Test Report

Product Name	PR1 Receiver
Model No	PR1 Receiver
FCC ID.	PPQ-PR1RECEIVER

Applicant	Lite-On Technology Corp.
Address	4F, 90, Chien 1 Road, Chung-Ho, Taipei Hsien 235, Taiwan, R.O.C.

Date of Receipt	Mar. 20, 2012
Issue Date	Nov. 14, 2012
Report No.	12B228R-RFUSP42V01
Report Version	V1.0

Testing Laboratory
0914

Test Report Certification

Issue Date: Nov. 14, 2012
Report No.: 12B228R-RFUSP42V01

Accredited by NIST (NVLAP)
NVLAP Lab Code: 200533-0

Product Name	PR1 Receiver
Applicant	Lite-On Technology Corp.
Address	4F, 90, Chien 1 Road, Chung-Ho, Taipei Hsien 235, Taiwan, R.O.C.
Manufacturer	DONG GUAN G-COM COMPUTER CO., LTD.
Model No.	PR1 Receiver
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	Phorus
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2010 ANSI C63.4: 2003, ANSI C63.10: 2009
Test Result	Complied

The test results relate only to the samples tested.
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Documented By : Leven Huang
(Senior Adm. Specialist / Leven Huang)

Tested By : Nowal Kuo
(Engineer / Nowal Kuo)

Approved By :
(Manager / Vincent Lin)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	PR1 Receiver
Trade Name	Phorus
Model No.	PR1 Receiver
FCC ID.	PPQ-PR1RECEIVER
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW, 2422-2452Mhz for 802.11n-40BW
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Channel separation	802.11b/g/n-20MHz: 5 MHz
Type of Modulation	802.11b:DSSS DBPSK, DQPSK, CCK 802.11g/n: OFDM BPSK, QPSK, 16QAM, 64QAM
Antenna Type	PIFA Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
Power Adapter (1)	MFR: APD, M/N: WA-24E12FU Input: AC 100-240V, 50-60Hz, 0.65A Output: DC 12V, 2A Cable Out: Non-Shielded, 1.5m
Power Adapter (2)	MFR: APD, M/N: WA-24E12 Input: AC 100-240V, 50-60Hz, 0.65A Output: DC 12V, 2A Cable Out: Non-Shielded, 1.5m
USB Cable	Shielded, 0.3m
Audio Cable	Shielded, 1.8m
RCA to Audio Cable	Shielded, 1.0m

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	MAG. LAYERS	MSA-3810-2G4C1-A10	PIFA	4.29 dBi for 2.4 GHz

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		

802.11n-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		

Note:

1. This device is a PR1 Receiver with a built-in 2.4GHz WLAN transceiver.
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、802.11g is 6Mbps、802.11n(20M-BW) is 7.2Mbps and 、802.11n(40M-BW) is 15Mbps).
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.
5. The different of the each model is shown as below:

MCU Name	MCU Frequency	SDRAM	Note
88AP1-8JD2(88AP162)	162MHz	winbond	WLAN Module #1
		hynix	WLAN Module #2
88AP1-8JD2(88AP166)	166MHz	winbond	WLAN Module #3
		hynix	WLAN Module #4

6. The MCU and SDRAM are digital circuits function and not part of RF circuits.
7. The test item conducted emission and 30MHz – 1GHz radiated emission are tested at four WLAN modules which describe in above note.
8. After tested conducted emission and 30MHz – 1GHz radiated emission, the worst case are system include WLAN module #2 and WLAN module #3. The worst case are tested all test item.
9. At result of pretests, Adapter #1 (M/N: WA-24E12FU) is the worst case is shown in the report.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band)
	Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band)

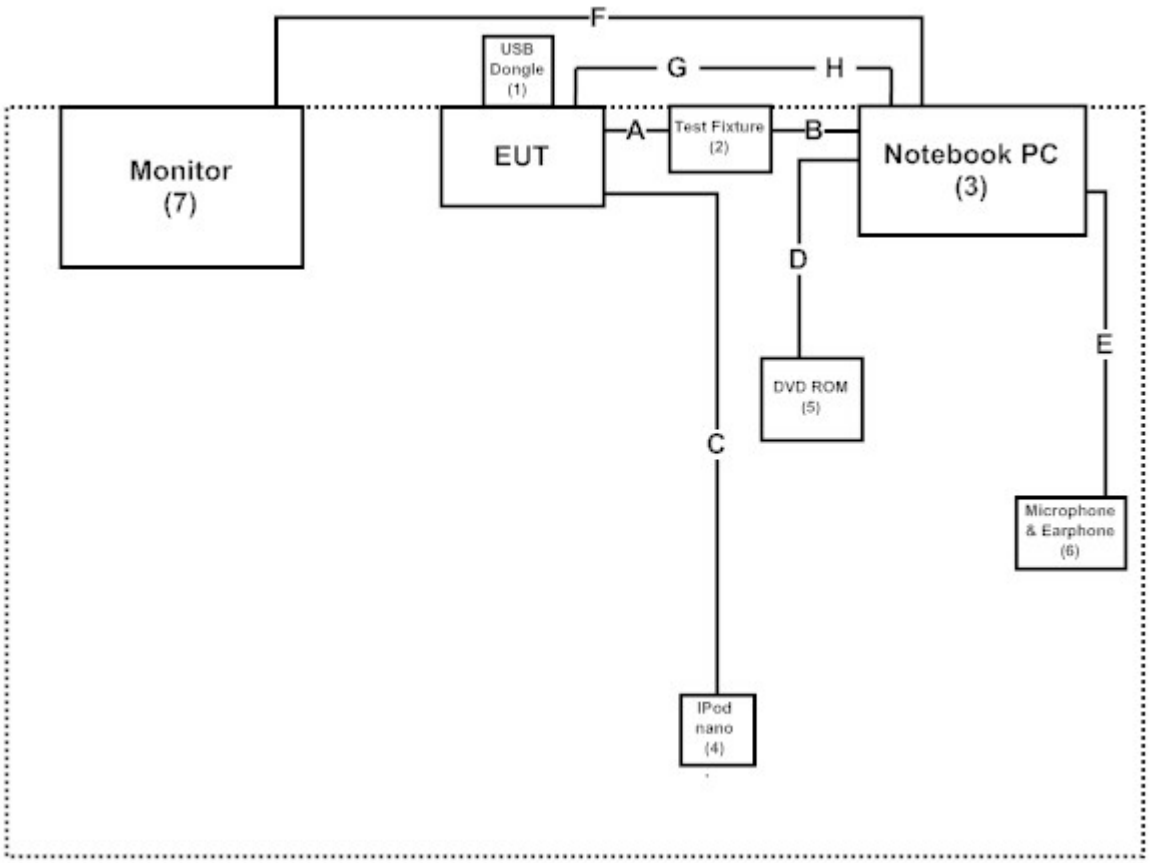
1.3. Tested System Details

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	USB Dongle	Kamear	N/A	N/A	N/A
2	Test Fixture	Lite-On	N/A	N/A	N/A
3	Notebook PC	DELL	PPT	N/A	Non-Shielded, 0.8m
4	IPod nano	Apple	A1236	7K823E51Y0P	N/A
5	DVD ROM	DELL	PD01S	N/A	N/A
6	Microphone & Earphone	PCHOME	N/A	N/A	N/A
7	Monitor	LG	W2261VT	907YHZK07373	Non-Shielded, 1.8m

Signal Cable Type		Signal cable Description
A	Test Fixture Cable	Non-shielded, 0.2m
B	RS-232 Cable	Non-shielded, 2.0m
C	Audio Cable	Shielded, 1.8m
D	DVD ROM Cable	Non-shielded, 0.5m
E	Microphone & Earphone Cable	Non-shielded, 1.2m
F	D-SUB Cable	Non-shielded, 1.8m, with two ferrite cores bonded.
G	USB Cable	Shielded, 0.3m
H	USB Cable	Non-shielded, 1.0m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

(1) Setup the EUT and peripherals as shown in Section 1.4

(2) Execute Telnet program on the Notebook PC.

(3) Configure the test mode, the test channel, and the data rate to start the continuous transmit

(4) Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

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

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

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

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

Site Name: Quietek Corporation
Site Address: No.5-22, Ruishukeng,
Linkou Dist. New Taipei City 24451,
Taiwan, R.O.C.
TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
E-Mail : service@quietek.com

FCC Accreditation Number: TW1014

2. Conducted Emission

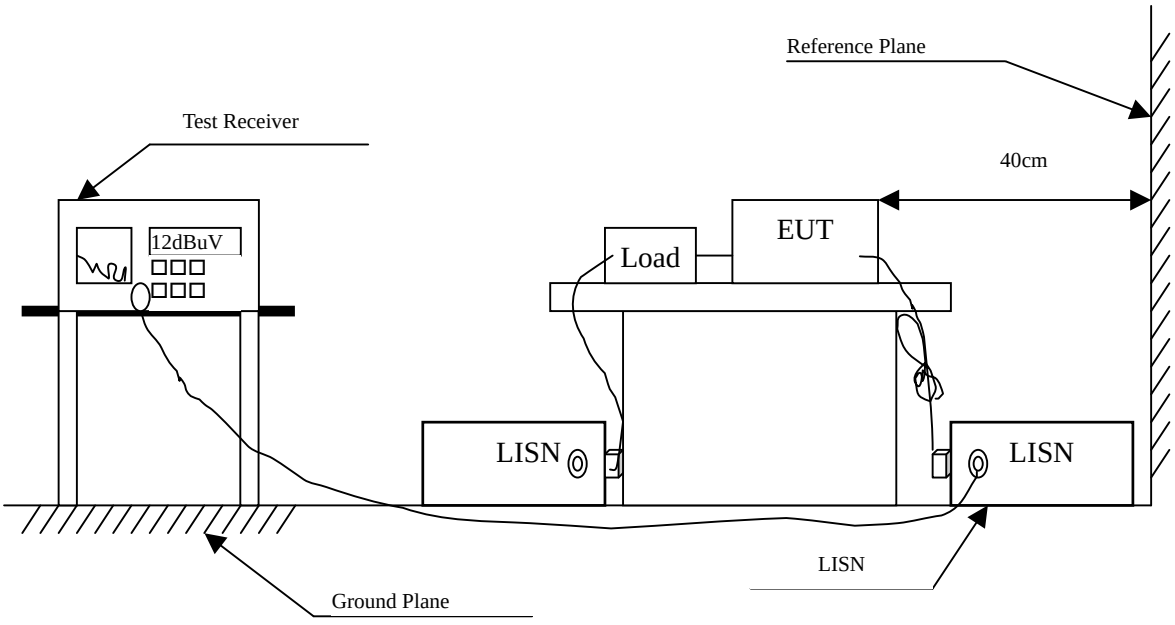
2.1. Test Equipment

	Equipment	Manufacturer	Model No. / Serial No.	Last Cal.	Remark
X	Test Receiver	R & S	ESCS 30 / 825442/018	Sep., 2012	
X	Artificial Mains Network	R & S	ENV4200 / 848411/10	Feb., 2012	Peripherals
X	LISN	R & S	ESH3-Z5 / 825562/002	Feb., 2012	EUT
	DC LISN	Schwarzbeck	8226 / 176	Mar, 2012	EUT
X	Pulse Limiter	R & S	ESH3-Z2 / 357.8810.52	Feb., 2012	
	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 C63.4: 2003 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 : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 162MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.170	9.707	31.270	40.977	-24.452	65.429
0.185	9.696	27.510	37.206	-27.794	65.000
0.197	9.689	29.320	39.009	-25.648	64.657
0.220	9.673	27.570	37.243	-26.757	64.000
0.408	9.640	23.590	33.230	-25.399	58.629
1.380	9.670	17.150	26.820	-29.180	56.000
Average					
0.170	9.707	23.260	32.967	-22.462	55.429
0.185	9.696	21.180	30.876	-24.124	55.000
0.197	9.689	23.730	33.419	-21.238	54.657
0.220	9.673	21.540	31.213	-22.787	54.000
0.408	9.640	18.410	28.050	-20.579	48.629
1.380	9.670	11.350	21.020	-24.980	46.000

Note:

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

Product : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 162MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.170	9.714	31.110	40.824	-24.605	65.429
0.193	9.691	26.720	36.411	-28.360	64.771
0.220	9.673	24.760	34.433	-29.567	64.000
0.416	9.650	20.900	30.550	-27.850	58.400
1.052	9.690	14.270	23.960	-32.040	56.000
10.857	9.870	11.680	21.550	-38.450	60.000
Average					
0.170	9.714	22.450	32.164	-23.265	55.429
0.193	9.691	17.690	27.381	-27.390	54.771
0.220	9.673	17.690	27.363	-26.637	54.000
0.416	9.650	12.860	22.510	-25.890	48.400
1.052	9.690	8.510	18.200	-27.800	46.000
10.857	9.870	6.560	16.430	-33.570	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 : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 166MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.150	9.720	32.530	42.250	-23.750	66.000
0.158	9.715	28.090	37.805	-27.966	65.771
0.173	9.704	30.730	40.434	-24.909	65.343
0.197	9.689	29.260	38.949	-25.708	64.657
0.423	9.640	22.920	32.560	-25.640	58.200
1.396	9.670	17.450	27.120	-28.880	56.000
Average					
0.150	9.720	12.110	21.830	-34.170	56.000
0.158	9.715	9.410	19.125	-36.646	55.771
0.173	9.704	19.560	29.264	-26.079	55.343
0.197	9.689	20.230	29.919	-24.738	54.657
0.423	9.640	17.170	26.810	-21.390	48.200
1.396	9.670	10.860	20.530	-25.470	46.000

Note:

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

Product : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 166MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.154	9.727	29.650	39.377	-26.509	65.886
0.170	9.714	30.840	40.554	-24.875	65.429
0.201	9.686	25.320	35.006	-29.537	64.543
0.224	9.670	25.570	35.240	-28.646	63.886
0.423	9.650	20.970	30.620	-27.580	58.200
1.349	9.690	14.840	24.530	-31.470	56.000
Average					
0.154	9.727	29.650	39.377	-26.509	65.886
0.170	9.714	30.840	40.554	-24.875	65.429
0.201	9.686	25.320	35.006	-29.537	64.543
0.224	9.670	25.570	35.240	-28.646	63.886
0.423	9.650	20.970	30.620	-27.580	58.200
1.349	9.690	14.840	24.530	-31.470	56.000

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 : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 162MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.166	9.710	30.920	40.630	-24.913	65.543
0.197	9.689	29.240	38.929	-25.728	64.657
0.220	9.673	27.370	37.043	-26.957	64.000
0.236	9.662	23.750	33.412	-30.131	63.543
0.416	9.640	23.840	33.480	-24.920	58.400
1.443	9.670	17.920	27.590	-28.410	56.000
Average					
0.166	9.710	22.660	32.370	-23.173	55.543
0.197	9.689	21.180	30.869	-23.788	54.657
0.220	9.673	19.710	29.383	-24.617	54.000
0.236	9.662	13.790	23.452	-30.091	53.543
0.416	9.640	17.390	27.030	-21.370	48.400
1.443	9.670	11.870	21.540	-24.460	46.000

Note:

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

Product : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 162MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.173	9.710	30.020	39.730	-25.613	65.343
0.189	9.694	26.660	36.354	-28.532	64.886
0.205	9.683	23.420	33.103	-31.326	64.429
0.220	9.673	24.570	34.243	-29.757	64.000
0.427	9.650	20.740	30.390	-27.696	58.086
1.349	9.690	14.520	24.210	-31.790	56.000
Average					
0.173	9.710	20.860	30.570	-24.773	55.343
0.189	9.694	19.640	29.334	-25.552	54.886
0.205	9.683	16.190	25.873	-28.556	54.429
0.220	9.673	17.600	27.273	-26.727	54.000
0.427	9.650	13.780	23.430	-24.656	48.086
1.349	9.690	8.080	17.770	-28.230	46.000

Note:

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

Product : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 166MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.150	9.720	32.470	42.190	-23.810	66.000
0.170	9.707	31.390	41.097	-24.332	65.429
0.181	9.699	26.600	36.299	-28.815	65.114
0.201	9.686	28.320	38.006	-26.537	64.543
0.427	9.640	22.120	31.760	-26.326	58.086
1.404	9.670	17.530	27.200	-28.800	56.000
Average					
0.150	9.720	23.260	32.980	-23.020	56.000
0.170	9.707	18.770	28.477	-26.952	55.429
0.181	9.699	13.190	22.889	-32.225	55.114
0.201	9.686	16.240	25.926	-28.617	54.543
0.427	9.640	15.820	25.460	-22.626	48.086
1.404	9.670	10.440	20.110	-25.890	46.000

Note:

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

Product : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
-MCU 166MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.166	9.718	30.400	40.118	-25.425	65.543
0.173	9.710	30.060	39.770	-25.573	65.343
0.193	9.691	26.620	36.311	-28.460	64.771
0.224	9.670	25.430	35.100	-28.786	63.886
0.423	9.650	21.050	30.700	-27.500	58.200
1.349	9.690	14.540	24.230	-31.770	56.000
Average					
0.166	9.718	10.350	20.068	-35.475	55.543
0.173	9.710	20.570	30.280	-25.063	55.343
0.193	9.691	9.940	19.631	-35.140	54.771
0.224	9.670	22.280	31.950	-21.936	53.886
0.423	9.650	12.780	22.430	-25.770	48.200
1.349	9.690	8.080	17.770	-28.230	46.000

Note:

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

Product : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
(Adapter- M/N: WA-24E12)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 1					
Quasi-Peak					
0.166	9.821	33.720	43.541	-22.002	65.543
0.197	9.821	25.540	35.361	-29.296	64.657
0.412	9.822	28.200	38.022	-20.492	58.514
0.787	9.824	17.190	27.014	-28.986	56.000
1.834	9.838	18.630	28.468	-27.532	56.000
25.232	10.164	28.480	38.644	-21.356	60.000
Average					
0.166	9.821	22.030	31.851	-23.692	55.543
0.197	9.821	12.630	22.451	-32.206	54.657
0.412	9.822	20.870	30.692	-17.822	48.514
0.787	9.824	11.600	21.424	-24.576	46.000
1.834	9.838	12.550	22.388	-23.612	46.000
25.232	10.164	28.270	38.434	-11.566	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 : PR1 Receiver
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437MHz)
(Adapter- M/N: WA-24E12)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
Line 2					
Quasi-Peak					
0.166	9.861	33.240	43.101	-22.442	65.543
0.189	9.861	29.850	39.711	-25.175	64.886
0.228	9.861	24.300	34.161	-29.610	63.771
0.408	9.872	26.570	36.442	-22.187	58.629
1.298	9.876	20.210	30.086	-25.914	56.000
25.232	10.344	28.130	38.474	-21.526	60.000
Average					
0.166	9.861	21.690	31.551	-23.992	55.543
0.189	9.861	18.940	28.801	-26.085	54.886
0.228	9.861	14.890	24.751	-29.020	53.771
0.408	9.872	20.050	29.922	-18.707	48.629
1.298	9.876	14.350	24.226	-21.774	46.000
25.232	10.344	27.990	38.334	-11.666	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. Peak Power Output

3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2012
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2012
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2012
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2012
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

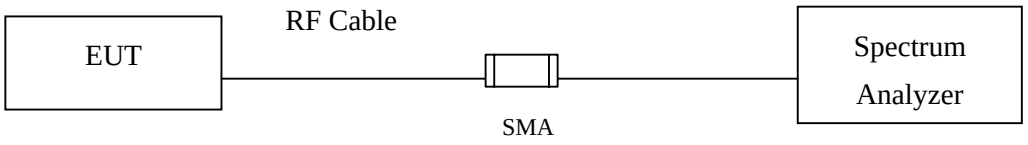
Note:

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

Average Power For different Data Rate (Mbps)

Peak Power Measurement



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Procedure

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

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) -MCU 162MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11	1		
		Measurement Level (dBm)						
01	2412	15.11	--	--	--	17.10	<30dBm	Pass
06	2437	15.01	14.98	14.95	14.93	16.59	<30dBm	Pass
11	2462	13.68	--	--	--	15.27	<30dBm	Pass

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 1:

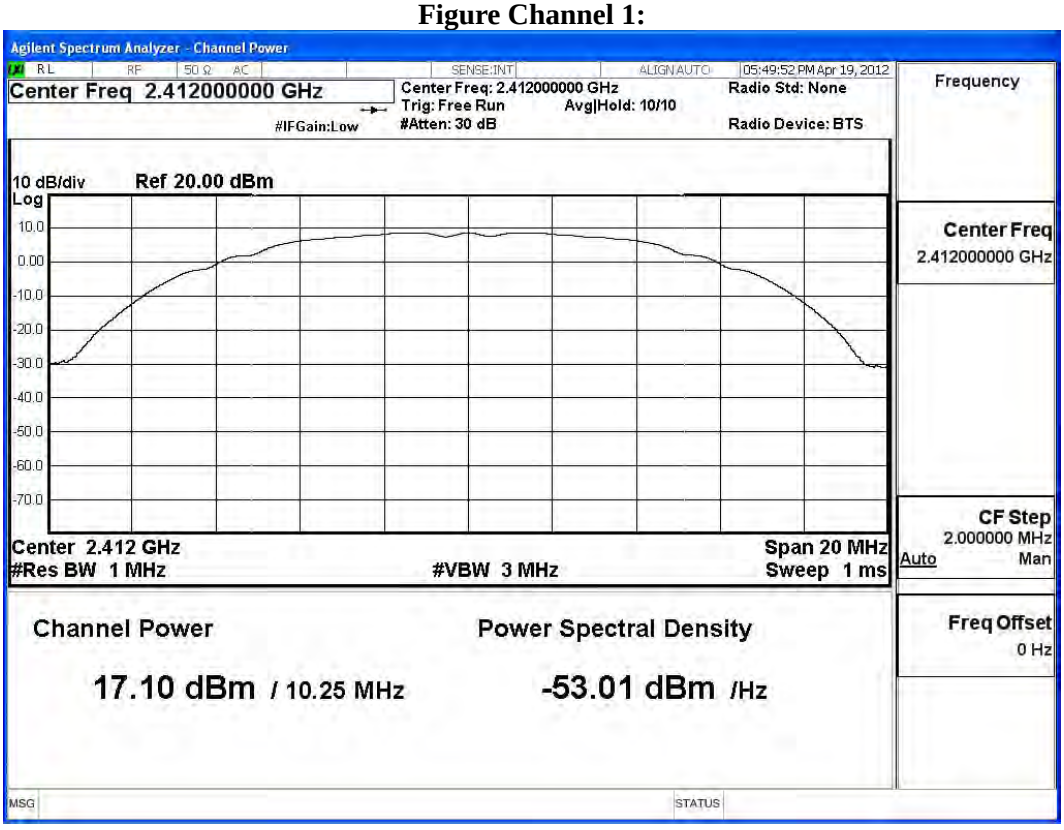


Figure Channel 6:

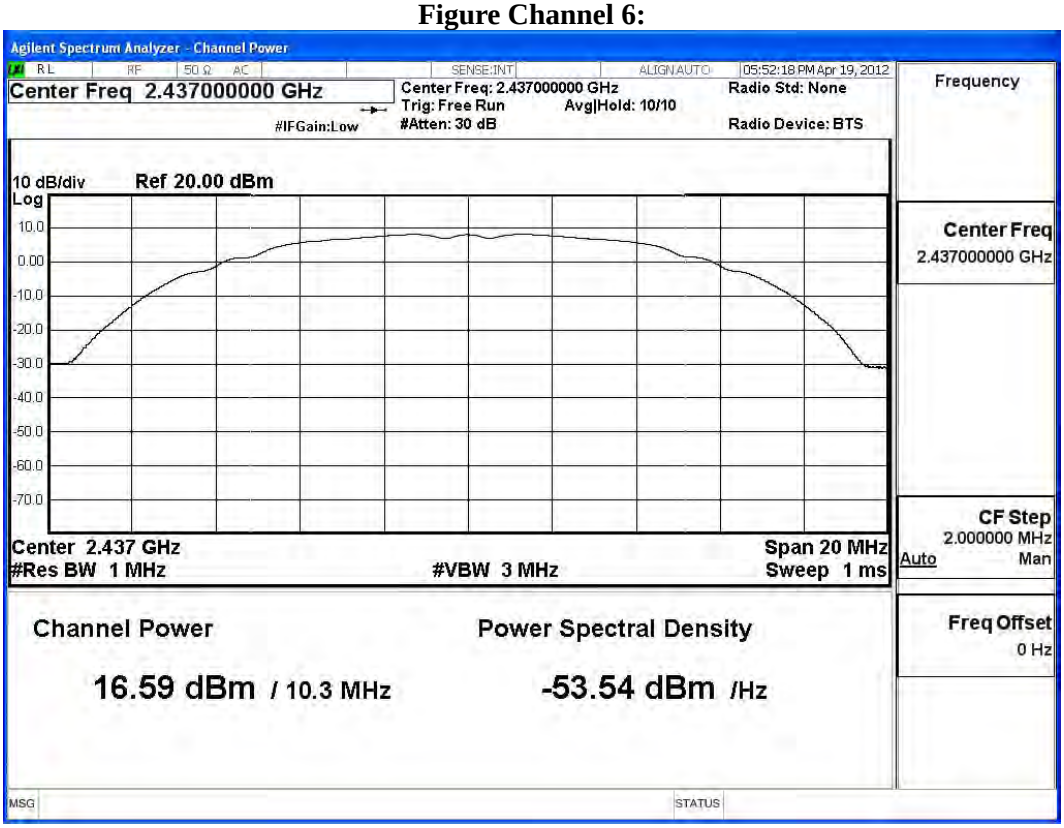
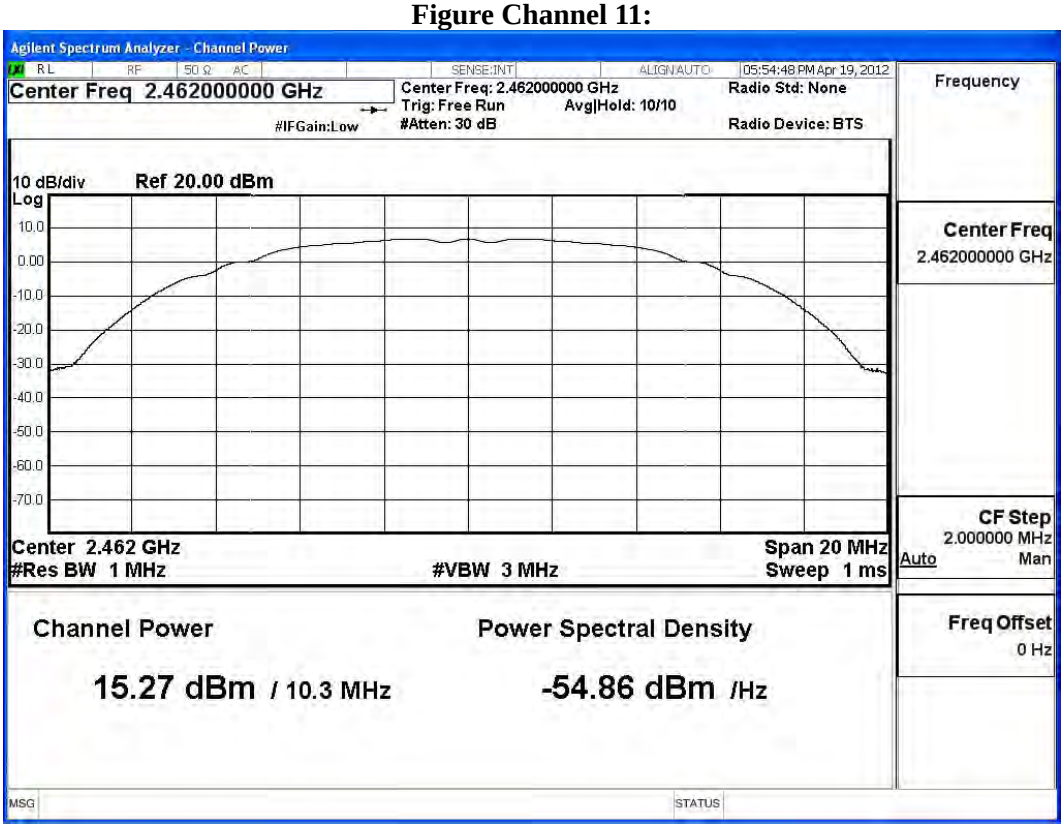


Figure Channel 11:



Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) -MCU 162MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54	6		
		Measurement Level (dBm)										
01	2412	12.07	--	--	--	--	--	--	--	18.78	<30dBm	Pass
06	2437	11.88	11.85	11.84	11.81	11.78	11.75	11.71	11.69	18.66	<30dBm	Pass
11	2462	11.41	--	--	--	--	--	--	--	17.76	<30dBm	Pass

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 1:

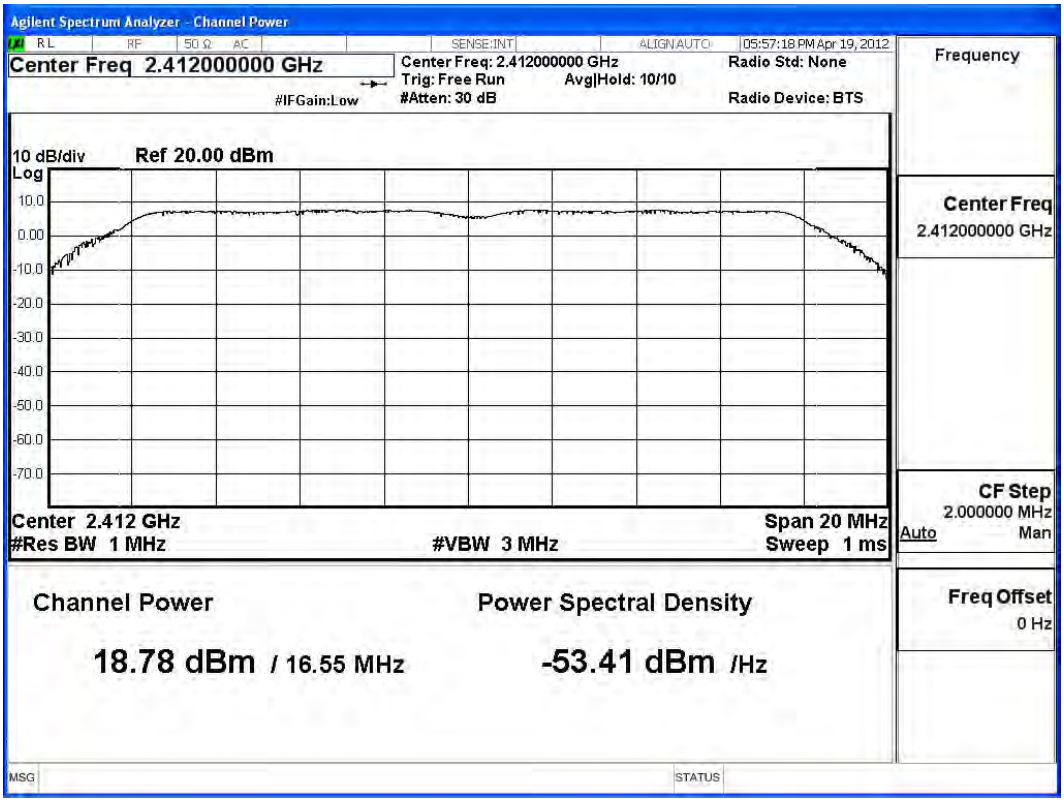


Figure Channel 6:

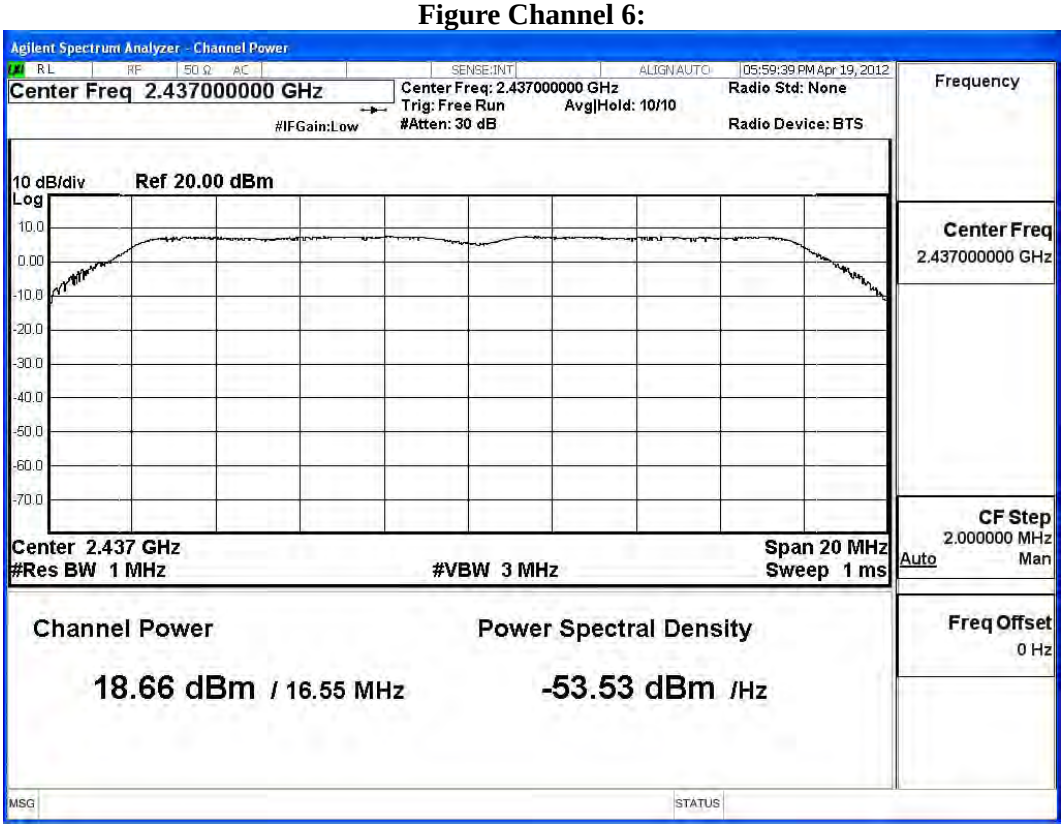
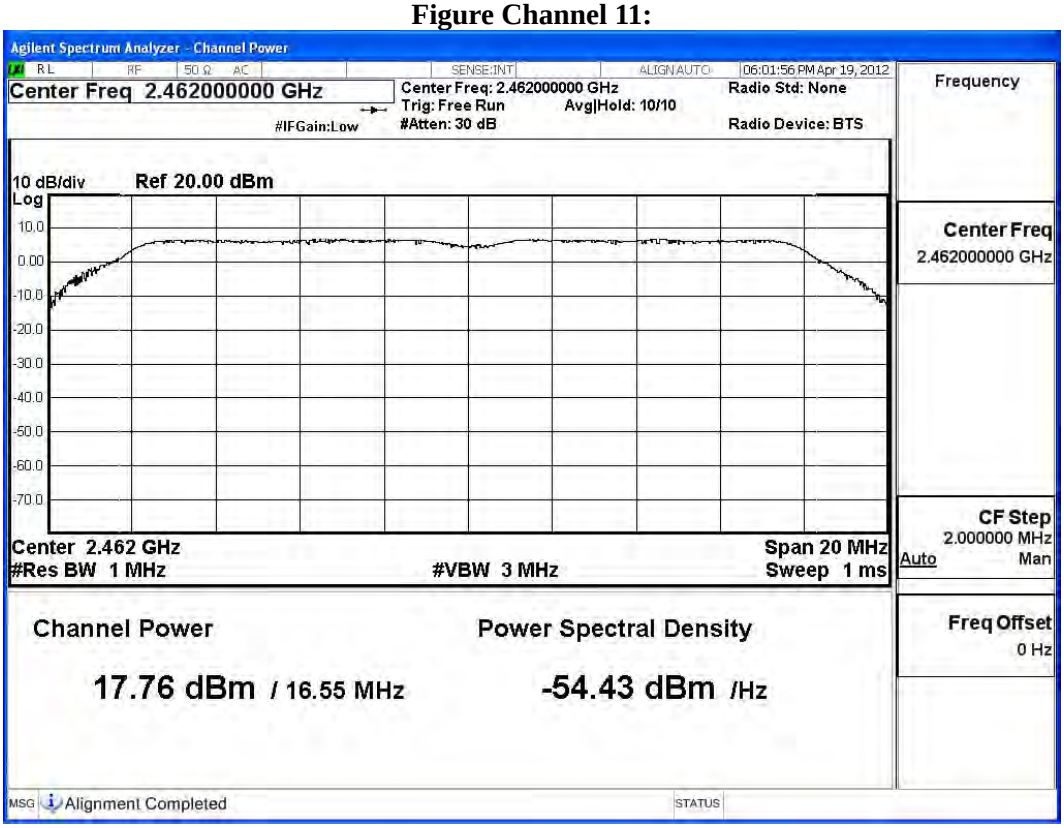


Figure Channel 11:



Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) -MCU 162MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2
		Measurement Level (dBm)								
01	2412	12.16	--	--	--	--	--	--	--	19.09
06	2437	11.85	11.84	11.8	11.79	11.75	11.73	11.71	11.69	19.01
11	2462	12.02	--	--	--	--	--	--	--	19.12

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 1:

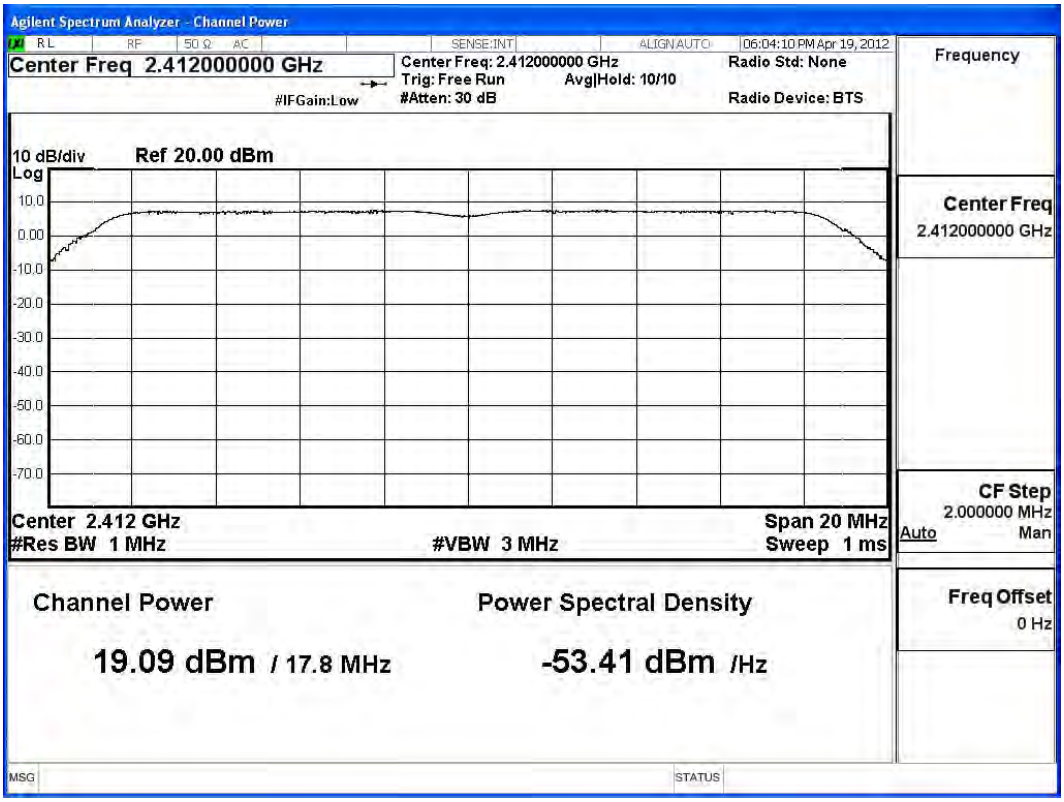


Figure Channel 6:

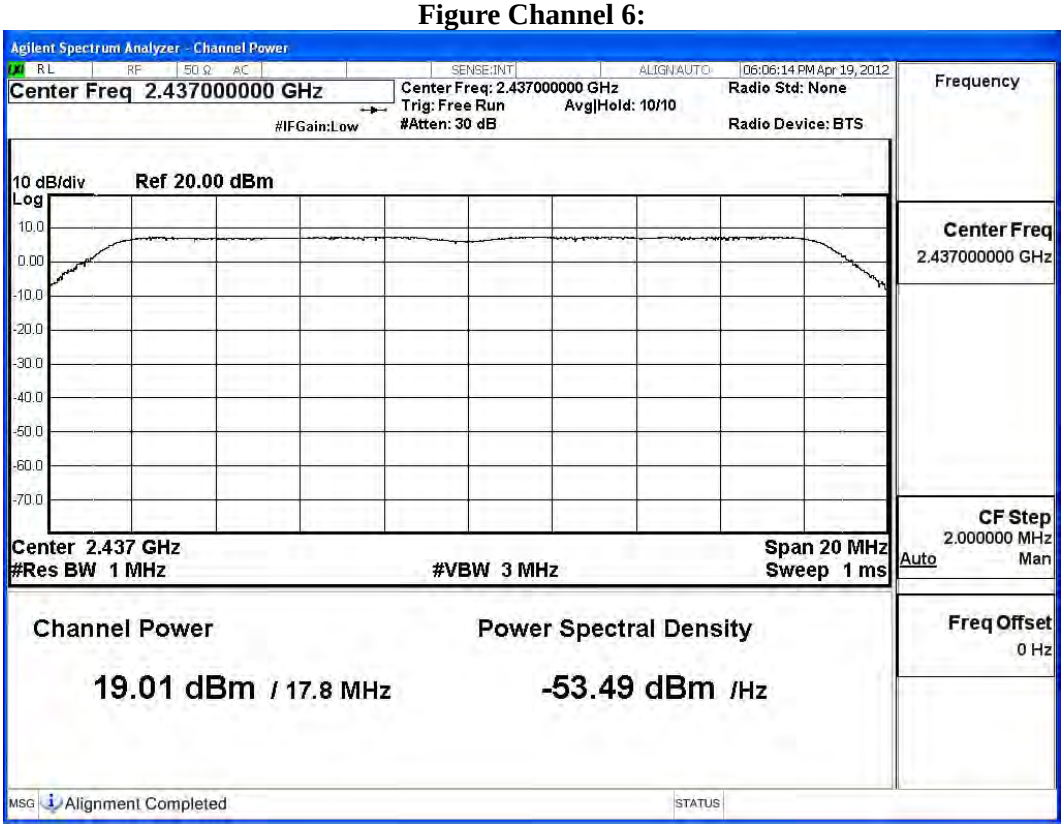
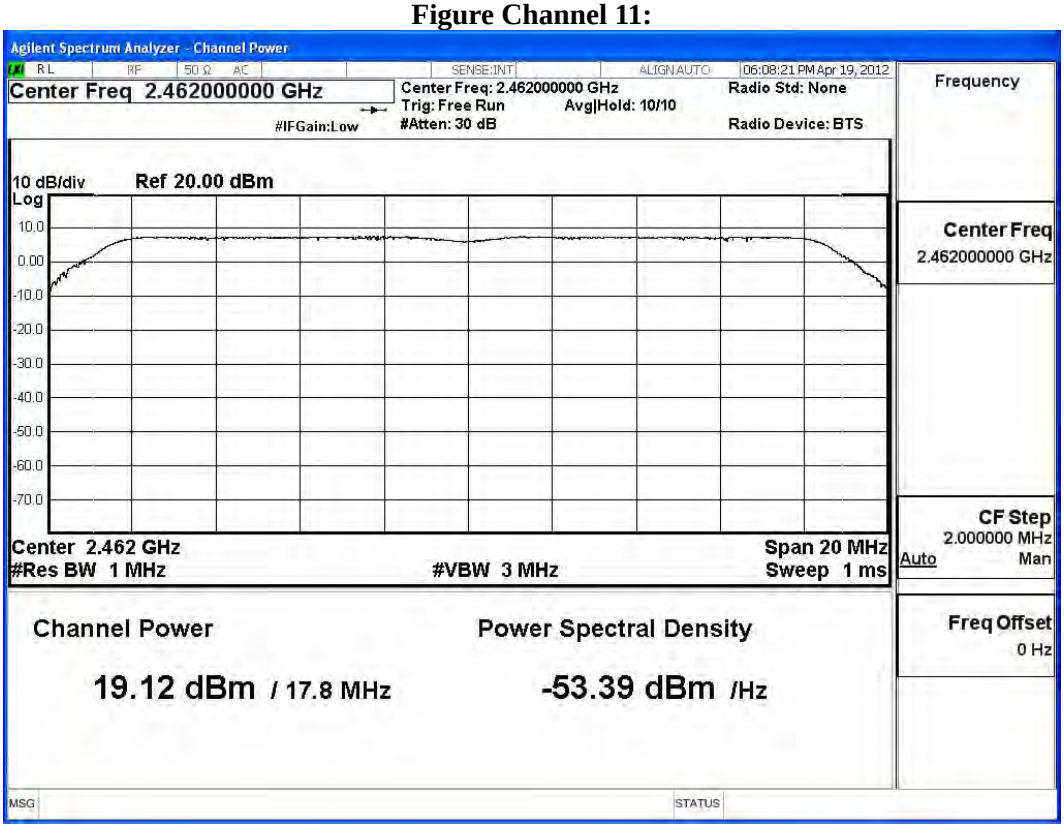


Figure Channel 11:



Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) -MCU 162MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power
		15	30	45	60	90	120	135	150	15
		Measurement Level (dBm)								
1	2422	11.88	--	--	--	--	--	--	--	18.95
4	2437	12.04	12.01	11.99	11.97	11.95	11.94	11.91	11.88	19.20
7	2452	11.71	--	--	--	--	--	--	--	18.83

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 3:

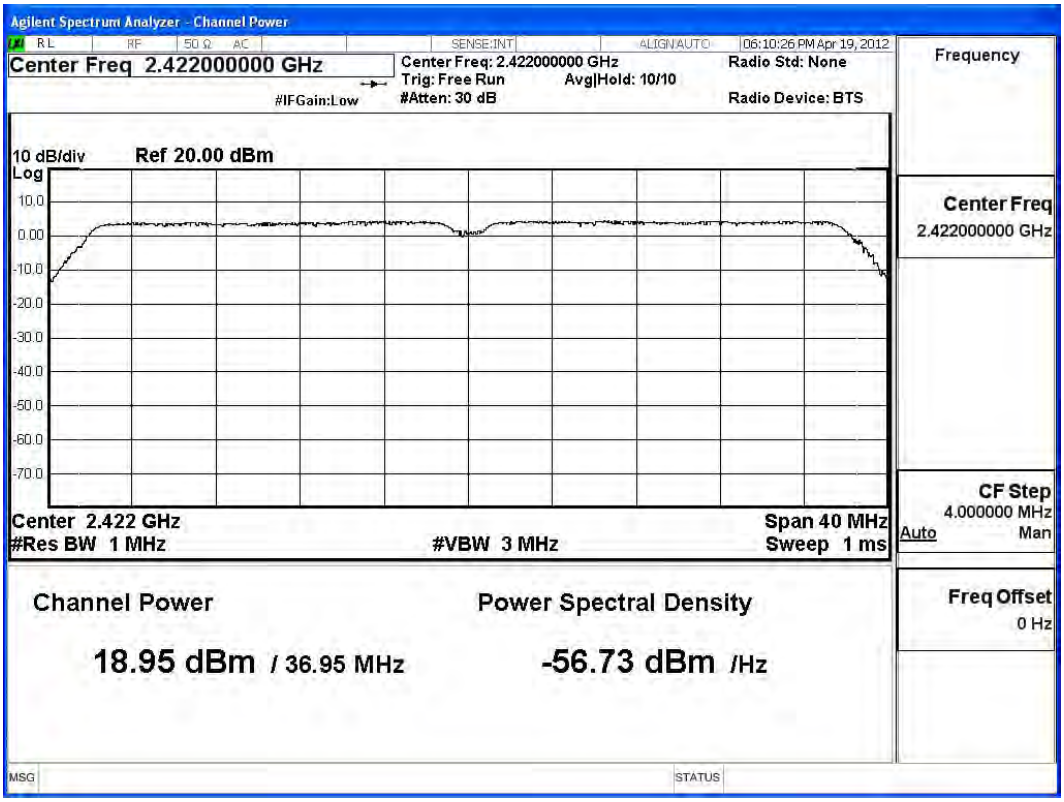


Figure Channel 6:

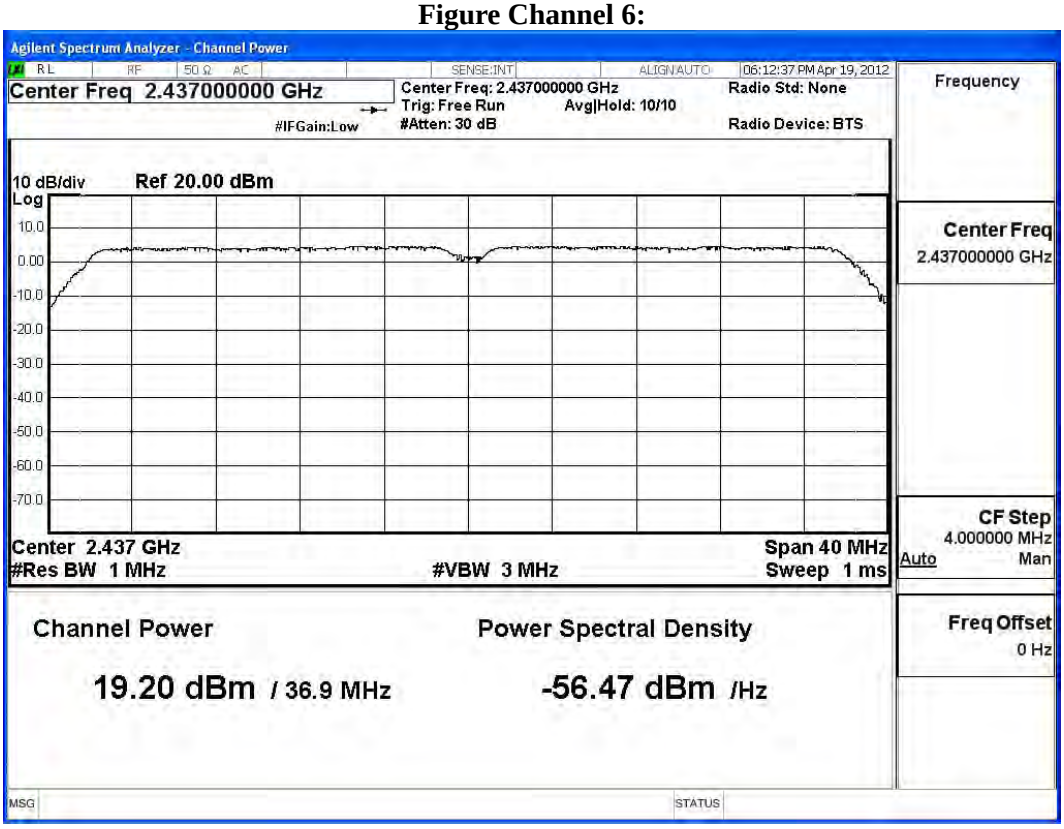
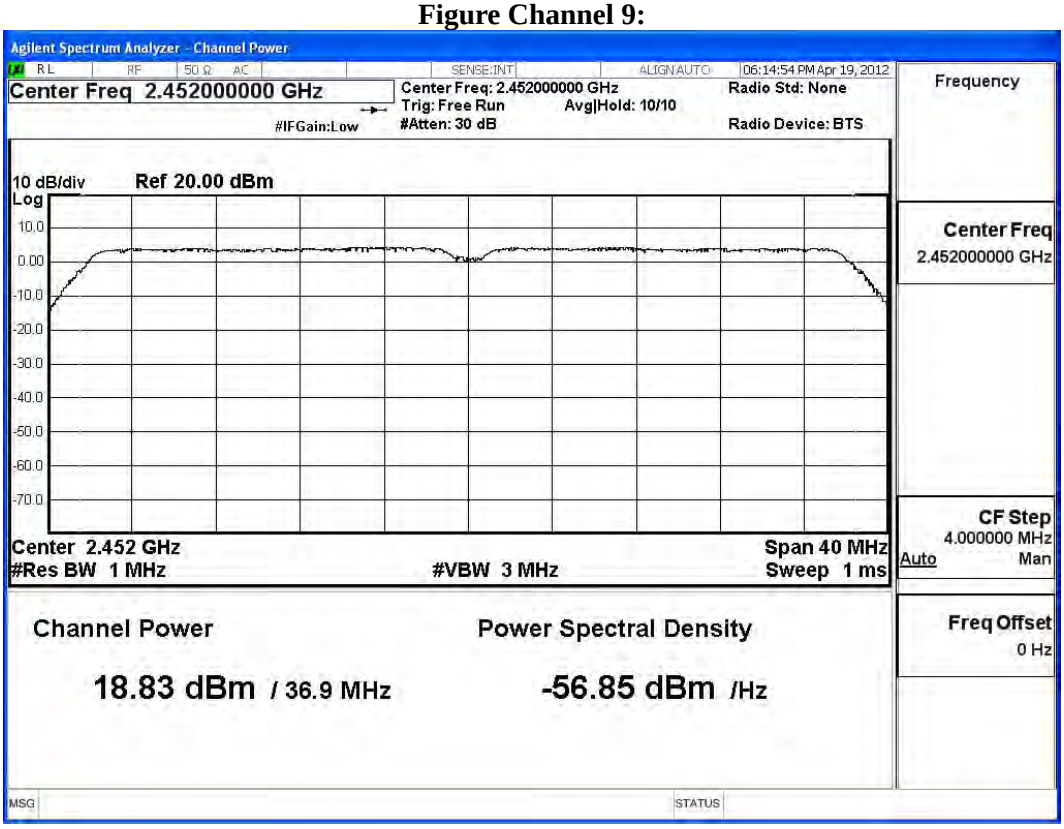


Figure Channel 9:



Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) -MCU 166MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11	1		
		Measurement Level (dBm)						
01	2412	15.28	--	--	--	17.48	<30dBm	Pass
06	2437	15.13	15.11	15.07	15.03	16.52	<30dBm	Pass
11	2462	13.77	--	--	--	15.75	<30dBm	Pass

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 1:

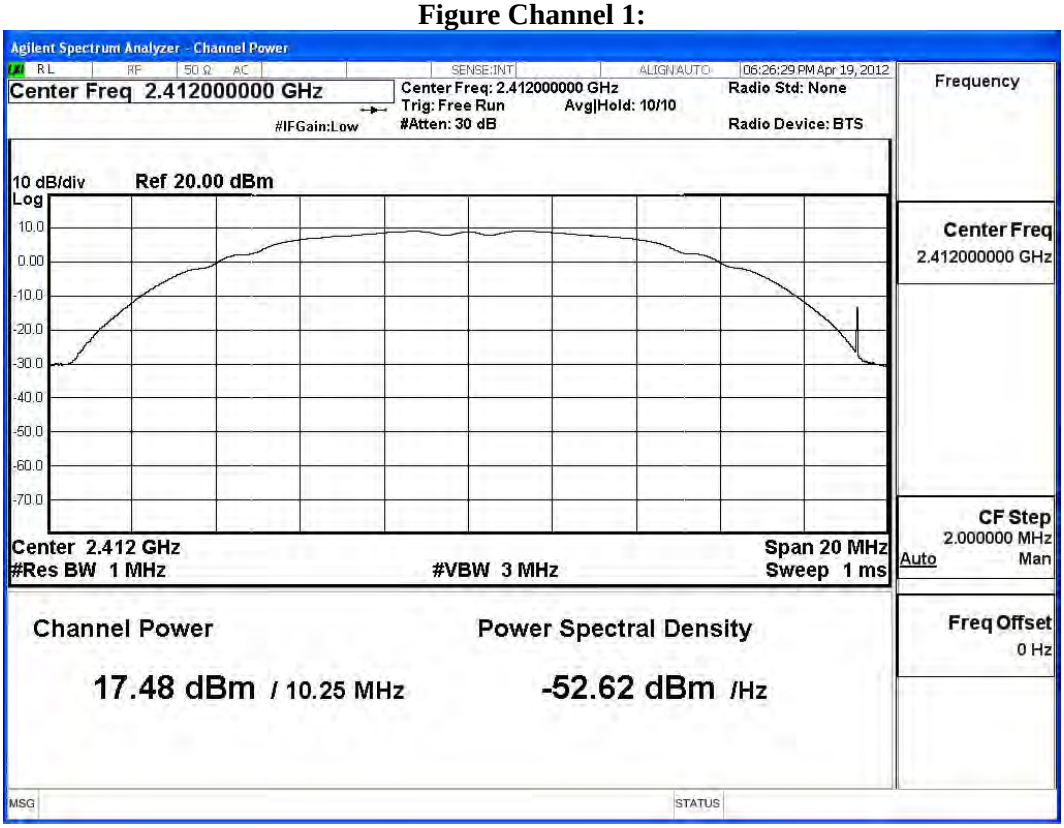


Figure Channel 6:

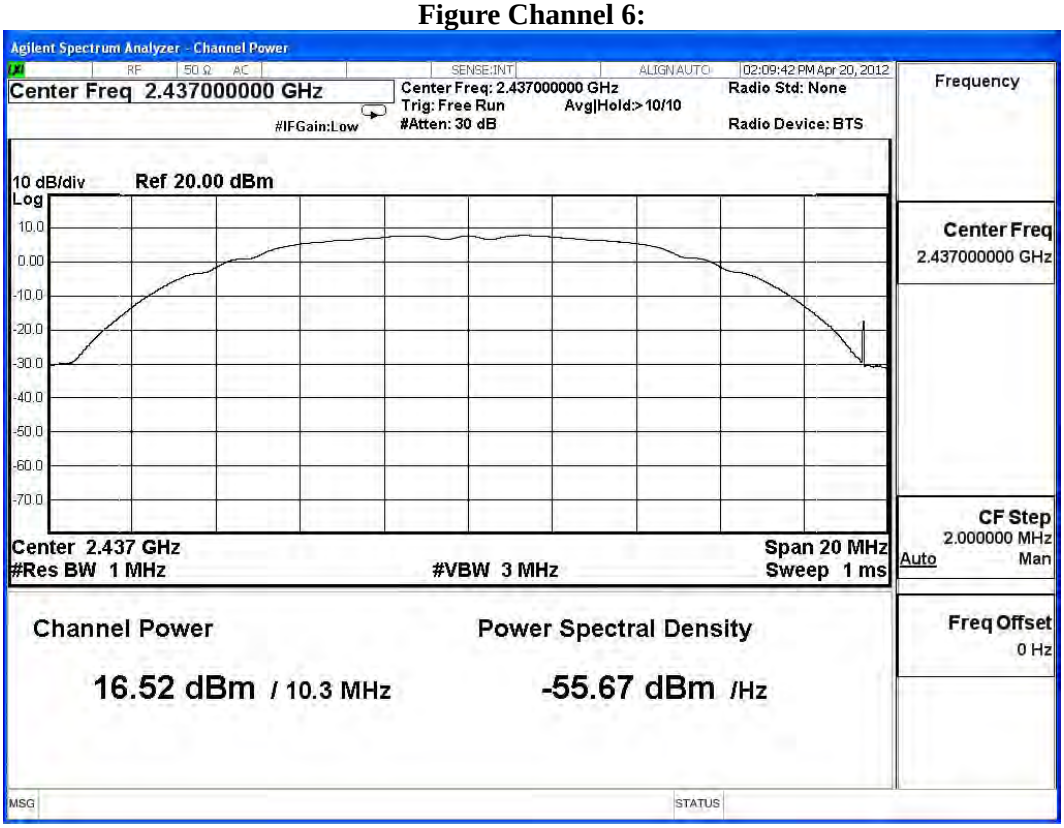
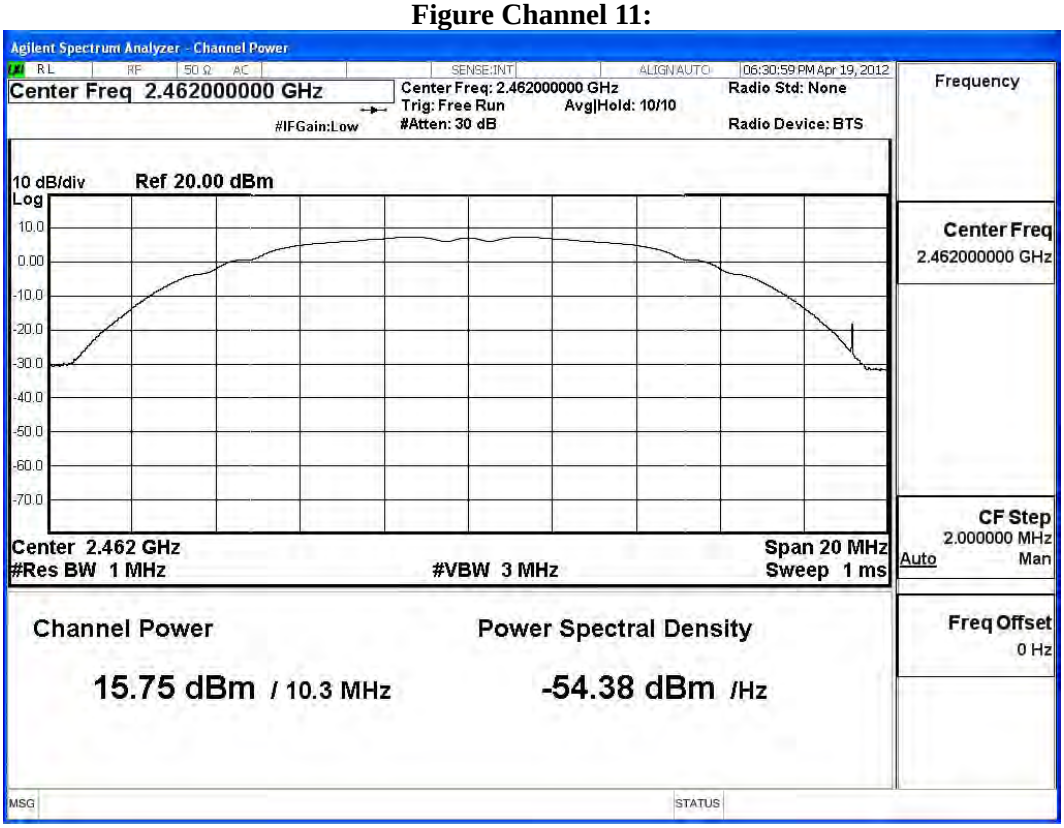


Figure Channel 11:



Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) -MCU 166MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54	6		
		Measurement Level (dBm)										
01	2412	12.37	--	--	--	--	--	--	--	19.20	<30dBm	Pass
06	2437	12.13	12.1	12.08	12.05	12.04	12	11.98	11.95	18.68	<30dBm	Pass
11	2462	12.22	--	--	--	--	--	--	--	17.99	<30dBm	Pass

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 1:

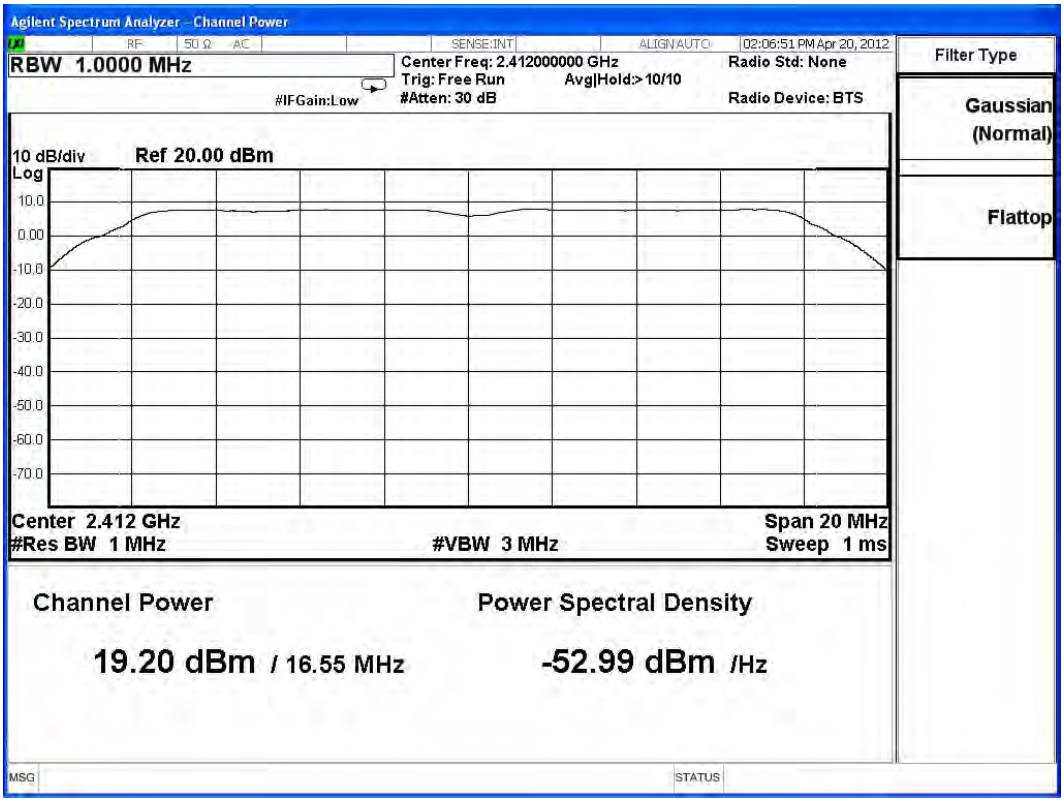


Figure Channel 6:

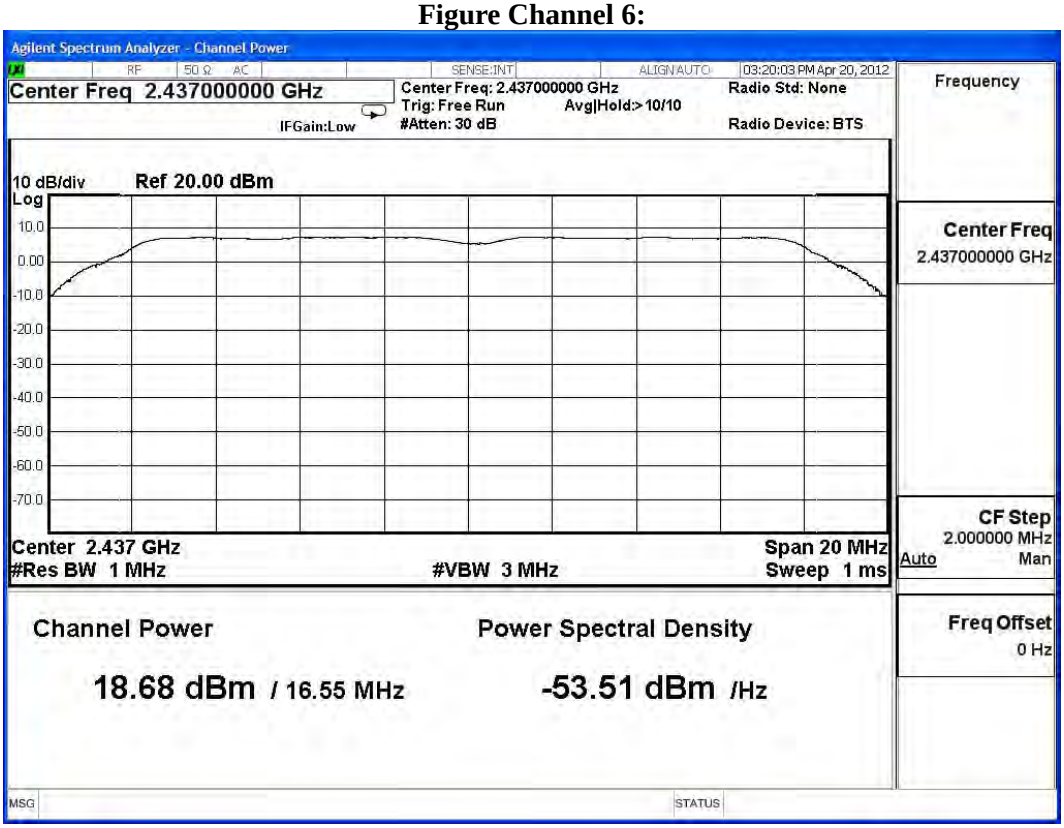
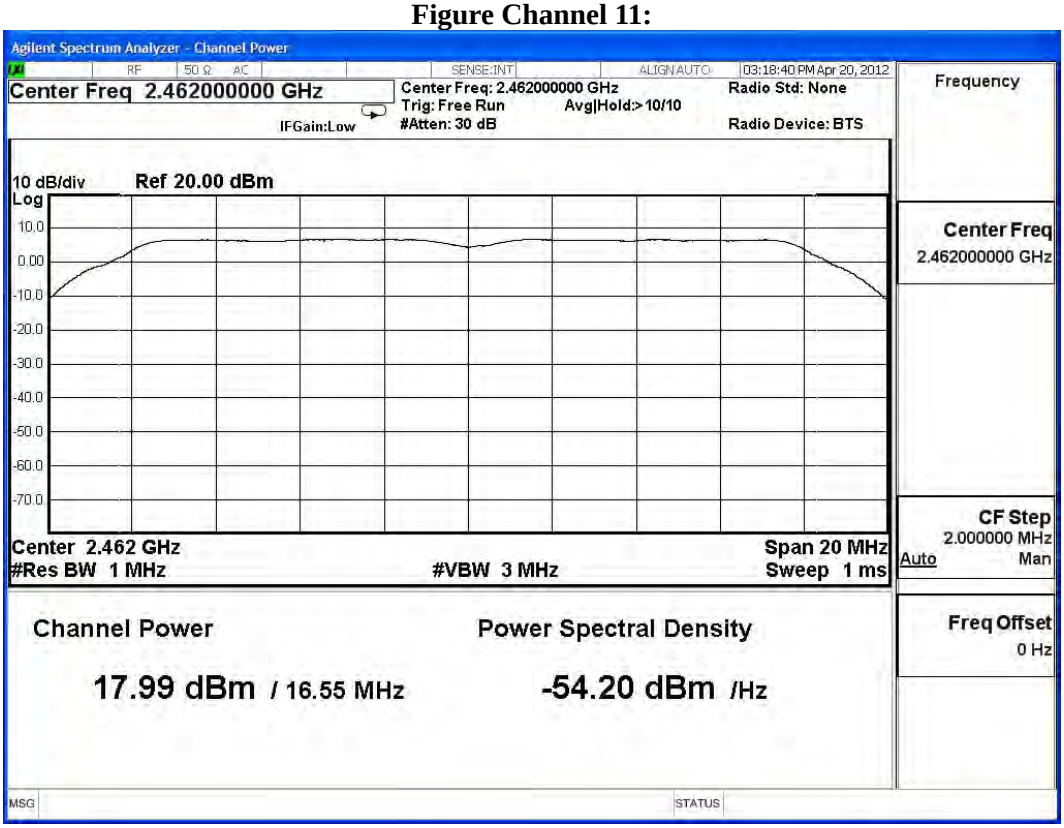


Figure Channel 11:



Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) -MCU 166MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2	7.2
		Measurement Level (dBm)								
01	2412	12.26	--	--	--	--	--	--	--	19.46
06	2437	12.06	12.03	11.99	11.98	11.95	11.93	11.91	11.87	19.40
11	2462	12.22	--	--	--	--	--	--	--	19.48

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 1:

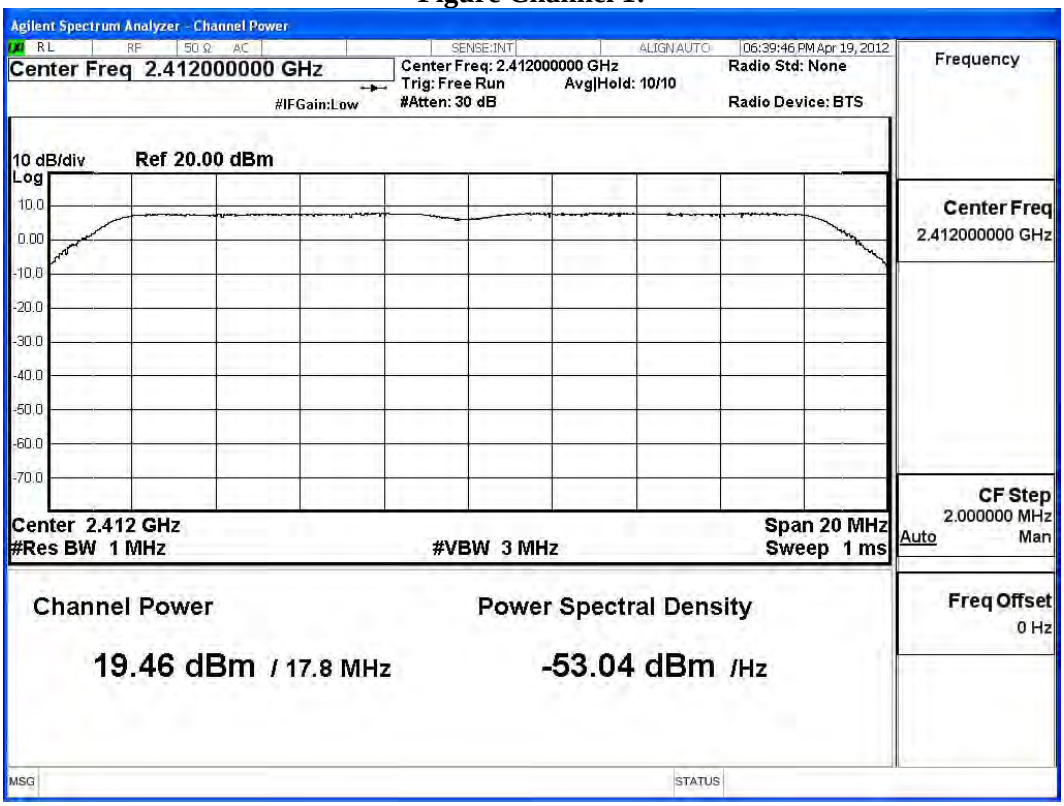


Figure Channel 6:

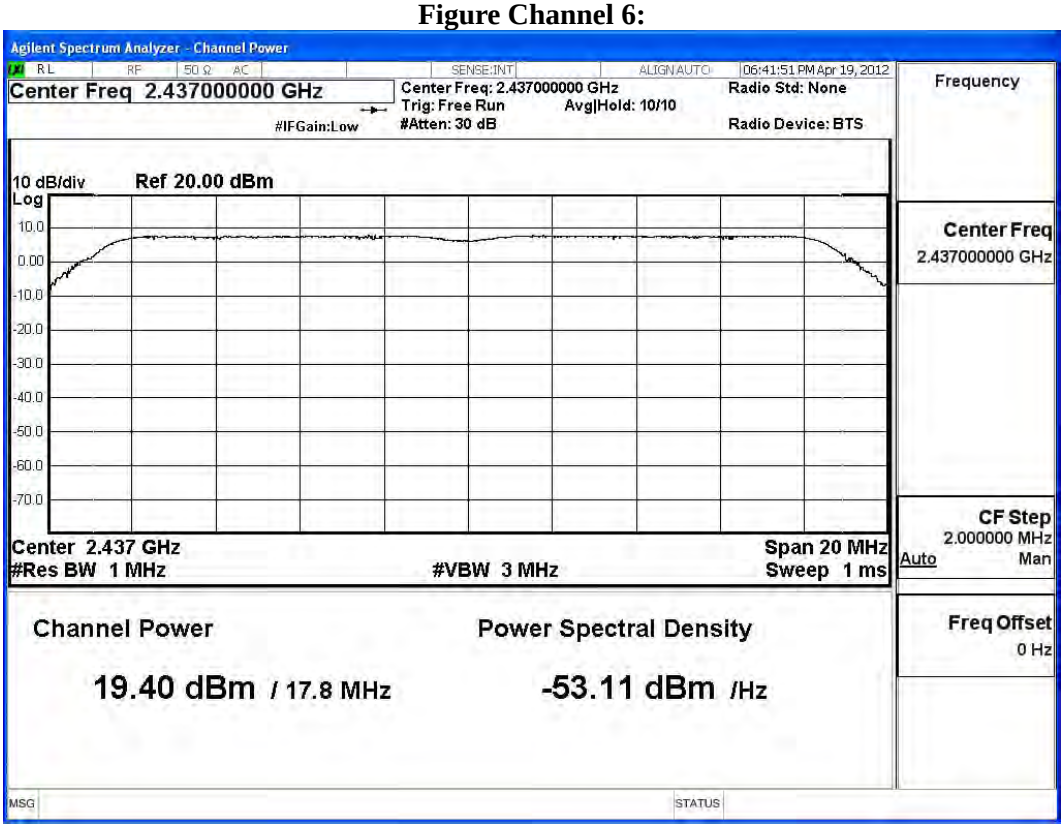
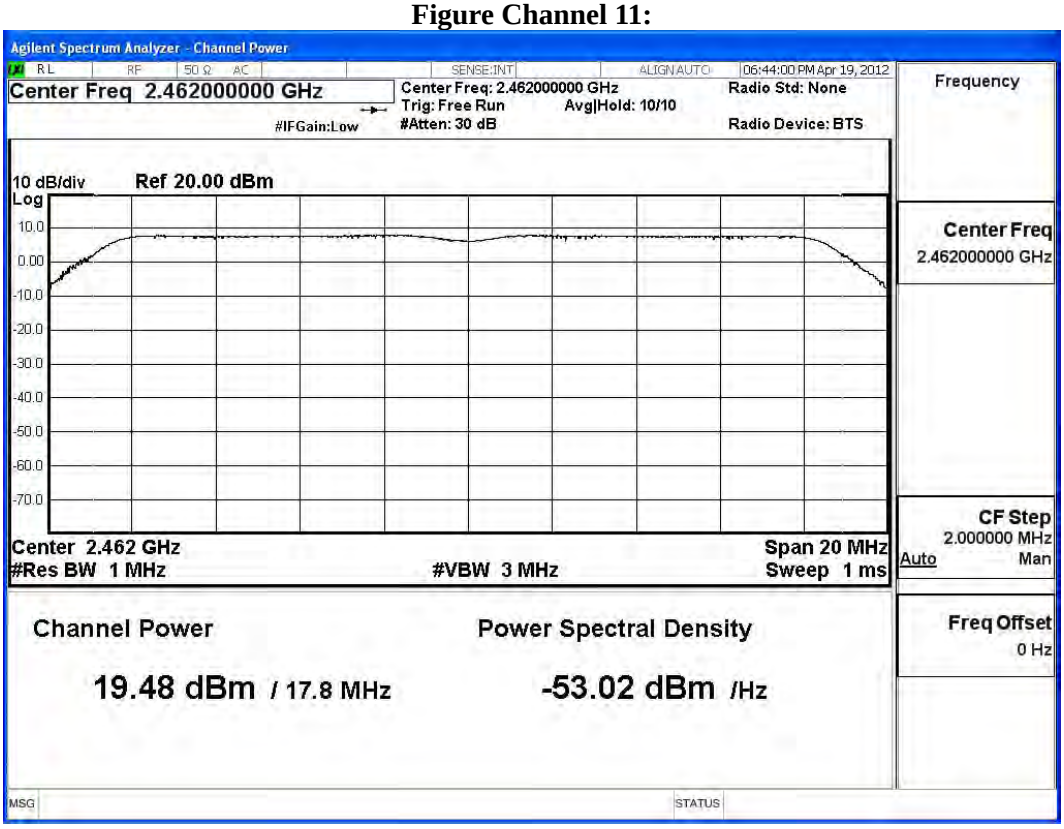


