



**FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8**

CERTIFICATION TEST REPORT

FOR

PHONE WITH 802.11B/G/N AND BLUETOOTH 2.1+EDR

MODEL NUMBER: P160UNA

**FCC ID: O8F-BROU
IC: 3905A-BROU**

REPORT NUMBER: 10U13357-1, Revision B

ISSUE DATE: JANUARY 18, 2011

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

Prepared by
COMPLIANCE CERTIFICATION SERVICES (UL CCS)
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888

NVLAP[®]

NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
---	10/18/10	Initial Issue	T. Chan
A	01/10/11	Revised section 5.4: Software and Firmware	A. Zaffar
B	01/18/11	Added KDB 680106 on Section 5.5	A. Zaffar

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	5
2. TEST METHODOLOGY	6
3. FACILITIES AND ACCREDITATION.....	6
4. CALIBRATION AND UNCERTAINTY	6
4.1. <i>MEASURING INSTRUMENT CALIBRATION.....</i>	6
4.2. <i>SAMPLE CALCULATION.....</i>	6
4.3. <i>MEASUREMENT UNCERTAINTY.....</i>	6
5. EQUIPMENT UNDER TEST	7
5.1. <i>DESCRIPTION OF EUT.....</i>	7
5.2. <i>MAXIMUM OUTPUT POWER.....</i>	8
5.3. <i>DESCRIPTION OF AVAILABLE ANTENNAS.....</i>	9
5.4. <i>SOFTWARE AND FIRMWARE.....</i>	9
5.5. <i>WORST-CASE CONFIGURATION AND MODE</i>	9
5.6. <i>DESCRIPTION OF TEST SETUP.....</i>	10
6. TEST AND MEASUREMENT EQUIPMENT	13
7. ANTENNA PORT TEST RESULTS	14
7.1. <i>802.11b MODE IN THE 2.4 GHz BAND.....</i>	14
7.1.1. 6 dB BANDWIDTH	14
7.1.2. 99% BANDWIDTH	17
7.1.3. OUTPUT POWER	20
7.1.4. AVERAGE POWER	21
7.1.5. POWER SPECTRAL DENSITY	22
7.1.6. CONDUCTED SPURIOUS EMISSIONS.....	25
7.2. <i>802.11g MODE IN THE 2.4 GHz BAND.....</i>	29
7.2.1. 6 dB BANDWIDTH	29
7.2.2. 99% BANDWIDTH	32
7.2.3. OUTPUT POWER	35
7.2.4. AVERAGE POWER	36
7.2.5. POWER SPECTRAL DENSITY	37
7.2.6. CONDUCTED SPURIOUS EMISSIONS.....	40
7.3. <i>802.11n HT20 SISO MODE IN THE 2.4 GHz BAND</i>	44
7.3.1. 6 dB BANDWIDTH	44
7.3.2. 99% BANDWIDTH	47
7.3.3. OUTPUT POWER	50
7.3.4. AVERAGE POWER	51
7.3.5. POWER SPECTRAL DENSITY	52
7.3.6. CONDUCTED SPURIOUS EMISSIONS.....	55
7.4. <i>BLUETOOTH GFSK MODE IN THE 2.4 GHz BAND.....</i>	59
7.4.1. AVERAGE TIME OF OCCUPANCY	59

7.4.2. 99% BANDWIDTH	61
7.4.3. OUTPUT POWER	64
7.4.4. AVERAGE POWER	67
7.4.5. POWER SPECTRAL DENSITY	68
7.4.6. CONDUCTED SPURIOUS EMISSIONS.....	71
7.5. BLUETOOTH 8PSK MODE IN THE 2.4 GHz BAND	75
7.5.1. AVERAGE TIME OF OCCUPANCY	75
7.5.2. 99% BANDWIDTH	77
7.5.3. OUTPUT POWER	80
7.5.4. AVERAGE POWER	83
7.5.5. POWER SPECTRAL DENSITY	84
7.5.6. CONDUCTED SPURIOUS EMISSIONS.....	87
7.6. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE WLAN G-MODE WITH BLUETOOTH GFSK MODULATION).....	91
7.6.1. CONDUCTED SPURIOUS EMISSIONS.....	91
8. RADIATED TEST RESULTS	95
8.1. <i>LIMITS AND PROCEDURE</i>	95
8.2. TRANSMITTER ABOVE 1 GHz, EUT WITH INDUCTIVE BACKCOVER.....	96
8.2.1. 802.11b MODE.....	96
8.2.2. 802.11g MODE.....	101
8.2.3. 802.11n HT20 SISO MODE	106
8.2.4. BLUETOOTH GFSK MODE.....	111
8.2.5. BLUETOOTH 8PSK MODE	116
8.3. TRANSMITTER ABOVE 1 GHz, EUT WITH CHARGING DOCK.....	121
8.3.1. 802.11b MODE.....	121
8.3.2. 802.11g MODE.....	126
8.3.3. 802.11n HT20 SISO MODE	131
8.3.4. BLUETOOTH GFSK MODE.....	136
8.3.5. BLUETOOTH 8PSK MODE	141
8.4. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE POSITION, WLAN G-MODE WITH BLUETOOTH GFSK MODULATION)	146
8.5. CO-LOCATED TRANSMITTER RADIATED EMISSIONS EUT WITH CHARGING DOCK (WLAN G-MODE WITH BLUETOOTH GFSK MODULATION).....	151
8.6. WORST-CASE BELOW 1 GHz.....	156
8.7. AC POWER LINE CONDUCTED EMISSIONS.....	160
9. SETUP PHOTOS.....	170

1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: Phone with 802.11b/g/n and Bluetooth 2.1+EDR

MODEL: P160UNA

SERIAL NUMBER: BD2LN6884 (Radiated Unit); BD2LN6892 (Conducted Unit)

DATE TESTED: OCTOBER 14-18, 2010

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

Compliance Certification Services (UL 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 UL 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 UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL 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 UL CCS By:



THU CHAN
ENGINEERING MANAGER
UL CCS

Tested By:



CHIN PANG
EMC ENGINEER
UL CCS

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 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

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

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

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 850/900/1800/1900 MHz GSM/GPRS/EDGE and 850/1900/2100 WCDMA/HSDPA/HSUPA phone with 802.11b/g/n and Bluetooth v2.1+EDR.

GENERAL INFORMATION

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

ACCESSORIES

The EUT was constructed and using the following accessories:

AC Adapter 1	Brand Name	Palm	P/N: 157-10124-00
	Power Rating	I/P: <u>100-240 Vac</u> , <u>0.2 A</u> , O/P: <u>5 Vdc</u> , <u>1000 mA</u>	
AC Adapter 2	Brand Name	Palm	P/N: 157-10130-00
	Power Rating	I/P: <u>100-240 Vac</u> , <u>0.2 A</u> , O/P: <u>5 Vdc</u> , <u>1000 mA</u>	
Inductive Charger	Brand Name	Palm	P/N: 157-10123-00
	Power Rating	I/P: <u>5 Vdc</u> , <u>1000 mA</u>	
Battery 1	Brand Name	Palm	P/N: 157-10150-00
	Power Rating	<u>3.7Vdc</u> , <u>920 mAh</u>	Type: Rechargeable Li-ion battery
Battery 2	Brand Name	Palm	P/N: 157-10151-00
	Power Rating	<u>3.7Vdc</u> , <u>920 mAh</u>	Type: Rechargeable Li-ion battery
Audio adapter	Brand Name	Palm	P/N: 180-10815-00
Earphone	Brand Name	Palm	P/N: 180-10632-00
USB Cable	Brand Name	Palm	P/N: 180-10647-00
USB cable with adapter	Brand Name	Palm	P/N: 180-10816-00

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	21.32	135.52
2412 - 2462	g	21.30	134.90
2412 - 2462	HT20 SISO	21.30	134.90
2402 - 2480	GFSK	6.81	4.80
2402 - 2480	8PSK	5.01	3.17

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PCB integrated antenna, with a maximum gain of 1.6 dBi. 802.11bgn and Bluetooth transmitters share a common antenna.

5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Palm hwtools build 98.

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 802.11n HT20 SISO mode were made at MCS 0Mb/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 Y orientation with AC/DC adapter.

KDB 680106 "Client Device Considerations" was considered and evaluation performed as applicable to this device. The inductive charger has been certified under FCC ID: O8F-TST1. IC: 3905A-TST1. EUT is working in charging mode with the inductive charger. The inductive back cover is not removable. For more information, please refer to this inductive charger FCC ID/ IC ID.

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
AC Adaptor	PALM	157-10130-00	N/A	DOC
Earphone	PALM	180-10632-00	N/A	DOC

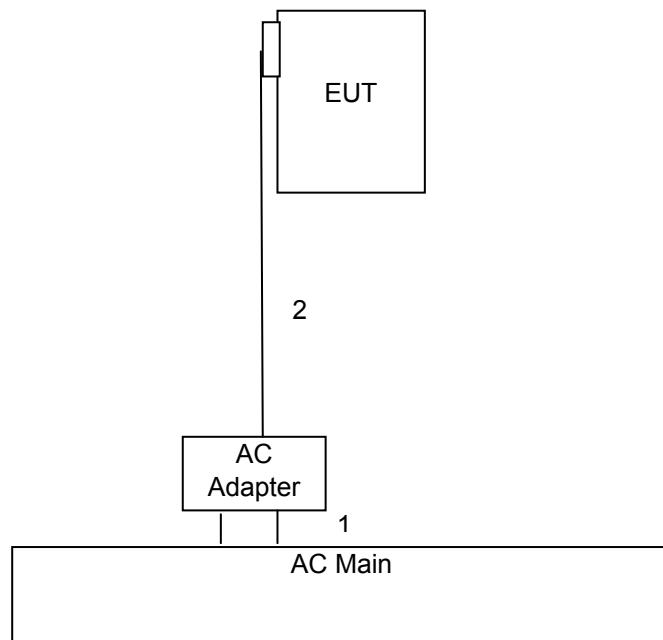
I/O CABLES

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

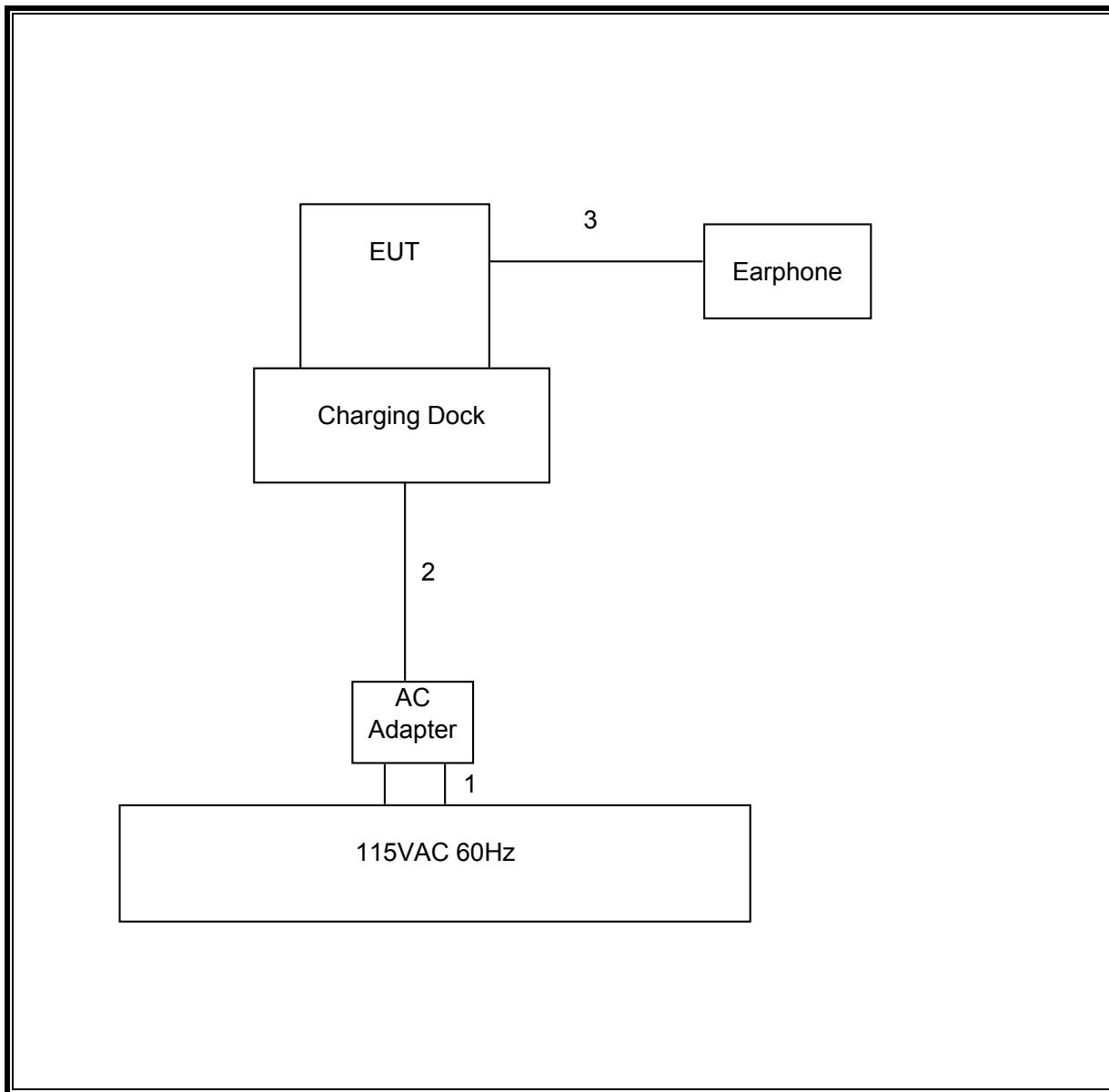
TEST SETUP

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
Antenna, Horn, 18 GHz	EMCO	3115	C00783	07/29/11
Spectrum Analyzer, 26.5 GHz	Agilent / HP	E4440A	C01178	08/30/11
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	07/06/11
Antenna, Bilog, 2 GHz	Sundt Sciences	JB1	C01011	07/14/11
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
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR
Peak Power Meter	Boonton	4541	C01186	03/01/11
Peak Power Sensor	Boonton	57006	C01203	02/24/11

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.

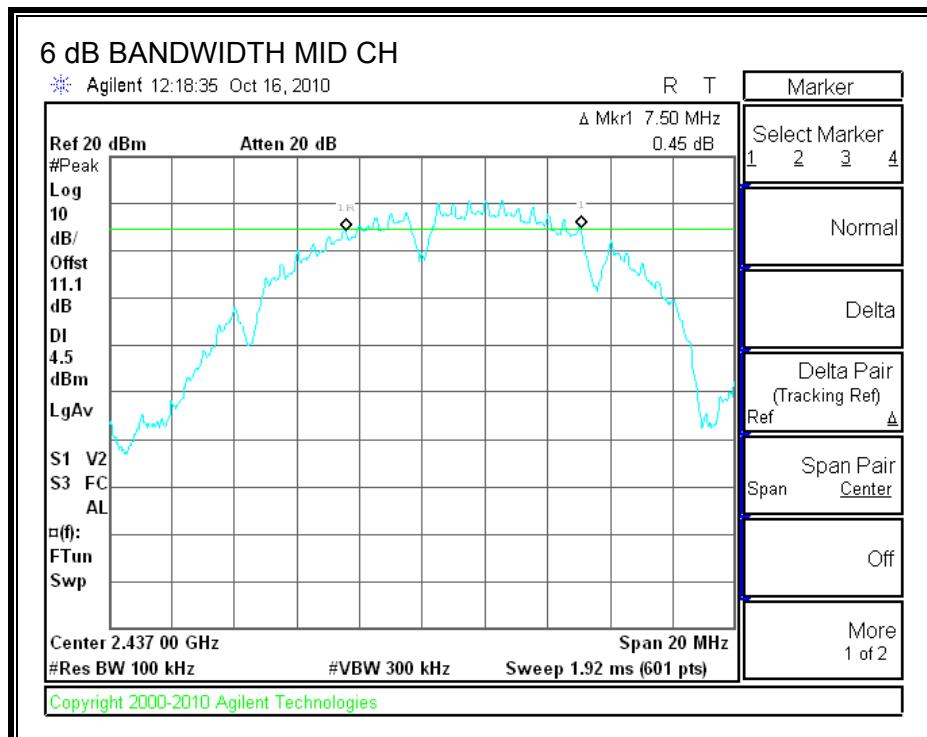
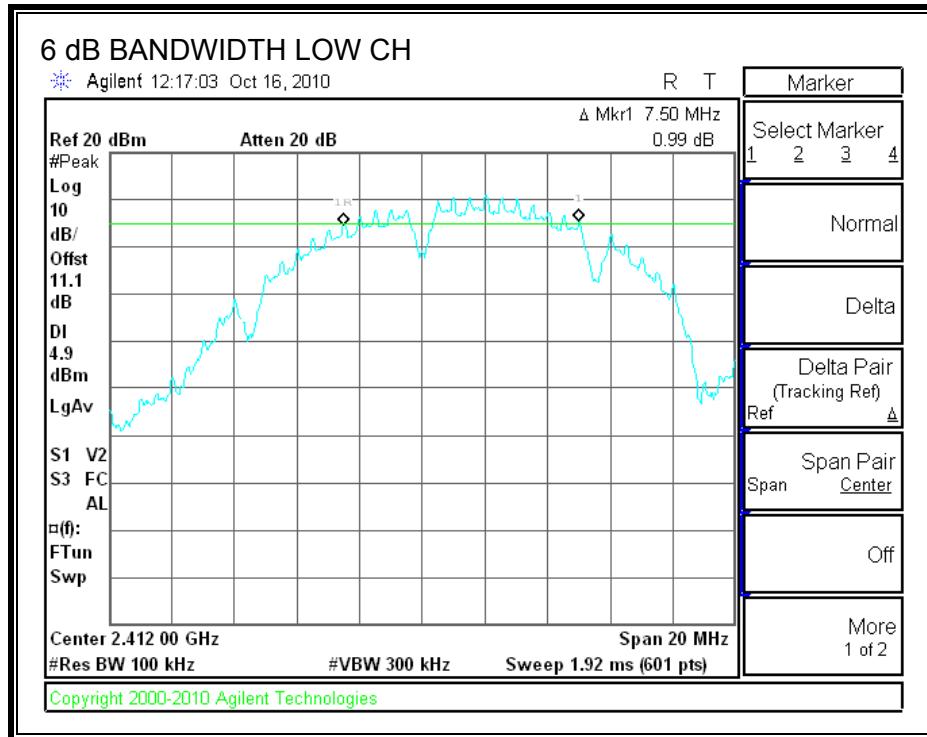
TEST PROCEDURE

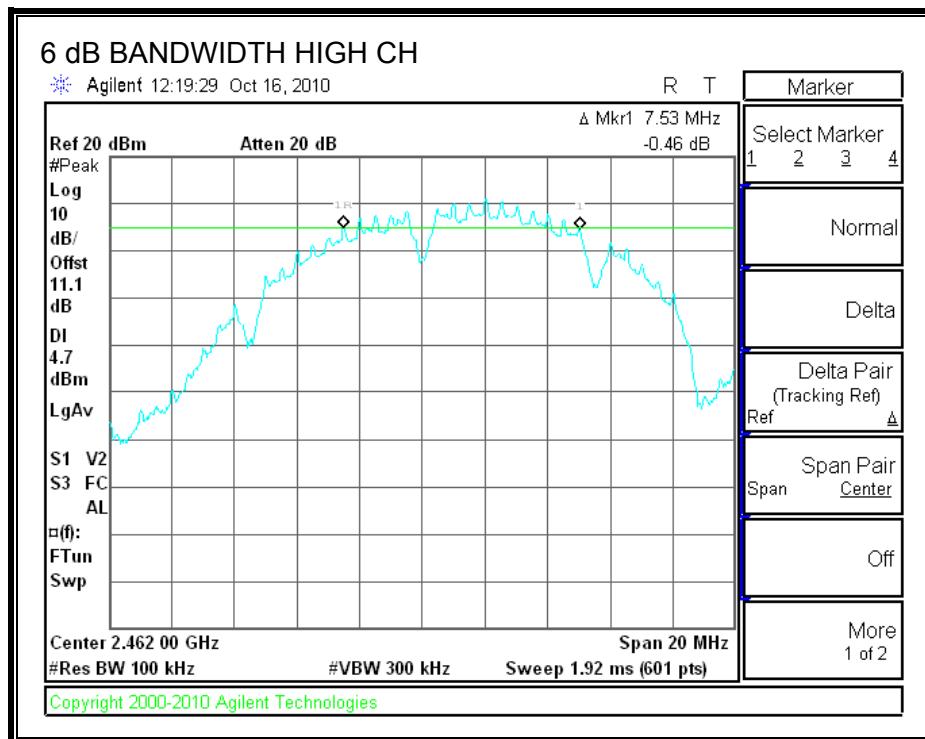
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	7.50	0.5
Middle	2437	7.50	0.5
High	2462	7.53	0.5

6 dB BANDWIDTH





7.1.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

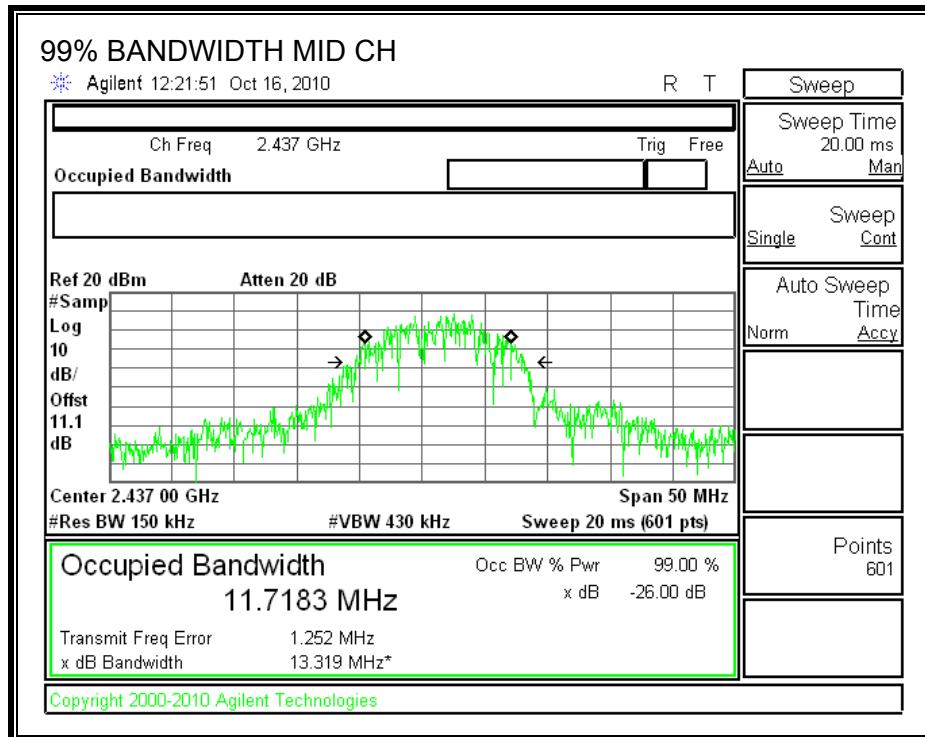
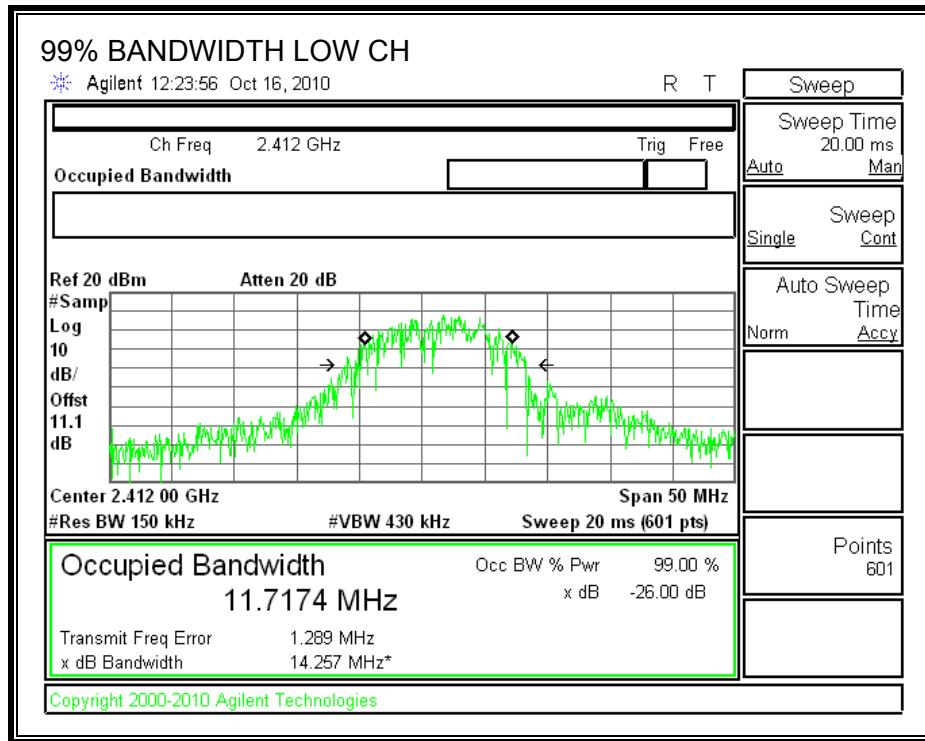
TEST PROCEDURE

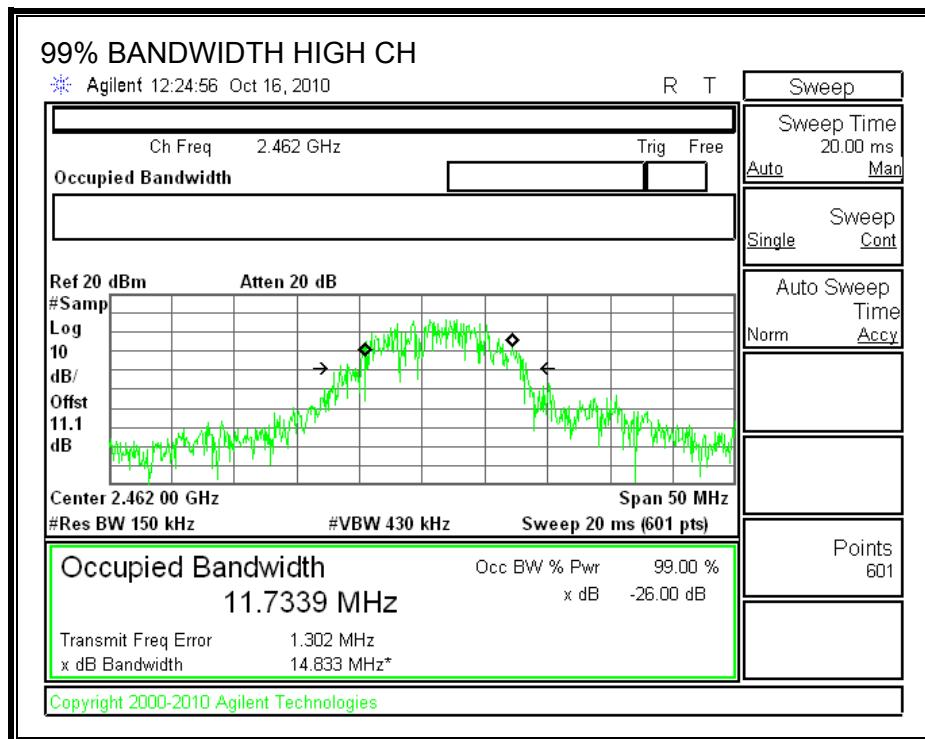
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	11.7174
Middle	2437	11.7183
High	2462	11.7339

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 11.1dB (including 10 dB pad and 1.1 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	20.30
Middle	2437	20.32
High	2462	20.10

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 11.1dB (including 10 dB pad and 1.1 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	18.00
Middle	2437	18.10
High	2462	17.80

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.

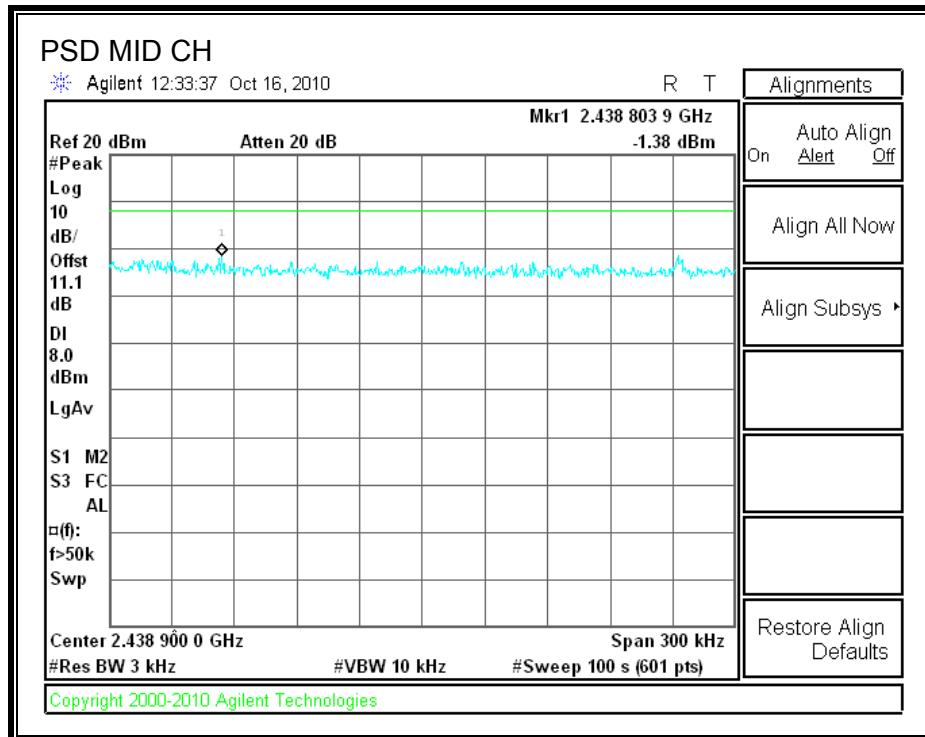
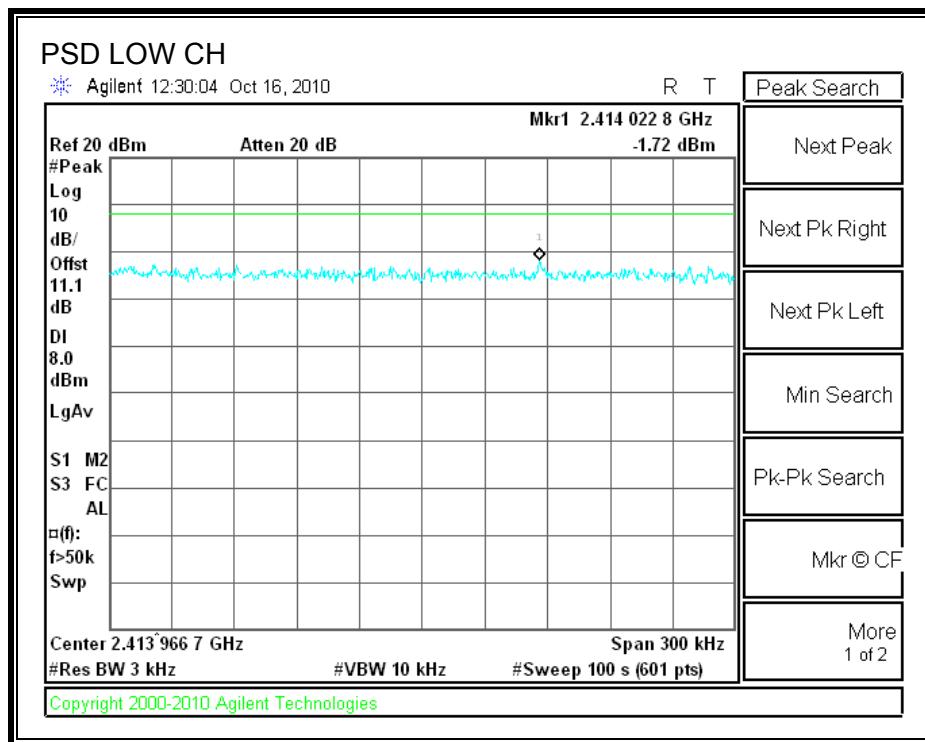
TEST PROCEDURE

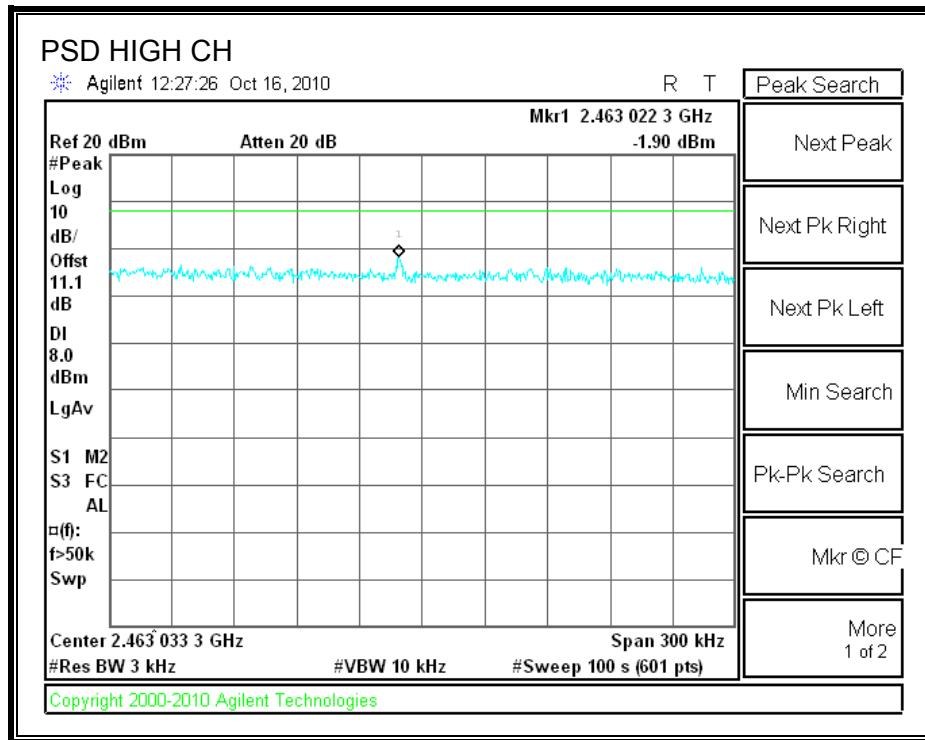
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-1.72	8	-9.72
Middle	2437	-1.38	8	-9.38
High	2462	-1.90	8	-9.90

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.

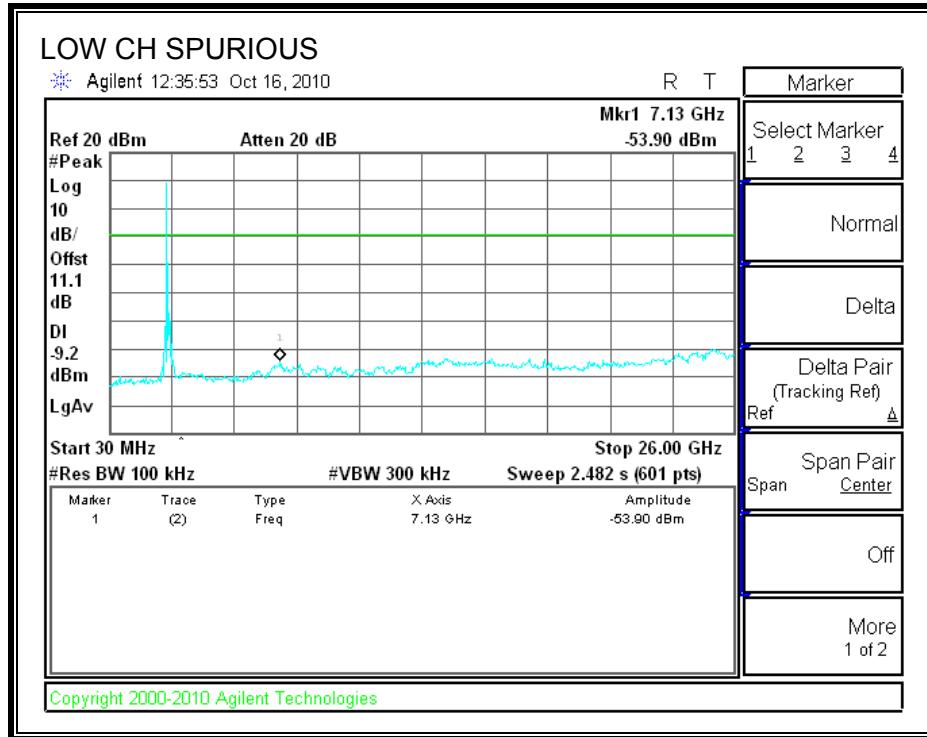
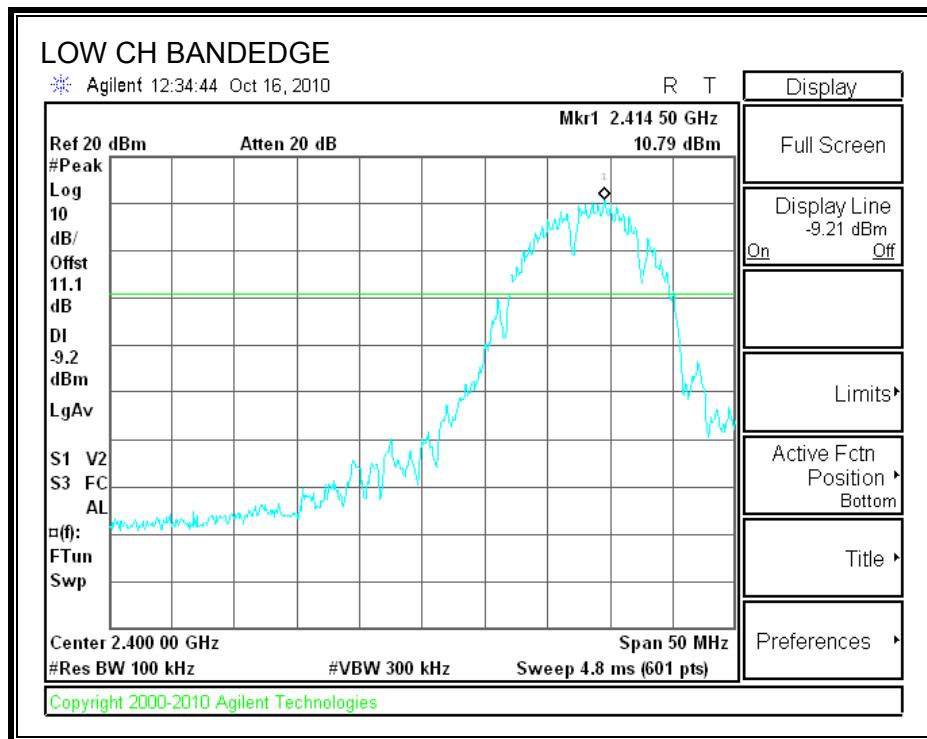
TEST PROCEDURE

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.

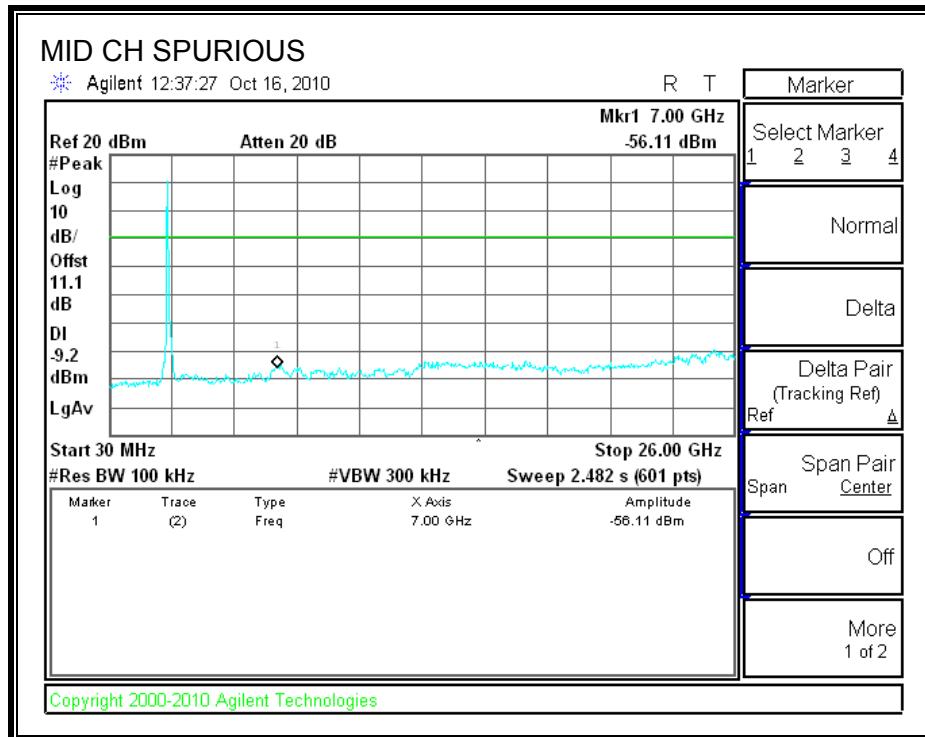
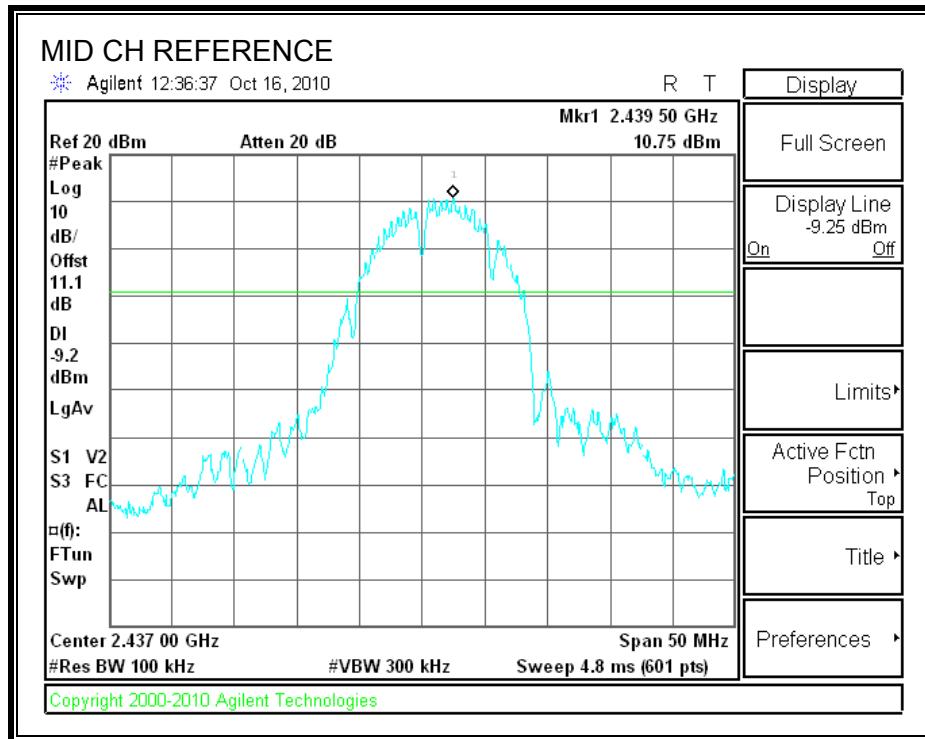
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

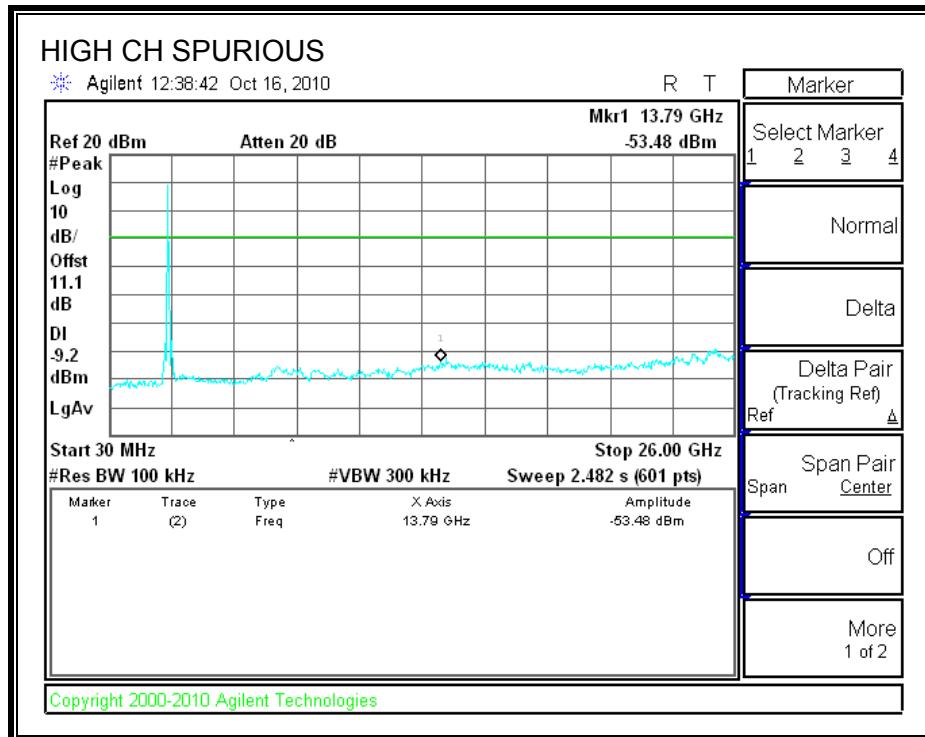
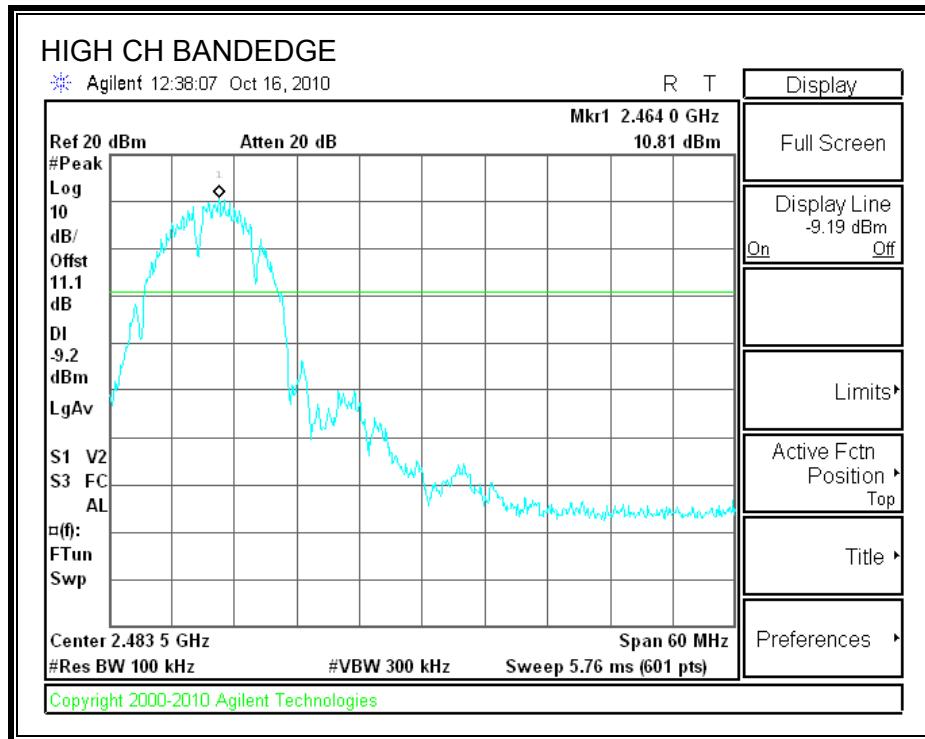
SPURIOUS EMISSIONS, LOW CHANNEL



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.

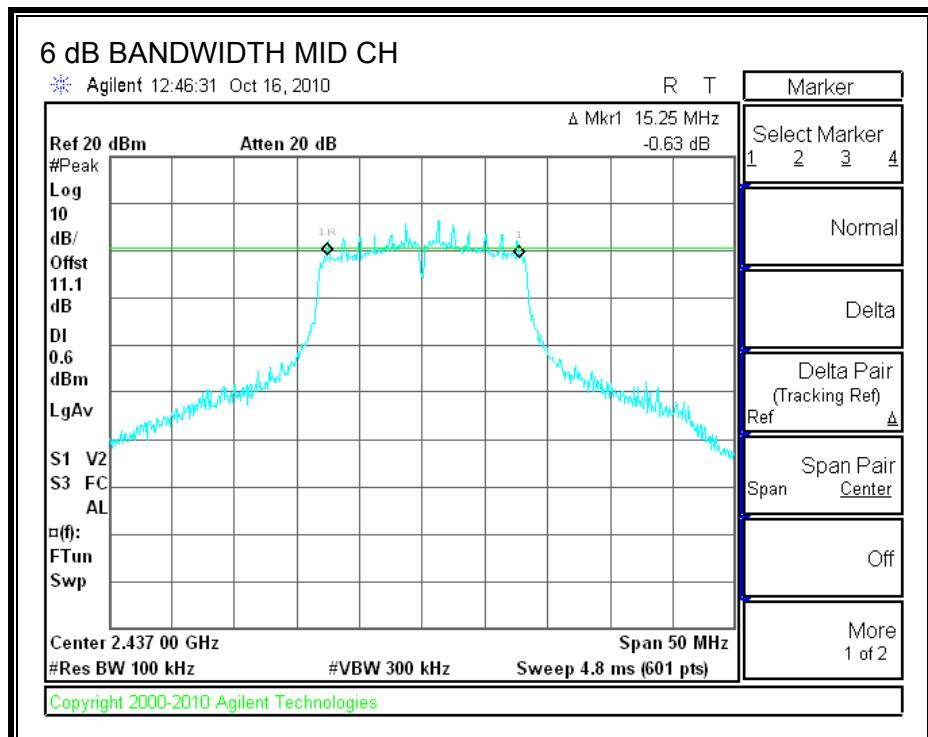
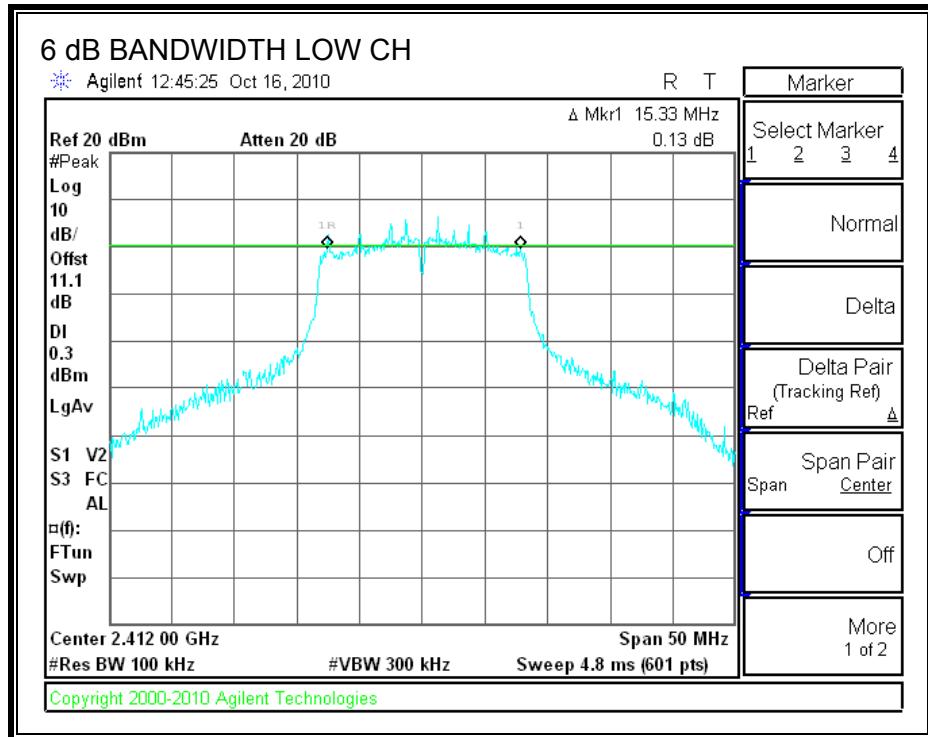
TEST PROCEDURE

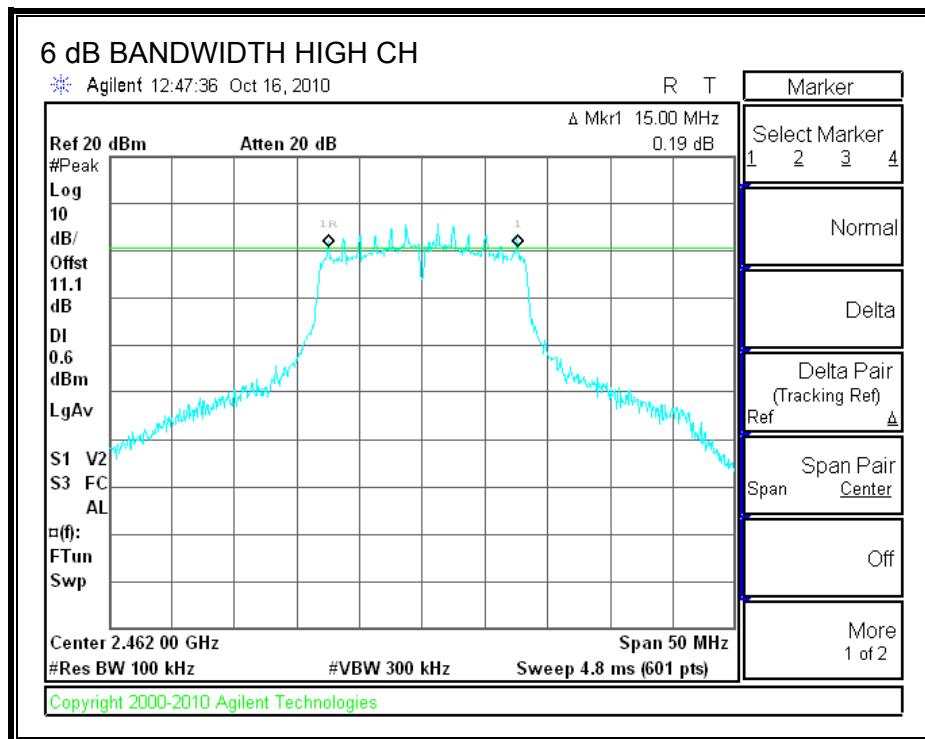
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.33	0.5
Middle	2437	15.25	0.5
High	2462	15.00	0.5

6 dB BANDWIDTH





7.2.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

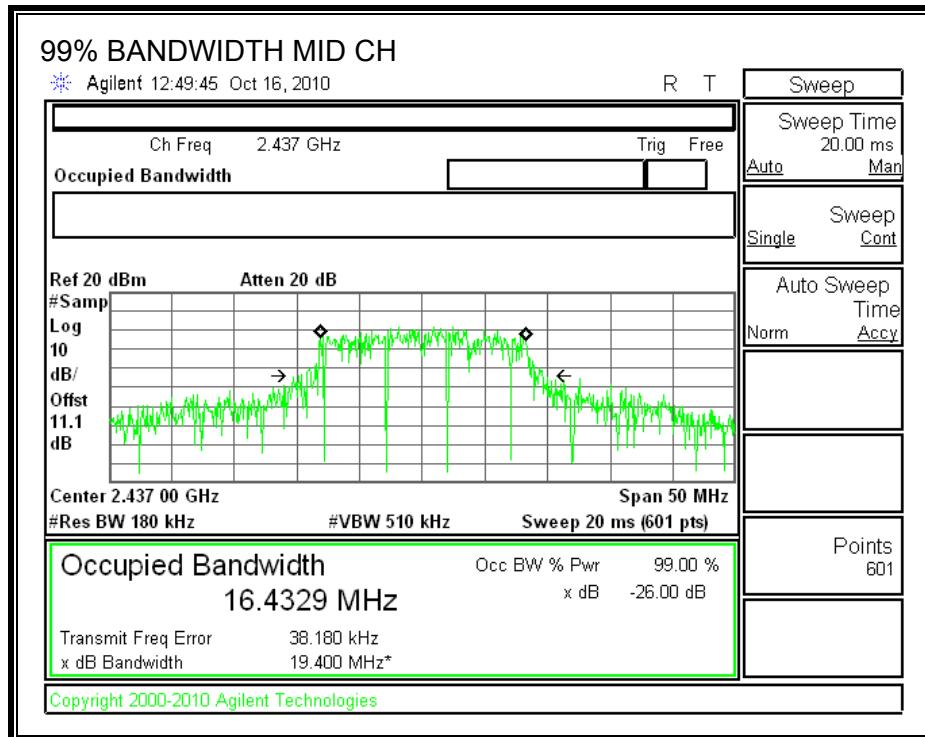
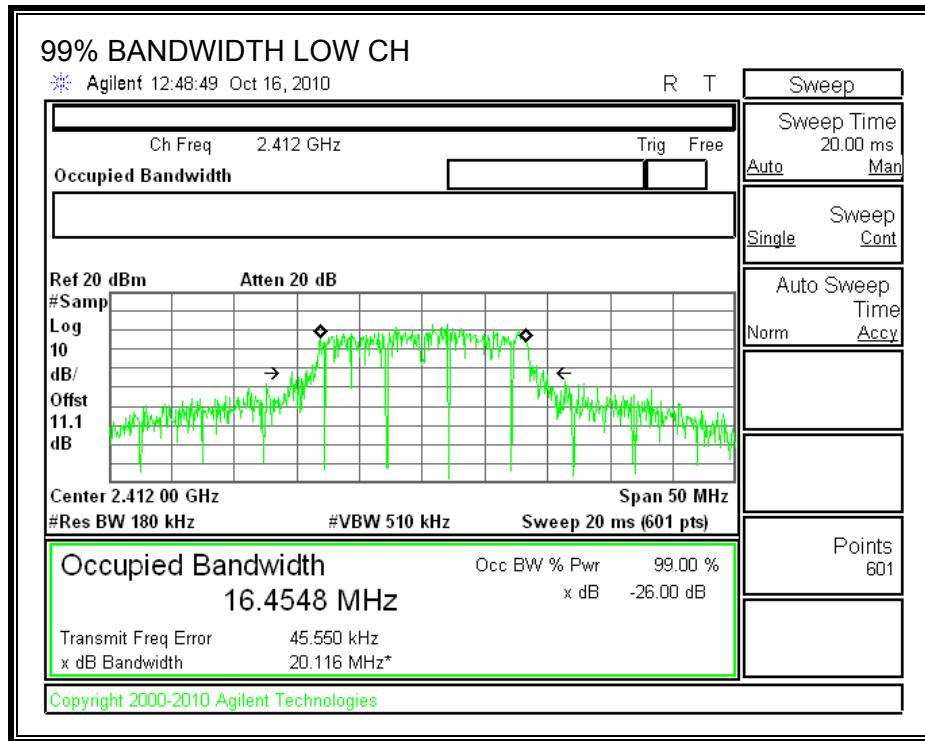
TEST PROCEDURE

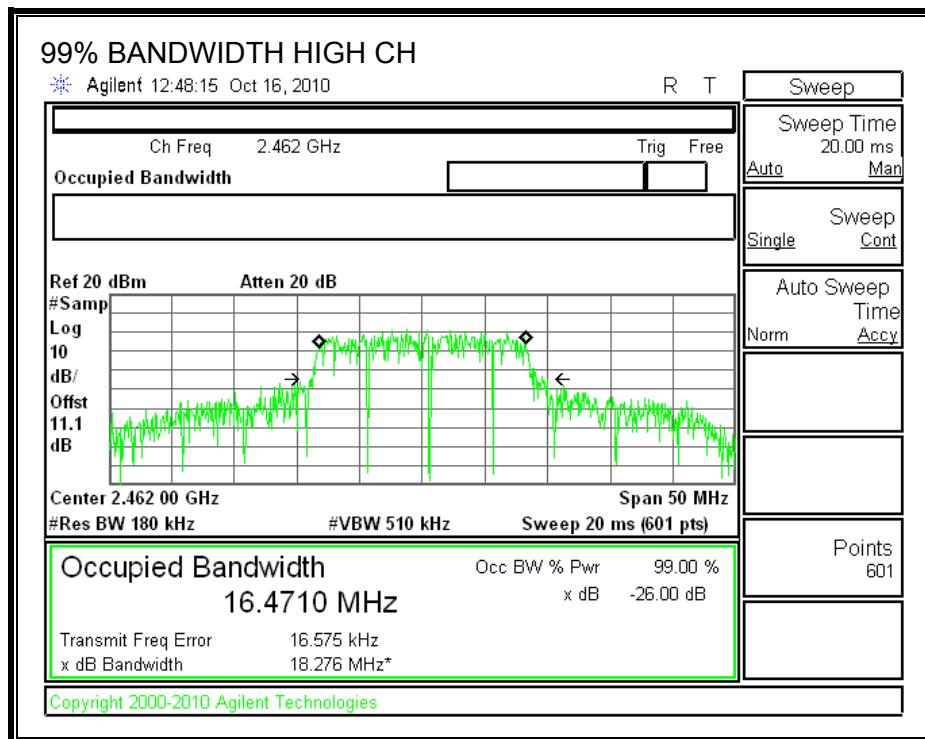
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.455
Middle	2437	16.433
High	2462	16.471

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 11.1 dB (including 10 dB pad and 1.1 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	21.30
Middle	2437	21.30
High	2462	21.20

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 11.1 dB (including 10 dB pad and 1.1dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	14.50
Middle	2437	14.50
High	2462	14.40

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.

