



Test Report

Product Name	WLAN MODULE
Model No	CMN-851
FCC ID	CKECMN851

Applicant	Japan Radio Co.,Ltd.
Address	1011 SW Klickitat Way, Suite 201B, Seattle, WA 98134 U.S.A. (For FCC)

Date of Receipt	Aug. 15, 2011
Issued Date	Sep. 29, 2011
Report No.	118318R-RFUSP46V01
Report Version	V1.0

The test results relate only to the samples tested.


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Test Report Certification

Issued Date: Sep. 29, 2011

Report No.: 118318R-RFUSP46V01



Product Name	WLAN MODULE	
Applicant	Japan Radio Co.,Ltd.	
Address	1011 SW Klickitat Way, Suite 201B, Seattle, WA 98134 U.S.A. (For FCC)	
Manufacturer	Japan Radio Co.,Ltd.	
Model No.	CMN-851	
FCC ID.	CKECMN851	
EUT Rated Voltage	DC 3.3V	
EUT Test Voltage	AC 120V/60Hz	
Trade Name	Japan Radio Co.,Ltd.	
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E: 2010 ANSI C63.4: 2009	 <small>NVLAP Lab Code: 200533-0</small>
Test Result	Complied	

The Test Results relate only to the samples tested.

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Approved By : Vincent Lin
 (Manager / Vincent Lin)



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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	WLAN MODULE
Trade Name	Japan Radio Co.,Ltd.
FCC ID.	CKECMN851
Model No.	CMN-851
Frequency Range	802.11a/n-20MHz: 5180-5320MHz, 5500-5700MHz 802.11n-40MHz: 5190-5310, 5510-5670MHz
Number of Channels	802.11a/n-20MHz: 19; 802.11n-40MHz: 9
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	Chip Antenna
Antenna Gain	Refer to the table "Antenna List"
Host System	MFR: Ricoh Company, Ltd. / M/N: PJ WX4130N

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	TAIYO YUDEN	AH 104N2450D1	2.4dBi for 5.0 GHz

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						

Note:

1. This device is a WLAN MODULE with a built-in WLAN transceiver.
2. This module is "Limited Modular Approval" (LMA).
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps 、 802.11g is 6Mbps 、 802.11n(20M-BW) is 14.4Mbps and 、 802.11n(40M-BW) 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.

1.2. Operational Description

The EUT is a WLAN MODULE with a built-in 2.4GHz and 5GHz WLAN transceiver. This device provided four kinds of transmitting speed 1, 2, 5.5 and 11Mbps and the device of RF carrier is DBPSK, DQPSK and CCK (IEEE 802.11b). The device provided of eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11a/g).

The device provided of eight kinds of transmitting speed 14.4,28.9,43.3,57.8,86.7,115.6,130 and 144.4Mbps in 802.11n(20M-BW) mode and 30,60,90,120,180,240,270 and 300 Mbps(40M-BW) the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11n), the IEEE 802.11n is Multiple In, Multiple Out” (MIMO) technology.

The device adapts direct sequence spread spectrum modulation. The antenna provides diversity function to improve the receiving function and the antennas to support 2(Transmit) × 2(Receive) MIMO technology.

This Plug-In PC, compliant with IEEE 802.11a/b/g/n, is a high-efficiency Wireless LAN adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without being bound to the network wires. Operation in 2.4GHz Direct Sequence Spread Spectrum (DSSS) and Orthogonal Frequency Division Multiplexing (OFDM) radio transmission, the Plug-In PC Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11a/b/g/n network.

The Device no radar detection and no ad-hoc operation in the DFS band, another information please refer to users manual.

Test Mode	Mode 1: Transmitter (802.11a-6Mbps) Mode 2: Transmitter (802.11n-20BW 14.4Mbps) Mode 3: Transmitter (802.11n-40BW 30Mbps)
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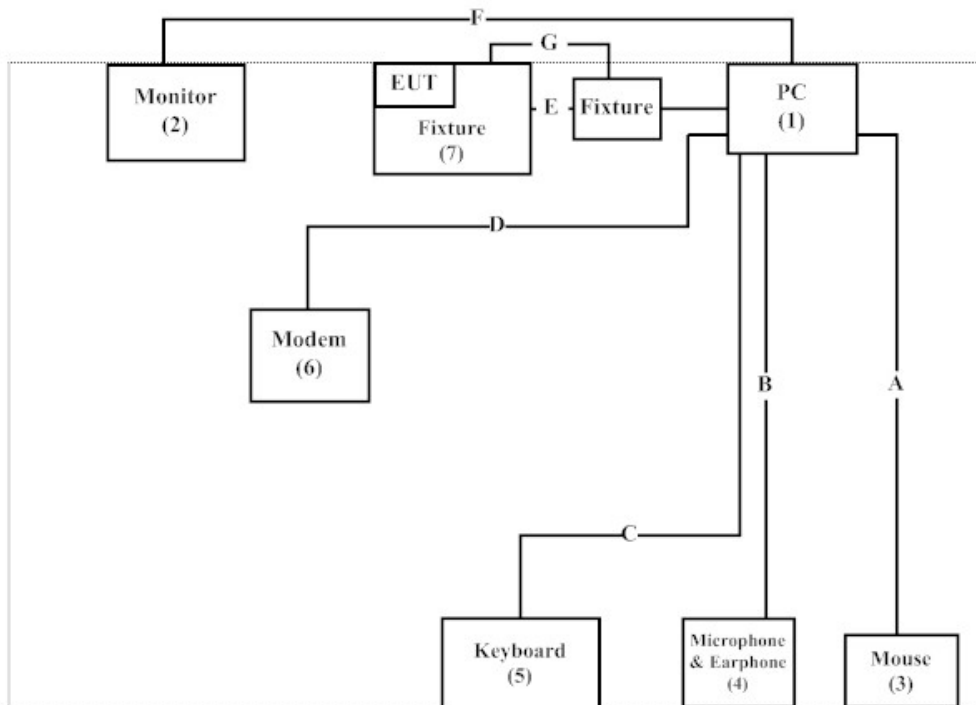
1.3. Tested System Details

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) PC	Hp Compaq	dc7800p	JPA83100ZW	Non-Shielded, 1.8m
(2) Monitor	LG	W2261VT	907YHZK07373	Non-Shielded, 1.8m
(3) USB Mouse	DELL	MO56UC	G0X01JK0	N/A
(4) Microphone & Earphone	Ergotech	ET-E201	N/A	N/A
(5) Keyboard	Logitech	Y-U0009	LZ027HU	N/A
(6) Modem	ACEEX	DM-1414	0102027558	Non-Shielded, 1.8m
(7) Fixture	JRC.	N/A	N/A	N/A

Signal Cable Type	Signal cable Description
A Mouse Cable	Shielded, 1.8m
B Earphone & Microphone Cable	Non-Shielded, 1.2m
C Keyboard Cable	Shielded, 1.8m
D Modem Cable	Shielded, 1.5m
E HDMI Cable	Shielded, 1.0m
F VGA Cable	Shielded, 1.6m
G Signal Cable	Non-Shielded, 0.23m

1.4. Configuration of tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4.
- (2) Execute “ART” program on the PC.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press “OK” to start the continuous Receiver.
- (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/>

Site Description: File on
 Federal Communications Commission
 FCC Engineering Laboratory
 7435 Oakland Mills Road
 Columbia, MD 21046
 Registration Number: 92195



Accreditation on NVLAP
 NVLAP Lab Code: 200533-0



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FCC Accreditation Number: TW1014



Testing Laboratory
0914

2. Conducted Emission

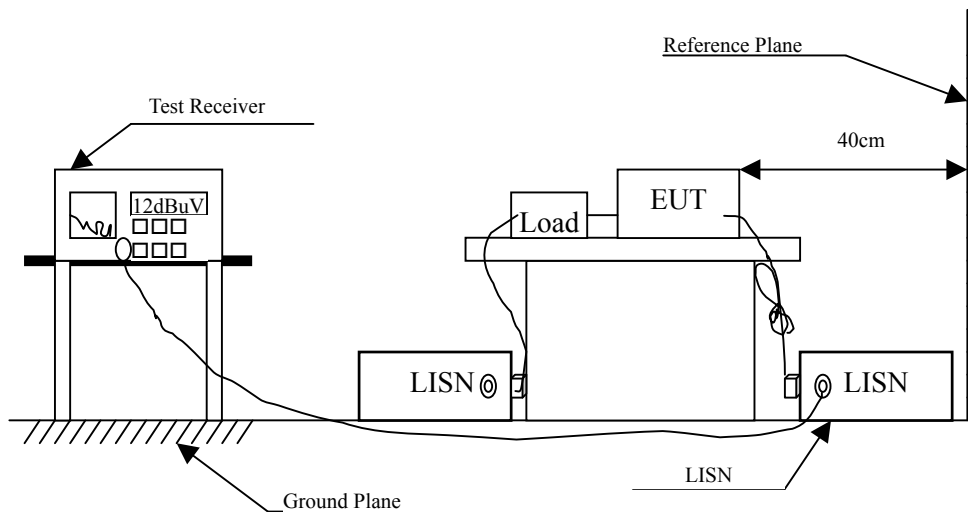
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2011	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2011	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2011	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2011	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2011	
	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

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
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 C63.4: 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 C63.4, 2009; tested to DTS test procedure of Aug 2002 DA 02-2138 for compliance to FCC 47CFR Subpart E requirements.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : WLAN MODULE
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 3: Transmitter (802.11n-40BW 30Mbps) (5230MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 1					
Quasi-Peak					
0.382	9.790	42.520	52.310	-7.061	59.371
0.422	9.790	45.662	55.452	-2.777	58.229
0.478	9.790	48.053	57.843	-21.157	79.000(*)
0.534	9.780	50.058	59.838	-13.162	73.000(*)
0.646	9.780	43.168	52.948	-20.052	73.000(*)
0.898	9.764	46.335	56.099	-16.901	73.000(*)
Average					
0.382	9.790	34.137	43.927	-5.444	49.371
0.422	9.790	32.117	41.907	-6.322	48.229
0.478	9.790	36.948	46.738	-19.262	66.000(*)
0.534	9.780	39.619	49.399	-10.601	60.000(*)
0.646	9.780	36.309	46.089	-13.911	60.000(*)
0.898	9.764	33.694	43.458	-16.542	60.000(*)

Note:

- All Reading Levels are Quasi-Peak and average value.
- “ ” means the worst emission level.
- Measurement Level = Reading Level + Correct Factor
- “*”: This signal is conducted emission out from test fixture, the fixture for Class A digital device and FCC part 15.107 limit.

Product : WLAN MODULE
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 3: Transmitter (802.11n-40BW 30Mbps) (5230MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 2					
Quasi-Peak					
0.406	9.790	40.715	50.505	-8.181	58.686
0.538	9.790	49.846	59.636	-13.364	73.000(*)
0.638	9.790	43.840	53.630	-19.37	73.000(*)
0.770	9.790	46.448	56.238	-16.762	73.000(*)
0.910	9.790	41.415	51.205	-4.795	56.000
2.422	9.800	40.654	50.454	-5.546	56.000
Average					
0.406	9.790	28.844	38.634	-10.052	48.686
0.538	9.790	38.518	48.308	-17.692	66.000(*)
0.638	9.790	38.032	47.822	-12.178	60.000(*)
0.770	9.790	37.217	47.007	-12.993	60.000(*)
0.910	9.790	27.010	36.800	-9.200	46.000
2.422	9.800	33.266	43.066	-2.934	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
4. "*": This signal is conducted emission out from test fixture, the fixture for Class A digital device and FCC part 15.107 limit.

