

FCC Test Report (Class II Permissive Change)

Product Name	Intel® Wireless-AC 9461
Model No	9461NGW
FCC ID	PD99461NG

Applicant	Intel Mobile Communications
Address	100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA

Date of Receipt	Sep. 21, 2017
Issued Date	Jan. 25, 2018
Report No.	1790286R-RFUSP30V00
Report Version	V1.0





The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

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Test Report

Issued Date: Jan. 25, 2018

Report No.: 1790286R-RFUSP30V00



Product Name	Intel® Wireless-AC 9461				
Applicant	Intel Mobile Communications				
Address	100 Center Point Circle, Suite 200 Columbia, South Carolina 29210 USA				
Manufacturer	Intel Mobile Communications				
Model No.	9461NGW				
FCC ID.	PD99461NG				
EUT Rated Voltage	DC 3.3V				
EUT Test Voltage	DC 3.3V				
Trade Name	Intel				
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2016				
	ANSI C63.4: 2014, ANSI C63.10: 2013				
	789033 D02 General UNII Test Procedures New Rules v02				
Test Result	Complied				

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Tested By	:	Steven Tsai
	_	(Assistant Engineer / Steven Tsai)
Approved By	: _	Stone
		(Director / Vincent Lin)



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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Intel® Wireless-AC 9461
Trade Name	Intel
FCC ID.	PD99461NG
Model No.	9461NGW
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz, 5745-5825MHz
	802.11n-40MHz: 5190-5310MHz, 5510-5670MHz, 5755-5795MHz
	802.11ac-20MHz: 5720MHz
	802.11ac-40MHz: 5710MHz
	802.11ac-80MHz: 5210-5290MHz, 5530-5690MHz, 5775MHz
Number of Channels	802.11a/n-20MHz: 24; 802.11n-40MHz: 11
	802.11ac-20MHz: 1, 802.11ac-40MHz: 1, 802.11ac-80MHz: 6
Data Rate	802.11a: 6 - 54Mbps
	802.11n: up to 150Mbps
	802.11ac-80MHz: up to 433.3MHz
Channel Control	Auto
Type of Modulation	802.11a/n/ac: OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna type	Dipole Antenna
Antenna Gain	Refer to the table "Antenna List"

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	WIESON Technologies co., ltd	GY121HT0321-003-H	Dipole	2.92dBi for 5.150~5.250GHz
		(External)		3.19dBi for 5.250~5.350GHz
				4.41dBi for 5.470~5.725GHz
				4.22dBi for 5.725~5.850GHz

Note: The antenna of EUT is conform to FCC 15.203.



802.11a/n-20MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 36:	5180 MHz	Channel 40:	5200 MHz	Channel 44:	5220 MHz	Channel 48:	5240 MHz
Channel 52:	5260 MHz	Channel 56:	5280 MHz	Channel 60:	5300 MHz	Channel 64:	5320 MHz
Channel 100:	5500 MHz	Channel 104:	5520 MHz	Channel 108:	5540 MHz	Channel 112:	5560 MHz
Channel 116:	5580 MHz	Channel 120:	5600 MHz	Channel 124:	5620 MHz	Channel 128:	5640 MHz
Channel 132:	5660 MHz	Channel 136:	5680 MHz	Channel 140:	5700 MHz	Channel 149:	5745 MHz
Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz	Channel 165:	5825 MHz

802.11n-40MHz Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 38:	5190 MHz	Channel 46:	5230 MHz	Channel 54:	5270 MHz	Channel 62:	5310 MHz
Channel 102:	5510 MHz	Channel 110:	5550 MHz	Channel 118:	5590 MHz	Channel 126:	5630 MHz
Channel 134:	5670 MHz	Channel 151:	5755 MHz	Channel 159:	5795 MHz		

802.11ac-20MHz Center Working Frequency of Each Channel:

Channel Frequency
Channel 144: 5720 MHz

802.11ac-40MHz Center Working Frequency of Each Channel:

Channel Frequency
Channel 142: 5710 MHz

802.11ac-80MHz Center Working Frequency of Each Channel:

(Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
(Channel 42:	5210 MHz	Channel 58:	5290 MHz	Channel 106:	5530 MHz	Channel 122:	5610 MHz
	~1 1 1 2 0		G1 1455					

Channel 138: 5690 MHz Channel 155: 5775 MHz



Note:

- 1. This device is a Intel® Wireless-AC 9461 with a built-in WLAN(802.11a/b/g/n/ac) and Bluetooth (5.0 and V3.0+HS, V2.1+EDR) transceiver, this report for 5GHz WLAN.
- 2. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
- 3. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.
- 4. This is to request a Class II permissive change for FCC ID: PD99461NG, originally granted on 09/29/2017. The major change filed under this application is:
 - Change #1: Addition of new dipole type antenna is different from originally antenna type. Manufacturer. WIESON, Part no. GY121HT0321-003-H (External).

Change #2: Reduce the Output Power through firmware and SAR measurement were evaluated.

Test Mode	Mode 1: Transmit (802.11a-6Mbps)
	Mode 2: Transmit (802.11n-20BW 7.2Mbps)
	Mode 3: Transmit (802.11n-40BW 15Mbps)
	Mode 4: Transmit (802.11ac-20BW 7.2Mbps)
	Mode 5: Transmit (802.11ac-40BW 15Mbps)
	Mode 6: Transmit (802.11ac-80BW 32.5Mbps)



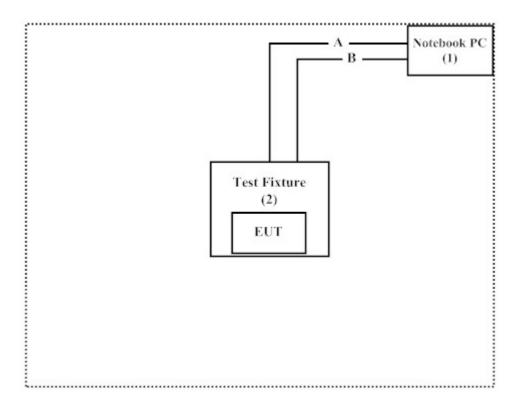
1.3. Tested System Datails

The types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards) are:

Proc	duct	Manufacturer Model No. S		Serial No.	Power Cord
1	Notebook PC	DELL	E5470	N/A	Non-Shielded, 0.8m
2	Test Fixture	N/A	N/A	N/A	N/A

Sig	nal Cable Type	Signal cable Description
A	Signal Cable	Non-Shielded, 1m
В	USB Cable	Shielded, 1.8m

1.4. Configuration of tested System



1.5. EUT Exercise Software

- 1. Setup the EUT as shown in Section 1.4.
- 2. Execute software "DRTU 10.1742.0-06126" on the Notebook PC.
- 3. Configure the test mode, the test channel, and the data rate.
- 4. Press "OK" to start the continuous Transmit.
- 5. Verify that the EUT works properly.



1.6. Test Facility

Ambient conditions in the laboratory:

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	20-35
Humidity (%RH)	25-75	50-65
Barometric pressure (mbar)	860-1060	950-1000

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:

http://www.dekra.com.tw/english/about/certificates.aspx?bval=5

The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw/index_en

Site Description: Accredited by TAF

Accredited Number: 3023

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TEL: 886-2-2602-7968 / FAX: 866-2-2602-3286

E-Mail: info.tw@dekra.com

FCC Accreditation Number: TW3023



1.7. List of Test Equipment

For Conducted measurements /ASR4

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103466	2017.12.19	2018.12.18
X	Power Meter	Anritsu	ML2496A	1548003	2017.12.11	2018.12.10
X	Power Sensor	Anritsu	MA2411B	1531024	2017.12.11	2018.12.10
X	Power Sensor	Anritsu	MA2411B	1531025	2017.12.11	2018.12.10

Note:

- 1. All equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version : QuieTek Conduction Test System V8.0.110

For Radiated measurements /ACB1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	TESEQ	HLA6121	37133	2016.03.18	2018.03.17
X	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2017.02.13	2018.02.12
X	Horn Antenna	ETS-Lindgren	3117	00203800	2017.11.10	2018.11.09
X	Horn Antenna	Com-Power	AH-840	101087	2017.05.24	2018.05.23
X	Pre-Amplifier	EMCI	EMC001330	980316	2017.05.16	2018.05.15
X	Pre-Amplifier	EMCI	EMC051835SE	980311	2017.05.17	2018.05.16
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2017.05.17	2018.05.16
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2017.05.17	2018.05.16
	Filter	MICRO TRONICS	BRM50702	G251	2017.08.30	2018.08.29
X	Filter	MICRO TRONICS	BRM50716	G188	2017.08.30	2018.08.29
X	EMI Test Receiver	R&S	ESR7	101602	2017.12.11	2018.12.10
X	Spectrum Analyzer	R&S	FSV40	101147	2018.01.11	2019.01.10
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2017.05.25	2018.05.24
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2017.08.11	2018.08.10

Note:

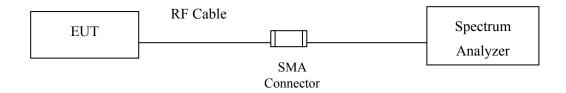
- 1. All equipments are calibrated every one year.
- 2. The test instruments marked with "X" are used to measure the final test results.
- 3. Test Software version : QuieTek EMI 2.0 V2.1.113



2. Maximun conducted output power

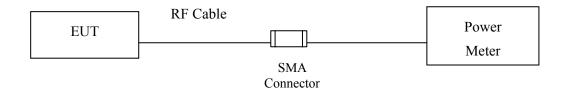
2.1. Test Setup

99% Occupied Bandwidth

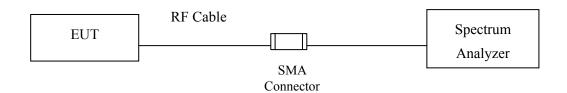


Conduction Power Measurement

Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac)





2.2. Limits

For the band 5.15-5.25 GHz,

- (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
- (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-topoint U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.
- (iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 99% emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point UNII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

2.3. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater the 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an (BW ≤ 40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)

Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 section E)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D03 section D) procedure is used for measurements.

2.4. Uncertainty

Power Meter: ±0.95dB

Spectrum Analyzer: ±1.30dB



2.5. Test Result of Maximum conducted output power

Product : Intel® Wireless-AC 9461

Test Item : Maximum conducted output power Test Mode : Mode 1: Transmit (802.11a-6Mbps)

Test Date : 2018/01/12

Cabl	Cable loss=1.5dB		Maximum conducted output power								
			Data Rate (Mbps)								
Channel No.	Frequency (MHz)	6	9	12	18	24	36	48	54		
				Meas	surement	Level (dBm)				
36	5180	16.25		1							
44	5220	16.49	16.43	16.38	16.34	16.29	16.24	16.18	16.13		
48	5240	16.31		1							
52	5260	20.53									
60	5300	21.11	21.07	21.02	20.97	20.94	20.88	20.83	20.78		
64	5320	17.22									
100	5500	18.36		1							
116	5580	21.13	21.09	21.03	20.97	20.94	20.89	20.84	20.78		
140	5700	18.43		1							
149	5745	21.16									
157	5785	20.98	20.94	20.88	20.84	20.79	20.76	20.71	20.67		
165	5825	21.19									

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

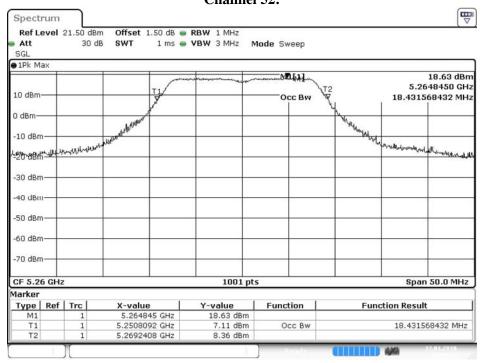
Maximum conducted output power Measurement:

Channel No	Frequency Range	99% Bandwidth	Output Power	Output Power Limit		
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)	
36	5180		16.25	24		
44	5220		16.49	24		
48	5240		16.31	24		
52	5260	18.431	20.53	24	23.66	
60	5300	18.581	21.11	24	23.69	
64	5320	18.331	17.22	24	23.63	
100	5500	18.381	18.36	24	23.64	
116	5580	18.431	21.13	24	23.66	
140	5700	18.331	18.43	24	23.63	
149	5745		21.16	30		
157	5785		20.98	30		
165	5825		21.19	30		

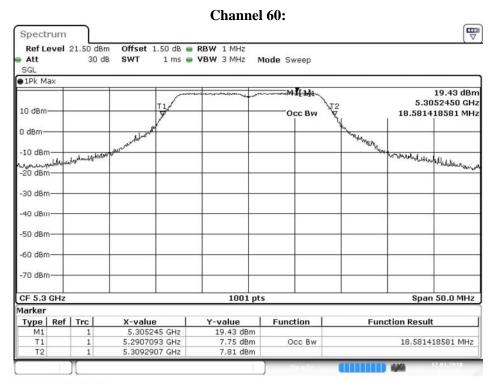
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99% Occupied Bandwidth: Channel 52:

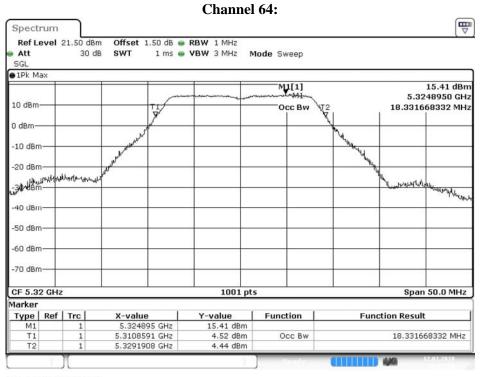


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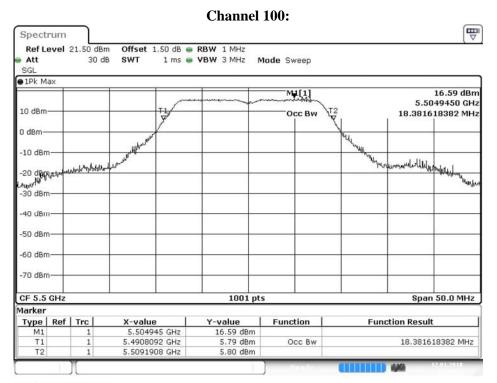


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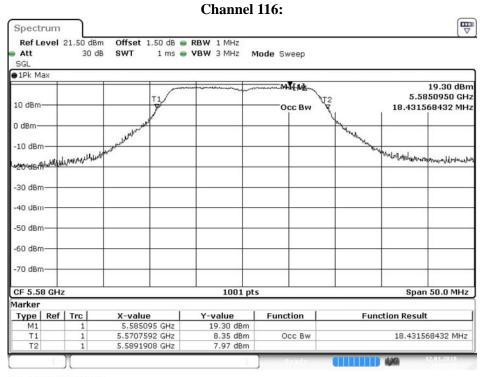


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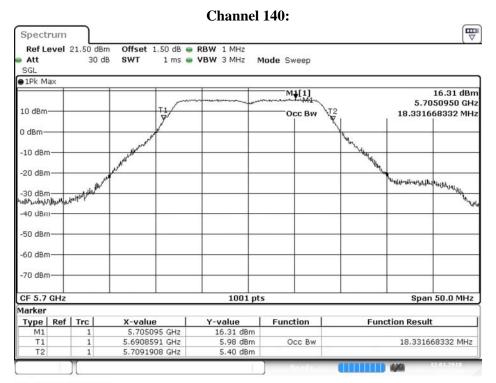


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Date: 12.JAN.2018 17:12:38



Date: 12.JAN.2018 17:14:14



Product : Intel® Wireless-AC 9461

Test Item : Maximum conducted output power

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps)

Test Date : 2018/01/12

Cable	e loss=1.5dB		Maximum conducted output power							
		Data Rate (Mbps)								
Channel No.	Frequency (MHz)	7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	
				Meas	surement	Level (d	lBm)			
36	5180	16.57								
44	5220	16.41	16.37	16.32	16.27	16.22	16.18	16.13	16.08	
48	5240	16.71								
52	5260	22.51								
60	5300	21.56	21.51	21.47	21.42	21.38	21.33	21.27	21.22	
64	5320	18.88		1						
100	5500	16.52		-						
116	5580	20.98	20.92	20.88	20.83	20.77	20.74	20.69	20.64	
140	5700	18.02		1						
149	5745	21.10								
157	5785	20.97	20.94	20.88	20.83	20.79	20.74	20.69	20.63	
165	5825	21.04								

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

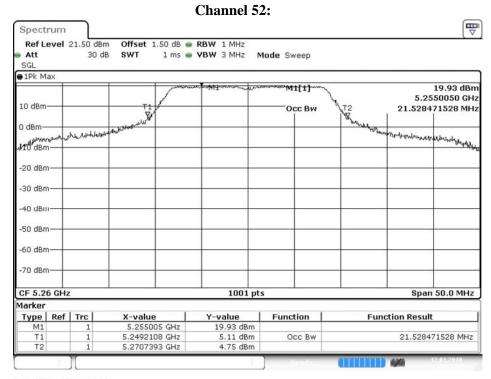
Maximum conducted output power Measurement:

maximum conducted output		1		ı		
Channel No	Frequency Range	99% Bandwidth	Output Power	Output Power Limit		
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)	
36	5180		16.57	24		
44	5220		16.41	24		
48	5240		16.71	24		
52	5260	21.528	22.51	24	24.33	
60	5300	19.730	21.56	24	23.95	
64	5320	19.333	18.88	24	23.86	
100	5500	19.280	16.52	24	23.85	
116	5580	19.430	20.98	24	23.88	
140	5700	19.330	18.02	24	23.86	
149	5745		21.10	30		
157	5785		20.97	30		
165	5825		21.04	30		

