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

ACCREDITED
Testing Certificates:
803.01, 803.02, 803.05, 803.06

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

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

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Testing the Future
CKC LABORATORIES, INC.

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ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR:

Motorola Mobility, Inc.
6450 Sequence Drive
San Diego, CA 92121

REPRESENTATIVE: Chris Fulmer
Customer Reference Number: MM1101726

REPORT PREPARED BY:

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CKC Laboratories, Inc.
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Project Number: 92742

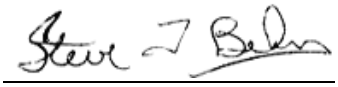
DATE OF EQUIPMENT RECEIPT: February 6 , 2012
DATE(S) OF TESTING: February 6 - 7, 2012

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

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

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.

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

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

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-24TC	8/30/2011	8/30/2013
T3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
	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 Gateway*	Motorola Mobility, Inc.	SBG6580 P2	35560113060007050705008 5

Support Devices:

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

Test Conditions / Notes:

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

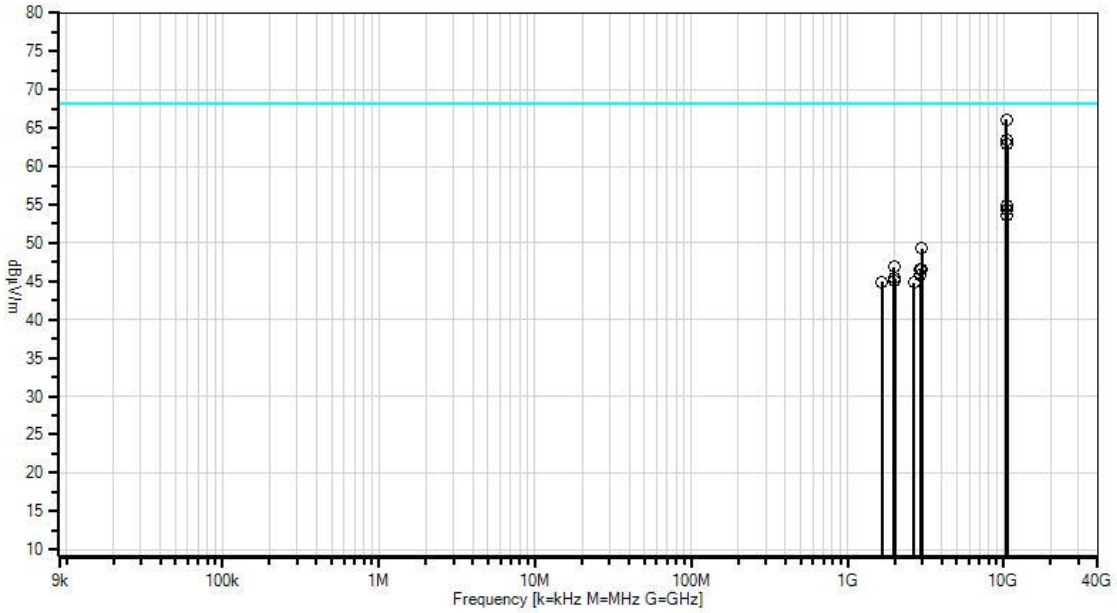
Ext Attn: 0 dB

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2 T6	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	10360.420 M	53.8	+0.0 -36.5	+0.8 +37.6	+2.7	+7.7	+0.0	66.1	68.2	-2.1	Vert
2	10400.167 M	51.1	+0.0 -36.6	+0.8 +37.6	+2.7	+7.8	+0.0	63.4	68.2	-4.8	Vert
3	10480.517 M	50.3	+0.0 -36.6	+0.8 +37.7	+2.7	+7.9	+0.0	62.8	68.2	-5.4	Vert
4	10400.300 M	42.7	+0.0 -36.6	+0.8 +37.6	+2.7	+7.8	+0.0	55.0	68.2	-13.2	Horiz

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

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



Readings
Average Readings
Peak Readings
Ambient
QP Readings
1 - 15.407(b)(1) Radiated Undesireable Emissions

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-24TC	8/30/2011	8/30/2013
T2	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T3	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 Gateway*	Motorola Mobility, Inc.	SBG6580 P2	3556011306000705070500 85

Support Devices:

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

Test Conditions / Notes:

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

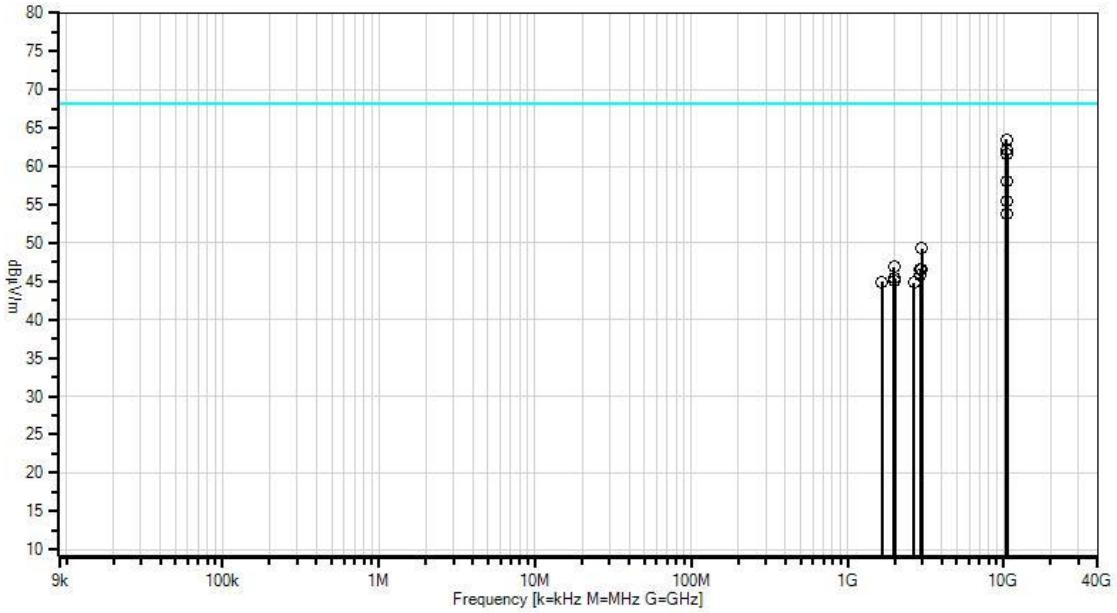
Ext Attn: 0 dB

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	10359.333 M	51.2	+0.8 +37.6	+2.7	+7.7	-36.5	+0.0	63.5	68.2	-4.7	Vert
2	10401.333 M	49.9	+0.8 +37.6	+2.7	+7.8	-36.6	+0.0	62.2	68.2	-6.0	Vert
3	10480.000 M	49.1	+0.8 +37.7	+2.7	+7.9	-36.6	+0.0	61.6	68.2	-6.6	Vert
4	10400.000 M	45.7	+0.8 +37.6	+2.7	+7.8	-36.6	+0.0	58.0	68.2	-10.2	Horiz

5	10358.770 M	43.1	+0.8 +37.6	+2.7	+7.7	-36.5	+0.0	55.4	68.2	-12.8	Horiz
6	10480.000 M	41.3	+0.8 +37.7	+2.7	+7.9	-36.6	+0.0	53.8	68.2	-14.4	Vert
7	3000.000M	51.5	+0.4 +30.0	+1.6	+3.6	-37.8	+0.0	49.3	68.2	-18.9	Vert
8	1989.750M	52.4	+0.4 +28.0	+1.1	+3.0	-38.0	+0.0	46.9	68.2	-21.3	Vert
9	2928.075M	49.0	+0.4 +29.8	+1.5	+3.6	-37.8	+0.0	46.5	68.2	-21.7	Horiz
10	3000.040M	48.7	+0.4 +30.0	+1.6	+3.6	-37.8	+0.0	46.5	68.2	-21.7	Horiz
11	2927.972M	48.2	+0.4 +29.8	+1.5	+3.6	-37.8	+0.0	45.7	68.2	-22.5	Vert
12	2000.076M	50.9	+0.4 +28.0	+1.1	+3.0	-38.0	+0.0	45.4	68.2	-22.8	Vert
13	2000.111M	50.5	+0.4 +28.0	+1.1	+3.0	-38.0	+0.0	45.0	68.2	-23.2	Horiz
14	1654.750M	52.9	+0.3 +26.2	+1.0	+2.7	-38.2	+0.0	44.9	68.2	-23.3	Vert
15	2666.820M	48.5	+0.4 +29.0	+1.4	+3.4	-37.9	+0.0	44.8	68.2	-23.4	Horiz

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



Readings
Average Readings
Peak Readings
Ambient
QP Readings
1 - 15.407(b)(1) Radiated Undesireable Emissions

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
T3	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 Gateway*	Motorola Mobility, Inc.	SBG6580 P2	35560113060007050705008 5

Support Devices:

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

Test Conditions / Notes:

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

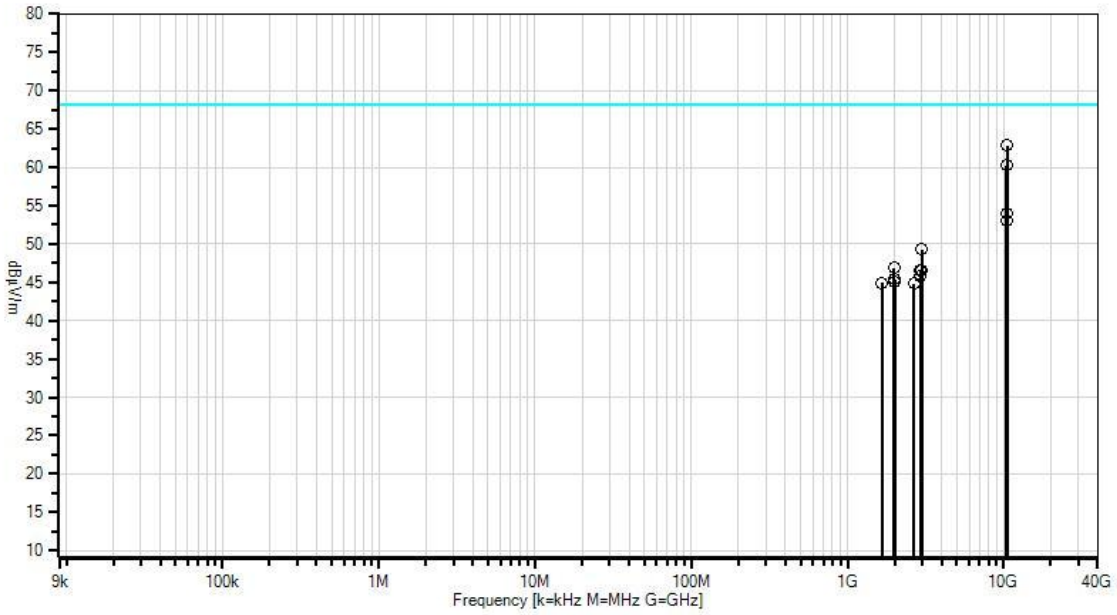
Ext Attn: 0 dB

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	10461.500 M	50.4	+0.8 +37.7	+2.7	+7.9	-36.6	+0.0	62.9	68.2	-5.3	Vert
2	10379.750 M	47.8	+0.8 +37.6	+2.7	+7.8	-36.5	+0.0	60.2	68.2	-8.0	Vert
3	10459.317 M	41.5	+0.8 +37.7	+2.7	+7.9	-36.6	+0.0	54.0	68.2	-14.2	Horiz
4	10357.333 M	40.8	+0.8 +37.6	+2.7	+7.7	-36.5	+0.0	53.1	68.2	-15.1	Horiz
5	3000.000M	51.5	+0.4 +30.0	+1.6	+3.6	-37.8	+0.0	49.3	68.2	-18.9	Vert

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

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



Readings
Average Readings
Peak Readings
Ambient
QP Readings
1 - 15.407(b)(1) Radiated Undesireable Emissions

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*:**

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

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	35560113060007050705008 5

Support Devices:

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

Test Conditions / Notes:

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

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M Ave	51.4	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	50.9	54.0	-3.1	Horiz
^	3333.332M	53.2	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	52.7	54.0	-1.3	Horiz
3	4999.998M Ave	46.7	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert

