FCC Test Report

Product Name	SpectraGuard® Access Point / Sensor
Model No	SS-300AT-C-60
FCC ID.	TOR-SS300ATC60

Applicant	AirTight Networks, Inc.
Address	339 N. Bernardo Avenue, Suite #200, Mountain View, California, USA

Date of Receipt	Jul. 03, 2013
Issue Date	Aug. 20, 2013
Report No.	137146R-RFUSP28V01
Report Version	V1.0

Testing Laboratory
0914

Test Report Certification

Issue Date: Aug. 20, 2013
Report No.: 137146R-RFUSP28V01

Product Name	SpectraGuard® Access Point / Sensor
Applicant	AirTight Networks, Inc.
Address	339 N. Bernardo Avenue, Suite #200, Mountain View, California, USA
Manufacturer	DONG GUAN G-COM COMPUTER CO., LTD.
Model No.	SS-300AT-C-60
EUT Rated Voltage	DC 12V
EUT Test Voltage	AC 120V/60Hz
Trade Name	AirTight
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2012 ANSI C63.4: 2003, ANSI C63.10: 2009, KDB 558074
Test Result	Complied

The test results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Documented By : Leven Huang

(Senior Adm. Specialist / Leven Huang)

Tested By : Jack Hsu

(Engineer / Jack Hsu)

Approved By :

(Manager / Vincent Lin)

TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	SpectraGuard® Access Point / Sensor
Trade Name	AirTight
Model No.	SS-300AT-C-60
FCC ID.	TOR-SS300ATC60
Frequency Range	802.11b/g/n-20MHz:2412-2462MHz,802.11n-40MHz:2422-2452MHz 802.11a/n-20MHz:5745-5825MHz ,802.11n-40MHz:5755-5795MHz
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7 802.11a/n-20MHz: 5, n-40MHz: 2
Data Speed	802.11b: 1-11Mbps, 802.11a/g: 6-54Mbps, 802.11n: up to 450Mbps
Channel separation	802.11b/g/n-20MHz: 5 MHz, 802.11a/n-20MHz: 20MHz 802.11n-40MHz: 40MHz
Type of Modulation	802.11b:DSSS, DBPSK, DQPSK, CCK 802.11a/g/n: OFDM, BPSK, QPSK, 16QAM, 64QAM
Antenna Type	PIFA / Dipole
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto

Antenna List

No.	Manufacturer	Part No.	Peak Gain	Note
1.	JOYMAX	JWX-614XRSXX-361 JWX-614XRSXX-361 JWX-614XRSXX-361	3dBi for 2.4GHz 5dBi for 5.725~5.850GHz	External Antenna (Dipole)
2.	MAG.LAYERS	MSA-3810-2G4C1-B4 MSA-3810-2G4C1-B3 MSA-3810-2G4C1-A37	4.14dBi for 2.4GHz 5.72dBi for 5.725~5.850GHz	Internal Antenna (PIFA)

Note: The antenna of EUT is conform to FCC 15.203

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

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

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 149:	5745 MHz	Channel 153:	5765 MHz	Channel 157:	5785 MHz	Channel 161:	5805 MHz
Channel 165:	5825 MHz						

802.11n-40MHz (2.4G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 1:	2422 MHz	Channel 2:	2427 MHz	Channel 3:	2432 MHz	Channel 4:	2437 MHz
Channel 5:	2442 MHz	Channel 6:	2447 MHz	Channel 7:	2452 MHz		

802.11n-40MHz (5G Band) Center Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency
Channel 151:	5755 MHz	Channel 159:	5795 MHz

Note:

1. This device is a SpectraGuard® Access Point / Sensor with a built-in two WLAN module, module 1 support 2T2R, module 2 support 3T3R technology, this report for 3T3R module.
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. (802.11b is 1Mbps、802.11a/g is 6Mbps、802.11n(20M-BW) is 21.7Mbps and 、802.11n(40M-BW) is 45Mbps).
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11a/b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
5. 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 (802.11b 1Mbps)(Dipole Antenna)
	Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna)
	Mode 3: Transmit - 802.11a 6Mbps(Dipole Antenna)
	Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(Dipole Antenna)
	Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna)
	Mode 6: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(Dipole Antenna)
	Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band)(Dipole Antenna)
	Mode 8: Transmit (802.11b 1Mbps)(PIFA Antenna)
	Mode 9: Transmit (802.11g 6Mbps)(PIFA Antenna)
	Mode 10: Transmit - 802.11a 6Mbps(PIFA Antenna)
	Mode 11: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(PIFA Antenna)
	Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna)
	Mode 13: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(PIFA Antenna)
	Mode 14: Transmit - 802.11n-40BW_45Mbps(5G Band)(PIFA Antenna)

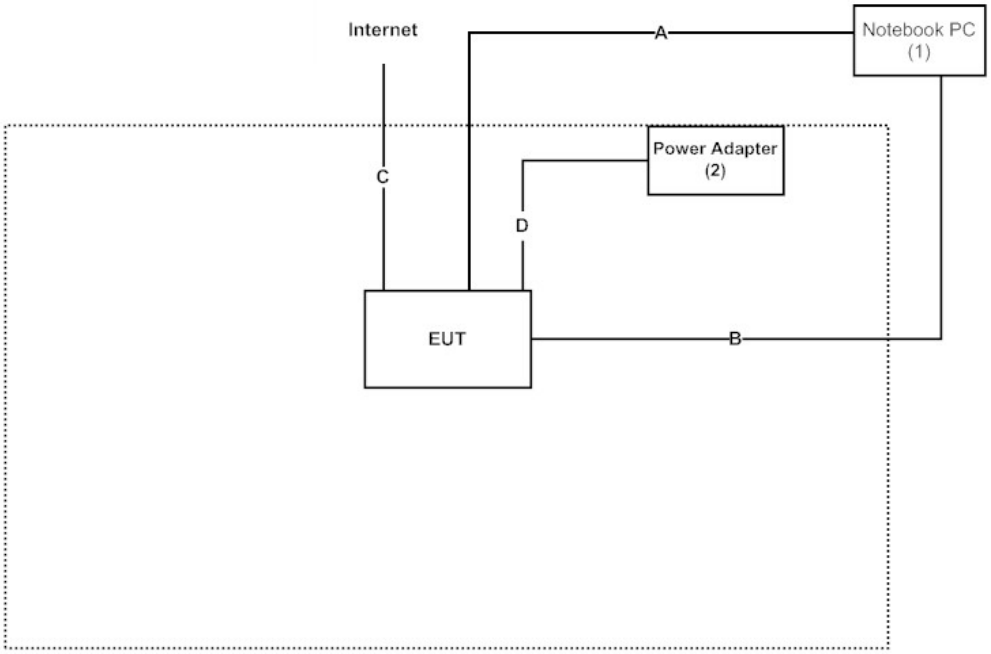
1.3. Tested System Details

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)	Notebook PC	DELL	PPT	N/A	Non-Shielded, 0.8m
(2)	Power Adapter	DVE	DSA-15P-12 US 120150	N/A	Non-Shielded, 1.7m

Signal Cable Type		Signal cable Description
A	RJ45 Cable	Non-Shielded, 5.0m
B	RJ45 to RS-232 Cable	Non-Shielded, 5.0m
C	RJ45 Cable	Non-Shielded, 5.0m
D	Power Cable	Non-Shielded, 1.7m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

(1) Connect EUT and Notebook via RJ45 & RS232 Cable
(2) Execute “Art2-GUI V2.3” program 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.

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

Site Name: Quietek Corporation
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 : service@quietek.com

FCC Accreditation Number: TW1014

2. Conducted Emission

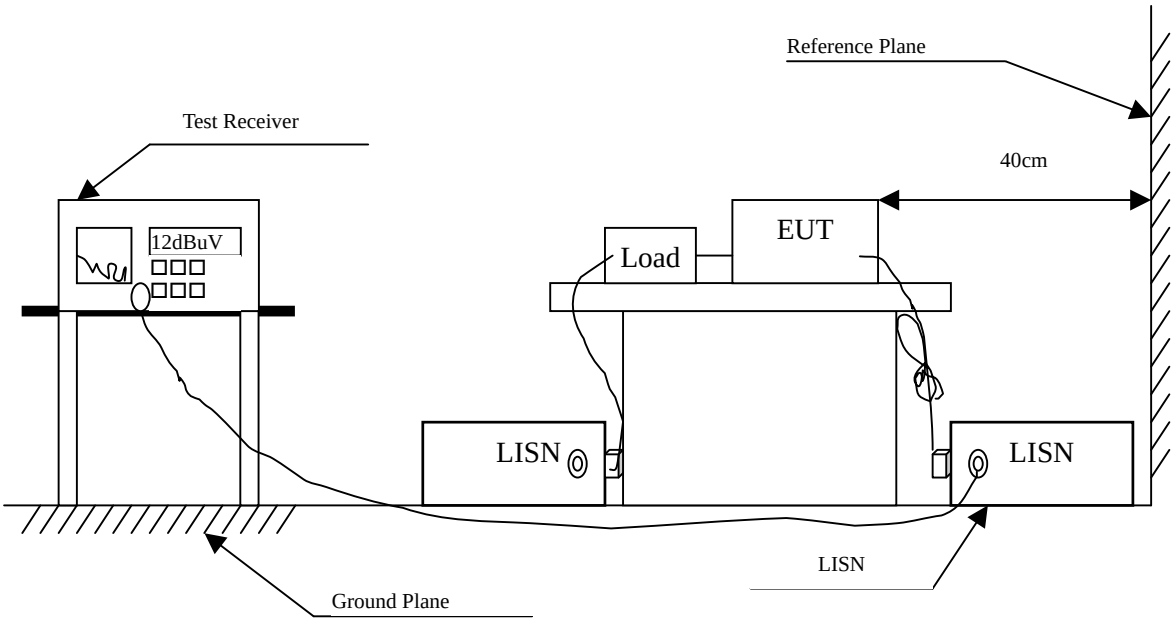
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2012	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2013	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2013	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2013	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2013	
	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	AVG
0.15 - 0.50	66-56	56-46
0.50-5.0	56	46
5.0 - 30	60	50

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.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.162	9.947	35.170	45.117	-20.540	65.657
0.177	9.932	35.860	45.792	-19.437	65.229
0.216	9.902	31.450	41.352	-22.762	64.114
0.248	9.900	28.660	38.560	-24.640	63.200
0.338	9.870	25.560	35.430	-25.199	60.629
11.849	10.270	33.410	43.680	-16.320	60.000
Average					
0.162	9.947	6.700	16.647	-39.010	55.657
0.177	9.932	9.820	19.752	-35.477	55.229
0.216	9.902	8.040	17.942	-36.172	54.114
0.248	9.900	5.460	15.360	-37.840	53.200
0.338	9.870	19.740	29.610	-21.019	50.629
11.849	10.270	25.730	36.000	-14.000	50.000

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 : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.189	9.770	27.370	37.140	-27.746	64.886
0.295	9.750	20.280	30.030	-31.827	61.857
0.373	9.761	14.540	24.301	-35.328	59.629
0.439	9.760	15.700	25.460	-32.283	57.743
0.869	9.770	15.430	25.200	-30.800	56.000
11.287	10.080	28.150	38.230	-21.770	60.000
Average					
0.189	9.770	10.620	20.390	-34.496	54.886
0.295	9.750	9.180	18.930	-32.927	51.857
0.373	9.761	2.920	12.681	-36.948	49.629
0.439	9.760	3.450	13.210	-34.533	47.743
0.869	9.770	2.990	12.760	-33.240	46.000
11.287	10.080	18.700	28.780	-21.220	50.000

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 : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band)(Dipole Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.154	9.955	36.820	46.775	-19.111	65.886
0.185	9.924	33.820	43.744	-21.256	65.000
0.252	9.898	23.160	33.058	-30.028	63.086
0.310	9.870	20.660	30.530	-30.899	61.429
0.447	9.854	19.180	29.034	-28.480	57.514
11.048	10.200	33.940	44.140	-15.860	60.000
Average					
0.154	9.955	14.010	23.965	-31.921	55.886
0.185	9.924	14.760	24.684	-30.316	55.000
0.252	9.898	8.100	17.998	-35.088	53.086
0.310	9.870	5.960	15.830	-35.599	51.429
0.447	9.854	11.030	20.884	-26.630	47.514
11.048	10.200	26.330	36.530	-13.470	50.000

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 : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band)(Dipole Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.166	9.801	30.910	40.711	-24.832	65.543
0.201	9.762	25.690	35.452	-29.091	64.543
0.236	9.756	18.540	28.296	-35.247	63.543
0.326	9.756	16.700	26.456	-34.515	60.971
0.736	9.752	14.990	24.742	-31.258	56.000
11.158	10.080	28.410	38.490	-21.510	60.000
Average					
0.166	9.801	1.940	11.741	-43.802	55.543
0.201	9.762	-0.260	9.502	-45.041	54.543
0.236	9.756	-2.640	7.116	-46.427	53.543
0.326	9.756	3.330	13.086	-37.885	50.971
0.736	9.752	2.580	12.332	-33.668	46.000
11.158	10.080	19.120	29.200	-20.800	50.000

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 : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.181	9.928	37.080	47.008	-18.106	65.114
0.302	9.872	26.860	36.732	-24.925	61.657
0.392	9.868	20.170	30.038	-29.048	59.086
0.564	9.825	21.220	31.045	-24.955	56.000
0.779	9.770	20.500	30.270	-25.730	56.000
11.400	10.230	33.690	43.920	-16.080	60.000
Average					
0.181	9.928	13.770	23.698	-31.416	55.114
0.302	9.872	16.780	26.652	-25.005	51.657
0.392	9.868	4.330	14.198	-34.888	49.086
0.564	9.825	10.580	20.405	-25.595	46.000
0.779	9.770	8.960	18.730	-27.270	46.000
11.400	10.230	26.150	36.380	-13.620	50.000

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 : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna) (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.373	9.761	19.610	29.371	-30.258	59.629
0.857	9.770	15.370	25.140	-30.860	56.000
2.181	9.820	11.250	21.070	-34.930	56.000
3.982	9.930	12.550	22.480	-33.520	56.000
6.115	10.010	13.860	23.870	-36.130	60.000
11.248	10.080	27.830	37.910	-22.090	60.000
Average					
0.373	9.761	3.420	13.181	-36.448	49.629
0.857	9.770	3.310	13.080	-32.920	46.000
2.181	9.820	1.350	11.170	-34.830	46.000
3.982	9.930	3.010	12.940	-33.060	46.000
6.115	10.010	4.100	14.110	-35.890	50.000
11.248	10.080	18.440	28.520	-21.480	50.000

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 : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 14: Transmit - 802.11n-40BW_45Mbps(5G Band)(PIFA Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.150	9.959	39.600	49.559	-16.441	66.000
0.220	9.900	31.090	40.990	-23.010	64.000
0.302	9.872	25.720	35.592	-26.065	61.657
0.408	9.867	19.600	29.467	-29.162	58.629
0.560	9.826	20.690	30.516	-25.484	56.000
11.556	10.250	33.520	43.770	-16.230	60.000
Average					
0.150	9.959	18.120	28.079	-27.921	56.000
0.220	9.900	10.320	20.220	-33.780	54.000
0.302	9.872	16.010	25.882	-25.775	51.657
0.408	9.867	10.160	20.027	-28.602	48.629
0.560	9.826	10.470	20.296	-25.704	46.000
11.556	10.250	25.720	35.970	-14.030	50.000

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 : SpectraGuard® Access Point / Sensor
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 14: Transmit - 802.11n-40BW_45Mbps(5G Band)(PIFA Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.197	9.765	33.860	43.625	-21.032	64.657
0.232	9.754	30.830	40.584	-23.073	63.657
0.263	9.755	29.980	39.735	-23.036	62.771
0.322	9.754	25.550	35.304	-25.782	61.086
0.392	9.768	20.330	30.098	-28.988	59.086
11.716	10.100	27.210	37.310	-22.690	60.000
Average					
0.197	9.765	4.890	14.655	-40.002	54.657
0.232	9.754	3.740	13.494	-40.163	53.657
0.263	9.755	6.500	16.255	-36.516	52.771
0.322	9.754	4.590	14.344	-36.742	51.086
0.392	9.768	0.950	10.718	-38.368	49.086
11.716	10.100	18.140	28.240	-21.760	50.000

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 Power

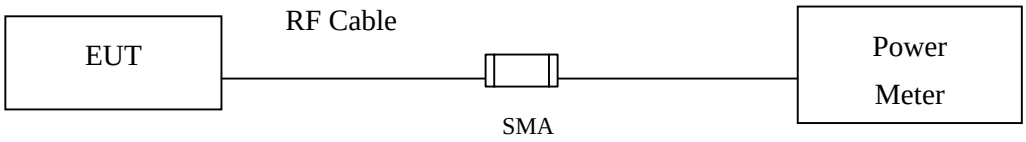
3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2013
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2013
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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



3.3. Limits

The maximum average power shall be less 1 Watt. (Section 15.247 (b)(3))

3.4. Test Procedure

The EUT was tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using KDB 558074 section 9.1.3 PKPM1 Peak power meter method.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Maximum Conducted Power

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Required Limit	Result
		1	2	5.5	11		
		Measurement Level (dBm)					
01	2412	19.43	--	--	--	<30dBm	Pass
06	2437	20.35	20.21	20.09	19.87	<30dBm	Pass
11	2462	16.88	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Required Limit	Result
		1	2	5.5	11		
		Measurement Level (dBm)					
01	2412	17.77	--	--	--	<30dBm	Pass
06	2437	19.46	19.33	19.2	19.06	<30dBm	Pass
11	2462	16.66	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Required Limit	Result
		1	2	5.5	11		
		Measurement Level (dBm)					
01	2412	18.67	--	--	--	<30dBm	Pass
06	2437	19.77	19.65	19.44	19.33	<30dBm	Pass
11	2462	16.83	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
1	2412	1	19.43	17.77	18.67	23.45	<30dBm	Pass
6	2437	1	20.35	19.46	19.77	24.65	<30dBm	Pass
11	2462	1	16.88	16.66	16.83	21.56	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	12.82	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.43	21.23	21.1	21.03	20.88	20.67	20.44	20.35	<30dBm	Pass
11	2462	13.01	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	12.34	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	20.75	20.56	20.33	20.12	20.09	19.96	19.77	19.55	<30dBm	Pass
11	2462	12.78	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	12.83	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	20.66	20.45	20.32	20.12	20.07	19.93	19.81	19.77	<30dBm	Pass
11	2462	13.48	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
1	2412	6	12.82	12.34	12.83	17.44	<30dBm	Pass
6	2437	6	21.43	20.75	20.66	25.73	<30dBm	Pass
11	2462	6	13.01	12.78	13.48	17.87	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11a 6Mbps(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
149	5745	16.01	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.67	17.51	17.33	17.27	17.11	16.98	16.83	16.71	<30dBm	Pass
165	5825	17.01	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
149	5745	15.15	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.31	17.16	17.04	16.89	16.77	16.64	16.47	16.32	<30dBm	Pass
165	5825	17.41	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
149	5745	15.66	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.78	17.63	17.51	17.38	17.26	17.08	16.94	16.75	<30dBm	Pass
165	5825	18.08	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
149	5745	6	16.01	15.15	15.66	20.39	<30dBm	Pass
157	5785	6	17.67	17.31	17.78	22.36	<30dBm	Pass
165	5825	6	17.01	17.41	18.08	22.29	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
01	2412	12.79	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.69	21.46	21.39	21.2	21.07	20.94	20.78	20.57	<30dBm	Pass
11	2462	12.94	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
01	2412	13.36	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	20.71	20.59	20.44	20.23	20.11	20.04	19.93	19.88	<30dBm	Pass
11	2462	12.59	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
01	2412	13.87	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	20.79	20.68	20.55	20.34	20.12	20.04	19.96	19.78	<30dBm	Pass
11	2462	13.42	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
1	2412	HT16	12.79	13.36	13.87	18.13	<30dBm	Pass
6	2437	HT16	21.69	20.71	20.79	25.86	<30dBm	Pass
11	2462	HT16	12.94	12.59	13.42	17.77	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
3	2422	10.66	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	21.49	21.27	21.11	20.04	19.91	19.76	19.58	19.43	<30dBm	Pass
9	2452	10.43	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
3	2422	10.01	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	20.89	20.77	20.65	20.45	20.25	20.1	19.97	19.76	<30dBm	Pass
9	2452	9.92	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
3	2422	10.55	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	20.97	20.83	20.71	20.57	20.44	20.36	20.17	20.04	<30dBm	Pass
9	2452	10.67	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
3	2422	HT16	10.66	10.01	10.55	15.19	<30dBm	Pass
6	2437	HT16	21.49	20.89	20.97	25.90	<30dBm	Pass
9	2452	HT16	10.43	9.92	10.67	15.12	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 6: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
149	5745	16.27	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.61	17.47	17.32	17.21	17.07	16.94	16.85	16.71	<30dBm	Pass
165	5825	17.08	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
149	5745	15.41	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.36	17.11	17.03	16.88	16.71	16.63	16.45	16.33	<30dBm	Pass
165	5825	17.41	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
149	5745	15.81	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.41	17.29	17.11	17.04	16.85	16.69	16.44	16.32	<30dBm	Pass
165	5825	17.91	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
149	5745	HT16	16.27	15.41	15.81	20.62	<30dBm	Pass
157	5785	HT16	17.61	17.36	17.41	22.23	<30dBm	Pass
165	5825	HT16	17.08	17.41	17.91	22.25	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
151	5755	14.23	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	17.81	17.68	17.51	17.38	17.19	17.05	16.86	16.66	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
151	5755	13.31	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	17.51	17.39	17.22	17.04	16.92	16.76	16.53	16.39	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
151	5755	14.27	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	17.61	17.49	17.4	17.28	17.11	17.04	16.88	16.74	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
151	5755	HT16	14.23	13.31	14.27	18.73	<30dBm	Pass
159	5795	HT16	17.81	17.51	17.61	22.42	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 8: Transmit (802.11b 1Mbps)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Required Limit	Result
		1	2	5.5	11		
		Measurement Level (dBm)					
01	2412	19.76	--	--	--	<30dBm	Pass
06	2437	19.44	19.23	19.1	18.94	<30dBm	Pass
11	2462	19.35	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Required Limit	Result
		1	2	5.5	11		
		Measurement Level (dBm)					
01	2412	19.78	--	--	--	<30dBm	Pass
06	2437	19.55	19.35	19.21	19.04	<30dBm	Pass
11	2462	19.42	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Required Limit	Result
		1	2	5.5	11		
		Measurement Level (dBm)					
01	2412	19.01	--	--	--	<30dBm	Pass
06	2437	18.67	18.44	18.29	18.07	<30dBm	Pass
11	2462	19.42	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency	Data Rata	Chain A Power	Chain B Power	Chain C Power	Chain A+B+C Power	Limit	Result
	(MHz)	(Mbps)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	
1	2412	1	19.76	19.78	19.01	24.30	<30dBm	Pass
6	2437	1	19.44	19.55	18.67	24.01	<30dBm	Pass
11	2462	1	19.35	19.42	19.42	24.17	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 9: Transmit (802.11g 6Mbps)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	14.66	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.78	21.61	21.44	21.31	21.17	21.04	20.91	20.76	<30dBm	Pass
11	2462	13.96	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	15.56	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.84	21.67	21.44	21.29	21.1	20.99	20.77	20.64	<30dBm	Pass
11	2462	14.79	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
01	2412	14.42	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.35	21.19	21.04	20.88	20.74	20.61	20.47	20.31	<30dBm	Pass
11	2462	14.47	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
1	2412	6	14.66	15.56	14.42	19.68	<30dBm	Pass
6	2437	6	21.78	21.84	21.35	26.43	<30dBm	Pass
11	2462	6	13.96	14.79	14.47	19.19	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 10: Transmit - 802.11a 6Mbps(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
149	5745	16.46	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.71	17.59	17.45	17.33	17.29	17.08	16.95	16.81	<30dBm	Pass
165	5825	17.66	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
149	5745	15.36	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.84	17.71	17.57	17.44	17.31	17.22	17.07	16.92	<30dBm	Pass
165	5825	17.71	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		6	9	12	18	24	36	48	54		
		Measurement Level (dBm)									
149	5745	15.78	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.69	17.41	17.28	17.19	17.06	16.97	16.77	16.64	<30dBm	Pass
165	5825	18.77	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
149	5745	6	16.46	15.36	15.78	20.66	<30dBm	Pass
157	5785	6	17.71	17.84	17.69	22.52	<30dBm	Pass
165	5825	6	17.66	17.71	18.77	22.85	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 11: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
01	2412	14.78	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.76	21.55	21.43	21.26	21.11	20.96	20.74	20.61	<30dBm	Pass
11	2462	13.82	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
01	2412	15.79	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.96	21.88	21.74	21.59	21.41	21.28	21.11	21.04	<30dBm	Pass
11	2462	14.58	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
01	2412	14.33	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	21.64	21.49	21.33	21.24	21.09	20.89	20.67	20.55	<30dBm	Pass
11	2462	14.51	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
1	2412	HT16	14.78	15.79	14.33	19.78	<30dBm	Pass
6	2437	HT16	21.76	21.96	21.64	26.56	<30dBm	Pass
11	2462	HT16	13.82	14.58	14.51	19.09	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
3	2422	13.47	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	21.77	21.64	21.54	21.42	21.39	21.19	21.04	20.97	<30dBm	Pass
9	2452	13.46	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
3	2422	13.55	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	21.86	21.77	21.63	21.54	21.43	21.29	21.11	21.04	<30dBm	Pass
9	2452	13.43	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
3	2422	13.25	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	21.22	21.1	20.99	20.85	20.71	20.63	20.54	20.39	<30dBm	Pass
9	2452	13.68	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
3	2422	HT16	13.47	13.55	13.25	18.20	<30dBm	Pass
6	2437	HT16	21.77	21.86	21.22	26.40	<30dBm	Pass
9	2452	HT16	13.46	13.43	13.68	18.30	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 13: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
149	5745	16.41	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.65	17.53	17.41	17.29	17.11	17.04	16.92	16.77	<30dBm	Pass
165	5825	17.56	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
149	5745	15.47	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.71	17.58	17.44	17.31	17.17	17.06	16.94	16.74	<30dBm	Pass
165	5825	17.76	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		21.7	43.3	65	86.7	130.7	173.3	195	216.7		
		Measurement Level (dBm)									
149	5745	15.78	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	17.88	17.72	17.66	17.48	17.33	17.21	17.09	16.93	<30dBm	Pass
165	5825	18.89	--	--	--	--	--	--	--	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
149	5745	HT16	16.41	15.47	15.78	20.68	<30dBm	Pass
157	5785	HT16	17.65	17.71	17.88	22.52	<30dBm	Pass
165	5825	HT16	17.56	17.76	18.89	22.88	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 14: Transmit - 802.11n-40BW_45Mbps(5G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
151	5755	15.46	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	17.77	17.62	17.47	17.38	17.22	17.05	16.92	16.78	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN B

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
151	5755	14.47	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	17.74	17.58	17.41	17.33	17.2	17.05	16.89	16.71	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN C

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		45	90	135	180	270	360	405	450		
		Measurement Level (dBm)									
151	5755	14.79	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	18.44	18.31	18.19	18.04	17.88	17.76	17.55	17.43	<30dBm	Pass

Note: Average Power for different data rate = Reading value on Power Meter +cable loss

CHAIN A+B+C

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain A+B+C Power (dBm)	Limit (dBm)	Result
151	5755	HT16	15.46	14.47	14.79	19.70	<30dBm	Pass
159	5795	HT16	17.77	17.74	18.44	22.77	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (mW) + Chain C (mW))

4. Radiated Emission

4.1. Test Equipment

The following test equipment are used during the radiated emission test:

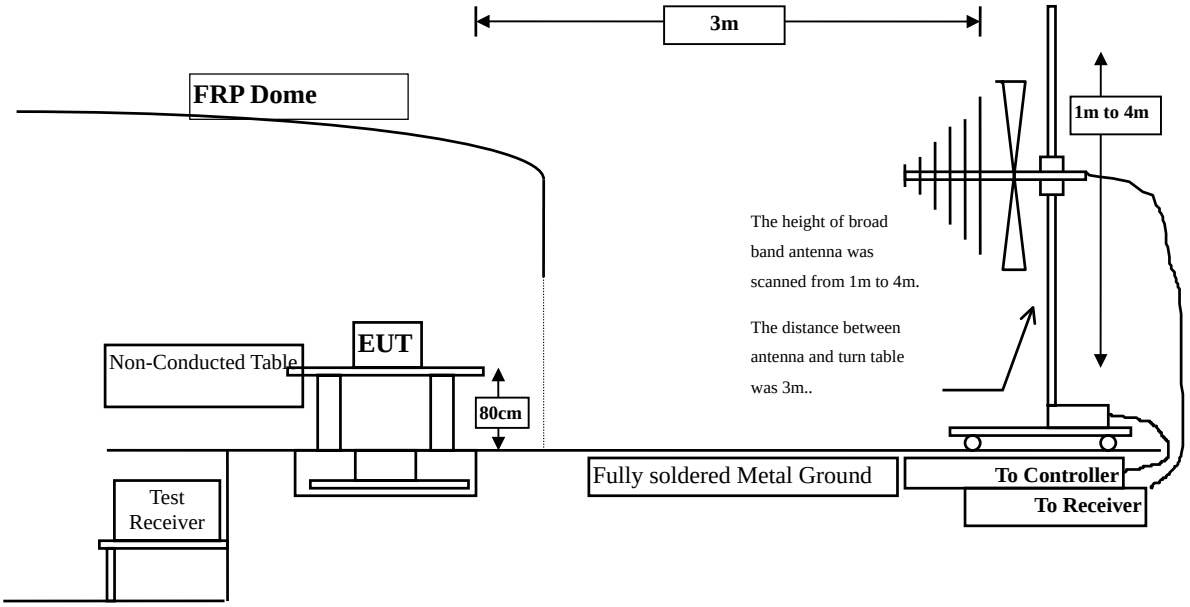
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Loop Antenna	Teseq	HLA6120 / 26739	Jul., 2013
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2013
	X	Pre-Amplifier	QTK	AP-180C / CHM_0906076	Sep., 2012
	X	Pre-Amplifier	MITEQ	AMF-4D-180400-45-6P/ 925975	Mar, 2013
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2013
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2012
	X	Coaxial Cable	QuieTek	QTK-CABLE/ CAB5	Feb., 2013
	X	Controller	QuieTek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

Note: 1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

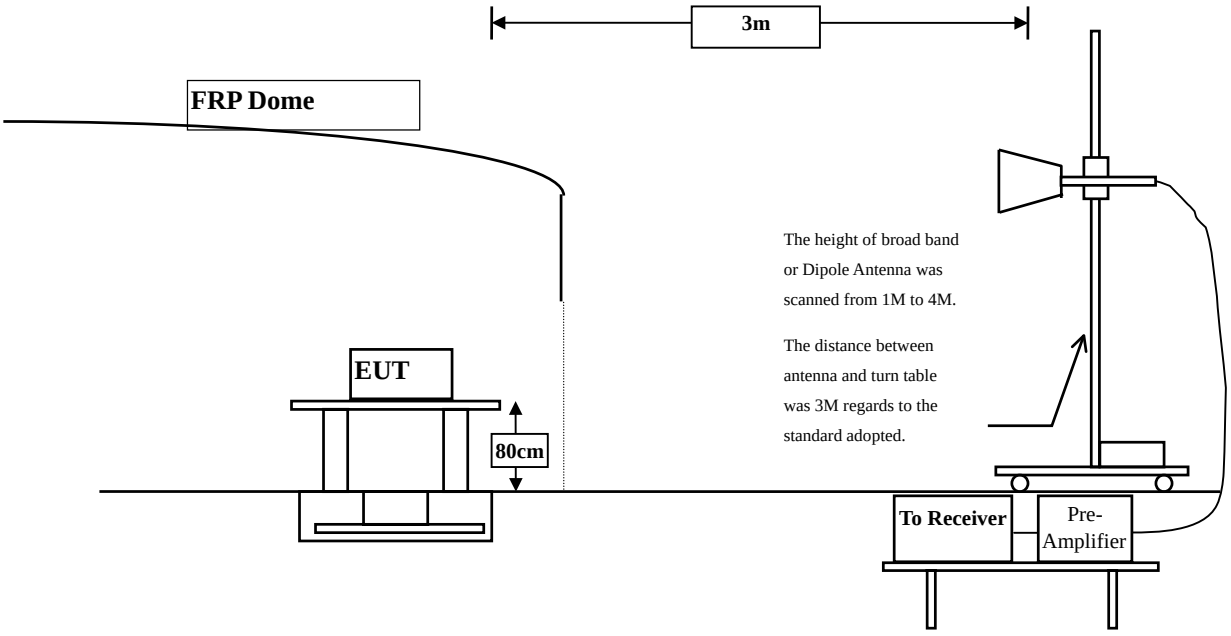
2. The test instruments marked with “X” are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 30dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

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

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.10, 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 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 C63.10:2009 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.

