Motorola Mobility, Inc.

TEST REPORT FOR

DOCSIS 3.0 Wi-Fi Gateway, SBG6580

Tested To The Following Standards:

FCC Part 15 Subpart C Sections 15.247 & RSS-210 Issue 8

Report No.: 92800-8

Date of issue: March 5, 2012



This test report bears the accreditation symbol indicating that the testing performed herein meets the test and reporting requirements of ISO/IEC 17025 under the applicable scope of EMC testing for CKC Laboratories, Inc.

We strive to create long-term, trust based relationships by providing sound, adaptive, customer first testing services. We embrace each of our customers' unique EMC challenges, not as an interruption to set processes, but rather as the reason we are in business.

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ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR: REPORT PREPARED BY:

Motorola Mobility, Inc.

6450 Sequence Drive

CKC Laboratories, Inc.

San Diego, CA 92121

5046 Sierra Pines Drive

Mariposa, CA 95338

REPRESENTATIVE: Chris Fulmer Project Number: 92800

Customer Reference Number: MM1084691

DATE OF EQUIPMENT RECEIPT: February 13, 2012

DATE(S) OF TESTING: February 13 - March 1, 2012

Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the sample equipment tested in the agreed upon operational mode(s) and configuration(s) as identified herein. Compliance assessment remains the client's responsibility. This report may not be used to claim product endorsement by A2LA or any government agencies. This test report has been authorized for release under quality control from CKC Laboratories, Inc.

Steve Behm

Director of Quality Assurance & Engineering Services CKC Laboratories, Inc.

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Test Facility Information



Our laboratories are configured to effectively test a wide variety of product types. CKC utilizes first class test equipment, anechoic chambers, data acquisition and information services to create accurate, repeatable and affordable test results.

TEST LOCATION(S): CKC Laboratories, Inc. 110 Olinda Place Brea, CA 92823

Site Registration & Accreditation Information

Location	CB#	TAIWAN	CANADA	FCC	JAPAN
Brea A	US0060	SL2-IN-E-1146R	3082D-1	90473	R-2945 C-3248 T-1572
Brea D	US0060	SL2-IN-E-1146R	3082D-2	100638	R-1256 C-1319 T-1660 G-255

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SUMMARY OF RESULTS

Standard / Specification: FCC Part 15 Subpart C & RSS-210 Issue 8

Description	Test Procedure/Method	Results	
Bandedge	FCC Part 15 Subpart C / ITU-R 55/1 and KDB 558074	Pass	
Field Strength of Spurious Emissions	FCC Part 15 Subpart C Section 15.247(d) / 15.209 / KDB 558074	Pass	
Emissions Falling Within Restricted Bands	RSS-210 Section 2.2	Pass	

Conditions During Testing

This list is a summary of the conditions noted for or modifications made to the equipment during testing.

Summary of Conditions

The manufacturer declares that for all testing the EUT was configured as follows:

HW Version: P2

Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG

MAC Address: 0023ED6E76DC

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EQUIPMENT UNDER TEST (EUT)

EQUIPMENT UNDER TEST

The following model was tested by CKC Laboratories: SBG6580 P2

Since the time of testing the manufacturer has chosen to use the following model name in its place. Any differences between the names does not affect their EMC characteristics and therefore meets the level of testing equivalent to the tested model name shown on the data sheets: **SBG6580**

DOCSIS 3.0 Wi-Fi Gateway

Manuf: Motorola Mobility, Inc.

Model: SBG6580

Serial: 35560113060065107050085

AC to 12Vdc Power Adapter

Manuf: Asian Power Devices, Inc.

Model: WA-24|12FU

Serial: NA

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Broadband Router

Manuf: CASA Systems

Model: C2200 Serial: FD3460

Laptop Computer

Manuf: HP

Model: Compaq 6910p

Serial: NA

8 Way Splitter

Manuf: Regal Model: DS8DGV10

Serial: NA

DHCP Server

Manuf: HP

Model: Compaq 6910p

Serial: NA

Laptop Computer

Manuf: Dell

Model: Precision M70

Serial: NA

Gigabit Switch

Manuf: Netgear Model: GS105v2

Serial: NA

Performance Analysis System

Manuf: Spirent

Model: SMB-600B

Serial: N06012143

8 Way Splitter

Manuf: Regal

Model: DS8DGV10

Serial: NA

Diplexer

Manuf: Eagle Comtronics

Model: EDPF-65/85

Serial: NA

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FCC PART 15 SUBPART C

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) 47 CFR requirements for Unlicensed Radio Frequency Devices, Subpart C - Intentional Radiators.

Bandedge

Test Conditions / Setup

The equipment under test (EUT) is a DOCSIS 3.0 Wi-Fi Gateway. The EUT is stand alone on the table top lined with 5cm thick Styrofoam. All other support equipment is located remote from this test area. The EUT Ethernet ports are connected to the performance analysis system. The EUT 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 performance analysis system is running data. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Temperature: 18°C, Humidity: 48%, 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 1, 8, 11)

Frequency range of EUT: 5745 to 5825MHz

802.11a (6Mbps)

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

802.11n (20MHz) (7.2Mbps)

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

802.11n (40MHz) (15Mbps)

Transmit Frequencies: 5755MHz, 5795MHz (Channel 153, 161)

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

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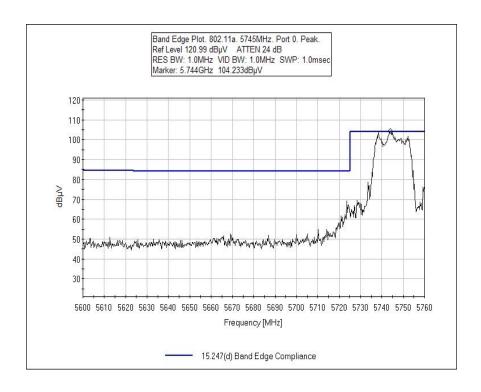


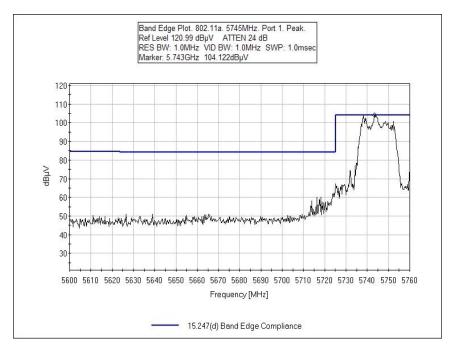
Engineer Name: S. Yamamoto

	Test Equipment												
Asset/Serial #	Description	Model	Manufacturer	Cal Date	Cal Due								
02672	Spectrum Analyzer	E4446A	Agilent	8/9/2010	8/9/2012								
01646	Horn Antenna	3115	Emco	8/18/2010	8/18/2012								
00786	Preamp	83017A	HP	8/5/2010	8/5/2012								
03239	Cable	32022-2-29094K-24TC	Astrolab	8/30/2011	8/30/2013								
P05421	Cable	Sucoflex 104A	Huber & Suhner	2/12/2010	2/12/2012								
P06081	Cable	74Z-0-0-21/NCM 100	Huber & Suhner	4/28/2011	4/28/2013								

