FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 7

CERTIFICATION TEST REPORT

FOR

CDMA/1X EVDO PHONE WITH 802.11B/G AND BLUETOOTH

MODEL NUMBER: P121EWW

FCC ID: O8F-PIXEW

IC: 39Ø5A-PIXEW

REPORT NUMBER: 09U12852-1

ISSUE DATE: NOVEMBER 05, 2009

Prepared for
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950 MAUDE AVENUE
SUNNYVALE, CA 94085, U.S.A.

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	11/05/09	Initial Issue	T. Chan

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: PALM
950 MAUDE AVENUE
SUNNYVALE, CA. 94085, U.S.A.

EUT DESCRIPTION: CDMA/1x EVDO Phone with 802.11b/g and Bluetooth

MODEL: P121EWW

SERIAL NUMBER: PD1CV8P93037 (Conducted), PD1CV8P93043 (Radiated)

DATE TESTED: OCTOBER 6-15, 2009

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 7 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 2	Pass

Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.
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Approved & Released For CCS By:

THU CHAN
EMC MANAGER
COMPLIANCE CERTIFICATION SERVICES

Tested By:

CHIN PANG
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 2, and RSS-210 Issue 7, Annex 8

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://ts.nist.gov/Standards/scopes/2000650.htm.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

CDMA/1x EVDO Phone with 802.11b/g and Bluetooth.

GENERAL INFORMATION

Power Requirements	100-240 VAC / 50-60 Hz
List of frequencies generated or used by the EUT	600MHz

ACCESSORIES

The EUT was constructed and using the following accessories:

Accessories Description	Manufacturer/ Trademark	Part Number
AC Power Adapter source #1 Input Rating: 100–240 Vac, 50/60Hz, 0.2A Output Rating: 5Vdc, 1000mA	Palm	157-10130-00
AC Power Adapter source #2 Input Rating: 100–240 Vac, 50/60Hz, 0.2A Output Rating: 5Vdc, 1000mA	Palm	157-10124-00
Inductive Charging Dock Input Rating: 5Vdc, 1000mA	Palm	157-10123-00
Battery source #1 (Cell Origin Japan) Type: Rechargeable Li-ion Polymer Rating: 3.7Vdc, 1150mAh (minimum)	Palm	157-10119-00
Battery source #2 (Cell Origin Korea) Type: Rechargeable Li-ion Polymer Rating: 3.7Vdc, 1150mAh (minimum)	Palm	157-10119-00
Wired Stereo Headset	Palm	180-10632-00
USB cable	Palm	180-10647-00

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2412 - 2462	b	15.10	32.36
2412 - 2462	g	19.50	89.13
2402 - 2480	GFSK	2.33	1.71
2402 - 2480	8PSK	2.32	1.71

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PCB integrated antenna, with a maximum gain of -1 dBi.
802.11bg and Bluetooth transmitters share a common antenna.

5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Palm WebOS.

The test utility software used during testing was Build 822, HW Rev. PIXIE-DVT1, BT MAC: 00:1D:FE:7A:1E:6B.

5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case channel is determined as the channel with the highest output power.

For the fundamental investigation, since the EUT is a portable device that has three orientations; therefore X, Y and Z orientations have been investigated, also with AC/DC adapter, and inductive charging dock position, and the worst case was found to be at X orientation with AC/DC adapter.

For the radiated emissions below 1GHz and AC line conducted tests, both worst configurations were tested as EUT with AC/DC adapter and EUT with inductive charging dock.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adaptor	PALM	157-10130-00	N/A	DOC
Earphone	PALM	NA	N/A	DOC

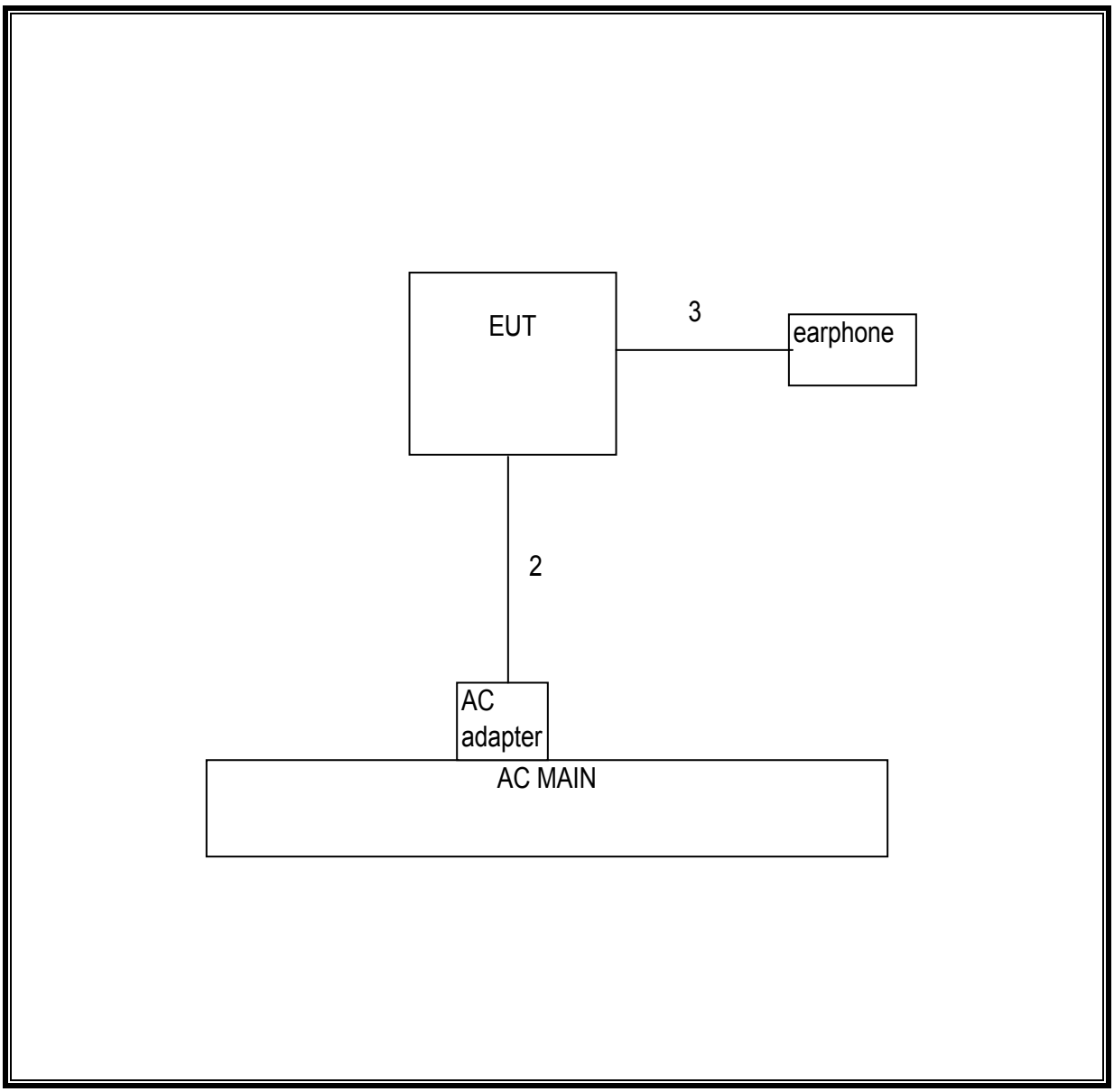
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**# of Identica Ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	AC	1	USB	Un-shielded	1.5m	N/A
2	DC	1	DC	Un-shielded	1.5m	N/A
3	Ear phone	1	jack	Un-shielded	1.2m	N/A

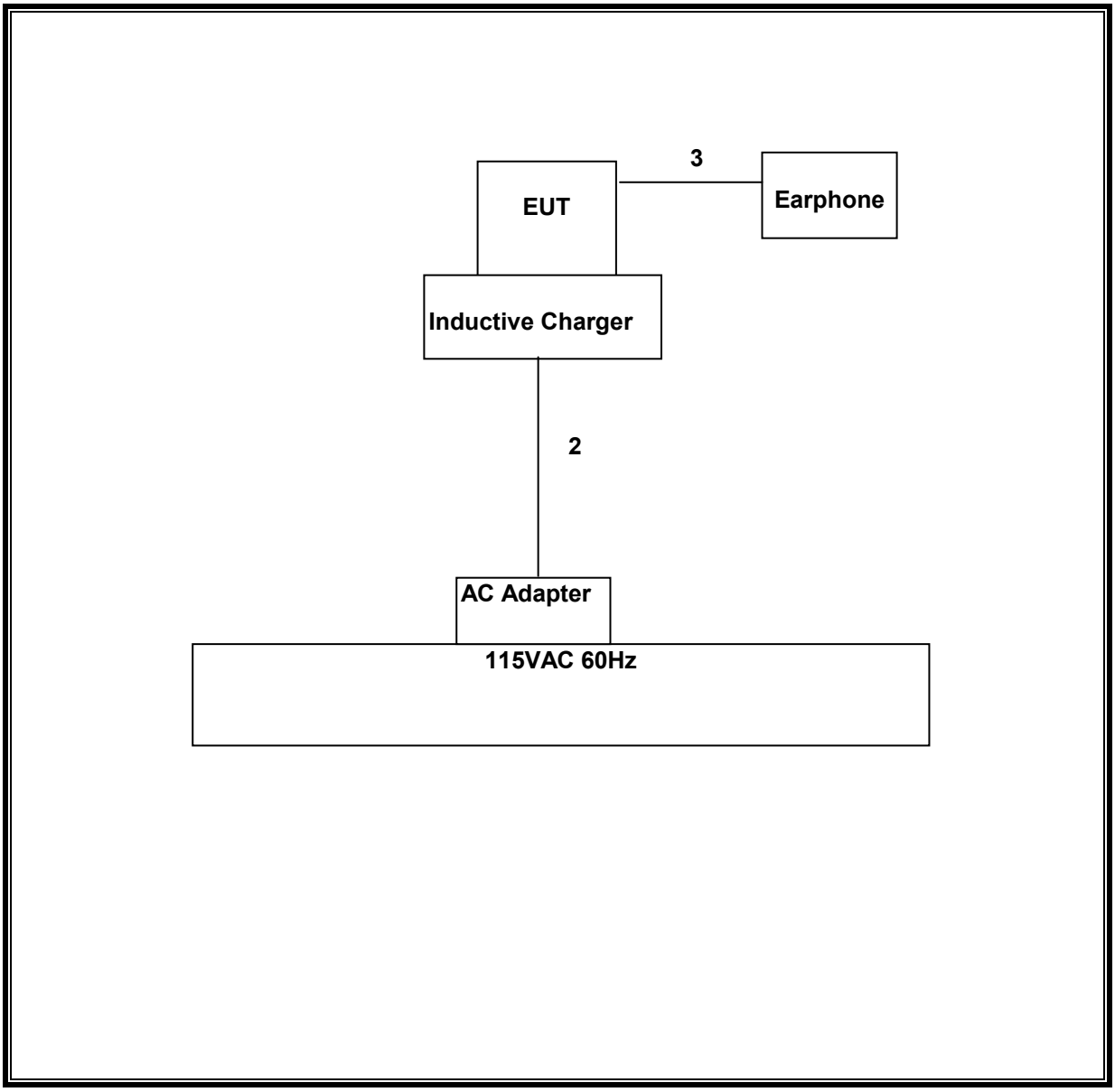
TEST SETUP

The EUT is a stand alone unit. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



SETUP DIAGRAM FOR EUT WITH INDUCTIVE CHARGING DOCK



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Asset**	**Cal Due**
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01159	02/07/10
Antenna, Horn, 18 GHz	EMCO	3115	C00872	01/29/10
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C00749	02/04/10
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01171	01/14/10
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	12/16/09
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/11
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/05/10
Peak Power Meter	Boonton	4541	C01189	01/15/10
Peak Power Sensor	Boonton	57318	NA	02/02/10
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR

7. ANTENNA PORT TEST RESULTS

7.1. 802.11b MODE IN THE 2.4 GHz BAND

7.1.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

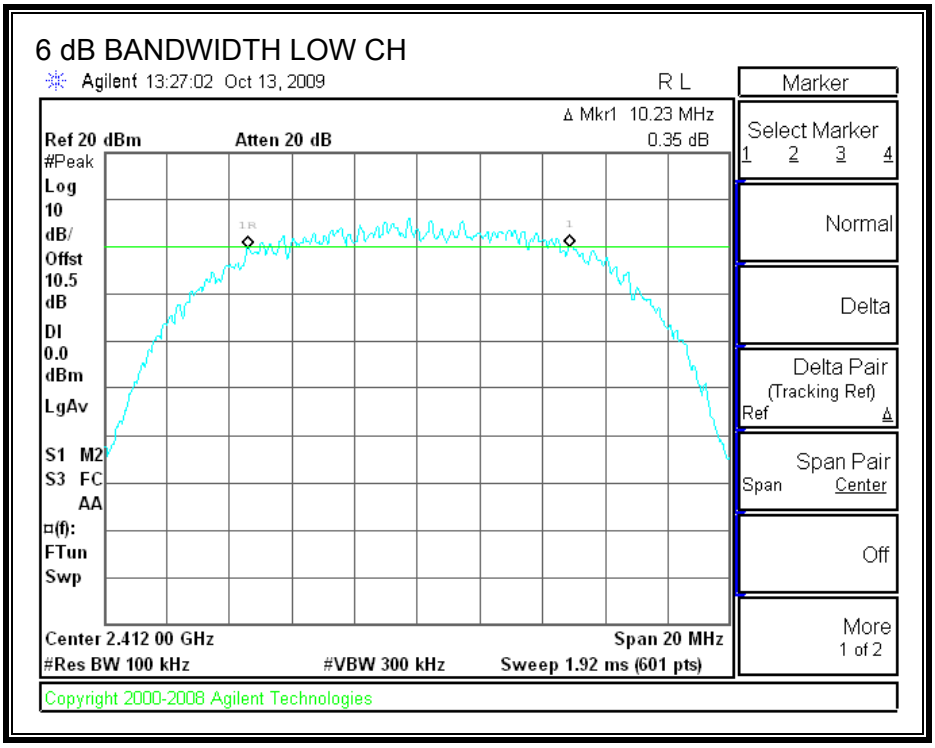
TEST PROCEDURE

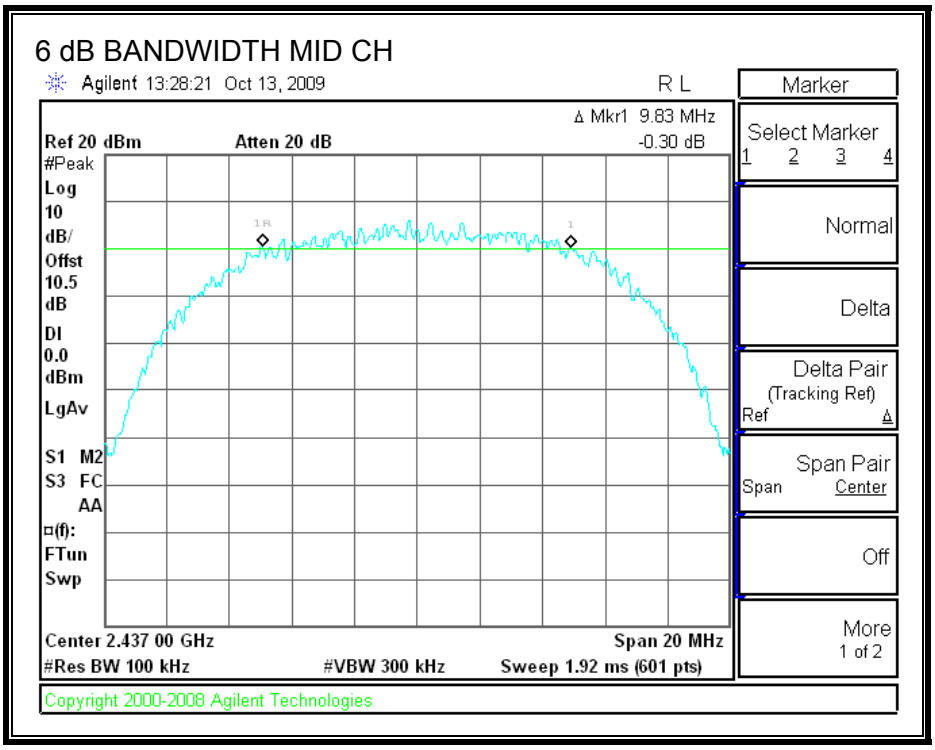
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

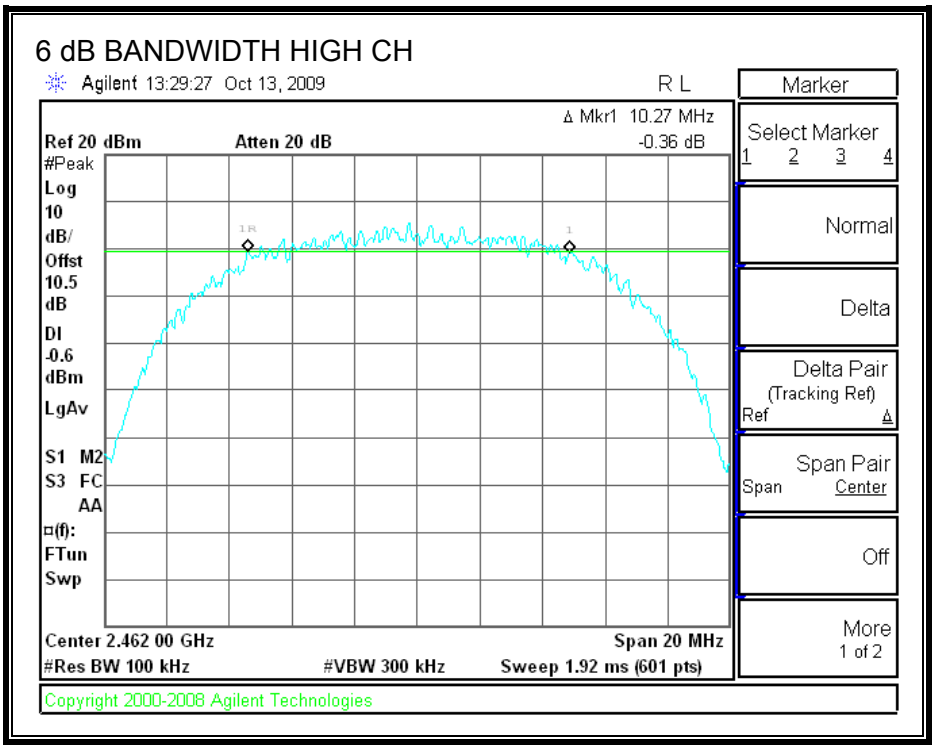
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	10.23	0.5
Middle	2437	9.83	0.5
High	2462	10.27	0.5

6 dB BANDWIDTH







7.1.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

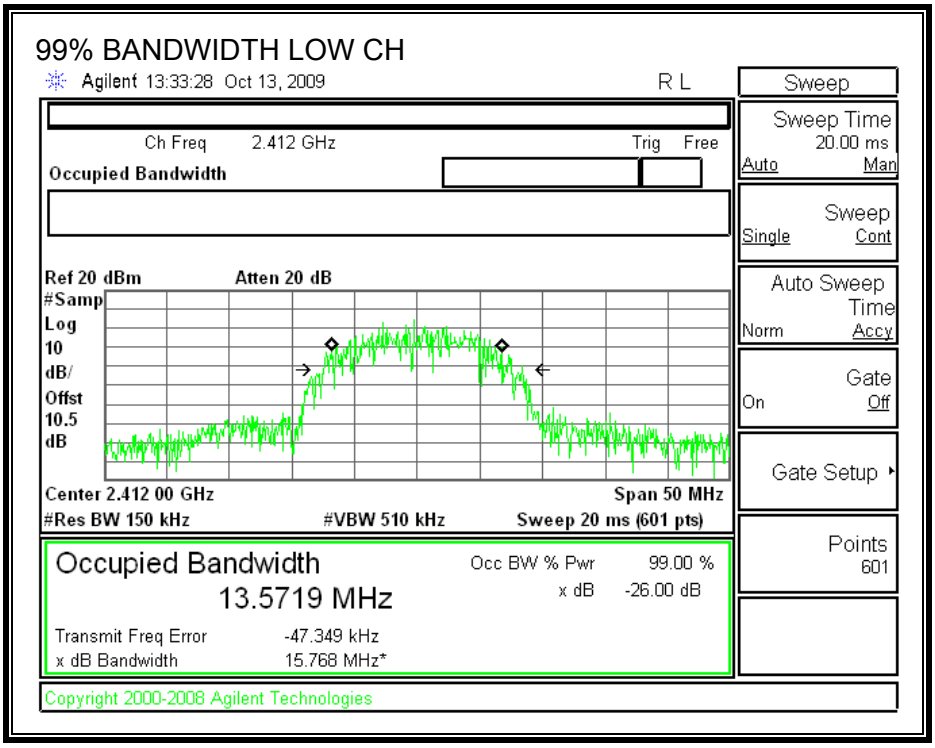
TEST PROCEDURE

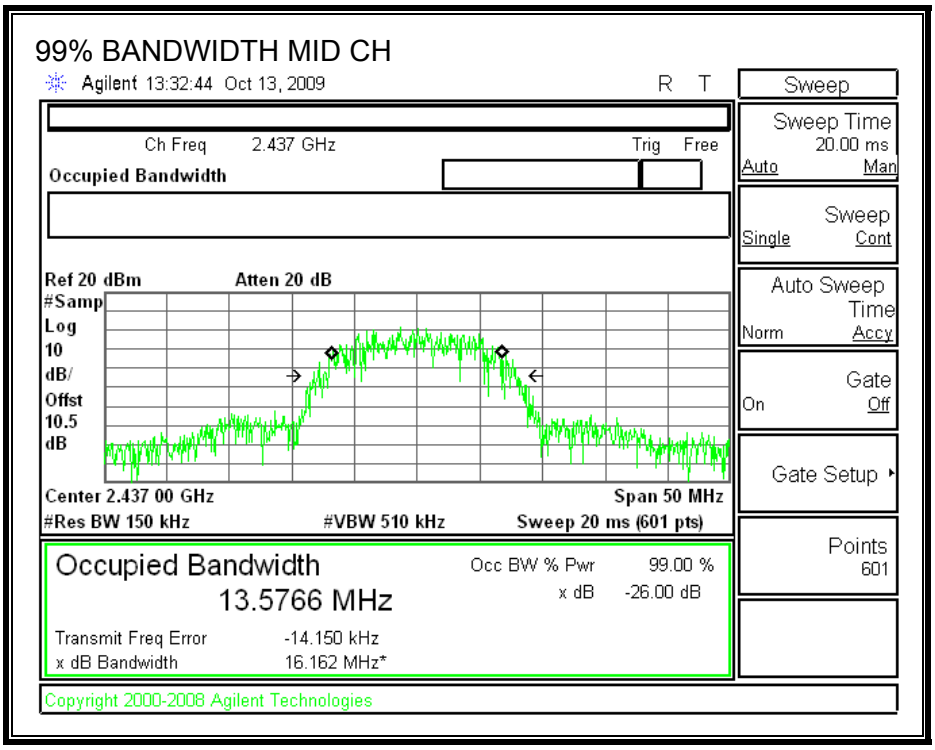
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

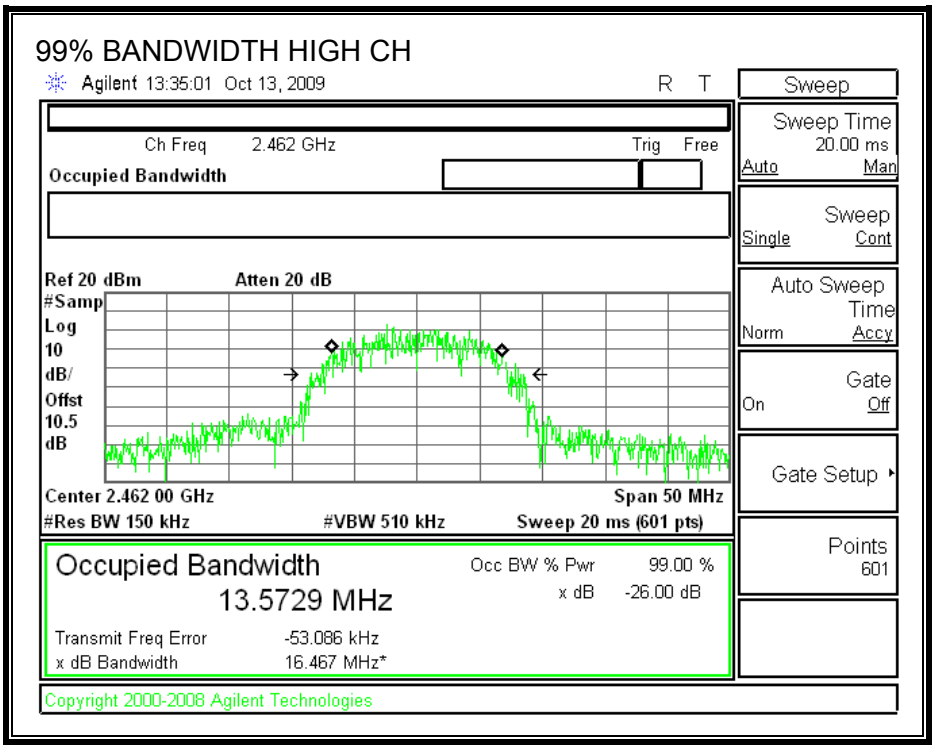
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	13.5719
Middle	2437	13.5766
High	2462	13.5729

99% BANDWIDTH







7.1.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

Channel	Frequency (MHz)	Peak Power Meter Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2412	15.10	30	-14.90
Middle	2437	15.00	30	-15.00
High	2462	14.90	30	-15.10

7.1.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 17 dB (including 10 dB pad and 7 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	12.40
Middle	2437	12.20
High	2462	12.10

7.1.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

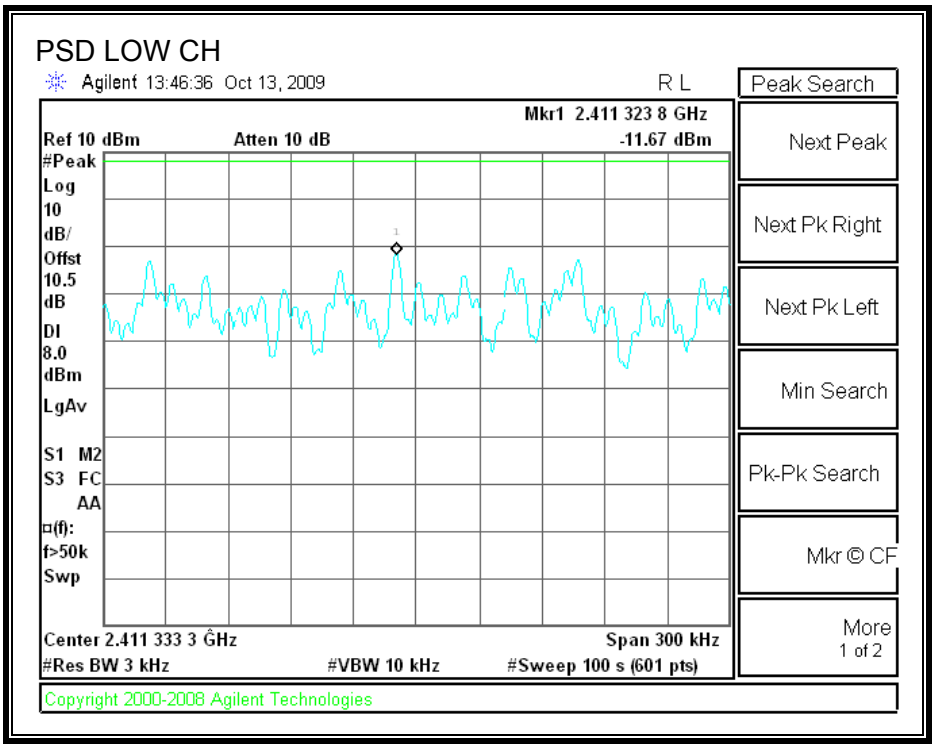
TEST PROCEDURE

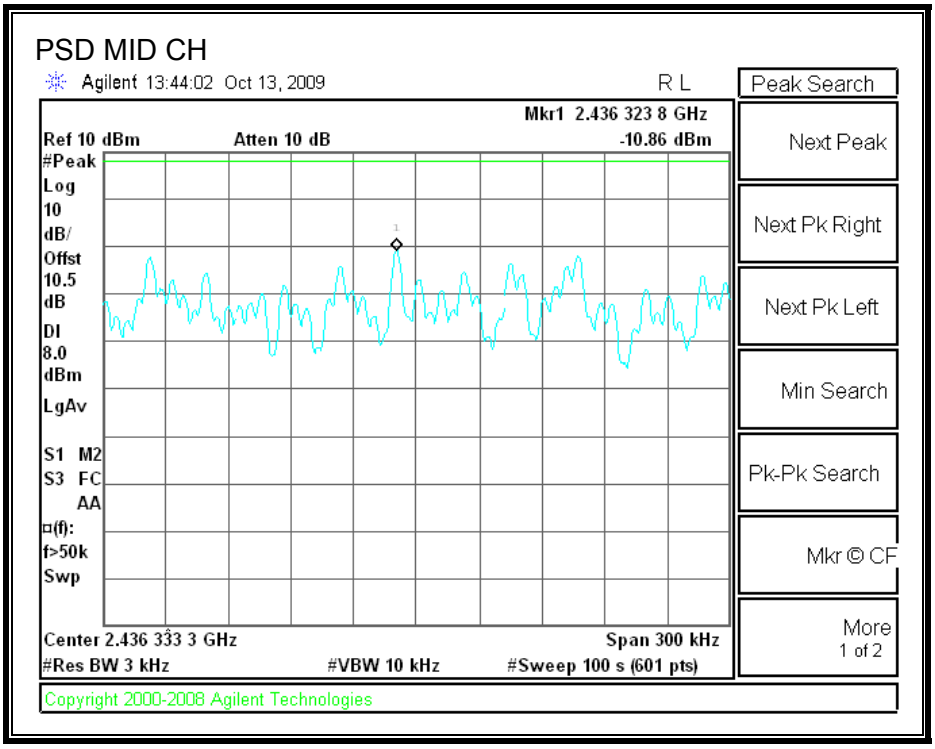
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

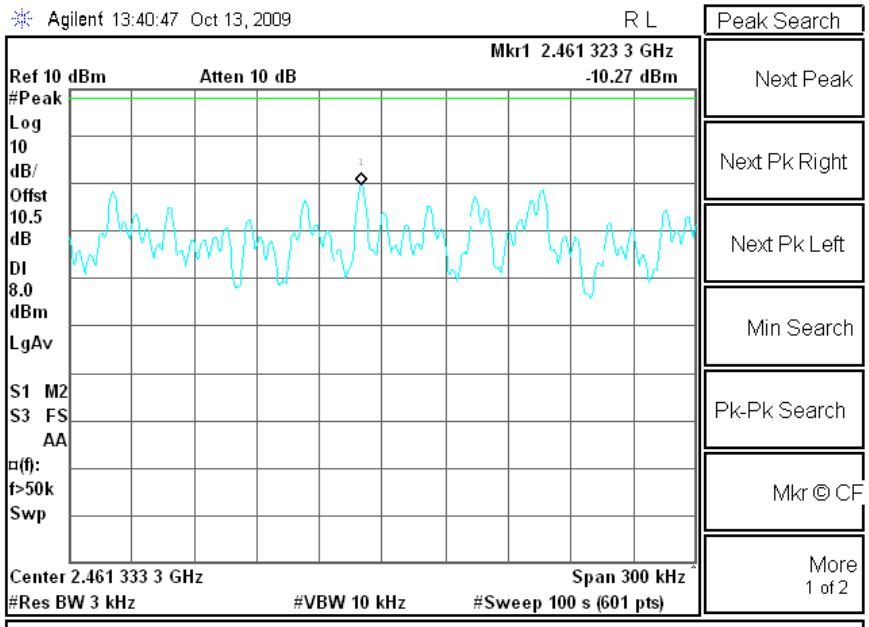
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-11.67	8	-19.67
Middle	2437	-10.86	8	-18.86
High	2462	-10.27	8	-18.27

POWER SPECTRAL DENSITY





PSD HIGH CH



7.1.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

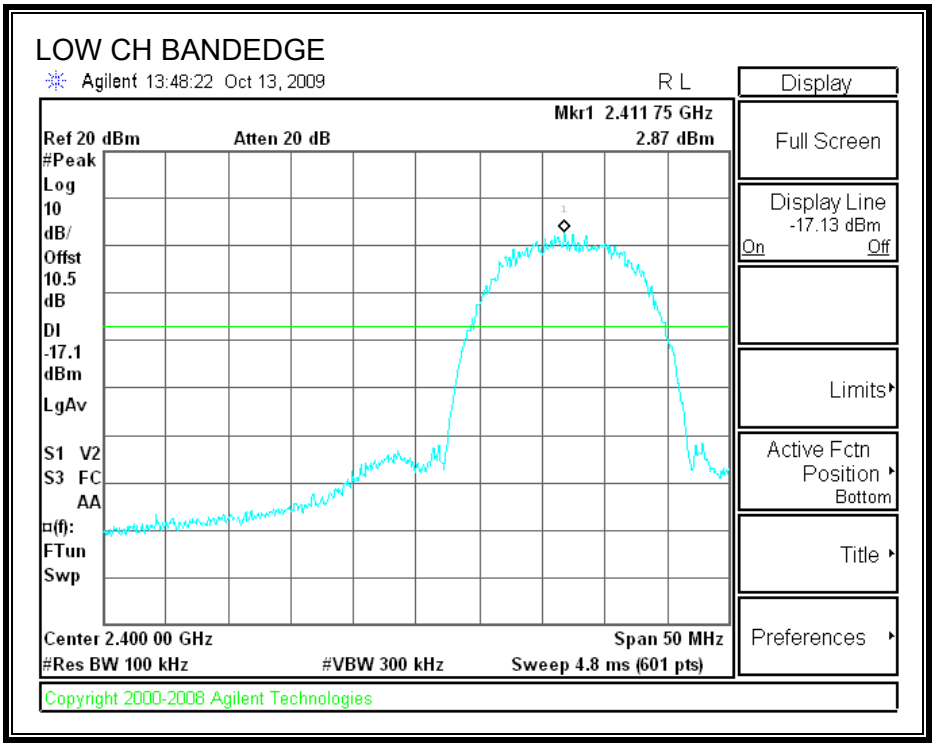
TEST PROCEDURE

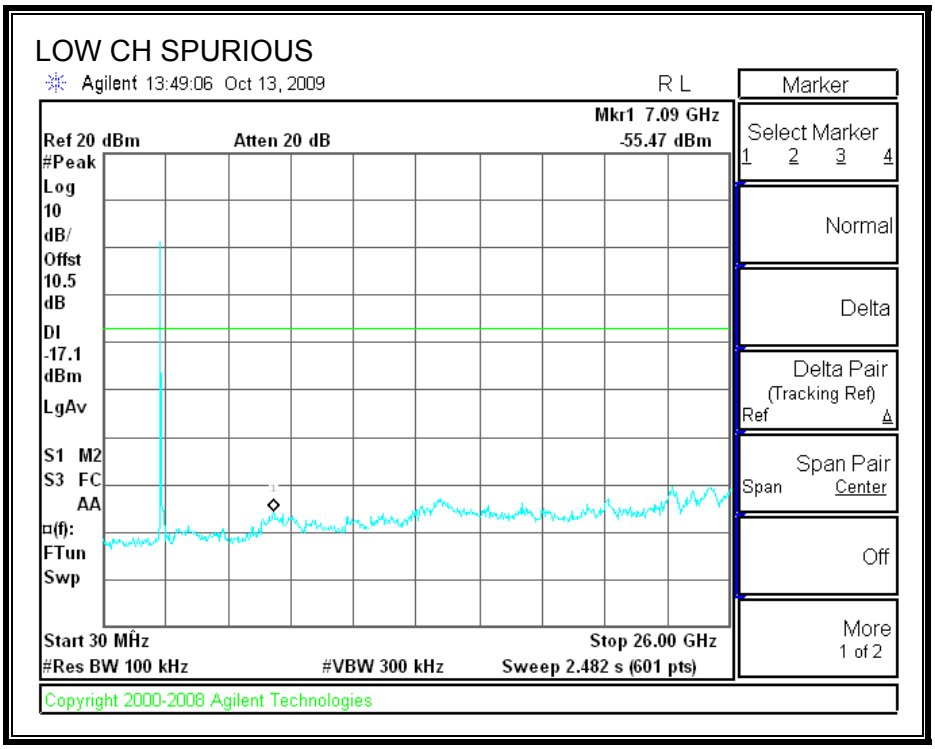
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

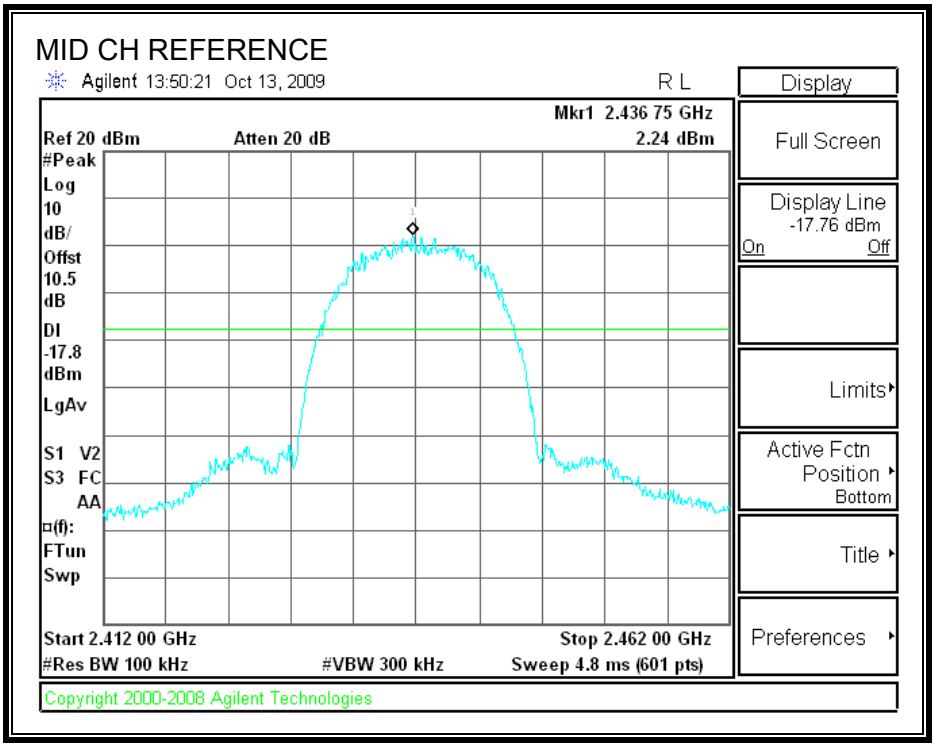
RESULTS

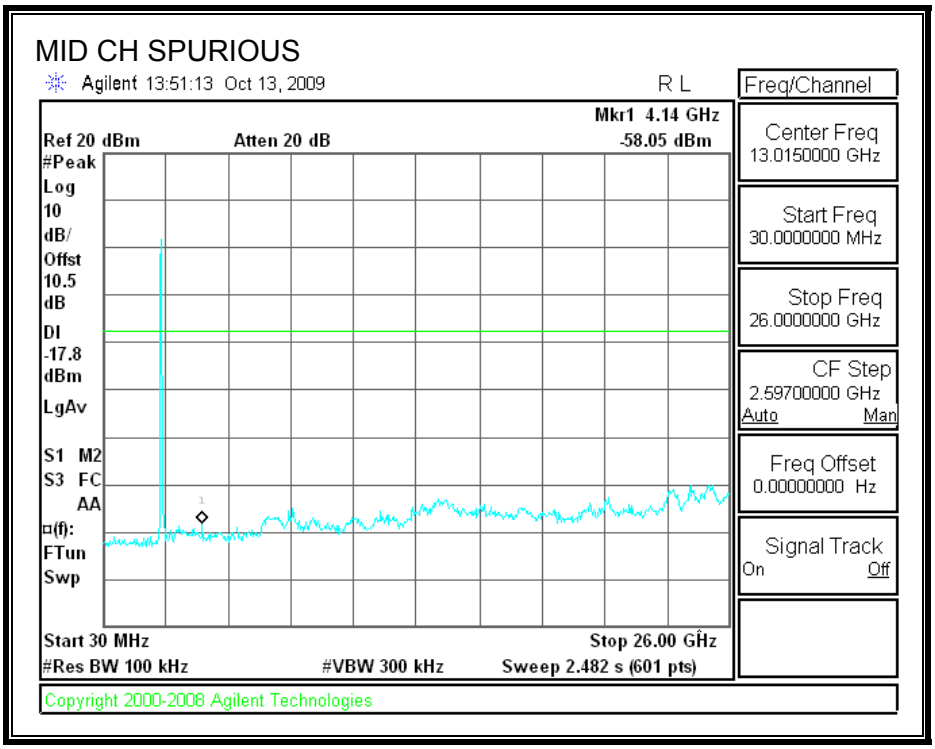
SPURIOUS EMISSIONS, LOW CHANNEL



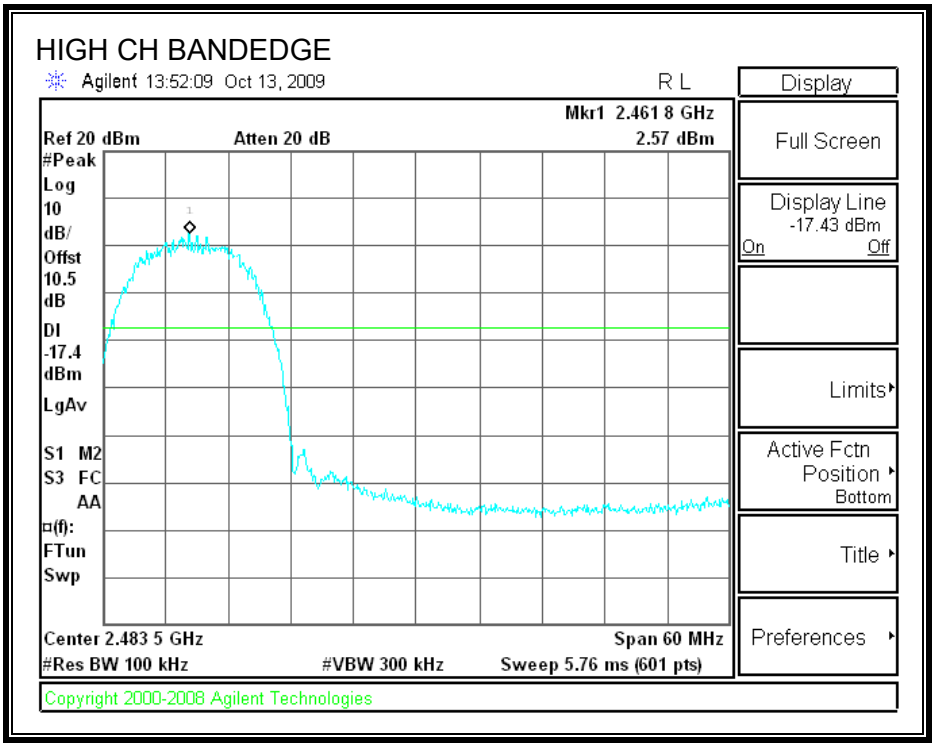


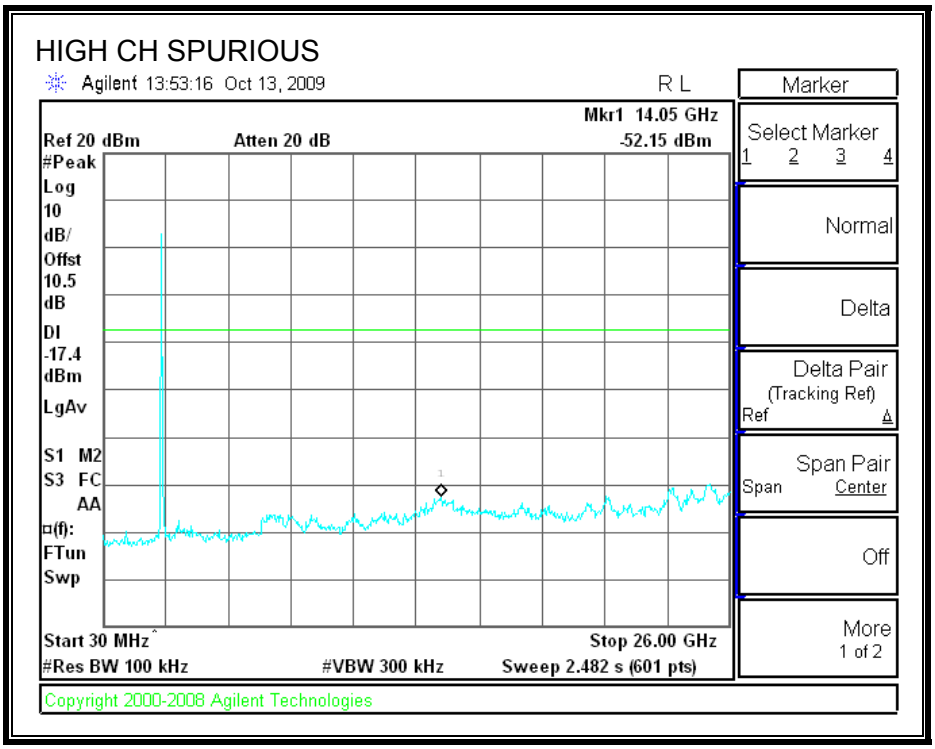
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.2. 802.11g MODE IN THE 2.4 GHz BAND

