



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

CERTIFICATION TEST REPORT

FOR

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

MODEL NUMBER: HSTNH-F30CV

**FCC ID: B94HHF30CV
IC: 3905A-HHF30CV**

REPORT NUMBER: 11U13622-7, Revision A

ISSUE DATE: APRIL 27, 2011

Prepared for
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NVLAP LAB CODE 200065-0

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7.4.5.	CONDUCTED SPURIOUS EMISSIONS.....	65
7.5.	<i>802.11n HT20 SISO MODE IN THE 5.8 GHz BAND</i>	69
7.5.1.	6 dB BANDWIDTH	69
7.5.2.	99% BANDWIDTH	72
7.5.3.	OUTPUT POWER	75
7.5.4.	POWER SPECTRAL DENSITY	76
7.5.5.	CONDUCTED SPURIOUS EMISSIONS.....	79
7.6.	<i>802.11n HT40 SISO MODE IN THE 5.8 GHz BAND</i>	83
7.6.1.	6 dB BANDWIDTH	83
7.6.2.	99% BANDWIDTH	85
7.6.3.	OUTPUT POWER	87
7.6.4.	POWER SPECTRAL DENSITY	88
7.6.5.	CONDUCTED SPURIOUS EMISSIONS.....	90
7.7.	<i>BLUETOOTH GFSK MODE IN THE 2.4 GHz BAND</i>	93
7.7.1.	AVERAGE TIME OF OCCUPANCY	93
7.7.2.	99% BANDWIDTH	95
7.7.3.	OUTPUT POWER	98
7.7.4.	POWER SPECTRAL DENSITY	101
7.7.5.	CONDUCTED SPURIOUS EMISSIONS.....	104
7.8.	<i>BLUETOOTH 8PSK MODE IN THE 2.4 GHz BAND</i>	108
7.8.1.	AVERAGE TIME OF OCCUPANCY	108
7.8.2.	99% BANDWIDTH	110
7.8.3.	OUTPUT POWER	113
7.8.4.	POWER SPECTRAL DENSITY	116
7.8.5.	CONDUCTED SPURIOUS EMISSIONS.....	119
8.	RADIATED TEST RESULTS	123
8.1.	<i>LIMITS AND PROCEDURE</i>	123
8.2.	<i>TRANSMITTER ABOVE 1 GHz</i>	124
8.2.1.	802.11b MODE.....	124
8.2.2.	802.11g MODE.....	129
8.2.3.	802.11n HT20 SISO MODE	134
8.2.4.	TRANSMITTER ABOVE 1 GHz FOR 802.11a MODE IN THE 5.8 GHz BAND ..	139
8.2.5.	TRANSMITTER ABOVE 1 GHz FOR 802.11n HT20 SISO MODE IN THE 5.8 GHz BAND	140
8.2.6.	TRANSMITTER ABOVE 1 GHz FOR 802.11n HT40 SISO MODE IN THE 5.8 GHz BAND	141
8.2.7.	BLUETOOTH GFSK MODE	142
8.2.8.	BLUETOOTH 8PSK MODE	147
8.3.	<i>RECEIVER ABOVE 1 GHz</i>	152
8.3.1.	FOR 20 MHz BANDWIDTH.....	152
8.3.2.	FOR 40 MHz BANDWIDTH.....	153
8.4.	<i>WORST-CASE BELOW 1 GHz</i>	154
8.5.	<i>AC POWER LINE CONDUCTED EMISSIONS</i>	157
9.	SETUP PHOTOS.....	160

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: HEWLETT-PACKARD COMPANY, PALM GBU
950 MAUDE AVENUE
SUNNYVALE, CA 94085, U.S.A.

EUT DESCRIPTION: PHONE WITH 802.11A/B/G/N AND BLUETOOTH 2.1+EDR

MODEL: HSTNH-F30CV

SERIAL NUMBER: 5161-0081 (Radiated Unit); 5161-0123 (Conducted Unit)

DATE TESTED: MARCH 21-31, 2011

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:

Tested By:



THU CHAN
ENGINEERING MANAGER
UL CCS

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 a phone operating on CDMA/EvDO (850/1900), GSM (850/900/1800/1900), UMTS (900, 2100) + BT 2.1 + EDR, 802.11abgn 1×1.

ACCESSORIES

The EUT was constructed and using the following accessories:

Accessories Description	Manufacturer/ Trademark	Part Number
AC Power Adapter source #1 Input Rating: 100–240 Vac, 50/60Hz, 0.2 A Output Rating: 5 Vdc, 1000 mA	HP/Palm	157-10124-00 157-10130-00
Inductive Charging Dock Input Rating: 5 Vdc, 1000 mA	HP/Palm	157-10123-00
Battery source Type: Rechargeable Li-Ion Polymer Rating: 3.7 Vdc, 1230 mAh (typical)	HP/Palm	157-10158-00 157-10145-00
Wired Stereo Headset	HP/Palm	180-10632-00
USB cable	HP/Palm	180-10647-00

5.2. MAXIMUM OUTPUT POWER

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

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2412 - 2462	b	17.80	60.26
2412 - 2462	g	22.60	181.97
2412 - 2462	HT20 SISO	22.80	190.55
5745 - 5825	a	24.40	275.42
5745 - 5825	HT20 SISO	24.10	257.04
5755 - 5795	HT40 SISO	23.70	234.42
2402 - 2480	GFSK	5.95	3.94
2402 - 2480	8PSK	4.63	2.90

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a PCB integrated antenna, with a maximum gain of 0.3 dBi. The 802.11bgn and Bluetooth transmitters share a common antenna.

5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Palm Hwtools 55.

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 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 802.11a 5.8GHz mode were made at 6Mb/s.

All final tests in the 802.11n, 5.8GHz HT20 and HT40mode were made at MCS0Mb/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.

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 the worst case was found to be at Z orientation open with phone slide open.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

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

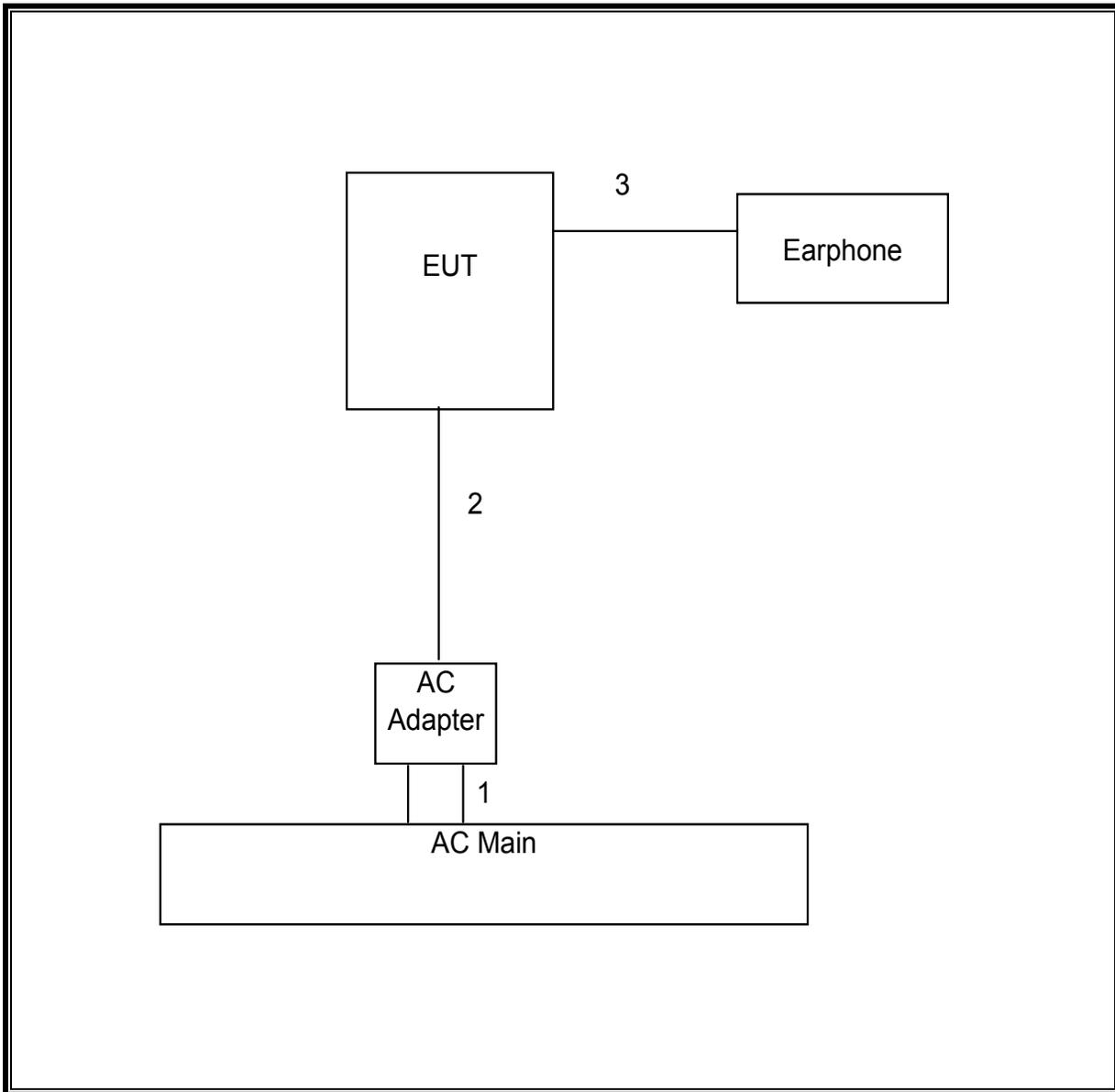
I/O CABLES

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



6. TEST AND MEASUREMENT EQUIPMENT

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

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	Asset	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00996	10-29-11
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	07-06-11
Antenna, Horn, 18 GHz	EMCO	3115	C00783	07-29-11
Antenna, Bilog, 2 GHz	Sundt Sciences	JB1	C01011	07-14-11
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	08-04-11
EM Test Receiver, 30 MHz	R & S	ESHS 20	N02396	05-06-11
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	11-10-11
Antenna, Horn, 26.5 GHz	ARA	MVH-1826/B	C00980	06-25-11
Antenna, Horn, 40 GHz	ARA	MVH-2640/B	C00981	06-08-11
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	07-15-11
Highpass Filter, 7.6 GHz	Micro-Tronics	HPM13195	N02601	CNR
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR
Peak Power Meter	Boonton	4541	C01186	03-14-12
Peak Power Sensor	Boonton	57006	C01203	03-14-12

7. ANTENNA PORT TEST RESULTS

7.1. 802.11b MODE IN THE 2.4 GHz BAND

7.1.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

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

TEST PROCEDURE

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

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	10.17	0.5
Middle	2437	10.17	0.5
High	2462	10.17	0.5

7.1.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

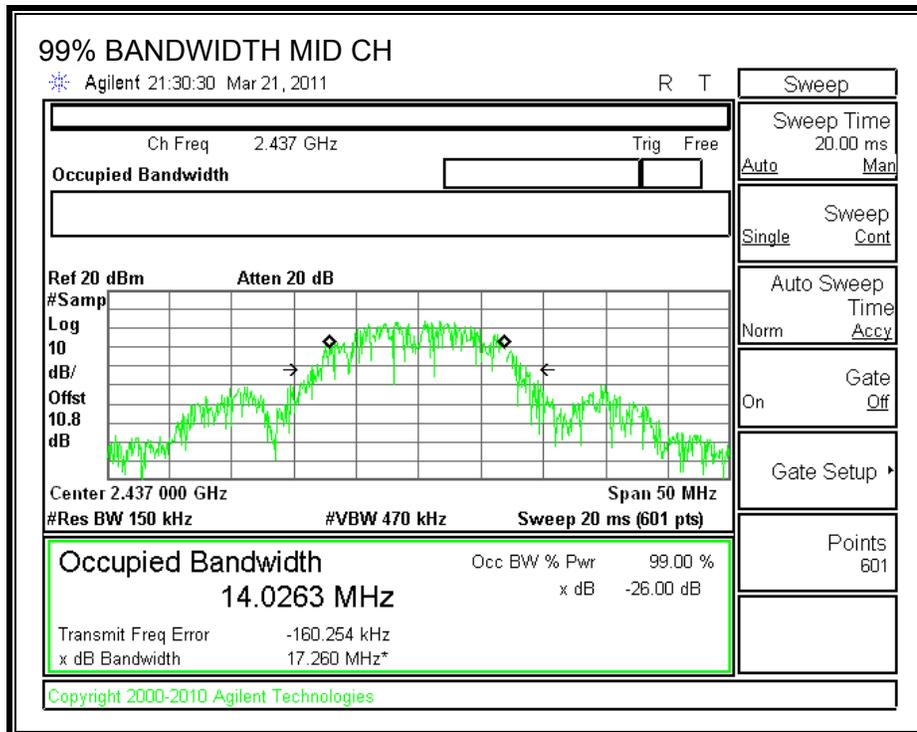
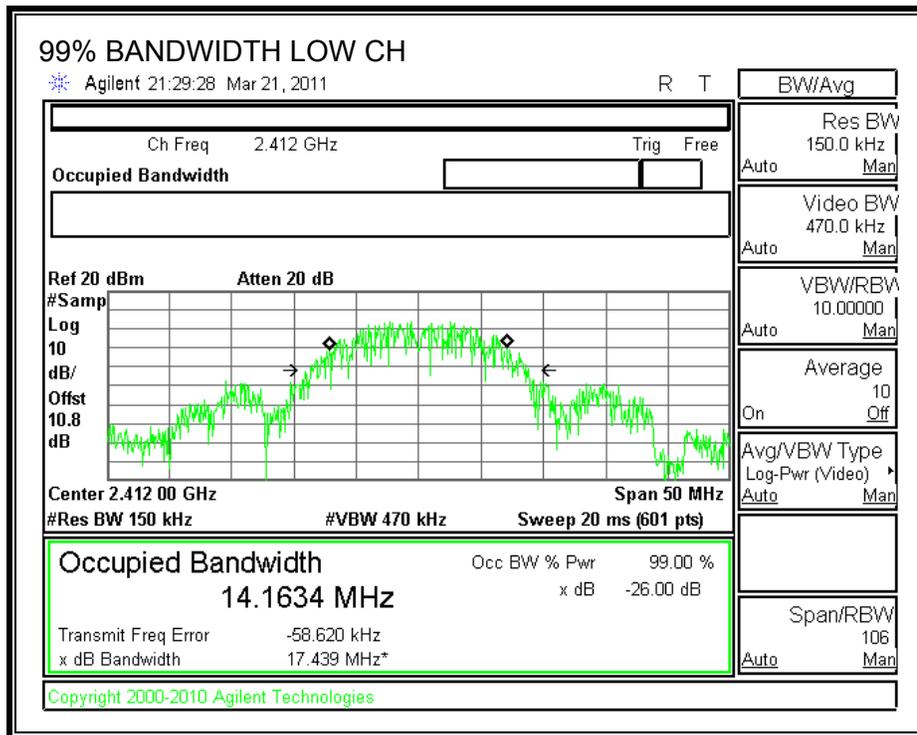
TEST PROCEDURE

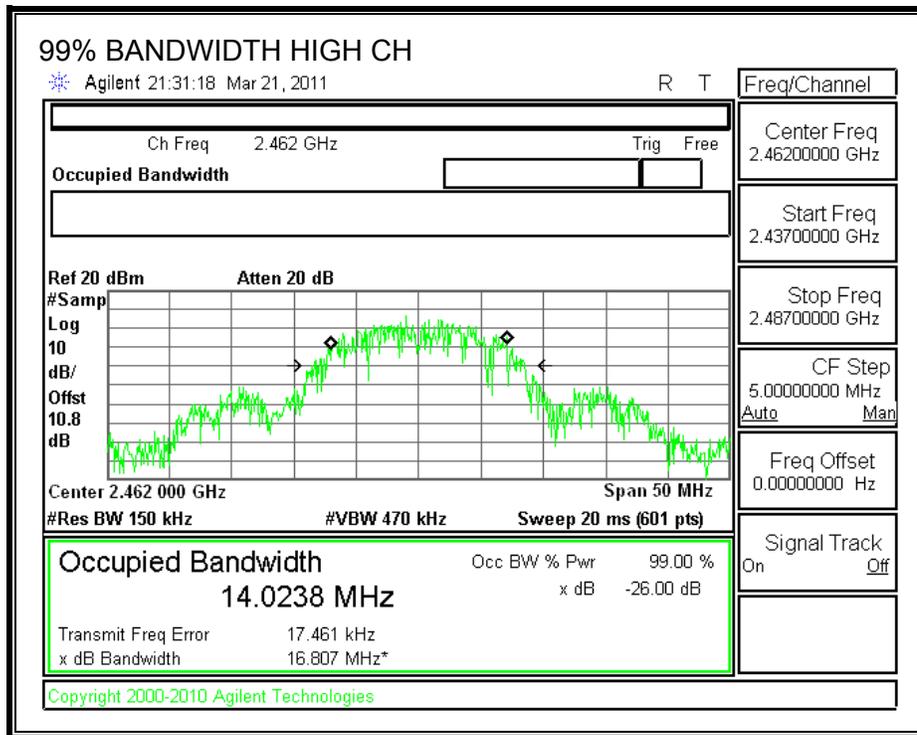
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	14.1634
Middle	2437	14.0263
High	2462	14.0238

99% BANDWIDTH





7.1.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

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

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 10.8dB (including 10 dB pad and 0.8dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2412	17.70
Middle	2437	17.80
High	2462	17.40

7.1.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

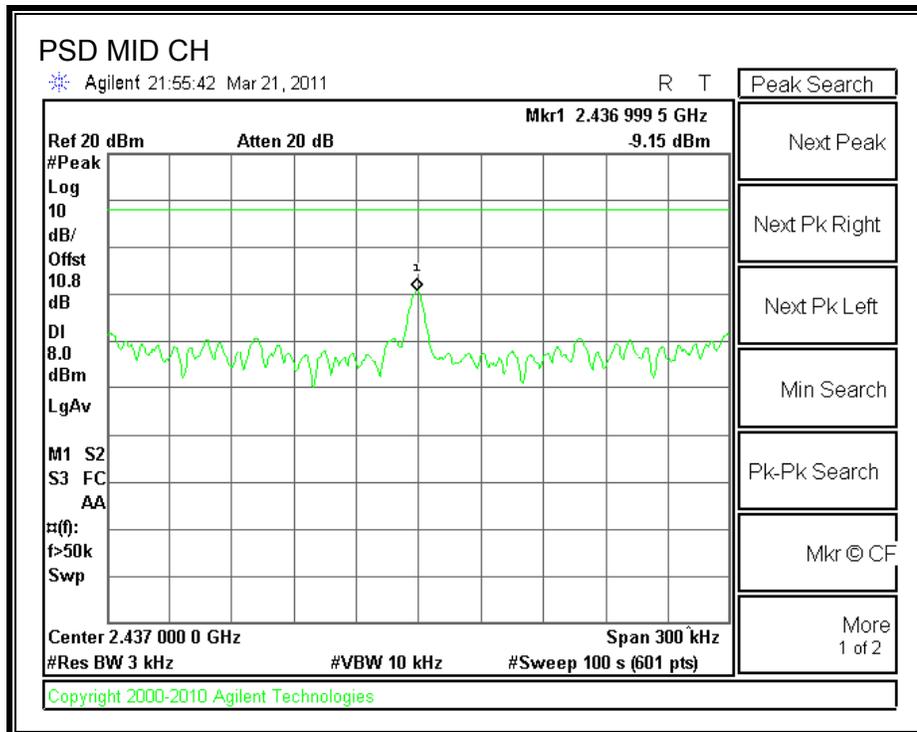
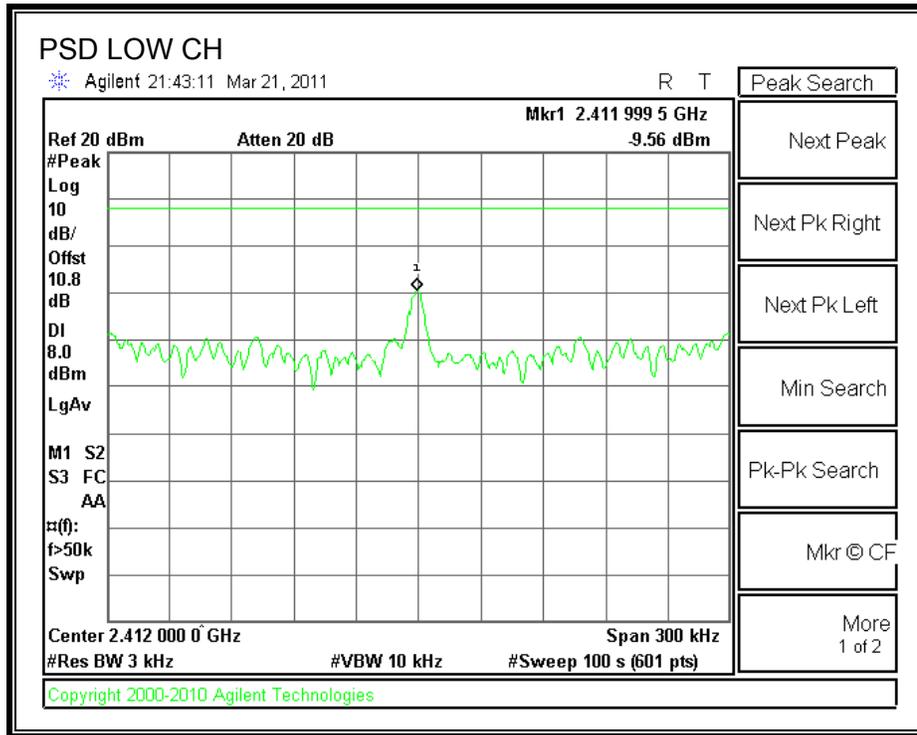
TEST PROCEDURE

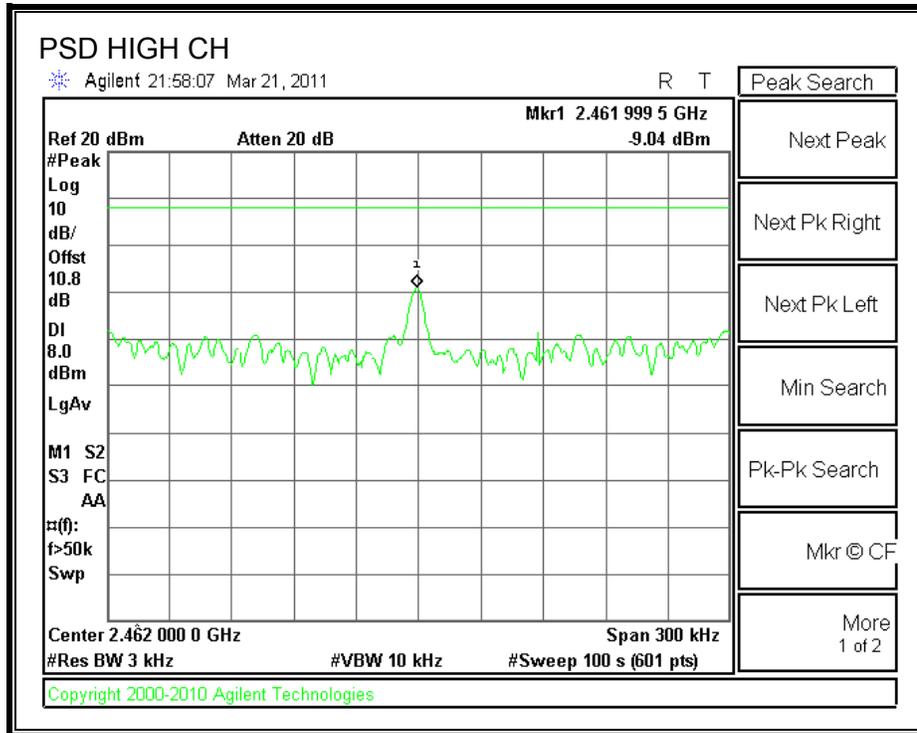
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-9.56	8	-17.56
Middle	2437	-9.15	8	-17.15
High	2462	-9.04	8	-17.04

POWER SPECTRAL DENSITY





7.1.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

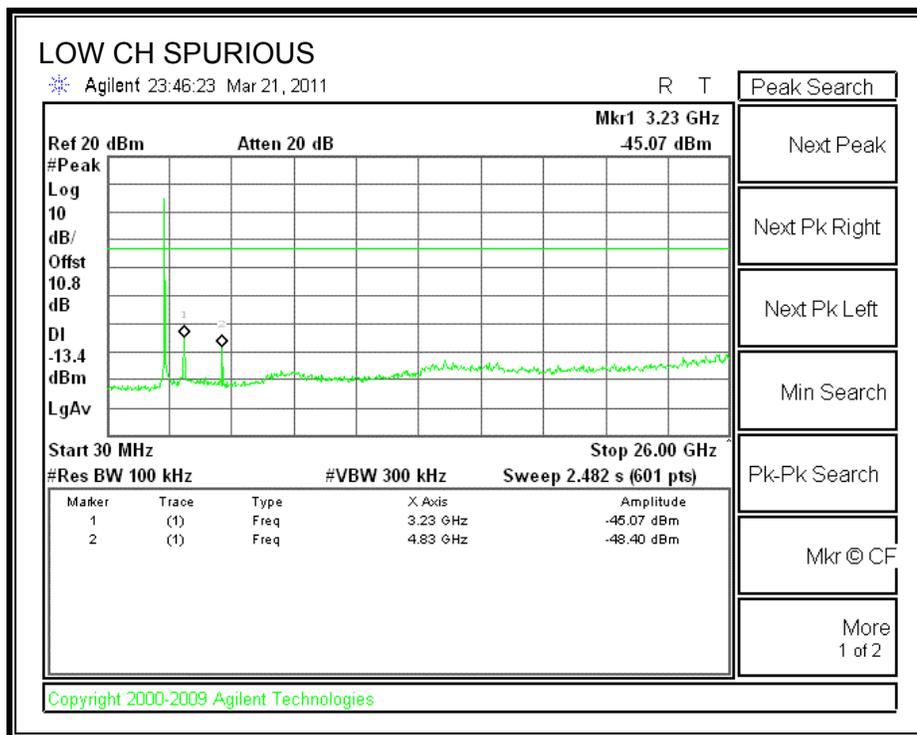
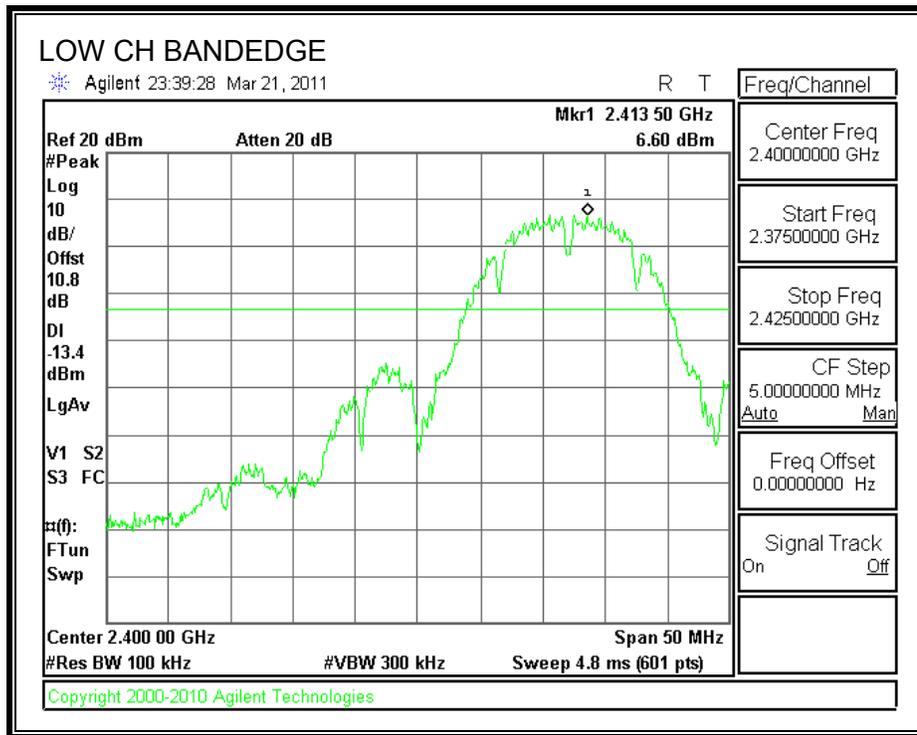
TEST PROCEDURE

