



**FCC CFR47 PART 15 SUBPART C  
CERTIFICATION TEST REPORT**

**FOR**

**GSM PHONE WITH 802.11B/G AND BLUETOOTH**

**MODEL NUMBER: P102UEU**

**FCC ID: O8F-ROAY**

**REPORT NUMBER: 10U13340-2**

**ISSUE DATE: SEPTEMBER 10, 2010**

*Prepared for*

**PALM**

**950 MAUDE AVENUE**

**SUNNYVALE, CA 94085, U.S.A.**

*Prepared by*

**COMPLIANCE CERTIFICATION SERVICES**

**47173 BENICIA STREET**

**FREMONT, CA 94538, U.S.A.**

**TEL: (510) 771-1000**

**FAX: (510) 661-0888**



**NVLAP LAB CODE 200065-0**

Revision History

Rev.	Issue Date	Revisions	Revised By
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## 1. ATTESTATION OF TEST RESULTS

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

**EUT DESCRIPTION:** GSM PHONE WITH 802.11B/G AND BLUETOOTH

**MODEL:** P121UEU

**SERIAL NUMBER:** RD1BU6NA6928

**DATE TESTED:** JULY 12-15 AND AUGUST 12-18, 2010

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	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.

Approved & Released For CCS By:

Tested By:



THU CHAN  
ENGINEERING MANAGER  
COMPLIANCE CERTIFICATION SERVICES

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, and FCC CFR 47 Part 15.

## 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:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 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

The EUT is a GSM850/1900MHz with 802.11bg and BT 2.1, EDR Phone.

#### GENERAL INFORMATION

<b>Power Requirements</b>	100-240 VAC / 50-60 Hz
<b>List of frequencies generated or used by the EUT</b>	1GHz

#### ACCESSORIES

The EUT was constructed and using the following accessories:

<b>Accessories Description</b>	<b>Manufacture r/Trademark</b>	<b>Part Number</b>
AC Power Adapter source #1 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 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
Inductive Back Cover (black color)	Palm	180-10704-00

### 5.2. MAXIMUM OUTPUT POWER

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

<b>Frequency Range (MHz)</b>	<b>Mode</b>	<b>Output Power (dBm)</b>	<b>Output Power (mW)</b>
2412 - 2462	b	14.54	28.44
2412 - 2462	g	17.50	56.23
2402 - 2480	GFSK	0.76	1.19
2402 - 2480	8PSK	0.28	1.07

### **5.3. DESCRIPTION OF AVAILABLE ANTENNAS**

The radio utilizes a PCB integrated antenna, with a maximum gain of -0.5 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 10, HW Rev. castle-roadrunner-dvt1, BT MAC: 00:1D:FE:66:6F:E3.; WiFi Mac: 00:1D:FE:C3:ED:7C

### **5.5. WORST-CASE CONFIGURATION AND MODE**

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

All final tests in the 802.11b Mode (Legacy) were made at 1 Mb/s.  
All final tests in the 802.11g mode were made at 6 Mb/s.  
All final tests in the GFSK mode were made at 1 Mb/s.  
All final tests in the 8PSK mode were made at 3 Mb/s.

Co-located tests between WLAN and Bluetooth modes were running simultaneously at worst case.

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 Z orientation with AC/DC adapter.



## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

PERIPHERAL SUPPORT EQUIPMENT LIST				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adaptor	PALM	157-10124-00	N/A	DOC
Earphone	PALM	180-10632-00	N/A	DOC

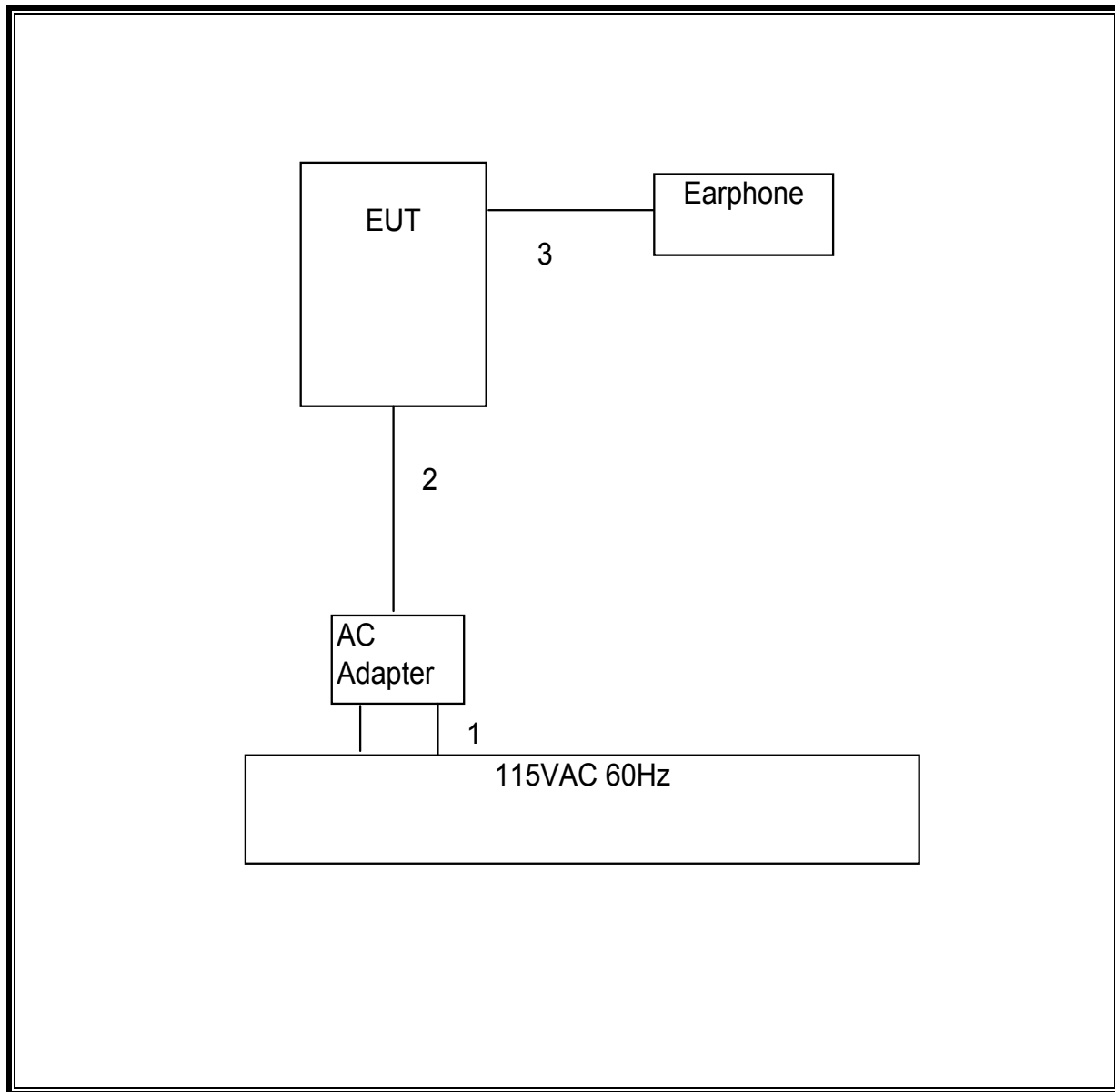
### I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	1	USB	Un-shielded	None	N/A
2	DC	1	DC	Un-shielded	1.5m	N/A
3	Ear phone	1	jack	Un-shielded	1.2m	N/A

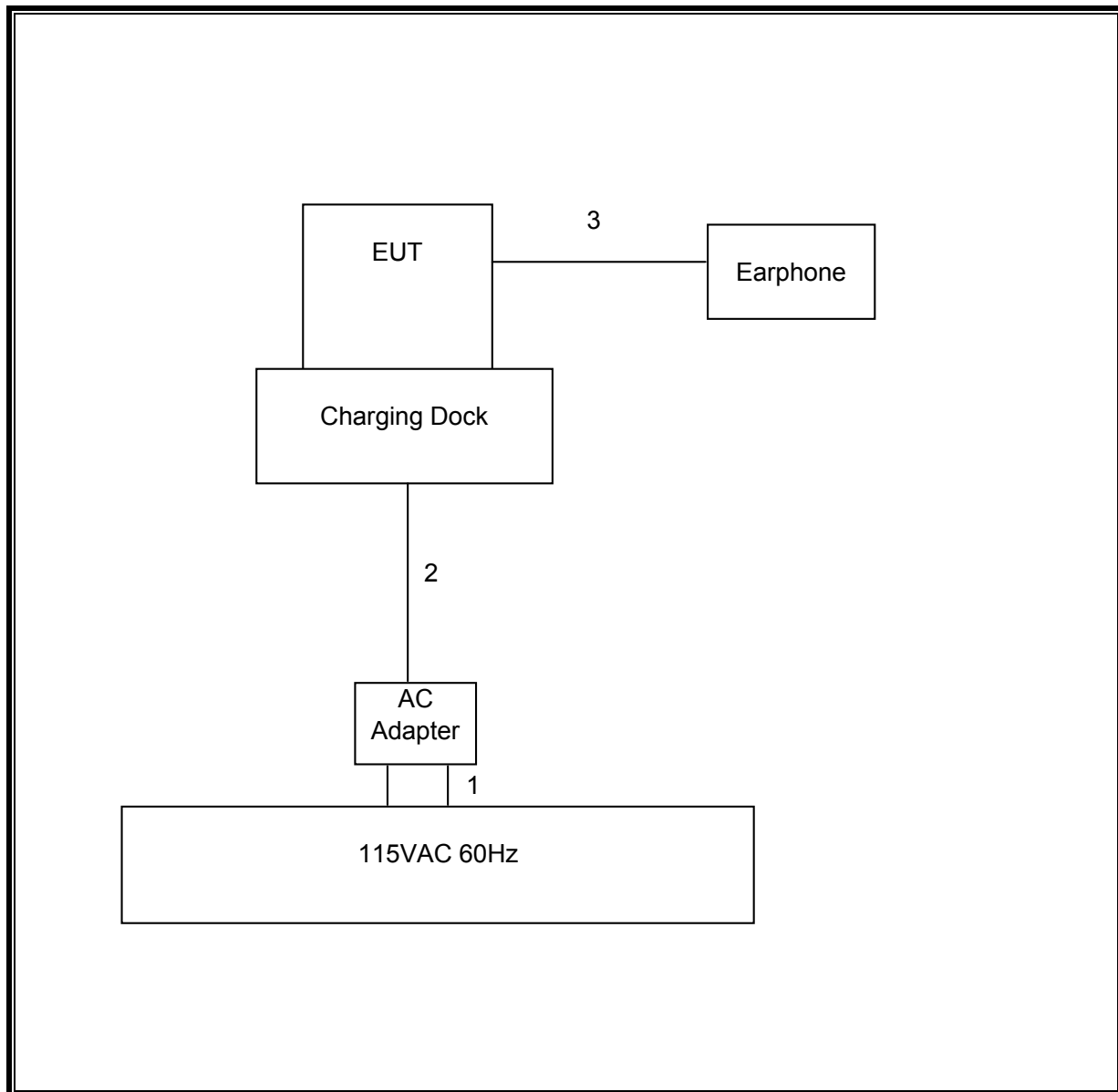
### TEST SETUP

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
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05/06/11
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11/06/10
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	08/04/11
Antenna, Horn, 18 GHz	EMCO	3115	C00783	07/29/11
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	08/31/10
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	07/06/11
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	07/14/11
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR
Peak Power Meter	Agilent / HP	E4416A	C00963	12/04/11
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	01/07/12

## 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.

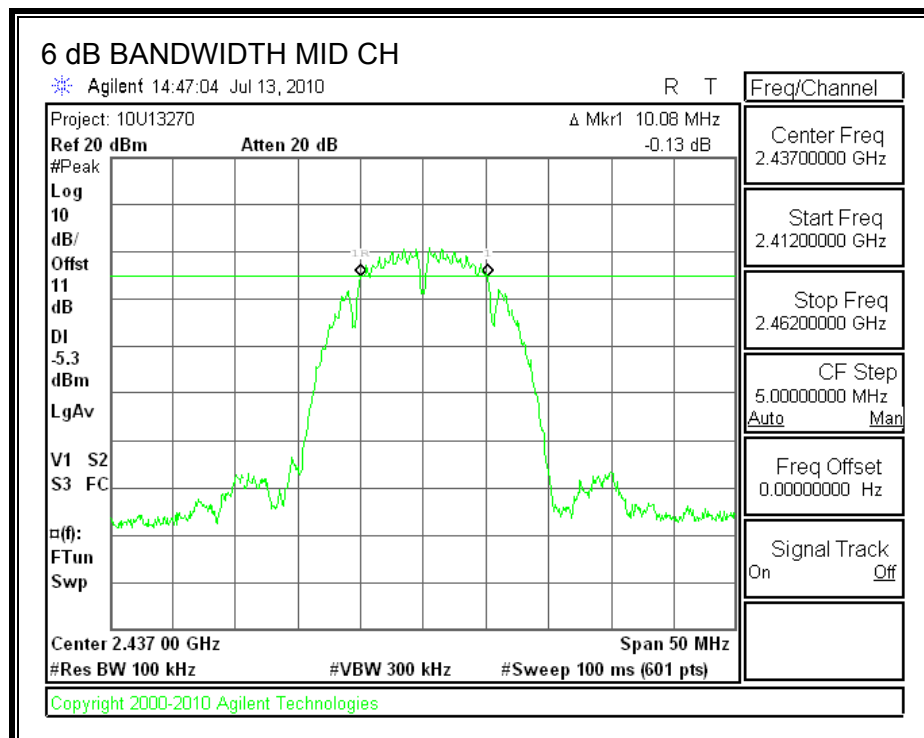
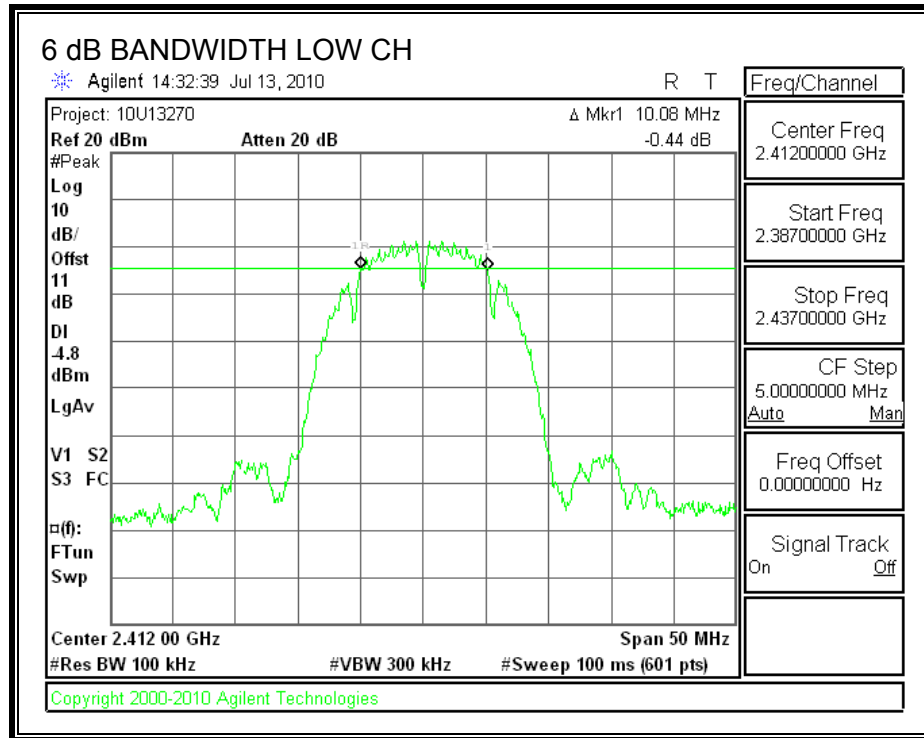
##### TEST PROCEDURE

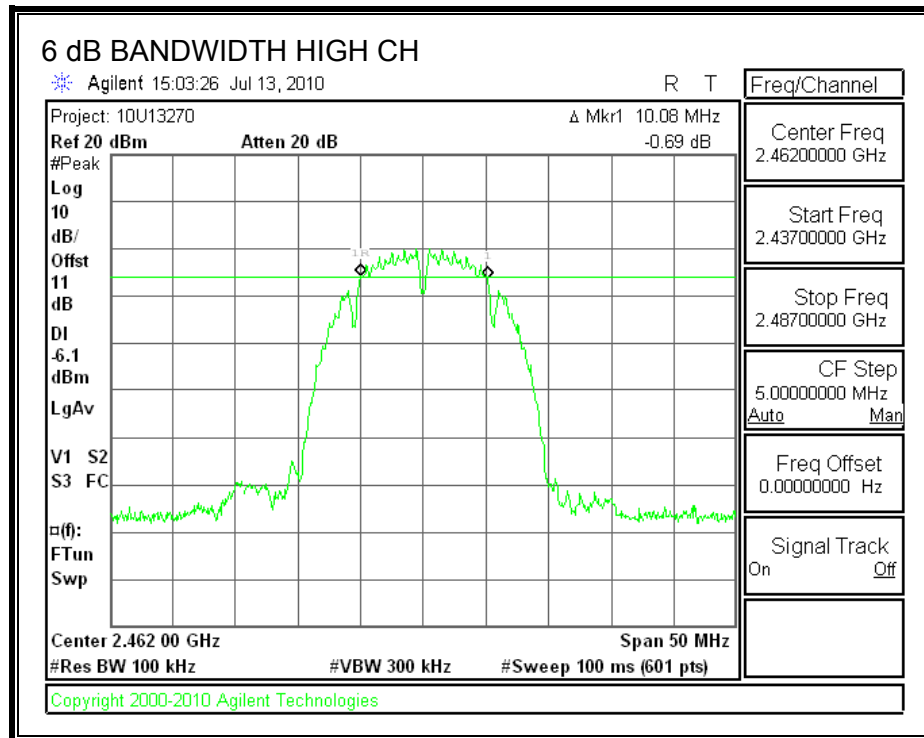
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

##### RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	10.08	0.5
Middle	2437	10.08	0.5
High	2462	10.08	0.5

## 6 dB BANDWIDTH





### **7.1.2. 99% BANDWIDTH**

#### **LIMITS**

None; for reporting purposes only.

#### **TEST PROCEDURE**

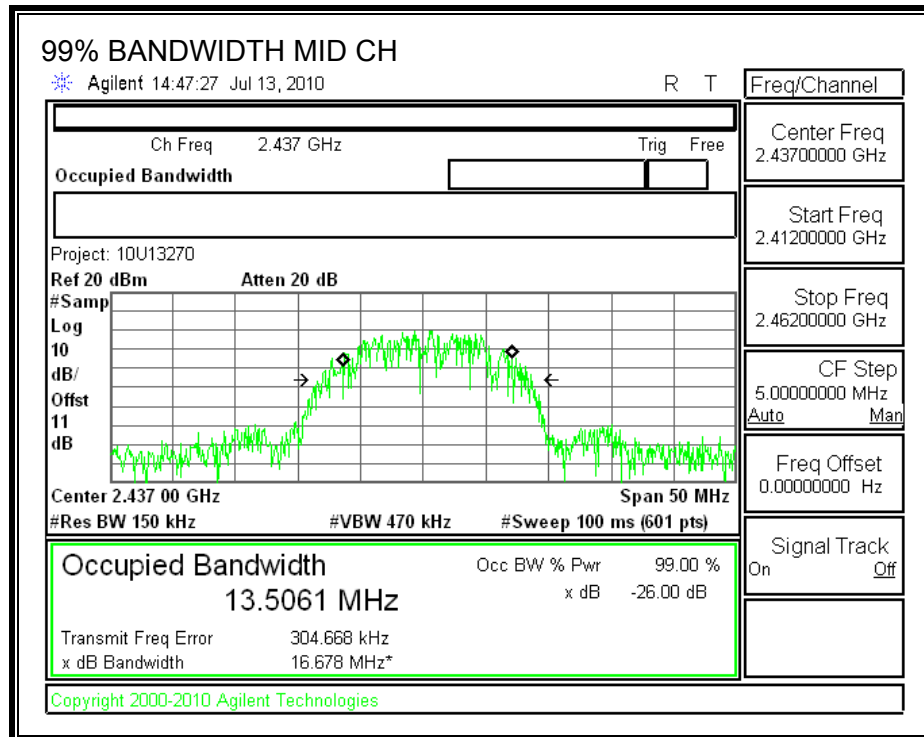
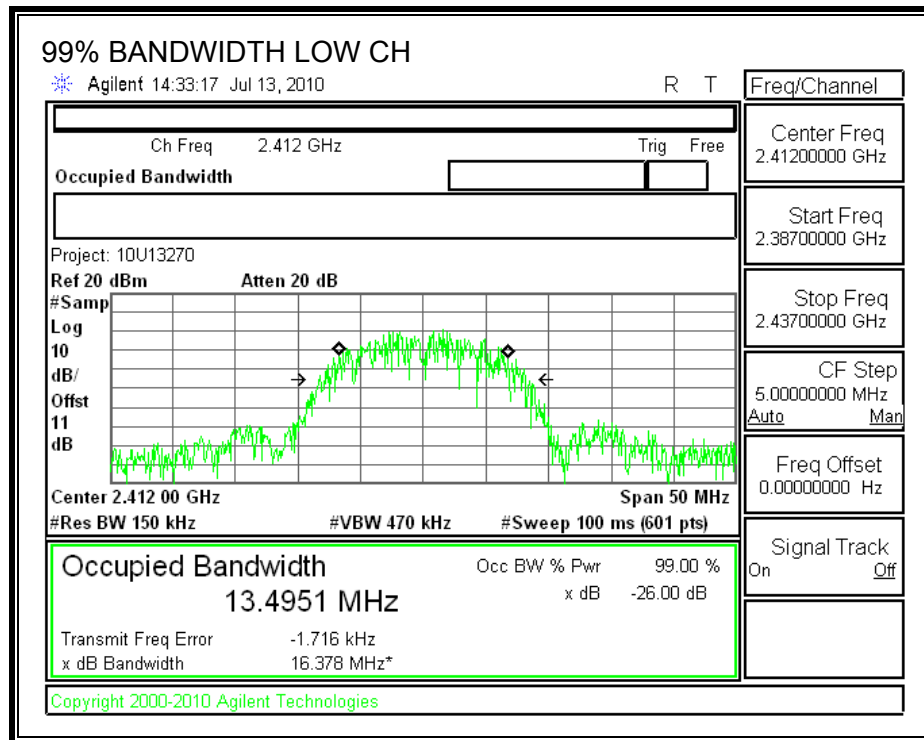
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

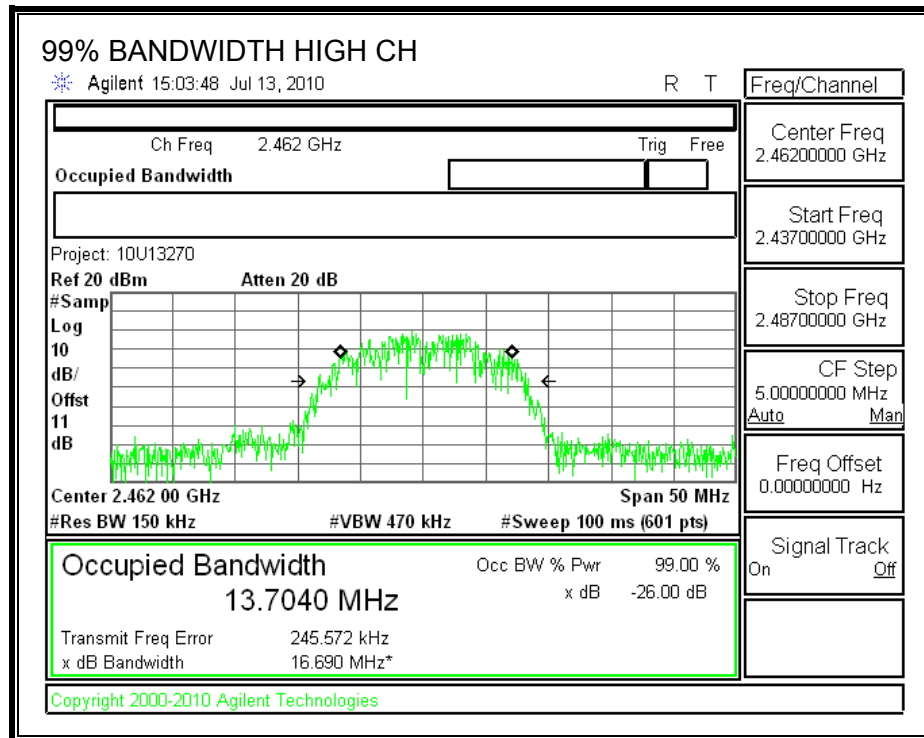
#### **RESULTS**

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	13.495
Middle	2437	13.506
High	2462	13.704



**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

The cable assembly insertion loss of 10.3dB (including 10 dB pad and 0.3 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	14.39
Middle	2437	14.54
High	2462	14.43

#### **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 10.3dB (including 10 dB pad and 0.3 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

<b>Channel</b>	<b>Frequency (MHz)</b>	<b>Power (dBm)</b>
Low	2412	11.80
Middle	2437	11.90
High	2462	11.80

## 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.

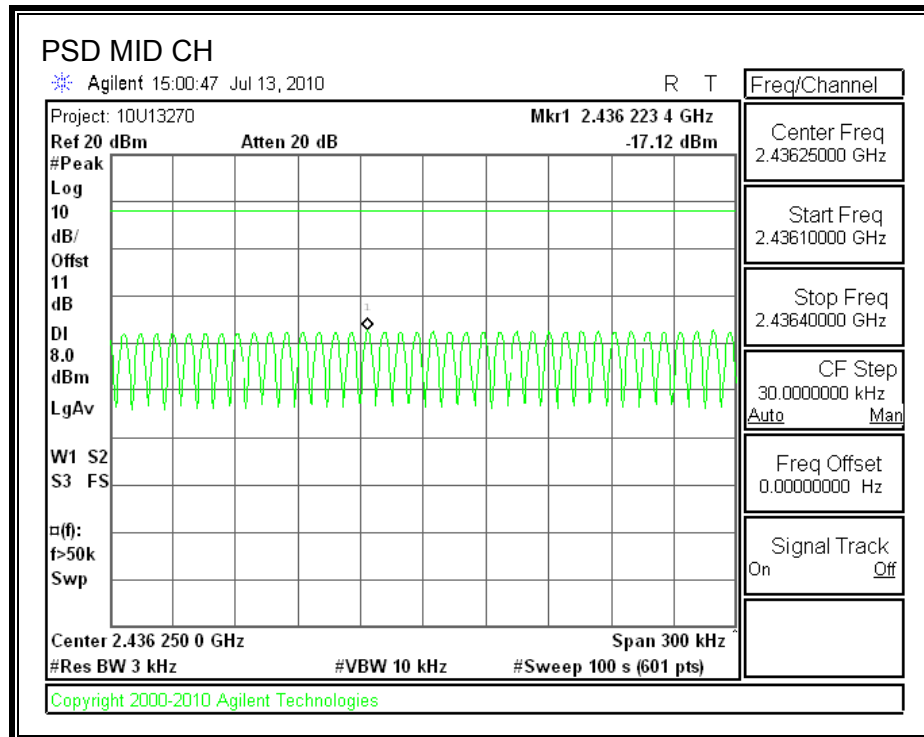
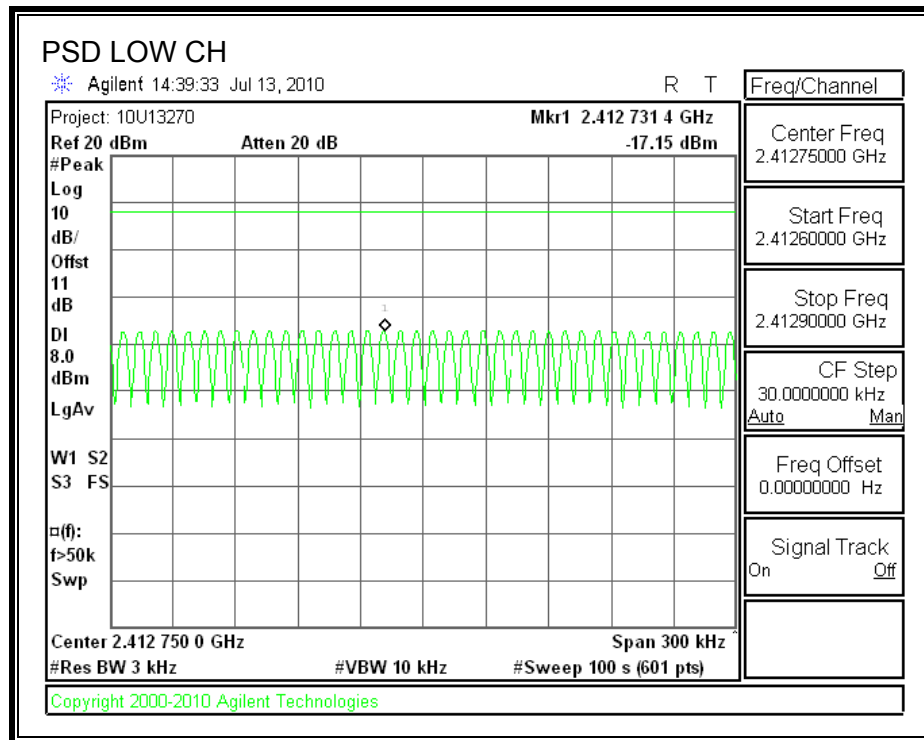
### TEST PROCEDURE

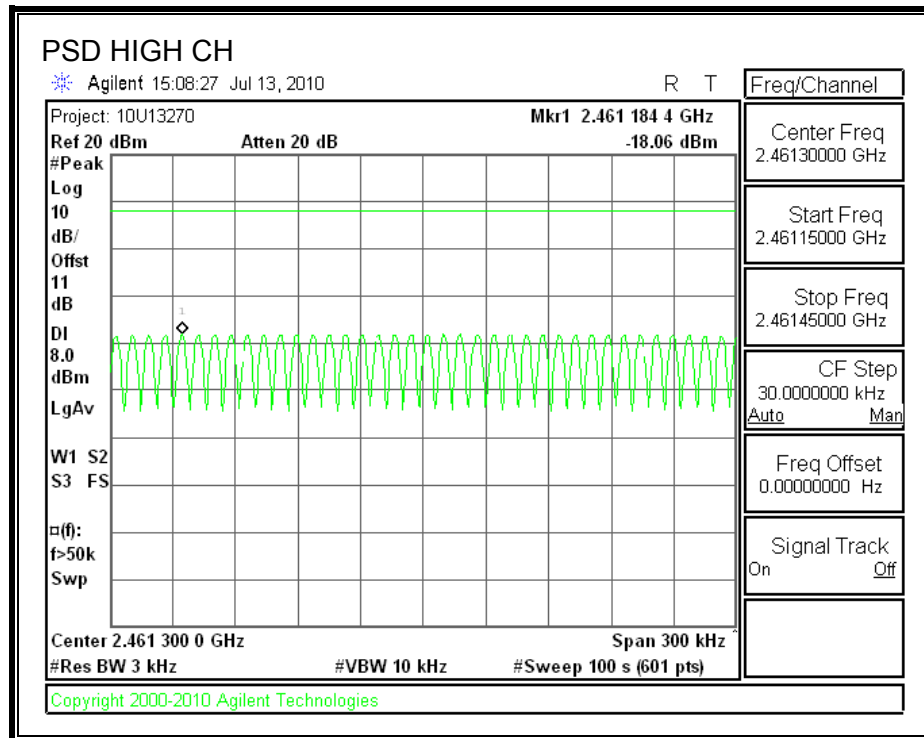
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

### RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-17.15	8	-25.15
Middle	2437	-17.12	8	-25.12
High	2462	-18.06	8	-26.06

**POWER SPECTRAL DENSITY**





### **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**

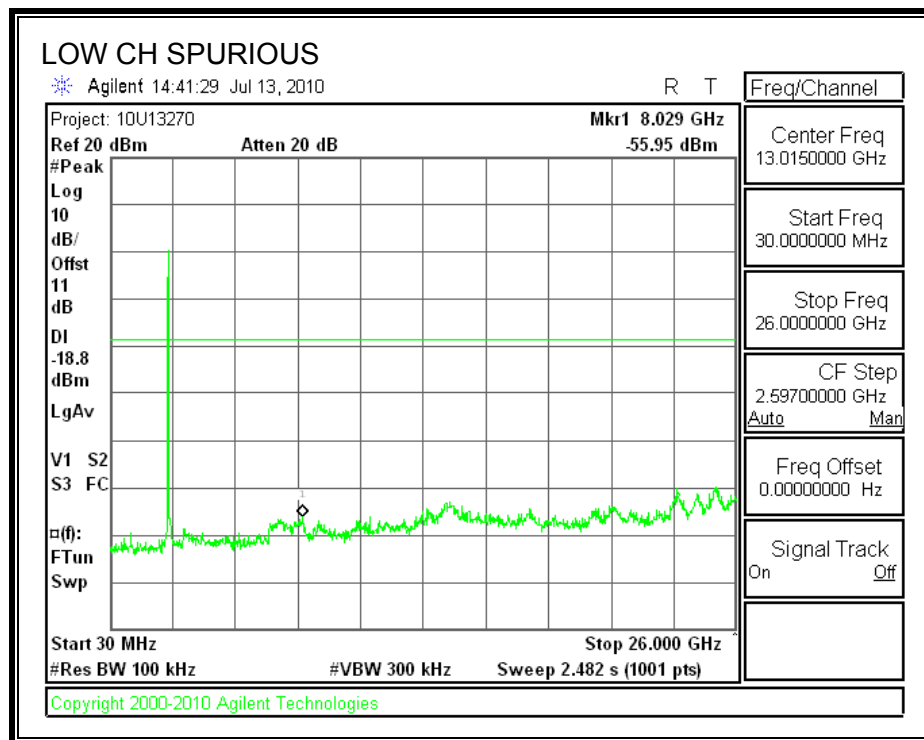
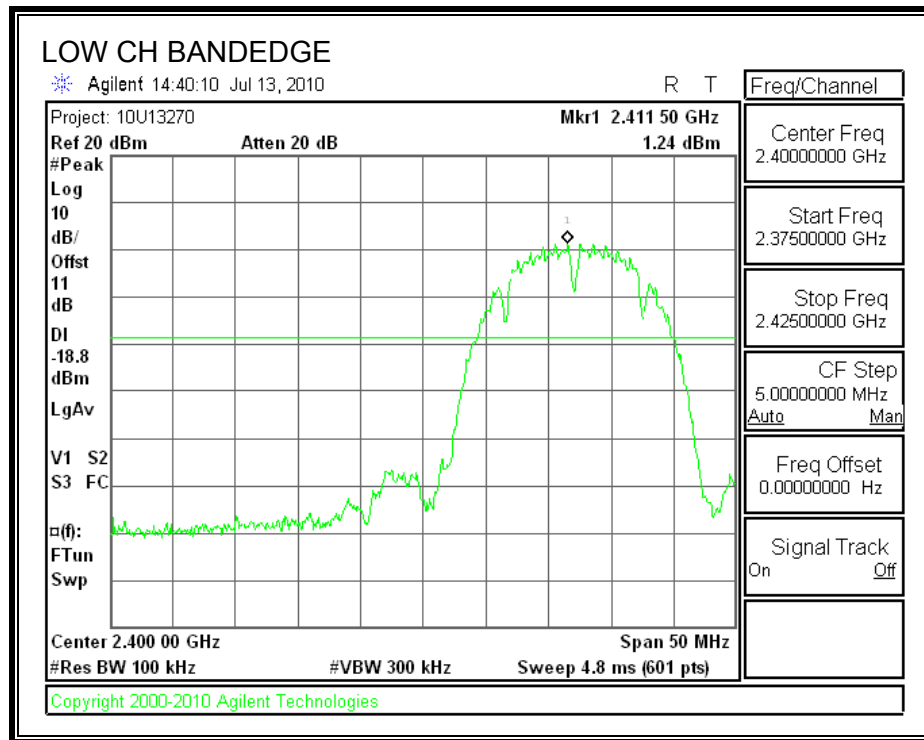
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

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

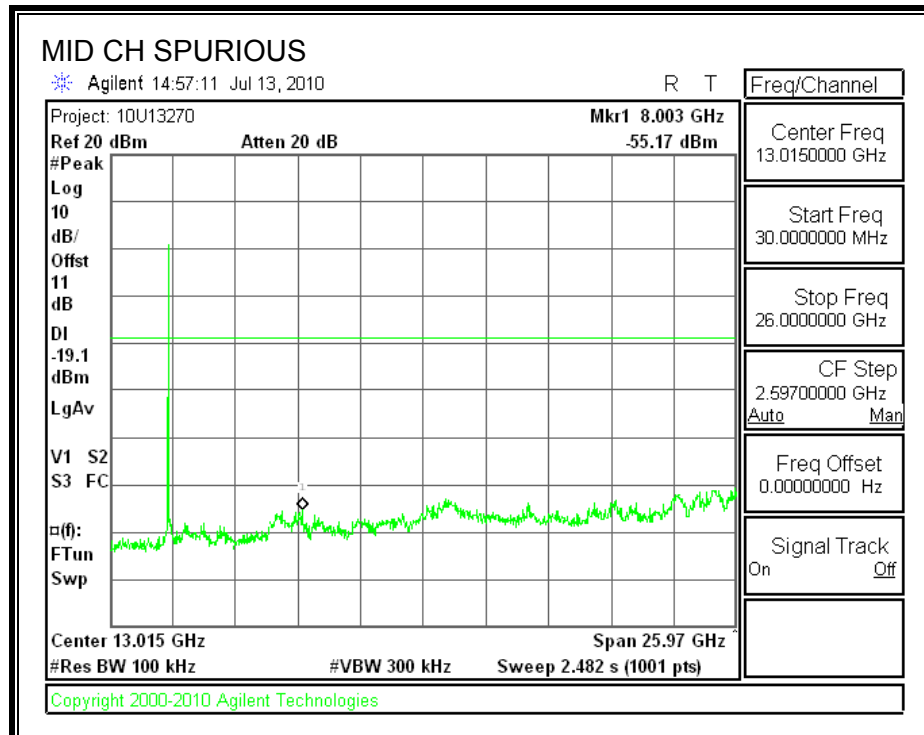
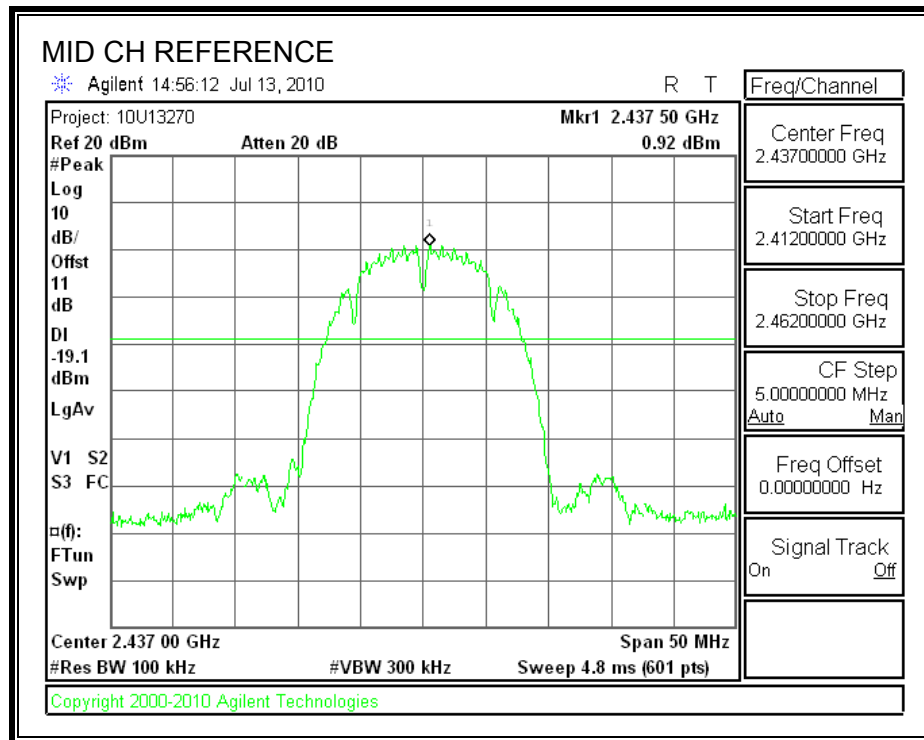


## RESULTS

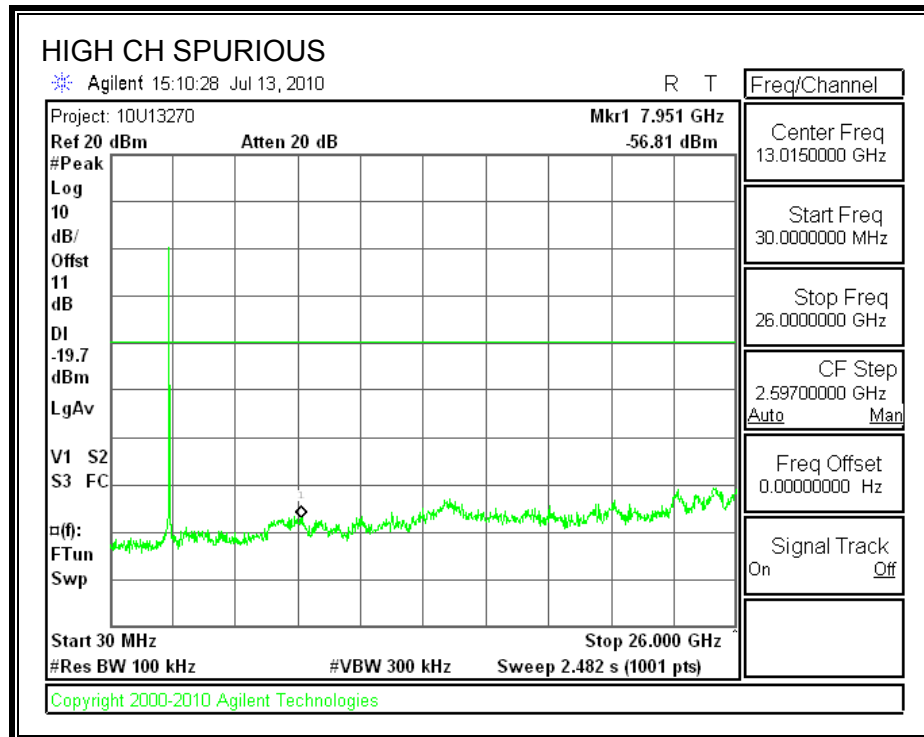
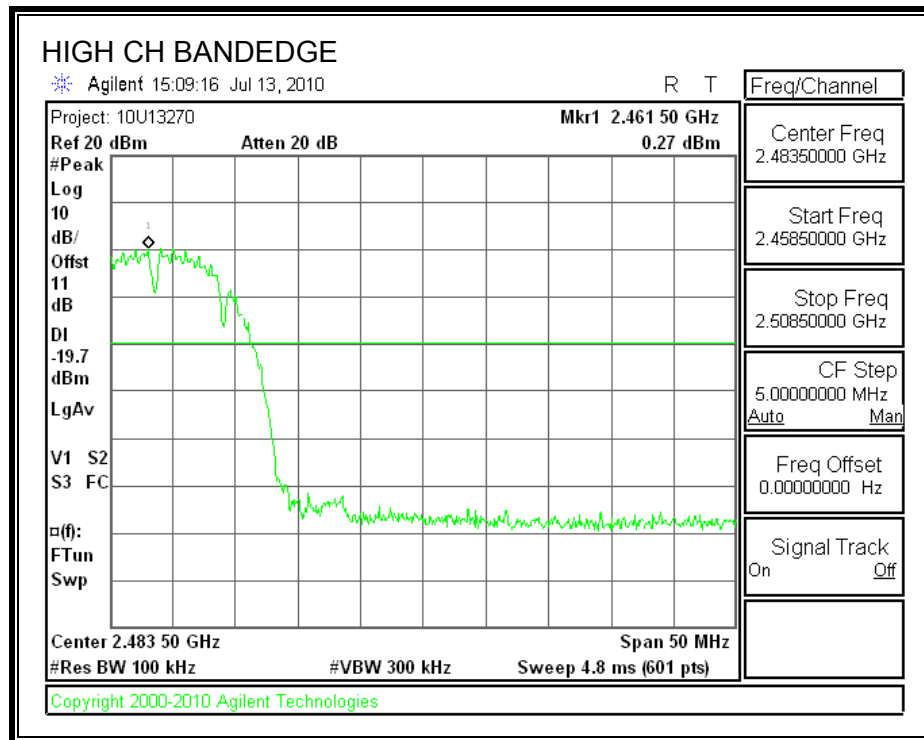
### SPURIOUS EMISSIONS, LOW CHANNEL



**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.

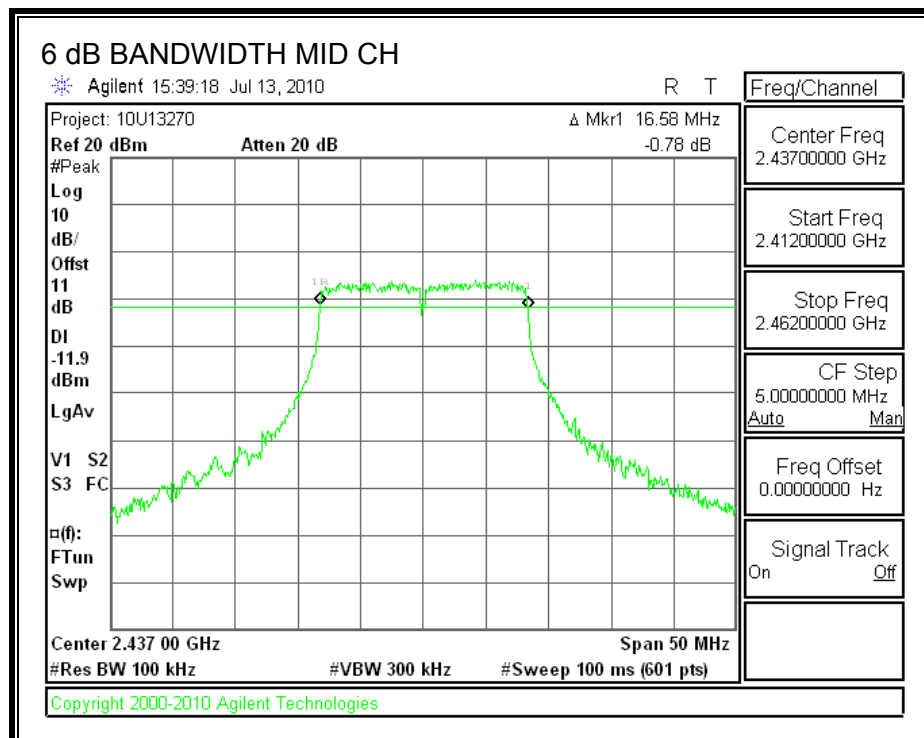
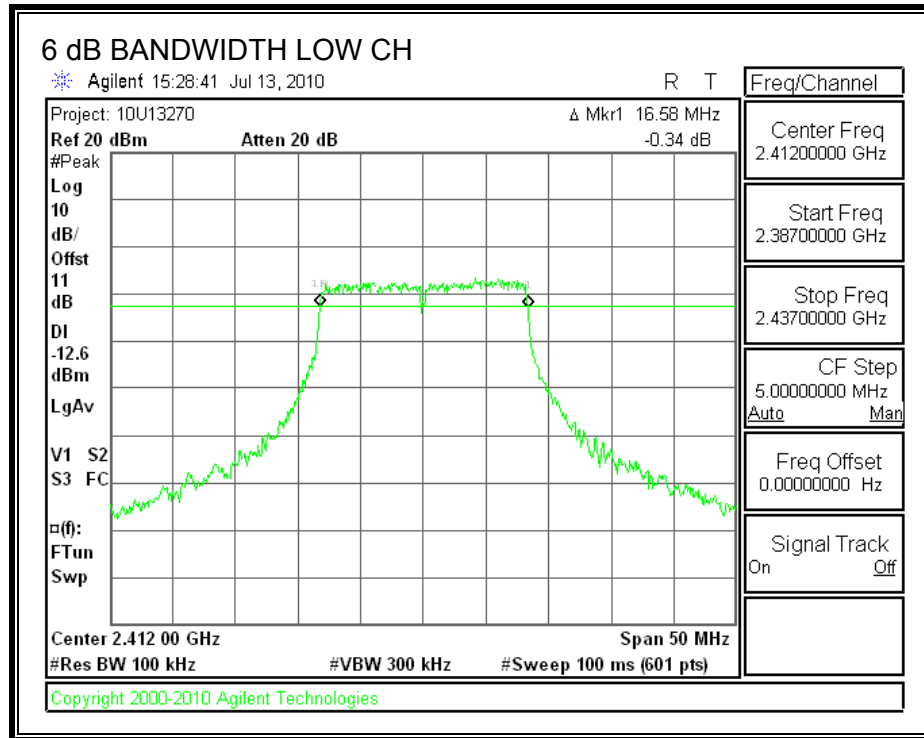
#### **TEST PROCEDURE**

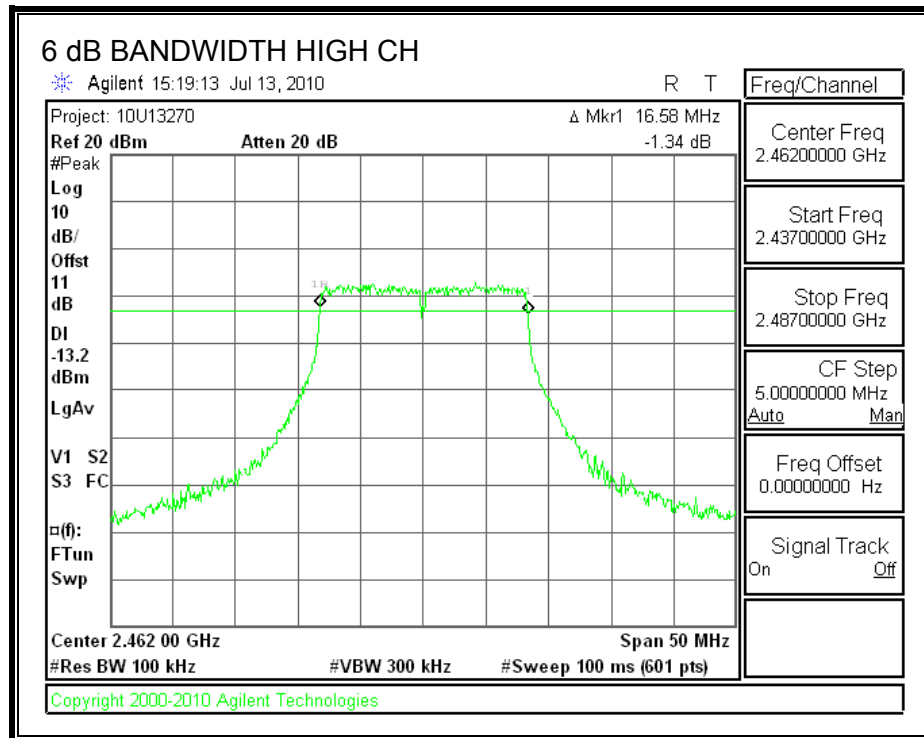
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

#### **RESULTS**

<b>Channel</b>	<b>Frequency (MHz)</b>	<b>6 dB Bandwidth (MHz)</b>	<b>Minimum Limit (MHz)</b>
Low	2412	16.58	0.5
Middle	2437	16.58	0.5
High	2462	16.58	0.5

## 6 dB BANDWIDTH





### **7.2.2. 99% BANDWIDTH**

#### **LIMITS**

None; for reporting purposes only.