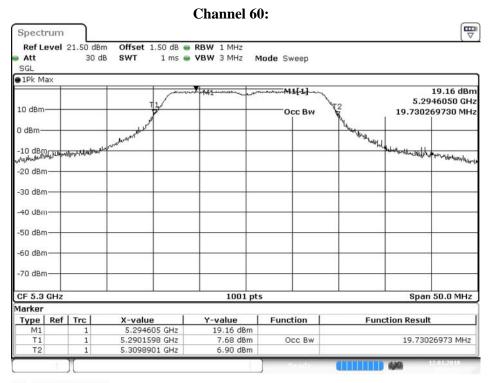
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99% Occupied Bandwidth:

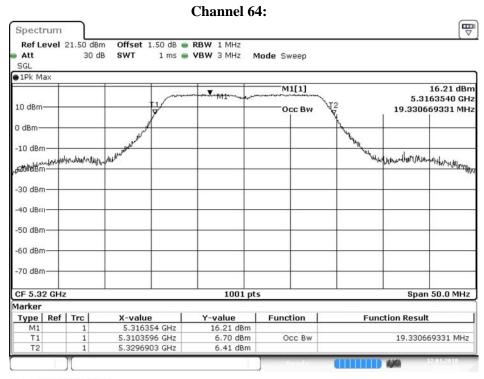


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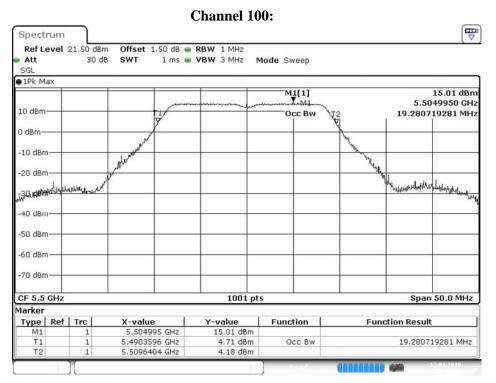


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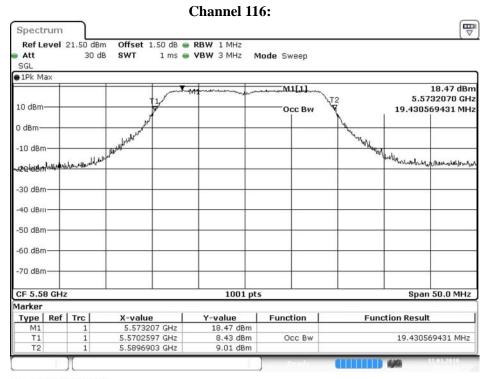


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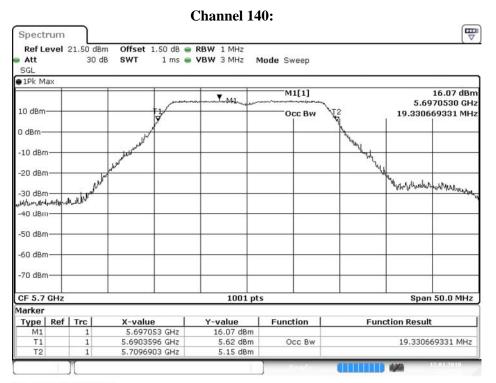


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Date: 12.JAN.2018 17:25:07



Product : Intel® Wireless-AC 9461

Test Item : Maximum conducted output power

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps)

Test Date : 2018/01/12

Cable	Cable loss=1.5dB			Maximum conducted output power						
		Data Rate (Mbps)								
Channel No.	Frequency (MHz)	15	30	45	60	90	120	135	150	
		Measurement Level (dBm)								
38	5190	17.75								
46	5230	17.18	17.13	17.08	17.03	16.97	16.92	16.88	16.83	
54	5270	20.14								
62	5310	15.21	15.17	15.13	15.08	15.03	14.97	14.92	14.88	
102	5510	16.79								
110	5550	21.47	21.42	21.37	21.32	21.27	21.23	21.18	21.13	
134	5670	19.73								
151	5755	21.06								
159	5795	21.07	21.02	20.98	20.93	20.88	20.84	20.79	20.72	

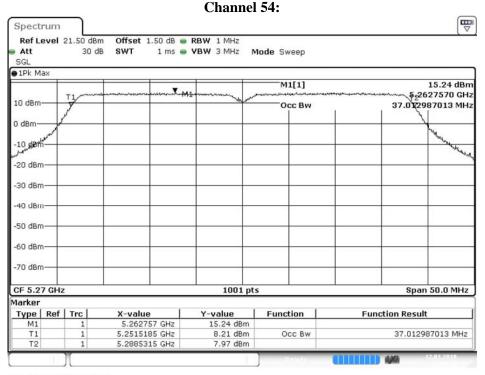
Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

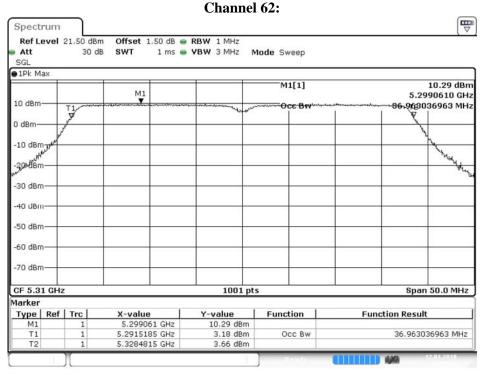
Channel No	Frequency Range	99% Bandwidth	Output Power	Output Power Limit		
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)	
38	5190		17.75	24		
46	5230		17.18	24		
54	5270	37.012	20.14	24	26.68	
62	5310	36.963	15.21	24	26.68	
102	5510	37.162	16.79	24	26.70	
110	5550	37.262	21.47	24	26.71	
134	5670	37.062	19.73	24	26.69	
151	5755		21.06	30		
159	5795		21.07	30		



99% Occupied Bandwidth:

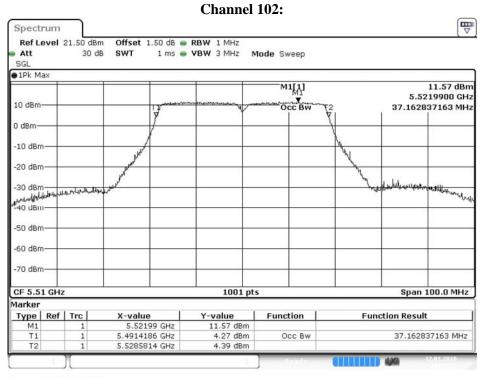


Date: 12.JAN.2018 17:30:47

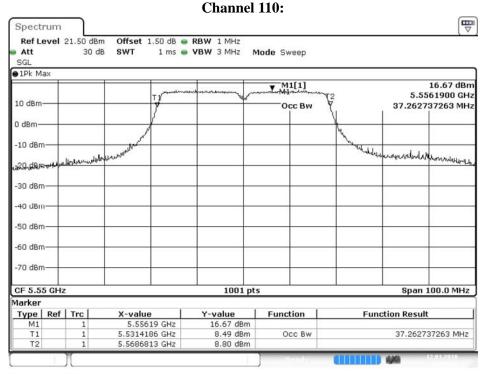


Date: 12.JAN.2018 17:32:15



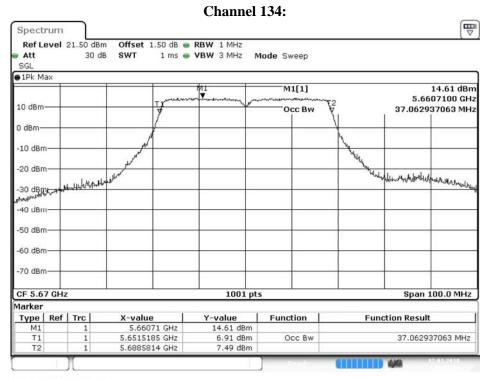


Date: 12.JAN.2018 17:33:02



Date: 12.JAN.2018 17:34:02





Date: 12.JAN.2018 17:35:32



Product : Intel® Wireless-AC 9461

Test Item : Maximum conducted output power

Test Mode : Mode 4: Transmit (802.11ac-20BW 7.2Mbps)

Test Date : 2018/01/12

Cable loss	Maximum conducted output power									
	T.				Data	Rate (M	bps)			
Channel No.	Frequency	VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8
	(MHz)	Measurement Level (dBm)								
144 (Band3)	5720	20.18	20.13	20.08	20.03	19.97	19.92	19.88	19.83	19.78
144 (Band4)	5720	14.76	14.72	14.68	14.63	14.58	14.53	14.48	14.42	14.37

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

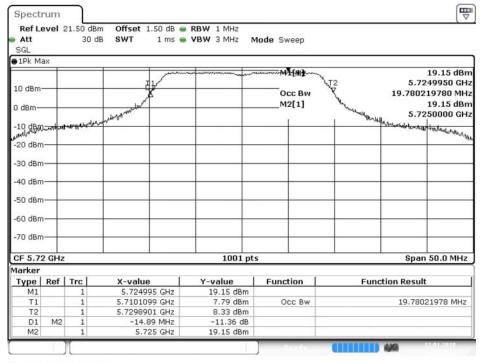
Maximum conducted output power Measurement:

Channel No	Frequency Range	99% Output Bandwidth Power		Ou	Result		
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)		
144(Band3)	5720	14.890	20.18	24	22.73	Pass	
144(Band4)	5720		14.76	30		Pass	



99% Occupied Bandwidth:

Channel 144:

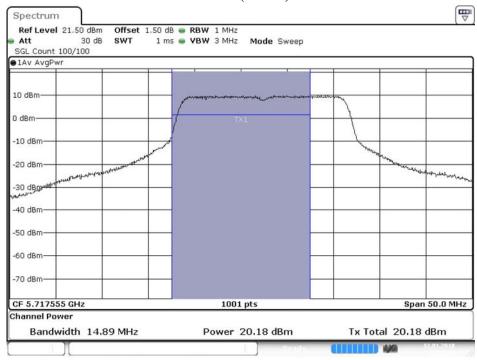


Date: 12.JAN.2018 17:56:32



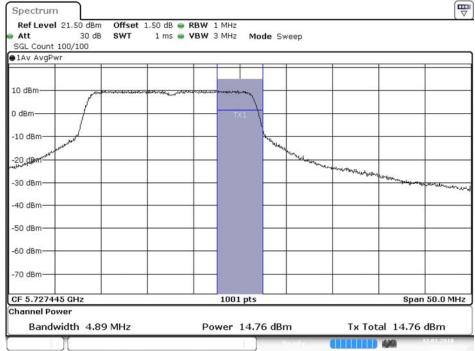
Maximum conducted output power:

Channel 144 (Band3):



Date: 12.JAN.2018 17:56:55

Channel 144 (Band4):



Date: 12.JAN.2018 17:57:17



Product : Intel® Wireless-AC 9461

Test Item : Maximum conducted output power

Test Mode : Mode 5: Transmit (802.11ac-40BW 15Mbps)

Test Date : 2018/01/12

Cable loss=1.5dB		Maximum conducted output power									
CI IN	Frequency		Data Rate (Mbps)								
Channel No	(MHz)	VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
142(Band3)	5710	20.31	20.27	20.22	20.17	20.13	20.09	20.03	19.97	19.92	19.88
142(Band4)	5710	11.78	11.72	11.68	11.63	11.58	11.53	11.48	11.42	11.37	11.34

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

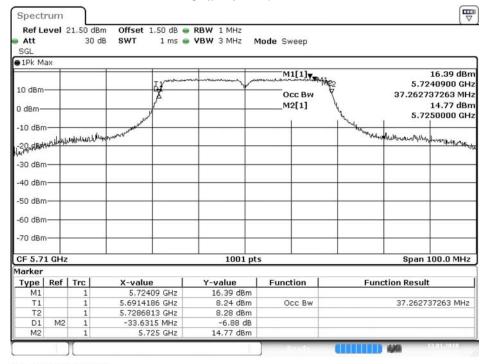
Maximum conducted output power Measurement:

Channel No	Frequency Range	99% Bandwidth	Output Power	Out	put Power Limit	Result	
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)		
142(Band3)	5710	33.631	20.31	24	26.27	Pass	
142(Band4)	5710		11.78	30		Pass	



99% Occupied Bandwidth:

Channel 142:

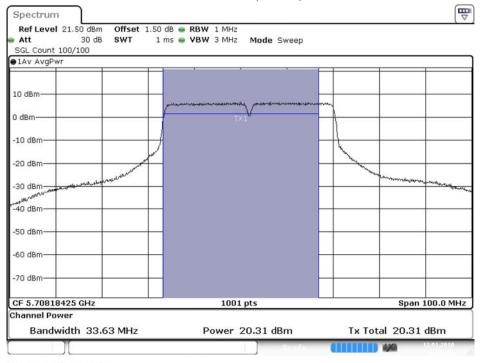


Date: 12.JAN.2018 17:58:36



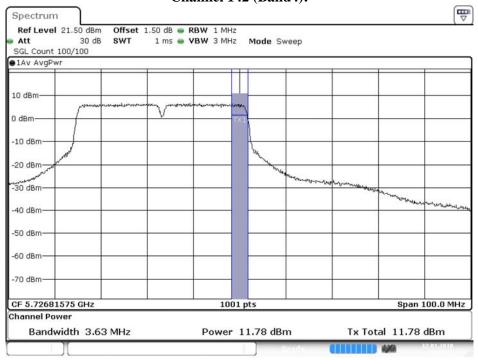
Maximum conducted output power:

Channel 142 (Band3):



Date: 12.JAN.2018 17:58:58

Channel 142 (Band4):



Date: 12.JAN.2018 17:59:20



Product : Intel® Wireless-AC 9461

Test Item : Maximum conducted output power

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps)

Test Date : 2018/01/12

Cable loss=1.5dB		Maximum conducted output power									
Channel No	Frequency	Data Rate (Mbps)									
	(MHz)	VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	16.09	16.03	15.97	15.92	15.88	15.82	15.78	15.72	15.68	15.63
58	5290	17.28	17.23	17.18	17.13	17.08	17.03	16.97	16.92	16.87	16.82
106	5530	16.29	-		-	-		-		-	
122	5610	21.30	21.25	21.21	21.17	21.12	21.07	21.04	20.99	20.93	20.89
138(Band3)	5690	20.53	1		1	1		1		1	
138(Band4)	5690	4.28	1		1	1		1		1	
155	5775	18.94	18.89	18.86	18.81	18.77	18.72	18.68	18.63	18.58	18.53

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

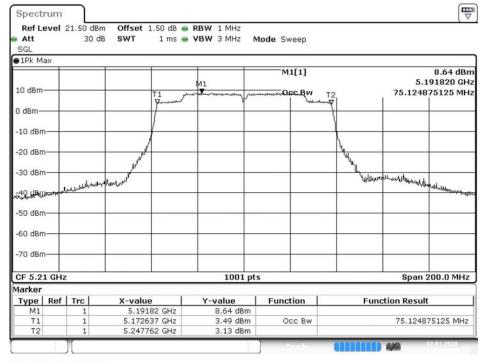
Maximum conducted output power Measurement

Channel No	Frequency Range	99% Bandwidth	Output Power	Output Power Limit		Result	
	(MHz)	(MHz)	(dBm)	(dBm) dBm+10log(BW)			
42	5210		16.09	24		Pass	
58	5290	75.124	17.28	24	29.76	Pass	
106	5530	75.124	16.29	24	29.76	Pass	
122	5610	75.924	21.30	24	29.80	Pass	
138(Band3)	5690	72.663	20.53	24	29.61	Pass	
138(Band4)	5690		4.28	30		Pass	
155	5775		18.94	30		Pass	



99% Occupied Bandwidth:

Channel 42:

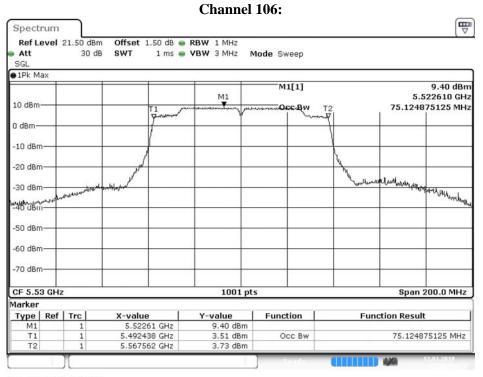


Date: 12.JAN.2018 18:00:54

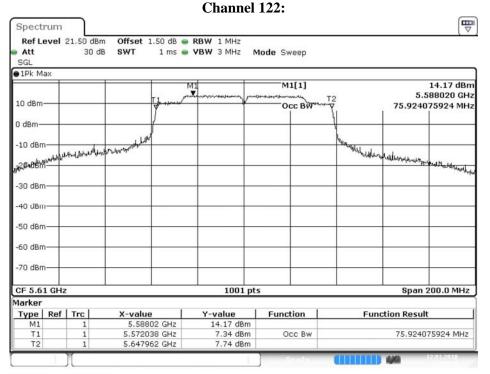
Channel 58: Spectrum Offset 1.50 dB . RBW 1 MHz Ref Level 21.50 dBm 1 ms • VBW 3 MHz 30 dB SWT Att Mode Sweep SGL ● 1Pk Max M1[1] M1 5.297790 GHz 10 dBm 75.124875125 MHz 0 dBm -10 dBm -20 dBm moreography -50 dBn -60 dBm -70 dBm CF 5.29 GHz 1001 pts Span 200.0 MHz Marker Type | Ref | Trc Y-value Function **Function Result** X-value 5.29779 GHz 10.23 dBm 5.252637 GHz 5.327762 GHz 4.49 dBm Occ Bw 75.124875125 MHz 4.20 dBm