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

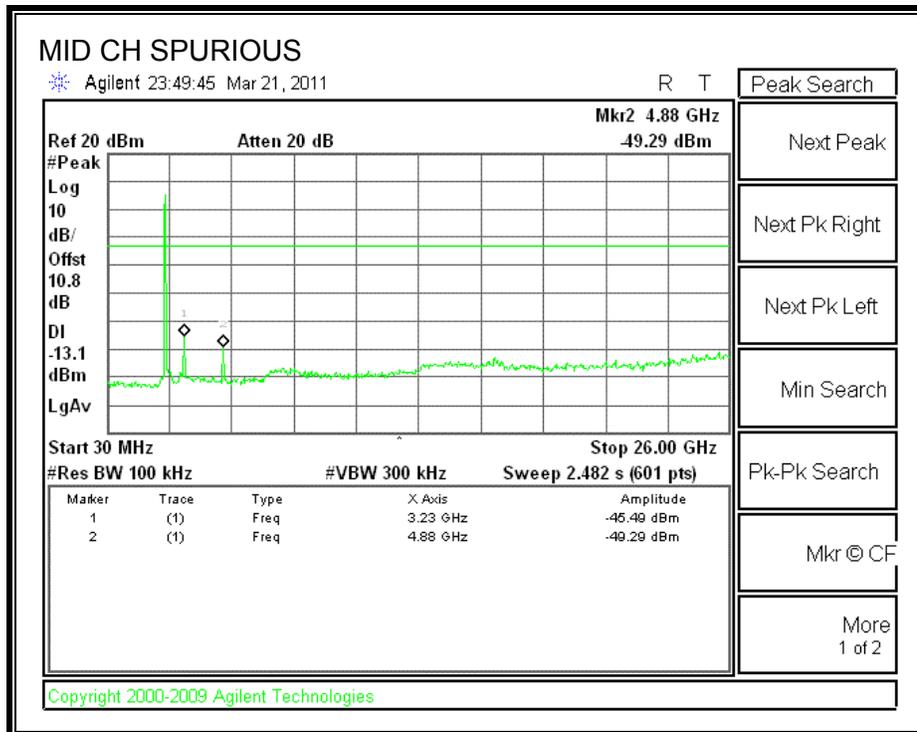
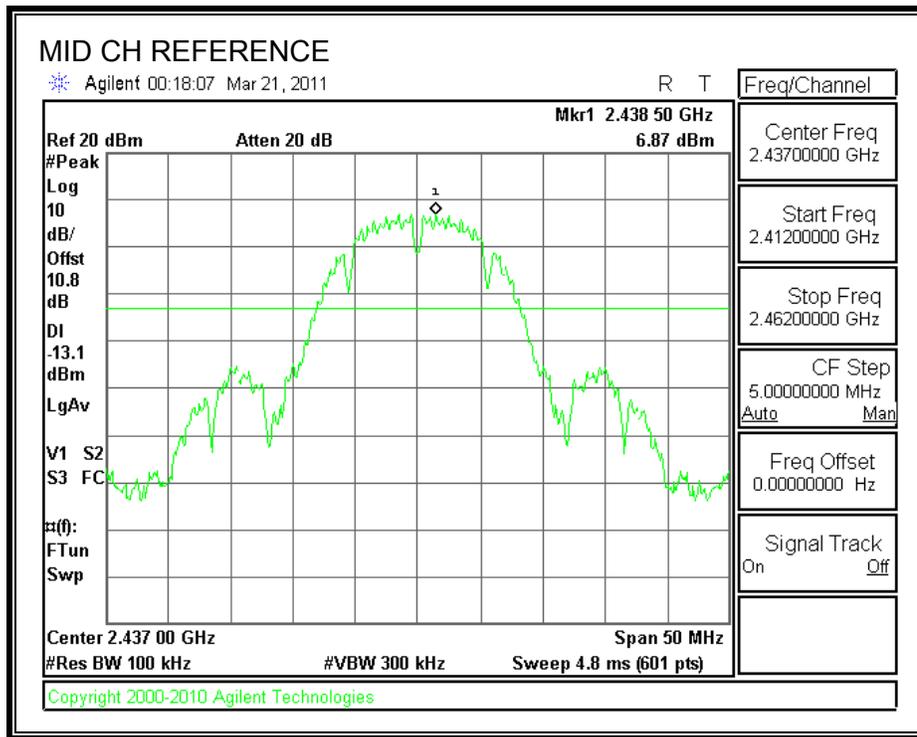
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

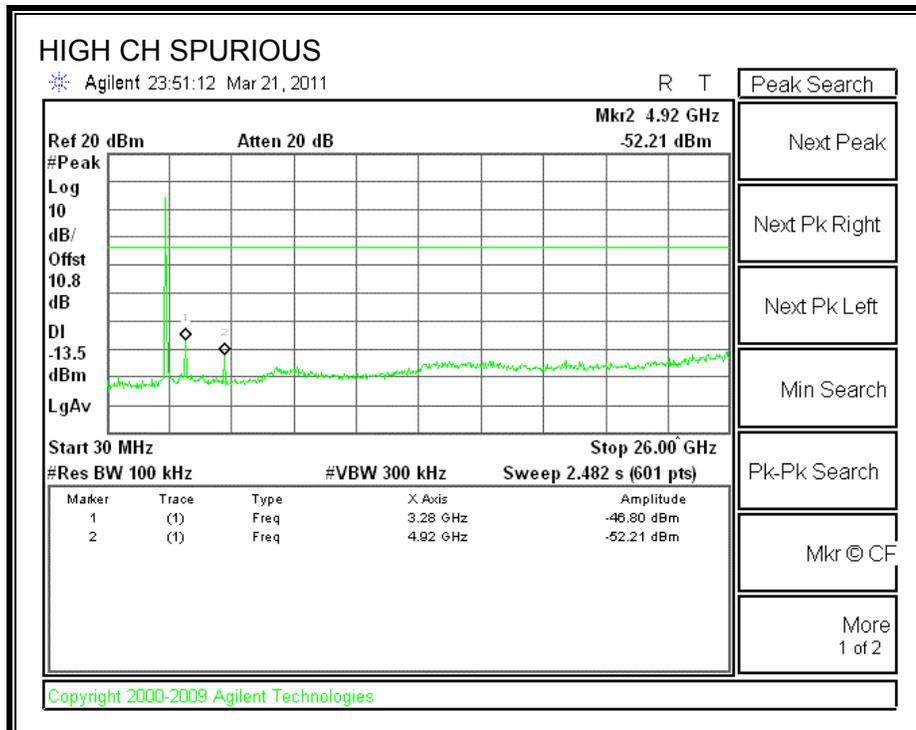
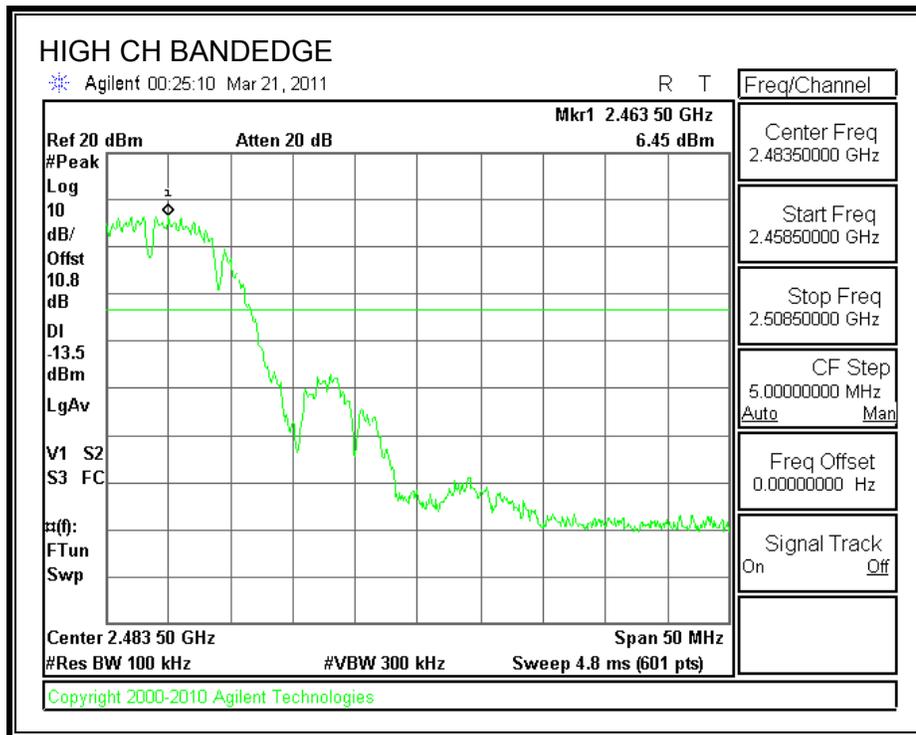
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.2. 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.

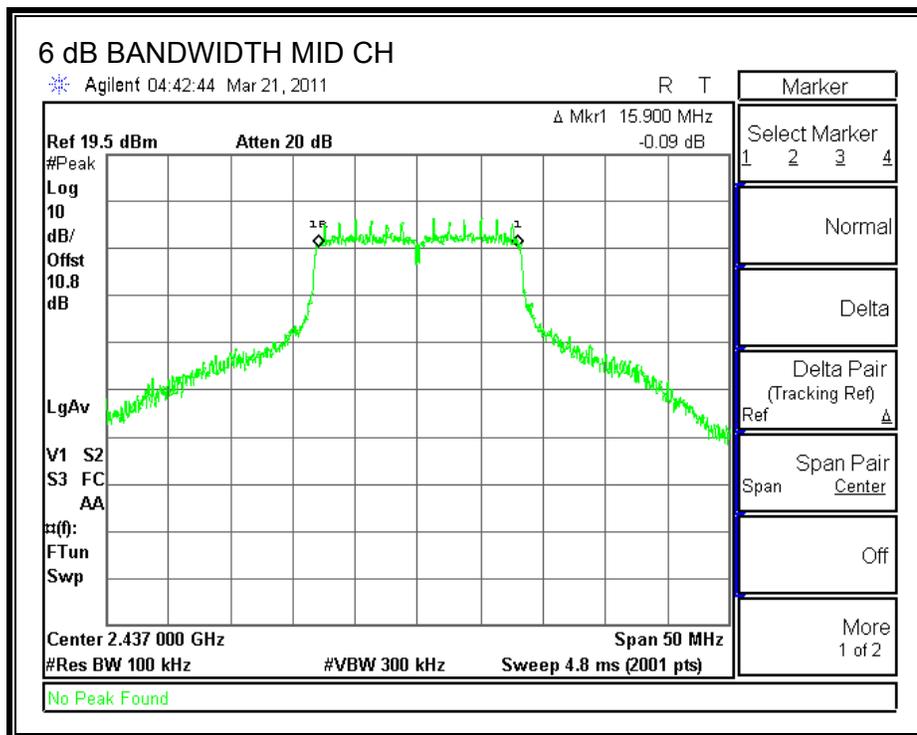
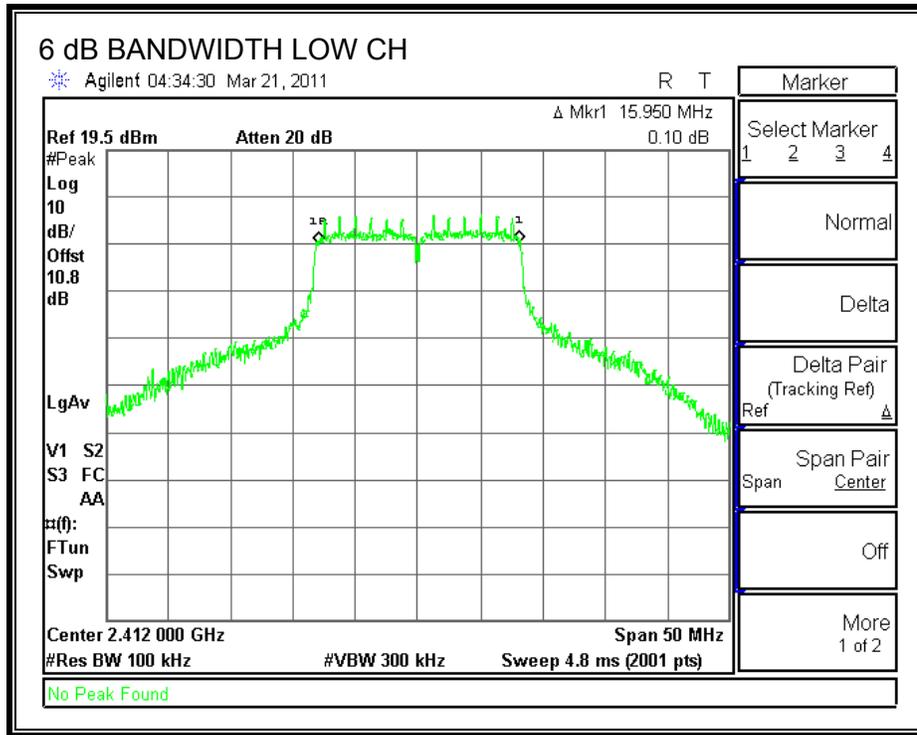
TEST PROCEDURE

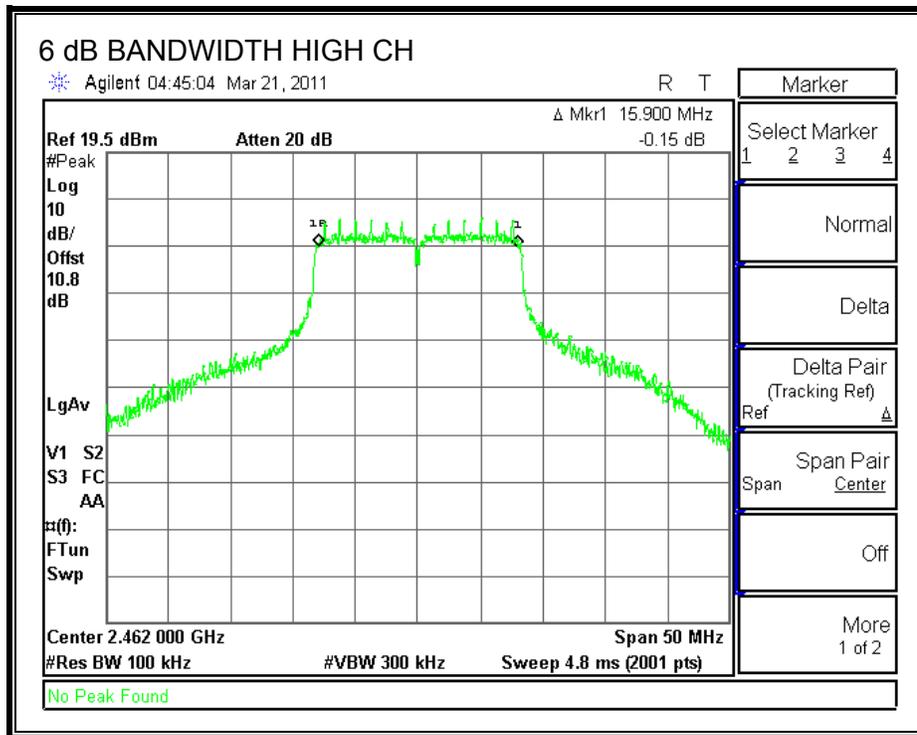
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.95	0.5
Middle	2437	15.90	0.5
High	2462	15.90	0.5

6 dB BANDWIDTH





7.2.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

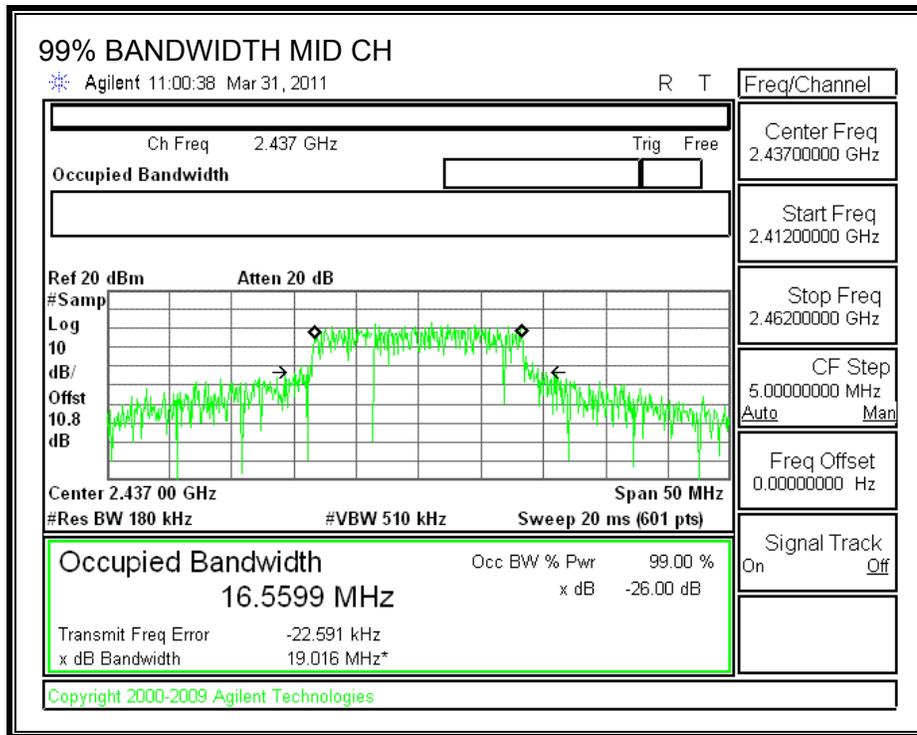
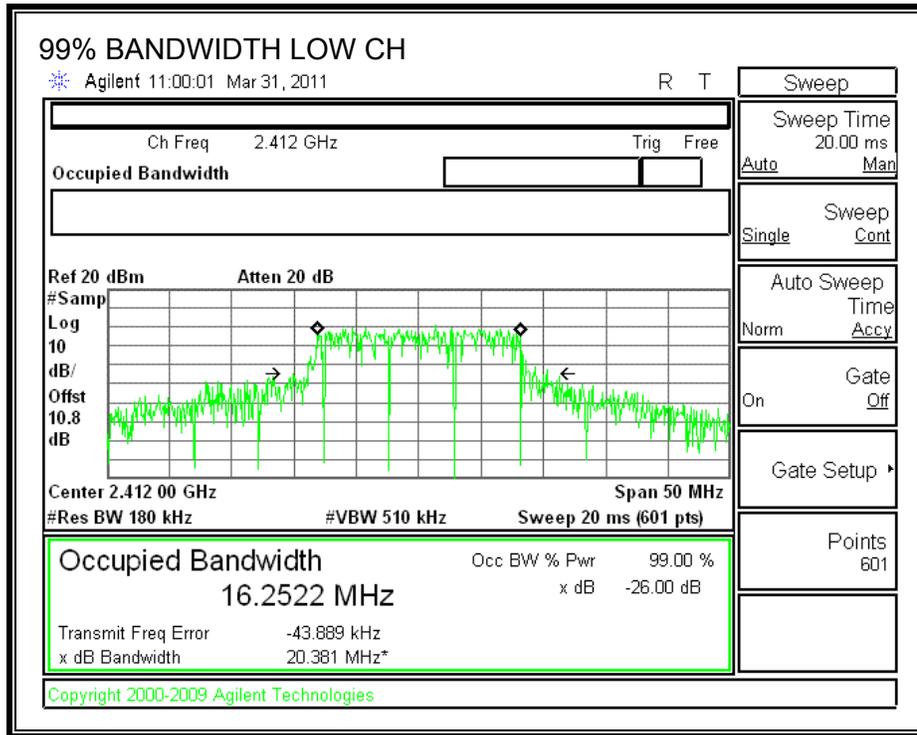
TEST PROCEDURE

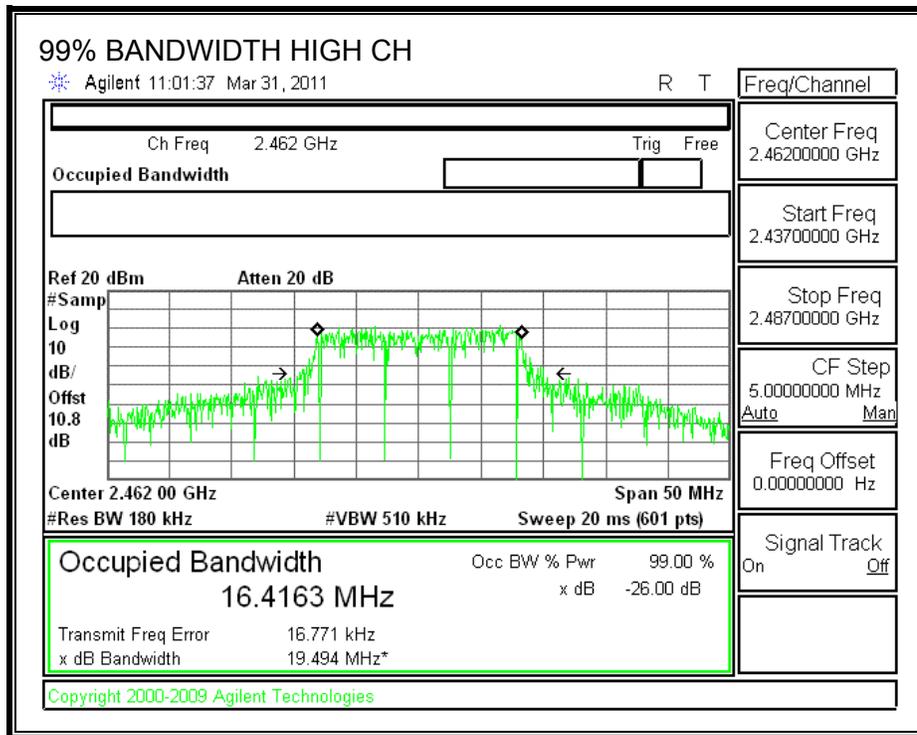
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.2522
Middle	2437	16.5599
High	2462	16.4163

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	21.60
Middle	2437	22.60
High	2462	21.10

7.2.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

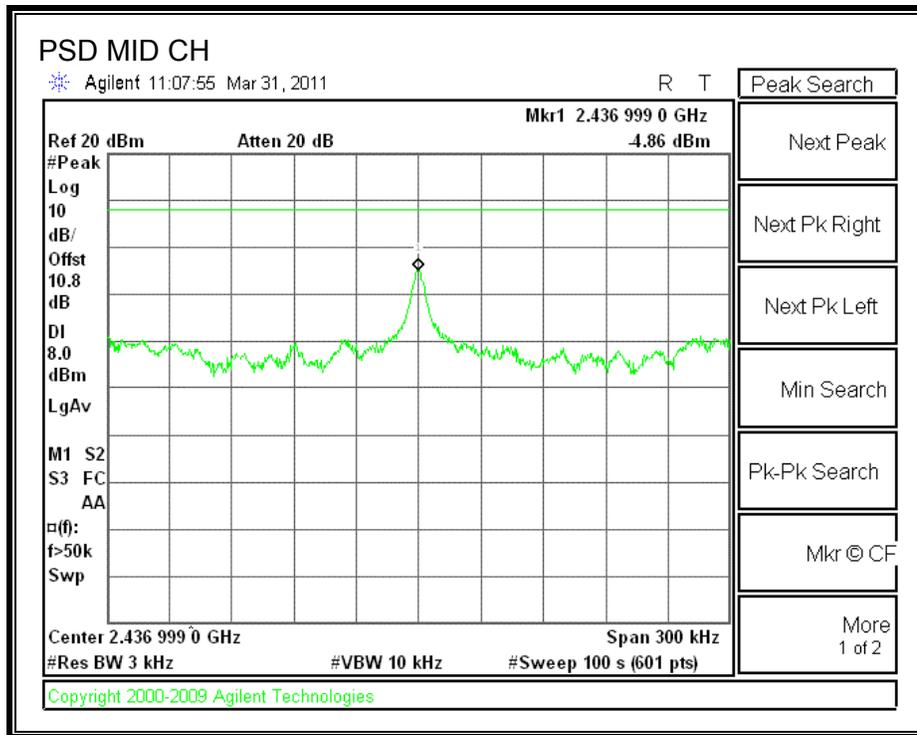
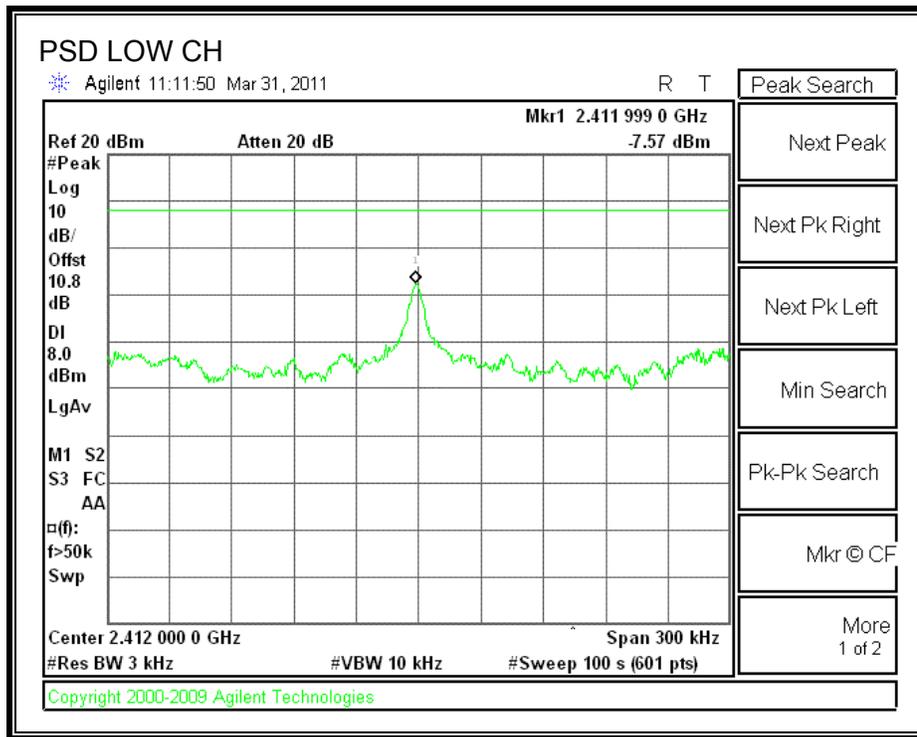
TEST PROCEDURE