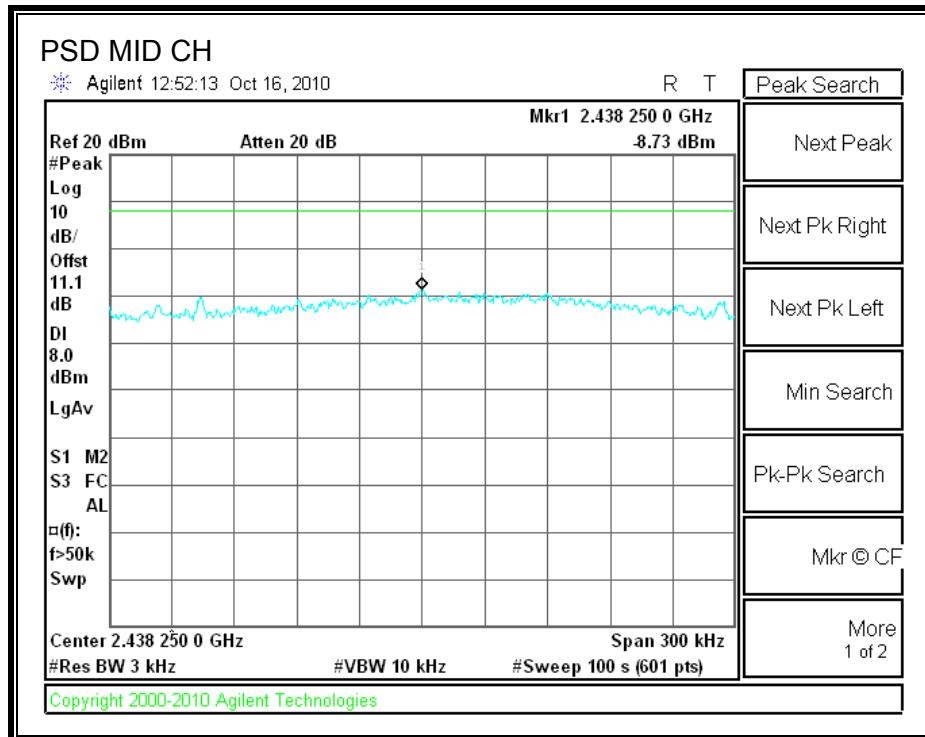
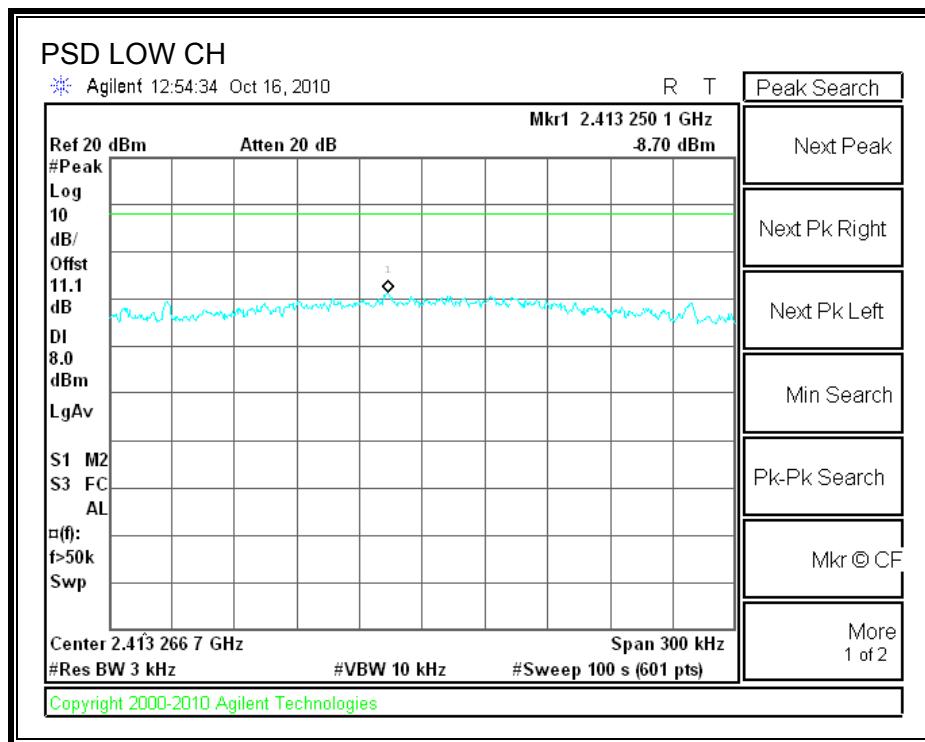
TEST PROCEDURE

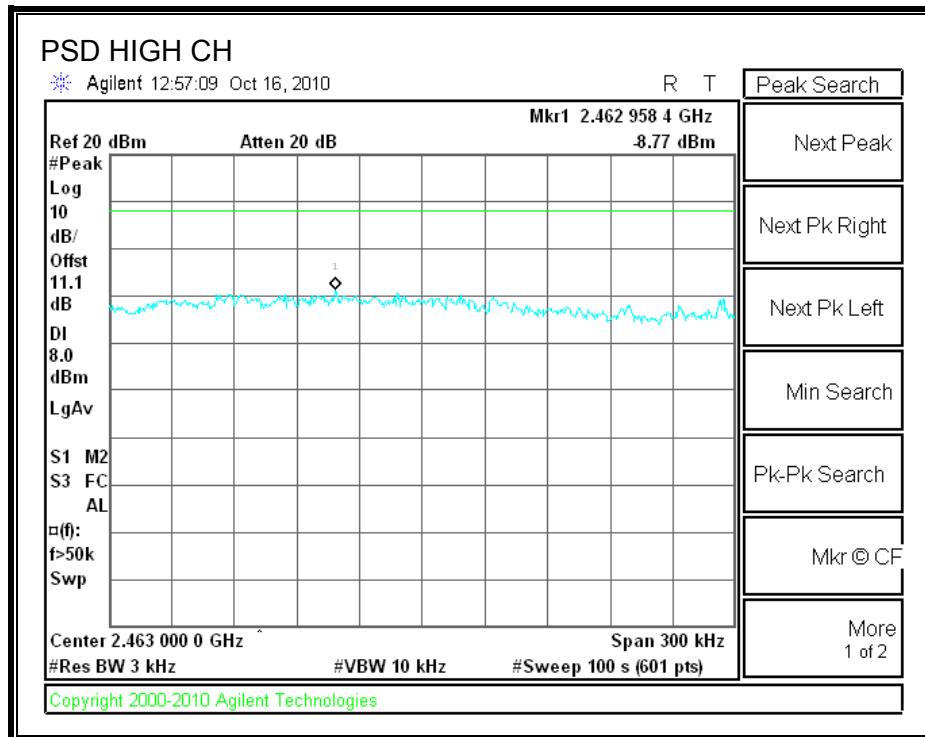
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-8.70	8	-16.70
Middle	2437	-8.73	8	-16.73
High	2462	-8.77	8	-16.77

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.

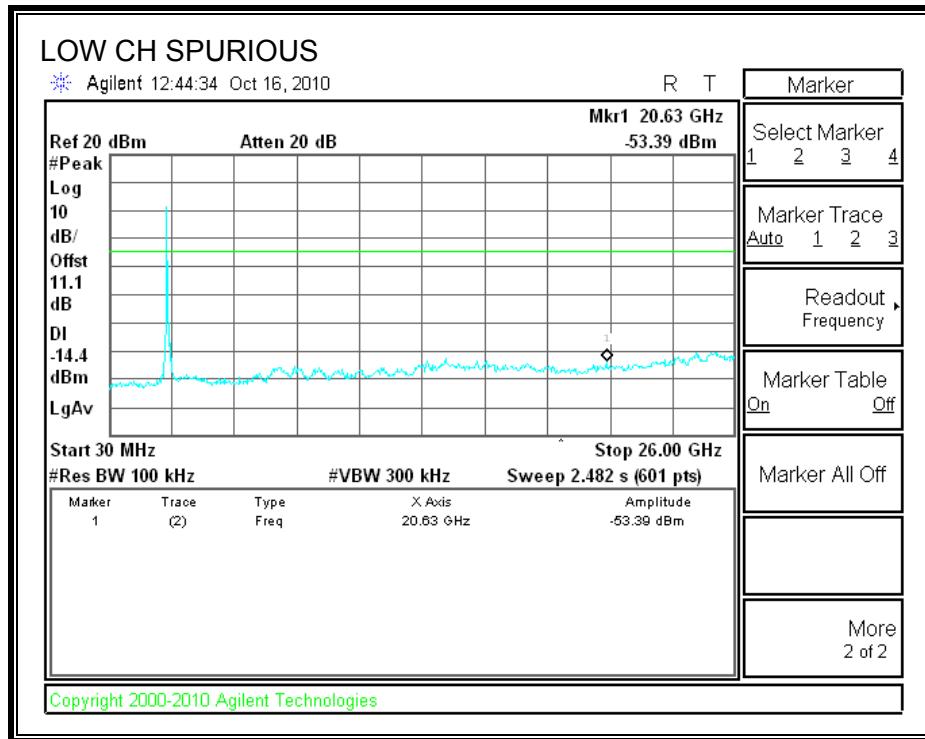
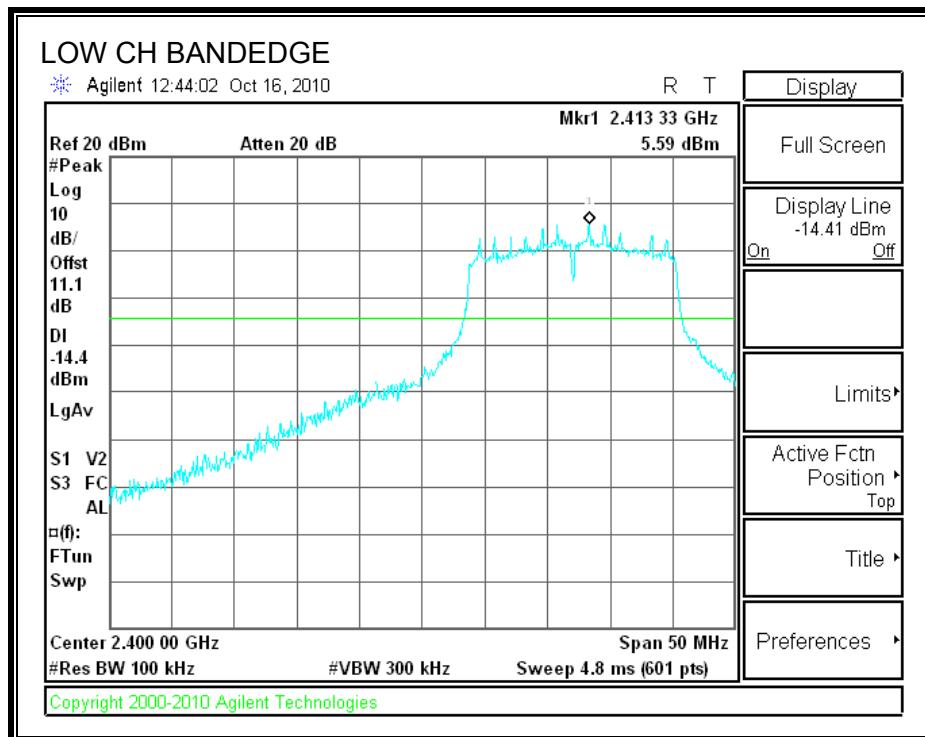
TEST PROCEDURE

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.

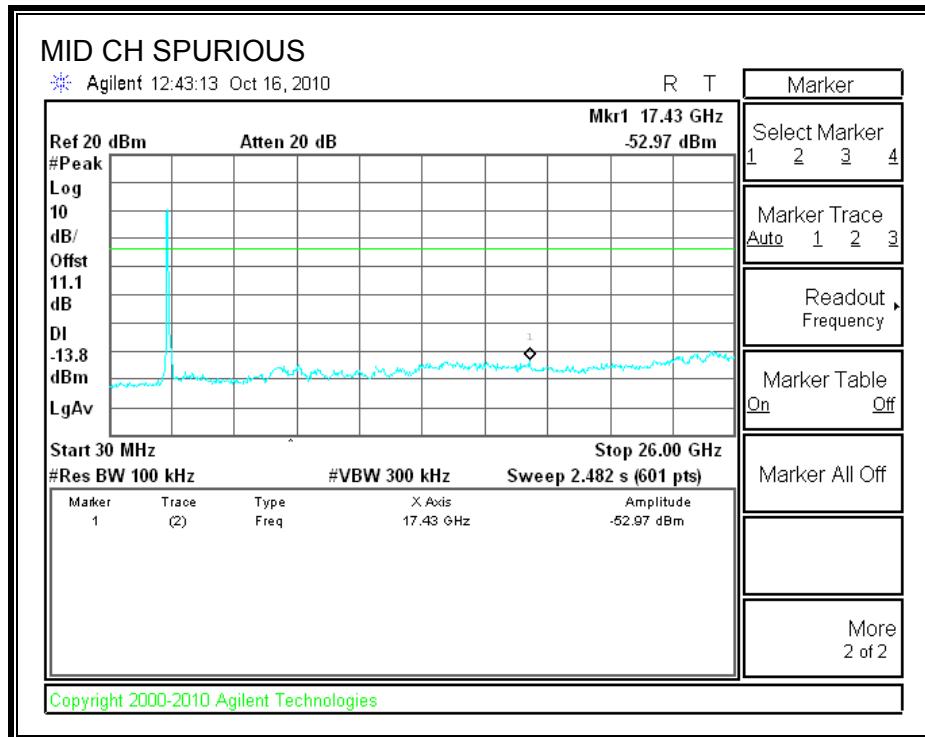
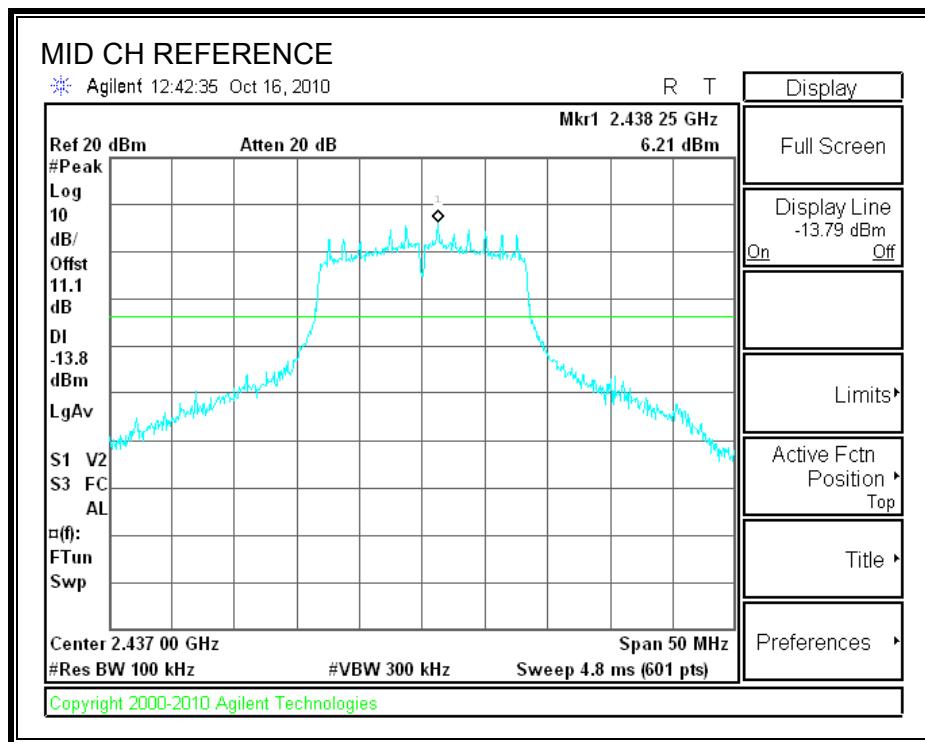
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

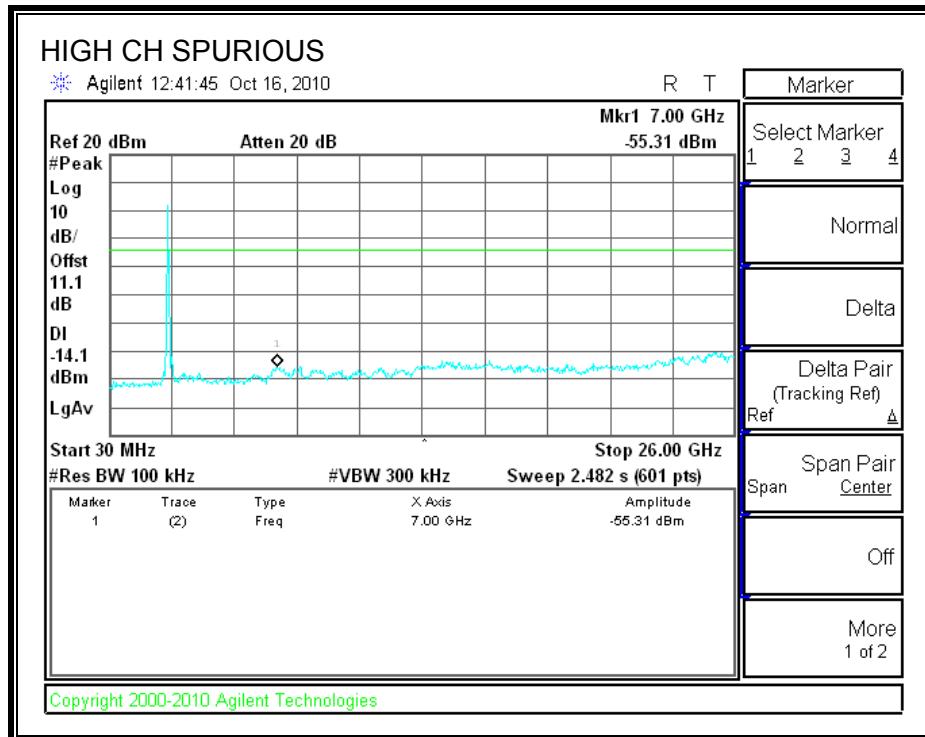
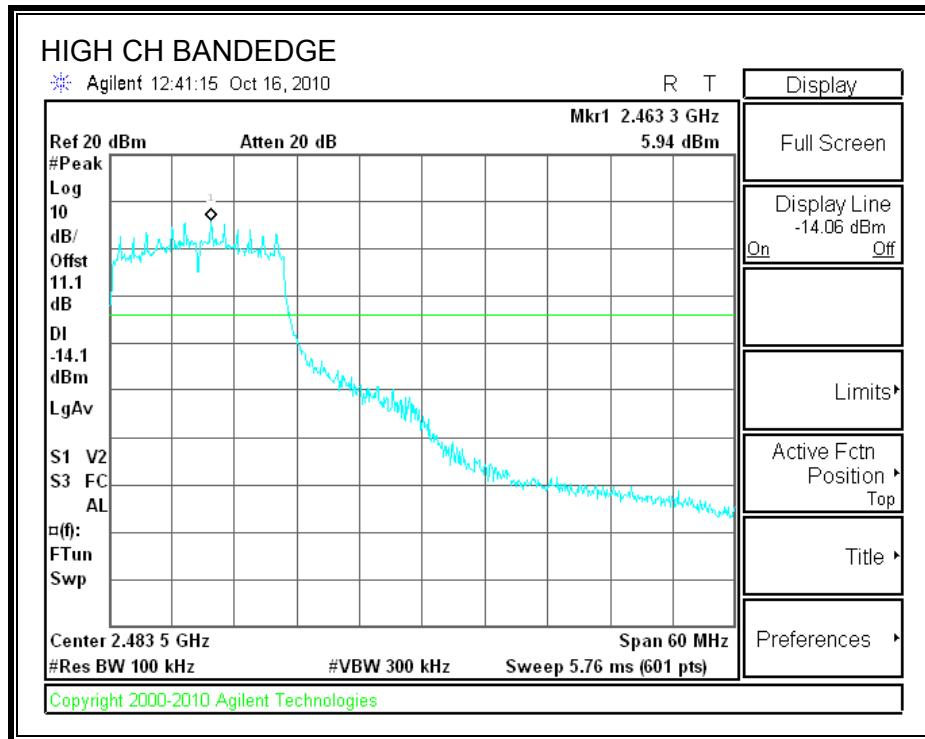
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.3. 802.11n HT20 SISO MODE IN THE 2.4 GHz BAND

7.3.1. 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.

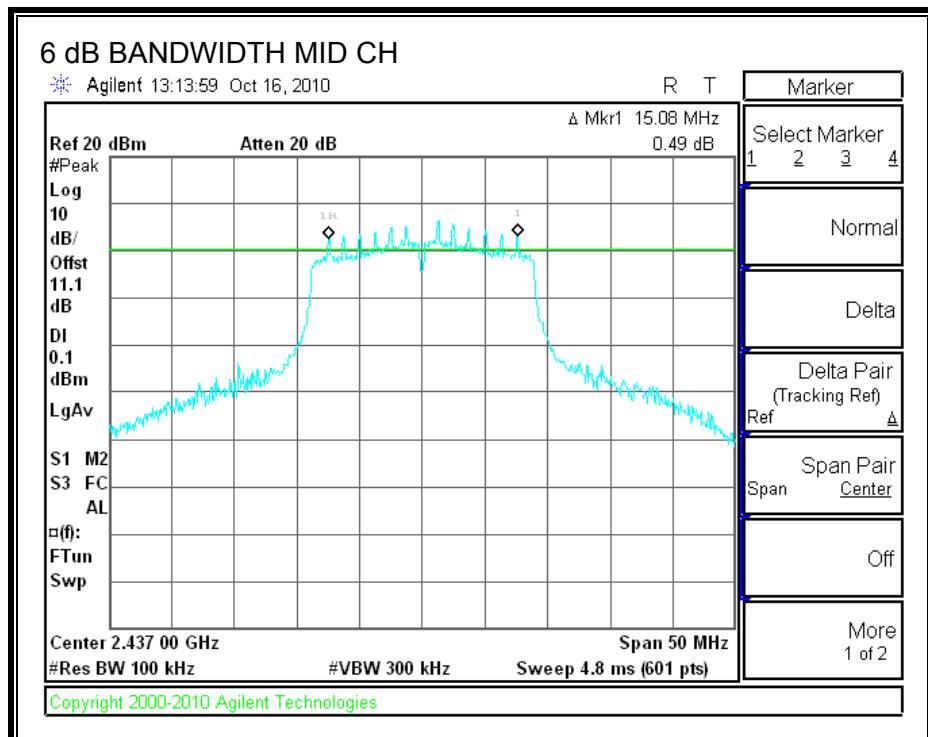
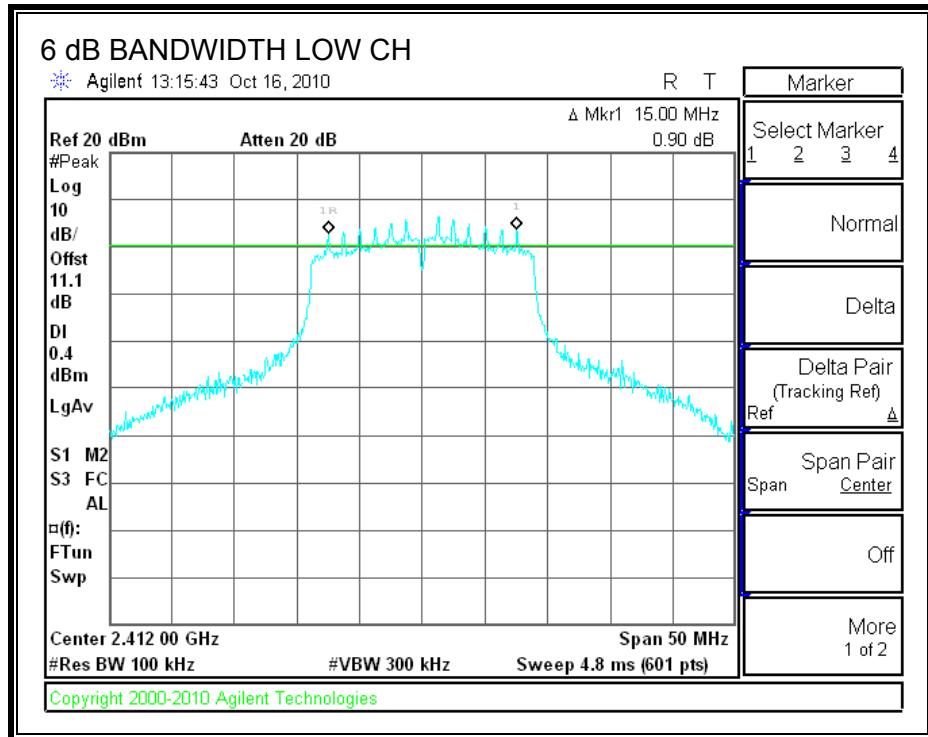
TEST PROCEDURE

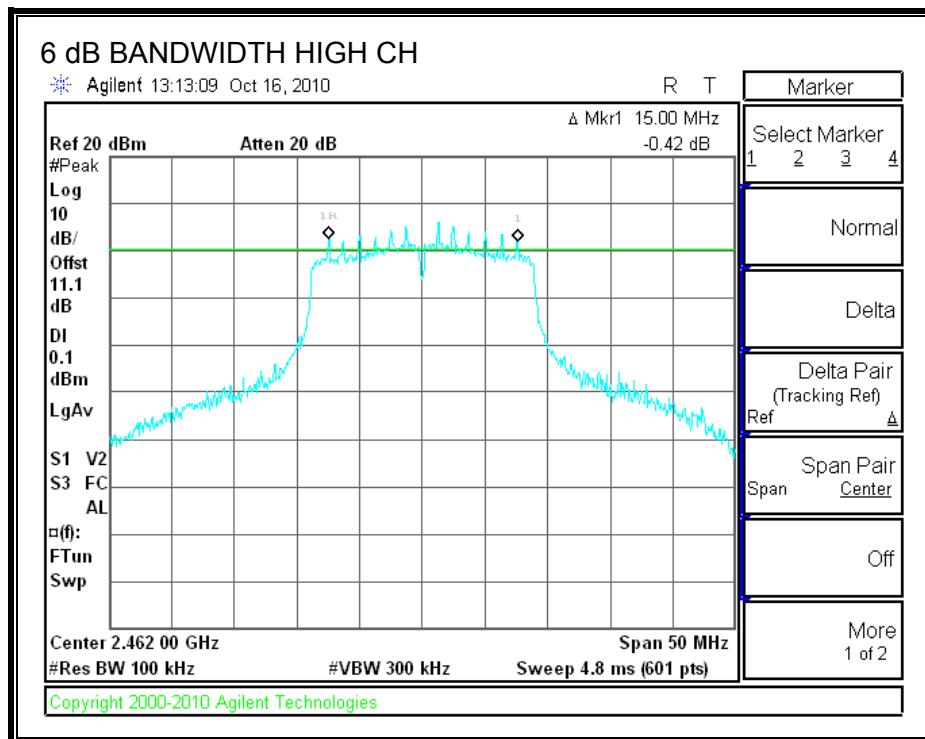
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.00	0.5
Middle	2437	15.08	0.5
High	2462	15.00	0.5

6 dB BANDWIDTH





7.3.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

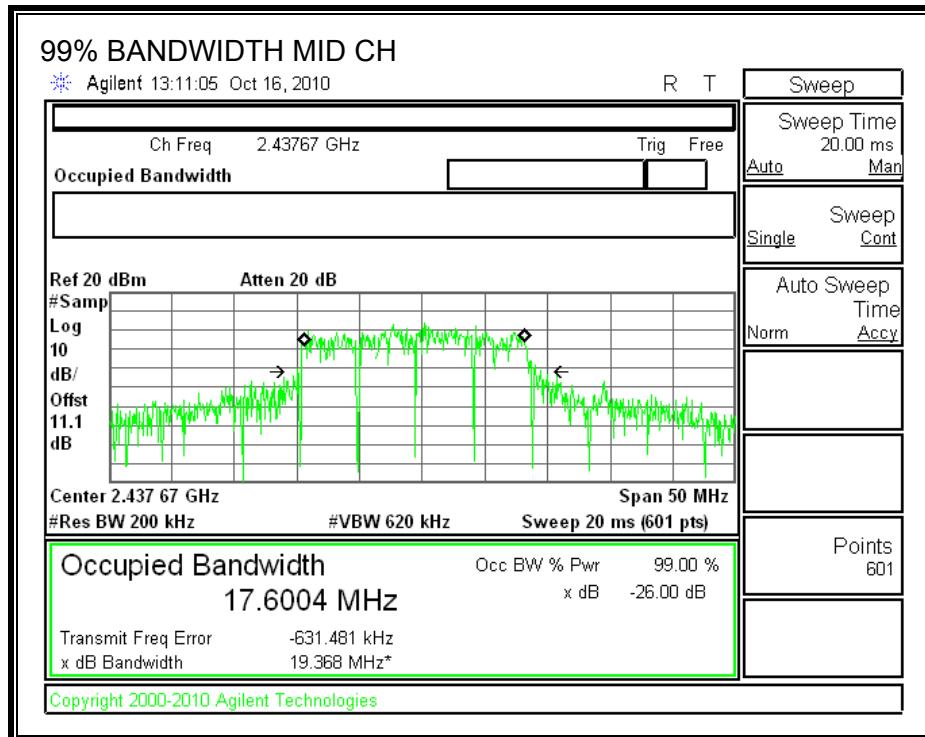
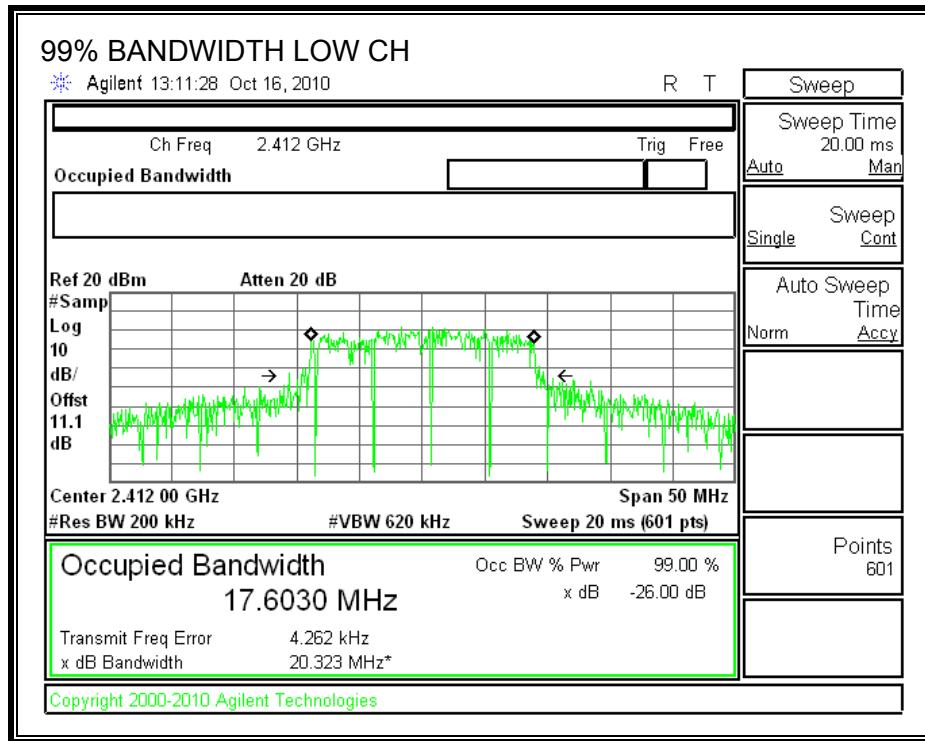
TEST PROCEDURE

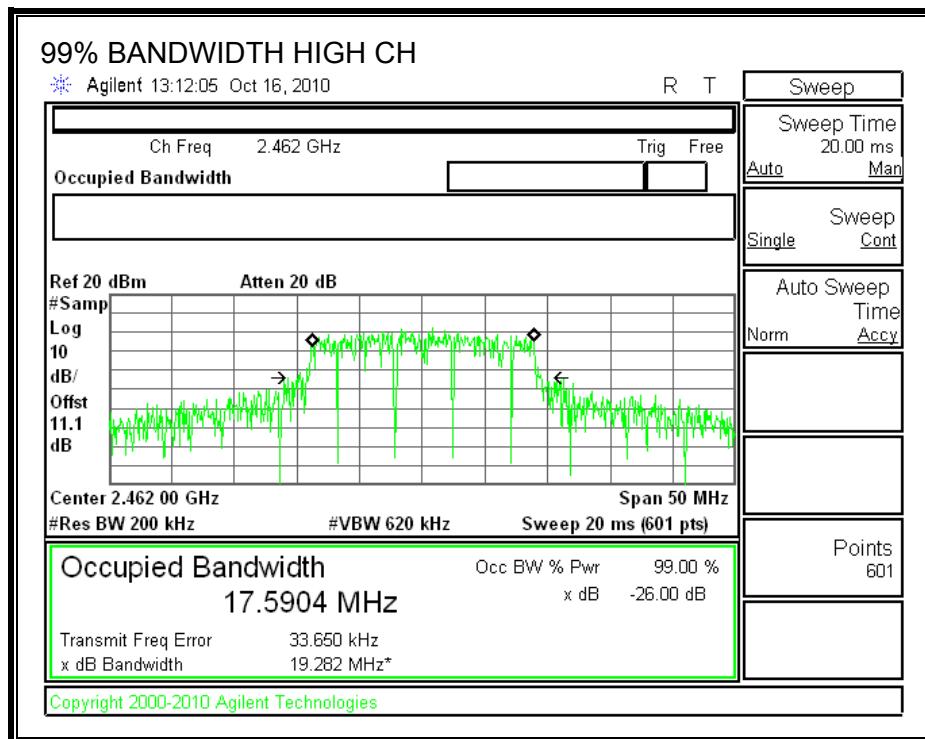
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.603
Middle	2437	17.600
High	2462	17.590

99% BANDWIDTH





7.3.3. 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 11.1 dB (including 10 dB pad and 1.1 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	21.20
Middle	2437	21.30
High	2462	21.20

7.3.4. 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 11.1 dB (including 10 dB pad and 1.1dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	14.30
Middle	2437	14.30
High	2462	14.30

7.3.5. 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.

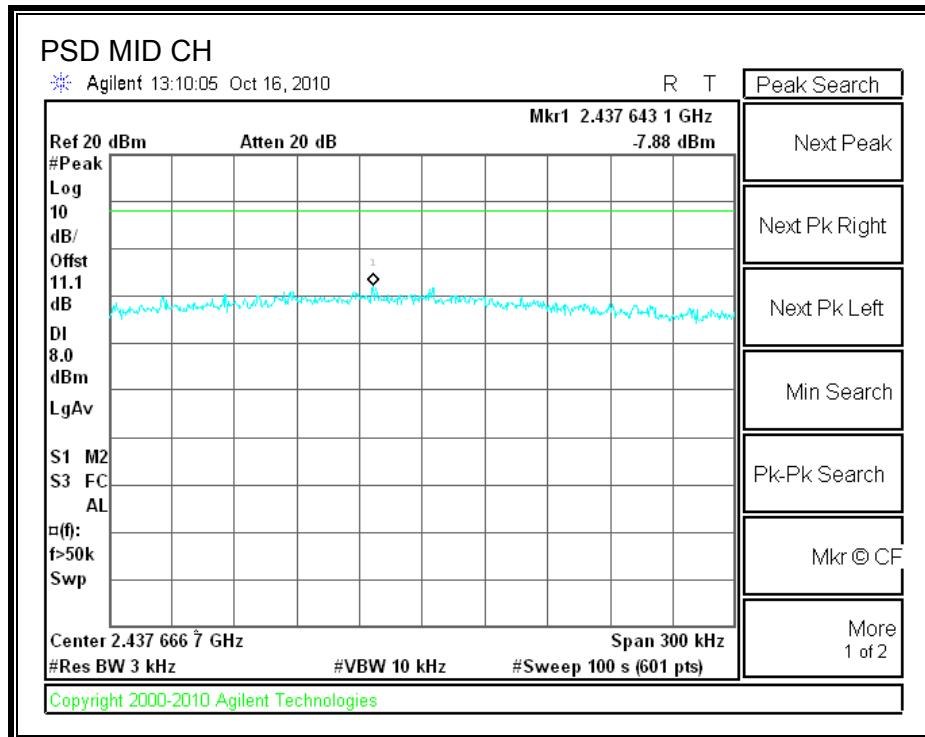
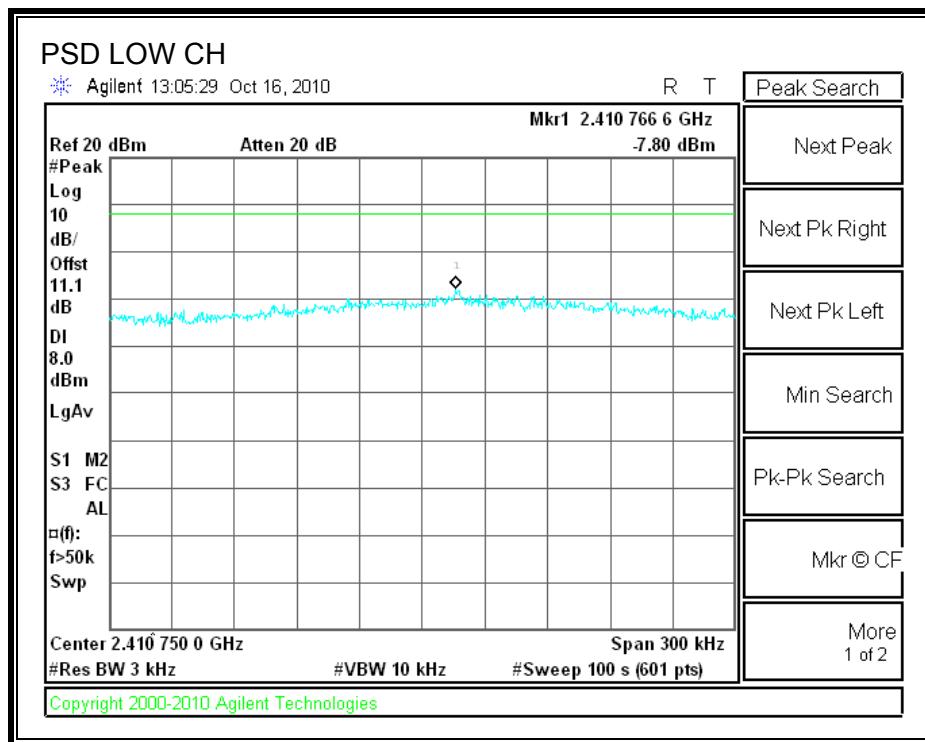
TEST PROCEDURE

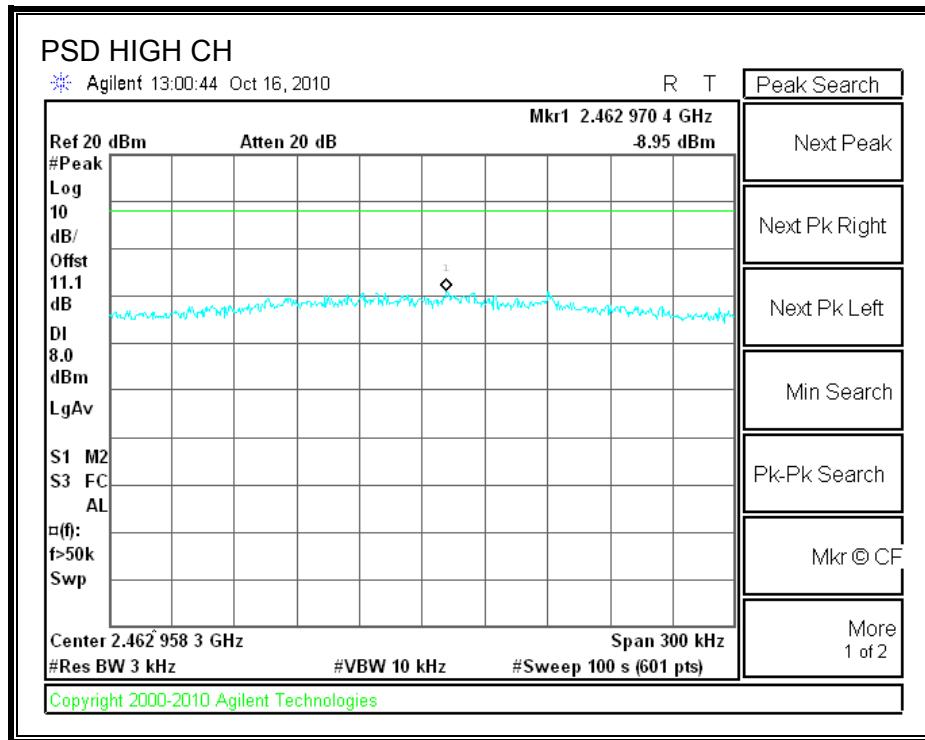
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-7.80	8	-15.80
Middle	2437	-7.88	8	-15.88
High	2462	-8.95	8	-16.95

POWER SPECTRAL DENSITY





7.3.6. 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.

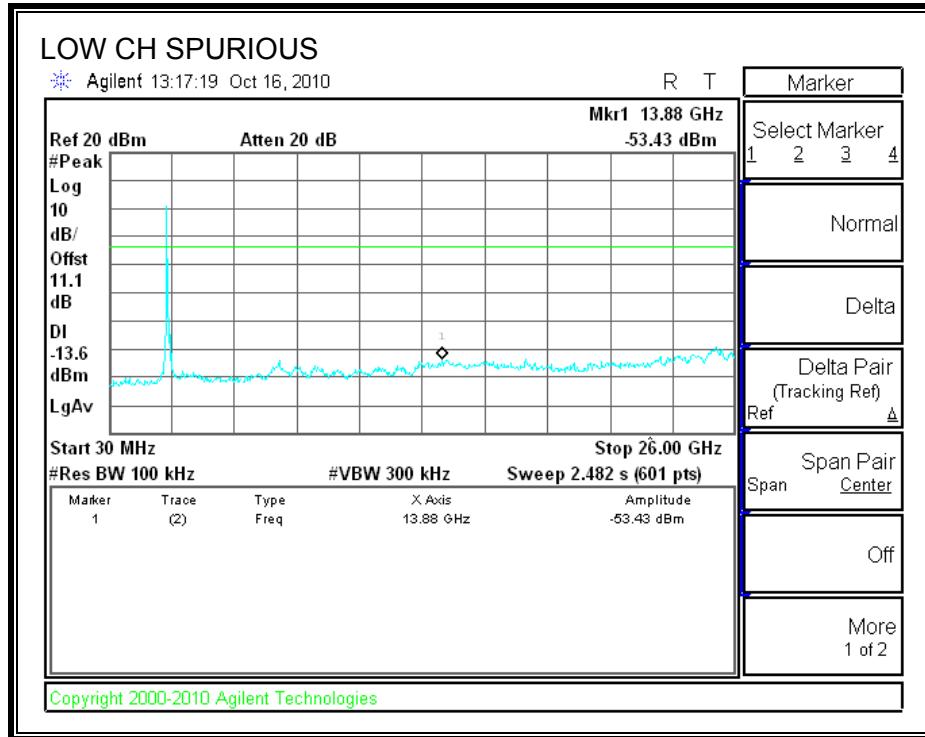
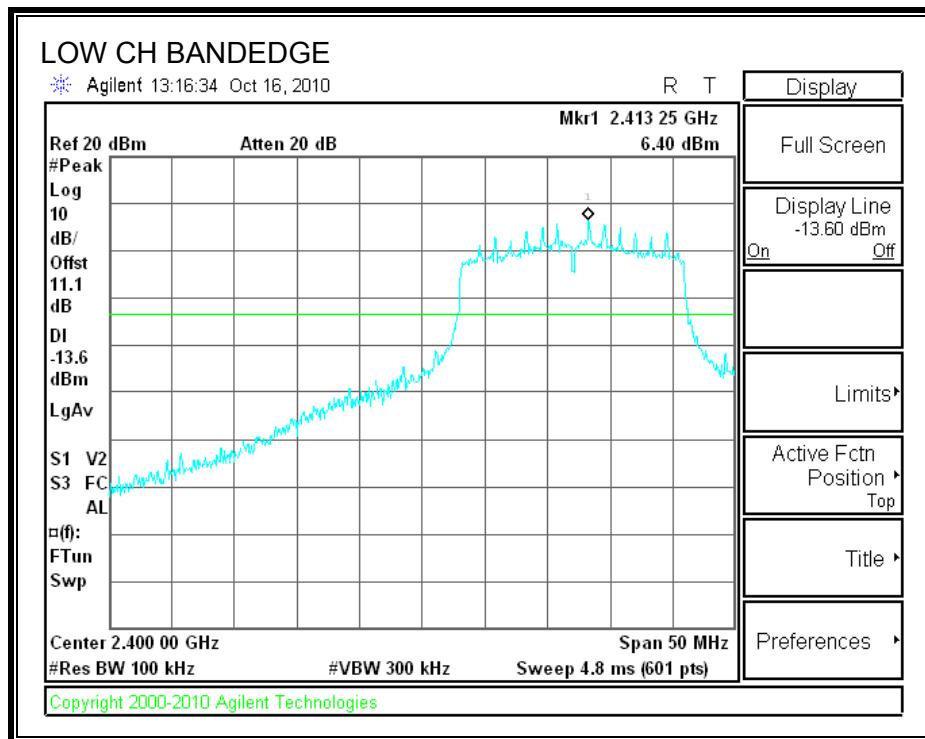
TEST PROCEDURE

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.

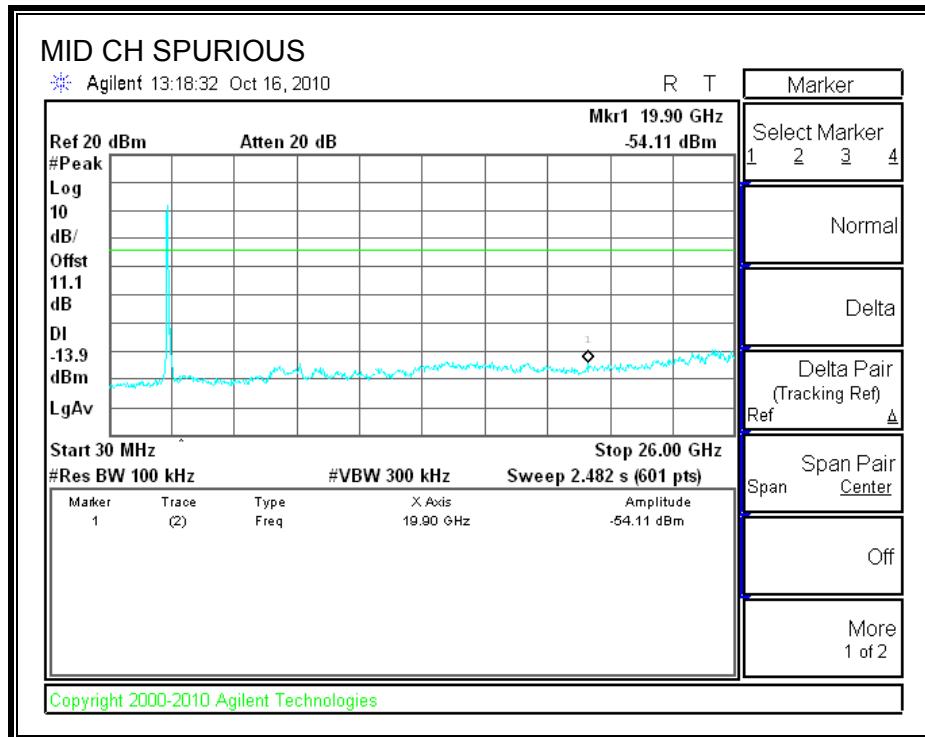
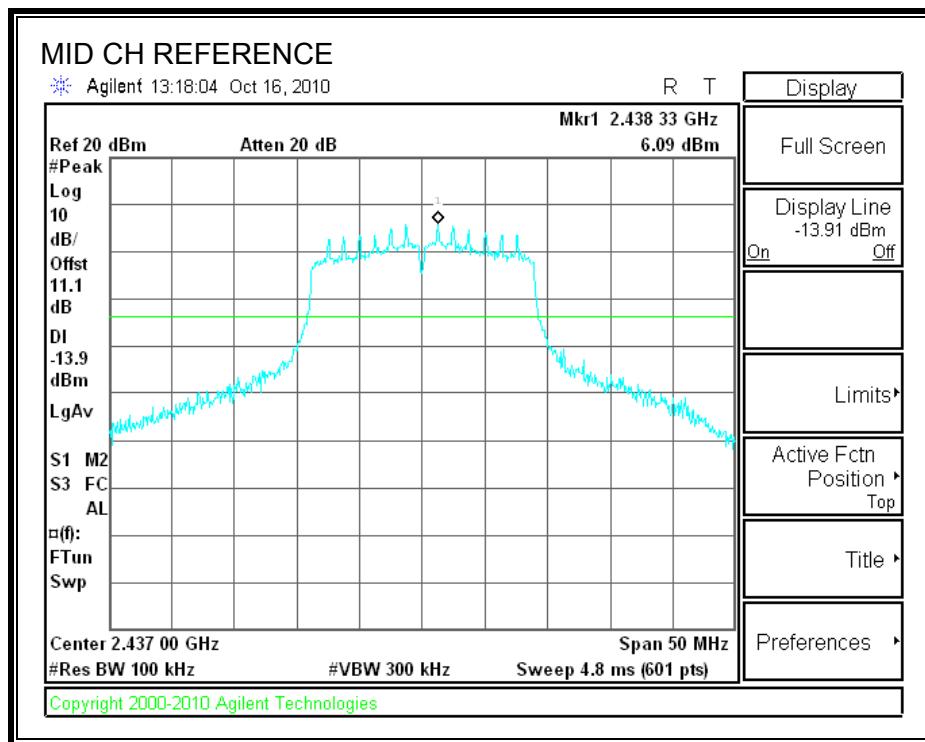
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

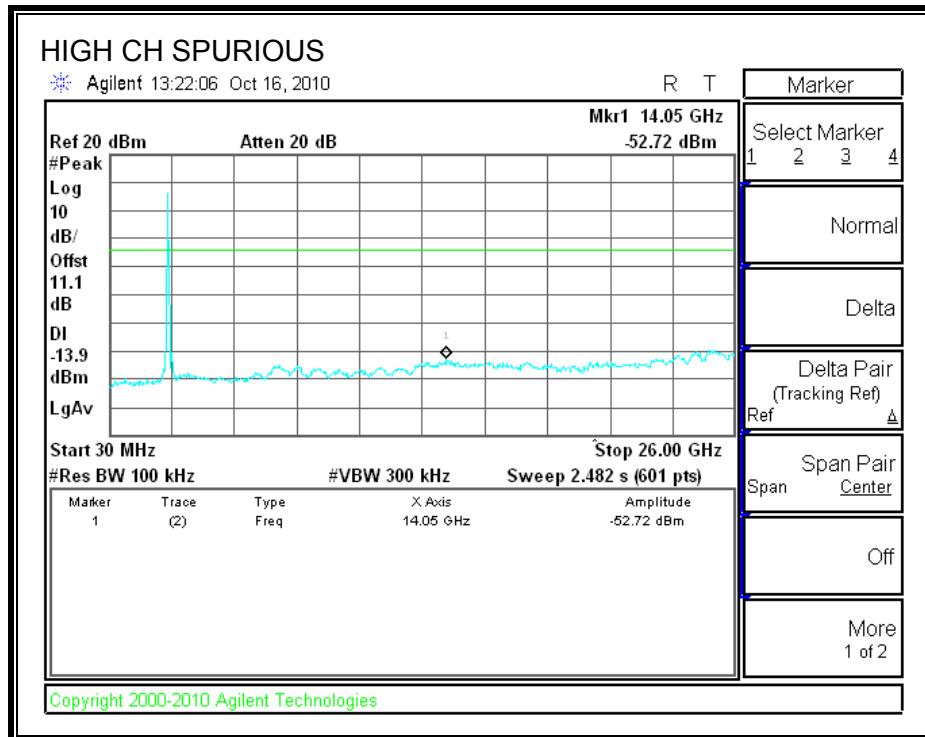
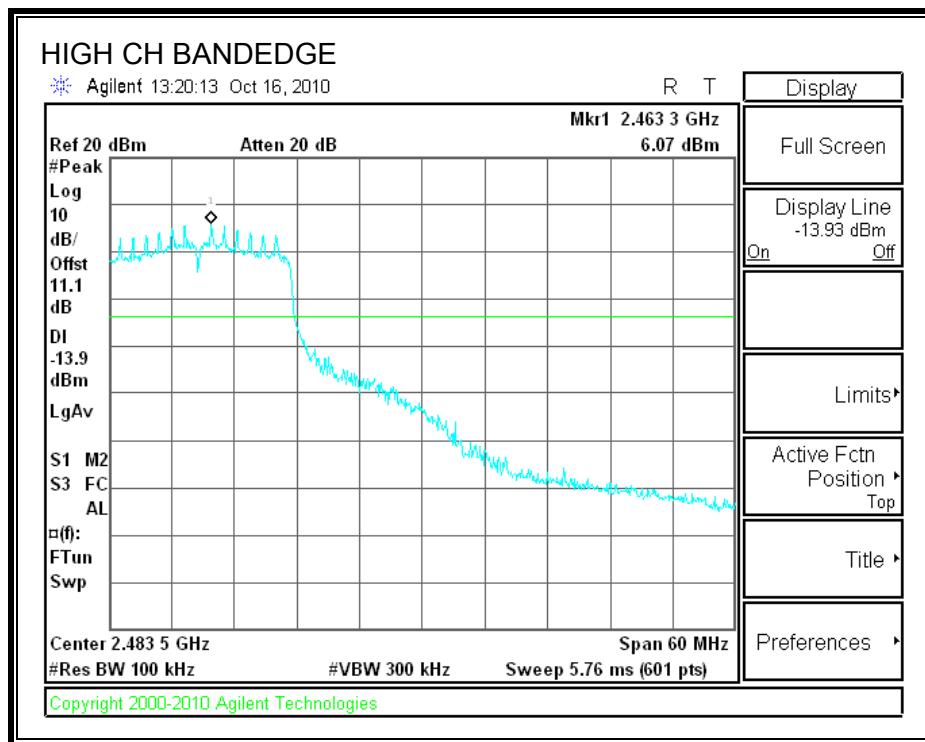
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.4. BLUETOOTH GFSK MODE IN THE 2.4 GHz BAND

7.4.1. AVERAGE TIME OF OCCUPANCY

LIMIT

FCC §15.247 (a) (1) (iii)

IC RSS-210 A8.1 (d)

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centered on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 3.16 second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{pulse width}$.

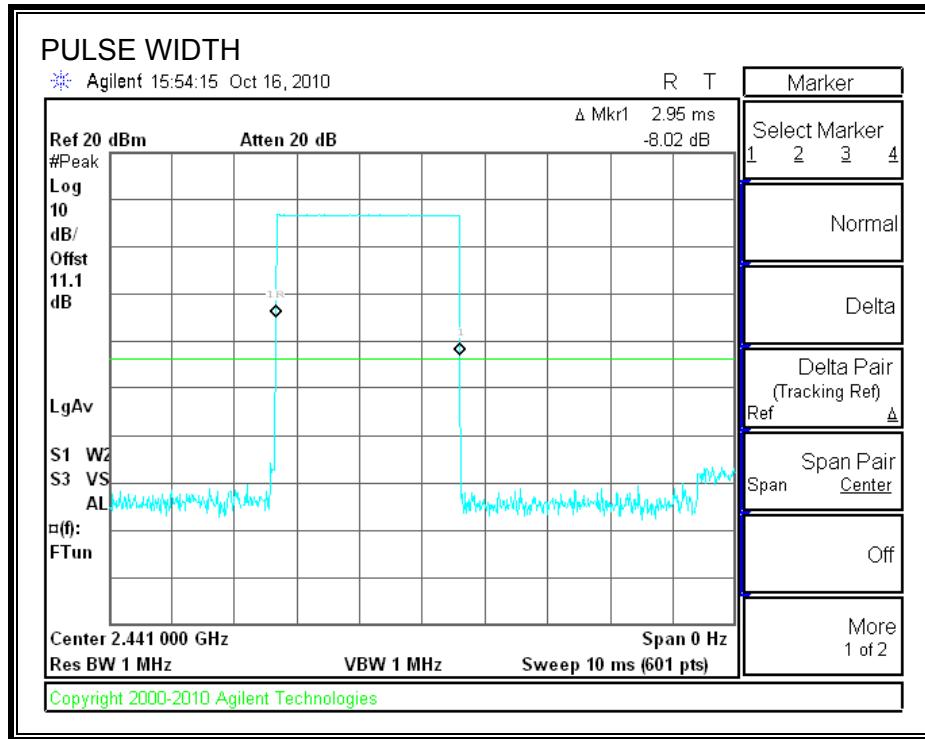
RESULTS

The DH5 has worst case package of average time of occupancy after the investigation.

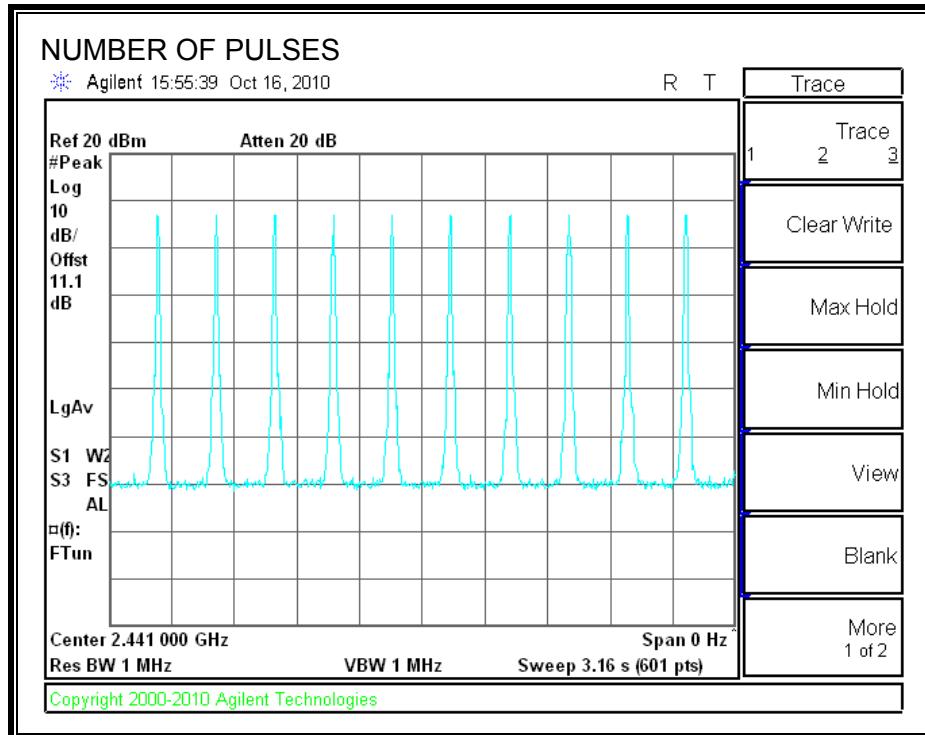
GFSK Mode

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of (sec)	Limit (sec)	Margin (sec)
DH5	2.95	10	0.295	0.4	0.105

DH5 PULSE WIDTH



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



7.4.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

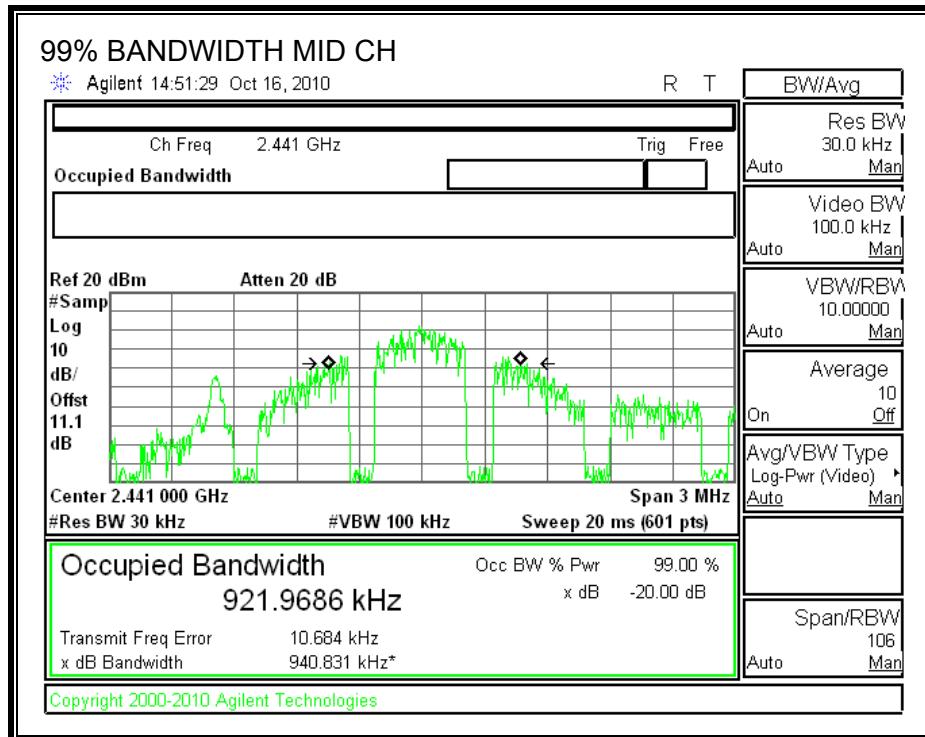
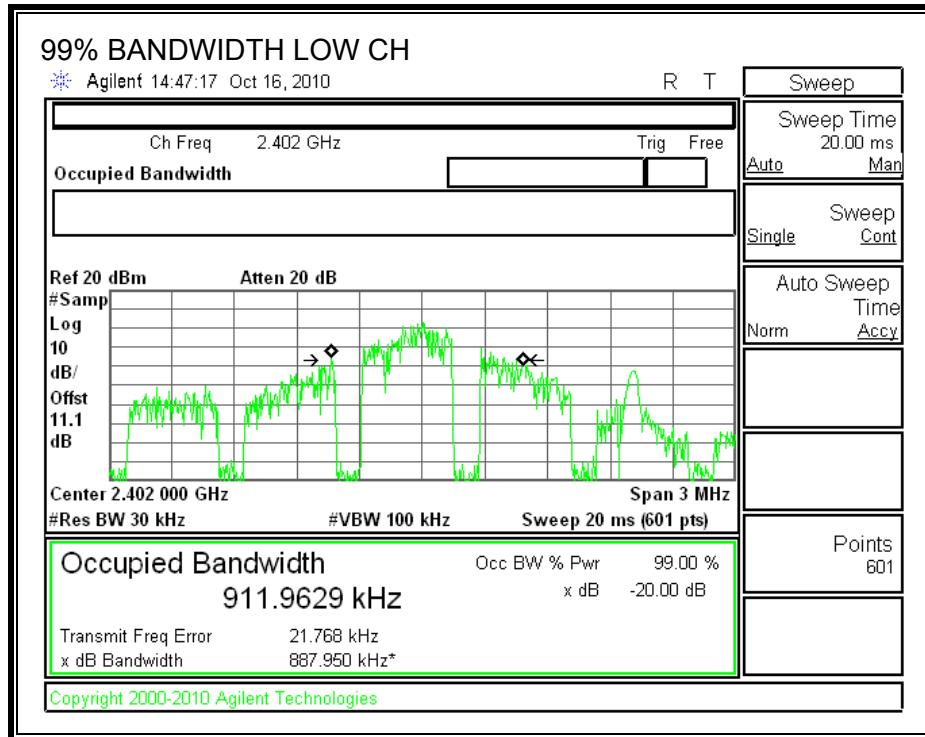
TEST PROCEDURE

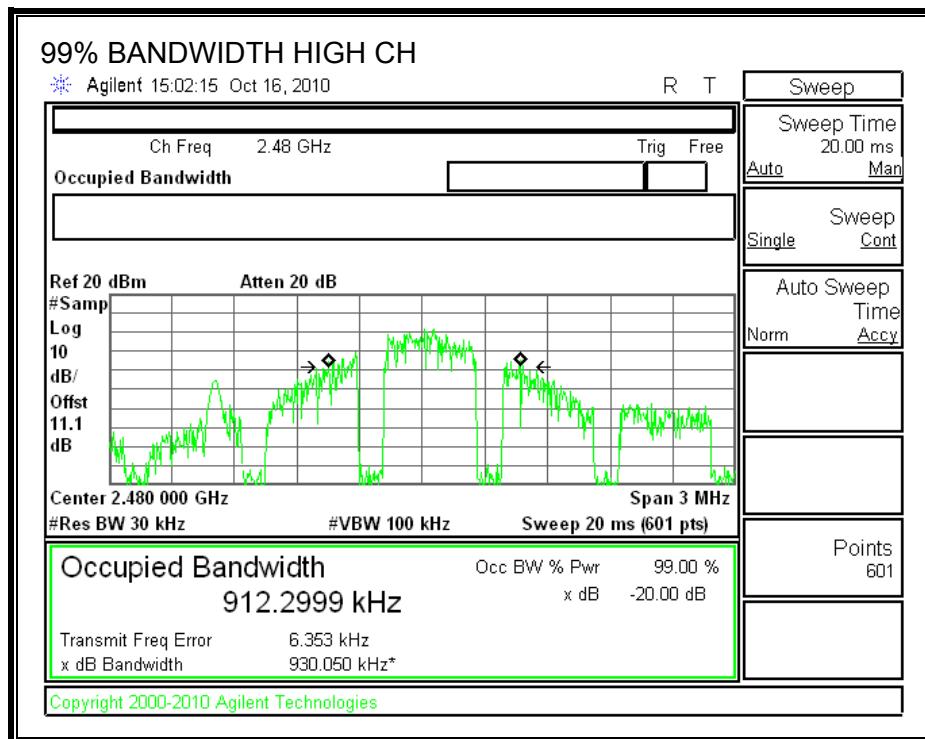
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (KHz)
Low	2402	911.963
Middle	2441	921.969
High	2480	912.300

99% BANDWIDTH





7.4.3. 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.

