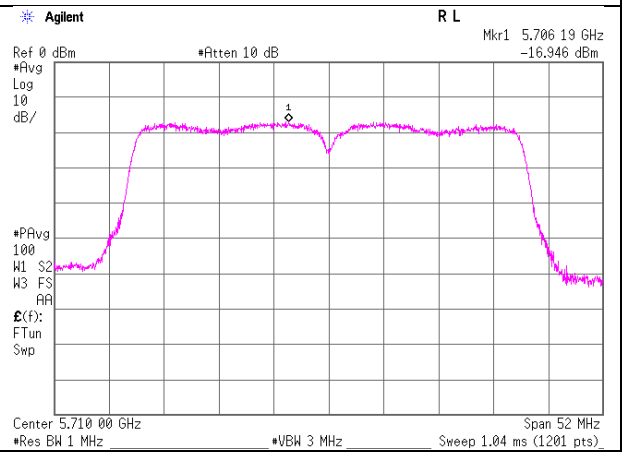
11ac VHT40 MIMO, Antenna A

5710 MHz



11ac VHT40 MIMO, Antenna B

5710 MHz

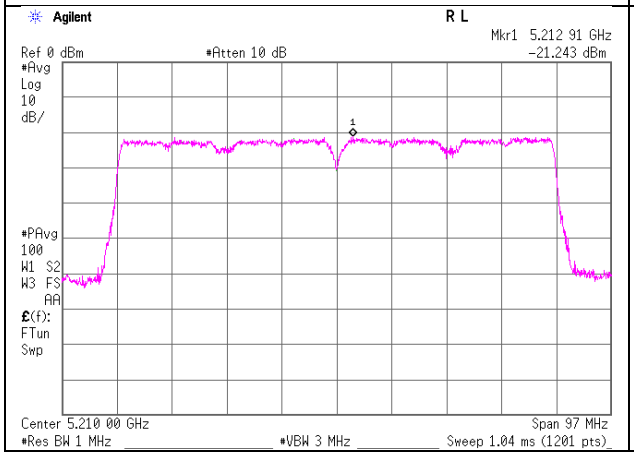


Maximum Power Spectral Density

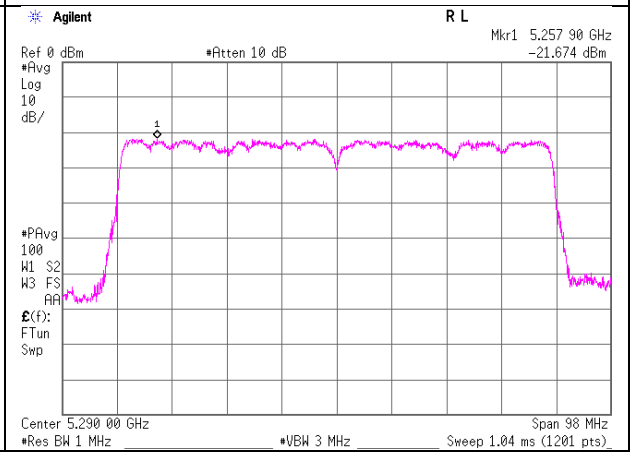
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT80 MIMO PN9, worst data mode MCS0