Product : WLAN MODULE
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 3: Transmitter (802.11n-40BW 30Mbps) (5310MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 1					
Quasi-Peak					
0.426	9.790	45.005	54.795	-3.319	58.114
0.482	9.790	47.439	57.229	-21.771	79.000(*)
0.538	9.780	49.595	59.375	-13.625	73.000(*)
0.762	9.770	45.403	55.173	-0.827	56.000
0.890	9.767	46.825	56.592	-16.408	73.000(*)
2.486	9.810	40.903	50.713	-5.287	56.000
Average					
0.426	9.790	29.873	39.663	-8.451	48.114
0.482	9.790	33.085	42.875	-23.125	66.000(*)
0.538	9.780	38.515	48.295	-11.705	60.000(*)
0.762	9.770	33.749	43.519	-2.481	46.000
0.890	9.767	35.442	45.208	-14.792	60.000(*)
2.486	9.810	33.511	43.321	-2.679	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
4. "*": This signal is conducted emission out from test fixture, the fixture for Class A digital device and FCC part 15.107 limit.

Product : WLAN MODULE
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 3: Transmitter (802.11n-40BW 30Mbps) (5310MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 2					
Quasi-Peak					
0.490	9.790	44.790	54.580	-1.706	56.286
0.546	9.790	47.197	56.987	-16.013	73.000(*)
0.638	9.790	44.046	53.836	-19.164	73.000(*)
0.770	9.790	46.188	55.978	-1.022	73.000(*)
0.886	9.790	45.530	55.320	-0.680	56.000
2.426	9.800	40.388	50.188	-5.812	56.000
Average					
0.490	9.790	29.357	39.147	-7.139	46.286
0.546	9.790	31.856	41.646	-18.354	60.000(*)
0.638	9.790	38.073	47.863	-12.137	60.000(*)
0.770	9.790	36.213	46.003	-13.997	60.000(*)
0.886	9.790	32.780	42.570	-3.430	46.000
2.426	9.800	33.679	43.479	-2.521	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
4. "*": This signal is conducted emission out from test fixture, the fixture for Class A digital device and FCC part 15.107 limit.

Product : WLAN MODULE
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 3: Transmitter (802.11n-40BW 30Mbps) (5590MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 1					
Quasi-Peak					
0.314	9.790	44.503	54.293	-7.021	61.314
0.418	9.790	47.270	57.060	-1.283	58.343
0.534	9.780	49.945	59.725	-13.275	73.000(*)
0.646	9.780	43.250	53.030	-19.97	73.000(*)
0.842	9.770	44.865	54.635	-1.365	56.000
2.350	9.810	40.038	49.848	-6.152	56.000
Average					
0.314	9.790	37.478	47.268	-4.046	51.314
0.418	9.790	36.528	46.318	-2.025	48.343
0.534	9.780	39.759	49.539	-10.461	60.000(*)
0.646	9.780	36.308	46.088	-13.912	60.000(*)
0.842	9.770	29.329	39.099	-6.901	46.000
2.350	9.810	33.317	43.127	-2.873	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
4. "*": This signal is conducted emission out from test fixture, the fixture for Class A digital device and FCC part 15.107 limit.

Product : WLAN MODULE
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 3: Transmitter (802.11n-40BW 30Mbps) (5590MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 2					
Quasi-Peak					
0.426	9.790	43.730	53.520	-4.594	58.114
0.482	9.790	47.124	56.914	-22.086	79.000(*)
0.538	9.790	49.688	59.478	-13.522	73.000(*)
0.638	9.790	44.438	54.228	-18.772	73.000(*)
0.762	9.790	45.638	55.428	-0.572	56.000
0.882	9.790	45.280	55.070	-0.930	56.000
2.370	9.800	40.277	50.077	-5.923	56.000
Average					
0.426	9.790	27.839	37.629	-10.485	48.114
0.482	9.790	34.584	44.374	-21.626	66.000(*)
0.538	9.790	38.411	48.201	-11.799	60.000(*)
0.638	9.790	38.210	48.000	-12.000	60.000(*)
0.762	9.790	33.413	43.203	-2.797	46.000
0.882	9.790	31.917	41.707	-4.293	46.000
2.370	9.800	34.180	43.980	-2.020	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
4. "*": This signal is conducted emission out from test fixture, the fixture for Class A digital device and FCC part 15.107 limit.

3. Peak Transmit Power

3.1. Test Equipment

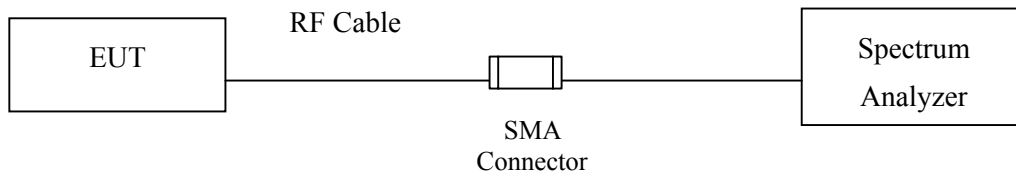
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2011
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2011
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011

Note:

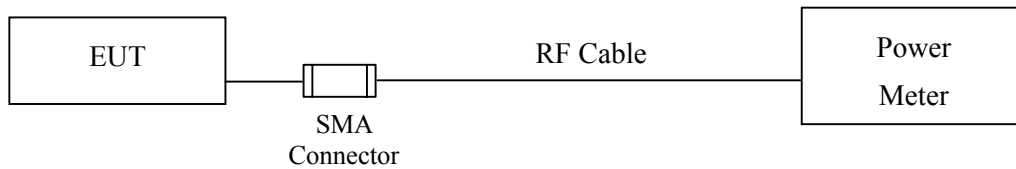
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
2. The test instruments marked with “X” are used to measure the final test results.

3.2. Test Setup

26dBc Occupied Bandwidth



Conduction Power Measurement



3.3. Limits

- (1) For the band 5.15-5.25 GHz, the peak transmit 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 peak transmit 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 peak transmit 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 peak transmit 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 peak transmit 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 peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

3.4. Test Procedur

As an alternative to DA 02-2138, the EUT peak power was measured with a peak power meter employing a video bandwidth greater than 6dB BW of the emission under test. Peak 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 DA 02-2138, and provides more accurate measurements.

3.5. Uncertainty

$\pm 1.27 \text{ dB}$

3.6. Test Result of Peak Transmit Power

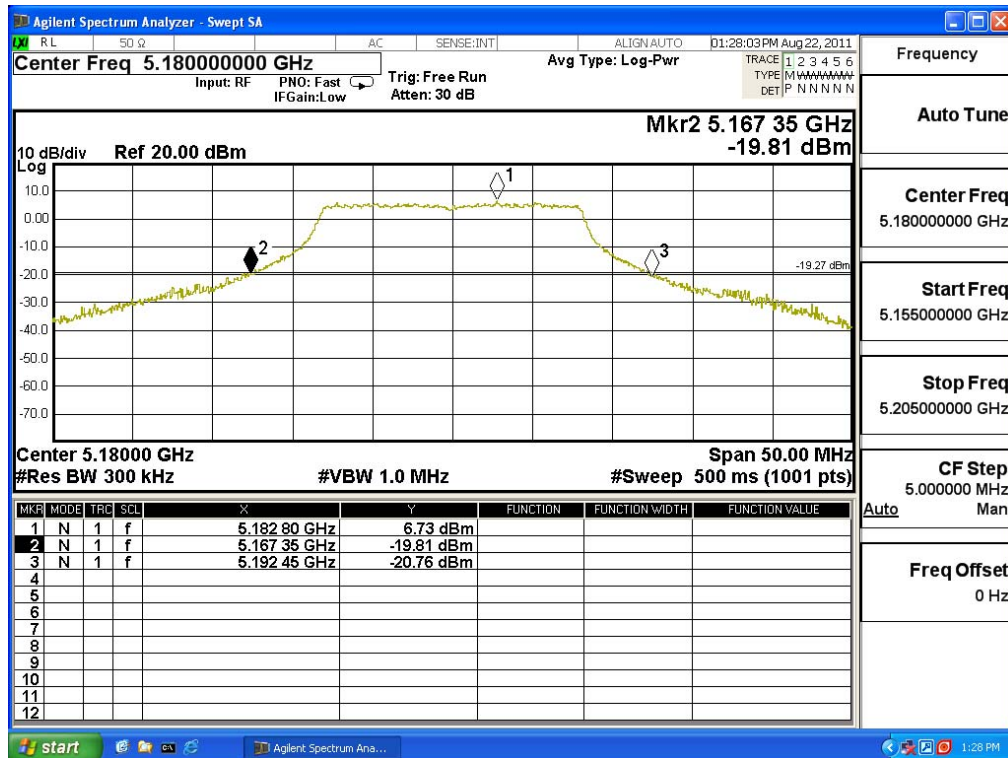
Product : WLAN MODULE
 Test Item : Peak Transmit Power
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11a-6Mbps)

Peak Transmit Power Measurement:

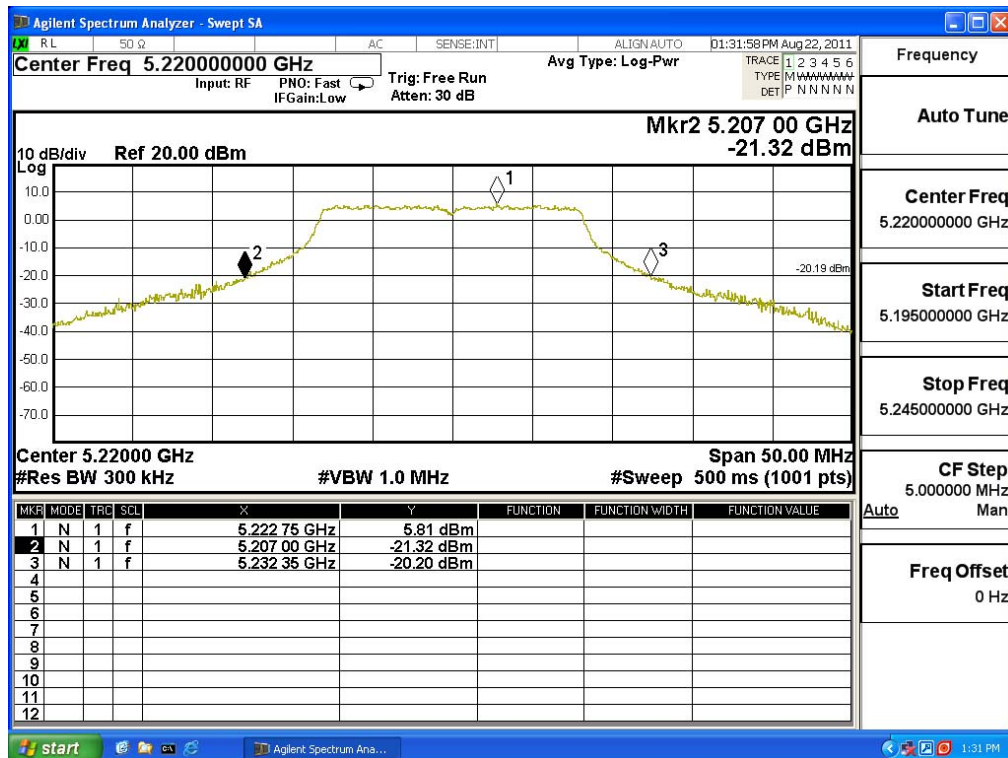
Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit	
				(dBm)	dBm+10log(BW)
36	5180	25.100	15.02	17	18.00
44	5220	25.350	14.9	17	18.04
48	5240	25.250	15.06	17	18.02
52	5260	26.000	14.92	24	25.15
60	5300	25.600	15.09	24	25.08
64	5320	25.350	15.16	24	25.04
100	5500	25.300	13.15	24	25.03
120	5600	25.250	12.97	24	25.02
140	5700	25.300	13.04	24	25.03