7.2.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

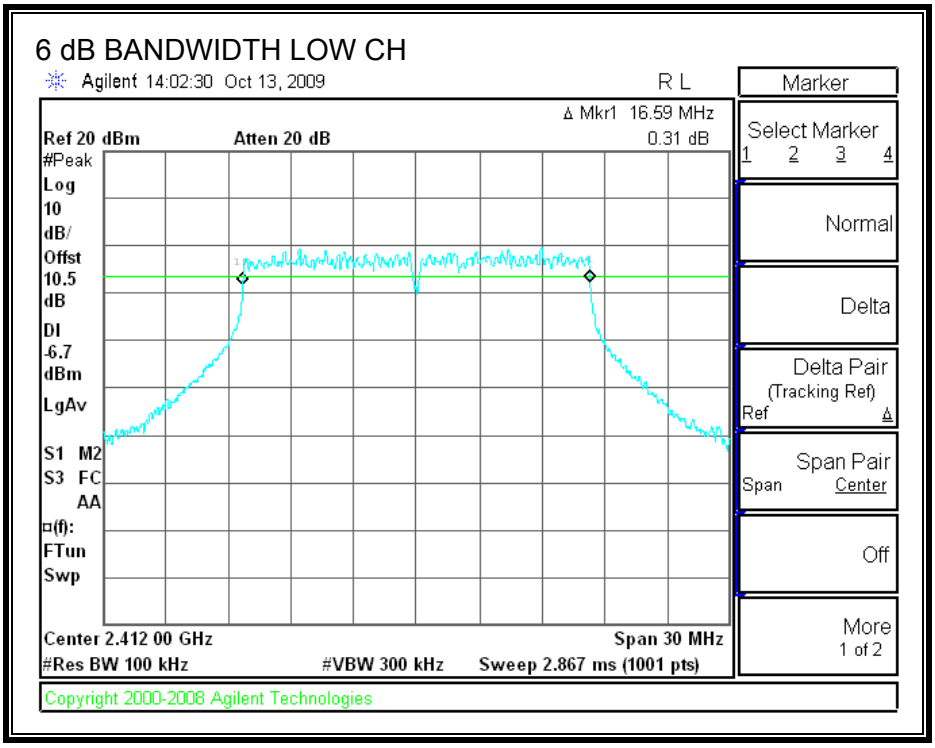
TEST PROCEDURE

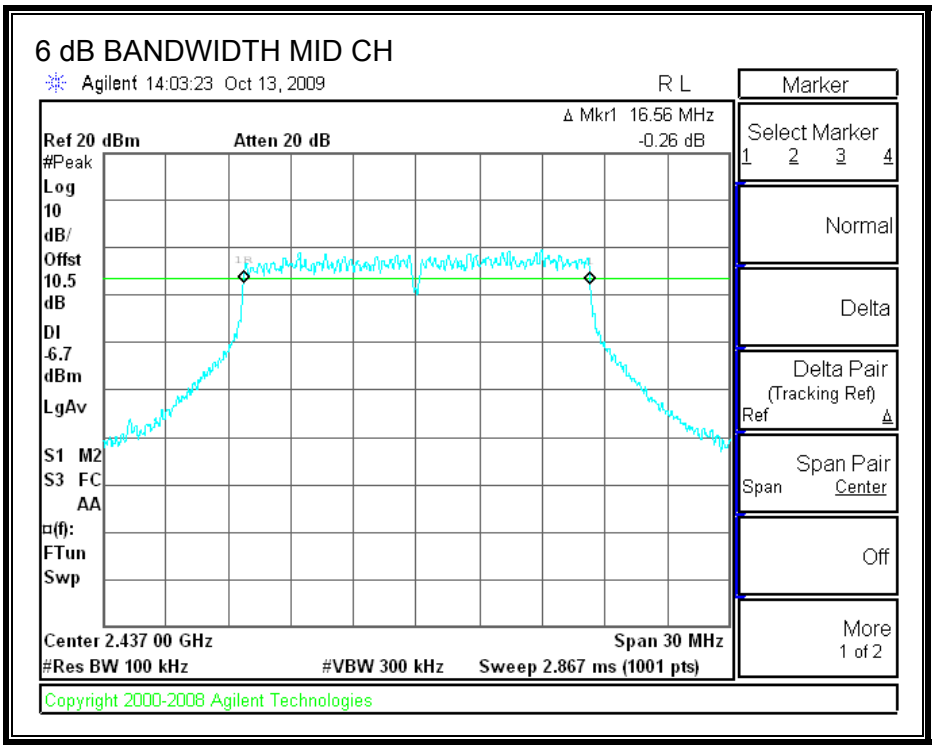
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

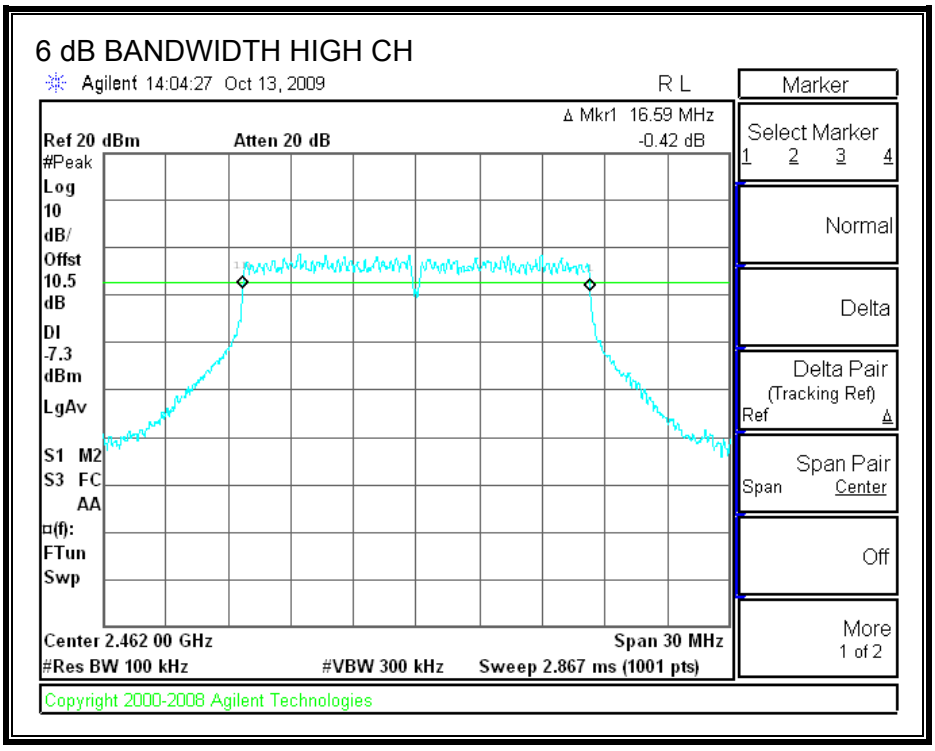
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	16.59	0.5
Middle	2437	16.56	0.5
High	2462	16.59	0.5

6 dB BANDWIDTH







7.2.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

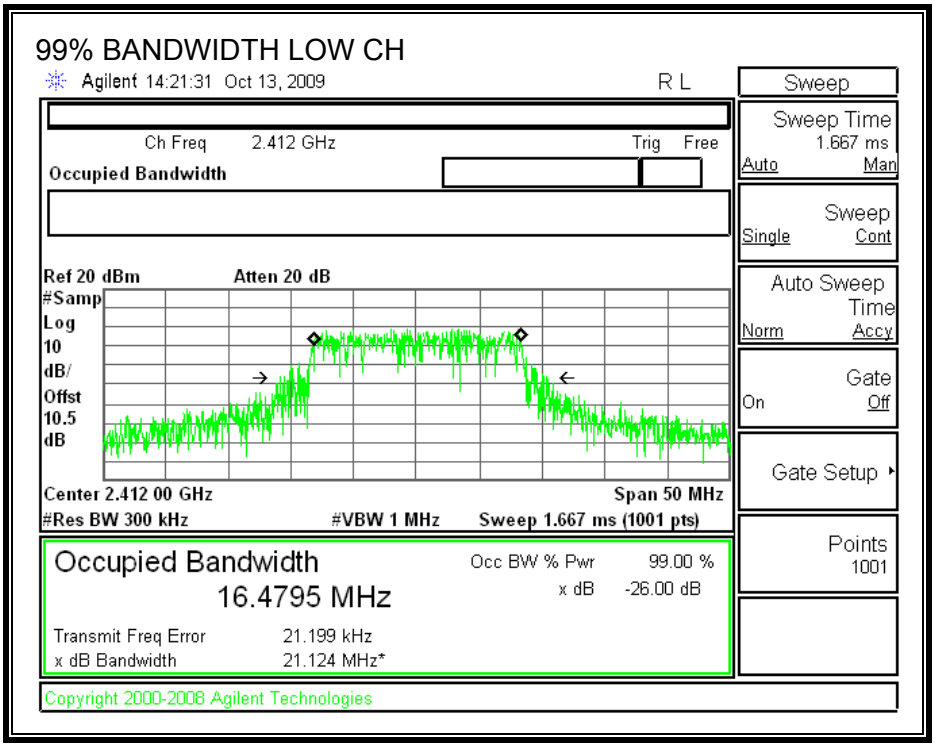
TEST PROCEDURE

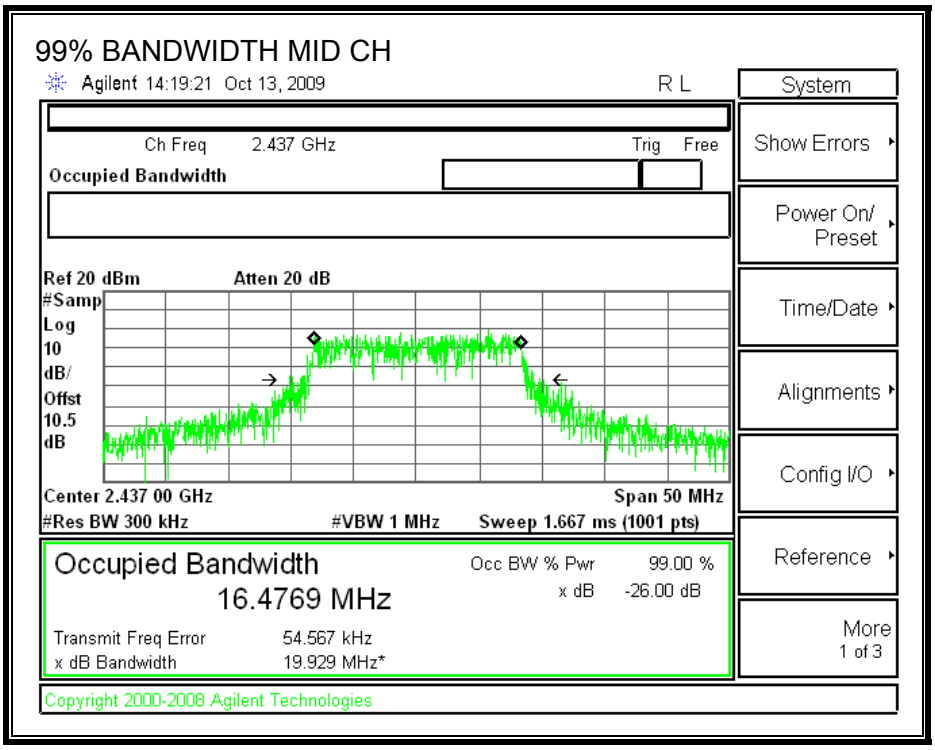
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

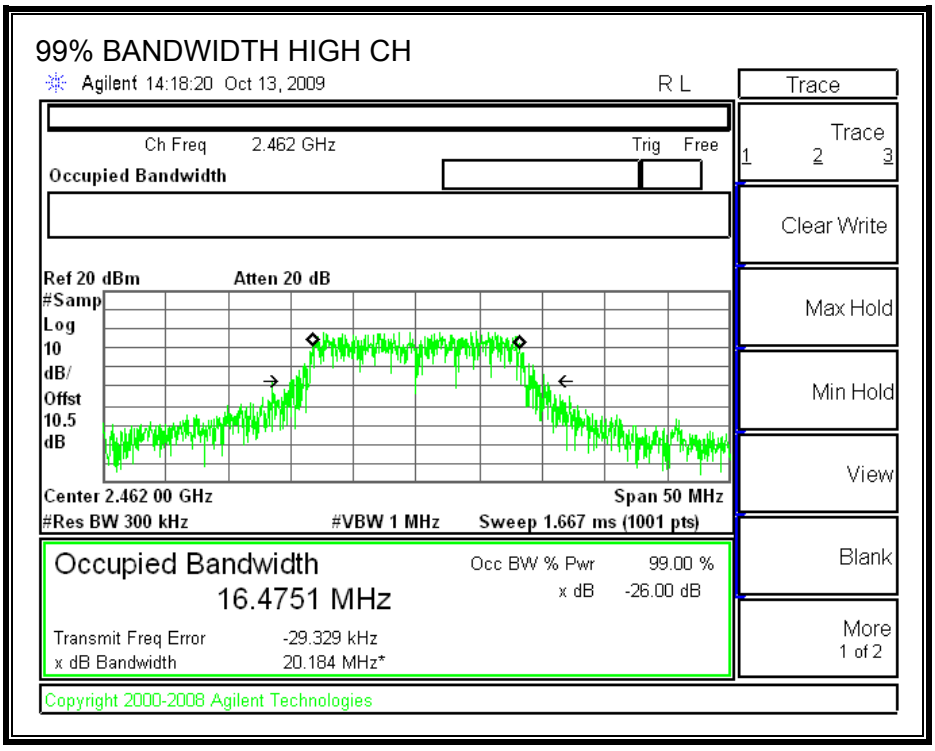
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.4795
Middle	2437	16.4769
High	2462	16.4751

99% BANDWIDTH







7.2.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

Channel	Frequency (MHz)	Peak Power Meter Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2412	19.00	30	-11.00
Middle	2437	19.50	30	-10.50
High	2462	18.60	30	-11.40

7.2.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 17 dB (including 10 dB pad and 7 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	10.10
Middle	2437	10.30
High	2462	10.10

7.2.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

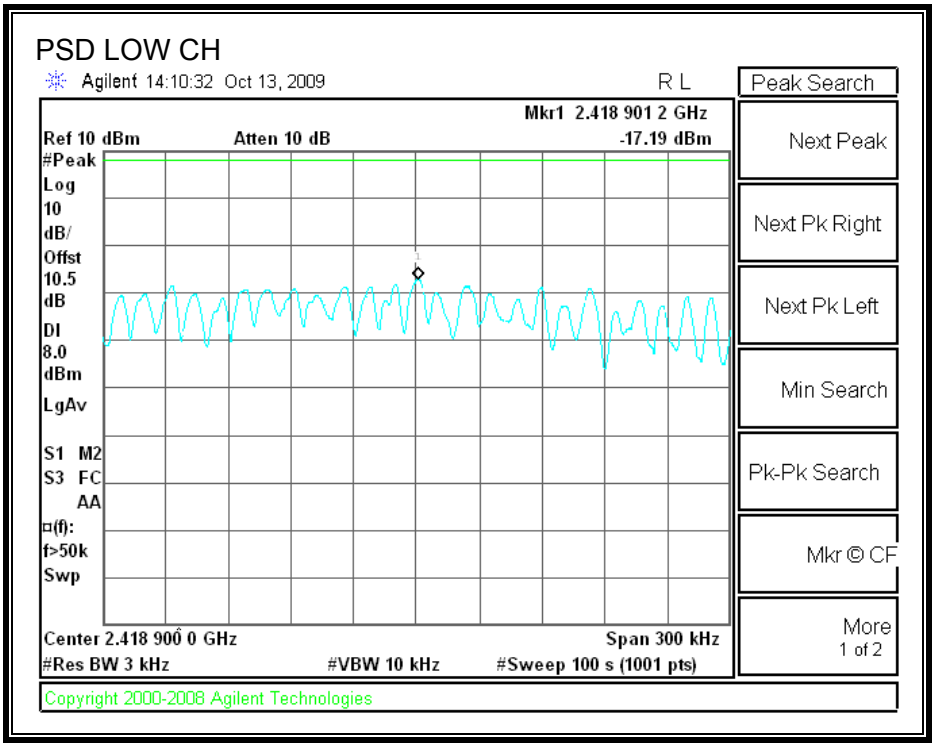
TEST PROCEDURE

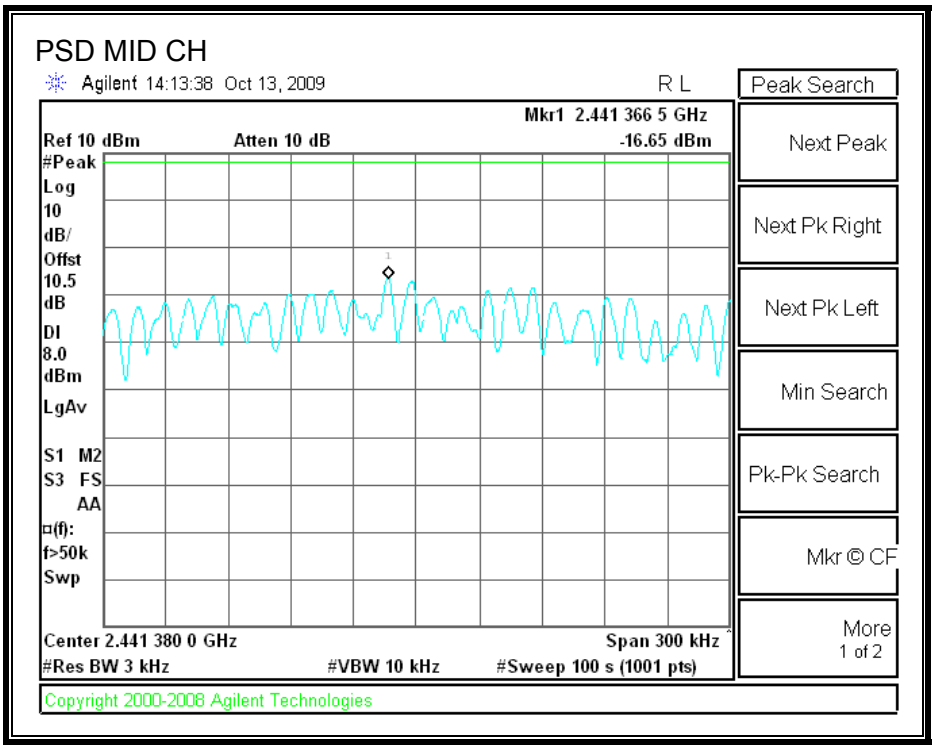
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

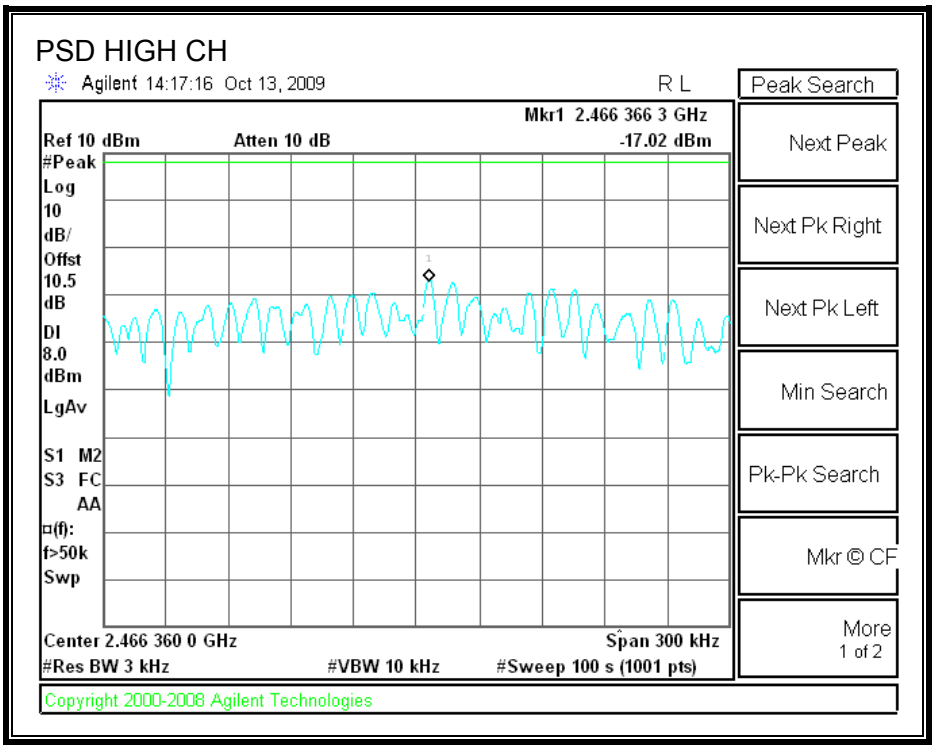
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-17.19	8	-25.19
Middle	2437	-16.65	8	-24.65
High	2462	-17.02	8	-25.02

POWER SPECTRAL DENSITY







7.2.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

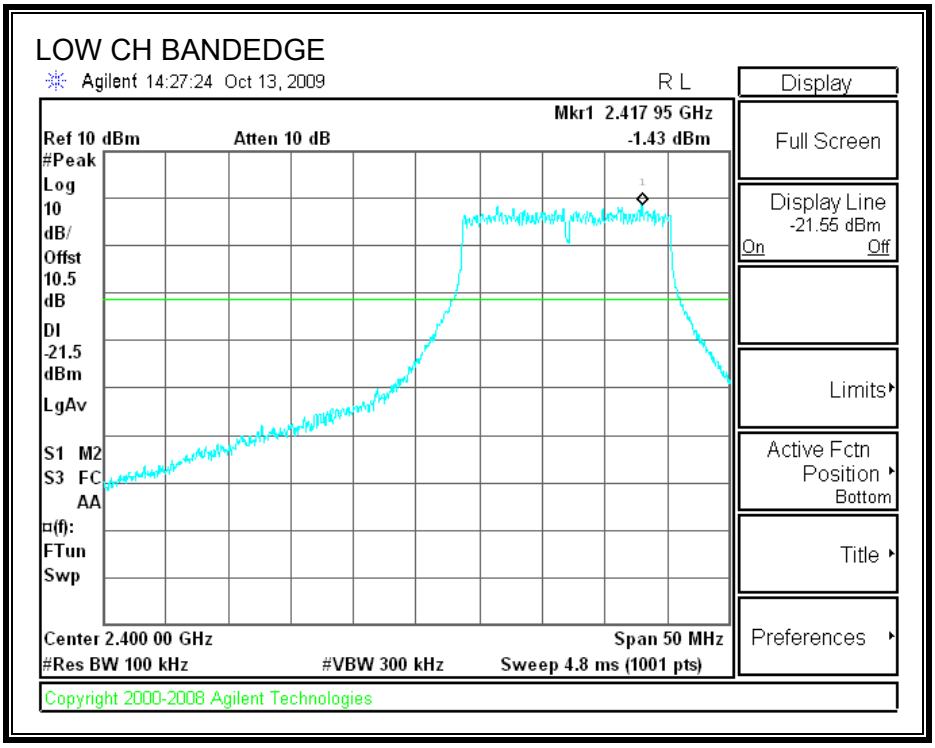
TEST PROCEDURE

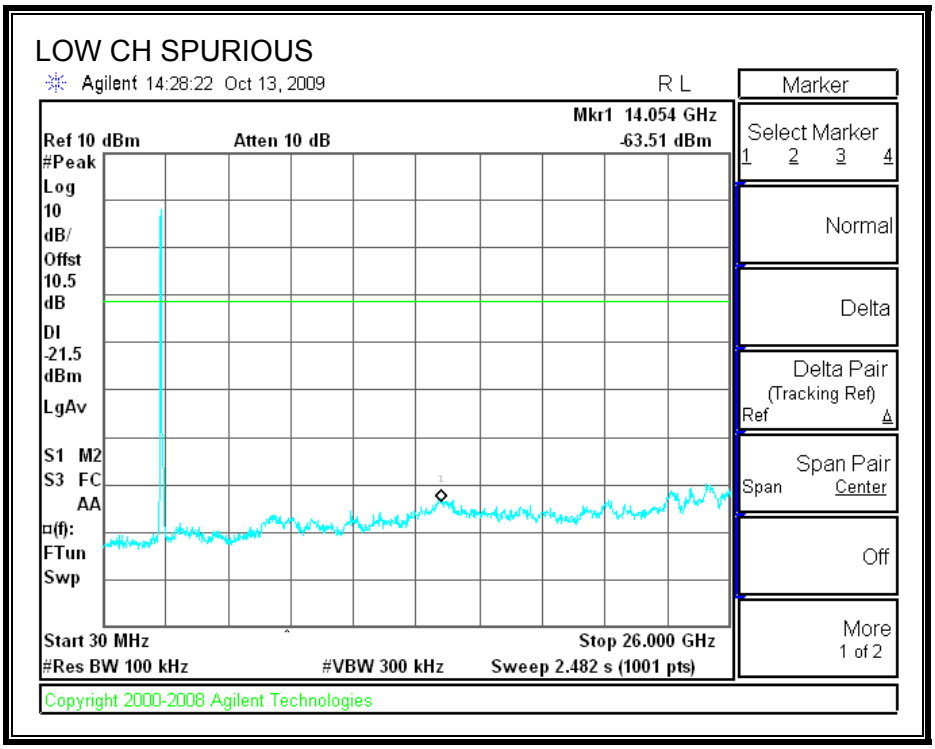
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

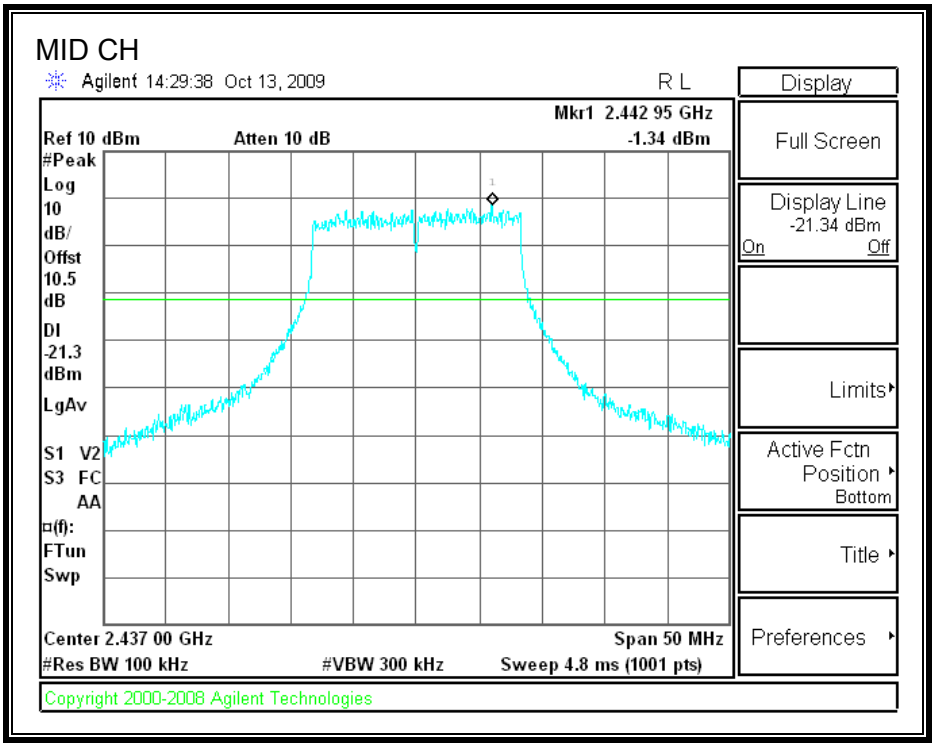
RESULTS

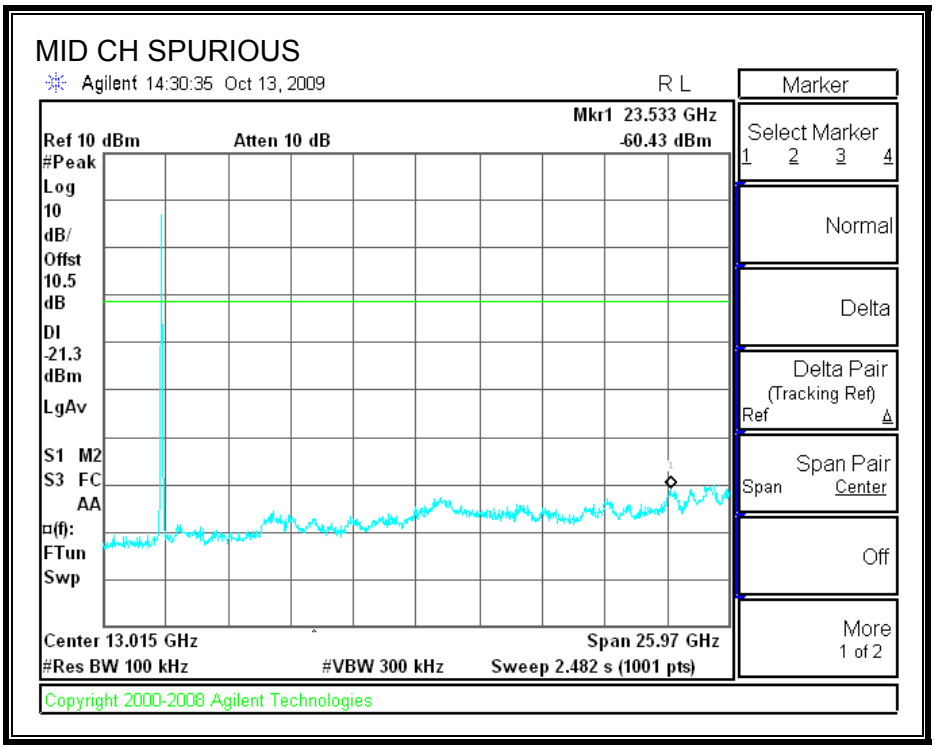
SPURIOUS EMISSIONS, LOW CHANNEL



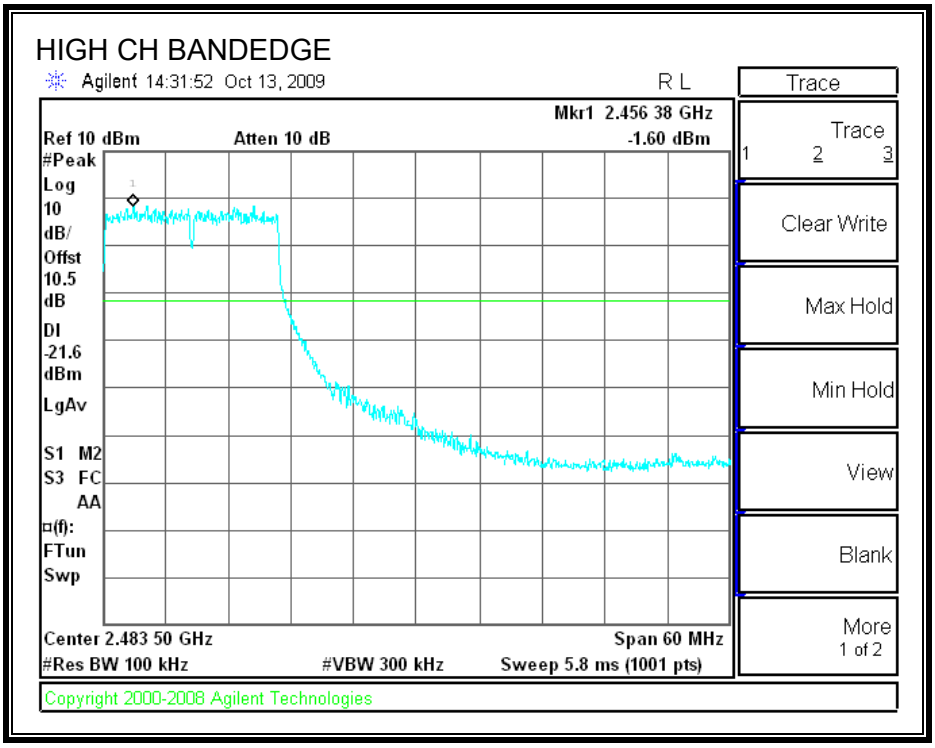


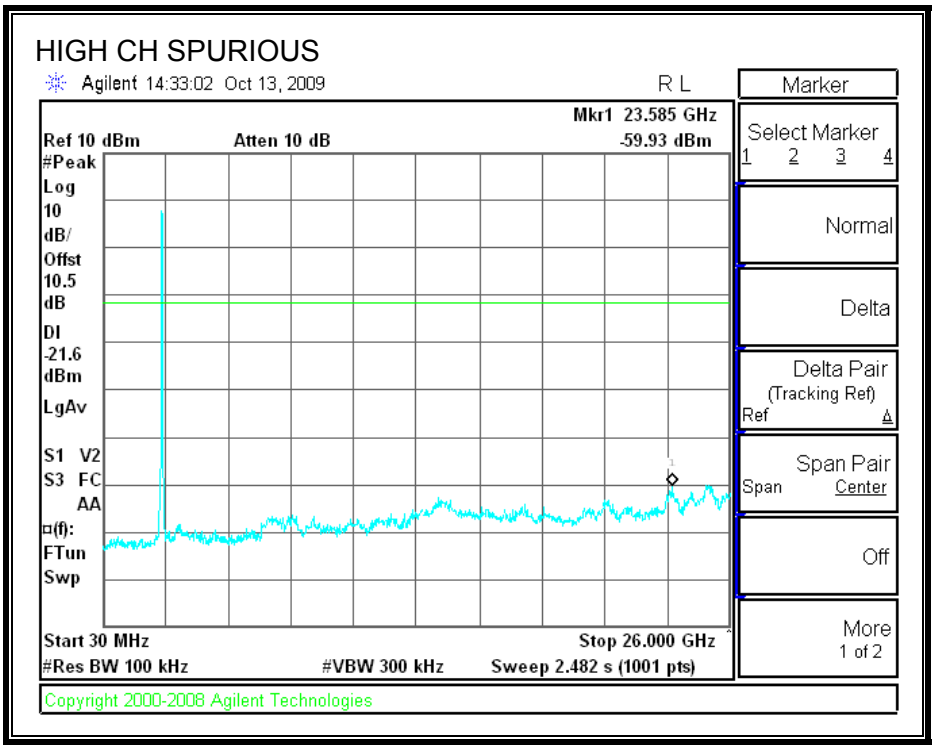
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.3. BLUETOOTH GFSK MODE IN THE 2.4 GHz BAND

7.3.1. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

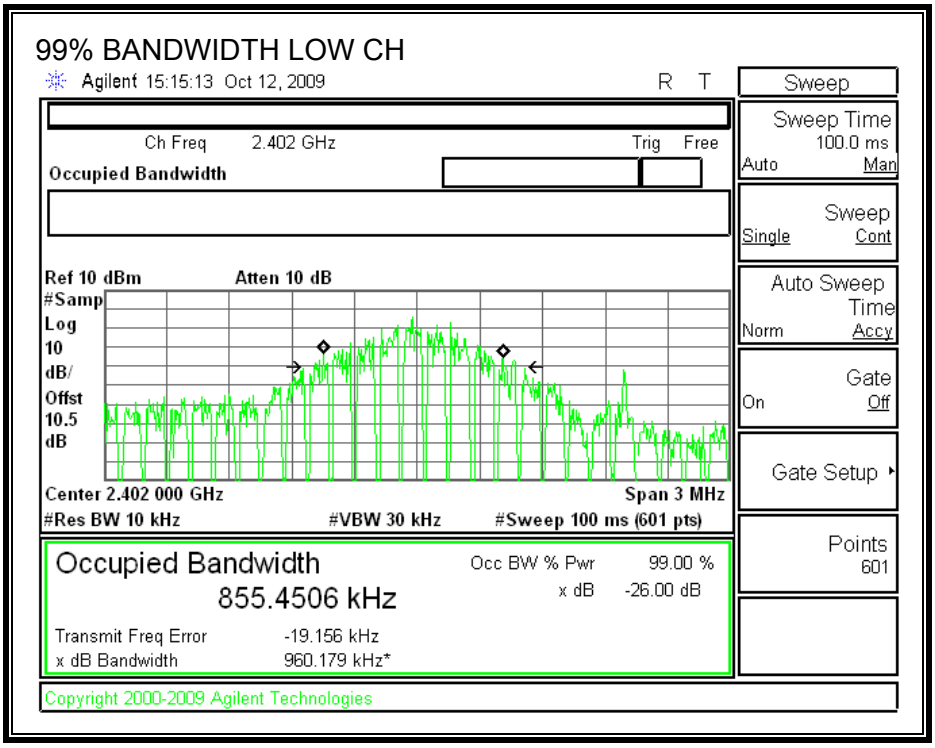
TEST PROCEDURE

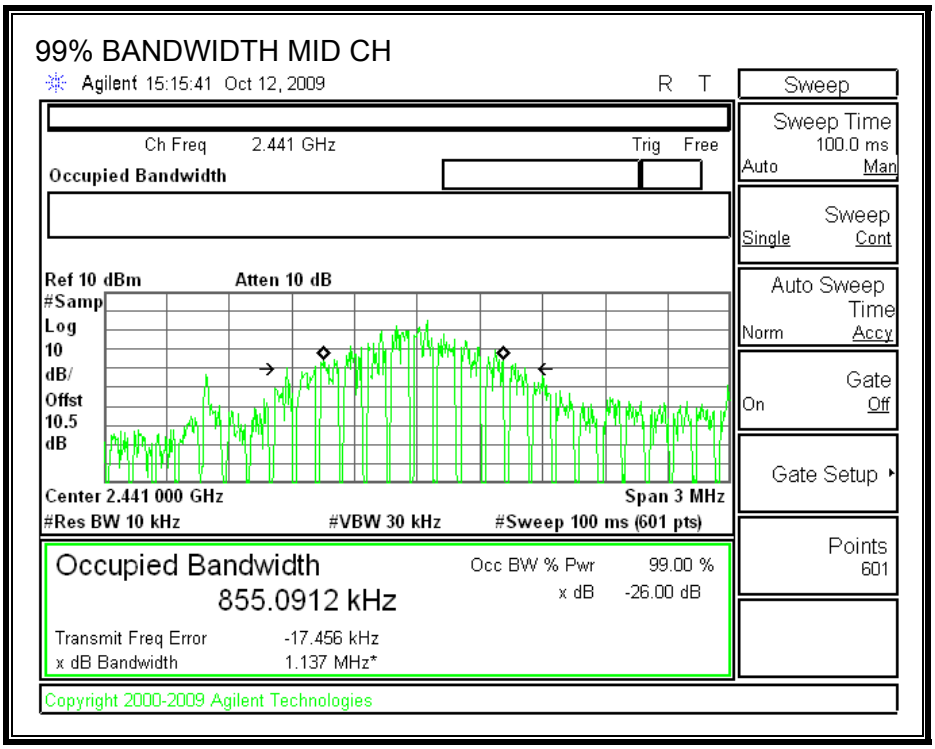
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

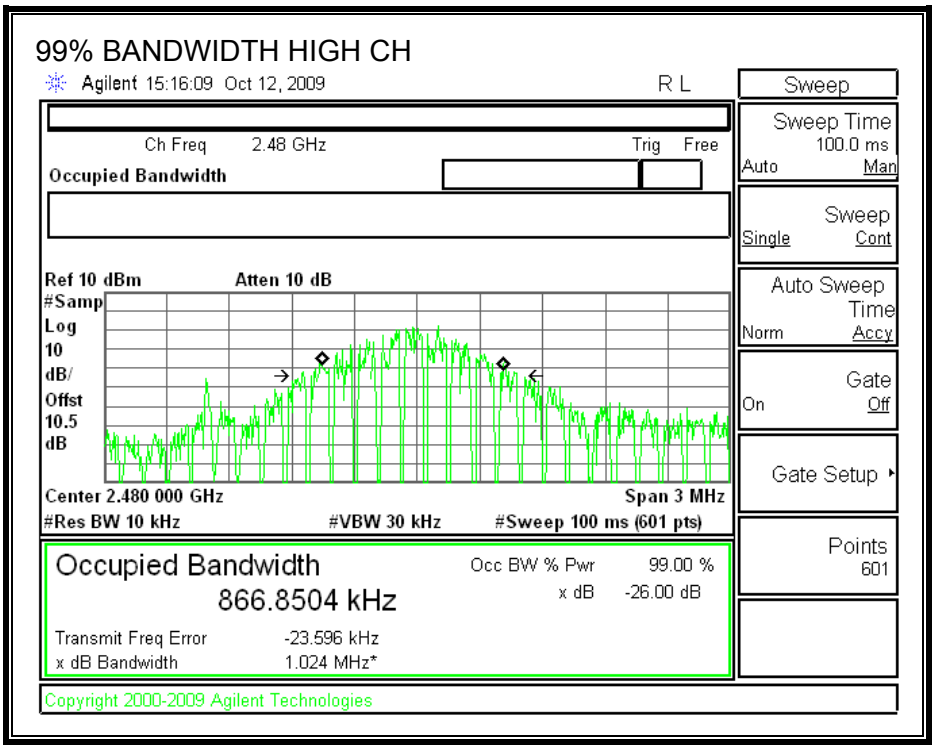
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (KHz)
Low	2402	855.4506
Middle	2441	855.0912
High	2480	866.8504

99% BANDWIDTH







7.3.2. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

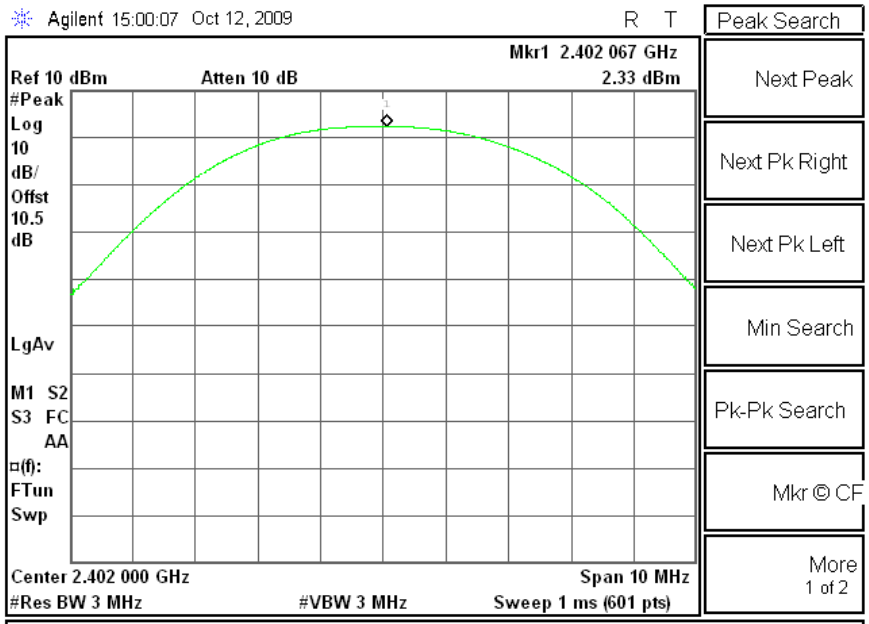
Peak power is measured using the Channel bandwidth Alternative peak output power procedure specified in "TCB Training for Devices covered under Scopes A1 - A4" by Joe Dichoso, May 2003.