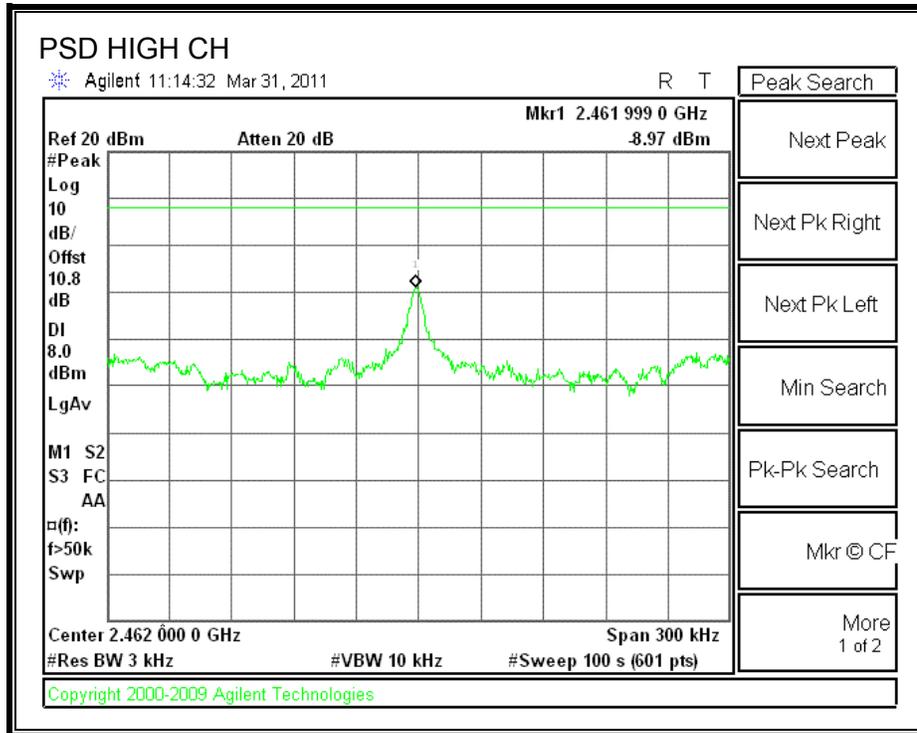
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-7.57	8	-15.57
Middle	2437	-4.86	8	-12.86
High	2462	-8.97	8	-16.97

POWER SPECTRAL DENSITY





7.2.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

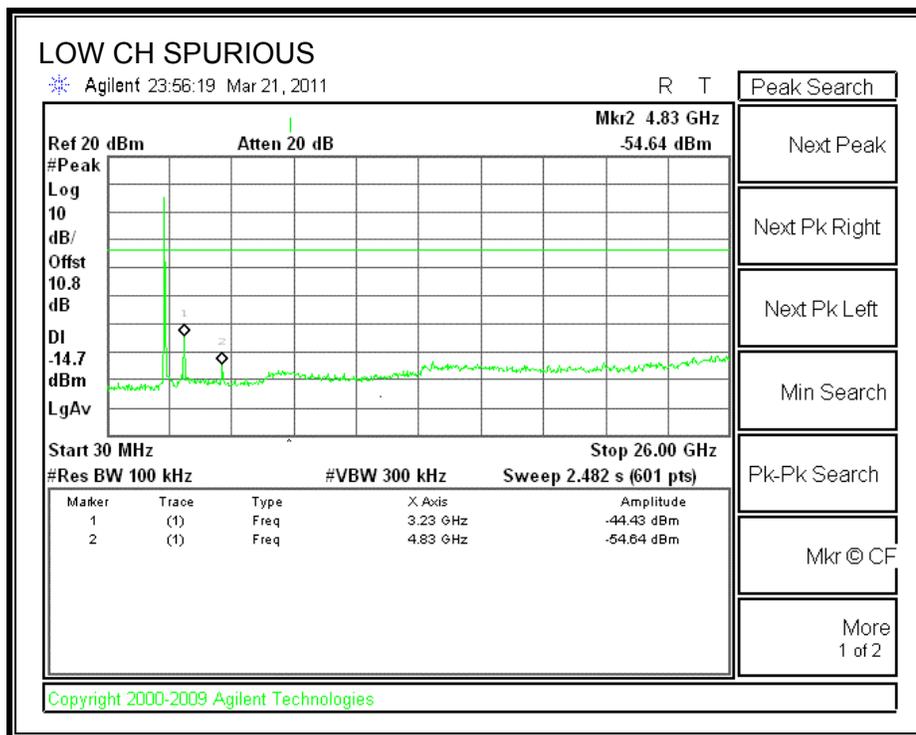
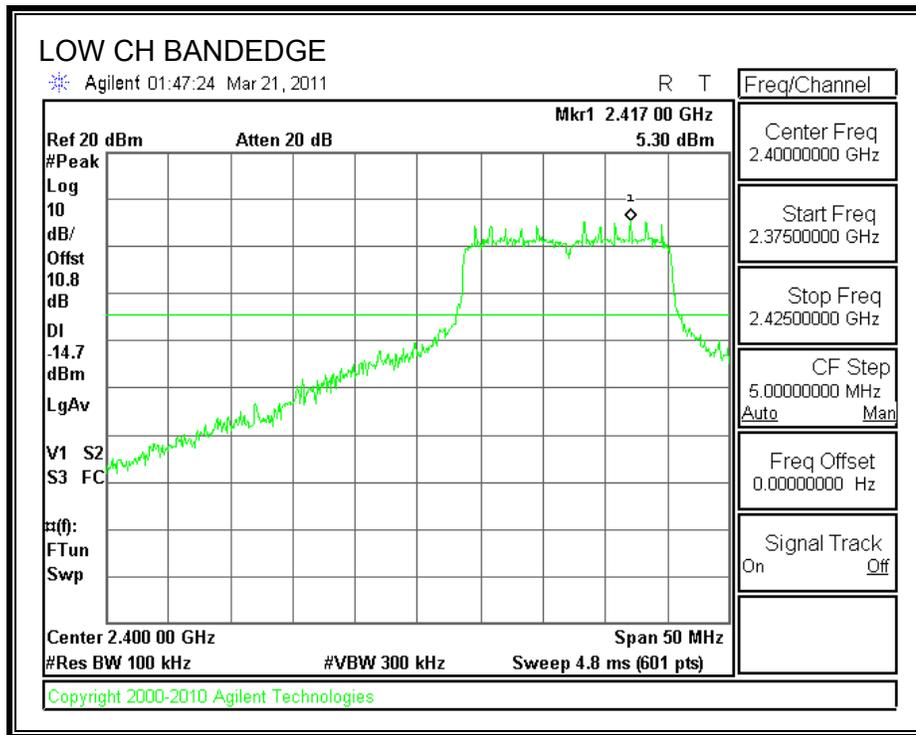
TEST PROCEDURE

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

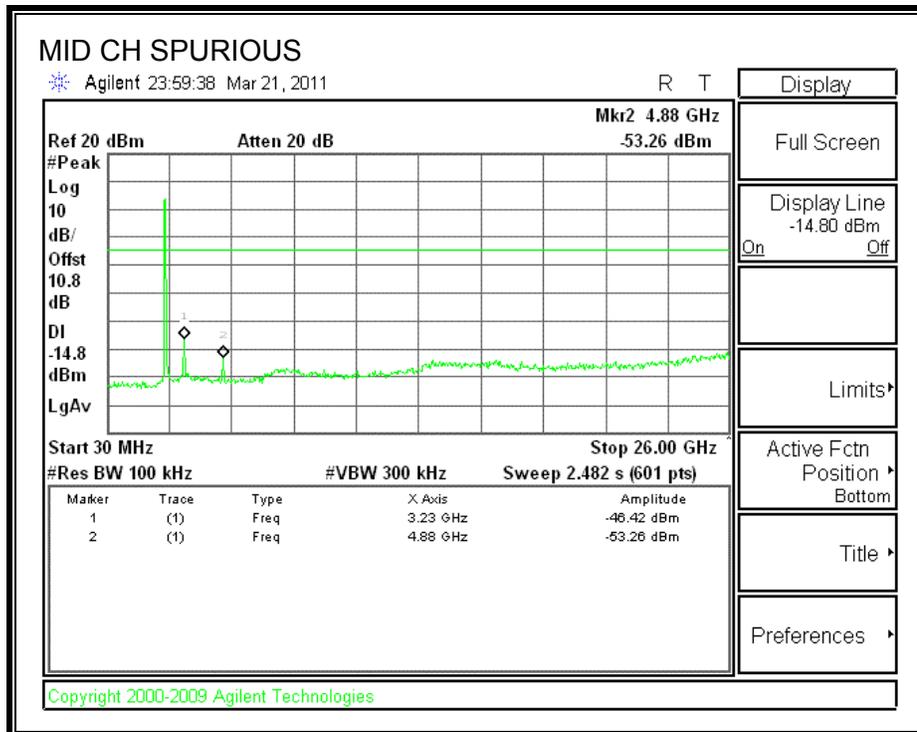
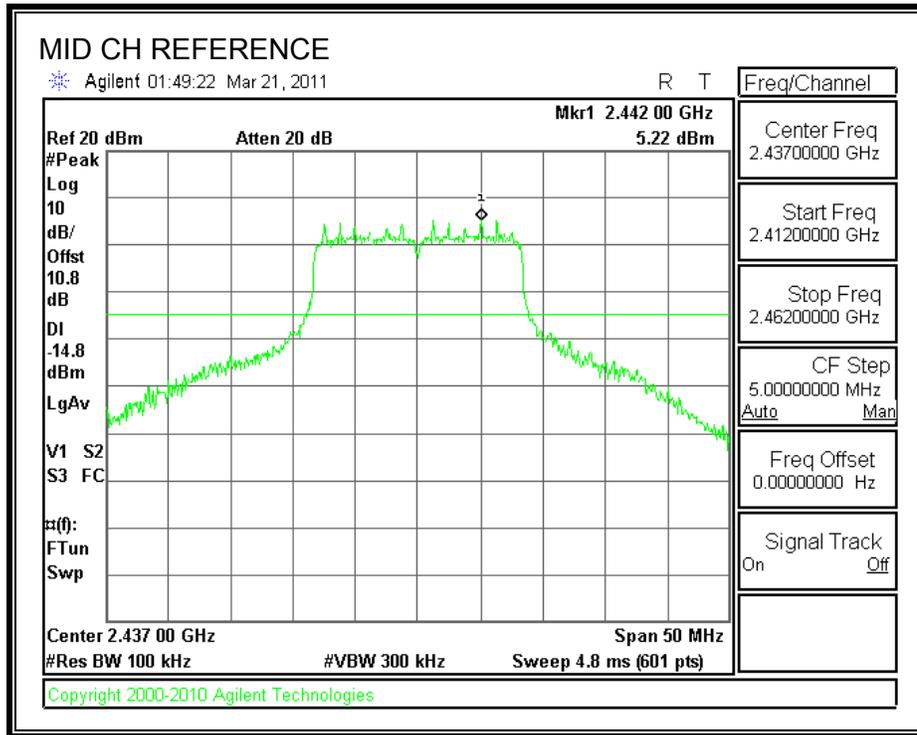
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

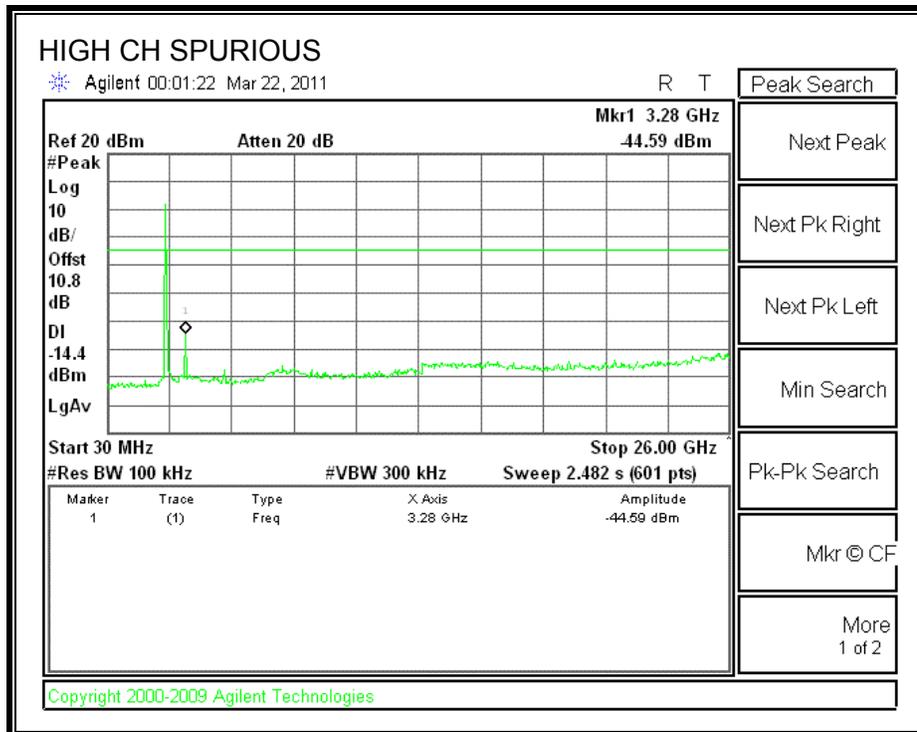
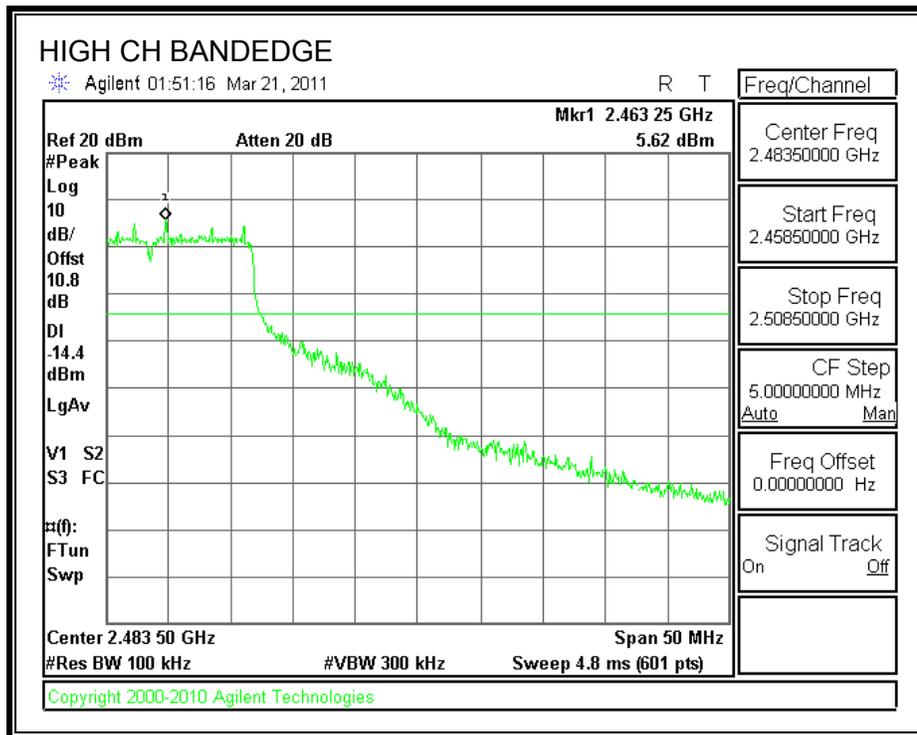
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.3. 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.

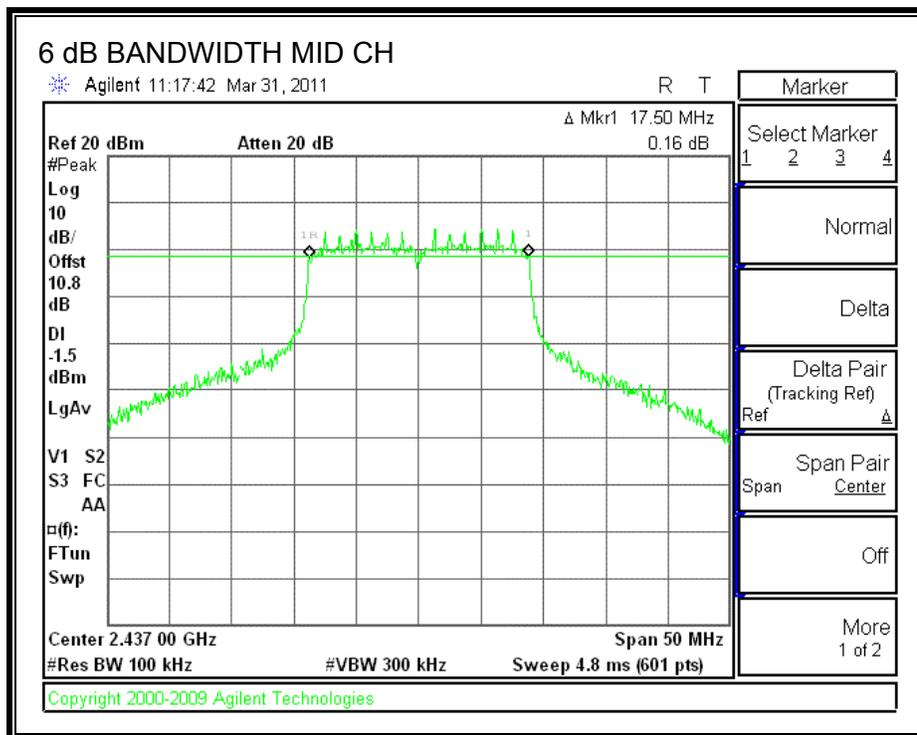
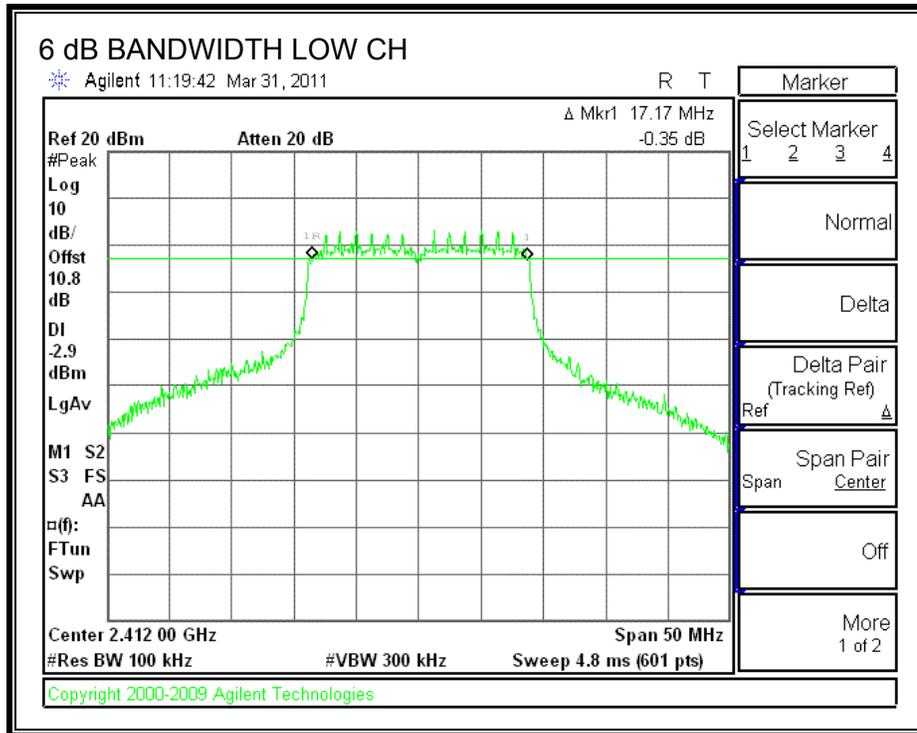
TEST PROCEDURE

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	17.17	0.5
Middle	2437	17.50	0.5
High	2462	17.58	0.5

6 dB BANDWIDTH



7.3.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

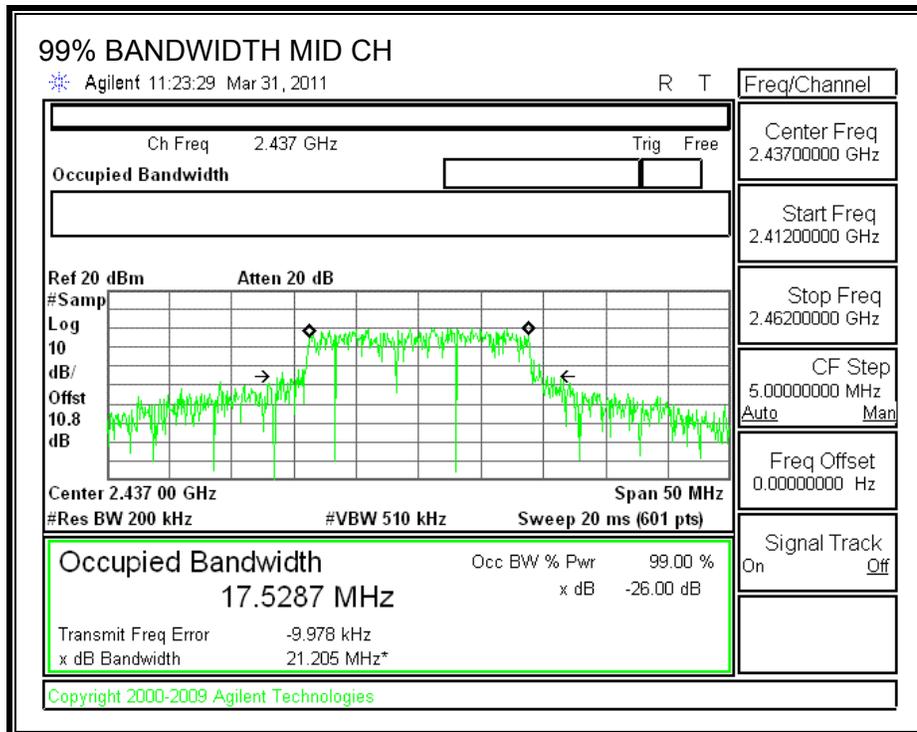
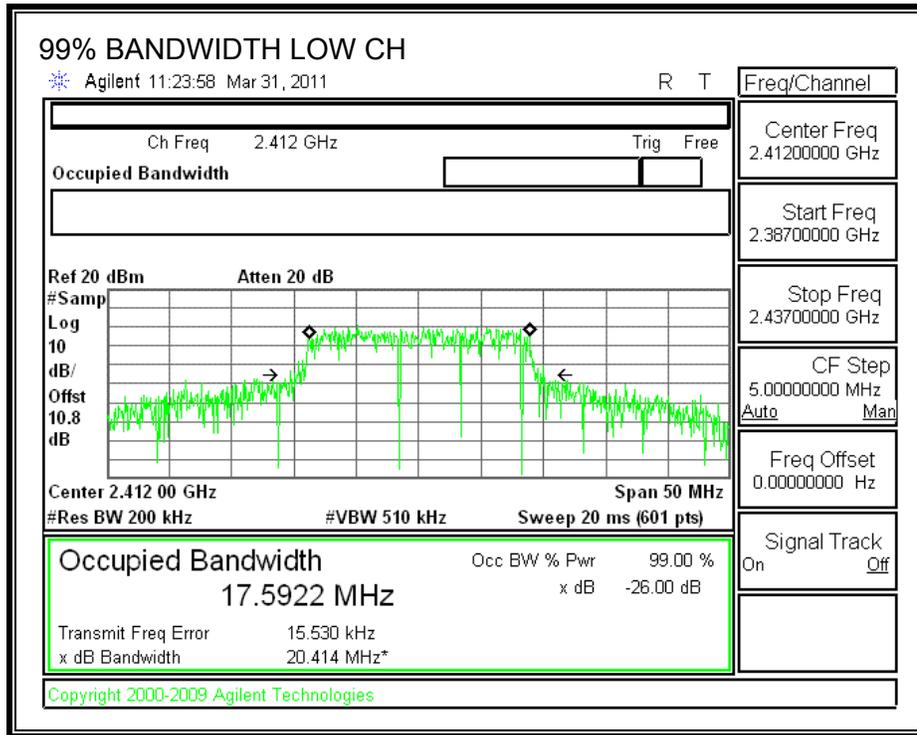
TEST PROCEDURE

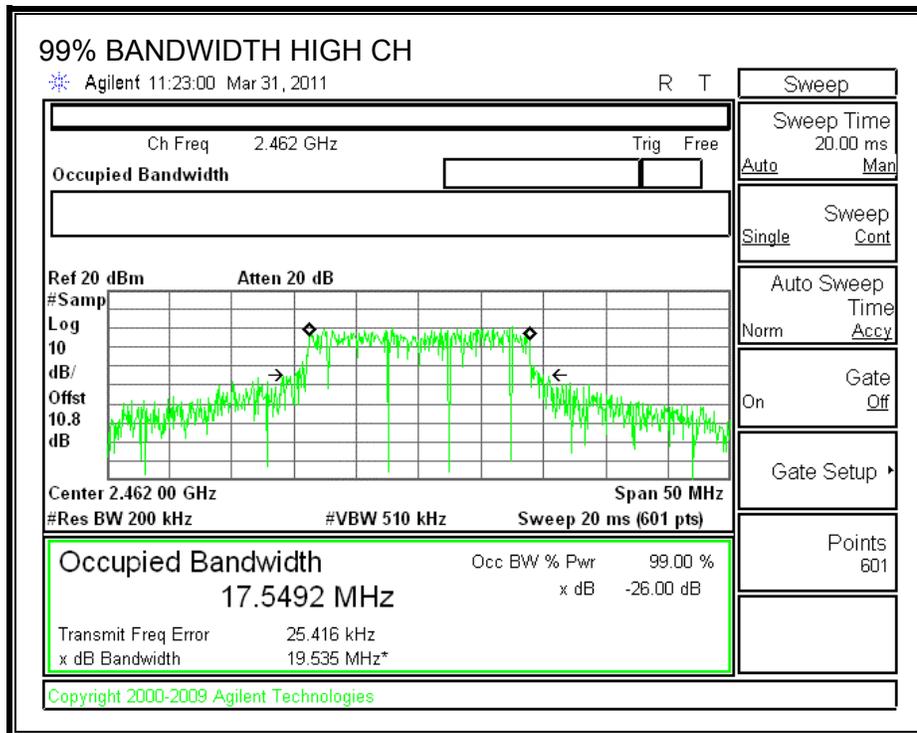
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.592
Middle	2437	17.529
High	2462	17.549