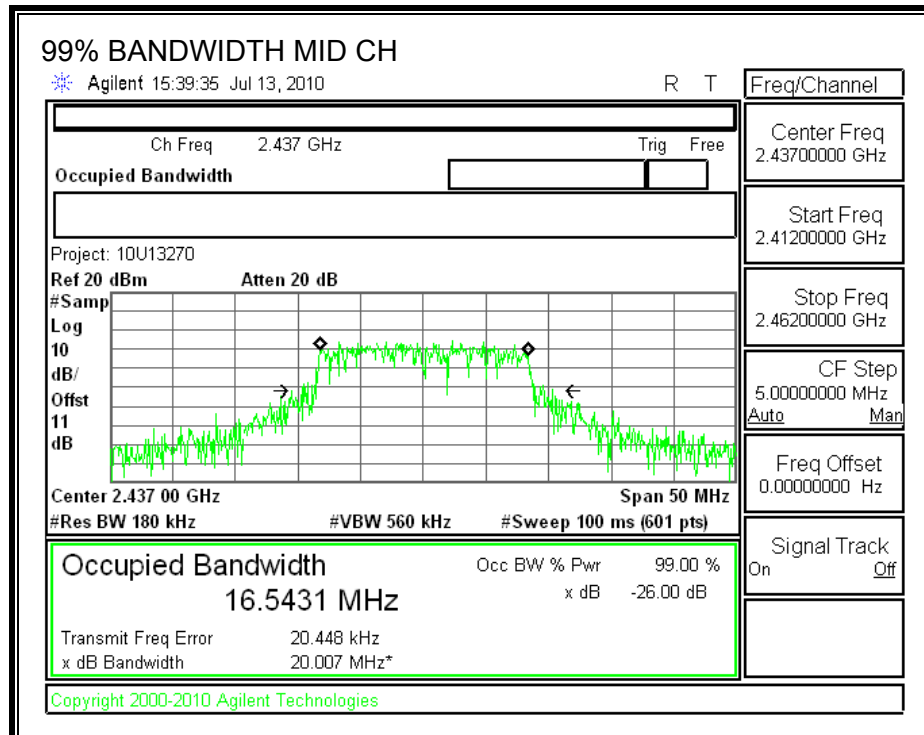
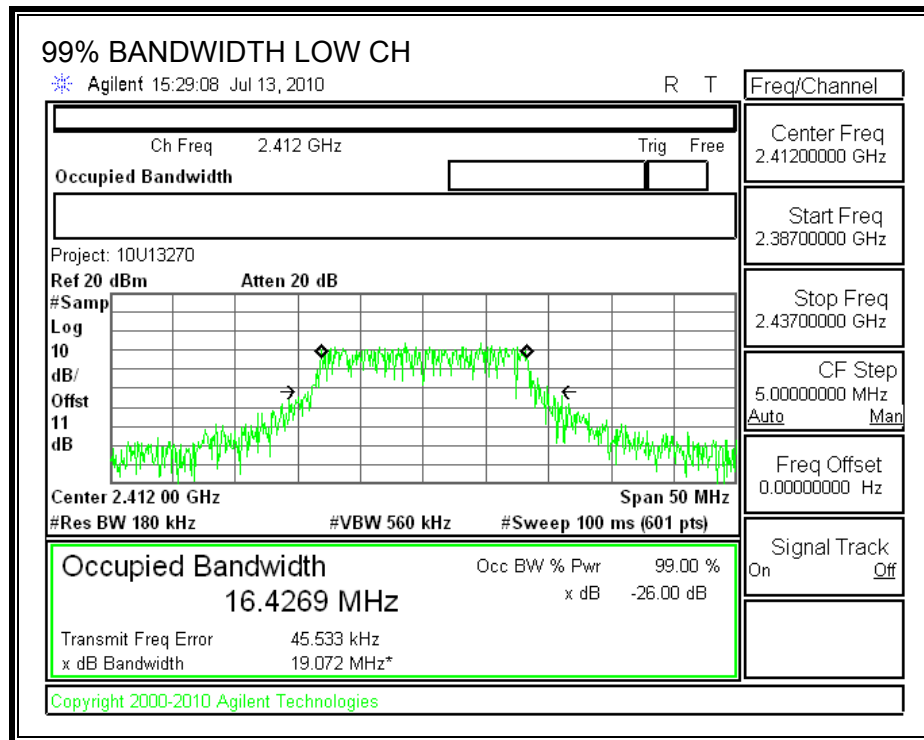
#### **TEST PROCEDURE**

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.

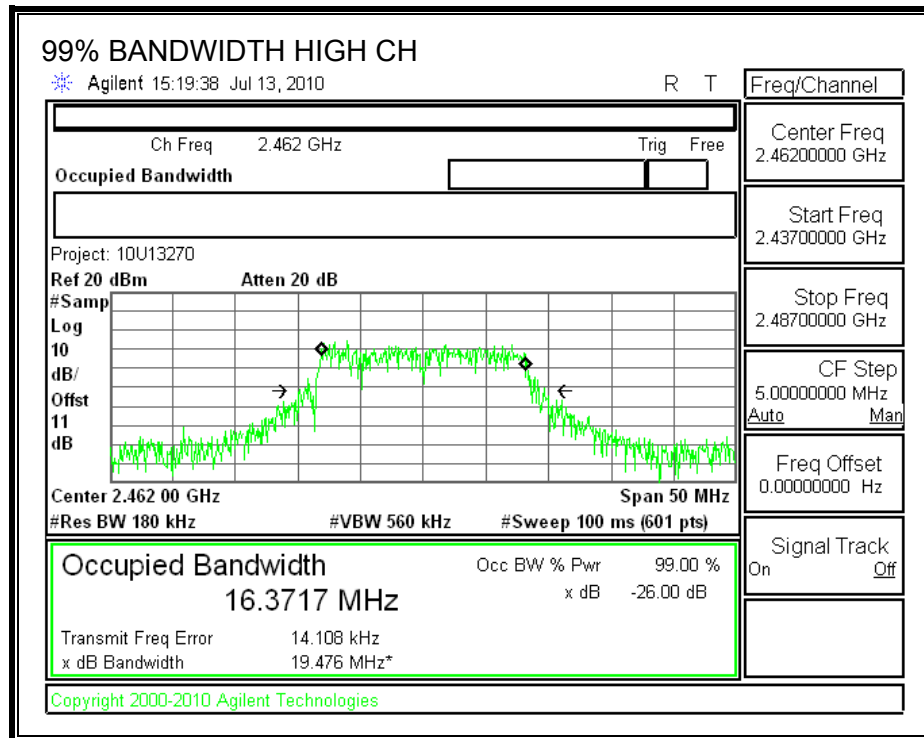
#### **RESULTS**

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.427
Middle	2437	16.543
High	2462	16.372

**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

The cable assembly insertion loss of 10.3 dB (including 10 dB pad and 0.3 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	16.76
Middle	2437	17.50
High	2462	17.43

#### **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 10.3 dB (including 10 dB pad and 0.3 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	9.80
Middle	2437	10.10
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.

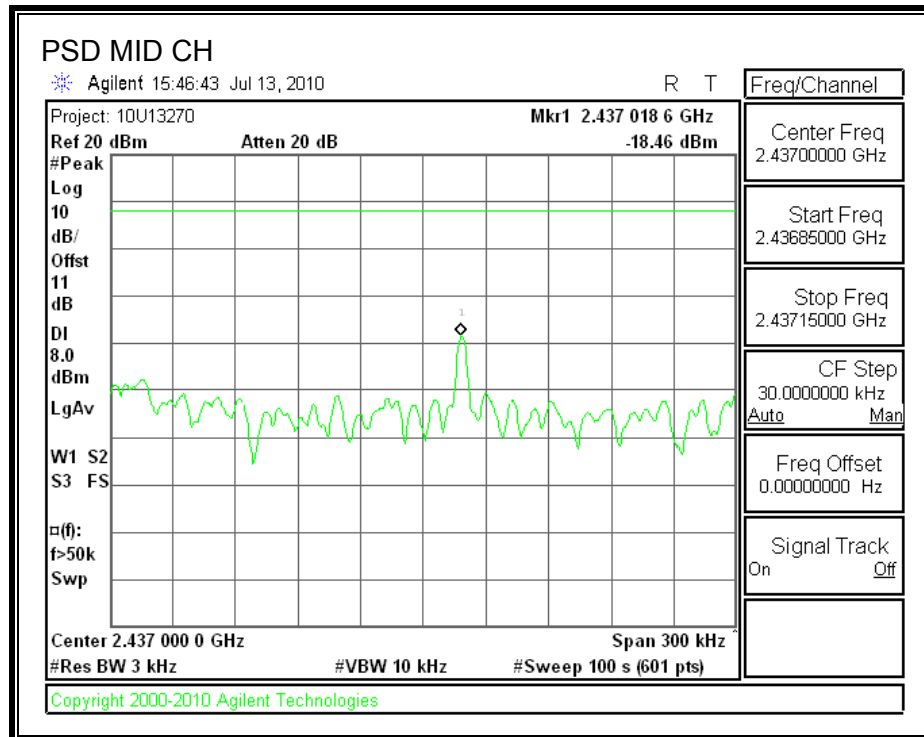
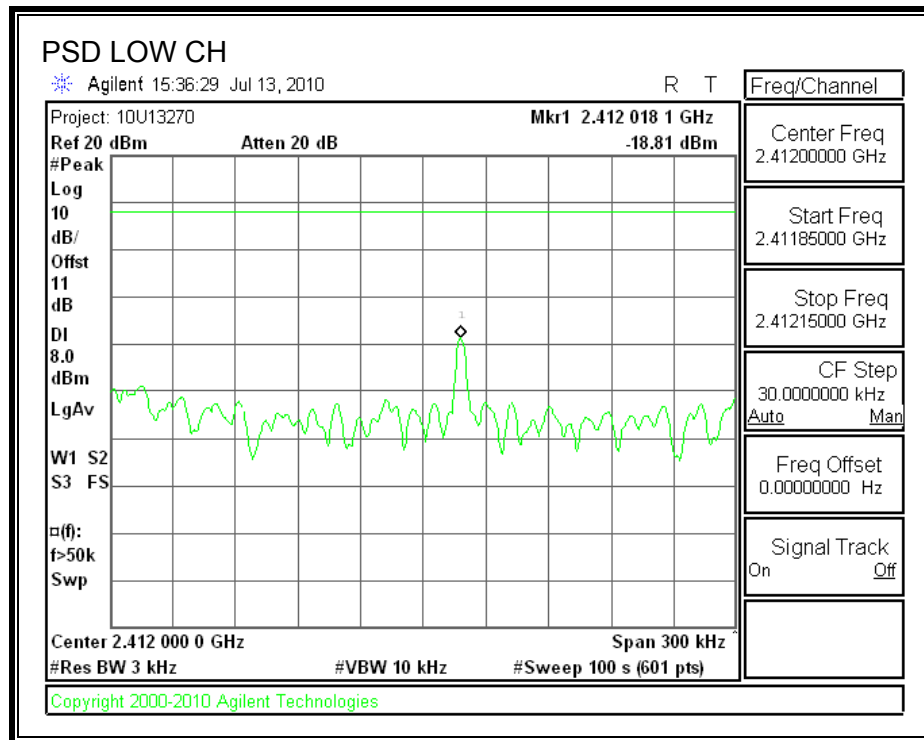
### TEST PROCEDURE

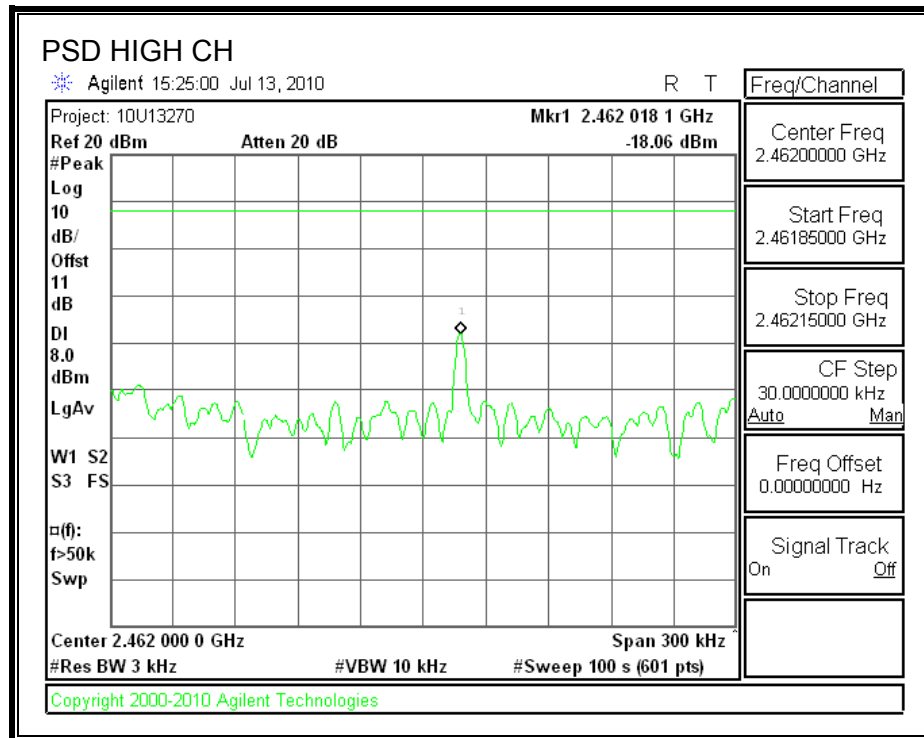
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

### RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-18.81	8	-26.81
Middle	2437	-18.46	8	-26.46
High	2462	-18.06	8	-26.06

**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.

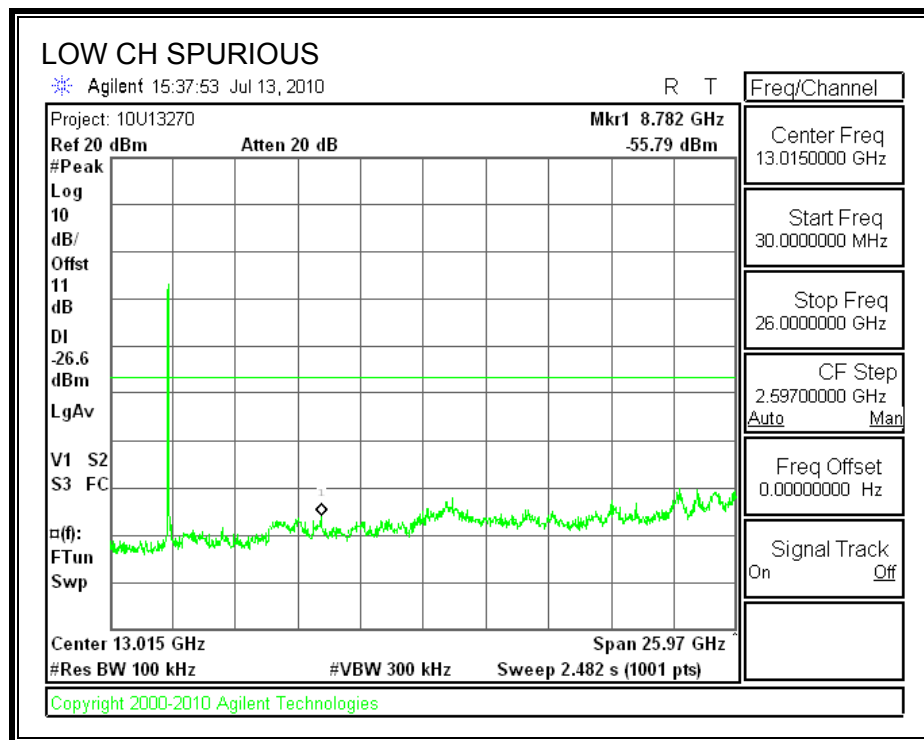
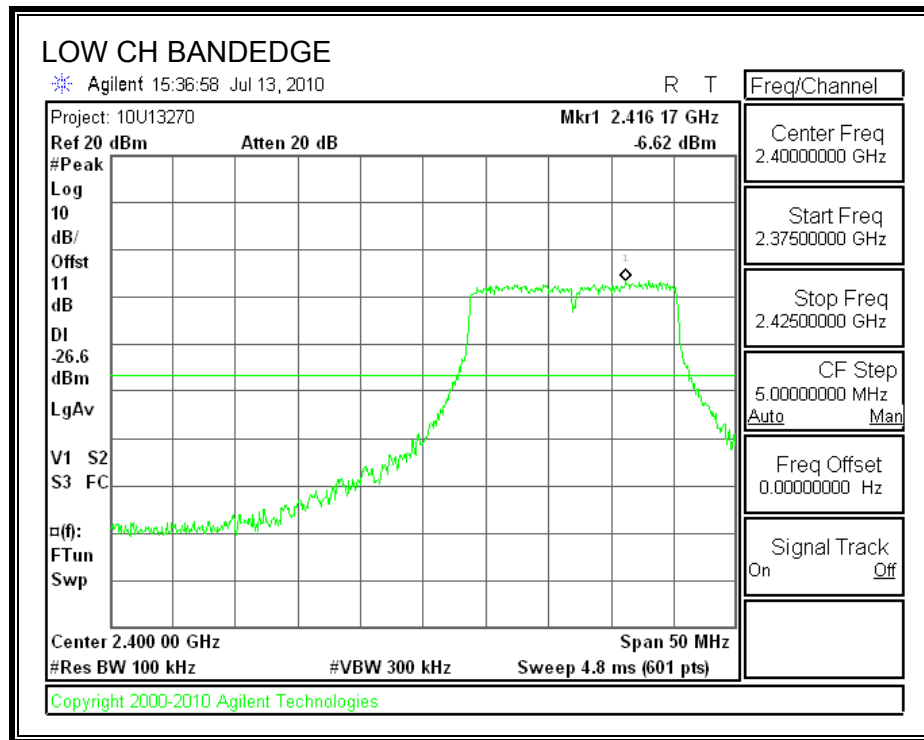
### **TEST PROCEDURE**

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.

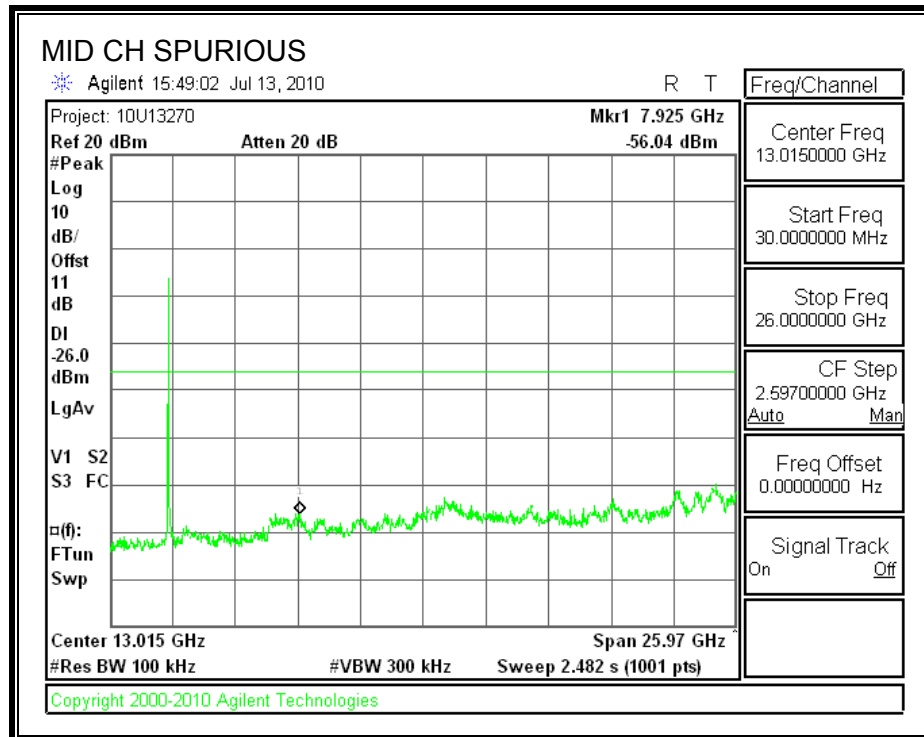
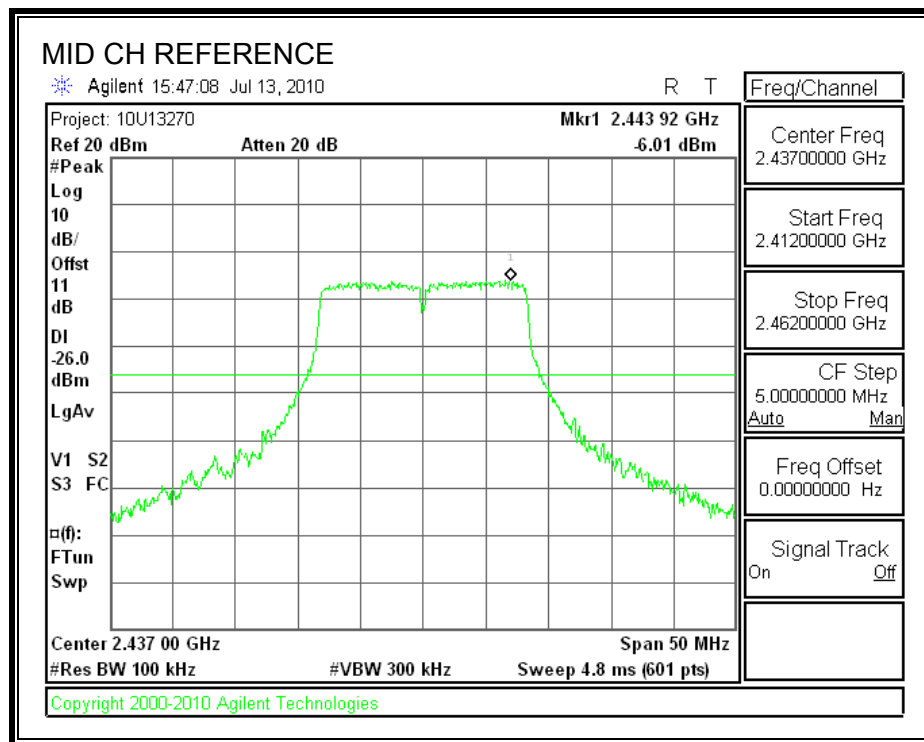
## RESULTS

### SPURIOUS EMISSIONS, LOW CHANNEL

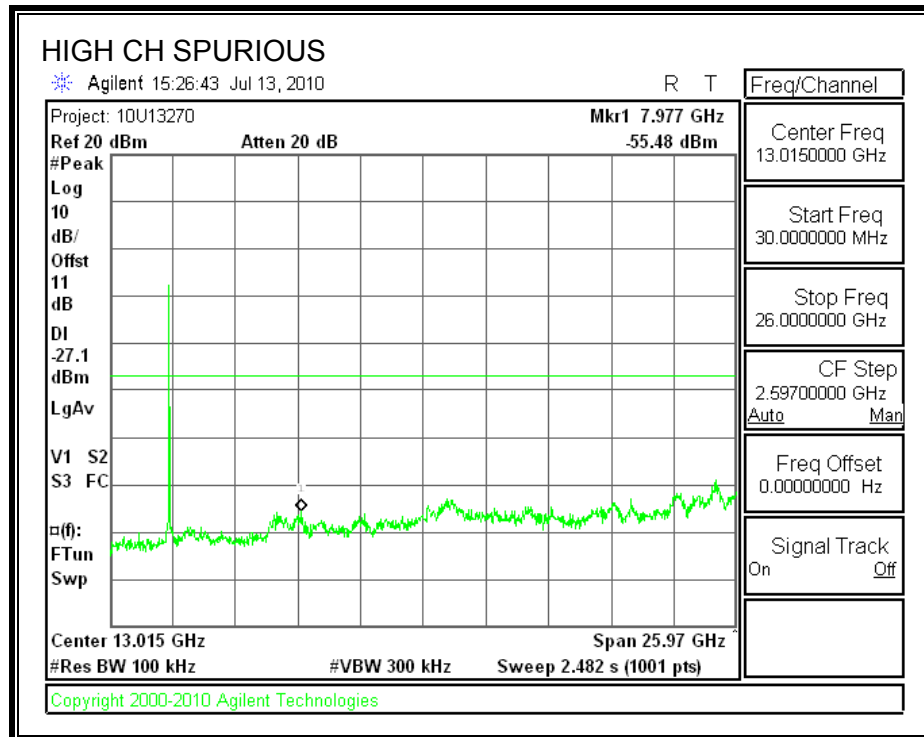
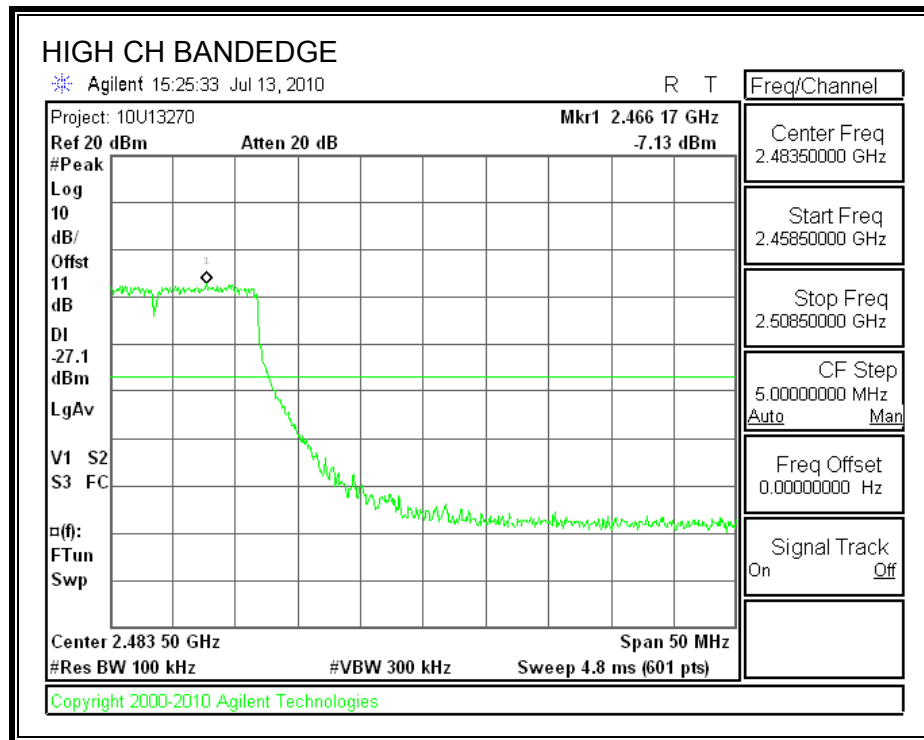




**SPURIOUS EMISSIONS, MID CHANNEL**



**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.

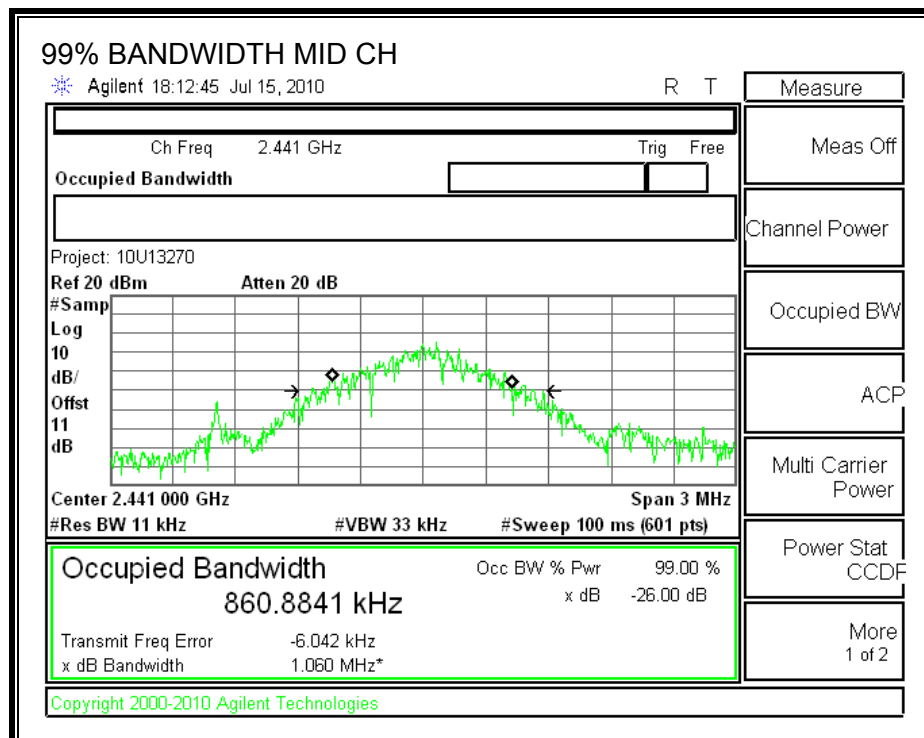
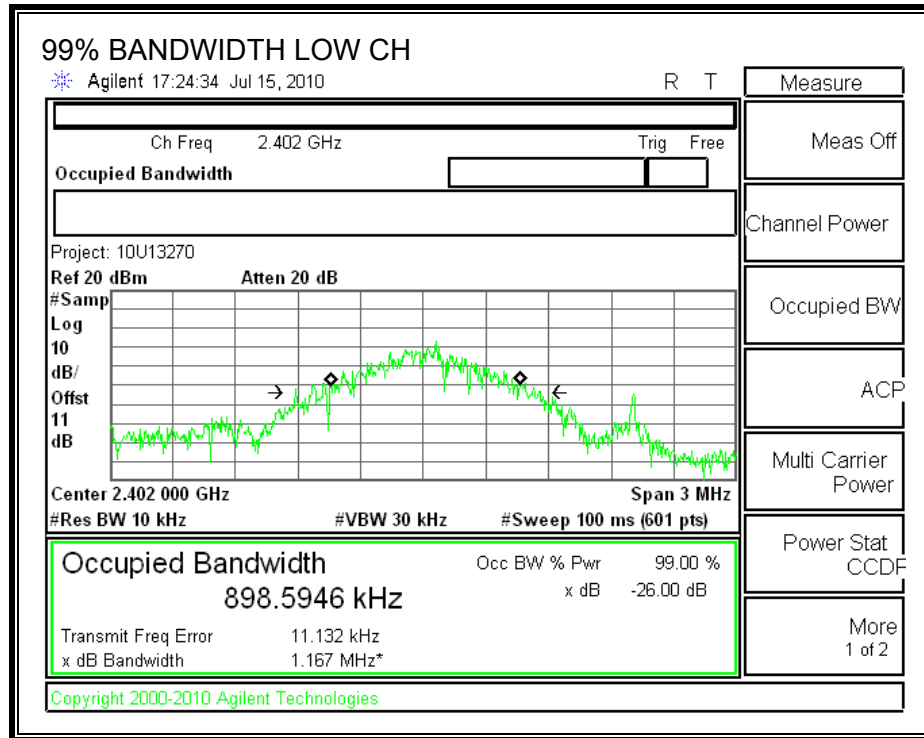
##### TEST PROCEDURE

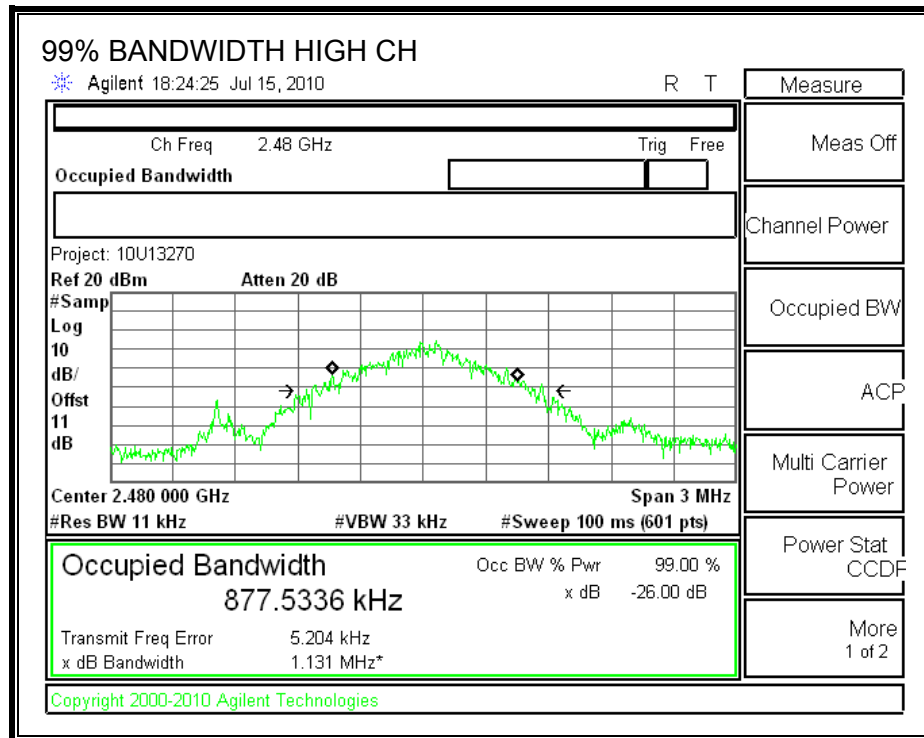
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

##### RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	0.899
Middle	2441	0.861
High	2480	0.878

**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.

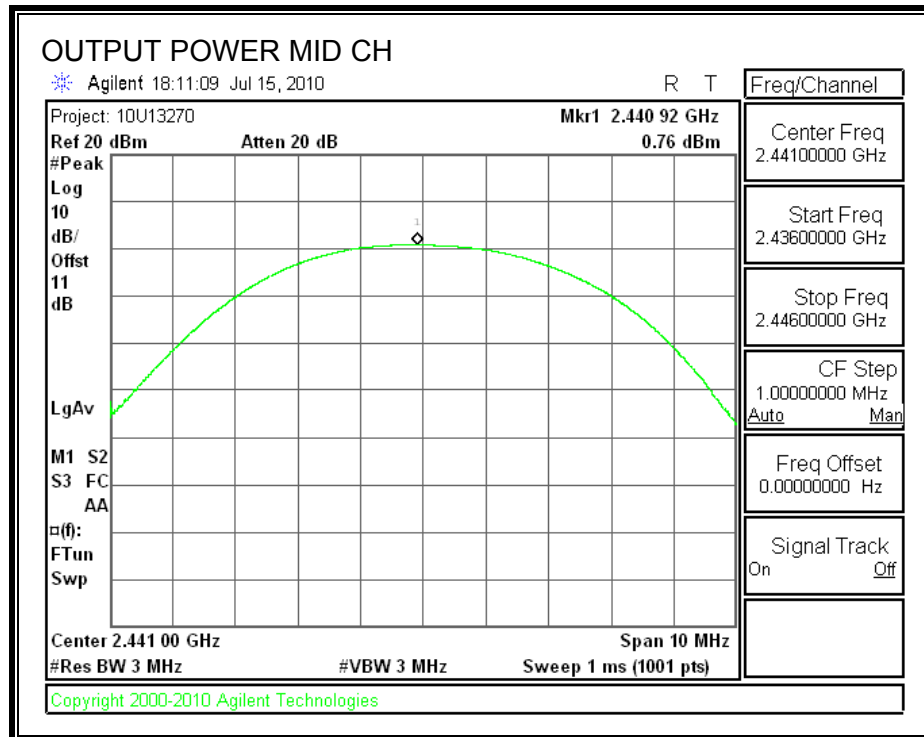
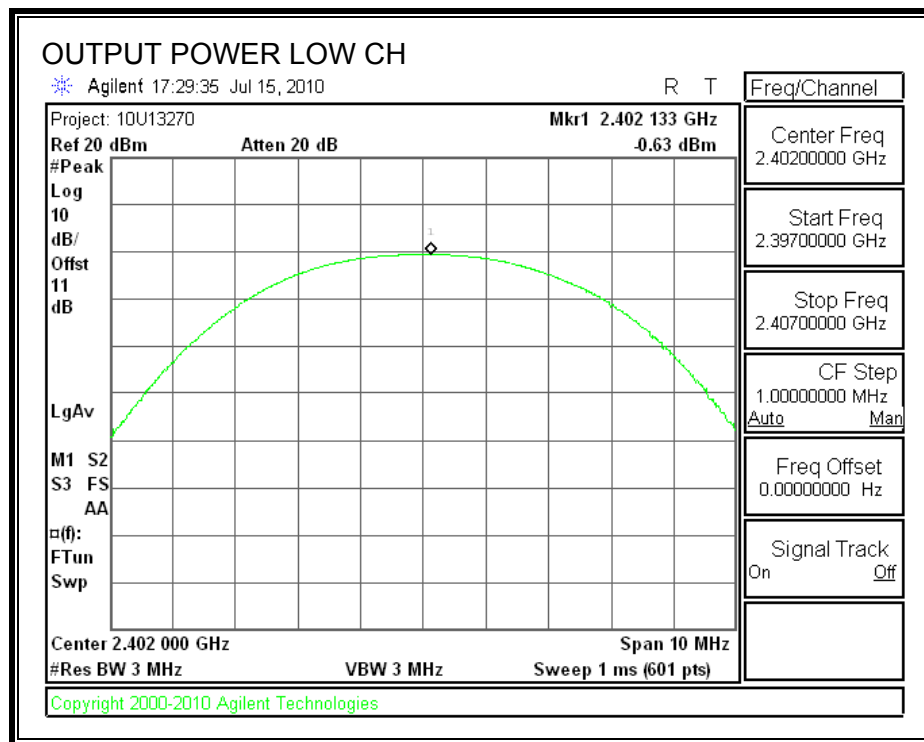
#### TEST PROCEDURE

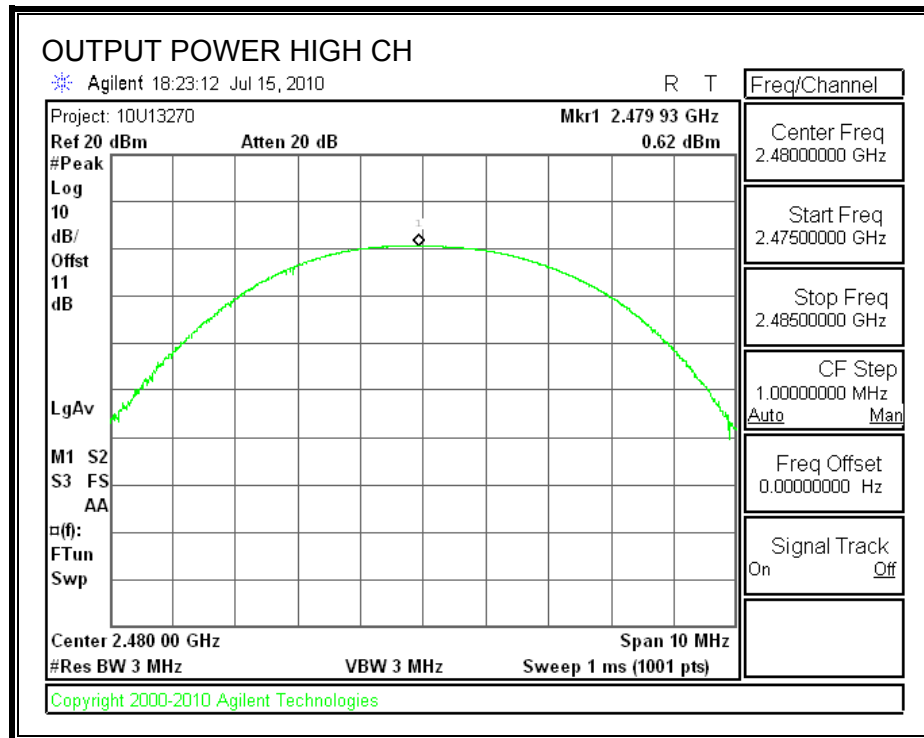
Peak power is measured using the Channel bandwidth Alternative peak output power procedure specified in "TCB Training for Devices covered under Scopes A1 - A4" by Joe Dichoso, May 2003.

#### RESULTS

Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-0.63	30	-30.63
Middle	2441	0.76	30	-29.24
High	2480	0.62	30	-29.38

## OUTPUT POWER







### **7.3.3. AVERAGE POWER**

#### **LIMITS**

None; for reporting purposes only.

#### **TEST PROCEDURE**

The transmitter output is connected to a power meter with gate control.