5	2500.000M Ave	55.1	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	50.7	54.0	-3.3	Horiz
^	2500.000M	59.2	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	54.8	54.0	+0.8	Horiz
7	15540.917 M Ave	29.9	+0.0 -34.8 +0.0	+1.0 +41.5 +0.0	+3.1 +0.0 +0.0	+9.7 +0.0 +0.0	+0.0	50.4	54.0	-3.6	Vert
^	15540.917 M	37.9	+0.0 -34.8 +0.0	+1.0 +41.5 +0.0	+3.1 +0.0 +0.0	+9.7 +0.0 +0.0	+0.0	58.4	54.0	+4.4	Vert
9	2333.334M	55.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
10	2500.000M Ave	54.0	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	49.6	54.0	-4.4	Vert
^	2500.000M	56.5	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
12	15599.167 M Ave	28.7	+0.0 -34.7 +0.0	+1.0 +41.4 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	49.3	54.0	-4.7	Vert
^	15599.167 M	39.0	+0.0 -34.7 +0.0	+1.0 +41.4 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	59.6	54.0	+5.6	Vert
14	15720.717 M Ave	28.5	+0.0 -34.5 +0.0	+1.0 +41.3 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	49.2	54.0	-4.8	Vert
^	15720.717 M	38.0	+0.0 -34.5 +0.0	+1.0 +41.3 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	58.7	54.0	+4.7	Vert
16	3333.332M	48.9	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	48.4	54.0	-5.6	Vert
17	2493.150M	52.7	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	48.3	54.0	-5.7	Horiz
18	15540.000 M Ave	27.8	+0.0 -34.8 +0.0	+1.0 +41.5 +0.0	+3.1 +0.0 +0.0	+9.7 +0.0 +0.0	+0.0	48.3	54.0	-5.7	Horiz
^	15540.000 M	38.3	+0.0 -34.8 +0.0	+1.0 +41.5 +0.0	+3.1 +0.0 +0.0	+9.7 +0.0 +0.0	+0.0	58.8	54.0	+4.8	Horiz
20	2390.000M	52.9	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	48.2	54.0	-5.8	Vert
21	12499.995 M Ave	32.5	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	48.1	54.0	-5.9	Horiz

^	12499.995 M	38.2	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	53.8	54.0	-0.2	Horiz
23	15719.150 M Ave	27.3	+0.0 -34.5 +0.0	+1.0 +41.3 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	48.0	54.0	-6.0	Horiz
^	15719.150 M	38.8	+0.0 -34.5 +0.0	+1.0 +41.3 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	59.5	54.0	+5.5	Horiz
25	15600.675 M Ave	27.4	+0.0 -34.7 +0.0	+1.0 +41.4 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	48.0	54.0	-6.0	Horiz
^	15600.675 M	38.5	+0.0 -34.7 +0.0	+1.0 +41.4 +0.0	+3.1 +0.0 +0.0	+9.8 +0.0 +0.0	+0.0	59.1	54.0	+5.1	Horiz
27	114.300M	51.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +11.4	+0.0 +0.2 +0.0	+0.0	37.4	43.5	-6.1	Vert
28	2389.981M	52.6	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
29	37.562M	45.7	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	33.8	40.0	-6.2	Vert
30	37.562M	45.7	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
31	125.002M	50.6	+0.0 +0.0 -27.8	+0.0 +0.0 +1.9	+0.0 +0.0 +12.1	+0.0 +0.2 +0.0	+0.0	37.0	43.5	-6.5	Vert
32	125.002M	50.6	+0.0 +12.1 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+1.9 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert
33	3666.667M	46.2	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
34	264.011M	50.3	+0.0 +0.0 -27.7	+0.0 +0.0 +2.9	+0.0 +0.0 +12.9	+0.0 +0.3 +0.0	+0.0	38.7	46.0	-7.3	Horiz
35	4999.992M Ave	42.6	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
37	3666.665M	45.8	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
38	7499.992M Ave	37.7	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz

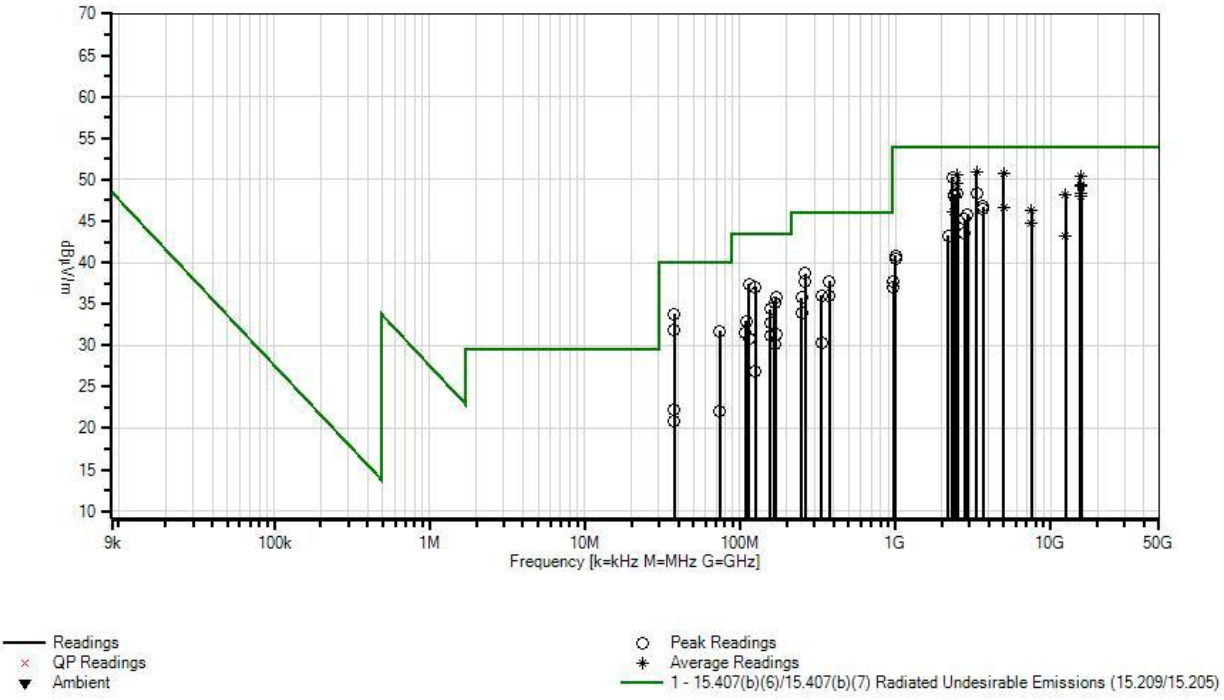
^	7499.992M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Horiz
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
40	170.000M	51.4	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	43.5	-7.7	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.3	+9.7	+0.0					
41	2333.332M	51.1	+0.0	+0.4	+1.2	+3.2	+0.0	46.2	54.0	-7.8	Horiz
	Ave		-38.0	+28.3	+0.0	+0.0					
			+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					
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					
			+0.0	+0.0	+0.0	+0.0					
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					
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					
			+0.0	+0.0	+0.0	+0.0					
46	375.009M	46.4	+0.0	+0.3	-27.9	+3.5	+0.0	37.8	46.0	-8.2	Vert
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
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					
			+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
			+0.0	+0.0	+0.0	+0.1					
			-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
			+6.7	+0.0	+0.0	+0.0					
			+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
			+0.0	+0.0	+0.0	+0.1					
			-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
			+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	42.9	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Vert
57	375.036M	44.6	+0.0 +0.0 -27.9	+0.0 +0.0 +3.5	+0.0 +0.0 +15.5	+0.0 +0.3 +0.0	+0.0	36.0	46.0	-10.0	Horiz
58	333.344M	45.9	+0.0 +0.0 -27.8	+0.0 +0.0 +3.2	+0.0 +0.0 +14.4	+0.0 +0.3 +0.0	+0.0	36.0	46.0	-10.0	Horiz
59	249.999M	47.9	+0.0 +12.7 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+2.8 +0.0 +0.0	+0.0	35.8	46.0	-10.2	Vert
60	249.999M	47.9	+0.0 +0.0 -27.8	+0.0 +0.0 +2.8	+0.0 +0.0 +12.7	+0.0 +0.2 +0.0	+0.0	35.8	46.0	-10.2	Vert
61	2800.068M	46.5	+0.0 -37.8 +0.0	+0.4 +29.4 +0.0	+1.5 +0.0 +0.0	+3.5 +0.0 +0.0	+0.0	43.5	54.0	-10.5	Vert
62	108.846M	47.9	+0.0 +10.9 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.8 +0.0 +0.0	+0.0	32.9	43.5	-10.6	Vert
63	108.846M	47.9	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +10.9	+0.0 +0.1 +0.0	+0.0	32.9	43.5	-10.6	Vert
64	12499.993 M Ave	27.6	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	43.2	54.0	-10.8	Vert
^	12499.993 M	37.4	+0.0 -35.9 +0.2	+0.8 +38.7 +0.2	+2.9 +0.2 +0.2	+8.9 +0.2 +0.2	+0.0	53.0	54.0	-1.0	Vert
66	156.843M	47.2	+0.0 +0.0 -27.7	+0.0 +0.0 +2.2	+0.0 +0.0 +10.9	+0.0 +0.1 +0.0	+0.0	32.7	43.5	-10.8	Horiz
67	2200.112M	48.5	+0.0 -38.1 +0.0	+0.4 +28.2 +0.0	+1.1 +0.0 +0.0	+3.1 +0.0 +0.0	+0.0	43.2	54.0	-10.8	Horiz
68	250.014M	46.1	+0.0 +12.7 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+2.8 +0.0 +0.0	+0.0	34.0	46.0	-12.0	Horiz
69	250.014M	46.1	+0.0 +0.0 -27.8	+0.0 +0.0 +2.8	+0.0 +0.0 +12.7	+0.0 +0.2 +0.0	+0.0	34.0	46.0	-12.0	Horiz
70	108.139M	46.5	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +10.8	+0.0 +0.1 +0.0	+0.0	31.4	43.5	-12.1	Vert
71	108.139M	46.5	+0.0 +10.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.8 +0.0 +0.0	+0.0	31.4	43.5	-12.1	Vert
72	170.043M	46.9	+0.0 +0.0 -27.8	+0.0 +0.0 +2.3	+0.0 +0.0 +9.7	+0.0 +0.2 +0.0	+0.0	31.3	43.5	-12.2	Horiz

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 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz

CKC Laboratories, Inc. Date: 2/6/2012 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



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*:**

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

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	35560113060007050705008 5

Support Devices:

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

Test Conditions / Notes:

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

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

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

^	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		-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					
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
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					