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

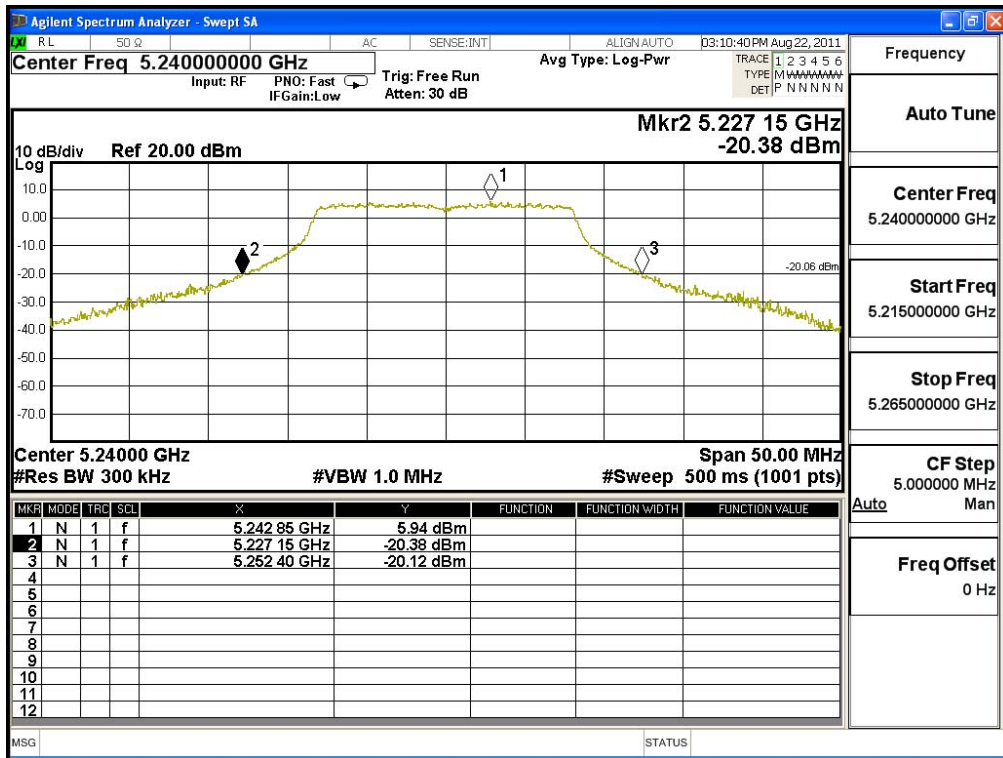
26dBc Occupied Bandwidth: Channel 36



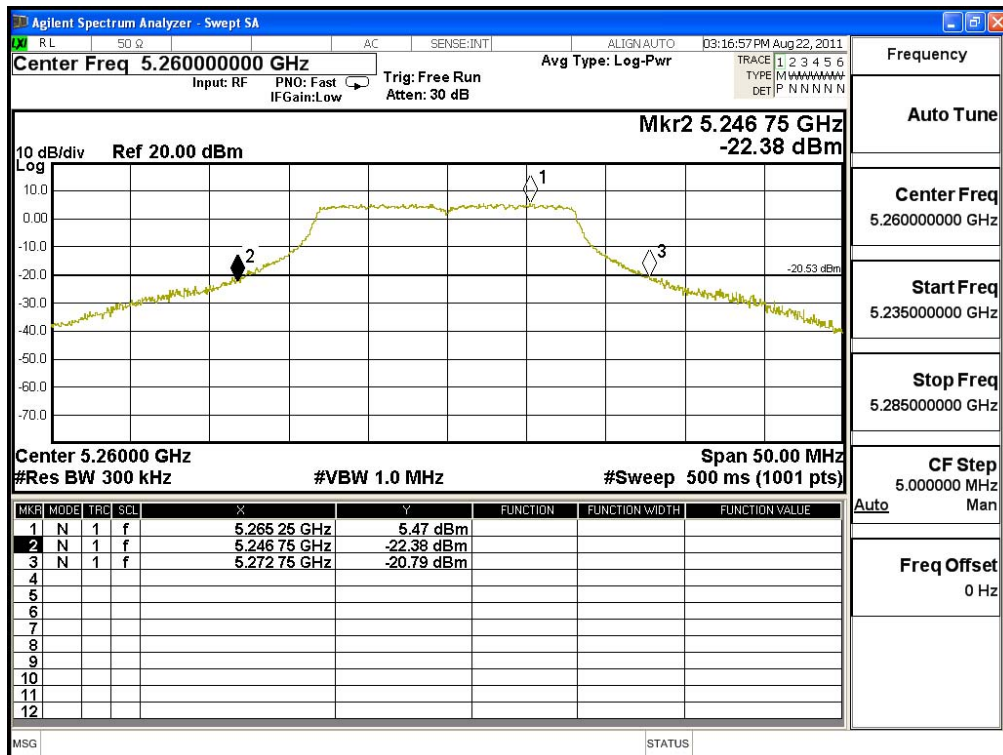
Channel 40



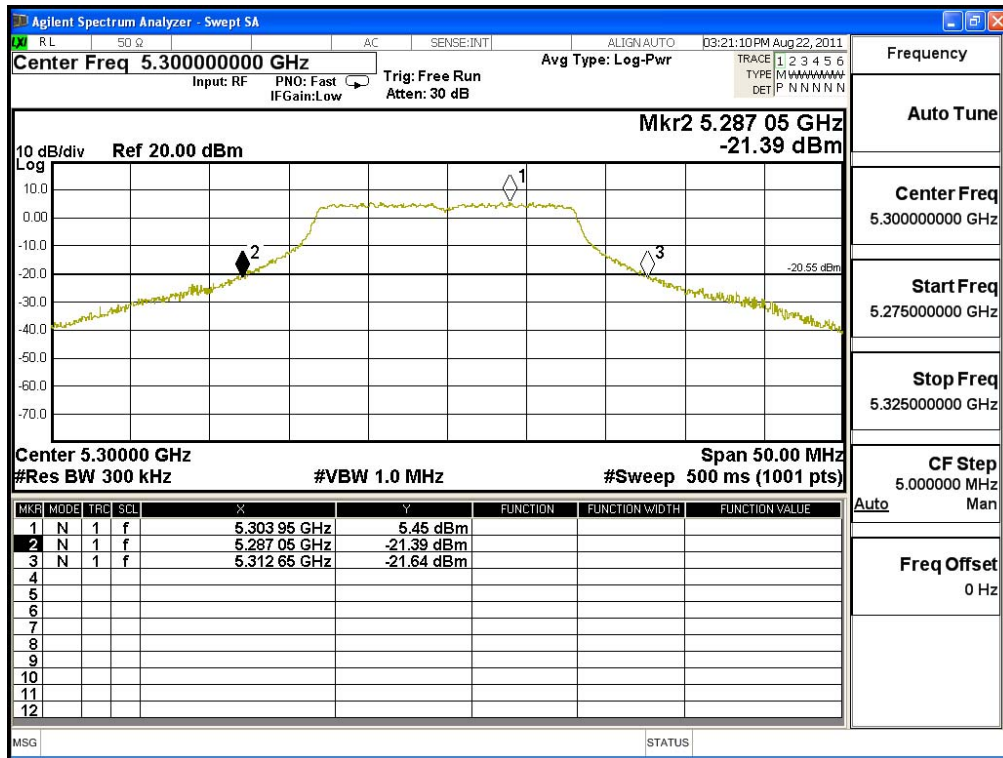
Channel 48



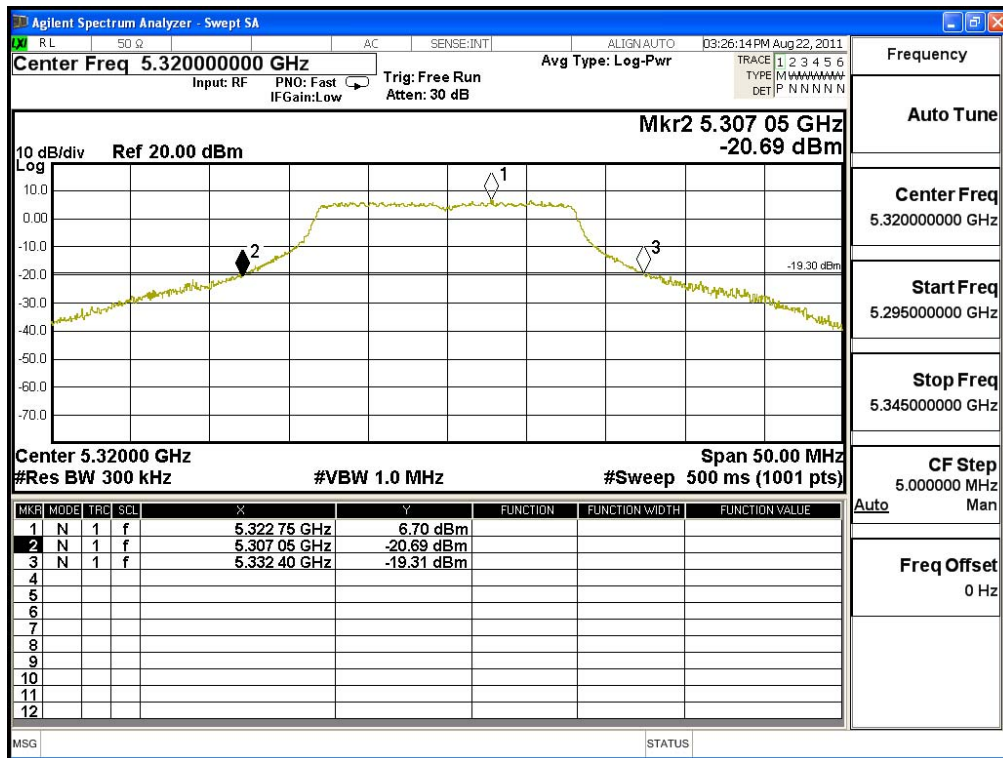
Channel 52



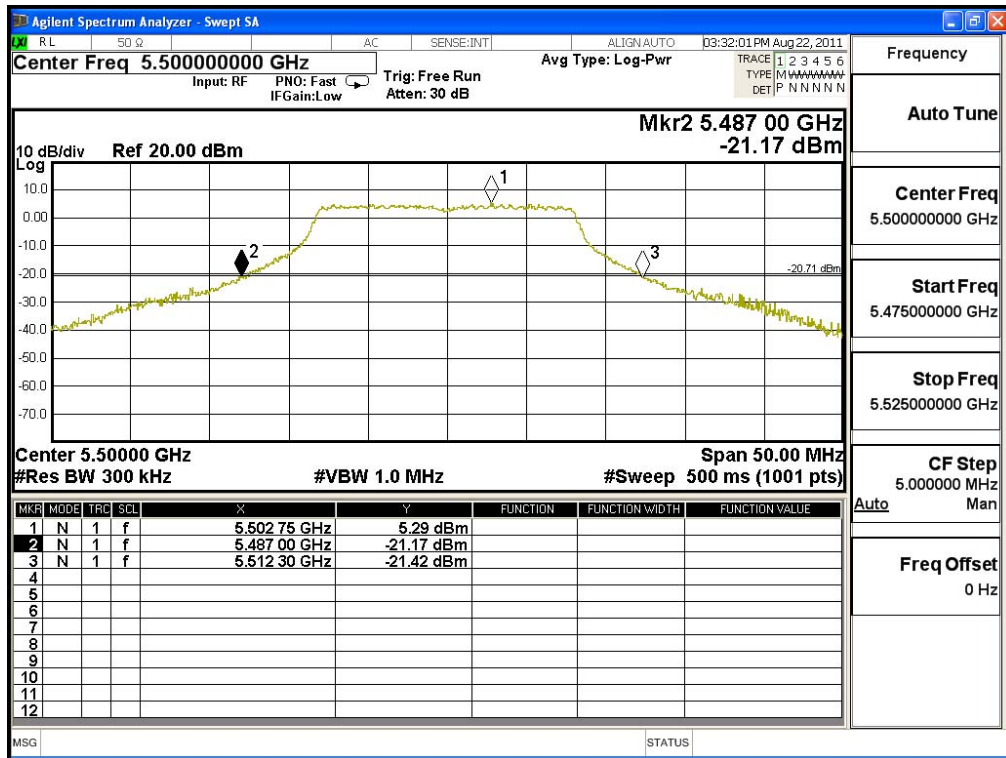
Channel 60



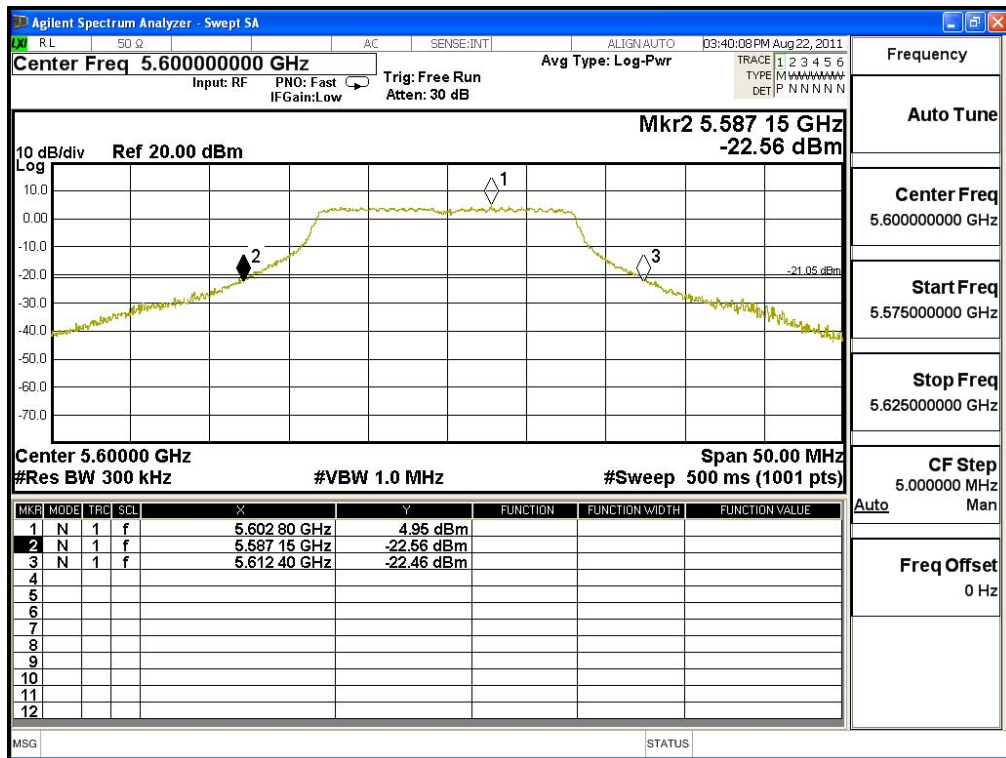
Channel 64



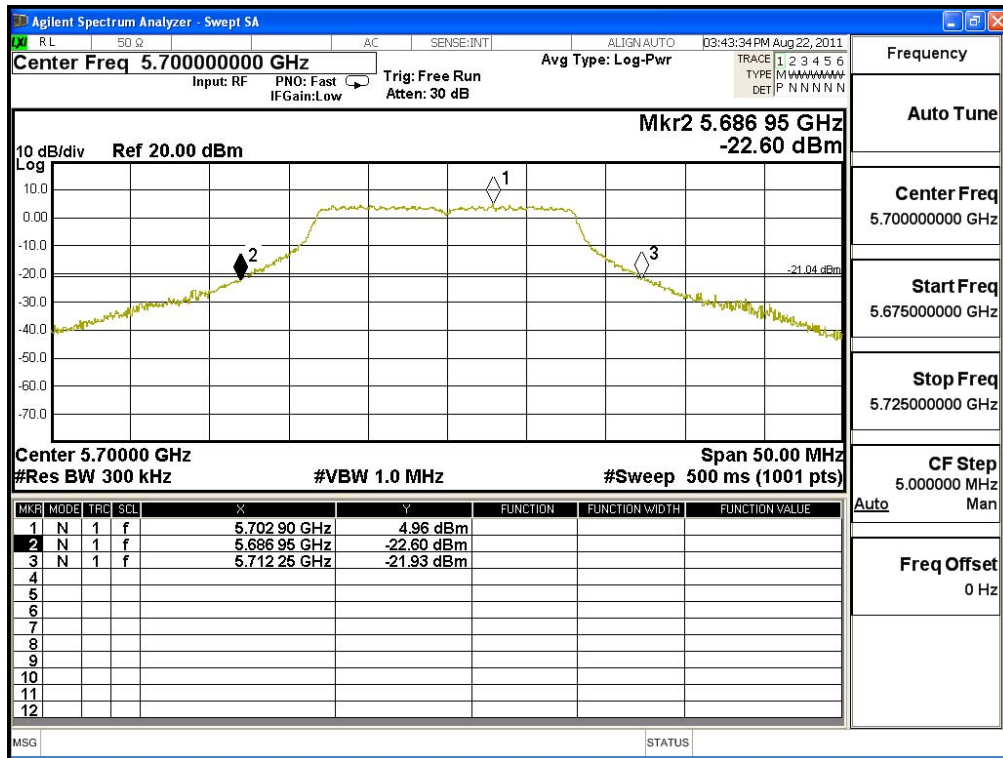
Channel 100



Channel 120



Channel 140



Product : WLAN MODULE
 Test Item : Peak Transmit Power
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11n-20BW 14.4Mbps)

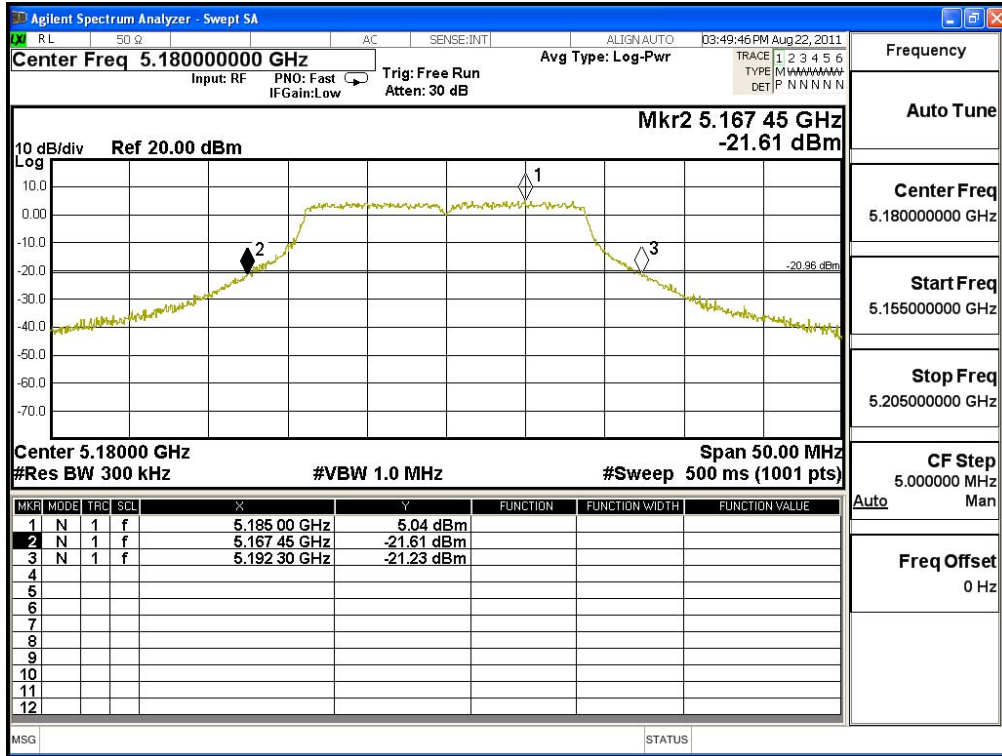