Figure Channel 11:



Product : PR1 Receiver
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) -MCU 166MHz

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power
		15	30	45	60	90	120	135	150	15
		Measurement Level (dBm)								
1	2422	12.32	--	--	--	--	--	--	--	19.32
4	2437	12.43	12.41	12.38	12.35	12.34	12.31	12.29	12.25	19.50
7	2452	12.14	--	--	--	--	--	--	--	19.14

Note:
1. Peak Power Output Value =Reading value on Spectrum Analyzer + cable loss
   (Use the spectrum analyzer's integrated channel power measurement function)
2. Average Power for different data rate = Reading value on Power Meter +cable loss

Figure Channel 3:

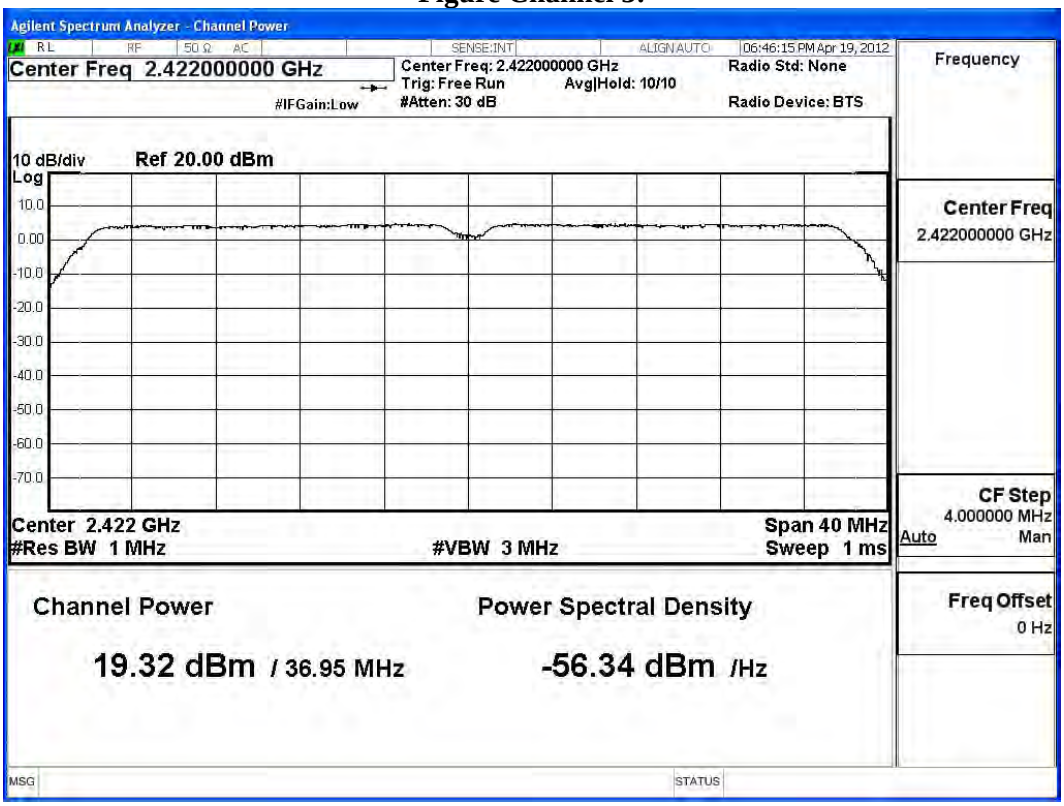


Figure Channel 6:

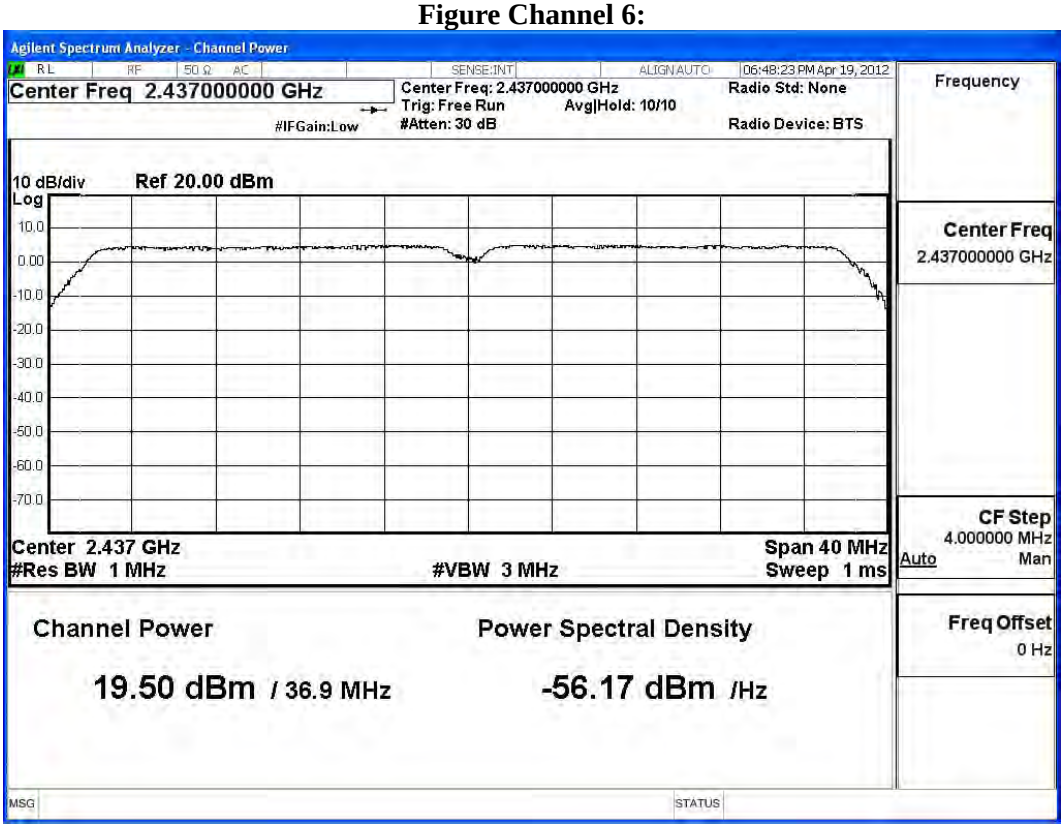
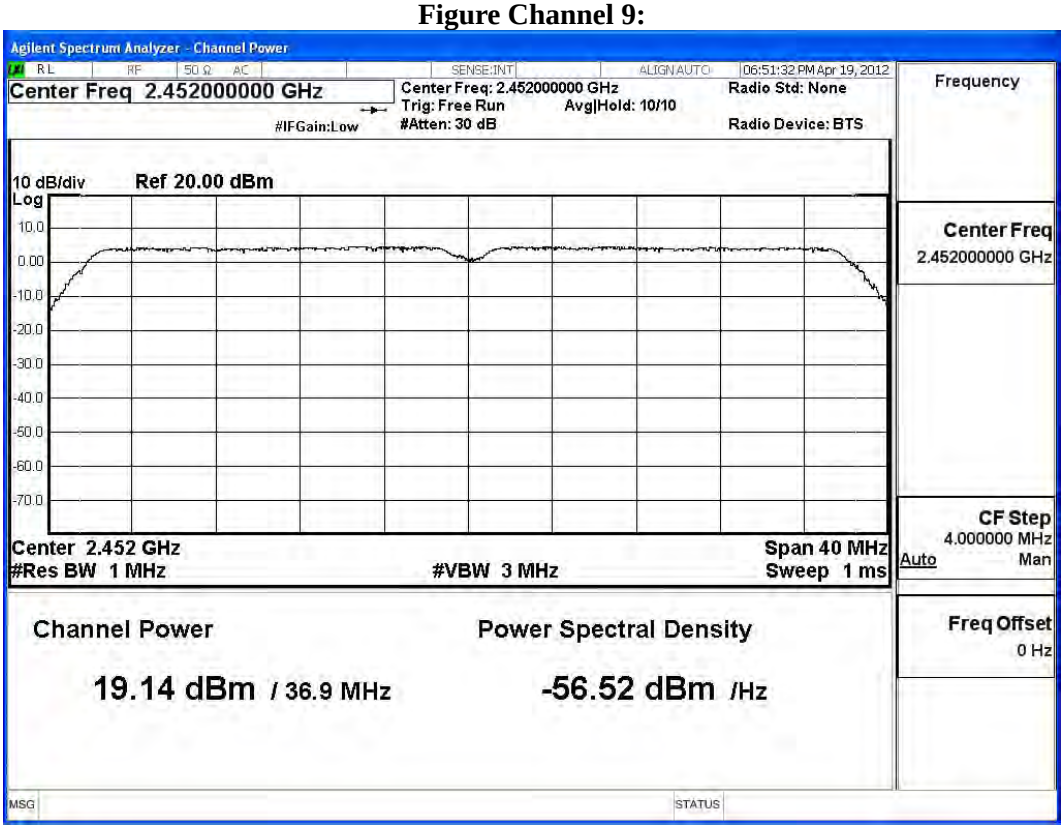


Figure Channel 9:



4. Radiated Emission

4.1. Test Equipment

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

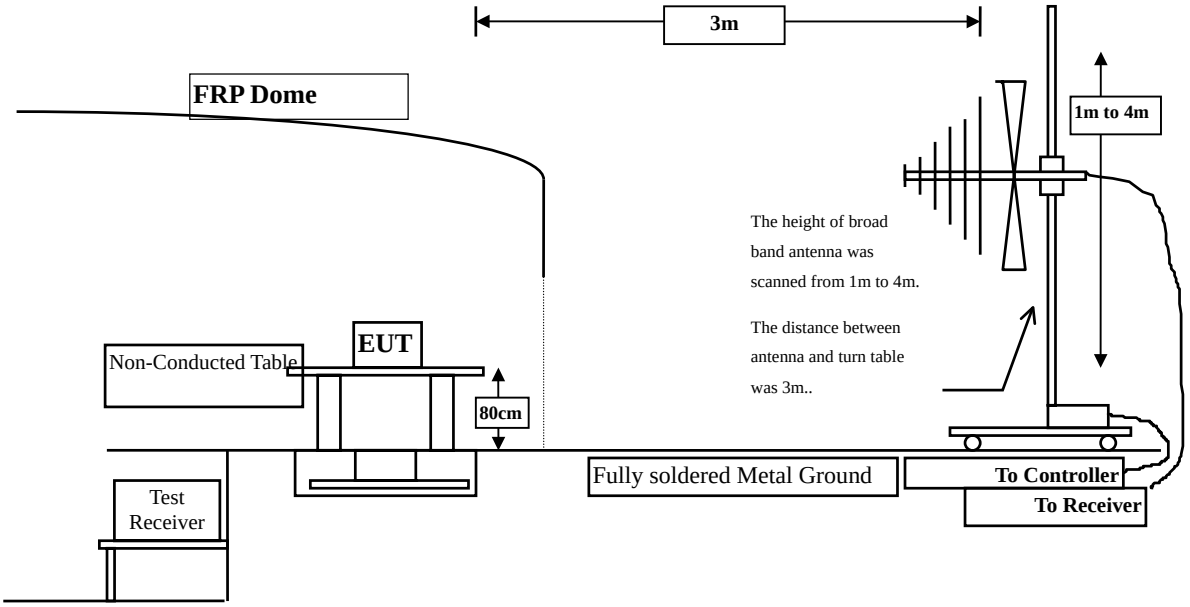
Test Site	Equipment		Manufacturer	Model No./Serial No.	Last Cal.
☒Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2012
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2012
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2012
	X	Pre-Amplifier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

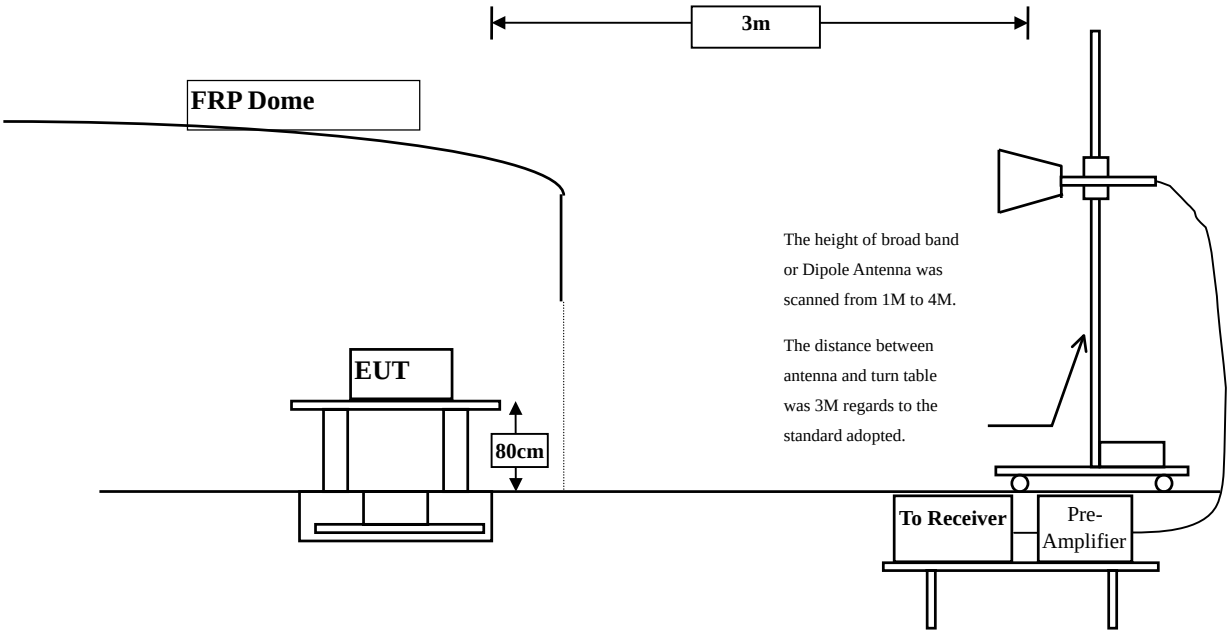
2. The test instruments marked with "X" are used to measure the final test results.

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 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

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

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of ANSI C63.10: 2009 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 C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

Radiated emission measurements below 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 30MHz - 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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz) -MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	41.490	44.751	-29.249	74.000
7236.000	10.650	42.940	53.590	-20.410	74.000
9648.000	13.337	36.070	49.406	-24.594	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	42.250	48.671	-25.329	74.000
7236.000	11.495	43.680	55.175	-18.825	74.000
9648.000	13.807	36.660	50.466	-23.534	74.000
Average Detector:					
7236.000	11.495	37.260	48.755	-5.245	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) -MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	41.410	44.447	-29.553	74.000
7311.000	11.795	41.420	53.214	-20.786	74.000
9748.000	12.635	37.270	49.905	-24.095	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	43.210	49.021	-24.979	74.000
7311.000	12.630	41.950	54.579	-19.421	74.000
9748.000	13.126	37.530	50.656	-23.344	74.000
Average Detector:					
7311.000	12.630	35.210	47.839	-6.161	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz) -MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	40.970	43.827	-30.173	74.000
7386.000	12.127	40.480	52.608	-21.392	74.000
9848.000	12.852	37.000	49.853	-24.147	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	41.710	47.230	-26.770	74.000
7386.000	13.254	40.210	53.464	-20.536	74.000
9848.000	13.367	37.120	50.487	-23.513	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz) -MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	38.010	41.271	-32.729	74.000
7236.000	10.650	43.560	54.210	-19.790	74.000
9648.000	13.337	35.750	49.086	-24.914	74.000
Average Detector:					
7236.000	10.650	26.600	37.250	-16.750	54.000
Vertical					
Peak Detector:					
4824.000	6.421	38.080	44.501	-29.499	74.000
7236.000	11.495	45.250	56.745	-17.255	74.000
9648.000	13.807	36.230	50.036	-23.964	74.000
Average Detector:					
7236.000	11.495	27.590	39.085	-14.915	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) -MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	37.740	40.777	-33.223	74.000
7311.000	11.795	43.350	55.144	-18.856	74.000
9748.000	12.635	36.690	49.325	-24.675	74.000
Average Detector:					
7311.000	11.795	25.790	37.584	-16.416	54.000
Vertical					
Peak Detector:					
4874.000	5.812	40.210	46.021	-27.979	74.000
7311.000	12.630	44.780	57.409	-16.591	74.000
9748.000	13.126	36.720	49.846	-24.154	74.000
Average Detector:					
7311.000	12.630	27.190	39.819	-14.181	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz) -MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	38.290	41.147	-32.853	74.000
7386.000	12.127	44.960	57.088	-16.912	74.000
9848.000	12.852	37.650	50.503	-23.497	74.000
Average Detector:					
7386.000	12.127	26.590	38.718	-15.282	54.000
Vertical					
Peak Detector:					
4924.000	5.521	41.660	47.180	-26.820	74.000
7386.000	13.254	45.520	58.774	-15.226	74.000
9848.000	13.367	37.060	50.427	-23.573	74.000
Average Detector:					
7386.000	13.254	26.370	39.624	-14.376	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2412MHz)
-MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	38.040	41.301	-32.699	74.000
7236.000	10.650	45.590	56.240	-17.760	74.000
9648.000	13.337	35.820	49.156	-24.844	74.000
Average Detector:					
7236.000	10.650	26.430	37.080	-16.920	54.000
Vertical					
Peak Detector:					
4824.000	6.421	38.050	44.471	-29.529	74.000
7236.000	11.495	46.790	58.285	-15.715	74.000
9648.000	13.807	36.180	49.986	-24.014	74.000
Average Detector:					
7236.000	11.495	27.180	38.675	-15.325	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437 MHz)
-MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	37.340	40.377	-33.623	74.000
7311.000	11.795	44.600	56.394	-17.606	74.000
9748.000	12.635	36.660	49.295	-24.705	74.000
Average Detector:					
7311.000	11.795	25.430	37.224	-16.776	54.000
Vertical					
Peak Detector:					
4874.000	3.038	37.340	40.377	-33.623	74.000
7311.000	11.795	44.600	56.394	-17.606	74.000
9748.000	12.635	36.660	49.295	-24.705	74.000
Average Detector:					
7311.000	11.795	25.430	37.224	-16.776	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2462 MHz)
-MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	37.770	40.627	-33.373	74.000
7386.000	12.127	44.810	56.938	-17.062	74.000
9848.000	12.852	36.990	49.843	-24.157	74.000
Average Detector:					
7386.000	12.127	26.340	38.468	-15.532	54.000
Vertical					
Peak Detector:					
4924.000	5.521	37.890	43.410	-30.590	74.000
7386.000	13.254	45.160	58.414	-15.586	74.000
9848.000	13.367	37.360	50.727	-23.273	74.000
Average Detector:					
7386.000	13.254	26.530	39.784	-14.216	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2422MHz)
-MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4844.000	3.171	38.310	41.481	-32.519	74.000
7266.000	11.162	41.350	52.512	-21.488	74.000
9688.000	12.964	37.150	50.115	-23.885	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	6.178	38.310	44.488	-29.512	74.000
7266.000	11.982	42.760	54.742	-19.258	74.000
9688.000	13.507	36.520	50.028	-23.972	74.000
Average Detector:					
7266.000	11.982	25.560	37.542	-16.458	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437 MHz)
-MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	37.086	40.123	-33.877	74.000
7311.000	11.795	35.425	47.219	-26.781	74.000
9748.000	12.635	36.682	49.317	-24.683	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	39.210	45.021	-28.979	74.000
7311.000	12.630	41.090	53.719	-20.281	74.000
9748.000	13.126	37.110	50.236	-23.764	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2452 MHz)
-MCU 162MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4904.000	2.914	37.090	40.005	-33.995	74.000
7356.000	11.995	36.910	48.904	-25.096	74.000
9808.000	12.475	36.210	48.685	-25.315	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4904.000	5.530	41.230	46.761	-27.239	74.000
7356.000	13.005	40.890	53.894	-20.106	74.000
9808.000	12.901	37.190	50.091	-23.909	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz) -MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	40.120	43.381	-30.619	74.000
7236.000	10.650	39.780	50.430	-23.570	74.000
9648.000	13.337	36.010	49.346	-24.654	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	44.210	50.631	-23.369	74.000
7236.000	11.495	45.410	56.905	-17.095	74.000
9648.000	13.807	36.030	49.836	-24.164	74.000
Average Detector:					
7326.000	12.690	36.290	48.980	-5.020	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) -MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	40.680	43.717	-30.283	74.000
7311.000	11.795	39.610	51.404	-22.596	74.000
9748.000	12.635	37.220	49.855	-24.145	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	46.120	51.931	-22.069	74.000
7311.000	12.630	41.880	54.509	-19.491	74.000
9748.000	13.126	36.850	49.976	-24.024	74.000
Average Detector:					
7311.000	12.630	34.750	47.379	-6.621	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz) -MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	39.450	42.307	-31.693	74.000
7386.000	12.127	37.280	49.408	-24.592	74.000
9848.000	12.852	37.260	50.113	-23.887	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	44.020	49.540	-24.460	74.000
7386.000	13.254	39.080	52.334	-21.666	74.000
9848.000	13.367	36.660	50.027	-23.973	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz) -MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	37.720	40.981	-33.019	74.000
7236.000	10.650	41.400	52.050	-21.950	74.000
9648.000	13.337	35.800	49.136	-24.864	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	40.520	46.941	-27.059	74.000
7236.000	11.495	42.000	53.495	-20.505	74.000
9648.000	13.807	36.020	49.826	-24.174	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) -MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	37.930	40.967	-33.033	74.000
7311.000	11.795	39.840	51.634	-22.366	74.000
9748.000	12.635	36.380	49.015	-24.985	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	40.980	46.791	-27.209	74.000
7311.000	12.630	44.000	56.629	-17.371	74.000
9748.000	13.126	36.290	49.416	-24.584	74.000
Average Detector:					
7311.000	12.630	27.050	39.679	-14.321	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz) -MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	37.120	39.977	-34.023	74.000
7386.000	12.127	39.800	51.928	-22.072	74.000
9848.000	12.852	36.260	49.113	-24.887	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	41.610	47.130	-26.870	74.000
7386.000	13.254	42.960	56.214	-17.786	74.000
9848.000	13.367	36.270	49.637	-24.363	74.000
Average Detector:					
7386.000	13.254	26.740	39.994	-14.006	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2412MHz)
-MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	37.120	40.381	-33.619	74.000
7236.000	10.650	42.800	53.450	-20.550	74.000
9648.000	13.337	35.920	49.256	-24.744	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	40.430	46.851	-27.149	74.000
7236.000	11.495	46.510	58.005	-15.995	74.000
9648.000	13.807	35.280	49.086	-24.914	74.000
Average Detector:					
7236.000	11.495	27.690	39.185	-14.815	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437 MHz)
-MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	37.430	40.467	-33.533	74.000
7311.000	11.795	41.300	53.094	-20.906	74.000
9748.000	12.635	36.050	48.685	-25.315	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	41.820	47.631	-26.369	74.000
7311.000	12.630	45.200	57.829	-16.171	74.000
9748.000	13.126	35.970	49.096	-24.904	74.000
Average Detector:					
7311.000	12.630	26.180	38.809	-15.191	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2462 MHz)
-MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	36.900	39.757	-34.243	74.000
7386.000	12.127	40.950	53.078	-20.922	74.000
9848.000	12.852	36.710	49.563	-24.437	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	40.790	46.310	-27.690	74.000
7386.000	13.254	44.110	57.364	-16.636	74.000
9848.000	13.367	36.640	50.007	-23.993	74.000
Average Detector:					
7386.000	13.254	26.580	39.834	-14.166	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2422MHz)
-MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4844.000	3.171	36.980	40.151	-33.849	74.000
7266.000	11.162	35.950	47.112	-26.888	74.000
9688.000	12.964	36.240	49.205	-24.795	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4844.000	6.178	38.610	44.788	-29.212	74.000
7266.000	11.982	42.510	54.492	-19.508	74.000
9688.000	13.507	36.040	49.548	-24.452	74.000
Average Detector:					
7266.000	11.982	26.010	37.992	-16.008	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437 MHz)
-MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	36.050	39.087	-34.913	74.000
7311.000	11.795	35.600	47.394	-26.606	74.000
9748.000	12.635	36.840	49.475	-24.525	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	37.540	43.351	-30.649	74.000
7311.000	12.630	40.910	53.539	-20.461	74.000
9748.000	13.126	36.160	49.286	-24.714	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 : PR1 Receiver
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2452 MHz)
-MCU 166MHz

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4904.000	2.914	36.780	39.695	-34.305	74.000
7356.000	11.995	36.700	48.694	-25.306	74.000
9808.000	12.475	36.740	49.215	-24.785	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4904.000	5.530	39.550	45.081	-28.919	74.000
7356.000	13.005	40.960	53.964	-20.036	74.000
9808.000	12.901	36.880	49.781	-24.219	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) -MCU 162MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
245.340	-6.346	33.013	26.667	-19.333	46.000
322.940	-4.442	33.806	29.364	-16.636	46.000
499.480	0.048	27.984	28.032	-17.968	46.000
602.300	4.287	35.285	39.572	-6.428	46.000
726.460	3.469	37.231	40.700	-5.300	46.000
813.760	5.098	31.172	36.270	-9.730	46.000
Vertical					
256.980	-7.573	26.000	18.427	-27.573	46.000
359.800	-3.810	27.722	23.912	-22.088	46.000
522.760	-0.334	24.716	24.382	-21.618	46.000
613.940	-1.687	38.241	36.554	-9.446	46.000
749.740	2.510	31.631	34.141	-11.859	46.000
881.660	2.557	24.339	26.896	-19.104	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) -MCU 162MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
245.340	-6.346	32.806	26.460	-19.540	46.000
359.800	-1.680	30.103	28.423	-17.577	46.000
482.020	-0.505	27.223	26.718	-19.282	46.000
540.220	2.551	30.668	33.219	-12.781	46.000
658.560	2.115	39.283	41.398	-4.602	46.000
749.740	3.320	34.525	37.845	-8.155	46.000
Vertical					
344.280	-3.171	27.528	24.358	-21.642	46.000
511.120	-0.261	24.448	24.187	-21.813	46.000
613.940	-1.687	38.482	36.795	-9.205	46.000
681.840	1.484	32.965	34.449	-11.551	46.000
749.740	2.510	31.258	33.768	-12.232	46.000
835.100	1.995	27.622	29.617	-16.383	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437 MHz)
-MCU 162MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
245.340	-6.346	32.872	26.526	-19.474	46.000
359.800	-1.680	28.991	27.311	-18.689	46.000
480.080	-0.329	30.418	30.089	-15.911	46.000
567.380	1.664	31.971	33.635	-12.365	46.000
635.280	2.141	38.175	40.315	-5.685	46.000
774.960	4.187	34.404	38.591	-7.409	46.000
Vertical					
344.280	-3.171	27.549	24.379	-21.621	46.000
534.400	-0.571	27.489	26.918	-19.082	46.000
613.940	-1.687	38.929	37.242	-8.758	46.000
681.840	1.484	33.395	34.879	-11.121	46.000
813.760	3.168	28.484	31.652	-14.348	46.000
947.620	6.609	24.827	31.436	-14.564	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437 MHz)
-MCU 162MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
171.620	-10.242	33.909	23.667	-19.833	43.500
322.940	-4.442	34.163	29.721	-16.279	46.000
480.080	-0.329	30.378	30.049	-15.951	46.000
590.660	3.625	34.531	38.156	-7.844	46.000
701.240	2.668	36.910	39.578	-6.422	46.000
774.960	4.187	34.359	38.546	-7.454	46.000
Vertical					
179.380	-8.591	29.864	21.273	-22.227	43.500
359.800	-3.810	27.755	23.945	-22.055	46.000
499.480	-0.852	25.197	24.345	-21.655	46.000
613.940	-1.687	38.507	36.820	-9.180	46.000
726.460	-0.171	33.845	33.674	-12.326	46.000
835.100	1.995	26.826	28.821	-17.179	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) -MCU 166MHz (Hynix)
(Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
322.940	-4.442	35.644	31.202	-14.798	46.000
480.080	-0.329	30.880	30.551	-15.449	46.000
602.300	4.287	32.958	37.245	-8.755	46.000
701.240	2.668	37.059	39.727	-6.273	46.000
774.960	4.187	33.634	37.821	-8.179	46.000
858.380	5.972	25.421	31.393	-14.607	46.000
Vertical					
256.980	-7.573	26.256	18.683	-27.317	46.000
359.800	-3.810	29.313	25.503	-20.497	46.000
540.220	0.121	27.049	27.170	-18.830	46.000
701.240	0.198	33.906	34.104	-11.896	46.000
798.240	2.808	26.183	28.991	-17.009	46.000
937.920	6.076	25.304	31.380	-14.620	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) -MCU 166MHz (Hynix)
(Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
322.940	-4.442	35.380	30.938	-15.062	46.000
480.080	-0.329	30.935	30.606	-15.394	46.000
602.300	4.287	30.734	35.021	-10.979	46.000
726.460	3.469	35.970	39.439	-6.561	46.000
823.460	6.122	27.305	33.428	-12.572	46.000
926.280	6.491	26.484	32.975	-13.025	46.000
Vertical					
119.240	-3.541	28.480	24.939	-18.561	43.500
256.980	-7.573	26.860	19.287	-26.713	46.000
359.800	-3.810	28.065	24.255	-21.745	46.000
540.220	0.121	27.226	27.347	-18.653	46.000
701.240	0.198	33.801	33.999	-12.001	46.000
844.800	3.181	22.241	25.422	-20.578	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437 MHz)
-MCU 166MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
245.340	-6.346	33.590	27.244	-18.756	46.000
322.940	-4.442	35.792	31.350	-14.650	46.000
480.080	-0.329	30.985	30.656	-15.344	46.000
602.300	4.287	31.519	35.806	-10.194	46.000
726.460	3.469	36.043	39.512	-6.488	46.000
858.380	5.972	25.710	31.682	-14.318	46.000
Vertical					
119.240	-3.541	27.860	24.319	-19.181	43.500
245.340	-8.406	26.968	18.562	-27.438	46.000
359.800	-3.810	28.103	24.293	-21.707	46.000
540.220	0.121	28.538	28.659	-17.341	46.000
701.240	0.198	34.053	34.251	-11.749	46.000
840.920	2.961	23.849	26.810	-19.190	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437 MHz)
-MCU 166MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
245.340	-6.346	33.422	27.076	-18.924	46.000
322.940	-4.442	35.092	30.650	-15.350	46.000
480.080	-0.329	31.349	31.020	-14.980	46.000
602.300	4.287	31.571	35.858	-10.142	46.000
726.460	3.469	35.928	39.397	-6.603	46.000
823.460	6.122	27.710	33.833	-12.167	46.000
Vertical					
109.540	-0.418	23.950	23.532	-19.968	43.500
206.540	-7.705	27.762	20.057	-23.443	43.500
359.800	-3.810	30.340	26.530	-19.470	46.000
540.220	0.121	27.531	27.652	-18.348	46.000
701.240	0.198	33.721	33.919	-12.081	46.000
774.960	2.337	28.997	31.334	-14.666	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) -MCU 162MHz (Hynix)
(Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
322.940	-4.442	34.054	29.612	-16.388	46.000
480.080	-0.329	31.262	30.933	-15.067	46.000
602.300	4.287	34.942	39.229	-6.771	46.000
701.240	2.668	37.148	39.816	-6.184	46.000
790.480	5.203	30.823	36.025	-9.975	46.000
901.060	5.591	25.503	31.094	-14.906	46.000
Vertical					
233.700	-9.199	28.828	19.629	-26.371	46.000
322.940	-6.352	27.385	21.033	-24.967	46.000
392.780	-3.536	22.864	19.328	-26.672	46.000
499.480	-0.852	24.181	23.329	-22.671	46.000
579.020	-5.706	33.578	27.872	-18.128	46.000
701.240	0.198	34.913	35.111	-10.889	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) -MCU 162MHz (Hynix)
(Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
220.120	-10.520	36.375	25.855	-20.145	46.000
322.940	-4.442	34.059	29.617	-16.383	46.000
480.080	-0.329	31.363	31.034	-14.966	46.000
613.940	3.543	39.376	42.919	-3.081	46.000
749.740	3.320	35.975	39.295	-6.705	46.000
858.380	5.972	27.913	33.885	-12.115	46.000
Vertical					
179.380	-8.591	29.948	21.357	-22.143	43.500
400.540	-5.156	24.459	19.304	-26.696	46.000
540.220	0.121	27.846	27.967	-18.033	46.000
613.940	-1.687	39.093	37.406	-8.594	46.000
749.740	2.510	32.289	34.799	-11.201	46.000
858.380	0.632	26.094	26.726	-19.274	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437 MHz)
-MCU 162MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
322.940	-4.442	33.738	29.296	-16.704	46.000
480.080	-0.329	31.286	30.957	-15.043	46.000
635.280	2.141	38.182	40.322	-5.678	46.000
726.460	3.469	36.767	40.236	-5.764	46.000
813.760	5.098	30.799	35.897	-10.103	46.000
881.660	6.307	24.871	31.178	-14.822	46.000
Vertical					
256.980	-7.573	26.875	19.302	-26.698	46.000
359.800	-3.810	28.377	24.567	-21.433	46.000
540.220	0.121	27.265	27.386	-18.614	46.000
635.280	-3.779	38.291	34.511	-11.489	46.000
726.460	-0.171	33.601	33.430	-12.570	46.000
835.100	1.995	26.634	28.629	-17.371	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437 MHz)
-MCU 162MHz (Hynix) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
245.340	-6.346	32.508	26.162	-19.838	46.000
319.060	-4.317	36.890	32.573	-13.427	46.000
480.080	-0.329	30.653	30.324	-15.676	46.000
590.660	3.625	36.165	39.790	-6.210	46.000
726.460	3.469	36.916	40.385	-5.615	46.000
835.100	5.185	29.563	34.748	-11.252	46.000
Vertical					
245.340	-8.406	27.211	18.805	-27.195	46.000
379.200	-1.505	28.835	27.329	-18.671	46.000
540.220	0.121	28.539	28.660	-17.340	46.000
701.240	0.198	33.395	33.593	-12.407	46.000
749.740	2.510	32.738	35.248	-10.752	46.000
891.360	2.218	25.459	27.677	-18.323	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz) -MCU 166MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
322.940	-4.442	35.647	31.205	-14.795	46.000
480.080	-0.329	31.643	31.314	-14.686	46.000
602.300	4.287	31.463	35.750	-10.250	46.000
726.460	3.469	36.099	39.568	-6.432	46.000
823.460	6.122	27.947	34.070	-11.930	46.000
901.060	5.591	27.058	32.649	-13.351	46.000
Vertical					
109.540	-0.418	24.864	24.446	-19.054	43.500
220.120	-8.840	26.761	17.921	-28.079	46.000
359.800	-3.810	28.863	25.053	-20.947	46.000
540.220	0.121	28.924	29.045	-16.955	46.000
676.020	0.041	29.568	29.609	-16.391	46.000
749.740	2.510	32.476	34.986	-11.014	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz) -MCU 166MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
322.940	-4.442	36.578	32.136	-13.864	46.000
419.940	-3.234	27.071	23.837	-22.163	46.000
540.220	2.551	31.235	33.786	-12.214	46.000
676.020	2.911	35.056	37.967	-8.033	46.000
774.960	4.187	33.652	37.839	-8.161	46.000
901.060	5.591	25.465	31.056	-14.944	46.000
Vertical					
256.980	-7.573	25.959	18.386	-27.614	46.000
359.800	-3.810	28.574	24.764	-21.236	46.000
540.220	0.121	27.856	27.977	-18.023	46.000
701.240	0.198	34.180	34.378	-11.622	46.000
798.240	2.808	27.067	29.875	-16.125	46.000
934.040	5.792	25.022	30.814	-15.186	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) (2437 MHz)
-MCU 166MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
245.340	-6.346	32.746	26.400	-19.600	46.000
322.940	-4.442	35.780	31.338	-14.662	46.000
466.500	0.794	26.552	27.345	-18.655	46.000
540.220	2.551	32.552	35.103	-10.897	46.000
627.520	1.660	31.880	33.540	-12.460	46.000
749.740	3.320	35.427	38.747	-7.253	46.000
Vertical					
208.480	-7.792	26.969	19.176	-24.324	43.500
344.280	-3.171	28.318	25.148	-20.852	46.000
462.620	-3.838	23.198	19.360	-26.640	46.000
540.220	0.121	28.488	28.609	-17.391	46.000
676.020	0.041	30.249	30.290	-15.710	46.000
891.360	2.218	25.147	27.365	-18.635	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) (2437 MHz)
-MCU 166MHz (winbond) (Adapter- M/N: WA-24E12FU)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
220.120	-10.520	36.904	26.384	-19.616	46.000
322.940	-4.442	35.698	31.256	-14.744	46.000
480.080	-0.329	30.788	30.459	-15.541	46.000
602.300	4.287	30.832	35.119	-10.881	46.000
726.460	3.469	36.667	40.136	-5.864	46.000
823.460	6.122	27.817	33.940	-12.060	46.000
Vertical					
119.240	-3.541	28.097	24.556	-18.944	43.500
256.980	-7.573	27.817	20.244	-25.756	46.000
377.260	-1.765	25.618	23.853	-22.147	46.000
540.220	0.121	28.162	28.283	-17.717	46.000
701.240	0.198	33.944	34.142	-11.858	46.000
798.240	2.808	27.338	30.146	-15.854	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437MHz) (Adapter- M/N: WA-24E12)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
119.240	-9.621	42.786	33.165	-10.335	43.500
353.980	-2.472	39.612	37.140	-8.860	46.000
480.080	-0.329	32.910	32.581	-13.419	46.000
608.120	4.384	33.717	38.101	-7.899	46.000
699.300	2.875	34.244	37.119	-8.881	46.000
831.220	6.121	29.101	35.222	-10.778	46.000
Vertical					
99.840	-0.021	32.517	32.496	-11.004	43.500
202.660	-7.739	41.219	33.480	-10.020	43.500
480.080	-4.359	30.597	26.238	-19.762	46.000
666.320	-1.809	33.164	31.356	-14.644	46.000
747.800	2.166	32.529	34.695	-11.305	46.000
875.840	1.621	27.949	29.570	-16.430	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437MHz) (Adapter- M/N: WA-24E12)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
95.960	-7.820	46.396	38.576	-4.924	43.500
119.240	-9.621	42.159	32.538	-10.962	43.500
309.360	-3.740	40.863	37.123	-8.877	46.000
480.080	-0.329	37.181	36.852	-9.148	46.000
608.120	4.384	33.878	38.262	-7.738	46.000
720.640	3.511	31.515	35.026	-10.974	46.000
Vertical					
119.240	-3.541	37.649	34.108	-9.392	43.500
317.120	-6.895	42.839	35.944	-10.056	46.000
499.480	-0.852	34.391	33.539	-12.461	46.000
664.380	-1.918	34.864	32.946	-13.054	46.000
809.880	3.279	25.715	28.994	-17.006	46.000
928.220	6.203	27.376	33.579	-12.421	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band)(2437MHz)
(Adapter- M/N: WA-24E12)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
119.240	-9.621	42.853	33.232	-10.268	43.500
359.800	-1.680	40.978	39.298	-6.702	46.000
507.240	0.759	40.320	41.079	-4.921	46.000
608.120	4.384	34.289	38.673	-7.327	46.000
720.640	3.511	30.749	34.260	-11.740	46.000
798.240	5.148	31.302	36.450	-9.550	46.000
Vertical					
109.540	-0.418	29.929	29.511	-13.989	43.500
289.960	-8.267	43.546	35.279	-10.721	46.000
491.720	-2.833	31.565	28.731	-17.269	46.000
664.380	-1.918	37.748	35.830	-10.170	46.000
749.740	2.510	30.514	33.024	-12.976	46.000
829.280	2.864	34.147	37.011	-8.989	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 : PR1 Receiver
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band)(2437MHz)
(Adapter- M/N: WA-24E12)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
119.240	-9.621	42.559	32.938	-10.562	43.500
202.660	-10.889	45.889	35.000	-8.500	43.500
359.800	-1.680	41.197	39.517	-6.483	46.000
480.080	-0.329	36.735	36.406	-9.594	46.000
608.120	4.384	35.432	39.816	-6.184	46.000
798.240	5.148	31.441	36.589	-9.411	46.000
Vertical					
103.720	-0.151	33.966	33.814	-9.686	43.500
204.600	-7.666	44.181	36.514	-6.986	43.500
381.140	-1.558	37.528	35.970	-10.030	46.000
499.480	-0.852	36.212	35.360	-10.640	46.000
608.120	-1.576	35.556	33.980	-12.020	46.000
749.740	2.510	31.009	33.519	-12.481	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.

5. RF antenna conducted test

5.1. Test Equipment

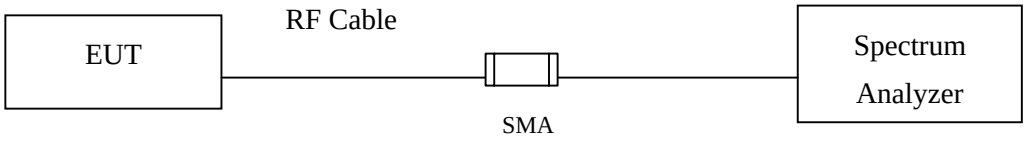
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2012
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2012
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2012

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 20 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 ANSI C63.10: 2009 for compliance to FCC 47CFR 15.247 requirements.

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

5.5. Uncertainty

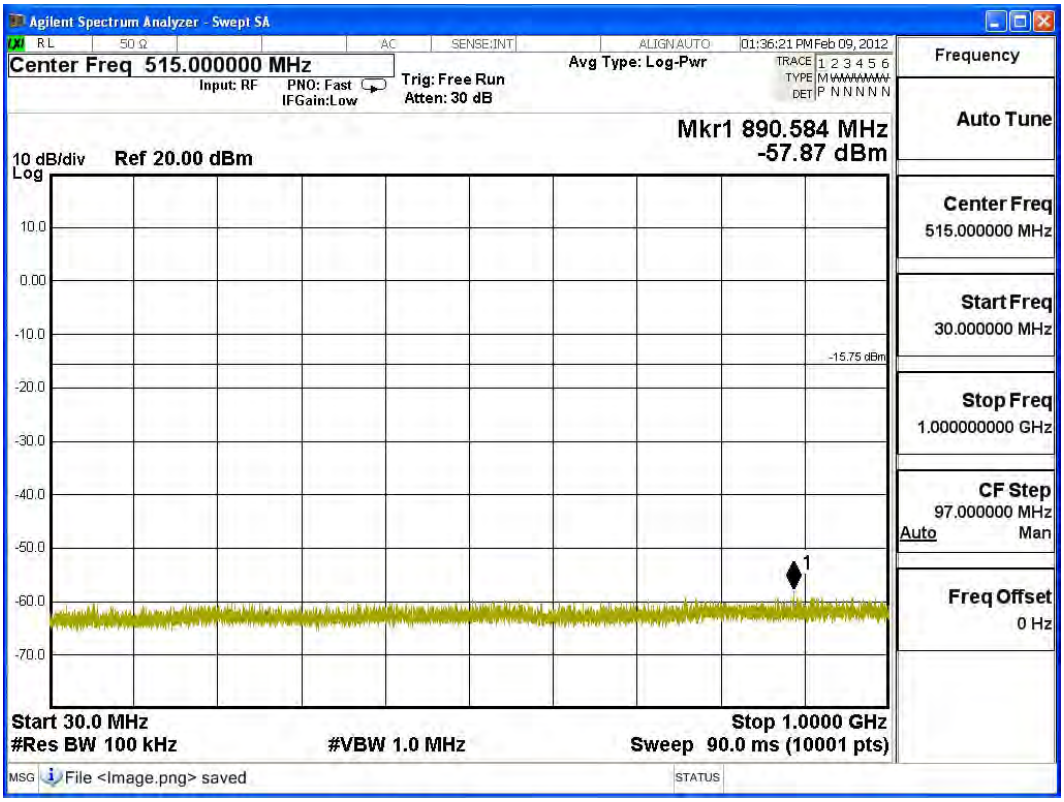
The measurement uncertainty

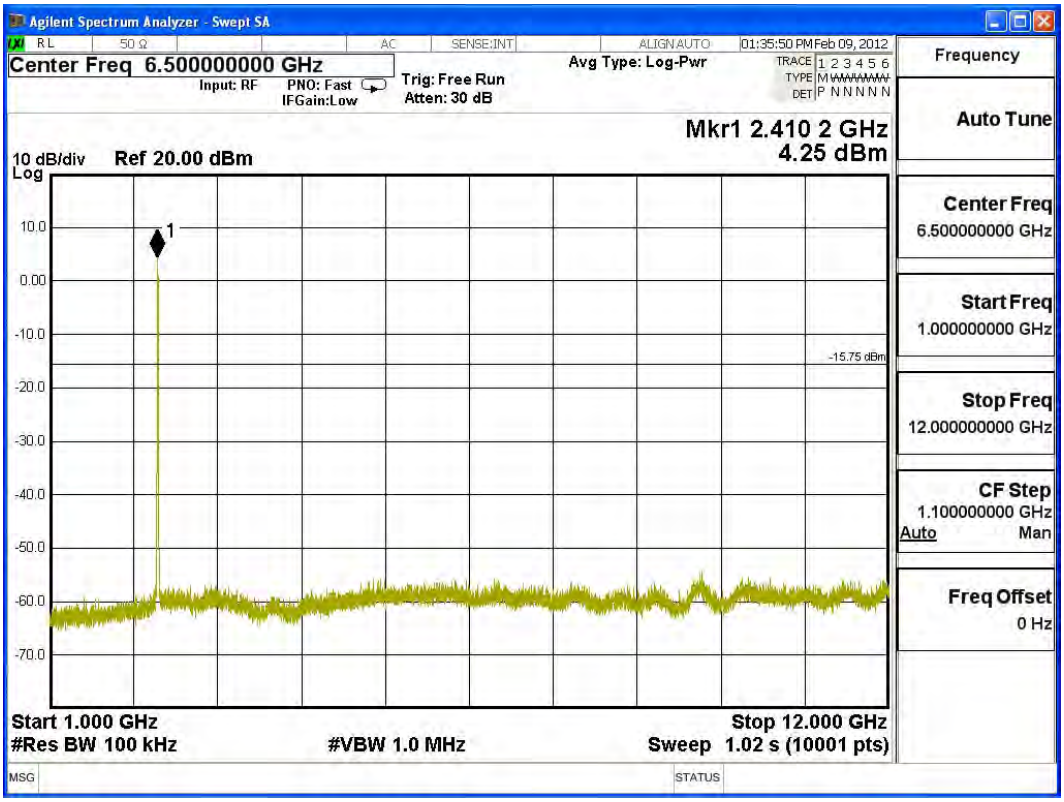
Conducted is defined as ± 1.27dB

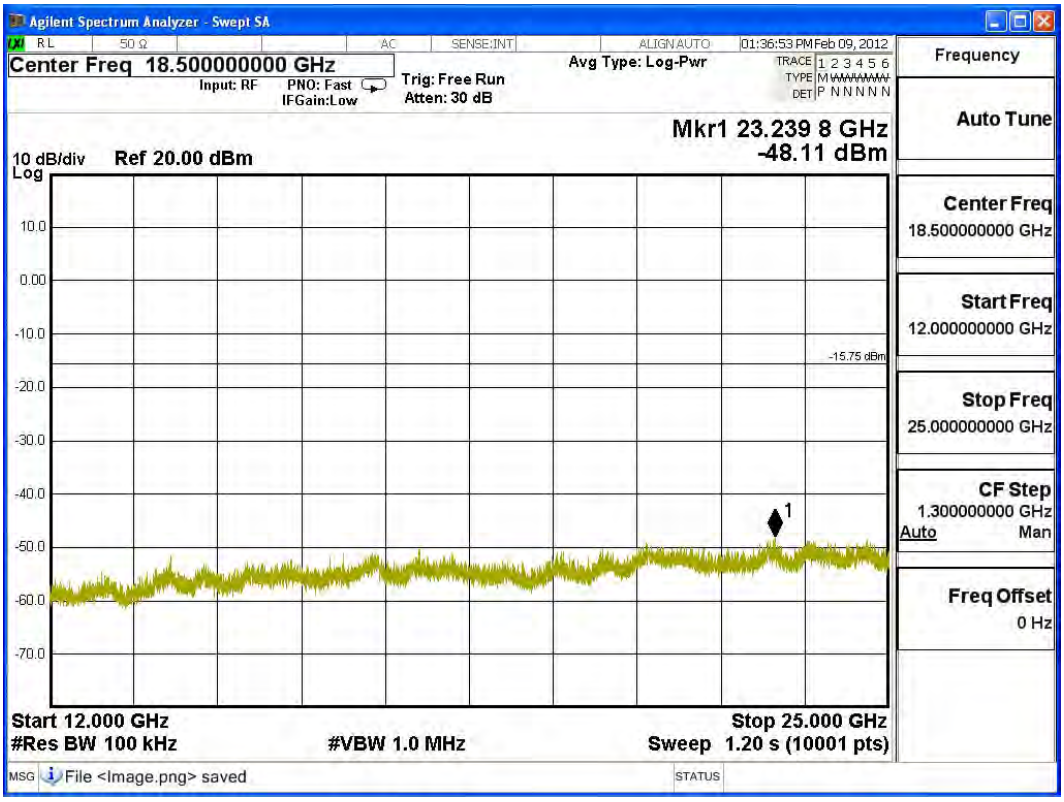
5.6. Test Result of RF antenna conducted test

Product : PR1 Receiver
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) -MCU 162MHz

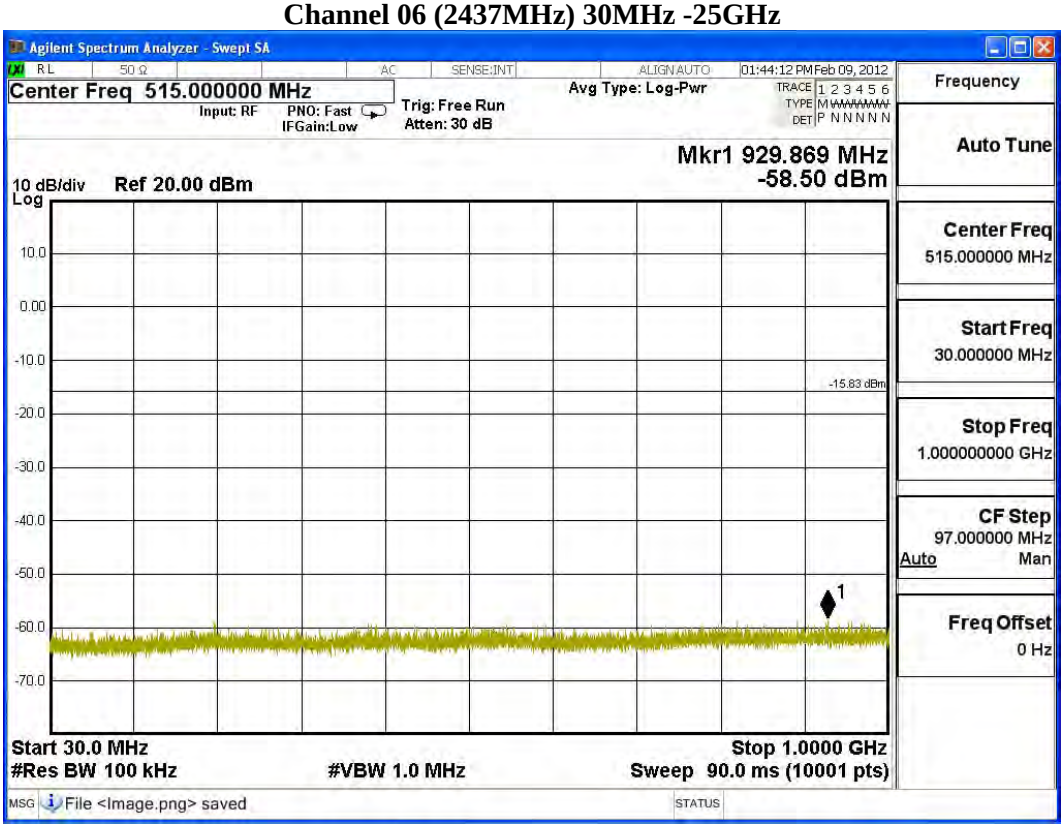
Channel 01 (2412MHz) 30MHz-25GHz

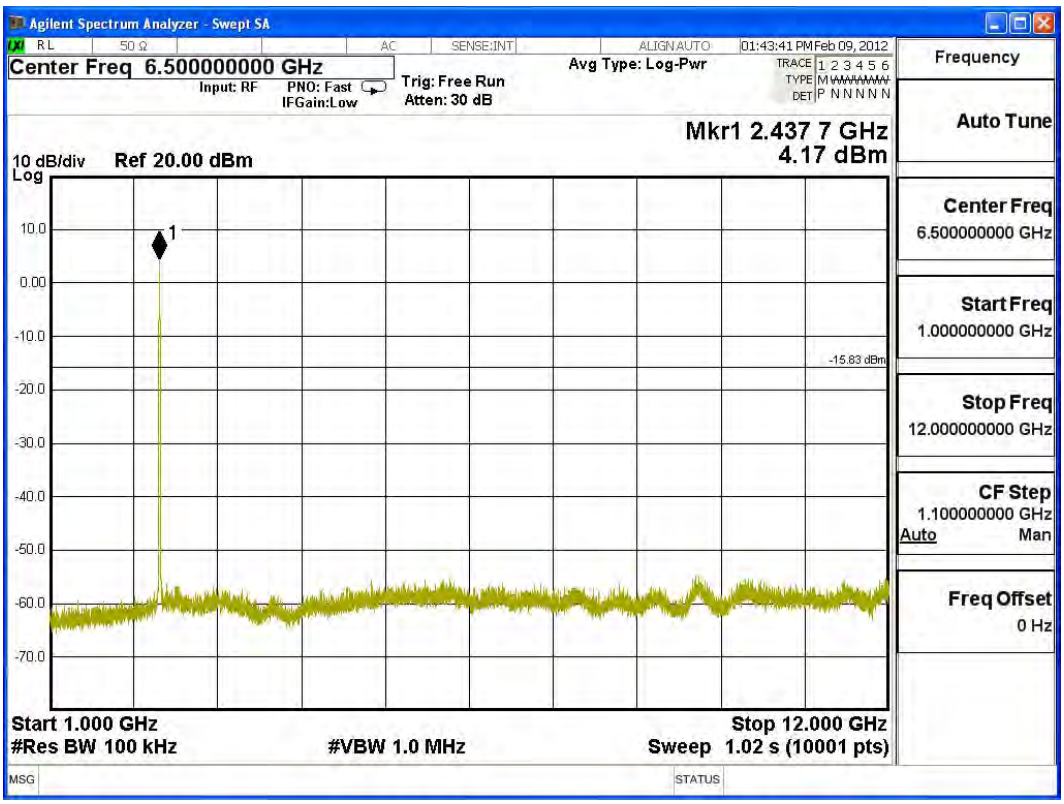


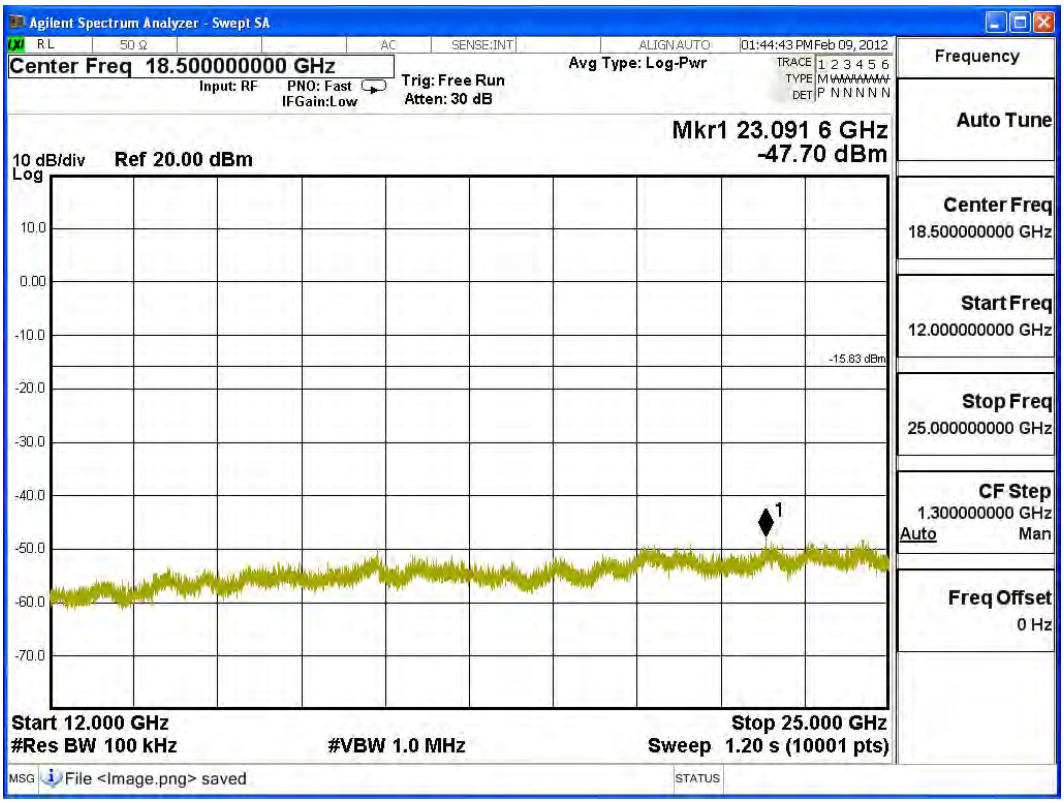

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
01:35:50 PM Feb 09, 2012
Mkr1 2.410 2 GHz
4.25 dBm
10 dB/div
Log
Ref 20.00 dBm
-15.75 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
01:36:53 PM Feb 09, 2012
Mkr1 23.239 8 GHz
-48.11 dBm
10 dB/div
Log
Ref 20.00 dBm
-15.75 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

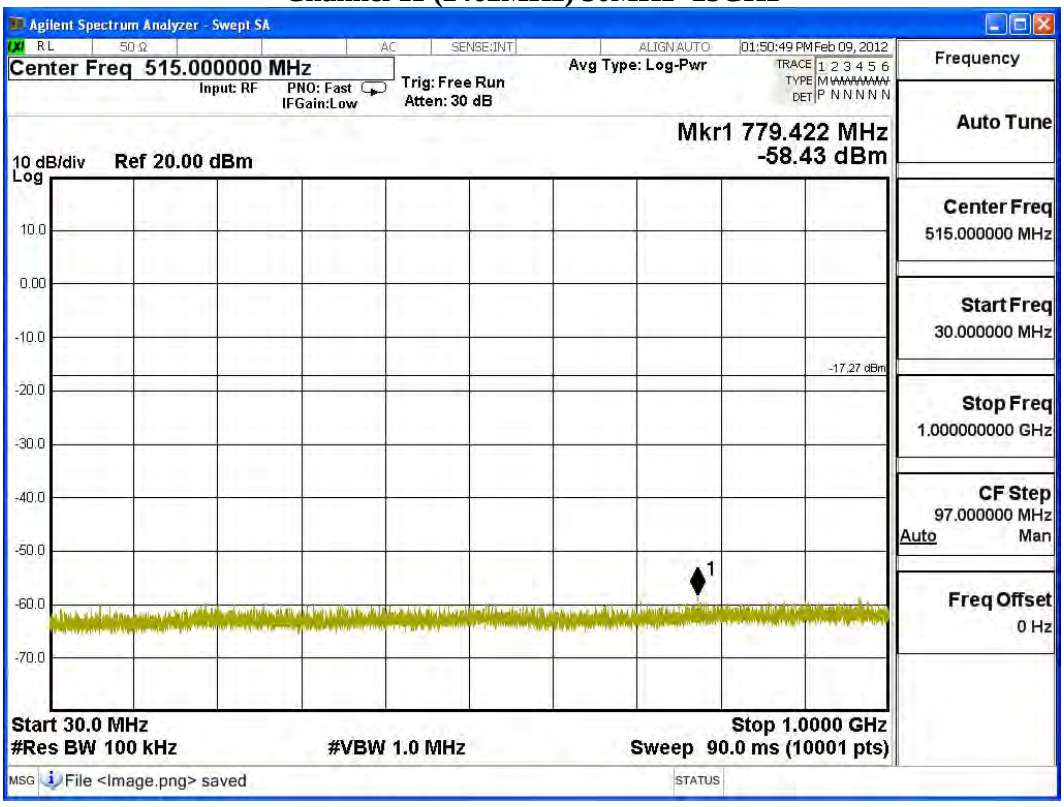
Channel 06 (2437MHz) 30MHz -25GHz

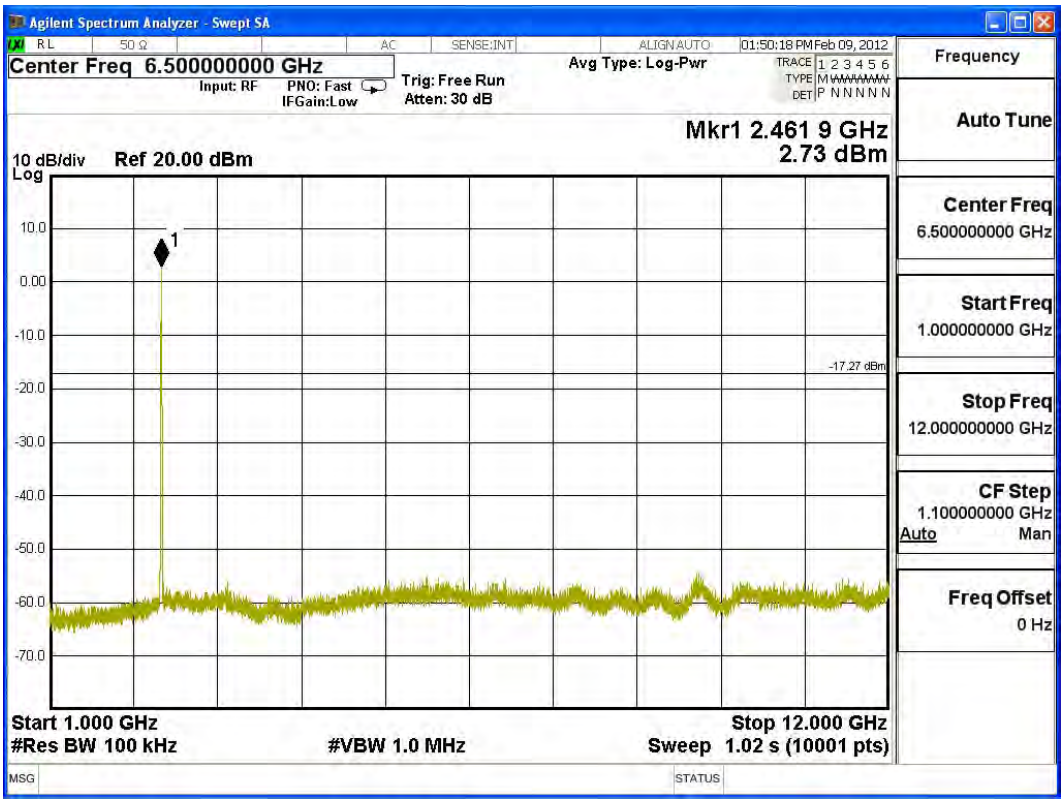


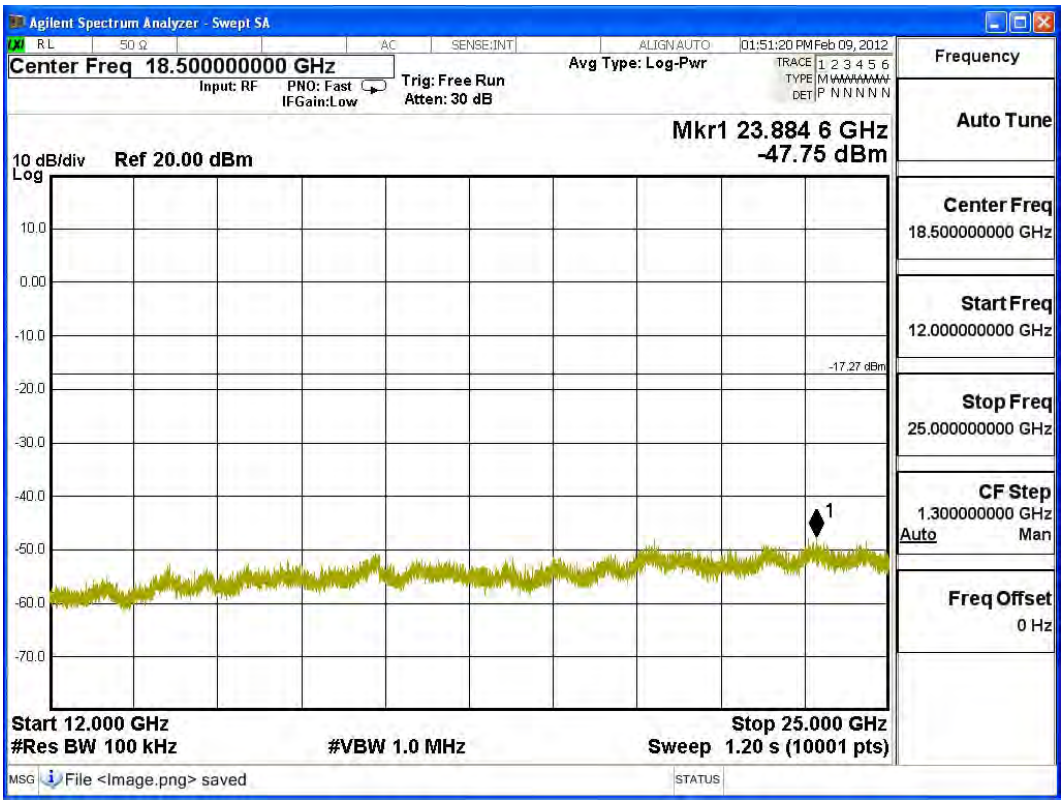




Channel 11 (2462MHz) 30MHz -25GHz

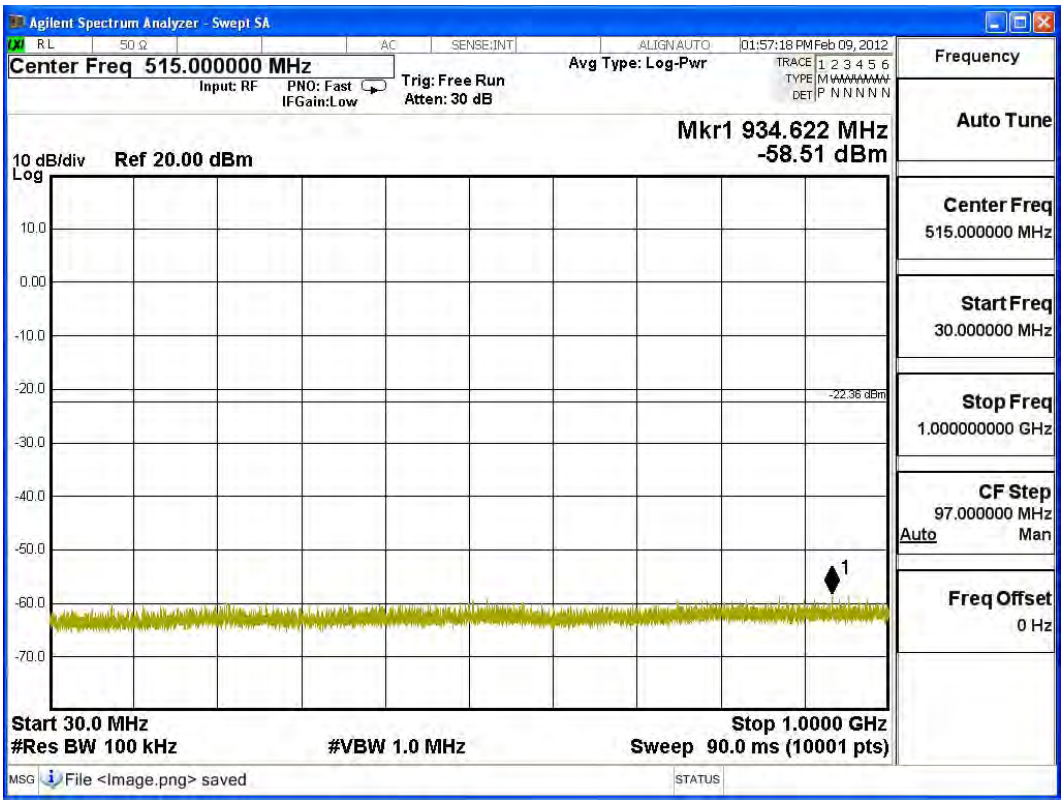


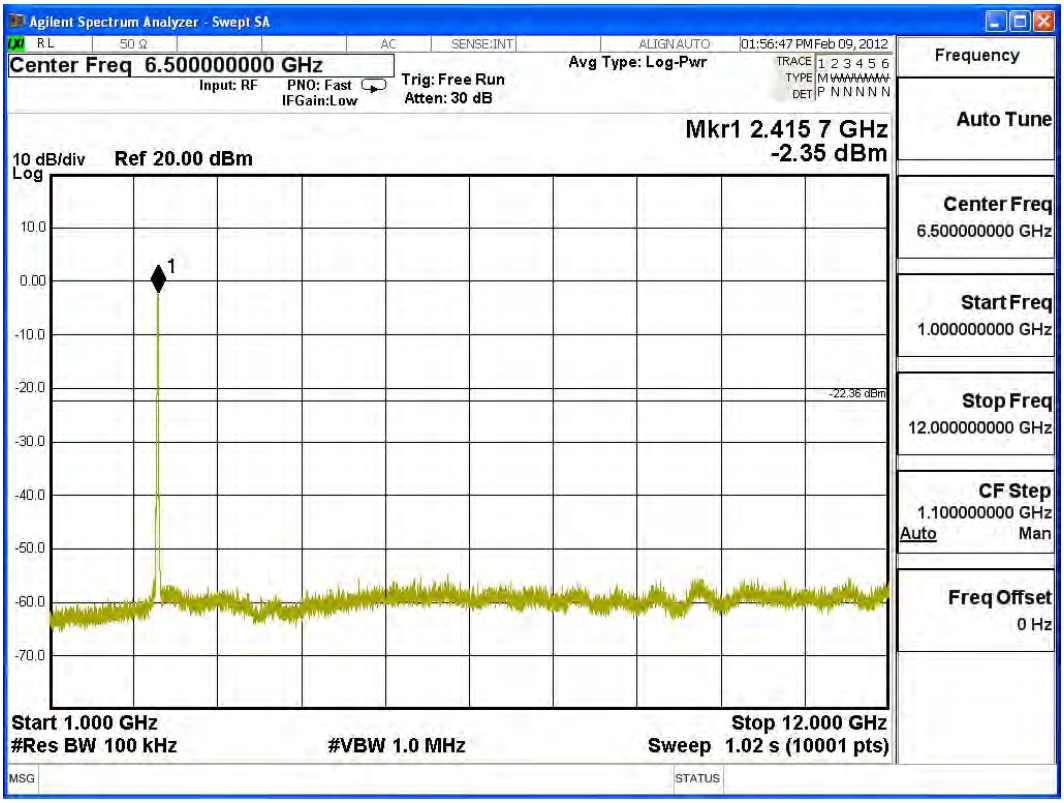

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:50:18 PM Feb 09, 2012
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.461 9 GHz
2.73 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-17.27 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz

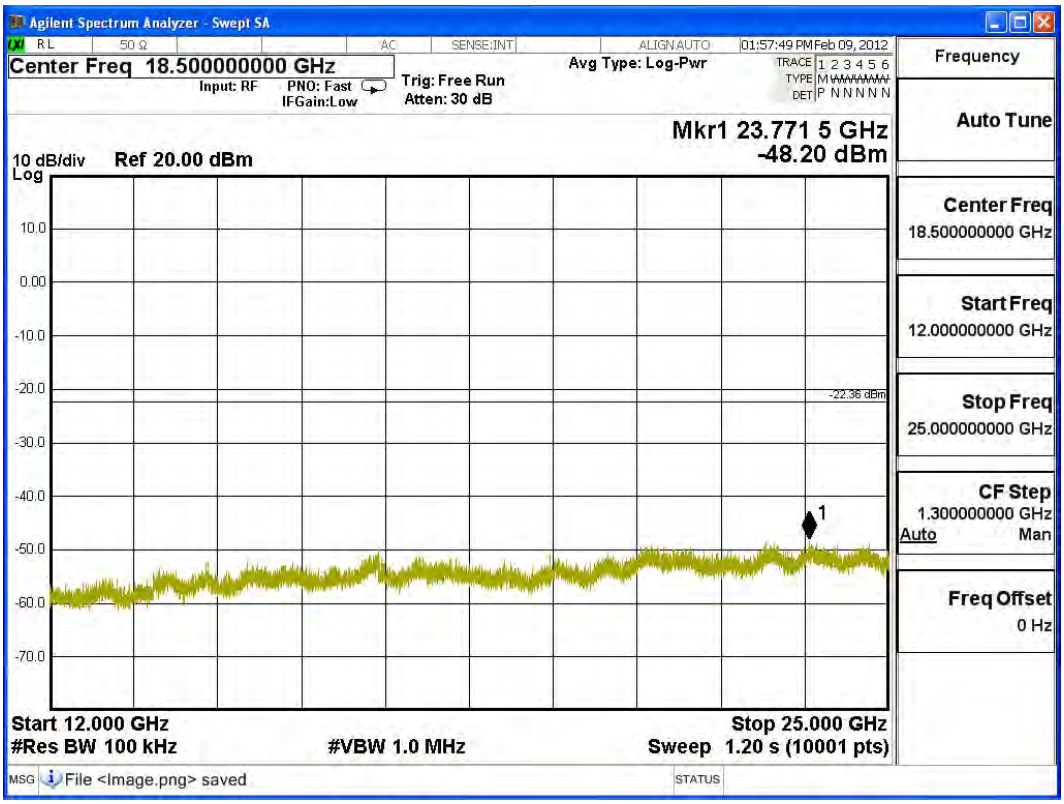

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:51:20 PM Feb 09, 2012
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 23.884 6 GHz
-47.75 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-17.27 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
MSG
File <Image.png> saved
STATUS
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

Product : PR1 Receiver
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) -MCU 162MHz

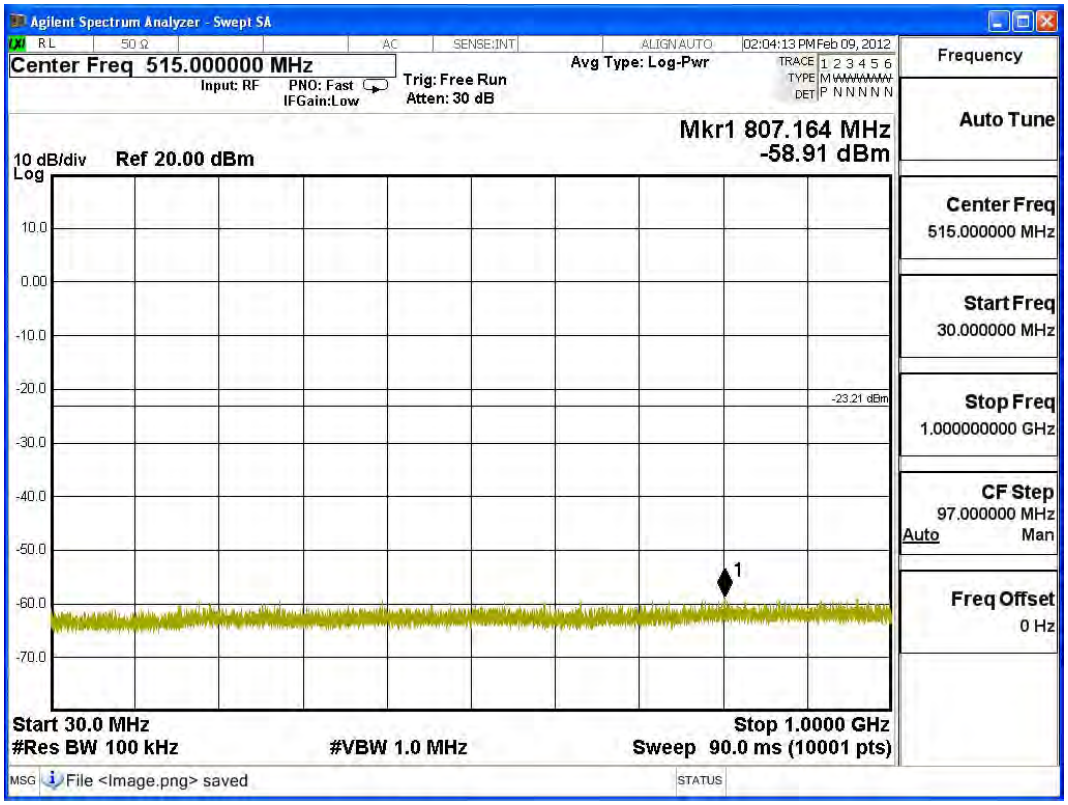
Channel 01 (2412MHz) 30MHz -25GHz

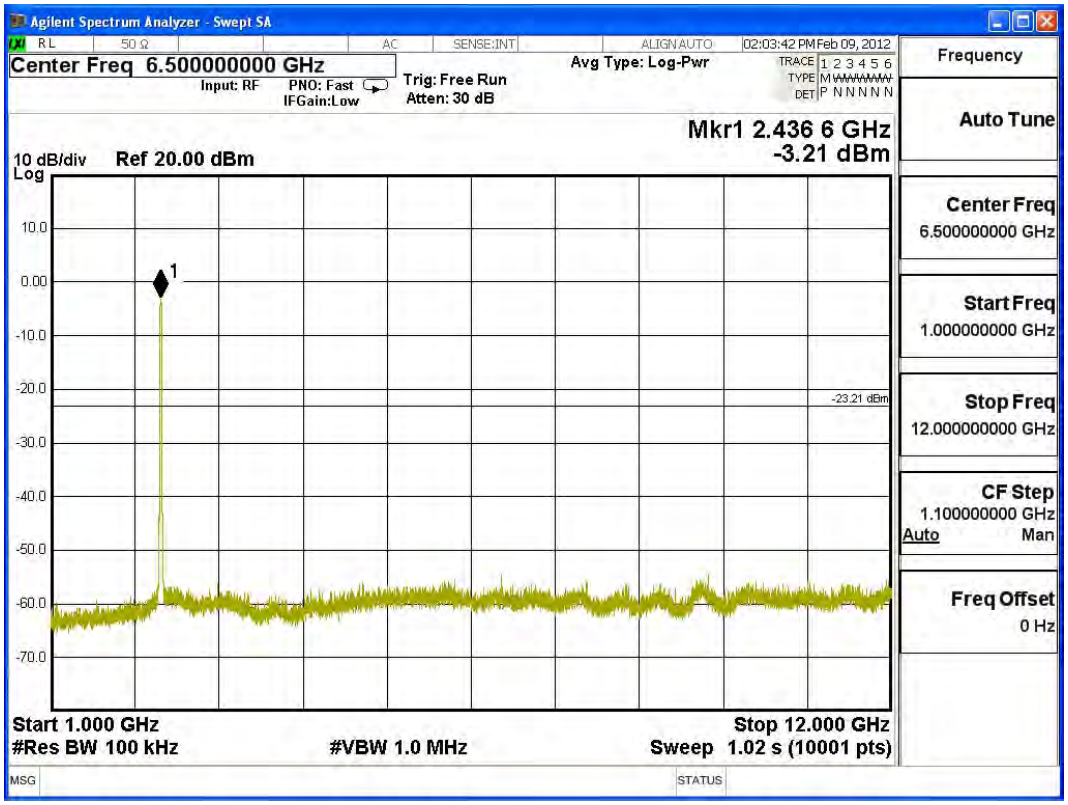


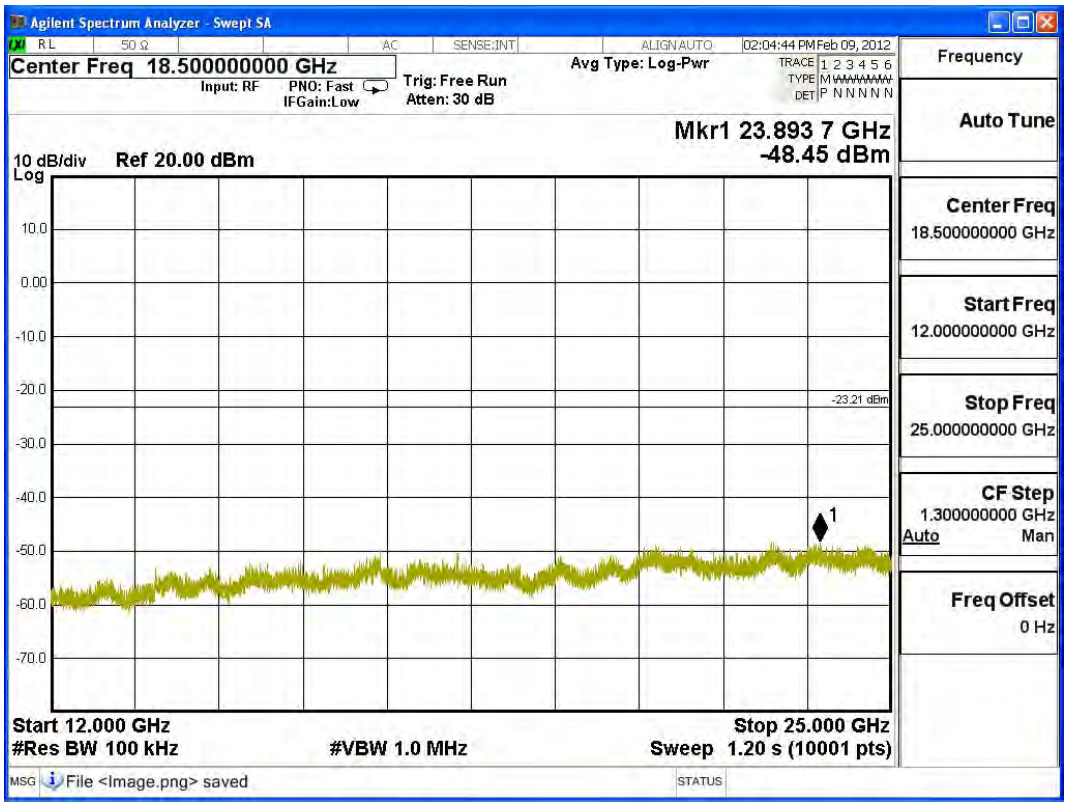

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
01:56:47 PM Feb 09, 2012
Mkr1 2.415 7 GHz
-2.35 dBm
10 dB/div
Log
Ref 20.00 dBm
-22.36 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
01:57:49 PM Feb 09, 2012
Mkr1 23.771 5 GHz
-48.20 dBm
10 dB/div
Log
Ref 20.00 dBm
-22.36 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

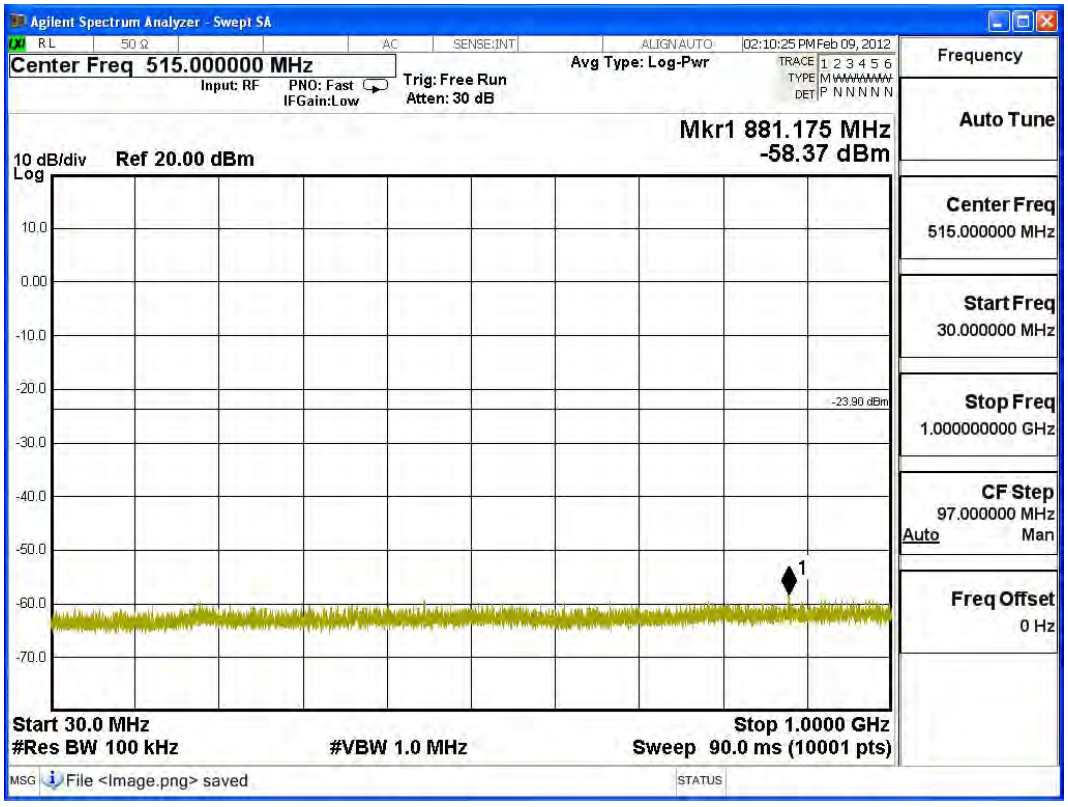
Channel 06 (2437MHz) 30MHz -25GHz

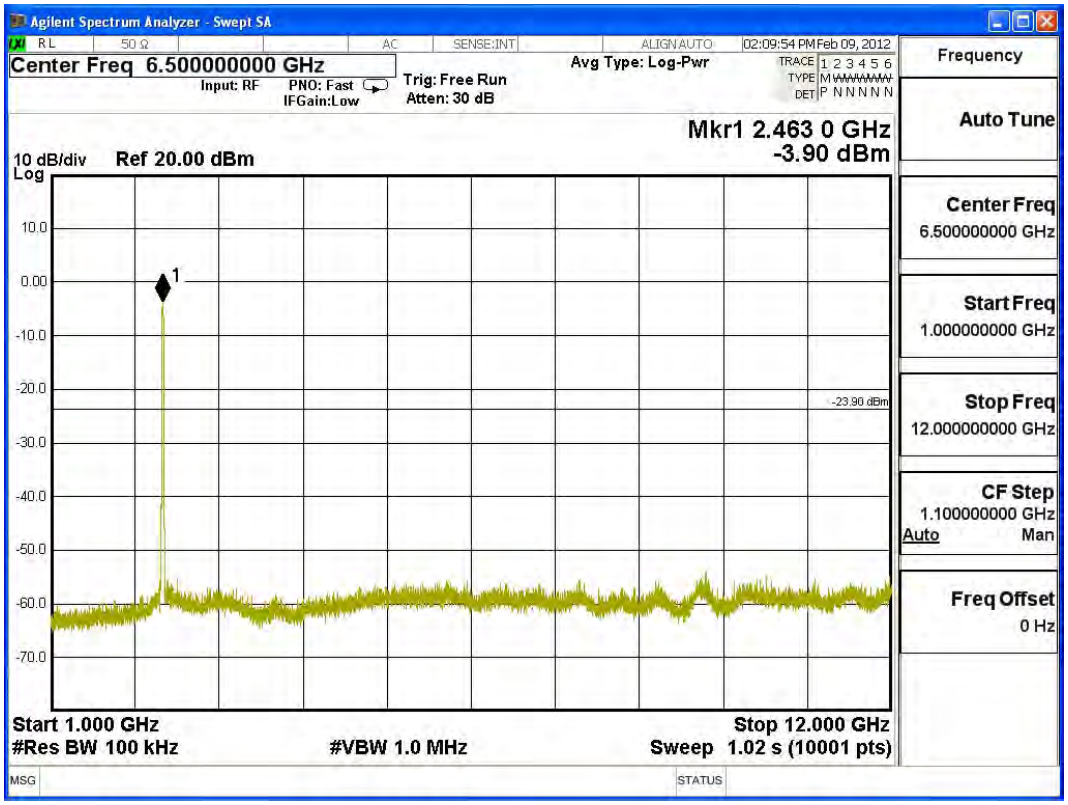


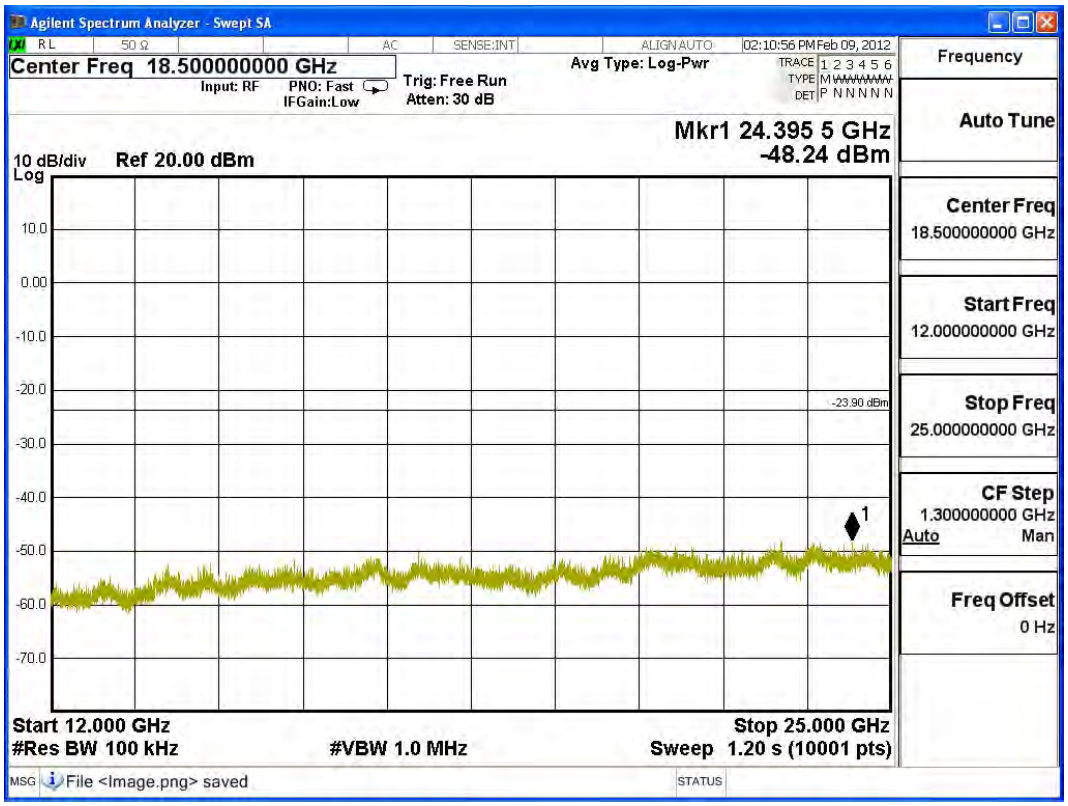




Channel 11 (2462MHz) 30MHz -25GHz

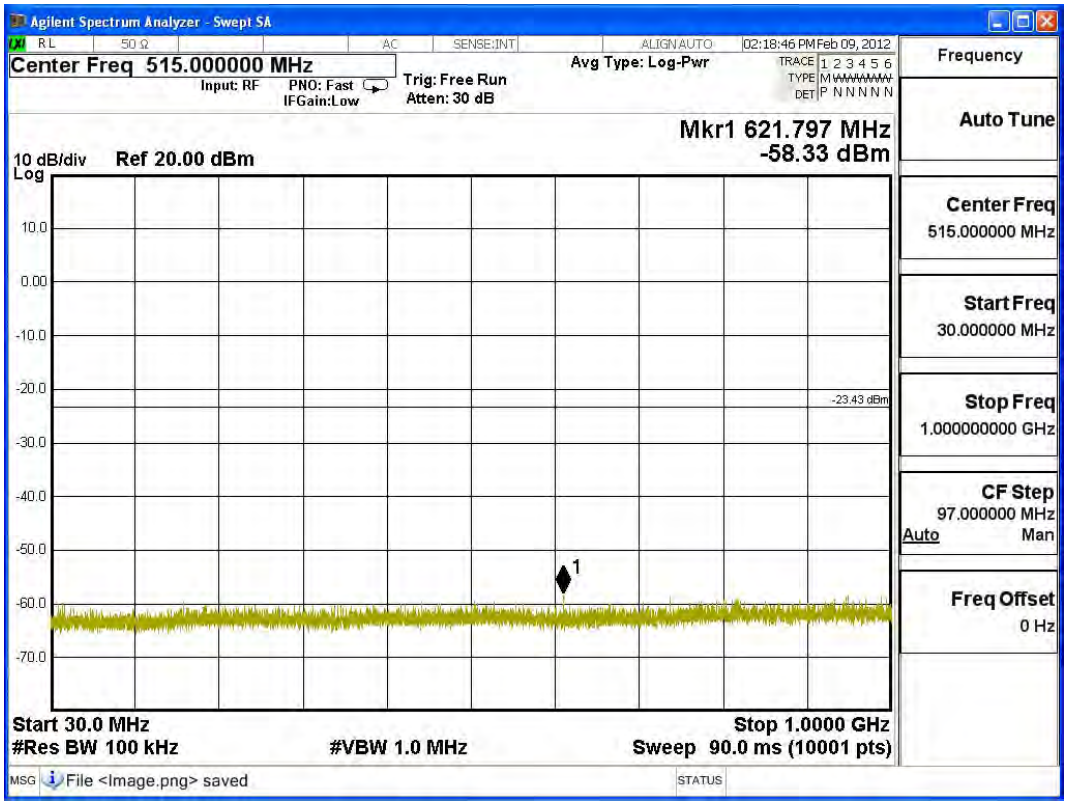


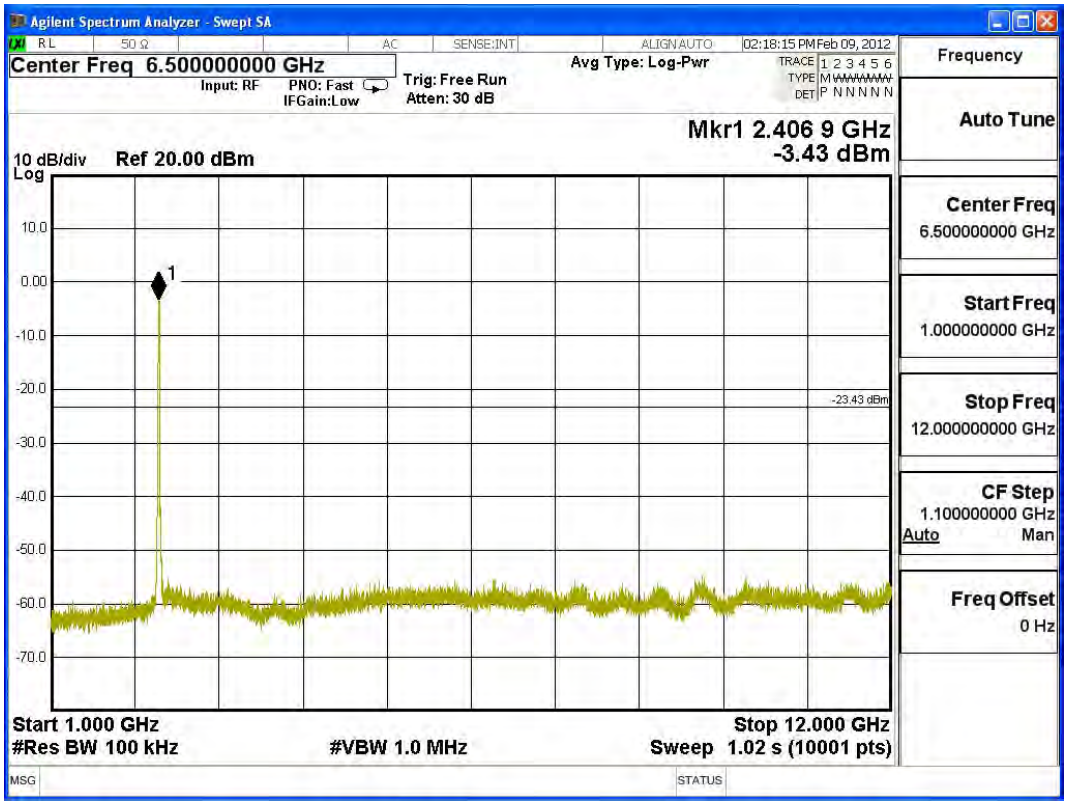

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
02:09:54 PM Feb 09, 2012
Mkr1 2.463 0 GHz
-3.90 dBm
10 dB/div
Log
Ref 20.00 dBm
-23.90 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

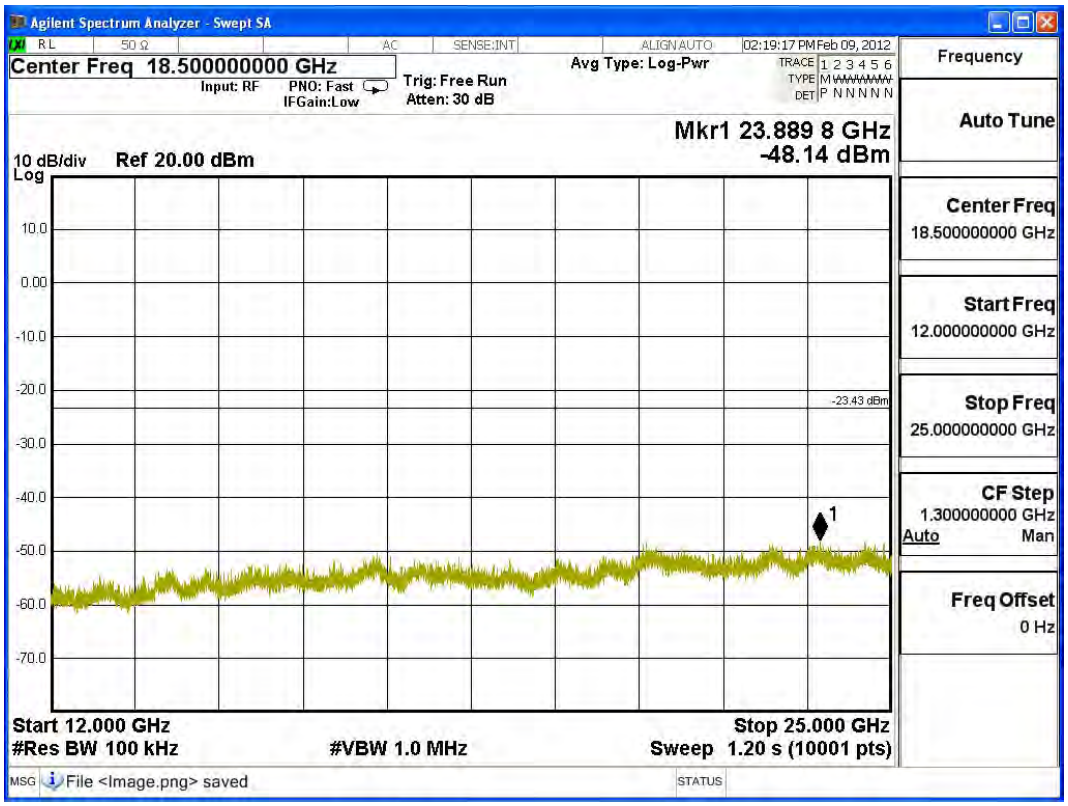

Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
02:10:56 PM Feb 09, 2012
Mkr1 24.395 5 GHz
-48.24 dBm
10 dB/div
Log
Ref 20.00 dBm
-23.90 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
File <Image.png> saved
STATUS

Product : PR1 Receiver
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) -MCU 162MHz

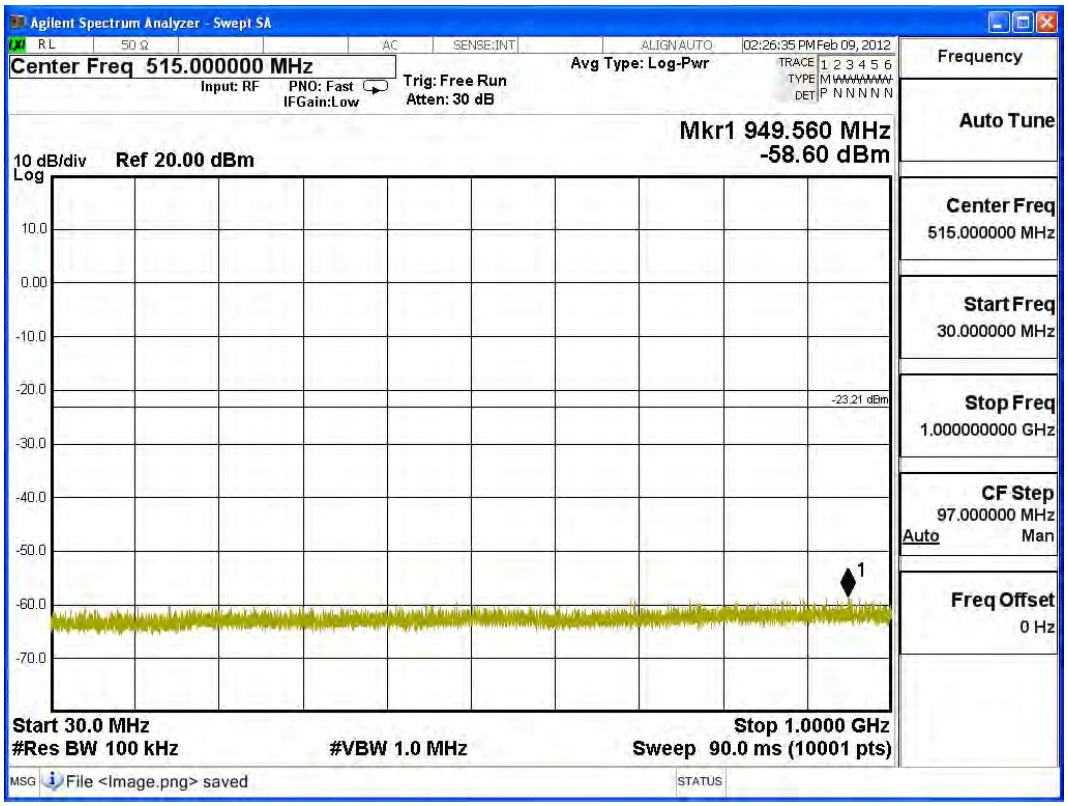
Channel 01 (2412MHz) 30MHz -25GHz

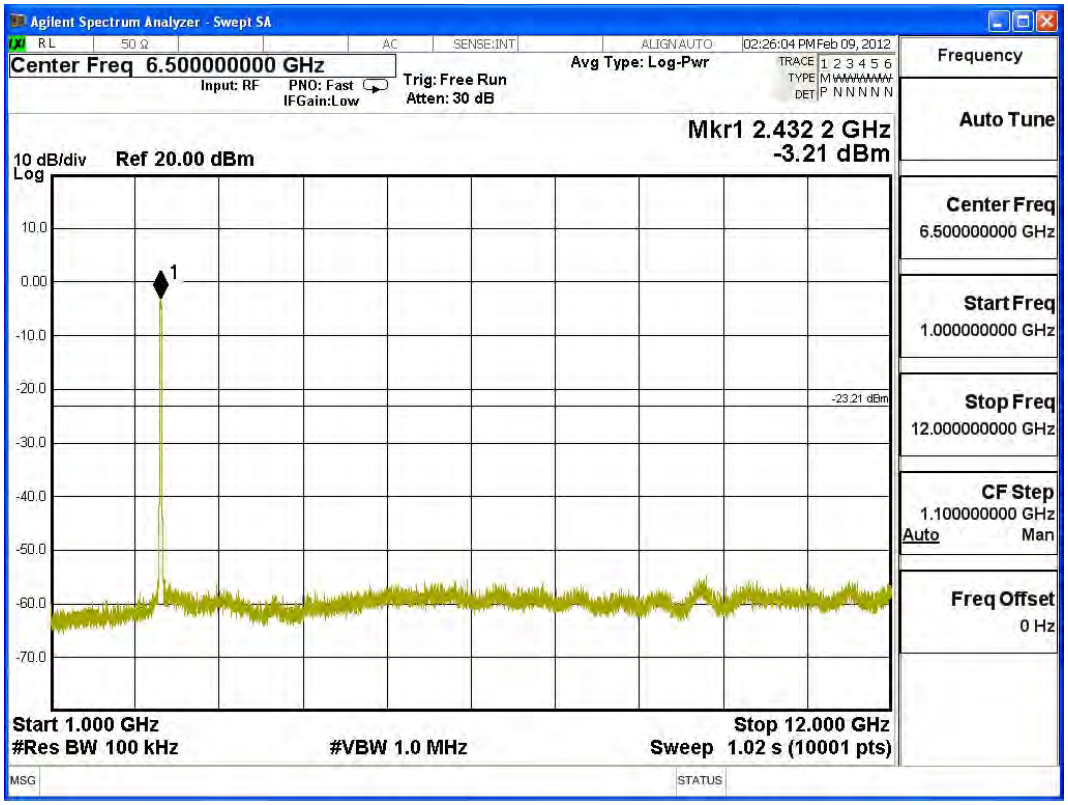


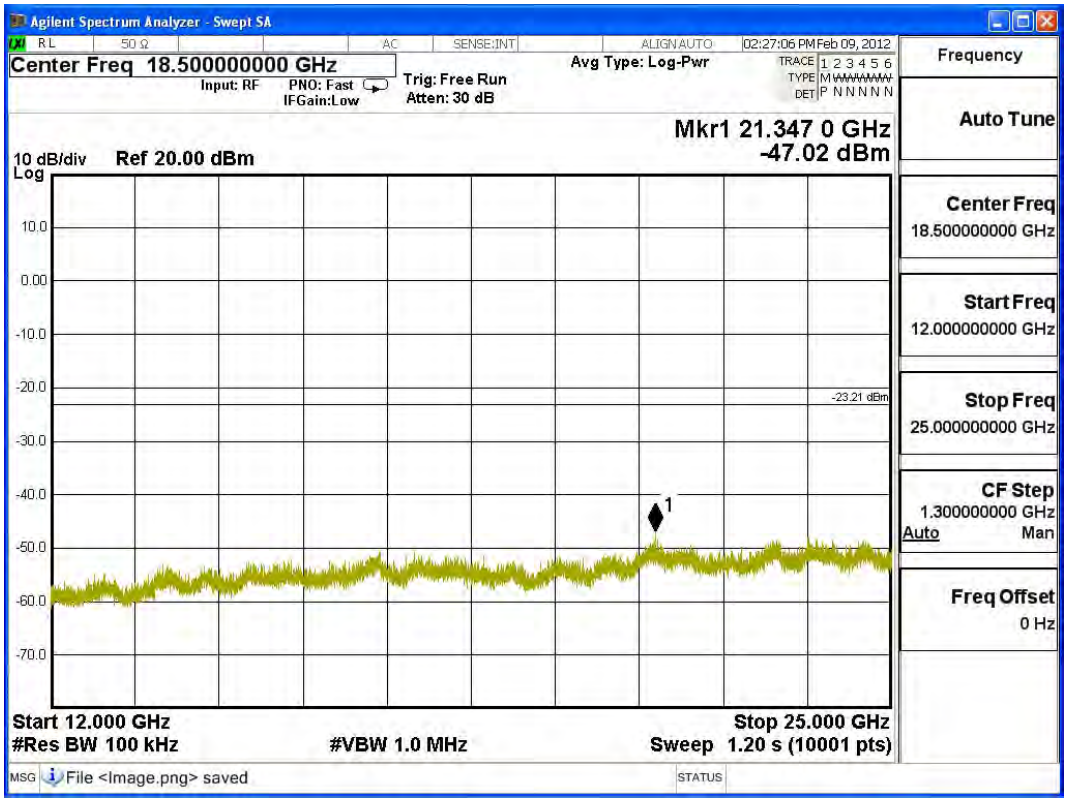

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
02:18:15 PM Feb 09, 2012
Mkr1 2.406 9 GHz
-3.43 dBm
10 dB/div
Log
Ref 20.00 dBm
-23.43 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
02:19:17 PM Feb 09, 2012
Mkr1 23.889 8 GHz
-48.14 dBm
10 dB/div
Log
Ref 20.00 dBm
-23.43 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

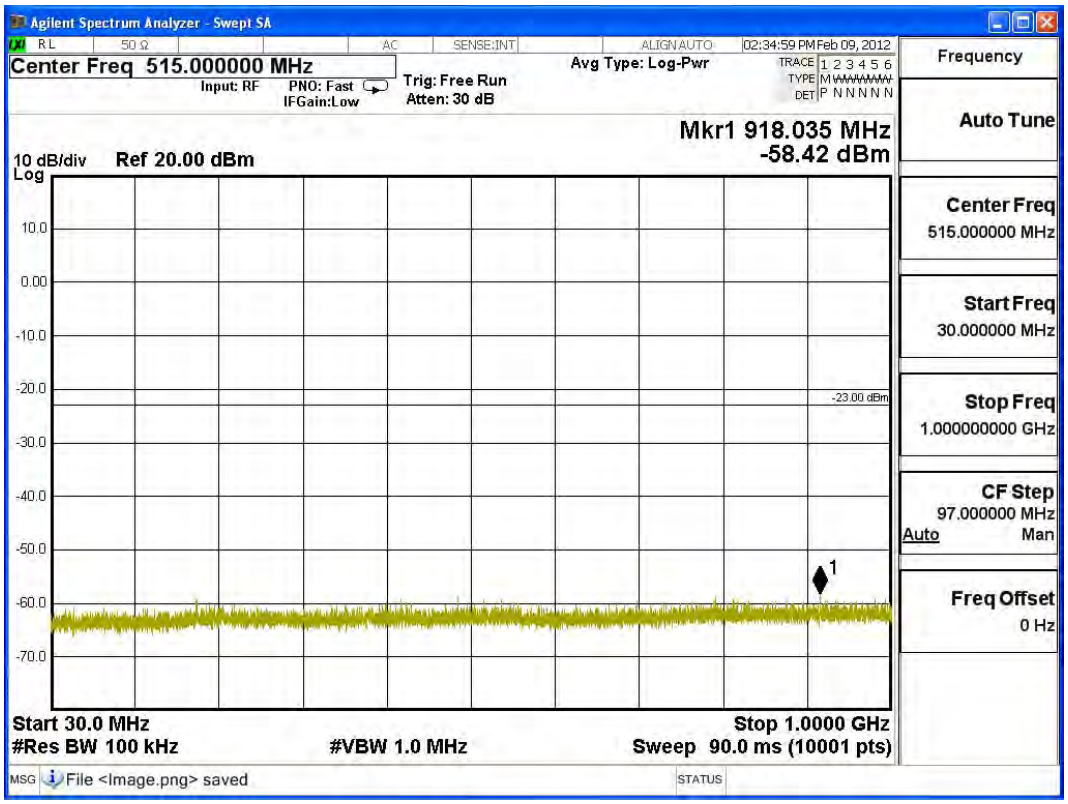
Channel 06 (2437MHz) 30MHz -25GHz

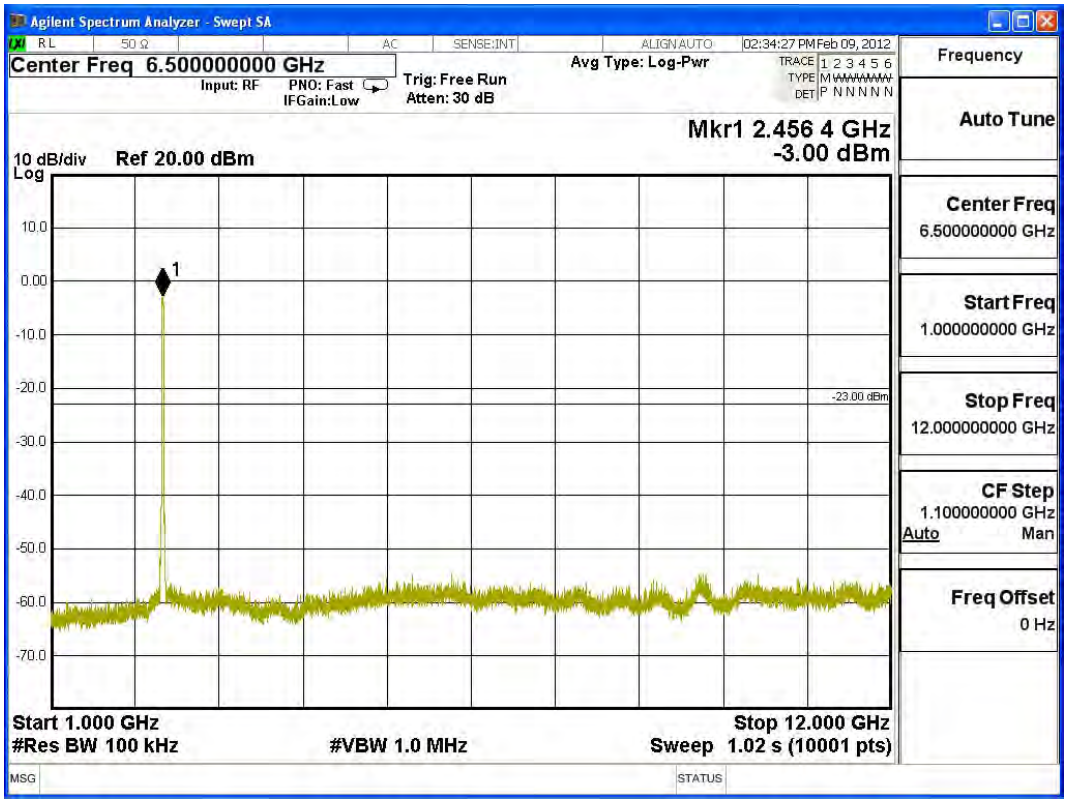


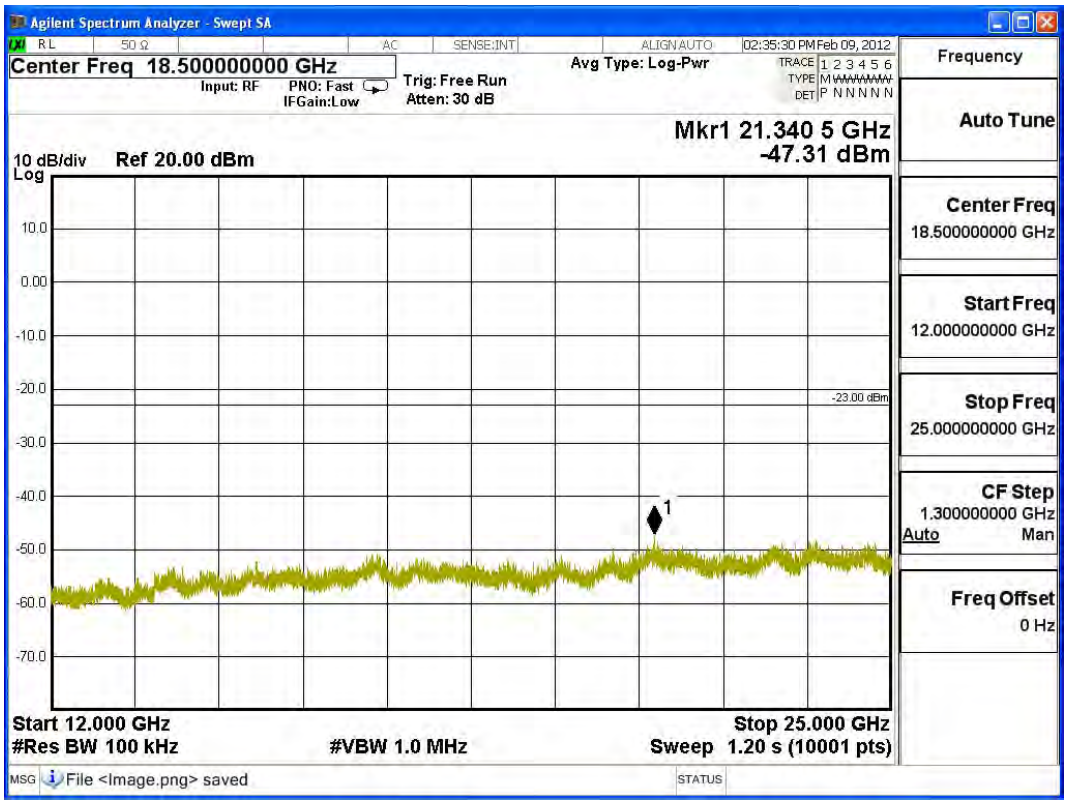




Channel 11 (2462MHz) 30MHz -25GHz

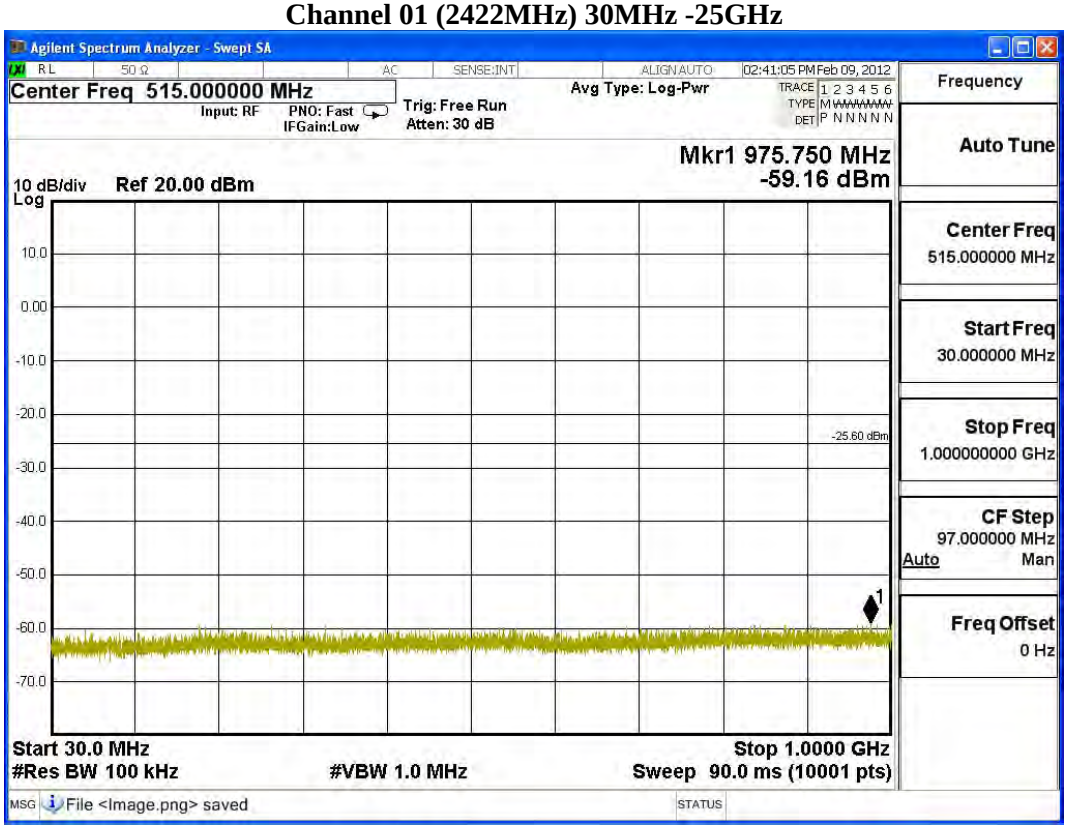


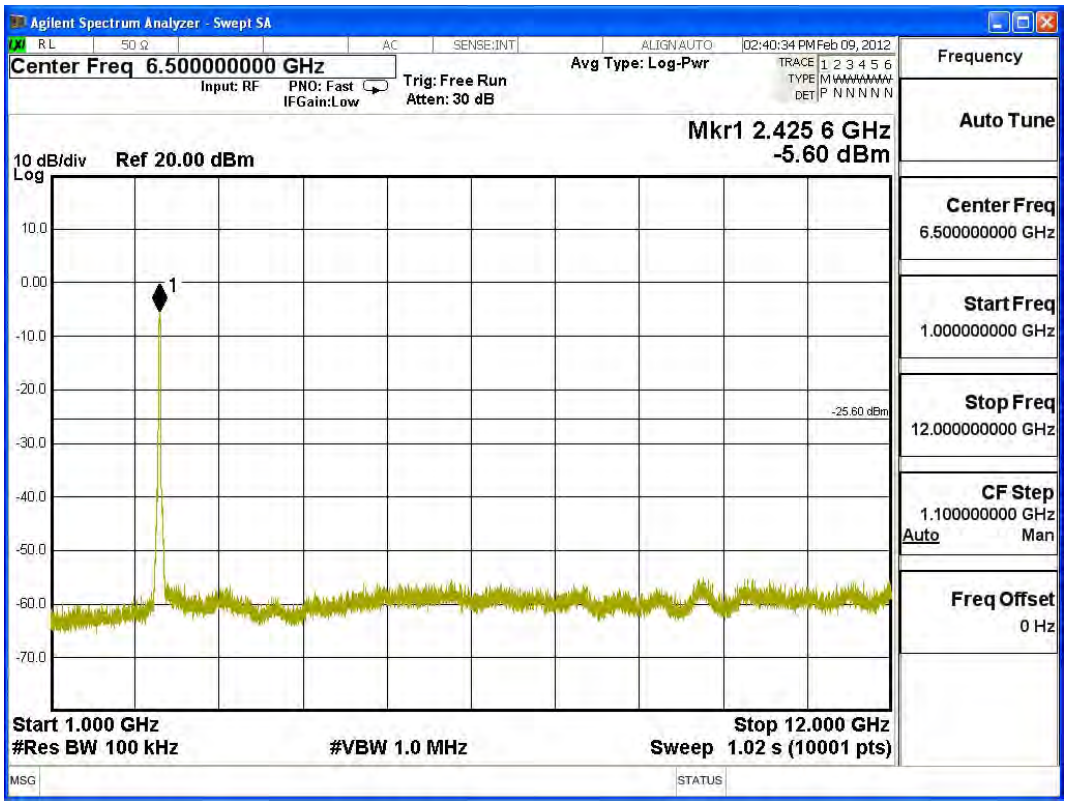

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
02:34:27 PM Feb 09, 2012
Mkr1 2.456 4 GHz
-3.00 dBm
10 dB/div
Log
Ref 20.00 dBm
-23.00 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz

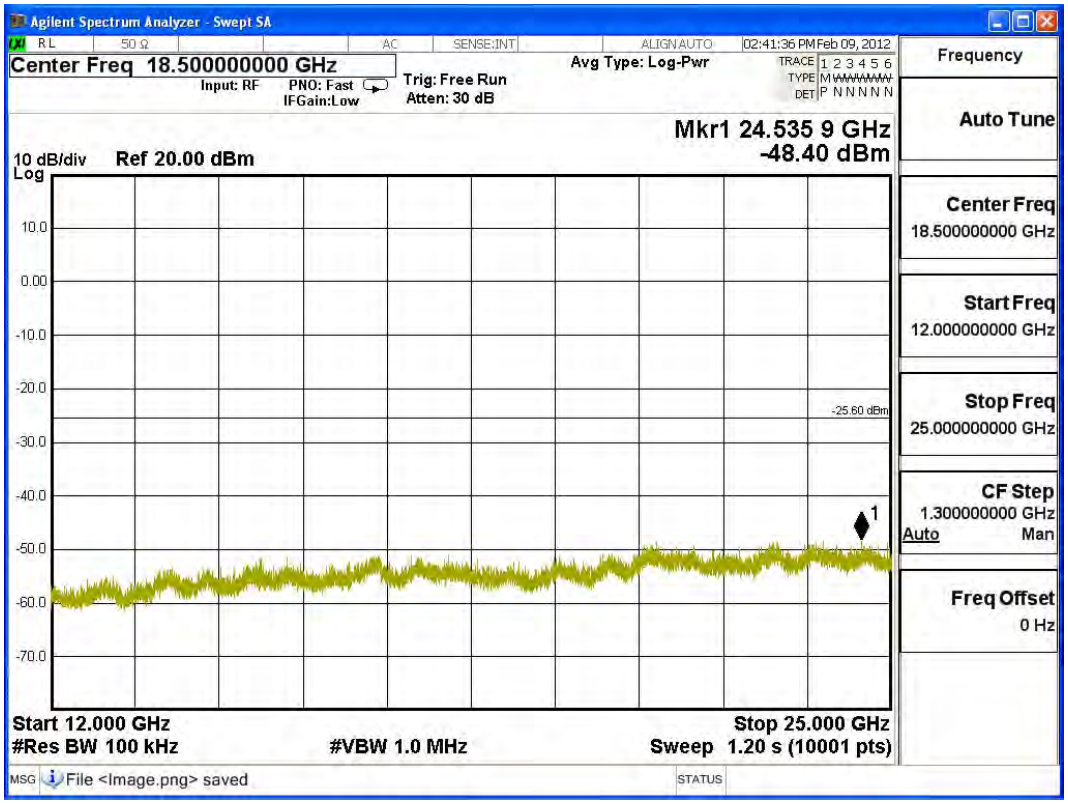

Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
02:35:30 PM Feb 09, 2012
Mkr1 21.340 5 GHz
-47.31 dBm
10 dB/div
Log
Ref 20.00 dBm
-23.00 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

Product : PR1 Receiver
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) -MCU 162MHz

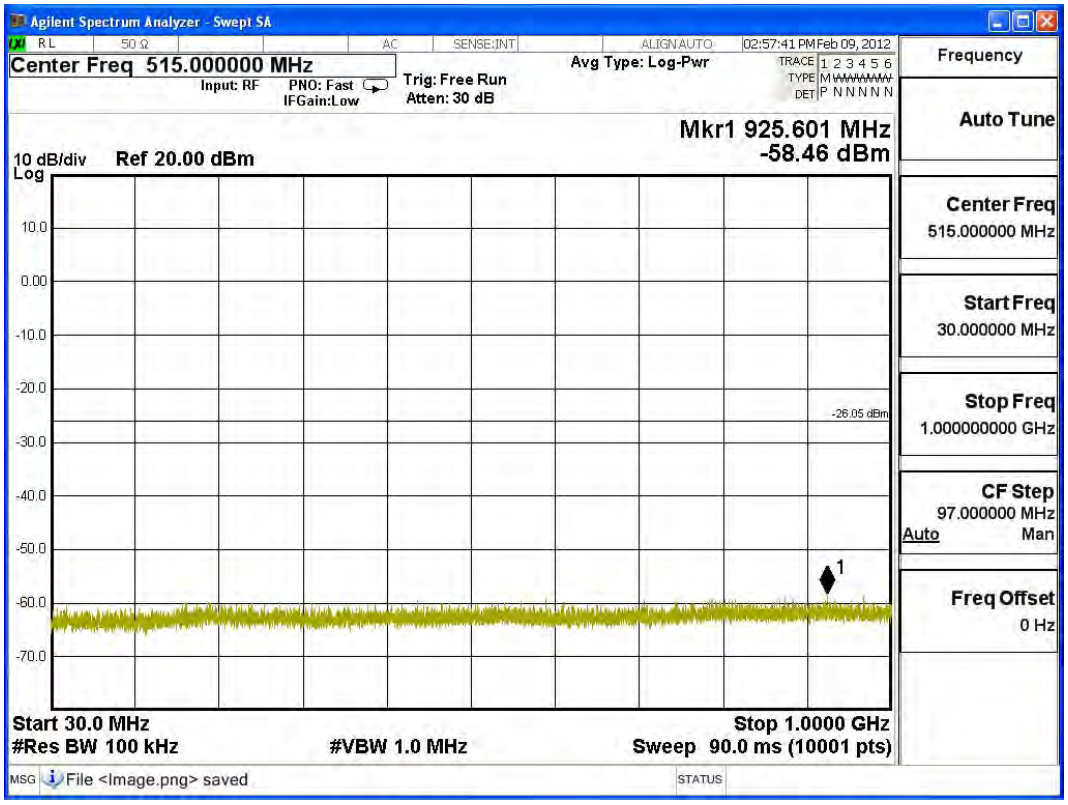
Channel 01 (2422MHz) 30MHz -25GHz

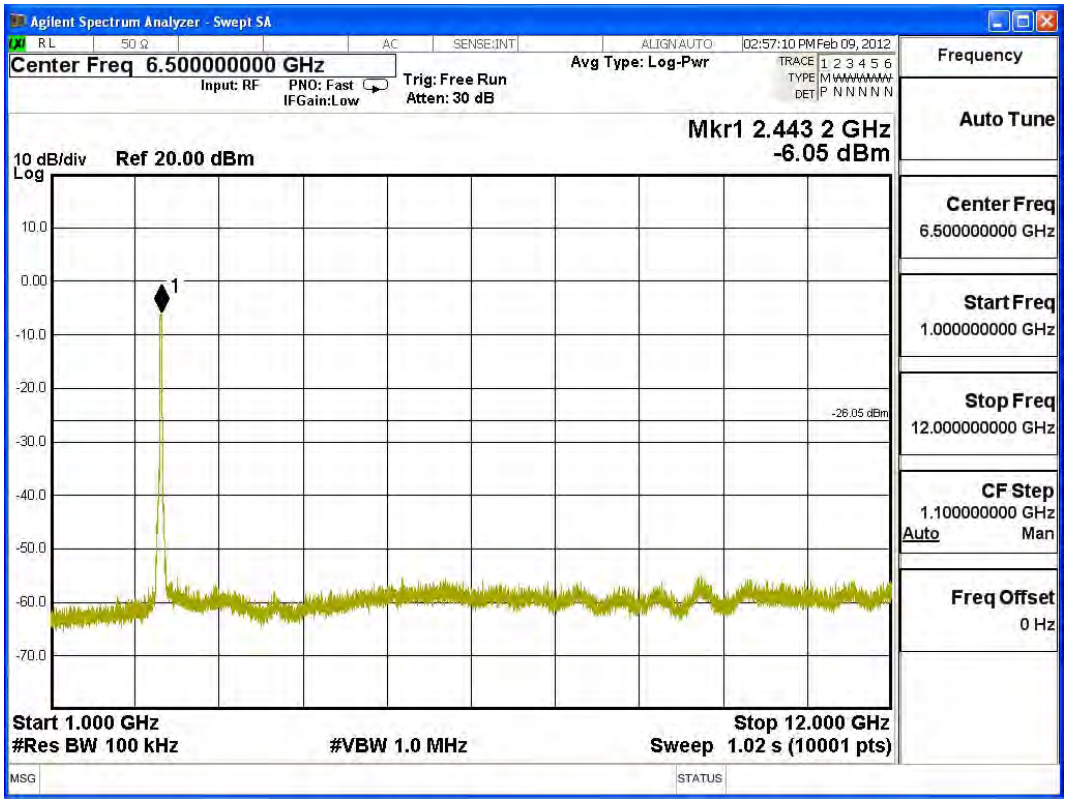


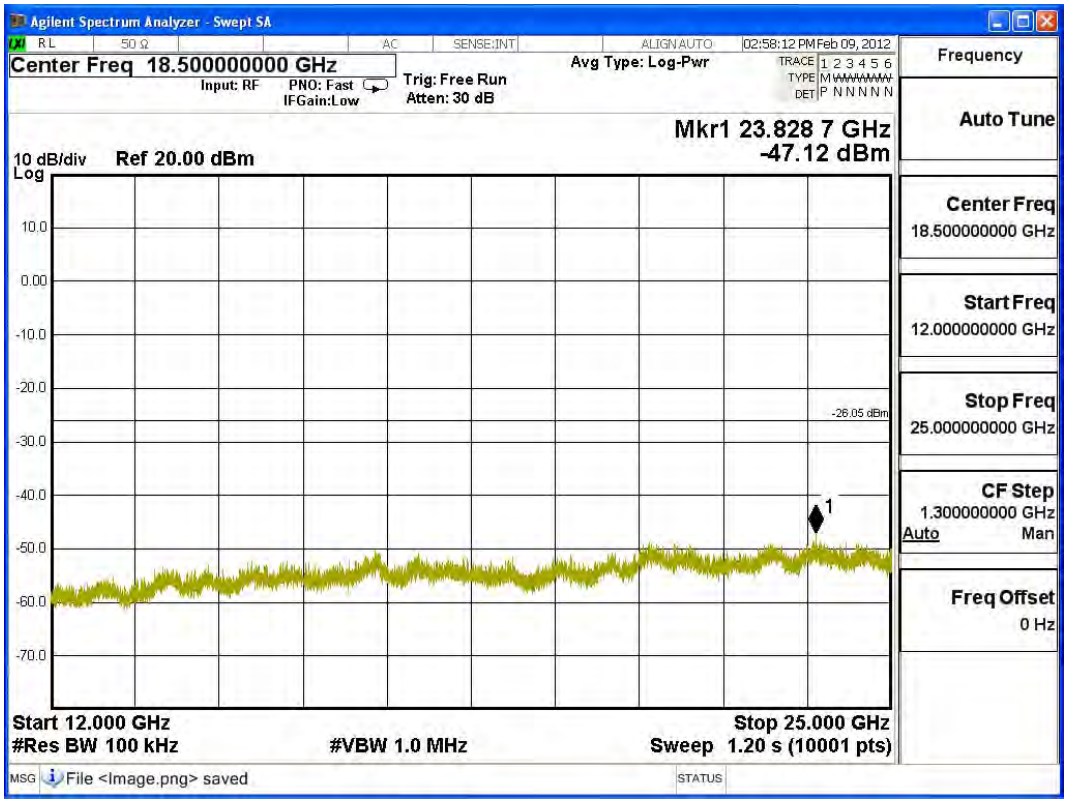

Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:40:34 PM Feb 09, 2012
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 2.425 6 GHz
-5.60 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-25.60 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:41:36 PM Feb 09, 2012
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P N N N N N
Mkr1 24.535 9 GHz
-48.40 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-25.60 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
MSG
File <Image.png> saved
STATUS
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

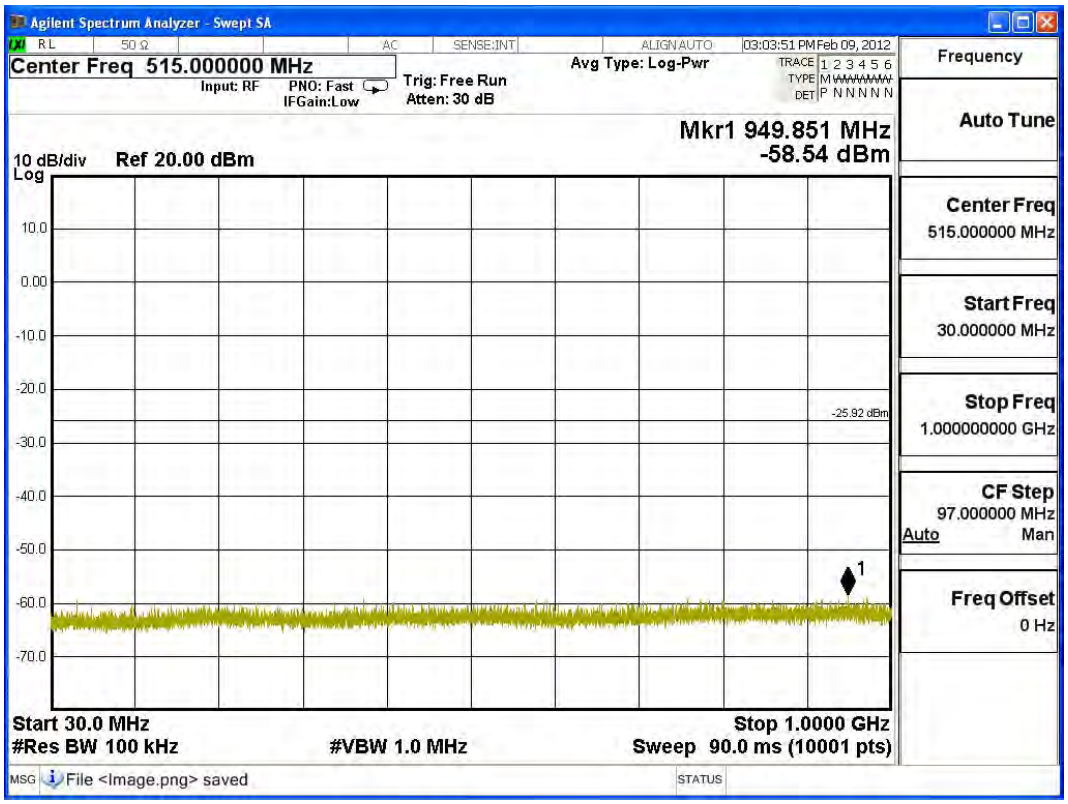
Channel 04 (2437MHz) 30MHz -25GHz

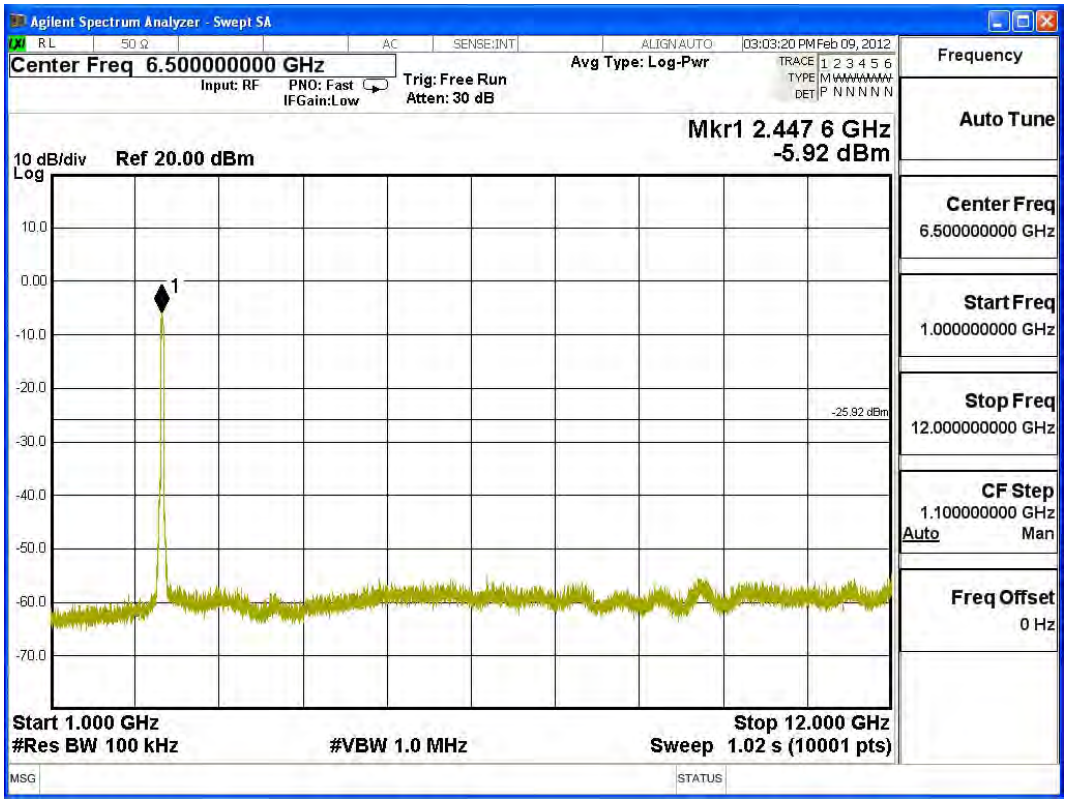


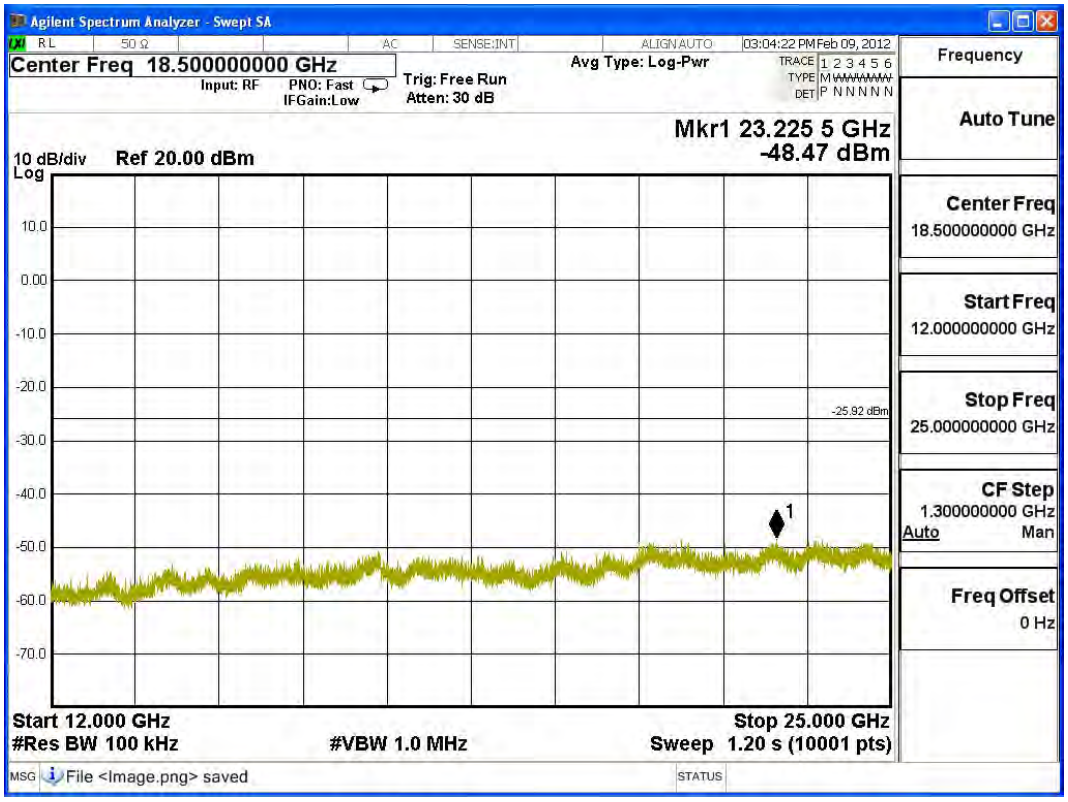




Channel 07 (2452MHz) 30MHz -25GHz

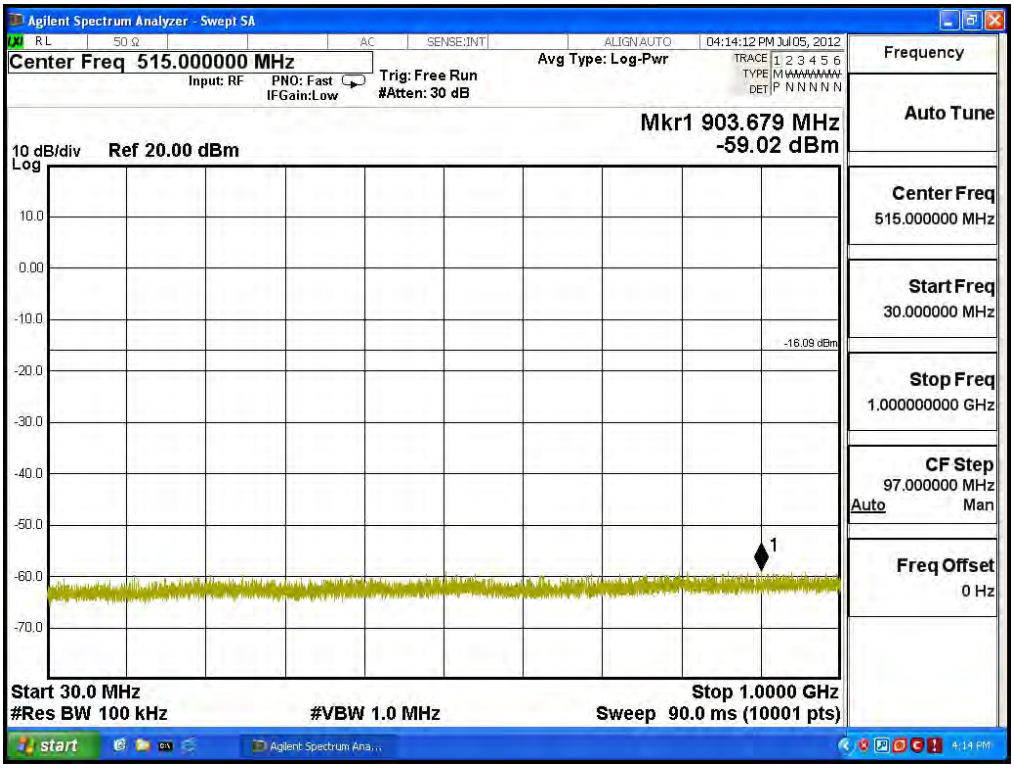


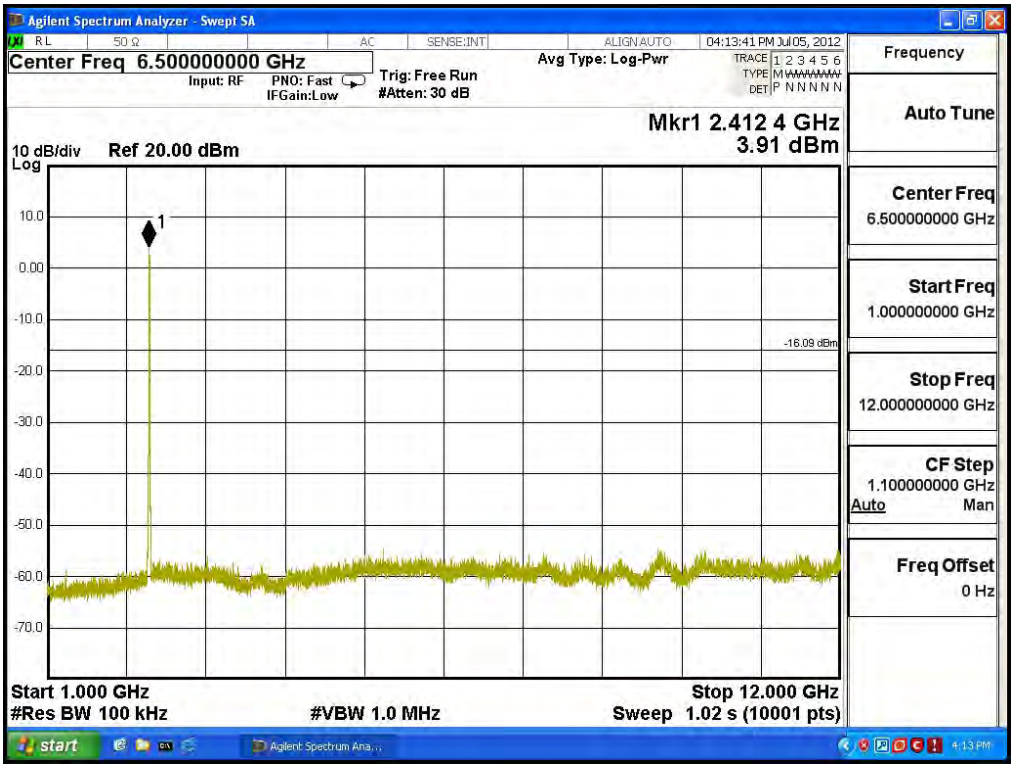

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
03:03:20 PM Feb 09, 2012
Mkr1 2.447 6 GHz
-5.92 dBm
10 dB/div
Log
Ref 20.00 dBm
-25.92 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz

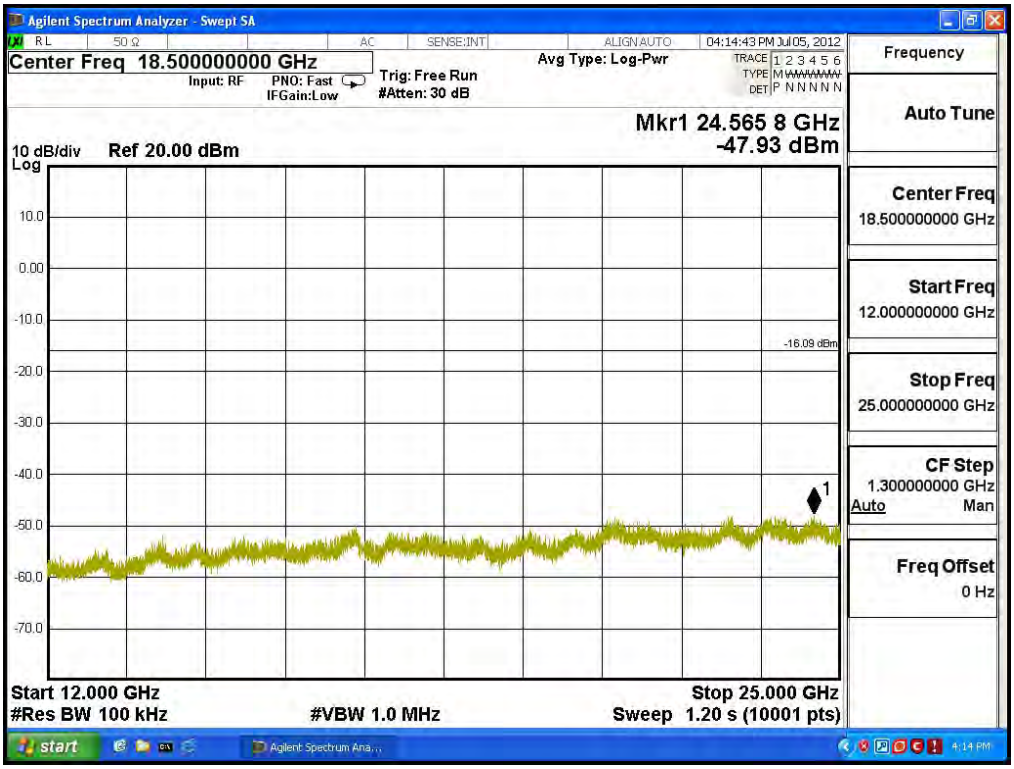

Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
03:04:22 PM Feb 09, 2012
Mkr1 23.225 5 GHz
-48.47 dBm
10 dB/div
Log
Ref 20.00 dBm
-25.92 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

Product : PR1 Receiver
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps) -MCU 166MHz

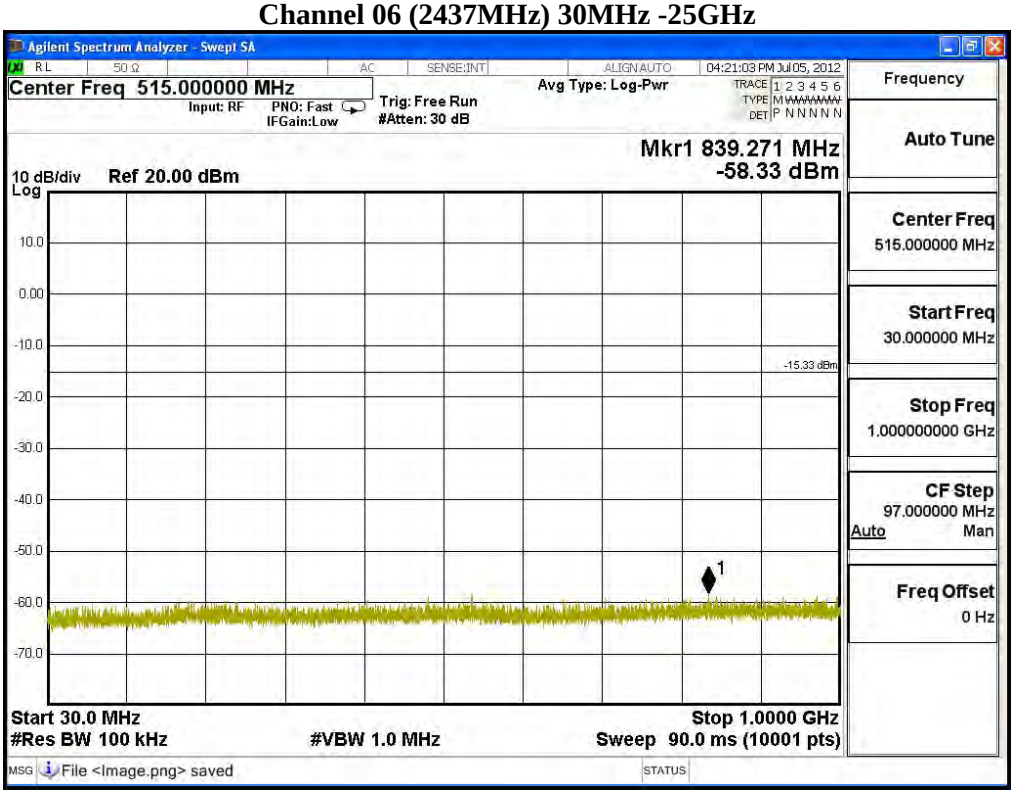
Channel 01 (2412MHz) 30MHz-25GHz

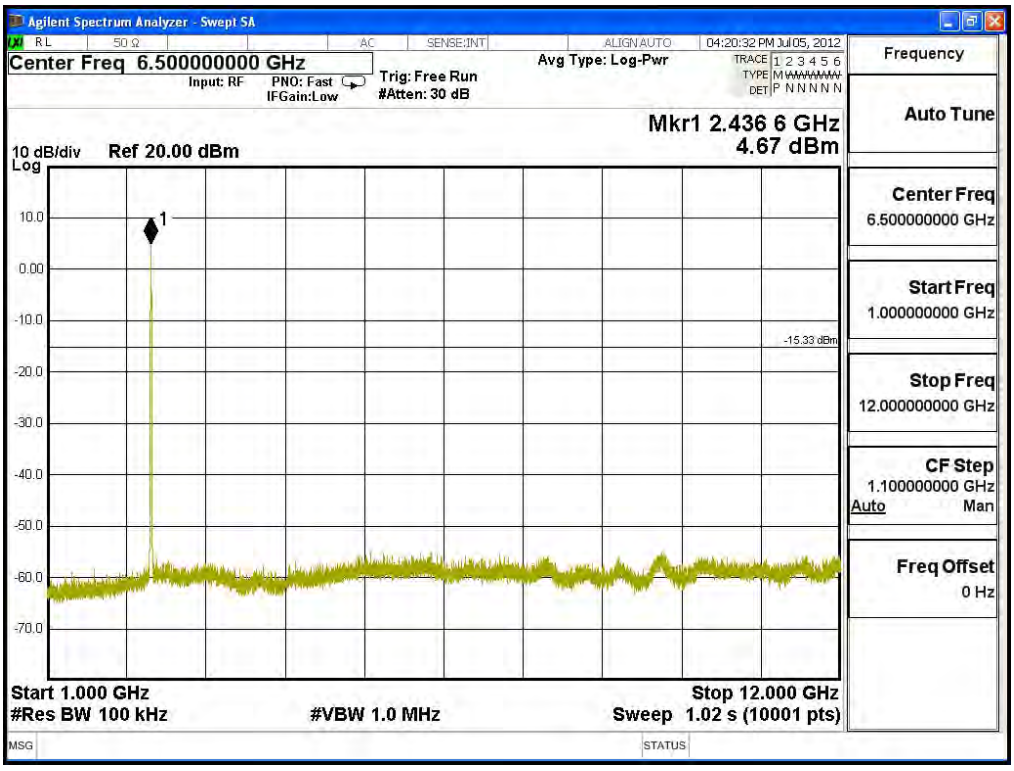


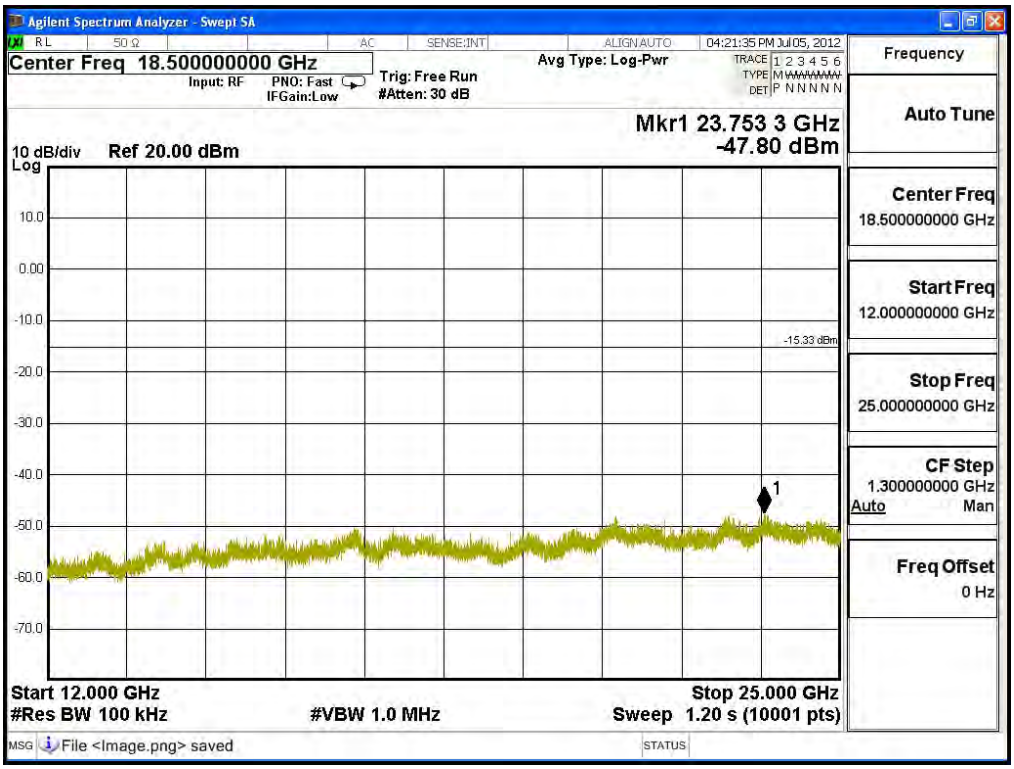

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
04:13:41 PM Jul 05, 2012
Mkr1 2.412 4 GHz
3.91 dBm
10 dB/div
Log
Ref 20.00 dBm
-16.09 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
04:14:43 PM Jul 05, 2012
Mkr1 24.565 8 GHz
-47.93 dBm
10 dB/div
Log
Ref 20.00 dBm
-16.09 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

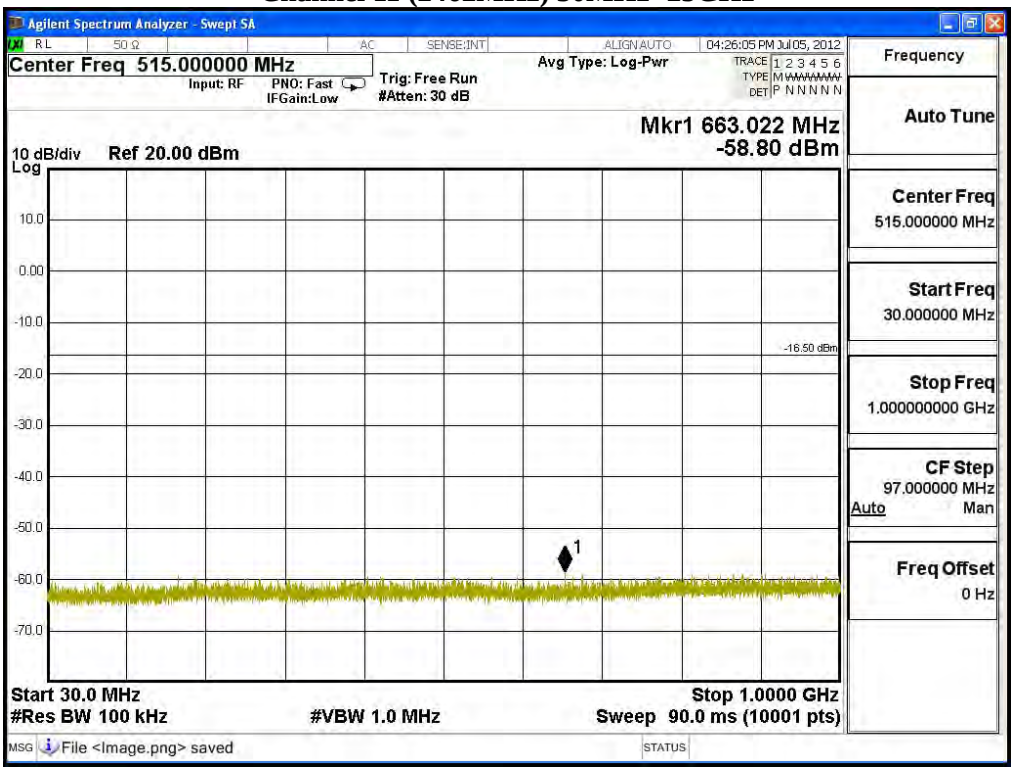
Channel 06 (2437MHz) 30MHz -25GHz

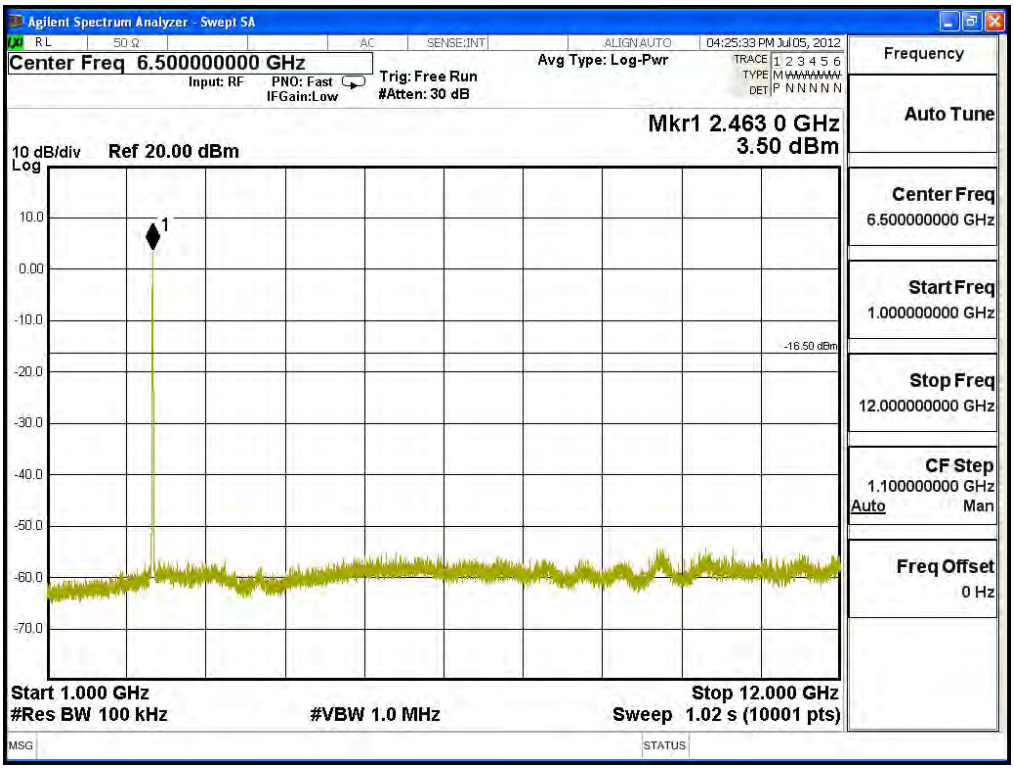


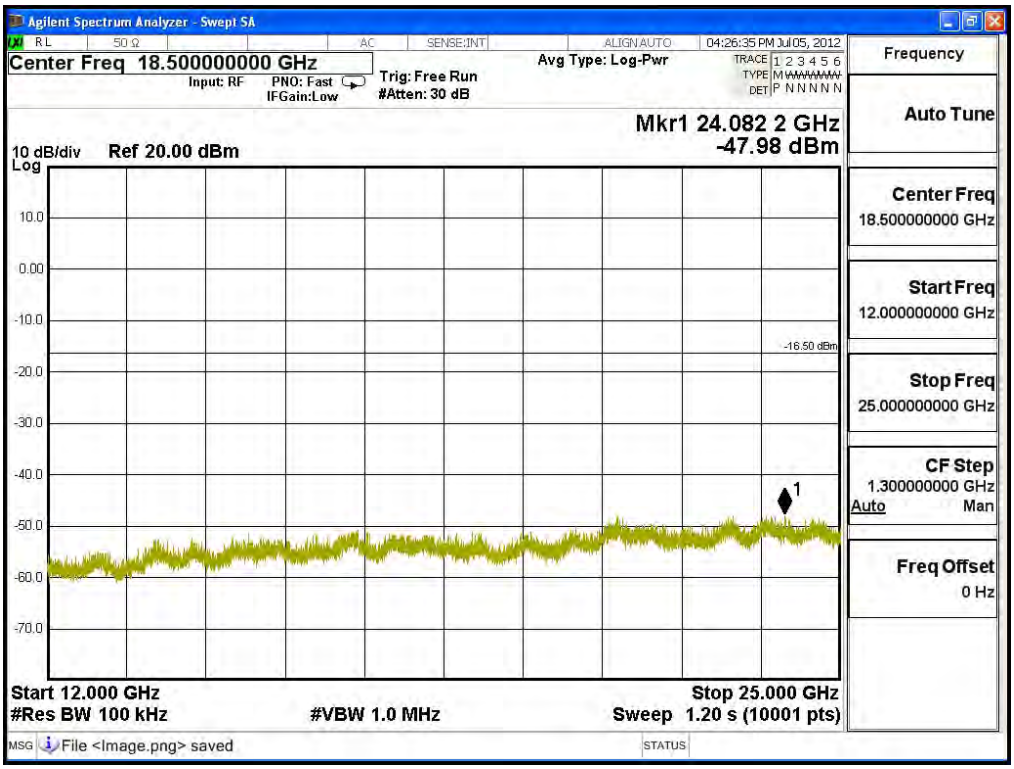




Channel 11 (2462MHz) 30MHz -25GHz

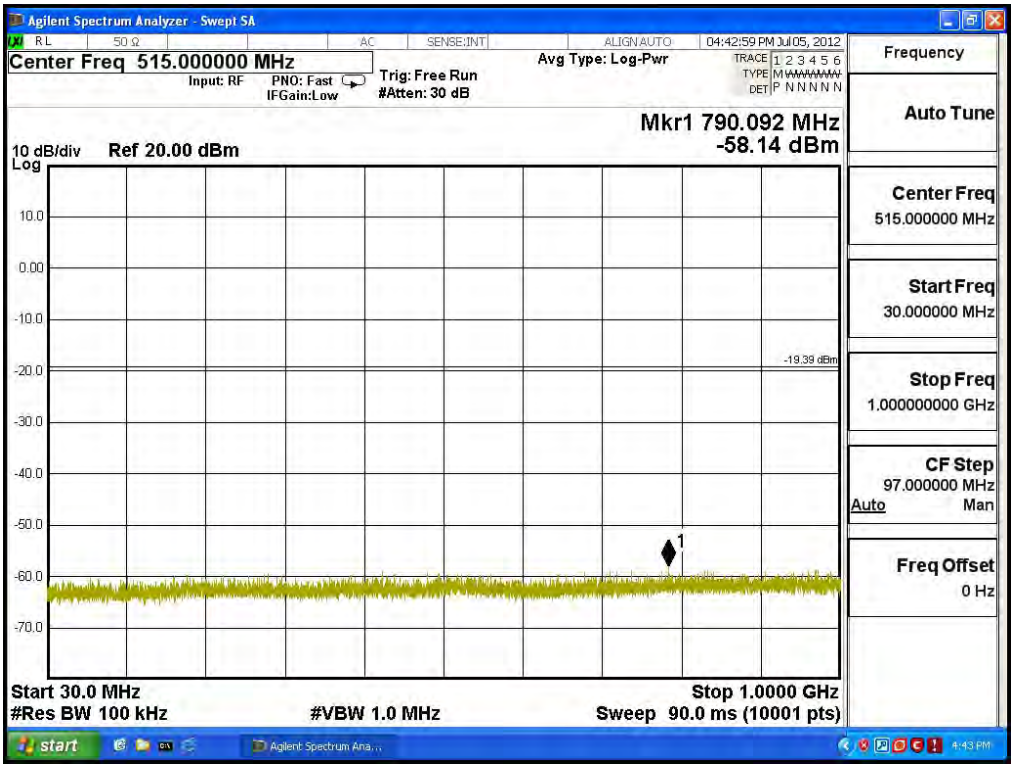


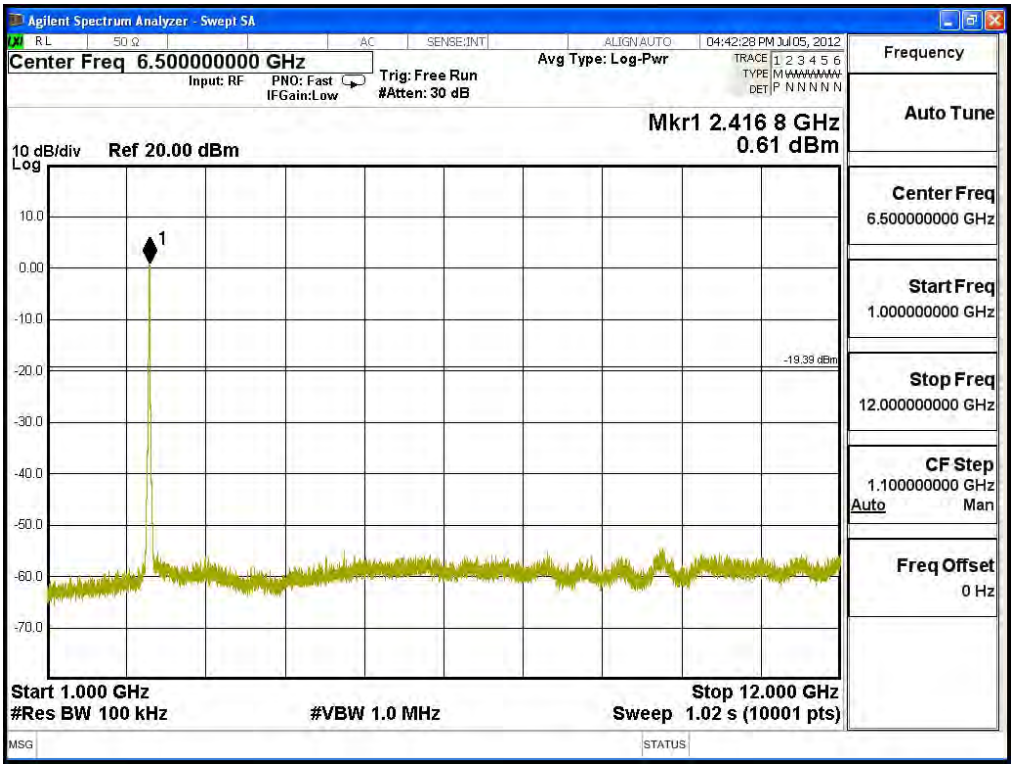

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
04:25:33 PM Jul 05, 2012
Mkr1 2.463 0 GHz
3.50 dBm
10 dB/div
Log
Ref 20.00 dBm
-16.50 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz

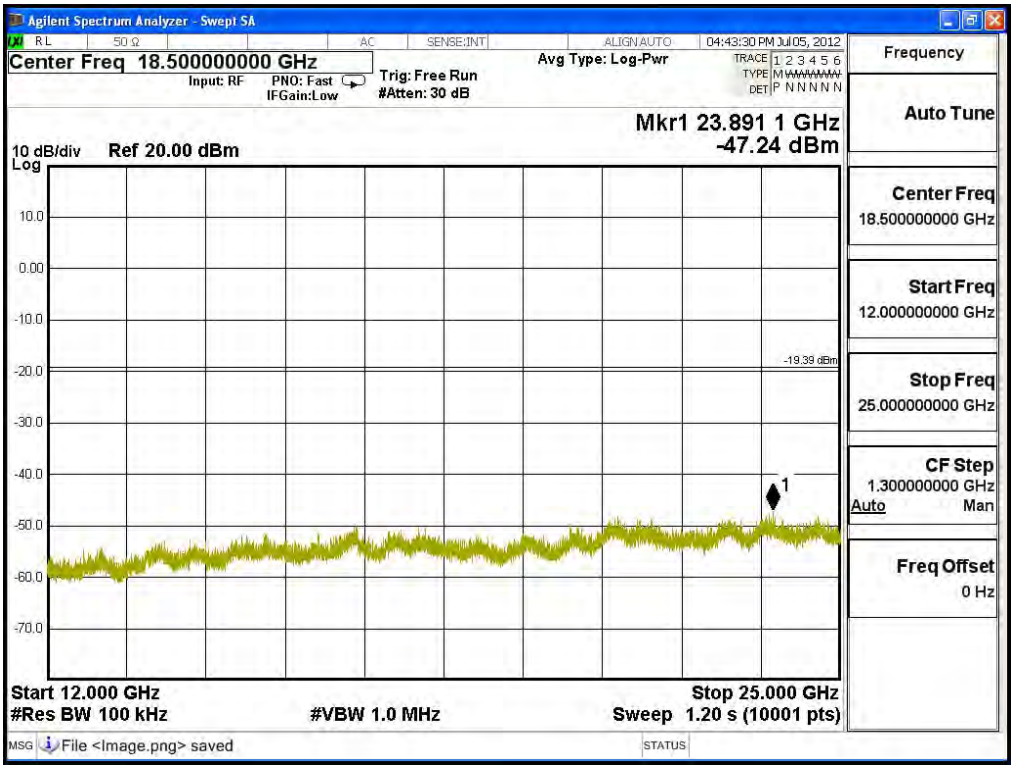

Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
04:26:35 PM Jul 05, 2012
Mkr1 24.082 2 GHz
-47.98 dBm
10 dB/div
Log
Ref 20.00 dBm
-16.50 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

Product : PR1 Receiver
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps) -MCU 166MHz

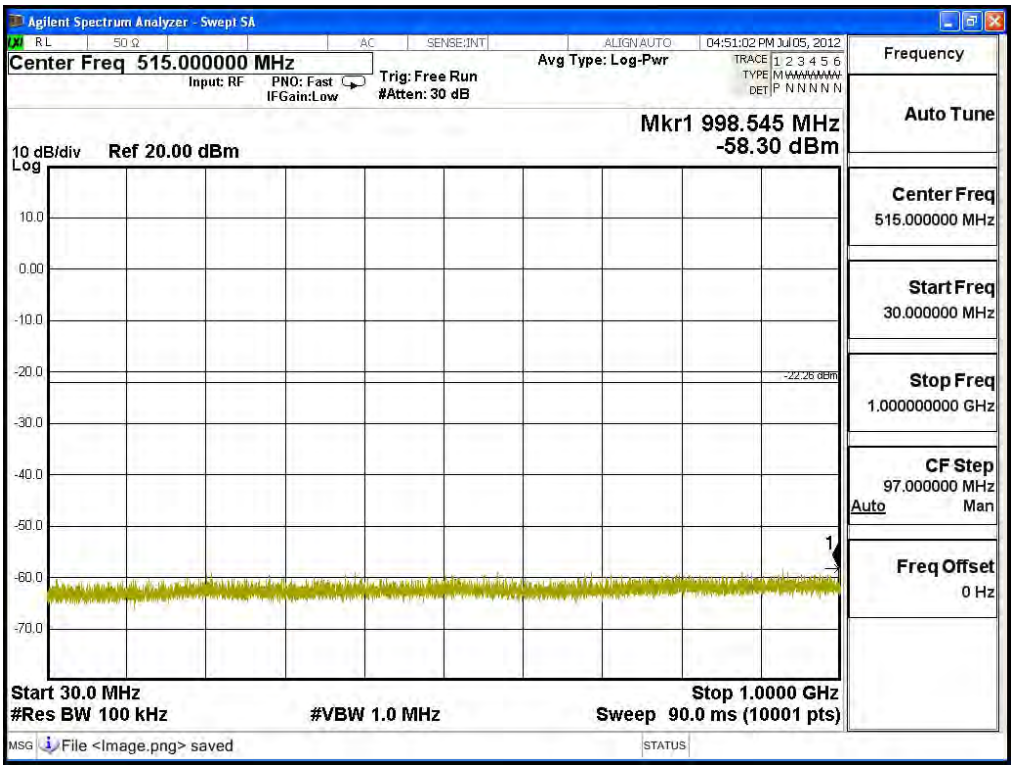
Channel 01 (2412MHz) 30MHz -25GHz

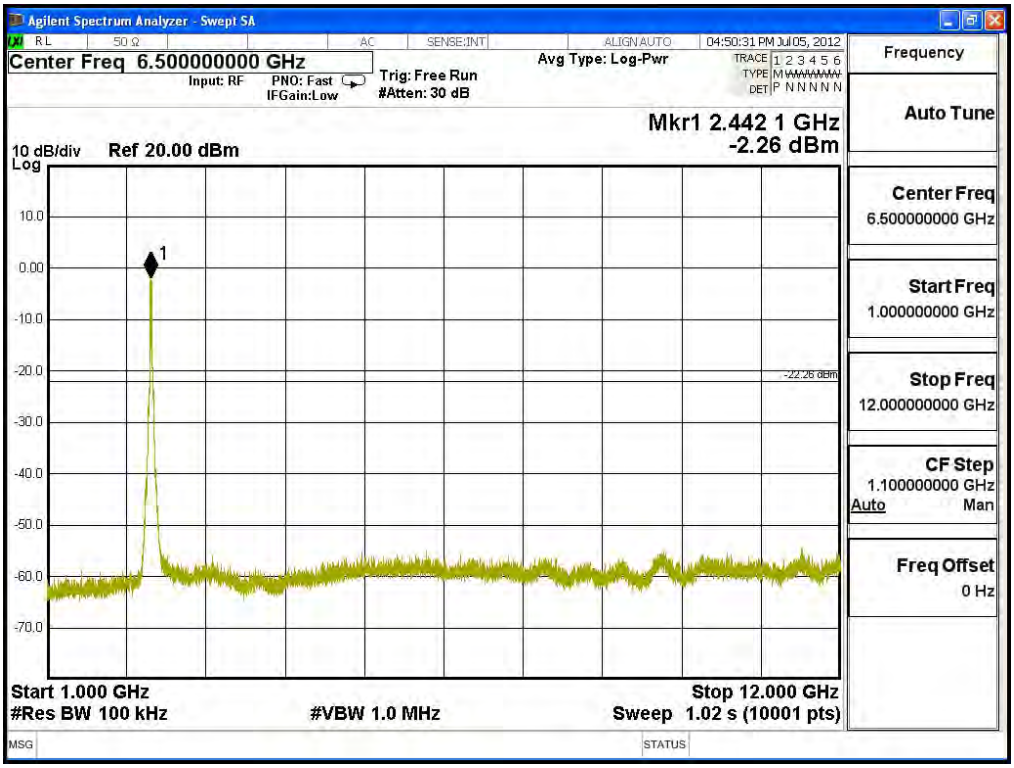


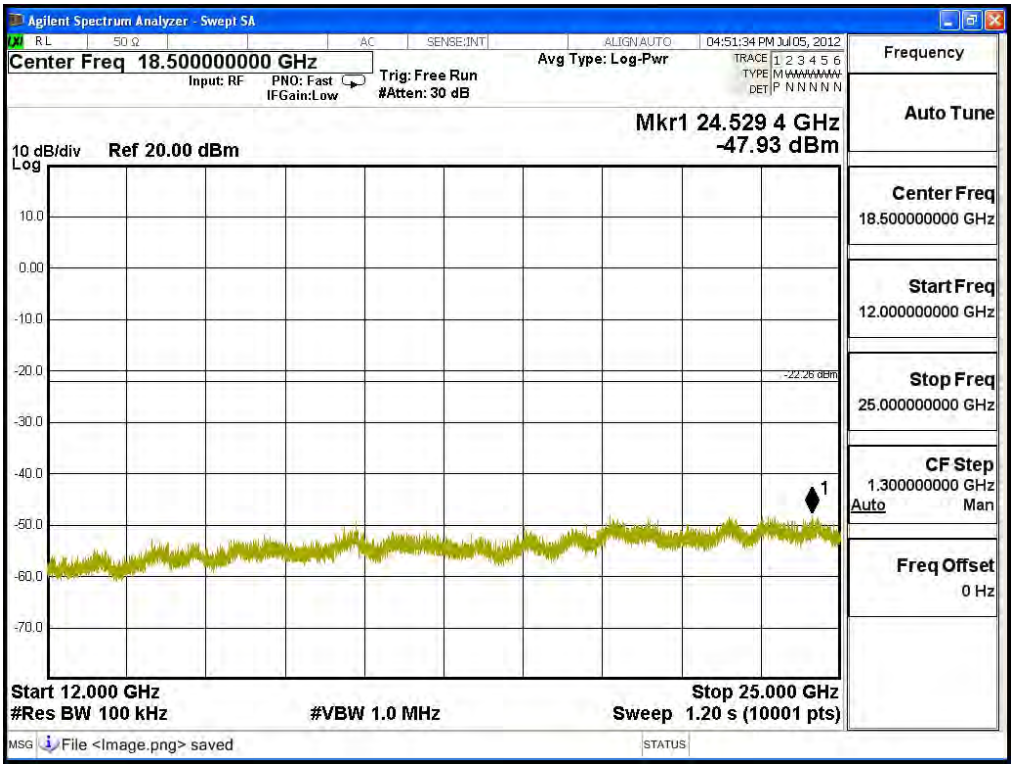

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
04:42:28 PM Jul 05, 2012
Mkr1 2.416 8 GHz
0.61 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.39 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
04:43:30 PM Jul 05, 2012
Mkr1 23.891 1 GHz
-47.24 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.39 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

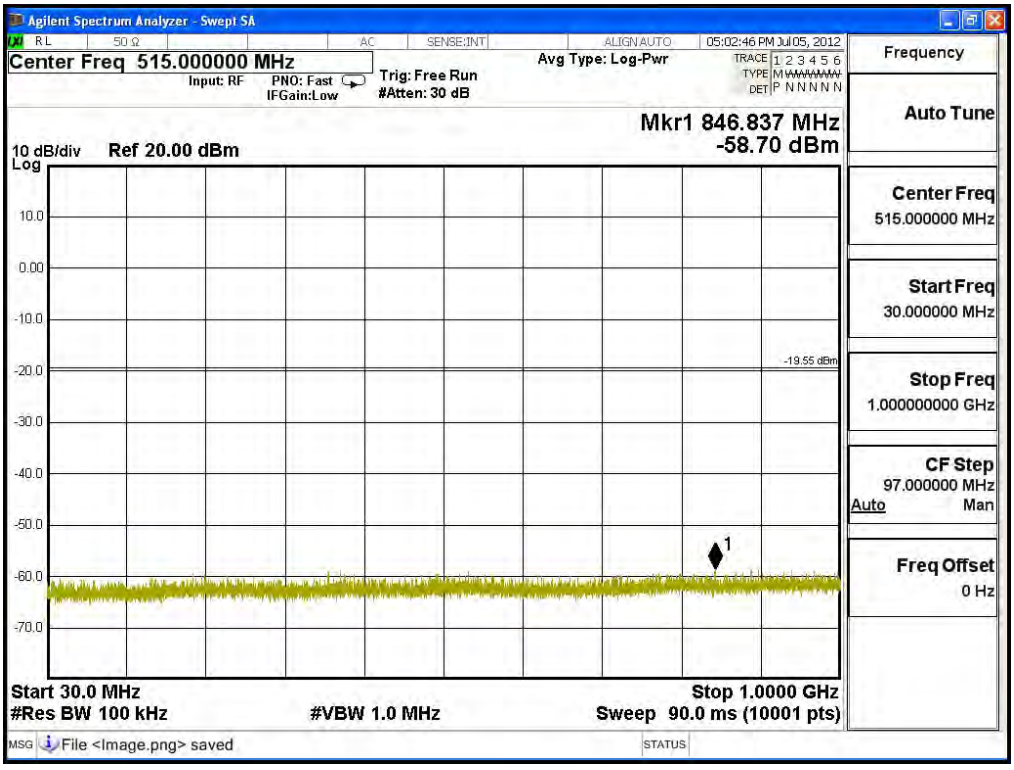
Channel 06 (2437MHz) 30MHz -25GHz

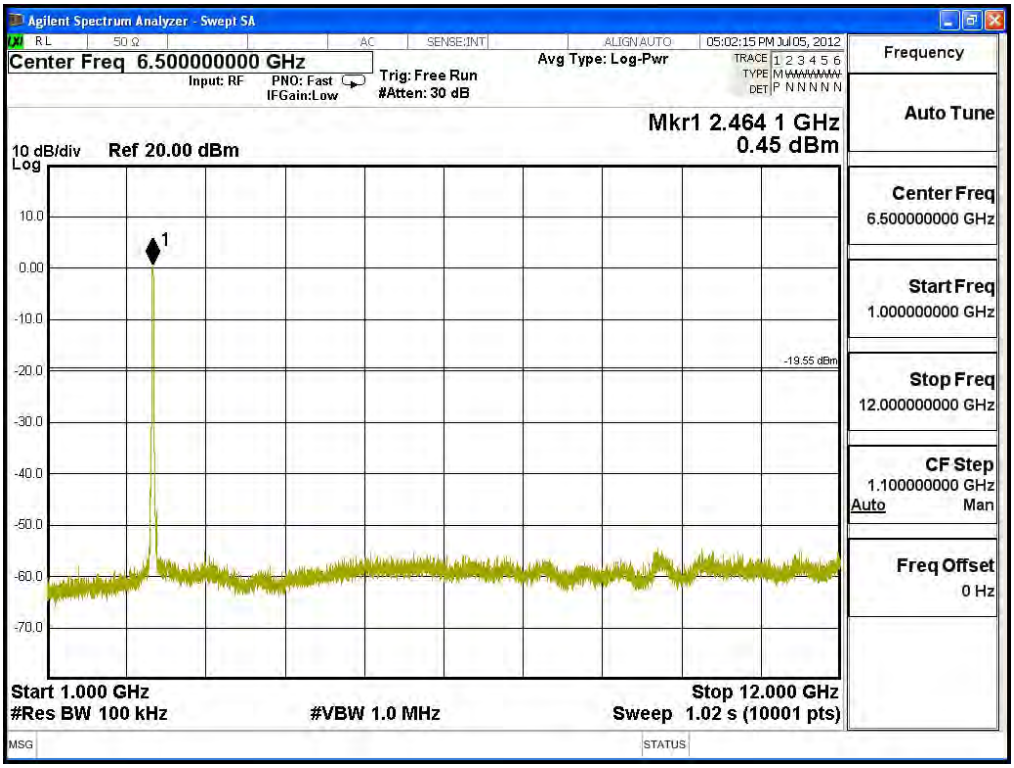


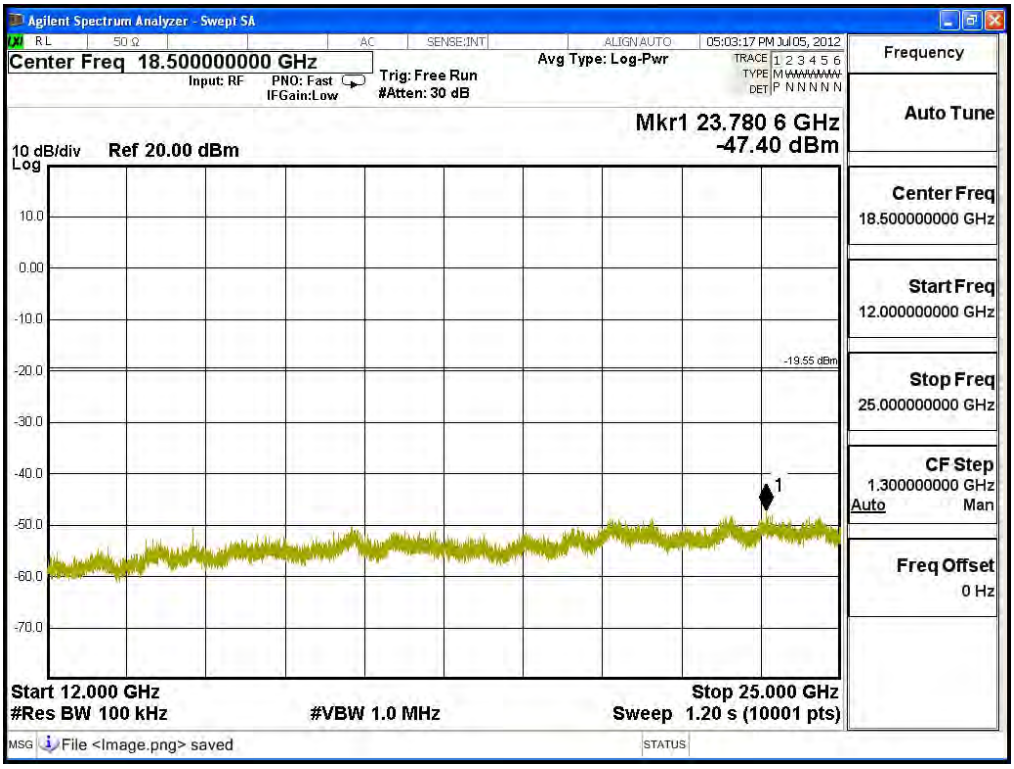




Channel 11 (2462MHz) 30MHz -25GHz

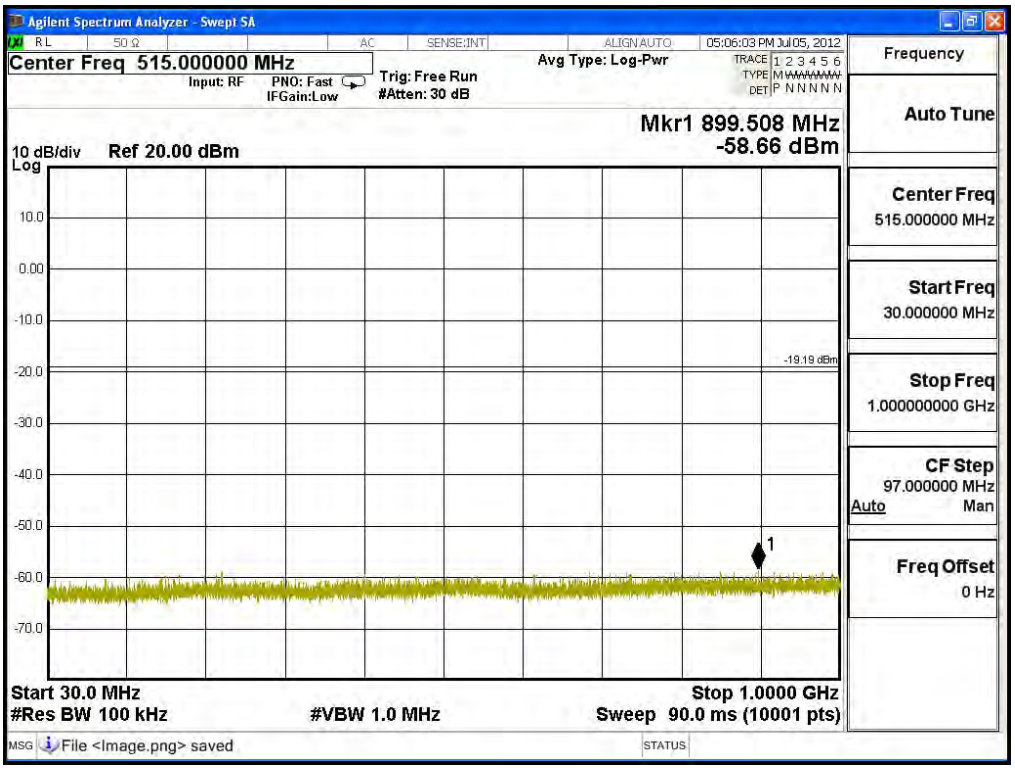


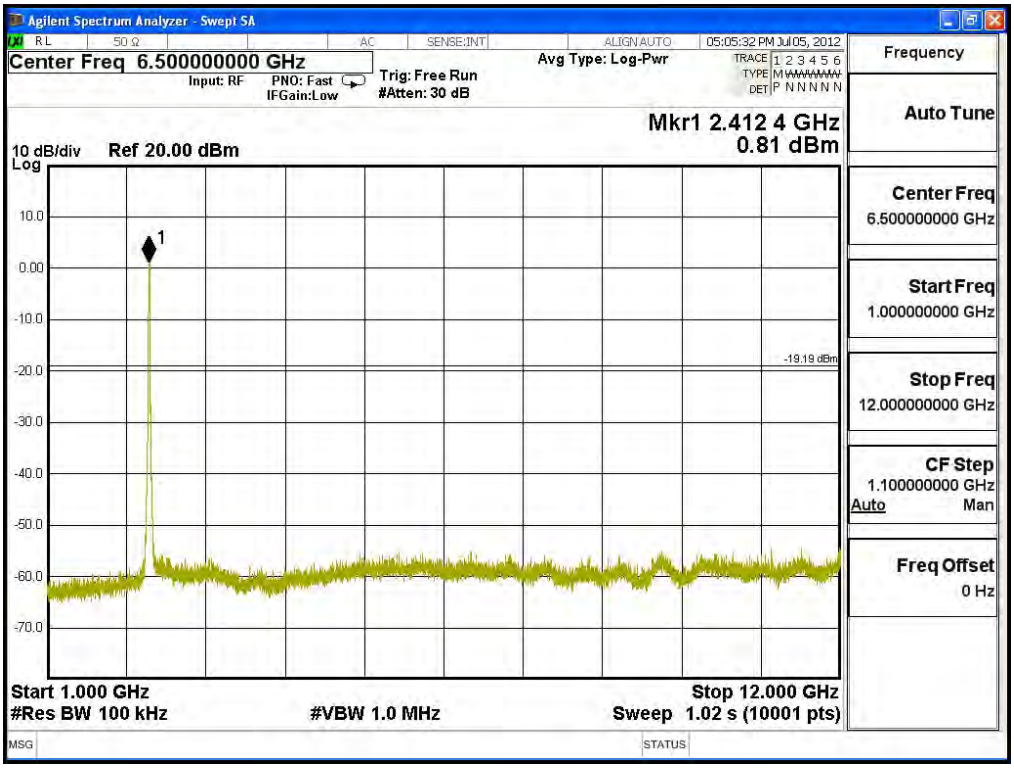

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:02:15 PM Jul 05, 2012
Mkr1 2.464 1 GHz
0.45 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.55 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz

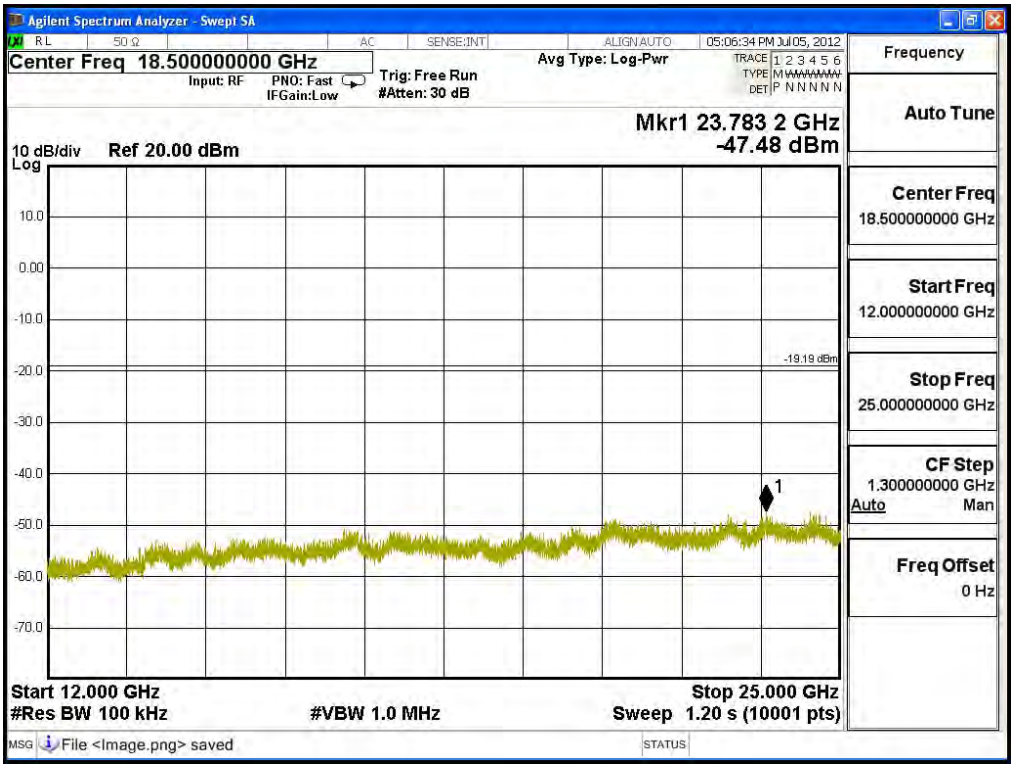

Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:03:17 PM Jul 05, 2012
Mkr1 23.780 6 GHz
-47.40 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.55 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

Product : PR1 Receiver
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit - 802.11n-20BW_7.2Mbps(2.4G Band) -MCU 166MHz

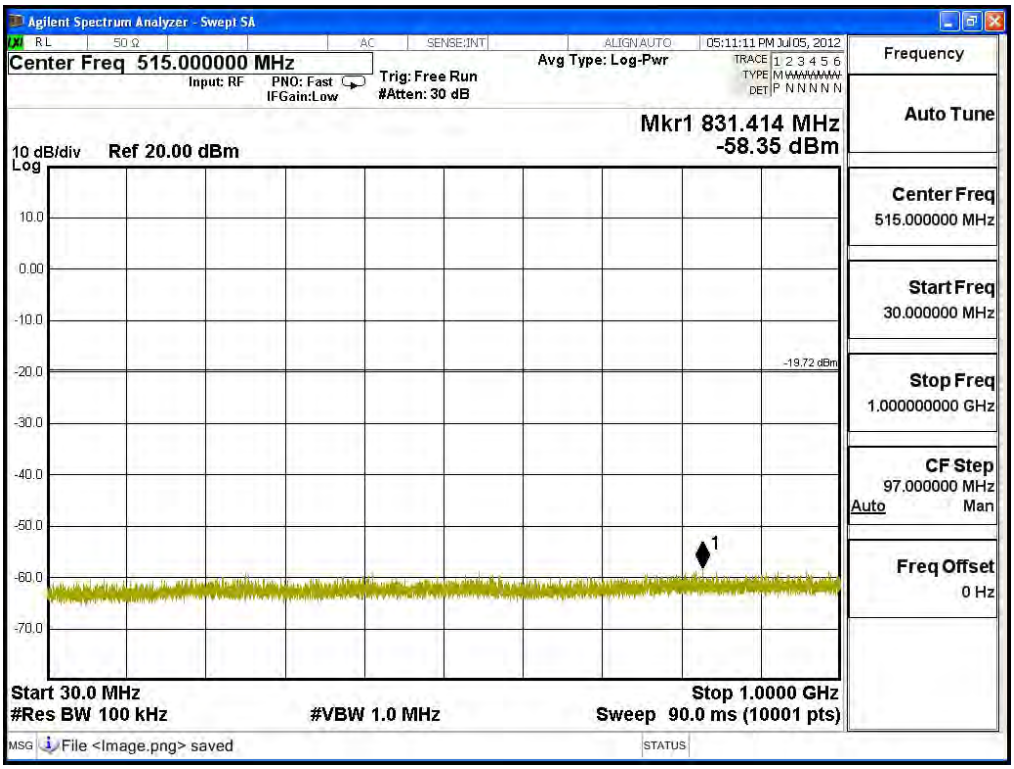
Channel 01 (2412MHz) 30MHz -25GHz

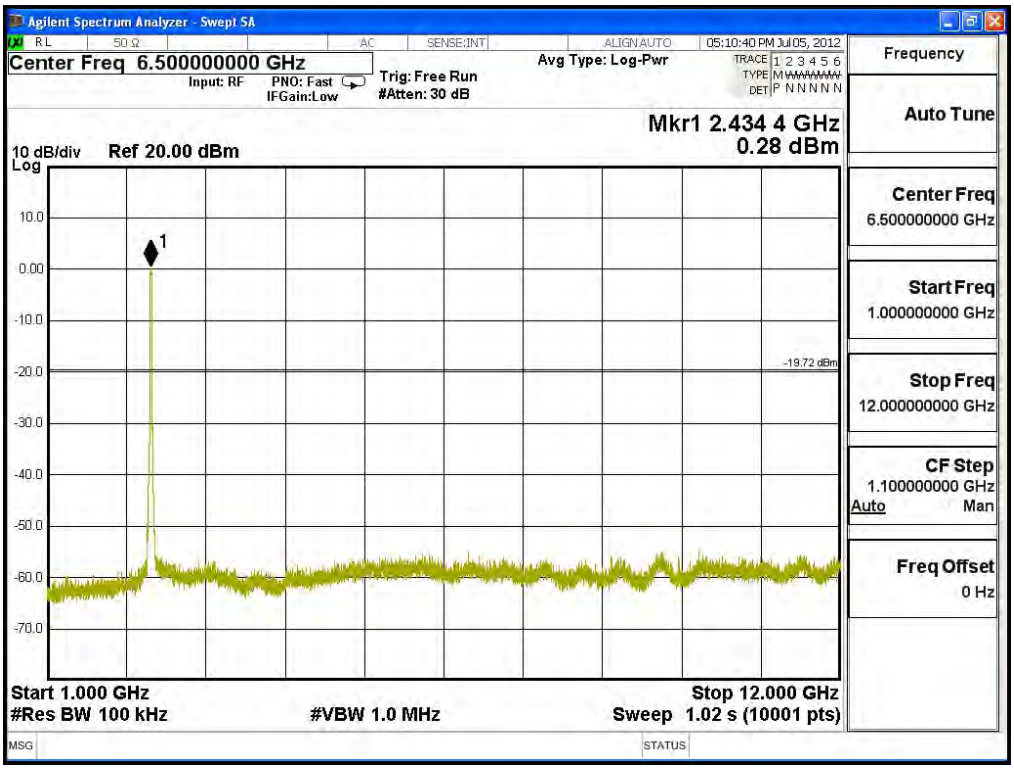


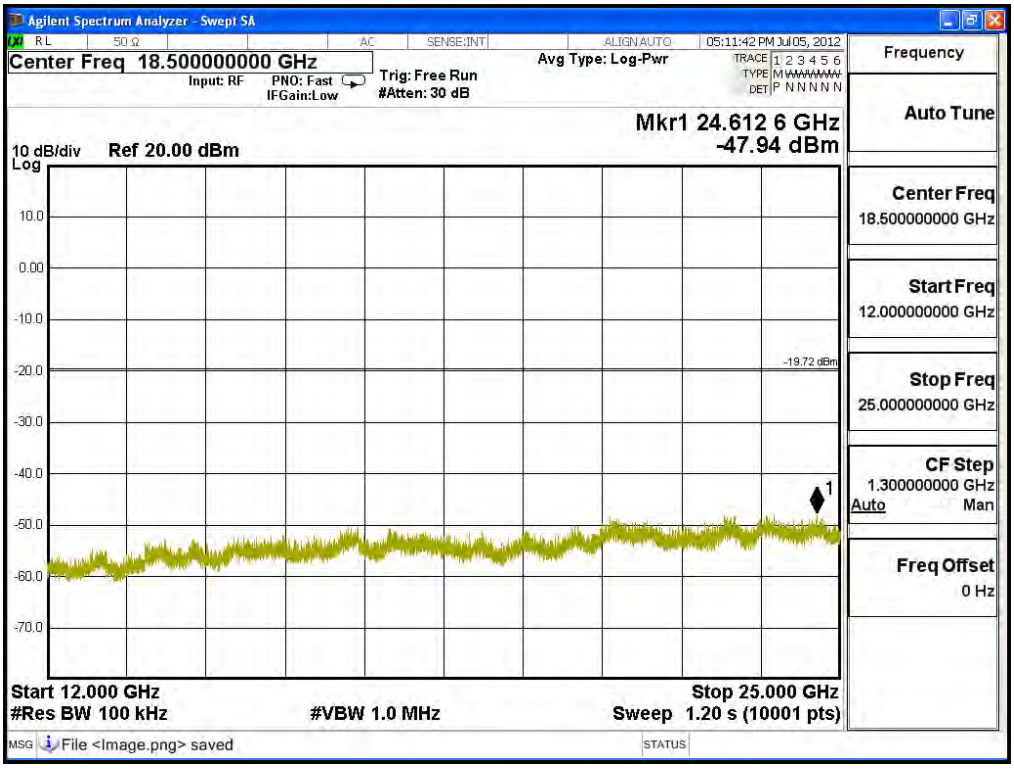

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:05:32 PM Jul 05, 2012
Mkr1 2.412 4 GHz
0.81 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.19 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:06:34 PM Jul 05, 2012
Mkr1 23.783 2 GHz
-47.48 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.19 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

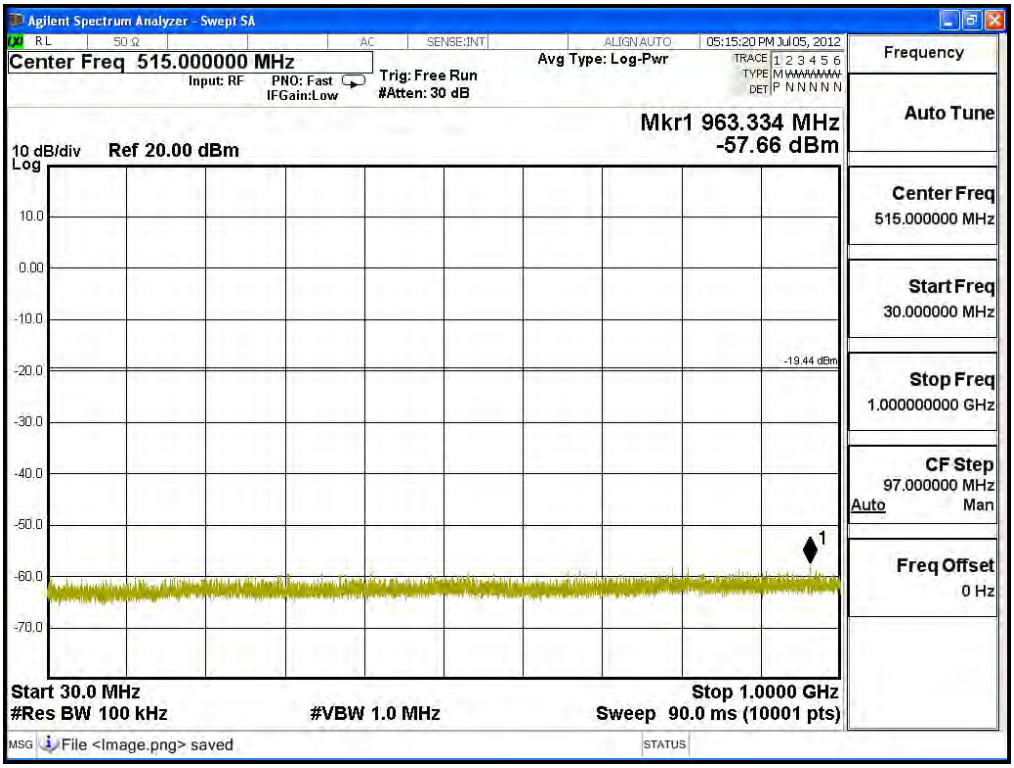
Channel 06 (2437MHz) 30MHz -25GHz

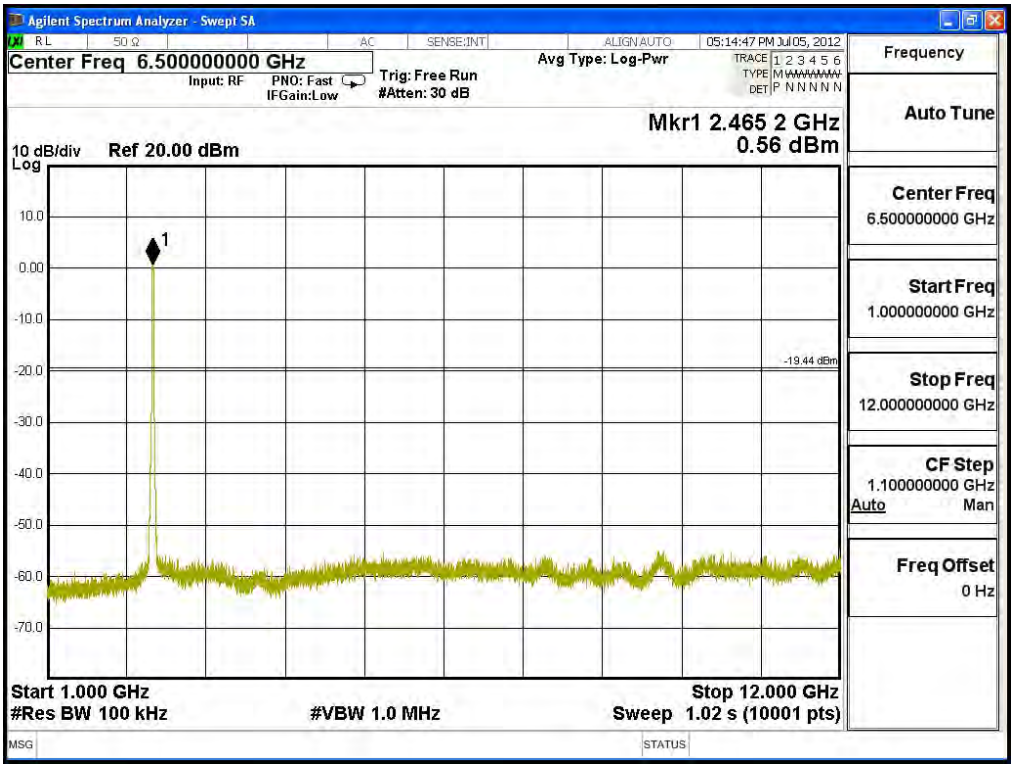


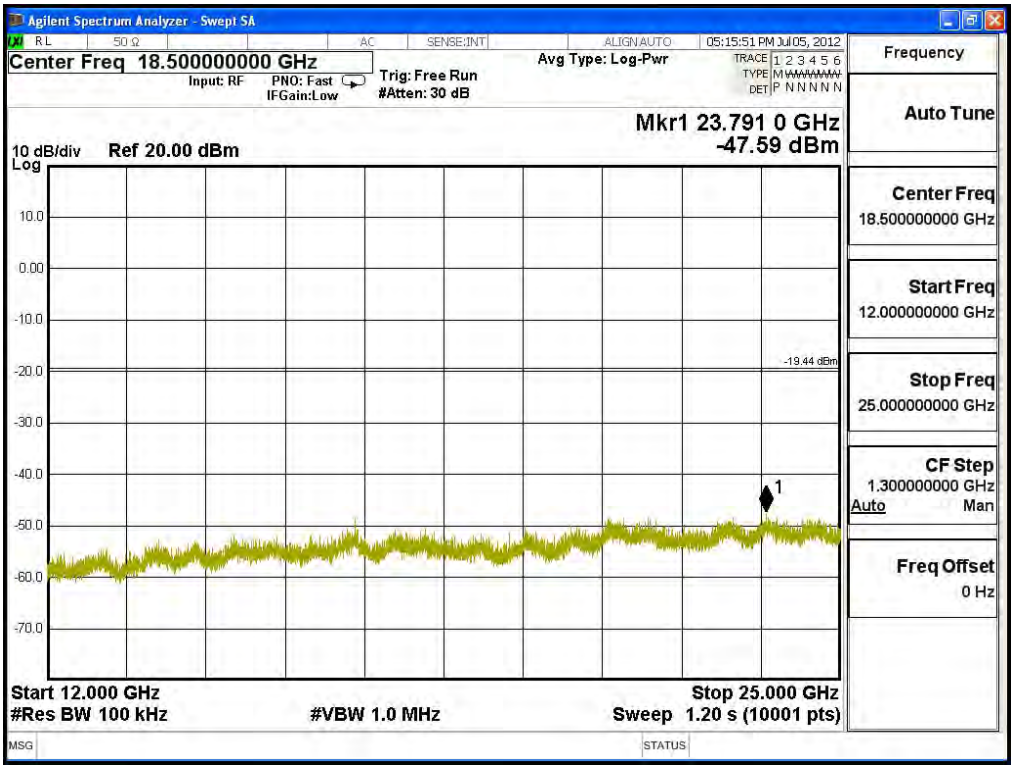




Channel 11 (2462MHz) 30MHz -25GHz

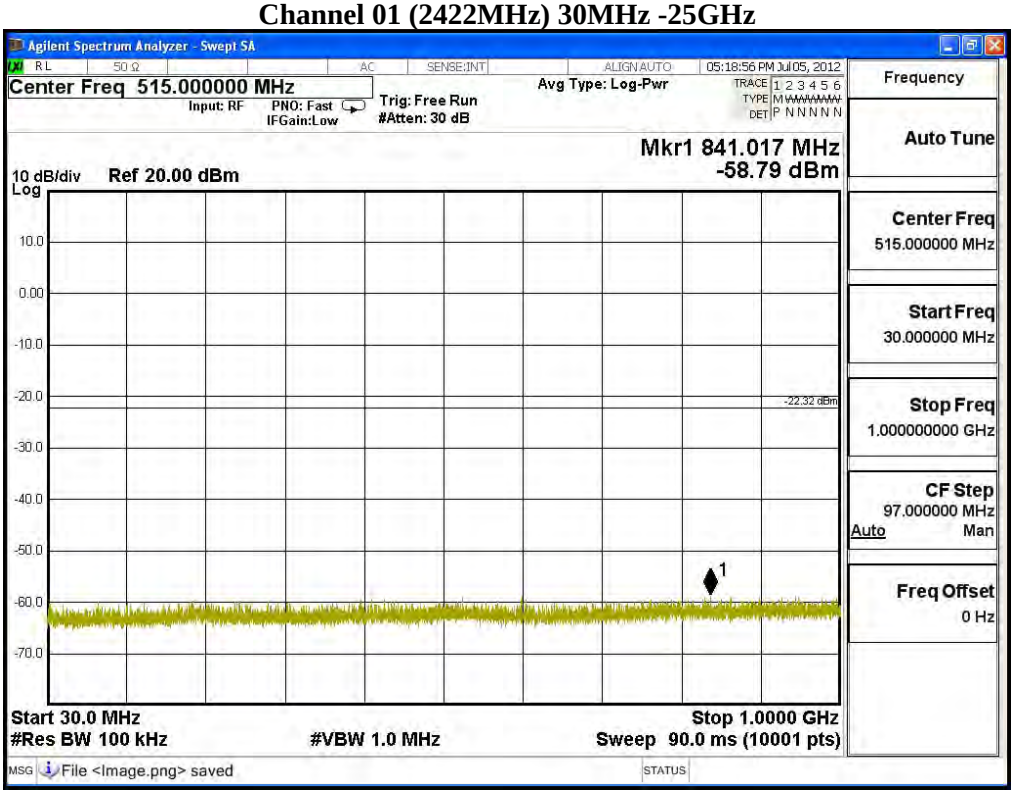


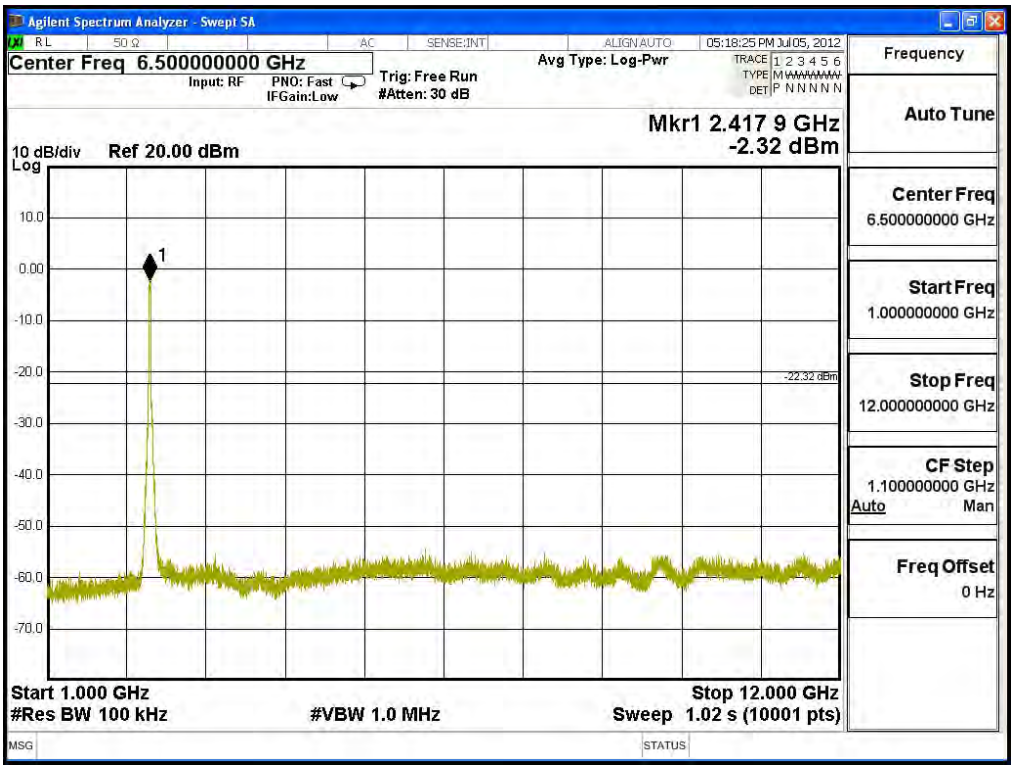

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:14:47 PM Jul 05, 2012
Mkr1 2.465 2 GHz
0.56 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.44 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz

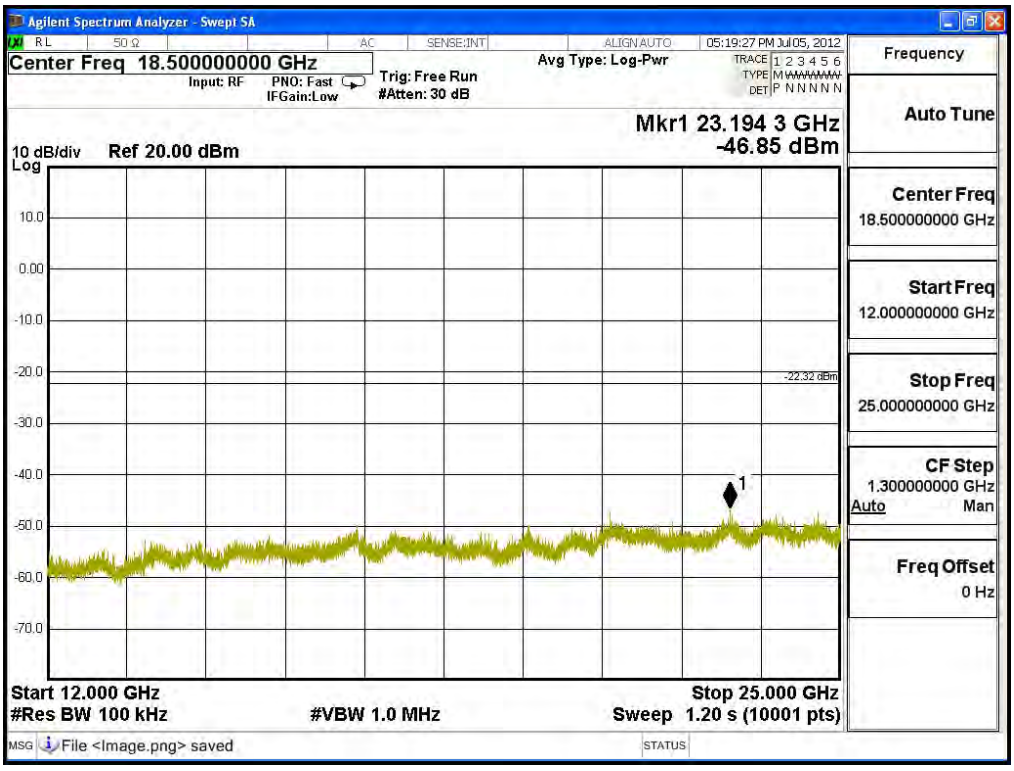

Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:15:51 PM Jul 05, 2012
Mkr1 23.791 0 GHz
-47.59 dBm
10 dB/div
Log
Ref 20.00 dBm
-19.44 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

Product : PR1 Receiver
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 4: Transmit - 802.11n-40BW_15Mbps(2.4G Band) -MCU 166MHz

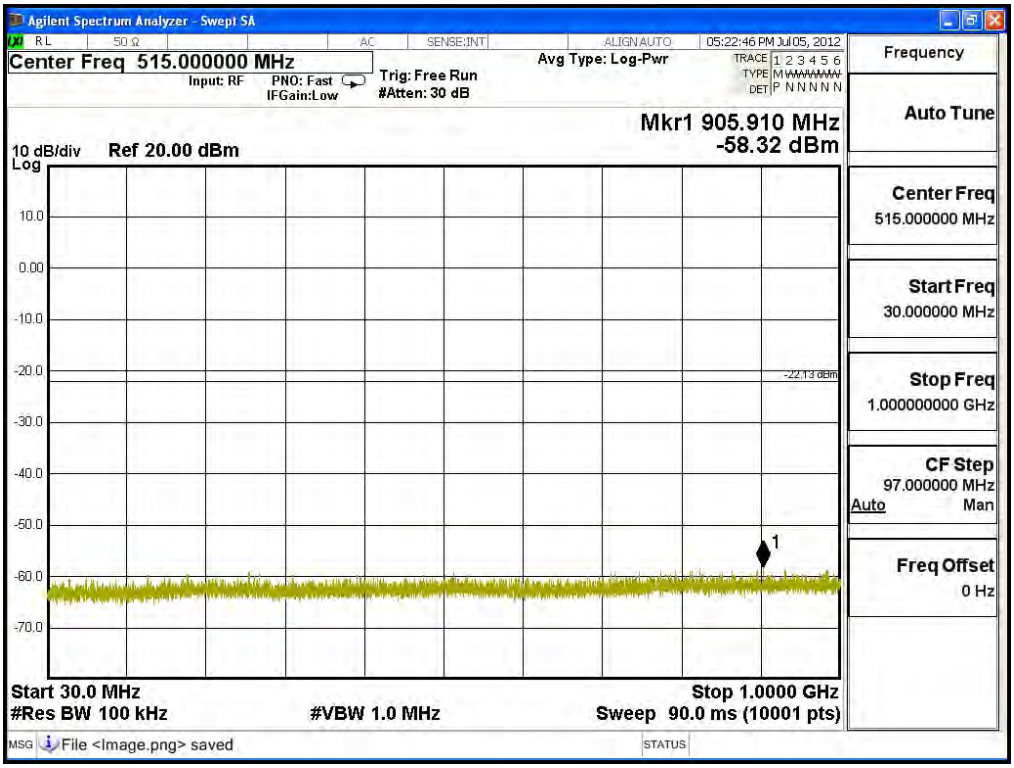
Channel 01 (2422MHz) 30MHz -25GHz

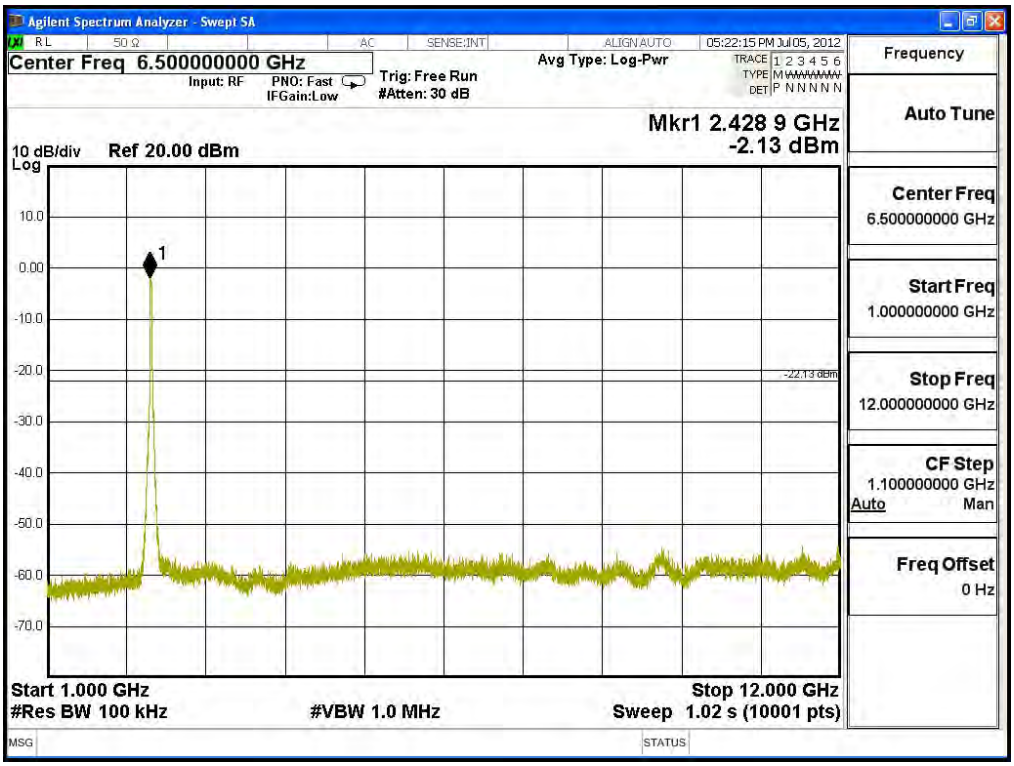


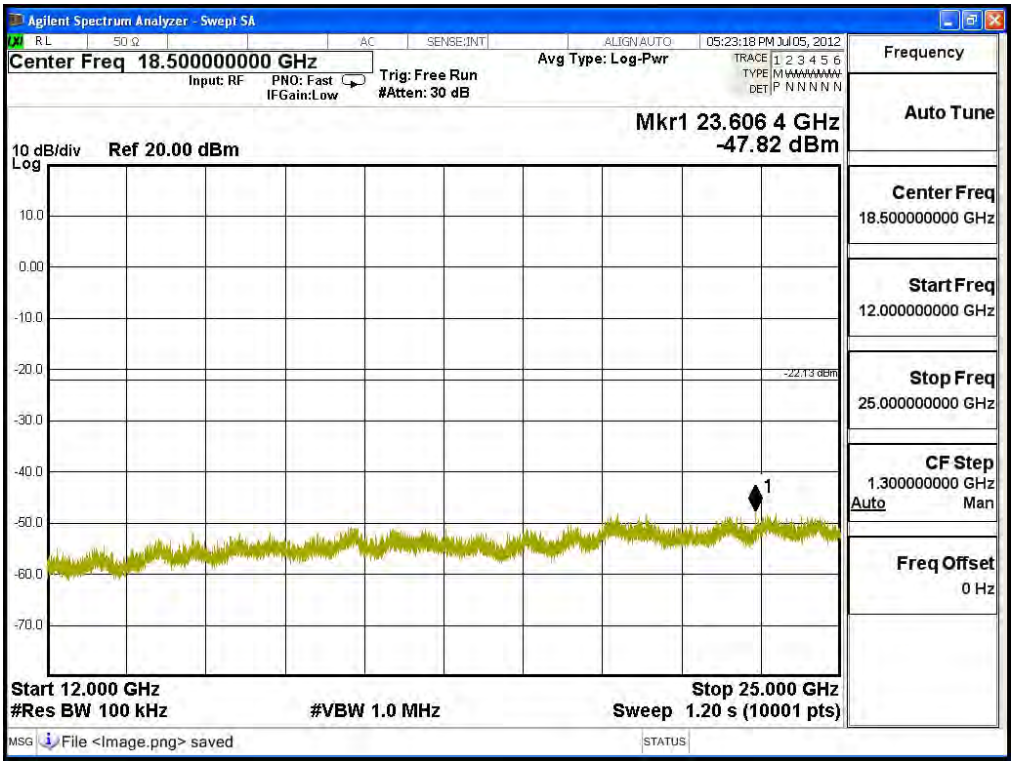

Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:18:25 PM Jul 05, 2012
Mkr1 2.417 9 GHz
-2.32 dBm
10 dB/div
Log
Ref 20.00 dBm
-22.32 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:19:27 PM Jul 05, 2012
Mkr1 23.194 3 GHz
-46.85 dBm
10 dB/div
Log
Ref 20.00 dBm
-22.32 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz

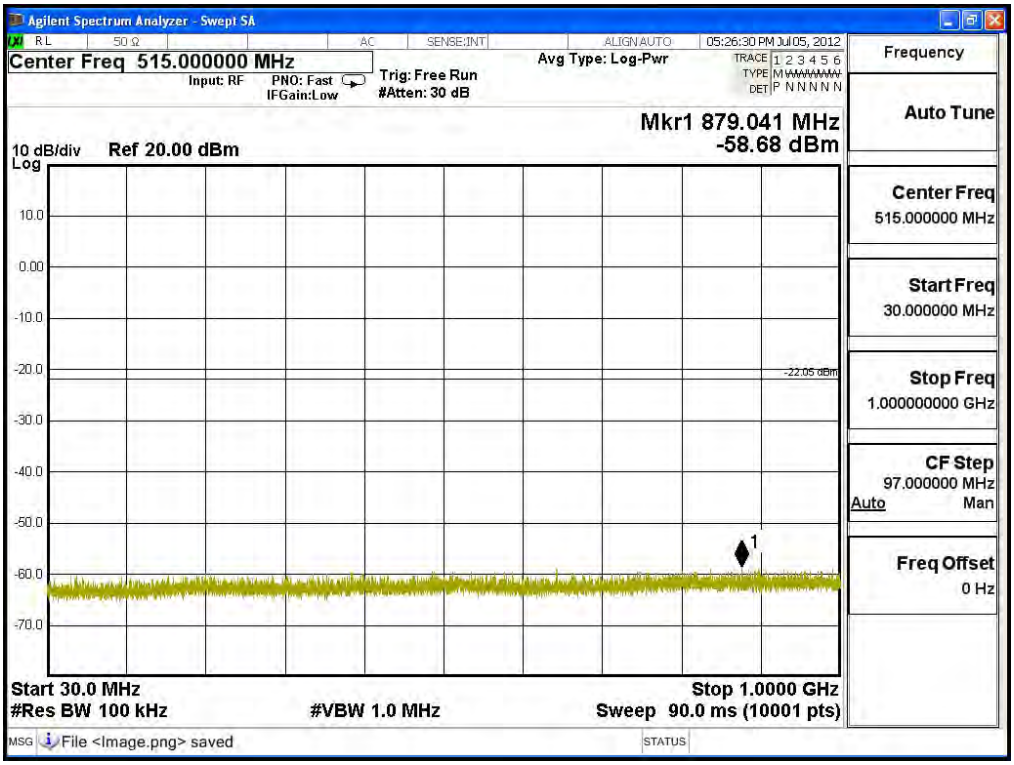
Channel 04 (2437MHz) 30MHz -25GHz

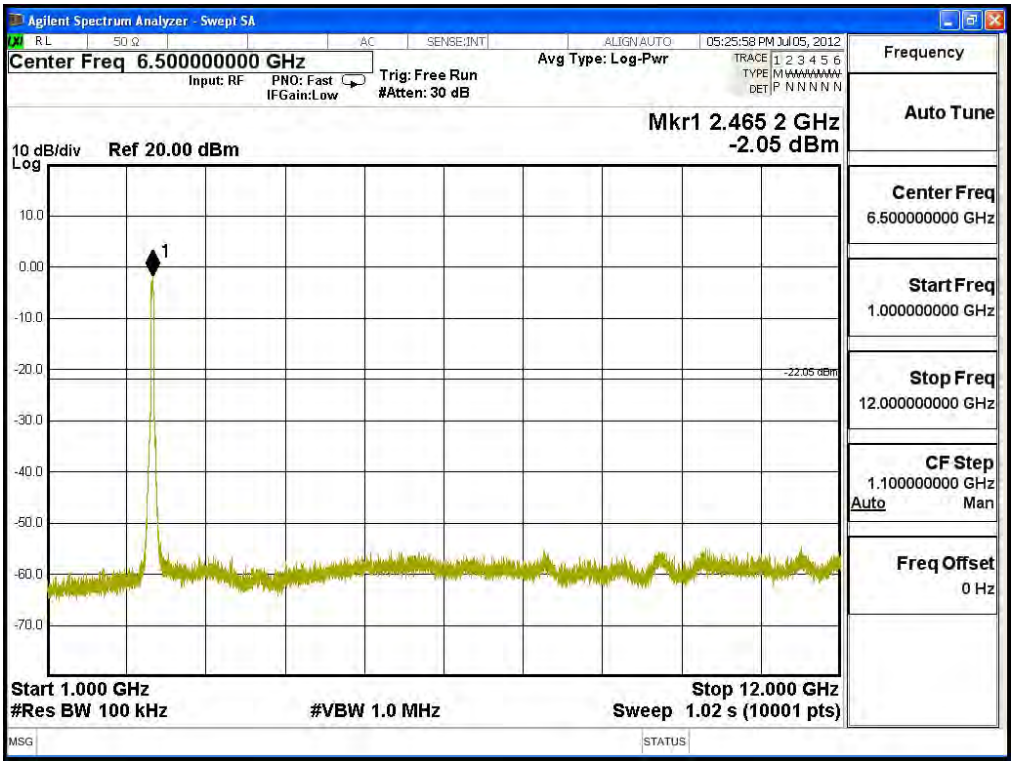


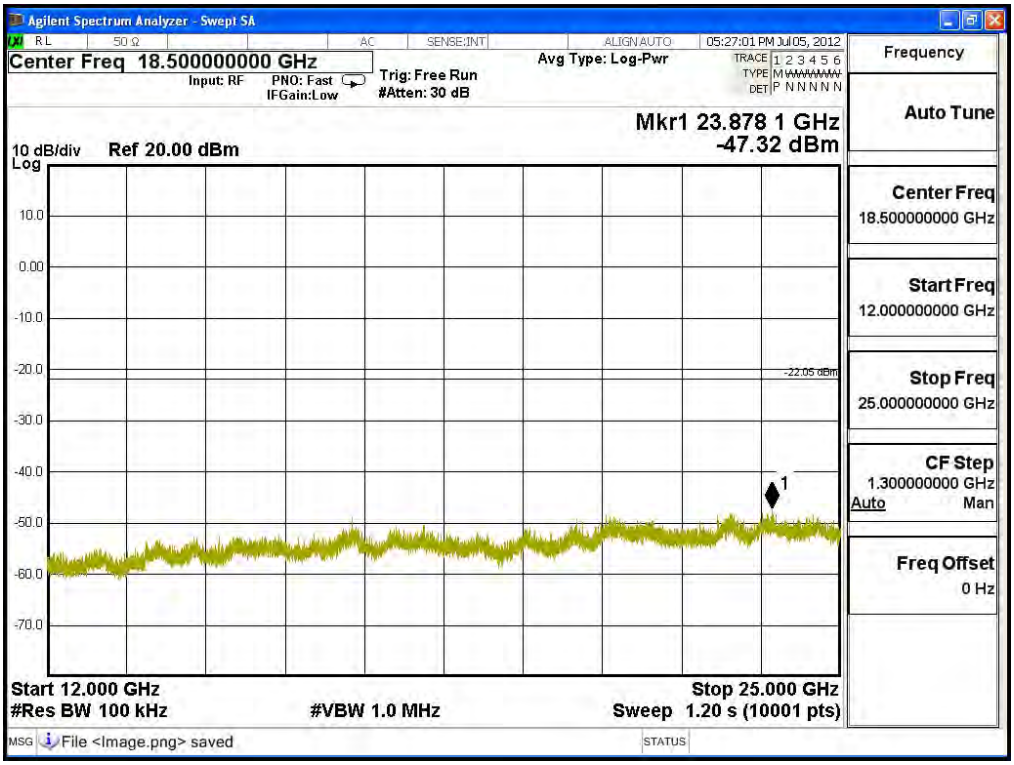




Channel 07 (2452MHz) 30MHz -25GHz




Agilent Spectrum Analyzer - Swept SA
Center Freq 6.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:25:58 PM Jul 05, 2012
Mkr1 2.465 2 GHz
-2.05 dBm
10 dB/div
Log
Ref 20.00 dBm
-22.05 dBm
Start 1.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 12.000 GHz
Sweep 1.02 s (10001 pts)
Frequency
Auto Tune
Center Freq
6.500000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
12.000000000 GHz
CF Step
1.100000000 GHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 18.500000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
05:27:01 PM Jul 05, 2012
Mkr1 23.878 1 GHz
-47.32 dBm
10 dB/div
Log
Ref 20.00 dBm
-22.05 dBm
Start 12.000 GHz
#Res BW 100 kHz
#VBW 1.0 MHz
Stop 25.000 GHz
Sweep 1.20 s (10001 pts)
File <Image.png> saved
Frequency
Auto Tune
Center Freq
18.500000000 GHz
Start Freq
12.000000000 GHz
Stop Freq
25.000000000 GHz
CF Step
1.300000000 GHz
Auto
Man
Freq Offset
0 Hz