

FCC Test Report

Product Name	Mobile Tablet
Model No	DT317BT
FCC ID	YE3800H

Applicant	DT Research, Inc.
Address	6F, No. 1, NingPo E. St. Taipei, 100 Taiwan

Date of Receipt	Jan. 05, 2017
Issued Date	Feb. 07, 2017
Report No.	1710172R-RFUSP52V00
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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Report No.: 1710172R-RFUSP52V00



Test Report

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Product Name	Mobile Tablet		
Applicant	DT Research, Inc.		
Address	6F, No. 1, NingPo E. St. Taipei, 100 Taiwan		
Manufacturer	DT Research, Inc.		
Model No.	DT317BT		
FCC ID.	YE3800H		
EUT Rated Voltage	AC 100-240V, 50-60Hz		
EUT Test Voltage	AC 120V/60Hz		
Trade Name	DT Research, Inc.		
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2015		
	ANSI C63.4: 2014, ANSI C63.10: 2013		
	789033 D02 General UNII Test Procedures New Rules v01r03		
Test Result	Complied		

Documented By	Rita Huang
Tested By	(Senior Adm. Specialist / Rita Huang) :
Approved By	(Engineer / Xiao Chen) (Director / Vincent Lin)



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Attachment 1: EUT Test Photographs
Attachment 2: EUT Detailed Photographs



1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Mobile Tablet		
Trade Name	DT Research, Inc.		
FCC ID.	YE3800H		
Model No.	DT317BT		
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5745-5825MHz		
	802.11n-40MHz: 5190-5310, 5755-5795MHz		
Number of Channels	802.11a/n-20MHz: 13; 802.11n-40MHz: 6		
Data Rate	802.11a: 6 - 54Mbps		
	802.11n: up to 300Mbps		
Channel Control	Auto		
Type of Modulation	802.11a/n:OFDM, BPSK, QPSK, 16QAM, 64QAM		
Antenna Type	PCB Antenna		
Antenna Gain	Refer to the table "Antenna List"		
Power Adapter	MFR: ENG, M/N: 6A-181WP05		
	Input: 100-240V~ 0.6A, 50-60Hz		
	Output: 5V==3A		
	Cable out: Non-Shielded, 1.4m, with one ferrite core bonded.		

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	CHENGYU ELECTRIC Co.,LTD	PA0121(Main),	PCB Antenna	3.05 dBi For 5.15GHz~5.25GHz
		PA0122(Aux)		3.05 dBi For 5.25~5.35GHz
				3.03 dBi For 5.725~5.825GHz

Note:

1. 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 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 151:	5755 MHz	Channel 159:	5795 MHz				

- 1. This device is a Mobile Tablet with a built-in 802.11a/b/g/n WLAN transceiver.
- 2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
- 3. At result of pretests, module supports dual-channel transmission, only the worst case is shown in the report. (802.11a is chain A)
- 4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11a is 6Mbps \ 802.11n-20BW is 14.4Mbps \ 802.11n-40BW is 30Mbps)
- 5. 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.
- 6. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

Test Mode	Mode 1: Transmit (802.11a-6Mbps)	
	Mode 2: Transmit (802.11n-20BW 14.4Mbps)	
	Mode 3: Transmit (802.11n-40BW 30Mbps)	



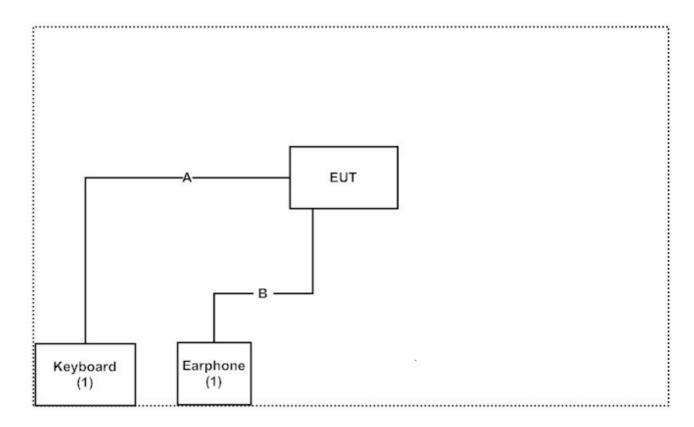
1.3. Tested System Datails

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

	Product	Manufacturer	Model No.	Serial No.	Power Cord
1	Keyboard	Logitech	Y-UR83	SY848UK	N/A
2	Earphone	Dr.AV	CD-806B	N/A	N/A

Sign	nal Cable Type	Signal cable Description
A	Keyboard Cable	Non-Shielded, 1.8m
В	Earphone Cable	Non-Shielded, 1.0m

1.4. Configuration of tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown on 1.4
- (2) Execute software "Comnand Prompt 10.0.1.0 240" on the Notebook PC.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Start the continuous transmission.
- (5) Verify that the EUT works properly.

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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

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Site Description: Accredited by TAF

Accredited Number: 3023

Site Name: DEKRA Testing and Certification Co., Ltd

Site Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,

Taiwan, R.O.C.

TEL: 886-2-8601-3788 / FAX: 886-2-8601-3789

E-Mail: info.tw@dekra.com

FCC Accreditation Number: TW1014



1.7. List of Test Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2016/11/28	2017/11/27
X	Spectrum Analyzer	Agilent	N9010A	MY48030495	2016/7/22	2017/7/21
X	Power Meter	Anritsu	ML2495A	6K00003357	2016/6/23	2017/6/22
X	Pulse power sensor	Anritsu	MA2411B	0846193	2016/6/23	2017/6/22
X	EMI Test Receiver	R&S	ESCS 30	100369	2016/10/13	2017/10/12
X	LISN	R&S	ESH3-Z5	836679/017	2017/1/7	2018/1/6
X	LISN	R&S	ENV216	100097	2017/1/7	2018/1/6
X	Coaxial Cable	QTK(Arnist)	RG 400	LC018-RG	2016/6/25	2017/6/24

For Radiated measurements /Site3/CB8

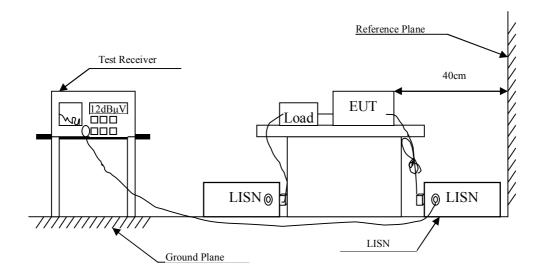
	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSP40	100170	2017/1/5	2018/1/4
	Loop Antenna	Teseq	HLA6121	37133	2016/3/18	2017/3/17
X	Bi-Log Antenna	Schaffner Chase	CBL6112B	2707	2016/6/11	2017/6/10
X	Horn Antenna	ETS-Lindgren	3117	00135205	2016/4/6	2017/4/5
X	Horn Antenna	Schwarzbeck	BBHA9170	9170430	2017/1/11	2018/1/10
X	Pre-Amplifier	QTK	AP/0100A	CHM/0901069	2016/6/23	2017/6/22
X	Pre-Amplifier	EMCI	EMC012630SE	980210	2016/1/26	2017/1/24
X	Pre-Amplifier	NARDA WE	DBL-1840N506	013	2016/9/30	2017/9/29
X	Filter	MicroTRON	BRM50701	019	2016/11/2	2017/11/1
X	Filter	Microwave Circuits	N0257881	36681	2016/12/7	2017/12/6
X	EMI Test Receiver	R&S	ESR26	101385	2016/9/29	2017/9/28
X	Coaxial Cable	QTK(Arnist)	SUCOFLEX 106	L1606-015C	2016/6/23	2017/6/22
X	EMI Test Receiver	R&S	ESCS 30	838251/001	2016/7/21	2017/7/20
X	Coaxial Cable	QTK(Arnist)	RG 214	LC003-RG	2016/6/16	2017/6/15
X	Coaxial signal switch	Anritsu	MP59B	6201415889	2016/6/16	2017/6/15

- 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. Conducted Emission

2.1. Test Setup





2.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBμV) Limit							
Frequency	Limits						
MHz	QP	AV					
0.15 - 0.50	66-56	56-46					
0.50-5.0	56	46					
5.0 - 30	60	50					

Remarks: In the above table, the tighter limit applies at the band edges.

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

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.

2.4. Uncertainty

 $\pm 2.26 \text{ dB}$



2.5. Test Result of Conducted Emission

Product : Mobile Tablet

Test Item : Conducted Emission Test

Power Line : Line 1

Test Date : 2017/01/13

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V$	dB	$dB\mu V$
LINE 1					_
Quasi-Peak					
0.197	9.676	41.750	51.426	-13.231	64.657
0.310	9.670	31.200	40.870	-20.559	61.429
0.759	9.694	26.770	36.464	-19.536	56.000
1.150	9.706	26.070	35.776	-20.224	56.000
3.013	9.767	25.970	35.737	-20.263	56.000
10.998	9.910	17.820	27.730	-32.270	60.000
Average					
0.197	9.676	25.140	34.816	-19.841	54.657
0.310	9.670	17.190	26.860	-24.569	51.429
0.759	9.694	11.380	21.074	-24.926	46.000
1.150	9.706	10.460	20.166	-25.834	46.000
3.013	9.767	12.790	22.557	-23.443	46.000
10.998	9.910	10.710	20.620	-29.380	50.000

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. "means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Test Item : Conducted Emission Test

Power Line : Line 2

Test Date : 2017/01/13

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

	Frequency	Correct	Reading	Measurement	Margin	Limit	
		Factor	Level	Level			
_	MHz	dB	dΒμV	dΒμV	dB	dBμV	
	LINE 2						
	Quasi-Peak						
	0.189	9.736	42.650	52.386	-12.500	64.886	
	0.267	9.738	35.920	45.658	-16.999	62.657	
	0.463	9.744	23.840	33.584	-23.473	57.057	
	1.923	9.801	25.390	35.191	-20.809	56.000	
	3.244	9.829	24.420	34.249	-21.751	56.000	
	8.627	9.958	18.810	28.768	-31.232	60.000	
	Average						
	0.189	9.736	25.750	35.486	-19.400	54.886	
	0.267	9.738	19.570	29.308	-23.349	52.657	
	0.463	9.744	8.260	18.004	-29.053	47.057	
	1.923	9.801	11.810	21.611	-24.389	46.000	
	3.244	9.829	12.040	21.869	-24.131	46.000	
	8.627	9.958	10.760	20.718	-29.282	50.000	

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Test Item : Conducted Emission Test

Power Line : Line 1

Test Date : 2017/01/13

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

F	Frequency	Correct	Reading	Measurement	Margin	Limit
		Factor	Level	Level		
	MHz	dB	dΒμV	dΒμV	dB	dΒμV
	LINE 1					
Q	uasi-Peak					
	0.201	9.676	40.990	50.666	-13.877	64.543
	0.326	9.670	30.420	40.090	-20.881	60.971
	0.869	9.697	26.230	35.927	-20.073	56.000
	1.322	9.712	25.540	35.252	-20.748	56.000
	2.927	9.757	26.040	35.797	-20.203	56.000
	4.490	9.781	18.590	28.371	-27.629	56.000
	Average					
	0.201	9.676	24.110	33.786	-20.757	54.543
	0.326	9.670	16.340	26.010	-24.961	50.971
	0.869	9.697	11.270	20.967	-25.033	46.000
	1.322	9.712	10.210	19.922	-26.078	46.000
	2.927	9.757	13.350	23.107	-22.893	46.000
	4.490	9.781	7.350	17.131	-28.869	46.000

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. "means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Test Item : Conducted Emission Test

Power Line : Line 2

Test Date : 2017/01/13

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V$	dB	$dB\mu V$
LINE 2					
Quasi-Peak					
0.185	9.736	42.930	52.666	-12.334	65.000
0.330	9.740	31.630	41.370	-19.487	60.857
0.552	9.747	21.470	31.217	-24.783	56.000
1.193	9.768	22.740	32.508	-23.492	56.000
3.244	9.829	24.320	34.149	-21.851	56.000
8.580	9.957	18.420	28.377	-31.623	60.000
Average					
0.185	9.736	25.150	34.886	-20.114	55.000
0.330	9.740	14.650	24.390	-26.467	50.857
0.552	9.747	7.840	17.587	-28.413	46.000
1.193	9.768	8.260	18.028	-27.972	46.000
3.244	9.829	11.990	21.819	-24.181	46.000
8.580	9.957	10.610	20.567	-29.433	50.000

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Test Item : Conducted Emission Test

Power Line : Line 1

Test Date : 2017/01/13

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	$dB\mu V$	$dB\mu V$	dB	$dB\mu V$
LINE 1					
Quasi-Peak					
0.181	9.678	42.450	52.128	-12.986	65.114
0.275	9.678	32.590	42.268	-20.161	62.429
0.755	9.694	26.710	36.404	-19.596	56.000
1.150	9.706	26.070	35.776	-20.224	56.000
2.923	9.756	25.980	35.736	-20.264	56.000
9.966	9.896	18.110	28.006	-31.994	60.000
Average					
0.181	9.678	21.830	31.508	-23.606	55.114
0.275	9.678	17.600	27.278	-25.151	52.429
0.755	9.694	11.380	21.074	-24.926	46.000
1.150	9.706	10.400	20.106	-25.894	46.000
2.923	9.756	13.510	23.266	-22.734	46.000
9.966	9.896	10.620	20.516	-29.484	50.000

- 1. All Reading Levels are Quasi-Peak and average value.
- 2. "means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



Test Item : Conducted Emission Test

Power Line : Line 2

Test Date : 2017/01/13

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	dΒμV	dB	dΒμV
LINE 2					
Quasi-Peak					
0.189	9.736	42.350	52.086	-12.800	64.886
0.310	9.740	32.340	42.080	-19.349	61.429
0.502	9.746	22.690	32.436	-23.564	56.000
1.232	9.769	22.860	32.629	-23.371	56.000
3.263	9.830	24.390	34.220	-21.780	56.000
8.642	9.958	18.430	28.388	-31.612	60.000
Average					
0.189	9.736	25.440	35.176	-19.710	54.886
0.310	9.740	16.120	25.860	-25.569	51.429
0.502	9.746	7.800	17.546	-28.454	46.000
1.232	9.769	7.750	17.519	-28.481	46.000
3.263	9.830	12.190	22.020	-23.980	46.000
8.642	9.958	10.420	20.378	-29.622	50.000

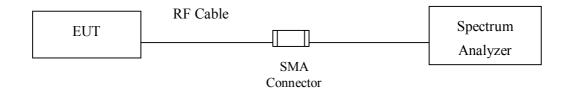
- 1. All Reading Levels are Quasi-Peak and average value.
- 2. " means the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor



3. Maximun conducted output power

3.1. Test Setup

99% Occupied Bandwidth



Conduction Power Measurement (for 802.11an)





3.2. Limits

3.2.1. 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-to-point 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.
- 3.2.2. 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 26 dB 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.
- 3.2.3. 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.

3.3. 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 D01 section F) procedure is used for measurements.