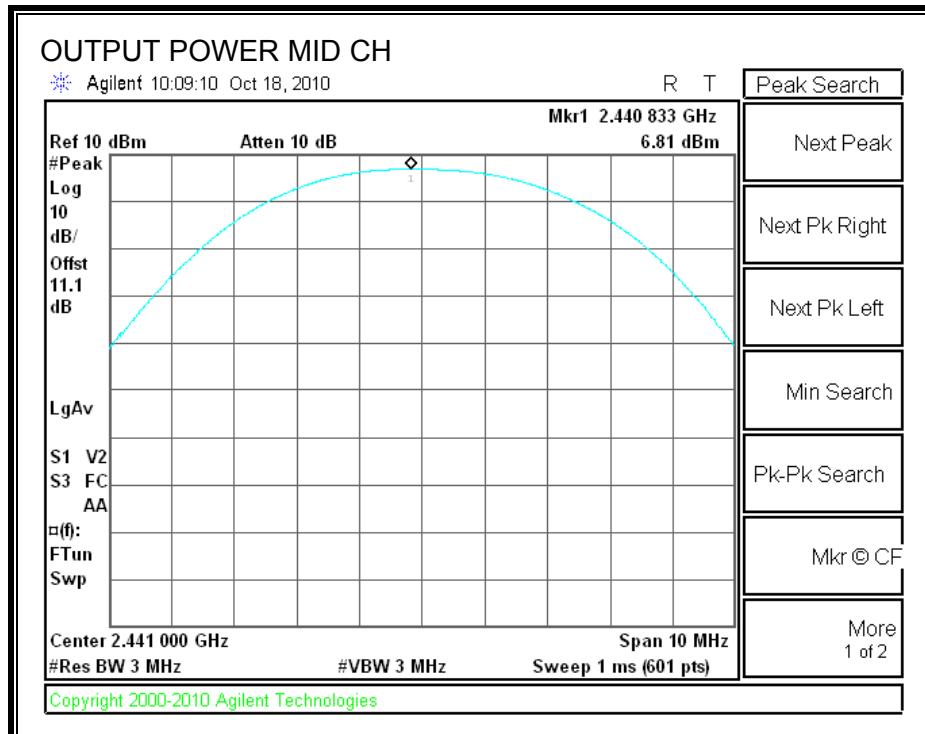
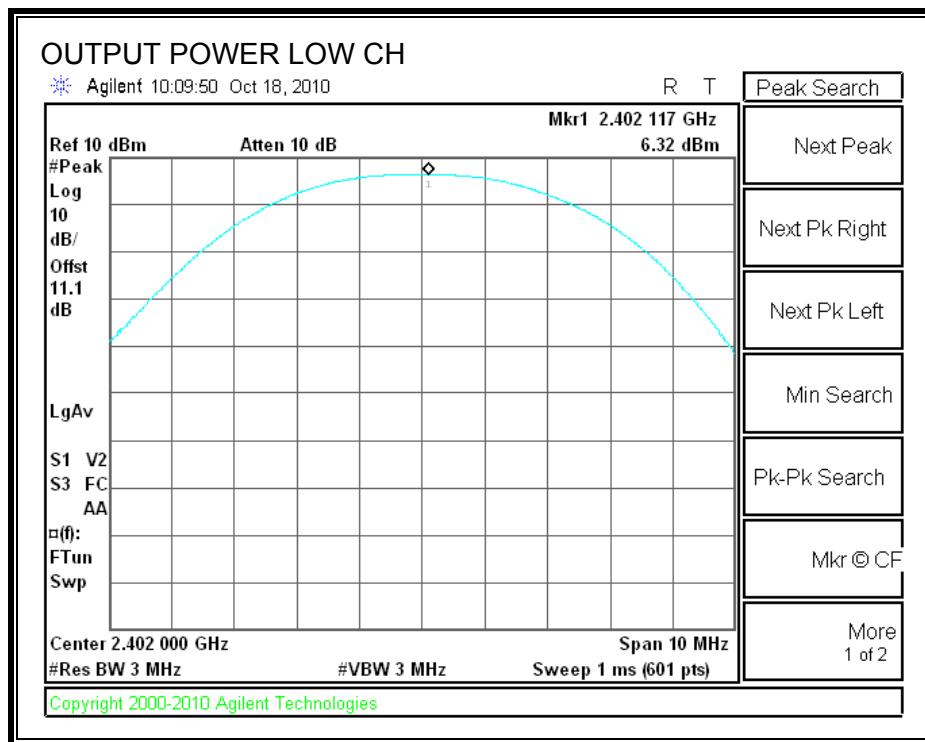
TEST PROCEDURE

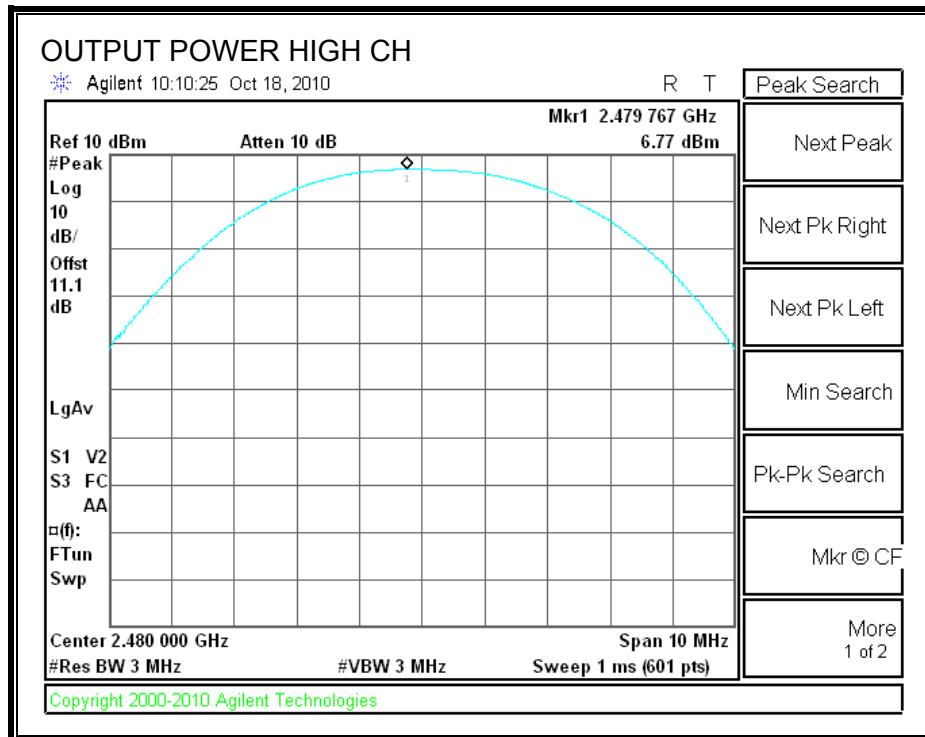
The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

RESULTS

Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	6.32	30	-23.68
Middle	2441	6.81	30	-23.19
High	2480	6.77	30	-23.23

OUTPUT POWER





7.4.4. 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 11.1 dB (including 10 dB pad and 1.1 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	4.85
Middle	2441	5.25
High	2480	5.15

7.4.5. 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.

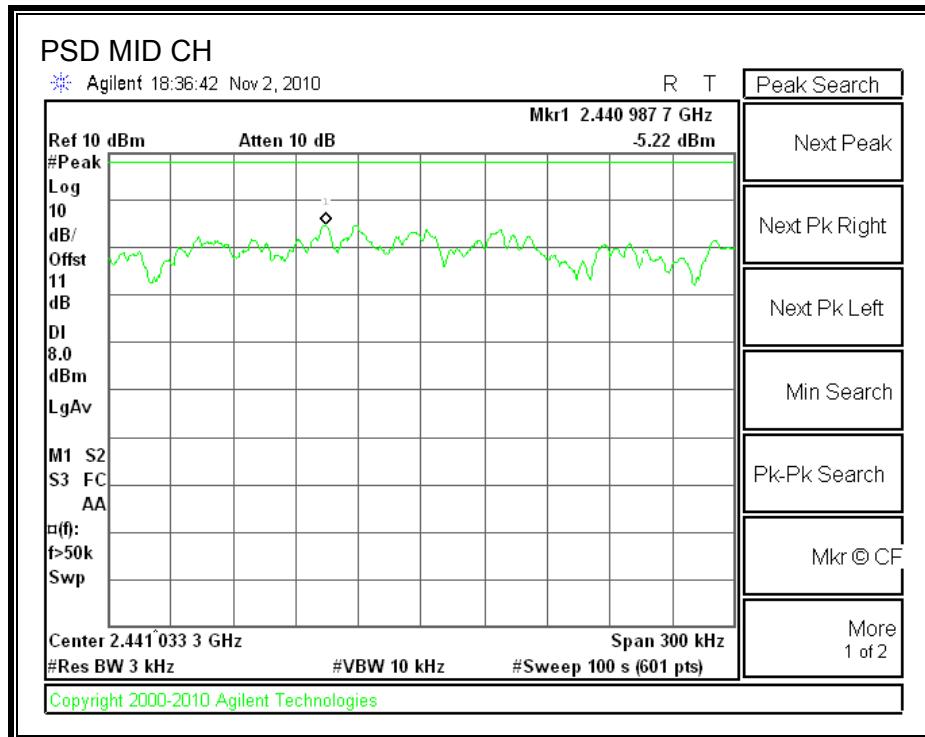
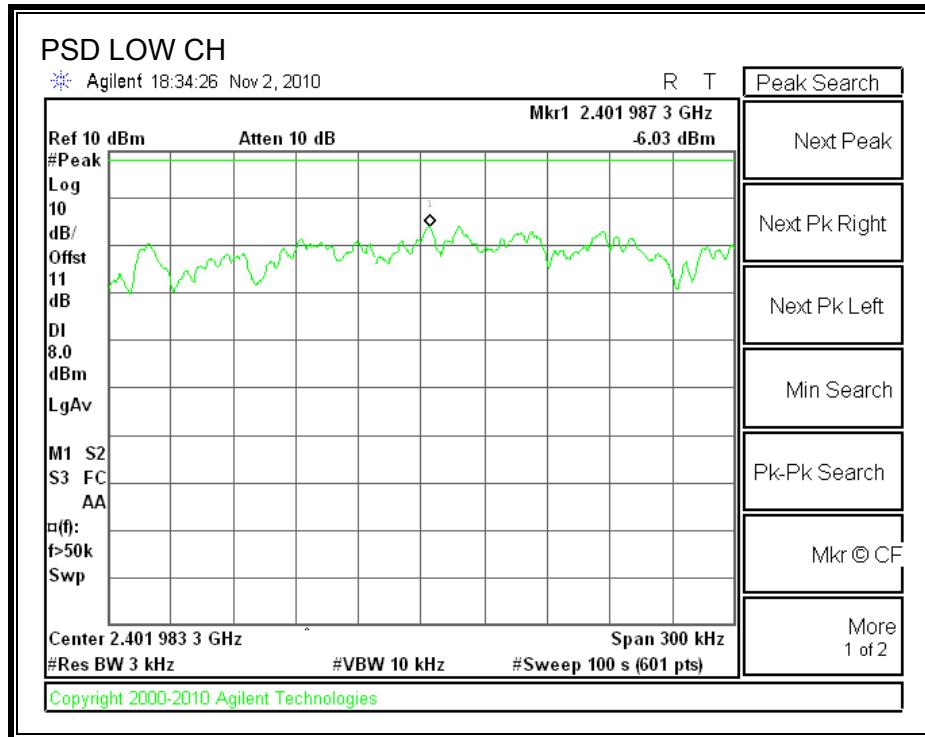
TEST PROCEDURE

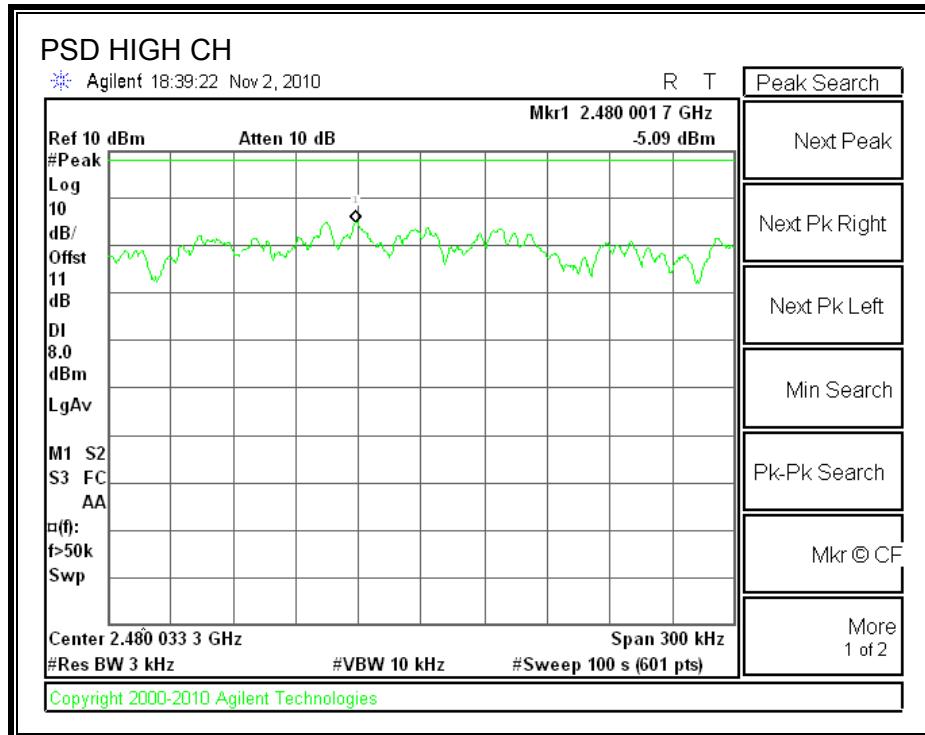
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-6.03	8	-14.03
Middle	2441	-5.22	8	-13.22
High	2480	-5.09	8	-13.09

POWER SPECTRAL DENSITY





7.4.6. 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.

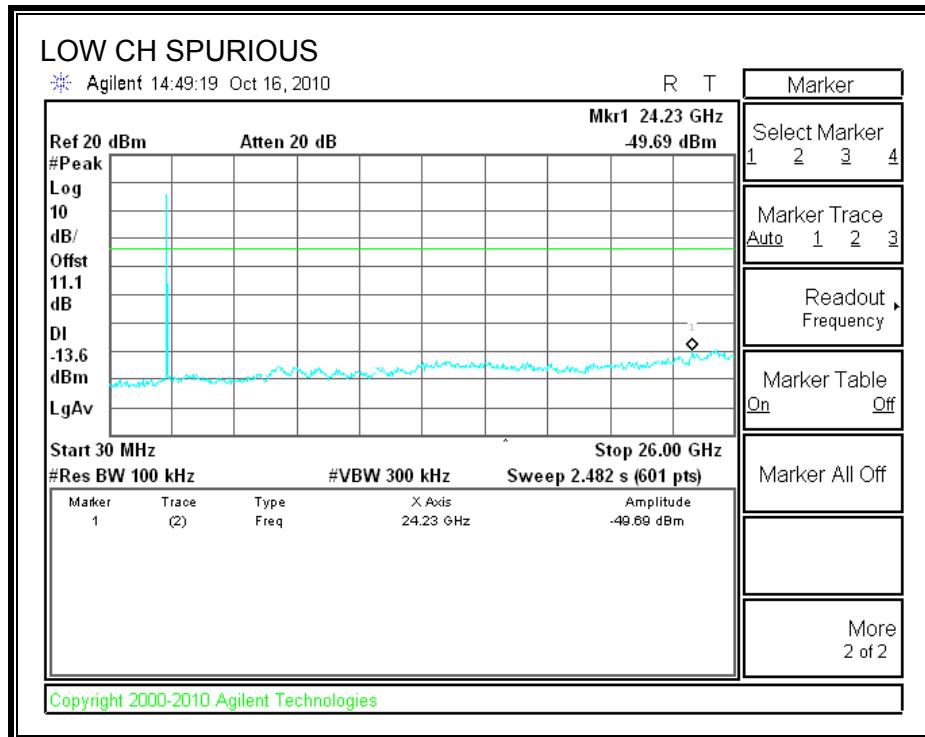
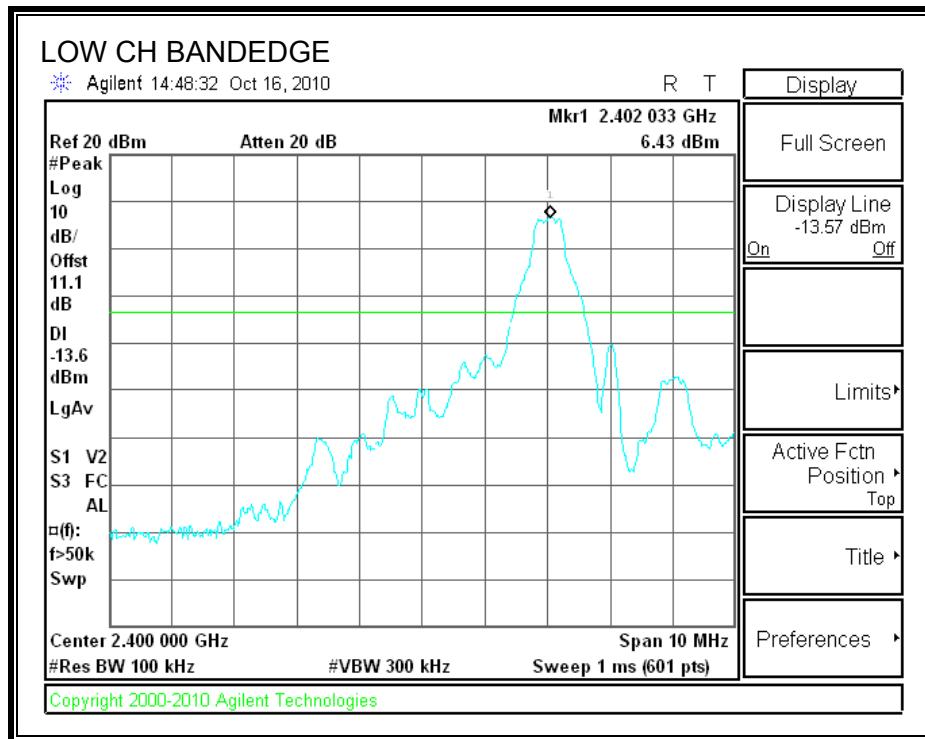
TEST PROCEDURE

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.

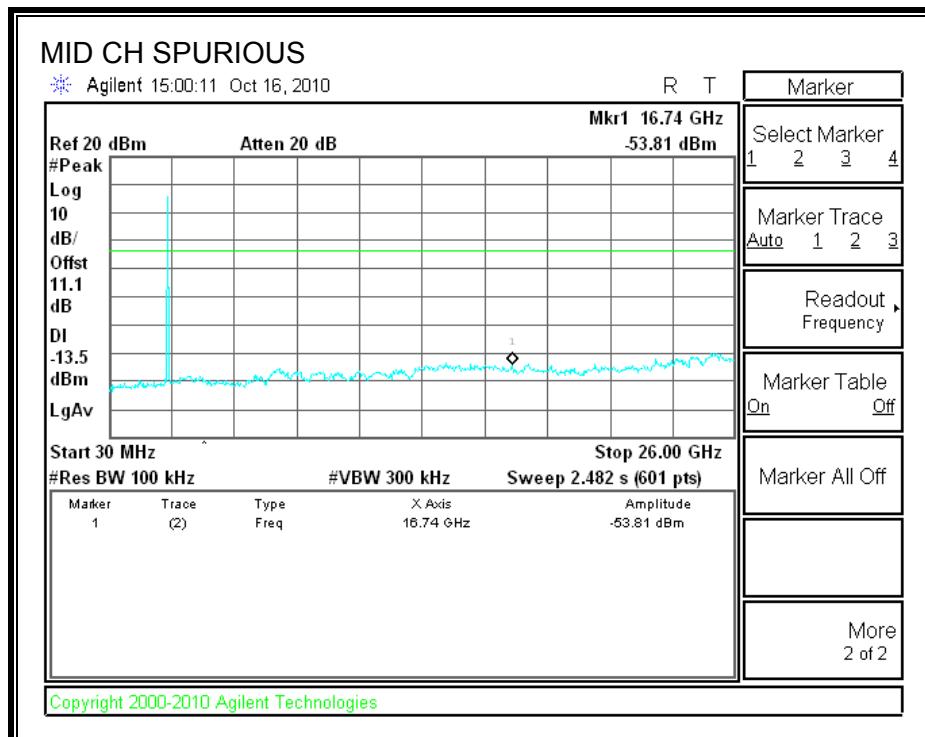
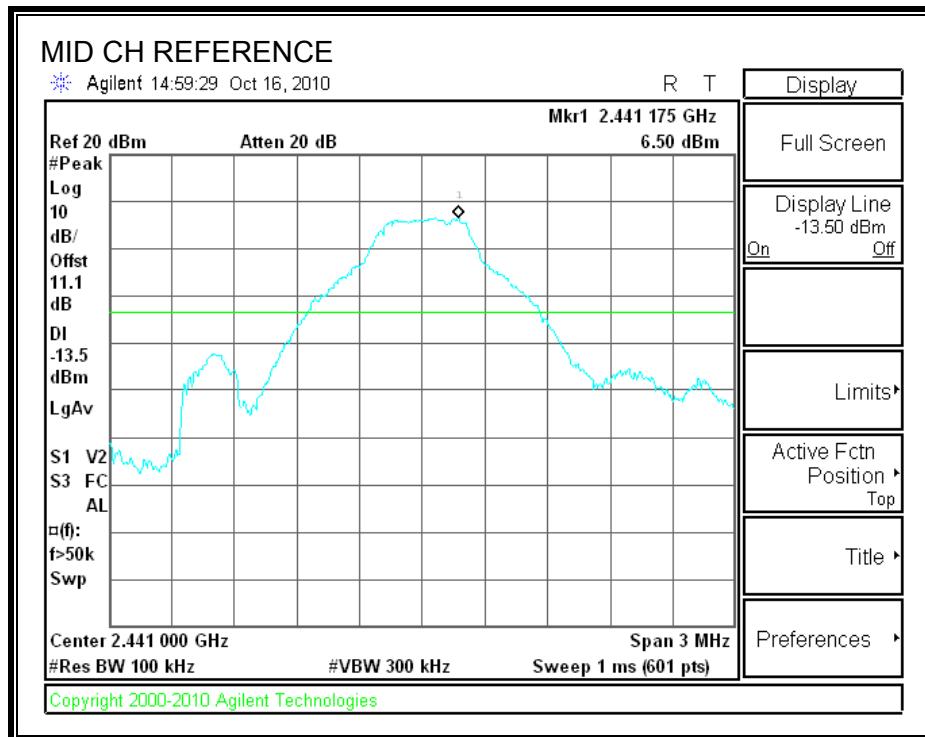
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

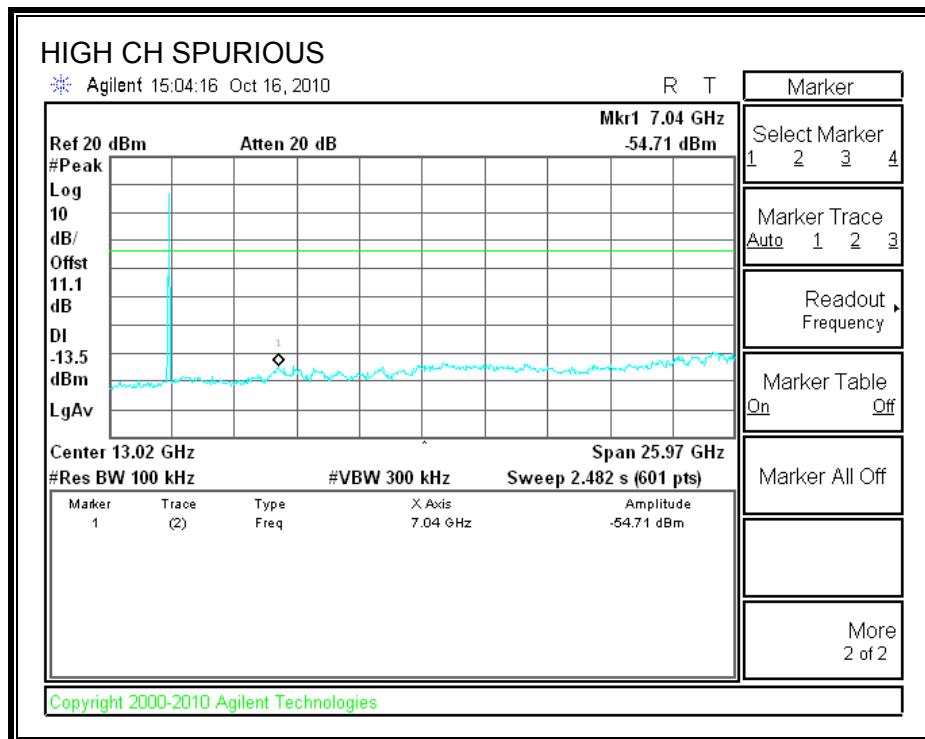
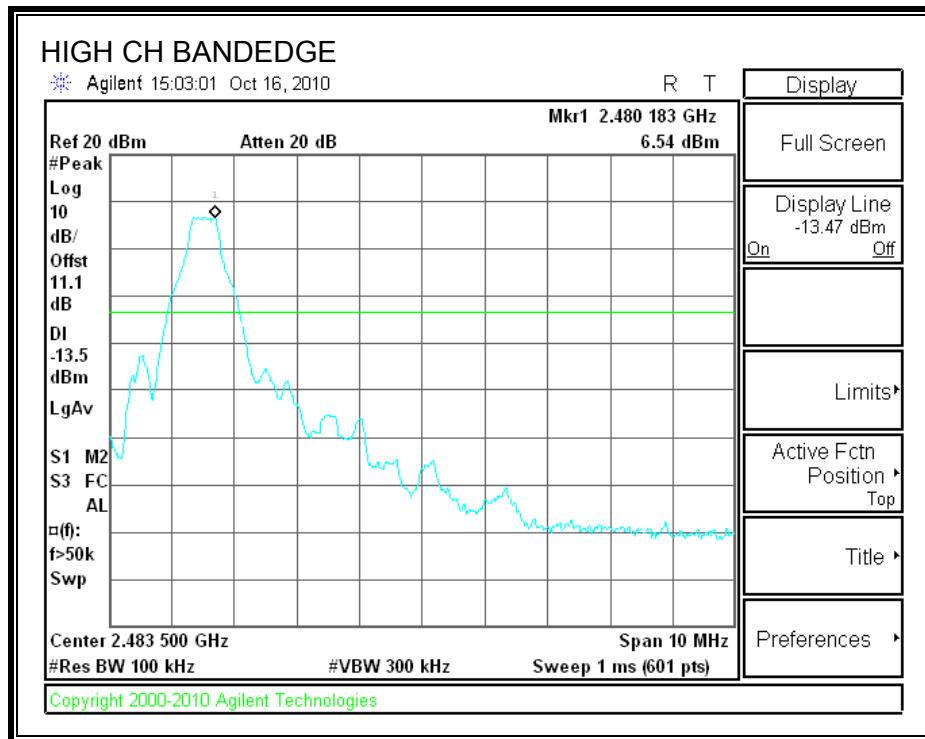
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.5. BLUETOOTH 8PSK MODE IN THE 2.4 GHz BAND

7.5.1. AVERAGE TIME OF OCCUPANCY

LIMIT

FCC §15.247 (a) (1) (iii)

IC RSS-210 A8.1 (d)

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centered on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 3.16 second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{pulse width}$.

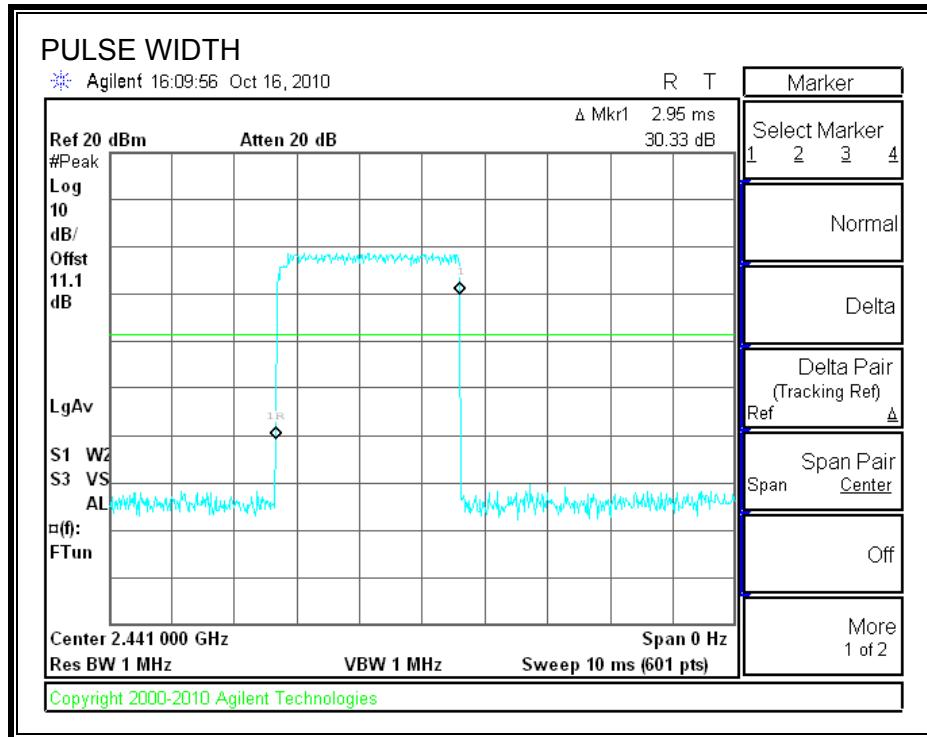
RESULTS

The DH5 has worst case package of average time of occupancy after the investigation.

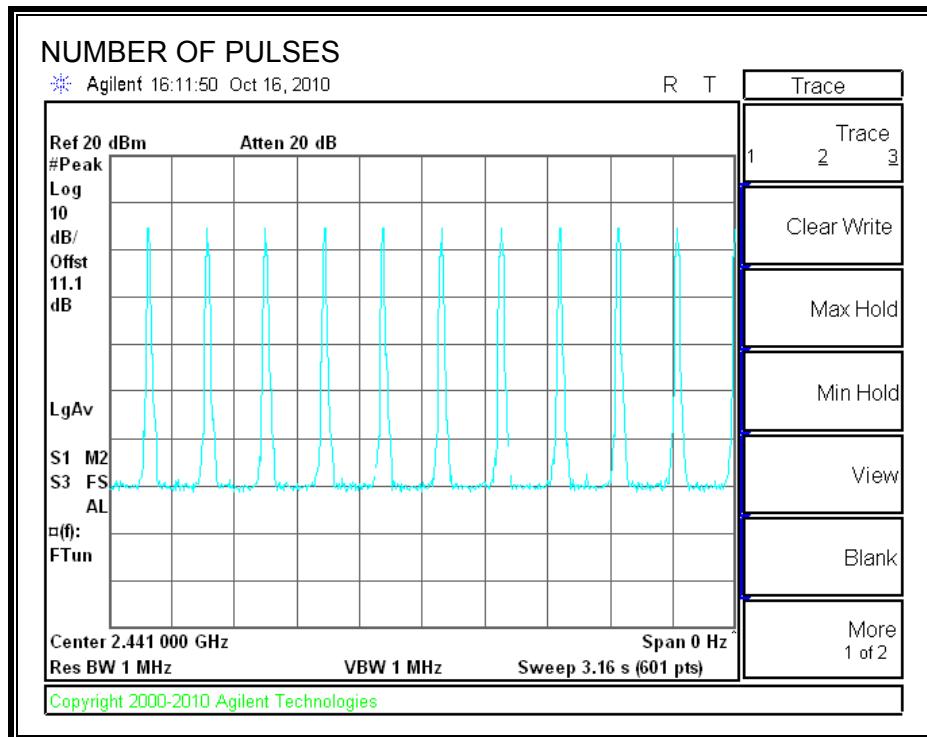
8PSK

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of (sec)	Limit (sec)	Margin (sec)
DH5	2.95	11	0.325	0.4	0.076

DH5 PULSE WIDTH



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD



7.5.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

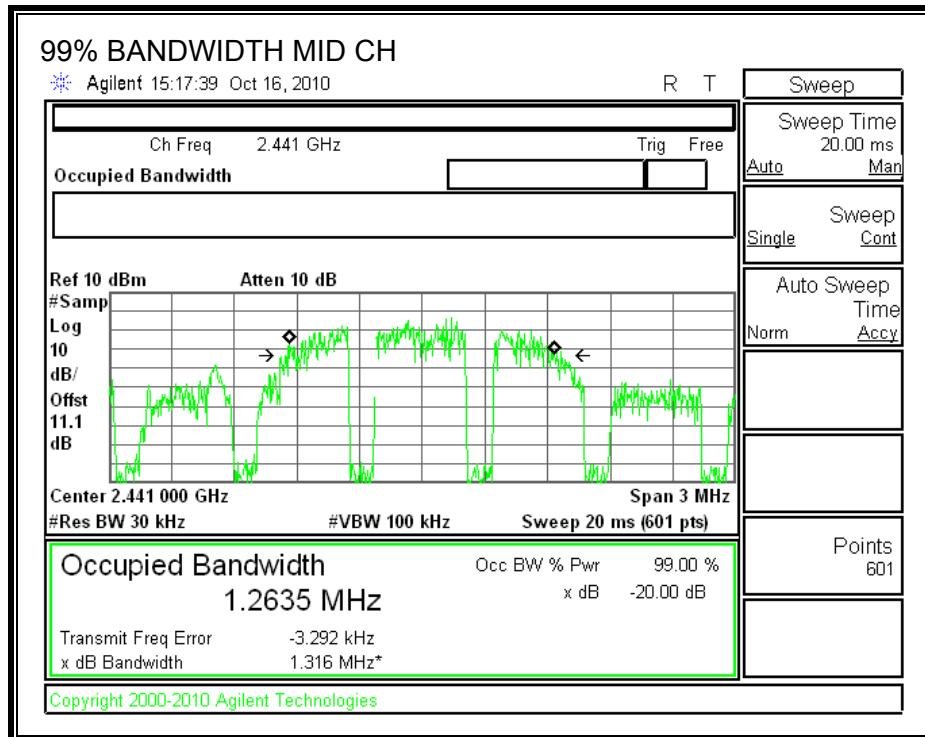
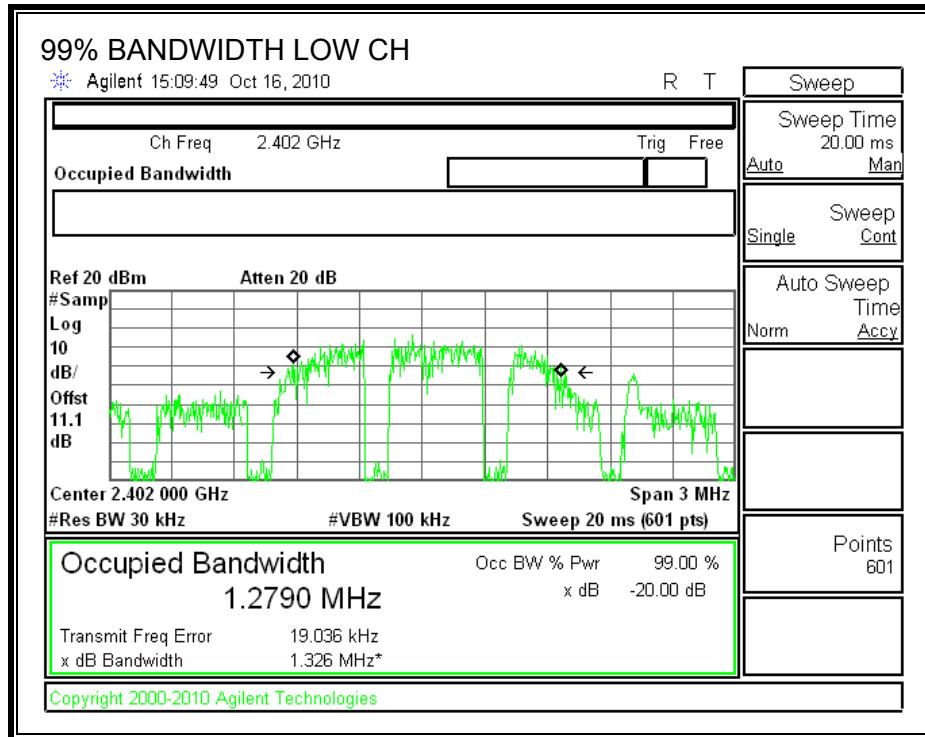
TEST PROCEDURE

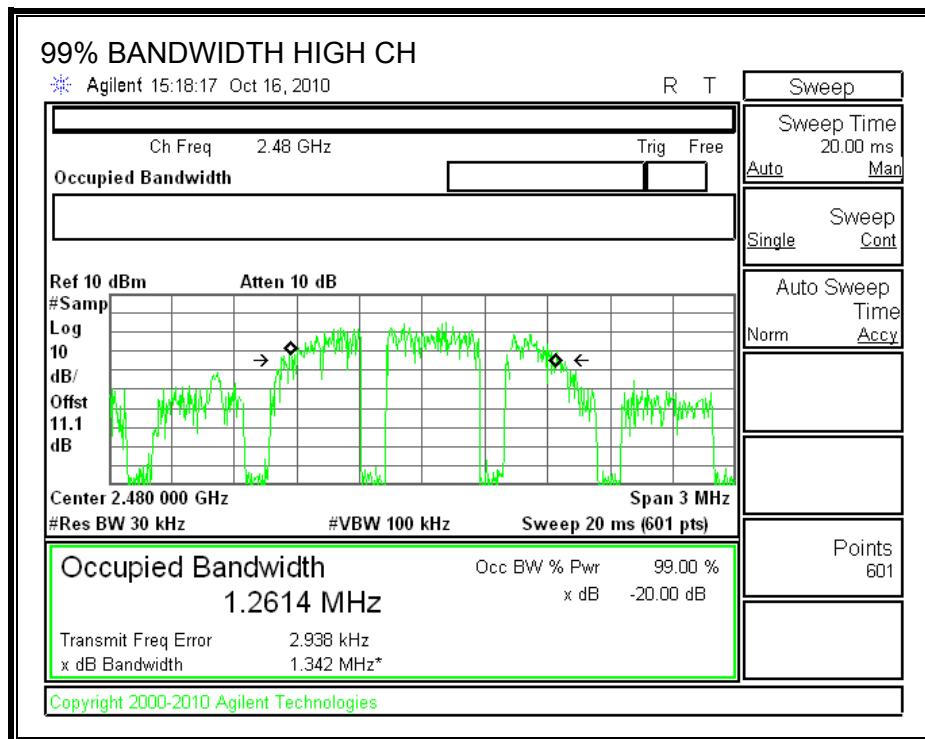
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.279
Middle	2441	1.264
High	2480	1.261

99% BANDWIDTH





7.5.3. OUTPUT POWER

LIMITS

§15.247 (b) (1)

RSS-210 Issue 7 Clause A8.4

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

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

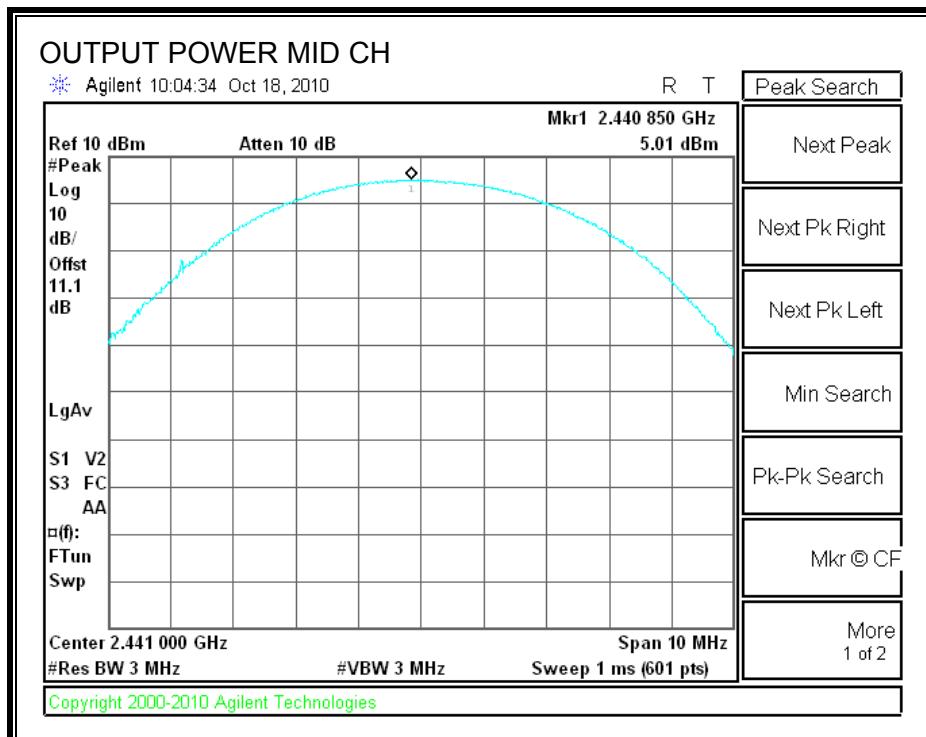
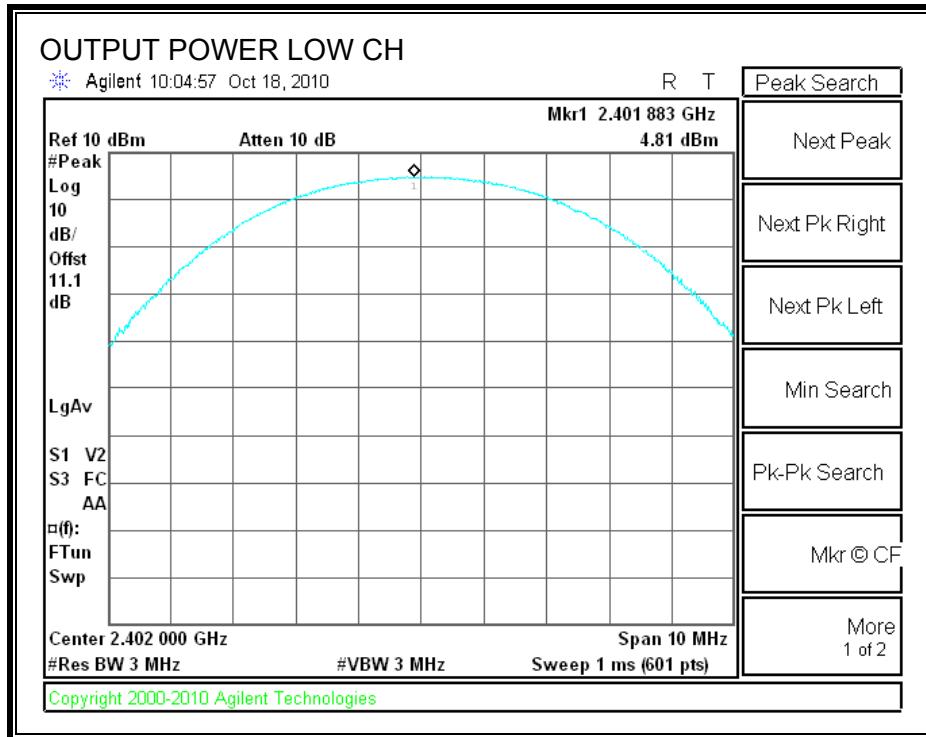
TEST PROCEDURE

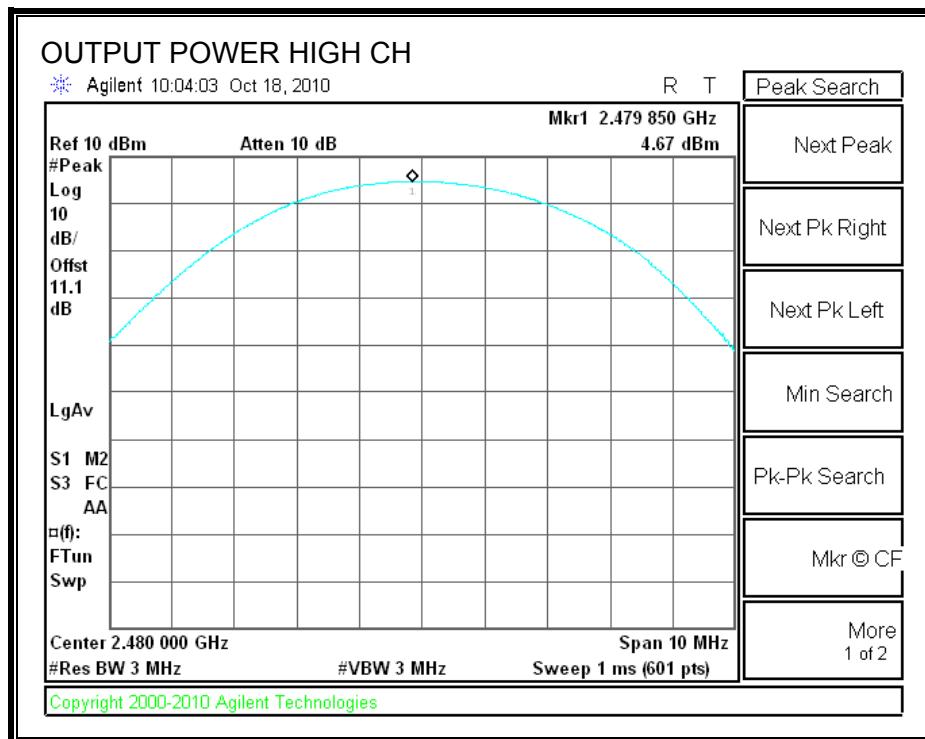
The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

RESULTS

Channel	Frequency (MHz)	Spectrum Analyzer Reading	Limit (dBm)	Margin (dB)
Low	2402	4.81	21	-16.19
Middle	2441	5.01	21	-15.99
High	2480	4.67	21	-16.33

OUTPUT POWER





7.5.4. 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 11.1 dB (including 10 dB pad and 1.1 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	1.54
Middle	2441	1.55
High	2480	1.02

7.5.5. 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.

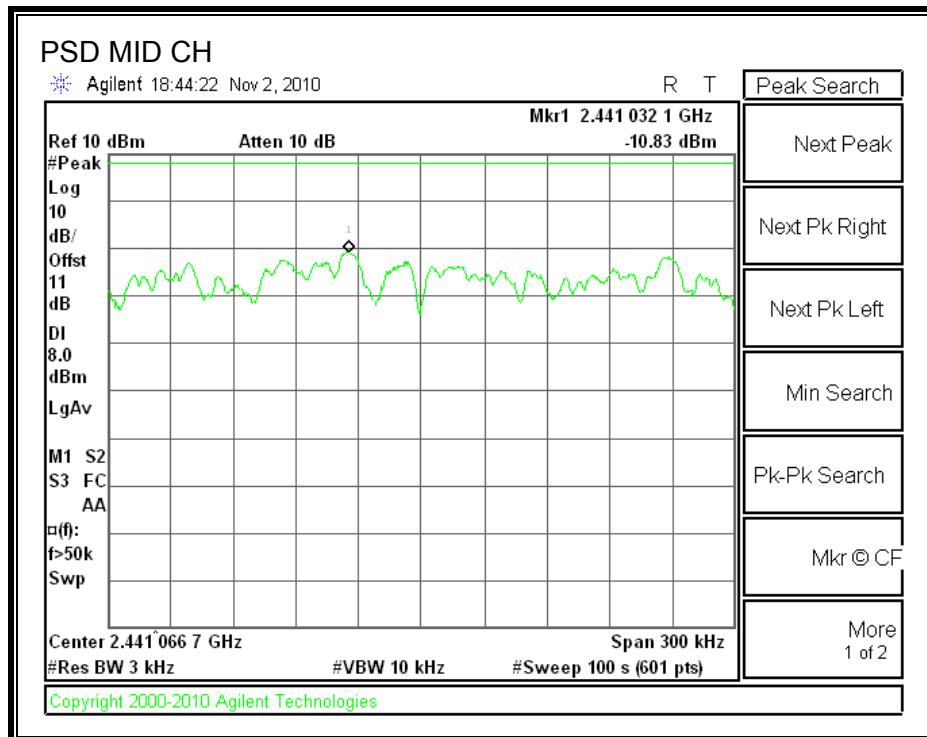
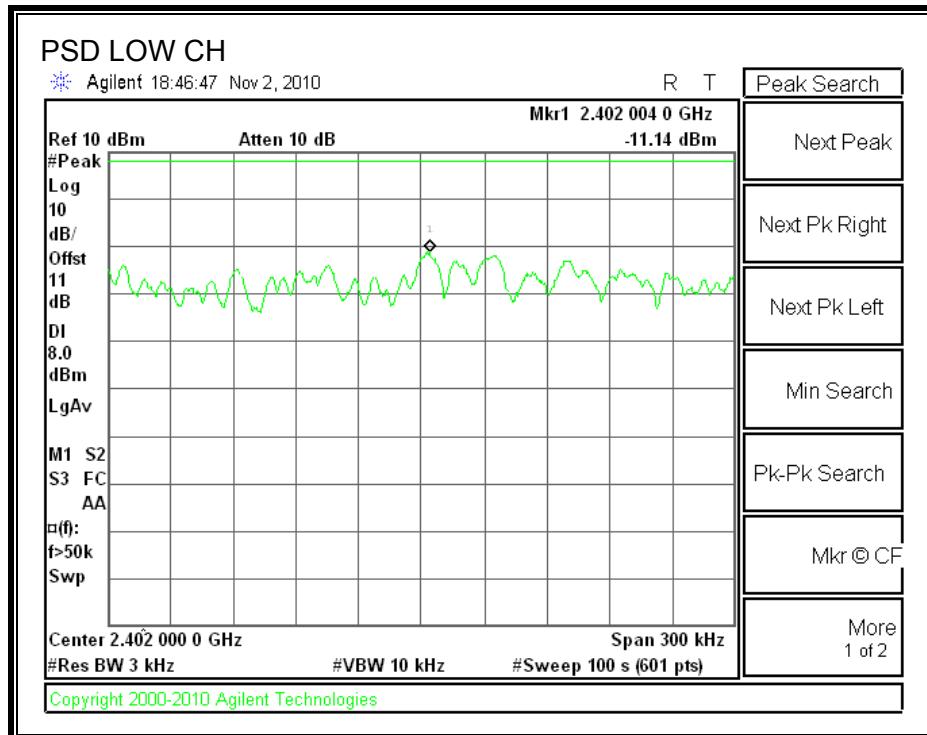
TEST PROCEDURE

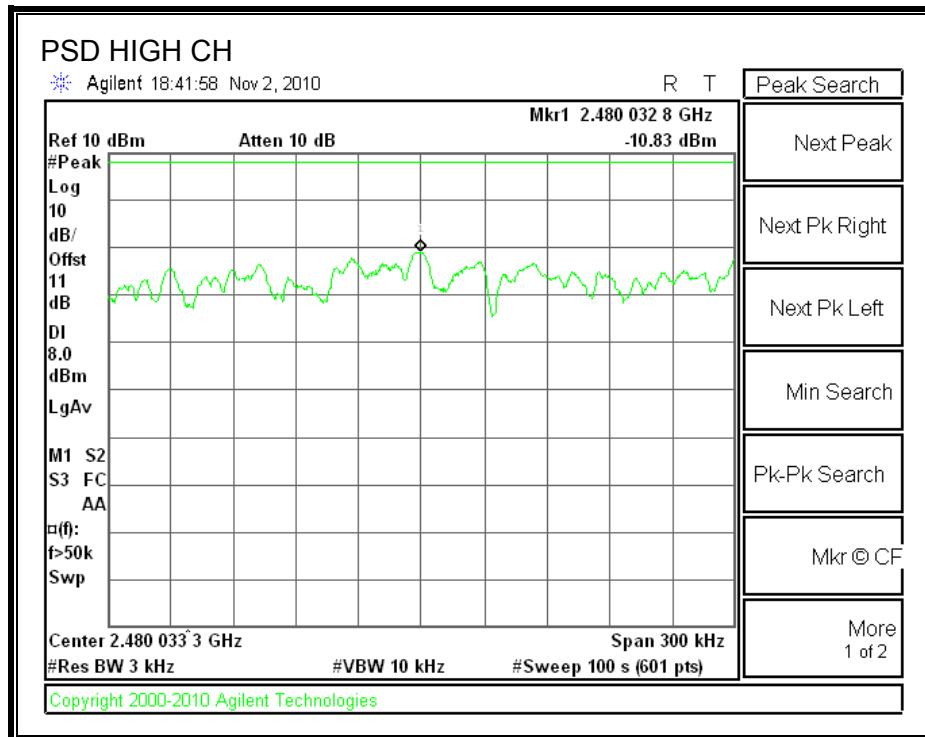
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-11.14	8	-19.14
Middle	2441	-10.83	8	-18.83
High	2480	-10.83	8	-18.83

POWER SPECTRAL DENSITY





7.5.6. 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.

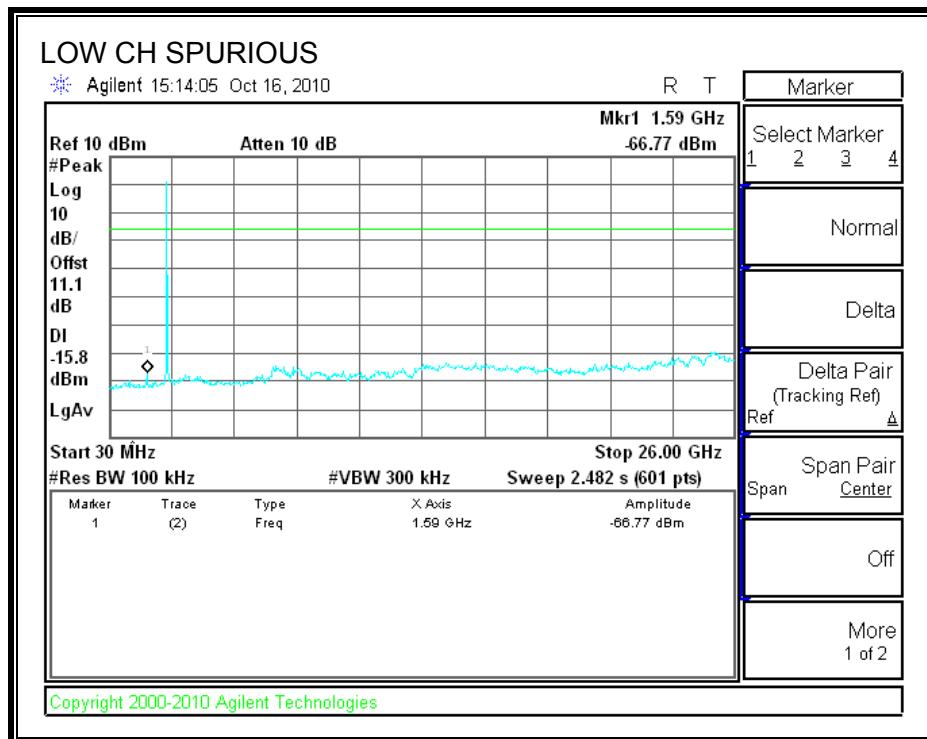
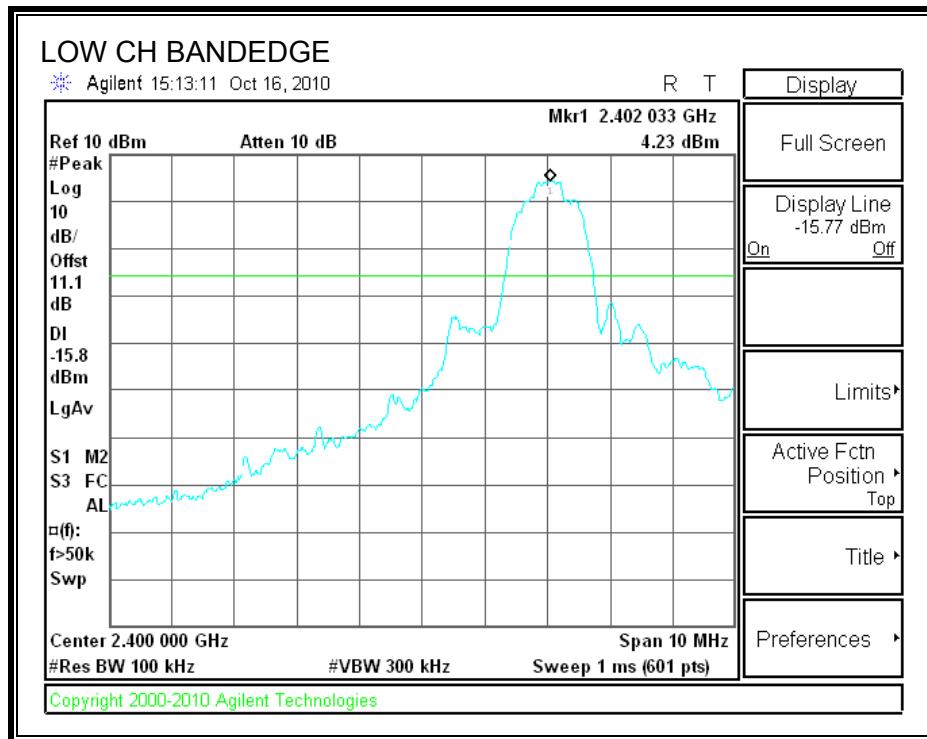
TEST PROCEDURE

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.