RESULTS

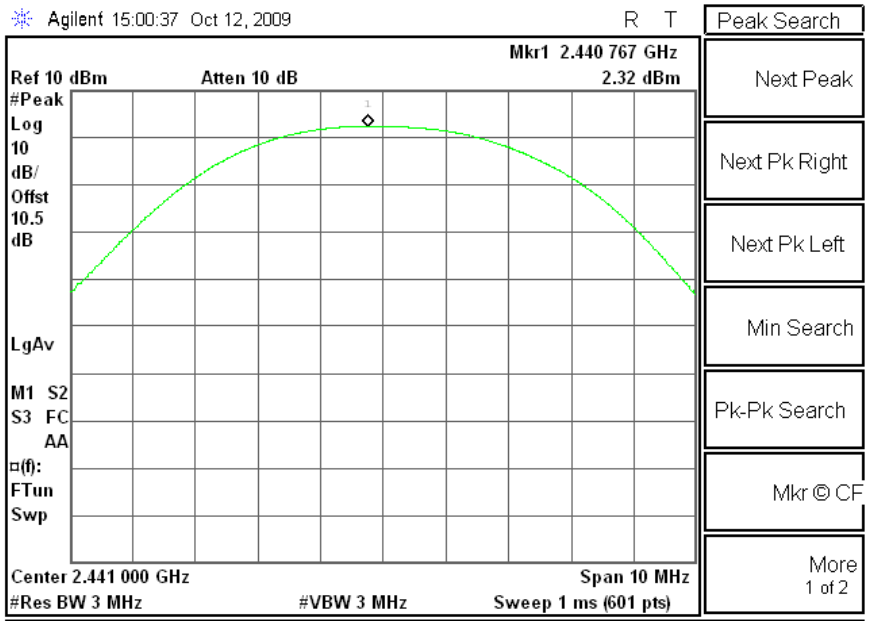
Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	2.33	30	-27.67
Middle	2441	2.32	30	-27.68
High	2480	1.73	30	-28.27

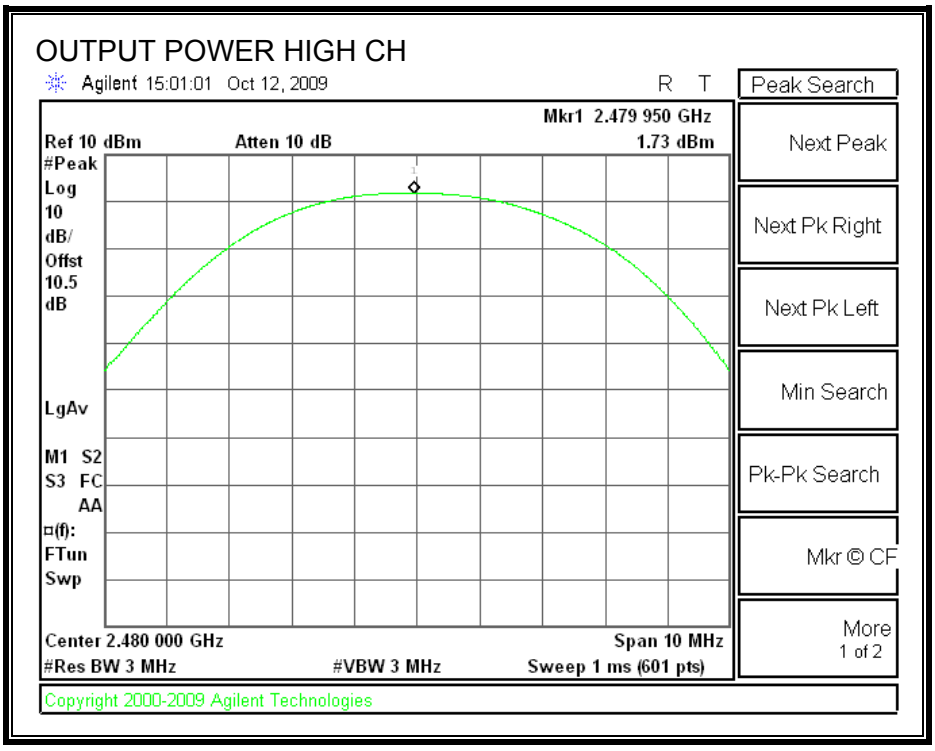
OUTPUT POWER

OUTPUT POWER LOW CH



OUTPUT POWER MID CH





7.3.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 10.5 dB was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2402	1.95
Middle	2441	1.80
High	2480	1.20

7.3.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

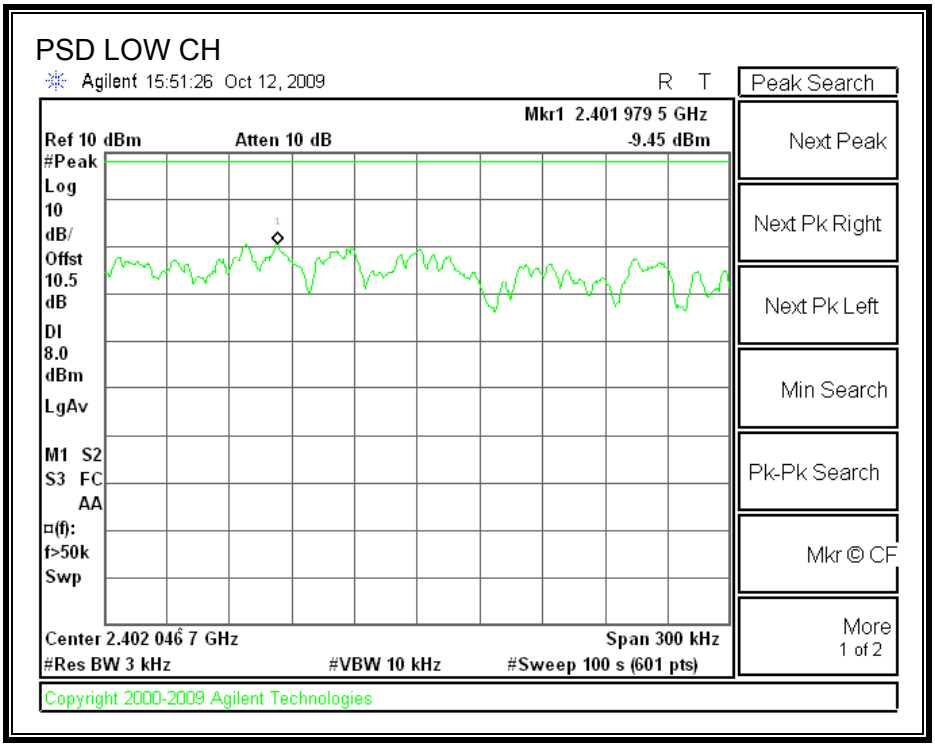
TEST PROCEDURE

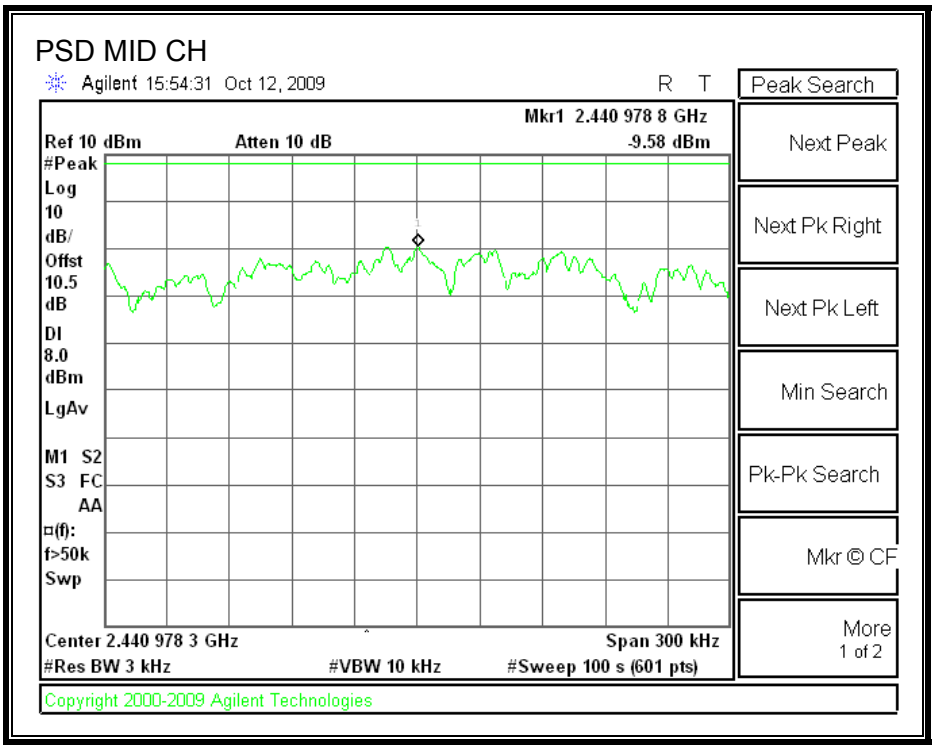
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

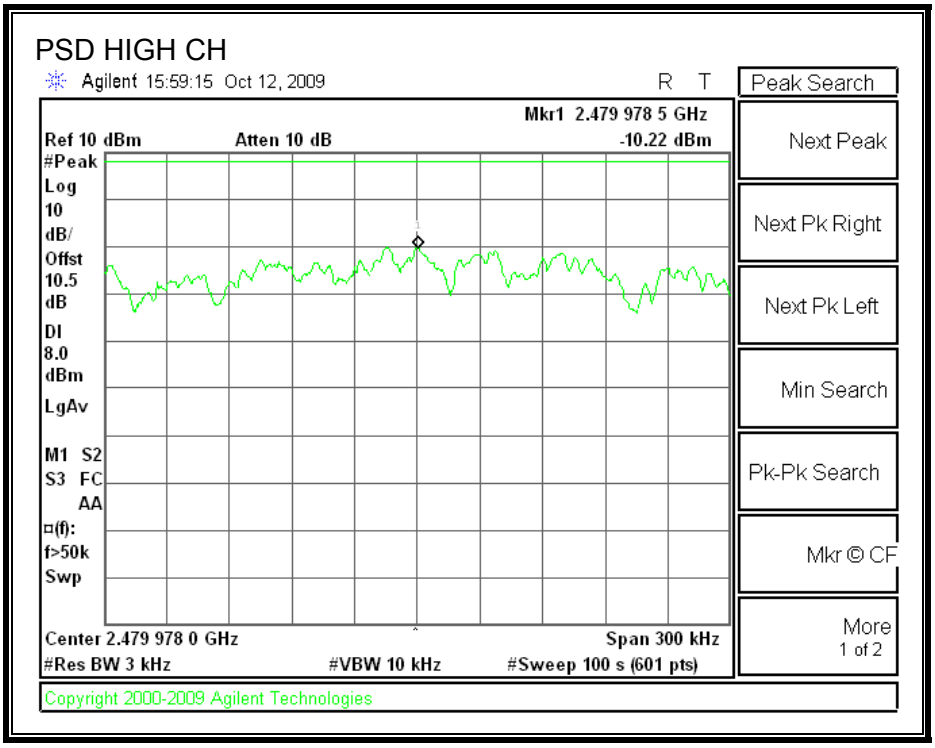
RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-9.45	8	-17.45
Middle	2441	-9.58	8	-17.58
High	2480	-10.22	8	-18.22

POWER SPECTRAL DENSITY







7.3.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

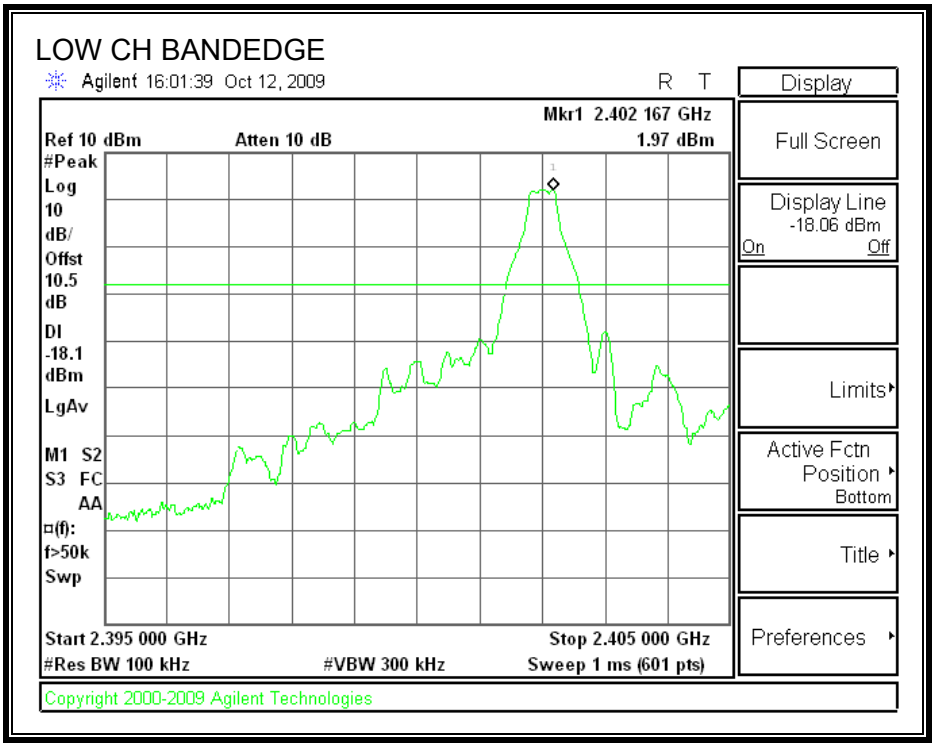
TEST PROCEDURE

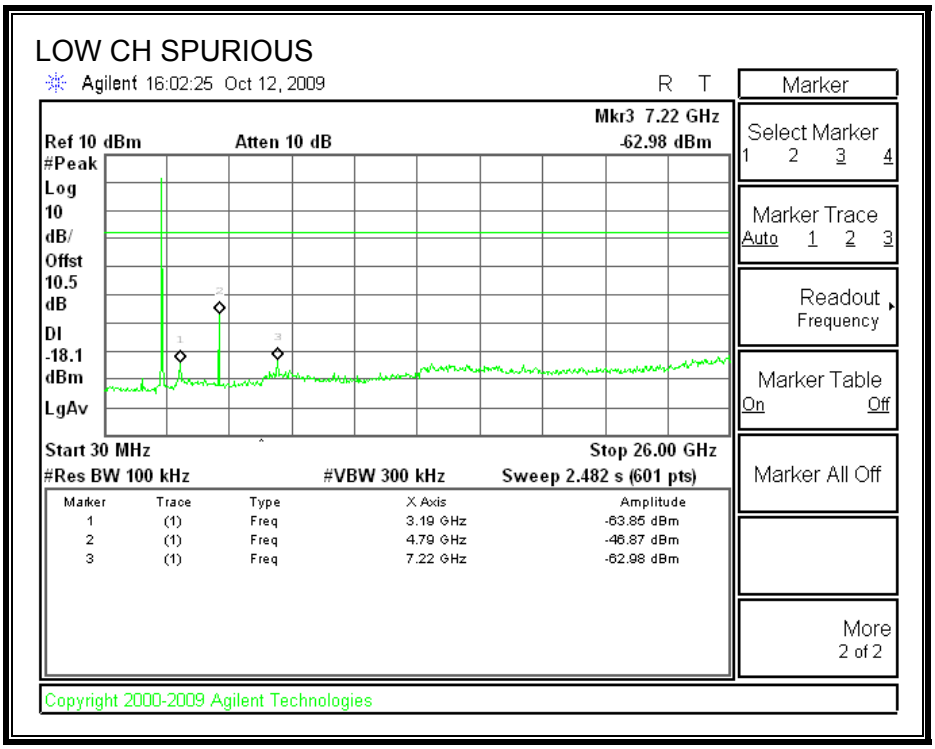
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

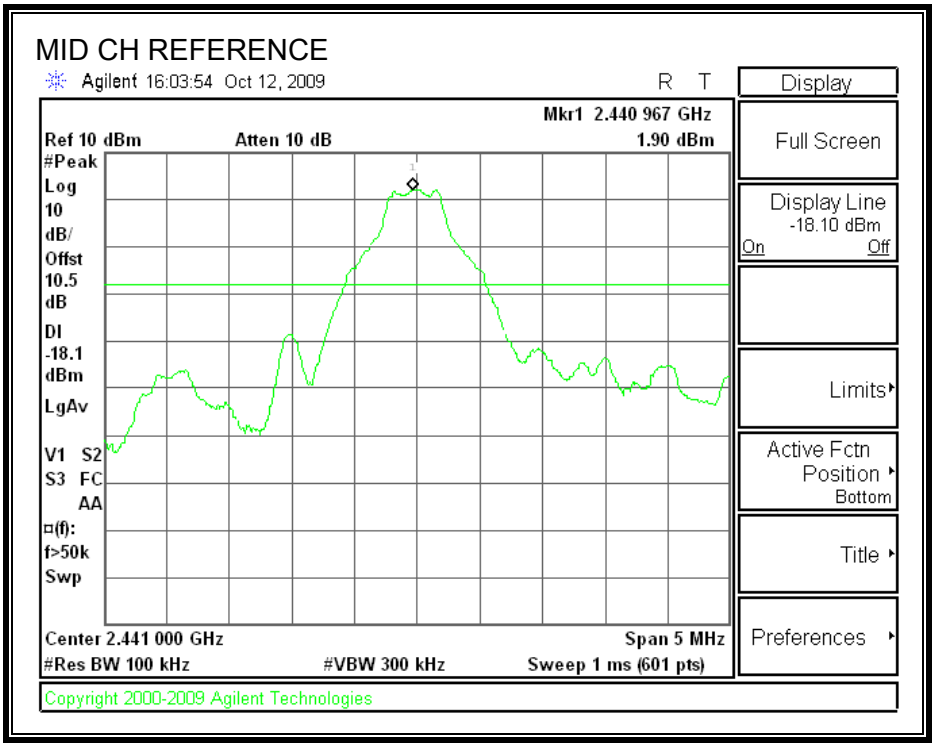
RESULTS

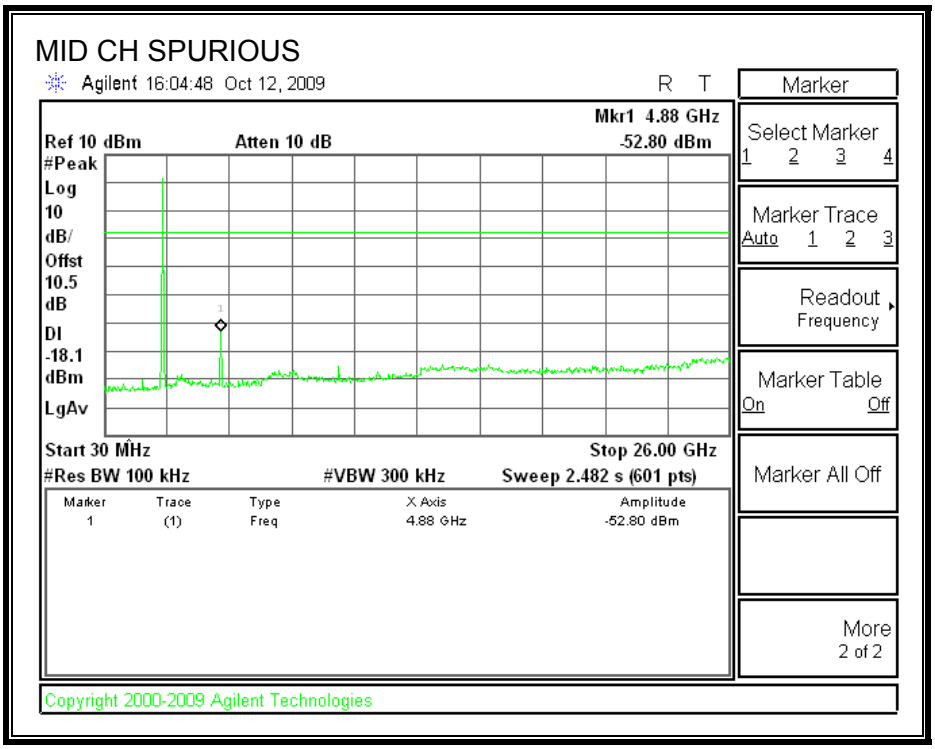
SPURIOUS EMISSIONS, LOW CHANNEL



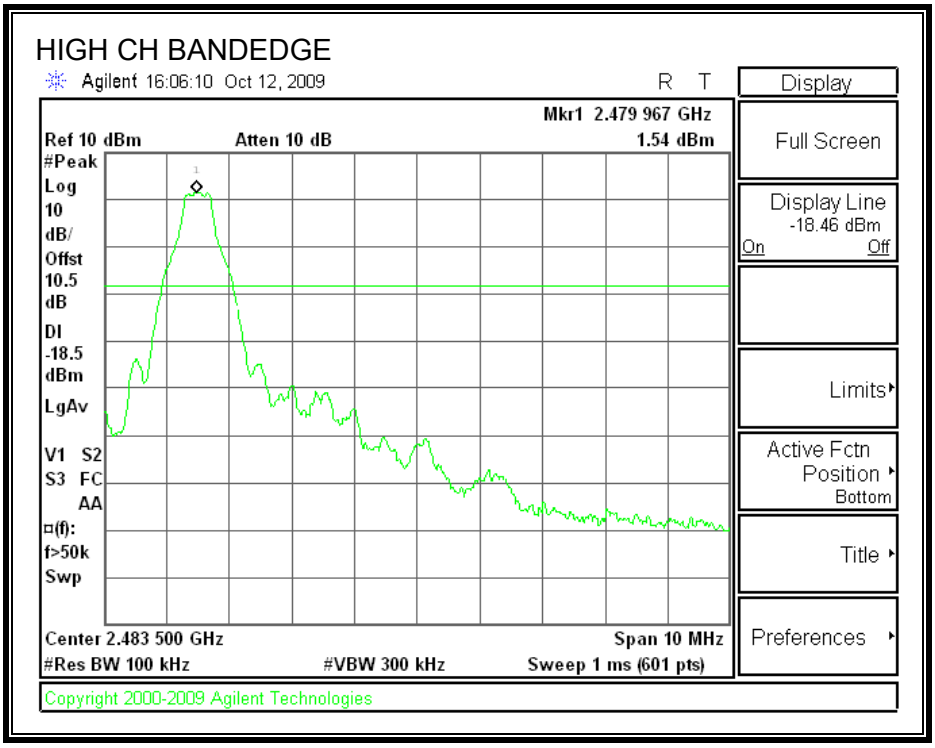


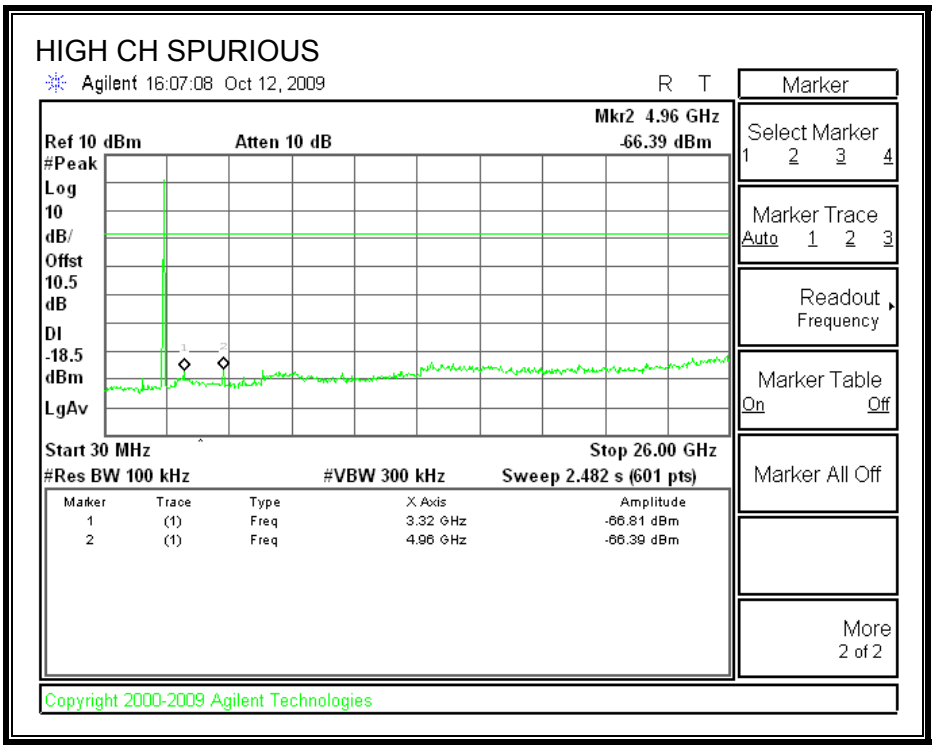
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.4. BLUETOOTH 8PSK MODE IN THE 2.4 GHz BAND

7.4.1. 99%AND 20dB BANDWIDTH

LIMITS

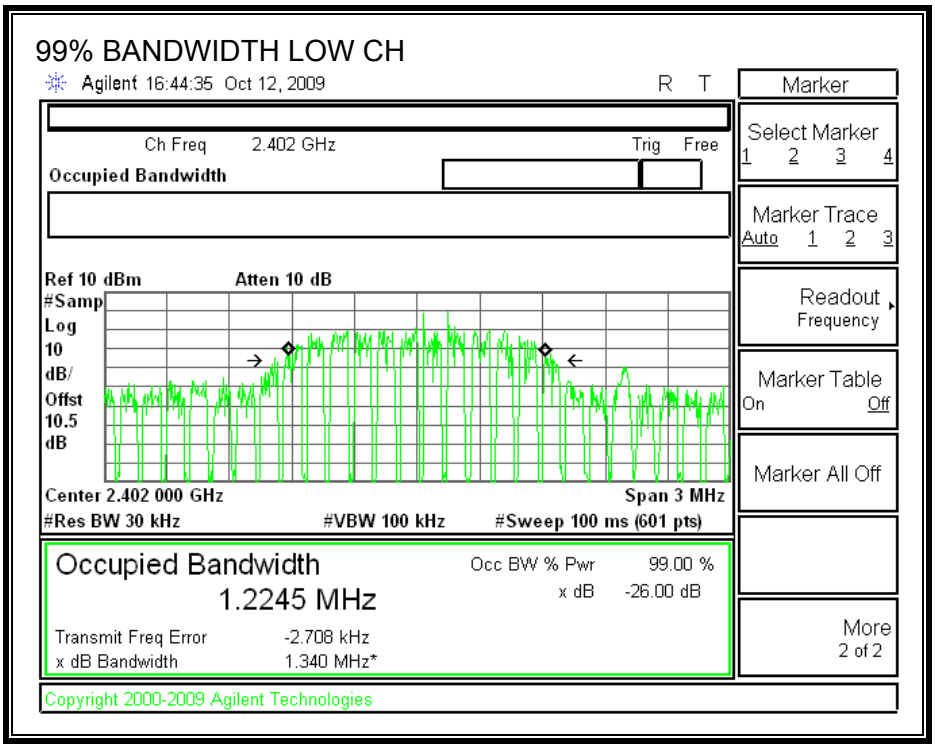
None; for reporting purposes only.

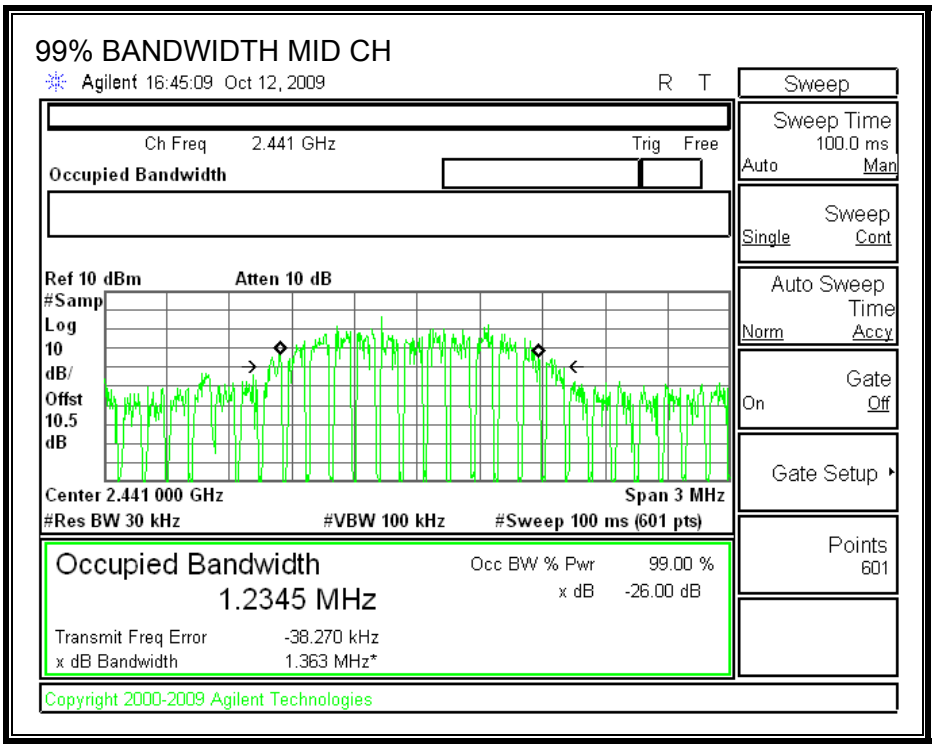
TEST PROCEDURE

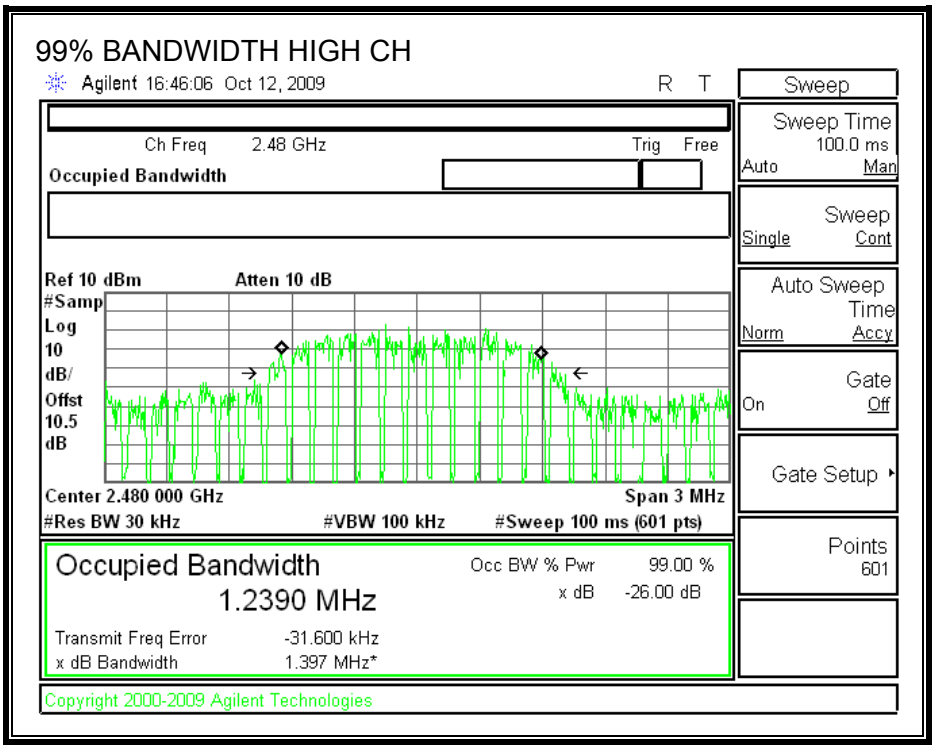
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.2245
Middle	2441	1.2345
High	2480	1.239







7.4.2. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

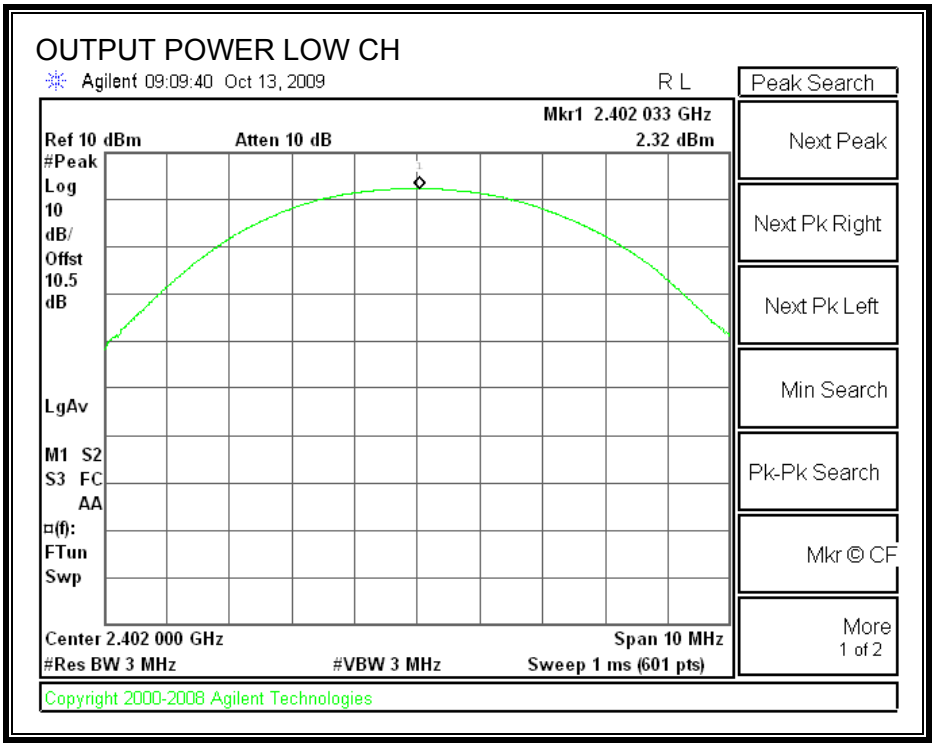
TEST PROCEDURE

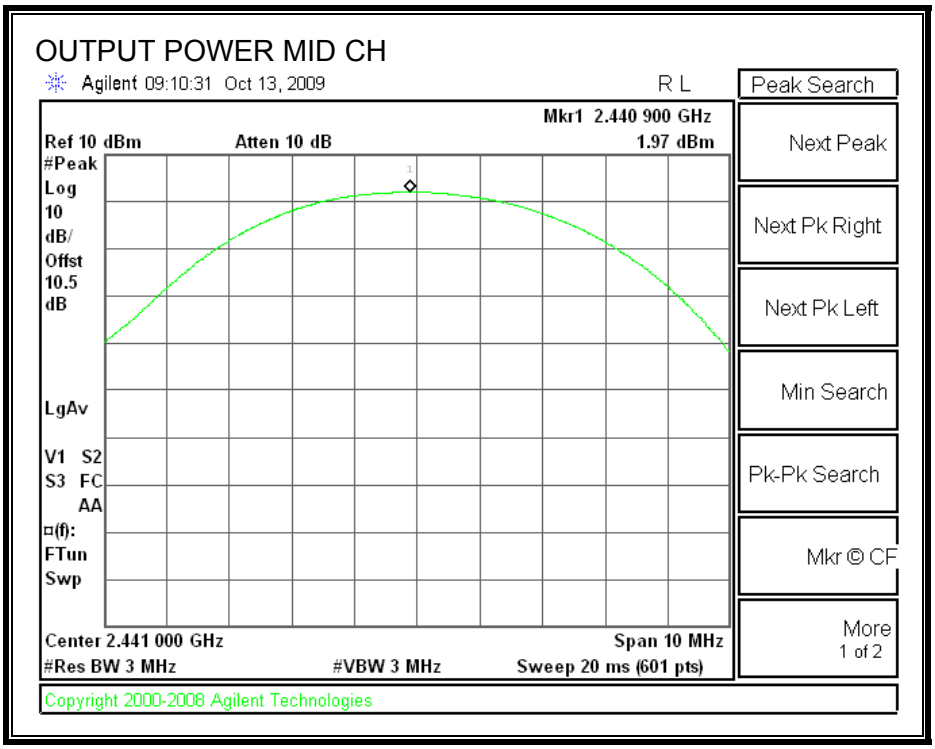
Peak power is measured using the Channel bandwidth Alternative peak output power procedure specified in "TCB Training for Devices covered under Scopes A1 - A4" by Joe Dichoso, May 2003.

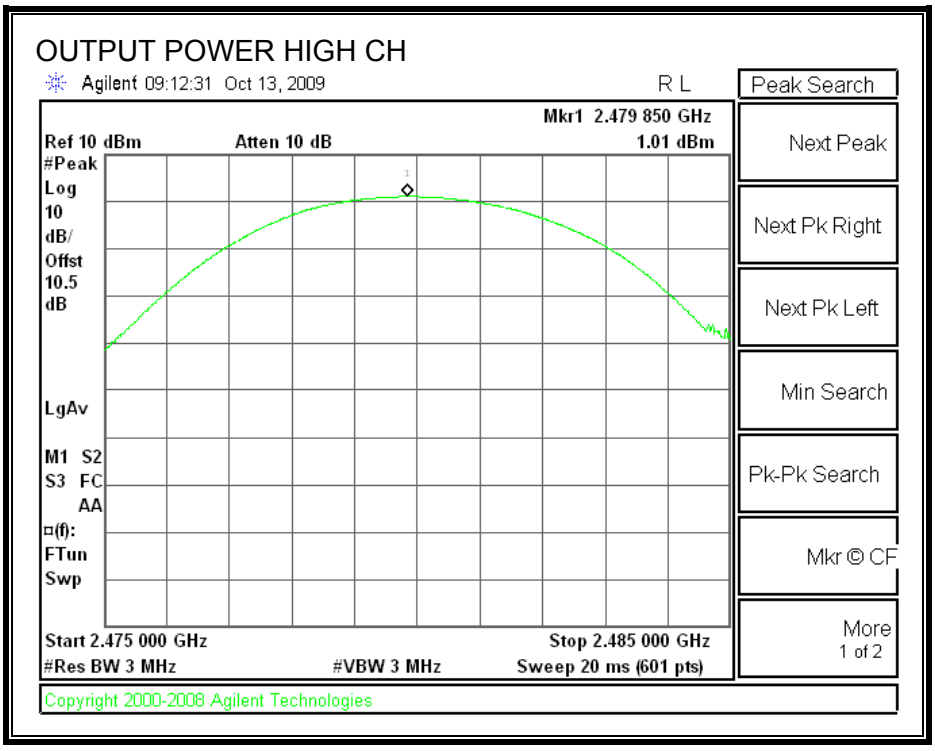
RESULTS

Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	2.32	21	-18.65
Middle	2441	1.97	21	-19.00
High	2480	1.01	21	-19.96

OUTPUT POWER







7.4.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 10.5 dB cable was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2402	0.72
Middle	2441	0.26
High	2480	-0.34

7.4.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

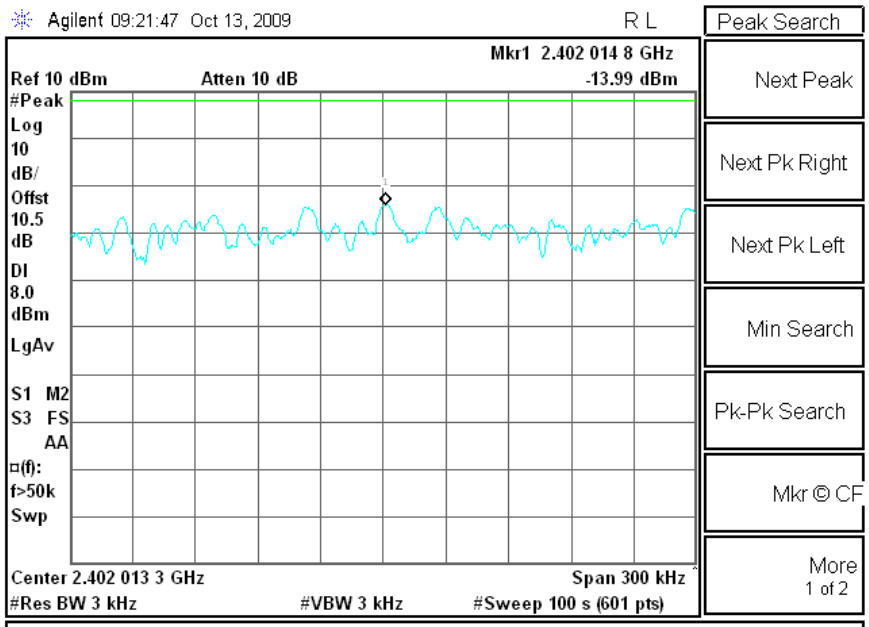
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

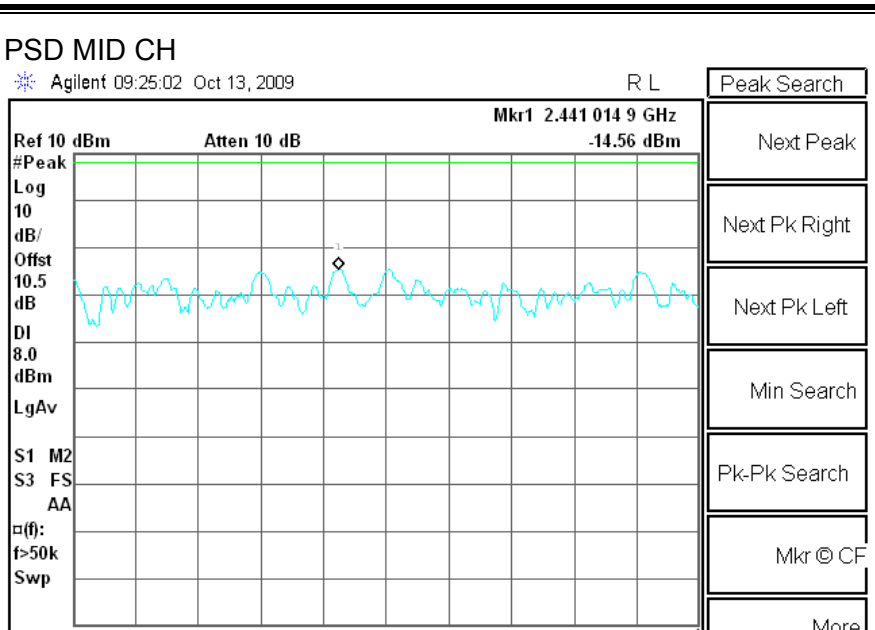
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-13.99	8	-21.99
Middle	2441	-14.56	8	-22.56
High	2480	-16.04	8	-24.04

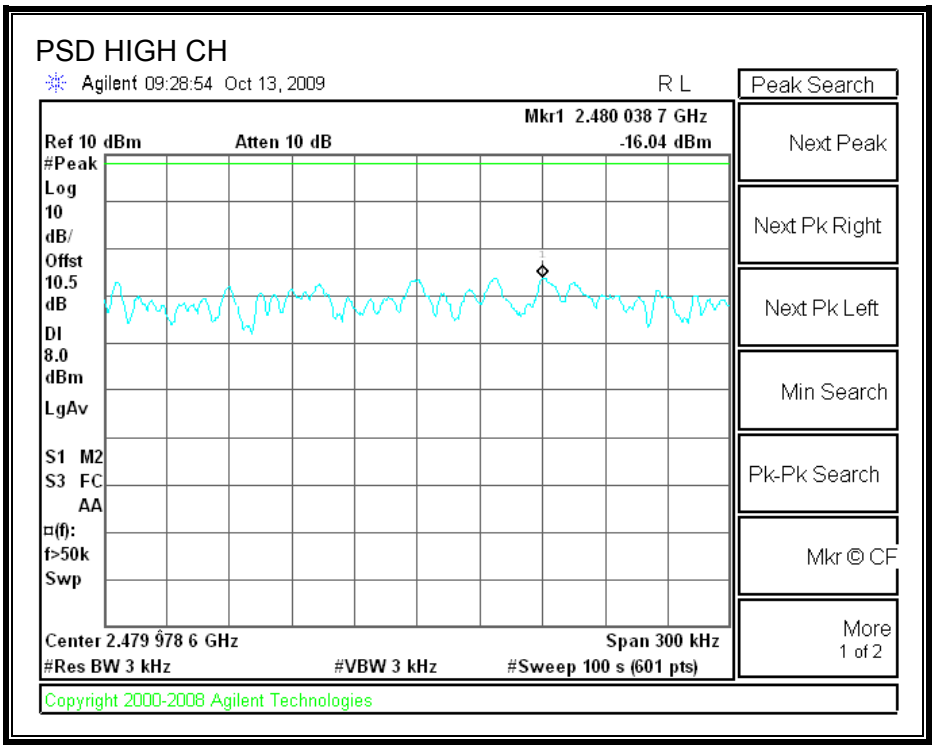
POWER SPECTRAL DENSITY

PSD LOW CH



PSD MID CH





7.4.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

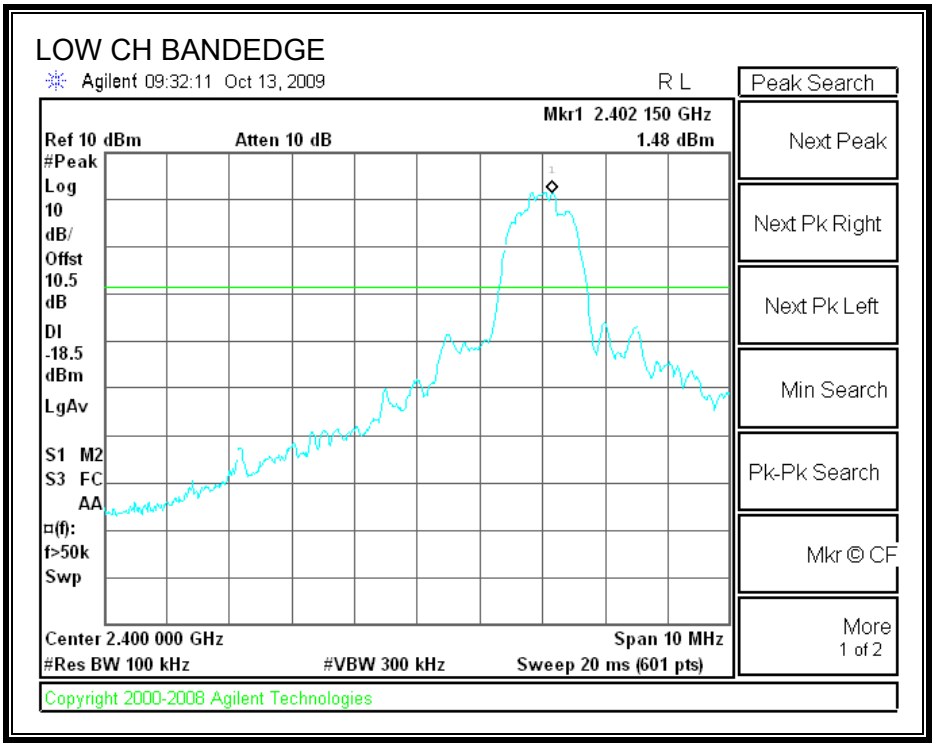
TEST PROCEDURE

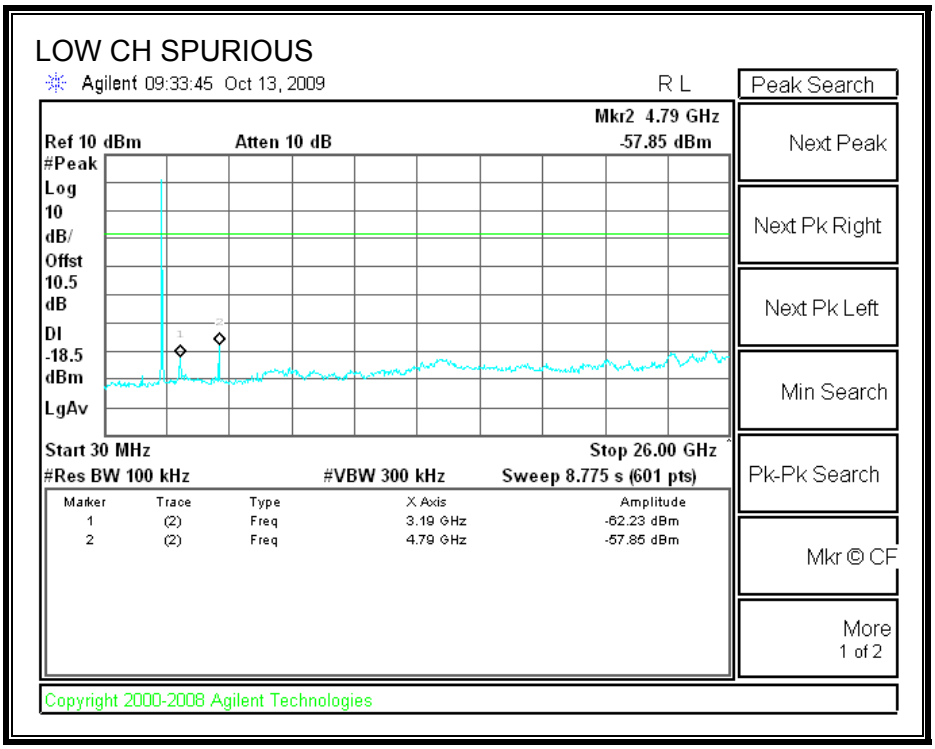
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