3.4. Uncertainty

 $\pm 1.62 \, dB$



3.5. Test Result of Maximum conducted output power

Product : Mobile Tablet

Test Item : Maximum conducted output power

Test Site : No.3 OATS

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

CHAIN A

Cable	e loss=1dB		Maximum conducted output power									
				Г	ata Rat	e (Mbps	s)					
Channel No.	Frequency (MHz)	6	9	12	18	24	36	48	54	Required Limit		
36	5180	13.98			-					<24dBm		
44	5220	14	13.92	13.85	13.78	13.71	13.62	13.54	13.41	<24dBm		
48	5240	13.97			-					<24dBm		
52	5260	13.91			-					<24dBm		
60	5300	14.03	13.96	13.82	13.77	13.72	13.62	13.53	13.48	<24dBm		
64	5320	13.96			ŀ			-		<24dBm		
149	5745	14.17			-					<30dBm		
157	5785	14.1	14.03	13.95	13.88	13.81	13.72	13.66	13.59	<30dBm		
165	5825	14.05			-			-		<30dBm		

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

CHAIN B

Cable	e loss=1dB		Maximum conducted output power							
				Г	ata Rat	e (Mbps	s)	•		
Channel No.	Frequency (MHz)	6	9	12	18	24	36	48	54	Required Limit
36	5180	13.67			-					<24dBm
44	5220	13.62	13.54	13.48	13.39	13.33	13.24	13.17	13.05	<24dBm
48	5240	13.54		-	-					<24dBm
52	5260	13.62		-	ŀ			-		<24dBm
60	5300	13.58	13.52	13.42	13.37	13.29	13.22	13.15	13.07	<24dBm
64	5320	13.69		1	1			1		<24dBm
149	5745	13.14								<30dBm
157	5785	13.27	13.22	13.15	13.02	12.93	12.84	12.77	12.73	<30dBm
165	5825	13.36								<30dBm

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



Maximum conducted output power Measurement:

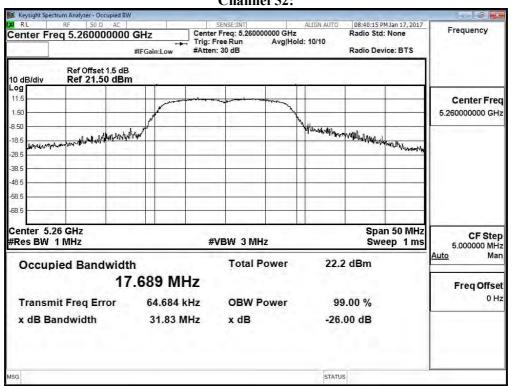
CHAIN A

Channel No	Frequency Range	99% Bandwidth	Output Power	Output Power Limit			
	(MHz)	(MHz)	(dBm)	(dBm)	dBm+10log(BW)		
36	5180	1	13.98	24			
44	5220	1	14	24			
48	5240	1	13.97	24			
52	5260	17.689	13.91	24	23.48		
60	5300	17.543	14.03	24	23.44		
64	5320	17.705	13.96	24	23.48		
149	5745	1	14.17	30			
157	5785	-	14.1	30			
165	5825		14.05	30			

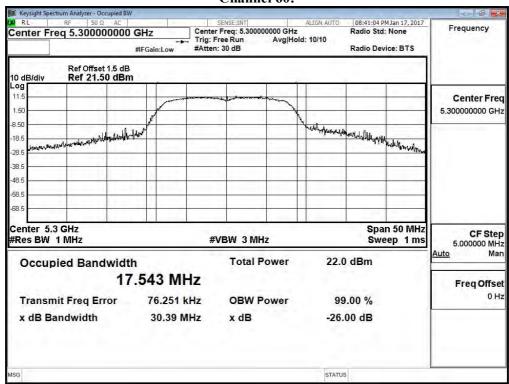
- 1. Power Output Value =Reading value on average power meter + cable loss
- 2. 99 % Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.



99% Bandwidth: Channel 52:

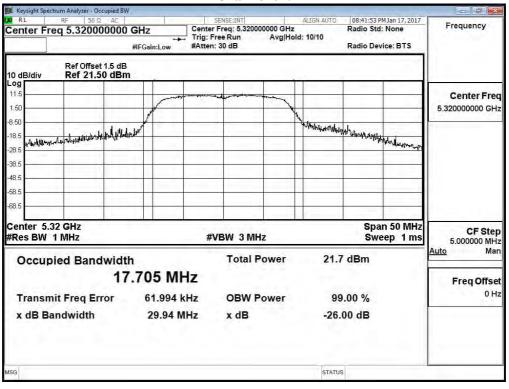


Channel 60:





Channel 64:



Report No.: 1710172R-RFUSP52V00



Product : Mobile Tablet

Test Item : Maximum conducted output power

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

CHAIN A

Cable	e loss=1dB		Maximum conducted output power							
				Ε	ata Rat	e (Mbps	s)			
Channel No.	Frequency (MHz)	14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	Required Limit
36	5180	8.87		ı				1		<24dBm
44	5220	8.89	8.82	8.71	8.66	8.61	8.52	8.41	8.33	<24dBm
48	5240	8.71		1				1		<24dBm
52	5260	8.88		1				I		<24dBm
60	5300	8.73	8.65	8.58	8.52	8.43	8.37	8.31	8.22	<24dBm
64	5320	8.9								<24dBm
149	5745	10.02		1				1		<30dBm
157	5785	10.08	10.01	9.95	9.84	9.79	9.72	9.63	9.55	<30dBm
165	5825	10.03								<30dBm

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

CHAIN B

CHAIND	CHAIN B										
Cable	e loss=1dB	Maximum conducted output power									
Channel No.	Frequency (MHz)	14.4	28.9	43.3	57.8	86.7	115.6	130	144.4	Required Limit	
		Measurement Level (dBm)									
36	5180	8.77								<24dBm	
44	5220	8.85	8.75	8.66	8.61	8.52	8.42	8.37	8.31	<24dBm	
48	5240	8.97								<24dBm	
52	5260	8.93								<24dBm	
60	5300	9.03	8.96	8.88	8.82	8.74	8.69	8.63	8.57	<24dBm	
64	5320	8.92								<24dBm	
149	5745	9.09								<30dBm	
157	5785	8.98	8.9	8.81	8.74	8.69	8.61	8.52	8.43	<30dBm	
165	5825	9.17								<30dBm	

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



Maximum conducted output power Measurement:

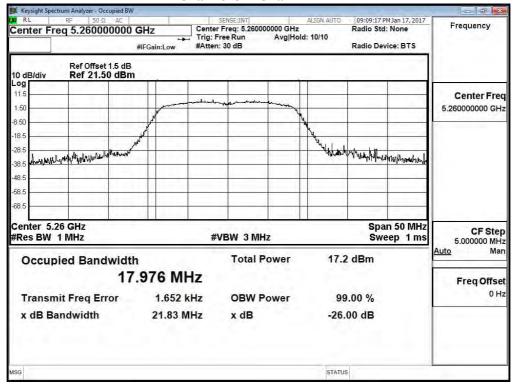
(CHAIN A+ B)

Channel Number	Frequency	99% Bandwidth	Chain A Power	Chain B Power	Output Power	Outp	put Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)	
36	5180		8.87	8.77	11.83	24		
44	5220		8.89	8.85	11.88	24		
48	5240		8.71	8.97	11.85	24		
52	5260	17.940	8.88	8.93	11.92	24	23.54	
60	5300	17.945	8.73	9.03	11.89	24	23.54	
64	5320	17.936	8.90	8.92	11.92	24	23.54	
149	5745		10.02	9.09	12.59	30		
157	5785		10.08	8.98	12.58	30		
165	5825		10.03	9.17	12.63	30		

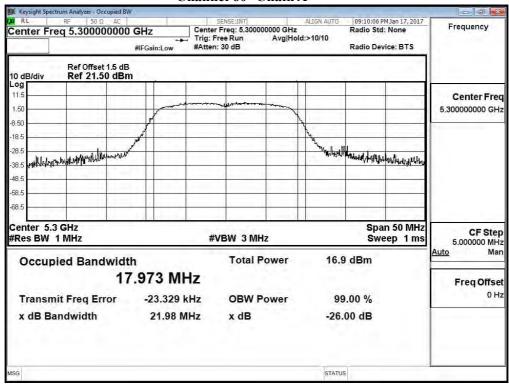
- 1. Power Output Value = Reading value on average power meter + cable loss
- 2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
- 3. 99 % Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.



99% Bandwidth: Channel 52 -Chain A

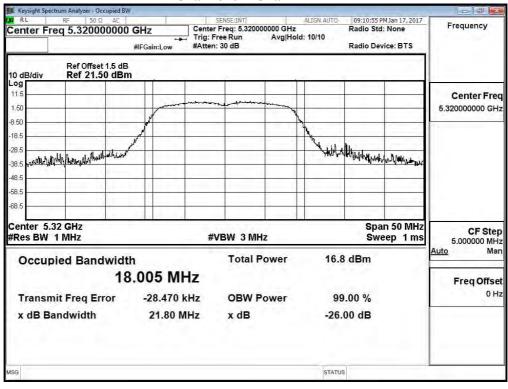


Channel 60 - Chain A



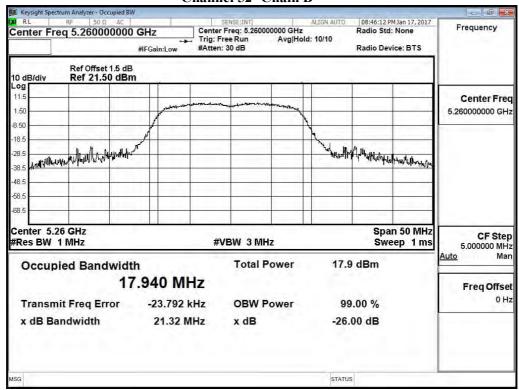




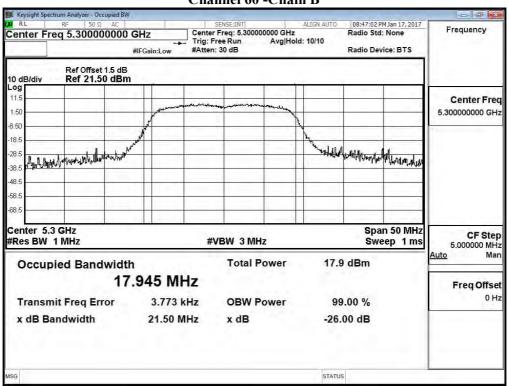




99% Bandwidth: Channel 52 -Chain B

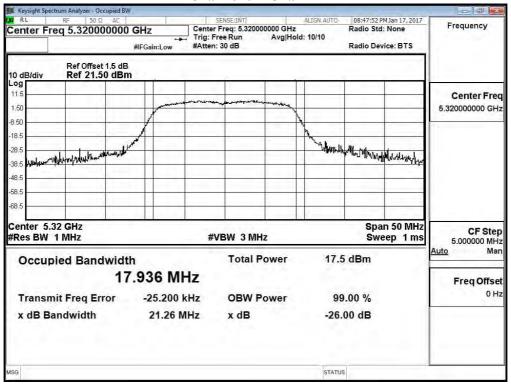


Channel 60 - Chain B





Channel 64 - Chain B





Test Item : Maximum conducted output power

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

CHAIN A

Cable	Cable loss=1dB			Maximum conducted output power									
Channel No.	Frequency (MHz)	30	60	90	120	180	240	270	300	Required Limit			
38	5190	9.29			-		-	-		<24dBm			
46	5230	9.54	9.47	9.41	9.35	9.25	9.14	9.05	8.96	<24dBm			
54	5270	9.26			1		1	1		<24dBm			
62	5310	9.53	9.45	9.38	9.31	9.23	9.15	9.05	8.99	<24dBm			
151	5755	9.7			1		1	1		<30dBm			
159	5795	9.56	9.51	9.42	9.35	9.28	9.14	9.03	8.97	<30dBm			

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

CHAIN B

Cable	e loss=1dB	Maximum conducted output power								
Channel No.	Frequency (MHz)	30	60	90	120	180	240	270	300	Required Limit
38	5190	9.78								<24dBm
46	5230	9.34	9.24	9.12	9.03	8.96	8.88	8.82	8.73	<24dBm
54	5270	9.68								<24dBm
62	5310	9.52	9.46	9.38	9.33	9.24	9.17	9.09	9	<24dBm
151	5755	8.36								<30dBm
159	5795	8.62	8.54	8.48	8.41	8.37	8.31	8.24	8.14	<30dBm

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



Maximum conducted output power Measurement:

(CHAIN A+ B)

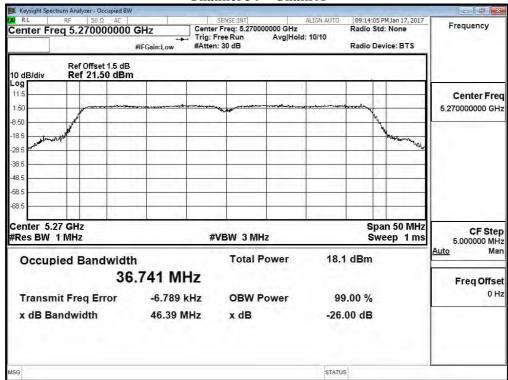
Channel Number	Frequency	99% Bandwidth	Chain A Power	Chain B Power	Output Power	Outp	out Power Limit	
	(MHz)	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	dBm+10log(BW)	
38	5190		9.29	9.78	12.55	24		
46	5230		9.54	9.34	12.45	24		
54	5270	36.599	9.26	9.68	12.49	24	26.63	
62	5310	36.629	9.53	9.52	12.54	24	26.64	
151	5755		9.70	8.36	12.09	30		
159	5795		9.56	8.62	12.13	30		

- 1. Power Output Value = Reading value on average power meter + cable loss
- 2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))
- 3. 99 % Bandwidth is the bandwidth of chain A or chain B whichever is less bandwidth, output power limitation is more stringent.

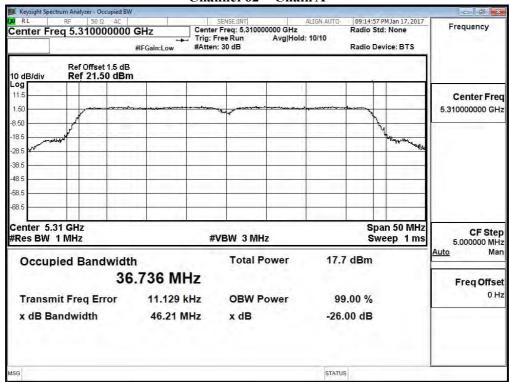


99% Bandwidth:

Channel 54 – Chain A

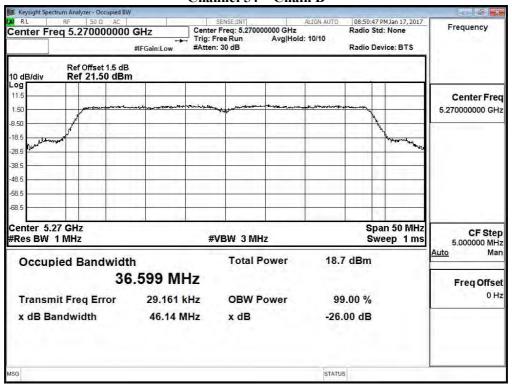


Channel 62 - Chain A

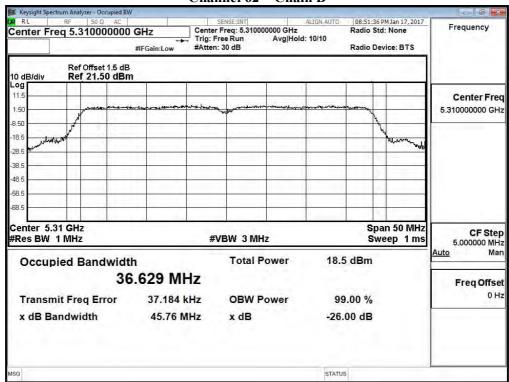




99% Bandwidth: Channel 54 – Chain B



Channel 62 – Chain B





4. Peak Power Spectral Density

4.1. Test Setup



4.2. Limits

- (1) 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 power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
 - (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density 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 or maximum power spectral density. 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 and maximum power spectral density 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 power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional
- density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.+
- (2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- (3) For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, the



maximum power spectral density 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.

4.3. Test Procedure

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.

The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer.

SA-1 method is selected to run the test.

For the band 5.725-5.85 GHz, Scale the observed power level to an equivalent value in 500 kHz by adjusting (increase) the measured power by a bandwidth correction factor (BWCF) where BWCF = $10\log (500 \text{ kHz}/100 \text{ kHz}) = 6.98 \text{ dB}$.

4.4. Uncertainty

 $\pm 1.62 \text{ dB}$



4.5. Test Result of Peak Power Spectral Density

Product : Mobile Tablet

Test Item : Peak Power Spectral Density

Test Site : No.3 OATS

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

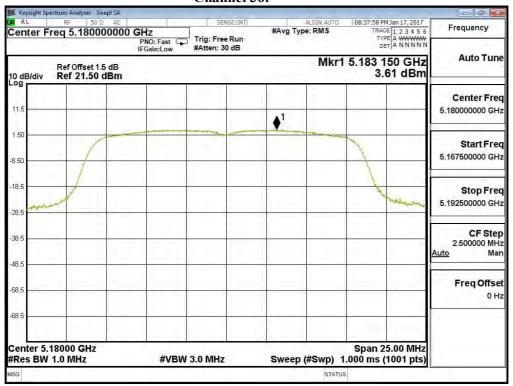
Channel Number	Frequency (MHz)	Data Rata (Mbps)	Measurement Level (dBm)	Required Limit (dBm)	Result
36	5180	6	3.610	11	Pass
44	5220	6	3.670	11	Pass
48	5240	6	3.480	11	Pass
52	5260	6	3.510	11	Pass
60	5300	6	3.250	11	Pass
64	5320	6	2.900	11	Pass

Channel Number	Frequency (MHz)	Data Rata (Mbps)	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	6	-6.010	6.980	0.970	<30	Pass
157	5785	6	-6.160	6.980	0.820	<30	Pass
165	5825	6	-5.670	6.980	1.310	<30	Pass

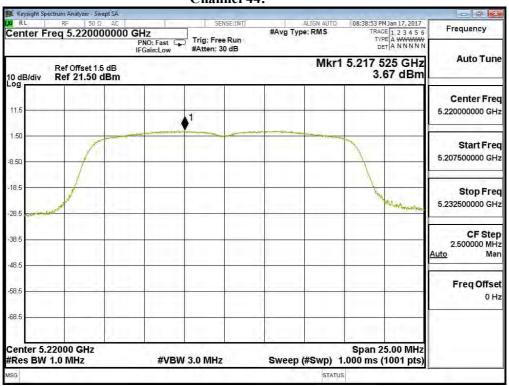
Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.