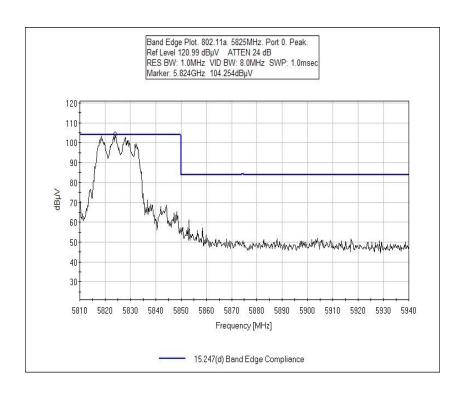


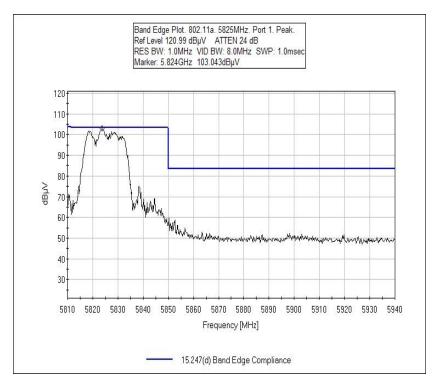
Test Plots



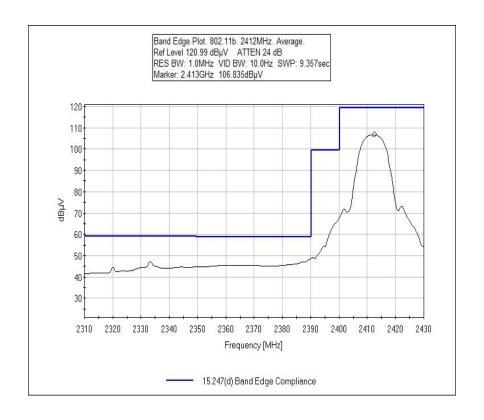


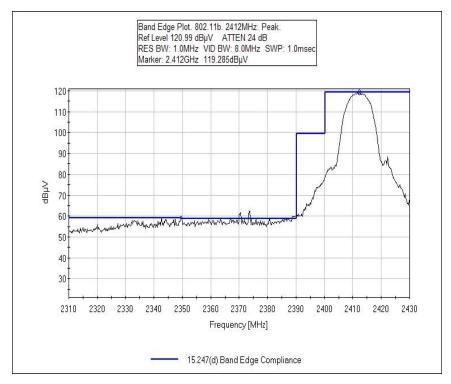




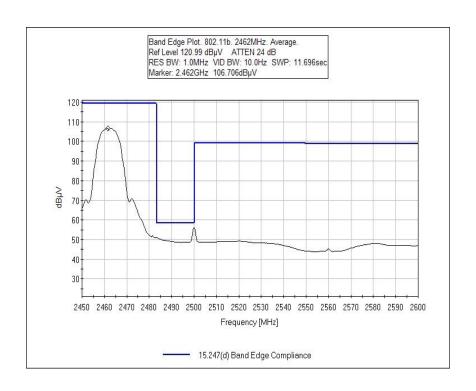


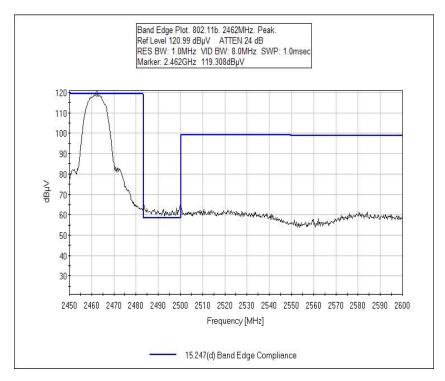




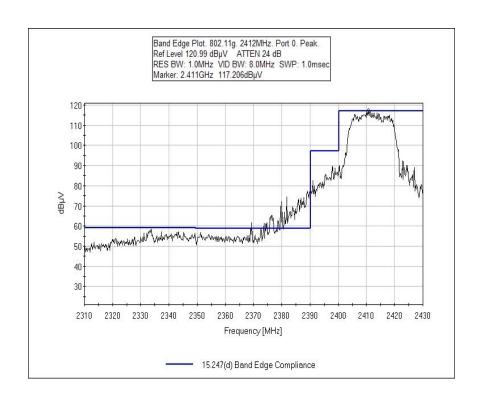


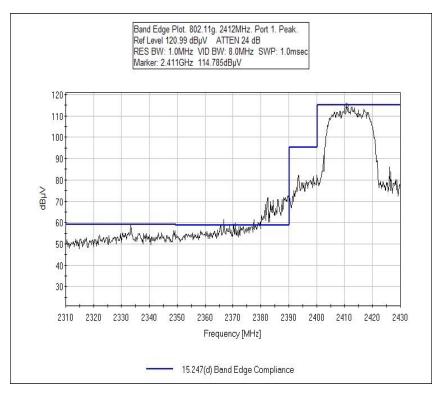




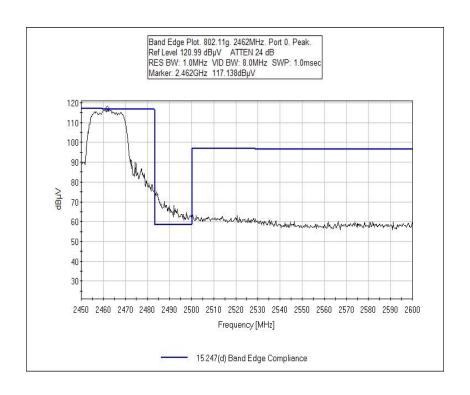


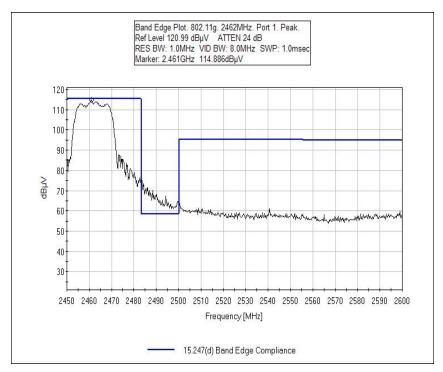




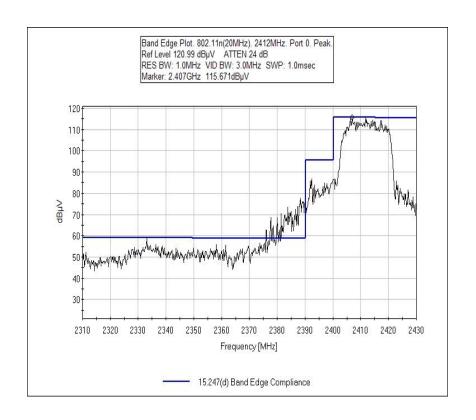


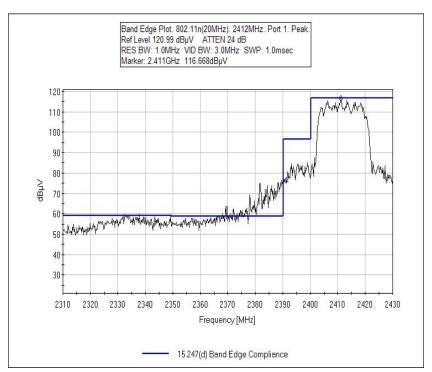




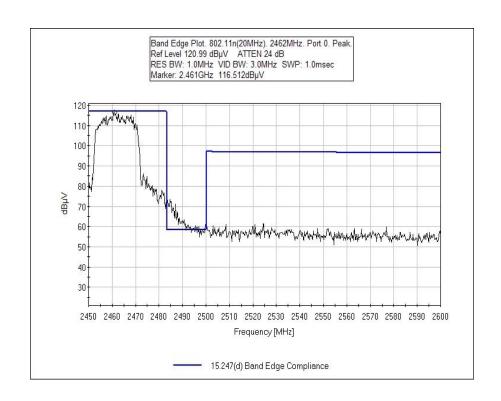


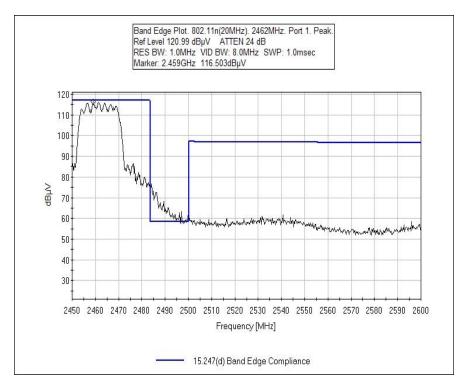




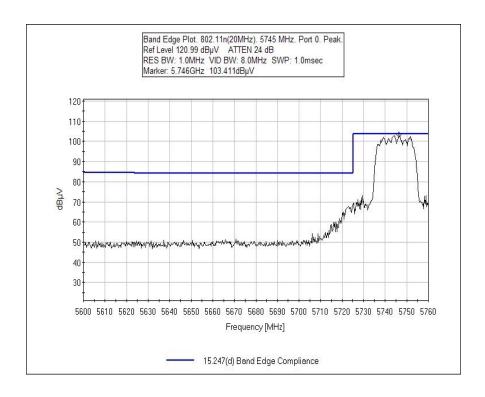


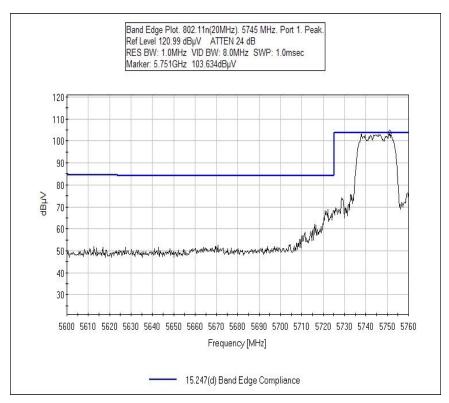




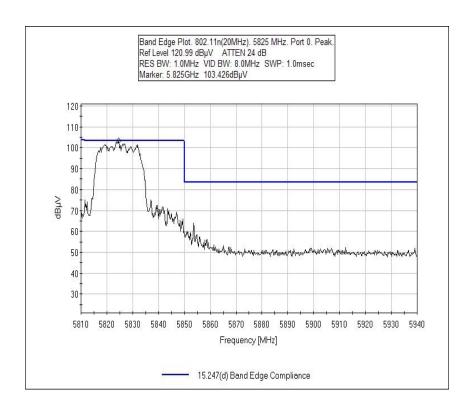


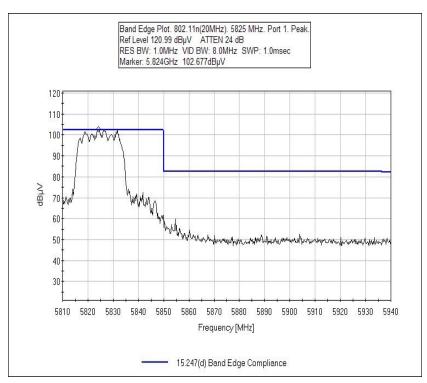




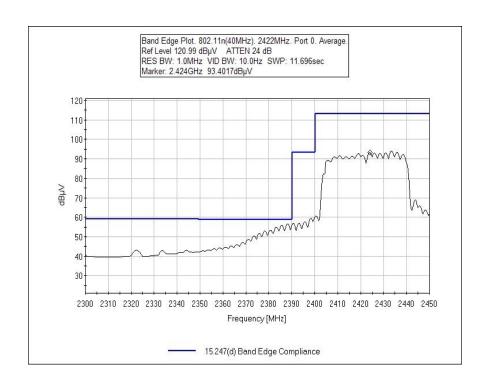


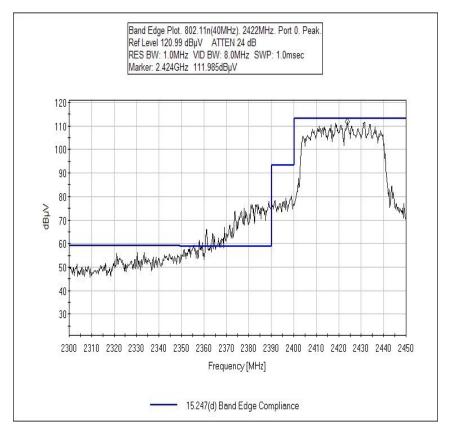




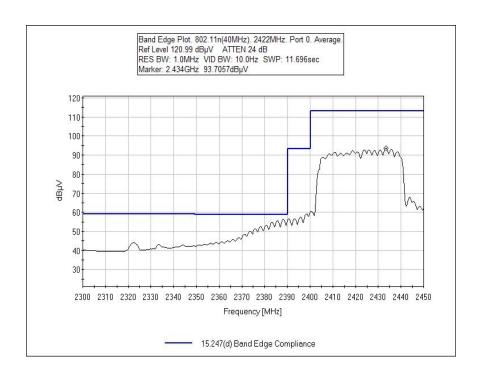


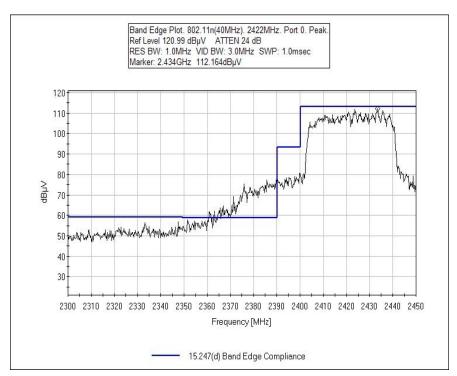




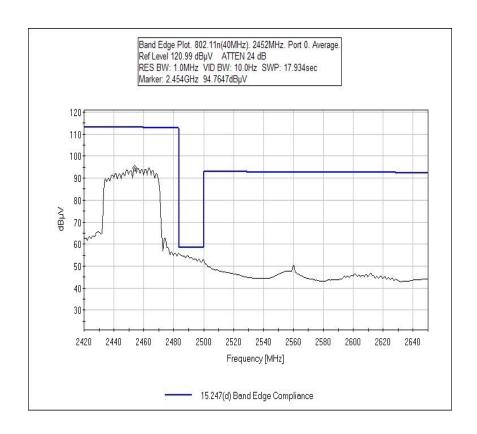


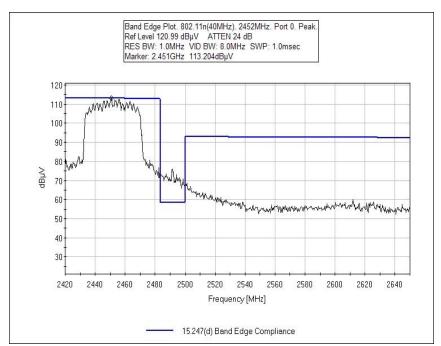




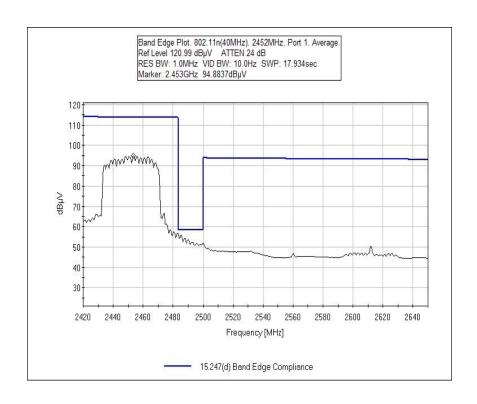


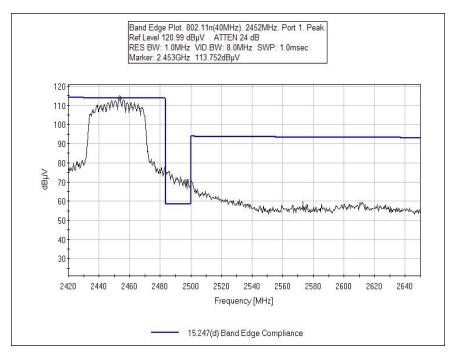




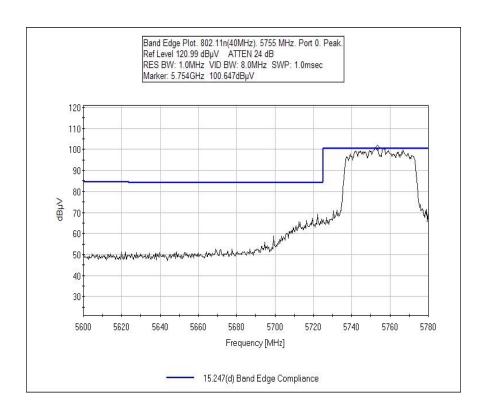


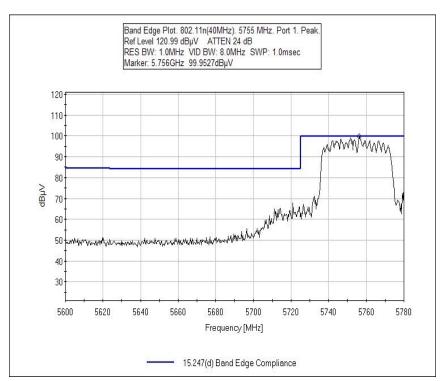




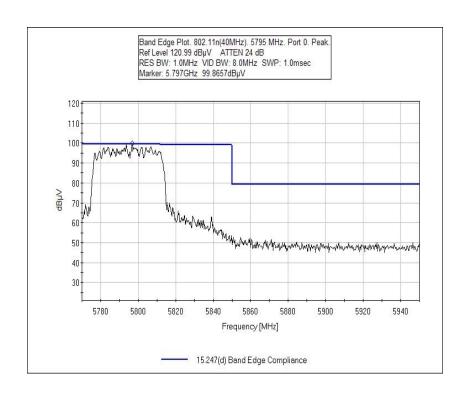


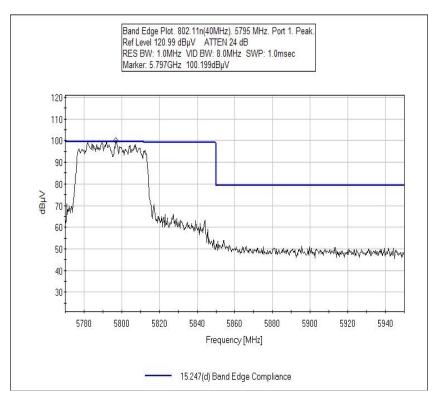




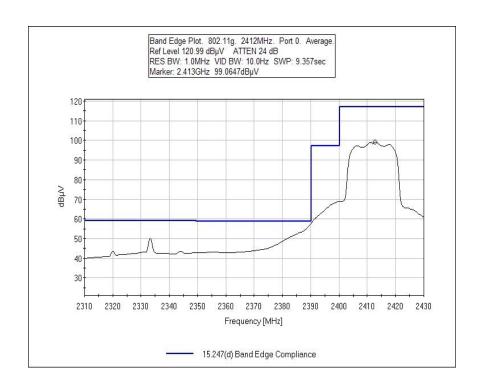


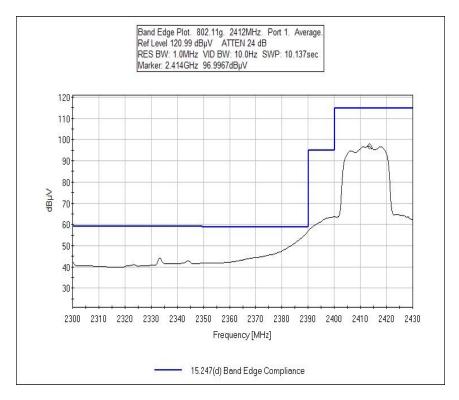




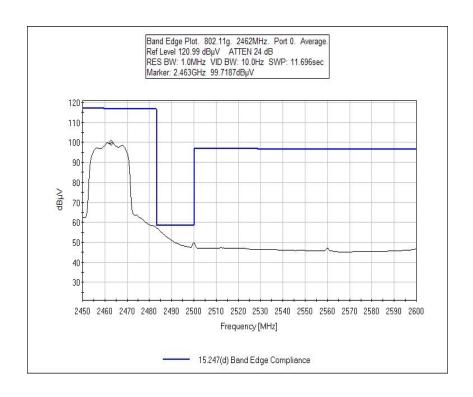


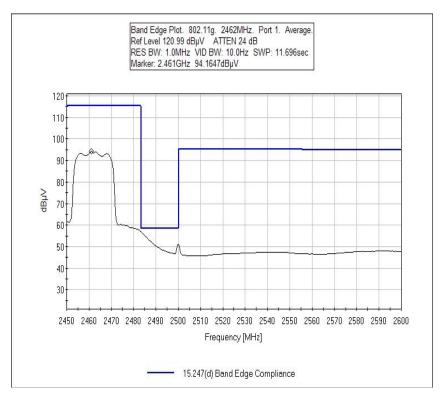




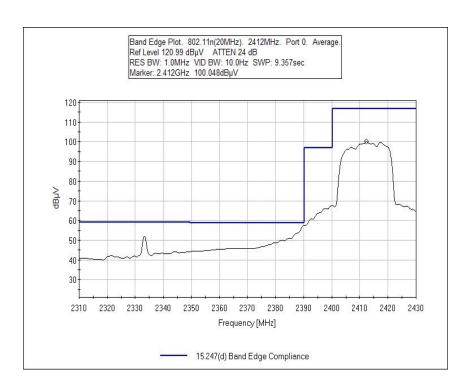


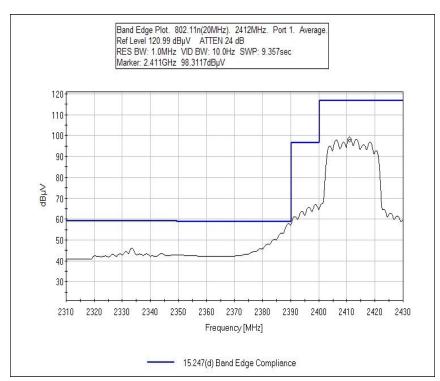




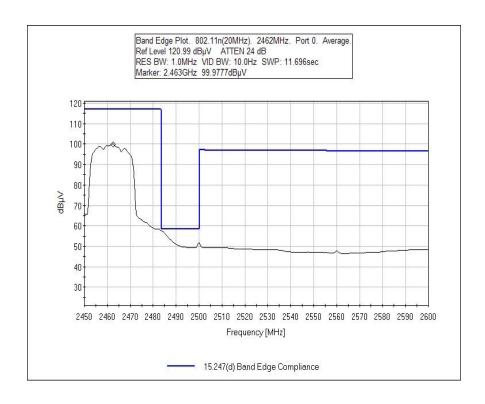


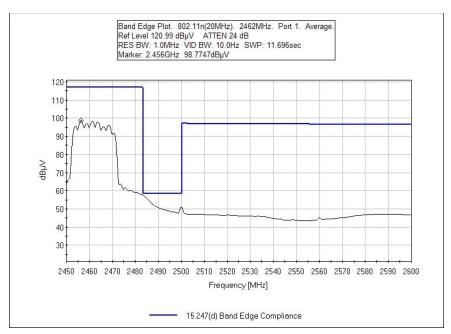














Test Setup Photos





15.247(d) Field Strength of Spurious Emissions

Test Data Sheets

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

Customer: Motorola Mobility, Inc.

Specification: 15.247(d) / 15.209 Radiated Spurious Emissions

Work Order #: 92800 Date: 2/27/2012
Test Type: Maximized Emissions Time: 13:38:31
Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 1

Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 1
Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

Test Equip	pint citt.				
ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000-		
			O/O		
	ANP06153	Cable	16301	10/27/2011	10/27/2013
	AN01413	Horn Antenna-ANSI	84125-80008	12/2/2010	12/2/2012
		C63.5 Antenna			
		Factors (dB)			
	AN01413	Horn Antenna-1	84125-80008	12/2/2010	12/2/2012
		Meter Antenna			
		Factors (dB) - SAE			
		ARP 958			

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Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.

15.205(a) and non-15.205(a) data contained within this sheet. All are within the 15.209(a) limit.

Temperature: 18°C, Humidity: 48%, Pressure: 100kPa.



Ext Attn: 0 dB

	rement Data:	Re	eading lis	ted by ma	argin.		Te	Test Distance: 3 Meters			
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	1	C	T5	T6	T7	T8			1	Č	
			T9	T10	T11						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	9999.966M	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz
			+0.0	+0.8	+7.3	+2.7					
			-35.9	+37.2	+0.5						
3	2999.984M	50.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
4	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
5	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
7	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
9	2999.985M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
10	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0	+0.4	+3.2	+1.3					
			-38.0	+28.3	+0.0						
	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						
^	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
			+0.0	+0.5	+5.0	+1.8					
		,	-37.0	+33.3	+0.3						
13	4923.958M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.0	54.0	-6.0	Horiz
			+0.0	+0.5	+5.0	+1.8					
			-37.1	+33.2	+0.4						
14	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
	4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
	Ave		+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						



^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
17 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
19 4873.959M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	47.5	54.0	-6.5	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
20 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
22 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
23 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
24 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
25 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
26 3099.985M	47.3	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
27 9999.950M	33.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.8	+7.3	+2.7					
		-35.9	+37.2	+0.5						
28 3100.032M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	45.9	54.0	-8.1	Horiz
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
29 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
30 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
31 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
32 4823.959M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.0	+0.4						



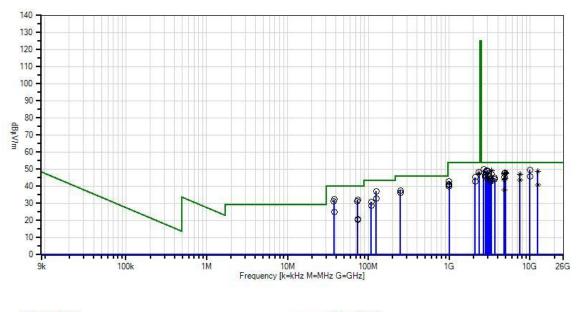
33 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
34 2099.989M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.3	54.0	-8.7	Horiz
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
35 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
36 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
37 4923.957M	41.0	+0.0	+0.0	+0.0	+0.0	+0.0	44.8	54.0	-9.2	Vert
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
^ 4923.957M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	52.7	54.0	-1.3	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
39 3199.985M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Vert
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
40 3299.985M	45.3	+0.0	+0.0	+0.0	+0.0	+0.0	44.6	54.0	-9.4	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
41 3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
42 249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
43 7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
45 4873.953M	39.8	+0.0	+0.0	+0.0	+0.0	+0.0	43.5	54.0	-10.5	Vert
Ave			+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
^ 4873.953M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	51.6	54.0	-2.4	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
47 3199.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	43.4	54.0	-10.6	Horiz
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
48 125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
49 2099.991M	48.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.1	54.0	-10.9	Vert
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						



											. 1
50 32	99.992M	43.7	+0.0	+0.0	+0.0		+0.0	43.0	54.0	-11.0	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.6	+0.6						
51 9	99.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
52 1	08.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
53 10	00.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
54 12	499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
Av	e		-35.9	+38.7	+0.2						
^ 12	499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
56 9	99.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
57 10	00.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
58 1	08.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0				,	
			+0.0	+0.0	+0.0						
59 3	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
60 48	23.972M	34.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.8	54.0	-16.2	Vert
Av		- · ·-	+0.0	+0.5	+5.0	+1.8		20	2	- U. -	. 320
			-37.1	+33.0	+0.4						
^ 48	23.972M	45.1	+0.0	+0.0	+0.0	+0.0	+0.0	48.7	54.0	-5.3	Vert
		.0.11	+0.0	+0.5	+5.0	+1.8	. 0.0	,	0	0.0	, 510
			-37.1	+33.0	+0.4	. 2.0					
62	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
] 52			+0.0	+0.0	+0.0	+0.0	. 0.0	_0.7	. 5.0	-/.1	110111
			+0.0	+0.0	+0.0	. 0.0					
63	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
	, 5.705141	10.1	+0.0	+0.0	+0.0	+0.0	10.0	20.3	10.0	17.1	110112
			+0.0	+0.0	+0.0	10.0					
<u> </u>			10.0	10.0	10.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 13:38:31 Motorola Mobility, Inc. WO#: 92800 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 1 Ext ATTN: 0 dB



Sweep Data

Peak Readings* Average Readings

- 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

ReadingsQP Readings

Ambient

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Customer: Motorola Mobility, Inc.

