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	July 03, 2013
Issue Date	Aug. 20, 2013
Report No.	137146R-RFUSP28V01-A
Report Version	V1.0

Testing Laboratory
0914

The test results relate only to the samples tested.
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Test Report Certification

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

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.
This report must not be used to claim product endorsement by TAF or any agency of the U.S. Government

Documented By : Leven Huang

(Senior Adm. Specialist / Leven Huang)

Tested By : Jack Hsu

(Engineer / Jack Hsu)

Approved By :

(Manager / Vincent Lin)

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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 300Mbps
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	3dBi for 2.4GHz 5dBi for 5.725~5.850GHz	External Antenna (Dipole)
2.	MAG.LAYERS	MSA-3810-2G4C1-A36 MSA-3810-2G4C1-A38	3.89dBi for 2.4GHz 2.90dBi 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 2T2R 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 14.4Mbps and 、802.11n(40M-BW) is 30Mbps).
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_14.4Mbps(2.4G Band)(Dipole Antenna)
	Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band)(Dipole Antenna)
	Mode 6: Transmit - 802.11n-20BW_14.4Mbps(5G Band)(Dipole Antenna)
	Mode 7: Transmit - 802.11n-40BW_30Mbps(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_14.4Mbps(2.4G Band)(PIFA Antenna)
	Mode 12: Transmit - 802.11n-40BW_30Mbps(2.4G Band)(PIFA Antenna)
	Mode 13: Transmit - 802.11n-20BW_14.4Mbps(5G Band)(PIFA Antenna)
	Mode 14: Transmit - 802.11n-40BW_30Mbps(5G Band)(PIFA Antenna)

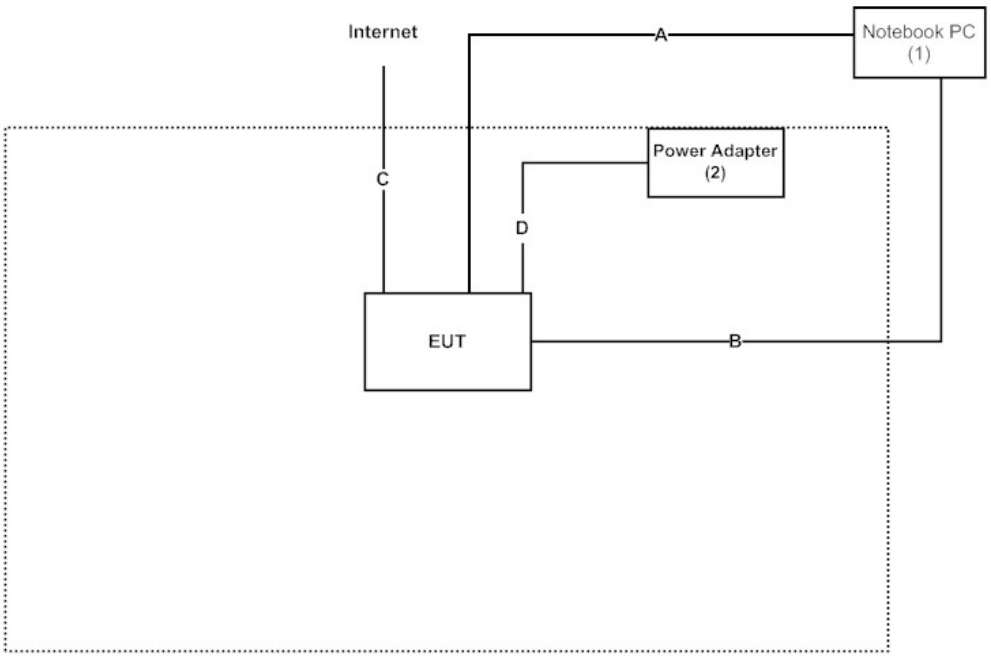
1.3. Tested System Details

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, Ruei-Shu Valley, Ruei-Ping Tsuen,
Lin-Kou Shiang, Taipei,
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

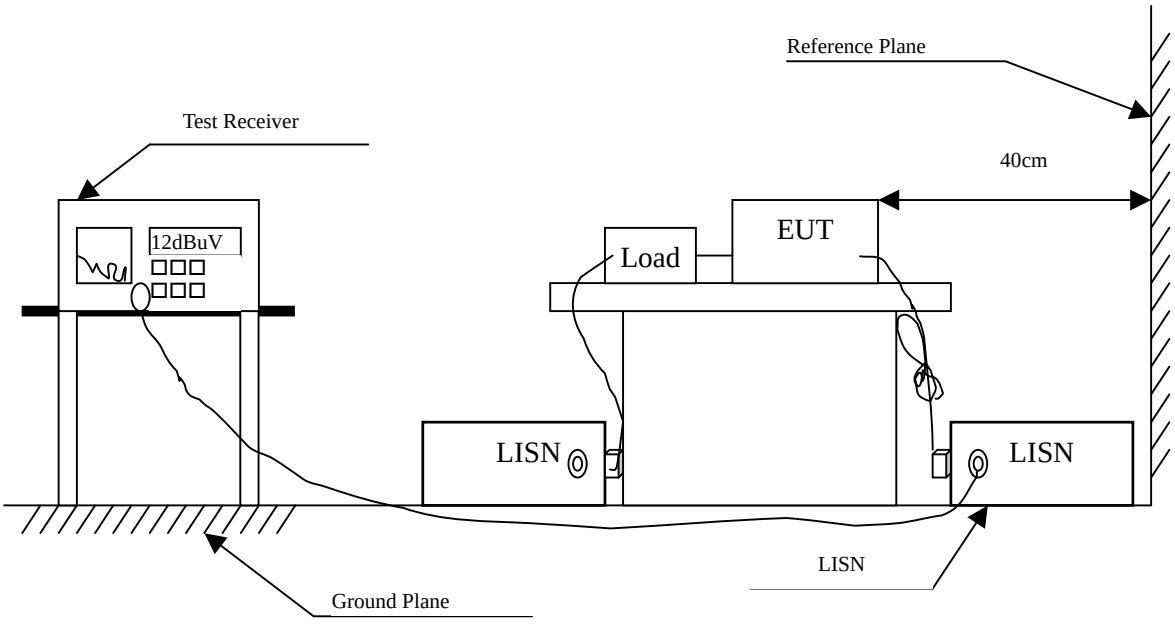
2.1. Test Equipment

	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_30Mbps(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					
0.197	9.915	35.990	45.905	-18.752	64.657
0.287	9.877	27.560	37.437	-24.649	62.086
0.334	9.870	25.860	35.730	-25.013	60.743
0.443	9.855	20.960	30.815	-26.814	57.629
0.783	9.770	20.740	30.510	-25.490	56.000
11.201	10.210	33.830	44.040	-15.960	60.000
Average					
0.197	9.915	7.310	17.225	-37.432	54.657
0.287	9.877	11.450	21.327	-30.759	52.086
0.334	9.870	20.030	29.900	-20.843	50.743
0.443	9.855	11.180	21.035	-26.594	47.629
0.783	9.770	9.450	19.220	-26.780	46.000
11.201	10.210	26.150	36.360	-13.640	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_30Mbps(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	35.550	45.320	-19.566	64.886
0.310	9.750	24.680	34.430	-26.999	61.429
0.357	9.760	19.890	29.650	-30.436	60.086
0.505	9.770	11.540	21.310	-34.690	56.000
0.591	9.760	13.470	23.230	-32.770	56.000
11.013	10.080	28.100	38.180	-21.820	60.000
Average					
0.189	9.770	13.000	22.770	-32.116	54.886
0.310	9.750	2.700	12.450	-38.979	51.429
0.357	9.760	2.740	12.500	-37.586	50.086
0.505	9.770	-0.780	8.990	-37.010	46.000
0.591	9.760	1.420	11.180	-34.820	46.000
11.013	10.080	18.340	28.420	-21.580	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_30Mbps(5G Band)(Dipole Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.248	9.900	28.740	38.640	-24.560	63.200
0.279	9.880	26.470	36.350	-25.964	62.314
0.338	9.870	25.800	35.670	-24.959	60.629
0.568	9.824	21.000	30.824	-25.176	56.000
1.384	9.760	19.090	28.850	-27.150	56.000
10.877	10.190	33.420	43.610	-16.390	60.000
Average					
0.248	9.900	6.590	16.490	-36.710	53.200
0.279	9.880	4.220	14.100	-38.214	52.314
0.338	9.870	19.740	29.610	-21.019	50.629
0.568	9.824	9.350	19.174	-26.826	46.000
1.384	9.760	8.980	18.740	-27.260	46.000
10.877	10.190	25.780	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 7: Transmit - 802.11n-40BW_30Mbps(5G Band)(Dipole Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.298	9.750	28.510	38.260	-23.511	61.771
0.447	9.760	18.620	28.380	-29.134	57.514
0.990	9.790	14.680	24.470	-31.530	56.000
1.951	9.810	12.130	21.940	-34.060	56.000
3.349	9.890	12.730	22.620	-33.380	56.000
11.537	10.100	27.570	37.670	-22.330	60.000
Average					
0.298	9.750	11.690	21.440	-30.331	51.771
0.447	9.760	5.240	15.000	-32.514	47.514
0.990	9.790	2.340	12.130	-33.870	46.000
1.951	9.810	1.620	11.430	-34.570	46.000
3.349	9.890	3.320	13.210	-32.790	46.000
11.537	10.100	18.010	28.110	-21.890	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_30Mbps(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					
0.166	9.943	34.800	44.743	-20.800	65.543
0.443	9.855	21.580	31.435	-26.194	57.629
0.795	9.772	21.210	30.982	-25.018	56.000
1.013	9.780	21.110	30.890	-25.110	56.000
1.615	9.750	17.940	27.690	-28.310	56.000
10.916	10.190	33.080	43.270	-16.730	60.000
Average					
0.166	9.943	4.760	14.703	-40.840	55.543
0.443	9.855	10.560	20.415	-27.214	47.629
0.795	9.772	9.840	19.612	-26.388	46.000
1.013	9.780	10.260	20.040	-25.960	46.000
1.615	9.750	7.840	17.590	-28.410	46.000
10.916	10.190	24.540	34.730	-15.270	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_30Mbps(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					
0.416	9.764	17.440	27.204	-31.196	58.400
0.795	9.762	16.090	25.852	-30.148	56.000
1.369	9.800	13.440	23.240	-32.760	56.000
4.611	9.960	12.890	22.850	-33.150	56.000
7.662	10.040	18.490	28.530	-31.470	60.000
11.580	10.100	27.010	37.110	-22.890	60.000
Average					
0.416	9.764	4.940	14.704	-33.696	48.400
0.795	9.762	3.970	13.732	-32.268	46.000
1.369	9.800	2.300	12.100	-33.900	46.000
4.611	9.960	2.890	12.850	-33.150	46.000
7.662	10.040	10.350	20.390	-29.610	50.000
11.580	10.100	17.580	27.680	-22.320	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_30Mbps(5G Band)(PIFA Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.201	9.912	33.000	42.912	-21.631	64.543
0.244	9.900	29.580	39.480	-23.834	63.314
0.302	9.872	28.250	38.122	-23.535	61.657
0.451	9.853	22.020	31.873	-25.527	57.400
0.838	9.774	21.130	30.904	-25.096	56.000
11.181	10.210	33.630	43.840	-16.160	60.000
Average					
0.201	9.912	4.160	14.072	-40.471	54.543
0.244	9.900	4.290	14.190	-39.124	53.314
0.302	9.872	18.630	28.502	-23.155	51.657
0.451	9.853	12.220	22.073	-25.327	47.400
0.838	9.774	8.630	18.404	-27.596	46.000
11.181	10.210	25.650	35.860	-14.140	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_30Mbps(5G Band)(PIFA Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.162	9.806	36.650	46.456	-19.201	65.657
0.232	9.754	29.030	38.784	-24.873	63.657
0.263	9.755	27.800	37.555	-25.216	62.771
0.322	9.754	24.020	33.774	-27.312	61.086
0.423	9.762	18.220	27.982	-30.218	58.200
10.662	10.080	26.370	36.450	-23.550	60.000
Average					
0.162	9.806	7.850	17.656	-38.001	55.657
0.232	9.754	2.210	11.964	-41.693	53.657
0.263	9.755	7.150	16.905	-35.866	52.771
0.322	9.754	7.390	17.144	-33.942	51.086
0.423	9.762	0.930	10.692	-37.508	48.200
10.662	10.080	16.080	26.160	-23.840	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

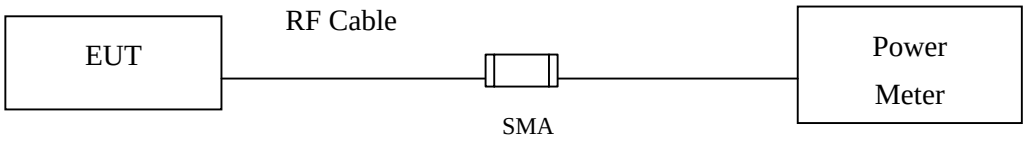
3.1. Test Equipment

	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	16.32	--	--	--	<30dBm	Pass
06	2437	17.18	17.02	16.9	16.83	<30dBm	Pass
11	2462	14.88	--	--	--	<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	14.92	--	--	--	<30dBm	Pass
06	2437	17.44	17.32	17.19	17.02	<30dBm	Pass
11	2462	14.06	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
1	2412	1	16.32	14.92	18.69	<30dBm	Pass
6	2437	1	17.18	17.44	20.32	<30dBm	Pass
11	2462	1	14.88	14.06	17.50	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (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	8.33	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.66	19.52	19.4	19.29	19.15	19.09	18.91	18.75	<30dBm	Pass
11	2462	8.91	--	--	--	--	--	--	--	<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	6.81	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	18.94	18.81	18.66	18.51	18.37	18.21	18.14	18.02	<30dBm	Pass
11	2462	7.61	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
1	2412	6	8.33	6.81	10.65	<30dBm	Pass
6	2437	6	19.66	18.94	22.33	<30dBm	Pass
11	2462	6	8.91	7.61	11.32	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (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	14.57	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	22.43	22.31	22.19	22.03	21.92	21.8	21.67	21.5	<30dBm	Pass
165	5825	20.89	--	--	--	--	--	--	--	<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	14.91	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	21.03	20.91	20.79	20.55	20.41	20.33	20.19	20.04	<30dBm	Pass
165	5825	19.77	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
149	5745	6	14.57	14.91	17.75	<30dBm	Pass
157	5785	6	22.43	21.03	24.80	<30dBm	Pass
165	5825	6	20.89	19.77	23.38	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
01	2412	8.25	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.73	19.61	19.57	19.43	19.36	19.27	19.14	19.08	<30dBm	Pass
11	2462	9.04	--	--	--	--	--	--	--	<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
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
01	2412	6.94	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.11	19.02	18.91	18.82	18.68	18.56	18.43	18.36	<30dBm	Pass
11	2462	7.66	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
1	2412	HT8	8.25	6.94	10.65	<30dBm	Pass
6	2437	HT8	19.73	19.11	22.44	<30dBm	Pass
11	2462	HT8	9.04	7.66	11.41	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 5: Transmit - 802.11n-40BW_30Mbps(2.4G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
3	2422	5.46	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	19.41	19.29	19.15	19.03	18.99	18.84	18.7	18.56	<30dBm	Pass
9	2452	6.92	--	--	--	--	--	--	--	<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
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
3	2422	3.88	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	19.32	19.25	19.11	19.03	18.95	18.82	18.67	18.45	<30dBm	Pass
9	2452	6.84	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
3	2422	HT8	5.46	3.88	7.75	<30dBm	Pass
6	2437	HT8	19.41	19.32	22.38	<30dBm	Pass
9	2452	HT8	6.92	6.84	9.89	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 6: Transmit - 802.11n-20BW_14.4Mbps(5G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
149	5745	15.34	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	22.61	22.49	22.36	22.29	22.14	22.01	21.93	21.79	<30dBm	Pass
165	5825	20.45	--	--	--	--	--	--	--	<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
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
149	5745	15.78	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	21.28	21.11	21.03	20.94	20.78	20.59	20.33	20.1	<30dBm	Pass
165	5825	19.36	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
149	5745	HT8	15.34	15.78	18.58	<30dBm	Pass
157	5785	HT8	22.61	21.28	25.01	<30dBm	Pass
165	5825	HT8	20.45	19.36	22.95	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 7: Transmit - 802.11n-40BW_30Mbps(5G Band)(Dipole Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
151	5755	14.44	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	20.69	20.49	20.29	20.21	20.1	20.04	19.88	19.71	<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
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
151	5755	14.76	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	19.61	19.49	19.32	19.17	19.05	18.91	18.82	18.67	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
151	5755	HT8	14.44	14.76	17.61	<30dBm	Pass
159	5795	HT8	20.69	19.61	23.19	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (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	15.44	--	--	--	<30dBm	Pass
06	2437	19.34	19.22	19.1	18.98	<30dBm	Pass
11	2462	15.42	--	--	--	<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	16.29	--	--	--	<30dBm	Pass
06	2437	19.72	19.58	19.43	19.32	<30dBm	Pass
11	2462	15.69	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
1	2412	1	15.44	16.29	18.90	<30dBm	Pass
6	2437	1	19.34	19.72	22.54	<30dBm	Pass
11	2462	1	15.42	15.69	18.57	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (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	9.56	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.33	19.19	19.12	19.03	18.89	18.66	18.45	18.31	<30dBm	Pass
11	2462	8.49	--	--	--	--	--	--	--	<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	9.49	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.51	19.35	19.26	19.12	19.04	18.87	18.64	18.41	<30dBm	Pass
11	2462	8.24	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
1	2412	6	9.56	9.49	12.54	<30dBm	Pass
6	2437	6	19.33	19.51	22.43	<30dBm	Pass
11	2462	6	8.49	8.24	11.38	<30dBm	Pass

Note: Power Output Value (dBm) = 10*LOG (Chain A (mW)+ Chain B (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	14.54	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	21.67	21.49	21.33	21.18	21.04	20.91	20.77	20.63	<30dBm	Pass
165	5825	21.34	--	--	--	--	--	--	--	<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	15.69	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	21.43	21.32	21.18	21.04	20.99	20.75	20.58	20.44	<30dBm	Pass
165	5825	20.99	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
149	5745	6	14.54	15.69	18.16	<30dBm	Pass
157	5785	6	21.67	21.43	24.56	<30dBm	Pass
165	5825	6	21.34	20.99	24.18	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 11: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
01	2412	9.88	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.43	19.31	19.17	19.01	18.84	18.67	18.45	18.33	<30dBm	Pass
11	2462	8.56	--	--	--	--	--	--	--	<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
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
01	2412	9.54	--	--	--	--	--	--	--	<30dBm	Pass
06	2437	19.59	19.5	19.39	19.26	19.06	18.91	18.77	18.56	<30dBm	Pass
11	2462	8.77	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
1	2412	HT8	9.88	9.54	12.72	<30dBm	Pass
6	2437	HT8	19.43	19.59	22.52	<30dBm	Pass
11	2462	HT8	8.56	8.77	11.68	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 12: Transmit - 802.11n-40BW_30Mbps(2.4G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
3	2422	7.64	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	19.3	19.19	19.04	18.91	18.78	18.67	18.59	18.44	<30dBm	Pass
9	2452	6.48	--	--	--	--	--	--	--	<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
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
3	2422	6.73	--	--	--	--	--	--	--	<30dBm	Pass
6	2437	19.43	19.31	19.16	19.07	18.91	18.79	18.64	18.55	<30dBm	Pass
9	2452	6.31	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
3	2422	HT8	7.64	6.73	10.22	<30dBm	Pass
6	2437	HT8	19.30	19.43	22.38	<30dBm	Pass
9	2452	HT8	6.48	6.31	9.41	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 13: Transmit - 802.11n-20BW_14.4Mbps(5G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
149	5745	16.46	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	21.92	21.77	21.65	21.45	21.33	21.29	21.16	21.09	<30dBm	Pass
165	5825	20.77	--	--	--	--	--	--	--	<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
		14.4	28.9	43.3	57.8	86.7	115.6	130	144.4		
		Measurement Level (dBm)									
149	5745	16.91	--	--	--	--	--	--	--	<30dBm	Pass
157	5785	20.68	20.51	20.44	20.29	20.14	19.98	19.83	19.67	<30dBm	Pass
165	5825	20.96	--	--	--	--	--	--	--	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
149	5745	HT8	16.46	16.91	19.70	<30dBm	Pass
157	5785	HT8	21.92	20.68	24.35	<30dBm	Pass
165	5825	HT8	20.77	20.96	23.88	<30dBm	Pass

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

Product : SpectraGuard® Access Point / Sensor
Test Item : Maximum Conducted Power
Test Site : No.3 OATS
Test Mode : Mode 14: Transmit - 802.11n-40BW_30Mbps(5G Band)(PIFA Antenna)

CHAIN A

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit	Result
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
151	5755	15.45	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	20.91	20.78	20.66	20.44	20.23	20.11	20.04	19.88	<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
		30	60	90	120	180	240	270	300		
		Measurement Level (dBm)									
151	5755	15.88	--	--	--	--	--	--	--	<30dBm	Pass
159	5795	20.34	20.22	20.09	19.94	19.78	19.57	19.44	19.24	<30dBm	Pass

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

CHAIN A+B

Channel	Frequency (MHz)	Data Rata (Mbps)	Chain A Power (dBm)	Chain B Power (dBm)	Chain A+B Power (dBm)	Limit (dBm)	Result
151	5755	HT8	15.45	15.88	18.68	<30dBm	Pass
159	5795	HT8	20.91	20.34	23.64	<30dBm	Pass

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

4. Radiated Emission

4.1. Test Equipment

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

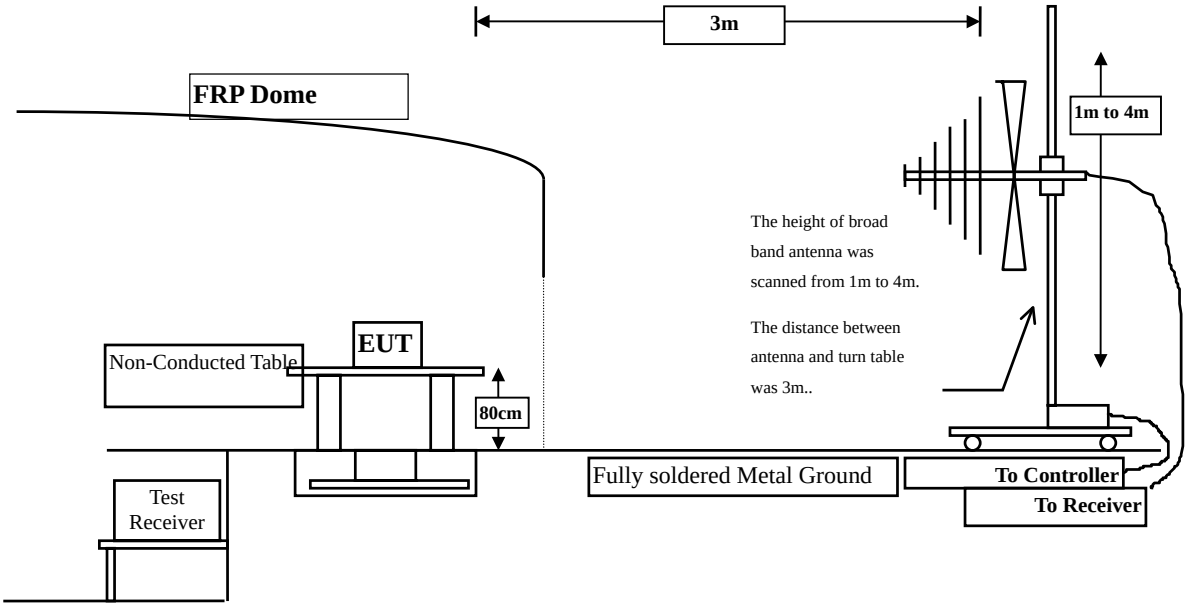
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Loop Antenna	Teseq	HLA6120 / 26739	Jul., 2013
	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2013
	X	Pre-Amplifier	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.

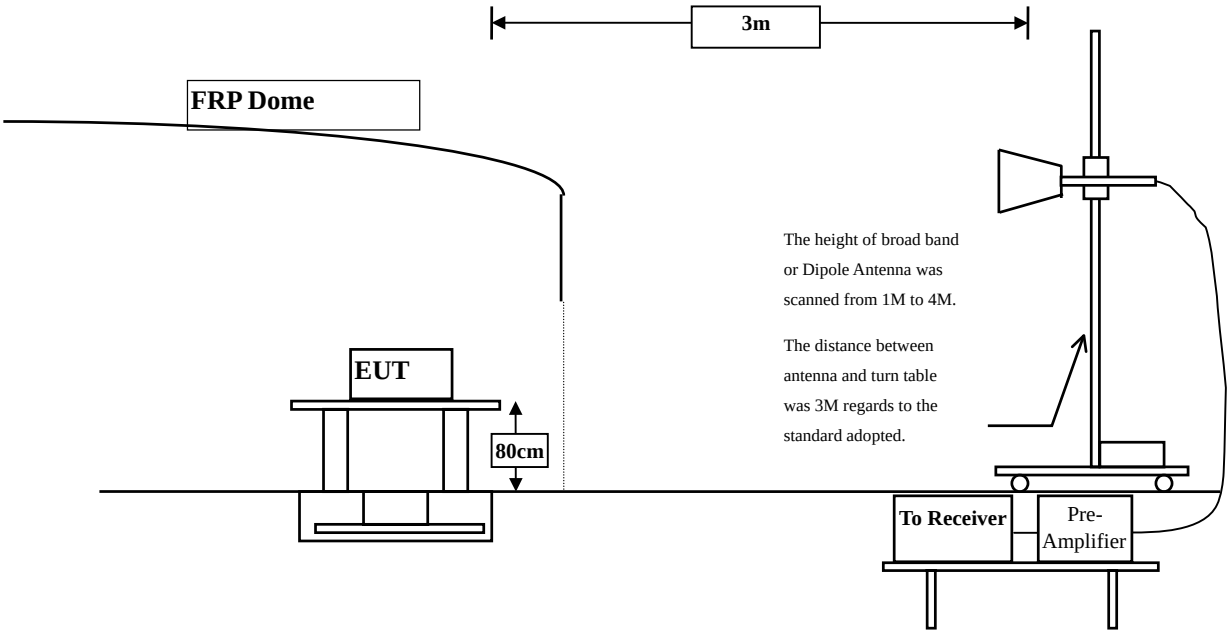
2. The test instruments marked with “X” are used to measure the final test results.

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	42.260	45.521	-28.479	74.000
7236.000	10.650	39.360	50.010	-23.990	74.000
9648.000	13.337	36.250	49.586	-24.414	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	40.230	46.651	-27.349	74.000
7236.000	11.495	39.150	50.645	-23.355	74.000
9648.000	13.807	36.950	50.756	-23.244	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	44.430	47.467	-26.533	74.000
7311.000	11.795	41.600	53.394	-20.606	74.000
9748.000	12.635	36.690	49.325	-24.675	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	41.850	47.661	-26.339	74.000
7311.000	12.630	41.360	53.989	-20.011	74.000
9748.000	13.126	37.070	50.196	-23.804	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	41.030	43.887	-30.113	74.000
7386.000	12.127	39.310	51.438	-22.562	74.000
9848.000	12.852	37.070	49.923	-24.077	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	38.820	44.340	-29.660	74.000
7386.000	13.254	38.260	51.514	-22.486	74.000
9848.000	13.367	35.060	48.427	-25.573	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	37.640	40.901	-33.099	74.000
7236.000	10.650	35.150	45.800	-28.200	74.000
9648.000	13.337	34.960	48.296	-25.704	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	36.960	43.381	-30.619	74.000
7236.000	11.495	34.880	46.375	-27.625	74.000
9648.000	13.807	34.800	48.606	-25.394	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	46.880	49.917	-24.083	74.000
7311.000	11.795	51.390	63.184	-10.816	74.000
9748.000	12.635	36.600	49.235	-24.765	74.000
Average					
Detector:					
7311.000	11.795	41.110	52.904	-1.096	54.000
Vertical					
Peak Detector:					
4874.000	5.812	42.010	47.821	-26.179	74.000
7311.000	12.630	50.920	63.549	-10.451	74.000
9748.000	13.126	37.100	50.226	-23.774	74.000
Average					
Detector:					
7311.000	12.630	36.070	48.699	-5.301	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	39.760	42.617	-31.383	74.000
7386.000	12.127	35.240	47.368	-26.632	74.000
9848.000	12.852	37.680	50.533	-23.467	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	36.190	41.710	-32.290	74.000
7386.000	13.254	34.150	47.404	-26.596	74.000
9848.000	13.367	35.110	48.477	-25.523	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	44.890	61.997	-12.003	74.000
Average Detector:					
11490.000	17.106	29.520	46.627	-7.373	54.000
Vertical Peak Detector:					
11490.000	18.034	35.760	53.795	-20.205	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	50.960	67.769	-6.231	74.000
Average Detector:					
11570.000	16.809	35.530	52.339	-1.661	54.000
Vertical Peak Detector:					
11570.000	17.698	40.830	58.528	-15.472	74.000
Average Detector:					
11570.000	17.698	27.300	44.998	-9.002	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	47.270	63.428	-10.572	74.000
Average Detector:					
11650.000	16.158	33.770	49.928	-4.072	54.000
Vertical Peak Detector:					
11650.000	17.274	38.540	55.815	-18.185	74.000
Average Detector:					
11650.000	17.274	25.980	43.255	-10.745	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_14.4Mbps(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	6.421	37.590	44.011	-29.989	74.000
7236.000	11.495	35.070	46.565	-27.435	74.000
9648.000	13.807	35.690	49.496	-24.504	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4874.000	3.038	43.600	46.637	-27.363	74.000
7311.000	11.795	52.570	64.364	-9.636	74.000
9748.000	12.635	36.830	49.465	-24.535	74.000
Average					
Detector:					
7311.000	11.795	38.810	50.604	-3.396	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_14.4Mbps(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	5.812	40.380	46.191	-27.809	74.000
7311.000	12.630	46.610	59.239	-14.761	74.000
9748.000	13.126	37.270	50.396	-23.604	74.000
Average					
Detector:					
7311.000	12.630	33.330	45.959	-8.041	54.000
Vertical					
Peak Detector:					
4924.000	2.858	37.180	40.037	-33.963	74.000
7386.000	12.127	34.690	46.818	-27.182	74.000
9848.000	12.852	36.910	49.763	-24.237	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_14.4Mbps(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	5.521	36.680	42.200	-31.800	74.000
7386.000	13.254	35.310	48.564	-25.436	74.000
9848.000	13.367	36.180	49.547	-24.453	74.000
Average Detector:					
--					
Vertical Peak Detector:					
4844.000	3.171	36.100	39.271	-34.729	74.000
7266.000	11.162	34.730	45.892	-28.108	74.000
9688.000	12.964	35.190	48.155	-25.845	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_30Mbps(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	6.178	35.660	41.838	-32.162	74.000
7266.000	11.982	34.610	46.592	-27.408	74.000
9688.000	13.507	35.440	48.948	-25.052	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4874.000	3.038	42.050	45.087	-28.913	74.000
7311.000	11.795	49.840	61.634	-12.366	74.000
9748.000	12.635	36.640	49.275	-24.725	74.000
Average					
Detector:					
7311.000	11.795	36.610	48.404	-5.596	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 5: Transmit - 802.11n-40BW_30Mbps(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	5.812	38.710	44.521	-29.479	74.000
7311.000	12.630	46.210	58.839	-15.161	74.000
9748.000	13.126	37.240	50.366	-23.634	74.000
Average					
Detector:					
7311.000	12.630	32.650	45.279	-8.721	54.000
Vertical					
Peak Detector:					
4904.000	2.914	36.430	39.345	-34.655	74.000
7356.000	11.995	33.290	45.284	-28.716	74.000
9808.000	12.475	34.730	47.205	-26.795	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_30Mbps(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	5.530	35.970	41.501	-32.499	74.000
7356.000	13.005	34.350	47.354	-26.646	74.000
9808.000	12.901	35.470	48.371	-25.629	74.000
Average Detector:					
--					
Vertical Peak Detector:					
4904.000	0.513	41.170	41.684	-32.316	74.000
7356.000	9.022	38.550	47.572	-26.428	74.000
9808.000	8.512	39.440	47.952	-26.048	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_14.4Mbps(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	41.820	58.927	-15.073	74.000
Average					
Detector:					
11490.000	17.106	27.970	45.077	-8.923	54.000
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 6: Transmit - 802.11n-20BW_14.4Mbps(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	45.750	62.559	-11.441	74.000
Average Detector:					
11570.000	16.809	31.620	48.429	-5.571	54.000
Vertical Peak Detector:					
11570.000	17.698	39.530	57.228	-16.772	74.000
Average Detector:					
11570.000	17.698	26.520	44.218	-9.782	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 6: Transmit - 802.11n-20BW_14.4Mbps(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	44.150	60.308	-13.692	74.000
Average Detector:					
11650.000	16.158	32.580	48.738	-5.262	54.000
Vertical Peak Detector:					
11650.000	17.274	36.700	53.975	-20.025	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_30Mbps(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	35.920	53.044	-20.956	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11510.000	18.081	35.650	53.731	-20.269	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_30Mbps(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	41.950	58.650	-15.350	74.000
Average Detector:					
11590.000	16.701	29.180	45.880	-8.120	54.000
Vertical Peak Detector:					
11590.000	17.567	36.240	53.806	-20.194	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	40.280	43.541	-30.459	74.000
7236.000	10.650	37.440	48.090	-25.910	74.000
9648.000	13.337	34.970	48.306	-25.694	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	36.000	42.421	-31.579	74.000
7236.000	11.495	36.550	48.045	-25.955	74.000
9648.000	13.807	34.770	48.576	-25.424	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	44.630	47.667	-26.333	74.000
7311.000	11.795	45.350	57.144	-16.856	74.000
9748.000	12.635	37.020	49.655	-24.345	74.000
Average Detector:					
7311.000	11.795	40.500	52.294	-1.706	54.000
Vertical Peak Detector:					
4874.000	5.812	43.570	49.381	-24.619	74.000
7311.000	12.630	47.570	60.199	-13.801	74.000
9748.000	13.126	38.290	51.416	-22.584	74.000
Average Detector:					
7311.000	12.630	40.880	53.509	-0.491	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	42.470	45.327	-28.673	74.000
7386.000	12.127	44.240	56.368	-17.632	74.000
9848.000	12.852	36.050	48.903	-25.097	74.000
Average					
Detector:					
7386.000	12.127	38.550	50.678	-3.322	54.000
Vertical					
Peak Detector:					
4924.000	5.521	41.010	46.530	-27.470	74.000
7386.000	13.254	42.790	56.044	-17.956	74.000
9848.000	13.367	36.880	50.247	-23.753	74.000
Average					
Detector:					
7386.000	13.254	36.570	49.824	-4.176	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	35.950	39.211	-34.789	74.000
7236.000	10.650	33.980	44.630	-29.370	74.000
9648.000	13.337	34.390	47.726	-26.274	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	36.810	43.231	-30.769	74.000
7236.000	11.495	34.550	46.045	-27.955	74.000
9648.000	13.807	34.560	48.366	-25.634	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	46.100	49.137	-24.863	74.000
7311.000	11.795	54.580	66.374	-7.626	74.000
9748.000	12.635	37.390	50.025	-23.975	74.000
Average					
Detector:					
7311.000	11.795	40.200	51.994	-2.006	54.000
Vertical					
Peak Detector:					
4874.000	5.812	44.310	50.121	-23.879	74.000
7311.000	12.630	54.280	66.909	-7.091	74.000
9748.000	13.126	36.400	49.526	-24.474	74.000
Average					
Detector:					
7311.000	12.630	39.220	51.849	-2.151	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	34.690	37.547	-36.453	74.000
7386.000	12.127	33.690	45.818	-28.182	74.000
9848.000	12.852	34.820	47.673	-26.327	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	34.600	40.120	-33.880	74.000
7386.000	13.254	33.600	46.854	-27.146	74.000
9848.000	13.367	35.140	48.507	-25.493	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	36.360	53.467	-20.533	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11490.000	18.034	35.490	53.525	-20.475	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	41.050	57.859	-16.141	74.000
Average Detector:					
11570.000	16.809	27.310	44.119	-9.881	54.000
Vertical Peak Detector:					
11570.000	17.698	41.630	59.328	-14.672	74.000
Average Detector:					
11570.000	17.698	27.610	45.308	-8.692	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	44.080	60.238	-13.762	74.000
Average Detector:					
11650.000	16.158	30.130	46.288	-7.712	54.000
Vertical Peak Detector:					
11650.000	17.274	42.630	59.905	-14.095	74.000
Average Detector:					
11650.000	17.274	29.630	46.905	-7.095	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_14.4Mbps(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	35.220	38.481	-35.519	74.000
7236.000	10.650	34.480	45.130	-28.870	74.000
9648.000	13.337	33.570	46.906	-27.094	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	36.150	42.571	-31.429	74.000
7236.000	11.495	34.370	45.865	-28.135	74.000
9648.000	13.807	33.870	47.676	-26.324	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_14.4Mbps(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	44.320	47.357	-26.643	74.000
7311.000	11.795	51.460	63.254	-10.746	74.000
9748.000	12.635	37.060	49.695	-24.305	74.000
Average					
Detector:					
7311.000	11.795	38.320	50.114	-3.886	54.000
Vertical					
Peak Detector:					
4874.000	5.812	42.850	48.661	-25.339	74.000
7311.000	12.630	51.180	63.809	-10.191	74.000
9748.000	13.126	37.190	50.316	-23.684	74.000
Average					
Detector:					
7311.000	12.630	37.100	49.729	-4.271	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_14.4Mbps(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	35.820	38.677	-35.323	74.000
7386.000	12.127	33.530	45.658	-28.342	74.000
9848.000	12.852	35.700	48.553	-25.447	74.000
Average Detector:					
--					
Vertical Peak Detector:					
4924.000	5.521	35.690	41.210	-32.790	74.000
7386.000	13.254	34.080	47.334	-26.666	74.000
9848.000	13.367	39.630	52.997	-21.003	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_30Mbps(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	35.380	38.551	-35.449	74.000
7266.000	11.162	34.910	46.072	-27.928	74.000
9688.000	12.964	34.720	47.685	-26.315	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	6.178	36.340	42.518	-31.482	74.000
7266.000	11.982	33.910	45.892	-28.108	74.000
9688.000	13.507	33.300	46.808	-27.192	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_30Mbps(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	41.910	44.947	-29.053	74.000
7311.000	11.795	48.580	60.374	-13.626	74.000
9748.000	12.635	36.970	49.605	-24.395	74.000
Average Detector:					
4874.000	3.038	41.910	44.947	-29.053	74.000
Vertical Peak Detector:					
4874.000	5.812	41.080	46.891	-27.109	74.000
7311.000	12.630	46.910	59.539	-14.461	74.000
9748.000	13.126	37.670	50.796	-23.204	74.000
Average Detector:					
7311.000	12.630	34.100	46.729	-7.271	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_30Mbps(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	34.910	37.825	-36.175	74.000
7356.000	11.995	33.590	45.584	-28.416	74.000
9808.000	12.475	35.500	47.975	-26.025	74.000
Average Detector:					
--					
Vertical Peak Detector:					
4904.000	5.530	34.960	40.491	-33.509	74.000
7356.000	13.005	33.230	46.234	-27.766	74.000
9808.000	12.901	34.110	47.011	-26.989	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_14.4Mbps(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	35.860	52.967	-21.033	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11490.000	18.034	35.890	53.925	-20.075	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_14.4Mbps(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	38.440	55.249	-18.751	74.000
Average Detector:					
11570.000	16.809	25.110	41.919	-12.081	54.000
Vertical Peak Detector:					
11570.000	17.698	40.810	58.508	-15.492	74.000
Average Detector:					
11570.000	17.698	28.250	45.948	-8.052	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_14.4Mbps(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	37.670	53.828	-20.172	74.000
Average Detector:					
--					
Vertical Peak Detector:					
11650.000	17.274	41.800	59.075	-14.925	74.000
Average Detector:					
11650.000	17.274	28.450	45.725	-8.275	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 14: Transmit - 802.11n-40BW_30Mbps(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	35.490	52.614	-21.386	74.000
Average					
Detector:					
--					
Vertical					
Peak Detector:					
11510.000	18.081	35.700	53.781	-20.219	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_30Mbps(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	38.840	55.540	-18.460	74.000
Average Detector:					
11590.000	16.701	25.780	42.480	-11.520	54.000
Vertical Peak Detector:					
11590.000	17.567	38.430	55.996	-18.004	74.000
Average Detector:					
11590.000	17.567	25.840	43.406	-10.594	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 : 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					
375.320	-1.209	30.079	28.870	-17.130	46.000
507.240	0.759	33.256	34.015	-11.985	46.000
600.360	3.977	34.373	38.350	-7.650	46.000
710.940	3.596	31.939	35.535	-10.465	46.000
749.740	3.320	34.006	37.326	-8.674	46.000
935.980	6.421	25.719	32.140	-13.860	46.000
Vertical					
249.220	-7.634	43.168	35.534	-10.466	46.000
375.320	-2.029	30.040	28.011	-17.989	46.000
600.360	-2.833	34.787	31.954	-14.046	46.000
664.380	-1.918	32.889	30.971	-15.029	46.000
747.800	2.166	30.869	33.035	-12.965	46.000
951.500	6.621	26.484	33.105	-12.895	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					
107.600	-7.058	37.938	30.880	-12.620	43.500
249.220	-6.014	45.667	39.653	-6.347	46.000
507.240	0.759	33.824	34.583	-11.417	46.000
600.360	3.977	35.796	39.773	-6.227	46.000
747.800	3.296	33.490	36.786	-9.214	46.000
879.720	6.115	28.243	34.358	-11.642	46.000
Vertical					
249.220	-7.634	42.489	34.855	-11.145	46.000
365.620	-2.179	30.037	27.858	-18.142	46.000
507.240	-0.471	31.133	30.662	-15.338	46.000
687.660	2.444	28.313	30.757	-15.243	46.000
833.160	2.263	31.510	33.773	-12.227	46.000
953.440	6.637	32.112	38.749	-7.251	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					
43.580	-4.496	33.201	28.705	-11.295	40.000
136.700	-10.363	41.382	31.019	-12.481	43.500
344.280	-2.591	40.938	38.348	-7.652	46.000
507.240	0.759	39.774	40.533	-5.467	46.000
679.900	2.870	30.809	33.679	-12.321	46.000
749.740	3.320	33.969	37.289	-8.711	46.000
Vertical					
225.940	-8.598	41.808	33.209	-12.791	46.000
359.800	-3.810	39.962	36.152	-9.848	46.000
608.120	-1.576	36.161	34.585	-11.415	46.000
747.800	2.166	32.872	35.038	-10.962	46.000
813.760	3.168	28.357	31.525	-14.475	46.000
968.960	8.191	26.291	34.482	-19.518	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 4: Transmit - 802.11n-20BW_14.4Mbps(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					
94.020	-8.189	38.386	30.196	-13.304	43.500
303.540	-3.074	36.105	33.031	-12.969	46.000
507.240	0.759	33.483	34.242	-11.758	46.000
600.360	3.977	34.183	38.160	-7.840	46.000
749.740	3.320	32.470	35.790	-10.210	46.000
875.840	5.271	30.281	35.552	-10.448	46.000
Vertical					
202.660	-7.739	40.792	33.053	-10.447	43.500
315.180	-6.886	34.918	28.032	-17.968	46.000
507.240	-0.471	32.101	31.630	-14.370	46.000
666.320	-1.809	32.360	30.552	-15.448	46.000
790.480	2.913	34.630	37.542	-8.458	46.000
947.620	6.609	26.143	32.752	-13.248	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_30Mbps(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					
303.540	-3.074	35.164	32.090	-13.910	46.000
404.420	-2.269	33.383	31.114	-14.886	46.000
507.240	0.759	34.297	35.056	-10.944	46.000
600.360	3.977	34.137	38.114	-7.886	46.000
747.800	3.296	33.177	36.473	-9.527	46.000
916.580	6.144	34.128	40.272	-5.728	46.000
Vertical					
70.740	-6.151	39.037	32.886	-7.114	40.000
249.220	-7.634	41.607	33.973	-12.027	46.000
507.240	-0.471	31.742	31.271	-14.729	46.000
747.800	2.166	31.008	33.174	-12.826	46.000
875.840	1.621	29.605	31.226	-14.774	46.000
967.020	8.071	27.509	35.580	-18.420	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_14.4Mbps(5G Band)(Dipole Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
198.780	-10.661	47.012	36.351	-7.149	43.500
344.280	-2.591	41.357	38.767	-7.233	46.000
499.480	0.048	33.339	33.387	-12.613	46.000
608.120	4.384	36.967	41.351	-4.649	46.000
656.620	2.128	30.314	32.442	-13.558	46.000
747.800	3.296	31.541	34.837	-11.163	46.000
Vertical					
128.940	-4.128	36.642	32.514	-10.986	43.500
247.280	-8.042	43.144	35.101	-10.899	46.000
375.320	-2.029	36.947	34.918	-11.082	46.000
499.480	-0.852	36.607	35.755	-10.245	46.000
608.120	-1.576	35.620	34.044	-11.956	46.000
838.980	2.611	29.441	32.052	-13.948	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_30Mbps(5G Band)(Dipole Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
249.220	-6.014	43.389	37.375	-8.625	46.000
423.820	-3.167	42.436	39.269	-6.731	46.000
507.240	0.759	39.314	40.073	-5.927	46.000
676.020	2.911	28.971	31.882	-14.118	46.000
749.740	3.320	33.913	37.233	-8.767	46.000
852.560	6.342	27.460	33.802	-12.198	46.000
Vertical					
202.660	-7.739	43.403	35.664	-7.836	43.500
361.740	-3.129	42.831	39.702	-6.298	46.000
520.820	-0.298	34.828	34.530	-11.470	46.000
672.140	-1.149	32.336	31.187	-14.813	46.000
749.740	2.510	32.341	34.851	-11.149	46.000
920.460	5.517	28.832	34.349	-11.651	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					
173.560	-9.954	38.617	28.664	-14.836	43.500
200.720	-10.595	41.175	30.580	-12.920	43.500
400.540	-2.276	31.592	29.316	-16.684	46.000
600.360	3.977	34.176	38.153	-7.847	46.000
749.740	3.320	33.781	37.101	-8.899	46.000
873.900	5.200	33.385	38.585	-7.415	46.000
Vertical					
225.940	-8.598	41.401	32.802	-13.198	46.000
353.980	-3.652	30.497	26.845	-19.155	46.000
507.240	-0.471	32.539	32.068	-13.932	46.000
666.320	-1.809	32.778	30.970	-15.030	46.000
784.660	3.012	33.465	36.477	-9.523	46.000
965.080	7.932	26.905	34.837	-19.163	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 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					
136.700	-10.363	38.075	27.712	-15.788	43.500
303.540	-3.074	34.240	31.166	-14.834	46.000
412.180	-3.245	33.159	29.914	-16.086	46.000
507.240	0.759	32.604	33.363	-12.637	46.000
687.660	3.294	27.280	30.574	-15.426	46.000
914.640	6.083	29.896	35.979	-10.021	46.000
Vertical					
202.660	-7.739	38.911	31.172	-12.328	43.500
507.240	-0.471	32.815	32.344	-13.656	46.000
664.380	-1.918	33.017	31.099	-14.901	46.000
747.800	2.166	30.479	32.645	-13.355	46.000
833.160	2.263	34.619	36.882	-9.118	46.000
970.900	7.302	28.644	35.946	-18.054	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.
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					
148.340	-10.254	46.170	35.916	-7.584	43.500
361.740	-1.549	39.889	38.340	-7.660	46.000
608.120	4.384	35.337	39.721	-6.279	46.000
747.800	3.296	34.606	37.902	-8.098	46.000
873.900	5.200	32.834	38.034	-7.966	46.000
998.060	8.386	35.736	44.122	-9.878	54.000
Vertical					
202.660	-7.739	44.629	36.890	-6.610	43.500
381.140	-1.558	42.124	40.566	-5.434	46.000
542.160	-0.269	33.693	33.424	-12.576	46.000
666.320	-1.809	39.744	37.936	-8.064	46.000
749.740	2.510	31.457	33.967	-12.033	46.000
846.740	2.601	29.474	32.075	-13.925	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 11: Transmit - 802.11n-20BW_14.4Mbps(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					
303.540	-3.074	33.871	30.797	-15.203	46.000
400.540	-2.276	31.853	29.577	-16.423	46.000
507.240	0.759	33.524	34.283	-11.717	46.000
749.740	3.320	33.006	36.326	-9.674	46.000
866.140	5.596	29.811	35.407	-10.593	46.000
935.980	6.421	28.124	34.545	-11.455	46.000
Vertical					
136.700	-5.143	38.284	33.141	-10.359	43.500
381.140	-1.558	29.932	28.374	-17.626	46.000
507.240	-0.471	33.562	33.091	-12.909	46.000
666.320	-1.809	33.610	31.802	-14.198	46.000
749.740	2.510	30.363	32.873	-13.127	46.000
968.960	8.191	27.540	35.731	-18.269	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_30Mbps(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					
105.660	-6.673	39.263	32.590	-10.910	43.500
303.540	-3.074	34.287	31.213	-14.787	46.000
375.320	-1.209	30.684	29.475	-16.525	46.000
507.240	0.759	34.023	34.782	-11.218	46.000
664.380	2.062	32.218	34.280	-11.720	46.000
959.260	6.294	26.009	32.303	-13.697	46.000
Vertical					
179.380	-8.591	36.494	27.903	-15.597	43.500
344.280	-3.171	31.948	28.778	-17.222	46.000
507.240	-0.471	32.321	31.850	-14.150	46.000
664.380	-1.918	34.844	32.926	-13.074	46.000
786.600	2.972	28.571	31.543	-14.457	46.000
957.320	6.789	26.725	33.514	-12.486	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.

