

## RSS-210 / RSS-GEN 99% Bandwidth

### ***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)

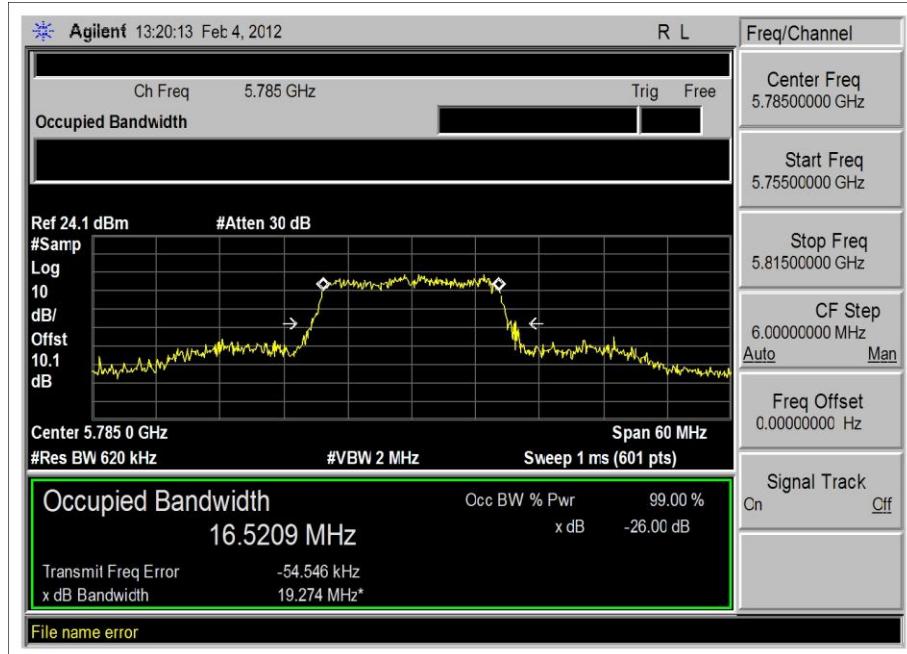
Transmit Frequencies: 5755MHz, 5795MHz (Channel 151, 159)