Specification: 15.247(d) / 15.209 Radiated Spurious Emissions

 Work Order #:
 92800
 Date:
 2/27/2012

 Test Type:
 Maximized Emissions
 Time:
 14:31:39

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 2

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Tr			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.

15.205(a) and non-15.205(a) data contained within this sheet. All are within the 15.209(a) limit.

Temperature: 18°C, Humidity: 48%, Pressure: 100kPa.

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	attn: 0 aB <i>trement Data:</i>	Re	eading lis	ted by ma	argin.		Te	est Distance	e: 3 Meters	;	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	•	· ·	T5	T6	T7	T8			•	· ·	
			T9	T10	T11						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	9999.966M	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz
			+0.0	+0.8	+7.3	+2.7					
			-35.9	+37.2	+0.5						
3	2999.984M	50.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
4	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
5	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
7	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
9	2999.985M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
10	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0	+0.4	+3.2	+1.3					
			-38.0	+28.3	+0.0						
11	4823.988M	44.9	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Horiz
			+0.0	+0.5	+5.0	+1.8					
			-37.1	+33.0	+0.4						
	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						
^	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
			+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						
14	4823.992M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	48.0	54.0	-6.0	Vert
			+0.0	+0.5	+5.0	+1.8					
			-37.1	+33.0	+0.4						
15	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						



16 4923.998M	43.9	+0.0	+0.0	+0.0	+0.0	+0.0	47.7	54.0	-6.3	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
17 4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
19 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
21 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
23 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
24 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
25 4873.995M	42.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.5	54.0	-7.5	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
26 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
27 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
28 3099.985M	47.3	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
29 9999.950M	33.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.8	+7.3	+2.7					
		-35.9	+37.2	+0.5						
30 3100.032M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	45.9	54.0	-8.1	Horiz
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
31 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
32 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
<u> </u>										



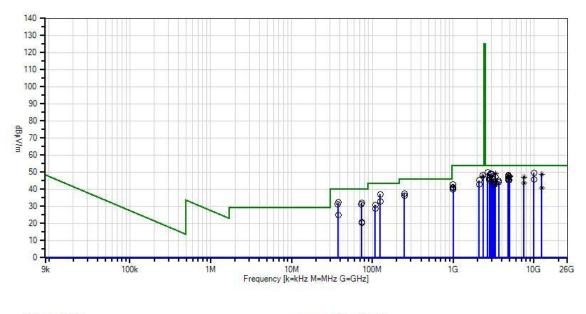
33 ′											
33 2	2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
			+0.0	+0.4	+3.5	+1.4					
			-37.8	+29.4	+4.1						
34 4	4923.823M	41.6	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
			+0.0	+0.5	+5.0	+1.8					
			-37.1	+33.2	+0.4						
35 4	4874.133M	41.7	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
			+0.0	+0.5	+5.0	+1.8					
			-37.1	+33.1	+0.4						
36 2	2099.989M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.3	54.0	-8.7	Horiz
			+0.0	+0.4	+3.0	+1.2					
			-37.9	+28.1	+0.0						
37	73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
38	37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
39 3	3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
			+0.0	+0.4	+4.2	+1.6					
			-37.4	+31.3	+0.4						
40 3	3199.985M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Vert
			+0.0	+0.4	+3.8	+1.5					
			-37.8	+30.4	+0.6						
41 3	3299.985M	45.3	+0.0	+0.0	+0.0	+0.0	+0.0	44.6	54.0	-9.4	Vert
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.6	+0.6						
42 3	3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
			+0.0	+0.4	+4.2	+1.6					
			-37.4	+31.3	+0.4						
43	249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
44	7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
Α	Ave		+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
^ 7	7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
			+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
46	3199.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	43.4	54.0	-10.6	Horiz
			+0.0	+0.4	+3.8	+1.5					
			-37.8	+30.4	+0.6						
47	125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
48 2	2099.991M	48.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.1	54.0	-10.9	Vert
			+0.0	+0.4	+3.0	+1.2					
			-37.9	+28.1	+0.0						
40 ′	3299.992M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	43.0	54.0	-11.0	Horiz
49 .				0.4	2.0	1 ~					
49 .			+0.0	+0.4	+3.9	+1.5					



50	999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
51	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
52	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
53	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
٨	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
55	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
56	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
57	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
58	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
59	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
60	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 14:31:39 Motorola Mobility, Inc. WO#: 92800 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 2 Ext ATTN: 0 dB



Sweep Data
O Peak Readings

* Average Readings

- 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

Readings

X QP Readings

Ambient

Page 43 of 124 Report No.: 92800-8



Customer: Motorola Mobility, Inc.

Specification: 15.247(d) / 15.209 Radiated Spurious Emissions

Work Order #: 92800 Date: 2/27/2012
Test Type: Maximized Emissions Time: 14:53:11

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 3

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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



Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Function	Manufacturer	Model #	S/N	
Broadband Router	CASA Systems	C2200	FD3460	
Gigabit Switch	Netgear	GS105v2		
Laptop Computer	HP	Compaq 6910p		
Performance Analysis	Spirent	SMB-600B	N06012143	
System				
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.

15.205(a) and non-15.205(a) data contained within this sheet. All are within the 15.209(a) limit.

Temperature: 18°C, Humidity: 48%, Pressure: 100kPa.



	attn: 0 aB vrement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 3 Meters		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	•	C	T5	T6	T7	T8			1	Č	
			T9	T10	T11						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	7230.733M	41.2	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Vert
			+0.0	+0.6	+6.3	+2.3					
			-36.8	+36.1	+0.2						
3	9999.966M	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz
			+0.0	+0.8	+7.3	+2.7					
			-35.9	+37.2	+0.5						
4	2999.984M	50.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
5	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
6	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
8	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	. M		+0.0	+0.8	+8.9	+2.9					
-	Ave		-35.9	+38.7	+0.2						
^	12 100.017	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2			10.0			
10	2999.985M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert
			+0.0	+0.4	+3.6	+1.5					
1.1	7215 0 403 6	40.0	-37.8	+30.0	+0.9	0.0	0.0	40.7	540		TT .
11	7315.940M	40.0	+0.0	+0.0	+0.0	+0.0	+0.0	48.7	54.0	-5.3	Horiz
			+0.0	+0.6	+6.4	+2.3					
10	7210 72014	40.1	-36.7	+35.9	+0.2	ΙΟ Ο	100	40.7	540	F 2	Met
12	7310.730M	40.1	+0.0	+0.0	+0.0	+0.0	+0.0	48.7	54.0	-5.3	Vert
			+0.0 -36.7	+0.6 +35.9	+6.3 +0.2	+2.3					
12	2333.324M	53.3				ι Ο Ο	10.0	48.5	540	-5.5	Vont
13	2333.324IVI	33.3	$+0.0 \\ +0.0$	$+0.0 \\ +0.4$	+0.0 +3.2	+0.0 +1.3	+0.0	48.3	54.0	-3.3	Vert
			-38.0	+28.3	+3.2 +0.0	+1.3					
1.4	7383.890M	39.7	+0.0	+20.3	+0.0	+0.0	+0.0	48.2	54.0	-5.8	Vert
14	1303.030101	37.1	+0.0	+0.6	+6.4	+2.3	+0.0	+0.2	54.0	-5.0	v CI t
			-36.7	+35.8	+0.4	⊤ ∠. J					
15	4999.977M	44.2	+0.0	+0.0	+0.1	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave	77.2	+0.0	+0.5	+5.0	+1.8	10.0	70.1	J-T.U	3.7	V C11
	1110		-37.0	+33.3	+0.3	11.0					
L			27.0		. 0.0						



A 4999.977M											
17 4822.330M	^ 4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
17 4822.330M						+1.8					
Hold			-37.0	+33.3	+0.3						
18 124.998M 50.8 +0.2 -27.8 +1.9 +12.1 +0.0 37.2 43.5 -6.3 Vert	17 4822.330M	44.3					+0.0	47.9	54.0	-6.1	Horiz
18 124.998M 50.8 +0.2 -27.8 +1.9 +12.1 +0.0 37.2 43.5 -6.3 Vert						+1.8					
Ho,0											
+0.0	18 124.998M	50.8					+0.0	37.2	43.5	-6.3	Vert
19 4999.978M 43.7 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz						+0.0					
Ave											
***	19 4999.978M	43.7					+0.0	47.6	54.0	-6.4	Horiz
A 4999.978M	Ave					+1.8					
100											
21 2333.317M 52.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz	^ 4999.978M	46.5					+0.0	50.4	54.0	-3.6	Horiz
21 2333.317M						+1.8					
Ave					+0.3						
***	21 2333.317M	52.4					+0.0	47.6	54.0	-6.4	Horiz
^ 2333.317M 55.6 +0.0 +0.0 +0.0 +0.0 +0.0 50.8 54.0 -3.2 Horiz 23 4872.870M 43.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Vert 23 4872.870M 43.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Vert 24 4824.530M 43.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.5 54.0 -6.5 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -6.6 Vert 25 4923.820M 43.6 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -6.6 Vert 25 4923.820M 43.6 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -6.6 Vert 26 7499.966M 38.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 </td <td>Ave</td> <td></td> <td></td> <td></td> <td></td> <td>+1.3</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Ave					+1.3					
+0.0											
38.0 +28.3 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Vert +0.0	^ 2333.317M	55.6					+0.0	50.8	54.0	-3.2	Horiz
23 4872.870M 43.9						+1.3					
+0.0 +0.5 +5.0 +1.8 +0.4 +0.0 +0.0 +0.0 +0.0 +0.0 47.5 54.0 -6.5 Vert 24 4824.530M 43.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.5 54.0 -6.5 Vert +0.0 +0.5 +5.0 +1.8 -37.1 +33.0 +0.4 +0.0 +0.0 +0.0 47.4 54.0 -6.6 Vert +0.0 +0.5 +5.0 +1.8 -37.1 +33.2 +0.4 +0.0 +0.0 +0.0 +0.0 47.4 54.0 -7.0 Horiz 26 7499.966M 38.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Horiz Ave +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1 +0.0 +0.0 +0.0 51.2 54.0 -2.8 Horiz -36.5 +35.5 +0.1 -2.3 +0.4 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Vert +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Vert -36.5 +35.5 +0.1 -2.3 +0.4 +3.9 +1.5 -37.7 +30.7 +0.6 +0.0 +0.0 +0.0 46.8 54.0 -7.2 Horiz 29 2799.984M 45.8 +0.0 +0.0 +0.0 +0.0 +0.0 46.8 54.0 -7.2 Horiz -37.8 +29.4 +4.1 -37.8 +33.2 +29.4 +4.1 -37.8 +29.4 +4.1 -37.8 +29.4 +4.1 -37.8 +29.4 +4.1 -37.8 +29.4 +4.1 -37.8 +29.4 +4.1 -37.8 +29.4 +4.1 -37.8 +29.4											
-37.1 +33.1 +0.4 24 4824.530M	23 4872.870M	43.9					+0.0	47.6	54.0	-6.4	Vert
24 4824.530M 43.9						+1.8					
+0.0											
-37.1 +33.0 +0.4 25 4923.820M	24 4824.530M	43.9					+0.0	47.5	54.0	-6.5	Vert
25 4923.820M						+1.8					
+0.0											
-37.1 +33.2 +0.4 26 7499.966M	25 4923.820M	43.6					+0.0	47.4	54.0	-6.6	Vert
26 7499.966M 38.4 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Horiz Ave +0.0 +0.0 +0.5 +2.3 -236.5 +35.5 +0.1 -2.8 Horiz ^ 7499.966M 42.6 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 51.2 54.0 -2.8 Horiz 28 3333.321M 47.6 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -7.0 Vert 29 2799.984M 45.8 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.2 Horiz 30 4926.810M 42.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.3 Horiz 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.7 Vert 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +						+1.8					
Ave											
^36.5 +35.5 +0.1 ^ 7499.966M 42.6 +0.0 +0.0 +0.0 +0.0 51.2 54.0 -2.8 Horiz 28 3333.321M 47.6 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Vert 29 2799.984M 45.8 +0.0 +0.0 +0.0 +0.0 +0.0 46.8 54.0 -7.2 Horiz 30 4926.810M 42.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.2 Horiz 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0 32.3 40.0 -7.7 Vert 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0		38.4					+0.0	47.0	54.0	-7.0	Horiz
^ 7499.966M 42.6 +0.0 +0.0 +0.0 +0.0 +0.0 51.2 54.0 -2.8 Horiz 28 3333.321M 47.6 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -7.0 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -7.0 Vert 29 2799.984M 45.8 +0.0	Ave					+2.3					
+0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1 28 3333.321M											
-36.5 +35.5 +0.1 28 3333.321M	^ 7499.966M	42.6					+0.0	51.2	54.0	-2.8	Horiz
28 3333.321M						+2.3					
+0.0 +0.4 +3.9 +1.5 -37.7 +30.7 +0.6 29 2799.984M 45.8 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.8 54.0 -7.2 Horiz +0.0 +0.4 +3.5 +1.4 -37.8 +29.4 +4.1 30 4926.810M 42.9 +0.0 +0.0 +0.0 +0.0 +0.0 46.7 54.0 -7.3 Horiz +0.0 +0.5 +5.0 +1.8 -37.1 +33.2 +0.4 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 32 4869.700M 42.5 +0.0 +0.0 +0.0 +0.0 +0.0 46.2 54.0 -7.8 Horiz +0.0 +0.5 +5.0 +1.8											
-37.7 +30.7 +0.6 29 2799.984M	28 3333.321M	47.6					+0.0	47.0	54.0	-7.0	Vert
29 2799.984M						+1.5					
30 4926.810M 42.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.7 54.0 -7.3 Horiz 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.8 Horiz 32 4869.700M 42.5 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.2 54.0 -7.8 Horiz											
-37.8 +29.4 +4.1 30 4926.810M	29 2799.984M	45.8					+0.0	46.8	54.0	-7.2	Horiz
30 4926.810M						+1.4					
+0.0 +0.5 +5.0 +1.8 -37.1 +33.2 +0.4 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.2 54.0 -7.8 Horiz +0.0 +0.5 +5.0 +1.8		1.0									
-37.1 +33.2 +0.4 31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 32 4869.700M 42.5 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.5 +5.0 +1.8	30 4926.810M	42.9					+0.0	46.7	54.0	-7.3	Horiz
31 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 32 4869.700M 42.5 +0.0 +0.0 +0.0 +0.0 +0.0 46.2 54.0 -7.8 Horiz +0.0 +0.5 +5.0 +1.8						+1.8					
+0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 32 4869.700M 42.5 +0.0 +0.0 +0.0 +0.0 +0.0 46.2 54.0 -7.8 Horiz +0.0 +0.5 +5.0 +1.8	21 27 222 5	4. ~				4 . ~	0.0	22.2	40.0		¥7.
+0.0 +0.0 +0.0 32 4869.700M 42.5 +0.0 +0.0 +0.0 +0.0 +0.0 46.2 54.0 -7.8 Horiz +0.0 +0.5 +5.0 +1.8	31 37.902M	44.5					+0.0	32.3	40.0	-7.7	Vert
32 4869.700M 42.5 +0.0 +0.0 +0.0 +0.0 +0.0 46.2 54.0 -7.8 Horiz +0.0 +0.5 +5.0 +1.8						+0.0					
+0.0 +0.5 +5.0 +1.8	22 40 50 5003 5	40.7					0.0	163	7 4 0	5 0	** .
	32 4869.700M	42.5					+0.0	46.2	54.0	-/.8	Horiz
-51.1 +55.1 +0.4						+1.8					
			-3/.1	+33.1	+0.4						