4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(Dipole Antenna) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	46.360	49.621	-24.379	74.000
7236.000	10.650	37.940	48.590	-25.410	74.000
9648.000	13.337	37.590	50.926	-23.074	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	38.460	44.881	-29.119	74.000
7236.000	11.495	37.580	49.075	-24.925	74.000
9648.000	13.807	37.890	51.696	-22.304	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	50.530	53.567	-20.433	74.000
7311.000	11.795	47.050	58.844	-15.156	74.000
9748.000	12.635	38.040	50.675	-23.325	74.000
12185.000	16.711	37.220	53.931	-20.069	74.000
Average					
Detector:					
7311.000	11.795	41.150	52.944	-1.056	54.000
Vertical					
Peak Detector:					
4874.000	5.812	38.520	44.331	-29.669	74.000
7311.000	12.630	37.480	50.109	-23.891	74.000
9748.000	13.126	39.750	52.876	-21.124	74.000
12185.000	17.104	36.430	53.534	-20.466	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(Dipole Antenna) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	46.000	48.857	-25.143	74.000
7386.000	12.127	37.180	49.308	-24.692	74.000
9848.000	12.852	37.170	50.023	-23.977	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	40.370	45.890	-28.110	74.000
7386.000	13.254	36.190	49.444	-24.556	74.000
9848.000	13.367	37.360	50.727	-23.273	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	38.810	42.071	-31.929	74.000
7236.000	10.650	36.840	47.490	-26.510	74.000
9648.000	13.337	37.140	50.476	-23.524	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	38.170	44.591	-29.409	74.000
7236.000	11.495	37.370	48.865	-25.135	74.000
9648.000	13.807	36.660	50.466	-23.534	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	59.290	62.327	-11.673	74.000
7311.000	11.795	57.070	68.864	-5.136	74.000
9748.000	12.635	55.020	67.655	-6.345	74.000
12185.000	16.711	53.690	70.401	-3.599	74.000
Average					
Detector:					
4874.000	3.038	43.000	46.037	-7.963	54.000
7311.000	11.795	41.390	53.184	-0.816	54.000
9748.000	12.635	37.510	50.145	-3.855	54.000
12185.000	16.711	32.220	48.931	-5.069	54.000
Vertical					
Peak Detector:					
4874.000	5.812	45.620	51.431	-22.569	74.000
7311.000	12.630	41.820	54.449	-19.551	74.000
9748.000	13.126	46.450	59.576	-14.424	74.000
12185.000	17.104	45.380	62.484	-11.516	74.000
Average					
Detector:					
7311.000	12.630	27.220	39.849	-14.151	54.000
9748.000	13.126	29.260	42.386	-11.614	54.000
12185.000	17.104	25.380	42.484	-11.516	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	39.260	42.117	-31.883	74.000
7386.000	12.127	37.860	49.988	-24.012	74.000
9848.000	12.852	37.370	50.223	-23.777	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	38.200	43.720	-30.280	74.000
7386.000	13.254	35.580	48.834	-25.166	74.000
9848.000	13.367	36.830	50.197	-23.803	74.000
Average					
Detector:					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11a 6Mbps(Dipole Antenna) (5745 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11490.000	17.106	38.950	56.057	-17.943	74.000
Average Detector:					
11490.000	17.106	25.040	42.147	-11.853	54.000
Vertical Peak Detector:					
11490.000	18.034	35.950	53.985	-20.015	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11a 6Mbps(Dipole Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11570.000	16.809	40.360	57.169	-16.831	74.000
Average Detector:					
11570.000	16.809	26.600	43.409	-10.591	54.000
Vertical Peak Detector:					
11570.000	17.698	38.040	55.738	-18.262	74.000
Average Detector:					
11570.000	17.698	23.330	41.028	-12.972	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11a 6Mbps(Dipole Antenna) (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11650.000	16.158	38.680	54.838	-19.162	74.000
Average Detector:					
11650.000	16.158	26.890	43.048	-10.952	54.000
Vertical Peak Detector:					
11650.000	17.274	37.860	55.135	-18.865	74.000
Average Detector:					
11650.000	17.274	25.190	42.465	-11.535	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(Dipole Antenna) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	37.920	41.181	-32.819	74.000
7236.000	10.650	37.080	47.730	-26.270	74.000
9648.000	13.337	36.890	50.226	-23.774	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	38.550	44.971	-29.029	74.000
7236.000	11.495	36.920	48.415	-25.585	74.000
9648.000	13.807	36.620	50.426	-23.574	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	55.570	58.607	-15.393	74.000
7311.000	11.795	50.560	62.354	-11.646	74.000
9748.000	12.635	50.550	63.185	-10.815	74.000
12185.000	16.711	49.170	65.881	-8.119	74.000
Average					
Detector:					
4874.000	3.038	40.410	43.447	-10.553	54.000
7311.000	11.795	36.710	48.504	-5.496	54.000
9748.000	12.635	34.200	46.835	-7.165	54.000
12185.000	16.711	29.700	46.411	-7.589	54.000
Vertical					
Peak Detector:					
4874.000	5.812	42.130	47.941	-26.059	74.000
7311.000	12.630	38.370	50.999	-23.001	74.000
9748.000	13.126	42.430	55.556	-18.444	74.000
12185.000	17.104	42.030	59.134	-14.866	74.000
Average					
Detector:					
9748.000	13.126	27.200	40.326	-13.674	54.000
12185.000	17.104	24.030	41.134	-12.866	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(Dipole Antenna) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
4924.000	2.858	39.220	42.077	-31.923	74.000
7386.000	12.127	36.340	48.468	-25.532	74.000
9848.000	12.852	36.400	49.253	-24.747	74.000
Average Detector:					
--					
Vertical Peak Detector:					
4924.000	5.521	38.430	43.950	-30.050	74.000
7386.000	13.254	35.920	49.174	-24.826	74.000
9848.000	13.367	37.310	50.677	-23.323	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna) (2422MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4844.000	3.171	38.300	41.471	-32.529	74.000
7266.000	11.162	36.480	47.642	-26.358	74.000
9688.000	12.964	37.500	50.465	-23.535	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	6.178	37.640	43.818	-30.182	74.000
7266.000	11.982	37.550	49.532	-24.468	74.000
9688.000	13.507	37.950	51.458	-22.542	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
4874.000	3.038	51.950	54.987	-19.013	74.000
7311.000	11.795	47.340	59.134	-14.866	74.000
9748.000	12.635	45.440	58.075	-15.925	74.000
12185.000	16.711	43.300	60.011	-13.989	74.000
Average Detector:					
4874.000	3.038	36.930	39.967	-14.033	54.000
7311.000	11.795	33.680	45.474	-8.526	54.000
9748.000	12.635	30.030	42.665	-11.335	54.000
12185.000	16.711	27.230	43.941	-10.059	54.000
Vertical Peak Detector:					
4874.000	5.812	42.000	47.811	-26.189	74.000
7311.000	12.630	36.890	49.519	-24.481	74.000
9748.000	13.126	38.730	51.856	-22.144	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna) (2452 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4904.000	2.914	38.030	40.945	-33.055	74.000
7356.000	11.995	36.630	48.624	-25.376	74.000
9808.000	12.475	37.390	49.865	-24.135	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4904.000	5.530	38.550	44.081	-29.919	74.000
7356.000	13.005	35.530	48.534	-25.466	74.000
9808.000	12.901	36.980	49.881	-24.119	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(Dipole Antenna) (5745MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	17.106	36.540	53.647	-20.353	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11490.000	18.034	35.850	53.885	-20.115	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(Dipole Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11570.000	16.809	39.030	55.839	-18.161	74.000
Average Detector:					
11570.000	16.809	25.630	42.439	-11.561	54.000
Vertical Peak Detector:					
11570.000	17.698	35.740	53.438	-20.562	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(Dipole Antenna) (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11650.000	16.158	37.770	53.928	-20.072	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11650.000	17.274	35.590	52.865	-21.135	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band)(Dipole Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	17.124	35.850	52.974	-21.026	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11510.000	18.081	35.770	53.851	-20.149	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band)(Dipole Antenna) (5795 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11590.000	16.701	37.150	53.850	-20.150	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11590.000	17.567	36.080	53.646	-20.354	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 8: Transmit (802.11b 1Mbps)(PIFA Antenna) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	42.740	46.001	-27.999	74.000
7236.000	10.650	41.420	52.070	-21.930	74.000
9648.000	13.337	37.720	51.056	-22.944	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	43.060	49.481	-24.519	74.000
7236.000	11.495	37.660	49.155	-24.845	74.000
9648.000	13.807	37.070	50.876	-23.124	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 8: Transmit (802.11b 1Mbps)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	43.370	46.407	-27.593	74.000
7311.000	11.795	43.690	55.484	-18.516	74.000
9748.000	12.635	39.480	52.115	-21.885	74.000
Average					
Detector:					
7311.000	11.795	38.540	50.334	-3.666	54.000
Vertical					
Peak Detector:					
4874.000	5.812	43.910	49.721	-24.279	74.000
7311.000	12.630	42.140	54.769	-19.231	74.000
9748.000	13.126	38.520	51.646	-22.354	74.000
Average					
Detector:					
7311.000	12.630	34.850	47.479	-6.521	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 8: Transmit (802.11b 1Mbps)(PIFA Antenna) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	46.790	49.647	-24.353	74.000
7386.000	12.127	40.790	52.918	-21.082	74.000
9848.000	12.852	37.590	50.443	-23.557	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	45.200	50.720	-23.280	74.000
7386.000	13.254	42.390	55.644	-18.356	74.000
9848.000	13.367	39.450	52.817	-21.183	74.000
Average					
Detector:					
7386.000	13.254	36.240	49.494	-4.506	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 9: Transmit (802.11g 6Mbps)(PIFA Antenna) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	38.120	41.381	-32.619	74.000
7236.000	10.650	36.880	47.530	-26.470	74.000
9648.000	13.337	37.280	50.616	-23.384	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	37.100	43.521	-30.479	74.000
7236.000	11.495	36.030	47.525	-26.475	74.000
9648.000	13.807	36.930	50.736	-23.264	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 9: Transmit (802.11g 6Mbps)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	54.030	57.067	-16.933	74.000
7311.000	11.795	52.220	64.014	-9.986	74.000
9748.000	12.635	52.000	64.635	-9.365	74.000
Average Detector:					
4874.000	3.038	38.500	41.537	-12.463	54.000
7311.000	11.795	37.170	48.964	-5.036	54.000
9748.000	12.635	34.370	47.005	-6.995	54.000
Vertical					
Peak Detector:					
4874.000	5.812	55.080	60.891	-13.109	74.000
7311.000	12.630	51.560	64.189	-9.811	74.000
9748.000	13.126	50.160	63.286	-10.714	74.000
Average Detector:					
4874.000	5.812	39.080	44.891	-9.109	54.000
7311.000	12.630	36.900	49.529	-4.471	54.000
9748.000	13.126	33.140	46.266	-7.734	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 9: Transmit (802.11g 6Mbps)(PIFA Antenna) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	39.970	42.827	-31.173	74.000
7386.000	12.127	35.020	47.148	-26.852	74.000
9848.000	12.852	36.840	49.693	-24.307	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	37.980	43.500	-30.500	74.000
7386.000	13.254	40.070	53.324	-20.676	74.000
9848.000	13.367	36.970	50.337	-23.663	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 10: Transmit - 802.11a 6Mbps(PIFA Antenna) (5745 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11490.000	17.106	36.480	53.587	-20.413	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11490.000	18.034	36.220	54.255	-19.745	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 10: Transmit - 802.11a 6Mbps(PIFA Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11570.000	16.809	39.110	55.919	-18.081	74.000
Average Detector:					
11570.000	16.809	26.260	43.069	-10.931	54.000
Vertical Peak Detector:					
11570.000	17.698	38.570	56.268	-17.732	74.000
Average Detector:					
11570.000	17.698	25.600	43.298	-10.702	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 10: Transmit - 802.11a 6Mbps(PIFA Antenna) (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11650.000	16.158	41.390	57.548	-16.452	74.000
Average Detector:					
11650.000	16.158	26.990	43.148	-10.852	54.000
Vertical Peak Detector:					
11650.000	17.274	40.260	57.535	-16.465	74.000
Average Detector:					
11650.000	17.274	27.450	44.725	-9.275	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 11: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(PIFA Antenna) (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	38.180	41.441	-32.559	74.000
7236.000	10.650	36.270	46.920	-27.080	74.000
9648.000	13.337	36.570	49.906	-24.094	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	37.930	44.351	-29.649	74.000
7236.000	11.495	36.750	48.245	-25.755	74.000
9648.000	13.807	36.330	50.136	-23.864	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 11: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	52.050	55.087	-18.913	74.000
7311.000	11.795	50.250	62.044	-11.956	74.000
9748.000	12.635	50.210	62.845	-11.155	74.000
Average					
Detector:					
4874.000	3.038	35.880	38.917	-15.083	54.000
7311.000	11.795	35.600	47.394	-6.606	54.000
9748.000	12.635	33.900	46.535	-7.465	54.000
Vertical					
Peak Detector:					
4874.000	5.812	52.100	57.911	-16.089	74.000
7311.000	12.630	50.900	63.529	-10.471	74.000
9748.000	13.126	48.430	61.556	-12.444	74.000
Average					
Detector:					
4874.000	5.812	37.490	43.301	-10.699	54.000
7311.000	12.630	34.900	47.529	-6.471	54.000
9748.000	13.126	32.820	45.946	-8.054	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 11: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(PIFA Antenna) (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	38.690	41.547	-32.453	74.000
7386.000	12.127	35.210	47.338	-26.662	74.000
9848.000	12.852	36.160	49.013	-24.987	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	37.080	42.600	-31.400	74.000
7386.000	13.254	38.790	52.044	-21.956	74.000
9848.000	13.367	36.250	49.617	-24.383	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna) (2422MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4844.000	3.171	37.720	40.891	-33.109	74.000
7266.000	11.162	36.900	48.062	-25.938	74.000
9688.000	12.964	36.570	49.535	-24.465	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	6.178	37.490	43.668	-30.332	74.000
7266.000	11.982	37.180	49.162	-24.838	74.000
9688.000	13.507	36.850	50.358	-23.642	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	49.040	52.077	-21.923	74.000
7311.000	11.795	46.050	57.844	-16.156	74.000
9748.000	12.635	48.710	61.345	-12.655	74.000
Average					
Detector:					
7311.000	11.795	31.950	43.744	-10.256	54.000
9748.000	12.635	33.620	46.255	-7.745	54.000
Vertical					
Peak Detector:					
4874.000	5.812	49.360	55.171	-18.829	74.000
7311.000	12.630	47.270	59.899	-14.101	74.000
9748.000	13.126	45.570	58.696	-15.304	74.000
Average					
Detector:					
4874.000	5.812	34.380	40.191	-13.809	54.000
7311.000	12.630	32.500	45.129	-8.871	54.000
9748.000	13.126	30.610	43.736	-10.264	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna) (2452 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4904.000	2.914	37.440	40.355	-33.645	74.000
7356.000	11.995	34.930	46.924	-27.076	74.000
9808.000	12.475	36.920	49.395	-24.605	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4904.000	5.530	37.240	42.771	-31.229	74.000
7356.000	13.005	35.600	48.604	-25.396	74.000
9808.000	12.901	36.540	49.441	-24.559	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 13: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(PIFA Antenna) (5745MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11490.000	17.106	35.620	52.727	-21.273	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11490.000	18.034	35.860	53.895	-20.105	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 13: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(PIFA Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11570.000	16.809	39.490	56.299	-17.701	74.000
Average Detector:					
11570.000	16.809	25.330	42.139	-11.861	54.000
Vertical Peak Detector:					
11570.000	17.698	38.710	56.408	-17.592	74.000
Average Detector:					
11570.000	17.698	25.230	42.928	-11.072	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 13: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(PIFA Antenna) (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11650.000	16.158	38.720	54.878	-19.122	74.000
Average Detector:					
11650.000	16.158	26.150	42.308	-11.692	54.000
Vertical Peak Detector:					
11650.000	17.274	40.150	57.425	-16.575	74.000
Average Detector:					
11650.000	17.274	27.060	44.335	-9.665	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 14: Transmit - 802.11n-40BW_45Mbps(5G Band)(PIFA Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
11510.000	17.124	35.610	52.734	-21.266	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11510.000	18.081	35.230	53.311	-20.689	74.000
Average					
Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 14: Transmit - 802.11n-40BW_45Mbps(5G Band)(PIFA Antenna) (5795 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal Peak Detector:					
11590.000	16.701	36.610	53.310	-20.690	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11590.000	17.567	35.580	53.146	-20.854	74.000
Average Detector:					
--					

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.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
115.360	-8.770	30.098	21.328	-22.172	43.500
231.760	-8.338	38.538	30.200	-15.800	46.000
586.780	3.436	28.781	32.217	-13.783	46.000
726.460	3.469	25.832	29.301	-16.699	46.000
831.220	6.121	27.064	33.185	-12.815	46.000
957.320	6.259	22.108	28.367	-17.633	46.000
Vertical					
173.560	-8.444	36.666	28.223	-15.277	43.500
456.800	-4.697	28.013	23.316	-22.684	46.000
602.300	-2.333	33.169	30.836	-15.164	46.000
691.540	2.421	24.782	27.203	-18.797	46.000
778.840	2.889	23.912	26.801	-19.199	46.000
891.360	2.218	26.832	29.050	-16.950	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
128.940	-10.088	33.356	23.268	-20.232	43.500
383.080	-1.164	33.523	32.359	-13.641	46.000
520.820	1.762	27.182	28.944	-17.056	46.000
643.040	1.441	25.014	26.455	-19.545	46.000
815.700	5.271	25.036	30.307	-15.693	46.000
947.620	6.619	25.821	32.440	-13.560	46.000
Vertical					
171.620	-8.752	32.524	23.772	-19.728	43.500
383.080	-2.184	32.766	30.582	-15.418	46.000
515.000	-1.090	26.877	25.787	-20.213	46.000
588.720	-5.942	25.032	19.090	-26.910	46.000
782.720	3.035	25.019	28.054	-17.946	46.000
922.400	5.534	26.500	32.034	-13.966	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11a 6Mbps(Dipole Antenna) (5785MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
315.180	-4.186	39.532	35.346	-10.654	46.000
381.140	-0.988	36.480	35.492	-10.508	46.000
499.480	0.048	35.182	35.230	-10.770	46.000
600.360	3.977	31.791	35.768	-10.232	46.000
714.820	3.562	30.376	33.938	-12.062	46.000
802.120	5.091	33.787	38.878	-7.122	46.000
Vertical					
128.940	-4.128	38.940	34.812	-8.688	43.500
253.100	-7.597	40.254	32.657	-13.343	46.000
350.100	-3.822	35.463	31.641	-14.359	46.000
450.980	-7.106	41.089	33.984	-12.016	46.000
666.320	-1.809	35.474	33.666	-12.334	46.000
802.120	3.161	33.032	36.193	-9.807	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
134.760	-10.298	35.995	25.697	-17.803	43.500
231.760	-8.338	40.693	32.355	-13.645	46.000
418.000	-3.234	31.065	27.831	-18.169	46.000
559.620	1.664	25.113	26.777	-19.223	46.000
747.800	3.296	33.666	36.962	-9.038	46.000
924.340	6.240	24.635	30.875	-15.125	46.000
Vertical					
179.380	-8.591	36.169	27.578	-15.922	43.500
400.540	-5.156	40.810	35.655	-10.345	46.000
487.840	-3.132	31.599	28.467	-17.533	46.000
623.640	-2.631	33.687	31.056	-14.944	46.000
741.980	0.175	23.716	23.891	-22.109	46.000
844.800	3.181	31.854	35.035	-10.965	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 5: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(Dipole Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
76.560	-14.768	39.994	25.226	-14.774	40.000
231.760	-8.338	41.016	32.678	-13.322	46.000
470.380	1.226	31.866	33.092	-12.908	46.000
571.260	2.104	25.980	28.085	-17.915	46.000
780.780	4.230	24.420	28.650	-17.350	46.000
854.500	6.626	29.383	36.009	-9.991	46.000
Vertical					
163.860	-7.204	35.751	28.547	-14.953	43.500
435.460	-8.800	29.555	20.755	-25.245	46.000
596.480	-3.113	32.815	29.702	-16.298	46.000
786.600	2.972	27.523	30.495	-15.505	46.000
897.180	2.332	24.756	27.088	-18.912	46.000
968.960	8.191	25.439	33.630	-20.370	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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 6: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(Dipole Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
105.660	-6.673	43.468	36.795	-6.705	43.500
220.120	-10.520	45.393	34.873	-11.127	46.000
369.500	-1.098	33.180	32.082	-13.918	46.000
460.680	1.589	32.522	34.111	-11.889	46.000
534.400	2.069	32.900	34.969	-11.031	46.000
666.320	2.031	32.908	34.940	-11.060	46.000
Vertical					
117.300	-3.106	33.735	30.629	-12.871	43.500
241.460	-8.461	45.771	37.310	-8.690	46.000
400.540	-5.156	38.001	32.846	-13.154	46.000
507.240	-0.471	34.968	34.497	-11.503	46.000
664.380	-1.918	34.223	32.305	-13.695	46.000
800.180	2.801	32.318	35.119	-10.881	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 7: Transmit - 802.11n-40BW_45Mbps(5G Band)(Dipole Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
286.080	-4.687	43.606	38.919	-7.081	46.000
400.540	-2.276	42.648	40.372	-5.628	46.000
499.480	0.048	34.183	34.231	-11.769	46.000
600.360	3.977	32.189	36.166	-9.834	46.000
664.380	2.062	32.751	34.813	-11.187	46.000
802.120	5.091	33.756	38.847	-7.153	46.000
Vertical					
123.120	-3.921	38.206	34.285	-9.215	43.500
224.000	-8.699	46.656	37.957	-8.043	46.000
340.400	-3.899	41.734	37.835	-8.165	46.000
499.480	-0.852	36.075	35.223	-10.777	46.000
664.380	-1.918	36.091	34.173	-11.827	46.000
802.120	3.161	31.475	34.636	-11.364	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 8: Transmit (802.11b 1Mbps)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
183.260	-12.294	39.425	27.131	-16.369	43.500
447.100	-2.726	27.159	24.433	-21.567	46.000
559.620	1.664	26.474	28.138	-17.862	46.000
701.240	2.668	24.310	26.978	-19.022	46.000
782.720	4.325	24.767	29.092	-16.908	46.000
945.680	6.554	25.900	32.454	-13.546	46.000
Vertical					
185.200	-11.866	37.619	25.753	-17.747	43.500
441.280	-8.494	28.085	19.591	-26.409	46.000
538.280	0.020	34.274	34.294	-11.706	46.000
697.360	1.311	24.525	25.836	-20.164	46.000
806.000	3.908	24.382	28.290	-17.710	46.000
943.740	6.592	27.859	34.452	-11.548	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 9: Transmit (802.11g 6Mbps)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
121.180	-9.834	29.874	20.040	-23.460	43.500
185.200	-12.336	37.445	25.109	-18.391	43.500
396.660	-2.296	31.567	29.271	-16.729	46.000
561.560	1.506	23.359	24.865	-21.135	46.000
771.080	4.215	24.108	28.323	-17.677	46.000
943.740	6.492	23.637	30.130	-15.870	46.000
Vertical					
187.140	-11.507	38.674	27.167	-16.333	43.500
429.640	-9.902	28.186	18.284	-27.716	46.000
540.220	0.121	30.599	30.720	-15.280	46.000
738.100	-0.324	26.360	26.036	-19.964	46.000
831.220	2.561	27.971	30.532	-15.468	46.000
945.680	6.594	28.286	34.880	-11.120	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 10: Transmit - 802.11a 6Mbps(PIFA Antenna) (5785MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
274.440	-5.718	39.595	33.877	-12.123	46.000
361.740	-1.549	39.212	37.663	-8.337	46.000
450.980	-1.756	42.638	40.883	-5.117	46.000
499.480	0.048	35.205	35.253	-10.747	46.000
600.360	3.977	31.742	35.719	-10.281	46.000
800.180	5.141	32.936	38.077	-7.923	46.000
Vertical					
249.220	-7.634	48.122	40.488	-5.512	46.000
346.220	-3.093	42.398	39.305	-6.695	46.000
450.980	-7.106	40.422	33.317	-12.683	46.000
664.380	-1.918	34.883	32.965	-13.035	46.000
802.120	3.161	33.422	36.583	-9.417	46.000
972.840	4.582	23.389	27.971	-26.029	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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 11: Transmit - 802.11n-20BW_21.7Mbps(2.4G Band)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
123.120	-9.891	33.709	23.818	-19.682	43.500
224.000	-10.339	41.079	30.740	-15.260	46.000
447.100	-2.726	28.408	25.682	-20.318	46.000
579.020	3.414	27.715	31.129	-14.871	46.000
674.080	2.799	25.346	28.145	-17.855	46.000
922.400	6.334	25.529	31.863	-14.137	46.000
Vertical					
177.440	-8.339	36.070	27.731	-15.769	43.500
437.400	-8.730	30.256	21.526	-24.474	46.000
532.460	-0.563	33.351	32.788	-13.212	46.000
679.900	1.000	25.352	26.352	-19.648	46.000
844.800	3.181	26.974	30.155	-15.845	46.000
968.960	8.191	23.030	31.221	-22.779	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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 12: Transmit - 802.11n-40BW_45Mbps(2.4G Band)(PIFA Antenna) (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
123.120	-9.891	32.061	22.170	-21.330	43.500
423.820	-3.167	30.632	27.465	-18.535	46.000
522.760	1.786	30.592	32.378	-13.622	46.000
635.280	2.141	25.889	28.029	-17.971	46.000
780.780	4.230	24.513	28.743	-17.257	46.000
953.440	6.387	27.479	33.866	-12.134	46.000
Vertical					
115.360	-2.630	26.498	23.868	-19.632	43.500
192.960	-9.878	39.761	29.883	-13.617	43.500
419.940	-8.684	25.932	17.248	-28.752	46.000
538.280	0.020	25.950	25.970	-20.030	46.000
712.880	-0.631	24.633	24.002	-21.998	46.000
924.340	5.550	23.976	29.526	-16.474	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 13: Transmit - 802.11n-20BW_21.7Mbps(5G Band)(PIFA Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
132.820	-10.230	45.962	35.732	-7.768	43.500
367.560	-1.205	33.588	32.383	-13.617	46.000
450.980	-1.756	42.123	40.368	-5.632	46.000
600.360	3.977	30.649	34.626	-11.374	46.000
668.260	2.016	33.820	35.836	-10.164	46.000
802.120	5.091	32.875	37.966	-8.034	46.000
Vertical					
249.220	-7.634	47.183	39.549	-6.451	46.000
365.620	-2.179	38.269	36.090	-9.910	46.000
499.480	-0.852	35.737	34.885	-11.115	46.000
666.320	-1.809	35.944	34.136	-11.864	46.000
749.740	2.510	34.797	37.307	-8.693	46.000
802.120	3.161	32.389	35.550	-10.450	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 14: Transmit - 802.11n-40BW_45Mbps(5G Band)(PIFA Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
105.660	-6.673	38.088	31.415	-12.085	43.500
352.040	-2.403	37.681	35.278	-10.722	46.000
474.260	0.024	33.791	33.814	-12.186	46.000
600.360	3.977	31.546	35.523	-10.477	46.000
668.260	2.016	33.319	35.335	-10.665	46.000
800.180	5.141	32.877	38.018	-7.982	46.000
Vertical					
196.840	-8.766	40.224	31.458	-12.042	43.500
342.340	-3.542	39.040	35.498	-10.502	46.000
450.980	-7.106	40.213	33.108	-12.892	46.000
538.280	0.020	29.184	29.204	-16.796	46.000
664.380	-1.918	36.723	34.805	-11.195	46.000
747.800	2.166	35.779	37.945	-8.055	46.000

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.
8. No emission found between lowest internal used/generated frequency to 30MHz.

5. RF antenna conducted test

5.1. Test Equipment

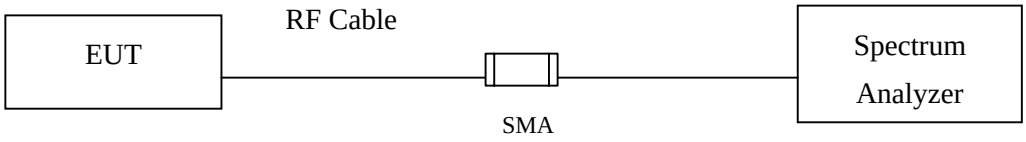
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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.

5.2. Test Setup

RF antenna Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Uncertainty

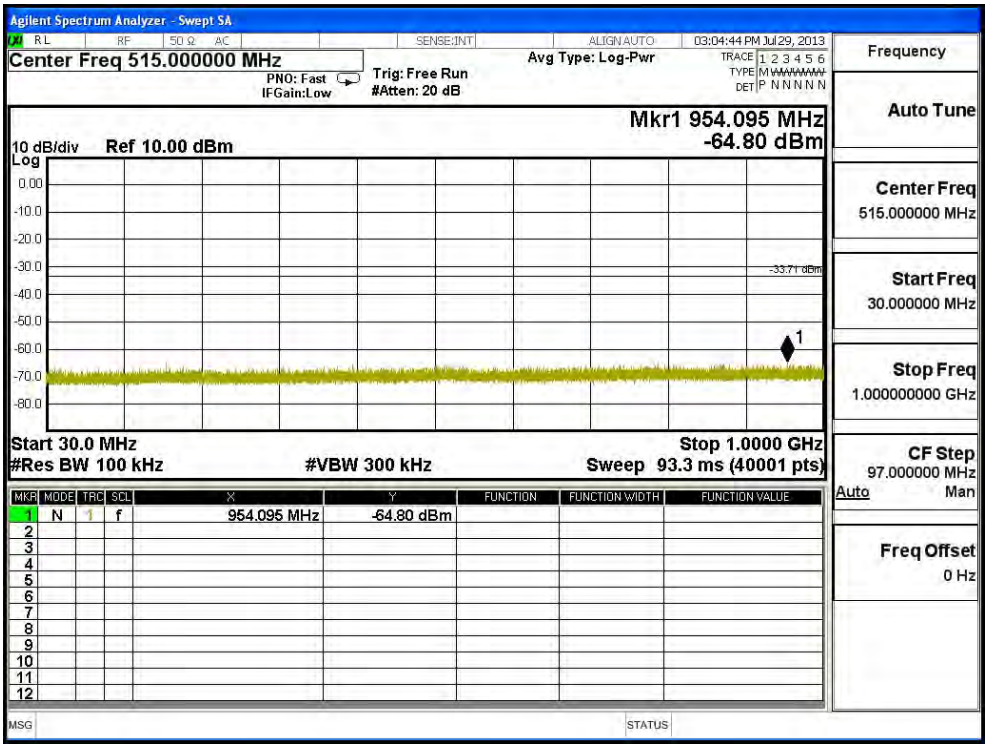
The measurement uncertainty

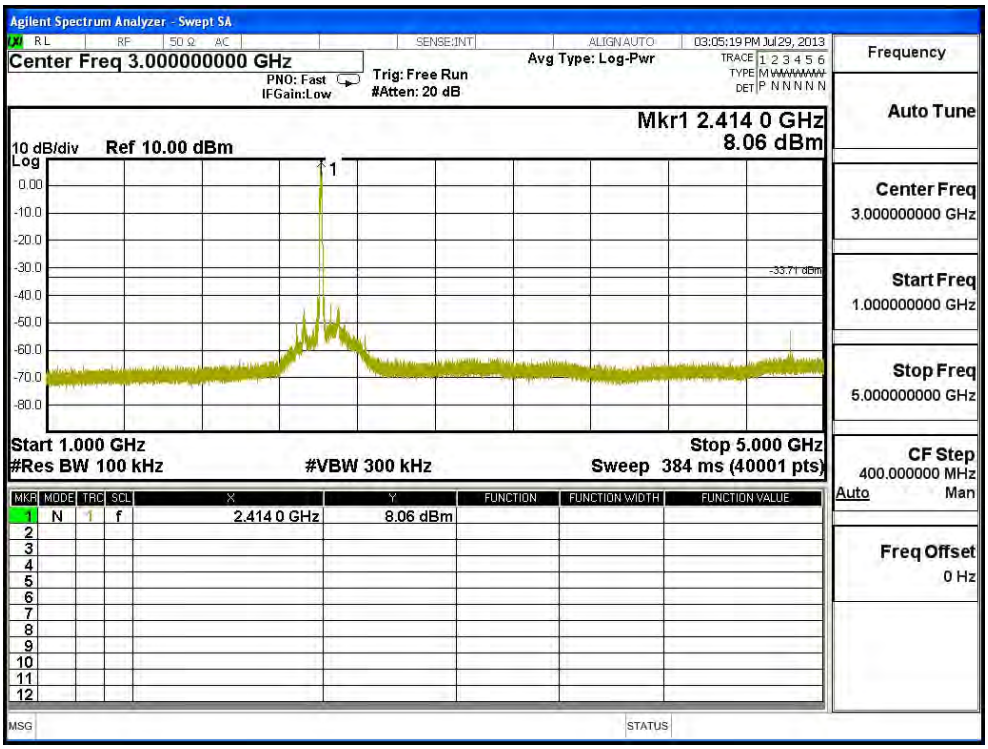
Conducted is defined as ± 1.27dB

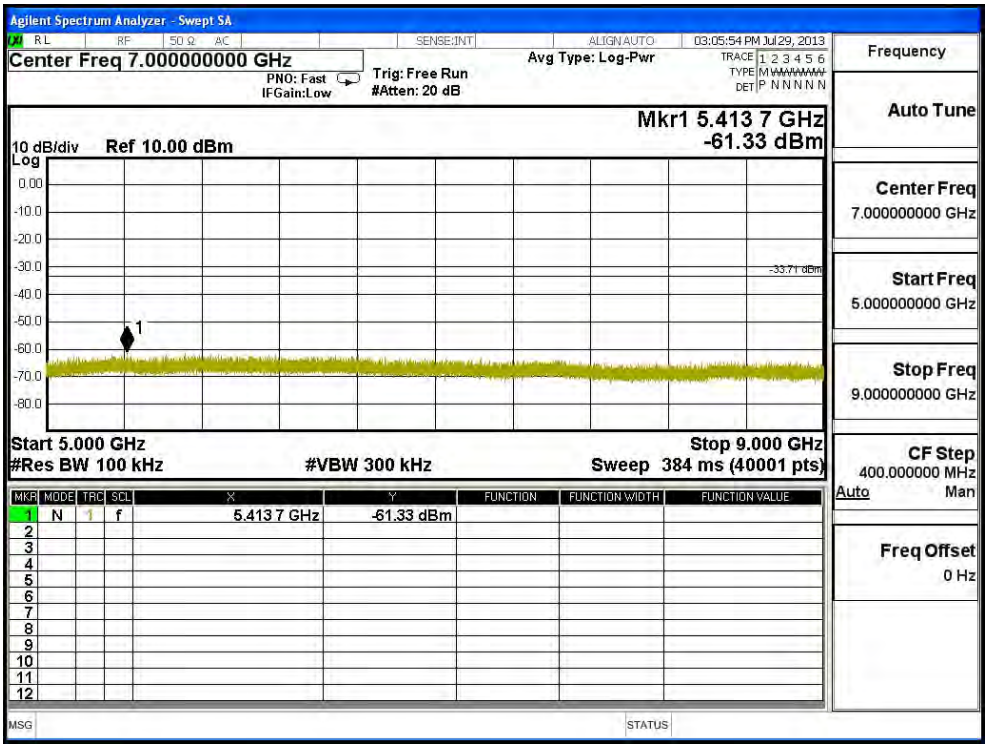
5.6. Test Result of RF antenna conducted test

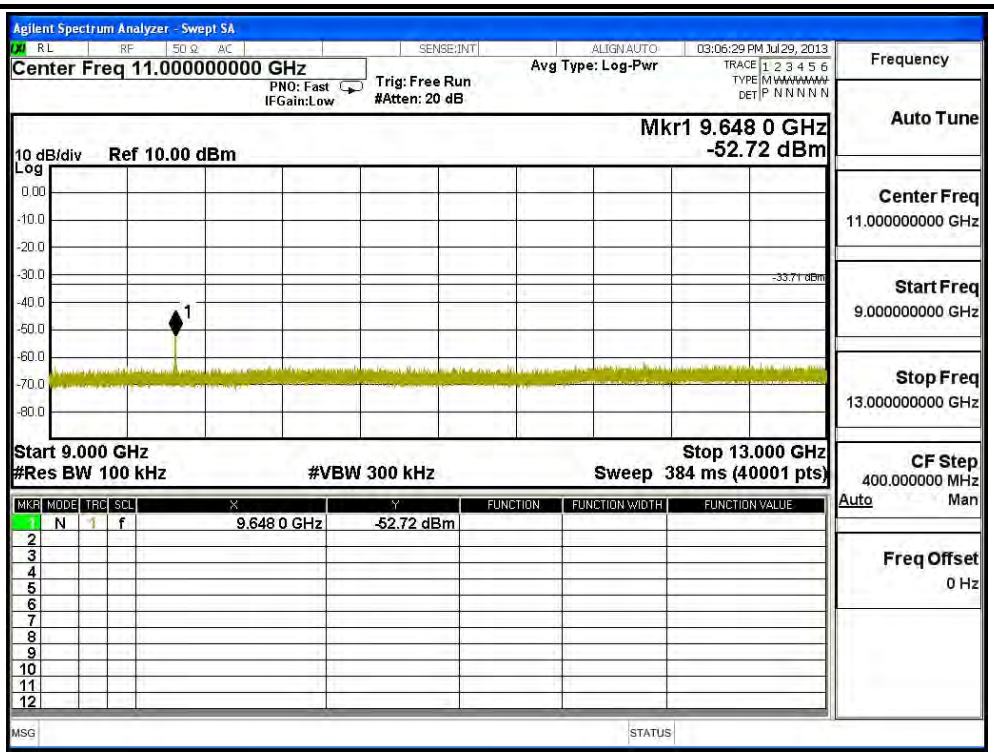
Product : SpectraGuard® Access Point / Sensor
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)(Dipole Antenna)