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



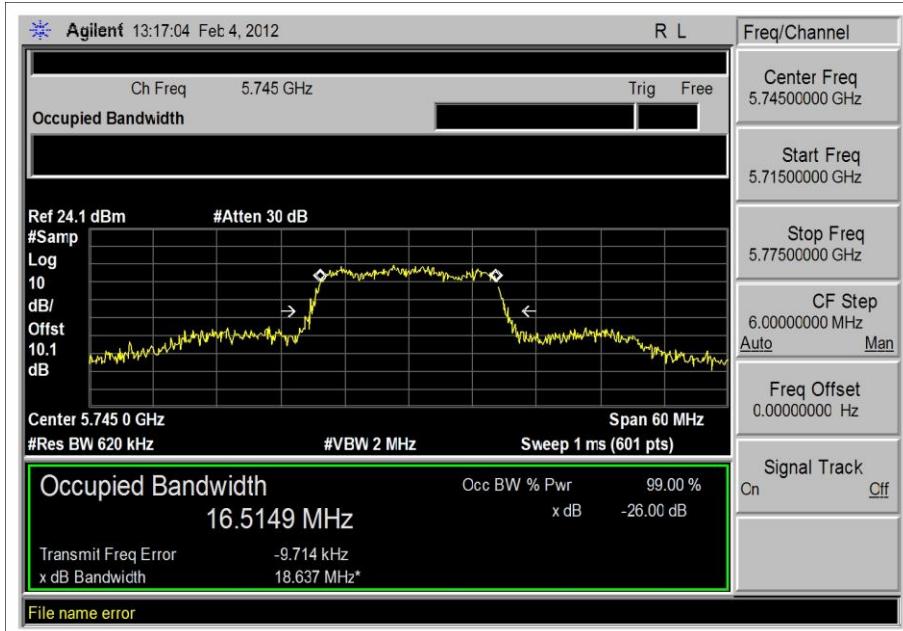
802.11a - Antenna Port 0



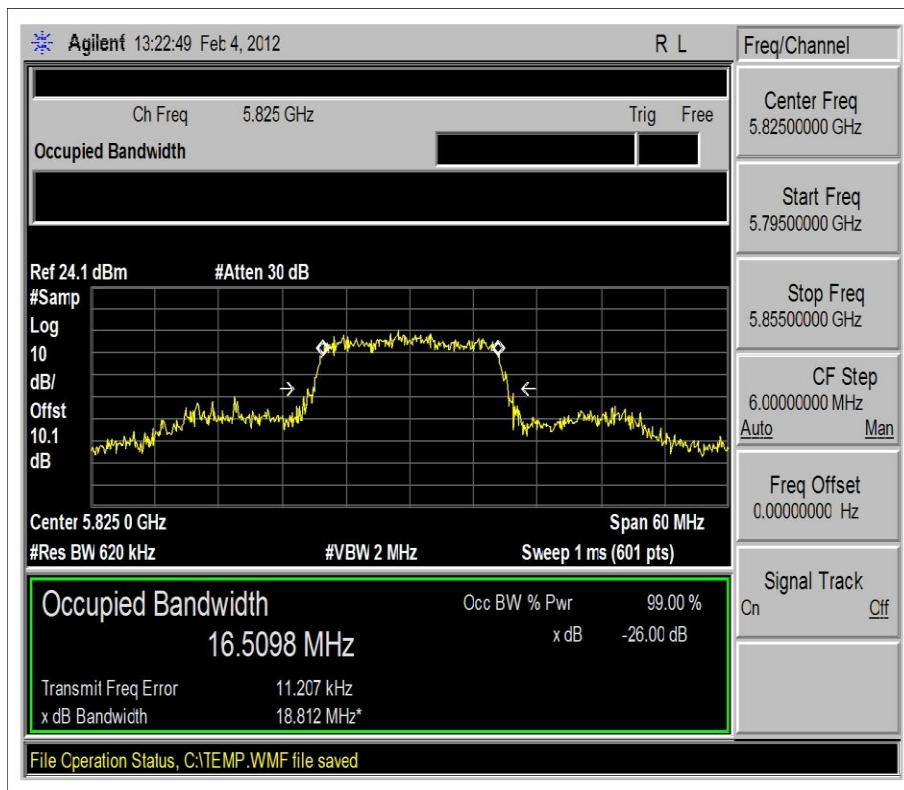
802.11a - Antenna Port 1



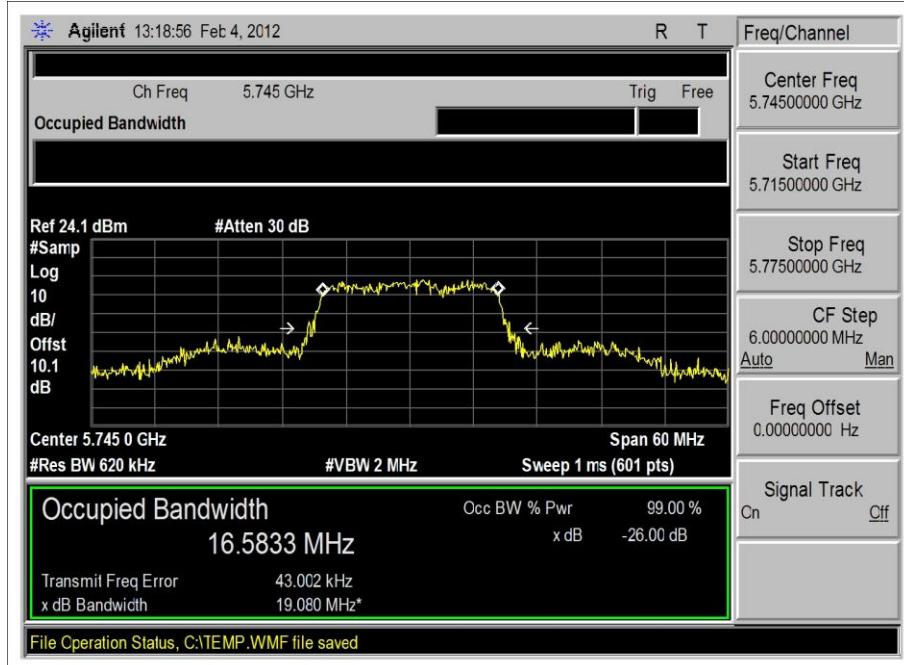
802.11a - Antenna Port 0



802.11a - Antenna Port 0



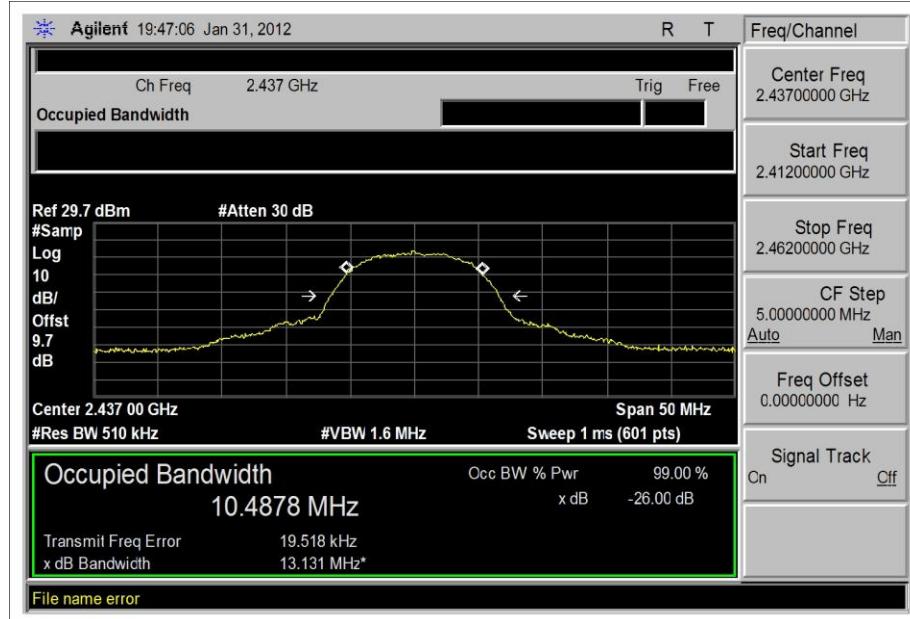
802.11a - Antenna Port 1



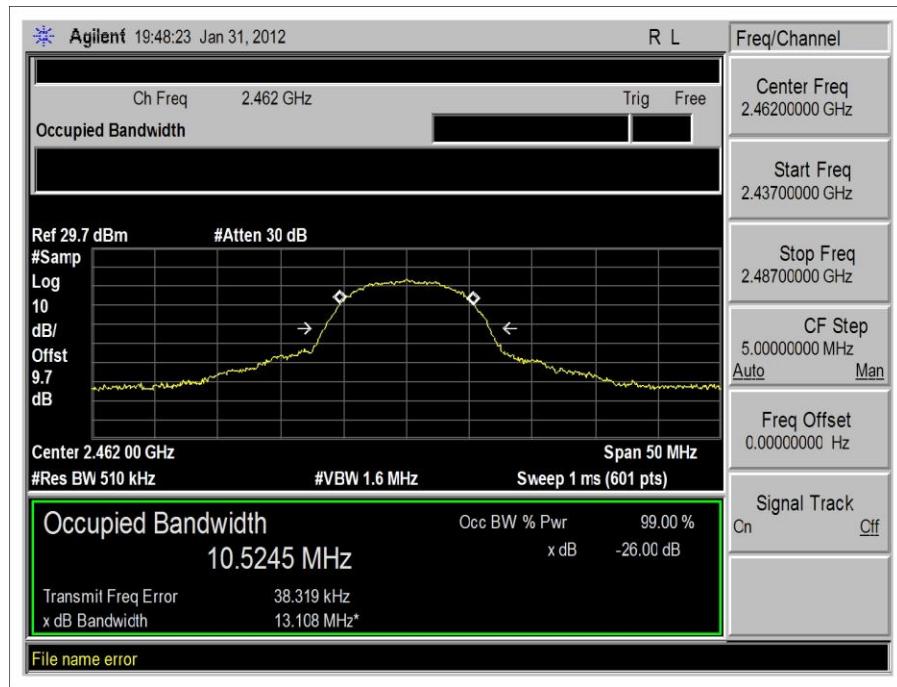
802.11a - Antenna Port 1



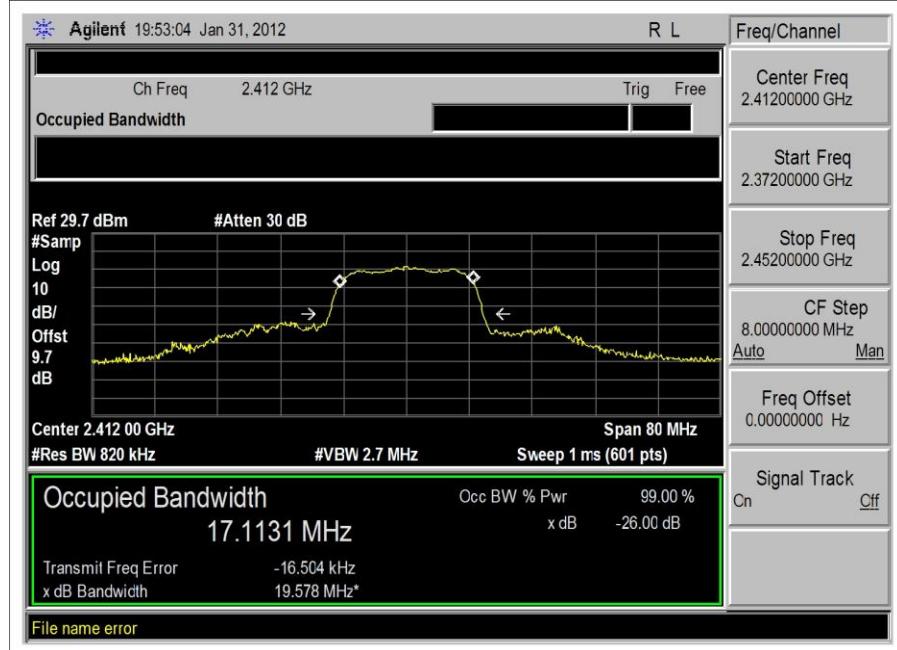
802.11b - Antenna Port 0



802.11b - Antenna Port 0



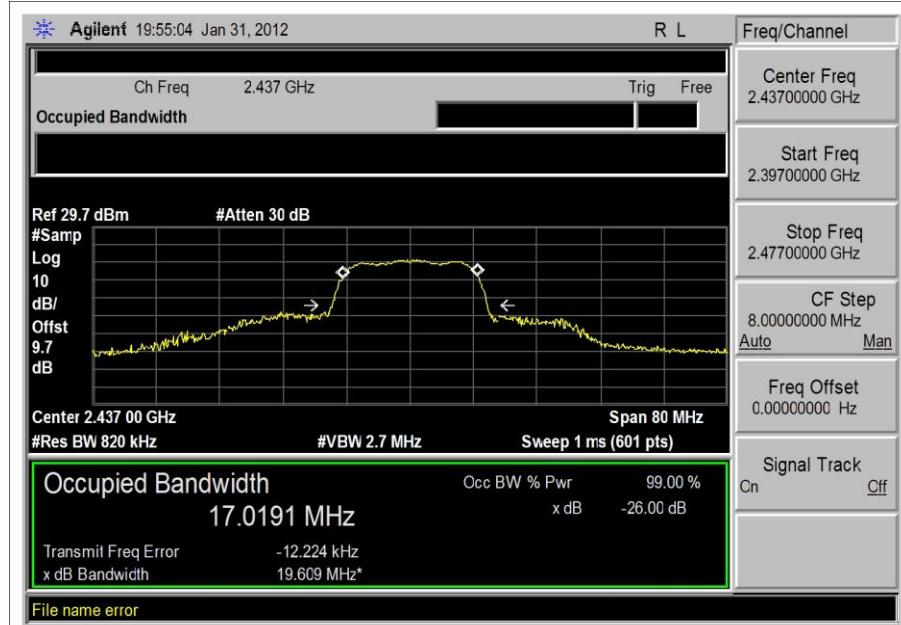
802.11b - Antenna Port 0



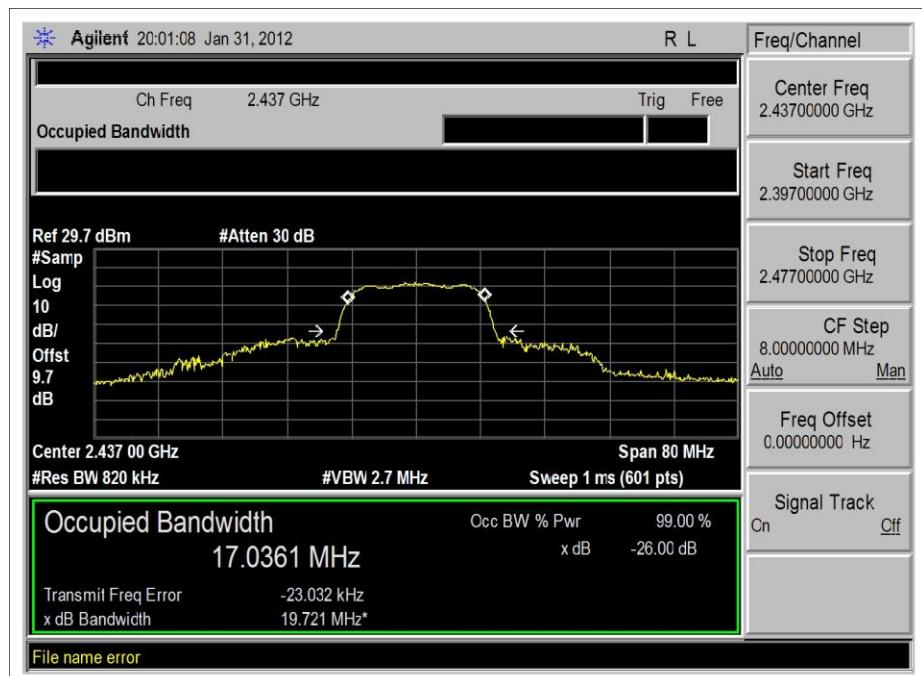
802.11g - Antenna Port 0



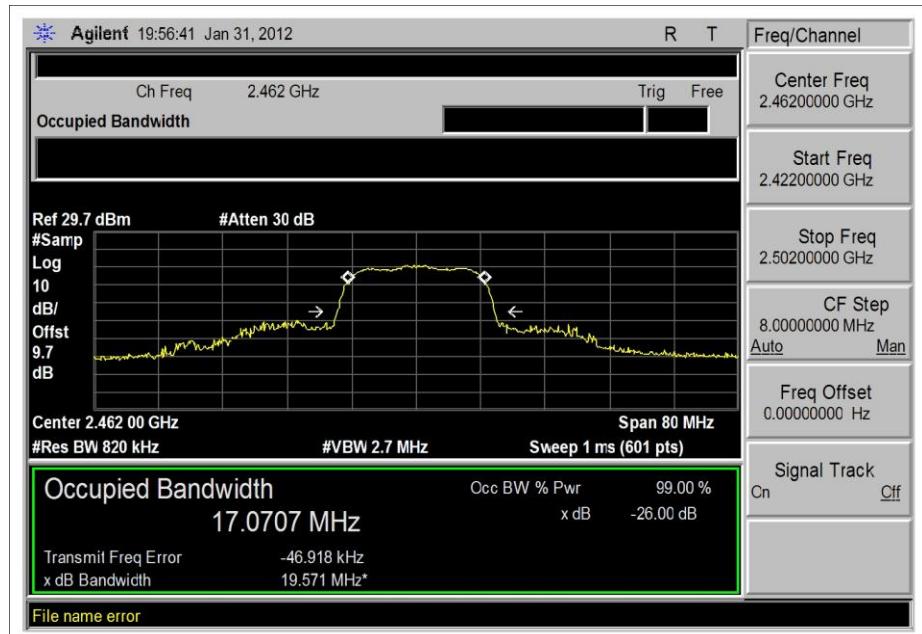
802.11g - Antenna Port 1



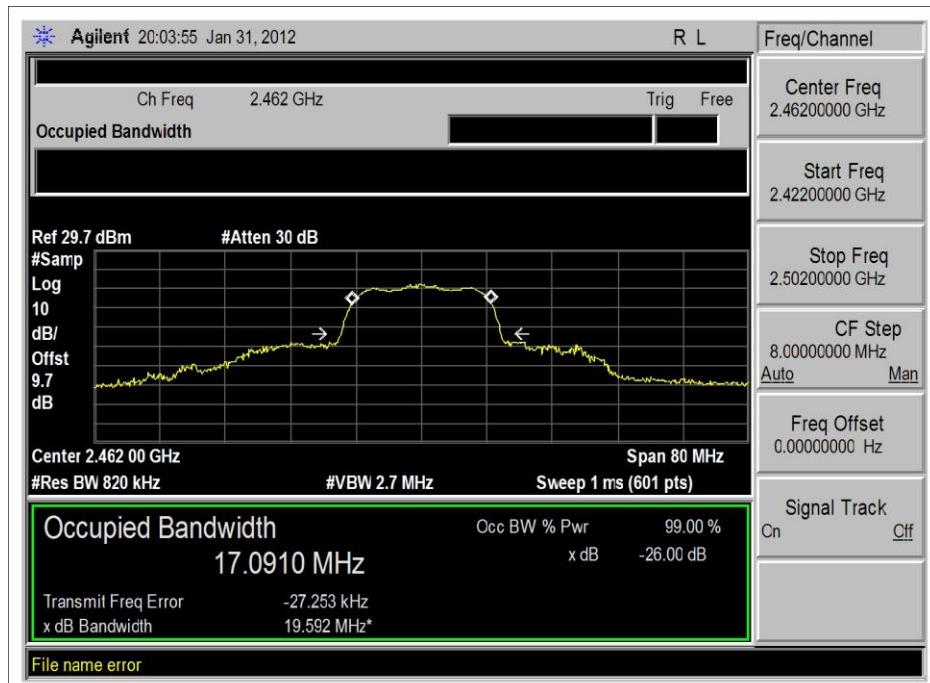
802.11g - Antenna Port 0



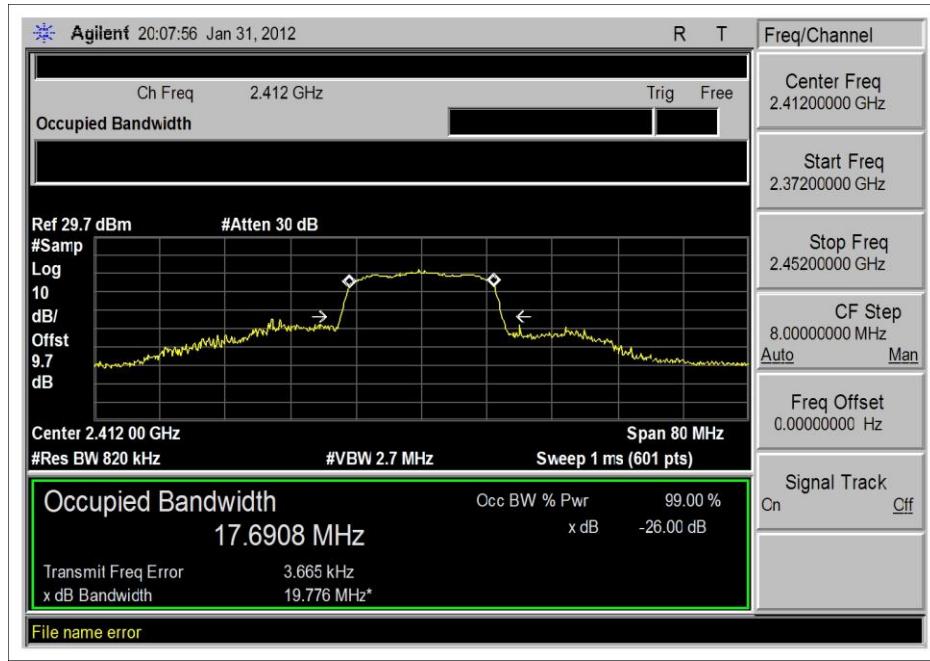
802.11g - Antenna Port 1



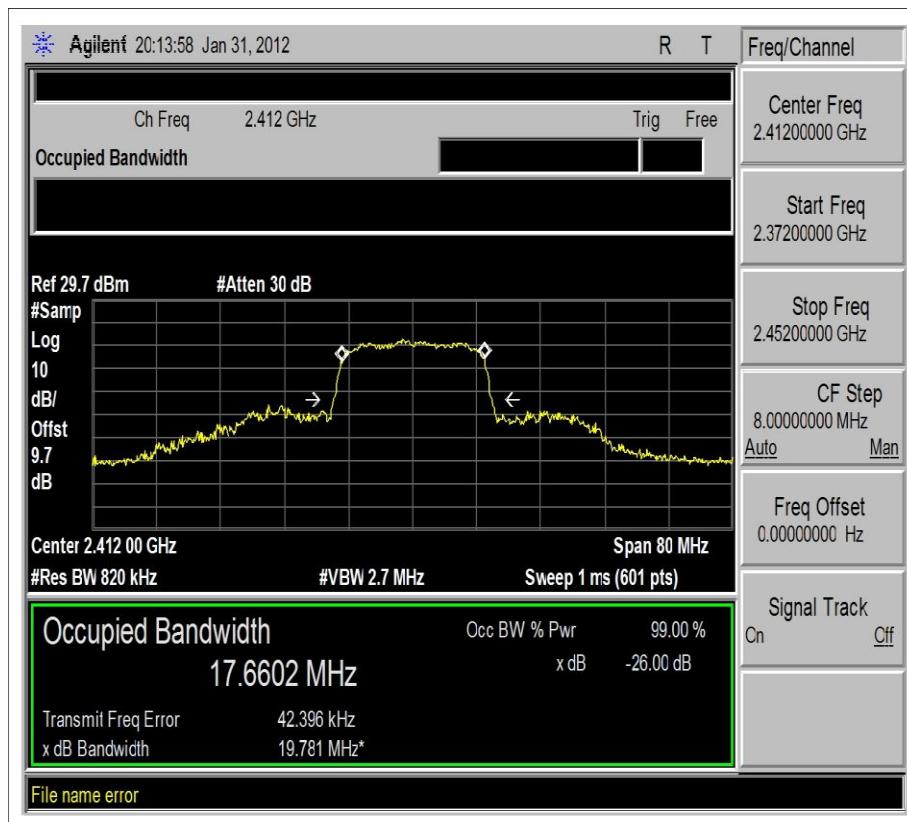
802.11g - Antenna Port 0



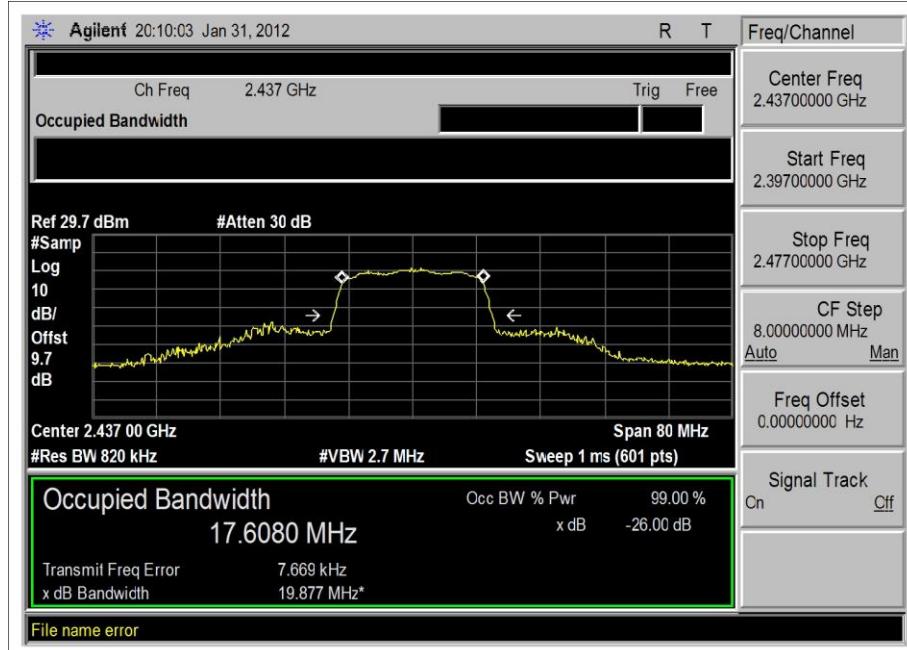
802.11g - Antenna Port 1



802.11n - Antenna Port 0



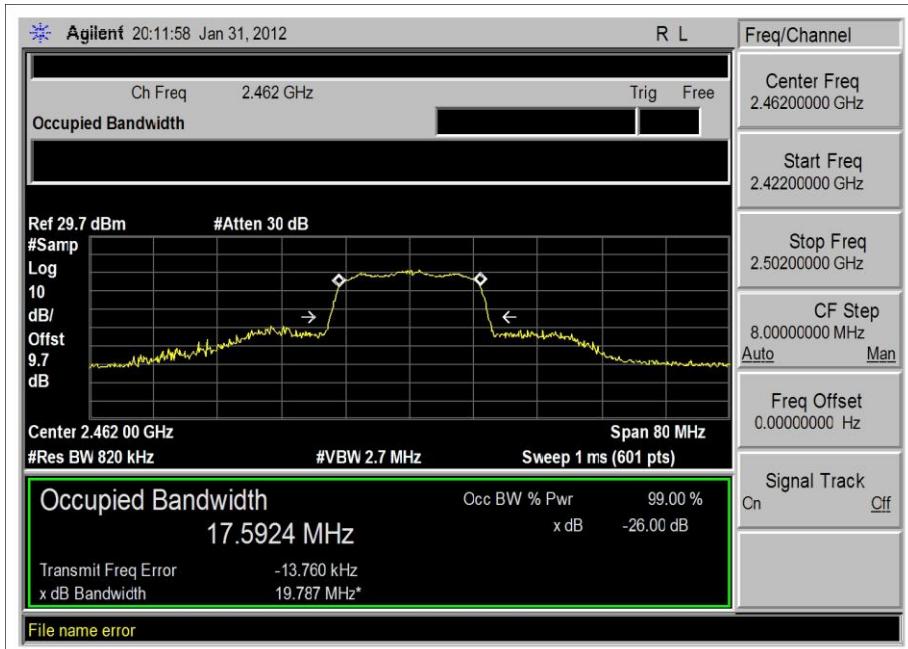
802.11n - Antenna Port 1



802.11n - Antenna Port 0



802.11n - Antenna Port 1



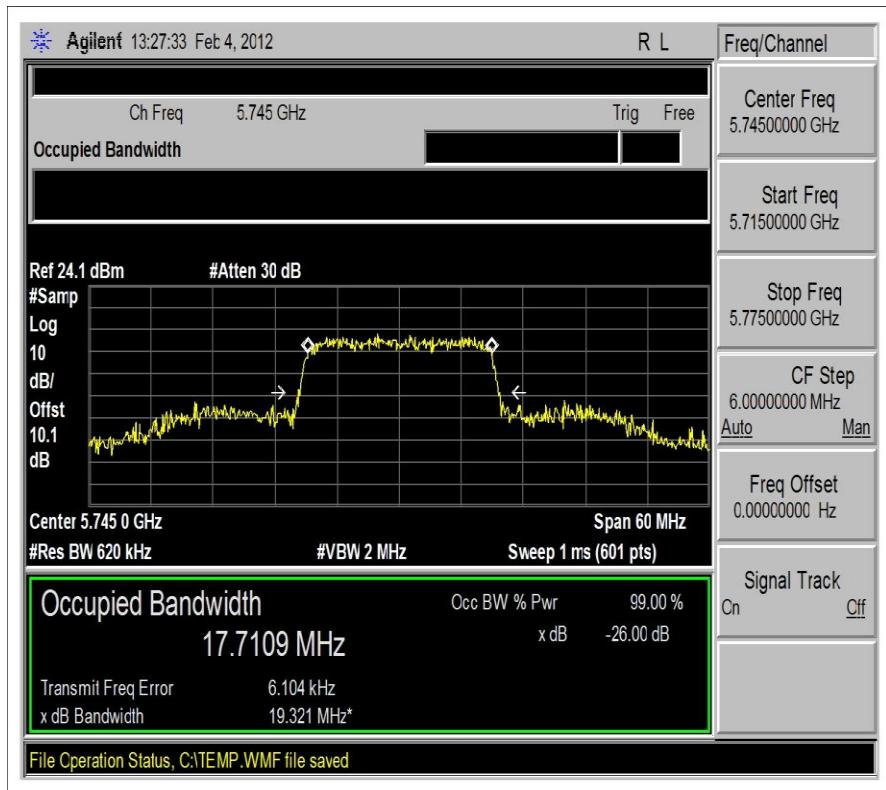