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 10.8 dB (including 10 dB pad and 0.8 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	20.40
Middle	2437	22.80
High	2462	19.80

7.3.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

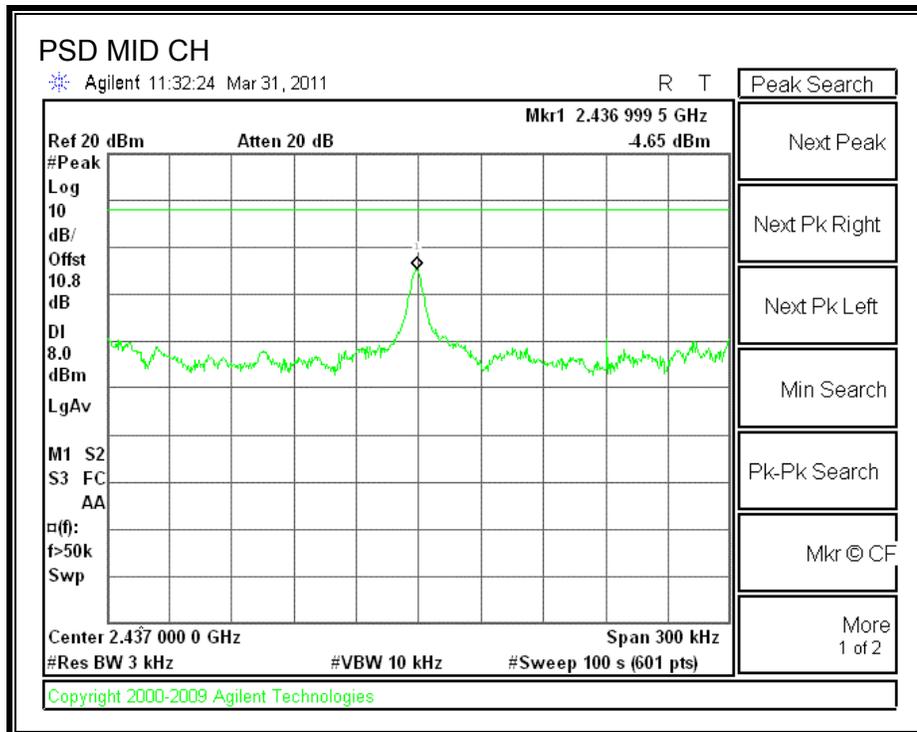
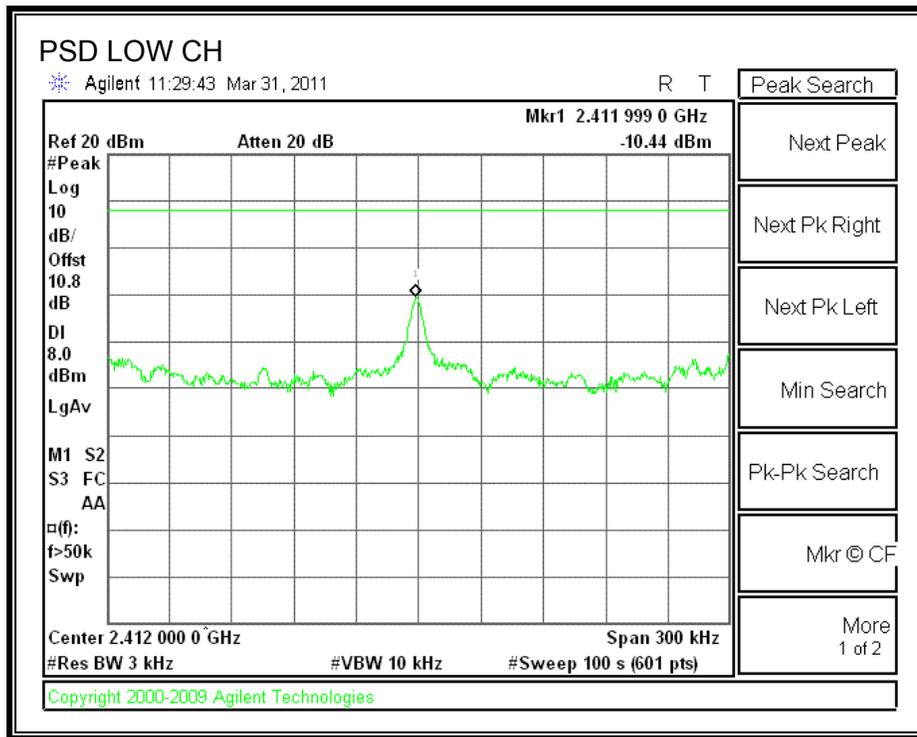
TEST PROCEDURE

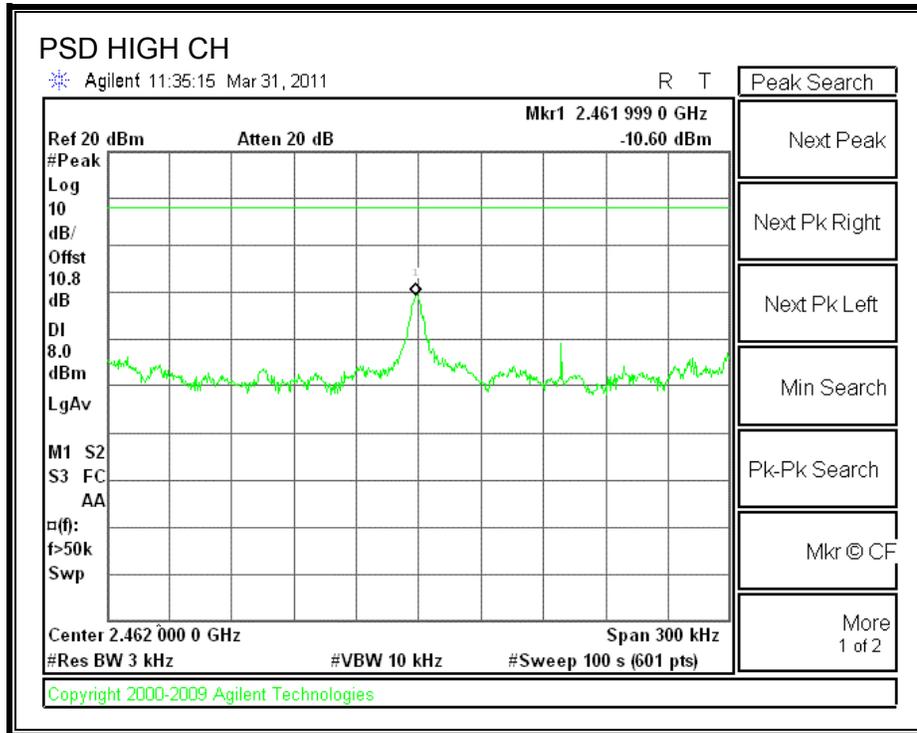
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-10.44	8	-18.44
Middle	2437	-4.65	8	-12.65
High	2462	-10.60	8	-18.60

POWER SPECTRAL DENSITY





7.3.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

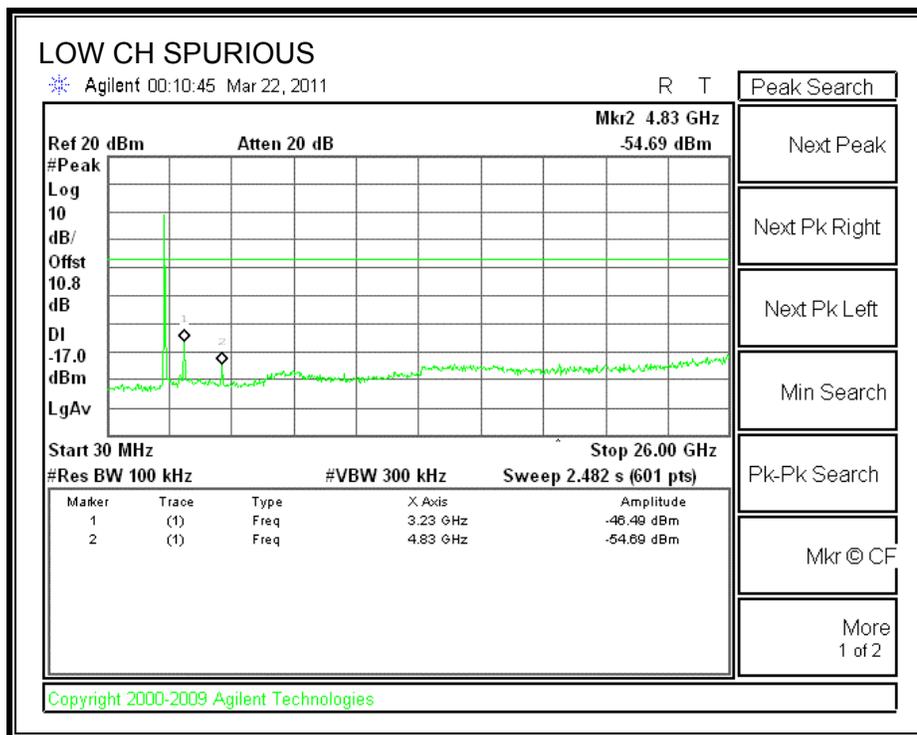
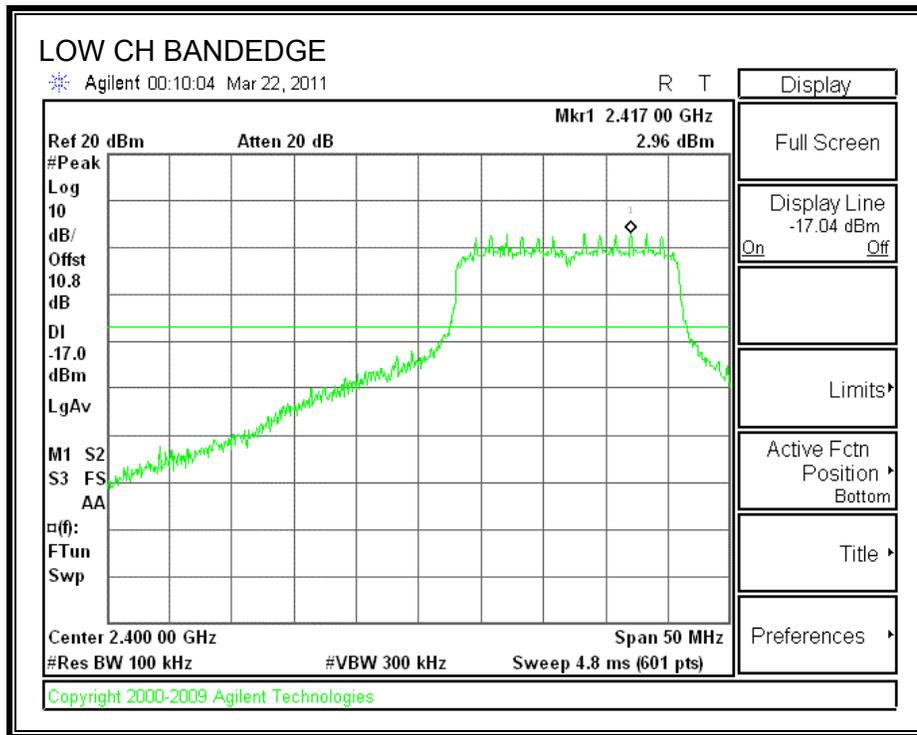
TEST PROCEDURE

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

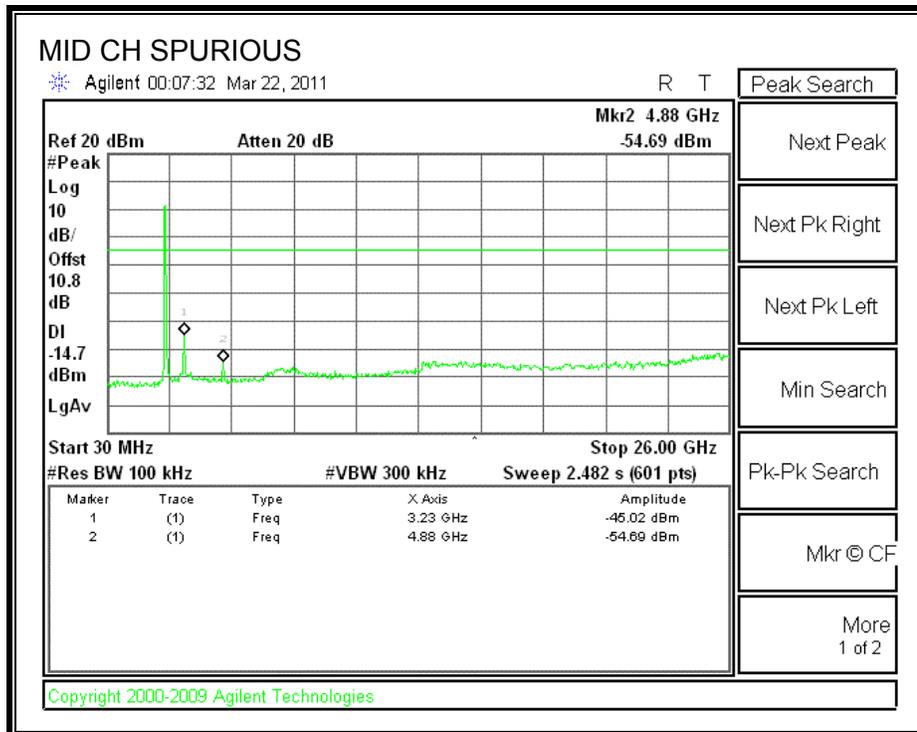
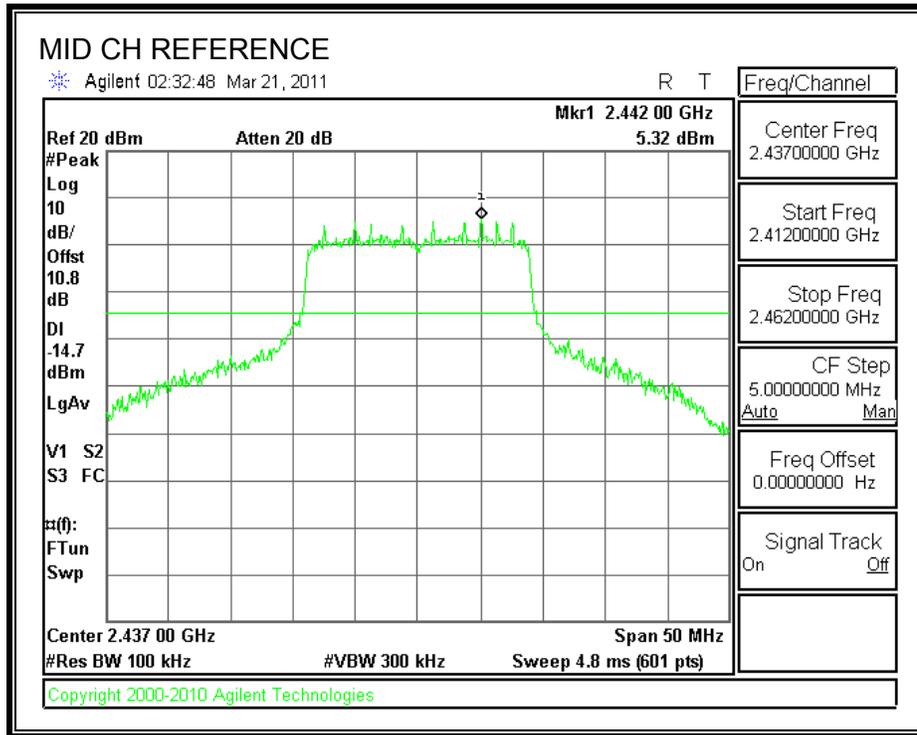
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

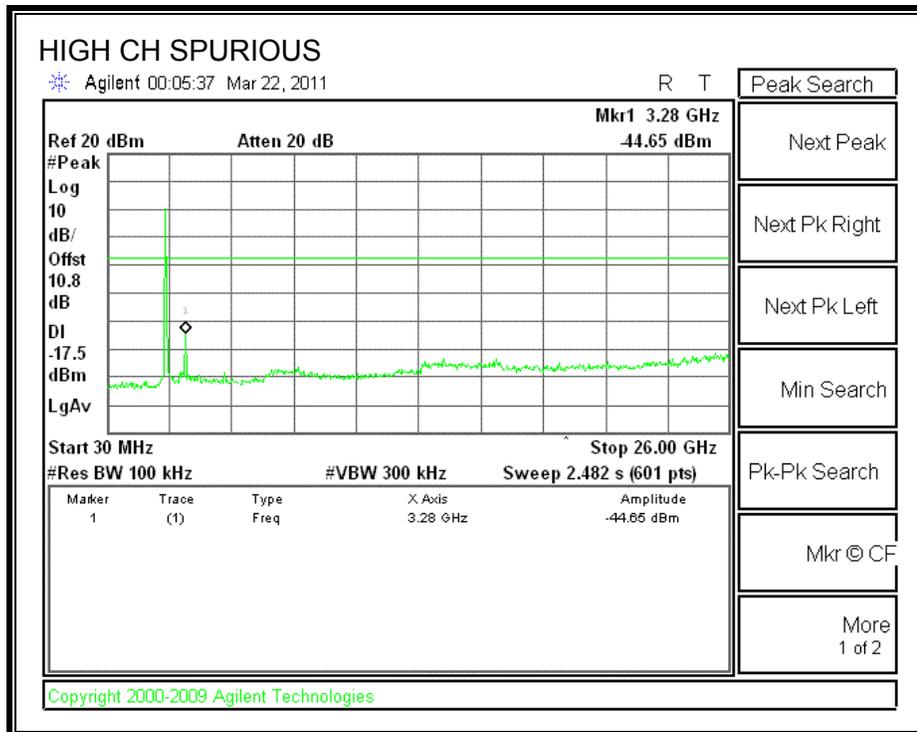
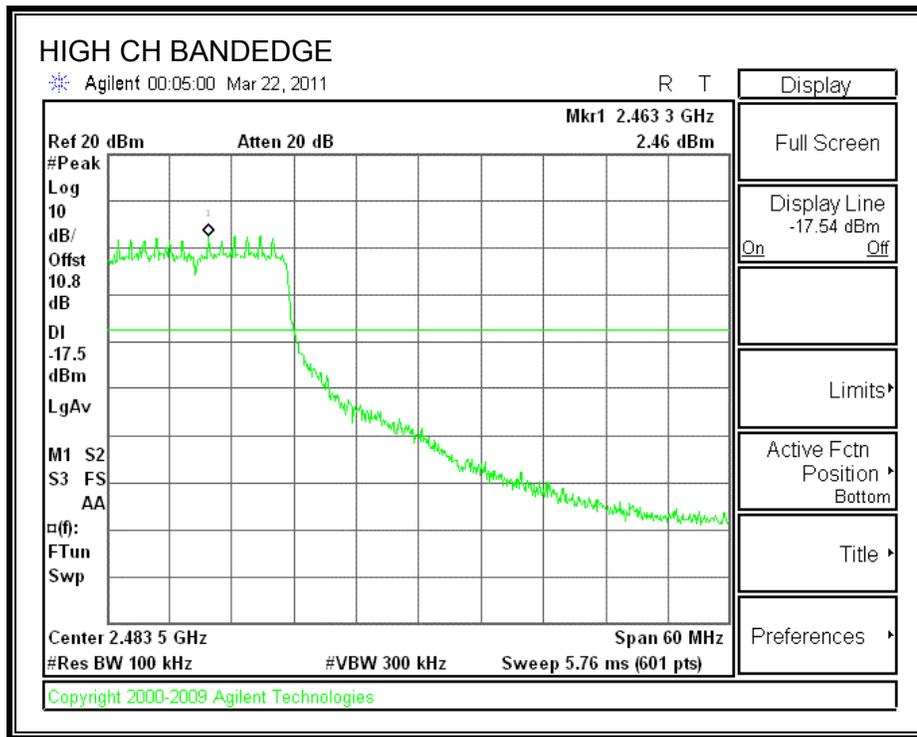
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.4. 802.11a MODE IN THE 5.8 GHz BAND

7.4.1. 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.

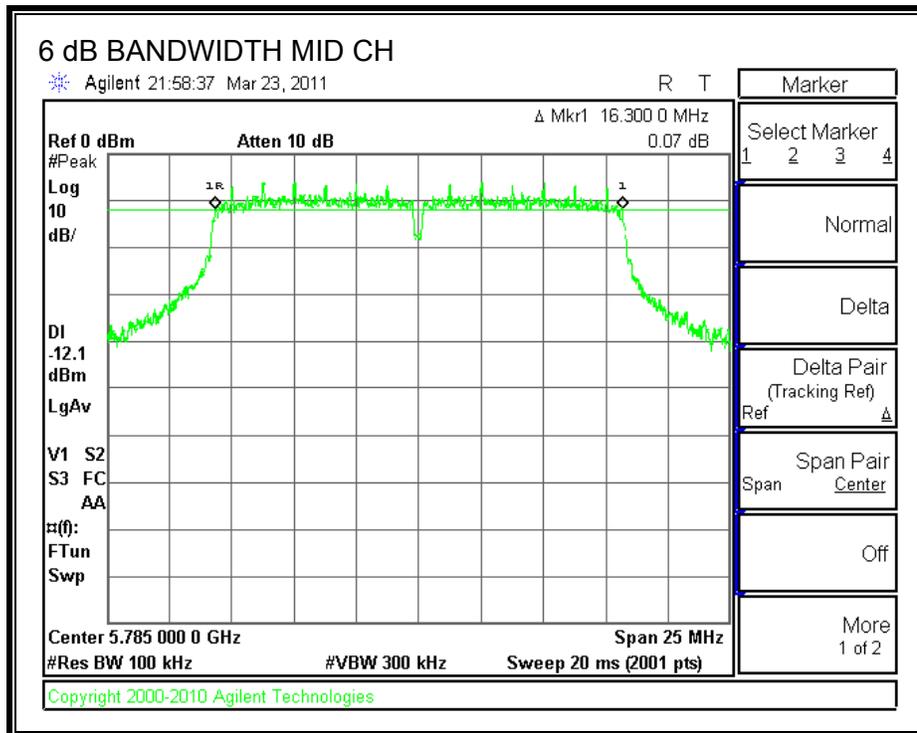
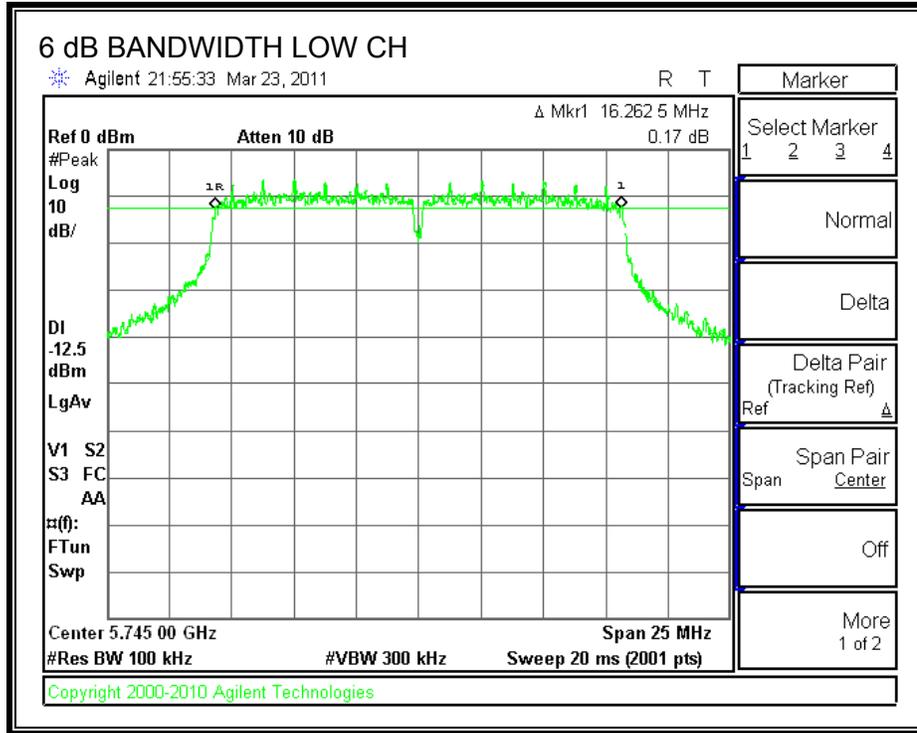
TEST PROCEDURE

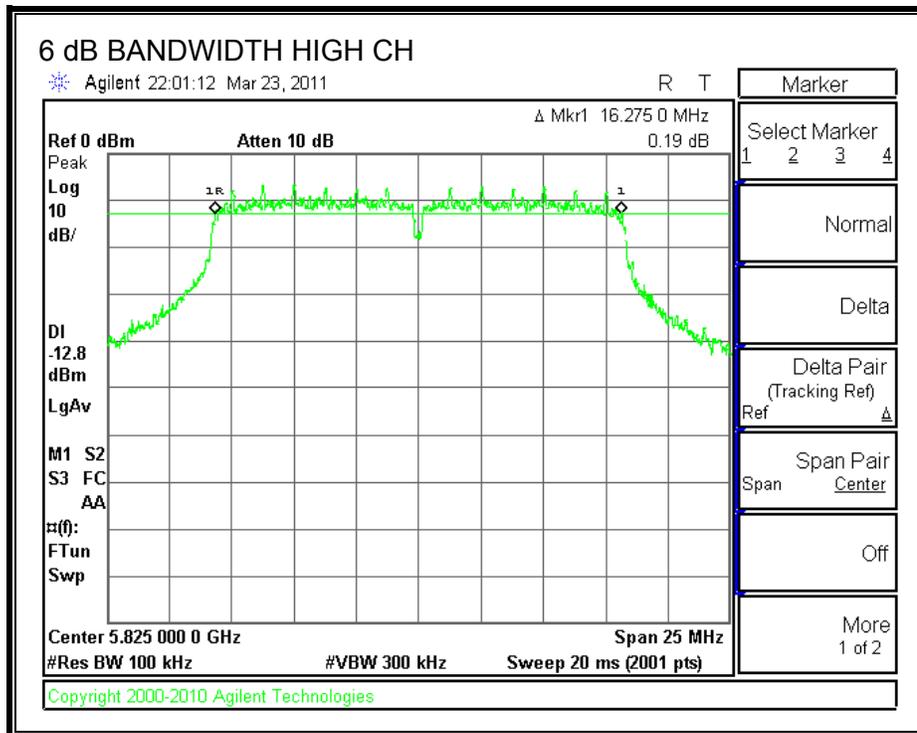
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	16.262	0.5
Middle	5785	16.300	0.5
High	5825	16.275	0.5