+0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0	'ert
+0.0 +0.0 +0.0 +0.0 34 3099.985M 47.3 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 V +0.0 +0.4 +3.7 +1.5 -37.8 +30.2 +0.7 35 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 V +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 36 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 He	
34 3099.985M 47.3 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 V +0.0 +0.4 +3.7 +1.5 -37.8 +30.2 +0.7 35 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 V +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 36 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Ho	
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-37.8 +30.2 +0.7 35 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 V +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 36 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Ho	ert
35 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 V +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 36 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Ho	
+0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 36 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Ho	
-35.9 +37.2 +0.5 36 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 He	'ert
36 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 He	
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Ave +0.0 +0.7 +6.5 +2.3	
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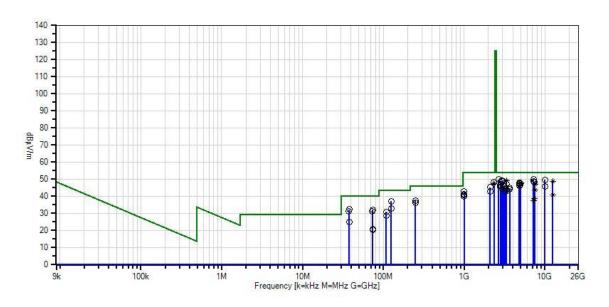


50 3199.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	43.4	54.0	-10.6	Horiz
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
51 125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
52 2099.991M	48.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.1	54.0	-10.9	Vert
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
53 3299.992M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	43.0	54.0	-11.0	Horiz
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
54 999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
55 108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
56 1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
		+0.0	+0.3	+2.0	+0.9					
		-40.4	+24.2	+0.0						
57 12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
M		+0.0	+0.8	+8.9	+2.9					
Ave		-35.9	+38.7	+0.2						
^ 12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
M		+0.0	+0.8	+8.9	+2.9					
		-35.9	+38.7	+0.2						
59 999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
60 1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
		+0.0	+0.3	+2.0	+0.9					
		-40.4	+24.2	+0.0						
61 108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
62 37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
63 7385.756M	30.4	+0.0	+0.0	+0.0	+0.0	+0.0	38.9	54.0	-15.1	Horiz
Ave		+0.0	+0.6	+6.4	+2.3					
		-36.7	+35.8	+0.1						
^ 7385.756M	42.7	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.6	+6.4	+2.3					
		-36.7	+35.8	+0.1						
65 7230.570M	28.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.5	54.0	-16.5	Horiz
Ave		+0.0	+0.6	+6.3	+2.3					
		-36.8	+36.1	+0.2						
^ 7230.570M	43.3	+0.0	+0.0	+0.0	+0.0	+0.0	52.0	54.0	-2.0	Horiz
		+0.0	+0.6	+6.3	+2.3					
		-36.8	+36.1	+0.2						



67	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
68	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						

CKC Laboratories, Inc. Date: 2/27/2012 Time: 14:53:11 Motorola Mobility, Inc. WO#: 92800 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 3 Ext ATTN: 0 dB







Customer: Motorola Mobility, Inc.

Specification: 15.247(d) / 15.209 Radiated Spurious Emissions

 Work Order #:
 92800
 Date:
 2/27/2012

 Test Type:
 Maximized Emissions
 Time:
 15:09:29

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 4

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Function	Manufacturer	Model #	S/N	
Broadband Router	CASA Systems	C2200	FD3460	
Gigabit Switch	Netgear	GS105v2		
Laptop Computer	HP	Compaq 6910p		
Performance Analysis	Spirent	SMB-600B	N06012143	
System				
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

Frequency range of EUT: 2422MHz to 2452MHz

Transmit Frequencies used for this data sheet: 2422MHz (Low), 2437MHz (Middle), and 2452MHz (High). Channels 1, 6, and 11. 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.

15.205(a) and non-15.205(a) data contained within this sheet. All are within the 15.209(a) limit.

Temperature: 18°C, Humidity: 48%, Pressure: 100kPa.



	attn: 0 aB urement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 3 Meters		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	1		T5	T6	T7	T8			r	6	
			T9	T10	T11						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	9999.966M	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz
			+0.0	+0.8	+7.3	+2.7					
			-35.9	+37.2	+0.5						
3	2999.984M	50.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
4	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
5	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
7	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
9	2999.985M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
10	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0	+0.4	+3.2	+1.3					
			-38.0	+28.3	+0.0						
11	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						
^	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
			+0.0	+0.5	+5.0	+1.8					
	1010000	# 0.0	-37.0	+33.3	+0.3	4.5.4		27.5	10 -		**
13	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
			+0.0	+0.0	+0.0	+0.0					
	1000 0503	10 =	+0.0	+0.0	+0.0			4= -			** .
	4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
	Ave		+0.0	+0.5	+5.0	+1.8					
<u></u>	1000 0503	1.5 =	-37.0	+33.3	+0.3			= 0 ·			** .
_ ^	4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
			+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						



16 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
18 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
20 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
21 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
22 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
23 4864.730M	42.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.1	54.0	-7.9	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
24 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
25 3099.985M	47.3	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
26 9999.950M	33.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.8	+7.3	+2.7					
		-35.9	+37.2	+0.5						
27 3100.032M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	45.9	54.0	-8.1	Horiz
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
28 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
29 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
30 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
31 4867.330M	41.7	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
32 4921.590M	41.6	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Vert
.,,,	70	+0.0	+0.5	+5.0	+1.8				2.0	
		-37.1	+33.2	+0.4						
		2,,,	. 22.2							



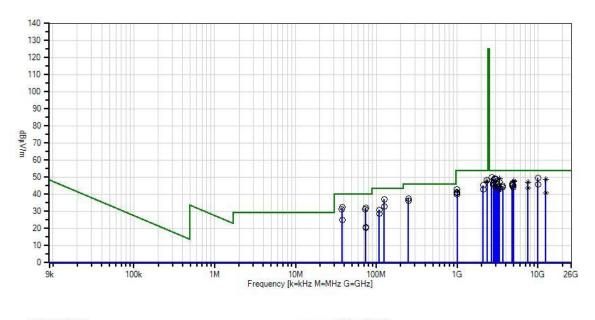
- 22	2000 0001 5		0.0	0.0	0.0	0.0		47.0	7 40	0.7	** .
33	2099.989M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.3	54.0	-8.7	Horiz
			+0.0	+0.4	+3.0	+1.2					
2.4	72.22014	51.2	-37.9	+28.1	+0.0	+6.5	. 0. 0	21.2	40.0	-8.7	V
34	73.320M	51.2	+0.1 +0.0	-27.9 +0.0	$+1.4 \\ +0.0$	+0.0	+0.0	31.3	40.0	-8./	Vert
			+0.0	+0.0	+0.0 +0.0	+0.0					
35	37.609M	43.2	+0.0	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
33	37.003101	43.2	+0.1	+0.0	+0.0	+14.7	+0.0	31.2	40.0	-0.0	VEIL
			+0.0	+0.0	+0.0	+0.0					
36	4856.320M	41.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.1	54.0	-8.9	Vert
30	4030.320IVI	71.7	+0.0	+0.5	+5.0	+1.8	10.0	43.1	34.0	0.7	VCIt
			-37.1	+33.1	+0.4	11.0					
37	3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
37	3000.03011		+0.0	+0.4	+4.2	+1.6	10.0	11.2	31.0	7.1	VOIC
			-37.4	+31.3	+0.4						
38	4826.530M	41.2	+0.0	+0.0	+0.0	+0.0	+0.0	44.8	54.0	-9.2	Horiz
	.020.0001.1		+0.0	+0.5	+5.0	+1.8	. 0.0		0	,. <u>-</u>	110112
			-37.1	+33.0	+0.4						
39	3199.985M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Vert
			+0.0	+0.4	+3.8	+1.5					
			-37.8	+30.4	+0.6						
40	3299.985M	45.3	+0.0	+0.0	+0.0	+0.0	+0.0	44.6	54.0	-9.4	Vert
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.6	+0.6						
41	3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
			+0.0	+0.4	+4.2	+1.6					
			-37.4	+31.3	+0.4						
42	4906.220M	40.6	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
			+0.0	+0.5	+5.0	+1.8					
			-37.1	+33.1	+0.4						
43	249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
44	7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
	Ave		+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
^	7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
			+0.0	+0.7	+6.5	+2.3					
	2100 000 5	4	-36.5	+35.5	+0.1		0.0	10 :	# 4 O	40.5	** .
46	3199.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	43.4	54.0	-10.6	Horiz
			+0.0	+0.4	+3.8	+1.5					
4.5	105.0053.5	4 < 4	-37.8	+30.4	+0.6	. 10 1	.0.0	20.0	40.5	10.7	77 '
47	125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
40	2000 0013/	40.2	+0.0	+0.0	+0.0	ΙΛ.Ο	100	12.1	540	10.0	Vent
48	2099.991M	48.3	+0.0	$+0.0 \\ +0.4$	+0.0	+0.0	+0.0	43.1	54.0	-10.9	Vert
			+0.0 -37.9		+3.0	+1.2					
40	2200 002M	12 7		+28.1	+0.0	+Ω Ω	_0.0	12 N	540	-11.0	Uori-
49	3299.992M	43.7	$+0.0 \\ +0.0$	$+0.0 \\ +0.4$	+0.0 +3.9	$+0.0 \\ +1.5$	+0.0	43.0	54.0	-11.0	Horiz
			+0.0 -37.7	+30.6	+3.9	+1.3					
			-51.1	+30.0	+0.0						



50	999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
51	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
52	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
53	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
٨	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
55	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
56	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
57	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
58	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
59	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
60	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 15:09:29 Motorola Mobility, Inc. WO#: 92800 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 4 Ext ATTN: 0 dB



Sweep Data
O Peak Readings

* Average Readings

- 1 - 15.247(d) / 15.209 Radiated Spurious Emissions

ReadingsQP Readings

Ambient



Customer: Motorola Mobility, Inc.

Specification: 15.247(d) / 15.209 Radiated Spurious Emissions

Work Order #: 92800 Date: 2/27/2012
Test Type: Maximized Emissions Time: 15:42:35

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 5

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.

15.205(a) and non-15.205(a) data contained within this sheet. All are within the 15.209(a) limit.

Temperature: 18°C, Humidity: 48%, Pressure: 100kPa.



	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 3 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	•	Ü	T5	T6	T7	T8			•			
			T9	T10	T11							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m$	dB	Ant	
1	11648.970	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz	
	M		+0.0	+0.8	+8.5	+2.9						
			-36.4	+36.5	+0.5							
2	11568.220	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Vert	
	M		+0.0	+0.8	+8.5	+2.9						
			-36.3	+36.4	+0.5							
3	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz	
			+0.0	+0.4	+3.4	+1.4						
			-37.9	+29.0	+0.0							
4	11489.560	37.2	+0.0	+0.0	+0.0	+0.0	+0.0	49.8	54.0	-4.2	Vert	
	M		+0.0	+0.8	+8.5	+2.9						
			-36.3	+36.3	+0.4							
5	9999.966M	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz	
			+0.0	+0.8	+7.3	+2.7						
			-35.9	+37.2	+0.5							
6	11569.330	36.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz	
	M		+0.0	+0.8	+8.5	+2.9						
			-36.3	+36.4	+0.5							
7	2999.984M	50.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz	
			+0.0	+0.4	+3.6	+1.5						
			-37.8	+30.0	+0.9							
8	11490.100	36.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.2	54.0	-4.8	Horiz	
	M		+0.0	+0.8	+8.5	+2.9						
			-36.3	+36.3	+0.4							
9	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
			+0.0	+0.4	+3.6	+1.4						
			-37.9	+29.7	+1.1							
10	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
	Ave		+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz	
			+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
12	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
	Ave		-35.9	+38.7	+0.2							
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
			-35.9	+38.7	+0.2							
14	2999.985M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert	
			+0.0	+0.4	+3.6	+1.5						
			-37.8	+30.0	+0.9							
15	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert	
			+0.0	+0.4	+3.2	+1.3						
			-38.0	+28.3	+0.0							



16 4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
^ 4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
18 124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
19 4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
21 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
23 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
25 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
26 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
27 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
2, 0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		+0.0	+0.0	+0.0	+0.0	. 0.0	02.0			, 510
		+0.0	+0.0	+0.0						
28 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
	- 1.0	+0.0	+0.0		+0.0					. 510
		+0.0	+0.0	+0.0	. 0.0					
29 3099.985M	47.3	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.4	+3.7	+1.5				2.0	. 510
		-37.8	+30.2	+0.7						
30 9999.950M	33.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
2.5 , , , , , , , , , , , , , , , , , , ,	22	+0.0	+0.8	+7.3	+2.7	. 0.0		J	0.0	. 511
		-35.9	+37.2	+0.5						
31 3100.032M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	45.9	54.0	-8.1	Horiz
21 3100.032111	.,.2	+0.0	+0.4	+3.7	+1.5	. 0.0	.5.7	50	0.1	110112
		-37.8	+30.2	+0.7						
32 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
32 2077.700111	.,	+0.0	+0.4	+3.6	+1.4	. 0.0	.5.7	2 1.0	0.5	, 011
		-37.9	+29.7	+1.1						
		51.7	. = , , ,							



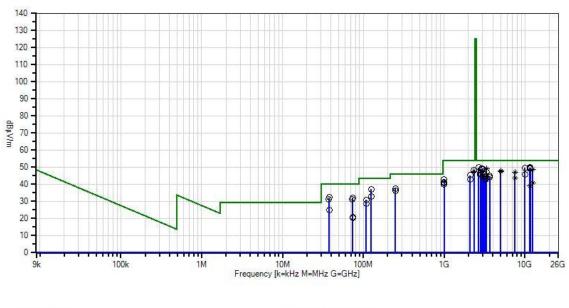
33 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
34 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
35 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
36 2099.989M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.3	54.0	-8.7	Horiz
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
37 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
38 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
39 3199.985M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Vert
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
40 3299.985M	45.3	+0.0	+0.0	+0.0	+0.0	+0.0	44.6	54.0	-9.4	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
41 3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
42 249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
43 7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
45 3199.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	43.4	54.0	-10.6	Horiz
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
46 125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
47 2099.991M	48.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.1	54.0	-10.9	Vert
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
48 3299.992M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	43.0	54.0	-11.0	Horiz
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
49 999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						



50	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
51	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
52	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
٨	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
54	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
55	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
56	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
57	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
58	11650.100	26.2	+0.0	+0.0	+0.0	+0.0	+0.0	39.0	54.0	-15.0	Vert
	M		+0.0	+0.8	+8.5	+2.9					
	Ave		-36.4	+36.5	+0.5						
٨	11650.100	37.8	+0.0	+0.0	+0.0	+0.0	+0.0	50.6	54.0	-3.4	Vert
	M		+0.0	+0.8	+8.5	+2.9					
			-36.4	+36.5	+0.5						
60	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
61	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 15:42:35 Motorola Mobility, Inc. WO#: 92800 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 5 Ext ATTN: 0 dB



Sweep Data
O Peak Readings

* Average Readings

1 - 15.247(d) / 15.209 Radiated Spurious Emissions

Readings

X QP Readings

Ambient



Customer: Motorola Mobility, Inc.

Specification: 15.247(d) / 15.209 Radiated Spurious Emissions

 Work Order #:
 92800
 Date:
 2/27/2012

 Test Type:
 Maximized Emissions
 Time:
 16:07:42

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 6

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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



Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Function	Manufacturer	Model #	S/N	
Broadband Router	CASA Systems	C2200	FD3460	
Gigabit Switch	Netgear	GS105v2		
Laptop Computer	HP	Compaq 6910p		
Performance Analysis	Spirent	SMB-600B	N06012143	
System				
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.

15.205(a) and non-15.205(a) data contained within this sheet. All are within the 15.209(a) limit.

Temperature: 18°C, Humidity: 48%, Pressure: 100kPa.