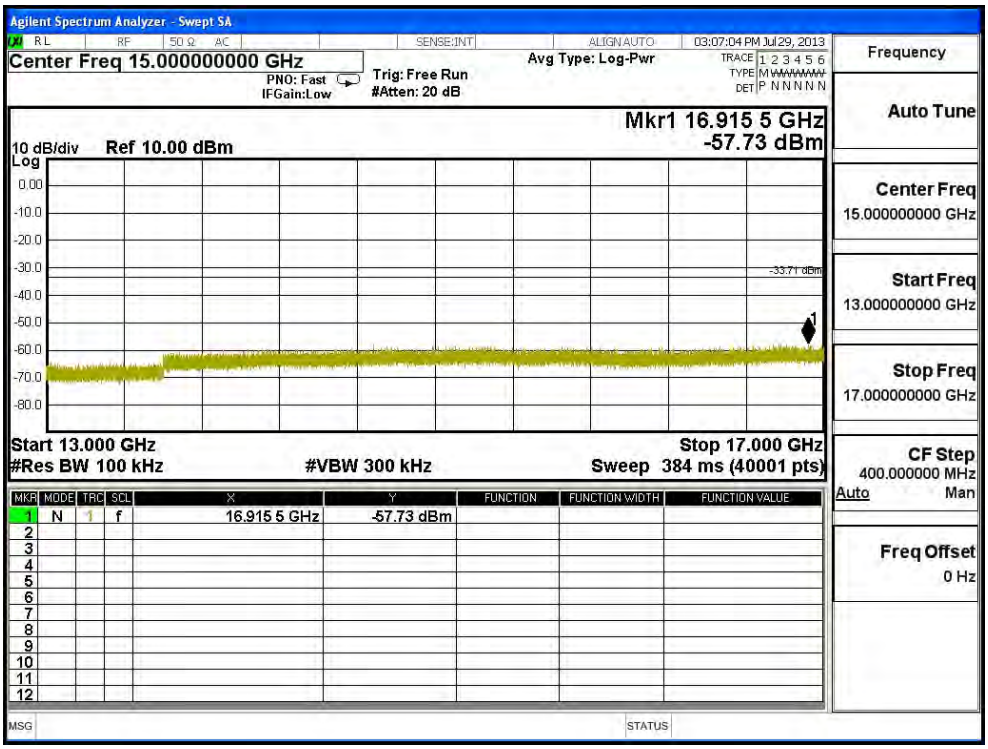
Channel 01 (2412MHz) 30MHz-25GHz-Chain A

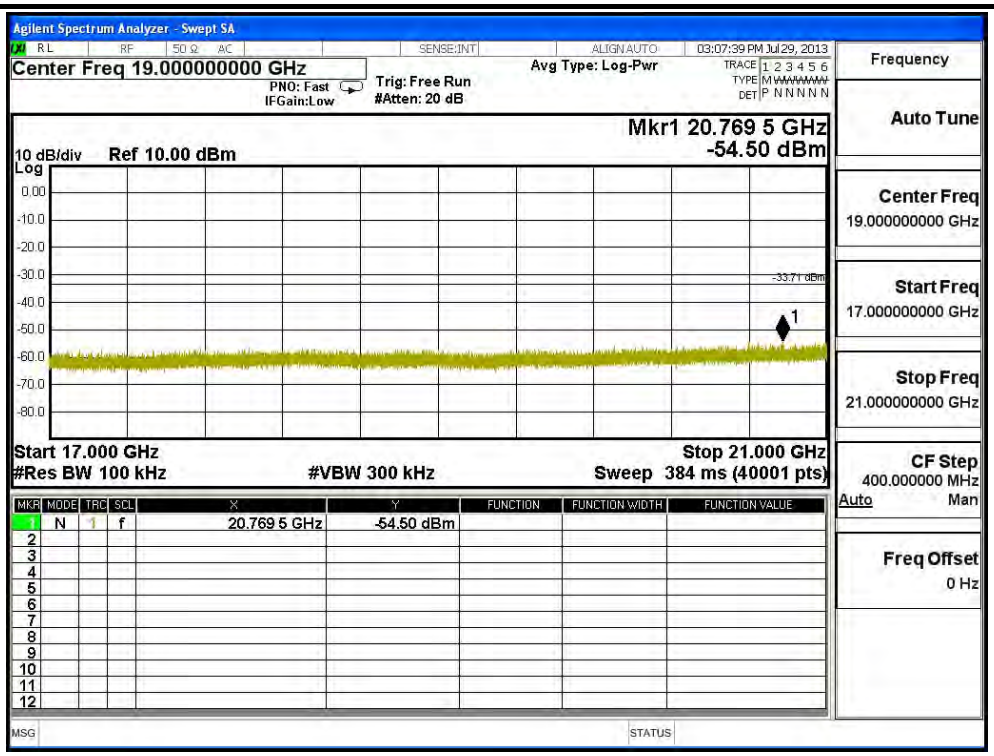


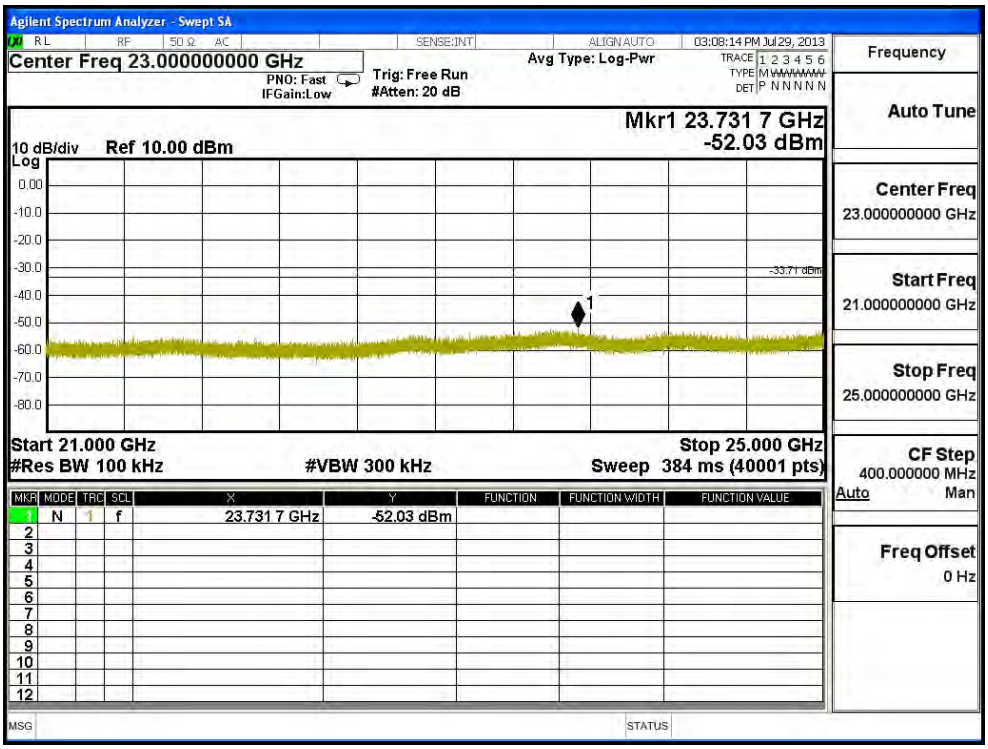

Agilent Spectrum Analyzer - Swept SA
Center Freq 3.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:05:19 PM Jul 29, 2013
Mkr1 2.414 0 GHz
8.06 dBm
10 dB/div
Ref 10.00 dBm
Log
-33.71 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 5.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 2.414 0 GHz 8.06 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:05:54 PM Jul 29, 2013
Mkr1 5.413 7 GHz
-61.33 dBm
10 dB/div
Ref 10.00 dBm
Log
-33.71 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 5.413 7 GHz -61.33 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

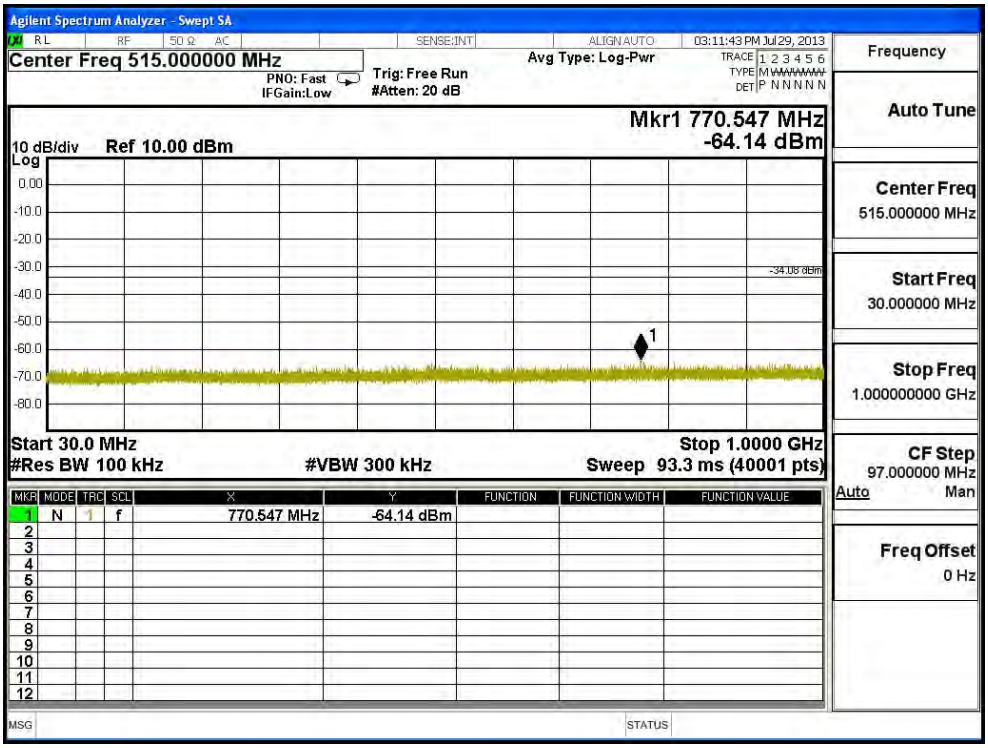

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:06:29 PM Jul 29, 2013
Mkr1 9.648 0 GHz
-52.72 dBm
10 dB/div
Ref 10.00 dBm
Log
-33.71 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.648 0 GHz -52.72 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

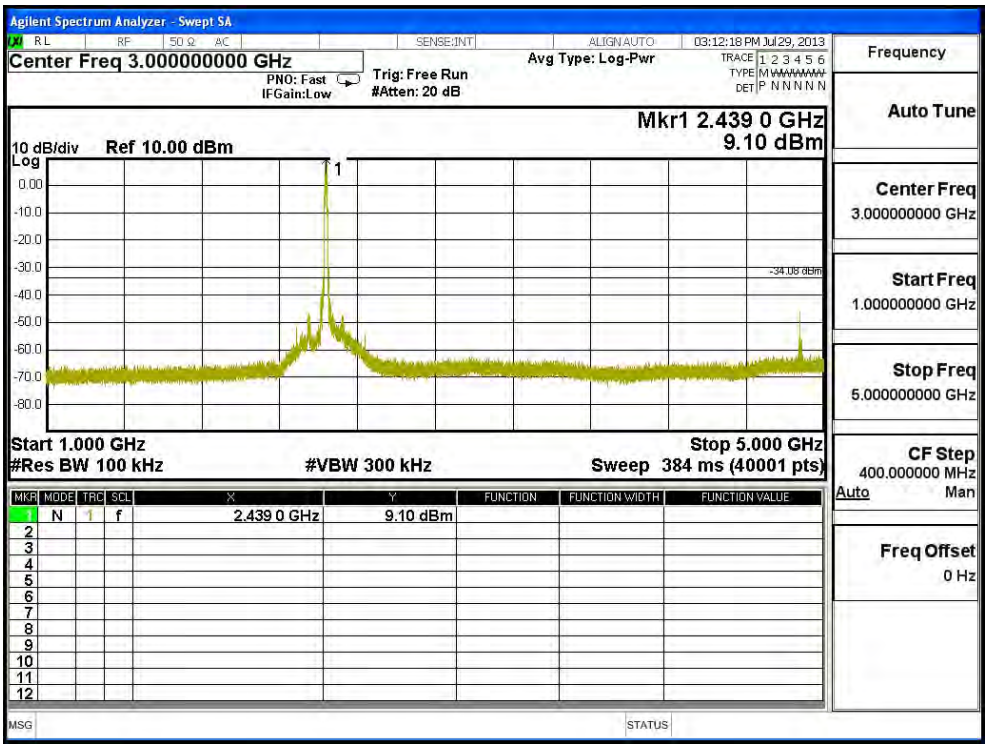

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:07:04 PM Jul 29, 2013
Mkr1 16.915 5 GHz
-57.73 dBm
10 dB/div
Ref 10.00 dBm
Log
-33.71 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.915 5 GHz -57.73 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

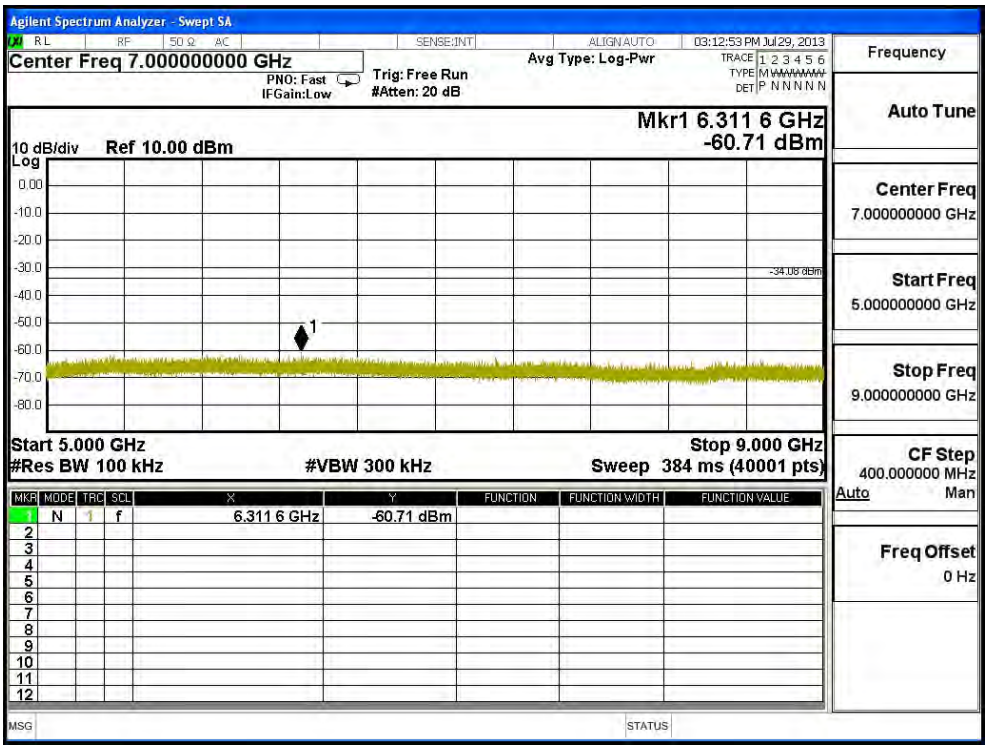

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:07:39 PM Jul 29, 2013
Mkr1 20.769 5 GHz
-54.50 dBm
10 dB/div
Log
Ref 10.00 dBm
-33.71 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.769 5 GHz -54.50 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

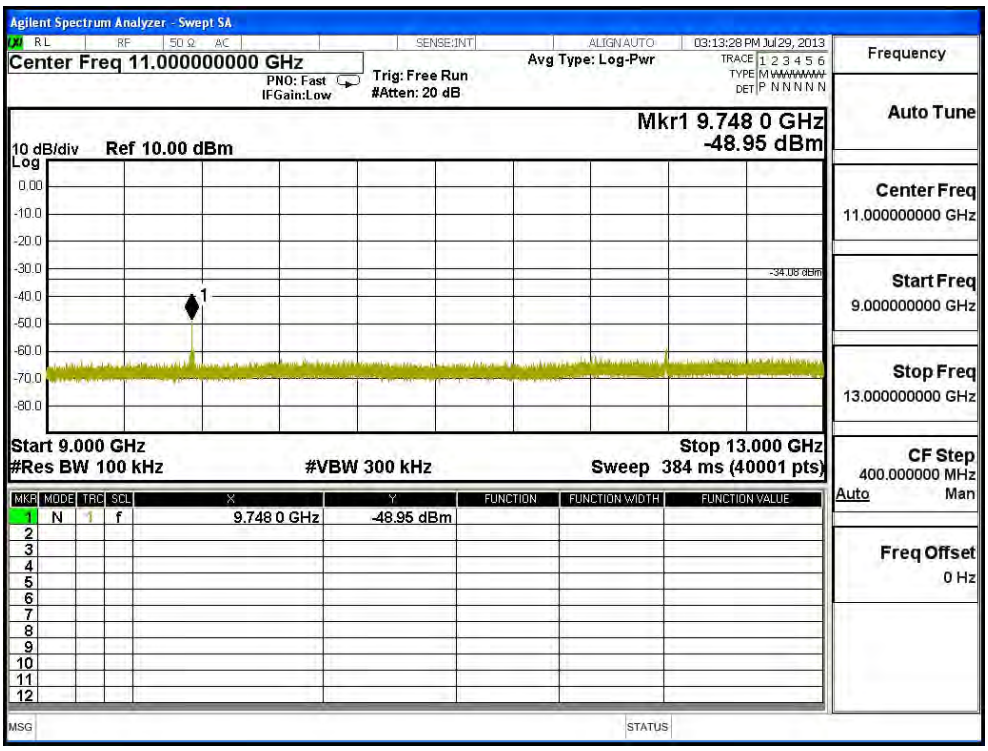

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:08:14 PM Jul 29, 2013
Mkr1 23.731 7 GHz
-52.03 dBm
10 dB/div
Log
Ref 10.00 dBm
-33.71 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.731 7 GHz -52.03 dBm
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

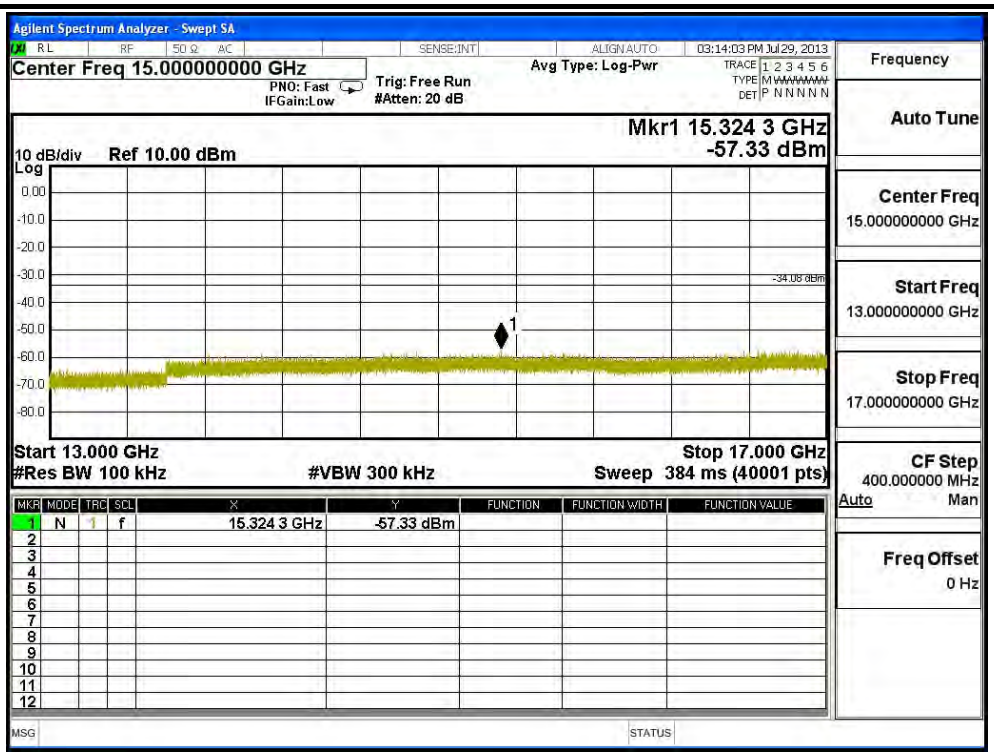
Channel 06 (2437MHz) 30MHz -25GHz-Chain A

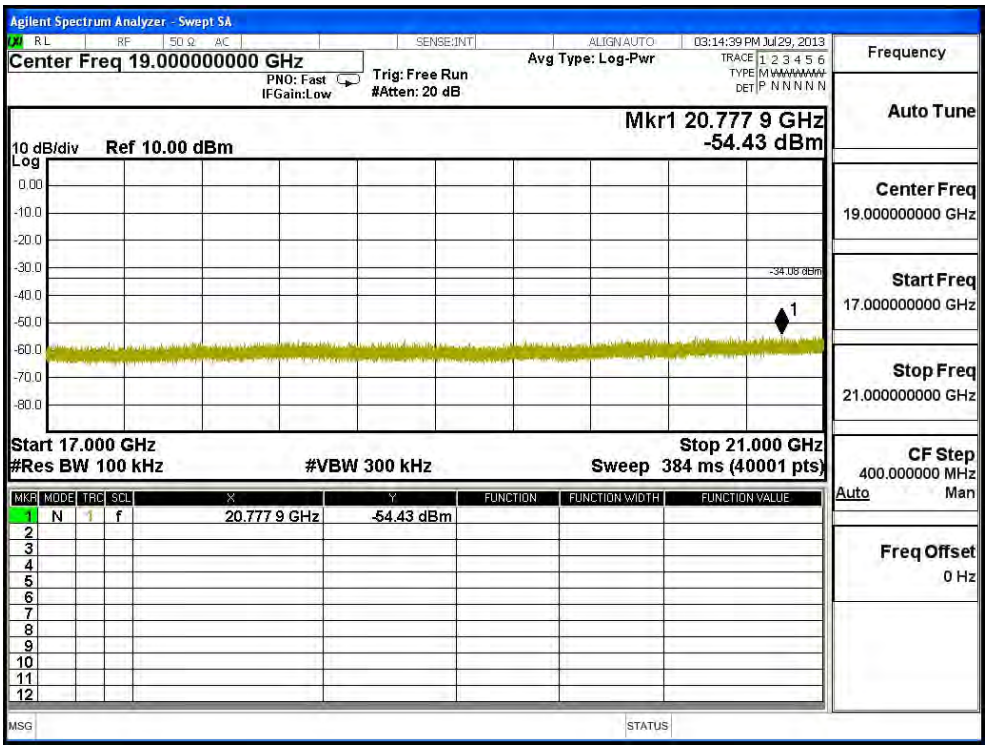


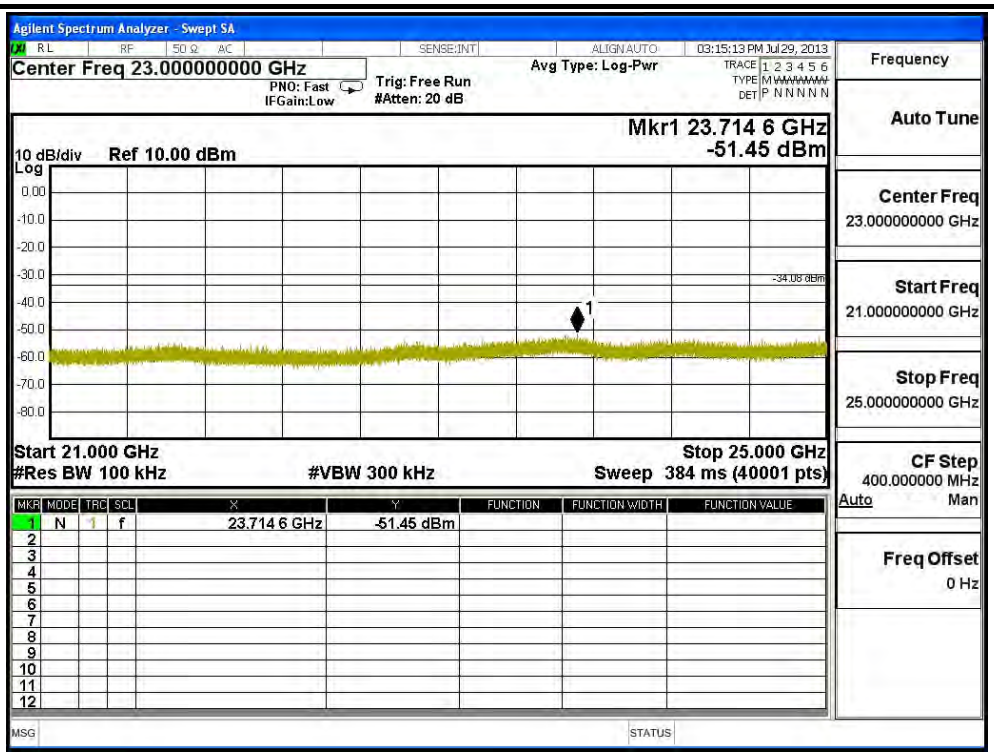



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:12:53 PM Jul 29, 2013
Mkr1 6.311 6 GHz
-60.71 dBm
10 dB/div
Log
Ref 10.00 dBm
-34.08 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 6.311 6 GHz -60.71 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

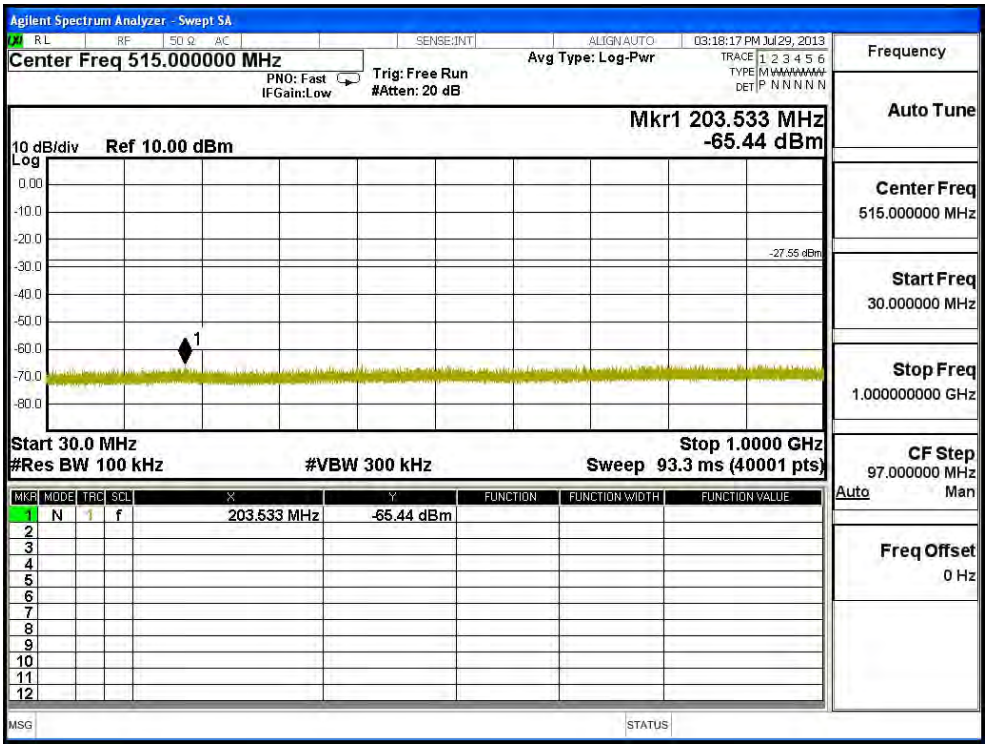

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:13:28 PM Jul 29, 2013
Mkr1 9.748 0 GHz
-48.95 dBm
10 dB/div
Log
Ref 10.00 dBm
-34.08 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.748 0 GHz -48.95 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

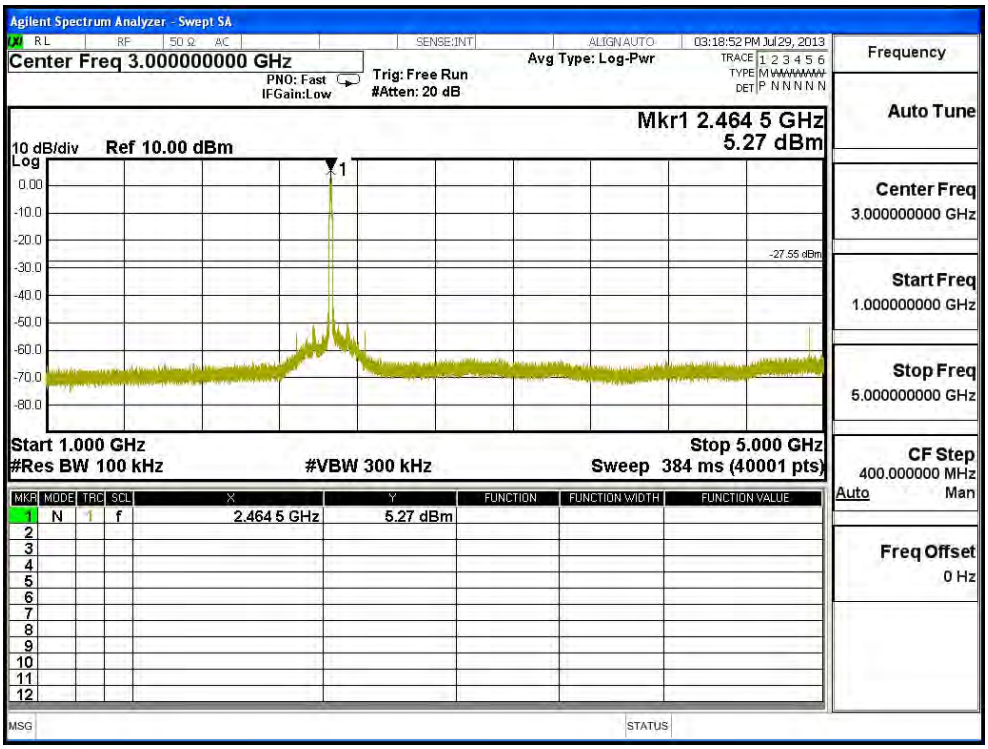

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:14:03 PM Jul 29, 2013
Mkr1 15.324 3 GHz
-57.33 dBm
10 dB/div
Log
Ref 10.00 dBm
-34.08 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 15.324 3 GHz -57.33 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

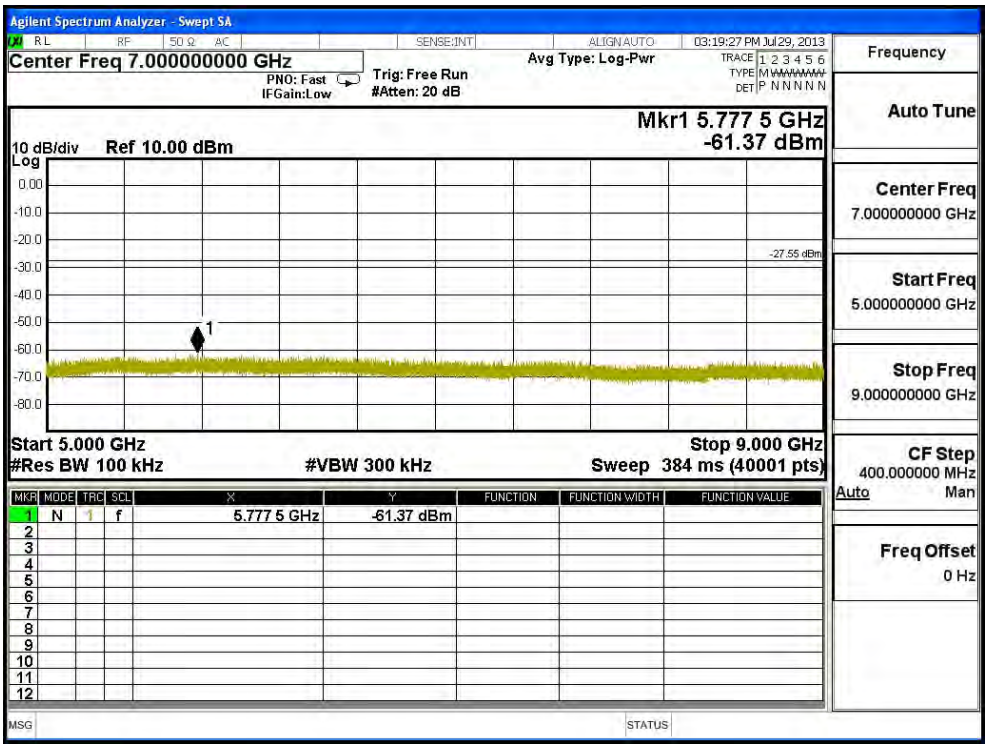

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:14:39 PM Jul 29, 2013
Mkr1 20.777 9 GHz
-54.43 dBm
10 dB/div
Log
Ref 10.00 dBm
-34.08 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.777 9 GHz -54.43 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

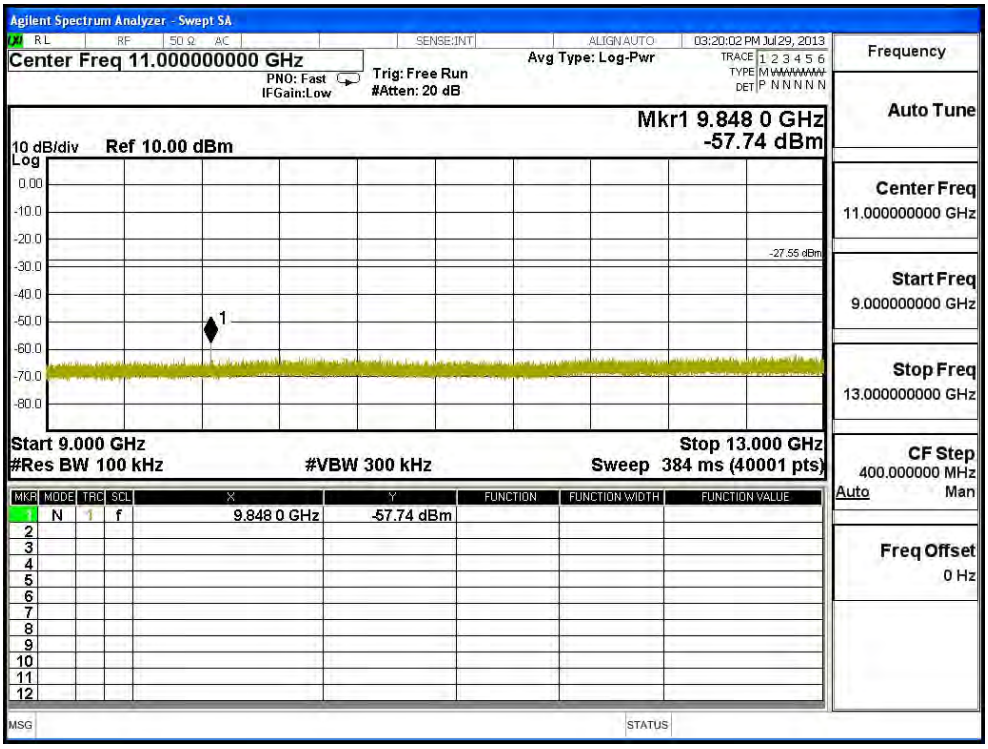

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:15:13 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 23.714 6 GHz
-51.45 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-34.00 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 23.714 6 GHz -51.45 dBm
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

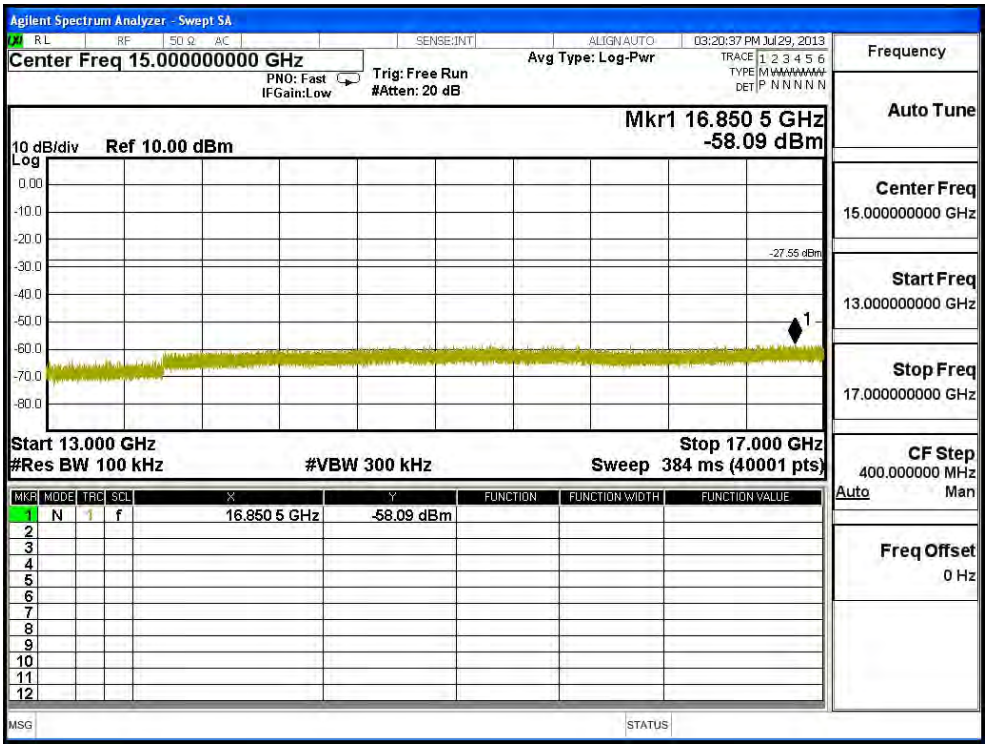
Channel 11 (2462MHz) 30MHz -25GHz-Chain A

