

# FCC Test Report

Product Name	TABLET PC
Model No	PM-522
FCC ID	2ABTU-PM-522

Applicant	RuggON Corporation
Address	3F., No.129, Minquan Rd., Xindian Dist., New Taipei City 23141, Taiwan

Date of Receipt	July. 08, 2014
Issued Date	Aug. 11, 2014
Report No.	1470210R-RFUSP69V00
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 of the equipment and evaluated measurement uncertainty herein.

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# Test Report

Issued Date: Aug. 11, 2014

Report No.: 1470210R-RFUSP69V00



Product Name	TABLET PC
Applicant	RuggON Corporation
Address	3F., No.129, Minquan Rd., Xindian Dist., New Taipei City 23141, Taiwan
Manufacturer	Ubiqconn Technology, Inc.
Model No.	PM-522
FCC ID.	2ABTU-PM-522
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	RuggON
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2013 ANSI C63.10: 2009, KDB 789033 D01 General UNII Test Procedures v01r03
Test Result	Complied

Documented By :

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( Senior Adm. Specialist / Genie Chang )

Tested By :

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( Engineer / Jerry Tsai )

Approved By :

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( Director / Vincent Lin )

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## TABLE OF CONTENTS

Description	Page
<b>1. GENERAL INFORMATION .....</b>	<b>5</b>
1.1. EUT Description.....	5
1.2. Operational Description .....	8
1.3. Tested System Details.....	9
1.4. Configuration of tested System .....	9
1.5. EUT Exercise Software .....	10
1.6. Test Facility .....	11
<b>2. Conducted Emission.....</b>	<b>12</b>
2.1. Test Equipment.....	12
2.2. Test Setup .....	12
2.3. Limits .....	13
2.4. Test Procedure .....	13
2.5. Uncertainty .....	13
2.6. Test Result of Conducted Emission.....	14
<b>3. Maximum conducted output power.....</b>	<b>22</b>
3.1. Test Equipment.....	22
3.2. Test Setup .....	22
3.3. Limits .....	23
3.4. Test Procedure .....	23
3.5. Uncertainty .....	24
3.6. Test Result of Maximum conducted output power.....	25
<b>4. Peak Power Spectral Density.....</b>	<b>55</b>
4.1. Test Equipment.....	55
4.2. Test Setup .....	55
4.3. Limits .....	55
4.4. Test Procedure .....	56
4.5. Uncertainty .....	56
4.6. Test Result of Peak Power Spectral Density .....	57
<b>5. Peak Excursion .....</b>	<b>78</b>
5.1. Test Equipment.....	78
5.2. Test Setup .....	78
5.3. Limits .....	78
5.4. Test Procedure .....	79
5.5. Uncertainty .....	79
5.6. Test Result of Peak Excursion .....	80
<b>6. Radiated Emission .....</b>	<b>92</b>
6.1. Test Equipment.....	92
6.2. Test Setup .....	92
6.3. Limits .....	93
6.4. Test Procedure .....	94
6.5. Uncertainty .....	94
6.6. Test Result of Radiated Emission .....	95
<b>7. Band Edge .....</b>	<b>142</b>

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7.1.	Test Equipment.....	142
7.2.	Test Setup .....	143
7.3.	Limits .....	144
7.4.	Test Procedure .....	144
7.5.	Uncertainty .....	145
7.6.	Test Result of Band Edge .....	146
<b>8.</b>	<b>Frequency Stability.....</b>	<b>185</b>
8.1.	Test Equipment.....	185
8.2.	Test Setup .....	185
8.3.	Limits .....	185
8.4.	Test Procedure .....	185
8.5.	Uncertainty .....	185
8.6.	Test Result of Frequency Stability.....	186
<b>9.</b>	<b>EMI Reduction Method During Compliance Testing .....</b>	<b>191</b>

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	TABLET PC
Trade Name	RuggON
FCC ID.	2ABTU-PM-522
Model No.	PM-522
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz 802.11n-40MHz: 5190-5310, 5510-5670MHz 802.11ac-20MHz: 5720, 802.11ac-40MHz: 5710 802.11ac-80MHz: 5210-5290MHz, 5530-5690MHz
Number of Channels	802.11a/n-20MHz: 19; 802.11n-40MHz: 9 802.11ac-20MHz: 1, 802.11ac-40MHz: 1, 802.11ac-80MHz: 5
Data Rate	802.11a: 6 - 54Mbps 802.11n: up to 150Mbps 802.11ac-80MHz: up to 433.3MHz
Channel Control	Auto
Type of Modulation	802.11a/n:OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Type	PCB Antenna
Antenna Gain	Refer to the table “Antenna List”
Power Adapter	MFR: FSP, M/N: FSP065-REB Input: 100-240Vac, 50-60 Hz, 1.5A Output: 19Vdc, 3.42A Cable Out: Non-Shielded, 1.6m, with one ferrite core bonded.
Contain Module	Intel / 3160HMW

#### Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	WIESON	GY196C098-081 (Main) GY196C098-082 (Aux)	PCB Antenna	1.95 dBi for 5.15~5.25GHz 2.24 dBi for 5.25~5.35GHz 3.08 dBi for 5.47~5.725GHz 2.54 dBi for 5.725~5.825GHz

Note: The antenna of EUT is conform to FCC 15.203

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

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

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

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

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

Channel	Frequency
Channel 144:	5720 MHz

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

Channel	Frequency
Channel 142:	5710 MHz

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

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 42:	5210 MHz	Channel 58:	5290 MHz	Channel 106:	5530 MHz	Channel 138:	5690 MHz
Channel 155:	5775 MHz						

## Note:

1. This device is a TABLET PC, Contains functions and so on WLAN 、 Bluetooth , This report for WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11a is 6Mbps 、 802.11n(20M-BW) is 7.2Mbps 、 802.11n(40M-BW) is 15Mbps 、 802.11ac(20M-BW) is 7.2Mbps 、 802.11ac(40M-BW) is 15Mbps and 802.11ac(80M-BW) is 32.5Mbps.).
4. 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.

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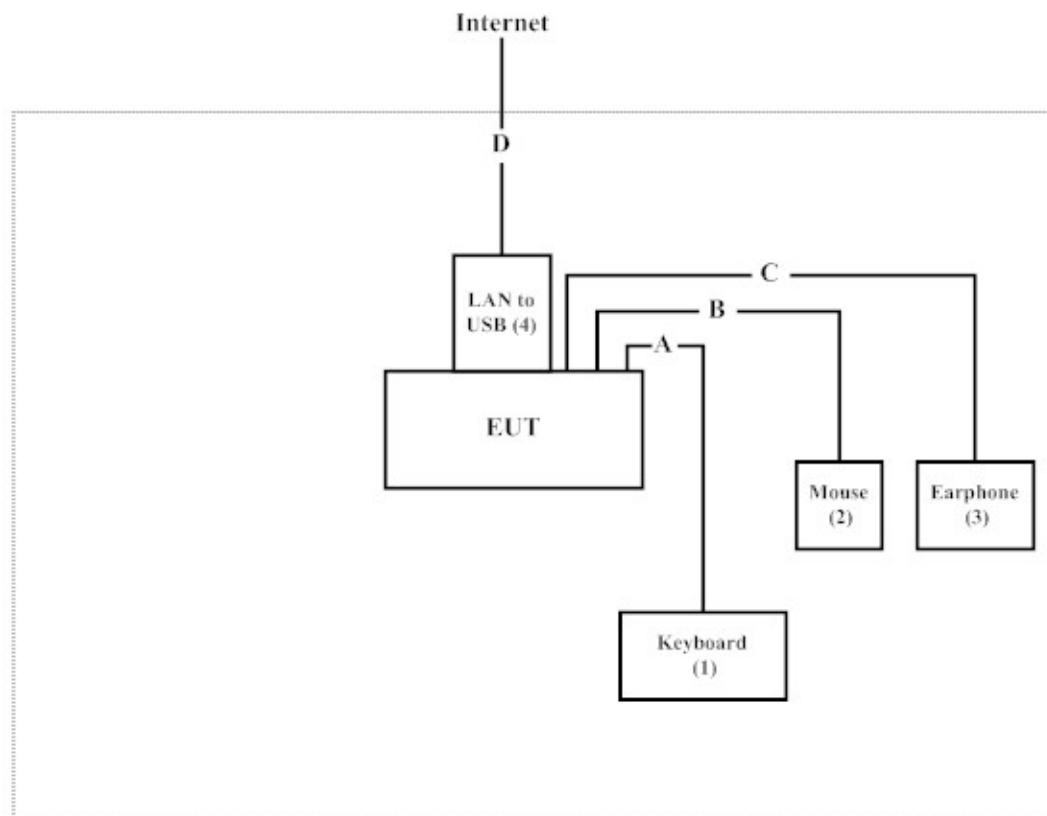
### 1.3. Tested System Details

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	Dell	SK-8175	MY-0W217F-71619-092-0492-A01	N/A
(2)	USB Mouse	Logitech	M-U0003	LZ024HR	N/A
(3)	Earphone	AIWA	N/A	N/A	N/A
(4)	USB to LAN	RuggON	N/A	N/A	N/A

Signal Cable Type		Signal cable Description
A	Keyboard Cable	Shielded, 1.8m
B	Mouse Cable	Shielded, 1.8m
C	Earphone Cable	Non-Shielded, 1.2m
D	LAN Cable	Non-Shielded, 1.6m

### 1.4. Configuration of tested System



## 1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute software “DRTU-v1.7.3.859” on the EUT.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press “OK” to start the continuous Transmit.
- (5) Verify that the EUT works properly.

## 1.6. Test Facility

Ambient conditions in the laboratory:

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

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site : <http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>

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## 2. Conducted Emission

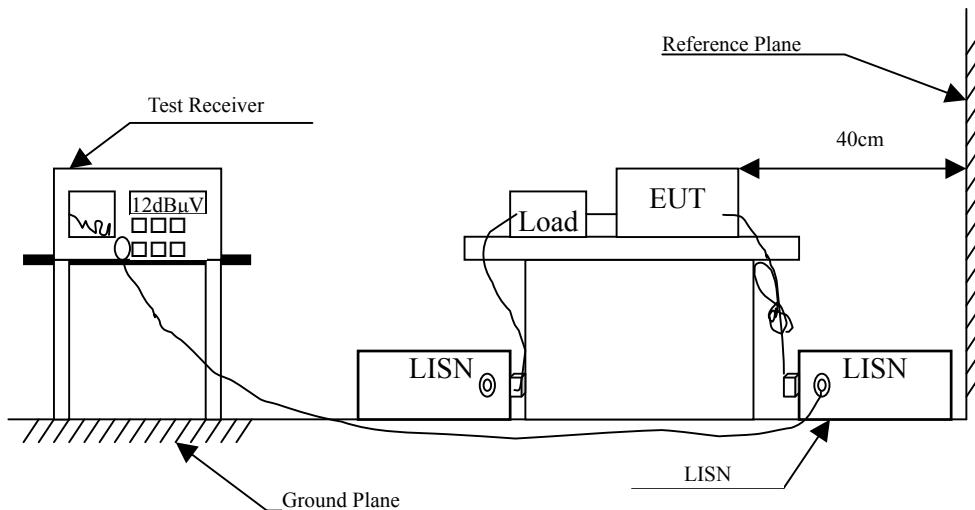
### 2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2013	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2014	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2014	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2014	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2014	
	No.1 Shielded Room				

Note:

1. All equipments are calibrated every one year.
2. The test instruments marked by “X” are used to measure the final test results.

### 2.2. Test Setup



### 2.3. Limits

<b>FCC Part 15 Subpart C Paragraph 15.207 (dB<math>\mu</math>V) Limit</b>		
Frequency MHz	Limits	
	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.