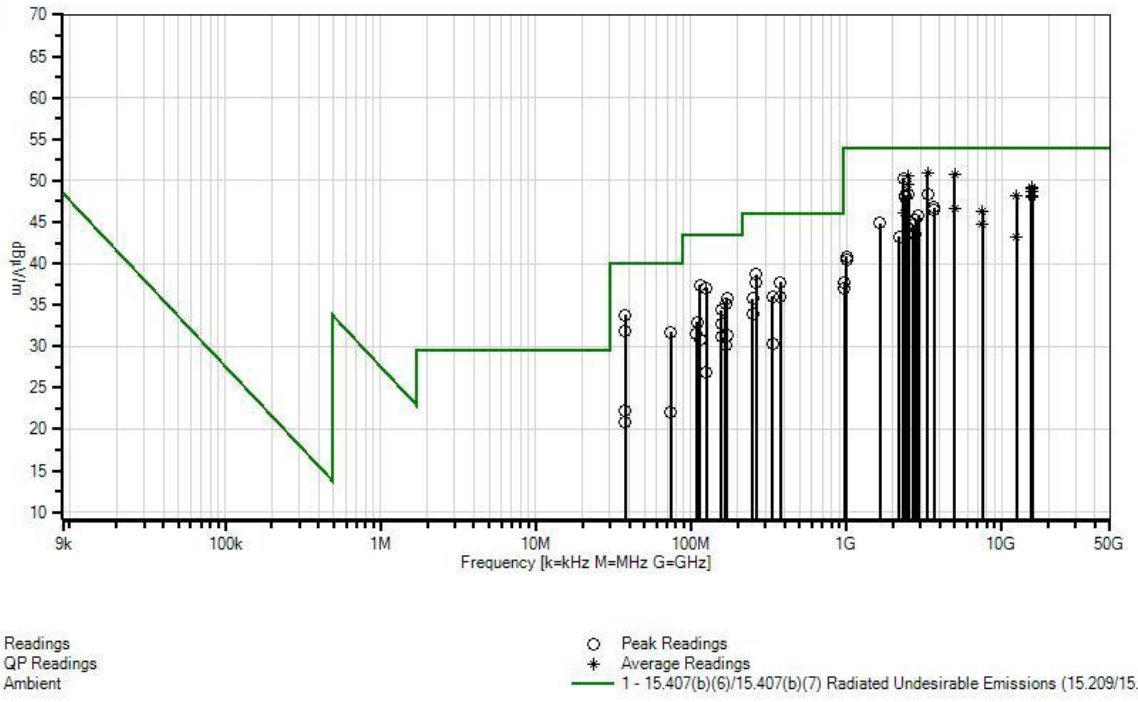
28	2389.981M	52.6	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
29	37.562M	45.7	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	33.8	40.0	-6.2	Vert
30	37.562M	45.7	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	33.8	40.0	-6.2	Vert
31	125.002M	50.6	+0.0 +0.0 -27.8	+0.0 +0.0 +1.9	+0.0 +0.0 +12.1	+0.0 +0.2 +0.0	+0.0	37.0	43.5	-6.5	Vert
32	125.002M	50.6	+0.0 +12.1 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+1.9 +0.0 +0.0	+0.0	37.0	43.5	-6.5	Vert
33	3666.667M	46.2	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.8	54.0	-7.2	Vert
34	264.011M	50.3	+0.0 +0.0 -27.7	+0.0 +0.0 +2.9	+0.0 +0.0 +12.9	+0.0 +0.3 +0.0	+0.0	38.7	46.0	-7.3	Horiz
35	4999.992M Ave	42.6	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	46.6	54.0	-7.4	Horiz
^	4999.992M	46.0	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.0	54.0	-4.0	Horiz
37	3666.665M	45.8	+0.0 -37.4 +0.4	+0.4 +31.3 +0.4	+1.7 +0.4 +0.4	+4.2 +0.4 +0.4	+0.0	46.4	54.0	-7.6	Horiz
38	7499.992M Ave	37.7	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	46.3	54.0	-7.7	Horiz
^	7499.992M	42.9	+0.0 -36.5 +0.1	+0.7 +35.5 +0.1	+2.3 +0.1 +0.1	+6.5 +0.1 +0.1	+0.0	51.5	54.0	-2.5	Horiz
40	170.000M	51.4	+0.0 +0.0 -27.8	+0.0 +0.0 +2.3	+0.0 +0.0 +9.7	+0.0 +0.2 +0.0	+0.0	35.8	43.5	-7.7	Vert
41	2333.332M Ave	51.1	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	46.2	54.0	-7.8	Horiz
^	2333.332M	57.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	52.3	54.0	-1.7	Horiz
43	37.706M	43.8	+0.0 +14.7 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	31.8	40.0	-8.2	Vert
44	37.706M	43.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.7	+0.0 +0.1 +0.0	+0.0	31.8	40.0	-8.2	Vert

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					
			+0.0	+0.0	+0.0	+0.0					
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					
			-27.9	+3.5	+15.5	+0.0					
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					
			+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
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
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					
			-27.9	+1.4	+6.7	+0.0					
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					
			+0.0	+0.0	+0.0	+0.0					
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					
			-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	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	+0.0	+0.0	+0.0					
55	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					
56	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					
57	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					
59	375.036M	44.6	+0.0	+0.3	-27.9	+3.5	+0.0	36.0	46.0	-10.0	Horiz
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
60	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					
61	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					

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 M Ave	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
^	12499.993 M	37.4	+0.0	+0.8	+2.9	+8.9	+0.0	53.0	54.0	-1.0	Vert
			-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					
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
			+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
			+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
			+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					
			+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



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: 35560113060007050705008 5

***Test Equipment*:**

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

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
DOCSIS 3.0 Wi-Fi Gateway*	Motorola Mobility, Inc.	SBG6580 P2	35560113060007050705008 5

Support Devices:

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

Test Conditions / Notes:

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

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M Ave	51.4	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	50.9	54.0	-3.1	Horiz
^	3333.332M	53.2	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	52.7	54.0	-1.3	Horiz
3	4999.998M Ave	46.7	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert
5	2500.000M Ave	55.1	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	50.7	54.0	-3.3	Horiz
^	2500.000M	59.2	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	54.8	54.0	+0.8	Horiz
7	2333.334M	55.2	+0.0 -38.0 +0.0	+0.4 +28.3 +0.0	+1.2 +0.0 +0.0	+3.2 +0.0 +0.0	+0.0	50.3	54.0	-3.7	Vert
8	2493.950M	54.3	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	49.9	54.0	-4.1	Vert
9	15569.950 M Ave	29.3	+0.0 -34.8 +0.0	+1.0 +41.4 +0.0	+3.1 +0.0 +0.0	+9.7 +0.0 +0.0	+0.0	49.7	54.0	-4.3	Vert
^	15569.950 M	36.7	+0.0 -34.8 +0.0	+1.0 +41.4 +0.0	+3.1 +0.0 +0.0	+9.7 +0.0 +0.0	+0.0	57.1	54.0	+3.1	Vert

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

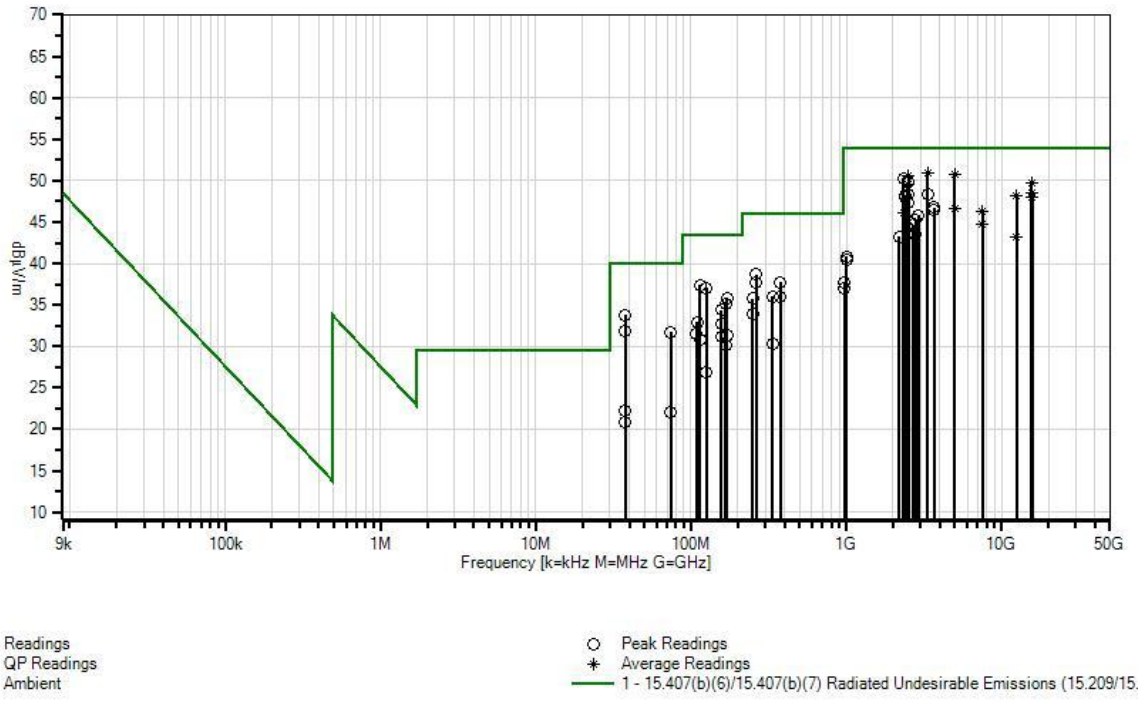
28	125.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
29	125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
30	2494.000M	51.6	+0.0	+0.4	+1.3	+3.3	+0.0	47.2	54.0	-6.8	Horiz
			-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					
33	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					
36	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					
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					
			-27.8	+2.3	+9.7	+0.0					
39	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					
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					
			-27.8	+1.0	+14.7	+0.0					
42	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					
43	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					
44	375.009M	46.4	+0.0	+0.3	-27.9	+3.5	+0.0	37.8	46.0	-8.2	Vert
			+15.5	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

45	73.819M	51.5	+0.0	+0.0	+0.0	+0.0	+0.0	31.7	40.0	-8.3	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.9	+1.4	+6.6	+0.0					
46	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					
47	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					
48	166.370M	50.5	+0.0	+0.0	+0.0	+0.0	+0.0	35.2	43.5	-8.3	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.2	+10.1	+0.0					
49	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					
50	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					
51	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					
52	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					
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					
			+0.0	+0.0	+0.0	+0.0					
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					
^	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					
56	375.036M	44.6	+0.0	+0.0	+0.0	+0.0	+0.0	36.0	46.0	-10.0	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.9	+3.5	+15.5	+0.0					
57	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					
58	249.999M	47.9	+0.0	+0.2	-27.8	+2.8	+0.0	35.8	46.0	-10.2	Vert
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
59	249.999M	47.9	+0.0	+0.0	+0.0	+0.0	+0.0	35.8	46.0	-10.2	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+2.8	+12.7	+0.0					
60	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					
			+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					

79	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					
80	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					
81	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					
82	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					
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					
84	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					
85	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					
86	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					
87	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					
88	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					
89	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: 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



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)

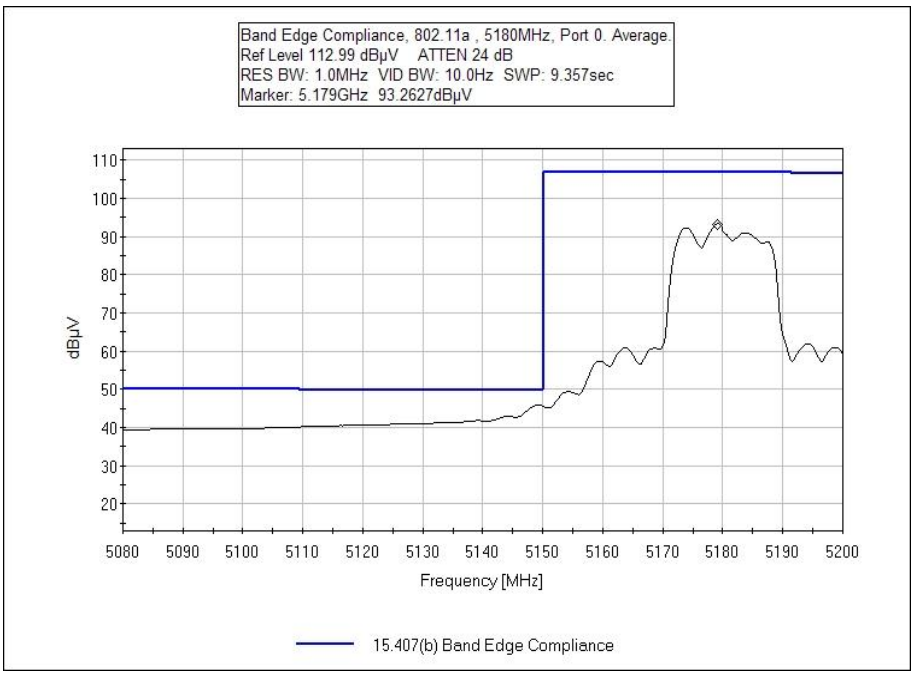
Integral Antenna Gain: 4.4 dBi max at 5GHz band