Date: 12.JAN.2018 18:02:44



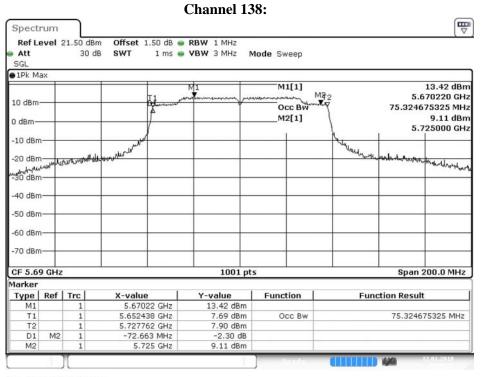


Date: 12.JAN.2018 18:04:44

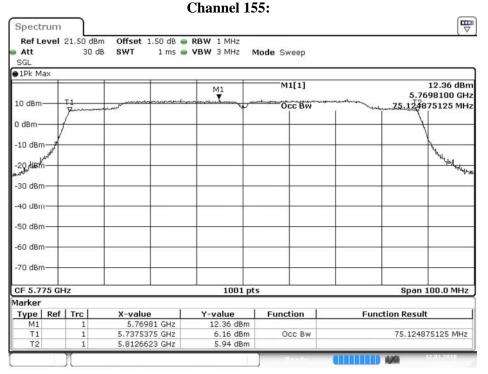


Date: 12.JAN.2018 18:07:40





Date: 12.JAN.2018 18:09:13

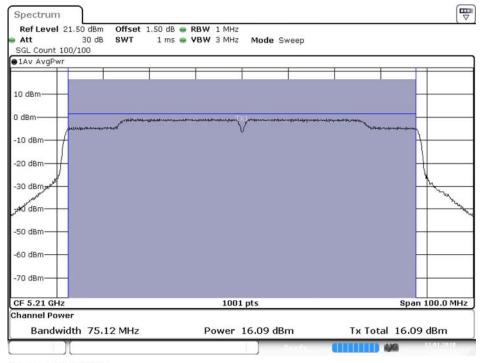


Date: 12.JAN.2018 18:12:57



Maximum conducted output power:

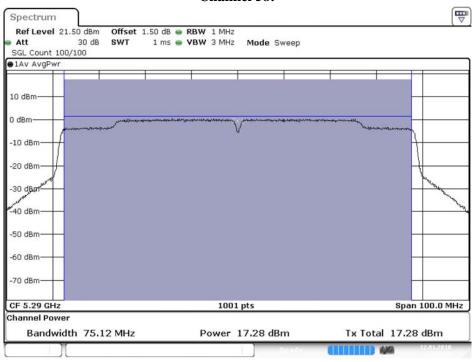
Channel 42:



Date: 12.JAN.2018 18:01:17

Maximum conducted output power:

Channel 58:

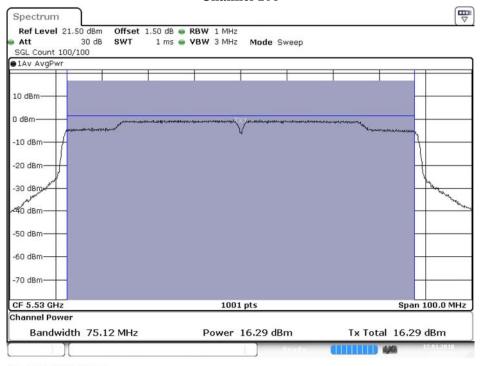


Date: 12.JAN.2018 18:03:07



Maximum conducted output power:

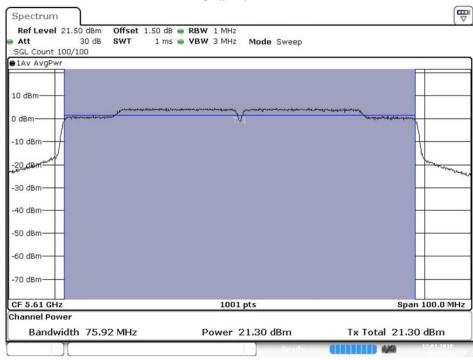
Channel 106



Date: 12.JAN.2018 18:05:07

Maximum conducted output power:

Channel 122

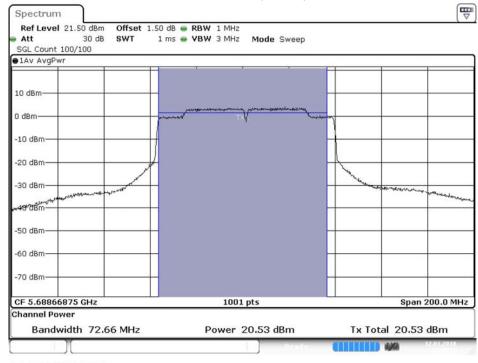


Date: 12.JAN.2018 18:08:03



Maximum conducted output power:

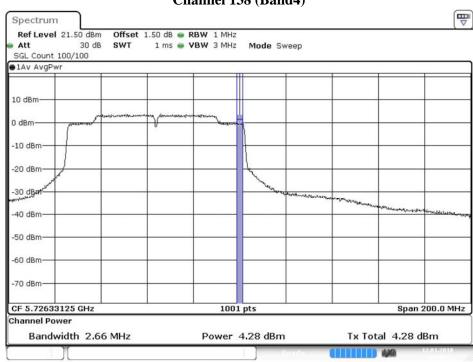
Channel 138 (Band3)



Date: 12.JAN.2018 18:09:36

Maximum conducted output power:

Channel 138 (Band4)

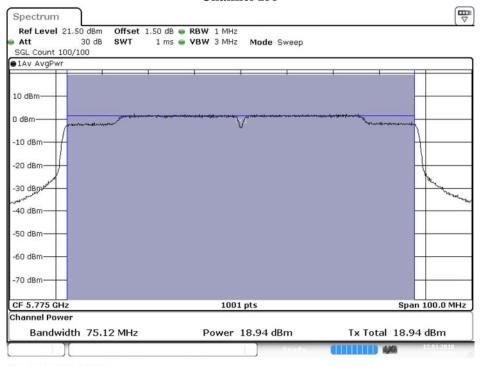


Date: 12.JAN.2018 18:09:58



Maximum conducted output power:

Channel 155



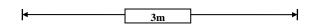
Date: 12.JAN.2018 18:13:19

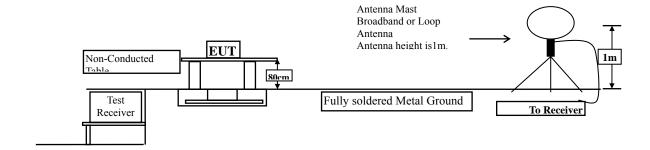


3. Radiated Emission

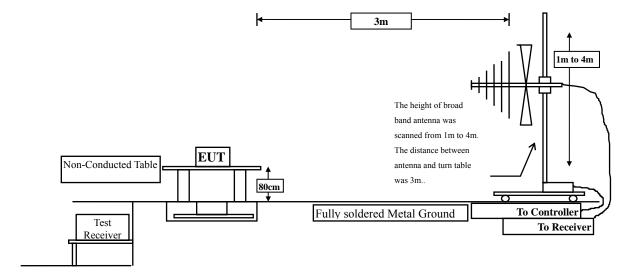
3.1. Test Setup

Radiated Emission Under 30MHz

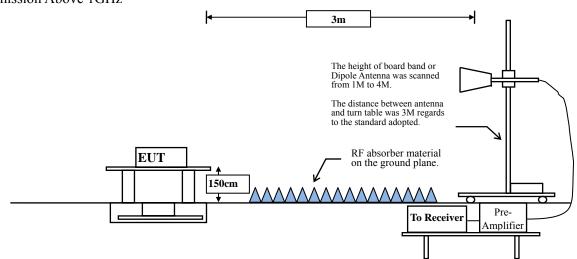




Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



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3.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits						
Frequency MHz	Field strength	Measurement distance				
IVIII	(microvolts/meter)	(meter)				
0.009-0.490	2400/F(kHz)	300				
0.490-1.705	24000/F(kHz)	30				
1.705-30	30	30				
30-88	100	3				
88-216	150	3				
216-960	200	3				
Above 960	500	3				

Remarks: E field strength ($dB\mu V/m$) = 20 log E field strength (uV/m)



3.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground, when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 360 degrees to determine the position of the maximum emission level.

The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.



RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.

RBW = 1MHz.

 $VBW \ge 3MHz$.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW $\geq 1/T$, when duty cycle $\leq 98 \%$

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

5GHz band	Duty Cycle	Т	1/T	VBW
	(%)	(ms)	(Hz)	(Hz)
802.11a	98.60			10
802.11n20	99.61			10
802.11n40	98.80			10
802.11ac20	99.41			10
802.11ac40	98.20			10
802.11ac80	98.17			10

Note: Duty Cycle Refer to Section 5

3.4. Uncertainty

Horizontal polarization:

30-300MHz: ±4.08dB; 300M-1GHz: ±3.86dB; 1-18GHz: ±3.77dB; 18-40GHz: ±3.98dB

Vertical polarization:

30-300MHz: ±4.81dB; 300M-1GHz: ±3.87dB; 1-18GHz: ±3.83dB; 18-40GHz: ±3.98dB



3.5. Test Result of Radiated Emission

Product : Intel® Wireless-AC 9461

Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Test Date : 2017/12/22

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10360.000	3.504	44.190	47.695	-26.305	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10360.000	3.504	44.450	47.955	-26.045	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Test Date : 2017/12/22

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10440.000	3.544	42.930	46.474	-27.526	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10440.000	3.544	43.950	47.494	-26.506	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5240MHz)

Test Date : 2017/12/22

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10480.000	3.639	43.230	46.870	-27.130	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10480.000	3.639	44.630	48.270	-25.730	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5260MHz)

Test Date : 2017/12/22

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dВ	$dB\mu V/m$
Horizontal					
Peak Detector:					
10520.000	3.670	47.910	51.580	-22.420	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10520.000	3.670	48.880	52.550	-21.450	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Test Date : 2017/12/22

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dВ	$dB\mu V/m$
Horizontal					
Peak Detector:					
10600.000	3.746	47.380	51.126	-22.874	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10600.000	3.746	49.830	53.576	-20.424	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)

Test Date : 2017/12/22

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					_
Peak Detector:					
10640.000	3.806	44.320	48.126	-25.874	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10640.000	3.806	44.860	48.666	-25.334	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Test Date : 2017/01/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					_
Peak Detector:					
11000.000	4.343	42.720	47.063	-26.937	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11000.000	4.343	43.210	47.553	-26.447	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11160.000	4.723	49.080	53.803	-20.197	74.000
Average Detector:					
Detector.					54.000
 Vertical					34.000
Peak Detector:					
11160.000	4.723	52.710	57.433	-16.567	74.000
Average					
Detector:					
11160.000	4.723	37.900	42.623	-11.377	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5700MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11400.000	5.312	42.890	48.201	-25.799	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11400.000	5.312	44.190	49.501	-24.499	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11490.000	5.544	42.410	47.954	-26.046	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11490.000	5.544	45.180	50.724	-23.276	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					_
Peak Detector:					
11570.000	5.749	44.580	50.330	-23.670	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11570.000	5.749	44.410	50.160	-23.840	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11650.000	5.938	45.410	51.348	-22.652	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11650.000	5.938	45.810	51.748	-22.252	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5180MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dВ	$dB\mu V/m$
Horizontal					
Peak Detector:					
10360.000	3.504	43.790	47.295	-26.705	74.000
Average Detector:					
					54.000
Vertical					
Peak Detector:					
10360.000	3.504	45.160	48.665	-25.335	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5220MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10440.000	3.544	43.250	46.794	-27.206	74.000
Average Detector: 					54.000
Vertical					
Peak Detector:					
10440.000	3.544	43.950	47.494	-26.506	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5240MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10480.000	3.639	43.960	47.600	-26.400	74.000
Average Detector:					54.000
Vertical					
Peak Detector:					
10480.000	3.639	45.060	48.700	-25.300	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5260MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10520.000	3.670	48.560	52.230	-21.770	74.000
Average Detector:					
					54.000
Vertical					
Peak Detector:					
10520.000	3.670	51.530	55.200	-18.800	74.000
Average Detector:	2 (70	26.070	10.610	12.200	54.000
10520.000	3.670	36.970	40.640	-13.360	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5300MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dВ	$dB\mu V/m$
Horizontal					
Peak Detector:					
10600.000	3.746	47.530	51.276	-22.724	74.000
Average Detector: 					54.000
Vertical Peak Detector: 10600.000	3.746	49.230	52.976	-21.024	74.000
Average Detector: 					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5320MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10640.000	3.806	45.050	48.856	-25.144	74.000
Average Detector: 					54.000
Vertical Peak Detector:					
10640.000	3.806	45.930	49.736	-24.264	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11000.000	4.343	42.890	47.233	-26.767	74.000
Average Detector: 					54.000
Vertical Peak Detector: 11000.000	4.343	43.870	48.213	-25.787	74.000
Average Detector: 					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5580MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dВ	$dB\mu V/m$
Horizontal					
Peak Detector:					
11160.000	4.723	44.630	49.353	-24.647	74.000
Average Detector:					54.000
Vertical					
Peak Detector:					
11160.000	4.723	44.690	49.413	-24.587	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5700MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	dBμV/m
Horizontal					
Peak Detector:					
11400.000	5.312	42.740	48.051	-25.949	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11400.000	5.312	42.570	47.881	-26.119	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5745MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11490.000	5.544	42.770	48.314	-25.686	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11490.000	5.544	45.420	50.964	-23.036	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5785MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11570.000	5.749	44.310	50.060	-23.940	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11570.000	5.749	45.850	51.600	-22.400	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5825MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11650.000	5.938	45.380	51.318	-22.682	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11650.000	5.938	46.530	52.468	-21.532	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10380.000	3.511	43.620	47.131	-26.869	74.000
Average Detector: 					54.000
Vertical Peak Detector: 10380.000	3.511	43.710	47.221	-26.779	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5230MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10460.000	3.575	42.860	46.435	-27.565	74.000
Average Detector:					
					54.000
Vertical					
Peak Detector:					
10460.000	3.575	42.960	46.535	-27.465	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5270MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dВ	$dB\mu V/m$
Horizontal					
Peak Detector:					
10540.000	3.706	43.520	47.226	-26.774	74.000
Average Detector: 					54.000
Vertical					
Peak Detector:					
10540.000	3.706	43.520	47.226	-26.774	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10620.000	3.790	43.780	47.570	-26.430	74.000
Average Detector:					54.000
					34.000
Vertical					
Peak Detector:					
10620.000	3.790	43.670	47.460	-26.540	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11020.000	4.380	42.390	46.770	-27.230	74.000
Average Detector: 					54.000
Vertical Peak Detector: 11020.000	4.380	43.650	48.030	-25.970	74.000
Average Detector: 					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5550MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11100.000	4.575	43.570	48.145	-25.855	74.000
Average Detector:					
					54.000
Vertical					
Peak Detector:					
11100.000	4.575	44.230	48.805	-25.195	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5670MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	dBμV/m
Horizontal					
Peak Detector:					
11340.000	5.165	43.520	48.685	-25.315	74.000
Average Detector: 					54.000
Vertical Peak Detector:					
11340.000	5.165	43.210	48.375	-25.625	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5755MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11510.000	5.597	41.940	47.537	-26.463	74.000
Average Detector:					
					54.000
Vertical					
Peak Detector:					
11510.000	5.597	42.640	48.237	-25.763	74.000
Average Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5795MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11590.000	5.785	42.710	48.495	-25.505	74.000
Average Detector:					
					54.000
Vertical					
Peak Detector:					
11590.000	5.785	43.130	48.915	-25.085	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 4: Transmit (802.11ac-20BW 7.2Mbps) (5720MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11440.000	5.410	44.570	49.980	-24.020	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11440.000	5.410	44.860	50.270	-23.730	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 5: Transmit (802.11ac-40BW 15Mbps) (5710MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11420.000	5.389	42.440	47.829	-26.171	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11420.000	5.389	42.480	47.869	-26.131	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5210MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10420.000	3.508	43.270	46.779	-27.221	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10420.000	3.508	43.110	46.619	-27.381	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection.
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5290MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10580.000	3.711	43.580	47.291	-26.709	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
10580.000	3.711	43.240	46.951	-27.049	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5530MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11060.000	4.474	43.250	47.724	-26.276	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11060.000	4.474	42.610	47.084	-26.916	74.000
Average					
Detector:					
					54 000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5610MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11220.000	4.869	43.110	47.979	-26.021	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11220.000	4.869	42.890	47.759	-26.241	74.000
Average					
Detector:					
					54 000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5690MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11380.000	5.265	42.290	47.555	-26.445	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11380.000	5.265	42.080	47.345	-26.655	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : Harmonic Radiated Emission Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5775MHz)