	Leasurement 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								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant		
1 :	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz		
			+0.0	+0.4	+3.4	+1.4							
			-37.9	+29.0	+0.0								
2	9999.966M	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz		
			+0.0	+0.8	+7.3	+2.7							
			-35.9	+37.2	+0.5								
3	11649.730	36.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Vert		
	M		+0.0	+0.8	+8.5	+2.9							
			-36.4	+36.5	+0.5								
4	11490.700	36.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.4	54.0	-4.6	Horiz		
	M		+0.0	+0.8	+8.5	+2.9							
			-36.3	+36.3	+0.4								
5	2999.984M	50.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz		
			+0.0	+0.4	+3.6	+1.5							
			-37.8	+30.0	+0.9								
6	11490.670	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Vert		
	M		+0.0	+0.8	+8.5	+2.9							
			-36.3	+36.3	+0.4								
7	11569.170	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz		
	M		+0.0	+0.8	+8.5	+2.9							
			-36.3	+36.4	+0.5								
8	11650.070	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz		
	M		+0.0	+0.8	+8.5	+2.9							
			-36.4	+36.5	+0.5								
9 1	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz		
			+0.0	+0.4	+3.6	+1.4							
- 10			-37.9	+29.7	+1.1			10.1					
	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz		
P	Ave		+0.0	+0.4	+3.9	+1.5							
	2222 2153 5	F2.4	-37.7	+30.7	+0.6				# 4 O		** .		
^ :	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz		
			+0.0	+0.4	+3.9	+1.5							
12	11571 200	252	-37.7	+30.7	+0.6	.0.0	.0.0	40.0	£40	<i>.</i>	X7 .		
12	11571.200	36.2	+0.0	+0.0	+0.0	+0.0	+0.0	49.0	54.0	-5.0	Vert		
1	M		+0.0	+0.8	+8.5	+2.9							
12	12400.047	22.2	-36.3	+36.4	+0.5	.00	.0.0	40.0	540	<i>7</i> 1	TT. *		
13	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz		
	M		+0.0	+0.8	+8.9	+2.9							
	Ave	267	-35.9	+38.7	+0.2	.00	.0.0	50.2	£40	1.7	TT.		
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz		
	M		+0.0	+0.8	+8.9	+2.9							
1.7	2000 0073 5	<i>50.2</i>	-35.9	+38.7	+0.2	.00	.0.0	40.0	540	<i>7</i> 1	X7 .		
15	2999.985M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert		
			+0.0	+0.4	+3.6	+1.5							
			-37.8	+30.0	+0.9								



16 2333.324M 53.3 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 48.5 54.0 -5.5 Vert +0.0												
17 4999,977M	16	2333.324M	53.3	+0.0			+0.0	+0.0	48.5	54.0	-5.5	Vert
17 4999.977M							+1.3					
Ave												
A 4999.977M			44.2					+0.0	48.1	54.0	-5.9	Vert
A 4999.977M		Ave					+1.8					
19 124.998M 50.8 +0.2 -27.8 +1.9 +12.1 +0.0 37.2 43.5 -6.3 Vert +0.0 +0.												
19 124.998M 50.8 +0.2 -27.8 +1.9 +12.1 +0.0 37.2 43.5 -6.3 Vert +0.0 47.6 54.0 -6.4 Horiz +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 50.4 54.0 -3.6 Horiz +0.0 +0.5 +5.5 +1.8 -37.0 +33.3 +0.3 +0.3 +0.0 +0.0 +0.0 +0.0 +0.0 50.4 54.0 -3.6 Horiz +0.0 +0.5 +5.5 +1.8 -37.0 +33.3 +0.3 +0.3 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz +0.0	^	4999.977M	47.0					+0.0	50.9	54.0	-3.1	Vert
19 124.998M 50.8 +0.2 -27.8 +1.9 +12.1 +0.0 37.2 43.5 -6.3 Vert +0.0 +0.							+1.8					
+0.0	10	124 0003 4	50.0				10.1	0.0	27.2	10.5		X 7 .
+0.0 +0.0 +0.0 +0.0	19	124.998M	50.8					+0.0	37.2	43.5	-6.3	Vert
20 4999.978M							+0.0					
Ave	20	4000 07014	42.7				. 0. 0	. 0. 0	17.6	540	<i>C</i> 1	TT
A 4999.978M			43.7					+0.0	47.6	54.0	-6.4	Horiz
^ 4999.978M 46.5 +0.0 +0.0 +0.0 +0.0 +0.0 50.4 54.0 -3.6 Horiz 22 2333.317M 52.4 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz Ave +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -6.4 Horiz -2333.317M 55.6 +0.0 +0.0 +0.0 +0.0 +0.0 50.8 54.0 -3.2 Horiz -38.0 +28.3 +0.0 +0.0 +0.0 +0.0 +0.0 50.8 54.0 -3.2 Horiz 24 7499.966M 38.4 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -7.0 Horiz Ave +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 51.2 54.0 -2.8 Horiz Ave +0.0 +0.0 +0.0 +0.0 +0.0 51.2 54.0		Ave					+1.8					
+0.0		4000 07014	165				.00	.00	50 A	540	2.6	II a ni n
22 2333,317M 52.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.6 54.0 -6.4 Horiz		4999.978M	40.5					+0.0	30.4	54.0	-3.0	HOMZ
22 2333.317M							+1.0					
Ave	22	2222 217M	52.4				+0.0	+0.0	17.6	540	6.1	Horiz
-38.0 +28.3 +0.0 ^ 2333.317M			32.4					+0.0	47.0	34.0	-0.4	попи
^ 2333.317M 55.6 +0.0 +0.0 +0.0 +0.0 +0.0 50.8 54.0 -3.2 Horiz 24 7499.966M 38.4 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Horiz Ave +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Horiz ^400 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.0 Horiz 100 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -2.8 Horiz 26 3333.321M 47.6 +0.0		Avc					⊤1.5					
+0.0	^	2333 317M	55.6				±0.0	±0.0	50.8	54.0	-3.2	Horiz
-38.0 +28.3 +0.0 24 7499.966M 38.4 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Horiz Ave		2333.317W	33.0					+0.0	30.6	34.0	-3.2	110112
24 7499.966M							11.3					
Ave	24	7499 966M	38.4				+0.0	+0.0	47.0	54.0	-7.0	Horiz
-36.5 +35.5 +0.1 ^ 7499.966M			30.1					10.0	17.0	5 1.0	7.0	HOHE
^ 7499.966M 42.6 +0.0 +0.0 +0.0 +0.0 +0.0 51.2 54.0 -2.8 Horiz 26 3333.321M 47.6 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -7.0 Vert 26 3333.321M 47.6 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -7.0 Vert 27 2799.984M 45.8 +0.0 +0.0 +0.0 +0.0 +0.0 46.8 54.0 -7.2 Horiz 28 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0 32.3 40.0 -7.7 Vert 29 74.008M 51.8 +0.1 -27.9 +1.4 +6.7 +0.0 32.1 40.0 -7.9 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0 <		11,0										
+0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1 26 3333.321M	٨	7499.966M	42.6				+0.0	+0.0	51.2	54.0	-2.8	Horiz
-36.5 +35.5 +0.1 26 3333.321M		, ,,,,,,										
26 3333.321M 47.6 +0.0 +0.0 +0.0 +0.0 +0.0 47.0 54.0 -7.0 Vert 27 2799.984M 45.8 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.8 54.0 -7.2 Horiz 28 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert 40.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.9 Vert 29 74.008M 51.8 +0.1 -27.9 +1.4 +6.7 +0.0 32.1 40.0 -7.9 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -7.9 Vert 30 3099.985M 47.3 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -8.0 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 -8.0 Vert +0.0 +0.0 +0.												
+0.0 +0.4 +3.9 +1.5 -37.7 +30.7 +0.6 27 2799.984M	26	3333.321M	47.6				+0.0	+0.0	47.0	54.0	-7.0	Vert
27 2799.984M 45.8 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.8 54.0 -7.2 Horiz +0.0 +0.0 +0.4 +3.5 +1.4 -37.8 +29.4 +4.1 28 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.				+0.0	+0.4	+3.9						
+0.0 +0.4 +3.5 +1.4 -37.8 +29.4 +4.1 28 37.902M				-37.7	+30.7	+0.6						
-37.8 +29.4 +4.1 28 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0	27	2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
28 37.902M 44.5 +0.1 -27.8 +1.0 +14.5 +0.0 32.3 40.0 -7.7 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.				+0.0	+0.4	+3.5	+1.4					
+0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0				-37.8	+29.4	+4.1						
+0.0 +0.0 +0.0 +0.0 29 74.008M 51.8 +0.1 -27.9 +1.4 +6.7 +0.0 32.1 40.0 -7.9 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0	28	37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
29 74.008M 51.8 +0.1 -27.9 +1.4 +6.7 +0.0 32.1 40.0 -7.9 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 54.0 54.0 -8.0 Vert +0.0 +0.0 +0.4 +3.7 +1.5 -37.8 +30.2 +0.7 31 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5				+0.0	+0.0	+0.0	+0.0					
+0.0 +0.0 +0.0 +0.0 +0.0 +0.0 30 3099.985M 47.3 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.4 +3.7 +1.5 -37.8 +30.2 +0.7 31 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5												
+0.0 +0.0 +0.0 +0.0 30 3099.985M 47.3 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.4 +3.7 +1.5 -37.8 +30.2 +0.7 31 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5	29	74.008M	51.8					+0.0	32.1	40.0	-7.9	Vert
30 3099.985M 47.3 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.4 +3.7 +1.5 -37.8 +30.2 +0.7 31 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5							+0.0					
+0.0 +0.4 +3.7 +1.5 -37.8 +30.2 +0.7 31 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5												
-37.8 +30.2 +0.7 31 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5	30	3099.985M	47.3					+0.0	46.0	54.0	-8.0	Vert
31 9999.950M 33.4 +0.0 +0.0 +0.0 +0.0 +0.0 46.0 54.0 -8.0 Vert +0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5							+1.5					
+0.0 +0.8 +7.3 +2.7 -35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5												
-35.9 +37.2 +0.5 32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5	31	9999.950M	33.4					+0.0	46.0	54.0	-8.0	Vert
32 3100.032M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 45.9 54.0 -8.1 Horiz +0.0 +0.4 +3.7 +1.5							+2.7					
+0.0 +0.4 +3.7 +1.5		2100 6222 5	4						4.5.0	-	6.1	** .
	32	3100.032M	47.2					+0.0	45.9	54.0	-8.1	Horiz
-5/.8 +50.2 +0./							+1.5					
				-5/.8	+30.2	+0.7						



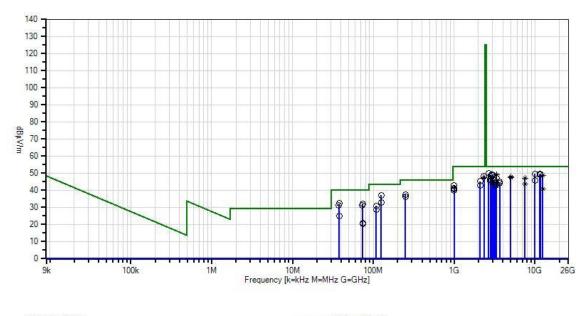
33 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
34 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
35 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
36 2099.989M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.3	54.0	-8.7	Horiz
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
37 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
38 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
39 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
40 3199.985M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Vert
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
41 3299.985M	45.3	+0.0	+0.0	+0.0	+0.0	+0.0	44.6	54.0	-9.4	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
42 3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
43 249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
44 7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
46 3199.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	43.4	54.0	-10.6	Horiz
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
47 125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
48 2099.991M	48.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.1	54.0	-10.9	Vert
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
49 3299.992M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	43.0	54.0	-11.0	Horiz
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
L										



50	999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
51	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
52	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
53	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
٨	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
55	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
56	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
57	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
58	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
59	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
60	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 16:07:42 Motorola Mobility, Inc. WO#: 92800 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 6 Ext ATTN: 0 dB



Sweep Data

Peak Readings* Average Readings

1 - 15.247(d) / 15.209 Radiated Spurious Emissions

--- Readings

QP Readings

▼ Ambient



Customer: Motorola Mobility, Inc.

Specification: 15.247(d) / 15.209 Radiated Spurious Emissions

Work Order #: 92800 Date: 2/27/2012
Test Type: Maximized Emissions Time: 16:15:22

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 7

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

TIP TO THE TAXABLE			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

Frequency range of EUT: 5755MHz to 5795MHz

Transmit Frequencies used for this data sheet: 5755MHz (Low), and 5795MHz (High). Channels 153, and 161. 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 40 GHz.

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.

15.205(a) and non-15.205(a) data contained within this sheet. All are within the 15.209(a) limit.



	attn: 0 aB arement Data:	Re	eading lis	ted by ma	argin.		Te	Test Distance: 3 Meters			
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	_	_	T5	T6	T7	T8			_		
			T9	T10	T11						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	9999.966M	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz
			+0.0	+0.8	+7.3	+2.7					
			-35.9	+37.2	+0.5						
3	2999.984M	50.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz
			+0.0	+0.4	+3.6	+1.5					
			-37.8	+30.0	+0.9						
4	11590.170	36.4	+0.0	+0.0	+0.0	+0.0	+0.0	49.2	54.0	-4.8	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.4	+0.5						
5	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
6	11590.060	36.3	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.4	+0.5						
	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
_			-37.7	+30.7	+0.6						
9	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	. M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
^	12 100.017	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
	11500 505	2.52	-35.9	+38.7	+0.2			40.0	# 4 O		***
11	11509.683	36.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert
	M		+0.0	+0.8	+8.5	+2.9					
10	11511 040	262	-36.3	+36.3	+0.4	.0.0	.0.0	40.0	£40		тт :
12	11511.040	36.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
12	2000 0053 4	50.2	-36.3	+36.3	+0.4	.0.0	.0.0	40.0	£40	F 1	17
13	2999.985M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert
			+0.0	+0.4	+3.6	+1.5					
1 /	2222 22414	52.2	-37.8	+30.0	+0.9	100	100	10 5	540	F F	17
14	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0	+0.4	+3.2	+1.3					
1.5	4000 0773 4	44.2	-38.0	+28.3	+0.0	.0.0	.0.0	40.1	E 4 O	<i>F</i> 0	17 4
	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						



^ 4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
17 124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
18 4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
20 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
22 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
24 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
25 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
26 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
27 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
28 3099.985M	47.3	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
29 9999.950M	33.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.0	54.0	-8.0	Vert
		+0.0	+0.8	+7.3	+2.7					
		-35.9	+37.2	+0.5						
30 3100.032M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	45.9	54.0	-8.1	Horiz
		+0.0	+0.4	+3.7	+1.5					
		-37.8	+30.2	+0.7						
31 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
32 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
· · · · · · · · · · · · · · · · · · ·										



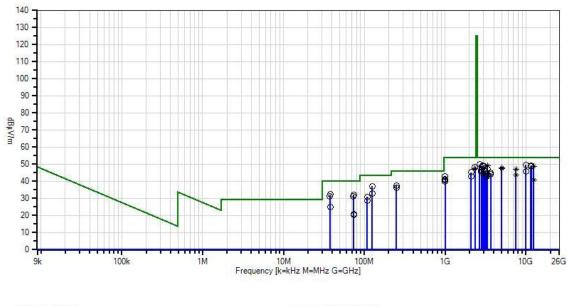
33 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
34 2099.989M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.3	54.0	-8.7	Horiz
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
35 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
36 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
37 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
38 3199.985M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.7	54.0	-9.3	Vert
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
39 3299.985M	45.3	+0.0	+0.0	+0.0	+0.0	+0.0	44.6	54.0	-9.4	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
40 3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
41 249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
42 7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
44 3199.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	43.4	54.0	-10.6	Horiz
		+0.0	+0.4	+3.8	+1.5					
		-37.8	+30.4	+0.6						
45 125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
46 2099.991M	48.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.1	54.0	-10.9	Vert
		+0.0	+0.4	+3.0	+1.2					
		-37.9	+28.1	+0.0						
47 3299.992M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	43.0	54.0	-11.0	Horiz
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.6	+0.6						
48 999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
49 108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						



50	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
51	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
٨	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
53	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
54	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
55	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
56	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
57	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
58	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 16:15:22 Motorola Mobility, Inc. WO#: 92800 15.247(d) / 15.209 Radiated Spurious Emissions Test Distance: 3 Meters Sequence#: 7 Ext ATTN: 0 dB



Sweep Data

Peak Readings* Average Readings

1 - 15.247(d) / 15.209 Radiated Spurious Emissions

ReadingsQP Readings

Ambient



Test Setup Photos







RSS-210 §2.2 Restricted Bands

Test 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 #:92800Date: 2/27/2012Test Type:Maximized EmissionsTime: 13:38:31Equipment:DOCSIS 3.0 Wi-Fi GatewaySequence#: 1

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000- O/O		
	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

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Tr			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.