6 dB BANDWIDTH





7.4.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

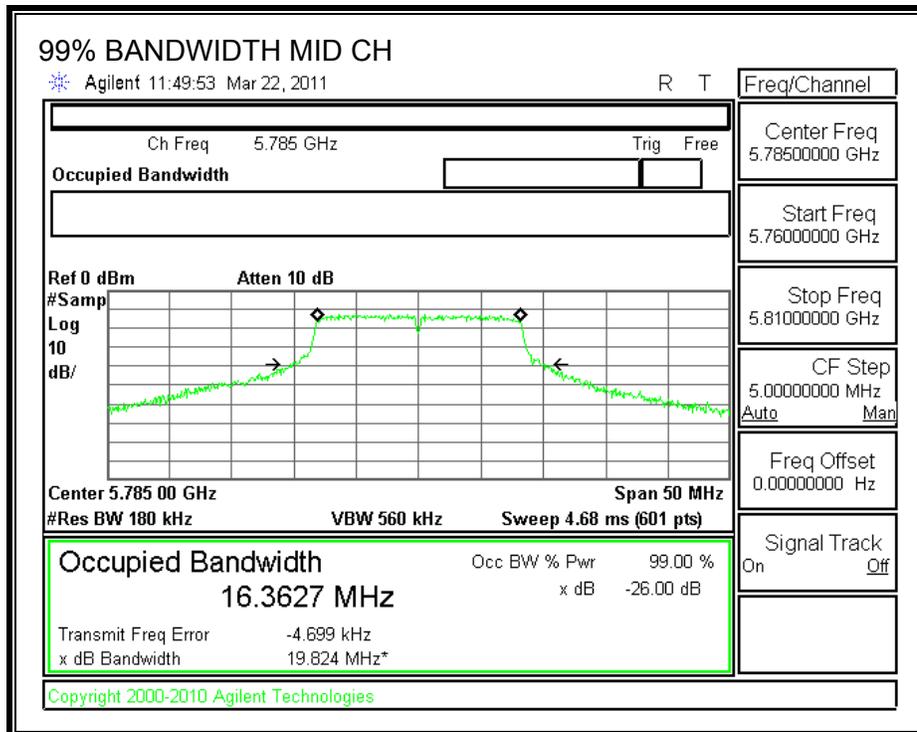
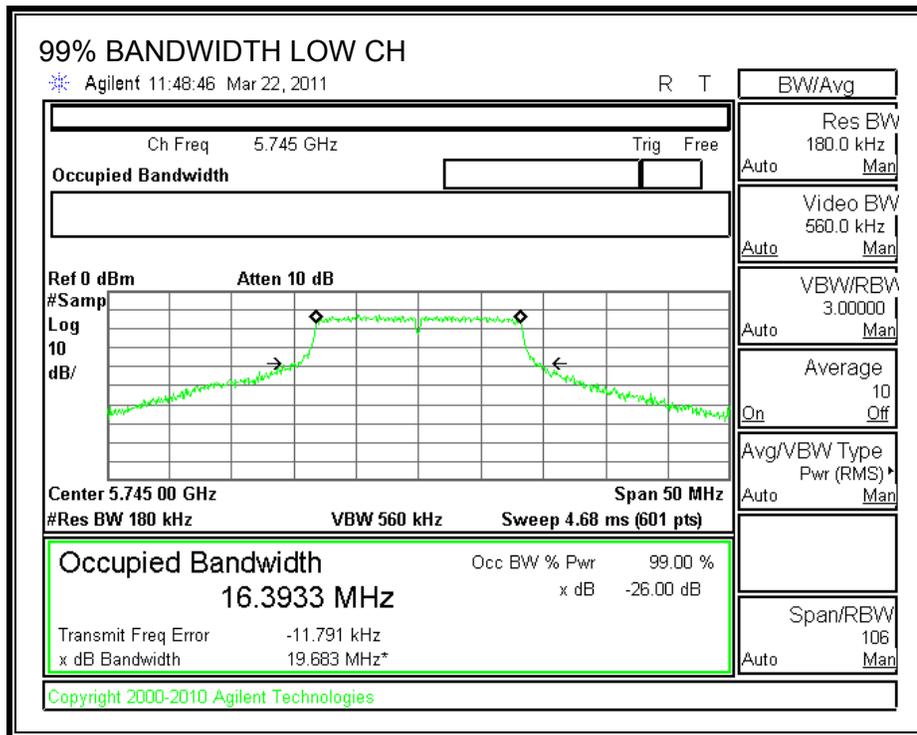
TEST PROCEDURE

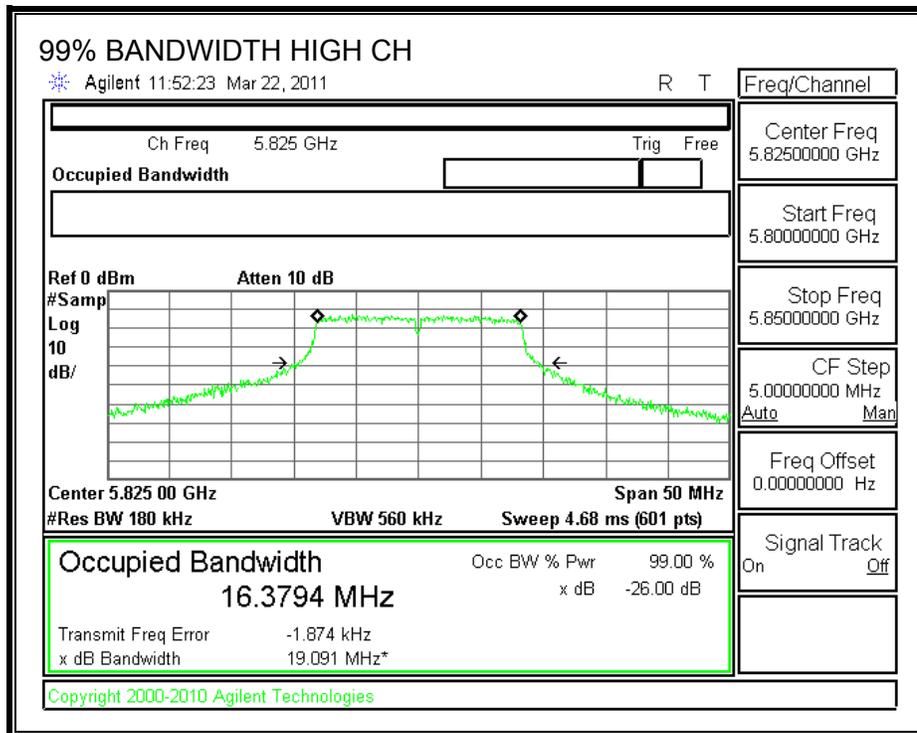
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	16.3933
Middle	5785	16.3627
High	5825	16.3794

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

Peak power is measured using a wide bandwidth Peak Power Meter. The cable assembly insertion loss of 11.3 dB (including 10 dB pad and 1.3 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	5745	24.4	30	-5.60
Middle	5785	24.3	30	-5.70
High	5825	23.9	30	-6.10

7.4.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

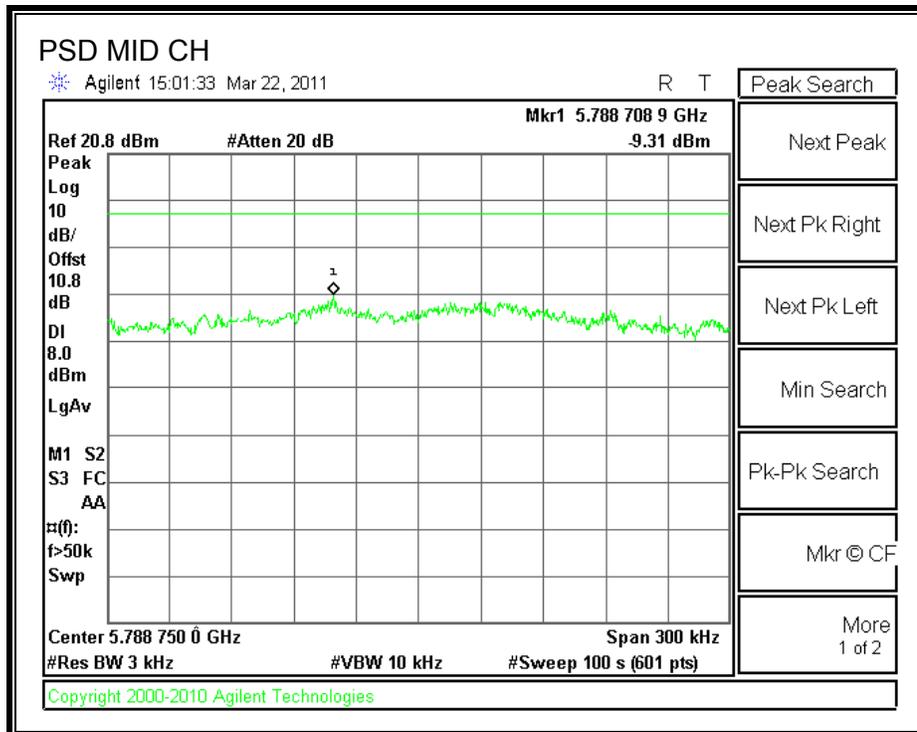
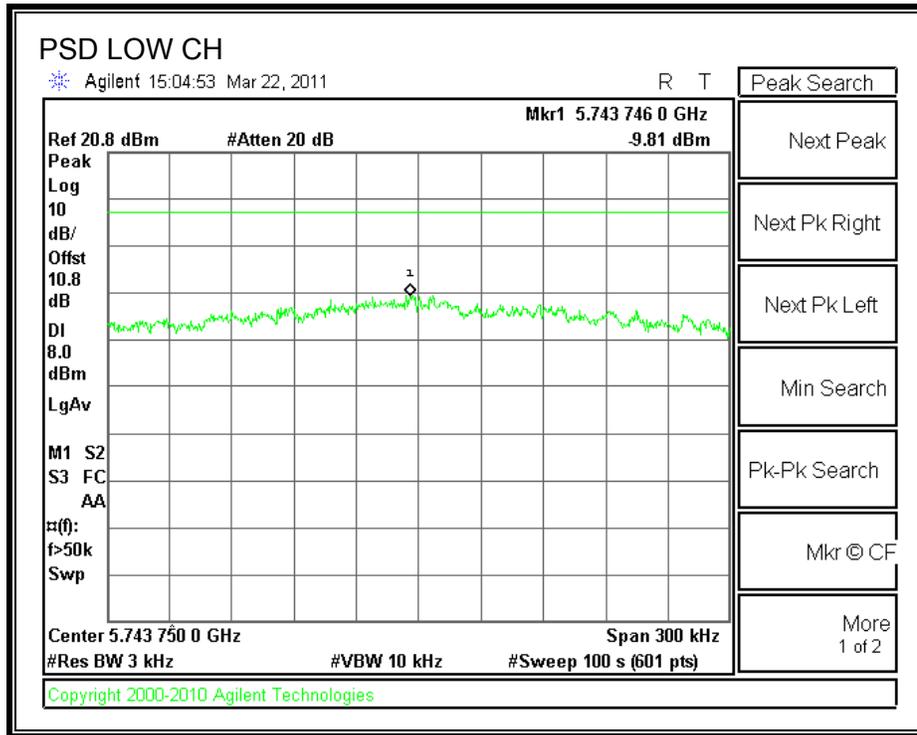
TEST PROCEDURE

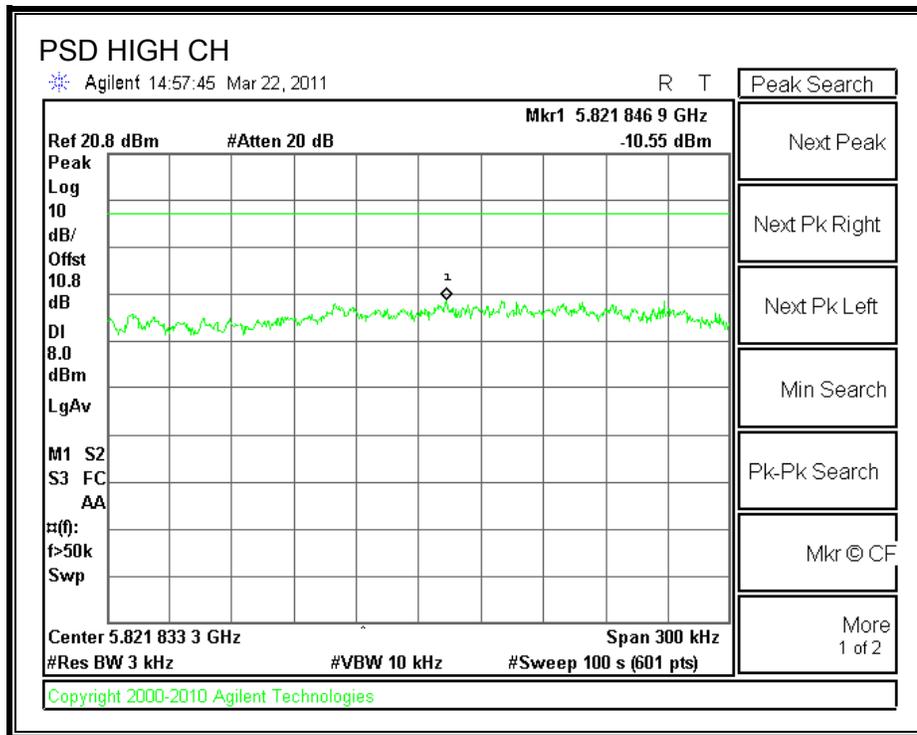
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-9.81	8	-17.81
Middle	5785	-9.31	8	-17.31
High	5825	-10.55	8	-18.55

POWER SPECTRAL DENSITY





7.4.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

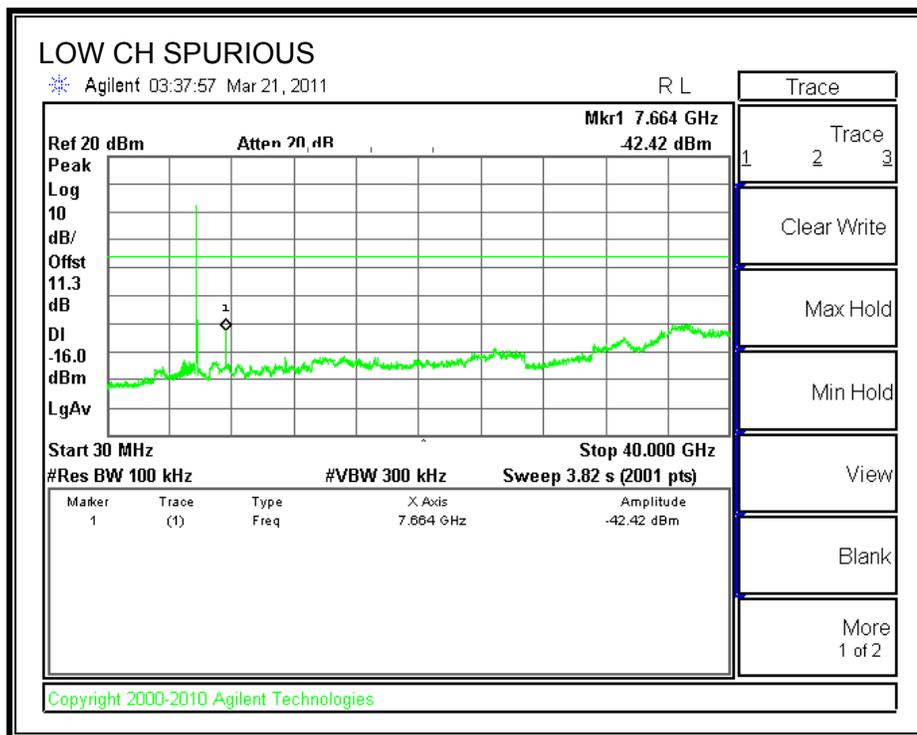
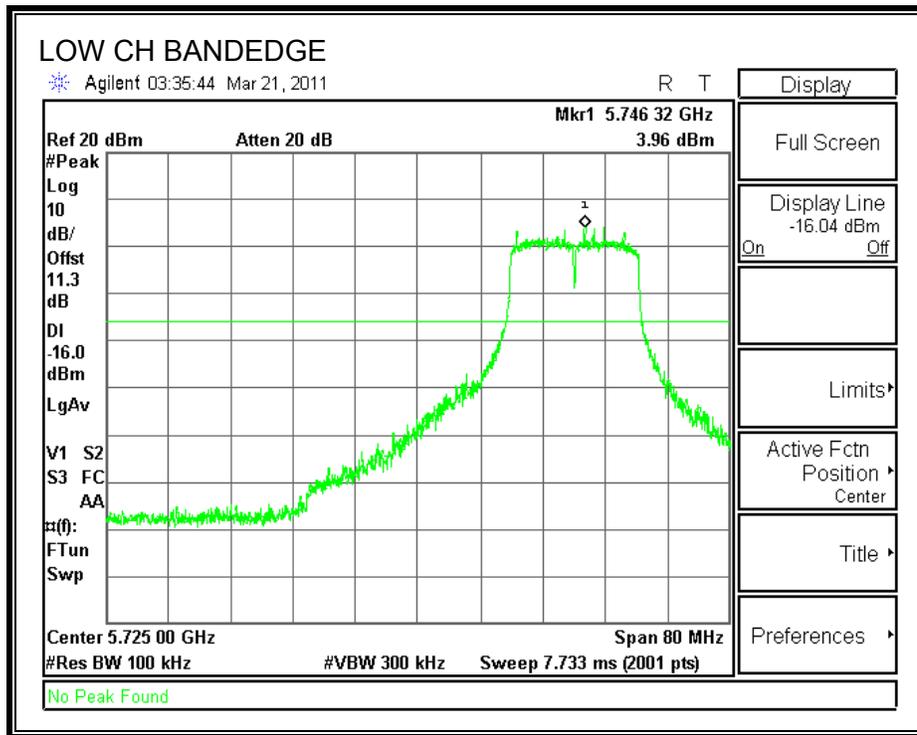
TEST PROCEDURE

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

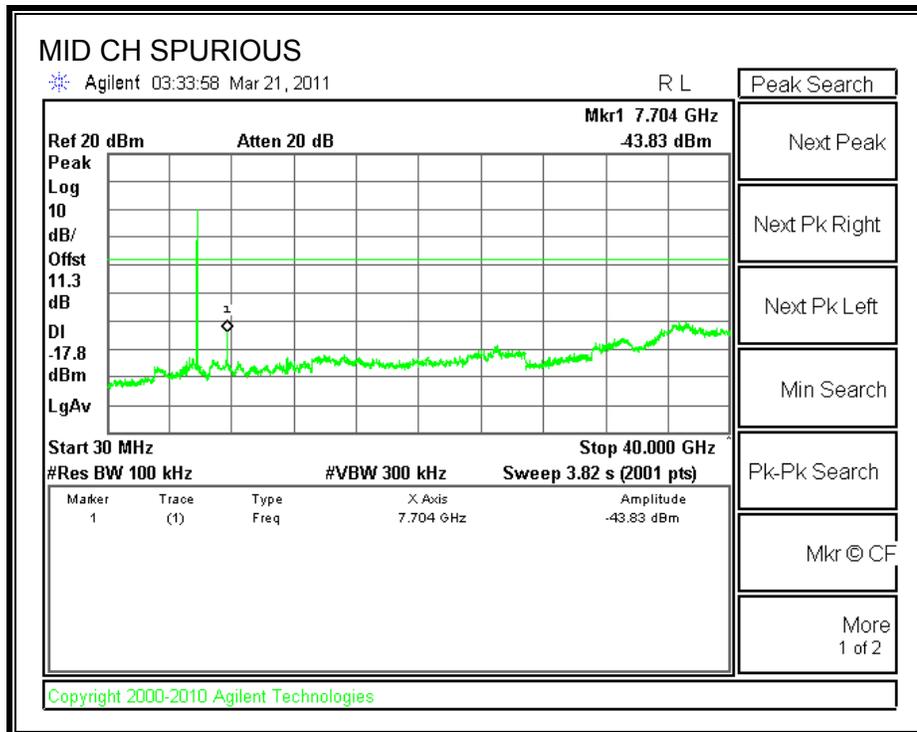
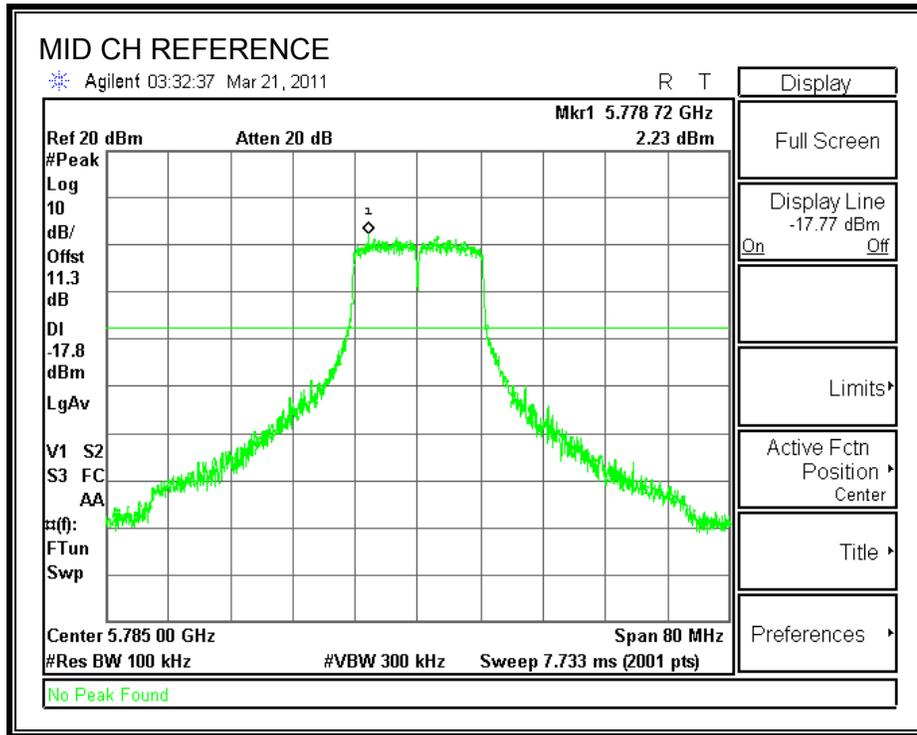
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

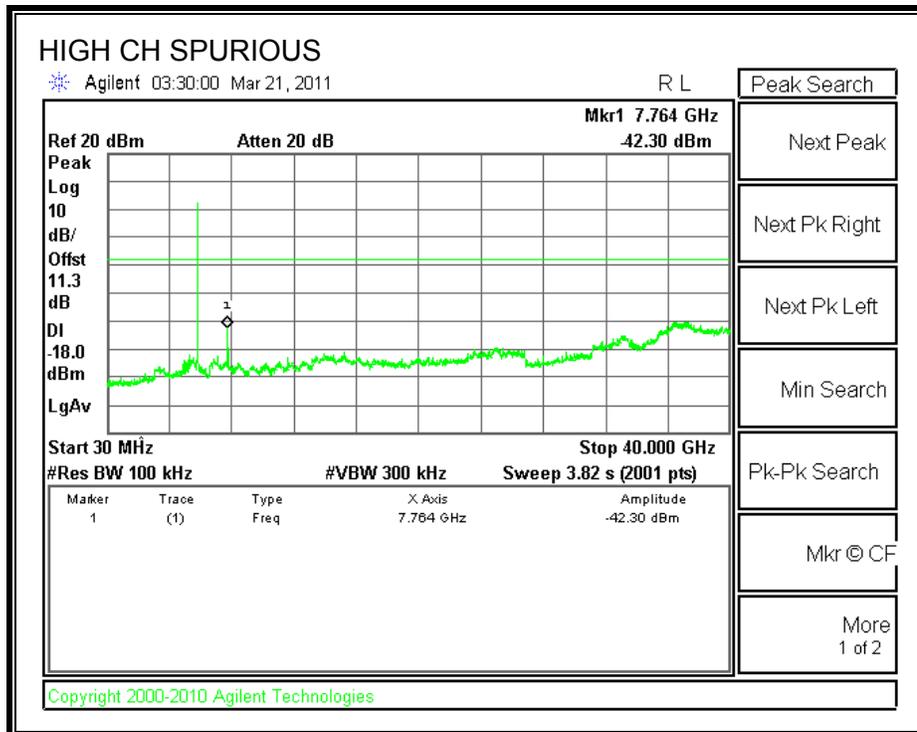
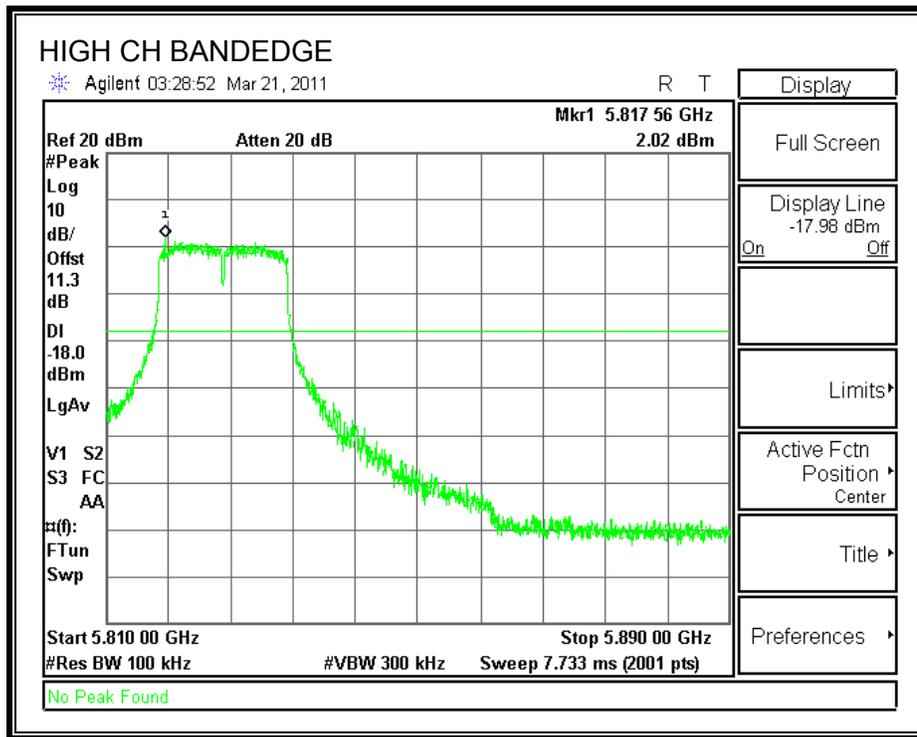
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.5. 802.11n HT20 SISO MODE IN THE 5.8 GHz BAND

7.5.1. 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.