#### **RESULTS**

The cable assembly insertion loss of 10.3 dB (including 10 dB pad and 0.3 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	-0.71
Middle	2441	0.04
High	2480	0.04

### 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.

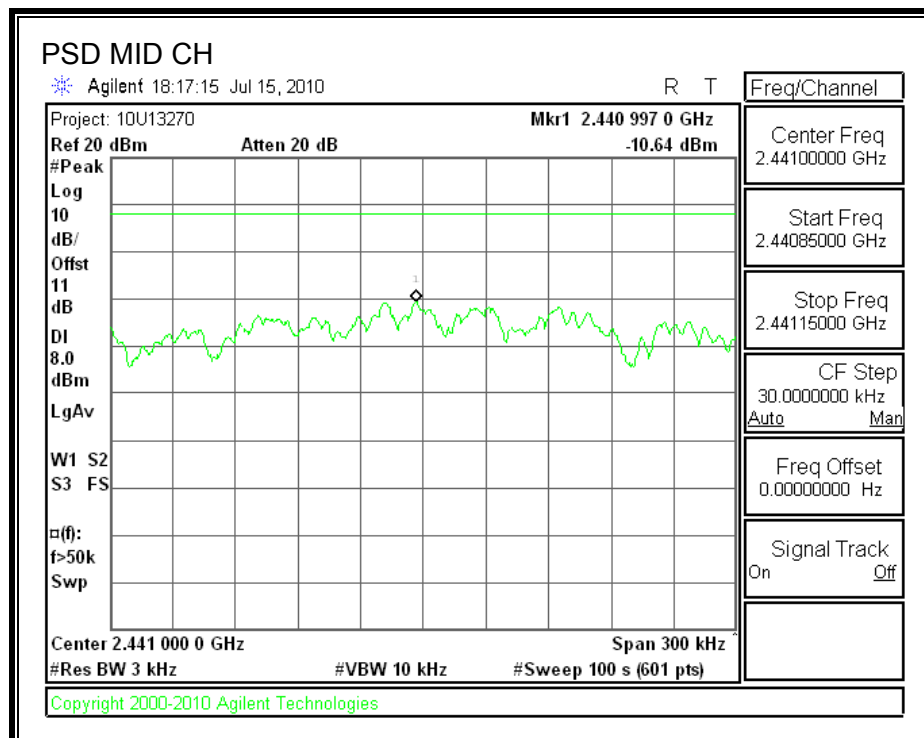
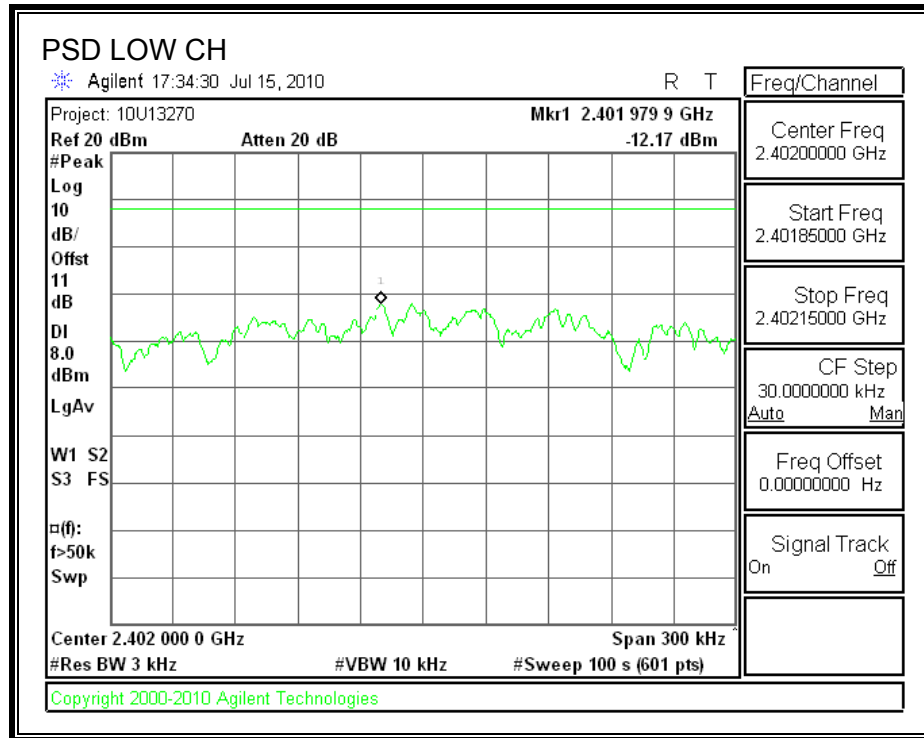
#### TEST PROCEDURE

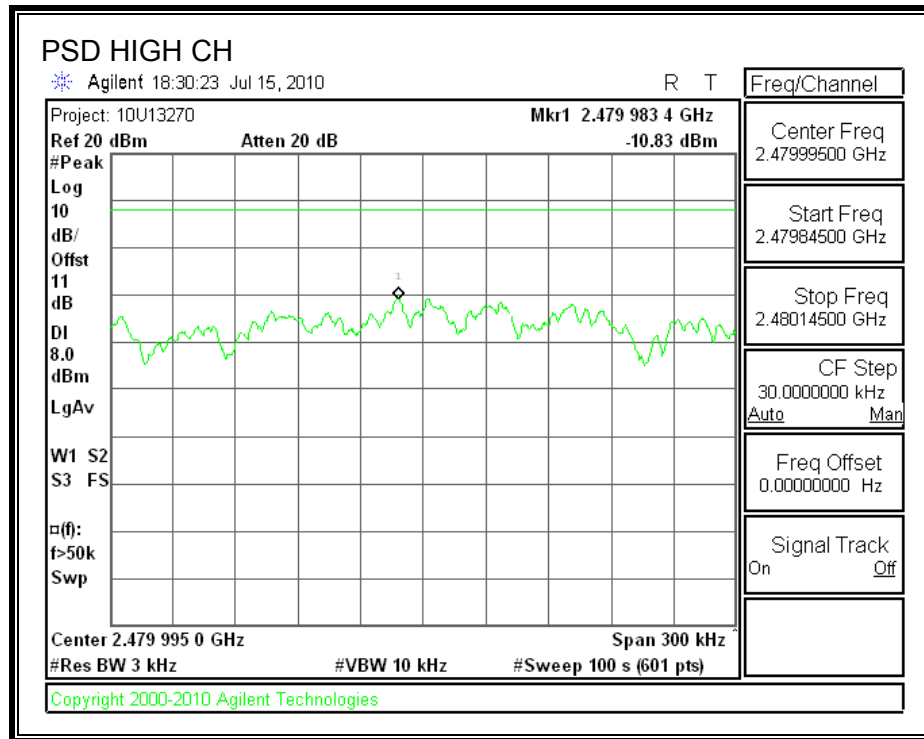
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

#### RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-12.17	8	-20.17
Middle	2441	-10.64	8	-18.64
High	2480	-10.83	8	-18.83

**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.

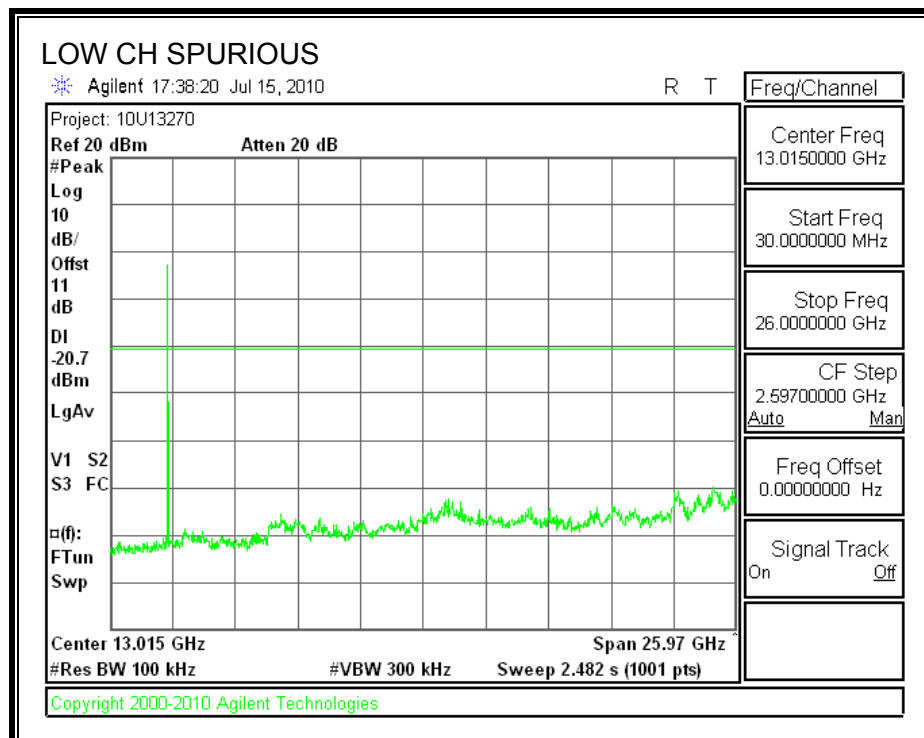
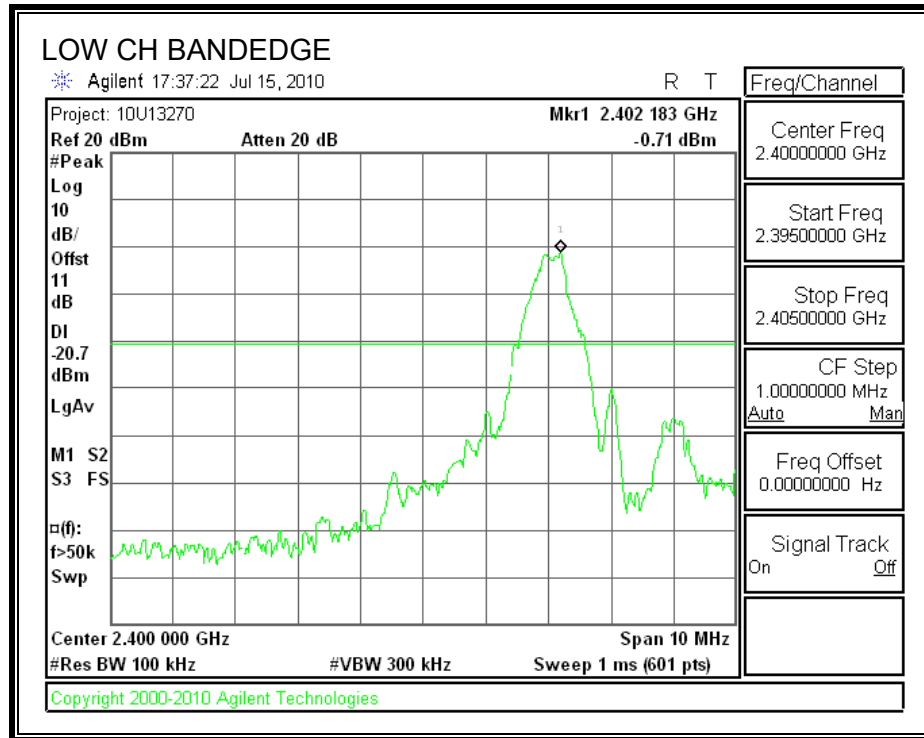
#### **TEST PROCEDURE**

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.

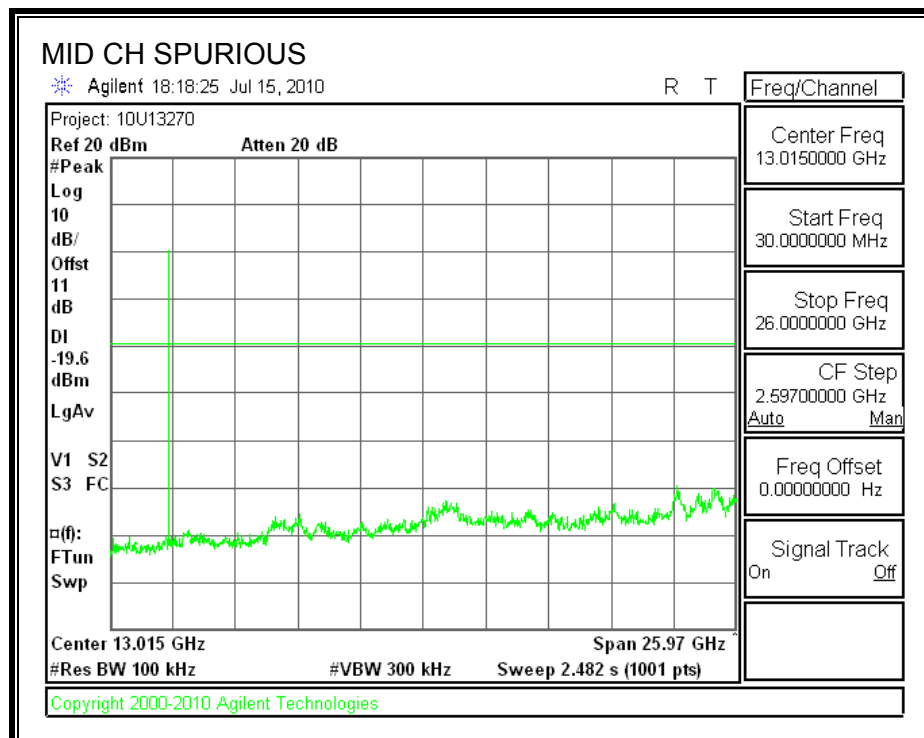
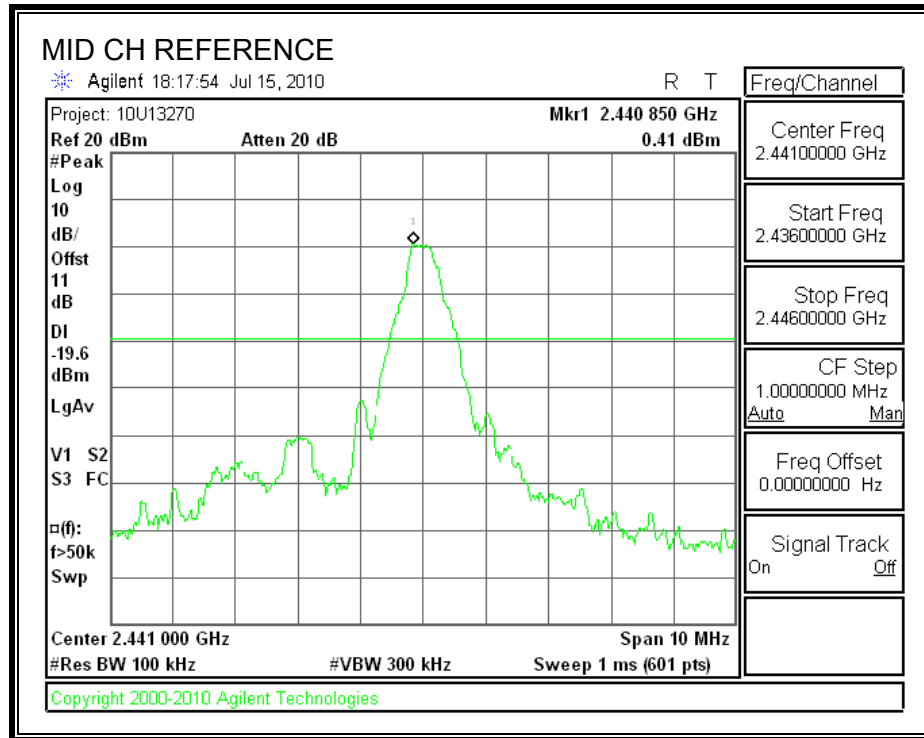
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

#### **RESULTS**

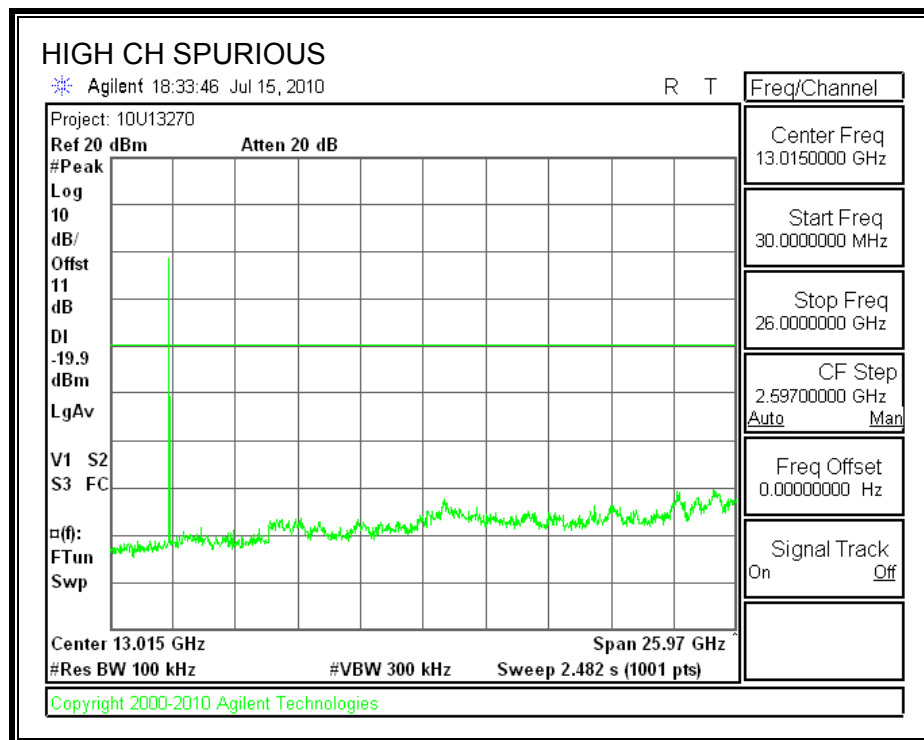
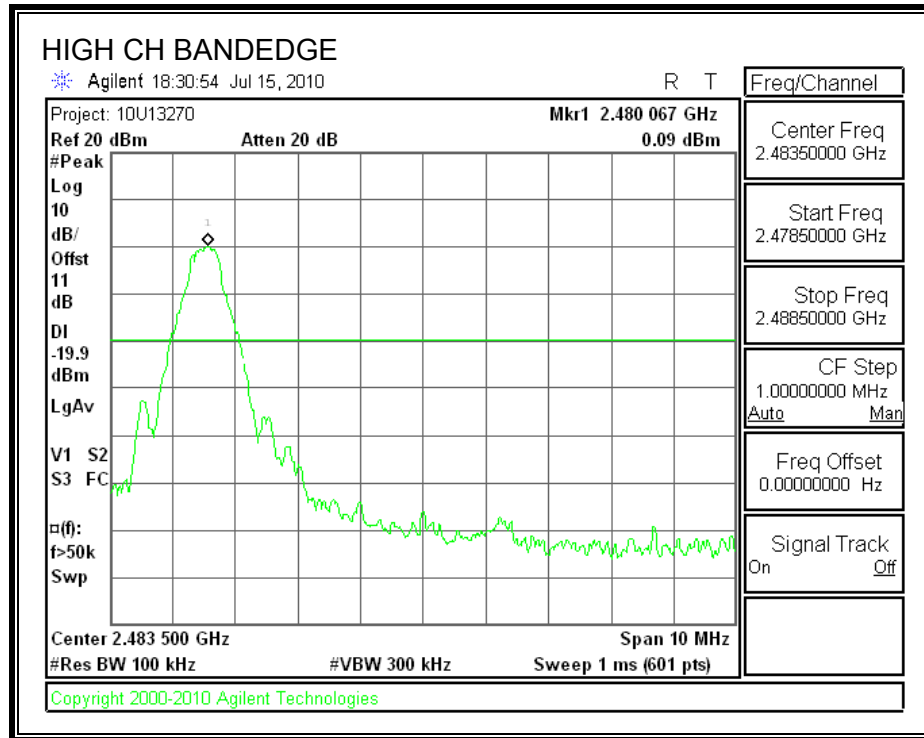
**SPURIOUS EMISSIONS, LOW CHANNEL**



**SPURIOUS EMISSIONS, MID CHANNEL**



**SPURIOUS EMISSIONS, HIGH CHANNEL**





## **7.4. BLUETOOTH 8PSK MODE IN THE 2.4 GHz BAND**

### **7.4.1. 99% BANDWIDTH**

#### **LIMITS**

None; for reporting purposes only.

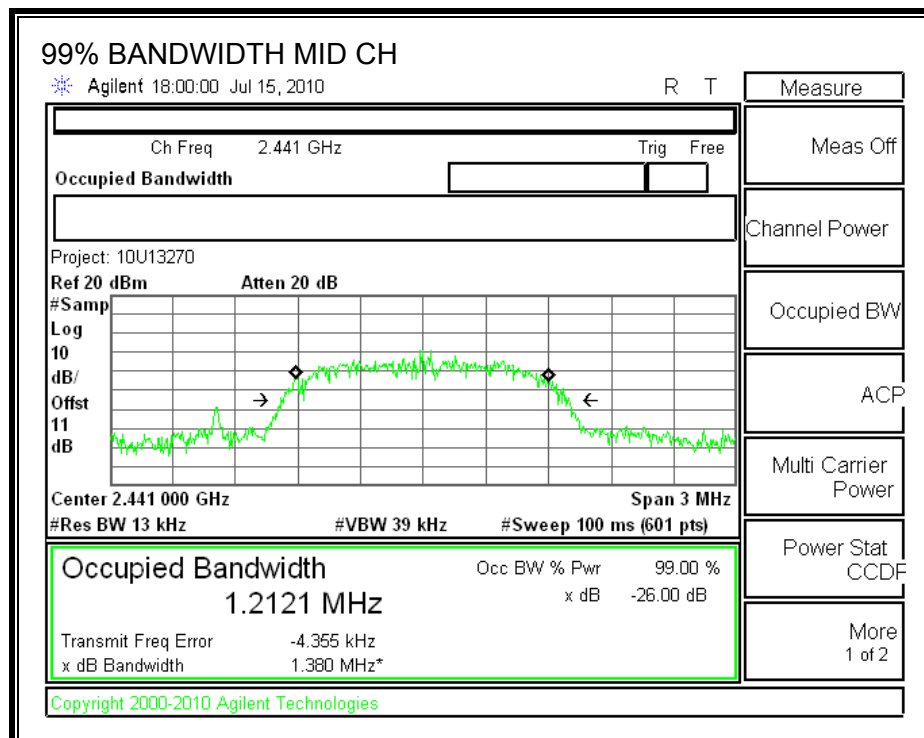
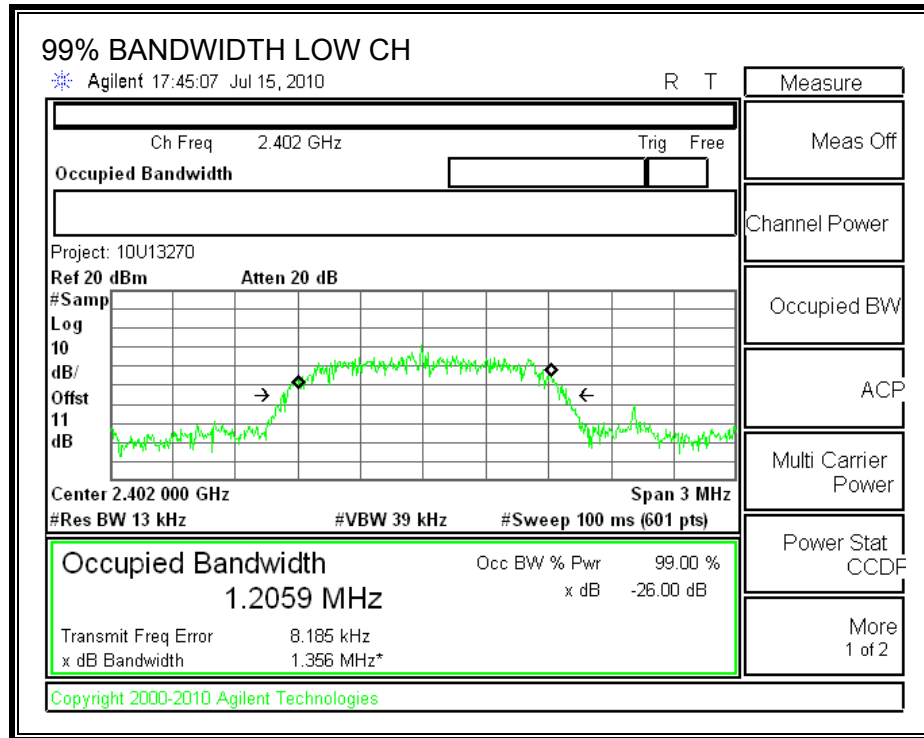
#### **TEST PROCEDURE**

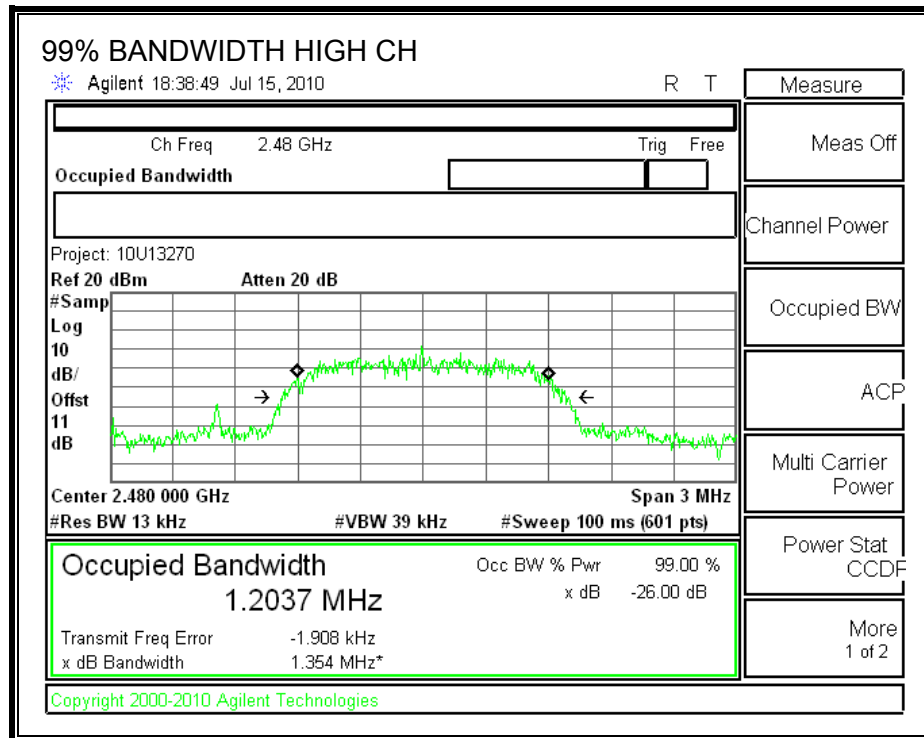
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

#### **RESULTS**

<b>Channel</b>	<b>Frequency (MHz)</b>	<b>99% Bandwidth (MHz)</b>
Low	2402	1.206
Middle	2441	1.212
High	2480	1.204

**99% BANDWIDTH**





## 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.

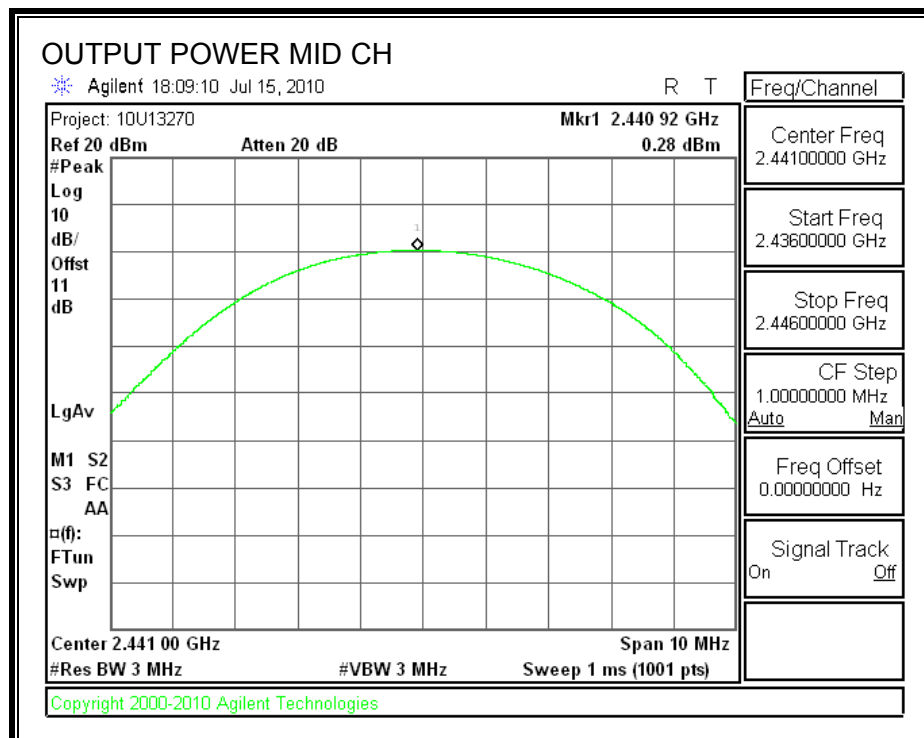
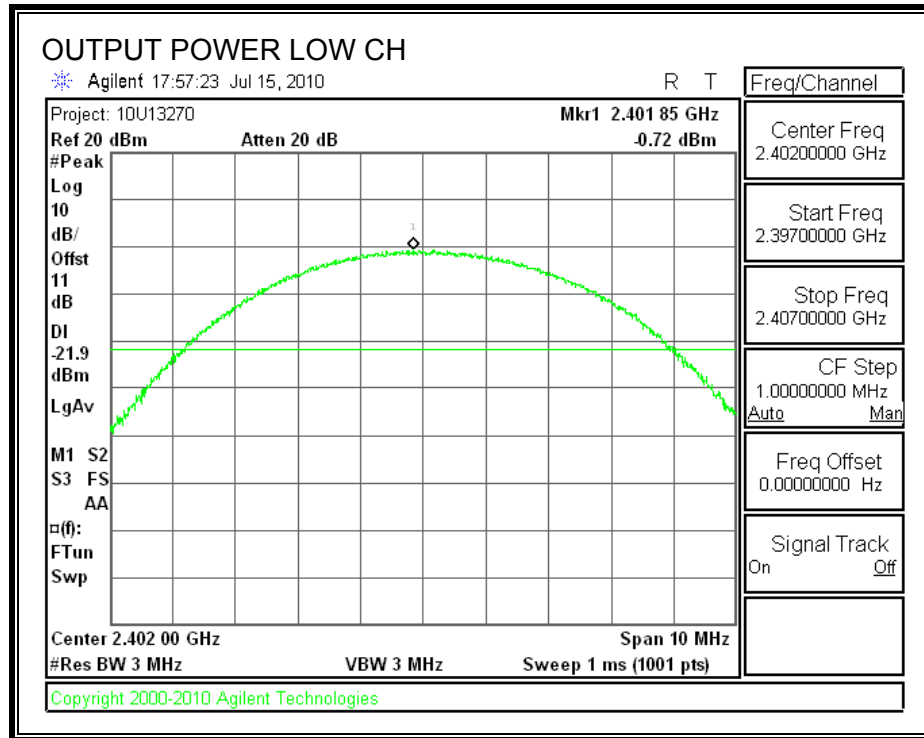
### TEST PROCEDURE

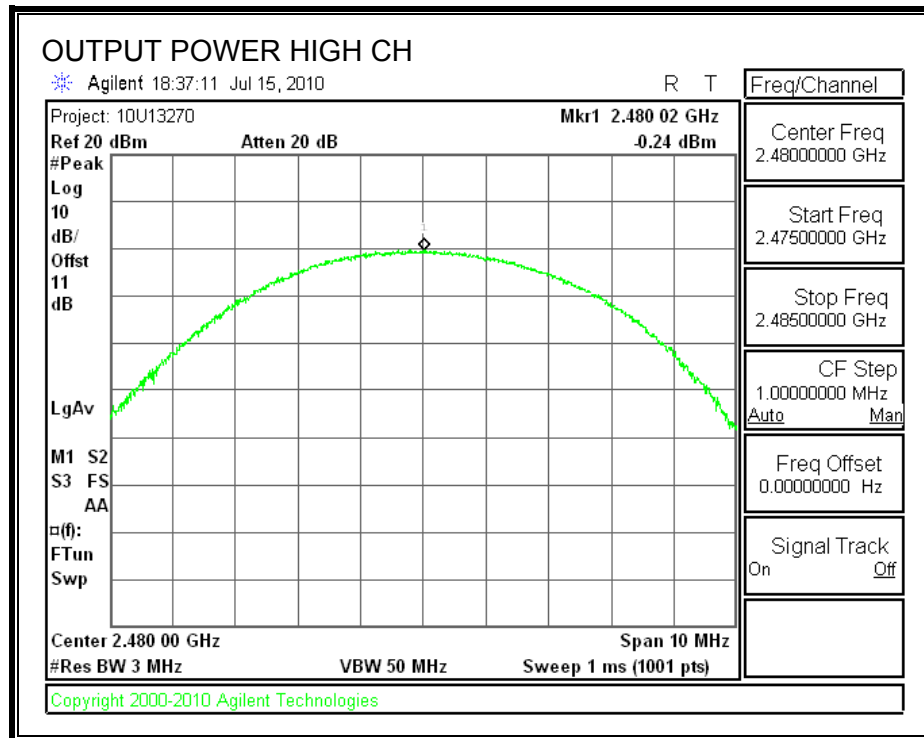
Peak power is measured using the Channel bandwidth Alternative peak output power procedure specified in "TCB Training for Devices covered under Scopes A1 - A4" by Joe Dichoso, May 2003.

### RESULTS

Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-0.72	21	-21.72
Middle	2441	0.28	21	-20.72
High	2480	-0.24	21	-21.24

## OUTPUT POWER





### 7.4.3. AVERAGE POWER

#### LIMITS

None; for reporting purposes only.

#### TEST PROCEDURE

The transmitter output is connected to a power meter with gate control.

#### RESULTS

The cable assembly insertion loss of 10.3 dB (including 10 dB pad and 0.3 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	-2.00
Middle	2441	-1.99
High	2480	-2.37

#### **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**

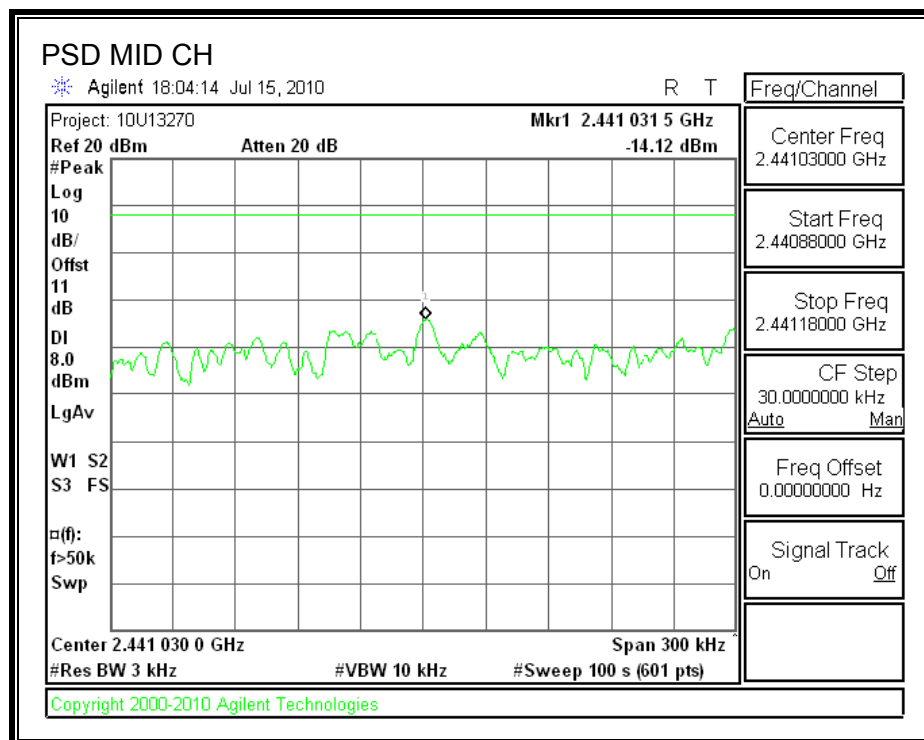
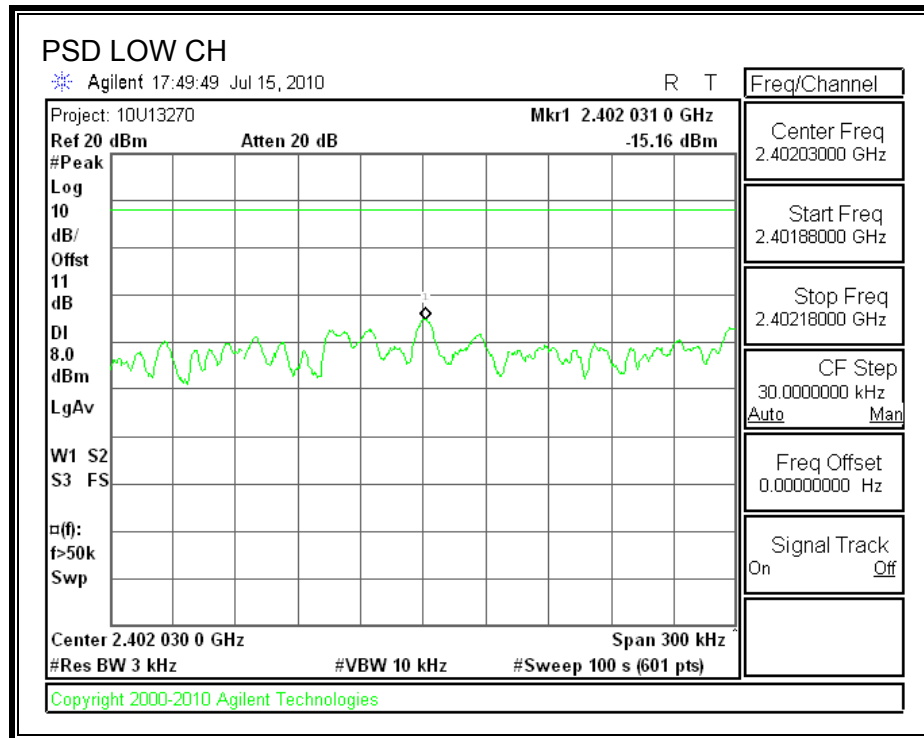
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

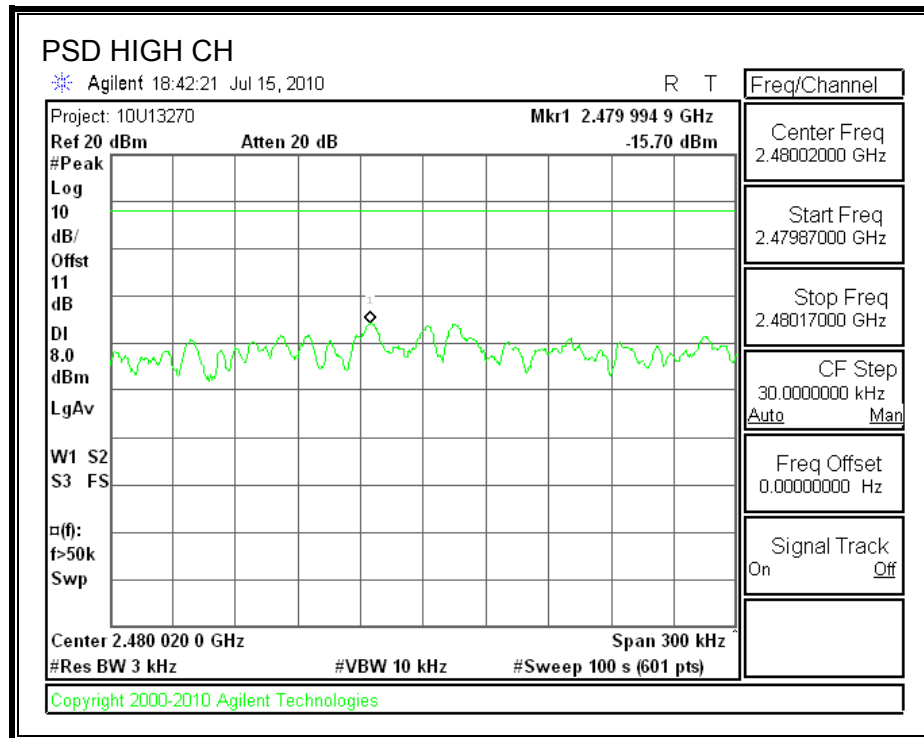
##### **RESULTS**

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-15.16	8	-23.16
Middle	2441	-14.12	8	-22.12
High	2480	-15.70	8	-23.70



**POWER SPECTRAL DENSITY**





#### **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.

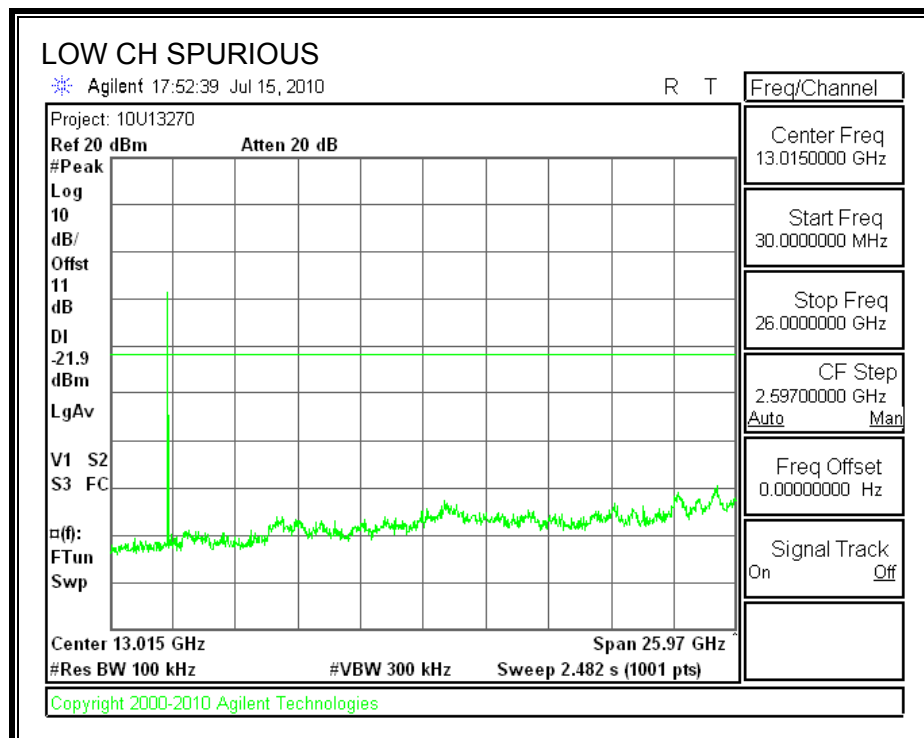
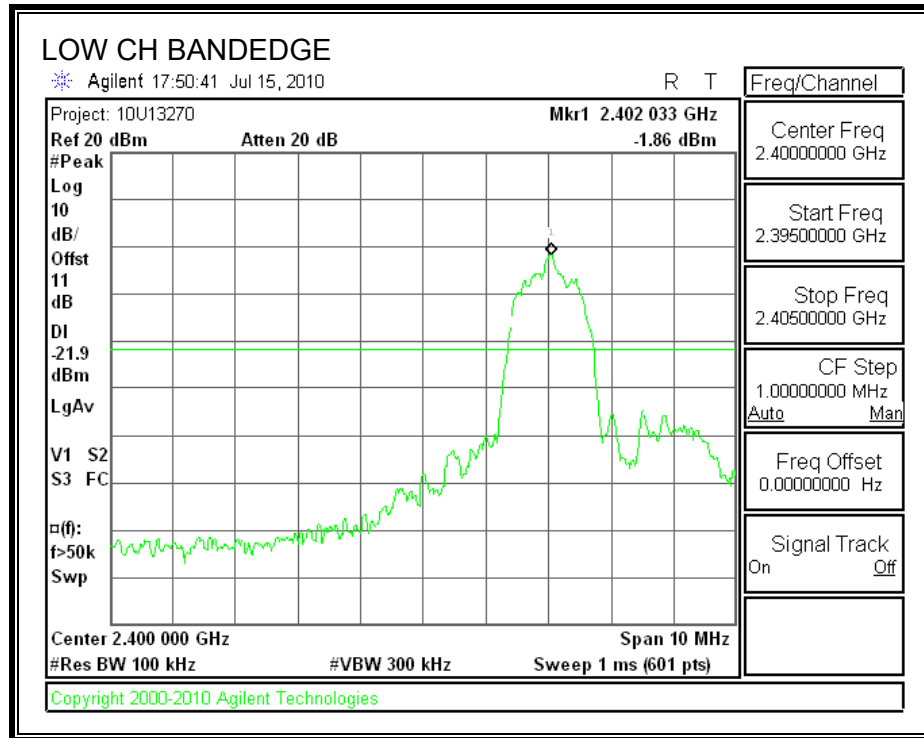
##### **TEST PROCEDURE**

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.

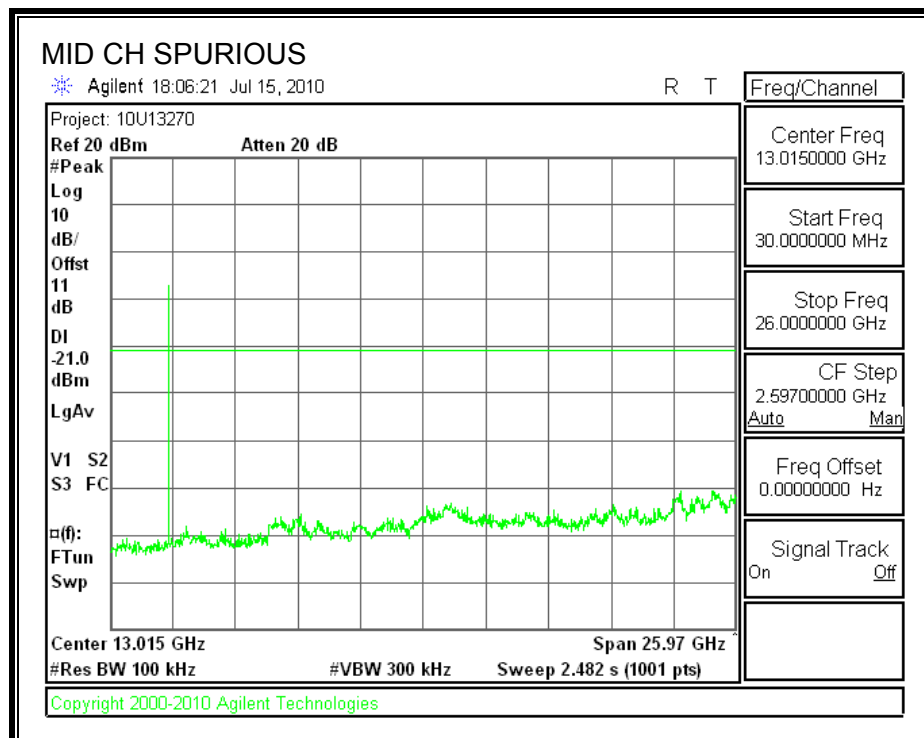
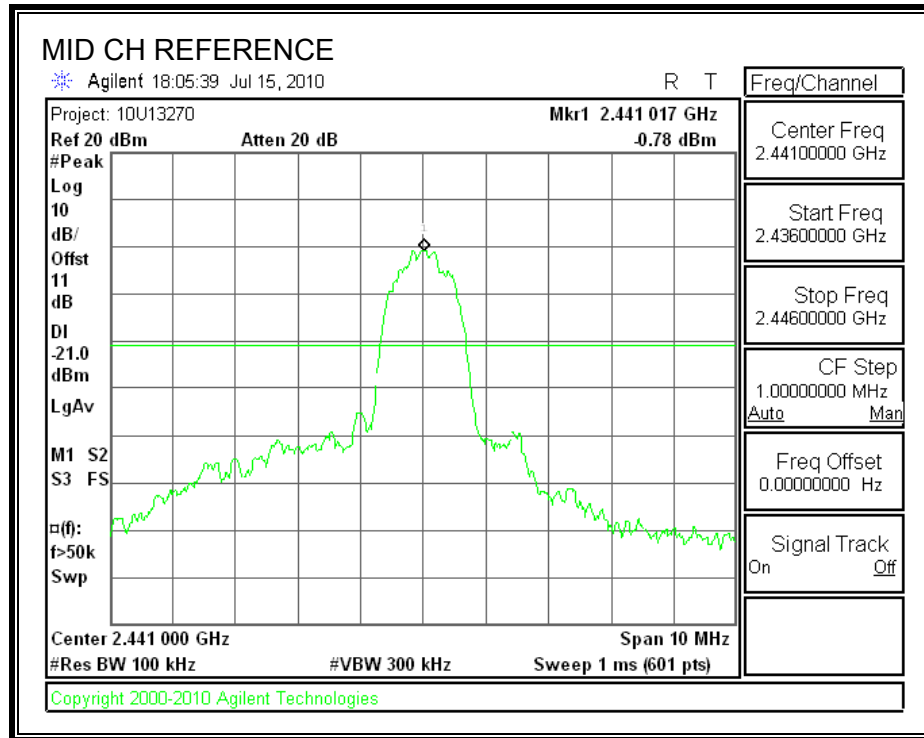
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

##### **RESULTS**

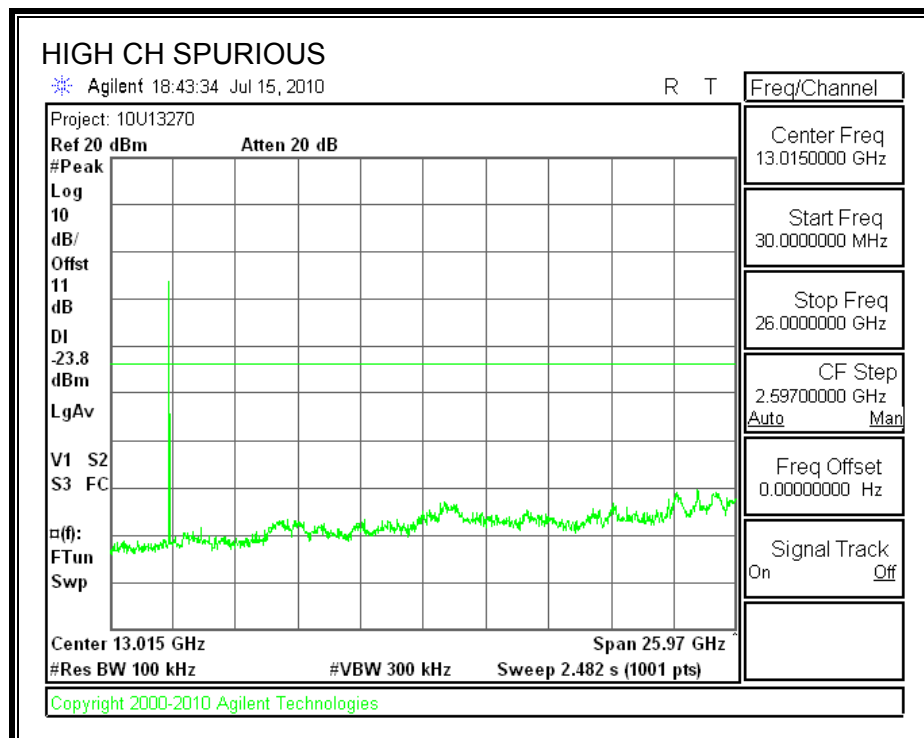
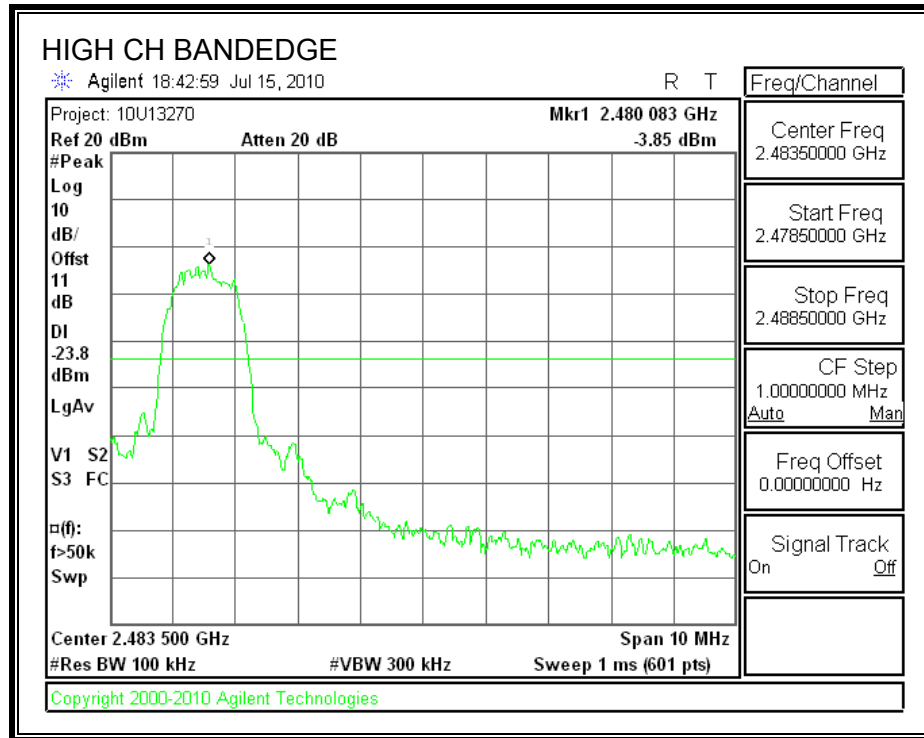
**SPURIOUS EMISSIONS, LOW CHANNEL**



**SPURIOUS EMISSIONS, MID CHANNEL**



**SPURIOUS EMISSIONS, HIGH CHANNEL**



## **7.5. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE WLAN G-MODE WITH BLUETOOTH 8PSK MODULATION)**

### **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.

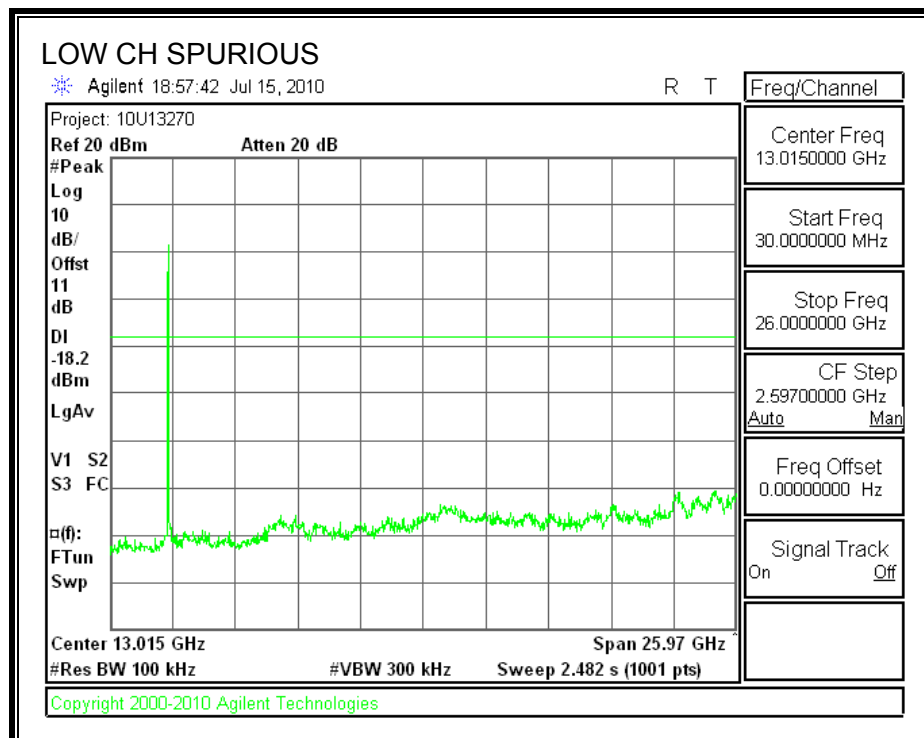
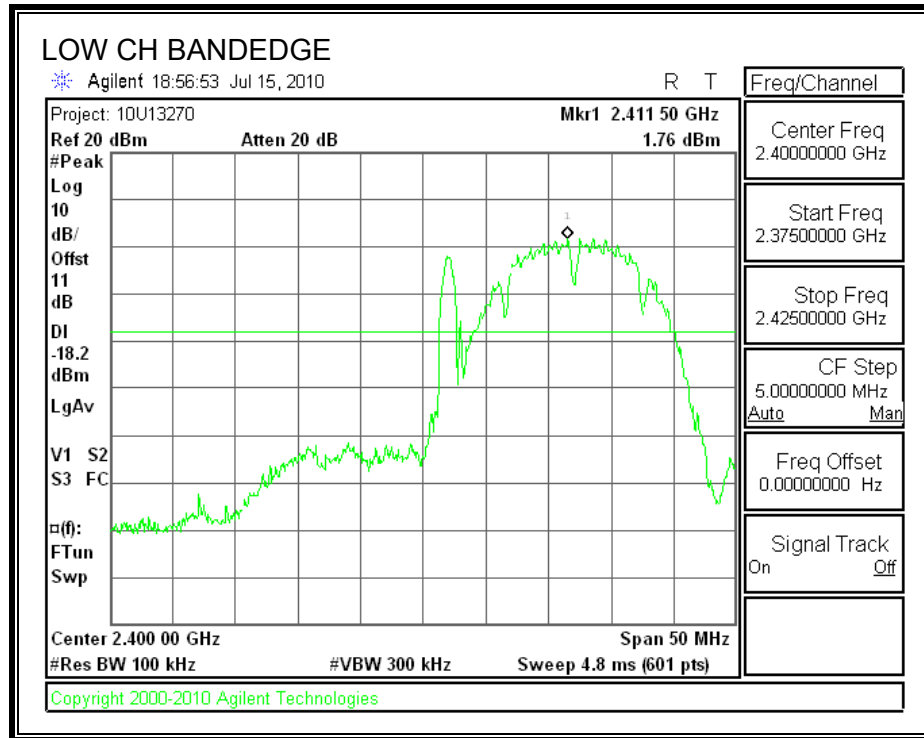
#### **TEST PROCEDURE**

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.