802.11n - Antenna Port 0



802.11n - Antenna Port 1



802.11n - Antenna Port 0



802.11n - Antenna Port 1



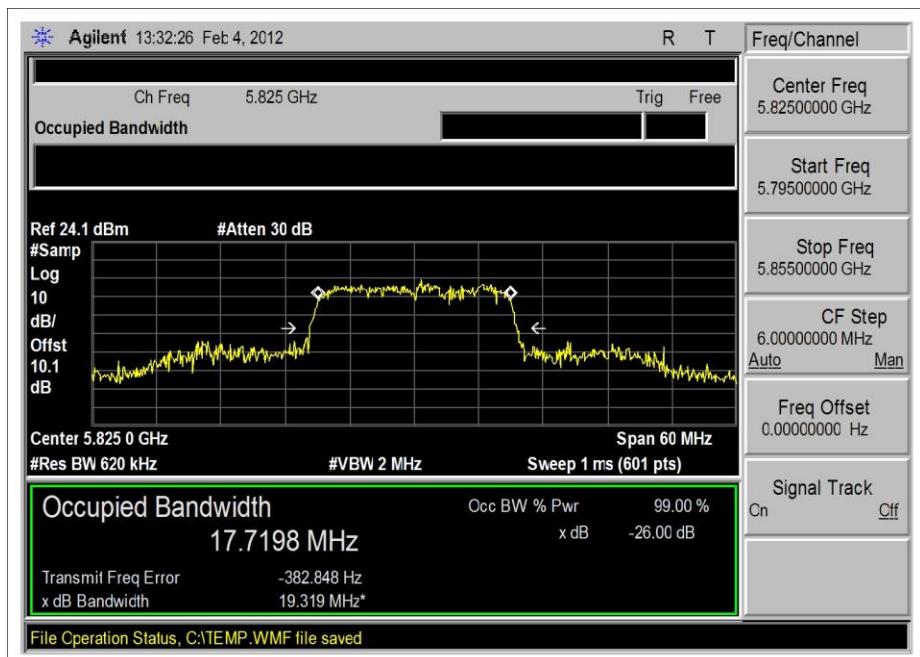
802.11n - Antenna Port 0



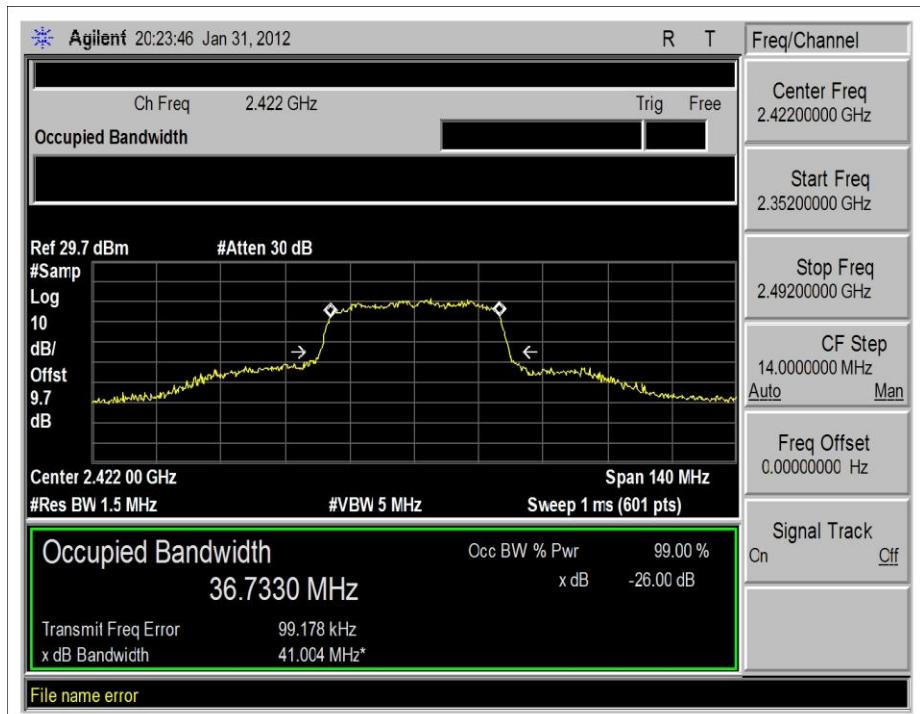
802.11n - Antenna Port 1



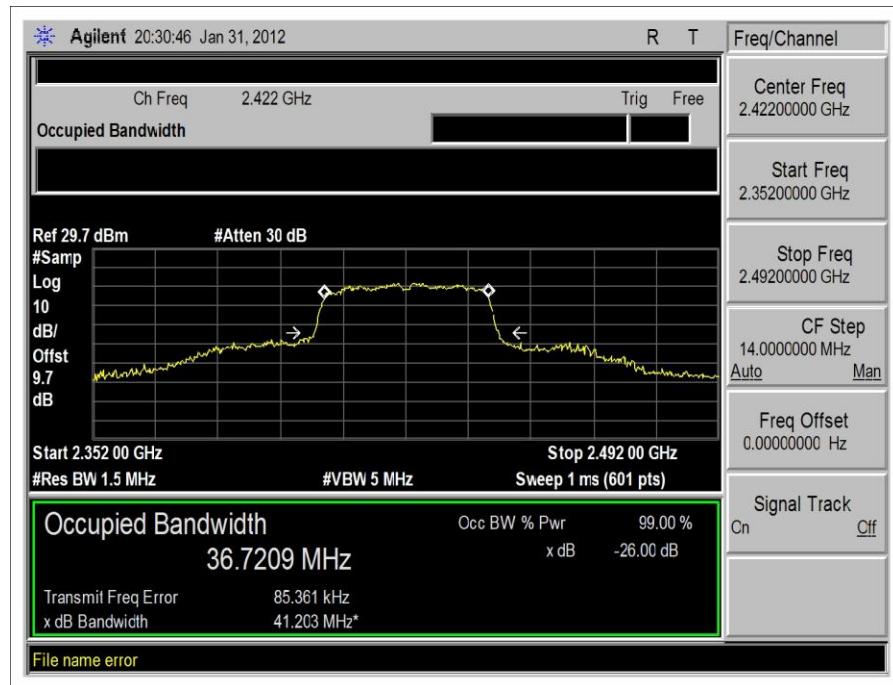
802.11n - Antenna Port 0



802.11n - Antenna Port 1



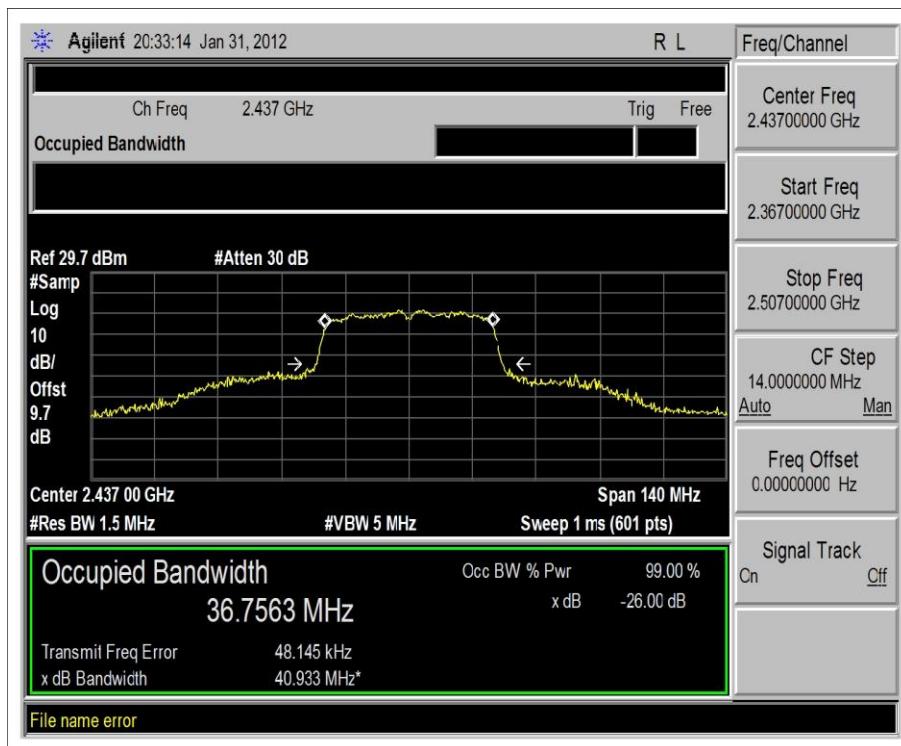
802.11n - Antenna Port 0



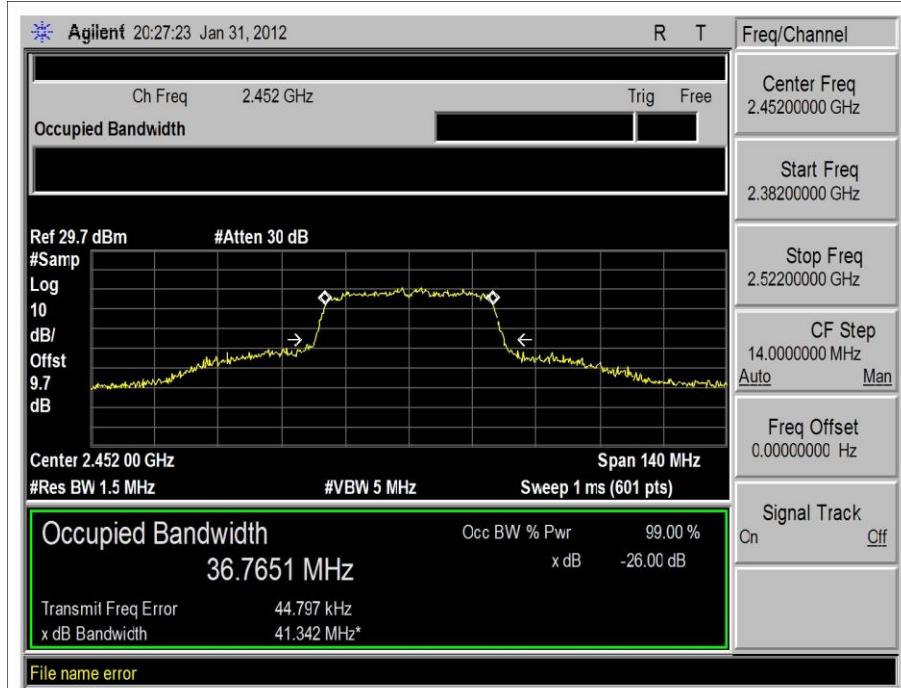
802.11n - Antenna Port 1



802.11n - Antenna Port 0



802.11n - Antenna Port 1



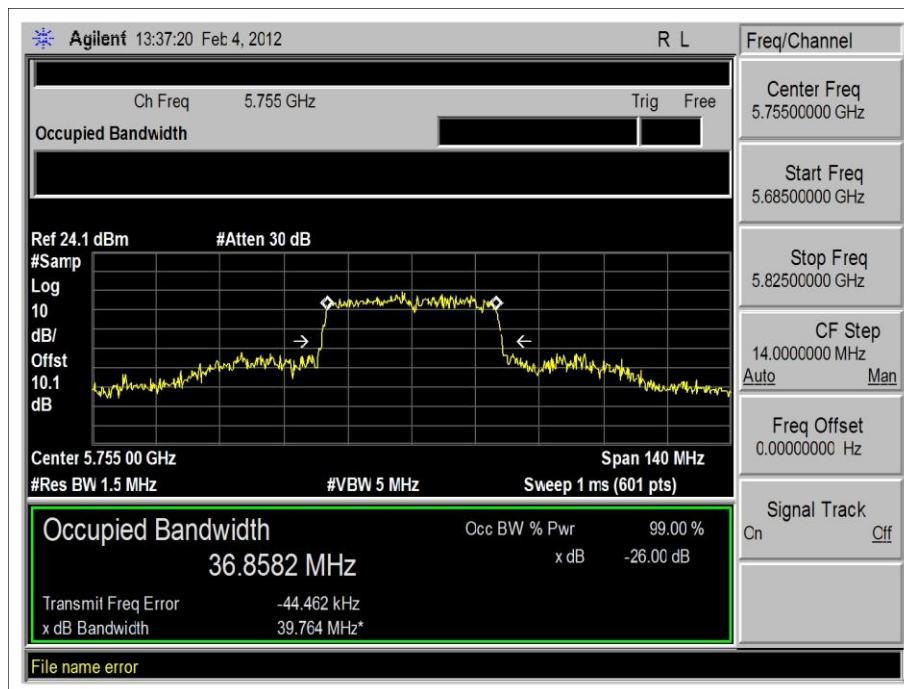
802.11n - Antenna Port 0



802.11n - Antenna Port 1



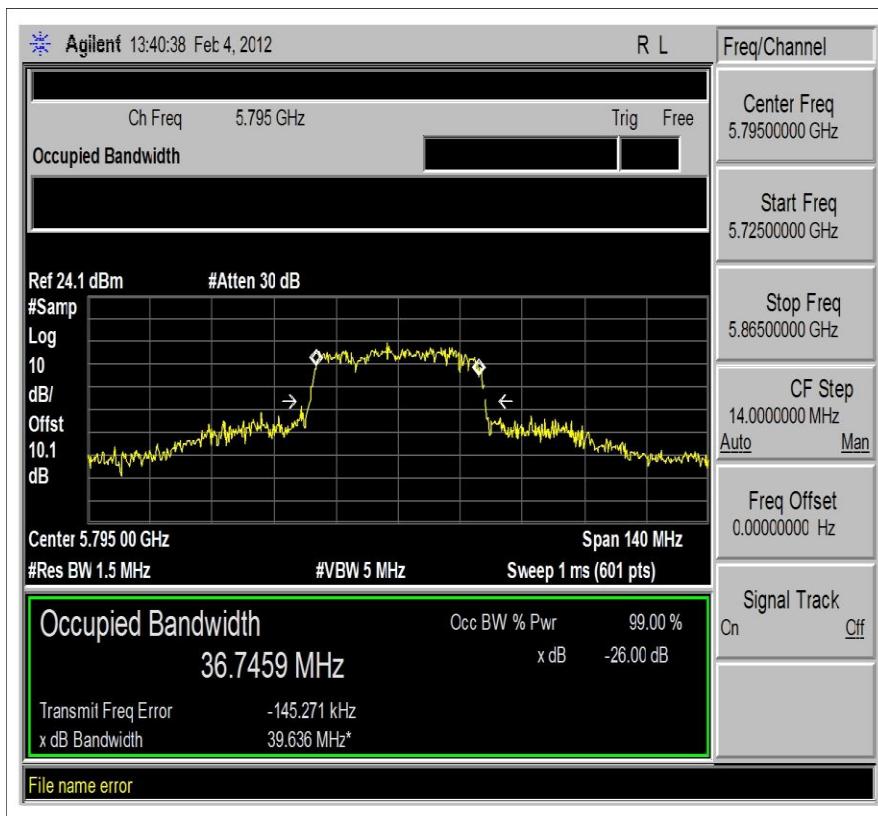
802.11n - Antenna Port 0



802.11n - Antenna Port 1



802.11n - Antenna Port 0



802.11n - Antenna Port 1

### Test Setup Photos



## RSS-210 §2.2 Restricted Bands

### Data

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

Customer: **Motorola Mobility, Inc.**  
 Specification: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**  
 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	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