Channel 36:

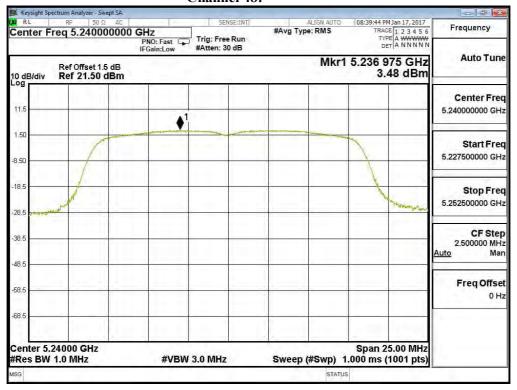


Channel 44:

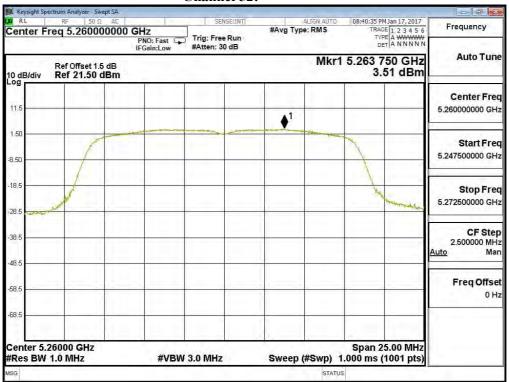




Channel 48:

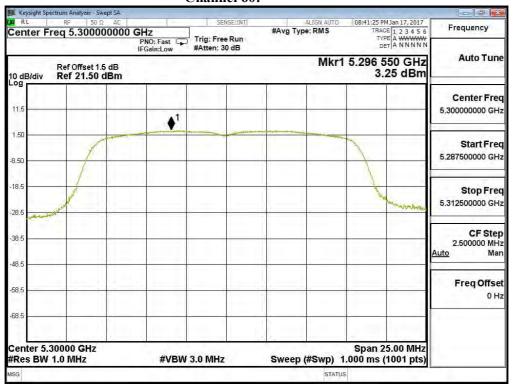


Channel 52:

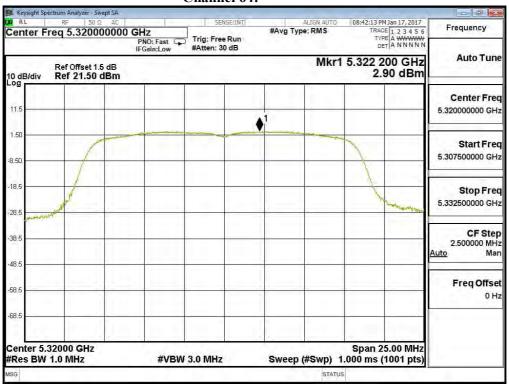




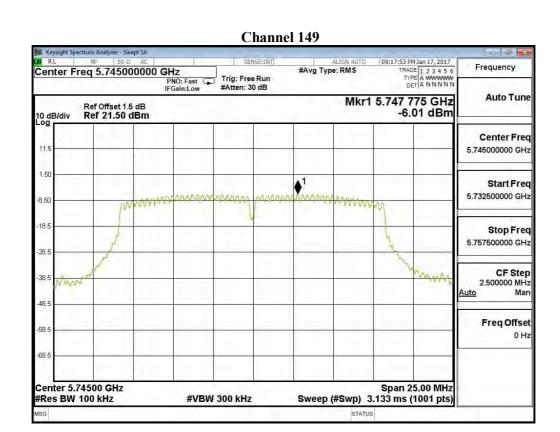
Channel 60:



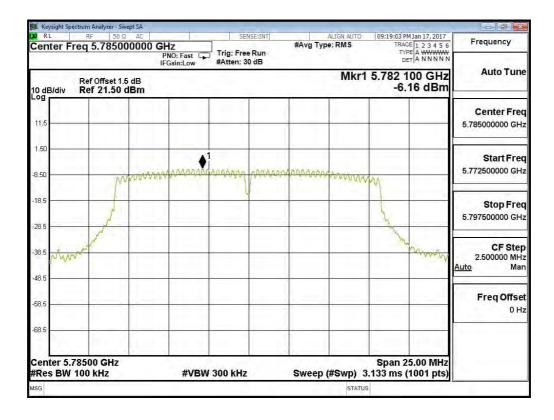
Channel 64:





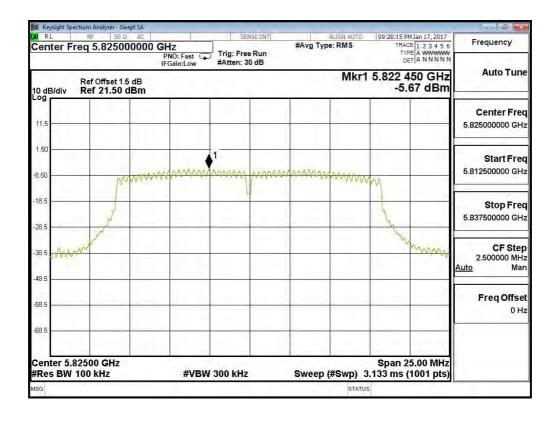


Channel 157





Channel 165





Test Item : Peak Power Spectral Density

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps)

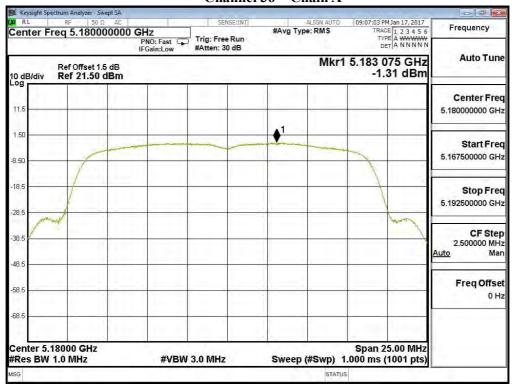
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD/MHz (dBm)	Required Limit (dBm)	Result
26	5100	A	-1.310	1.700	11	Pass
36	5180	В	-1.270	1.740	11	Pass
4.4	5220	A	-1.870	1.140	11	Pass
44	5220	В	-1.450	1.560	11	Pass
48	5240	A	-1.880	1.130	11	Pass
48	5240	В	-1.390	1.620	11	Pass
50	5260	A	-1.900	1.110	11	Pass
52	5260	В	-1.680	1.330	11	Pass
60	5200	A	-2.090	0.920	11	Pass
60	5300	В	-1.760	1.250	11	Pass
	5220	A	-2.320	0.690	11	Pass
64	5320	В	-1.960	1.050	11	Pass

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result
110	5745	A	-9.790	6.980	0.200	<30	Pass
149	5745	В	-10.670	6.980	-0.680	<30	Pass
1.57	5705	A	-10.300	6.980	-0.310	<30	Pass
157	5785	В	-11.000	6.980	-1.010	<30	Pass
165	5025	A	-9.520	6.980	0.470	<30	Pass
	5825	В	-10.650	6.980	-0.660	<30	Pass

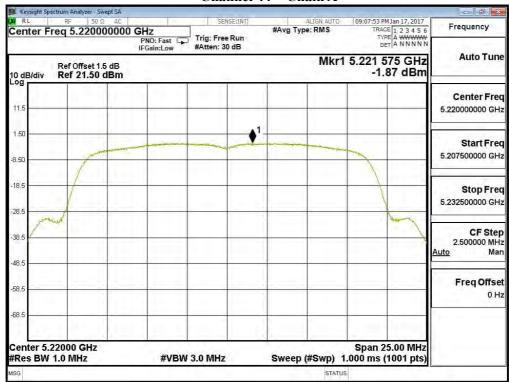
Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.