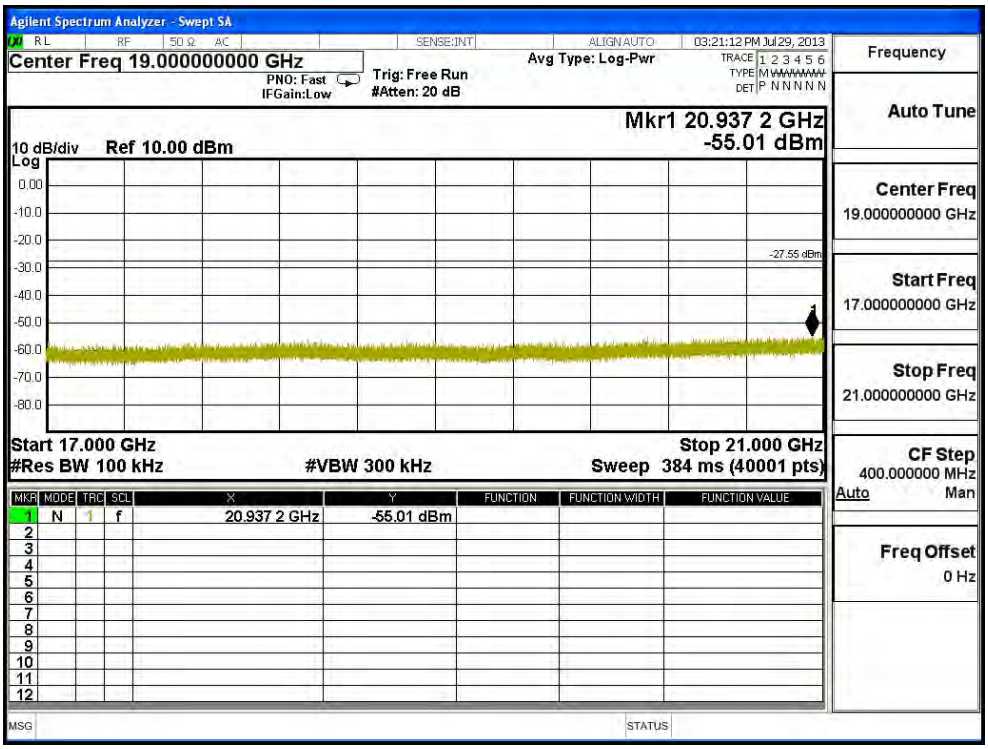


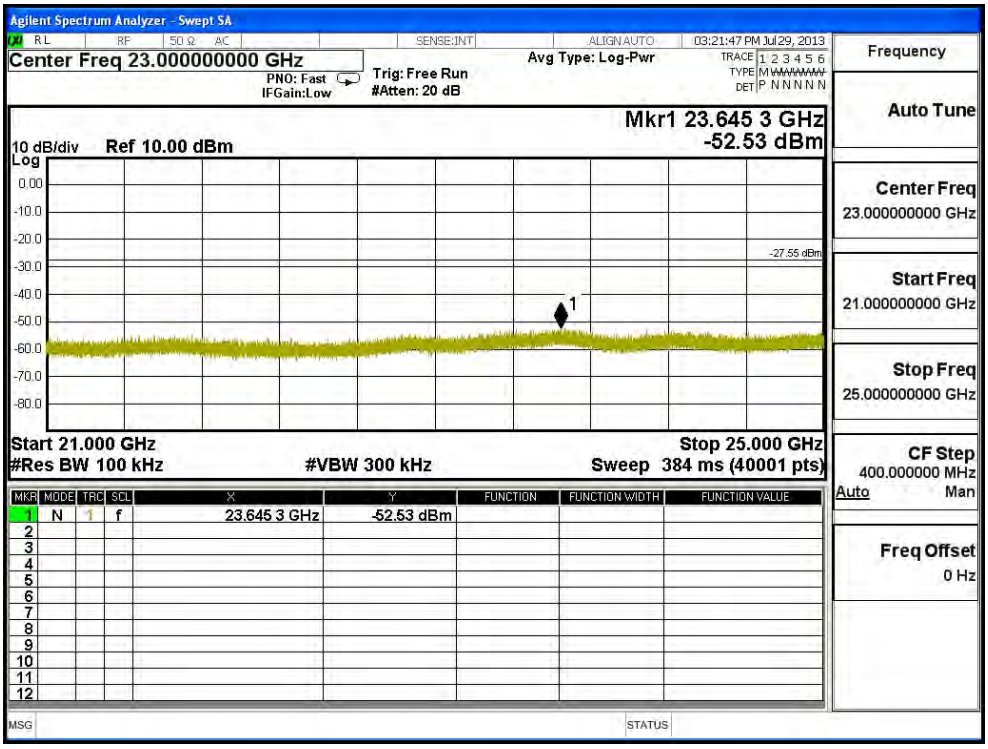



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:19:27 PM Jul 29, 2013
Mkr1 5.777 5 GHz
-61.37 dBm
10 dB/div
Log
Ref 10.00 dBm
-27.55 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 5.777 5 GHz -61.37 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

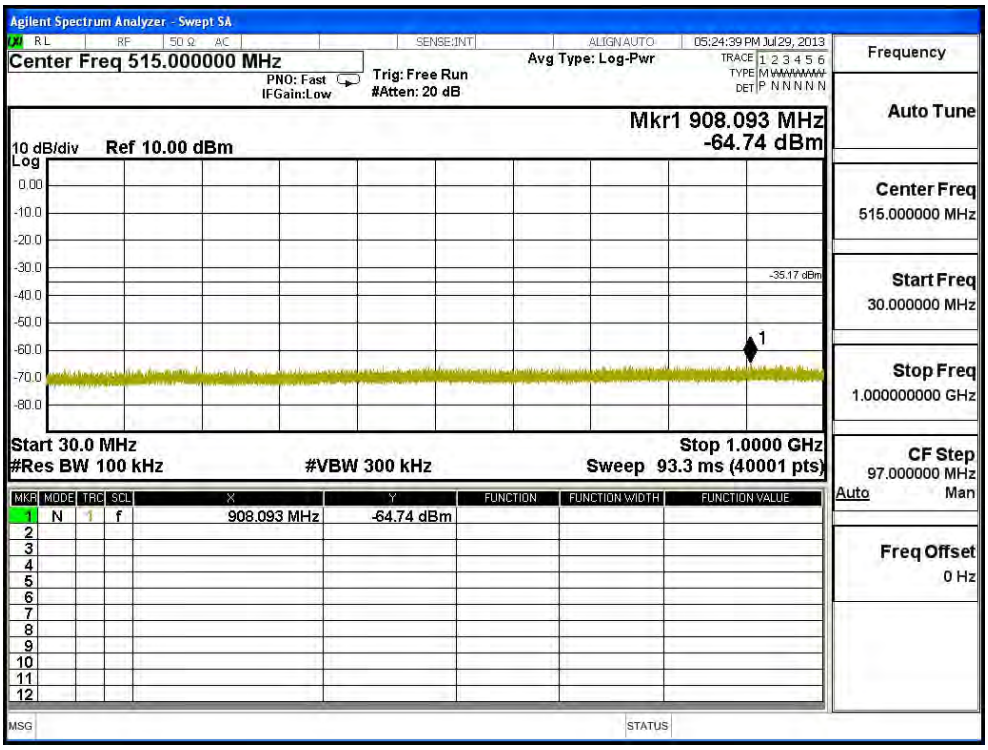

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:20:02 PM Jul 29, 2013
Mkr1 9.848 0 GHz
-57.74 dBm
10 dB/div
Log
Ref 10.00 dBm
-27.55 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.848 0 GHz -57.74 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

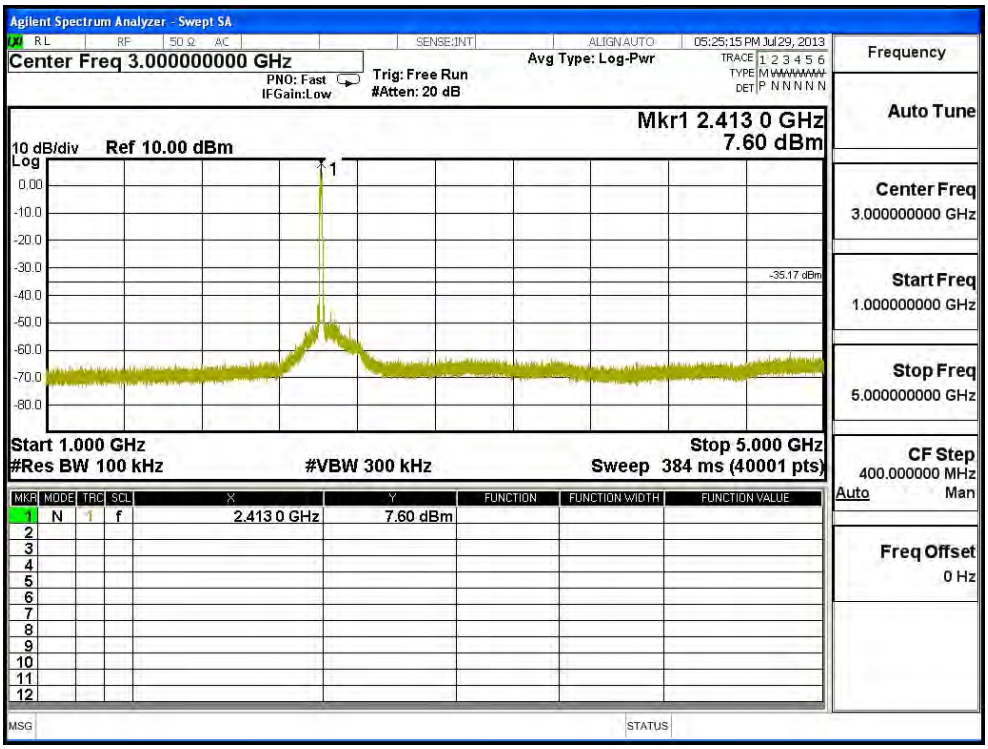

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:20:37 PM Jul 29, 2013
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 16.850 5 GHz
-58.09 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-27.55 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 16.850 5 GHz -58.09 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

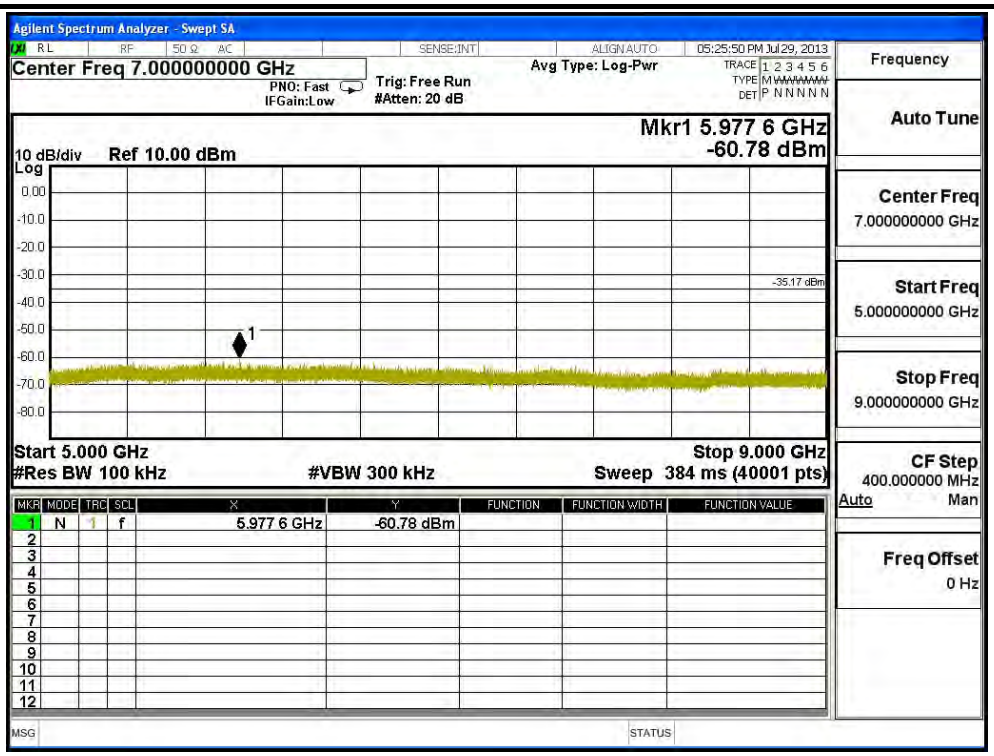

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:21:12 PM Jul 29, 2013
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 20.937 2 GHz
-55.01 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-27.55 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 20.937 2 GHz -55.01 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

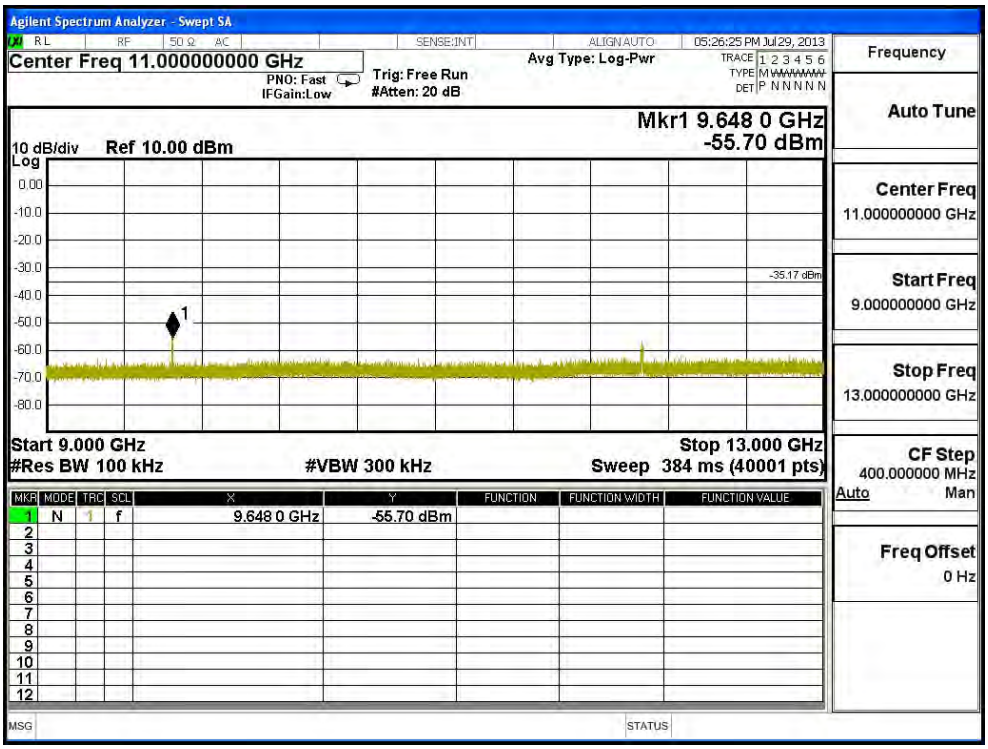

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:21:47 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWWW
DET P N N N N N
Mkr1 23.645 3 GHz
-52.53 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-27.55 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 23.645 3 GHz -52.53 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

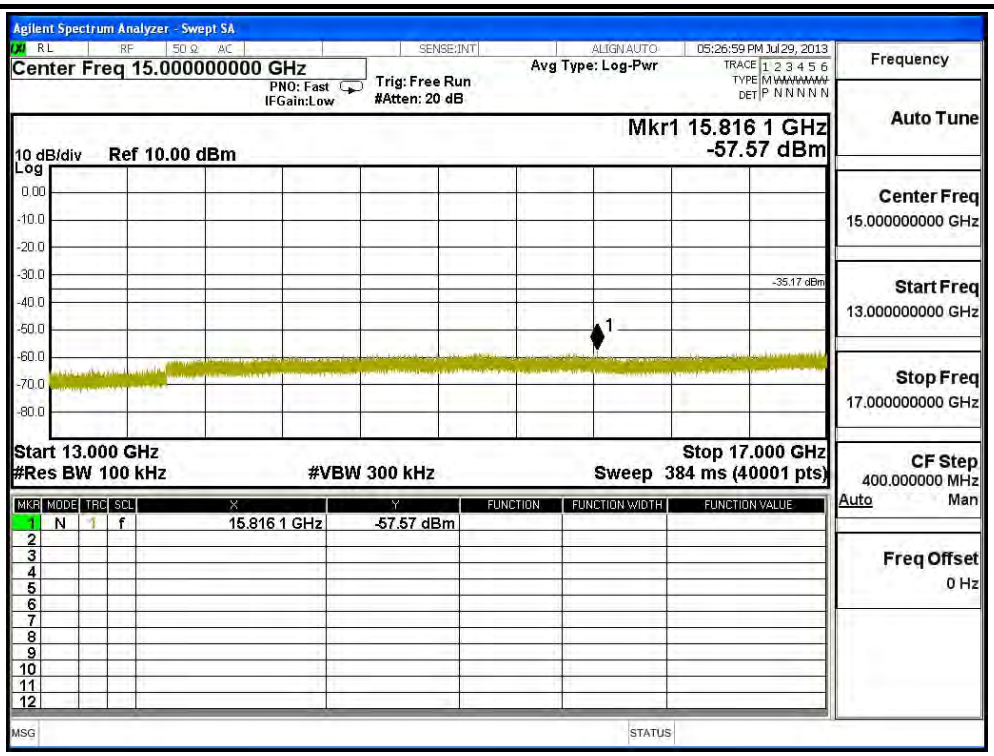
Channel 01 (2412MHz) 30MHz-25GHz-Chain B

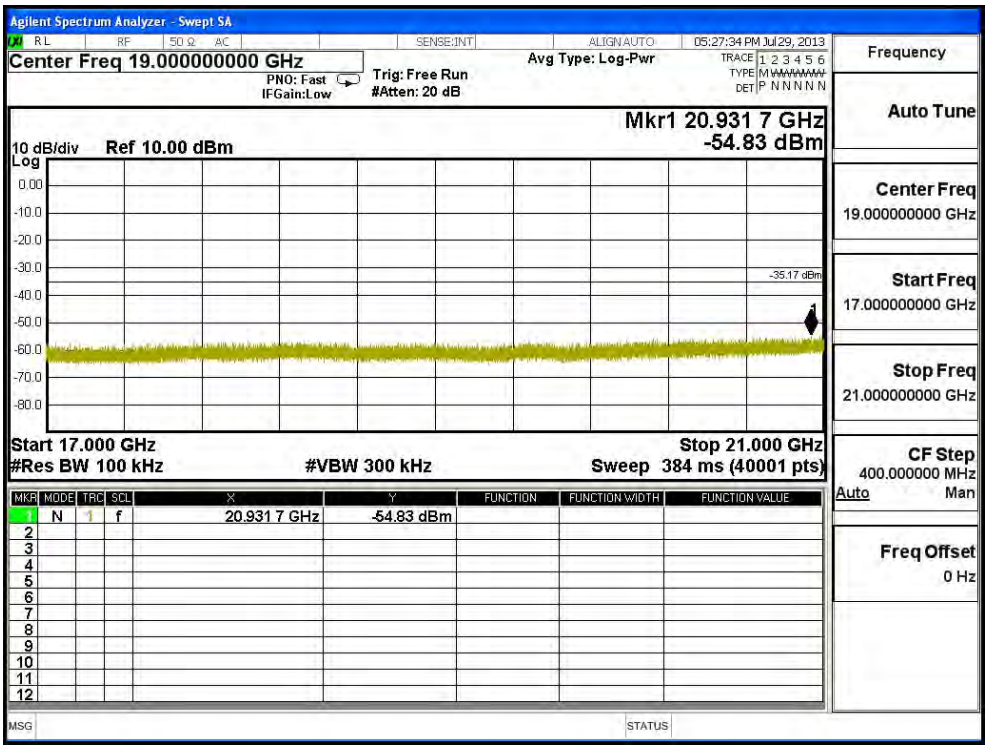


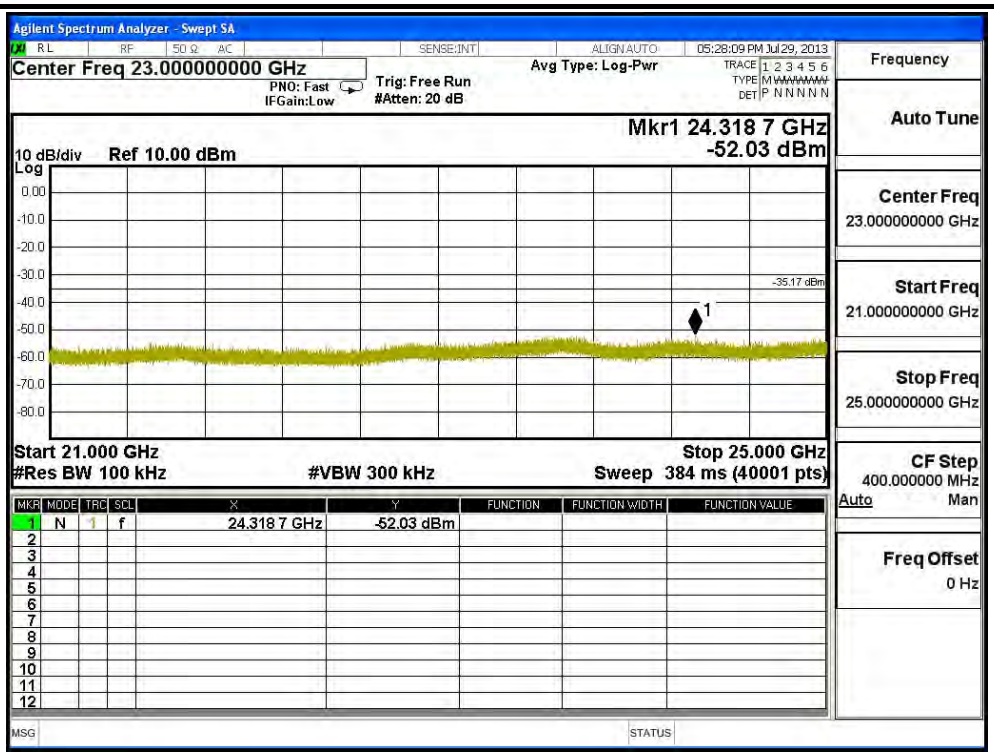



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:25:50 PM Jul 29, 2013
Mkr1 5.977 6 GHz
-60.78 dBm
10 dB/div
Ref 10.00 dBm
Log
-35.17 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 5.977 6 GHz -60.78 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

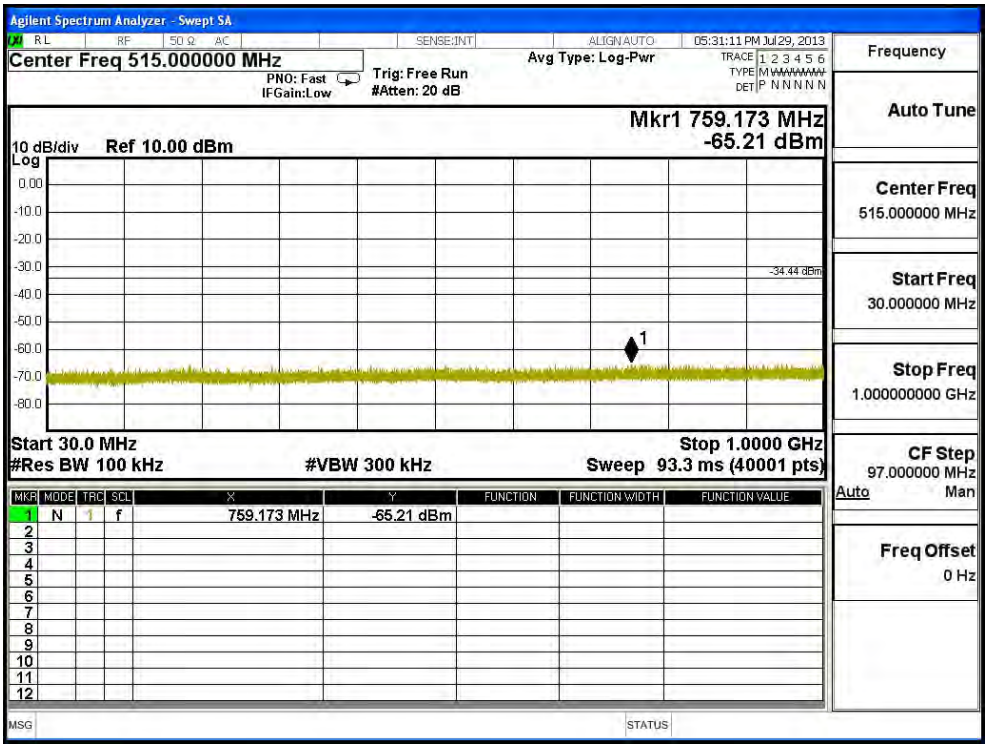

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:26:25 PM Jul 29, 2013
Mkr1 9.648 0 GHz
-55.70 dBm
10 dB/div
Ref 10.00 dBm
Log
-35.17 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.648 0 GHz -55.70 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

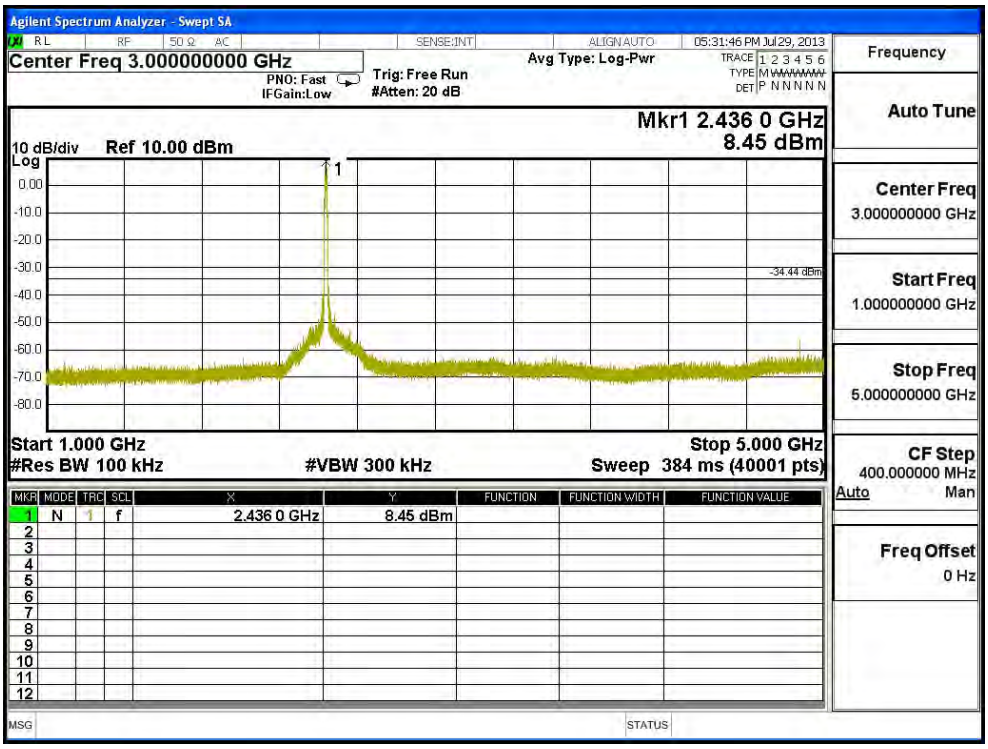

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:26:59 PM Jul 29, 2013
Mkr1 15.816 1 GHz
-57.57 dBm
10 dB/div
Log
Ref 10.00 dBm
-35.17 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 15.816 1 GHz -57.57 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

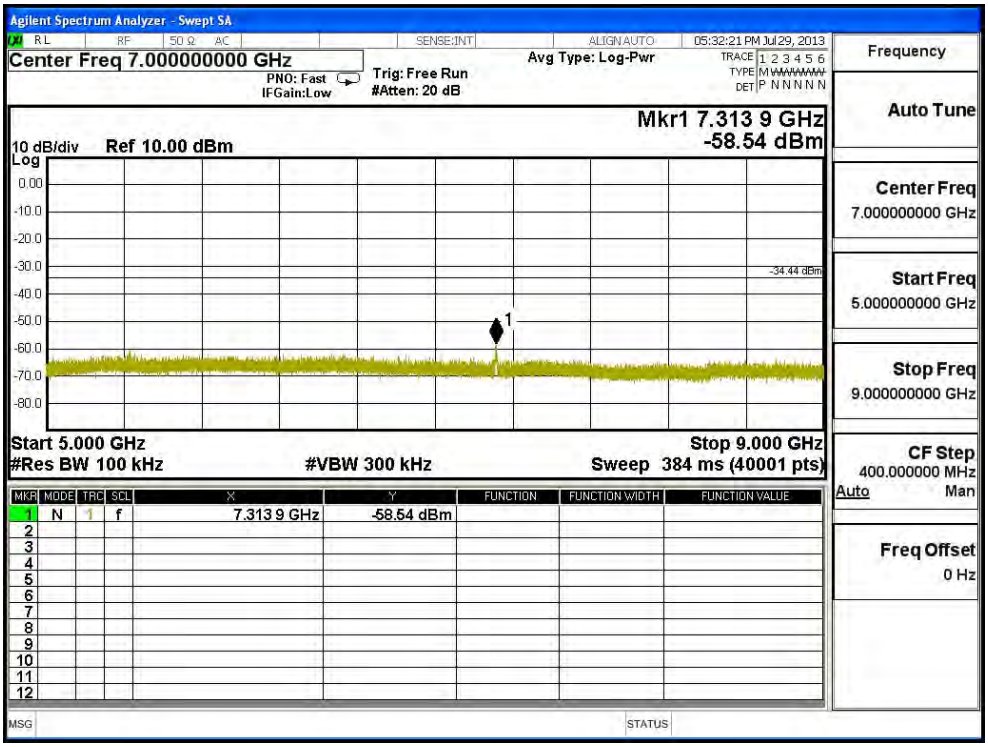

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:27:34 PM Jul 29, 2013
Mkr1 20.931 7 GHz
-54.83 dBm
10 dB/div
Log
Ref 10.00 dBm
-35.17 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.931 7 GHz -54.83 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

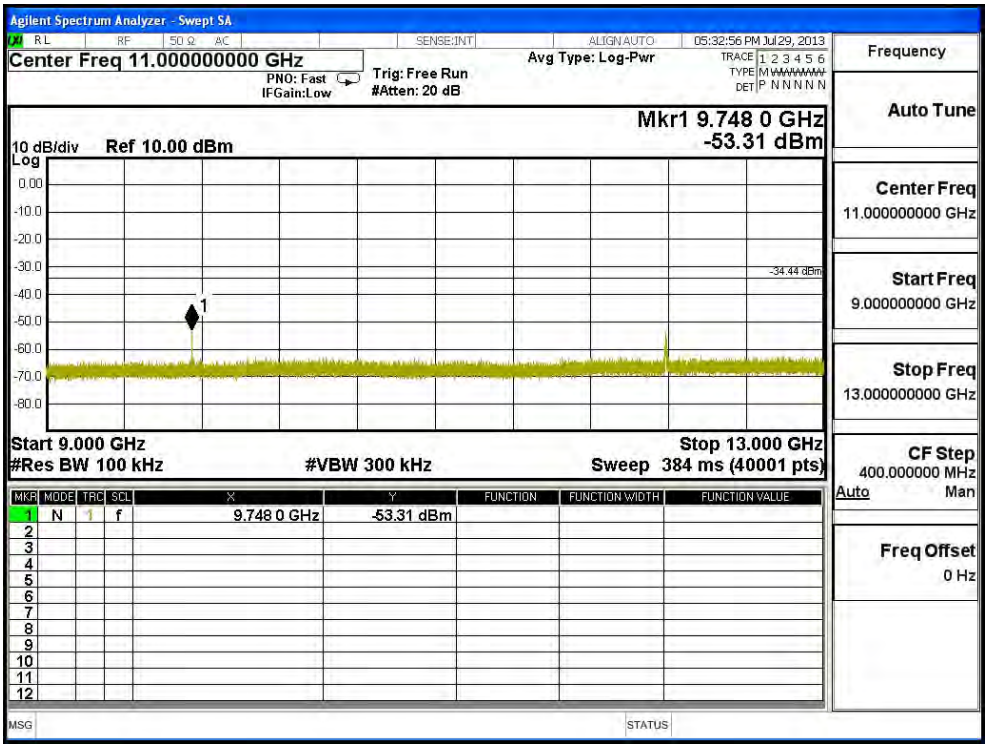

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:28:09 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 24.318 7 GHz
-52.03 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-35.17 dBm
1
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 24.318 7 GHz -52.03 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

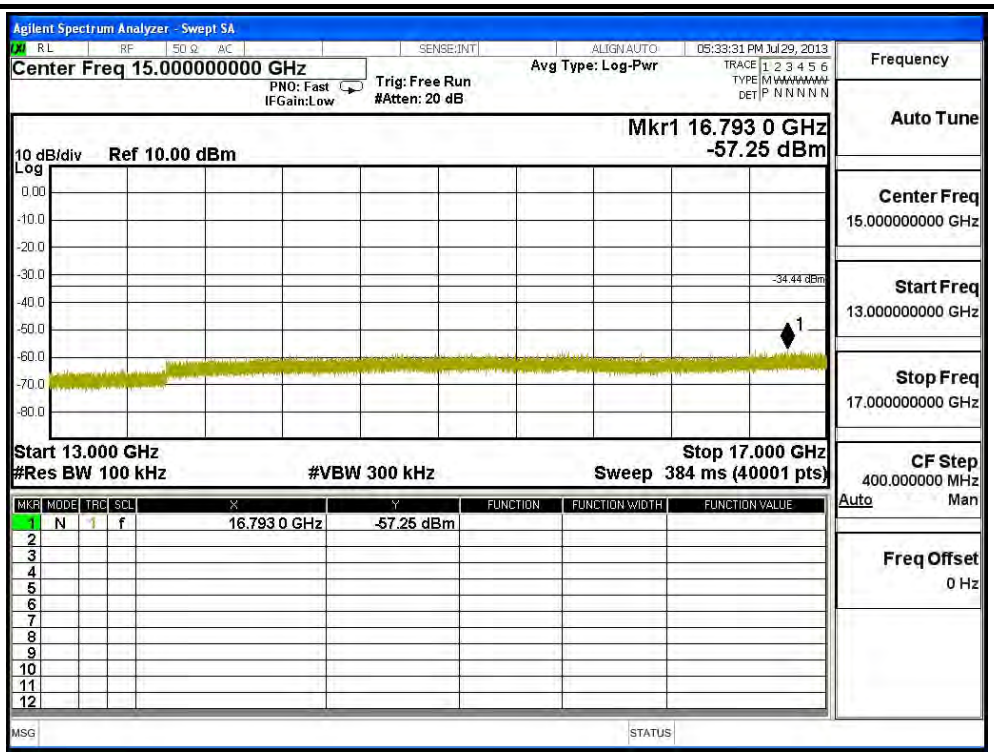
Channel 06 (2437MHz) 30MHz -25GHz-Chain B