11ac VHT80 MIMO, Antenna A

5210 MHz

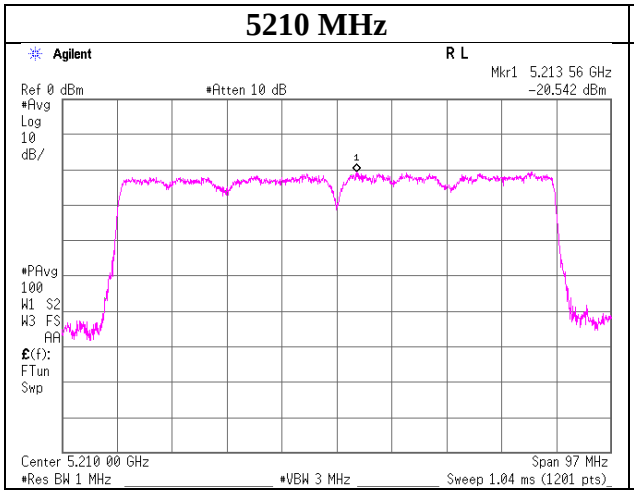


5290 MHz

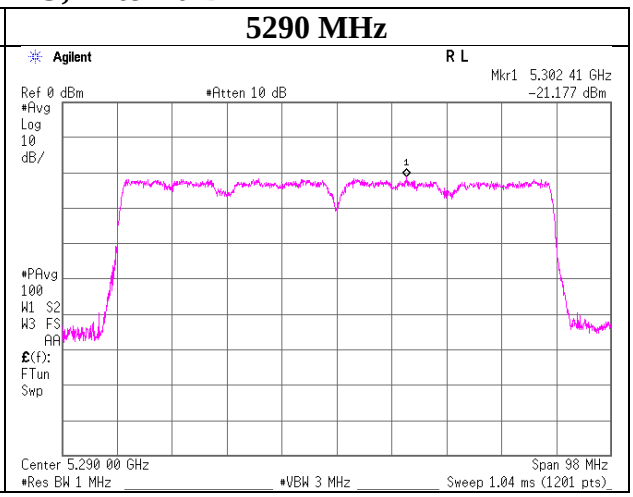


11ac VHT80 MIMO, Antenna B

5210 MHz



5290 MHz

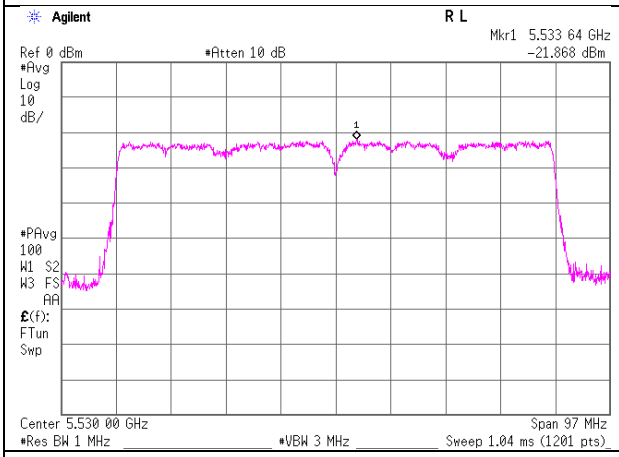


Maximum Power Spectral Density

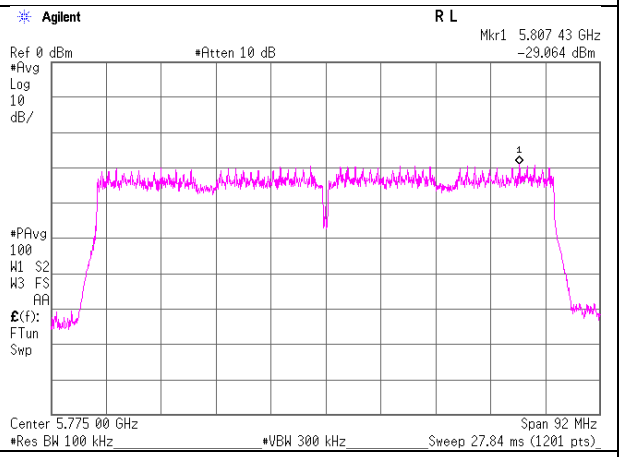
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT80 MIMO PN9, worst data mode MCS0

11ac VHT80 MIMO, Antenna A

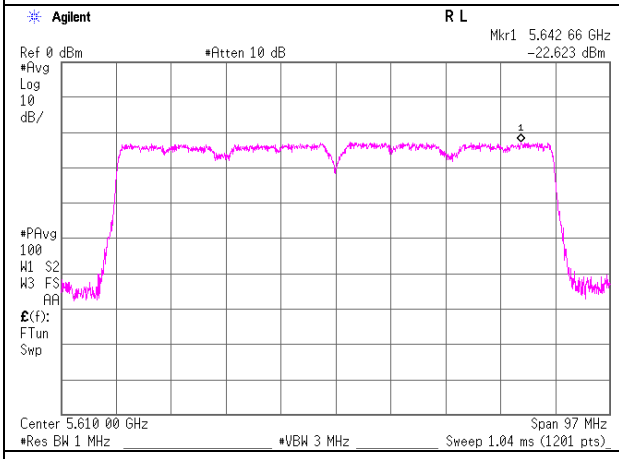
5530 MHz



5775 MHz



5610 MHz



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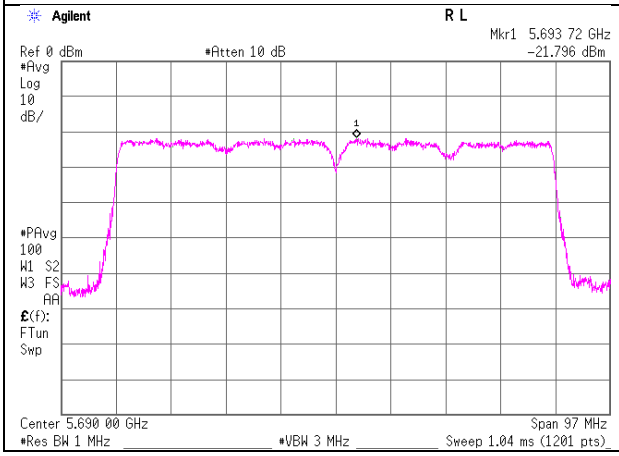
5690 MHz