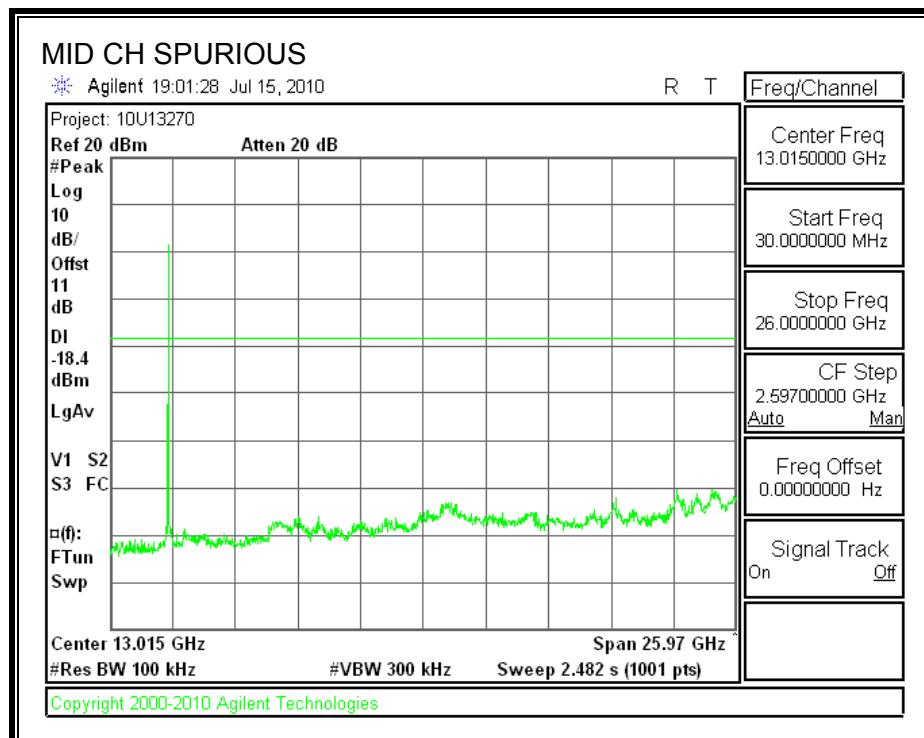
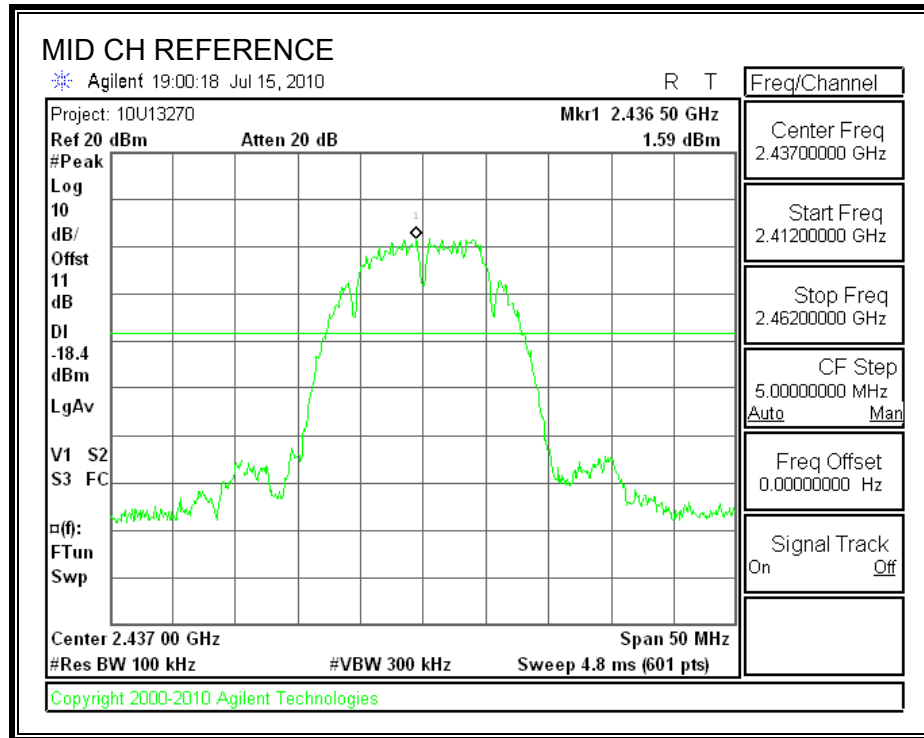
#### **RESULTS**

**SPURIOUS EMISSIONS, LOW CHANNEL**

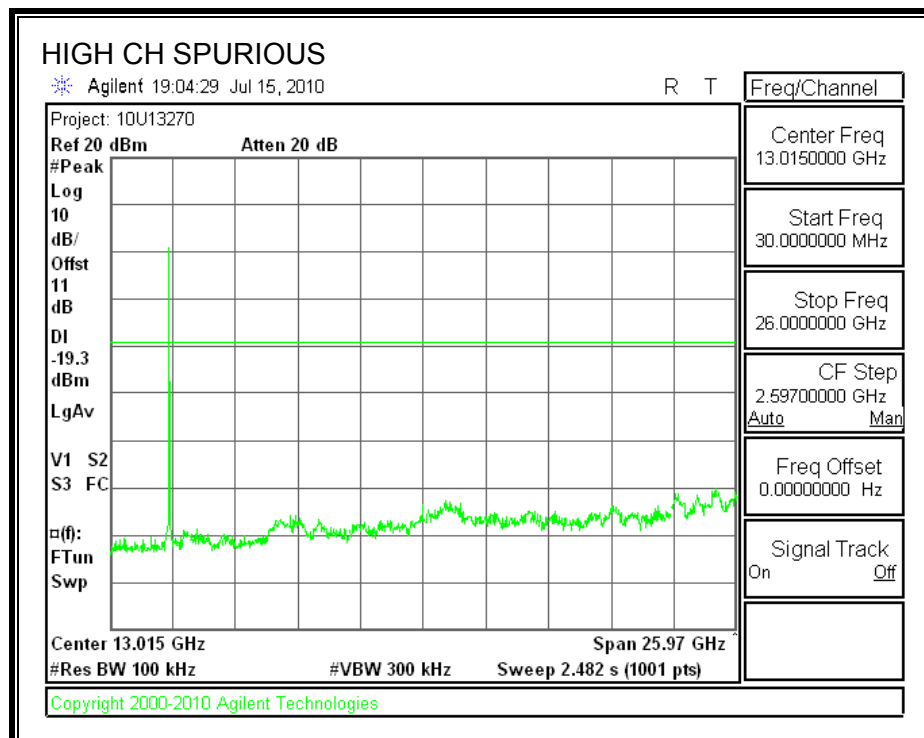
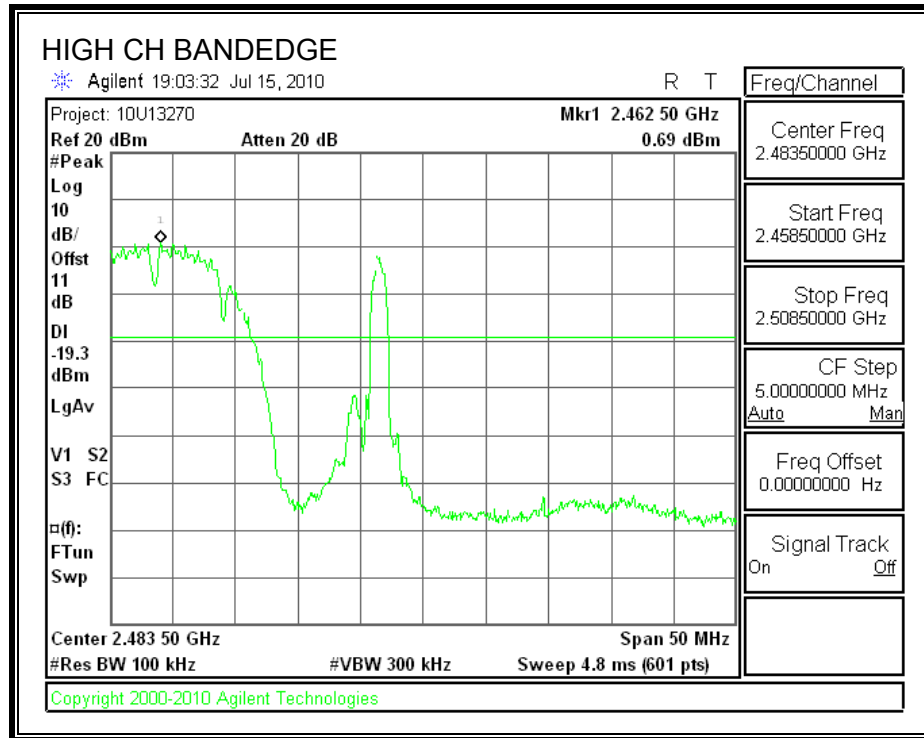




**SPURIOUS EMISSIONS, MID CHANNEL**



**SPURIOUS EMISSIONS, HIGH CHANNEL**



## 8. RADIATED TEST RESULTS

### 8.1. LIMITS AND PROCEDURE

#### LIMITS

FCC §15.205 and §15.209

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.

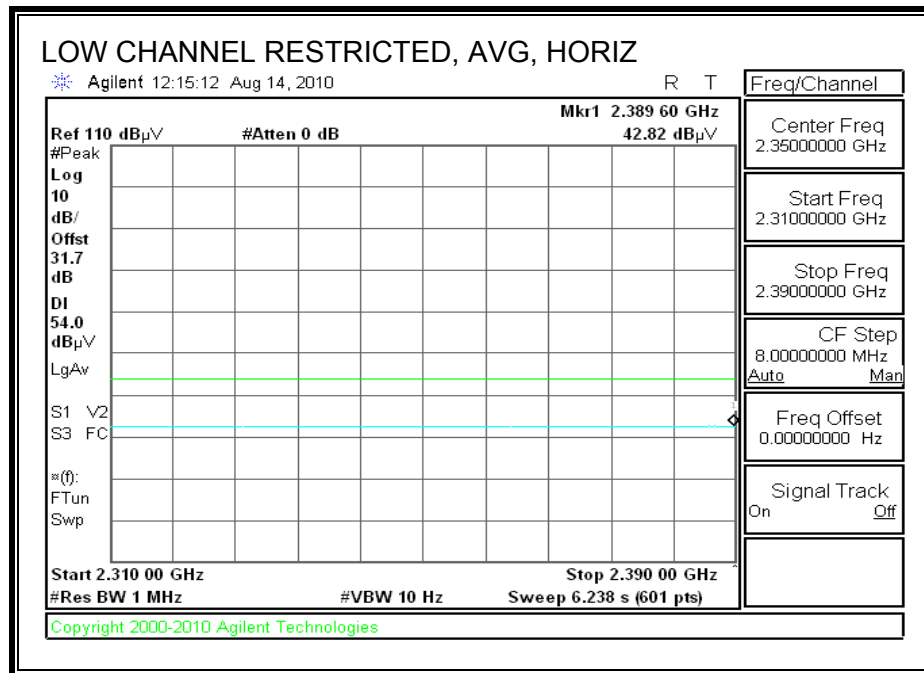
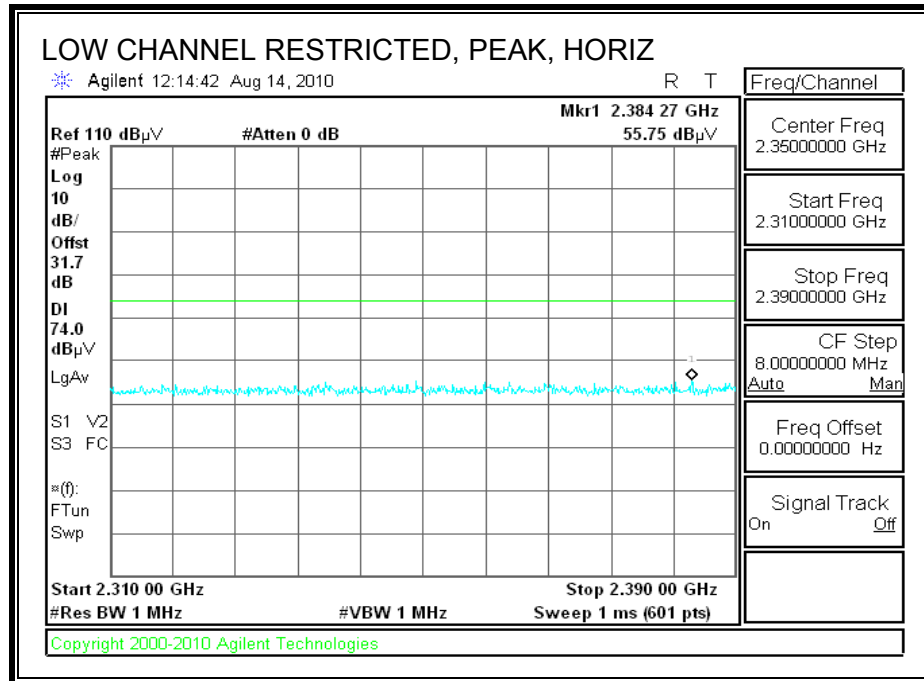
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

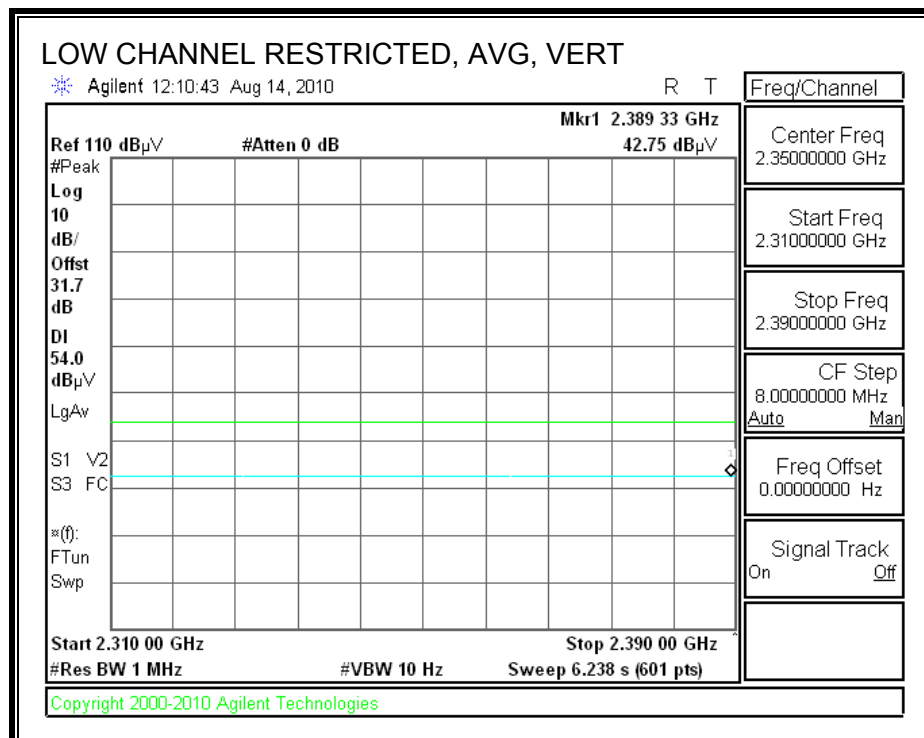
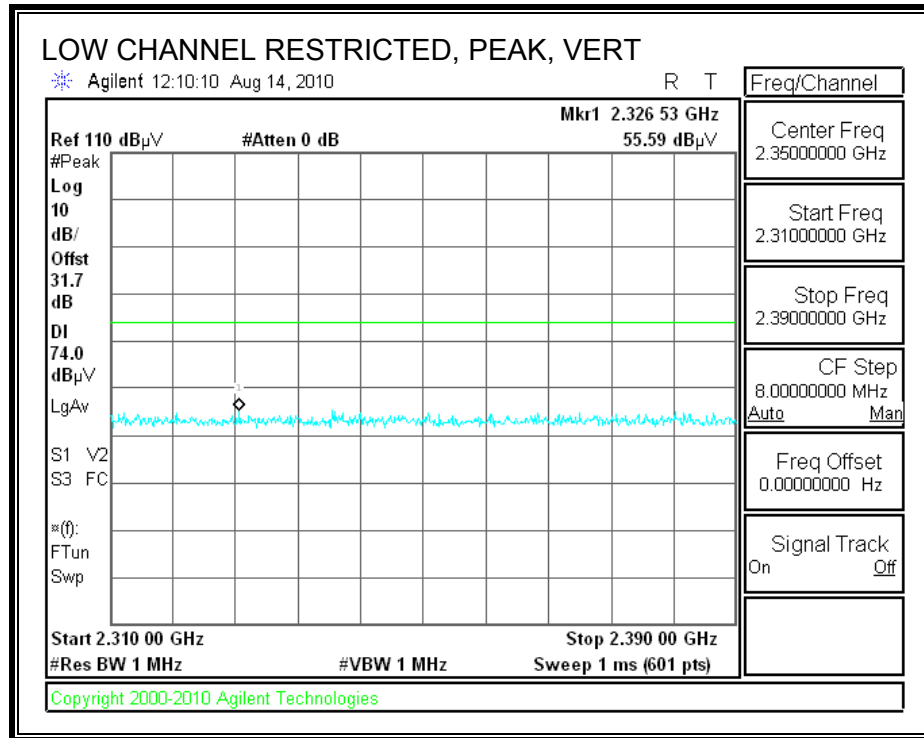
## 8.2. TRANSMITTER ABOVE 1 GHz, EUT WITH INDUCTIVE BACKCOVER

### 8.2.1. 802.11b MODE

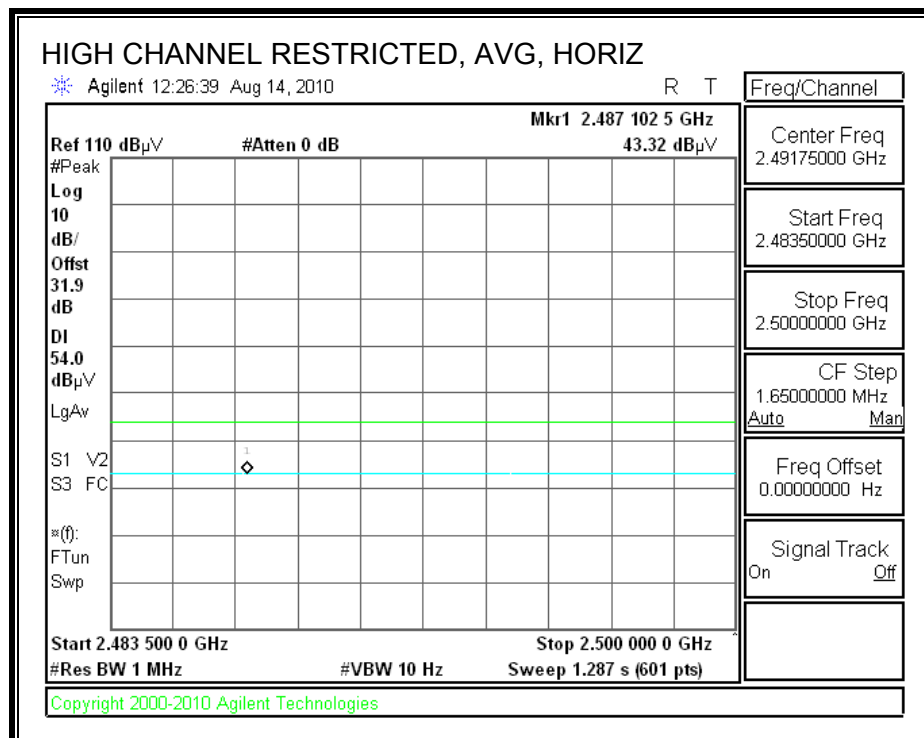
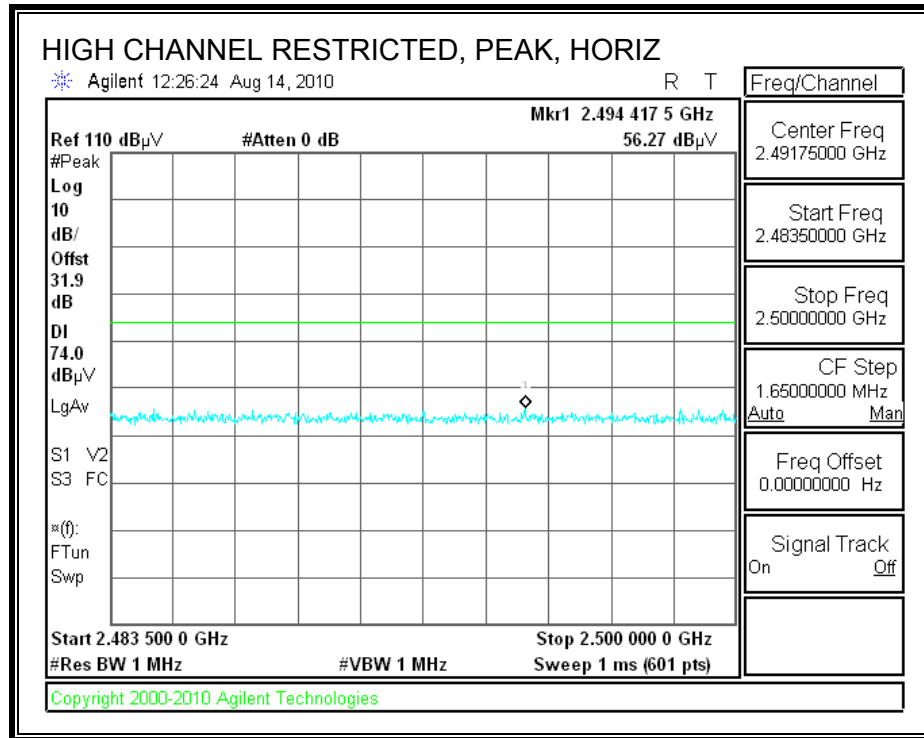
#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



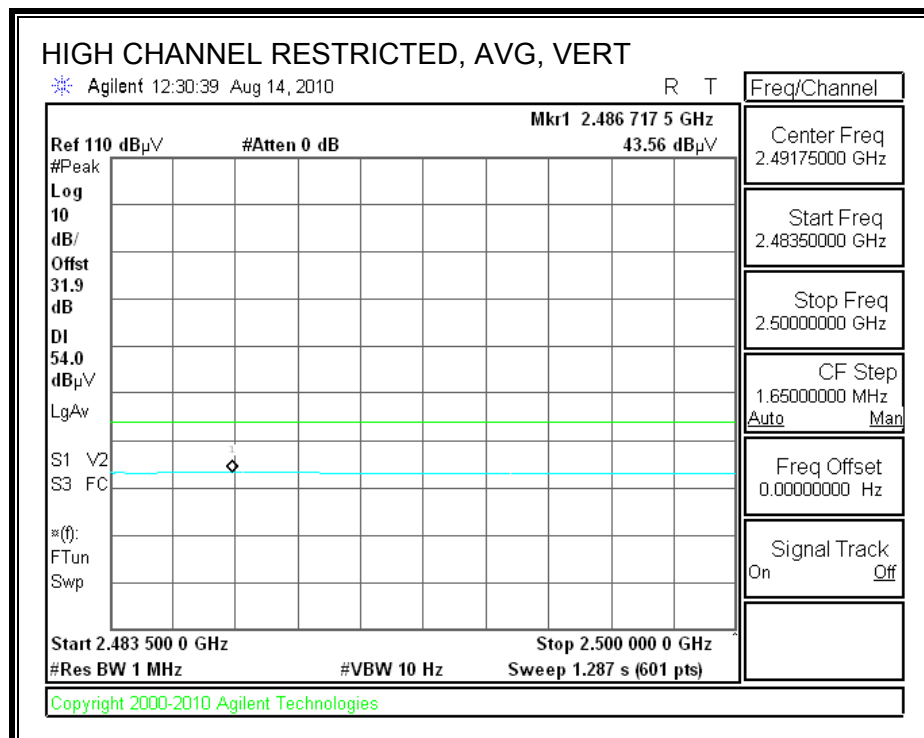
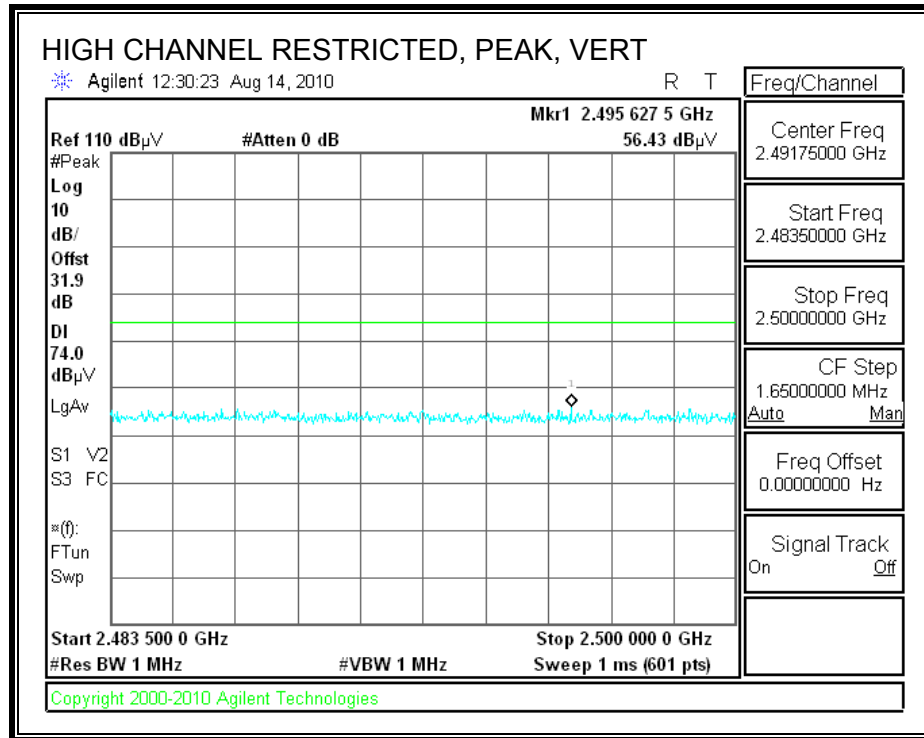
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



## EUT WITH INDUCTIVE BACKCOVER

## HARMONICS AND SPURIOUS EMISSIONS

### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM Phone with 802.11 b/g and Bluetooth  
Configuration: EUT with inductive Cover, AC/DC adapter and Earphone  
Test Target: FCC 15.247  
Mode Oper: Wlan, TX b mode ( Worst Case Position)

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2412MHz</b>													
4.824	3.0	38.8	32.8	5.8	-34.8	0.0	0.0	42.5	74.0	-31.5	H	P	
4.824	3.0	28.8	32.8	5.8	-34.8	0.0	0.0	32.5	54.0	-21.5	H	A	
4.824	3.0	37.9	32.8	5.8	-34.8	0.0	0.0	41.6	74.0	-32.4	V	P	
4.824	3.0	26.0	32.8	5.8	-34.8	0.0	0.0	29.7	54.0	-24.3	V	A	
<b>Mid Ch, 2437MHz</b>													
4.874	3.0	37.9	32.8	5.8	-34.9	0.0	0.0	41.7	74.0	-32.3	V	P	
4.874	3.0	25.4	32.8	5.8	-34.9	0.0	0.0	29.2	54.0	-24.8	V	A	
7.311	3.0	36.5	35.2	7.3	-34.7	0.0	0.0	44.3	74.0	-29.7	V	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	V	A	
4.874	3.0	37.9	32.8	5.8	-34.9	0.0	0.0	41.7	74.0	-32.3	H	P	
4.874	3.0	25.7	32.8	5.8	-34.9	0.0	0.0	29.4	54.0	-24.6	H	A	
7.311	3.0	36.9	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	H	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	H	A	
<b>High Ch, 2462MHz</b>													
4.924	3.0	37.5	32.8	5.9	-34.9	0.0	0.0	41.4	74.0	-32.6	H	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.4	54.0	-24.6	H	A	
7.386	3.0	37.0	35.3	7.3	-34.6	0.0	0.0	45.0	74.0	-29.0	H	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	
4.924	3.0	37.3	32.8	5.9	-34.9	0.0	0.0	41.2	74.0	-32.8	V	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.3	54.0	-24.7	V	A	
7.386	3.0	36.8	35.3	7.3	-34.6	0.0	0.0	44.8	74.0	-29.2	V	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	V	A	

Rev. 4.1.2.7

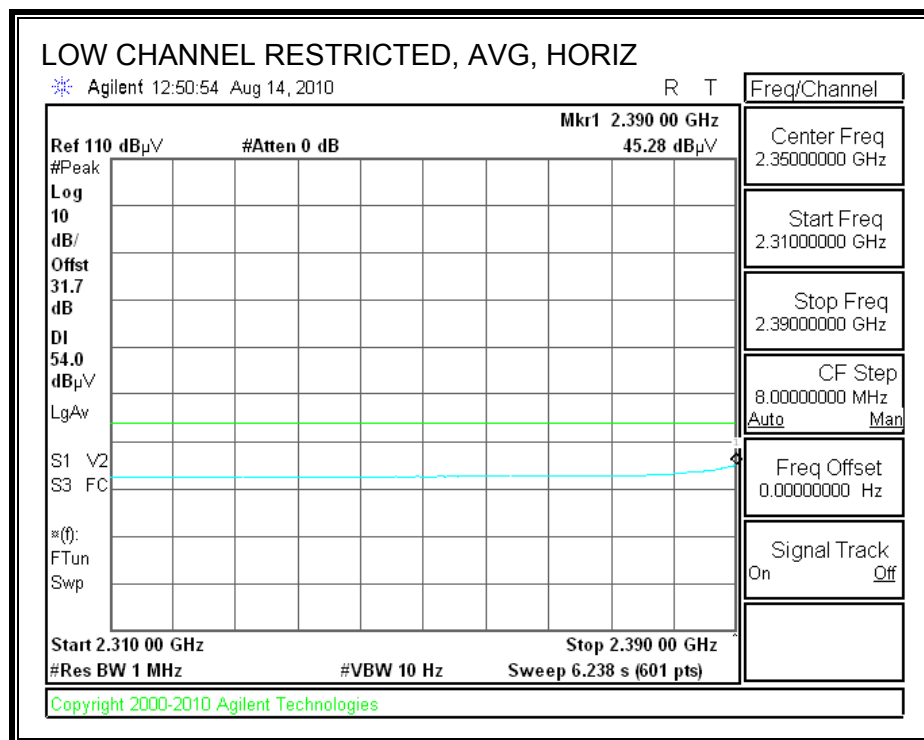
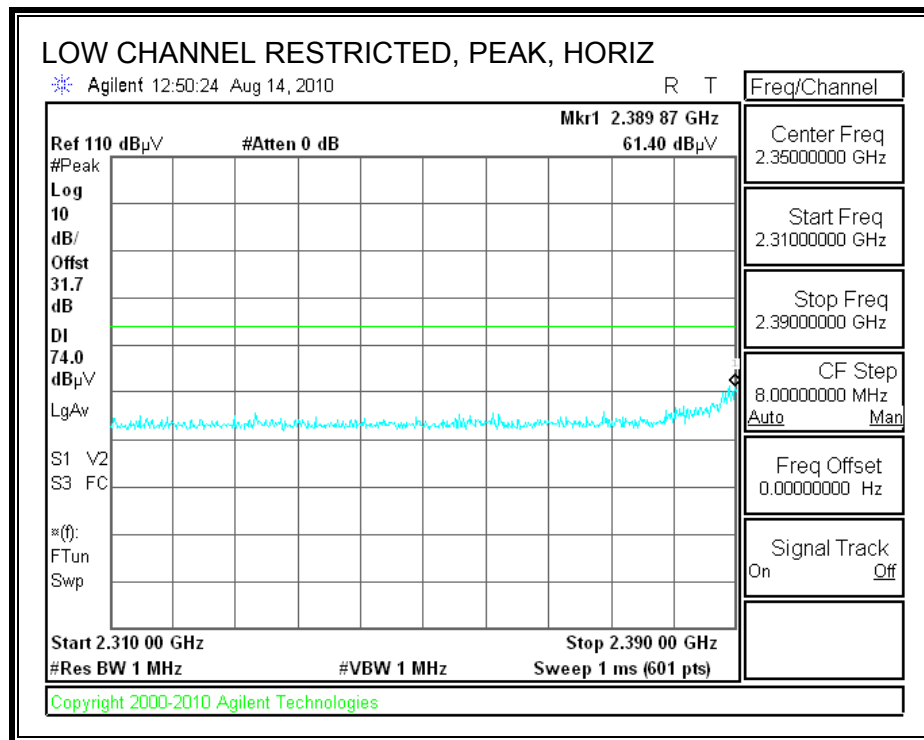
Note: No other emissions were detected above the system noise floor.



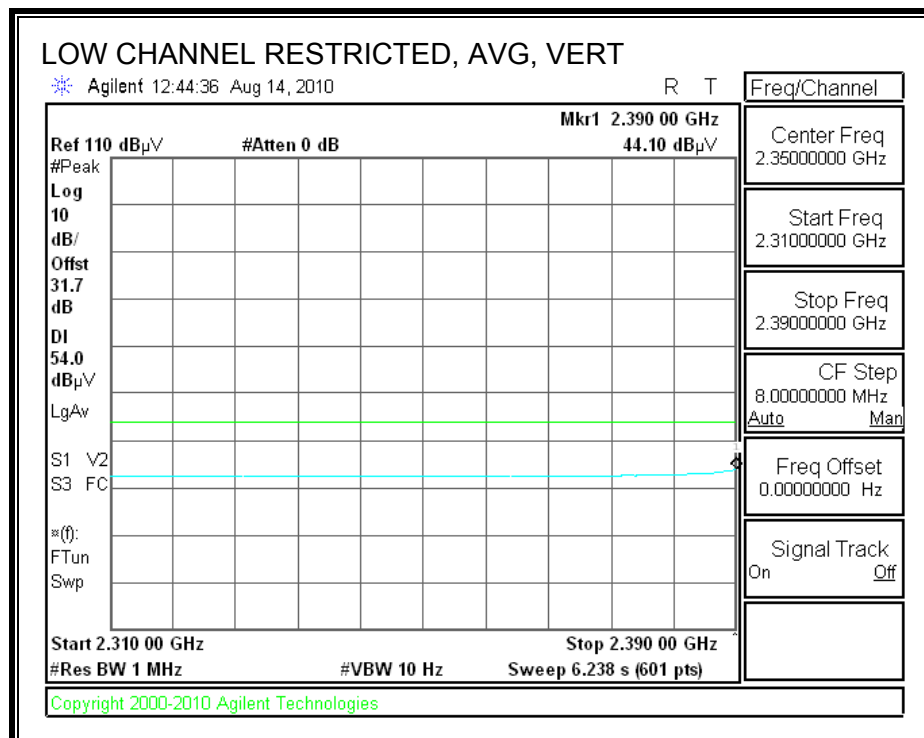
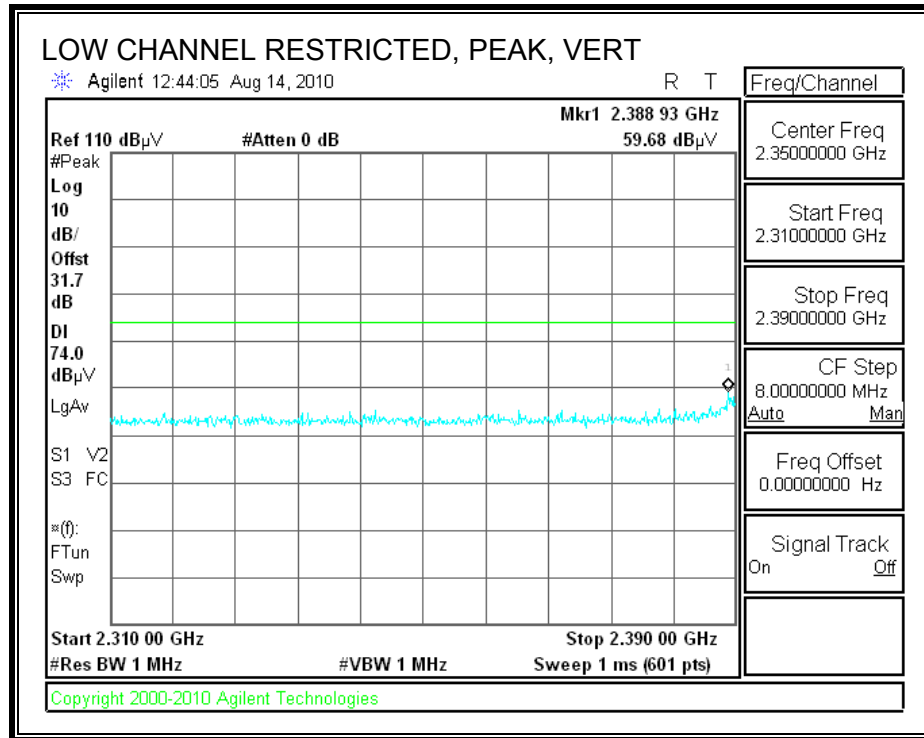
## 8.2.2. 802.11g MODE

### EUT WITH INDUCTIVE BACKCOVER

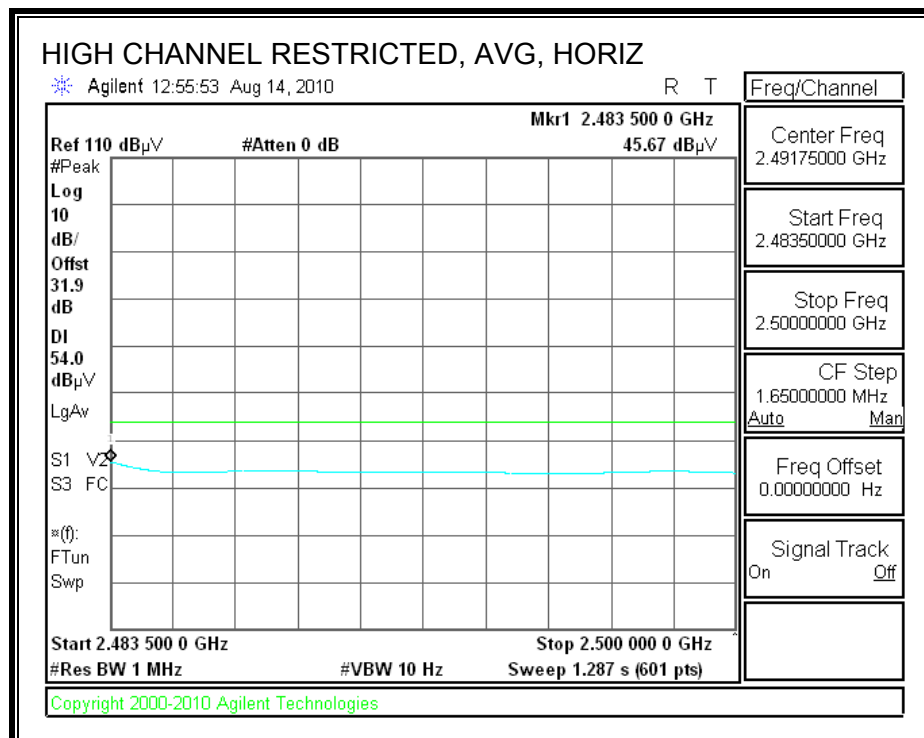
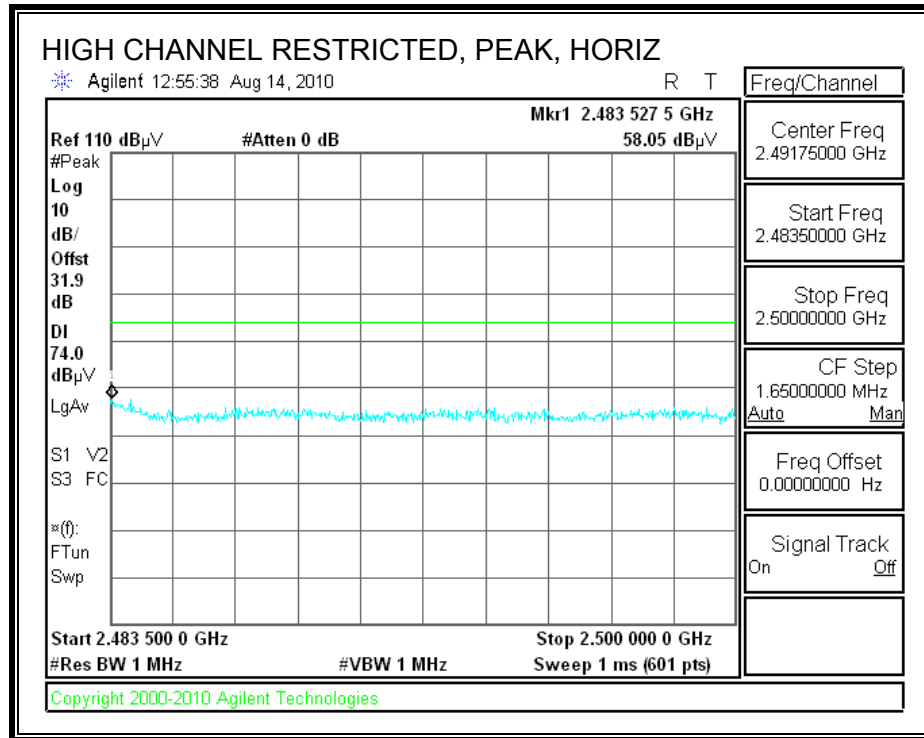
### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