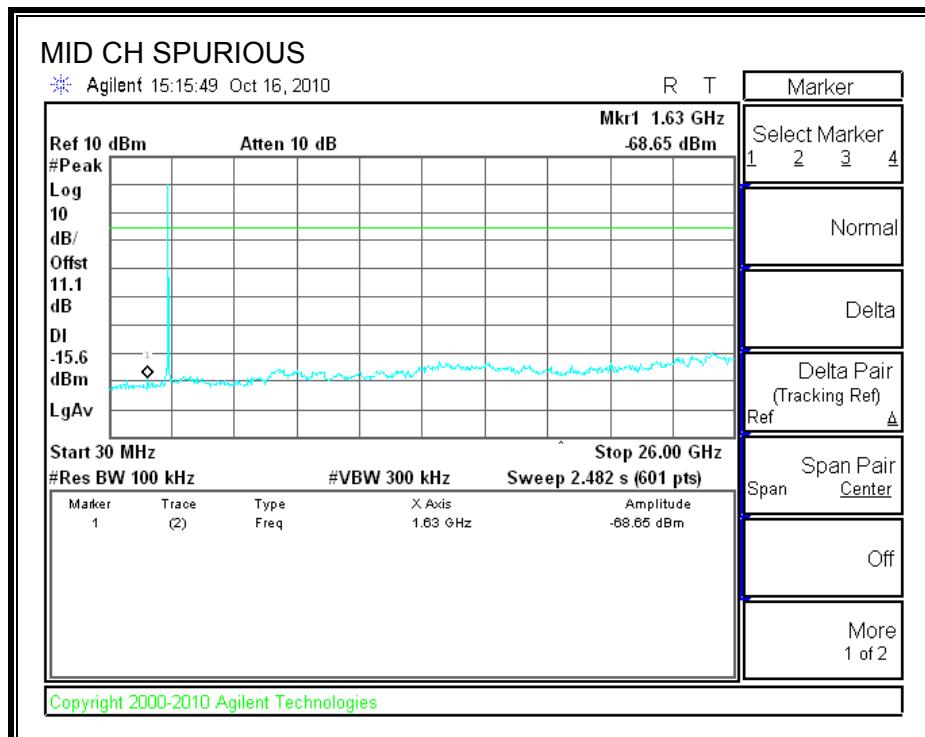
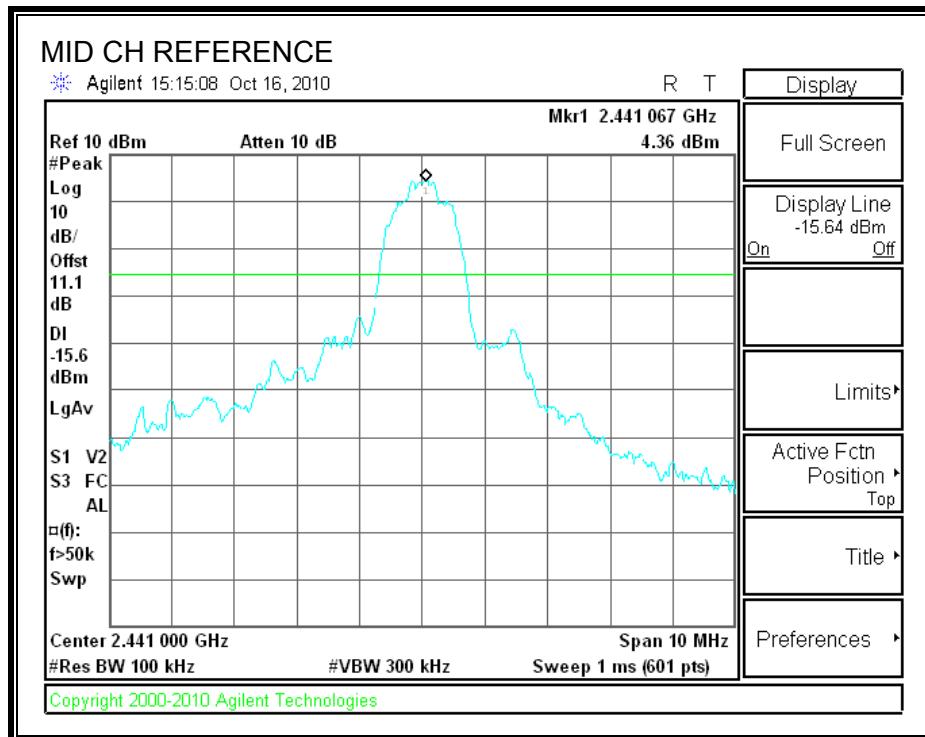
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

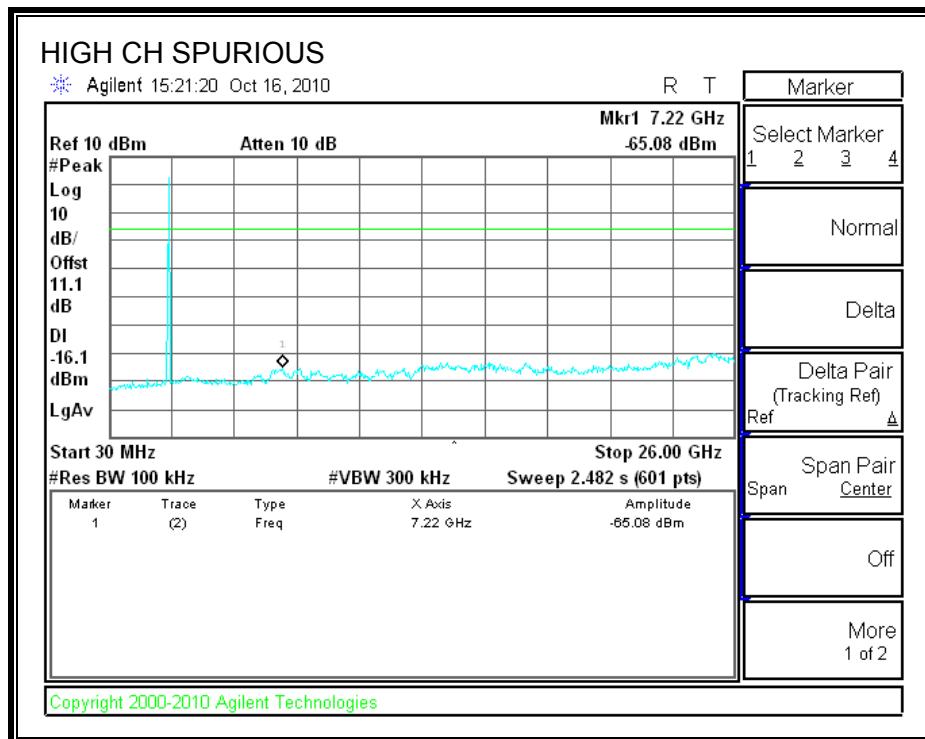
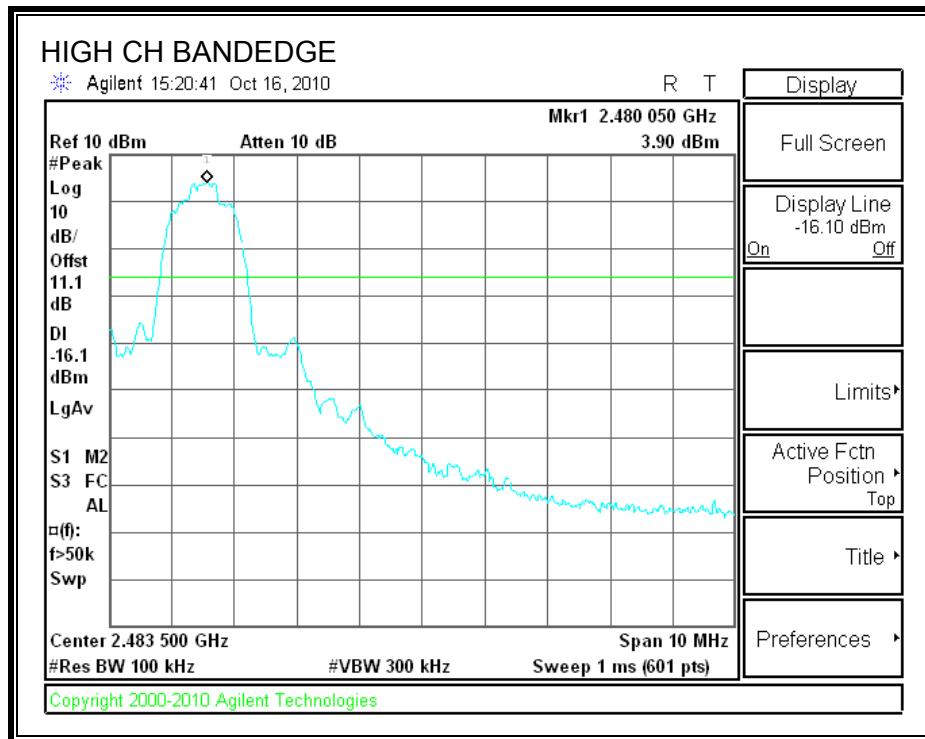
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.6. CO-LOCATED TRANSMITTER RADIATED EMISSIONS (WORST CASE WLAN G-MODE WITH BLUETOOTH GFSK MODULATION)

7.6.1. 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.

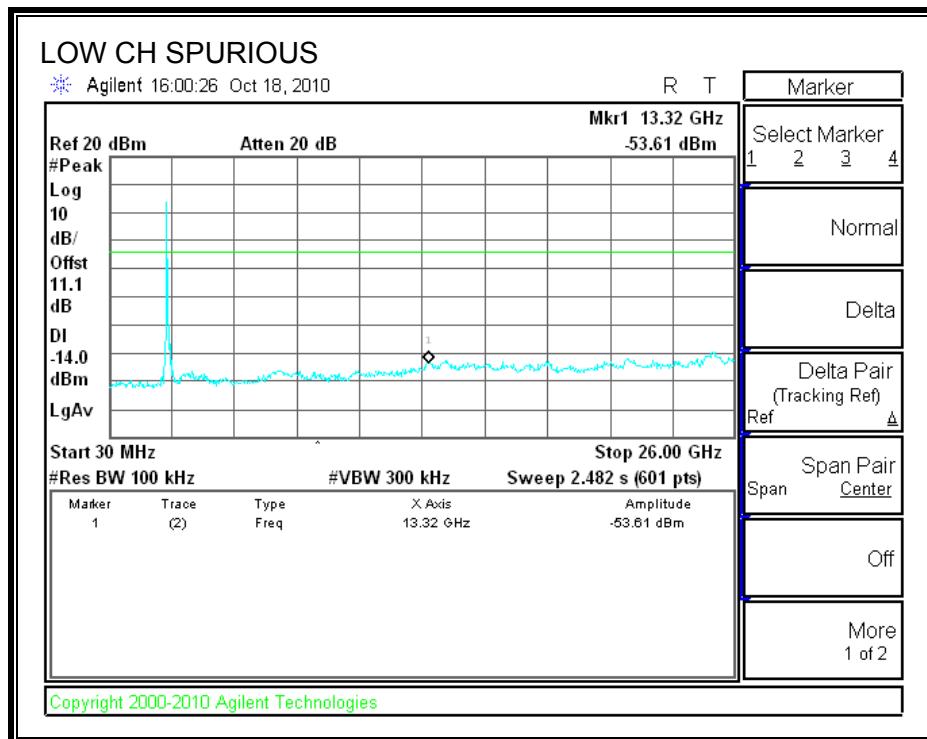
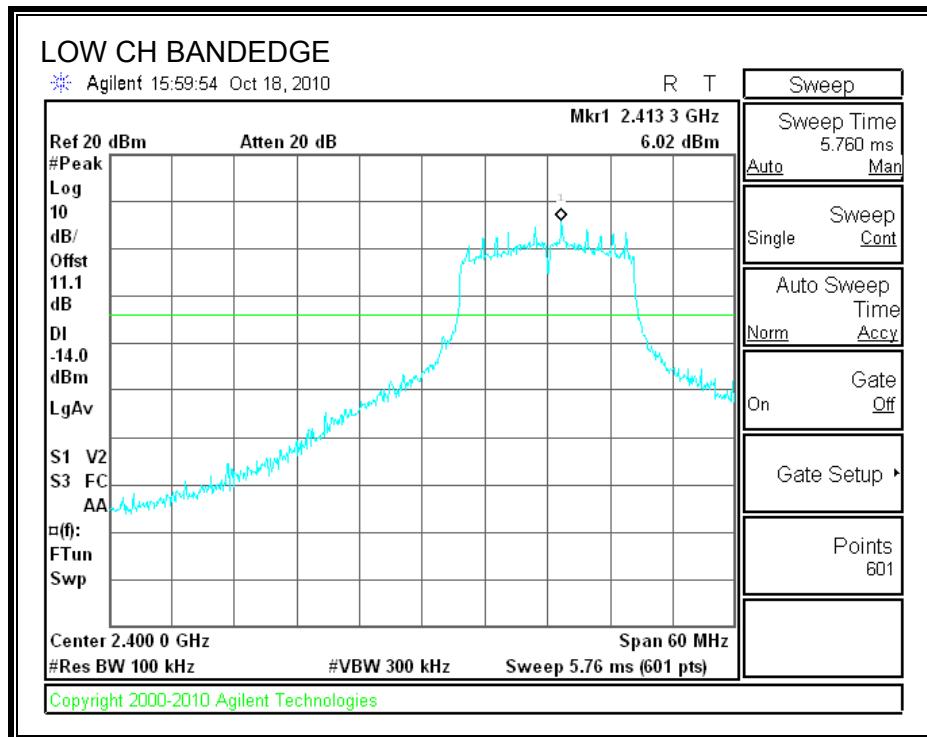
TEST PROCEDURE

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.

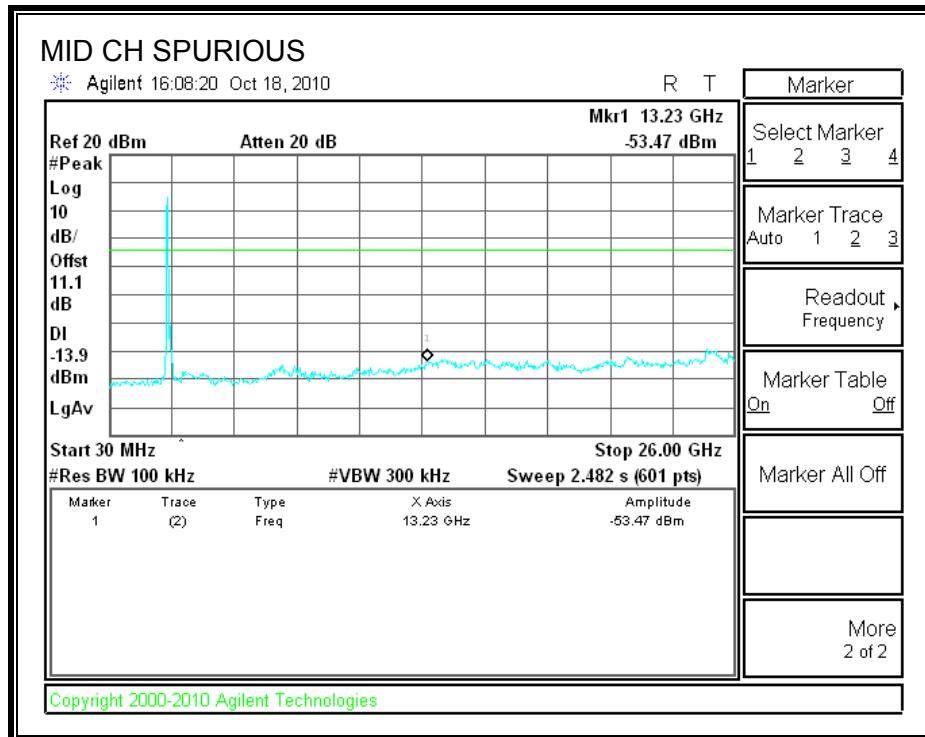
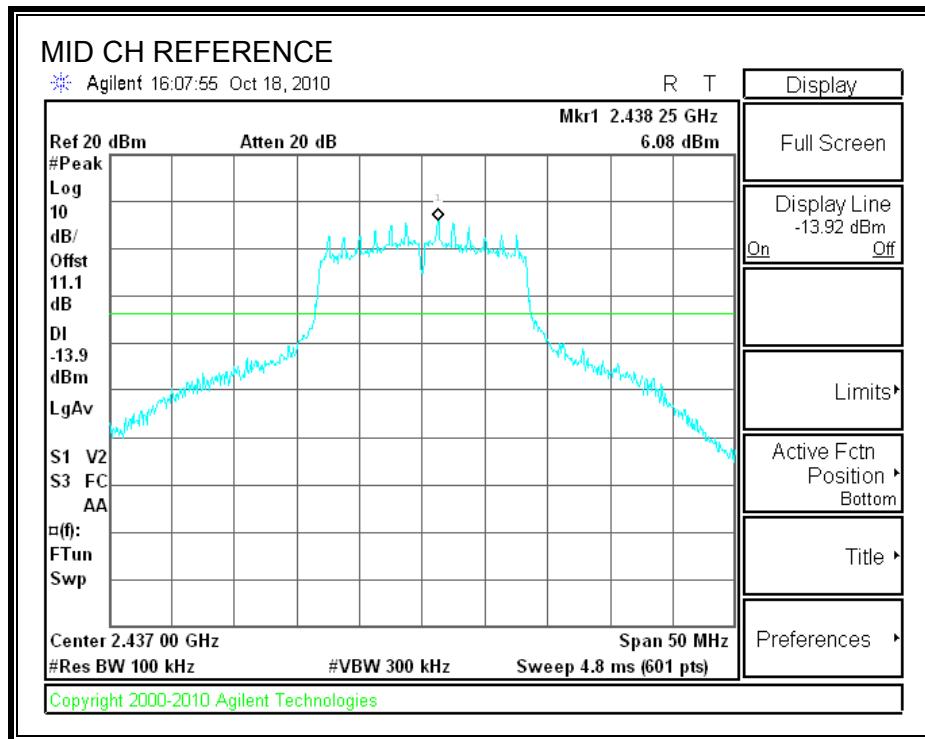
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

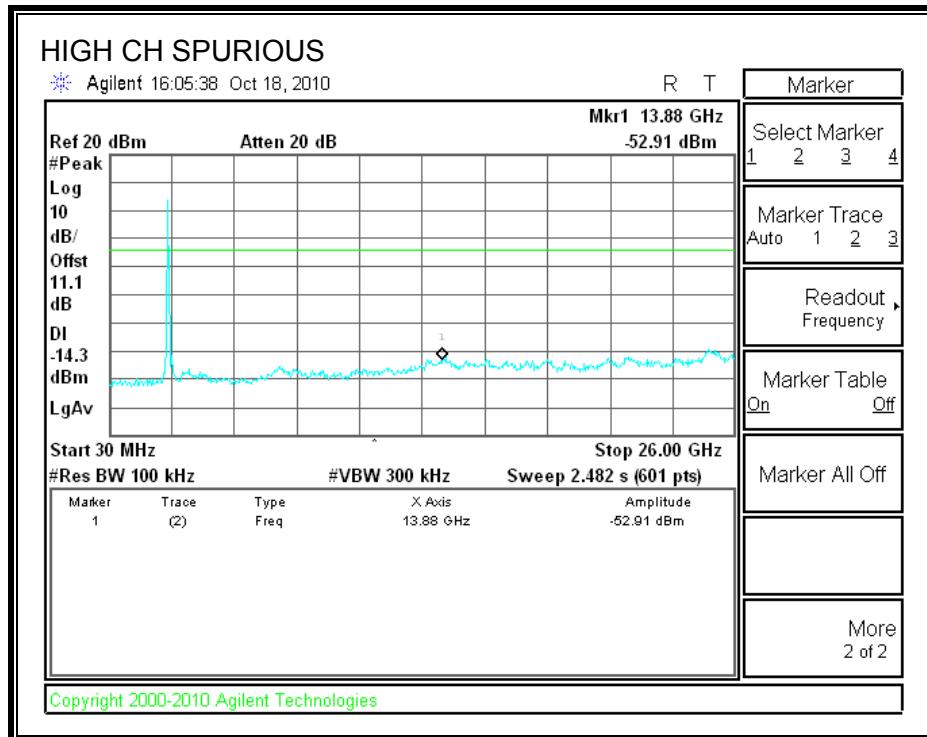
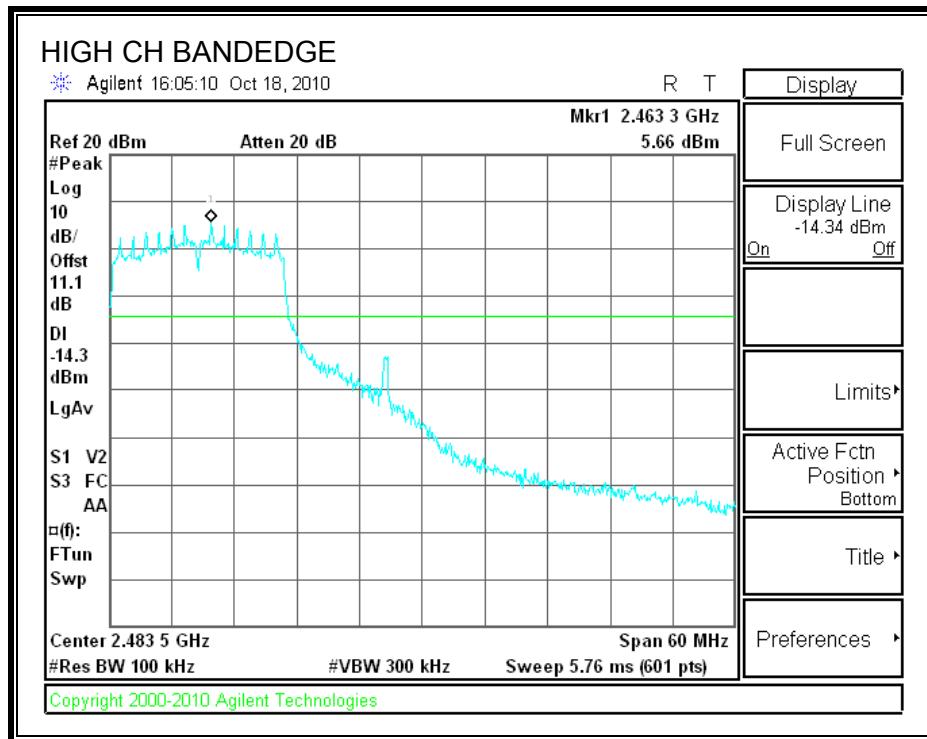
SPURIOUS EMISSIONS, LOW CHANNEL



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.

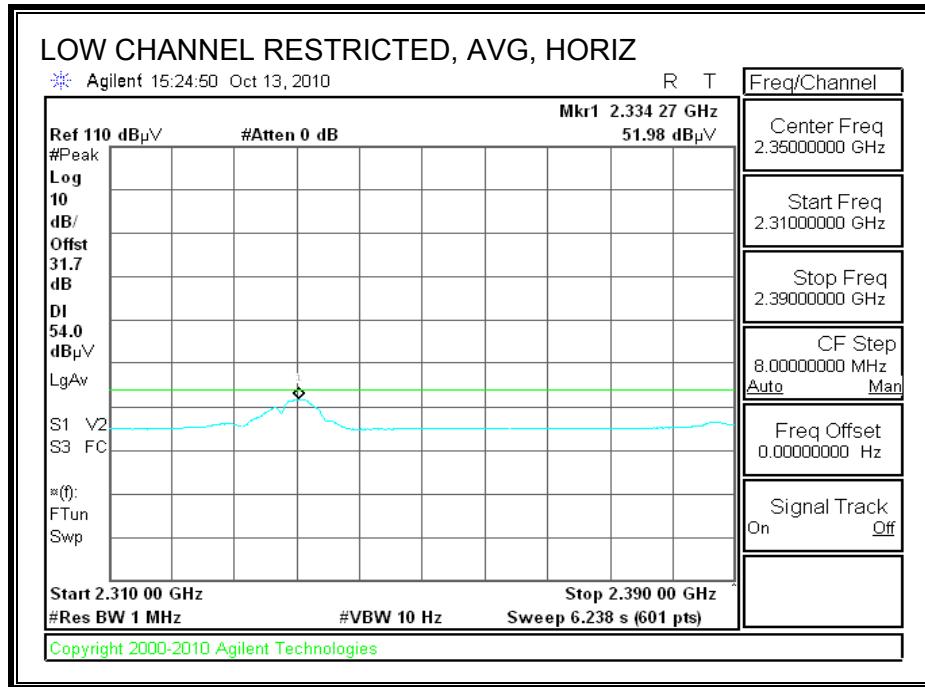
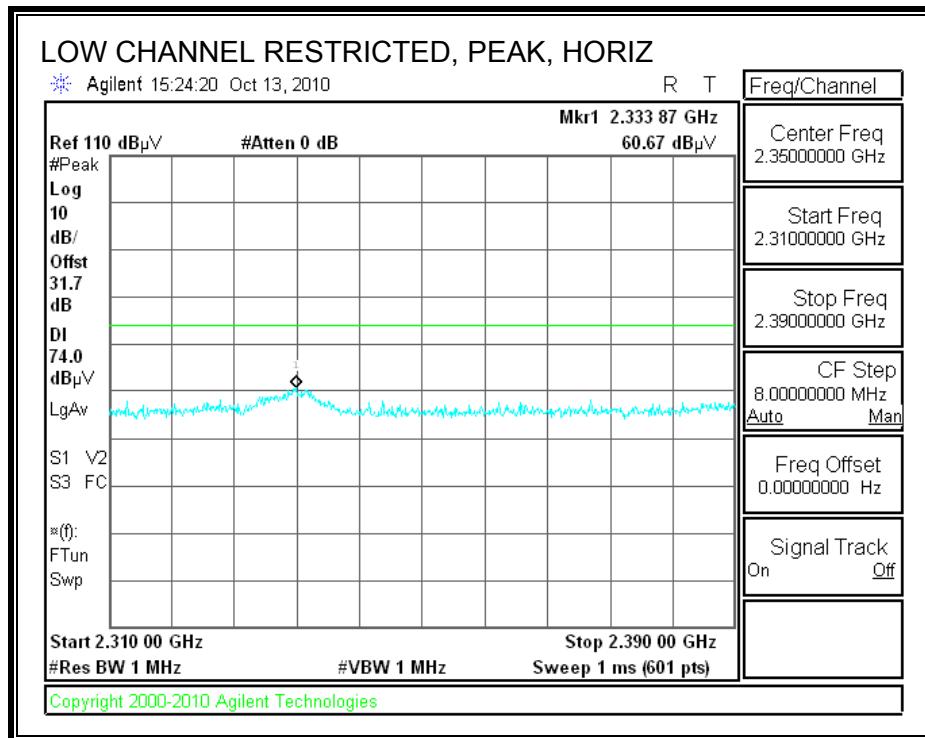
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

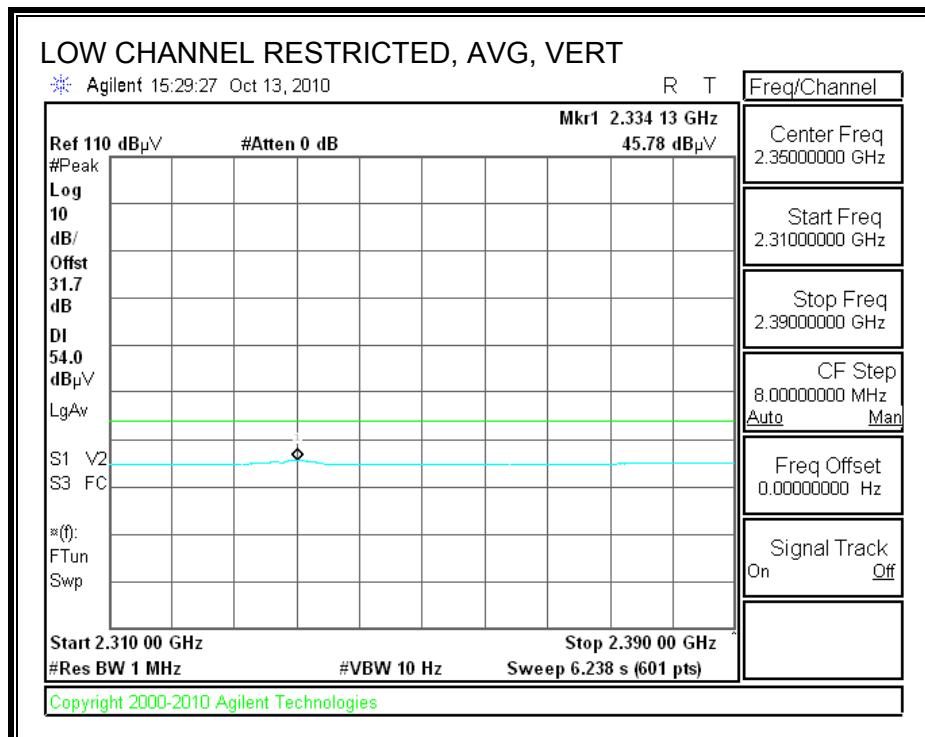
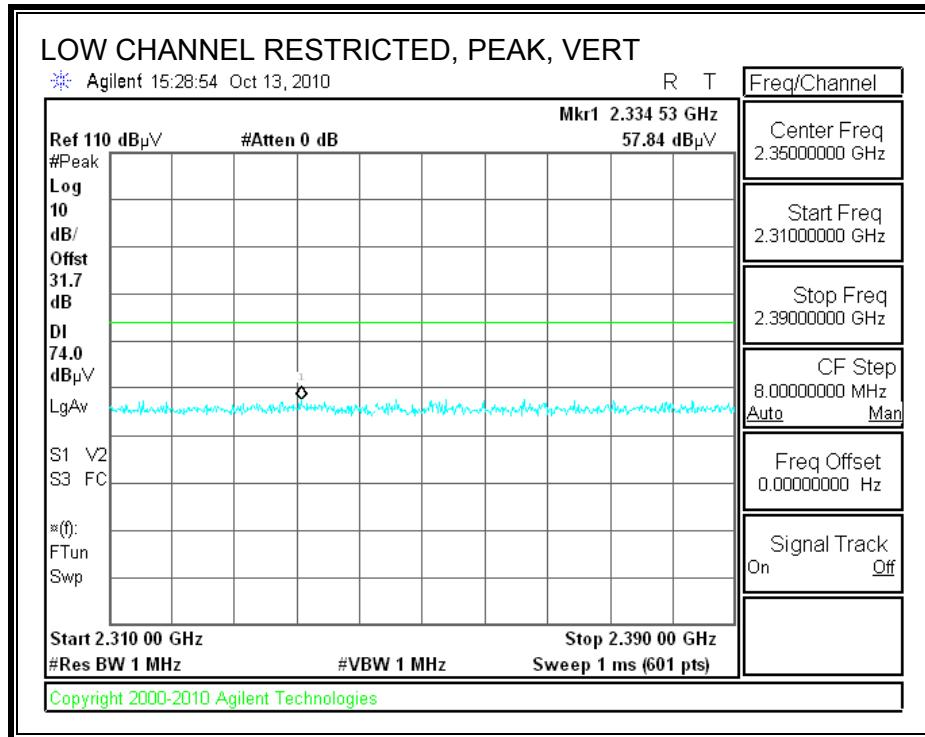
8.2. TRANSMITTER ABOVE 1 GHz, EUT WITH INDUCTIVE BACKCOVER

8.2.1. 802.11b MODE

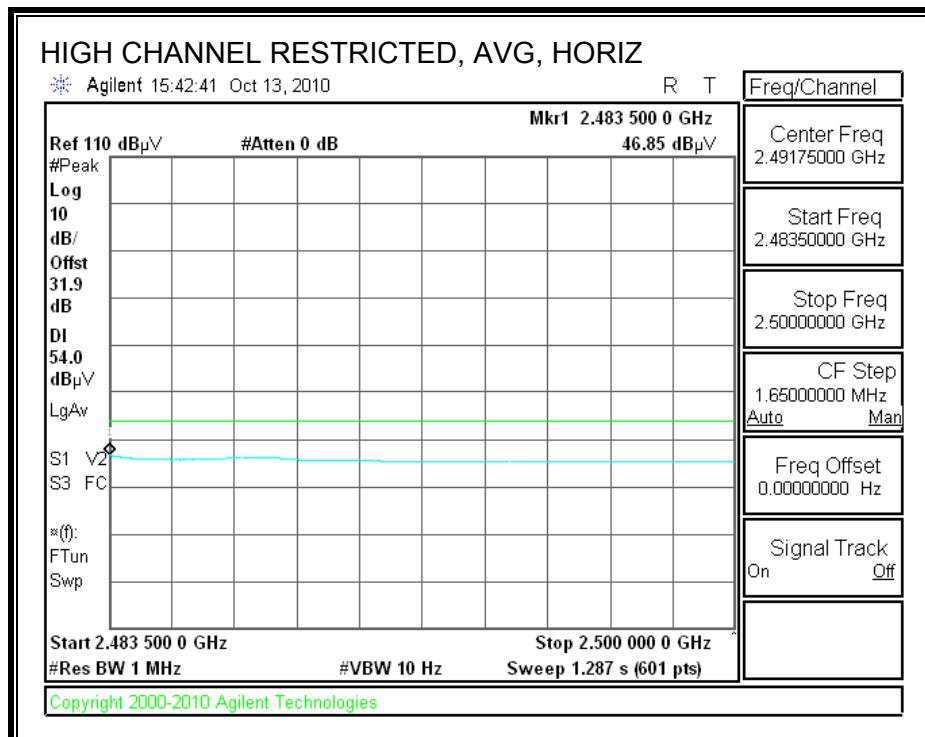
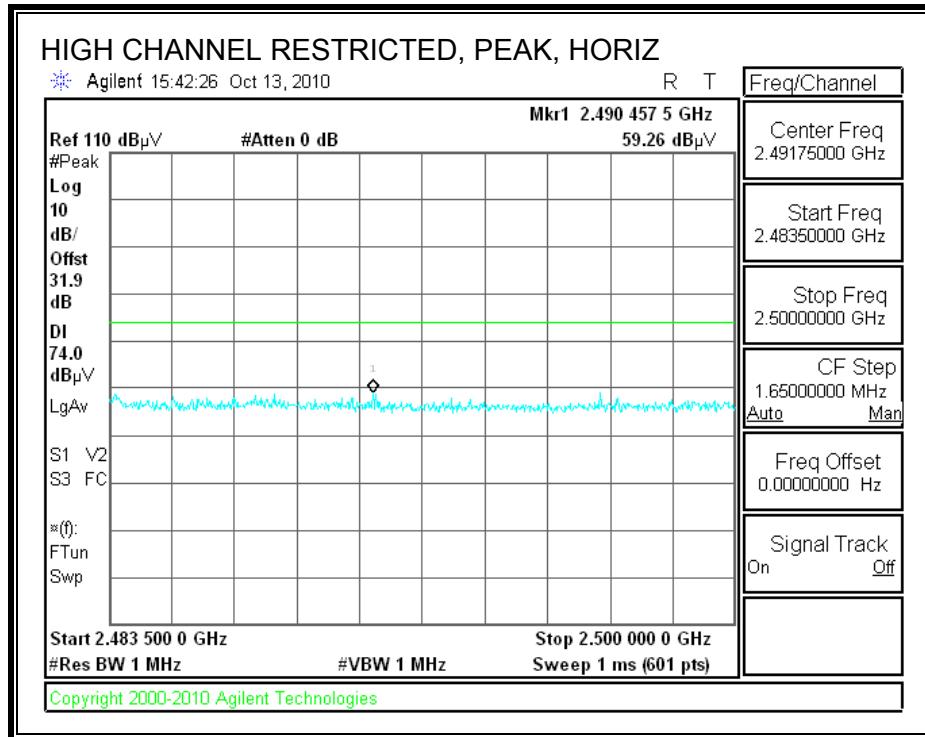
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



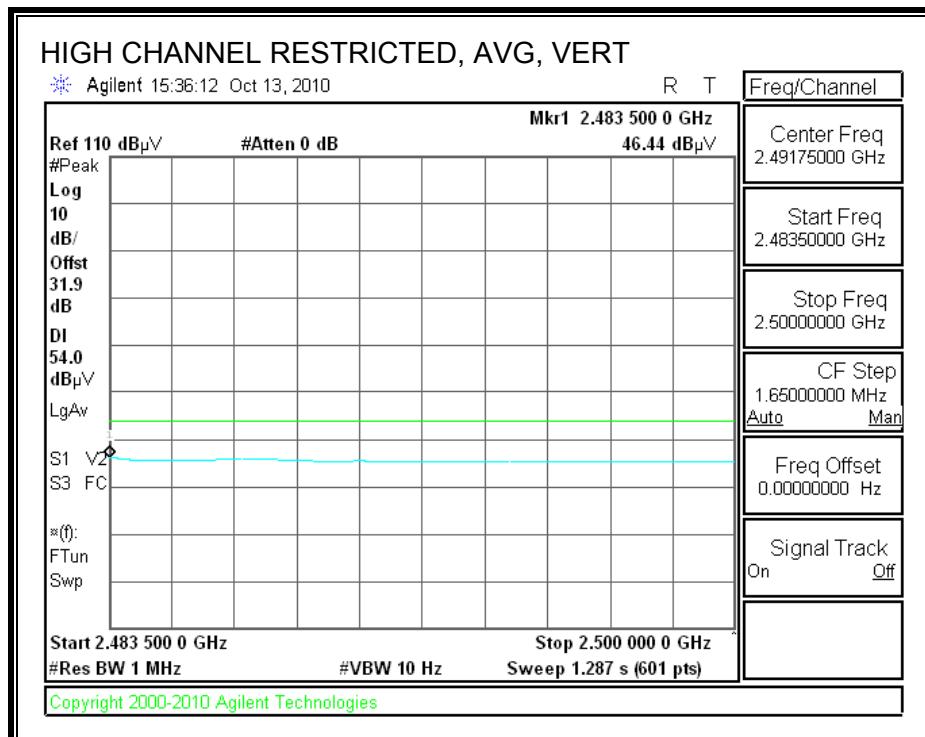
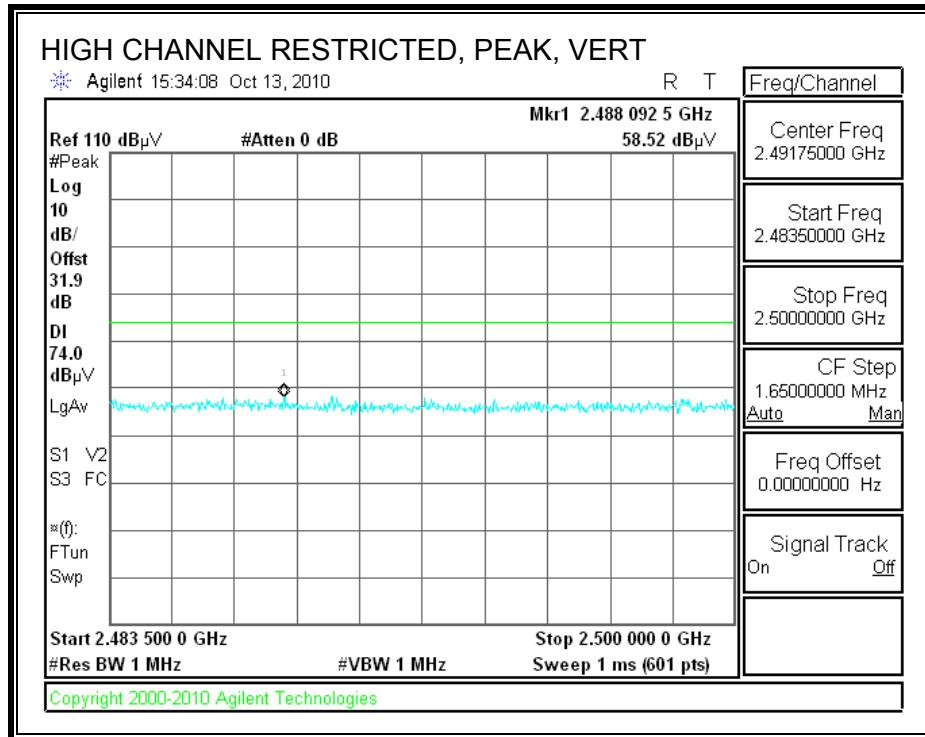
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 10/13/10
Project #: 10U13357
Company: Palm
Configuration: EUT at worst position with AC Adapter
Test Target: FCC 15.247
Mode Oper: 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	

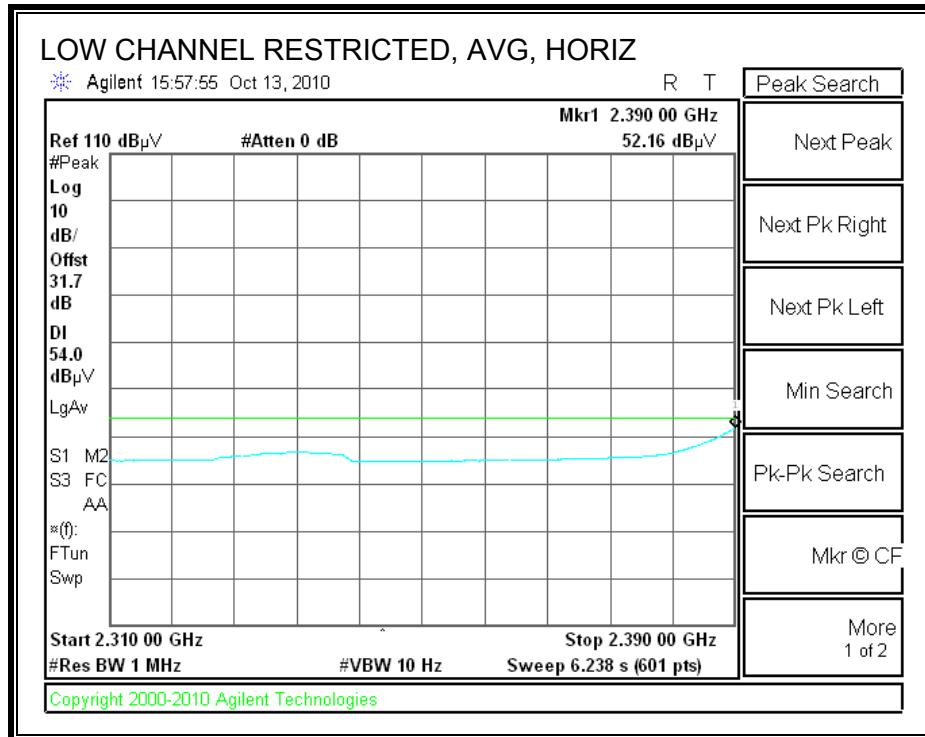
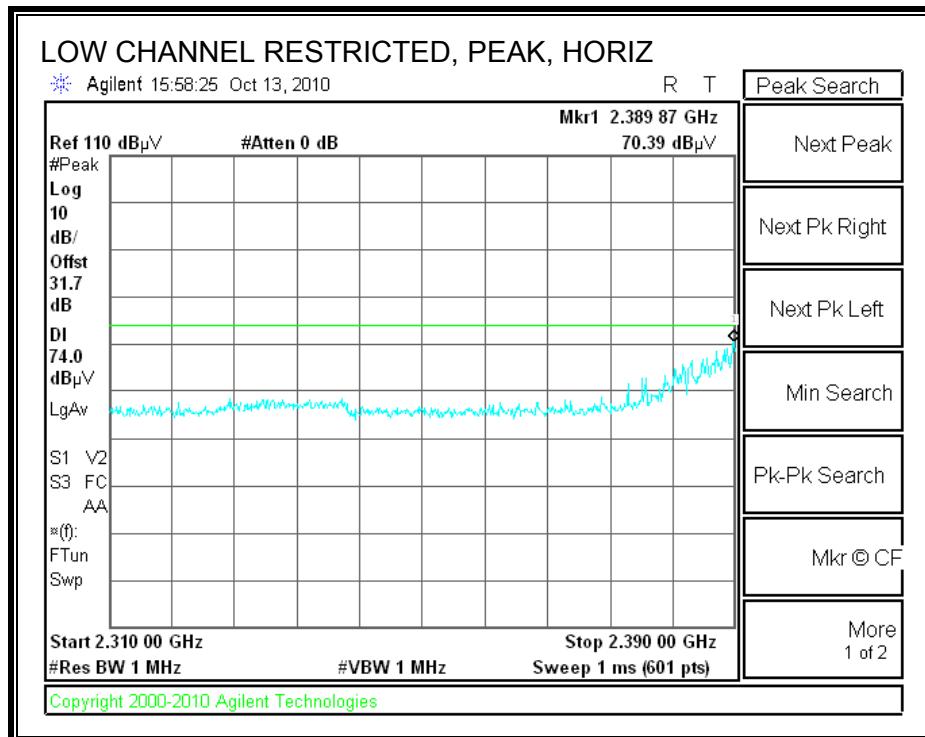
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	42.4	32.8	5.8	-34.8	0.0	0.0	46.2	74.0	-27.8	V	P	
4.824	3.0	36.5	32.8	5.8	-34.8	0.0	0.0	40.3	54.0	-13.7	V	A	
4.824	3.0	45.1	32.8	5.8	-34.8	0.0	0.0	48.9	74.0	-25.1	H	P	
4.824	3.0	40.7	32.8	5.8	-34.8	0.0	0.0	44.5	54.0	-9.5	H	A	
Mid Ch, 2437MHz													
4.874	3.0	41.8	32.8	5.8	-34.9	0.0	0.0	45.5	74.0	-28.5	V	P	
4.874	3.0	36.0	32.8	5.8	-34.9	0.0	0.0	39.7	54.0	-14.3	V	A	
7.311	3.0	46.2	35.2	7.3	-34.7	0.0	0.0	54.0	74.0	-20.0	V	P	
7.311	3.0	41.0	35.2	7.3	-34.7	0.0	0.0	48.8	54.0	-5.2	V	A	
4.874	3.0	44.2	32.8	5.8	-34.9	0.0	0.0	48.0	74.0	-26.0	H	P	
4.874	3.0	40.1	32.8	5.8	-34.9	0.0	0.0	43.8	54.0	-10.2	H	A	
7.311	3.0	47.3	35.2	7.3	-34.7	0.0	0.0	55.0	74.0	-19.0	H	P	
7.311	3.0	42.8	35.2	7.3	-34.7	0.0	0.0	50.6	54.0	-3.4	H	A	
High Ch, 2462MHz													
4.924	3.0	42.0	32.8	5.9	-34.9	0.0	0.0	45.9	74.0	-28.1	V	P	
4.924	3.0	36.3	32.8	5.9	-34.9	0.0	0.0	40.2	54.0	-13.8	V	A	
7.386	3.0	45.2	35.3	7.3	-34.6	0.0	0.0	53.1	74.0	-20.9	V	P	
7.386	3.0	39.6	35.3	7.3	-34.6	0.0	0.0	47.6	54.0	-6.4	V	A	
4.924	3.0	42.7	32.8	5.9	-34.9	0.0	0.0	46.6	74.0	-27.4	H	P	
4.924	3.0	37.4	32.8	5.9	-34.9	0.0	0.0	41.3	54.0	-12.7	H	A	
7.386	3.0	47.5	35.3	7.3	-34.6	0.0	0.0	55.5	74.0	-18.5	H	P	
7.386	3.0	42.2	35.3	7.3	-34.6	0.0	0.0	50.2	54.0	-3.8	H	A	

Rev. 4.1.2.7

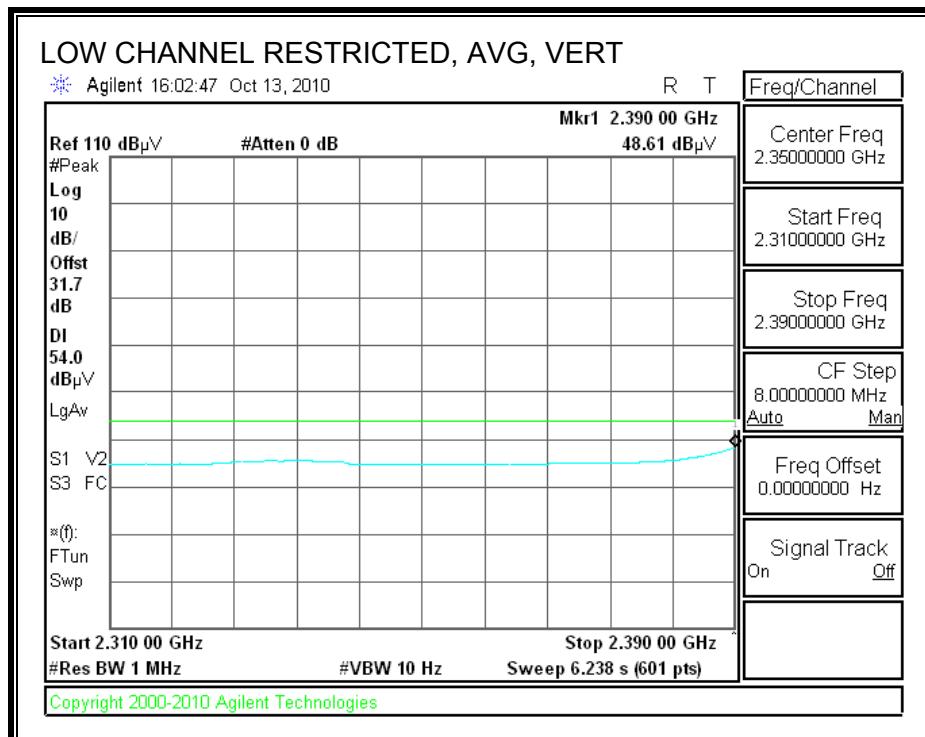
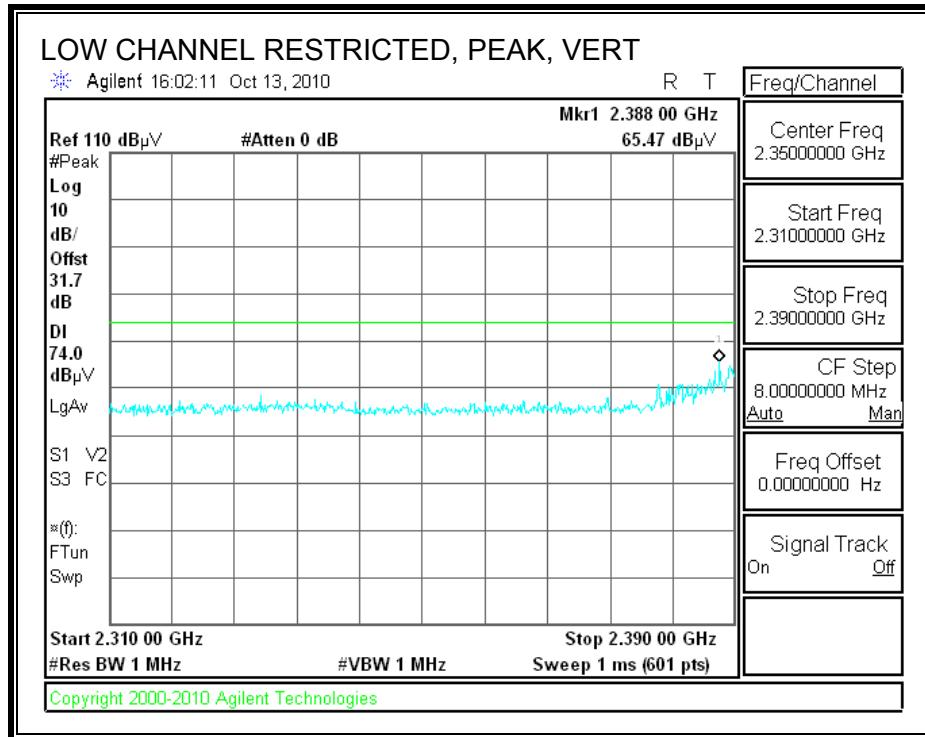
Note: No other emissions were detected above the system noise floor.

8.2.2. 802.11g MODE

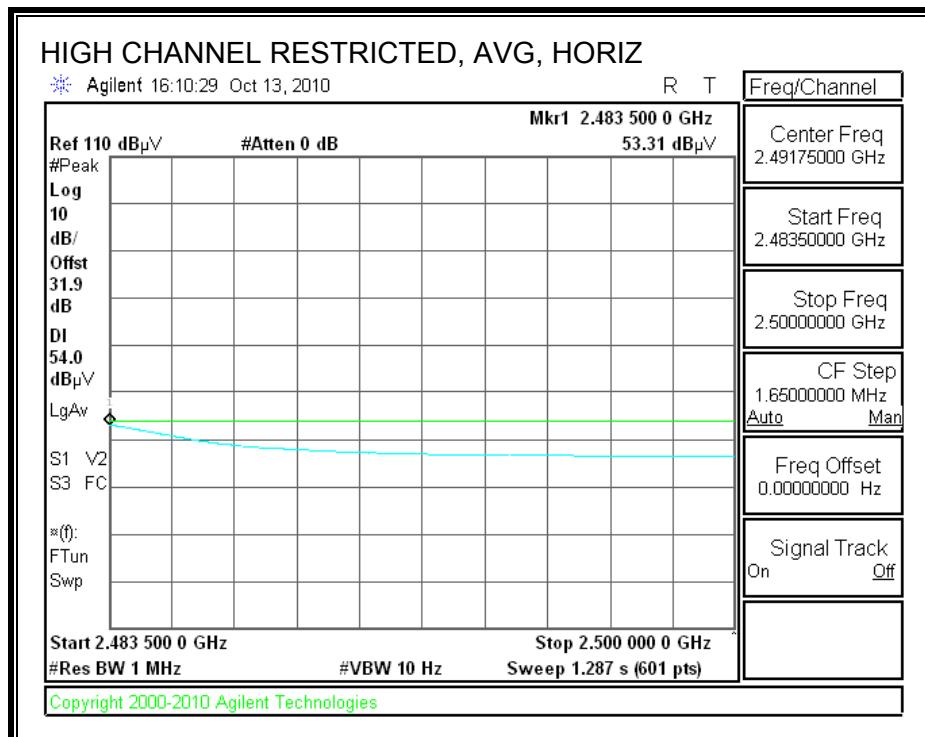
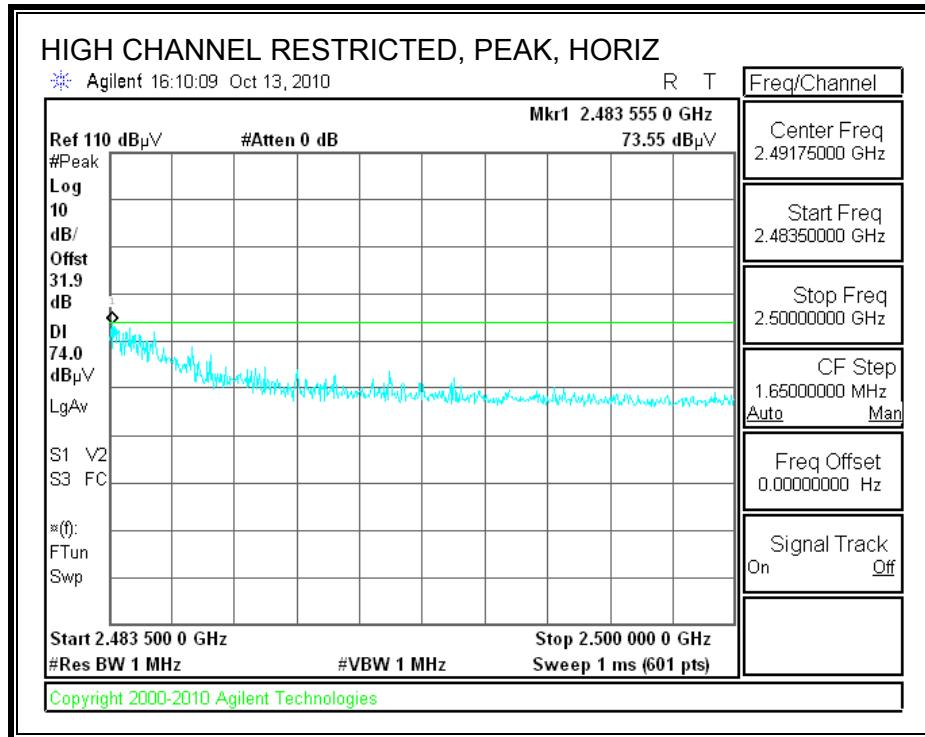
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



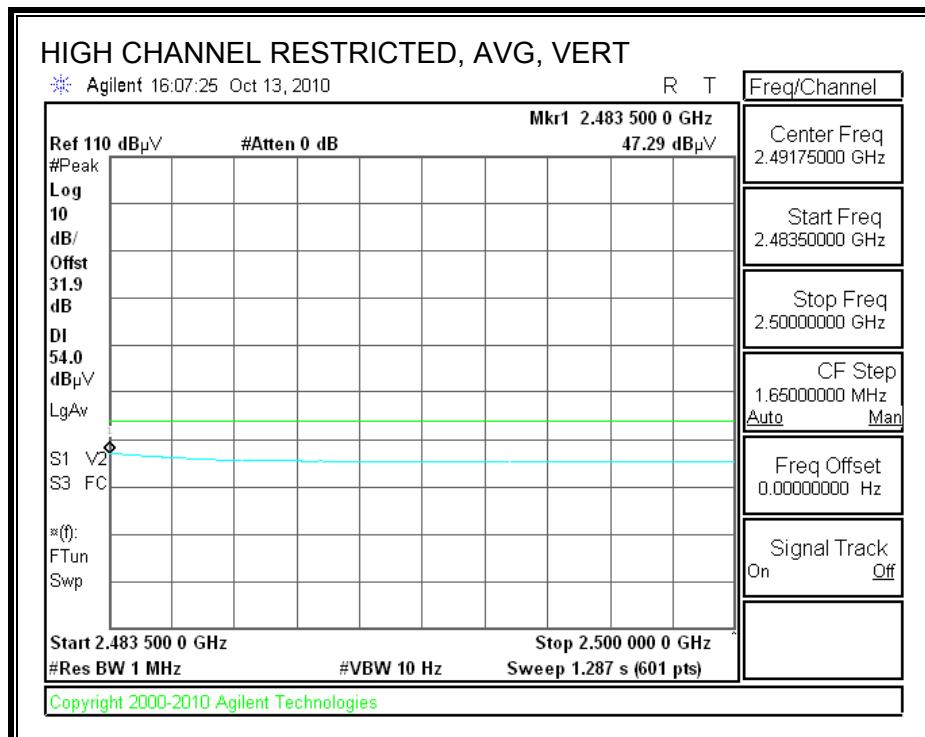
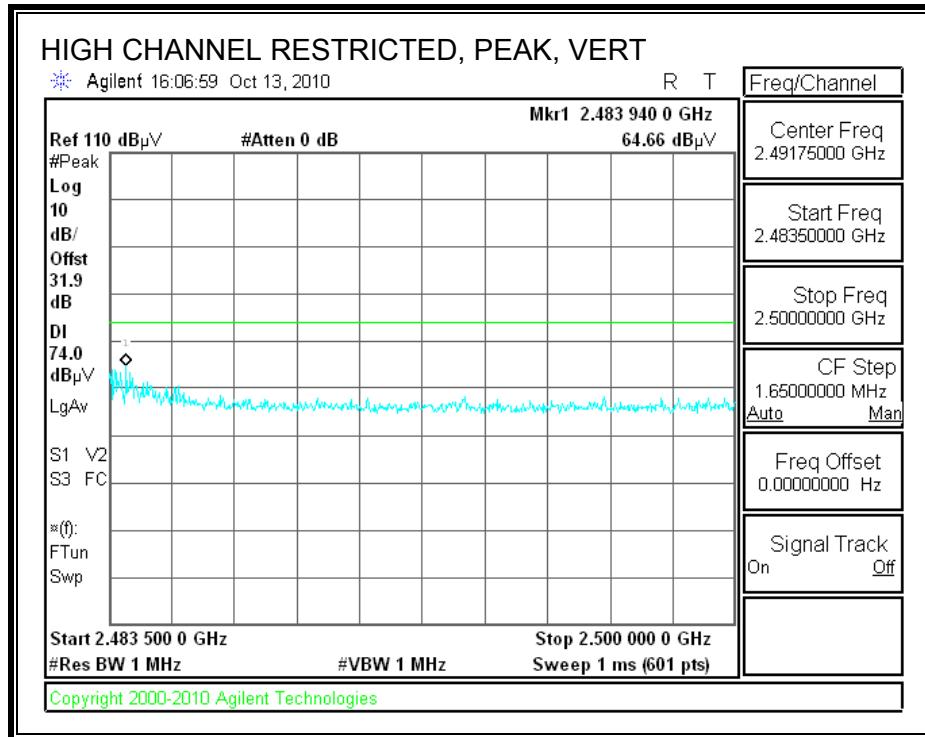
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 10/14/10
Project #: 10U13357
Company: Palm
Configuration: EUT at worst position with AC Adapter
Test Target: FCC 15.247
Mode Oper: 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	