Product : SpectraGuard® Access Point / Sensor
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 13: Transmit - 802.11n-20BW_14.4Mbps(5G Band)(PIFA Antenna) (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
297.720	-3.633	43.741	40.109	-5.891	46.000
412.180	-3.245	38.319	35.074	-10.926	46.000
608.120	4.384	36.872	41.256	-4.744	46.000
749.740	3.320	33.722	37.042	-8.958	46.000
854.500	6.626	27.537	34.163	-11.837	46.000
972.840	6.802	26.335	33.137	-20.863	54.000
Vertical					
132.820	-4.440	41.850	37.410	-6.090	43.500
206.540	-7.705	46.799	39.094	-4.406	43.500
282.200	-8.461	47.082	38.621	-7.379	46.000
365.620	-2.179	43.072	40.893	-5.107	46.000
497.540	-1.393	36.599	35.206	-10.794	46.000
666.320	-1.809	41.584	39.776	-6.224	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_30Mbps(5G Band)(PIFA Antenna) (5755MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
200.720	-10.595	44.382	33.787	-9.713	43.500
357.860	-2.084	38.368	36.284	-9.716	46.000
530.520	1.873	34.118	35.991	-10.009	46.000
629.460	1.560	33.717	35.277	-10.723	46.000
749.740	3.320	33.185	36.505	-9.495	46.000
930.160	7.187	26.542	33.729	-12.271	46.000
Vertical					
198.780	-8.221	39.075	30.854	-12.646	43.500
355.920	-3.488	41.190	37.702	-8.298	46.000
497.540	-1.393	37.879	36.486	-9.514	46.000
664.380	-1.918	40.012	38.094	-7.906	46.000
749.740	2.510	31.471	33.981	-12.019	46.000
831.220	2.561	28.221	30.782	-15.218	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

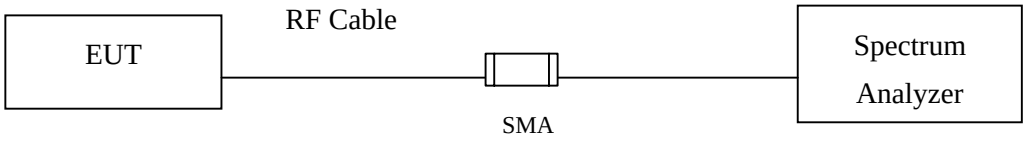
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2013
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2013
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2013

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

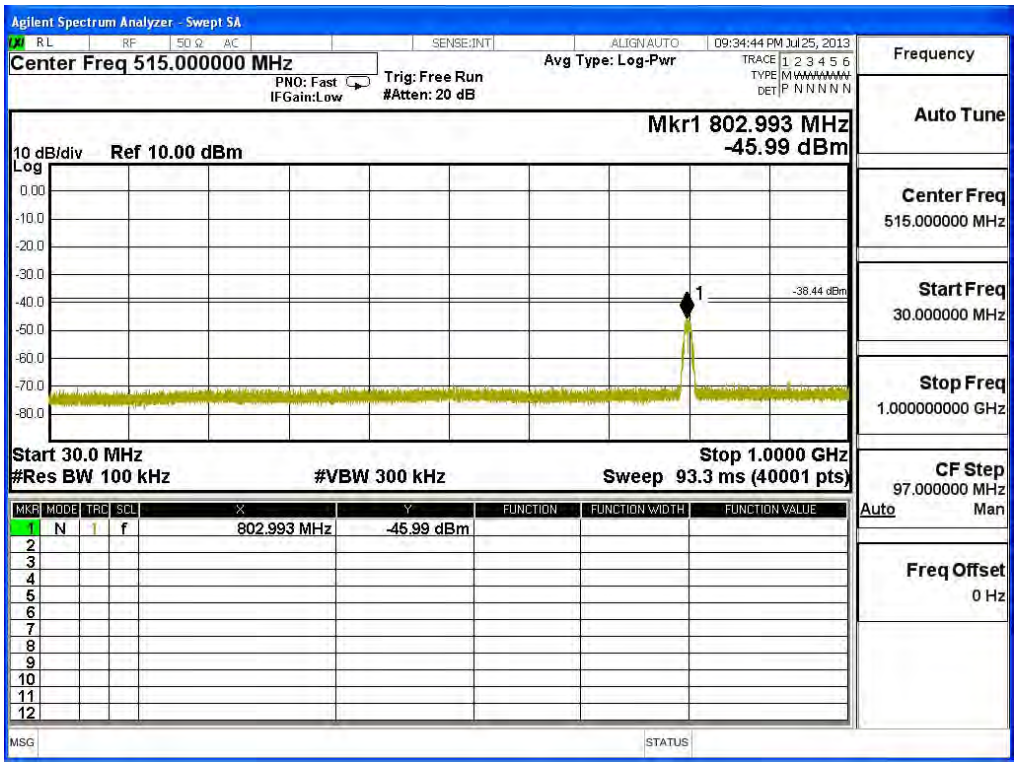
The measurement uncertainty

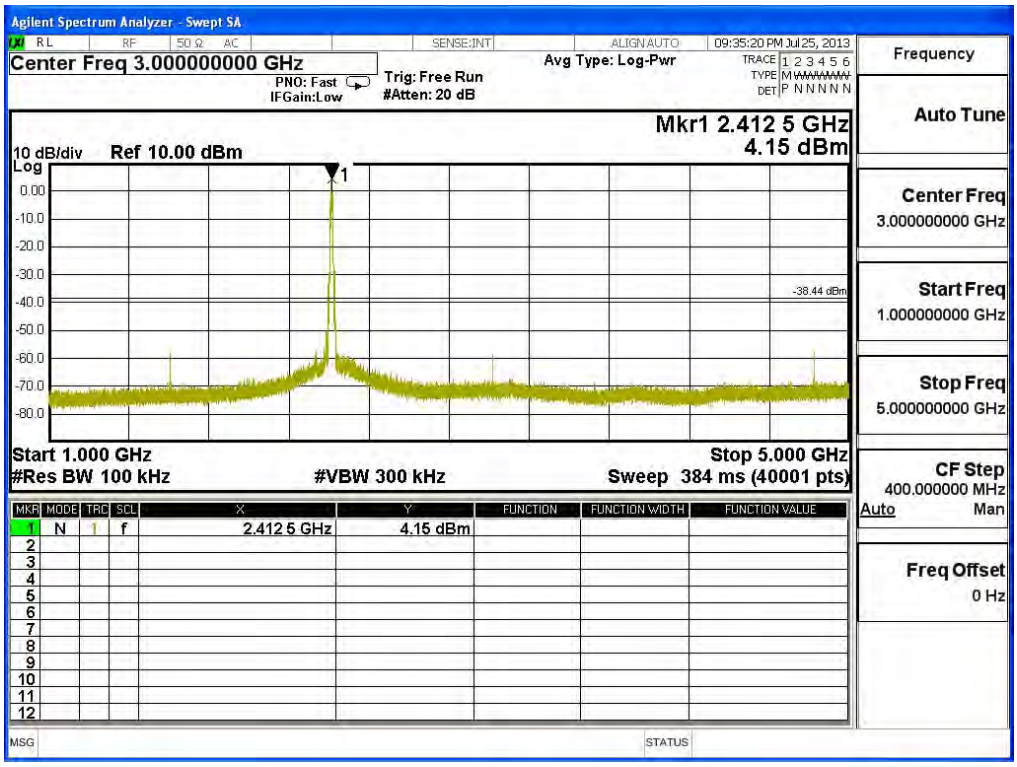
Conducted is defined as ± 1.27dB

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

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PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:35:20 PM Jul 25, 2013
Mkr1 2.412 5 GHz
4.15 dBm
10 dB/div
Ref 10.00 dBm
Log
-38.44 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 2.412 5 GHz 4.15 dBm
Frequency
Auto Tune
Center Freq
3.000000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
5.000000000 GHz
CF Step
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Auto
Man
Freq Offset
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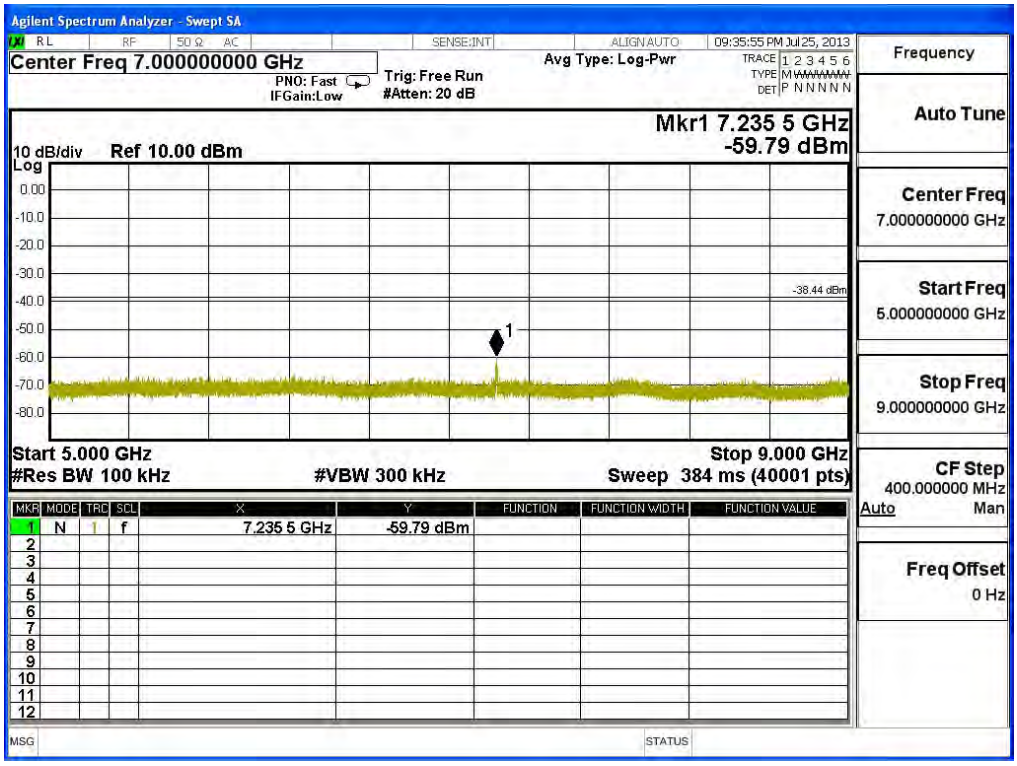
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Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
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Mkr1 7.235 5 GHz
-59.79 dBm
10 dB/div
Ref 10.00 dBm
Log
-38.44 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.235 5 GHz -59.79 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
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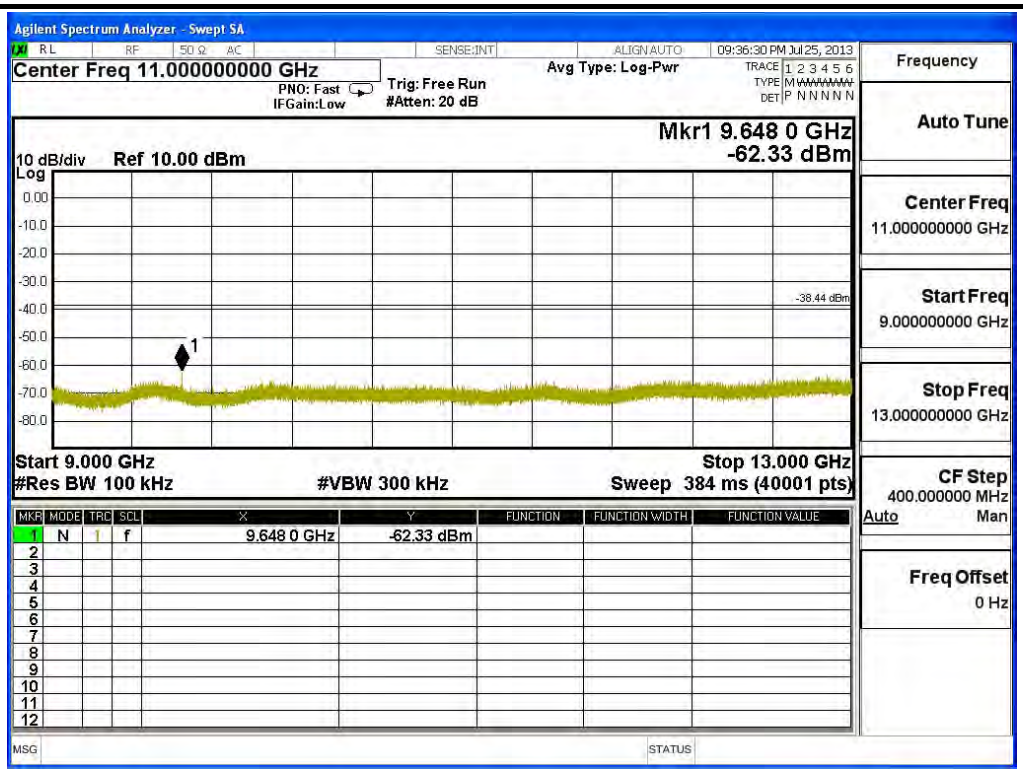
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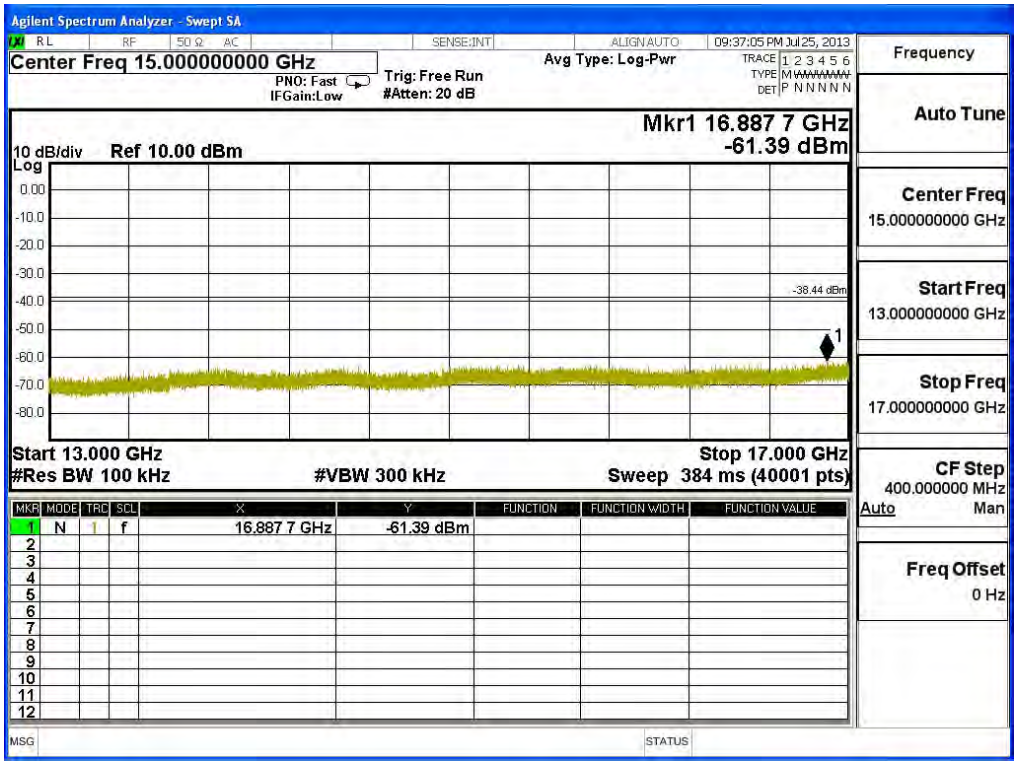
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:36:30 PM Jul 25, 2013
Mkr1 9.648 0 GHz
-62.33 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.44 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.648 0 GHz -62.33 dBm
Frequency
Auto Tune
Center Freq
11.000000000 GHz
Start Freq
9.000000000 GHz
Stop Freq
13.000000000 GHz
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz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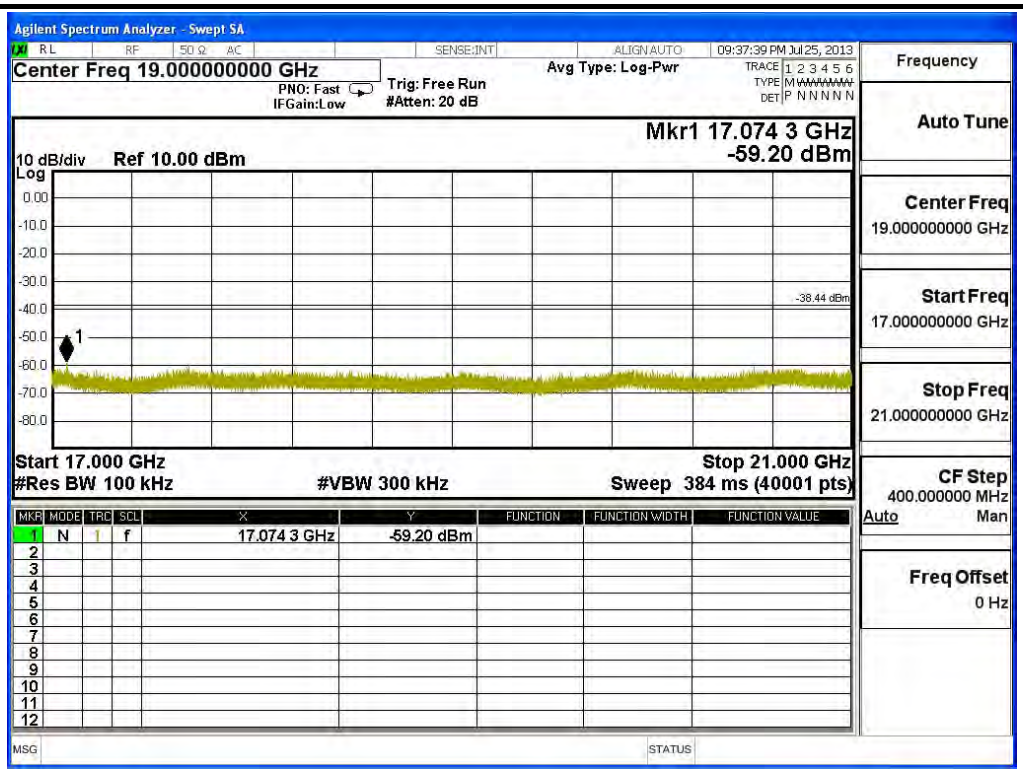
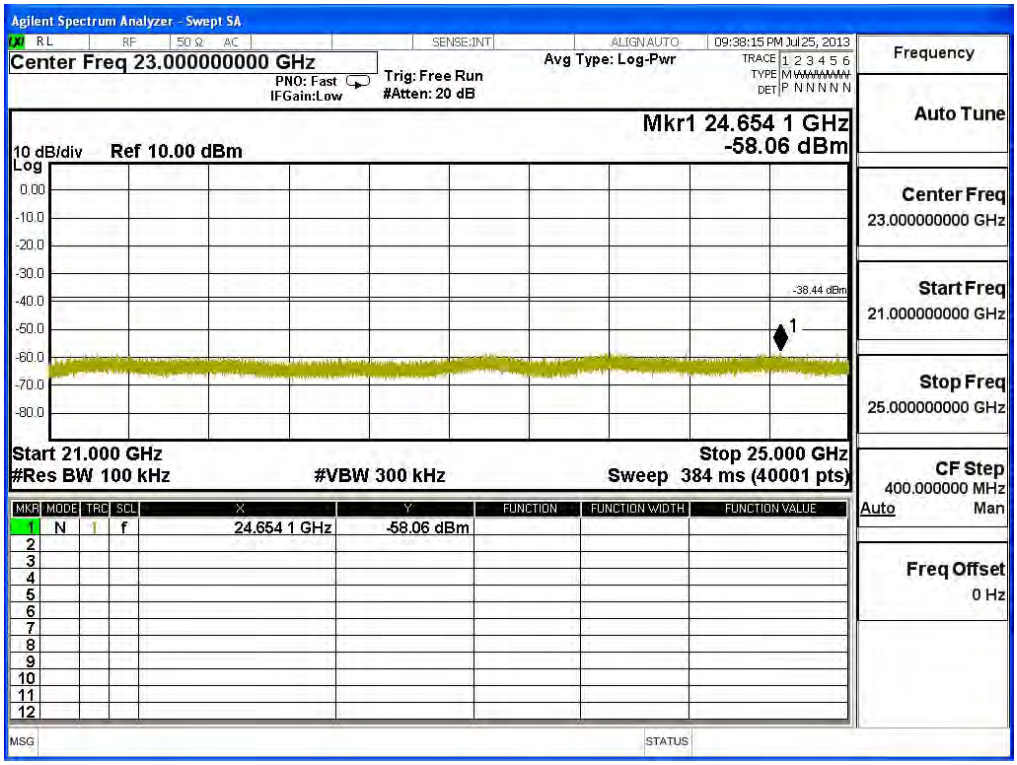
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:37:05 PM Jul 25, 2013
Mkr1 16.887 7 GHz
-61.39 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.44 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.887 7 GHz -61.39 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
09:37:39 PM Jul 25, 2013
Mkr1 17.074 3 GHz
-59.20 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.44 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 17.074 3 GHz -59.20 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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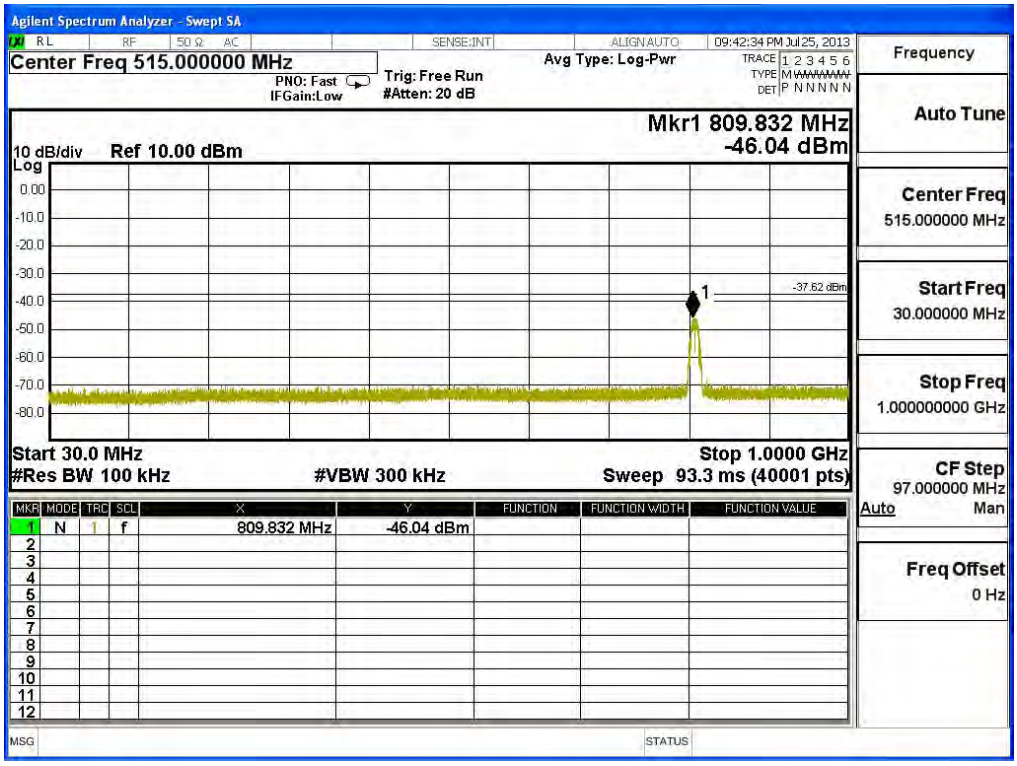
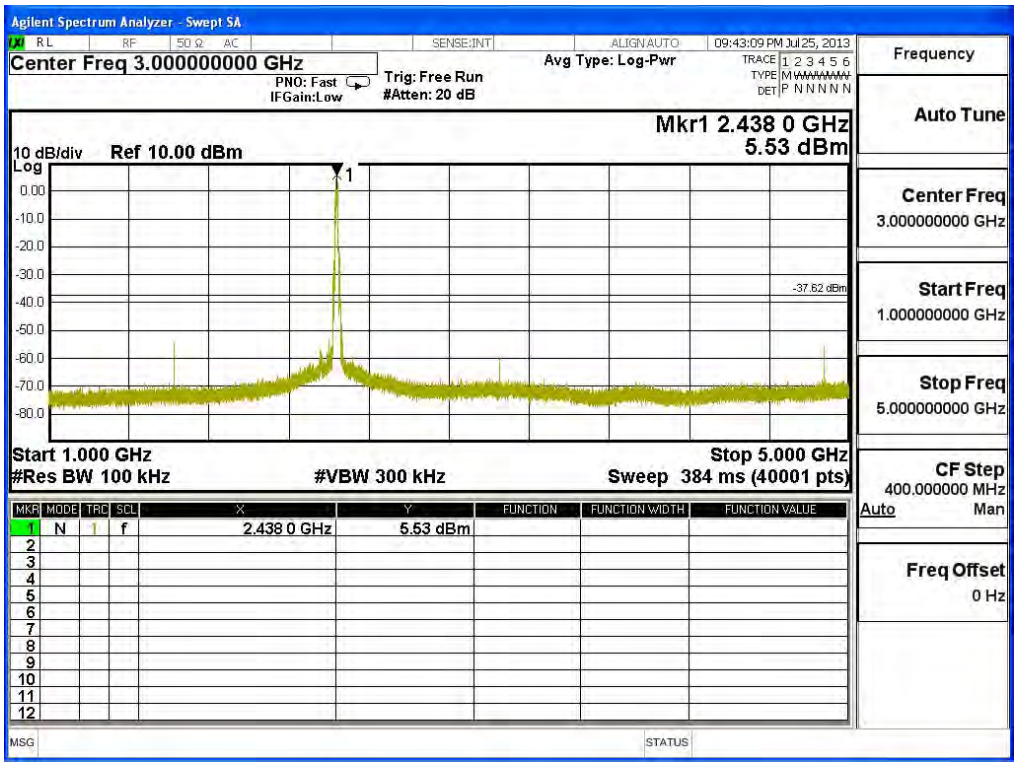
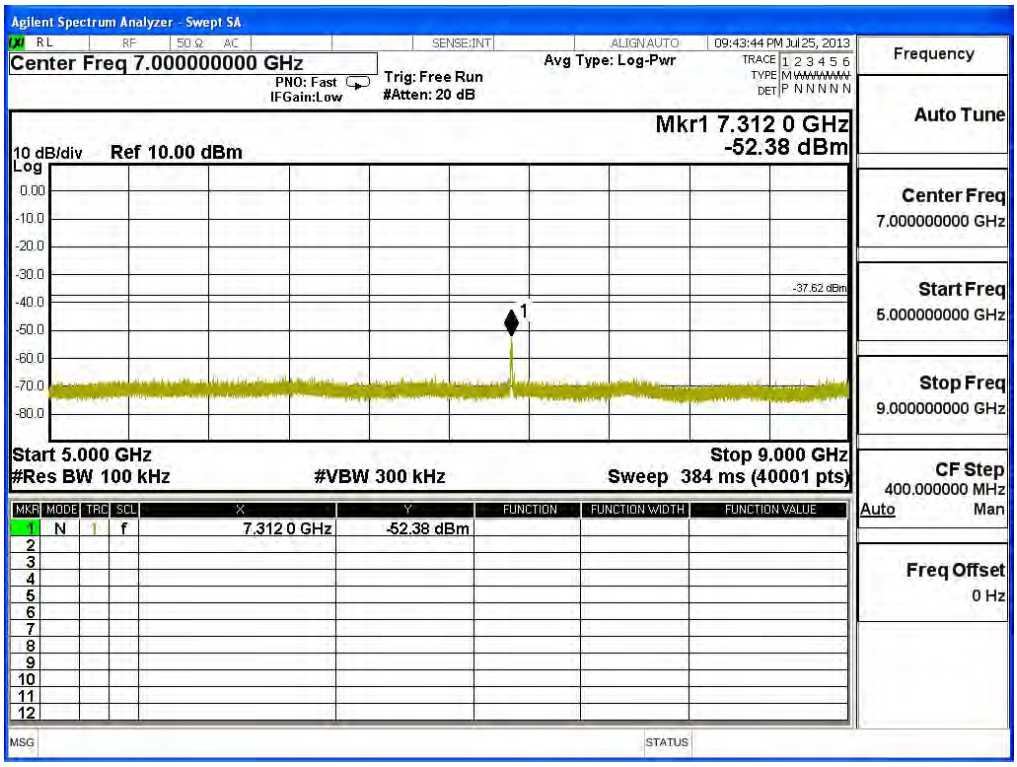
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:38:15 PM Jul 25, 2013
Mkr1 24.654 1 GHz
-58.06 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.44 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 24.654 1 GHz -58.06 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 06 (2437MHz) 30MHz -25GHz-Chain A



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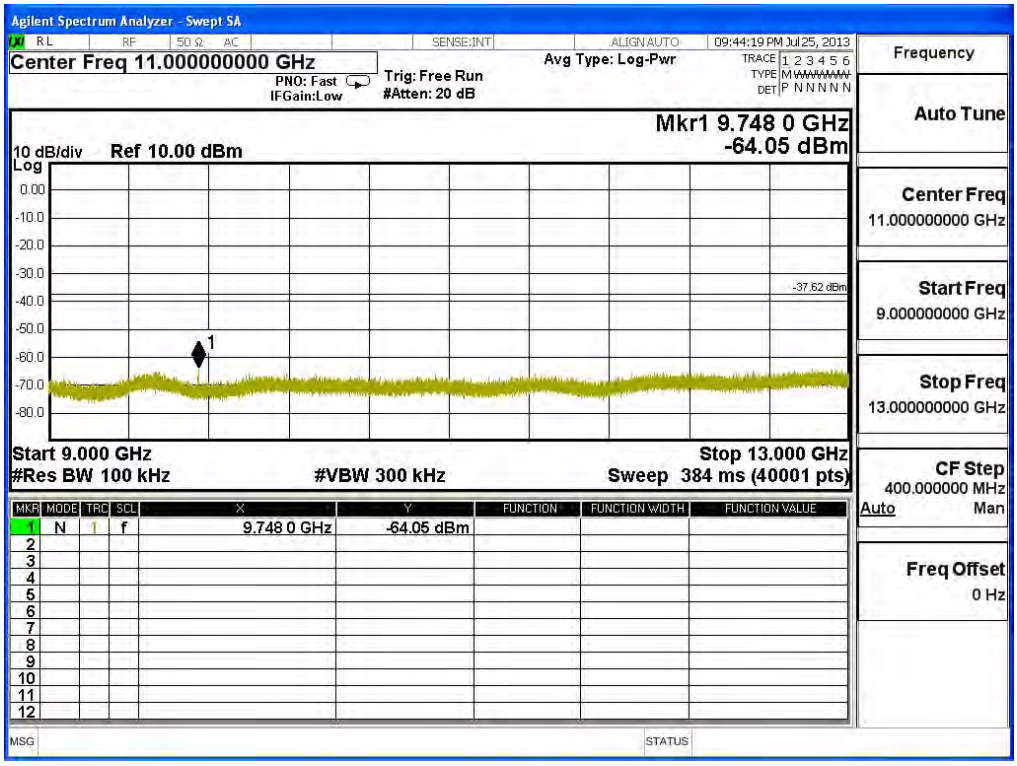
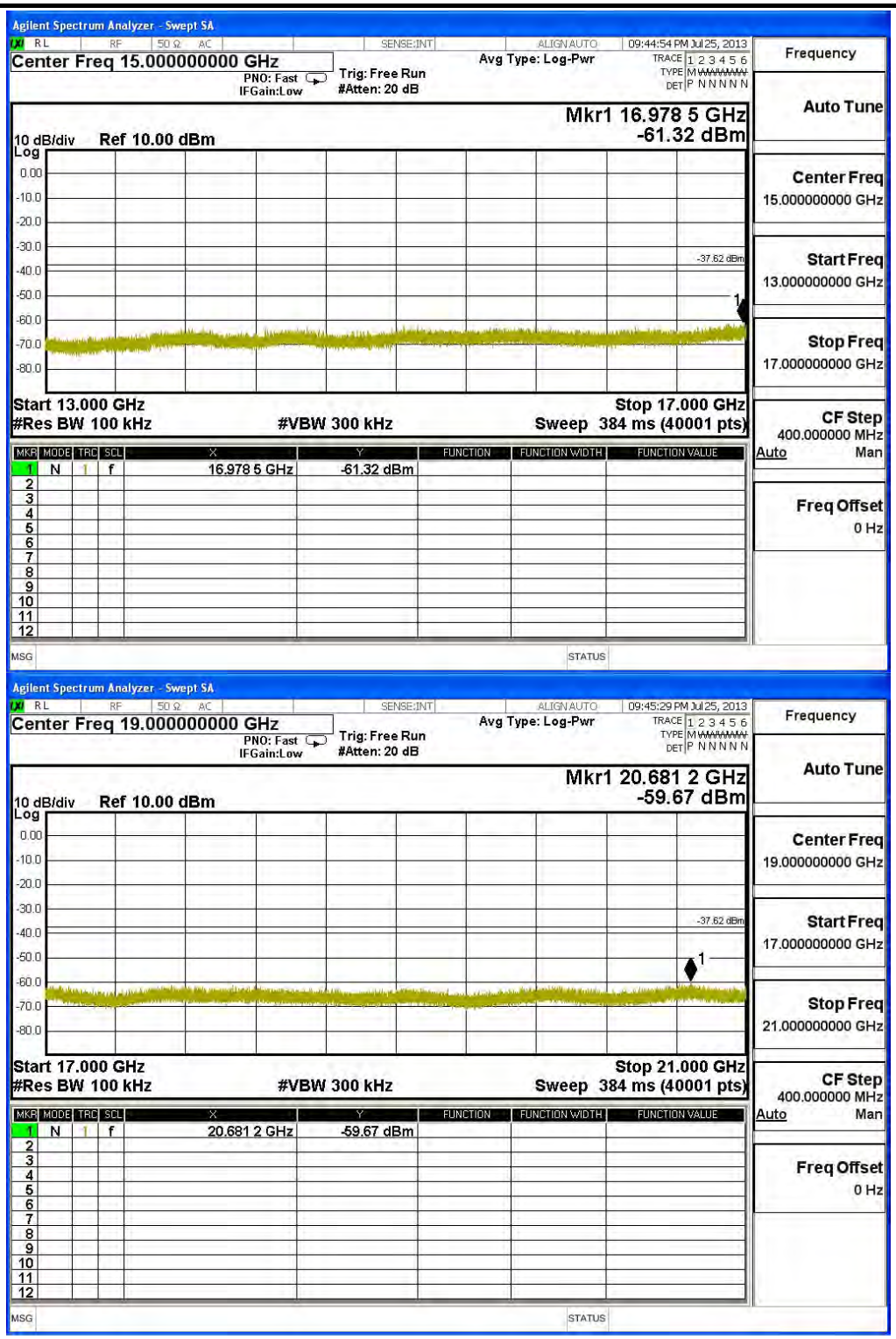
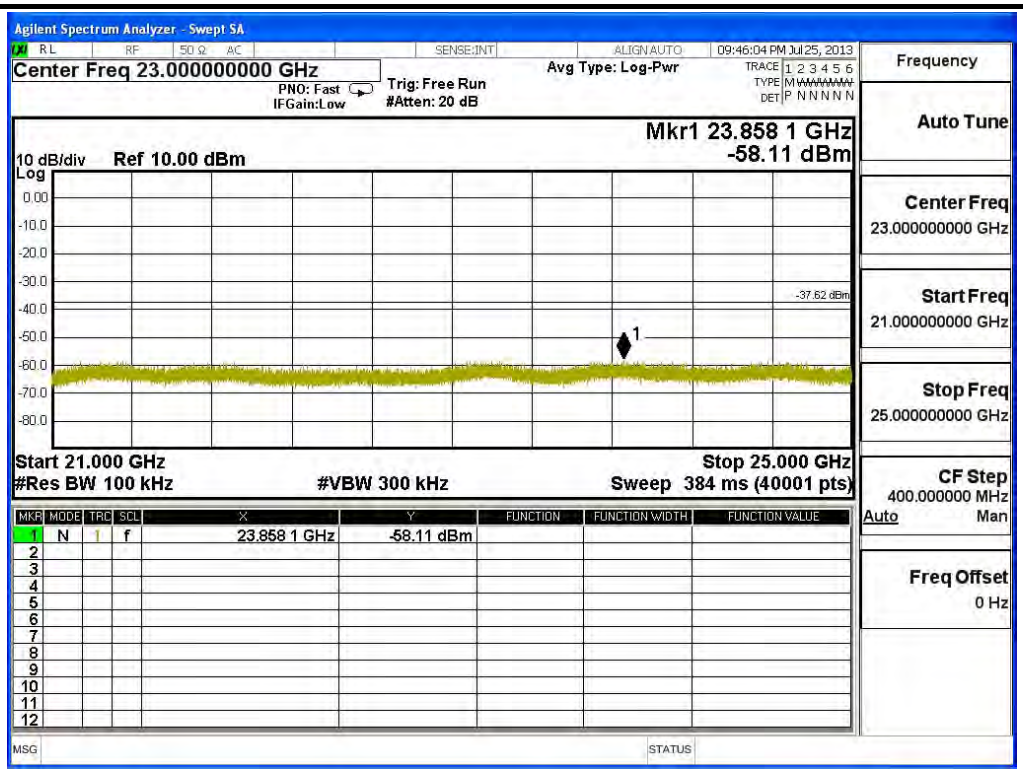
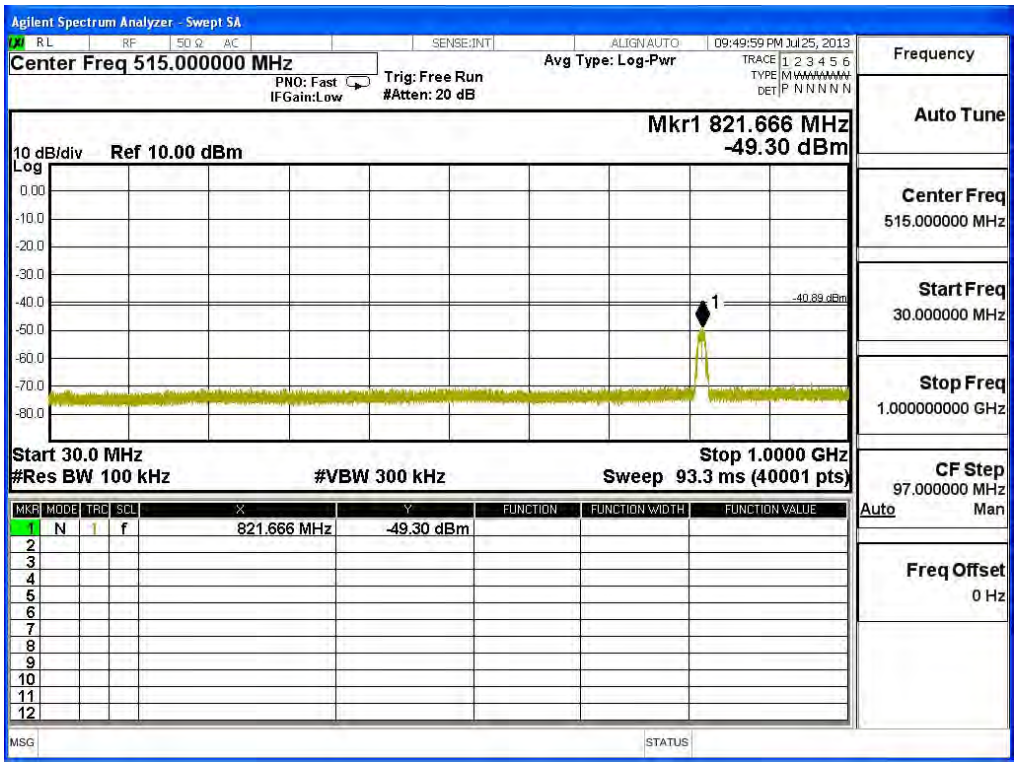
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:43:44 PM Jul 25, 2013
Mkr1 7.312 0 GHz
-52.38 dBm
10 dB/div
Ref 10.00 dBm
Log
-37.62 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.312 0 GHz -52.38 dBm
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