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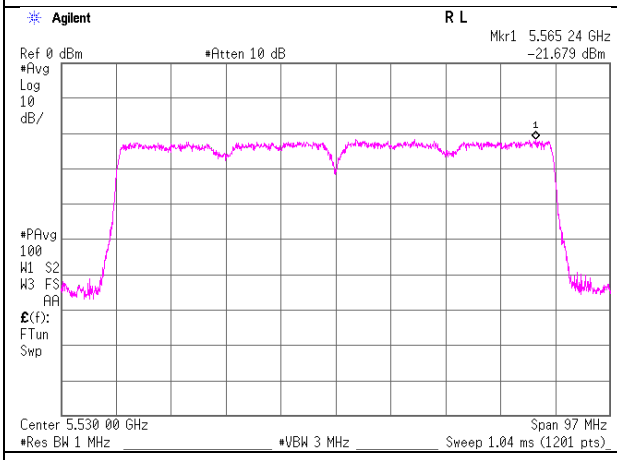
Maximum Power Spectral Density

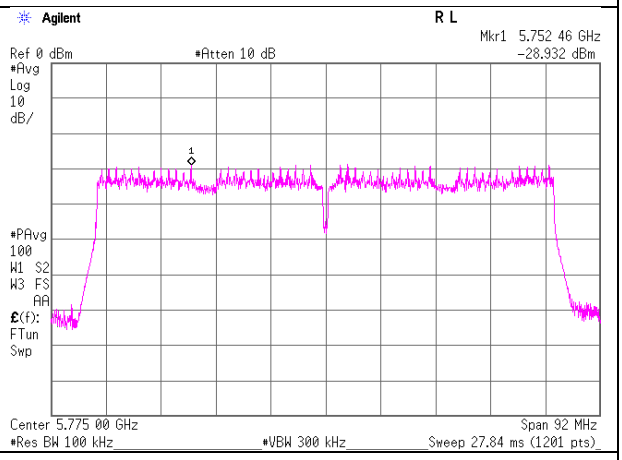
Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx 11ac VHT80 MIMO PN9, worst data mode MCS0