Peak Transmit Power Measurement:

Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit	
						(dBm)	dBm+10log(BW)
36	5180	24.850	12.06	12.69	15.40	17	17.95
44	5220	25.050	12.19	12.87	15.55	17	17.99
48	5240	24.800	12.22	12.79	15.52	17	17.94
52	5260	25.050	12.24	12.72	15.50	24	24.99
60	5300	24.650	12.18	12.68	15.45	24	24.92
64	5320	25.050	11.95	12.19	15.08	24	24.99
100	5500	24.700	10.16	10.00	13.09	24	24.93
120	5600	25.000	10.03	10.04	13.05	24	24.98
140	5700	25.000	10.25	10.52	13.40	24	24.98

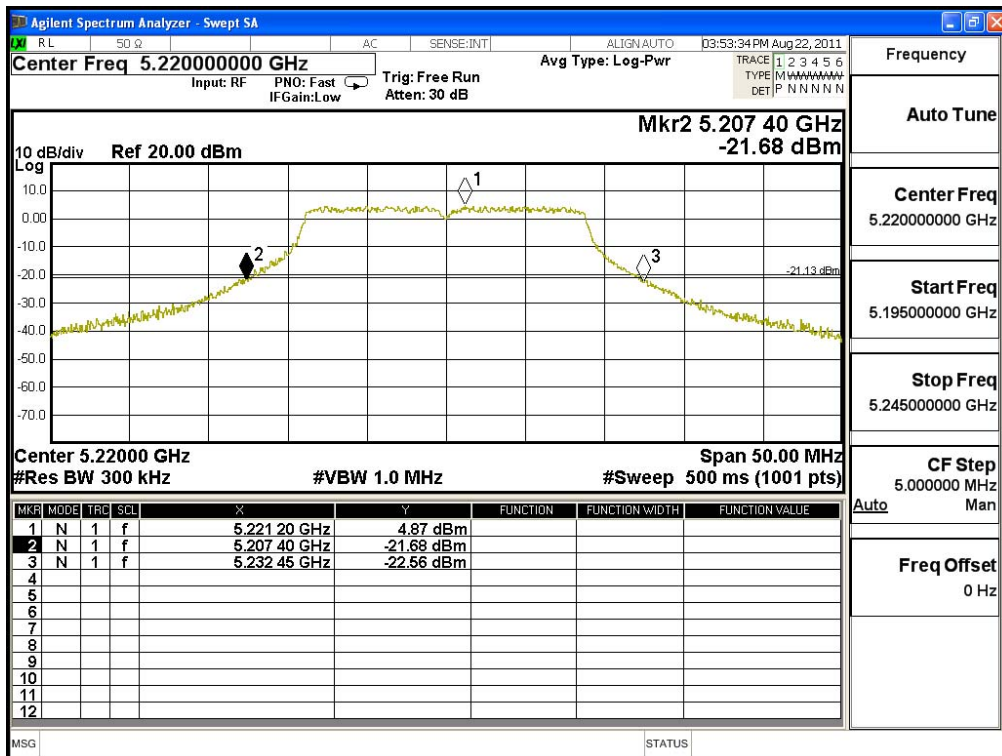
Note:

1. Power Output Value = Reading value on peak power meter + cable loss
2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