Engineer Name: S. Yamamoto

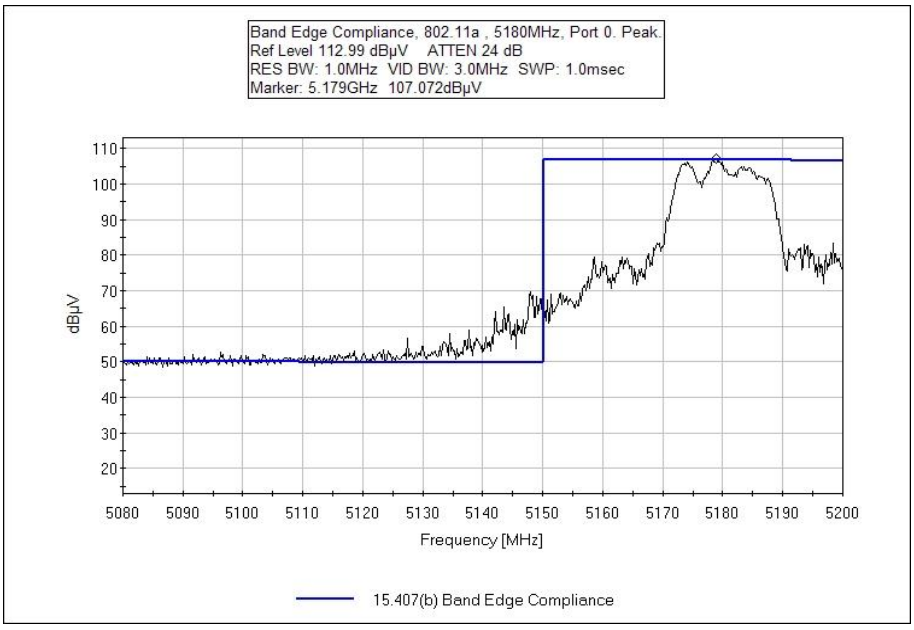
Test Equipment

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

Test Plots



802.11a - Antenna Port 0



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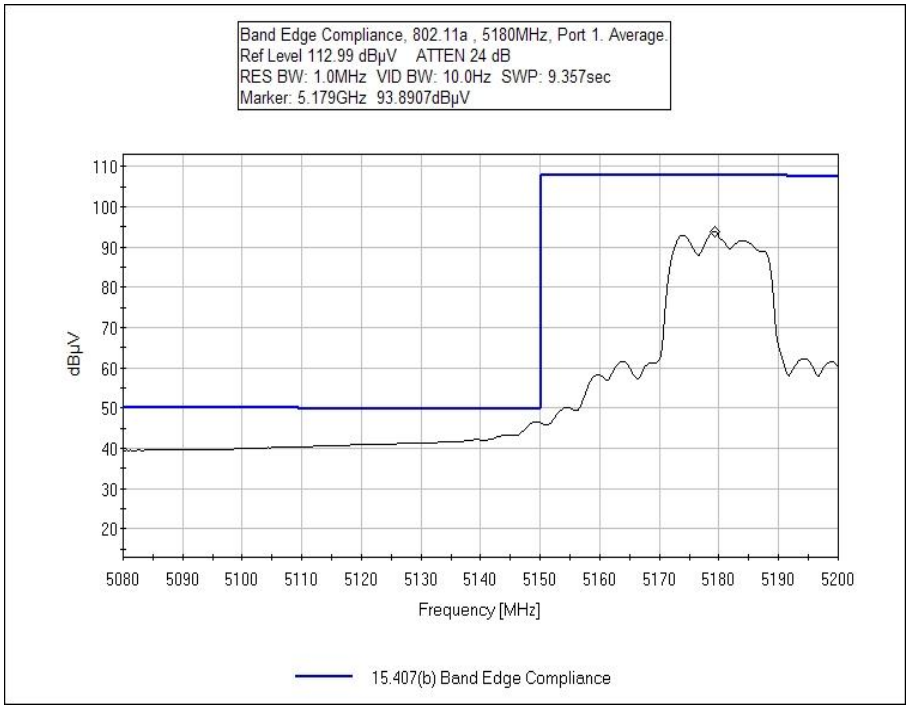
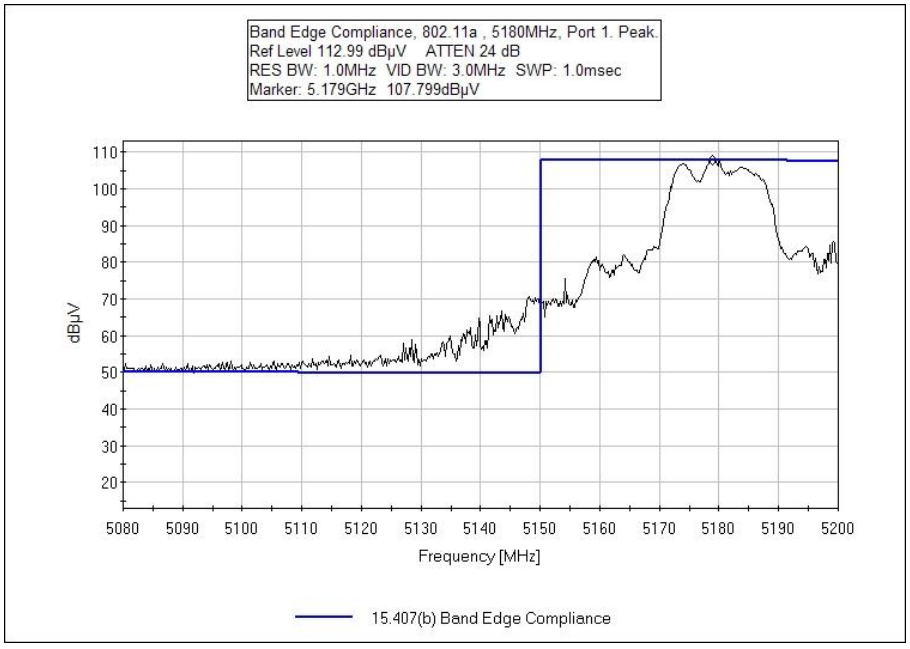
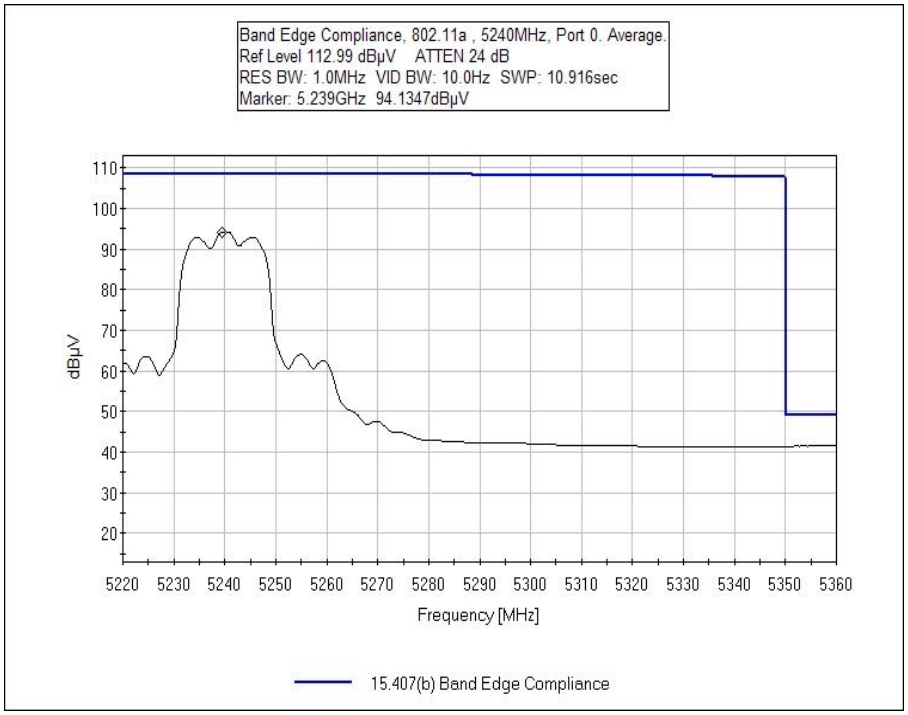


802.11a - Antenna Port 1



802.11a - Antenna Port 1



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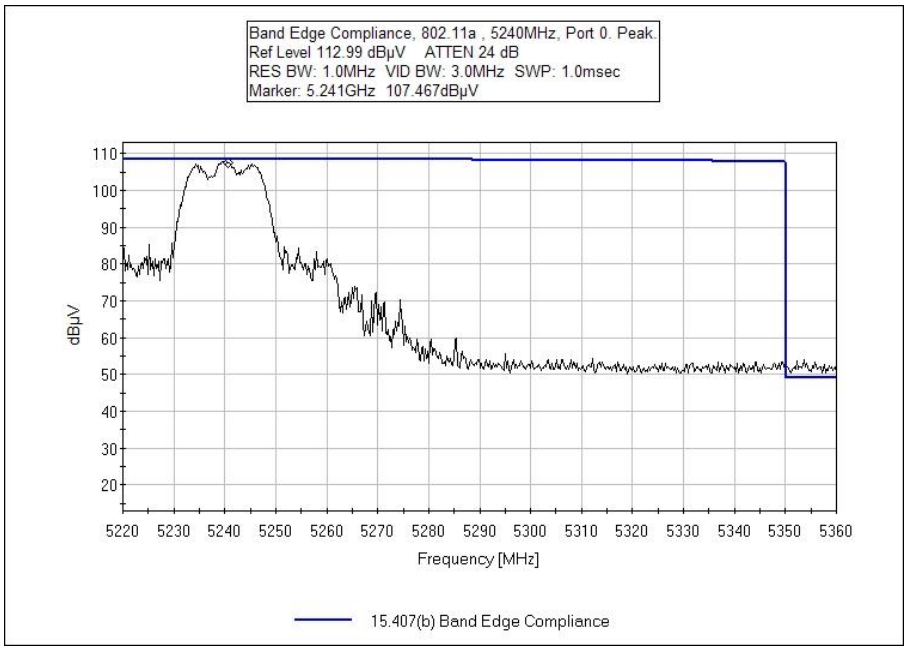

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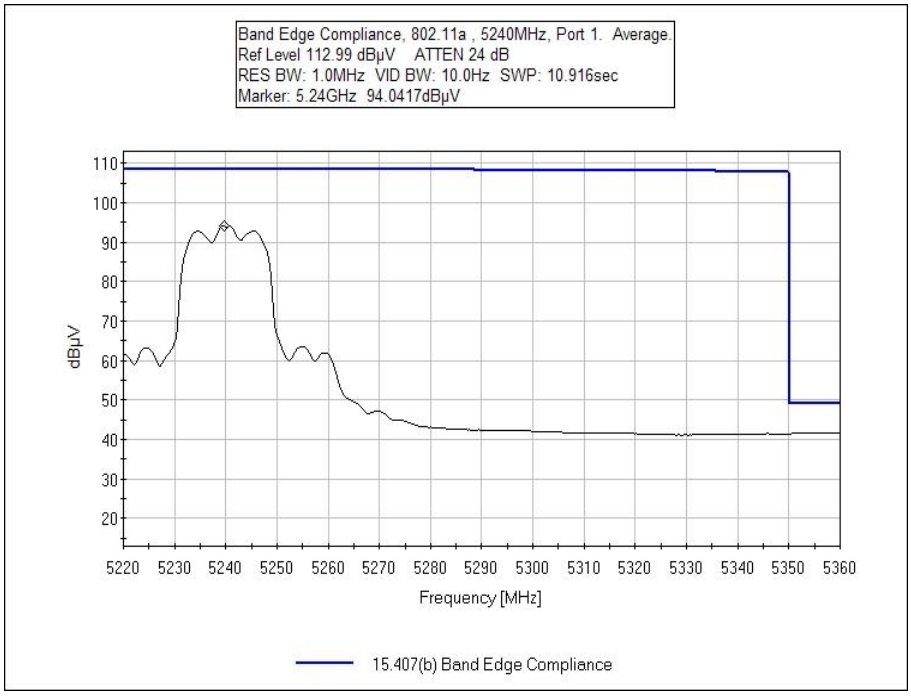
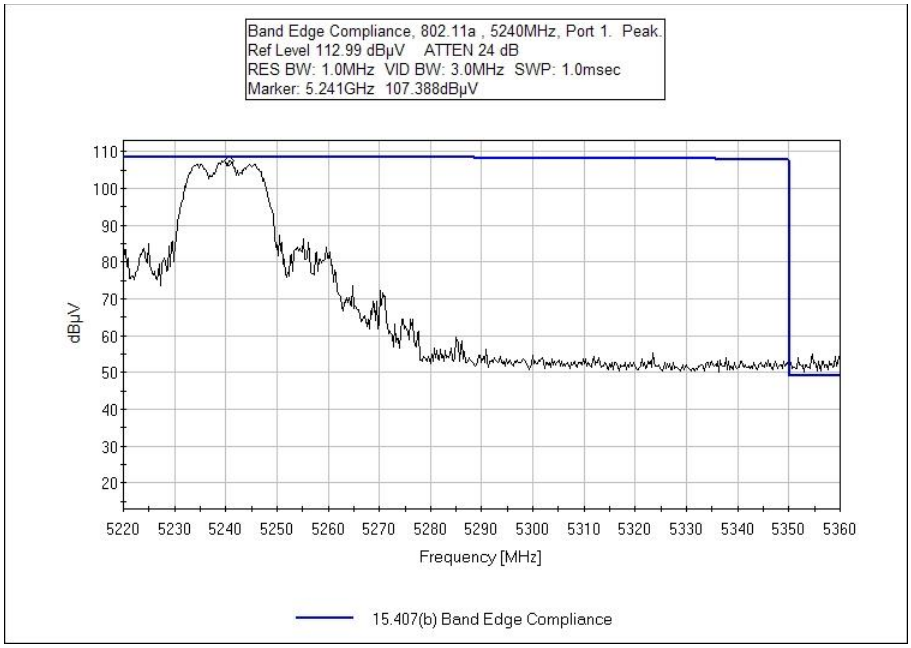
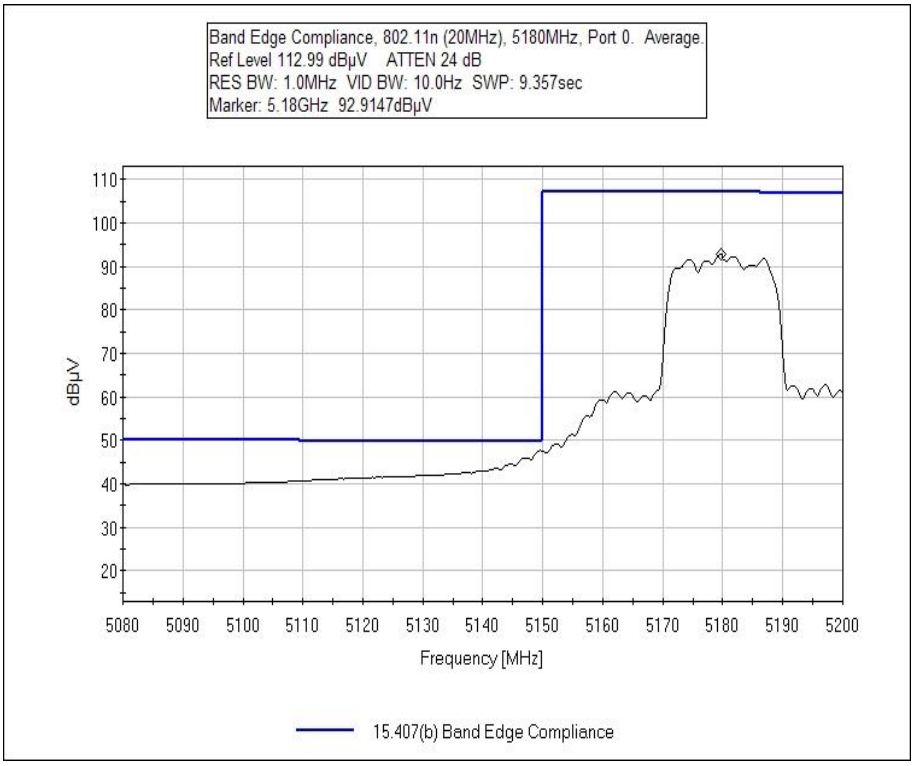