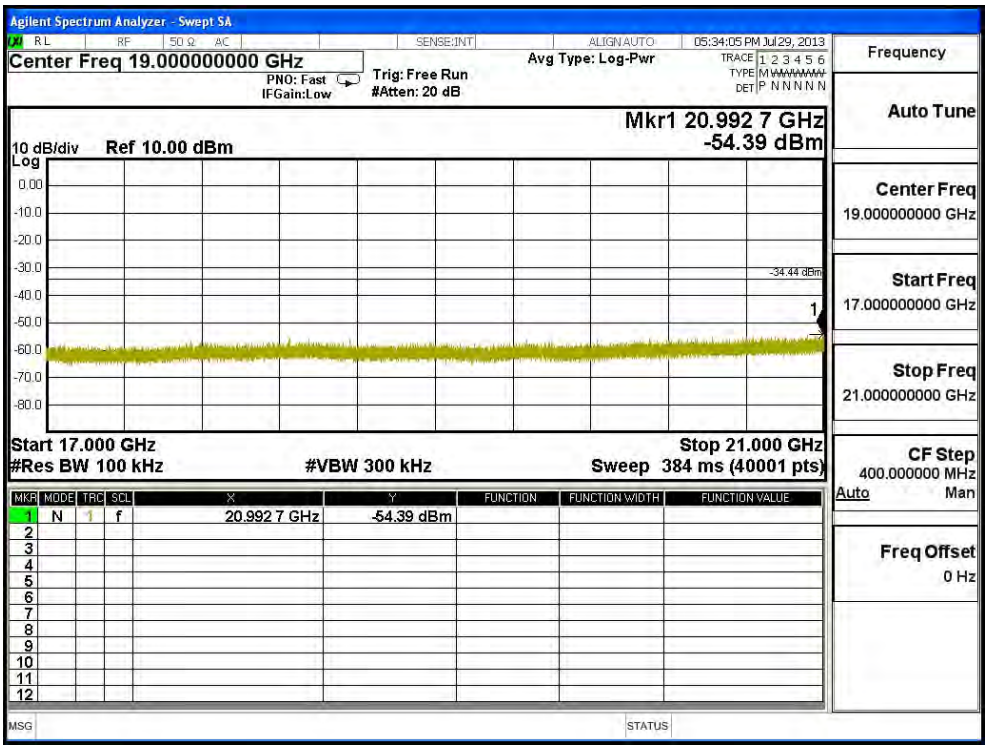


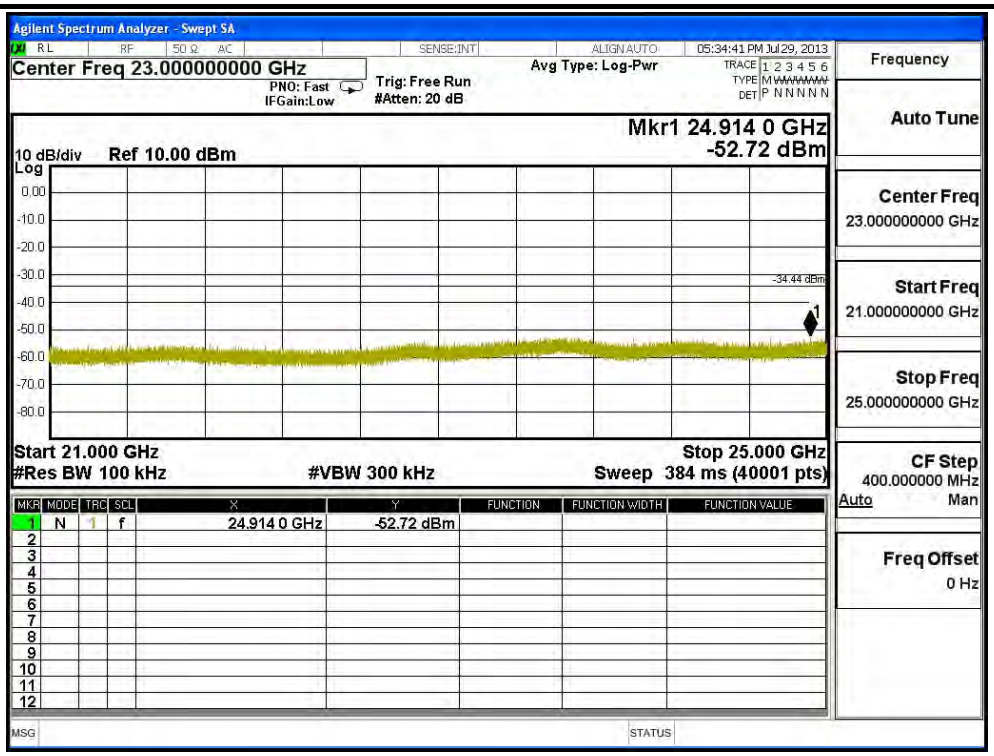



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:32:21 PM Jul 29, 2013
Mkr1 7.313 9 GHz
-58.54 dBm
10 dB/div
Log
Ref 10.00 dBm
-34.44 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.313 9 GHz -58.54 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

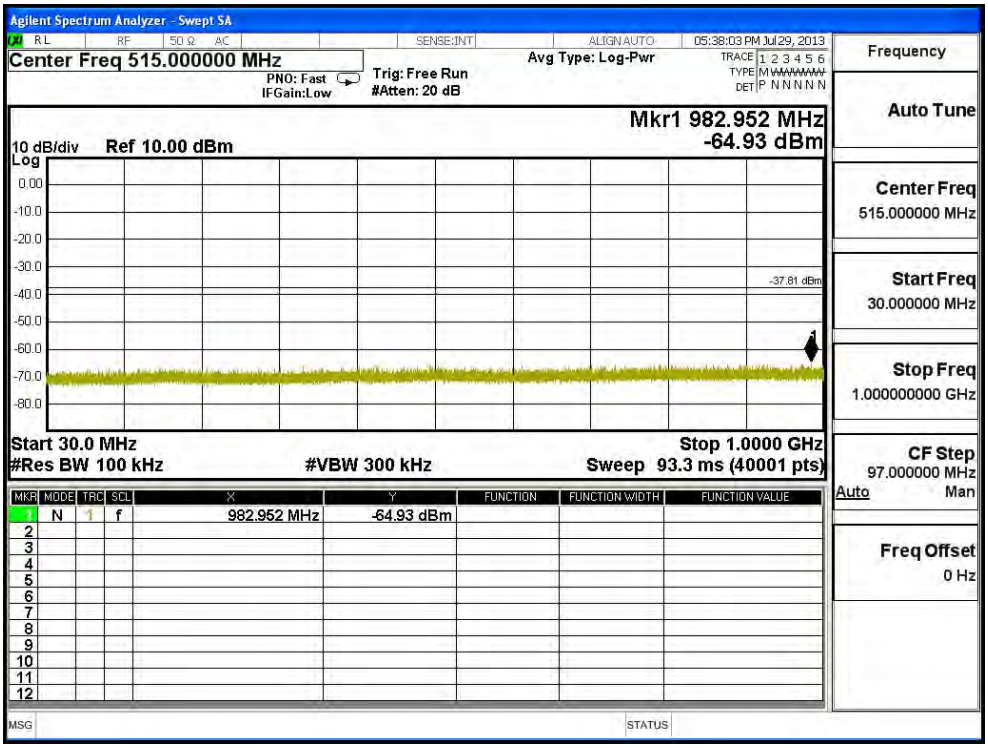

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:32:56 PM Jul 29, 2013
Mkr1 9.748 0 GHz
-53.31 dBm
10 dB/div
Log
Ref 10.00 dBm
-34.44 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.748 0 GHz -53.31 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

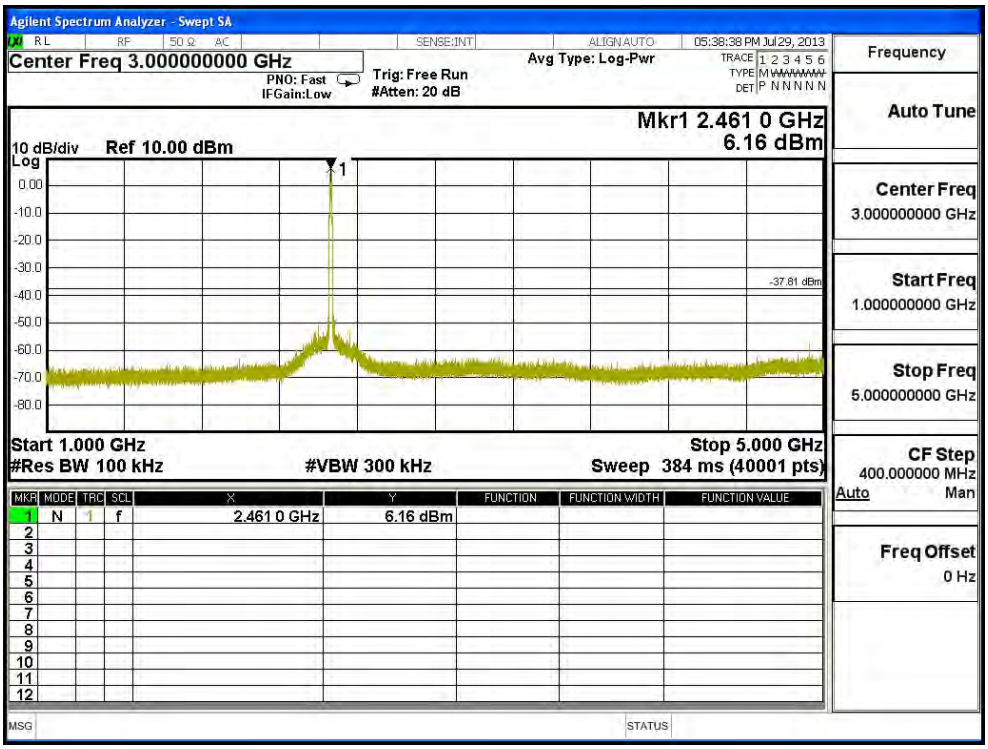

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:33:31 PM Jul 29, 2013
Mkr1 16.793 0 GHz
-57.25 dBm
10 dB/div
Ref 10.00 dBm
Log
-34.44 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.793 0 GHz -57.25 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

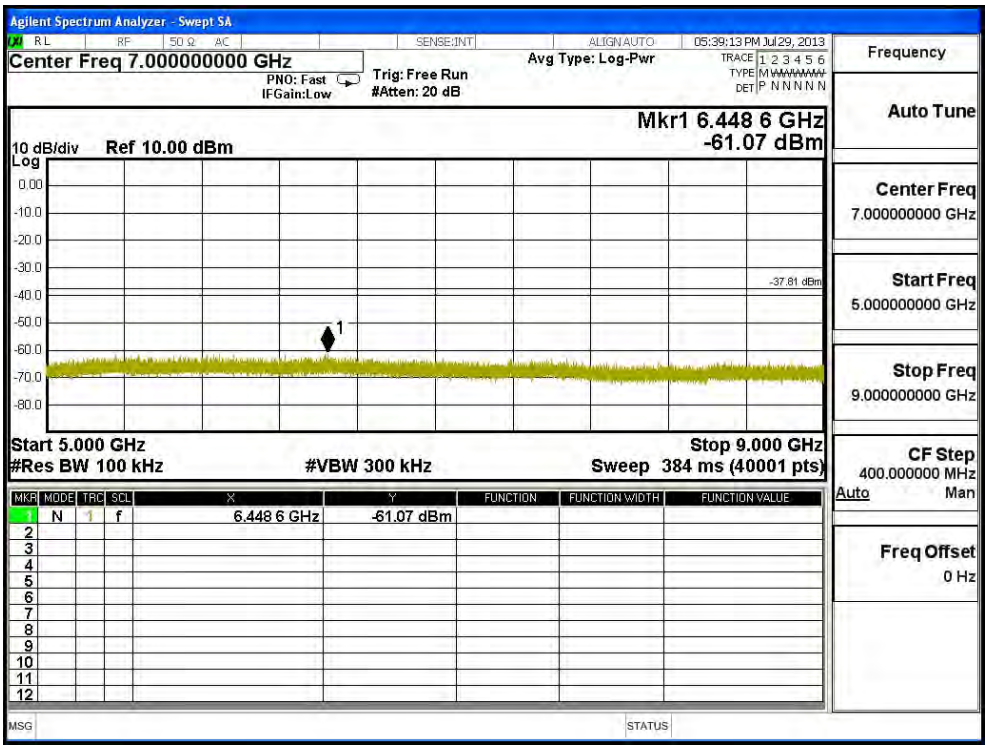

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:34:05 PM Jul 29, 2013
Mkr1 20.992 7 GHz
-54.39 dBm
10 dB/div
Ref 10.00 dBm
Log
-34.44 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.992 7 GHz -54.39 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

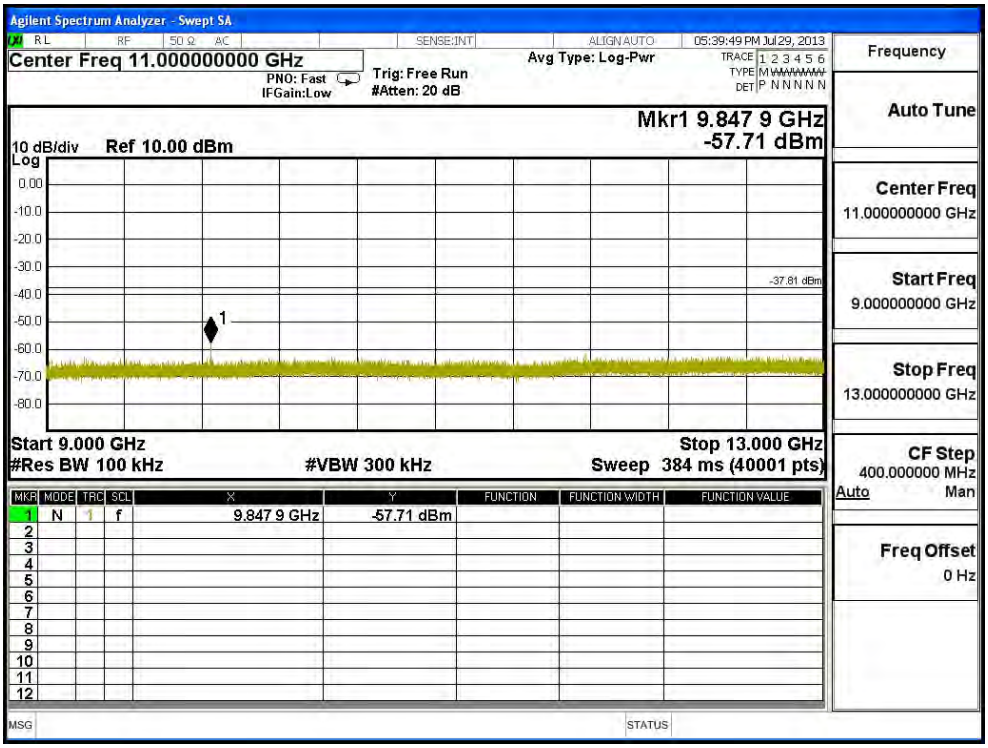

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:34:41 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 24.914 0 GHz
-52.72 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-34.44 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 24.914 0 GHz -52.72 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

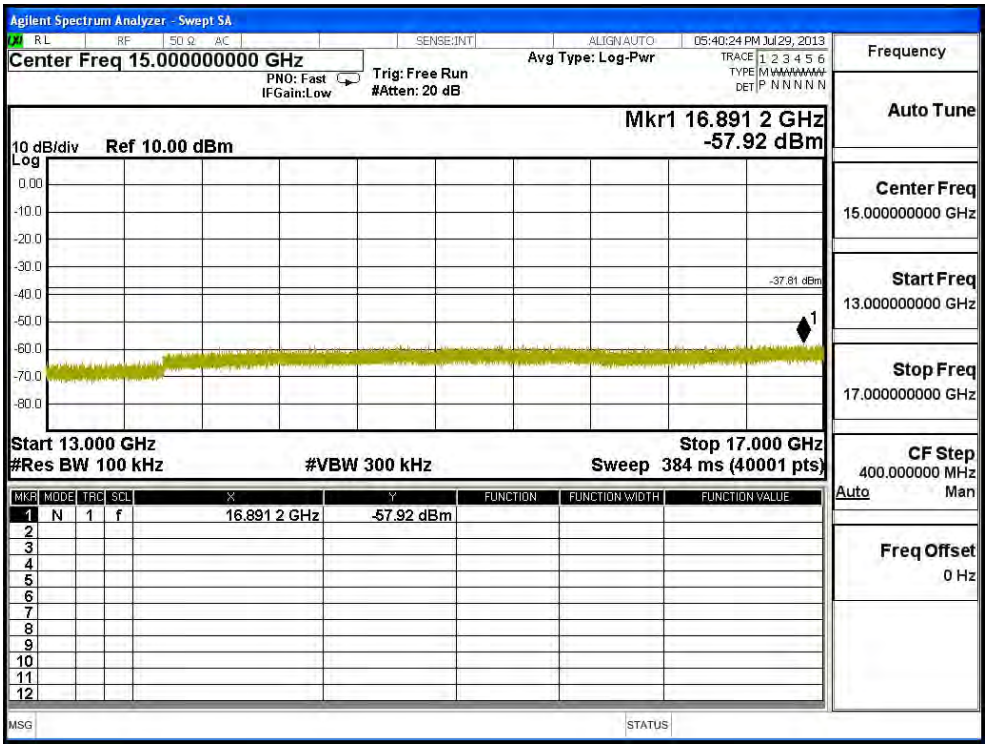
Channel 11 (2462MHz) 30MHz -25GHz-Chain B

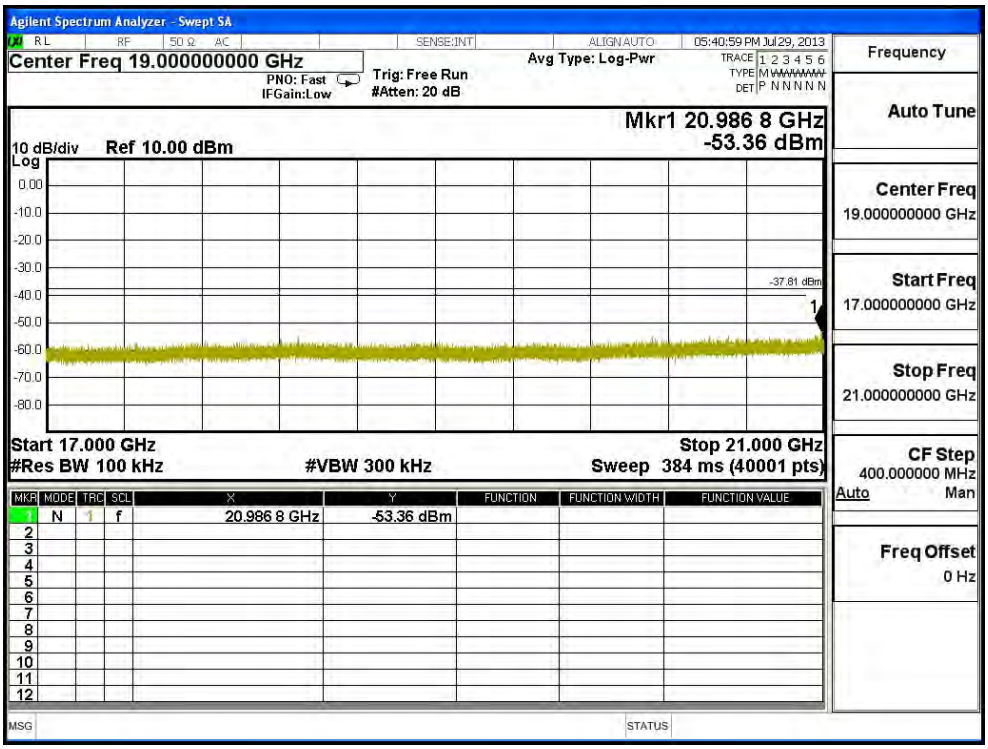


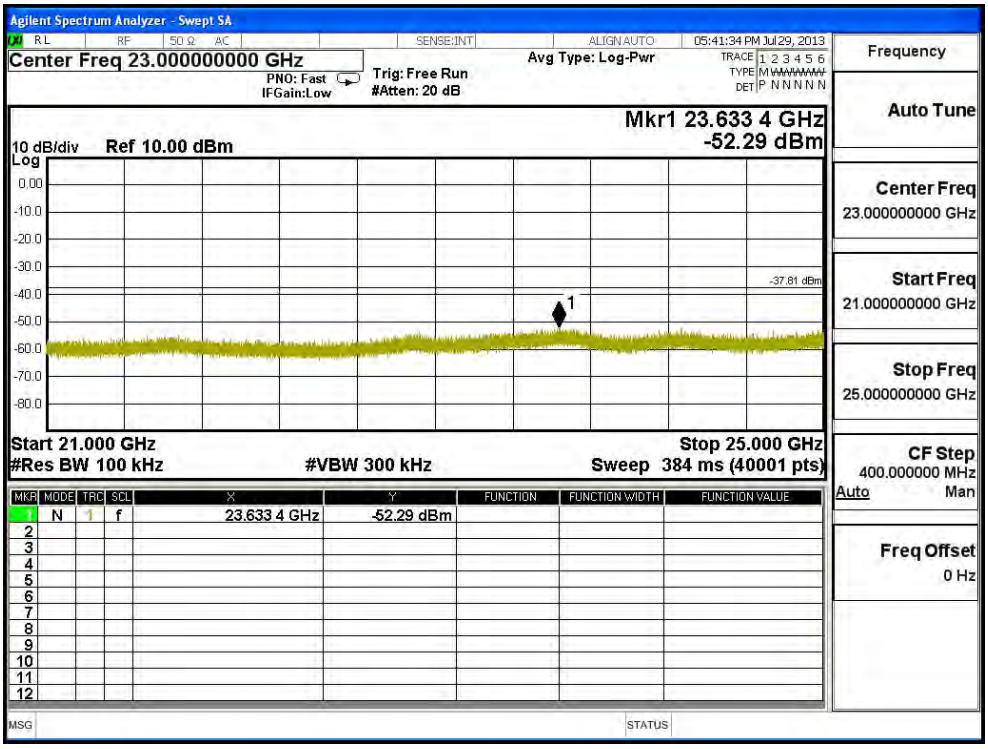



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:39:13 PM Jul 29, 2013
Mkr1 6.448 6 GHz
-61.07 dBm
10 dB/div
Ref 10.00 dBm
Log
-37.81 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 6.448 6 GHz -61.07 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

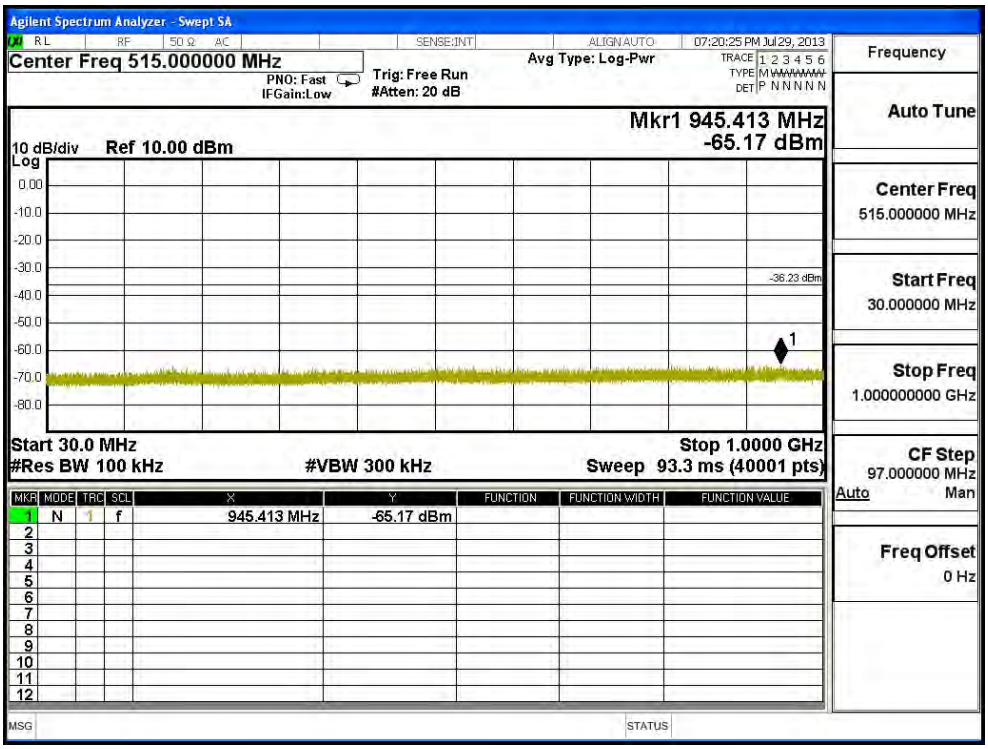

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:39:49 PM Jul 29, 2013
Mkr1 9.847 9 GHz
-57.71 dBm
10 dB/div
Ref 10.00 dBm
Log
-37.81 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.847 9 GHz -57.71 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

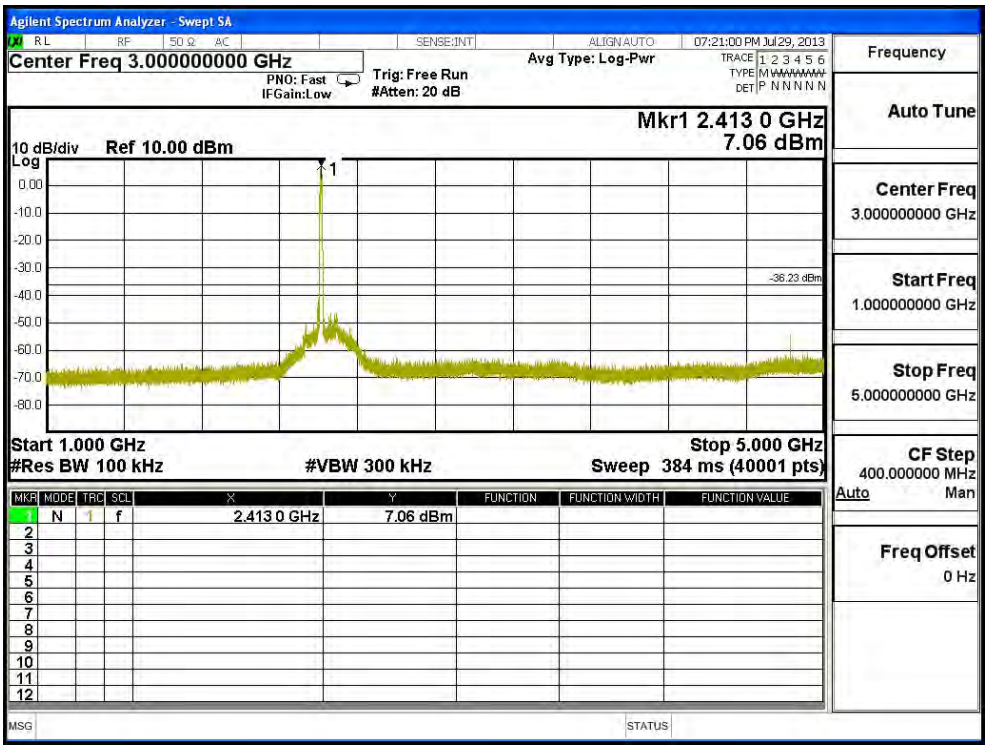

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:40:24 PM Jul 29, 2013
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 16.891 2 GHz
-57.92 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.81 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 16.891 2 GHz -57.92 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

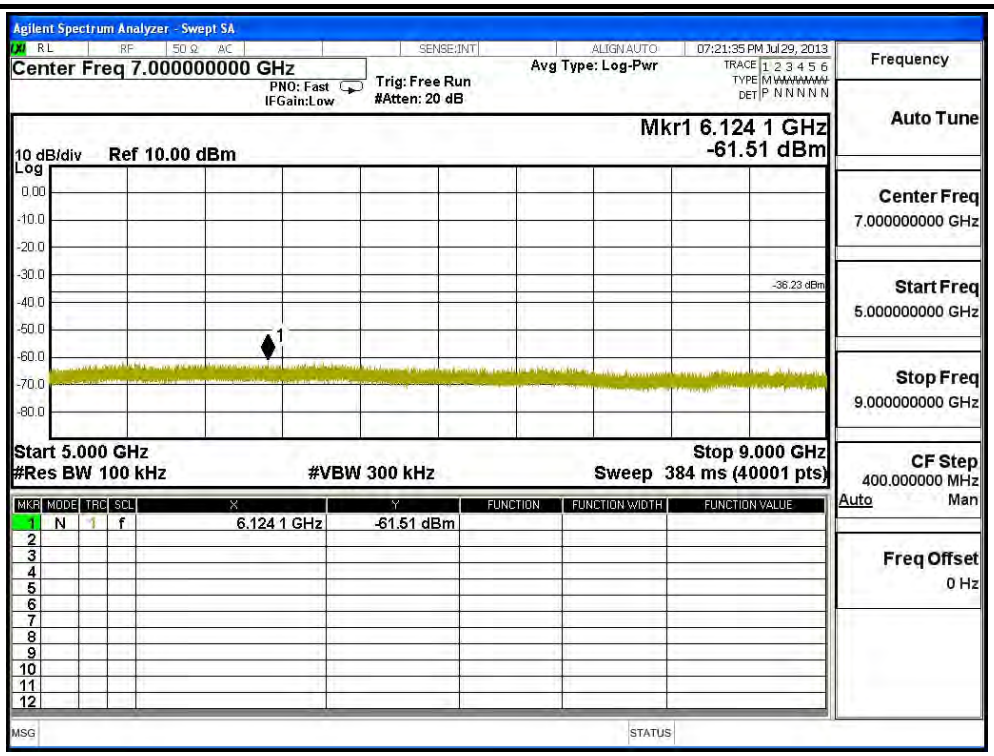

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:40:59 PM Jul 29, 2013
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 20.986 8 GHz
-53.36 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.81 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 20.986 8 GHz -53.36 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

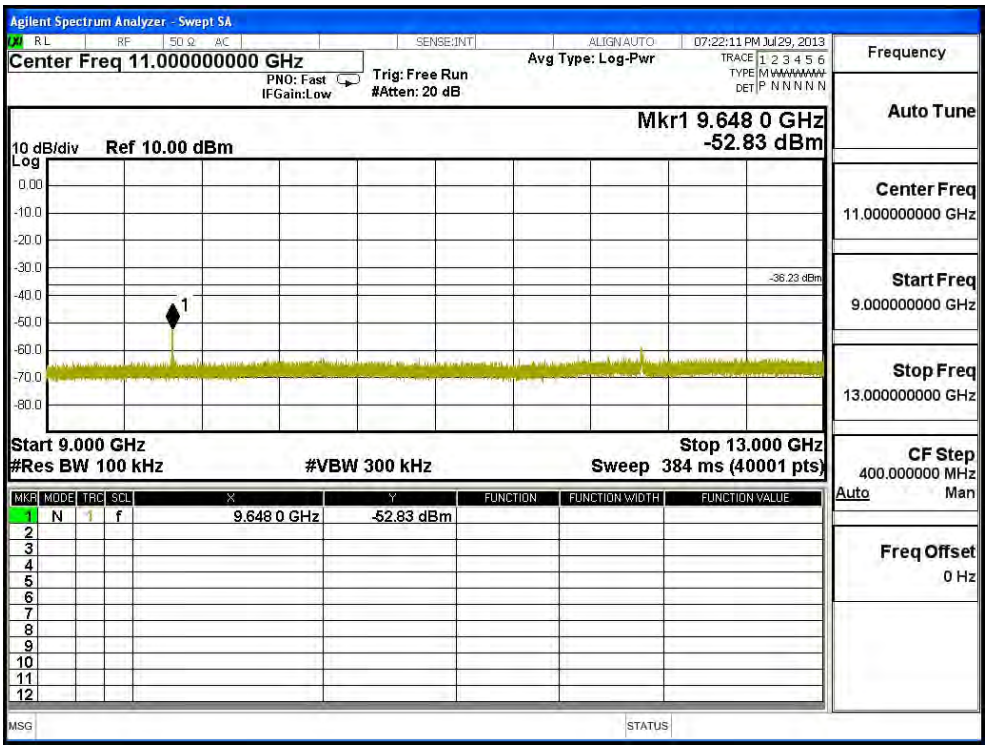

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:41:34 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWWW
DET P N N N N N
Mkr1 23.633 4 GHz
-52.29 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.81 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 23.633 4 GHz -52.29 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

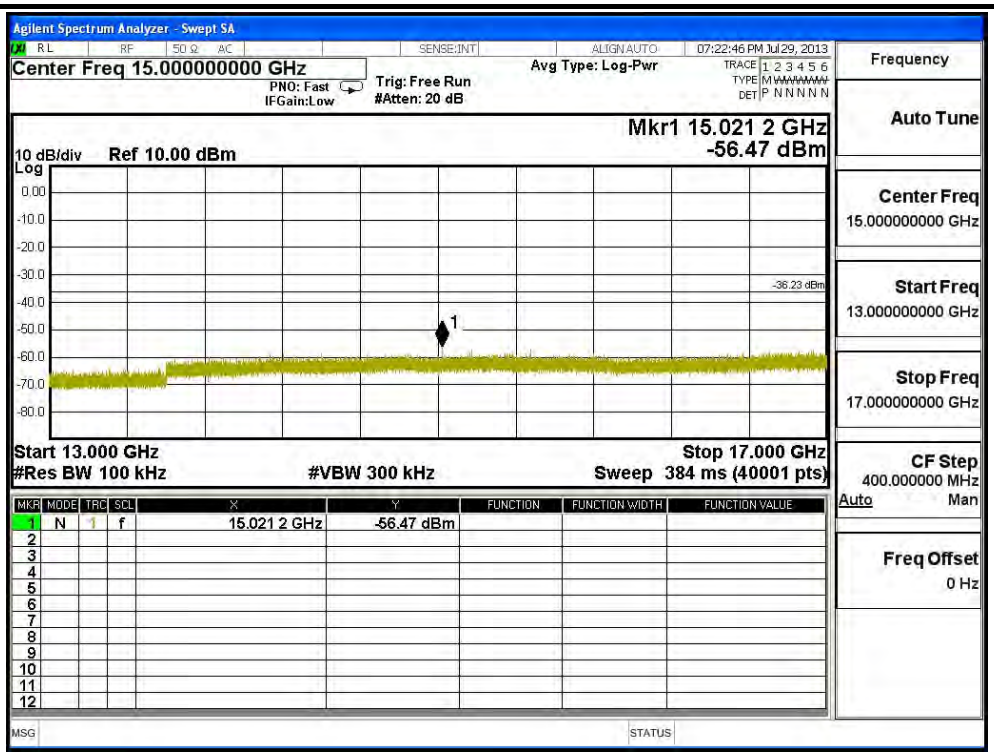
Channel 01 (2412MHz) 30MHz-25GHz-Chain C