Measu	attn: 0 aB a rement Data:	Re	eading lis	ted by ma	argin.		Test Distance: 3 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	1	C	T5	T6	T7	Т8			1	2		
			T9	T10	T11							
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant	
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz	
			+0.0	+0.4	+3.4	+1.4						
			-37.9	+29.0	+0.0							
2	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
			+0.0	+0.4	+3.6	+1.4						
			-37.9	+29.7	+1.1							
3	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
	Ave		+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz	
			+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
5	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
	Ave		-35.9	+38.7	+0.2							
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
			-35.9	+38.7	+0.2							
7	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert	
			+0.0	+0.4	+3.2	+1.3						
			-38.0	+28.3	+0.0							
8	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert	
	Ave		+0.0	+0.5	+5.0	+1.8						
			-37.0	+33.3	+0.3							
٨	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert	
			+0.0	+0.5	+5.0	+1.8						
			-37.0	+33.3	+0.3							
10	4923.958M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.0	54.0	-6.0	Horiz	
			+0.0	+0.5	+5.0	+1.8						
			-37.1	+33.2	+0.4							
11	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert	
			+0.0	+0.0	+0.0	+0.0						
L			+0.0	+0.0	+0.0							
12	4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz	
	Ave		+0.0	+0.5	+5.0	+1.8						
L			-37.0	+33.3	+0.3							
^	4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz	
			+0.0	+0.5	+5.0	+1.8						
L			-37.0	+33.3	+0.3							
14	2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz	
	Ave		+0.0	+0.4	+3.2	+1.3						
			-38.0	+28.3	+0.0							
^	2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz	
			+0.0	+0.4	+3.2	+1.3						
			-38.0	+28.3	+0.0							



16 4873.959M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	47.5	54.0	-6.5	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
17 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
19 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
20 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
21 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
22 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
23 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
24 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
25 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
26 4823.959M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.0	+0.4						
27 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
28 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
29 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
30 4923.957M	41.0	+0.0	+0.0	+0.0	+0.0	+0.0	44.8	54.0	-9.2	Vert
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
^ 4923.957M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	52.7	54.0	-1.3	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
32 3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
•										

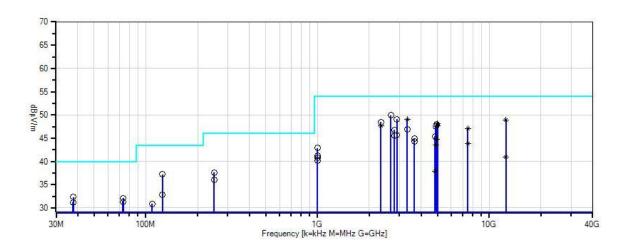


22 240 0001	40.0	0.2	27.0	2.0	10.7	0.0	261	460	0.0	** .
33 249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
		+0.0	+0.0	+0.0	+0.0					
24 7400 06514	25.2	+0.0	+0.0	+0.0	.00	.00	12.0	540	10.1	V 4
34 7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
Ave		+0.0	+0.7	+6.5	+2.3					
A 7400 065M	40.0	-36.5	+35.5	+0.1	. 0. 0	. 0. 0	10.5	540	1.5	X 74
^ 7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
		+0.0	+0.7	+6.5	+2.3					
36 4873.953M	39.8	-36.5	+35.5	+0.1	+Ω.Ω	+0.0	43.5	54.0	10.5	Vont
	39.8	+0.0 +0.0	$+0.0 \\ +0.5$	+0.0 +5.0	$+0.0 \\ +1.8$	+0.0	43.3	34.0	-10.5	Vert
Ave		+0.0 -37.1	+33.1	+0.4	+1.8					
A 4972 052M	47.0				.00	.00	<i>E</i> 1. <i>C</i>	540	2.4	V 74
^ 4873.953M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	51.6	54.0	-2.4	Vert
		+0.0	+0.5	+5.0	+1.8					
29 125 00714	16.1	-37.1	+33.1	+0.4	. 10 1	.00	22.0	12.5	10.7	II
38 125.007M	46.4	+0.2 +0.0	-27.8 +0.0	+1.9 +0.0	+12.1	+0.0	32.8	43.5	-10.7	Horiz
			+0.0 +0.0	+0.0 +0.0	+0.0					
39 999.993M	38.6	+0.0			124.9	+0.0	42.9	540	11.1	V 7
39 999.993M	38.0	+0.6 +0.0	-27.3 +0.0	+6.2 +0.0	+24.8 +0.0	+0.0	42.9	54.0	-11.1	Vert
		+0.0	+0.0	+0.0 +0.0	+0.0					
40 108.799M	45.9	+0.0	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
40 108.799W	43.9	+0.1	+0.0	+0.0	+10.9	+0.0	30.9	43.3	-12.0	vert
		+0.0	+0.0	+0.0	+0.0					
41 1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
41 1000.0081	34.2	+0.0 +0.0	+0.0	+2.0	+0.0	+0.0	41.2	34.0	-12.0	vert
		-40.4	+24.2	+0.0	+0.9					
42 12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
M	23.3	+0.0	+0.8	+8.9	+2.9	+0.0	40.7	34.0	-13.1	Vert
Ave		-35.9	+38.7	+0.2	12.7					
^ 12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
M	33.3	+0.0	+0.8	+8.9	+2.9	10.0	77.1	34.0	7.7	VCIT
111		-35.9	+38.7	+0.2	12.9					
44 999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
11 /////////	30.3	+0.0	+0.0	+0.0	+0.0	10.0	10.0	31.0	13.2	HOHE
		+0.0	+0.0	+0.0	. 0.0					
45 1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
.5 1000.010111	22.1	+0.0	+0.3	+2.0				2 1.0	10.7	
		-40.4	+24.2	+0.0						
46 108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
47 37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
48 4823.972M	34.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.8	54.0	-16.2	Vert
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.0	+0.4						
^ 4823.972M	45.1	+0.0	+0.0	+0.0	+0.0	+0.0	48.7	54.0	-5.3	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.0	+0.4						
•										



50	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
51	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						

CKC Laboratories, Inc. Date: 2/27/2012 Time: 13:38:31 Motorola Mobility, Inc. WO#: 92800 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 1 Ext ATTN: 0 dB



Sweep Data

--- Readings

Peak Readings

× QP Readings

* Average Readings

Ambient

1 - RSS-210 Unwanted Emissions in Restricted Bands (Radiated)



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 #: 92800 Date: 2/27/2012
Test Type: Maximized Emissions Time: 14:31:39

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 2

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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



Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Support Berteest			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.



	Reading listed by margin.					Test Distance: 3 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	1	8	T5	T6	T7	T8			~			
			T9	T10	T11							
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant	
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz	
			+0.0	+0.4	+3.4	+1.4						
			-37.9	+29.0	+0.0							
2	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
			+0.0	+0.4	+3.6	+1.4						
			-37.9	+29.7	+1.1							
3	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
	Ave		+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz	
			+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
5	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
	Ave		-35.9	+38.7	+0.2							
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
			-35.9	+38.7	+0.2							
7	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert	
			+0.0	+0.4	+3.2	+1.3						
			-38.0	+28.3	+0.0							
8	4823.988M	44.9	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Horiz	
			+0.0	+0.5	+5.0	+1.8						
			-37.1	+33.0	+0.4			10.1				
9	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert	
	Ave		+0.0	+0.5	+5.0	+1.8						
	4000 0771 6	47.0	-37.0	+33.3	+0.3	0.0	0.0	50.0	540	2.1	***	
	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert	
			+0.0	+0.5	+5.0	+1.8						
11	4002 0003 4	111	-37.0	+33.3	+0.3	.00	.0.0	40.0	5 40	<i>C</i> 0	M _c =4	
11	4823.992M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	48.0	54.0	-6.0	Vert	
			+0.0 -37.1	+0.5	+5.0	+1.8						
10	4022 00014	42.0		+33.0	+0.4	ΙΟ Ο	100	47.7	540	(2	V c4	
12	4923.998M	43.9	$+0.0 \\ +0.0$	+0.0	+0.0	+0.0	+0.0	47.7	54.0	-6.3	Vert	
			+0.0 -37.1	+0.5 +33.2	$+5.0 \\ +0.4$	+1.8						
12	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert	
13	144.7701VI	30.0	+0.2	+0.0	+0.0	+0.0	+0.0	31.4	+3.3	-0.5	v CI t	
			+0.0	+0.0	+0.0	+0.0						
14	4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz	
	Ave	73.1	+0.0	+0.5	+5.0	+1.8	10.0	₹7.0	J+.U	-U. 1	110112	
	1110		-37.0	+33.3	+0.3	11.0						
^	4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz	
	. , , , , , , , , , , , , , , , , , , ,	10.5	+0.0	+0.5	+5.0	+1.8	10.0	50.7	2 7.0	5.0	HOHE	
			-37.0	+33.3	+0.3	. 1.0						
			27.0									



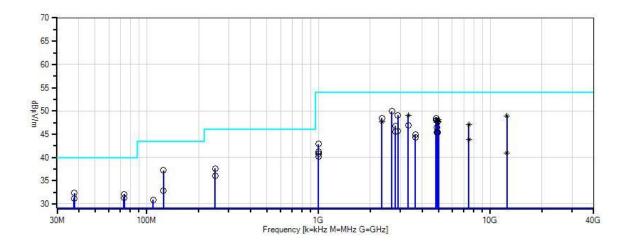
16 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
18 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
20 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
21 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
22 4873.995M	42.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.5	54.0	-7.5	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
23 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
24 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
25 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
26 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
27 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
28 4923.823M	41.6	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
29 4874.133M	41.7	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
30 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
31 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
32 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
·										



33 3666.655M 43.8 +0.0 +0.0 +0.0 +0.0 +0.0 44.3 54.0 -9.7 +0.0 +0.4 +4.2 +1.6 -37.4 +31.3 +0.4 34 249.998M 48.2 +0.2 -27.8 +2.8 +12.7 +0.0 36.1 46.0 -9.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 35 7499.965M 35.3 +0.0 +0.0 +0.0 +0.0 +0.0 43.9 54.0 -10.1 Ave +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1	Horiz Horiz
-37.4 +31.3 +0.4 34 249.998M 48.2 +0.2 -27.8 +2.8 +12.7 +0.0 36.1 46.0 -9.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 35 7499.965M 35.3 +0.0 +0.0 +0.0 +0.0 +0.0 43.9 54.0 -10.1 Ave +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1	Horiz
34 249.998M 48.2 +0.2 -27.8 +2.8 +12.7 +0.0 36.1 46.0 -9.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0	Horiz
+0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 35 7499.965M 35.3 +0.0 +0.0 +0.0 +0.0 +0.0 43.9 54.0 -10.1 Ave +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1	Horiz
+0.0 +0.0 +0.0 35 7499.965M 35.3 +0.0 +0.0 +0.0 +0.0 +0.0 43.9 54.0 -10.1 Ave +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1	
35 7499.965M 35.3 +0.0 +0.0 +0.0 +0.0 +0.0 43.9 54.0 -10.1 Ave +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1	
Ave +0.0 +0.7 +6.5 +2.3 -36.5 +35.5 +0.1	**
-36.5 +35.5 +0.1	Vert
A # 400 0 C # 3 # 40 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	**
^ 7499.965M	Vert
+0.0 +0.7 +6.5 +2.3	
-36.5 +35.5 +0.1	
37 125.007M 46.4 +0.2 -27.8 +1.9 +12.1 +0.0 32.8 43.5 -10.7	Horiz
+0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	
38 999.993M 38.6 +0.6 -27.3 +6.2 +24.8 +0.0 42.9 54.0 -11.1	Vert
+0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	**
39 108.799M 45.9 +0.1 -27.8 +1.8 +10.9 +0.0 30.9 43.5 -12.6	Vert
+0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	
40 1000.008M 54.2 +0.0 +0.0 +0.0 +0.0 +0.0 41.2 54.0 -12.8	Vert
+0.0 +0.3 +2.0 +0.9	
-40.4 +24.2 +0.0	
41 12499.972 25.3 +0.0 +0.0 +0.0 +0.0 +0.0 40.9 54.0 -13.1	Vert
M +0.0 +0.8 +8.9 +2.9	
Ave -35.9 +38.7 +0.2	
^ 12499.972	Vert
M +0.0 +0.8 +8.9 +2.9	
-35.9 +38.7 +0.2	
43 999.992M 36.5 +0.6 -27.3 +6.2 +24.8 +0.0 40.8 54.0 -13.2	Horiz
+0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	
44 1000.016M 53.1 +0.0 +0.0 +0.0 +0.0 +0.0 40.1 54.0 -13.9	Horiz
+0.0 +0.3 +2.0 +0.9	
-40.4 +24.2 +0.0	** .
45 108.804M 43.6 +0.1 -27.8 +1.8 +10.9 +0.0 28.6 43.5 -14.9	Horiz
+0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	** .
46 37.877M 37.1 +0.1 -27.8 +1.0 +14.6 +0.0 25.0 40.0 -15.0	Horiz
+0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	** .
47 74.012M 40.6 +0.1 -27.9 +1.4 +6.7 +0.0 20.9 40.0 -19.1	Horiz
+0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	** .
48 73.985M 40.1 +0.1 -27.9 +1.4 +6.6 +0.0 20.3 40.0 -19.7	Horiz
+0.0 +0.0 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0	



CKC Laboratories, Inc. Date: 2/27/2012 Time: 14:31:39 Motorola Mobility, Inc. WO#: 92800 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 2 Ext ATTN: 0 dB



Sweep Data

--- Readings

Peak Readings

X QP Readings

* Average Readings

▼ Ambient

1 - RSS-210 Unwanted Emissions in Restricted Bands (Radiated)



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 #: 92800 Date: 2/27/2012
Test Type: Maximized Emissions Time: 14:53:11

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 3

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000- O/O		
	ANP06153	Cable	16301	10/27/2011	10/27/2013
	AN01413	Horn Antenna-ANSI	84125-80008	12/2/2010	12/2/2012
		C63.5 Antenna			
		Factors (dB)			
	AN01413	Horn Antenna-1	84125-80008	12/2/2010	12/2/2012
		Meter Antenna			
		Factors (dB) - SAE ARP 958			

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

TIP TO THE TAXABLE			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.



	Measurement Data: Reading listed by margin.					Test Distance: 3 Meters						
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar	
	•	C	T5	T6	T7	T8			1	C		
			T9	T10	T11							
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m$	dB	Ant	
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz	
			+0.0	+0.4	+3.4	+1.4						
			-37.9	+29.0	+0.0							
2	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
			+0.0	+0.4	+3.6	+1.4						
			-37.9	+29.7	+1.1							
3	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz	
	Ave		+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz	
			+0.0	+0.4	+3.9	+1.5						
			-37.7	+30.7	+0.6							
5	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
	Ave		-35.9	+38.7	+0.2							
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz	
	M		+0.0	+0.8	+8.9	+2.9						
			-35.9	+38.7	+0.2							
7	7315.940M	40.0	+0.0	+0.0	+0.0	+0.0	+0.0	48.7	54.0	-5.3	Horiz	
			+0.0	+0.6	+6.4	+2.3						
			-36.7	+35.9	+0.2							
8	7310.730M	40.1	+0.0	+0.0	+0.0	+0.0	+0.0	48.7	54.0	-5.3	Vert	
			+0.0	+0.6	+6.3	+2.3						
			-36.7	+35.9	+0.2							
9	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert	
			+0.0	+0.4	+3.2	+1.3						
			-38.0	+28.3	+0.0							
10	7383.890M	39.7	+0.0	+0.0	+0.0	+0.0	+0.0	48.2	54.0	-5.8	Vert	
			+0.0	+0.6	+6.4	+2.3						
			-36.7	+35.8	+0.1							
11	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert	
	Ave		+0.0	+0.5	+5.0	+1.8						
			-37.0	+33.3	+0.3							
^	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert	
			+0.0	+0.5	+5.0	+1.8						
			-37.0	+33.3	+0.3							
13	4822.330M	44.3	+0.0	+0.0	+0.0	+0.0	+0.0	47.9	54.0	-6.1	Horiz	
			+0.0	+0.5	+5.0	+1.8						
			-37.1	+33.0	+0.4							
14	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert	
			+0.0	+0.0	+0.0	+0.0						
			+0.0	+0.0	+0.0							
	4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz	
	Ave		+0.0	+0.5	+5.0	+1.8						
			-37.0	+33.3	+0.3							



^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
17 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
19 4872.870M	43.9	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
20 4824.530M	43.9	+0.0	+0.0	+0.0	+0.0	+0.0	47.5	54.0	-6.5	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.0	+0.4						
21 4923.820M	43.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.4	54.0	-6.6	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
22 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
24 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
25 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
26 4926.810M	42.9	+0.0	+0.0	+0.0	+0.0	+0.0	46.7	54.0	-7.3	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
27 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
28 4869.700M	42.5	+0.0	+0.0	+0.0	+0.0	+0.0	46.2	54.0	-7.8	Horiz
		+0.0	+0.5	+5.0	+1.8			. •	- / -	
		-37.1	+33.1	+0.4						
29 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					-
		+0.0	+0.0	+0.0						
30 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
2000000		+0.0	+0.4	+3.6	+1.4		,	J	0.0	
		-37.9	+29.7	+1.1						
31 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
21 217.770111	12.1	+0.0	+0.0	+0.0	+0.0	. 0.0	57.0	10.0	0.1	, 011
		+0.0	+0.0	+0.0	. 0.0					
32 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
32 2177.702IVI	⊤⊤. J	+0.0	+0.4	+3.5	+1.4	10.0	ਜ ਹ.ਹ	27.0	0.5	V 01 t
		-37.8	+29.4	+4.1	11.4					
		-51.0	1 4 2 . +	17.1						