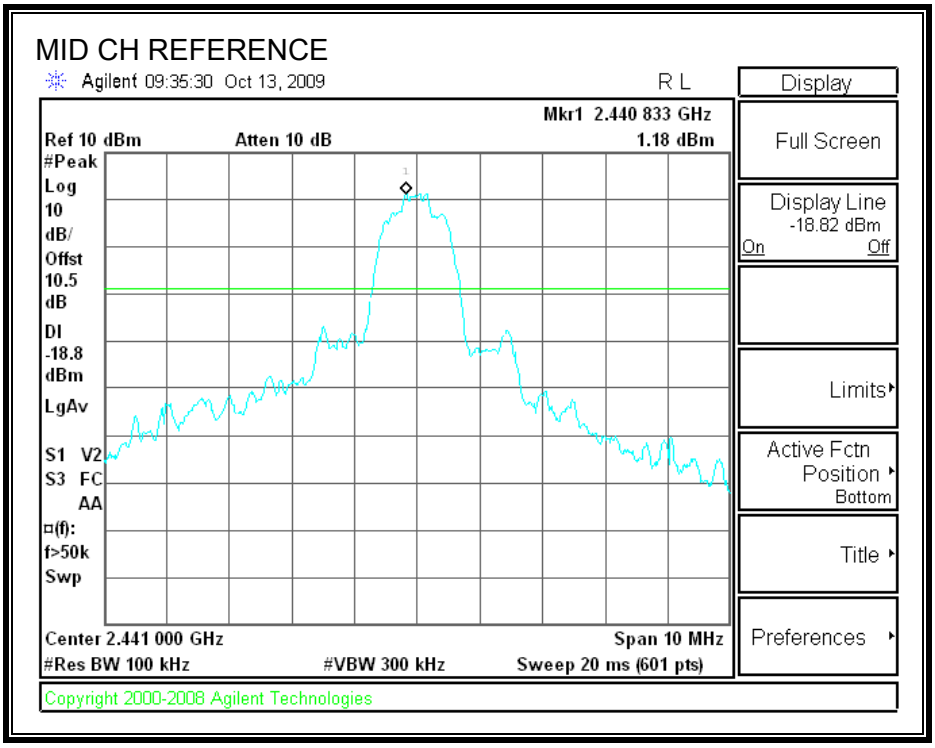
RESULTS

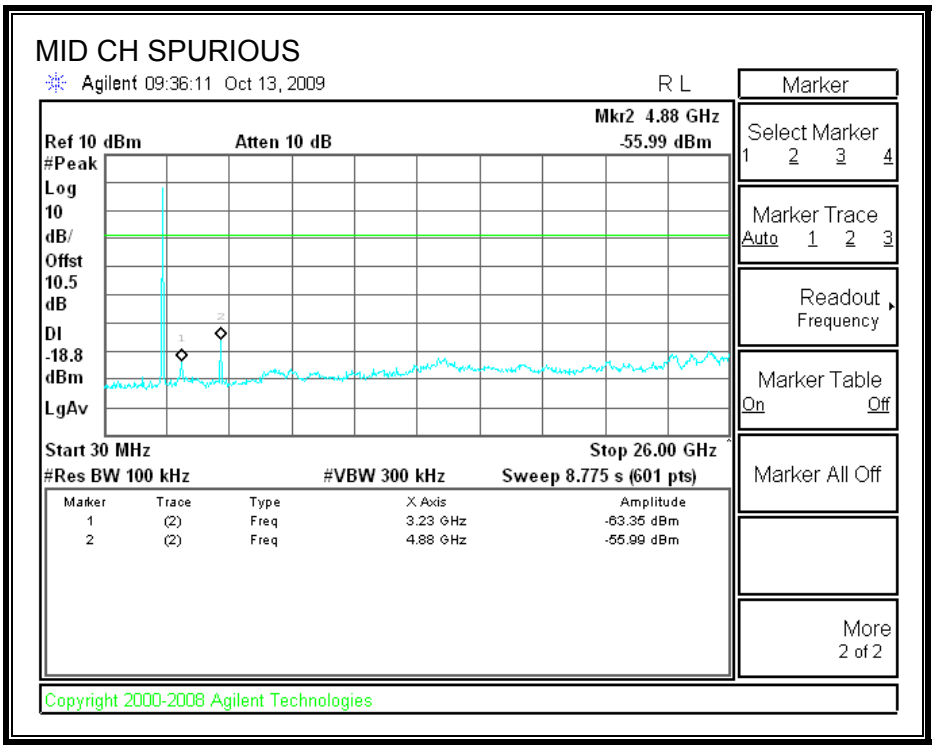
SPURIOUS EMISSIONS, LOW CHANNEL



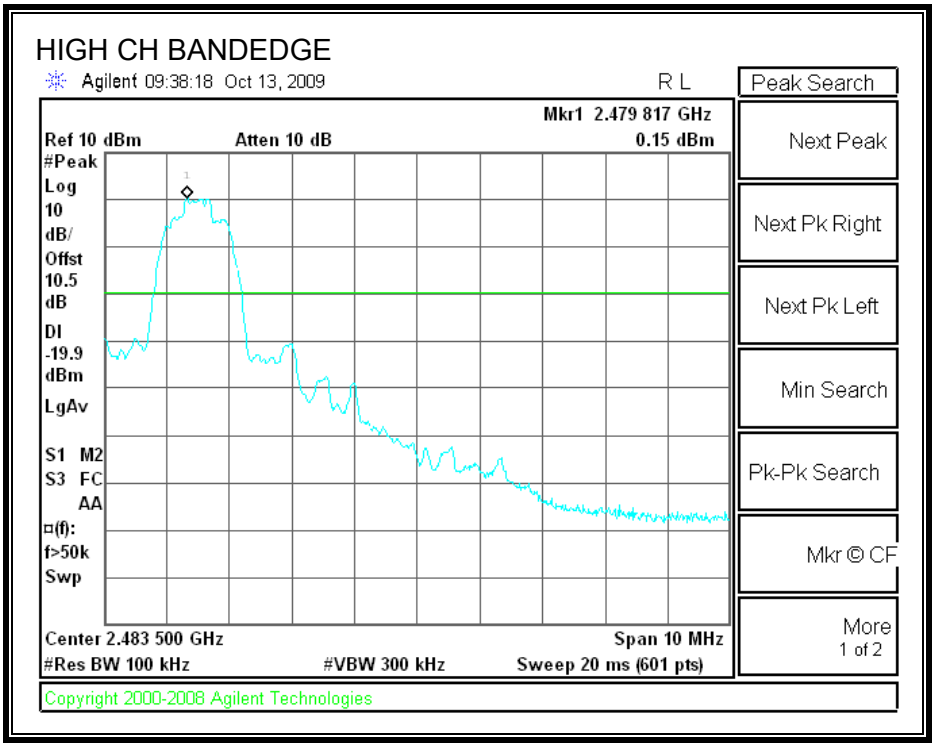


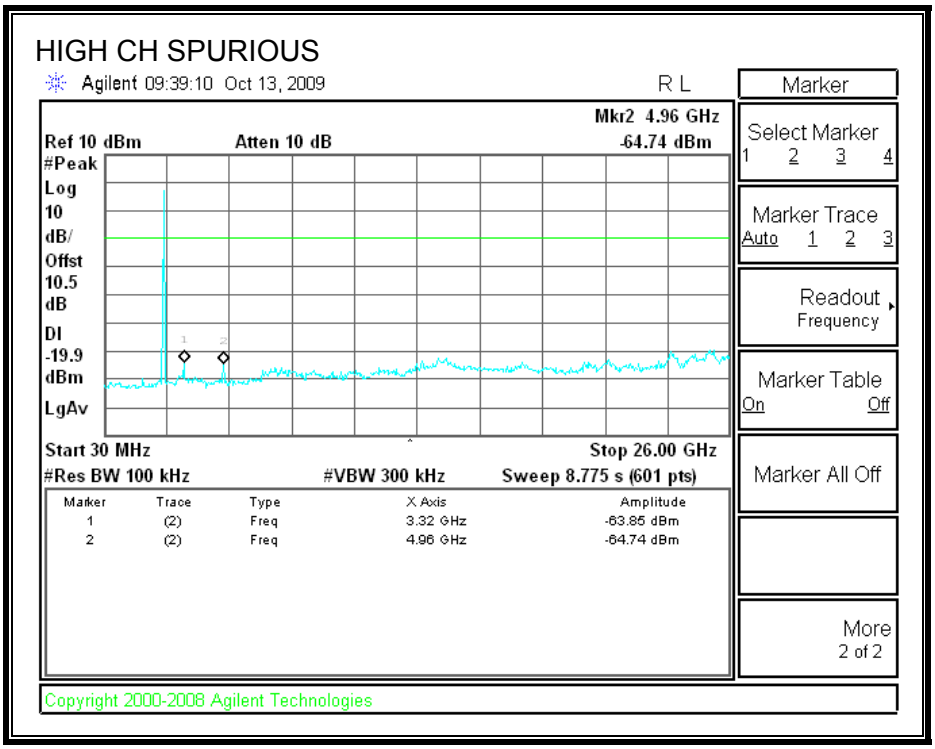
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





7.5. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE)

7.5.1. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

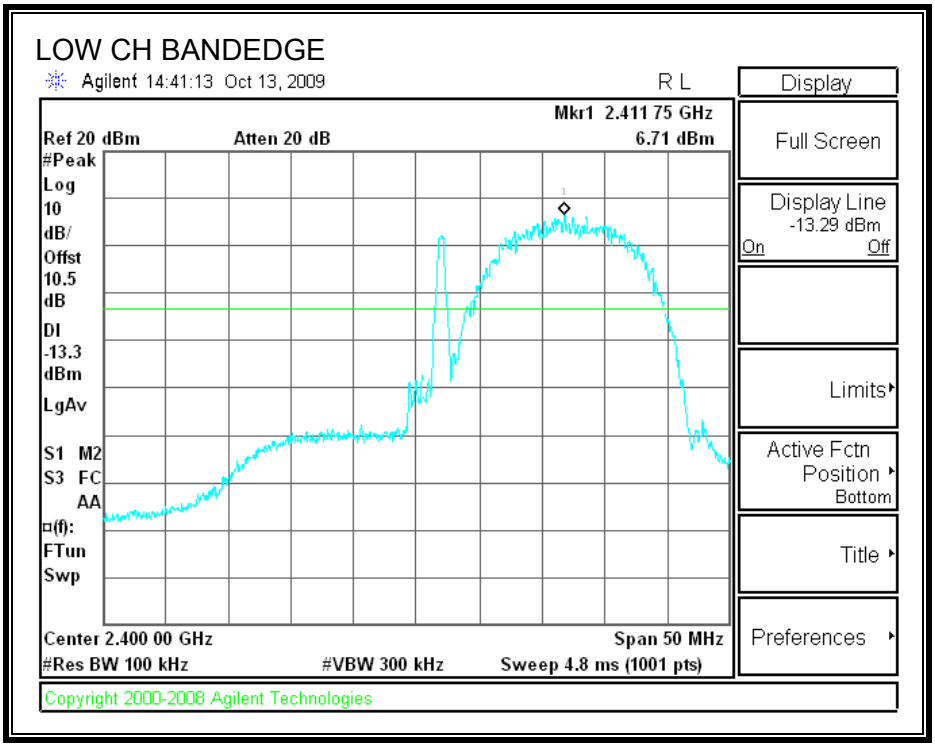
TEST PROCEDURE

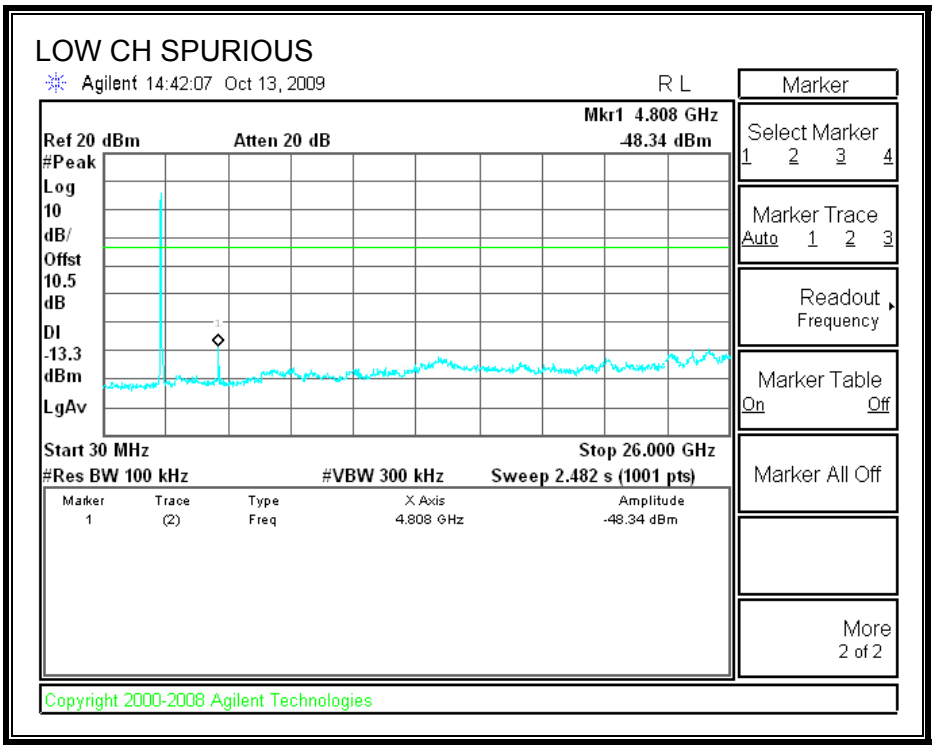
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

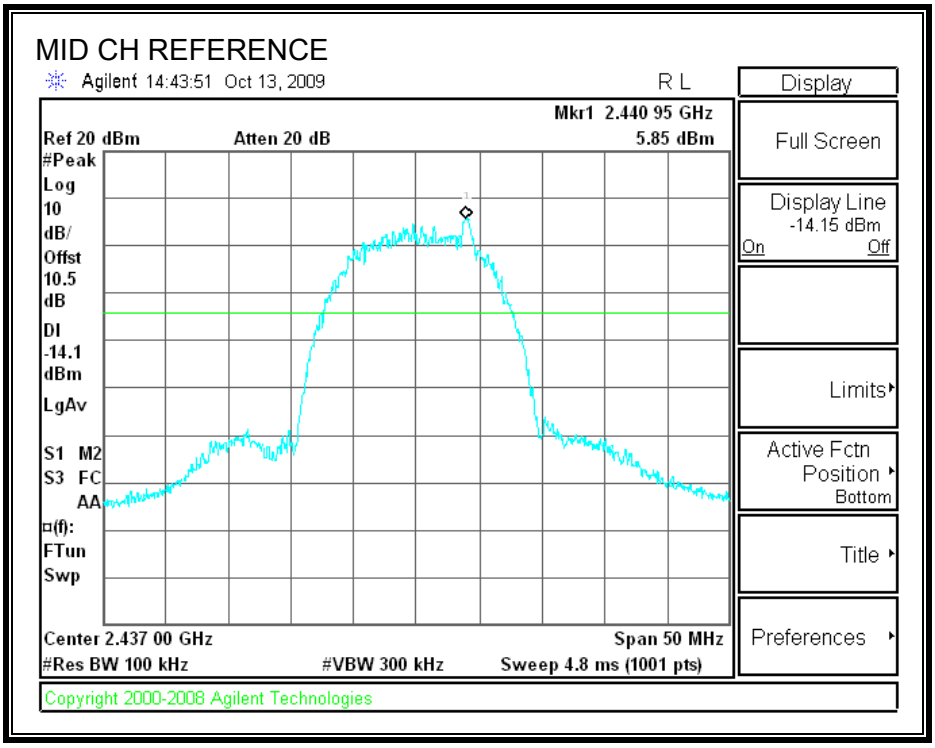
RESULTS

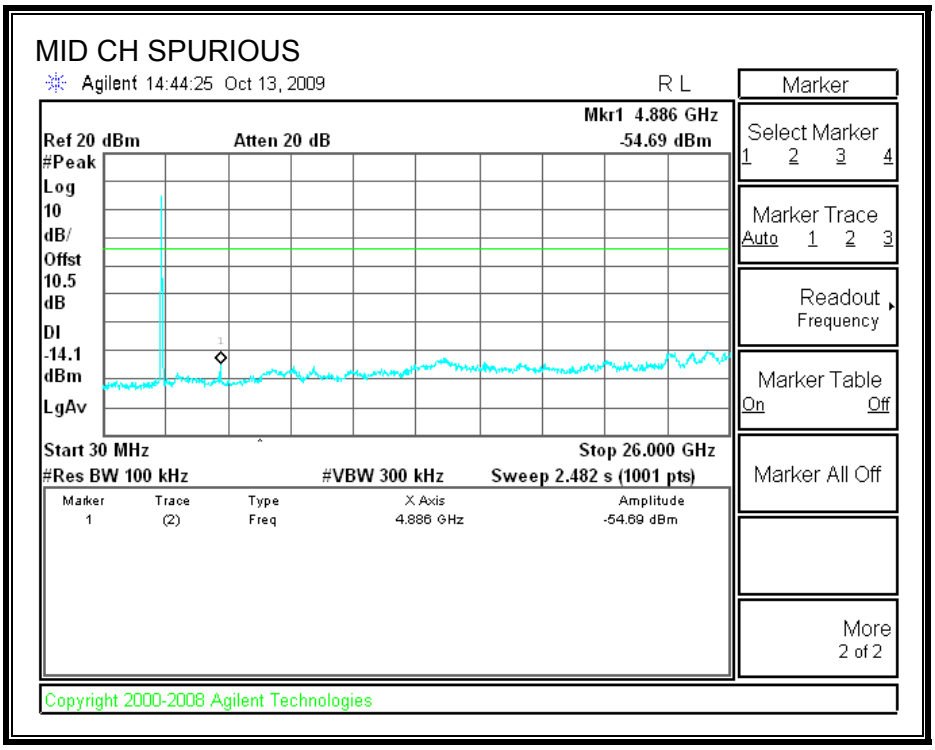
SPURIOUS EMISSIONS, LOW CHANNEL



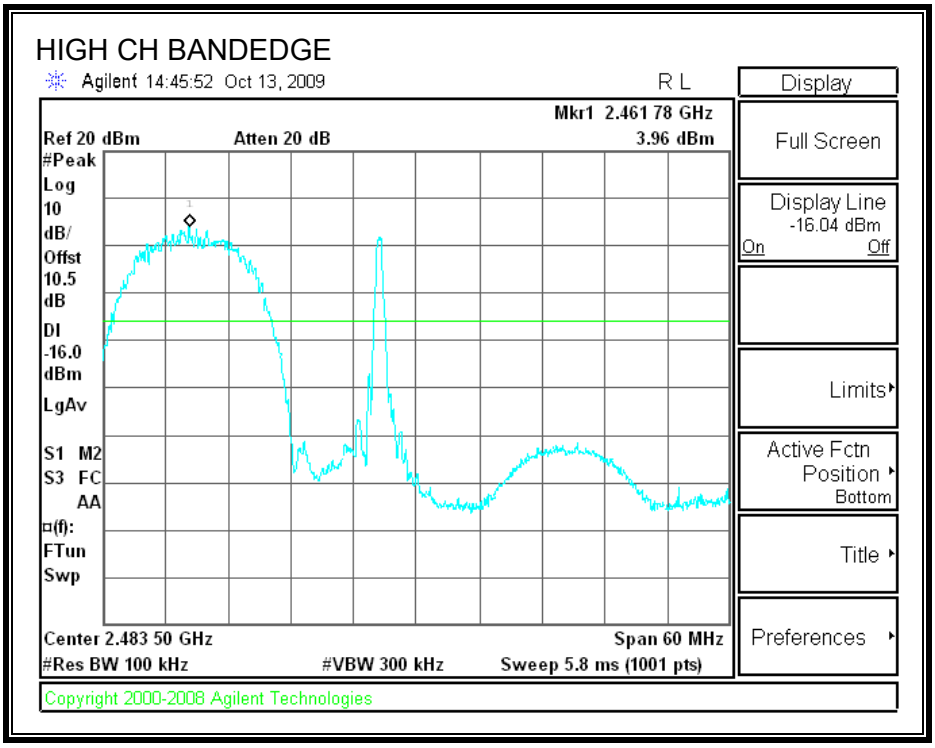


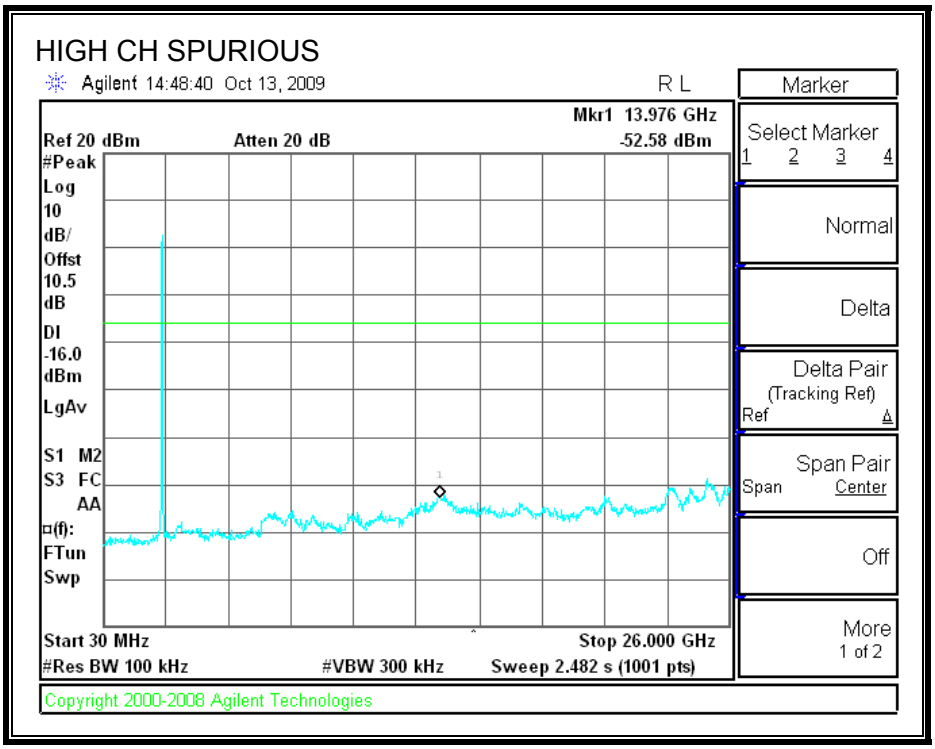
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each appplicable band.

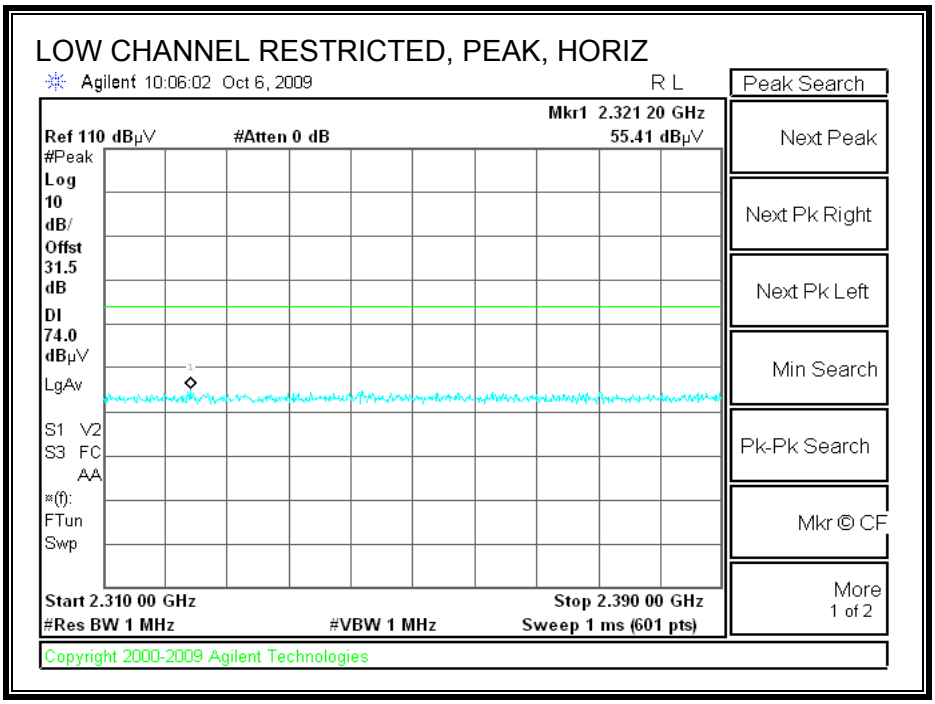
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

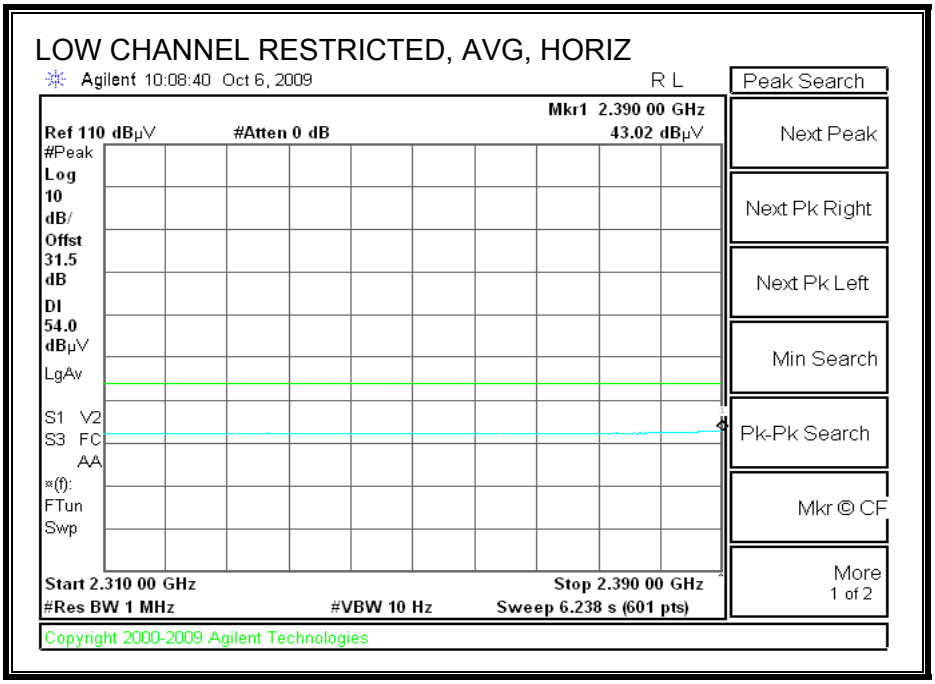
8.2. TRANSMITTER ABOVE 1 GHz

8.2.1. 802.11b MODE

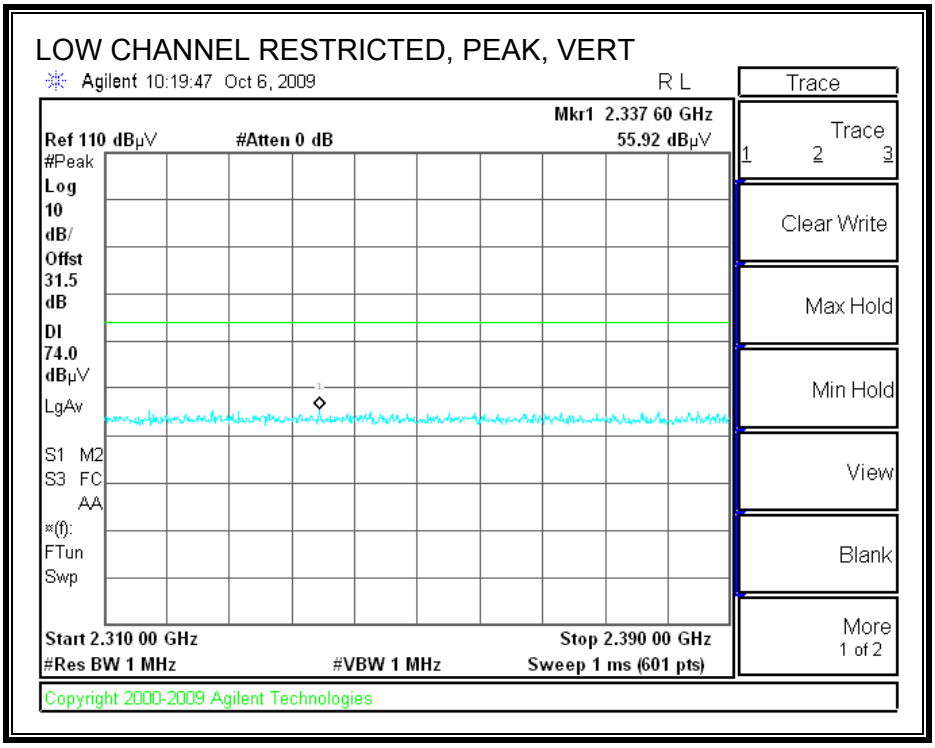
EUT WITH STANDARD BACKCOVER

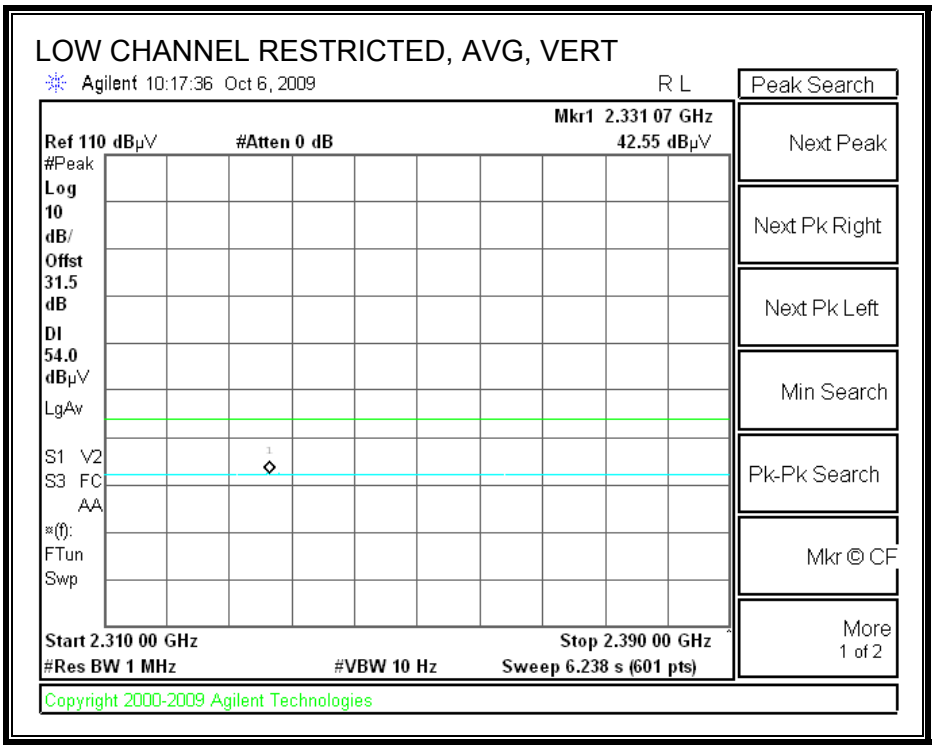
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



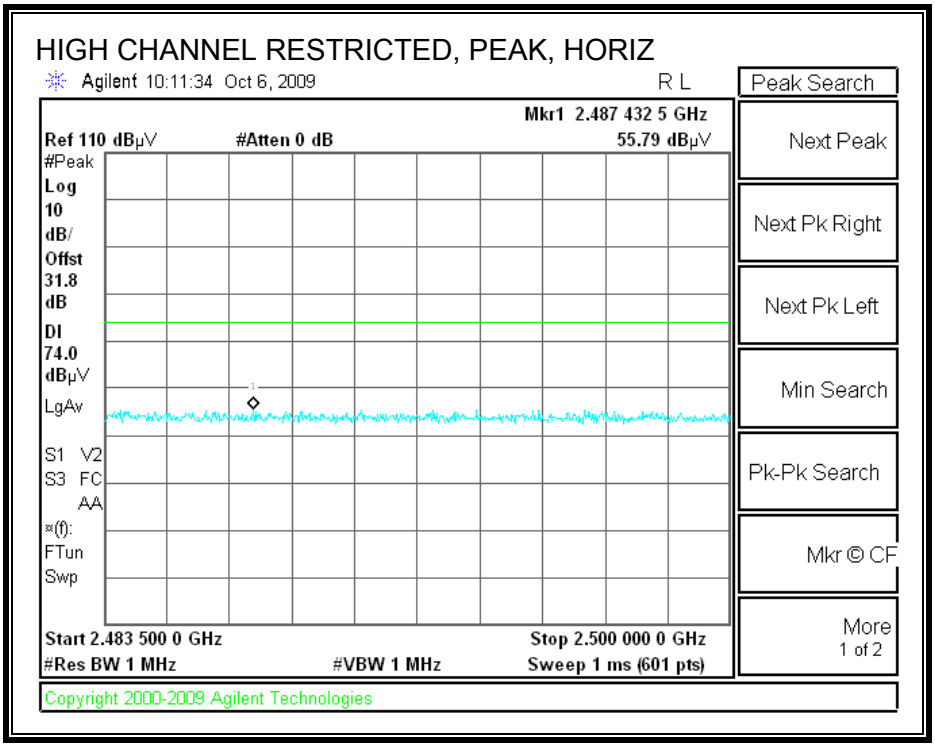


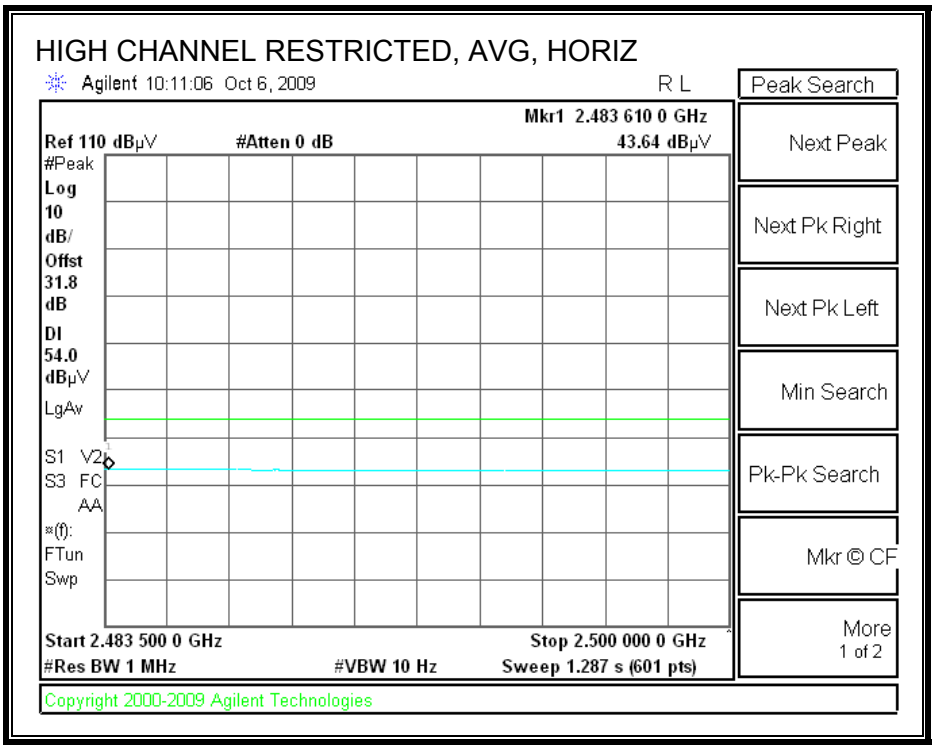
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



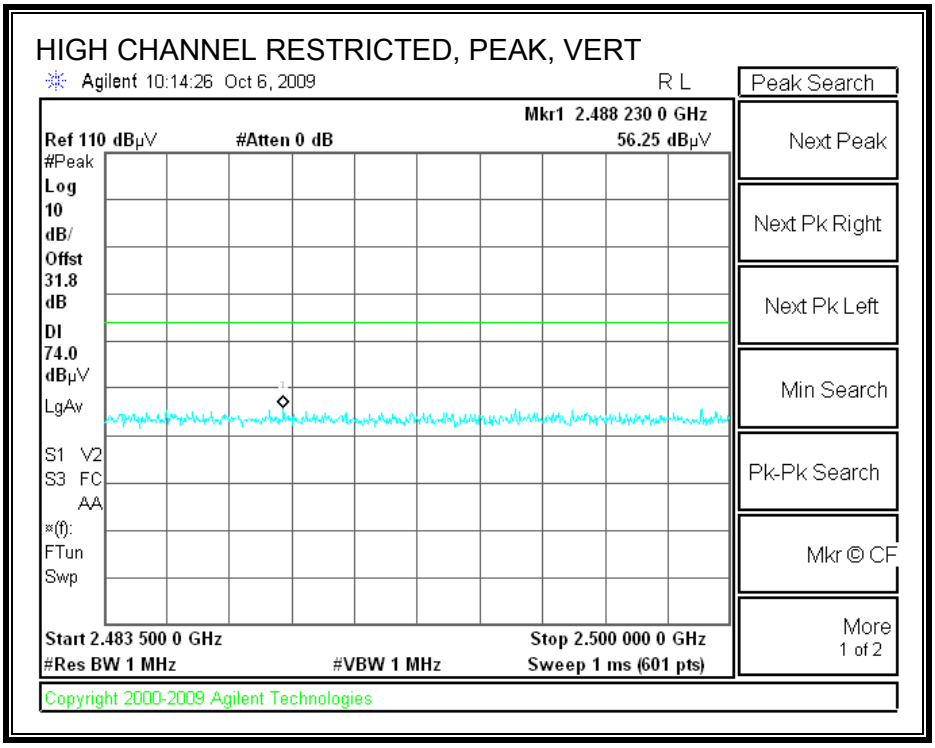


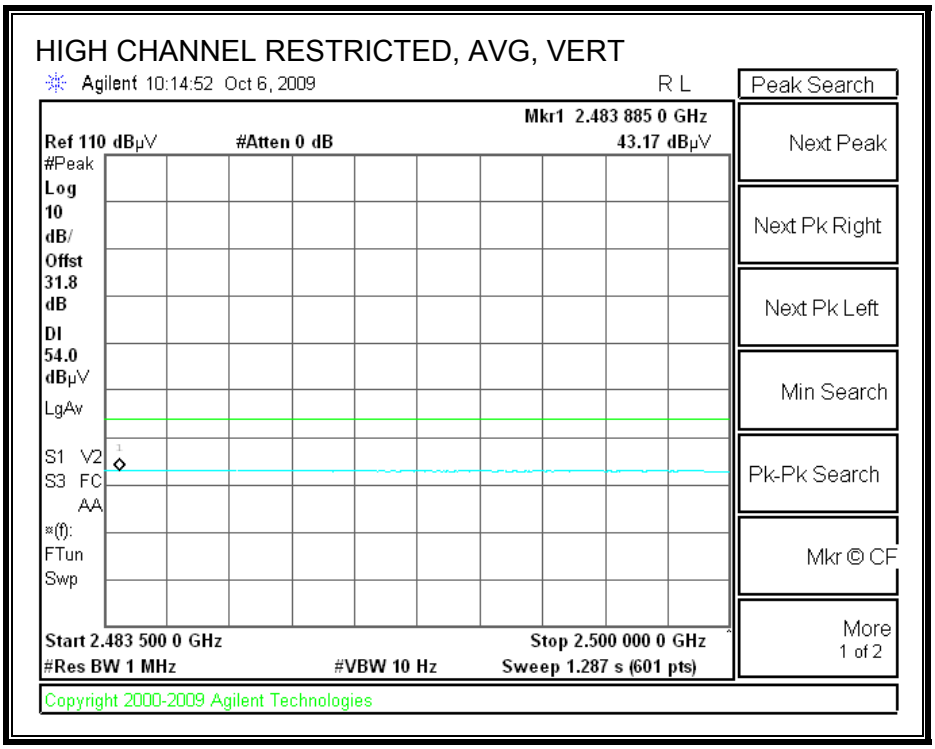
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





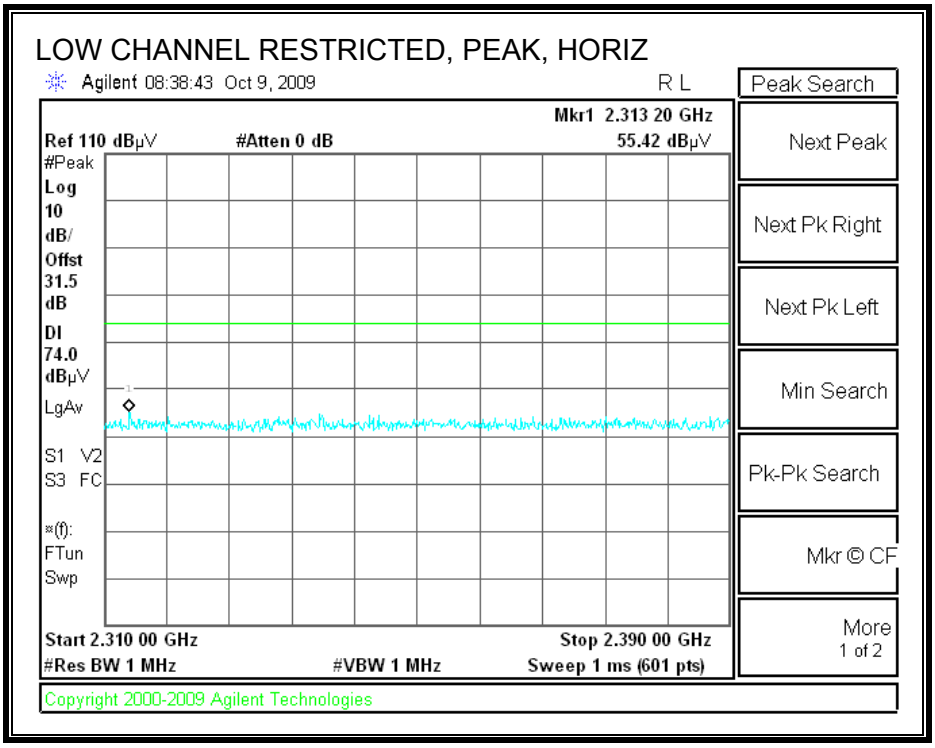
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

