

15.247(d) Field Strength of Spurious Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Motorola Mobility, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **92742** Date: 2/2/2012
 Test Type: **Maximized Emissions** Time: 18:21:24
 Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 5
 Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto
 Model: SBG6580 P2
 S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T3	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T4	ANP05198	Cable	8268	12/21/2010	12/21/2012
T5	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T6	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T7	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T8	AN03239	Cable	32022-2-29094K-24TC	8/30/2011	8/30/2013
T9	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T10	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T11	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T12	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T13	AN02744	High Pass Filter	11SH10-3000/T10000-O/O	3/5/2010	3/5/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	355601130600070507050085

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis System	Spirent	SMB-600B	N06012143
8 Way Splitter	Regal	DS8DGV10	
8 Way Splitter	Regal	DS8DGV10	
DHCP Server	HP	Compaq 6910p	
Diplexer	Eagle Comtronics	EDPF-65/85	(none)
Laptop Computer	Dell	Precision M70	

Test Conditions / Notes:

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT and its AC to DC adapter are stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The CM Ethernet ports are connected to the SmartBits performance analysis system. The CM RF port is connected to the diplexer, then splitters and finally to the broadband router (CASA). The DHCP server is connected to the broadband router through the gigabit switch. The laptop is connected to the performance analysis system. The SmartBits is turned on and running data. The EUT is transmitting continuously.

Frequency range of EUT: 2412MHz to 2462MHz
 Transmit Frequencies used for this data sheet: 2412MHz (Low), 2437MHz (Middle), and 2462MHz (High).
 Channels 1, 6, and 11. 802.11b (11 Mbps)
 Antenna: Antenna Gain: 4.1 dBi max at 2.4GHz band. Antenna Gain: 4.4 dBi max at 5GHz band
 Frequency range of measurement = 9 kHz to 25GHz.
 Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 26000 MHz RBW=1 MHz, VBW=1 MHz.
 Temperature: 20°C, Humidity: 38%, Pressure: 100kPa.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
			T13								
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
3	2500.000M	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
	Ave		-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								

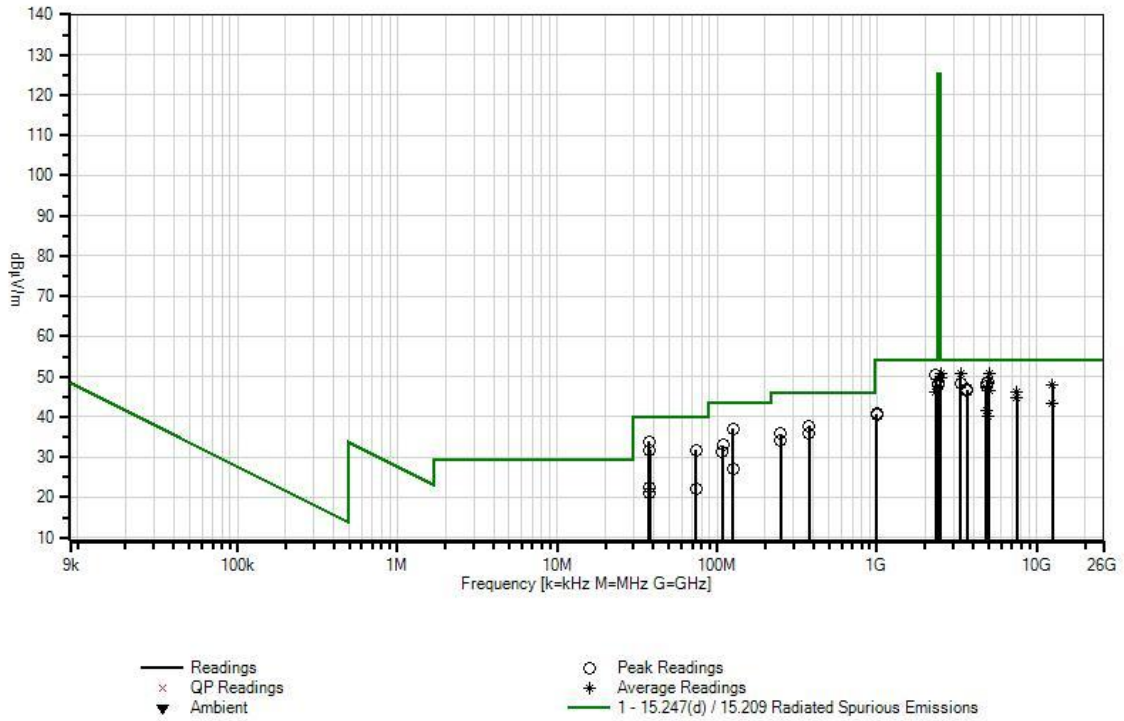
^	2500.000M	59.2	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	54.8	54.0	+0.8	Horiz
5	4999.998M Ave	46.7	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert
7	2333.334M	55.2	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
8	2500.000M Ave	54.0	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	49.6	54.0	-4.4	Vert
^	2500.000M	56.5	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
10	4923.967M	44.8	+0.0 -37.1 +0.4 +0.4	+0.5 +33.2 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	48.7	54.0	-5.3	Horiz
11	4874.088M	44.6	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	48.4	54.0	-5.6	Horiz
12	3333.332M	48.9	+0.0 -37.7 +0.6 +0.6	+0.4 +30.7 +0.6 +0.6	+1.6 +0.6 +0.6 +0.6	+3.9 +0.6 +0.6 +0.6	+0.0	48.4	54.0	-5.6	Vert
13	2390.000M	52.9	+0.0 -38.0 +0.0 +0.0	+0.4 +28.4 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	48.2	54.0	-5.8	Vert
14	12499.995 M Ave	32.5	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	48.1	54.0	-5.9	Horiz
^	12499.995 M	38.2	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	53.8	54.0	-0.2	Horiz
16	2389.981M	52.6	+0.0 -38.0 +0.0 +0.0	+0.4 +28.4 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz

17	37.562M	45.7	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
18	4823.997M	44.0	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	47.7	54.0	-6.3	Horiz
19	125.002M	50.6	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert
20	3666.667M	46.2	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
21	4999.992M Ave	42.6	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
23	3666.665M	45.8	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
24	7499.992M Ave	37.7	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz
^	7499.992M	42.9	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Horiz
26	2333.332M Ave	51.1	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	46.2	54.0	-7.8	Horiz
^	2333.332M	57.2	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	52.3	54.0	-1.7	Horiz
28	37.706M	43.8	+0.0 +14.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	31.8	40.0	-8.2	Vert
29	375.009M	46.4	+0.0 +15.5 +0.0 +0.0	+0.3 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+3.5 +0.0 +0.0 +0.0	+0.0	37.8	46.0	-8.2	Vert

30	73.819M	51.5	+0.0 +6.6 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
31	74.005M	51.4	+0.0 +6.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
32	7499.993M Ave	36.1	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	44.7	54.0	-9.3	Vert
^	7499.993M	42.9	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Vert
34	375.036M	44.6	+0.0 +15.5 +0.0 +0.0	+0.3 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+3.5 +0.0 +0.0 +0.0	+0.0	36.0	46.0	-10.0	Horiz
35	249.999M	47.9	+0.0 +12.7 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+2.8 +0.0 +0.0 +0.0	+0.0	35.8	46.0	-10.2	Vert
36	108.846M	47.9	+0.0 +10.9 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.8 +0.0 +0.0 +0.0	+0.0	32.9	43.5	-10.6	Vert
37	12499.993 M Ave	27.6	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	43.2	54.0	-10.8	Vert
^	12499.993 M	37.4	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	53.0	54.0	-1.0	Vert
39	250.014M	46.1	+0.0 +12.7 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+2.8 +0.0 +0.0 +0.0	+0.0	34.0	46.0	-12.0	Horiz
40	108.139M	46.5	+0.0 +10.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.8 +0.0 +0.0 +0.0	+0.0	31.4	43.5	-12.1	Vert
41	4873.968M Ave	37.8	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	41.6	54.0	-12.4	Vert
^	4873.968M	47.8	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	51.6	54.0	-2.4	Vert

43	4823.970M Ave	37.8	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	41.5	54.0	-12.5	Vert
^	4823.970M	47.5	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	51.2	54.0	-2.8	Vert
45	999.999M	36.5	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.8	54.0	-13.2	Vert
46	999.996M	36.1	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.4	54.0	-13.6	Horiz
47	4923.970M Ave	36.4	+0.0 -37.1 +0.4 +0.4	+0.5 +33.2 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	40.3	54.0	-13.7	Vert
^	4923.970M	47.7	+0.0 -37.1 +0.4 +0.4	+0.5 +33.2 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	51.6	54.0	-2.4	Vert
49	125.008M	40.5	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	26.9	43.5	-16.6	Horiz
50	37.685M	34.3	+0.0 +14.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	22.3	40.0	-17.7	Horiz
51	73.962M	41.8	+0.0 +6.6 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	22.0	40.0	-18.0	Horiz
52	37.542M	32.8	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 5 Ext ATTN: 0 dB





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 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **92742** Date: 2/2/2012
 Test Type: **Maximized Emissions** Time: 18:21:24
 Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 6
 Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto
 Model: SBG6580 P2
 S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
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T2	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T3	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T4	ANP05198	Cable	8268	12/21/2010	12/21/2012
T5	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T6	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T7	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T8	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T9	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T10	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T11	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T12	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T13	AN02744	High Pass Filter	11SH10- 3000/T10000- O/O	3/5/2010	3/5/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013

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Function	Manufacturer	Model #	S/N
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Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis System	Spirent	SMB-600B	N06012143
8 Way Splitter	Regal	DS8DGV10	
8 Way Splitter	Regal	DS8DGV10	
DHCP Server	HP	Compaq 6910p	
Diplexer	Eagle Comtronics	EDPF-65/85	(none)
Laptop Computer	Dell	Precision M70	

Test Conditions / Notes:

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT and its AC to DC adapter are stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The CM Ethernet ports are connected to the SmartBits performance analysis system. The CM RF port is connected to the diplexer, then splitters and finally to the broadband router (CASA). The DHCP server is connected to the broadband router through the gigabit switch. The laptop is connected to the performance analysis system. The SmartBits is turned on and running data. The EUT is transmitting continuously.

Frequency range of EUT: 2412MHz to 2462MHz
 Transmit Frequencies used for this data sheet: 2412MHz (Low), 2437MHz (Middle), and 2462MHz (High).
 Channels 1, 6, and 11. 802.11g (6 Mbps)
 Antenna: Antenna Gain: 4.1 dBi max at 2.4GHz band. Antenna Gain: 4.4 dBi max at 5GHz band
 Frequency range of measurement = 9 kHz to 25GHz.
 Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 26000 MHz RBW=1 MHz, VBW=1 MHz.
 Temperature: 20°C, Humidity: 38%, Pressure: 100kPa.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
			T13								
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M Ave	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
3	4999.998M Ave	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
			+0.3								

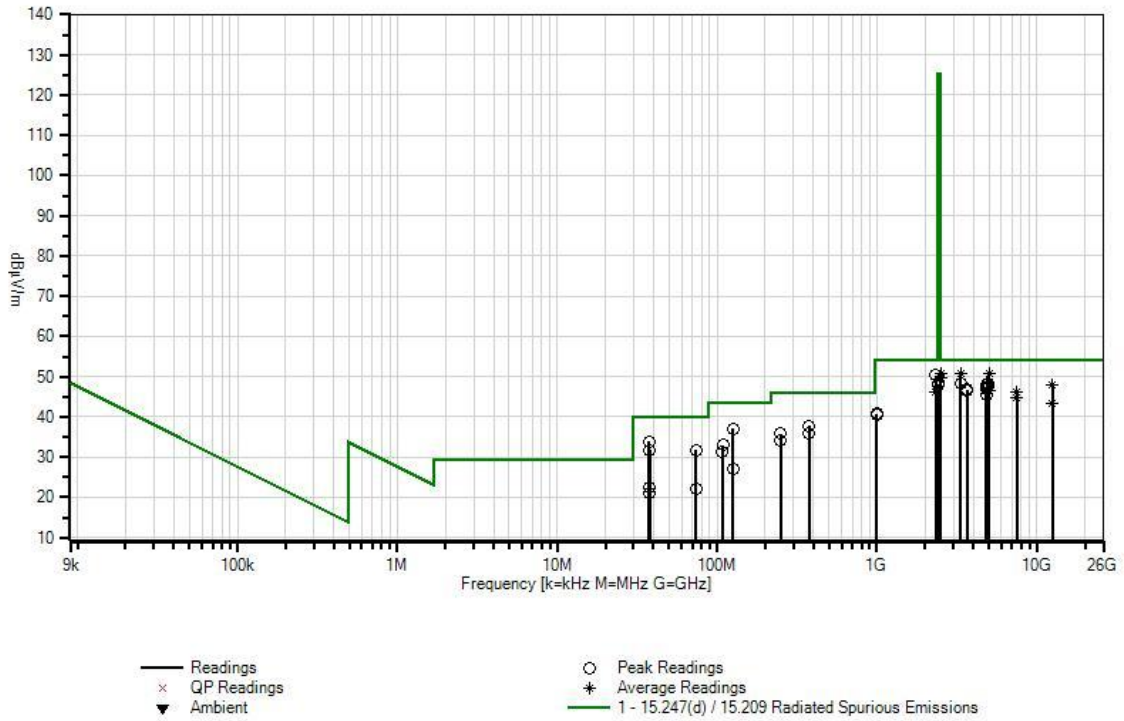
^ 4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
		-37.0	+33.3	+0.3	+0.3					
		+0.3	+0.3	+0.3	+0.3					
		+0.3								
5 2500.000M Ave	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
^ 2500.000M	59.2	+0.0	+0.4	+1.3	+3.3	+0.0	54.8	54.0	+0.8	Horiz
		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
7 2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
8 2500.000M Ave	54.0	+0.0	+0.4	+1.3	+3.3	+0.0	49.6	54.0	-4.4	Vert
		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
^ 2500.000M	56.5	+0.0	+0.4	+1.3	+3.3	+0.0	52.1	54.0	-1.9	Vert
		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
10 3333.332M	48.9	+0.0	+0.4	+1.6	+3.9	+0.0	48.4	54.0	-5.6	Vert
		-37.7	+30.7	+0.6	+0.6					
		+0.6	+0.6	+0.6	+0.6					
		+0.6								
11 4923.948M	44.4	+0.0	+0.5	+1.9	+5.0	+0.0	48.3	54.0	-5.7	Vert
		-37.1	+33.2	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
12 2390.000M	52.9	+0.0	+0.4	+1.2	+3.3	+0.0	48.2	54.0	-5.8	Vert
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
13 12499.995 M Ave	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
		+0.2								
^ 12499.995 M	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
		+0.2								
15 4873.973M	44.1	+0.0	+0.5	+1.9	+5.0	+0.0	47.9	54.0	-6.1	Vert
		-37.1	+33.1	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
16 2389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								

17	37.562M	45.7	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
18	4923.942M	43.7	+0.0 -37.1 +0.4 +0.4	+0.5 +33.2 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	47.6	54.0	-6.4	Horiz
19	125.002M	50.6	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert
20	4823.981M	43.5	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	47.2	54.0	-6.8	Horiz
21	4873.960M	43.2	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	47.0	54.0	-7.0	Horiz
22	3666.667M	46.2	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
23	4999.992M Ave	42.6	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
25	3666.665M	45.8	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
26	7499.992M Ave	37.7	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz
^	7499.992M	42.9	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Horiz
28	2333.332M Ave	51.1	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	46.2	54.0	-7.8	Horiz
^	2333.332M	57.2	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	52.3	54.0	-1.7	Horiz

30	37.706M	43.8	+0.0 +14.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	31.8	40.0	-8.2	Vert
31	375.009M	46.4	+0.0 +15.5 +0.0 +0.0	+0.3 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+3.5 +0.0 +0.0 +0.0	+0.0	37.8	46.0	-8.2	Vert
32	74.005M	51.4	+0.0 +6.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
33	73.819M	51.5	+0.0 +6.6 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
34	4824.002M	41.7	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	45.4	54.0	-8.6	Vert
35	7499.993M Ave	36.1	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	44.7	54.0	-9.3	Vert
^	7499.993M	42.9	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Vert
37	375.036M	44.6	+0.0 +15.5 +0.0 +0.0	+0.3 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+3.5 +0.0 +0.0 +0.0	+0.0	36.0	46.0	-10.0	Horiz
38	249.999M	47.9	+0.0 +12.7 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+2.8 +0.0 +0.0 +0.0	+0.0	35.8	46.0	-10.2	Vert
39	108.846M	47.9	+0.0 +10.9 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.8 +0.0 +0.0 +0.0	+0.0	32.9	43.5	-10.6	Vert
40	12499.993 M Ave	27.6	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	43.2	54.0	-10.8	Vert
^	12499.993 M	37.4	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	53.0	54.0	-1.0	Vert
42	250.014M	46.1	+0.0 +12.7 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+2.8 +0.0 +0.0 +0.0	+0.0	34.0	46.0	-12.0	Horiz

43	108.139M	46.5	+0.0 +10.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.8 +0.0 +0.0 +0.0	+0.0	31.4	43.5	-12.1	Vert
44	999.999M	36.5	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.8	54.0	-13.2	Vert
45	999.996M	36.1	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.4	54.0	-13.6	Horiz
46	125.008M	40.5	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	26.9	43.5	-16.6	Horiz
47	37.685M	34.3	+0.0 +14.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	22.3	40.0	-17.7	Horiz
48	73.962M	41.8	+0.0 +6.6 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	22.0	40.0	-18.0	Horiz
49	37.542M	32.8	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 6 Ext ATTN: 0 dB





Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Motorola Mobility, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **92742** Date: 2/2/2012
 Test Type: **Maximized Emissions** Time: 18:21:24
 Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 7
 Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto
 Model: SBG6580 P2
 S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T3	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T4	ANP05198	Cable	8268	12/21/2010	12/21/2012
T5	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T6	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T7	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T8	AN03239	Cable	32022-2-29094K-24TC	8/30/2011	8/30/2013
T9	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T10	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T11	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T12	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T13	AN02744	High Pass Filter	11SH10-3000/T10000-O/O	3/5/2010	3/5/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	355601130600070507050085

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis System	Spirent	SMB-600B	N06012143
8 Way Splitter	Regal	DS8DGV10	
8 Way Splitter	Regal	DS8DGV10	
DHCP Server	HP	Compaq 6910p	
Diplexer	Eagle Comtronics	EDPF-65/85	(none)
Laptop Computer	Dell	Precision M70	

Test Conditions / Notes:

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT and its AC to DC adapter are stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The CM Ethernet ports are connected to the SmartBits performance analysis system. The CM RF port is connected to the diplexer, then splitters and finally to the broadband router (CASA). The DHCP server is connected to the broadband router through the gigabit switch. The laptop is connected to the performance analysis system. The SmartBits is turned on and running data. The EUT is transmitting continuously.

Frequency range of EUT: 2412MHz to 2462MHz
 Transmit Frequencies used for this data sheet: 2412MHz (Low), 2437MHz (Middle), and 2462MHz (High).
 Channels 1, 6, and 11. 802.11n (20MHz) (7.2 Mbps)
 Antenna: Antenna Gain: 4.1 dBi max at 2.4GHz band. Antenna Gain: 4.4 dBi max at 5GHz band
 Frequency range of measurement = 9 kHz to 25GHz.
 Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 26000 MHz RBW=1 MHz, VBW=1 MHz.
 Temperature: 20°C, Humidity: 38%, Pressure: 100kPa.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
			T13								
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M Ave	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
3	2500.000M Ave	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								

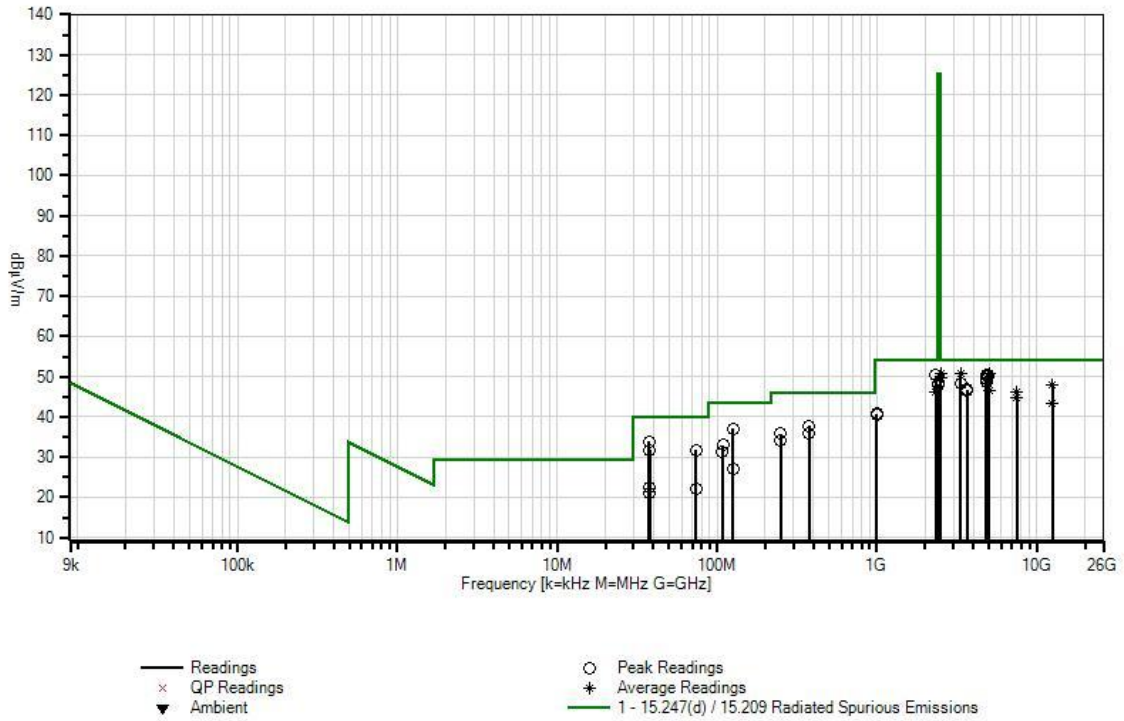
^	2500.000M	59.2	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	54.8	54.0	+0.8	Horiz
5	4999.998M Ave	46.7	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert
7	4923.871M	46.7	+0.0 -37.1 +0.4 +0.4	+0.5 +33.2 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	50.6	54.0	-3.4	Vert
8	4824.043M	46.7	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	50.4	54.0	-3.6	Vert
9	2333.334M	55.2	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
10	4923.803M	46.2	+0.0 -37.1 +0.4 +0.4	+0.5 +33.2 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	50.1	54.0	-3.9	Horiz
11	2500.000M Ave	54.0	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	49.6	54.0	-4.4	Vert
^	2500.000M	56.5	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
13	4874.018M	45.7	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	49.5	54.0	-4.5	Horiz
14	4873.987M	45.4	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	49.2	54.0	-4.8	Vert
15	4824.030M	45.0	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	48.7	54.0	-5.3	Horiz
16	3333.332M	48.9	+0.0 -37.7 +0.6 +0.6	+0.4 +30.7 +0.6 +0.6	+1.6 +0.6 +0.6 +0.6	+3.9 +0.6 +0.6 +0.6	+0.0	48.4	54.0	-5.6	Vert

17	2390.000M	52.9	+0.0 -38.0 +0.0 +0.0	+0.4 +28.4 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	48.2	54.0	-5.8	Vert
18	12499.995 M Ave	32.5	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	48.1	54.0	-5.9	Horiz
^	12499.995 M	38.2	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	53.8	54.0	-0.2	Horiz
20	2389.981M	52.6	+0.0 -38.0 +0.0 +0.0	+0.4 +28.4 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
21	37.562M	45.7	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
22	125.002M	50.6	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert
23	3666.667M	46.2	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
24	4999.992M Ave	42.6	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
26	3666.665M	45.8	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
27	7499.992M Ave	37.7	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz
^	7499.992M	42.9	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Horiz
29	2333.332M Ave	51.1	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	46.2	54.0	-7.8	Horiz

^	2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
			-38.0	+28.3	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
31	37.706M	43.8	+0.0	+0.1	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
32	375.009M	46.4	+0.0	+0.3	-27.9	+3.5	+0.0	37.8	46.0	-8.2	Vert
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
33	73.819M	51.5	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
34	74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
35	7499.993M Ave	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
			+0.1								
^	7499.993M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
			+0.1								
37	375.036M	44.6	+0.0	+0.3	-27.9	+3.5	+0.0	36.0	46.0	-10.0	Horiz
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
38	249.999M	47.9	+0.0	+0.2	-27.8	+2.8	+0.0	35.8	46.0	-10.2	Vert
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
39	108.846M	47.9	+0.0	+0.1	-27.8	+1.8	+0.0	32.9	43.5	-10.6	Vert
			+10.9	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
40	12499.993 M Ave	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
			+0.2								
^	12499.993 M	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
			+0.2								
42	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								

43	108.139M	46.5	+0.0 +10.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.8 +0.0 +0.0 +0.0	+0.0	31.4	43.5	-12.1	Vert
44	999.999M	36.5	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.8	54.0	-13.2	Vert
45	999.996M	36.1	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.4	54.0	-13.6	Horiz
46	125.008M	40.5	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	26.9	43.5	-16.6	Horiz
47	37.685M	34.3	+0.0 +14.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	22.3	40.0	-17.7	Horiz
48	73.962M	41.8	+0.0 +6.6 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	22.0	40.0	-18.0	Horiz
49	37.542M	32.8	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 7 Ext ATTN: 0 dB





Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Motorola Mobility, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **92742** Date: 2/2/2012
 Test Type: **Maximized Emissions** Time: 18:21:24
 Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 8
 Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto
 Model: SBG6580 P2
 S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T3	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T4	ANP05198	Cable	8268	12/21/2010	12/21/2012
T5	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T6	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T7	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T8	AN03239	Cable	32022-2-29094K-24TC	8/30/2011	8/30/2013
T9	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T10	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T11	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T12	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T13	AN02744	High Pass Filter	11SH10-3000/T10000-O/O	3/5/2010	3/5/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	355601130600070507050085

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis System	Spirent	SMB-600B	N06012143
8 Way Splitter	Regal	DS8DGV10	
8 Way Splitter	Regal	DS8DGV10	
DHCP Server	HP	Compaq 6910p	
Diplexer	Eagle Comtronics	EDPF-65/85	(none)
Laptop Computer	Dell	Precision M70	

Test Conditions / Notes:

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT and its AC to DC adapter are stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The CM Ethernet ports are connected to the SmartBits performance analysis system. The CM RF port is connected to the diplexer, then splitters and finally to the broadband router (CASA). The DHCP server is connected to the broadband router through the gigabit switch. The laptop is connected to the performance analysis system. The SmartBits is turned on and running data. The EUT is transmitting continuously.

Frequency range of EUT: 2422MHz to 2452MHz
 Transmit Frequencies used for this data sheet: 2422MHz (Low), 2437MHz (Middle), and 2452MHz (High).
 Channels 3, 6, and 9. 802.11n (40MHz) (15 Mbps)
 Antenna: Antenna Gain: 4.1 dBi max at 2.4GHz band. Antenna Gain: 4.4 dBi max at 5GHz band
 Frequency range of measurement = 9 kHz to 25GHz.
 Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 26000 MHz RBW=1 MHz, VBW=1 MHz.
 Temperature: 20°C, Humidity: 38%, Pressure: 100kPa.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
			T13								
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M Ave	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
3	2500.000M Ave	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								

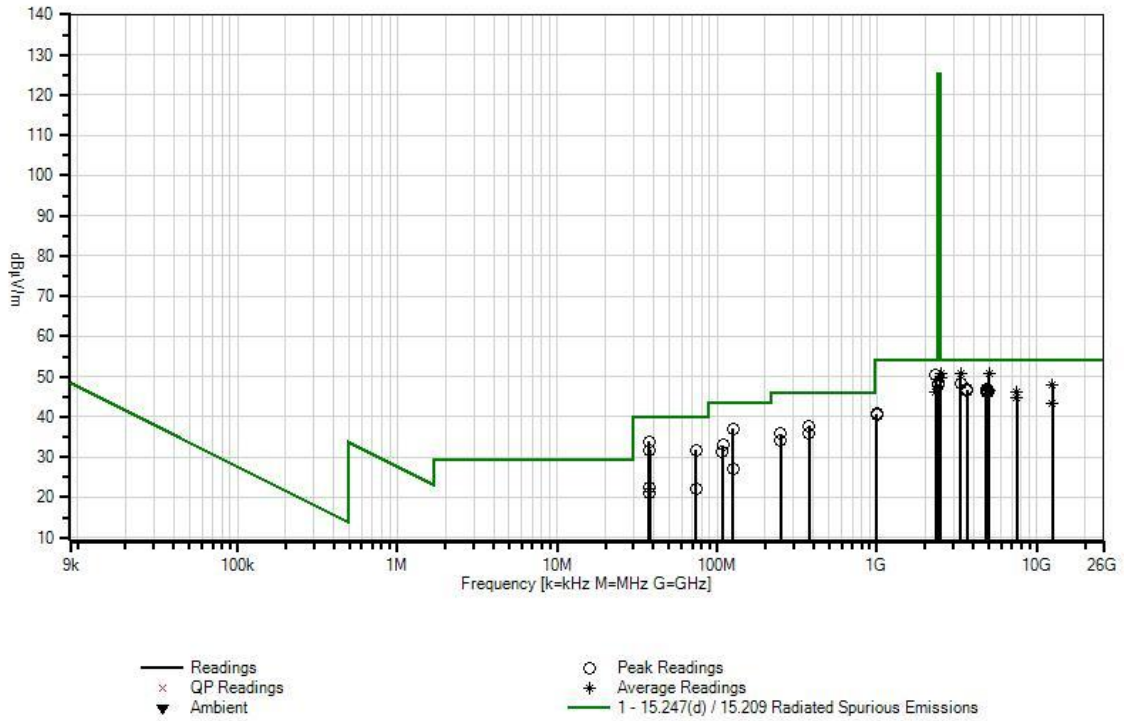
^	2500.000M	59.2	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	54.8	54.0	+0.8	Horiz
5	4999.998M Ave	46.7	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert
7	2333.334M	55.2	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
8	2500.000M Ave	54.0	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	49.6	54.0	-4.4	Vert
^	2500.000M	56.5	+0.0 -37.9 +0.0 +0.0	+0.4 +28.5 +0.0 +0.0	+1.3 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
10	3333.332M	48.9	+0.0 -37.7 +0.6 +0.6	+0.4 +30.7 +0.6 +0.6	+1.6 +0.6 +0.6 +0.6	+3.9 +0.6 +0.6 +0.6	+0.0	48.4	54.0	-5.6	Vert
11	2390.000M	52.9	+0.0 -38.0 +0.0 +0.0	+0.4 +28.4 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	48.2	54.0	-5.8	Vert
12	12499.995 M Ave	32.5	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	48.1	54.0	-5.9	Horiz
^	12499.995 M	38.2	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	53.8	54.0	-0.2	Horiz
14	2389.981M	52.6	+0.0 -38.0 +0.0 +0.0	+0.4 +28.4 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.3 +0.0 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
15	37.562M	45.7	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
16	125.002M	50.6	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert

17	4843.750M	43.3	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	47.0	54.0	-7.0	Vert
18	4844.420M	43.3	+0.0 -37.1 +0.4 +0.4	+0.5 +33.0 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	47.0	54.0	-7.0	Horiz
19	3666.667M	46.2	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
20	4903.170M	42.9	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	46.7	54.0	-7.3	Horiz
21	4999.992M Ave	42.6	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3 +0.3	+0.5 +33.3 +0.3 +0.3	+1.9 +0.3 +0.3 +0.3	+5.0 +0.3 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
23	3666.665M	45.8	+0.0 -37.4 +0.4 +0.4	+0.4 +31.3 +0.4 +0.4	+1.7 +0.4 +0.4 +0.4	+4.2 +0.4 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
24	4873.700M	42.6	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
25	7499.992M Ave	37.7	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz
^	7499.992M	42.9	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Horiz
27	2333.332M Ave	51.1	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	46.2	54.0	-7.8	Horiz
^	2333.332M	57.2	+0.0 -38.0 +0.0 +0.0	+0.4 +28.3 +0.0 +0.0	+1.2 +0.0 +0.0 +0.0	+3.2 +0.0 +0.0 +0.0	+0.0	52.3	54.0	-1.7	Horiz
29	4903.770M	42.2	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	46.0	54.0	-8.0	Vert

30	4873.900M	42.2	+0.0 -37.1 +0.4 +0.4	+0.5 +33.1 +0.4 +0.4	+1.9 +0.4 +0.4 +0.4	+5.0 +0.4 +0.4 +0.4	+0.0	46.0	54.0	-8.0	Vert
31	37.706M	43.8	+0.0 +14.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	31.8	40.0	-8.2	Vert
32	375.009M	46.4	+0.0 +15.5 +0.0 +0.0	+0.3 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+3.5 +0.0 +0.0 +0.0	+0.0	37.8	46.0	-8.2	Vert
33	74.005M	51.4	+0.0 +6.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
34	73.819M	51.5	+0.0 +6.6 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
35	7499.993M Ave	36.1	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	44.7	54.0	-9.3	Vert
^	7499.993M	42.9	+0.0 -36.5 +0.1 +0.1	+0.7 +35.5 +0.1 +0.1	+2.3 +0.1 +0.1 +0.1	+6.5 +0.1 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Vert
37	375.036M	44.6	+0.0 +15.5 +0.0 +0.0	+0.3 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+3.5 +0.0 +0.0 +0.0	+0.0	36.0	46.0	-10.0	Horiz
38	249.999M	47.9	+0.0 +12.7 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+2.8 +0.0 +0.0 +0.0	+0.0	35.8	46.0	-10.2	Vert
39	108.846M	47.9	+0.0 +10.9 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.8 +0.0 +0.0 +0.0	+0.0	32.9	43.5	-10.6	Vert
40	12499.993 M Ave	27.6	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	43.2	54.0	-10.8	Vert
^	12499.993 M	37.4	+0.0 -35.9 +0.2 +0.2	+0.8 +38.7 +0.2 +0.2	+2.9 +0.2 +0.2 +0.2	+8.9 +0.2 +0.2 +0.2	+0.0	53.0	54.0	-1.0	Vert
42	250.014M	46.1	+0.0 +12.7 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+2.8 +0.0 +0.0 +0.0	+0.0	34.0	46.0	-12.0	Horiz

43	108.139M	46.5	+0.0 +10.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.8 +0.0 +0.0 +0.0	+0.0	31.4	43.5	-12.1	Vert
44	999.999M	36.5	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.8	54.0	-13.2	Vert
45	999.996M	36.1	+0.0 +24.8 +0.0 +0.0	+0.6 +0.0 +0.0 +0.0	-27.3 +0.0 +0.0 +0.0	+6.2 +0.0 +0.0 +0.0	+0.0	40.4	54.0	-13.6	Horiz
46	125.008M	40.5	+0.0 +12.1 +0.0 +0.0	+0.2 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.9 +0.0 +0.0 +0.0	+0.0	26.9	43.5	-16.6	Horiz
47	37.685M	34.3	+0.0 +14.7 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	22.3	40.0	-17.7	Horiz
48	73.962M	41.8	+0.0 +6.6 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.9 +0.0 +0.0 +0.0	+1.4 +0.0 +0.0 +0.0	+0.0	22.0	40.0	-18.0	Horiz
49	37.542M	32.8	+0.0 +14.8 +0.0 +0.0	+0.1 +0.0 +0.0 +0.0	-27.8 +0.0 +0.0 +0.0	+1.0 +0.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 8 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Motorola Mobility, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **92742** Date: 2/5/2012
 Test Type: **Maximized Emissions** Time: 13:01:35
 Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 17
 Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto
 Model: SBG6580 P2
 S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-24TC	8/30/2011	8/30/2013
T3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-3000/T10000-O/O	3/5/2010	3/5/2012
T8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	AN03158	Active Horn Antenna	AMFW-5F-26004000-33-8P	4/1/2010	4/1/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	355601130600070507050085

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis System	Spirent	SMB-600B	N06012143
8 Way Splitter	Regal	DS8DGV10	
8 Way Splitter	Regal	DS8DGV10	
DHCP Server	HP	Compaq 6910p	
Diplexer	Eagle Comtronics	EDPF-65/85	(none)
Laptop Computer	Dell	Precision M70	

Test Conditions / Notes:

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT and its AC to DC adapter are stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The CM Ethernet ports are connected to the SmartBits performance analysis system. The CM RF port is connected to the diplexer, then splitters and finally to the broadband router (CASA). The DHCP server is connected to the broadband router through the gigabit switch. The laptop is connected to the performance analysis system. The SmartBits is turned on and running data. The EUT is transmitting continuously.

Frequency range of EUT: 5745MHz to 5825MHz
 Transmit Frequencies used for this data sheet: 5745MHz (Low), 5785MHz (Middle), and 5825MHz (High).
 Channels 149, 157, and 165. 802.11a (6 Mbps)
 Antenna: Antenna Gain: 4.1 dBi max at 2.4GHz band. Antenna Gain: 4.4 dBi max at 5GHz band
 Frequency range of measurement = 9 kHz to 40GHz.
 Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 40000 MHz RBW=1 MHz, VBW=1 MHz.
 Temperature: 20°C, Humidity: 38%, Pressure: 100kPa.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1	T2	T3	T4	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
			T5	T6	T7	T8					
1	3333.332M Ave	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	4999.998M Ave	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					

5	2500.000M Ave	55.1	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	50.7	54.0	-3.3	Horiz
^	2500.000M	59.2	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	54.8	54.0	+0.8	Horiz
7	2333.334M	55.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
8	2500.000M Ave	54.0	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	49.6	54.0	-4.4	Vert
^	2500.000M	56.5	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
10	11650.230 M	36.8	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.4	+0.0 +0.0 +36.5	+0.0	49.5	54.0	-4.5	Horiz
11	11570.270 M	36.5	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.0 +36.4	+0.0	49.1	54.0	-4.9	Horiz
12	3333.332M	48.9	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	48.4	54.0	-5.6	Vert
13	11491.270 M	35.9	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.3	+0.0	48.3	54.0	-5.7	Vert
14	2390.000M	52.9	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	48.2	54.0	-5.8	Vert
15	11651.030 M	35.5	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.4	+0.0 +0.8 +36.5	+0.0	48.2	54.0	-5.8	Vert
16	12499.995 M Ave	32.5	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	48.1	54.0	-5.9	Horiz
^	12499.995 M	38.2	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	53.8	54.0	-0.2	Horiz
18	114.300M	51.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +11.4	+0.0 +0.2 +0.0	+0.0	37.4	43.5	-6.1	Vert
19	2389.981M	52.6	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
20	37.562M	45.7	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
21	37.562M	45.7	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	33.8	40.0	-6.2	Vert

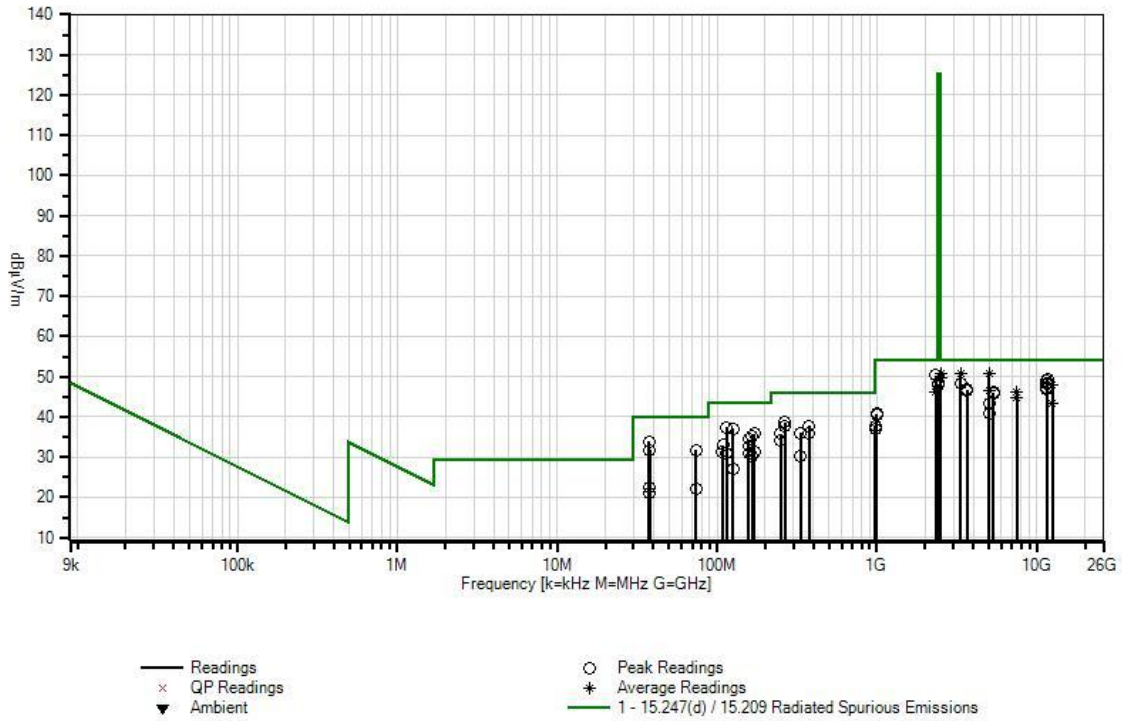
22	125.002M	50.6	+0.0 +12.1 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+1.9 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert
23	125.002M	50.6	+0.0 +0.0 -27.8	+0.0 +0.0 +1.9	+0.0 +0.0 +12.1	+0.0 +0.2 +0.0	+0.0	37.0	43.5	-6.5	Vert
24	11569.530 M	34.7	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.4	+0.0	47.3	54.0	-6.7	Vert
25	11489.770 M	34.5	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.3	+0.0	46.9	54.0	-7.1	Horiz
26	3666.667M	46.2	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
27	264.011M	50.3	+0.0 +0.0 -27.7	+0.0 +0.0 +2.9	+0.0 +0.0 +12.9	+0.0 +0.3 +0.0	+0.0	38.7	46.0	-7.3	Horiz
28	4999.992M Ave	42.6	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
30	3666.665M	45.8	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
31	170.000M	51.4	+0.0 +0.0 -27.8	+0.0 +0.0 +2.3	+0.0 +0.0 +9.7	+0.0 +0.2 +0.0	+0.0	35.8	43.5	-7.7	Vert
32	7499.992M Ave	37.7	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz
^	7499.992M	42.9	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Horiz
34	2333.332M Ave	51.1	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	46.2	54.0	-7.8	Horiz
^	2333.332M	57.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	52.3	54.0	-1.7	Horiz
36	5359.898M	40.6	+0.0 +0.0 +1.9	+0.0 +0.0 +5.3	+0.0 +0.0 -36.9	+0.0 +0.6 +34.1	+0.0	46.0	54.0	-8.0	Horiz
37	5359.843M	40.4	+0.0 +0.0 +1.9	+0.0 +0.0 +5.3	+0.0 +0.0 -36.9	+0.0 +0.6 +34.1	+0.0	45.8	54.0	-8.2	Vert
38	37.706M	43.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.7	+0.0 +0.1 +0.0	+0.0	31.8	40.0	-8.2	Vert

39	37.706M	43.8	+0.0 +14.7 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	31.8	40.0	-8.2	Vert
40	375.009M	46.4	+0.0 +0.0 -27.9	+0.0 +0.0 +3.5	+0.0 +0.0 +15.5	+0.0 +0.3 +0.0	+0.0	37.8	46.0	-8.2	Vert
41	375.009M	46.4	+0.0 +15.5 +0.0	+0.3 +0.0 +0.0	-27.9 +0.0 +0.0	+3.5 +0.0 +0.0	+0.0	37.8	46.0	-8.2	Vert
42	74.005M	51.4	+0.0 +6.7 +0.0	+0.1 +0.0 +0.0	-27.9 +0.0 +0.0	+1.4 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
43	73.819M	51.5	+0.0 +6.6 +0.0	+0.1 +0.0 +0.0	-27.9 +0.0 +0.0	+1.4 +0.0 +0.0	+0.0	31.7	40.0	-8.3	Vert
44	73.819M	51.5	+0.0 +0.0 -27.9	+0.0 +0.0 +1.4	+0.0 +0.0 +6.6	+0.0 +0.1 +0.0	+0.0	31.7	40.0	-8.3	Vert
45	74.005M	51.4	+0.0 +0.0 -27.9	+0.0 +0.0 +1.4	+0.0 +0.0 +6.7	+0.0 +0.1 +0.0	+0.0	31.7	40.0	-8.3	Vert
46	166.370M	50.5	+0.0 +0.0 -27.8	+0.0 +0.0 +2.2	+0.0 +0.0 +10.1	+0.0 +0.2 +0.0	+0.0	35.2	43.5	-8.3	Vert
47	264.010M	49.2	+0.0 +0.0 -27.7	+0.0 +0.0 +2.9	+0.0 +0.0 +12.9	+0.0 +0.3 +0.0	+0.0	37.6	46.0	-8.4	Vert
48	156.840M	48.9	+0.0 +0.0 -27.7	+0.0 +0.0 +2.2	+0.0 +0.0 +10.9	+0.0 +0.1 +0.0	+0.0	34.4	43.5	-9.1	Vert
49	7499.993M Ave	36.1	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	44.7	54.0	-9.3	Vert
^	7499.993M	42.9	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Vert
51	375.036M	44.6	+0.0 +0.0 -27.9	+0.0 +0.0 +3.5	+0.0 +0.0 +15.5	+0.0 +0.3 +0.0	+0.0	36.0	46.0	-10.0	Horiz
52	333.344M	45.9	+0.0 +0.0 -27.8	+0.0 +0.0 +3.2	+0.0 +0.0 +14.4	+0.0 +0.3 +0.0	+0.0	36.0	46.0	-10.0	Horiz
53	375.036M	44.6	+0.0 +15.5 +0.0	+0.3 +0.0 +0.0	-27.9 +0.0 +0.0	+3.5 +0.0 +0.0	+0.0	36.0	46.0	-10.0	Horiz
54	249.999M	47.9	+0.0 +0.0 -27.8	+0.0 +0.0 +2.8	+0.0 +0.0 +12.7	+0.0 +0.2 +0.0	+0.0	35.8	46.0	-10.2	Vert
55	249.999M	47.9	+0.0 +12.7 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+2.8 +0.0 +0.0	+0.0	35.8	46.0	-10.2	Vert

56	5039.775M	39.4	+0.0	+0.0	+0.0	+0.0	+0.0	43.5	54.0	-10.5	Horiz
			+0.0	+0.0	+0.0	+0.5					
			+1.9	+5.0	-37.0	+33.4					
57	108.846M	47.9	+0.0	+0.1	-27.8	+1.8	+0.0	32.9	43.5	-10.6	Vert
			+10.9	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
58	108.846M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.9	43.5	-10.6	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.9	+0.0					
59	156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
60	12499.993 M	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
			-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
^	12499.993 M	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
62	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
63	250.014M	46.1	+0.0	+0.0	+0.0	+0.0	+0.0	34.0	46.0	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
64	108.139M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.4	43.5	-12.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.8	+0.0					
65	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
			+10.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
66	170.043M	46.9	+0.0	+0.0	+0.0	+0.0	+0.0	31.3	43.5	-12.2	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.3	+9.7	+0.0					
67	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
68	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
69	5040.021M	36.8	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
			+0.0	+0.0	+0.0	+0.5					
			+1.9	+5.0	-37.0	+33.4					
70	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
71	999.999M	36.5	+0.0	+0.6	-27.3	+6.2	+0.0	40.8	54.0	-13.2	Vert
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
72	166.363M	45.4	+0.0	+0.0	+0.0	+0.0	+0.0	30.1	43.5	-13.4	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.2	+10.1	+0.0					

73	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
74	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
75	333.362M	40.3	+0.0	+0.0	+0.0	+0.0	+0.0	30.4	46.0	-15.6	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
76	976.045M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
77	125.008M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	26.9	43.5	-16.6	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
78	125.008M	40.5	+0.0	+0.2	-27.8	+1.9	+0.0	26.9	43.5	-16.6	Horiz
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
79	976.052M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	54.0	-17.0	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
80	37.685M	34.3	+0.0	+0.0	+0.0	+0.0	+0.0	22.3	40.0	-17.7	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
81	37.685M	34.3	+0.0	+0.1	-27.8	+1.0	+0.0	22.3	40.0	-17.7	Horiz
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
82	73.962M	41.8	+0.0	+0.1	-27.9	+1.4	+0.0	22.0	40.0	-18.0	Horiz
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
83	73.962M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	22.0	40.0	-18.0	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
84	37.542M	32.8	+0.0	+0.0	+0.0	+0.0	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
85	37.542M	32.8	+0.0	+0.1	-27.8	+1.0	+0.0	20.9	40.0	-19.1	Horiz
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

CKC Laboratories, Inc. Date: 2/5/2012 Time: 13:01:35 Motorola Mobility, Inc. WO#: 92742
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 17 Ext ATTN: 0 dB





Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Motorola Mobility, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **92742** Date: 2/5/2012
 Test Type: **Maximized Emissions** Time: 13:01:35
 Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 18
 Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto
 Model: SBG6580 P2
 S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-24TC	8/30/2011	8/30/2013
T3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-3000/T10000-O/O	3/5/2010	3/5/2012
T8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	AN03158	Active Horn Antenna	AMFW-5F-26004000-33-8P	4/1/2010	4/1/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	355601130600070507050085

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis System	Spirent	SMB-600B	N06012143
8 Way Splitter	Regal	DS8DGV10	
8 Way Splitter	Regal	DS8DGV10	
DHCP Server	HP	Compaq 6910p	
Diplexer	Eagle Comtronics	EDPF-65/85	(none)
Laptop Computer	Dell	Precision M70	

Test Conditions / Notes:

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT and its AC to DC adapter are stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The CM Ethernet ports are connected to the SmartBits performance analysis system. The CM RF port is connected to the diplexer, then splitters and finally to the broadband router (CASA). The DHCP server is connected to the broadband router through the gigabit switch. The laptop is connected to the performance analysis system. The SmartBits is turned on and running data. The EUT is transmitting continuously.

Frequency range of EUT: 5745MHz to 5825MHz
 Transmit Frequencies used for this data sheet: 5745MHz (Low), 5785MHz (Middle), and 5825MHz (High).
 Channels 149, 157, and 165. 802.11n (20MHz) (7.2 Mbps)
 Antenna: Antenna Gain: 4.1 dBi max at 2.4GHz band. Antenna Gain: 4.4 dBi max at 5GHz band
 Frequency range of measurement = 9 kHz to 40GHz.
 Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 40000 MHz RBW=1 MHz, VBW=1 MHz.
 Temperature: 20°C, Humidity: 38%, Pressure: 100kPa.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1	T2	T3	T4	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
			T5	T6	T7	T8					
1	3333.332M Ave	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	2500.000M Ave	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
^	2500.000M	59.2	+0.0	+0.4	+1.3	+3.3	+0.0	54.8	54.0	+0.8	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

5	4999.998M Ave	46.7	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert
7	2333.334M	55.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
8	2500.000M Ave	54.0	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	49.6	54.0	-4.4	Vert
^	2500.000M	56.5	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
10	11570.002 M	36.8	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.4	+0.0	49.4	54.0	-4.6	Vert
11	11490.003 M	36.8	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.3	+0.0	49.2	54.0	-4.8	Horiz
12	11570.005 M	36.6	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.4	+0.0	49.2	54.0	-4.8	Horiz
13	11490.007 M	36.7	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.3	+0.0	49.1	54.0	-4.9	Vert
14	11650.025 M	36.2	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.4	+0.0 +0.8 +36.5	+0.0	48.9	54.0	-5.1	Horiz
15	11650.020 M	35.8	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.4	+0.0 +0.8 +36.5	+0.0	48.5	54.0	-5.5	Vert
16	3333.332M	48.9	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	48.4	54.0	-5.6	Vert
17	2390.000M	52.9	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	48.2	54.0	-5.8	Vert
18	12499.995 M Ave	32.5	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	48.1	54.0	-5.9	Horiz
^	12499.995 M	38.2	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	53.8	54.0	-0.2	Horiz
20	2389.981M	52.6	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
21	114.300M	51.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +11.4	+0.0 +0.2 +0.0	+0.0	37.4	43.5	-6.1	Vert

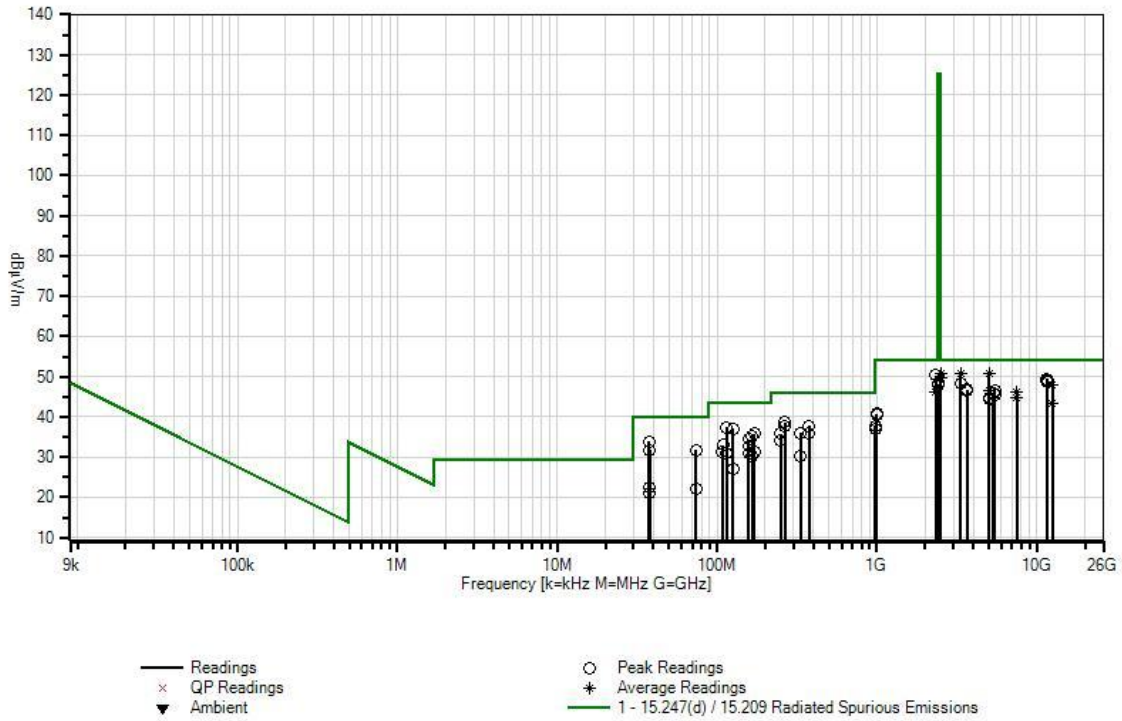
22	37.562M	45.7	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
23	37.562M	45.7	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	33.8	40.0	-6.2	Vert
24	125.002M	50.6	+0.0 +0.0 -27.8	+0.0 +0.0 +1.9	+0.0 +0.0 +12.1	+0.0 +0.2 +0.0	+0.0	37.0	43.5	-6.5	Vert
25	125.002M	50.6	+0.0 +12.1 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+1.9 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert
26	3666.667M	46.2	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
27	264.011M	50.3	+0.0 +0.0 -27.7	+0.0 +0.0 +2.9	+0.0 +0.0 +12.9	+0.0 +0.3 +0.0	+0.0	38.7	46.0	-7.3	Horiz
28	4999.992M Ave	42.6	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
30	5439.907M	40.6	+0.0 +0.0 +2.0	+0.0 +0.0 +5.4	+0.0 +0.0 -36.9	+0.0 +0.6 +34.3	+0.0	46.4	54.0	-7.6	Vert
31	3666.665M	45.8	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
32	7499.992M Ave	37.7	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz
^	7499.992M	42.9	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Horiz
34	170.000M	51.4	+0.0 +0.0 -27.8	+0.0 +0.0 +2.3	+0.0 +0.0 +9.7	+0.0 +0.2 +0.0	+0.0	35.8	43.5	-7.7	Vert
35	2333.332M Ave	51.1	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	46.2	54.0	-7.8	Horiz
^	2333.332M	57.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	52.3	54.0	-1.7	Horiz
37	5359.954M	40.5	+0.0 +0.0 +1.9	+0.0 +0.0 +5.3	+0.0 +0.0 -36.9	+0.0 +0.6 +34.1	+0.0	45.9	54.0	-8.1	Horiz
38	37.706M	43.8	+0.0 +14.7 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	31.8	40.0	-8.2	Vert

39	375.009M	46.4	+0.0	+0.3	-27.9	+3.5	+0.0	37.8	46.0	-8.2	Vert
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
40	37.706M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
41	5359.958M	40.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.8	54.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			+1.9	+5.3	-36.9	+34.1					
42	375.009M	46.4	+0.0	+0.0	+0.0	+0.0	+0.0	37.8	46.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.9	+3.5	+15.5	+0.0					
43	73.819M	51.5	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
44	74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
45	73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
46	74.005M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.7	+0.0					
47	166.370M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	35.2	43.5	-8.3	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.2	+10.1	+0.0					
48	264.010M	49.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
49	5440.070M	39.8	+0.0	+0.0	+0.0	+0.0	+0.0	45.6	54.0	-8.4	Horiz
			+0.0	+0.0	+0.0	+0.6					
			+2.0	+5.4	-36.9	+34.3					
50	156.840M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	34.4	43.5	-9.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
51	7499.993M Ave	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
^	7499.993M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
53	5039.971M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	44.6	54.0	-9.4	Vert
			+0.0	+0.0	+0.0	+0.5					
			+1.9	+5.0	-37.0	+33.4					
54	5039.927M	40.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.5	54.0	-9.5	Horiz
			+0.0	+0.0	+0.0	+0.5					
			+1.9	+5.0	-37.0	+33.4					
55	375.036M	44.6	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.9	+3.5	+15.5	+0.0					

56	333.344M	45.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
57	375.036M	44.6	+0.0	+0.3	-27.9	+3.5	+0.0	36.0	46.0	-10.0	Horiz
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
58	249.999M	47.9	+0.0	+0.2	-27.8	+2.8	+0.0	35.8	46.0	-10.2	Vert
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
59	249.999M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	46.0	-10.2	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
60	108.846M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.9	43.5	-10.6	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.9	+0.0					
61	108.846M	47.9	+0.0	+0.1	-27.8	+1.8	+0.0	32.9	43.5	-10.6	Vert
			+10.9	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
62	12499.993 M	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
			-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
^	12499.993 M	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
64	156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
65	250.014M	46.1	+0.0	+0.0	+0.0	+0.0	+0.0	34.0	46.0	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
66	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
67	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
			+10.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
68	108.139M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.4	43.5	-12.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.8	+0.0					
69	170.043M	46.9	+0.0	+0.0	+0.0	+0.0	+0.0	31.3	43.5	-12.2	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.3	+9.7	+0.0					
70	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
71	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
72	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					

73	999.999M	36.5	+0.0 +24.8 +0.0	+0.6 +0.0 +0.0	-27.3 +0.0 +0.0	+6.2 +0.0 +0.0	+0.0	40.8	54.0	-13.2	Vert
74	166.363M	45.4	+0.0 +0.0 -27.8	+0.0 +0.0 +2.2	+0.0 +0.0 +10.1	+0.0 +0.2 +0.0	+0.0	30.1	43.5	-13.4	Horiz
75	999.996M	36.1	+0.0 +0.0 -27.3	+0.0 +0.0 +6.2	+0.0 +0.0 +24.8	+0.0 +0.6 +0.0	+0.0	40.4	54.0	-13.6	Horiz
76	999.996M	36.1	+0.0 +24.8 +0.0	+0.6 +0.0 +0.0	-27.3 +0.0 +0.0	+6.2 +0.0 +0.0	+0.0	40.4	54.0	-13.6	Horiz
77	333.362M	40.3	+0.0 +0.0 -27.8	+0.0 +0.0 +3.2	+0.0 +0.0 +14.4	+0.0 +0.3 +0.0	+0.0	30.4	46.0	-15.6	Vert
78	976.045M	33.7	+0.0 +0.0 -27.2	+0.0 +0.0 +6.1	+0.0 +0.0 +24.5	+0.0 +0.6 +0.0	+0.0	37.7	54.0	-16.3	Horiz
79	125.008M	40.5	+0.0 +12.1 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+1.9 +0.0 +0.0	+0.0	26.9	43.5	-16.6	Horiz
80	125.008M	40.5	+0.0 +0.0 -27.8	+0.0 +0.0 +1.9	+0.0 +0.0 +12.1	+0.0 +0.2 +0.0	+0.0	26.9	43.5	-16.6	Horiz
81	976.052M	33.0	+0.0 +0.0 -27.2	+0.0 +0.0 +6.1	+0.0 +0.0 +24.5	+0.0 +0.6 +0.0	+0.0	37.0	54.0	-17.0	Vert
82	37.685M	34.3	+0.0 +14.7 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	22.3	40.0	-17.7	Horiz
83	37.685M	34.3	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.7	+0.0 +0.1 +0.0	+0.0	22.3	40.0	-17.7	Horiz
84	73.962M	41.8	+0.0 +6.6 +0.0	+0.1 +0.0 +0.0	-27.9 +0.0 +0.0	+1.4 +0.0 +0.0	+0.0	22.0	40.0	-18.0	Horiz
85	73.962M	41.8	+0.0 +0.0 -27.9	+0.0 +0.0 +1.4	+0.0 +0.0 +6.6	+0.0 +0.1 +0.0	+0.0	22.0	40.0	-18.0	Horiz
86	37.542M	32.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	20.9	40.0	-19.1	Horiz
87	37.542M	32.8	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz

CKC Laboratories, Inc. Date: 2/5/2012 Time: 13:01:35 Motorola Mobility, Inc. WO#: 92742
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 18 Ext ATTN: 0 dB





Test Location: CKC Laboratories, Inc. • 110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Motorola Mobility, Inc.**
 Specification: **15.247(d) / 15.209 Radiated Spurious Emissions**
 Work Order #: **92742** Date: 2/5/2012
 Test Type: **Maximized Emissions** Time: 13:01:35
 Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 19
 Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto
 Model: SBG6580 P2
 S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-24TC	8/30/2011	8/30/2013
T3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-3000/T10000-O/O	3/5/2010	3/5/2012
T8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	AN03158	Active Horn Antenna	AMFW-5F-26004000-33-8P	4/1/2010	4/1/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	355601130600070507050085

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis System	Spirent	SMB-600B	N06012143
8 Way Splitter	Regal	DS8DGV10	
8 Way Splitter	Regal	DS8DGV10	
DHCP Server	HP	Compaq 6910p	
Diplexer	Eagle Comtronics	EDPF-65/85	(none)
Laptop Computer	Dell	Precision M70	

Test Conditions / Notes:

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT and its AC to DC adapter are stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The CM Ethernet ports are connected to the SmartBits performance analysis system. The CM RF port is connected to the diplexer, then splitters and finally to the broadband router (CASA). The DHCP server is connected to the broadband router through the gigabit switch. The laptop is connected to the performance analysis system. The SmartBits is turned on and running data. The EUT is transmitting continuously.

Frequency range of EUT: 5755MHz to 5795MHz
 Transmit Frequencies used for this data sheet: 5755MHz (Low), and 5795MHz (High). Channels 151, and 159. 802.11n (40MHz) (15 Mbps)

Antenna: Antenna Gain: 4.1 dBi max at 2.4GHz band. Antenna Gain: 4.4 dBi max at 5GHz band

Frequency range of measurement = 9 kHz to 40GHz.
 Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 40000 MHz RBW=1 MHz, VBW=1 MHz.

Temperature: 20°C, Humidity: 38%, Pressure: 100kPa.

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

Test Distance: 3 Meters

#	Freq MHz	Rdng dBμV	T1	T2	T3	T4	Dist Table	Corr dBμV/m	Spec dBμV/m	Margin dB	Polar Ant
			T5	T6	T7	T8					
1	3333.332M Ave	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	2500.000M Ave	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
^	2500.000M	59.2	+0.0	+0.4	+1.3	+3.3	+0.0	54.8	54.0	+0.8	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

5	4999.998M Ave	46.7	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert
7	2333.334M	55.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
8	11590.020 M	37.4	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.4	+0.0	50.1	54.0	-3.9	Vert
9	2500.000M Ave	54.0	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	49.6	54.0	-4.4	Vert
^	2500.000M	56.5	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
11	11590.063 M	36.5	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.4	+0.0	49.2	54.0	-4.8	Horiz
12	11509.988 M	36.7	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.3	+0.0	49.1	54.0	-4.9	Vert
13	11510.078 M	36.5	+0.0 +0.0 +2.8	+0.0 +0.0 +8.5	+0.0 +0.0 -36.3	+0.0 +0.8 +36.3	+0.0	48.9	54.0	-5.1	Horiz
14	3333.332M	48.9	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	48.4	54.0	-5.6	Vert
15	2390.000M	52.9	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	48.2	54.0	-5.8	Vert
16	12499.995 M Ave	32.5	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	48.1	54.0	-5.9	Horiz
^	12499.995 M	38.2	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	53.8	54.0	-0.2	Horiz
18	2389.981M	52.6	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
19	114.300M	51.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +11.4	+0.0 +0.2 +0.0	+0.0	37.4	43.5	-6.1	Vert
20	37.562M	45.7	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	33.8	40.0	-6.2	Vert
21	37.562M	45.7	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert

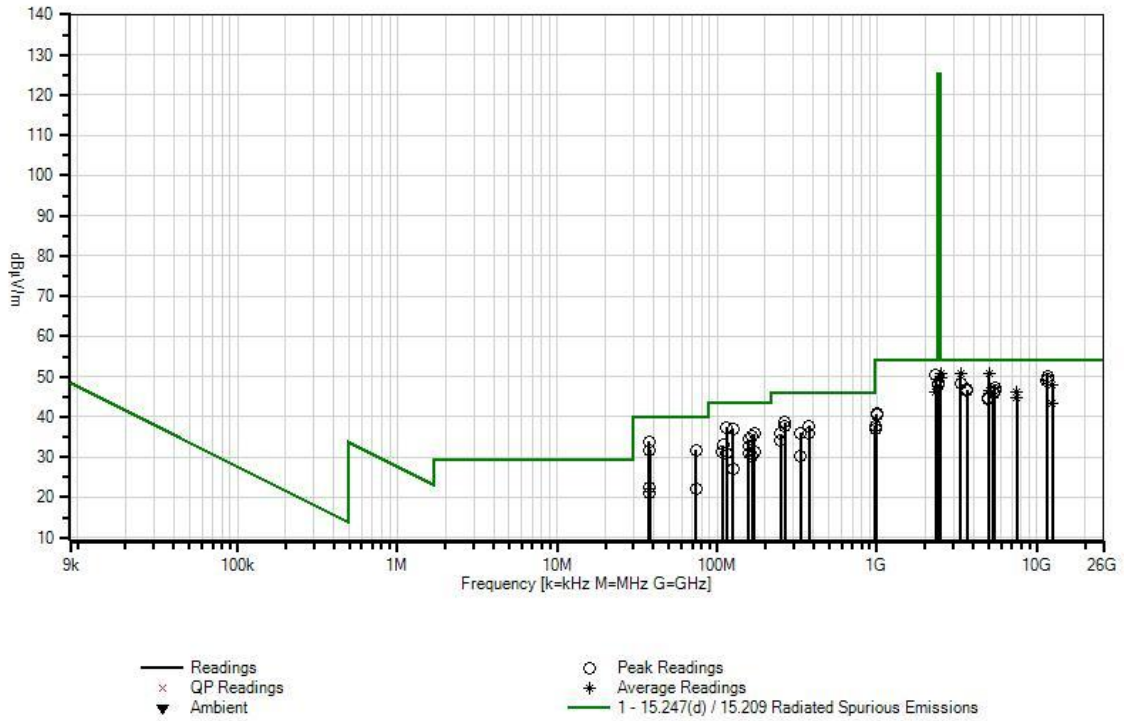
22	125.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
23	125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
24	5440.111M	41.3	+0.0	+0.0	+0.0	+0.0	+0.0	47.1	54.0	-6.9	Vert
			+0.0	+0.0	+0.0	+0.6					
			+2.0	+5.4	-36.9	+34.3					
25	3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
26	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
27	4999.992M Ave	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.992M	46.0	+0.0	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
29	5439.935M	40.7	+0.0	+0.0	+0.0	+0.0	+0.0	46.5	54.0	-7.5	Horiz
			+0.0	+0.0	+0.0	+0.6					
			+2.0	+5.4	-36.9	+34.3					
30	3666.665M	45.8	+0.0	+0.4	+1.7	+4.2	+0.0	46.4	54.0	-7.6	Horiz
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
31	170.000M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	43.5	-7.7	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.3	+9.7	+0.0					
32	7499.992M Ave	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
^	7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
34	2333.332M Ave	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
			-38.0	+28.3	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
^	2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
			-38.0	+28.3	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
36	5359.941M	40.7	+0.0	+0.0	+0.0	+0.0	+0.0	46.1	54.0	-7.9	Vert
			+0.0	+0.0	+0.0	+0.6					
			+1.9	+5.3	-36.9	+34.1					
37	37.706M	43.8	+0.0	+0.1	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
38	375.009M	46.4	+0.0	+0.3	-27.9	+3.5	+0.0	37.8	46.0	-8.2	Vert
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

39	375.009M	46.4	+0.0	+0.0	+0.0	+0.0	+0.0	37.8	46.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.9	+3.5	+15.5	+0.0					
40	37.706M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
41	5359.883M	40.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.8	54.0	-8.2	Horiz
			+0.0	+0.0	+0.0	+0.6					
			+1.9	+5.3	-36.9	+34.1					
42	166.370M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	35.2	43.5	-8.3	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.2	+10.1	+0.0					
43	73.819M	51.5	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
44	73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
45	74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
46	74.005M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.7	+0.0					
47	264.010M	49.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
48	156.840M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	34.4	43.5	-9.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
49	7499.993M Ave	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
^	7499.993M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
51	4960.009M	40.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Horiz
			+0.0	+0.0	+0.0	+0.5					
			+1.9	+5.0	-37.0	+33.2					
52	4959.758M	40.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Vert
			+0.0	+0.0	+0.0	+0.5					
			+1.9	+5.0	-37.0	+33.2					
53	375.036M	44.6	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.9	+3.5	+15.5	+0.0					
54	333.344M	45.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
55	375.036M	44.6	+0.0	+0.3	-27.9	+3.5	+0.0	36.0	46.0	-10.0	Horiz
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

56	249.999M	47.9	+0.0 +12.7 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+2.8 +0.0 +0.0	+0.0	35.8	46.0	-10.2	Vert
57	249.999M	47.9	+0.0 +0.0 -27.8	+0.0 +0.0 +2.8	+0.0 +0.0 +12.7	+0.0 +0.2 +0.0	+0.0	35.8	46.0	-10.2	Vert
58	108.846M	47.9	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +10.9	+0.0 +0.1 +0.0	+0.0	32.9	43.5	-10.6	Vert
59	108.846M	47.9	+0.0 +10.9 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.8 +0.0 +0.0	+0.0	32.9	43.5	-10.6	Vert
60	156.843M	47.2	+0.0 +0.0 -27.7	+0.0 +0.0 +2.2	+0.0 +0.0 +10.9	+0.0 +0.1 +0.0	+0.0	32.7	43.5	-10.8	Horiz
61	12499.993 M Ave	27.6	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	43.2	54.0	-10.8	Vert
^	12499.993 M	37.4	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	53.0	54.0	-1.0	Vert
63	250.014M	46.1	+0.0 +12.7 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+2.8 +0.0 +0.0	+0.0	34.0	46.0	-12.0	Horiz
64	250.014M	46.1	+0.0 +0.0 -27.8	+0.0 +0.0 +2.8	+0.0 +0.0 +12.7	+0.0 +0.2 +0.0	+0.0	34.0	46.0	-12.0	Horiz
65	108.139M	46.5	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +10.8	+0.0 +0.1 +0.0	+0.0	31.4	43.5	-12.1	Vert
66	108.139M	46.5	+0.0 +10.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.8 +0.0 +0.0	+0.0	31.4	43.5	-12.1	Vert
67	170.043M	46.9	+0.0 +0.0 -27.8	+0.0 +0.0 +2.3	+0.0 +0.0 +9.7	+0.0 +0.2 +0.0	+0.0	31.3	43.5	-12.2	Horiz
68	156.800M	45.6	+0.0 +0.0 -27.7	+0.0 +0.0 +2.2	+0.0 +0.0 +10.9	+0.0 +0.1 +0.0	+0.0	31.1	43.5	-12.4	Vert
69	114.309M	45.2	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +11.4	+0.0 +0.2 +0.0	+0.0	30.8	43.5	-12.7	Horiz
70	999.999M	36.5	+0.0 +0.0 -27.3	+0.0 +0.0 +6.2	+0.0 +0.0 +24.8	+0.0 +0.6 +0.0	+0.0	40.8	54.0	-13.2	Vert
71	999.999M	36.5	+0.0 +24.8 +0.0	+0.6 +0.0 +0.0	-27.3 +0.0 +0.0	+6.2 +0.0 +0.0	+0.0	40.8	54.0	-13.2	Vert
72	166.363M	45.4	+0.0 +0.0 -27.8	+0.0 +0.0 +2.2	+0.0 +0.0 +10.1	+0.0 +0.2 +0.0	+0.0	30.1	43.5	-13.4	Horiz

73	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
74	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
75	333.362M	40.3	+0.0	+0.0	+0.0	+0.0	+0.0	30.4	46.0	-15.6	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
76	976.045M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
77	125.008M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	26.9	43.5	-16.6	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
78	125.008M	40.5	+0.0	+0.2	-27.8	+1.9	+0.0	26.9	43.5	-16.6	Horiz
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
79	976.052M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	54.0	-17.0	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
80	37.685M	34.3	+0.0	+0.0	+0.0	+0.0	+0.0	22.3	40.0	-17.7	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
81	37.685M	34.3	+0.0	+0.1	-27.8	+1.0	+0.0	22.3	40.0	-17.7	Horiz
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
82	73.962M	41.8	+0.0	+0.1	-27.9	+1.4	+0.0	22.0	40.0	-18.0	Horiz
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
83	73.962M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	22.0	40.0	-18.0	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
84	37.542M	32.8	+0.0	+0.0	+0.0	+0.0	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
85	37.542M	32.8	+0.0	+0.1	-27.8	+1.0	+0.0	20.9	40.0	-19.1	Horiz
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

CKC Laboratories, Inc. Date: 2/5/2012 Time: 13:01:35 Motorola Mobility, Inc. WO#: 92742
 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 19 Ext ATTN: 0 dB



Test Setup Photos



15.247(e) Power Spectral Density

Test Conditions / Setup

The equipment under test (EUT) is placed on the test bench. The EUT antenna port is connected to the spectrum analyzer using a coaxial cable. The EUT is set in continuous transmit mode and the measurement is taken at the antenna port.

Temperature: 20°C, Humidity: 40%, Pressure: 100kPa

Frequency range of EUT: 2412 to 2462MHz

802.11b (11Mbps),

Transmit Frequencies: 2412MHz, 2437MHz, 2462MHz (Channel 1, 6, 11)

802.11g (6Mbps)

Transmit Frequencies: 2412MHz, 2437MHz, 2462MHz (Channel 1, 6, 11)

802.11n (20MHz) (7.2Mbps)

Transmit Frequencies: 2412MHz, 2437MHz, 2462MHz (Channel 1, 6, 11)

802.11n (40MHz) (15Mbps)

Transmit Frequencies: 2422MHz, 2437MHz, 2452MHz (Channel 3, 6, 9)

Frequency range of EUT: 5745 to 5825MHz

802.11a (6Mbps),

Transmit Frequencies: 5745MHz, 5785MHz, 5825MHz (Channel 1, 6, 11)

802.11n (20MHz) (7.2Mbps)

Transmit Frequencies: 5745MHz, 5785MHz, 5825MHz (Channel 149, 157, 165)

802.11n (40MHz) (15Mbps)

Transmit Frequencies: 5755MHz, 5795MHz (Channel 151, 159)

Data Plots

In accordance with 558074 D01 DTS Meas Guidance v01 the measurement is taken with a RBW=100kHz. The specification limit is given with respect to a 3kHz bandwidth. The bandwidth correction factor therefore is $10\log(3\text{kHz}/100\text{kHz}) = -15.2\text{dB}$. The data taken with a 100kHz bandwidth could not be altered so the limit line was corrected. The limit line on the plot was adjusted from +8dBm to +23.2dBm (+8dBm + 15.2dB).

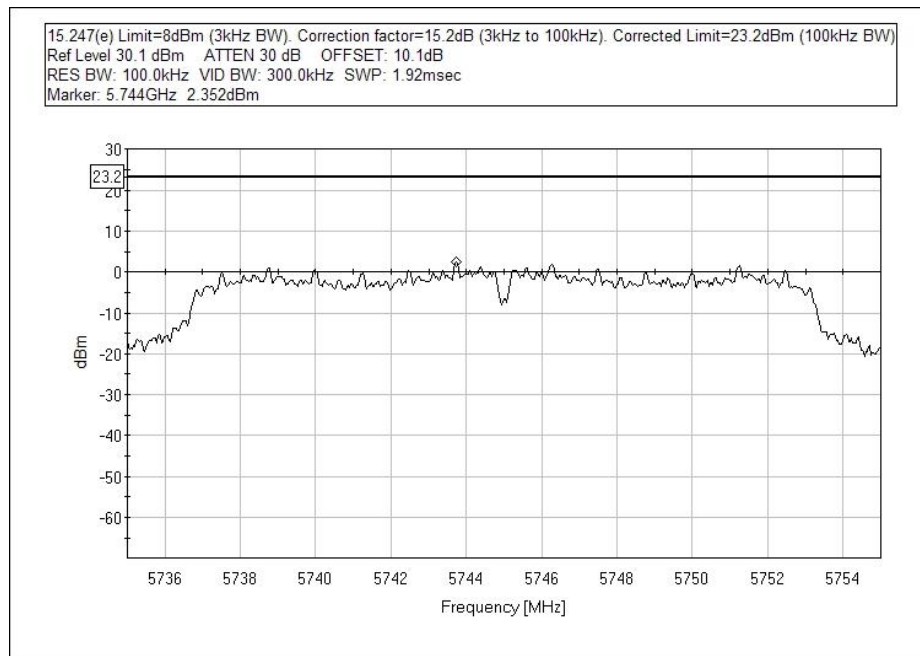
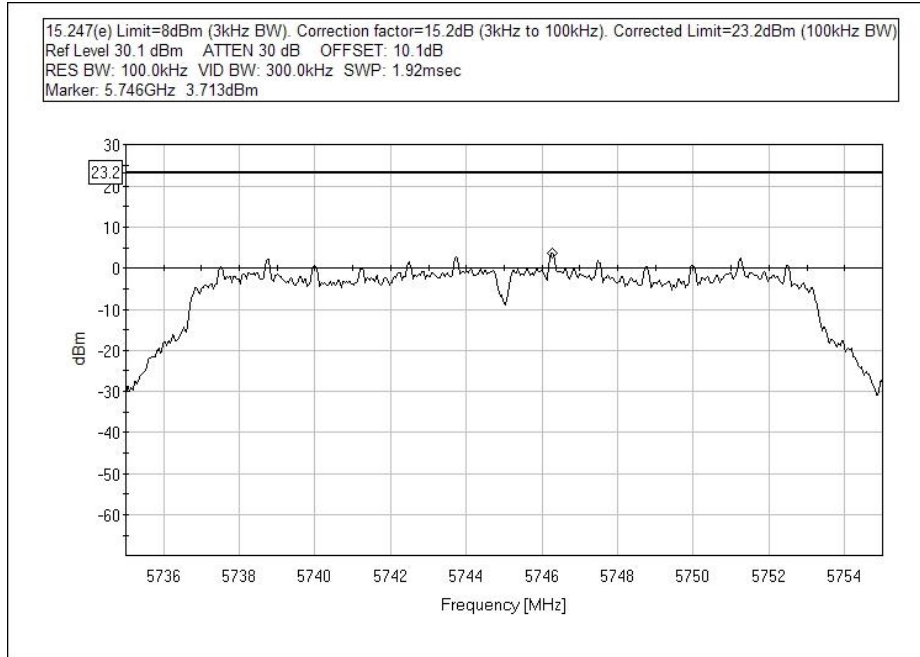
	Port 0 (dBm)	Port 1 (dBm)	Port 0 (mW)	Port 1 (mW)	Port 0 + 1 (mW)	Port 0 + 1 (dBm)	PSD Total (dBm)
802.11b, 2412MHz	-6.4		0.23		0.23	-6.40	-6.40
802.11b, 2437MHz	-6.7		0.21		0.21	-6.70	-6.70
802.11b, 2462MHz	-6.9		0.20		0.20	-6.90	-6.90
802.11g, 2412MHz	-10.7	-10	0.09	0.10	0.19	-7.33	-7.33
802.11g, 2437MHz	-10.6	-9.8	0.09	0.10	0.19	-7.17	-7.17
802.11g, 2462MHz	-10.8	-10.3	0.08	0.09	0.18	-7.53	-7.53
802.11n (20MHz), 2412MHz	-10.5	-10.7	0.09	0.09	0.17	-7.59	-7.59
802.11n (20MHz), 2437MHz	-10.4	-10.2	0.09	0.10	0.19	-7.29	-7.29
802.11n (20MHz), 2462MHz	-10.8	-10.7	0.08	0.09	0.17	-7.74	-7.74
802.11n (40MHz), 2422MHz	-15	-14.5	0.03	0.04	0.07	-11.73	-11.73
802.11n (40MHz), 2437MHz	-14.7	-14.5	0.03	0.04	0.07	-11.59	-11.59
802.11n (40MHz), 2452MHz	-14.9	-14.6	0.03	0.03	0.07	-11.74	-11.74
802.11a, 5745MHz	-11.5	-12.8	0.07	0.05	0.07	-11.50	-11.50
802.11a, 5785MHz	-12.1	-13	0.06	0.05	0.06	-12.10	-12.10
802.11a, 5825MHz	-12.1	-12.8	0.06	0.05	0.06	-12.10	-12.10
802.11n (20MHz), 5745MHz	-11.8	-12.6	0.07	0.05	0.12	-9.17	-9.17
802.11n (20MHz), 5785MHz	-12	-13.1	0.06	0.05	0.11	-9.50	-9.50
802.11n (20MHz), 5825MHz	-11.9	-13	0.06	0.05	0.11	-9.40	-9.40
802.11n (40MHz), 5755MHz	-15.4	-15.4	0.03	0.03	0.06	-12.39	-12.39
802.11n (40MHz), 5795MHz	-16.1	-15.7	0.02	0.03	0.05	-12.89	-12.89

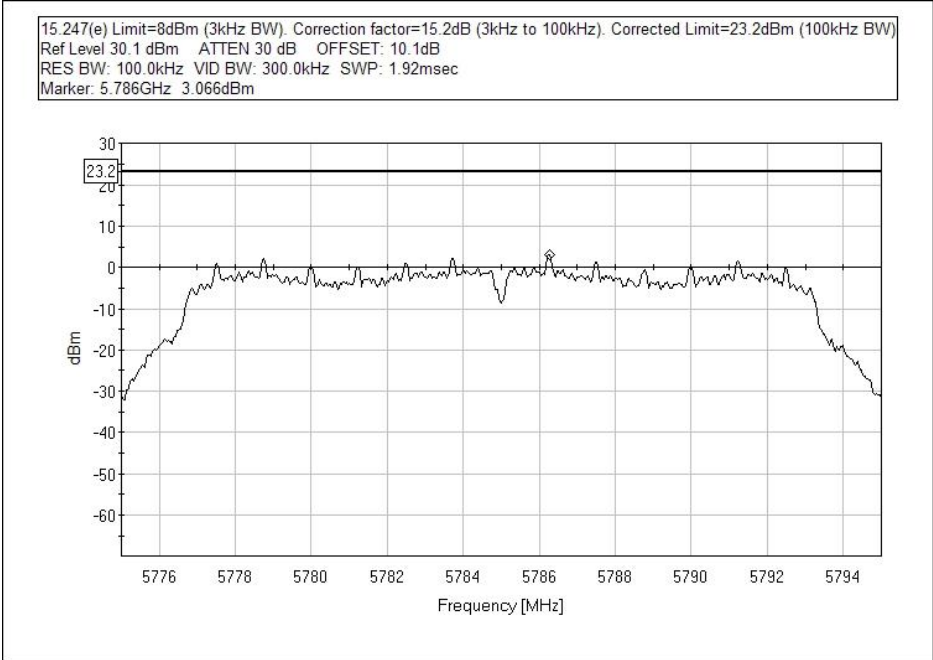
Note: Calculated values in above table are taken from the plot so the final column (PSD Total) to be compared with the actual limit of +8dBm. Calculation from plots are: marker reading -15.2dB =amplitude value with respect to a 3kHz bandwidth.

Engineer Name: S. Yamamoto

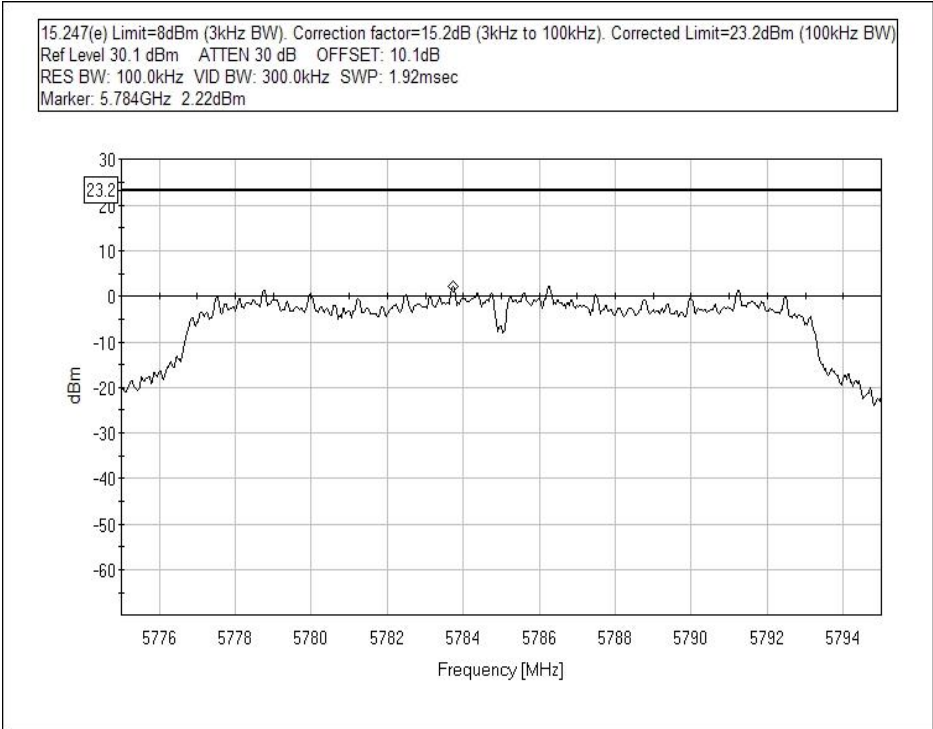
Test Equipment					
Asset/Serial #	Description	Model	Manufacturer	Cal Date	Cal Due
02672	Spectrum Analyzer	E4446A	Agilent	08/09/2010	08/09/2012
02945	3' 40GHz cable	32022-2-2909K-36TC	Astrolab	10/19/2011	10/19/2013

Test Plots

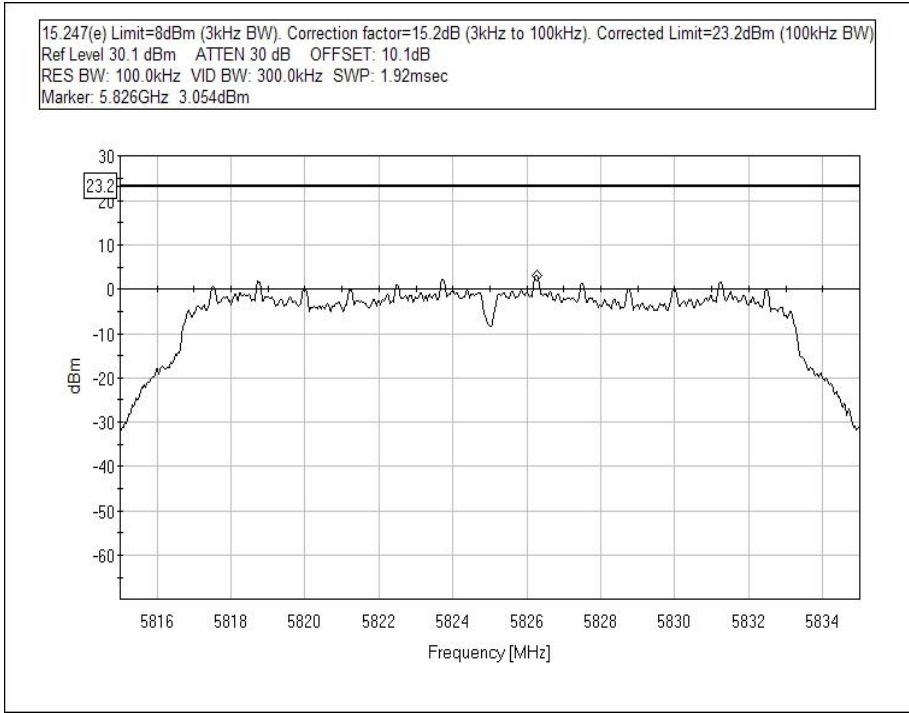




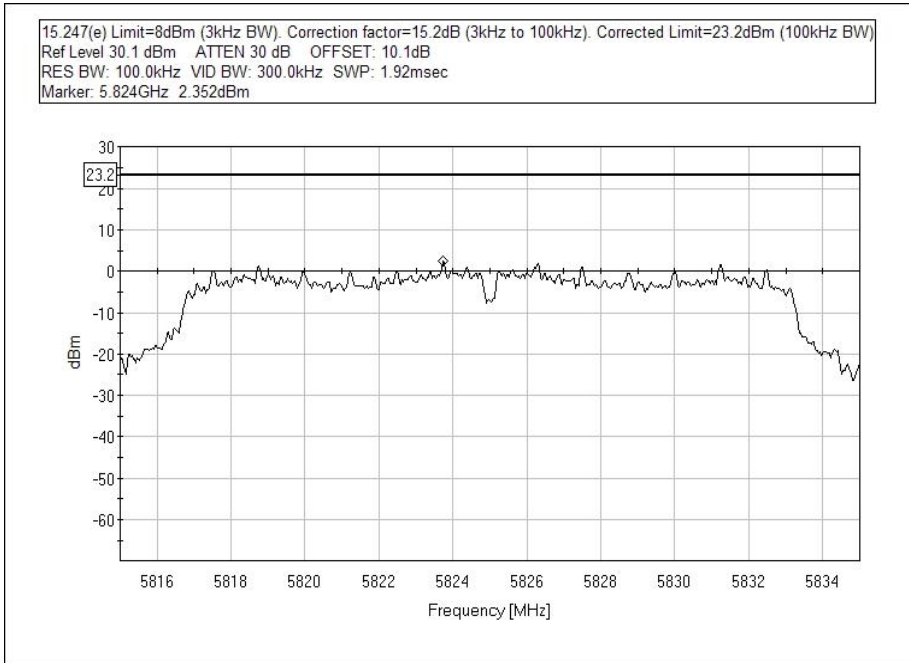
802.11a - Antenna Port 0



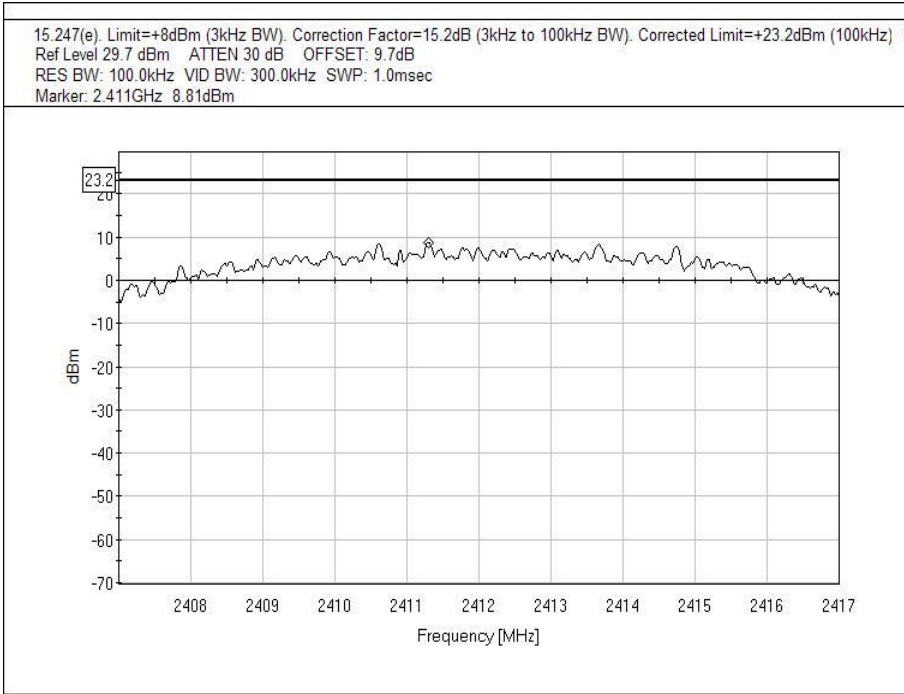
802.11a - Antenna Port 1



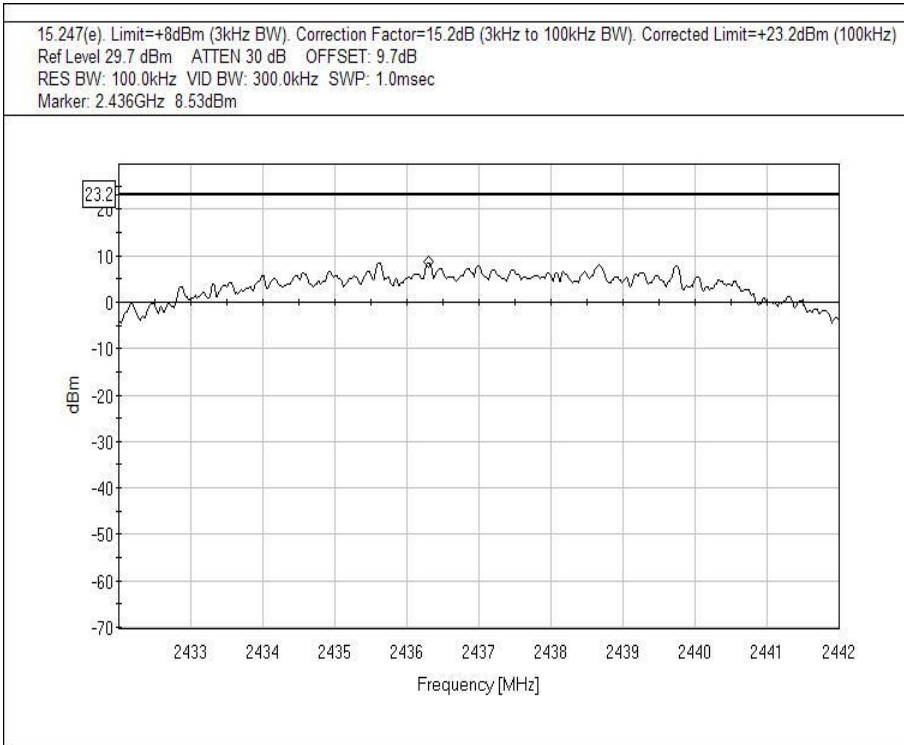
802.11a - Antenna Port 0



802.11a - Antenna Port 1

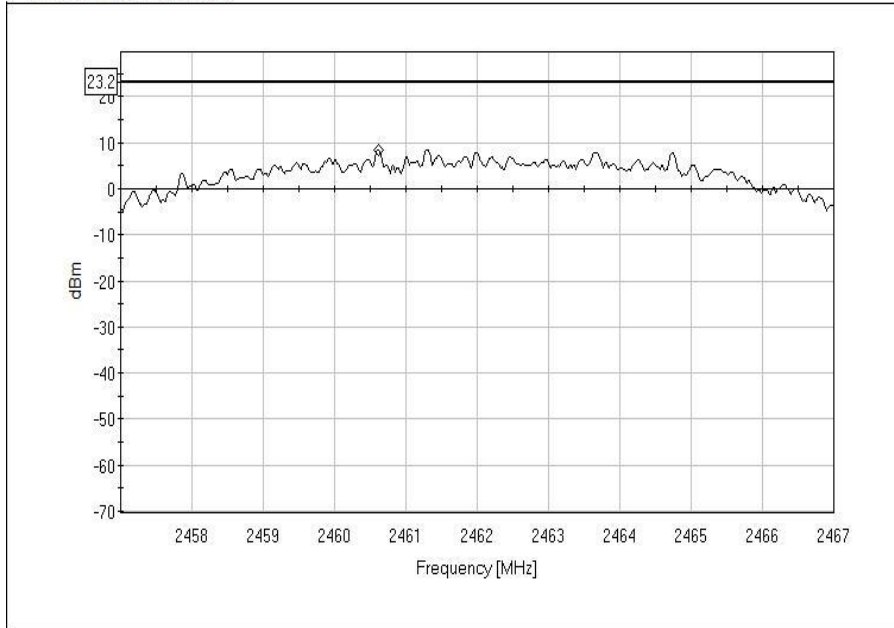


802.11b - Antenna Port 0



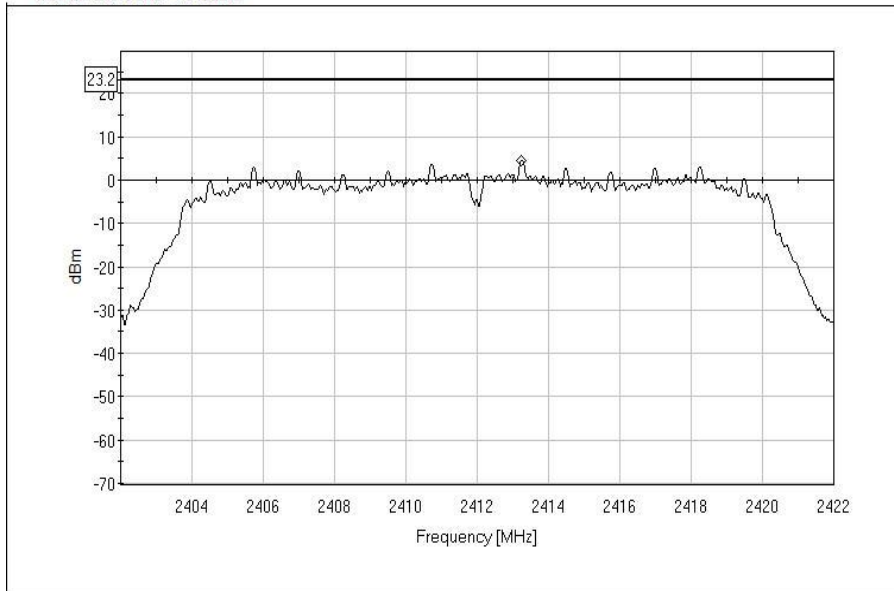
802.11b - Antenna Port 0

15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 1.0msec
 Marker: 2.461GHz 8.343dBm



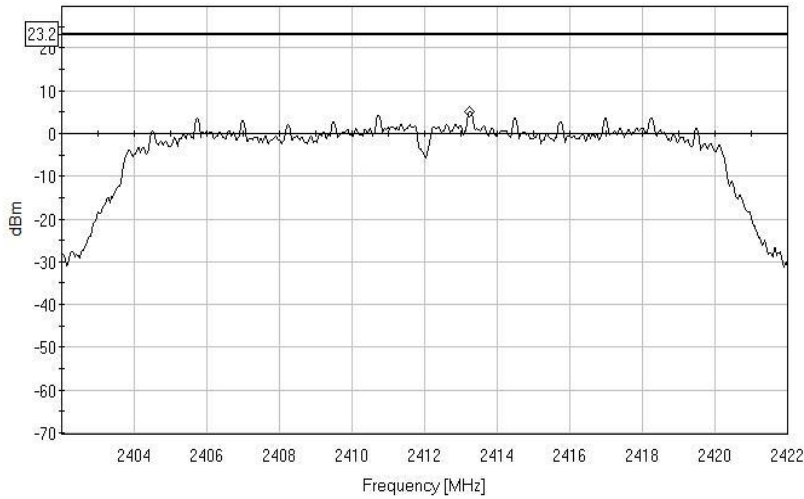
802.11b - Antenna Port 0

15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 1.92msec
 Marker: 2.413GHz 4.512dBm



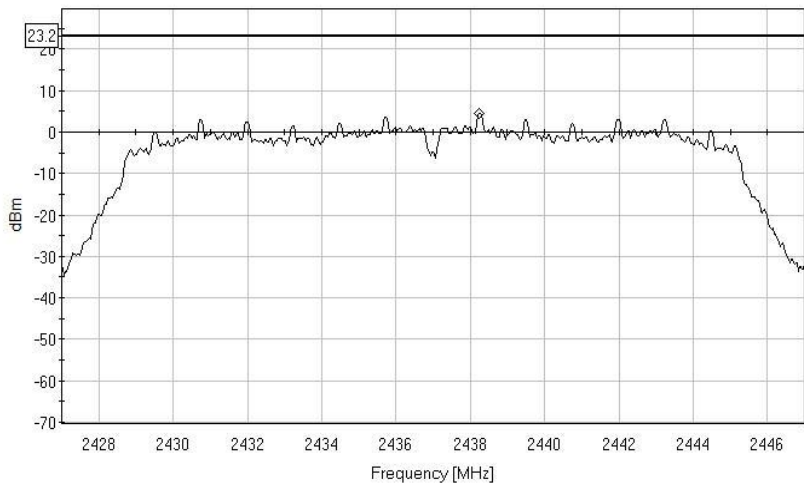
802.11g - Antenna Port 0

15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 1.92msec
 Marker: 2.413GHz 5.199dBm

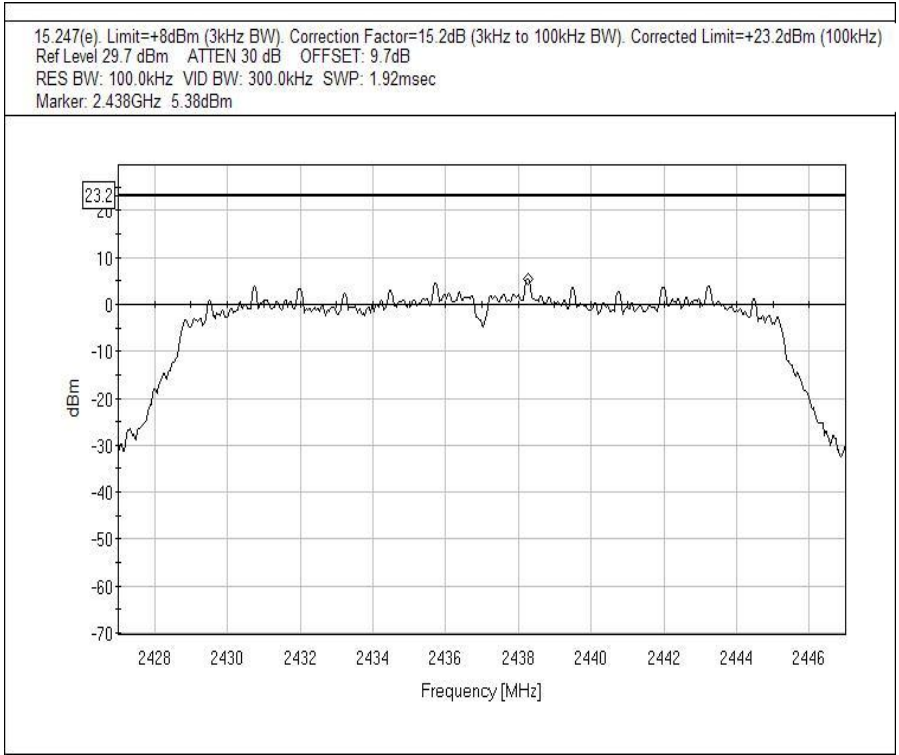


802.11g - Antenna Port 1

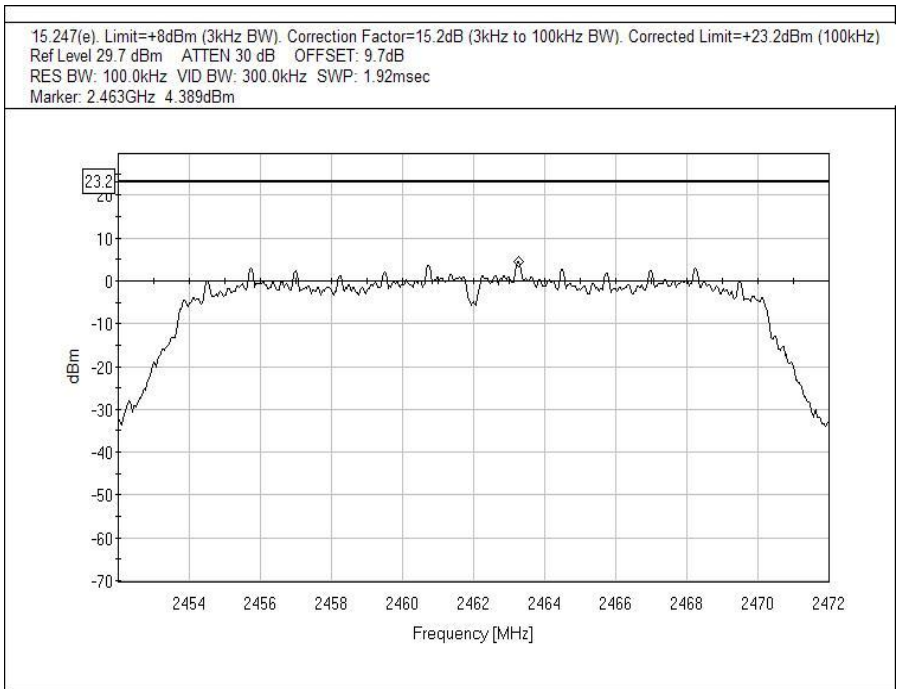
15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 1.92msec
 Marker: 2.438GHz 4.554dBm



802.11g - Antenna Port 0

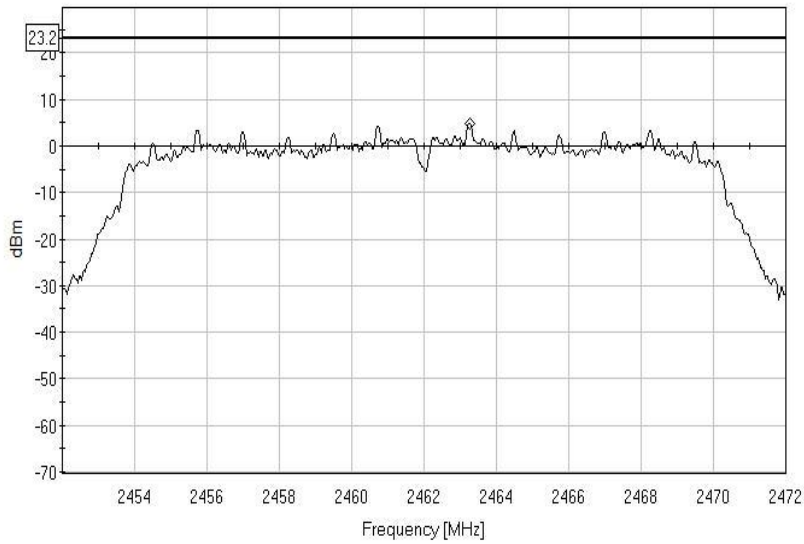


802.11g - Antenna Port 1



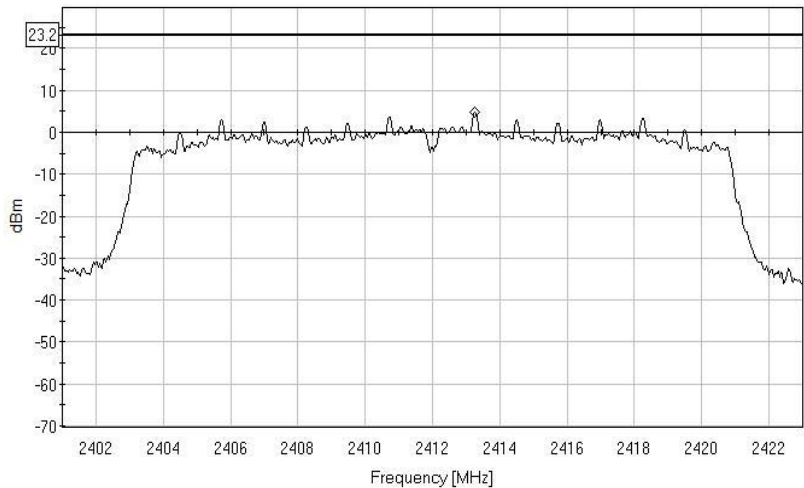
802.11g - Antenna Port 0

15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 1.92msec
 Marker: 2.463GHz 4.922dBm

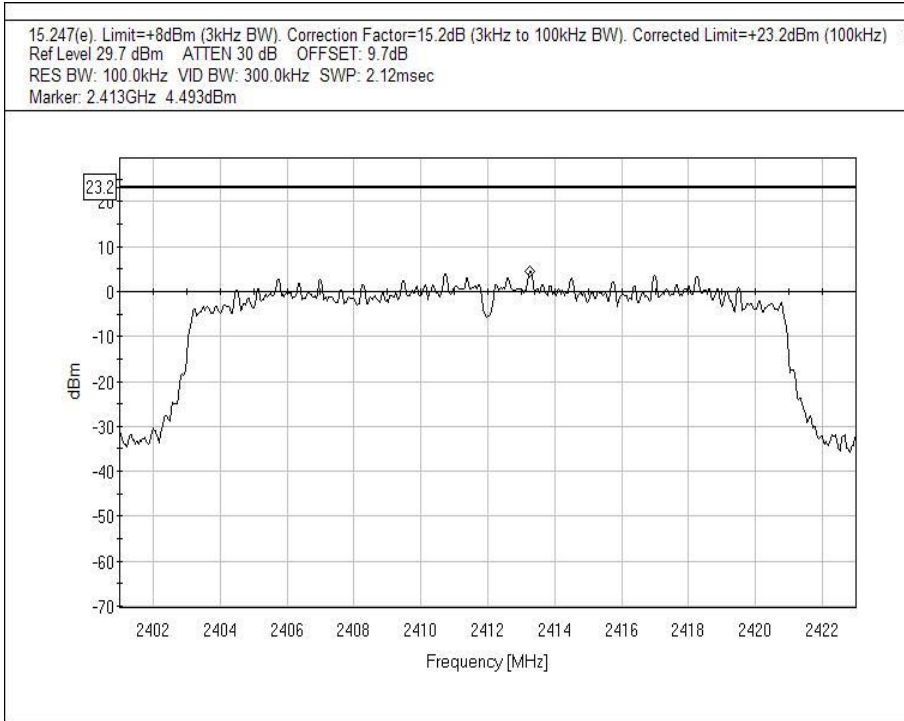


802.11g - Antenna Port 1

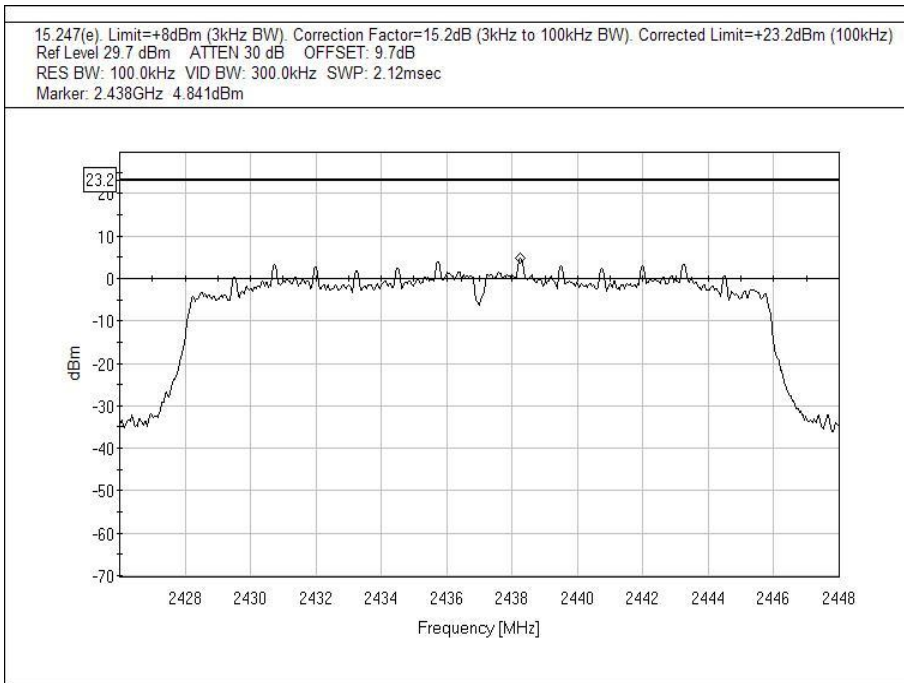
15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 2.12msec
 Marker: 2.413GHz 4.656dBm



802.11n - Antenna Port 0

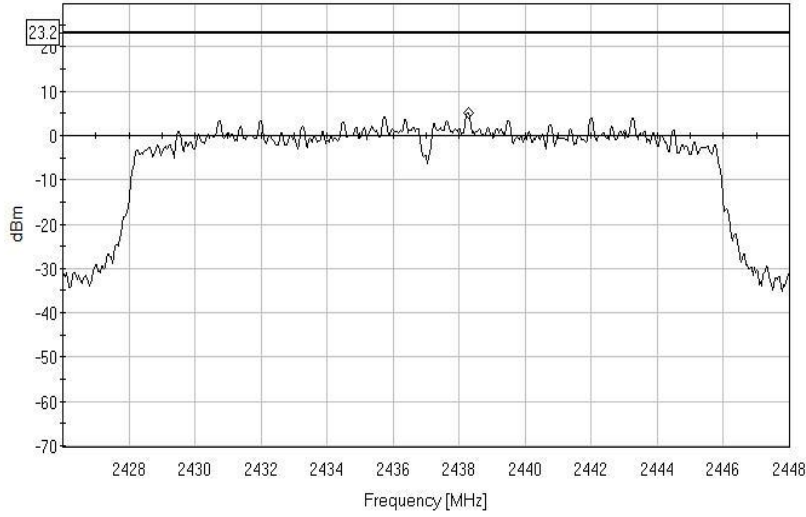


802.11n - Antenna Port 1



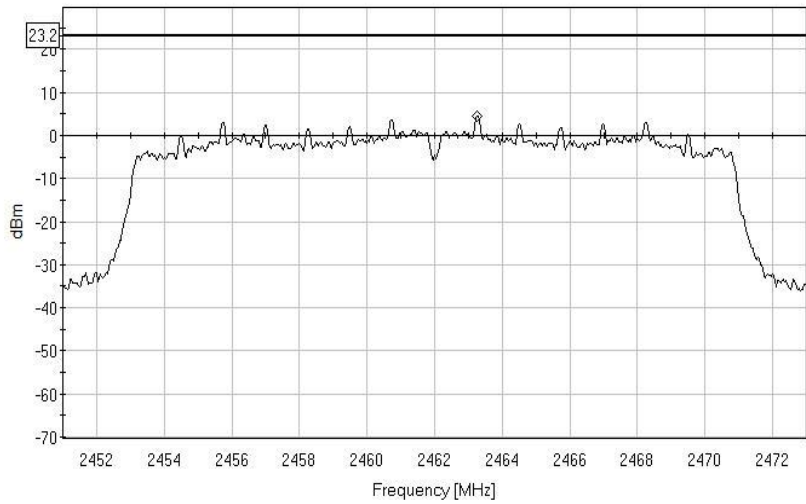
802.11n - Antenna Port 0

15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 2.12msec
 Marker: 2.438GHz 4.954dBm



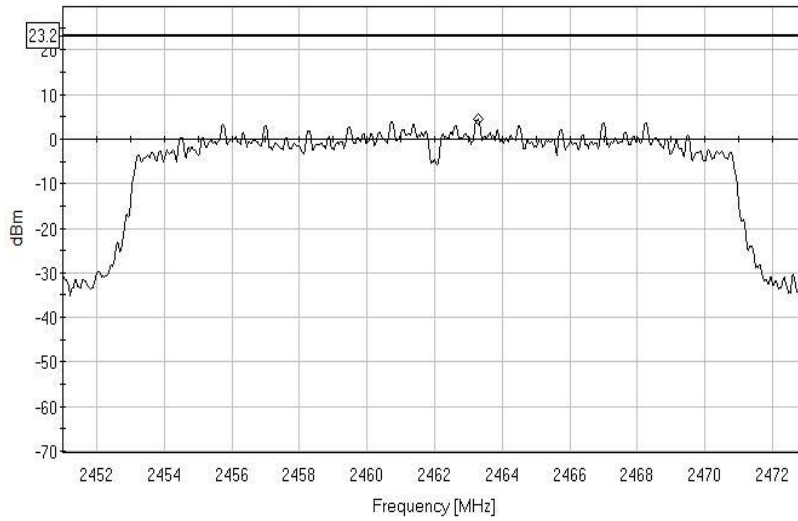
802.11n - Antenna Port 1

15.247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 2.12msec
 Marker: 2.463GHz 4.444dBm



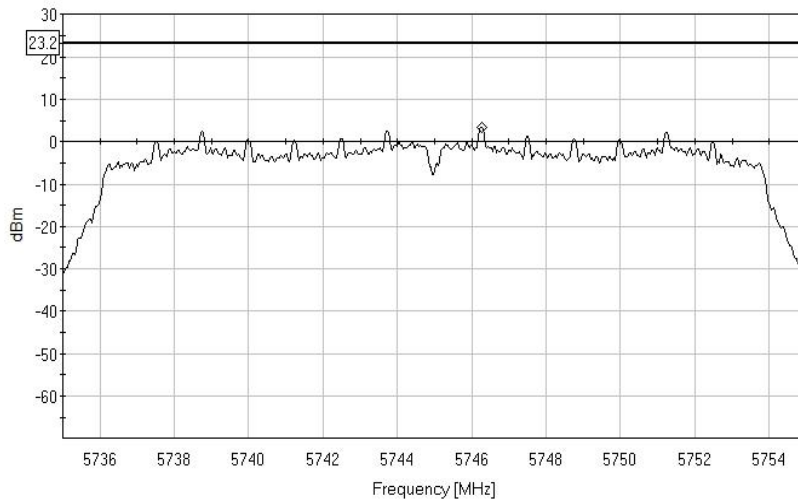
802.11n - Antenna Port 0

15.247(e) Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 2.12msec
 Marker: 2.463GHz 4.546dBm

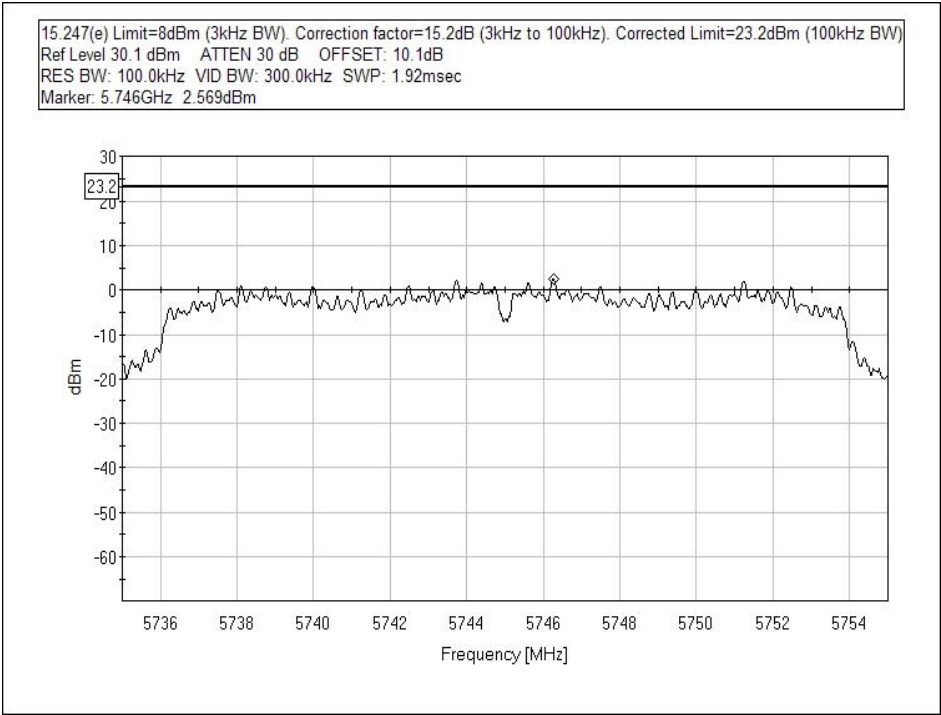


802.11n - Antenna Port 1

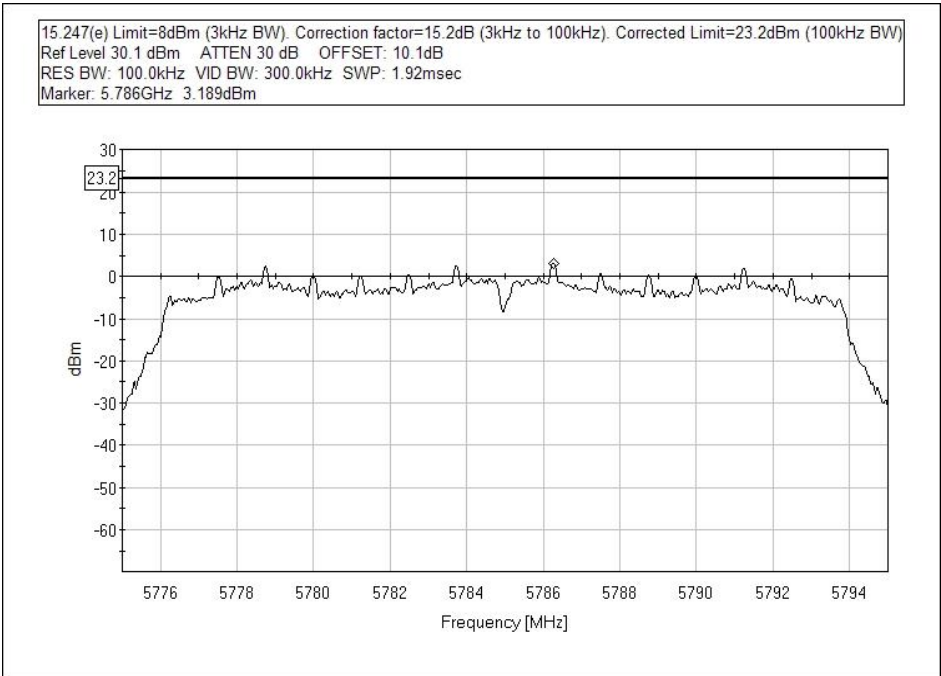
15.247(e) Limit=8dBm (3kHz BW). Correction factor=15.2dB (3kHz to 100kHz). Corrected Limit=23.2dBm (100kHz BW)
 Ref Level 30.1 dBm ATTN 30 dB OFFSET: 10.1dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 1.92msec
 Marker: 5.746GHz 3.418dBm



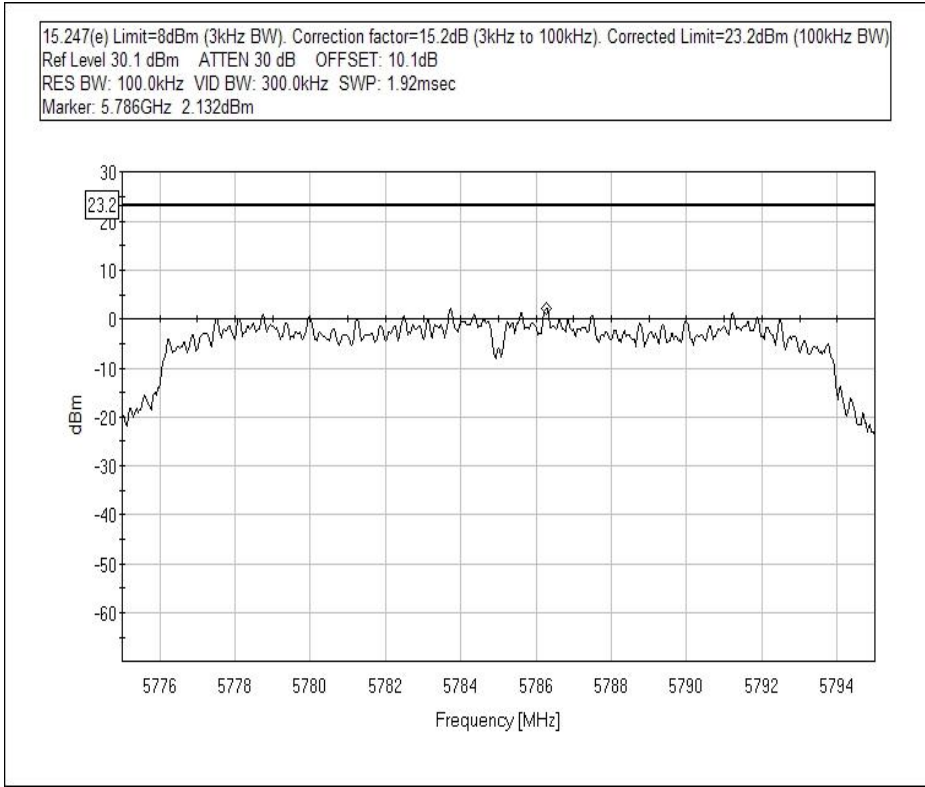
802.11n - Antenna Port 0



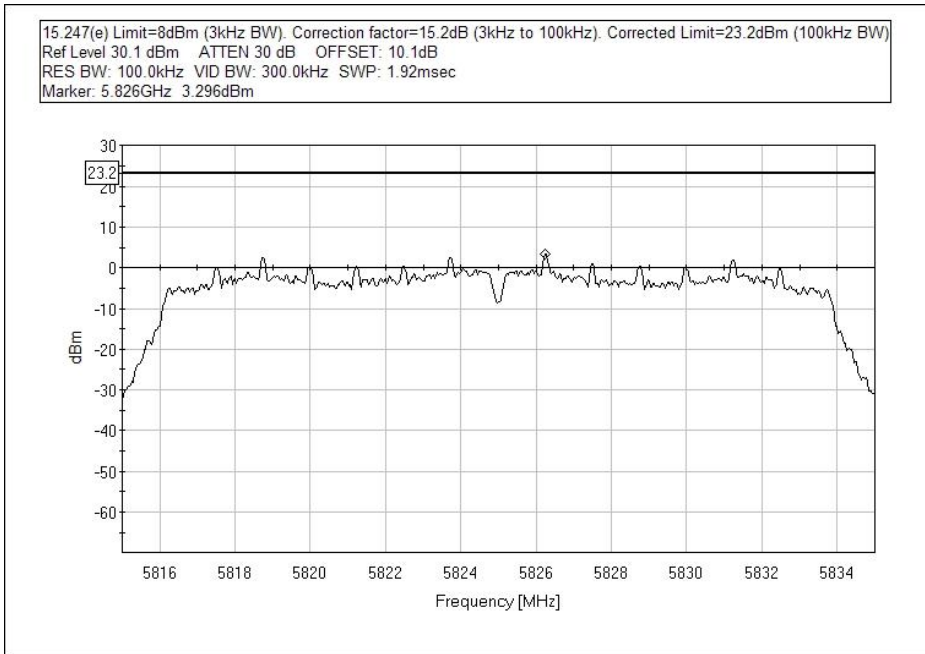
802.11n - Antenna Port 1



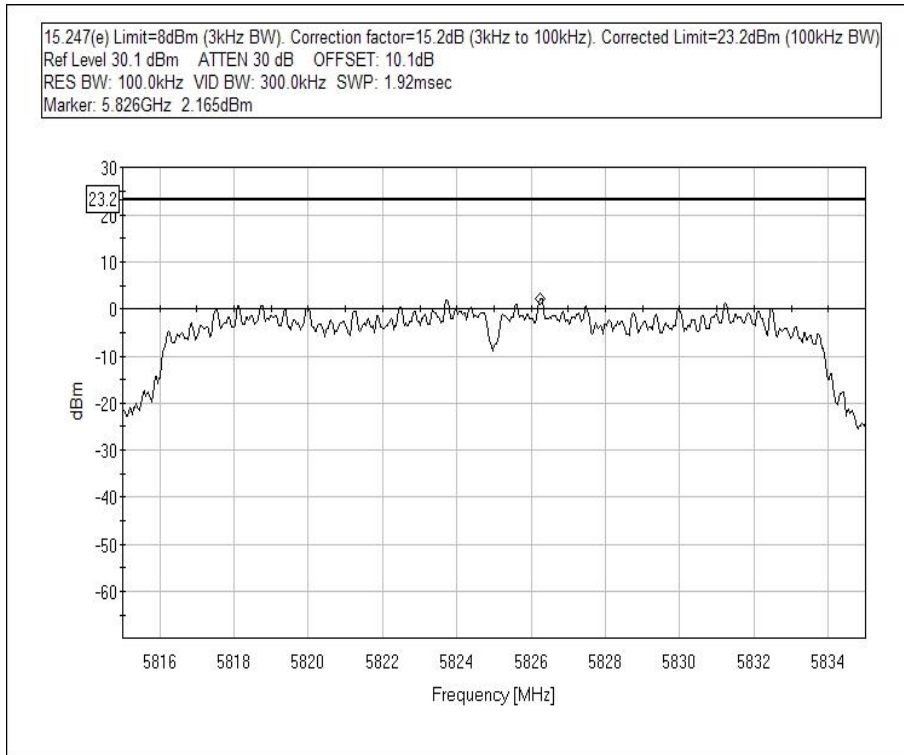
802.11n - Antenna Port 0



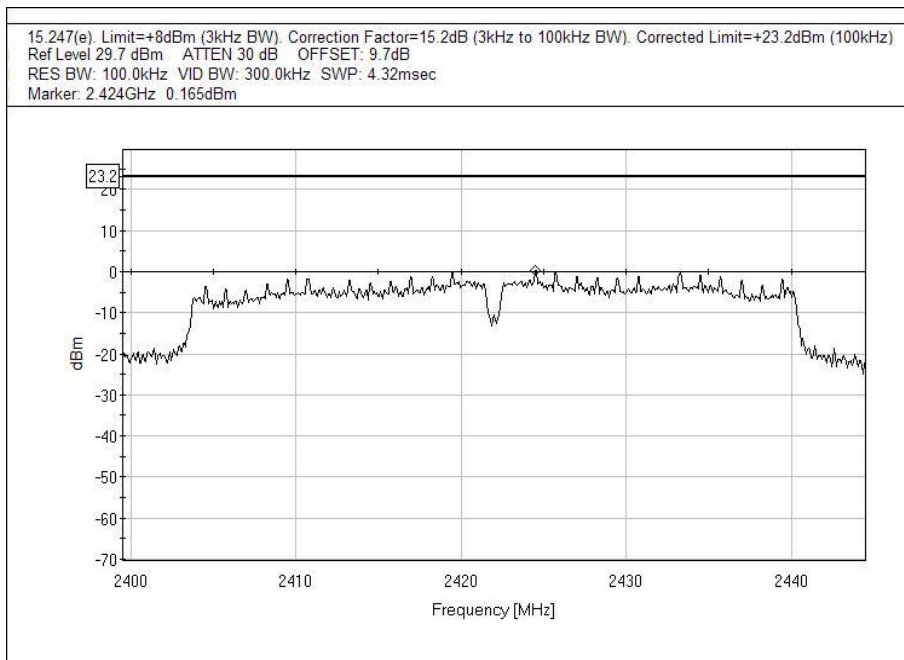
802.11n - Antenna Port 1



802.11n - Antenna Port 0

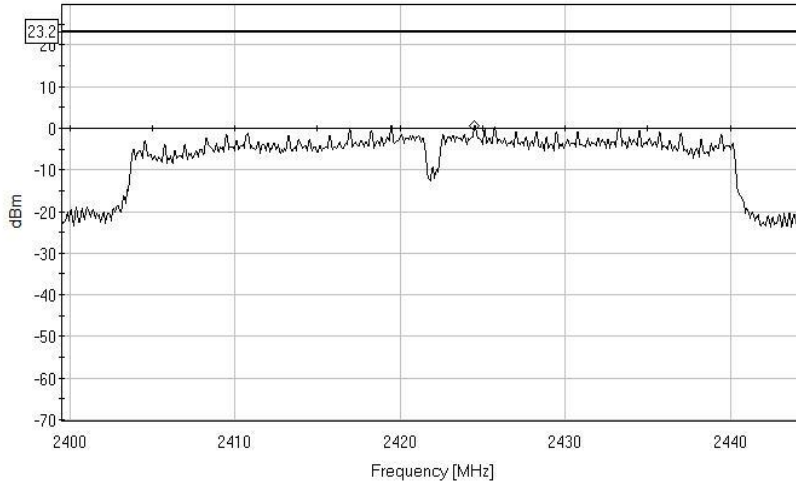


802.11n - Antenna Port 1



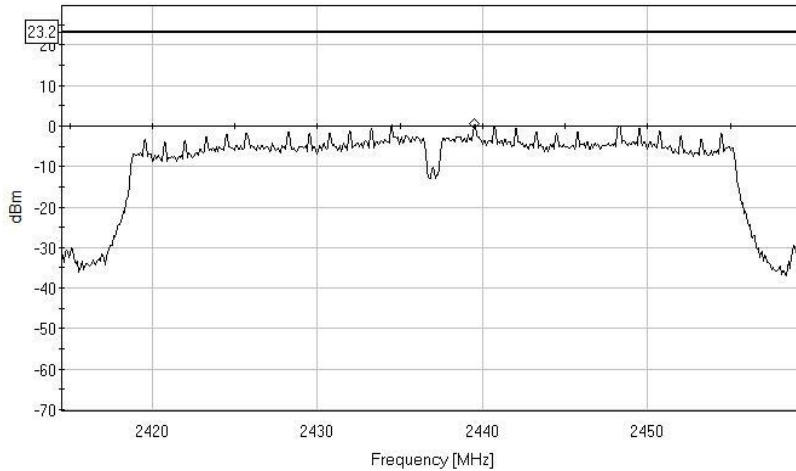
802.11n - Antenna Port 0

15 247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 4.32msec
 Marker: 2.424GHz 0.715dBm

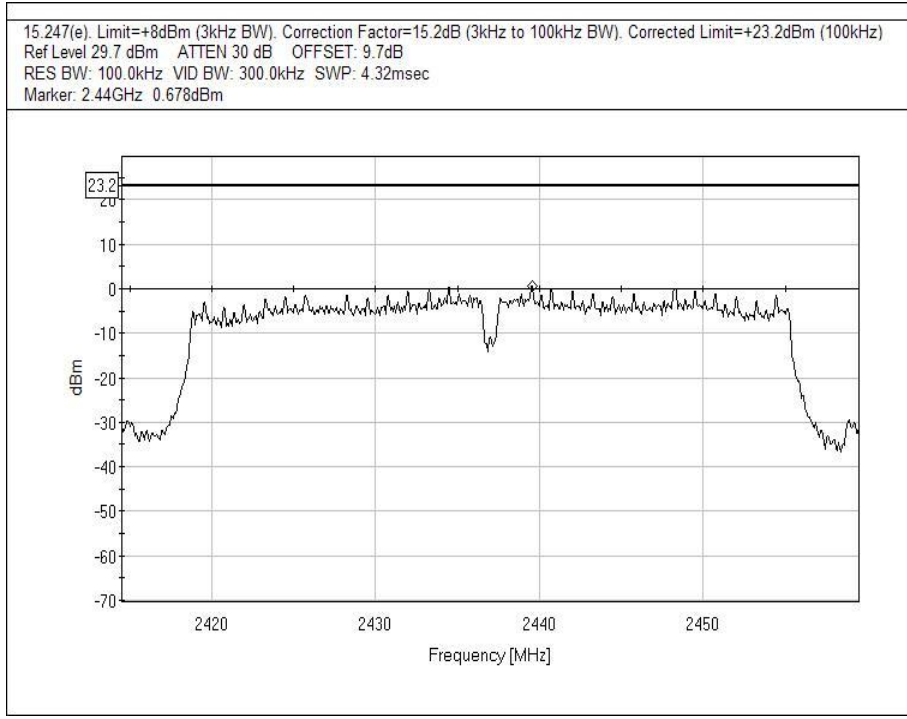


802.11n - Antenna Port 1

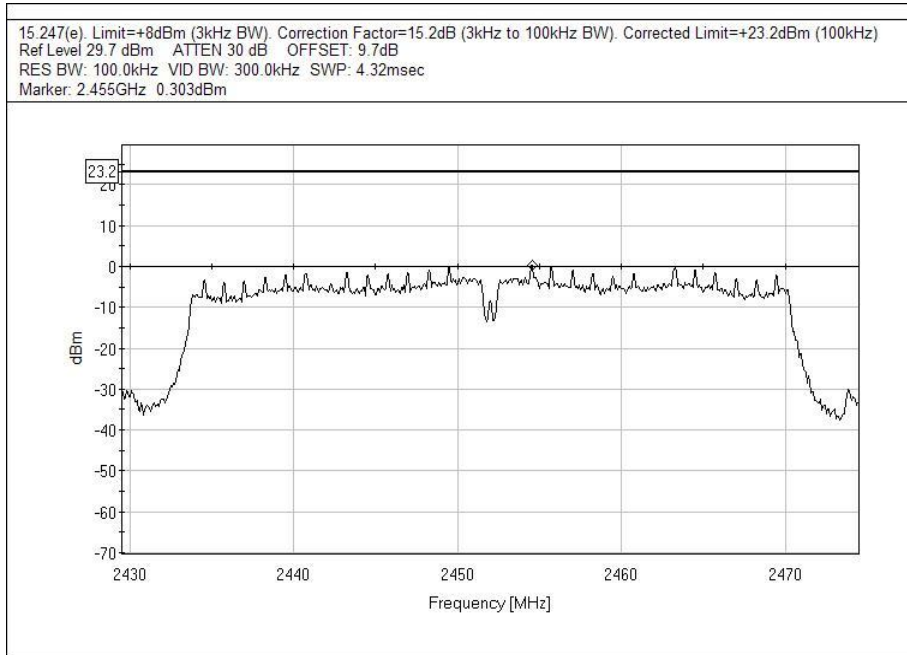
15 247(e). Limit=+8dBm (3kHz BW). Correction Factor=15.2dB (3kHz to 100kHz BW). Corrected Limit=+23.2dBm (100kHz)
 Ref Level 29.7 dBm ATTN 30 dB OFFSET: 9.7dB
 RES BW: 100.0kHz VID BW: 300.0kHz SWP: 4.32msec
 Marker: 2.439GHz 0.448dBm



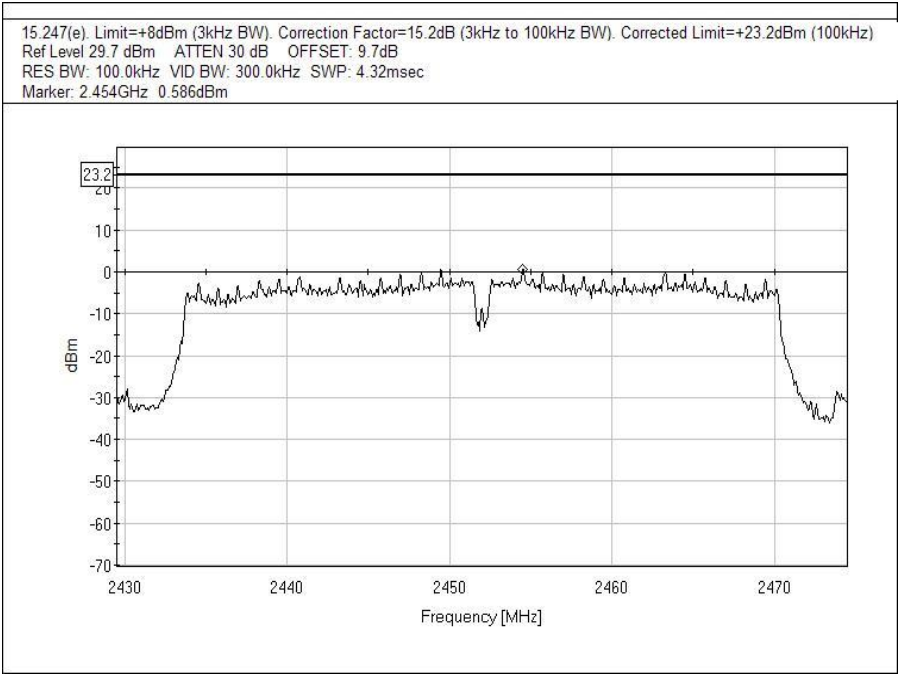
802.11n - Antenna Port 0



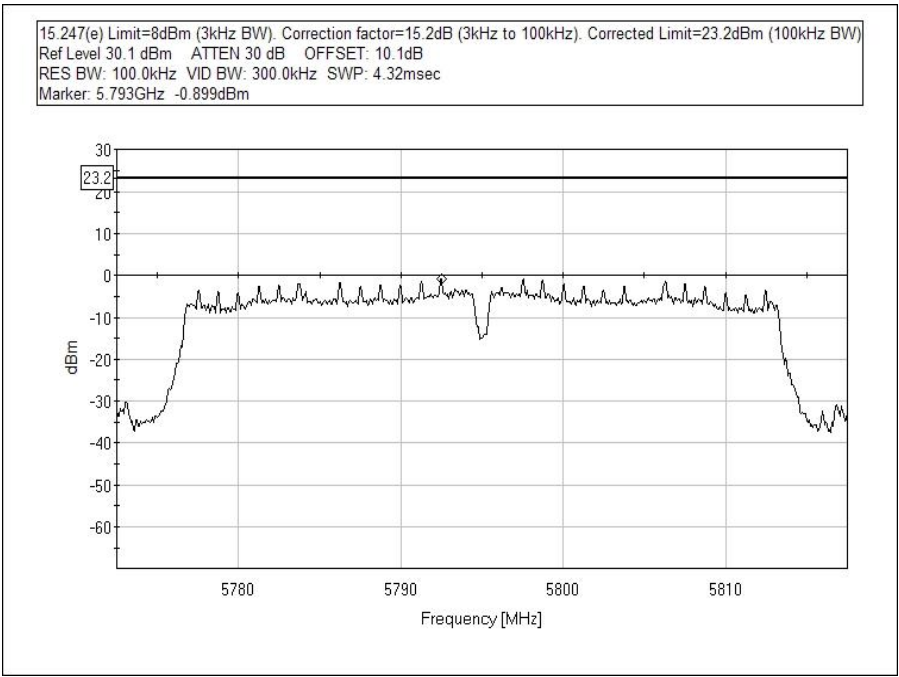
802.11n - Antenna Port 1



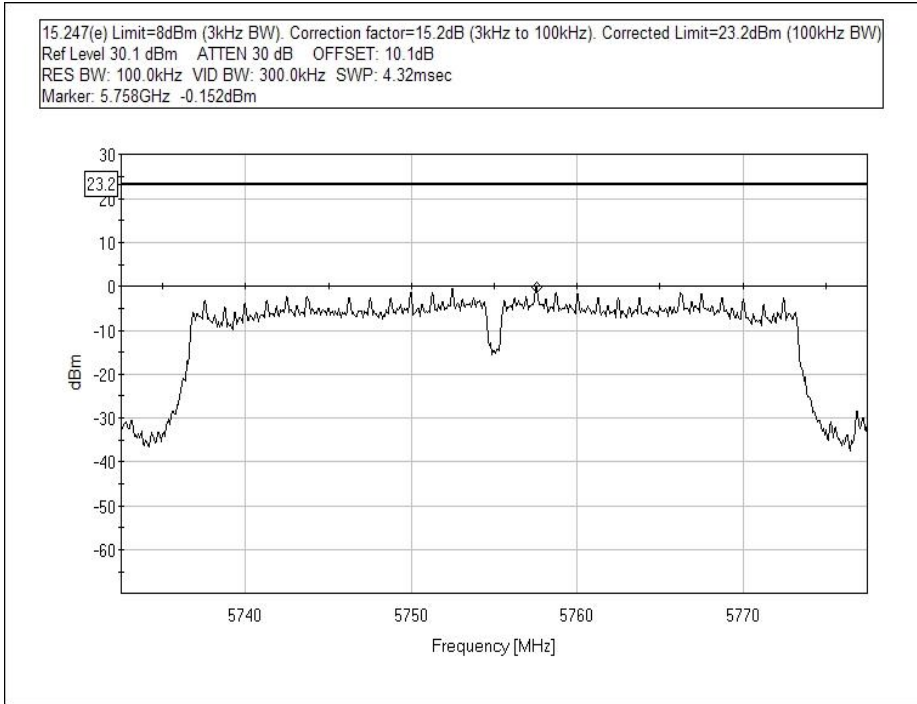
802.11n - Antenna Port 0



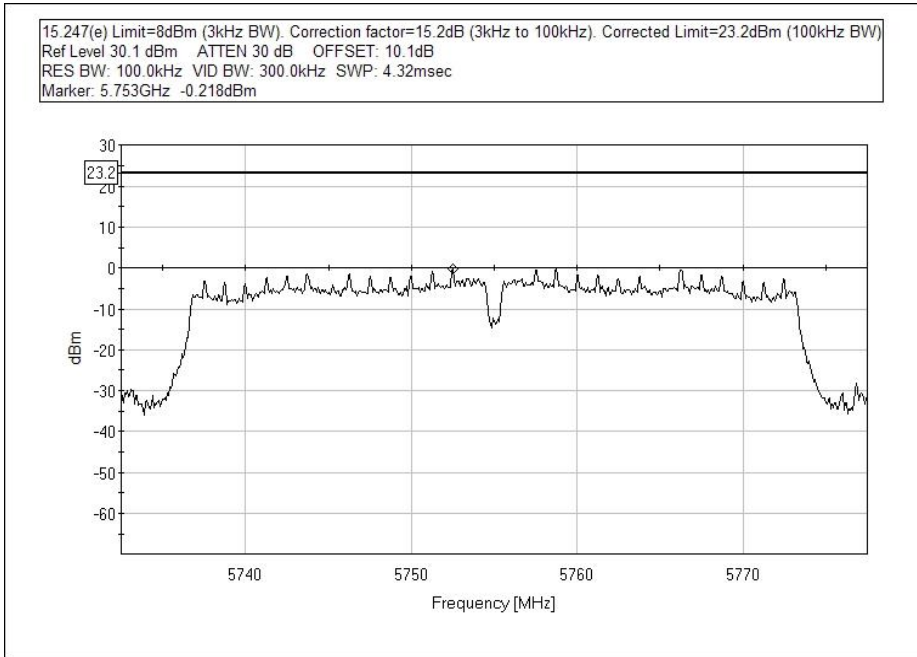
802.11n - Antenna Port 1



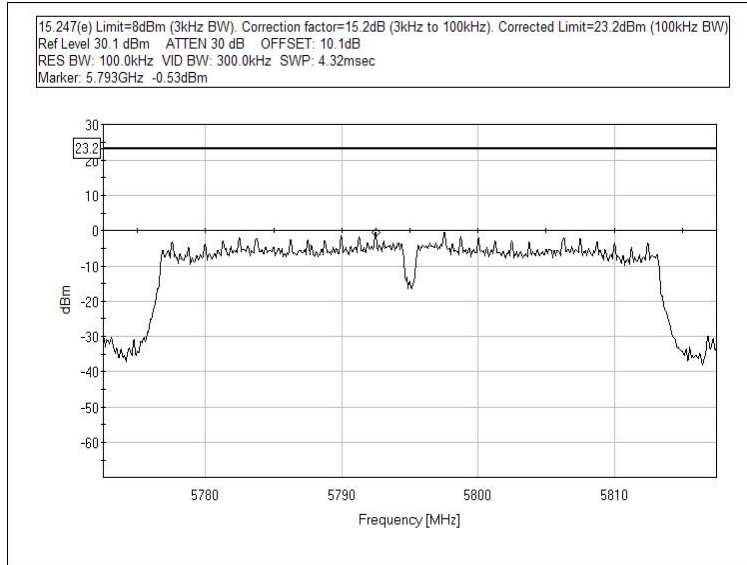
802.11n - Antenna Port 0



802.11n - Antenna Port 1



802.11n - Antenna Port 0



802.11n - Antenna Port 1

Test Setup Photos