802.11a - Antenna Port 1



802.11a - Antenna Port 1



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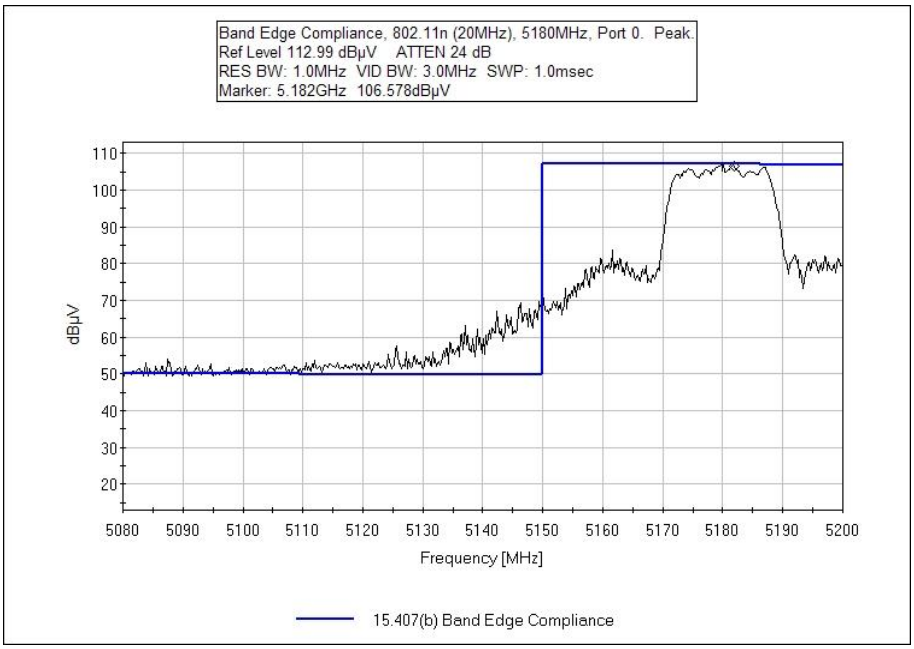

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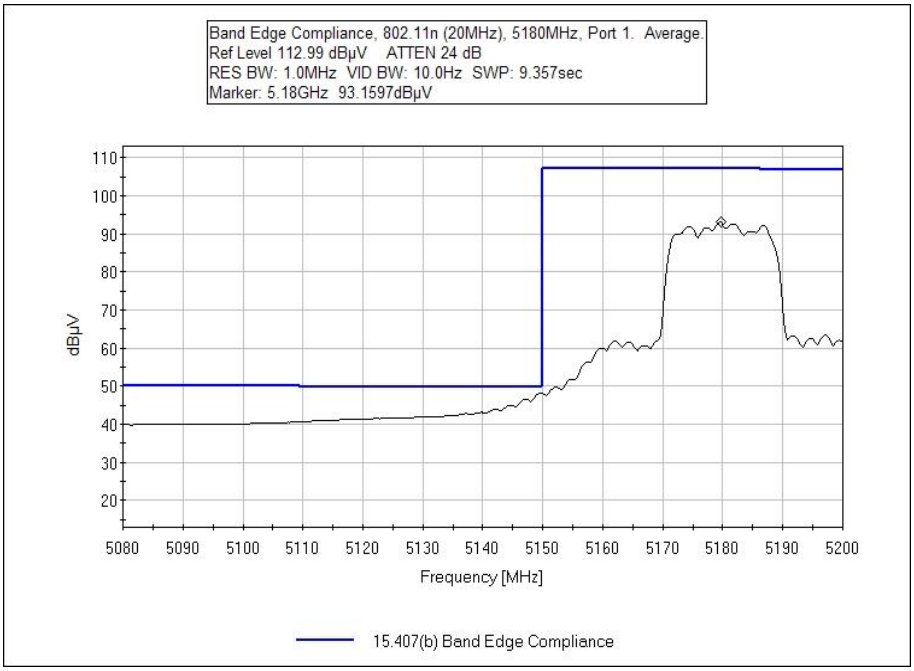
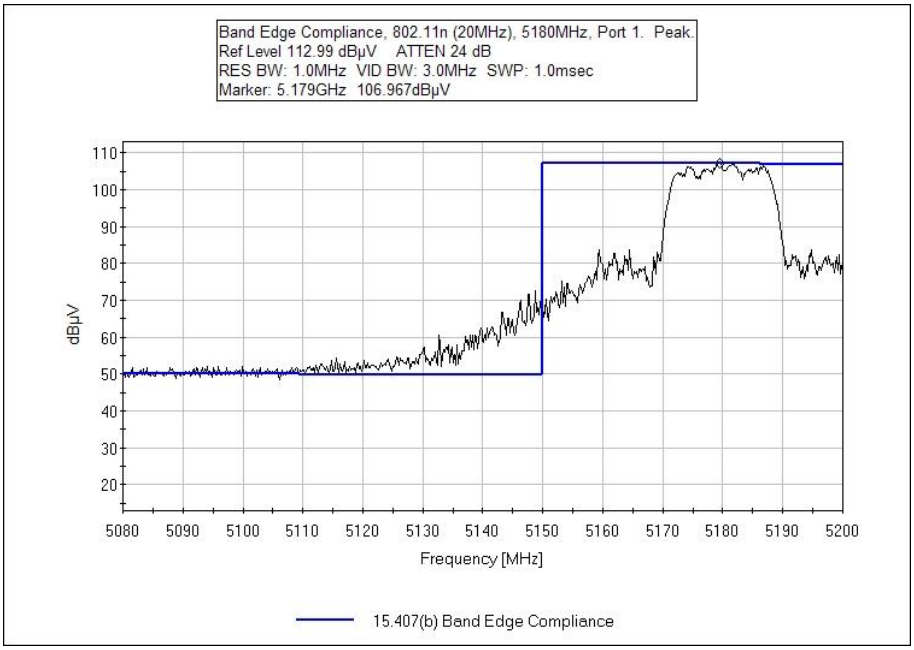
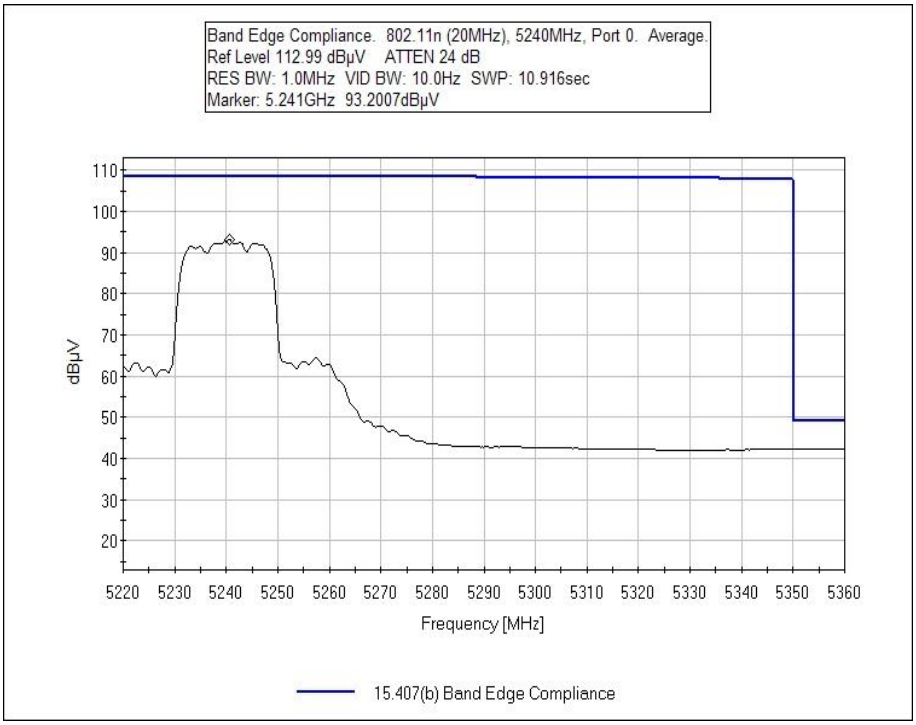


802.11n - Antenna Port 1



802.11n - Antenna Port 1



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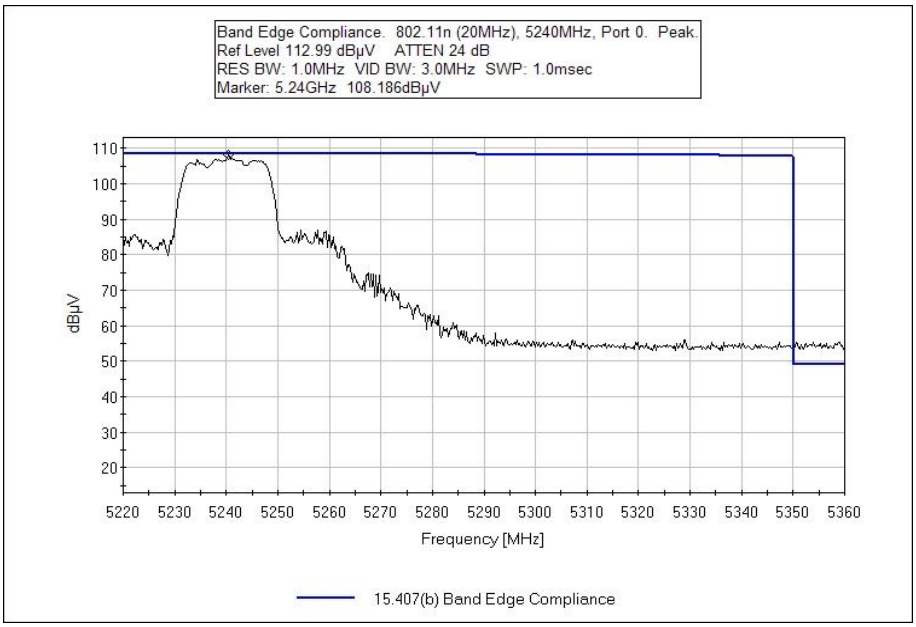