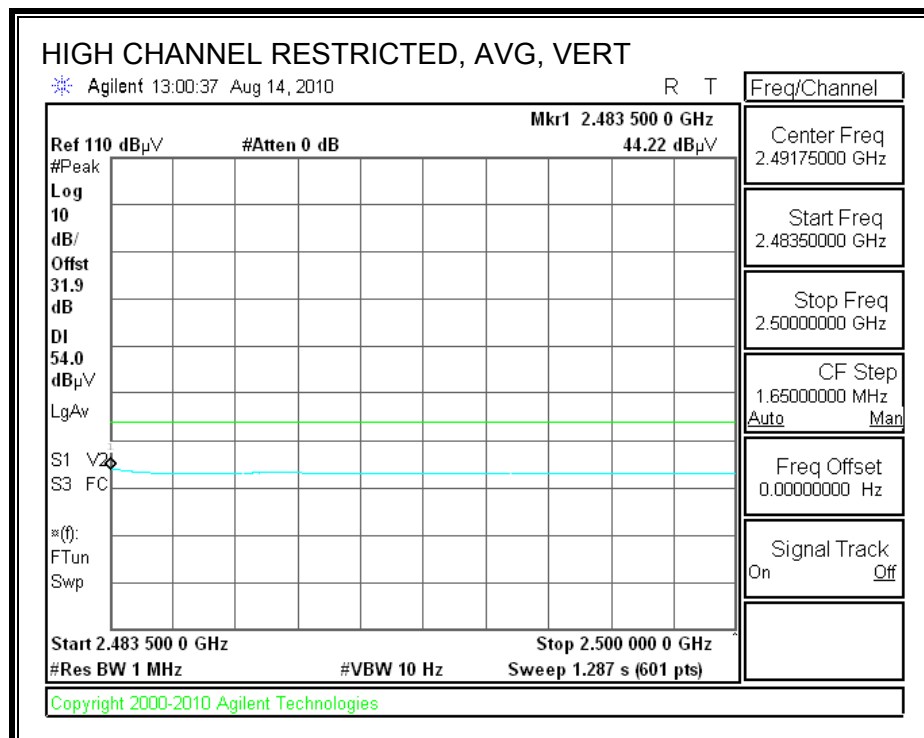
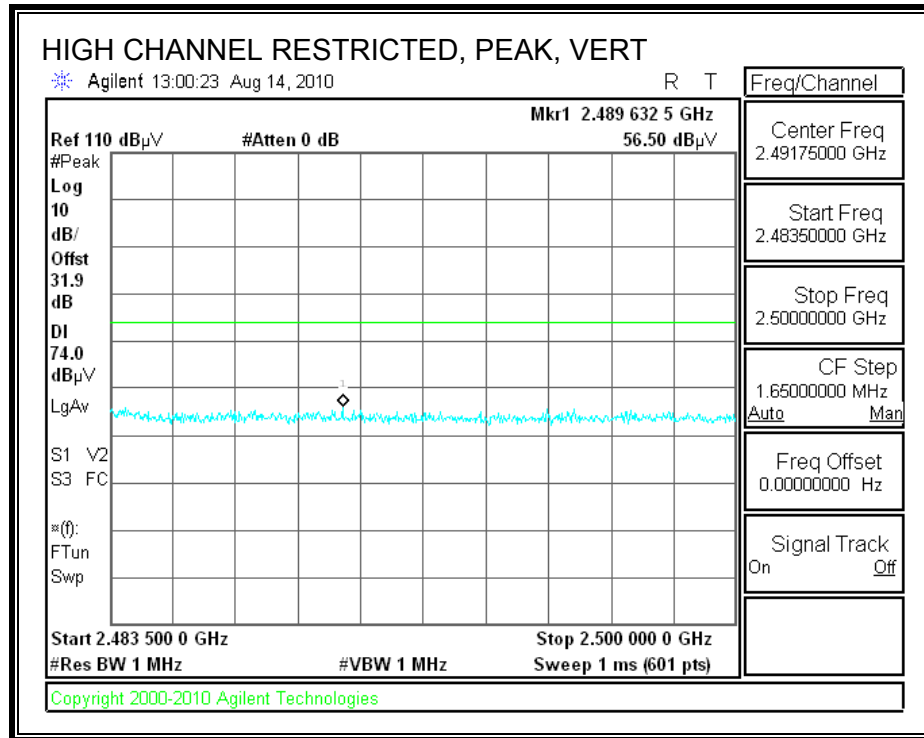
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



## EUT WITH INDUCTIVE BACKCOVER

### HARMONICS AND SPURIOUS EMISSIONS

#### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM Phone with 802.11 bg and Bluetooth  
Configuration: EUT with Inductive Cover, AC/DC adapter and Earphone  
Test Target: FCC 15.247  
Mode Oper: Wlan, TX g mode ( Worst Case Position)

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fitr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2412MHz</b>													
4.824	3.0	37.9	32.8	5.8	-34.8	0.0	0.0	41.6	74.0	-32.4	V	P	
4.824	3.0	25.6	32.8	5.8	-34.8	0.0	0.0	29.3	54.0	-24.7	V	A	
4.824	3.0	37.7	32.8	5.8	-34.8	0.0	0.0	41.4	74.0	-32.6	H	P	
4.824	3.0	25.6	32.8	5.8	-34.8	0.0	0.0	29.3	54.0	-24.7	H	A	
<b>Mid Ch, 2437MHz</b>													
4.874	3.0	37.7	32.8	5.8	-34.9	0.0	0.0	41.5	74.0	-32.5	H	P	
4.874	3.0	25.3	32.8	5.8	-34.9	0.0	0.0	29.1	54.0	-24.9	H	A	
7.311	3.0	37.1	35.2	7.3	-34.7	0.0	0.0	44.9	74.0	-29.1	H	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	H	A	
4.874	3.0	38.2	32.8	5.8	-34.9	0.0	0.0	42.0	74.0	-32.0	V	P	
4.874	3.0	25.3	32.8	5.8	-34.9	0.0	0.0	29.1	54.0	-24.9	V	A	
7.311	3.0	36.8	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	V	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	V	A	
<b>High Ch, 2462MHz</b>													
4.924	3.0	37.7	32.8	5.9	-34.9	0.0	0.0	41.5	74.0	-32.5	V	P	
4.924	3.0	25.4	32.8	5.9	-34.9	0.0	0.0	29.3	54.0	-24.7	V	A	
7.386	3.0	37.0	35.3	7.3	-34.6	0.0	0.0	45.0	74.0	-29.0	V	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	V	A	
4.924	3.0	37.5	32.8	5.9	-34.9	0.0	0.0	41.4	74.0	-32.6	H	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.4	54.0	-24.6	H	A	
7.386	3.0	36.6	35.3	7.3	-34.6	0.0	0.0	44.6	74.0	-29.4	H	P	
7.386	3.0	24.5	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	

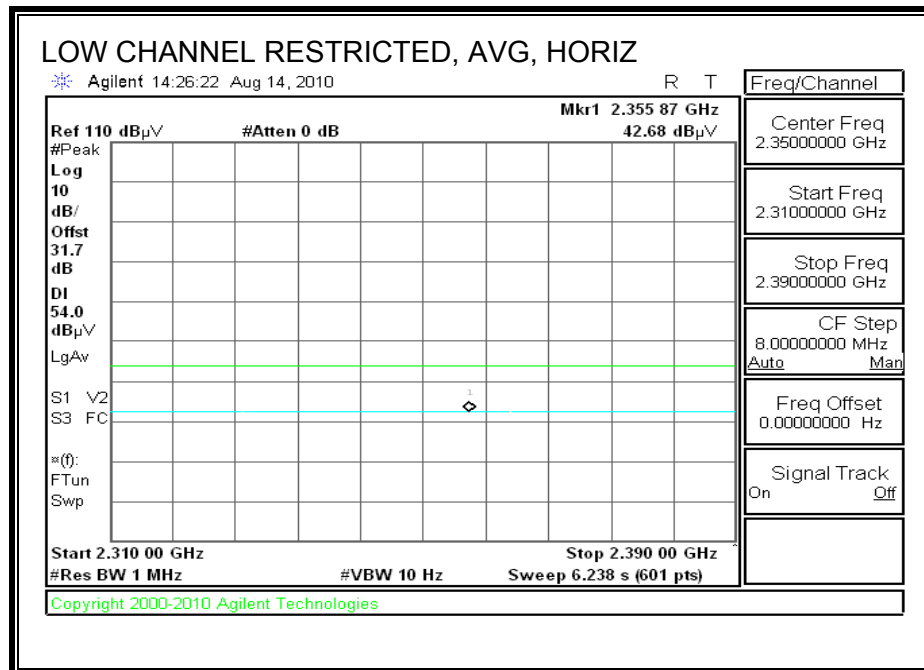
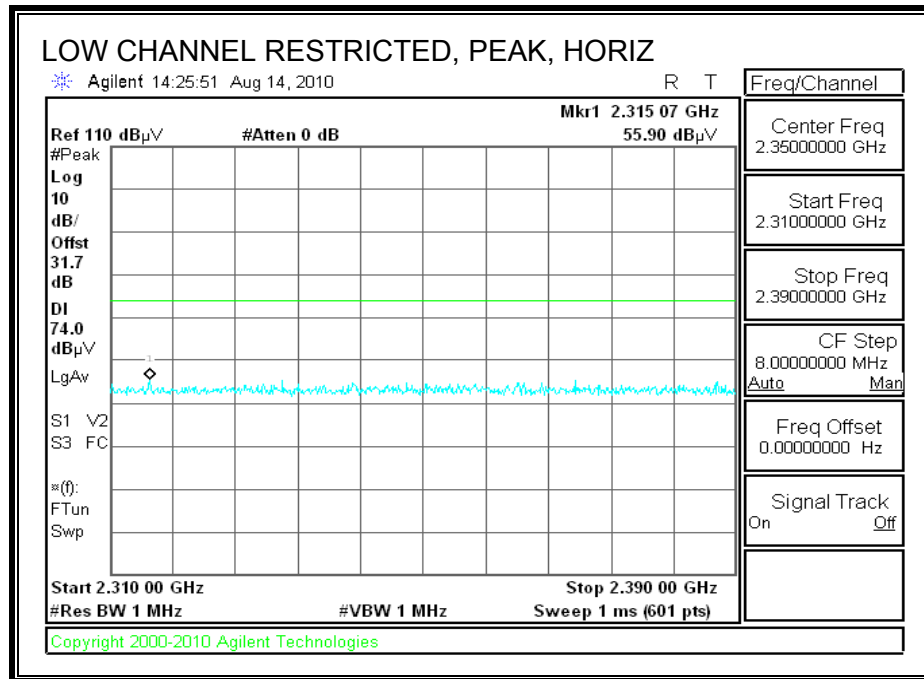
Rev. 4.1.2.7

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

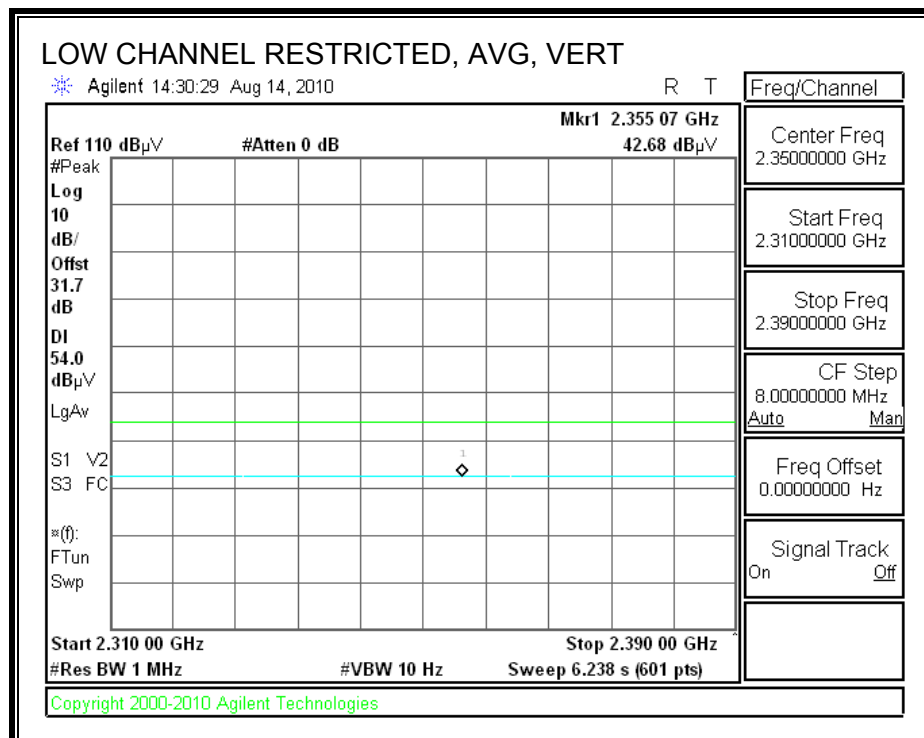
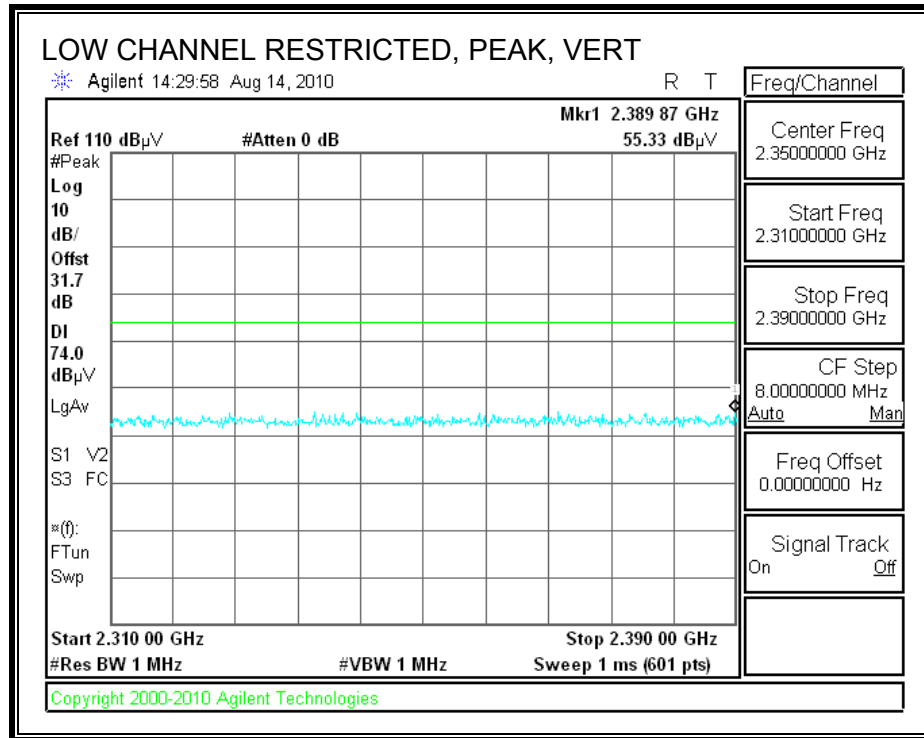
### 8.2.3. BLUETOOTH GFSK MODE

#### EUT WITH INDUCTIVE BACKCOVER

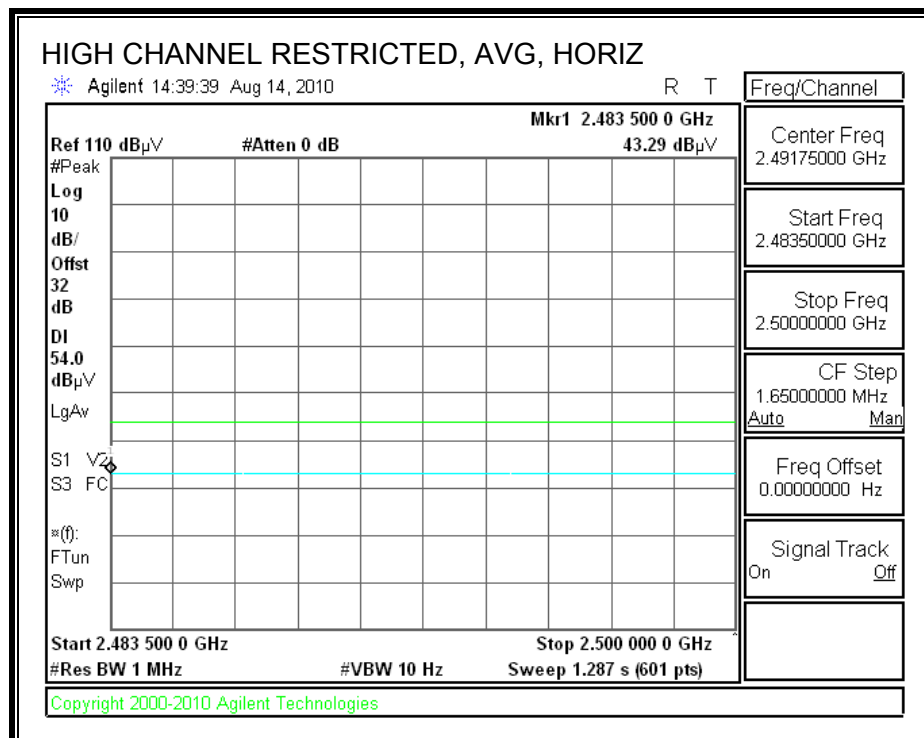
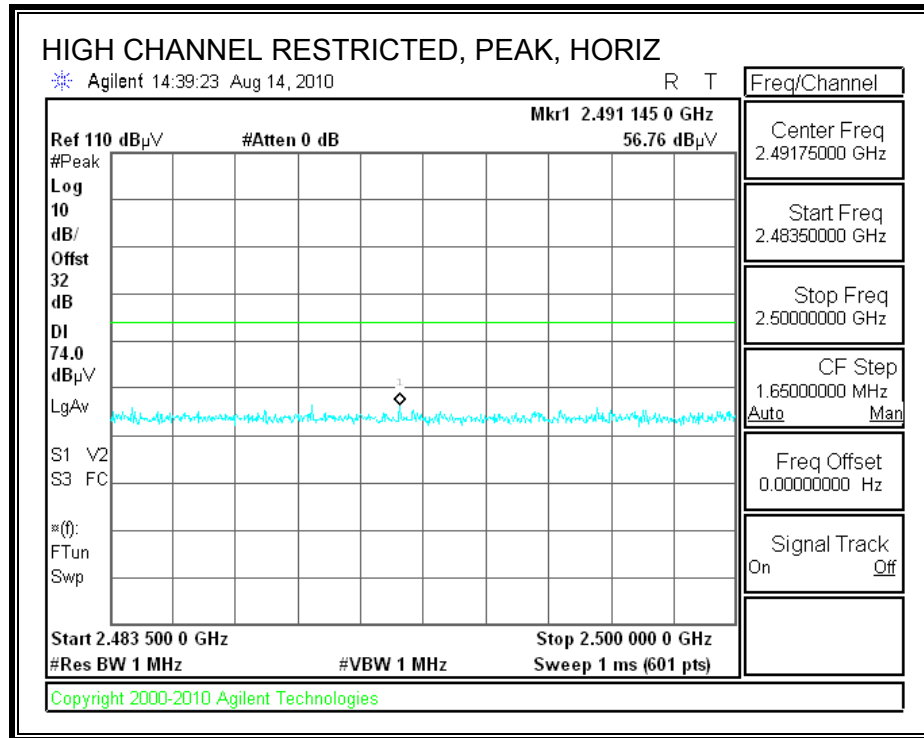
#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

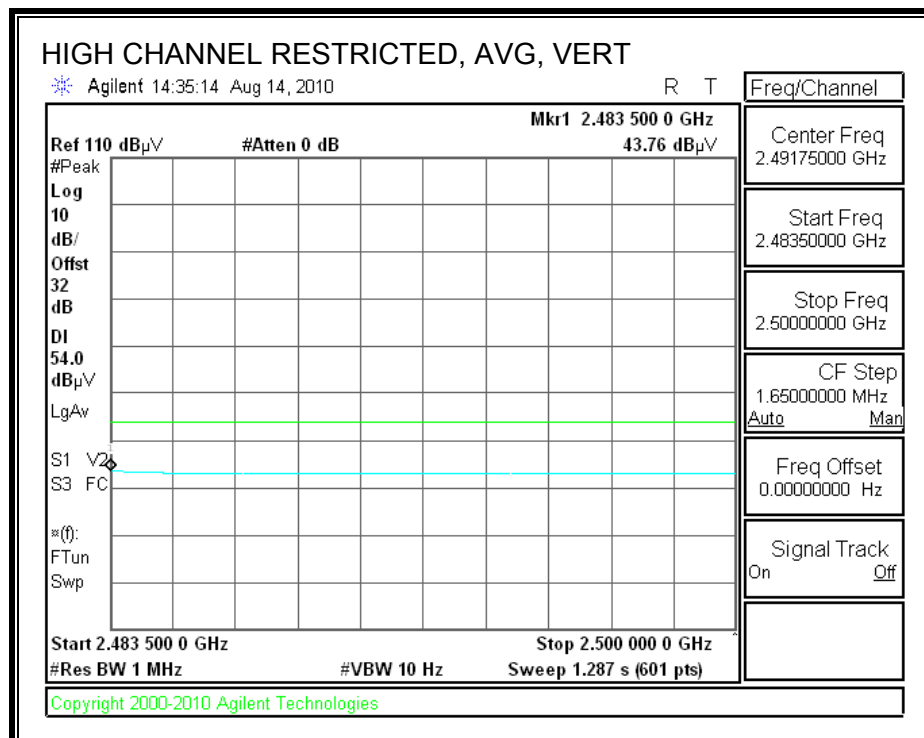
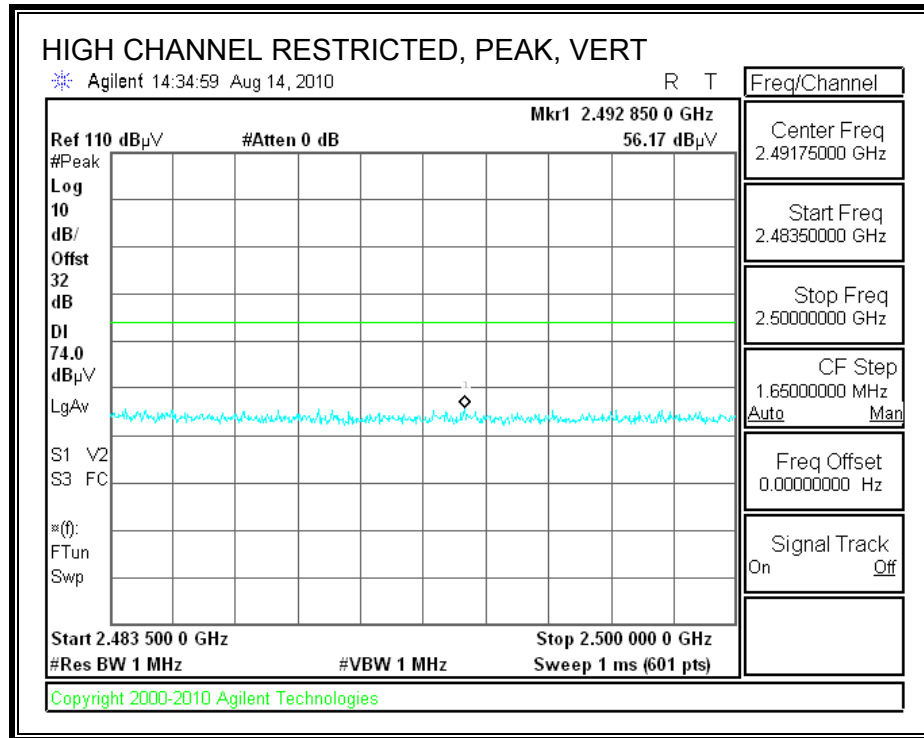


**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**





**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



## EUT WITH INDUCTIVE BACKCOVER

## HARMONICS AND SPURIOUS EMISSIONS

### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM Phone with 802.11 bg and Bluetooth  
Configuration: EUT with inductive Cover, AC/DC adapter and Earphone  
Test Target: FCC 15.247  
Mode Oper: BT, TX, GFSK

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2402MHz</b>													
4.804	3.0	37.9	32.8	5.8	-34.8	0.0	0.0	41.6	74.0	-32.4	H	P	
4.804	3.0	25.7	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	H	A	
4.804	3.0	37.8	32.8	5.8	-34.8	0.0	0.0	41.5	74.0	-32.5	V	P	
4.804	3.0	25.6	32.8	5.8	-34.8	0.0	0.0	29.3	54.0	-24.7	V	A	
<b>Mid Ch, 2441MHz</b>													
4.882	3.0	37.0	32.8	5.8	-34.9	0.0	0.0	40.8	74.0	-33.2	V	P	
4.882	3.0	25.3	32.8	5.8	-34.9	0.0	0.0	29.1	54.0	-24.9	V	A	
7.323	3.0	36.8	35.2	7.3	-34.7	0.0	0.0	44.6	74.0	-29.4	V	P	
7.323	3.0	24.5	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	V	A	
4.882	3.0	37.7	32.8	5.8	-34.9	0.0	0.0	41.5	74.0	-32.5	H	P	
4.882	3.0	25.4	32.8	5.8	-34.9	0.0	0.0	29.2	54.0	-24.8	H	A	
7.323	3.0	37.4	35.2	7.3	-34.7	0.0	0.0	45.3	74.0	-28.7	H	P	
7.323	3.0	24.5	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	H	A	
<b>High Ch, 2480MHz</b>													
4.960	3.0	37.4	32.9	5.9	-34.9	0.0	0.0	41.3	74.0	-32.7	H	P	
4.960	3.0	25.2	32.9	5.9	-34.9	0.0	0.0	29.1	54.0	-24.9	H	A	
7.440	3.0	37.2	35.4	7.3	-34.6	0.0	0.0	45.3	74.0	-28.7	H	P	
7.440	3.0	24.5	35.4	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	H	A	
4.960	3.0	37.4	32.9	5.9	-34.9	0.0	0.0	41.3	74.0	-32.7	V	P	
4.960	3.0	25.2	32.9	5.9	-34.9	0.0	0.0	29.1	54.0	-24.9	V	A	
7.440	3.0	37.1	35.4	7.3	-34.6	0.0	0.0	45.2	74.0	-28.8	V	P	
7.440	3.0	24.5	35.4	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	V	A	

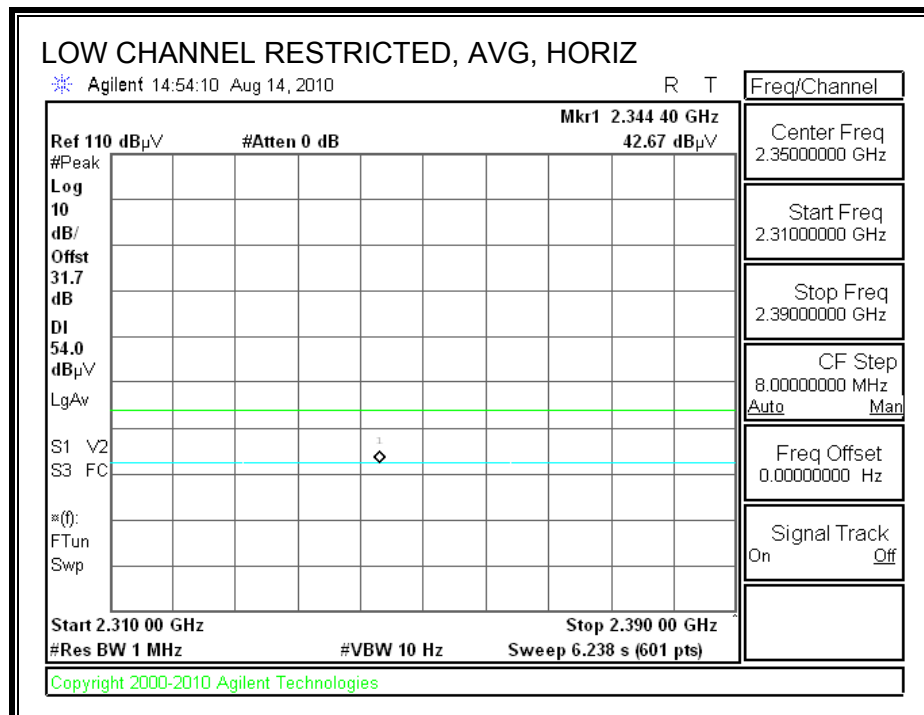
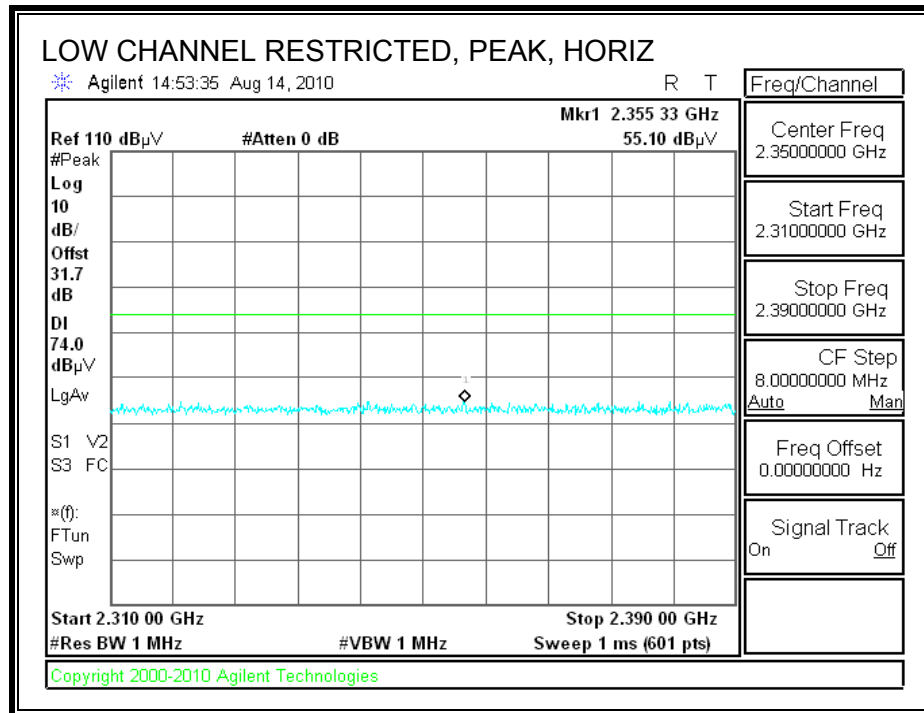
Rev. 4.1.2.7

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

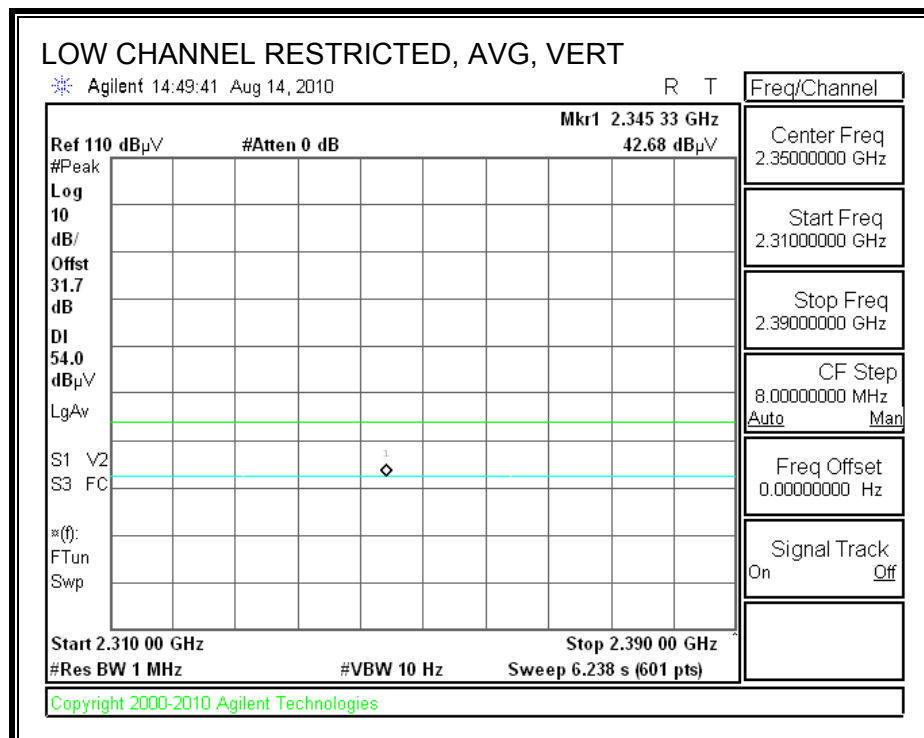
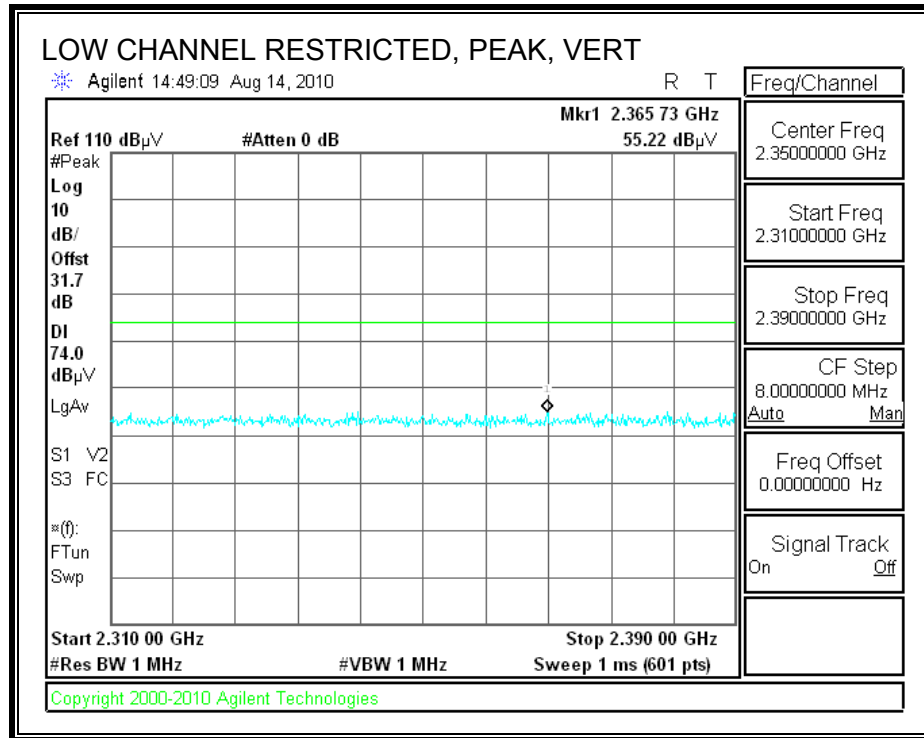
## 8.2.4. BLUETOOTH 8PSK MODE

### EUT WITH INDUCTIVE BACKCOVER

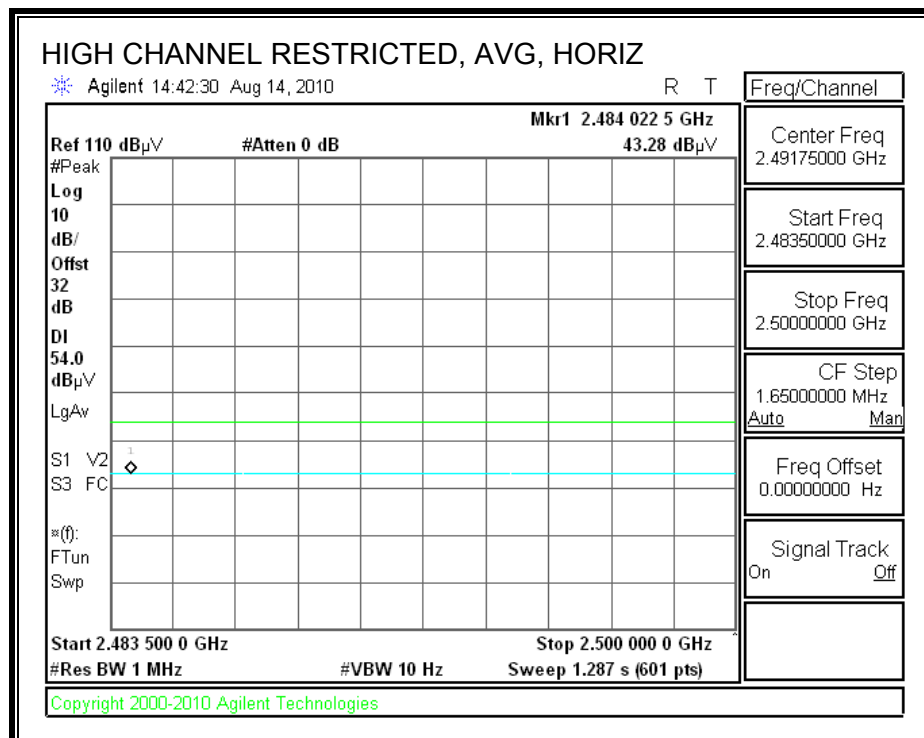
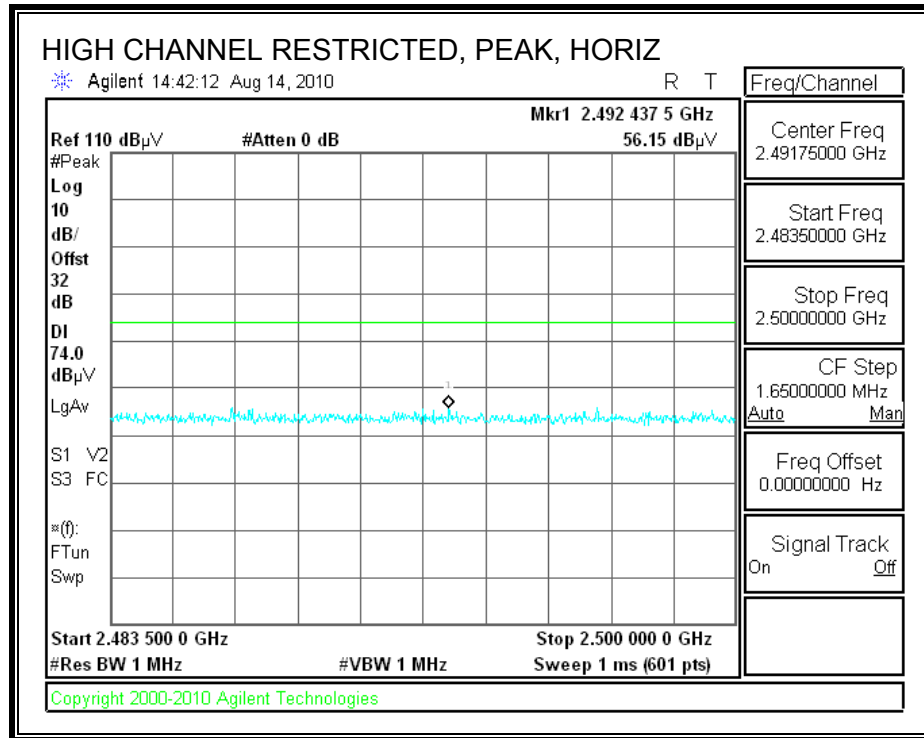
### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



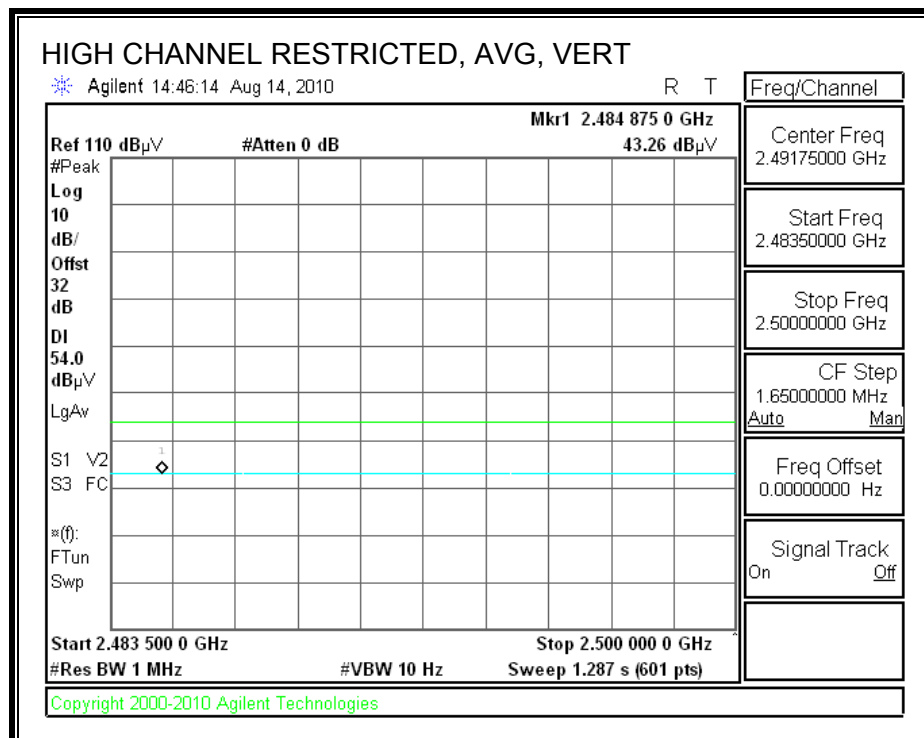
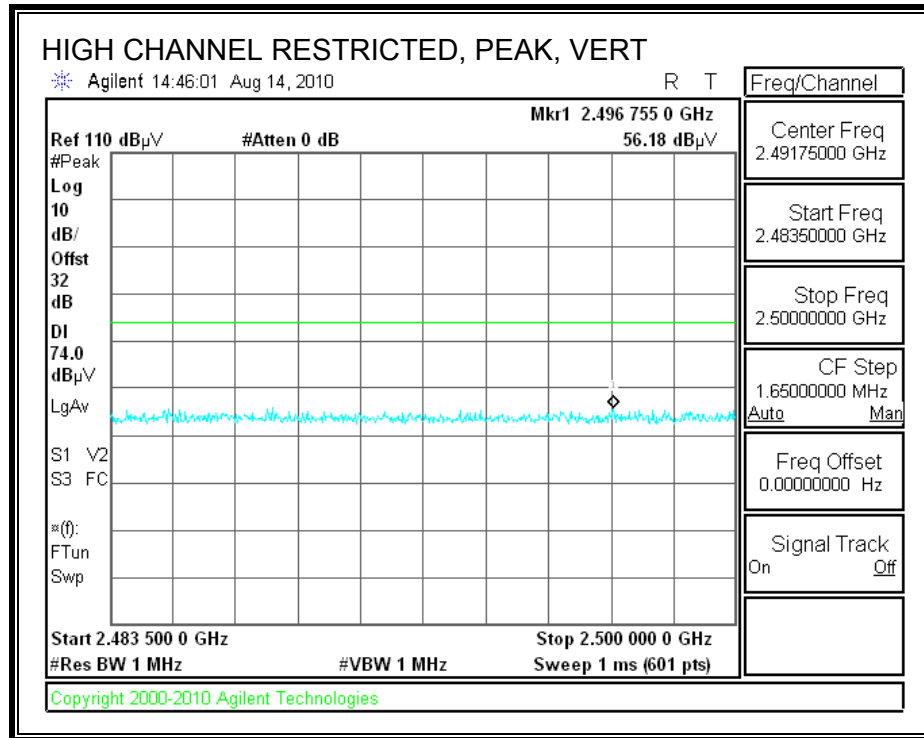
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



## EUT WITH INDUCTIVE BACKCOVER

### HARMONICS AND SPURIOUS EMISSIONS

#### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM Phone with 802.11 bg and Bluetooth  
Configuration: EUT with inductive Cover, AC/DC adapter and Earphone  
Test Target: FCC 15.247  
Mode Oper: BT, TX, 8PSK

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2402MHz</b>													
4.804	3.0	38.4	32.8	5.8	-34.8	0.0	0.0	42.1	74.0	-31.9	V	P	
4.804	3.0	25.6	32.8	5.8	-34.8	0.0	0.0	29.3	54.0	-24.7	V	A	
4.804	3.0	38.7	32.8	5.8	-34.8	0.0	0.0	42.4	74.0	-31.6	H	P	
4.804	3.0	25.6	32.8	5.8	-34.8	0.0	0.0	29.3	54.0	-24.7	H	A	
<b>Mid Ch, 2441MHz</b>													
4.882	3.0	37.3	32.8	5.8	-34.9	0.0	0.0	41.1	74.0	-32.9	H	P	
4.882	3.0	25.3	32.8	5.8	-34.9	0.0	0.0	29.1	54.0	-24.9	H	A	
7.323	3.0	36.9	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	H	P	
7.323	3.0	24.5	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	H	A	
4.882	3.0	37.8	32.8	5.8	-34.9	0.0	0.0	41.6	74.0	-32.4	V	P	
4.882	3.0	25.4	32.8	5.8	-34.9	0.0	0.0	29.2	54.0	-24.8	V	A	
7.323	3.0	37.9	35.2	7.3	-34.7	0.0	0.0	45.7	74.0	-28.3	V	P	
7.323	3.0	24.5	35.2	7.3	-34.7	0.0	0.0	32.3	54.0	-21.7	V	A	
<b>High Ch, 2480MHz</b>													
4.960	3.0	37.6	32.9	5.9	-34.9	0.0	0.0	41.5	74.0	-32.5	V	P	
4.960	3.0	25.1	32.9	5.9	-34.9	0.0	0.0	29.1	54.0	-24.9	V	A	
7.440	3.0	37.1	35.4	7.3	-34.6	0.0	0.0	45.2	74.0	-28.8	V	P	
7.440	3.0	24.5	35.4	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	V	A	
4.960	3.0	38.9	32.9	5.9	-34.9	0.0	0.0	42.9	74.0	-31.1	H	P	
4.960	3.0	25.2	32.9	5.9	-34.9	0.0	0.0	29.1	54.0	-24.9	H	A	
7.440	3.0	36.7	35.4	7.3	-34.6	0.0	0.0	44.8	74.0	-29.2	H	P	
7.440	3.0	24.5	35.4	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	H	A	

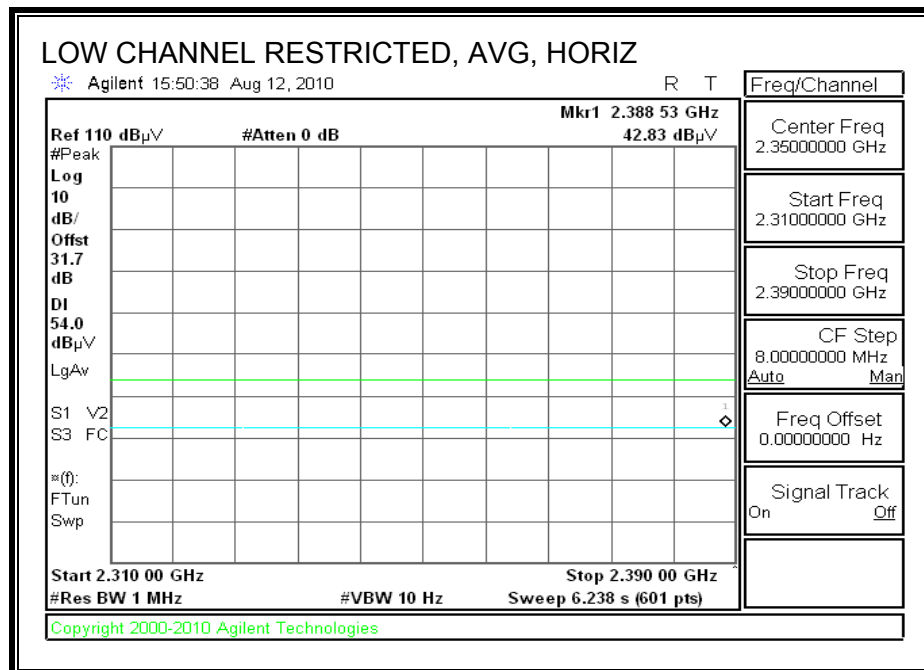
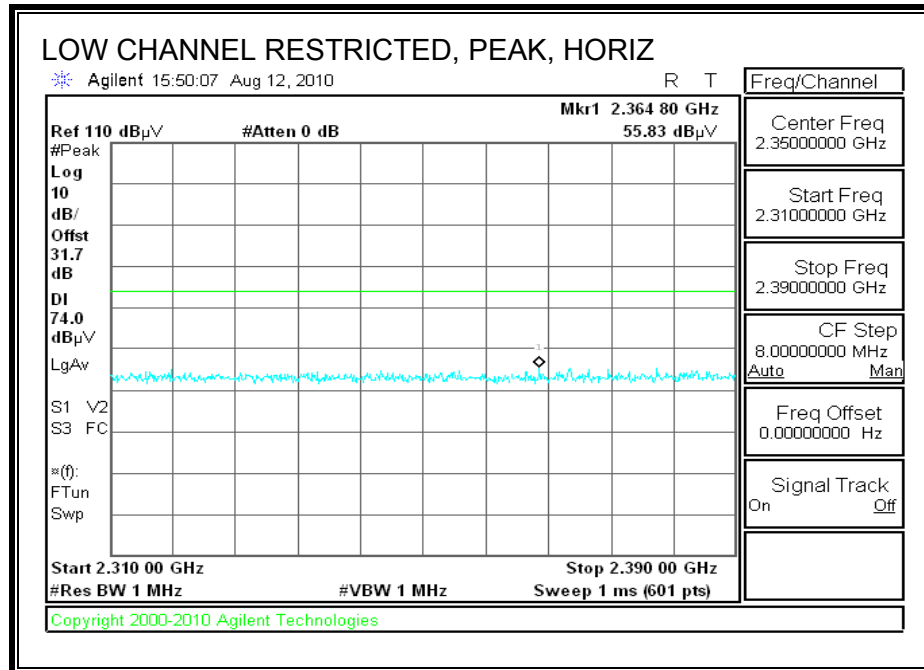
Rev. 4.1.2.7