### 2.4. 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, 2009 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, 2009; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

### 2.5. Uncertainty

± 2.26 dB

## 2.6. Test Result of Conducted Emission

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dB $\mu$ V	dB $\mu$ V	dB	dB $\mu$ V
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.205	9.651	38.370	48.021	-16.408	64.429
0.283	9.655	25.650	35.305	-26.895	62.200
0.502	9.667	25.750	35.417	-20.583	56.000
0.654	9.675	33.640	43.315	-12.685	56.000
1.037	9.696	26.460	36.156	-19.844	56.000
1.650	9.740	26.240	35.980	-20.020	56.000
<b>Average</b>					
0.205	9.651	27.590	37.241	-17.188	54.429
0.283	9.655	11.610	21.265	-30.935	52.200
0.502	9.667	16.500	26.167	-19.833	46.000
0.654	9.675	25.700	35.375	-10.625	46.000
1.037	9.696	15.480	25.176	-20.824	46.000
1.650	9.740	15.420	25.160	-20.840	46.000

Note:

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

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5210MHz)

Frequency MHz	Correct Factor	Reading dB	Measurement Level dBμV	Margin dB	Limit dBμV
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.201	9.660	35.730	45.390	-19.153	64.543
0.306	9.657	25.260	34.917	-26.626	61.543
0.463	9.665	25.630	35.295	-21.762	57.057
0.611	9.673	33.680	43.353	-12.647	56.000
0.830	9.695	30.140	39.835	-16.165	56.000
1.759	9.755	26.820	36.575	-19.425	56.000
<b>Average</b>					
0.201	9.660	28.520	38.180	-16.363	54.543
0.306	9.657	18.000	27.657	-23.886	51.543
0.463	9.665	13.270	22.935	-24.122	47.057
0.611	9.673	24.680	34.353	-11.647	46.000
0.830	9.695	18.980	28.675	-17.325	46.000
1.759	9.755	16.490	26.245	-19.755	46.000

## Note:

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

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dB $\mu$ V	dB $\mu$ V	dB	dB $\mu$ V
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.197	9.650	38.470	48.120	-16.537	64.657
0.287	9.655	25.490	35.145	-26.941	62.086
0.416	9.662	21.310	30.972	-27.428	58.400
0.654	9.675	33.720	43.395	-12.605	56.000
0.935	9.691	25.810	35.501	-20.499	56.000
2.048	9.771	24.310	34.081	-21.919	56.000
<b>Average</b>					
0.197	9.650	28.890	38.540	-16.117	54.657
0.287	9.655	12.450	22.105	-29.981	52.086
0.416	9.662	10.530	20.192	-28.208	48.400
0.654	9.675	25.700	35.375	-10.625	46.000
0.935	9.691	15.050	24.741	-21.259	46.000
2.048	9.771	14.830	24.601	-21.399	46.000

## Note:

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

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5290MHz)

Frequency MHz	Correct Factor	Reading dB	Measurement Level dB $\mu$ V	Margin dB	Limit dB $\mu$ V
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.197	9.660	36.050	45.710	-18.947	64.657
0.291	9.661	25.110	34.771	-27.200	61.971
0.400	9.661	23.530	33.191	-25.666	58.857
0.486	9.666	26.990	36.656	-19.744	56.400
0.658	9.675	34.150	43.825	-12.175	56.000
1.334	9.722	28.060	37.782	-18.218	56.000
<b>Average</b>					
0.197	9.660	28.920	38.580	-16.077	54.657
0.291	9.661	16.920	26.581	-25.390	51.971
0.400	9.661	15.580	25.241	-23.616	48.857
0.486	9.666	17.310	26.976	-19.424	46.400
0.658	9.675	26.530	36.205	-9.795	46.000
1.334	9.722	18.020	27.742	-18.258	46.000

Note:

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

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dB $\mu$ V	dB $\mu$ V	dB	dB $\mu$ V
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.189	9.650	38.630	48.280	-16.606	64.886
0.283	9.655	25.490	35.145	-27.055	62.200
0.470	9.665	24.650	34.315	-22.542	56.857
0.658	9.675	33.420	43.095	-12.905	56.000
0.927	9.690	27.290	36.980	-19.020	56.000
1.337	9.722	27.700	37.422	-18.578	56.000
<b>Average</b>					
0.189	9.650	27.810	37.460	-17.426	54.886
0.283	9.655	11.610	21.265	-30.935	52.200
0.470	9.665	14.250	23.915	-22.942	46.857
0.658	9.675	26.050	35.725	-10.275	46.000
0.927	9.690	17.200	26.890	-19.110	46.000
1.337	9.722	16.710	26.432	-19.568	46.000

## Note:

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

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5530MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dB $\mu$ V	dB $\mu$ V	dB	dB $\mu$ V
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.189	9.660	36.570	46.230	-18.656	64.886
0.279	9.665	24.890	34.555	-27.759	62.314
0.380	9.660	22.940	32.600	-26.829	59.429
0.498	9.667	26.850	36.517	-19.540	56.057
0.615	9.673	33.990	43.663	-12.337	56.000
0.927	9.700	29.110	38.810	-17.190	56.000
<b>Average</b>					
0.189	9.660	27.860	37.520	-17.366	54.886
0.279	9.665	14.490	24.155	-28.159	52.314
0.380	9.660	13.670	23.330	-26.099	49.429
0.498	9.667	17.510	27.177	-18.880	46.057
0.615	9.673	25.020	34.693	-11.307	46.000
0.927	9.700	19.580	29.280	-16.720	46.000

## Note:

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

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5775MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dB $\mu$ V	dB $\mu$ V	dB	dB $\mu$ V
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.201	9.650	38.330	47.980	-16.563	64.543
0.275	9.655	23.910	33.565	-28.864	62.429
0.373	9.660	19.510	29.170	-30.459	59.629
0.502	9.667	26.450	36.117	-19.883	56.000
0.701	9.678	31.150	40.828	-15.172	56.000
1.330	9.722	26.100	35.822	-20.178	56.000
<b>Average</b>					
0.201	9.650	28.410	38.060	-16.483	54.543
0.275	9.655	8.370	18.025	-34.404	52.429
0.373	9.660	7.000	16.660	-32.969	49.629
0.502	9.667	18.750	28.417	-17.583	46.000
0.701	9.678	20.090	29.768	-16.232	46.000
1.330	9.722	15.800	25.522	-20.478	46.000

## Note:

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

Product : TABLET PC  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 6: Transmit (802.11ac-80BW-32.5Mbps) (5775MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dB $\mu$ V	dB $\mu$ V	dB	dB $\mu$ V

**LINE 2****Quasi-Peak**

0.189	9.660	36.760	46.420	-18.466	64.886
0.283	9.664	24.710	34.374	-27.826	62.200
0.412	9.662	24.790	34.452	-24.062	58.514
0.478	9.666	26.950	36.616	-20.013	56.629
0.623	9.673	33.960	43.633	-12.367	56.000
1.416	9.727	26.680	36.407	-19.593	56.000

**Average**

0.189	9.660	27.860	37.520	-17.366	54.886
0.283	9.664	15.670	25.334	-26.866	52.200
0.412	9.662	16.300	25.962	-22.552	48.514
0.478	9.666	17.360	27.026	-19.603	46.629
0.623	9.673	23.730	33.403	-12.597	46.000
1.416	9.727	15.170	24.897	-21.103	46.000

## Note:

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

### 3. Maximum conducted output power

#### 3.1. Test Equipment

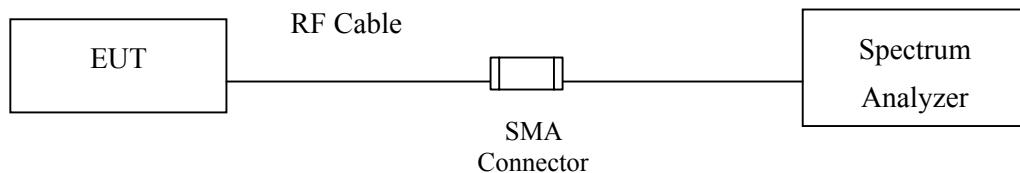
Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Power Meter	Anritsu	ML2495A/6K00003357	May, 2014
X Power Sensor	Anritsu	MA2411B/0738448	Jun, 2014
X Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2014

Note:

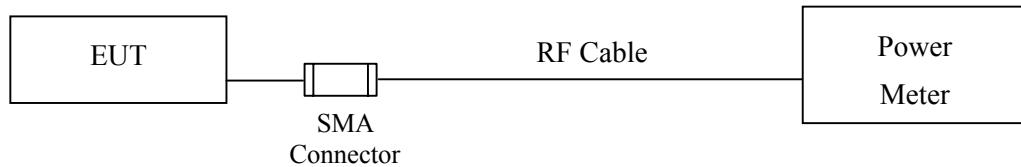
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

#### 3.2. Test Setup

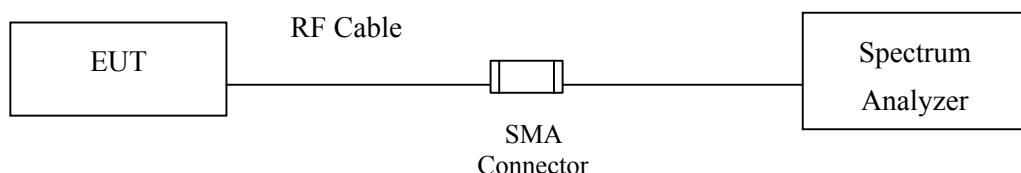
##### 26dBc Occupied Bandwidth



##### Conduction Power Measurement (for 802.11an)



##### Conduction Power Measurement (for 802.11ac)



### 3.3. Limits

- (1) For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW or  $4 \text{ dBm} + 10\log B$ , where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (2) For the band 5.25-5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or  $11 \text{ dBm} + 10\log B$ , where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
- (3) For the band 5.725-5.825 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 1W or  $17 \text{ dBm} + 10\log B$ , where B is the 26-dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum conducted output power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

### 3.4. 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 than 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 $\leq$ 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.

### **3.5. Uncertainty**

$\pm$  1.27 dB

### 3.6. Test Result of Maximum conducted output power

Product : TABLET PC  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmit (802.11a-6Mbps)

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		6	9	12	18	24	36	48	54	
		Measurement Level (dBm)								
36	5180	14.40	--	--	--	--	--	--	--	<17dBm
44	5220	15.26	15.21	15.17	15.12	15.05	15.06	14.96	14.88	<17dBm
48	5240	14.91	--	--	--	--	--	--	--	<17dBm
52	5260	16.36	--	--	--	--	--	--	--	<24dBm
60	5300	16.08	16.03	15.91	15.93	15.86	15.83	15.75	15.76	<24dBm
64	5320	14.23	--	--	--	--	--	--	--	<24dBm
100	5500	14.41	--	--	--	--	--	--	--	<24dBm
116	5580	16.24	16.16	16.09	16.01	15.92	15.86	15.76	15.75	<24dBm
140	5700	14.08	--	--	--	--	--	--	--	<24dBm

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

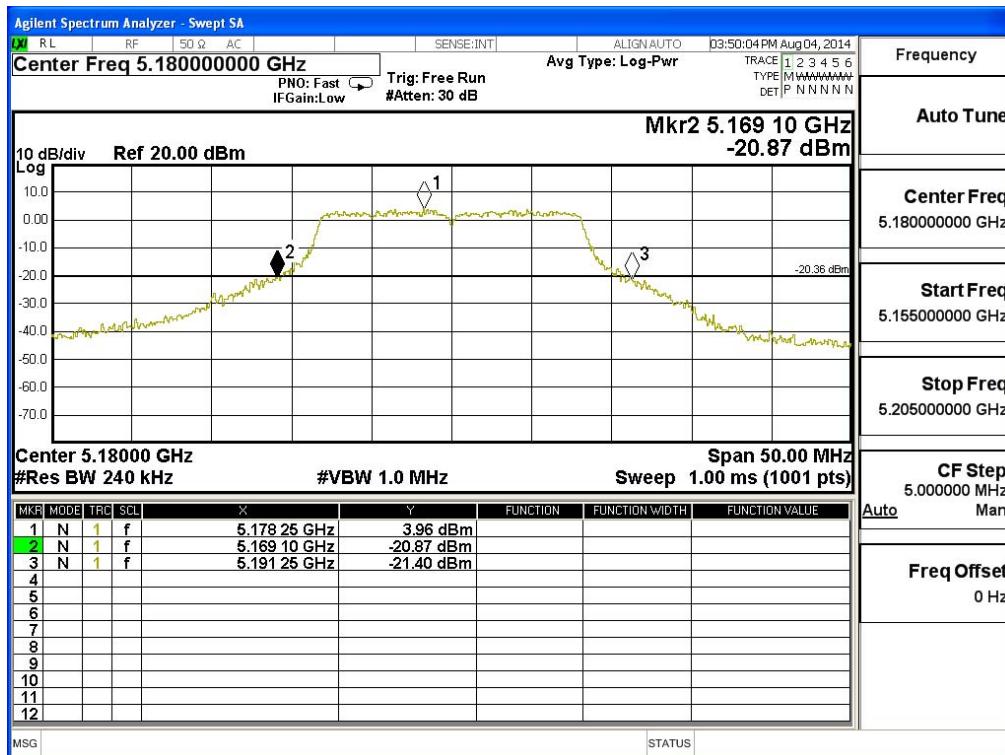
#### Maximum conducted output power Measurement:

Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	(dBm)+10log(BW)
36	5180	22.15	14.40	17	16.88
44	5220	27.80	15.26	17	16.84
48	5240	38.60	14.91	17	16.89
52	5260	34.25	16.36	24	23.88
60	5300	33.05	16.08	24	23.87
64	5320	22.10	14.23	24	23.92
100	5500	24.15	14.41	24	23.91
116	5580	30.50	16.24	24	23.88
140	5700	23.15	14.08	24	23.93

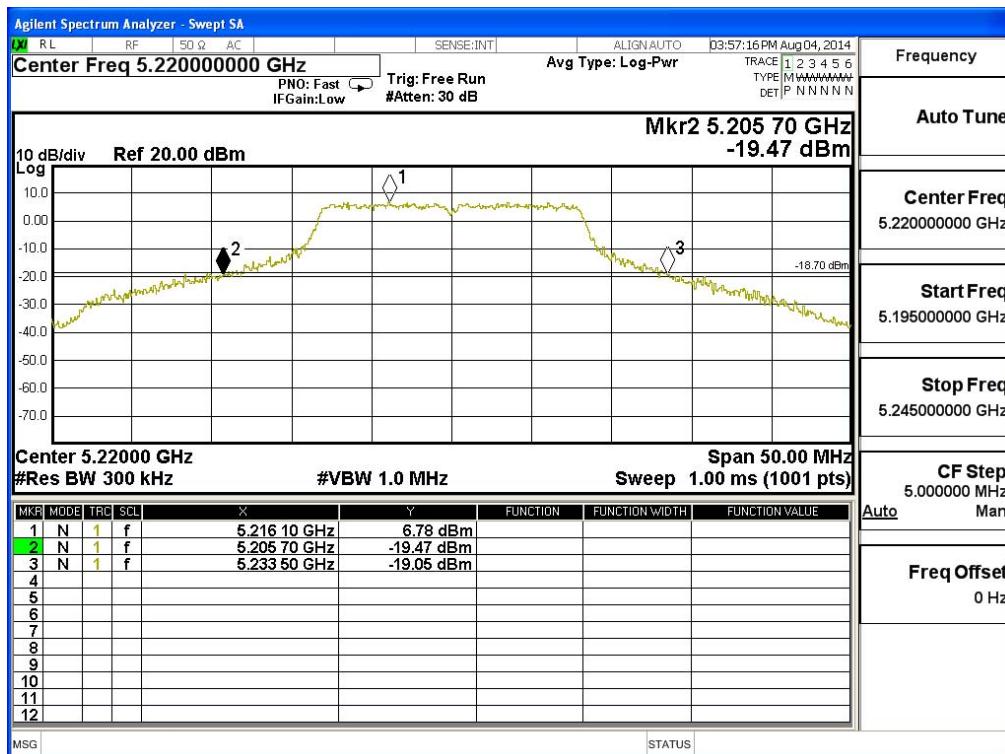
Note: Power Output Value =Reading value on average power meter + cable loss