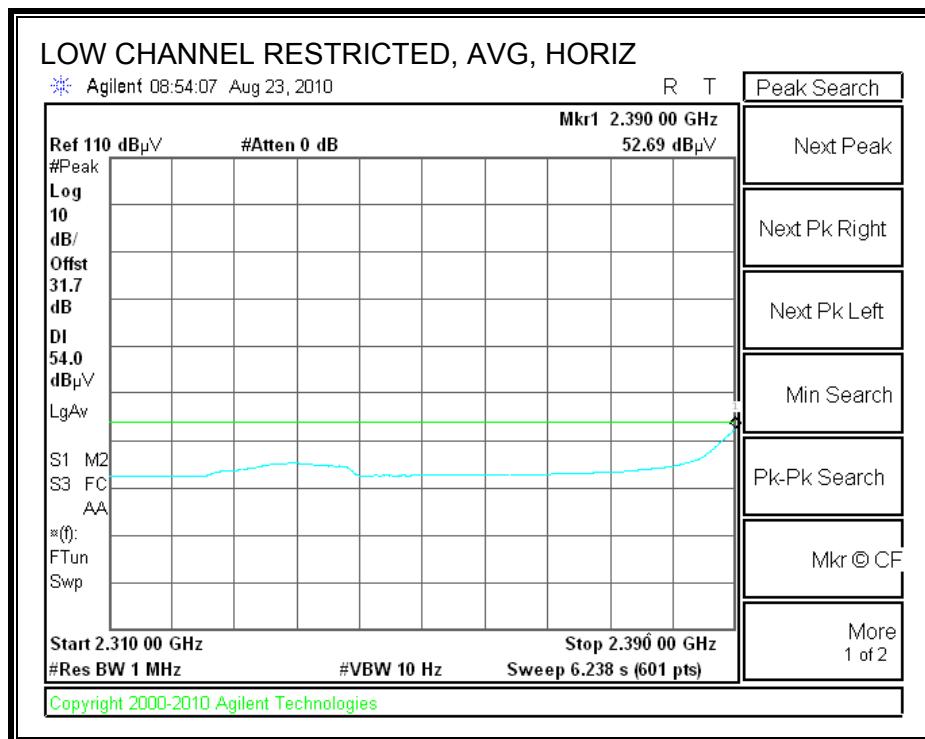
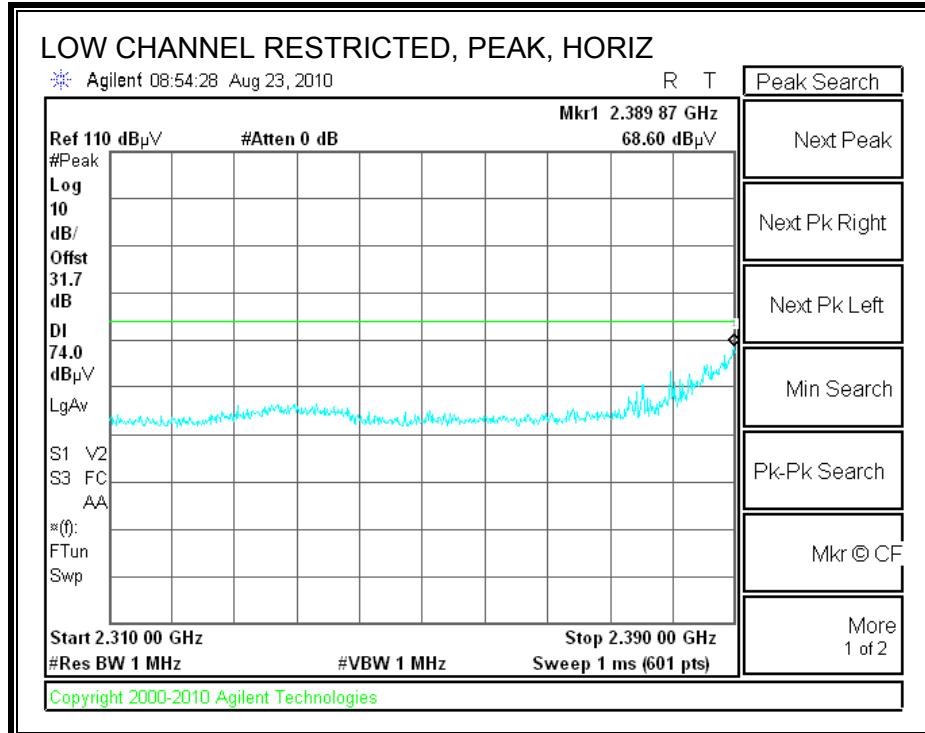
f CHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	40.6	32.8	5.8	-34.8	0.0	0.0	44.4	74.0	-29.6	H	P	
4.824	3.0	28.6	32.8	5.8	-34.8	0.0	0.0	32.4	54.0	-21.6	H	A	
4.824	3.0	40.2	32.8	5.8	-34.8	0.0	0.0	43.9	74.0	-30.1	V	P	
4.824	3.0	27.6	32.8	5.8	-34.8	0.0	0.0	31.3	54.0	-22.7	V	A	
Mid Ch, 2437MHz													
4.874	3.0	42.4	32.8	5.8	-34.9	0.0	0.0	46.2	74.0	-27.8	H	P	
4.874	3.0	29.9	32.8	5.8	-34.9	0.0	0.0	33.7	54.0	-20.4	H	A	
7.311	3.0	41.8	35.2	7.3	-34.7	0.0	0.0	49.6	74.0	-24.4	H	P	
7.311	3.0	27.7	35.2	7.3	-34.7	0.0	0.0	35.5	54.0	-18.5	H	A	
4.874	3.0	40.0	32.8	5.8	-34.9	0.0	0.0	43.8	74.0	-30.2	V	P	
4.874	3.0	27.8	32.8	5.8	-34.9	0.0	0.0	31.6	54.0	-22.4	V	A	
7.311	3.0	43.7	35.2	7.3	-34.7	0.0	0.0	51.5	74.0	-22.5	V	P	
7.311	3.0	28.7	35.2	7.3	-34.7	0.0	0.0	36.5	54.0	-17.5	V	A	
High Ch, 2462Mhz													
4.924	3.0	41.5	32.8	5.9	-34.9	0.0	0.0	45.3	74.0	-28.7	H	P	
4.924	3.0	29.3	32.8	5.9	-34.9	0.0	0.0	33.2	54.0	-20.8	H	A	
7.386	3.0	40.7	35.3	7.3	-34.6	0.0	0.0	48.7	74.0	-25.3	H	P	
7.386	3.0	27.1	35.3	7.3	-34.6	0.0	0.0	35.1	54.0	-18.9	H	A	
4.924	3.0	41.7	32.8	5.9	-34.9	0.0	0.0	45.6	74.0	-28.4	V	P	
4.924	3.0	27.5	32.8	5.9	-34.9	0.0	0.0	31.3	54.0	-22.7	V	A	
7.386	3.0	41.4	35.3	7.3	-34.6	0.0	0.0	49.4	74.0	-24.6	V	P	
7.386	3.0	27.4	35.3	7.3	-34.6	0.0	0.0	35.4	54.0	-18.6	V	A	

Rev. 4.1.2.7

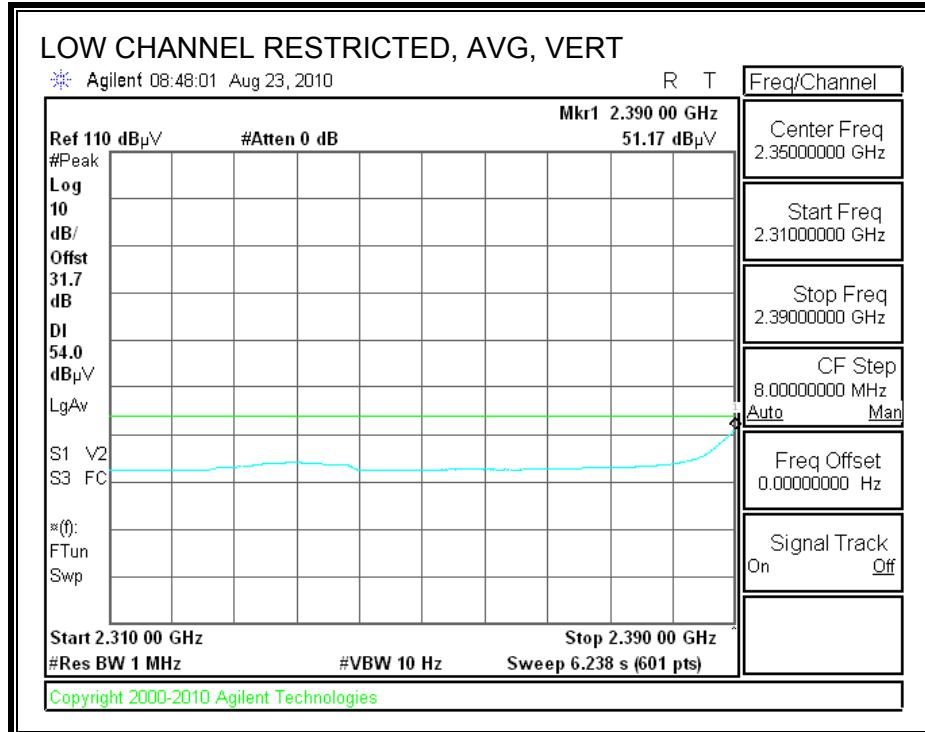
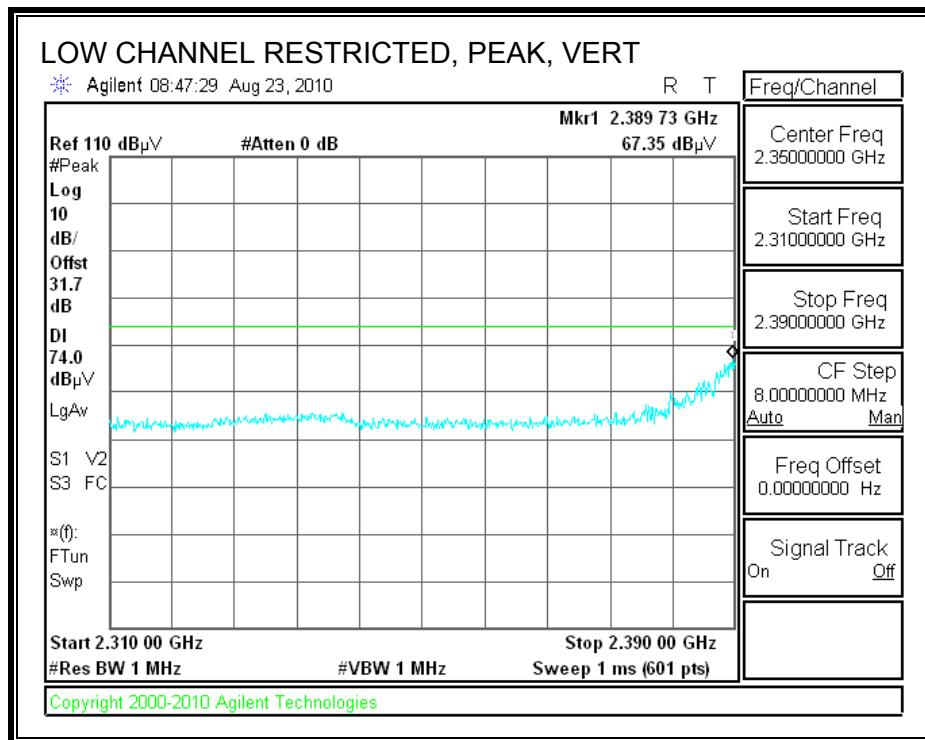
Note: No other emissions were detected above the system noise floor.

8.2.3. 802.11n HT20 SISO MODE

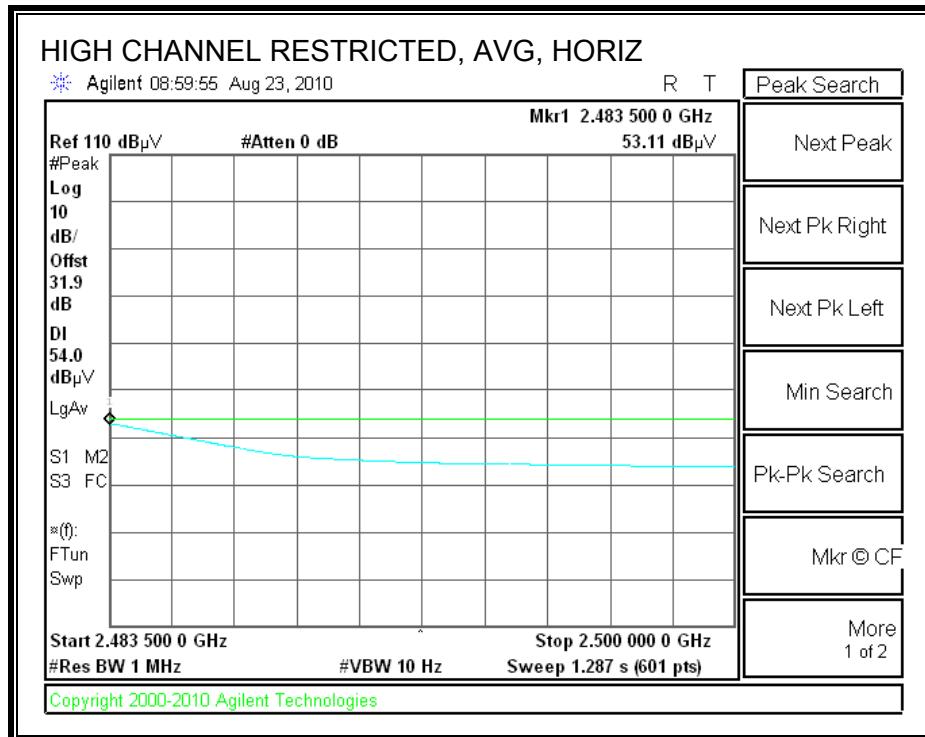
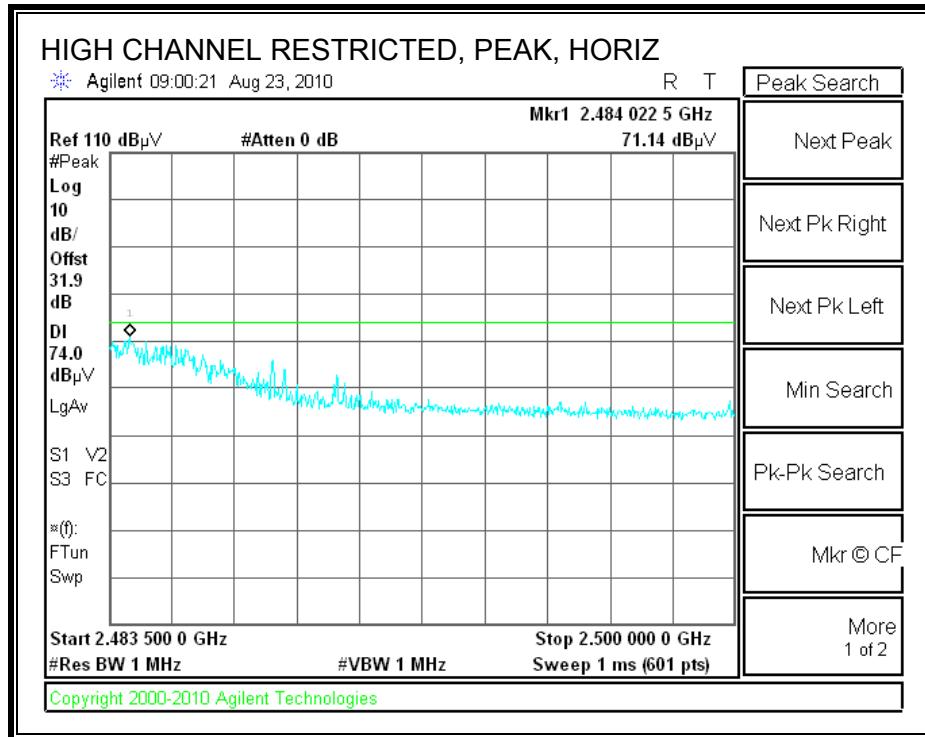
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



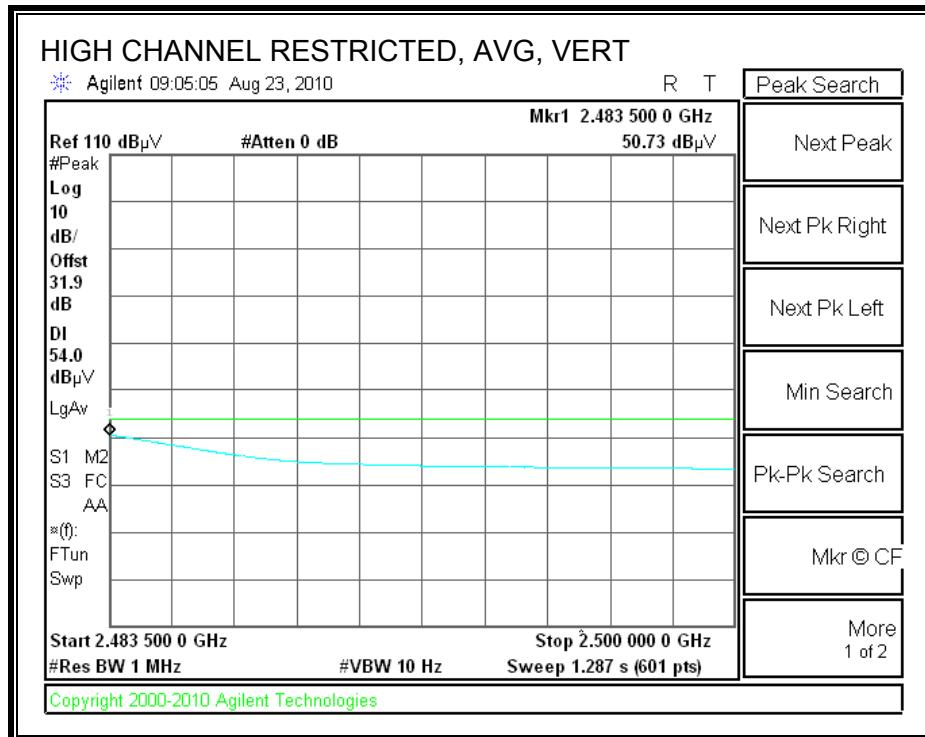
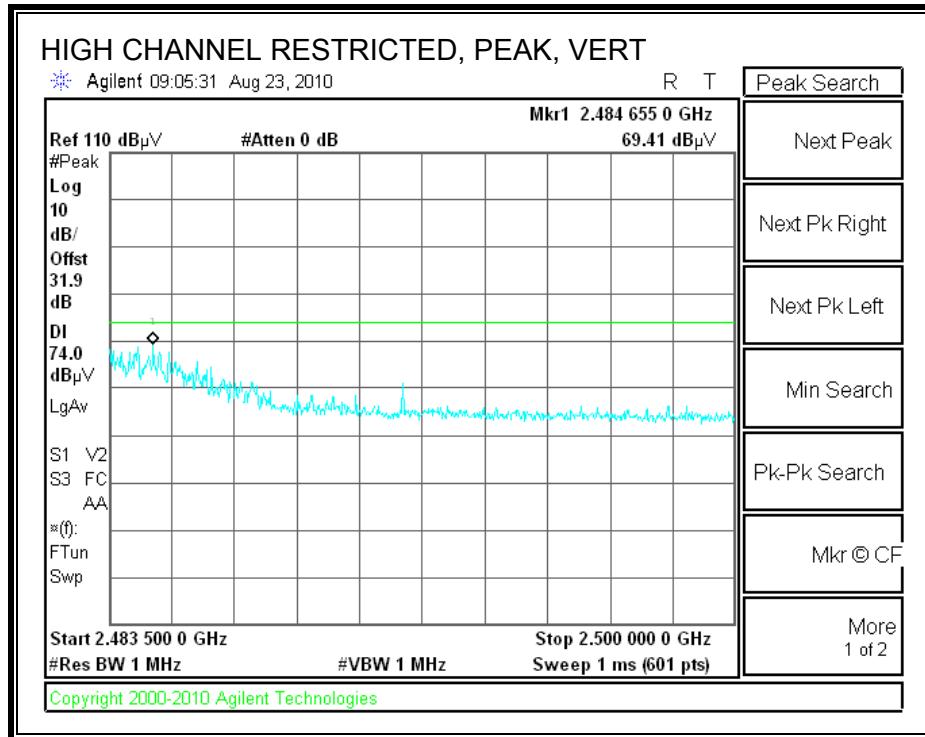
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 10/14/10
Project #: 10U13357
Company: Palm
Configuration: EUT at worst position with AC Adapter
Test Target: FCC 15.247
Mode Oper: TX, 802.11n

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	

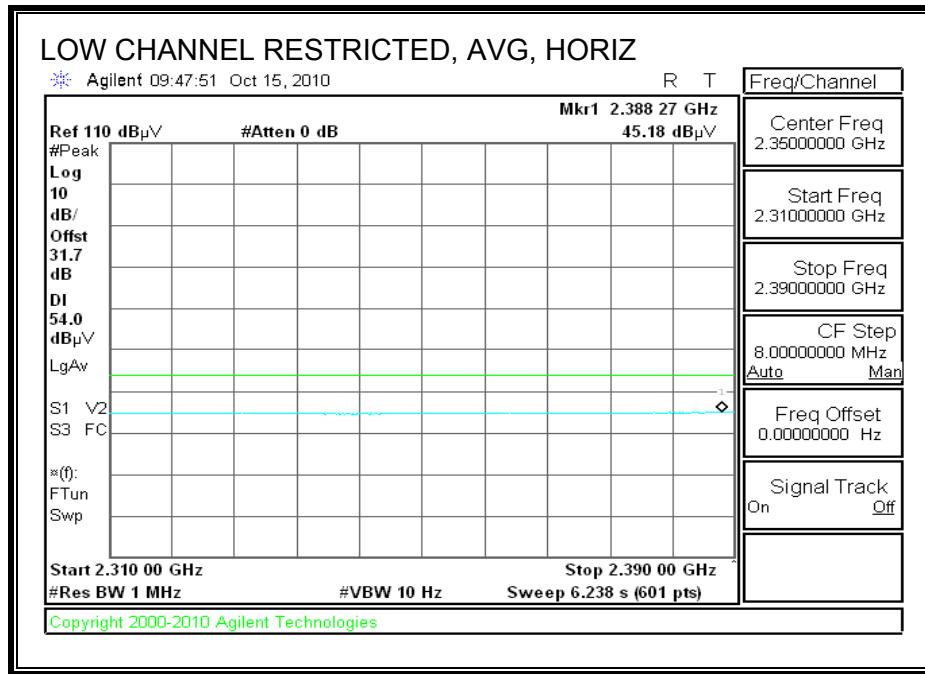
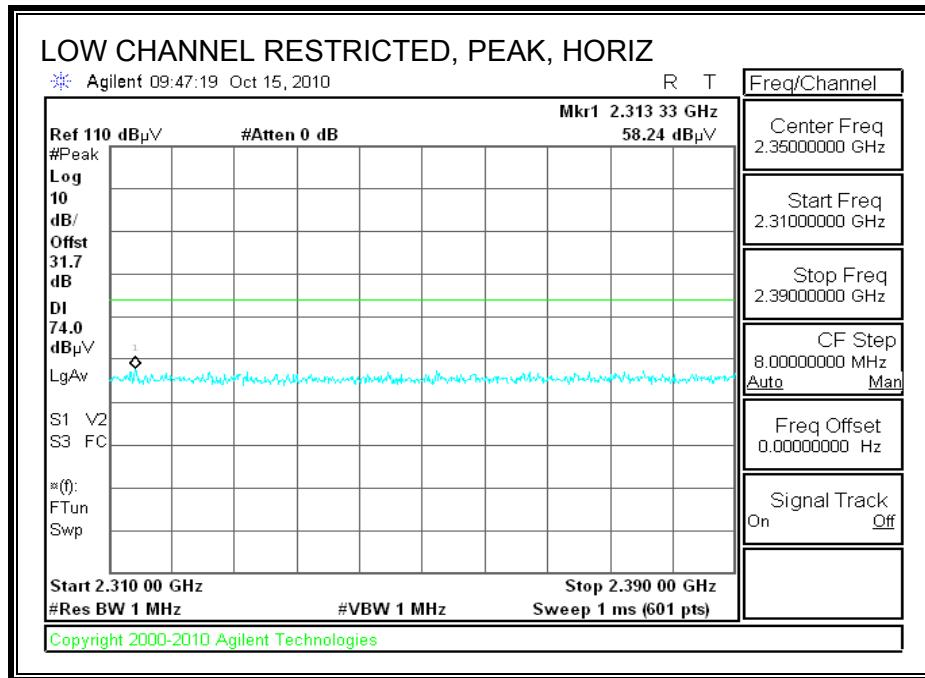
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	39.6	32.8	5.8	-34.8	0.0	0.0	43.3	74.0	-30.7	V	P	
4.824	3.0	26.9	32.8	5.8	-34.8	0.0	0.0	30.6	54.0	-23.4	V	A	
4.824	3.0	41.4	32.8	5.8	-34.8	0.0	0.0	45.1	74.0	-28.9	H	P	
4.824	3.0	28.9	32.8	5.8	-34.8	0.0	0.0	32.6	54.0	-21.4	H	A	
Mid Ch, 2437MHz													
4.874	3.0	38.0	32.8	5.8	-34.9	0.0	0.0	41.7	74.0	-32.3	V	P	
4.874	3.0	25.9	32.8	5.8	-34.9	0.0	0.0	29.7	54.0	-24.3	V	A	
7.311	3.0	41.2	35.2	7.3	-34.7	0.0	0.0	49.0	74.0	-25.0	V	P	
7.311	3.0	27.8	35.2	7.3	-34.7	0.0	0.0	35.6	54.0	-18.4	V	A	
4.874	3.0	41.0	32.8	5.8	-34.9	0.0	0.0	44.8	74.0	-29.2	H	P	
4.874	3.0	28.9	32.8	5.8	-34.9	0.0	0.0	32.7	54.0	-21.3	H	A	
7.311	3.0	39.2	35.2	7.3	-34.7	0.0	0.0	47.0	74.0	-27.0	H	P	
7.311	3.0	26.3	35.2	7.3	-34.7	0.0	0.0	34.1	54.0	-19.9	H	A	
High Ch, 2462MHz													
4.924	3.0	39.0	32.8	5.9	-34.9	0.0	0.0	42.8	74.0	-31.2	V	P	
4.924	3.0	26.5	32.8	5.9	-34.9	0.0	0.0	30.4	54.0	-23.6	V	A	
7.386	3.0	40.6	35.3	7.3	-34.6	0.0	0.0	48.5	74.0	-25.5	V	P	
7.386	3.0	27.2	35.3	7.3	-34.6	0.0	0.0	35.2	54.0	-18.8	V	A	
4.924	3.0	41.2	32.8	5.9	-34.9	0.0	0.0	45.1	74.0	-28.9	H	P	
4.924	3.0	28.6	32.8	5.9	-34.9	0.0	0.0	32.4	54.0	-21.6	H	A	
7.386	3.0	40.8	35.3	7.3	-34.6	0.0	0.0	48.7	74.0	-25.3	H	P	
7.386	3.0	27.1	35.3	7.3	-34.6	0.0	0.0	35.0	54.0	-19.0	H	A	

Rev. 4.1.2.7

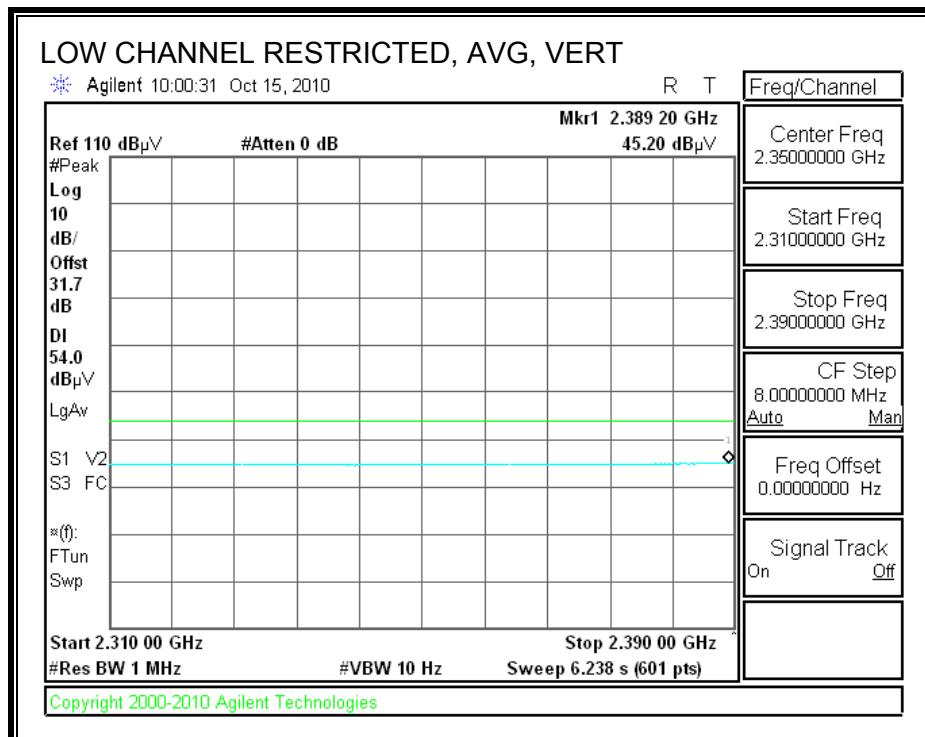
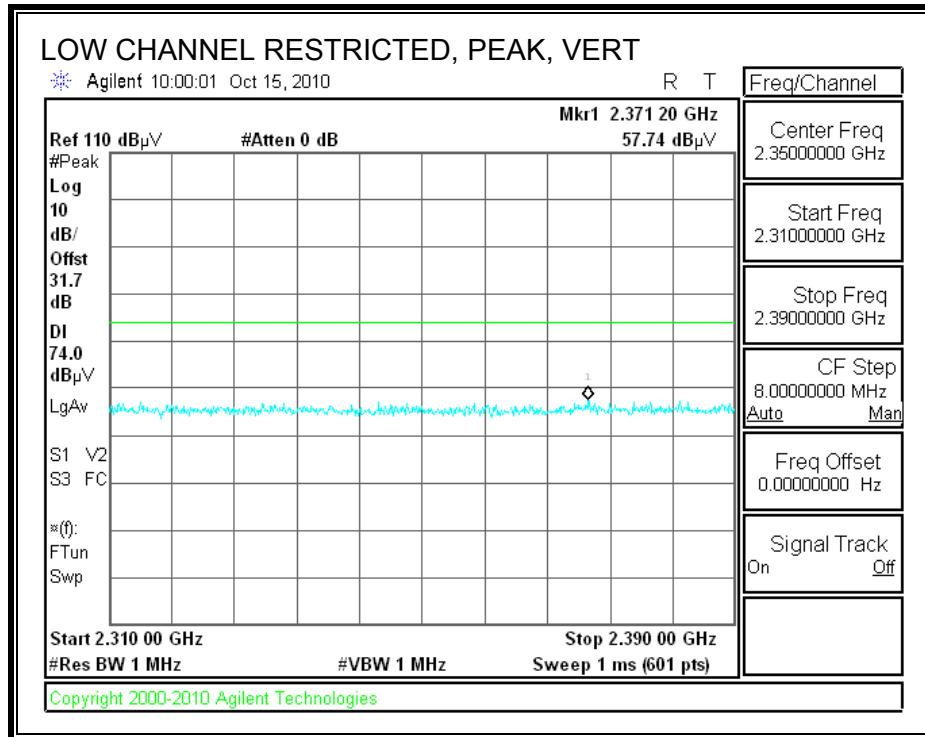
Note: No other emissions were detected above the system noise floor.

8.2.4. BLUETOOTH GFSK MODE

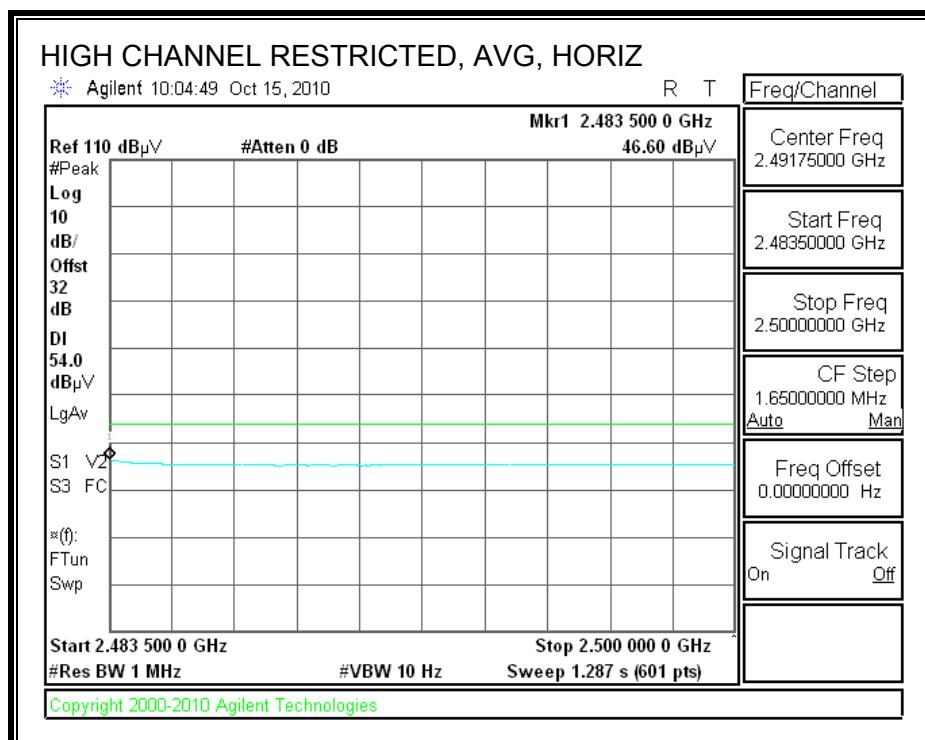
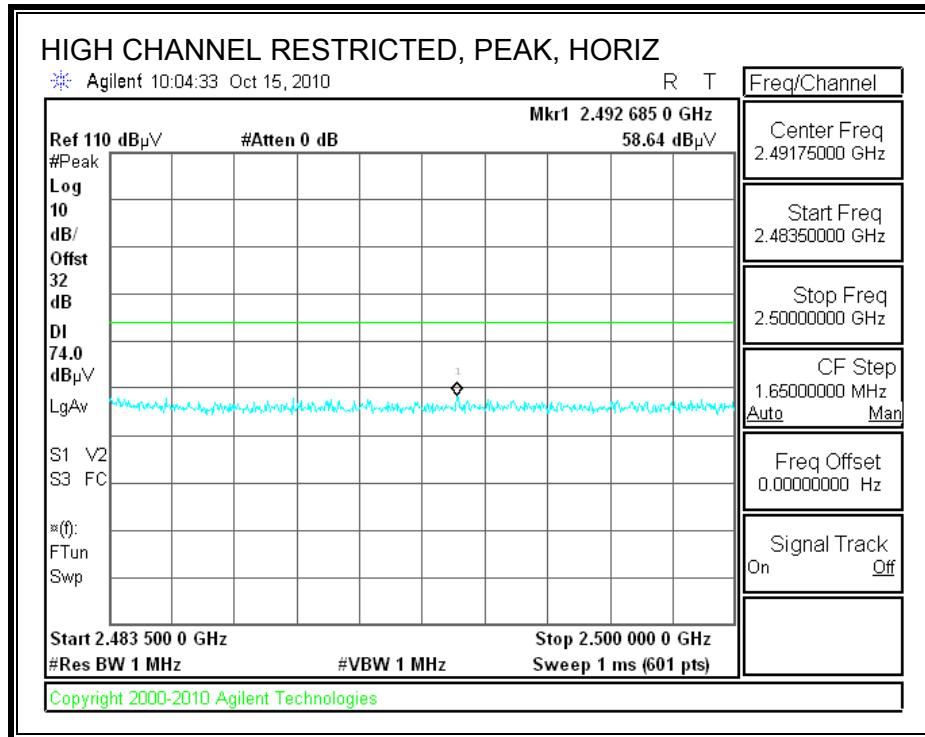
RESTRICTED BANEDGE (LOW CHANNEL, HORIZONTAL)



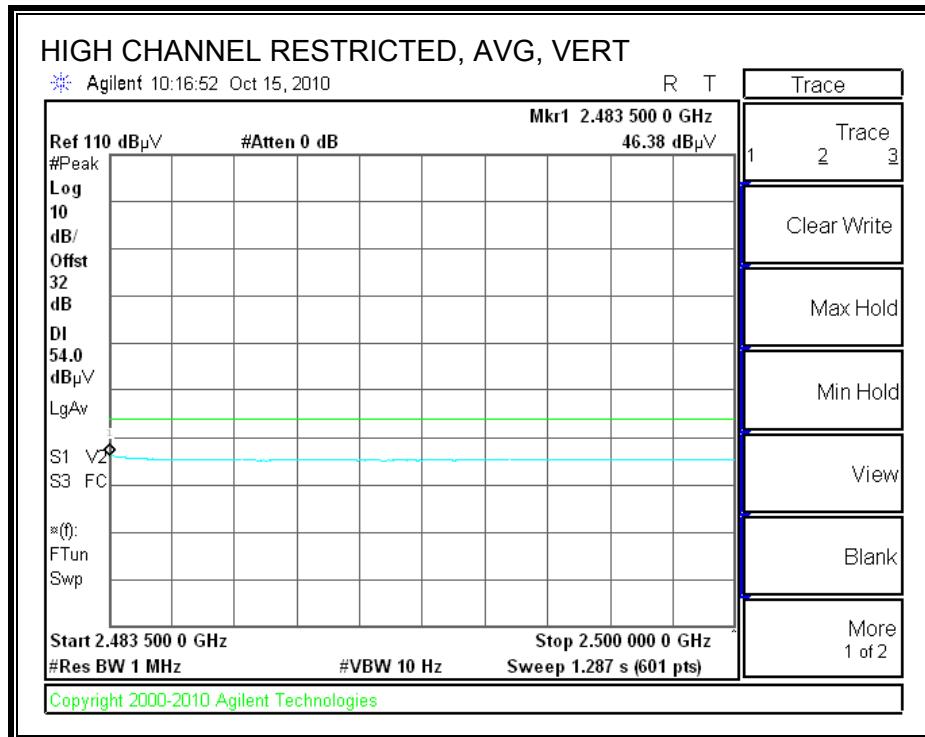
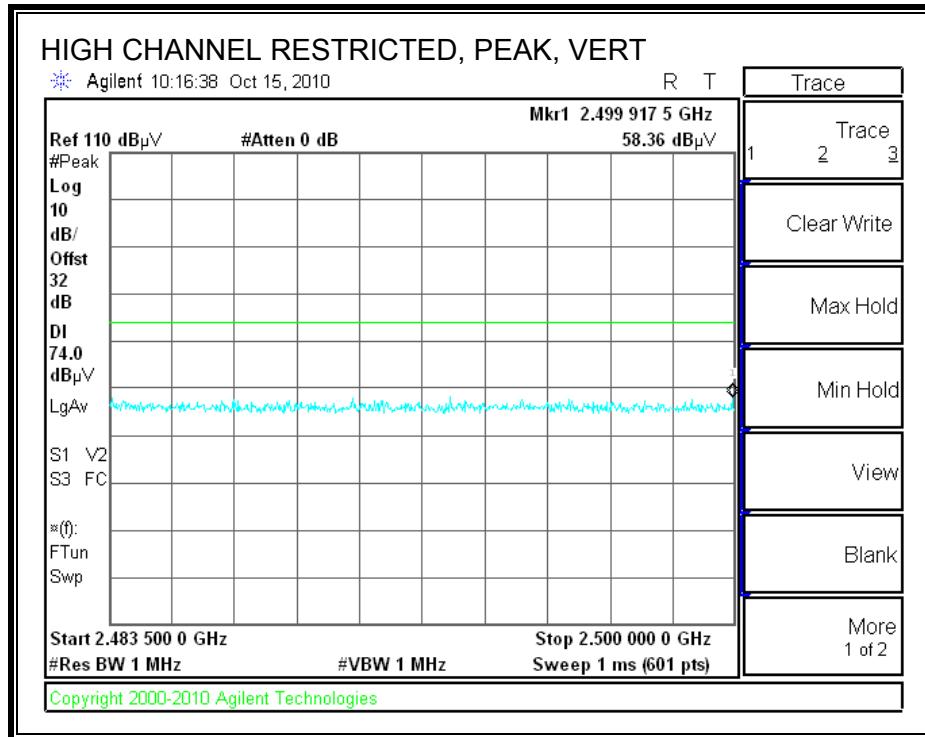
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 10/15/10

Project #: 10U13357

Company: Palm

EUT Description: Phone with 802.11 bgn and Bluetooth

Configuration: EUT (Worst Case Position) with AC Adapter

Test Target: FCC 15.247

Mode Oper: TX, 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	

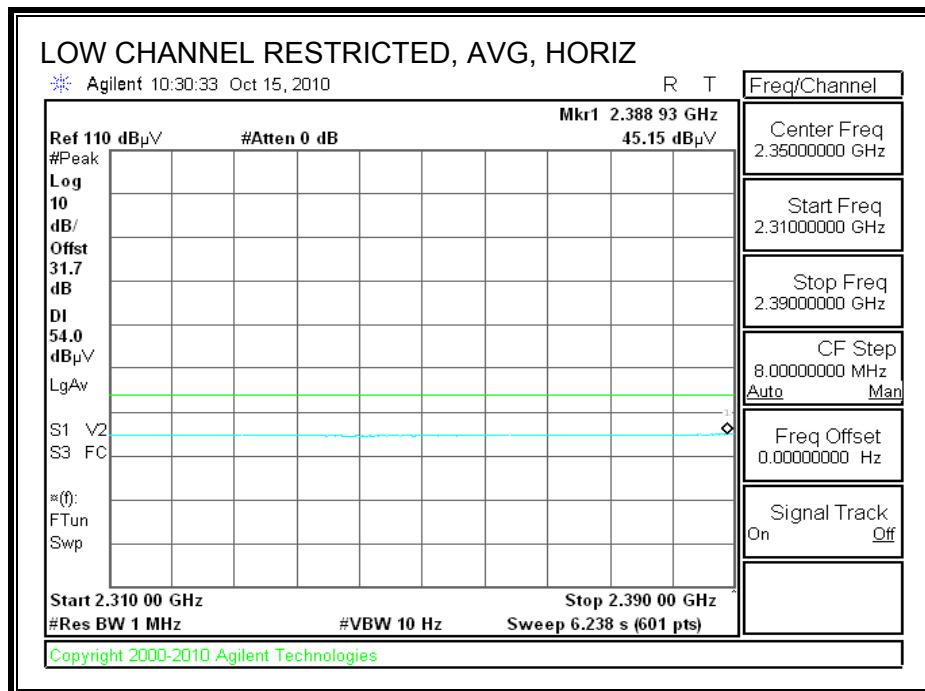
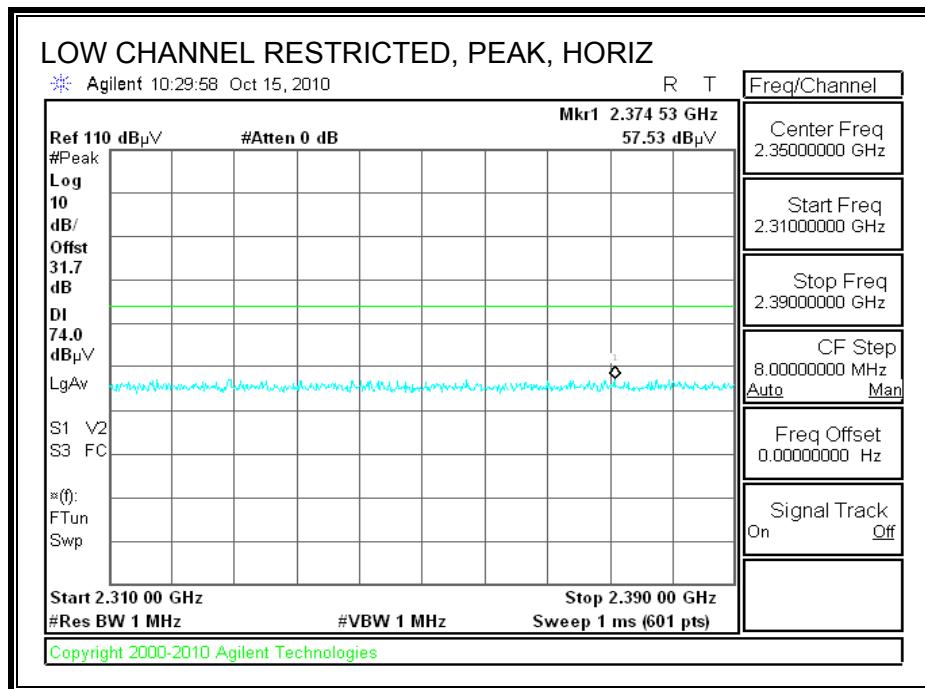
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2402MHz													
4.804	3.0	47.5	32.8	5.8	-34.8	0.0	0.0	51.2	74.0	-22.8	H	P	
4.804	3.0	40.5	32.8	5.8	-34.8	0.0	0.0	44.2	54.0	-9.8	H	A	
4.804	3.0	46.3	32.8	5.8	-34.8	0.0	0.0	50.0	74.0	-24.0	V	P	
4.804	3.0	39.2	32.8	5.8	-34.8	0.0	0.0	42.9	54.0	-11.1	V	A	
Mid Ch, 2441MHz													
4.882	3.0	46.3	32.8	5.8	-34.9	0.0	0.0	50.1	74.0	-23.9	H	P	
4.882	3.0	39.5	32.8	5.8	-34.9	0.0	0.0	43.3	54.0	-10.7	H	A	
7.323	3.0	44.0	35.2	7.3	-34.7	0.0	0.0	51.8	74.0	-22.2	H	P	
7.323	3.0	36.4	35.2	7.3	-34.7	0.0	0.0	44.3	54.0	-9.7	H	A	
4.882	3.0	44.8	32.8	5.8	-34.9	0.0	0.0	48.6	74.0	-25.4	V	P	
4.882	3.0	37.8	32.8	5.8	-34.9	0.0	0.0	41.6	54.0	-12.4	V	A	
7.323	3.0	45.8	35.2	7.3	-34.7	0.0	0.0	53.7	74.0	-20.3	V	P	
7.323	3.0	37.8	35.2	7.3	-34.7	0.0	0.0	45.6	54.0	-8.4	V	A	
High Ch, 2480MHz													
4.960	3.0	41.1	32.9	5.9	-34.9	0.0	0.0	45.0	74.0	-29.0	H	P	
4.960	3.0	32.9	32.9	5.9	-34.9	0.0	0.0	36.8	54.0	-17.2	H	A	
7.440	3.0	40.6	35.4	7.3	-34.6	0.0	0.0	48.7	74.0	-25.3	H	P	
7.440	3.0	31.6	35.4	7.3	-34.6	0.0	0.0	39.7	54.0	-14.3	H	A	
4.960	3.0	40.7	32.9	5.9	-34.9	0.0	0.0	44.6	74.0	-29.4	V	P	
4.960	3.0	31.2	32.9	5.9	-34.9	0.0	0.0	35.1	54.0	-18.9	V	A	
7.440	3.0	44.0	35.4	7.3	-34.6	0.0	0.0	52.1	74.0	-21.9	V	P	
7.440	3.0	36.2	35.4	7.3	-34.6	0.0	0.0	44.3	54.0	-9.7	V	A	

Rev. 4.1.2.7

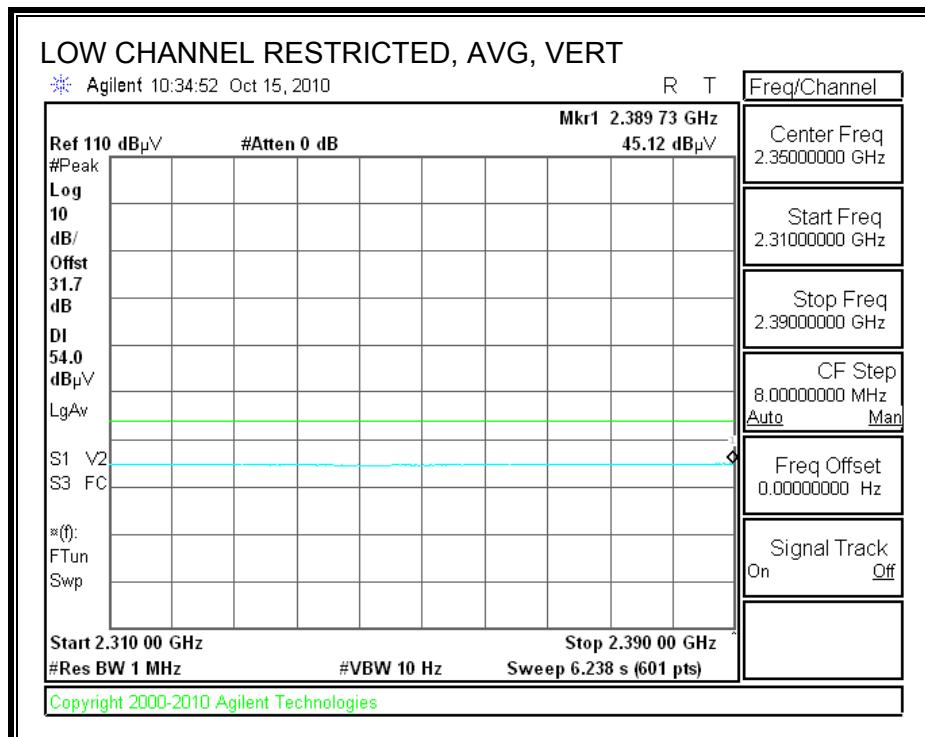
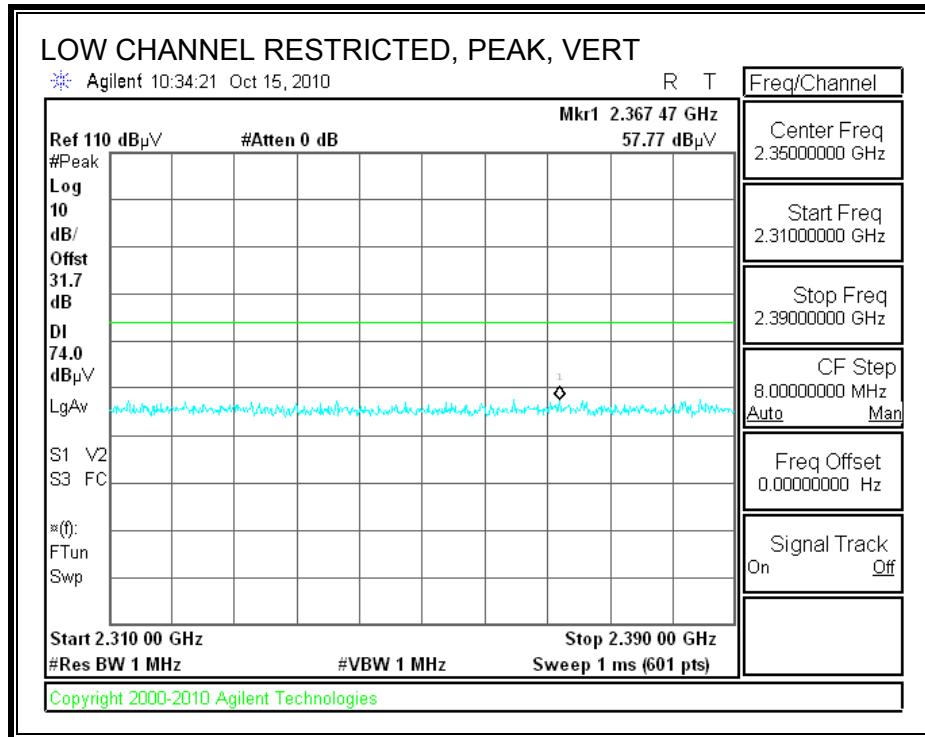
Note: No other emissions were detected above the system noise floor.

8.2.5. BLUETOOTH 8PSK MODE

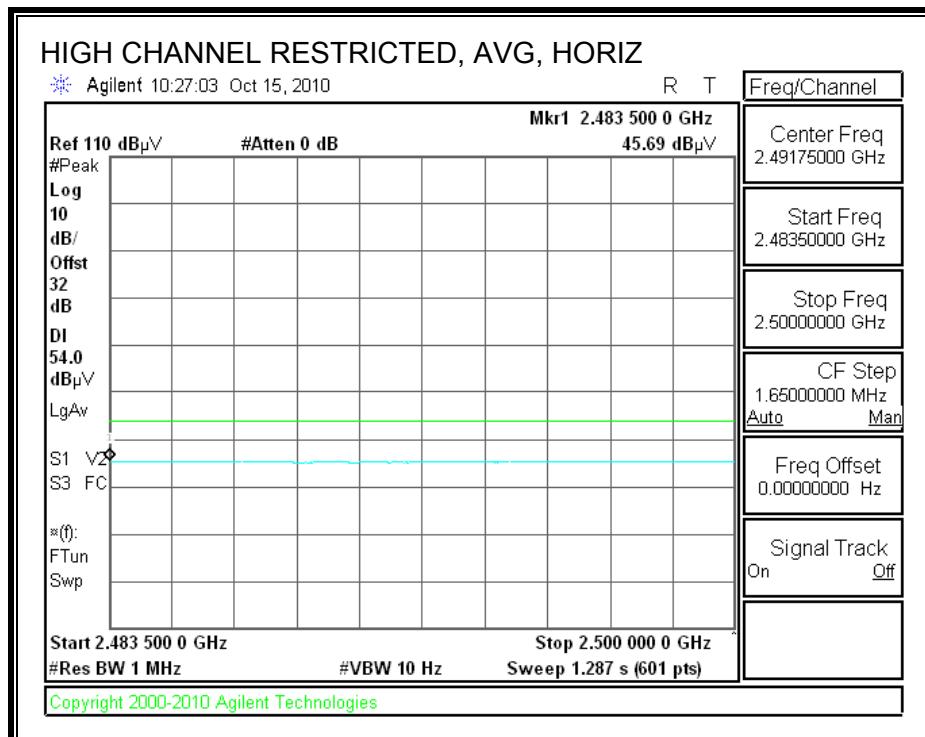
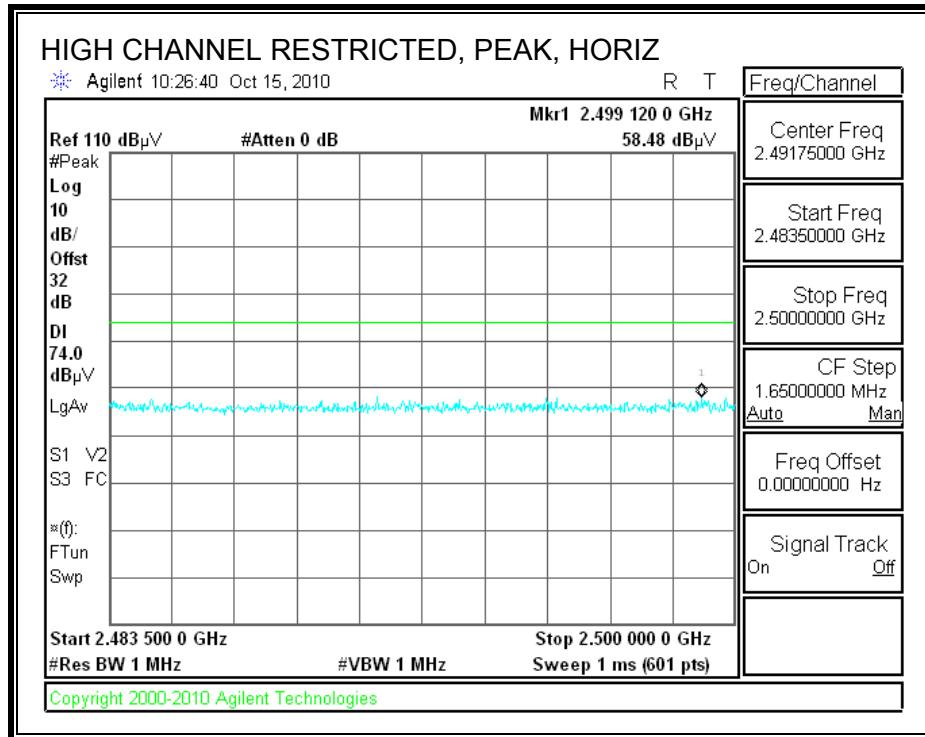
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



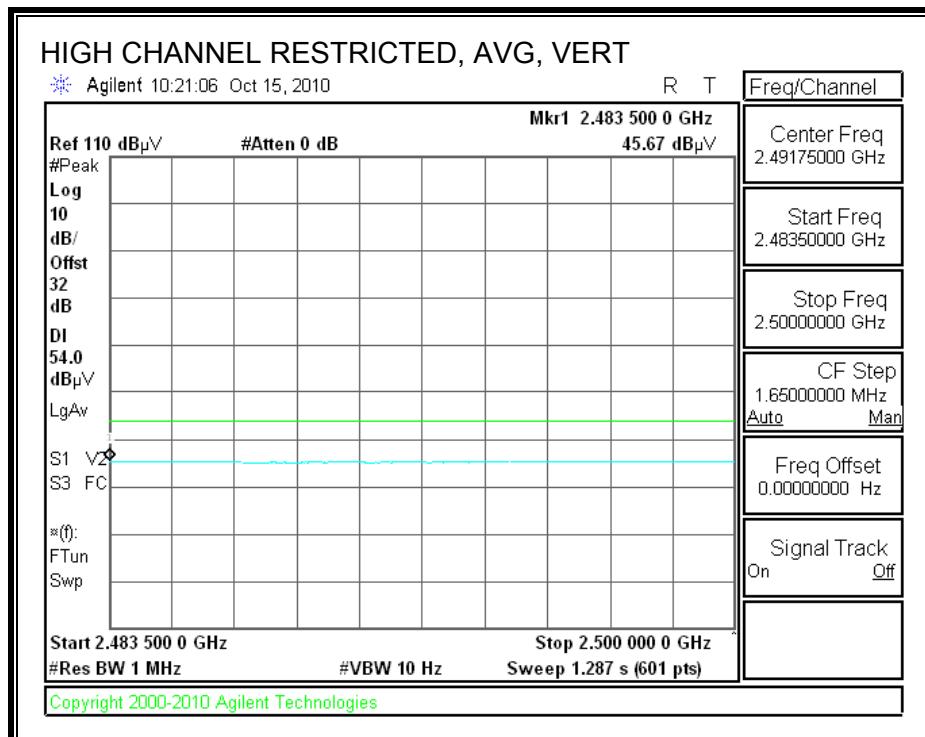
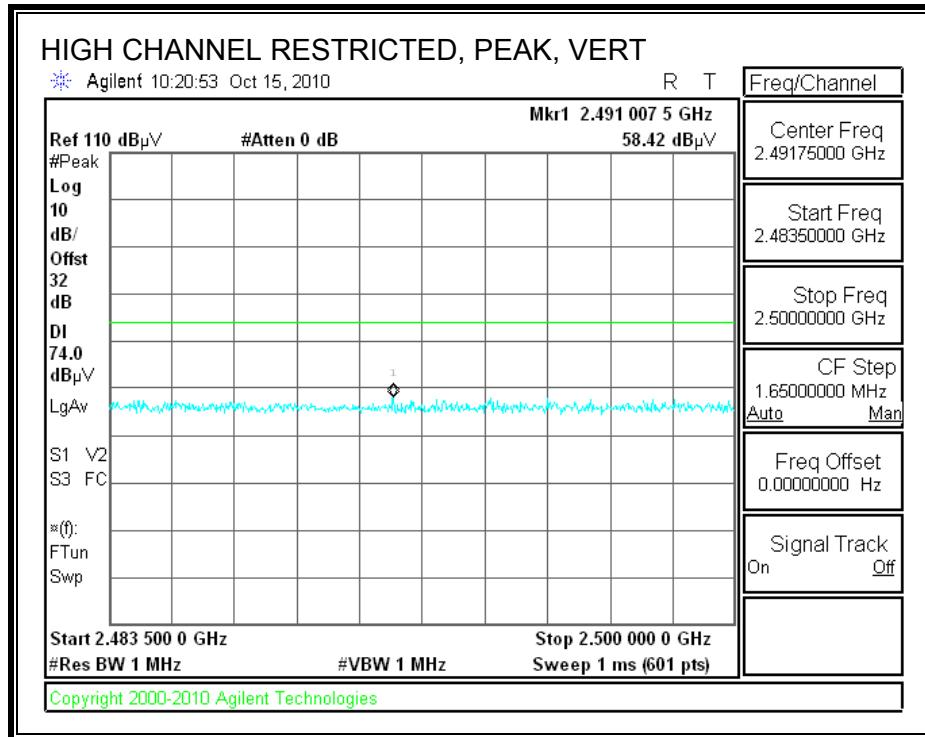
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 10/15/10

Project #: 10U13357

Company: Palm

EUT Description: Phone with 802.11 bgn and Bluetooth

Configuration: EUT (Worst Case Position) with AC Adapter

Test Target: FCC 15.247

Mode Oper: TX, 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	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2402MHz													
4.804	3.0	39.5	32.8	5.8	-34.8	0.0	0.0	43.2	74.0	-30.8	H	P	
4.804	3.0	28.3	32.8	5.8	-34.8	0.0	0.0	32.0	54.0	-22.0	H	A	
4.804	3.0	38.1	32.8	5.8	-34.8	0.0	0.0	41.8	74.0	-32.2	V	P	
4.804	3.0	25.8	32.8	5.8	-34.8	0.0	0.0	29.5	54.0	-24.5	V	A	
Mid Ch, 2441MHz													
4.882	3.0	37.6	32.8	5.8	-34.9	0.0	0.0	41.4	74.0	-32.6	H	P	
4.882	3.0	27.0	32.8	5.8	-34.9	0.0	0.0	30.8	54.0	-23.2	H	A	
7.323	3.0	36.5	35.2	7.3	-34.7	0.0	0.0	44.4	74.0	-29.6	H	P	
7.323	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	H	A	
4.882	3.0	37.1	32.8	5.8	-34.9	0.0	0.0	40.9	74.0	-33.1	V	P	
4.882	3.0	25.2	32.8	5.8	-34.9	0.0	0.0	29.0	54.0	-25.0	V	A	
7.323	3.0	38.2	35.2	7.3	-34.7	0.0	0.0	46.1	74.0	-27.9	V	P	
7.323	3.0	26.8	35.2	7.3	-34.7	0.0	0.0	34.6	54.0	-19.4	V	A	
High Ch, 2480MHz													
4.960	3.0	37.5	32.9	5.9	-34.9	0.0	0.0	41.4	74.0	-32.6	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	37.3	35.4	7.3	-34.6	0.0	0.0	45.4	74.0	-28.6	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	
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	38.0	35.4	7.3	-34.6	0.0	0.0	46.0	74.0	-28.0	V	P	
7.440	3.0	25.2	35.4	7.3	-34.6	0.0	0.0	33.3	54.0	-20.7	V	A	