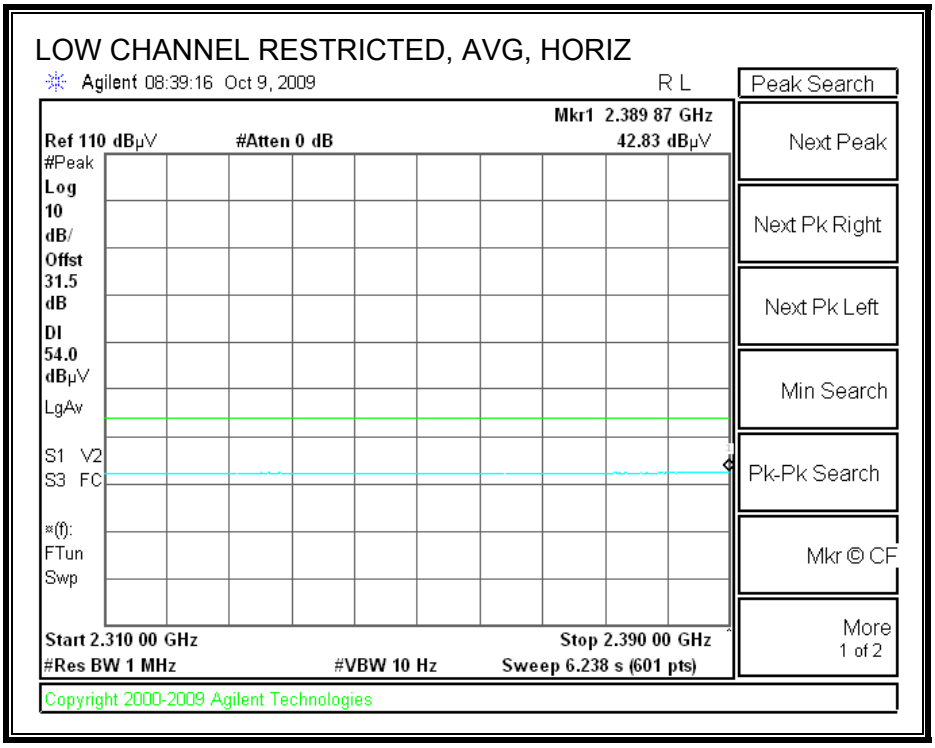




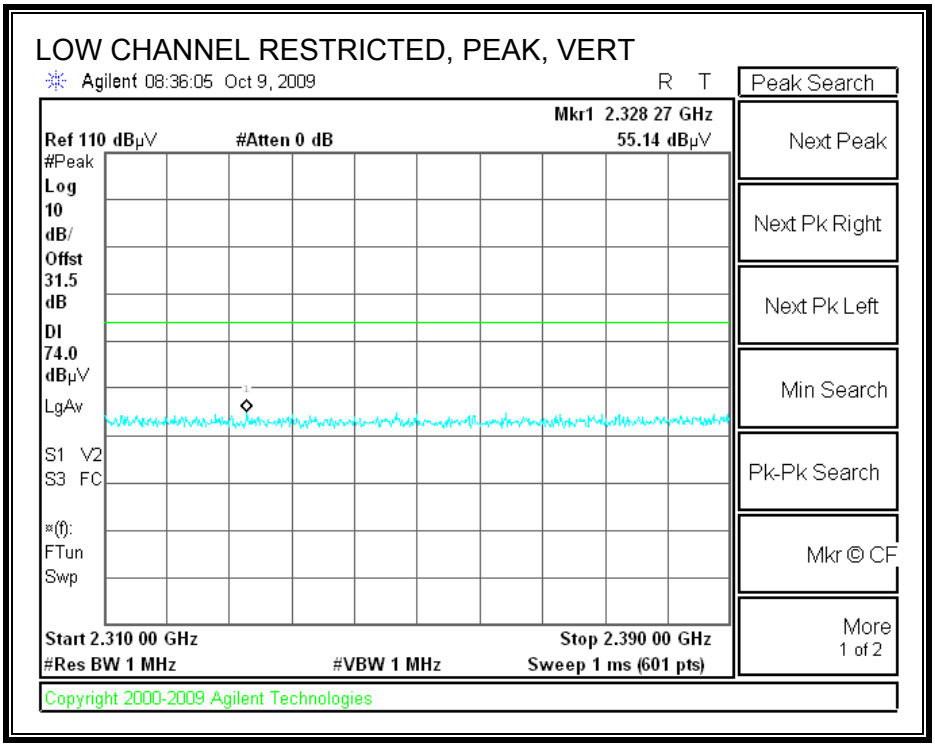
EUT WITH INDUCTIVE BACKCOVER

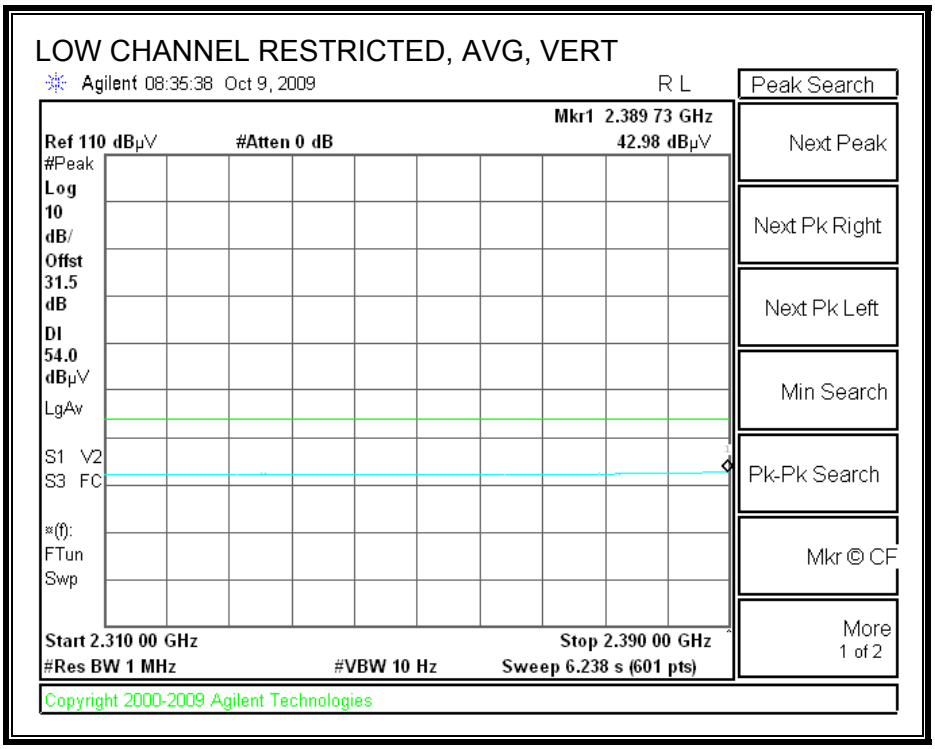
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



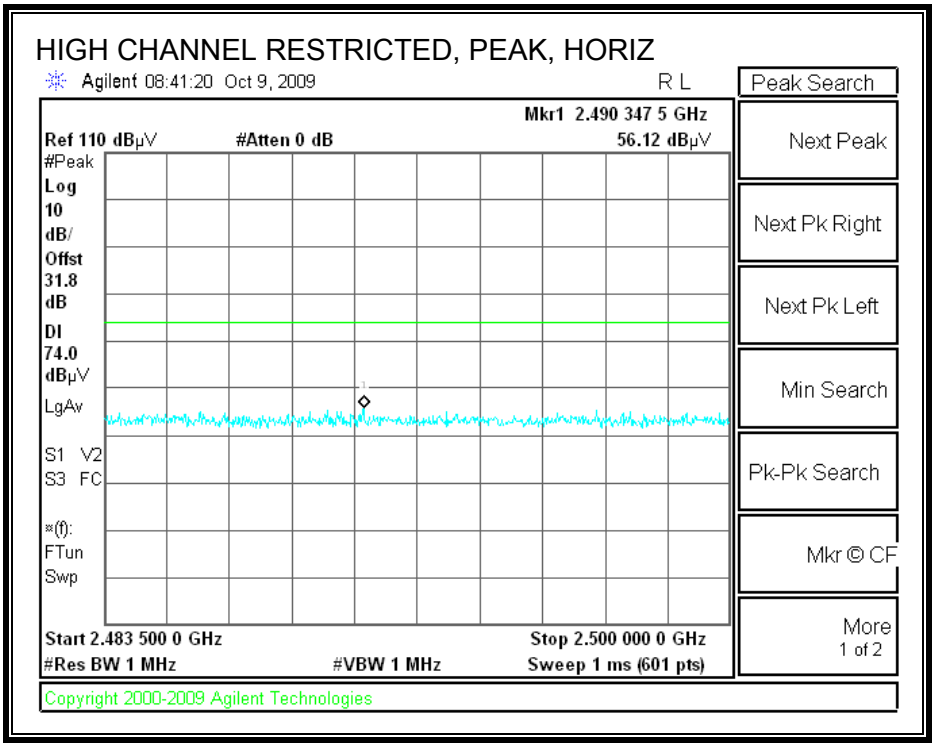


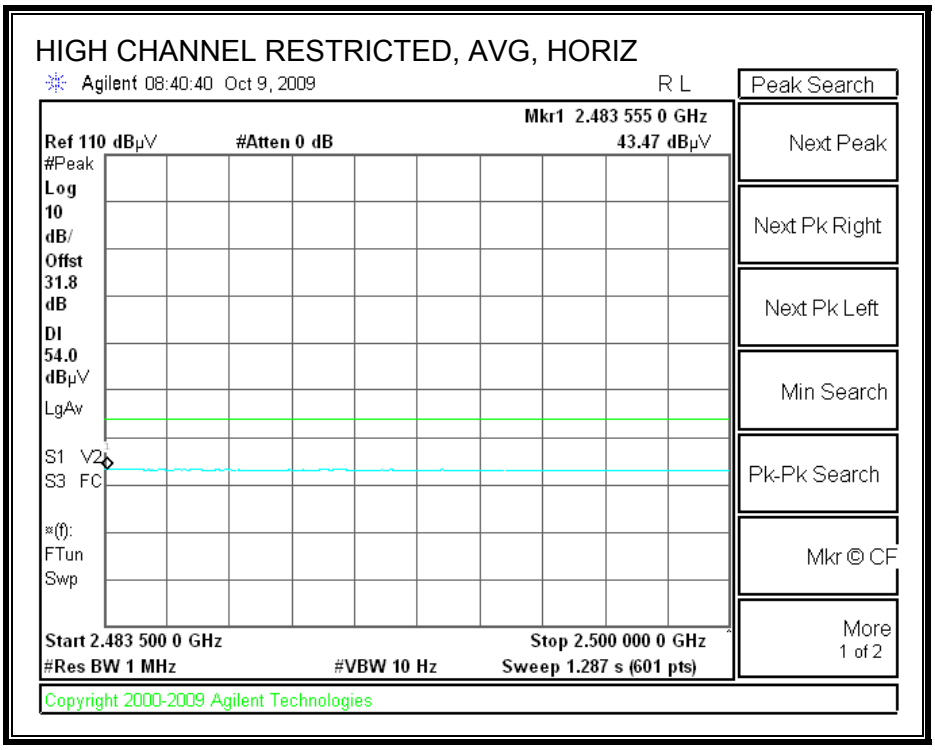
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



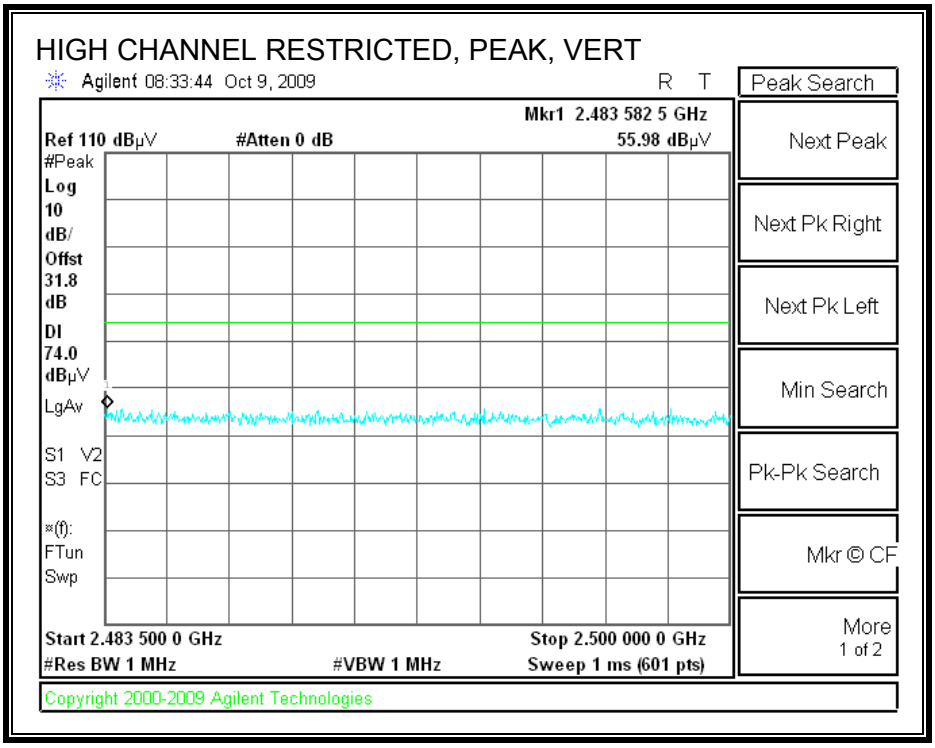


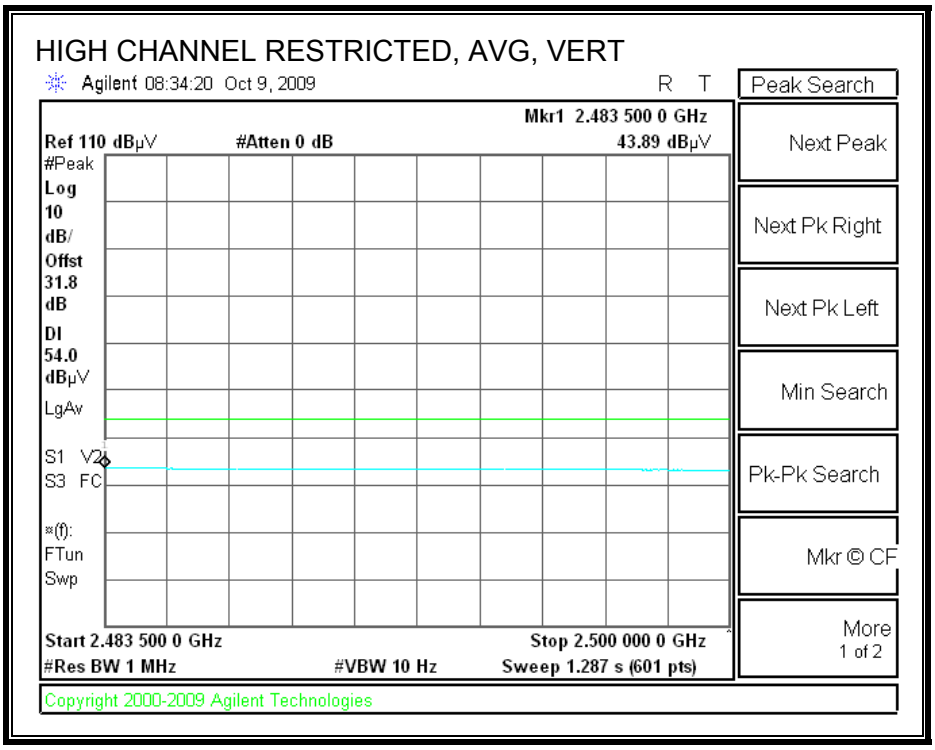
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/07/2009
Test Engineer: Chin Pang
EUT Description: CDMA-EVDO Smartphone
Configuration: EUT (Standard backcover)/AC Adapter/Earphone
Mode: TX, b mode

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2412MHz															
4.824	3.0	39.5	27.0	32.7	5.8	-34.8	0.0	0.0	43.1	30.6	74	54	-30.9	-23.4	V
4.824	3.0	40.2	27.5	32.7	5.8	-34.8	0.0	0.0	43.8	31.1	74	54	-30.2	-22.9	H
Mid Ch, 2437MHz															
4.874	3.0	38.0	25.8	32.7	5.8	-34.8	0.0	0.0	41.7	29.5	74	54	-32.3	-24.5	V
7.311	3.0	47.5	37.6	35.5	7.3	-34.1	0.0	0.0	56.1	46.2	74	54	-17.9	-7.8	V
4.874	3.0	38.5	26.0	32.7	5.8	-34.8	0.0	0.0	42.2	29.7	74	54	-31.8	-24.3	H
7.311	3.0	43.0	31.2	35.5	7.3	-34.1	0.0	0.0	51.6	39.8	74	54	-22.4	-14.2	H
High Ch, 2462Mhz															
4.924	3.0	38.5	26.3	32.7	5.9	-34.8	0.0	0.0	42.3	30.1	74	54	-31.7	-23.9	V
7.386	3.0	45.0	33.4	35.6	7.3	-34.1	0.0	0.0	53.8	42.2	74	54	-20.2	-11.8	V
4.924	3.0	39.3	27.0	32.7	5.9	-34.8	0.0	0.0	43.1	30.8	74	54	-30.9	-23.2	H
7.386	3.0	41.0	30.0	35.6	7.3	-34.1	0.0	0.0	49.8	38.8	74	54	-24.2	-15.2	H

Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/09/2009
Test Engineer: Chin Pang
EUT Description: CDMA-EVDO Smartphone
Configuration: EUT(inductive backcover) with inductive charging dock
Mode: TX, b mode

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2412MHz															
4.824	3.0	38.2	26.6	32.7	5.8	-34.8	0.0	0.0	41.8	30.2	74	54	-32.2	-23.8	V
4.824	3.0	39.0	27.0	32.7	5.8	-34.8	0.0	0.0	42.6	30.6	74	54	-31.4	-23.4	H
Mid Ch, 2437MHz															
4.874	3.0	38.3	26.0	32.7	5.8	-34.8	0.0	0.0	42.0	29.7	74	54	-32.0	-24.3	V
7.311	3.0	40.0	27.5	35.5	7.3	-34.1	0.0	0.0	48.6	36.1	74	54	-25.4	-17.9	V
4.874	3.0	38.6	26.5	32.7	5.8	-34.8	0.0	0.0	42.3	30.2	74	54	-31.7	-23.8	H
7.311	3.0	41.0	28.3	35.5	7.3	-34.1	0.0	0.0	49.6	36.9	74	54	-24.4	-17.1	H
High Ch, 2462Mhz															
4.924	3.0	38.2	26.3	32.7	5.9	-34.8	0.0	0.0	42.0	30.1	74	54	-32.0	-23.9	V
7.386	3.0	40.3	27.7	35.6	7.3	-34.1	0.0	0.0	49.1	36.5	74	54	-24.9	-17.5	V
4.924	3.0	38.6	27.0	32.7	5.9	-34.8	0.0	0.0	42.4	30.8	74	54	-31.6	-23.2	H
7.386	3.0	40.6	28.0	35.6	7.3	-34.1	0.0	0.0	49.4	36.8	74	54	-24.6	-17.2	H

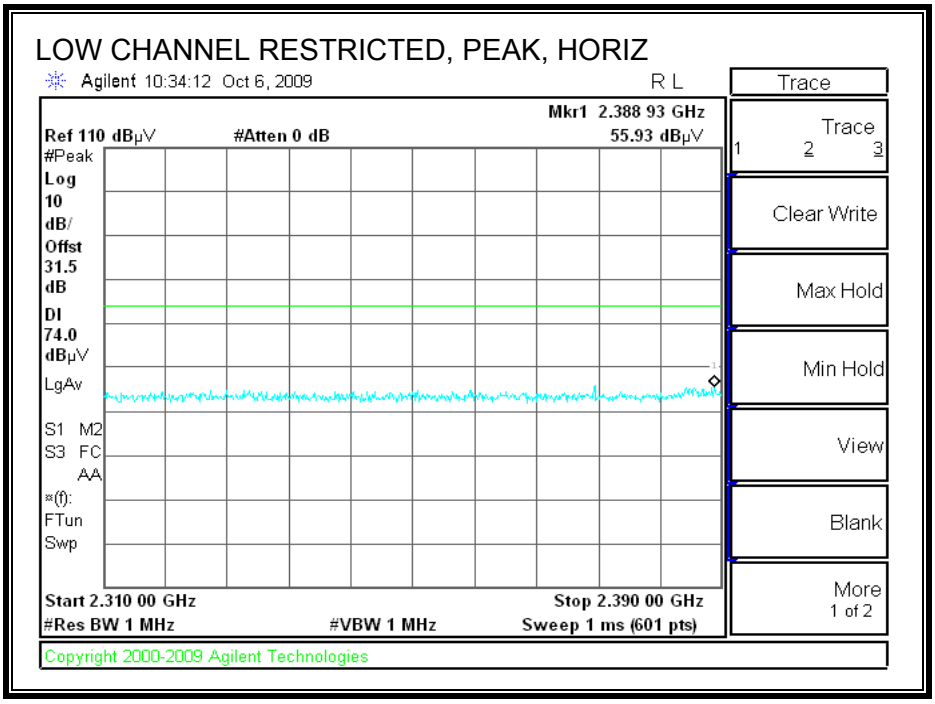
Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

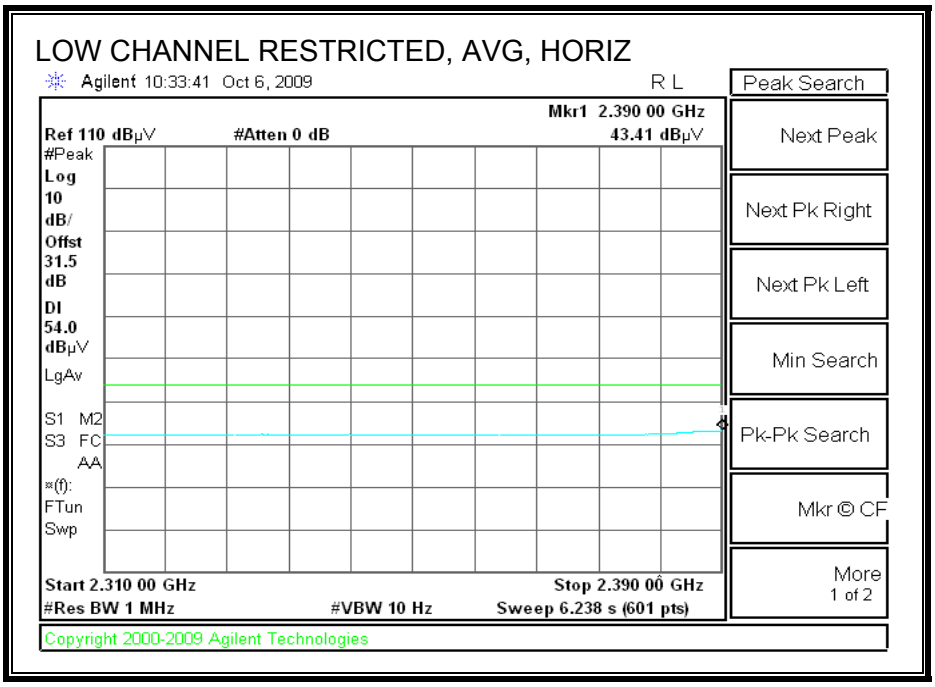
f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

8.2.2. 802.11g MODE

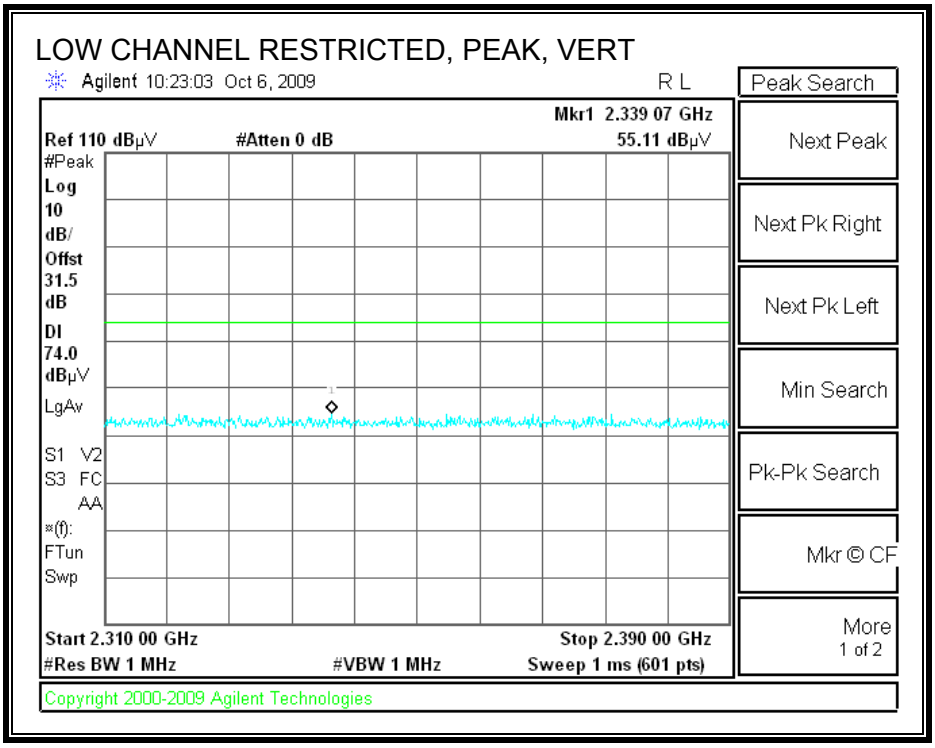
EUT WITH STANDARD BACKCOVER

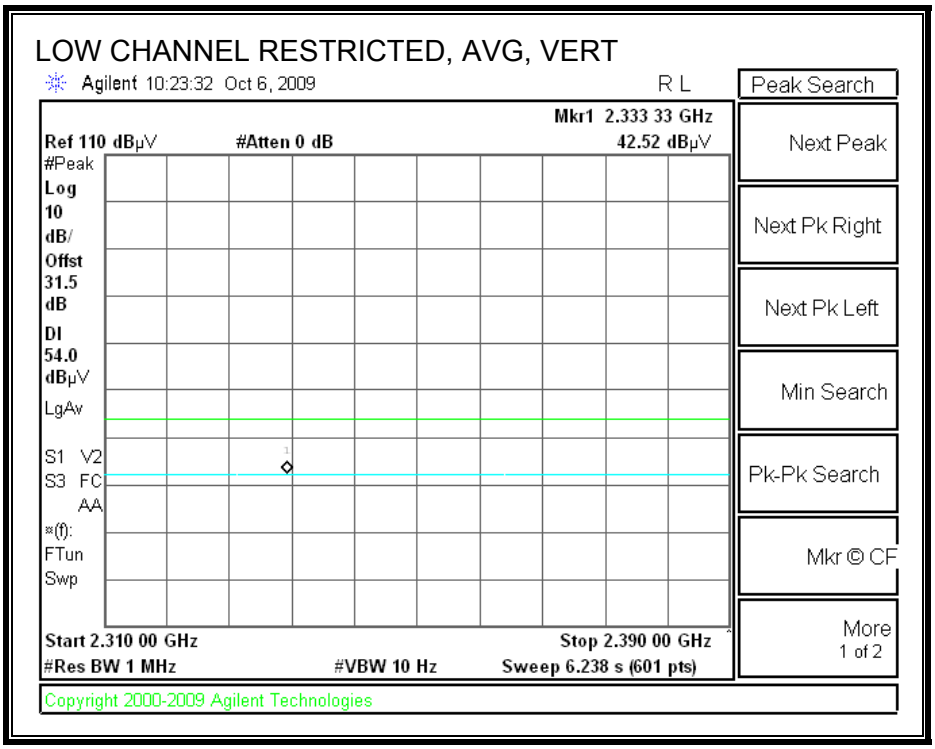
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



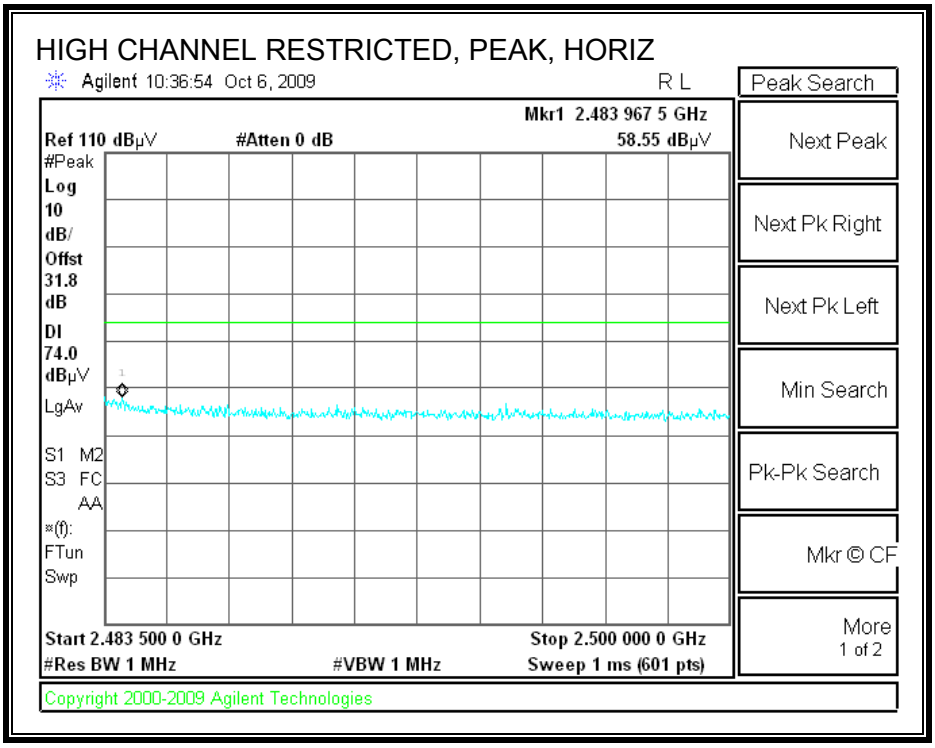


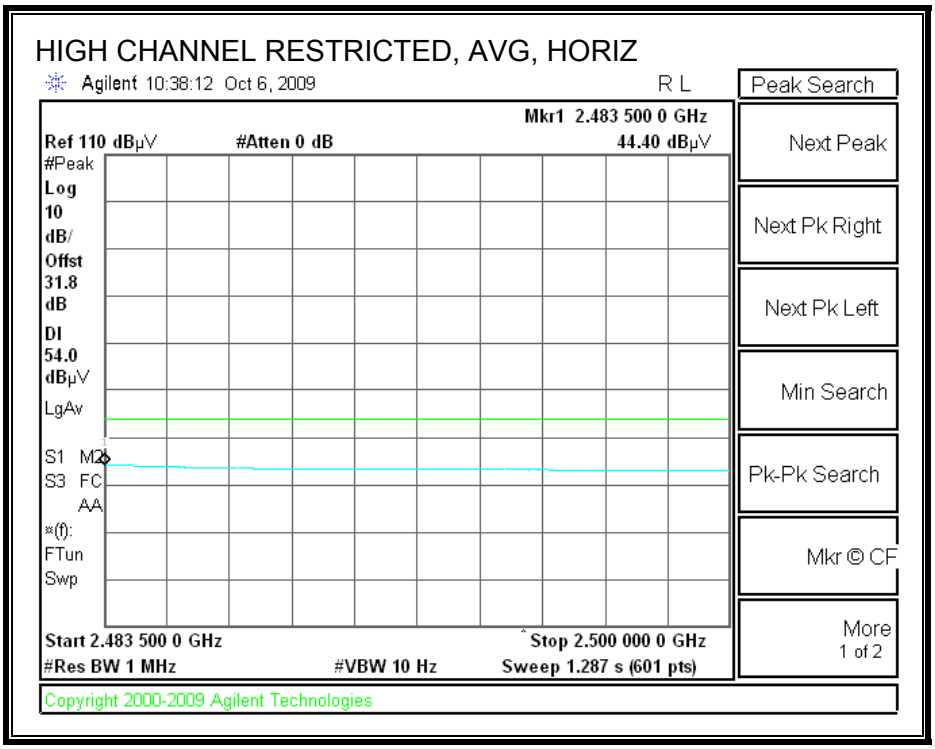
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



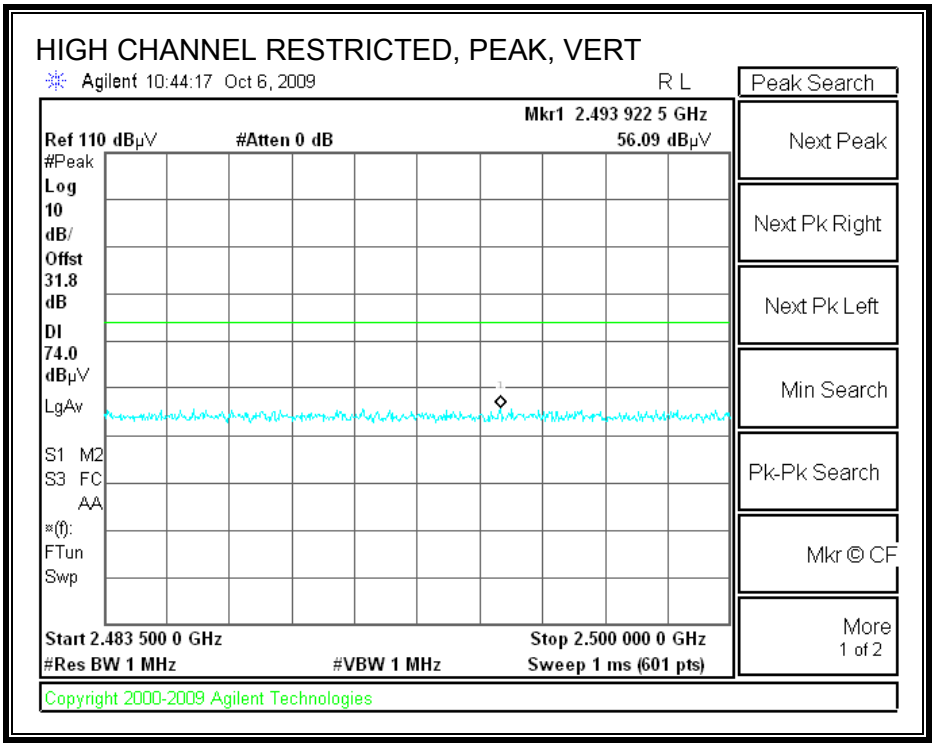


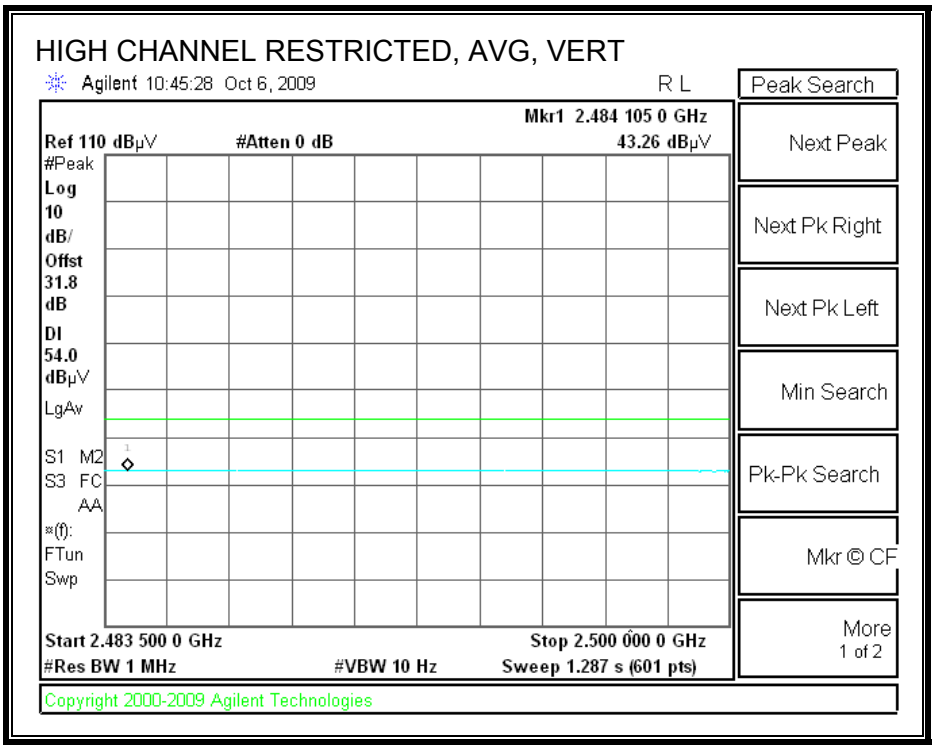
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





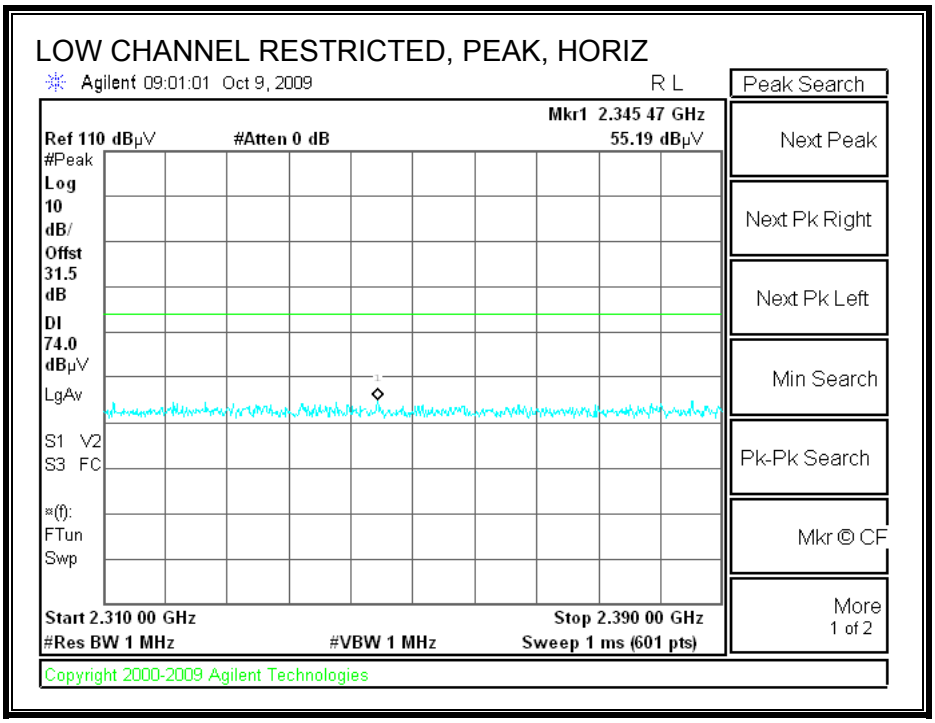
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

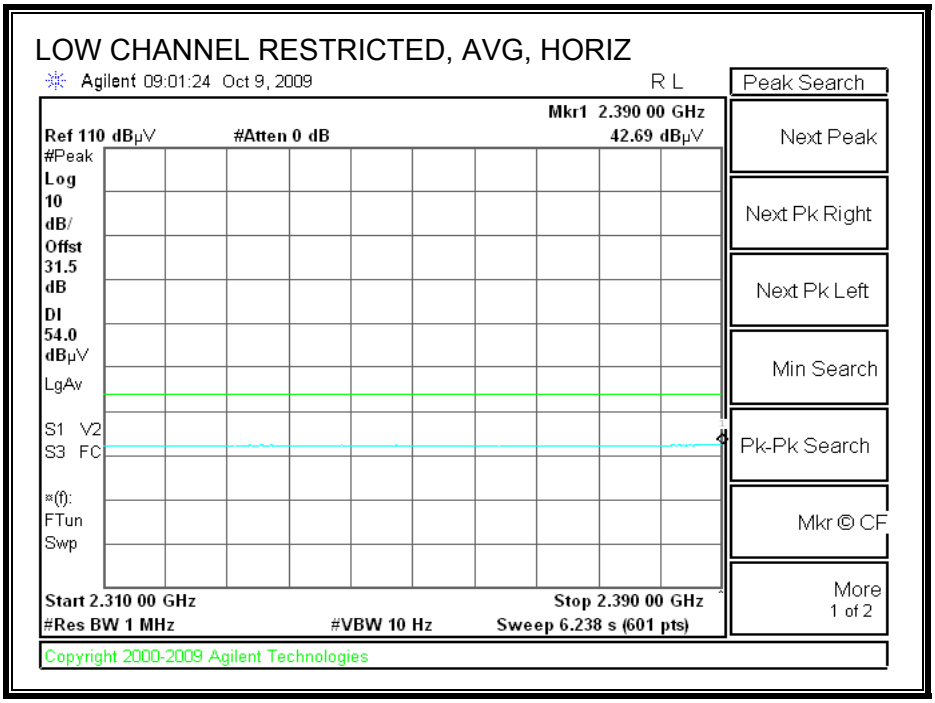




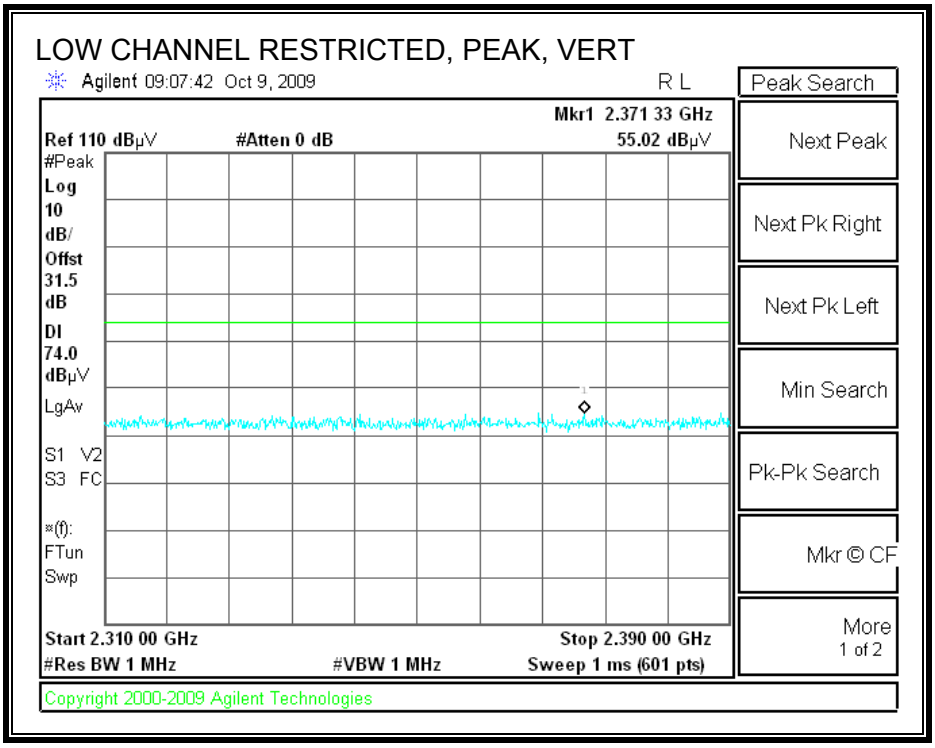
EUT WITH INDUCTIVE BACKCOVER

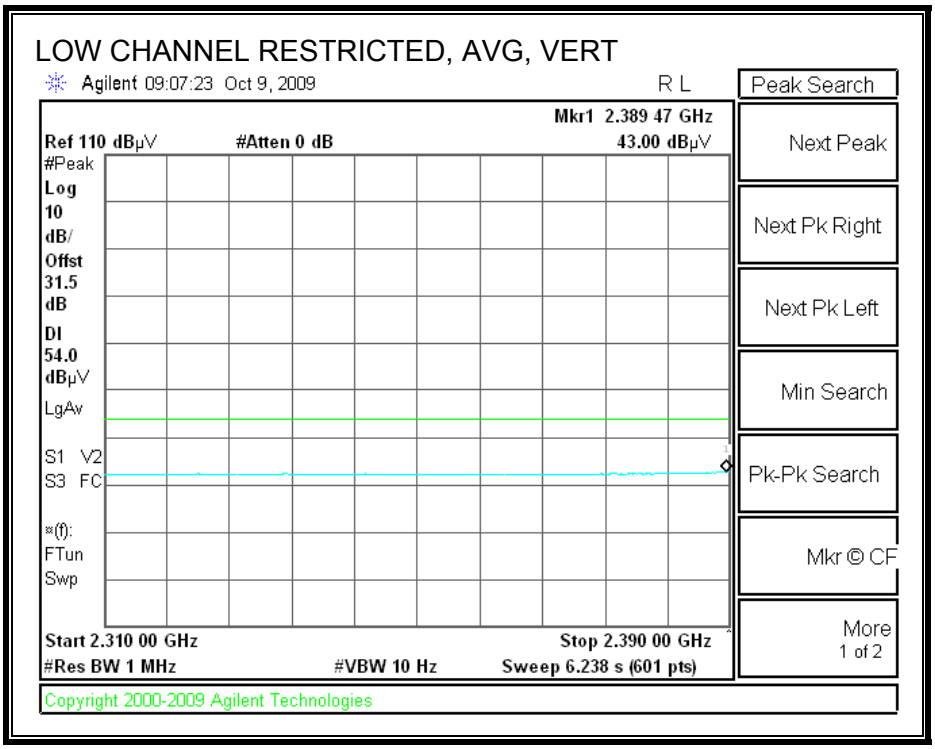
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