Channel 36 - Chain A

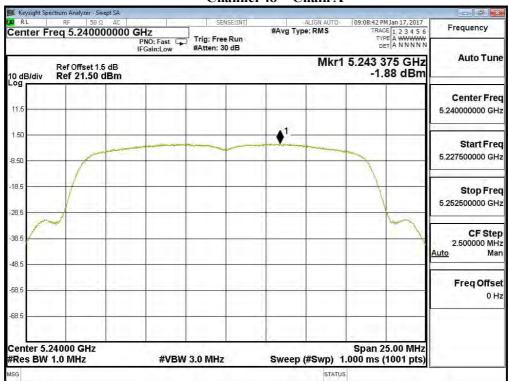


Channel 44 – Chain A

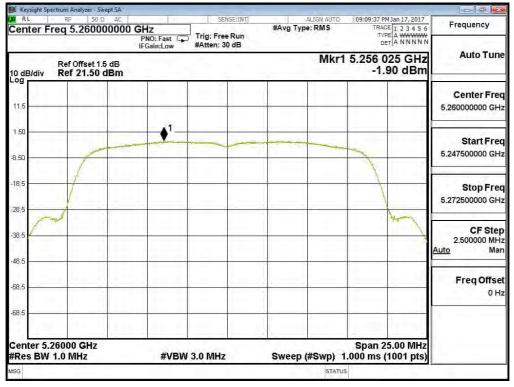




Channel 48 - Chain A

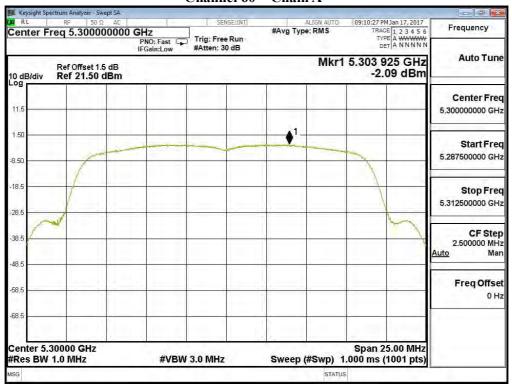


Channel 52 – Chain A

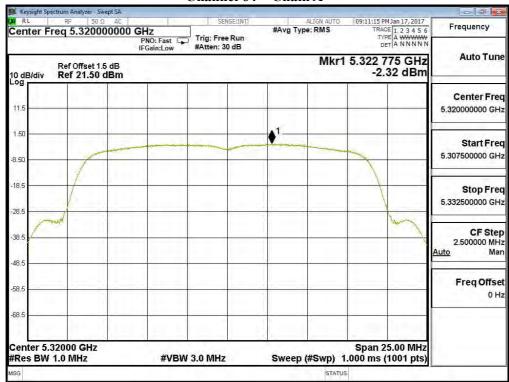




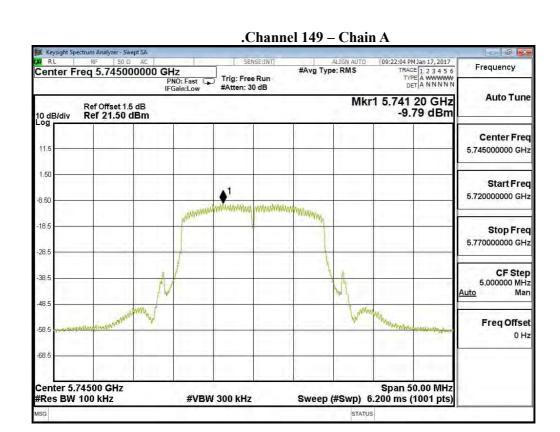
Channel 60 - Chain A

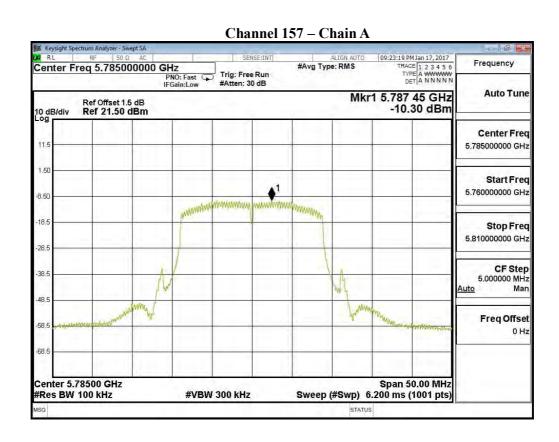


Channel 64 – Chain A

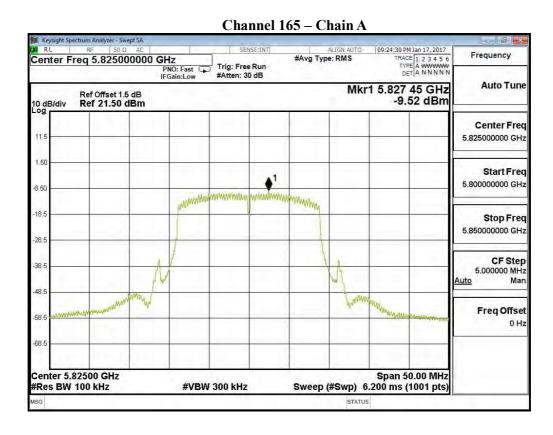






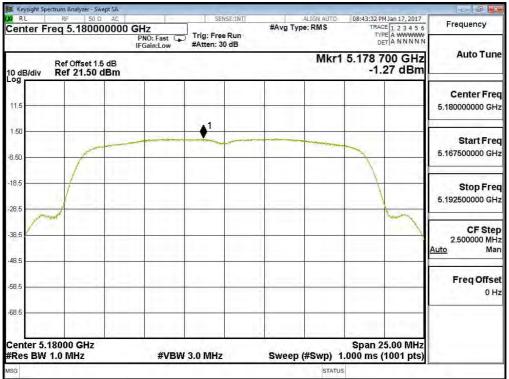




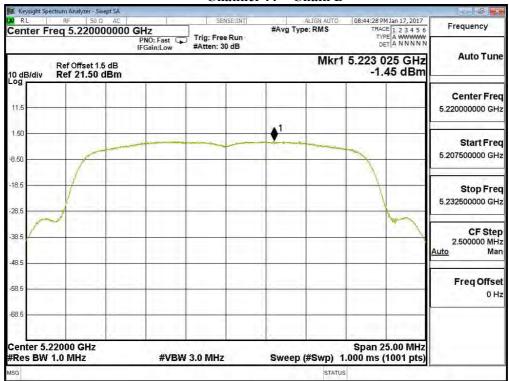






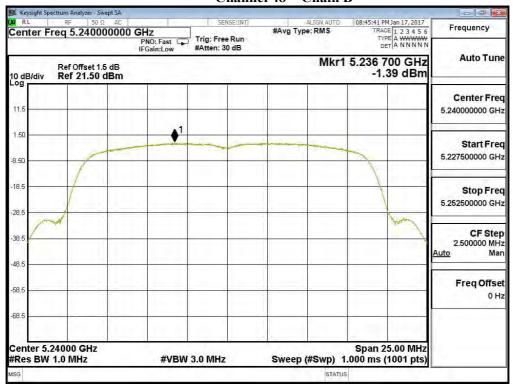


Channel 44 – Chain B

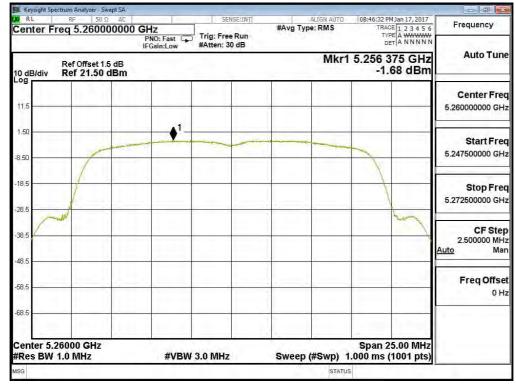




Channel 48 - Chain B

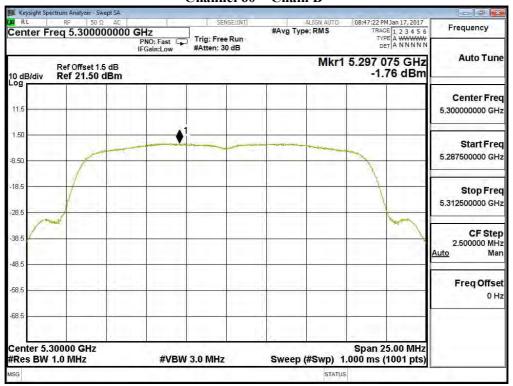


Channel 52 – Chain B

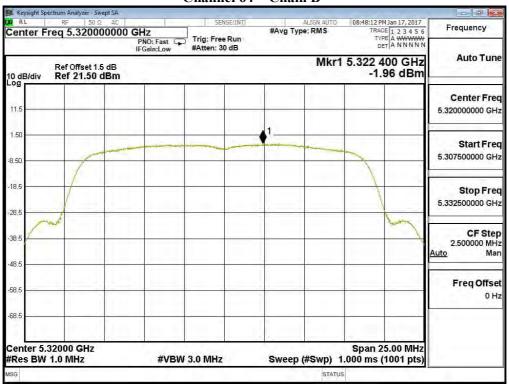




Channel 60 - Chain B

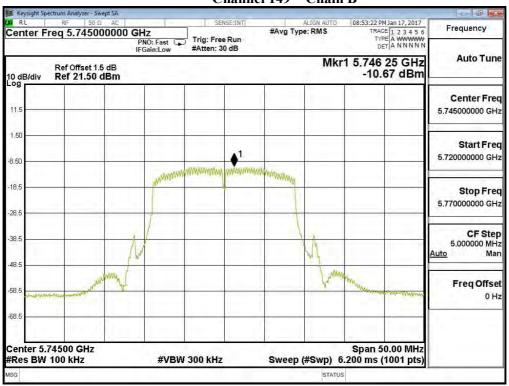


Channel 64 – Chain B

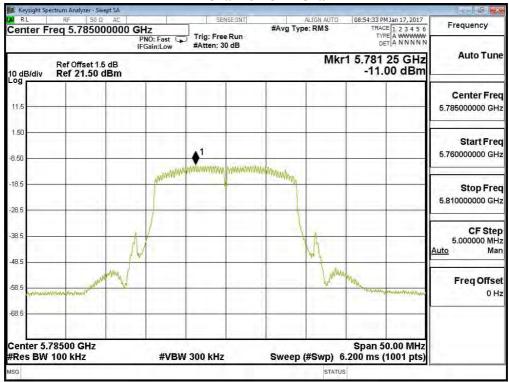




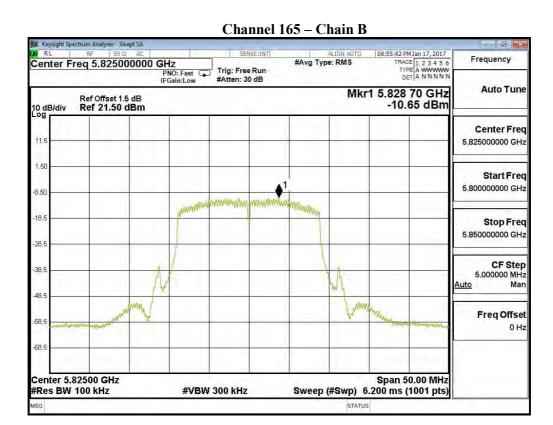




Channel 157 - Chain B









Test Item : Peak Power Spectral Density

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps)

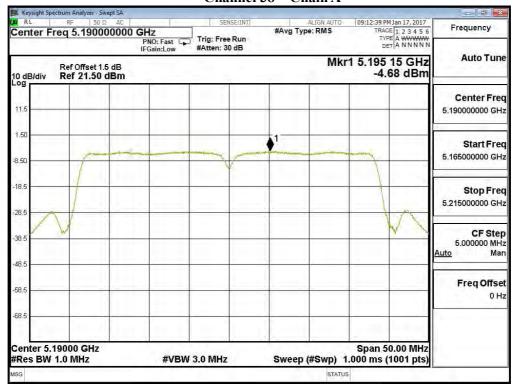
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Total PPSD (dBm)1	Required Limit (dBm)	Result
20	5100	A	-4.680	-1.670	11	Pass
38	5190	В	-4.250	-1.240	11	Pass
4.6	5220	A	-5.000	-1.990	11	Pass
46	5230	В	-4.680	-1.670	11	Pass
5.4	5270	A	-4.710	-1.700	11	Pass
54	5270	В	-4.460	-1.450	11	Pass
(2)	5210	A	-5.230	-2.220	11	Pass
62	5310	В	-4.770	-1.760	11	Pass

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Total PPSD (dBm)1	Required Limit (dBm)	Result	
151	5755	A	-13.800	6.980	-3.810	<30	Pass	
151	5755	В	-14.810	6.980	-4.820	<30	Pass	
150	5705	A	-13.750	6.980	-3.760	<30	Pass	
159	5/95	5795	В	-14.950	6.980	-4.960	<30	Pass

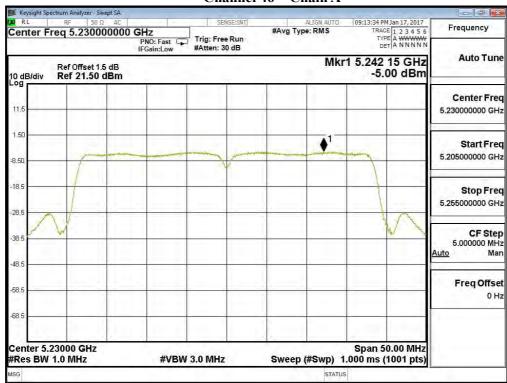
Note 1: The quantity 10*log 2 (two antennas) is added to the spectrum peak value according to document 662911 D01.



Channel 38 - Chain A

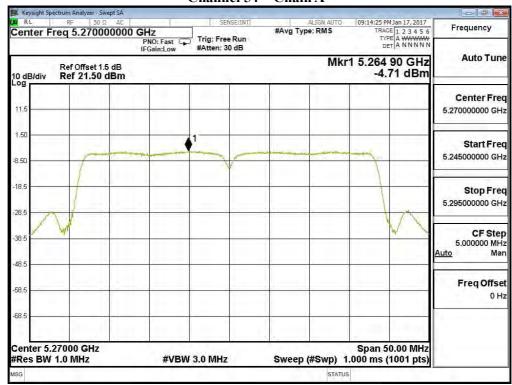


Channel 46 – Chain A

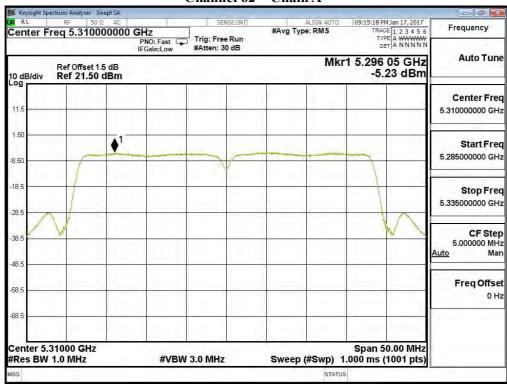




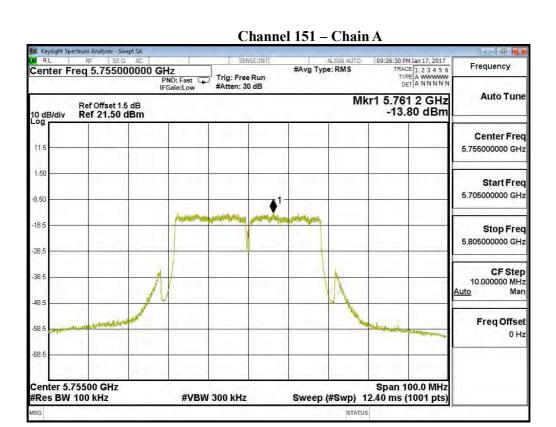
Channel 54 – Chain A

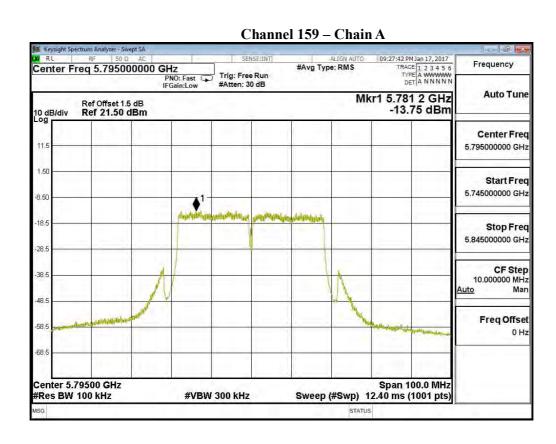


Channel 62 – Chain A



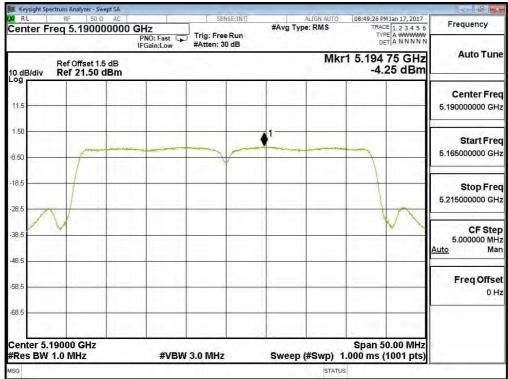




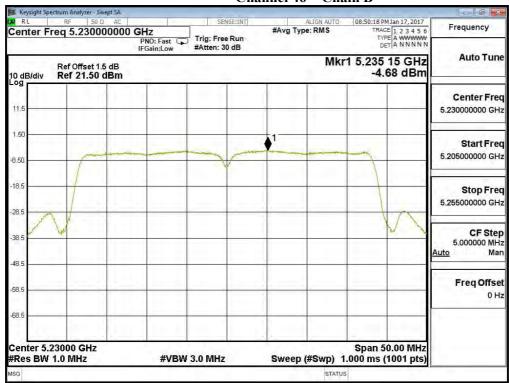






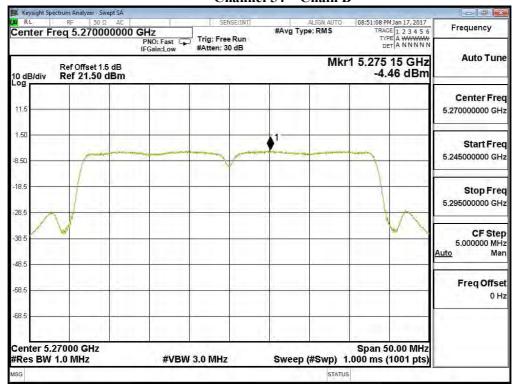


Channel 46 – Chain B

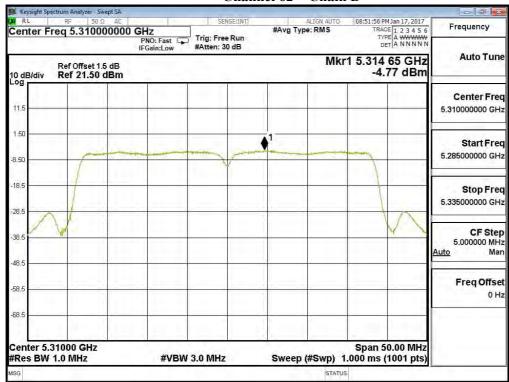




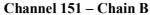
Channel 54 – Chain B

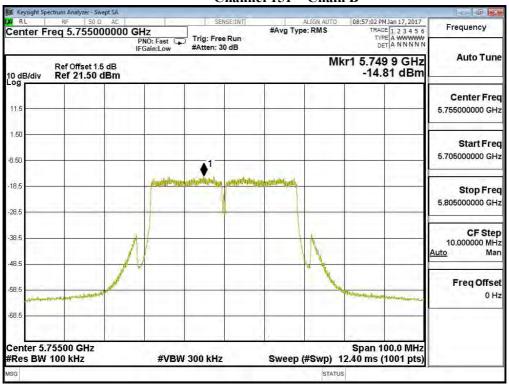


Channel 62 – Chain B

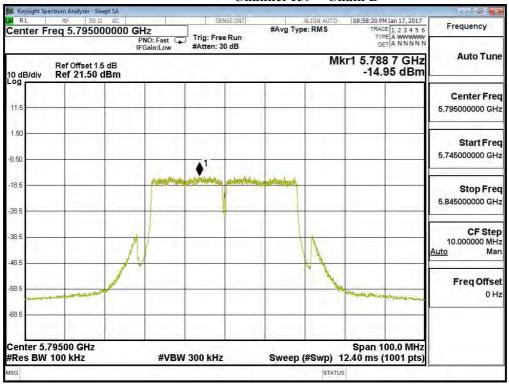








Channel 159 - Chain B

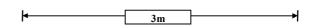


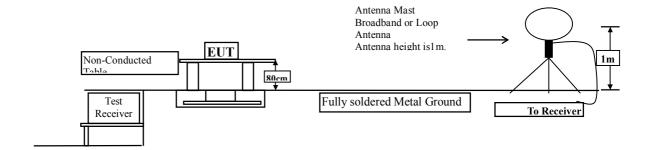


5. Radiated Emission

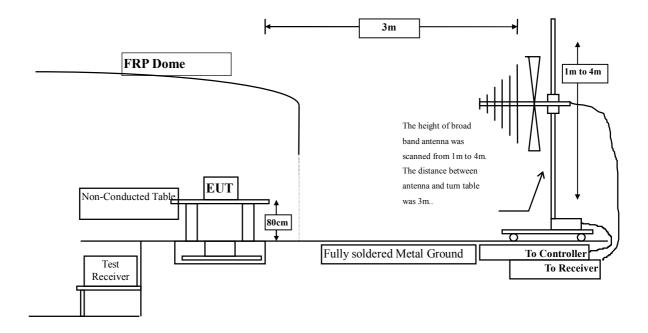
5.1. Test Setup

Radiated Emission Under 30MHz

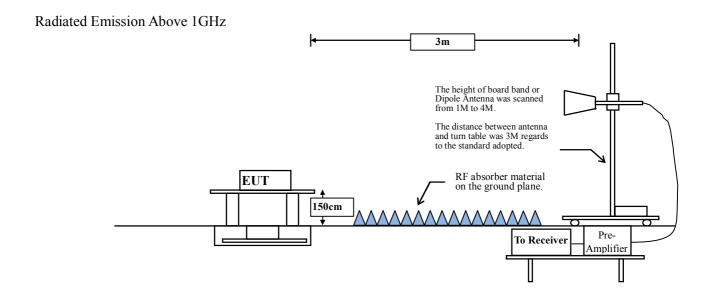




Radiated Emission Below 1GHz









5.2. 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	FCC Part 15 Subpart C Paragraph 15.209(a) Limits								
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)							
	(1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	()							
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)



5.3. 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 worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

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

5.4. Uncertainty

- + 4.08 dB above 1GHz
- ± 4.22 dB below 1GHz



5.5. Test Result of Radiated Emission

Product : Mobile Tablet

Test Item : Harmonic Radiated Emission Data

Test Site : No.3 OATS Test Date : 2017/01/19

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

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:					
10360.000	10.540	42.830	53.370	-20.630	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*
Vertical					
Peak Detector:					
10360.000	12.044	49.030	61.073	-12.927	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector: 10360.000	12.044	31.680	43.723	-10.277	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

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

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	9.649	42.790	52.438	-21.562	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10440.000	11.429	50.360	61.788	-12.212	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:					
10440.000	11.429	32.630	44.058	-29.942	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS
Test Date : 2017/01/19

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

Limit
$dB\mu V/m$
74.000
74.000
74.000
74.000
*
74.000
74.000
74.000
74.000
54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

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

Correct	Reading	Measurement	Margin	Limit
Factor	Level	Level		
dB	dΒμV	dBμV/m	dB	$dB\mu V/m$
11.021	43.350	54.371	-19.629	74.000
*	*	*	*	74.000
*	*	*	*	74.000
*	*	*	*	74.000
11.021	26.900	37.921	-16.079	54.000
12.931	49.660	62.591	-11.409	74.000
*	*	*	*	74.000
*	*	*	*	74.000
*	*	*	*	74.000
12.931	32.500	45.431	-8.569	54.000
	Factor dB 11.021 * * 11.021 12.931 * *	Factor Level dB	Factor dB Level dBμV Level dBμV/m 11.021 43.350 54.371 * * * * * * * * * 11.021 26.900 37.921 12.931 49.660 62.591 * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *	Factor dB Level dBμV Level dBμV/m dB 11.021 43.350 54.371 -19.629 * * * * * * * <td< td=""></td<>

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS
Test Date : 2017/01/19

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10600.000	11.868	44.430	56.298	-17.702	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
Detector:					
10600.000	11.868	27.980	39.848	-14.152	54.000
Vertical					
Peak Detector:					
10600.000	13.403	48.200	61.603	-12.397	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
Detector:					
10600.000	13.403	31.130	44.533	-9.467	54.000
3.7					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

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

Factor Level Level	
MHz dB dB μ V dB μ V/m dB	$dB\mu V/m$
Horizontal	
Peak Detector:	
10640.000 11.844 47.760 59.604 -14.396	74.000
15960.000 * * * *	74.000
21280.000 * * * *	74.000
26600.000 * * * * *	74.000
Average	
Detector:	
10640.000 11.844 30.520 42.364 -11.636	54.000
Vertical	
Peak Detector:	
10640.000 13.517 48.890 62.407 -11.593	74.000
15960.000 * * * * *	74.000
21280.000 * * * *	74.000
26600.000 * * * *	74.000
Average Detector:	
10640.000 13.517 31.660 45.177 -8.823	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS
Test Date : 2017/01/19

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	14.326	47.620	61.945	-12.055	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
11490.000	14.326	30.440	44.765	-9.235	54.000
Vertical					
Peak Detector:					
11490.000	15.842	42.270	58.111	-15.889	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
11490.000	15.842	27.280	43.121	-10.879	54.000
Mata.					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	14.849	47.000	61.849	-12.151	74.000
17355.000	*	*	*	*	74.000
20800.000	*	*	*	*	74.000
26000.000	*	*	*	*	74.000
31200.000	*	*	*	*	74.000
36400.000	*	*	*	*	74.000
Average					
Detector:					
11570.000	14.849	30.650	45.499	-8.501	54.000
Vertical					
Peak Detector:					
11570.000	16.215	42.890	59.104	-14.896	74.000
17355.000	*	*	*	*	74.000
20800.000	*	*	*	*	74.000
26000.000	*	*	*	*	74.000
31200.000	*	*	*	*	74.000
36400.000	*	*	*	*	74.000
Average					
Detector:					
11570.000	16.215	27.210	43.424	-10.576	54.000
Note:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	13.179	48.520	61.699	-12.301	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
11650.000	13.179	32.080	45.259	-8.741	54.000
Vertical					
Peak Detector:					
11650.000	14.634	45.140	59.774	-14.226	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
11650.000	14.634	30.200	44.834	-9.166	54.000
NT 4					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS
Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5180MHz)

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	10.540	39.240	49.780	-24.220	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average Detector:					
**************************************	*	*	*	*	*
Vertical					
Peak Detector:					
10360.000	12.044	40.930	52.973	-21.027	74.000
15540.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
Average					
Detector: *	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

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	9.649	40.030	49.678	-24.322	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10440.000	11.429	41.220	52.648	-21.352	74.000
15660.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5240MHz)

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	10.166	39.910	50.076	-23.924	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10480.000	12.101	41.870	53.971	-20.029	74.000
15720.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5260MHz)

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:					
10520.000	11.021	39.860	50.881	-23.119	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10520.000	12.931	41.060	53.991	-20.009	74.000
15780.000	*	*	*	*	74.000
21040.000	*	*	*	*	74.000
26300.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

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:					
10600.000	11.868	39.120	50.988	-23.012	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average Detector:					
**************************************	*	*	*	*	*
Vertical					
Peak Detector:					
10600.000	13.403	40.560	53.963	-20.037	74.000
15900.000	*	*	*	*	74.000
21200.000	*	*	*	*	74.000
26500.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS
Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5320MHz)

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	11.844	39.710	51.554	-22.446	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10640.000	13.517	40.390	53.907	-20.093	74.000
15960.000	*	*	*	*	74.000
21280.000	*	*	*	*	74.000
26600.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	14.326	38.700	53.025	-20.975	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11490.000	15.842	37.930	53.771	-20.229	74.000
17235.000	*	*	*	*	74.000
20720.000	*	*	*	*	74.000
25900.000	*	*	*	*	74.000
31080.000	*	*	*	*	74.000
36260.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11570.000	14.849	38.620	53.469	-20.531	74.000
17355.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
31320.000	*	*	*	*	74.000
36540.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11570.000	16.215	37.709	53.924	-20.076	74.000
17355.000	*	*	*	*	74.000
20880.000	*	*	*	*	74.000
26100.000	*	*	*	*	74.000
31320.000	*	*	*	*	74.000
36540.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	13.179	39.700	52.879	-21.121	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440.000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11650.000	14.634	38.640	53.274	-20.726	74.000
17475.000	*	*	*	*	74.000
20960.000	*	*	*	*	74.000
26200.000	*	*	*	*	74.000
31440.000	*	*	*	*	74.000
36680.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10380.000	10.164	38.700	48.864	-25.136	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10380.000	11.729	41.290	53.020	-20.980	74.000
15570.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5230MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10460.000	9.786	39.580	49.366	-24.634	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average Detector:	*	*	*	*	*
*	*	*	*	4.	*
Vertical					
Peak Detector:					
10460.000	11.644	41.990	53.634	-20.366	74.000
15690.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5270MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector:					
10540.000	11.479	39.720	51.199	-22.801	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10540.000	13.289	39.930	53.219	-20.781	74.000
15810.000	*	*	*	*	74.000
21080.000	*	*	*	*	74.000
26350.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)

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	11.862	39.620	51.482	-22.518	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
10620.000	13.449	40.060	53.509	-20.491	74.000
15930.000	*	*	*	*	74.000
21240.000	*	*	*	*	74.000
26550.000	*	*	*	*	74.000
Average					
Detector:	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	14.402	38.270	52.672	-21.328	74.000
17265.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
31140.000	*	*	*	*	74.000
36330.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11510.000	15.894	38.010	53.904	-20.096	74.000
17265.000	*	*	*	*	74.000
20760.000	*	*	*	*	74.000
25950.000	*	*	*	*	74.000
31140.000	*	*	*	*	74.000
36330.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. 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 Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11590.000	15.138	38.740	53.878	-20.122	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*
Vertical					
Peak Detector:					
11590.000	16.461	37.490	53.951	-20.049	74.000
17385.000	*	*	*	*	74.000
20920.000	*	*	*	*	74.000
26150.000	*	*	*	*	74.000
31380.000	*	*	*	*	74.000
36610.000	*	*	*	*	74.000
Average					
Detector:					
*	*	*	*	*	*

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

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

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					
239.520	-6.878	36.480	29.602	-16.398	46.000
359.800	-0.226	34.886	34.660	-11.340	46.000
515.000	3.191	36.191	39.382	-6.618	46.000
666.320	1.879	32.182	34.061	-11.939	46.000
776.900	5.167	31.982	37.149	-8.851	46.000
831.220	7.121	29.617	36.738	-9.262	46.000
Vertical					
Peak Detector					
99.840	-6.063	42.533	36.470	-7.030	43.500
239.520	-6.138	34.195	28.057	-17.943	46.000
416.060	-6.381	40.178	33.797	-12.203	46.000
515.000	0.081	35.142	35.223	-10.777	46.000
666.320	-0.951	35.868	34.917	-11.083	46.000
831.220	2.041	27.425	29.466	-16.534	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

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

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	dBµV/m
Horizontal					
Peak Detector					
239.520	-6.878	37.288	30.410	-15.590	46.000
363.680	0.189	35.039	35.228	-10.772	46.000
515.000	3.191	36.686	39.877	-6.123	46.000
666.320	1.879	33.101	34.980	-11.020	46.000
774.960	5.153	32.871	38.024	-7.976	46.000
916.580	6.470	30.411	36.881	-9.119	46.000
Vertical					
Peak Detector					
156.100	-5.217	35.208	29.991	-13.509	43.500
239.520	-6.138	34.785	28.647	-17.353	46.000
515.000	0.081	35.298	35.379	-10.621	46.000
666.320	-0.951	36.533	35.582	-10.418	46.000
813.760	2.886	28.041	30.927	-15.073	46.000
953.440	3.015	28.378	31.393	-14.607	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

	Frequency	Correct	Reading	Measurement	Margin	Limit
		Factor	Level	Level		
	MHz	dB	$dB\mu V$	$dB\mu V/m$	dB	$dB\mu V/m$
	Horizontal					_
F	Peak Detector					
	239.520	-6.878	35.820	28.942	-17.058	46.000
	355.920	-1.242	37.311	36.069	-9.931	46.000
	515.000	3.191	36.363	39.554	-6.446	46.000
	666.320	1.879	31.955	33.834	-12.166	46.000
	774.960	5.153	31.004	36.157	-9.843	46.000
	831.220	7.121	30.682	37.803	-8.197	46.000
	Vertical					
F	Peak Detector					
	239.520	-6.138	38.236	32.098	-13.902	46.000
	416.060	-6.381	43.397	37.016	-8.984	46.000
	542.160	1.855	30.799	32.654	-13.346	46.000
	677.960	0.840	30.155	30.995	-15.005	46.000
	831.220	2.041	30.682	32.723	-13.277	46.000
	965.080	3.832	24.735	28.567	-25.433	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5220MHz)

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					
239.520	-6.878	36.091	29.213	-16.787	46.000
359.800	-0.226	34.543	34.317	-11.683	46.000
542.160	3.925	31.777	35.702	-10.298	46.000
666.320	1.879	32.492	34.371	-11.629	46.000
776.900	5.167	32.328	37.495	-8.505	46.000
831.220	7.121	29.463	36.584	-9.416	46.000
Vertical					
Peak Detector					
245.340	-5.908	36.256	30.348	-15.652	46.000
355.920	-0.972	36.547	35.575	-10.425	46.000
515.000	0.081	35.008	35.089	-10.911	46.000
666.320	-0.951	32.492	31.541	-14.459	46.000
776.900	2.067	32.328	34.395	-11.605	46.000
961.200	3.310	25.432	28.742	-25.258	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5300MHz)

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					
239.520	-6.878	36.347	29.469	-16.531	46.000
365.620	0.382	33.859	34.241	-11.759	46.000
515.000	3.191	35.027	38.218	-7.782	46.000
679.900	2.823	33.051	35.874	-10.126	46.000
831.220	7.121	29.767	36.888	-9.112	46.000
918.520	6.718	28.218	34.936	-11.064	46.000
Vertical					
Peak Detector					
206.540	-5.509	35.386	29.877	-13.623	43.500
355.920	-0.972	37.259	36.287	-9.713	46.000
515.000	0.081	36.231	36.312	-9.688	46.000
679.900	1.223	33.051	34.274	-11.726	46.000
774.960	2.023	31.290	33.313	-12.687	46.000
918.520	1.958	28.218	30.176	-15.824	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

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					
239.520	-6.878	36.061	29.183	-16.817	46.000
355.920	-1.242	37.408	36.166	-9.834	46.000
515.000	3.191	33.702	36.893	-9.107	46.000
666.320	1.879	31.857	33.736	-12.264	46.000
774.960	5.153	30.444	35.597	-10.403	46.000
831.220	7.121	29.387	36.508	-9.492	46.000
Vertical					
Peak Detector					
206.540	-5.509	35.602	30.093	-13.407	43.500
355.920	-0.972	37.408	36.436	-9.564	46.000
515.000	0.081	36.557	36.638	-9.362	46.000
677.960	0.840	30.781	31.621	-14.379	46.000
831.220	2.041	29.388	31.429	-14.571	46.000
934.040	2.986	25.122	28.108	-17.892	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5190MHz)

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					
239.520	-6.878	35.454	28.576	-17.424	46.000
369.500	0.787	32.449	33.236	-12.764	46.000
515.000	3.191	34.895	38.086	-7.914	46.000
666.320	1.879	32.696	34.575	-11.425	46.000
831.220	7.121	28.375	35.496	-10.504	46.000
918.520	6.718	28.906	35.624	-10.376	46.000
Vertical					
Peak Detector					
239.520	-6.138	34.047	27.909	-18.091	46.000
365.620	0.282	31.031	31.313	-14.687	46.000
542.160	1.855	29.920	31.775	-14.225	46.000
677.960	0.840	25.770	26.610	-19.390	46.000
776.900	2.067	31.602	33.669	-12.331	46.000
961.200	3.310	25.613	28.923	-25.077	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5310MHz)

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					
66.860	-13.595	40.343	26.748	-13.252	40.000
239.520	-6.878	36.262	29.384	-16.616	46.000
359.800	-0.226	31.312	31.086	-14.914	46.000
515.000	3.191	29.273	32.464	-13.536	46.000
666.320	1.879	30.697	32.576	-13.424	46.000
831.220	7.121	30.326	37.447	-8.553	46.000
Vertical					
Peak Detector					
239.520	-6.138	36.968	30.830	-15.170	46.000
359.800	-1.316	39.581	38.265	-7.735	46.000
515.000	0.081	37.574	37.655	-8.345	46.000
666.320	-0.951	31.445	30.494	-15.506	46.000
774.960	2.023	31.890	33.913	-12.087	46.000
943.740	3.383	25.966	29.349	-16.651	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



Test Item : General Radiated Emission

Test Site : No.3 OATS Test Date : 2017/01/19

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dΒμV	$dB\mu V/m$	dB	$dB\mu V/m$
Horizontal					
Peak Detector					
239.520	-6.878	34.241	27.363	-18.637	46.000
359.800	-0.226	34.177	33.951	-12.049	46.000
515.000	3.191	35.036	38.227	-7.773	46.000
666.320	1.879	27.261	29.140	-16.860	46.000
774.960	5.153	31.871	37.024	-8.976	46.000
918.520	6.718	23.860	30.578	-15.422	46.000
Vertical					
Peak Detector					
239.520	-6.138	37.294	31.156	-14.844	46.000
359.800	-1.316	32.044	30.728	-15.272	46.000
416.060	-6.381	38.404	32.023	-13.977	46.000
515.000	0.081	29.697	29.778	-16.222	46.000
666.320	-0.951	31.739	30.788	-15.212	46.000
831.220	2.041	30.797	32.838	-13.162	46.000

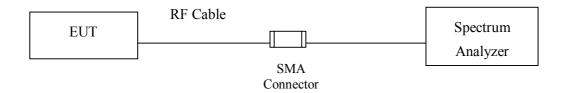
- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. Measurement Level = Reading Level + Correct Factor.
- 5. Correct Factor = Antenna factor + Cable loss Amplifier gain.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.
- 7. The emission levels of other frequencies are very lower than the limit and not show in test report.
- 8. No emission found between lowest internal used/generated frequency to 30MHz.



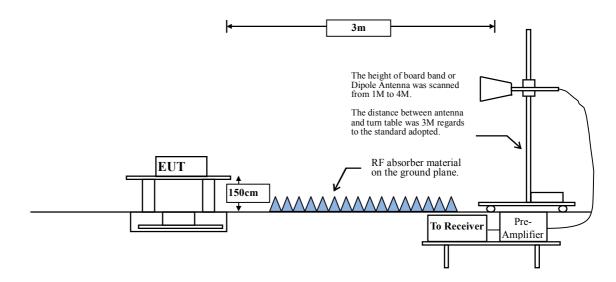
6. Band Edge

6.1. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



Report No.: 1710172R-RFUSP52V00



6.2. Limits

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

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 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.

6.3. 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.

6.4. Uncertainty

- + 4.08 dB above 1GHz
- ± 4.22 dB below 1GHz



6.5. Test Result of Band Edge

Product : Mobile Tablet
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Date : 2017/01/19

Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

RF Radiated Measurement (Horizontal):

Channal No	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	
Channel No.	(MHz)	(dB)	(dBµV)	(dBµV/m)	$(dB\mu V/m)$	(dBµV/m)	Result
36 (Peak)	5149.400	2.799	65.152	67.950	74.00	54.00	Pass
36 (Peak)	5150.000	2.796	64.208	67.004	74.00	54.00	Pass
36 (Peak)	5184.600	2.680	103.964	106.644			
36 (Average)	5150.000	2.796	46.212	49.008	74.00	54.00	Pass
36 (Average)	5177.600	2.705	90.933	93.637			

Figure Channel 36:

Horizontal (Peak)

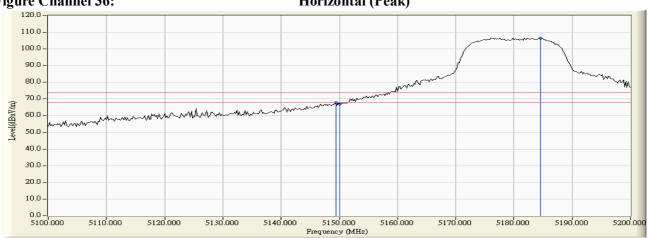
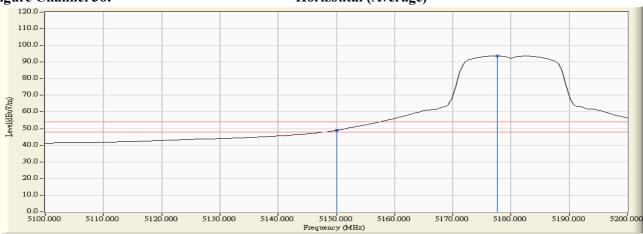


Figure Channel 36:

Horizontal (Average)



- Note:1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
 - 2. Peak measurements: RBW = $\hat{1}$ MHz, VBW = $\hat{3}$ MHz, Sweep: Auto.
 - 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
 - 4. "*", means this data is the worst emission level.
 - 5. Measurement Level = Reading Level + Correct Factor.
 - 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 36

RF Radiated Measurement (Vertical):

Channel No.	1 -	Correct Factor		Emission Level			Result
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	(dBµV/m)	Result
36 (Peak)	5148.000	3.322	63.610	66.932	74.00	54.00	Pass
36 (Peak)	5150.000	3.331	63.508	66.840	74.00	54.00	Pass
36 (Peak)	5177.800	3.462	101.928	105.390			
36 (Average)	5150.000	3.331	45.072	48.404	74.00	54.00	Pass
36 (Average)	5177.000	3.459	88.981	92.440			



Vertical (Peak)

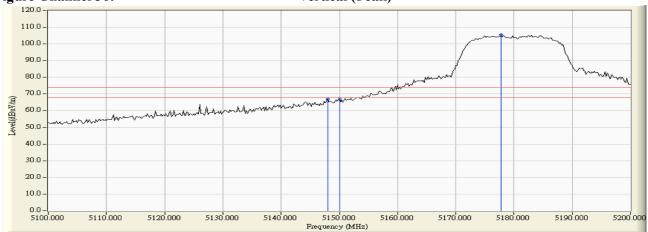
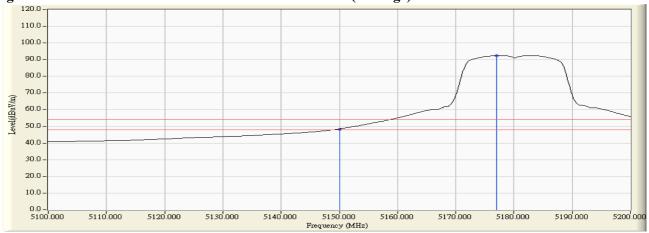


Figure Channel 36:

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product Mobile Tablet Test Item Band Edge Data No.3 OATS Test Site Test Date 2017/01/19

Test Mode Mode 1: Transmit (802.11a-6Mbps) -Channel 64

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamilei No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Kesuit
64 (Peak)	5317.400	3.648	102.653	106.300			
64 (Peak)	5350.000	3.575	60.988	64.563	74.00	54.00	Pass
64 (Peak)	5350.800	3.572	62.233	65.806	74.00	54.00	Pass
64 (Average)	5322.800	3.638	89.338	92.975			
64 (Average)	5350.000	3.575	44.187	47.762	74.00	54.00	Pass

Figure Channel 64:

Horizontal (Peak)

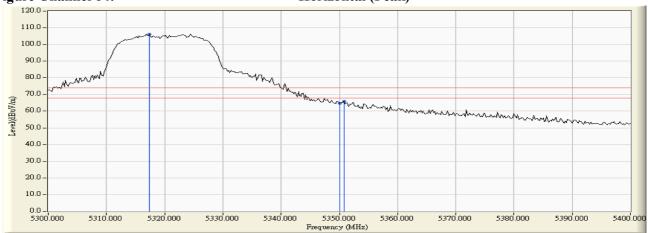
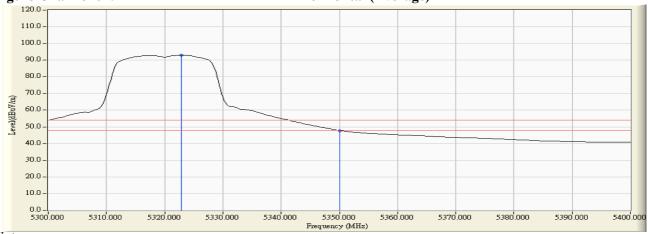


Figure Channel 64:

Horizontal (Average)



- All readings above 1GHz are performed with peak and/or average measurements as necessary. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.

 Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.

 "*", means this data is the worst emission level.
- 2. 3.
- 4.
- Measurement Level = Reading Level + Correct Factor.
- The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 1: Transmit (802.11a-6Mbps) -Channel 64

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
64 (Peak)	5324.400	3.890	102.447	106.337			
64 (Peak)	5350.000	3.900	62.297	66.197	74.00	54.00	Pass
64 (Average)	5322.800	3.890	89.213	93.102			
64 (Average)	5350.000	3.900	44.044	47.944	74.00	54.00	Pass



Vertical (Peak)

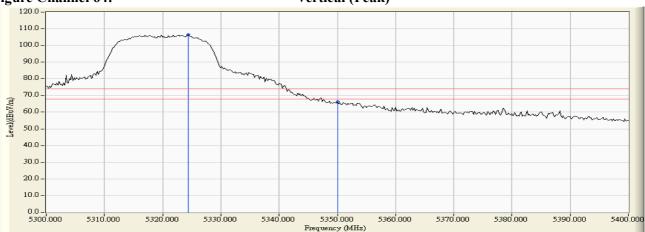
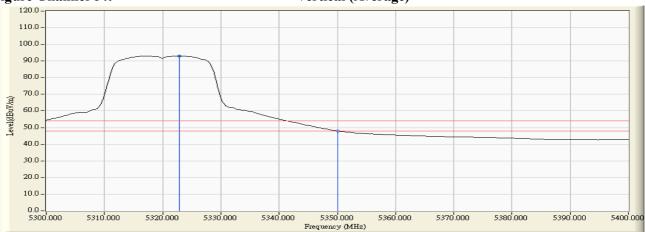


Figure Channel 64:

Vertical (Average)

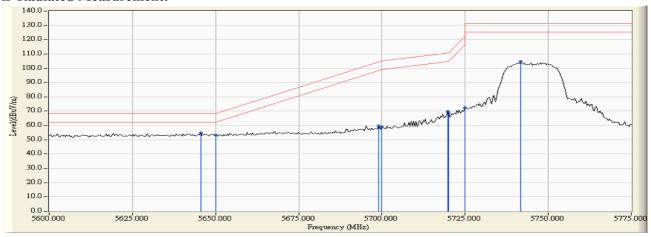


- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



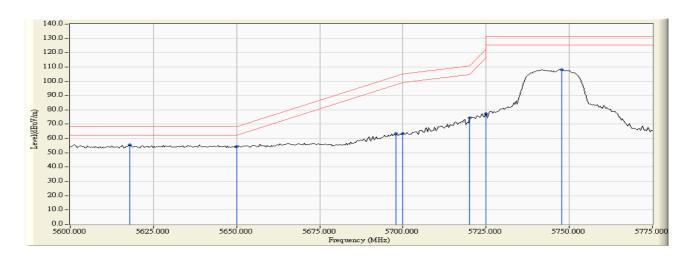
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 149

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5645.500	4.720	49.979	54.699	-13.521	68.220	Pass
Horizontal	5650.000	4.764	48.416	53.181	-15.039	68.220	Pass
Horizontal	5699.050	4.998	54.627	59.625	-44.872	104.497	Pass
Horizontal	5700.000	5.002	53.865	58.867	-46.333	105.200	Pass
Horizontal	5719.700	5.082	64.902	69.984	-40.732	110.716	Pass
Horizontal	5720.000	5.083	63.582	68.665	-42.135	110.800	Pass
Horizontal	5725.000	5.104	67.370	72.473	-49.727	122.200	Pass
Horizontal	5741.750	5.173	99.421	104.594	-26.606	131.200	Pass



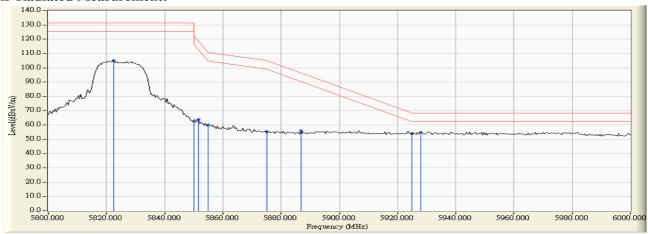


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5617.850	4.211	51.312	55.523	-12.697	68.220	Pass
Vertical	5650.000	4.361	50.019	54.381	-13.839	68.220	Pass
Vertical	5698.000	4.177	59.439	63.617	-40.104	103.721	Pass
Vertical	5700.000	4.176	59.376	63.552	-41.648	105.200	Pass
Vertical	5720.000	4.200	70.232	74.432	-36.368	110.800	Pass
Vertical	5725.000	4.215	73.168	77.383	-44.817	122.200	Pass
Vertical	5747.700	4.280	103.800	108.080	-23.120	131.200	Pass



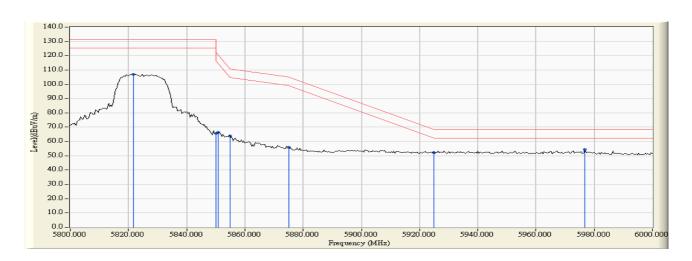
Test Mode : Mode 1: Transmit (802.11a-6Mbps)-Channel 165

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBμV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5822.400	5.524	99.549	105.073	-26.127	131.200	Pass
Horizontal	5850.000	5.715	57.042	62.757	-68.443	131.200	Pass
Horizontal	5851.600	5.729	58.157	63.885	-54.667	118.552	Pass
Horizontal	5855.000	5.757	54.271	60.028	-50.772	110.800	Pass
Horizontal	5875.000	5.931	49.419	55.350	-49.850	105.200	Pass
Horizontal	5886.800	6.038	49.764	55.802	-40.666	96.468	Pass
Horizontal	5925.000	6.245	47.659	53.905	-14.295	68.200	Pass
Horizontal	5928.000	6.256	48.660	54.915	-13.285	68.200	Pass





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5821.600	4.307	102.785	107.092	-24.108	131.200	Pass
Vertical	5850.000	4.194	61.411	65.605	-65.595	131.200	Pass
Vertical	5850.800	4.193	62.217	66.409	-53.967	120.376	Pass
Vertical	5855.000	4.181	59.541	63.722	-47.078	110.800	Pass
Vertical	5875.000	4.137	51.638	55.775	-49.425	105.200	Pass
Vertical	5925.000	4.270	47.946	52.216	-15.984	68.200	Pass
Vertical	5976.800	4.127	50.243	54.370	-13.830	68.200	Pass



Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

RF Radiated Measurement (Horizontal):

	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	D ogult
	(MHz)	(dB)	$(dB\mu V)$	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Result
36 (Peak)	5141.200	2.823	58.263	61.086	74.00	54.00	Pass
36 (Peak)	5150.000	2.796	53.249	56.045	74.00	54.00	Pass
36 (Peak)	5183.800	2.683	102.237	104.920			
36 (Average)	5150.000	2.796	39.352	42.148	74.00	54.00	Pass
36 (Average)	5183.200	2.685	85.407	88.092			

Figure Channel 36:

Horizontal (Peak)

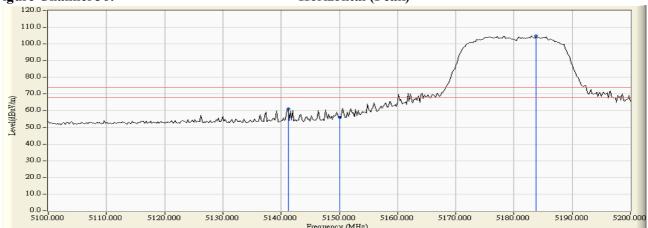


Figure Channel 36:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 36

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chamilei No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Kesuit
36 (Peak)	5146.800	3.315	57.155	60.471	74.00	54.00	Pass
36 (Peak)	5150.000	3.331	56.506	59.838	74.00	54.00	Pass
36 (Peak)	5177.600	3.462	101.529	104.990			
36 (Average)	5150.000	3.331	38.933	42.265	74.00	54.00	Pass
36 (Average)	5182.600	3.485	84.505	87.990			

Figure Channel 36:

Vertical (Peak)

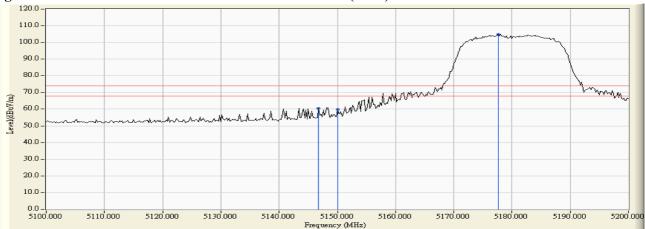


Figure Channel 36:

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64

RF Radiated Measurement (Horizontal):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Chamici No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	ixcsuit
64 (Peak)	5323.400	3.636	99.431	103.067			
64 (Peak)	5350.000	3.575	51.115	54.690	74.00	54.00	Pass
64 (Peak)	5350.600	3.573	53.950	57.523	74.00	54.00	Pass
64 (Average)	5323.000	3.637	82.992	86.629			
64 (Average)	5350.000	3.575	38.282	41.857	74.00	54.00	Pass

Figure Channel 64:

Horizontal (Peak)

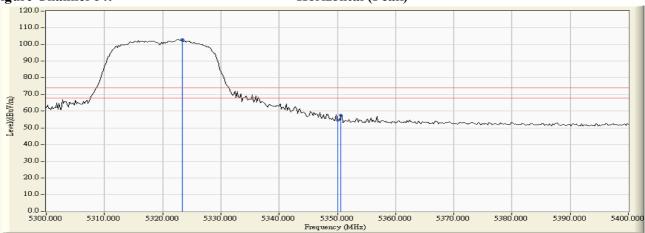
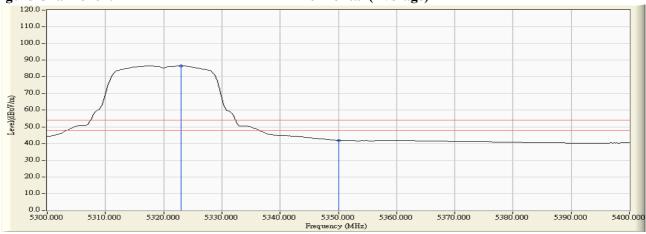


Figure Channel 64:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 64

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Arerage Limit (dBµV/m)	Result
64 (Peak)	5321.400	3.887	98.786	102.674			
64 (Peak)	5350.000	3.900	51.188	55.088	74.00	54.00	Pass
64 (Peak)	5350.400	3.900	54.512	58.412	74.00	54.00	Pass
64 (Average)	5323.400	3.889	83.200	87.089			
64 (Average)	5350.000	3.900	38.391	42.291	74.00	54.00	Pass

Figure Channel 64:

Vertical (Peak)

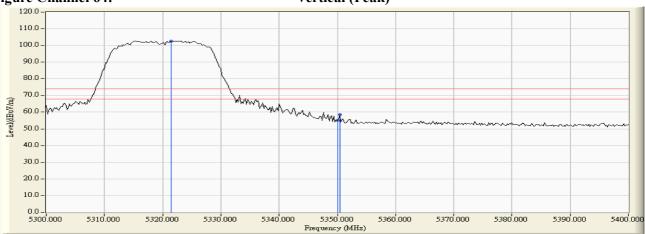
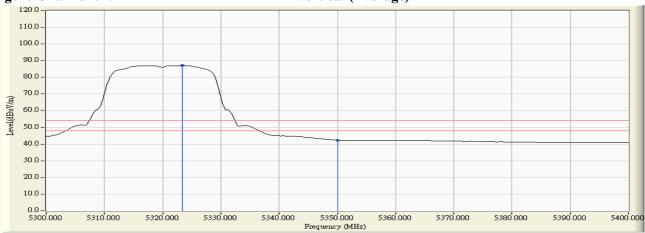


Figure Channel 64:

Vertical (Average)

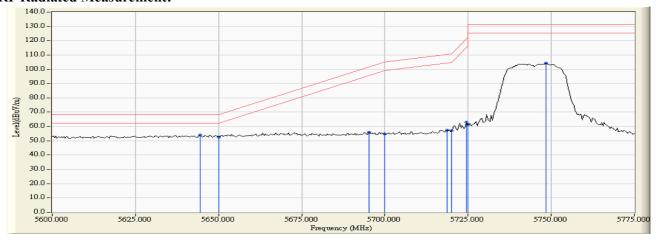


- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



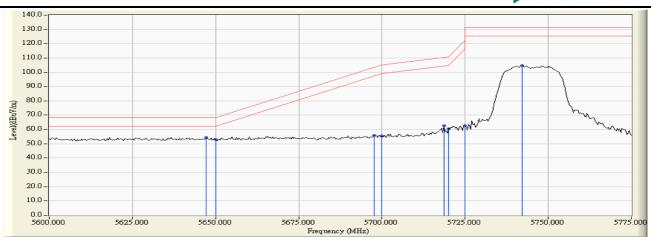
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 149

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5644.450	4.709	49.414	54.124	-14.096	68.220	Pass
Horizontal	5650.000	4.764	47.948	52.713	-15.507	68.220	Pass
Horizontal	5695.200	4.983	50.874	55.856	-45.794	101.650	Pass
Horizontal	5700.000	5.002	49.697	54.699	-50.501	105.200	Pass
Horizontal	5718.650	5.078	52.498	57.576	-52.846	110.422	Pass
Horizontal	5720.000	5.083	51.785	56.868	-53.932	110.800	Pass
Horizontal	5724.600	5.102	57.861	62.963	-58.325	121.288	Pass
Horizontal	5725.000	5.104	56.076	61.179	-61.021	122.200	Pass
Horizontal	5748.400	5.198	99.182	104.380	-26.820	131.200	Pass



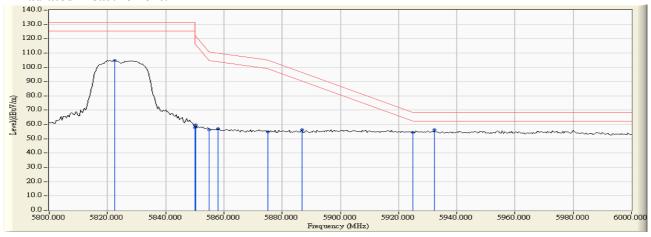


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5647.250	4.360	49.897	54.257	-13.963	68.220	Pass
Vertical	5650.000	4.361	48.697	53.059	-15.161	68.220	Pass
Vertical	5697.650	4.177	51.710	55.888	-47.574	103.462	Pass
Vertical	5700.000	4.176	51.340	55.516	-49.684	105.200	Pass
Vertical	5718.650	4.197	58.523	62.719	-47.703	110.422	Pass
Vertical	5720.000	4.200	56.315	60.515	-50.285	110.800	Pass
Vertical	5725.000	4.215	58.561	62.776	-59.424	122.200	Pass
Vertical	5742.100	4.266	100.314	104.580	-26.620	131.200	Pass



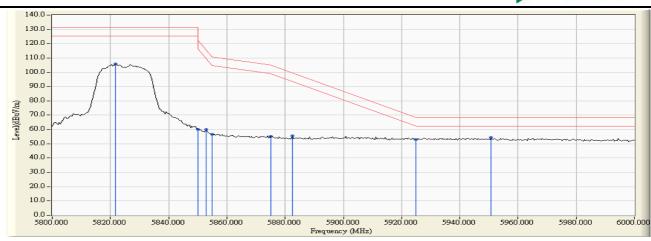
Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) -Channel 165

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5822.400	5.524	99.332	104.856	-26.344	131.200	Pass
Horizontal	5850.000	5.715	52.153	57.868	-64.332	122.200	Pass
Horizontal	5850.400	5.718	53.851	59.569	-61.719	121.288	Pass
Horizontal	5855.000	5.757	50.630	56.387	-54.413	110.800	Pass
Horizontal	5858.000	5.781	51.085	56.866	-53.094	109.960	Pass
Horizontal	5875.000	5.931	48.995	54.926	-50.274	105.200	Pass
Horizontal	5886.800	6.038	50.208	56.246	-40.222	96.468	Pass
Horizontal	5925.000	6.245	48.349	54.595	-13.605	68.200	Pass
Horizontal	5932.400	6.270	49.996	56.266	-11.934	68.200	Pass





	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5821.600	4.307	101.487	105.794	-25.406	131.200	Pass
Vertical	5850.000	4.194	55.728	59.922	-62.278	122.200	Pass
Vertical	5852.800	4.187	56.020	60.207	-55.609	115.816	Pass
Vertical	5855.000	4.181	52.326	56.507	-54.293	110.800	Pass
Vertical	5875.000	4.137	50.872	55.009	-50.191	105.200	Pass
Vertical	5882.400	4.122	51.308	55.431	-44.293	99.724	Pass
Vertical	5925.000	4.270	48.694	52.964	-15.236	68.200	Pass
Vertical	5950.800	4.392	49.883	54.276	-13.924	68.200	Pass



Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 38

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Emission Level (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Result
38 (Peak)	5150.000	2.796	61.214	64.010	74.00	54.00	Pass
38 (Peak)	5195.000	2.646	99.896	102.543			
38 (Average)	5150.000	2.796	42.382	45.178	74.00	54.00	Pass
38 (Average)	5194.800	2.647	80.009	82.656			



Horizontal (Peak)

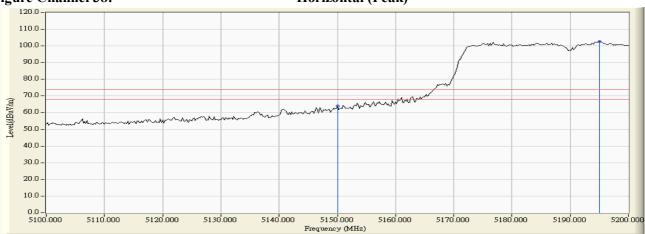
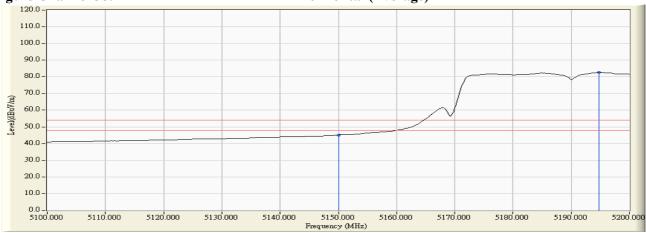


Figure Channel 38:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 38

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
Chainlei No.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	Kesuit
38 (Peak)	5147.800	3.321	59.985	63.306	74.00	54.00	Pass
38 (Peak)	5150.000	3.331	58.583	61.915	74.00	54.00	Pass
38 (Peak)	5195.800	3.549	98.598	102.147			
38 (Average)	5150.000	3.331	41.322	44.654	74.00	54.00	Pass
38 (Average)	5196.400	3.552	78.756	82.308			

Figure Channel 38:

Vertical (Peak)

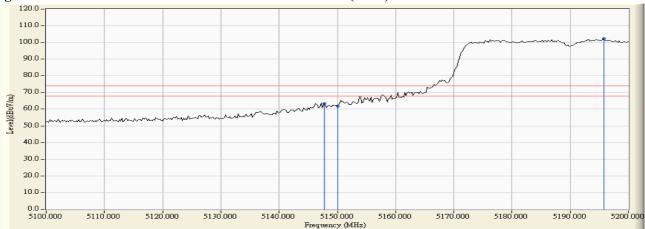
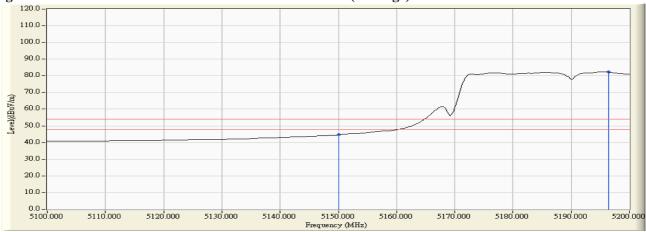


Figure Channel 38:

Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62

RF Radiated Measurement (Horizontal):

Channel No.		Correct Factor	Reading Level	Emission Level			Result
Chamici 140.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	(dBµV/m)	ixesuit
62 (Peak)	5317.000	3.648	96.718	100.366			
62 (Peak)	5350.000	3.575	59.017	62.592	74.00	54.00	Pass
62 (Peak)	5350.200	3.575	59.239	62.813	74.00	54.00	Pass
62 (Average)	5323.200	3.637	77.121	80.758	-		
62 (Average)	5350.000	3.575	41.936	45.511	74.00	54.00	Pass



Horizontal (Peak)

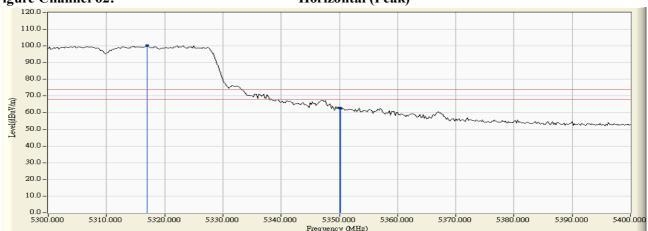
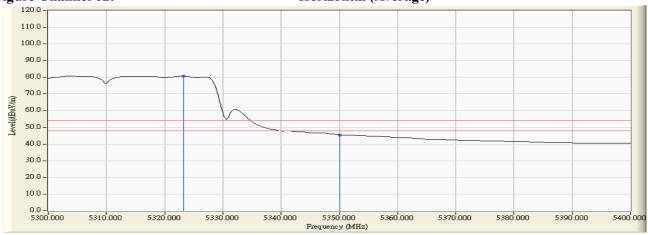


Figure Channel 62:

Horizontal (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 62

RF Radiated Measurement (Vertical):

Channel No.	Frequency	Correct Factor	Reading Level	Emission Level			Result
Chamici ivo.	(MHz)	(dB)	(dBµV)	$(dB\mu V/m)$	$(dB\mu V/m)$	$(dB\mu V/m)$	ixesuit
62 (Peak)	5306.800	3.876	96.595	100.471			
62 (Peak)	5350.000	3.900	58.216	62.116	74.00	54.00	Pass
62 (Peak)	5350.800	3.900	59.153	63.053	74.00	54.00	Pass
62 (Average)	5304.800	3.875	77.496	81.370			
62 (Average)	5350.000	3.900	42.366	46.266	74.00	54.00	Pass



Vertical (Peak)

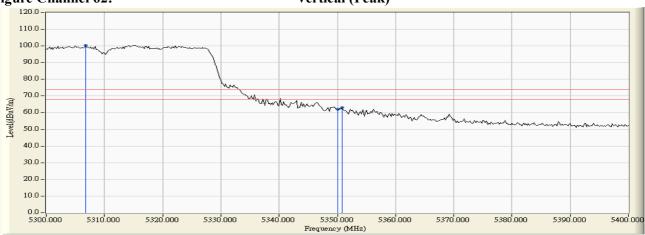
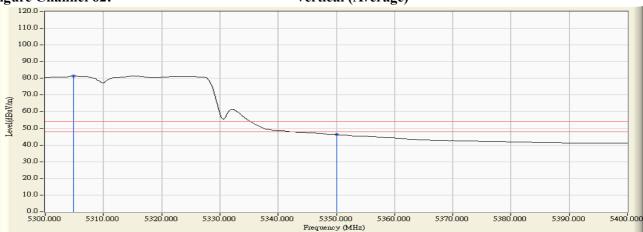


Figure Channel 62:

Vertical (Average)

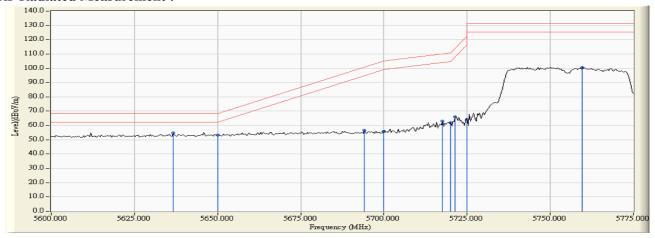


- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



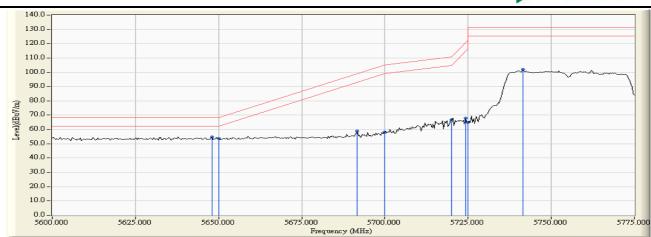
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 151

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5636.750	4.610	50.164	54.774	-13.446	68.220	Pass
Horizontal	5650.000	4.764	48.666	53.431	-14.789	68.220	Pass
Horizontal	5694.150	4.979	51.663	56.641	-44.232	100.873	Pass
Horizontal	5700.000	5.002	50.919	55.921	-49.279	105.200	Pass
Horizontal	5717.600	5.074	58.107	63.180	-46.948	110.128	Pass
Horizontal	5720.000	5.083	56.809	61.892	-48.908	110.800	Pass
Horizontal	5721.450	5.089	61.130	66.219	-47.887	114.106	Pass
Horizontal	5725.000	5.104	59.221	64.324	-57.876	122.200	Pass
Horizontal	5759.600	5.239	95.355	100.594	-30.606	131.200	Pass



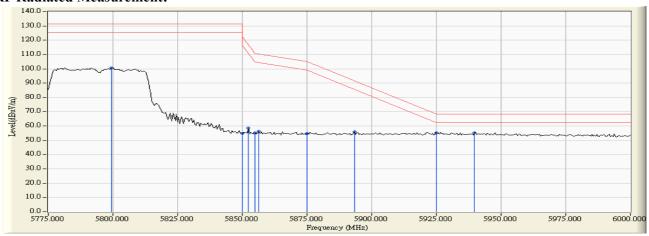


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5647.950	4.360	50.407	54.767	-13.453	68.220	Pass
Vertical	5650.000	4.361	49.306	53.668	-14.552	68.220	Pass
Vertical	5691.700	4.184	54.696	58.880	-40.181	99.061	Pass
Vertical	5700.000	4.176	54.063	58.239	-46.961	105.200	Pass
Vertical	5720.000	4.200	62.445	66.645	-44.155	110.800	Pass
Vertical	5724.250	4.213	63.857	68.069	-52.421	120.490	Pass
Vertical	5725.000	4.215	60.627	64.842	-57.358	122.200	Pass
Vertical	5741.400	4.263	97.704	101.968	-29.232	131.200	Pass



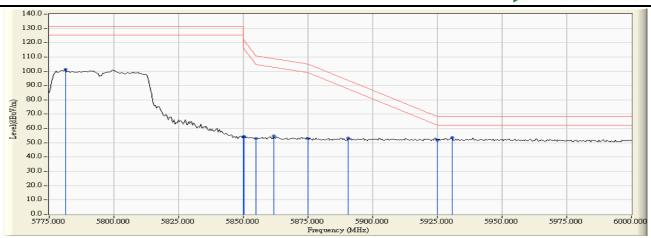
Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) -Channel 159

RF Radiated Measurement:



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBμV/m)	Margin (dB)	Limit (dBµV/m)	Result
Horizontal	5799.300	5.382	95.368	100.750	-30.450	131.200	Pass
Horizontal	5850.000	5.715	49.103	54.818	-67.382	122.200	Pass
Horizontal	5852.400	5.734	52.650	58.385	-58.343	116.728	Pass
Horizontal	5855.000	5.757	49.289	55.046	-55.754	110.800	Pass
Horizontal	5856.450	5.769	50.691	56.460	-53.934	110.394	Pass
Horizontal	5875.000	5.931	48.797	54.728	-50.472	105.200	Pass
Horizontal	5893.350	6.098	50.005	56.103	-35.518	91.621	Pass
Horizontal	5925.000	6.245	48.983	55.229	-12.971	68.200	Pass
Horizontal	5939.700	6.294	49.055	55.349	-12.851	68.200	Pass



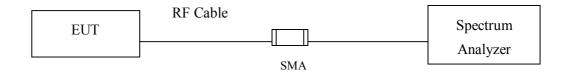


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBµV)	Measure Level (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Result
Vertical	5781.300	4.358	97.003	101.361	-29.839	131.200	Pass
Vertical	5850.000	4.194	49.985	54.179	-68.021	122.200	Pass
Vertical	5850.150	4.194	50.307	54.501	-67.357	121.858	Pass
Vertical	5855.000	4.181	48.870	53.051	-57.749	110.800	Pass
Vertical	5861.850	4.163	50.629	54.792	-54.090	108.882	Pass
Vertical	5875.000	4.137	48.835	52.972	-52.228	105.200	Pass
Vertical	5890.650	4.108	49.154	53.262	-40.357	93.619	Pass
Vertical	5925.000	4.270	47.649	51.919	-16.281	68.200	Pass
Vertical	5930.700	4.309	49.318	53.628	-14.572	68.200	Pass



7. Occupied Bandwidth

7.1. Test Setup



7.2. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

7.3. .Test Procedure

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.

7.4. Uncertainty

 \pm 681.6Hz



7.5. Test Result of Occupied Bandwidth

Product : Mobile Tablet

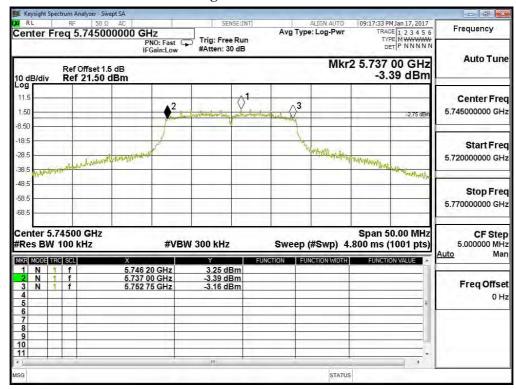
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	15750	>500	Pass

Figure Channel 149:





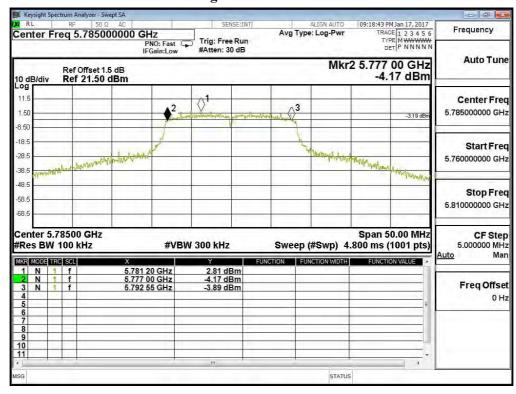
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	15550	>500	Pass

Figure Channel 157:





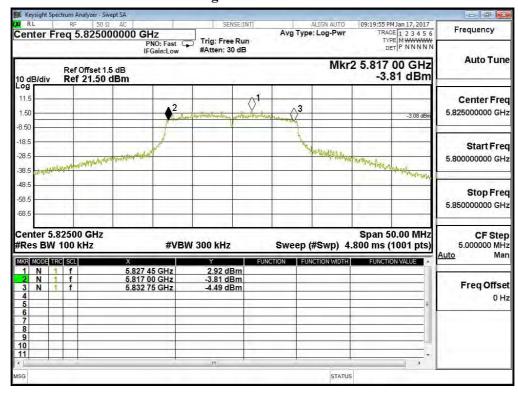
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

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

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	15750	>500	Pass

Figure Channel 165:





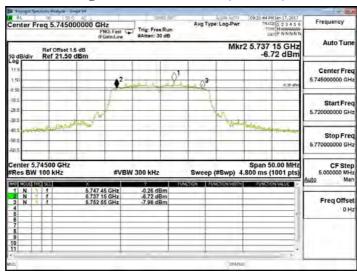
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5745MHz)

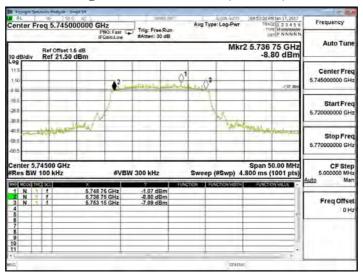
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	15400	>500	Pass

Figure Channel 149: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745.00	16400	>500	Pass

Figure Channel 149: (Chain B)



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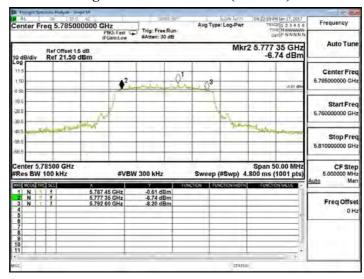
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5785MHz)

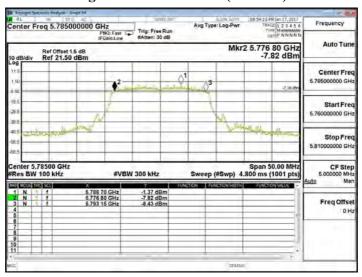
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	15250	>500	Pass

Figure Channel 157: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
157	5785.00	16350	>500	Pass

Figure Channel 157: (Chain B)





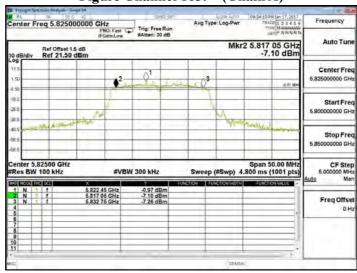
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmit (802.11n-20BW 14.4Mbps) (5825MHz)

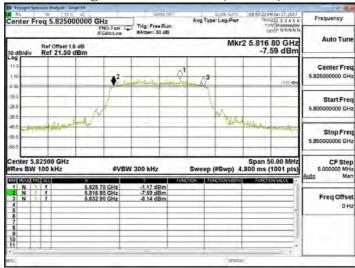
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	15700	>500	Pass

Figure Channel 165: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
165	5825.00	16100	>500	Pass

Figure Channel 165: (Chain B)





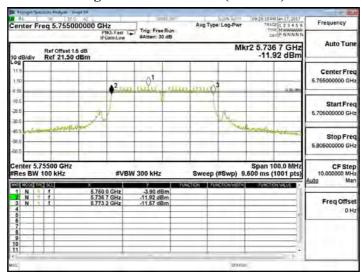
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5755MHz)

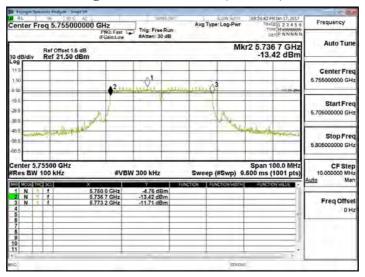
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

Figure Channel 151: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
151	5755.00	36500	>500	Pass

Figure Channel 151: (Chain B)





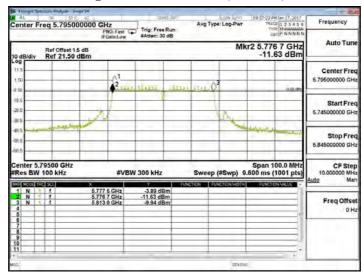
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 3: Transmit (802.11n-40BW 30Mbps) (5795MHz)

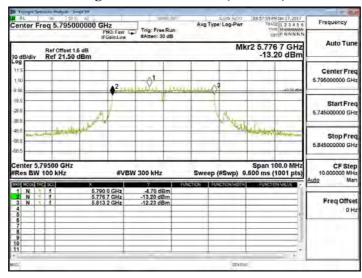
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36300	>500	Pass

Figure Channel 159: (Chain A)



Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
159	5795.00	36500	>500	Pass

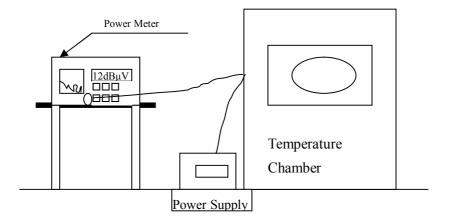
Figure Channel 159: (Chain B)





8. Frequency Stability

8.1. Test Setup



8.2. Limits

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

8.3. Test Procedure

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.

8.4. Uncertainty

 \pm 681.6 Hz



8.5. Test Result of Frequency Stability

Product : Mobile Tablet

Test Item : Frequency Stability
Test Site : Temperature Chamber

Test Date : 2017/01/19 Test Mode : Carrier Wave

Chain A

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0013	-0.0013
		38	5190.0000	5190.0018	-0.0018
		44	5220.0000	5220.0107	-0.0107
		46	5230.0000	5230.0040	-0.0040
		48	5240.0000	5240.0108	-0.0108
		52	5260.0000	5260.0040	-0.0040
		54	5270.0000	5270.0032	-0.0032
Tnom (20) oC	Vnom (120)V	60	5300.0000	5300.0069	-0.0069
		62	5310.0000	5310.0094	-0.0094
		64	5320.0000	5320.0045	-0.0045
		149	5745.0000	5745.0091	-0.0091
		151	5755.0000	5755.0020	-0.0020
		157	5785.0000	5785.0029	-0.0029
		159	5795.0000	5795.0063	-0.0063
		165	5825.0000	5825.0100	-0.0100

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Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0104	-0.0104
		38	5190.0000	5190.0041	-0.0041
		44	5220.0000	5220.0060	-0.0060
		46	5230.0000	5230.0109	-0.0109
		48	5240.0000	5240.0066	-0.0066
		52	5260.0000	5260.0104	-0.0104
		54	5270.0000	5270.0102	-0.0102
Tmax (50) oC	Vmax (138)V	60	5300.0000	5300.0051	-0.0051
		62	5310.0000	5310.0096	-0.0096
		64	5320.0000	5320.0107	-0.0107
		149	5745.0000	5745.0025	-0.0025
		151	5755.0000	5755.0056	-0.0056
		157	5785.0000	5785.0049	-0.0049
		159	5795.0000	5795.0064	-0.0064
		165	5825.0000	5825.0034	-0.0034



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0050	-0.0050
		38	5190.0000	5190.0042	-0.0042
		44	5220.0000	5220.0092	-0.0092
		46	5230.0000	5230.0083	-0.0083
		48	5240.0000	5240.0048	-0.0048
		52	5260.0000	5260.0072	-0.0072
	Vmin (102)V	54	5270.0000	5270.0074	-0.0074
Tmax (50) °C		60	5300.0000	5300.0022	-0.0022
		62	5310.0000	5310.0065	-0.0065
		64	5320.0000	5320.0076	-0.0076
		149	5745.0000	5745.0032	-0.0032
		151	5755.0000	5755.0081	-0.0081
		157	5785.0000	5785.0049	-0.0049
		159	5795.0000	5795.0102	-0.0102
		165	5825.0000	5825.0047	-0.0047



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0010	-0.0010
		38	5190.0000	5190.0044	-0.0044
		44	5220.0000	5220.0044	-0.0044
		46	5230.0000	5230.0044	-0.0044
		48	5240.0000	5240.0101	-0.0101
		52	5260.0000	5260.0028	-0.0028
		54	5270.0000	5270.0068	-0.0068
Tnom (-10) oC	Vnom (138)V	60	5300.0000	5300.0040	-0.0040
		62	5310.0000	5310.0010	-0.0010
		64	5320.0000	5320.0105	-0.0105
		149	5745.0000	5745.0029	-0.0029
		151	5755.0000	5755.0061	-0.0061
		157	5785.0000	5785.0062	-0.0062
		159	5795.0000	5795.0020	-0.0020
		165	5825.0000	5825.0094	-0.0094



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0010	-0.0010
		38	5190.0000	5190.0044	-0.0044
		44	5220.0000	5220.0044	-0.0044
		46	5230.0000	5230.0044	-0.0044
		48	5240.0000	5240.0101	-0.0101
		52	5260.0000	5260.0028	-0.0028
		54	5270.0000	5270.0068	-0.0068
Tmax (0) oC	Vmax (102)V	60	5300.0000	5300.0040	-0.0040
		62	5310.0000	5310.0010	-0.0010
		64	5320.0000	5320.0105	-0.0105
		149	5745.0000	5745.0029	-0.0029
		151	5755.0000	5755.0061	-0.0061
		157	5785.0000	5785.0062	-0.0062
		159	5795.0000	5795.0020	-0.0020
		165	5825.0000	5825.0094	-0.0094



Chain B

Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0081	-0.0081
		38	5190.0000	5190.0057	-0.0057
		44	5220.0000	5220.0041	-0.0041
		46	5230.0000	5230.0051	-0.0051
		48	5240.0000	5240.0067	-0.0067
		52	5260.0000	5260.0033	-0.0033
		54	5270.0000	5270.0091	-0.0091
Tnom (20) oC	Vnom (120)V	60	5300.0000	5300.0014	-0.0014
		62	5310.0000	5310.0033	-0.0033
		64	5320.0000	5320.0089	-0.0089
		149	5745.0000	5745.0059	-0.0059
		151	5755.0000	5755.0103	-0.0103
		157	5785.0000	5785.0109	-0.0109
		159	5795.0000	5795.0046	-0.0046
		165	5825.0000	5825.0102	-0.0102

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Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0083	-0.0083
		38	5190.0000	5190.0044	-0.0044
		44	5220.0000	5220.0101	-0.0101
		46	5230.0000	5230.0090	-0.0090
		48	5240.0000	5240.0025	-0.0025
		52	5260.0000	5260.0045	-0.0045
		54	5270.0000	5270.0029	-0.0029
Tmax (50) oC	Vmax (138)V	60	5300.0000	5300.0094	-0.0094
		62	5310.0000	5310.0014	-0.0014
		64	5320.0000	5320.0102	-0.0102
		149	5745.0000	5745.0034	-0.0034
		151	5755.0000	5755.0033	-0.0033
		157	5785.0000	5785.0040	-0.0040
		159	5795.0000	5795.0054	-0.0054
		165	5825.0000	5825.0079	-0.0079



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
		36	5180.0000	5180.0067	-0.0067
		38	5190.0000	5190.0012	-0.0012
		44	5220.0000	5220.0087	-0.0087
		46	5230.0000	5230.0034	-0.0034
		48	5240.0000	5240.0089	-0.0089
		52	5260.0000	5260.0065	-0.0065
		54	5270.0000	5270.0085	-0.0085
Tmax (50) °C	Vmin (102)V	60	5300.0000	5300.0043	-0.0043
		62	5310.0000	5310.0027	-0.0027
		64	5320.0000	5320.0044	-0.0044
		149	5745.0000	5745.0068	-0.0068
		151	5755.0000	5755.0037	-0.0037
		157	5785.0000	5785.0068	-0.0068
		159	5795.0000	5795.0072	-0.0072
		165	5825.0000	5825.0104	-0.0104



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
	Vnom (138)V	36	5180.0000	5180.0107	-0.0107
		38	5190.0000	5190.0047	-0.0047
Tnom (0) oC		44	5220.0000	5220.0103	-0.0103
		46	5230.0000	5230.0091	-0.0091
		48	5240.0000	5240.0010	-0.0010
		52	5260.0000	5260.0053	-0.0053
		54	5270.0000	5270.0075	-0.0075
		60	5300.0000	5300.0043	-0.0043
		62	5310.0000	5310.0037	-0.0037
		64	5320.0000	5320.0014	-0.0014
		149	5745.0000	5745.0069	-0.0069
		151	5755.0000	5755.0014	-0.0014
		157	5785.0000	5785.0080	-0.0080
		159	5795.0000	5795.0058	-0.0058
		165	5825.0000	5825.0021	-0.0021



Test Conditions		Channel	Frequency (MHz)	Frequency (MHz)	ΔF (MHz)
	Vmax (102)V	36	5180.0000	5180.0033	-0.0033
		38	5190.0000	5190.0049	-0.0049
Tmax (0) oC		44	5220.0000	5220.0067	-0.0067
		46	5230.0000	5230.0016	-0.0016
		48	5240.0000	5240.0029	-0.0029
		52	5260.0000	5260.0032	-0.0032
		54	5270.0000	5270.0104	-0.0104
		60	5300.0000	5300.0089	-0.0089
		62	5310.0000	5310.0064	-0.0064
		64	5320.0000	5320.0094	-0.0094
		149	5745.0000	5745.0061	-0.0061
		151	5755.0000	5755.0084	-0.0084
		157	5785.0000	5785.0037	-0.0037
		159	5795.0000	5795.0092	-0.0092
		165	5825.0000	5825.0093	-0.0093



9. EMI Reduction Method During Compliance Testing	9.	EMI	Reduction	Method	During	Compliance	Testing
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No modification was made during testing.

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Attachment 1: EUT Test Photographs

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Attachment 2: EUT Detailed Photographs

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