11ac VHT80 MIMO, Antenna B

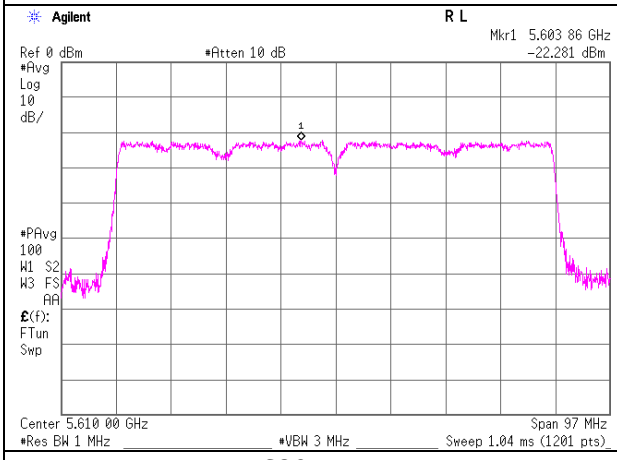
5530 MHz



5775 MHz

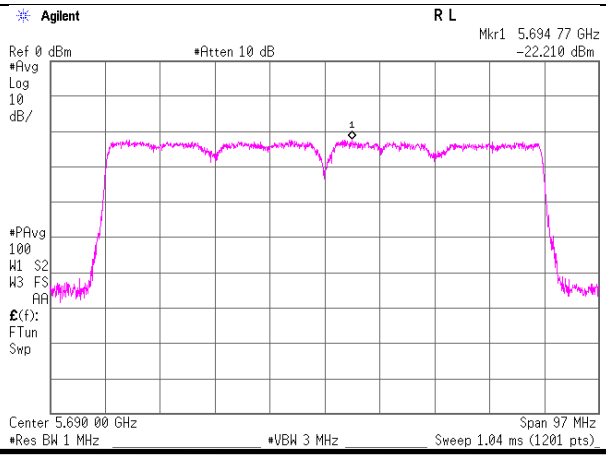


5610 MHz



-

5690 MHz



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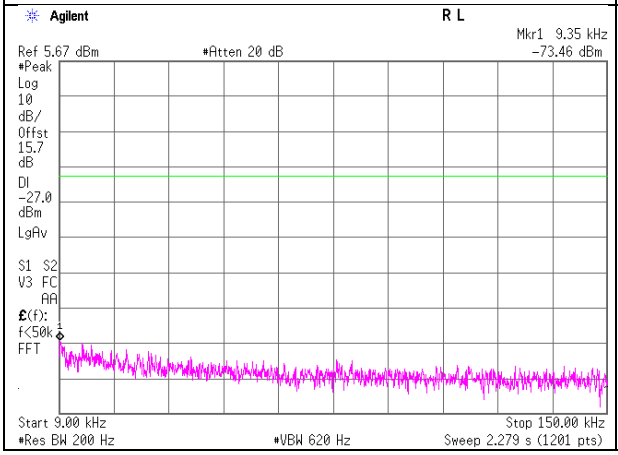
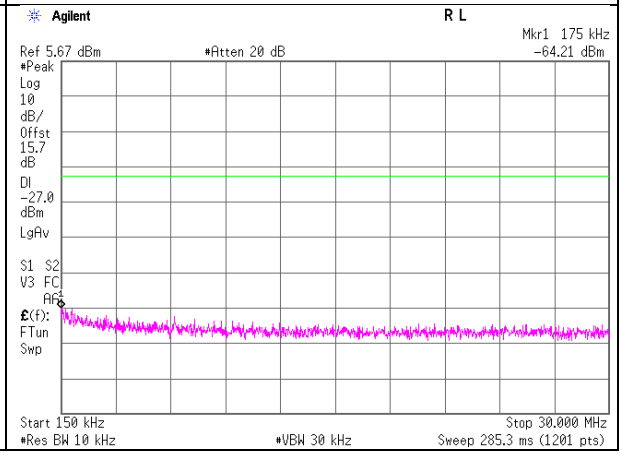
Conducted Spurious Emission

Test place	Shonan EMC Lab. No.6 Shielded Room
Report No.	11306371S-C-R1
Date	June 20, 2016
Temperature / Humidity	25 deg. C / 52 % RH
Engineer	Kazutaka Takeyama
Mode	Tx IEEE802.11n HT40(MIMO), PN9, worst data mode MCS8

9 kHz-150 kHz



150 kHz-30 MHz



Frequency [kHz]	Reading [dBm]	Cable Loss [dB]	Attenator [dB]	Antenna Gain [dBi]	N (Number of Output	EIRP [dBm]	Distance [m]	Ground bounce [dB]	E (field strength) [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Remark
9.35	-89.2	0.01	9.8	2.81	2	-73.5	300	6.0	-12.2	48.1	60.3	
175.00	-79.9	0.01	9.8	2.81	2	-64.2	300	6.0	-3.0	22.7	25.7	

E = EIRP - 20*log(D) + Ground bounce + 104.8 [dBuV/m]
EIRP = Reading + Cable Loss + Attenator + Antenna Gain + 10*log(N)

APPENDIX 2: Test instruments

Test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
KSA-08	Spectrum Analyzer	Agilent	E4446A	MY46180525	AT	2016/03/28 * 12
SPM-06	Power Meter	Anritsu	ML2495A	0850009	AT	2016/04/01 * 12
SPSS-03	Power sensor	Anritsu	MA2411B	0917063	AT	2016/04/01 * 12
SCC-G31	Coaxial Cable	Junkosha	MWX241-01000KMSKMS	OCT-08-13-046	AT	2016/04/18 * 12
SAT10-10	Attenuator	Weinschel Corp.	54A-10	37584	AT	2016/04/18 * 12
SOS-10	Humidity Indicator	A&D	AD-5681	4064561	AT	2015/10/22 * 12
STM-G4	Terminator	Weinschel	M1459A	U6592	AT	2015/07/14 * 12
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	AT	2015/12/07 * 12
MOTS-SATM	Antenna Terminal Measurement Software	UL Japan	-	-	AT	-
STS-05	Digital Hitester	Hioki	3805-50	080997828	AT	2015/11/18 * 12
SPM-07	Power Meter	Agilent	8990B	MY51002712	AT	2016/04/04 * 12
SPSS-04	Power sensor	Agilent	N1923A	MY53260009	AT	2016/04/04 * 12

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

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

Test Item: AT: Antenna Terminal Conducted test