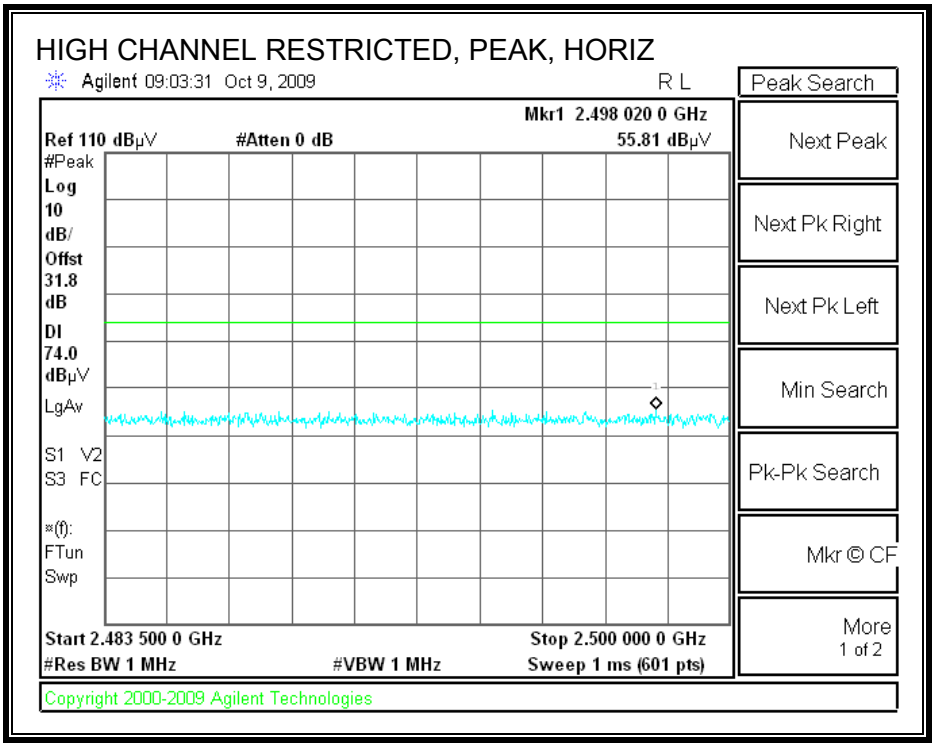


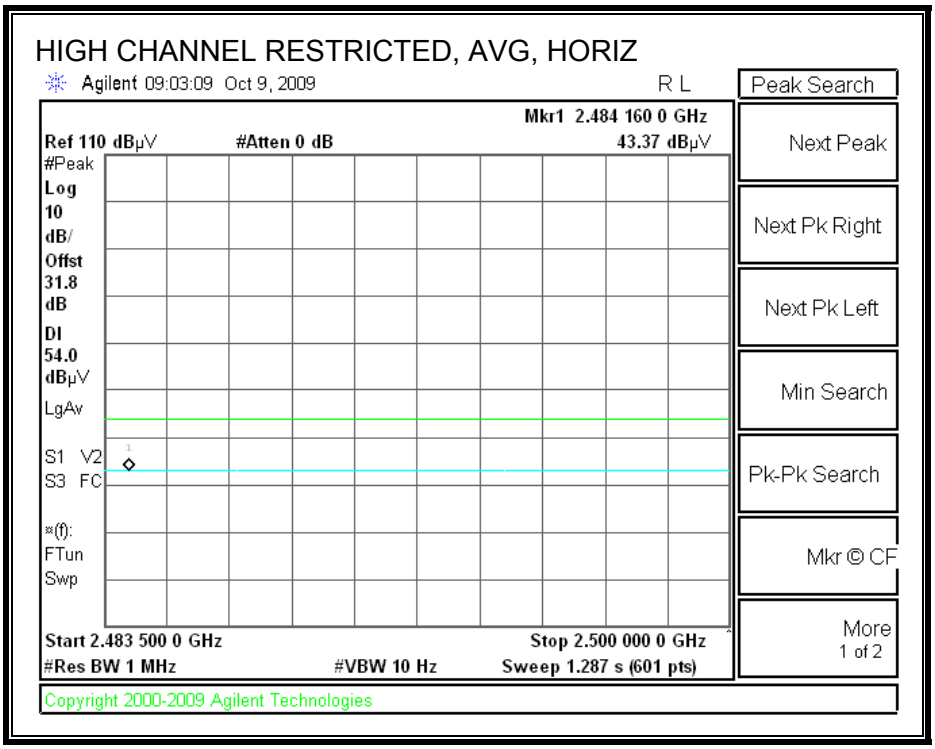
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



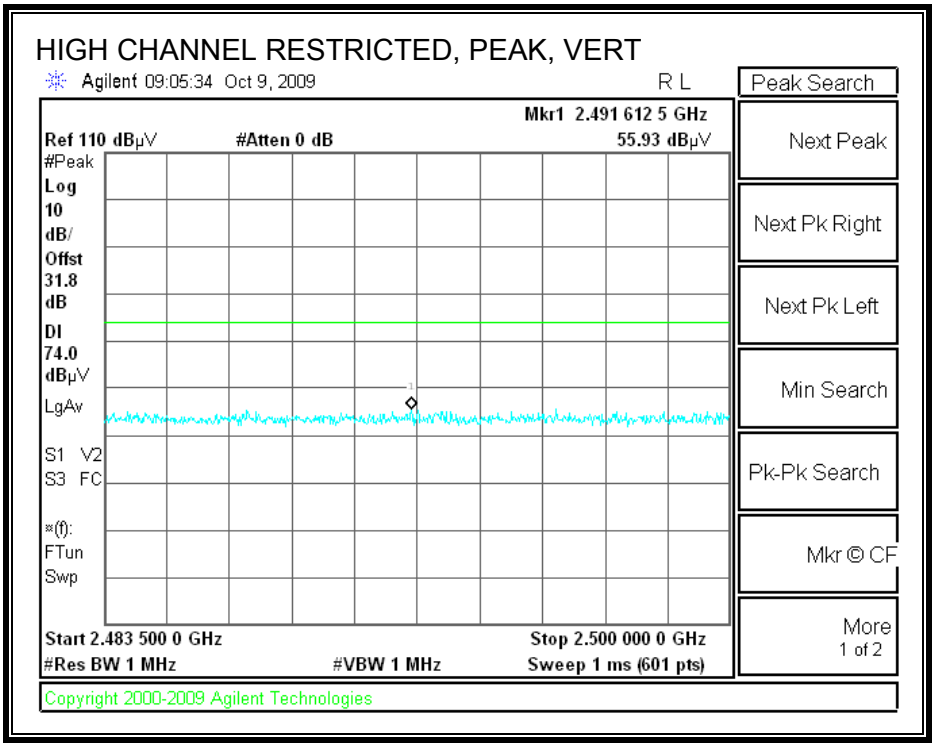


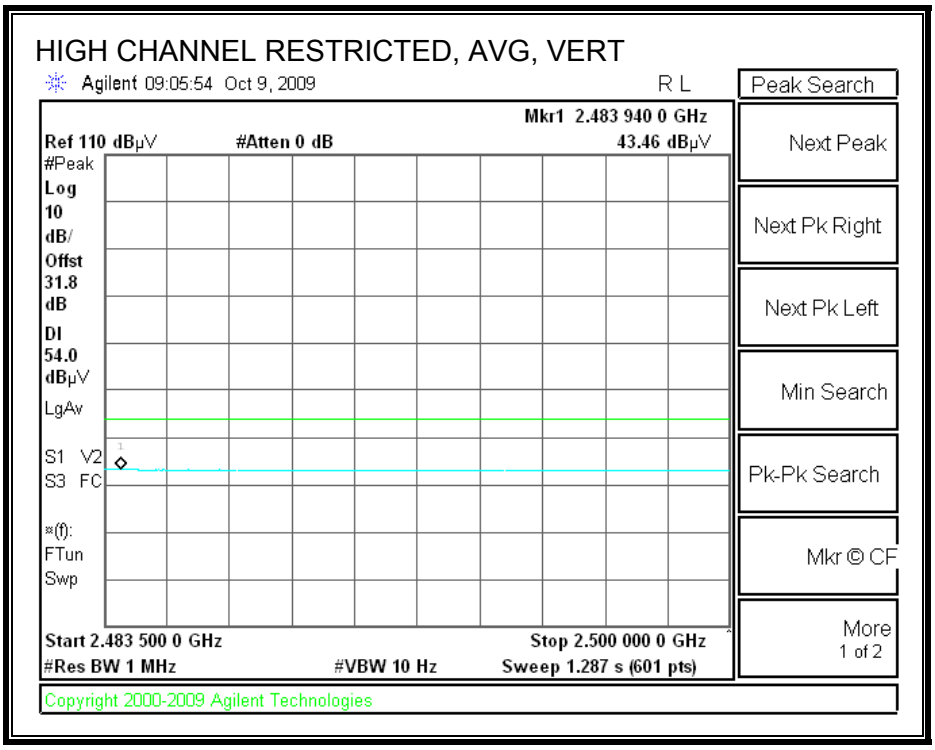
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/07/2009
Test Engineer: Chin Pang
EUT Description: CDMA-EVDO Smartphone
Configuration: EUT(Standard Backcover) /AC Adapter/Earphone
Mode: TX, g mode

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2412MHz															
4.824	3.0	38.0	25.3	32.7	5.8	-34.8	0.0	0.0	41.6	28.9	74	54	-32.4	-25.1	V
4.824	3.0	38.6	25.6	32.7	5.8	-34.8	0.0	0.0	42.2	29.2	74	54	-31.8	-24.8	H
Mid Ch, 2437MHz															
4.874	3.0	38.5	26.0	32.7	5.8	-34.8	0.0	0.0	42.2	29.7	74	54	-31.8	-24.3	V
7.311	3.0	43.0	29.0	35.5	7.3	-34.1	0.0	0.0	51.6	37.6	74	54	-22.4	-16.4	V
4.874	3.0	39.0	26.7	32.7	5.8	-34.8	0.0	0.0	42.7	30.4	74	54	-31.3	-23.6	H
7.311	3.0	40.0	27.0	35.5	7.3	-34.1	0.0	0.0	48.6	35.6	74	54	-25.4	-18.4	H
High Ch, 2462Mhz															
4.924	3.0	38.0	26.0	32.7	5.9	-34.8	0.0	0.0	41.8	29.8	74	54	-32.2	-24.2	V
7.386	3.0	42.0	28.6	35.6	7.3	-34.1	0.0	0.0	50.8	37.4	74	54	-23.2	-16.6	V
4.924	3.0	39.0	26.5	32.7	5.9	-34.8	0.0	0.0	42.8	30.3	74	54	-31.2	-23.7	H
7.386	3.0	40.0	27.0	35.6	7.3	-34.1	0.0	0.0	48.8	35.8	74	54	-25.2	-18.2	H

Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/07/2009
Test Engineer: Chin Pang
EUT Description: CDMA-EVDO Smartphone
Configuration: EUT(Inductive Backcover)with inductive charging dock
Mode: TX, g mode

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2412MHz															
4.824	3.0	38.0	25.4	32.7	5.8	-34.8	0.0	0.0	41.6	29.0	74	54	-32.4	-25.0	V
4.824	3.0	38.5	25.5	32.7	5.8	-34.8	0.0	0.0	42.1	29.1	74	54	-31.9	-24.9	H
Mid Ch, 2437MHz															
4.874	3.0	38.1	26.8	32.7	5.8	-34.8	0.0	0.0	41.8	30.5	74	54	-32.2	-23.5	V
7.311	3.0	40.2	27.5	35.5	7.3	-34.1	0.0	0.0	48.8	36.1	74	54	-25.2	-17.9	V
4.874	3.0	38.6	27.0	32.7	5.8	-34.8	0.0	0.0	42.3	30.7	74	54	-31.7	-23.3	H
7.311	3.0	41.6	28.0	35.5	7.3	-34.1	0.0	0.0	50.2	36.6	74	54	-23.8	-17.4	H
High Ch, 2462Mhz															
4.924	3.0	38.3	26.8	32.7	5.9	-34.8	0.0	0.0	42.1	30.6	74	54	-31.9	-23.4	V
7.386	3.0	40.7	27.3	35.6	7.3	-34.1	0.0	0.0	49.5	36.1	74	54	-24.5	-17.9	V
4.924	3.0	38.6	27.0	32.7	5.9	-34.8	0.0	0.0	42.4	30.8	74	54	-31.6	-23.2	H
7.386	3.0	41.3	27.5	35.6	7.3	-34.1	0.0	0.0	50.1	36.3	74	54	-23.9	-17.7	H

Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

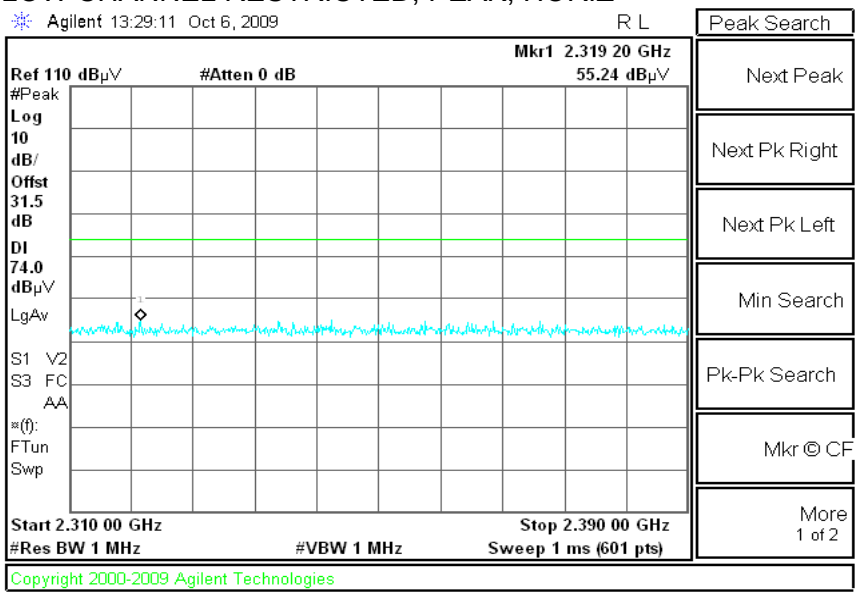
f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

8.2.3. BLUETOOTH GFSK MODE

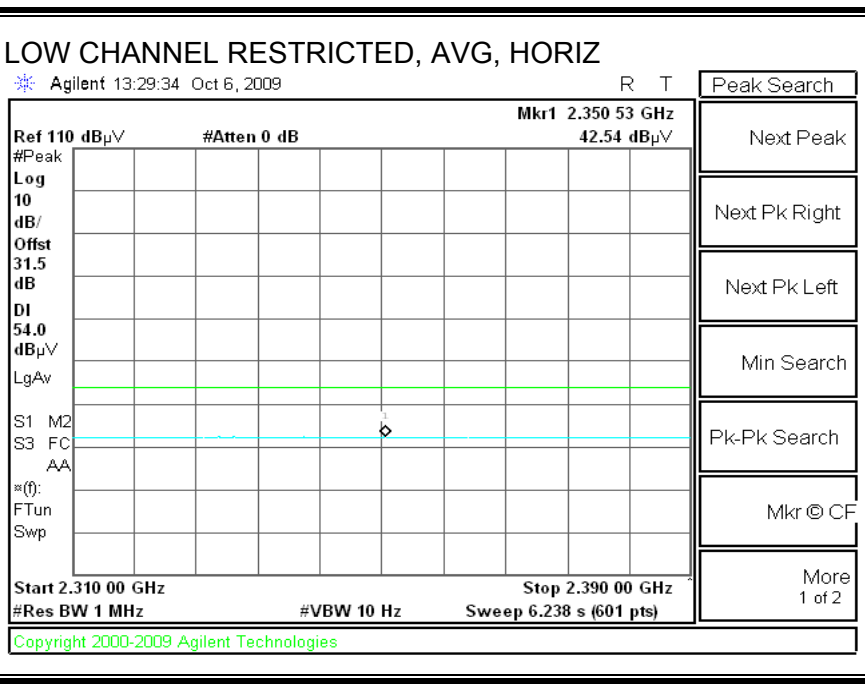
EUT WITH STANDARD BACKCOVER

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

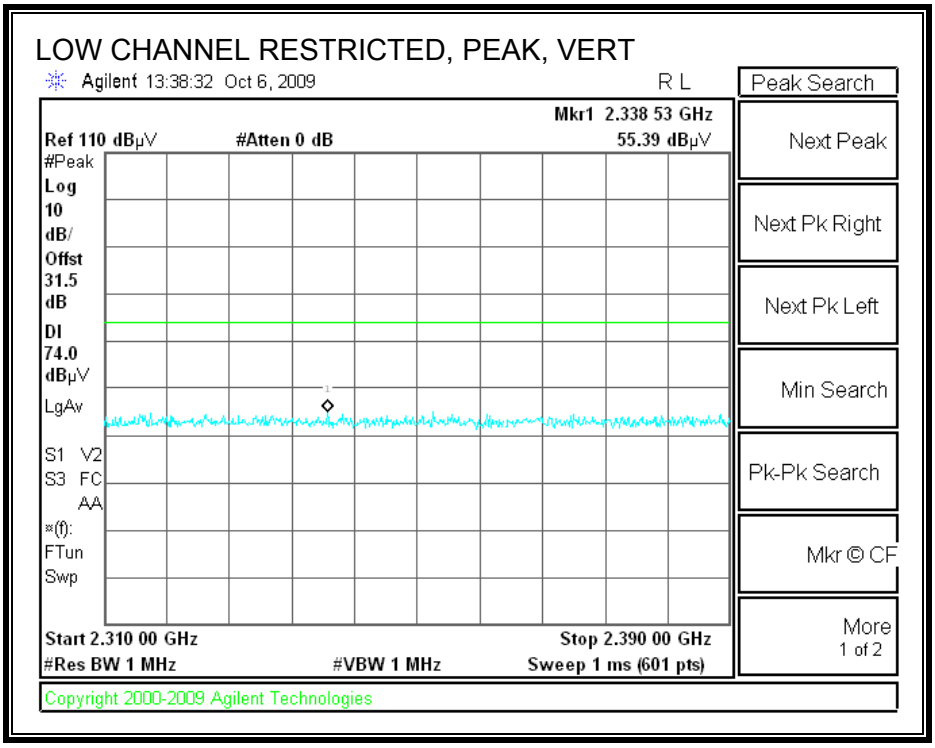
LOW CHANNEL RESTRICTED, PEAK, HORIZ

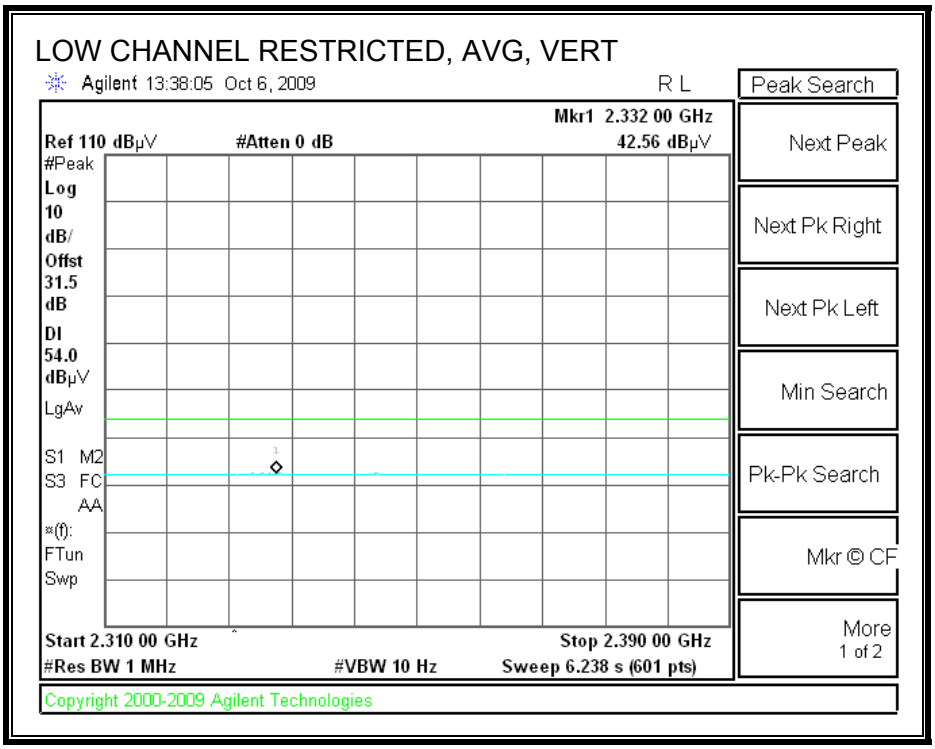


LOW CHANNEL RESTRICTED, AVG, HORIZ

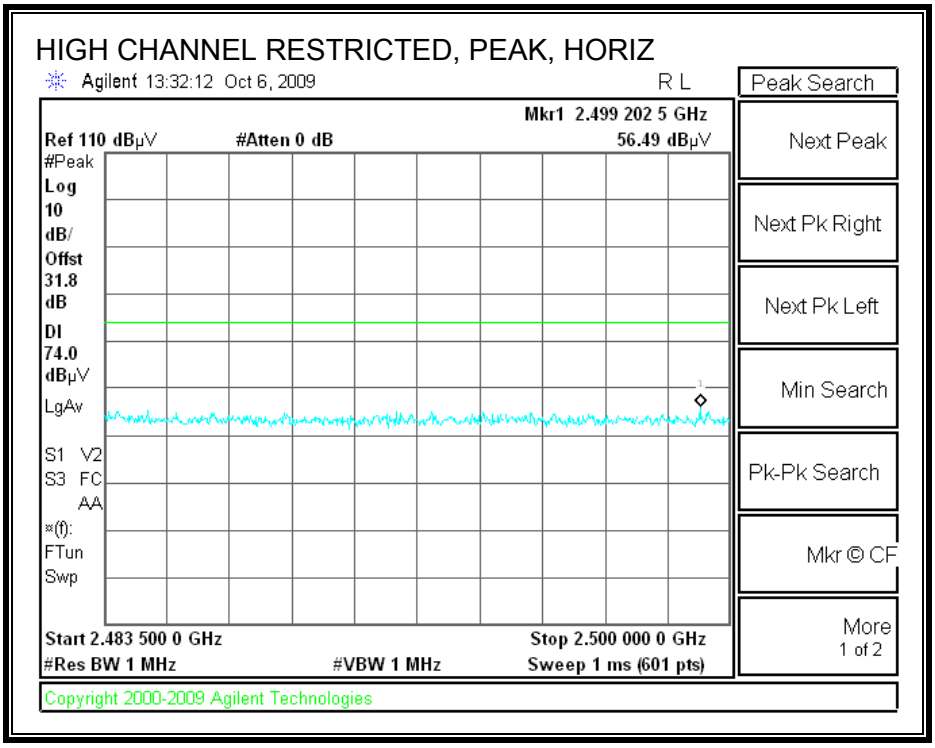


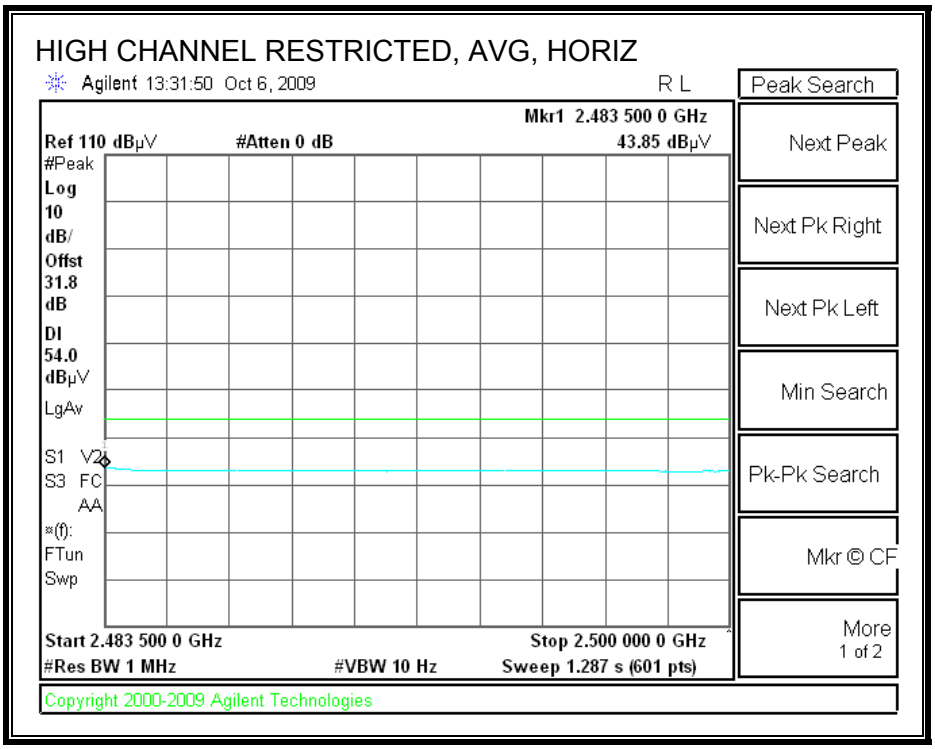
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



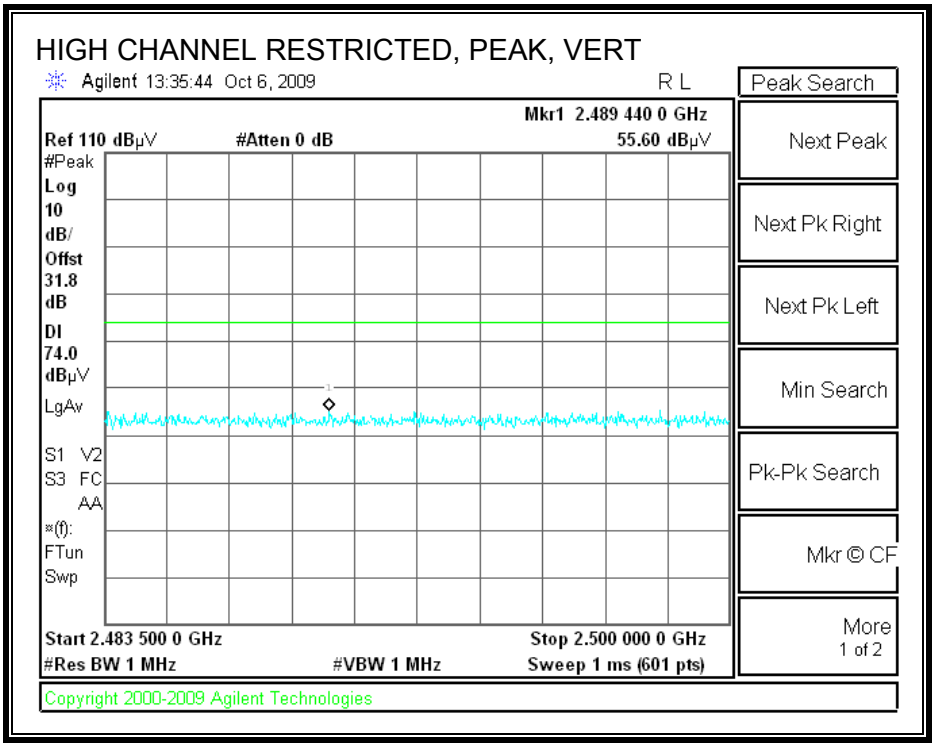


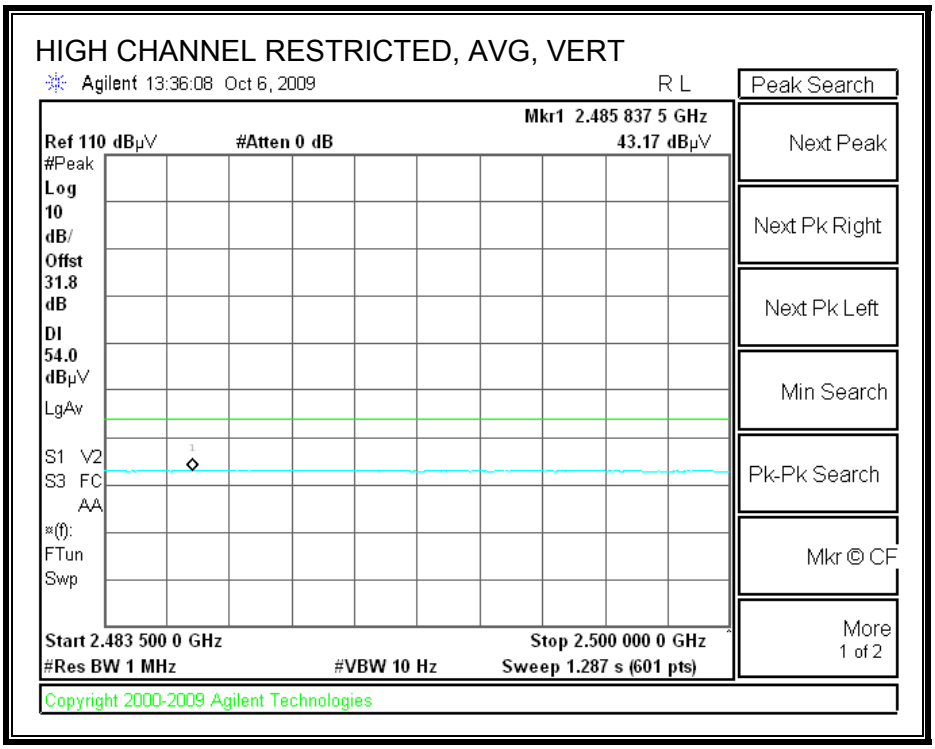
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





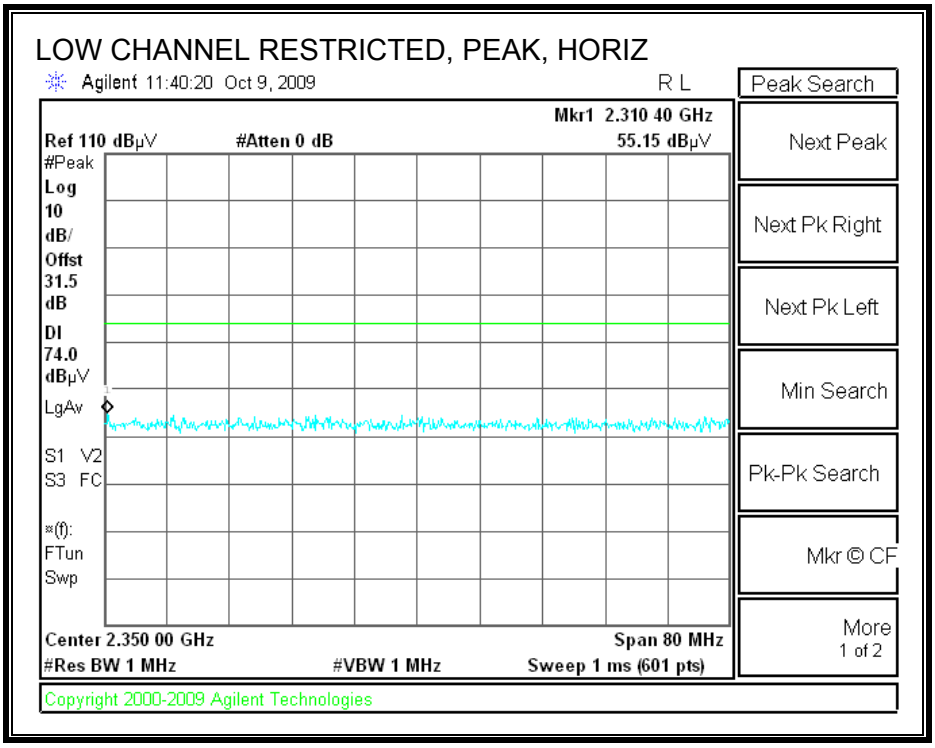
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

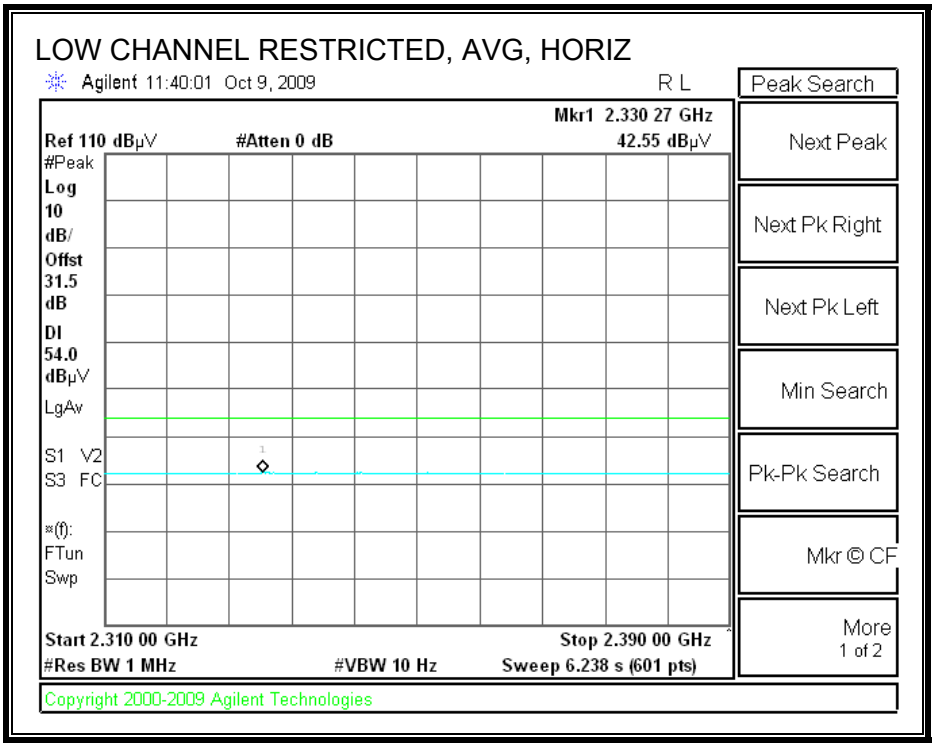




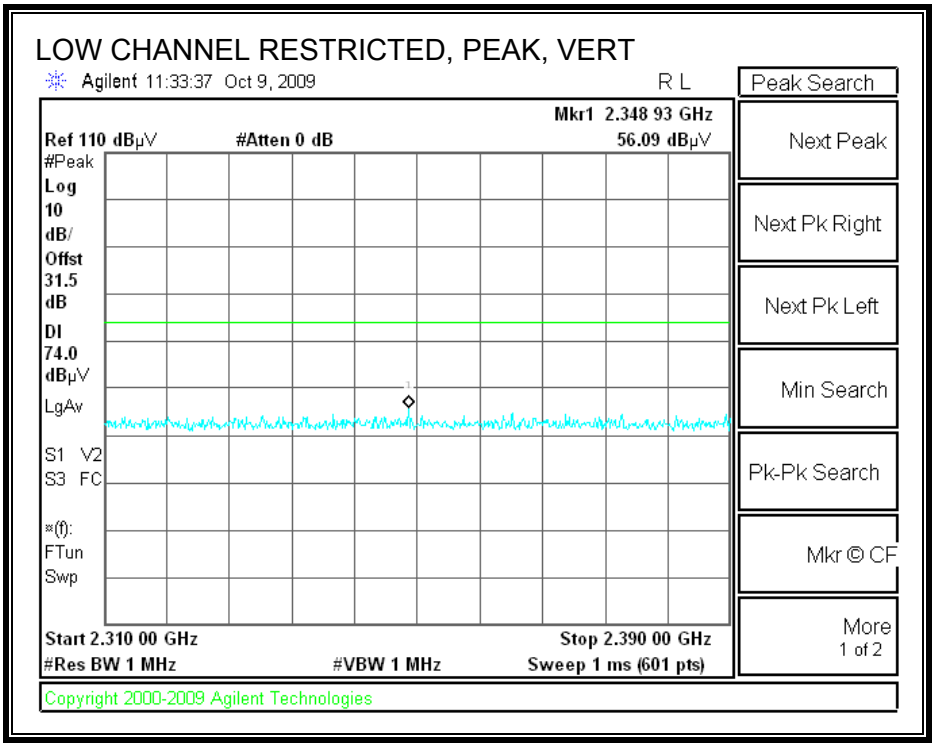
EUT WITH INDUCTIVE BACKCOVER

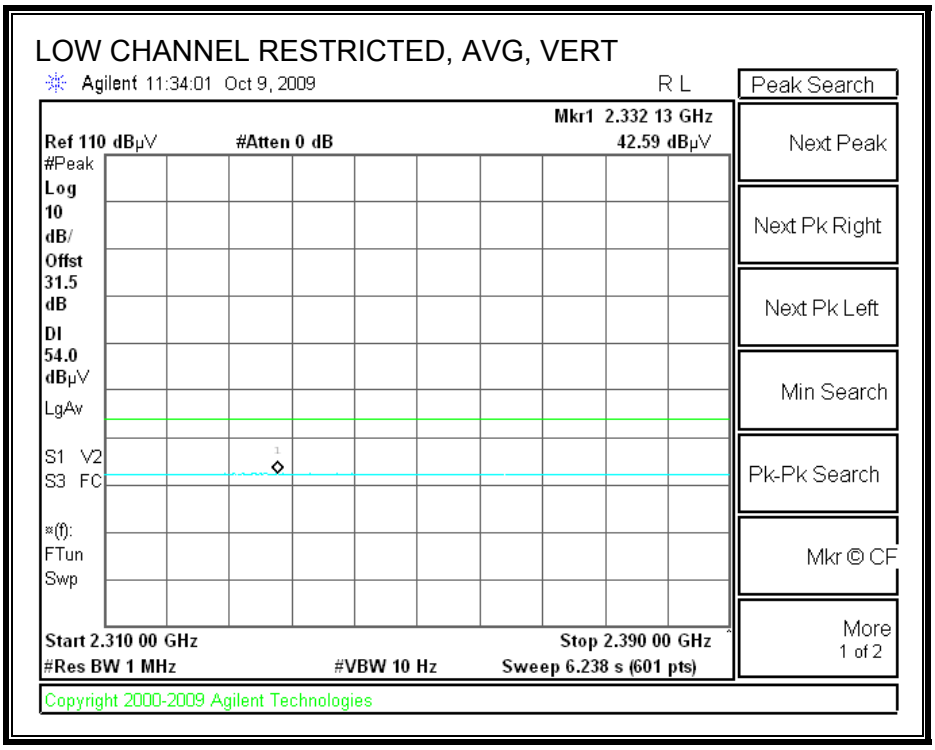
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



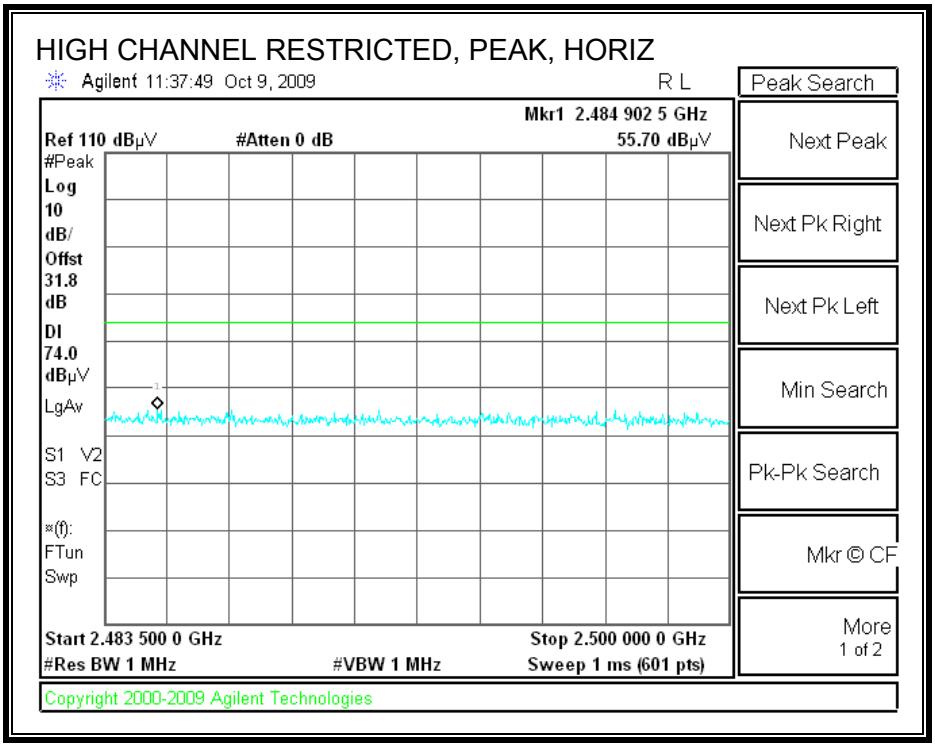


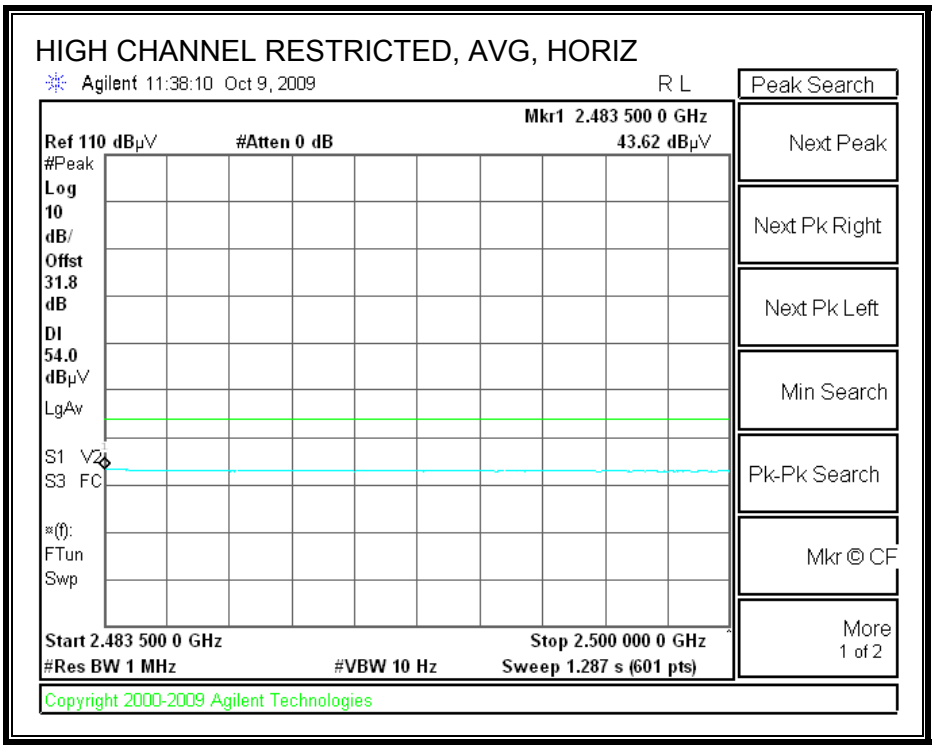
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



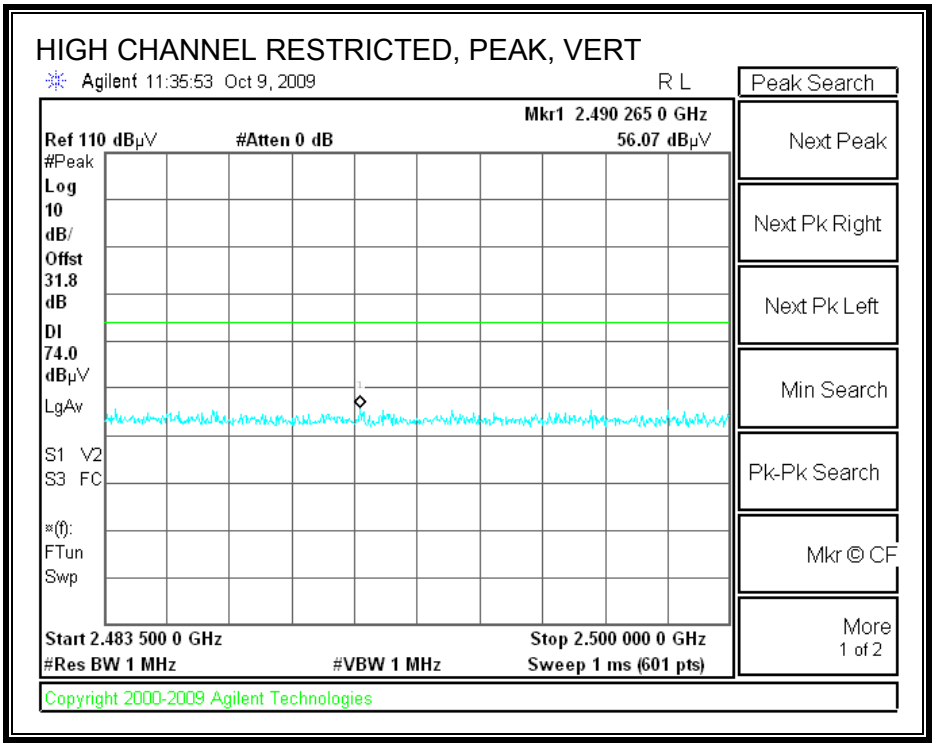


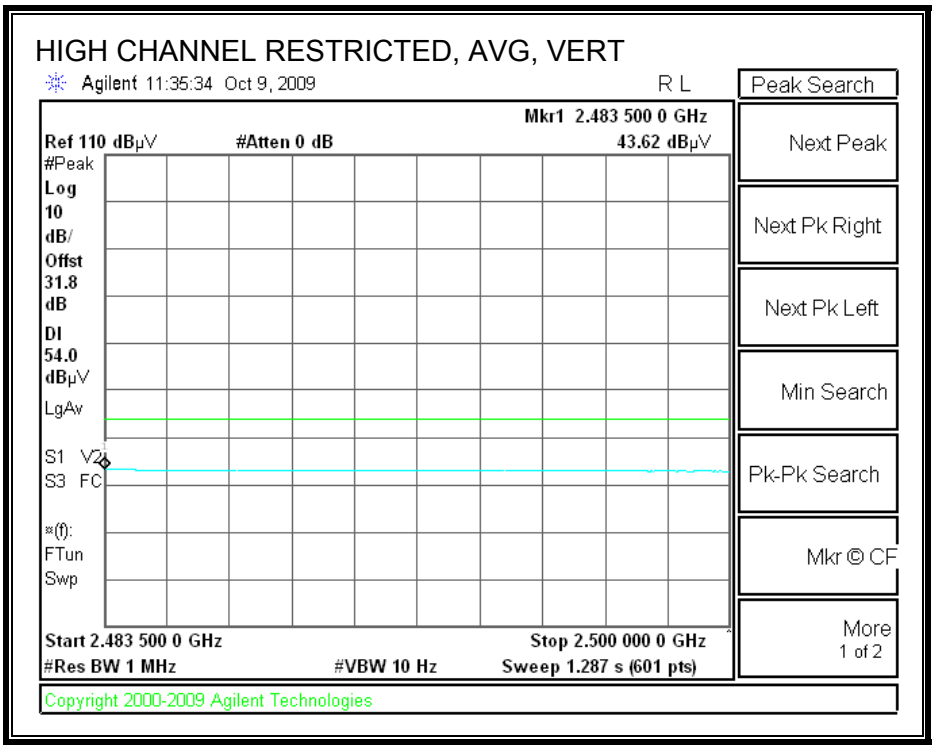
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/07/2009
Test Engineer: Chin Pang
Configuration: EUT (Standard backcover)/AC Adapter/Earphone
Mode: TX, GFSK