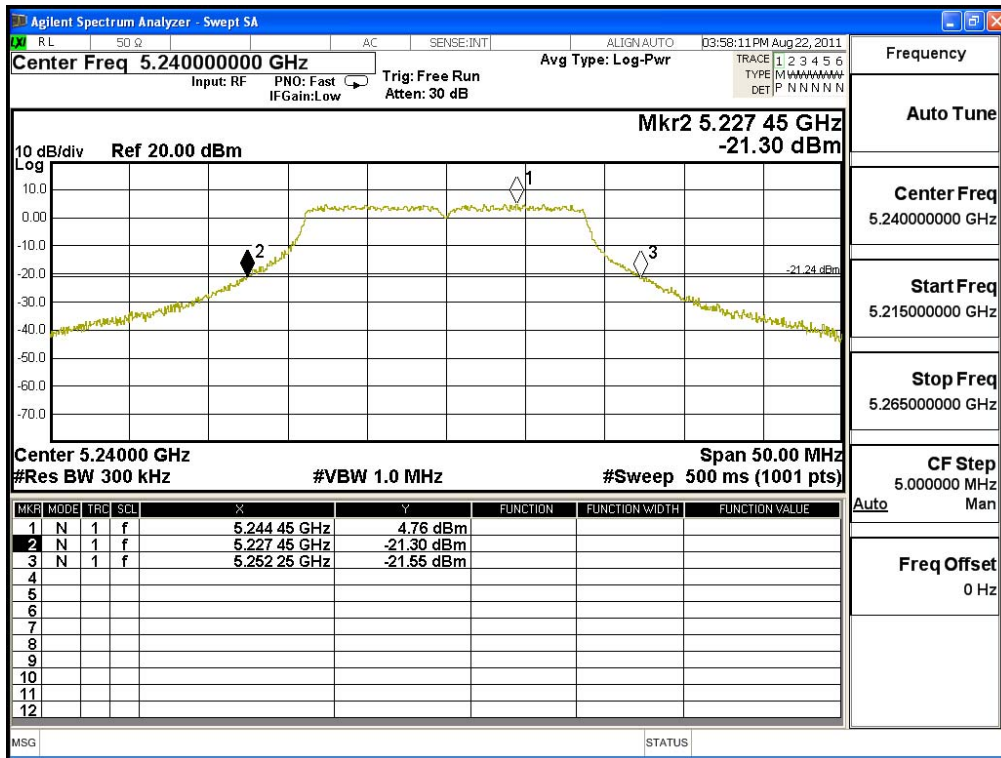
26dBc Occupied Bandwidth: Channel 36 -Chain A