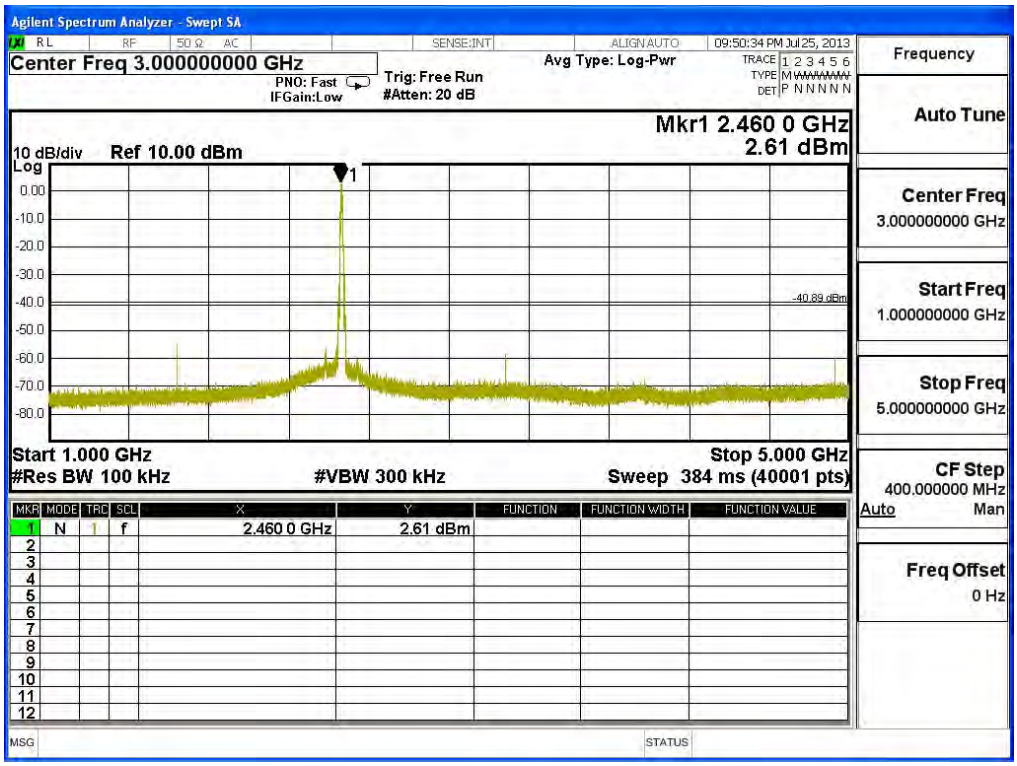

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:44:19 PM Jul 25, 2013
Mkr1 9.748 0 GHz
-64.05 dBm
10 dB/div
Ref 10.00 dBm
Log
-37.62 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.748 0 GHz -64.05 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

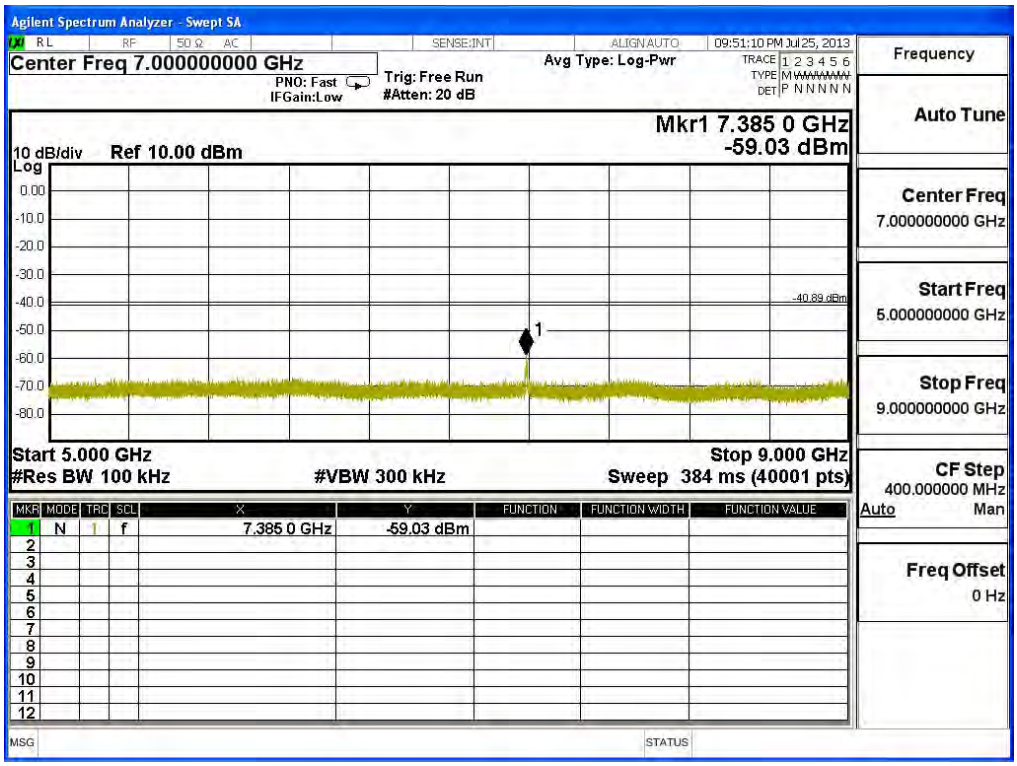

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:44:54 PM Jul 25, 2013
Frequency
Auto Tune
Mkr1 16.978 5 GHz
-61.32 dBm
10 dB/div
Log
Ref 10.00 dBm
-37.62 dBm
Center Freq
15.000000000 GHz
Start Freq
13.000000000 GHz
Stop Freq
17.000000000 GHz
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 N 1 f 16.978 5 GHz -61.32 dBm
MSG
STATUS
Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:45:29 PM Jul 25, 2013
Frequency
Auto Tune
Mkr1 20.681 2 GHz
-59.67 dBm
10 dB/div
Log
Ref 10.00 dBm
-37.62 dBm
Center Freq
19.000000000 GHz
Start Freq
17.000000000 GHz
Stop Freq
21.000000000 GHz
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
CF Step
400.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 N 1 f 20.681 2 GHz -59.67 dBm
MSG
STATUS

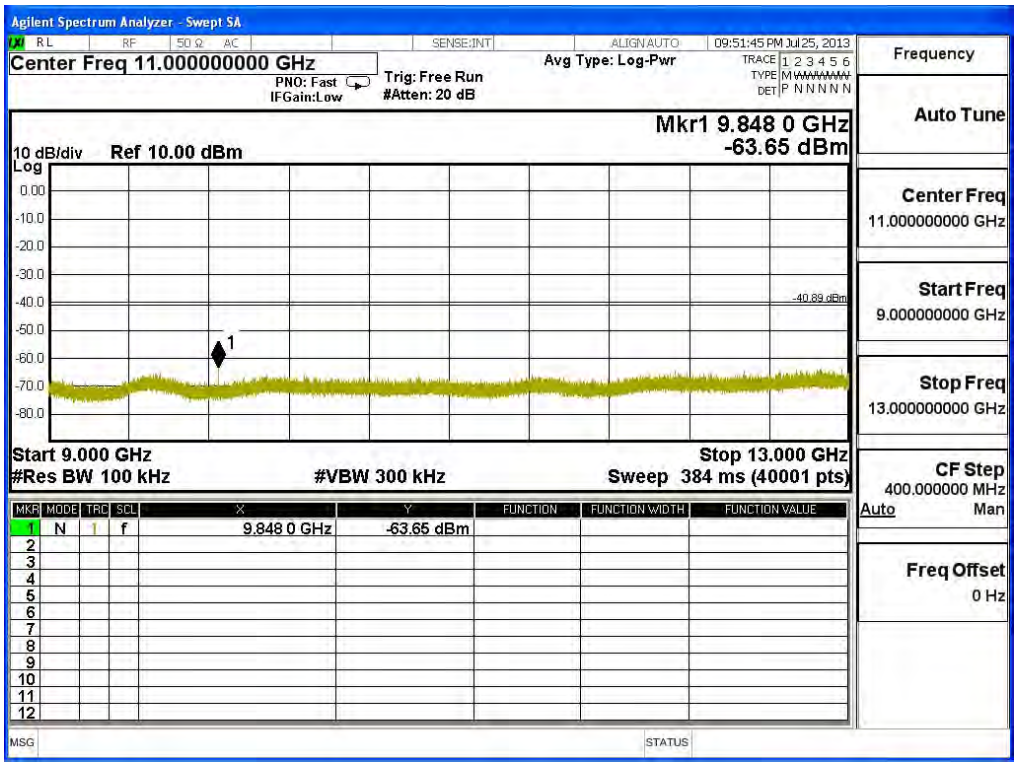

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
09:46:04 PM Jul 25, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 23.858 1 GHz
-58.11 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.62 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 23.858 1 GHz -58.11 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

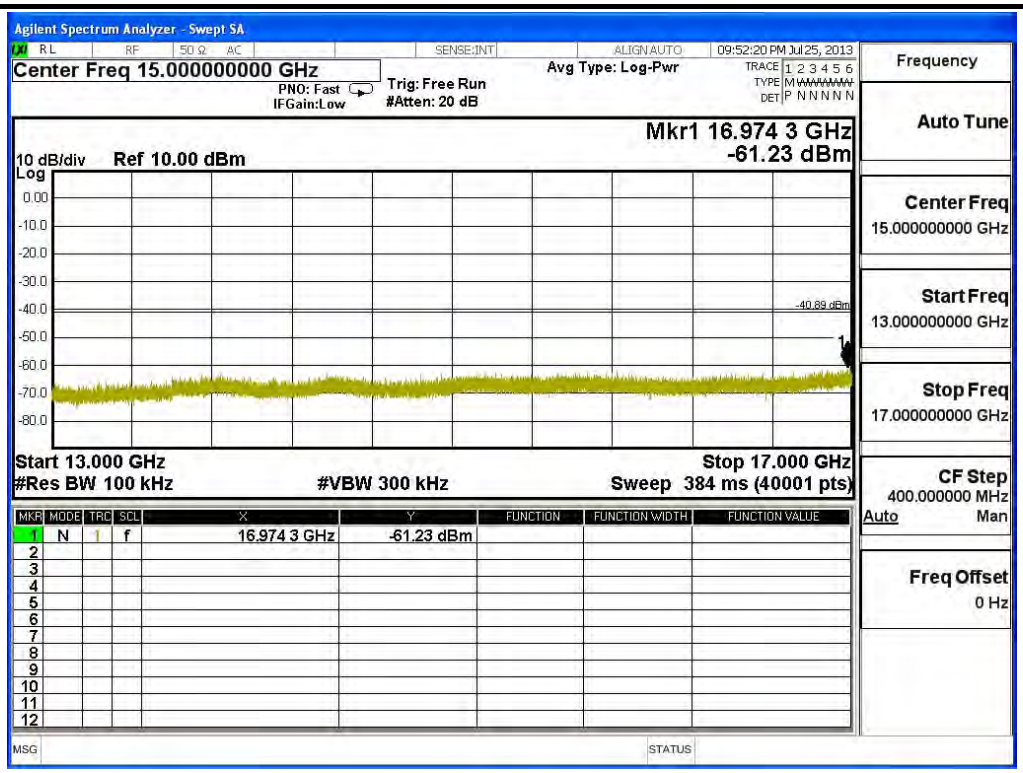
Channel 11 (2462MHz) 30MHz -25GHz-Chain A

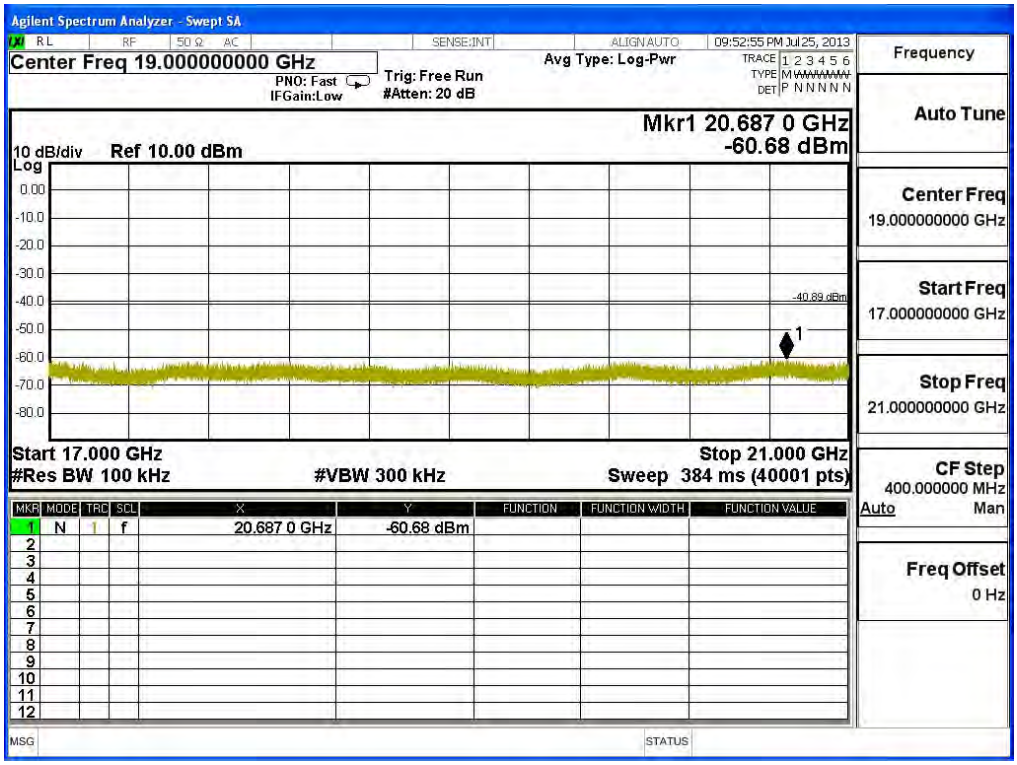


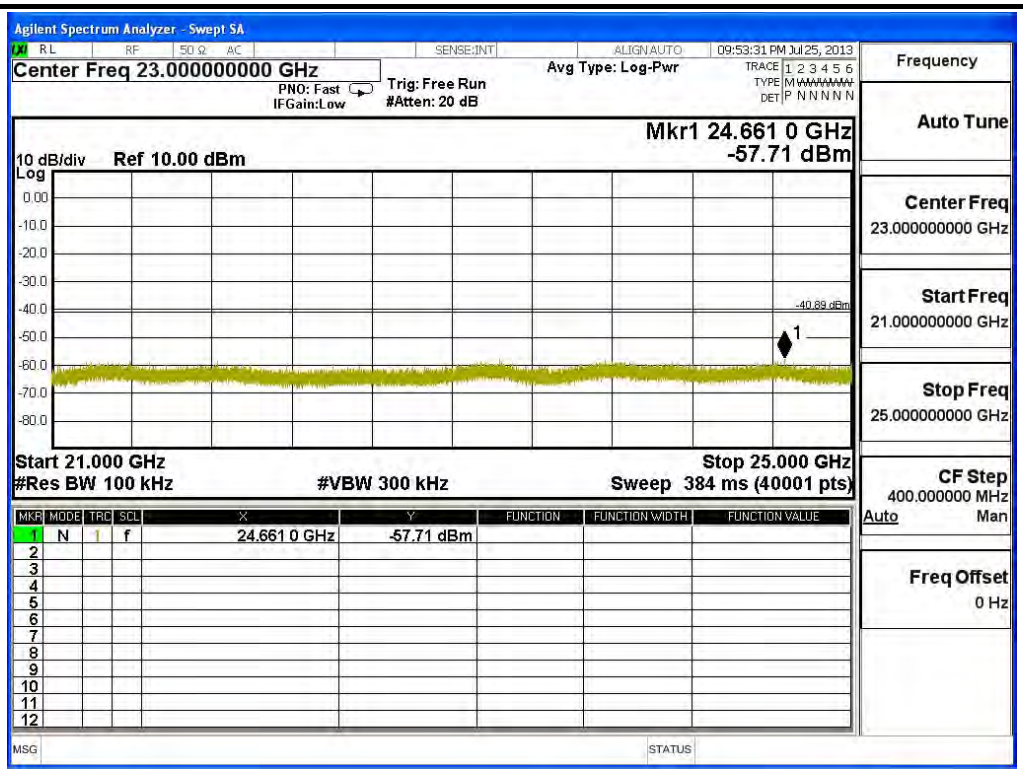



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:51:10 PM Jul 25, 2013
Mkr1 7.385 0 GHz
-59.03 dBm
10 dB/div
Ref 10.00 dBm
Log
-40.89 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.385 0 GHz -59.03 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

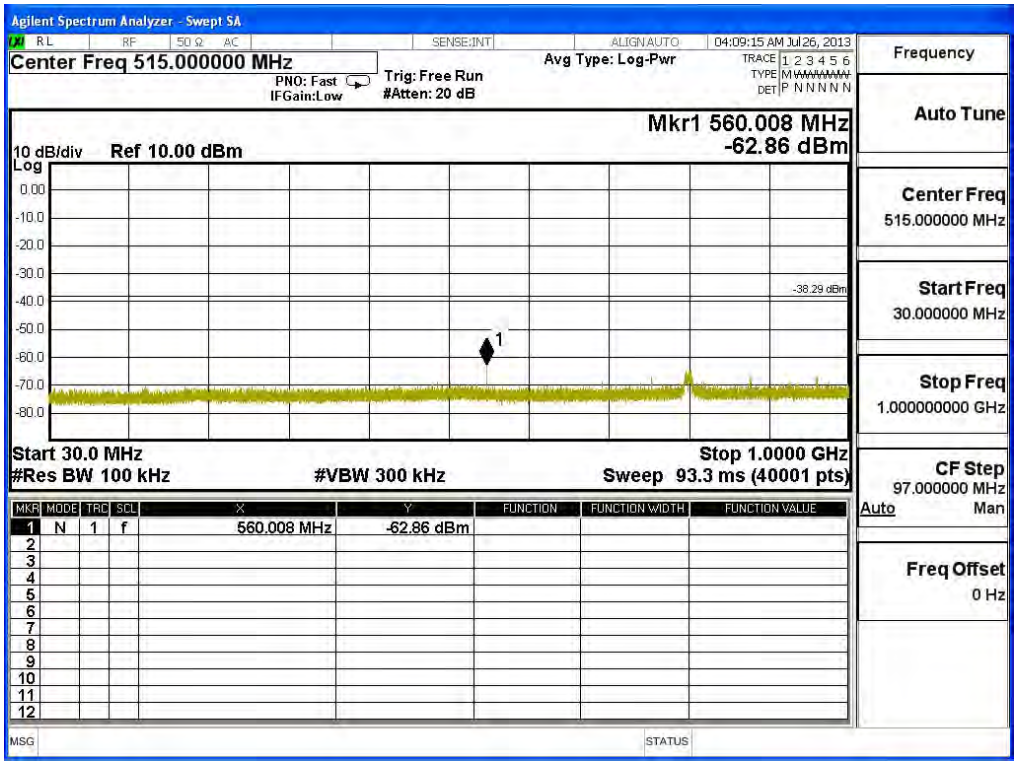

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:51:45 PM Jul 25, 2013
Mkr1 9.848 0 GHz
-63.65 dBm
10 dB/div
Ref 10.00 dBm
Log
-40.89 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 9.848 0 GHz -63.65 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
MSG
STATUS

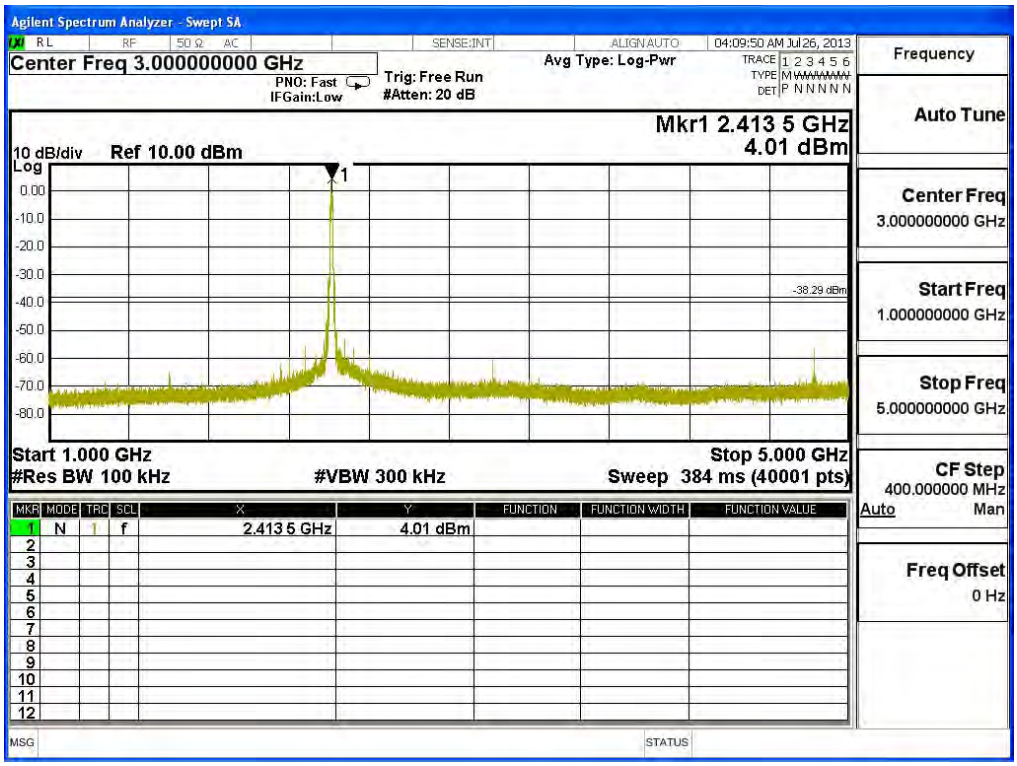

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:52:20 PM Jul 25, 2013
Mkr1 16.974 3 GHz
-61.23 dBm
10 dB/div
Log
Ref 10.00 dBm
-40.89 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.974 3 GHz -61.23 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

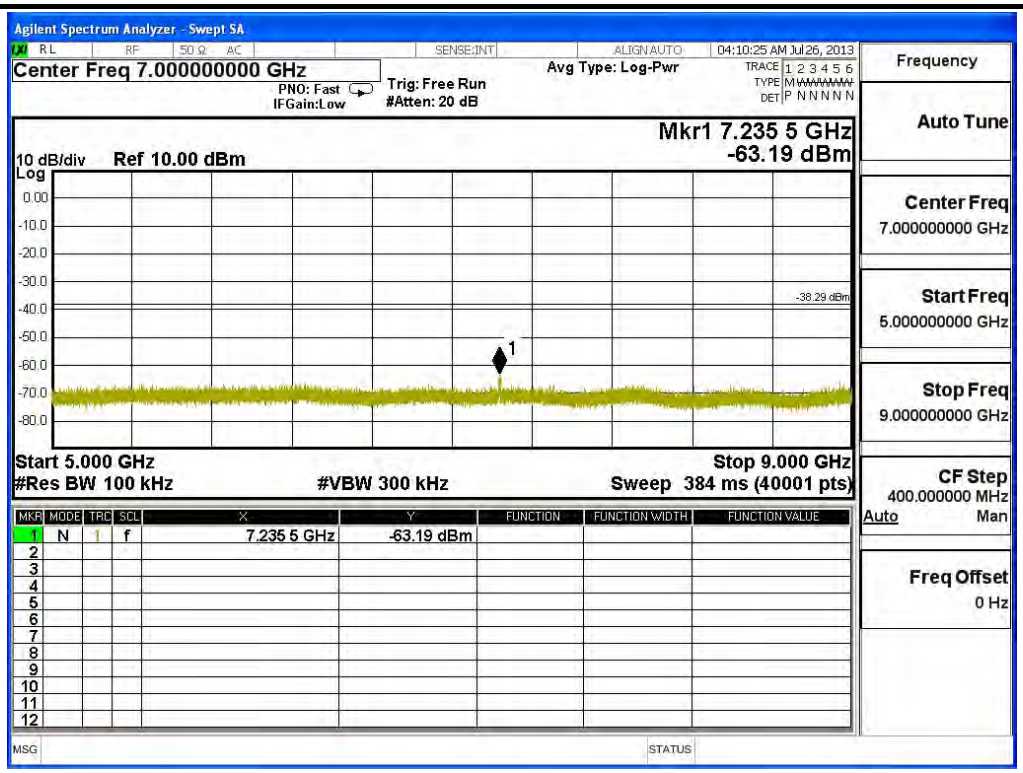

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:52:55 PM Jul 25, 2013
Mkr1 20.687 0 GHz
-60.68 dBm
10 dB/div
Log
Ref 10.00 dBm
-40.89 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.687 0 GHz -60.68 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

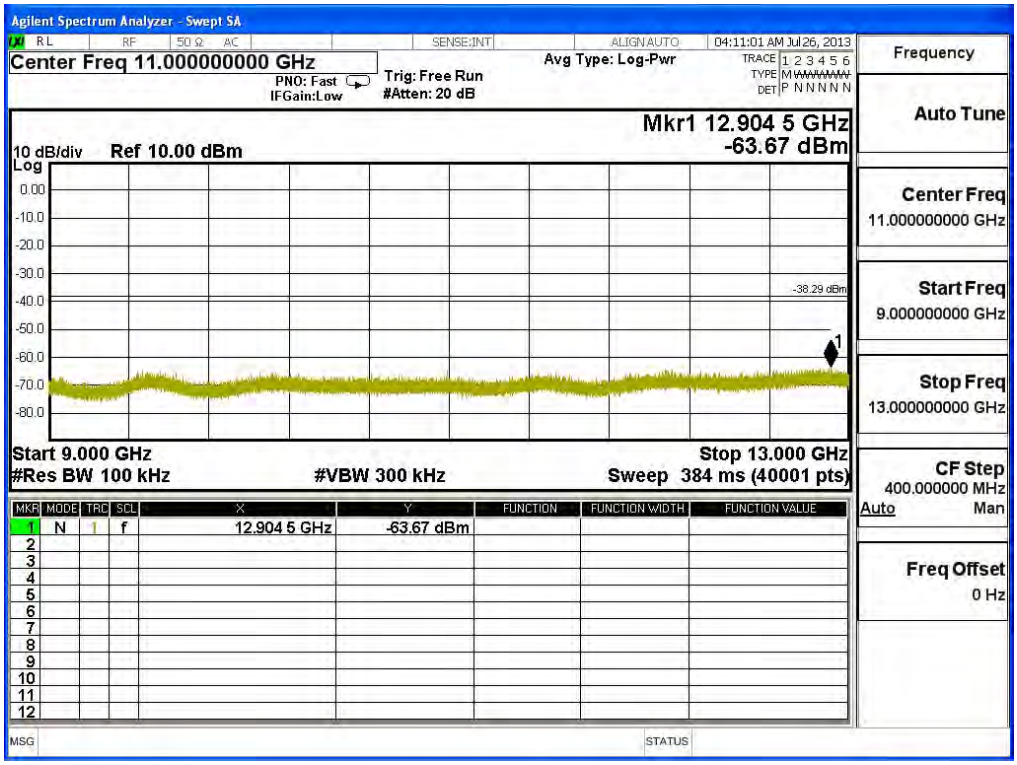

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:53:31 PM Jul 25, 2013
Mkr1 24.661 0 GHz
-57.71 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-40.89 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 24.661 0 GHz -57.71 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

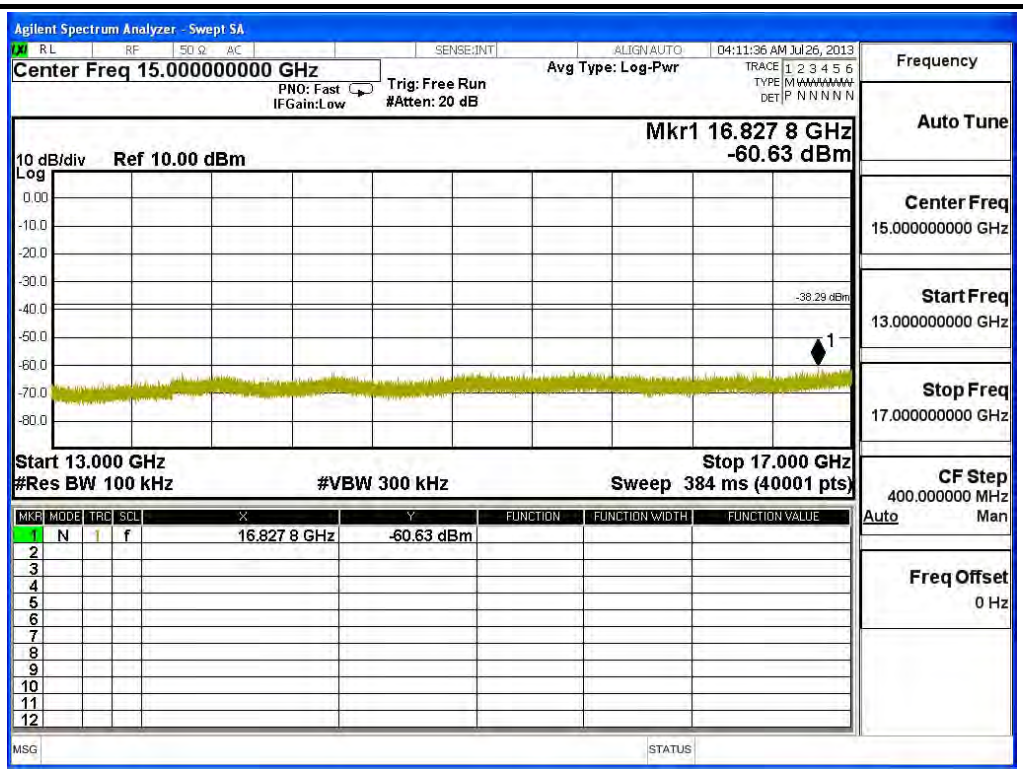
Channel 01 (2412MHz) 30MHz-25GHz-Chain B

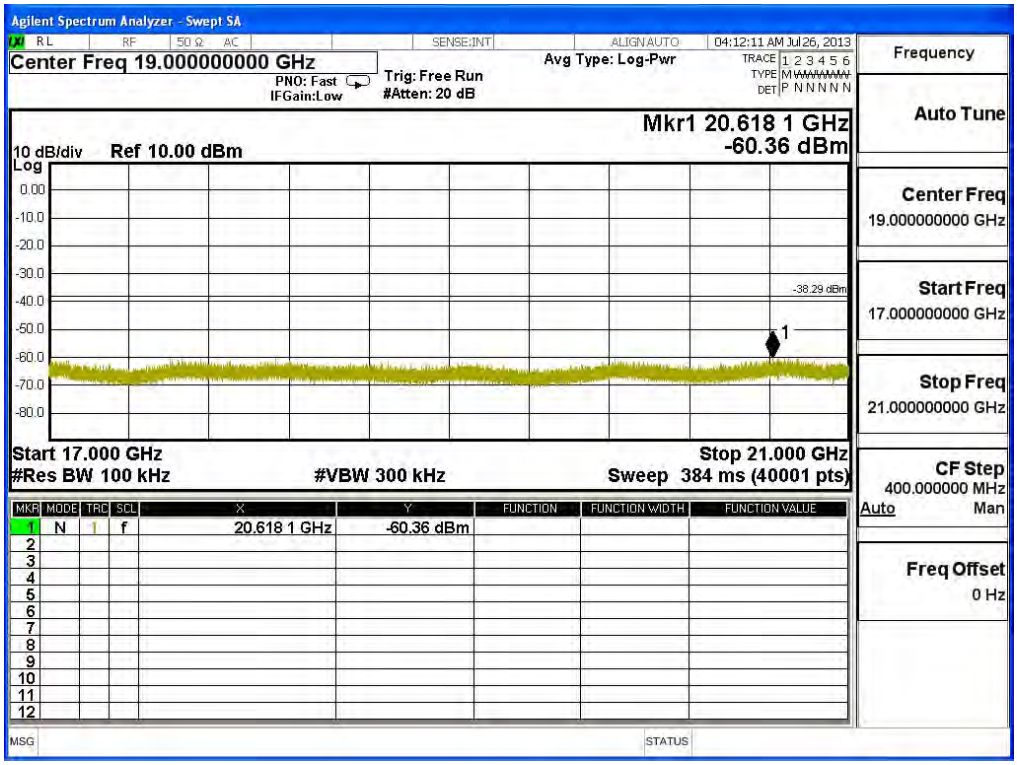


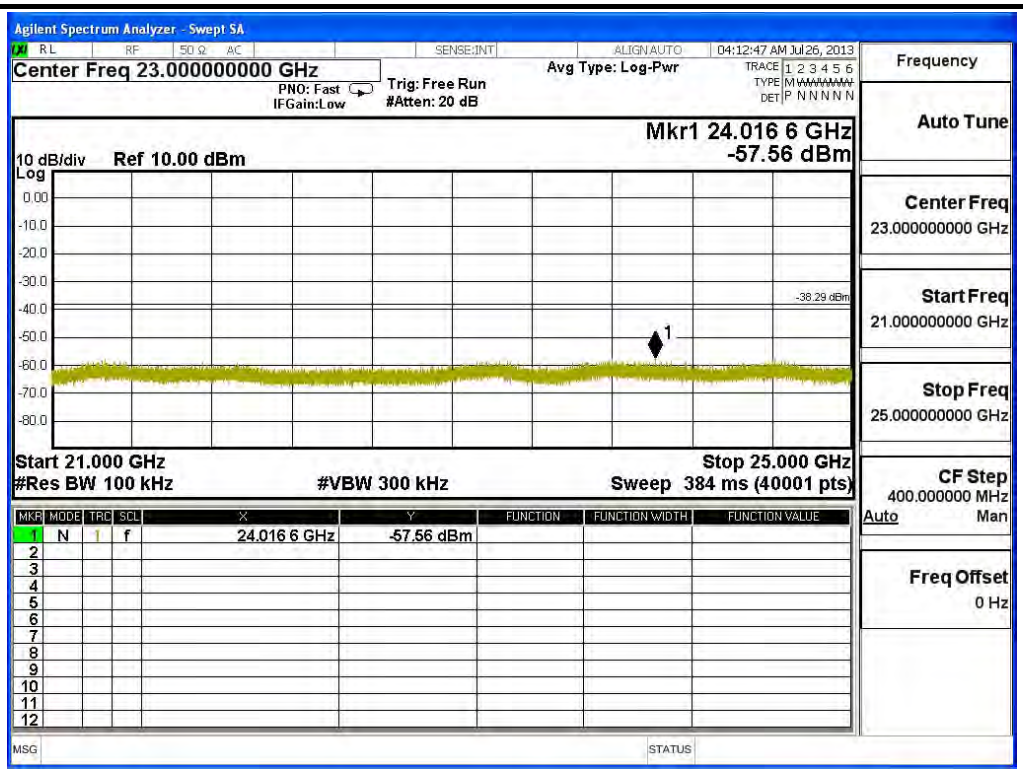



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:10:25 AM Jul 26, 2013
Mkr1 7.235 5 GHz
-63.19 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.29 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.235 5 GHz -63.19 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

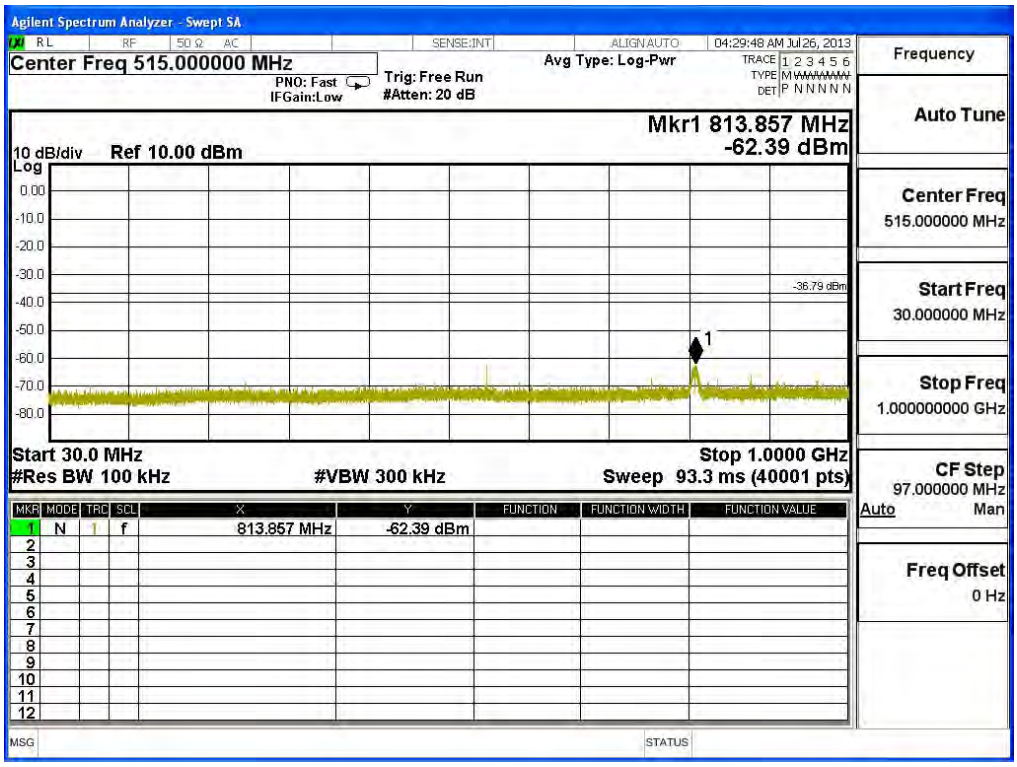

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:11:01 AM Jul 26, 2013
Mkr1 12.904 5 GHz
-63.67 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.29 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.904 5 GHz -63.67 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
MSG
STATUS

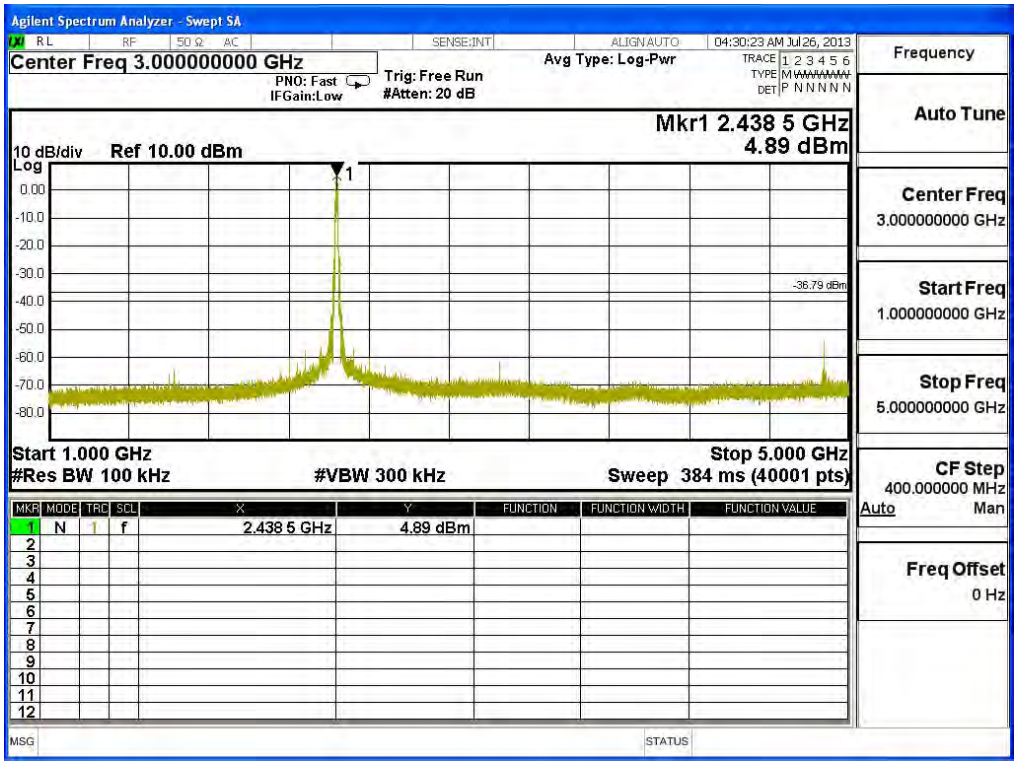

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:11:36 AM Jul 26, 2013
Mkr1 16.827 8 GHz
-60.63 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.29 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.827 8 GHz -60.63 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

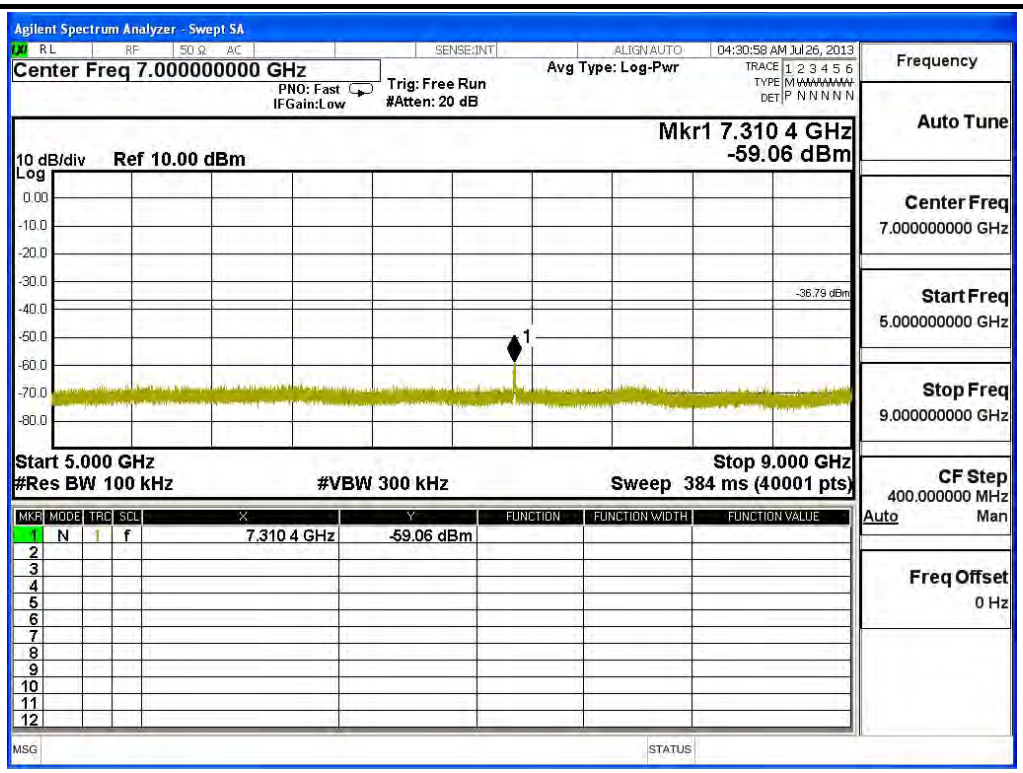

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:12:11 AM Jul 26, 2013
Mkr1 20.618 1 GHz
-60.36 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.29 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.618 1 GHz -60.36 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