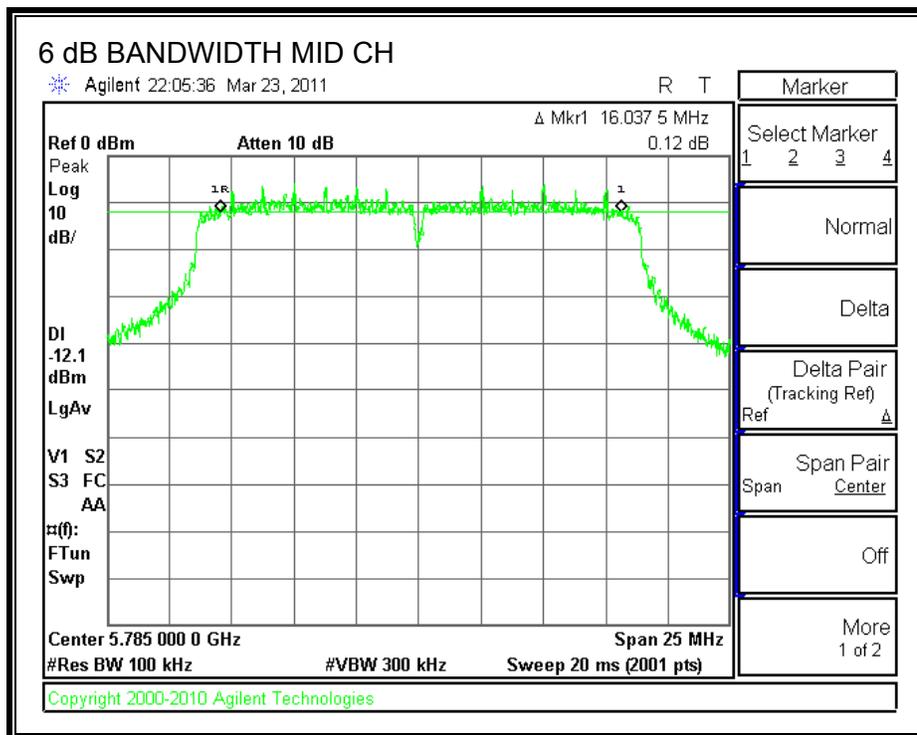
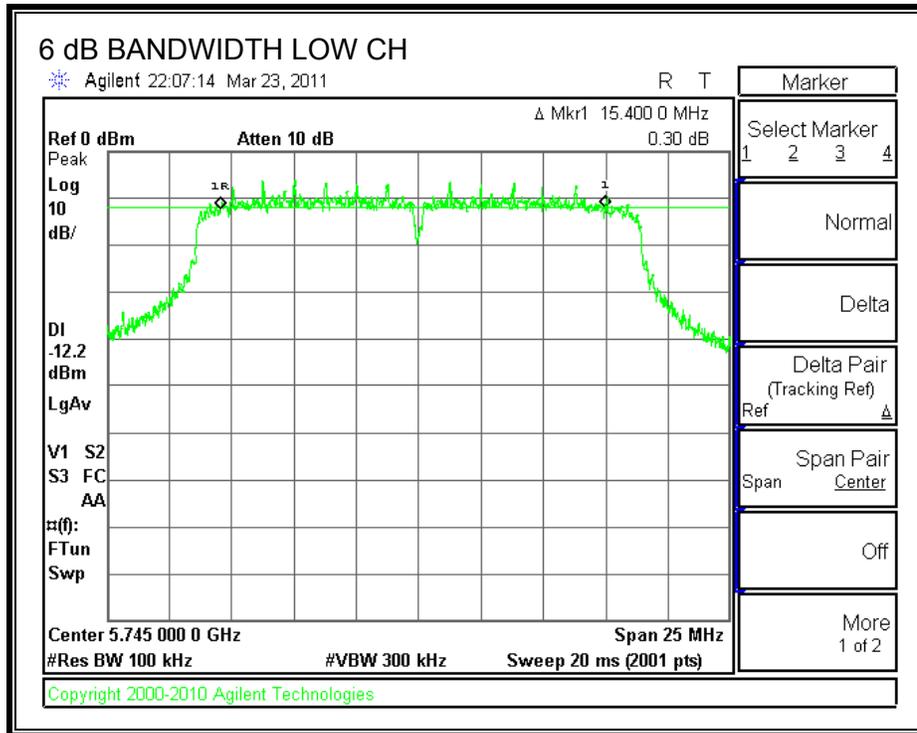
TEST PROCEDURE

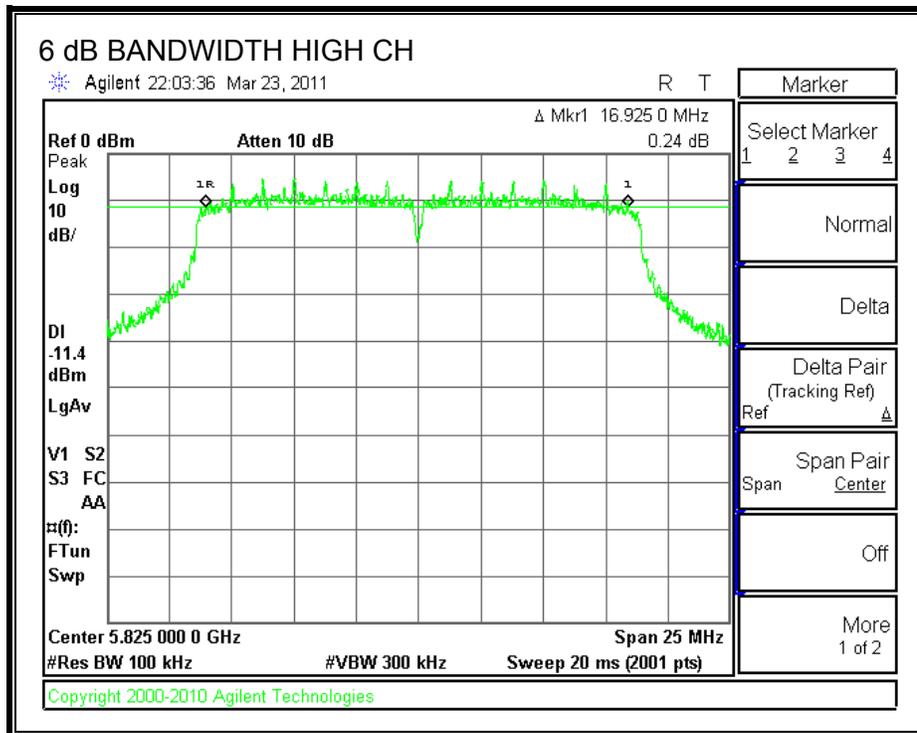
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	15.400	0.5
Middle	5785	16.037	0.5
High	5825	16.925	0.5

6 dB BANDWIDTH





7.5.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

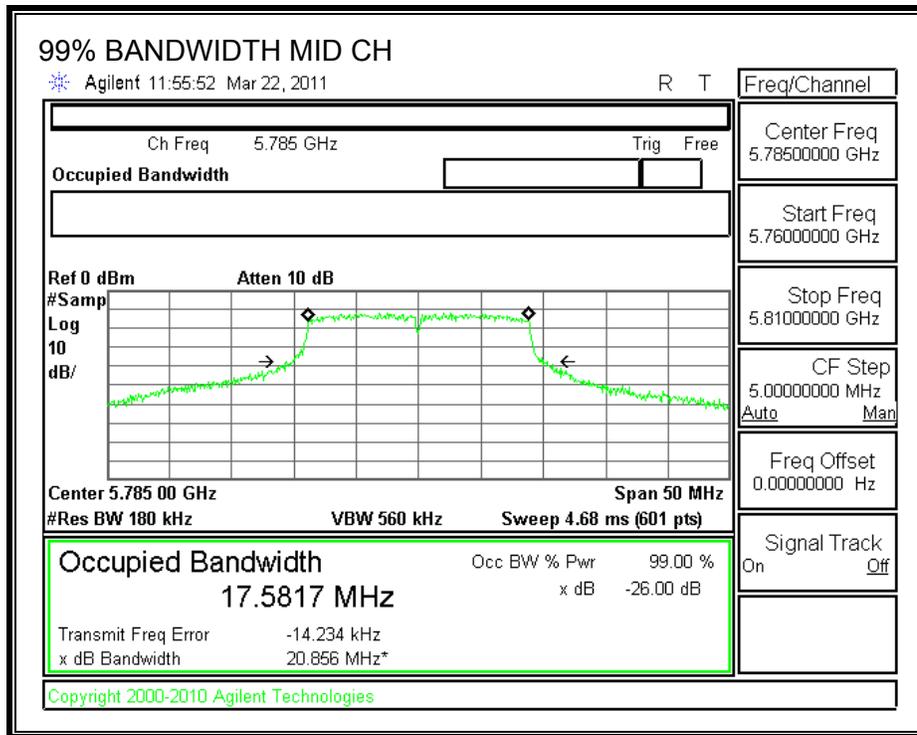
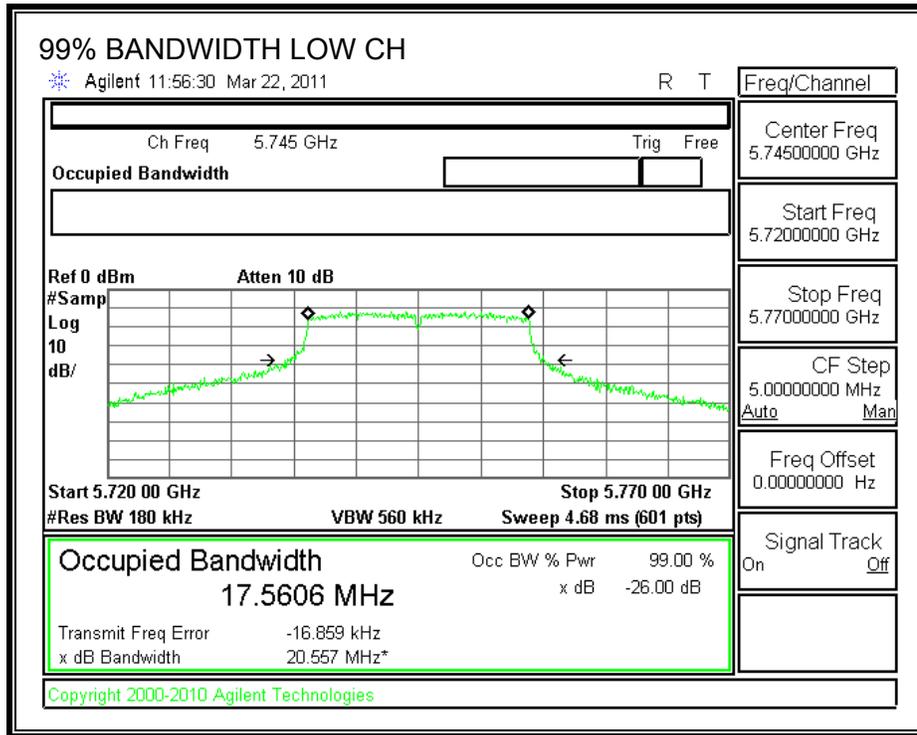
TEST PROCEDURE

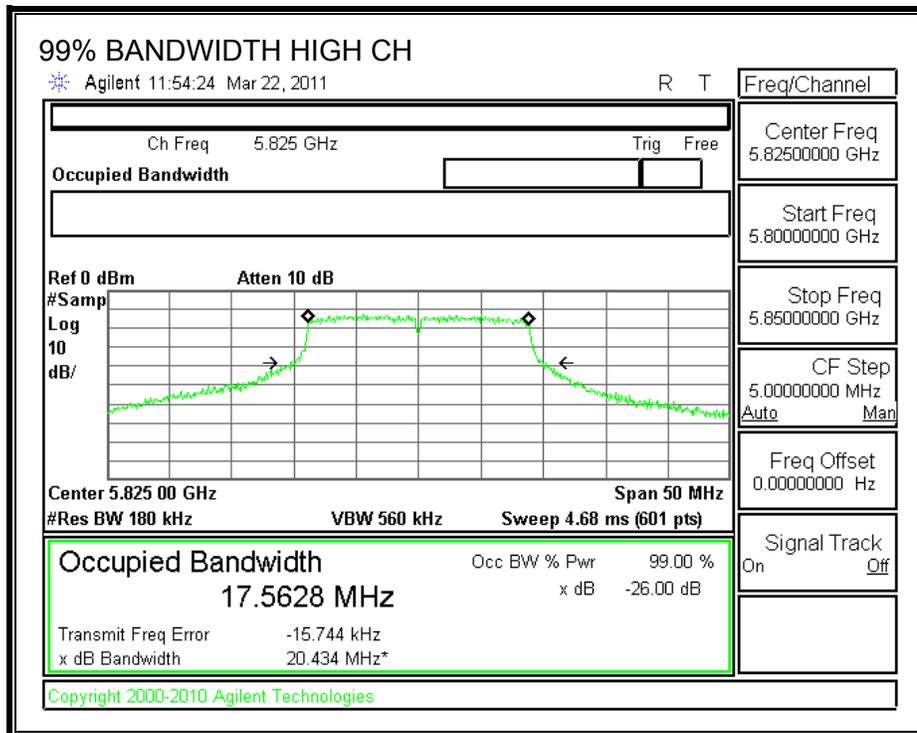
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.5606
Middle	5785	17.5817
High	5825	17.5628

99% BANDWIDTH





7.5.3. 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

Peak power is measured using a wide bandwidth Peak Power Meter.

The cable assembly insertion loss of 11.3 dB (including 10 dB pad and 1.3dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	5745	24.1	30	-5.90
Middle	5785	24.1	30	-5.90
High	5825	23.8	30	-6.20

7.5.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

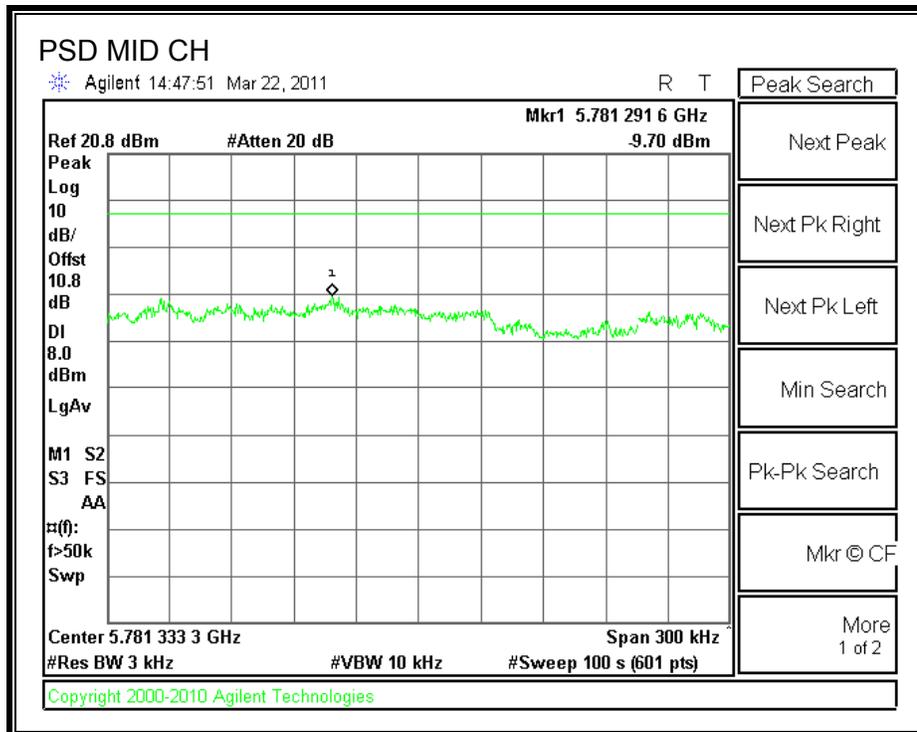
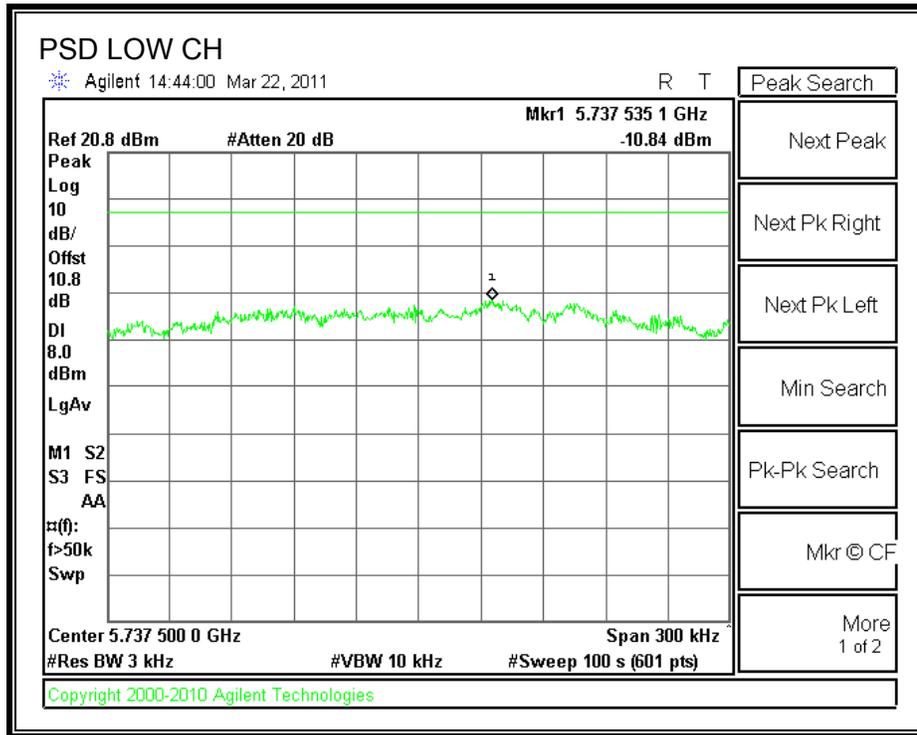
TEST PROCEDURE

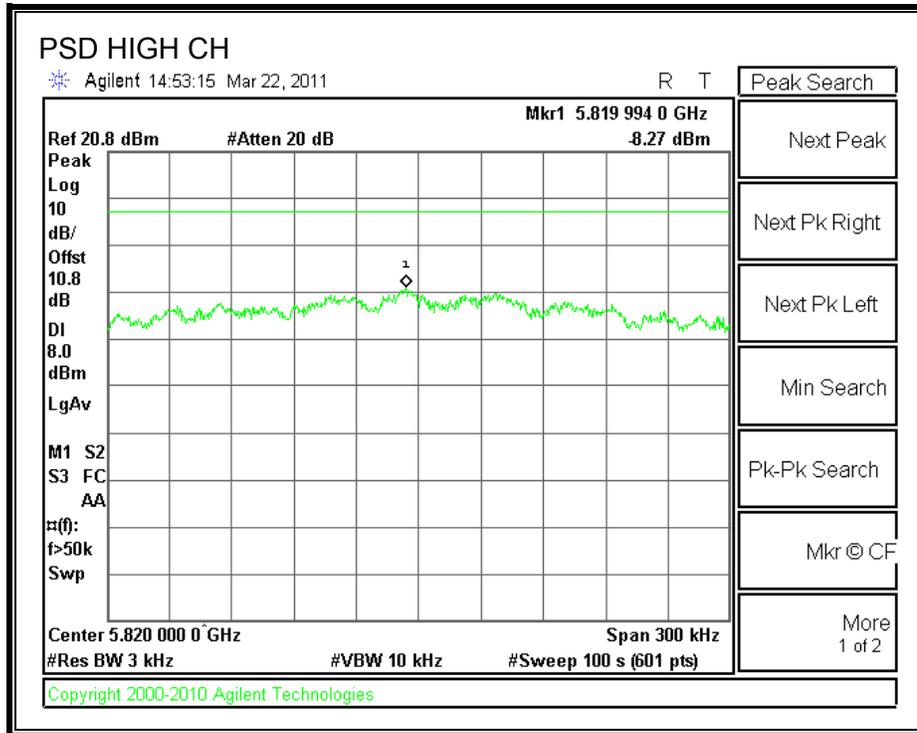
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-10.84	8	-18.84
Middle	5785	-9.70	8	-17.70
High	5825	-8.27	8	-16.27

POWER SPECTRAL DENSITY





7.5.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

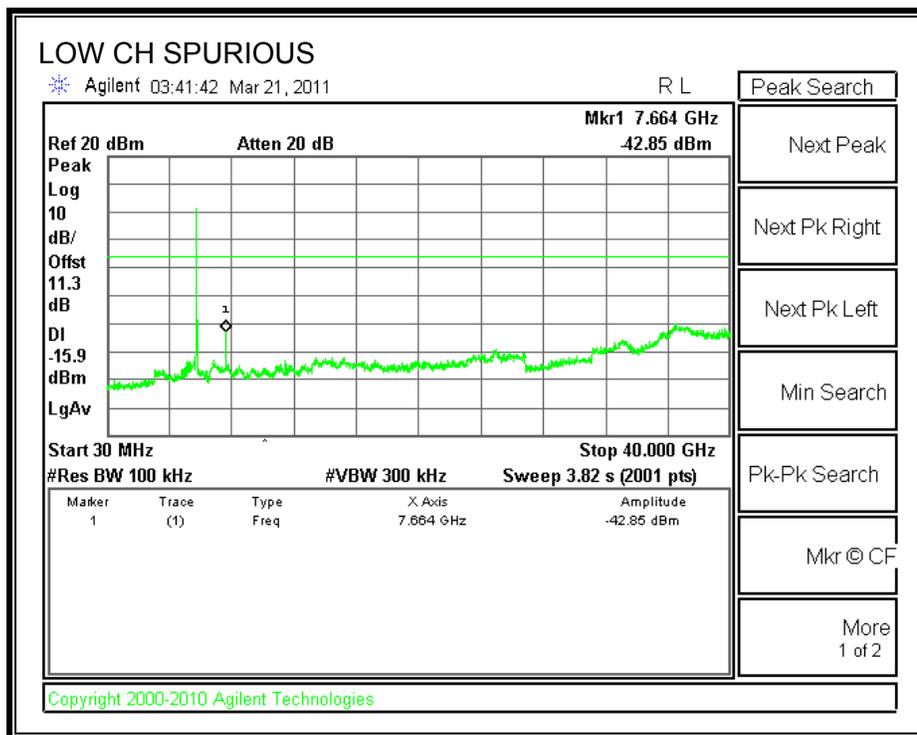
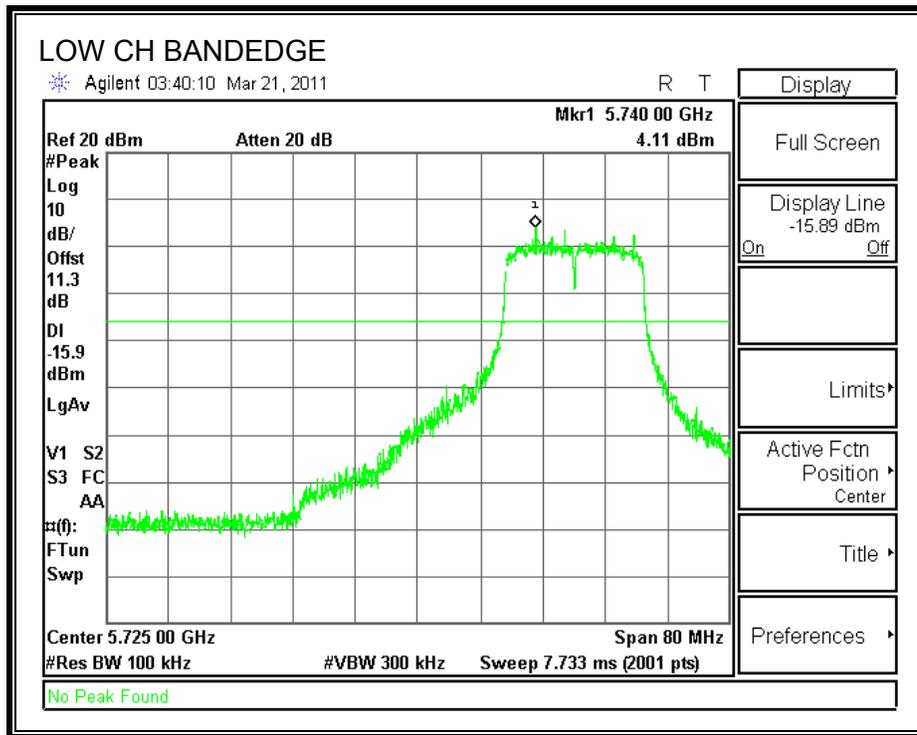
TEST PROCEDURE