Test Date : 2017/12/23

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
11550.000	5.705	43.140	48.845	-25.155	74.000
Average					
Detector:					
					54.000
Vertical					
Peak Detector:					
11550.000	5.705	42.080	47.785	-26.215	74.000
Average					
Detector:					
					54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The average measurement was not performed when the peak measured data under the limit of average detection
- 5. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5220MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	36.809	25.682	-17.818	43.500
335.058	-9.102	32.523	23.421	-22.579	46.000
485.478	-5.552	31.256	25.705	-20.295	46.000
597.942	-3.118	29.302	26.184	-19.816	46.000
739.928	-1.031	29.548	28.517	-17.483	46.000
898.783	0.917	31.118	32.035	-13.965	46.000
Vertical					
Peak Detector					
143.870	-10.829	35.632	24.803	-18.697	43.500
298.507	-9.933	35.347	25.414	-20.586	46.000
408.159	-7.153	35.785	28.632	-17.368	46.000
499.536	-5.312	34.003	28.691	-17.309	46.000
797.565	-0.353	29.972	29.618	-16.382	46.000
897.377	0.899	34.474	35.374	-10.626	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5300MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
159.333	-10.440	34.176	23.736	-19.764	43.500
232.435	-12.337	38.604	26.267	-19.733	46.000
335.058	-9.102	37.299	28.197	-17.803	46.000
551.551	-4.230	34.802	30.572	-15.428	46.000
800.377	-0.321	33.197	32.877	-13.123	46.000
900.188	0.934	33.027	33.961	-12.039	46.000
Vertical					
Peak Detector					
143.870	-10.829	37.135	26.306	-17.194	43.500
299.913	-9.902	37.442	27.540	-18.460	46.000
408.159	-7.153	36.295	29.142	-16.858	46.000
522.029	-4.849	29.580	24.731	-21.269	46.000
798.971	-0.336	31.650	31.313	-14.687	46.000
897.377	0.899	33.636	34.536	-11.464	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5580MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
167.768	-10.766	41.067	30.301	-13.199	43.500
263.362	-11.221	39.848	28.627	-17.373	46.000
432.058	-6.595	37.510	30.915	-15.085	46.000
499.536	-5.312	35.174	29.862	-16.138	46.000
648.551	-2.643	33.022	30.379	-15.621	46.000
900.188	0.934	33.525	34.459	-11.541	46.000
Vertical					
Peak Detector					
56.710	-11.498	39.280	27.782	-12.218	40.000
224.000	-12.636	38.604	25.968	-20.032	46.000
408.159	-7.153	37.408	30.255	-15.745	46.000
548.739	-4.291	31.990	27.699	-18.301	46.000
648.551	-2.643	31.045	28.402	-17.598	46.000
794.754	-0.386	28.776	28.390	-17.610	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5785MHz)

Test Date : 2017/12/15

Correct	Reading	Measurement	Margin	Limit
Factor	Level	Level		
dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
-11.127	37.334	26.207	-17.293	43.500
-9.102	38.225	29.123	-16.877	46.000
-4.726	35.610	30.884	-15.116	46.000
-0.353	31.319	30.965	-15.035	46.000
0.934	33.225	34.159	-11.841	46.000
2.043	28.391	30.434	-23.566	54.000
-11.127	36.025	24.898	-18.602	43.500
-9.492	35.508	26.016	-19.984	46.000
-6.595	36.352	29.757	-16.243	46.000
-3.062	31.456	28.394	-17.606	46.000
-0.042	29.810	29.768	-16.232	46.000
1.816	28.177	29.992	-24.008	54.000
	Factor dB -11.127 -9.102 -4.726 -0.353 0.934 2.043 -11.127 -9.492 -6.595 -3.062 -0.042	Factor Level dB dBμV -11.127 37.334 -9.102 38.225 -4.726 35.610 -0.353 31.319 0.934 33.225 2.043 28.391 -11.127 36.025 -9.492 35.508 -6.595 36.352 -3.062 31.456 -0.042 29.810	Factor dB Level dBμV Level dBμV/m -11.127 37.334 26.207 -9.102 38.225 29.123 -4.726 35.610 30.884 -0.353 31.319 30.965 0.934 33.225 34.159 2.043 28.391 30.434 -9.492 35.508 26.016 -6.595 36.352 29.757 -3.062 31.456 28.394 -0.042 29.810 29.768	Factor dB Level dBμV Level dBμV/m dB -11.127 37.334 26.207 -17.293 -9.102 38.225 29.123 -16.877 -4.726 35.610 30.884 -15.116 -0.353 31.319 30.965 -15.035 0.934 33.225 34.159 -11.841 2.043 28.391 30.434 -23.566 -11.127 36.025 24.898 -18.602 -9.492 35.508 26.016 -19.984 -6.595 36.352 29.757 -16.243 -3.062 31.456 28.394 -17.606 -0.042 29.810 29.768 -16.232

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5220MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
65.145	-12.662	34.062	21.400	-18.600	40.000
263.362	-11.221	39.999	28.778	-17.222	46.000
399.725	-7.349	37.515	30.166	-15.834	46.000
624.652	-2.848	30.542	27.694	-18.306	46.000
800.377	-0.321	32.512	32.192	-13.808	46.000
895.971	0.882	32.034	32.915	-13.085	46.000
Vertical					
Peak Detector					
134.029	-11.559	34.006	22.447	-21.053	43.500
224.000	-12.636	38.863	26.227	-19.773	46.000
408.159	-7.153	38.802	31.649	-14.351	46.000
624.652	-2.848	32.285	29.437	-16.563	46.000
796.159	-0.369	30.852	30.482	-15.518	46.000
946.580	1.402	29.088	30.490	-15.510	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5300MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	dBμV/m	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	37.227	26.100	-17.400	43.500
263.362	-11.221	40.016	28.795	-17.205	46.000
398.319	-7.389	36.406	29.018	-16.982	46.000
551.551	-4.230	33.001	28.771	-17.229	46.000
800.377	-0.321	31.526	31.206	-14.794	46.000
900.188	0.934	33.007	33.941	-12.059	46.000
Vertical					
Peak Detector					
171.986	-11.127	36.887	25.760	-17.740	43.500
360.362	-8.467	37.748	29.282	-16.718	46.000
520.623	-4.880	32.903	28.023	-17.977	46.000
640.116	-2.724	31.775	29.051	-16.949	46.000
777.884	-0.579	28.291	27.712	-18.288	46.000
900.188	0.934	34.070	35.004	-10.996	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5580MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
70.768	-13.588	34.816	21.228	-18.772	40.000
219.783	-12.737	35.932	23.195	-22.805	46.000
336.464	-9.071	37.615	28.544	-17.456	46.000
527.652	-4.726	35.243	30.517	-15.483	46.000
798.971	-0.336	31.665	31.328	-14.672	46.000
900.188	0.934	32.366	33.300	-12.700	46.000
Vertical					
Peak Detector					
169.174	-10.826	40.256	29.430	-14.070	43.500
298.507	-9.933	37.504	27.571	-18.429	46.000
408.159	-7.153	37.074	29.921	-16.079	46.000
640.116	-2.724	32.360	29.636	-16.364	46.000
798.971	-0.336	29.932	29.595	-16.405	46.000
997.188	2.178	30.162	32.341	-21.659	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5785MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	39.212	28.085	-15.415	43.500
335.058	-9.102	37.799	28.697	-17.303	46.000
498.130	-5.337	32.788	27.451	-18.549	46.000
648.551	-2.643	30.643	28.000	-18.000	46.000
796.159	-0.369	31.879	31.509	-14.491	46.000
935.333	1.279	29.377	30.657	-15.343	46.000
Vertical					
Peak Detector					
145.275	-10.771	36.749	25.977	-17.523	43.500
215.565	-12.874	36.209	23.334	-20.166	43.500
432.058	-6.595	35.565	28.970	-17.030	46.000
576.855	-3.623	33.481	29.858	-16.142	46.000
791.942	-0.419	28.692	28.273	-17.727	46.000
895.971	0.882	34.418	35.299	-10.701	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5230MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	dBμV/m	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
149.493	-10.620	30.201	19.580	-23.920	43.500
263.362	-11.221	39.462	28.241	-17.759	46.000
385.667	-7.743	34.681	26.938	-19.062	46.000
551.551	-4.230	31.829	27.599	-18.401	46.000
797.565	-0.353	30.902	30.548	-15.452	46.000
900.188	0.934	32.586	33.520	-12.480	46.000
Vertical					
Peak Detector					
171.986	-11.127	35.176	24.049	-19.451	43.500
311.159	-9.650	37.898	28.248	-17.752	46.000
408.159	-7.153	37.421	30.268	-15.732	46.000
576.855	-3.623	33.388	29.765	-16.235	46.000
796.159	-0.369	31.977	31.607	-14.393	46.000
900.188	0.934	34.241	35.175	-10.825	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	dBμV/m	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	37.012	25.885	-17.615	43.500
308.348	-9.712	35.210	25.498	-20.502	46.000
432.058	-6.595	34.914	28.319	-17.681	46.000
597.942	-3.118	33.219	30.101	-15.899	46.000
763.826	-0.727	30.263	29.536	-16.464	46.000
900.188	0.934	31.247	32.181	-13.819	46.000
Vertical					
Peak Detector					
171.986	-11.127	37.933	26.806	-16.694	43.500
311.159	-9.650	39.867	30.217	-15.783	46.000
432.058	-6.595	32.947	26.352	-19.648	46.000
648.551	-2.643	31.292	28.649	-17.351	46.000
898.783	0.917	31.569	32.486	-13.514	46.000
995.783	2.154	30.168	32.322	-21.678	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5550MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
159.333	-10.440	40.008	29.568	-13.932	43.500
335.058	-9.102	39.228	30.126	-15.874	46.000
432.058	-6.595	36.007	29.412	-16.588	46.000
599.348	-3.083	34.572	31.489	-14.511	46.000
797.565	-0.353	31.681	31.327	-14.673	46.000
900.188	0.934	33.792	34.726	-11.274	46.000
Vertical					
Peak Detector					
134.029	-11.559	35.786	24.227	-19.273	43.500
299.913	-9.902	38.850	28.948	-17.052	46.000
467.203	-5.871	35.046	29.175	-16.825	46.000
599.348	-3.083	34.800	31.717	-14.283	46.000
800.377	-0.321	31.318	30.998	-15.002	46.000
900.188	0.934	35.614	36.548	-9.452	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5755MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	35.924	24.797	-18.703	43.500
335.058	-9.102	38.053	28.951	-17.049	46.000
432.058	-6.595	35.898	29.303	-16.697	46.000
551.551	-4.230	32.824	28.594	-17.406	46.000
640.116	-2.724	32.578	29.854	-16.146	46.000
900.188	0.934	32.996	33.930	-12.070	46.000
Vertical					
Peak Detector					
148.087	-10.672	36.683	26.012	-17.488	43.500
224.000	-12.636	39.888	27.252	-18.748	46.000
360.362	-8.467	38.595	30.129	-15.871	46.000
498.130	-5.337	36.564	31.227	-14.773	46.000
640.116	-2.724	32.348	29.624	-16.376	46.000
800.377	-0.321	32.043	31.723	-14.277	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 4: Transmit (802.11ac-20BW 7.2Mbps) (5720MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	37.464	26.337	-17.163	43.500
263.362	-11.221	38.927	27.706	-18.294	46.000
398.319	-7.389	37.940	30.552	-15.448	46.000
597.942	-3.118	32.460	29.342	-16.658	46.000
798.971	-0.336	31.077	30.740	-15.260	46.000
900.188	0.934	32.603	33.537	-12.463	46.000
Vertical					
Peak Detector					
134.029	-11.559	34.032	22.473	-21.027	43.500
224.000	-12.636	40.222	27.586	-18.414	46.000
408.159	-7.153	40.386	33.233	-12.767	46.000
599.348	-3.083	34.772	31.689	-14.311	46.000
845.362	0.253	29.236	29.489	-16.511	46.000
976.101	1.839	28.815	30.654	-23.346	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 5: Transmit (802.11ac-40BW 15Mbps) (5710MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	37.623	26.496	-17.004	43.500
336.464	-9.071	37.480	28.409	-17.591	46.000
432.058	-6.595	37.640	31.045	-14.955	46.000
597.942	-3.118	33.140	30.022	-15.978	46.000
772.261	-0.641	29.371	28.730	-17.270	46.000
900.188	0.934	33.035	33.969	-12.031	46.000
Vertical					
Peak Detector					
167.768	-10.766	33.647	22.881	-20.619	43.500
360.362	-8.467	37.378	28.912	-17.088	46.000
499.536	-5.312	36.670	31.358	-14.642	46.000
597.942	-3.118	35.063	31.945	-14.055	46.000
800.377	-0.321	31.850	31.530	-14.470	46.000
886.130	0.764	32.620	33.384	-12.616	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5210MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
159.333	-10.440	33.179	22.739	-20.761	43.500
224.000	-12.636	40.521	27.885	-18.115	46.000
398.319	-7.389	37.048	29.660	-16.340	46.000
527.652	-4.726	34.636	29.910	-16.090	46.000
746.957	-0.924	28.767	27.843	-18.157	46.000
897.377	0.899	31.953	32.853	-13.147	46.000
Vertical					
Peak Detector					
150.899	-10.587	35.797	25.210	-18.290	43.500
311.159	-9.650	38.811	29.161	-16.839	46.000
408.159	-7.153	37.123	29.970	-16.030	46.000
499.536	-5.312	36.429	31.117	-14.883	46.000
640.116	-2.724	33.606	30.882	-15.118	46.000
895.971	0.882	30.518	31.399	-14.601	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5290MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dВ	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	37.655	26.528	-16.972	43.500
335.058	-9.102	37.801	28.699	-17.301	46.000
498.130	-5.337	34.332	28.995	-17.005	46.000
600.754	-3.062	34.080	31.018	-14.982	46.000
796.159	-0.369	33.987	33.617	-12.383	46.000
998.594	2.199	30.678	32.877	-21.123	54.000
Vertical					
Peak Detector					
171.986	-11.127	37.844	26.717	-16.783	43.500
311.159	-9.650	39.645	29.995	-16.005	46.000
455.957	-6.065	38.230	32.165	-13.835	46.000
600.754	-3.062	36.314	33.252	-12.748	46.000
797.565	-0.353	33.975	33.621	-12.379	46.000
978.913	1.887	29.654	31.541	-22.459	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5530MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
171.986	-11.127	36.621	25.494	-18.006	43.500
311.159	-9.650	40.560	30.910	-15.090	46.000
498.130	-5.337	37.699	32.362	-13.638	46.000
597.942	-3.118	33.060	29.942	-16.058	46.000
741.333	-1.010	29.998	28.988	-17.012	46.000
895.971	0.882	31.574	32.455	-13.545	46.000
Vertical					
Peak Detector					
134.029	-11.559	37.916	26.357	-17.143	43.500
360.362	-8.467	38.633	30.167	-15.833	46.000
479.855	-5.656	38.239	32.582	-13.418	46.000
640.116	-2.724	33.003	30.279	-15.721	46.000
800.377	-0.321	30.268	29.948	-16.052	46.000
900.188	0.934	33.383	34.317	-11.683	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5775MHz)

Test Date : 2017/12/15

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
157.928	-10.463	35.591	25.128	-18.372	43.500
299.913	-9.902	39.148	29.246	-16.754	46.000
408.159	-7.153	38.996	31.843	-14.157	46.000
575.449	-3.656	35.095	31.438	-14.562	46.000
797.565	-0.353	28.534	28.180	-17.820	46.000
895.971	0.882	32.343	33.224	-12.776	46.000
Vertical					
Peak Detector					
169.174	-10.826	37.144	26.318	-17.182	43.500
311.159	-9.650	38.554	28.904	-17.096	46.000
455.957	-6.065	37.976	31.911	-14.089	46.000
640.116	-2.724	32.750	30.026	-15.974	46.000
797.565	-0.353	33.449	33.095	-12.905	46.000
998.594	2.199	30.377	32.576	-21.424	54.000

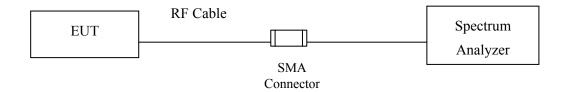
- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 5. No emission found between lowest internal used/generated frequency to 30MHz.



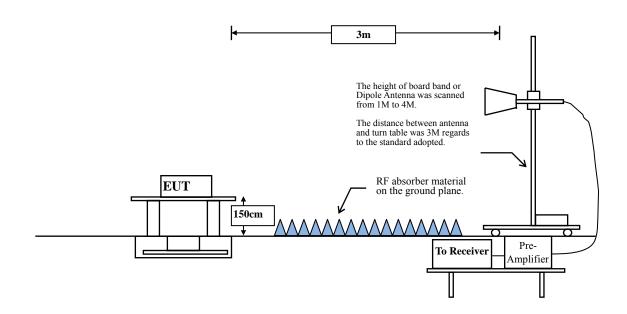
4. Band Edge

4.1. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:





4.2. Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section.

Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits								
Frequency MHz	uV/m @3m	dBμV/m@3m						
30-88	100	40						
88-216	150	43.5						
216-960	200	46						
Above 960	500	54						

- Remarks: 1. RF Voltage $(dB\mu V) = 20 \log RF \text{ Voltage } (uV)$
 - 2. In the Above Table, the tighter limit applies at the band edges.
 - 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.3. **Test Procedure**

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.



RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.

RBW = 1MHz.

 $VBW \ge 3MHz$.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

 $VBW \ge 1/T$, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

5GHz band	Duty Cycle	Т	1/T	VBW
	(%)	(ms)	(Hz)	(Hz)
802.11a	98.60			10
802.11n20	99.61			10
802.11n40	98.80			10
802.11ac20	99.41			10
802.11ac40	98.20			10
802.11ac80	98.17			10

Note: Duty Cycle Refer to Section 5

4.4. Uncertainty

Conducted: ±1.23dB

Radiated:

Horizontal polarization: 1-18GHz: ±3.77dB

Vertical polarization: 1-18GHz: ±3.83dB



4.5. Test Result of Band Edge

Product : Intel® Wireless-AC 9461

Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chainlei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
36 (Peak)	5148.841	18.331	40.259	58.589	74.00	54.00	Pass
36 (Peak)	5150.000	18.335	38.565	56.899	74.00	54.00	Pass
36 (Peak)	5185.217	18.417	85.419	103.836			
36 (Average)	5150.000	18.335	26.320	44.654	74.00	54.00	Pass
36 (Average)	5186.522	18.421	73.434	91.855			

Figure Channel 36:

Horizontal (Peak)

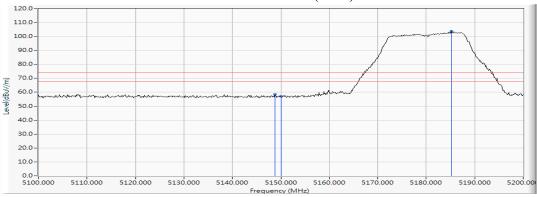
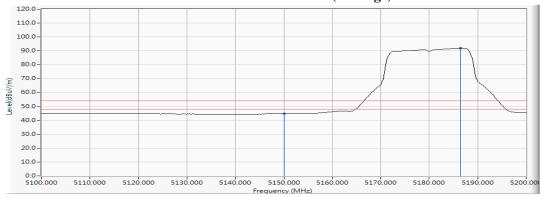


Figure Channel 36:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5180MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
36 (Peak)	5149.130	18.331	40.950	59.281	74.00	54.00	Pass
36 (Peak)	5150.000	18.335	40.580	58.914	74.00	54.00	Pass
36 (Peak)	5185.217	18.417	91.993	110.410			-
36 (Average)	5150.000	18.335	27.399	45.733	74.00	54.00	Pass
36 (Average)	5186.377	18.420	79.773	98.194			

Figure Channel 36:

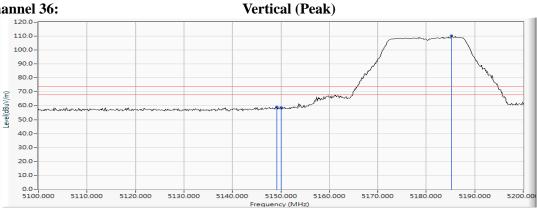
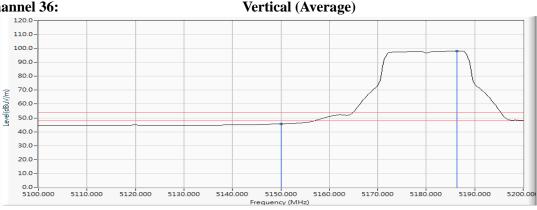


Figure Channel 36:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamie No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
64 (Peak)	5315.362	18.732	85.143	103.876			
64 (Peak)	5350.000	18.833	39.789	58.622	74.00	54.00	Pass
64 (Peak)	5351.594	18.836	41.076	59.911	74.00	54.00	Pass
64 (Average)	5313.623	18.729	73.686	92.415			
64 (Average)	5350.000	18.833	26.805	45.638	74.00	54.00	Pass

Figure Channel 64:

Horizontal (Peak)

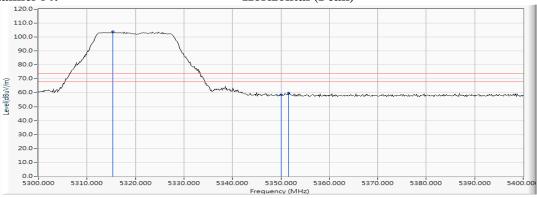
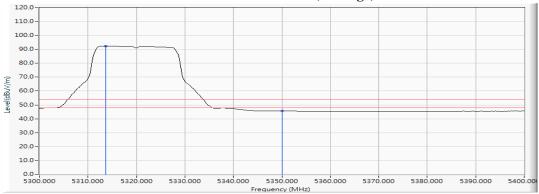


Figure Channel 64:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5320MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
64 (Peak)	5325.362	18.755	91.683	110.438			
64 (Peak)	5350.000	18.833	41.582	60.415	74.00	54.00	Pass
64 (Peak)	5351.739	18.836	42.026	60.861	74.00	54.00	Pass
64 (Average)	5322.754	18.749	79.715	98.464			
64 (Average)	5350.000	18.833	28.148	46.981	74.00	54.00	Pass

Figure Channel 64:

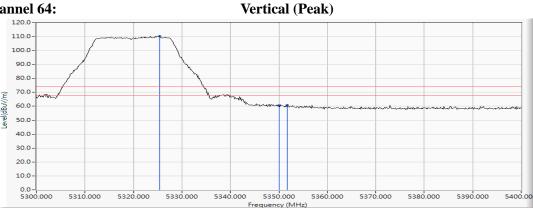
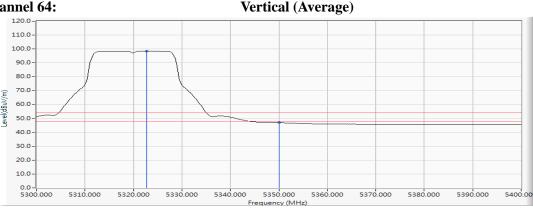


Figure Channel 64:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Test Date : 2017/12/26

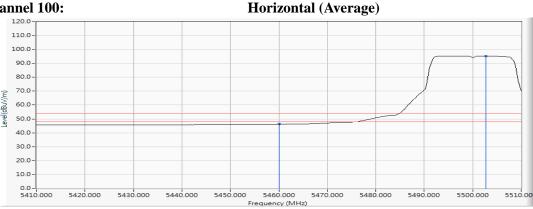
RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
100 (Peak)	5430.580	19.012	41.024	60.035	74.00	54.00	Pass
100 (Peak)	5460.000	19.097	39.695	58.792	74.00	54.00	Pass
100 (Peak)	5504.928	19.196	87.816	107.011			
100 (Average)	5460.000	19.097	27.073	46.170	74.00	54.00	Pass
100 (Average)	5502.754	19.195	76.169	95.364			

Figure Channel 100:

annel 100: Horizontal (Peak) 120.0 100.0 90.0 80.0 70.0 40.0 30.0 20.0 10.0

Figure Channel 100:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Test Date : 2017/12/26

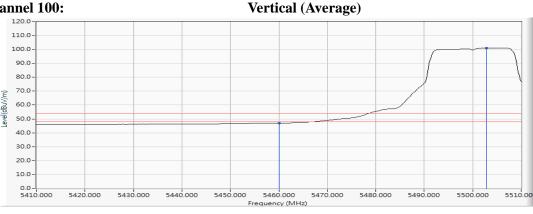
RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
100 (Peak)	5454.783	19.085	43.309	62.394	74.00	54.00	Pass
100 (Peak)	5460.000	19.097	42.149	61.246	74.00	54.00	Pass
100 (Peak)	5504.928	19.196	94.197	113.392			
100 (Average)	5460.000	19.097	27.894	46.991	74.00	54.00	Pass
100 (Average)	5502.899	19.195	81.864	101.059			

Figure Channel 100:

annel 100: Vertical (Peak) 120.0 100.0 90.0 80.0 70.0 60.0 40.0 30.0 20.0 10.0 5410.000 5420.000 5430.000 5440.000 5450.000 5470.000 5480.000 5490.000 5500.000 5510.00 Frequency (MHz)

Figure Channel 100:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.

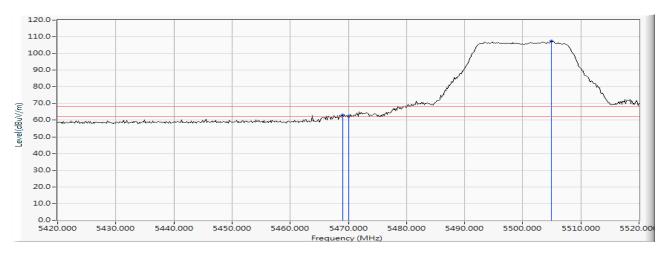


Test Item : Band Edge Data

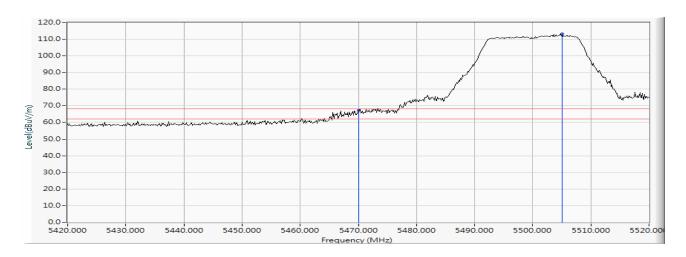
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5500MHz)

Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5468.986	19.108	43.807	62.916	-5.304	68.220	Pass
Horizontal	5470.000	19.110	43.143	62.253	-5.967	68.220	Pass
Horizontal	5504.928	19.196	88.155	107.350			



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5470.000	19.110	48.096	67.206	-1.014	68.220	Pass
Vertical	5505.072	19.195	94.137	113.332			



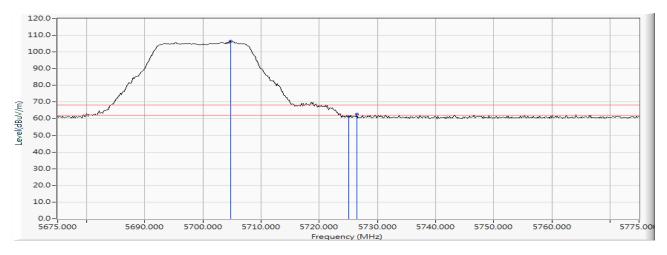


Test Item : Band Edge Data

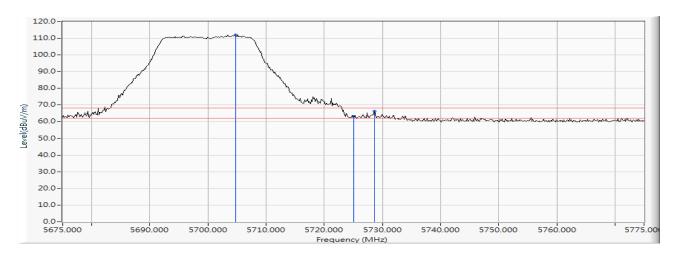
Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5700MHz)

Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5704.710	19.670	86.664	106.334			
Horizontal	5725.000	19.725	41.615	61.340	-6.880	68.220	Pass
Horizontal	5726.449	19.730	42.896	62.625	-5.595	68.220	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5704.710	19.670	92.350	112.020	1		
Vertical	5725.000	19.725	43.353	63.078	-5.142	68.220	Pass
Vertical	5728.623	19.733	46.476	66.209	-2.011	68.220	Pass



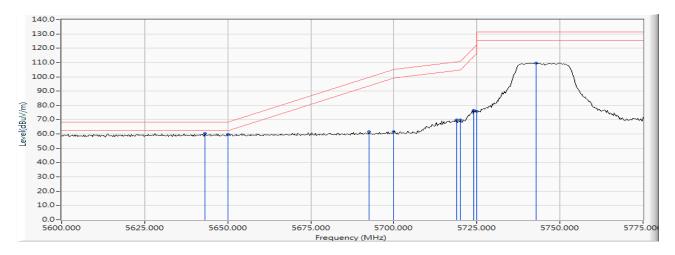


Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5745MHz)

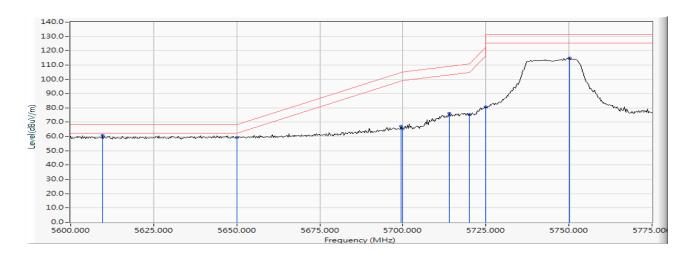
Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5643.116	19.520	40.869	60.388	-7.832	68.220	Pass
Horizontal	5650.000	19.535	40.031	59.567	-8.653	68.220	Pass
Horizontal	5692.572	19.642	42.100	61.742	-37.964	99.706	Pass
Horizontal	5700.000	19.659	41.757	61.416	-43.784	105.200	Pass
Horizontal	5718.949	19.709	50.255	69.963	-40.543	110.506	Pass
Horizontal	5720.000	19.711	50.031	69.742	-41.058	110.800	Pass
Horizontal	5724.022	19.722	56.773	76.495	-43.475	119.970	Pass
Horizontal	5725.000	19.725	55.959	75.684	-46.516	122.200	Pass
Horizontal	5742.790	19.758	89.876	109.634			





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5609.638	19.443	41.181	60.624	-7.596	68.220	Pass
Vertical	5650.000	19.535	39.715	59.251	-8.969	68.220	Pass
Vertical	5699.420	19.657	47.667	67.324	-37.447	104.771	Pass
Vertical	5700.000	19.659	45.601	65.260	-39.940	105.200	Pass
Vertical	5713.877	19.694	56.594	76.288	-32.798	109.086	Pass
Vertical	5720.000	19.711	55.711	75.422	-35.378	110.800	Pass
Vertical	5725.000	19.725	60.983	80.708	-41.492	122.200	Pass
Vertical	5750.145	19.773	95.086	114.860			



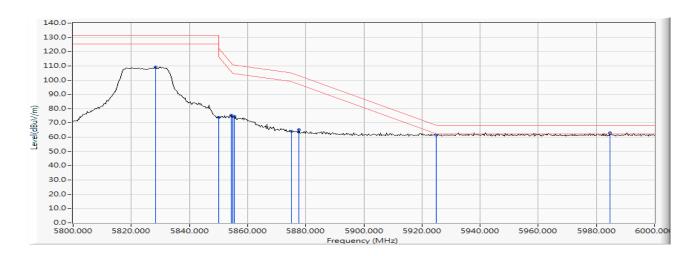


Test Item : Band Edge Data

Test Mode : Mode 1: Transmit (802.11a-6Mbps) (5825MHz)

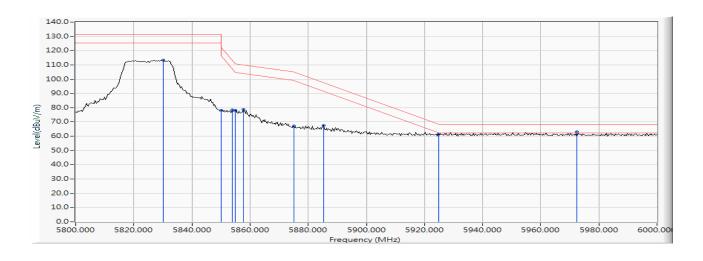
Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5828.406	19.948	89.254	109.203			
Horizontal	5850.000	19.992	54.126	74.118	-48.082	122.200	Pass
Horizontal	5854.493	20.000	55.417	75.418	-36.538	111.956	Pass
Horizontal	5855.000	20.003	54.558	74.560	-36.240	110.800	Pass
Horizontal	5855.362	20.003	54.686	74.689	-36.010	110.699	Pass
Horizontal	5875.000	20.048	44.026	64.073	-41.127	105.200	Pass
Horizontal	5877.681	20.053	45.090	65.144	-38.073	103.217	Pass
Horizontal	5925.000	20.181	41.529	61.711	-6.509	68.220	Pass
Horizontal	5984.638	20.320	42.690	63.011	-5.209	68.220	Pass





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5830.145	19.954	93.490	113.444			
Vertical	5850.000	19.992	58.031	78.023	-44.177	122.200	Pass
Vertical	5853.913	19.999	58.498	78.498	-34.780	113.278	Pass
Vertical	5855.000	20.003	58.228	78.230	-32.570	110.800	Pass
Vertical	5857.681	20.008	58.768	78.776	-31.273	110.049	Pass
Vertical	5875.000	20.048	47.172	67.219	-37.981	105.200	Pass
Vertical	5885.217	20.071	47.367	67.438	-30.206	97.644	Pass
Vertical	5925.000	20.181	41.477	61.659	-6.561	68.220	Pass
Vertical	5972.464	20.292	42.741	63.033	-5.187	68.220	Pass





Test Item : Band Edge Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5180MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	_	Emission Level			Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
36 (Peak)	5108.261	18.227	40.893	59.120	74.00	54.00	Pass
36 (Peak)	5150.000	18.335	40.396	58.730	74.00	54.00	Pass
36 (Peak)	5177.101	18.394	85.107	103.501			
36 (Average)	5150.000	18.335	26.637	44.971	74.00	54.00	Pass
36 (Average)	5185.362	18.418	74.067	92.485			