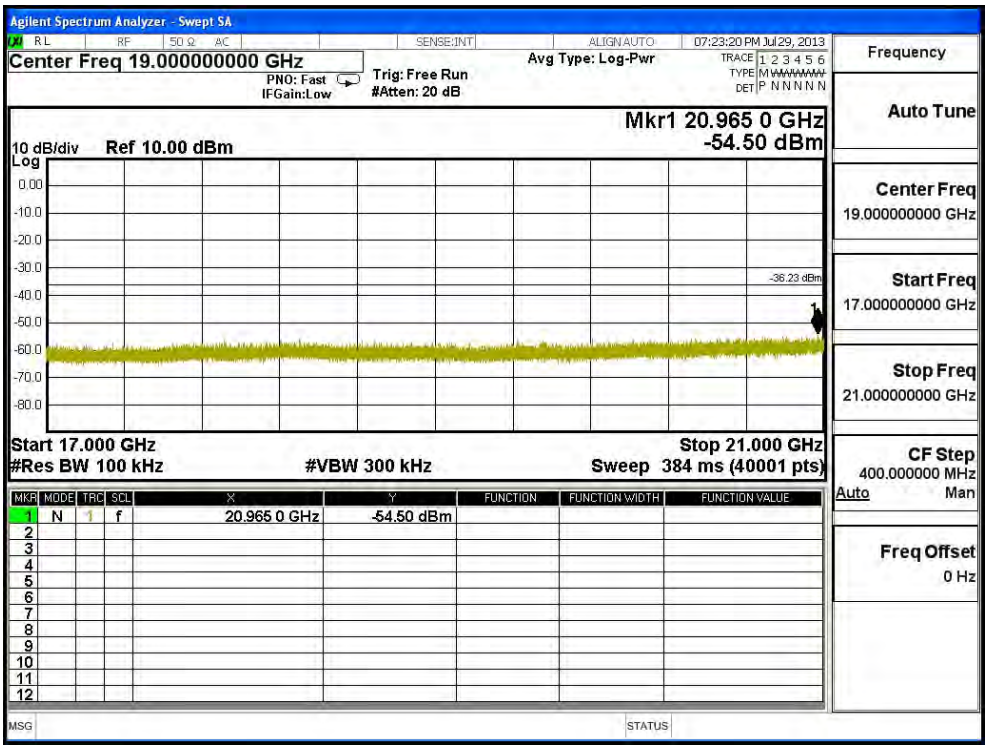


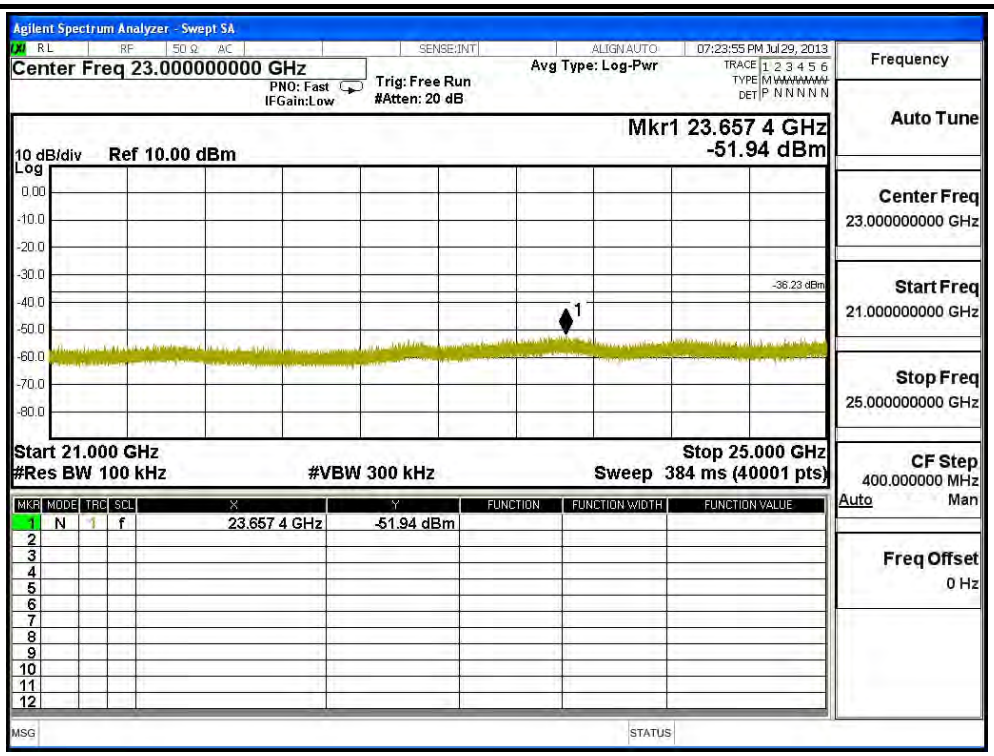



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:21:35 PM Jul 29, 2013
Mkr1 6.124 1 GHz
-61.51 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.23 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 6.124 1 GHz -61.51 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

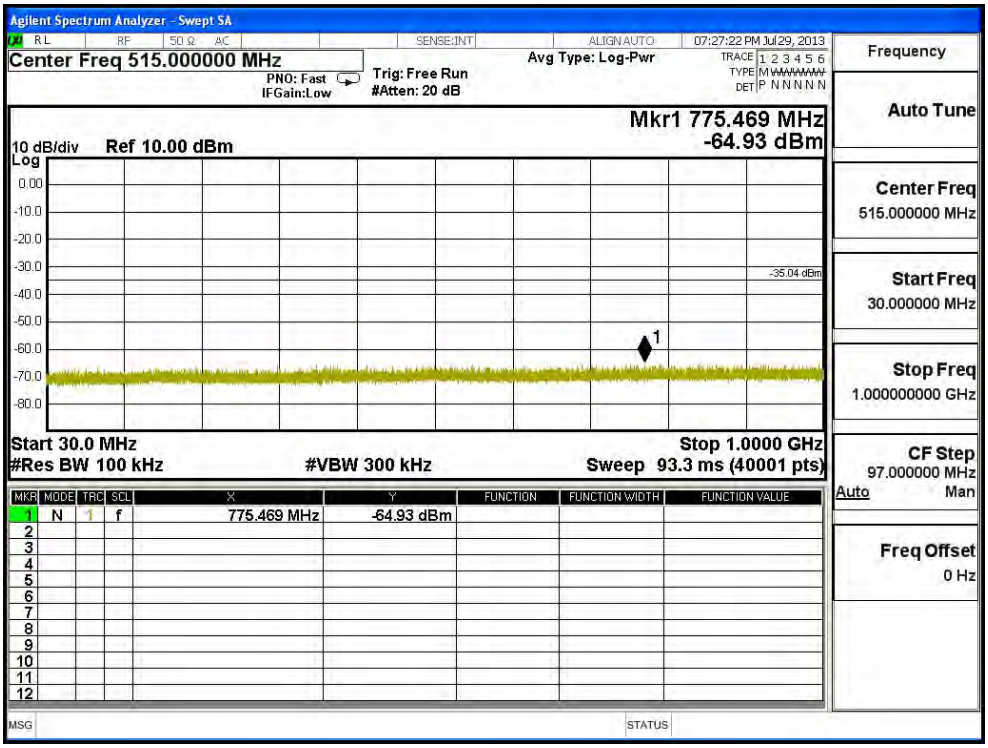

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:22:11 PM Jul 29, 2013
Mkr1 9.648 0 GHz
-52.83 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.23 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.648 0 GHz -52.83 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

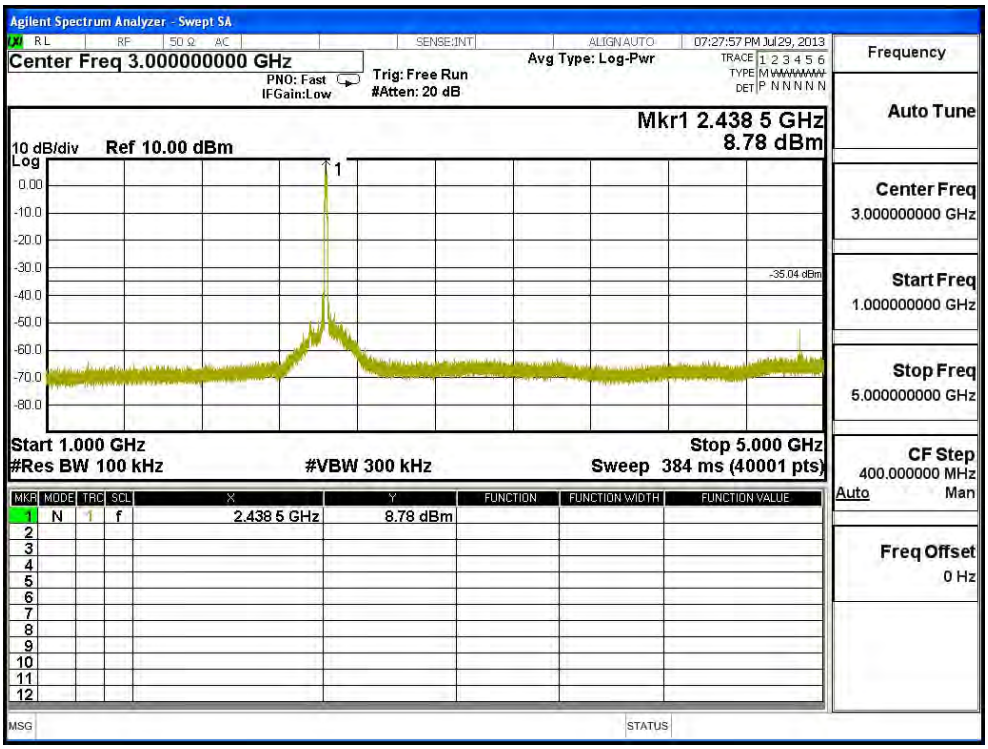

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:22:46 PM Jul 29, 2013
Mkr1 15.021 2 GHz
-56.47 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.23 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 15.021 2 GHz -56.47 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

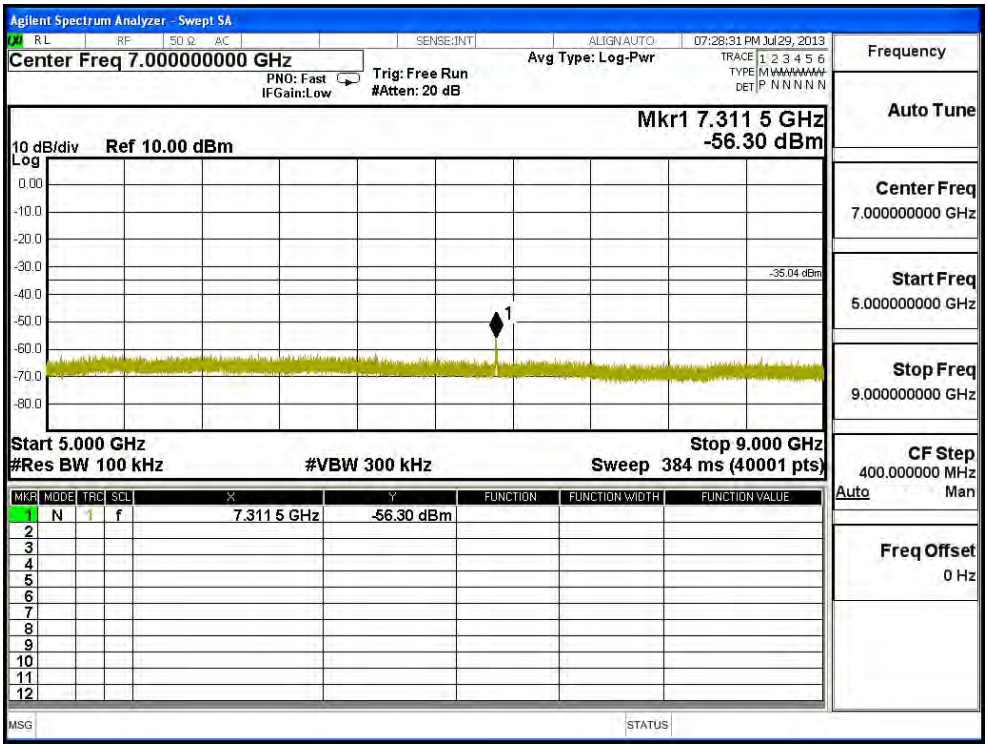

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:23:20 PM Jul 29, 2013
Mkr1 20.965 0 GHz
-54.50 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.23 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.965 0 GHz -54.50 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

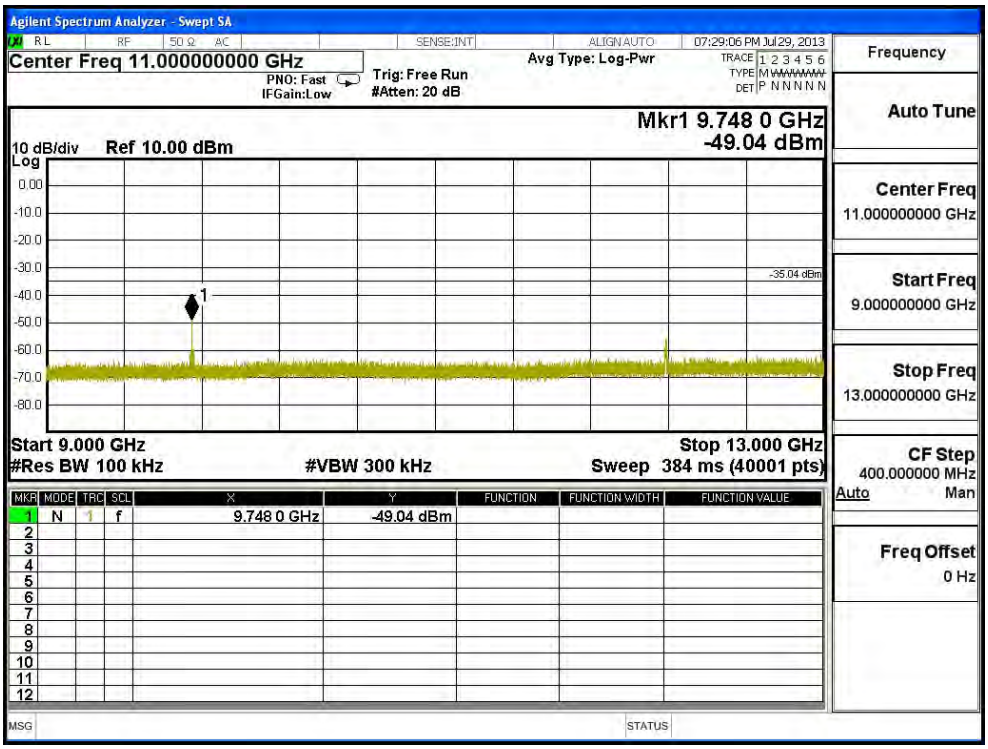

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
07:23:55 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 23.657 4 GHz
-51.94 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-36.23 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 23.657 4 GHz -51.94 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

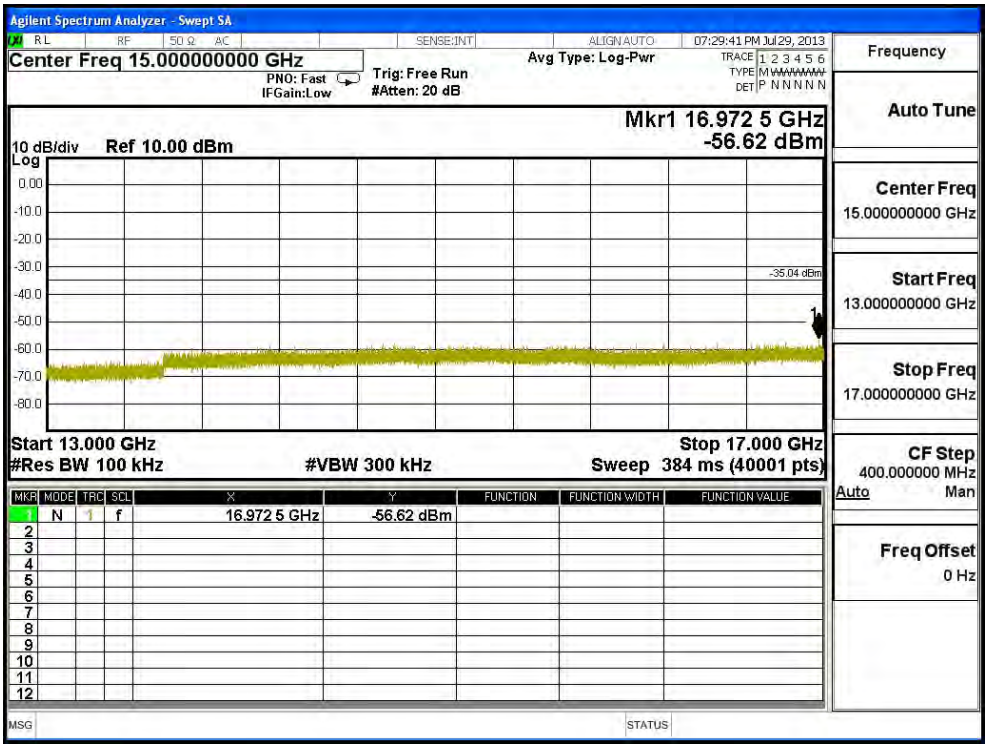
Channel 06 (2437MHz) 30MHz -25GHz-Chain C

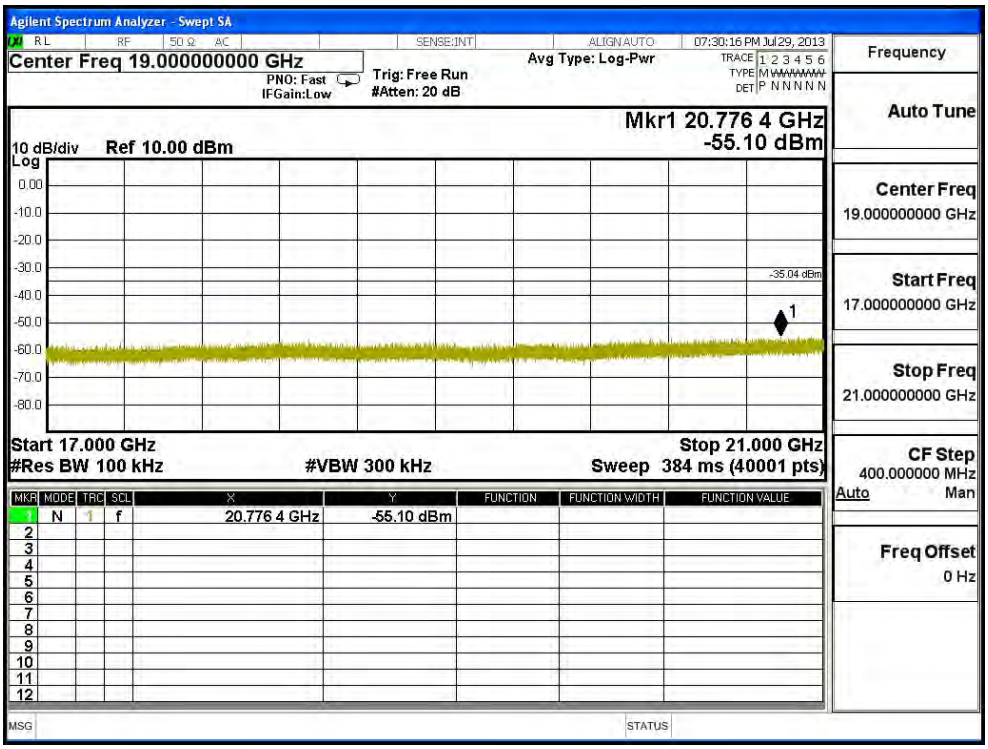


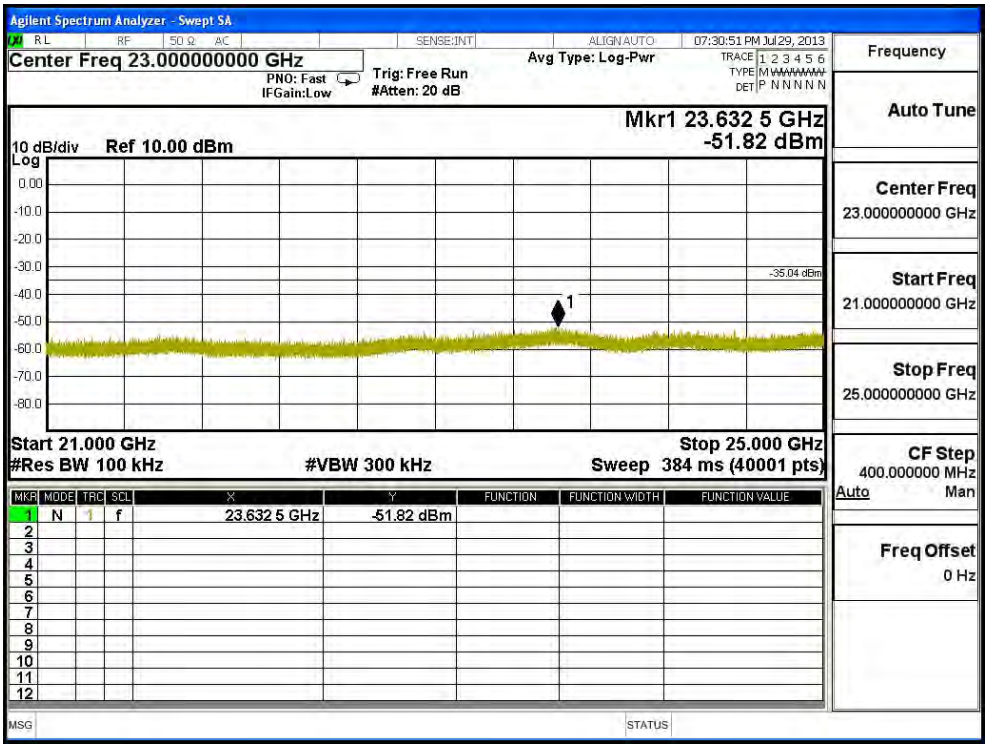



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:28:31 PM Jul 29, 2013
Mkr1 7.311 5 GHz
-56.30 dBm
10 dB/div
Log
Ref 10.00 dBm
-35.04 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.311 5 GHz -56.30 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

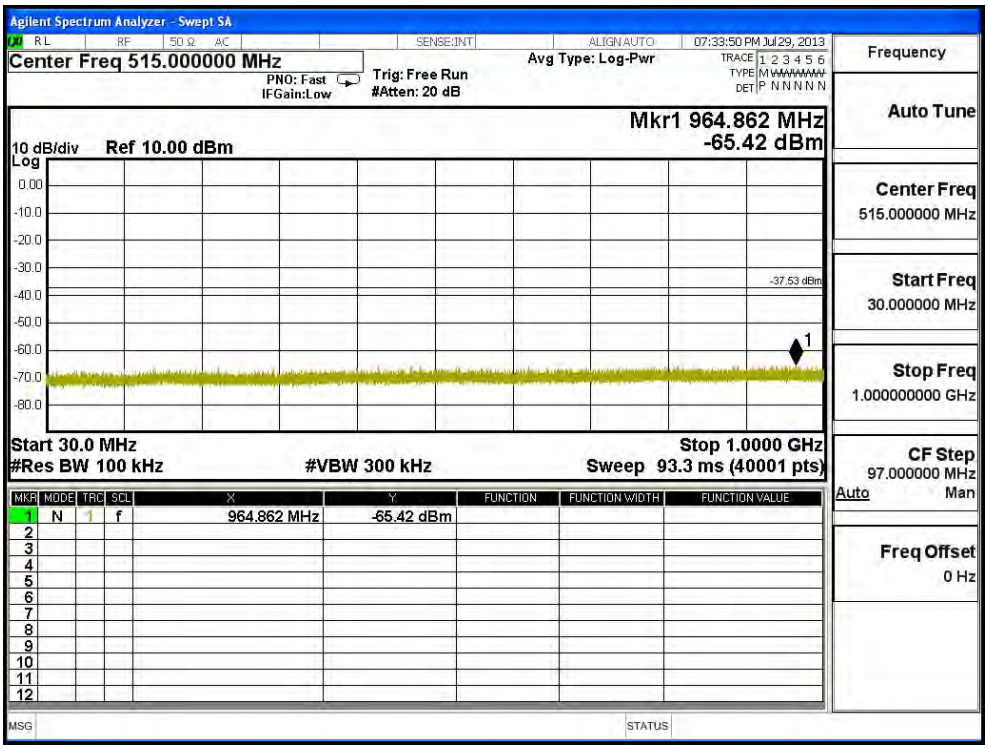

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:29:06 PM Jul 29, 2013
Mkr1 9.748 0 GHz
-49.04 dBm
10 dB/div
Log
Ref 10.00 dBm
-35.04 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.748 0 GHz -49.04 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

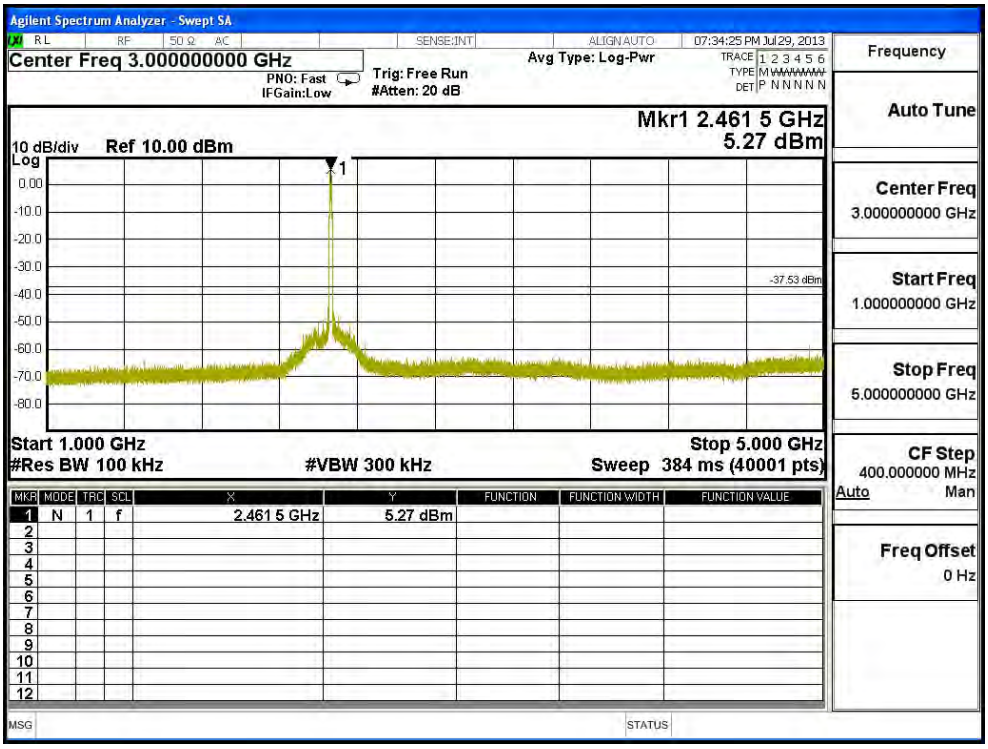

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
07:29:41 PM Jul 29, 2013
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 16.972 5 GHz
-56.62 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-35.04 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 16.972 5 GHz -56.62 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

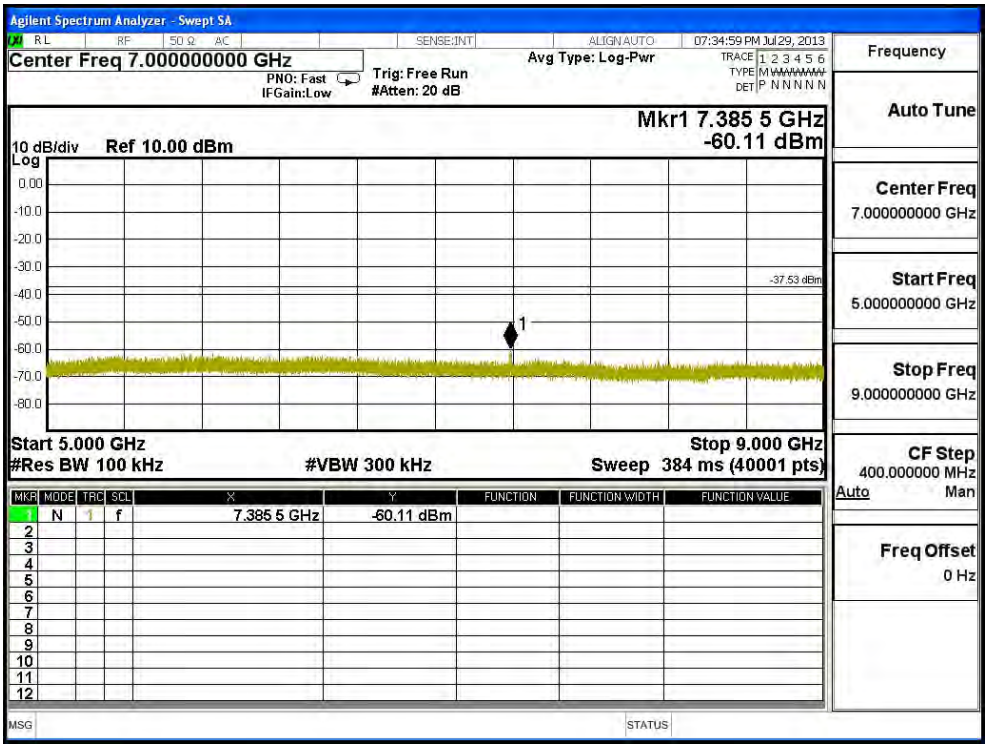

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
07:30:16 PM Jul 29, 2013
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 20.776 4 GHz
-55.10 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-35.04 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 20.776 4 GHz -55.10 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

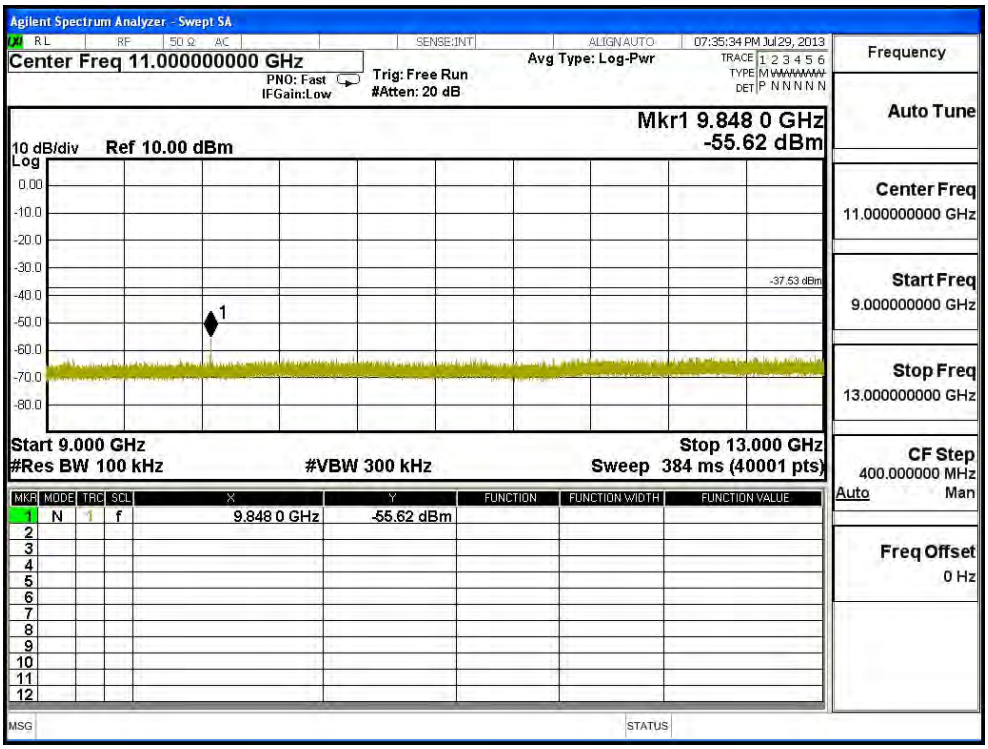

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
07:30:51 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 23.632 5 GHz
-51.82 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-35.04 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 23.632 5 GHz -51.82 dBm
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

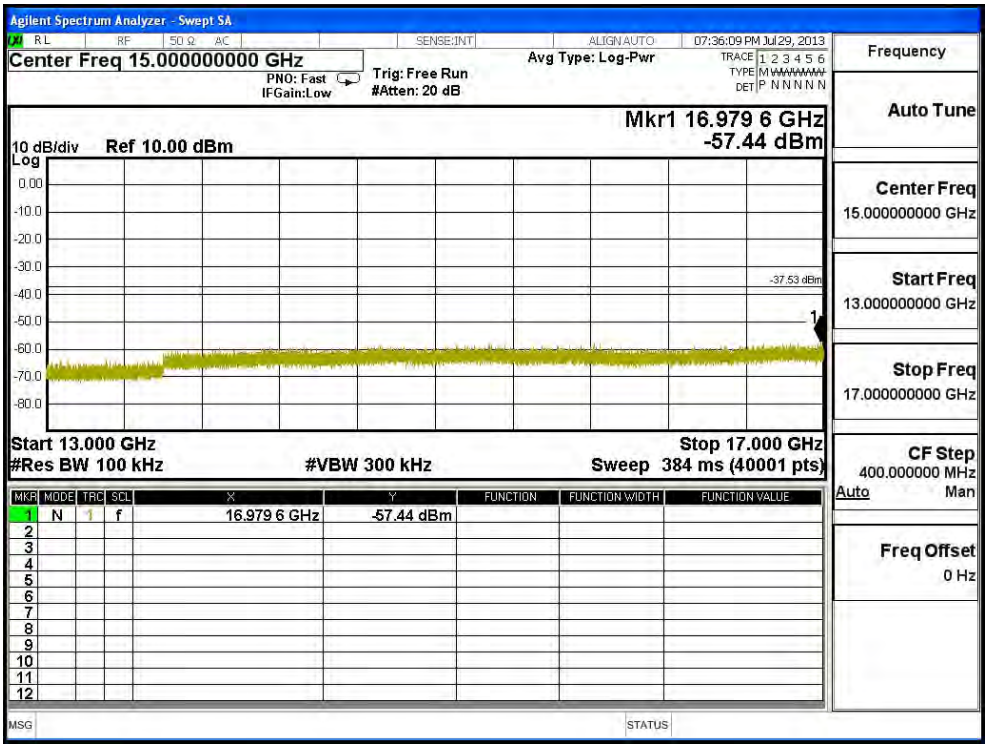
Channel 11 (2462MHz) 30MHz -25GHz-Chain C

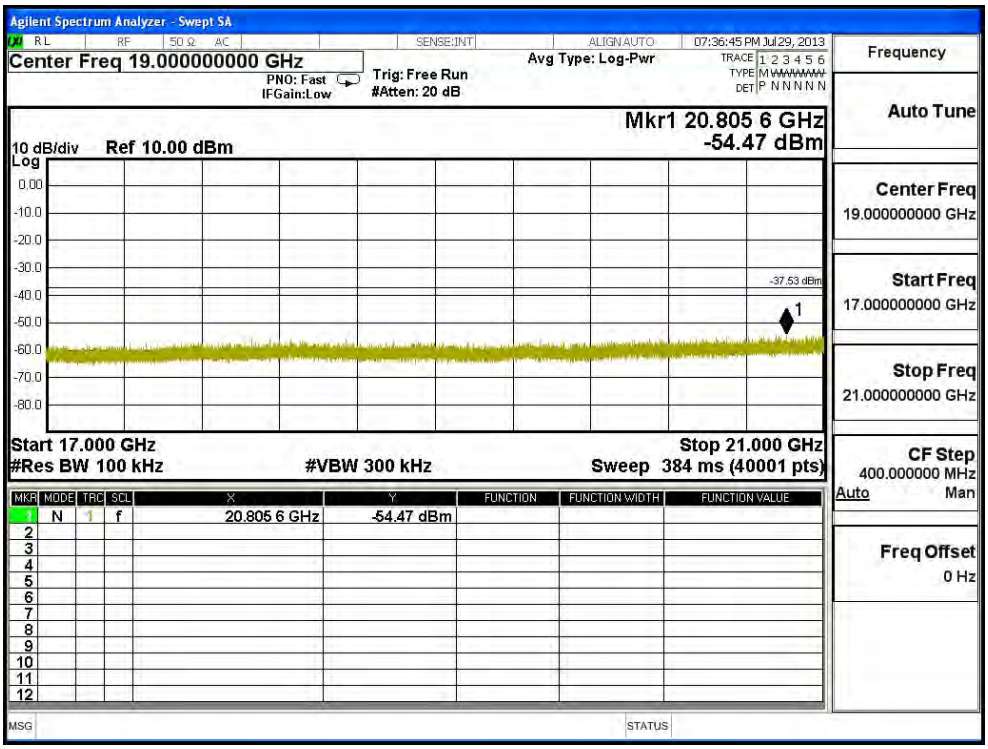


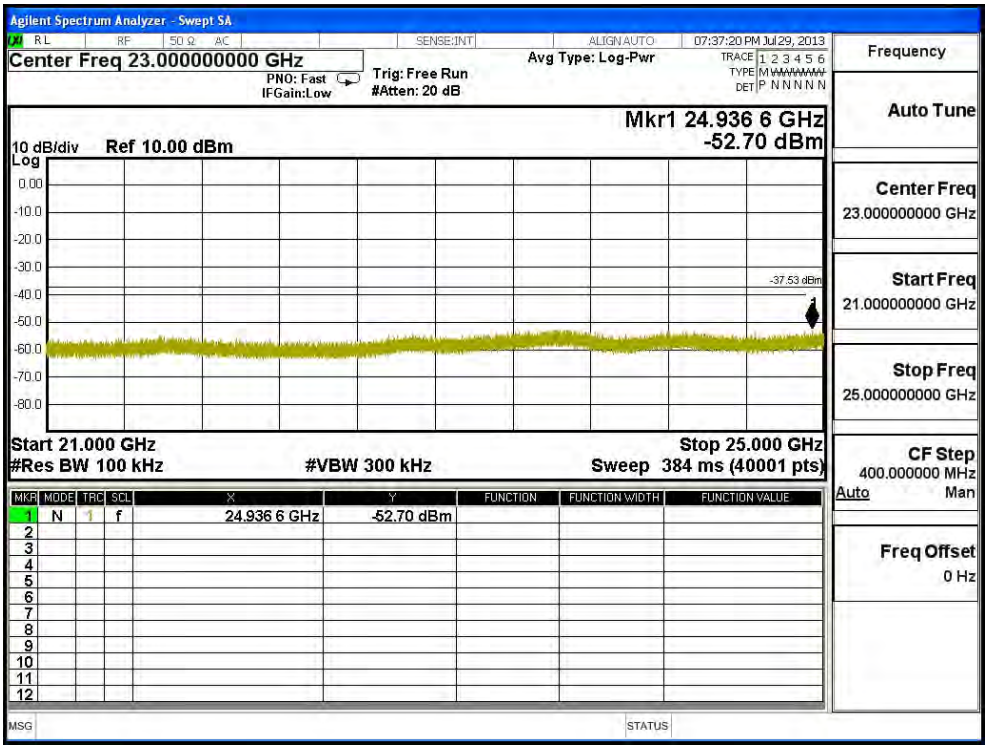



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:34:59 PM Jul 29, 2013
Mkr1 7.385 5 GHz
-60.11 dBm
10 dB/div
Log
Ref 10.00 dBm
-37.53 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.385 5 GHz -60.11 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
07:35:34 PM Jul 29, 2013
Mkr1 9.848 0 GHz
-55.62 dBm
10 dB/div
Log
Ref 10.00 dBm
-37.53 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.848 0 GHz -55.62 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