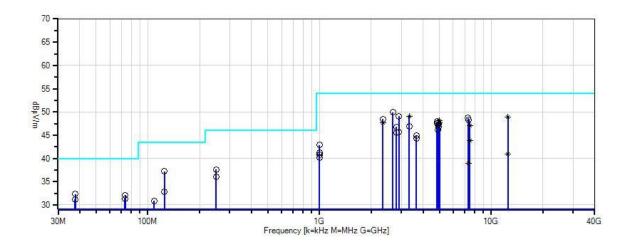


33	73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
34	37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
35	3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
			+0.0	+0.4	+4.2	+1.6					
			-37.4	+31.3	+0.4						
36	3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
			+0.0	+0.4	+4.2	+1.6					
			-37.4	+31.3	+0.4						
37	249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
	7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
	Ave		+0.0	+0.7	+6.5	+2.3					
	# 400 0 c#3 f	40.0	-36.5	+35.5	+0.1	0.0	0.0	40.7	7 40		**
^	7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
			+0.0	+0.7	+6.5	+2.3					
40	105.00734	16.1	-36.5	+35.5	+0.1	. 10.1	. 0. 0	22.0	12.5	10.7	TT .
40	125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
41	000 00214	20.6	+0.0	+0.0	+0.0	.24.0	. 0. 0	42.0	540	11.1	X 7 4
41	999.993M	38.6	+0.6 +0.0	-27.3 +0.0	+6.2 +0.0	+24.8 +0.0	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0 +0.0	+0.0					
42	108.799M	45.9	+0.0	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
42	100.799WI	43.7	+0.1	+0.0	+0.0	+10.9	+0.0	30.9	43.3	-12.0	v ert
			+0.0	+0.0	+0.0	+0.0					
13	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
43	1000.000141	34.2	+0.0	+0.3	+2.0	+0.9	10.0	71.2	34.0	12.0	VOIT
			-40.4	+24.2	+0.0	10.7					
44	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M	20.0	+0.0	+0.8	+8.9	+2.9	10.0	10.5	5	13.1	, 611
	Ave		-35.9	+38.7	+0.2	,					
	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9			2		-
			-35.9	+38.7	+0.2						
46	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
47	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
48	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
49	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						



50 7385.756M	30.4	+0.0	+0.0	+0.0	+0.0	+0.0	38.9	54.0	-15.1	Horiz
Ave		+0.0	+0.6	+6.4	+2.3					
		-36.7	+35.8	+0.1						
^ 7385.756M	42.7	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.6	+6.4	+2.3					
		-36.7	+35.8	+0.1						
52 74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
53 73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						

CKC Laboratories, Inc. Date: 2/27/2012 Time: 14:53:11 Motorola Mobility, Inc. WO#: 92800 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 3 Ext ATTN: 0 dB



Sweep Data

---- Readings

Peak Readings

QP Readings

* Average Readings

▼ Ambient

1 - RSS-210 Unwanted Emissions in Restricted Bands (Radiated)



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 #:92800Date: 2/27/2012Test Type:Maximized EmissionsTime: 15:09:29

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 4

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Tr			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

Frequency range of EUT: 2422MHz to 2452MHz

Transmit Frequencies used for this data sheet: 2422MHz (Low), 2437MHz (Middle), and 2452MHz (High). Channels 1, 6, and 11. 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.



	attn: 0 aB urement Data:	Re	eading lis	ted by ma	argin.		Τe	est Distance	e: 3 Meters		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	1	8	T5	T6	T7	T8			~		
			T9	T10	T11						
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
3	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
5	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
7	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0	+0.4	+3.2	+1.3					
			-38.0	+28.3	+0.0						
8	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						
^	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
			+0.0	+0.5	+5.0	+1.8					
10	124 000 6	50.0	-37.0	+33.3	+0.3	10.1	0.0	27.2	10.5		T. 7 .
10	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
			+0.0	+0.0	+0.0	+0.0					
11	4000 0703 4	12.7	+0.0	+0.0	+0.0	.00	.0.0	47.6	£40	<i>C</i> 4	II.
11	4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
	Ave		+0.0	+0.5	+5.0	+1.8					
	4000 07914	165	-37.0 +0.0	+33.3	+0.3	ΙΟ Ο	10.0	50.4	540	26	Цота
	4999.978M	46.5	+0.0	$+0.0 \\ +0.5$	+0.0 +5.0	+0.0 +1.8	+0.0	50.4	54.0	-3.6	Horiz
			+0.0 -37.0	+33.3	+5.0	+1.8					
12	2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
	Ave	J4. 4	+0.0	+0.0	+3.2	+1.3	+0.0	47.0	54.0	-0.4	110112
	1100		-38.0	+28.3	+0.0	11.3					
^	2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
	11/1 ا د.ددد	33.0	+0.0	+0.0	+3.2	+1.3	10.0	50.6	J+.U	-3.4	110112
			-38.0	+28.3	+0.0	11.5					
15	7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
	Ave	50.7	+0.0	+0.7	+6.5	+2.3	10.0	17.0	5 7.0	7.0	110112
	· ·		-36.5	+35.5	+0.1	. 2.3					

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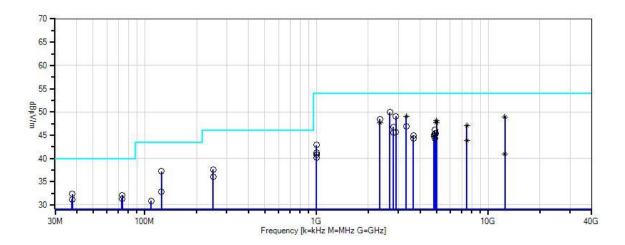
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
17 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
18 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
19 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
20 4864.730M	42.4	+0.0	+0.0	+0.0	+0.0	+0.0	46.1	54.0	-7.9	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
21 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
22 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
23 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
24 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
25 4921.590M	41.6	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.2	+0.4						
26 4867.330M	41.7	+0.0	+0.0	+0.0	+0.0	+0.0	45.4	54.0	-8.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
27 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
28 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
29 4856.320M	41.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.1	54.0	-8.9	Vert
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.1	+0.4						
30 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
31 4826.530M	41.2	+0.0	+0.0	+0.0	+0.0	+0.0	44.8	54.0	-9.2	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.1	+33.0	+0.4						
32 3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
1										



22	1006 2201 (10.6	. 0. 0	. 0. 0	. 0. 0	. 0. 0	. 0. 0	112	540	0.7	TT '
33	4906.220M	40.6	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
			+0.0	+0.5	+5.0	+1.8					
2.4	240.00914	40.2	-37.1	+33.1	+0.4	. 12.7	+0.0	36.1	46.0	0.0	II
34	249.998M	48.2	+0.2 +0.0	-27.8 +0.0	+2.8 +0.0	+12.7 +0.0	+0.0	30.1	40.0	-9.9	Horiz
				+0.0		+0.0					
25	7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
	7499.903M Ave	33.3	+0.0 +0.0	+0.0	+0.0 +6.5	+0.0	+0.0	43.9	34.0	-10.1	vert
	Ave		-36.5	+35.5	+0.3	+2.3					
_	7499.965M	40.9	+0.0	+0.0	+0.1	+0.0	+0.0	49.5	54.0	-4.5	Vert
	7433.303W	40.9	+0.0	+0.0	+6.5	+2.3	+0.0	49.3	34.0	-4.5	VEIL
			-36.5	+35.5	+0.3	⊤2.3					
37	125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
37	123.007WI	40.4	+0.2	+0.0	+0.0	+0.0	+0.0	32.6	43.3	-10.7	HOHZ
			+0.0	+0.0	+0.0	+0.0					
38	999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
36	999.9931VI	36.0	+0.0	+0.0	+0.2	+0.0	+0.0	42.9	34.0	-11.1	VCIT
			+0.0	+0.0	+0.0	10.0					
39	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
39	100.799IVI	43.9	+0.1	+0.0	+0.0	+0.0	+0.0	30.9	43.3	-12.0	VCIT
			+0.0	+0.0	+0.0	10.0					
40	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
1 40	1000.0001	37.2	+0.0	+0.3	+2.0	+0.9	10.0	71.2	34.0	-12.0	VCIT
			-40.4	+24.2	+0.0	10.7					
41	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
71	M	23.3	+0.0	+0.8	+8.9	+2.9	10.0	70.7	34.0	-13.1	VCIT
	Ave		-35.9	+38.7	+0.2	12.9					
	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M	33.3	+0.0	+0.8	+8.9	+2.9	10.0	77.1	34.0	7.7	VCIt
	171		-35.9	+38.7	+0.2	12.9					
43	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
15))),)) <u>21</u> (1	30.3	+0.0	+0.0	+0.0	+0.0	10.0	10.0	31.0	13.2	HOHE
			+0.0	+0.0	+0.0	10.0					
44	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
	1000.010141	33.1	+0.0	+0.3	+2.0	+0.9	10.0	10.1	31.0	13.7	HOHE
			-40.4	+24.2	+0.0						
45	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
	100.00 1111	13.0		+0.0		+0.0	. 0.0	20.0	13.5	11.7	110112
			+0.0	+0.0	+0.0	. 0.0					
46	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
	0,.0,,111	27.11	+0.0	+0.0	+0.0	+0.0	. 0.0		. 5.0	10.0	
			+0.0	+0.0	+0.0	. 0.0					
47	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
''	,	10.0	+0.0	+0.0	+0.0	+0.0	. 0.0	20.7	10.0	17.1	110112
			+0.0	+0.0	+0.0	. 0.0					
48	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
	, 3., 03111	10.1	+0.0	+0.0	+0.0	+0.0	. 0.0	20.5	10.0	17.1	110112
			+0.0	+0.0	+0.0	. 0.0					
L			10.0	10.0	. 0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 15:09:29 Motorola Mobility, Inc. WO#: 92800 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 4 Ext ATTN: 0 dB



Sweep Data

— Readings

Peak Readings

X QP Readings

* Average Readings

▼ Ambient

1 - RSS-210 Unwanted Emissions in Restricted Bands (Radiated)



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 #:92800Date: 2/27/2012Test Type:Maximized EmissionsTime: 15:42:35

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 5

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Function	Manufacturer	Model #	S/N	
Broadband Router	CASA Systems	C2200	FD3460	
Gigabit Switch	Netgear	GS105v2		
Laptop Computer	HP	Compaq 6910p		
Performance Analysis	Spirent	SMB-600B	N06012143	
System				
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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.



	attn: 0 aB e rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 3 Meters		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	1	C	T5	T6	T7	T8			1	C	
			T9	T10	T11						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant
1	11648.970	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.4	+36.5	+0.5						
2	11568.220	37.1	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Vert
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.4	+0.5						
3	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
4	11489.560	37.2	+0.0	+0.0	+0.0	+0.0	+0.0	49.8	54.0	-4.2	Vert
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.3	+0.4						
5	11569.330	36.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.4	+0.5						
6	11490.100	36.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.2	54.0	-4.8	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.3	+0.4						
7	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
10	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	. M		+0.0	+0.8	+8.9	+2.9					
	Ave	0.5	-35.9	+38.7	+0.2						TT .
^	12 100.017	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
10	2222 22 43 5	<i>50.0</i>	-35.9	+38.7	+0.2	.0.0	.0.0	40.5	740		3.7 ·
12	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0	+0.4	+3.2	+1.3					
12	4000 0773 4	44.2	-38.0	+28.3	+0.0	.00	.0.0	40.1	540	F 0	M
	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0	+0.5	+5.0	+1.8					
	4000 07714	47.0	-37.0	+33.3	+0.3	ΙΟ Ο	10.0	50.0	540	2.1	Met
	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
			+0.0 -37.0	+0.5 +33.3	+5.0 +0.3	+1.8					
15	124.998M	50.8				+12.1	+0.0	37.2	43.5	-6.3	Vert
13	124.778IVI	30.8	$+0.2 \\ +0.0$	-27.8 +0.0	+1.9 +0.0	+12.1 +0.0	+0.0	31.2	43.3	-0.3	vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						

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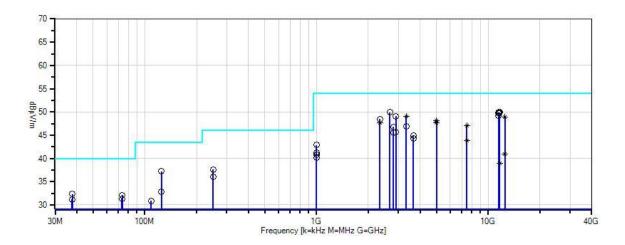
16 4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
18 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
20 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
22 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
23 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
24 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
25 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
26 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
		-37.9	+29.7	+1.1						
27 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
28 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
29 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
30 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
31 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
32 3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
		+0.0	+0.4	+4.2	+1.6					
					. 1.0					



33	249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
	7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
	Ave		+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
^	7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
			+0.0	+0.7	+6.5	+2.3					
2.5	125,0053.5	4.5.4	-36.5	+35.5	+0.1	10.1	0.0	22.0	40.7	10.5	** '
36	125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
		• • •	+0.0	+0.0	+0.0						
37	999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0	+0.0					
		4=0	+0.0	+0.0	+0.0	100		•••			
38	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
39	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0			10.0			
40	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2			10.1			
^	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2			10.0			
42	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
	1000 0101		+0.0	+0.0	+0.0	0.0	0.0	10.1		12.0	** '
43	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
			+0.0	+0.3	+2.0	+0.9					
4.4	100.0043.6	10.6	-40.4	+24.2	+0.0	10.0	0.0	20.6	40.5	110	** '
44	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
4.5	27 97714	27.1	+0.0	+0.0	+0.0	.14.6	.0.0	25.0	40.0	150	II.
45	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0		+0.0					
1.0	11650.100	26.2	+0.0	+0.0	+0.0	ΙΩΩ	+0.0	20.0	540	15.0	Vont
40	11650.100 M	26.2	+0.0 +0.0	$+0.0 \\ +0.8$	+0.0	+0.0	+0.0	39.0	54.0	-15.0	Vert
	Ave		+0.0 -36.4	+36.5	+8.5 +0.5	+2.9					
	11650.100	37.8	+0.0	+0.0	+0.0	+0.0	+0.0	50.6	54.0	-3.4	Vert
	11650.100 M	31.8	+0.0 +0.0	+0.0	+8.5	+0.0	+0.0	50.0	34.0	-3.4	vert
	171		-36.4	+36.5	+0.5	±∠.7					
48	74.012M	40.6	+0.1	-27.9		+6.7	_0.0	20.9	40.0	-19.1	Horiz
48	/4.U1/2NI	40.0	+0.1 +0.0	-27.9 +0.0	$+1.4 \\ +0.0$	+0.7	+0.0	20.9	40.0	-19.1	HOUZ
			+0.0 +0.0	+0.0	+0.0 +0.0	+0.0					
49	73.985M	40.1	+0.0	-27.9		+6.6	+0.0	20.3	40.0	-19.7	Horiz
49	13.703IVI	40.1	+0.1	+0.0	$+1.4 \\ +0.0$	+0.0	+0.0	20.3	40.0	-17./	HOHZ
			+0.0 +0.0	+0.0 +0.0	+0.0 +0.0	+0.0					
			+0.0	±0.0	±0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 15:42:35 Motorola Mobility, Inc. WO#: 92800 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 5 Ext ATTN: 0 dB



Sweep Data

- Readings

Peak Readings

X QP Readings

* Average Readings

▼ Ambient

1 - RSS-210 Unwanted Emissions in Restricted Bands (Radiated)



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 #: 92800 Date: 2/27/2012

Test Type: Maximized Emissions Time: 16:07:42

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 6

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Tr			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

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: 18°C, Humidity: 48%, Pressure: 100kPa.