Figure Channel 36:

120.0 110.0 100.0 90.0 80.0

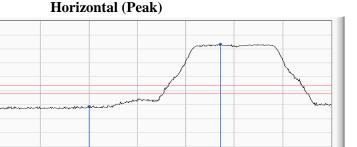
> 50.0 40.0 30.0

10.0 -0.0 -5100.000

5110.000

5120.000

5130.000



5180.000

5190.000

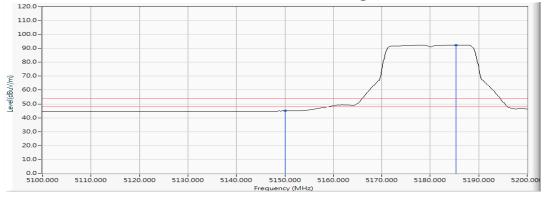
5200.00

Figure Channel 36:



5160.000

5150.000



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5180MHz)

Test Date : 2017/12/26

5110.000

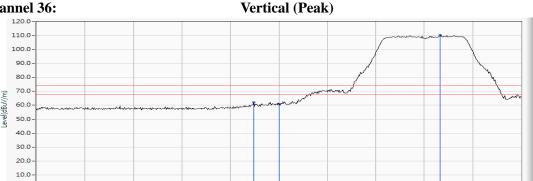
5120.000

5130.000

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
36 (Peak)	5144.783	18.317	43.661	61.977	74.00	54.00	Pass
36 (Peak)	5150.000	18.335	42.520	60.854	74.00	54.00	Pass
36 (Peak)	5183.333	18.411	91.869	110.281			
36 (Average)	5150.000	18.335	28.486	46.820	74.00	54.00	Pass
36 (Average)	5186.087	18.420	80.783	99.203			

Figure Channel 36:



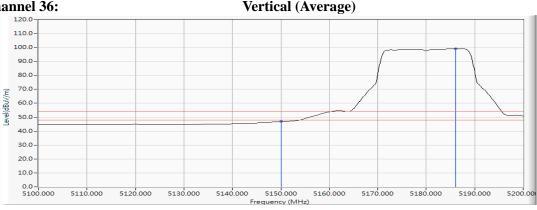
5150.000 equency (MHz) 5160.000

5170.000

5180.000

5200.00

Figure Channel 36:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5320MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
64 (Peak)	5323.478	18.752	87.635	106.386			
64 (Peak)	5350.000	18.833	49.617	68.450	74.00	54.00	Pass
64 (Peak)	5351.449	18.835	51.553	70.388	74.00	54.00	Pass
64 (Average)	5313.333	18.727	76.459	95.187			
64 (Average)	5350.000	18.833	31.071	49.904	74.00	54.00	Pass

Figure Channel 64:

Horizontal (Peak)

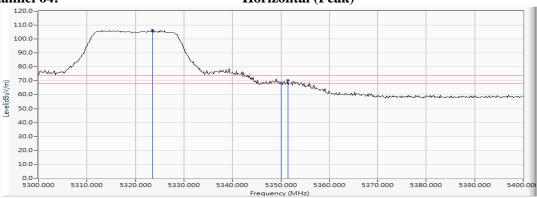
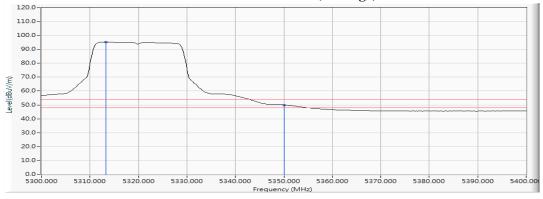


Figure Channel 64:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5320MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
64 (Peak)	5322.319	18.749	93.381	112.129			
64 (Peak)	5350.000	18.833	53.857	72.690	74.00	54.00	Pass
64 (Peak)	5350.435	18.833	54.680	73.513	74.00	54.00	Pass
64 (Average)	5321.594	18.747	82.237	100.984			
64 (Average)	5350.000	18.833	33.637	52.470	74.00	54.00	Pass

Figure Channel 64:



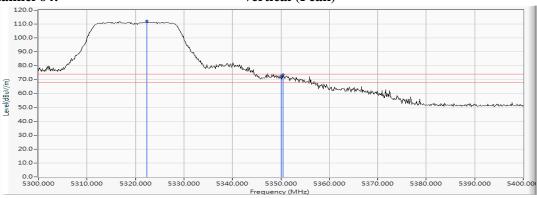
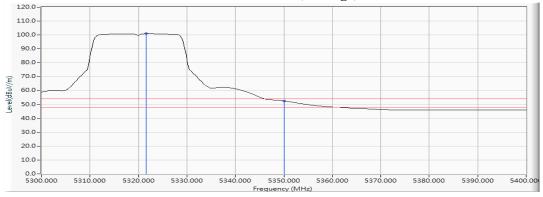


Figure Channel 64:

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
100 (Peak)	5451.449	19.071	31.712	50.783	74.00	54.00	Pass
100 (Peak)	5460.000	19.097	29.939	49.036	74.00	54.00	Pass
100 (Peak)	5503.623	19.195	84.961	104.156			
100 (Average)	5460.000	19.097	26.760	45.857	74.00	54.00	Pass
100 (Average)	5494.638	19.189	73.655	92.844			

Figure Channel 100:

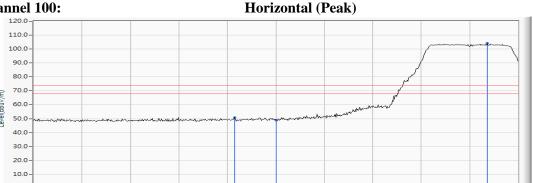
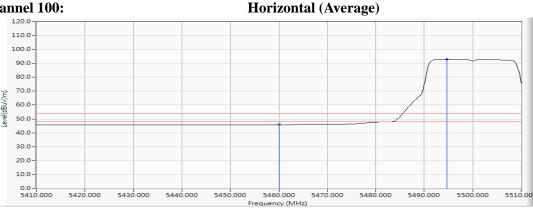


Figure Channel 100:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item Band Edge Data

Test Mode Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)

Test Date

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
100 (Peak)	5458.841	19.096	37.013	56.109	74.00	54.00	Pass
100 (Peak)	5460.000	19.097	34.178	53.275	74.00	54.00	Pass
100 (Peak)	5505.362	19.195	91.046	110.241			
100 (Average)	5460.000	19.097	27.210	46.307	74.00	54.00	Pass
100 (Average)	5505.507	19.196	80.012	99.207			

Figure Channel 100:

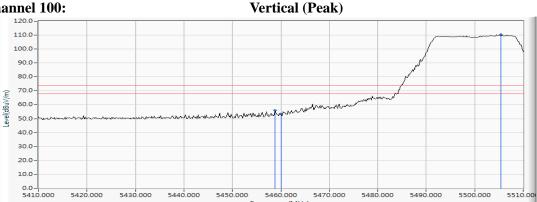
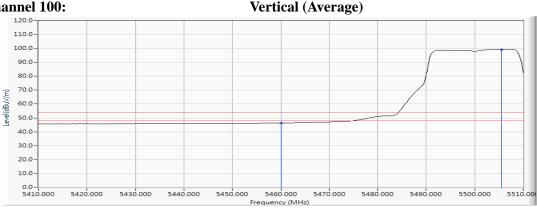


Figure Channel 100:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average detection.

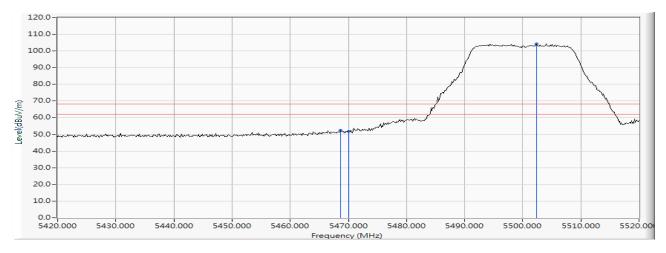


Test Item : Band Edge Data

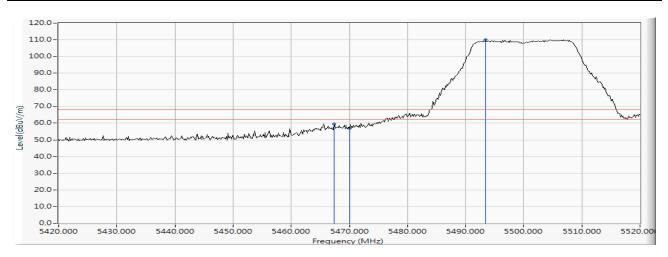
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5500MHz)

Test Date : 2016/08/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5468.696	19.108	33.335	52.443	-15.777	68.220	Pass
Horizontal	5470.000	19.110	32.822	51.932	-16.288	68.220	Pass
Horizontal	5502.319	19.194	85.029	104.224			



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5467.391	19.106	40.566	59.673	-8.547	68.220	Pass
Vertical	5470.000	19.110	37.786	56.896	-11.324	68.220	Pass
Vertical	5493.478	19.187	90.900	110.088			



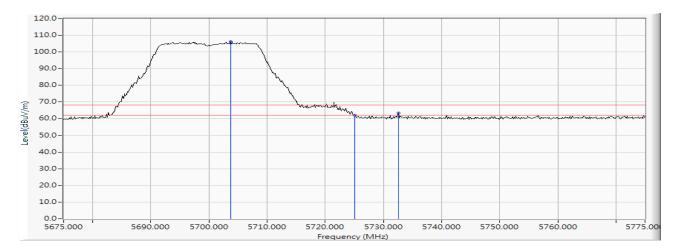


Test Item : Band Edge Data

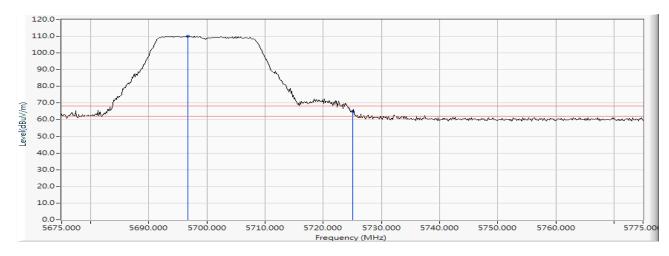
Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5700MHz)

Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5703.696	19.667	86.416	106.084			
Horizontal	5725.000	19.725	42.334	62.059	-6.161	68.220	Pass
Horizontal	5732.536	19.740	43.503	63.243	-4.977	68.220	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5696.739	19.651	90.527	110.178	-		
Vertical	5725.000	19.725	45.156	64.881	-3.339	68.220	Pass



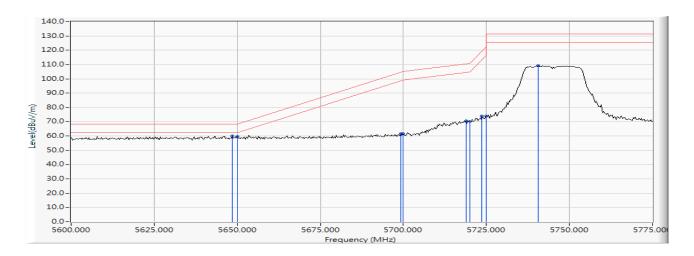


Test Item : Band Edge Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5745MHz)

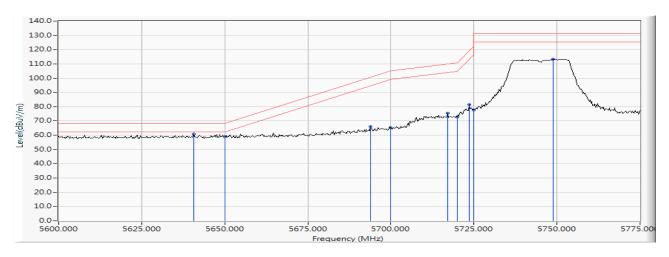
Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5648.442	19.532	40.678	60.210	-8.010	68.220	Pass
Horizontal	5650.000	19.535	40.075	59.611	-8.609	68.220	Pass
Horizontal	5699.167	19.657	41.907	61.564	-43.020	104.584	Pass
Horizontal	5700.000	19.659	41.769	61.428	-43.772	105.200	Pass
Horizontal	5718.949	19.709	50.968	70.676	-39.830	110.506	Pass
Horizontal	5720.000	19.711	50.416	70.127	-40.673	110.800	Pass
Horizontal	5723.514	19.721	54.291	74.012	-44.800	118.812	Pass
Horizontal	5725.000	19.725	54.229	73.954	-48.246	122.200	Pass
Horizontal	5740.507	19.754	89.341	109.095			





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5640.580	19.514	41.180	60.694	-7.526	68.220	Pass
Vertical	5650.000	19.535	39.454	58.990	-9.230	68.220	Pass
Vertical	5693.841	19.645	46.344	65.989	-34.656	100.645	Pass
Vertical	5700.000	19.659	45.628	65.287	-39.913	105.200	Pass
Vertical	5717.174	19.704	55.639	75.342	-34.667	110.009	Pass
Vertical	5720.000	19.711	53.182	72.893	-37.907	110.800	Pass
Vertical	5723.514	19.721	61.574	81.295	-37.517	118.812	Pass
Vertical	5725.000	19.725	57.933	77.658	-44.542	122.200	Pass
Vertical	5748.877	19.771	93.393	113.164			



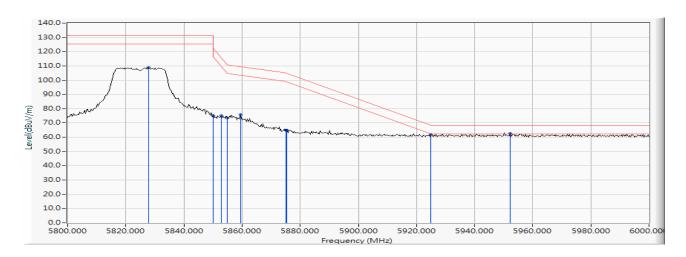


Test Item : Band Edge Data

Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps) (5825MHz)

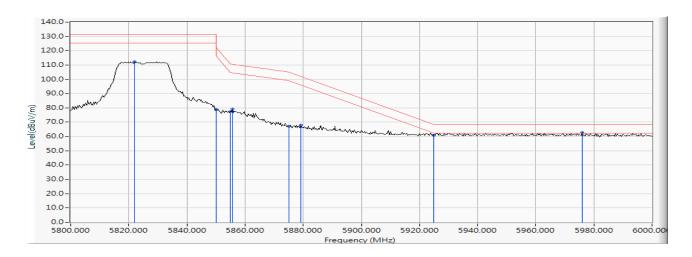
Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5827.826	19.948	88.776	108.723			
Horizontal	5850.000	19.992	55.170	75.162	-47.038	122.200	Pass
Horizontal	5852.754	19.997	55.256	75.253	-40.668	115.921	Pass
Horizontal	5855.000	20.003	53.389	73.391	-37.409	110.800	Pass
Horizontal	5859.420	20.012	55.659	75.671	-33.891	109.562	Pass
Horizontal	5875.000	20.048	44.715	64.762	-40.438	105.200	Pass
Horizontal	5875.362	20.049	44.996	65.044	-39.888	104.932	Pass
Horizontal	5925.000	20.181	41.829	62.011	-6.209	68.220	Pass
Horizontal	5952.174	20.248	42.514	62.762	-5.458	68.220	Pass





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5822.029	19.930	92.344	112.274			
Vertical	5850.000	19.992	58.722	78.714	-43.486	122.200	Pass
Vertical	5855.000	20.003	57.329	77.331	-33.469	110.800	Pass
Vertical	5855.652	20.004	59.043	79.046	-31.571	110.617	Pass
Vertical	5875.000	20.048	47.183	67.230	-37.970	105.200	Pass
Vertical	5879.130	20.057	47.996	68.053	-34.092	102.145	Pass
Vertical	5925.000	20.181	40.786	60.968	-7.252	68.220	Pass
Vertical	5975.942	20.298	42.542	62.840	-5.380	68.220	Pass





Test Item : Band Edge Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channal No		Correct Factor	Reading Level	Emission Level			Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
38 (Peak)	5148.841	18.331	41.713	60.043	74.00	54.00	Pass
38 (Peak)	5150.000	18.335	40.825	59.159	74.00	54.00	Pass
38 (Peak)	5176.522	18.392	82.928	101.320			
38 (Average)	5150.000	18.335	28.119	46.453	74.00	54.00	Pass
38 (Average)	5177.971	18.397	71.128	89.524			

Figure Channel 38:

Horizontal (Peak)

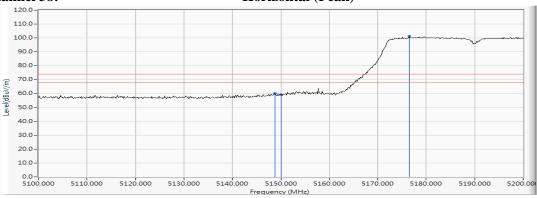
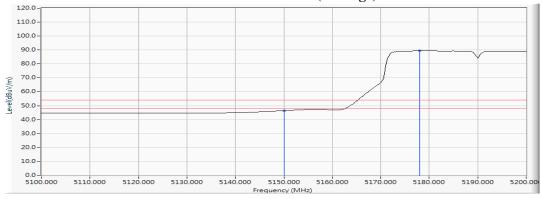