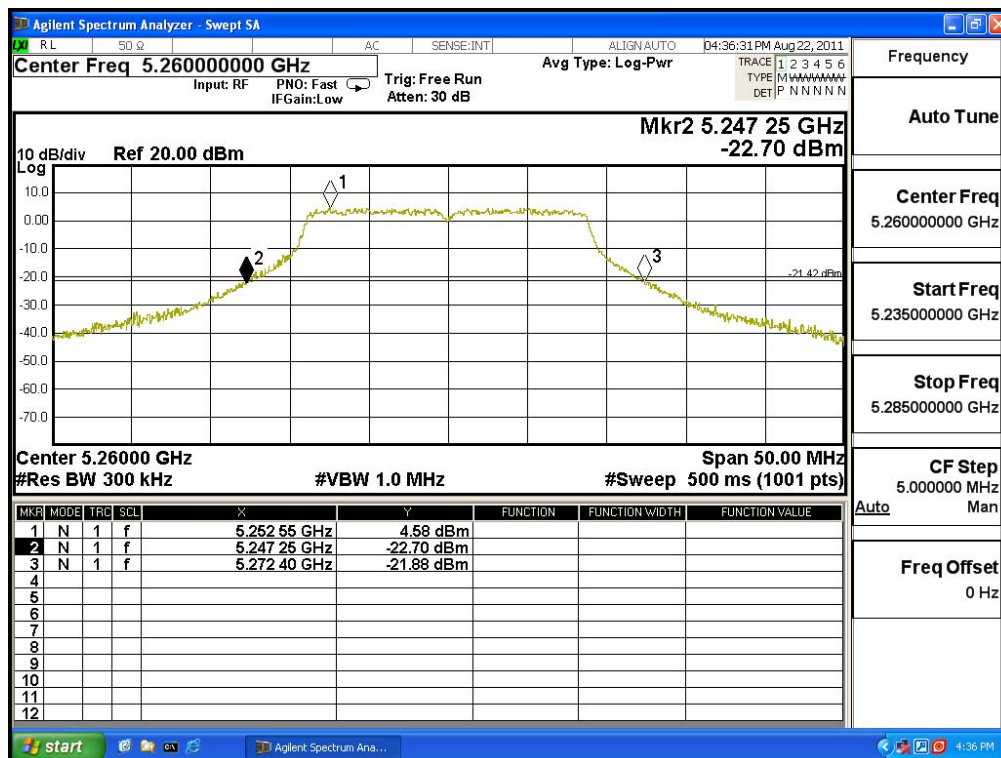
Channel 44 -Chain A



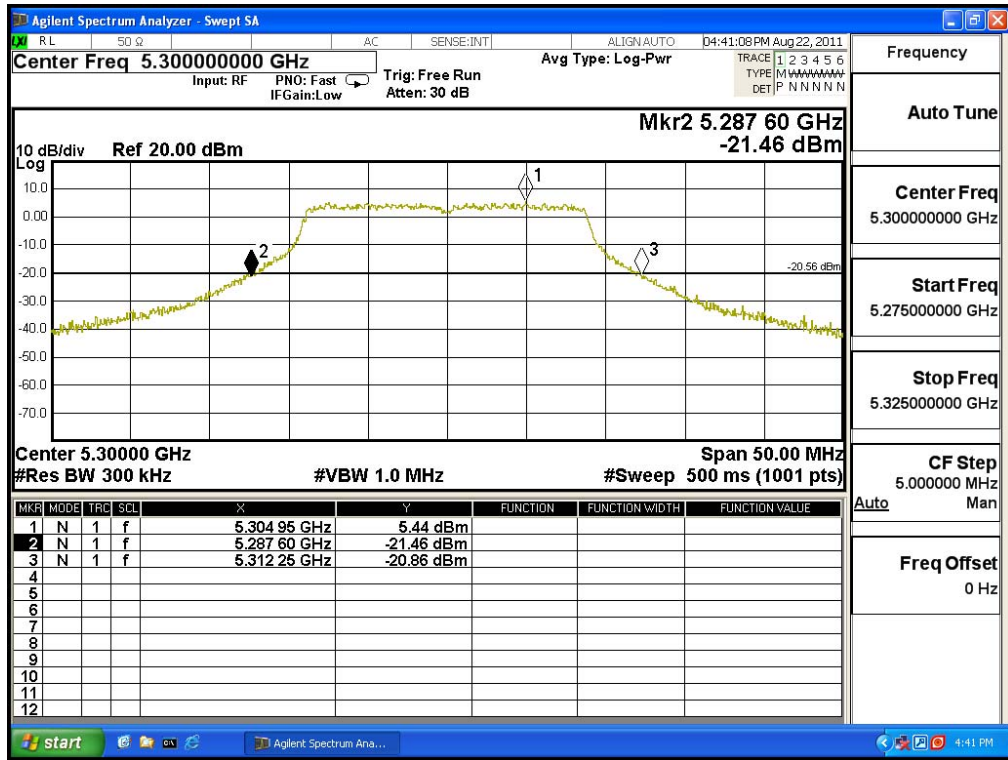
Channel 48 -Chain A



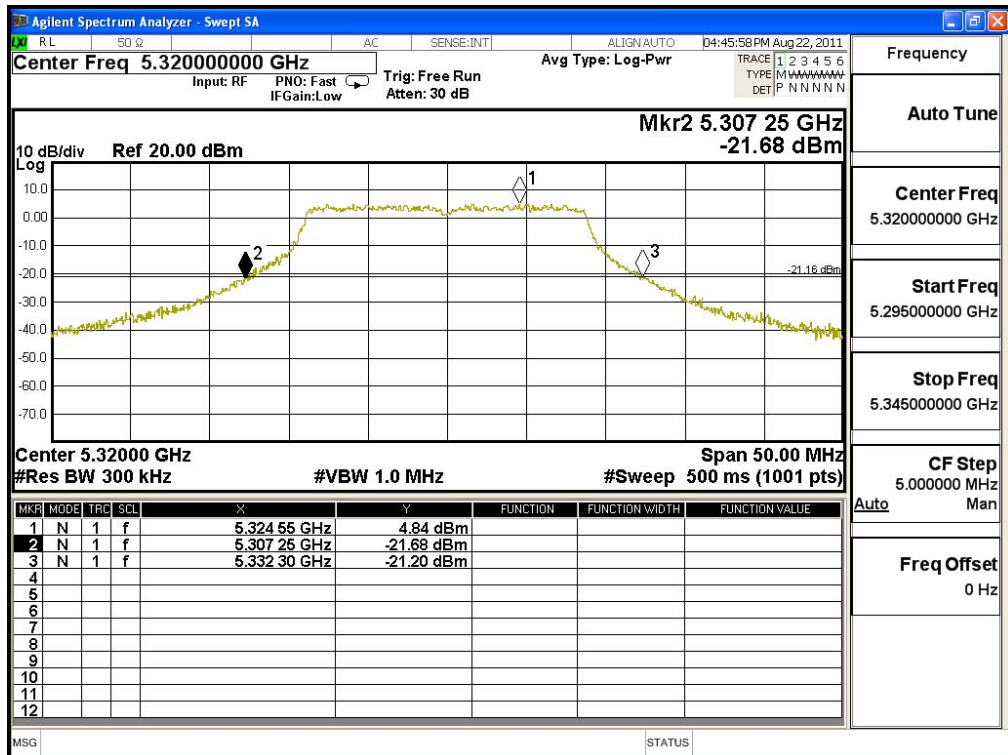
Channel 52 -Chain A



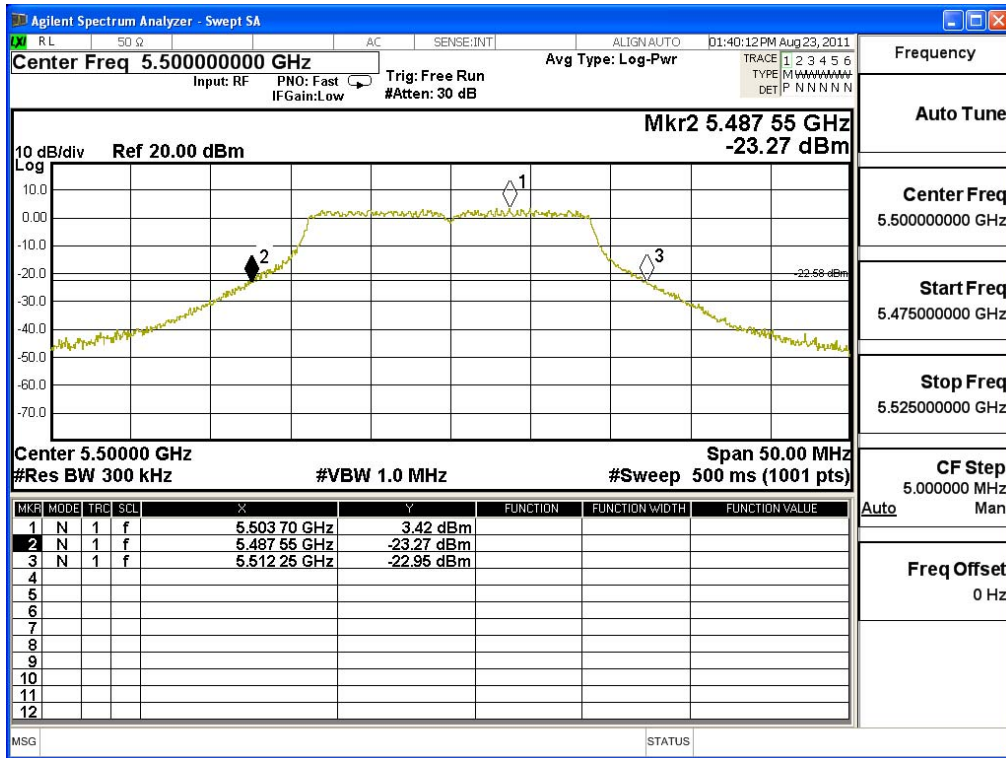
Channel 60 -Chain A



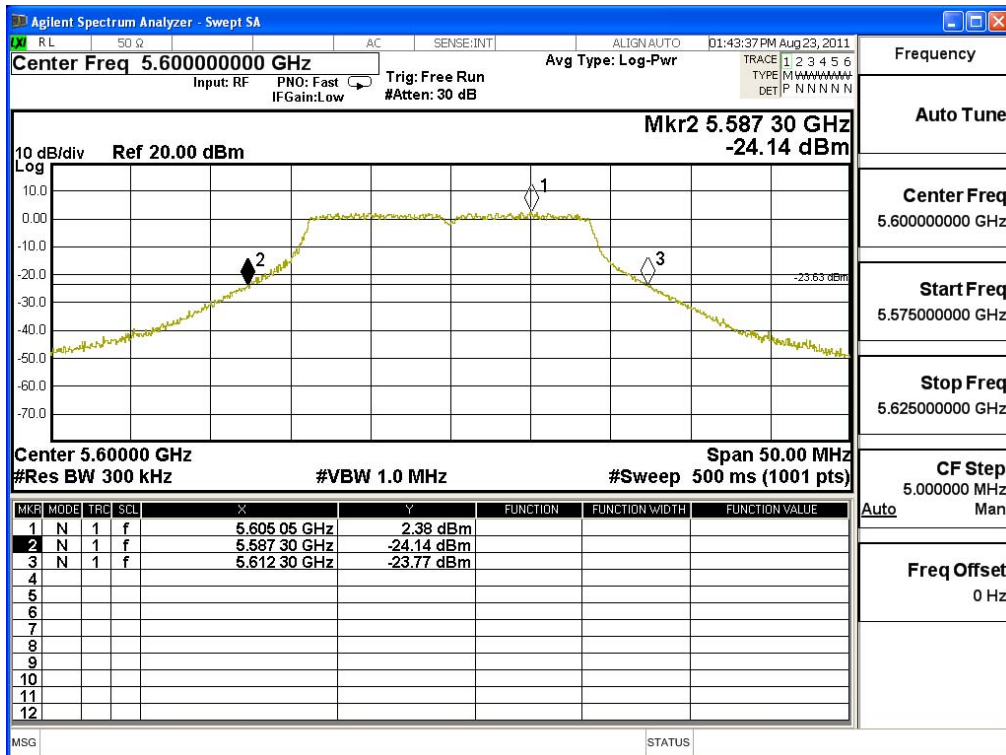
Channel 64 -Chain A



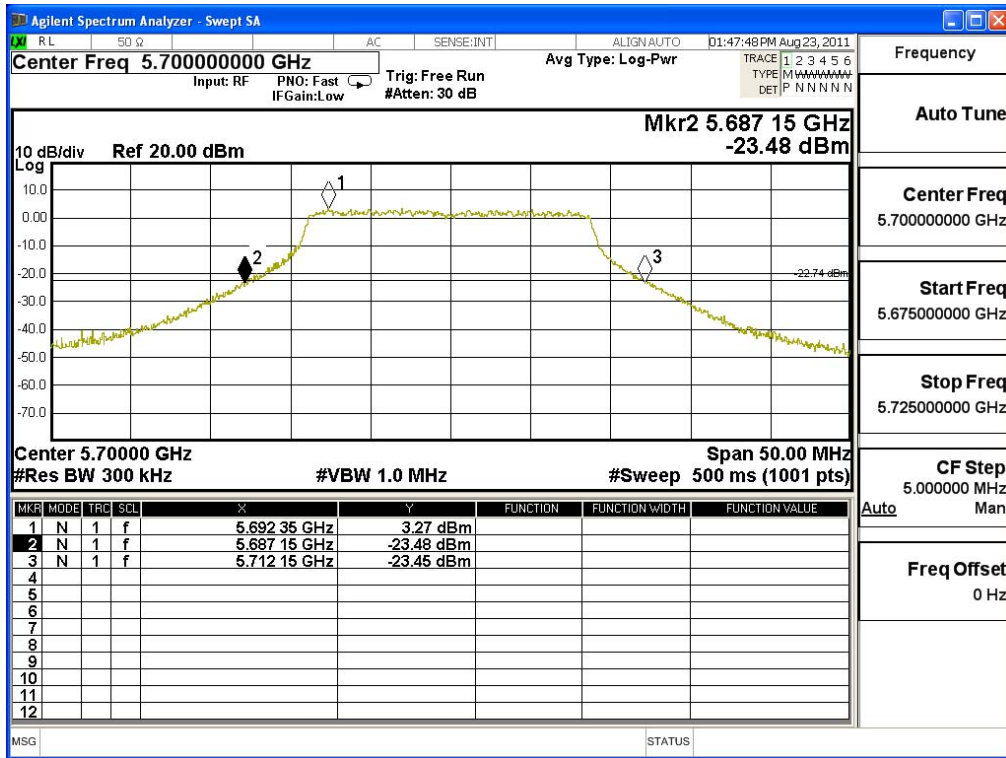
Channel 100 -Chain A



Channel 120 -Chain A

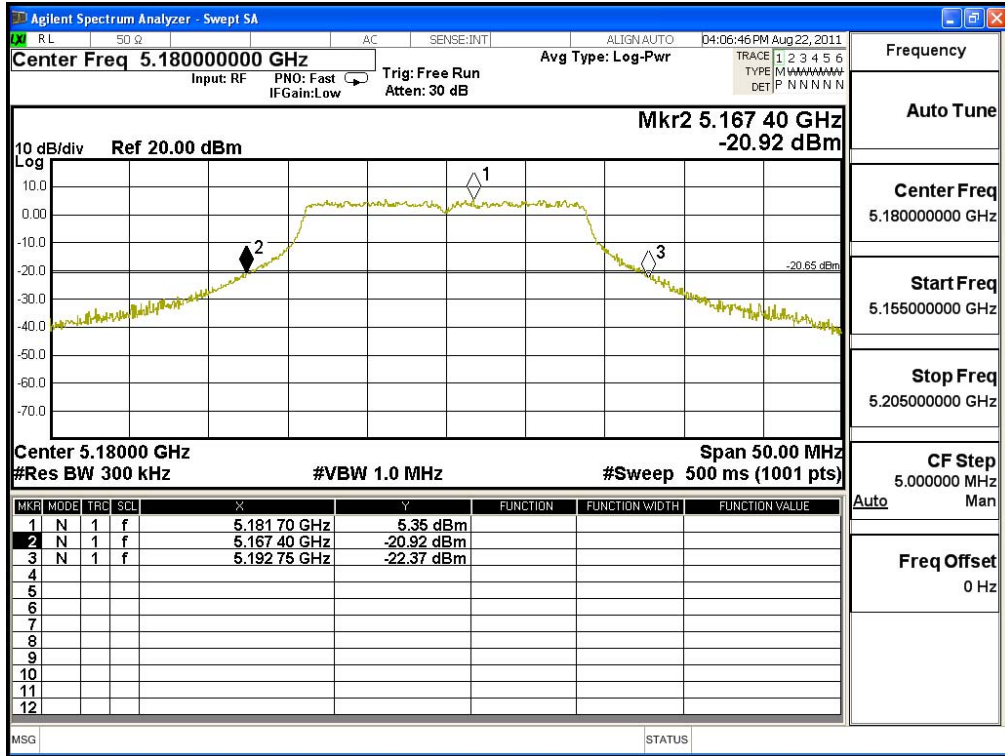


Channel 140 -Chain A

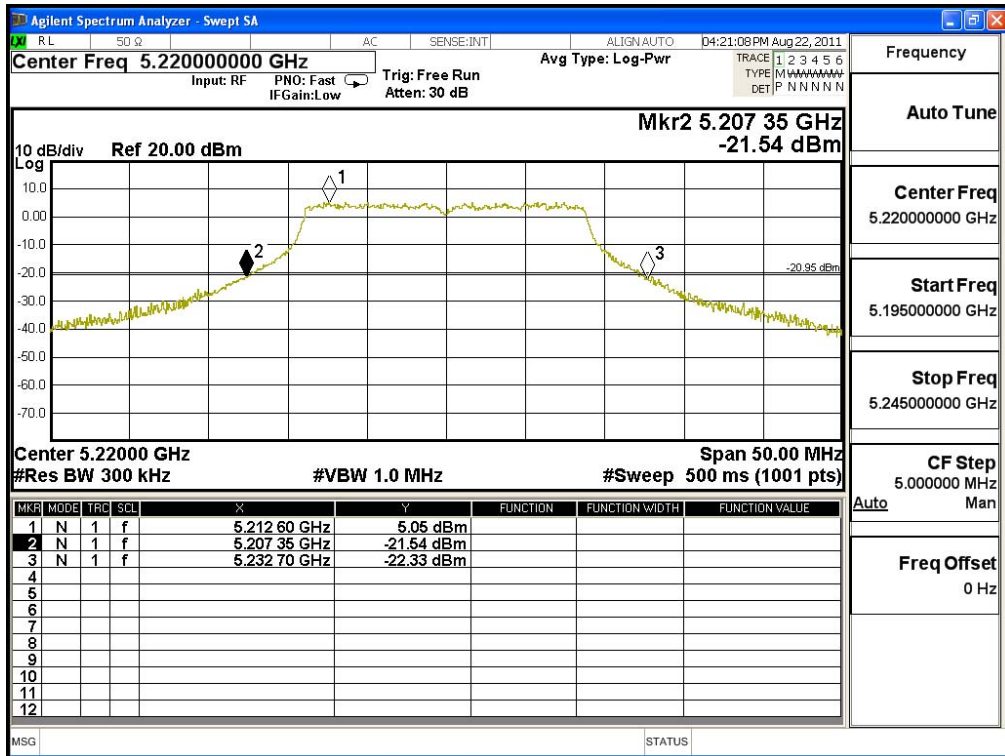


Frequency	
Auto Tune	
Center Freq	5.700000000 GHz
Start Freq	5.675000000 GHz
Stop Freq	5.725000000 GHz
CF Step	5.000000 MHz
Auto Man	
Freq Offset	0 Hz