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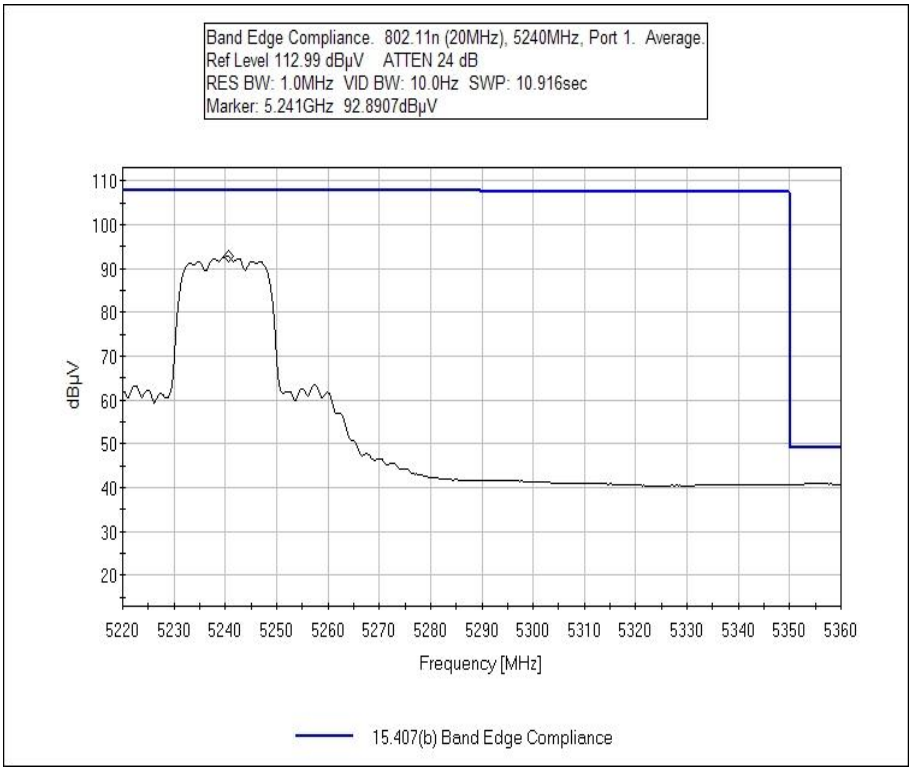

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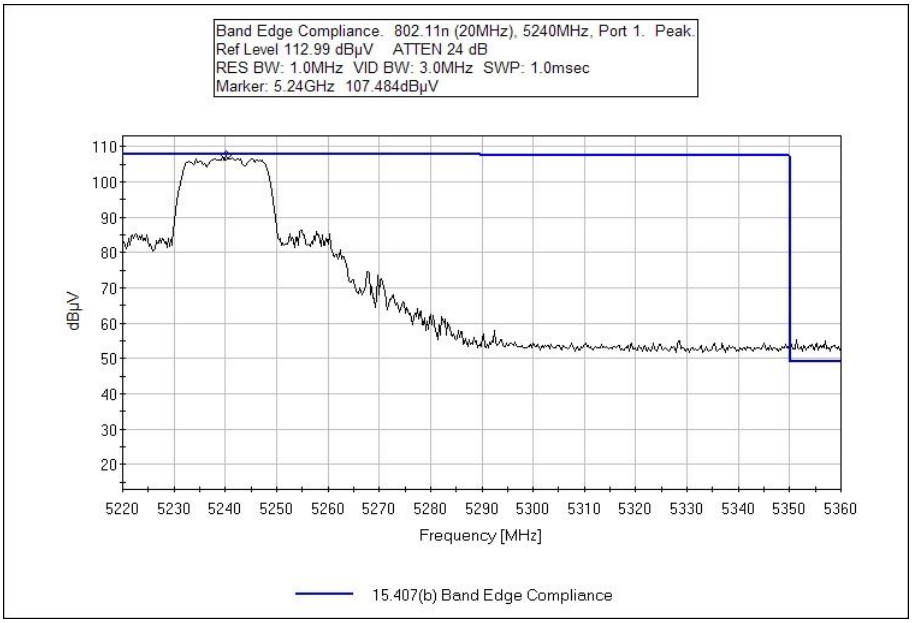
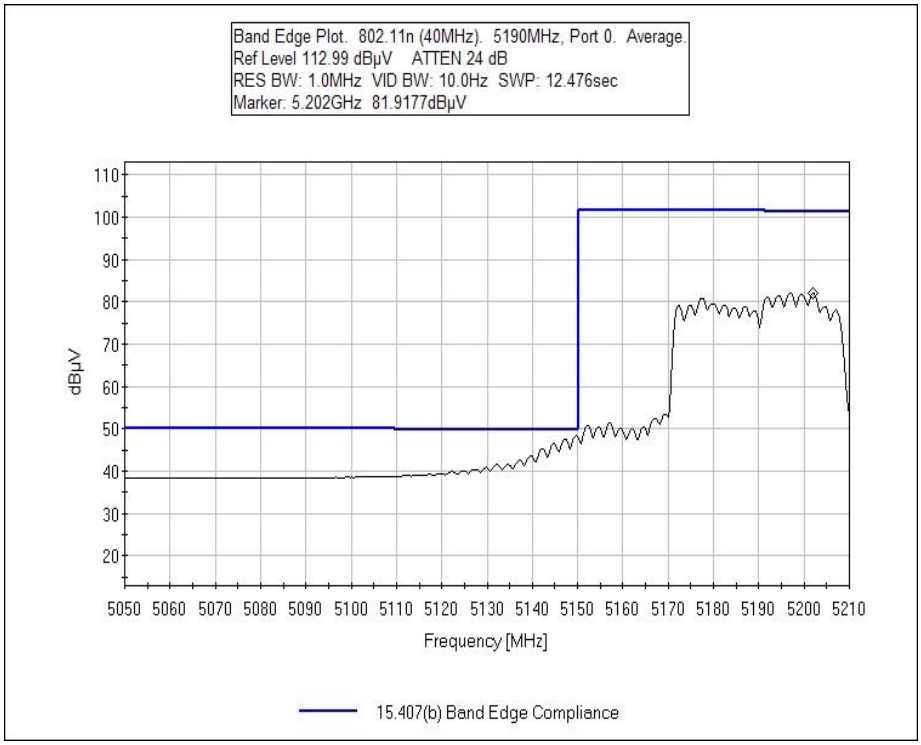


802.11n - Antenna Port 1



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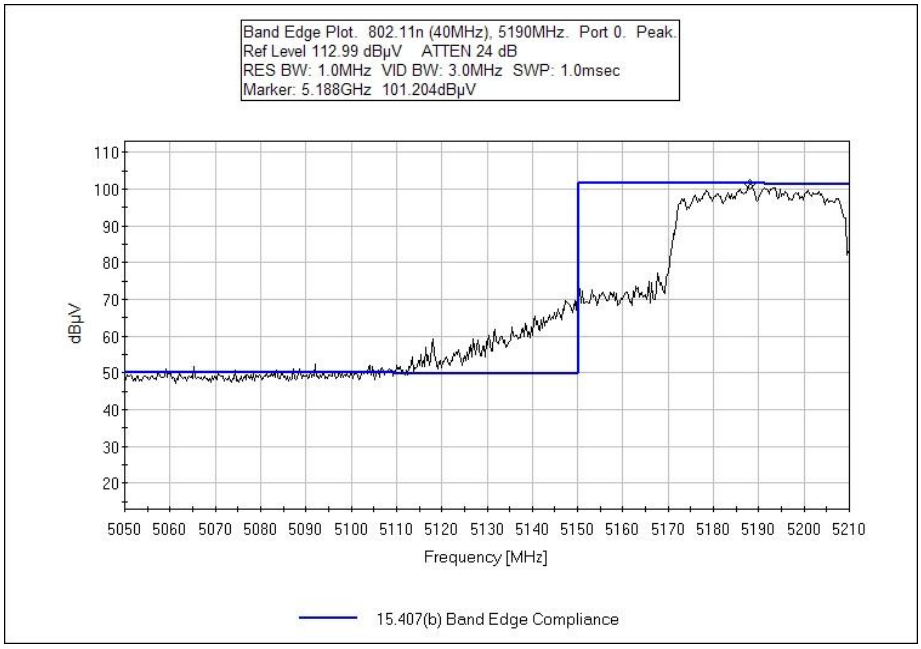

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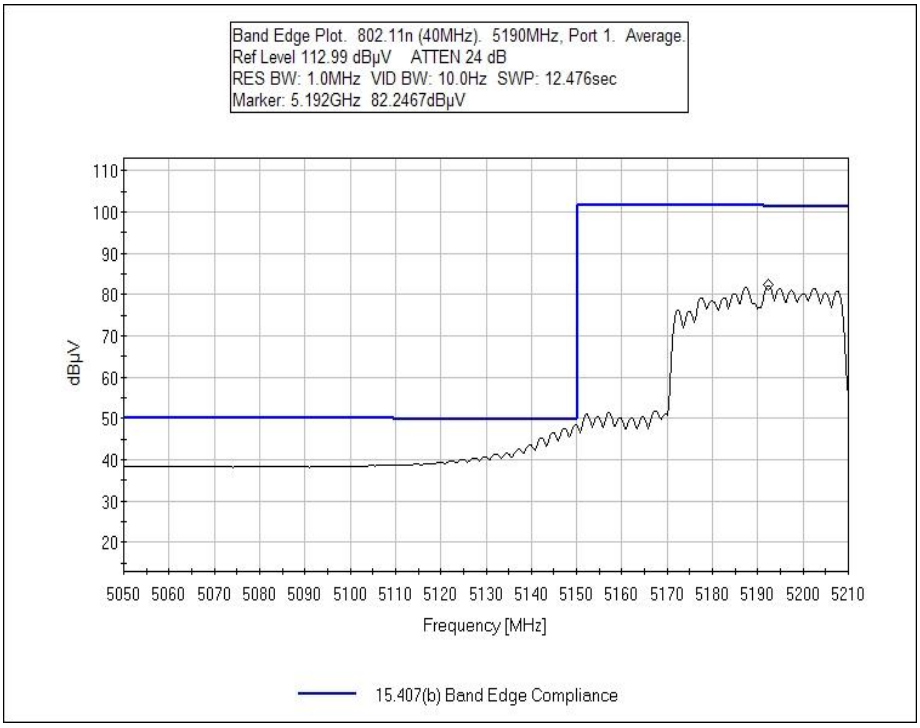

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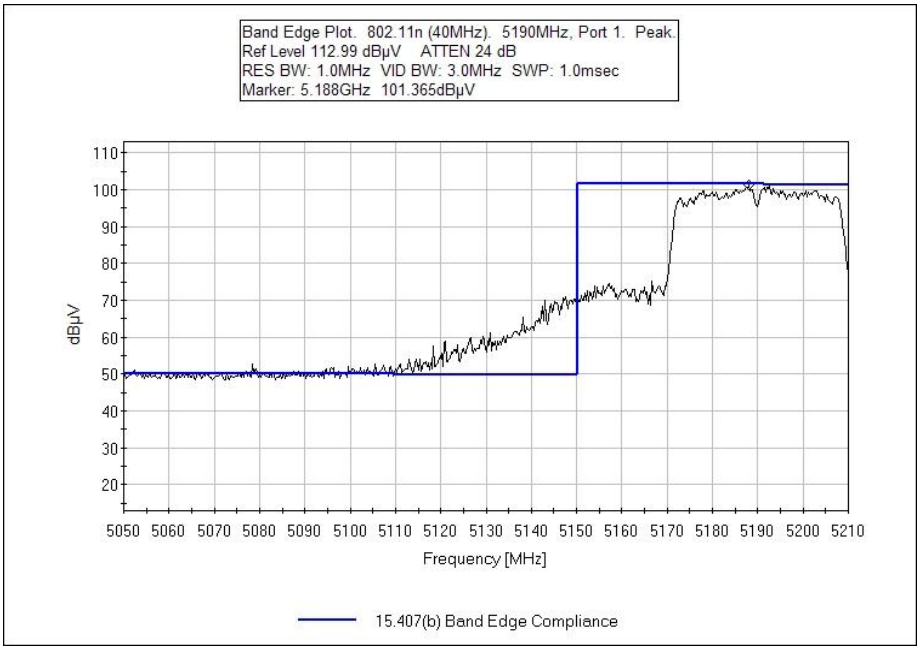