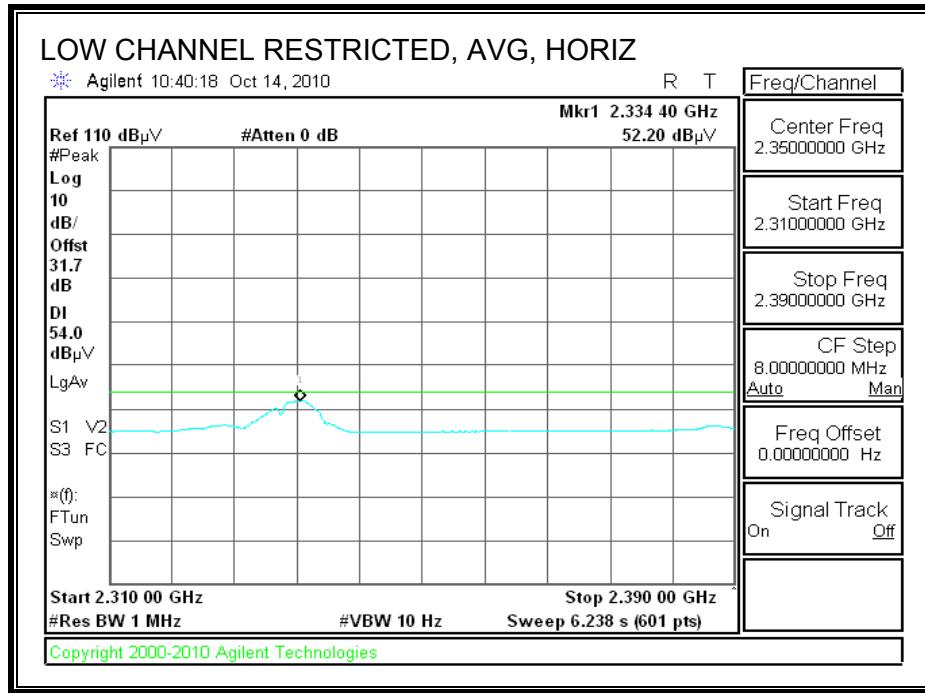
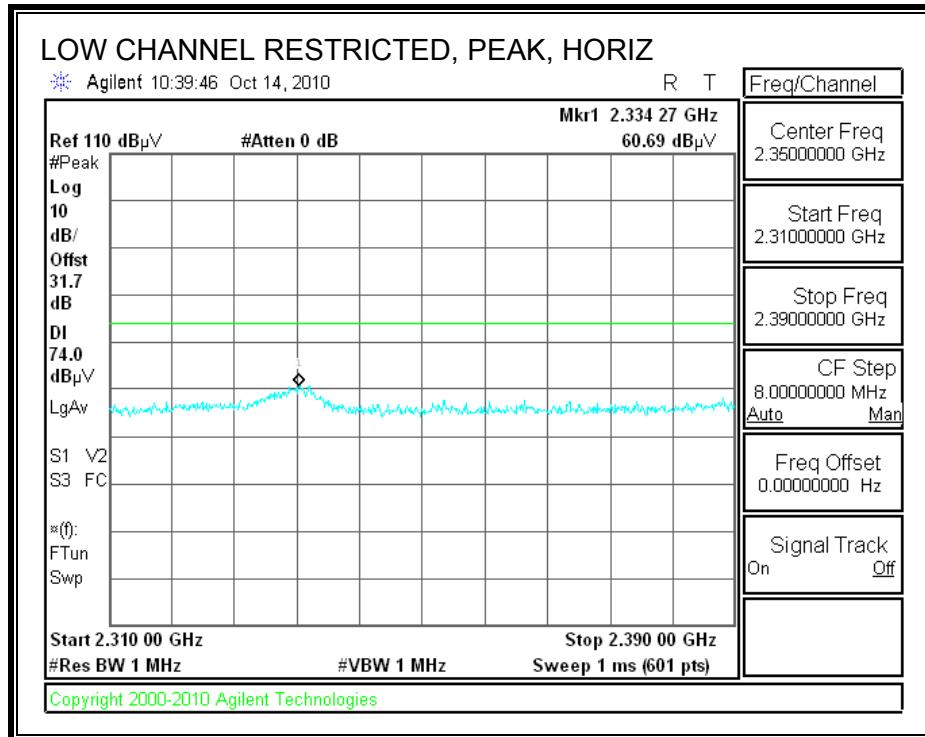
Rev. 4.1.2.7

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

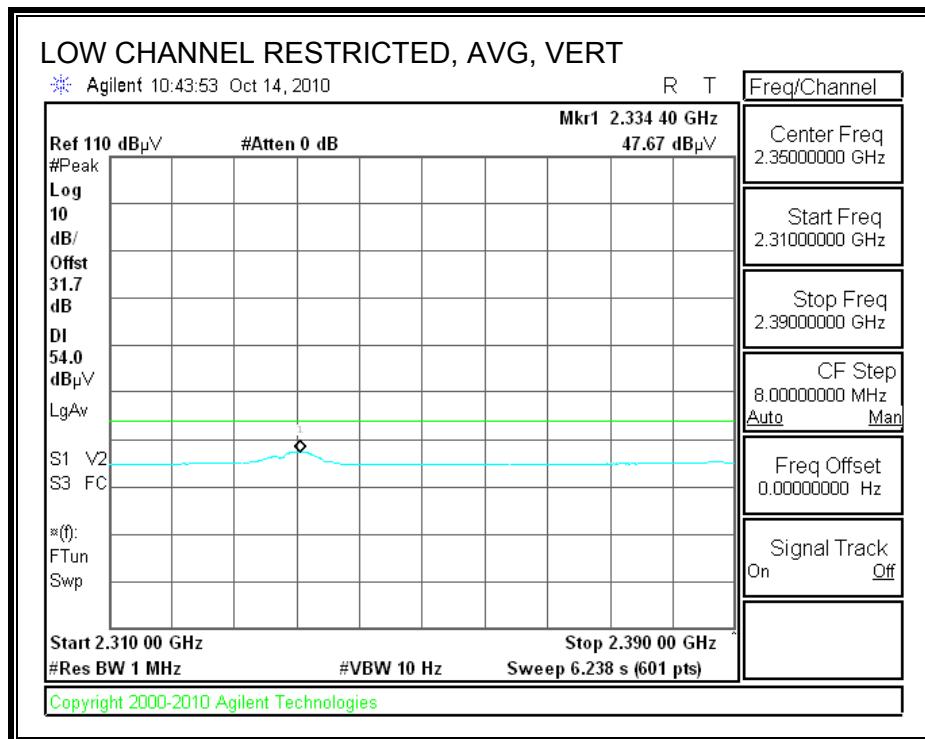
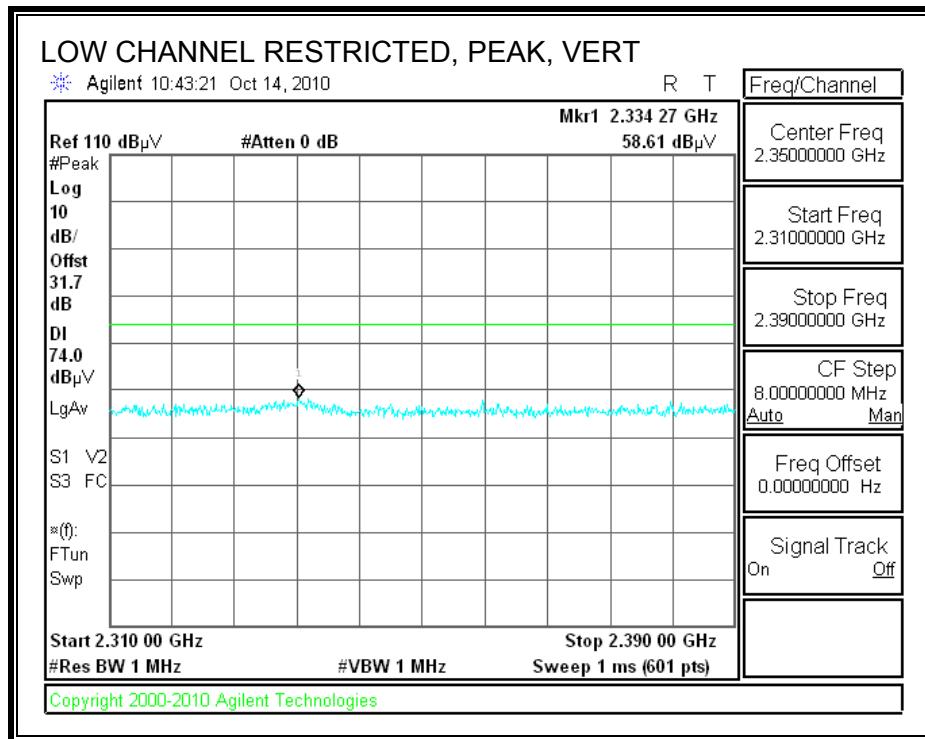
8.3. TRANSMITTER ABOVE 1 GHz, EUT WITH CHARGING DOCK

8.3.1. 802.11b MODE

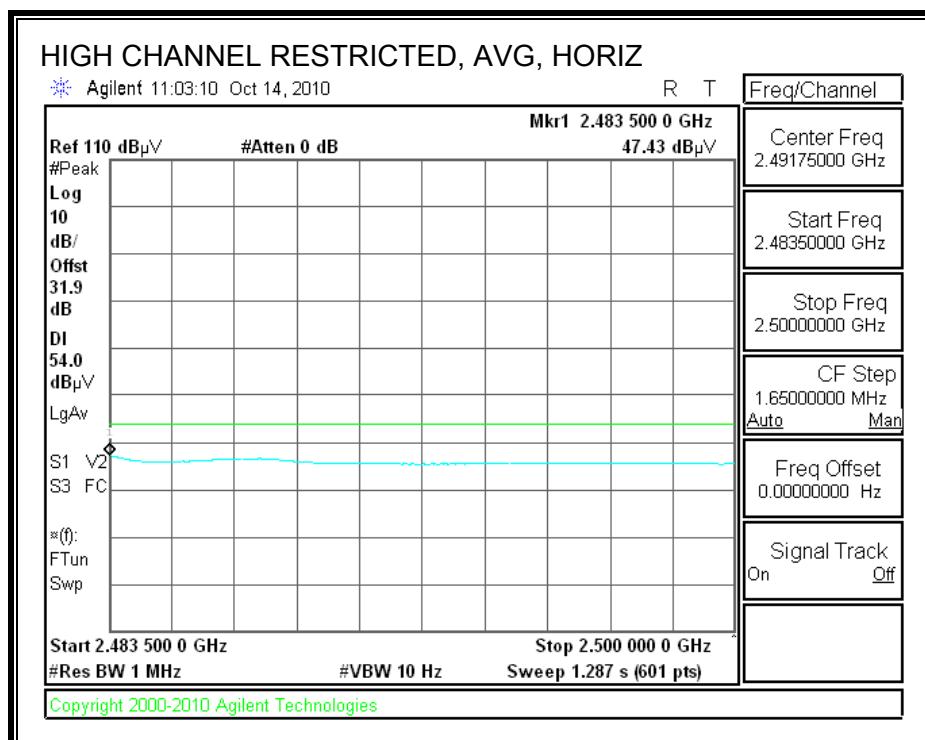
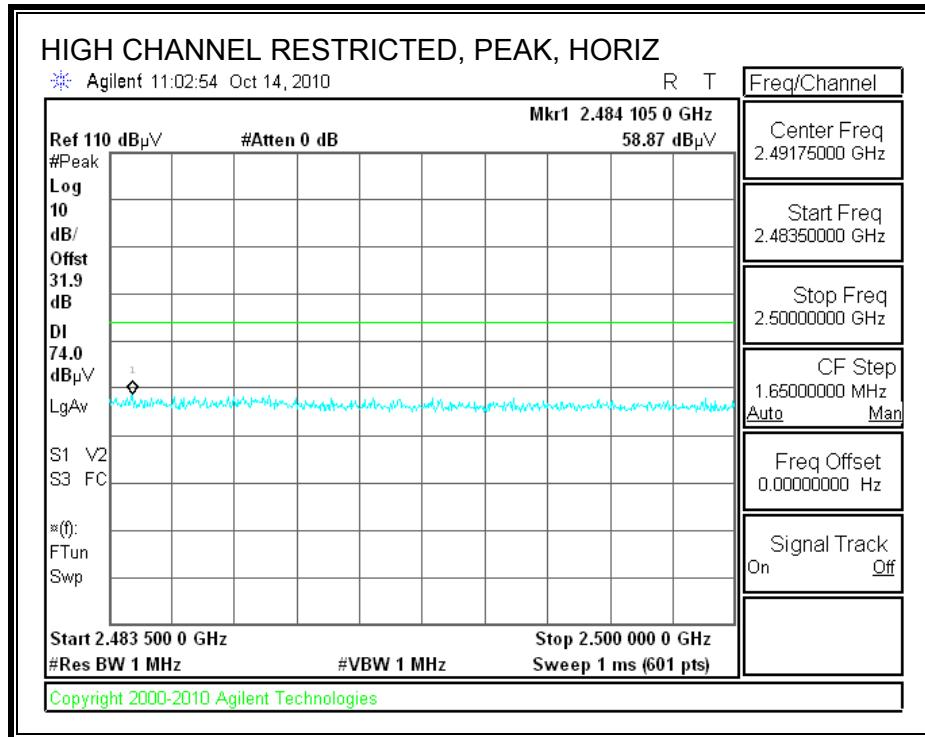
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



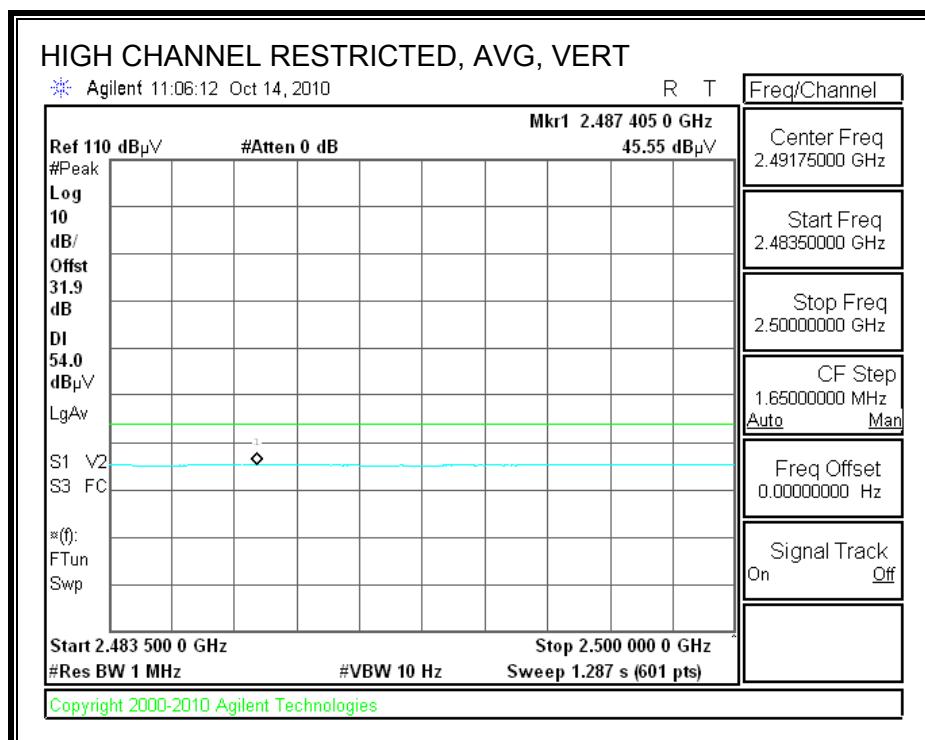
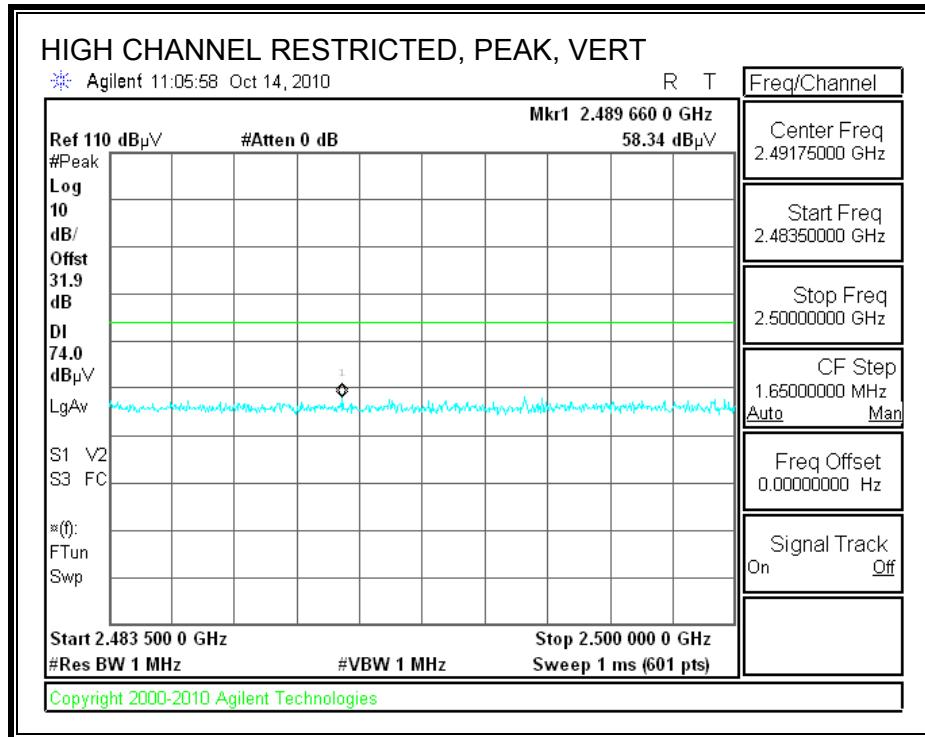
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Chin Pang
Date: 10/14/10
Project #: 10U13357
Company: Palm
Test Target: FCC 15.247
Configuration: EUT with Charging Dock
Mode Oper: 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	

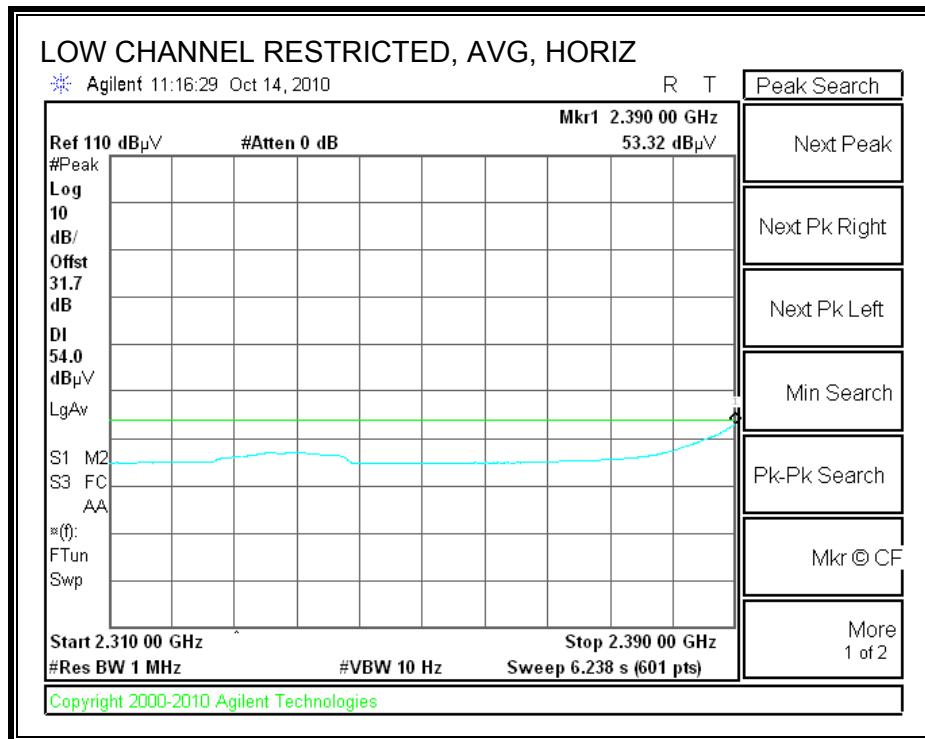
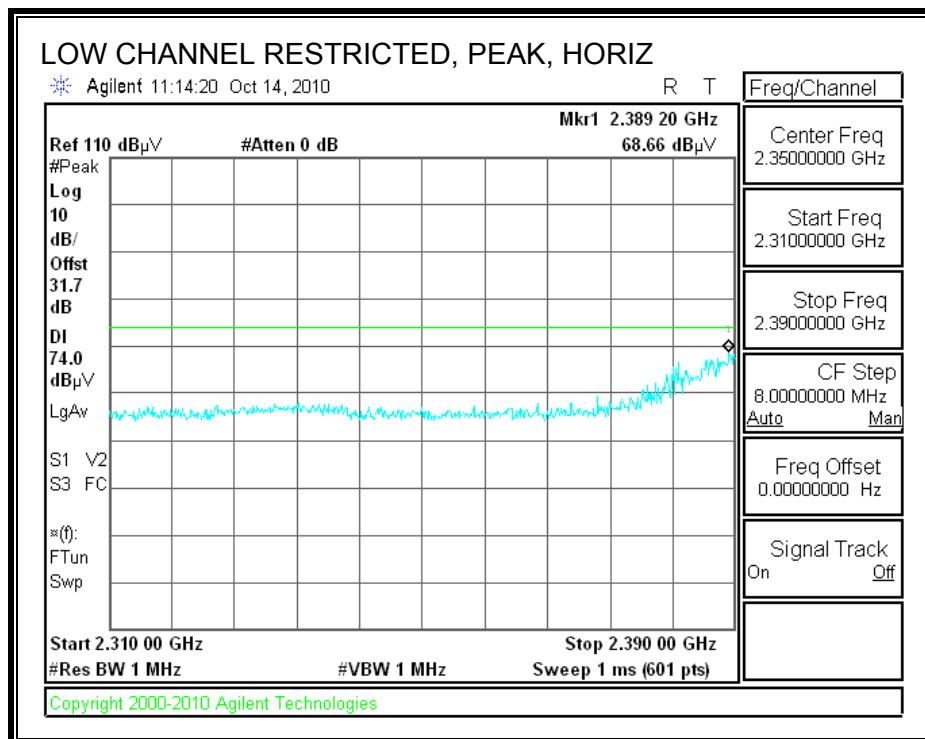
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	37.8	32.8	5.8	-34.8	0.0	0.0	41.5	74.0	-32.5	V	P	
4.824	3.0	29.1	32.8	5.8	-34.8	0.0	0.0	32.8	54.0	-21.2	V	A	
4.824	3.0	40.4	32.8	5.8	-34.8	0.0	0.0	44.2	74.0	-29.8	H	P	
4.824	3.0	33.0	32.8	5.8	-34.8	0.0	0.0	36.8	54.0	-17.2	H	A	
Mid Ch, 2437MHz													
4.874	3.0	38.5	32.8	5.8	-34.9	0.0	0.0	42.3	74.0	-31.7	V	P	
4.874	3.0	28.9	32.8	5.8	-34.9	0.0	0.0	32.7	54.0	-21.3	V	A	
7.311	3.0	44.7	35.2	7.3	-34.7	0.0	0.0	52.5	74.0	-21.5	V	P	
7.311	3.0	39.3	35.2	7.3	-34.7	0.0	0.0	47.1	54.0	-6.9	V	A	
4.874	3.0	41.5	32.8	5.8	-34.9	0.0	0.0	45.3	74.0	-28.7	H	P	
4.874	3.0	35.6	32.8	5.8	-34.9	0.0	0.0	39.4	54.0	-14.6	H	A	
7.311	3.0	47.6	35.2	7.3	-34.7	0.0	0.0	55.4	74.0	-18.6	H	P	
7.311	3.0	43.1	35.2	7.3	-34.7	0.0	0.0	50.9	54.0	-3.1	H	A	
High Ch, 2462MHz													
4.924	3.0	38.6	32.8	5.9	-34.9	0.0	0.0	42.5	74.0	-31.5	V	P	
4.924	3.0	30.1	32.8	5.9	-34.9	0.0	0.0	34.0	54.0	-20.0	V	A	
7.386	3.0	43.8	35.3	7.3	-34.6	0.0	0.0	51.8	74.0	-22.2	V	P	
7.386	3.0	37.8	35.3	7.3	-34.6	0.0	0.0	45.8	54.0	-8.2	V	A	
4.924	3.0	43.1	32.8	5.9	-34.9	0.0	0.0	46.9	74.0	-27.1	H	P	
4.924	3.0	35.9	32.8	5.9	-34.9	0.0	0.0	39.7	54.0	-14.3	H	A	
7.386	3.0	47.1	35.3	7.3	-34.6	0.0	0.0	55.1	74.0	-18.9	H	P	
7.386	3.0	42.4	35.3	7.3	-34.6	0.0	0.0	50.4	54.0	-3.6	H	A	

Rev. 4.1.2.7

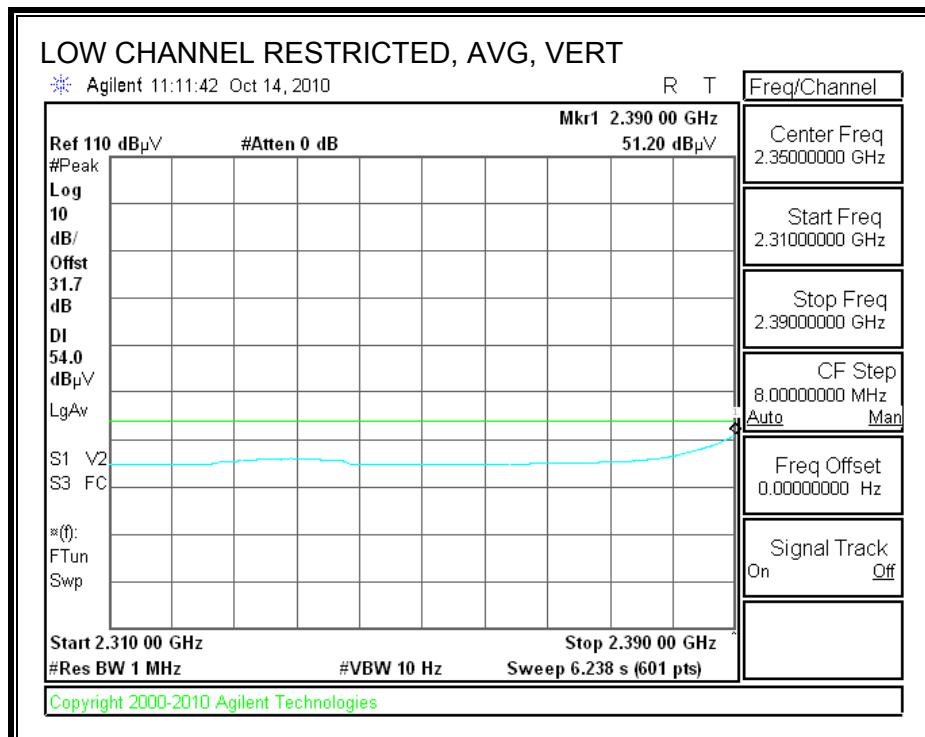
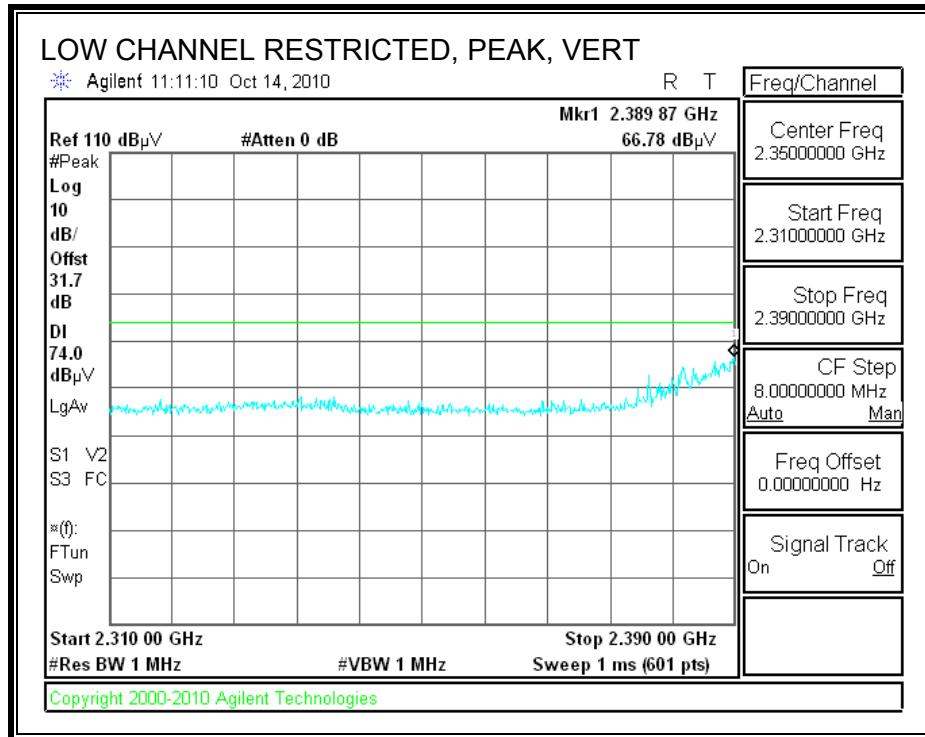
Note: No other emissions were detected above the system noise floor.

8.3.2. 802.11g MODE

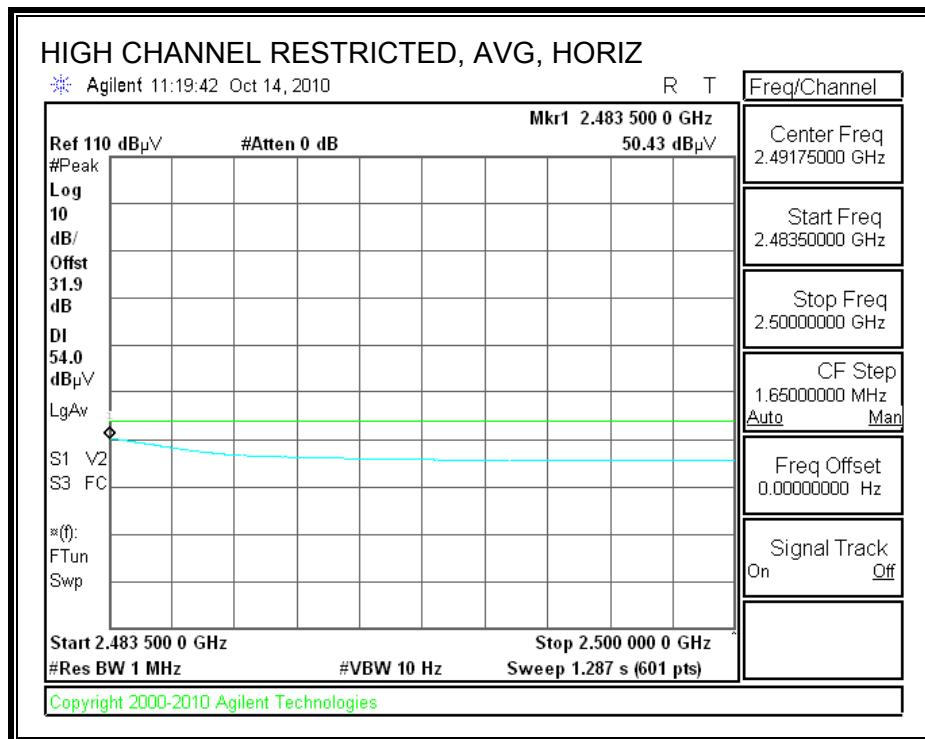
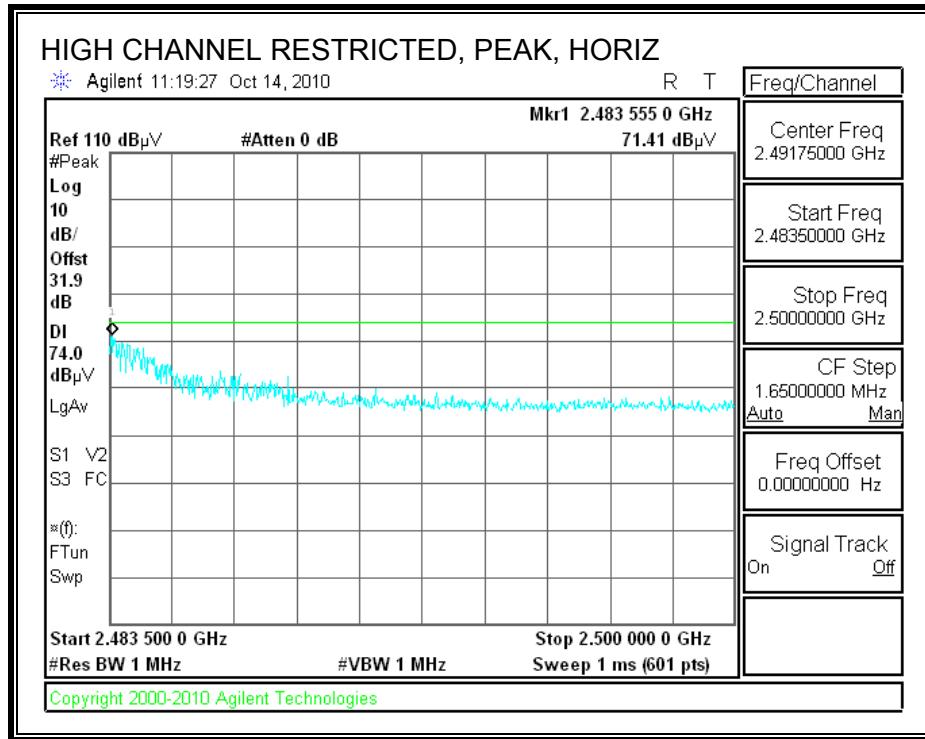
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



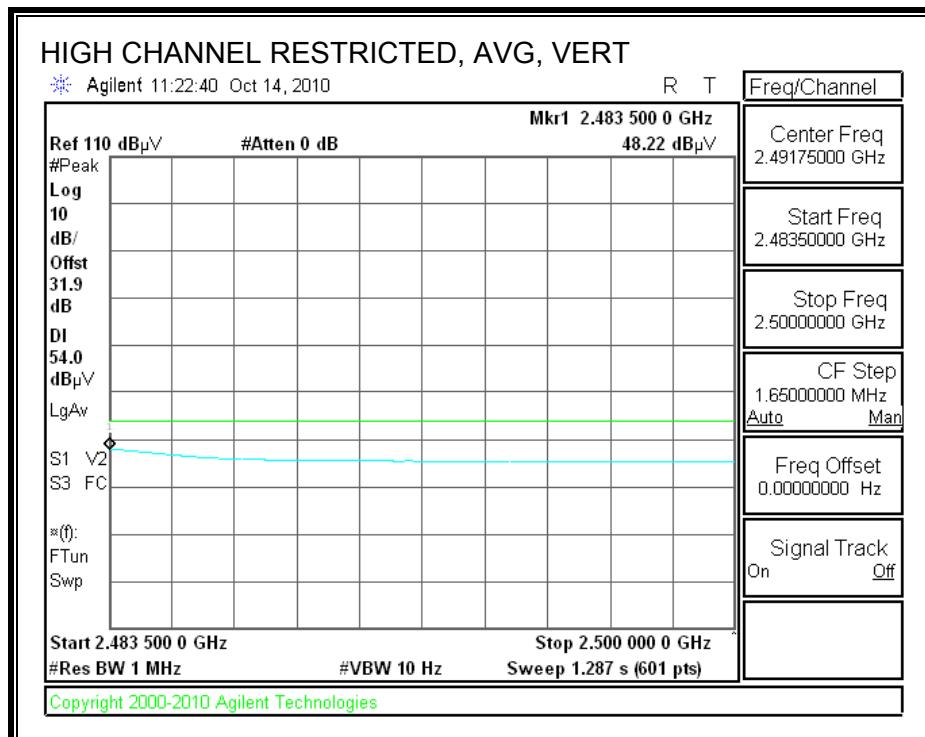
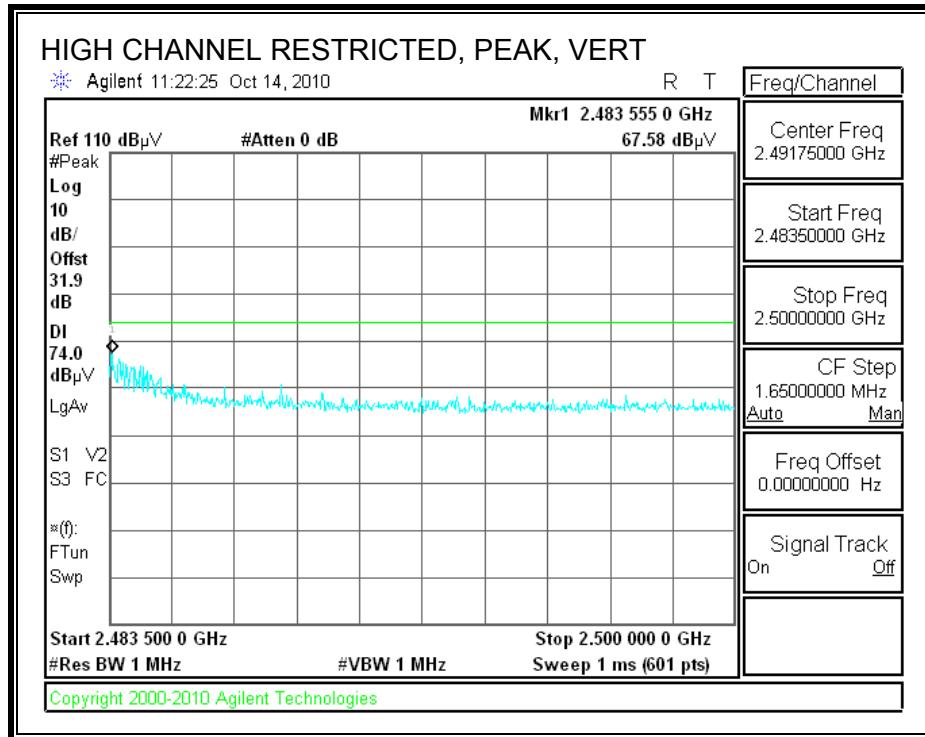
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 10/14/10
Project #: 10U13357
Company: Poalm
Configuration: EUT with Charging Dock
Test Target: FCC 15.247
Mode Oper: 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	

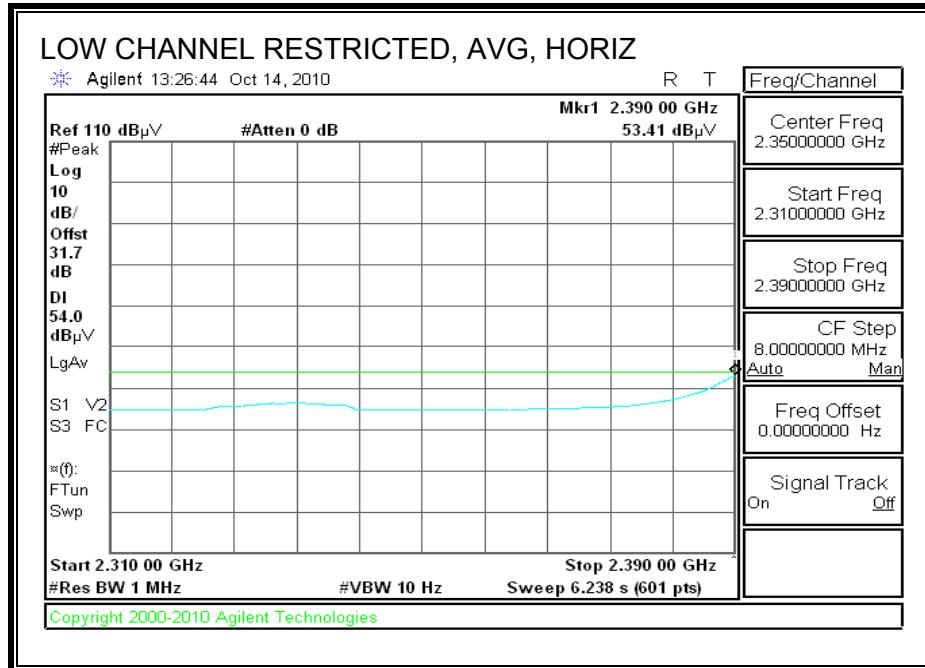
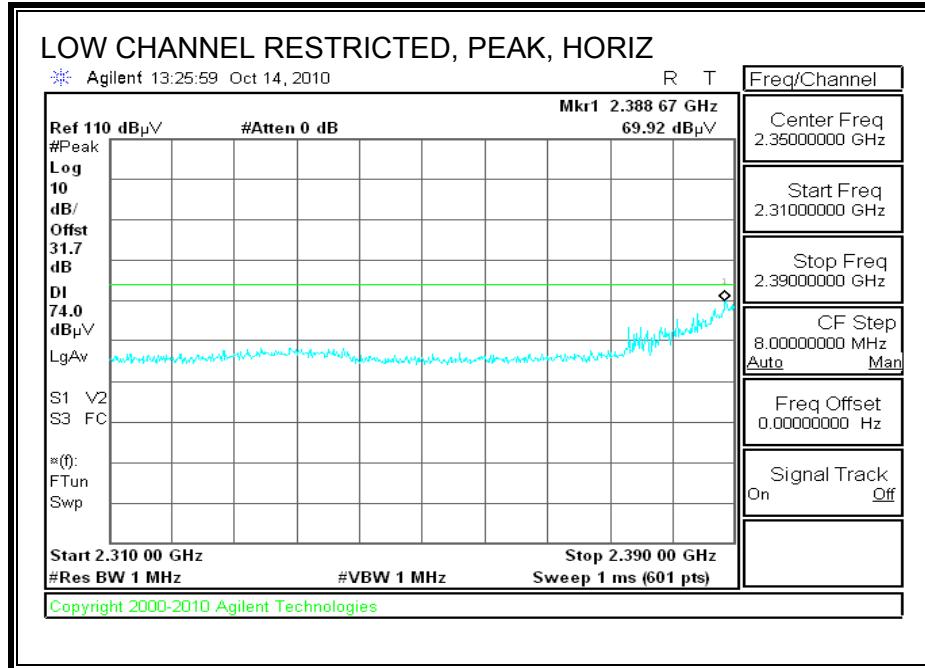
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	38.4	33.0	5.8	-36.5	0.0	0.0	40.8	74.0	-33.2	V	P	
4.824	3.0	26.1	33.0	5.8	-36.5	0.0	0.0	28.5	54.0	-25.5	V	A	
4.824	3.0	40.1	33.0	5.8	-36.5	0.0	0.0	42.4	74.0	-31.6	H	P	
4.824	3.0	27.9	33.0	5.8	-36.5	0.0	0.0	30.3	54.0	-23.7	H	A	
Mid Ch, 2437MHz													
4.874	3.0	37.8	33.1	5.8	-36.5	0.0	0.0	40.3	74.0	-33.7	V	P	
4.874	3.0	25.8	33.1	5.8	-36.5	0.0	0.0	28.3	54.0	-25.7	V	A	
7.311	3.0	43.8	35.3	7.3	-36.2	0.0	0.0	50.1	74.0	-23.9	V	P	
7.311	3.0	29.8	35.3	7.3	-36.2	0.0	0.0	36.1	54.0	-17.9	V	A	
4.874	3.0	40.4	33.1	5.8	-36.5	0.0	0.0	42.9	74.0	-31.1	H	P	
4.874	3.0	27.7	33.1	5.8	-36.5	0.0	0.0	30.2	54.0	-23.8	H	A	
7.311	3.0	46.7	35.3	7.3	-36.2	0.0	0.0	53.1	74.0	-20.9	H	P	
7.311	3.0	31.7	35.3	7.3	-36.2	0.0	0.0	38.0	54.0	-16.0	H	A	
High Ch, 2462MHz													
4.924	3.0	38.4	33.1	5.9	-36.5	0.0	0.0	41.0	74.0	-33.0	V	P	
4.924	3.0	26.0	33.1	5.9	-36.5	0.0	0.0	28.6	54.0	-25.4	V	A	
7.386	3.0	42.3	35.4	7.3	-36.2	0.0	0.0	48.8	74.0	-25.2	V	P	
7.386	3.0	28.7	35.4	7.3	-36.2	0.0	0.0	35.2	54.0	-18.8	V	A	
4.924	3.0	40.2	33.1	5.9	-36.5	0.0	0.0	42.7	74.0	-31.3	H	P	
4.924	3.0	27.9	33.1	5.9	-36.5	0.0	0.0	30.5	54.0	-23.5	H	A	
7.386	3.0	41.7	35.4	7.3	-36.2	0.0	0.0	48.2	74.0	-25.8	H	P	
7.386	3.0	28.6	35.4	7.3	-36.2	0.0	0.0	35.1	54.0	-18.9	H	A	

Rev. 4.1.2.7

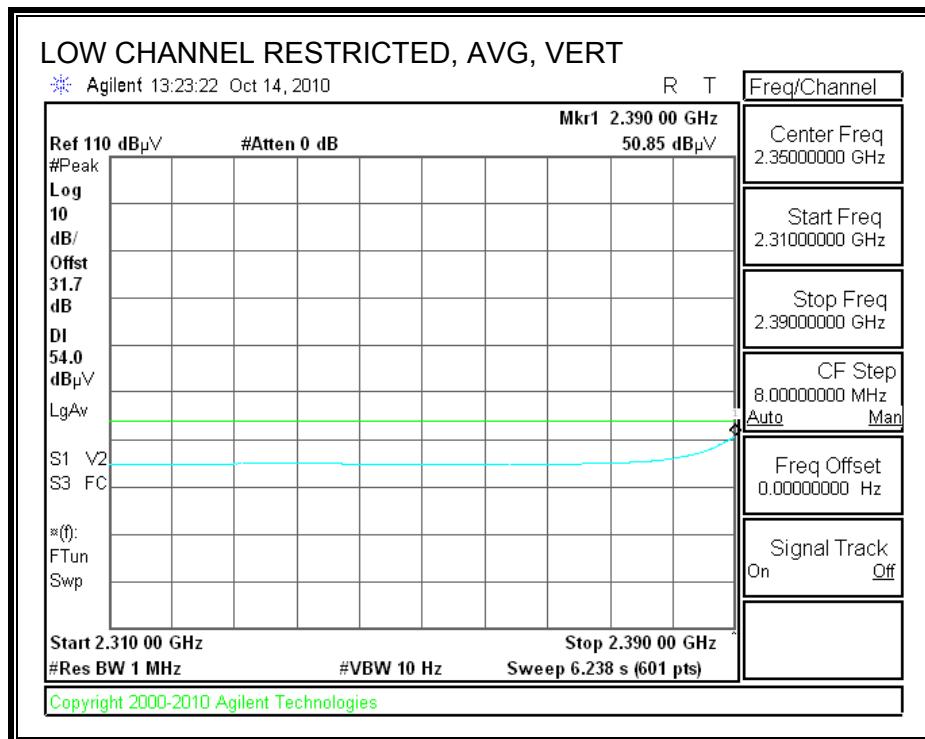
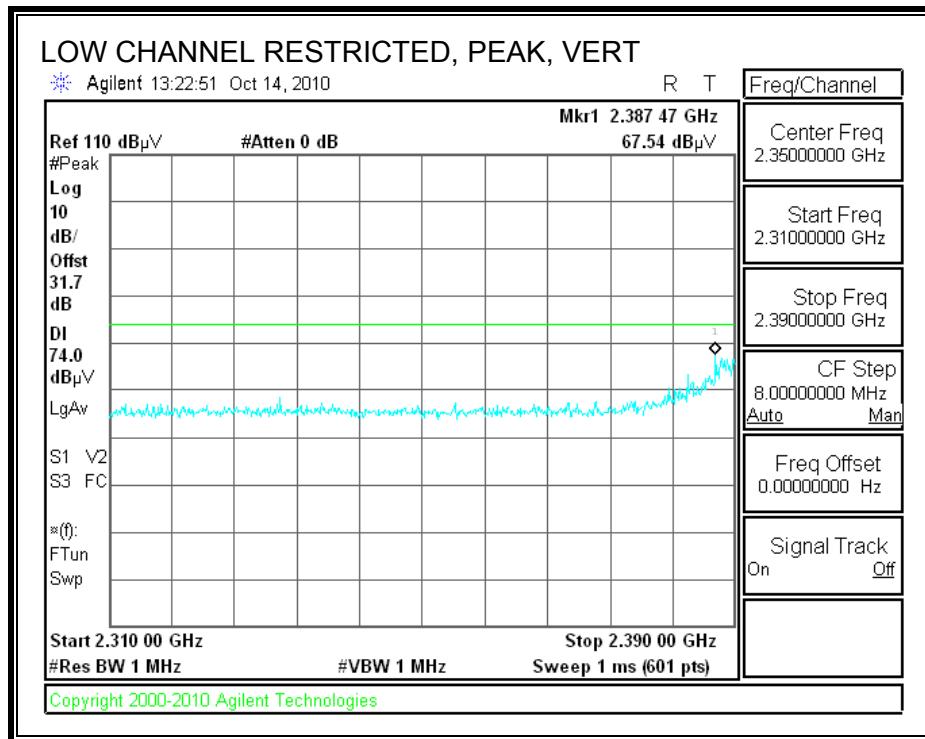
Note: No other emissions were detected above the system noise floor.

8.3.3. 802.11n HT20 SISO MODE

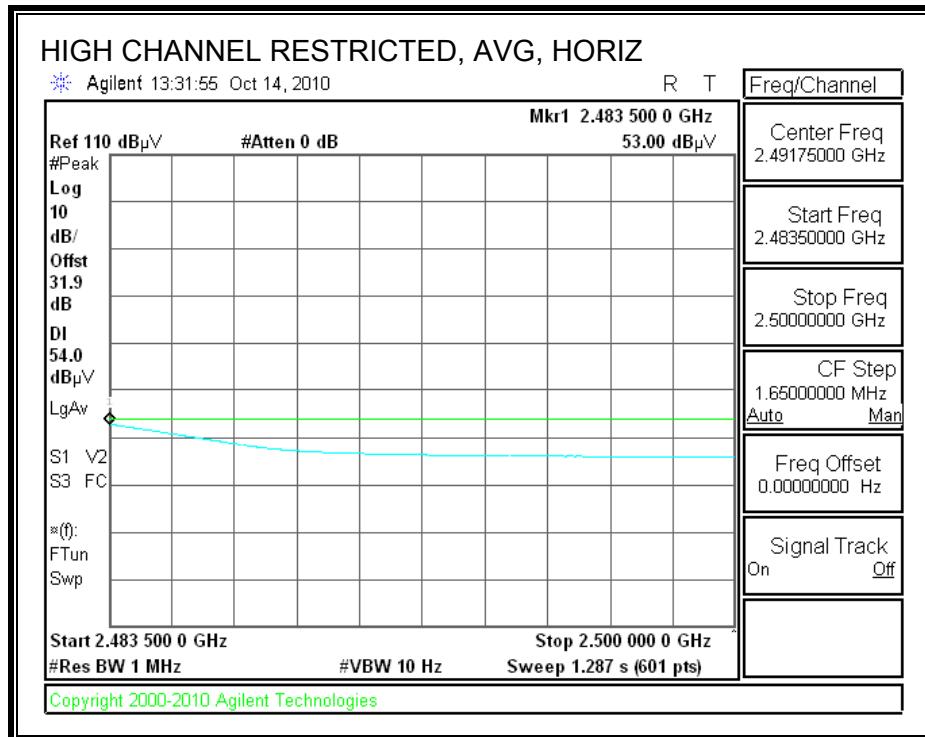
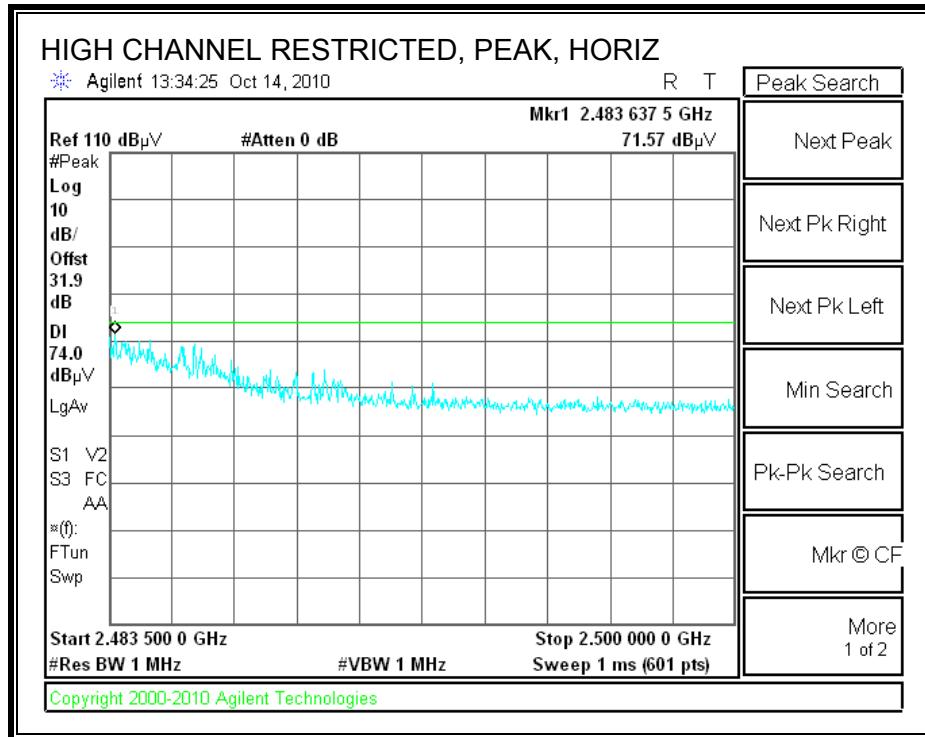
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



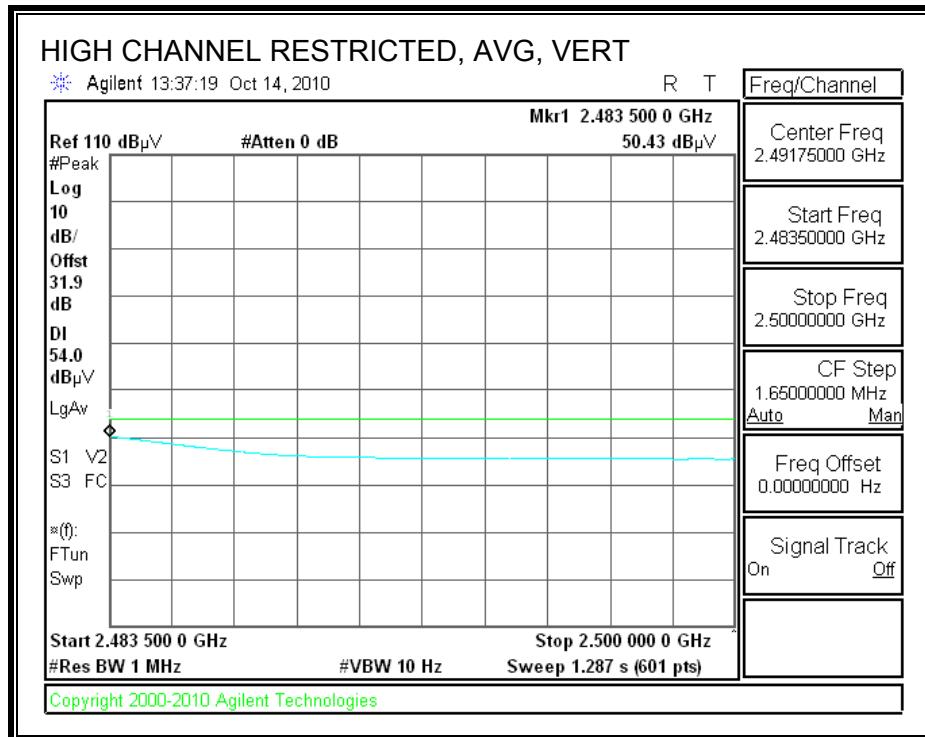
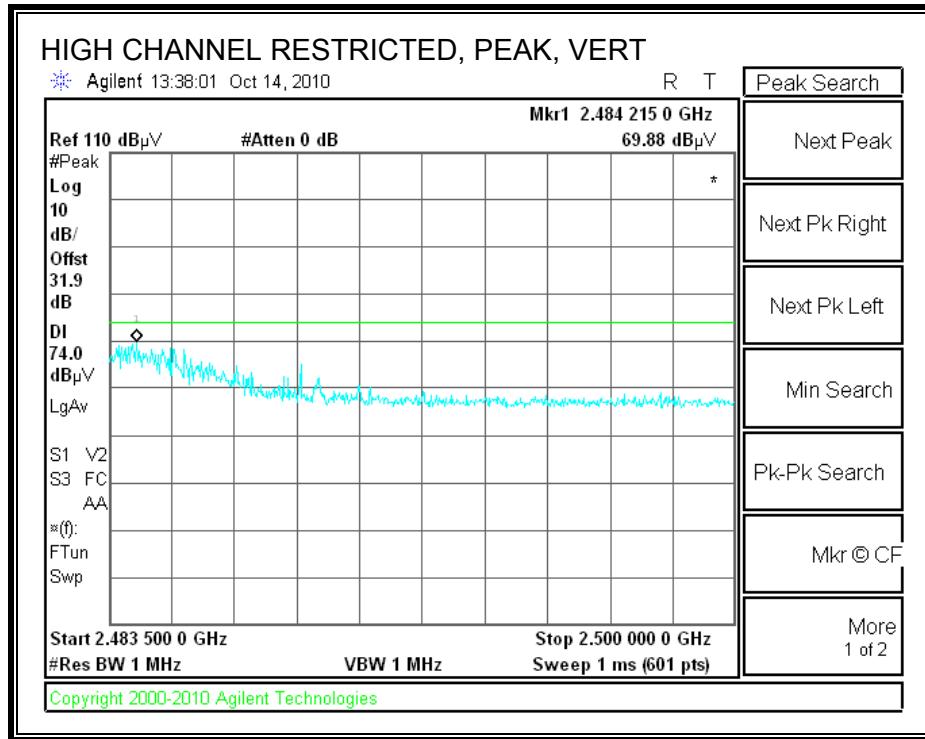
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 10/14/10
Project #: 10U13357
Company: Palm
Configuration: EUT with Charging Dock
Test Target: FCC 15.247
Mode Oper: TX, 802.11n

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	

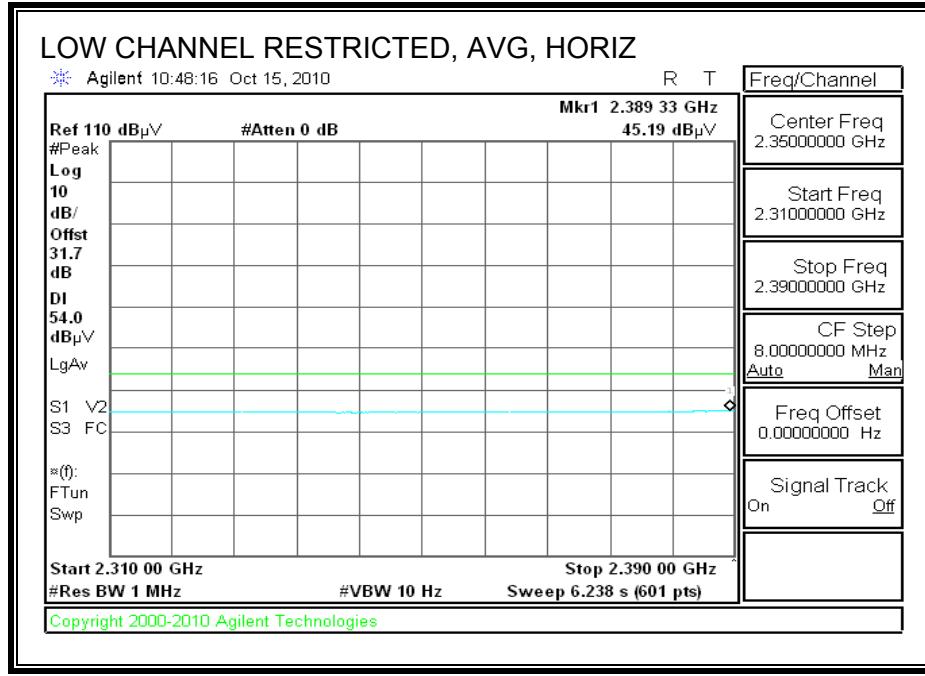
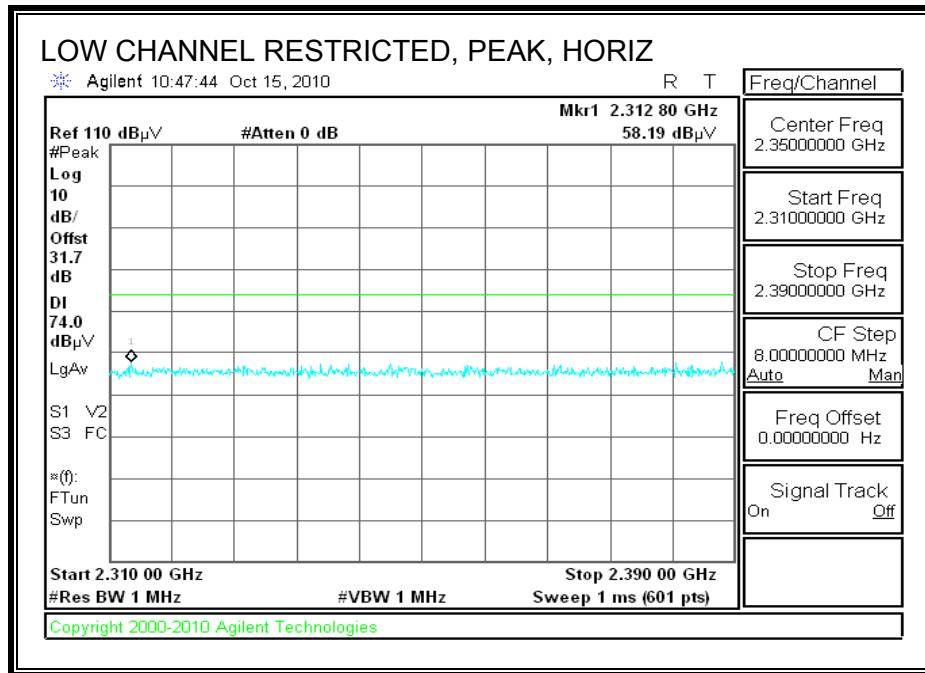
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	39.0	33.0	5.8	-36.5	0.0	0.0	41.4	74.0	-32.6	H	P	
4.824	3.0	26.5	33.0	5.8	-36.5	0.0	0.0	28.9	54.0	-25.1	H	A	
4.824	3.0	38.8	33.0	5.8	-36.5	0.0	0.0	41.2	74.0	-32.8	V	P	
4.824	3.0	26.3	33.0	5.8	-36.5	0.0	0.0	28.6	54.0	-25.4	V	A	
Mid Ch, 2437MHz													
4.874	3.0	38.8	33.1	5.8	-36.5	0.0	0.0	41.3	74.0	-32.7	H	P	
4.874	3.0	27.0	33.1	5.8	-36.5	0.0	0.0	29.4	54.0	-24.6	H	A	
7.311	3.0	45.4	35.3	7.3	-36.2	0.0	0.0	51.7	74.0	-22.3	H	P	
7.311	3.0	31.4	35.3	7.3	-36.2	0.0	0.0	37.8	54.0	-16.2	H	A	
4.874	3.0	38.0	33.1	5.8	-36.5	0.0	0.0	40.4	74.0	-33.6	V	P	
4.874	3.0	25.7	33.1	5.8	-36.5	0.0	0.0	28.2	54.0	-25.8	V	A	
7.311	3.0	44.2	35.3	7.3	-36.2	0.0	0.0	50.5	74.0	-23.5	V	P	
7.311	3.0	30.5	35.3	7.3	-36.2	0.0	0.0	36.8	54.0	-17.2	V	A	
High Ch, 2462MHz													
4.924	3.0	39.6	33.1	5.9	-36.5	0.0	0.0	42.2	74.0	-31.8	H	P	
4.924	3.0	27.2	33.1	5.9	-36.5	0.0	0.0	29.7	54.0	-24.3	H	A	
7.386	3.0	46.0	35.4	7.3	-36.2	0.0	0.0	52.5	74.0	-21.5	H	P	
7.386	3.0	31.3	35.4	7.3	-36.2	0.0	0.0	37.8	54.0	-16.2	H	A	
4.924	3.0	38.7	33.1	5.9	-36.5	0.0	0.0	41.2	74.0	-32.8	V	P	
4.924	3.0	26.0	33.1	5.9	-36.5	0.0	0.0	28.5	54.0	-25.5	V	A	
7.386	3.0	41.8	35.4	7.3	-36.2	0.0	0.0	48.3	74.0	-25.7	V	P	
7.386	3.0	28.3	35.4	7.3	-36.2	0.0	0.0	34.8	54.0	-19.2	V	A	

Rev. 4.1.2.7

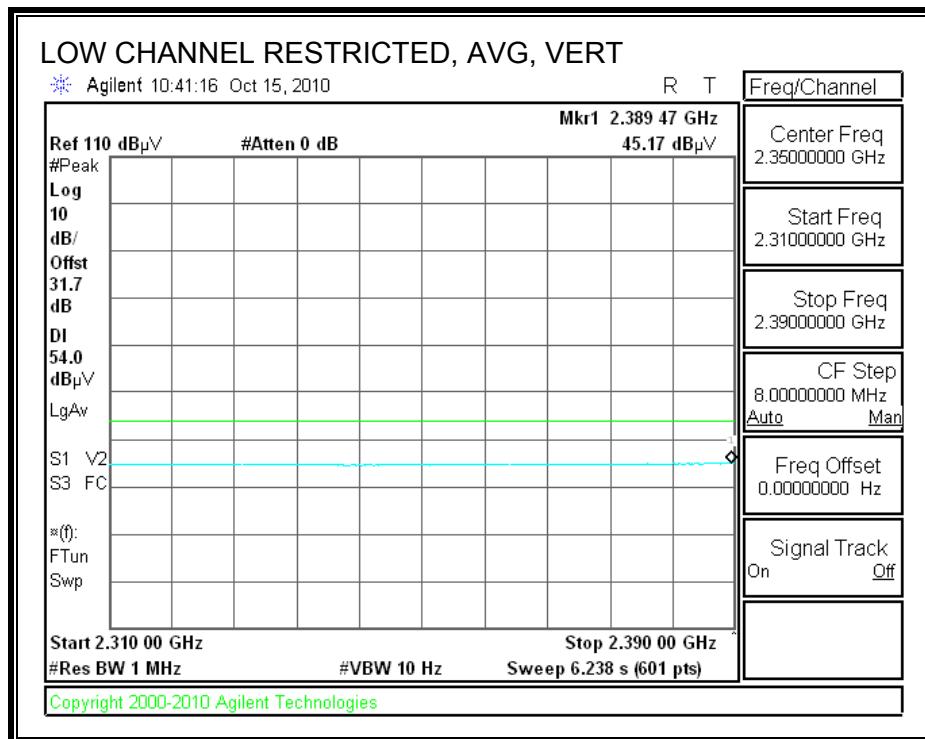
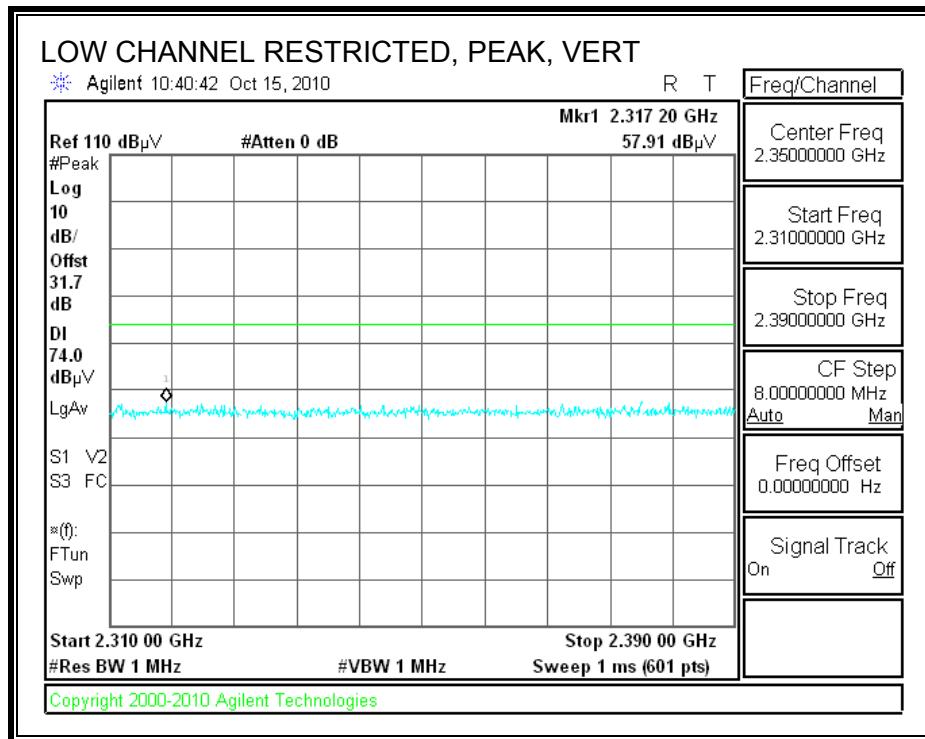
Note: No other emissions were detected above the system noise floor.