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

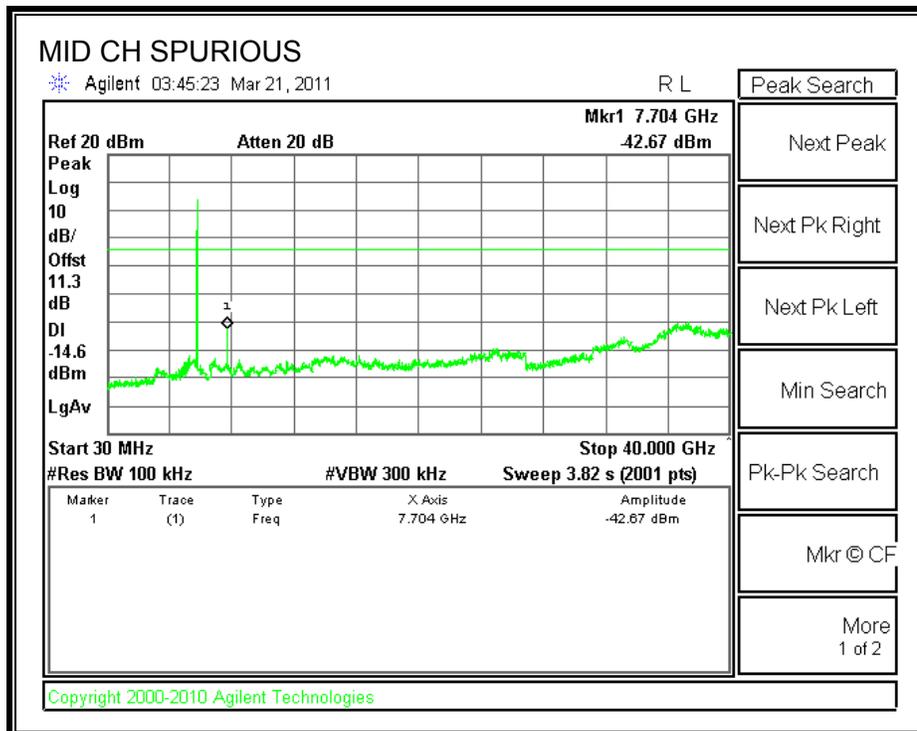
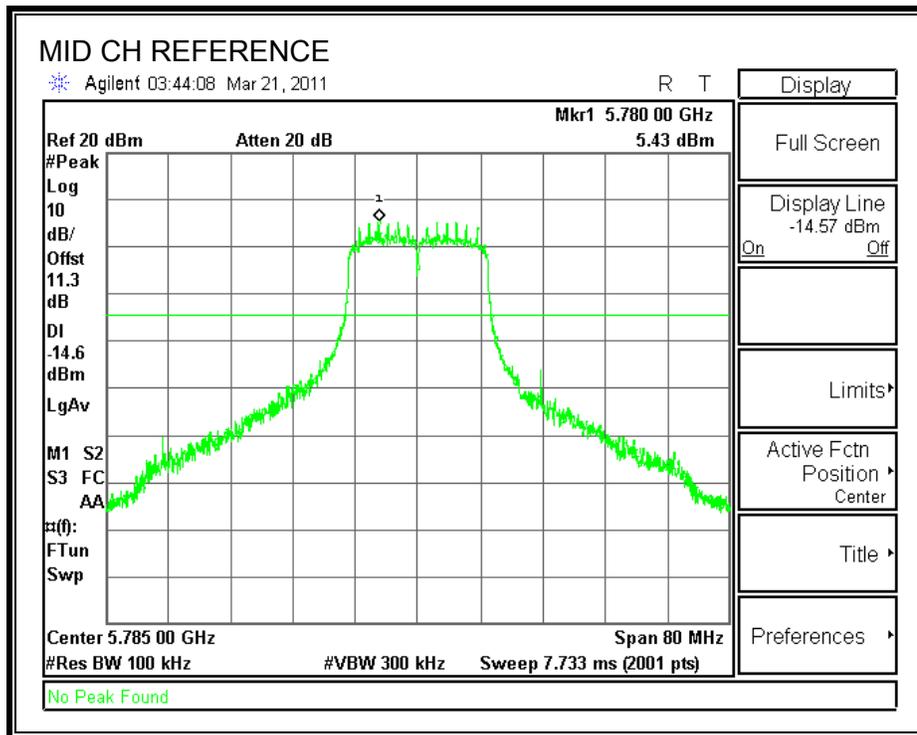
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

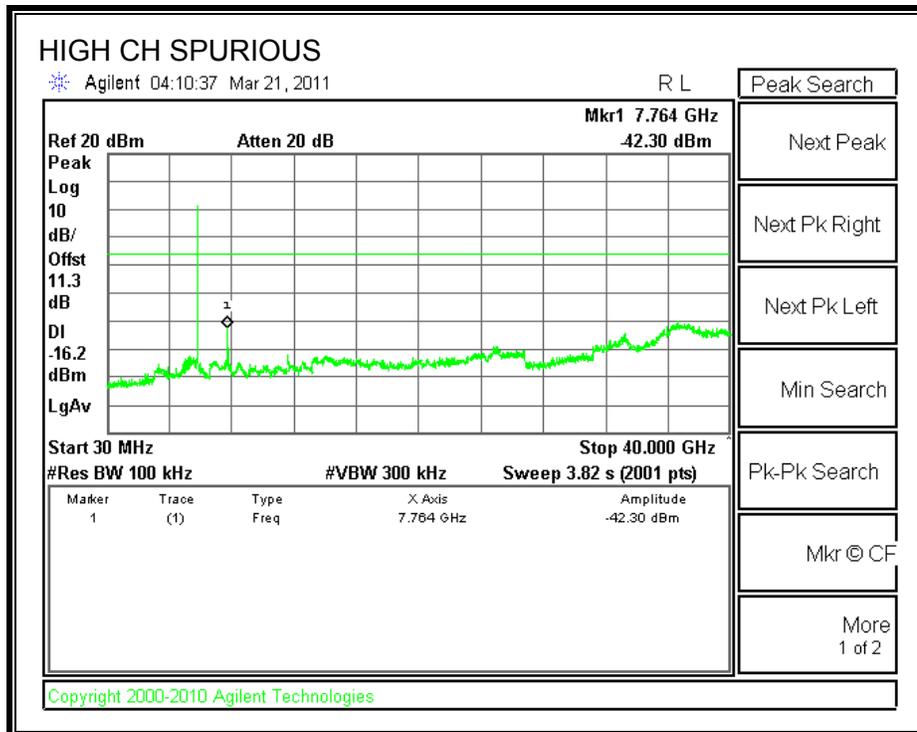
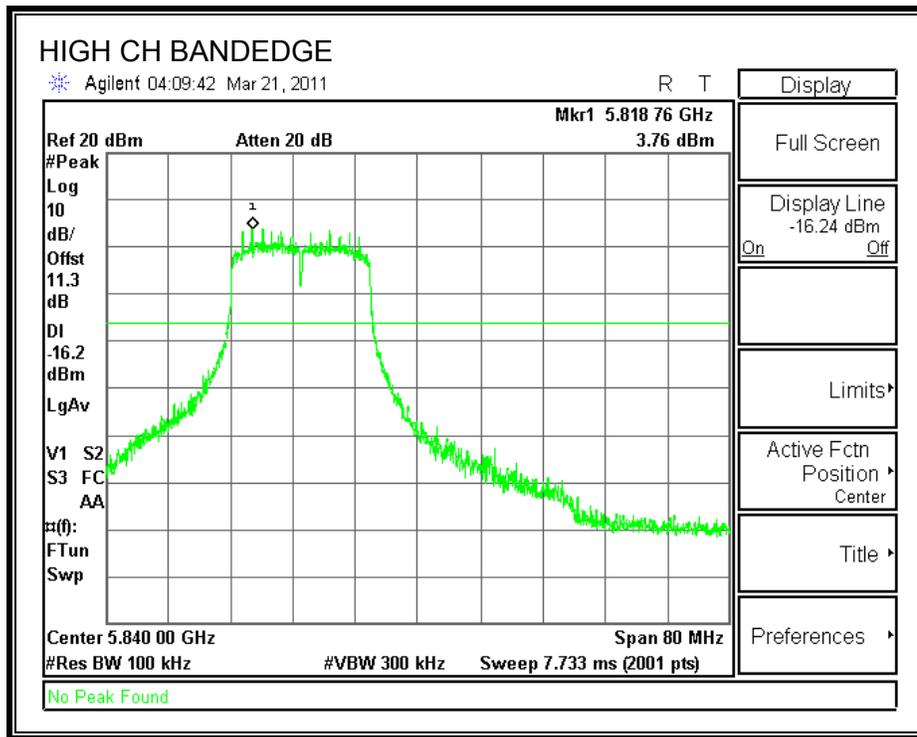
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.6. 802.11n HT40 SISO MODE IN THE 5.8 GHz BAND

7.6.1. 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.

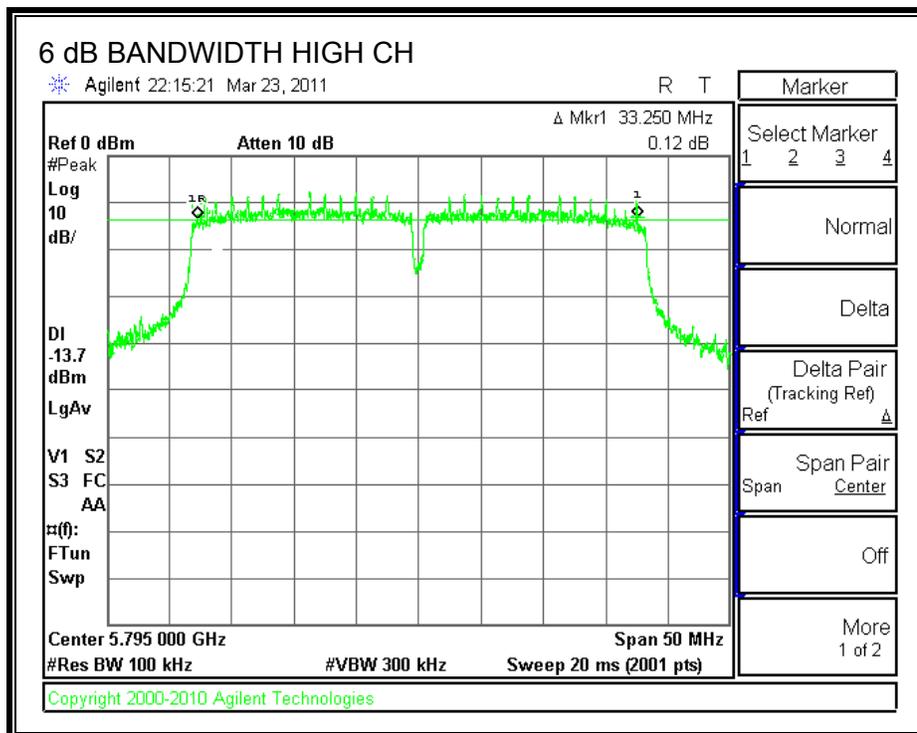
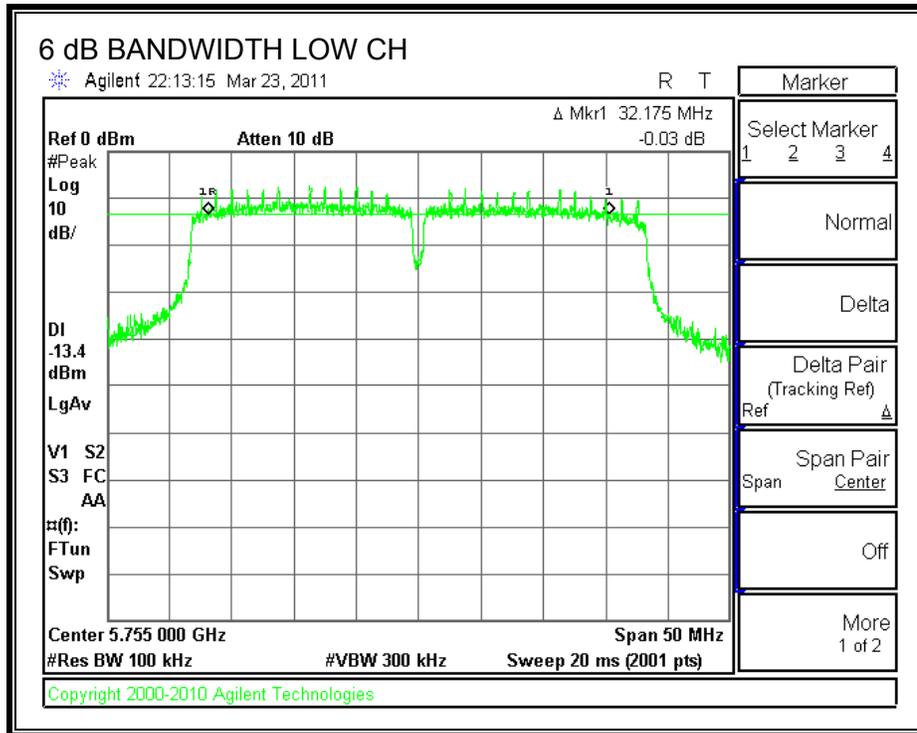
TEST PROCEDURE

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	5755	32.175	0.5
High	5795	33.25	0.5

6 dB BANDWIDTH



7.6.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

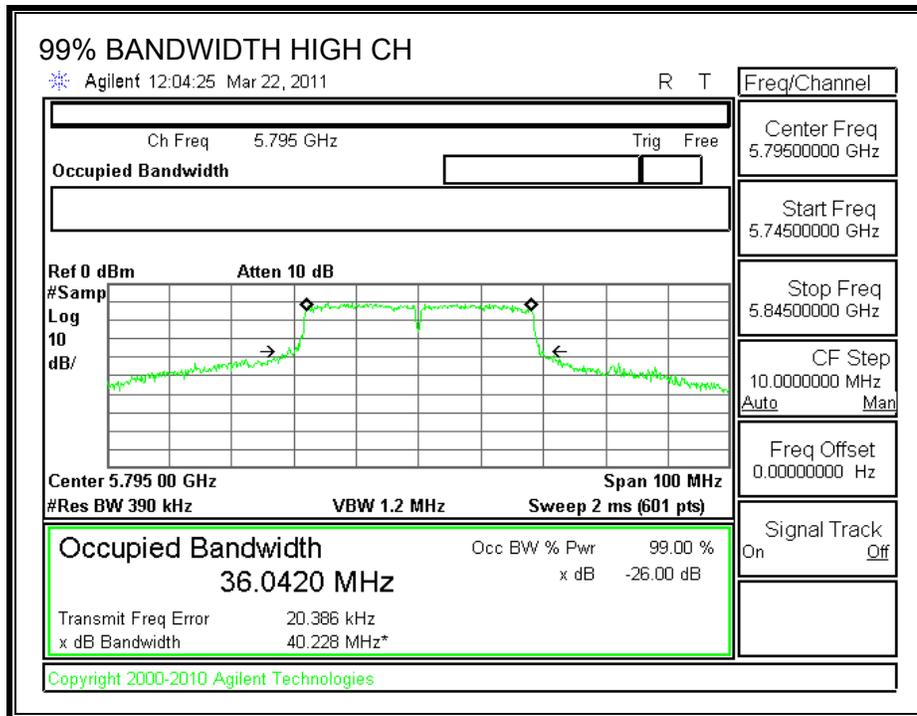
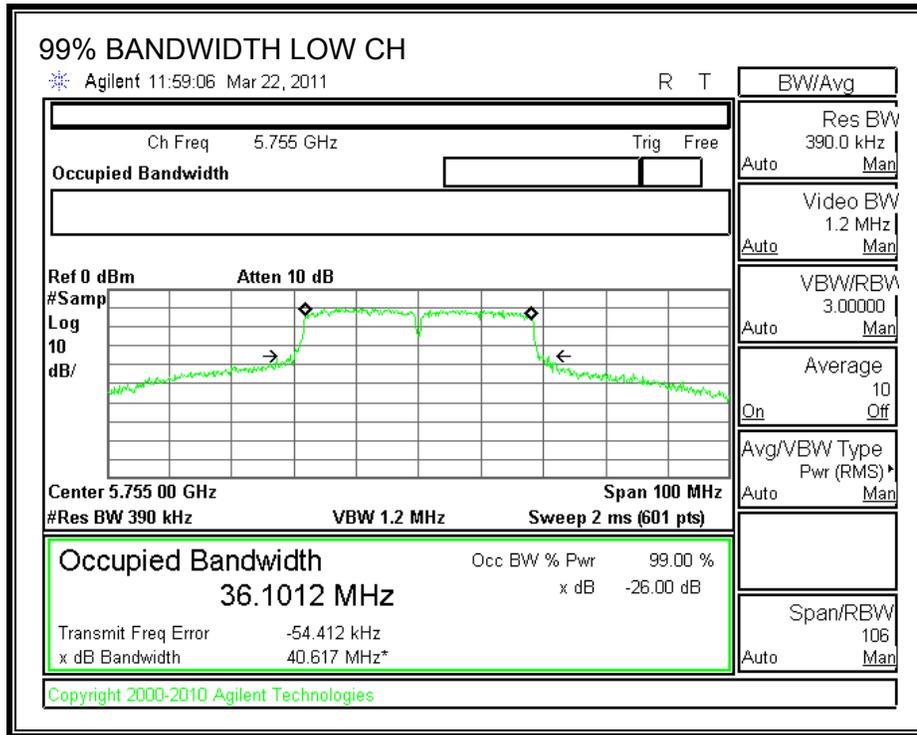
TEST PROCEDURE

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	5755	36.1012
High	5795	36.0420

99% BANDWIDTH



7.6.3. 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. The cable assembly insertion loss of 11.3dB (including 10 dB pad and 1.3 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

TEST PROCEDURE

Peak power is measured using a wide bandwidth Peak Power Meter.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	5755	23.7	30	-6.30
High	5795	23.6	30	-6.40

7.6.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

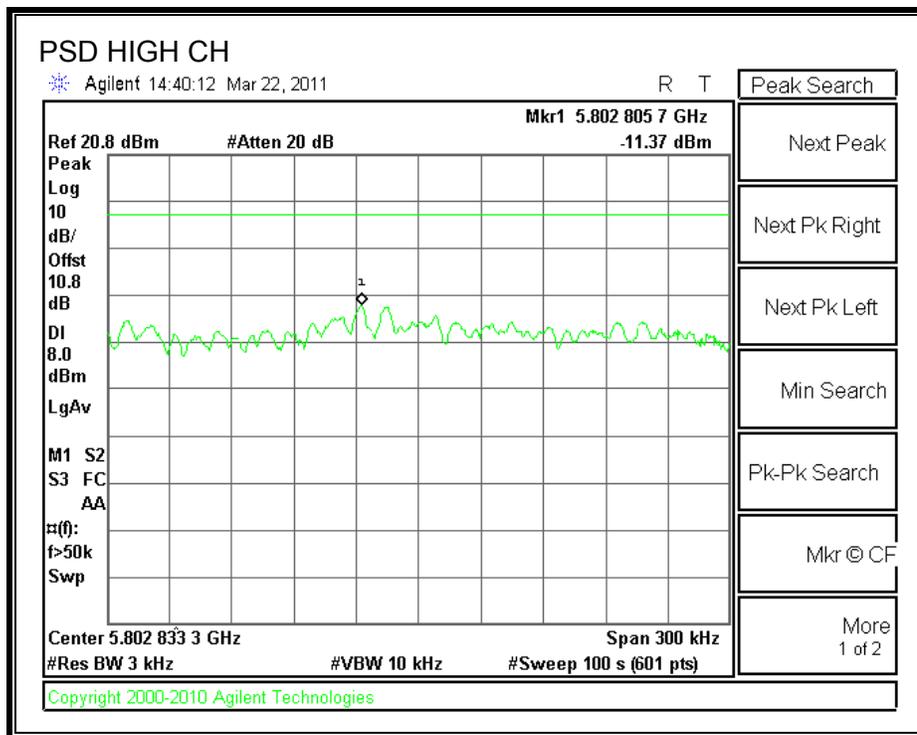
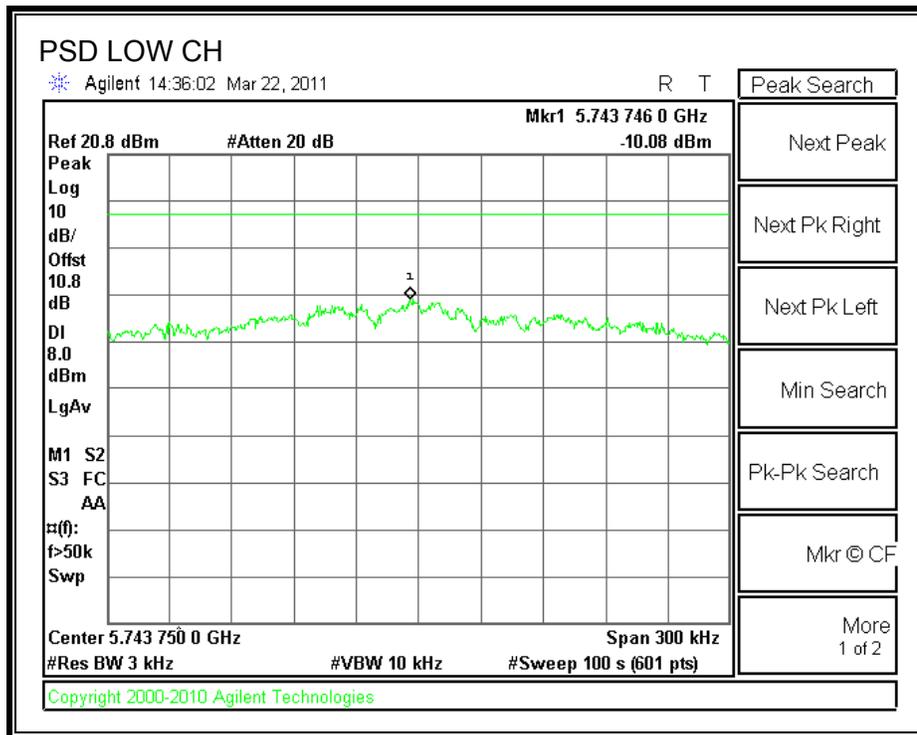
TEST PROCEDURE

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

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	5755	-10.08	8	-18.08
High	5795	-11.37	8	-19.37

POWER SPECTRAL DENSITY



7.6.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

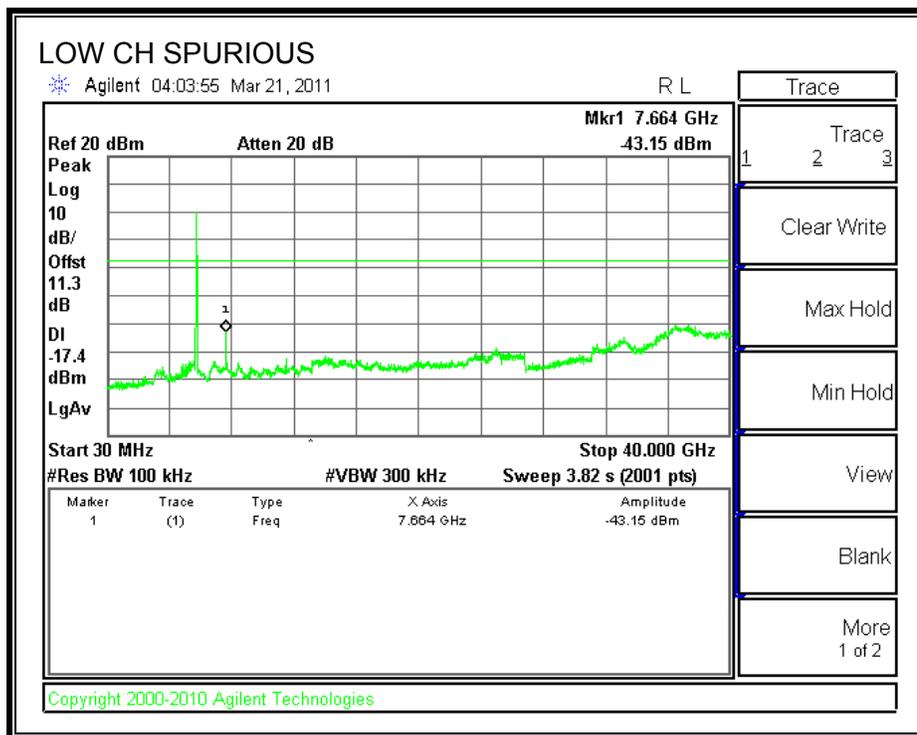
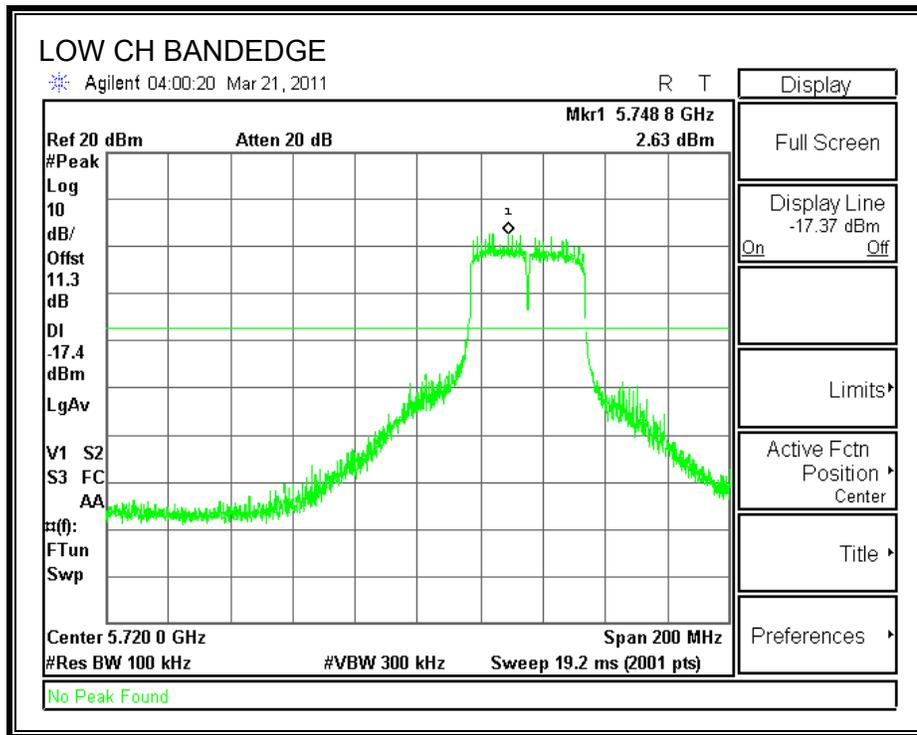
TEST PROCEDURE

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

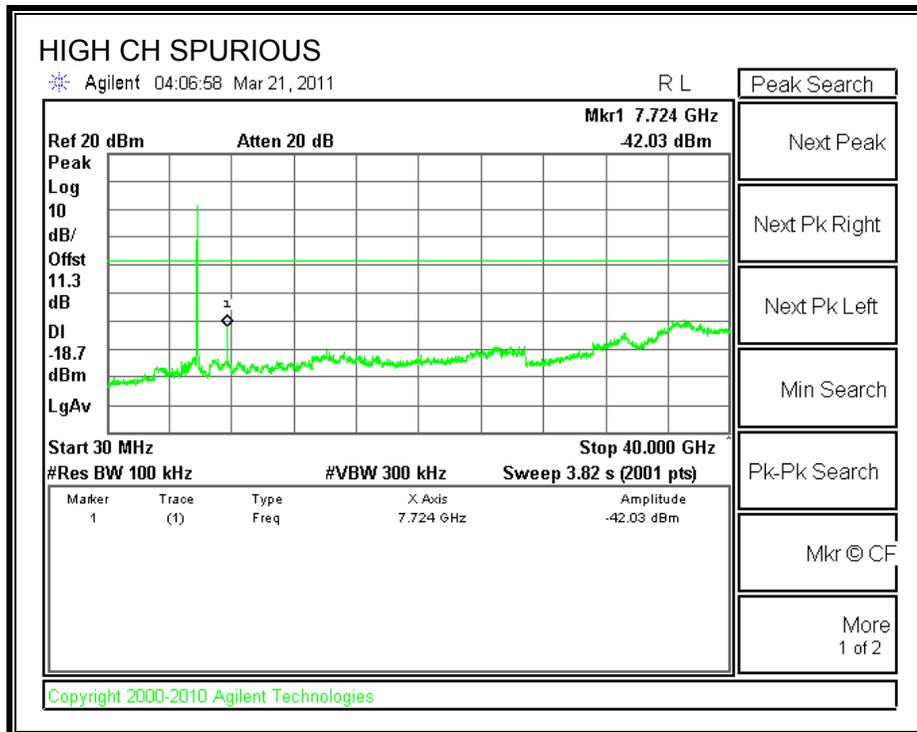
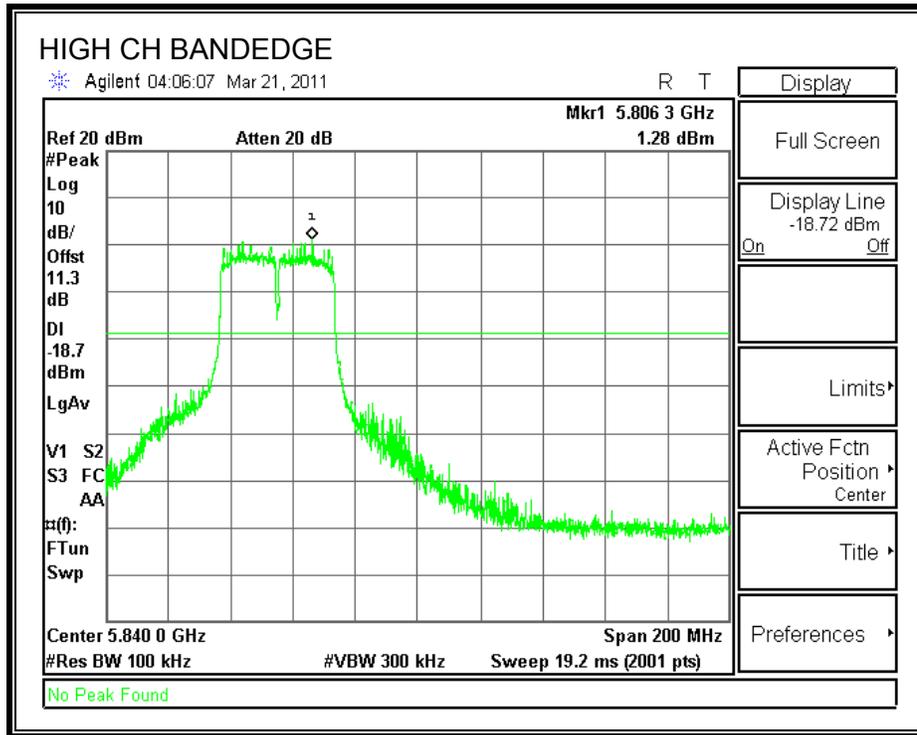
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.7. BLUETOOTH GFSK MODE IN THE 2.4 GHz BAND

7.7.1. 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 $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{ pulse width}$.