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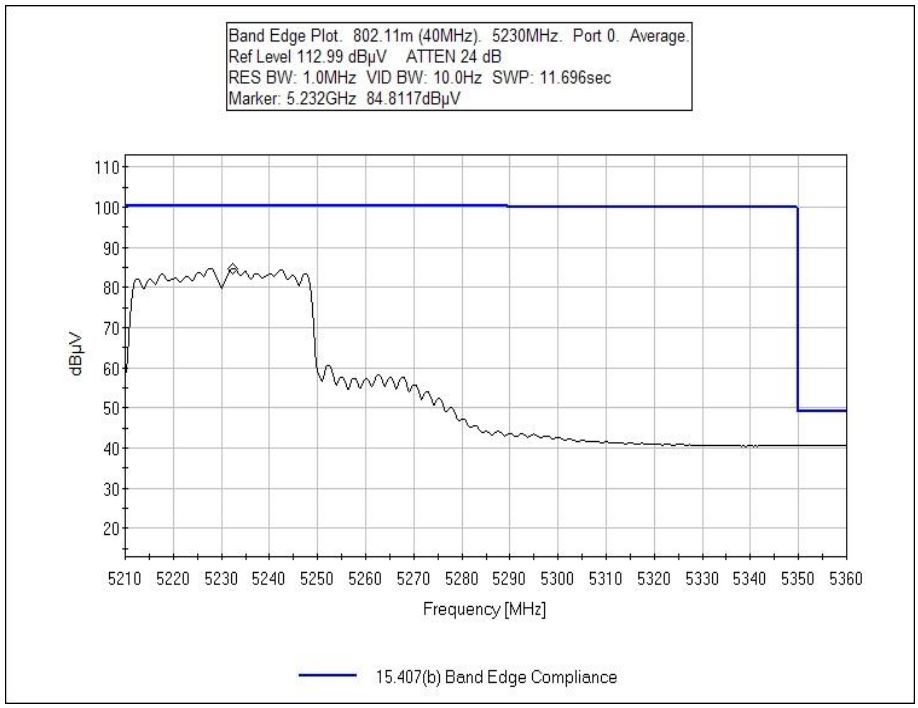

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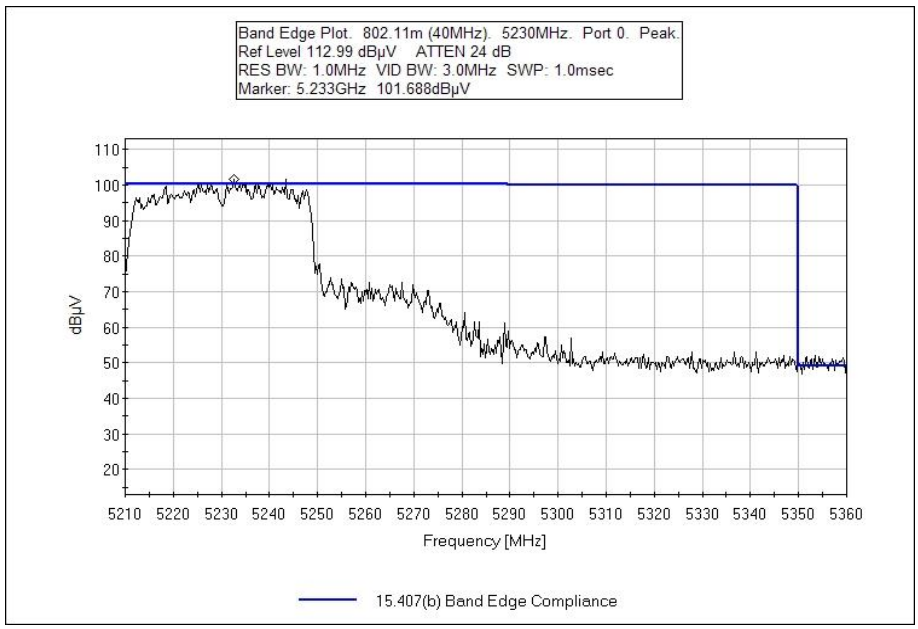

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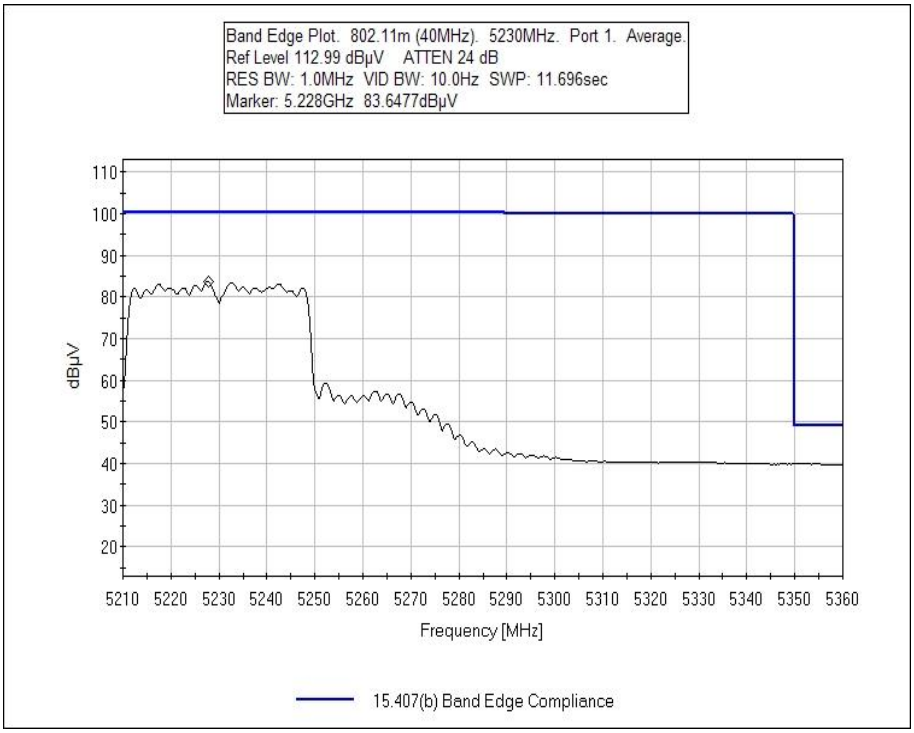
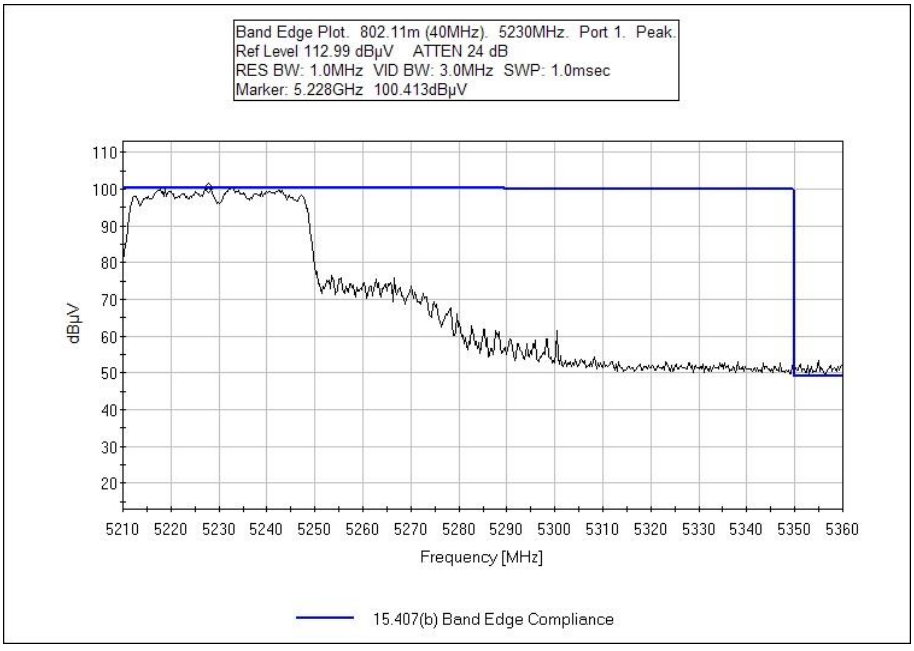


802.11n - Antenna Port 1



802.11n - Antenna Port 1

Test Setup Photos

RSS-210 §2.2 Restricted Bands

Data

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

Customer: **Motorola Mobility, Inc.**
Specification: **RSS-210 Unwanted Emissions in Restricted Bands (Radiated)**
Work Order #: **92742** Date: 2/6/2012
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-24TC	8/30/2011	8/30/2013
T3	ANP05421	Cable	Sucoflex 104A	2/12/2010	2/12/2012
T4	ANP06081	Cable	L1-PNMNM-48	4/28/2011	4/28/2013
T5	AN00786	Preamp	83017A	8/5/2010	8/5/2012
T6	AN00849	Horn Antenna	3115	4/23/2010	4/23/2012
T7	AN02744	High Pass Filter	11SH10-3000/T10000-O/O	3/5/2010	3/5/2012
T8	ANP05050	Cable	RG223/U	3/21/2011	3/21/2013
T9	AN00309	Preamp	8447D	5/7/2010	5/7/2012
T10	ANP05198	Cable	8268	12/21/2010	12/21/2012
T11	AN01995	Biconilog Antenna	CBL6111C	3/8/2010	3/8/2012
T12	AN00314	Loop Antenna	6502	6/30/2010	6/30/2012
	AN01413	Horn Antenna-ANSI C63.5 Antenna Factors (dB)	84125-80008	12/2/2010	12/2/2012
	AN01413	Horn Antenna-1 Meter Antenna Factors (dB) - SAE ARP 958	84125-80008	12/2/2010	12/2/2012
	AN03158	Active Horn Antenna	AMFW-5F-26004000-33-8P	4/1/2010	4/1/2012
	ANP06153	Cable	16301	10/27/2011	10/27/2013

***Equipment Under Test* (* = EUT):**

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

Support Devices:

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

Test Conditions / Notes:

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

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M Ave	51.4	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	50.9	54.0	-3.1	Horiz
^	3333.332M	53.2	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	52.7	54.0	-1.3	Horiz
3	4999.998M Ave	46.7	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert

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					
			+0.0	+0.0	+0.0	+0.0					
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	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					
			+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	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		+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		-34.8	+41.5	+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	15719.150	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					
	Ave		+0.0	+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		-34.5	+41.3	+0.0	+0.0					
			+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		-34.7	+41.4	+0.0	+0.0					
	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		-34.7	+41.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					

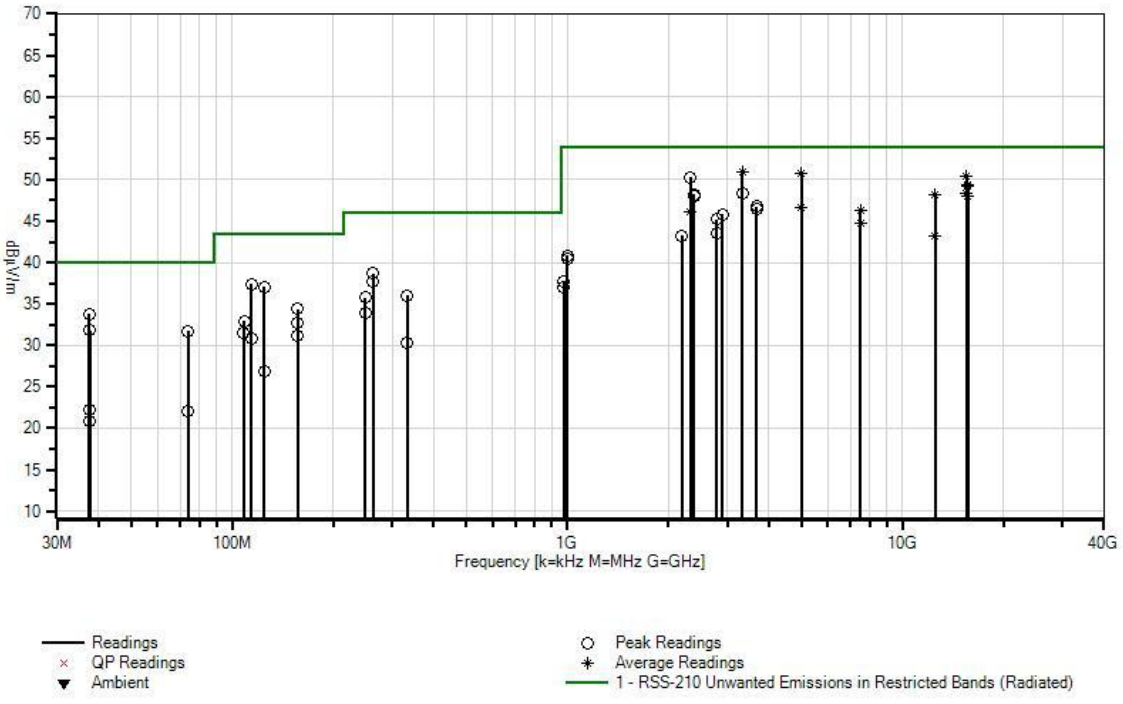
22	114.300M	51.8	+0.0	+0.0	+0.0	+0.0	+0.0	37.4	43.5	-6.1	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.8	+11.4	+0.0					
23	2389.981M	52.6	+0.0	+0.4	+1.2	+3.3	+0.0	47.9	54.0	-6.1	Horiz
			-38.0	+28.4	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
24	37.562M	45.7	+0.0	+0.1	-27.8	+1.0	+0.0	33.8	40.0	-6.2	Vert
			+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	+0.2	-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					
27	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					
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
			-36.5	+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					