**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	dB $\mu$ V		dB	dB	dB	Table	dB $\mu$ V/m	dB $\mu$ V/m	dB				
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	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert			
	Ave		-37.0	+33.3	+0.3	+0.3								
			+0.3	+0.3	+0.3	+0.3								
			+0.3											

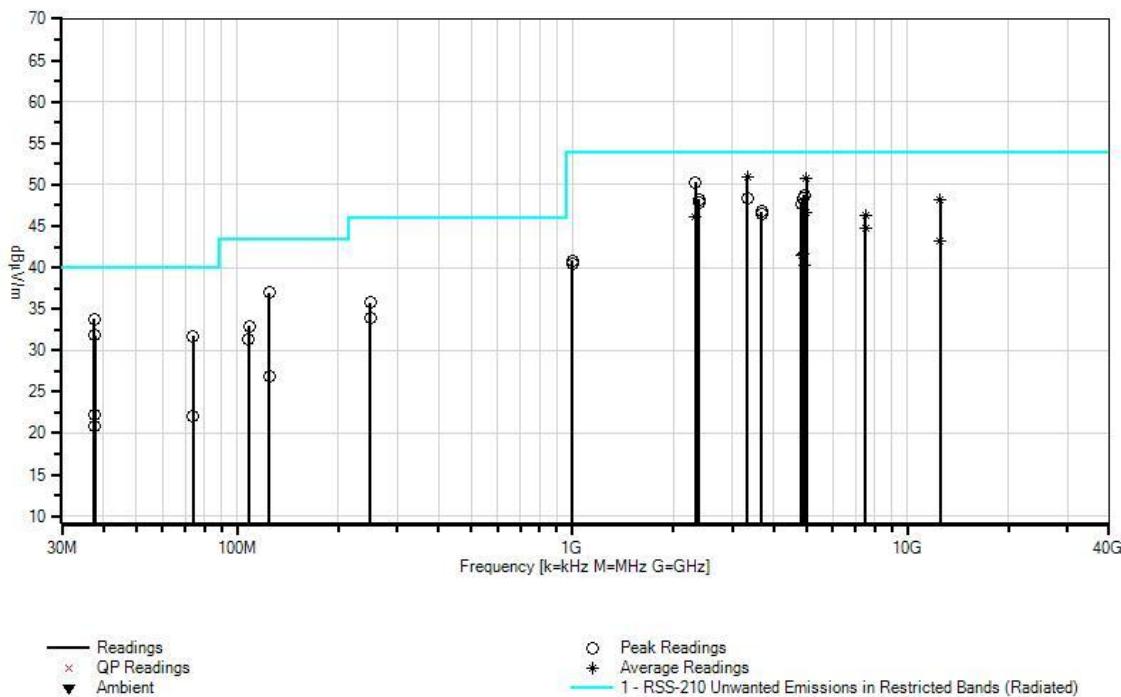
^ 4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
		-37.0	+33.3	+0.3	+0.3					
		+0.3	+0.3	+0.3	+0.3					
		+0.3								
5 2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
6 4923.967M	44.8	+0.0	+0.5	+1.9	+5.0	+0.0	48.7	54.0	-5.3	Horiz
		-37.1	+33.2	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
7 4874.088M	44.6	+0.0	+0.5	+1.9	+5.0	+0.0	48.4	54.0	-5.6	Horiz
		-37.1	+33.1	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
8 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								
9 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								
10 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
		+0.2								
^ 12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
		+0.2								
12 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								
13 37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
		+14.8	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
14 4823.997M	44.0	+0.0	+0.5	+1.9	+5.0	+0.0	47.7	54.0	-6.3	Horiz
		-37.1	+33.0	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
15 125.002M	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					
		+0.0								
16 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					
		+0.4								

17	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
	Ave		-37.0	+33.3	+0.3	+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					
			+0.3								
19	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					
			+0.4								
20	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
	Ave		-36.5	+35.5	+0.1	+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					
			+0.1								
22	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-38.0	+28.3	+0.0	+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					
			+0.0								
24	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								
25	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								
26	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								
27	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
	Ave		-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								
29	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								