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2402MHz															
4.804	3.0	42.8	32.2	32.7	5.8	-34.8	0.0	0.0	46.4	35.8	74	54	-27.6	-18.2	V
4.804	3.0	45.2	39.3	32.7	5.8	-34.8	0.0	0.0	48.8	42.9	74	54	-25.2	-11.1	H
Mid Ch, 2441MHz															
4.882	3.0	41.8	30.0	32.7	5.8	-34.8	0.0	0.0	45.5	33.7	74	54	-28.5	-20.3	V
7.323	3.0	44.0	36.8	35.5	7.3	-34.1	0.0	0.0	52.7	45.5	74	54	-21.3	-8.5	V
4.882	3.0	42.0	31.3	32.7	5.8	-34.8	0.0	0.0	45.7	35.0	74	54	-28.3	-19.0	H
7.323	3.0	40.8	31.2	35.5	7.3	-34.1	0.0	0.0	49.5	39.9	74	54	-24.5	-14.1	H
High Ch, 2480Mhz															
4.960	3.0	38.2	27.3	32.8	5.9	-34.8	0.0	0.0	42.1	31.2	74	54	-31.9	-22.8	V
7.440	3.0	41.5	28.6	35.6	7.3	-34.1	0.0	0.0	50.4	37.5	74	54	-23.6	-16.5	V
4.960	3.0	40.0	28.0	32.8	5.9	-34.8	0.0	0.0	43.9	31.9	74	54	-30.1	-22.1	H
7.440	3.0	40.5	28.6	35.6	7.3	-34.1	0.0	0.0	49.4	37.5	74	54	-24.6	-16.5	H

Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
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Peak Measurements
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Average Measurements
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f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2402MHz															
4.804	3.0	40.8	30.1	32.7	5.8	-34.8	0.0	0.0	44.4	33.7	74	54	-29.6	-20.3	V
4.804	3.0	43.8	38.3	32.7	5.8	-34.8	0.0	0.0	47.4	41.9	74	54	-26.6	-12.1	H
Mid Ch, 2441MHz															
4.882	3.0	42.0	31.0	32.7	5.8	-34.8	0.0	0.0	45.7	34.7	74	54	-28.3	-19.3	V
7.323	3.0	41.5	30.6	35.5	7.3	-34.1	0.0	0.0	50.2	39.3	74	54	-23.8	-14.7	V
4.882	3.0	42.8	31.7	32.7	5.8	-34.8	0.0	0.0	46.5	35.4	74	54	-27.5	-18.6	H
7.323	3.0	41.4	31.3	35.5	7.3	-34.1	0.0	0.0	50.1	40.0	74	54	-23.9	-14.0	H
High Ch, 2480Mhz															
4.960	3.0	38.7	28.4	32.8	5.9	-34.8	0.0	0.0	42.6	32.3	74	54	-31.4	-21.7	V
7.440	3.0	40.7	29.3	35.6	7.3	-34.1	0.0	0.0	49.6	38.2	74	54	-24.4	-15.8	V
4.960	3.0	41.5	28.6	32.8	5.9	-34.8	0.0	0.0	45.4	32.5	74	54	-28.6	-21.5	H
7.440	3.0	40.6	29.2	35.6	7.3	-34.1	0.0	0.0	49.5	38.1	74	54	-24.5	-15.9	H

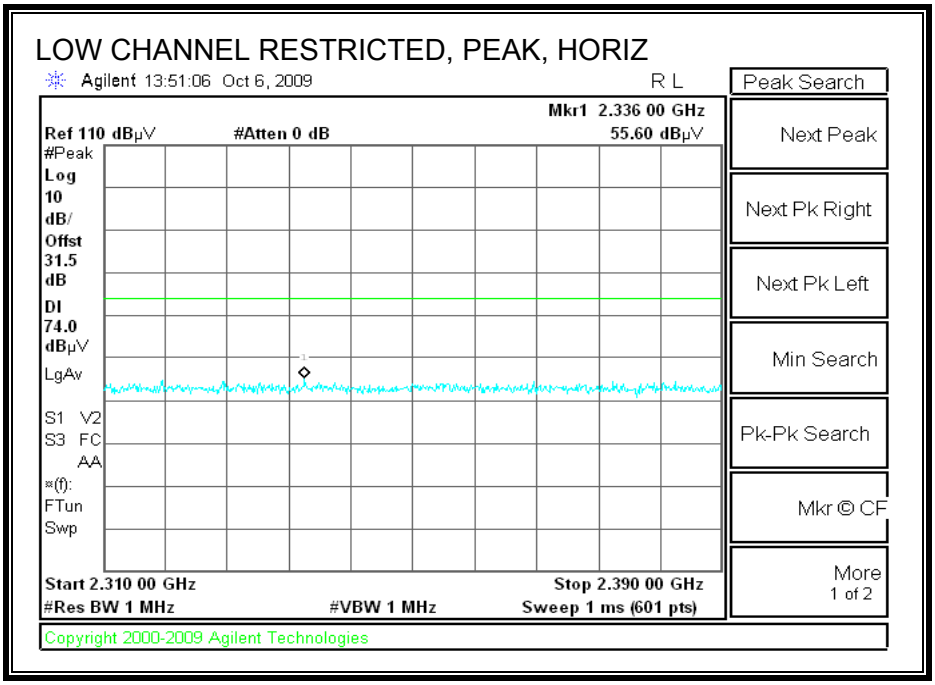
Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

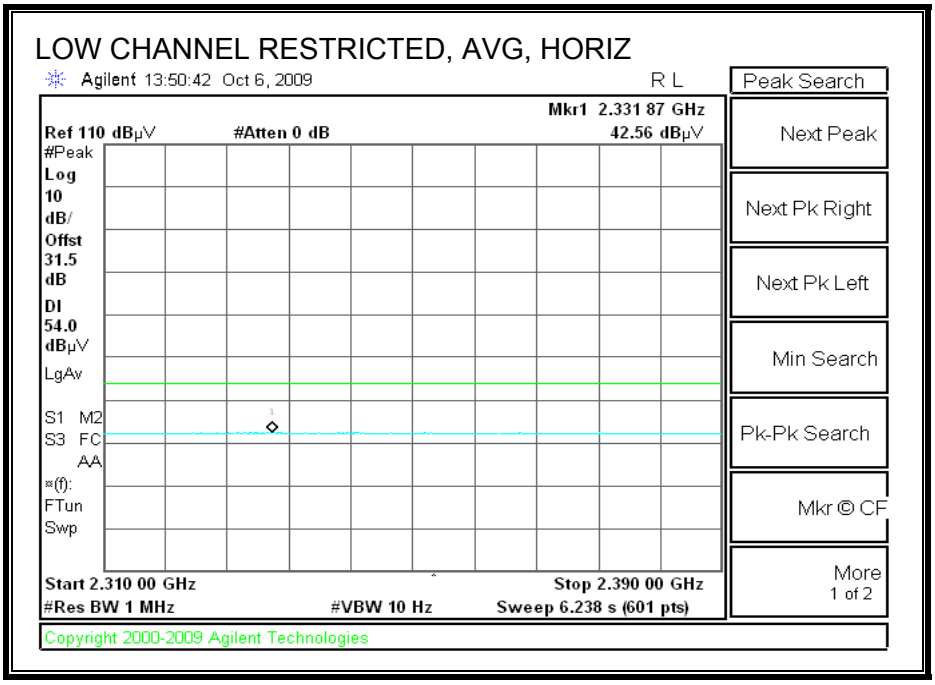
f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

8.2.4. BLUETOOTH 8PSK MODE

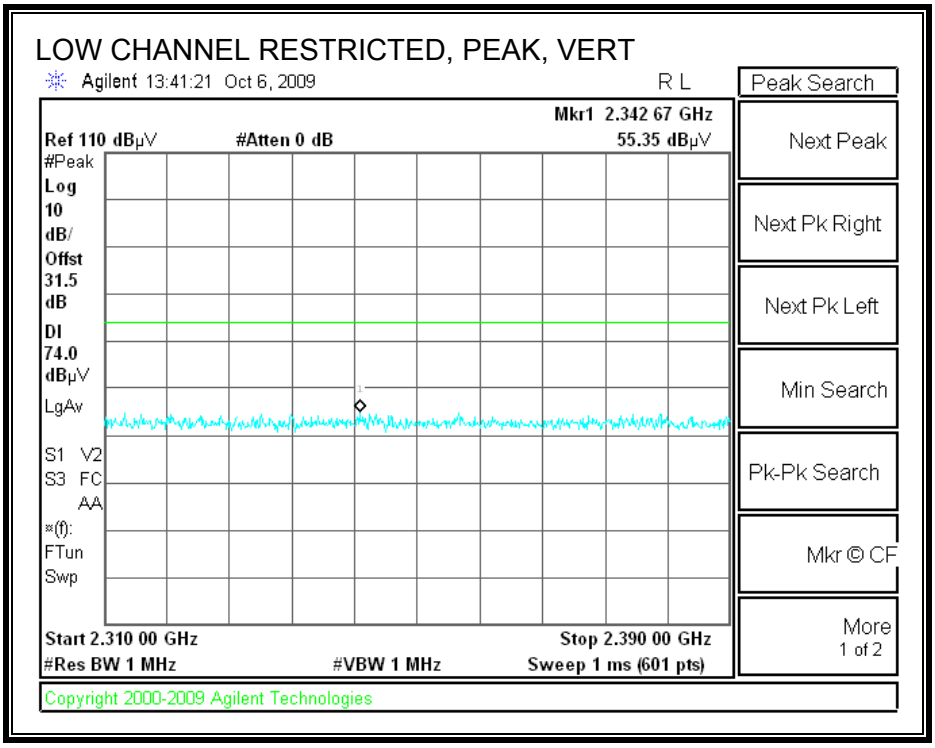
EUT WITH STANDARD BACKCOVER

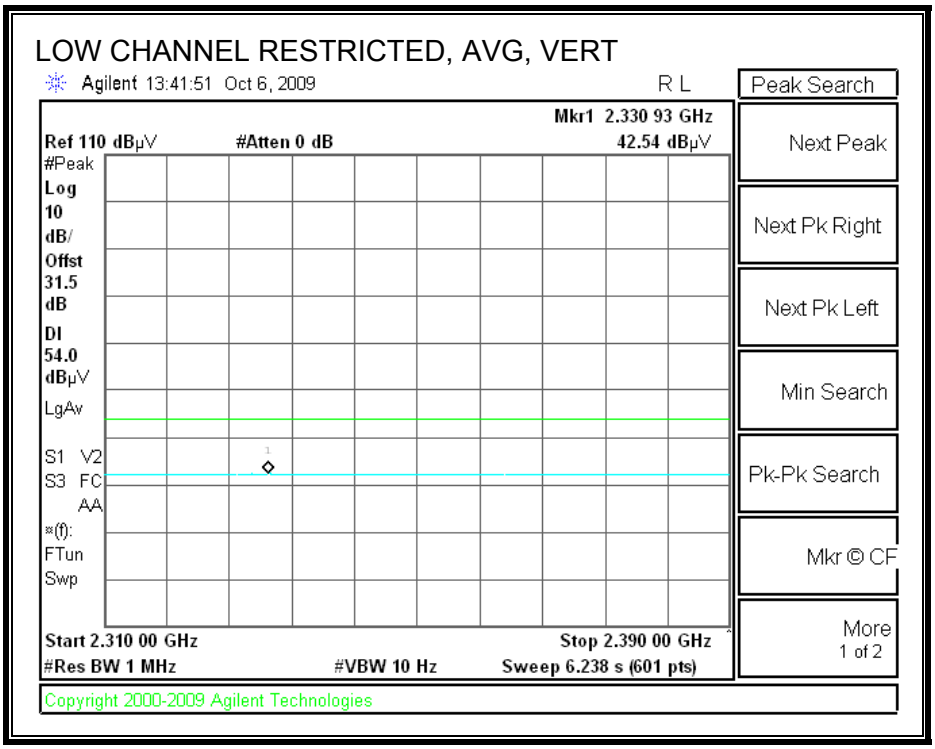
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



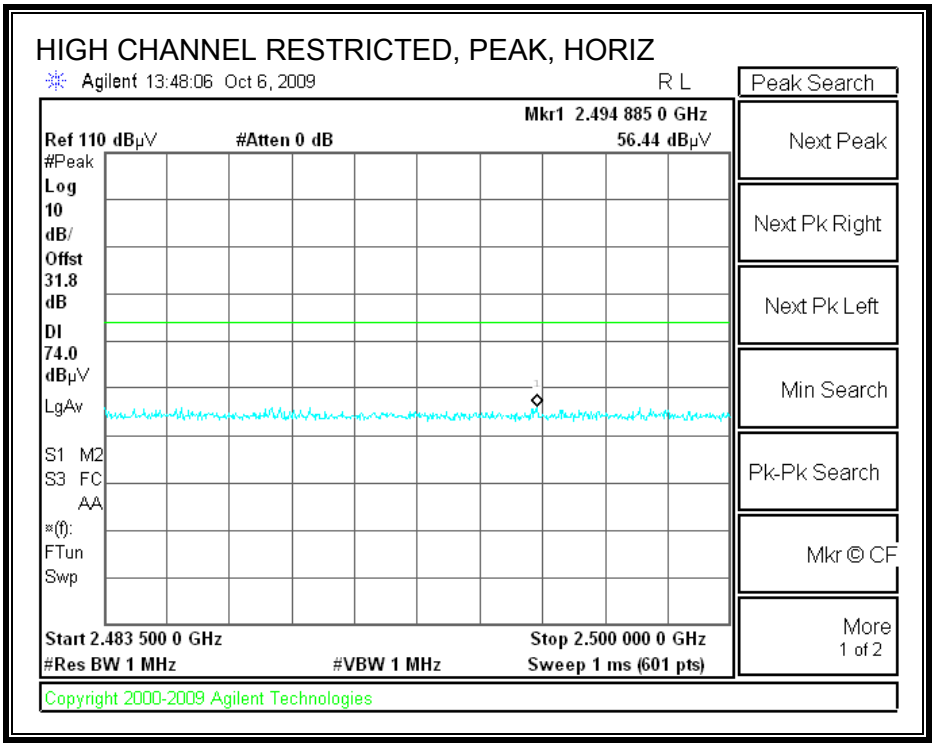


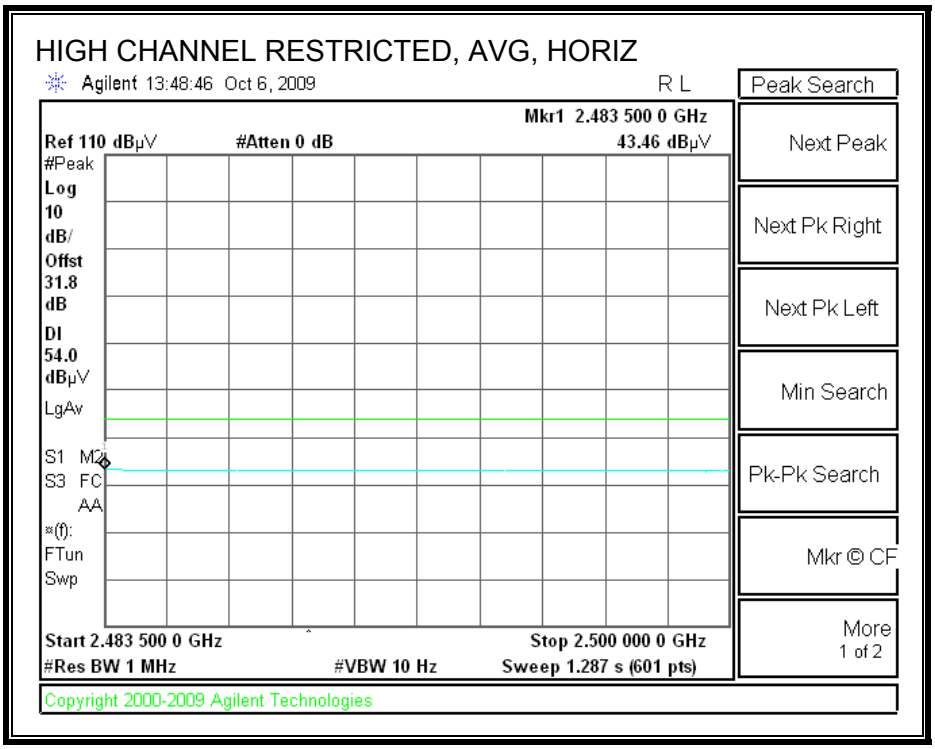
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



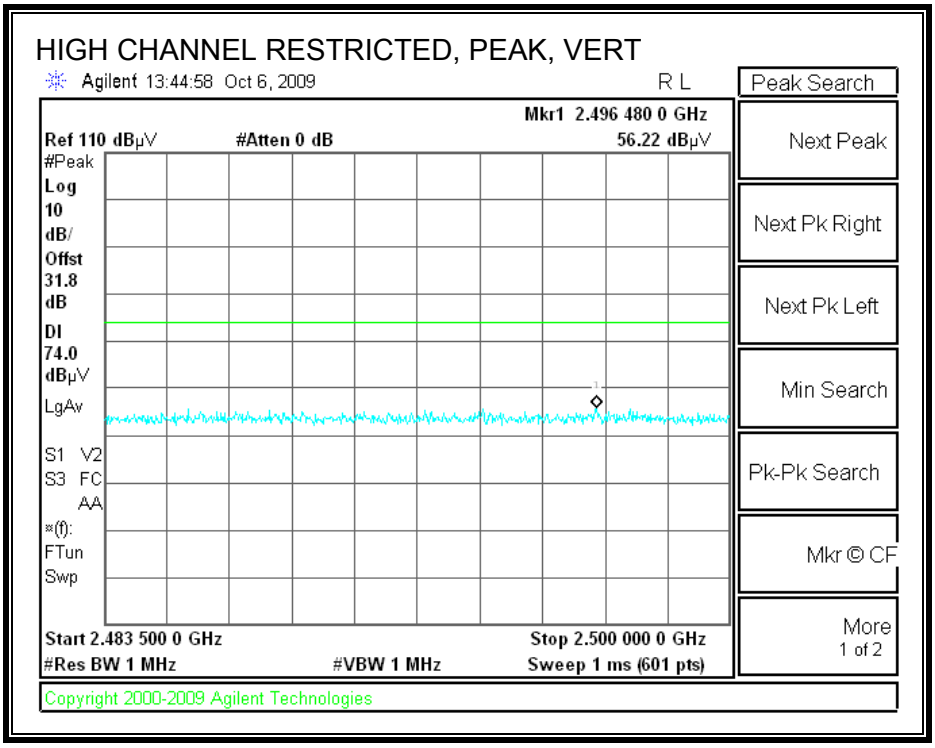


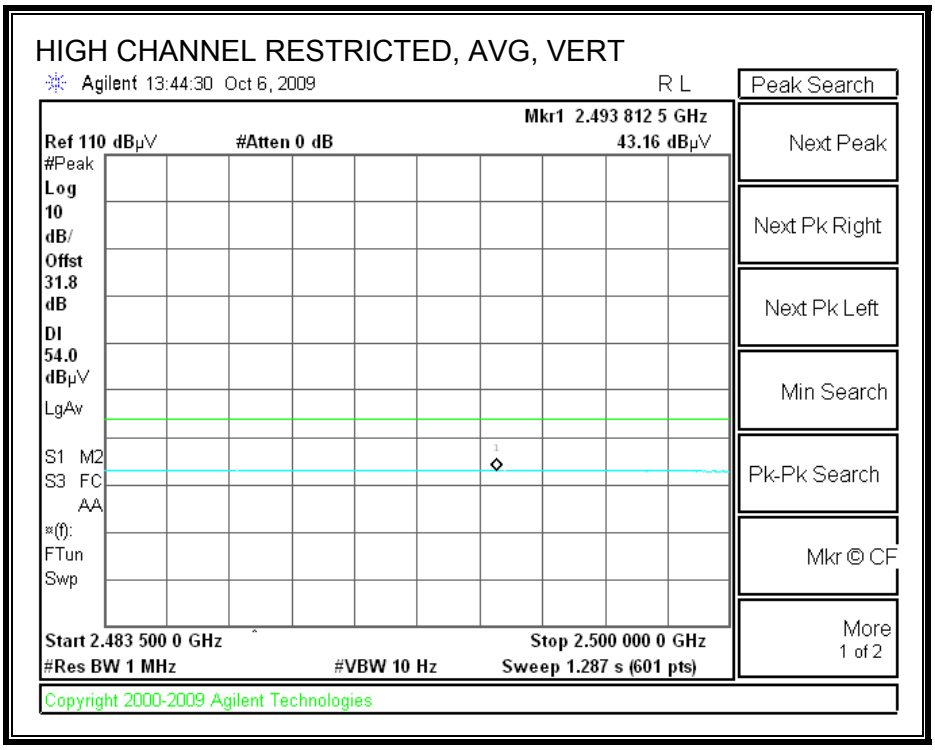
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





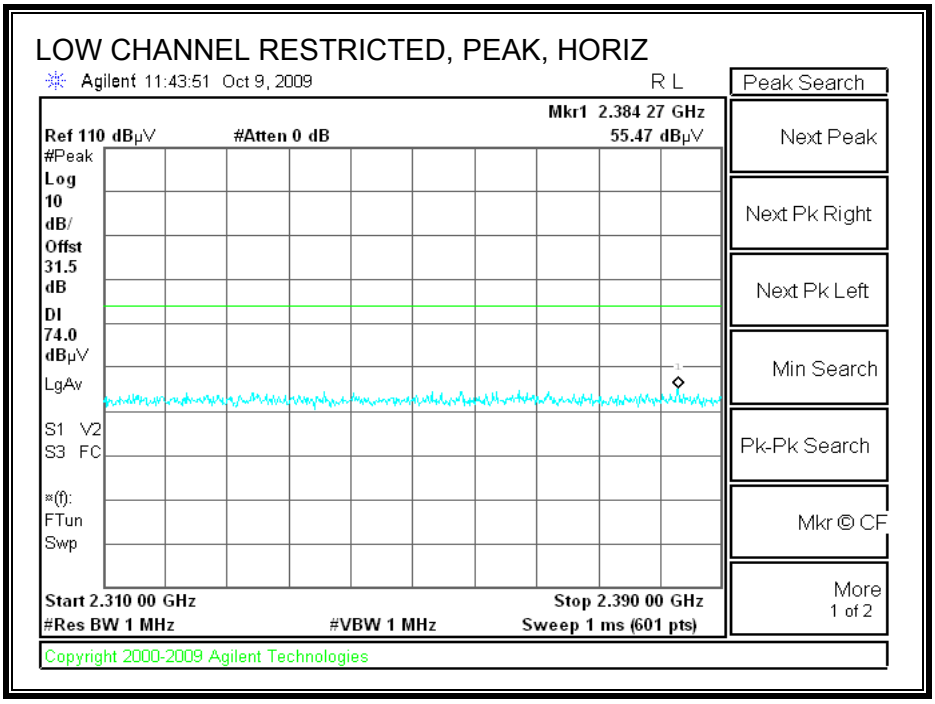
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

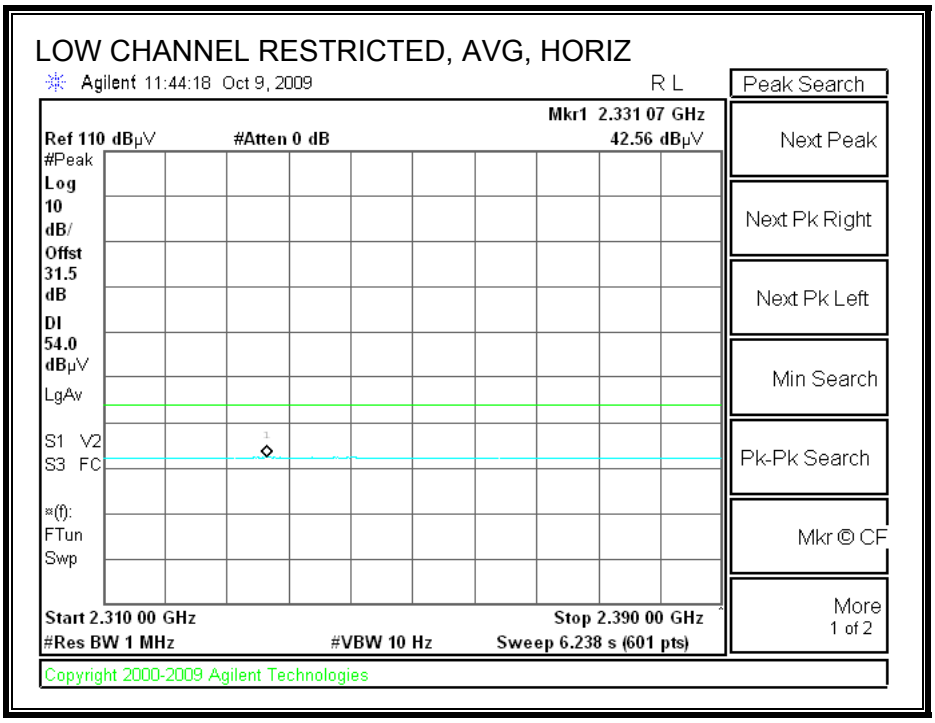




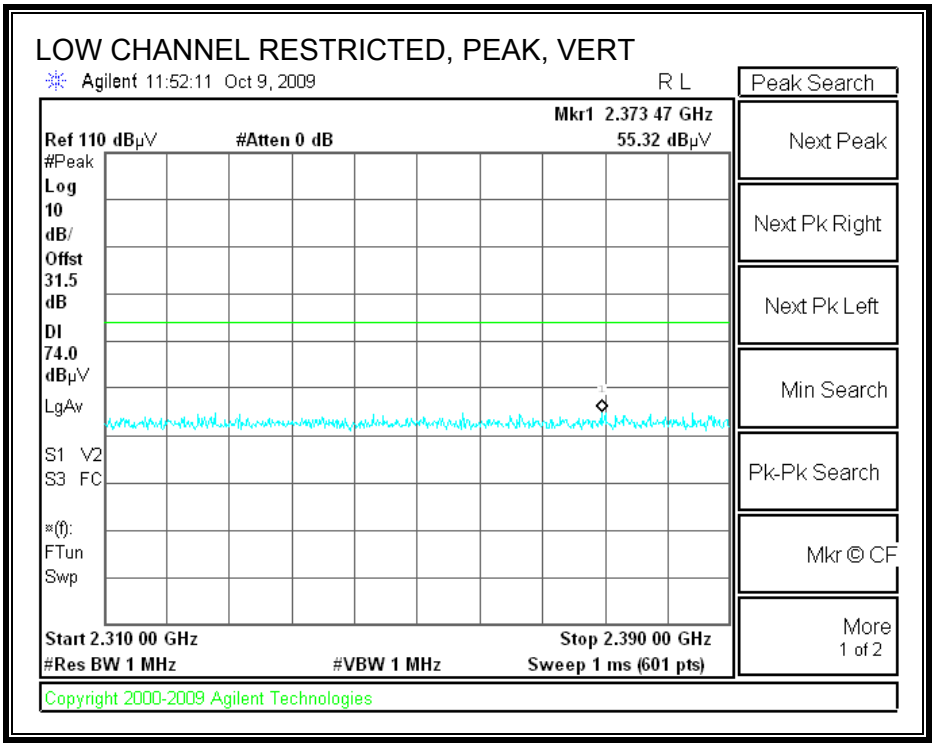
EUT WITH INDUCTIVE BACKCOVER

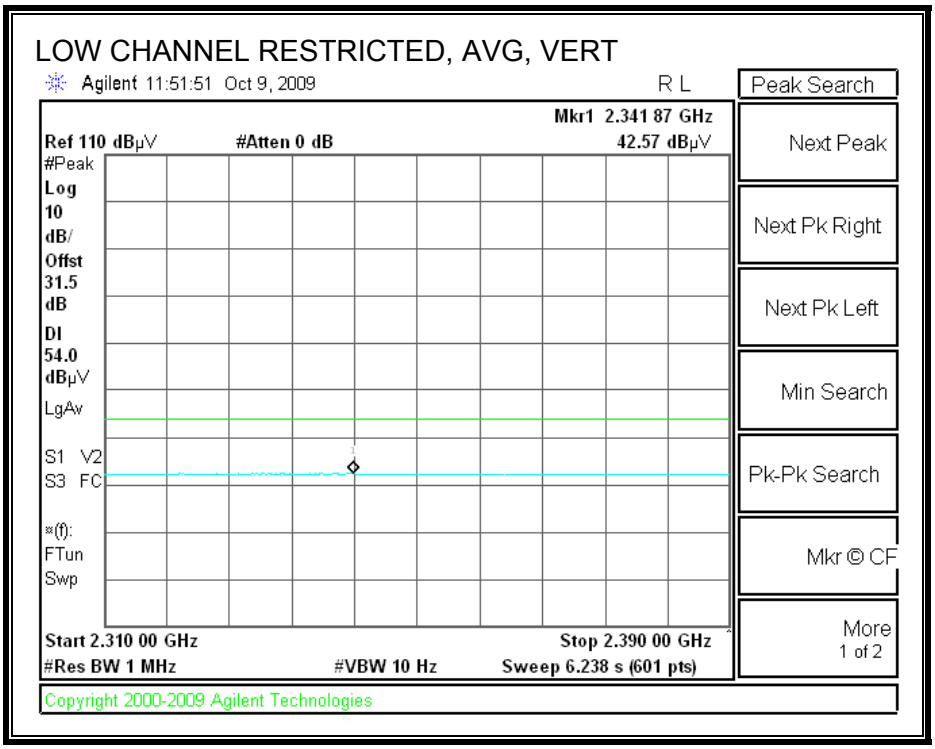
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



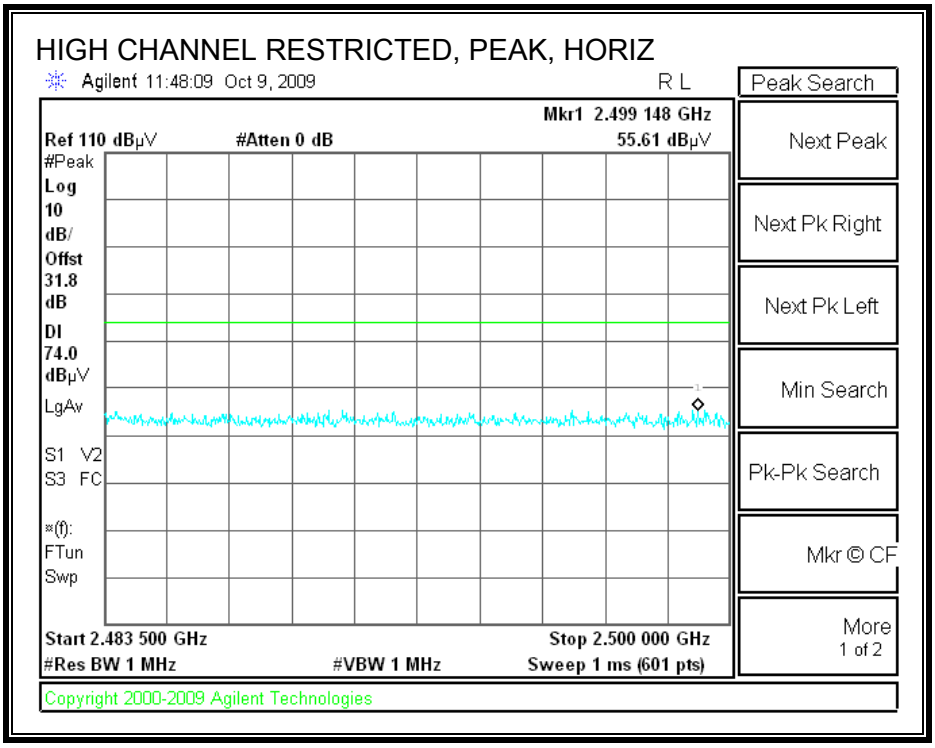


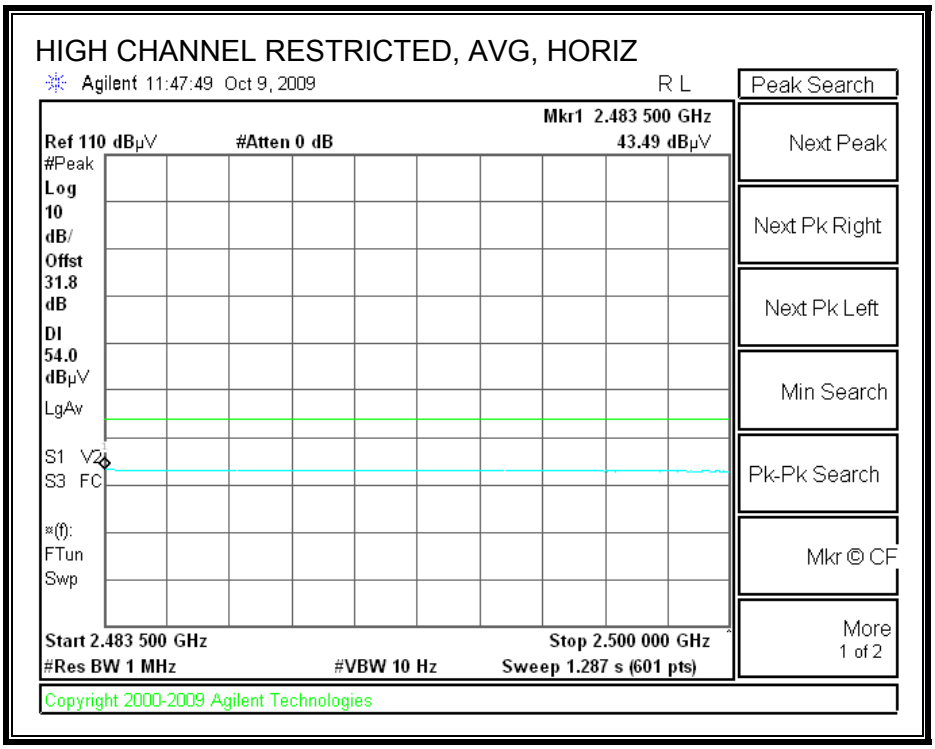
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



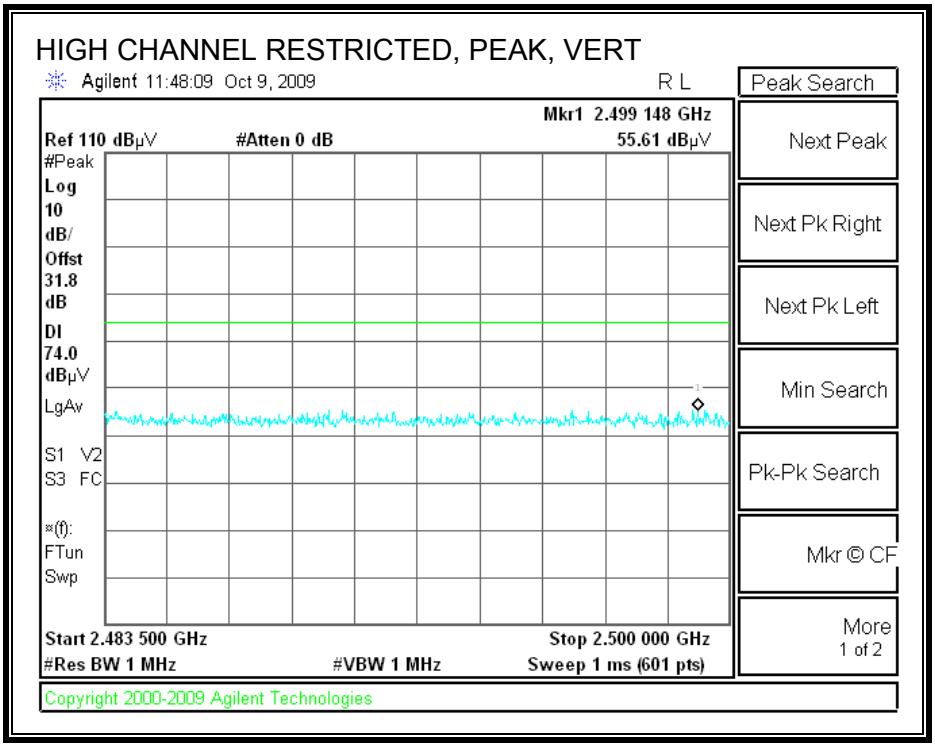


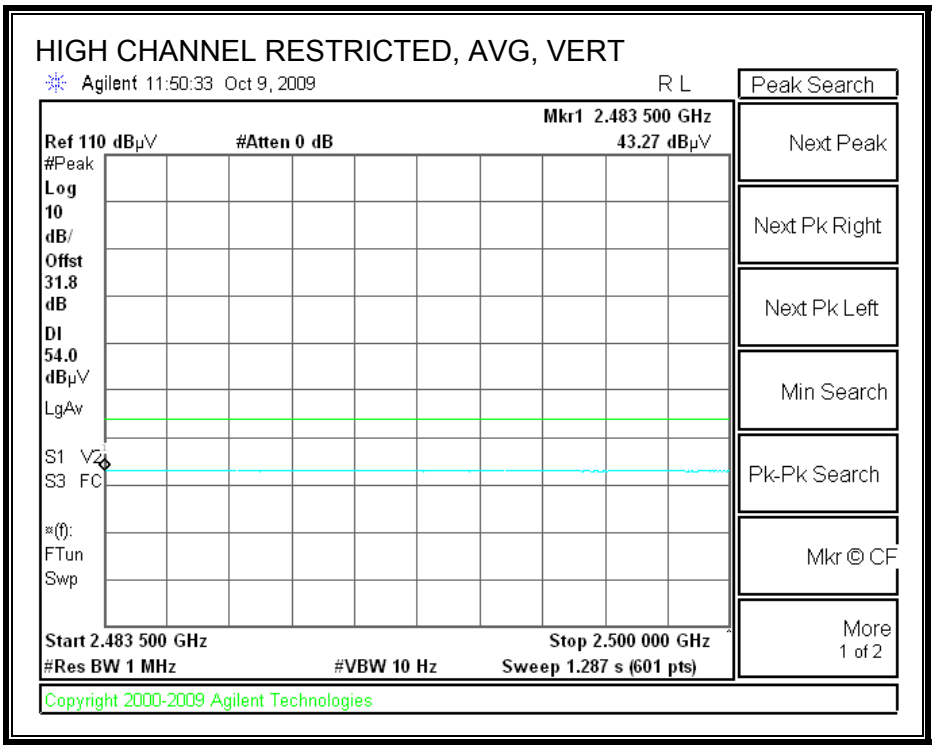
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





EUT WITH STANDARD BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/07/2009
Test Engineer: Chin Pang
Configuration: EUT (Standard Backcover) / AC Adapter/Earphone
Mode: TX, 8PSK

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2402MHz															
4.804	3.0	40.0	28.0	32.7	5.8	-34.8	0.0	0.0	43.6	31.6	74	54	-30.4	-22.4	V
4.804	3.0	42.2	30.0	32.7	5.8	-34.8	0.0	0.0	45.8	33.6	74	54	-28.2	-20.4	H
Mid Ch, 2441MHz															
4.882	3.0	39.0	27.0	32.7	5.8	-34.8	0.0	0.0	42.7	30.7	74	54	-31.3	-23.3	V
7.323	3.0	40.0	29.0	35.5	7.3	-34.1	0.0	0.0	48.7	37.7	74	54	-25.3	-16.3	V
4.882	3.0	39.6	27.8	32.7	5.8	-34.8	0.0	0.0	43.3	31.5	74	54	-30.7	-22.5	H
7.323	3.0	40.0	27.0	35.5	7.3	-34.1	0.0	0.0	48.7	35.7	74	54	-25.3	-18.3	H
High Ch, 2480Mhz															
4.960	3.0	38.0	26.4	32.8	5.9	-34.8	0.0	0.0	41.9	30.3	74	54	-32.1	-23.7	V
7.440	3.0	38.6	26.5	35.6	7.3	-34.1	0.0	0.0	47.5	35.4	74	54	-26.5	-18.6	V
4.960	3.0	39.8	27.6	32.8	5.9	-34.8	0.0	0.0	43.7	31.5	74	54	-30.3	-22.5	H
7.440	3.0	39.0	26.5	35.6	7.3	-34.1	0.0	0.0	47.9	35.4	74	54	-26.1	-18.6	H

Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

EUT WITH INDUCTIVE BACKCOVER

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/07/2009
Test Engineer: Chin Pang
Configuration: EUT (Inductive Backcover) / AC Adapter/Earphone
Mode: TX, 8PSK

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

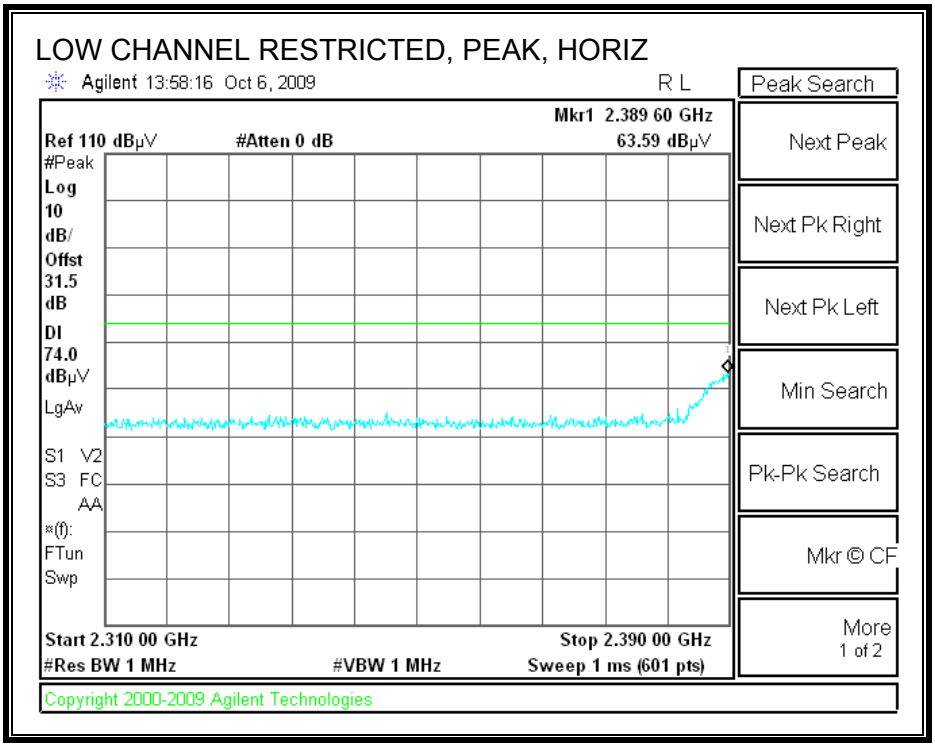
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch, 2402MHz															
4.804	3.0	39.1	27.7	32.7	5.8	-34.8	0.0	0.0	42.7	31.3	74	54	-31.3	-22.7	V
4.804	3.0	43.5	31.4	32.7	5.8	-34.8	0.0	0.0	47.1	35.0	74	54	-26.9	-19.0	H
Mid Ch, 2441MHz															
4.882	3.0	38.8	27.0	32.7	5.8	-34.8	0.0	0.0	42.5	30.7	74	54	-31.5	-23.3	V
7.323	3.0	40.5	29.2	35.5	7.3	-34.1	0.0	0.0	49.2	37.9	74	54	-24.8	-16.1	V
4.882	3.0	42.6	29.3	32.7	5.8	-34.8	0.0	0.0	46.3	33.0	74	54	-27.7	-21.0	H
7.323	3.0	42.0	28.4	35.5	7.3	-34.1	0.0	0.0	50.7	37.1	74	54	-23.3	-16.9	H
High Ch, 2480Mhz															
4.960	3.0	38.3	27.0	32.8	5.9	-34.8	0.0	0.0	42.2	30.9	74	54	-31.8	-23.1	V
7.440	3.0	39.1	27.2	35.6	7.3	-34.1	0.0	0.0	48.0	36.1	74	54	-26.0	-17.9	V
4.960	3.0	43.1	29.5	32.8	5.9	-34.8	0.0	0.0	47.0	33.4	74	54	-27.0	-20.6	H
7.440	3.0	41.7	28.1	35.6	7.3	-34.1	0.0	0.0	50.6	37.0	74	54	-23.4	-17.0	H