8.3.4. BLUETOOTH GFSK MODE

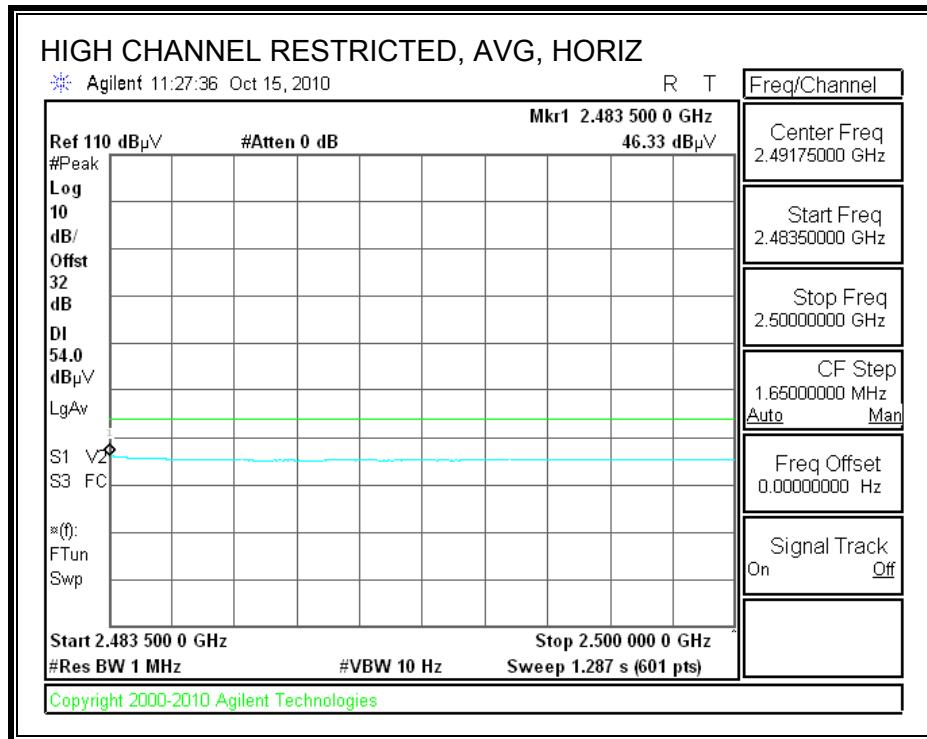
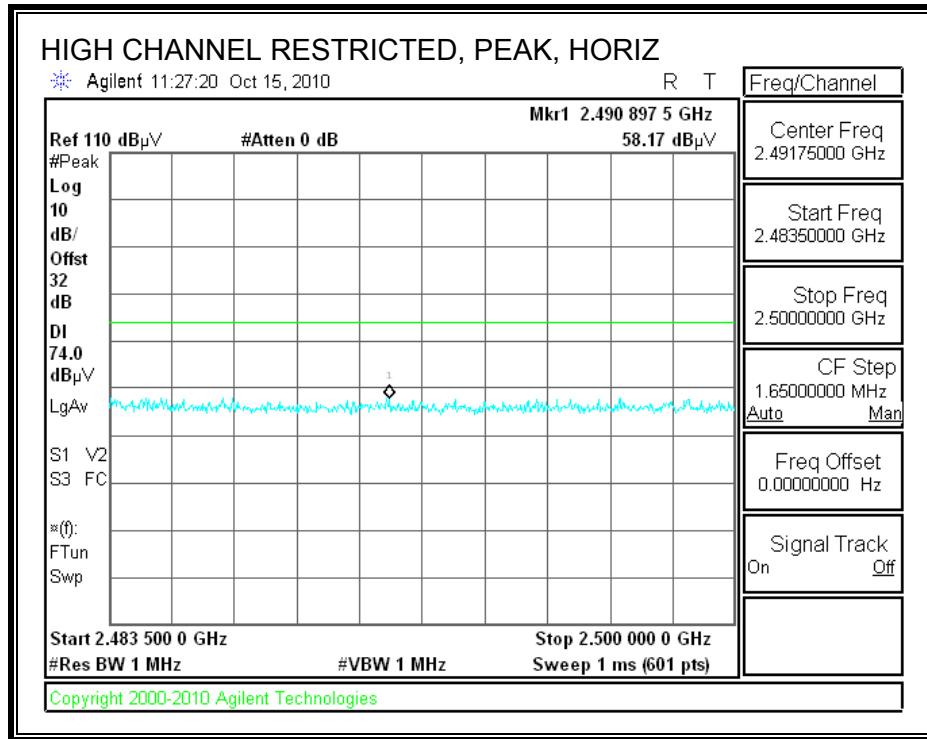
RESTRICTED BANEDGE (LOW CHANNEL, HORIZONTAL)



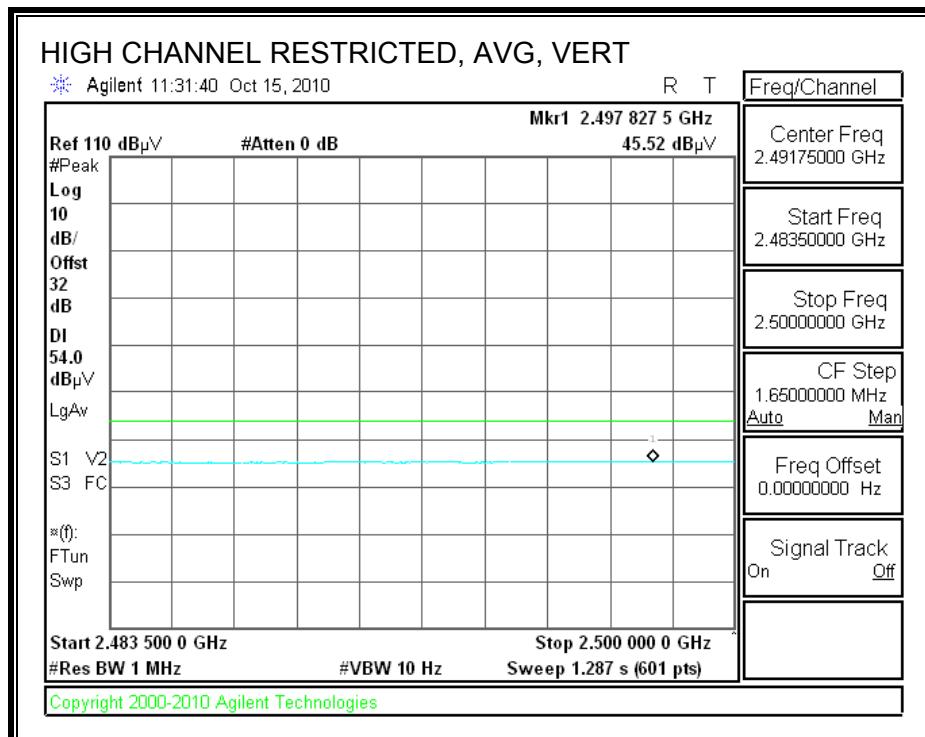
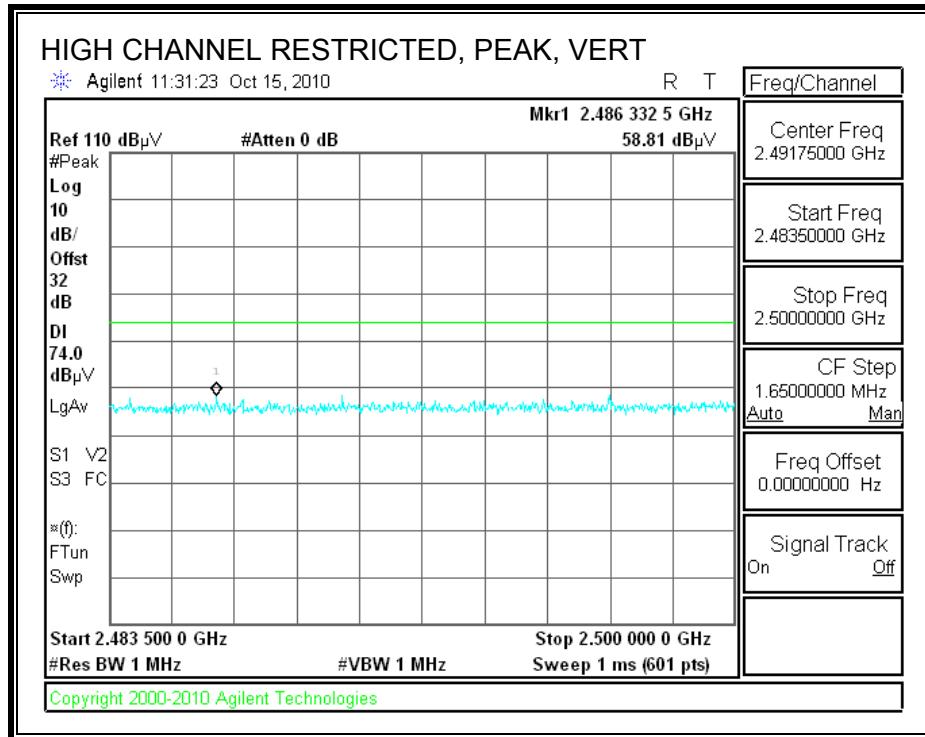
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 08/24/10
Project #: 10U13357
Company: Palm
EUT Description: Phone with 802.11 bgn and Bluetooth
Configuration: EUT with Charging Dock
Test Target: FCC 15.247
Mode Oper: TX, 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	

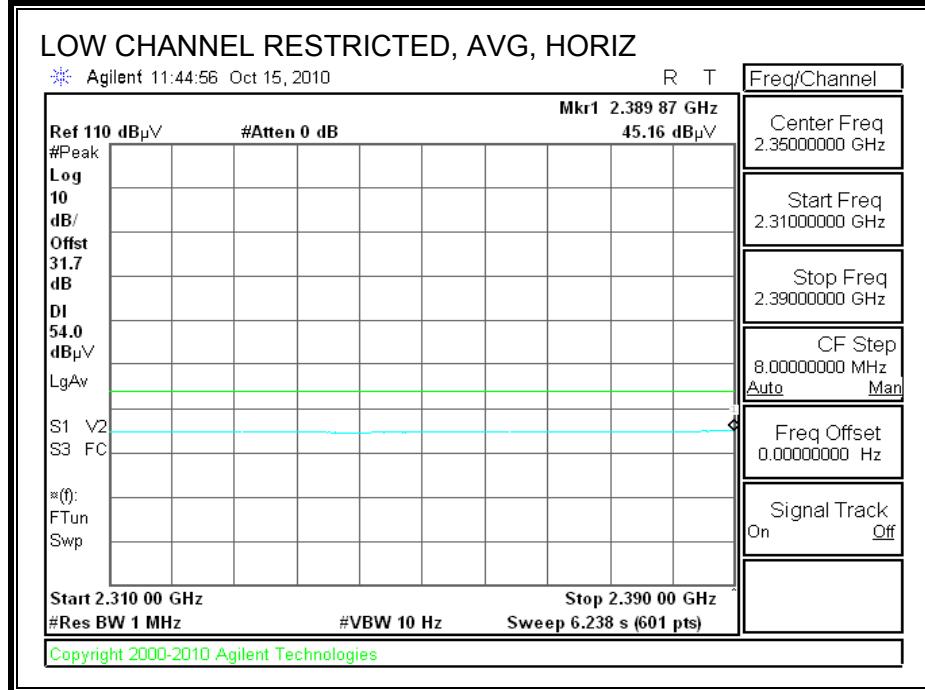
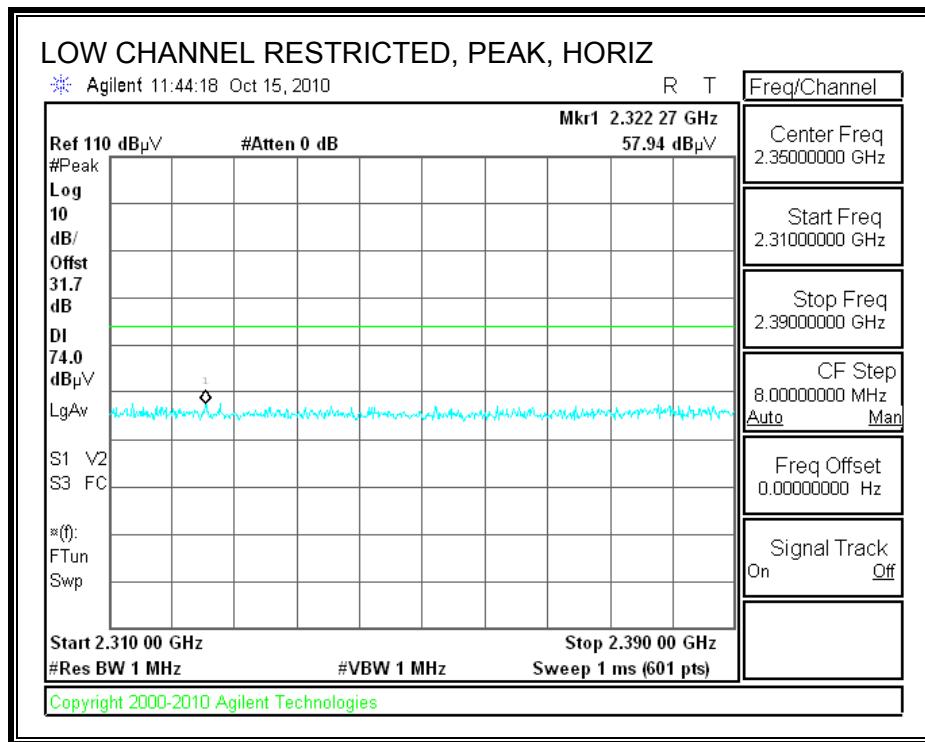
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2402MHz													
4.804	3.0	43.0	32.8	5.8	-34.8	0.0	0.0	46.7	74.0	-27.3	V	P	
4.804	3.0	35.3	32.8	5.8	-34.8	0.0	0.0	39.0	54.0	-15.0	V	A	
4.804	3.0	48.0	32.8	5.8	-34.8	0.0	0.0	51.7	74.0	-22.3	H	P	
4.804	3.0	41.3	32.8	5.8	-34.8	0.0	0.0	44.9	54.0	-9.1	H	A	
Mid Ch, 2441MHz													
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	26.1	32.8	5.8	-34.9	0.0	0.0	29.9	54.0	-24.1	V	A	
7.323	3.0	37.1	35.2	7.3	-34.7	0.0	0.0	45.0	74.0	-29.0	V	P	
7.323	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.7	54.0	-21.3	V	A	
4.882	3.0	39.6	32.8	5.8	-34.9	0.0	0.0	43.4	74.0	-30.6	H	P	
4.882	3.0	29.6	32.8	5.8	-34.9	0.0	0.0	33.4	54.0	-20.6	H	A	
7.323	3.0	38.3	35.2	7.3	-34.7	0.0	0.0	46.1	74.0	-27.9	H	P	
7.323	3.0	27.7	35.2	7.3	-34.7	0.0	0.0	35.5	54.0	-18.5	H	A	
High Ch, 2480MHz													
4.960	3.0	38.0	32.9	5.9	-34.9	0.0	0.0	41.9	74.0	-32.1	V	P	
4.960	3.0	27.6	32.9	5.9	-34.9	0.0	0.0	31.5	54.0	-22.5	V	A	
7.440	3.0	44.3	35.4	7.3	-34.6	0.0	0.0	52.3	74.0	-21.7	V	P	
7.440	3.0	35.9	35.4	7.3	-34.6	0.0	0.0	44.0	54.0	-10.0	V	A	
4.960	3.0	39.7	32.9	5.9	-34.9	0.0	0.0	43.6	74.0	-30.4	H	P	
4.960	3.0	31.5	32.9	5.9	-34.9	0.0	0.0	35.4	54.0	-18.6	H	A	
7.440	3.0	41.2	35.4	7.3	-34.6	0.0	0.0	49.3	74.0	-24.7	H	P	
7.440	3.0	32.9	35.4	7.3	-34.6	0.0	0.0	41.0	54.0	-13.0	H	A	

Rev. 4.1.2.7

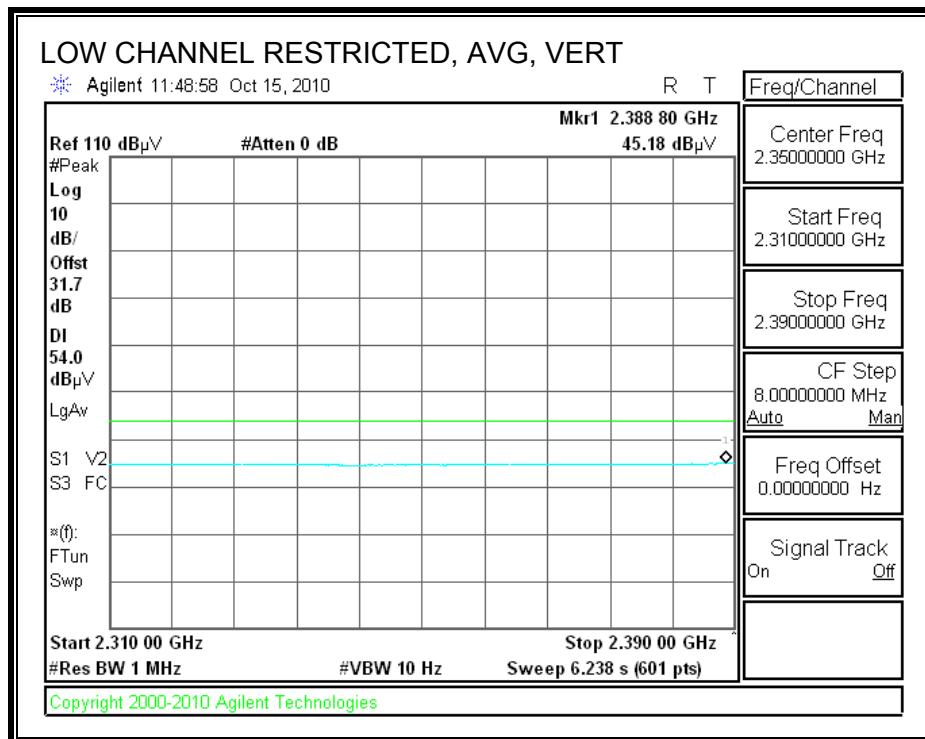
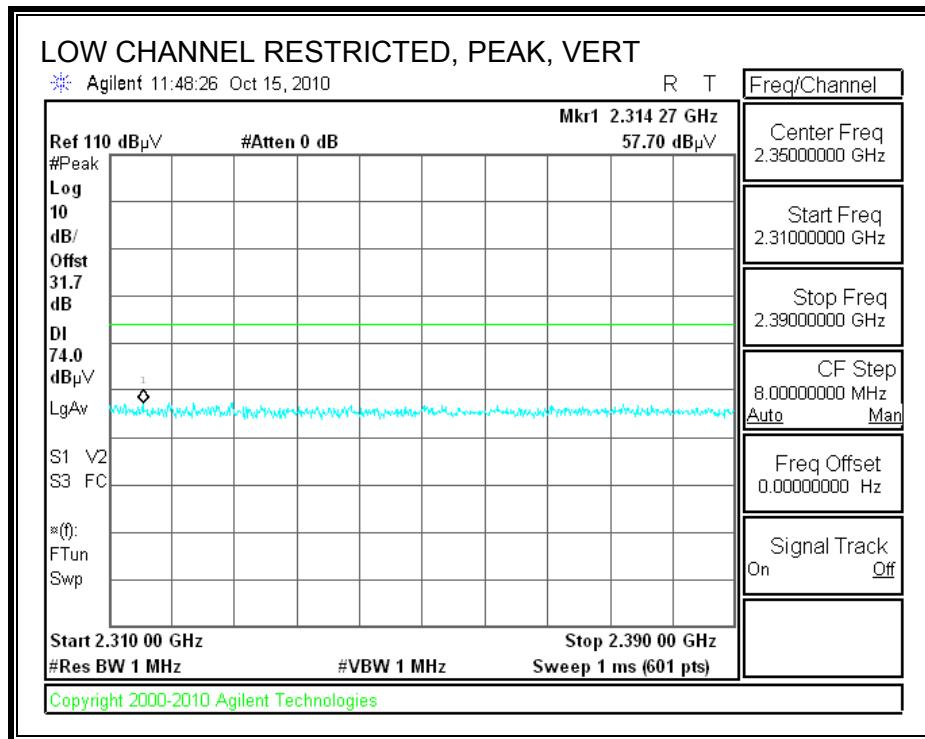
Note: No other emissions were detected above the system noise floor.

8.3.5. BLUETOOTH 8PSK MODE

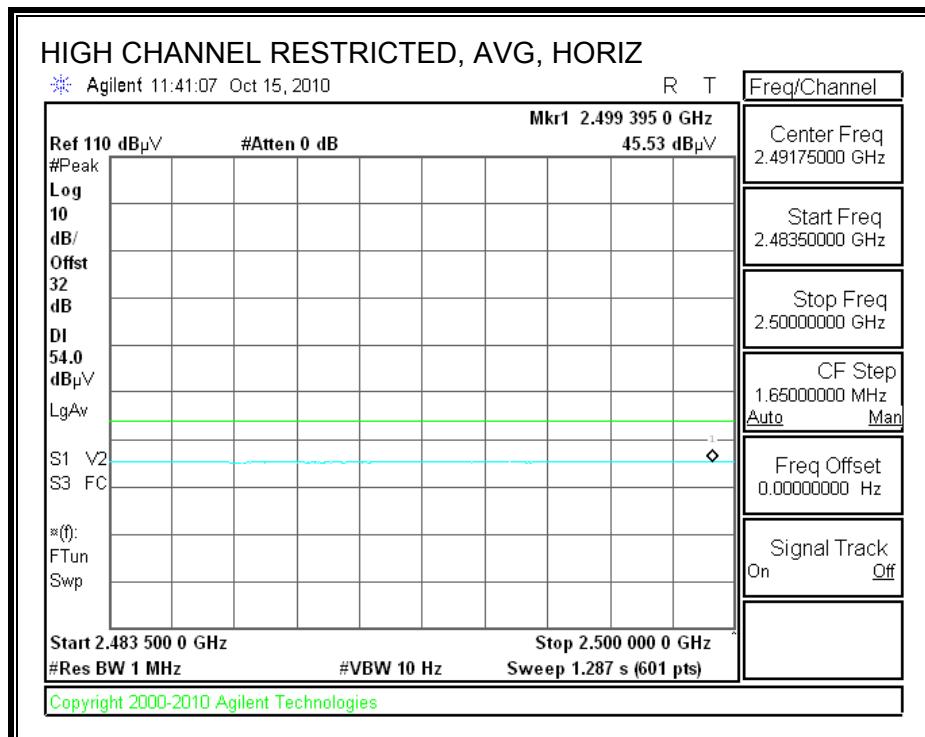
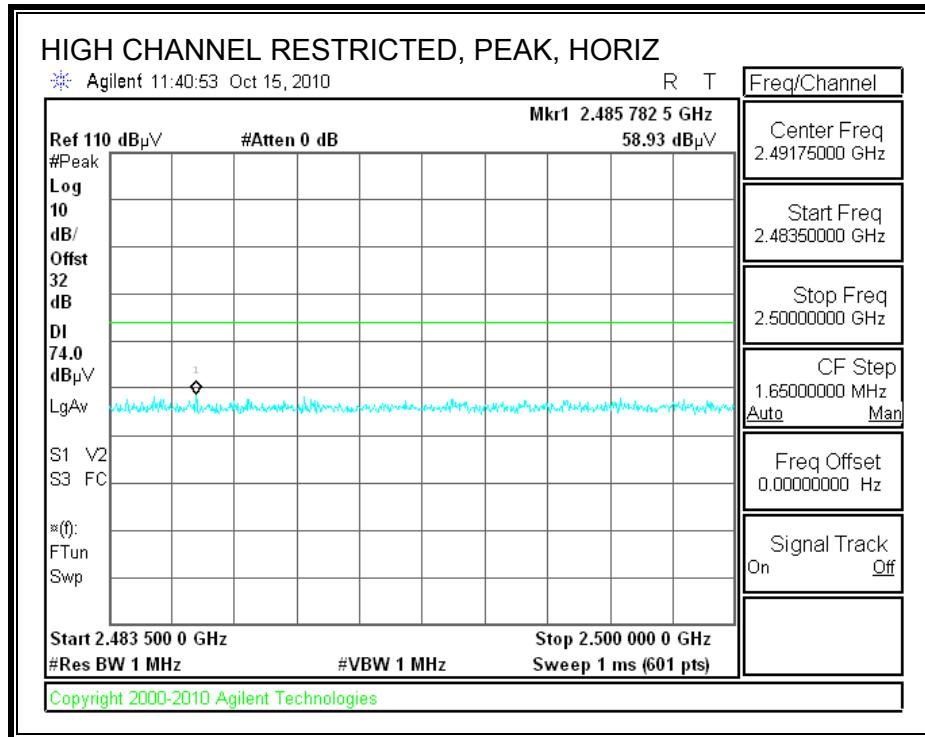
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



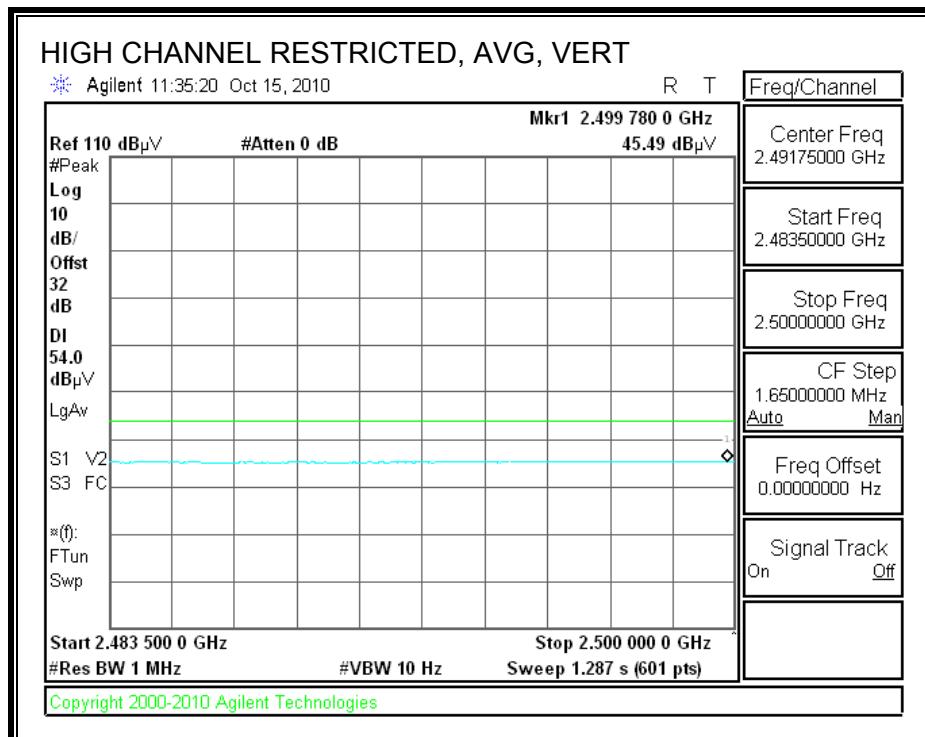
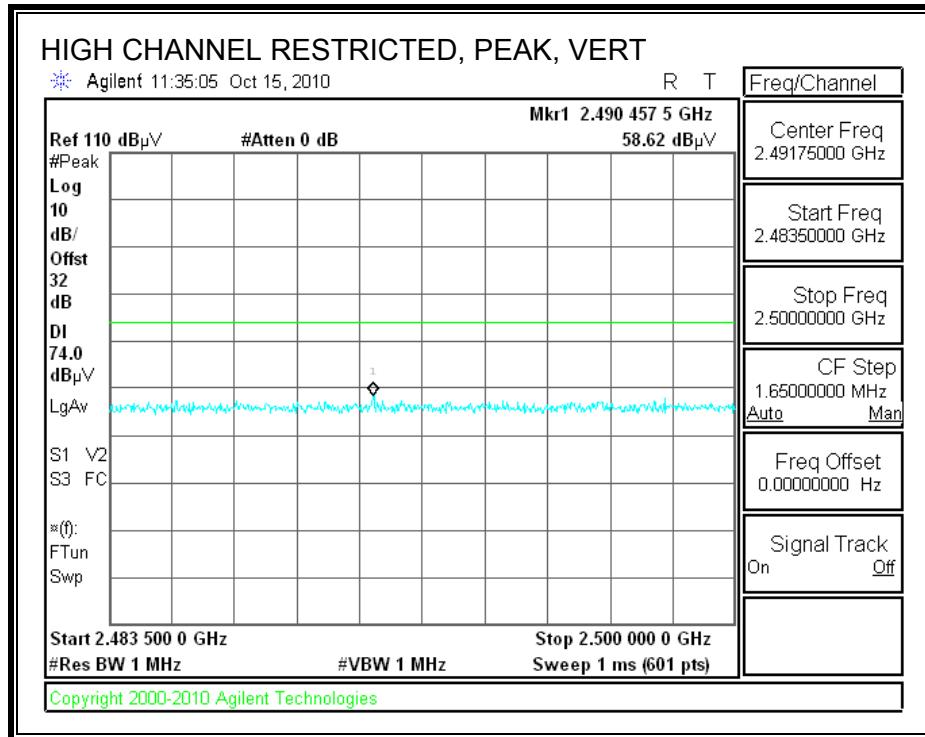
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 08/24/10
Project #: 10U13357
Company: Palm
EUT Description: Phone with 802.11 bgn and Bluetooth
Configuration: EUT with Charging Dock
Test Target: FCC 15.247
Mode Oper: TX, 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	

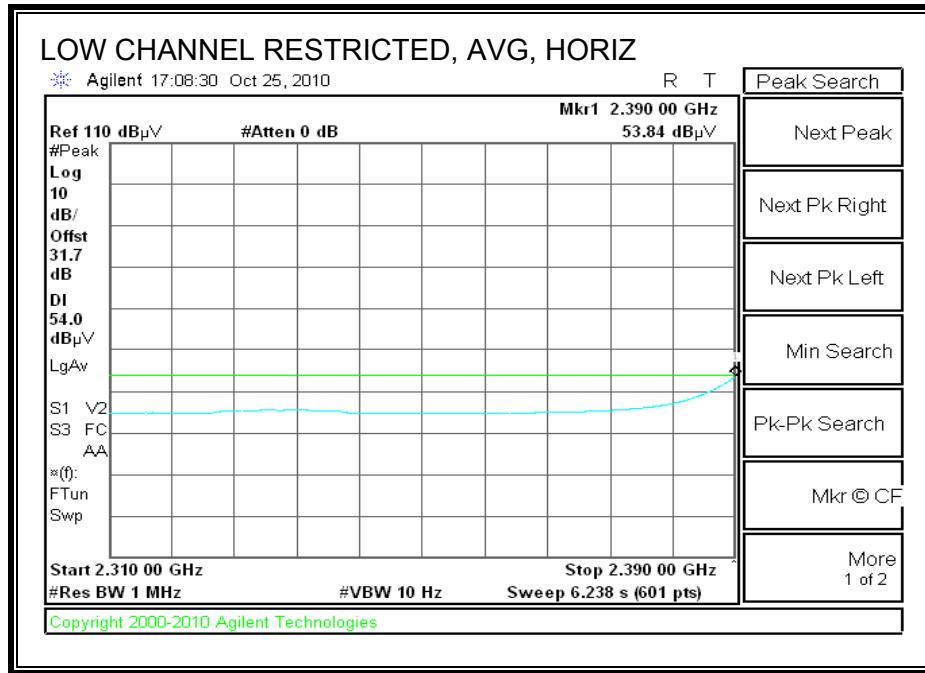
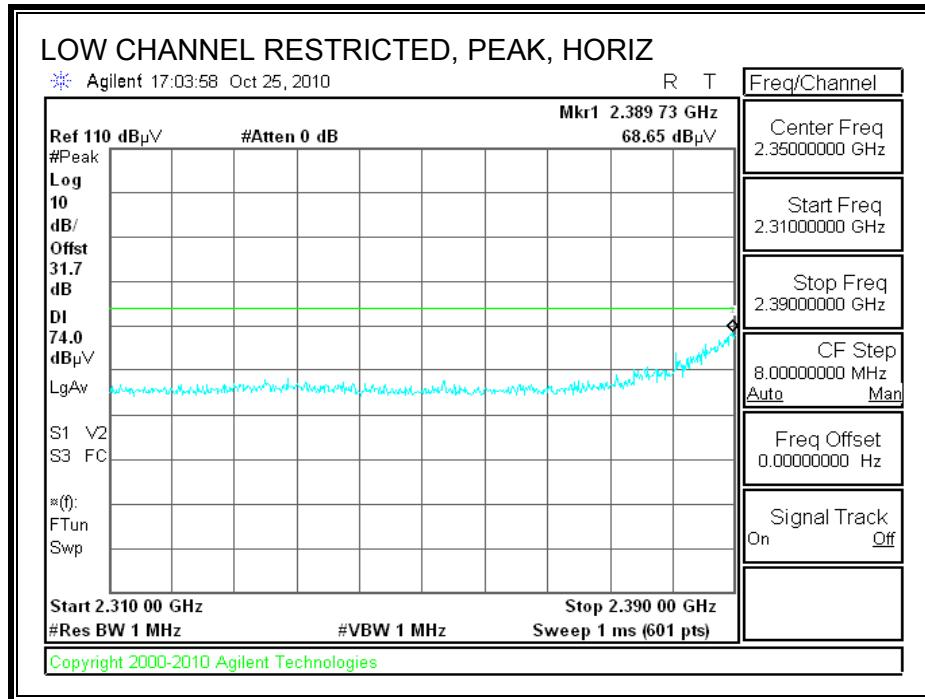
f GHz	Dist (m)	Read dBuV	AF dB/m	CL	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch. 2402MHz													
4.804	3.0	40.3	32.8	5.8	-34.8	0.0	0.0	44.0	74.0	-30.0	H	P	
4.804	3.0	28.6	32.8	5.8	-34.8	0.0	0.0	32.3	54.0	-21.7	H	A	
4.804	3.0	37.5	32.8	5.8	-34.8	0.0	0.0	41.2	74.0	-32.8	V	P	
4.804	3.0	25.5	32.8	5.8	-34.8	0.0	0.0	29.2	54.0	-24.8	V	A	
Mid Ch. 2441MHz													
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	25.8	32.8	5.8	-34.9	0.0	0.0	29.6	54.0	-24.4	H	A	
7.323	3.0	36.6	35.2	7.3	-34.7	0.0	0.0	44.5	74.0	-29.5	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	
4.882	3.0	38.4	32.8	5.8	-34.9	0.0	0.0	42.2	74.0	-31.8	V	P	
4.882	3.0	25.7	32.8	5.8	-34.9	0.0	0.0	29.5	54.0	-24.5	V	A	
7.323	3.0	36.9	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	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	
High Ch. 2480MHz													
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	25.0	32.9	5.9	-34.9	0.0	0.0	28.9	54.0	-25.1	H	A	
7.440	3.0	37.0	35.4	7.3	-34.6	0.0	0.0	45.0	74.0	-29.0	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	
4.960	3.0	37.2	32.9	5.9	-34.9	0.0	0.0	41.1	74.0	-32.9	V	P	
4.960	3.0	25.0	32.9	5.9	-34.9	0.0	0.0	28.9	54.0	-25.1	V	A	
7.440	3.0	37.0	35.4	7.3	-34.6	0.0	0.0	45.1	74.0	-28.9	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	

Rev. 4.1.2.7

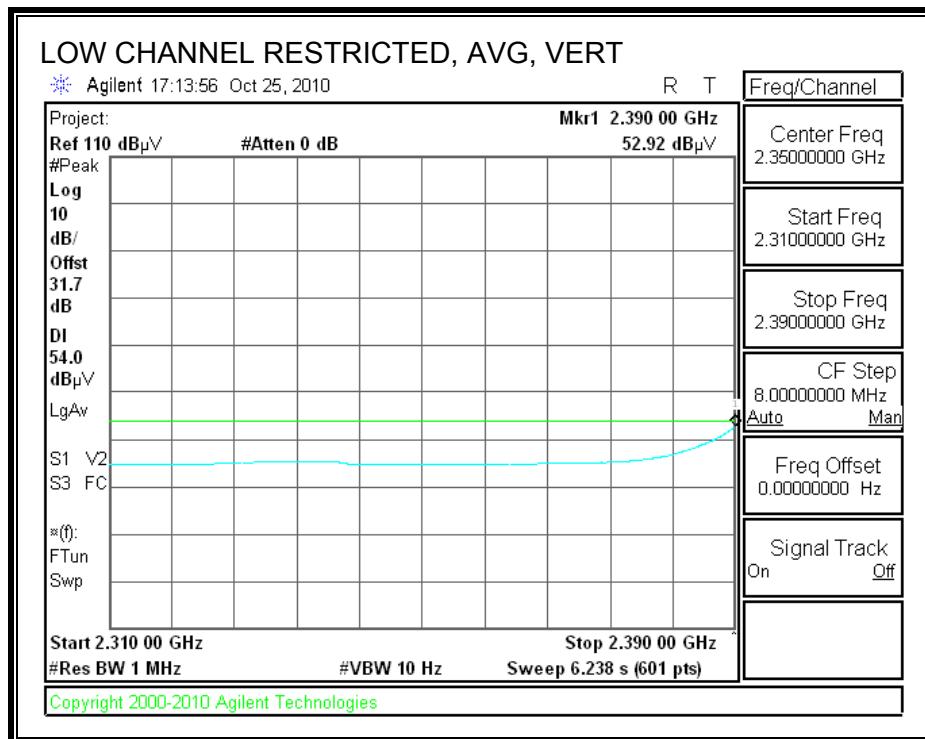
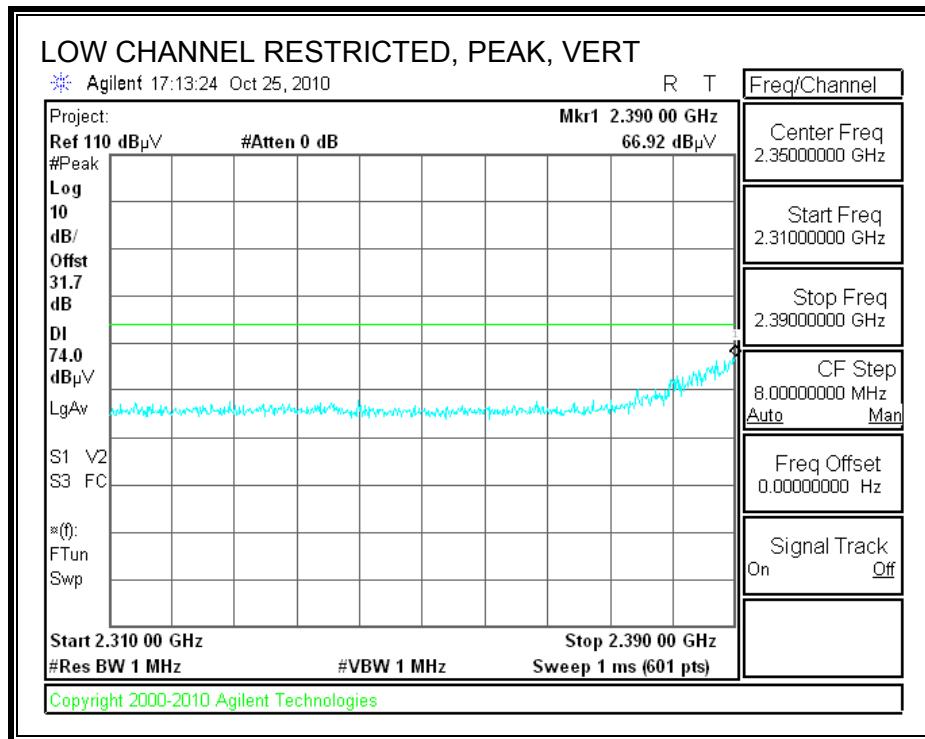
Note: No other emissions were detected above the system noise floor.

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

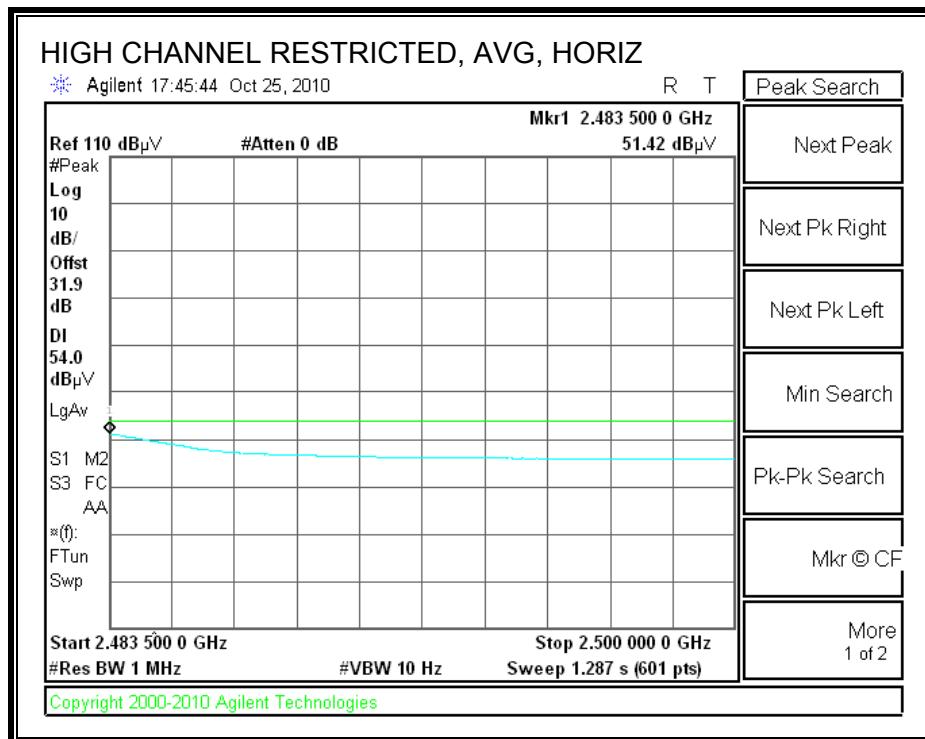
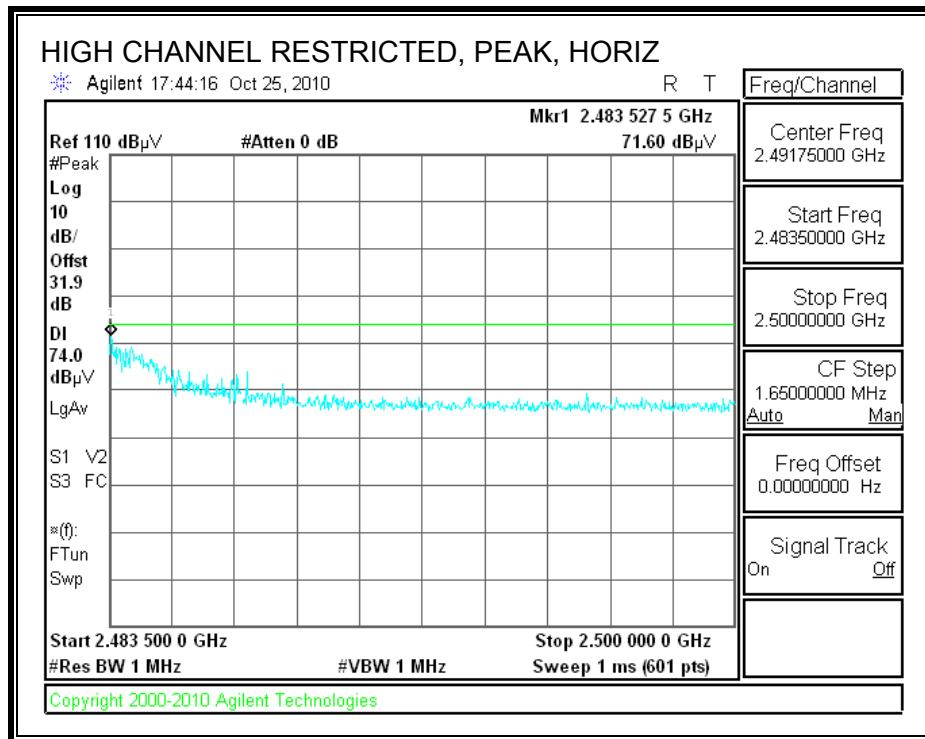
RESTRICTED BANDEdge (LOW CHANNEL, HORIZONTAL)



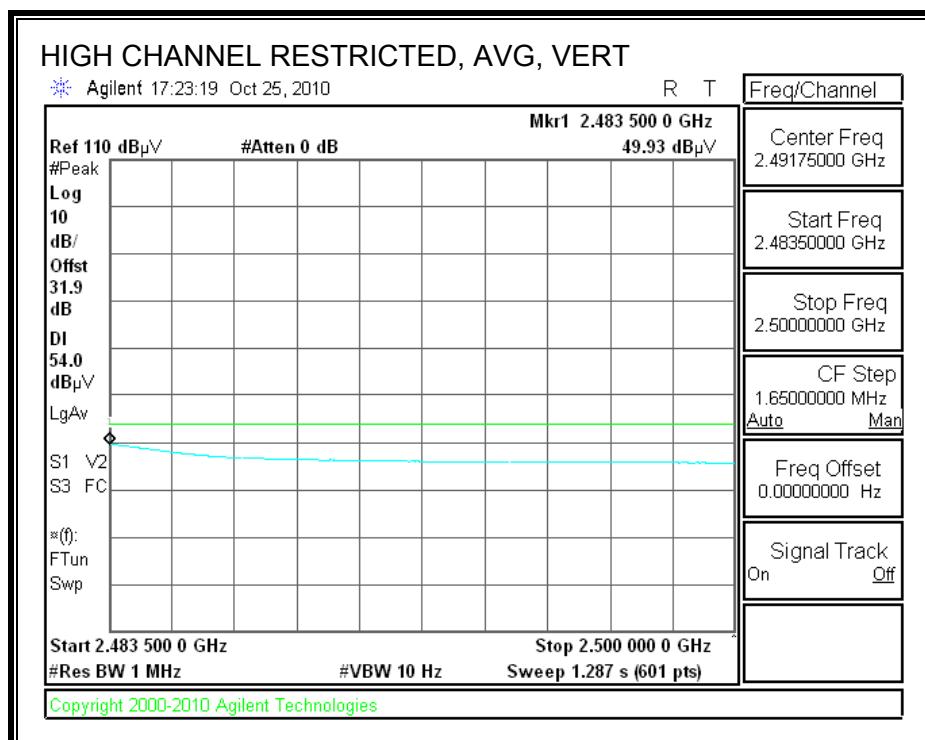
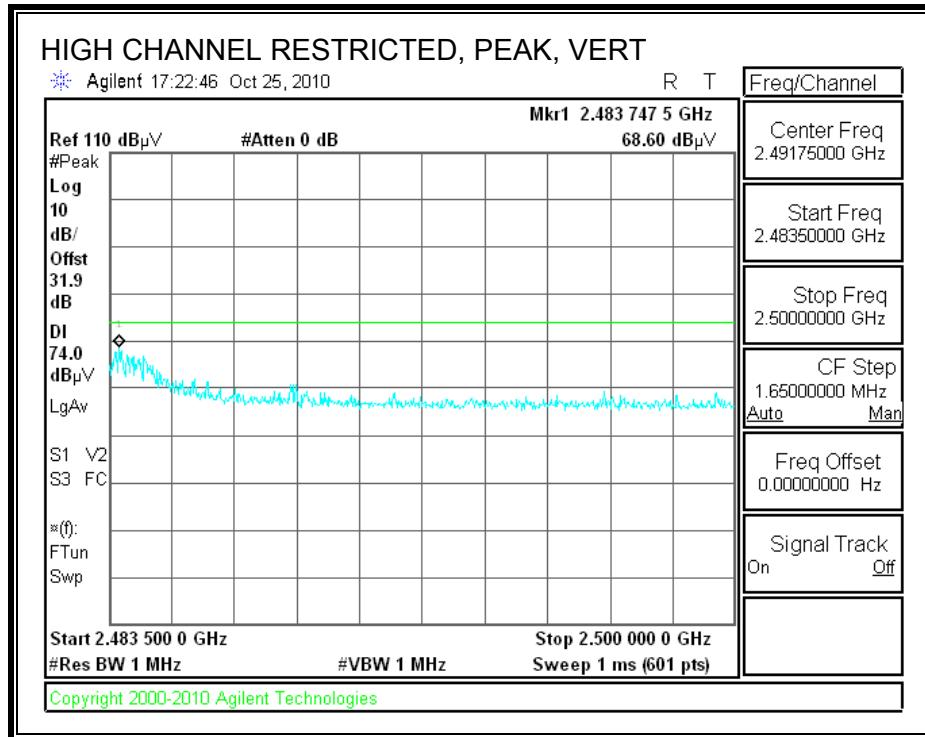
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 11/01/10
Project #: 10U13357
Company: Palm
Configuration: EUT at worst position with AC Adapter
Test Target: FCC 15.247
Mode Oper: TX (Worst Case), 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	

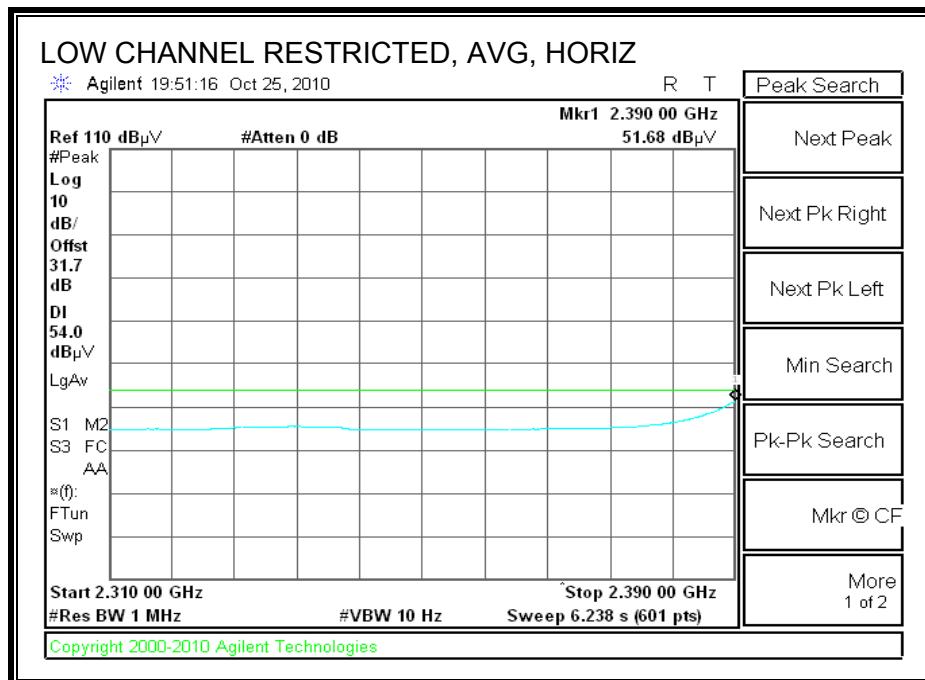
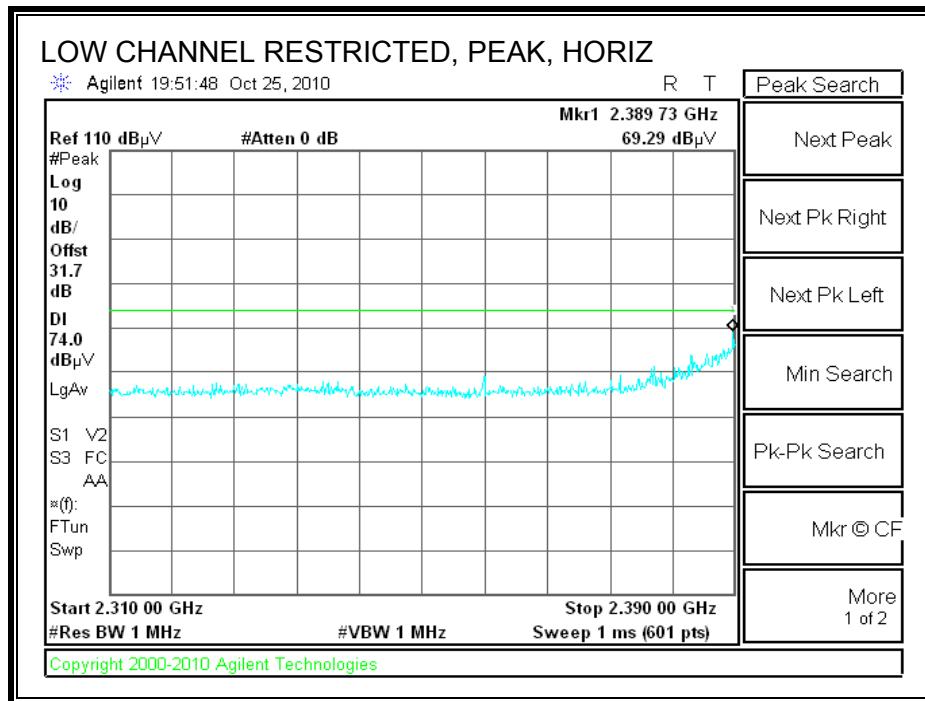
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Low Ch, 2412MHz													
4.824	3.0	39.6	32.7	5.8	-34.8	0.0	0.0	43.3	74.0	-30.7	H	P	
4.824	3.0	33.9	32.7	5.8	-34.8	0.0	0.0	37.6	54.0	-16.4	H	A	
4.824	3.0	41.2	32.7	5.8	-34.8	0.0	0.0	44.9	74.0	-29.1	V	P	
4.824	3.0	34.6	32.7	5.8	-34.8	0.0	0.0	38.2	54.0	-15.8	V	A	
Mid Ch, 2437MHz													
4.874	3.0	41.9	32.7	5.8	-34.8	0.0	0.0	45.6	74.0	-28.4	H	P	
4.874	3.0	37.6	32.7	5.8	-34.8	0.0	0.0	41.3	54.0	-12.7	H	A	
7.311	3.0	42.5	35.5	7.3	-34.1	0.0	0.0	51.1	74.0	-22.9	H	P	
7.311	3.0	36.6	35.5	7.3	-34.1	0.0	0.0	45.2	54.0	-8.8	H	A	
4.874	3.0	42.2	32.7	5.8	-34.8	0.0	0.0	45.9	74.0	-28.1	V	P	
4.874	3.0	37.5	32.7	5.8	-34.8	0.0	0.0	41.2	54.0	-12.8	V	A	
7.311	3.0	42.9	35.5	7.3	-34.1	0.0	0.0	51.5	74.0	-22.5	V	P	
7.311	3.0	37.5	35.5	7.3	-34.1	0.0	0.0	46.1	54.0	-7.9	V	A	
High Ch, 2462MHz													
4.924	3.0	42.6	32.7	5.9	-34.8	0.0	0.0	46.4	74.0	-27.6	H	P	
4.924	3.0	39.0	32.7	5.9	-34.8	0.0	0.0	42.8	54.0	-11.2	H	A	
7.386	3.0	39.7	35.6	7.3	-34.1	0.0	0.0	48.5	74.0	-25.5	H	P	
7.386	3.0	32.1	35.6	7.3	-34.1	0.0	0.0	40.9	54.0	-13.1	H	A	
4.924	3.0	42.8	32.7	5.9	-34.8	0.0	0.0	46.6	74.0	-27.4	V	P	
4.924	3.0	38.6	32.7	5.9	-34.8	0.0	0.0	42.4	54.0	-11.6	V	A	
7.386	3.0	40.6	35.6	7.3	-34.1	0.0	0.0	49.4	74.0	-24.6	V	P	
7.386	3.0	34.1	35.6	7.3	-34.1	0.0	0.0	42.9	54.0	-11.1	V	A	

Rev. 4.1.2.7

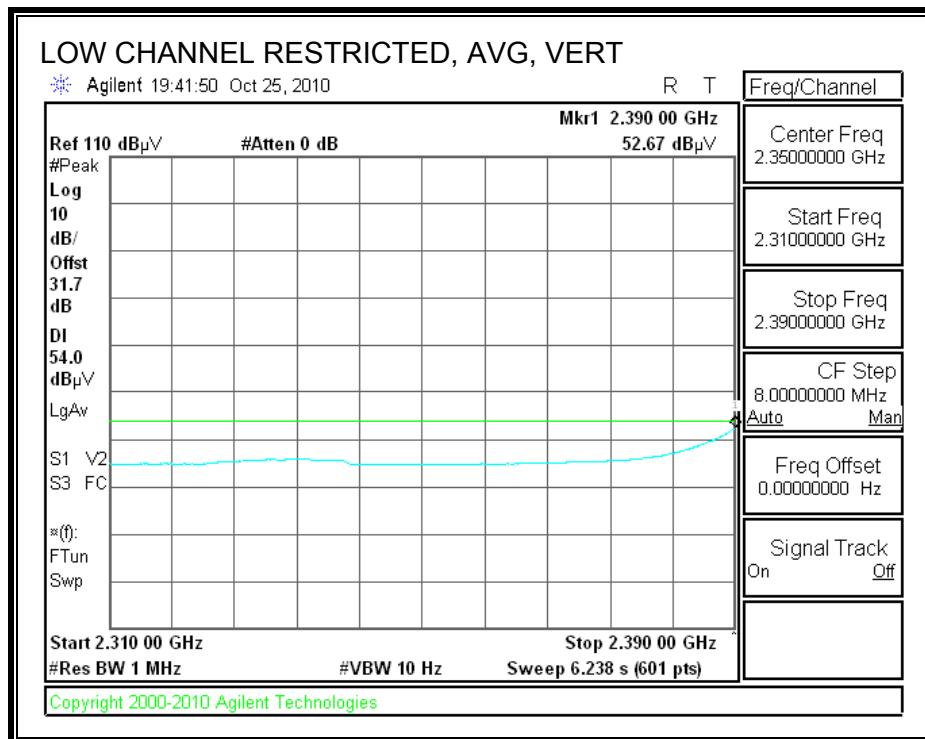
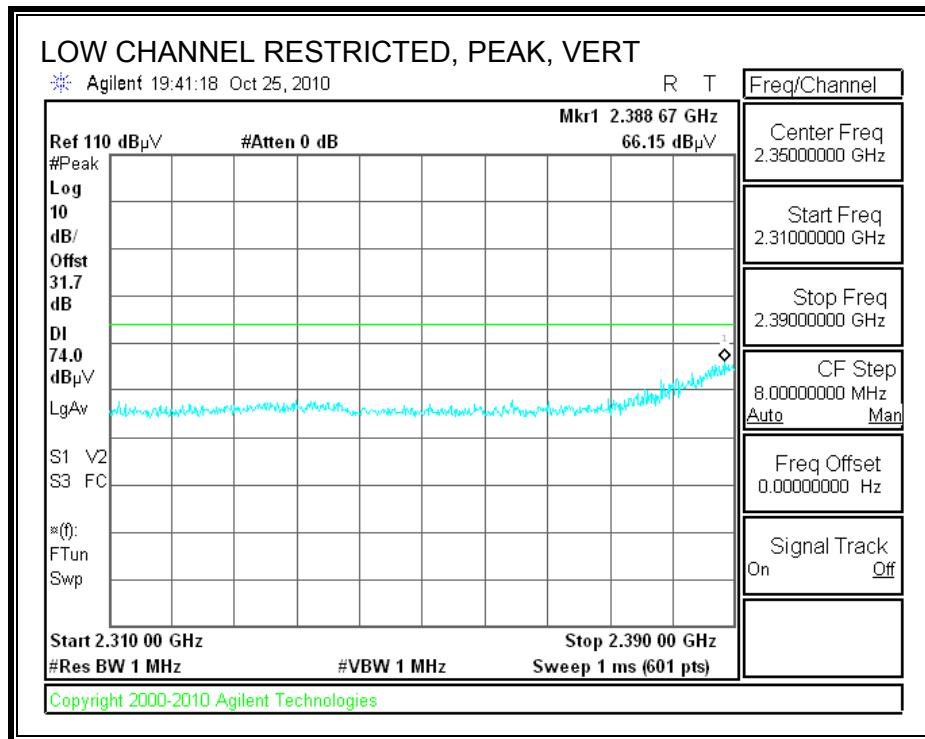
Note: No other emissions were detected above the system noise floor.