30	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								
31	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
			+0.2								
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
			+0.2								
33	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								
34	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					
			+0.0								
35	4873.968M	37.8	+0.0	+0.5	+1.9	+5.0	+0.0	41.6	54.0	-12.4	Vert
	Ave		-37.1	+33.1	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
^	4873.968M	47.8	+0.0	+0.5	+1.9	+5.0	+0.0	51.6	54.0	-2.4	Vert
			-37.1	+33.1	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
37	4823.970M	37.8	+0.0	+0.5	+1.9	+5.0	+0.0	41.5	54.0	-12.5	Vert
	Ave		-37.1	+33.0	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
^	4823.970M	47.5	+0.0	+0.5	+1.9	+5.0	+0.0	51.2	54.0	-2.8	Vert
			-37.1	+33.0	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
39	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					
			+0.0								
40	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					
			+0.0								
41	4923.970M	36.4	+0.0	+0.5	+1.9	+5.0	+0.0	40.3	54.0	-13.7	Vert
	Ave		-37.1	+33.2	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
^	4923.970M	47.7	+0.0	+0.5	+1.9	+5.0	+0.0	51.6	54.0	-2.4	Vert
			-37.1	+33.2	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								

43	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					
			+0.0								
44	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					
			+0.0								
45	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					
			+0.0								
46	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					
			+0.0								

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742  
 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 5 Ext ATTN: 0 dB





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

Customer: **Motorola Mobility, Inc.**  
Specification: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**  
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
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	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

**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	dB $\mu$ V	dB	dB	dB	dB	Table	dB $\mu$ V/m	dB $\mu$ V/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	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert			
	Ave		-37.0	+33.3	+0.3	+0.3								
			+0.3	+0.3	+0.3	+0.3								
			+0.3											

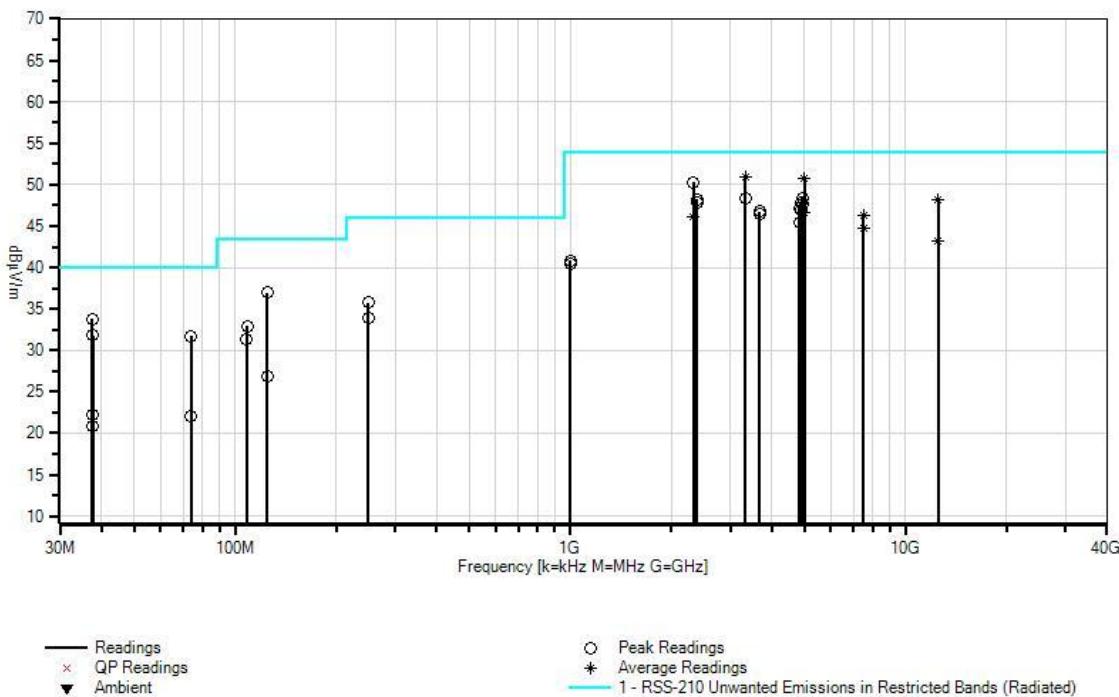
^ 4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
		-37.0	+33.3	+0.3	+0.3					
		+0.3	+0.3	+0.3	+0.3					
		+0.3								
5 2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
6 3333.332M	48.9	+0.0	+0.4	+1.6	+3.9	+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								
7 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								
8 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								
9 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
		+0.2								
^ 12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
		+0.2								
11 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								
12 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								
13 37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
		+14.8	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
		+0.0								
14 4923.942M	43.7	+0.0	+0.5	+1.9	+5.0	+0.0	47.6	54.0	-6.4	Horiz
		-37.1	+33.2	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
15 125.002M	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					
		+0.0								
16 4823.981M	43.5	+0.0	+0.5	+1.9	+5.0	+0.0	47.2	54.0	-6.8	Horiz
		-37.1	+33.0	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								

17	4873.960M	43.2	+0.0	+0.5	+1.9	+5.0	+0.0	47.0	54.0	-7.0	Horiz
			-37.1	+33.1	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
18	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					
			+0.4								
19	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
Ave			-37.0	+33.3	+0.3	+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					
			+0.3								
21	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					
			+0.4								
22	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
Ave			-36.5	+35.5	+0.1	+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					
			+0.1								
24	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
Ave			-38.0	+28.3	+0.0	+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					
			+0.0								
26	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								
27	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								
28	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								
29	4824.002M	41.7	+0.0	+0.5	+1.9	+5.0	+0.0	45.4	54.0	-8.6	Vert
			-37.1	+33.0	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								

30	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave			-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								
32	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								
33	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								
34	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
M			-35.9	+38.7	+0.2	+0.2					
Ave			+0.2	+0.2	+0.2	+0.2					
			+0.2								
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
M			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
			+0.2								
36	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								
37	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					
			+0.0								
38	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					
			+0.0								
39	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					
			+0.0								
40	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					
			+0.0								
41	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					
			+0.0								
42	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					
			+0.0								

43	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					
			+0.0								

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742  
RSS-210 Unwanted Emissions in Restricted Bands (Radiated) 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: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**  
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	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

**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	dB $\mu$ V	dB	dB	dB	dB	Table	dB $\mu$ V/m	dB $\mu$ V/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	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert			
	Ave		-37.0	+33.3	+0.3	+0.3								
			+0.3	+0.3	+0.3	+0.3								
			+0.3											

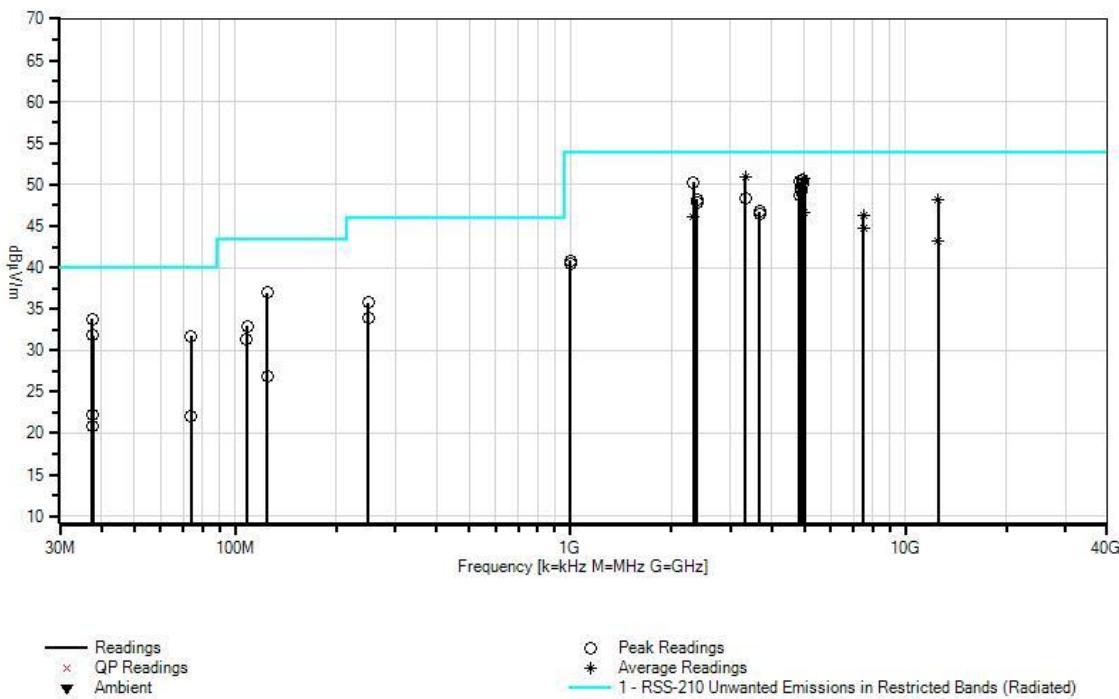
^ 4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
		-37.0	+33.3	+0.3	+0.3					
		+0.3	+0.3	+0.3	+0.3					
		+0.3								
5 4923.871M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.6	54.0	-3.4	Vert
		-37.1	+33.2	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
6 4824.043M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.4	54.0	-3.6	Vert
		-37.1	+33.0	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
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 4923.803M	46.2	+0.0	+0.5	+1.9	+5.0	+0.0	50.1	54.0	-3.9	Horiz
		-37.1	+33.2	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
9 4874.018M	45.7	+0.0	+0.5	+1.9	+5.0	+0.0	49.5	54.0	-4.5	Horiz
		-37.1	+33.1	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
10 4873.987M	45.4	+0.0	+0.5	+1.9	+5.0	+0.0	49.2	54.0	-4.8	Vert
		-37.1	+33.1	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
11 4824.030M	45.0	+0.0	+0.5	+1.9	+5.0	+0.0	48.7	54.0	-5.3	Horiz
		-37.1	+33.0	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
		+0.4								
12 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								
13 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								
14 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
		+0.2								
^ 12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
		+0.2								
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	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
18	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					
			+0.0								
19	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					
			+0.4								
20	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
Ave			-37.0	+33.3	+0.3	+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					
			+0.3								
22	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					
			+0.4								
23	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
Ave			-36.5	+35.5	+0.1	+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					
			+0.1								
25	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
Ave			-38.0	+28.3	+0.0	+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					
			+0.0								
27	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								
28	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								
29	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								

30	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave			-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								
32	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								
33	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								
34	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
M			-35.9	+38.7	+0.2	+0.2					
Ave			+0.2	+0.2	+0.2	+0.2					
			+0.2								
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
M			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
			+0.2								
36	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								
37	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					
			+0.0								
38	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					
			+0.0								
39	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					
			+0.0								
40	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					
			+0.0								
41	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					
			+0.0								
42	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					
			+0.0								

43	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					
			+0.0								

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742  
 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) 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: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**  
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	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