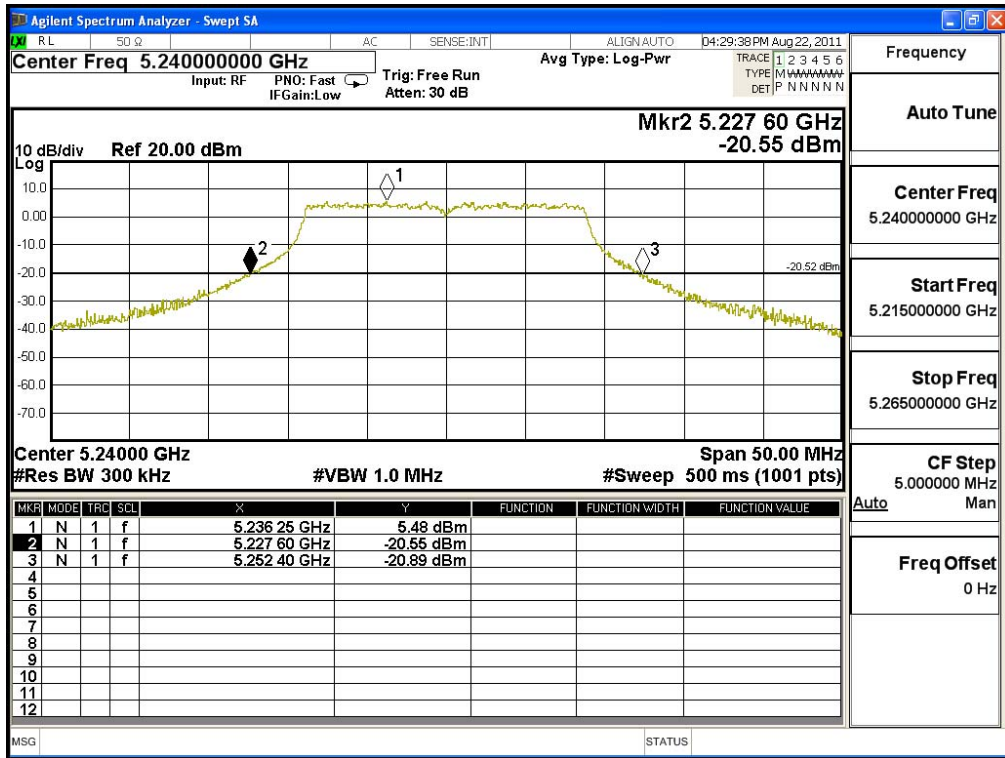
Channel 36 -Chain B



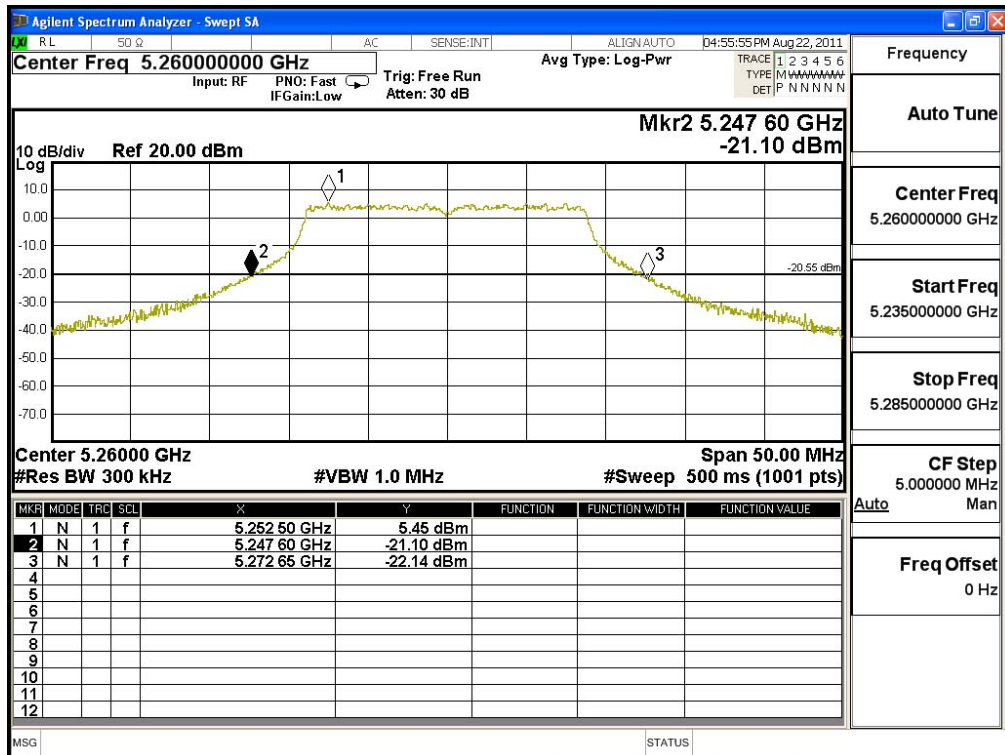
Channel 44 -Chain B



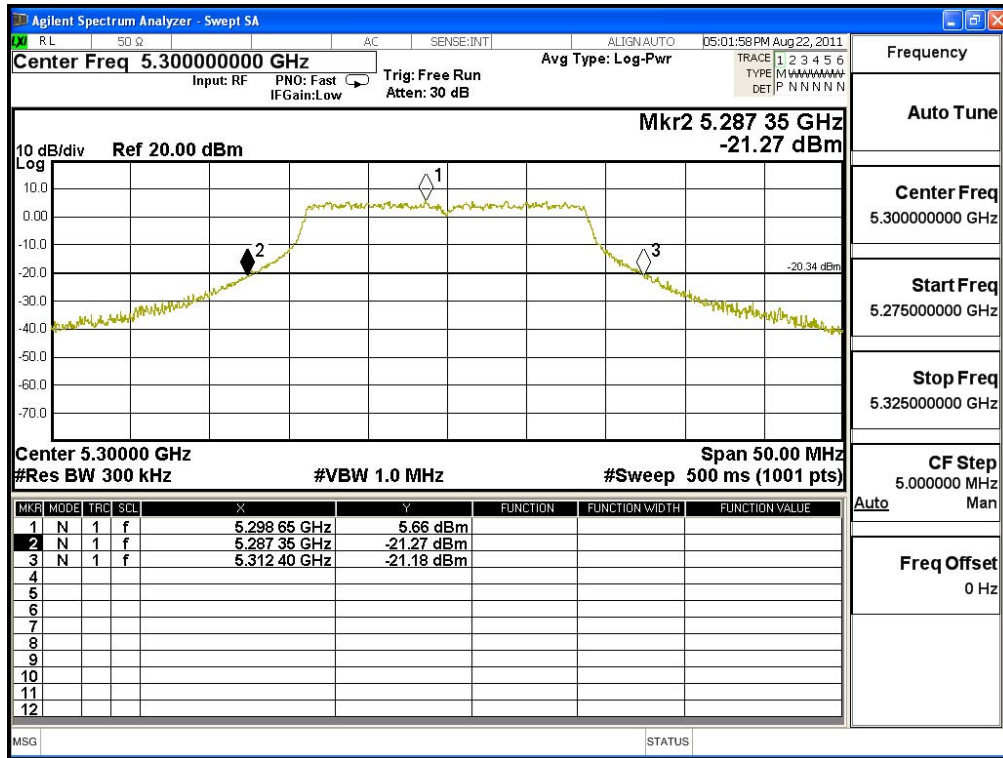
Channel 48 -Chain B



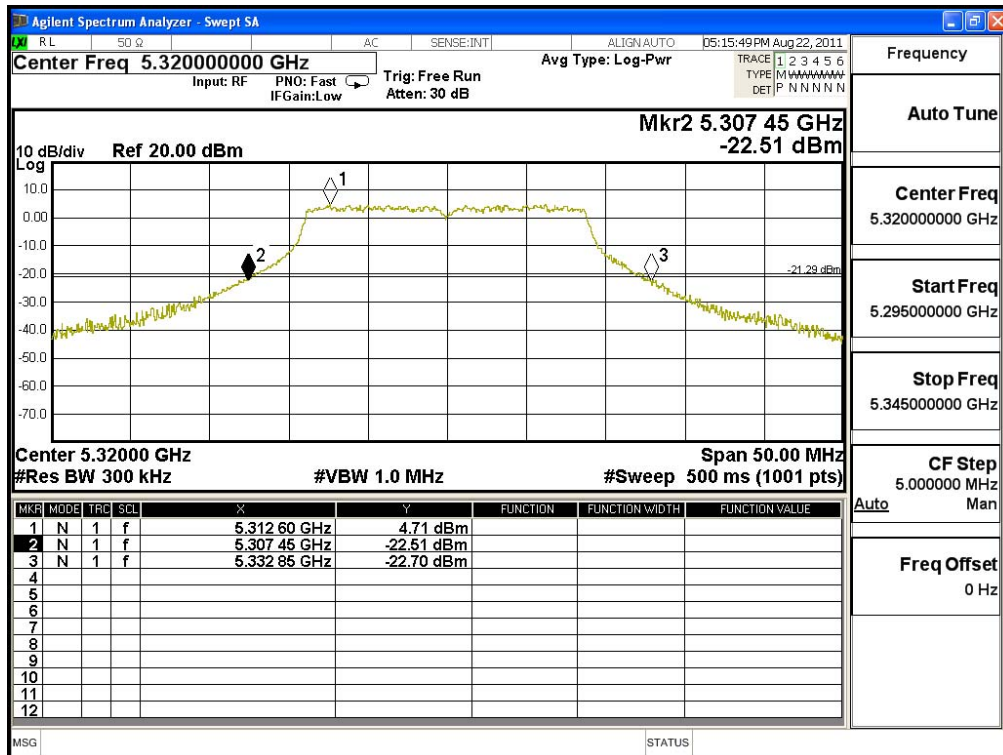
Channel 52 -Chain B



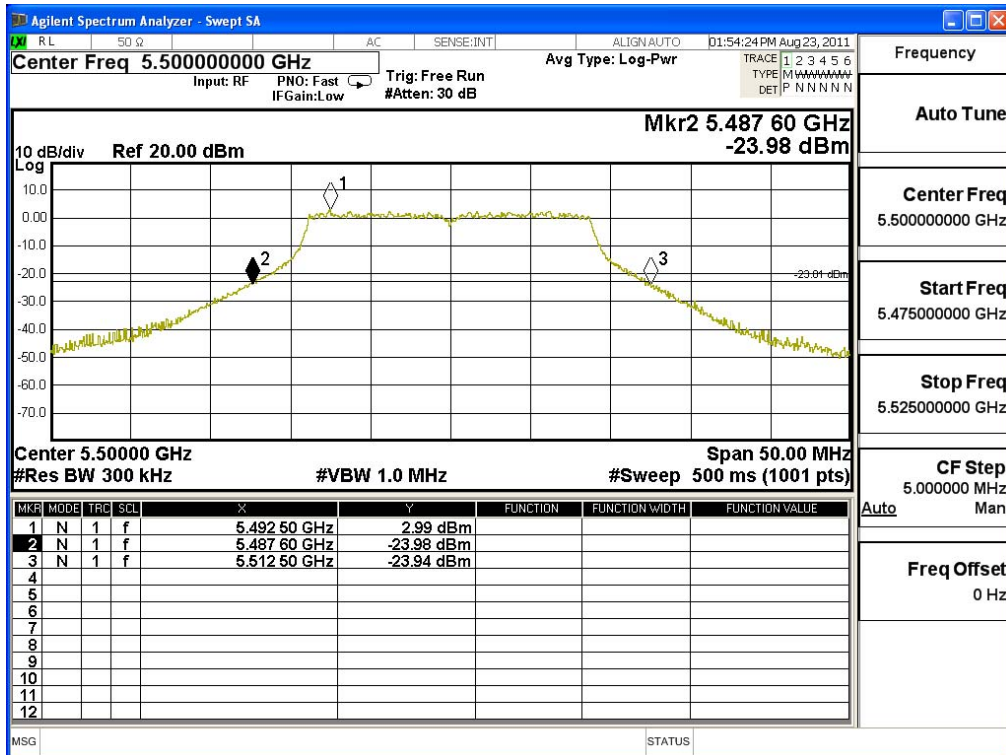
Channel 60 -Chain B



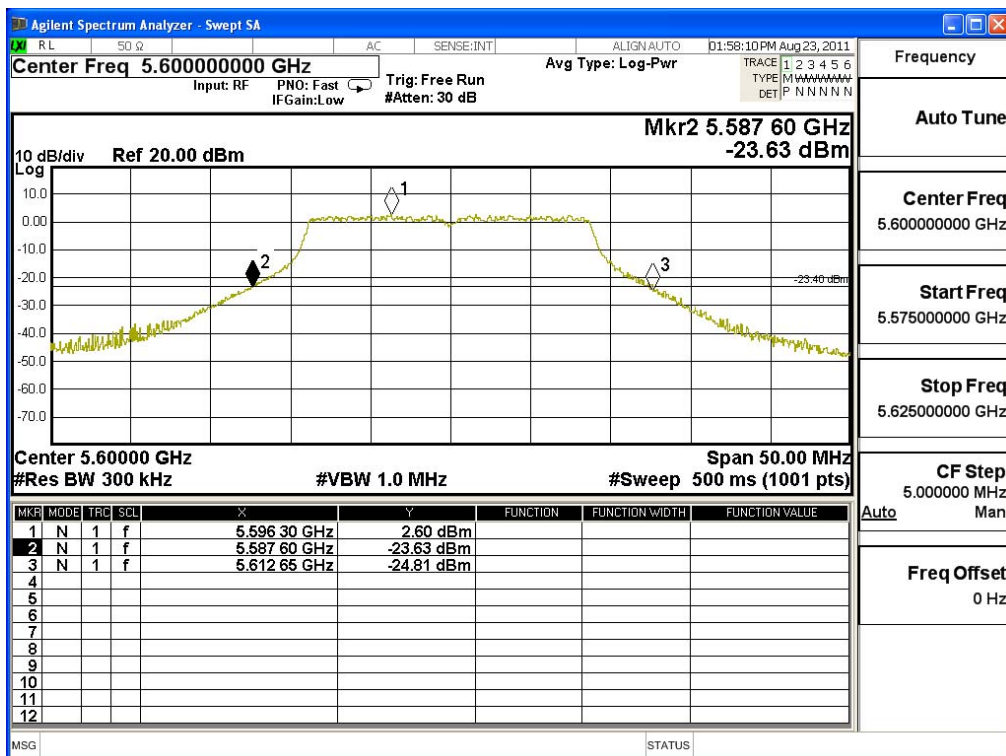
Channel 64 -Chain B



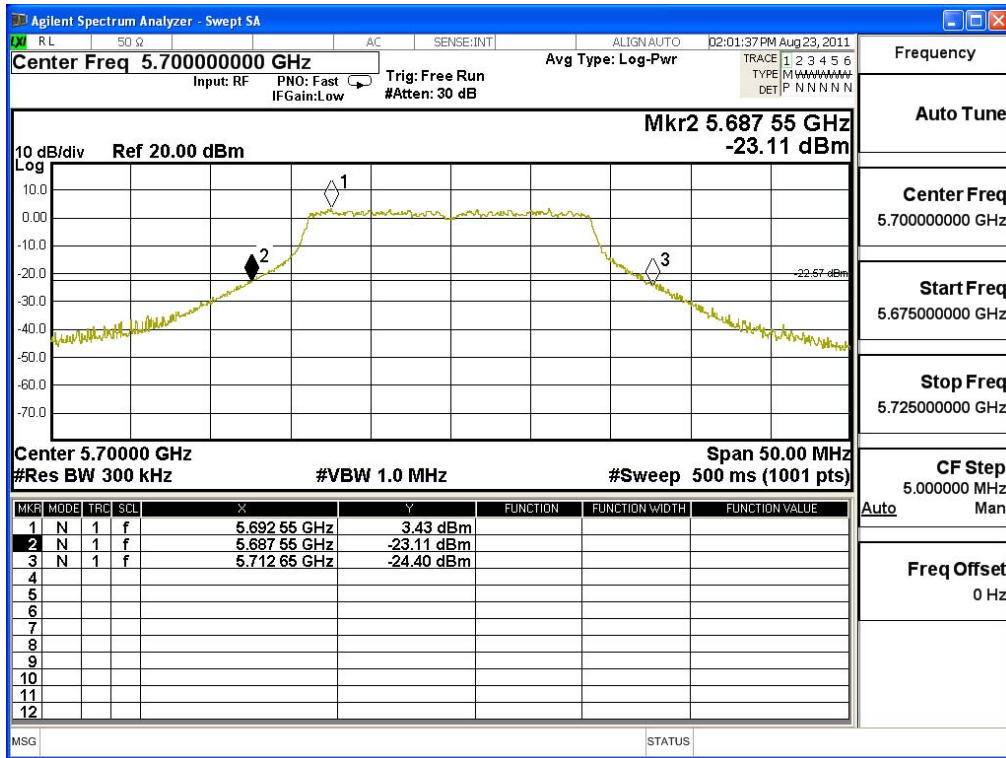
Channel 100 -Chain B



Channel 120 -Chain B



Channel 140 -Chain B



Product : WLAN MODULE
 Test Item : Peak Transmit Power
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmitter (802.11n-40BW 30Mbps)

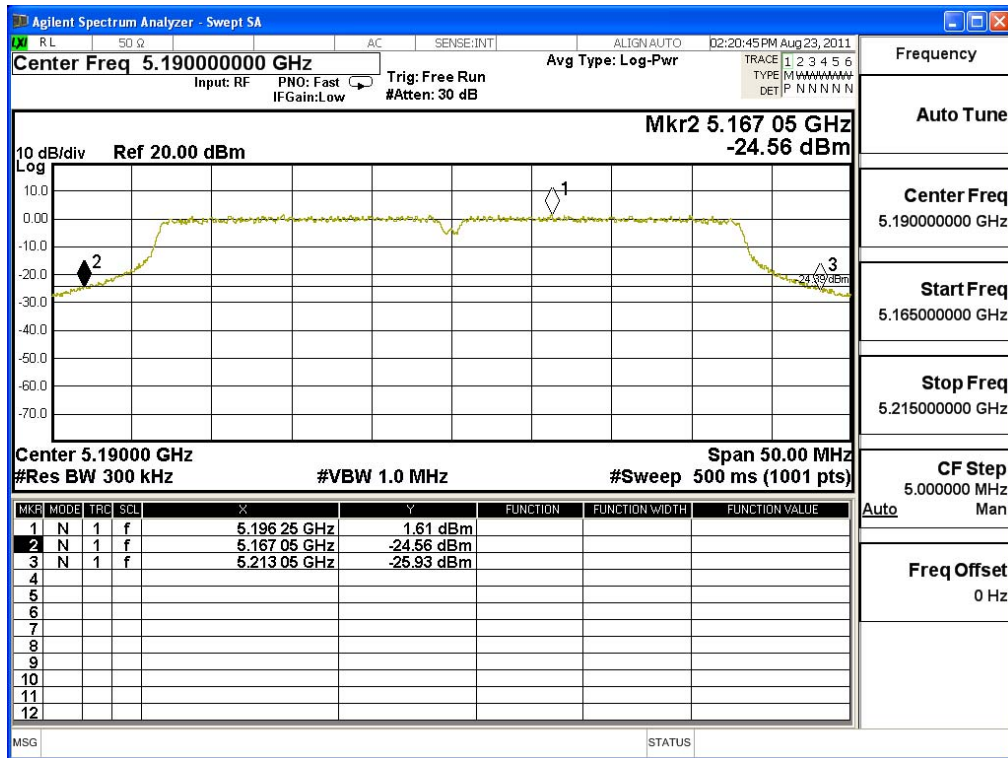
Peak Transmit Power Measurement:

Channel Number	Frequency (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Output Power (dBm)	Output Power Limit	
						(dBm)	dBm+10log(BW)
38	5190	45.300	11.92	12.48	15.22	17	20.56
46	5230	45.550	12.23	12.76	15.51	17	20.58
54	5270	45.400	12.08	12.73	15.43	24	27.57
62	5310	45.100	12.19	12.63	15.43	24	27.54
102	5510	44.750	10.15	9.48	12.84	24	27.51
118	5590	44.750	9.99	9.92	12.97	24	27.51
134	5670	45.100	10.27	10.39	13.34	24	27.54

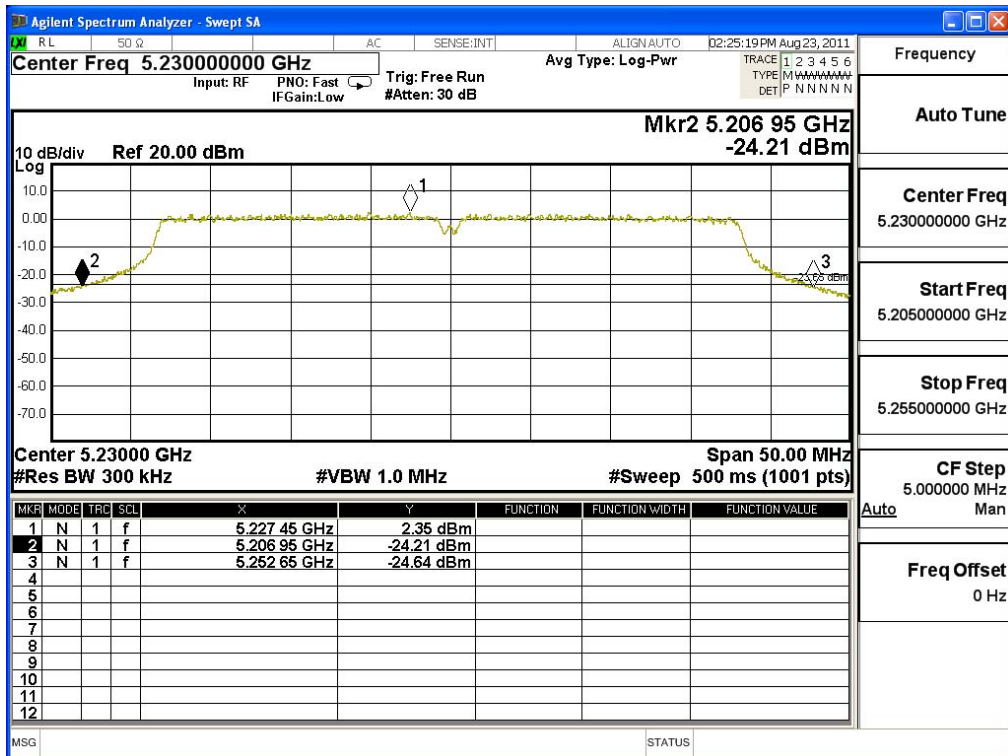
Note:

1. Power Output Value = Reading value on peak power meter + cable loss
2. Output Power (dBm) = 10LOG (Chain A Power (mW)+ Chain B Power (mW))

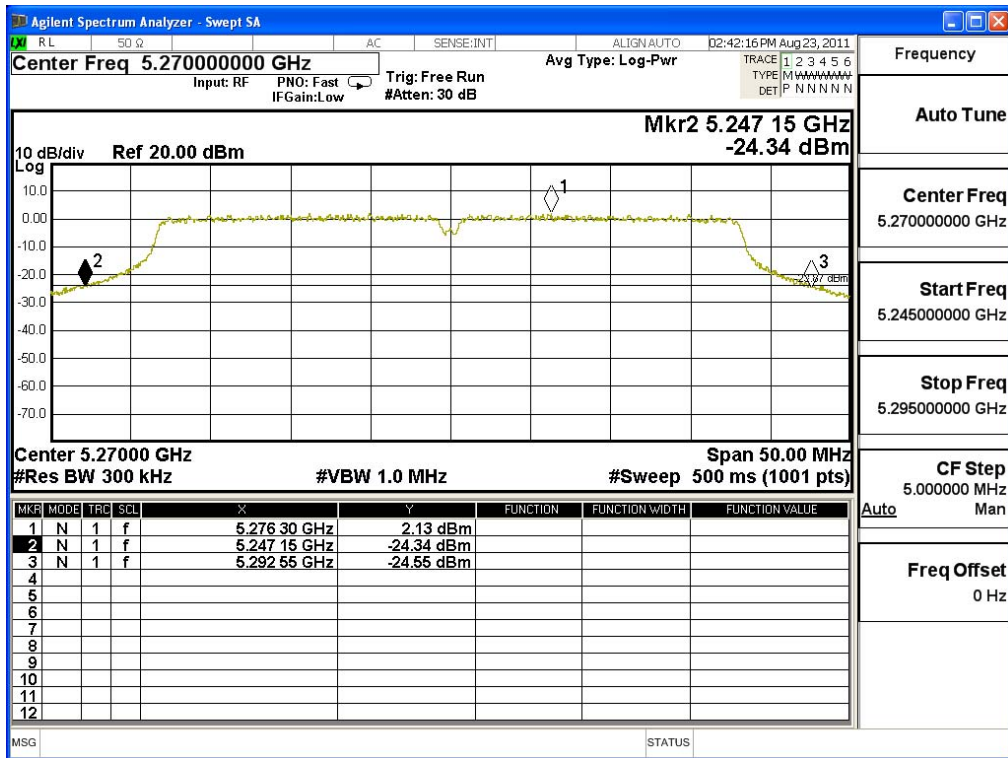
26dBc Occupied Bandwidth: Channel 38 – Chain A



Channel 46 – Chain A



Channel 54 – Chain A



Channel 62 – Chain A