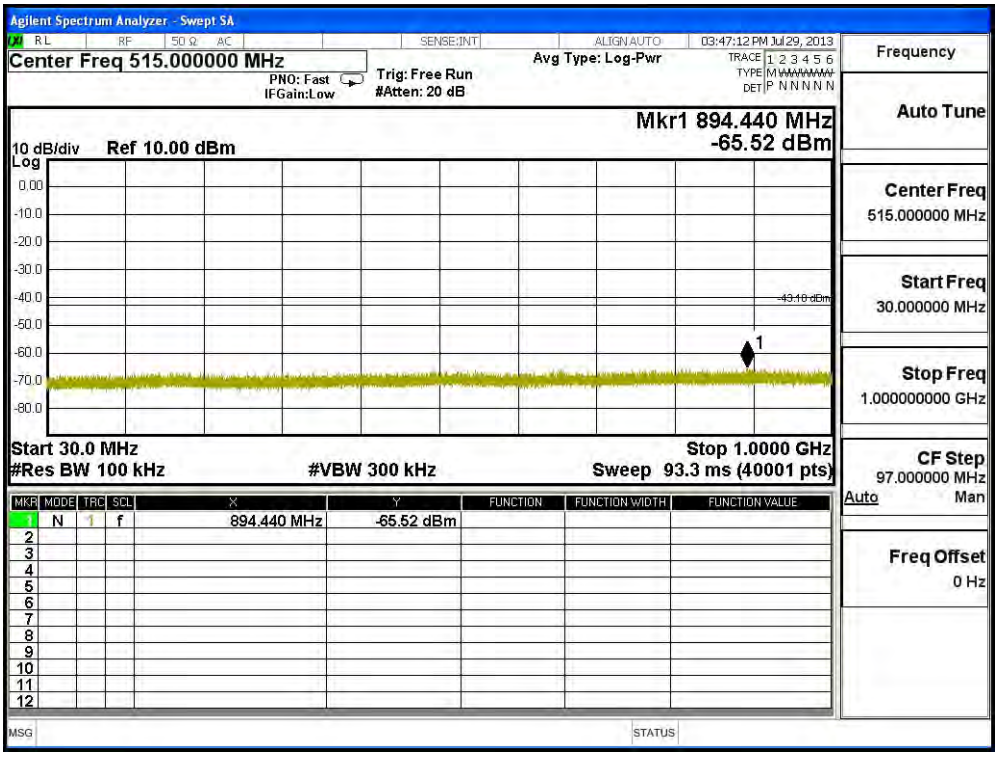

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
07:36:09 PM Jul 29, 2013
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 16.979 6 GHz
-57.44 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.53 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 16.979 6 GHz -57.44 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

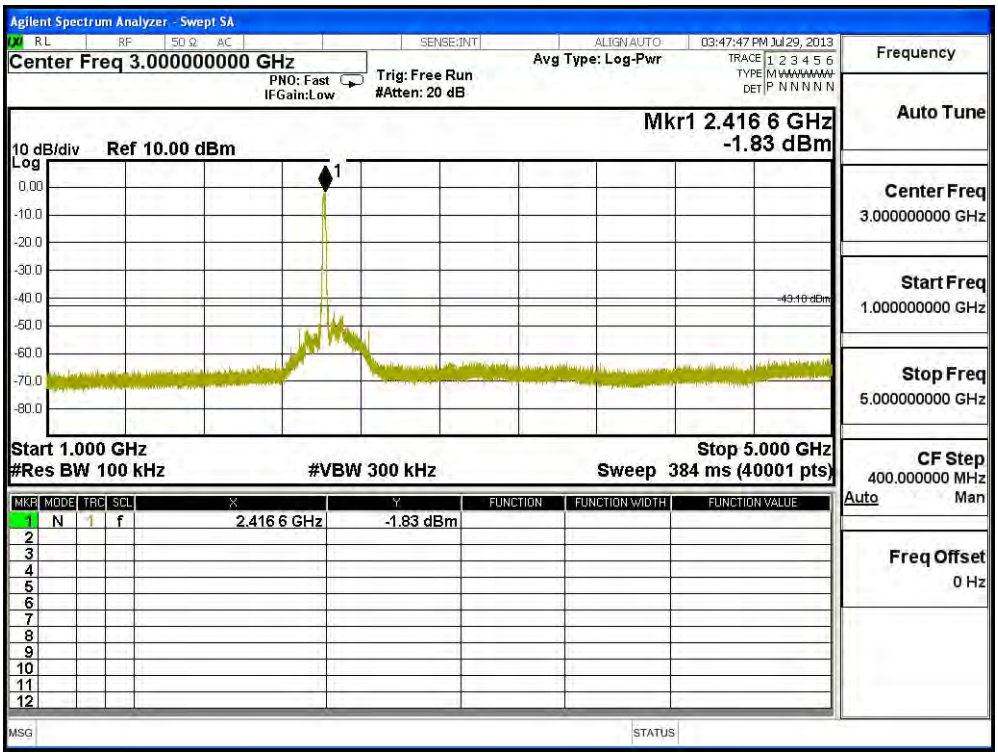

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
07:36:45 PM Jul 29, 2013
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 20.805 6 GHz
-54.47 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.53 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 20.805 6 GHz -54.47 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

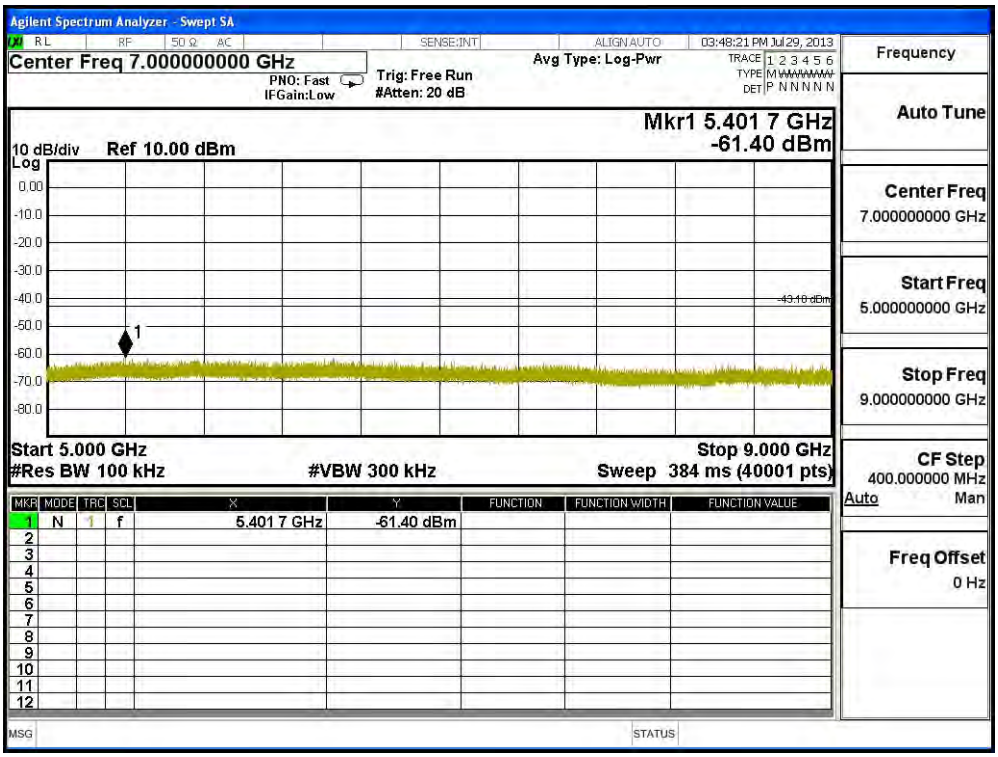

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
07:37:20 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWWW
DET P N N N N N
Mkr1 24.936 6 GHz
-52.70 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.53 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 24.936 6 GHz -52.70 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

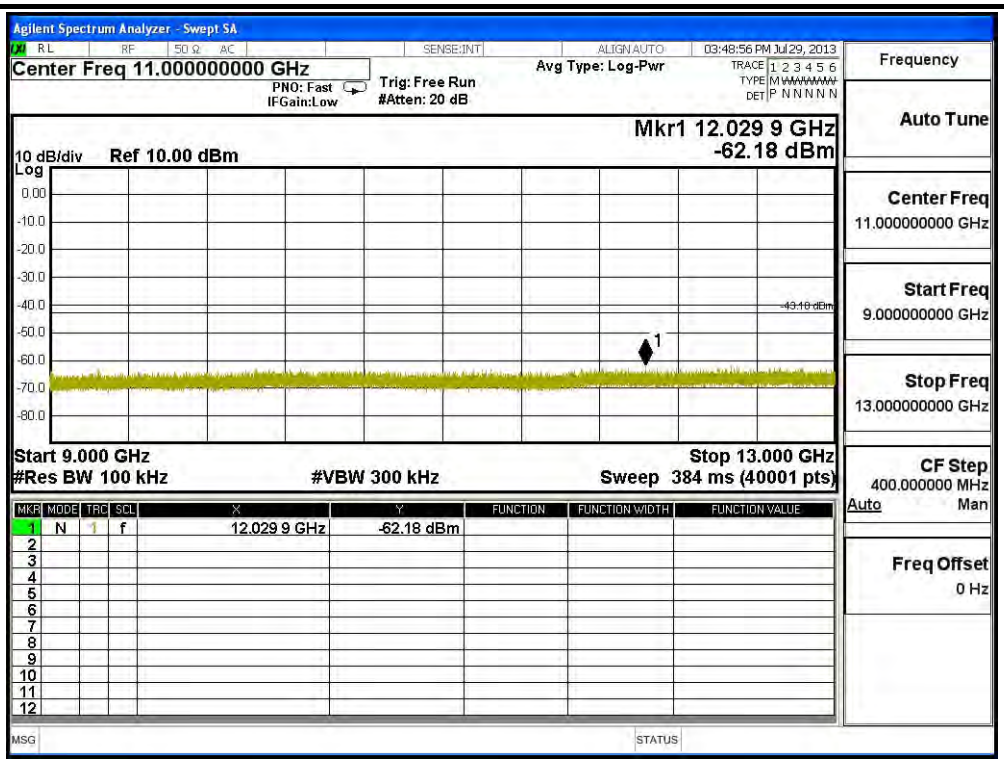
Product : SpectraGuard® Access Point / Sensor
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna)

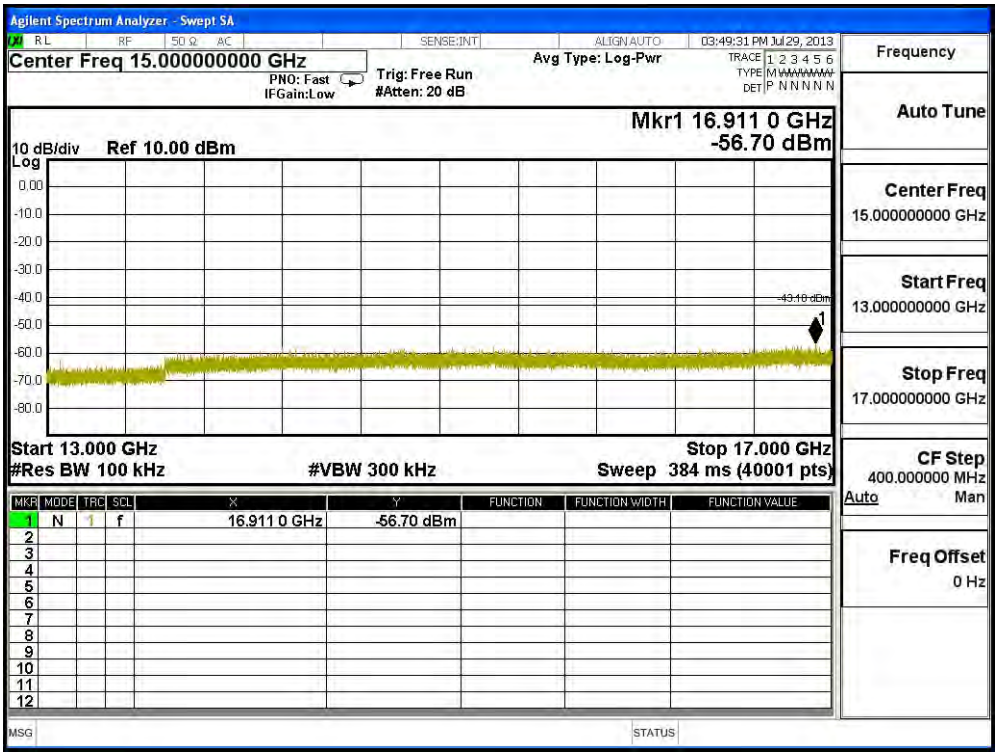
Channel 01 (2412MHz) 30MHz -25GHz-Chain A

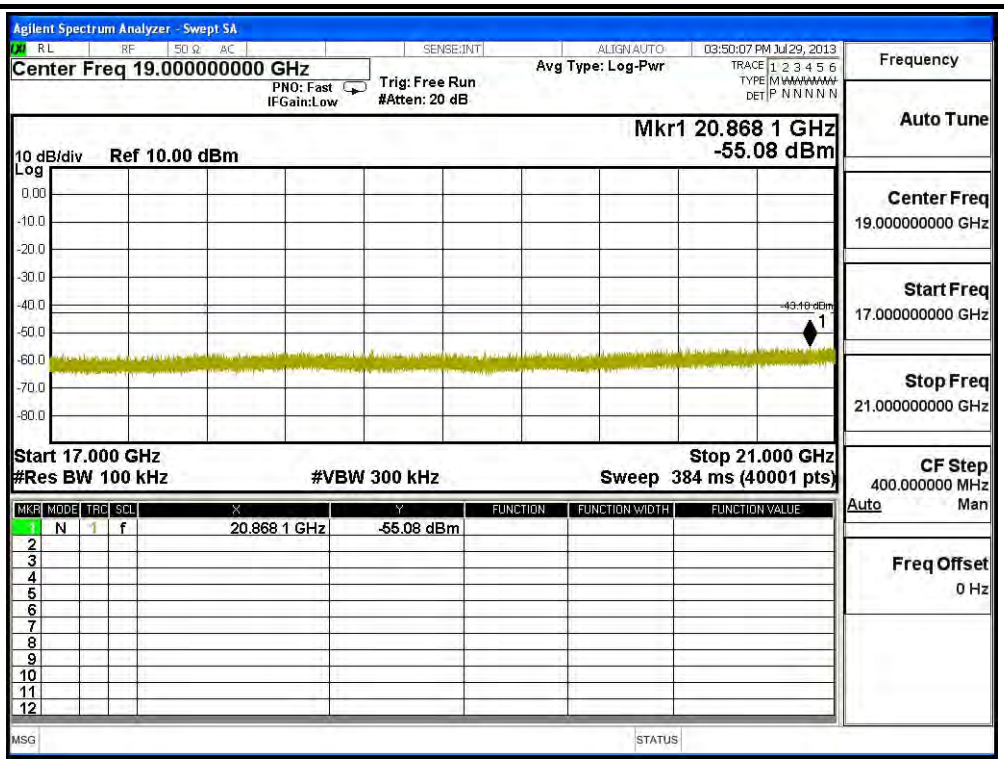


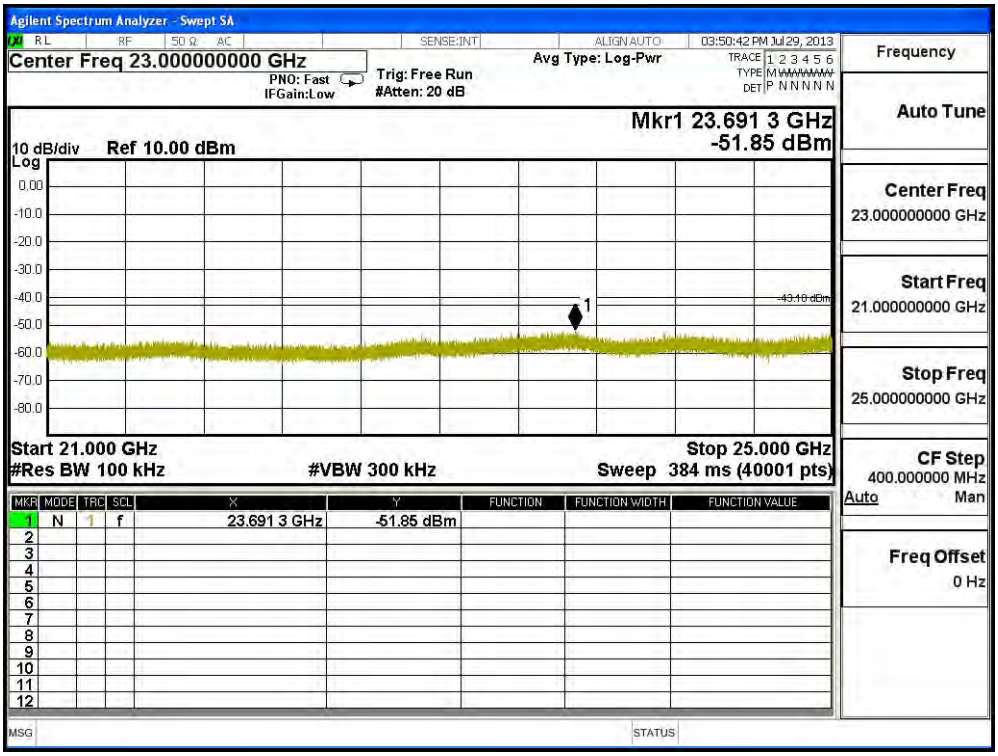

Agilent Spectrum Analyzer - Swept SA
Center Freq 3.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:47:47 PM Jul 29, 2013
Mkr1 2.416 6 GHz
-1.83 dBm
10 dB/div
Ref 10.00 dBm
Log
-43.10 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 5.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 2.416 6 GHz -1.83 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:48:21 PM Jul 29, 2013
Mkr1 5.401 7 GHz
-61.40 dBm
10 dB/div
Ref 10.00 dBm
Log
-43.10 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 5.401 7 GHz -61.40 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

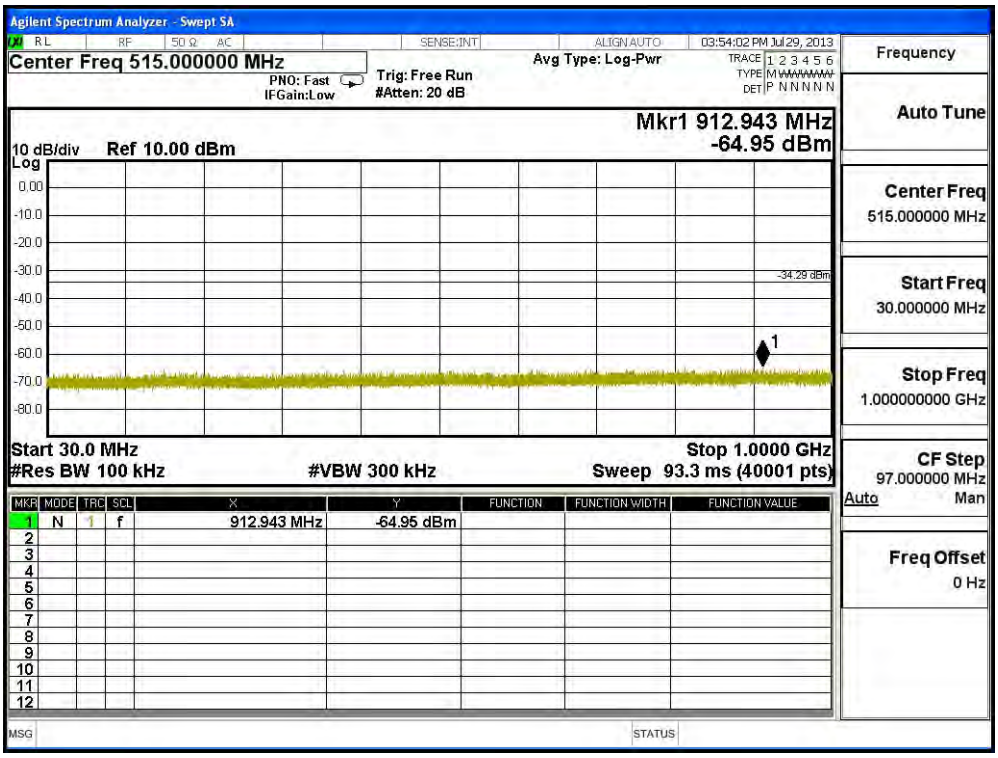

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:48:56 PM Jul 29, 2013
Mkr1 12.029 9 GHz
-62.18 dBm
10 dB/div
Log
Ref 10.00 dBm
-43.18 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.029 9 GHz -62.18 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

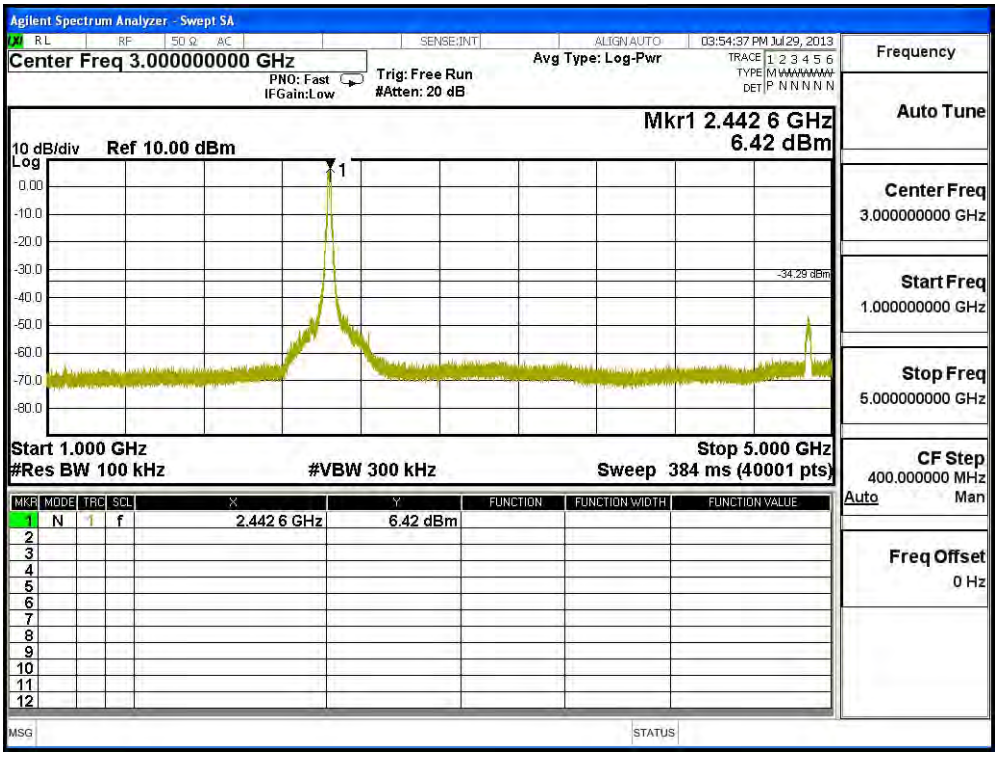

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:49:31 PM Jul 29, 2013
Mkr1 16.911 0 GHz
-56.70 dBm
10 dB/div
Log
Ref 10.00 dBm
-43.18 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.911 0 GHz -56.70 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

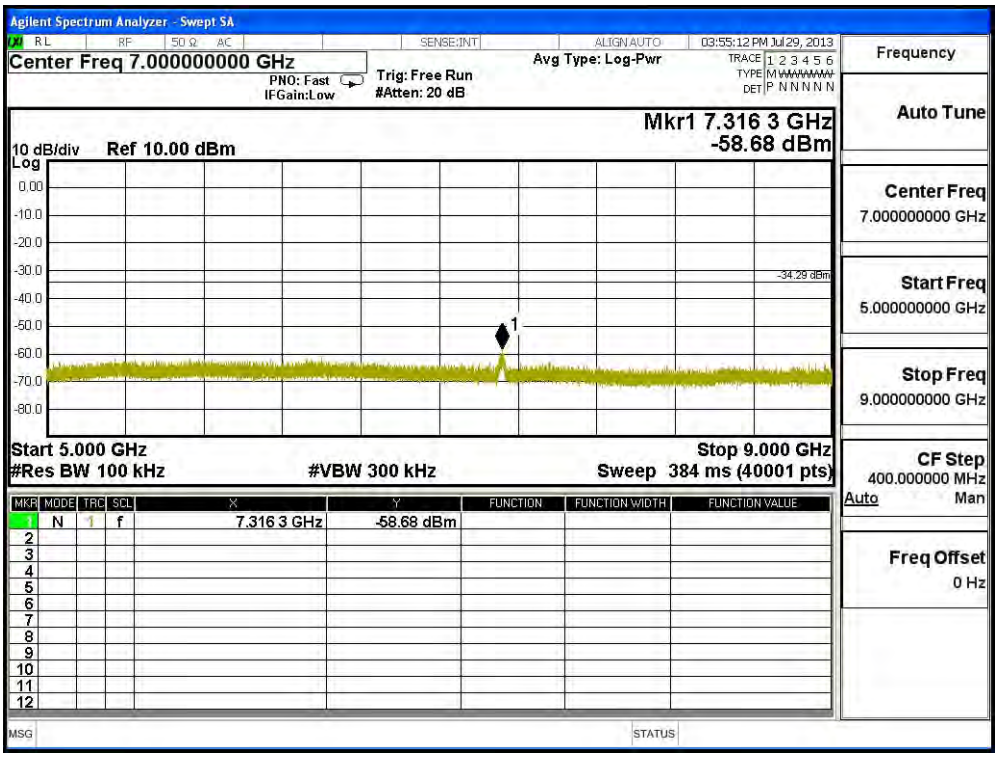

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:50:07 PM Jul 29, 2013
Mkr1 20.868 1 GHz
-55.08 dBm
10 dB/div
Ref 10.00 dBm
Log
-43.16 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.868 1 GHz -55.08 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

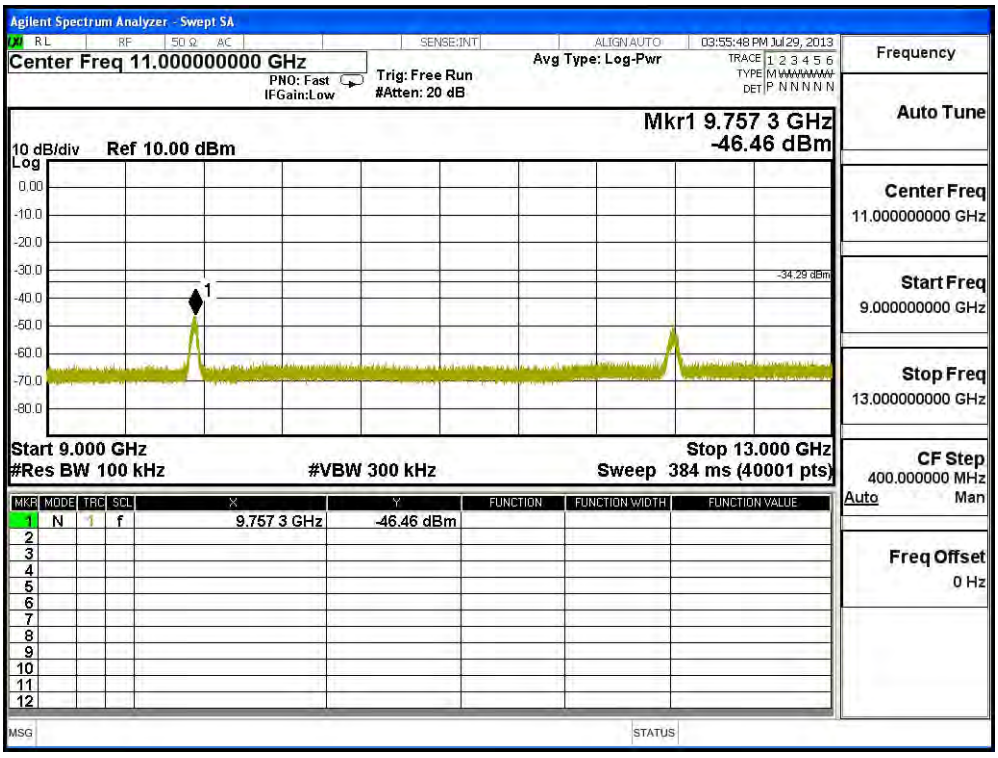

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:50:42 PM Jul 29, 2013
Mkr1 23.691 3 GHz
-51.85 dBm
10 dB/div
Ref 10.00 dBm
Log
-43.16 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.691 3 GHz -51.85 dBm
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

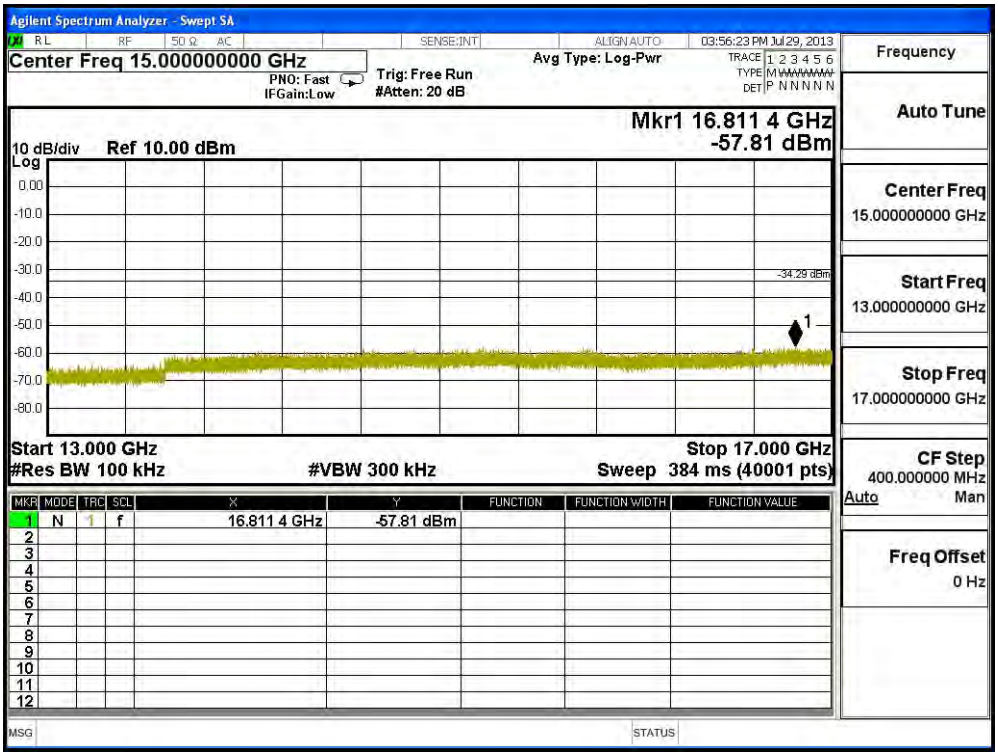
Channel 06 (2437MHz) 30MHz -25GHz-Chain A

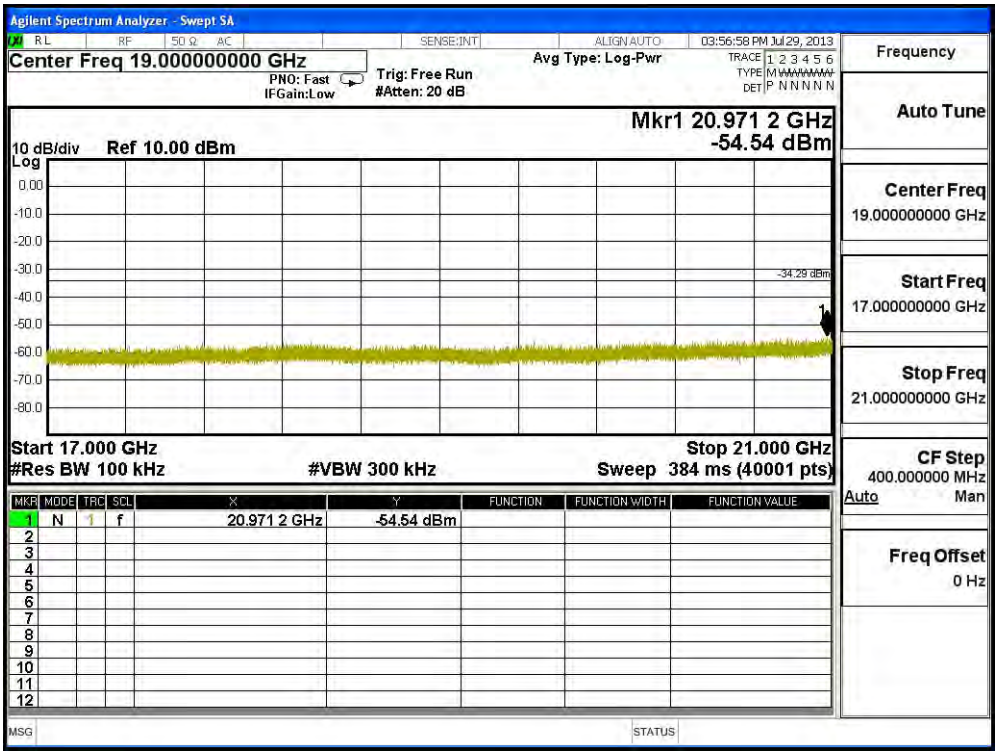


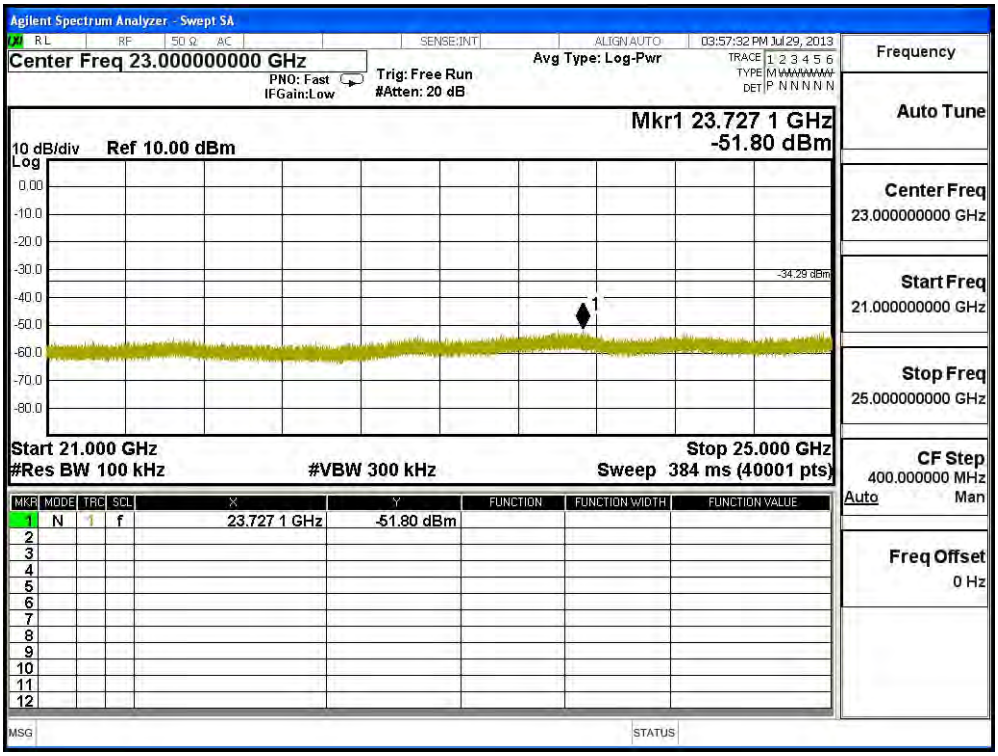



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:55:12 PM Jul 29, 2013
Mkr1 7.316 3 GHz
-58.68 dBm
10 dB/div
Ref 10.00 dBm
Log
-34.29 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.316 3 GHz -58.68 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