Figure Channel 38:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5190MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Vertical):

Channal Na	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
38 (Peak)	5148.406	18.328	48.070	66.399	74.00	54.00	Pass
38 (Peak)	5150.000	18.335	46.732	65.066	74.00	54.00	Pass
38 (Peak)	5180.870	18.405	90.223	108.628			
38 (Average)	5150.000	18.335	32.812	51.146	74.00	54.00	Pass
38 (Average)	5187.101	18.423	78.635	97.058			

Figure Channel 38:

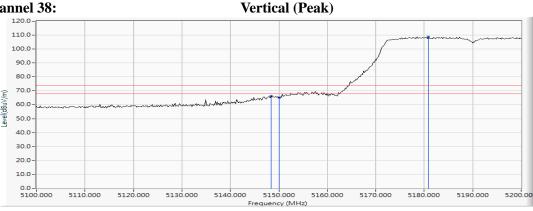
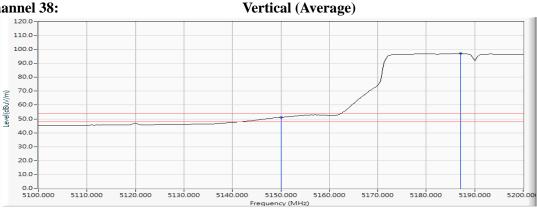


Figure Channel 38:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item Band Edge Data

Test Mode Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)

Test Date

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamie No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
62 (Peak)	5302.319	18.702	81.446	100.148			
62 (Peak)	5350.000	18.833	40.648	59.481	74.00	54.00	Pass
62 (Peak)	5372.029	18.867	41.187	60.055	74.00	54.00	Pass
62 (Average)	5303.623	18.706	69.366	88.071			
62 (Average)	5350.000	18.833	27.318	46.151	74.00	54.00	Pass

Figure Channel 62:

Horizontal (Peak)

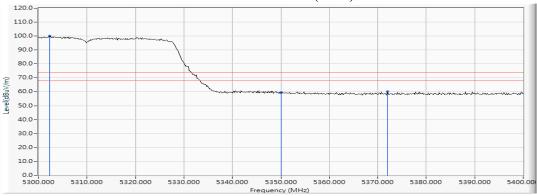
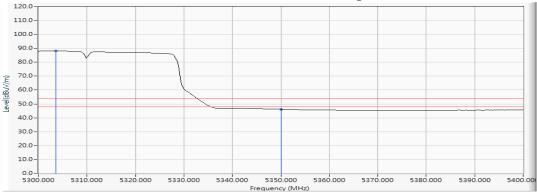


Figure Channel 62:





- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5310MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
62 (Peak)	5322.319	18.749	86.676	105.424	-		
62 (Peak)	5350.000	18.833	46.423	65.256	74.00	54.00	Pass
62 (Peak)	5350.580	18.834	47.126	65.960	74.00	54.00	Pass
62 (Average)	5320.870	18.745	74.915	93.660			
62 (Average)	5350.000	18.833	31.106	49.939	74.00	54.00	Pass

Figure Channel 62:

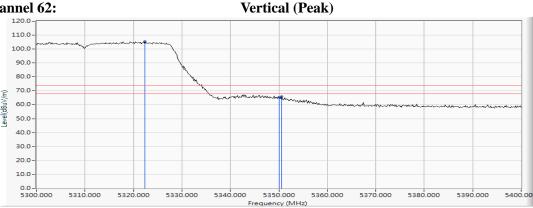
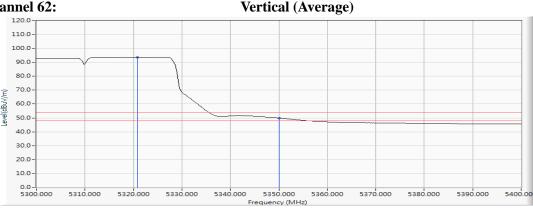


Figure Channel 62:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item Band Edge Data

Test Mode Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)

Test Date

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
102 (Peak)	5425.652	19.005	41.532	60.537	74.00	54.00	Pass
102 (Peak)	5460.000	19.097	40.105	59.202	74.00	54.00	Pass
102 (Peak)	5499.420	19.193	83.387	102.580			
102 (Average)	5460.000	19.097	26.939	46.036	74.00	54.00	Pass
102 (Average)	5500.580	19.194	71.413	90.607			

Figure Channel 102:

Horizontal (Peak)

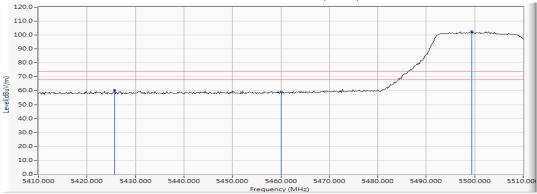
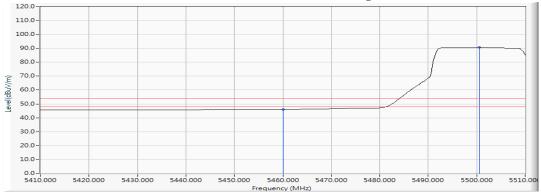


Figure Channel 102:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item Band Edge Data

Test Mode Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)

Test Date

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
102 (Peak)	5437.971	19.021	41.614	60.634	74.00	54.00	Pass
102 (Peak)	5460.000	19.097	41.026	60.123	74.00	54.00	Pass
102 (Peak)	5502.899	19.195	88.441	107.636			
102 (Average)	5460.000	19.097	27.735	46.832	74.00	54.00	Pass
102 (Average)	5507.246	19.197	76.971	96.167			

Figure Channel 102:

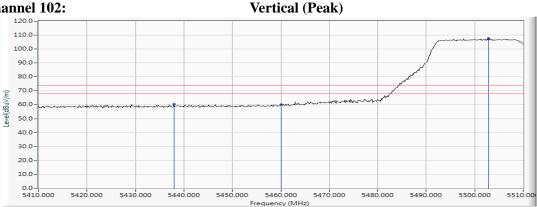
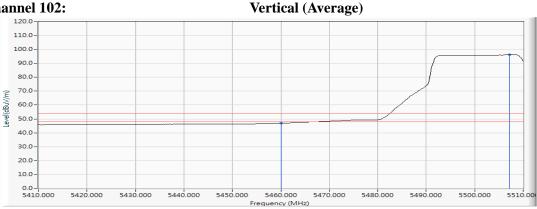


Figure Channel 102:



- All readings above 1GHz are performed with peak and/or average measurements as necessary.
- Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average detection.

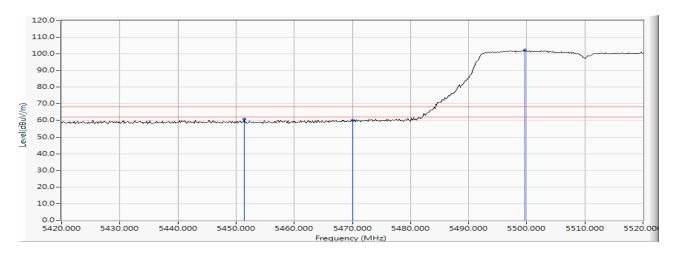


Test Item : Band Edge Data

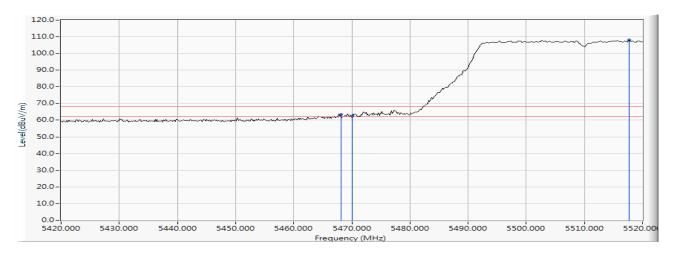
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5510MHz)

Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5451.449	19.071	41.799	60.870	-7.350	68.220	Pass
Horizontal	5470.000	19.110	41.027	60.137	-8.083	68.220	Pass
Horizontal	5499.710	19.193	83.128	102.321			



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5468.116	19.108	44.350	63.458	-4.762	68.220	Pass
Vertical	5470.000	19.110	43.313	62.423	-5.797	68.220	Pass
Vertical	5517.681	19.225	88.720	107.945			



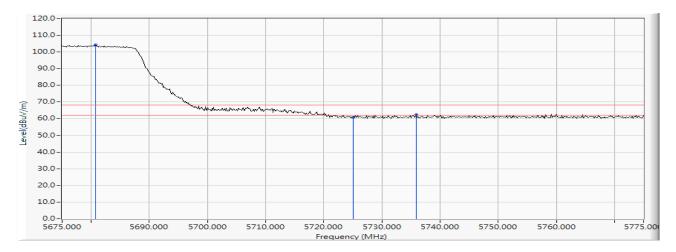


Test Item : Band Edge Data

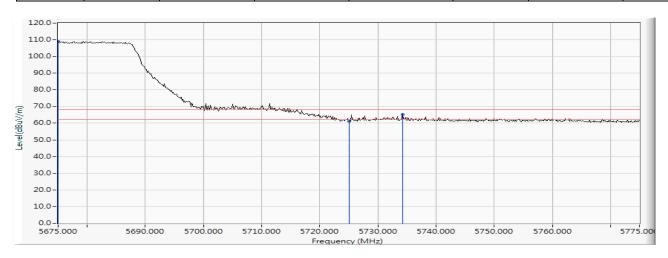
Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5670MHz)

Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5680.797	19.605	84.614	104.219			
Horizontal	5725.000	19.725	41.116	60.841	-7.379	68.220	Pass
Horizontal	5735.870	19.746	42.517	62.263	-5.957	68.220	Pass



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5675.000	19.585	89.515	109.100			
Vertical	5725.000	19.725	41.465	61.190	-7.030	68.220	Pass
Vertical	5734.275	19.743	45.522	65.265	-2.955	68.220	Pass



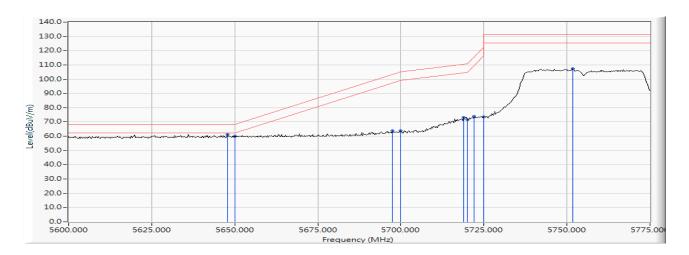


Test Item : Band Edge Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5755MHz)

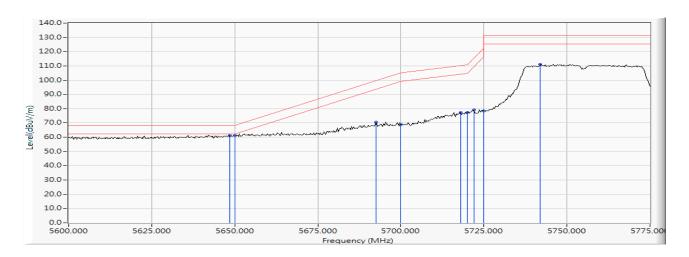
Test Date : 2016/08/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	$\begin{array}{c} Limit\\ (dB\mu V/m) \end{array}$	Result
Horizontal	5647.935	19.531	41.707	61.238	-6.982	68.220	Pass
Horizontal	5650.000	19.535	40.582	60.118	-8.102	68.220	Pass
Horizontal	5697.391	19.653	44.199	63.852	-39.418	103.270	Pass
Horizontal	5700.000	19.659	43.963	63.622	-41.578	105.200	Pass
Horizontal	5718.949	19.709	53.581	73.289	-37.217	110.506	Pass
Horizontal	5720.000	19.711	51.988	71.699	-39.101	110.800	Pass
Horizontal	5721.993	19.716	54.052	73.769	-41.575	115.344	Pass
Horizontal	5725.000	19.725	53.994	73.719	-48.481	122.200	Pass
Horizontal	5751.667	19.777	87.422	107.199			





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5648.442	19.532	41.611	61.143	-7.077	68.220	Pass
Vertical	5650.000	19.535	41.533	61.069	-7.151	68.220	Pass
Vertical	5692.572	19.642	50.808	70.450	-29.256	99.706	Pass
Vertical	5700.000	19.659	49.206	68.865	-36.335	105.200	Pass
Vertical	5717.935	19.705	57.754	77.459	-32.763	110.222	Pass
Vertical	5720.000	19.711	57.709	77.420	-33.380	110.800	Pass
Vertical	5721.993	19.716	59.341	79.058	-36.286	115.344	Pass
Vertical	5725.000	19.725	58.772	78.497	-43.703	122.200	Pass
Vertical	5742.029	19.757	91.285	111.042			



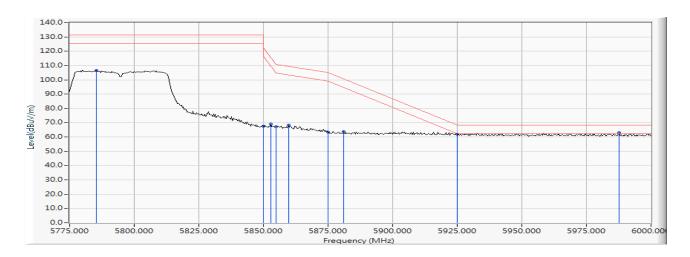


Test Item : Band Edge Data

Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps) (5795MHz)

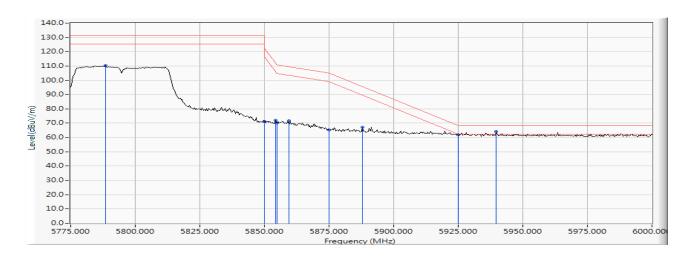
Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5785.435	19.849	86.796	106.645			
Horizontal	5850.000	19.992	47.713	67.705	-54.495	122.200	Pass
Horizontal	5852.935	19.997	48.938	68.936	-46.572	115.508	Pass
Horizontal	5855.000	20.003	47.025	67.027	-43.773	110.800	Pass
Horizontal	5859.783	20.012	48.130	68.143	-41.318	109.461	Pass
Horizontal	5875.000	20.048	43.423	63.470	-41.730	105.200	Pass
Horizontal	5880.978	20.061	43.577	63.638	-37.141	100.779	Pass
Horizontal	5925.000	20.181	41.927	62.109	-6.111	68.220	Pass
Horizontal	5987.609	20.330	42.551	62.880	-5.340	68.220	Pass





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5788.370	19.859	90.361	110.221			
Vertical	5850.000	19.992	51.188	71.180	-51.020	122.200	Pass
Vertical	5854.239	20.000	52.051	72.051	-40.484	112.535	Pass
Vertical	5855.000	20.003	50.177	70.179	-40.621	110.800	Pass
Vertical	5859.457	20.012	51.678	71.690	-37.862	109.552	Pass
Vertical	5875.000	20.048	45.121	65.168	-40.032	105.200	Pass
Vertical	5887.826	20.077	47.231	67.308	-28.406	95.714	Pass
Vertical	5925.000	20.181	41.754	61.936	-6.284	68.220	Pass
Vertical	5939.674	20.215	44.085	64.300	-3.920	68.220	Pass





Test Item : Band Edge Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5210MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
42 (Peak)	5122.174	18.264	41.298	59.562	74.00	54.00	Pass
42 (Peak)	5150.000	18.335	39.645	57.979	74.00	54.00	Pass
42 (Peak)	5196.957	18.435	79.546	97.981			
42 (Average)	5150.000	18.335	26.478	44.812	74.00	54.00	Pass
42 (Average)	5199.855	18.439	67.450	85.889			

Figure Channel 42:

Horizontal (Peak)

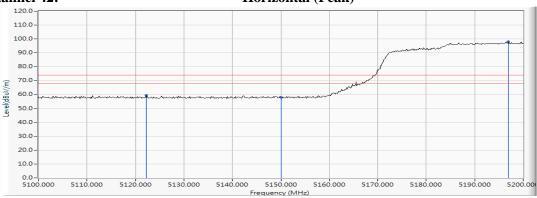
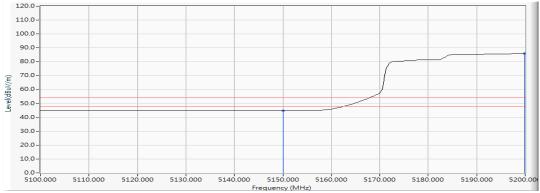


Figure Channel 42:





- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5210MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Vertical):

Cl 1N	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
42 (Peak)	5149.710	18.333	43.820	62.153	74.00	54.00	Pass
42 (Peak)	5150.000	18.335	41.837	60.171	74.00	54.00	Pass
42 (Peak)	5199.130	18.437	87.510	105.948			
42 (Average)	5150.000	18.335	29.376	47.710	74.00	54.00	Pass
42 (Average)	5198.986	18.438	75.664	94.102			

Figure Channel 42:

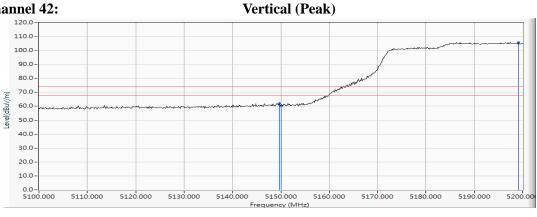
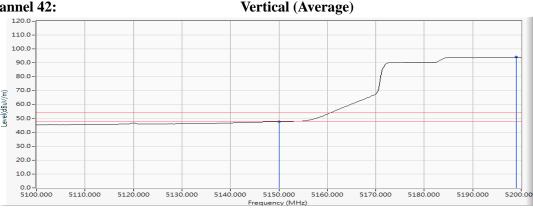


Figure Channel 42:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5290MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Cl 1N	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
58 (Peak)	5302.609	18.703	80.292	98.995			
58 (Peak)	5350.000	18.833	40.382	59.215	74.00	54.00	Pass
58 (Peak)	5353.043	18.837	41.182	60.019	74.00	54.00	Pass
58 (Average)	5300.290	18.697	68.749	87.447			
58 (Average)	5350.000	18.833	27.370	46.203	74.00	54.00	Pass
58 (Average)	5352.174	18.835	27.455	46.291	74.00	54.00	Pass

Figure Channel 58:



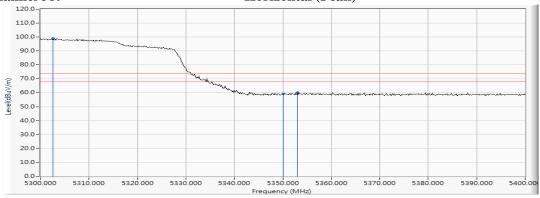
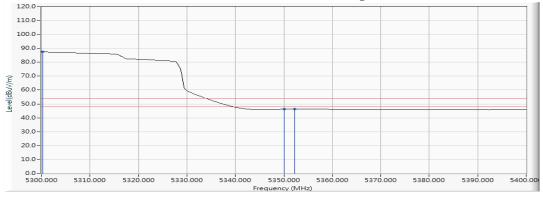


Figure Channel 58:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item Band Edge Data

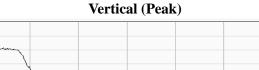
Test Mode Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5290MHz)

Test Date 2017/12/26

RF Radiated Measurement (Vertical):

Cl 1N	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Channel No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
58 (Peak)	5300.435	18.698	87.090	105.788			
58 (Peak)	5350.000	18.833	43.711	62.544	74.00	54.00	Pass
58 (Peak)	5356.232	18.840	45.690	64.531	74.00	54.00	Pass
58 (Average)	5307.971	18.715	75.334	94.049			
58 (Average)	5350.000	18.833	30.706	49.539	74.00	54.00	Pass
58 (Average)	5351.739	18.836	30.879	49.714	74.00	54.00	Pass

Figure Channel 58:



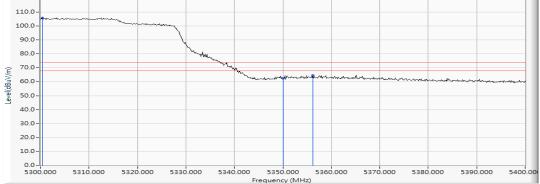
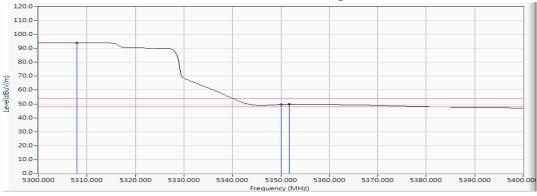


Figure Channel 58:





- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5530MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamici No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
106 (Peak)	5447.681	19.056	41.813	60.869	74.00	54.00	Pass
106 (Peak)	5460.000	19.097	40.786	59.883	74.00	54.00	Pass
106 (Peak)	5505.072	19.195	80.092	99.287			
106 (Average)	5460.000	19.097	27.285	46.382	74.00	54.00	Pass
106 (Average)	5508.116	19.197	68.663	87.860			

Figure Channel 106:

Horizontal (Peak)

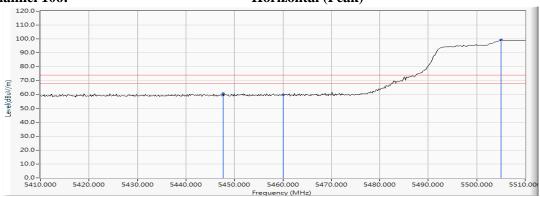
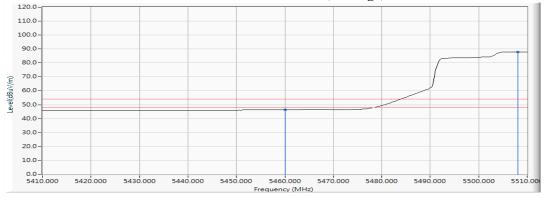


Figure Channel 106:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Item : Band Edge Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5530MHz)

Test Date : 2017/12/26

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chainlei No.	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Kesuit
106 (Peak)	5421.449	19.000	42.261	61.261	74.00	54.00	Pass
106 (Peak)	5460.000	19.097	40.781	59.878	74.00	54.00	Pass
106 (Peak)	5508.986	19.198	84.902	104.099			
106 (Average)	5460.000	19.097	28.279	47.376	74.00	54.00	Pass
106 (Average)	5510.000	19.198	73.515	92.713			

Figure Channel 106:

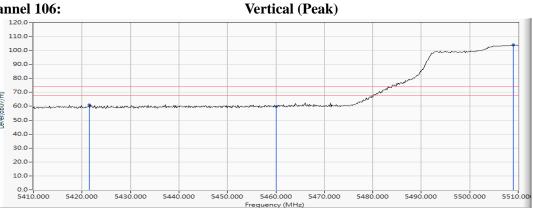
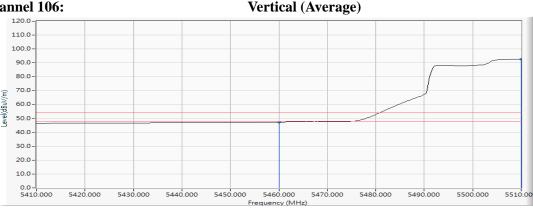


Figure Channel 106:



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Measurement Level = Reading Level + Correct Factor.
- 3. The average measurement was not performed when the peak measured data under the limit of average detection.

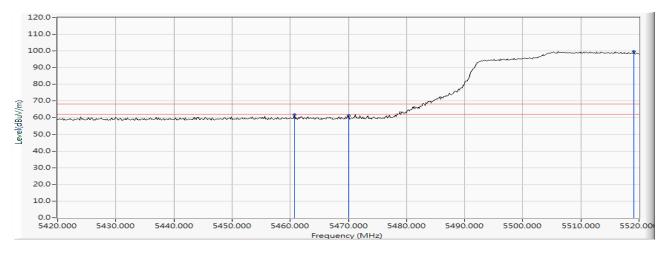


Test Item : Band Edge Data

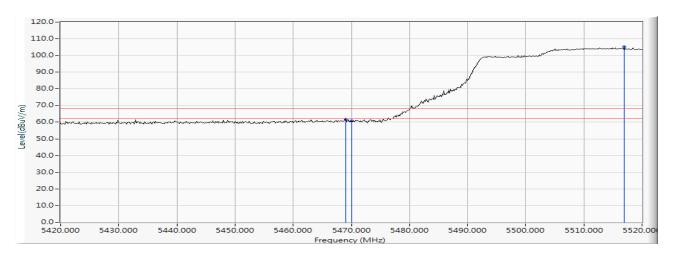
Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5530MHz)

Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5460.725	19.099	42.600	61.698	-6.522	68.220	Pass
Horizontal	5470.000	19.110	42.083	61.193	-7.027	68.220	Pass
Horizontal	5519.130	19.231	80.381	99.612			



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5468.986	19.108	42.546	61.655	-6.565	68.220	Pass
Vertical	5470.000	19.110	41.678	60.788	-7.432	68.220	Pass
Vertical	5516.957	19.223	85.935	105.157			



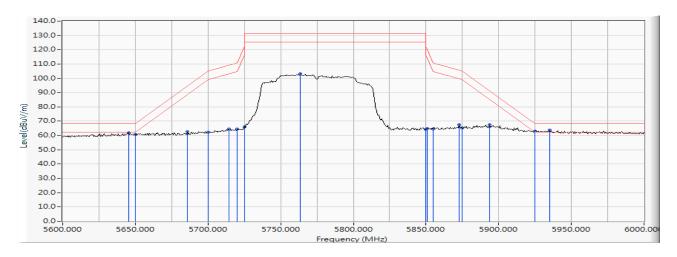


Test Item : Band Edge Data

Test Mode : Mode 6: Transmit (802.11ac-80BW 32.5Mbps) (5775MHz)

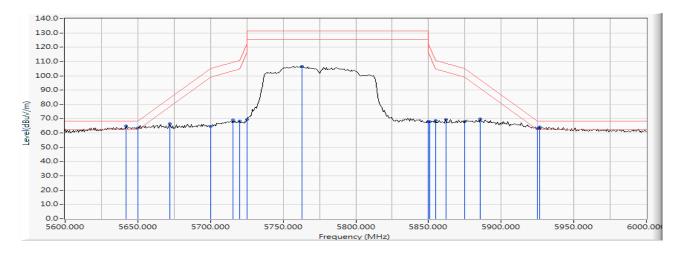
Test Date : 2017/12/26

	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5645.217	19.524	42.593	62.117	-6.103	68.220	Pass
Horizontal	5650.000	19.535	41.219	60.755	-7.465	68.220	Pass
Horizontal	5685.797	19.622	43.091	62.712	-31.983	94.695	Pass
Horizontal	5700.000	19.659	42.754	62.413	-42.787	105.200	Pass
Horizontal	5714.203	19.694	44.921	64.616	-44.561	109.177	Pass
Horizontal	5720.000	19.711	44.667	64.378	-46.422	110.800	Pass
Horizontal	5725.000	19.725	46.222	65.947	-56.253	122.200	Pass
Horizontal	5763.478	19.803	83.334	103.137			
Horizontal	5850.000	19.992	44.285	64.277	-57.923	122.200	Pass
Horizontal	5851.014	19.994	44.899	64.893	-54.995	119.888	Pass
Horizontal	5855.000	20.003	44.572	64.574	-46.226	110.800	Pass
Horizontal	5873.043	20.044	47.537	67.580	-38.168	105.748	Pass
Horizontal	5875.000	20.048	45.394	65.441	-39.759	105.200	Pass
Horizontal	5893.913	20.091	47.422	67.512	-23.700	91.212	Pass
Horizontal	5925.000	20.181	42.863	63.045	-5.175	68.220	Pass
Horizontal	5935.072	20.204	43.698	63.902	-4.318	68.220	Pass





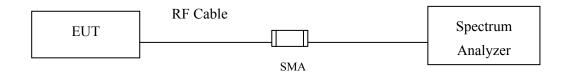
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5641.739	19.516	45.337	64.853	-3.367	68.220	Pass
Vertical	5650.000	19.535	43.994	63.530	-4.690	68.220	Pass
Vertical	5671.884	19.576	46.748	66.324	-18.081	84.405	Pass
Vertical	5700.000	19.659	44.962	64.621	-40.579	105.200	Pass
Vertical	5715.362	19.698	49.519	69.217	-40.284	109.501	Pass
Vertical	5720.000	19.711	48.449	68.160	-42.640	110.800	Pass
Vertical	5725.000	19.725	49.709	69.434	-52.766	122.200	Pass
Vertical	5762.899	19.802	86.833	106.635			
Vertical	5850.000	19.992	47.903	67.895	-54.305	122.200	Pass
Vertical	5851.014	19.994	48.067	68.061	-51.827	119.888	Pass
Vertical	5855.000	20.003	48.583	68.585	-42.215	110.800	Pass
Vertical	5862.029	20.017	49.502	69.520	-39.312	108.832	Pass
Vertical	5875.000	20.048	47.705	67.752	-37.448	105.200	Pass
Vertical	5885.797	20.073	49.821	69.894	-27.321	97.215	Pass
Vertical	5925.000	20.181	42.710	62.892	-5.328	68.220	Pass
Vertical	5926.377	20.185	44.167	64.352	-3.868	68.220	Pass





5. Duty Cycle

5.1. Test Setup



5.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to U-NII test procedure of KDB789033 for compliance to FCC 47CFR 15.407 requirements.

5.3. Uncertainty

± 2.31msec



5.4. Test Result of Duty Cycle

Product : Intel® Wireless-AC 9461

Test Item : Duty Cycle Test Mode : Transmit

Duty Cycle Formula:

Duty Cycle = Ton / (Ton + Toff)

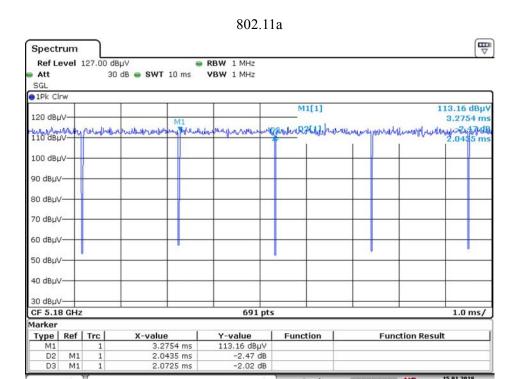
Duty Factor = 10 Log (1/Duty Cycle)

Results:

5GHz band	Ton	Ton + Toff	Duty Cycle	Duty Factor	
	(ms)	(ms)	(%)	(dB)	
802.11a	2.0435	2.0725	98.60	0.06	
802.11n20	37.0290	37.1739	99.61	0.02	
802.11n40	17.8261	18.0435	98.80	0.05	
802.11ac20	49.2750	49.5650	99.41	0.03	
802.11ac40	23.7680	24.2030	98.20	0.08	
802.11ac80	10.9130	11.1159	98.17	0.08	

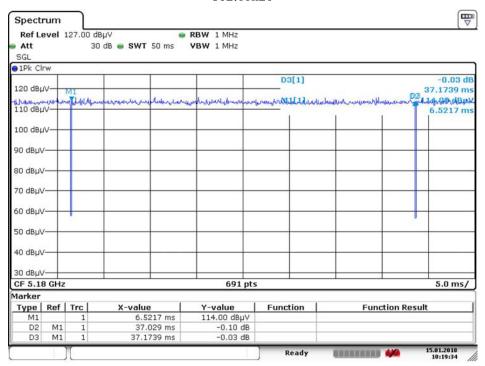
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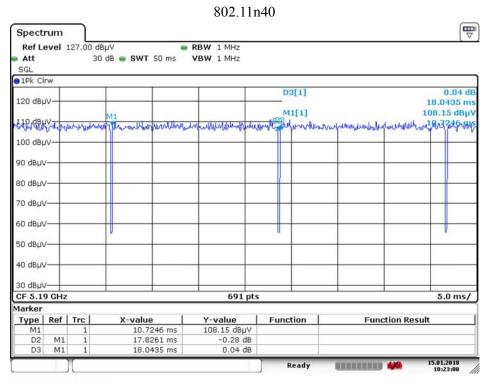
Date: 15.JAN.2018 10:17:45

802.11n20

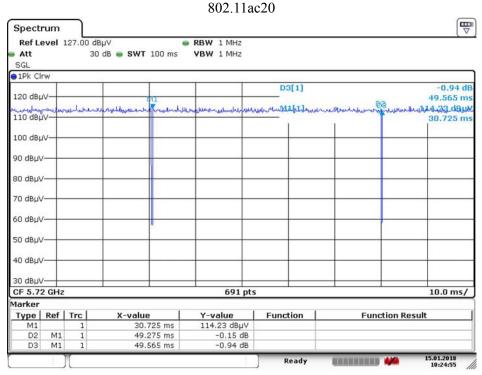


Date: 15.JAN.2018 10:19:34



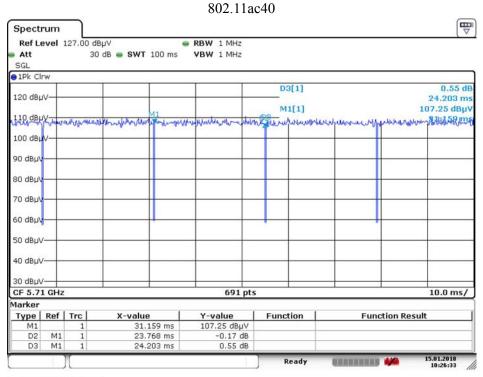


Date: 15.JAN.2018 10:23:01

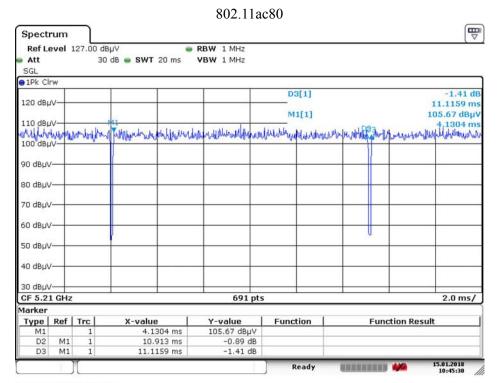


Date: 15.JAN.2018 10:24:56





Date: 15.JAN.2018 10:26:34



Date: 15.JAN.2018 10:45:30



6.	EMI Re	duction	Method	During	Compliance	Testing
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No modification was made during testing.

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