### 26dBc Occupied Bandwidth:

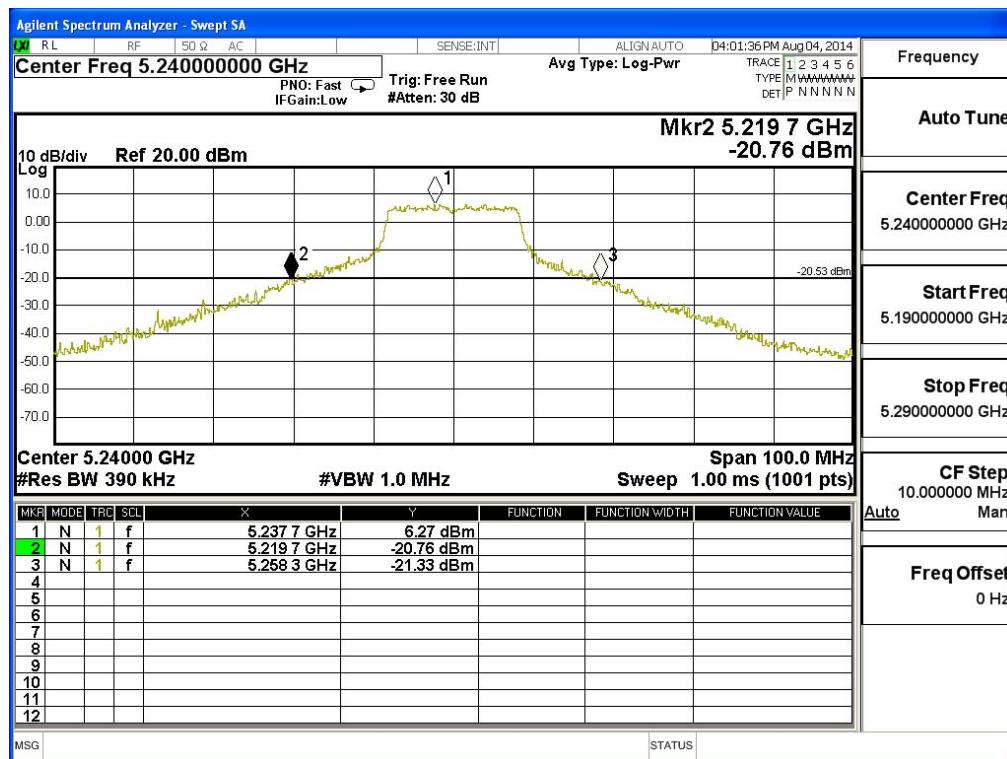
#### Channel 36



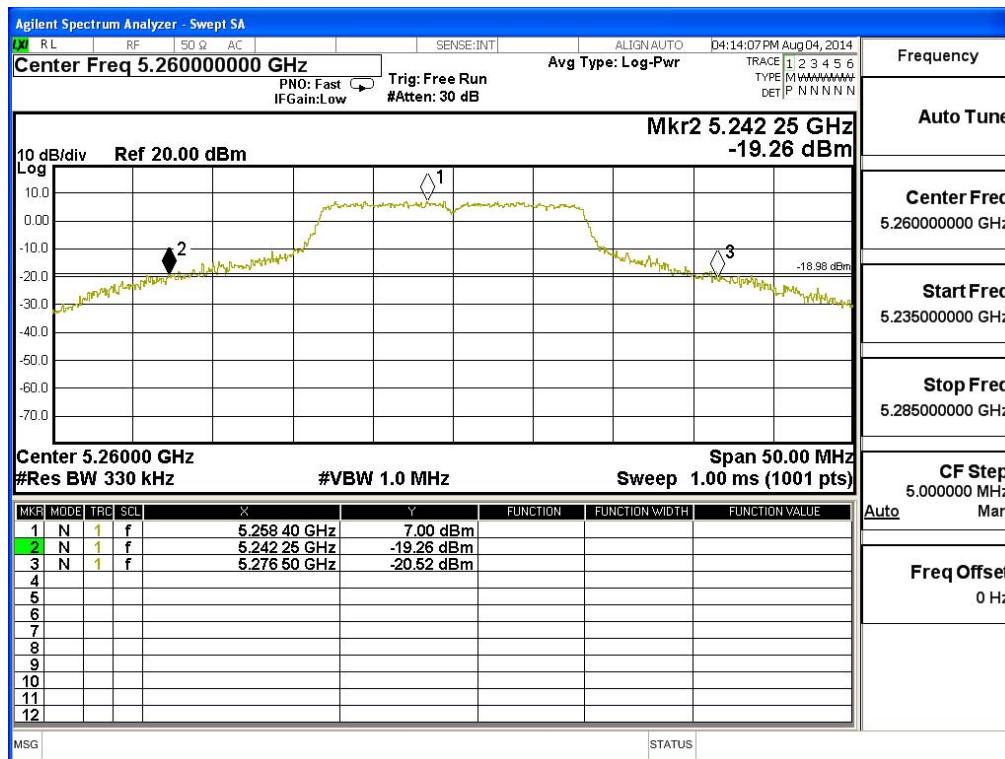
#### Channel 40



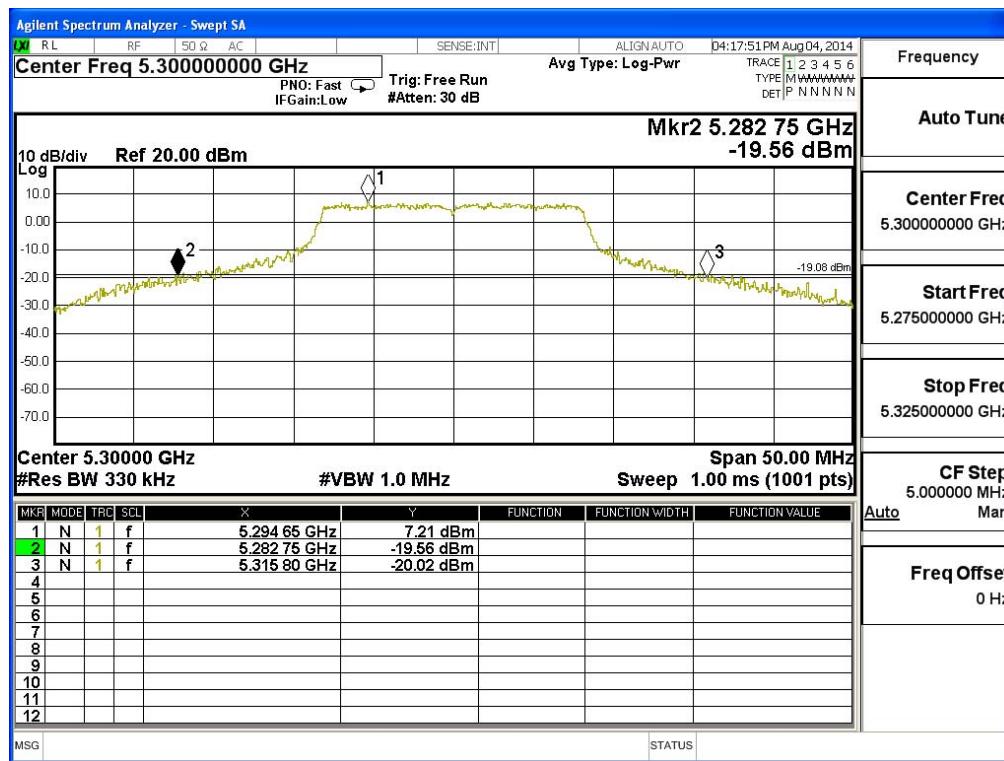
## Channel 48



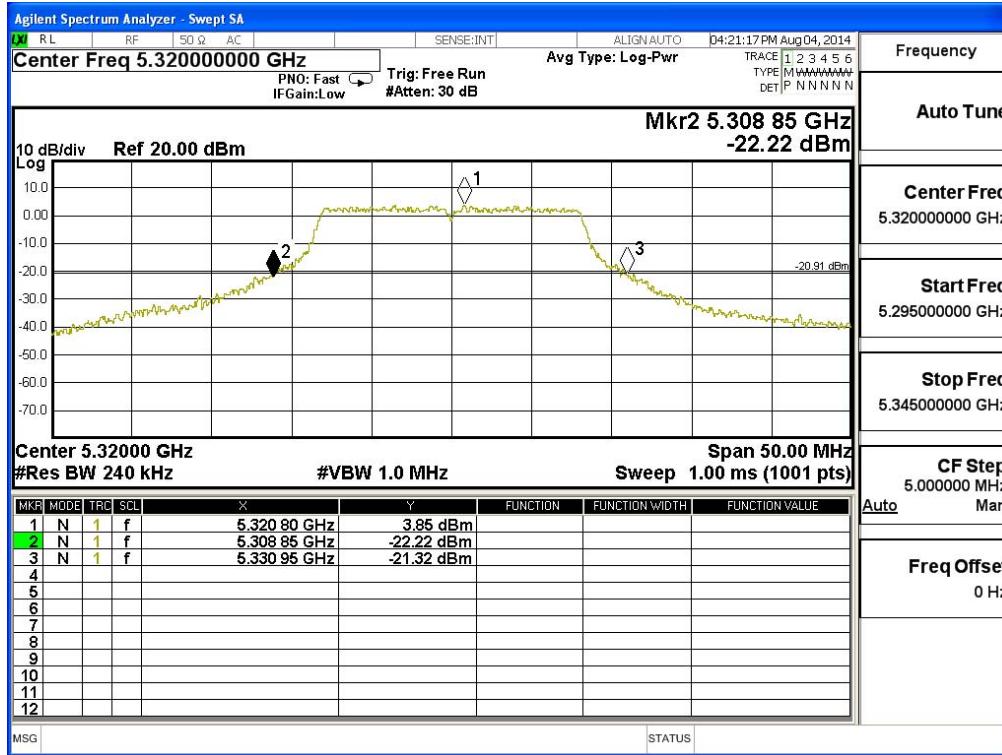
## Channel 52



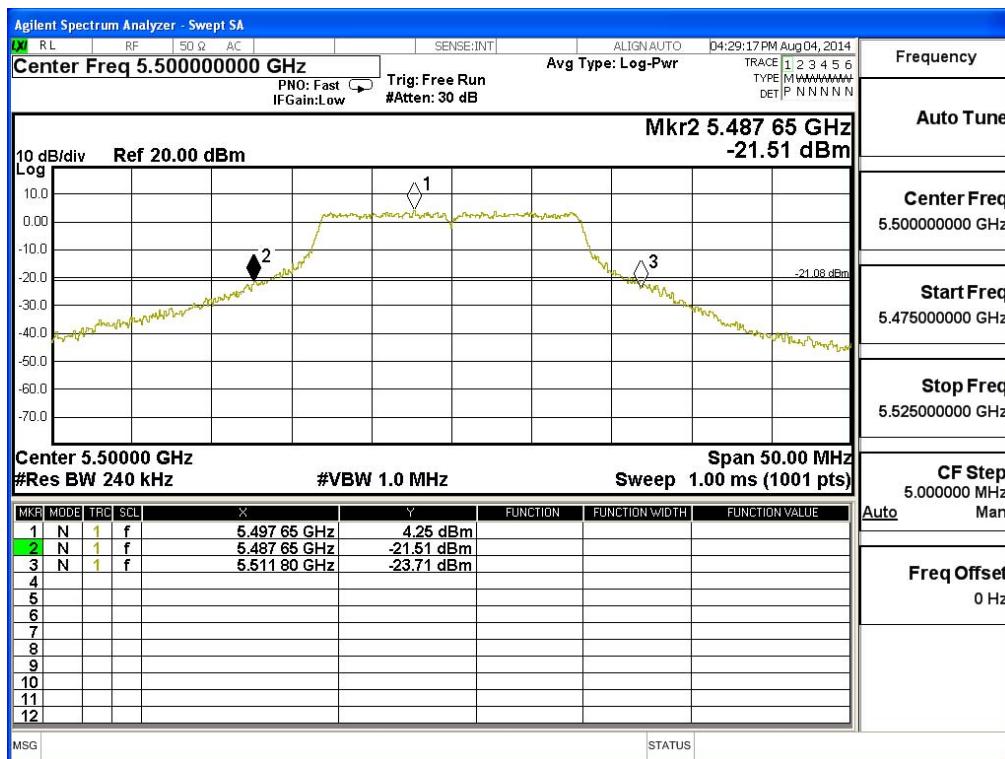
## Channel 60



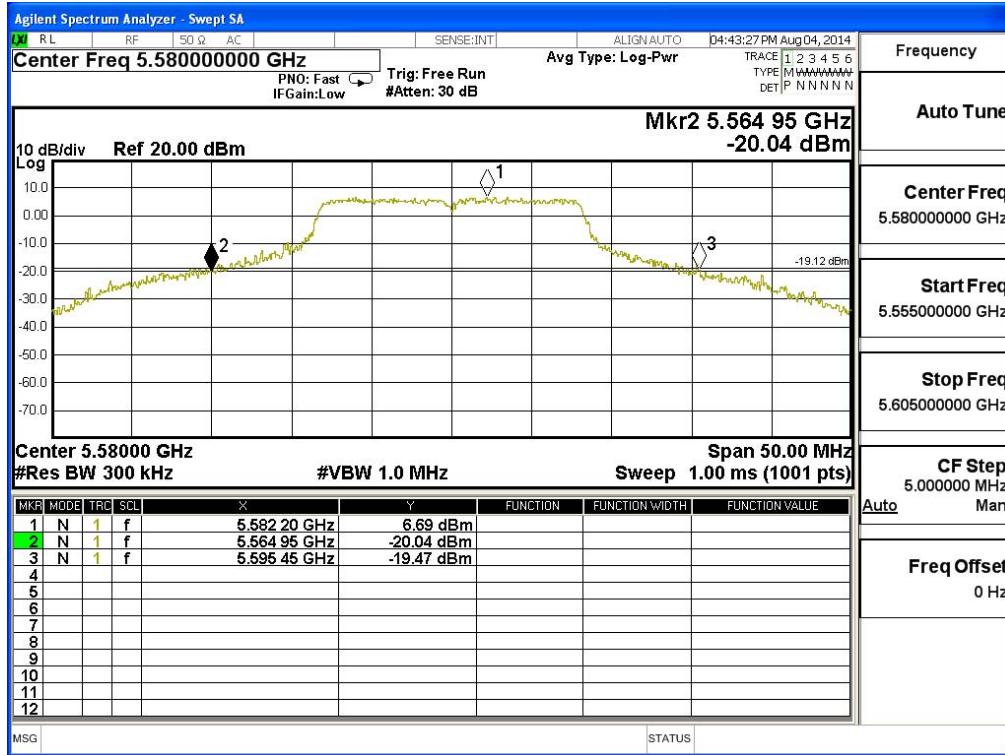
## Channel 64



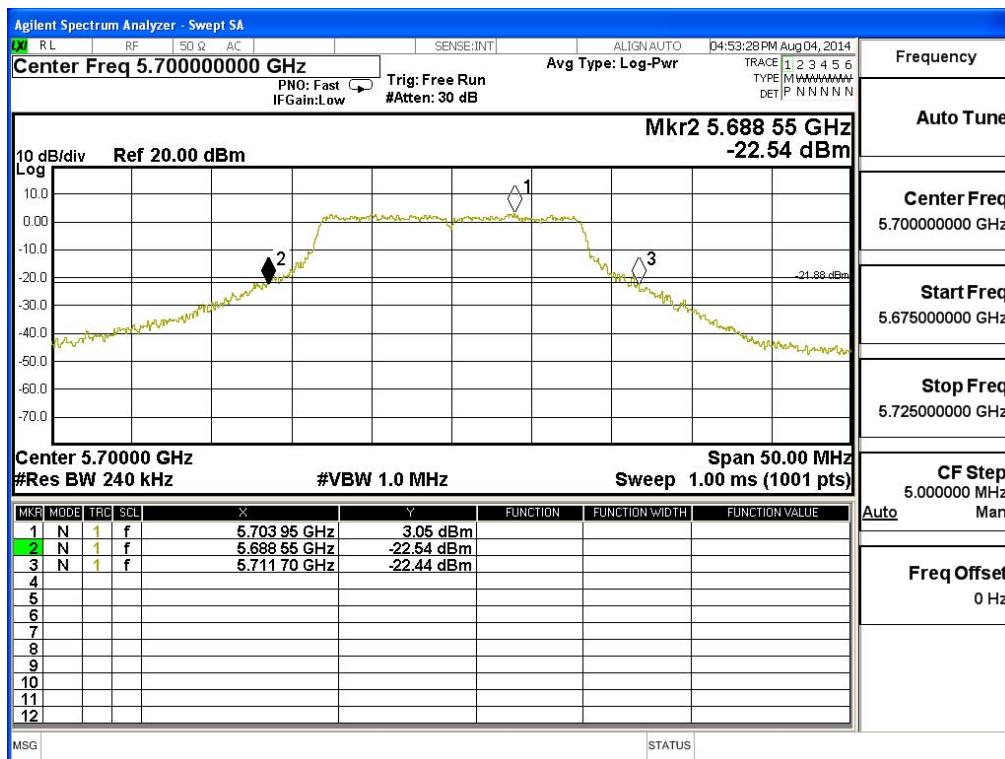
## Channel 100



## Channel 111



## Channel 140



Product : TABLET PC  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmit (802.11n-20BW 7.2Mbps)

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	
		Measurement Level (dBm)								
36	5180	14.39	--	--	--	--	--	--	--	<17dBm
44	5220	15.81	15.73	15.64	15.57	15.47	15.31	15.26	15.25	<17dBm
48	5240	14.58	--	--	--	--	--	--	--	<17dBm
52	5260	16.35	--	--	--	--	--	--	--	<24dBm
60	5300	16.06	16.02	15.96	15.84	15.90	15.82	15.72	15.68	<24dBm
64	5320	14.48	--	--	--	--	--	--	--	<24dBm
100	5500	14.71	--	--	--	--	--	--	--	<24dBm
116	5580	16.38	16.21	16.14	15.97	15.87	15.83	15.76	15.77	<24dBm
140	5700	14.11	--	--	--	--	--	--	--	<24dBm

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

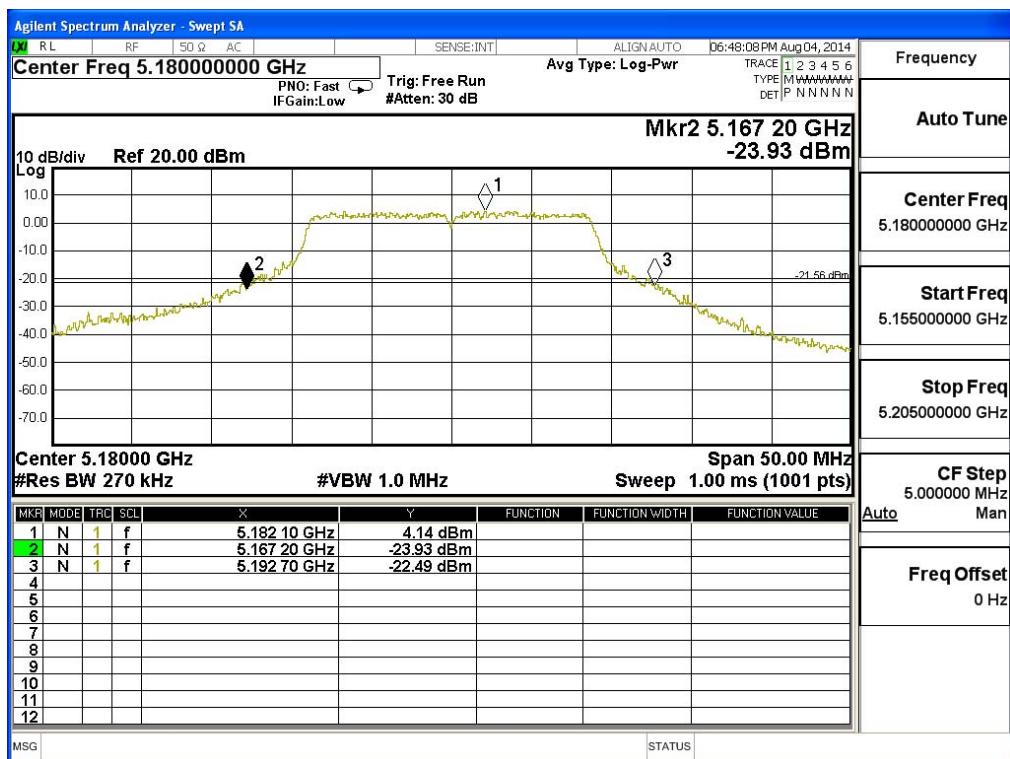
#### Maximum conducted output power Measurement:

Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	(dBm)+10log(BW)
36	5180	25.50	14.39	17	17.00
44	5220	28.80	15.81	17	17.00
48	5240	41.50	14.58	17	17.01
52	5260	37.10	16.35	24	23.96
60	5300	34.50	16.06	24	23.94
64	5320	23.20	14.48	24	24.00
100	5500	25.25	14.71	24	23.99
116	5580	32.70	16.38	24	24.00
140	5700	24.95	14.11	24	24.05