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

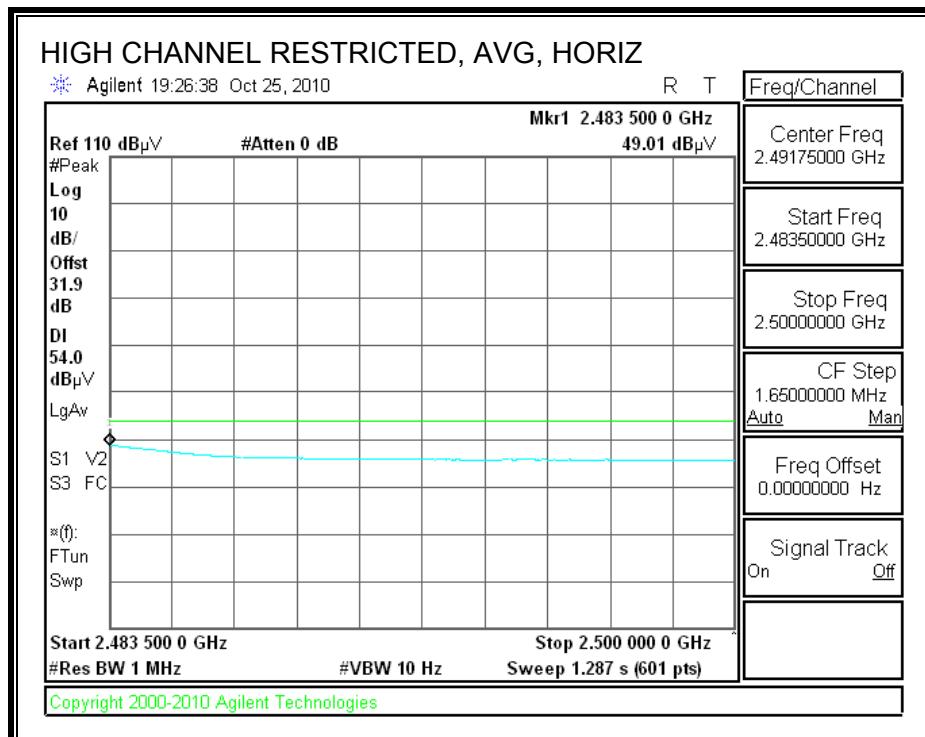
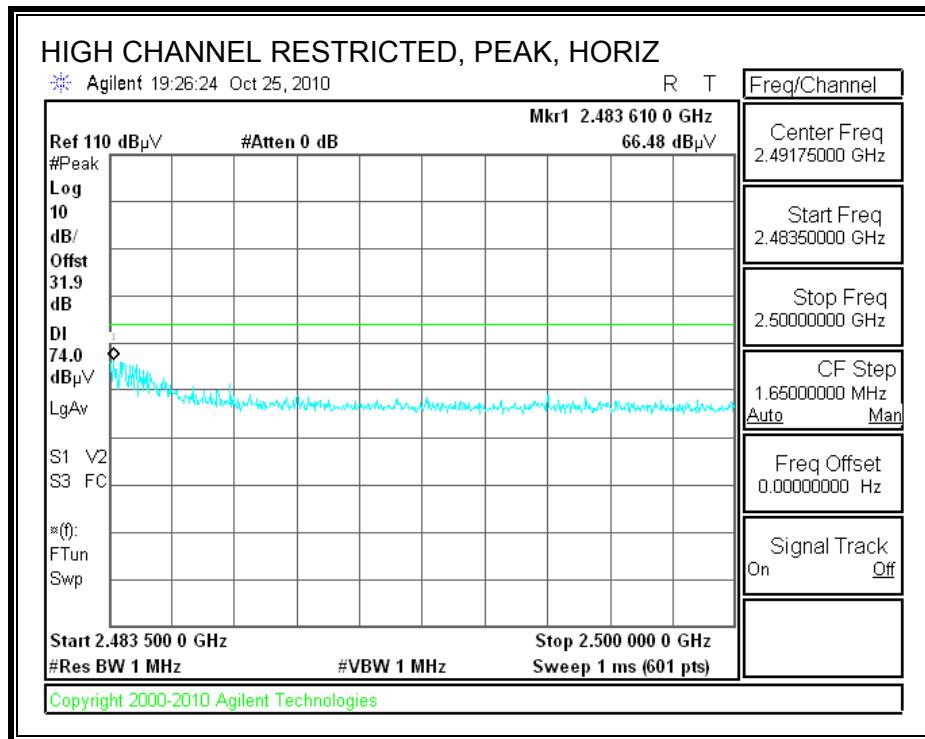
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



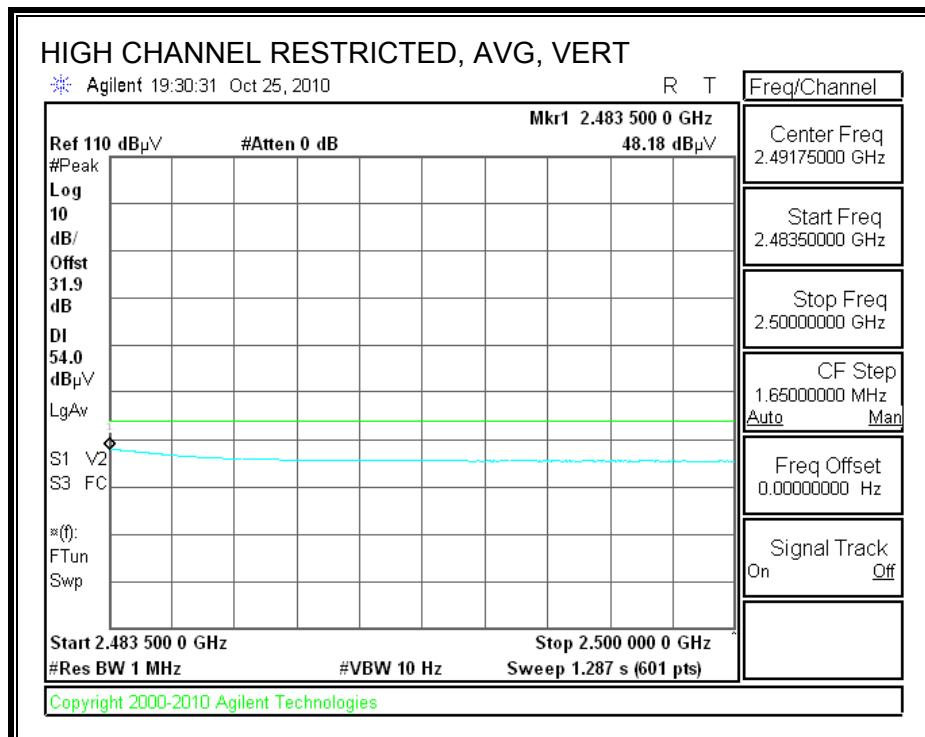
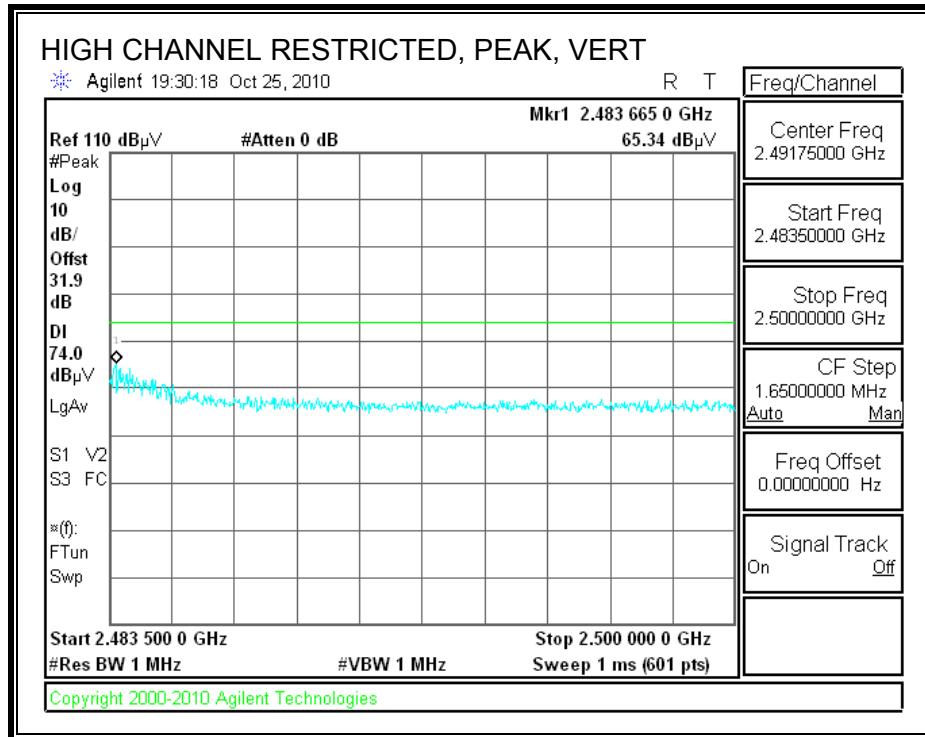
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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: 11/01/10
Project #: 10U13357
Company: Palm
Configuration: EUT with Charging Dock
Test Target: FCC 15.247
Mode Oper: TX (Worst Case), Co-location, WLAN and BT

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
Low Ch, 2412MHz													
4.824	3.0	39.0	32.7	5.8	-34.8	0.0	0.0	42.6	74.0	-31.4	H	P	
4.824	3.0	32.7	32.7	5.8	-34.8	0.0	0.0	36.3	54.0	-17.7	H	A	
4.824	3.0	37.4	32.7	5.8	-34.8	0.0	0.0	41.1	74.0	-32.9	V	P	
4.824	3.0	28.1	32.7	5.8	-34.8	0.0	0.0	31.8	54.0	-23.2	V	A	
Mid Ch, 2437MHz													
4.874	3.0	37.4	32.7	5.8	-34.8	0.0	0.0	41.1	74.0	-32.9	V	P	
4.874	3.0	29.3	32.7	5.8	-34.8	0.0	0.0	33.0	54.0	-21.0	V	A	
7.311	3.0	41.8	35.5	7.3	-34.1	0.0	0.0	50.4	74.0	-23.6	V	P	
7.311	3.0	36.2	35.5	7.3	-34.1	0.0	0.0	44.8	54.0	-9.2	V	A	
4.874	3.0	37.1	32.7	5.8	-34.8	0.0	0.0	40.8	74.0	-33.2	H	P	
4.874	3.0	29.3	32.7	5.8	-34.8	0.0	0.0	33.1	54.0	-20.9	H	A	
7.311	3.0	43.7	35.5	7.3	-34.1	0.0	0.0	52.4	74.0	-21.6	H	P	
7.311	3.0	38.4	35.5	7.3	-34.1	0.0	0.0	47.0	54.0	-7.0	H	A	
High Ch, 2462MHz													
4.924	3.0	39.0	32.7	5.9	-34.8	0.0	0.0	42.8	74.0	-31.2	V	P	
4.924	3.0	30.4	32.7	5.9	-34.8	0.0	0.0	34.2	54.0	-19.8	V	A	
7.386	3.0	43.3	35.6	7.3	-34.1	0.0	0.0	52.1	74.0	-21.9	V	P	
7.386	3.0	37.9	35.6	7.3	-34.1	0.0	0.0	46.7	54.0	-7.3	V	A	
4.924	3.0	40.5	32.7	5.9	-34.8	0.0	0.0	44.3	74.0	-29.7	H	P	
4.924	3.0	35.8	32.7	5.9	-34.8	0.0	0.0	39.6	54.0	-14.4	H	A	
7.386	3.0	43.5	35.6	7.3	-34.1	0.0	0.0	52.3	74.0	-21.7	H	P	
7.386	3.0	38.3	35.6	7.3	-34.1	0.0	0.0	47.1	54.0	-6.9	H	A	

Rev. 4.1.2.7

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

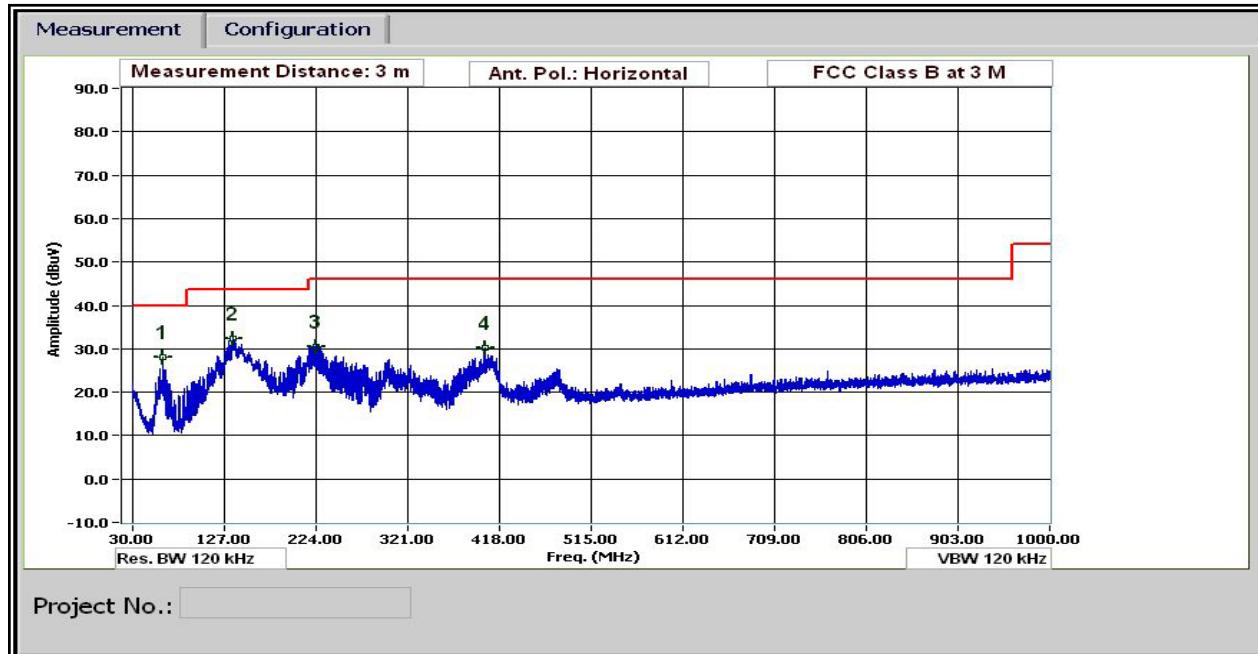
8.6. WORST-CASE BELOW 1 GHz

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

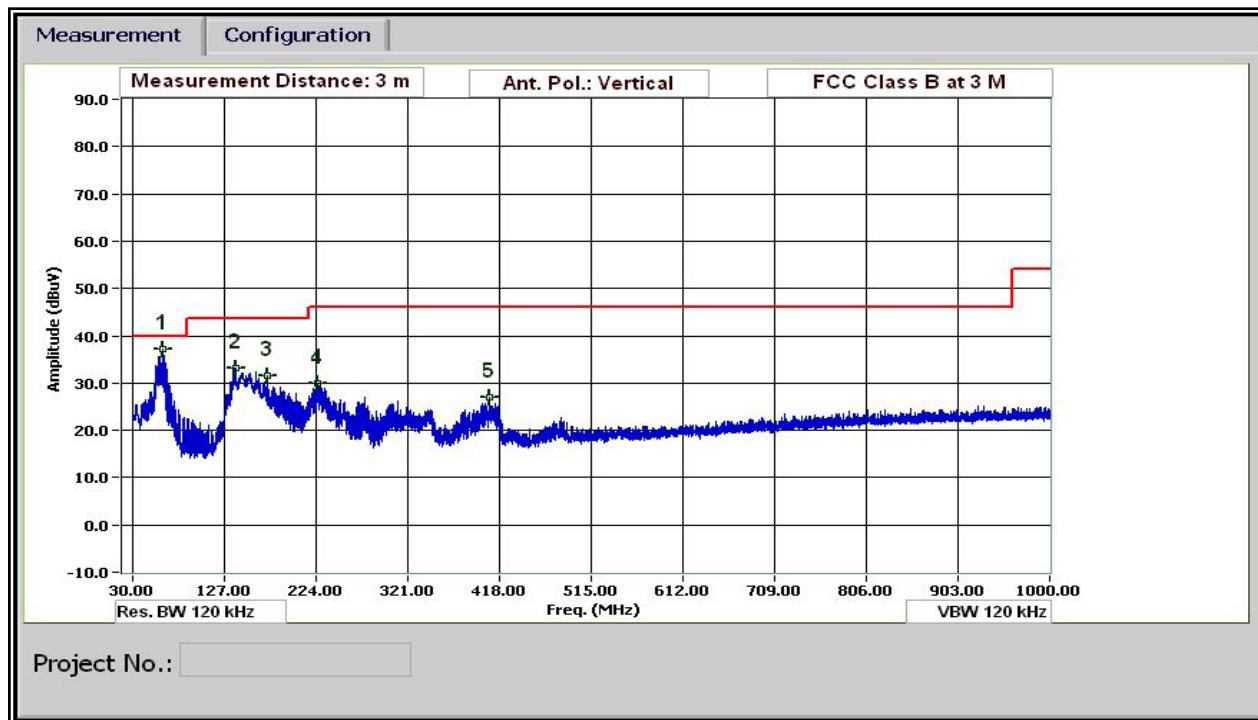
EUT WITH AC/DC ADAPTER

30-1000MHz Frequency Measurement Compliance Certification Services, Fremont 5m Chamber													
Test Engr:	Chin Pang												
Date:	10/14/10												
Project #:	10U13357												
Company:	Palm												
Configuration:	EUT with AC Adapter												
Test Target:	FCC 15.209												
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	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol V/H	Det. P/A/QP	Notes
vert													
61.681	3.0	57.0	7.9	0.7	28.4	0.0	0.0	37.2	40.0	-2.8	V	P	
61.681	3.0	54.3	7.9	0.7	28.4	0.0	0.0	34.5	40.0	-5.5	V	QP	
138.484	3.0	47.0	13.3	1.1	28.3	0.0	0.0	33.1	43.5	-10.4	V	P	
172.086	3.0	48.0	10.7	1.2	28.2	0.0	0.0	31.5	43.5	-12.0	V	P	
225.848	3.0	44.9	11.9	1.3	28.2	0.0	0.0	29.9	46.0	-16.1	V	P	
407.086	3.0	38.1	15.0	1.8	28.1	0.0	0.0	26.9	46.0	-19.1	V	P	
61.801	3.0	47.9	7.9	0.7	28.4	0.0	0.0	28.2	40.0	-11.8	H	P	
136.444	3.0	46.3	13.4	1.1	28.3	0.0	0.0	32.5	43.5	-11.0	H	P	
223.808	3.0	45.4	11.9	1.3	28.2	0.0	0.0	30.4	46.0	-15.6	H	P	
402.735	3.0	41.4	15.0	1.8	28.1	0.0	0.0	30.1	46.0	-15.9	H	P	

SPURIOUS EMISSIONS 30 TO 1000, HORIZONTALAL)



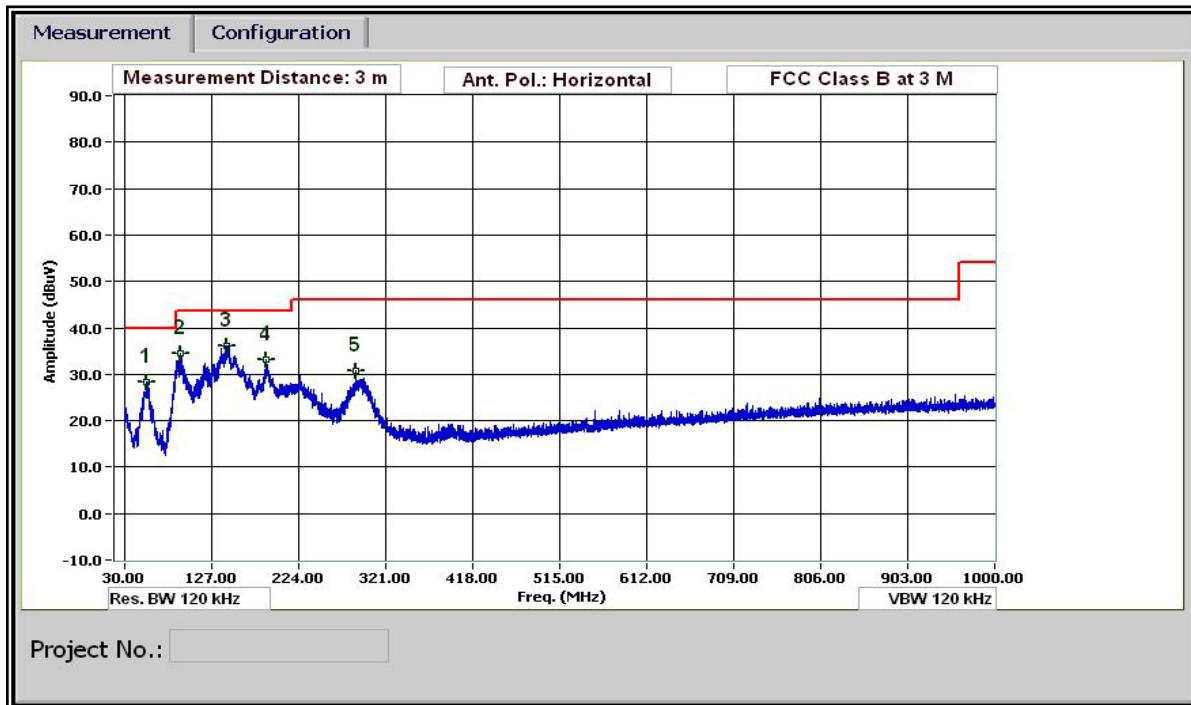
SPURIOUS EMISSIONS 30 TO 1000, VERTICAL



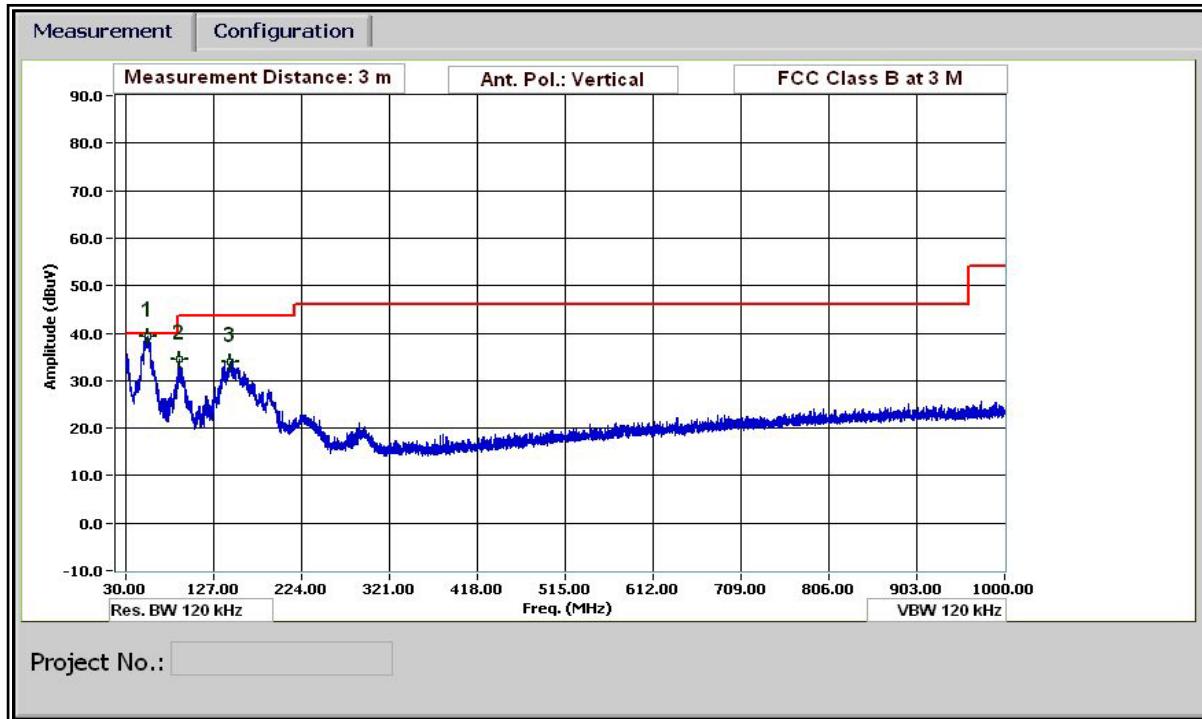
EUT WITH INDUCTIVE CHARGING DOCK

30-1000MHz Frequency Measurement Compliance Certification Services, Fremont 5m Chamber													
Test Engr:		Chin Pang											
Date:		10/14/10											
Project #:		10U13357											
Company:		Palm											
Configuration:		EUT with Charging Dock											
Test Target:		FCC 15.209											
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	Amp dB	D Corr dB	Pad dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
54.841	3.0	47.8	8.1	0.7	28.4	0.0	0.0	28.3	40.0	-11.7	H	P	
92.283	3.0	53.8	8.1	0.9	28.3	0.0	0.0	34.4	43.5	-9.1	H	P	
142.925	3.0	50.1	13.1	1.1	28.3	0.0	0.0	36.0	43.5	-7.5	H	P	
188.047	3.0	49.0	11.3	1.2	28.2	0.0	0.0	33.2	43.5	-10.3	H	P	
288.011	3.0	44.4	13.0	1.5	28.1	0.0	0.0	30.8	46.0	-15.2	H	P	
54.361	3.0	58.8	8.2	0.7	28.4	0.0	0.0	39.3	40.0	-0.7	V	P	
54.361	3.0	56.1	8.2	0.7	28.4	0.0	0.0	36.5	40.0	-3.5	V	OP	
88.922	3.0	54.6	7.5	0.8	28.3	0.0	0.0	34.6	43.5	-8.9	V	P	
145.085	3.0	48.2	12.9	1.1	28.3	0.0	0.0	33.9	43.5	-9.6	V	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*	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

6 WORST EMISSIONS

EUT WITH AC/DC ADAPTER (157-10130-00)

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
0.20	55.43	--	44.57	0.00	63.61	53.61	-8.18	-9.04	L1
0.40	49.27	--	41.88	0.00	57.85	47.85	-8.58	-5.97	L1
1.00	46.02	--	35.31	0.00	56.00	46.00	-9.98	-10.69	L1
0.20	51.40	--	40.28	0.00	63.53	53.53	-12.13	-13.25	L2
0.40	47.08	--	39.87	0.00	57.81	47.81	-10.73	-7.94	L2
1.00	49.11	--	34.51	0.00	56.00	46.00	-6.89	-11.49	L2
6 Worst Data									

EUT WITH AC/DC ADAPTER (157-101240-00)

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
0.15	60.65	--	44.11	0.00	66.00	56.00	-5.35	-11.89	L1
0.22	56.38	--	39.57	0.00	62.78	52.78	-6.40	-13.21	L1
4.20	44.01	--	28.12	0.00	56.00	46.00	-11.99	-17.88	L1
0.15	56.92	--	40.35	0.00	66.00	56.00	-9.08	-15.65	L2
0.22	54.01	--	38.57	0.00	62.78	52.78	-8.77	-14.21	L2
4.14	45.82	--	30.57	0.00	56.00	46.00	-10.18	-15.43	L2
6 Worst Data									

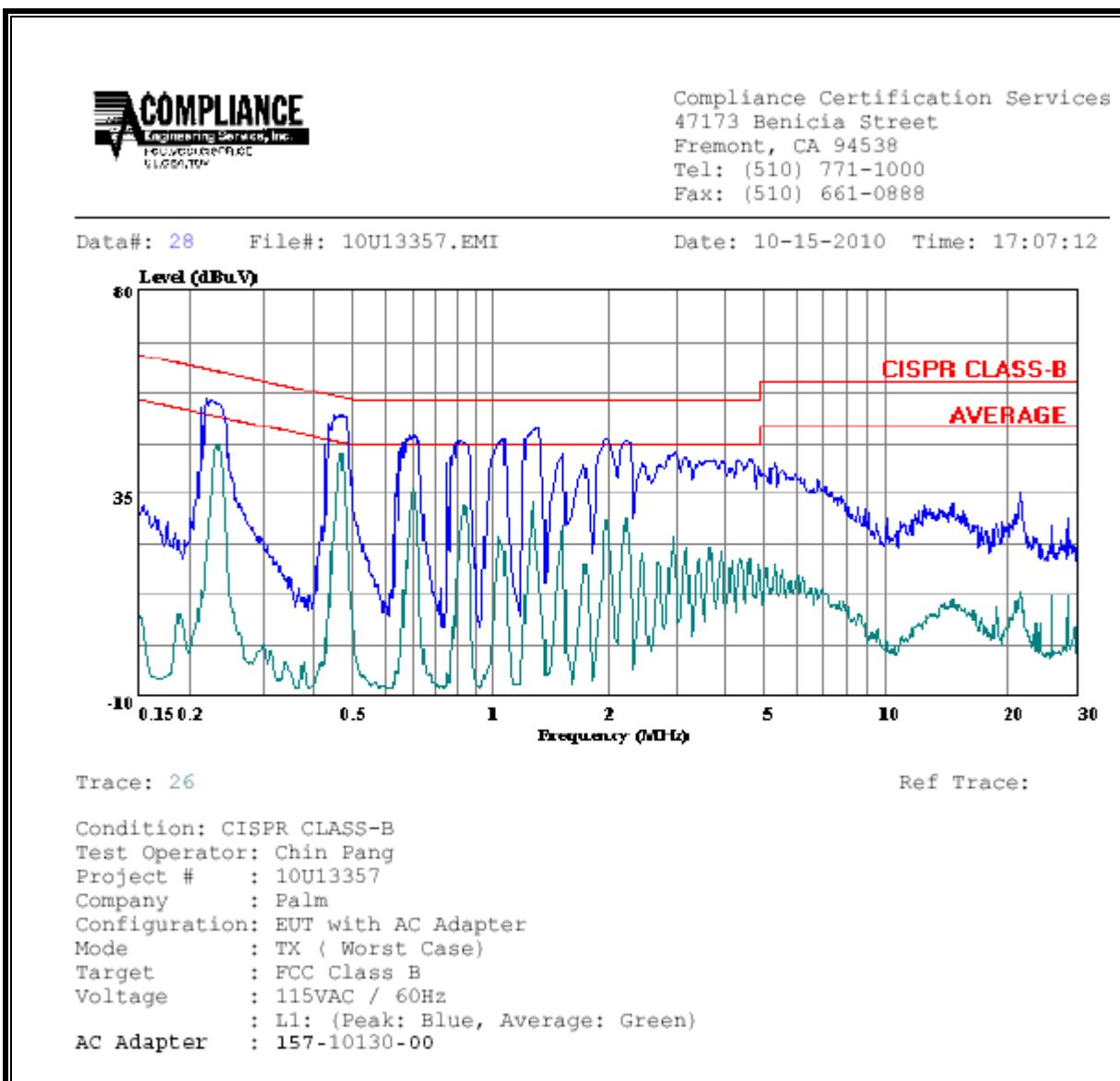
EUT WITH INDUCTIVE CHARGING DOCK (157-10130-00)

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
0.30	45.94	--	43.09	0.00	60.27	50.27	-14.33	-7.18	L1
0.60	49.85	--	44.57	0.00	56.00	46.00	-6.15	-1.43	L1
0.89	48.10	--	43.91	0.00	56.00	46.00	-7.90	-2.09	L1
0.30	48.92	--	42.51	0.00	60.27	50.27	-11.35	-7.76	L2
0.60	50.17	--	43.63	0.00	56.00	46.00	-5.83	-2.37	L2
0.89	49.67	--	42.71	0.00	56.00	46.00	-6.33	-3.29	L2
6 Worst Data									

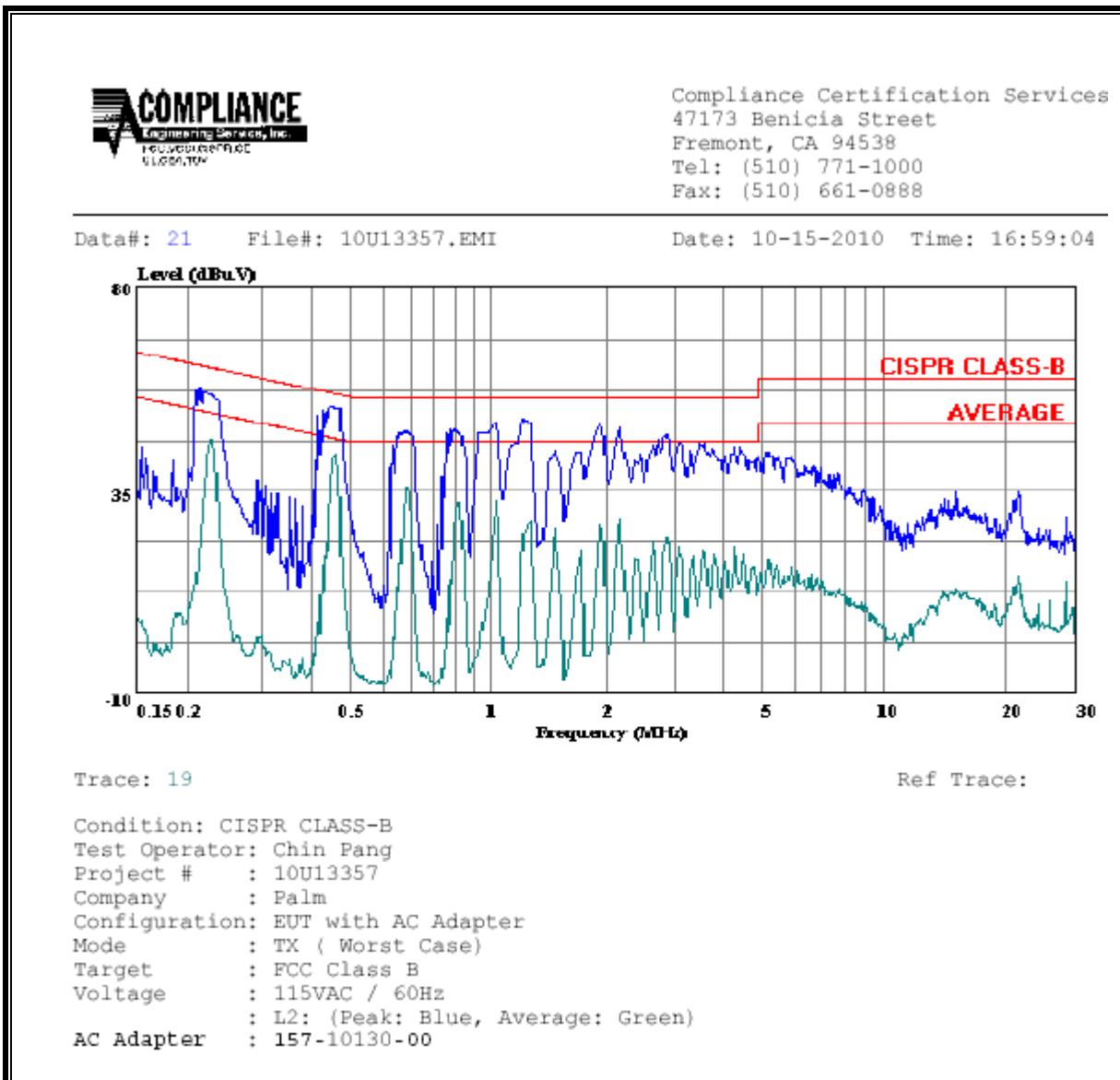
EUT WITH INDUCTIVE CHARGING DOCK (157-10124-00)

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
0.15	56.08	--	38.02	0.00	66.00	56.00	-9.92	-17.98	L1
0.22	52.91	--	36.09	0.00	62.78	52.78	-9.87	-16.69	L1
0.52	50.72	--	31.28	0.00	56.00	46.00	-5.28	-14.72	L1
0.15	57.66	--	40.25	0.00	66.00	56.00	-8.34	-15.75	L2
0.22	54.41	--	38.24	0.00	62.78	52.78	-8.37	-14.54	L2
4.05	45.69	--	30.91	0.00	56.00	46.00	-10.31	-15.09	L2
6 Worst Data									

LINE 1 RESULTS

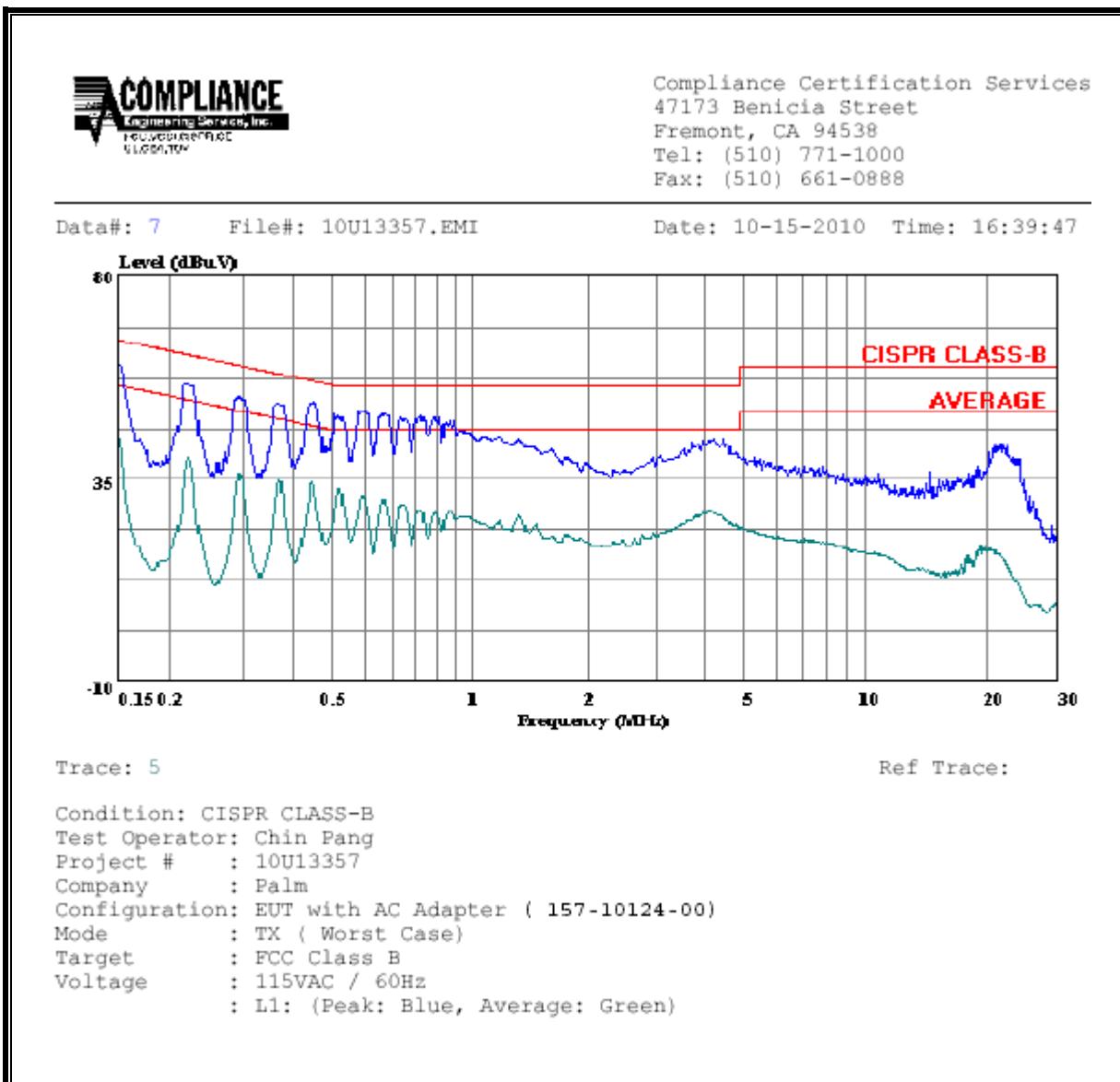


LINE 2 RESULTS

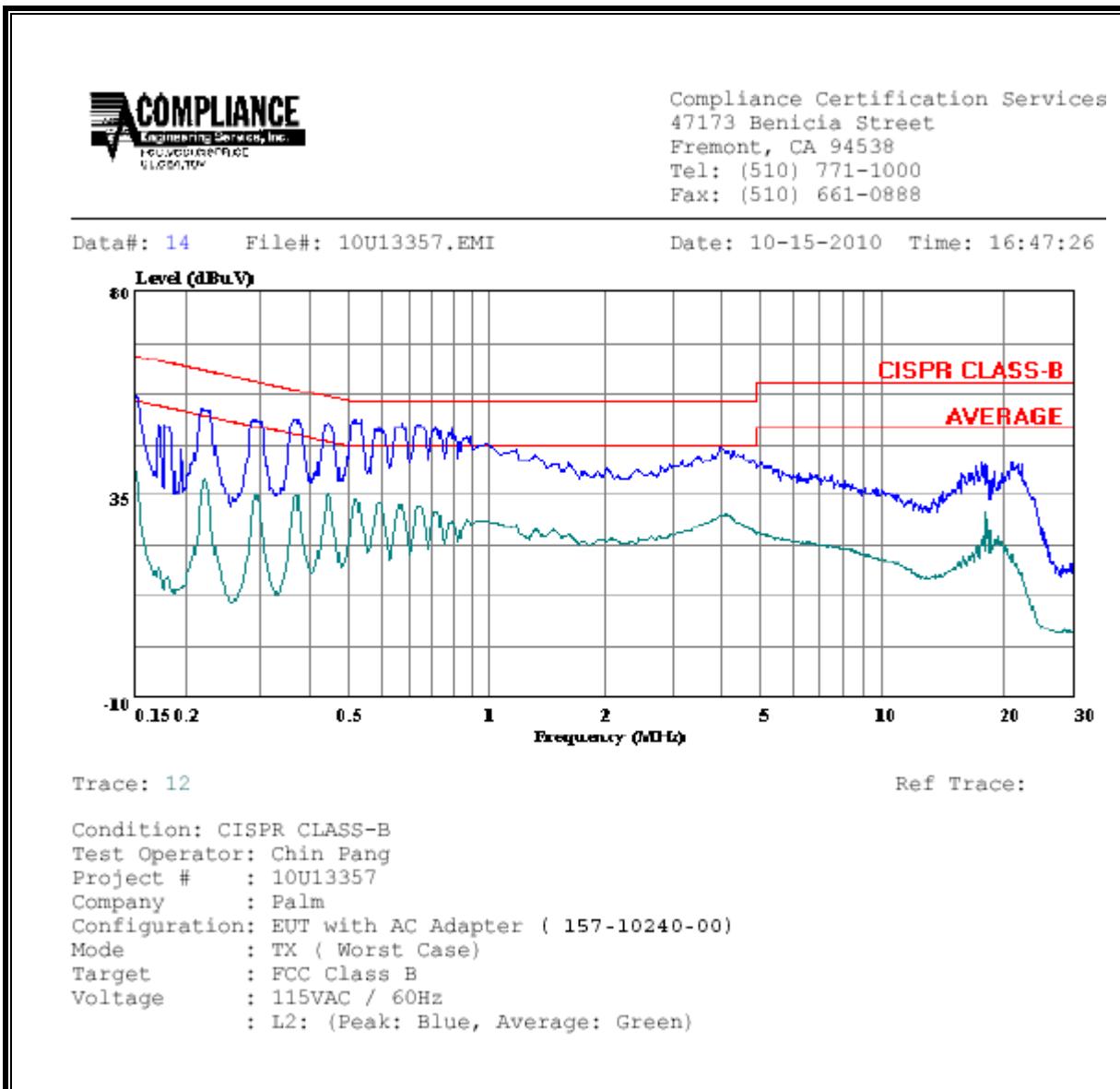


EUT WITH AC/DC ADAPTER (157-10124-00)

LINE 1 RESULTS

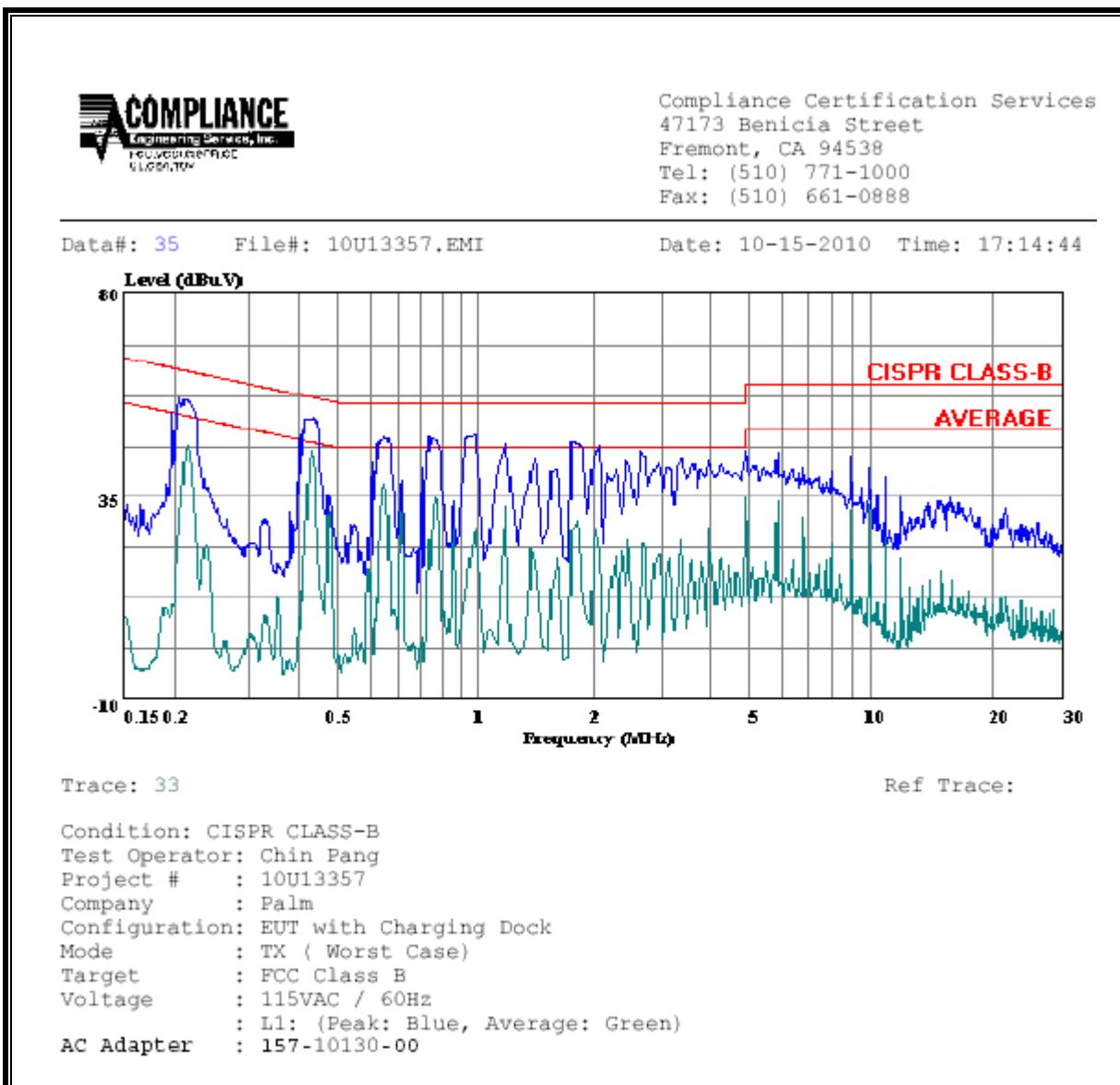


LINE 2 RESULTS

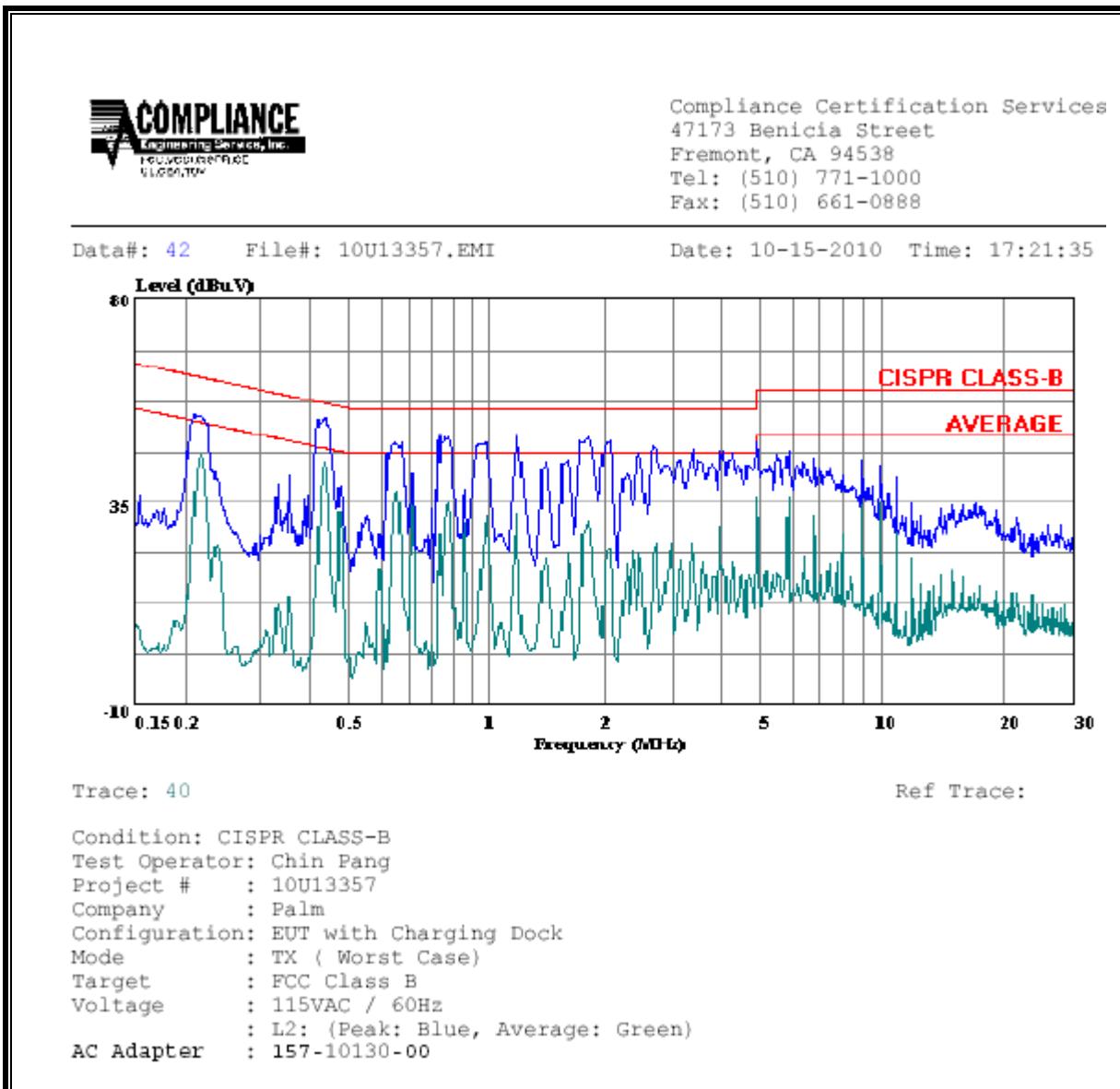


EUT WITH INDUCTIVE CHARGING DOCK (157-10130-00)

LINE 1 RESULTS

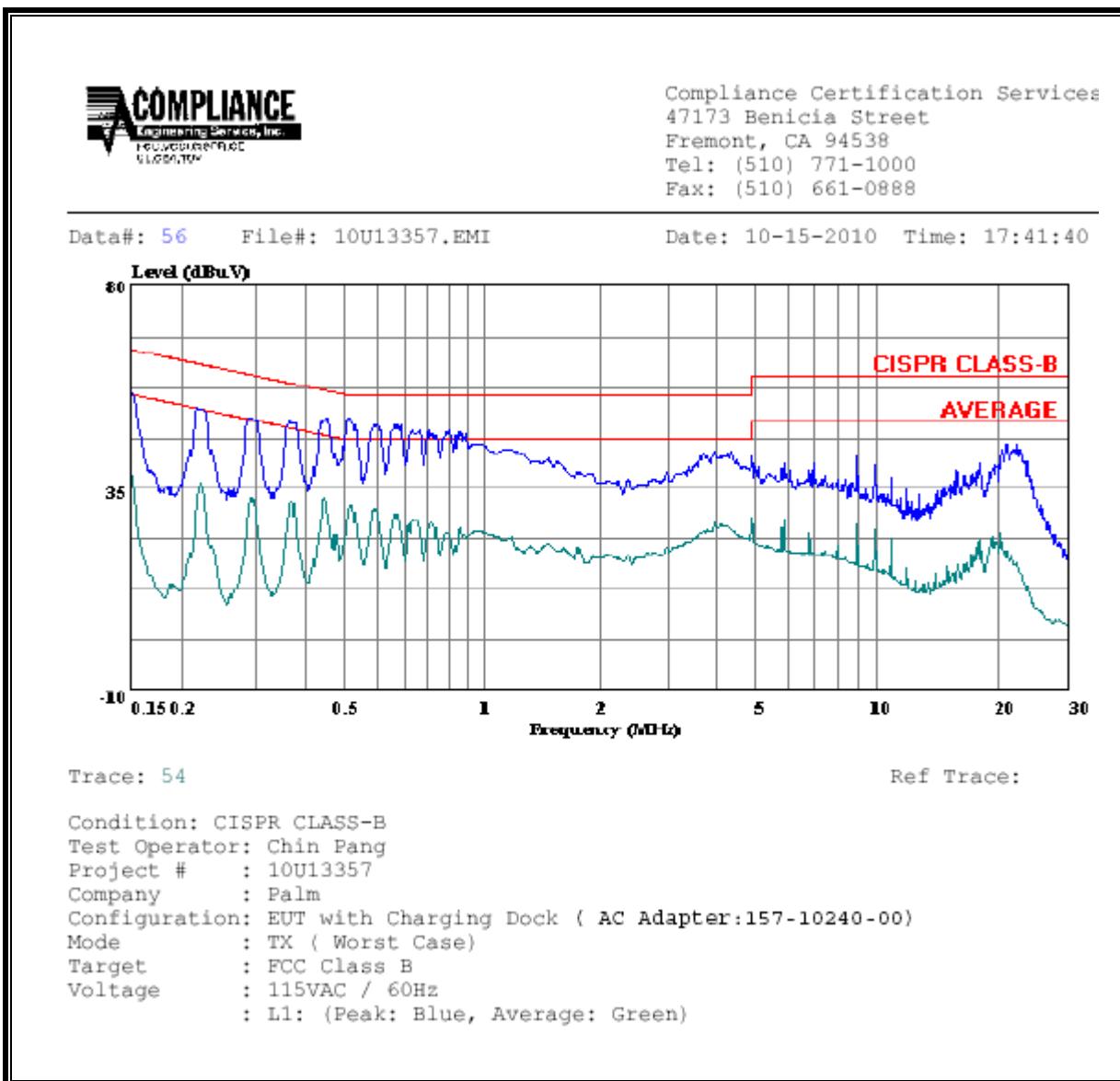


LINE 2 RESULTS



EUT WITH INDUCTIVE CHARGING DOCK (157-10124-00)

LINE 1 RESULTS



LINE 2 RESULTS