**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:**

#	Freq	Rdng	Reading listed by margin.				Test Distance: 3 Meters				
			T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
			T13								
	MHz	dB $\mu$ V	dB	dB	dB	dB	Table	dB $\mu$ V/m	dB $\mu$ V/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
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
			+0.6								
3	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
			+0.3								

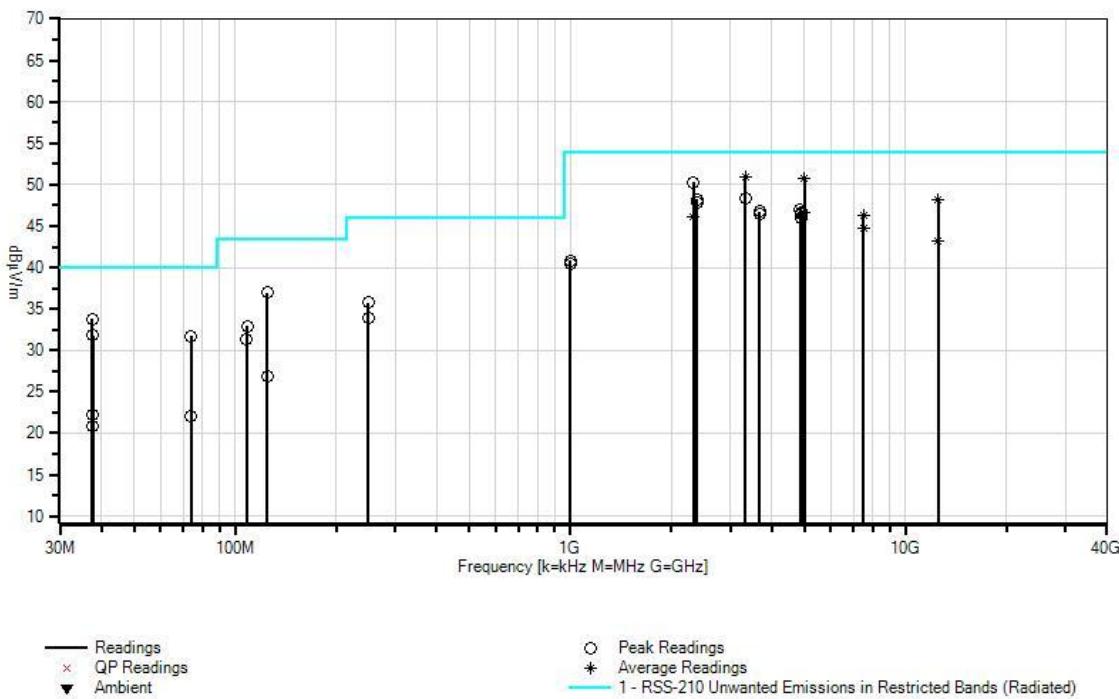
^	4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
			+0.3								
5	2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
			-38.0	+28.3	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
6	3333.332M	48.9	+0.0	+0.4	+1.6	+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								
7	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								
8	12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
			+0.2								
^	12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
			+0.2								
10	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								
11	37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
			+0.0								
12	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					
			+0.0								
13	4844.420M	43.3	+0.0	+0.5	+1.9	+5.0	+0.0	47.0	54.0	-7.0	Horiz
			-37.1	+33.0	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
14	4843.750M	43.3	+0.0	+0.5	+1.9	+5.0	+0.0	47.0	54.0	-7.0	Vert
			-37.1	+33.0	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
15	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					
			+0.4								
16	4903.170M	42.9	+0.0	+0.5	+1.9	+5.0	+0.0	46.7	54.0	-7.3	Horiz
			-37.1	+33.1	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								

17	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
	Ave		-37.0	+33.3	+0.3	+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					
			+0.3								
19	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					
			+0.4								
20	4873.700M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.4	54.0	-7.6	Horiz
			-37.1	+33.1	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
21	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
	Ave		-36.5	+35.5	+0.1	+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					
			+0.1								
23	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-38.0	+28.3	+0.0	+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					
			+0.0								
25	4903.770M	42.2	+0.0	+0.5	+1.9	+5.0	+0.0	46.0	54.0	-8.0	Vert
			-37.1	+33.1	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
26	4873.900M	42.2	+0.0	+0.5	+1.9	+5.0	+0.0	46.0	54.0	-8.0	Vert
			-37.1	+33.1	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
			+0.4								
27	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								
28	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								
29	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								

30	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave			-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								
32	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								
33	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								
34	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
M			-35.9	+38.7	+0.2	+0.2					
Ave			+0.2	+0.2	+0.2	+0.2					
			+0.2								
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
M			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
			+0.2								
36	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								
37	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					
			+0.0								
38	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					
			+0.0								
39	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					
			+0.0								
40	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					
			+0.0								
41	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					
			+0.0								
42	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					
			+0.0								

43	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					
			+0.0								

CKC Laboratories, Inc. Date: 2/2/2012 Time: 18:21:24 Motorola Mobility, Inc. WO#: 92742  
 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) 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: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**  
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	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

**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	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar					
	MHz	dB $\mu$ V	T5	T6	T7	T8	Table	dB $\mu$ V/m	dB $\mu$ V/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					
			-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	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	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					
6	11650.230	36.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.4	+36.5					
7	11570.270	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.4					
8	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					
9	11491.270	35.9	+0.0	+0.0	+0.0	+0.0	+0.0	48.3	54.0	-5.7	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.3					
10	11651.030	35.5	+0.0	+0.0	+0.0	+0.0	+0.0	48.2	54.0	-5.8	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.4	+36.5					
11	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					
12	12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
^	12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
14	114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
15	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					
16	37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
17	37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
18	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					
19	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					
20	11569.530	34.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.3	54.0	-6.7	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.4					
21	11489.770	34.5	+0.0	+0.0	+0.0	+0.0	+0.0	46.9	54.0	-7.1	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.3					

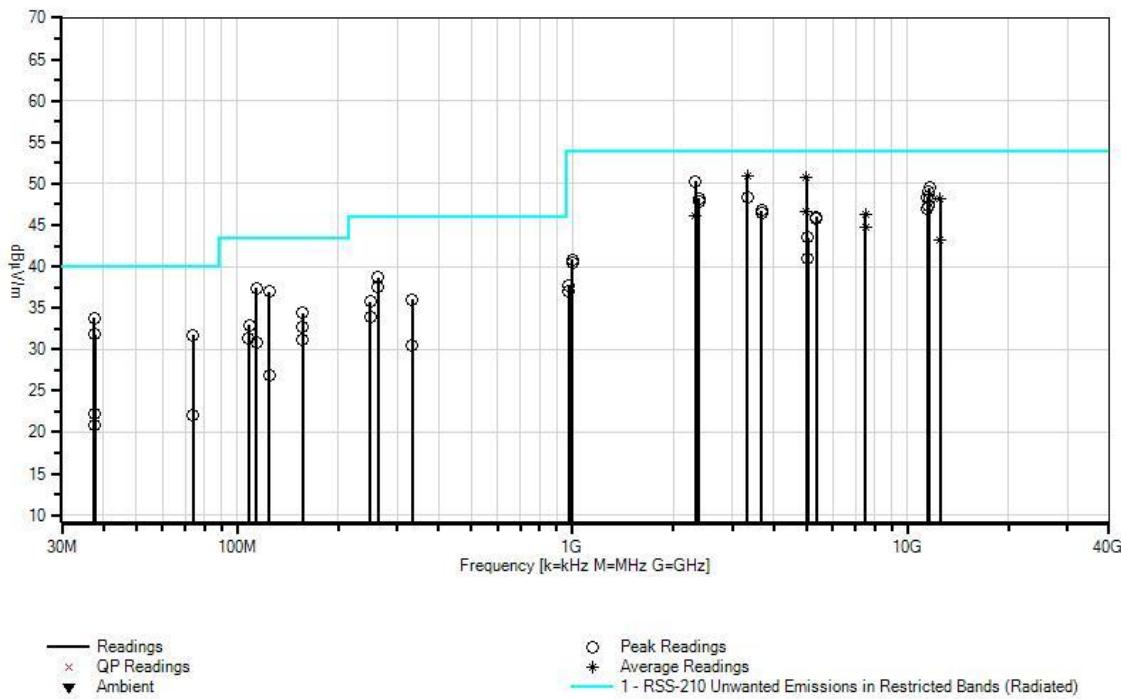
22	3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
23	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
24	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
Ave			-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					
26	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					
27	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
Ave			-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					
29	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
Ave			-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					
31	5359.898M	40.6	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Horiz
			+0.0	+0.0	+0.0	+0.6					
			+1.9	+5.3	-36.9	+34.1					
32	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					
33	5359.843M	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					
34	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					
35	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					
36	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					
37	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					
38	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					

39	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					
40	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					
41	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave			-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					
43	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					
44	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					
45	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					
46	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					
47	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					
48	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					
49	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
M			-35.9	+38.7	+0.2	+0.2					
Ave			+0.2	+0.2	+0.2	+0.2					
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
M			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
51	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					
52	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					
53	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					
54	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					
55	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					

56	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					
57	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					
58	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					
59	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					
60	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					
61	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					
62	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					
63	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					
64	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					
65	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					
66	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					
67	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					
68	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					
69	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					
70	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					
71	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					
72	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					

73	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  
RSS-210 Unwanted Emissions in Restricted Bands (Radiated) 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: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**  
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	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

**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	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar			
			T5	T6	T7	T8	Table	dBµV/m	dBµV/m	dB	Ant			
	MHz	dBµV	dB	dB	dB	dB								
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								
^	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	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert			
	Ave		-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	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					
6	11570.002	36.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.4	54.0	-4.6	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.4					
7	11570.005	36.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.2	54.0	-4.8	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.4					
8	11490.003	36.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.2	54.0	-4.8	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.3					
9	11490.007	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.3					
10	11650.025	36.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.4	+36.5					
11	11650.020	35.8	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.4	+36.5					
12	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					
13	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					
14	12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
^	12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
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					
17	114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
18	37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
19	37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
20	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					
21	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					