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

### 8.3. TRANSMITTER ABOVE 1 GHz, EUT WITH CHARGING DOCK

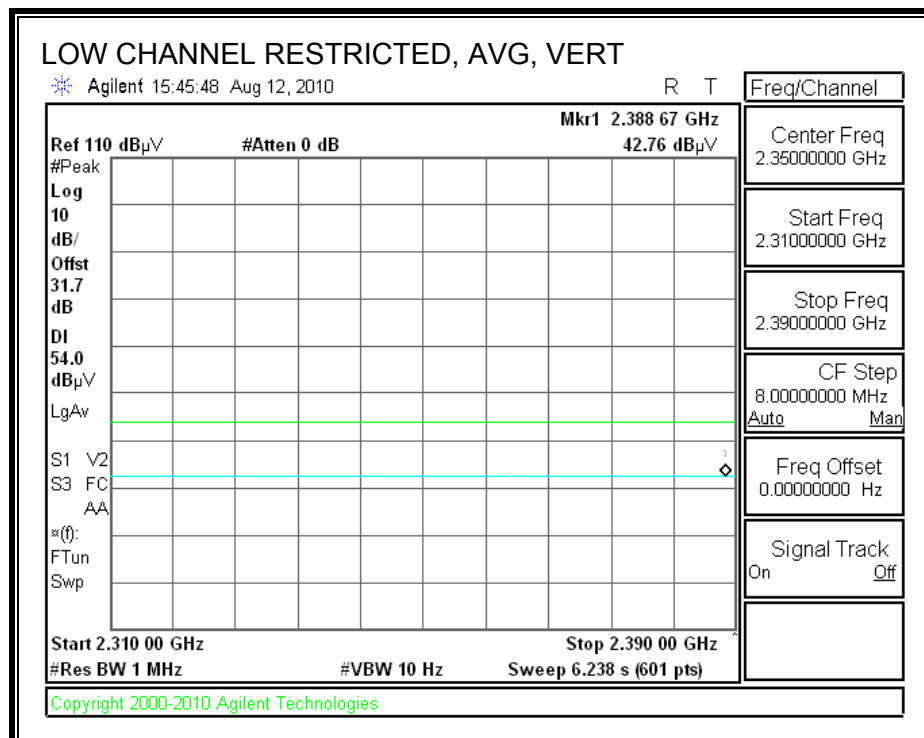
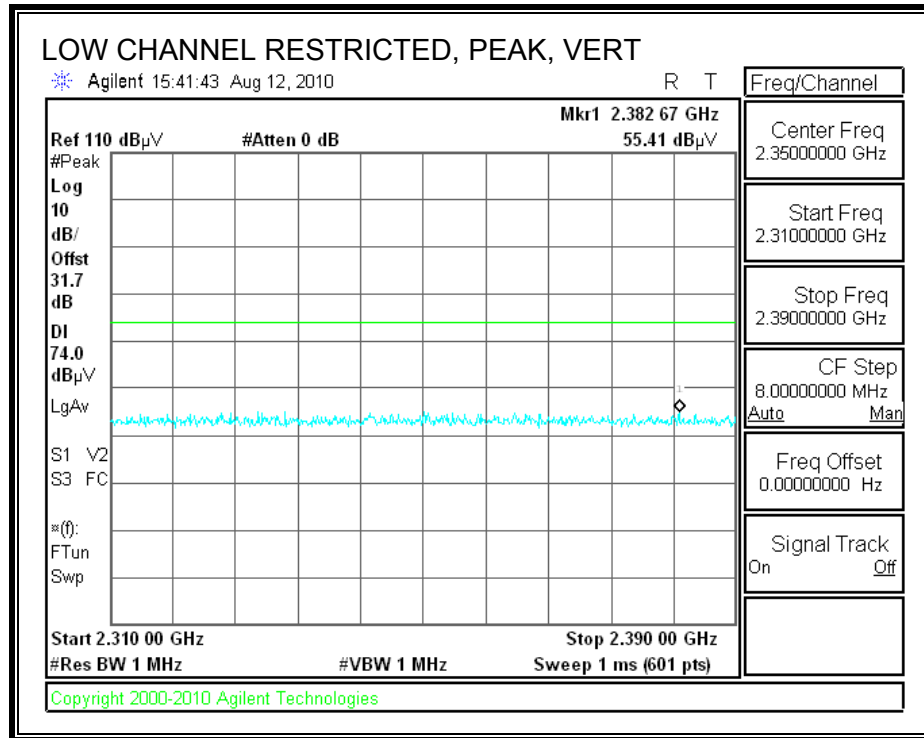
#### 8.3.1. 802.11b MODE

#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

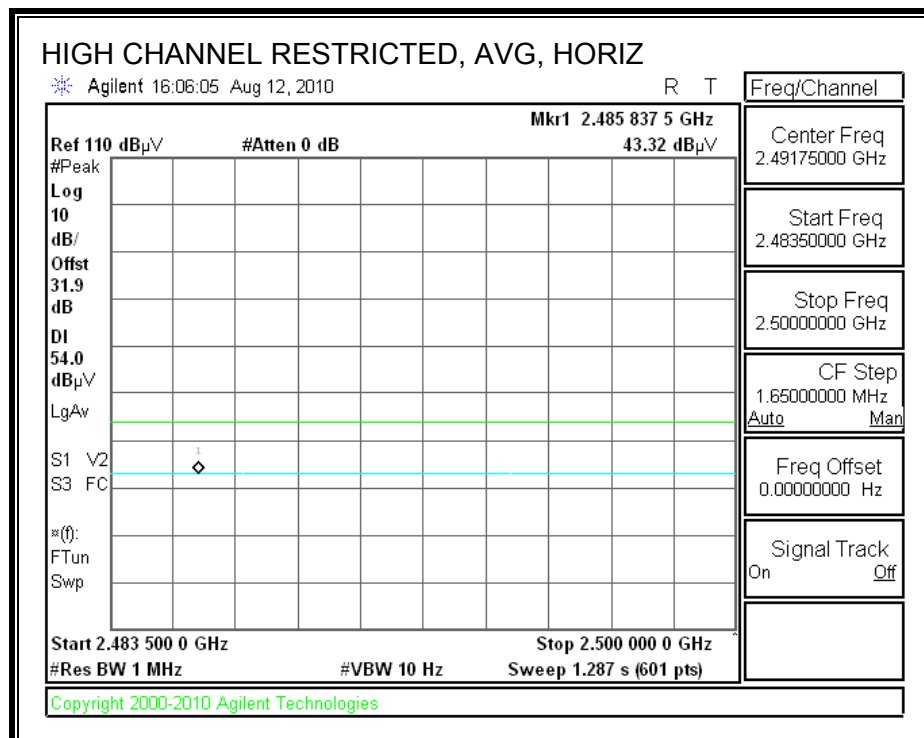
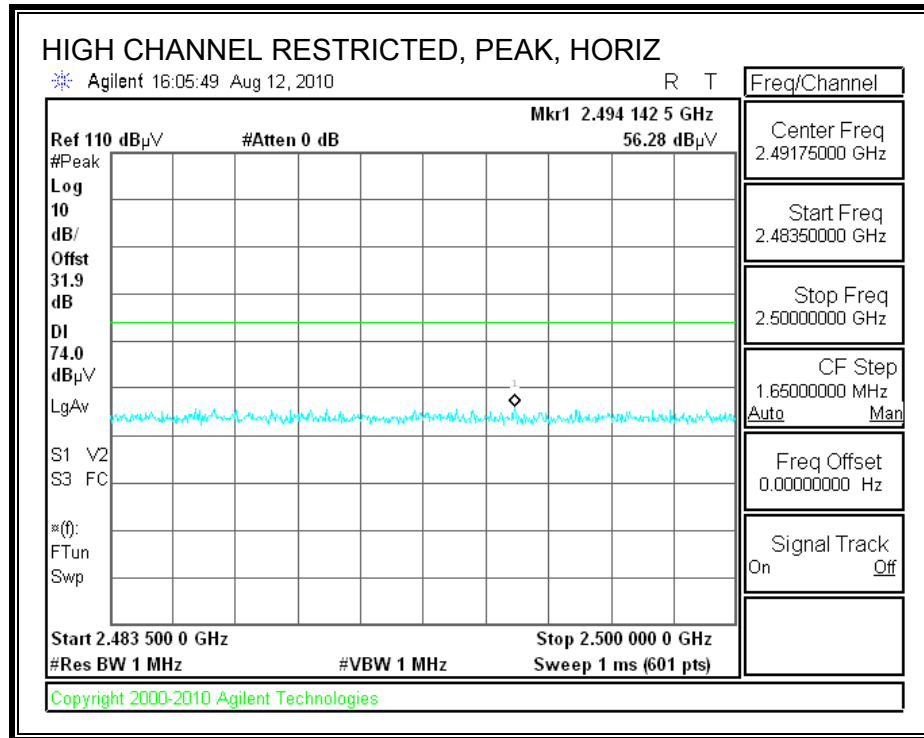




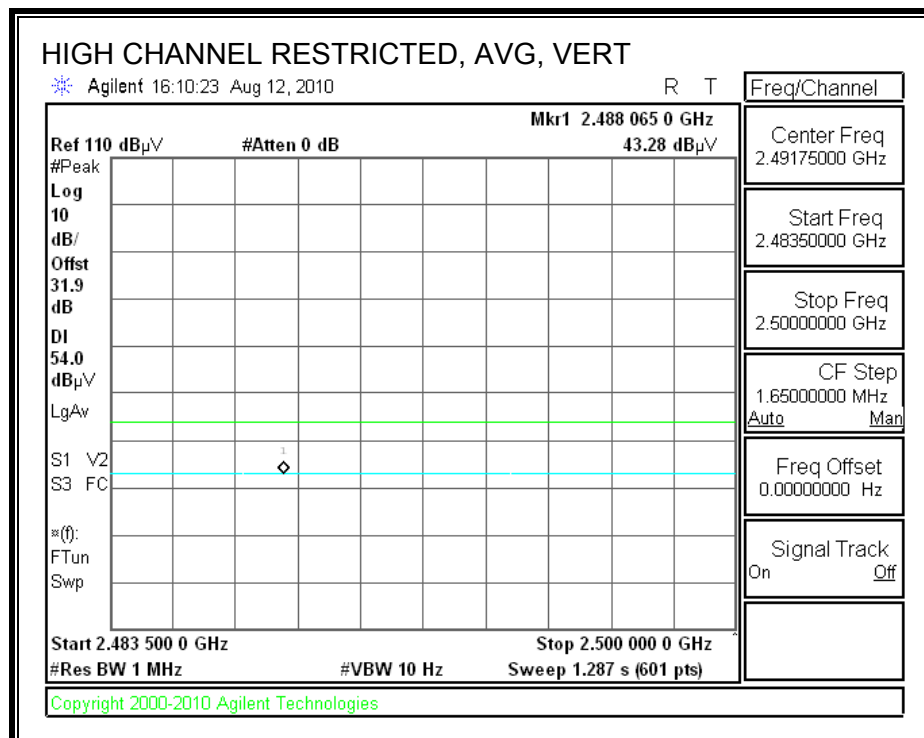
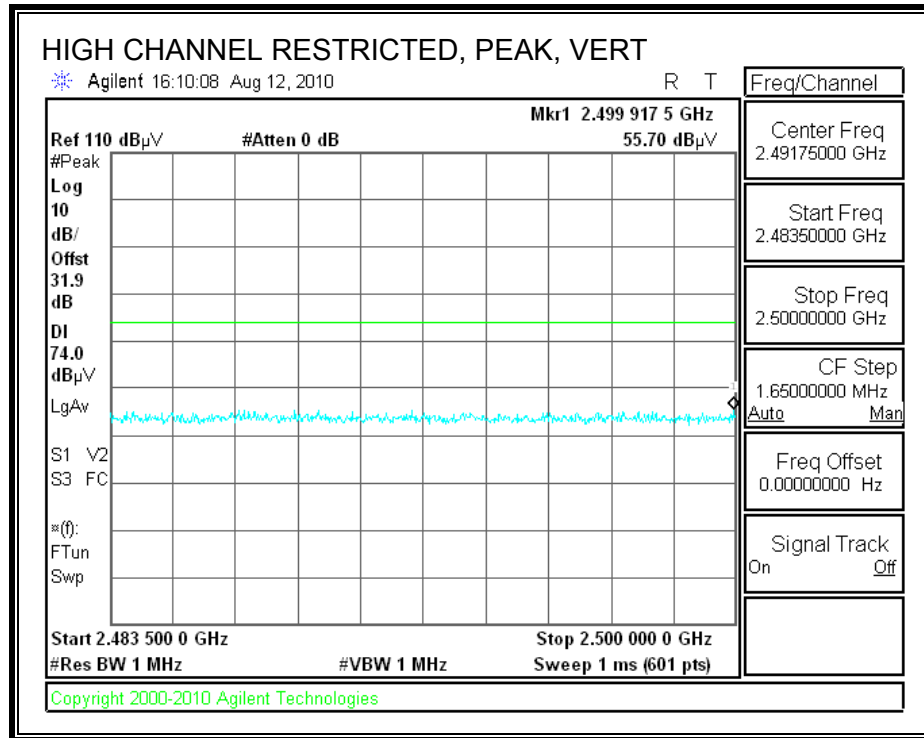
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



## EUT WITH INDUCTIVE CHARGING DOCK

## HARMONICS AND SPURIOUS EMISSIONS

### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM Phone with 802.11 b/g and Bluetooth  
Configuration: EUT with Charging Dock  
Test Target: FCC 15.247  
Mode Oper: Wlan, TX, b mode

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2412MHz</b>													
4.824	3.0	38.7	32.8	5.8	-34.8	0.0	0.0	42.4	74.0	-31.6	H	P	
4.824	3.0	26.0	32.8	5.8	-34.8	0.0	0.0	29.7	54.0	-24.3	H	A	
4.824	3.0	38.4	32.8	5.8	-34.8	0.0	0.0	42.1	74.0	-31.9	V	P	
4.824	3.0	25.7	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	V	A	
<b>Mid Ch, 2437MHz</b>													
4.874	3.0	37.4	32.8	5.8	-34.9	0.0	0.0	41.2	74.0	-32.8	V	P	
4.874	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	V	A	
7.311	3.0	36.9	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	V	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.5	V	A	
4.874	3.0	38.3	32.8	5.8	-34.9	0.0	0.0	42.1	74.0	-31.9	H	P	
4.874	3.0	25.3	32.8	5.8	-34.9	0.0	0.0	29.1	54.0	-24.9	H	A	
7.311	3.0	37.3	35.2	7.3	-34.7	0.0	0.0	45.1	74.0	-28.9	H	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	H	A	
<b>High Ch, 2462MHz</b>													
4.924	3.0	37.7	32.8	5.9	-34.9	0.0	0.0	41.6	74.0	-32.4	H	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.4	54.0	-24.6	H	A	
7.386	3.0	36.9	35.3	7.3	-34.6	0.0	0.0	44.9	74.0	-29.1	H	P	
7.386	3.0	24.9	35.3	7.3	-34.6	0.0	0.0	32.8	54.0	-21.2	H	A	
4.924	3.0	38.1	32.8	5.9	-34.9	0.0	0.0	42.0	74.0	-32.0	V	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.4	54.0	-24.6	V	A	
7.386	3.0	37.6	35.3	7.3	-34.6	0.0	0.0	45.6	74.0	-28.4	V	P	
7.386	3.0	24.5	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	V	A	

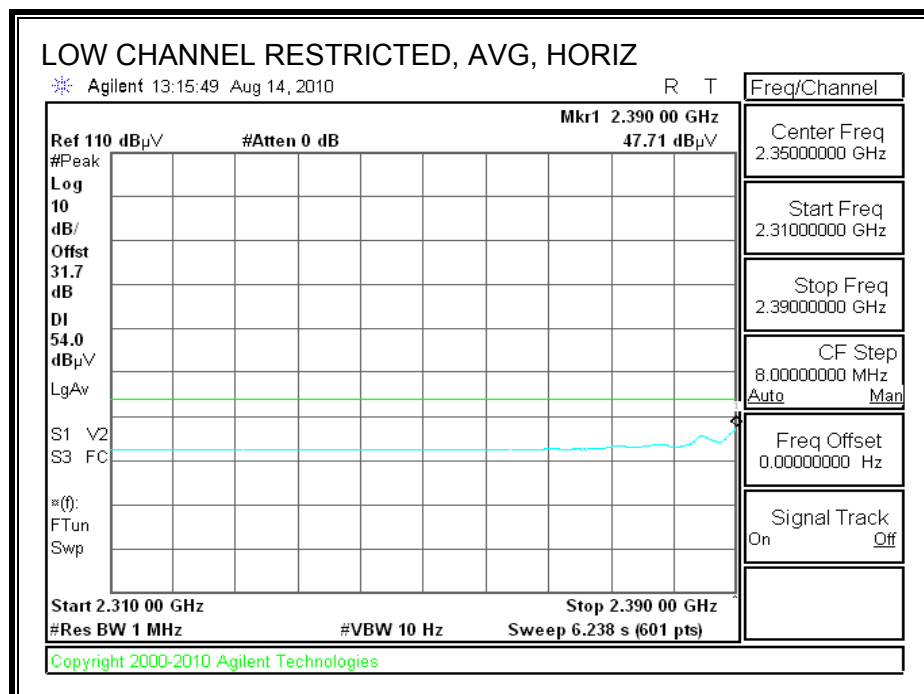
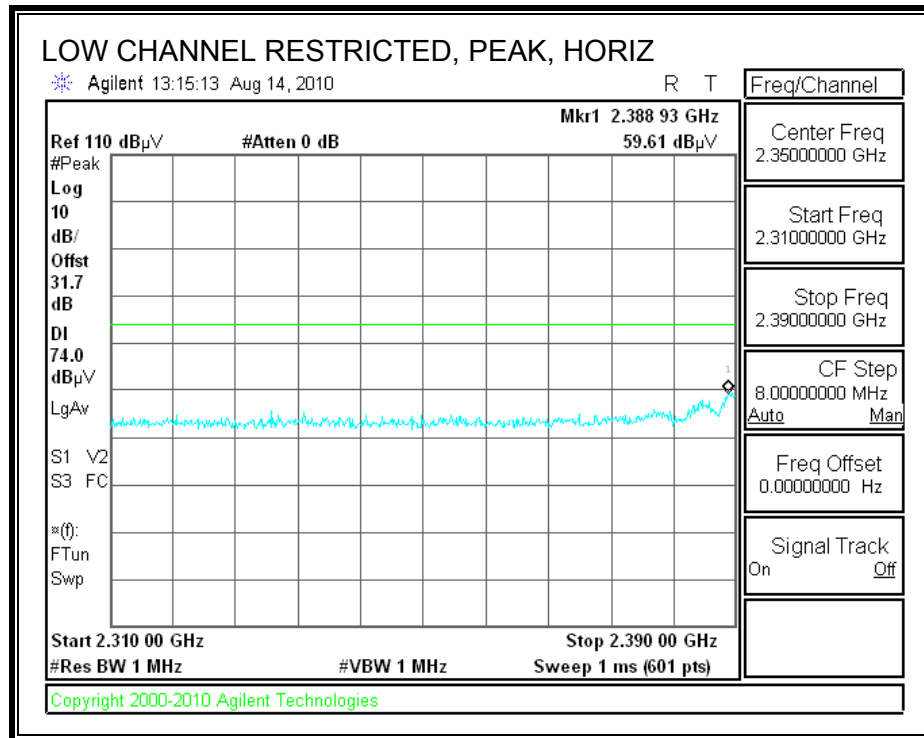
Rev. 4.1.2.7

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

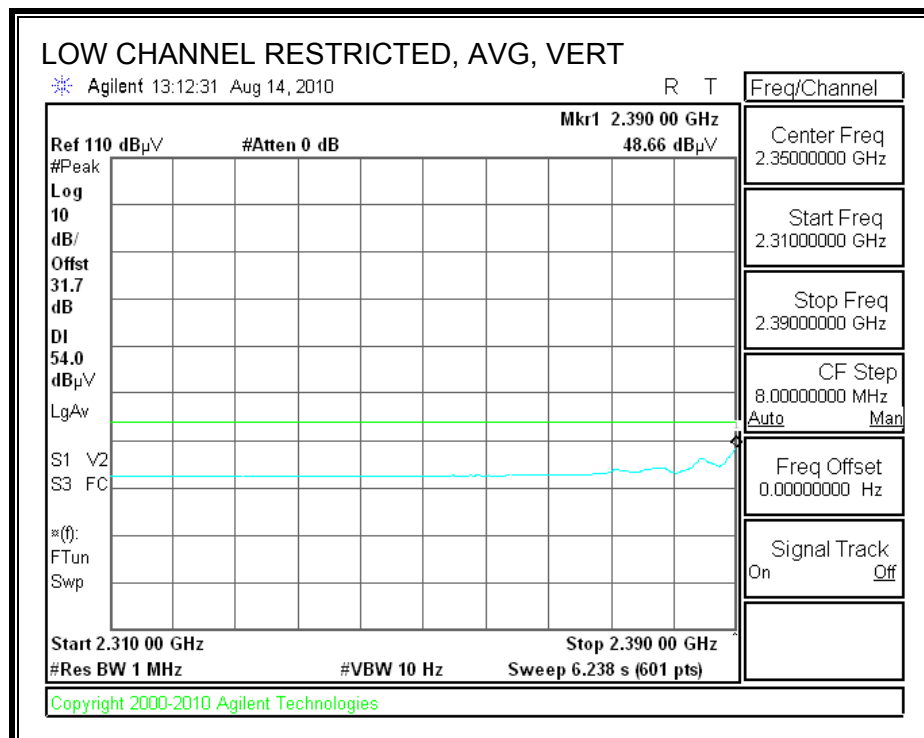
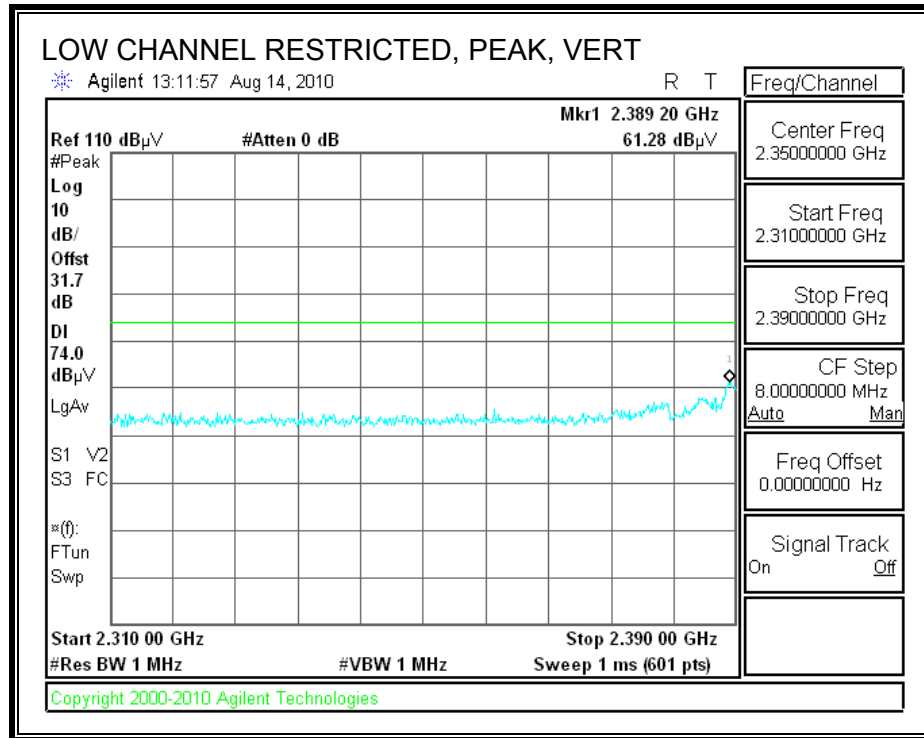
### 8.3.2. 802.11g MODE

#### EUT WITH INDUCTIVE CHARGING DOCK

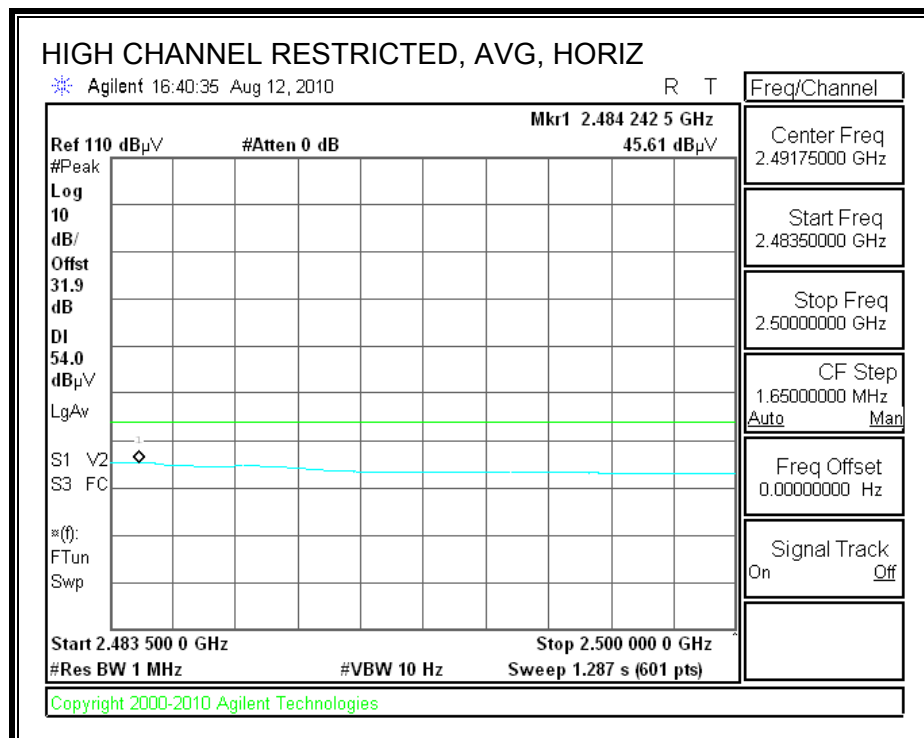
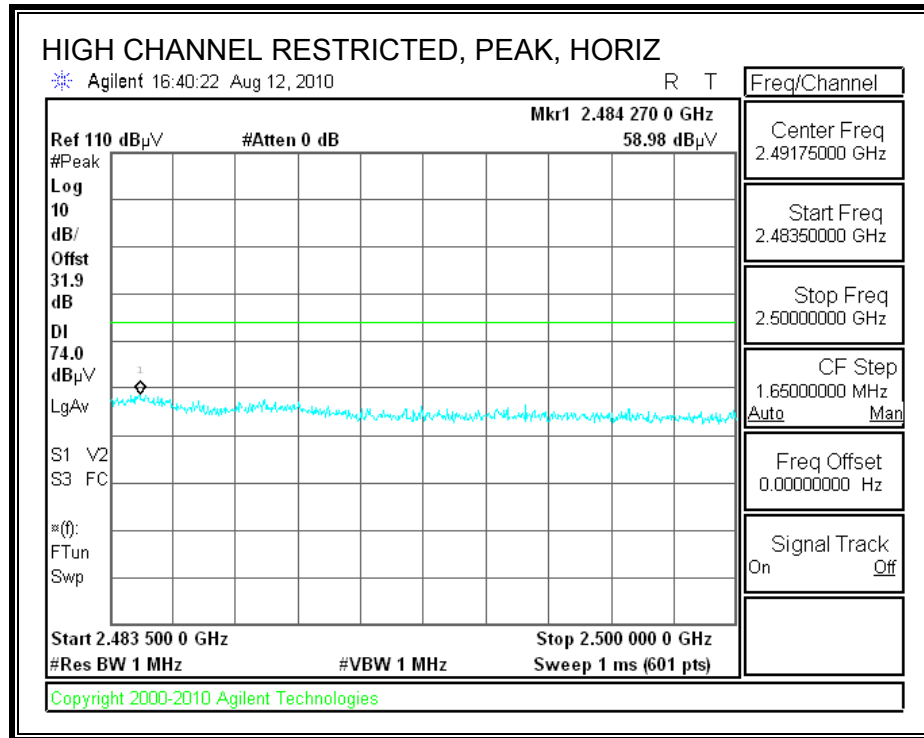
#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



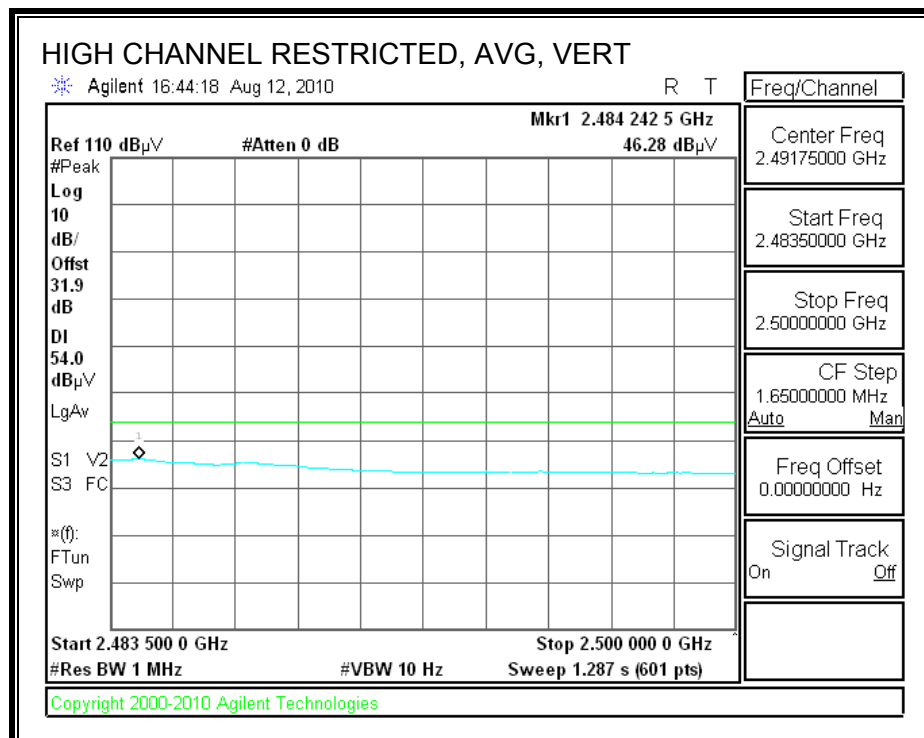
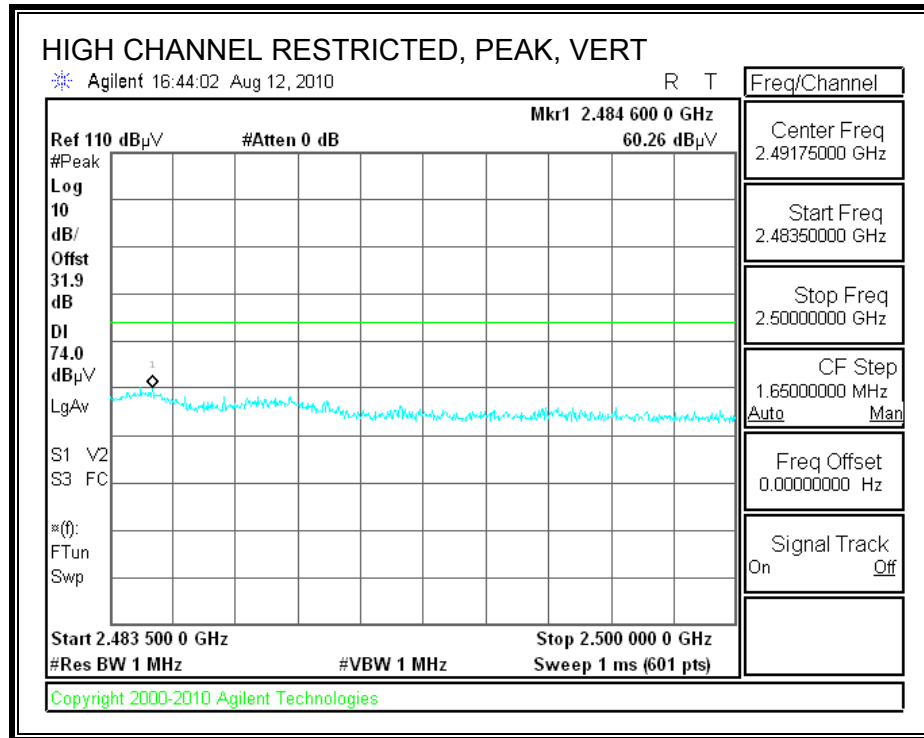
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**





## EUT WITH INDUCTIVE CHARGING DOCK

## HARMONICS AND SPURIOUS EMISSIONS

### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM Phone with 802.11 bg and Bluetooth  
Configuration: EUT with inductive Cover, AC/DC adapter and Earphone  
Test Target: FCC 15.247  
Mode Oper: Wlan, TX, g mode

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch. 2412MHz</b>													
4.824	3.0	37.5	32.8	5.8	-34.8	0.0	0.0	41.2	74.0	-32.8	V	P	
4.824	3.0	25.6	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	V	A	
4.824	3.0	38.1	32.8	5.8	-34.8	0.0	0.0	41.8	74.0	-32.2	H	P	
4.824	3.0	25.6	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	H	A	
<b>Mid Ch. 2437MHz</b>													
4.874	3.0	37.7	32.8	5.8	-34.9	0.0	0.0	41.5	74.0	-32.5	H	P	
4.874	3.0	25.3	32.8	5.8	-34.9	0.0	0.0	29.1	54.0	-24.9	H	A	
7.311	3.0	37.2	35.2	7.3	-34.7	0.0	0.0	45.0	74.0	-29.0	H	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	H	A	
4.874	3.0	37.4	32.8	5.8	-34.9	0.0	0.0	41.2	74.0	-32.8	V	P	
4.874	3.0	25.3	32.8	5.8	-34.9	0.0	0.0	29.1	54.0	-24.9	V	A	
7.311	3.0	36.9	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	V	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	V	A	
<b>High Ch. 2462MHz</b>													
4.924	3.0	38.4	32.8	5.9	-34.9	0.0	0.0	42.3	74.0	-31.7	V	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.4	54.0	-24.6	V	A	
7.386	3.0	36.4	35.3	7.3	-34.6	0.0	0.0	44.3	74.0	-29.7	V	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	V	A	
4.924	3.0	37.4	32.8	5.9	-34.9	0.0	0.0	41.3	74.0	-32.7	H	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.4	54.0	-24.6	H	A	
7.386	3.0	36.8	35.3	7.3	-34.6	0.0	0.0	44.8	74.0	-29.2	H	P	
7.386	3.0	24.5	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	

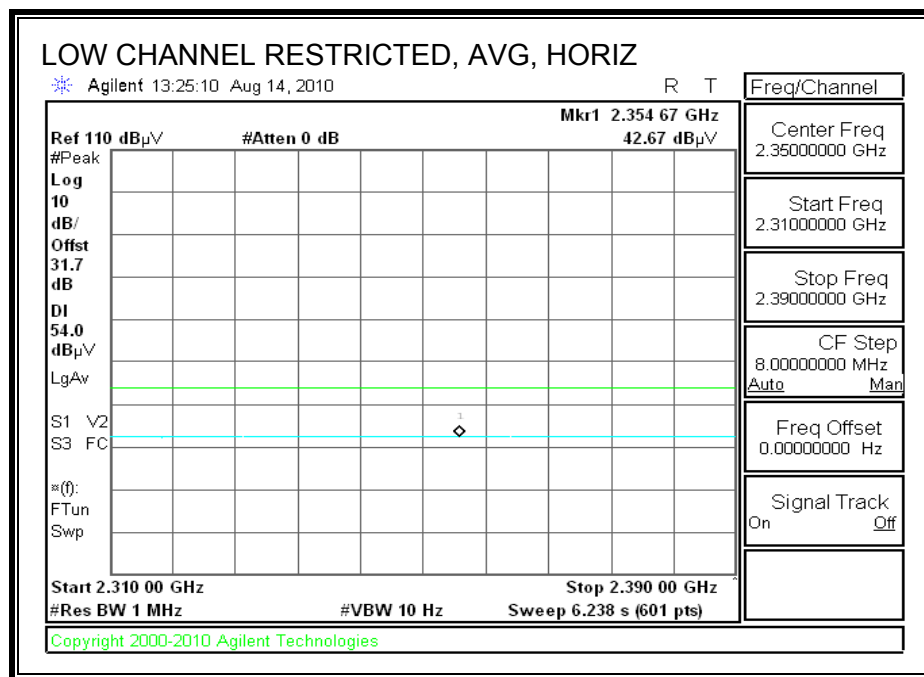
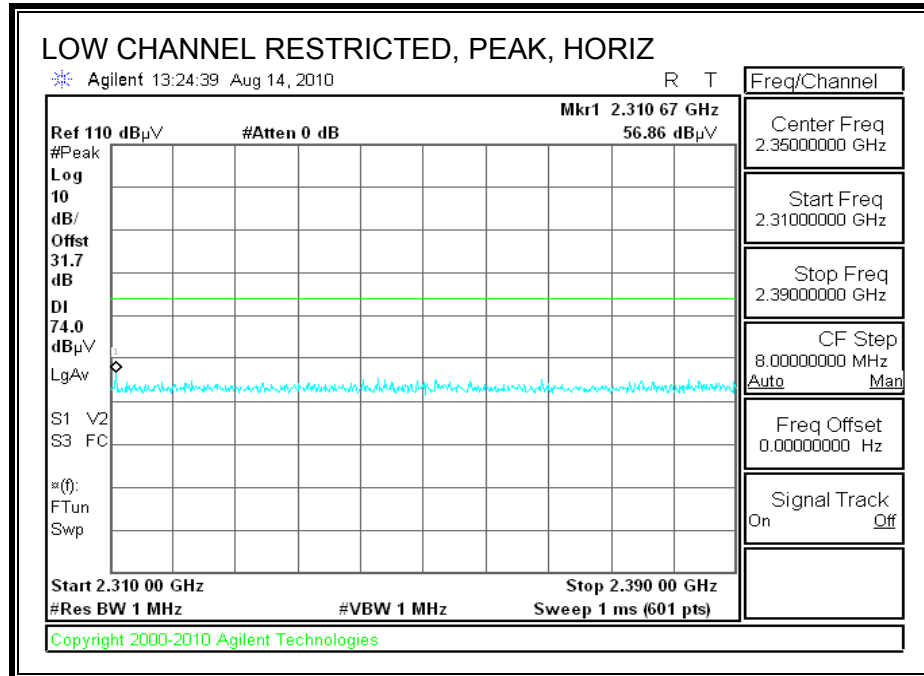
Rev. 4.1.2.7

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

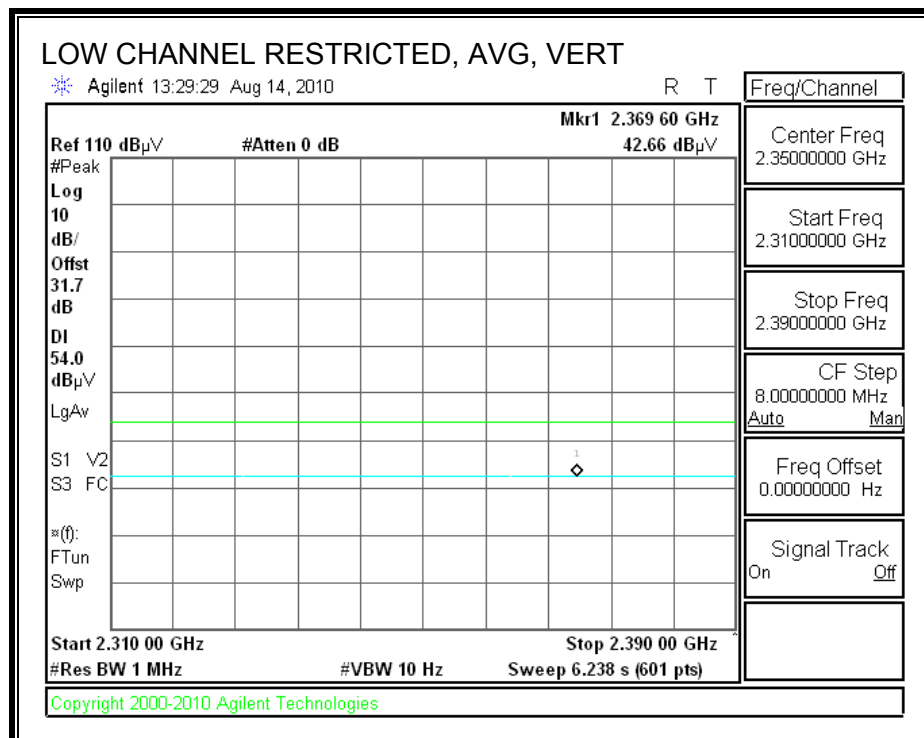
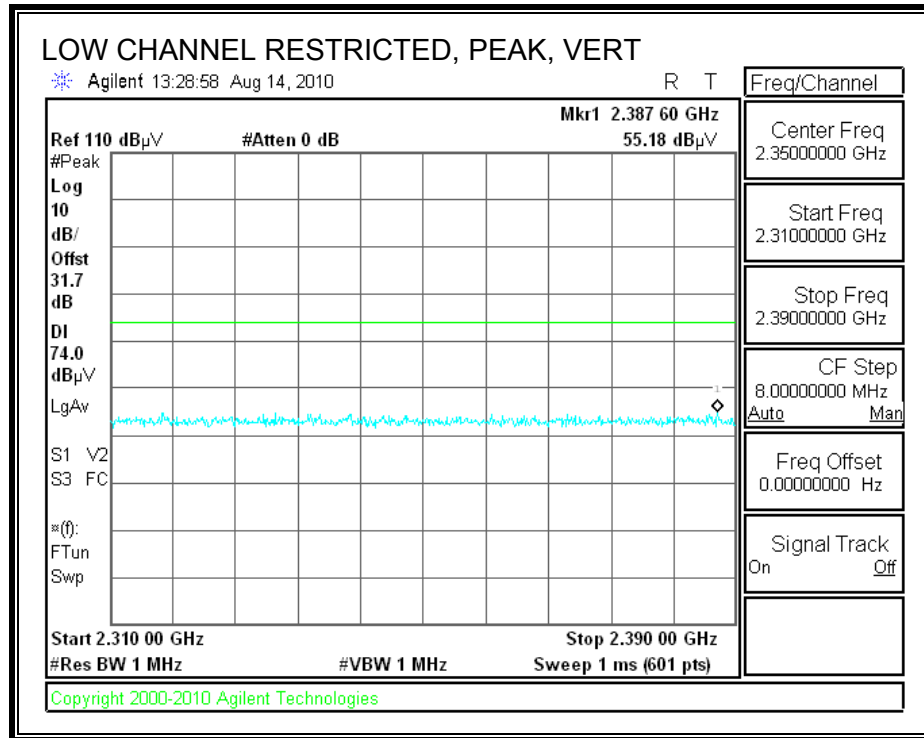
### 8.3.3. BLUETOOTH GFSK MODE

#### EUT WITH INDUCTIVE CHARGING DOCK

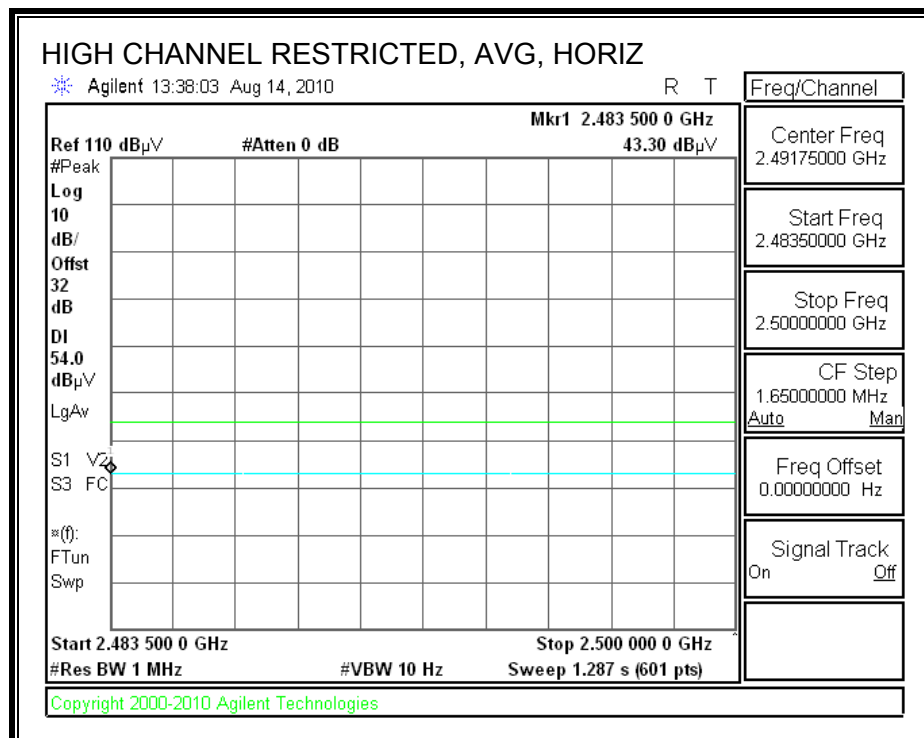
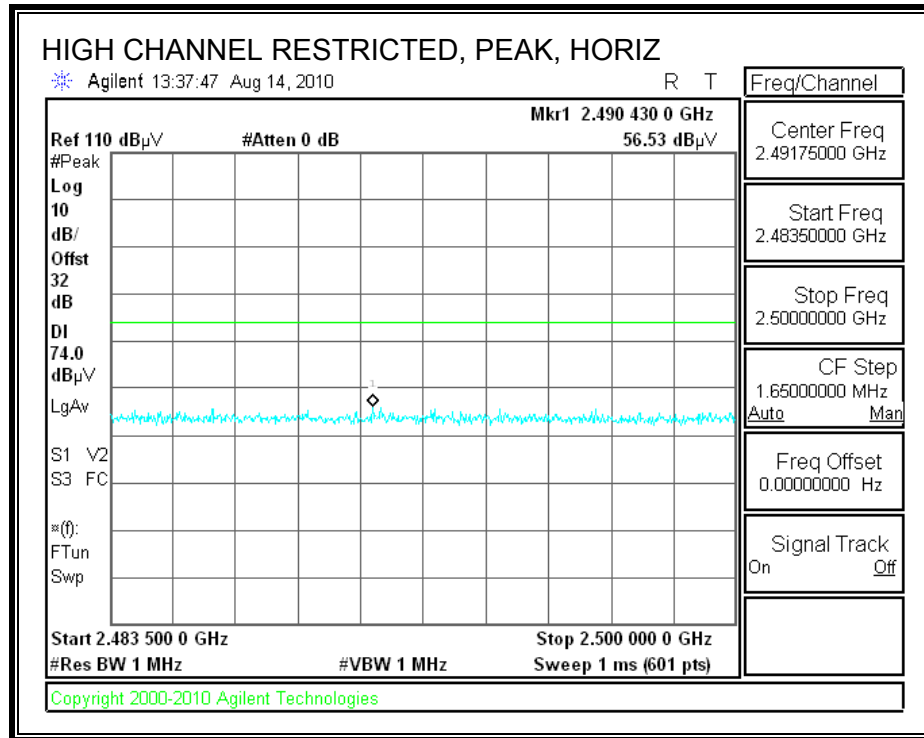
#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



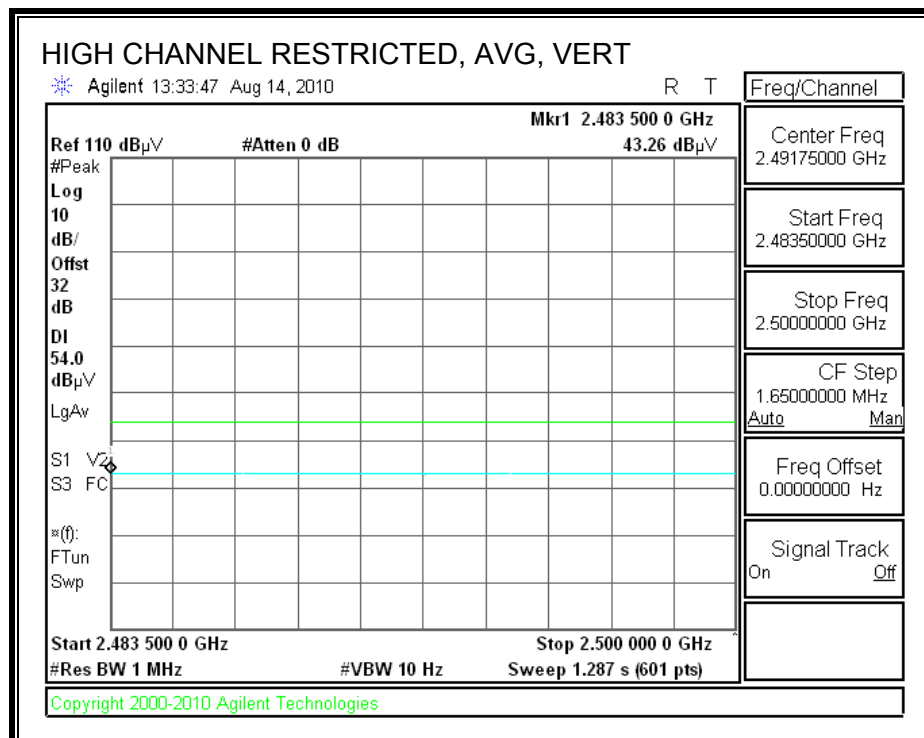
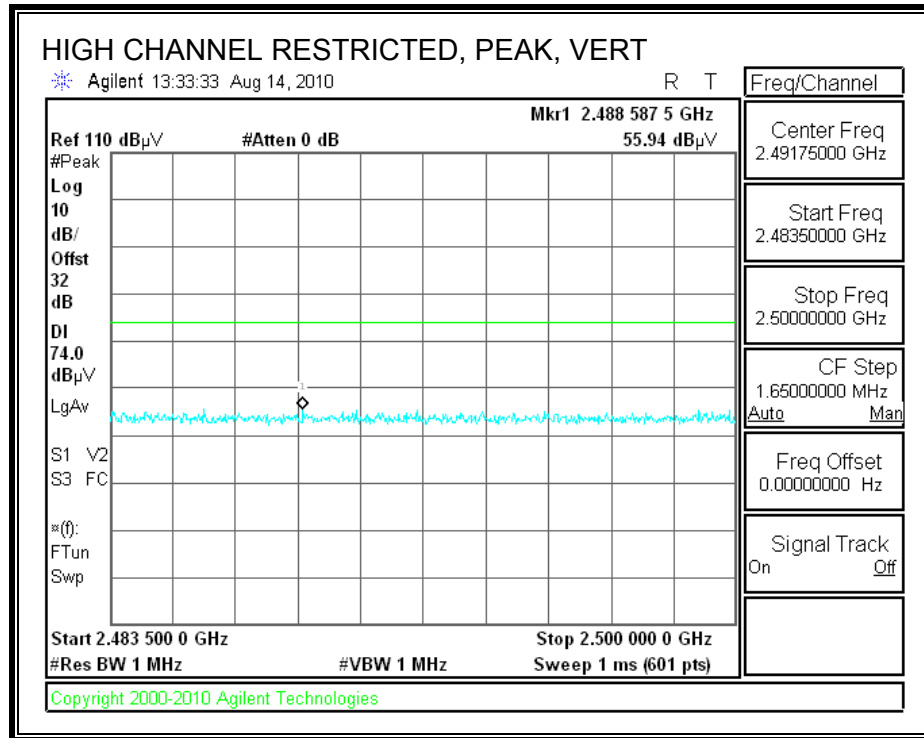
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



## EUT WITH INDUCTIVE CHARGING DOCK

## HARMONICS AND SPURIOUS EMISSIONS

### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM phone with 802.11 bg and Bluetooth  
Configuration: EUT with Charging Dock  
Test Target: FCC 15.247  
Mode Oper: BT, GFSK

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2402MHz</b>													
4.804	3.0	38.3	32.8	5.8	-34.8	0.0	0.0	42.0	74.0	-32.0	V	P	
4.804	3.0	25.7	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	V	A	
4.804	3.0	37.8	32.8	5.8	-34.8	0.0	0.0	41.5	74.0	-32.5	H	P	
4.804	3.0	25.7	32.8	5.8	-34.8	0.0	0.0	29.3	54.0	-24.7	H	A	
<b>Mid Ch, 2441MHz</b>													
4.882	3.0	37.8	32.8	5.8	-34.9	0.0	0.0	41.6	74.0	-32.4	H	P	
4.882	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	H	A	
7.323	3.0	37.0	35.2	7.3	-34.7	0.0	0.0	44.8	74.0	-29.2	H	P	
7.323	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	H	A	
4.882	3.0	38.5	32.8	5.8	-34.9	0.0	0.0	42.3	74.0	-31.7	V	P	
4.882	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	V	A	
7.323	3.0	37.3	35.2	7.3	-34.7	0.0	0.0	45.1	74.0	-28.9	V	P	
7.323	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	V	A	
<b>High Ch, 2480MHz</b>													
4.960	3.0	37.8	32.9	5.9	-34.9	0.0	0.0	41.7	74.0	-32.3	V	P	
4.960	3.0	25.3	32.9	5.9	-34.9	0.0	0.0	29.2	54.0	-24.8	V	A	
7.440	3.0	36.6	35.4	7.3	-34.6	0.0	0.0	44.7	74.0	-29.3	V	P	
7.440	3.0	24.6	35.4	7.3	-34.6	0.0	0.0	32.7	54.0	-21.3	V	A	
4.960	3.0	38.5	32.9	5.9	-34.9	0.0	0.0	42.5	74.0	-31.5	H	P	
4.960	3.0	25.3	32.9	5.9	-34.9	0.0	0.0	29.2	54.0	-24.8	H	A	
7.440	3.0	37.0	35.4	7.3	-34.6	0.0	0.0	45.1	74.0	-28.9	H	P	
7.440	3.0	24.6	35.4	7.3	-34.6	0.0	0.0	32.7	54.0	-21.3	H	A	

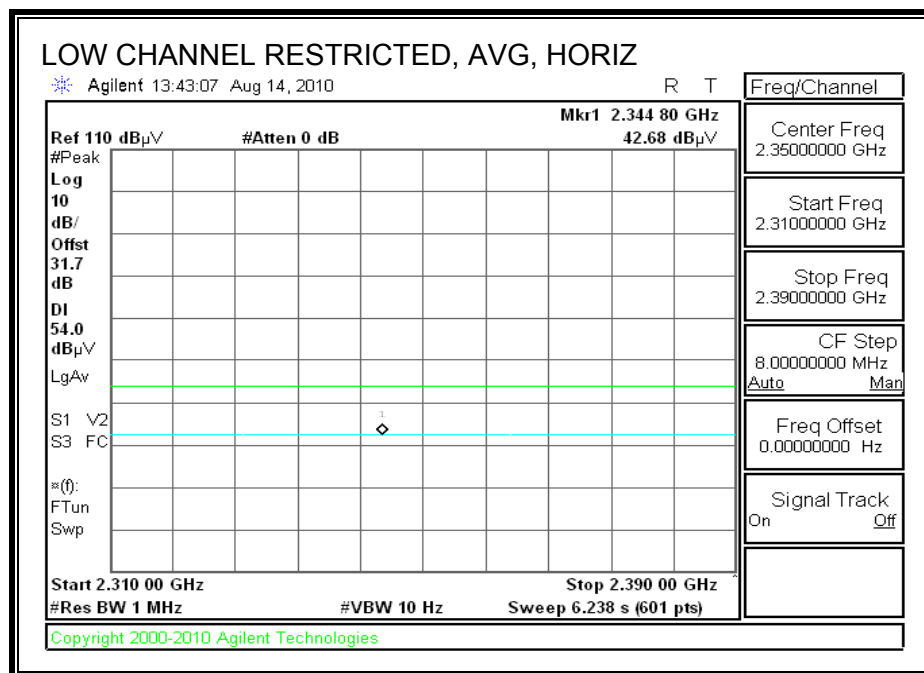
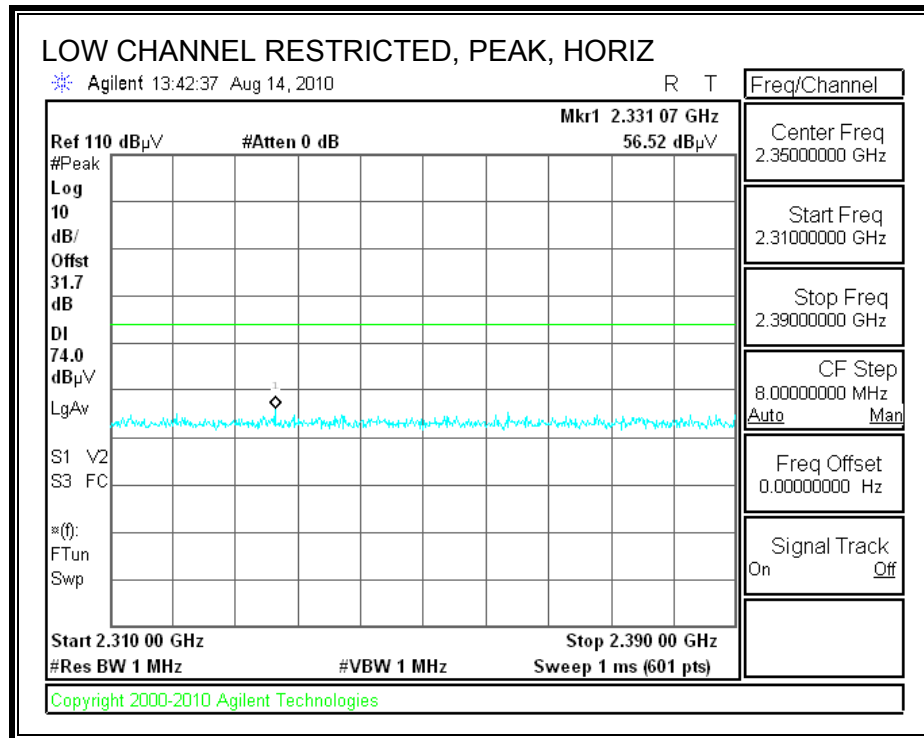
Rev. 4.1.2.7

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

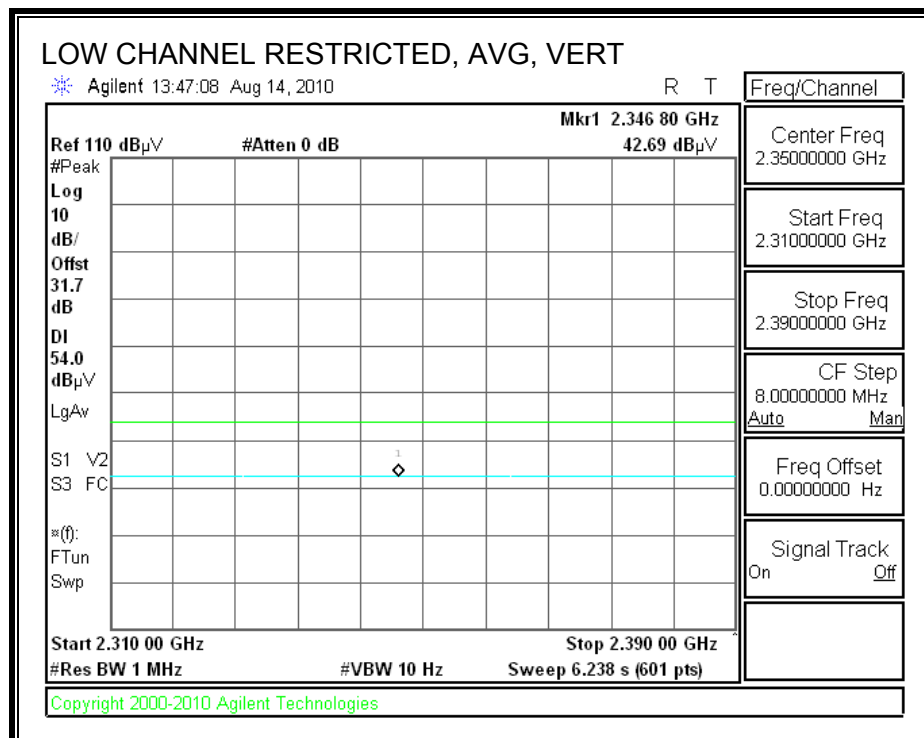
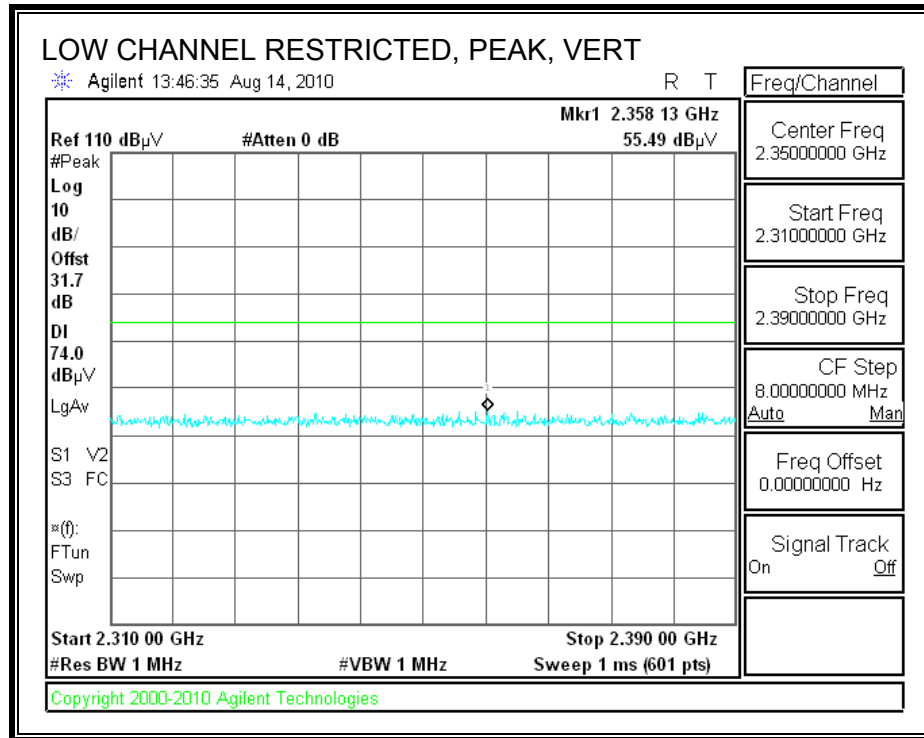
### 8.3.4. BLUETOOTH 8PSK MODE

#### EUT WITH INDUCTIVE CHARGING DOCK

#### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

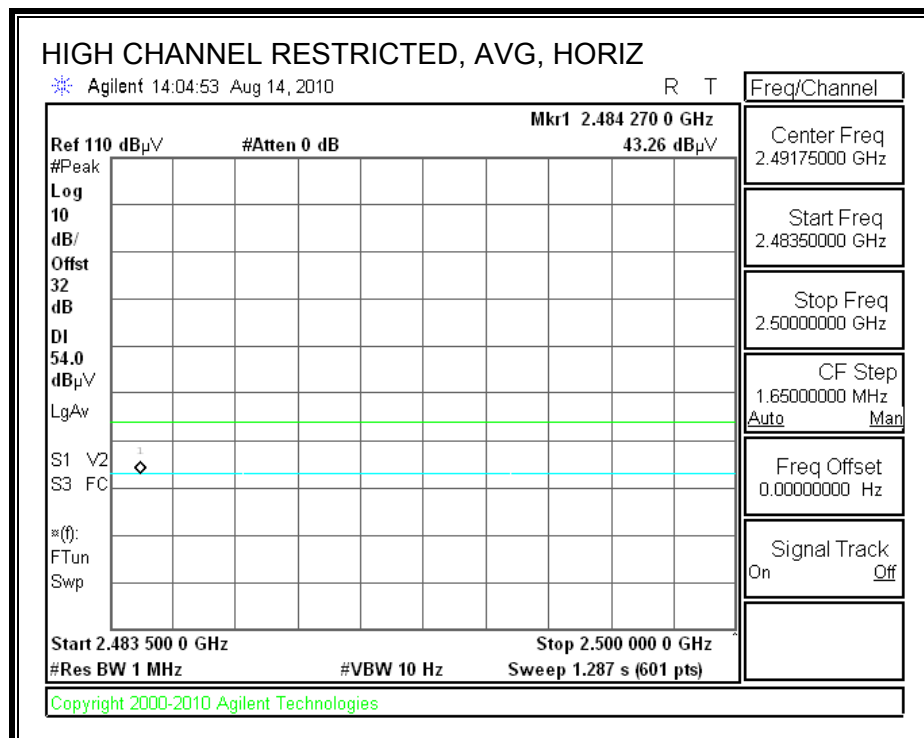
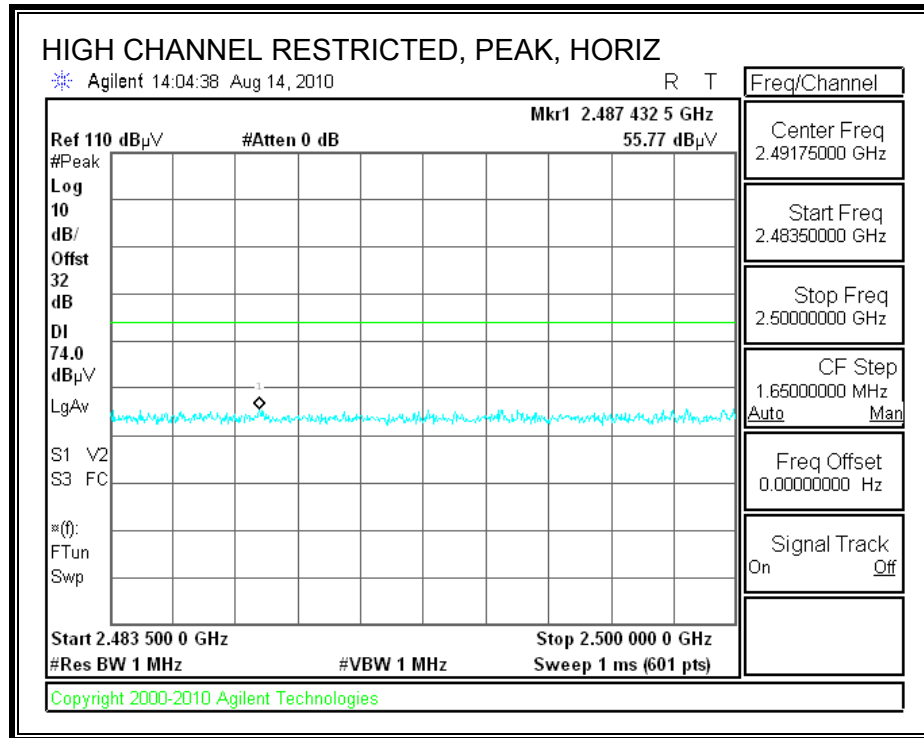


**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

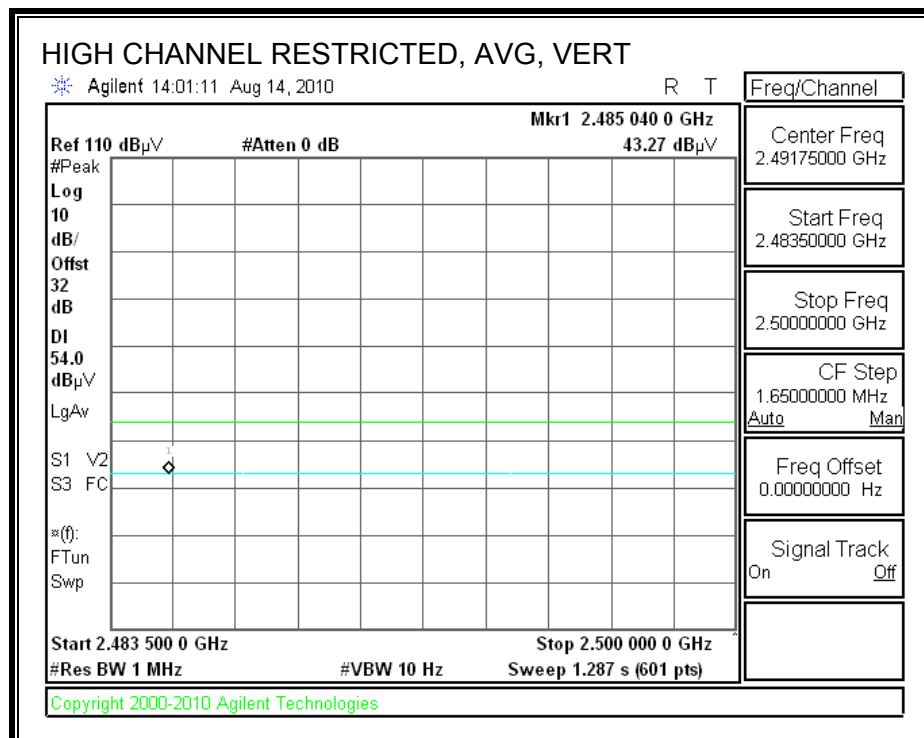
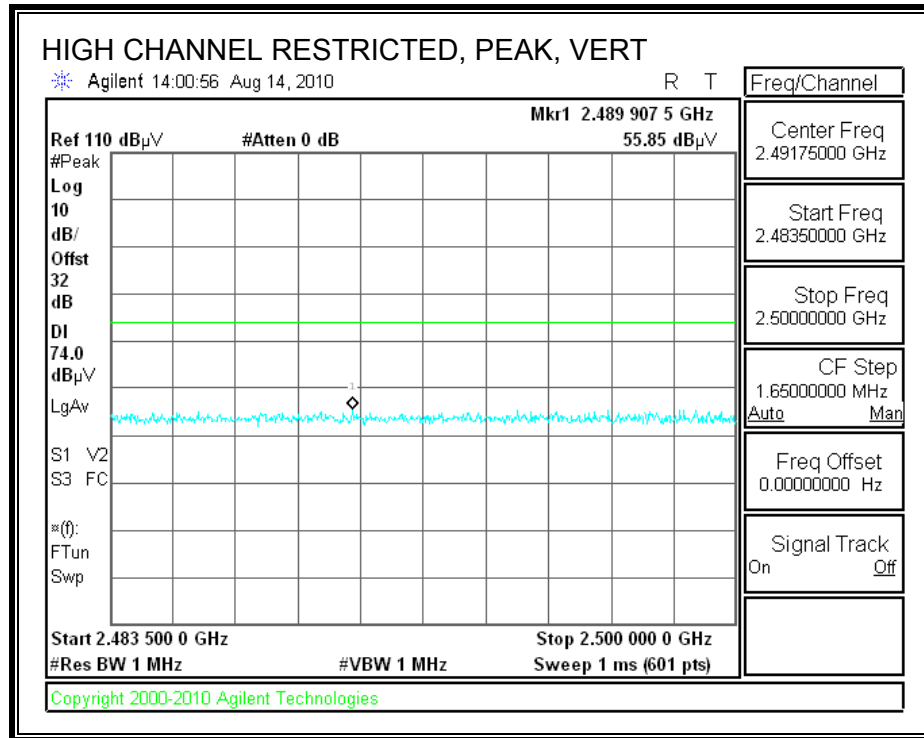




**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



## EUT WITH INDUCTIVE CHARGING DOCK

## HARMONICS AND SPURIOUS EMISSIONS

### High Frequency Measurement

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM phone with 802.11 bg and Bluetooth  
Configuration: EUT with Charging Dock  
Test Target: FCC 15.247  
Mode Oper: BT, 8PSK

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

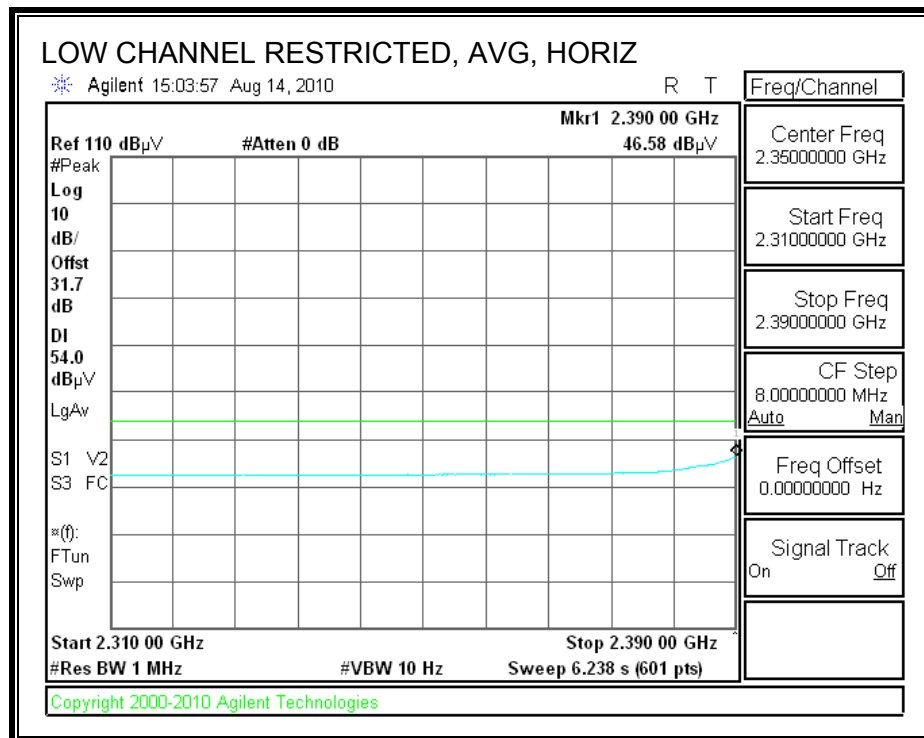
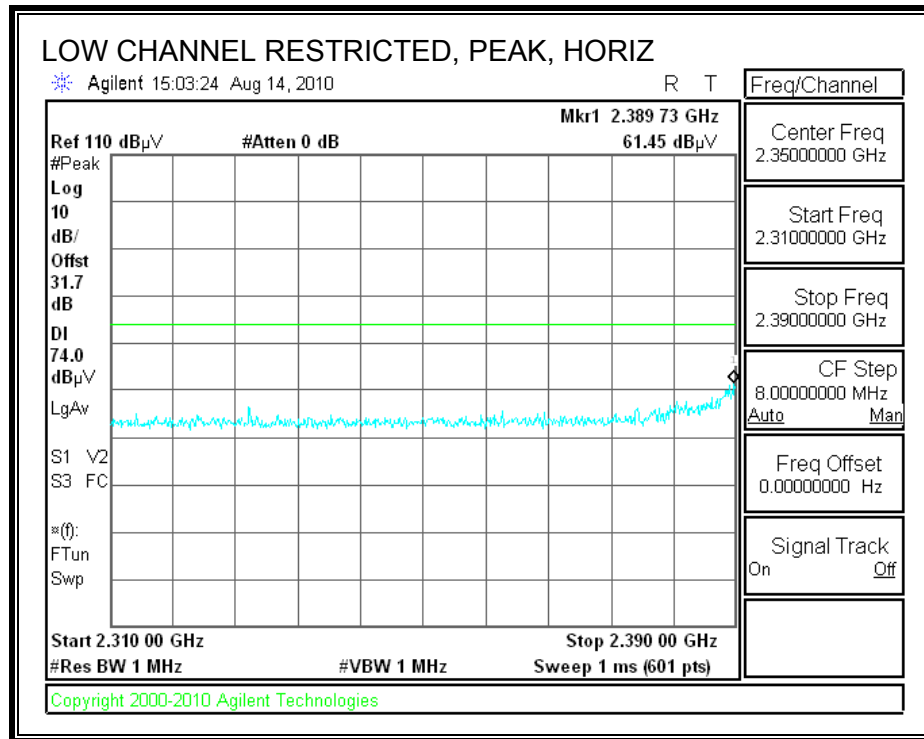
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2402MHz</b>													
4.804	3.0	38.3	32.8	5.8	-34.8	0.0	0.0	41.9	74.0	-32.1	H	P	
4.804	3.0	25.7	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	H	A	
4.804	3.0	39.3	32.8	5.8	-34.8	0.0	0.0	43.0	74.0	-31.0	V	P	
4.804	3.0	25.7	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	V	A	
<b>Mid Ch, 2441MHz</b>													
4.882	3.0	38.1	32.8	5.8	-34.9	0.0	0.0	41.9	74.0	-32.1	V	P	
4.882	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	V	A	
7.323	3.0	36.5	35.2	7.3	-34.7	0.0	0.0	44.4	74.0	-29.6	V	P	
7.323	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	V	A	
4.882	3.0	37.8	32.8	5.8	-34.9	0.0	0.0	41.6	74.0	-32.4	H	P	
4.882	3.0	25.4	32.8	5.8	-34.9	0.0	0.0	29.2	54.0	-24.8	H	A	
7.323	3.0	36.8	35.2	7.3	-34.7	0.0	0.0	44.6	74.0	-29.4	H	P	
7.323	3.0	24.6	35.2	7.3	-34.7	0.0	0.0	32.4	54.0	-21.6	H	A	
<b>High Ch, 2480MHz</b>													
4.960	3.0	37.3	32.9	5.9	-34.9	0.0	0.0	41.2	74.0	-32.8	H	P	
4.960	3.0	25.3	32.9	5.9	-34.9	0.0	0.0	29.2	54.0	-24.8	H	A	
7.440	3.0	37.5	35.4	7.3	-34.6	0.0	0.0	45.6	74.0	-28.4	H	P	
7.440	3.0	24.6	35.4	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	H	A	
4.960	3.0	38.8	32.9	5.9	-34.9	0.0	0.0	42.7	74.0	-31.3	V	P	
4.960	3.0	25.2	32.9	5.9	-34.9	0.0	0.0	29.1	54.0	-24.9	V	A	
7.440	3.0	37.1	35.4	7.3	-34.6	0.0	0.0	45.2	74.0	-28.8	V	P	
7.440	3.0	24.6	35.4	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	V	A	

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

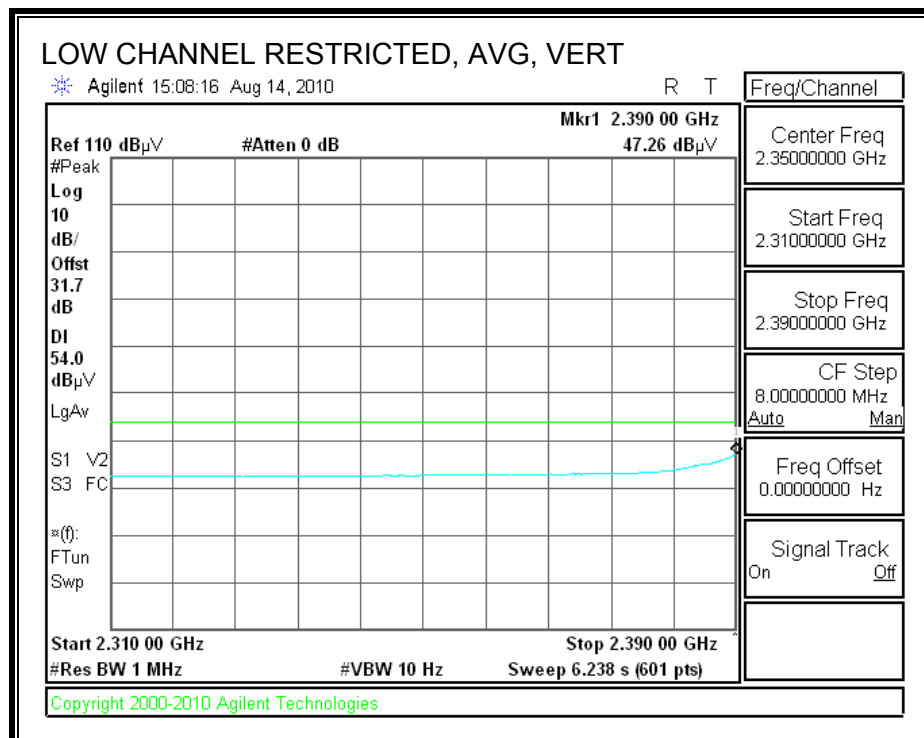
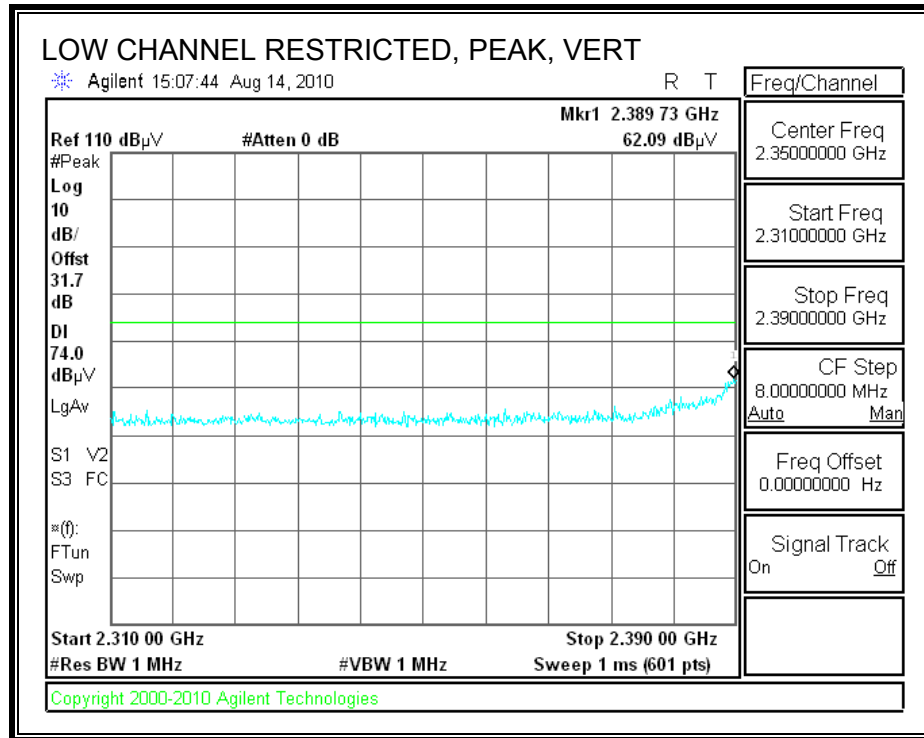
## 8.4. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE POSITION, WLAN G-MODE WITH BLUETOOTH 8PSK MODULATION)

### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

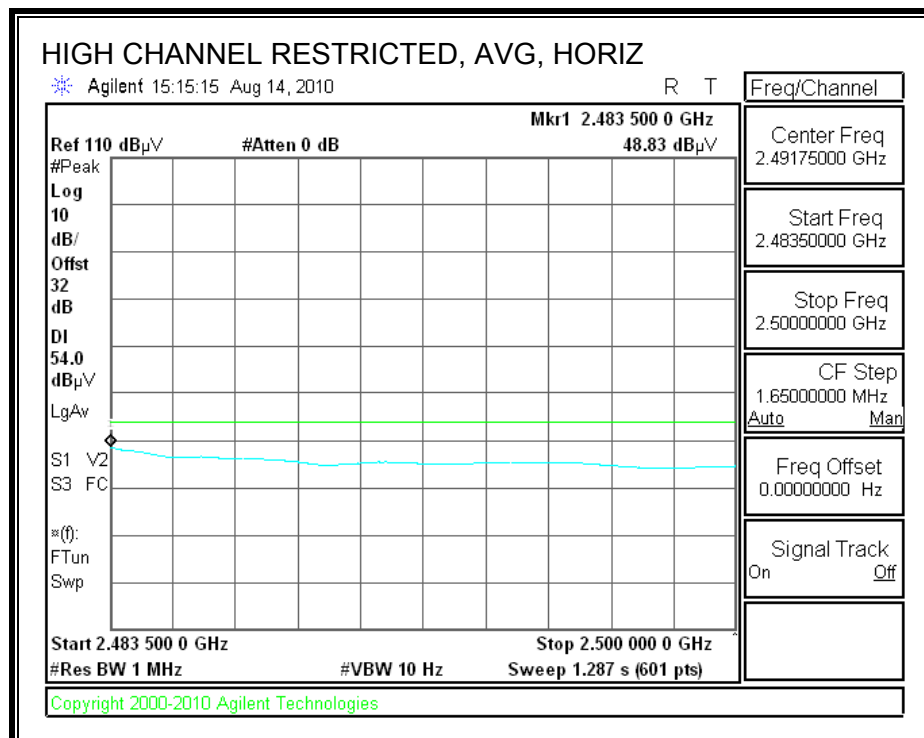
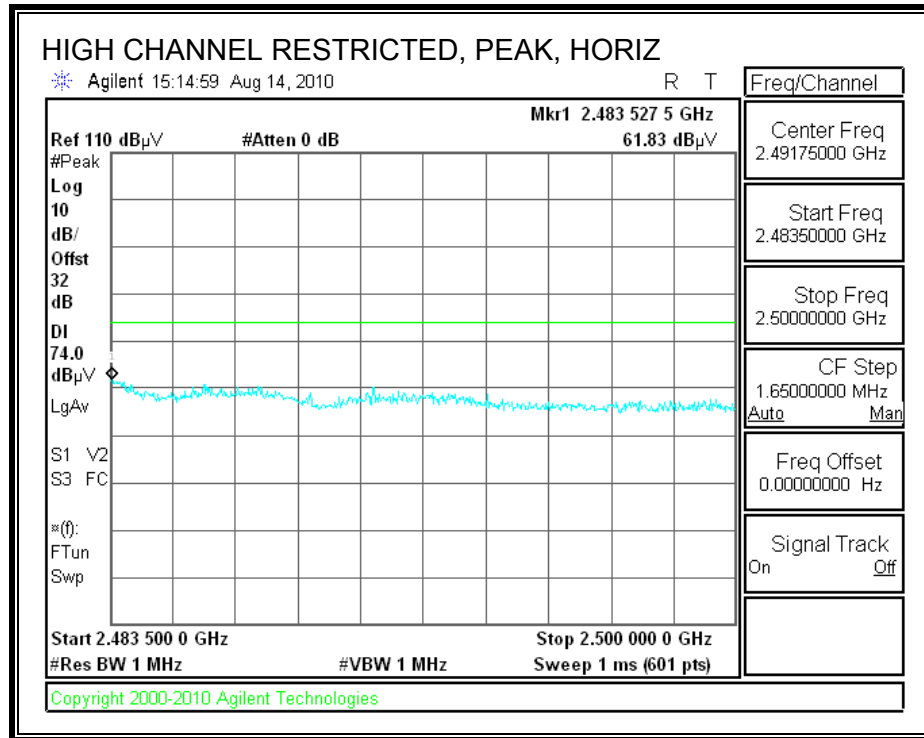




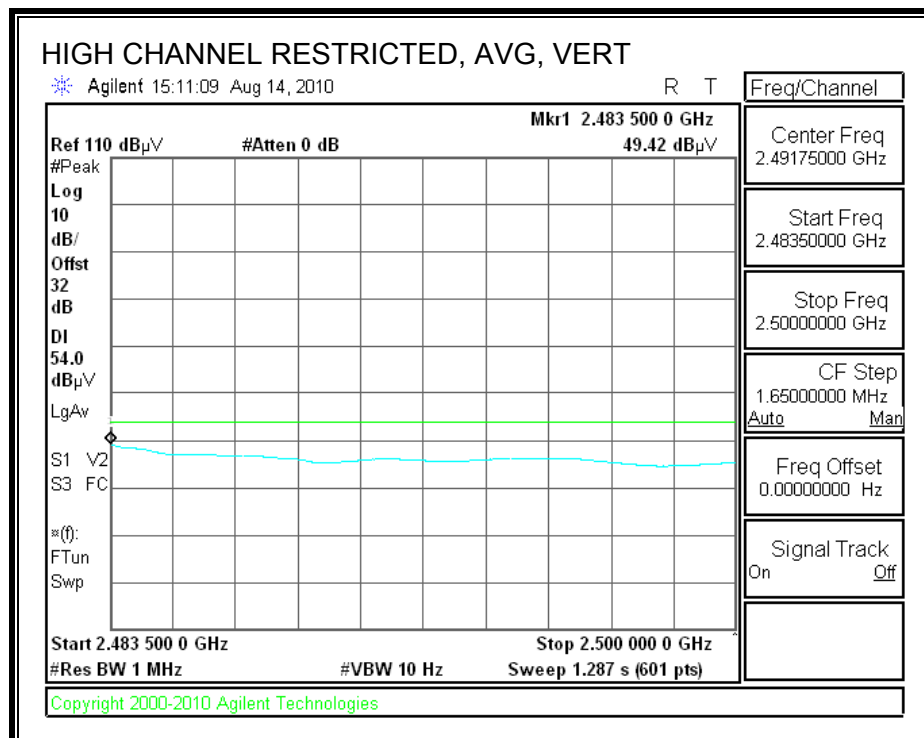
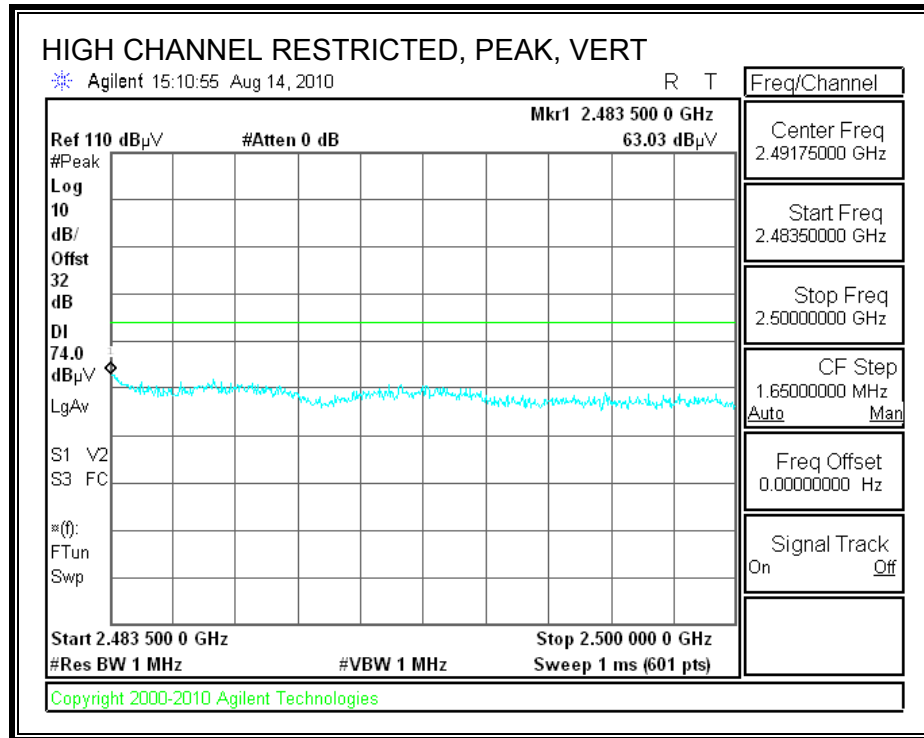
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**





# **HARMONICS AND SPURIOUS EMISSIONS**

## **High Frequency Measurement**

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM Phone with 802.11 bg and Bluetooth  
Configuration: EUT with inductive Cover, AC/DC adapter and Earphone  
Test Target: FCC 15.247  
Mode Oper: Wlan and BT Co-Location

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

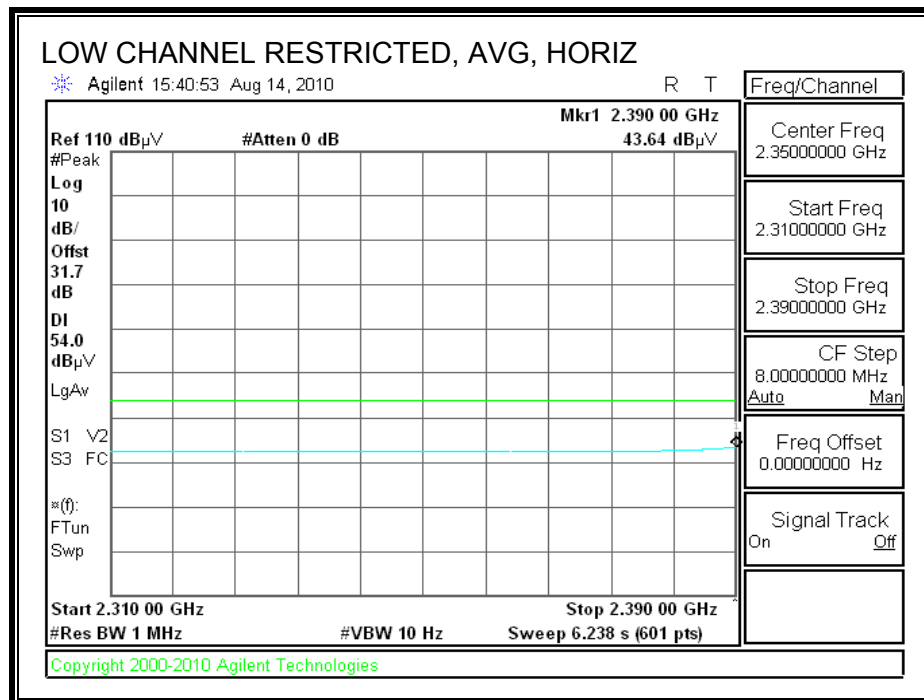
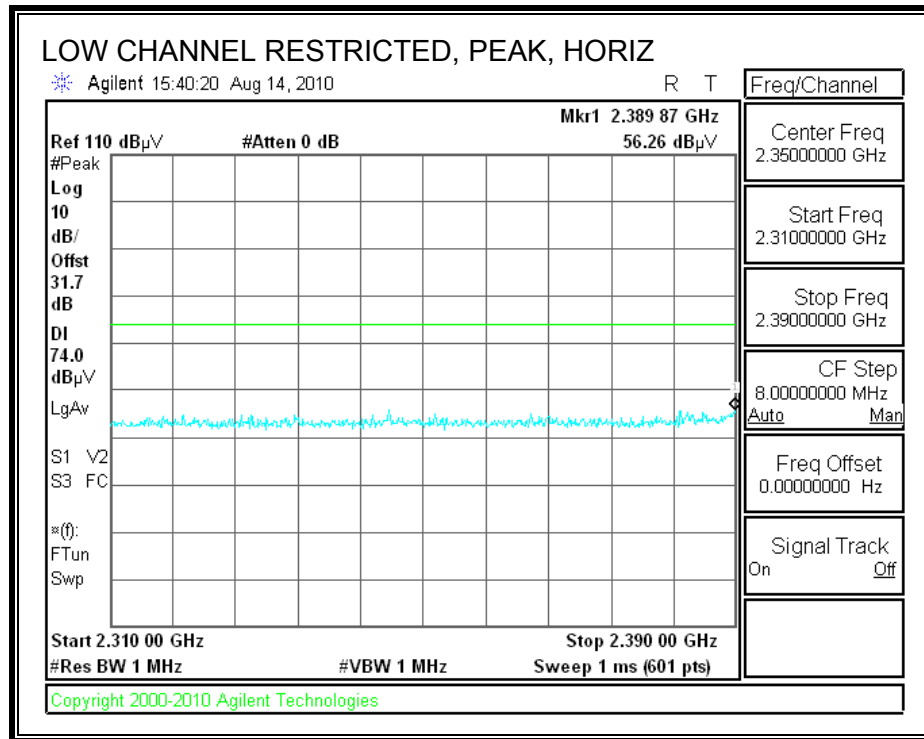
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2412MHz</b>													
4.824	3.0	38.0	32.8	5.8	-34.8	0.0	0.0	41.7	74.0	-32.3	H	P	
4.824	3.0	27.0	32.8	5.8	-34.8	0.0	0.0	30.8	54.0	-23.2	H	A	
4.824	3.0	38.2	32.8	5.8	-34.8	0.0	0.0	42.0	74.0	-32.0	V	P	
4.824	3.0	25.9	32.8	5.8	-34.8	0.0	0.0	29.6	54.0	-24.4	V	A	
<b>Mid Ch, 2437MHz</b>													
4.874	3.0	38.6	32.8	5.8	-34.9	0.0	0.0	42.4	74.0	-31.6	V	P	
4.874	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	V	A	
7.311	3.0	36.9	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	V	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	V	A	
4.874	3.0	37.7	32.8	5.8	-34.9	0.0	0.0	41.4	74.0	-32.6	H	P	
4.874	3.0	25.8	32.8	5.8	-34.9	0.0	0.0	29.6	54.0	-24.4	H	A	
7.311	3.0	37.3	35.2	7.3	-34.7	0.0	0.0	45.1	74.0	-28.9	H	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	H	A	
<b>High Ch, 2462MHz</b>													
4.924	3.0	37.7	32.8	5.9	-34.9	0.0	0.0	41.6	74.0	-32.4	H	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.3	54.0	-24.7	H	A	
7.386	3.0	36.6	35.3	7.3	-34.6	0.0	0.0	44.6	74.0	-29.4	H	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	
4.924	3.0	37.8	32.8	5.9	-34.9	0.0	0.0	41.6	74.0	-32.4	V	P	
4.924	3.0	25.5	32.8	5.9	-34.9	0.0	0.0	29.4	54.0	-24.6	V	A	
7.386	3.0	36.5	35.3	7.3	-34.6	0.0	0.0	44.5	74.0	-29.5	V	P	
7.386	3.0	24.5	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	V	A	

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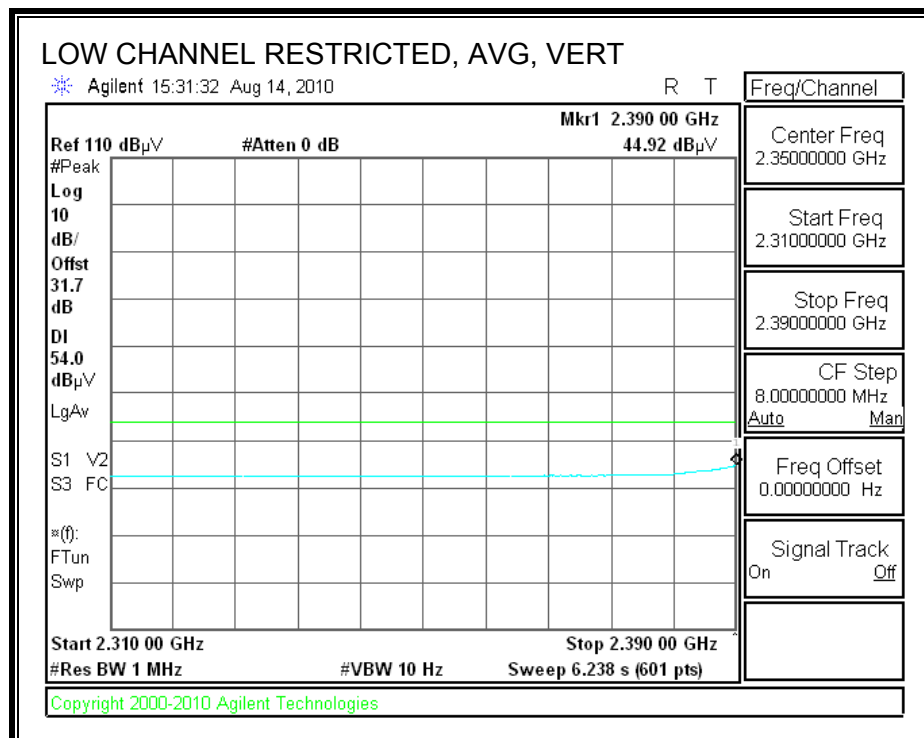
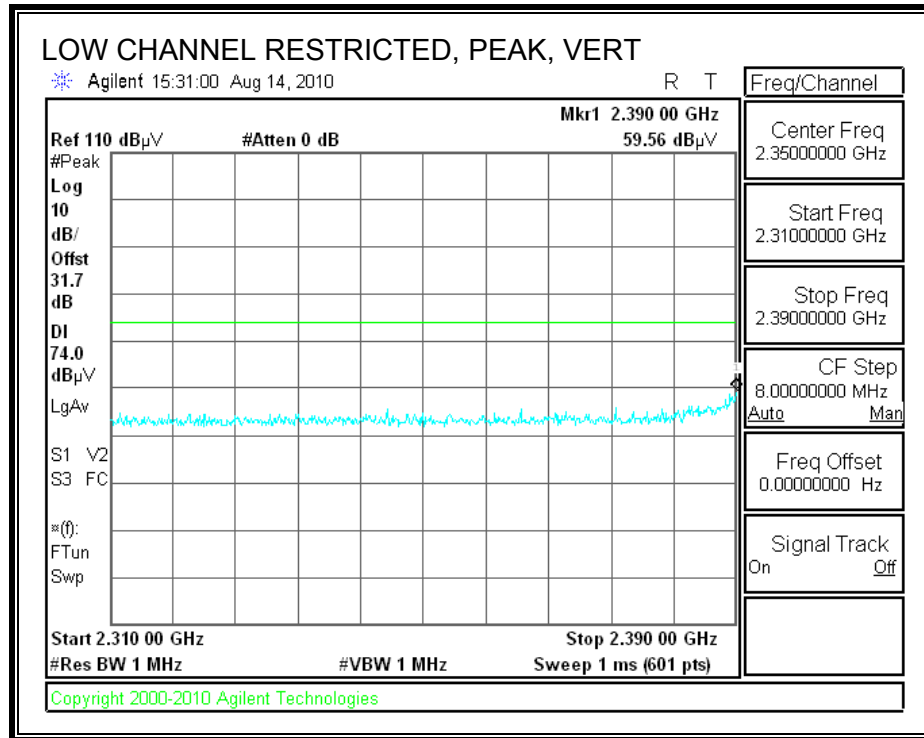
Note: No other emissions were detected above the system noise floor.

## 8.5. CO-LOCATED TRANSMITTER RADIATED EMISSIONS EUT WITH CHARGING DOCK (WLAN G-MODE WITH BLUETOOTH 8PSK MODULATION)

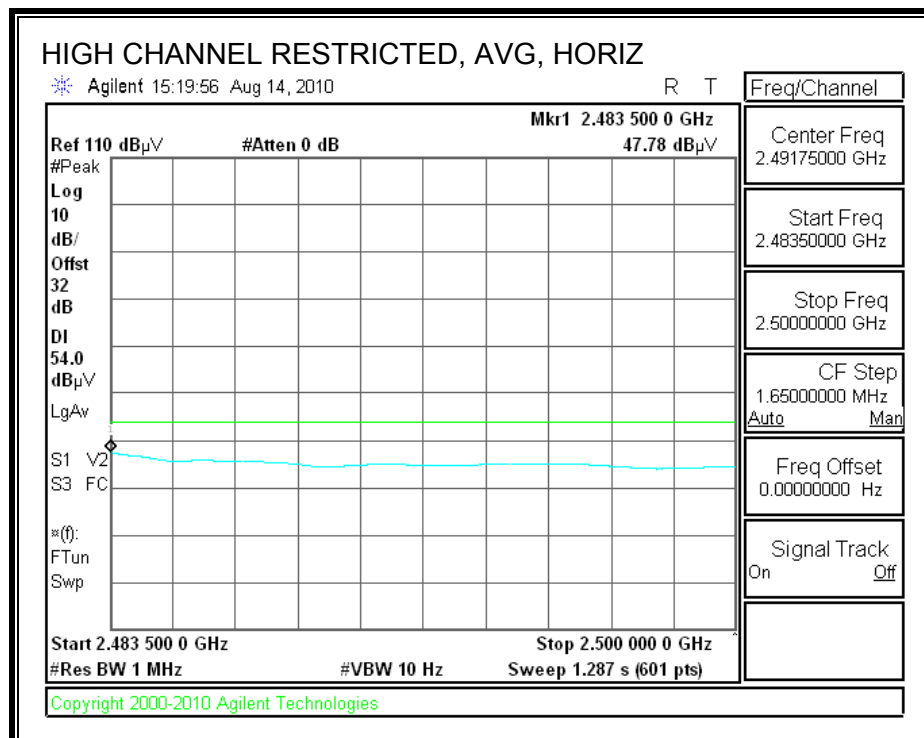
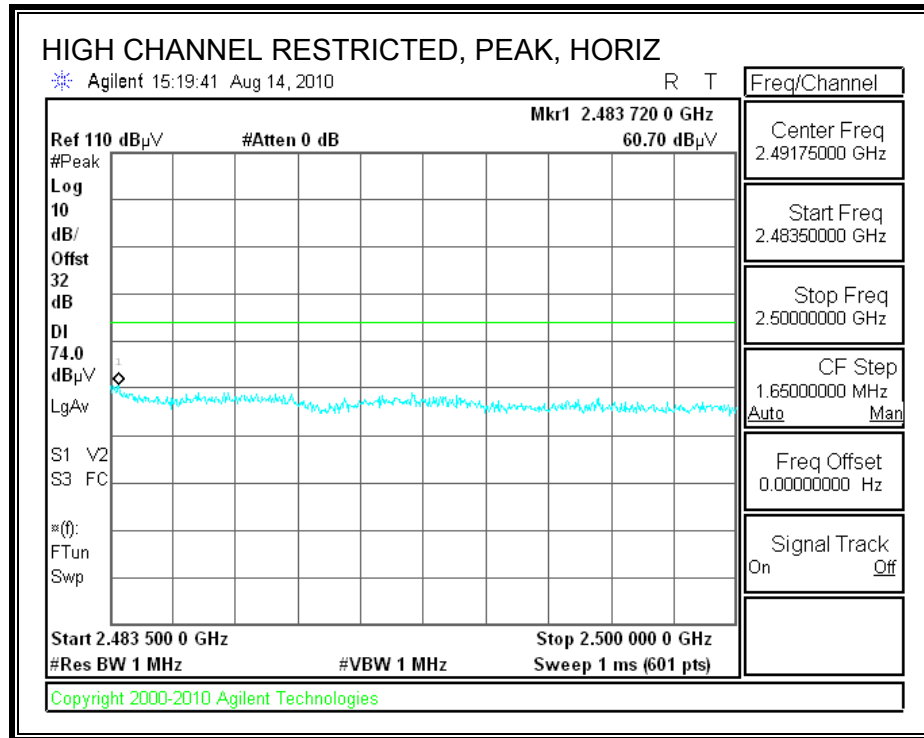
### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



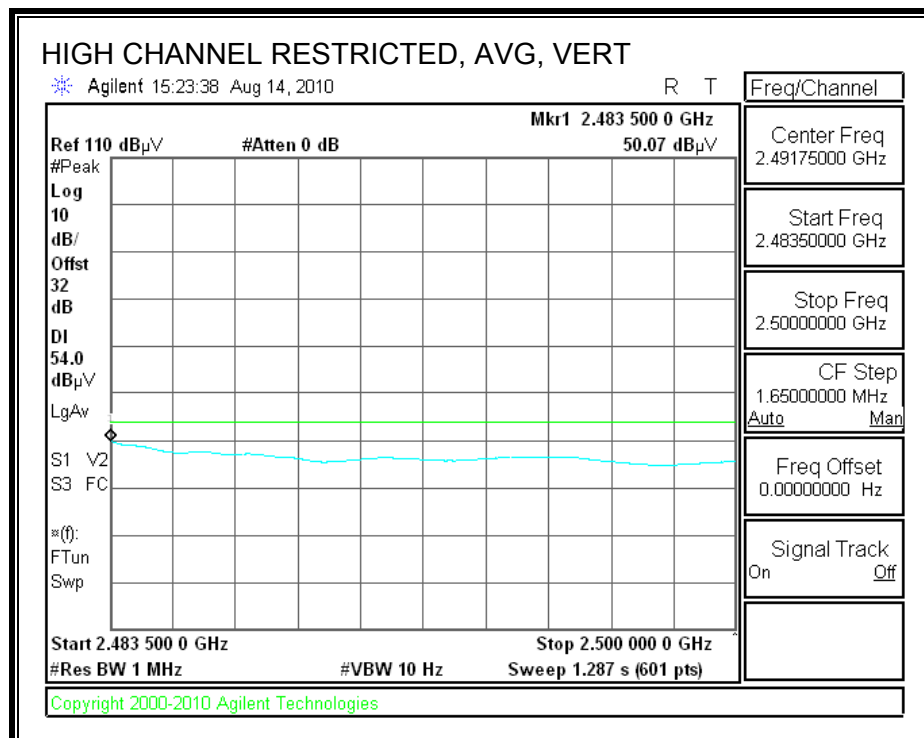
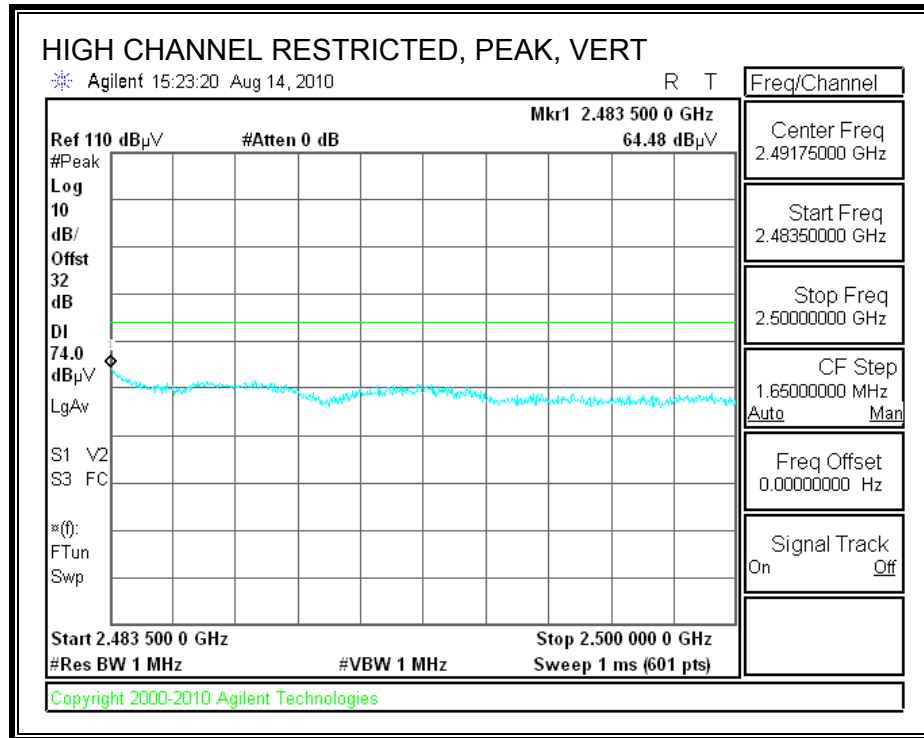
**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



# **HARMONICS AND SPURIOUS EMISSIONS**

## **High Frequency Measurement**

Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang  
Date: 08/18/10  
Project #: 10U13340  
Company: Palm  
EUT Description: GSM phone with 802.11b/g and Bluetooth  
Configuration: EUT with Charging Dock  
Test Target: FCC 15.247  
Mode Oper: Wlan and BT Co-location

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

f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
<b>Low Ch, 2412MHz</b>													
4.824	3.0	38.2	32.8	5.8	-34.8	0.0	0.0	41.9	74.0	-32.1	V	P	
4.824	3.0	26.7	32.8	5.8	-34.8	0.0	0.0	30.4	54.0	-23.6	V	A	
4.824	3.0	38.1	32.8	5.8	-34.8	0.0	0.0	41.8	74.0	-32.2	H	P	
4.824	3.0	25.7	32.8	5.8	-34.8	0.0	0.0	29.4	54.0	-24.6	H	A	
<b>Mid Ch, 2437MHz</b>													
4.874	3.0	37.7	32.8	5.8	-34.9	0.0	0.0	41.5	74.0	-32.5	H	P	
4.874	3.0	25.5	32.8	5.8	-34.9	0.0	0.0	29.3	54.0	-24.7	H	A	
7.311	3.0	37.2	35.2	7.3	-34.7	0.0	0.0	45.0	74.0	-29.0	H	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	H	A	
4.874	3.0	38.8	32.8	5.8	-34.9	0.0	0.0	42.6	74.0	-31.4	V	P	
4.874	3.0	25.7	32.8	5.8	-34.9	0.0	0.0	29.4	54.0	-24.6	V	A	
7.311	3.0	37.0	35.2	7.3	-34.7	0.0	0.0	44.8	74.0	-29.2	V	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	V	A	
<b>High Ch, 2462MHz</b>													
4.924	3.0	38.9	32.8	5.9	-34.9	0.0	0.0	42.8	74.0	-31.2	V	P	
4.924	3.0	25.8	32.8	5.9	-34.9	0.0	0.0	29.7	54.0	-24.3	V	A	
7.386	3.0	37.5	35.3	7.3	-34.6	0.0	0.0	45.5	74.0	-28.5	V	P	
7.386	3.0	24.5	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	V	A	
4.924	3.0	38.2	32.8	5.9	-34.9	0.0	0.0	42.1	74.0	-31.9	H	P	
4.924	3.0	25.8	32.8	5.9	-34.9	0.0	0.0	29.7	54.0	-24.3	H	A	
7.386	3.0	36.8	35.3	7.3	-34.6	0.0	0.0	44.8	74.0	-29.2	H	P	
7.386	3.0	24.5	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	

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

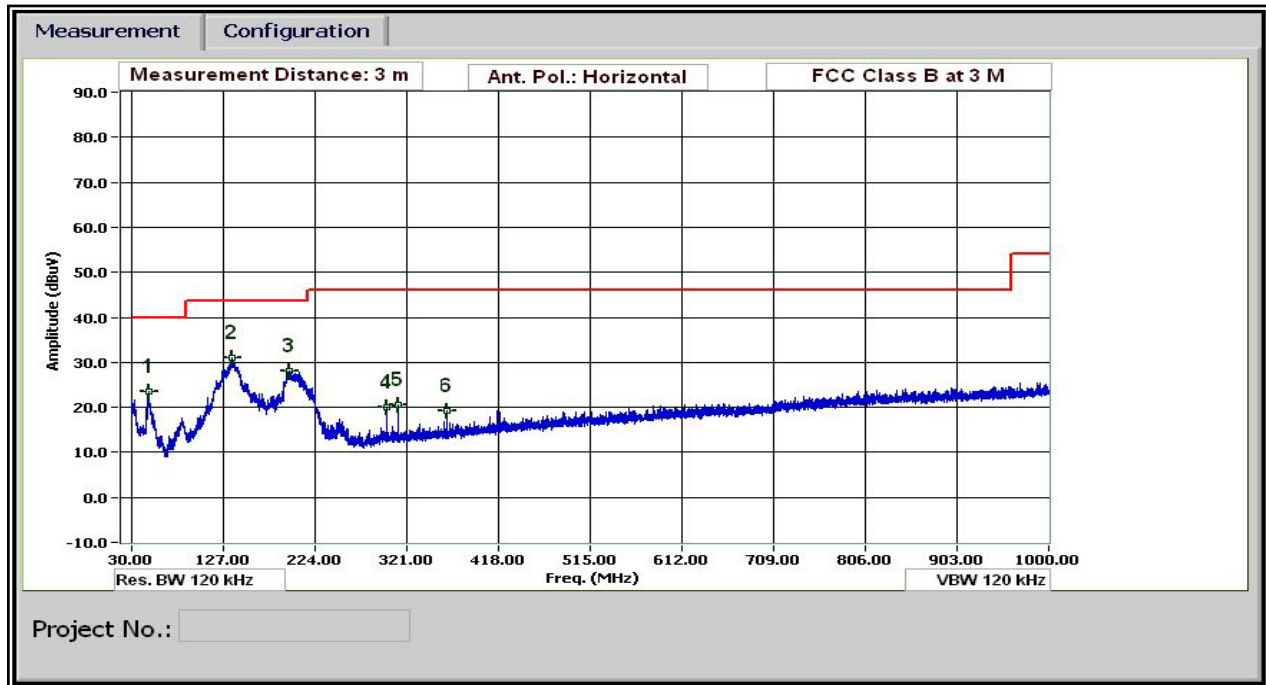
## 8.6. WORST-CASE BELOW 1 GHz

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

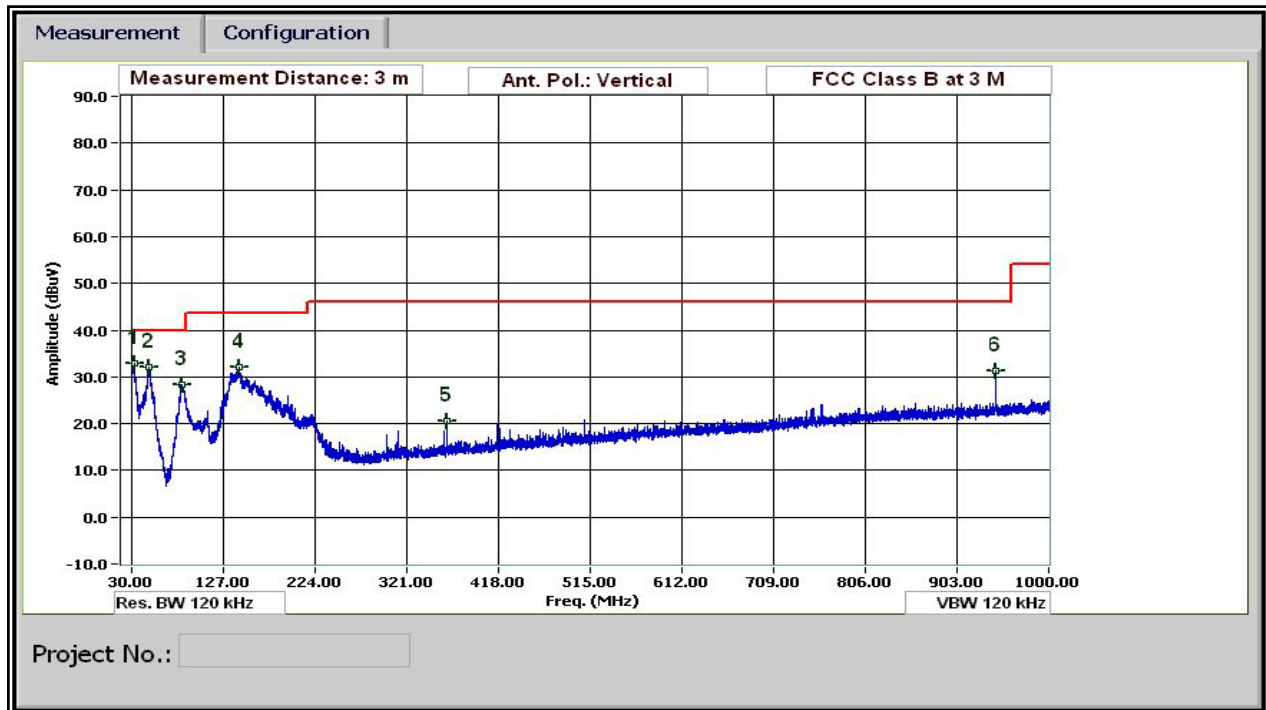
#### EUT WITH AC/DC ADAPTER

30-1000MHz Frequency Measurement													
Compliance Certification Services, Fremont 5m Chamber													
Test Engr:	Chin Pang												
Date:	08/18/10												
Project #:	10U13340												
Company:	Palm												
EUT Description:	GSM Phone with 802.11 bg and Bluetooth												
Test Target:	FCC Class B												
Configuration:	EUT with AC/DC Adapter and earphone												
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	Dist	Read	AF	CL	Amp	D Corr	Filter	Corr.	Limit	Margin	Ant. Pol	Det.	Notes
MHz	(m)	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
47.641	3.0	43.2	9.4	0.6	29.6	0.0	0.0	23.6	40.0	-16.4	H	P	
136.084	3.0	46.0	13.4	1.0	29.4	0.0	0.0	31.1	43.5	-12.4	H	P	
196.327	3.0	44.0	11.7	1.3	28.9	0.0	0.0	28.0	43.5	-15.5	H	P	
300.011	3.0	33.8	13.3	1.6	28.8	0.0	0.0	19.9	46.0	-26.1	H	P	
312.012	3.0	34.3	13.5	1.6	28.8	0.0	0.0	20.6	46.0	-25.4	H	P	
363.974	3.0	32.2	14.4	1.8	29.1	0.0	0.0	19.3	46.0	-26.7	H	P	
33.240	3.0	43.3	18.9	0.5	29.7	0.0	0.0	33.0	40.0	-7.0	V	P	
48.001	3.0	51.9	9.2	0.6	29.6	0.0	0.0	32.1	40.0	-7.9	V	P	
82.322	3.0	49.4	7.6	0.8	29.6	0.0	0.0	28.2	40.0	-11.8	V	P	
143.165	3.0	47.2	13.0	1.1	29.3	0.0	0.0	32.0	43.5	-11.5	V	P	
363.974	3.0	33.5	14.4	1.8	29.1	0.0	0.0	20.6	46.0	-25.4	V	P	
943.838	3.0	34.6	22.0	3.1	28.5	0.0	0.0	31.2	46.0	-14.8	V	P	

**SPURIOUS EMISSIONS 30 TO 1000, HORIZONTAL**



**SPURIOUS EMISSIONS 30 TO 1000, VERTICAL**

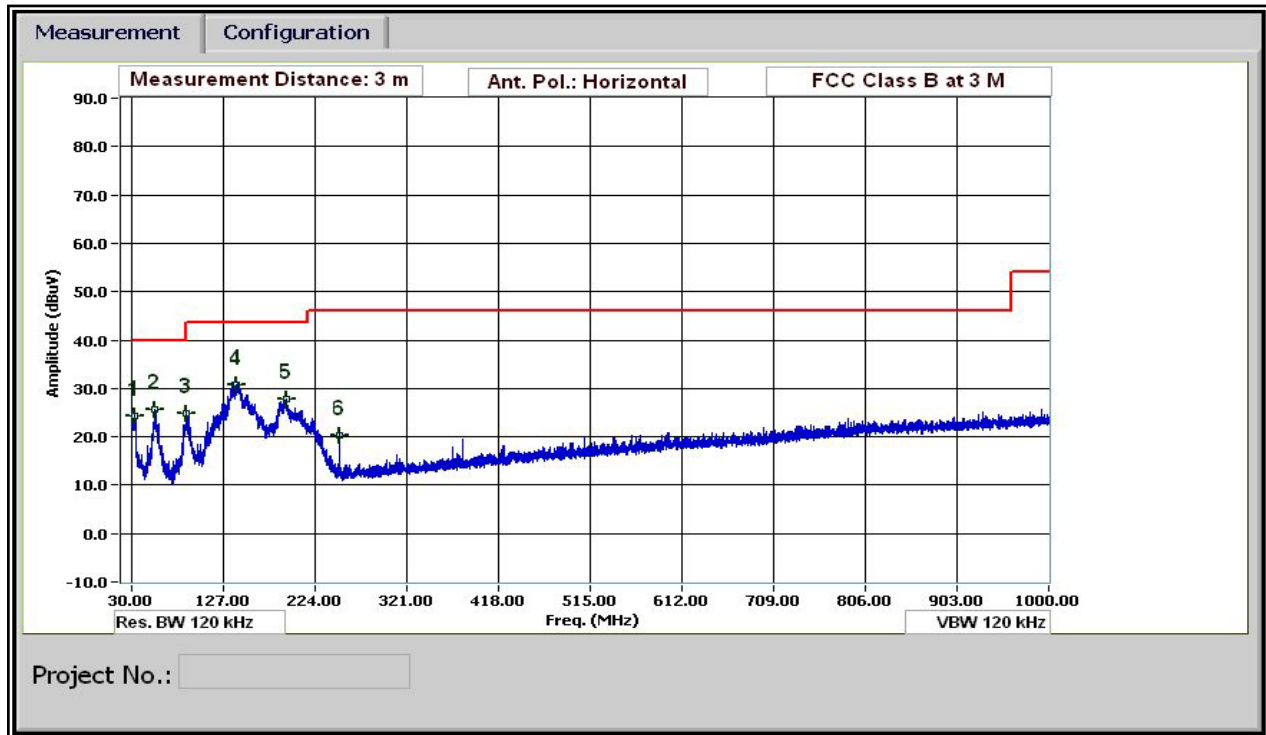




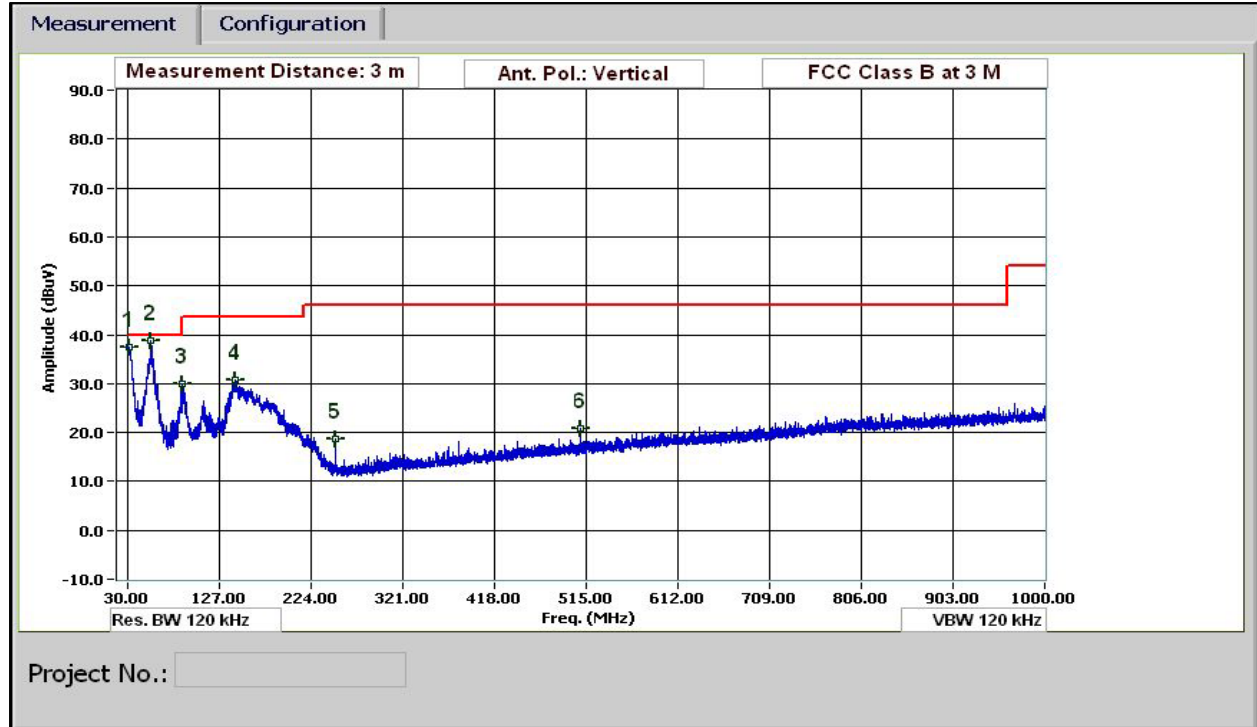
**EUT WITH INDUCTIVE CHARGING DOCK**

30-1000MHz Frequency Measurement													
Compliance Certification Services, Fremont 5m Chamber													
Test Engr:		Chin Pang											
Date:		08/18/10											
Project #:		10U13340											
Company:		Palm											
EUT Description:		GSM Phone with 802.11 bg and Bluetooth											
Test Target:		FCC Class B											
Configuration:		EUT with Charging Dock											
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
vert													
31.440	3.0	47.0	19.7	0.5	29.7	0.0	0.0	37.5	40.0	-2.5	V	P	
31.440	3.0	41.8	19.7	0.5	29.7	0.0	0.0	32.3	40.0	-7.7	V	QP	
54.841	3.0	59.7	7.9	0.6	29.6	0.0	0.0	38.7	40.0	-1.3	V	P	
54.841	3.0	55.8	7.9	0.6	29.6	0.0	0.0	34.7	40.0	-5.3	V	QP	
143.645	3.0	45.9	13.0	1.1	29.3	0.0	0.0	30.6	43.5	-12.9	V	P	
249.969	3.0	34.2	11.8	1.4	28.8	0.0	0.0	18.6	46.0	-27.4	V	P	
508.700	3.0	31.5	16.9	2.2	29.7	0.0	0.0	20.9	46.0	-25.1	V	P	
33.240	3.0	34.7	18.9	0.5	29.7	0.0	0.0	24.5	40.0	-15.6	H	P	
54.601	3.0	46.6	7.9	0.6	29.6	0.0	0.0	25.6	40.0	-14.4	H	P	
87.602	3.0	46.1	7.5	0.8	29.6	0.0	0.0	24.9	40.0	-15.1	H	P	
141.125	3.0	45.9	13.2	1.1	29.4	0.0	0.0	30.8	43.5	-12.7	H	P	
193.207	3.0	44.0	11.5	1.2	29.0	0.0	0.0	27.7	43.5	-15.8	H	P	
250.089	3.0	35.9	11.8	1.4	28.8	0.0	0.0	20.3	46.0	-25.7	H	P	

**SPURIOUS EMISSIONS 30 TO 1000, HORIZONTAL**



**SPURIOUS EMISSIONS 30 TO 1000, VERTICAL**



## 8.7. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

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

<sup>\*</sup> 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
0.51	57.05	52.70	39.71	0.00	56.00	46.00	-3.30	-6.29	L1
0.65	56.71	49.30	38.10	0.00	56.00	46.00	-6.70	-7.90	L1
16.49	48.24	--	31.18	0.00	60.00	50.00	-11.76	-18.82	L1
0.52	56.29	52.60	38.83	0.00	56.00	46.00	-3.40	-7.17	L2
0.60	55.83	51.20	37.94	0.00	56.00	46.00	-4.80	-8.06	L2
16.49	50.61	--	32.96	0.00	60.00	50.00	-9.39	-17.04	L2
6 Worst Data									

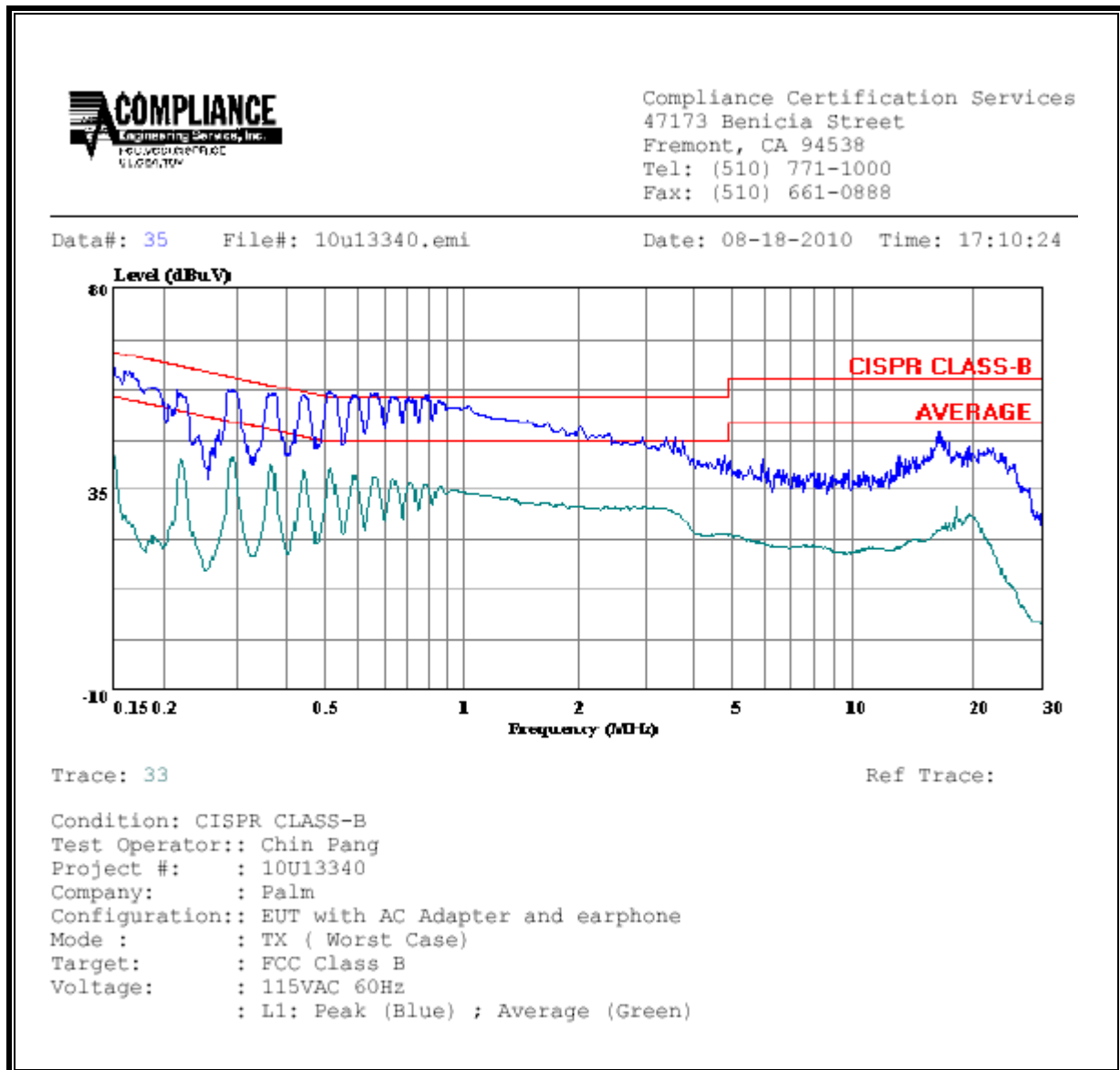
**EUT WITH INDUCTIVE CHARGING DOCK**

**6 WORST EMISSIONS**

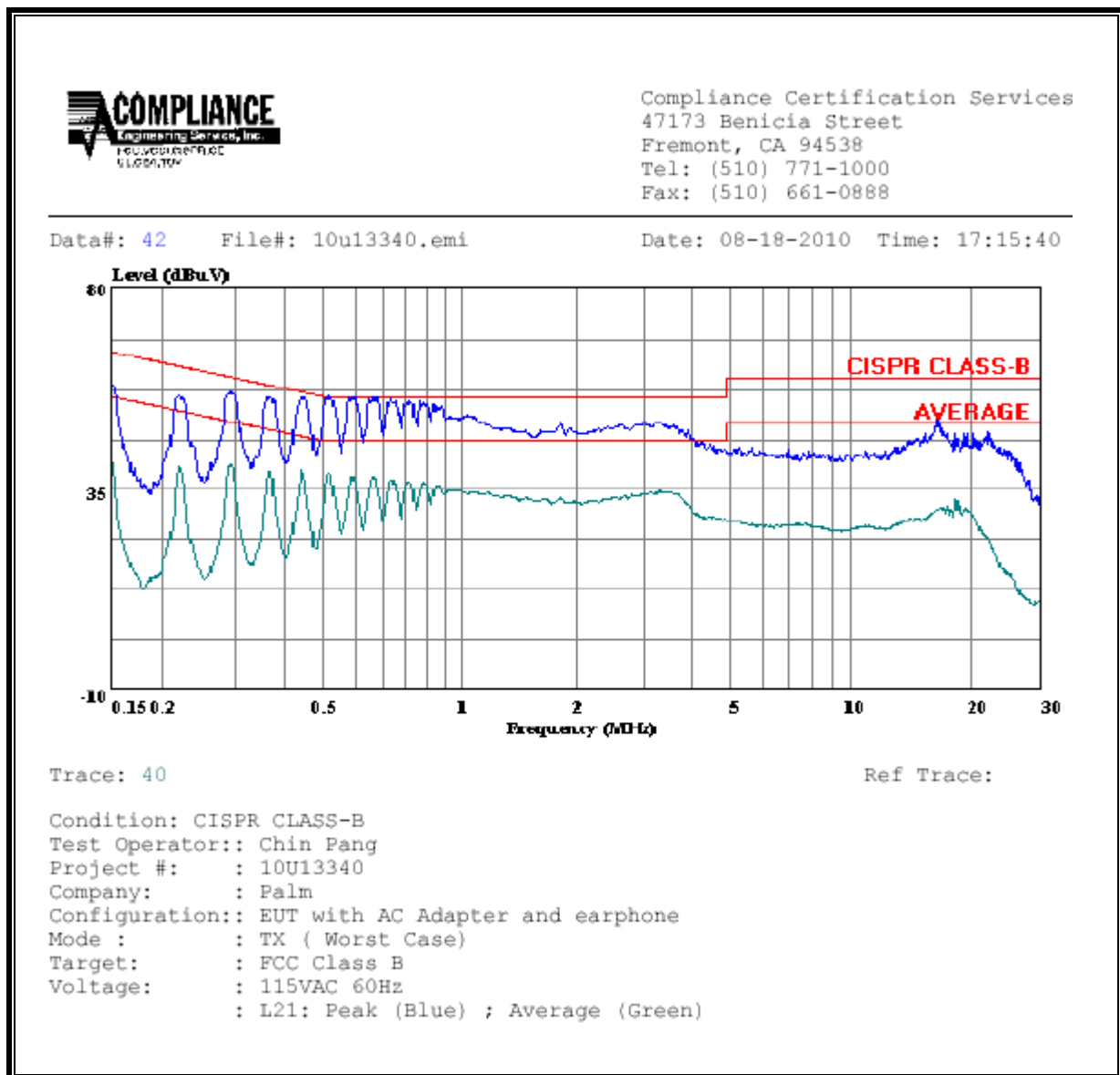
CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq.	Reading			Closs	Limit	EN B	Margin		Remark
(MHz)	PK (dBuV)	QP (dBuV)	AV (dBuV)	(dB)	QP	AV	QP (dB)	AV (dB)	L1 / L2
0.45	57.79	54.20	40.81	0.00	56.89	46.89	-2.69	-6.08	L1
0.60	57.65	52.10	39.67	0.00	56.00	46.00	-3.90	-6.33	L1
19.95	47.39	--	33.62	0.00	60.00	50.00	-12.61	-16.38	L1
0.44	57.50	54.10	41.41	0.00	57.06	47.06	-2.96	-5.65	L2
0.76	56.71	53.10	38.62	0.00	56.00	46.00	-2.90	-7.38	L2
2.95	50.57	--	36.26	0.00	56.00	46.00	-5.43	-9.74	L2
6 Worst Data									

**EUT WITH AC/DC ADAPTER**

**LINE 1 RESULTS**

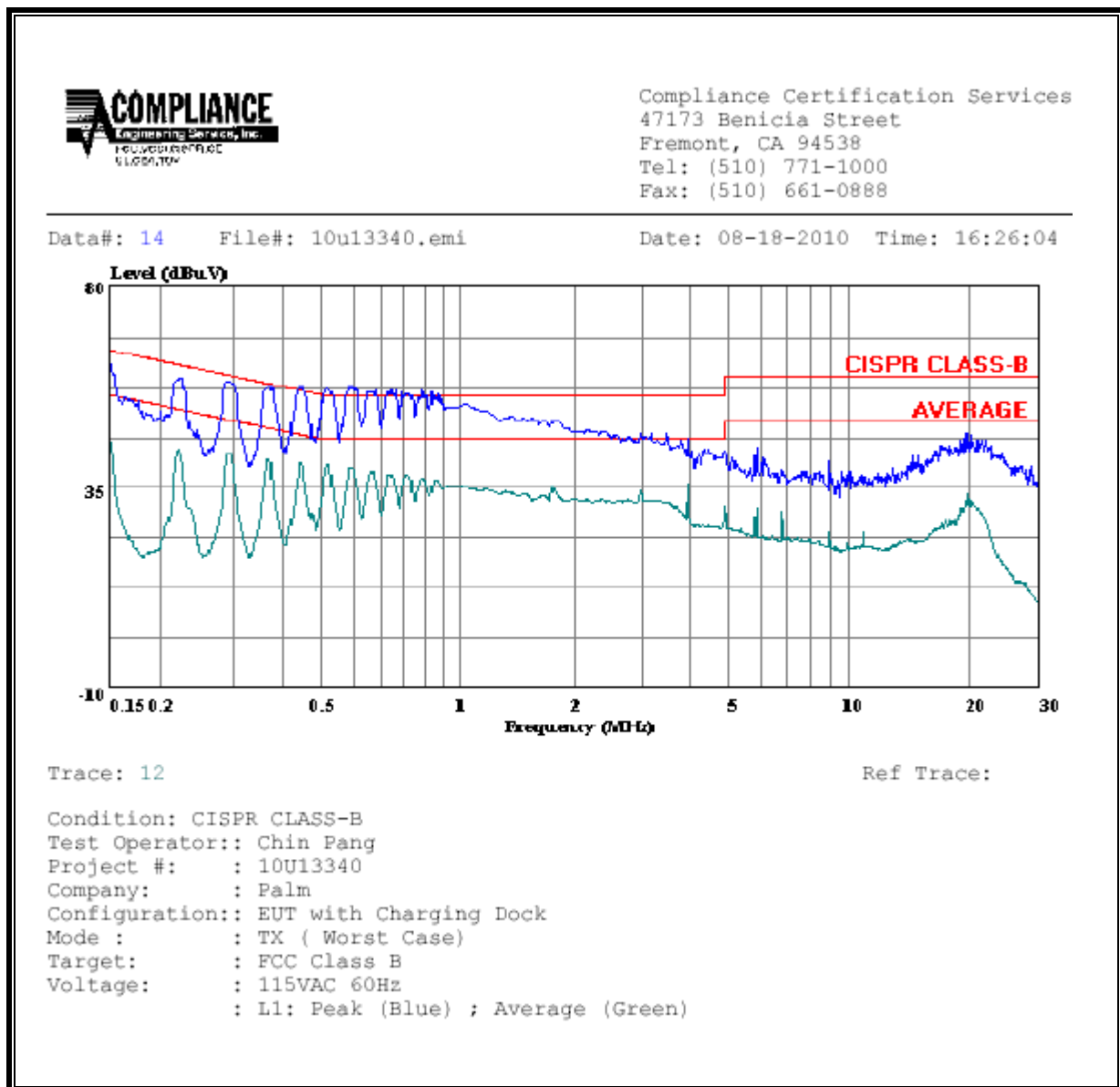


## LINE 2 RESULTS



**EUT WITH INDUCTIVE CHARGING DOCK**

**LINE 1 RESULTS**



**LINE 2 RESULTS**