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					
			+0.0	+0.0	+0.0	+0.0					
40	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					
41	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					
42	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					
43	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					
44	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					
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					
			-27.8	+2.8	+12.7	+0.0					
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					
			+0.0	+0.0	+0.0	+0.0					
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					
			+0.0	+0.0	+0.0	+0.0					
54	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					
55	12499.993 M	27.6	+0.0	+0.8	+2.9	+8.9	+0.0	43.2	54.0	-10.8	Vert
	Ave		-35.9	+38.7	+0.2	+0.2					
			+0.2	+0.2	+0.2	+0.2					

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

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

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

***Equipment Under Test* (* = EUT):**

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

Support Devices:

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

Test Conditions / Notes:

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

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	3333.332M Ave	51.4	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	50.9	54.0	-3.1	Horiz
^	3333.332M	53.2	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	52.7	54.0	-1.3	Horiz
3	4999.998M Ave	46.7	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert
^	4999.997M	49.8	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	53.8	54.0	-0.2	Vert

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					

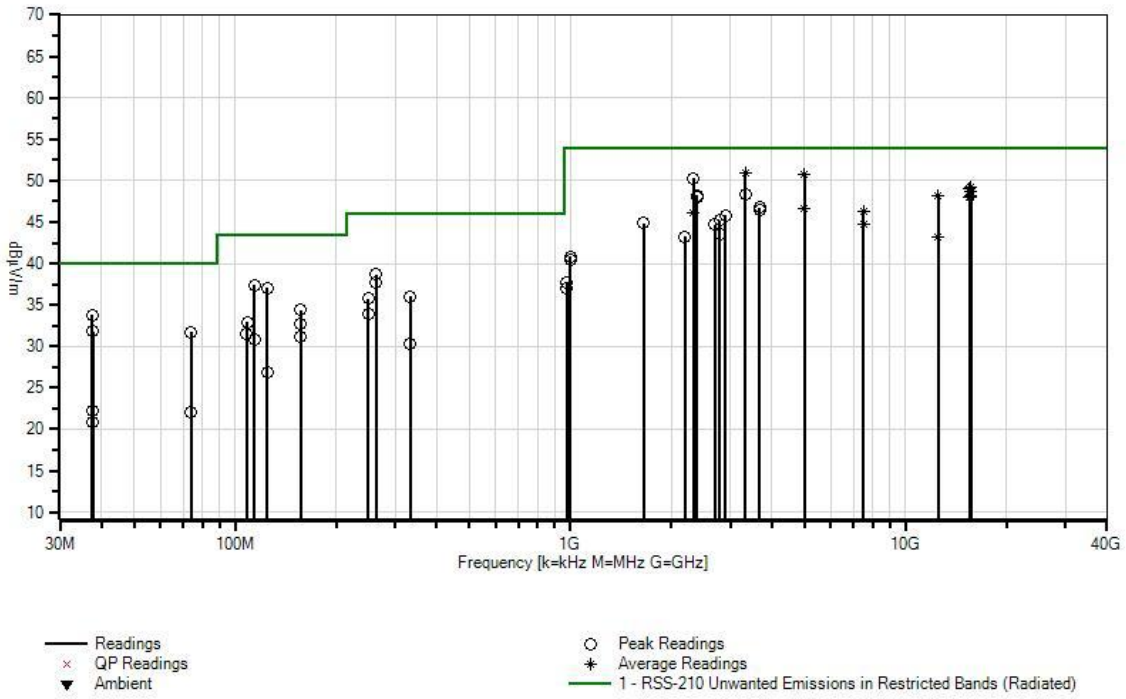
22	114.300M	51.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.8	+0.0 +0.0 +11.4	+0.0 +0.2 +0.0	+0.0	37.4	43.5	-6.1	Vert
23	2389.981M	52.6	+0.0 -38.0 +0.0	+0.4 +28.4 +0.0	+1.2 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	47.9	54.0	-6.1	Horiz
24	37.562M	45.7	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	33.8	40.0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

39	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					
40	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					
41	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					
42	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					
43	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					
44	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					
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	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	+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
			+0.0	+0.0	+0.0	+0.1					
			-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
			-37.9	+29.1	+0.0	+0.0					
			+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		-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
^	7499.993M	42.9	+0.0	+0.7	+2.3	+6.5	+0.0	51.5	54.0	-2.5	Vert
			-36.5	+35.5	+0.1	+0.1					
			+0.1	+0.1	+0.1	+0.1					
51	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					
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					
			+0.2	+0.2	+0.2	+0.2					
59	156.843M	47.2	+0.0	+0.0	+0.0	+0.0	+0.0	32.7	43.5	-10.8	Horiz
			+0.0	+0.0	+0.0	+0.1					
			-27.7	+2.2	+10.9	+0.0					
60	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					
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					
			-27.8	+2.8	+12.7	+0.0					
62	250.014M	46.1	+0.0	+0.2	-27.8	+2.8	+0.0	34.0	46.0	-12.0	Horiz
			+12.7	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
63	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					
64	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					
65	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					
66	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					
67	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					
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	+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 +12.1 +0.0	+0.2 +0.0 +0.0	-27.8 +0.0 +0.0	+1.9 +0.0 +0.0	+0.0	26.9	43.5	-16.6	Horiz
74	125.008M	40.5	+0.0 +0.0 -27.8	+0.0 +0.0 +1.9	+0.0 +0.0 +12.1	+0.0 +0.2 +0.0	+0.0	26.9	43.5	-16.6	Horiz
75	976.052M	33.0	+0.0 +0.0 -27.2	+0.0 +0.0 +6.1	+0.0 +0.0 +24.5	+0.0 +0.6 +0.0	+0.0	37.0	54.0	-17.0	Vert
76	37.685M	34.3	+0.0 +14.7 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	22.3	40.0	-17.7	Horiz
77	37.685M	34.3	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.7	+0.0 +0.1 +0.0	+0.0	22.3	40.0	-17.7	Horiz
78	73.962M	41.8	+0.0 +0.0 -27.9	+0.0 +0.0 +1.4	+0.0 +0.0 +6.6	+0.0 +0.1 +0.0	+0.0	22.0	40.0	-18.0	Horiz
79	73.962M	41.8	+0.0 +6.6 +0.0	+0.1 +0.0 +0.0	-27.9 +0.0 +0.0	+1.4 +0.0 +0.0	+0.0	22.0	40.0	-18.0	Horiz
80	37.542M	32.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	20.9	40.0	-19.1	Horiz
81	37.542M	32.8	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz

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

***Equipment Under Test* (* = EUT):**

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

Support Devices:

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

Test Conditions / Notes:

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

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7 T11	T4 T8 T12	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	2500.000M	56.5	+0.0 -37.9 +0.0	+0.4 +28.5 +0.0	+1.3 +0.0 +0.0	+3.3 +0.0 +0.0	+0.0	52.1	54.0	-1.9	Vert
2	3333.332M Ave	51.4	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	50.9	54.0	-3.1	Horiz
^	3333.332M	53.2	+0.0 -37.7 +0.6	+0.4 +30.7 +0.6	+1.6 +0.6 +0.6	+3.9 +0.6 +0.6	+0.0	52.7	54.0	-1.3	Horiz
4	4999.998M Ave	46.7	+0.0 -37.0 +0.3	+0.5 +33.3 +0.3	+1.9 +0.3 +0.3	+5.0 +0.3 +0.3	+0.0	50.7	54.0	-3.3	Vert

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

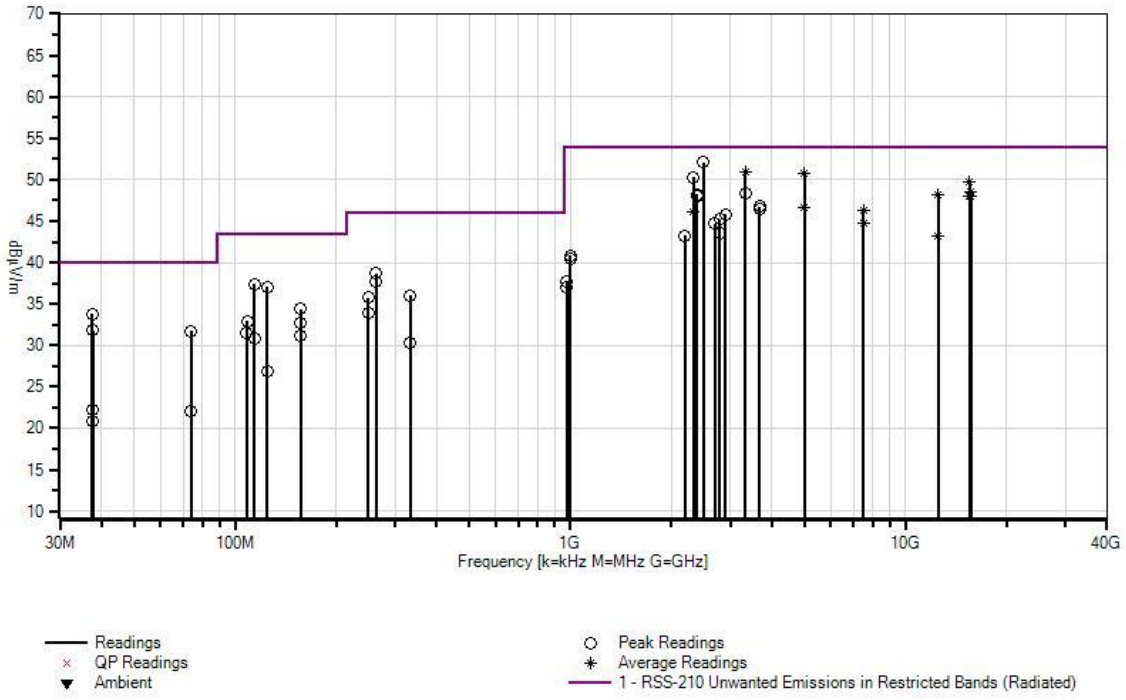
22	37.562M	45.7	+0.0	+0.0	+0.0	+0.0	+0.0	33.8	40.0	-6.2	Vert
			+0.0	+0.0	+0.0	+0.1					
			-27.8	+1.0	+14.8	+0.0					
23	125.002M	50.6	+0.0	+0.2	-27.8	+1.9	+0.0	37.0	43.5	-6.5	Vert
			+12.1	+0.0	+0.0	+0.0					
			+0.0	+0.0	+0.0	+0.0					
24	125.002M	50.6	+0.0	+0.0	+0.0	+0.0	+0.0	37.0	43.5	-6.5	Vert
			+0.0	+0.0	+0.0	+0.2					
			-27.8	+1.9	+12.1	+0.0					
25	3666.667M	46.2	+0.0	+0.4	+1.7	+4.2	+0.0	46.8	54.0	-7.2	Vert
			-37.4	+31.3	+0.4	+0.4					
			+0.4	+0.4	+0.4	+0.4					
26	264.011M	50.3	+0.0	+0.0	+0.0	+0.0	+0.0	38.7	46.0	-7.3	Horiz
			+0.0	+0.0	+0.0	+0.3					
			-27.7	+2.9	+12.9	+0.0					
27	4999.992M	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					
29	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					
30	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					
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					
			+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					
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	+0.0	+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 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.7	+0.0 +0.1 +0.0	+0.0	22.3	40.0	-17.7	Horiz
74	73.962M	41.8	+0.0 +6.6 +0.0	+0.1 +0.0 +0.0	-27.9 +0.0 +0.0	+1.4 +0.0 +0.0	+0.0	22.0	40.0	-18.0	Horiz
75	73.962M	41.8	+0.0 +0.0 -27.9	+0.0 +0.0 +1.4	+0.0 +0.0 +6.6	+0.0 +0.1 +0.0	+0.0	22.0	40.0	-18.0	Horiz
76	37.542M	32.8	+0.0 +14.8 +0.0	+0.1 +0.0 +0.0	-27.8 +0.0 +0.0	+1.0 +0.0 +0.0	+0.0	20.9	40.0	-19.1	Horiz
77	37.542M	32.8	+0.0 +0.0 -27.8	+0.0 +0.0 +1.0	+0.0 +0.0 +14.8	+0.0 +0.1 +0.0	+0.0	20.9	40.0	-19.1	Horiz

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 dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula. This reading was then compared to the applicable specification limit.

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 ("^") was placed in the far left-hand column indicating that the row above takes precedence for comparison to the limit. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

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

Quasi-Peak

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

Average

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