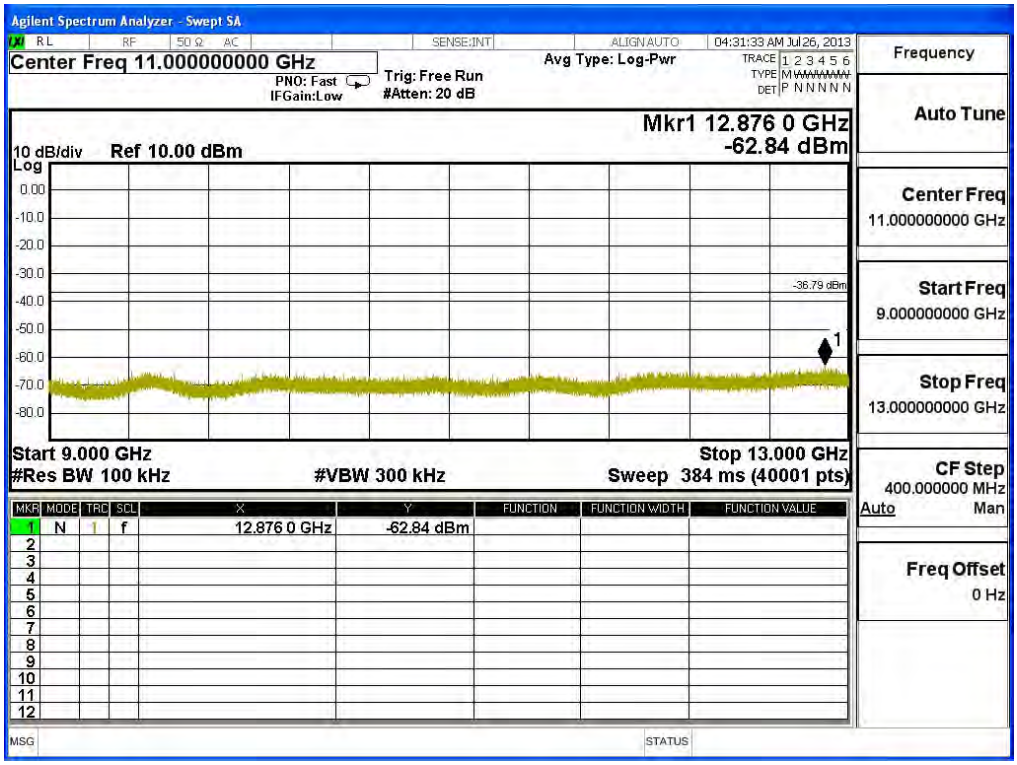

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:12:47 AM Jul 26, 2013
Mkr1 24.016 6 GHz
-57.56 dBm
10 dB/div
Log
Ref 10.00 dBm
-38.29 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 24.016 6 GHz -57.56 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

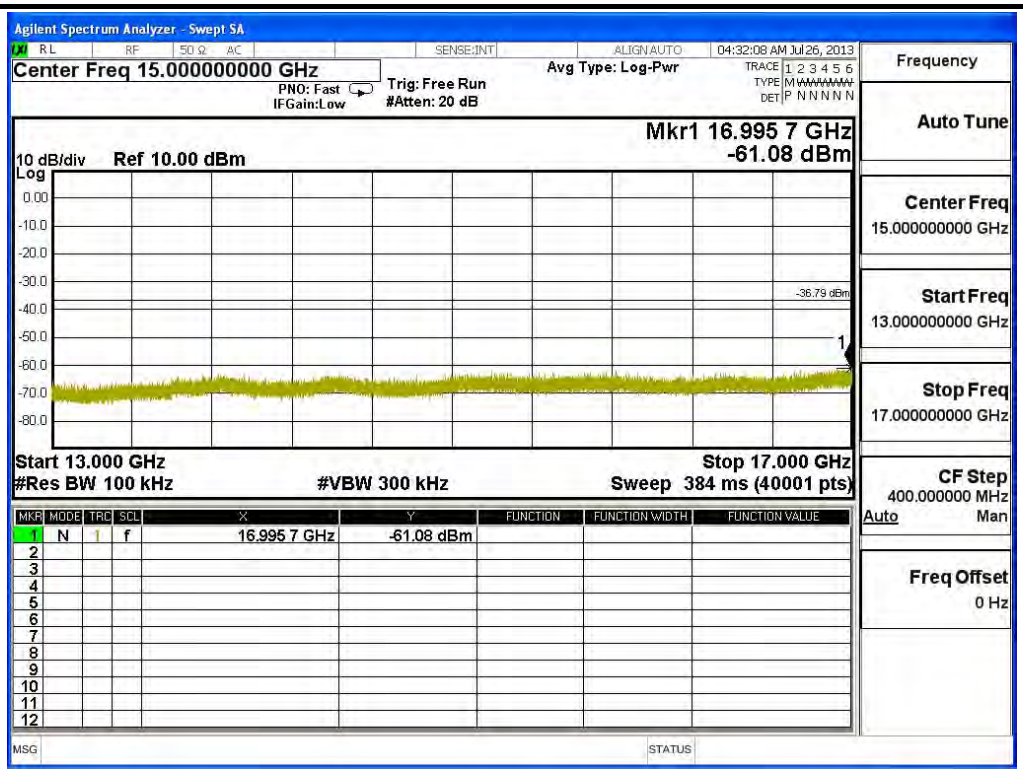
Channel 06 (2437MHz) 30MHz -25GHz-Chain B

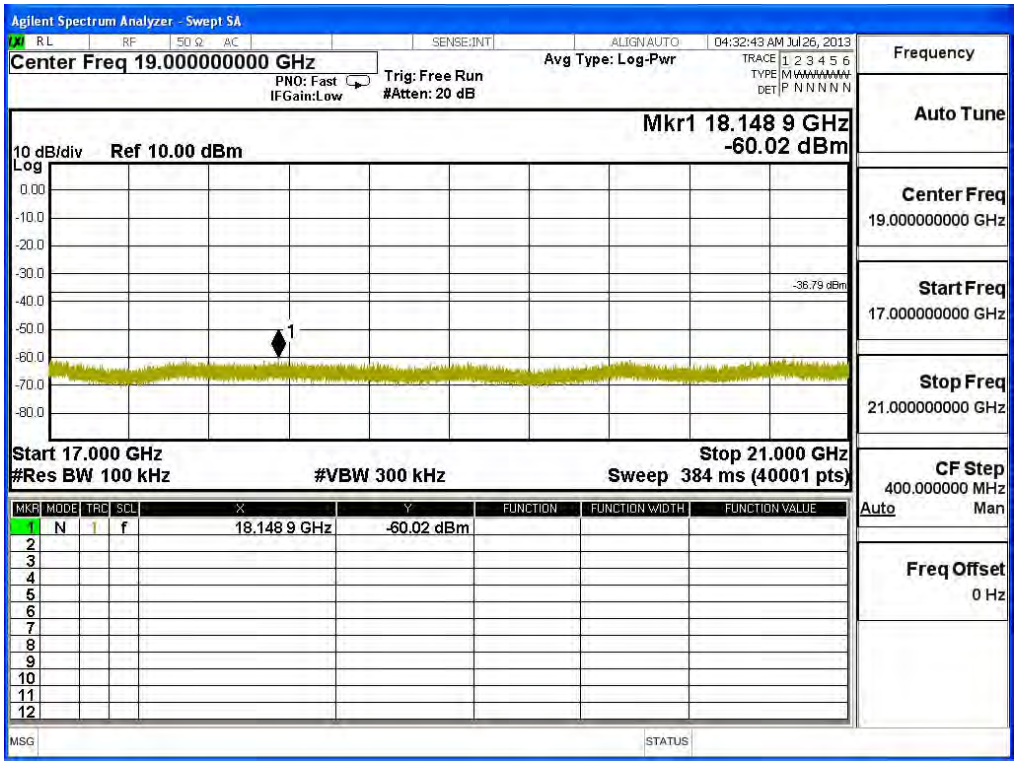


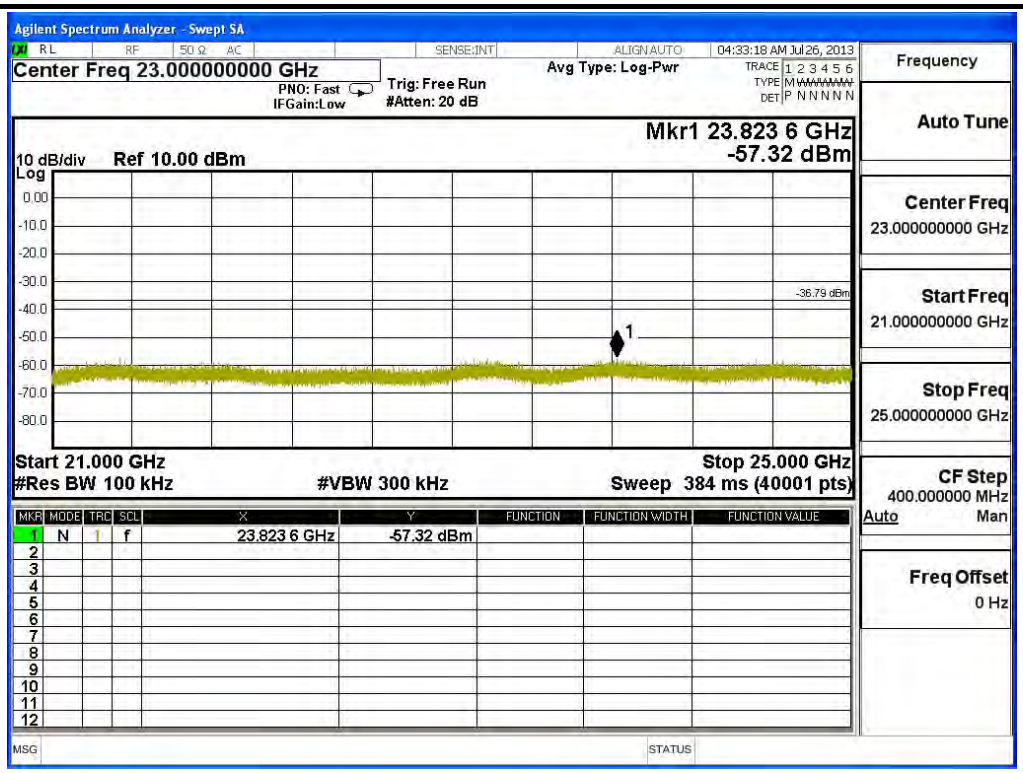



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:30:58 AM Jul 26, 2013
Mkr1 7.310 4 GHz
-59.06 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.79 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.310 4 GHz -59.06 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

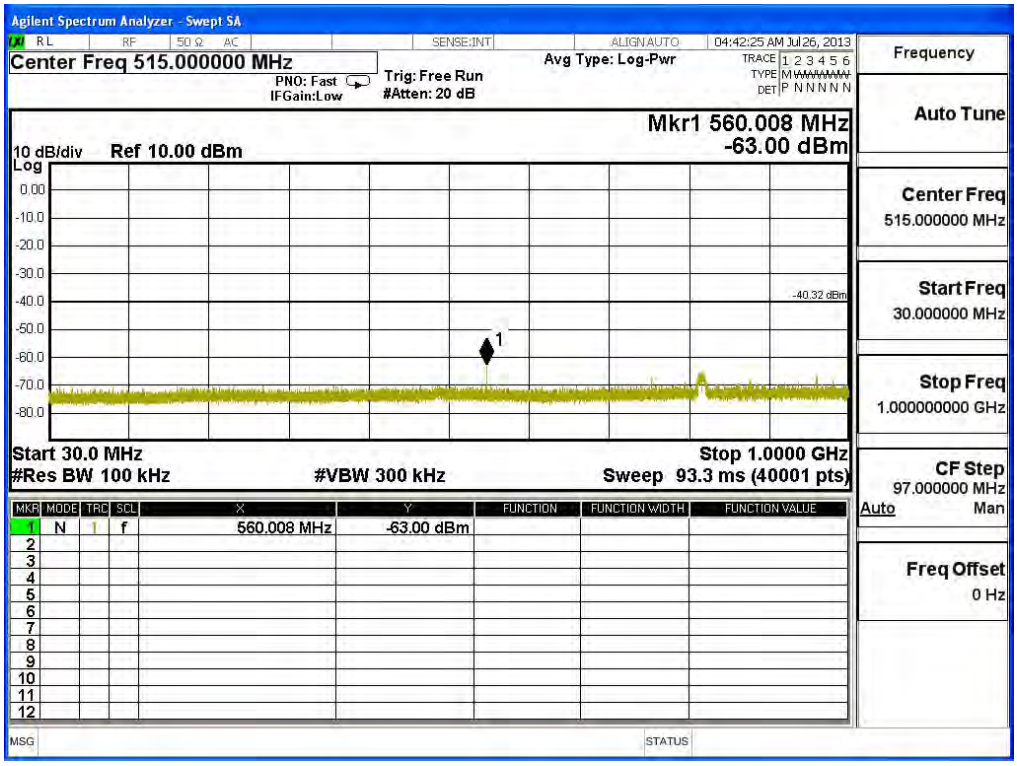

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:31:33 AM Jul 26, 2013
Mkr1 12.876 0 GHz
-62.84 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.79 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.876 0 GHz -62.84 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
MSG
STATUS

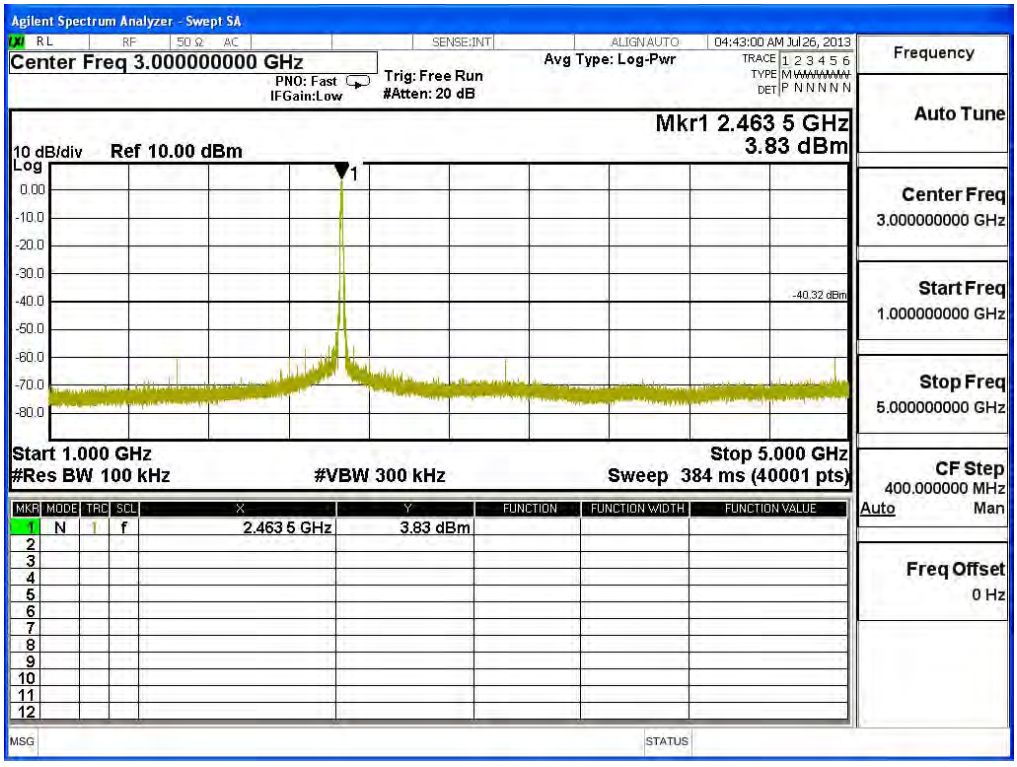

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:32:08 AM Jul 26, 2013
Mkr1 16.995 7 GHz
-61.08 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.79 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.995 7 GHz -61.08 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

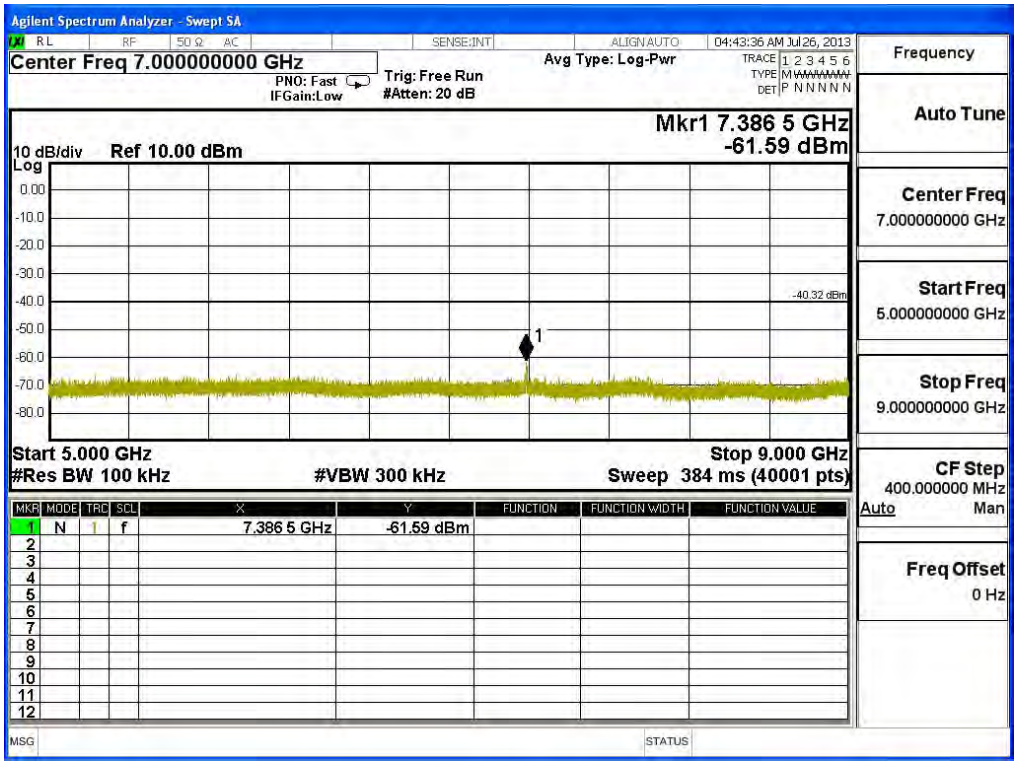

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:32:43 AM Jul 26, 2013
Mkr1 18.148 9 GHz
-60.02 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.79 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 18.148 9 GHz -60.02 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

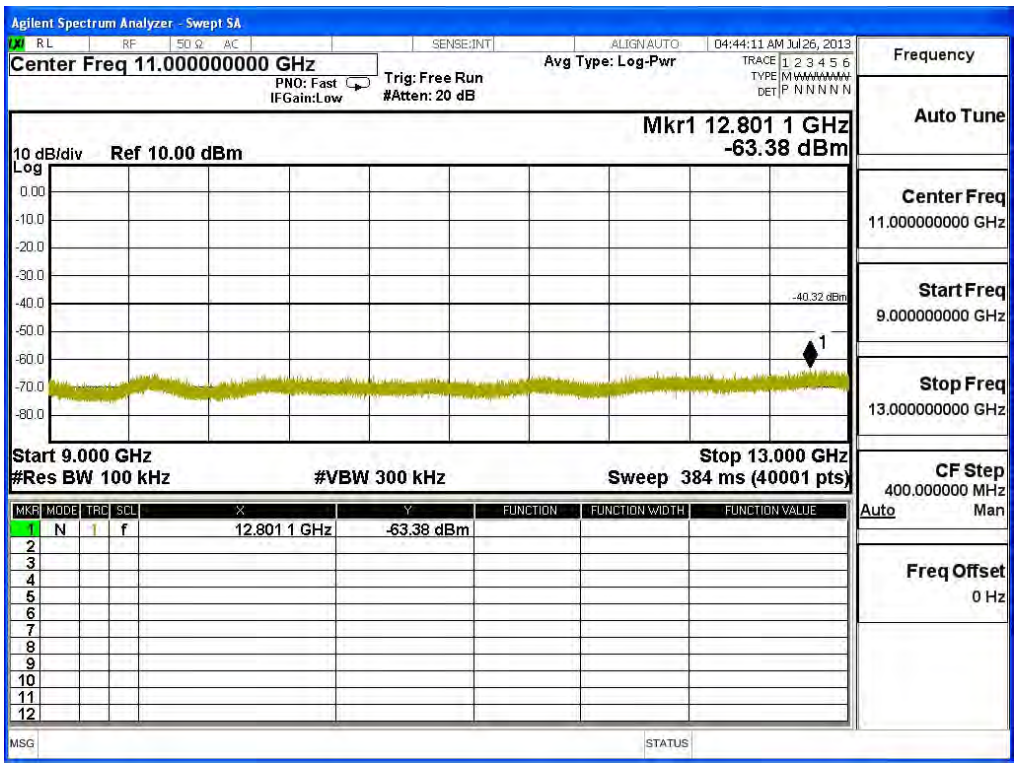

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:33:18 AM Jul 26, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 23.823 6 GHz
-57.32 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-36.79 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 23.823 6 GHz -57.32 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

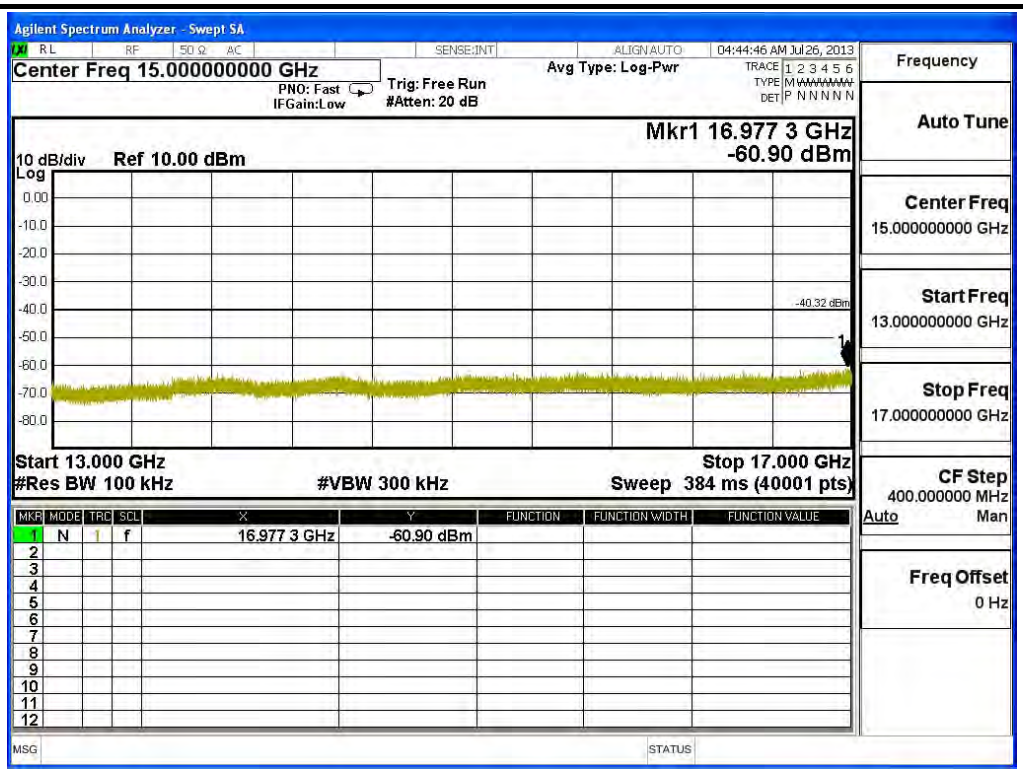
Channel 11 (2462MHz) 30MHz -25GHz-Chain B

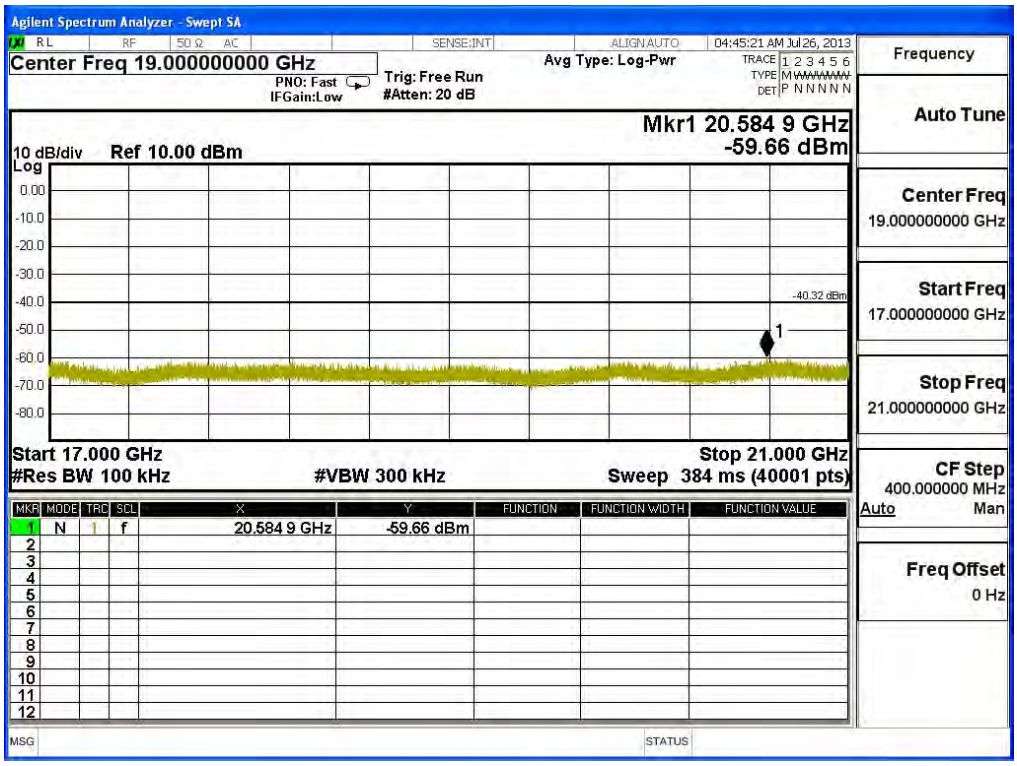


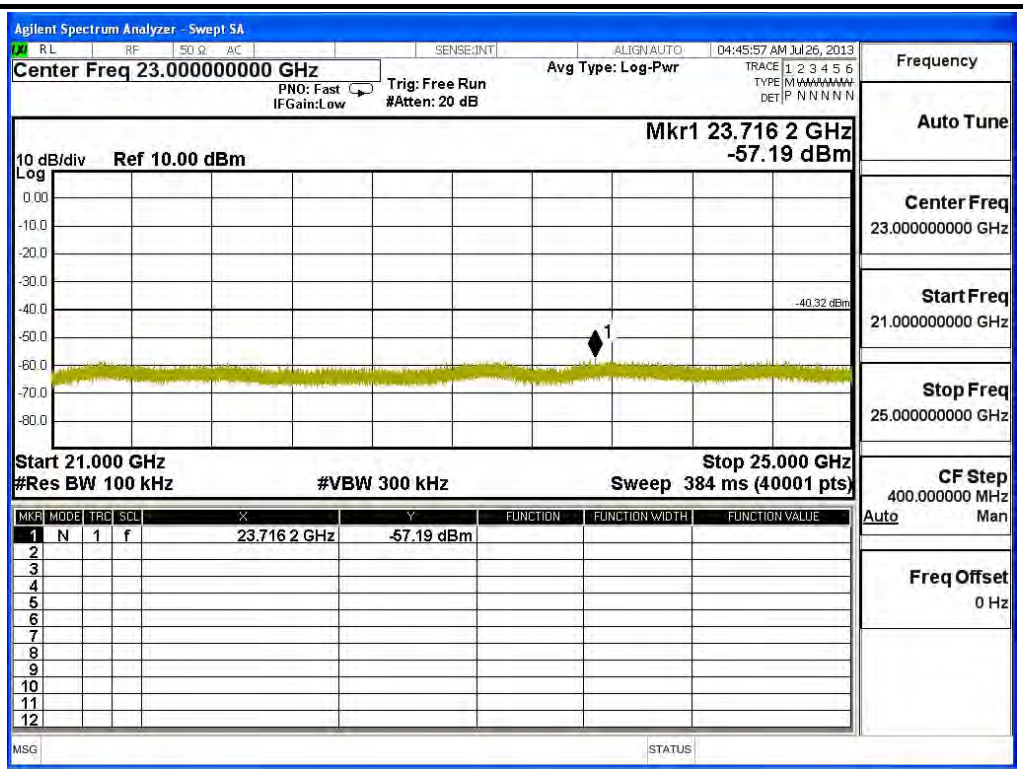



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:43:36 AM Jul 26, 2013
Mkr1 7.386 5 GHz
-61.59 dBm
10 dB/div
Ref 10.00 dBm
Log
-40.32 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.386 5 GHz -61.59 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
04:44:11 AM Jul 26, 2013
Mkr1 12.801 1 GHz
-63.38 dBm
10 dB/div
Ref 10.00 dBm
Log
-40.32 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 12.801 1 GHz -63.38 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

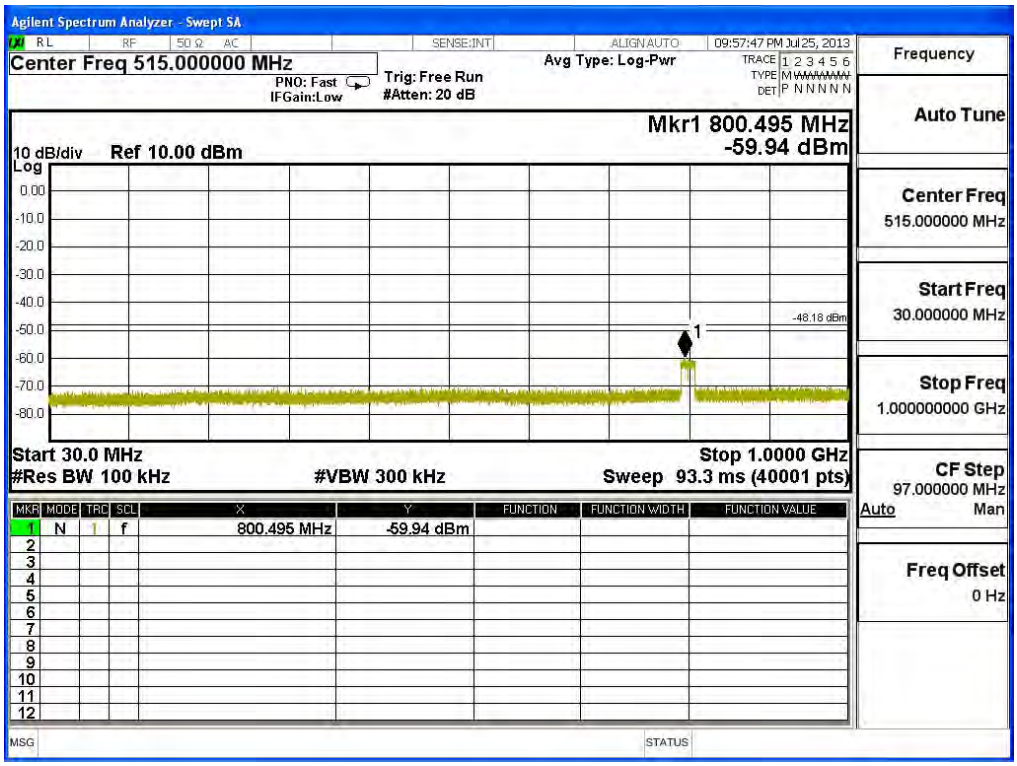

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:44:46 AM Jul 26, 2013
Mkr1 16.977 3 GHz
-60.90 dBm
10 dB/div
Log
Ref 10.00 dBm
-40.32 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.977 3 GHz -60.90 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

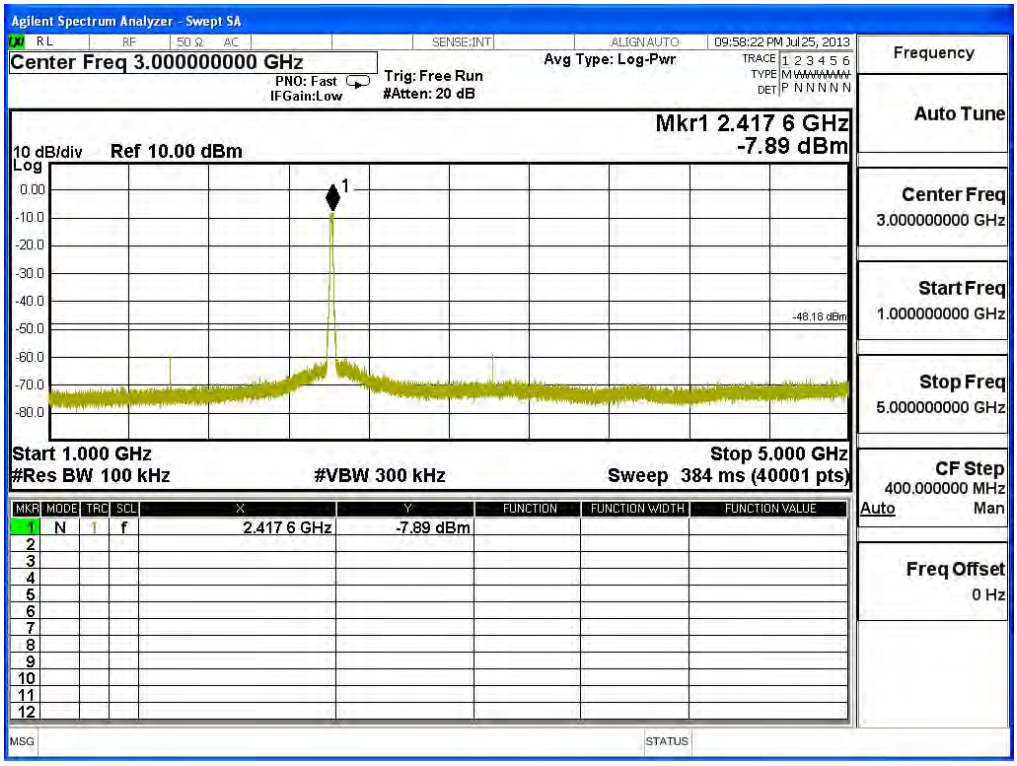

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:45:21 AM Jul 26, 2013
Mkr1 20.584 9 GHz
-59.66 dBm
10 dB/div
Log
Ref 10.00 dBm
-40.32 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.584 9 GHz -59.66 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

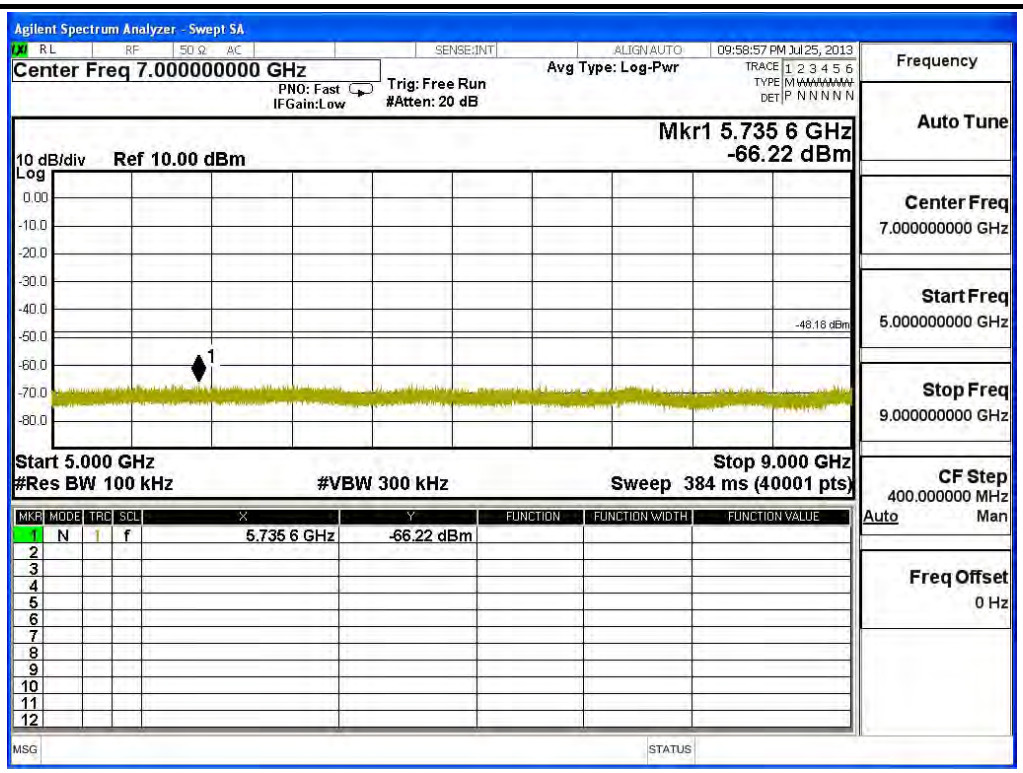

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:45:57 AM Jul 26, 2013
Mkr1 23.716 2 GHz
-57.19 dBm
10 dB/div
Log
Ref 10.00 dBm
-40.32 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.716 2 GHz -57.19 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

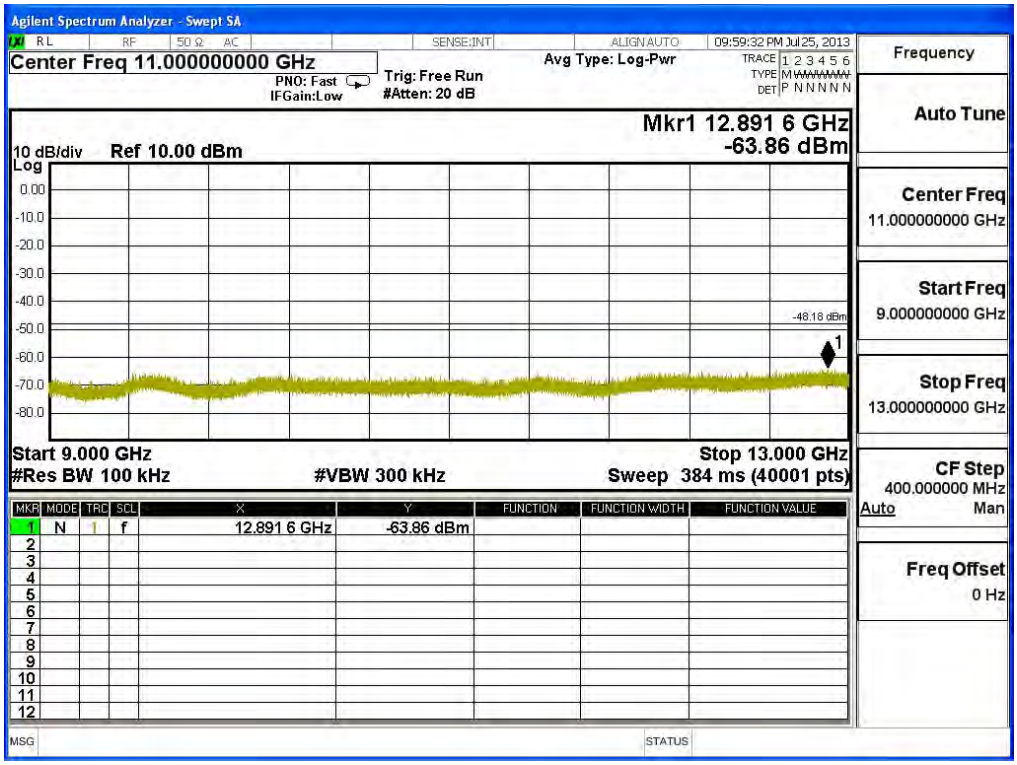
Product : SpectraGuard® Access Point / Sensor
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)(Dipole Antenna)

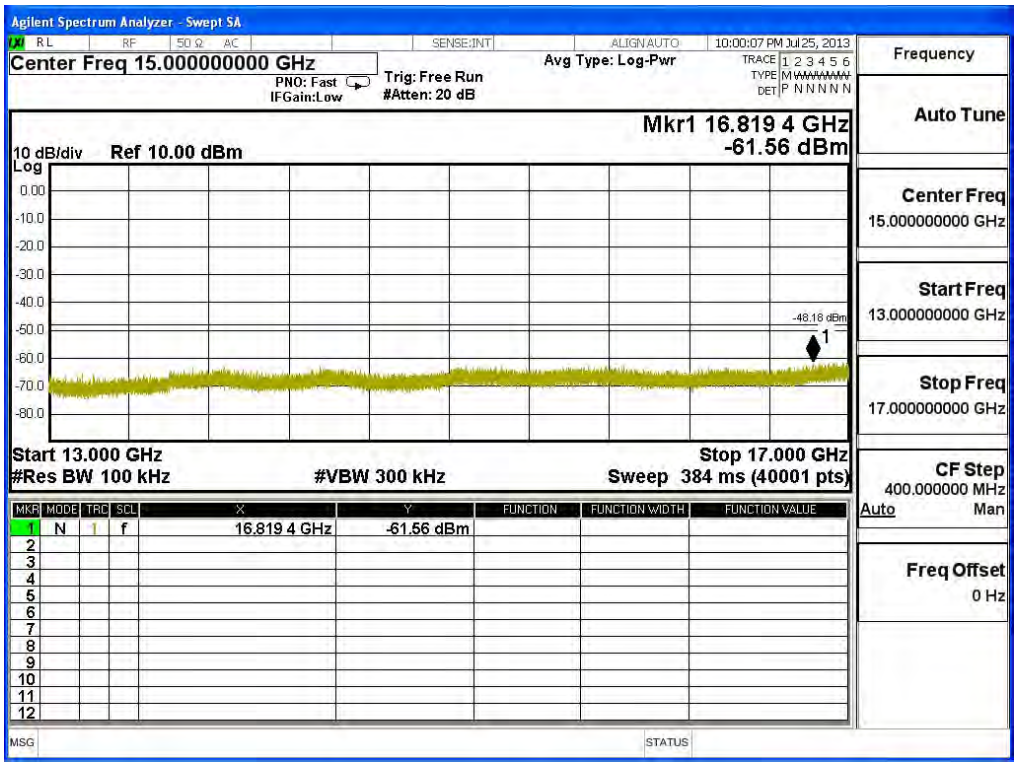
Channel 01 (2412MHz) 30MHz -25GHz-Chain A