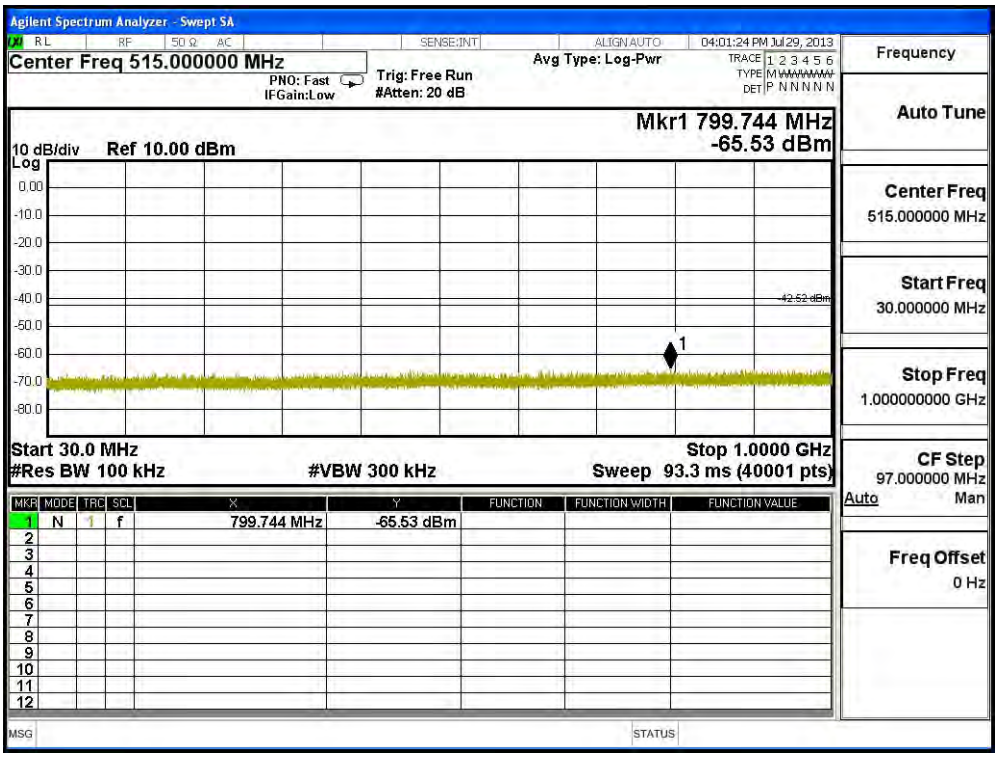

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
03:55:48 PM Jul 29, 2013
Mkr1 9.757 3 GHz
-46.46 dBm
10 dB/div
Ref 10.00 dBm
Log
-34.29 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.757 3 GHz -46.46 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

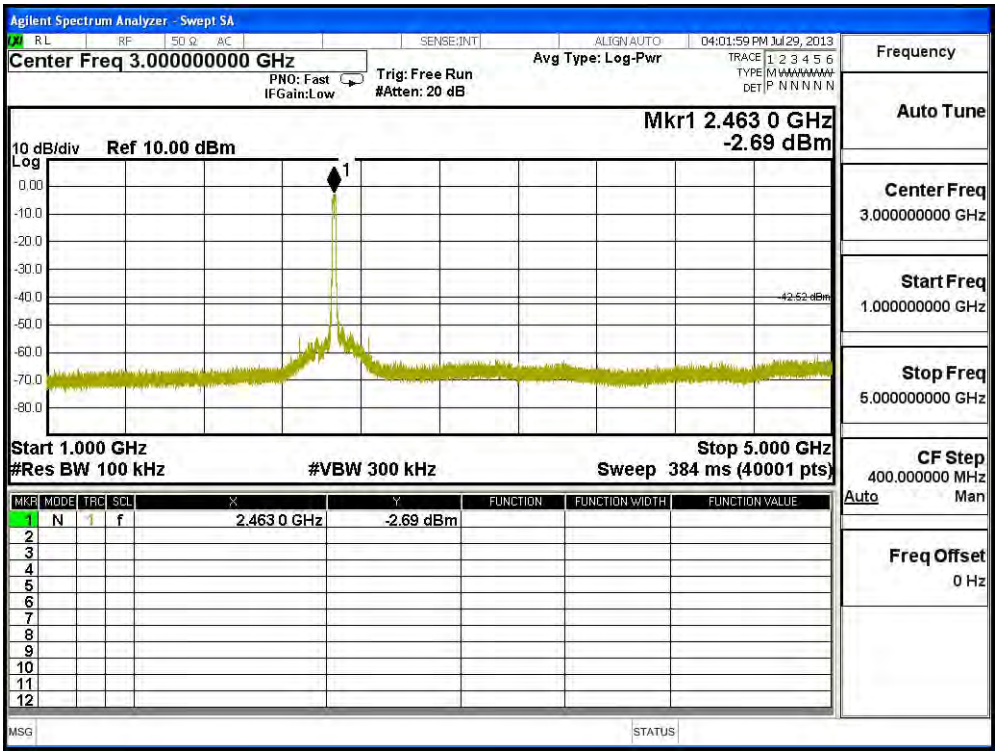

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:56:23 PM Jul 29, 2013
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 16.811 4 GHz
-57.81 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-34.29 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 16.811 4 GHz -57.81 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

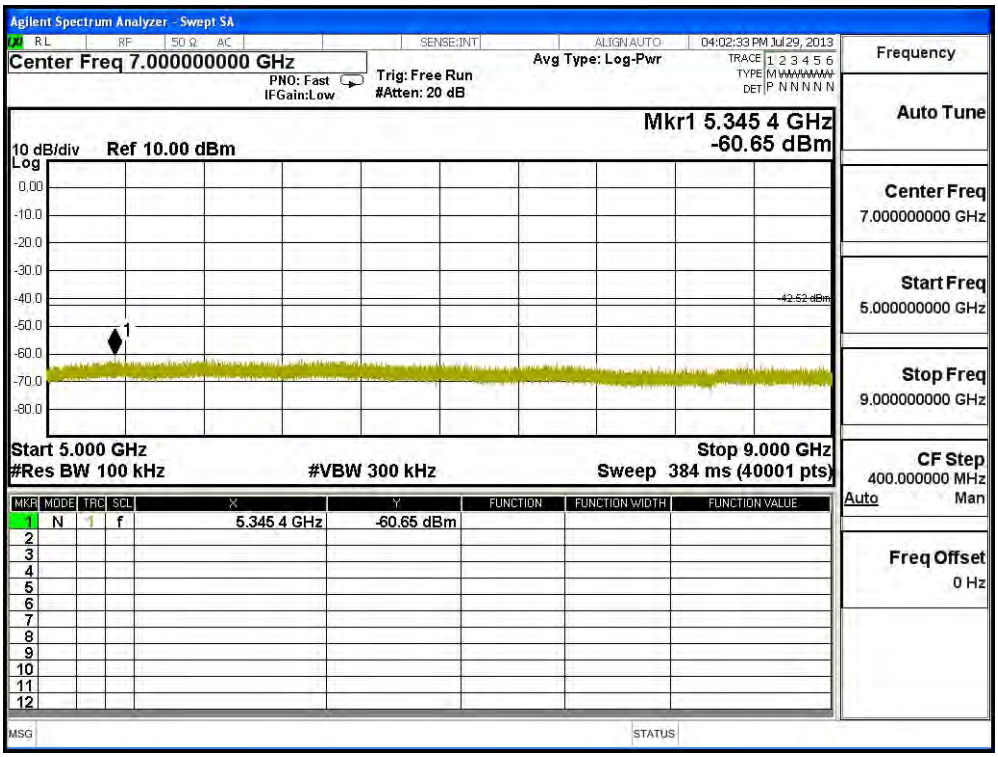

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:56:58 PM Jul 29, 2013
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 20.971 2 GHz
-54.54 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-34.29 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 20.971 2 GHz -54.54 dBm
MSG
STATUS
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

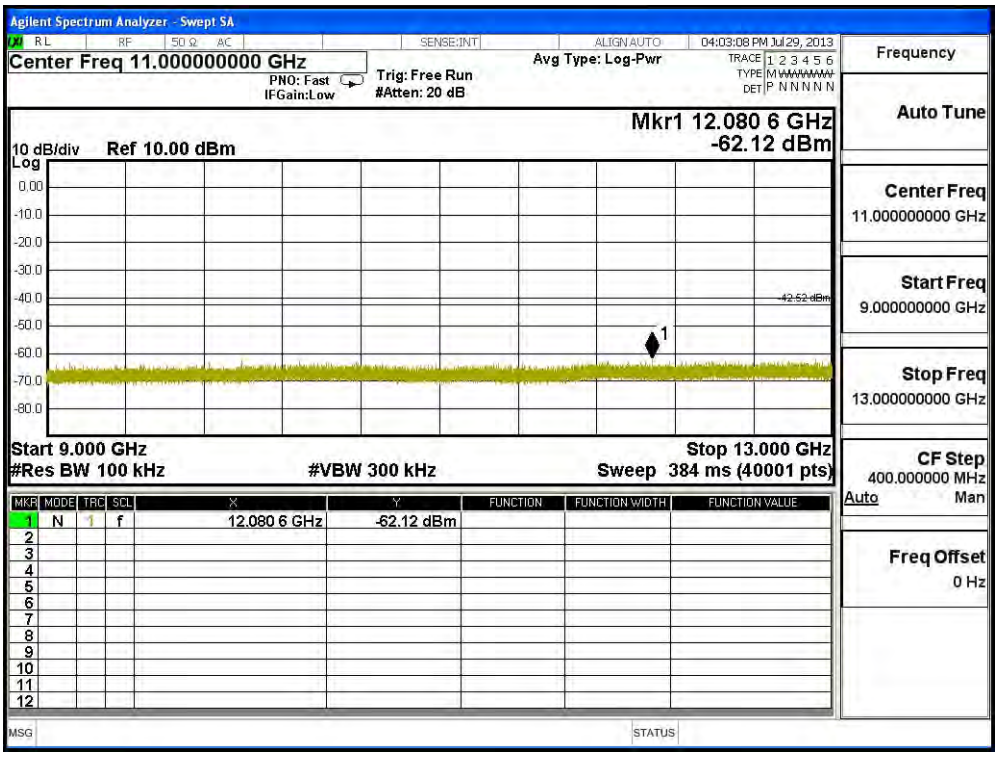

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:57:32 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 23.727 1 GHz
-51.80 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-34.29 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 23.727 1 GHz -51.80 dBm
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

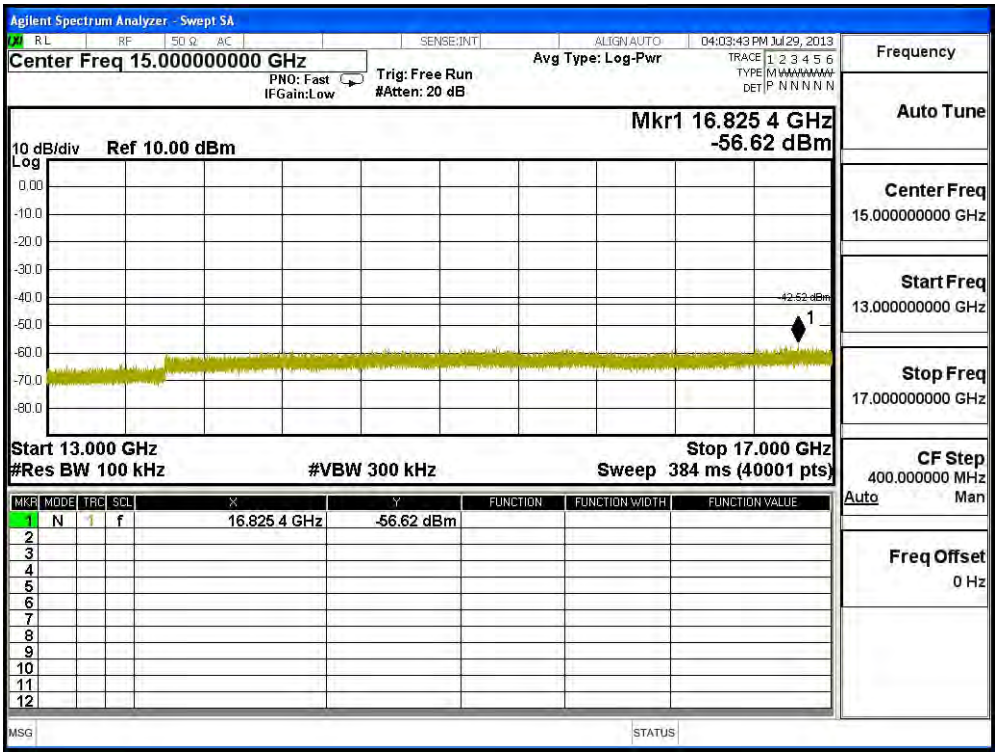
Channel 11 (2462MHz) 30MHz -25GHz-Chain A

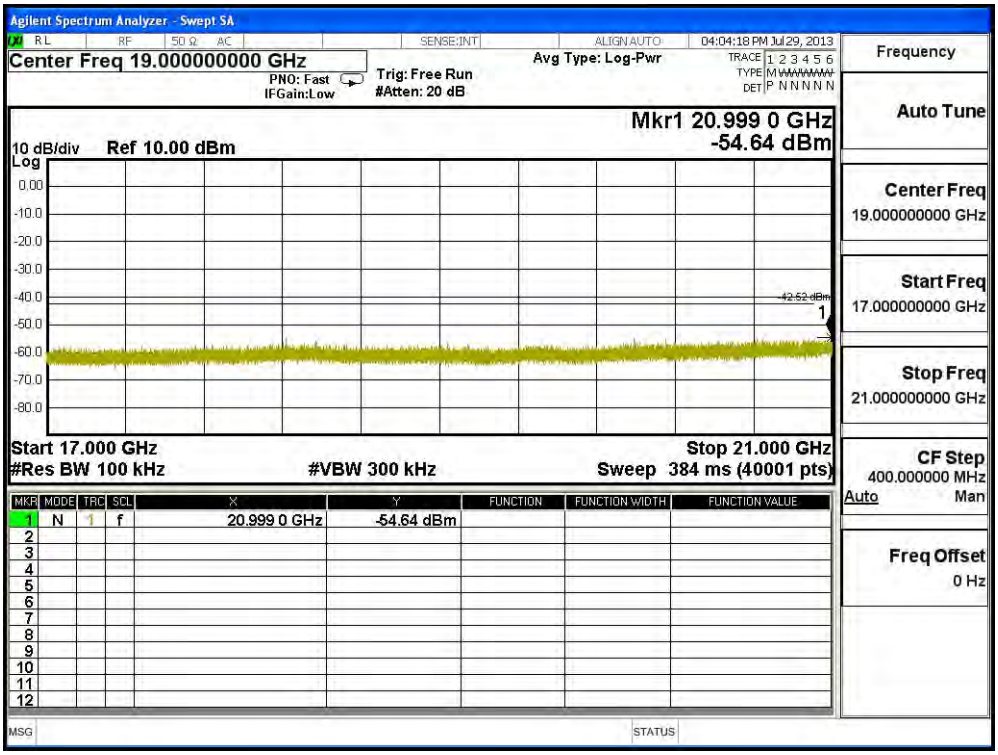


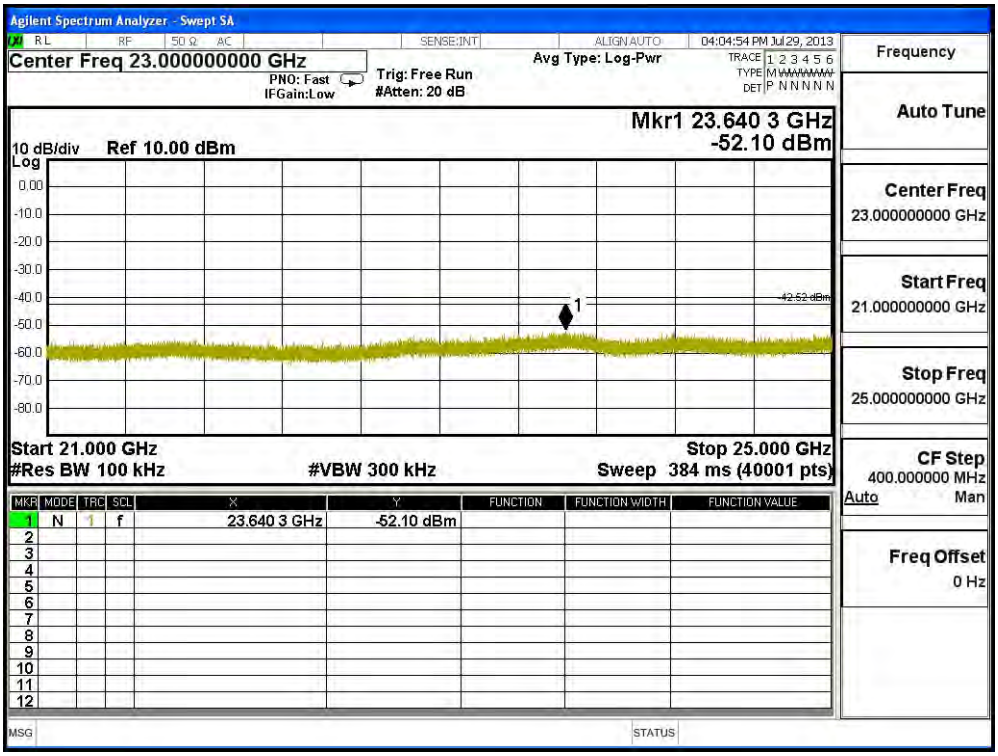



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:02:33 PM Jul 29, 2013
Mkr1 5.345 4 GHz
-60.65 dBm
10 dB/div
Ref 10.00 dBm
Log
-42.52 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 5.345 4 GHz -60.65 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

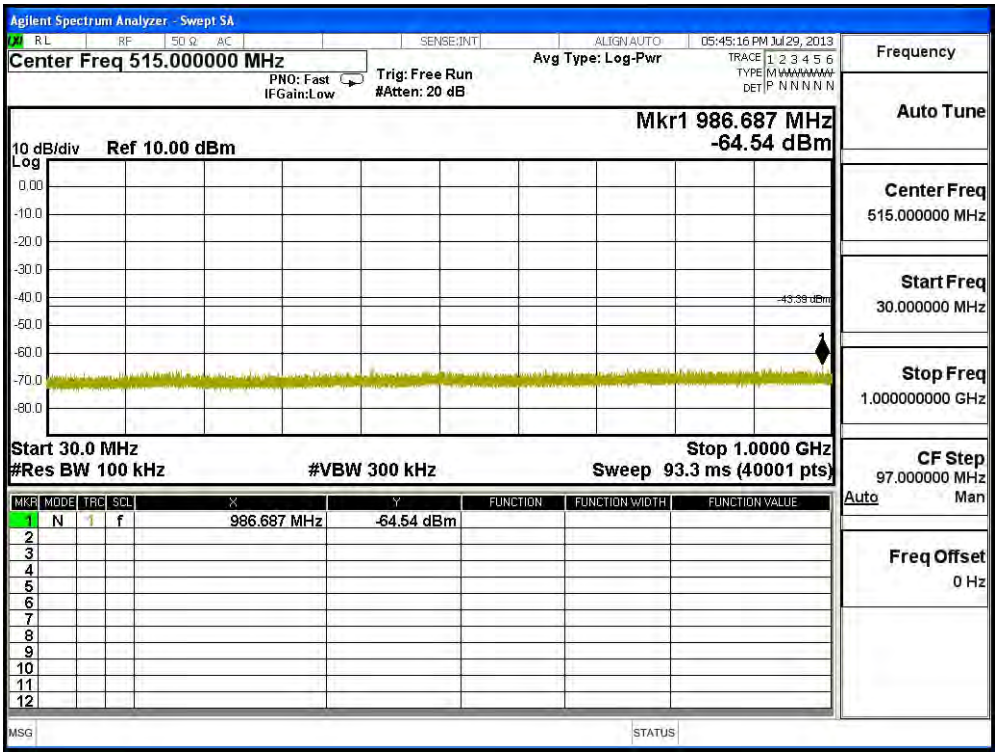

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:03:08 PM Jul 29, 2013
Mkr1 12.080 6 GHz
-62.12 dBm
10 dB/div
Ref 10.00 dBm
Log
-42.52 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.080 6 GHz -62.12 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

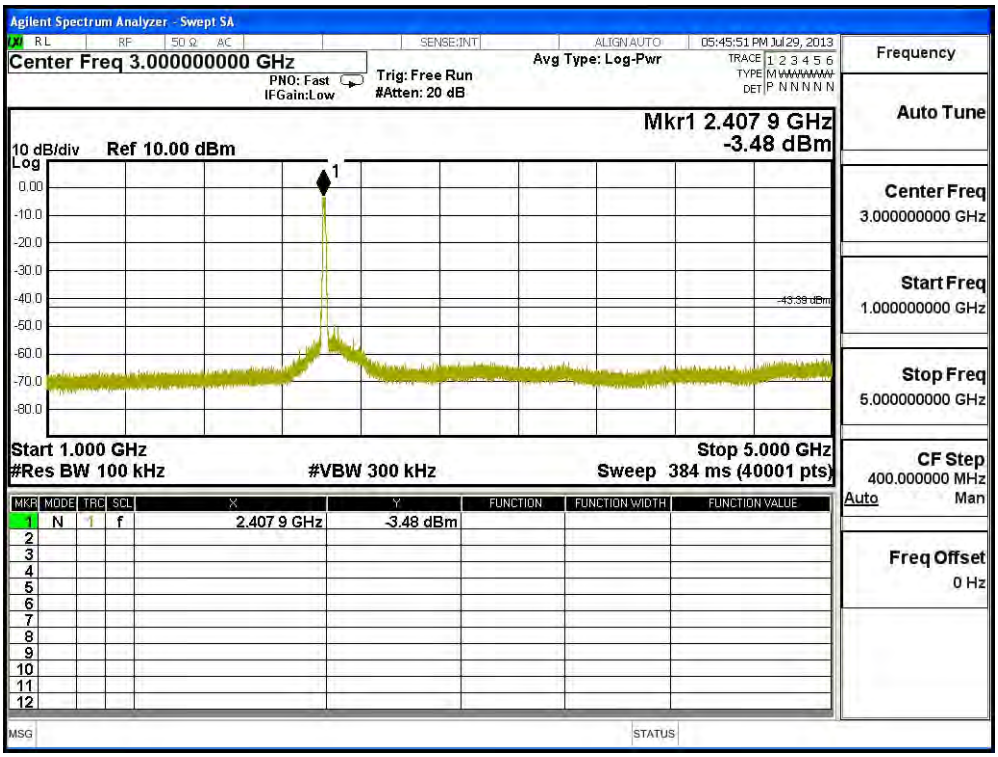

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:03:43 PM Jul 29, 2013
Mkr1 16.825 4 GHz
-56.62 dBm
10 dB/div
Log
Ref 10.00 dBm
-42.62 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.825 4 GHz -56.62 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

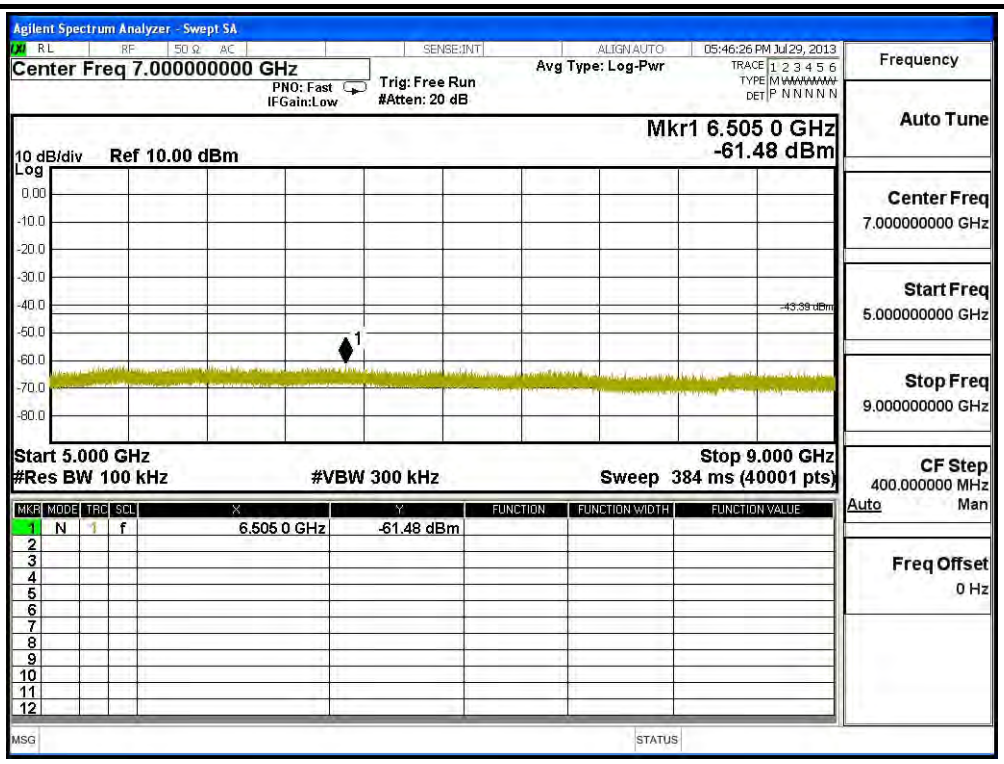

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:04:18 PM Jul 29, 2013
Mkr1 20.999 0 GHz
-54.64 dBm
10 dB/div
Log
Ref 10.00 dBm
-42.62 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.999 0 GHz -54.64 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

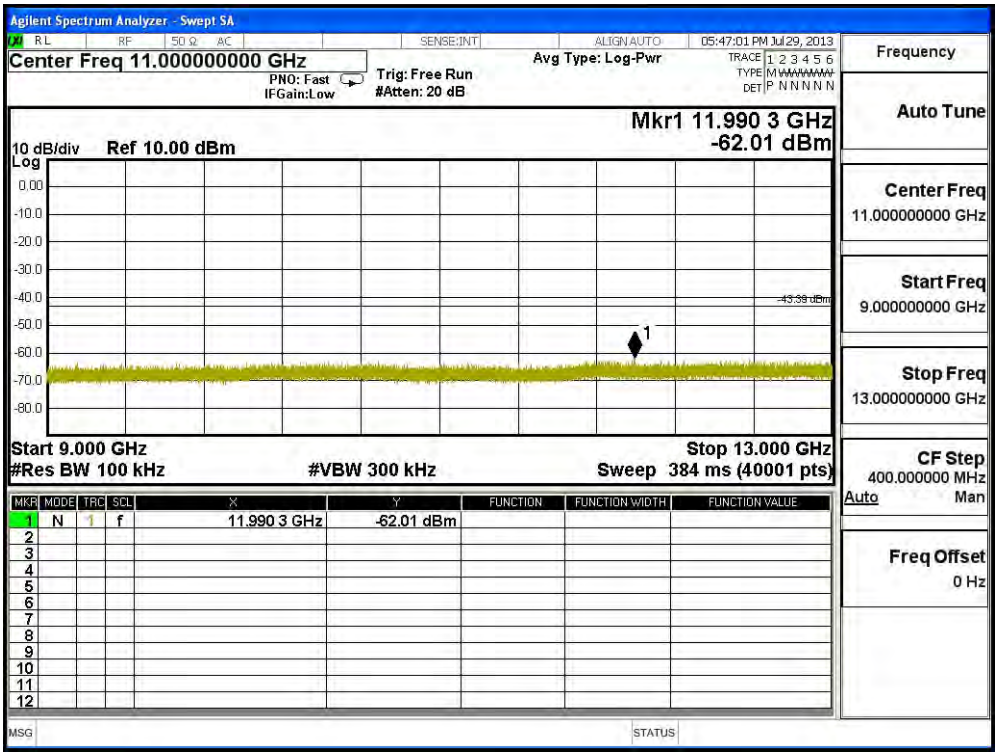

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:04:54 PM Jul 29, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 23.640 3 GHz
-52.10 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-42.52 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 f 23.640 3 GHz -52.10 dBm
2
3
4
5
6
7
8
9
10
11
12
MSG
STATUS
Frequency
Auto Tune
Center Freq
23.000000000 GHz
Start Freq
21.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz

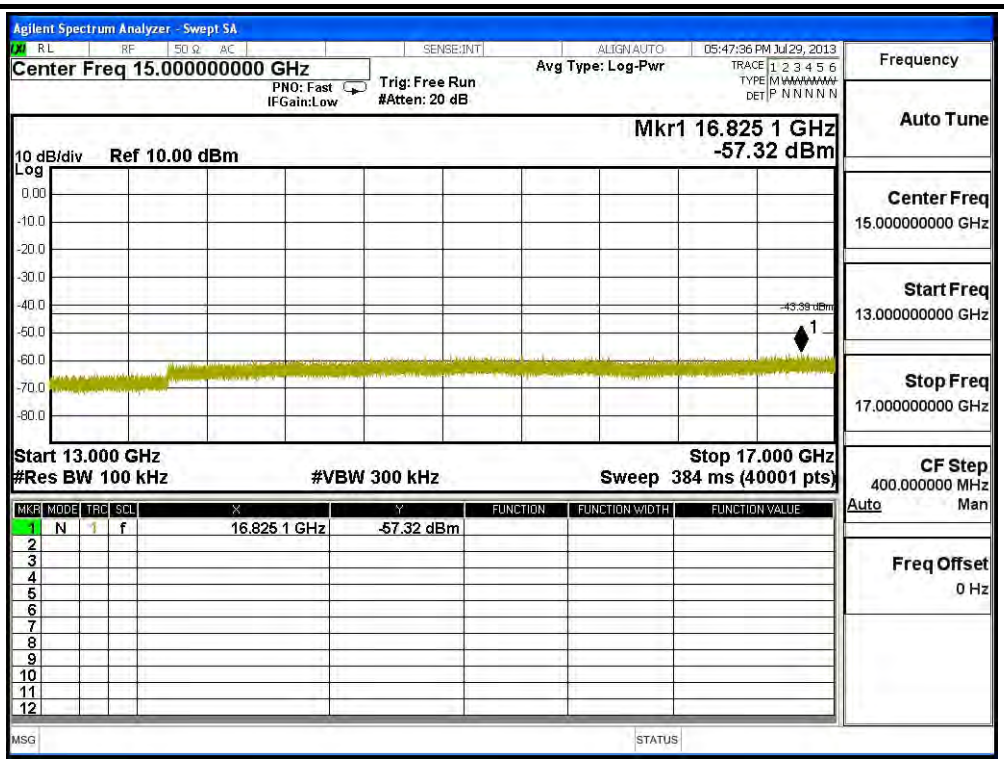
Channel 01 (2412MHz) 30MHz -25GHz-Chain B

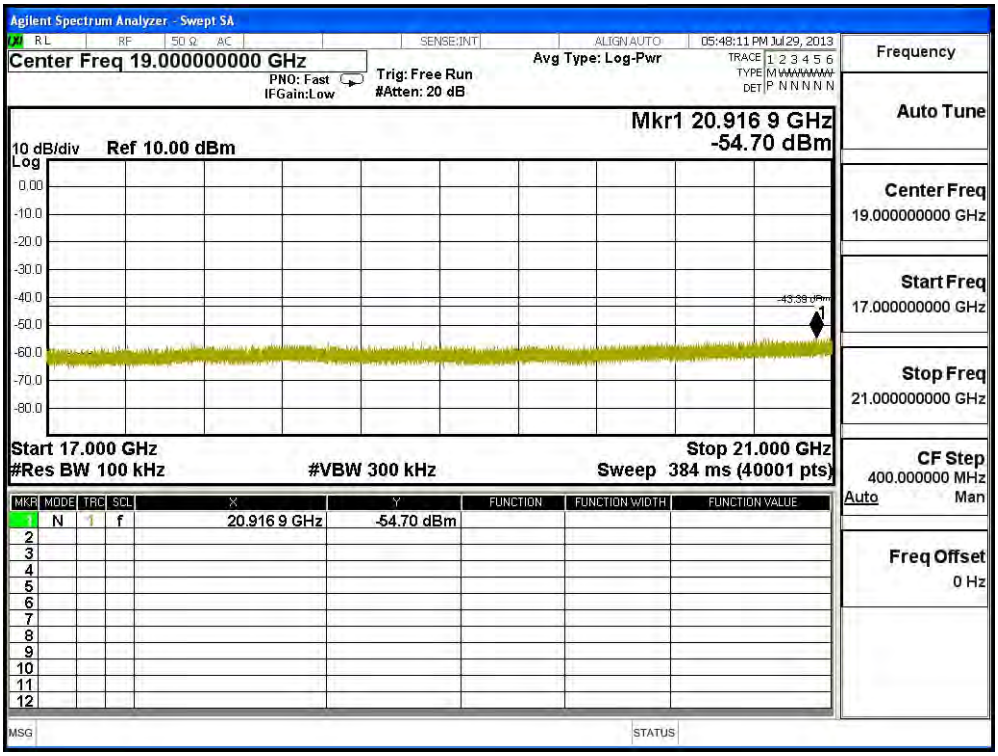





Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:46:26 PM Jul 29, 2013
Mkr1 6.505 0 GHz
-61.48 dBm
10 dB/div
Ref 10.00 dBm
Log
-43.39 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 6.505 0 GHz -61.48 dBm
Frequency
Auto Tune
Center Freq
7.000000000 GHz
Start Freq
5.000000000 GHz
Stop Freq
9.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:47:01 PM Jul 29, 2013
Mkr1 11.990 3 GHz
-62.01 dBm
10 dB/div
Ref 10.00 dBm
Log
-43.39 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 11.990 3 GHz -62.01 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:47:36 PM Jul 29, 2013
Mkr1 16.825 1 GHz
-57.32 dBm
10 dB/div
Ref 10.00 dBm
Log
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.825 1 GHz -57.32 dBm
Frequency
Auto Tune
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:48:11 PM Jul 29, 2013
Mkr1 20.916 9 GHz
-54.70 dBm
10 dB/div
Ref 10.00 dBm
Log
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.916 9 GHz -54.70 dBm
Frequency
Auto Tune
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz