Motorola Mobility, Inc.

ADDENDUM TEST REPORT FOR 92742-19

DOCSIS 3.0 Wi-Fi Gateway, SBG6580

Tested To The Following Standards:

FCC Part 15 Subpart E Section 15.407 & RSS-210 Issue 8

Report No.: 92742-19A

Date of issue: February 15, 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.

This report contains a total of 83 pages and may be reproduced in full only. Partial reproduction may only be done with the written consent of CKC Laboratories, Inc.



TABLE OF CONTENTS

Administrative Information	3
Test Report Information	
Revision History	
Report Authorization	
Test Facility Information	
Site Registration & Accreditation Information	
Summary of Results	
Conditions During Testing	
Equipment Under Test	θ
Peripheral Devices	θ
FCC Part 15 Subpart E	7
15.407(b)(1) Undesirable Emission Limits (5.15–5.25 GHz Band)	
15.407(b)(6) & 15.407(b)(7) Undesirable Emissions Limits (15.209 / 15.205)	20
Bandedge	45
RSS-210 § 2.2 Restricted Bands	59
Supplemental Information	82
Measurement Uncertainty	82
Fmissions Test Details	93



ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR: REPORT PREPARED BY:

Motorola Mobility, Inc.

Joyce Walker

6450 Sequence Drive CKC Laboratories, Inc.
San Diego, CA 92121 5046 Sierra Pines Drive
Mariposa, CA 95338

REPRESENTATIVE: Chris Fulmer Project Number: 92742

Customer Reference Number: MM1101726

DATE OF EQUIPMENT RECEIPT: February 6, 2012 **DATE(S) OF TESTING:** February 6 - 7, 2012

Revision History

Original: Testing of the DOCSIS 3.0 Wi-Fi Gateway, SBG6580 to FCC Part 15 Subpart E Section 15.407 and RSS-210 Issue 8.

Addendum A: To combine the testing for sections 15.407(b)(6) and 15.407(b)(7) into one section.

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 of Below

Steve Behm
Director of Quality Assurance & Engineering Services

CKC Laboratories, Inc.

Page 3 of 83 Report No.: 92742-19A



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#	JAPAN	CANADA	FCC
Brea A	US0060	R-2945, C-3248 & T-1572	3082D-1	90473

Page 4 of 83 Report No.: 92742-19A



SUMMARY OF RESULTS

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

Description	Test Procedure/Method	Results
Undesirable Emission Limits (5.15 – 5.25GHz Band)	15.407(b)(1) / KDB 558074	Pass
Undesirable Emission Limits (15.209 / 15.205)	15.407(b)(6) / 15.407(b)(7) / KDB 558074	Pass
Bandedge	ITU-R 55/1 and 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-09-058-DIAG

The manufacturer declares that during the testing for sections 15.407(b1)(b6) and (b7) the EUT was configured as follows:

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 fully operational with the CASA set to DS 813MHz, 819MHz, 825MHz, 831MHz, 0.0dBmV.

Page 5 of 83 Report No.: 92742-19A



EQUIPMENT UNDER TEST (EUT)

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**

EQUIPMENT UNDER TEST

DOCSIS 3.0 Wi-Fi Gateway

Manuf: Motorola Mobility, Inc.

Model: SBG6580

Serial: 355601130600070507050085

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

Page 6 of 83 Report No.: 92742-19A



FCC PART 15 SUBPART E

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) 47 CFR 15C requirements for Unlicensed Radio Frequency Devices, Subpart E – Unlicensed National Information Infrastructure Devices.

15.407(b)(1) Undesirable Emission Limits (5.15-5.25 GHz Band)

Limit Line Calculations

Limit line calculation:

For a distance, d, of 3 meters:

EIRP[dBm] = E[dBuV/m] - 95.2

-27.0 = E[dBuV/m] - 95.2

E[dBuV/m] = 68.2

Page 7 of 83 Report No.: 92742-19A



Test Data Sheets

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

Customer: Motorola Mobility, Inc.

Specification: 15.407(b)(1) Radiated Undesireable Emissions

Work Order #: 92742 Date: 2/6/2012
Test Type: Maximized Emissions Time: 14:29:31
Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 21

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-	8/30/2011	8/30/2013
			24TC		
Т3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
Т6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000-		
			O/O		
	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
	AN00309	Preamp	8447D	5/7/2010	5/7/2012
	ANP05198	Cable	8268	12/21/2010	12/21/2012
	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	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			
	AN03158	Active Horn Antenna		4/1/2010	4/1/2012
			26004000-33-8P		
	ANP06153	Cable	16301	10/27/2011	10/27/2013

Page 8 of 83 Report No.: 92742-19A



Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*	-		85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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. The EUT is transmitting continuously.

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5180MHz (Low), 5200MHz (Middle), and 5240MHz (High). Channels 36, 40, and 48. 802.11a (6 Mbps)

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

Frequency range of measurement = 9 kHz to 40GHz.

Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 40000 MHz RBW=1 MHz, VBW=1 MHz.

Temperature: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

N	1easu	rement 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
				T5	T6							
		MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant
	1	10360.420	53.8	+0.0	+0.8	+2.7	+7.7	+0.0	66.1	68.2	-2.1	Vert
		M		-36.5	+37.6							
	2	10400.167	51.1	+0.0	+0.8	+2.7	+7.8	+0.0	63.4	68.2	-4.8	Vert
		M		-36.6	+37.6							
	3	10480.517	50.3	+0.0	+0.8	+2.7	+7.9	+0.0	62.8	68.2	-5.4	Vert
		M		-36.6	+37.7							
	4	10400.300	42.7	+0.0	+0.8	+2.7	+7.8	+0.0	55.0	68.2	-13.2	Horiz
		M		-36.6	+37.6							

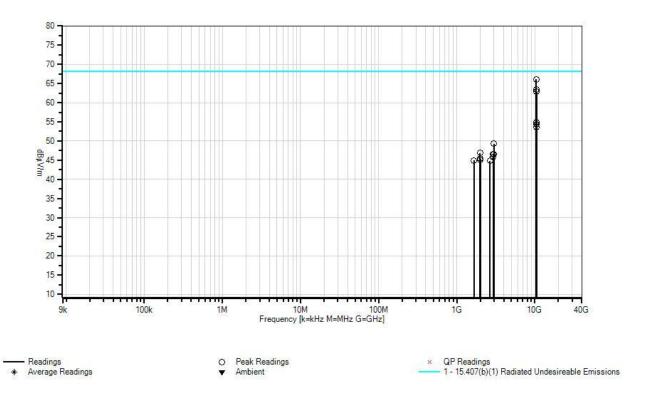
Page 9 of 83 Report No.: 92742-19A



5	10480.067	41.8	+0.0	+0.8	+2.7	+7.9	+0.0	54.3	68.2	-13.9	Horiz
	M		-36.6	+37.7							
6	10362.170	41.3	+0.0	+0.8	+2.7	+7.7	+0.0	53.6	68.2	-14.6	Horiz
	M		-36.5	+37.6							
7	3000.000M	51.5	+0.0	+0.4	+1.6	+3.6	+0.0	49.3	68.2	-18.9	Vert
			-37.8	+30.0							
8	1989.750M	52.4	+0.0	+0.4	+1.1	+3.0	+0.0	46.9	68.2	-21.3	Vert
			-38.0	+28.0							
9	2928.075M	49.0	+0.0	+0.4	+1.5	+3.6	+0.0	46.5	68.2	-21.7	Horiz
			-37.8	+29.8							
10	3000.040M	48.7	+0.0	+0.4	+1.6	+3.6	+0.0	46.5	68.2	-21.7	Horiz
			-37.8	+30.0							
11	2927.972M	48.2	+0.0	+0.4	+1.5	+3.6	+0.0	45.7	68.2	-22.5	Vert
			-37.8	+29.8							
12	2000.076M	50.9	+0.0	+0.4	+1.1	+3.0	+0.0	45.4	68.2	-22.8	Vert
			-38.0	+28.0							
13	2000.111M	50.5	+0.0	+0.4	+1.1	+3.0	+0.0	45.0	68.2	-23.2	Horiz
			-38.0	+28.0							
14	1654.750M	52.9	+0.0	+0.3	+1.0	+2.7	+0.0	44.9	68.2	-23.3	Vert
			-38.2	+26.2							
15	2666.820M	48.5	+0.0	+0.4	+1.4	+3.4	+0.0	44.8	68.2	-23.4	Horiz
			-37.9	+29.0							



CKC Laboratories, Inc. Date: 2/6/2012 Time: 14:29:31 Motorola Mobility, Inc. WO#: 92742 15.407(b)(1) Radiated Undesireable Emissions Test Distance: 3 Meters Sequence#: 21 Ext ATTN: 0 dB





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

Customer: Motorola Mobility, Inc.

Specification: 15.407(b)(1) Radiated Undesireable Emissions

Work Order #: 92742 Date: 2/6/2012
Test Type: Maximized Emissions Time: 15:23:17
Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 22

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	AN03239	Cable	32022-2-29094K-	8/30/2011	8/30/2013
			24TC		
T2	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
Т3	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T4	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T5	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000-		
			O/O		
	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
	AN00309	Preamp	8447D	5/7/2010	5/7/2012
	ANP05198	Cable	8268	12/21/2010	12/21/2012
	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	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			
	AN03158	Active Horn Antenna	AMFW-5F-	4/1/2010	4/1/2012
			26004000-33-8P		
	ANP06153	Cable	16301	10/27/2011	10/27/2013



Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*	•		85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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. The EUT is transmitting continuously.

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5180MHz (Low), 5200MHz (Middle), and 5240MHz (High). Channels 36, 40, and 48. 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: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

Measu	rement Data:	Re	eading lis	ted by ma	argin.	Test Distance: 3 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5								
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	10359.333	51.2	+0.8	+2.7	+7.7	-36.5	+0.0	63.5	68.2	-4.7	Vert
	M		+37.6								
2	10401.333	49.9	+0.8	+2.7	+7.8	-36.6	+0.0	62.2	68.2	-6.0	Vert
	M		+37.6								
3	10480.000	49.1	+0.8	+2.7	+7.9	-36.6	+0.0	61.6	68.2	-6.6	Vert
	M		+37.7								
4	10400.000	45.7	+0.8	+2.7	+7.8	-36.6	+0.0	58.0	68.2	-10.2	Horiz
	M		+37.6								

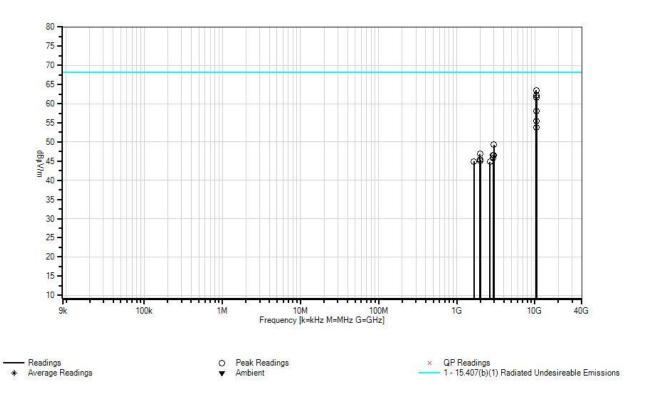
Page 13 of 83 Report No.: 92742-19A



- 5	10358.770	43.1	+0.8	+2.7	+7.7	-36.5	+0.0	55.4	68.2	-12.8	Horiz
3		43.1		+2.7	+/./	-30.3	+0.0	33.4	08.2	-12.8	нопх
	M		+37.6								
	10100000										
6	10480.000	41.3	+0.8	+2.7	+7.9	-36.6	+0.0	53.8	68.2	-14.4	Vert
	M		+37.7								
7	3000.000M	51.5	+0.4	+1.6	+3.6	-37.8	+0.0	49.3	68.2	-18.9	Vert
			+30.0								
8	1989.750M	52.4	+0.4	+1.1	+3.0	-38.0	+0.0	46.9	68.2	-21.3	Vert
			+28.0								
9	2928.075M	49.0	+0.4	+1.5	+3.6	-37.8	+0.0	46.5	68.2	-21.7	Horiz
			+29.8								
10	3000.040M	48.7	+0.4	+1.6	+3.6	-37.8	+0.0	46.5	68.2	-21.7	Horiz
			+30.0								
11	2927.972M	48.2	+0.4	+1.5	+3.6	-37.8	+0.0	45.7	68.2	-22.5	Vert
1 11	2727.772111	10.2	+29.8	11.5	13.0	37.0	10.0	13.7	00.2	22.3	VOIT
12	2000.076M	50.9	+0.4	+1.1	+3.0	-38.0	+0.0	45.4	68.2	-22.8	Vert
12	2000.070IVI	30.9	+28.0	⊤1.1	+3.0	-30.0	+0.0	43.4	00.2	-22.0	VCIT
12	2000 1111	50.5		. 1 1	.20	20.0	. 0. 0	45.0	60.2	22.2	TT
13	2000.111M	50.5	+0.4	+1.1	+3.0	-38.0	+0.0	45.0	68.2	-23.2	Horiz
			+28.0			• • •					
14	1654.750M	52.9	+0.3	+1.0	+2.7	-38.2	+0.0	44.9	68.2	-23.3	Vert
			+26.2								
15	2666.820M	48.5	+0.4	+1.4	+3.4	-37.9	+0.0	44.8	68.2	-23.4	Horiz
			+29.0								



CKC Laboratories, Inc. Date: 2/6/2012 Time: 15:23:17 Motorola Mobility, Inc. WO#: 92742 15.407(b)(1) Radiated Undesireable Emissions Test Distance: 3 Meters Sequence#: 22 Ext ATTN: 0 dB





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

Customer: Motorola Mobility, Inc.

Specification: 15.407(b)(1) Radiated Undesireable Emissions

Work Order #: 92742 Date: 2/6/2012
Test Type: Maximized Emissions Time: 16:27:04
Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 23

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T1	AN03239	Cable	32022-2-29094K- 24TC	8/30/2011	8/30/2013
T2	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
Т3	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T4	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T5	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
	AN02744	High Pass Filter	11SH10- 3000/T10000- O/O	3/5/2010	3/5/2012
	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
	AN00309	Preamp	8447D	5/7/2010	5/7/2012
	ANP05198	Cable	8268	12/21/2010	12/21/2012
	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	AN03158	Active Horn Antenna	AMFW-5F- 26004000-33-8P	4/1/2010	4/1/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013



Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*	-		85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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. The EUT is transmitting continuously.

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5190MHz (Low), and 5230MHz (High). Channels 40 and 48. 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: 19°C, Humidity: 40%, Pressure: 101kPa.

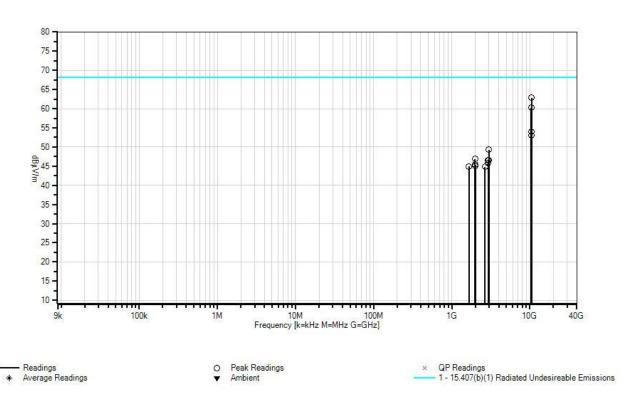
Ext Attn: 0 dB

Measu	rement Data:	Reading listed by margin.				Test Distance: 3 Meters					
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	_	_	T5						_	_	
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m \\$	$dB\mu V/m \\$	dB	Ant
1	10461.500	50.4	+0.8	+2.7	+7.9	-36.6	+0.0	62.9	68.2	-5.3	Vert
	M		+37.7								
2	10379.750	47.8	+0.8	+2.7	+7.8	-36.5	+0.0	60.2	68.2	-8.0	Vert
	M		+37.6								
3	10459.317	41.5	+0.8	+2.7	+7.9	-36.6	+0.0	54.0	68.2	-14.2	Horiz
	M		+37.7								
4	10357.333	40.8	+0.8	+2.7	+7.7	-36.5	+0.0	53.1	68.2	-15.1	Horiz
	M		+37.6								
5	3000.000M	51.5	+0.4	+1.6	+3.6	-37.8	+0.0	49.3	68.2	-18.9	Vert
			+30.0								



6 1989.750M	52.4	+0.4	+1.1	+3.0	-38.0	+0.0	46.9	68.2	-21.3	Vert
		+28.0								
7 2928.075M	49.0	+0.4	+1.5	+3.6	-37.8	+0.0	46.5	68.2	-21.7	Horiz
		+29.8								
8 3000.040M	48.7	+0.4	+1.6	+3.6	-37.8	+0.0	46.5	68.2	-21.7	Horiz
		+30.0								
9 2927.972M	48.2	+0.4	+1.5	+3.6	-37.8	+0.0	45.7	68.2	-22.5	Vert
		+29.8								
10 2000.076M	50.9	+0.4	+1.1	+3.0	-38.0	+0.0	45.4	68.2	-22.8	Vert
		+28.0								
11 2000.111M	50.5	+0.4	+1.1	+3.0	-38.0	+0.0	45.0	68.2	-23.2	Horiz
		+28.0								
12 1654.750M	52.9	+0.3	+1.0	+2.7	-38.2	+0.0	44.9	68.2	-23.3	Vert
		+26.2								
13 2666.820M	48.5	+0.4	+1.4	+3.4	-37.9	+0.0	44.8	68.2	-23.4	Horiz
		+29.0								

CKC Laboratories, Inc. Date: 2/6/2012 Time: 16:27:04 Motorola Mobility, Inc. WO#: 92742 15.407(b)(1) Radiated Undesireable Emissions Test Distance: 3 Meters Sequence#: 23 Ext ATTN: 0 dB





Test Setup Photos







15.407(b)(6) & 15.407(b)(7) Undesirable Emissions Limits (15.209 / 15.205)

Test Data Sheets

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

Customer: Motorola Mobility, Inc.

Specification: 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205)

Work Order #: 92742 Date: 2/6/2012
Test Type: Maximized Emissions Time: 14:29:31
Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 21

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

1 est Equi	іртені.				
ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-	8/30/2011	8/30/2013
			24TC		
Т3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000-		
			O/O		
Т8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
Т9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012

Page 20 of 83 Report No.: 92742-19A



Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*	-		85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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. The EUT is transmitting continuously.

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5180MHz (Low), 5200MHz (Middle), and 5240MHz (High). Channels 36, 40, and 48. 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 1 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.

Temperature: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

Measi	irement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 3 Meters	1	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	3333.332M	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
٨	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					



5 2500.000M	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
Ave		-37.9	+28.5	+0.0	+0.0					
4 2700 00017	70.0	+0.0	+0.0	+0.0	+0.0	0.0	7 40	7 40	0.0	** .
^ 2500.000M	59.2	+0.0	+0.4	+1.3	+3.3	+0.0	54.8	54.0	+0.8	Horiz
		-37.9	+28.5	+0.0	+0.0					
5 15510 015	20.0	+0.0	+0.0	+0.0	+0.0	0.0	70.	7 40		**
7 15540.917	29.9	+0.0	+1.0	+3.1	+9.7	+0.0	50.4	54.0	-3.6	Vert
M		-34.8	+41.5	+0.0	+0.0					
Ave	27.0	+0.0	+0.0	+0.0	+0.0	0.0	50.4	540	4.4	X7 .
^ 15540.917	37.9	+0.0	+1.0	+3.1	+9.7	+0.0	58.4	54.0	+4.4	Vert
M		-34.8	+41.5	+0.0	+0.0					
0 2222 22 17 1		+0.0	+0.0	+0.0	+0.0	0.0	70.0	7 40		**
9 2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
		-38.0	+28.3	+0.0	+0.0					
40. 2500 00015	7.1. 0	+0.0	+0.0	+0.0	+0.0	0.0	10.5	7 40		**
10 2500.000M	54.0	+0.0	+0.4	+1.3	+3.3	+0.0	49.6	54.0	-4.4	Vert
Ave		-37.9	+28.5	+0.0	+0.0					
4 2500 00015		+0.0	+0.0	+0.0	+0.0	0.0	50.1	540	1.0	X 7 .
^ 2500.000M	56.5	+0.0	+0.4	+1.3	+3.3	+0.0	52.1	54.0	-1.9	Vert
		-37.9	+28.5	+0.0	+0.0					
12 15500 165	20.7	+0.0	+0.0	+0.0	+0.0	0.0	40.2	540	4.7	X 7 .
12 15599.167	28.7	+0.0	+1.0	+3.1	+9.8	+0.0	49.3	54.0	-4.7	Vert
M		-34.7	+41.4	+0.0	+0.0					
Ave	20.0	+0.0	+0.0	+0.0	+0.0	0.0	50. 6	540		X 7 .
^ 15599.167	39.0	+0.0	+1.0	+3.1	+9.8	+0.0	59.6	54.0	+5.6	Vert
M		-34.7	+41.4	+0.0	+0.0					
14 15700 717	20.5	+0.0	+0.0	+0.0	+0.0	. 0. 0	40.2	540	4.0	T 7 .
14 15720.717 M	28.5	+0.0 -34.5	+1.0	+3.1	+9.8	+0.0	49.2	54.0	-4.8	Vert
		-34.3 +0.0	+41.3	$+0.0 \\ +0.0$	+0.0 +0.0					
Ave ^ 15720.717	38.0	+0.0	+0.0			+0.0	58.7	54.0	+4.7	V 4
M 15/20.717	38.0	+0.0 -34.5	+1.0 +41.3	$+3.1 \\ +0.0$	+9.8 +0.0	+0.0	38.7	54.0	+4.7	Vert
IVI		-34.3 +0.0		+0.0 +0.0						
16 3333.332M	48.9	+0.0	+0.0	+1.6	+0.0	+0.0	48.4	54.0	-5.6	Vert
10 3333.332101	48.9	+0.0 -37.7	+30.7	+1.6	+3.9	+0.0	46.4	34.0	-3.0	vert
		+0.6	+30.7	+0.6	+0.6					
17 2493.150M	52.7	+0.0	+0.6	+1.3	+3.3	+0.0	48.3	54.0	-5.7	Horiz
17 2475.13UM	34.1		+0.4	+1.5 +0.0	+3.3 +0.0	+0.0	40.3	34.0	-3.1	110112
		+0.0	+28.3	+0.0	+0.0					
18 15540.000	27.8	+0.0	+0.0	+3.1	+9.7	+0.0	48.3	54.0	-5.7	Horiz
M	27.0	-34.8	+41.5	+0.0	+0.0	10.0	+0.5	57.0	-3.1	TIULIZ
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15540.000	38.3	+0.0	+1.0	+3.1	+9.7	+0.0	58.8	54.0	+4.8	Horiz
M	50.5	-34.8	+41.5	+0.0	+0.0	10.0	50.0	57.0	17.0	110112
171		+0.0	+0.0	+0.0	+0.0					
20 2390.000M	52.9	+0.0	+0.4	+1.2	+3.3	+0.0	48.2	54.0	-5.8	Vert
20 2370.000141	22.7	-38.0	+28.4	+0.0	+0.0	10.0	10.2	5 1.0	5.0	, 011
		+0.0	+0.0	+0.0	+0.0					
21 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M	22.2	-35.9	+38.7	+0.2	+0.2	10.0	10.1	5 1.0	3.7	110112
Ave		+0.2	+0.2	+0.2	+0.2					
11,0		1 3.2	1 3.2	1 3.2	1 3.2					



^ 12	2499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
23 15	5719.150	27.3	+0.0	+1.0	+3.1	+9.8	+0.0	48.0	54.0	-6.0	Horiz
	M		-34.5	+41.3	+0.0	+0.0					
Av			+0.0	+0.0	+0.0	+0.0					
^ 15	5719.150	38.8	+0.0	+1.0	+3.1	+9.8	+0.0	59.5	54.0	+5.5	Horiz
	M		-34.5	+41.3	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
25 15	5600.675	27.4	+0.0	+1.0	+3.1	+9.8	+0.0	48.0	54.0	-6.0	Horiz
	M		-34.7	+41.4	+0.0	+0.0					
Av			+0.0	+0.0	+0.0	+0.0					
^ 15	5600.675	38.5	+0.0	+1.0	+3.1	+9.8	+0.0	59.1	54.0	+5.1	Horiz
	M		-34.7	+41.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
27 1	14.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
28 23	389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
			-38.0	+28.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
29	37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
30	37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
31 1	25.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
32 1	25.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
33 36	666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
34 2	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0		+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
35 49	999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
Av			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^ 49	999.992M	46.0	+0.0	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
37 36	666.665M	45.8	+0.0	+0.4	+1.7	+4.2	+0.0	46.4	54.0	-7.6	Horiz
			-37.4	+31.3	+0.4	+0.4			-		
			+0.4	+0.4	+0.4	+0.4					
38 74	499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
Av			-36.5	+35.5	+0.1	+0.1					
			+0.1								
Av	ve			+35.5 +0.1	+0.1	+0.1 +0.1					



^	7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
			-36.5	+35.5	+0.1	+0.1					
40	150,0001		+0.1	+0.1	+0.1	+0.1	0.0	27.0	40.7		**
40	170.000M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	43.5	-7.7	Vert
			+0.0	+0.0	+0.0	+0.2					
4.1	2222 2221 4	51.1	-27.8	+2.3	+9.7	+0.0	0.0	16.0	540	7.0	** .
	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-38.0	+28.3	+0.0	+0.0					
	2222 22214	57.0	+0.0	+0.0	+0.0	+0.0	. 0. 0	50.2	540	1.7	TT
,	2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
			-38.0	+28.3	+0.0	+0.0					
12	27.70614	12.0	+0.0	+0.0	+0.0	+0.0	. 0. 0	21.0	40.0	0.2	X 74
43	37.706M	43.8	+0.0	+0.1	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
			+14.7	+0.0	+0.0	+0.0					
4.4	27.70614	12.0	+0.0	+0.0	+0.0	+0.0	. 0. 0	21.0	40.0	0.2	X 74
44	37.706M	43.8	$+0.0 \\ +0.0$	$+0.0 \\ +0.0$	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
				+0.0	+0.0	+0.1					
15	2899.928M	48.5	-27.8 +0.0	+0.4	+14.7	+0.0	+0.0	45.8	54.0	-8.2	Homia
43	2899.928WI	46.3	+0.0 -37.9	+0.4	+1.5 +0.0	+3.6 +0.0	+0.0	43.8	34.0	-0.2	Horiz
			+0.0	+29.7	+0.0						
46	375.009M	46.4	+0.0	+0.0	-27.9	+0.0	+0.0	37.8	46.0	-8.2	Vert
40	3/3.009WI	40.4	+0.0	+0.3 +0.0	+0.0	+0.0	+0.0	37.8	40.0	-0.2	vert
			+0.0	+0.0	+0.0	+0.0 +0.0					
47	73.819M	51.5	+0.0	+0.0	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
47	73.017WI	31.3	+6.6	+0.1	+0.0	+0.0	+0.0	31.7	40.0	-0.5	Vert
			+0.0	+0.0	+0.0	+0.0 +0.0					
48	73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
40	73.017WI	31.3	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-0.3	Vert
			-27.9	+1.4	+6.6	+0.0					
49	74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
7)	74.003WI	31.4	+6.7	+0.0	+0.0	+0.0	10.0	31.7	40.0	0.5	VCIT
			+0.0	+0.0	+0.0	+0.0					
50	74.005M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
	, 1.003111	51.1	+0.0	+0.0	+0.0	+0.1	10.0	31.7	10.0	0.5	, 611
			-27.9	+1.4	+6.7	+0.0					
51	166.370M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	35.2	43.5	-8.3	Vert
	- 3.2 . 01.1		+0.0	+0.0	+0.0	+0.2		· -			
			-27.8	+2.2	+10.1	+0.0					
52	264.010M	49.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
53	2799.817M	48.2	+0.0	+0.4	+1.5	+3.5	+0.0	45.2	54.0	-8.8	Horiz
			-37.8	+29.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
54	156.840M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	34.4	43.5	-9.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
55	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
	Ave		-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					



^ 7499.993M	Vert
+0.1 +0.1 +0.1 +0.1 +0.1 57 375.036M 44.6 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0	
57 375.036M 44.6 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0	
	TT'
+0.0 +0.0 +0.0 +0.3	Horiz
27.0 +2.5 +15.5 +0.0	
-27.9 +3.5 +15.5 +0.0	TT
58 333.344M 45.9 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0	Horiz
+0.0 +0.0 +0.0 +0.3	
-27.8 +3.2 +14.4 +0.0	17 4
59 249.999M 47.9 +0.0 +0.2 -27.8 +2.8 +0.0 35.8 46.0 -10.2	Vert
+12.7 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	T7 ·
60 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2	Vert
+0.0 +0.0 +0.0 +0.2	
-27.8 +2.8 +12.7 +0.0	T 7
61 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5	Vert
-37.8 +29.4 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	T 7
62 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6	Vert
+10.9 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	T 7
63 108.846M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 32.9 43.5 -10.6	Vert
+0.0 +0.0 +0.0 +0.1	
-27.8 +1.8 +10.9 +0.0	**
64 12499.993 27.6 +0.0 +0.8 +2.9 +8.9 +0.0 43.2 54.0 -10.8	Vert
M -35.9 +38.7 +0.2 +0.2	
Ave +0.2 +0.2 +0.2 +0.2	**
^ 12499.993	Vert
M -35.9 +38.7 +0.2 +0.2	
+0.2 +0.2 +0.2 +0.2	** :
66 156.843M 47.2 +0.0 +0.0 +0.0 +0.0 +0.0 32.7 43.5 -10.8	Horiz
+0.0 +0.0 +0.0 +0.1	
-27.7 +2.2 +10.9 +0.0	<u> </u>
67 2200.112M 48.5 +0.0 +0.4 +1.1 +3.1 +0.0 43.2 54.0 -10.8	Horiz
-38.1 +28.2 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	<u> </u>
68 250.014M 46.1 +0.0 +0.2 -27.8 +2.8 +0.0 34.0 46.0 -12.0	Horiz
+12.7 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	** :
69 250.014M 46.1 +0.0 +0.0 +0.0 +0.0 +0.0 34.0 46.0 -12.0	Horiz
+0.0 +0.0 +0.0 +0.2	
-27.8 +2.8 +12.7 +0.0	**
70 108.139M 46.5 +0.0 +0.0 +0.0 +0.0 +0.0 31.4 43.5 -12.1	Vert
+0.0 +0.0 +0.0 +0.1	
-27.8 +1.8 +10.8 +0.0	
71 108.139M 46.5 +0.0 +0.1 -27.8 +1.8 +0.0 31.4 43.5 -12.1	Vert
+10.8 $+0.0$ $+0.0$ $+0.0$	
+0.0 +0.0 +0.0 +0.0	
72 170.043M 46.9 +0.0 +0.0 +0.0 +0.0 +0.0 31.3 43.5 -12.2	Horiz
+0.0 +0.0 +0.0 +0.2	
-27.8 +2.3 +9.7 +0.0	

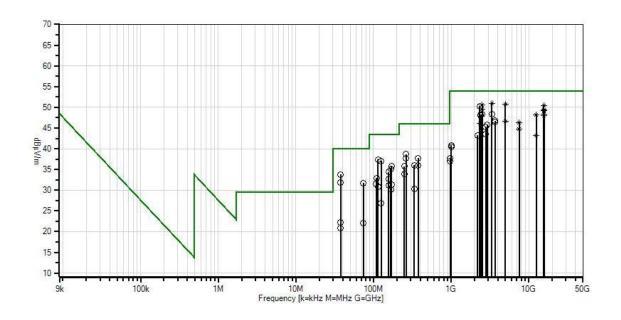


73	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
74	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
75	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
76	999.999M	36.5	+0.0	+0.6	-27.3	+6.2	+0.0	40.8	54.0	-13.2	Vert
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
77	166.363M	45.4	+0.0	+0.0	+0.0	+0.0	+0.0	30.1	43.5	-13.4	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.2	+10.1	+0.0					
78	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
79	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
80	333.362M	40.3	+0.0	+0.0	+0.0	+0.0	+0.0	30.4	46.0	-15.6	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
81	976.045M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
82	125.008M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	26.9	43.5	-16.6	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
83	125.008M	40.5	+0.0	+0.2	-27.8	+1.9	+0.0	26.9	43.5	-16.6	Horiz
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
84	976.052M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	54.0	-17.0	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
85	37.685M	34.3	+0.0	+0.0	+0.0	+0.0	+0.0	22.3	40.0	-17.7	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
86	37.685M	34.3	+0.0	+0.1	-27.8	+1.0	+0.0	22.3	40.0	-17.7	Horiz
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
87	73.962M	41.8	+0.0	+0.1	-27.9	+1.4	+0.0	22.0	40.0	-18.0	Horiz
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
88	73.962M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	22.0	40.0	-18.0	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
89	37.542M	32.8	+0.0	+0.0	+0.0	+0.0	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					



90	37.542M	32.8	+0.0	+0.1	-27.8	+1.0	+0.0	20.9	40.0	-19.1	Horiz
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

CKC Laboratories, Inc. Date: 2/6/2012 Time: 14:29:31 Motorola Mobility, Inc. WO#: 92742 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205) Test Distance: 3 Meters Sequence#: 21 Ext ATTN: 0 dB



Readings

× QP Readings

▼ Ambient



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

Customer: Motorola Mobility, Inc.

Specification: 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205)

Work Order #: 92742 Date: 2/6/2012
Test Type: Maximized Emissions Time: 15:23:17
Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 22

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

I cst Equip	71111111				
ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-	8/30/2011	8/30/2013
			24TC		
Т3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000-		
			O/O		
T8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
Т9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012

Equipment Under Test (* = EUT):

	,		
Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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	

Page 28 of 83 Report No.: 92742-19A



Test Conditions / Notes:

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

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5180MHz (Low), 5200MHz (Middle), and 5240MHz (High). Channels 36, 40, and 48. 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 1GHz.

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.

Temperature: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

	rement Data: Reading listed by margin. Test Distance: 3 Meters										
	irement Data:										
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
	MHz	dΒμV	dB	dB	dB	dB	Table		$dB\mu V/m$	dB	Ant
1	3333.332M	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
5	2500.000M	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
	Ave		-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
^	2500.000M	59.2	+0.0	+0.4	+1.3	+3.3	+0.0	54.8	54.0	+0.8	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
7	2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
			-38.0	+28.3	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
8	2500.000M	54.0	+0.0	+0.4	+1.3	+3.3	+0.0	49.6	54.0	-4.4	Vert
	Ave		-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
^	2500.000M	56.5	+0.0	+0.4	+1.3	+3.3	+0.0	52.1	54.0	-1.9	Vert
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
10	15721.750	28.6	+0.0	+1.0	+3.1	+9.8	+0.0	49.3	54.0	-4.7	Vert
	M		-34.5	+41.3	+0.0	+0.0					
	Ave		+0.0	+0.0	+0.0	+0.0					



^ 15721.750	37.4	+0.0	+1.0	+3.1	+9.8	+0.0	58.1	54.0	+4.1	Vert
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
12 15540.083	28.5	+0.0	+1.0	+3.1	+9.7	+0.0	49.0	54.0	-5.0	Vert
M		-34.8	+41.5	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15540.083	39.3	+0.0	+1.0	+3.1	+9.7	+0.0	59.8	54.0	+5.8	Vert
M		-34.8	+41.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
14 15601.183	28.0	+0.0	+1.0	+3.1	+9.8	+0.0	48.6	54.0	-5.4	Vert
M		-34.7	+41.4	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15601.183	38.3	+0.0	+1.0	+3.1	+9.8	+0.0	58.9	54.0	+4.9	Vert
M		-34.7	+41.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
16 3333.332M	48.9	+0.0	+0.4	+1.6	+3.9	+0.0	48.4	54.0	-5.6	Vert
		-37.7	+30.7	+0.6	+0.6					
		+0.6	+0.6	+0.6	+0.6					
17 2493.150M	52.7	+0.0	+0.4	+1.3	+3.3	+0.0	48.3	54.0	-5.7	Horiz
		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
18 15601.100	27.6	+0.0	+1.0	+3.1	+9.8	+0.0	48.2	54.0	-5.8	Horiz
M		-34.7	+41.4	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15601.100	36.4	+0.0	+1.0	+3.1	+9.8	+0.0	57.0	54.0	+3.0	Horiz
M		-34.7	+41.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
20 2390.000M	52.9	+0.0	+0.4	+1.2	+3.3	+0.0	48.2	54.0	-5.8	Vert
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
21 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
^ 12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
23 15719.842	27.4	+0.0	+1.0	+3.1	+9.8	+0.0	48.1	54.0	-5.9	Vert
M			+41.3	+0.0						
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15719.842	40.7	+0.0	+1.0	+3.1	+9.8	+0.0	61.4	54.0	+7.4	Vert
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
25 15540.000	27.5	+0.0	+1.0	+3.1	+9.7	+0.0	48.0	54.0	-6.0	Horiz
M		-34.8	+41.5	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15540.000	40.4	+0.0	+1.0	+3.1	+9.7	+0.0	60.9	54.0	+6.9	Horiz
M		-34.8	+41.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
27 114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
	2 - 10	+0.0	+0.0	+0.0	+0.2				-7-	
		-27.8	+1.8	+11.4	+0.0					
			0							



20	2200 0043 5		0.0	0.4		2.2	0.0	45.0	7 40		** .
28	2389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
			-38.0	+28.4	+0.0	+0.0					
20	27.5.COM	45.7	+0.0	+0.0	+0.0	+0.0	. 0. 0	22.0	40.0	()	V 74
29	37.562M	45.7	$+0.0 \\ +14.8$	+0.1 +0.0	-27.8 +0.0	$+1.0 \\ +0.0$	+0.0	33.8	40.0	-6.2	Vert
			+14.8	+0.0 +0.0	+0.0	+0.0 +0.0					
30	37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
30	37.302WI	43.7	+0.0 +0.0	+0.0	+0.0 +0.0	+0.0	+0.0	33.0	40.0	-0.2	vert
			-27.8	+1.0	+14.8	+0.1					
31	125.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
31	123.002111	30.0	+0.0	+0.0	+0.0	+0.2	10.0	37.0	тэ.э	-0.5	VCIT
			-27.8	+1.9	+12.1	+0.0					
32	125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
32	123.002111	30.0	+12.1	+0.0	+0.0	+0.0	10.0	37.0	тэ.э	-0.5	VCIT
			+0.0	+0.0	+0.0	+0.0					
33	3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
33	3000.007141	40.2	-37.4	+31.3	+0.4	+0.4	10.0	40.0	54.0	7.2	VCIT
			+0.4	+0.4	+0.4	+0.4					
34	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
	20	00.0	+0.0	+0.0	+0.0	+0.3	. 0.0	00.7		, 10	110112
			-27.7	+2.9	+12.9	+0.0					
35	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.992M	46.0	+0.0	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
37	3666.665M	45.8	+0.0	+0.4	+1.7	+4.2	+0.0	46.4	54.0	-7.6	Horiz
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
38	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
	Ave		-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
^	7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
40	170.000M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	43.5	-7.7	Vert
			+0.0		+0.0	+0.2					
			-27.8	+2.3	+9.7	+0.0					
41	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-38.0	+28.3	+0.0	+0.0					
	2225 2222		+0.0	+0.0	+0.0	+0.0		#			** :
^	2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
			-38.0	+28.3	+0.0	+0.0					
10	27.70.71	42.0	+0.0	+0.0	+0.0	+0.0	0.0	21.0	40.0		X 7
43	37.706M	43.8	+0.0	+0.1	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
			+14.7	+0.0	+0.0	+0.0					
4.4	27.70.01	42.0	+0.0	+0.0	+0.0	+0.0	.0.0	21.0	40.0	0.2	T.7 ·
44	37.706M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					



	2000 0201 5	40.7					0.0	47.0	7 40		** .
45	2899.928M	48.5	+0.0	+0.4	+1.5	+3.6	+0.0	45.8	54.0	-8.2	Horiz
			-37.9	+29.7	+0.0	+0.0					
1.5	277.0001.6	46.4	+0.0	+0.0	+0.0	+0.0	0.0	27.0	16.0	0.2	X7 .
46	375.009M	46.4	+0.0	+0.0	+0.0	+0.0	+0.0	37.8	46.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.3					
47	72.01014	<i>51.5</i>	-27.9	+3.5	+15.5	+0.0	. 0. 0	21.7	10.0	0.2	X7 .
47	73.819M	51.5	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.6	+0.0	+0.0	+0.0					
40	72.010M	51.5	+0.0	+0.0	+0.0	+0.0	. 0. 0	21.7	40.0	0.2	X 74
48	73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
40	74.00514	71.4	-27.9	+1.4	+6.6	+0.0	. 0. 0	21.7	10.0	0.2	X7 .
49	74.005M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
50	74.00514	71.4	-27.9	+1.4	+6.7	+0.0	. 0. 0	21.7	10.0	0.2	X7 .
50	74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.7	+0.0	+0.0	+0.0					
<i>5</i> 1	166 270) 4	50.5	+0.0	+0.0	+0.0	+0.0	. 0. 0	25.0	12.5	0.2	X7 .
51	166.370M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	35.2	43.5	-8.3	Vert
			+0.0	+0.0	+0.0	+0.2					
50	264.0103.4	40.2	-27.8	+2.2	+10.1	+0.0	. 0. 0	27.6	16.0	0.4	X7 .
52	264.010M	49.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
			+0.0	+0.0	+0.0	+0.3					
52	2700 01714	40.0	-27.7	+2.9	+12.9	+0.0	. 0. 0	45.0	740	0.0	TT .
53	2799.817M	48.2	+0.0	+0.4	+1.5	+3.5	+0.0	45.2	54.0	-8.8	Horiz
			-37.8	+29.4	+0.0	+0.0					
<i>E</i> 4	165475014	52.0	+0.0	+0.0	+0.0	+0.0	. 0. 0	44.0	540	0.1	X7
54	1654.750M	52.9	+0.0	+0.3	+1.0	+2.7	+0.0	44.9	54.0	-9.1	Vert
			-38.2	+26.2	+0.0 +0.0	+0.0					
	156.840M	40.0	+0.0	+0.0		+0.0	+0.0	34.4	43.5	0.1	V 4
33	150.840M	48.9	$+0.0 \\ +0.0$	$+0.0 \\ +0.0$	$+0.0 \\ +0.0$	+0.0 +0.1	+0.0	34.4	43.5	-9.1	Vert
			+0.0 -27.7								
5.6	2700.150M	48.3	+0.0	+2.2	+10.9	+0.0	+0.0	44.7	54.0	-9.3	Homia
30	2700.130M	46.3	+0.0 -37.9	+0.4 +29.1	$+1.4 \\ +0.0$	+3.4 +0.0	+0.0	44.7	34.0	-9.3	Horiz
			+0.0	+0.0	+0.0	+0.0 +0.0					
57	7499.993M	36.1	+0.0	+0.0	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
	7499.993M Ave	30.1		+35.5	+2.3	+0.5 +0.1	+0.0	44./	34.0	-9.3	ven
	1110		+0.1	+33.3	+0.1	+0.1					
٨	7499.993M	42.9	+0.1	+0.1	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
	1 +22.2231VI	→ ∠.7	-36.5	+35.5	+2.3	+0.3	+0.0	51.5	J+.U	-2.3	v CI t
			+0.1	+0.1	+0.1	+0.1					
59	375.036M	44.6	+0.1	+0.1	-27.9	+3.5	+0.0	36.0	46.0	-10.0	Horiz
33	373.030IVI	 .0	+15.5	+0.3	+0.0	+0.0	10.0	50.0	+ 0.0	-10.0	110112
			+0.0	+0.0	+0.0	+0.0					
60	333.344M	45.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
00	JJJ.J ++ IVI	73.7	+0.0	+0.0 +0.0	+0.0	+0.0	10.0	50.0	+0.0	-10.0	HUHZ
			-27.8	+3.2	+14.4	+0.0					
61	249.999M	47.9	+0.0	+0.2	-27.8	+2.8	+0.0	35.8	46.0	-10.2	Vert
01	277.7771 VI	71.7	+12.7	+0.2	+0.0	+0.0	10.0	22.0	70.0	10.2	V C11
			+0.0	+0.0	+0.0	+0.0					
			10.0	10.0	10.0	10.0					



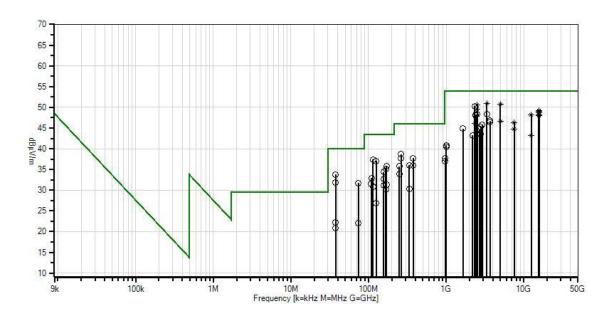
62	249.999M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	46.0	-10.2	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
63	2800.068M	46.5	+0.0	+0.4	+1.5	+3.5	+0.0	43.5	54.0	-10.5	Vert
			-37.8	+29.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
64	108.846M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.9	43.5	-10.6	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.9	+0.0					
65	108.846M	47.9	+0.0	+0.1	-27.8	+1.8	+0.0	32.9	43.5	-10.6	Vert
			+10.9	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
66	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
٨	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
68	156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
69	2200.112M	48.5	+0.0	+0.4	+1.1	+3.1	+0.0	43.2	54.0	-10.8	Horiz
			-38.1	+28.2	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
70	250.014M	46.1	+0.0	+0.0	+0.0	+0.0	+0.0	34.0	46.0	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
71	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
72	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
			+10.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
73	108.139M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.4	43.5	-12.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.8	+0.0					
74	170.043M	46.9	+0.0	+0.0	+0.0	+0.0	+0.0	31.3	43.5	-12.2	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.3	+9.7	+0.0					
75	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
76	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
77	999.999M	36.5	+0.0	+0.6	-27.3	+6.2	+0.0	40.8	54.0	-13.2	Vert
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
78	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					



79	166.363M	45.4	+0.0	+0.0	+0.0	+0.0	+0.0	30.1	43.5	-13.4	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.2	+10.1	+0.0					
80	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
1			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
81	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
82	333.362M	40.3	+0.0	+0.0	+0.0	+0.0	+0.0	30.4	46.0	-15.6	Vert
1			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
83	976.045M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
1			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
84	125.008M	40.5	+0.0	+0.2	-27.8	+1.9	+0.0	26.9	43.5	-16.6	Horiz
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
85	125.008M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	26.9	43.5	-16.6	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
86	976.052M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	54.0	-17.0	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
87	37.685M	34.3	+0.0	+0.1	-27.8	+1.0	+0.0	22.3	40.0	-17.7	Horiz
			+14.7	+0.0	+0.0	+0.0]
			+0.0	+0.0	+0.0	+0.0					
88	37.685M	34.3	+0.0	+0.0	+0.0	+0.0	+0.0	22.3	40.0	-17.7	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
89	73.962M	41.8	+0.0	+0.1	-27.9	+1.4	+0.0	22.0	40.0	-18.0	Horiz
			+6.6	+0.0	+0.0	+0.0					ļ
			+0.0	+0.0	+0.0	+0.0					
90	73.962M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	22.0	40.0	-18.0	Horiz
			+0.0	+0.0	+0.0	+0.1]
			-27.9	+1.4	+6.6	+0.0					
91	37.542M	32.8	+0.0	+0.1	-27.8	+1.0	+0.0	20.9	40.0	-19.1	Horiz
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
92	37.542M	32.8	+0.0	+0.0	+0.0	+0.0	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
-											



CKC Laboratories, Inc. Date: 2/6/2012 Time: 15:23:17 Motorola Mobility, Inc. WO#: 92742 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205) Test Distance: 3 Meters Sequence#: 22 Ext ATTN: 0 dB



Readings

× QP Readings

▼ Ambient

O Peak Readings

* Average Readings

1 - 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205)



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

Customer: Motorola Mobility, Inc.

Specification: 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205)

Work Order #: 92742 Date: 2/6/2012
Test Type: Maximized Emissions Time: 16:27:04
Equipment: DOCSIS 3.0 Wi-Fi Gateway Sequence#: 23

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

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

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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	

Page 36 of 83 Report No.: 92742-19A



Test Conditions / Notes:

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

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5190MHz (Low), and 5230MHz (High). Channels 40 and 48. 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 1GHz.

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.

Temperature: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

	rement Data:	Re	eading lis		argin.			est Distance	e: 3 Meters		
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
	MHz	dΒμV	dB	dB	dB	dB		$dB\mu V/m$		dB	Ant
1	3333.332M	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
5	2500.000M	55.1	+0.0	+0.4	+1.3	+3.3	+0.0	50.7	54.0	-3.3	Horiz
	Ave		-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
^	2500.000M	59.2	+0.0	+0.4	+1.3	+3.3	+0.0	54.8	54.0	+0.8	Horiz
			-37.9	+28.5	+0.0	+0.0					
	2222 22 43 5		+0.0	+0.0	+0.0	+0.0	0.0	70.0	710	2.5	**
7	2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
			-38.0	+28.3	+0.0	+0.0					
	2402.0503.5	540	+0.0	+0.0	+0.0	+0.0	0.0	40.0	540	4.1	T 7 .
8	2493.950M	54.3	+0.0	+0.4	+1.3	+3.3	+0.0	49.9	54.0	-4.1	Vert
			-37.9	+28.5	+0.0	+0.0					
	15560.050	20.2	+0.0	+0.0	+0.0	+0.0	.0.0	40.7	540	4.2	X 7 4
9	15569.950	29.3	+0.0	+1.0	+3.1	+9.7	+0.0	49.7	54.0	-4.3	Vert
	M		-34.8	+41.4	+0.0	+0.0					
	Ave	267	+0.0	+0.0	+0.0	+0.0	.0.0	57.1	540	. 2.1	X 7 4
_ ^	15569.950	36.7	+0.0	+1.0	+3.1	+9.7	+0.0	57.1	54.0	+3.1	Vert
	M		-34.8	+41.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					



11 2500.000M	54.0	+0.0	+0.4	+1.3	+3.3	+0.0	49.6	54.0	-4.4	Vert
Ave		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
^ 2500.000M	56.5	+0.0	+0.4	+1.3	+3.3	+0.0	52.1	54.0	-1.9	Vert
		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
13 15690.750	27.8	+0.0	+1.0	+3.1	+9.8	+0.0	48.5	54.0	-5.5	Vert
M		-34.5	+41.3	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15690.750	38.8	+0.0	+1.0	+3.1	+9.8	+0.0	59.5	54.0	+5.5	Vert
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
15 3333.332M	48.9	+0.0	+0.4	+1.6	+3.9	+0.0	48.4	54.0	-5.6	Vert
		-37.7	+30.7	+0.6	+0.6					
		+0.6	+0.6	+0.6	+0.6					
16 2493.150M	52.7	+0.0	+0.4	+1.3	+3.3	+0.0	48.3	54.0	-5.7	Horiz
		-37.9	+28.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
17 2390.000M	52.9	+0.0	+0.4	+1.2	+3.3	+0.0	48.2	54.0	-5.8	Vert
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
18 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
^ 12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
20 15690.353	27.3	+0.0	+1.0	+3.1	+9.8	+0.0	48.0	54.0	-6.0	Horiz
M		-34.5	+41.3	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15690.353	38.8	+0.0	+1.0	+3.1	+9.8	+0.0	59.5	54.0	+5.5	Horiz
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
22 114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
		+0.0	+0.0	+0.0	+0.2					
		-27.8	+1.8	+11.4	+0.0					
23 15545.033	27.4	+0.0	+1.0	+3.1	+9.7	+0.0	47.9	54.0	-6.1	Horiz
M				+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15545.033	38.2	+0.0	+1.0	+3.1	+9.7	+0.0	58.7	54.0	+4.7	Horiz
M		-34.8	+41.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
25 2389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
26 37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
		+14.8	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
27 37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
		+0.0	+0.0	+0.0	+0.1					
		-27.8	+1.0	+14.8	+0.0					



28	125.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
29	125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
30	2494.000M	51.6	+0.0	+0.4	+1.3	+3.3	+0.0	47.2	54.0	-6.8	Horiz
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
31	3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
32	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
	4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.992M	46.0	+0.0	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
35	3666.665M	45.8	+0.0	+0.4	+1.7	+4.2	+0.0	46.4	54.0	-7.6	Horiz
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
	Ave		-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
^	7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
			-36.5	+35.5	+0.1	+0.1					
20	450 0003 6		+0.1	+0.1	+0.1	+0.1		27.0	40.7		**
38	170.000M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	43.5	-7.7	Vert
			+0.0	+0.0	+0.0	+0.2					
20	2222 2221 7		-27.8	+2.3	+9.7	+0.0	0.0	4.5.0	7 40	7 0	** .
	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-38.0	+28.3	+0.0	+0.0					
^	2222 22214	57.0	+0.0	+0.0	+0.0	+0.0	. 0. 0	50.0	710	1.7	TT .
,	2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
				+28.3	+0.0	+0.0					
A 1	27.70()/	42.0	+0.0	+0.0	+0.0	+0.0	ι Ο Ο	21.0	40.0	0.2	V
41	37.706M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
			+0.0	+0.0	+0.0	+0.1					
42	27 706M	12.0	-27.8	+1.0	+14.7	+0.0	+0.0	21.0	40.0	0.2	Vont
42	37.706M	43.8	$+0.0 \\ +14.7$	$+0.1 \\ +0.0$	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
			+14.7	+0.0	$+0.0 \\ +0.0$	+0.0 +0.0					
12	2899.928M	48.5					+0.0	45.8	54.0	-8.2	Цота
43	4099.948IVI	48.3	+0.0 -37.9	+0.4 +29.7	+1.5	+3.6	+0.0	43.8	34.0	-8.2	Horiz
			-37.9 +0.0	+29.7	$+0.0 \\ +0.0$	+0.0 +0.0					
44	375.009M	46.4	+0.0	+0.0	-27.9	+3.5	+0.0	37.8	46.0	-8.2	Vert
44	3/3.009101	40.4	+15.5	+0.3	+0.0	+0.0	+0.0	31.0	40.0	-0.2	v ei t
			+13.3	+0.0 +0.0	+0.0 +0.0	+0.0 +0.0					
			+∪.∪	+∪.∪	+∪.∪	+0.0					



45 73.819M											
146 73.819M 51.5 +0.0 +0.1 -27.9 +1.4 +0.0 31.7 40.0 -8.3 Vert	45 73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
46 73.819M 51.5 40.0 +0.1 -27.9 +1.4 +0.0 31.7 40.0 -8.3 Vert +6.6 +0.0											
He											
10.0 10.0	46 73.819M	51.5					+0.0	31.7	40.0	-8.3	Vert
47 74.005M 51.4 +0.0 +0.0 +0.0 +0.0 +0.0 31.7 40.0 -8.3 Vert											
Hole											
148 166.370M 50.5 +0.0	47 74.005M	51.4					+0.0	31.7	40.0	-8.3	Vert
48 166.370M											
100											
10	48 166.370M	50.5					+0.0	35.2	43.5	-8.3	Vert
49											
+6.7											
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	49 74.005M	51.4					+0.0	31.7	40.0	-8.3	Vert
S0 264.010M											
+0.0											
S1 2799.817M	50 264.010M	49.2					+0.0	37.6	46.0	-8.4	Vert
51 2799.817M 48.2 +0.0 +0.4 +1.5 +3.5 +0.0 45.2 54.0 -8.8 Horiz 52 156.840M 48.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 20.0 +0.0											
1.00											
+0.0	51 2799.817M	48.2					+0.0	45.2	54.0	-8.8	Horiz
52 156.840M 48.9 +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 40.1 40.1 43.5 -9.1 Vert 53 2700.150M 48.3 +0.0 +0.4 +1.4 +3.4 +0.0 44.7 54.0 -9.3 Horiz -37.9 +29.1 +0.0 <											
+0.0											
10	52 156.840M	48.9					+0.0	34.4	43.5	-9.1	Vert
53 2700.150M 48.3 +0.0 +0.4 +1.4 +3.4 +0.0 44.7 54.0 -9.3 Horiz 54 7499.993M 36.1 +0.0 +0.0 +0.0 +0.0 44.7 54.0 -9.3 Vert Ave -36.5 +35.5 +0.1 +0.0 +0.0 +0.0 +0.0 46.0 -10.0 Horiz 56 375.036M 44.6 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0											
37.9 +29.1 +0.0					+10.9	+0.0					
+0.0	53 2700.150M	48.3					+0.0	44.7	54.0	-9.3	Horiz
54 7499.993M 36.1 +0.0 +0.7 +2.3 +6.5 +0.0 44.7 54.0 -9.3 Vert Ave -36.5 +35.5 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.0 +0.0 -2.5 Vert 56 375.036M 44.6 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0 Horiz 57 333.344M 45.9 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0 Horiz 58 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 <											
Ave											
*** 7499.993M 42.9 +0.0 +0.7 +2.3 +6.5 +0.0 51.5 54.0 -2.5 Vert 56 375.036M 44.6 +0.0		36.1					+0.0	44.7	54.0	-9.3	Vert
^ 7499.993M 42.9 +0.0 +0.7 +2.3 +6.5 +0.0 51.5 54.0 -2.5 Vert -36.5 +35.5 +0.1 +0.1 +0.1 +0.1 +0.0 +0.0 10.0 Horiz 56 375.036M 44.6 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0 Horiz 57 333.344M 45.9 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0 Horiz 58 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 25.8 46.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -10.2 Vert 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5	Ave										
-36.5 +35.5 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 +0.1 56 375.036M											
56 375.036M 44.6 +0.0 +0.0 +0.0 +0.0 +0.0 40.0 <	^ 7499.993M	42.9					+0.0	51.5	54.0	-2.5	Vert
56 375.036M 44.6 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0 Horiz 57 333.344M 45.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0 Horiz 58 249.999M 47.9 +0.0 +0.2 -27.8 +2.8 +0.0 35.8 46.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 -10.2 Vert 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert 61 108.846M 47.9 +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 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 <											
+0.0 +0.0 +0.0 +0.3 +0.0 -27.9 +3.5 +15.5 +0.0 57 333.344M 45.9 +0.0 +0.0 +0.0 +0.0 +0.0 -27.8 +3.2 +14.4 +0.0 58 249.999M 47.9 +0.0 +0.2 -27.8 +2.8 +0.0 35.8 46.0 -10.2 Vert +12.7 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0											
-27.9	56 375.036M	44.6					+0.0	36.0	46.0	-10.0	Horiz
57 333.344M 45.9 +0.0 +0.0 +0.0 +0.0 +0.0 36.0 46.0 -10.0 Horiz 58 249.999M 47.9 +0.0 +0.2 -27.8 +2.8 +0.0 35.8 46.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2 Vert 60 2800.068M 46.5 +0.0 +0.0 +0.0 +0.0 +0.0 43.5 54.0 -10.5 Vert 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert											
+0.0 +0.0 +0.0 +0.0 +0.3 -27.8 +3.2 +14.4 +0.0 58 249.999M 47.9 +0.0 +0.2 -27.8 +2.8 +0.0 35.8 46.0 -10.2 Vert +12.7 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.2 -27.8 +2.8 +12.7 +0.0 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert -37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0											
-27.8 +3.2 +14.4 +0.0 58 249.999M 47.9 +0.0 +0.2 -27.8 +2.8 +0.0 35.8 46.0 -10.2 Vert +12.7 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0	57 333.344M	45.9					+0.0	36.0	46.0	-10.0	Horiz
58 249.999M 47.9 +0.0 +0.2 -27.8 +2.8 +0.0 35.8 46.0 -10.2 Vert +12.7 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -10.2 Vert 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -10.2 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -10.2 Vert 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert -37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -10.0 Vert 61 108.846M 47.9 +0.0 +0.0 +0.0 +0.0 -10.0 Vert											
+12.7 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 59 249.999M	70 710							07.5		10 -	• •
+0.0 +0.0 +0.0 +0.0 +0.0 59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2 Vert +0.0 +0.0 +0.0 +0.0 +0.2 -27.8 +2.8 +12.7 +0.0 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert -37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0	58 249.999M	47.9					+0.0	35.8	46.0	-10.2	Vert
59 249.999M 47.9 +0.0 +0.0 +0.0 +0.0 +0.0 35.8 46.0 -10.2 Vert +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 -10.2 Vert 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert -37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 -10.5 Vert 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0											
+0.0 +0.0 +0.0 +0.2 -27.8 +2.8 +12.7 +0.0 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert -37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0	70 0 10 0003 -	4= ^					0.0	27.0	4.5.0	40.5	**
-27.8 +2.8 +12.7 +0.0 60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert -37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0	59 249.999M	47.9					+0.0	35.8	46.0	-10.2	Vert
60 2800.068M 46.5 +0.0 +0.4 +1.5 +3.5 +0.0 43.5 54.0 -10.5 Vert -37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0											
-37.8 +29.4 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0	60. 2000 0 507 5	4					0.0	12.7	F.4.0	10.7	¥7.
+0.0 +0.0 +0.0 +0.0 61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0	60 2800.068M	46.5					+0.0	43.5	54.0	-10.5	Vert
61 108.846M 47.9 +0.0 +0.1 -27.8 +1.8 +0.0 32.9 43.5 -10.6 Vert +10.9 +0.0 +0.0 +0.0											
+10.9 $+0.0$ $+0.0$ $+0.0$	c1 100 0 1 0 5	45.0					0.0	22.0	40.7	10.5	***
	61 108.846M	47.9					+0.0	32.9	43.5	-10.6	Vert
+0.0 +0.0 +0.0 +0.0											
			+0.0	+0.0	+0.0	+0.0					



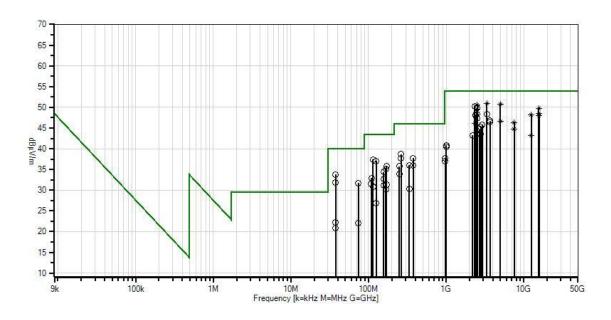
62	108.846M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.9	43.5	-10.6	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.9	+0.0					
63	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
65	156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
66	2200.112M	48.5	+0.0	+0.4	+1.1	+3.1	+0.0	43.2	54.0	-10.8	Horiz
			-38.1	+28.2	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
67	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
68	250.014M	46.1	+0.0	+0.0	+0.0	+0.0	+0.0	34.0	46.0	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
69	108.139M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.4	43.5	-12.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.8	+0.0					
70	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
			+10.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
71	170.043M	46.9	+0.0	+0.0	+0.0	+0.0	+0.0	31.3	43.5	-12.2	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.3	+9.7	+0.0					
72	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
73	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
74	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
75	999.999M	36.5	+0.0	+0.6	-27.3	+6.2	+0.0	40.8	54.0	-13.2	Vert
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
76	166.363M	45.4	+0.0	+0.0	+0.0	+0.0	+0.0	30.1	43.5	-13.4	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.2	+10.1	+0.0					
77	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
78	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					



	Vert Horiz
-27.8 +3.2 +14.4 +0.0 80 976.045M 33.7 +0.0 +0.0 +0.0 +0.0 +0.0 37.7 54.0 -16.3	Horiz
80 976.045M 33.7 +0.0 +0.0 +0.0 +0.0 +0.0 37.7 54.0 -16.3	Horiz
	Horiz
.00 .00 .00	
+0.0 +0.0 +0.0 +0.6	
-27.2 +6.1 +24.5 +0.0	
	Horiz
+0.0 +0.0 +0.0 +0.2	
-27.8 +1.9 +12.1 +0.0	
	Horiz
+12.1 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	
83 976.052M 33.0 +0.0 +0.0 +0.0 +0.0 +0.0 37.0 54.0 -17.0	Vert
+0.0 +0.0 +0.0 +0.6	
-27.2 +6.1 +24.5 +0.0	
	Horiz
+0.0 +0.0 +0.0 +0.1	
-27.8 +1.0 +14.7 +0.0	
	Horiz
+14.7 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	
	Horiz
+6.6 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	
	Horiz
+0.0 +0.0 +0.0 +0.1	
-27.9 +1.4 +6.6 +0.0	
	Horiz
+0.0 +0.0 +0.0 +0.1	
-27.8 +1.0 +14.8 +0.0	
	Horiz
+14.8 +0.0 +0.0 +0.0	
+0.0 +0.0 +0.0 +0.0	



CKC Laboratories, Inc. Date: 2/6/2012 Time: 16:27:04 Motorola Mobility, Inc. WO#: 92742 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205) Test Distance: 3 Meters Sequence#: 23 Ext ATTN: 0 dB



Readings
× QP Readings
▼ Ambient

O Peak Readings

* Average Readings

1 - 15.407(b)(6)/15.407(b)(7) Radiated Undesirable Emissions (15.209/15.205)



Test Setup Photos







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. The EUT is transmitting continuously.

Temperature: 18°C, Humidity: 42%, Pressure: 100kPa.

Frequency range of EUT: 5180MHz to 5240MHz

802.11a (6Mbps),

Transmit Frequencies: 5180MHz, 5200MHz, 5240MHz (Channel 36, 40, 48)

802.11n (20MHz) (7.2Mbps)

Transmit Frequencies: 5180MHz, 5200MHz, 5240MHz (Channel 36, 40, 48)

802.11n (40MHz) (15Mbps)

Transmit Frequencies: 5190MHz, 5230MHz (Channel 40, 48)

Integral Antenna Gain: 4.4 dBi max at 5GHz band

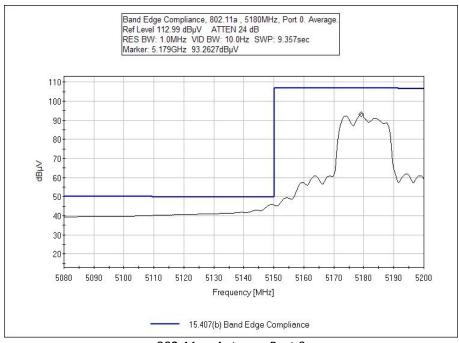
Engineer Name: S. Yamamoto

	Test Equipment											
Asset/Serial #	Description	Model	Manufacturer	Cal Date	Cal Due							
02672	Spectrum Analyzer	E4446A	Agilent	8/9/2010	8/9/2012							
00849	Horn Antenna	3115	ETS	4/23/2010	4/23/2012							
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							

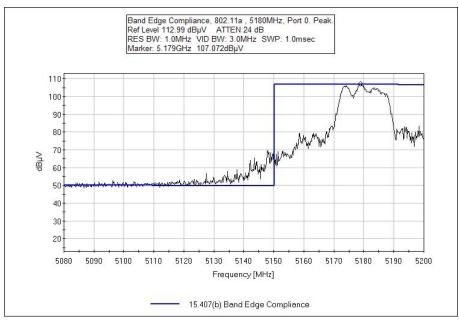
Page 45 of 83 Report No.: 92742-19A



Test Plots

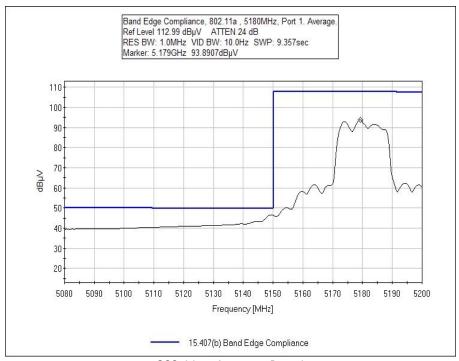


802.11a - Antenna Port 0

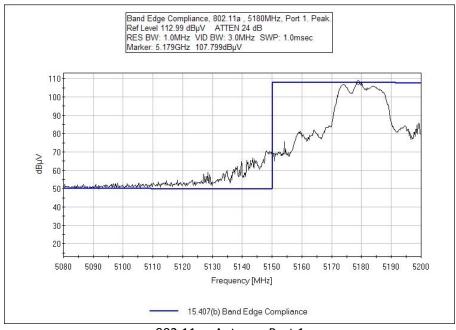


802.11a - Antenna Port 0



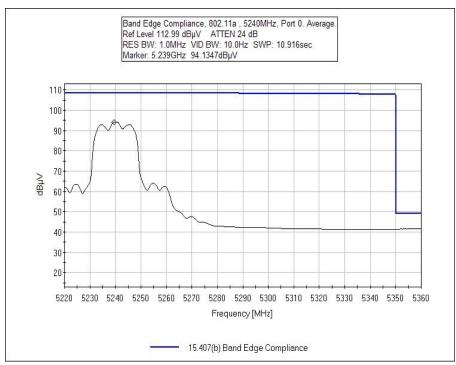


802.11a - Antenna Port 1

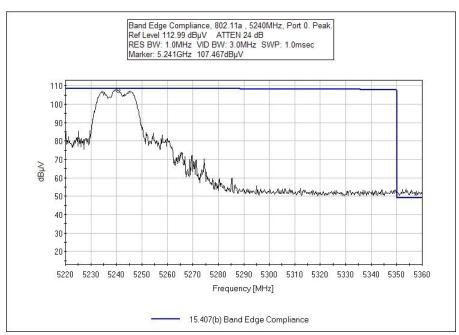


802.11a - Antenna Port 1



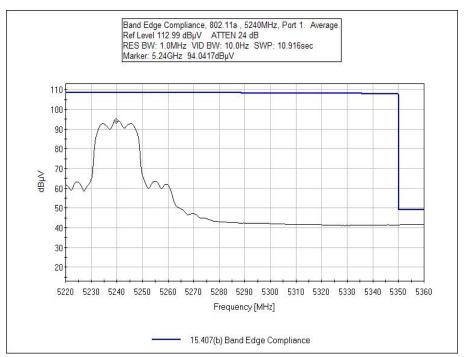


802.11a - Antenna Port 0

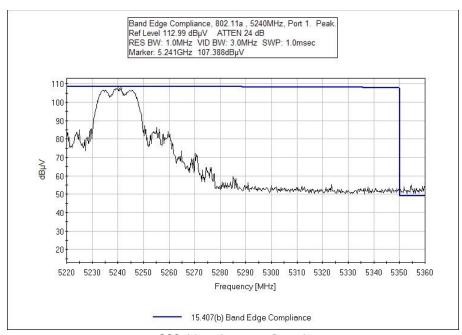


802.11a - Antenna Port 0



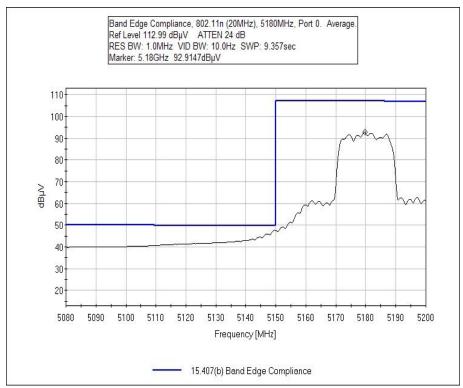


802.11a - Antenna Port 1

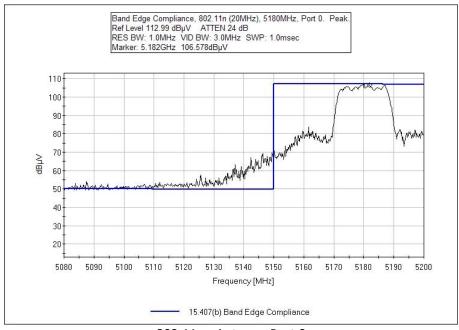


802.11a - Antenna Port 1



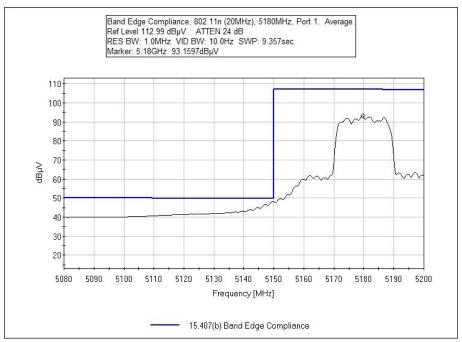


802.11n - Antenna Port 0

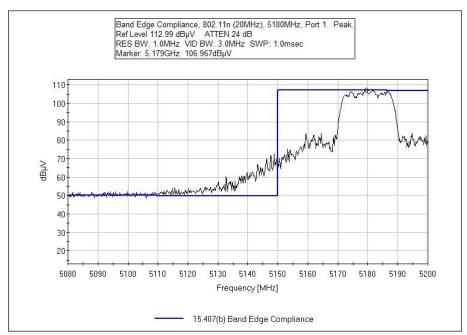


802.11n - Antenna Port 0



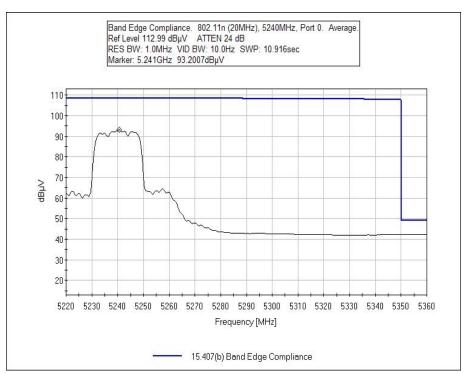


802.11n - Antenna Port 1

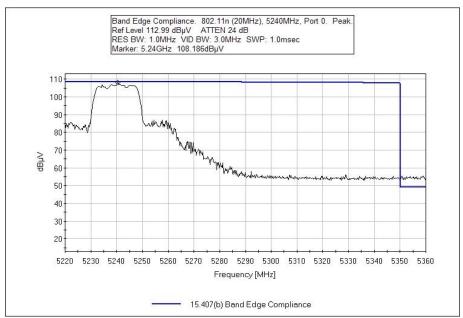


802.11n - Antenna Port 1



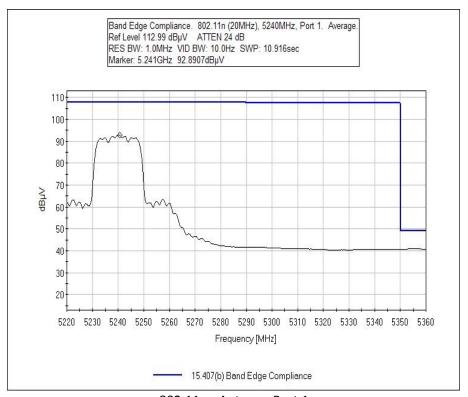


802.11n - Antenna Port 0

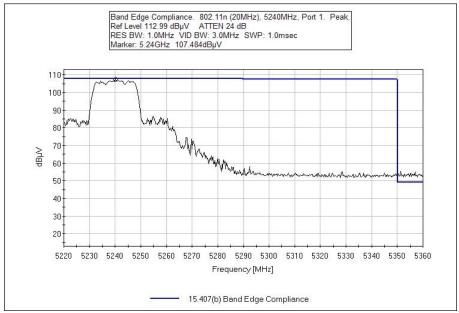


802.11n - Antenna Port 0



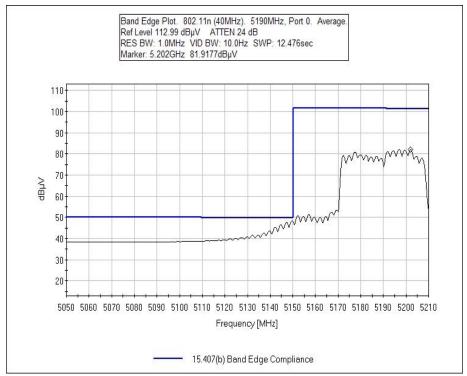


802.11n - Antenna Port 1

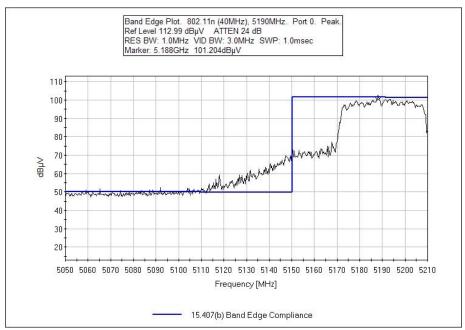


802.11n - Antenna Port 1



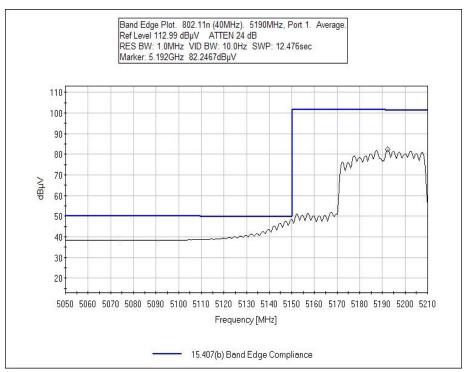


802.11n - Antenna Port 0

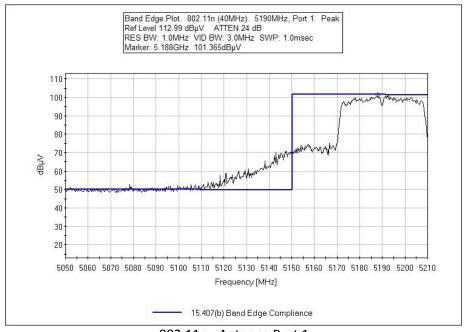


802.11n - Antenna Port 0



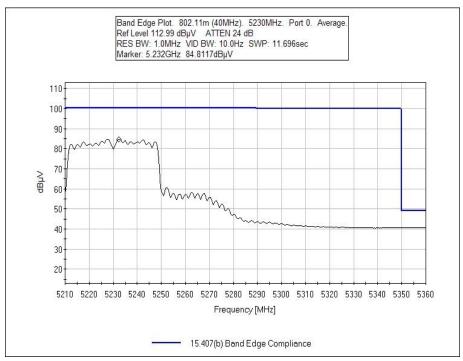


802.11n - Antenna Port 1

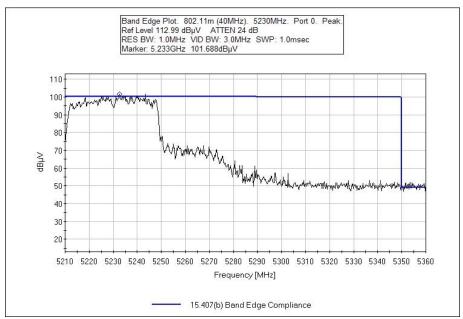


802.11n - Antenna Port 1



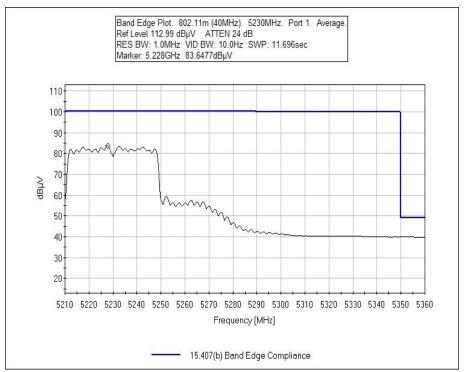


802.11n - Antenna Port 0

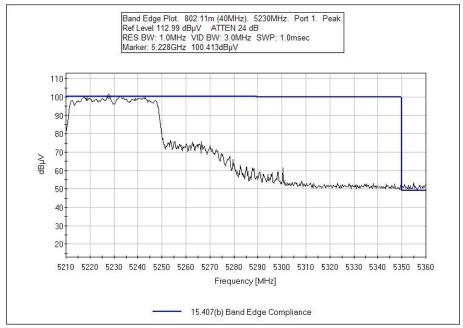


802.11n - Antenna Port 0





802.11n - Antenna Port 1



802.11n - Antenna Port 1



Test Setup Photos





RSS-210 §2.2 Restricted Bands

<u>Data</u>

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 #:92742Date: 2/6/2012Test Type:Maximized EmissionsTime: 14:29:31Equipment:DOCSIS 3.0 Wi-Fi GatewaySequence#: 21

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-	8/30/2011	8/30/2013
			24TC		
Т3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
Т6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000-		
			O/O		
Т8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
Т9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	AN01413	Horn Antenna-ANSI	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			
	AN03158	Active Horn Antenna		4/1/2010	4/1/2012
			26004000-33-8P		
	ANP06153	Cable	16301	10/27/2011	10/27/2013

Page 59 of 83 Report No.: 92742-19A



Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*	-		85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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. The EUT is transmitting continuously.

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5180MHz (Low), 5200MHz (Middle), and 5240MHz (High). Channels 36, 40, and 48. 802.11a (6 Mbps)

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

Frequency range of measurement = 9 kHz to 40GHz.

Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 40000 MHz RBW=1 MHz, VBW=1 MHz.

Temperature: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

Meast	urement Data:	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	T12					
	MHz	$dB\mu V$	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m \\$	dB	Ant
1	3333.332M	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
^	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					

Page 60 of 83 Report No.: 92742-19A



5 15540.917	29.9	+0.0	+1.0	+3.1	+9.7	+0.0	50.4	54.0	-3.6	Vert
M		-34.8	+41.5	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15540.917	37.9	+0.0	+1.0	+3.1	+9.7	+0.0	58.4	54.0	+4.4	Vert
M		-34.8	+41.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
7 2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
		-38.0	+28.3	+0.0	+0.0					
0 15500 155	20.5	+0.0	+0.0	+0.0	+0.0	0.0	40.2	7.1.0		**
8 15599.167	28.7	+0.0	+1.0	+3.1	+9.8	+0.0	49.3	54.0	-4.7	Vert
M		-34.7	+41.4	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15599.167	39.0	+0.0	+1.0	+3.1	+9.8	+0.0	59.6	54.0	+5.6	Vert
M		-34.7	+41.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0		10.5			
10 15720.717	28.5	+0.0	+1.0	+3.1	+9.8	+0.0	49.2	54.0	-4.8	Vert
M		-34.5	+41.3	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15720.717	38.0	+0.0	+1.0	+3.1	+9.8	+0.0	58.7	54.0	+4.7	Vert
M		-34.5	+41.3	+0.0	+0.0					
	40.0	+0.0	+0.0	+0.0	+0.0		10.1			
12 3333.332M	48.9	+0.0	+0.4	+1.6	+3.9	+0.0	48.4	54.0	-5.6	Vert
		-37.7	+30.7	+0.6	+0.6					
12 15510 000	27.0	+0.6	+0.6	+0.6	+0.6	0.0	40.0	7 40		** .
13 15540.000	27.8	+0.0	+1.0	+3.1	+9.7	+0.0	48.3	54.0	-5.7	Horiz
M		-34.8	+41.5	+0.0	+0.0					
Ave	20.2	+0.0	+0.0	+0.0	+0.0	0.0	70.0	540	4.0	** .
^ 15540.000	38.3	+0.0	+1.0	+3.1	+9.7	+0.0	58.8	54.0	+4.8	Horiz
M		-34.8	+41.5	+0.0	+0.0					
15 2200 00014	50.0	+0.0	+0.0	+0.0	+0.0	. 0. 0	40.2	540	7 0	X7 .
15 2390.000M	52.9	+0.0	+0.4	+1.2	+3.3	+0.0	48.2	54.0	-5.8	Vert
		-38.0	+28.4	+0.0	+0.0					
16 12400 005	22.5	+0.0	+0.0	+0.0	+0.0	. 0. 0	40.1	540	7.0	77 '
16 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave ^ 12499.995	38.2	+0.2	+0.2	+0.2	+0.2	100	53.8	540	-0.2	Llou!-
^ 12499.995 M	38.2		+0.8 +38.7	+2.9 +0.2	+8.9	+0.0	33.8	54.0	-0.2	Horiz
IVI		-55.9 +0.2	+38.7	+0.2	+0.2					
18 15719.150	27.3	+0.2	+0.2		+9.8	+0.0	48.0	54.0	-6.0	Horiz
18 13/19.130 M	21.3	+0.0 -34.5	+1.0	+3.1 +0.0	+9.8 +0.0	+0.0	40.0	54.0	-0.0	HOHZ
Ave		+0.0	+41.5	+0.0	+0.0 +0.0					
^ 15719.150	38.8	+0.0	+1.0	+3.1	+9.8	+0.0	59.5	54.0	+5.5	Horiz
M	30.0	-34.5	+41.3	+3.1 +0.0	+0.0	10.0	33.3	54.0	+3.3	110112
141		+0.0	+0.0	+0.0	+0.0					
20 15600.675	27.4	+0.0	+1.0	+3.1	+9.8	+0.0	48.0	54.0	-6.0	Horiz
M	∠1.4	-34.7	+41.4	+0.0	+0.0	10.0	70.0	57.0	-0.0	TIOHZ
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15600.675	38.5	+0.0	+1.0	+3.1	+9.8	+0.0	59.1	54.0	+5.1	Horiz
M	30.3	-34.7	+41.4	+0.0	+0.0	10.0	37.1	57.0	13.1	TIULIZ
171		+0.0	+41.4 +0.0	+0.0 +0.0	+0.0 +0.0					
		10.0	10.0	10.0	10.0					



00 44 : 0000 -	-					0.0	25 :	10 -		**
22 114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
		+0.0	+0.0	+0.0	+0.2					
22 2200 00135	<i>50.</i> 6	-27.8	+1.8	+11.4	+0.0	.0.0	47.0	7.4.O		77 '
23 2389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
		-38.0	+28.4	+0.0	+0.0					
24 27 5623 5	45.7	+0.0	+0.0	+0.0	+0.0	.0.0	22.0	40.0		X7 .
24 37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
		+14.8	+0.0	+0.0	+0.0					
25 27.5(2)//	15.7	+0.0	+0.0	+0.0	+0.0	. 0. 0	22.0	40.0		X7 4
25 37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
		+0.0	+0.0	+0.0	+0.1					
26 125 00214	50.6	-27.8	+1.0	+14.8	+0.0	. 0. 0	27.0	12.5	(5	X7 4
26 125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
		+12.1	+0.0	+0.0	+0.0					
27 125 00214	50.6	+0.0	+0.0	+0.0	+0.0	ι Ο Ο	27.0	12.5	(=	V.c
27 125.002M	50.6	$+0.0 \\ +0.0$	$+0.0 \\ +0.0$	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
		+0.0 -27.8	+0.0 +1.9	+0.0 +12.1	+0.2 +0.0					
28 3666.667M	46.2	+0.0	+0.4	+12.1	+4.2	+0.0	46.8	54.0	-7.2	Vert
28 3000.007WI	40.2	-37.4	+31.3	+0.4	+0.4	+0.0	40.6	34.0	-1.2	vert
		-57.4 +0.4	+31.3	+0.4	+0.4					
29 264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
29 204.011101	30.3	+0.0	+0.0	+0.0	+0.3	+0.0	30.7	40.0	-1.5	HOHZ
		-27.7	+2.9	+12.9	+0.0					
30 4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
Ave	7∠.0	-37.0	+33.3	+0.3	+0.3	10.0	70.0	J 7. U	-/. -1	HUHZ
11,0		+0.3	+0.3	+0.3	+0.3					
^ 4999.992M	46.0	+0.0	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
1,555,552111	10.0	-37.0	+33.3	+0.3	+0.3	. 0.0	20.0	2 1.0	1.0	110112
		+0.3	+0.3	+0.3	+0.3					
32 3666.665M	45.8	+0.0	+0.4	+1.7	+4.2	+0.0	46.4	54.0	-7.6	Horiz
22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		-37.4	+31.3	+0.4	+0.4		. ~ .		,.0	
		+0.4	+0.4	+0.4	+0.4					
33 7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
Ave		-36.5	+35.5	+0.1	+0.1				, - ,	
		+0.1	+0.1	+0.1	+0.1					
^ 7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
			+35.5	+0.1	+0.1					
		+0.1	+0.1	+0.1	+0.1					
35 2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
Ave		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
^ 2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
37 37.706M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
		+0.0	+0.0	+0.0	+0.1					
		-27.8	+1.0	+14.7	+0.0					
38 37.706M	43.8	+0.0	+0.1	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
		+14.7	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					



- 20	2000 0201 (40.7	0.0	0.1		2.6	0.0	4.5.0	7 40	0.0	** .
39	2899.928M	48.5	+0.0	+0.4	+1.5	+3.6	+0.0	45.8	54.0	-8.2	Horiz
			-37.9	+29.7	+0.0	+0.0					
40	72.910M	51.5	+0.0	+0.0	+0.0	+0.0	. 0. 0	21.7	40.0	0.2	V 4
40	73.819M	51.5	+0.0	$+0.1 \\ +0.0$	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.6 +0.0	+0.0 +0.0	$+0.0 \\ +0.0$	+0.0					
41	73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
41	/3.019WI	31.3	+0.0	+0.0	+0.0 +0.0	+0.0	+0.0	31.7	40.0	-0.3	vert
			-27.9	+1.4	+6.6	+0.1					
42	74.005M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
72	74.003WI	31.4	+0.0	+0.0	+0.0	+0.1	10.0	31.7	40.0	-0.5	VCIT
			-27.9	+1.4	+6.7	+0.0					
43	74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
43	74.003111	31.4	+6.7	+0.0	+0.0	+0.0	10.0	31.7	40.0	0.5	VCIT
			+0.0	+0.0	+0.0	+0.0					
44	264.010M	49.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
	20 1.010111	17.2	+0.0	+0.0	+0.0	+0.3	10.0	37.0	10.0	0.1	, 610
			-27.7	+2.9	+12.9	+0.0					
45	2799.817M	48.2	+0.0	+0.4	+1.5	+3.5	+0.0	45.2	54.0	-8.8	Horiz
	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-37.8	+29.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
46	156.840M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	34.4	43.5	-9.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
47	7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
	Ave		-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
^	7499.993M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
49	333.344M	45.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
50	249.999M	47.9	+0.0	+0.2	-27.8	+2.8	+0.0	35.8	46.0	-10.2	Vert
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
51	249.999M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	46.0	-10.2	Vert
			+0.0	+0.0	+0.0	+0.2					
	2000 0 503 5		-27.8	+2.8	+12.7	+0.0		40.7	# 4 ^	40.7	**
52	2800.068M	46.5	+0.0	+0.4	+1.5	+3.5	+0.0	43.5	54.0	-10.5	Vert
			-37.8	+29.4	+0.0	+0.0					
	100.04634	47.0	+0.0	+0.0	+0.0	+0.0	.0.0	22.0	42.5	10.6	17
53	108.846M	47.9	+0.0	+0.1	-27.8	+1.8	+0.0	32.9	43.5	-10.6	Vert
			+10.9	+0.0	+0.0	+0.0					
E 1	100 04634	47.0	+0.0	+0.0	+0.0	+0.0	.0.0	22.0	12.5	10.6	17
54	108.846M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.9	43.5	-10.6	Vert
			+0.0 -27.8	+0.0	+0.0	+0.1					
55	12499.993	27.6		+1.8	+10.9	+0.0	+0.0	43.2	540	10.0	Vert
33	12499.993 M	27.0	+0.0 -35.9	+0.8 +38.7	+2.9 +0.2	+8.9	+0.0	43.2	54.0	-10.8	vert
	Ave		-33.9 +0.2	+38.7	+0.2	+0.2 +0.2					
<u> </u>	1110		⊤ ∪. ∠	⊤∪.∠	TU.2	r ∪. ∠					

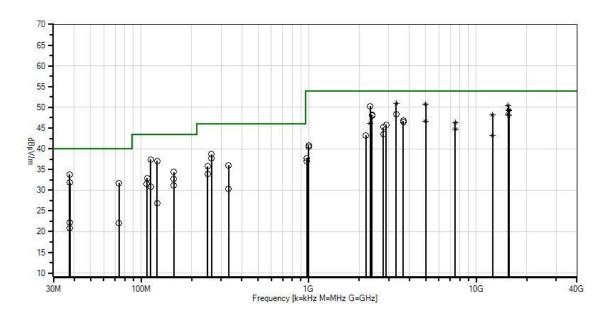


^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
	M		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
57	156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
58	2200.112M	48.5	+0.0	+0.4	+1.1	+3.1	+0.0	43.2	54.0	-10.8	Horiz
			-38.1	+28.2	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
59	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
60	250.014M	46.1	+0.0	+0.0	+0.0	+0.0	+0.0	34.0	46.0	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
61	108.139M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.4	43.5	-12.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.8	+0.0					
62	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
			+10.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
63	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
64	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
65	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
66	999.999M	36.5	+0.0	+0.6	-27.3	+6.2	+0.0	40.8	54.0	-13.2	Vert
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
67	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
68	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
69	333.362M	40.3	+0.0	+0.0	+0.0	+0.0	+0.0	30.4	46.0	-15.6	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
70	976.045M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
71	125.008M	40.5	+0.0	+0.2	-27.8	+1.9	+0.0	26.9	43.5	-16.6	Horiz
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
72	125.008M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	26.9	43.5	-16.6	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					



73	976.052M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	54.0	-17.0	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
74	37.685M	34.3	+0.0	+0.1	-27.8	+1.0	+0.0	22.3	40.0	-17.7	Horiz
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
75	37.685M	34.3	+0.0	+0.0	+0.0	+0.0	+0.0	22.3	40.0	-17.7	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
76	73.962M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	22.0	40.0	-18.0	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
77	73.962M	41.8	+0.0	+0.1	-27.9	+1.4	+0.0	22.0	40.0	-18.0	Horiz
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
78	37.542M	32.8	+0.0	+0.1	-27.8	+1.0	+0.0	20.9	40.0	-19.1	Horiz
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
79	37.542M	32.8	+0.0	+0.0	+0.0	+0.0	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					

CKC Laboratories, Inc. Date: 2/6/2012 Time: 14:29:31 Motorola Mobility, Inc. WO#: 92742 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 21 Ext ATTN: 0 dB







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

Customer: Motorola Mobility, Inc.

Specification:RSS-210 Unwanted Emissions in Restricted Bands (Radiated)Work Order #:92742Date: 2/6/2012Test Type:Maximized EmissionsTime: 15:23:17Equipment:DOCSIS 3.0 Wi-Fi GatewaySequence#: 22

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

T cot Equip					
ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
T2	AN03239	Cable	32022-2-29094K-	8/30/2011	8/30/2013
			24TC		
Т3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
Т6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-	3/5/2010	3/5/2012
			3000/T10000-		
			O/O		
Т8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
Т9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	AN01413	Horn Antenna-ANSI	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			
	AN03158	Active Horn Antenna	AMFW-5F-	4/1/2010	4/1/2012
			26004000-33-8P		
	ANP06153	Cable	16301	10/27/2011	10/27/2013



Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*	-		85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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. The EUT is transmitting continuously.

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5180MHz (Low), 5200MHz (Middle), and 5240MHz (High). Channels 36, 40, and 48. 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: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

Measi	irement Data:	Re	eading lis	ted by ma	argin.		Те	est Distance	e: 3 Meters	1	
#	Freq	Rdng	T1	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
			T5	T6	T7	T8					
			T9	T10	T11	T12					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	3333.332M	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
٨	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
3	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					
^	4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
			-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					



5 2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
6 15721.750	28.6	+0.0	+1.0	+3.1	+9.8	+0.0	49.3	54.0	-4.7	Vert
M		-34.5	+41.3	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15721.750	37.4	+0.0	+1.0	+3.1	+9.8	+0.0	58.1	54.0	+4.1	Vert
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
8 15540.083	28.5	+0.0	+1.0	+3.1	+9.7	+0.0	49.0	54.0	-5.0	Vert
M		-34.8	+41.5	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15540.083	39.3	+0.0	+1.0	+3.1	+9.7	+0.0	59.8	54.0	+5.8	Vert
M		-34.8	+41.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
10 15601.183	28.0	+0.0	+1.0	+3.1	+9.8	+0.0	48.6	54.0	-5.4	Vert
M		-34.7	+41.4	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15601.183	38.3	+0.0	+1.0	+3.1	+9.8	+0.0	58.9	54.0	+4.9	Vert
M		-34.7	+41.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
12 3333.332M	48.9	+0.0	+0.4	+1.6	+3.9	+0.0	48.4	54.0	-5.6	Vert
		-37.7	+30.7	+0.6	+0.6					
		+0.6	+0.6	+0.6	+0.6					
13 15601.100	27.6	+0.0	+1.0	+3.1	+9.8	+0.0	48.2	54.0	-5.8	Horiz
M		-34.7	+41.4	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15601.100	36.4	+0.0	+1.0	+3.1	+9.8	+0.0	57.0	54.0	+3.0	Horiz
M		-34.7	+41.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
15 2390.000M	52.9	+0.0	+0.4	+1.2	+3.3	+0.0	48.2	54.0	-5.8	Vert
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
16 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
^ 12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
18 15719.842	27.4	+0.0	+1.0	+3.1	+9.8	+0.0	48.1	54.0	-5.9	Vert
M		-34.5	+41.3	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15719.842	40.7	+0.0	+1.0	+3.1	+9.8	+0.0	61.4	54.0	+7.4	Vert
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
20 15540.000	27.5	+0.0	+1.0	+3.1	+9.7	+0.0	48.0	54.0	-6.0	Horiz
M		-34.8	+41.5	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15540.000	40.4	+0.0	+1.0	+3.1	+9.7	+0.0	60.9	54.0	+6.9	Horiz
M		-34.8	+41.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					



22 114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
		+0.0	+0.0	+0.0	+0.2					
		-27.8	+1.8	+11.4	+0.0					
23 2389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
24 37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
		+14.8	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
25 37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
		+0.0	+0.0	+0.0	+0.1					
		-27.8	+1.0	+14.8	+0.0					
26 125.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
		+0.0	+0.0	+0.0	+0.2					
		-27.8	+1.9	+12.1	+0.0					
27 125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
		+12.1	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
28 3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
		-37.4	+31.3	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
29 264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
		+0.0	+0.0	+0.0	+0.3					
		-27.7	+2.9	+12.9	+0.0					
30 4999.992M	42.6	+0.0	+0.5	+1.9	+5.0	+0.0	46.6	54.0	-7.4	Horiz
Ave		-37.0	+33.3	+0.3	+0.3					
		+0.3	+0.3	+0.3	+0.3					
^ 4999.992M	46.0	+0.0	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
		-37.0	+33.3	+0.3	+0.3					
		+0.3	+0.3	+0.3	+0.3					
32 3666.665M	45.8	+0.0	+0.4	+1.7	+4.2	+0.0	46.4	54.0	-7.6	Horiz
		-37.4	+31.3	+0.4	+0.4					
		+0.4	+0.4	+0.4	+0.4					
33 7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
Ave		-36.5	+35.5	+0.1	+0.1					
		+0.1	+0.1	+0.1	+0.1					
^ 7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
- · · · · · · · · · · · · · · · · · · ·			+35.5	+0.1	+0.1					
		+0.1	+0.1	+0.1	+0.1					
35 2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
Ave		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
^ 2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
37 37.706M	43.8	+0.0	+0.1	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
		+14.7	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
38 37.706M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
		+0.0	+0.0	+0.0	+0.1				- ·-	
		-27.8	+1.0	+14.7	+0.0					
		_,.0	. 1.0		. 0.0					



39 2899.928M	48.5	+0.0	+0.4	+1.5	+3.6	+0.0	45.8	54.0	-8.2	Horiz
		-37.9	+29.7	+0.0	+0.0					
40 72 910M	<i>51.5</i>	+0.0	+0.0	+0.0	+0.0	.00	21.7	40.0	-8.3	V 4
40 73.819M	51.5	$+0.0 \\ +0.0$	$+0.0 \\ +0.0$	$+0.0 \\ +0.0$	+0.0 +0.1	+0.0	31.7	40.0	-8.3	Vert
		-27.9	+0.0	+6.6	+0.1 +0.0					
41 73.819M	51.5	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
41 /3.019101	31.3	+6.6	+0.1	+0.0	+0.0	+0.0	31.7	40.0	-0.3	vert
		+0.0	+0.0 +0.0	+0.0	+0.0 +0.0					
42 74.005M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
42 /4.003IVI	31.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-0.5	VCIT
		-27.9	+1.4	+6.7	+0.1					
43 74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
45 /4.005WI	31.4	+6.7	+0.1	+0.0	+0.0	+0.0	31.7	40.0	-0.3	v ert
		+0.0	+0.0	+0.0	+0.0					
44 264.010M	49.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
44 204.010W	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	40.0	-0.4	v ert
		-27.7	+2.9	+12.9	+0.0					
45 2799.817M	48.2	+0.0	+0.4	+1.5	+3.5	+0.0	45.2	54.0	-8.8	Horiz
45 2777.017W	70.2	-37.8	+29.4	+0.0	+0.0	10.0	73.2	34.0	-0.0	110112
		+0.0	+0.0	+0.0	+0.0					
46 1654.750M	52.9	+0.0	+0.3	+1.0	+2.7	+0.0	44.9	54.0	-9.1	Vert
40 1034.730W	32.7	-38.2	+26.2	+0.0	+0.0	10.0	77.7	34.0	-7.1	VCIT
		+0.0	+0.0	+0.0	+0.0					
47 156.840M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	34.4	43.5	-9.1	Vert
47 130.040141	40.7	+0.0	+0.0	+0.0	+0.1	10.0	54.4	43.3	7.1	VOIT
		-27.7	+2.2	+10.9	+0.0					
48 2700.150M	48.3	+0.0	+0.4	+1.4	+3.4	+0.0	44.7	54.0	-9.3	Horiz
10 2700.1201/1	10.5	-37.9	+29.1	+0.0	+0.0	10.0	,	51.0	7.5	HOHE
		+0.0	+0.0	+0.0	+0.0					
49 7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave	20.1	-36.5	+35.5	+0.1	+0.1	. 0.0	,	<i>cc</i>	,	, 010
		+0.1	+0.1	+0.1	+0.1					
^ 7499.993M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	-36.5	+35.5	+0.1	+0.1					
		+0.1	+0.1	+0.1	+0.1					
51 333.344M	45.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
			+0.0	+0.0	+0.3					
		-27.8	+3.2	+14.4	+0.0					
52 249.999M	47.9	+0.0	+0.2	-27.8	+2.8	+0.0	35.8	46.0	-10.2	Vert
		+12.7	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
53 249.999M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	46.0	-10.2	Vert
		+0.0	+0.0	+0.0	+0.2					
		-27.8	+2.8	+12.7	+0.0					
54 2800.068M	46.5	+0.0	+0.4	+1.5	+3.5	+0.0	43.5	54.0	-10.5	Vert
		-37.8	+29.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
55 108.846M	47.9	+0.0	+0.1	-27.8	+1.8	+0.0	32.9	43.5	-10.6	Vert
		+10.9	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					



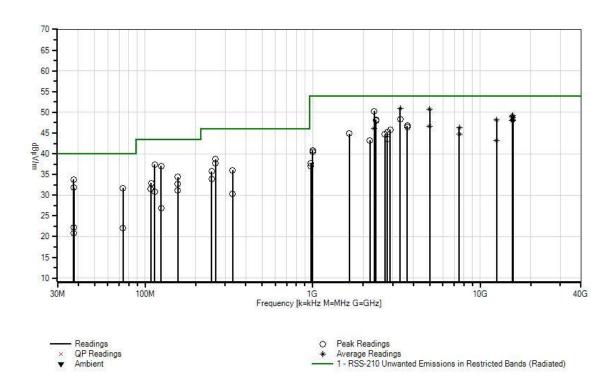
56	108.846M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.9	43.5	-10.6	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.9	+0.0					
57	12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
	M		-35.9	+38.7	+0.2	+0.2					
	Ave		+0.2	+0.2	+0.2	+0.2					
^	12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
	M		-35.9	+38.7	+0.2	+0.2					
7 0	15601035	45.0	+0.2	+0.2	+0.2	+0.2	0.0	22.5	42.7	10.0	** .
59	156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
			+0.0	+0.0	+0.0	+0.1					
	2200 1127	40.7	-27.7	+2.2	+10.9	+0.0	0.0		7 40	10.0	** .
60	2200.112M	48.5	+0.0	+0.4	+1.1	+3.1	+0.0	43.2	54.0	-10.8	Horiz
			-38.1	+28.2	+0.0	+0.0					
<i>C</i> 1	250.01.01	16.1	+0.0	+0.0	+0.0	+0.0	0.0	240	46.0	10.0	** .
61	250.014M	46.1	+0.0	+0.0	+0.0	+0.0	+0.0	34.0	46.0	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.2					
-60	250.01.43.4	46.1	-27.8	+2.8	+12.7	+0.0	. 0. 0	24.0	16.0	10.0	77 .
62	250.014M	46.1	+0.0 +12.7	$+0.2 \\ +0.0$	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0 +0.0	$+0.0 \\ +0.0$	+0.0					
63	108.139M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.4	43.5	-12.1	Vert
0.5	108.139101	40.3	+0.0 +0.0	+0.0 +0.0	+0.0	+0.0 +0.1	+0.0	31.4	43.3	-12.1	vert
			-27.8	+1.8	+10.8	+0.1					
64	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
04	100.139101	40.5	+10.8	+0.1	+0.0	+0.0	+0.0	31.4	43.3	-12.1	V CI t
			+0.0	+0.0	+0.0	+0.0					
65	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
0.5	130.000141	43.0	+0.0	+0.0	+0.0	+0.1	10.0	31.1	43.3	12.7	VCIT
			-27.7	+2.2	+10.9	+0.0					
66	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
	111.000111	13.2	+0.0	+0.0	+0.0	+0.2	10.0	50.0	13.5	12.7	HOHE
			-27.8	+1.8	+11.4	+0.0					
67	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
0,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	20.0	+0.0	+0.0	+0.0	+0.6	. 0.0		0	10.2	, 610
			-27.3	+6.2	+24.8	+0.0					
68	999.999M	36.5	+0.0	+0.6	-27.3	+6.2	+0.0	40.8	54.0	-13.2	Vert
			+24.8		+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
69	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
70	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
71	333.362M	40.3	+0.0	+0.0	+0.0	+0.0	+0.0	30.4	46.0	-15.6	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
72	976.045M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
_	_	_		_		_	_	_	_		



73	125.008M	40.5	+0.0	+0.2	-27.8	+1.9	+0.0	26.9	43.5	-16.6	Horiz
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
74	125.008M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	26.9	43.5	-16.6	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
75	976.052M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	54.0	-17.0	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
76	37.685M	34.3	+0.0	+0.1	-27.8	+1.0	+0.0	22.3	40.0	-17.7	Horiz
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
77	37.685M	34.3	+0.0	+0.0	+0.0	+0.0	+0.0	22.3	40.0	-17.7	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
78	73.962M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	22.0	40.0	-18.0	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
79	73.962M	41.8	+0.0	+0.1	-27.9	+1.4	+0.0	22.0	40.0	-18.0	Horiz
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
80	37.542M	32.8	+0.0	+0.0	+0.0	+0.0	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
81	37.542M	32.8	+0.0	+0.1	-27.8	+1.0	+0.0	20.9	40.0	-19.1	Horiz
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					



CKC Laboratories, Inc. Date: 2/6/2012 Time: 15:23:17 Motorola Mobility, Inc. WO#: 92742 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 22 Ext ATTN: 0 dB





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

Customer: Motorola Mobility, Inc.

Specification:RSS-210 Unwanted Emissions in Restricted Bands (Radiated)Work Order #:92742Date: 2/6/2012Test Type:Maximized EmissionsTime: 16:27:04Equipment:DOCSIS 3.0 Wi-Fi GatewaySequence#: 23

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

Model: SBG6580 P2

S/N: 355601130600070507050085

Test Equipment:

	ID	Asset #	Description	Model	Calibration Date	Cal Due Date
		AN02672	Spectrum Analyzer	E4446A	8/9/2010	8/9/2012
		AN03239	Cable	32022-2-29094K- 24TC		8/30/2013
,	Т3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
,	Г4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
,	Т5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
,	Г6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
,	Г7	AN02744	High Pass Filter	11SH10- 3000/T10000- O/O	3/5/2010	3/5/2012
,	Т8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
,	Г9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
Т	710	ANP05198	Cable	8268	12/21/2010	12/21/2012
П	711	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
П	712	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
		AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
		AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
		AN03158	Active Horn Antenna	AMFW-5F- 26004000-33-8P	4/1/2010	4/1/2012
		ANP06153	Cable	16301	10/27/2011	10/27/2013



Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500
Gateway*			85

Support Devices:

Function	Manufacturer	Model #	S/N
Broadband Router	CASA Systems	C2200	FD3460
Gigabit Switch	Netgear	GS105v2	
Laptop Computer	HP	Compaq 6910p	
Performance Analysis	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. The EUT is transmitting continuously.

Frequency range of EUT: 5180MHz to 5240MHz

Transmit Frequencies used for this data sheet: 5190MHz (Low), and 5230MHz (High). Channels 40 and 48. 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: 19°C, Humidity: 40%, Pressure: 101kPa.

Ext Attn: 0 dB

Measi	urement Data:	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	T12					
	MHz	dΒμV	dB	dB	dB	dB	Table	$dB\mu V/m$	$dB\mu V/m$	dB	Ant
1	2500.000M	56.5	+0.0	+0.4	+1.3	+3.3	+0.0	52.1	54.0	-1.9	Vert
			-37.9	+28.5	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
2	3333.332M	51.4	+0.0	+0.4	+1.6	+3.9	+0.0	50.9	54.0	-3.1	Horiz
	Ave		-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
٨	3333.332M	53.2	+0.0	+0.4	+1.6	+3.9	+0.0	52.7	54.0	-1.3	Horiz
			-37.7	+30.7	+0.6	+0.6					
			+0.6	+0.6	+0.6	+0.6					
4	4999.998M	46.7	+0.0	+0.5	+1.9	+5.0	+0.0	50.7	54.0	-3.3	Vert
	Ave		-37.0	+33.3	+0.3	+0.3					
			+0.3	+0.3	+0.3	+0.3					



^ 4999.997M	49.8	+0.0	+0.5	+1.9	+5.0	+0.0	53.8	54.0	-0.2	Vert
		-37.0	+33.3	+0.3	+0.3					
		+0.3	+0.3	+0.3	+0.3					
6 2333.334M	55.2	+0.0	+0.4	+1.2	+3.2	+0.0	50.3	54.0	-3.7	Vert
		-38.0	+28.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
7 15569.950	29.3	+0.0	+1.0	+3.1	+9.7	+0.0	49.7	54.0	-4.3	Vert
M		-34.8	+41.4	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15569.950	36.7	+0.0	+1.0	+3.1	+9.7	+0.0	57.1	54.0	+3.1	Vert
M		-34.8	+41.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
9 15690.750	27.8	+0.0	+1.0	+3.1	+9.8	+0.0	48.5	54.0	-5.5	Vert
M		-34.5	+41.3	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15690.750	38.8	+0.0	+1.0	+3.1	+9.8	+0.0	59.5	54.0	+5.5	Vert
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
11 3333.332M	48.9	+0.0	+0.4	+1.6	+3.9	+0.0	48.4	54.0	-5.6	Vert
		-37.7	+30.7	+0.6	+0.6					
		+0.6	+0.6	+0.6	+0.6					
12 2390.000M	52.9	+0.0	+0.4	+1.2	+3.3	+0.0	48.2	54.0	-5.8	Vert
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
13 12499.995	32.5	+0.0	+0.8	+2.9	+8.9	+0.0	48.1	54.0	-5.9	Horiz
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
^ 12499.995	38.2	+0.0	+0.8	+2.9	+8.9	+0.0	53.8	54.0	-0.2	Horiz
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					
15 15690.353	27.3	+0.0	+1.0	+3.1	+9.8	+0.0	48.0	54.0	-6.0	Horiz
M		-34.5	+41.3	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15690.353	38.8	+0.0	+1.0	+3.1	+9.8	+0.0	59.5	54.0	+5.5	Horiz
M		-34.5	+41.3	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
17 114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
		+0.0	+0.0	+0.0	+0.2					
		-27.8	+1.8	+11.4	+0.0					
18 15545.033	27.4	+0.0	+1.0	+3.1	+9.7	+0.0	47.9	54.0	-6.1	Horiz
M		-34.8	+41.5	+0.0	+0.0					
Ave		+0.0	+0.0	+0.0	+0.0					
^ 15545.033	38.2	+0.0	+1.0	+3.1	+9.7	+0.0	58.7	54.0	+4.7	Horiz
M		-34.8	+41.5	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
20 2389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
		-38.0	+28.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
21 37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
		+14.8	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
ı										



	0.00						0.0	22.2	10.0		**
22	37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
			+0.0	+0.0	+0.0	+0.1					
20	105 0003 5	50.c	-27.8	+1.0	+14.8	+0.0	.0.0	27.0	40.7		X 7 ·
23	125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
			+12.1	+0.0	+0.0	+0.0					
- 24	125 0023 5	50.6	+0.0	+0.0	+0.0	+0.0	.0.0	27.0	42.5		17 .
24	125.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
			+0.0	+0.0	+0.0	+0.2					
25	2666 66714	46.0	-27.8	+1.9	+12.1	+0.0	. 0. 0	16.0	540	7.0	X7 4
25	3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
			-37.4	+31.3	+0.4	+0.4					
26	264.01134	50.2	+0.4	+0.4	+0.4	+0.4	. 0. 0	20.7	46.0	7.2	TT
26	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0	+0.0	+0.0	+0.3					
27	4999.992M	12.6	-27.7	+2.9	+12.9	+0.0	+0.0	16.6	540	7.4	Horiz
	4999.992M Ave	42.6	+0.0 -37.0	+0.5 +33.3	+1.9 +0.3	+5.0 +0.3	+0.0	46.6	54.0	-7.4	Horiz
	AVE		-37.0 +0.3	+33.3	+0.3	+0.3					
	4999.992M	46.0	+0.5	+0.5	+1.9	+5.0	+0.0	50.0	54.0	-4.0	Horiz
	4999.992IVI	40.0	-37.0	+33.3	+0.3	+0.3	+0.0	30.0	34.0	-4.0	попи
			+0.3	+0.3	+0.3	+0.3					
20	3666.665M	45.8	+0.0	+0.3	+0.3	+4.2	+0.0	46.4	54.0	-7.6	Horiz
29	3000.003W	45.0	-37.4	+31.3	+0.4	+0.4	+0.0	40.4	34.0	-7.0	HOHZ
			+0.4	+0.4	+0.4	+0.4					
30	7499.992M	37.7	+0.0	+0.7	+2.3	+6.5	+0.0	46.3	54.0	-7.7	Horiz
	Ave	31.1	-36.5	+35.5	+0.1	+0.3	10.0	TU.J	57.0	1.1	110112
			+0.1	+0.1	+0.1	+0.1					
٨	7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
	. 1,7,1,7,21,11	12.7	-36.5	+35.5	+0.1	+0.1	. 0.0	51.5	2 1.0	2.5	110112
			+0.1	+0.1	+0.1	+0.1					
32	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-38.0	+28.3	+0.0	+0.0		. J. _		, .0	
			+0.0	+0.0	+0.0	+0.0					
٨	2333.332M	57.2	+0.0	+0.4	+1.2	+3.2	+0.0	52.3	54.0	-1.7	Horiz
			-38.0	+28.3	+0.0	+0.0			. •	, ,	
			+0.0	+0.0	+0.0	+0.0					
34	37.706M	43.8	+0.0	+0.0	+0.0	+0.0	+0.0	31.8	40.0	-8.2	Vert
			+0.0		+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
35	37.706M	43.8	+0.0	+0.1	-27.8	+1.0	+0.0	31.8	40.0	-8.2	Vert
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
36	2899.928M	48.5	+0.0	+0.4	+1.5	+3.6	+0.0	45.8	54.0	-8.2	Horiz
			-37.9	+29.7	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
37	73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
38	73.819M	51.5	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
									•		



39 74.005M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
		+0.0	+0.0	+0.0	+0.1					
		-27.9	+1.4	+6.7	+0.0					
40 74.005M	51.4	+0.0	+0.1	-27.9	+1.4	+0.0	31.7	40.0	-8.3	Vert
		+6.7	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
41 264.010M	49.2	+0.0	+0.0	+0.0	+0.0	+0.0	37.6	46.0	-8.4	Vert
		+0.0	+0.0	+0.0	+0.3					
		-27.7	+2.9	+12.9	+0.0					
42 2799.817M	48.2	+0.0	+0.4	+1.5	+3.5	+0.0	45.2	54.0	-8.8	Horiz
		-37.8	+29.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
43 156.840M	48.9	+0.0	+0.0	+0.0	+0.0	+0.0	34.4	43.5	-9.1	Vert
		+0.0	+0.0	+0.0	+0.1					
		-27.7	+2.2	+10.9	+0.0					
44 2700.150M	48.3	+0.0	+0.4	+1.4	+3.4	+0.0	44.7	54.0	-9.3	Horiz
		-37.9	+29.1	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
45 7499.993M	36.1	+0.0	+0.7	+2.3	+6.5	+0.0	44.7	54.0	-9.3	Vert
Ave		-36.5	+35.5	+0.1	+0.1					
		+0.1	+0.1	+0.1	+0.1					
^ 7499.993M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
		-36.5	+35.5	+0.1	+0.1					
		+0.1	+0.1	+0.1	+0.1					
47 333.344M	45.9	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
		+0.0	+0.0	+0.0	+0.3					
		-27.8	+3.2	+14.4	+0.0					
48 249.999M	47.9	+0.0	+0.2	-27.8	+2.8	+0.0	35.8	46.0	-10.2	Vert
		+12.7	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
49 249.999M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	46.0	-10.2	Vert
		+0.0	+0.0	+0.0	+0.2					
		-27.8	+2.8	+12.7	+0.0					
50 2800.068M	46.5	+0.0	+0.4	+1.5	+3.5	+0.0	43.5	54.0	-10.5	Vert
		-37.8	+29.4	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
51 108.846M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	32.9	43.5	-10.6	Vert
		+0.0	+0.0	+0.0	+0.1					
		-27.8	+1.8	+10.9	+0.0					
52 108.846M	47.9	+0.0	+0.1	-27.8	+1.8	+0.0	32.9	43.5	-10.6	Vert
		+10.9	+0.0	+0.0	+0.0					
		+0.0	+0.0	+0.0	+0.0					
53 156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
		+0.0	+0.0	+0.0	+0.1					
		-27.7	+2.2	+10.9	+0.0					
54 12499.993	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
M		-35.9	+38.7	+0.2	+0.2					
Ave		+0.2	+0.2	+0.2	+0.2					
^ 12499.993	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
M		-35.9	+38.7	+0.2	+0.2					
		+0.2	+0.2	+0.2	+0.2					

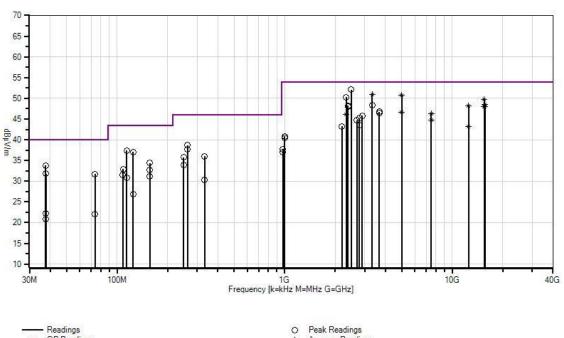


56	2200.112M	48.5	+0.0	+0.4	+1.1	+3.1	+0.0	43.2	54.0	-10.8	Horiz
			-38.1	+28.2	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
57	250.014M	46.1	+0.0	+0.0	+0.0	+0.0	+0.0	34.0	46.0	-12.0	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
58	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
59	108.139M	46.5	+0.0	+0.1	-27.8	+1.8	+0.0	31.4	43.5	-12.1	Vert
			+10.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
60	108.139M	46.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.4	43.5	-12.1	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.8	+10.8	+0.0					
61	156.800M	45.6	+0.0	+0.0	+0.0	+0.0	+0.0	31.1	43.5	-12.4	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
62	114.309M	45.2	+0.0	+0.0	+0.0	+0.0	+0.0	30.8	43.5	-12.7	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
63	999.999M	36.5	+0.0	+0.0	+0.0	+0.0	+0.0	40.8	54.0	-13.2	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
64	999.999M	36.5	+0.0	+0.6	-27.3	+6.2	+0.0	40.8	54.0	-13.2	Vert
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
65	999.996M	36.1	+0.0	+0.0	+0.0	+0.0	+0.0	40.4	54.0	-13.6	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.3	+6.2	+24.8	+0.0					
66	999.996M	36.1	+0.0	+0.6	-27.3	+6.2	+0.0	40.4	54.0	-13.6	Horiz
			+24.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
67	333.362M	40.3	+0.0	+0.0	+0.0	+0.0	+0.0	30.4	46.0	-15.6	Vert
			+0.0	+0.0	+0.0	+0.3					
			-27.8	+3.2	+14.4	+0.0					
68	976.045M	33.7	+0.0	+0.0	+0.0	+0.0	+0.0	37.7	54.0	-16.3	Horiz
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
69	125.008M	40.5	+0.0	+0.2	-27.8	+1.9	+0.0	26.9	43.5	-16.6	Horiz
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
70	125.008M	40.5	+0.0	+0.0	+0.0	+0.0	+0.0	26.9	43.5	-16.6	Horiz
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
71	976.052M	33.0	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	54.0	-17.0	Vert
			+0.0	+0.0	+0.0	+0.6					
			-27.2	+6.1	+24.5	+0.0					
72	37.685M	34.3	+0.0	+0.1	-27.8	+1.0	+0.0	22.3	40.0	-17.7	Horiz
			+14.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					



73	37.685M	34.3	+0.0	+0.0	+0.0	+0.0	+0.0	22.3	40.0	-17.7	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.7	+0.0					
74	73.962M	41.8	+0.0	+0.1	-27.9	+1.4	+0.0	22.0	40.0	-18.0	Horiz
			+6.6	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
75	73.962M	41.8	+0.0	+0.0	+0.0	+0.0	+0.0	22.0	40.0	-18.0	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
76	37.542M	32.8	+0.0	+0.1	-27.8	+1.0	+0.0	20.9	40.0	-19.1	Horiz
			+14.8	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
77	37.542M	32.8	+0.0	+0.0	+0.0	+0.0	+0.0	20.9	40.0	-19.1	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					

CKC Laboratories, Inc. Date: 2/6/2012 Time: 16:27:04 Motorola Mobility, Inc. WO#: 92742 RSS-210 Unwanted Emissions in Restricted Bands (Radiated) Test Distance: 3 Meters Sequence#: 23 Ext ATTN: 0 dB





Test Setup Photos







SUPPLEMENTAL INFORMATION

Measurement Uncertainty

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

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

Emissions Test Details

TESTING PARAMETERS

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

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

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

CORRECTION FACTORS

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

Page 82 of 83 Report No.: 92742-19A



	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.

Average

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

Page 83 of 83 Report No.: 92742-19A