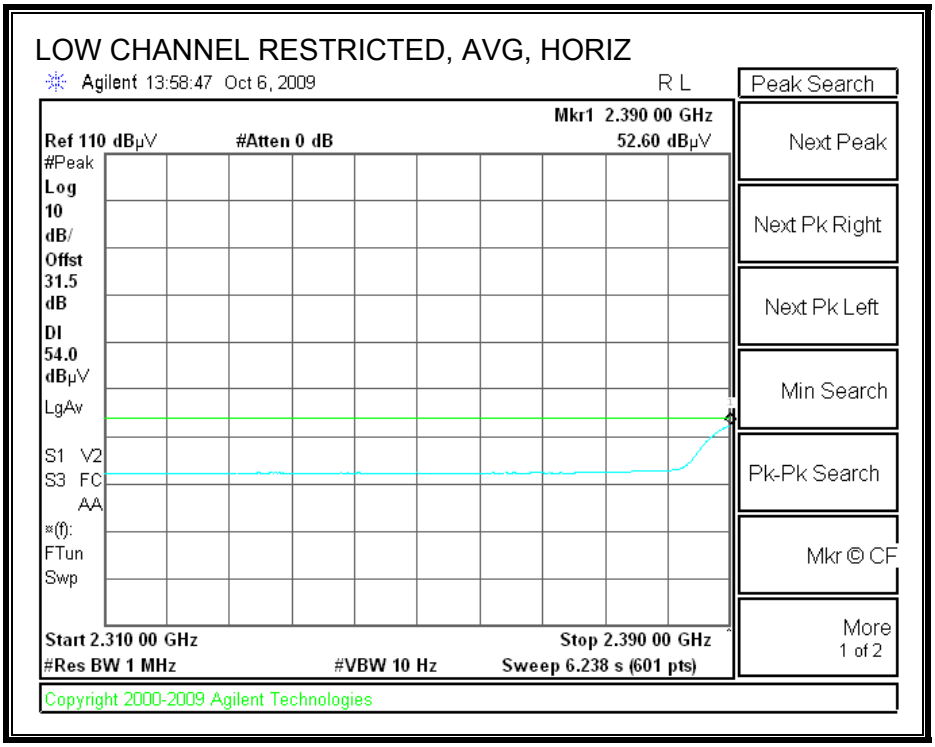
Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

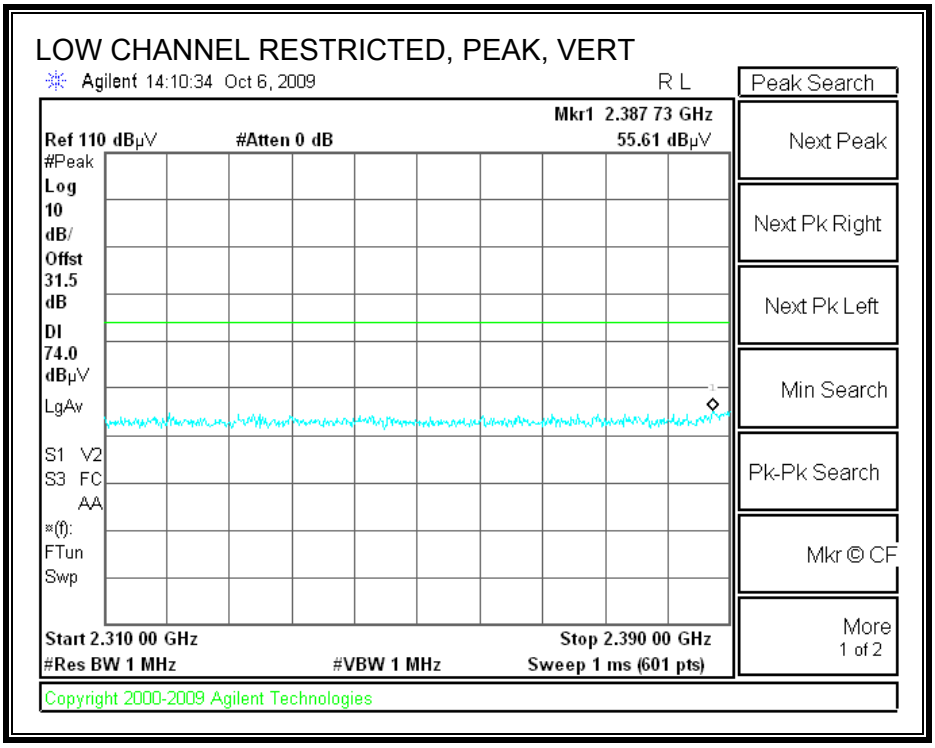
8.2.5. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE)

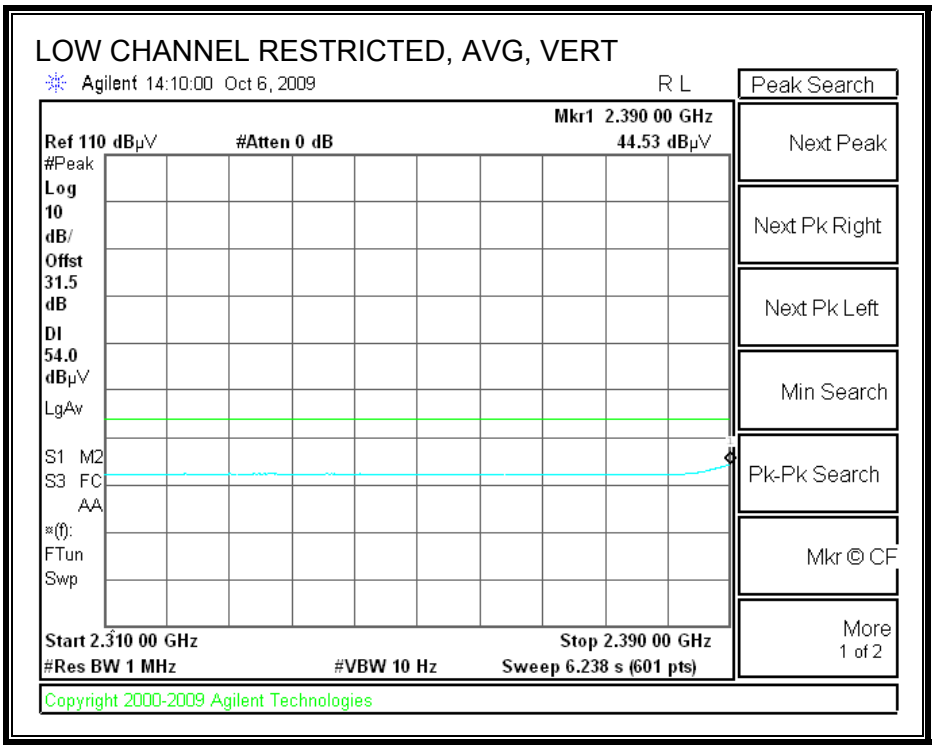
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



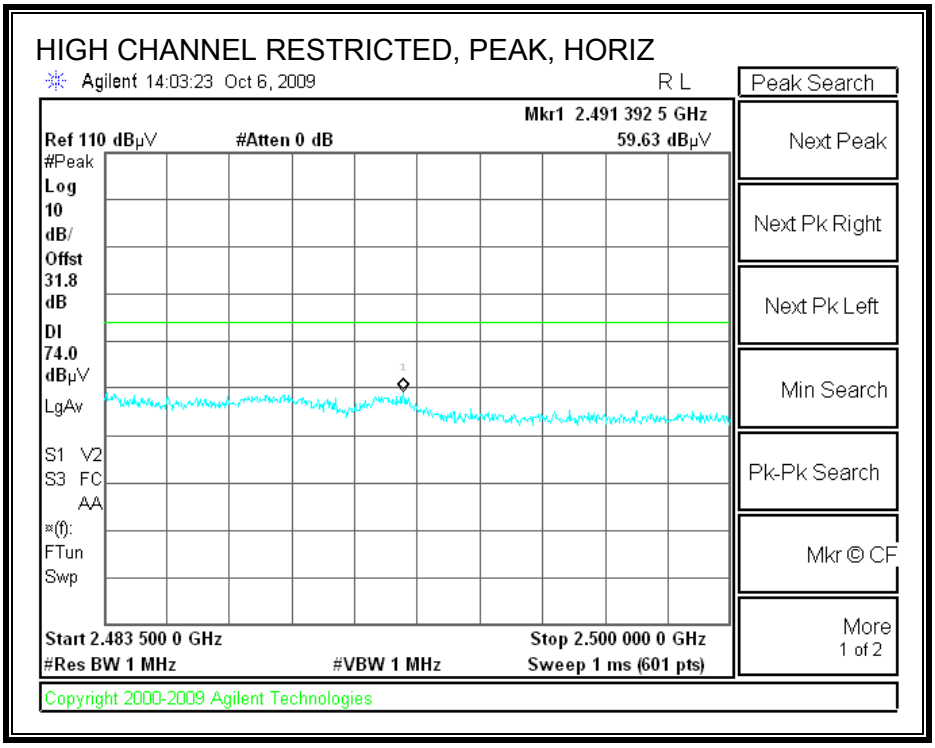


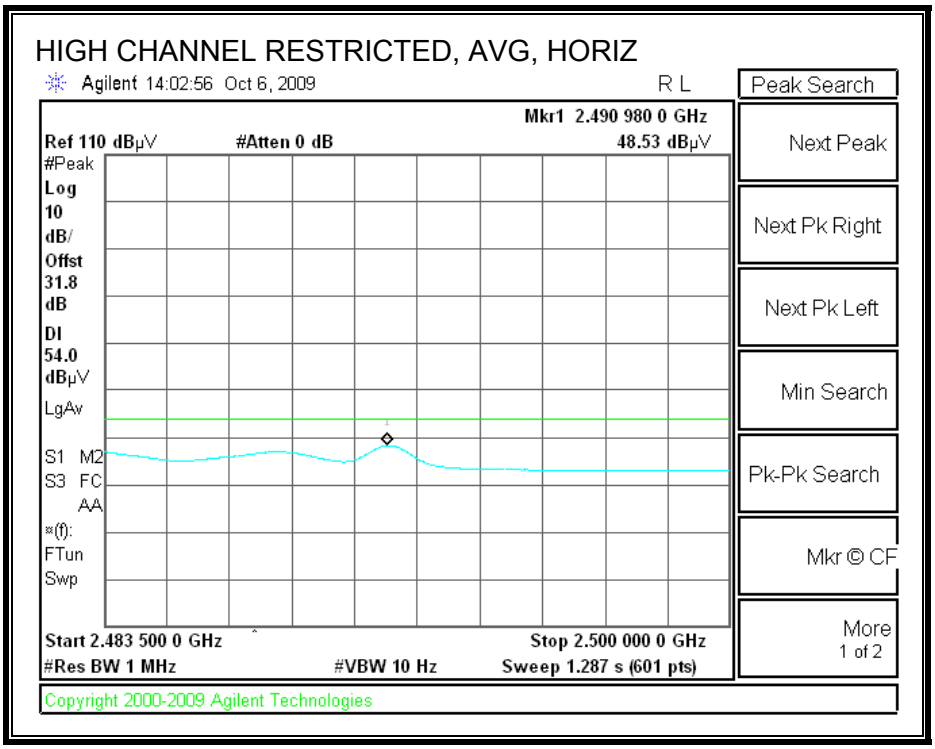
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



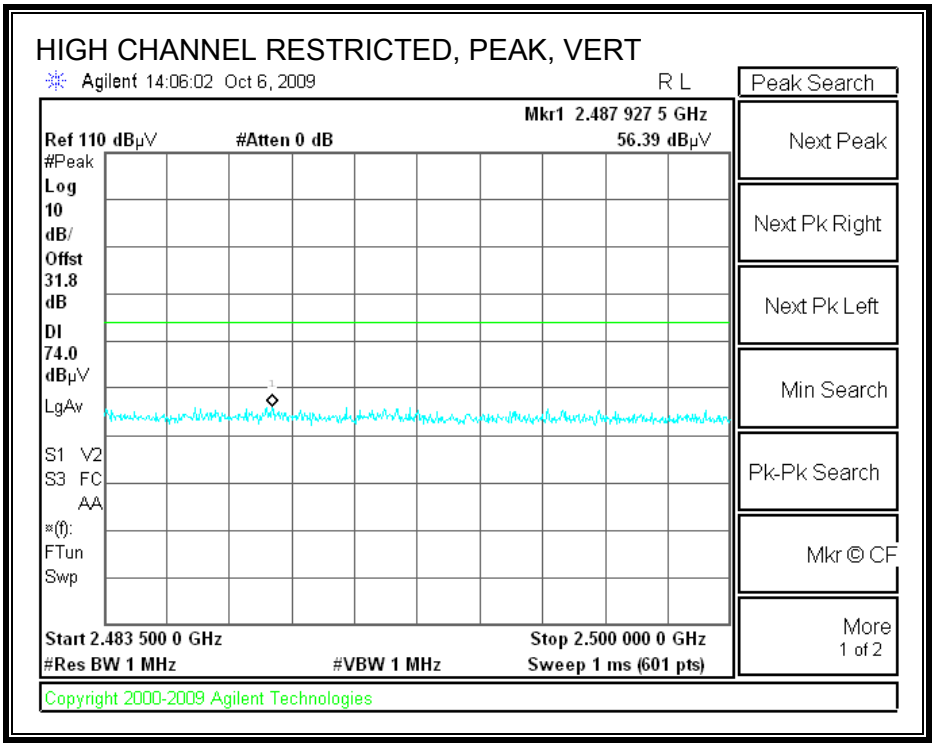


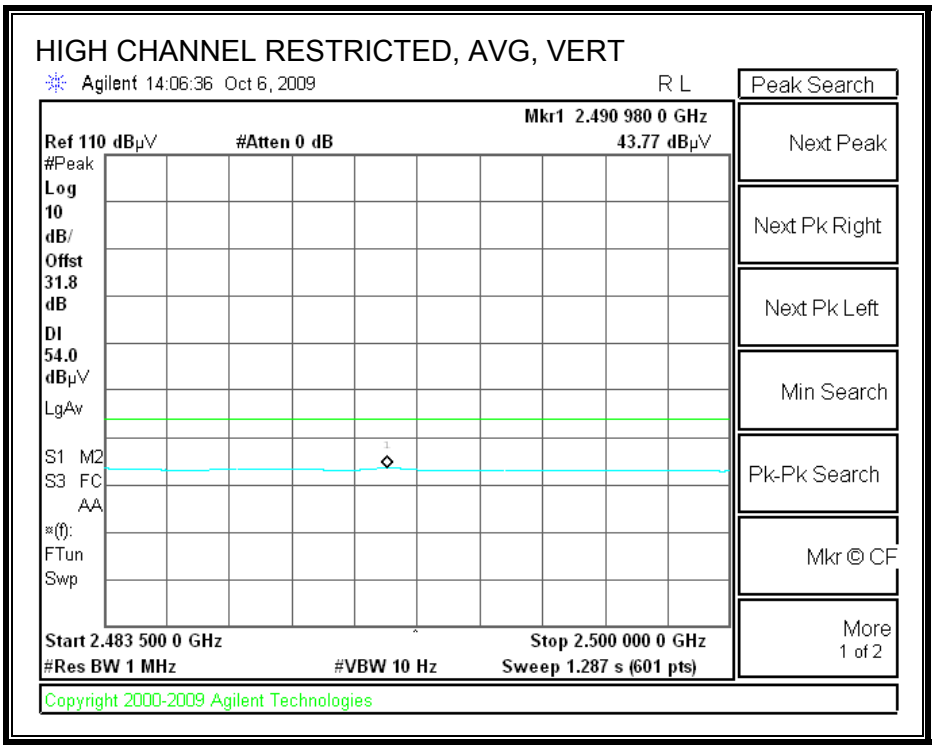
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Palm
Project #: 09U12852
Date: 10/7/09
Test Engineer: Chin Pang
Configuration: EUT/Earphone/AC charger
EUT Description: CDMA-EVDO Smartphone
Mode: TX, BT and WLAN Co-Location (GFSK and b mode)

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T60; S/N: 2238 @3m	T34 HP 8449B			FCC 15.205

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch															
4.824	3.0	39.0	27.0	32.7	5.8	-34.8	0.0	0.0	42.6	30.6	74	54	-31.4	-23.4	V
4.813	3.0	42.8	32.6	32.7	5.8	-34.8	0.0	0.0	46.4	36.2	74	54	-27.6	-17.8	H
Mid Ch															
4.874	3.0	38.0	27.0	32.7	5.8	-34.8	0.0	0.0	41.7	30.7	74	54	-32.3	-23.3	V
7.311	3.0	43.0	32.0	35.5	7.3	-34.1	0.0	0.0	51.6	40.6	74	54	-22.4	-13.4	V
4.881	3.0	41.0	31.2	32.7	5.8	-34.8	0.0	0.0	44.7	34.9	74	54	-29.3	-19.1	H
7.311	3.0	40.0	28.1	35.5	7.3	-34.1	0.0	0.0	48.6	36.7	74	54	-25.4	-17.3	H
High Ch															
4.924	3.0	38.0	26.0	32.7	5.9	-34.8	0.0	0.0	41.8	29.8	74	54	-32.2	-24.2	V
7.386	3.0	42.2	31.0	35.6	7.3	-34.1	0.0	0.0	51.0	39.8	74	54	-23.0	-14.2	V
4.924	3.0	39.5	29.0	32.7	5.9	-34.8	0.0	0.0	43.3	32.8	74	54	-30.7	-21.2	H
7.386	3.0	40.0	28.0	35.6	7.3	-34.1	0.0	0.0	48.8	36.8	74	54	-25.2	-17.2	H

Rev. 11.10.08
Note: No other emissions were detected above the system noise floor.

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

8.3. RECEIVER ABOVE 1 GHz

No other emissions were detected above the system noise floor.

8.4. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)

EUT WITH AC/DC ADAPTER

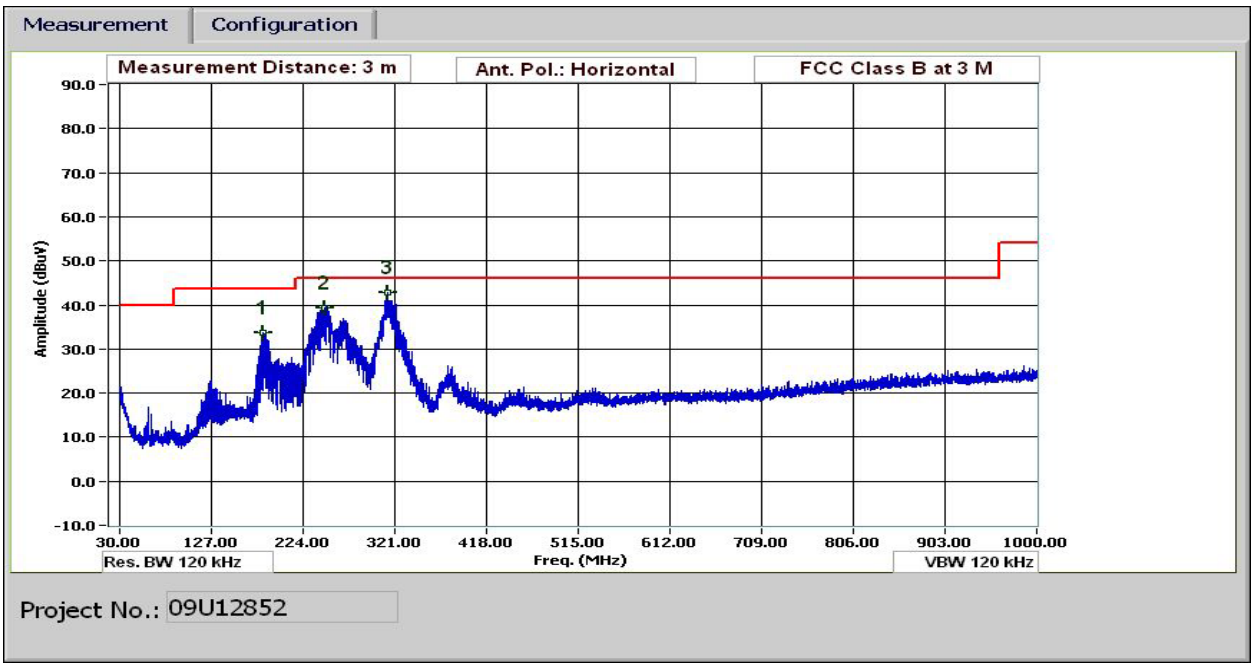
30-1000MHz Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 10/10/09
Project #: 09U12852
Company: Palm
EUT Description: CDMA-EVDO Smartphone
Configuration: EUT (Standard backcover) powered by AC Adapter
EUT M/N: P121EWW
Test Target: FCC Class B
Mode Oper: TX (Worst Case)
AC adapter P/N: 157-10130-00

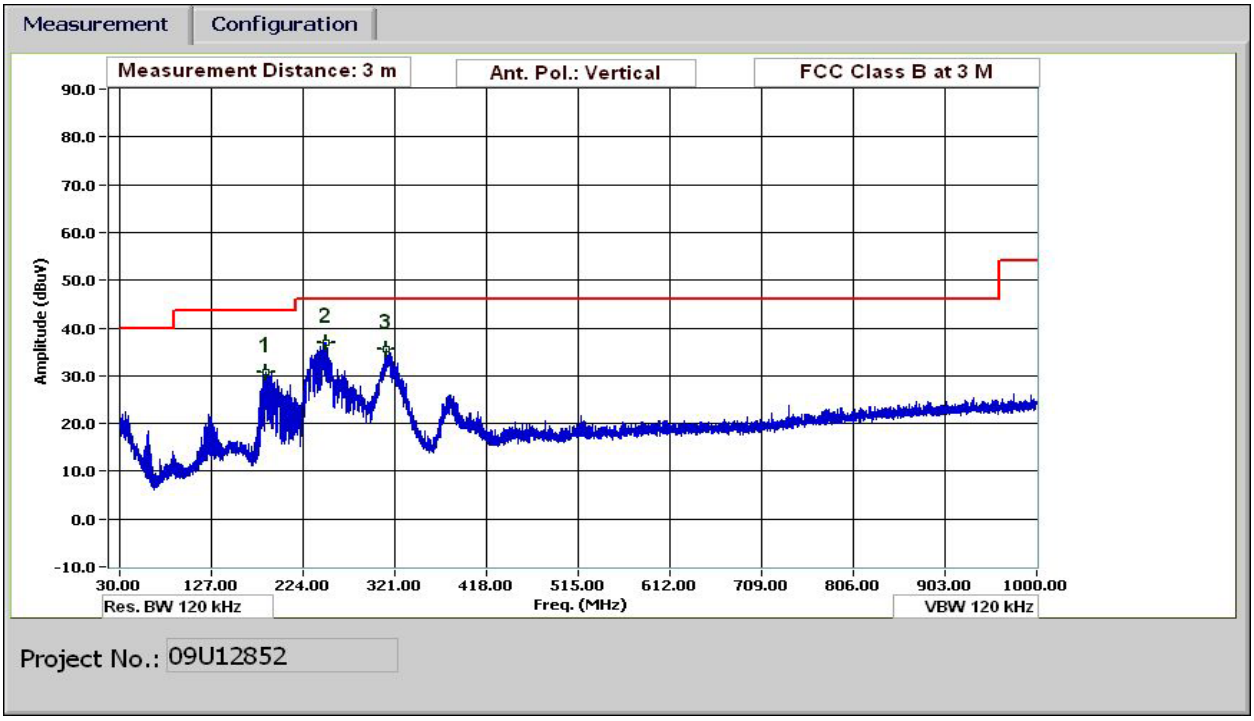
f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filter dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
183.966	3.0	46.2	11.0	1.1	27.5	0.0	0.0	30.8	43.5	-12.7	V	P	
247.689	3.0	51.2	11.8	1.3	27.4	0.0	0.0	36.9	46.0	-9.1	V	P	
312.612	3.0	47.9	13.7	1.5	27.5	0.0	0.0	35.6	46.0	-10.4	V	P	
182.046	3.0	49.1	10.9	1.1	27.5	0.0	0.0	33.6	43.5	-9.9	H	P	
247.089	3.0	53.6	11.8	1.3	27.4	0.0	0.0	39.3	46.0	-6.7	H	P	
313.332	3.0	55.1	13.7	1.5	27.5	0.0	0.0	42.8	46.0	-3.2	H	P	
313.332	3.0	51.3	13.7	1.5	27.5	0.0	0.0	39.0	46.0	-7.0	H	QP	

SPURIOUS EMISSIONS 30 TO 1000, HORIZONTALAL)



SPURIOUS EMISSIONS 30 TO 1000, VERTICAL



EUT WITH INDUCTIVE CHARGING DOCK

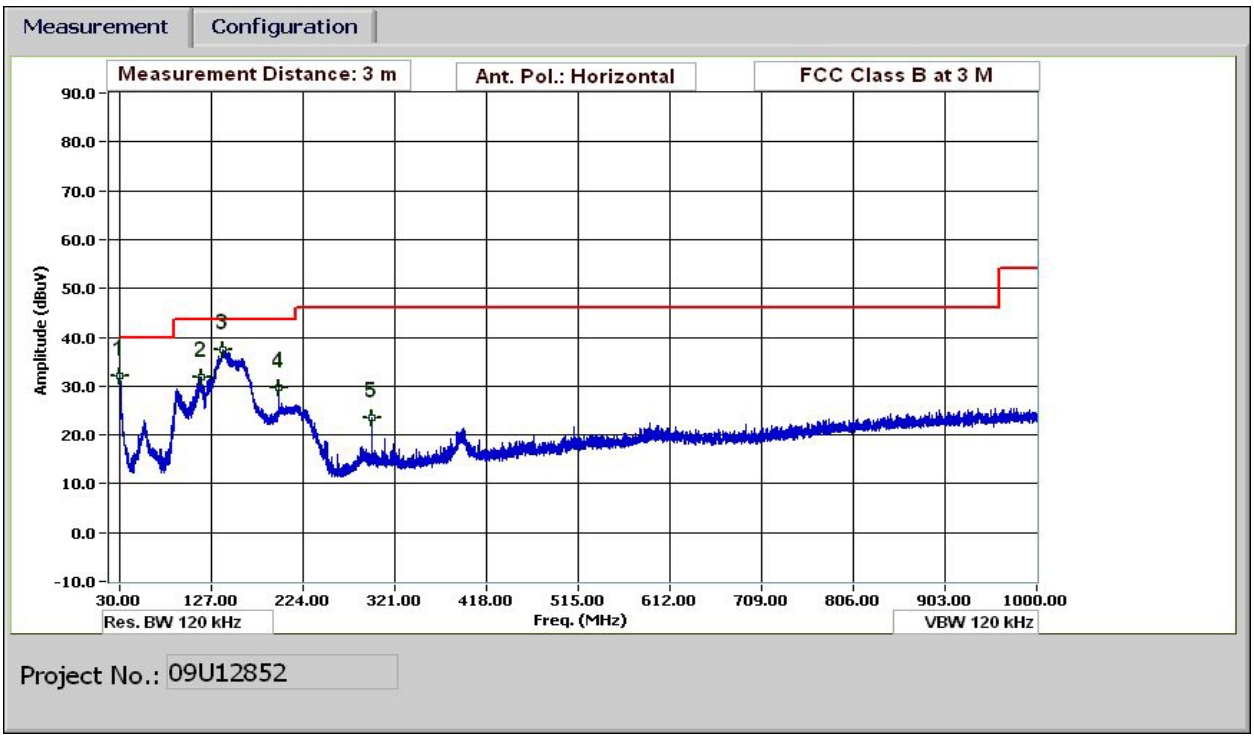
30-1000MHz Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 10/10/09
Project #: 09U12852
Company: Palm
EUT Description: CDMA-EVDO Smartphone
Configuration: EUT (Inductive backcover) powered by AC Adapter
EUT M/N: P121EWW
Test Target: FCC Class B
Mode Oper: TX (Worst Case)

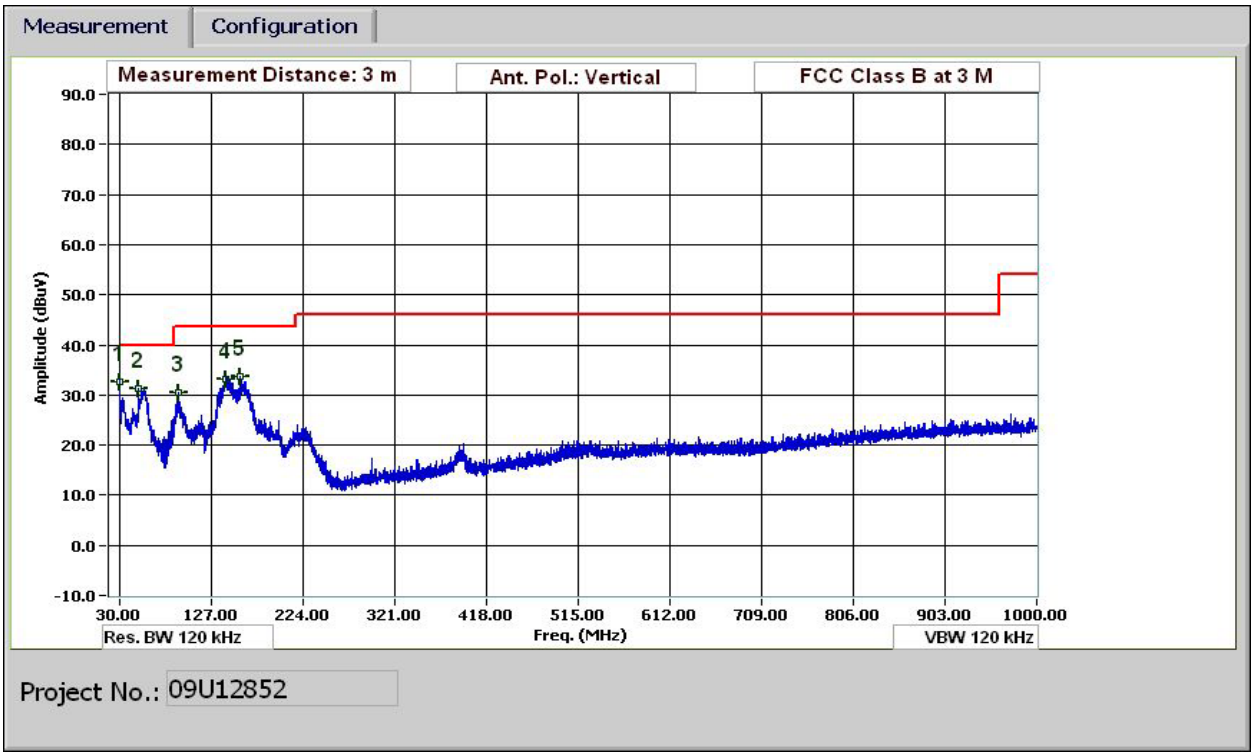
f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filter dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
30.000	3.0	40.5	20.0	0.5	28.4	0.0	0.0	32.5	40.0	-7.5	V	P	
49.561	3.0	49.3	9.5	0.6	28.3	0.0	0.0	31.2	40.0	-8.8	V	P	
91.803	3.0	50.2	7.7	0.8	28.2	0.0	0.0	30.4	43.5	-13.1	V	P	
141.845	3.0	46.9	13.0	1.0	27.9	0.0	0.0	33.0	43.5	-10.5	V	P	
157.925	3.0	47.3	13.1	1.1	27.7	0.0	0.0	33.7	43.5	-9.8	V	P	
30.720	3.0	40.5	19.6	0.5	28.4	0.0	0.0	32.2	40.0	-7.8	H	P	
115.804	3.0	46.4	12.7	0.9	28.1	0.0	0.0	31.8	43.5	-11.7	H	P	
138.724	3.0	51.1	13.2	1.0	27.9	0.0	0.0	37.4	43.5	-6.1	H	P	
198.007	3.0	44.1	11.8	1.2	27.4	0.0	0.0	29.6	43.5	-13.9	H	P	
297.011	3.0	36.2	13.4	1.5	27.4	0.0	0.0	23.6	46.0	-22.4	H	P	

SPURIOUS EMISSIONS 30 TO 1000, HORIZONTAL



SPURIOUS EMISSIONS 30 TO 1000, VERTICAL



8.5. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.4

RESULTS

EUT WITH AC/DC ADAPTER

6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.21	54.58	--	41.60	0.00	63.13	53.13	-8.55	-11.53	L1
0.43	47.59	--	36.79	0.00	57.33	47.33	-9.74	-10.54	L1
1.03	45.43	--	29.68	0.00	56.00	46.00	-10.57	-16.32	L1
0.21	53.72	--	44.47	0.00	63.13	53.13	-9.41	-8.66	L2
0.42	49.48	--	41.92	0.00	57.47	47.47	-7.99	-5.55	L2
1.03	46.62	--	34.99	0.00	56.00	46.00	-9.38	-11.01	L2
6 Worst Data									

EUT WITH INDUCTIVE CHARGING DOCK

6 WORST EMISSIONS

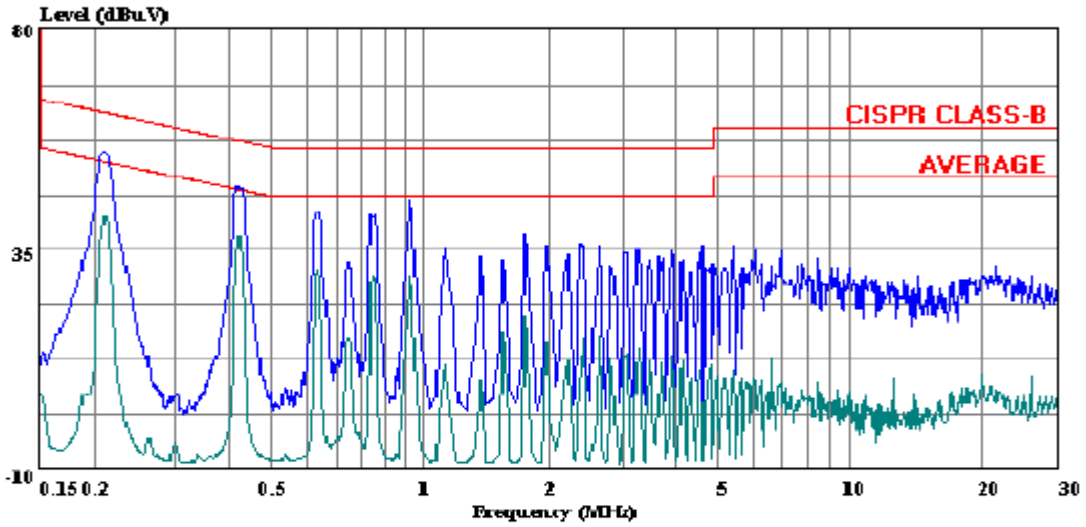
CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN_B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.18	57.86	--	42.06	0.00	64.67	54.67	-6.81	-12.61	L1
0.36	50.14	--	35.61	0.00	58.71	48.71	-8.57	-13.10	L1
0.71	44.88	--	35.24	0.00	56.00	46.00	-11.12	-10.76	L1
0.18	55.73	--	43.23	0.00	64.58	54.58	-8.85	-11.35	L2
0.36	48.64	--	38.37	0.00	58.71	48.71	-10.07	-10.34	L2
0.71	49.50	--	38.37	0.00	56.00	46.00	-6.50	-7.63	L2
6 Worst Data									

EUT (STANDARD BACKCOVER) WITH AC/DC ADAPTER

LINE 1 RESULTS

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 7 File#: 09U12852_FCC.EMI Date: 10-14-2009 Time: 08:18:51

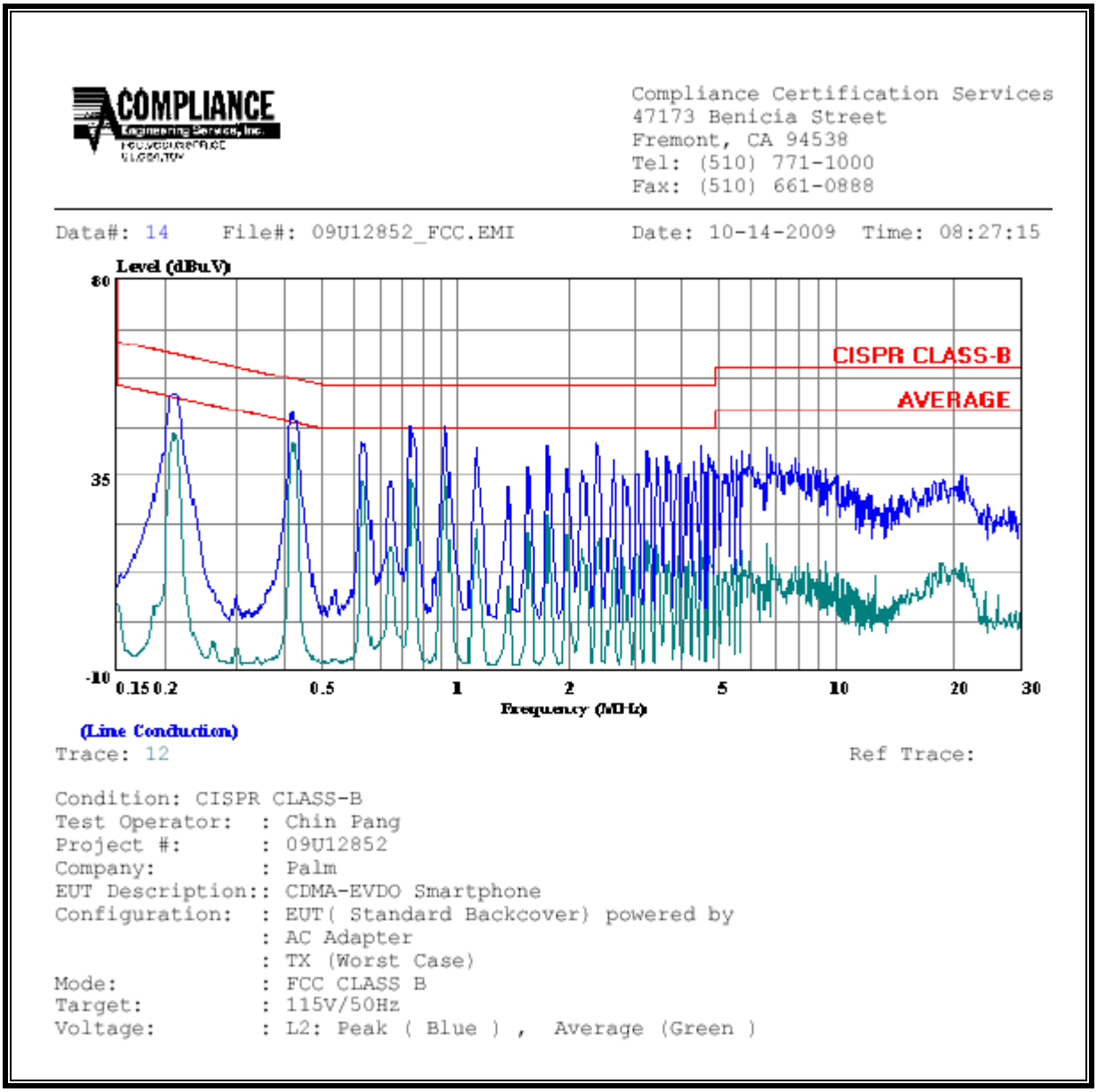


(Line Conduction)

Trace: 5 Ref Trace:

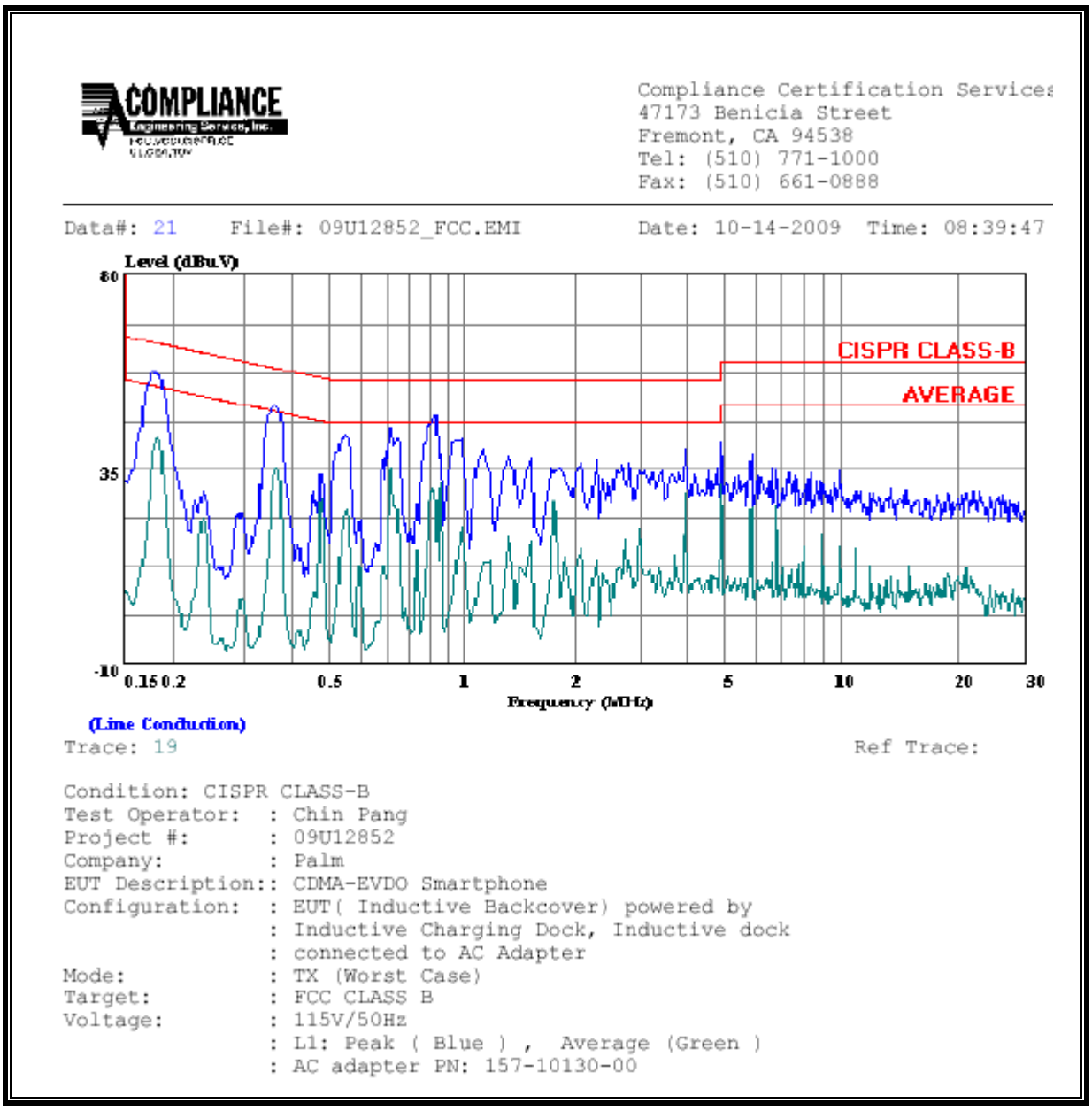
Condition: CISPR CLASS-B
Test Operator: : Chin Pang
Project #: : 09U12852
Company: : Palm
EUT Description:: CDMA-EVDO Smartphone
Configuration: : EUT(Standard Backcover) powered by
: AC Adapter
: TX (Worst Case)
Mode: : FCC CLASS B
Target: : 115V/50Hz
Voltage: : L1 Peak (Blue) , Average (Green)

LINE 2 RESULTS



EUT WITH INDUCTIVE CHARGING DOCK

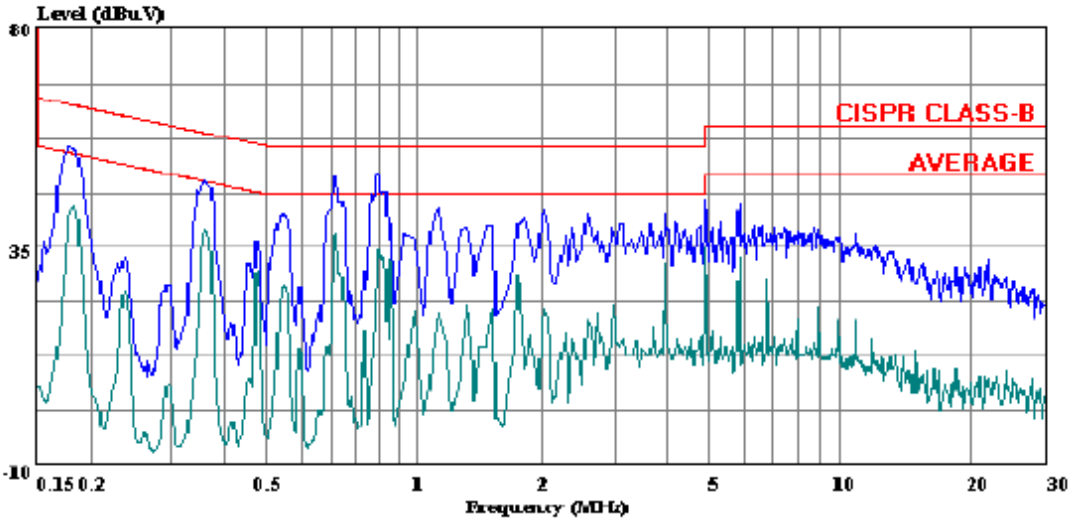
LINE 1 RESULTS



LINE 2 RESULTS

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 28 File#: 09U12852_FCC.EMI Date: 10-14-2009 Time: 08:46:48



(Line Conduction)

Trace: 26 Ref Trace:

Condition: CISPR CLASS-B
Test Operator: : Chin Pang
Project #: : 09U12852
Company: : Palm
EUT Description:: CDMA-EVDO Smartphone
Configuration: : EUT(Inductive Backcover) powered by
: Inductive Charging Dock, Inductive dock
: connected to AC Adapter
Mode: : TX (Worst Case)
Target: : FCC CLASS B
Voltage: : 115V/50Hz
: L2: Peak (Blue) , Average (Green)
: AC adapter PN: 157-10130-00