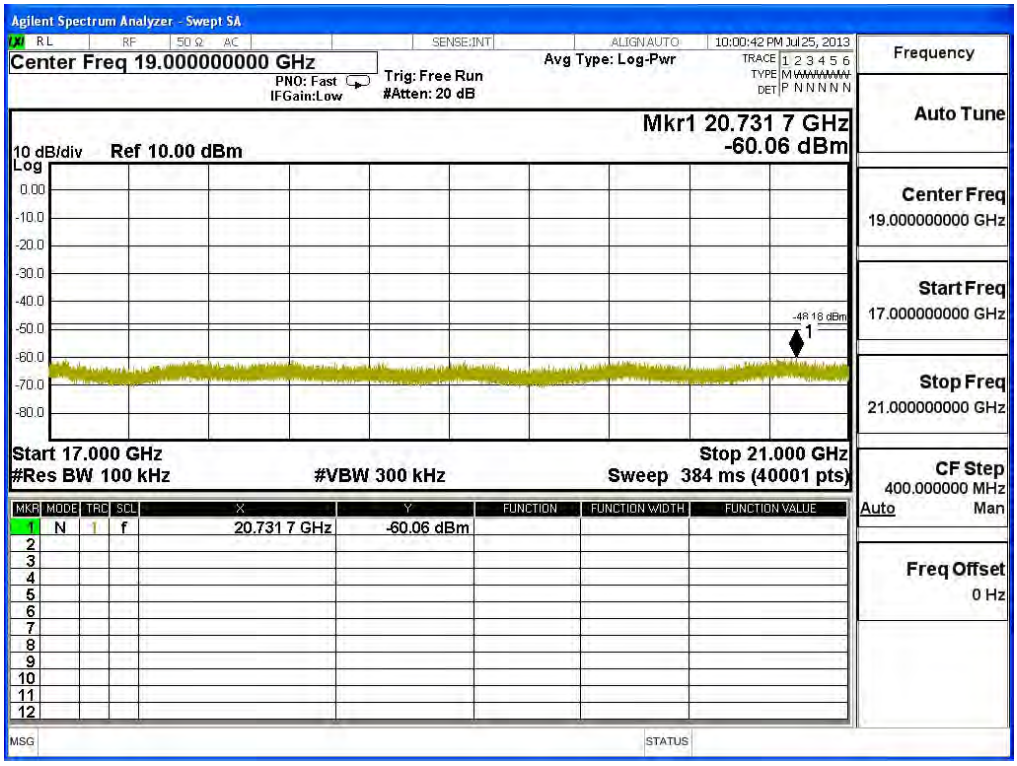


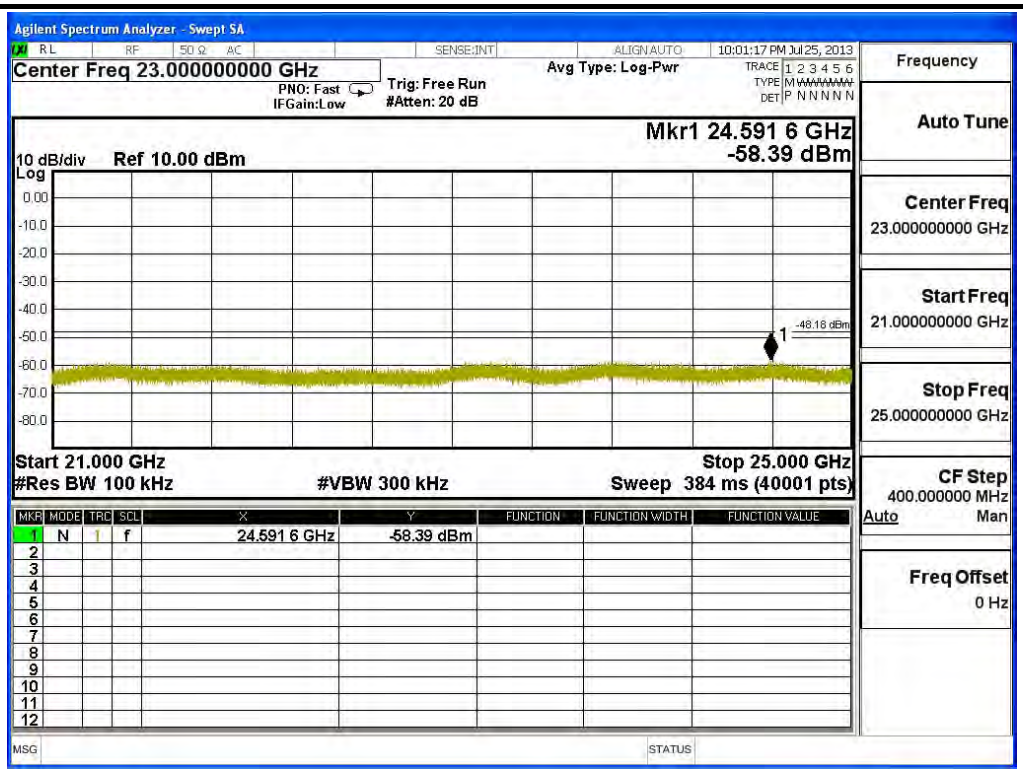



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:58:57 PM Jul 25, 2013
Mkr1 5.735 6 GHz
-66.22 dBm
10 dB/div
Log
Ref 10.00 dBm
-48.18 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 5.735 6 GHz -66.22 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

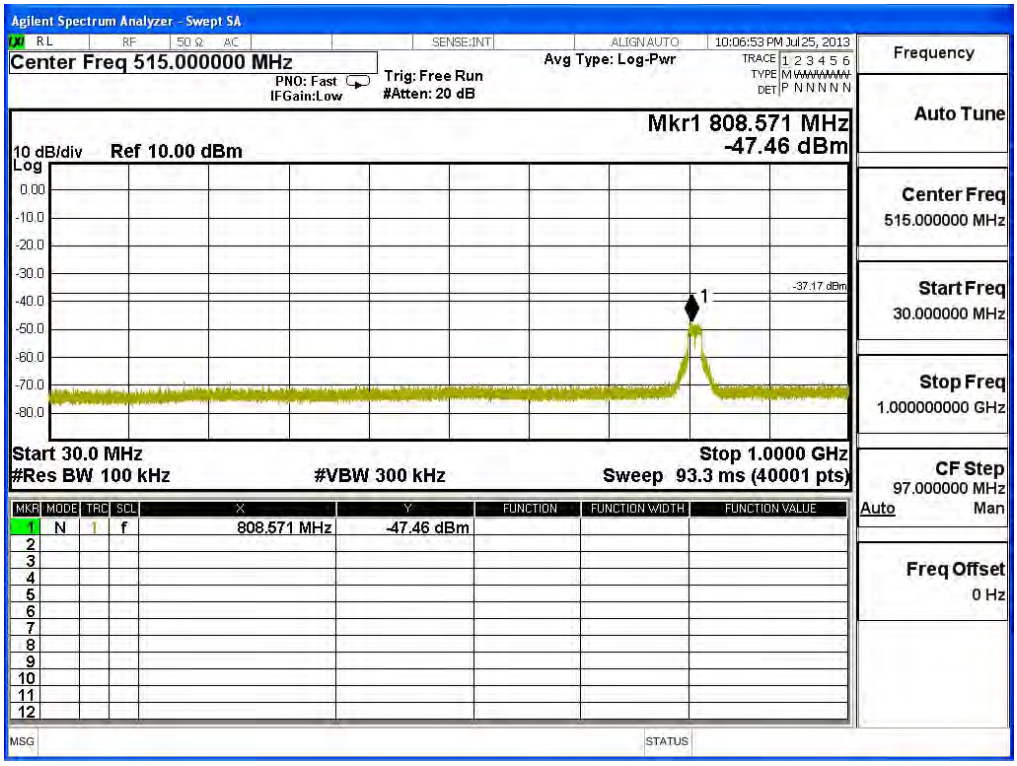

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
09:59:32 PM Jul 25, 2013
Mkr1 12.891 6 GHz
-63.86 dBm
10 dB/div
Log
Ref 10.00 dBm
-48.18 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.891 6 GHz -63.86 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
MSG
STATUS

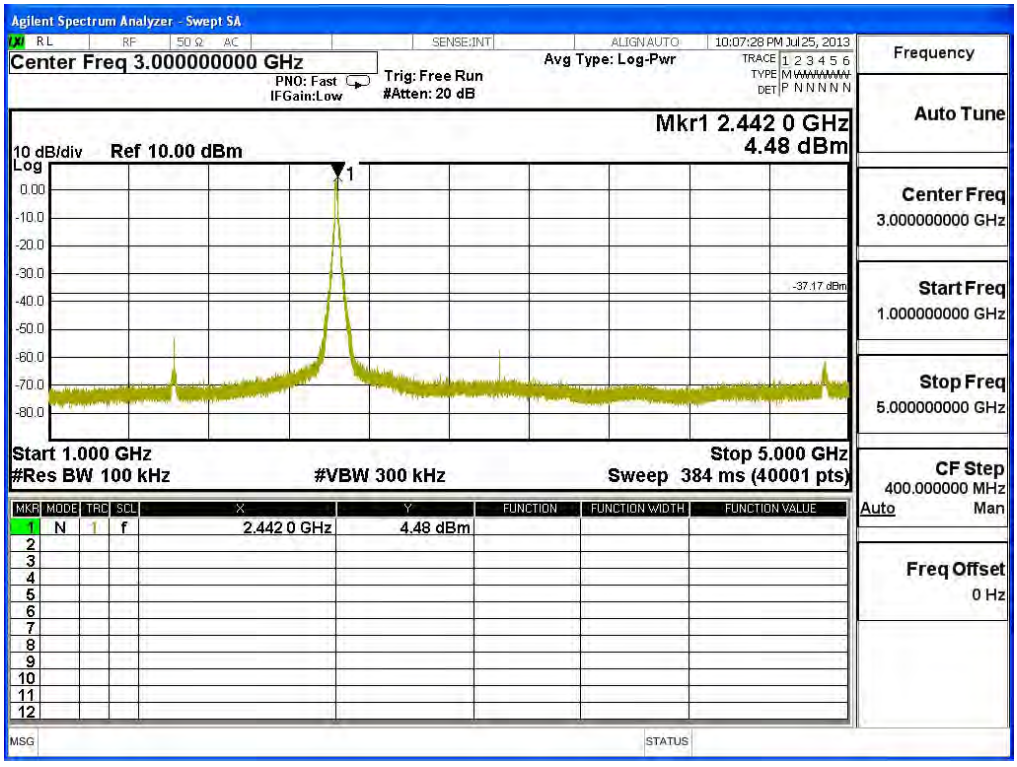

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:00:07 PM Jul 25, 2013
Mkr1 16.819 4 GHz
-61.56 dBm
10 dB/div
Ref 10.00 dBm
Log
-48.18 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.819 4 GHz -61.56 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

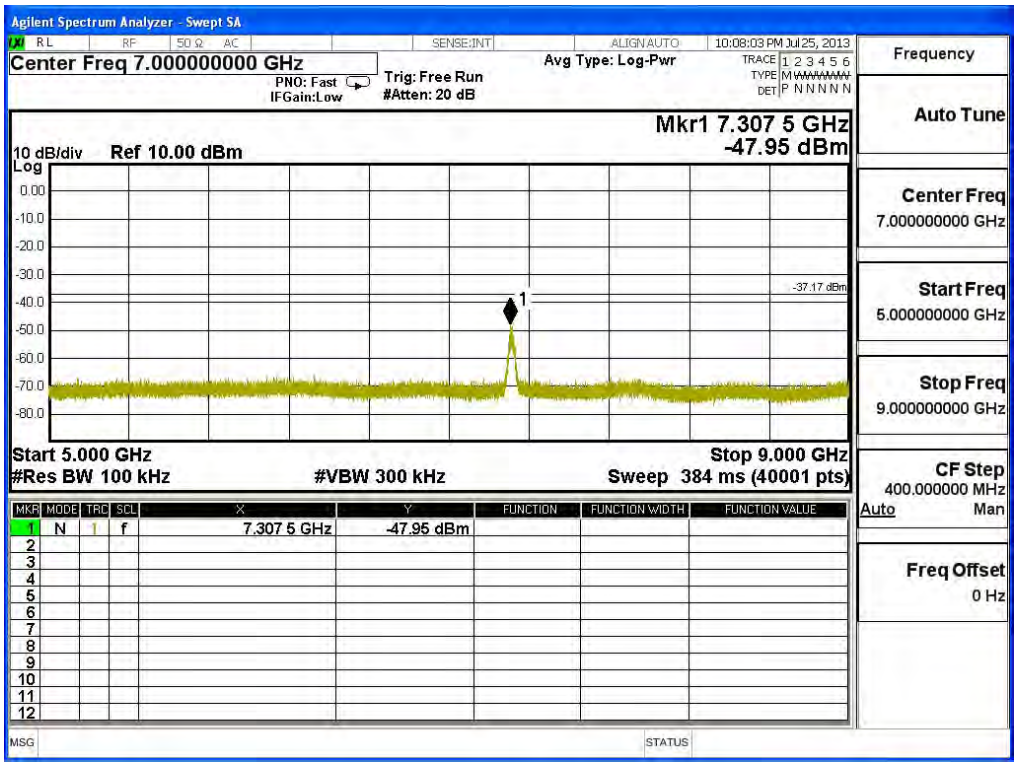

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:00:42 PM Jul 25, 2013
Mkr1 20.731 7 GHz
-60.06 dBm
10 dB/div
Ref 10.00 dBm
Log
-48.18 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.731 7 GHz -60.06 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

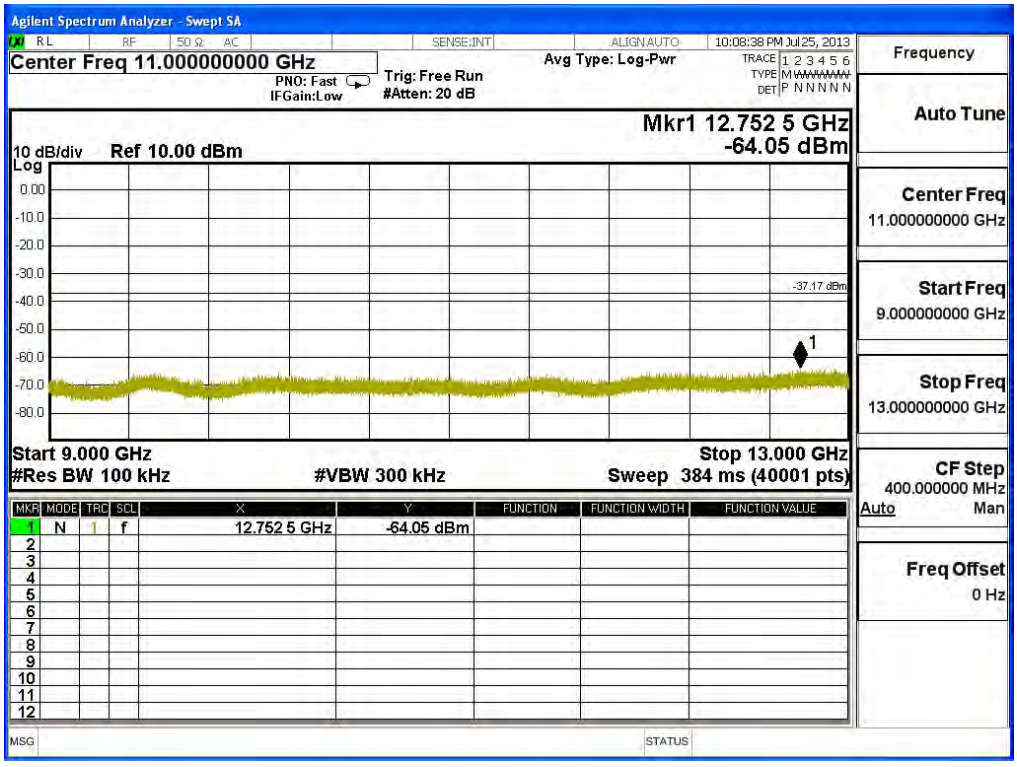

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
10:01:17 PM Jul 25, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 24.591 6 GHz
-58.39 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-48.18 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 24.591 6 GHz -58.39 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

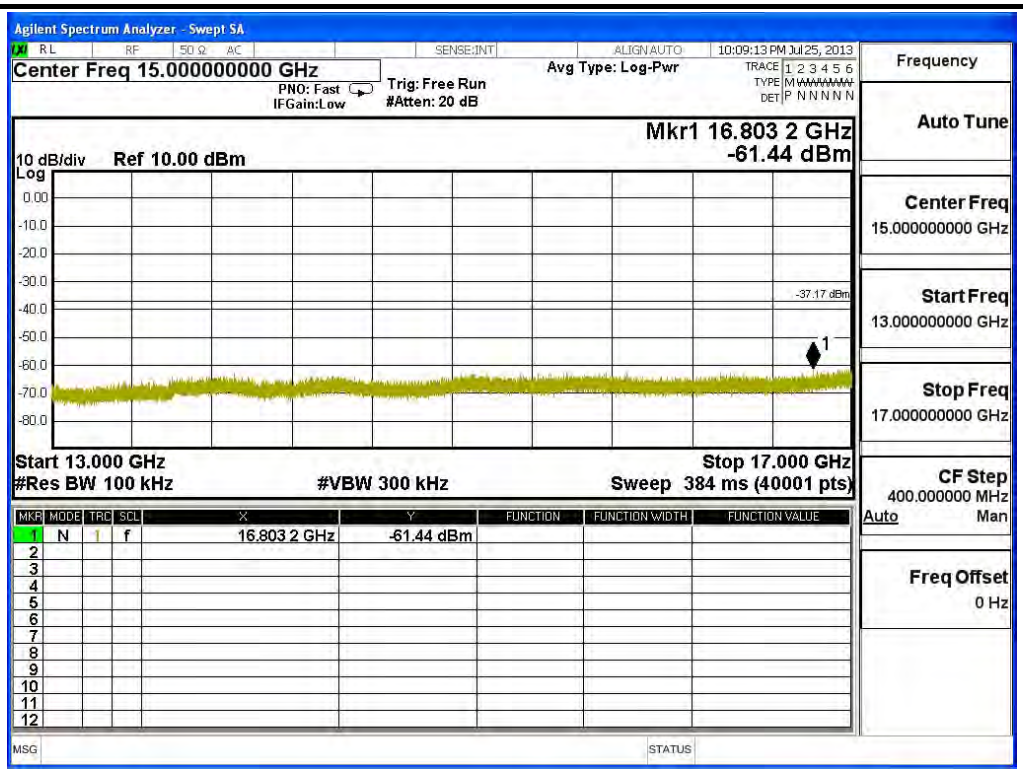
Channel 06 (2437MHz) 30MHz -25GHz-Chain A

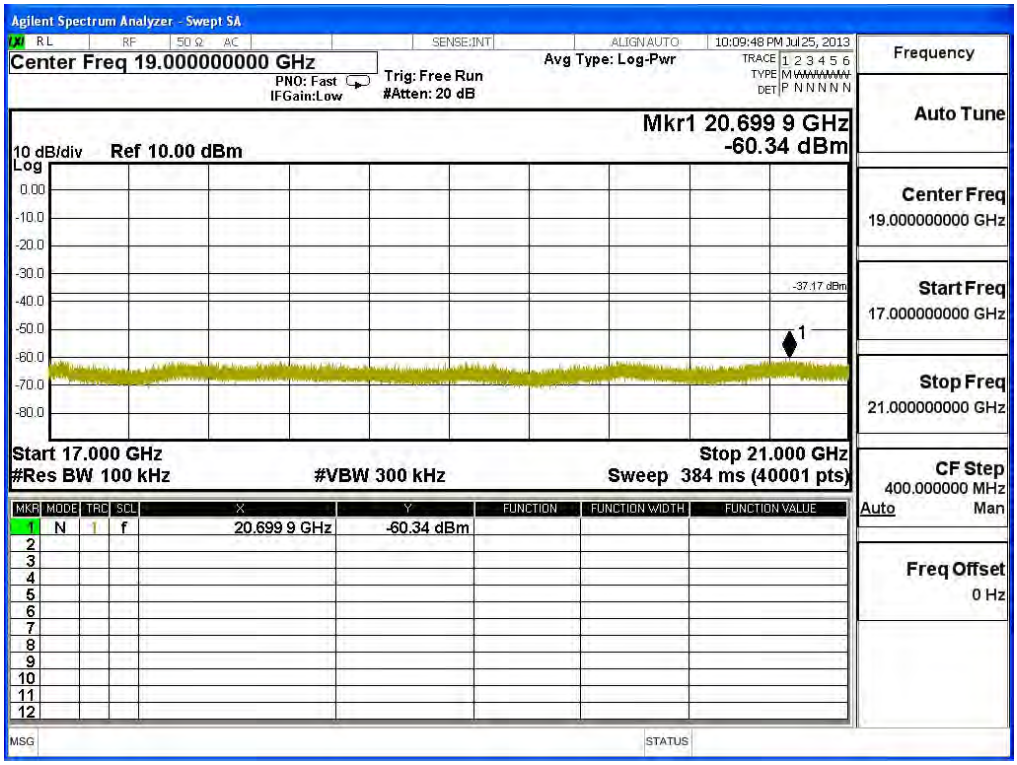


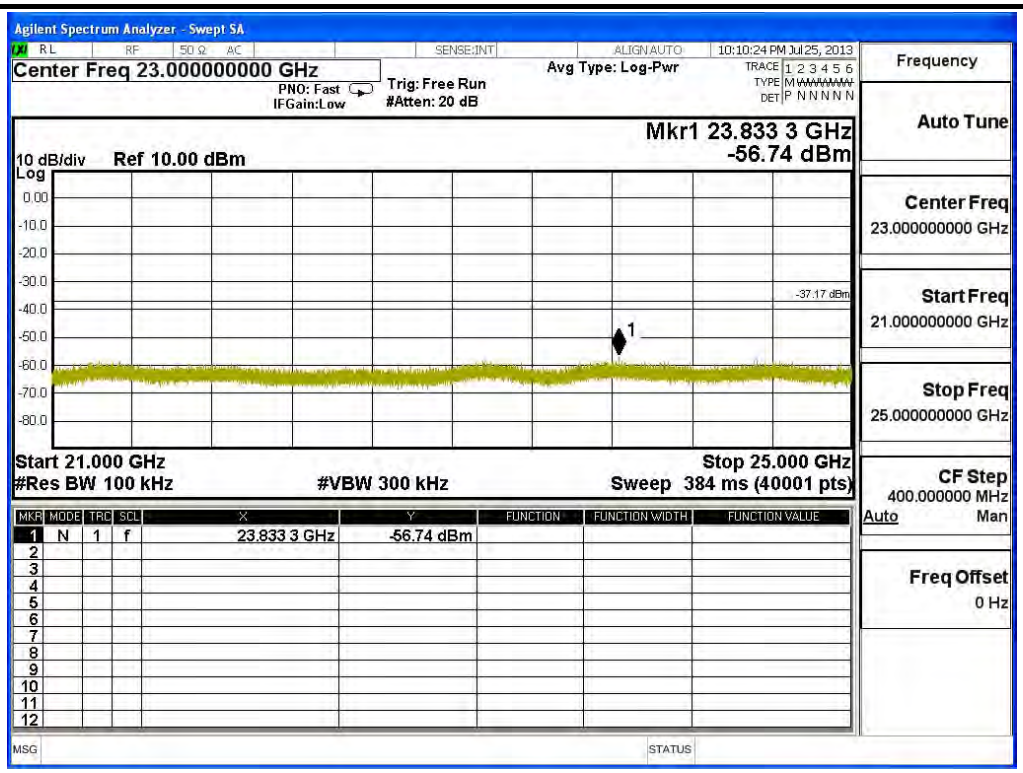



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:08:03 PM Jul 25, 2013
Mkr1 7.307 5 GHz
-47.95 dBm
10 dB/div
Ref 10.00 dBm
Log
-37.17 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.307 5 GHz -47.95 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

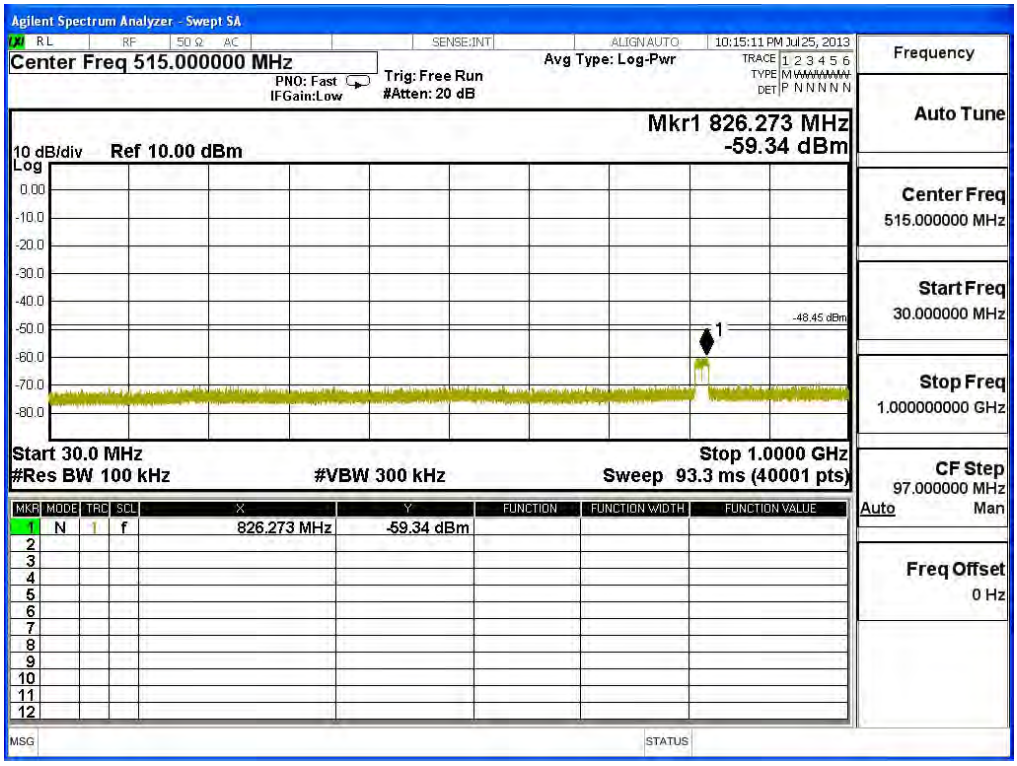

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:08:38 PM Jul 25, 2013
Mkr1 12.752 5 GHz
-64.05 dBm
10 dB/div
Ref 10.00 dBm
Log
-37.17 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.752 5 GHz -64.05 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

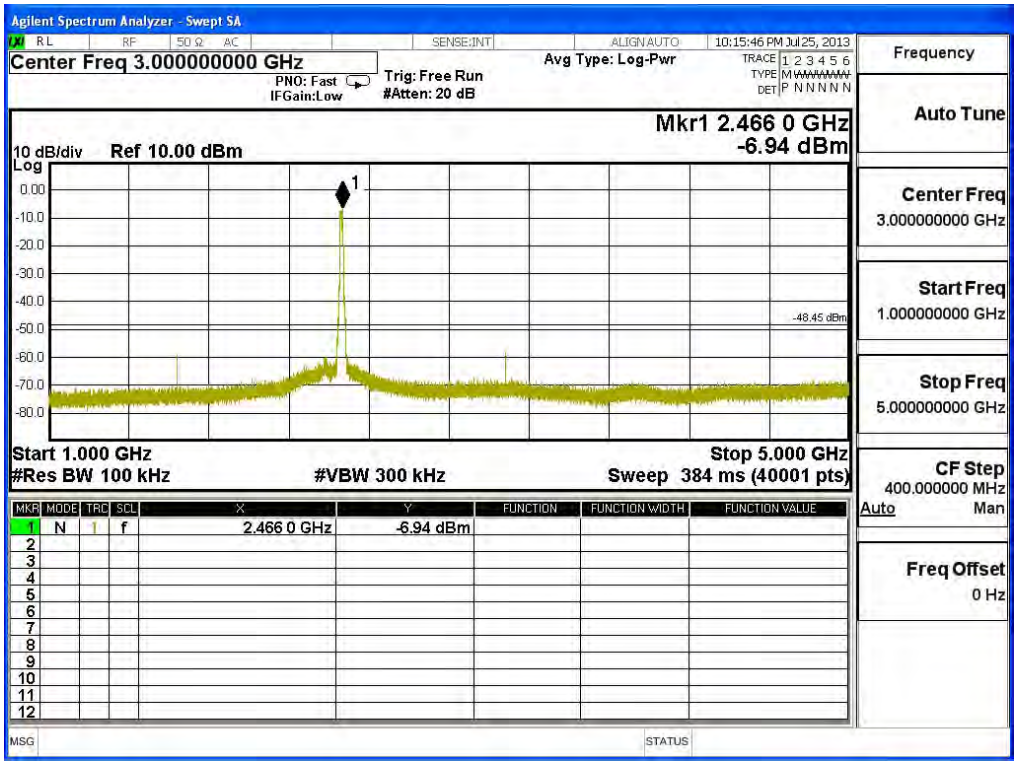

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:09:13 PM Jul 25, 2013
Mkr1 16.803 2 GHz
-61.44 dBm
10 dB/div
Log
Ref 10.00 dBm
-37.17 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.803 2 GHz -61.44 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

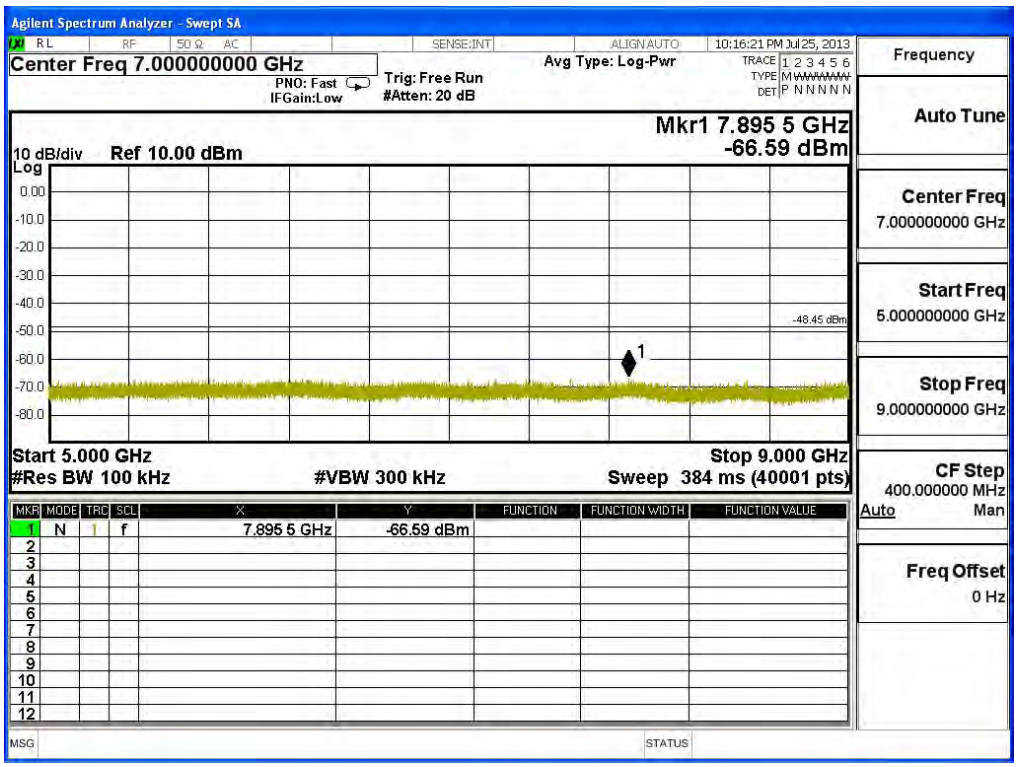

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:09:48 PM Jul 25, 2013
Mkr1 20.699 9 GHz
-60.34 dBm
10 dB/div
Log
Ref 10.00 dBm
-37.17 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.699 9 GHz -60.34 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

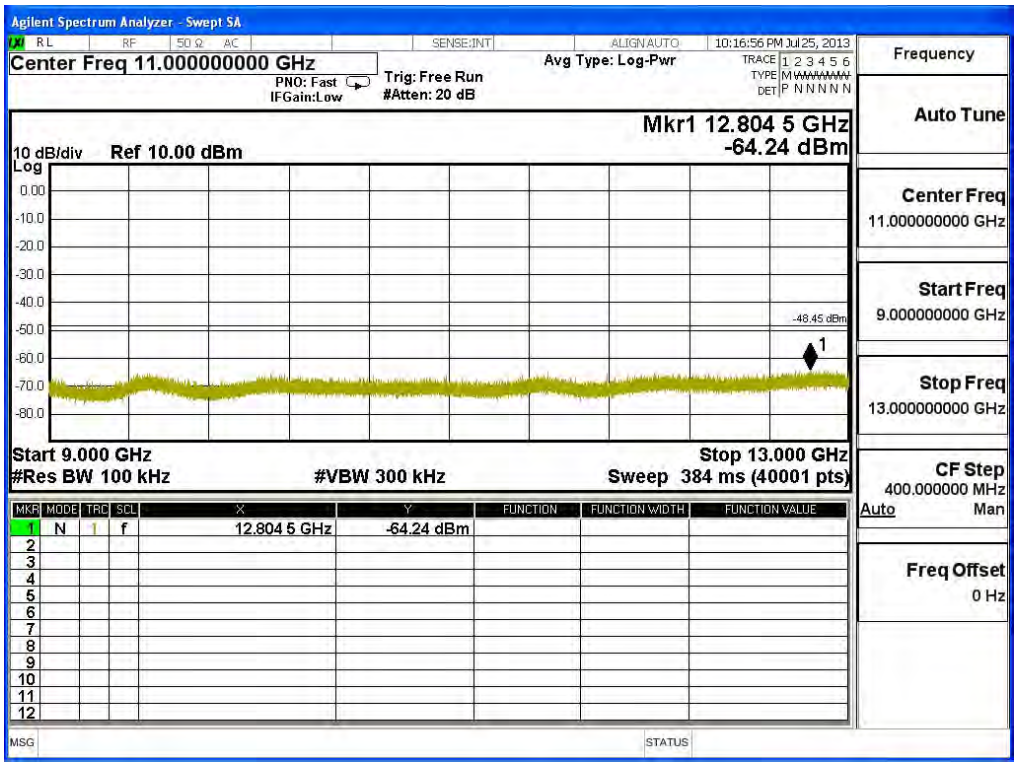

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:10:24 PM Jul 25, 2013
Mkr1 23.833 3 GHz
-56.74 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-37.17 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.833 3 GHz -56.74 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

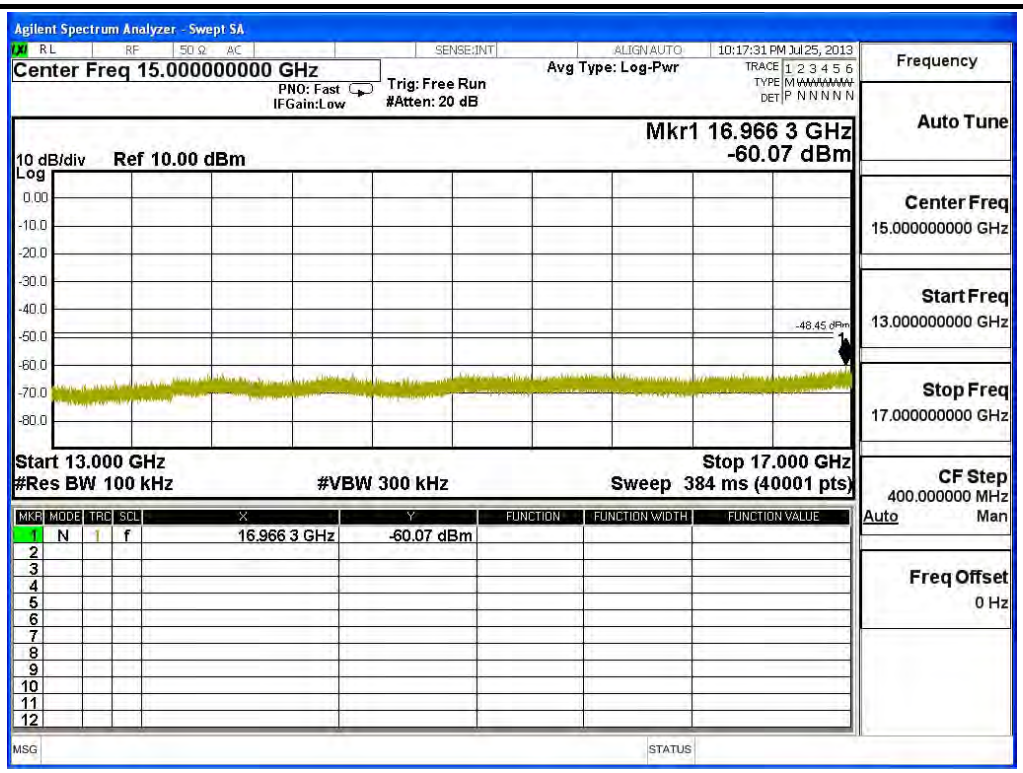
Channel 11 (2462MHz) 30MHz -25GHz-Chain A

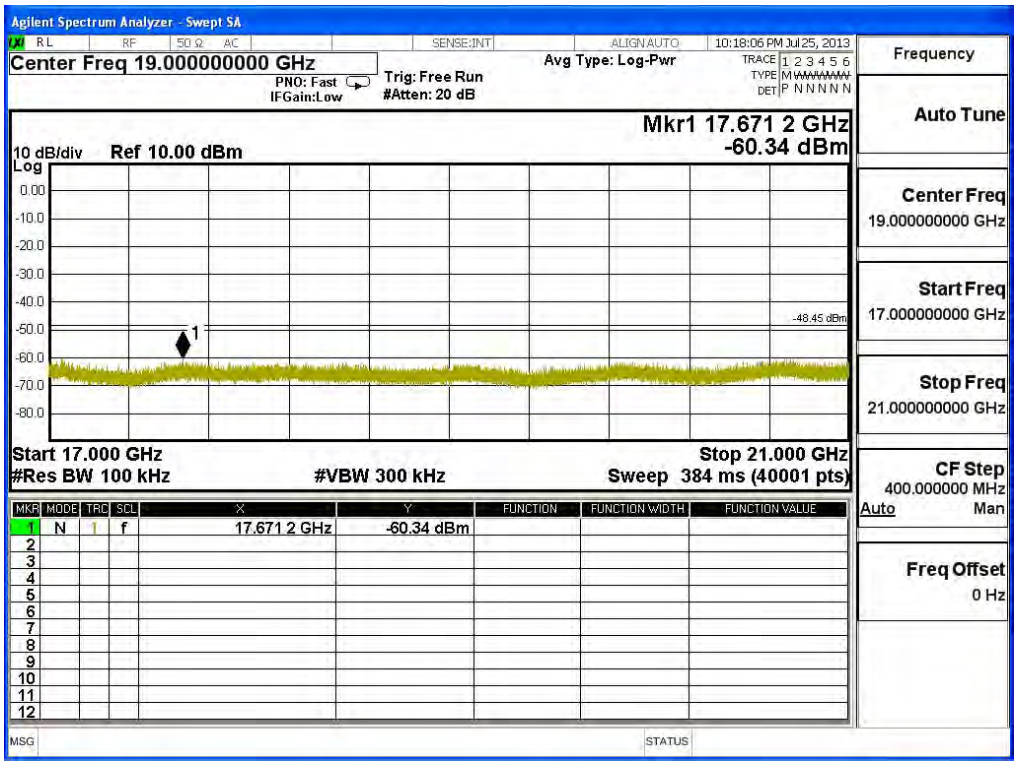


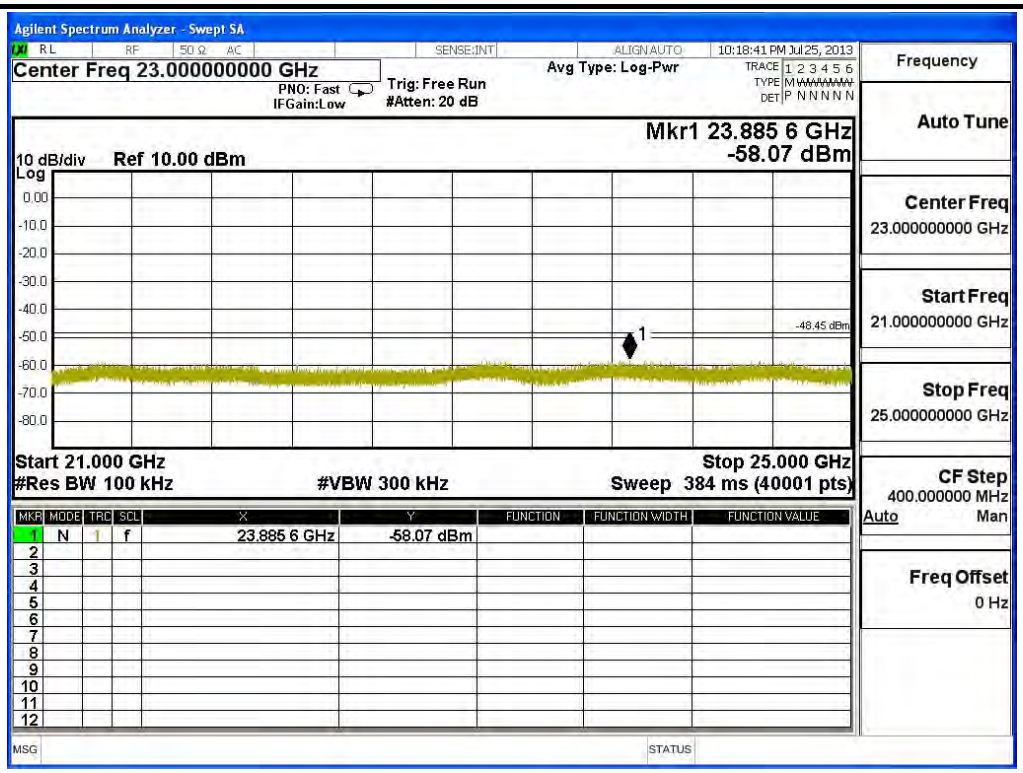



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:16:21 PM Jul 25, 2013
Mkr1 7.895 5 GHz
-66.59 dBm
10 dB/div
Ref 10.00 dBm
Log
-48.45 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.895 5 GHz -66.59 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

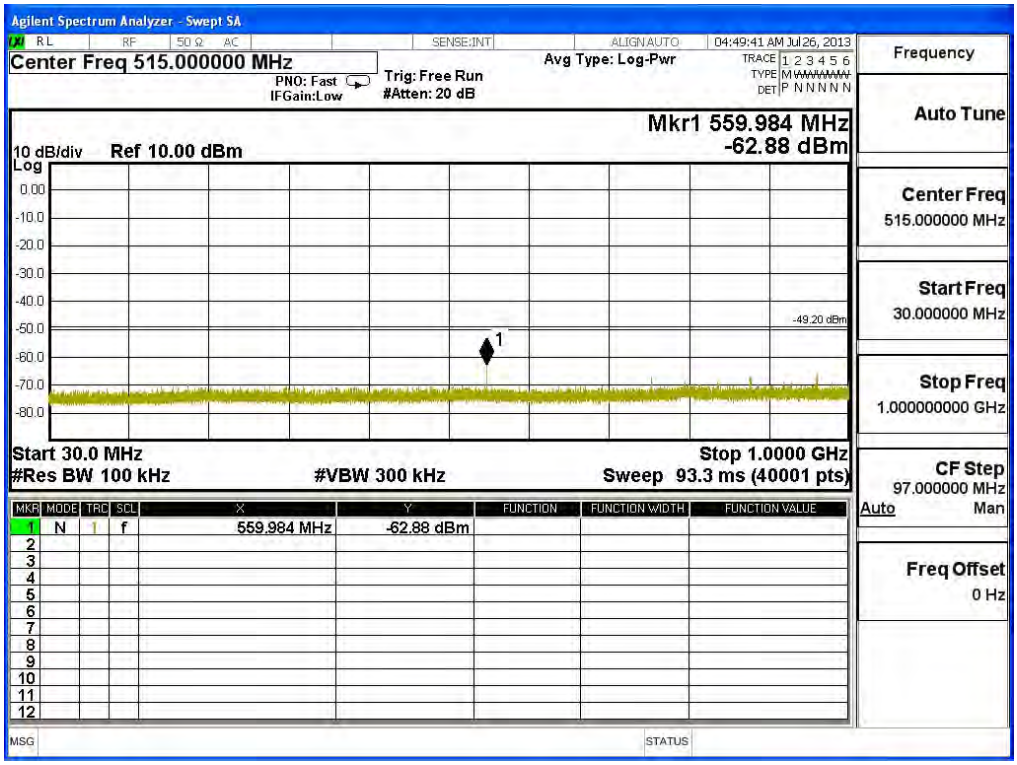

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:16:56 PM Jul 25, 2013
Mkr1 12.804 5 GHz
-64.24 dBm
10 dB/div
Ref 10.00 dBm
Log
-48.45 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.804 5 GHz -64.24 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