Ext Attn: 0 dB

	attn: 0 aB e rement Data:	Re	eading lis	ted by ma	argin.		Тє	est Distance	e: 3 Meters		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	•	C	T5	T6	T7	T8			1	Č	
			T9	T10	T11						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	11649.730	36.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.7	54.0	-4.3	Vert
	M		+0.0	+0.8	+8.5	+2.9					
			-36.4	+36.5	+0.5						
3	11490.700	36.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.4	54.0	-4.6	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.3	+0.4						
4	11650.070	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.4	+36.5	+0.5						
5	11490.670	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Vert
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.3	+0.4						
6	11569.170	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.3	54.0	-4.7	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.4	+0.5						
7	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
10	11571.200	36.2	+0.0	+0.0	+0.0	+0.0	+0.0	49.0	54.0	-5.0	Vert
	M		+0.0	+0.8	+8.5	+2.9					
	12400045	22.2	-36.3	+36.4	+0.5			40.0			** .
11	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
	Ave	267	-35.9	+38.7	+0.2	.0.0	.0.0	50.0	740	1.7	тт .
^	12499.947	36.7		+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
12	2222 2243 4	52.2	-35.9	+38.7	+0.2	.00	.0.0	40.5	5 40	F	M
13	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0 -38.0	+0.4	+3.2	+1.3					
1.4	4000 07714	44.2		+28.3	+0.0	100	10.0	40 1	540	<i>F</i> 0	Met
	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0 -37.0	+0.5 +33.3	+5.0	+1.8					
	4999.977M	47.0			+0.3	ΙΟ Ο	10.0	50.0	540	2.1	Vont
	4999.9 / /IVI	47.0	$+0.0 \\ +0.0$	+0.0	+0.0	+0.0 +1.8	+0.0	50.9	54.0	-3.1	Vert
			+0.0 -37.0	+0.5 +33.3	+5.0 +0.3	+1.8					
			-37.0	+33.3	+0.5						



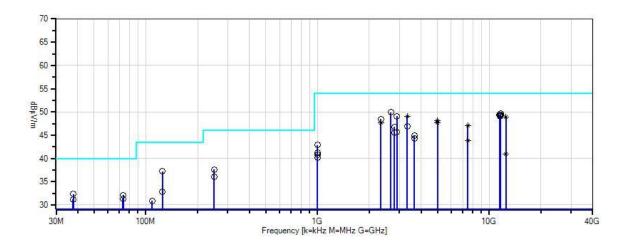
16 124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
17 4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
10. 2000 0157.6		-37.0	+33.3	+0.3	0.0	0.0	45.6	7.1.0	- 1	** .
19 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0	0.0	0.0	7 0.0	7 40		** '
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
24 5400 0604	20.4	-38.0	+28.3	+0.0	0.0	0.0	45.0	7 40	. .	** .
21 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
A 7400 06614	10.6	-36.5	+35.5	+0.1	0.0	0.0	51.0	540	2.0	** '
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
22 2222 22114	47.6	-36.5	+35.5	+0.1	. 0. 0	. 0. 0	47.0	540	7.0	XIt
23 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
24 2700 00414	45.0	-37.7	+30.7	+0.6	. 0. 0	. 0. 0	46.0	540	7.0	77 .
24 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
25 27 00214	115	-37.8	+29.4	+4.1	. 1 1 5	.00	20.2	40.0	77	V
25 37.902M	44.5	+0.1 +0.0	-27.8 +0.0	$+1.0 \\ +0.0$	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0 +0.0	+0.0 +0.0	+0.0 +0.0	+0.0					
26 74.008M	51.8	+0.0	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
20 /4.006WI	31.6	+0.1	+0.0	+0.0	+0.7	+0.0	32.1	40.0	-1.9	vert
		+0.0	+0.0	+0.0	+0.0					
27 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
21 2099.900WI	47.4	+0.0	+0.0	+3.6	+1.4	+0.0	43.7	34.0	-0.5	V CI t
		-37.9	+29.7	+1.1	11.7					
28 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
20 27).))01VI	47. 1	+0.2	+0.0	+0.0		10.0	51.0	70.0	0.7	V 011
		+0.0	+0.0	+0.0	10.0					
29 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
2, 2,,,,,,	. 1.5	+0.0	+0.4	+3.5	+1.4		.5.5	2 1.0	0.5	, 510
		-37.8	+29.4	+4.1						
30 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
75.52011	21.2	+0.0	+0.0	+0.0	+0.0		22.0		J.,	. 511
		+0.0	+0.0	+0.0						
31 37.609M	43.2	+0.1	-27.8	+1.0	+14.7	+0.0	31.2	40.0	-8.8	Vert
3,		+0.0	+0.0	+0.0	+0.0				3.0	
		+0.0	+0.0	+0.0						
32 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
		+0.0	+0.4	+4.2	+1.6					
		-37.4	+31.3	+0.4						
L										



33	3666.655M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	44.3	54.0	-9.7	Horiz
			+0.0	+0.4	+4.2	+1.6					
			-37.4	+31.3	+0.4						
34	249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
35	7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
	Ave		+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
٨	7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
			+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
37	125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
38	999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
39	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
		,	+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
40	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
	1000.0001.1	·	+0.0	+0.3	+2.0	+0.9	. 0.0		0	12.0	, 010
			-40.4	+24.2	+0.0						
41	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M	20.0	+0.0	+0.8	+8.9	+2.9	. 0.0	,	0	1011	, 010
	Ave		-35.9	+38.7	+0.2						
	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M	00.0	+0.0	+0.8	+8.9	+2.9	. 0.0	.,,,,	0	,	, 010
			-35.9	+38.7	+0.2						
43	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
44	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
	1000.0101.1	00.1	+0.0	+0.3	+2.0	+0.9	. 0.0		0	10.,	110112
			-40.4	+24.2	+0.0						
45	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
				+0.0	+0.0	+0.0			.5.0		
			+0.0	+0.0	+0.0	. 0.0					
46	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
			+0.0	+0.0	+0.0	+0.0			. 3.0	-0.0	
			+0.0	+0.0	+0.0	. 0.0					
47	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
''	,	.0.0	+0.0	+0.0	+0.0	+0.0	. 0.0	20.7		17.1	110112
			+0.0	+0.0	+0.0	. 0.0					
48	73.985M	40.1	+0.1	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
10	73.703111	10.1	+0.0	+0.0	+0.0	+0.0	10.0	20.5	10.0	17.1	HOHE
			+0.0	+0.0	+0.0	. 0.0					
L			10.0	. 0.0	. 0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 16:07:42 Motorola Mobility, Inc. WO#: 92800 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 6 Ext ATTN: 0 dB



Sweep Data

- Readings

Peak Readings

X QP Readings

* Average Readings

▼ Ambient

- 1 - RSS-210 Unwanted Emissions in Restricted Bands (Radiated)



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 #: 92800 Date: 2/27/2012
Test Type: Maximized Emissions Time: 16:15:22

Equipment: **DOCSIS 3.0 Wi-Fi Gateway** Sequence#: 7

Manufacturer: Motorola Mobility, Inc. Tested By: S. Yamamoto

Model: SBG6580 P2

S/N: 35560113060065107050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T2	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T3	ANP05198	Cable	8268	12/21/2010	12/21/2012
T4	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
T5	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
Т6	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T7	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
Т8	ANP05421	Cable	Sucoflex 104A	2/8/2012	2/8/2014
Т9	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T10	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T11	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

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Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306006510705008
Gateway*			5
AC to 12Vdc Power	Asian Power Devices, Inc.	WA-24 12FU	
Adapter			

Support Devices:

Support Berteest			
Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	Spirent	SMB-600B	N06012143
System			
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. Tx Bytes Rate approximately 14.8 M and Rx Bytes Rate approximately 12.3 M. The CM is operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV. The EUT is transmitting continuously.

Hardware Version: P2. Software Version: SBG6580-3.3.1.0-GA-10-065-DIAG. Site A.

Frequency range of EUT: 5755MHz to 5795MHz

Transmit Frequencies used for this data sheet: 5755MHz (Low), and 5795MHz (High). Channels 153, and 161. 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: 18°C, Humidity: 48%, Pressure: 100kPa.



Ext Attn: 0 dB

	attn: 0 aB a rement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 3 Meters	}	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	1	υ	T5	T6	T7	T8			1	C	
			T9	T10	T11						
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant
1	2666.655M	53.6	+0.0	+0.0	+0.0	+0.0	+0.0	49.9	54.0	-4.1	Horiz
			+0.0	+0.4	+3.4	+1.4					
			-37.9	+29.0	+0.0						
2	11590.170	36.4	+0.0	+0.0	+0.0	+0.0	+0.0	49.2	54.0	-4.8	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
<u></u>			-36.3	+36.4	+0.5						
3	2899.988M	50.8	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
			+0.0	+0.4	+3.6	+1.4					
			-37.9	+29.7	+1.1						
4	11590.060	36.3	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M		+0.0	+0.8	+8.5	+2.9					
<u></u>			-36.3	+36.4	+0.5						
5	3333.317M	49.7	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Horiz
	Ave		+0.0	+0.4	+3.9	+1.5					
<u></u>			-37.7	+30.7	+0.6						
^	3333.317M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	52.5	54.0	-1.5	Horiz
			+0.0	+0.4	+3.9	+1.5					
			-37.7	+30.7	+0.6						
7	12499.947	33.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
^	12499.947	36.7	+0.0	+0.0	+0.0	+0.0	+0.0	52.3	54.0	-1.7	Horiz
	M		+0.0	+0.8	+8.9	+2.9					
			-35.9	+38.7	+0.2						
9	11511.040	36.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Horiz
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.3	+0.4						
10	11509.683	36.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.9	54.0	-5.1	Vert
	M		+0.0	+0.8	+8.5	+2.9					
			-36.3	+36.3	+0.4						
11	2333.324M	53.3	+0.0	+0.0	+0.0	+0.0	+0.0	48.5	54.0	-5.5	Vert
			+0.0	+0.4	+3.2	+1.3					
			-38.0	+28.3	+0.0						
12	4999.977M	44.2	+0.0	+0.0	+0.0	+0.0	+0.0	48.1	54.0	-5.9	Vert
	Ave		+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						
^	4999.977M	47.0	+0.0	+0.0	+0.0	+0.0	+0.0	50.9	54.0	-3.1	Vert
			+0.0	+0.5	+5.0	+1.8					
			-37.0	+33.3	+0.3						
14	124.998M	50.8	+0.2	-27.8	+1.9	+12.1	+0.0	37.2	43.5	-6.3	Vert
		÷ - · · -	+0.0	+0.0	+0.0	+0.0					•
			+0.0	+0.0	+0.0						
15	4999.978M	43.7	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
	Ave		+0.0	+0.5	+5.0	+1.8			<i>2</i>	· · ·	11011
	11.0		-37.0	+33.3	+0.3	12.0					
			57.0	100.0	10.5						

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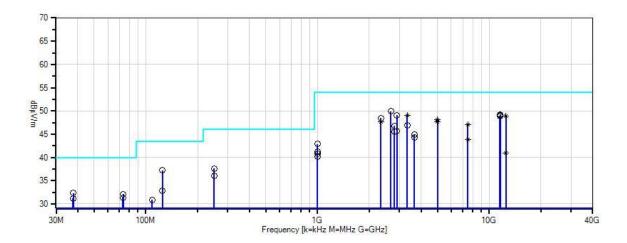
^ 4999.978M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	50.4	54.0	-3.6	Horiz
		+0.0	+0.5	+5.0	+1.8					
		-37.0	+33.3	+0.3						
17 2333.317M	52.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.6	54.0	-6.4	Horiz
Ave		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
^ 2333.317M	55.6	+0.0	+0.0	+0.0	+0.0	+0.0	50.8	54.0	-3.2	Horiz
		+0.0	+0.4	+3.2	+1.3					
		-38.0	+28.3	+0.0						
19 7499.966M	38.4	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Horiz
Ave		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
^ 7499.966M	42.6	+0.0	+0.0	+0.0	+0.0	+0.0	51.2	54.0	-2.8	Horiz
		+0.0	+0.7	+6.5	+2.3					
		-36.5	+35.5	+0.1						
21 3333.321M	47.6	+0.0	+0.0	+0.0	+0.0	+0.0	47.0	54.0	-7.0	Vert
		+0.0	+0.4	+3.9	+1.5					
		-37.7	+30.7	+0.6						
22 2799.984M	45.8	+0.0	+0.0	+0.0	+0.0	+0.0	46.8	54.0	-7.2	Horiz
		+0.0	+0.4	+3.5	+1.4					
		-37.8	+29.4	+4.1						
23 37.902M	44.5	+0.1	-27.8	+1.0	+14.5	+0.0	32.3	40.0	-7.7	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
24 74.008M	51.8	+0.1	-27.9	+1.4	+6.7	+0.0	32.1	40.0	-7.9	Vert
		+0.0	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0						
25 2899.988M	47.4	+0.0	+0.0	+0.0	+0.0	+0.0	45.7	54.0	-8.3	Vert
		+0.0	+0.4	+3.6	+1.4					
26 240 00016	40.5	-37.9	+29.7	+1.1		0.0	27.6	450	0.4	**
26 249.998M	49.7	+0.2	-27.8	+2.8	+12.7	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.0					
27 2700 0021 (44.5	+0.0	+0.0	+0.0	0.0	0.0	45.5	540	0.7	X 7 .
27 2799.982M	44.5	+0.0	+0.0	+0.0	+0.0	+0.0	45.5	54.0	-8.5	Vert
		+0.0	+0.4	+3.5	+1.4					
20 72 22014	51.0	-37.8	+29.4	+4.1		+0.0	21.2	40.0	0.7	V /4
28 73.320M	51.2	+0.1	-27.9	+1.4	+6.5	+0.0	31.3	40.0	-8.7	Vert
		+0.0	+0.0	+0.0	+0.0					
29 37.609M	42.2	+0.0	+0.0	+0.0	+147	+0.0	31.2	40.0	0 0	Vont
29 37.609M	43.2	+0.1 +0.0	-27.8 +0.0	+1.0 +0.0	+14.7 +0.0	+0.0	31.2	40.0	-8.8	Vert
		+0.0 +0.0	+0.0 +0.0	+0.0 +0.0	+0.0					
30 3666.656M	44.4	+0.0	+0.0	+0.0	+0.0	+0.0	44.9	54.0	-9.1	Vert
30 3000.030M	++.+	+0.0 +0.0	+0.0	+4.2	+0.0	+0.0	++ .7	J+.U	-7.1	v CI t
		-37.4	+31.3	+0.4	11.0					
31 3666.655M	43.8	+0.0	+0.0	+0.4	+0.0	+0.0	44.3	54.0	-9.7	Horiz
51 5000.055WI	+3.0	+0.0 +0.0	+0.0	+4.2	+0.0	+0.0	11 .3	54.0	-7.1	110112
		-37.4	+31.3	+0.4	11.0					
32 249.998M	48.2	+0.2	-27.8	+2.8	+12.7	+0.0	36.1	46.0	-9.9	Horiz
52 27,7701VI	70.2	+0.2	+0.0	+0.0	+0.0	10.0	50.1	-₹0.0	-2.3	110112
		+0.0	+0.0	+0.0	10.0					
		10.0	10.0	10.0						



33	7499.965M	35.3	+0.0	+0.0	+0.0	+0.0	+0.0	43.9	54.0	-10.1	Vert
	Ave		+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
^	7499.965M	40.9	+0.0	+0.0	+0.0	+0.0	+0.0	49.5	54.0	-4.5	Vert
			+0.0	+0.7	+6.5	+2.3					
			-36.5	+35.5	+0.1						
35	125.007M	46.4	+0.2	-27.8	+1.9	+12.1	+0.0	32.8	43.5	-10.7	Horiz
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
36	999.993M	38.6	+0.6	-27.3	+6.2	+24.8	+0.0	42.9	54.0	-11.1	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
37	108.799M	45.9	+0.1	-27.8	+1.8	+10.9	+0.0	30.9	43.5	-12.6	Vert
			+0.0	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0						
38	1000.008M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	41.2	54.0	-12.8	Vert
			+0.0	+0.3	+2.0	+0.9					
			-40.4	+24.2	+0.0						
39	12499.972	25.3	+0.0	+0.0	+0.0	+0.0	+0.0	40.9	54.0	-13.1	Vert
	M		+0.0	+0.8	+8.9	+2.9					
	Ave		-35.9	+38.7	+0.2						
	12499.972	33.5	+0.0	+0.0	+0.0	+0.0	+0.0	49.1	54.0	-4.9	Vert
	M	0010	+0.0	+0.8	+8.9	+2.9	. 0.0	.,,,	0	,	, 010
			-35.9	+38.7	+0.2						
41	999.992M	36.5	+0.6	-27.3	+6.2	+24.8	+0.0	40.8	54.0	-13.2	Horiz
	,,,,,,, <u>=</u> .,,	2010	+0.0	+0.0	+0.0	+0.0	. 0.0		0	10.2	110112
			+0.0	+0.0	+0.0						
42	1000.016M	53.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.1	54.0	-13.9	Horiz
	1000.0101.1	55.1	+0.0	+0.3	+2.0	+0.9	10.0	10.1	5 1.0	13.7	HOHE
			-40.4	+24.2	+0.0	10.7					
43	108.804M	43.6	+0.1	-27.8	+1.8	+10.9	+0.0	28.6	43.5	-14.9	Horiz
.5	100.00 1111	15.0	+0.0	+0.0	+0.0	+0.0	. 0.0	20.0	13.3	11.7	110112
			+0.0	+0.0	+0.0	. 0.0					
44	37.877M	37.1	+0.1	-27.8	+1.0	+14.6	+0.0	25.0	40.0	-15.0	Horiz
	37.077111	57.1	+0.0	+0.0	+0.0	+0.0	10.0	25.0	10.0	13.0	110112
			+0.0	+0.0	+0.0	. 0.0					
45	74.012M	40.6	+0.1	-27.9	+1.4	+6.7	+0.0	20.9	40.0	-19.1	Horiz
1 73	/ 1.0121V1	40.0	+0.1	+0.0	+0.0	+0.0	10.0	20.7	40.0	17.1	110112
			+0.0	+0.0	+0.0	10.0					
46	73.985M	40.1	+0.0	-27.9	+1.4	+6.6	+0.0	20.3	40.0	-19.7	Horiz
40	13.70JW	1 0.1	+0.1	+0.0	+0.0	+0.0	+0.0	20.3	40.0	-17./	110112
			+0.0 +0.0	+0.0 +0.0	+0.0 +0.0	+0.0					
			+0.0	+0.0	+0.0						



CKC Laboratories, Inc. Date: 2/27/2012 Time: 16:15:22 Motorola Mobility, Inc. WO#: 92800 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 7 Ext ATTN: 0 dB



Sweep Data

--- Readings

Peak Readings

X QP Readings

* Average Readings

▼ Ambient

1 - RSS-210 Unwanted Emissions in Restricted Bands (Radiated)



Test Setup Photos







SUPPLEMENTAL INFORMATION

Measurement Uncertainty

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

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.

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SAMPLE CALCULATIONS					
	Meter reading	(dBμV)			
+	Antenna Factor	(dB)			
+	Cable Loss	(dB)			
-	Distance Correction	(dB)			
-	Preamplifier Gain	(dB)			
=	= Corrected Reading (dBμV/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.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE				
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 ("A") 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.

<u>Peak</u>

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.

<u>Average</u>

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.

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