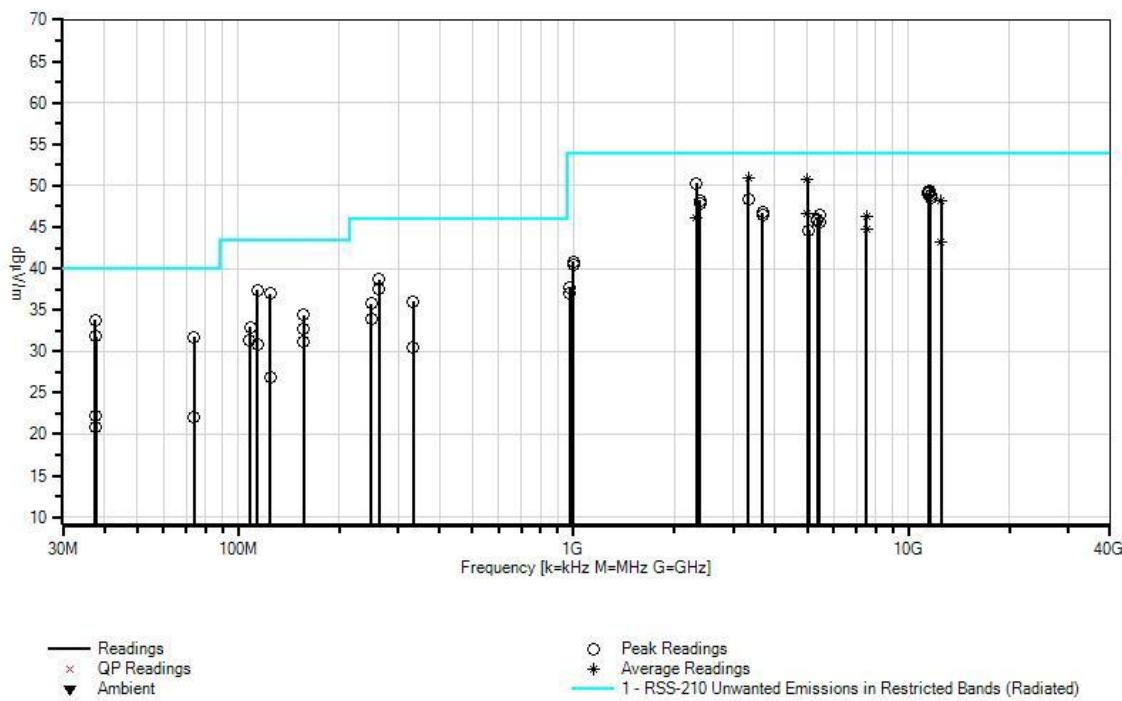
22	3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
23	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
24	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
	Ave		-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					
26	5439.907M	40.6	+0.0	+0.0	+0.0	+0.0	+0.0	46.4	54.0	-7.6	Vert
			+0.0	+0.0	+0.0	+0.6					
			+2.0	+5.4	-36.9	+34.3					
27	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					
28	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
	Ave		-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					
30	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-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					
32	5359.954M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.9	54.0	-8.1	Horiz
			+0.0	+0.0	+0.0	+0.6					
			+1.9	+5.3	-36.9	+34.1					
33	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					
34	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					
35	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					
36	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					
37	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					
38	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					

39	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					
40	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					
41	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					
42	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					
43	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave			-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					
45	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					
46	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					
47	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					
48	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					
49	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					
50	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					
51	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					
52	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
M			-35.9	+38.7	+0.2	+0.2					
Ave			+0.2	+0.2	+0.2	+0.2					
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
M			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
54	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					
55	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					

56	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					
57	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					
58	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					
59	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					
60	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					
61	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					
62	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					
63	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					
64	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					
65	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					
66	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					
67	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					
68	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					
69	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					
70	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					
71	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					
72	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					

73	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					
74	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					
75	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  
 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) 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: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**  
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	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

**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	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar					
	MHz	dB $\mu$ V	T5	T6	T7	T8	Table	dB $\mu$ V/m	dB $\mu$ V/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					
			-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	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	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					
6	11590.020	37.4	+0.0	+0.0	+0.0	+0.0	+0.0	50.1	54.0	-3.9	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.4					
7	11590.063	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.2	54.0	-4.8	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.4					
8	11509.988	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.3					
9	11510.078	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.0	+0.0	+0.8					
			+2.8	+8.5	-36.3	+36.3					
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					
11	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					
12	12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
^	12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
14	114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
15	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					
16	37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
17	37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
18	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					
19	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					
20	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					
21	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					

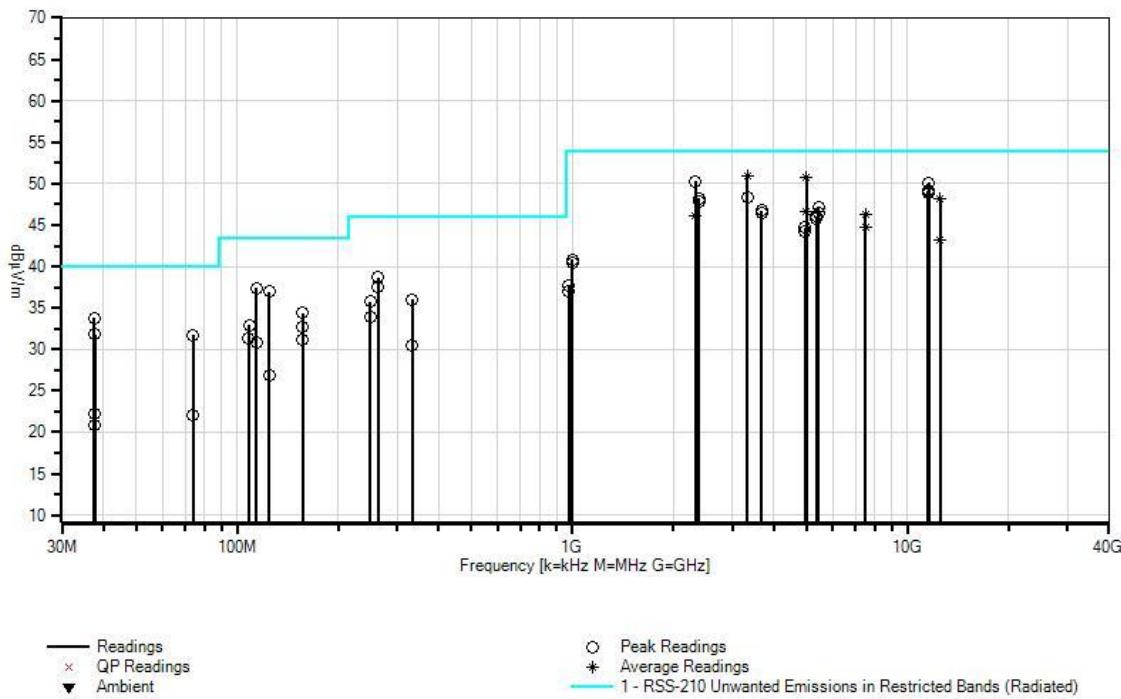
22	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
23	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.992M	46.0	+0.0	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
25	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					
26	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					
27	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
	Ave		-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					
29	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-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					
31	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					
32	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					
33	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					
34	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					
35	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					
36	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					
37	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					
38	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					

39	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					
40	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					
41	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					
42	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave			-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					
44	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					
45	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					
46	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					
47	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					
48	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					
49	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					
50	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					
51	12499.993 M	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
Ave			-35.9	+38.7	+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					
53	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					
54	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					
55	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					

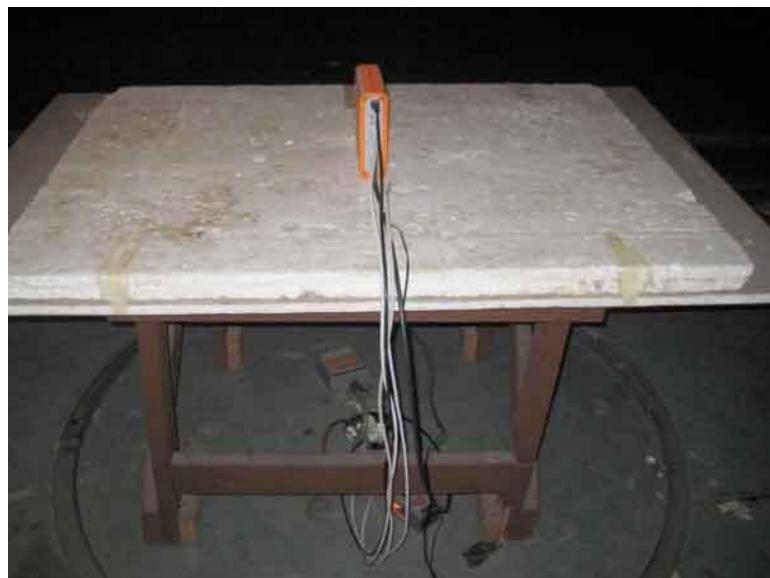
56	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
			+10.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
57	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
58	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
59	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					
60	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					
61	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					
62	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					
63	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					
64	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					
65	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					
66	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					
67	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					
68	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					
69	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					
70	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					
71	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					
72	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					

73	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  
RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 19 Ext ATTN:  
0 dB



**Test Setup Photos**



## SUPPLEMENTAL INFORMATION

### Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

The reported measurement uncertainties are calculated based on the worst case of all laboratory environments from CKC Laboratories, Inc. test sites. Only those parameters which require estimation of measurement uncertainty are reported. The reported worst case measurement uncertainty is less than the maximum values derived in CISPR 16-4-2. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k=2. Compliance is deemed to occur provided measurements are below the specified limits.

### Emissions Test Details

#### TESTING PARAMETERS

Unless otherwise indicated, the following configuration parameters are used for equipment setup: The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

#### CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dB $\mu$ V/m, the spectrum analyzer reading in dB $\mu$ V was corrected by using the following formula. This reading was then compared to the applicable specification limit.

<b>SAMPLE CALCULATIONS</b>	
Meter reading	(dB $\mu$ V)
+ Antenna Factor	(dB)
+ Cable Loss	(dB)
- Distance Correction	(dB)
- Preamplifier Gain	(dB)
= Corrected Reading	(dB $\mu$ V/m)

#### TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. Unless otherwise specified, the following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used.

<b>MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE</b>			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

#### SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "positive peak" detector mode. Whenever a "quasi-peak" or "average" reading was recorded, the measurement was annotated with a "QP" or an "Ave" on the appropriate rows of the data sheets. In cases where quasi-peak or average limits were employed and data exists for multiple measurement types for the same frequency then the peak measurement was retained in the report for reference, however the numbering for the affected row was removed and an arrow or carrot ("^") was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

##### Peak

In this mode, the spectrum analyzer or receiver recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature called "peak hold," the measurement device had the ability to measure intermittent or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

##### Quasi-Peak

Quasi-peak measurements were taken using the quasi-peak detector when the true peak values exceeded or were within 2 dB of a quasi-peak specification limit. Additional QP measurements may have been taken at the discretion of the operator.

##### Average

Average measurements were taken using the average detector when the true peak values exceeded or were within 2 dB of an average specification limit. Additional average measurements may have been taken at the discretion of the operator. If the specification or test procedure requires trace averaging, then the averaging was performed using 100 samples or as required by the specification. All other average measurements are performed using video bandwidth averaging. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.