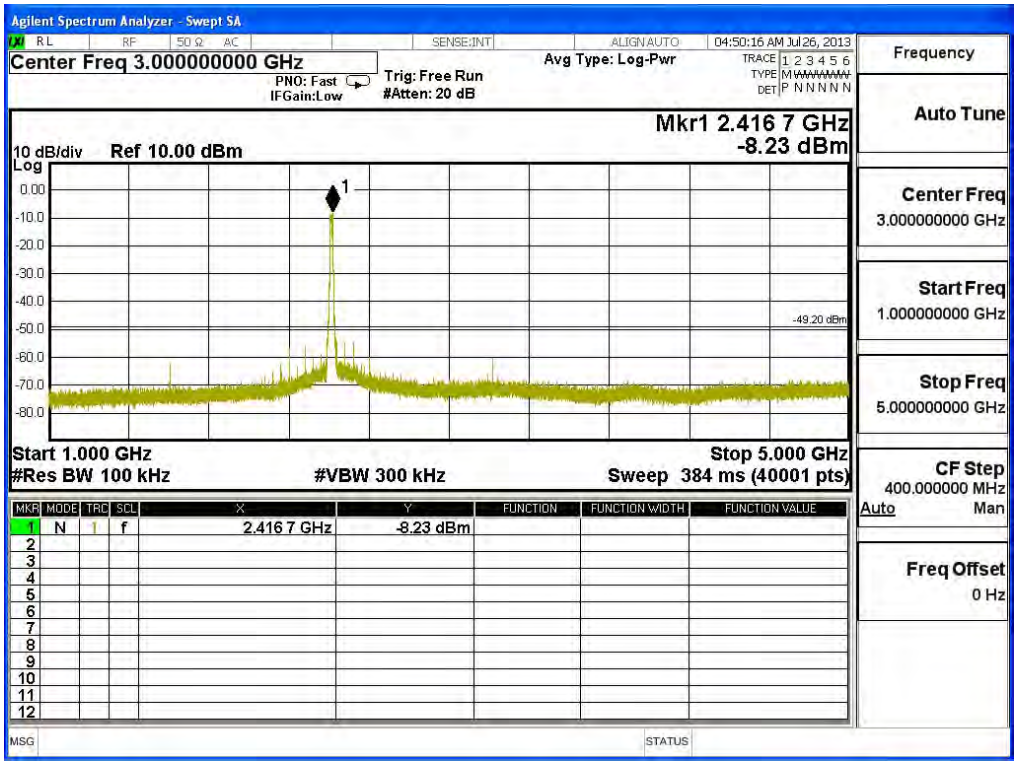

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:17:31 PM Jul 25, 2013
Mkr1 16.966 3 GHz
-60.07 dBm
10 dB/div
Log
Ref 10.00 dBm
-48.45 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.966 3 GHz -60.07 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

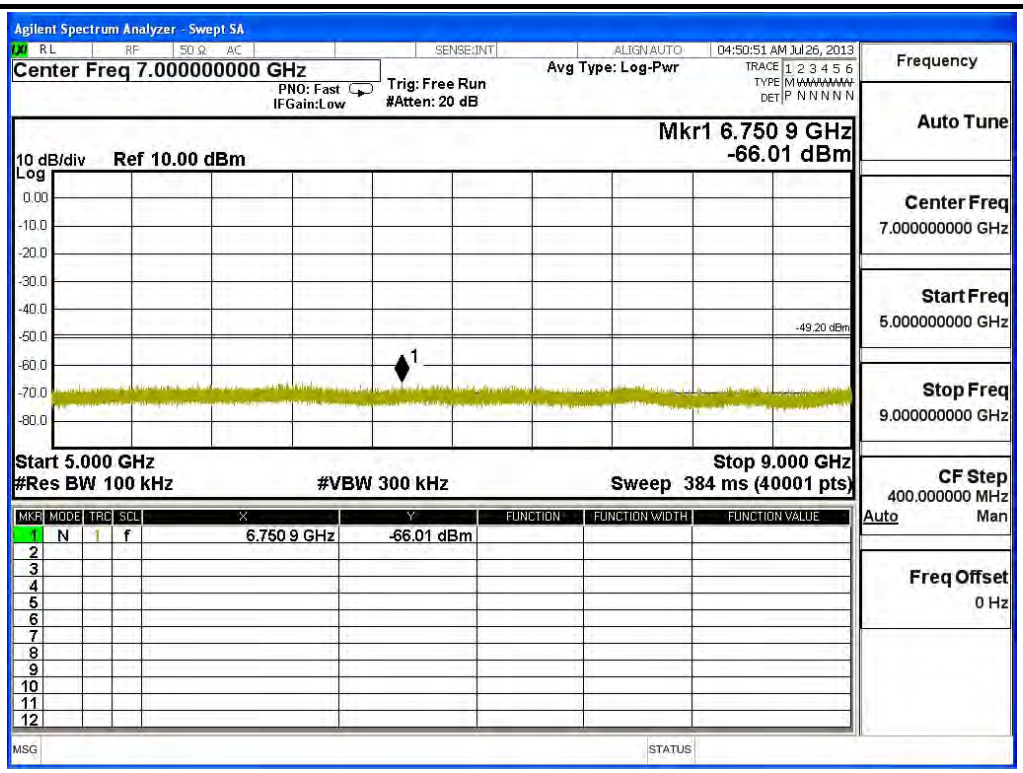

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:18:06 PM Jul 25, 2013
Mkr1 17.671 2 GHz
-60.34 dBm
10 dB/div
Log
Ref 10.00 dBm
-48.45 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 17.671 2 GHz -60.34 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

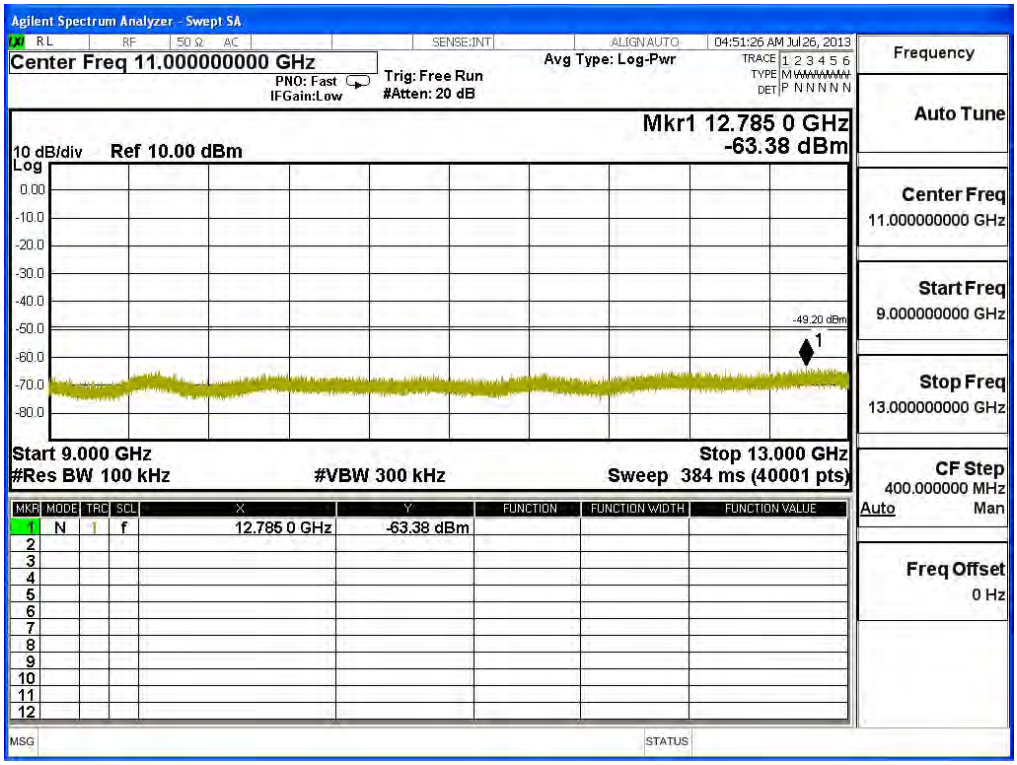

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:18:41 PM Jul 25, 2013
Mkr1 23.885 6 GHz
-58.07 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-48.45 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.885 6 GHz -58.07 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

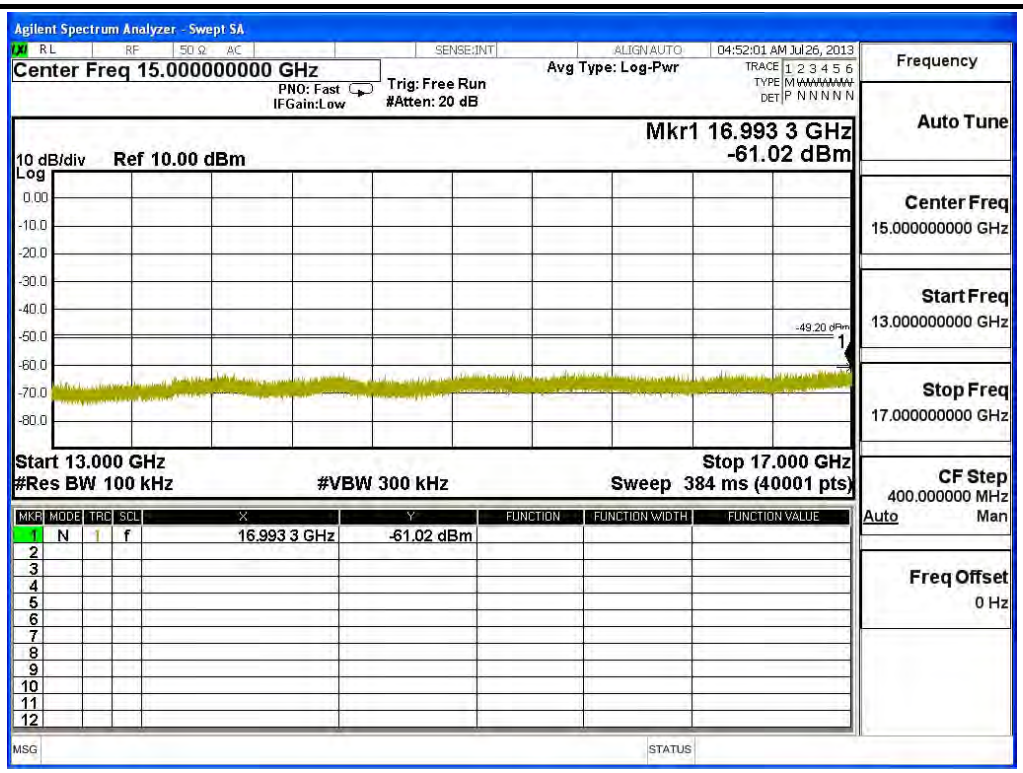
Channel 01 (2412MHz) 30MHz -25GHz-Chain B

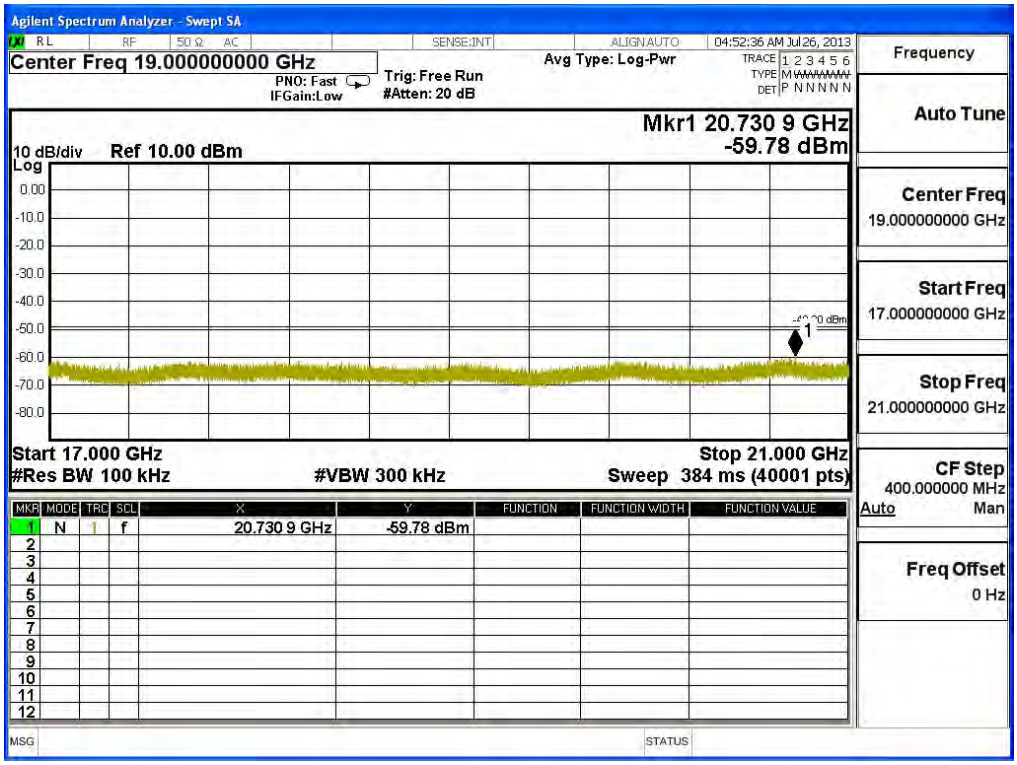


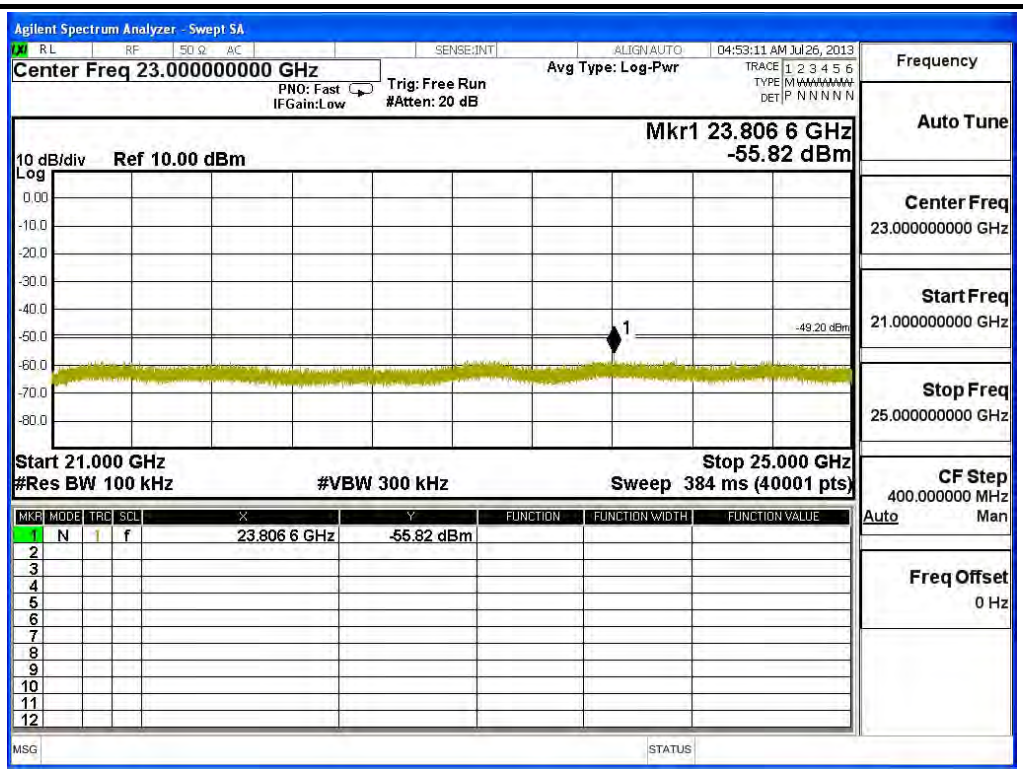



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:50:51 AM Jul 26, 2013
Mkr1 6.750 9 GHz
-66.01 dBm
10 dB/div
Log
Ref 10.00 dBm
-49.20 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 6.750 9 GHz -66.01 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

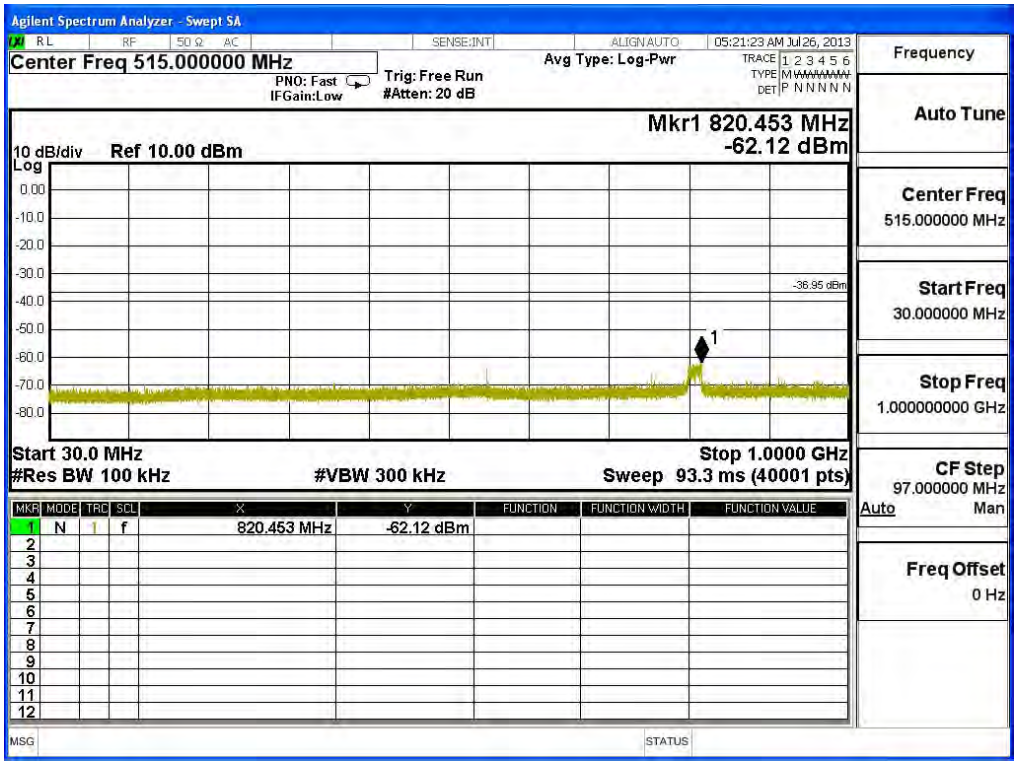

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:51:26 AM Jul 26, 2013
Mkr1 12.785 0 GHz
-63.38 dBm
10 dB/div
Log
Ref 10.00 dBm
-49.20 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.785 0 GHz -63.38 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
MSG
STATUS

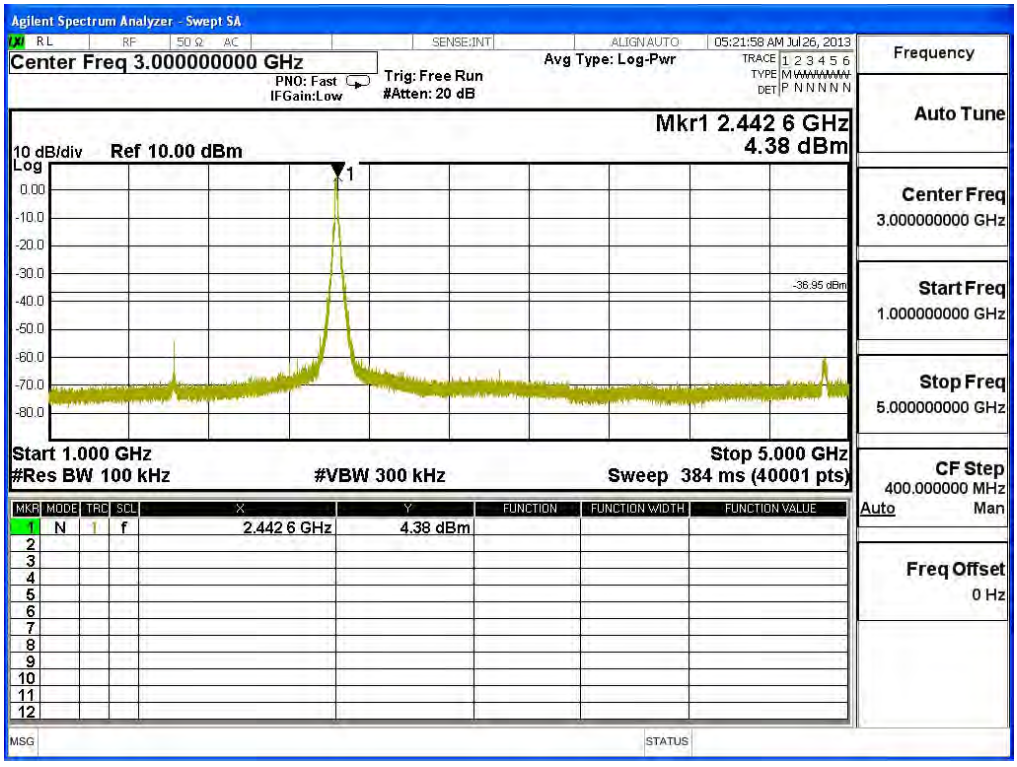

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:52:01 AM Jul 26, 2013
Mkr1 16.993 3 GHz
-61.02 dBm
10 dB/div
Log
Ref 10.00 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.993 3 GHz -61.02 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

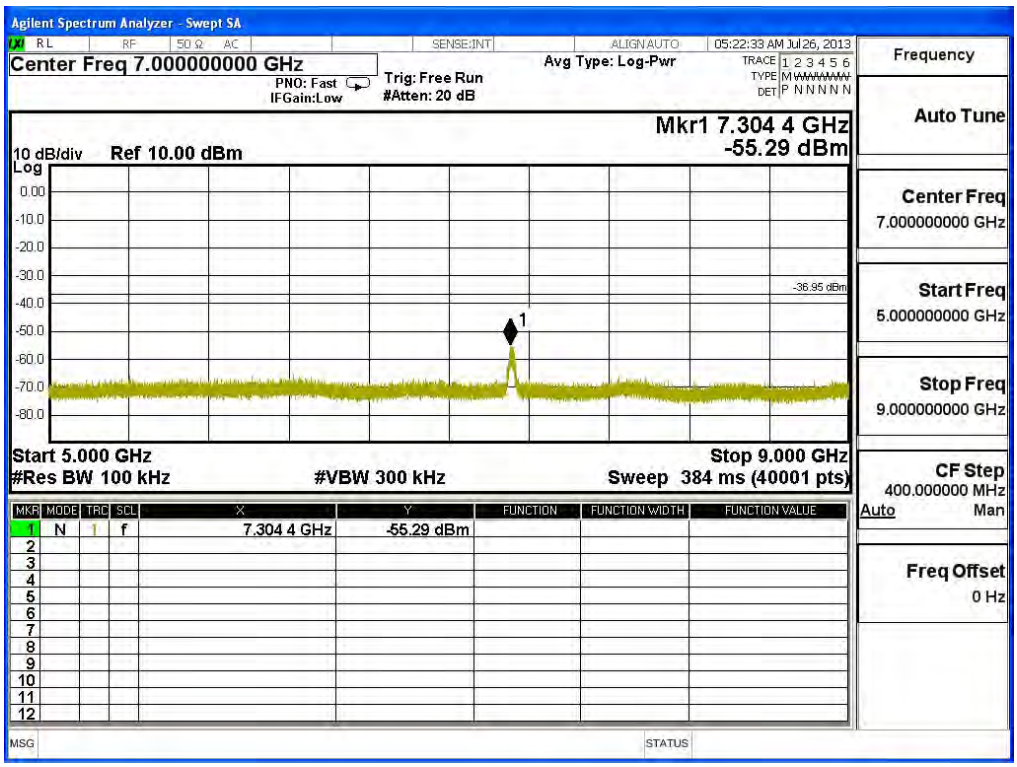

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:52:36 AM Jul 26, 2013
Mkr1 20.730 9 GHz
-59.78 dBm
10 dB/div
Log
Ref 10.00 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.730 9 GHz -59.78 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

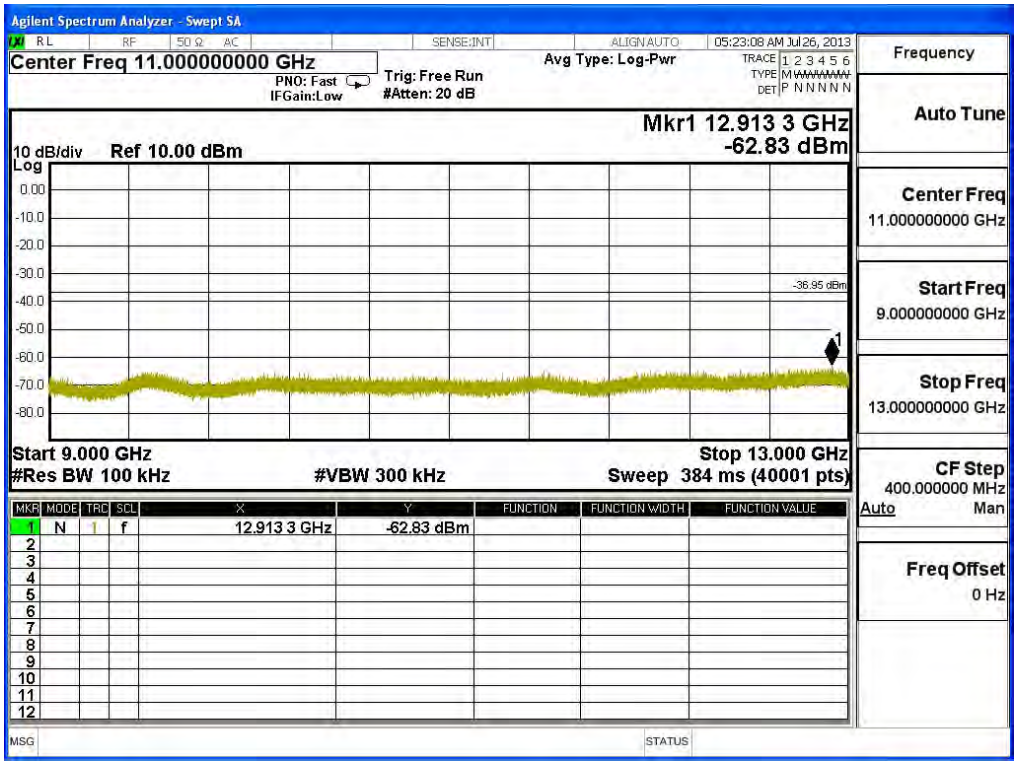

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
04:53:11 AM Jul 26, 2013
Mkr1 23.806 6 GHz
-55.82 dBm
10 dB/div
Log
Ref 10.00 dBm
-49.20 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.806 6 GHz -55.82 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

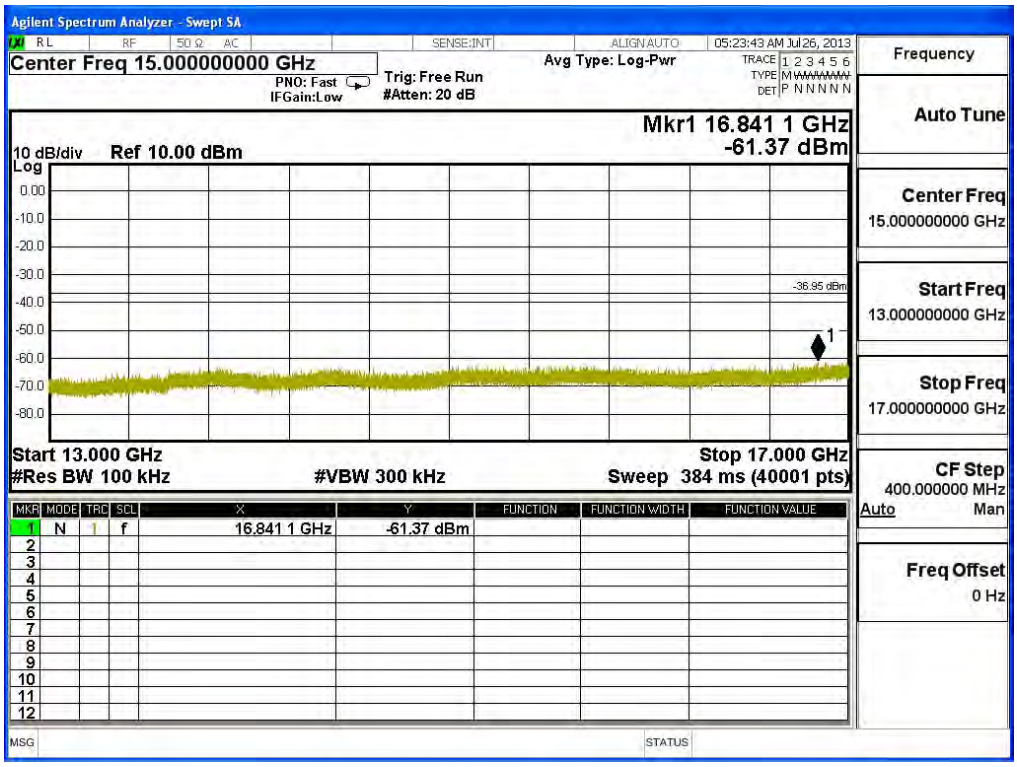
Channel 06 (2437MHz) 30MHz -25GHz-Chain B

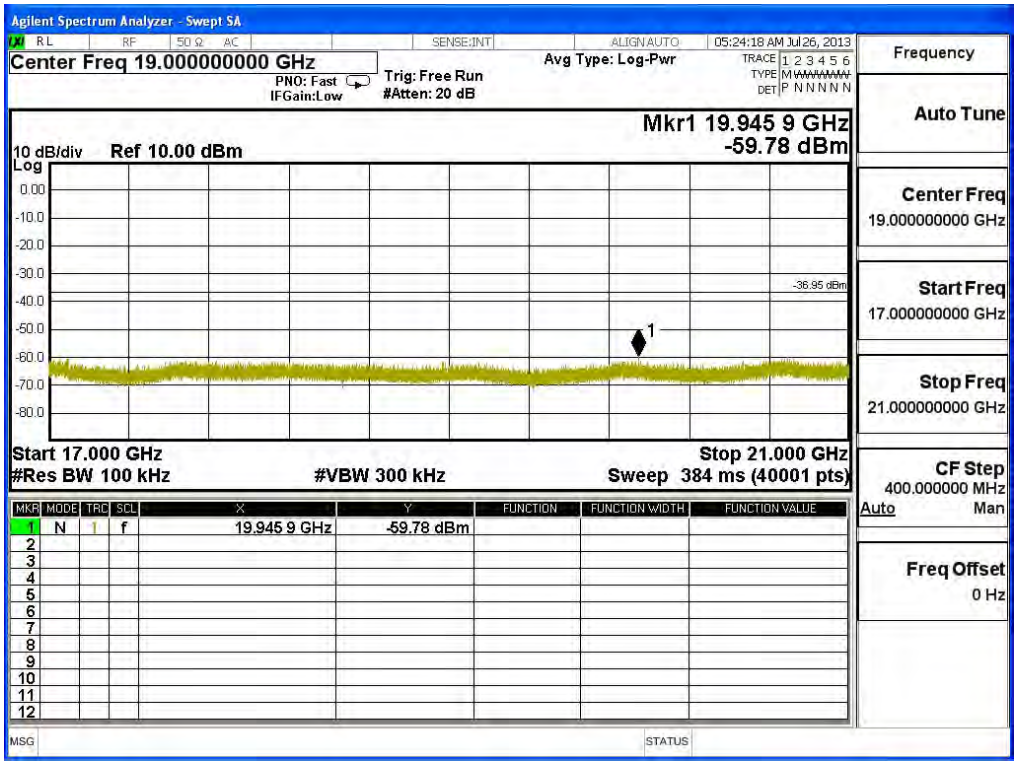


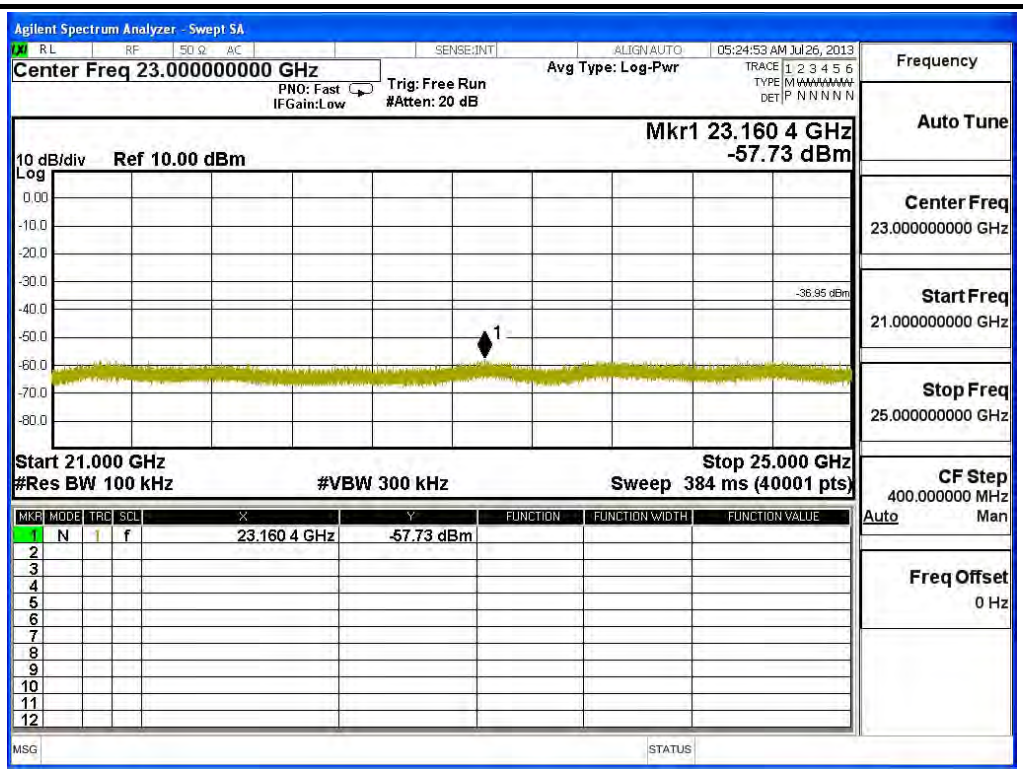



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:22:33 AM Jul 26, 2013
Mkr1 7.304 4 GHz
-55.29 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.95 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.304 4 GHz -55.29 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

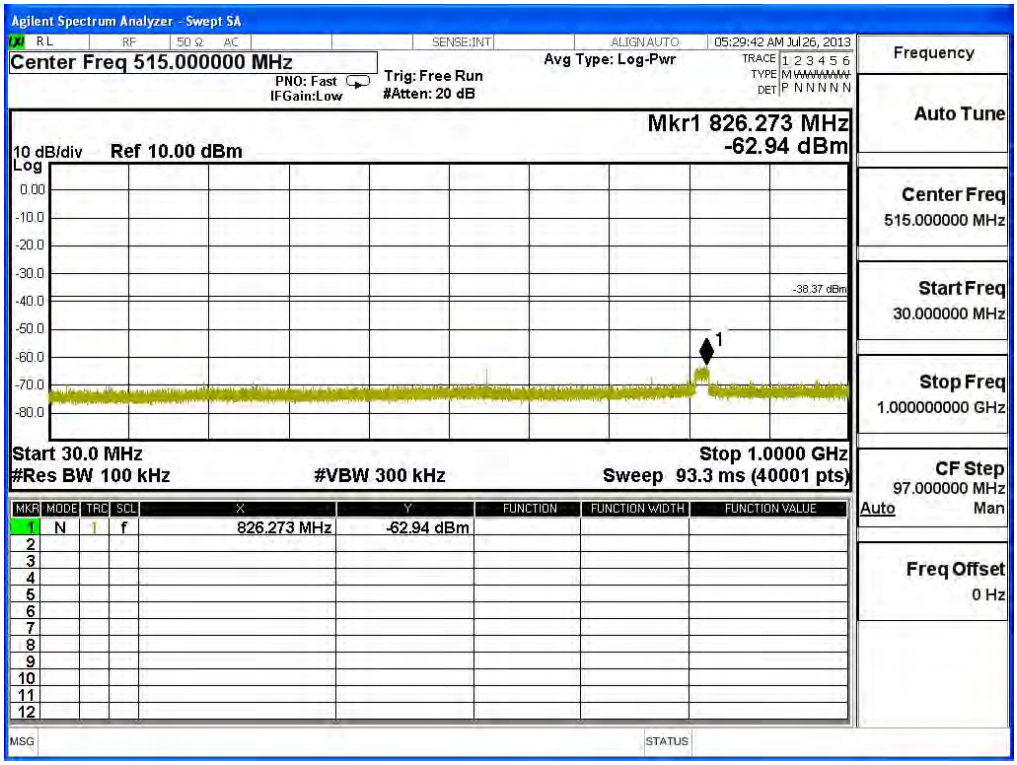

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:23:08 AM Jul 26, 2013
Mkr1 12.913 3 GHz
-62.83 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.95 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.913 3 GHz -62.83 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

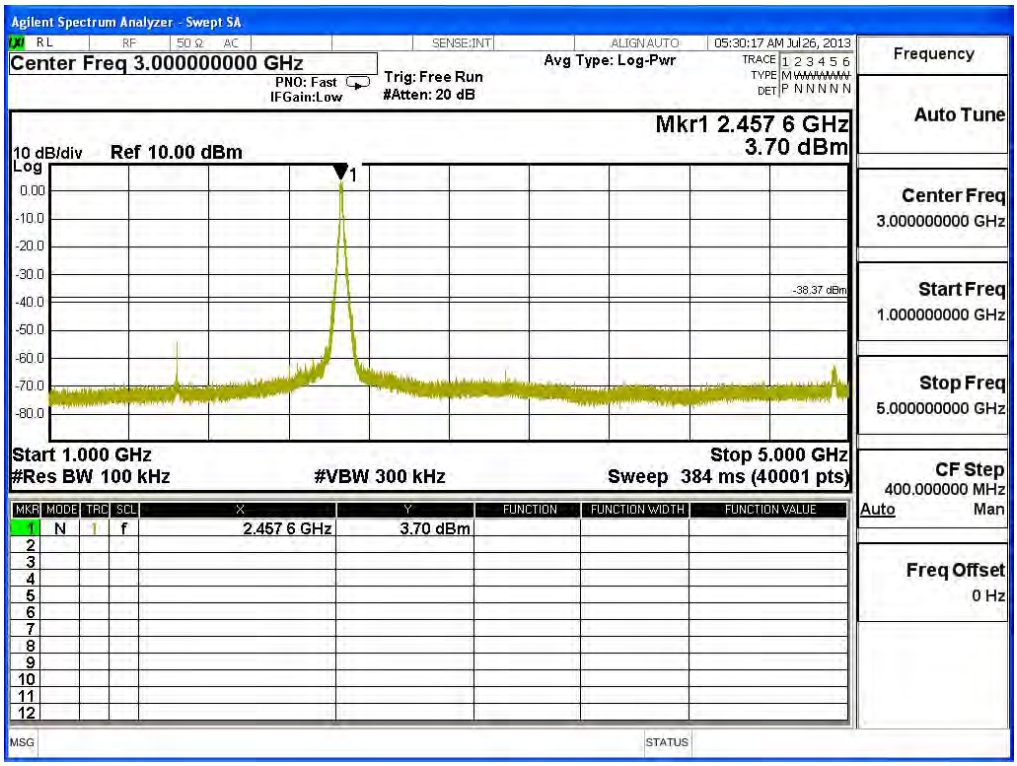

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:23:43 AM Jul 26, 2013
Mkr1 16.841 1 GHz
-61.37 dBm
10 dB/div
Ref 10.00 dBm
Log
-36.95 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.841 1 GHz -61.37 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

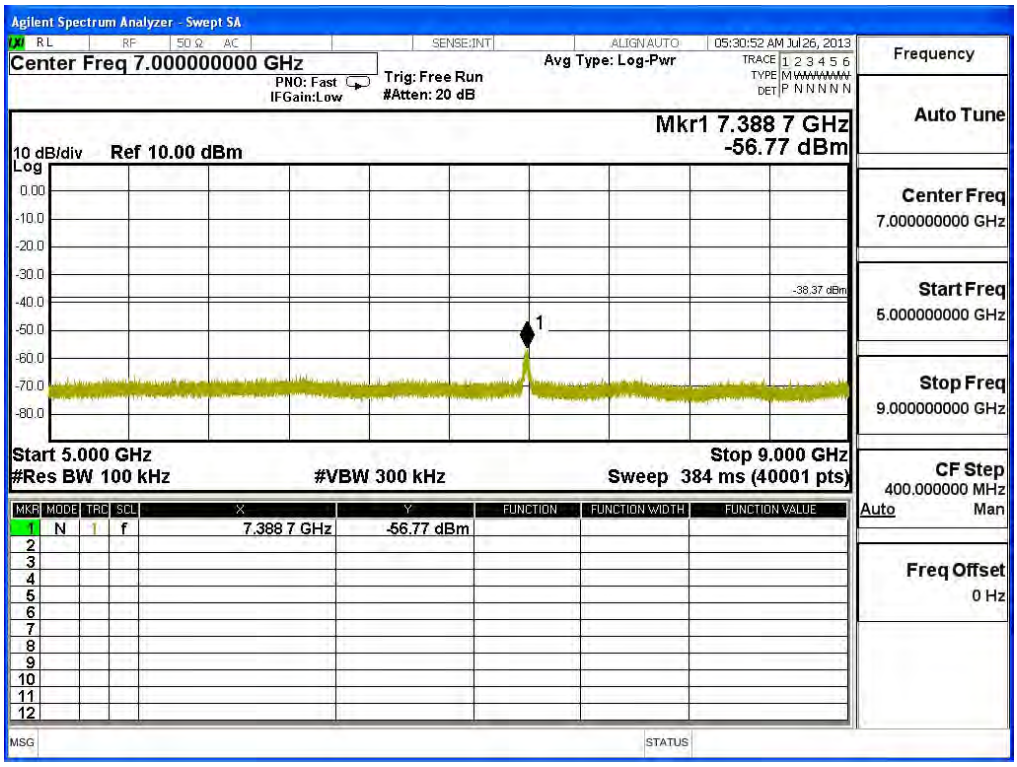

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:24:18 AM Jul 26, 2013
Mkr1 19.945 9 GHz
-59.78 dBm
10 dB/div
Ref 10.00 dBm
Log
-36.95 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 19.945 9 GHz -59.78 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

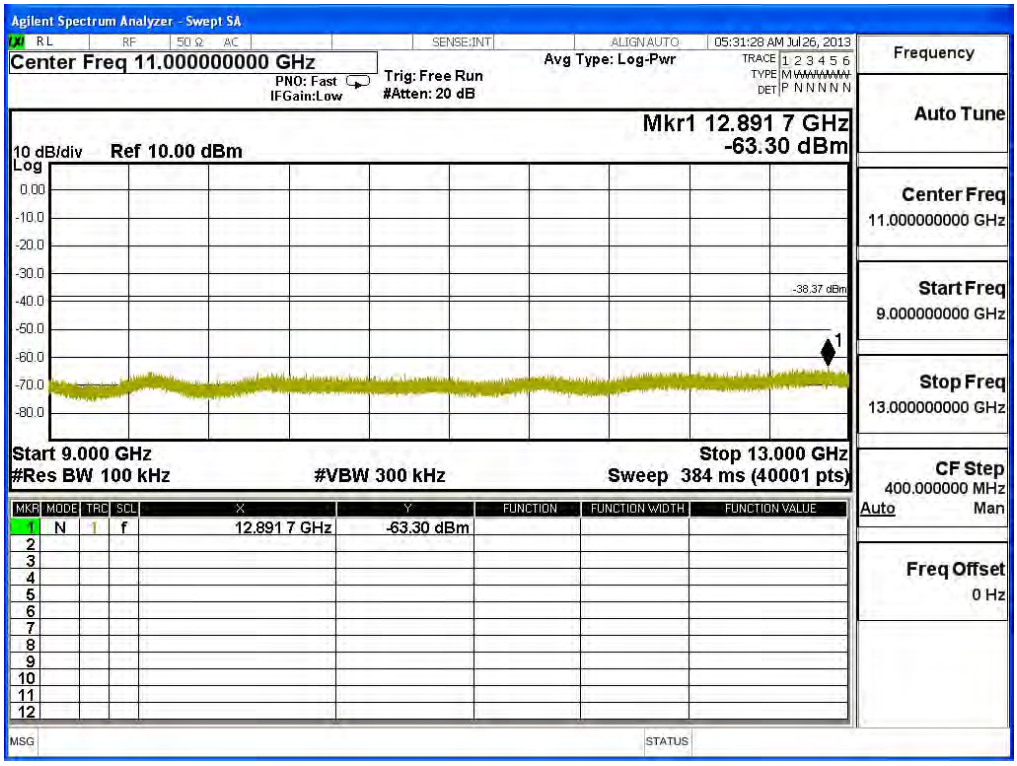

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:24:53 AM Jul 26, 2013
Mkr1 23.160 4 GHz
-57.73 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.95 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.160 4 GHz -57.73 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

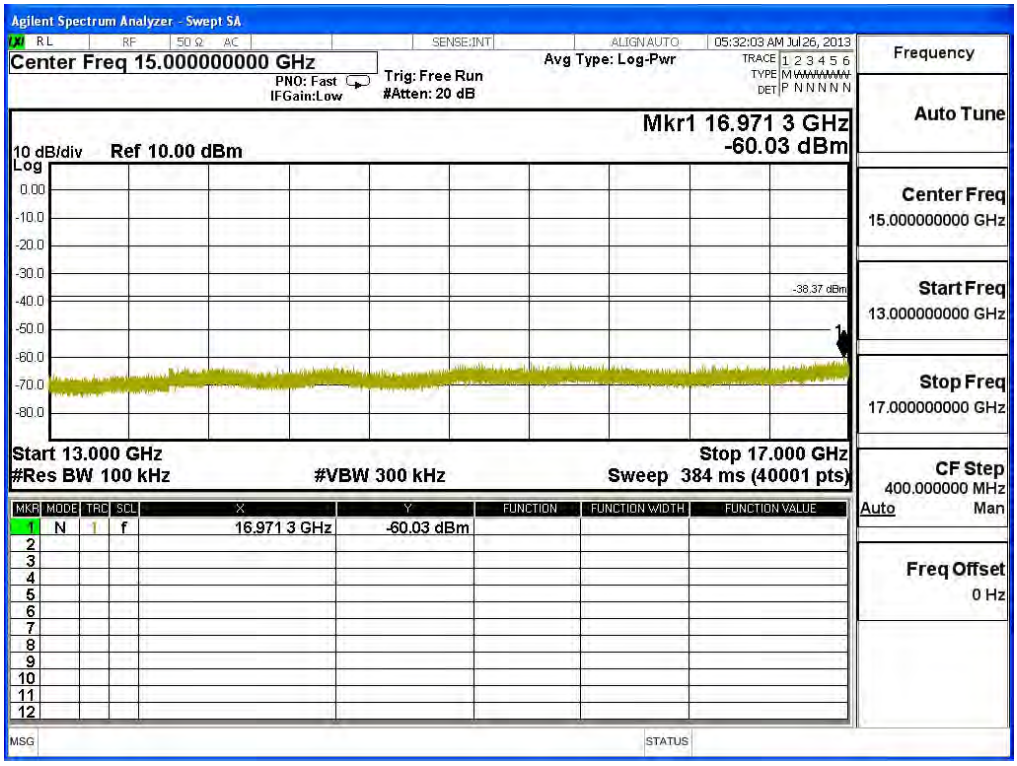
Channel 11 (2462MHz) 30MHz -25GHz-Chain B

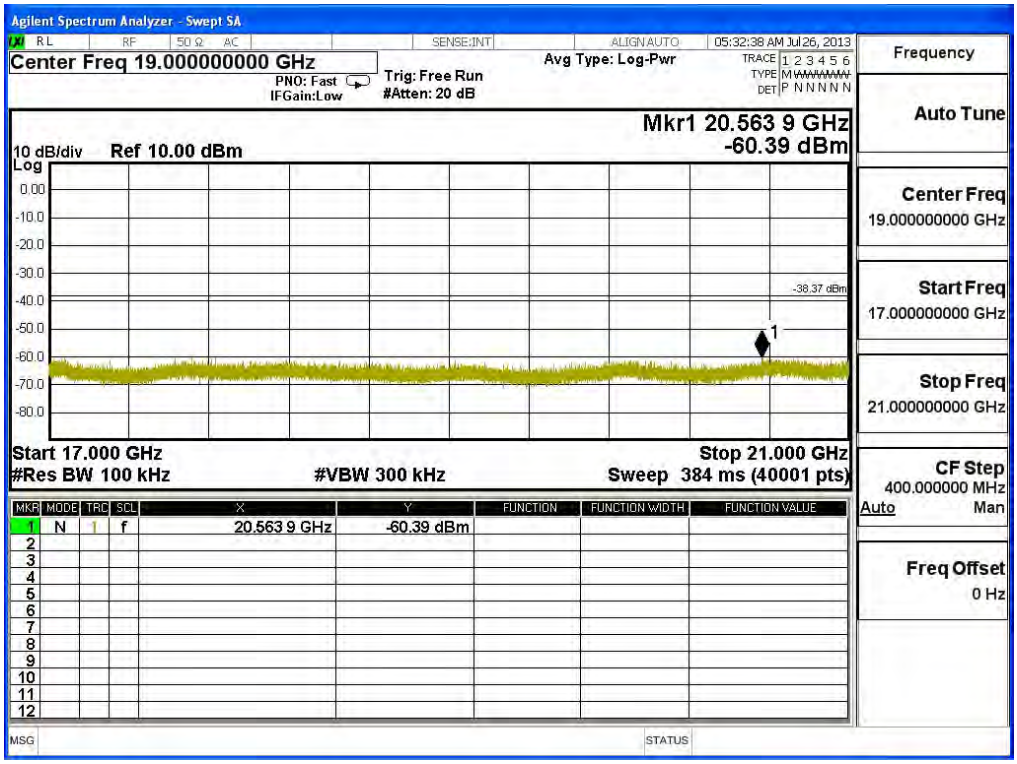


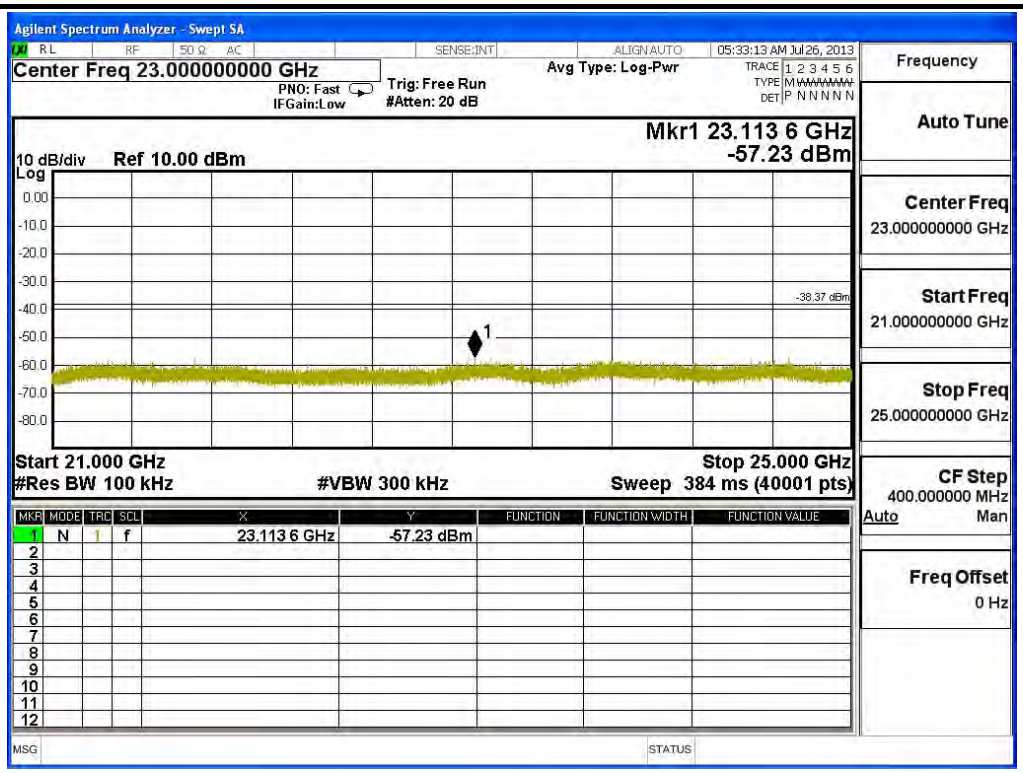



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:30:52 AM Jul 26, 2013
Mkr1 7.388 7 GHz
-56.77 dBm
10 dB/div
Ref 10.00 dBm
Log
-38.37 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.388 7 GHz -56.77 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
05:31:28 AM Jul 26, 2013
Mkr1 12.891 7 GHz
-63.30 dBm
10 dB/div
Ref 10.00 dBm
Log
-38.37 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 12.891 7 GHz -63.30 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
MSG
STATUS

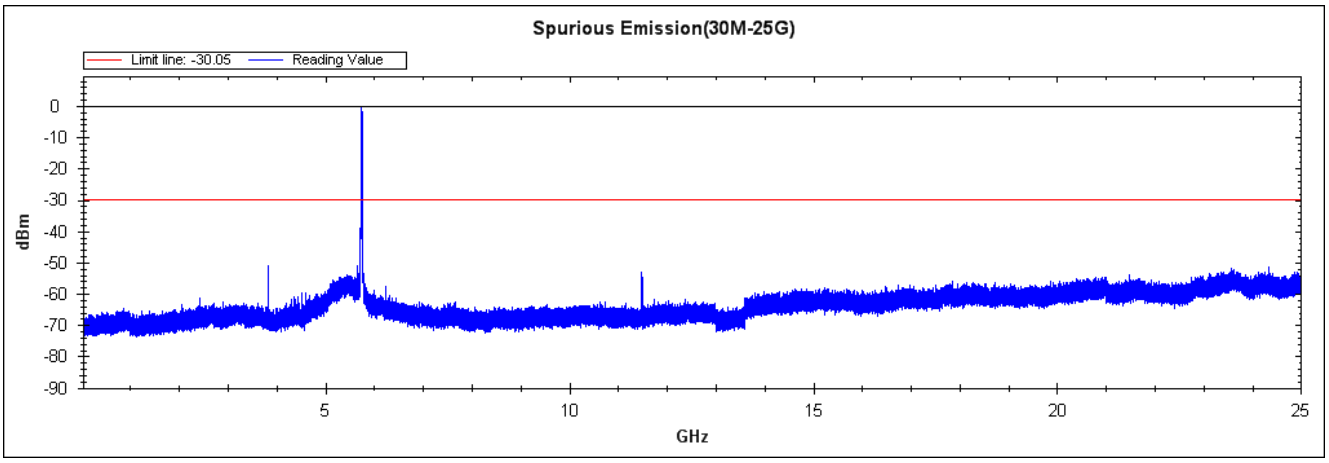

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:32:03 AM Jul 26, 2013
Mkr1 16.971 3 GHz
-60.03 dBm
10 dB/div
Ref 10.00 dBm
-38.37 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.971 3 GHz -60.03 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

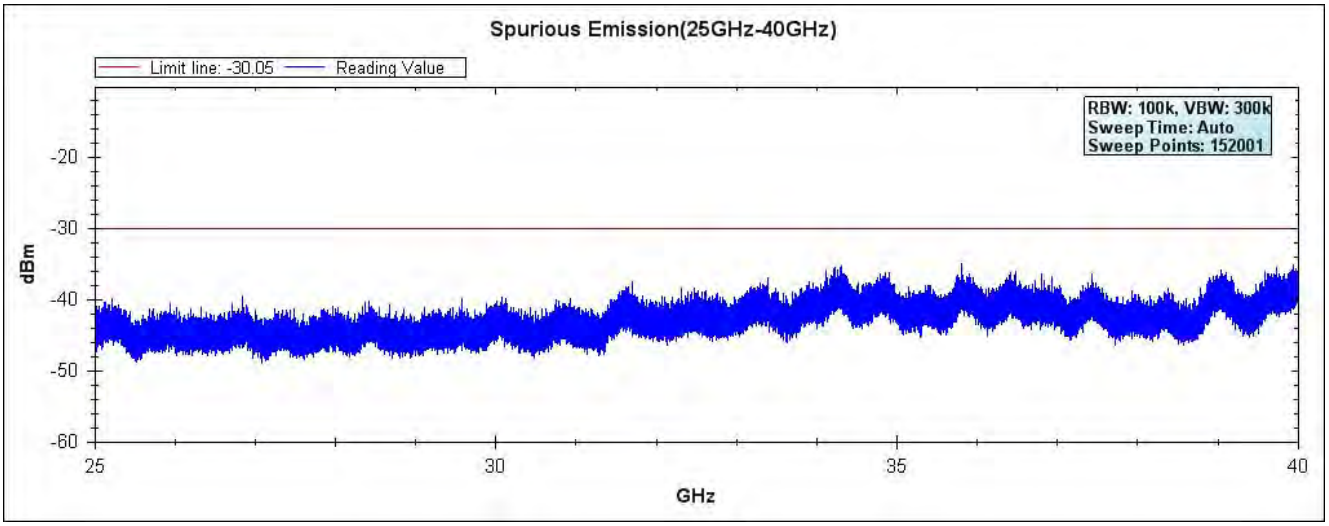

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
05:32:38 AM Jul 26, 2013
Mkr1 20.563 9 GHz
-60.39 dBm
10 dB/div
Ref 10.00 dBm
-38.37 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.563 9 GHz -60.39 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
05:33:13 AM Jul 26, 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 23.113 6 GHz
-57.23 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
-38.37 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 23.113 6 GHz -57.23 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

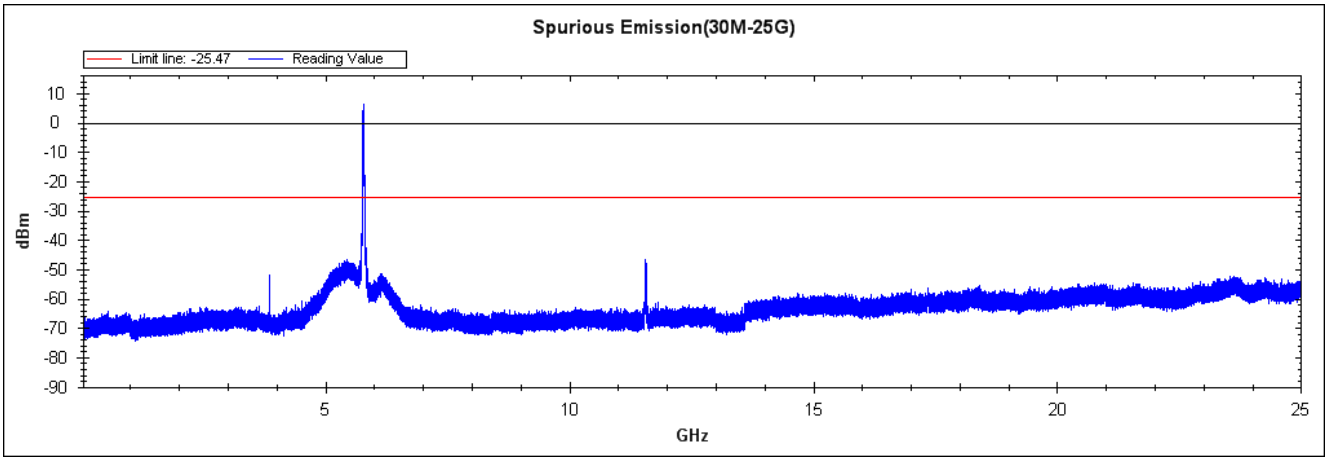
Product : SpectraGuard® Access Point / Sensor
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11a 6Mbps(Dipole Antenna)

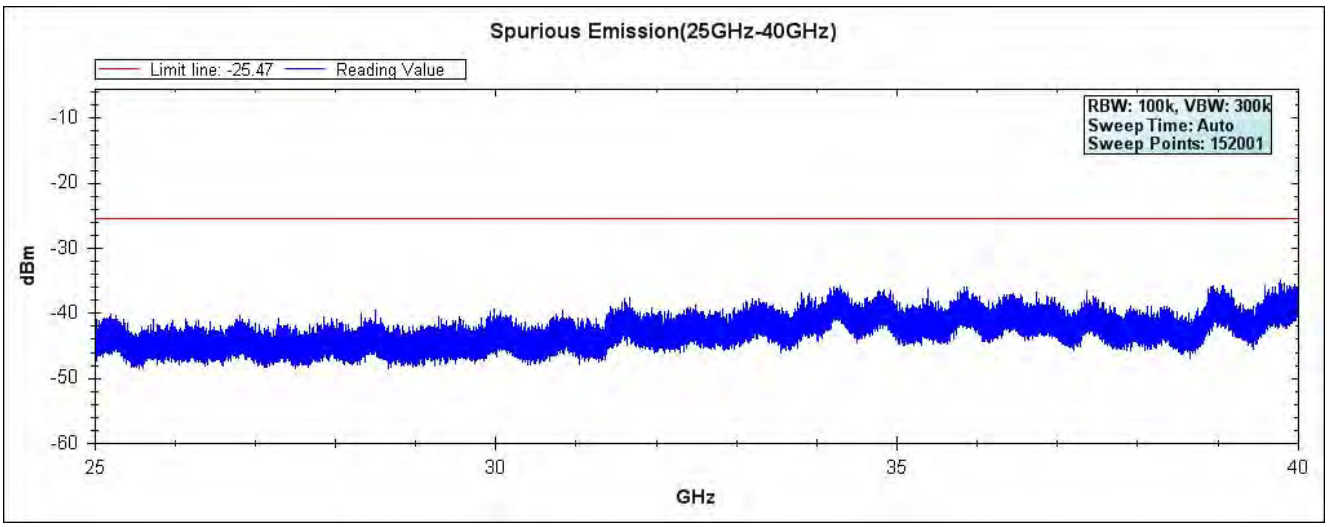
Channel 149 (5745MHz) 30MHz -40GHz-Chain A



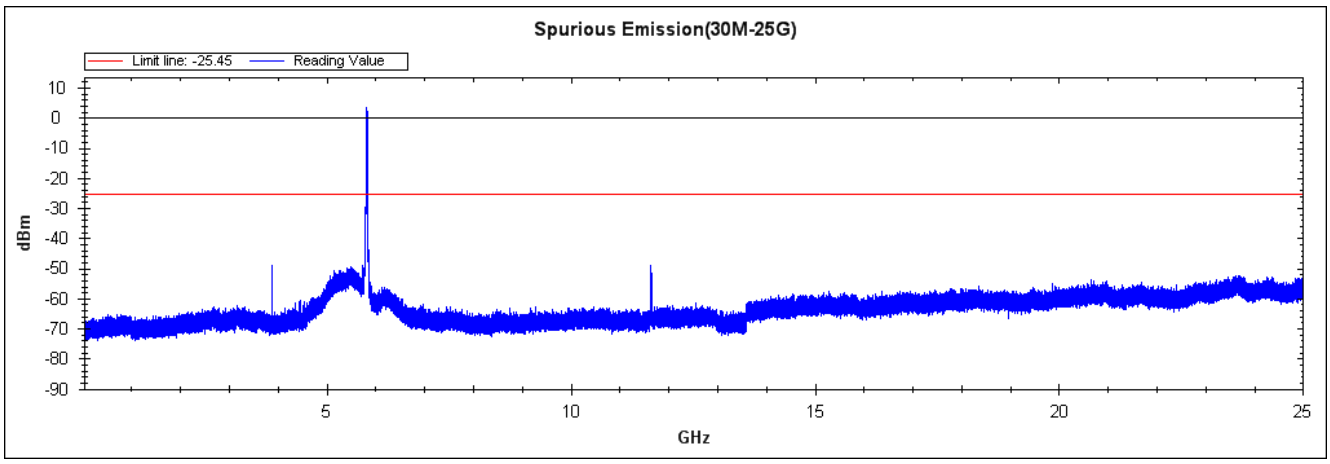


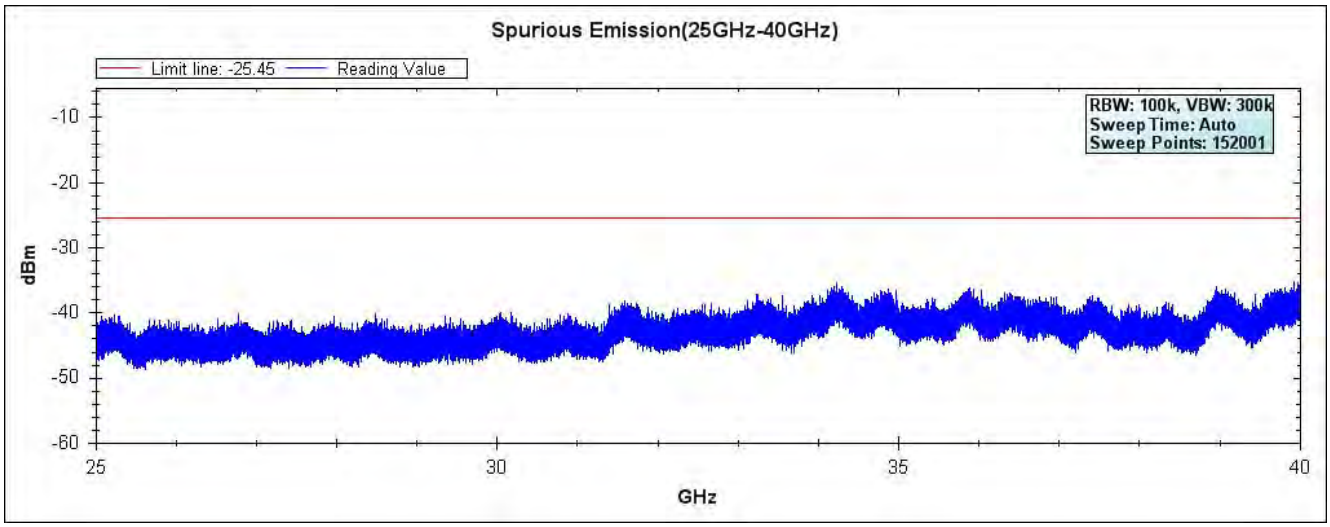
Channel 157 (5785MHz) 30MHz -40GHz-Chain A



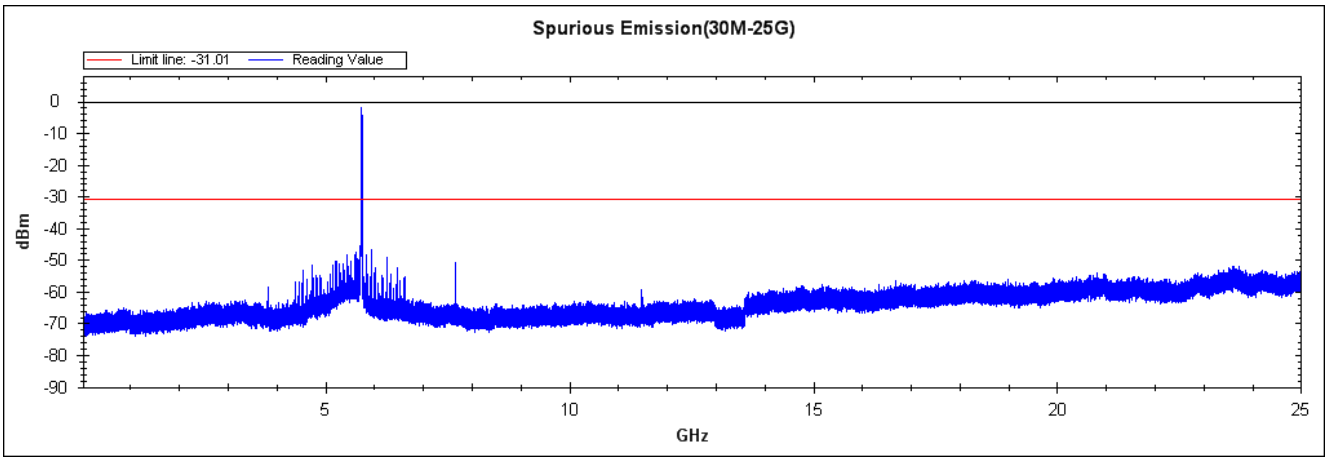


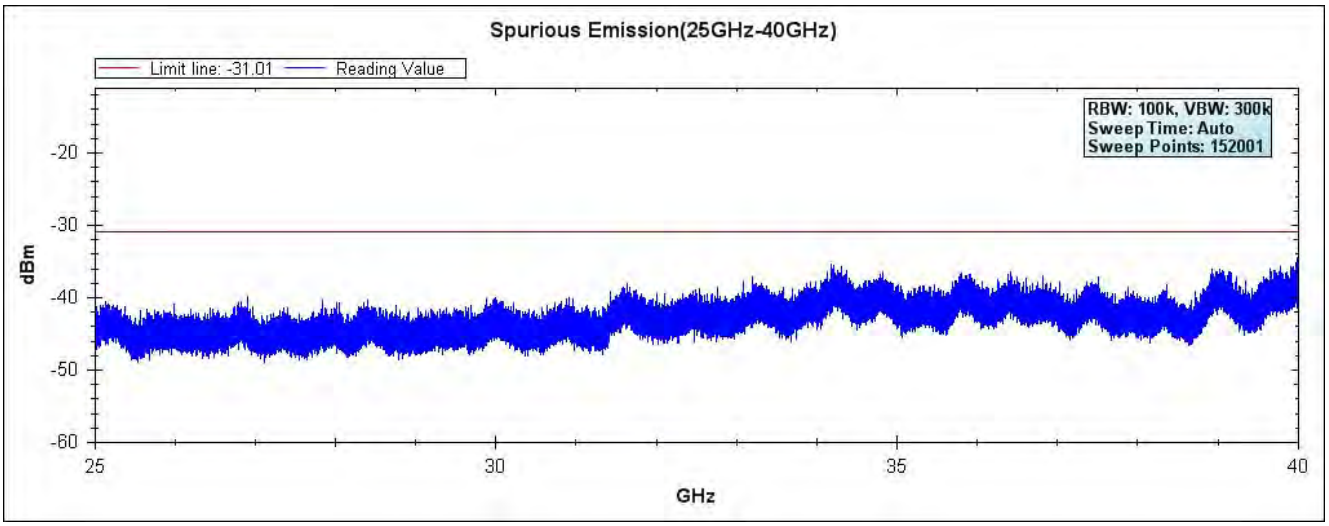
Channel 165 (5825MHz) 30MHz -40GHz-Chain A



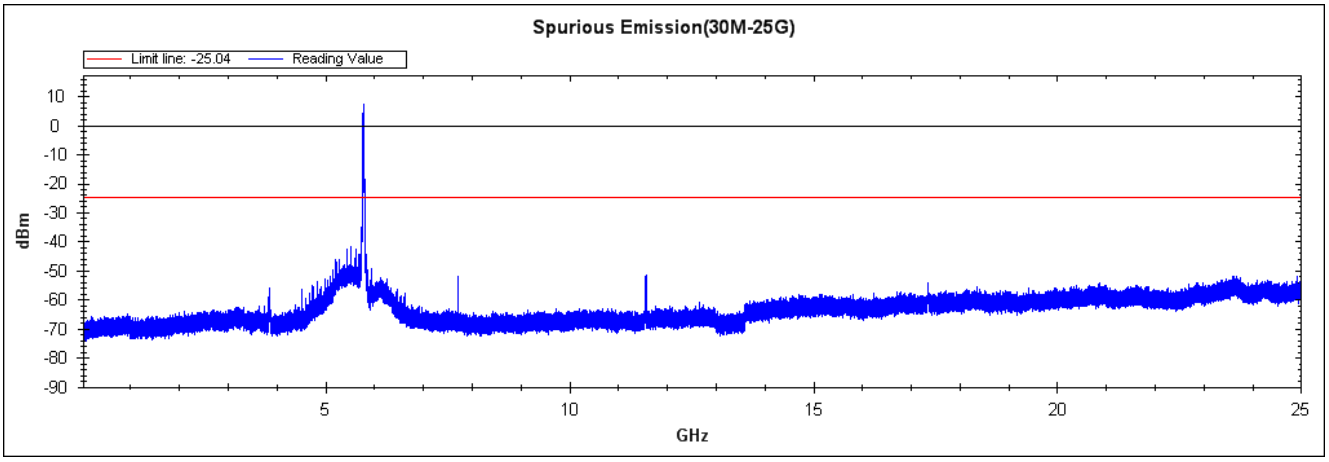


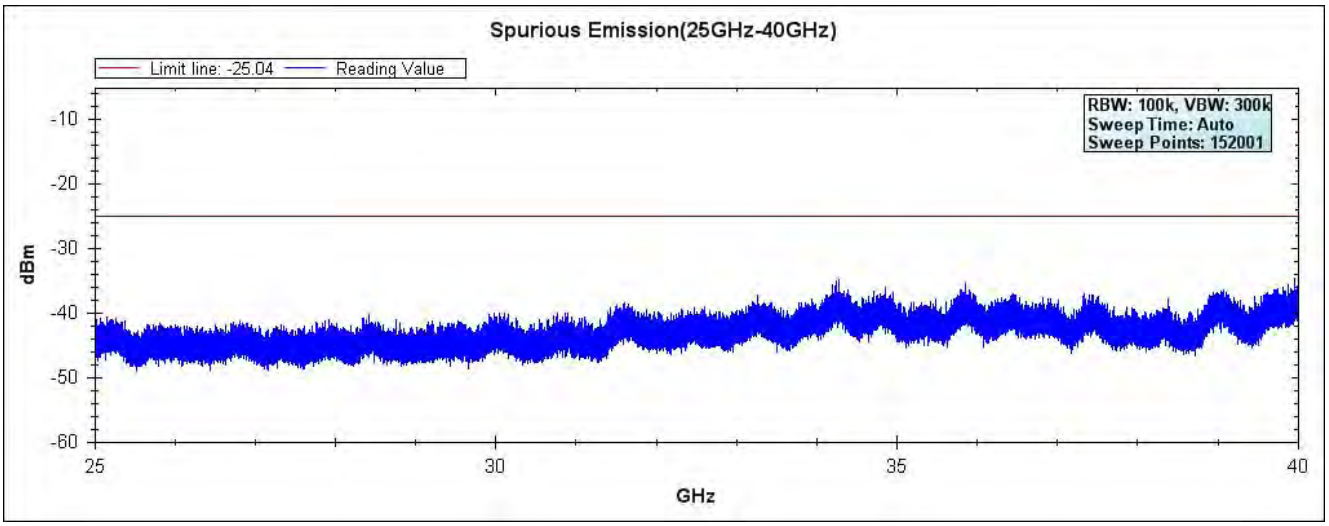
Channel 149 (5745MHz) 30MHz -40GHz-Chain B



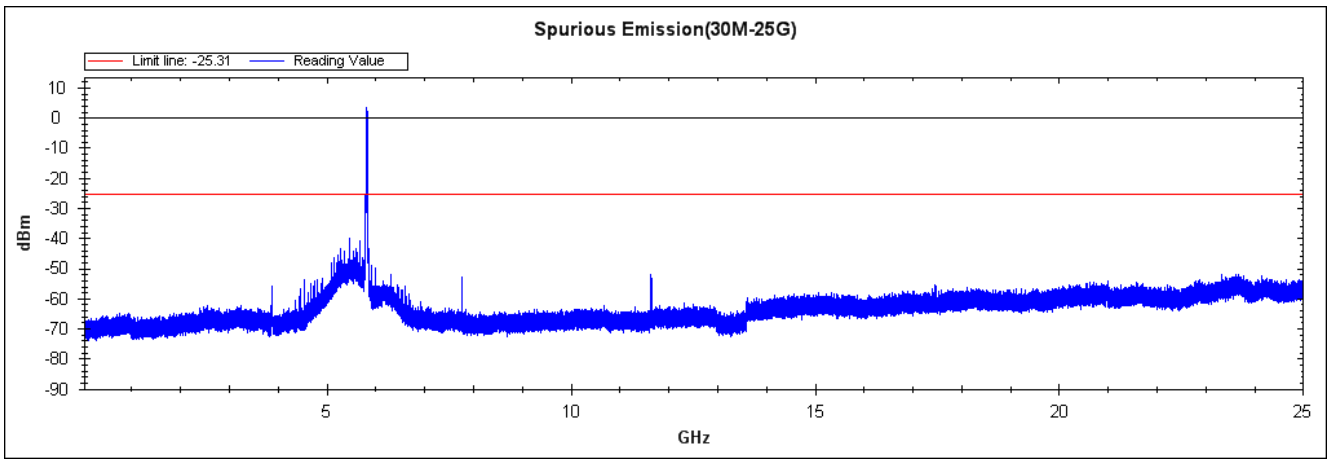


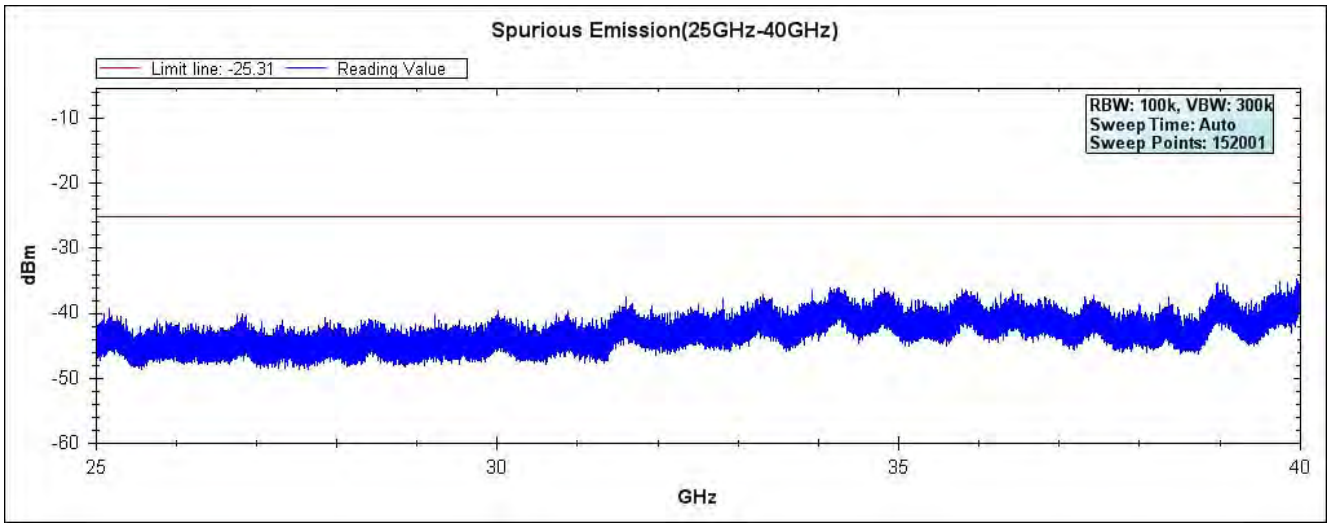
Channel 157 (5785MHz) 30MHz -40GHz-Chain B





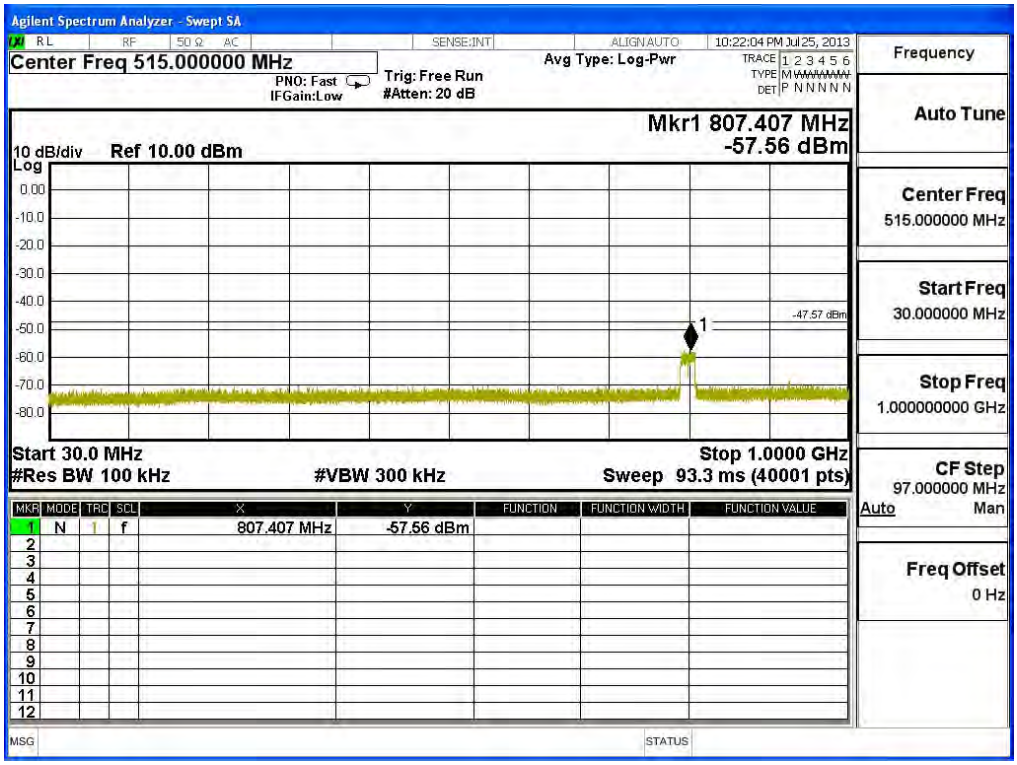
Channel 165 (5825MHz) 30MHz -40GHz-Chain B

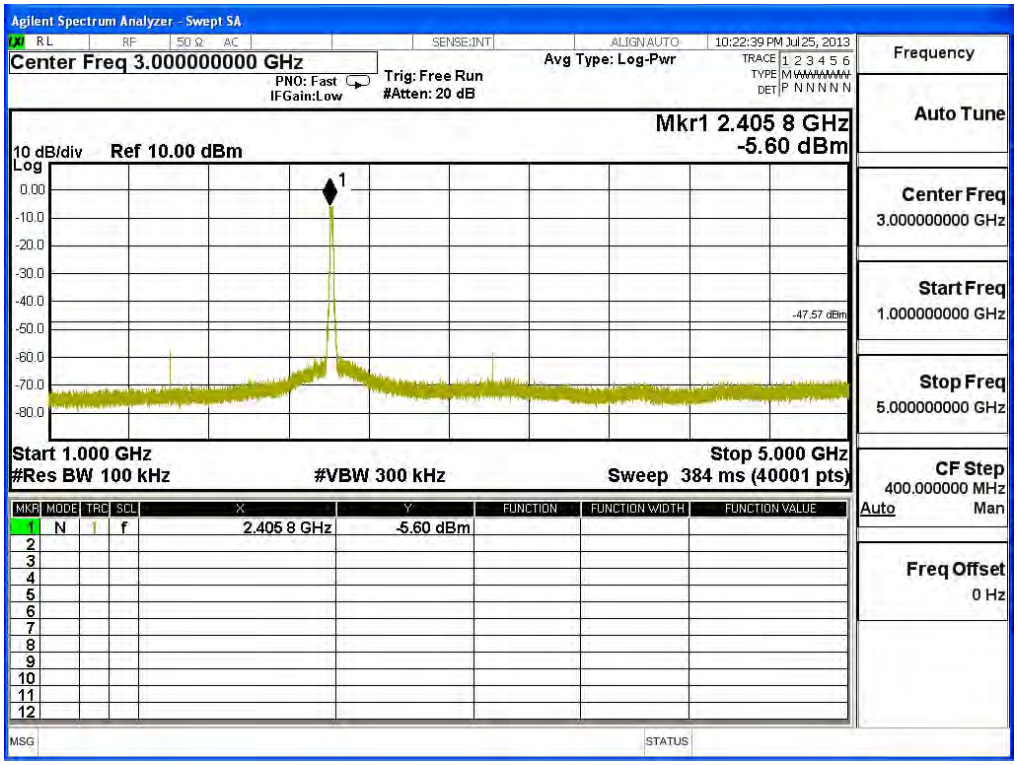


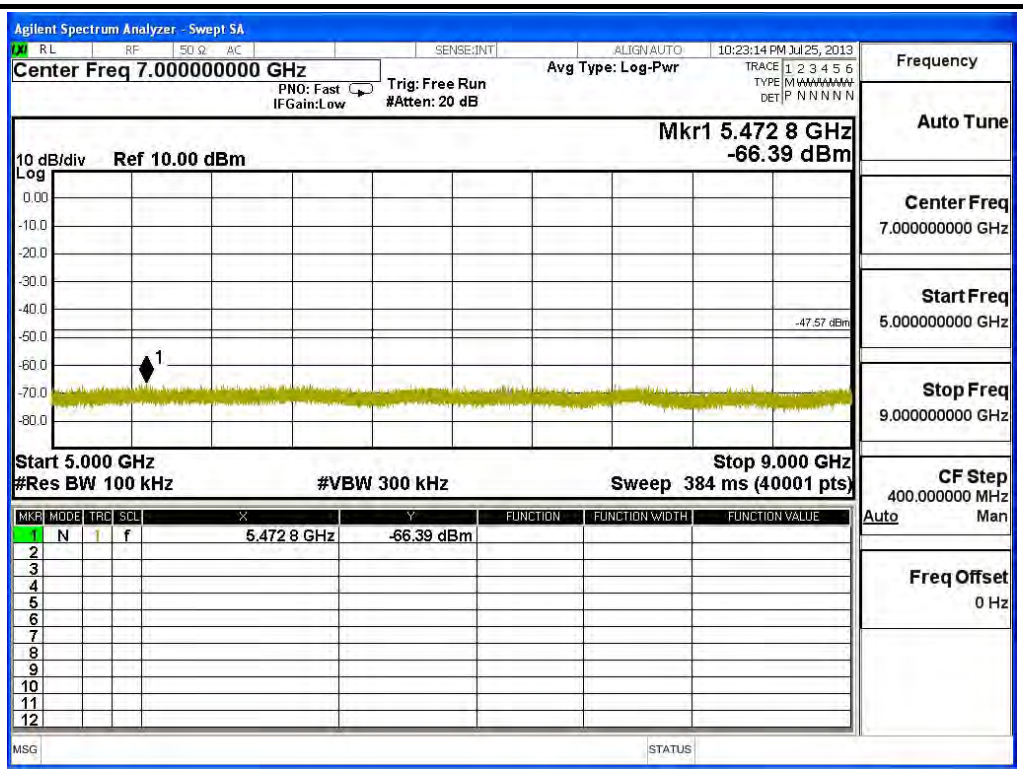


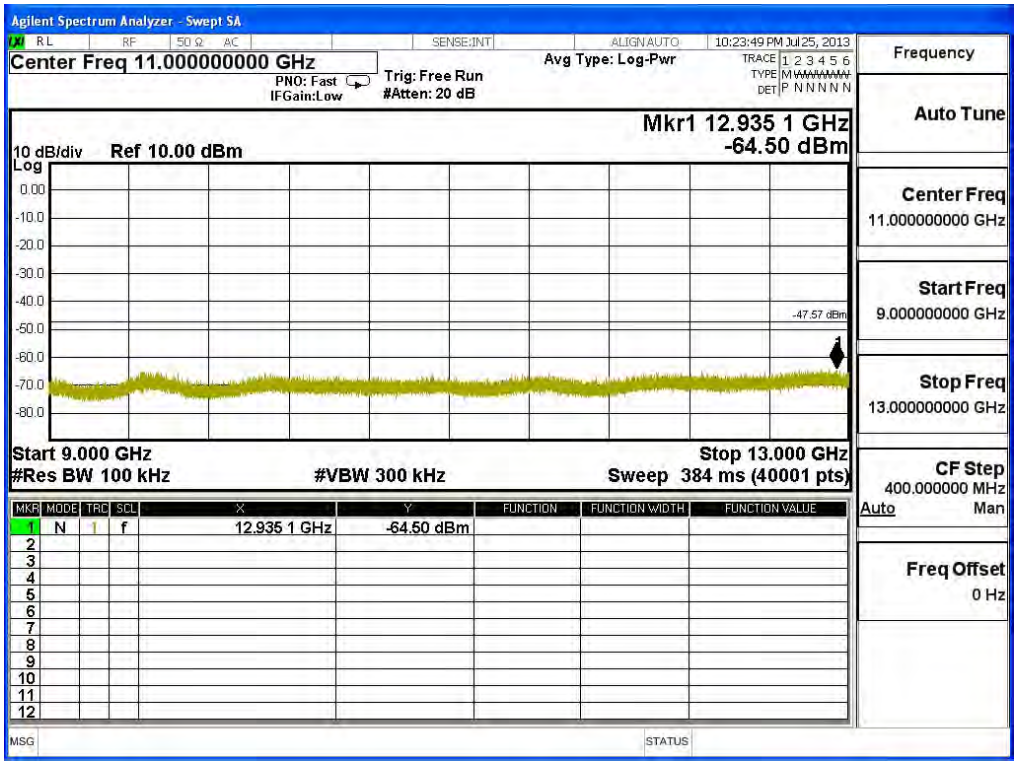
Product : SpectraGuard® Access Point / Sensor
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-20BW_14.4Mbps(2.4G Band)(Dipole Antenna)

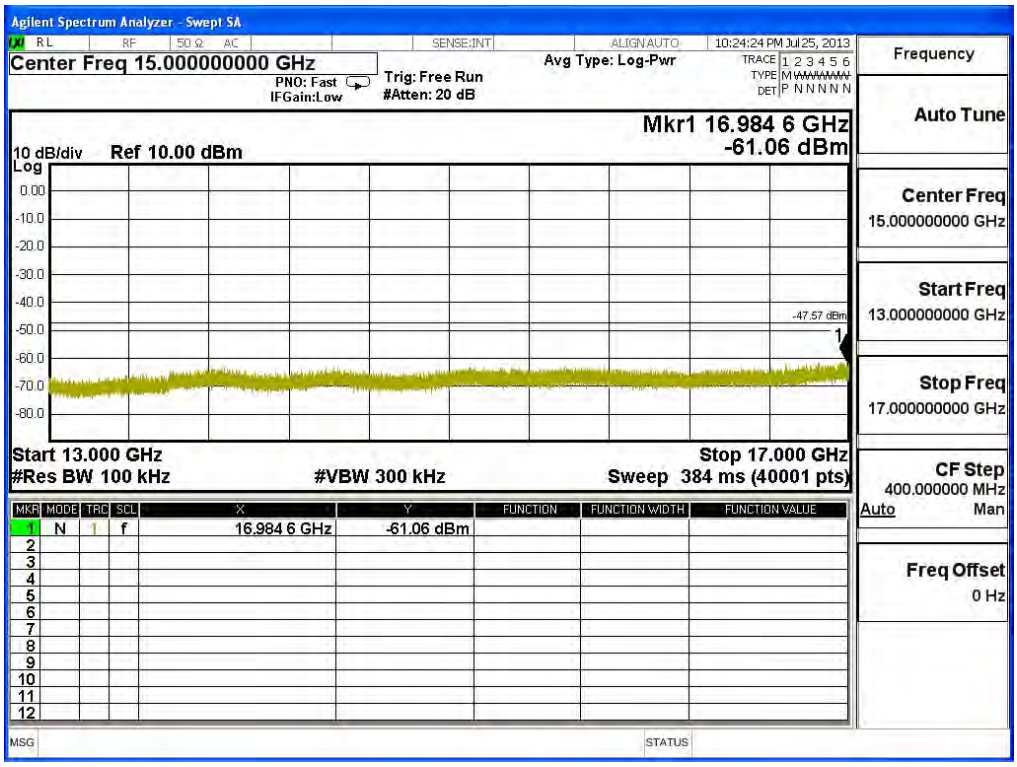
Channel 01 (2412MHz) 30MHz -25GHz-Chain A

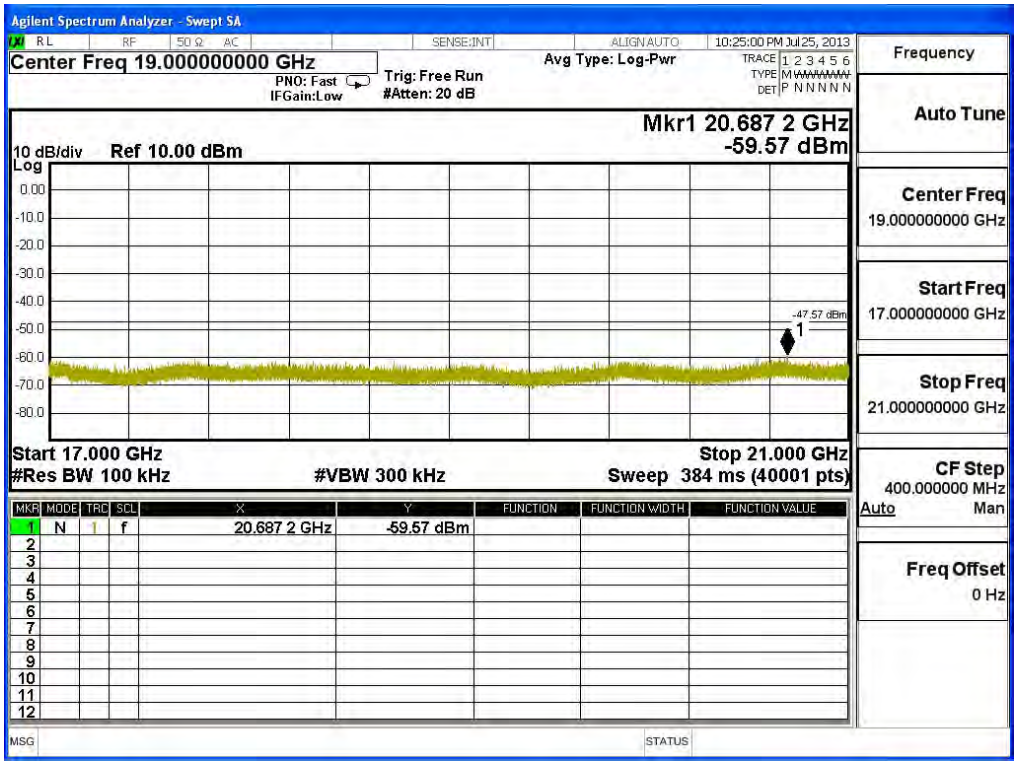


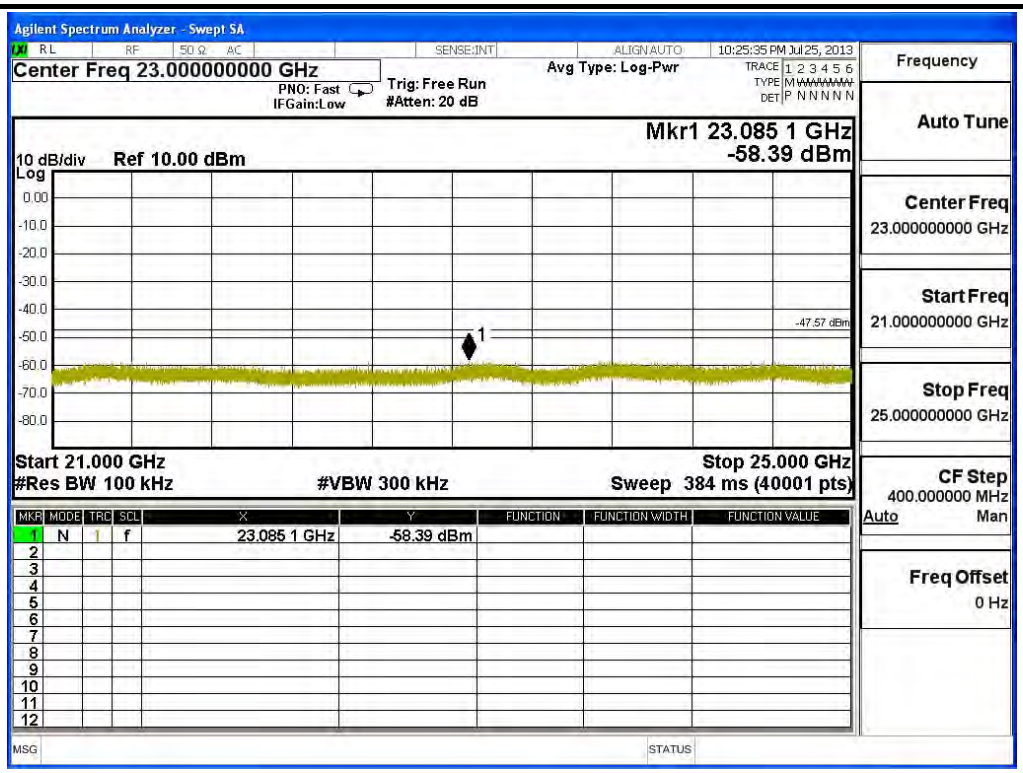



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:23:14 PM Jul 25, 2013
Mkr1 5.472 8 GHz
-66.39 dBm
10 dB/div
Log
Ref 10.00 dBm
-47.57 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 5.472 8 GHz -66.39 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

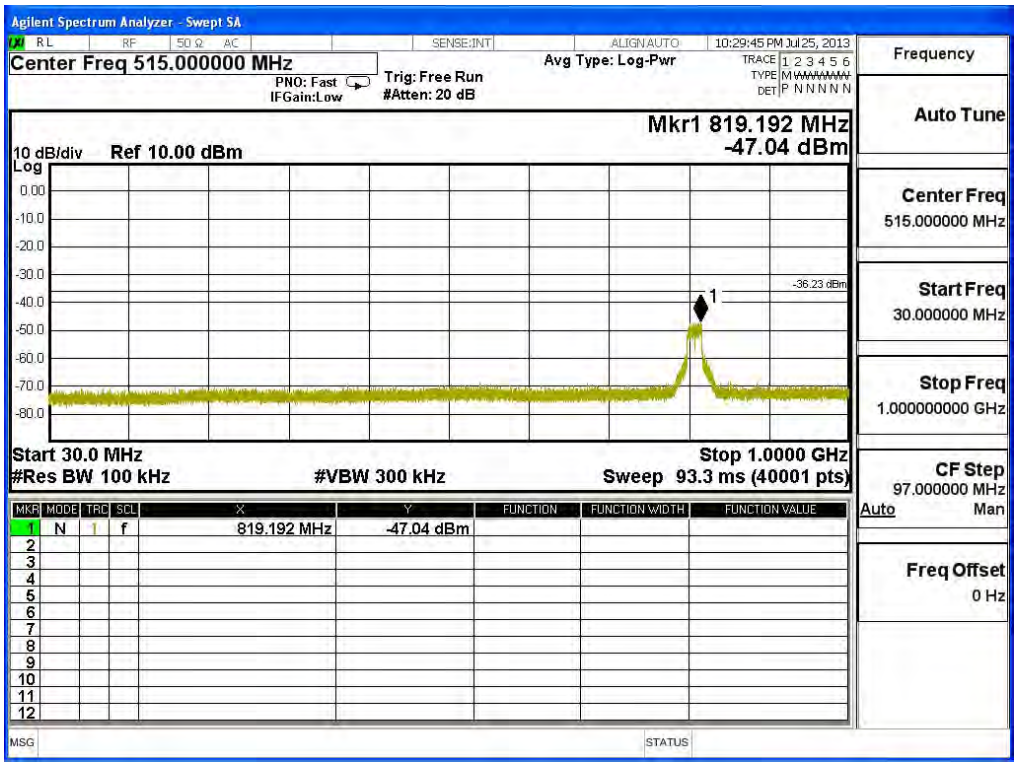

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:23:49 PM Jul 25, 2013
Mkr1 12.935 1 GHz
-64.50 dBm
10 dB/div
Log
Ref 10.00 dBm
-47.57 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.935 1 GHz -64.50 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
MSG
STATUS

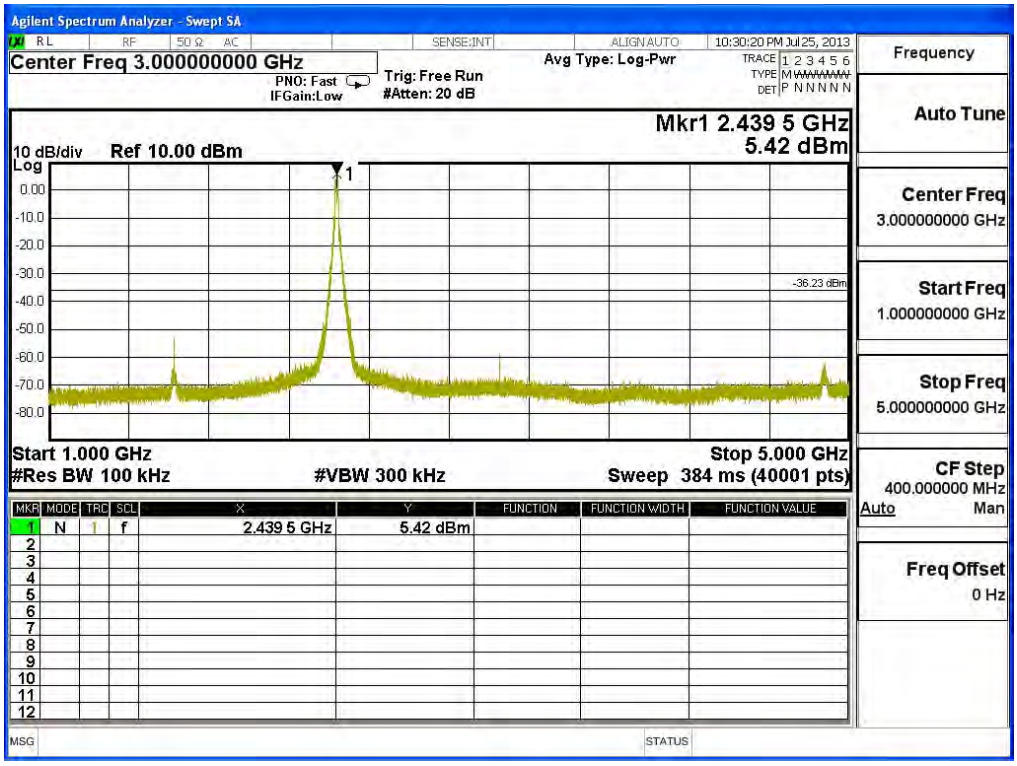

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:24:24 PM Jul 25, 2013
Mkr1 16.984 6 GHz
-61.06 dBm
10 dB/div
Ref 10.00 dBm
Log
-47.57 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.984 6 GHz -61.06 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

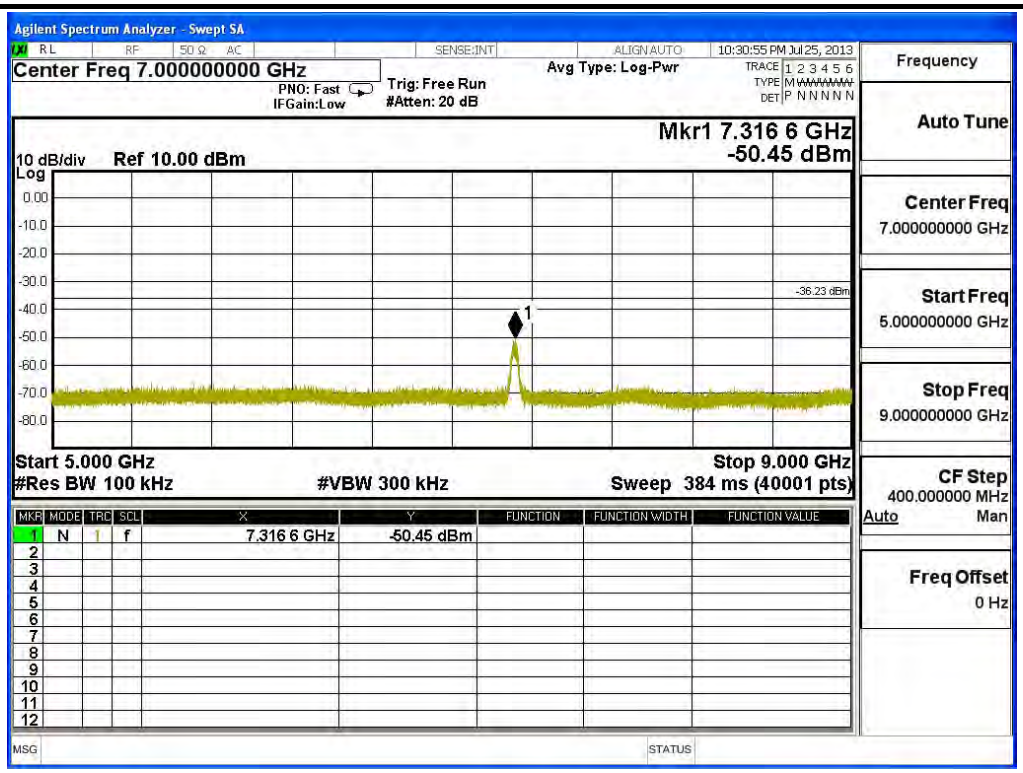

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:25:00 PM Jul 25, 2013
Mkr1 20.687 2 GHz
-59.57 dBm
10 dB/div
Ref 10.00 dBm
Log
-47.57 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.687 2 GHz -59.57 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

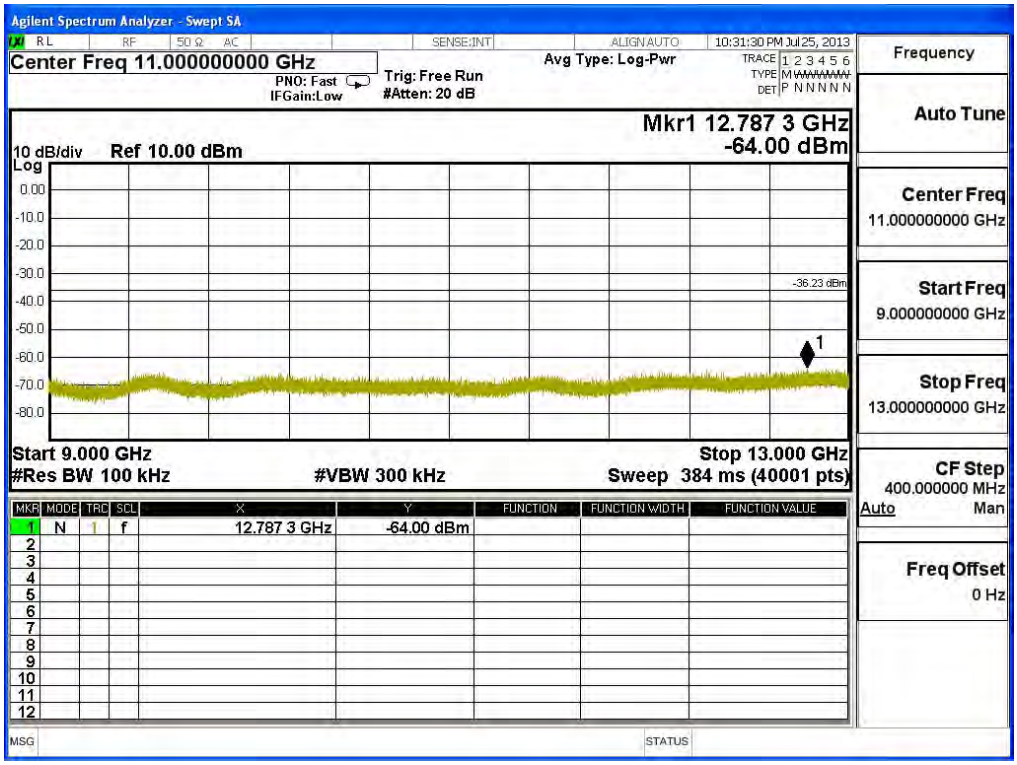

Agilent Spectrum Analyzer - Swept SA
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:25:35 PM Jul 25, 2013
Mkr1 23.085 1 GHz
-58.39 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-47.57 dBm
Start 21.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 23.085 1 GHz -58.39 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

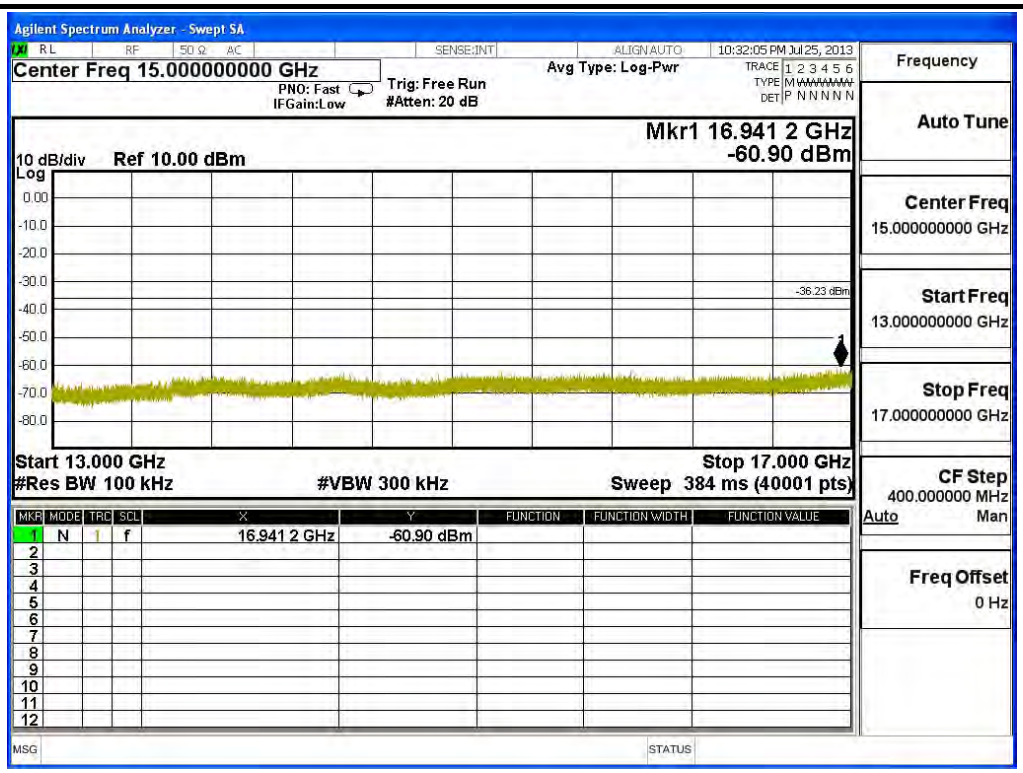
Channel 06 (2437MHz) 30MHz -25GHz-Chain A

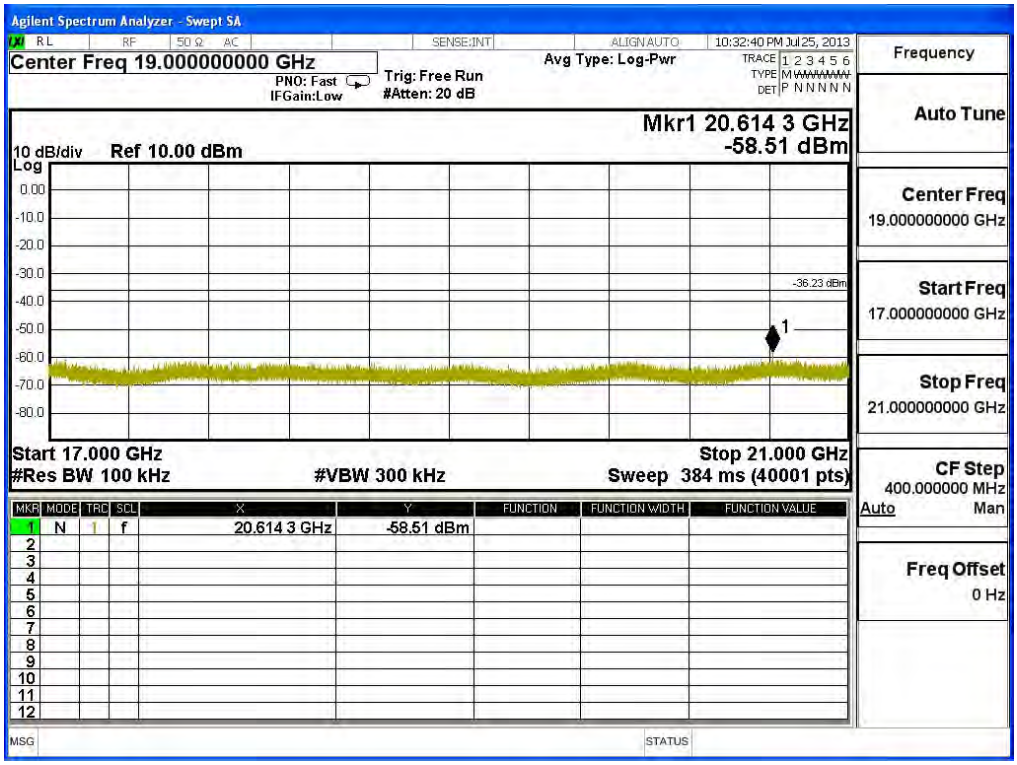


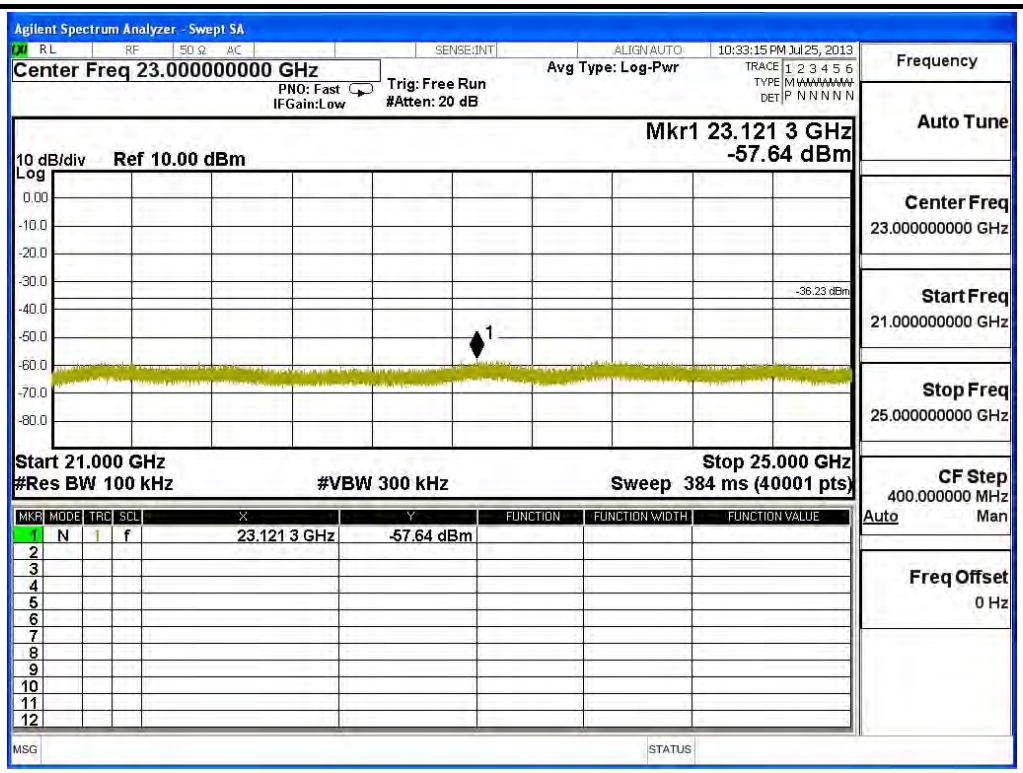



Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:30:55 PM Jul 25, 2013
Mkr1 7.316 6 GHz
-50.45 dBm
10 dB/div
Ref 10.00 dBm
Log
-36.23 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 7.316 6 GHz -50.45 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

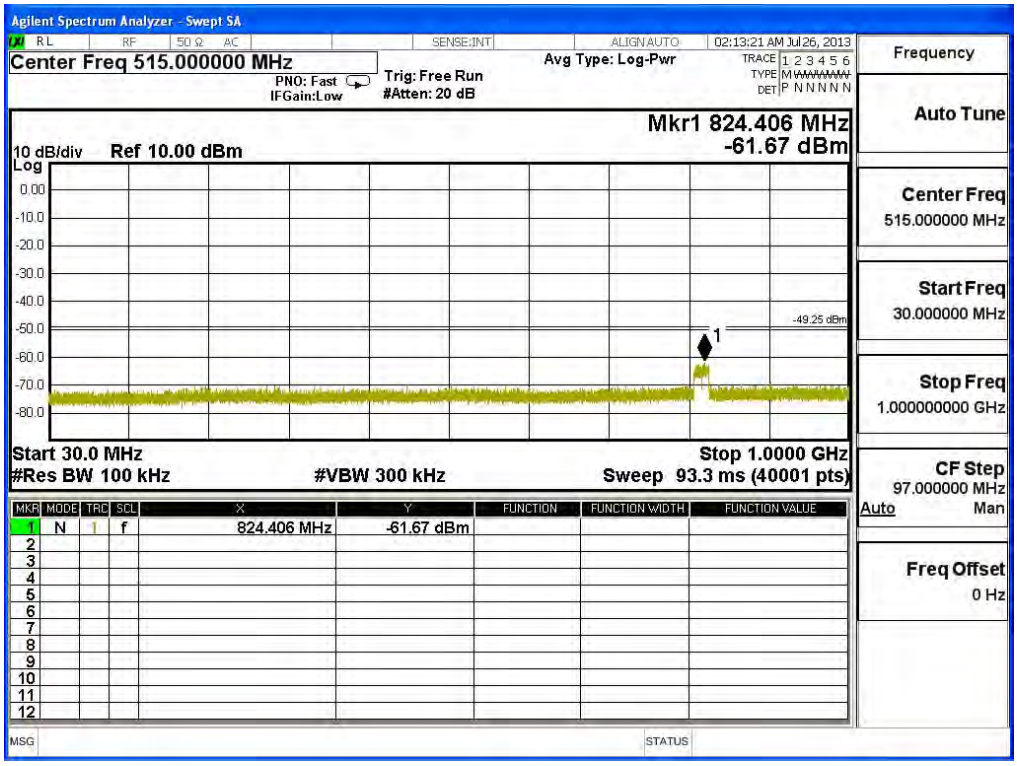

Agilent Spectrum Analyzer - Swept SA
Center Freq 11.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:31:30 PM Jul 25, 2013
Mkr1 12.787 3 GHz
-64.00 dBm
10 dB/div
Ref 10.00 dBm
Log
-36.23 dBm
Start 9.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 13.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 12.787 3 GHz -64.00 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
MSG
STATUS

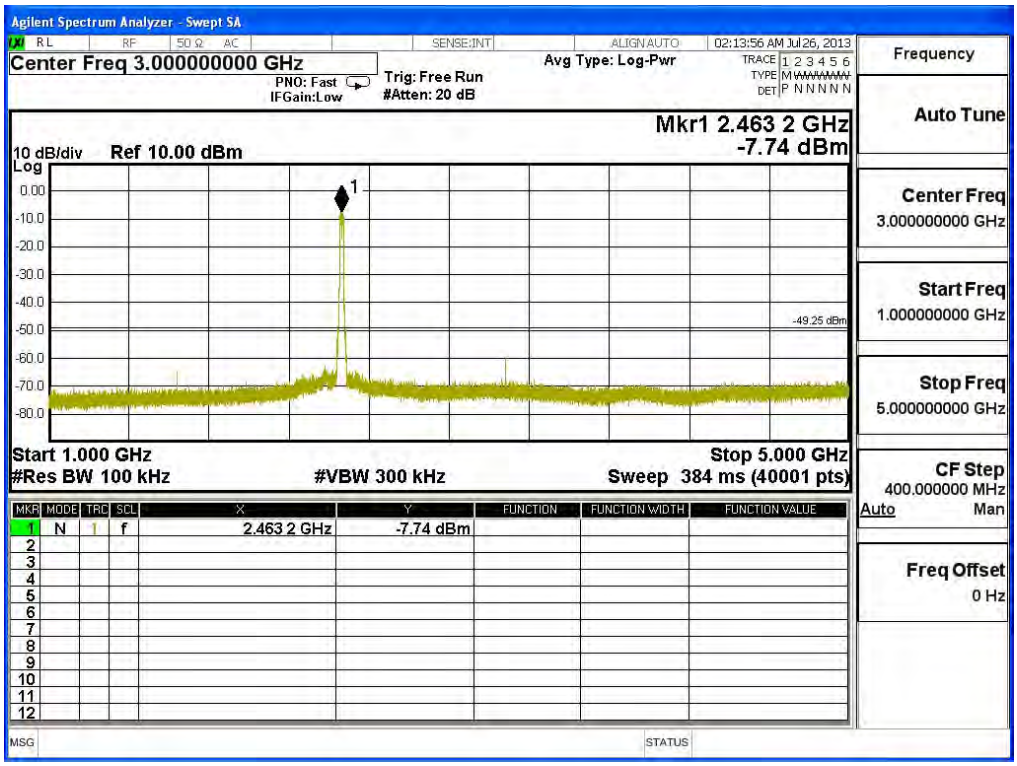

Agilent Spectrum Analyzer - Swept SA
Center Freq 15.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:32:05 PM Jul 25, 2013
Mkr1 16.941 2 GHz
-60.90 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.23 dBm
Start 13.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 17.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 16.941 2 GHz -60.90 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

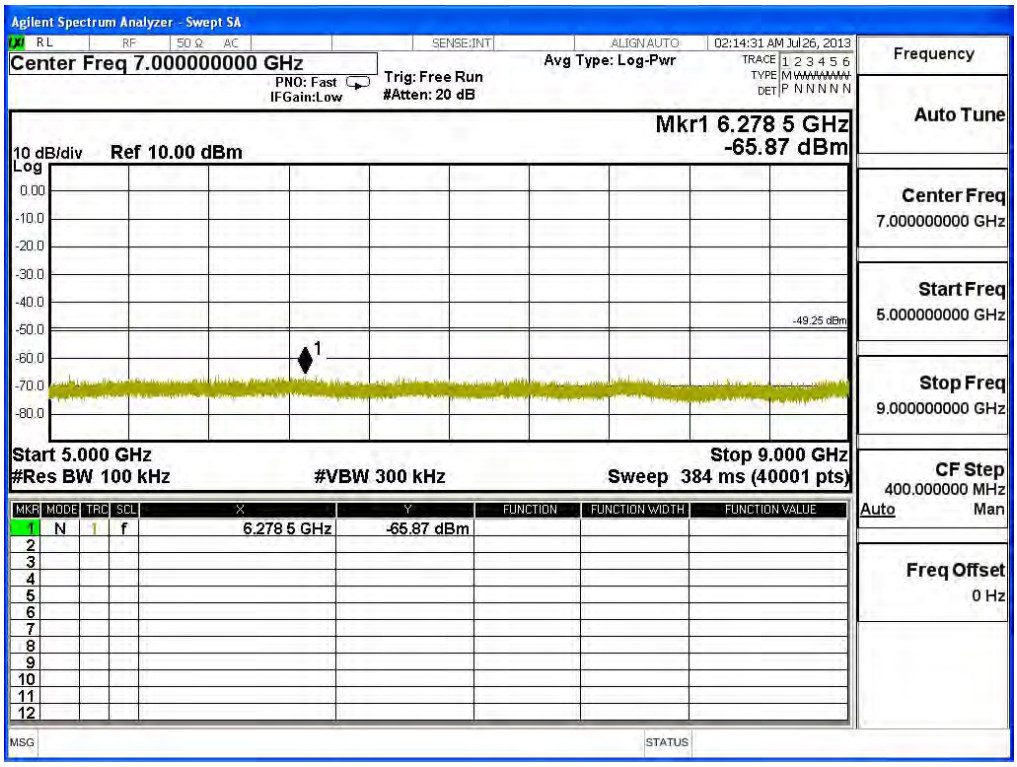

Agilent Spectrum Analyzer - Swept SA
Center Freq 19.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
10:32:40 PM Jul 25, 2013
Mkr1 20.614 3 GHz
-58.51 dBm
10 dB/div
Log
Ref 10.00 dBm
-36.23 dBm
Start 17.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 21.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 20.614 3 GHz -58.51 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

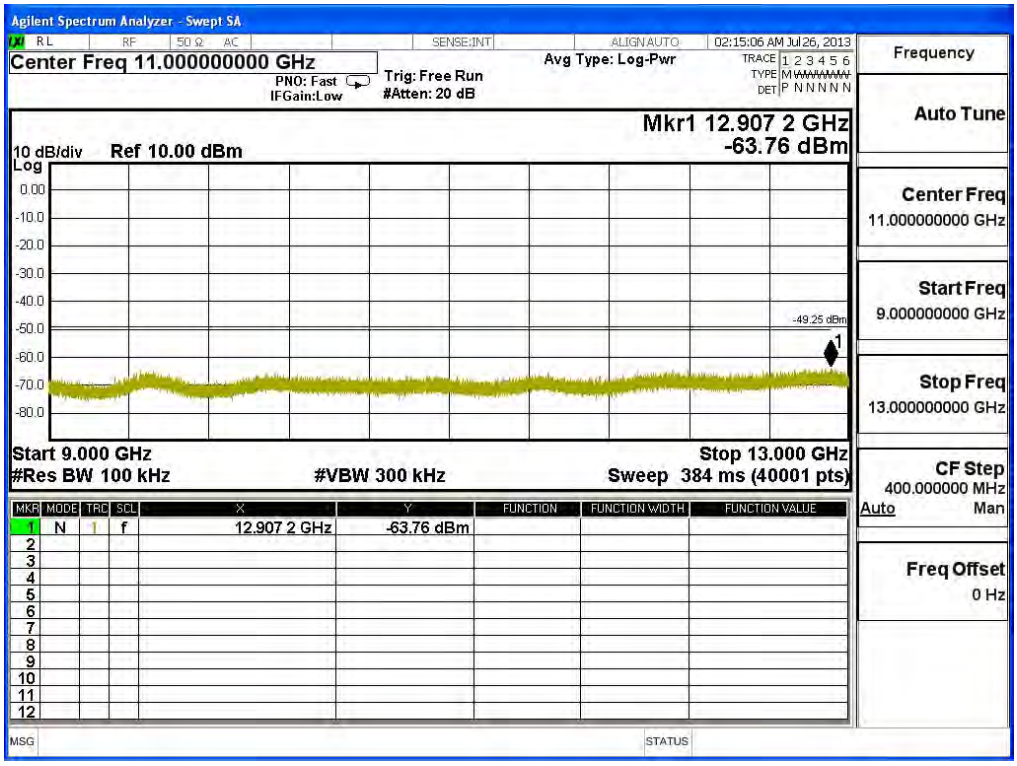

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
10:33:15 PM Jul 25, 2013
Center Freq 23.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 23.121 3 GHz
-57.64 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-36.23 dBm
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 23.121 3 GHz -57.64 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

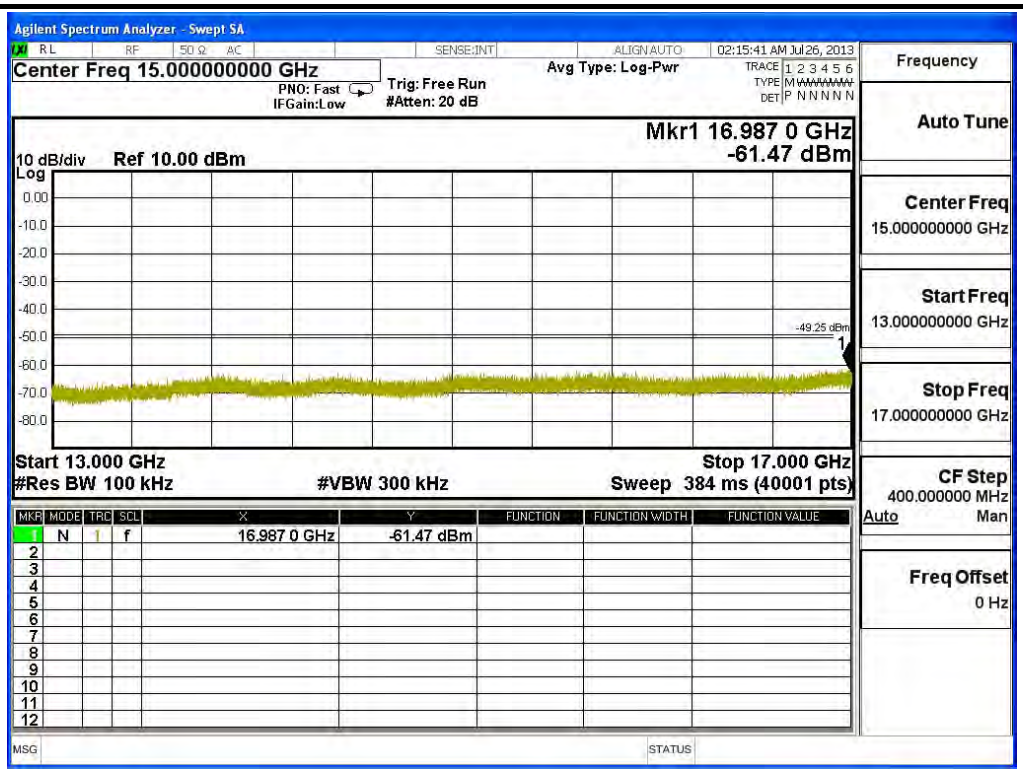
Channel 11 (2462MHz) 30MHz -25GHz-Chain A

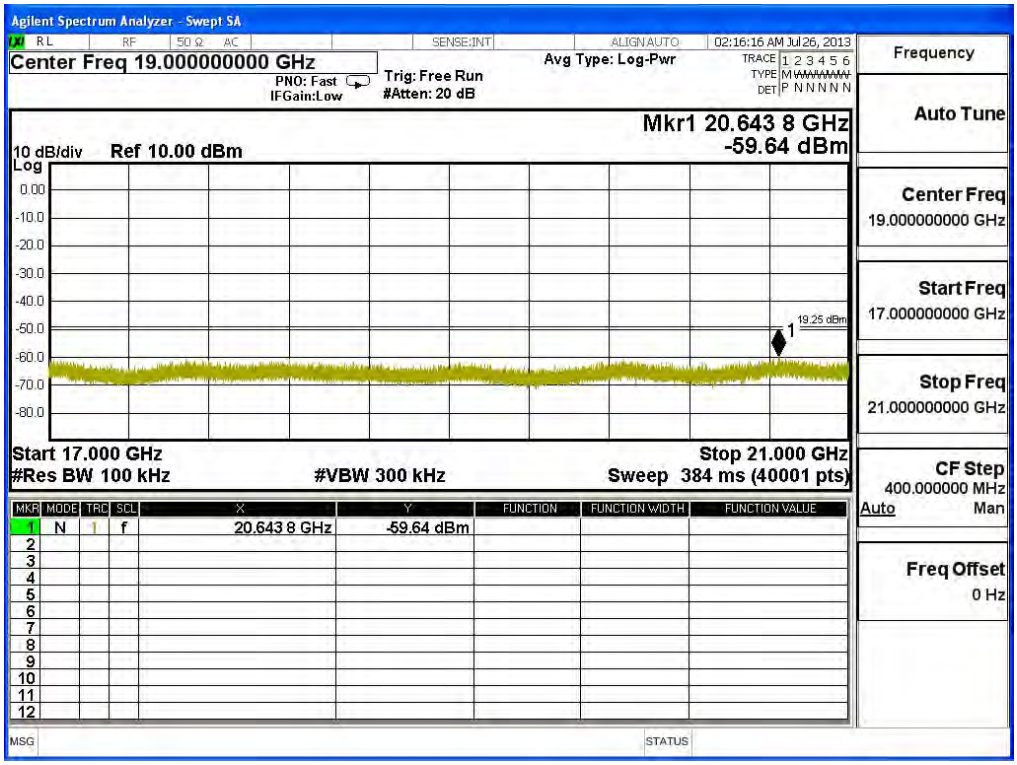





Agilent Spectrum Analyzer - Swept SA
Center Freq 7.000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
02:14:31 AM Jul 26, 2013
Mkr1 6.278 5 GHz
-65.87 dBm
10 dB/div
Ref 10.00 dBm
Log
-49.25 dBm
Start 5.000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 9.000 GHz
Sweep 384 ms (40001 pts)
1 N 1 f 6.278 5 GHz -65.87 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
02:15:06 AM Jul 26, 2013
Mkr1 12.907 2 GHz
-63.76 dBm
10 dB/div
Ref 10.00 dBm
Log
-49.25 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 12.907 2 GHz -63.76 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
02:15:41 AM Jul 26, 2013
Mkr1 16.987 0 GHz
-61.47 dBm
10 dB/div
Log
Ref 10.00 dBm
-49.25 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 16.987 0 GHz -61.47 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
02:16:16 AM Jul 26, 2013
Mkr1 20.643 8 GHz
-59.64 dBm
10 dB/div
Log
Ref 10.00 dBm
19.25 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 20.643 8 GHz -59.64 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