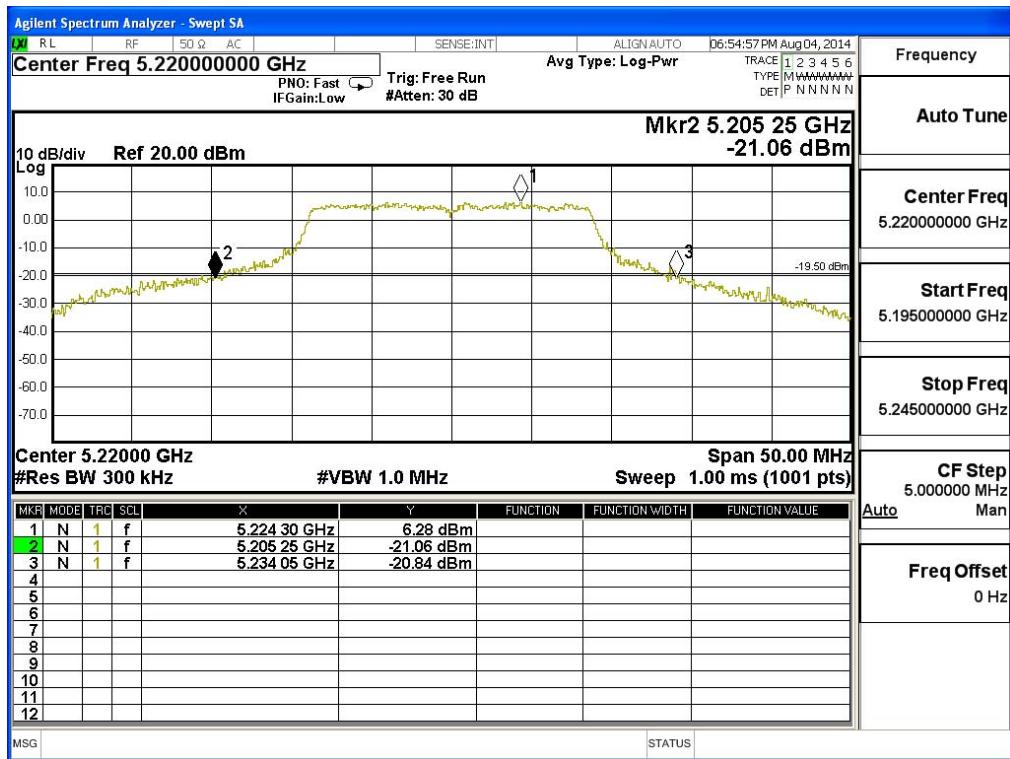
Note: Power Output Value =Reading value on average power meter + cable loss

## 26dBc Occupied Bandwidth:

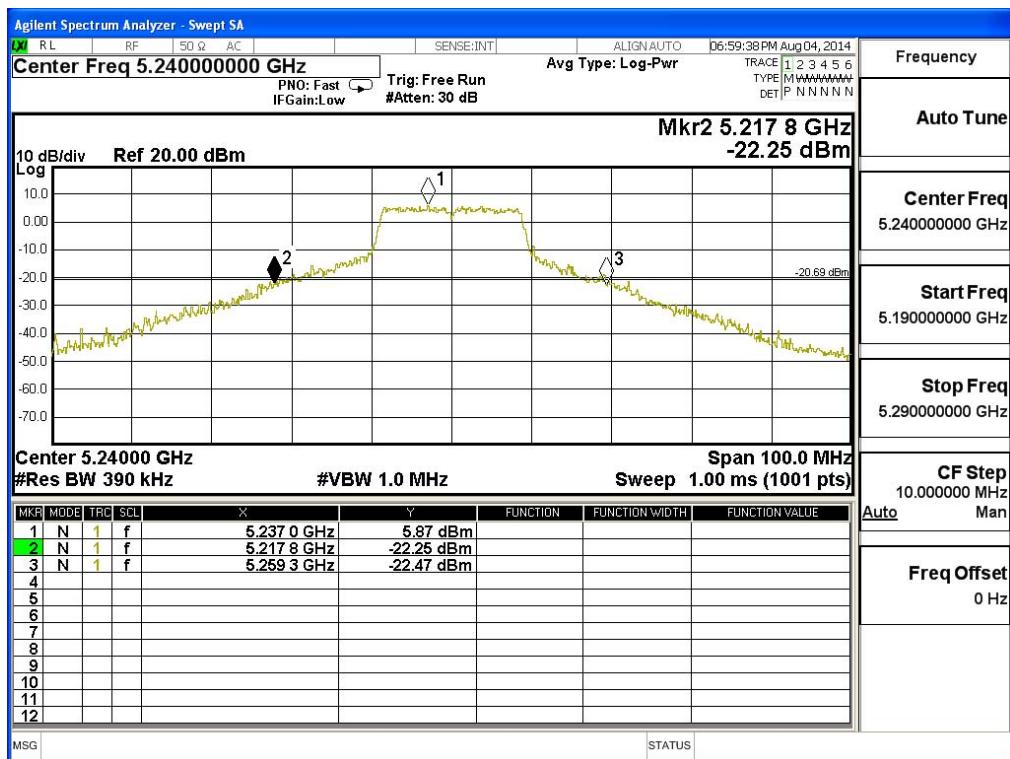
### Channel 36



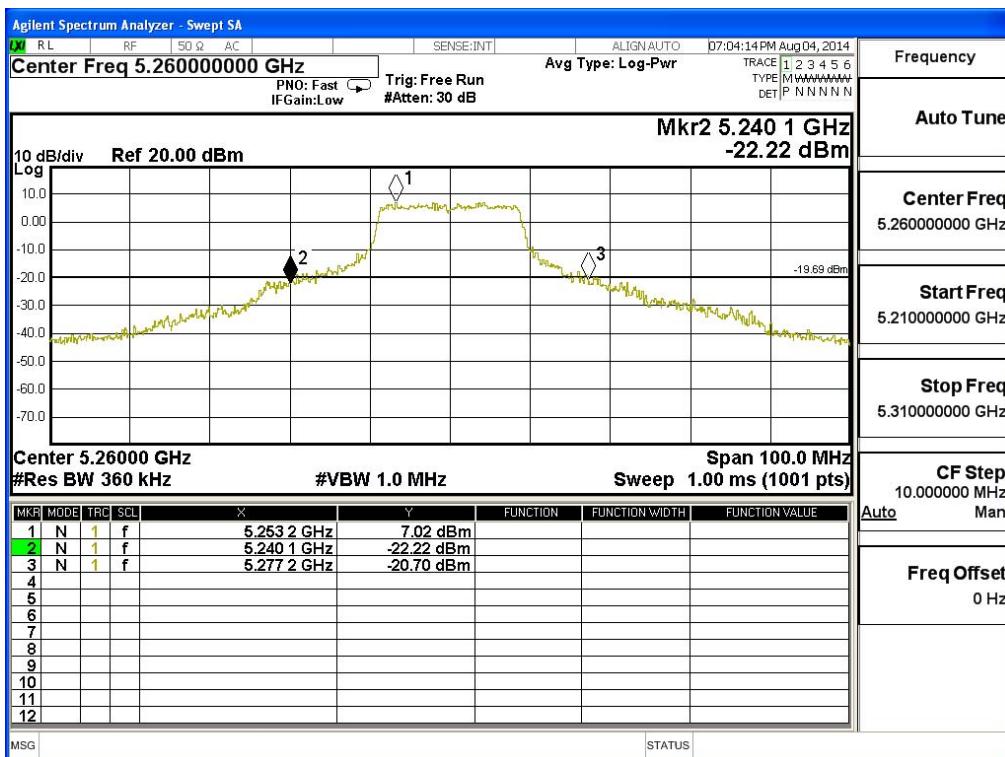
### Channel 44



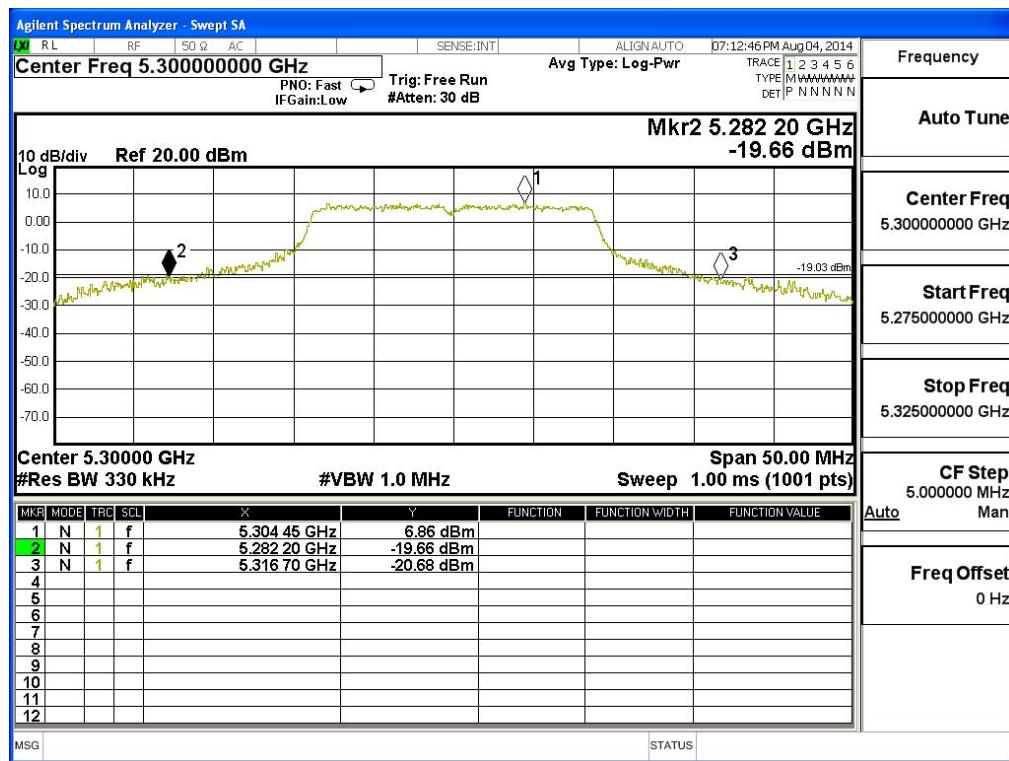
## Channel 48



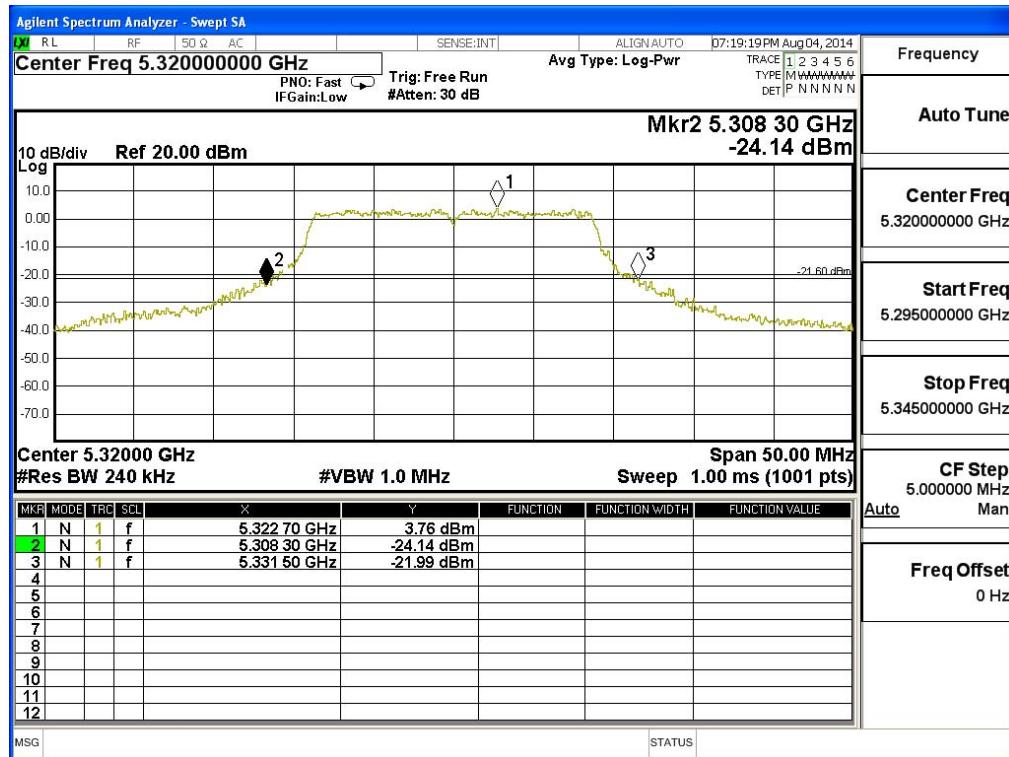
## Channel 52



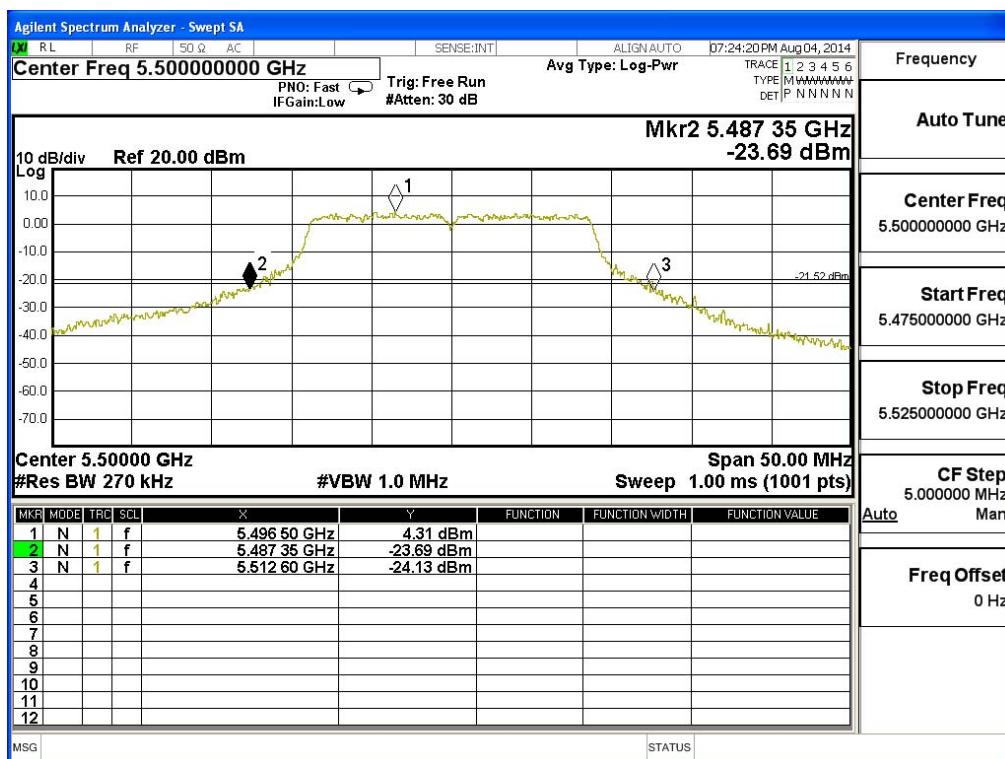
## Channel 60



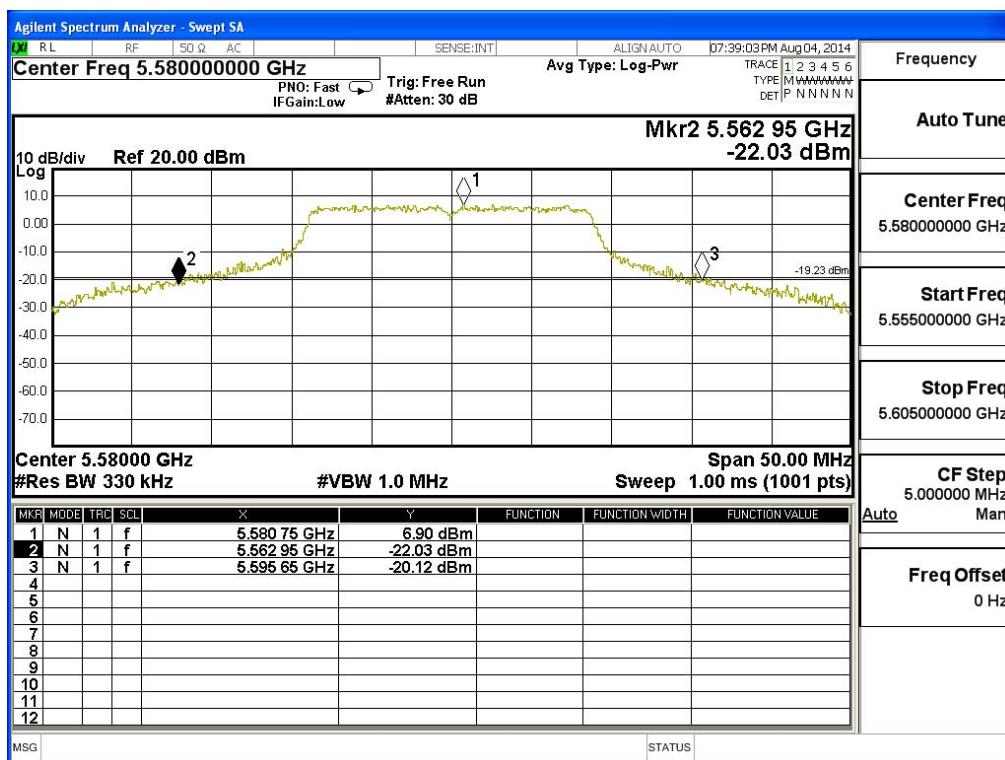
## Channel 64



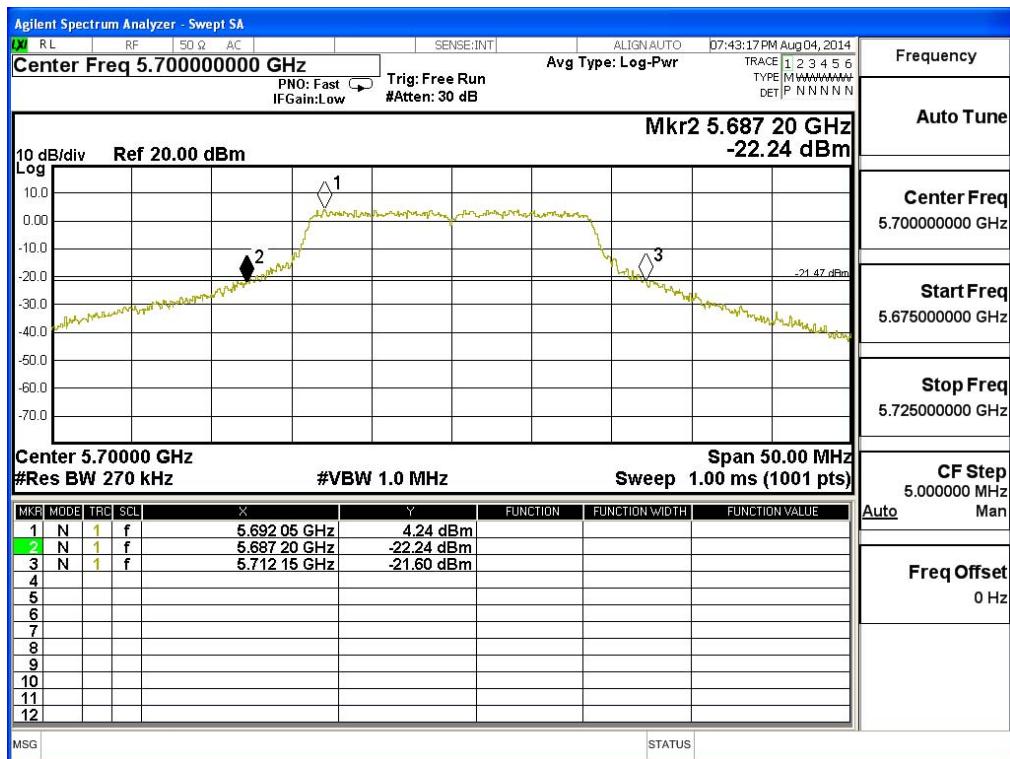
## Channel 100



## Channel 111



## Channel 140



Product : TABLET PC  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 3: Transmit (802.11n-40BW 15Mbps)

Cable loss=1dB		Maximum conducted output power								
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit
		15	30	45	60	90	120	135	150	
		Measurement Level (dBm)								
38	5190	10.34	10.27	10.20	10.14	10.18	10.09	10.01	10.06	<17dBm
46	5230	16.20	--	--	--	--	--	--	--	<17dBm
54	5270	10.27	10.21	10.15	10.03	10.08	9.96	9.92	9.89	<17dBm
62	5310	11.82	--	--	--	--	--	--	--	<24dBm
102	5510	11.81	--	--	--	--	--	--	--	<24dBm
110	5550	16.13	16.09	16.06	16.02	15.97	15.99	15.89	15.83	<24dBm
134	5670	16.42	--	--	--	--	--	--	--	<24dBm

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

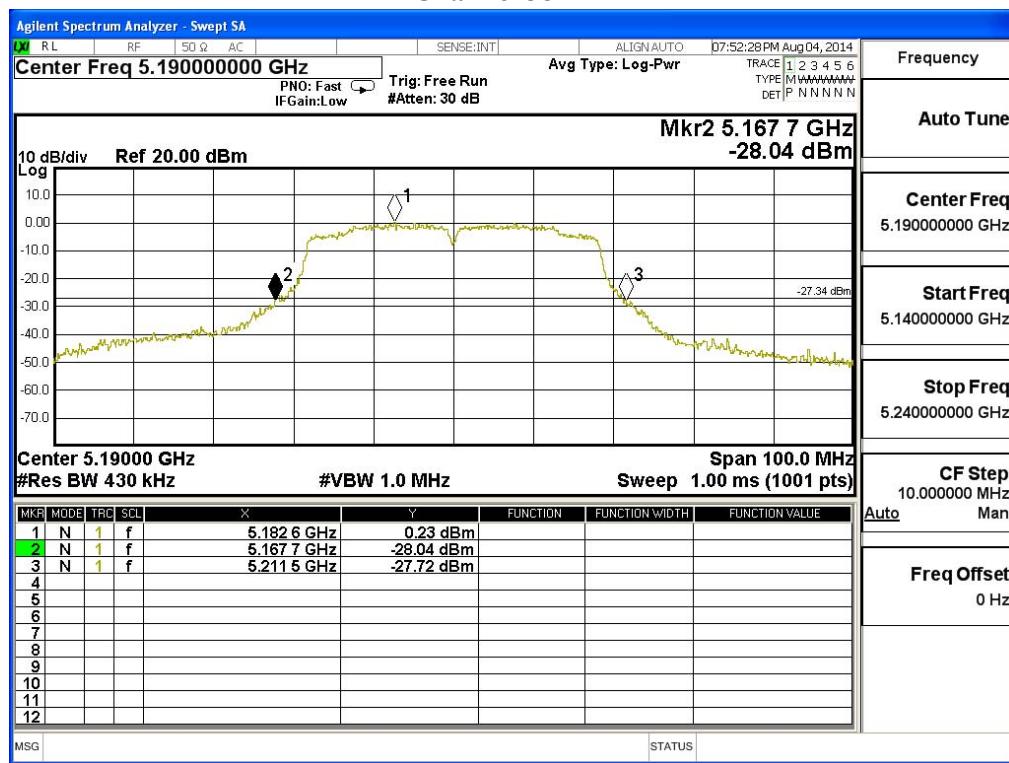
#### Maximum conducted output power Measurement:

Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	(dBm)+10log(BW)
38	5190	43.80	10.34	17	20.58
46	5230	59.10	16.20	17	20.59
54	5270	43.40	10.27	24	27.56
62	5310	42.30	11.82	24	27.58
102	5510	41.70	11.81	24	27.61
110	5550	53.00	16.13	24	27.54
134	5670	68.50	16.42	24	27.60

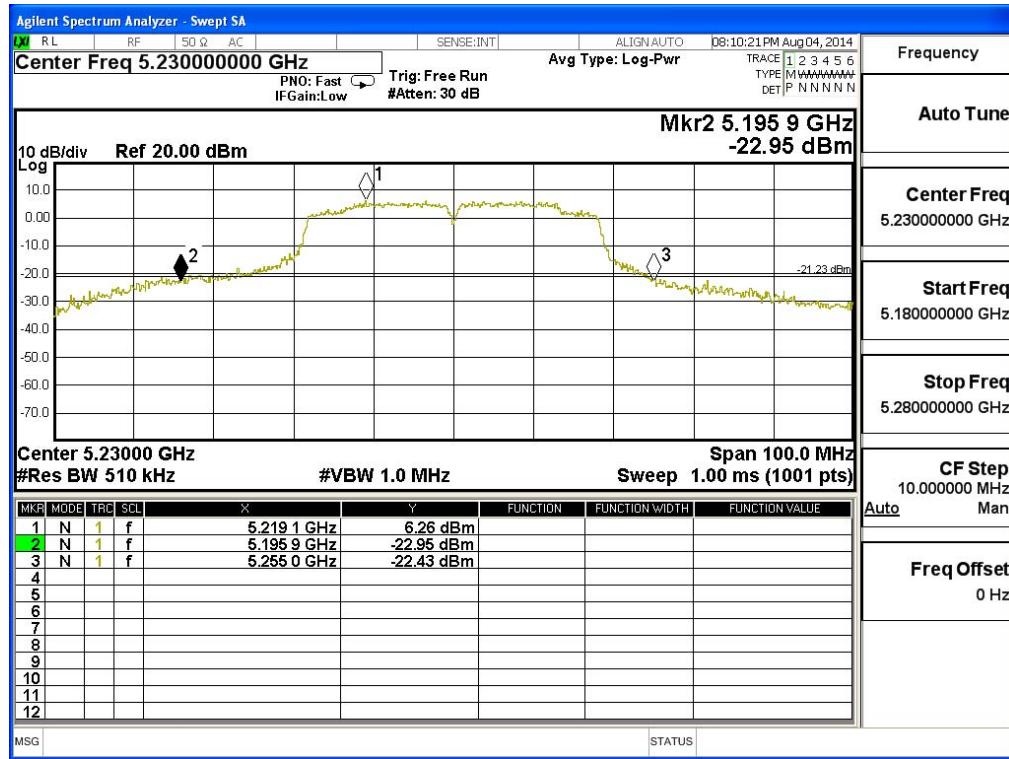
Note: Power Output Value =Reading value on average power meter + cable loss

### 26dBc Occupied Bandwidth:

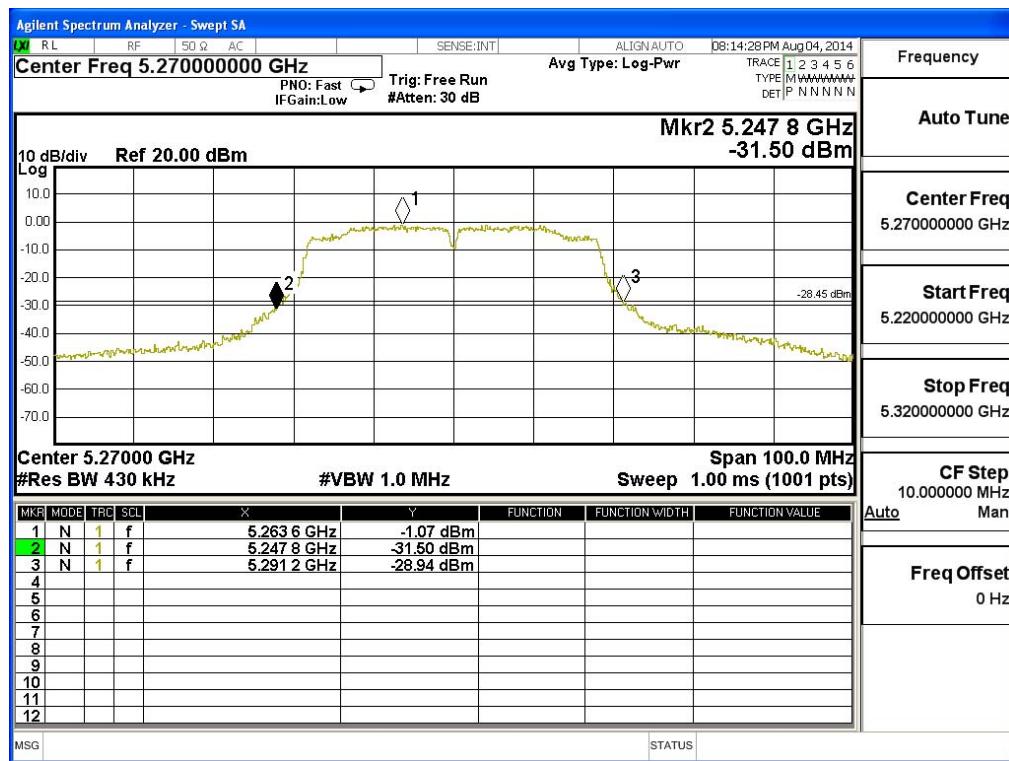
#### Channel 38



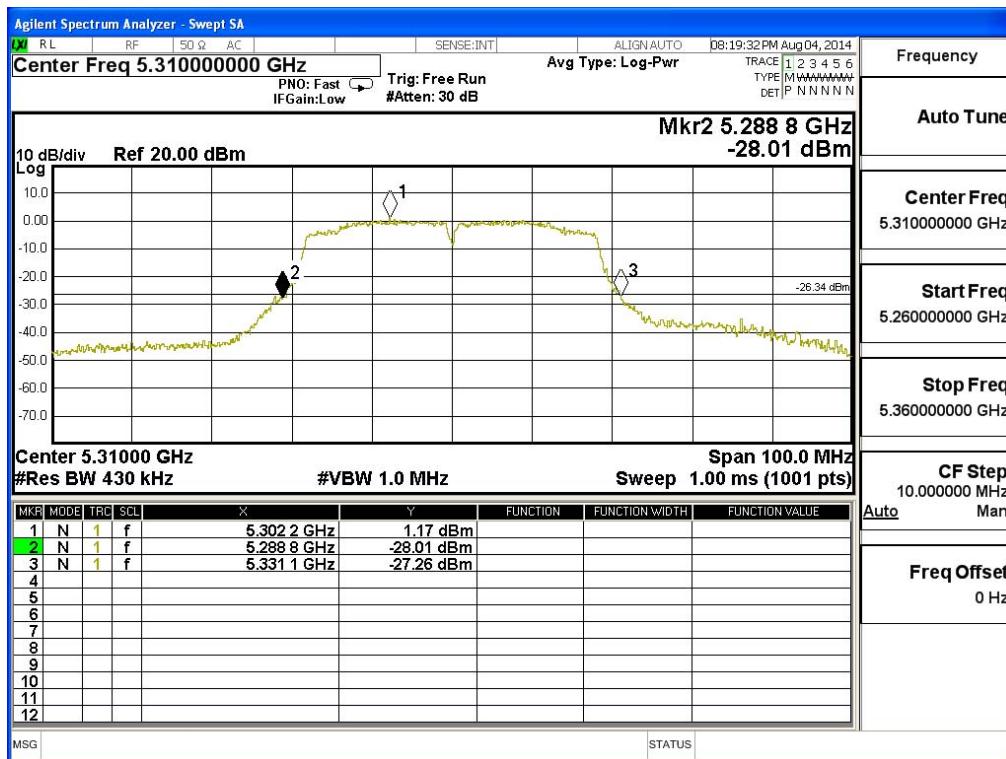
#### Channel 46



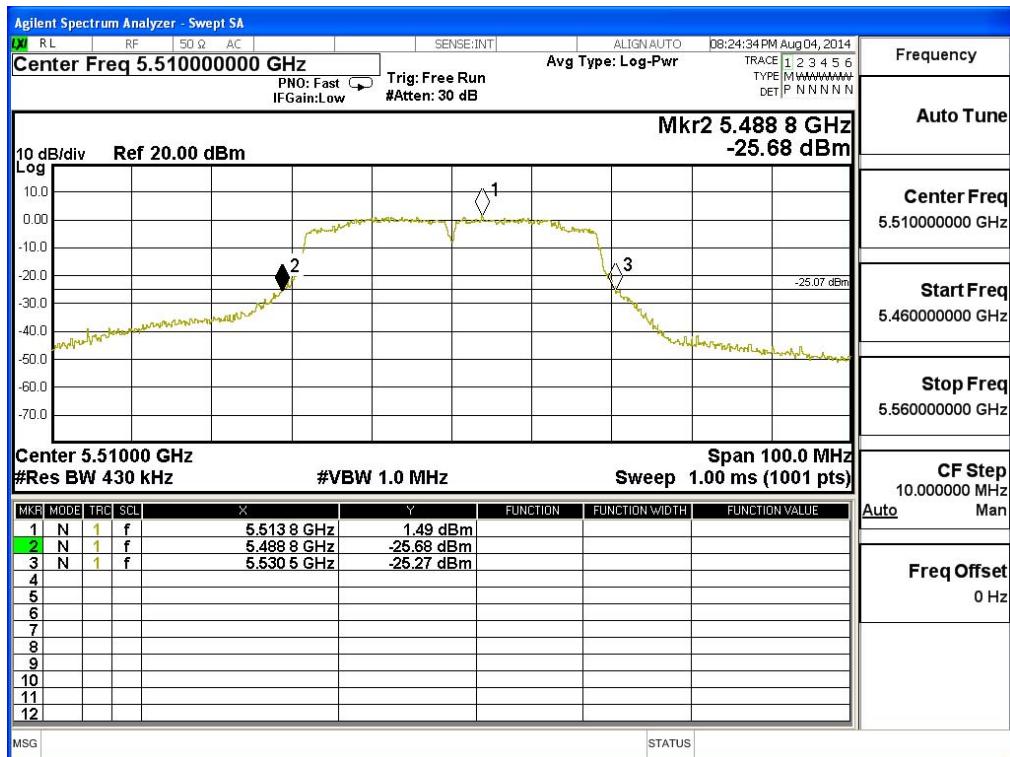
## Channel 54



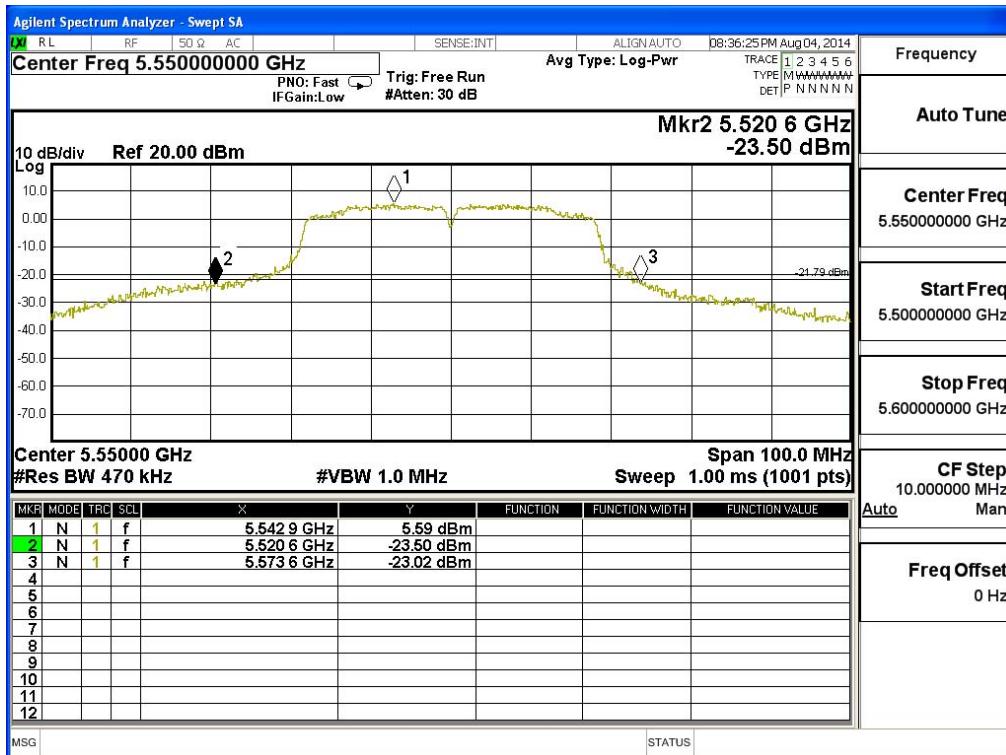
## Channel 62



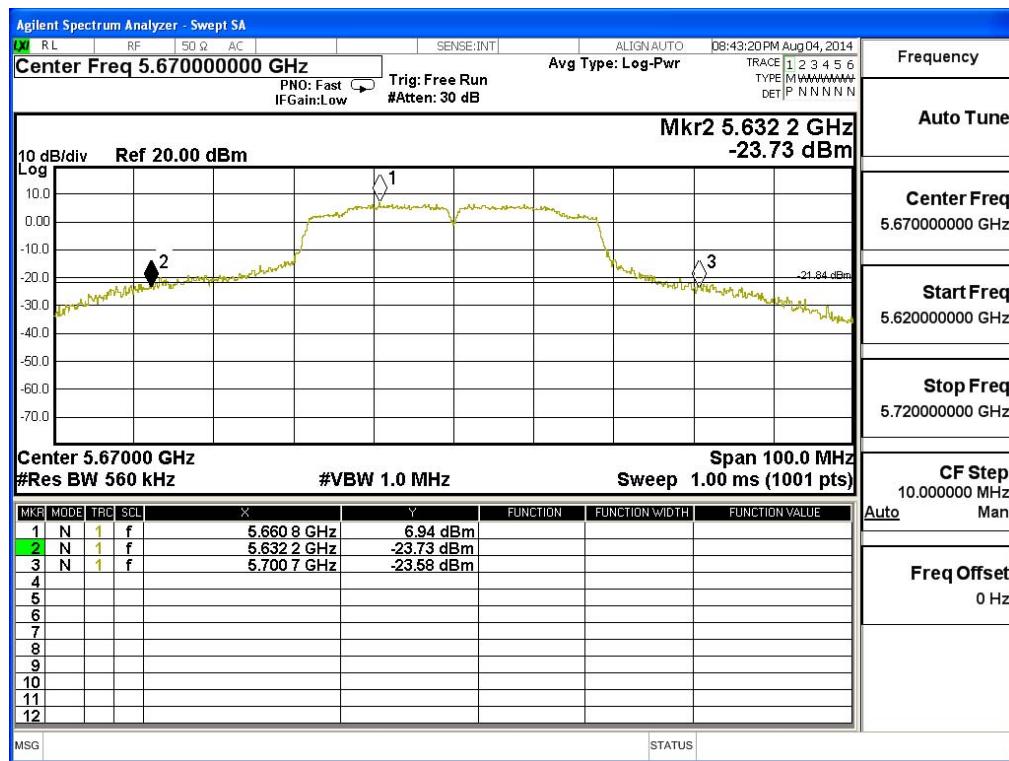
## Channel 102



## Channel 110



## Channel 134



Product : TABLET PC  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 4: Transmit (802.11ac-20BW-7.2Mbps)

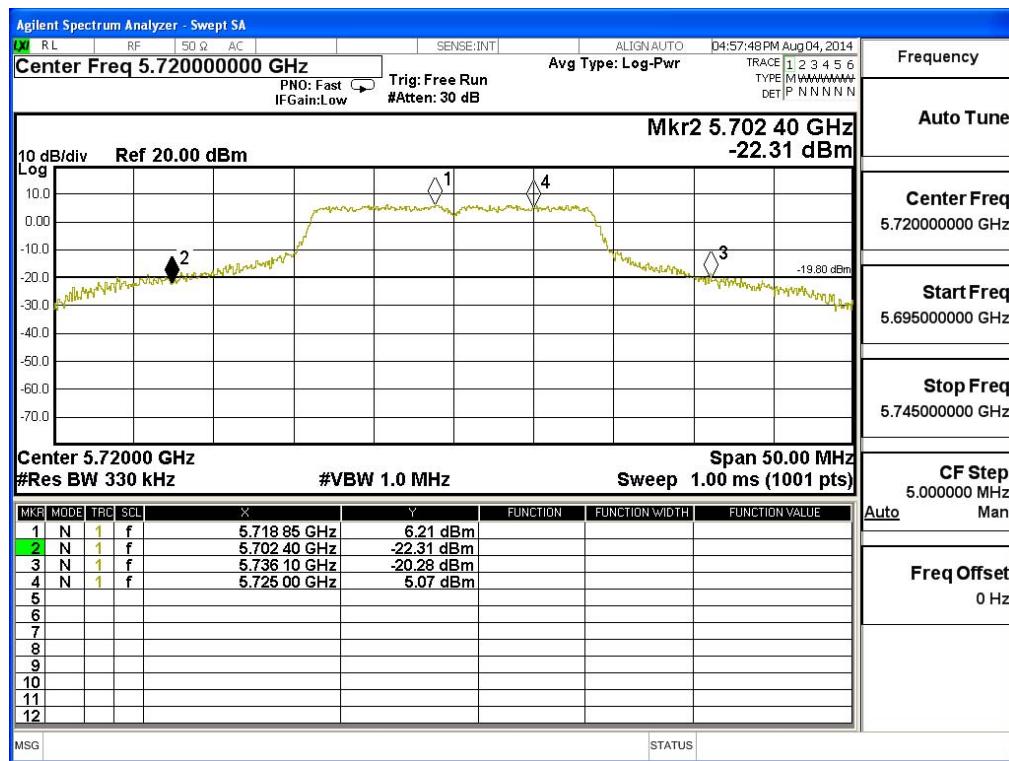
Cable loss=1dB		Maximum conducted output power									
Channel No.	Frequency (MHz)	Data Rate (Mbps)								Required Limit	
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7		
		Measurement Level (dBm)									
144 (Band3)	5720	14.04	14.01	13.98	14.02	13.98	13.92	13.95	13.91	13.89	<24dBm
144 (Band4)	5720	8.42	8.36	8.34	8.28	8.22	8.19	8.17	8.2	8.13	<30dBm

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

#### Maximum conducted output power Measurement:

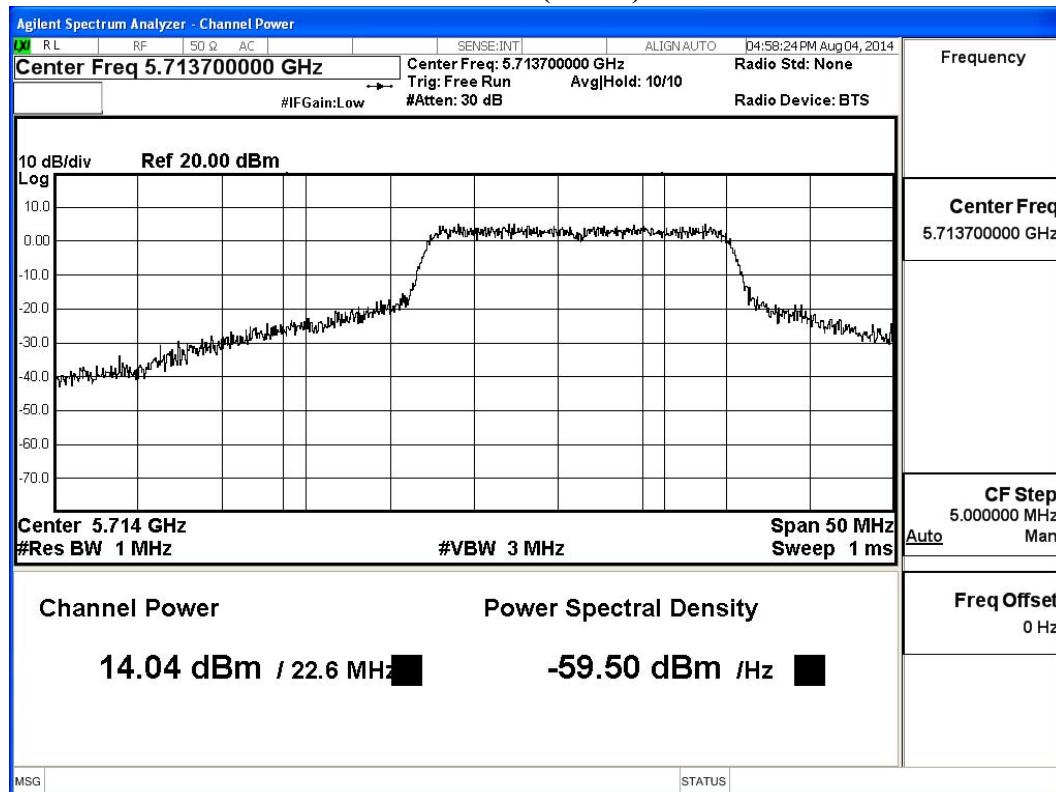
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Output Power (dBm)	Output Power Limit	
					(dBm)	(dBm)+10log(BW)
144(Band3)	5720	22.600	14.04	14.04	24	24.54
144(Band4)	5720	11.100	8.42	8.42	30	21.45

Note: Power Output Value =Reading value on average power meter + cable loss

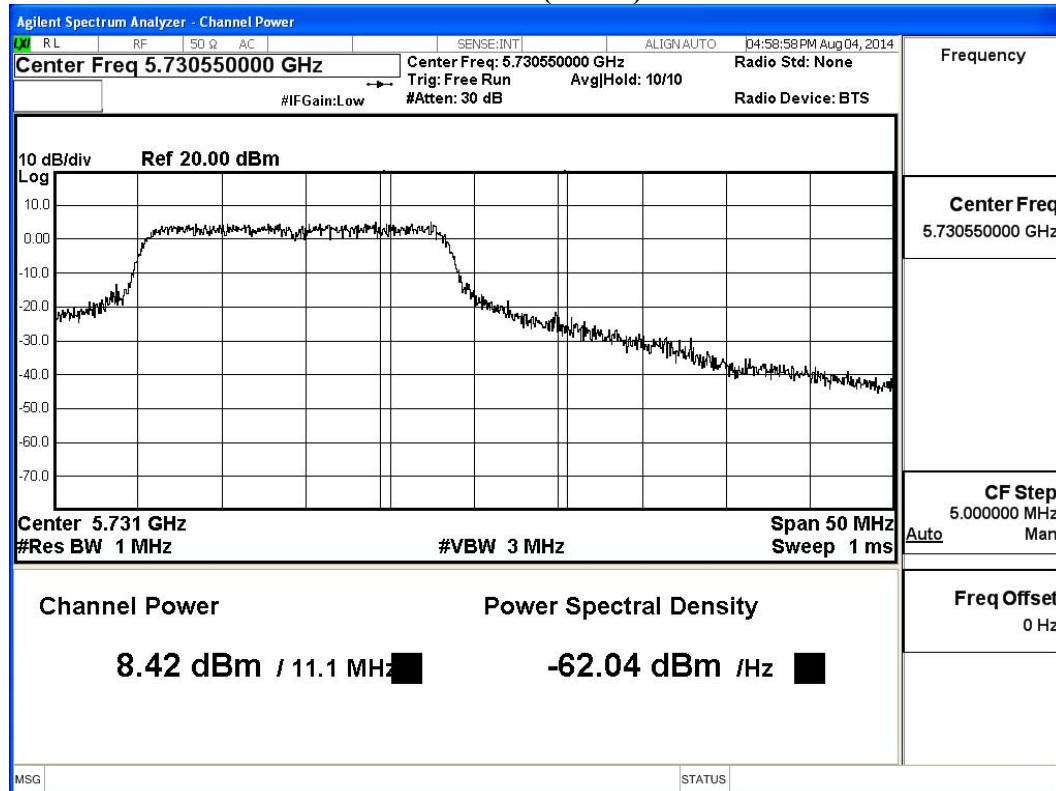
**26dBc Occupied Bandwidth:**
**Channel 144**


### Maximum conducted output power:

#### Channel 144 (Band3)



#### Channel 144 (Band4)



Product : TABLET PC  
 Test Item : Maximum conducted output power  
 Test Site : No.3 OATS  
 Test Mode : Mode 5: Transmit (802.11ac-40BW-15Mbps)

Cable loss=1dB		Maximum conducted output power									
Channel No	Frequency (MHz)	Data Rate (Mbps)									Required Limit
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	
142F(Band3)	5710	14.68	14.61	14.58	14.47	14.42	14.36	14.29	14.31	14.28	14.32 <24dBm
142F(Band4)	5710	1.96	1.91	1.87	1.84	1.76	1.72	1.66	1.69	1.71	1.73 <30dBm

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

#### Maximum conducted output power Measurement:

Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Output Power (dBm)	Output Power Limit	
					(dBm)	(dBm)+10log(BW)
142F(Band3)	5710	45.400	14.68	14.68	24	27.57
142F(Band4)	5710	9.500	1.96	1.96	30	20.78

Note: Power Output Value =Reading value on average power meter + cable loss

## 26dBc Occupied Bandwidth:

### Channel 142