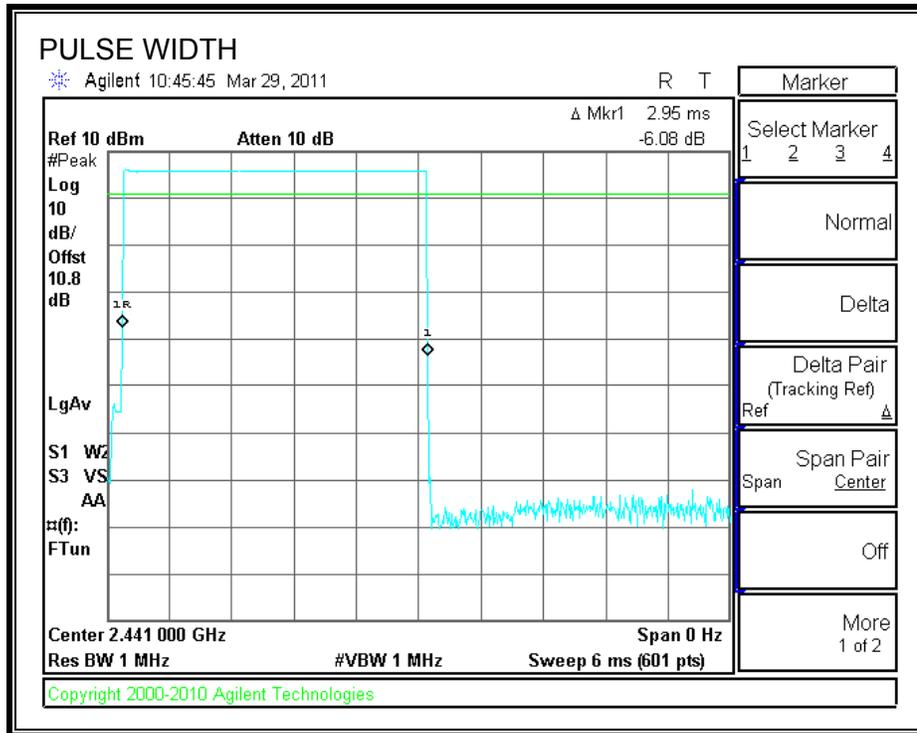
RESULTS

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

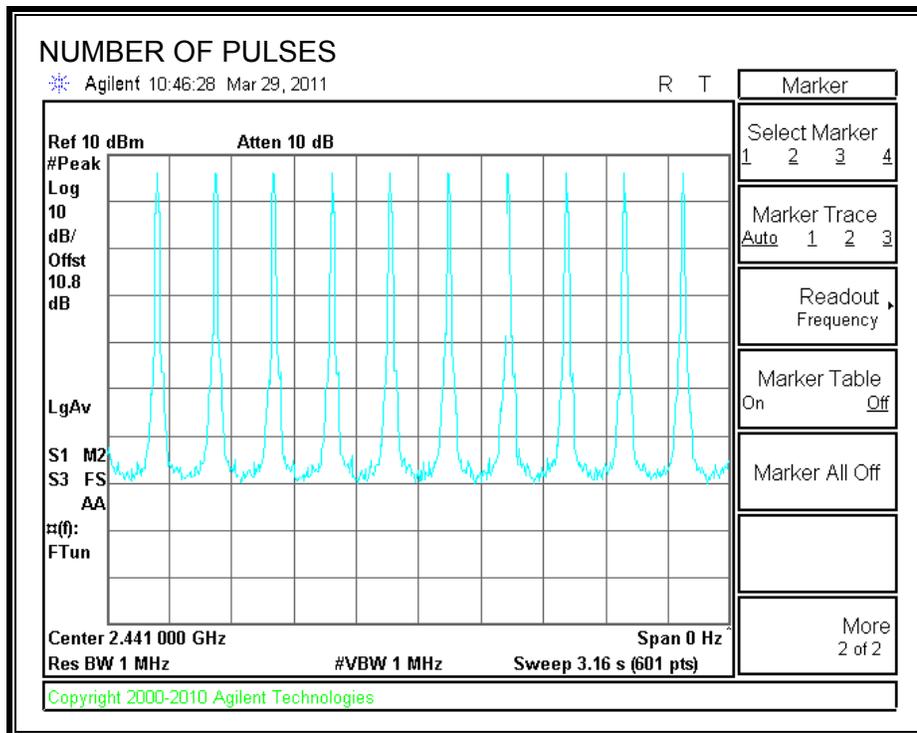
GFSK Mode

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



7.7.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

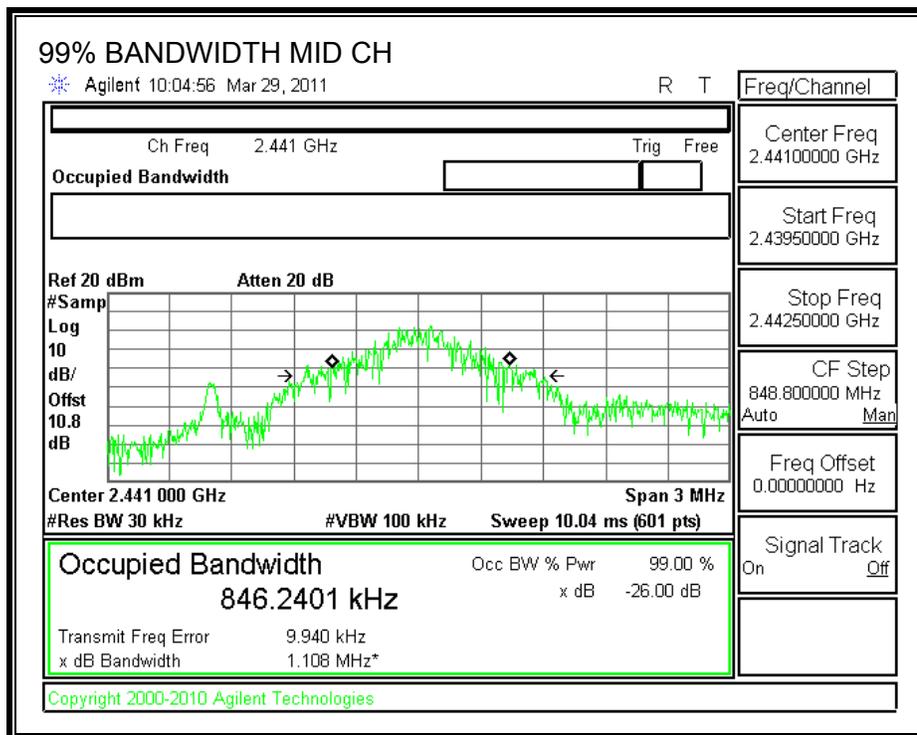
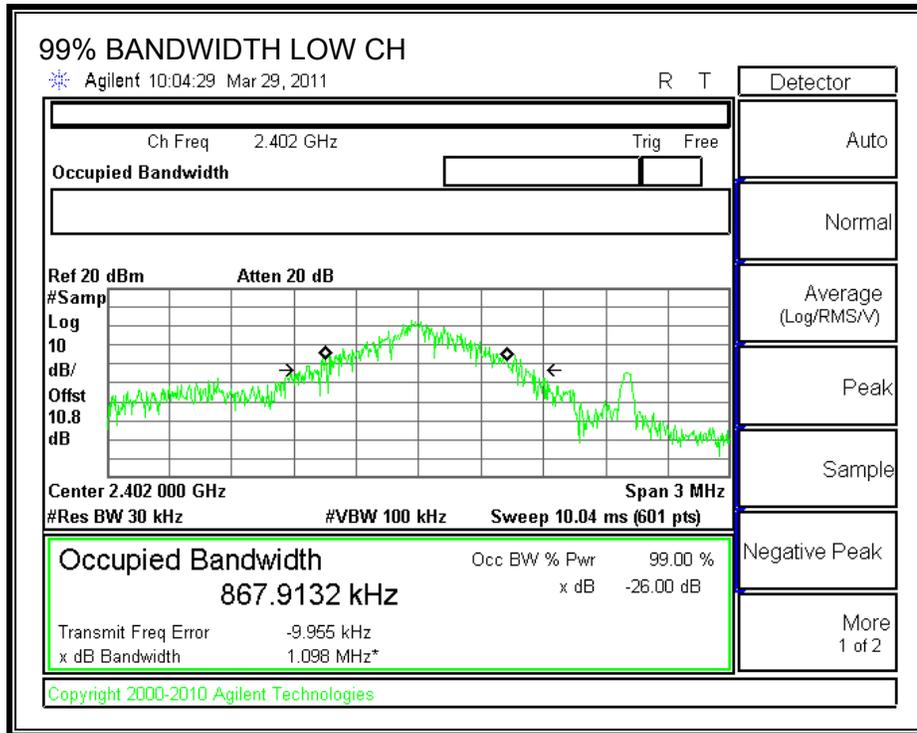
TEST PROCEDURE

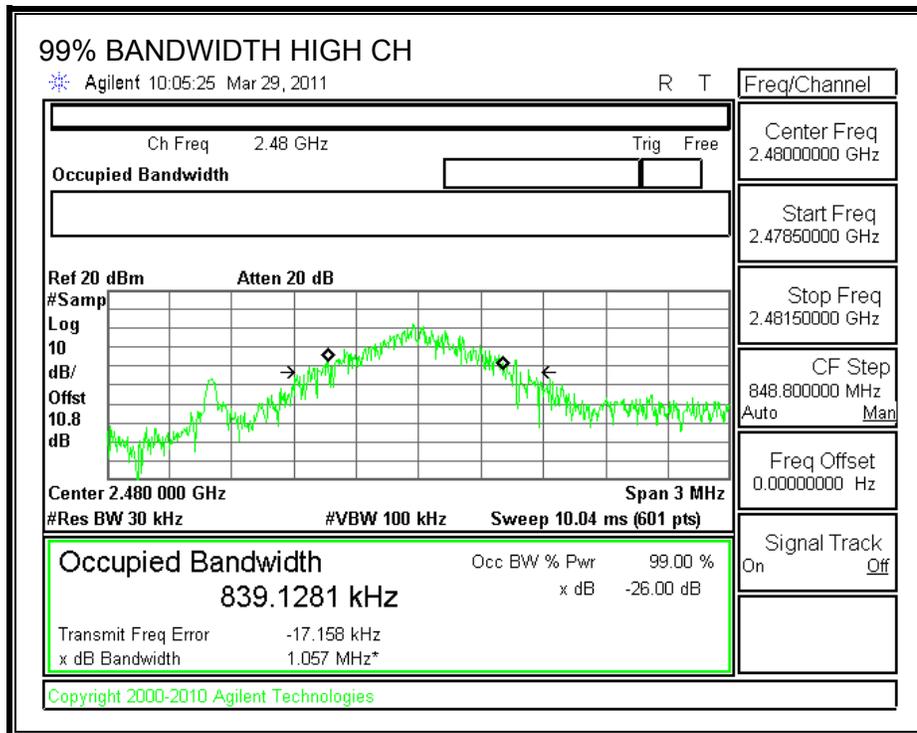
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (KHz)
Low	2402	867.9132
Middle	2441	846.2401
High	2480	839.1281

99% BANDWIDTH





7.7.3. 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.

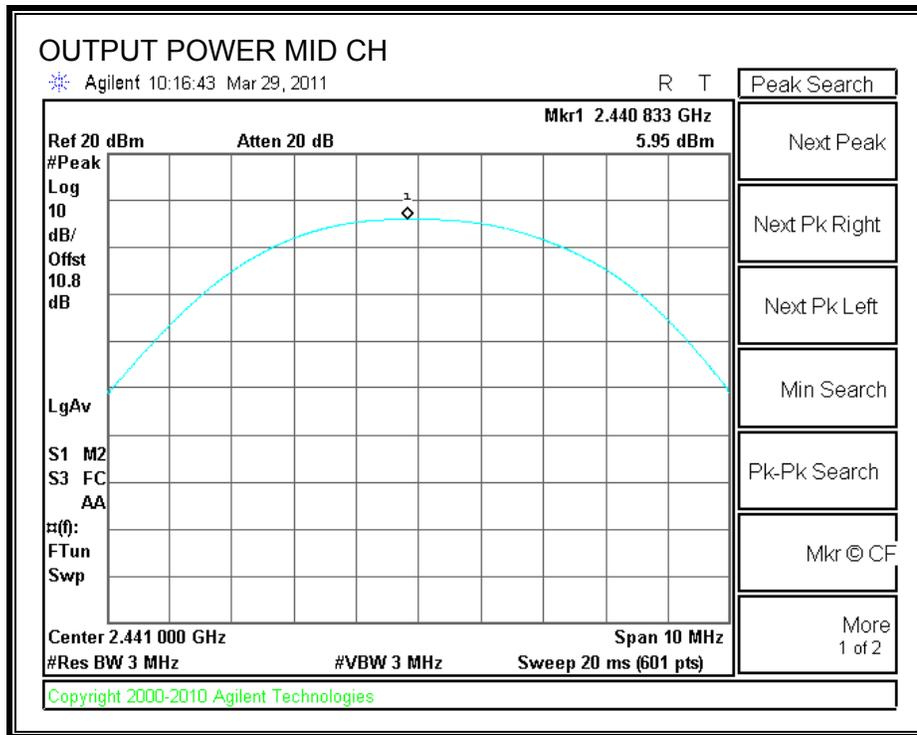
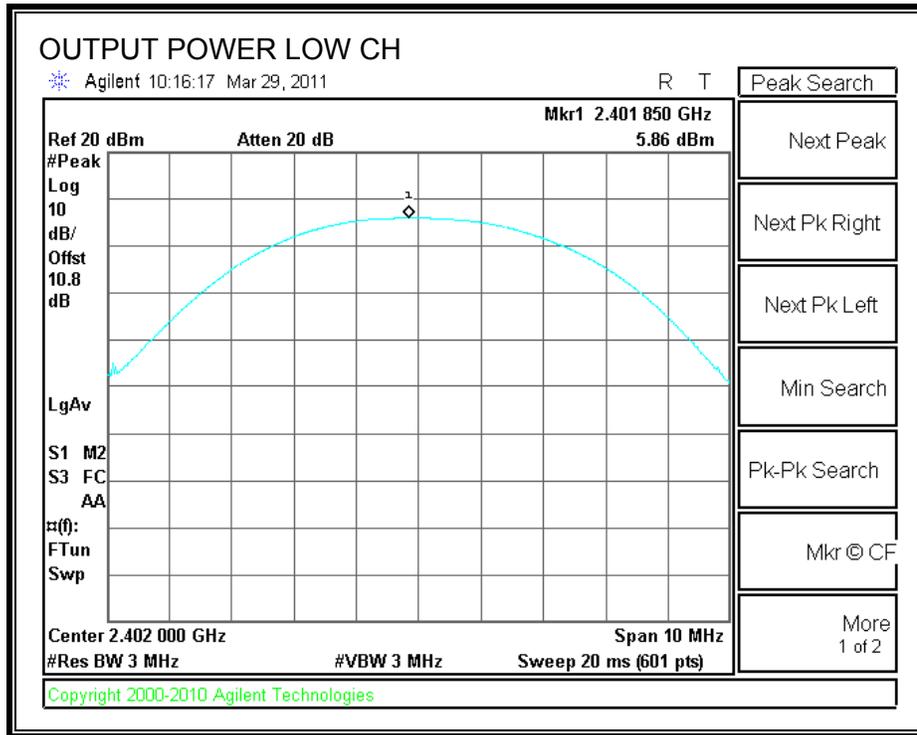
TEST PROCEDURE

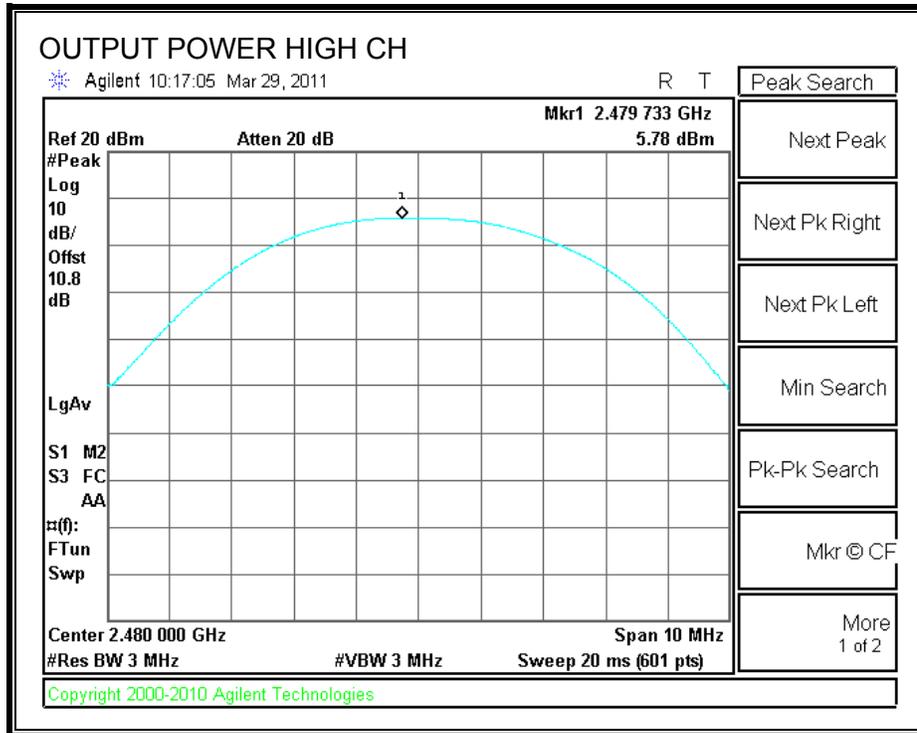
The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

RESULTS

Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	5.86	30	-24.14
Middle	2441	5.95	30	-24.05
High	2480	5.76	30	-24.24

OUTPUT POWER





7.7.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

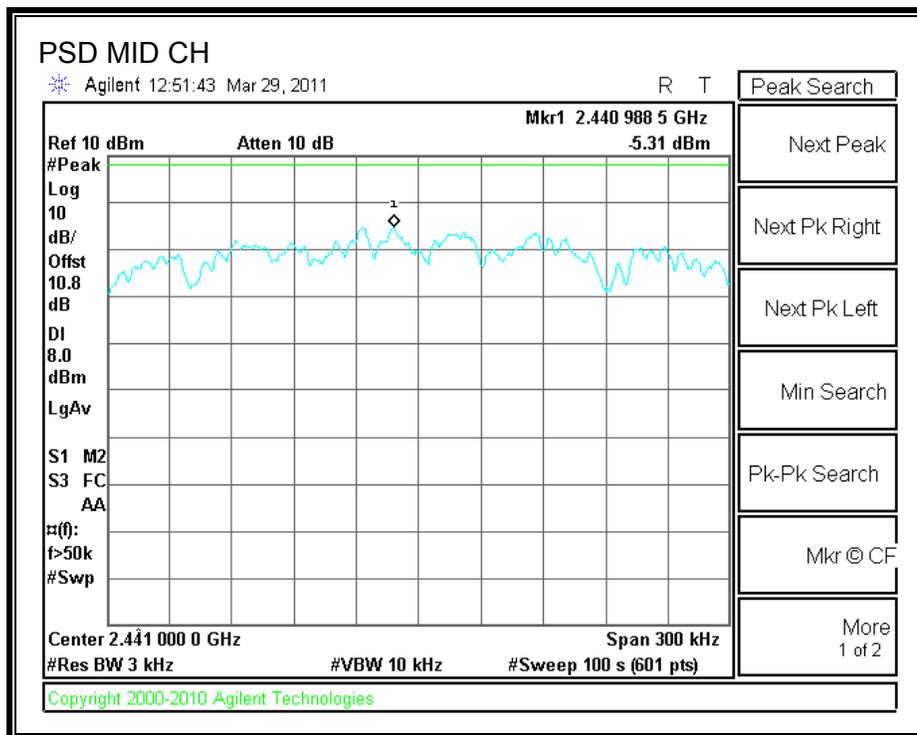
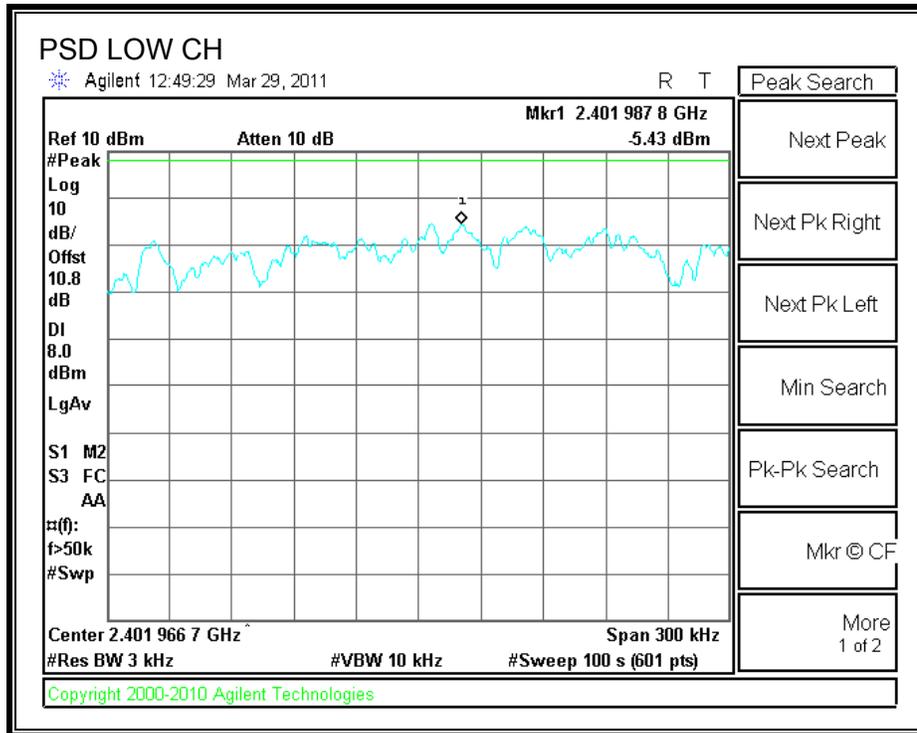
TEST PROCEDURE

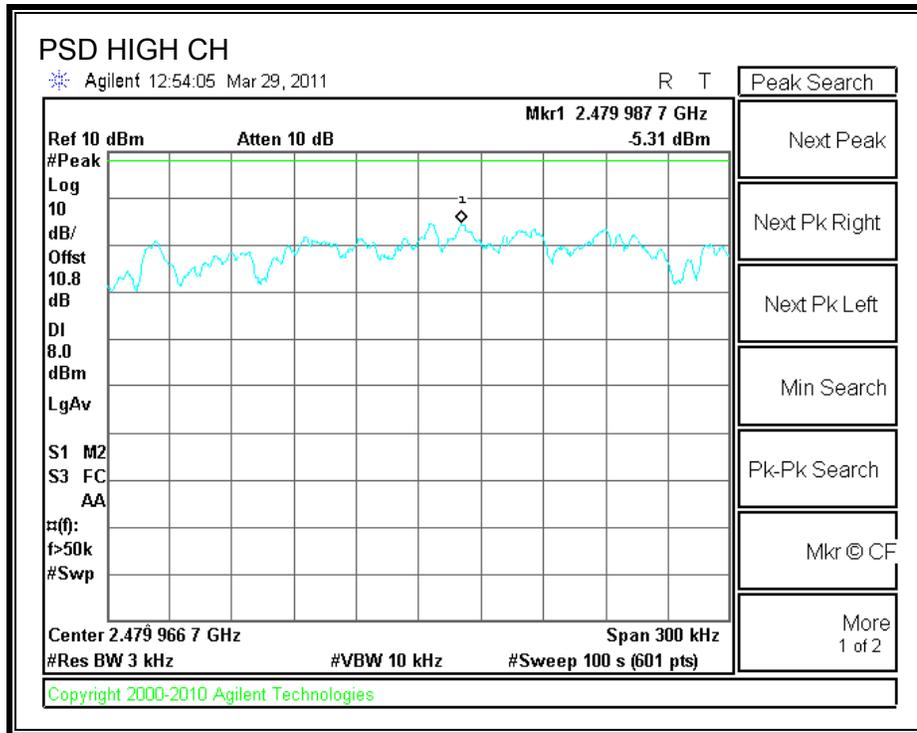
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-5.43	8	-13.43
Middle	2441	-5.31	8	-13.31
High	2480	-5.31	8	-13.31

POWER SPECTRAL DENSITY





7.7.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

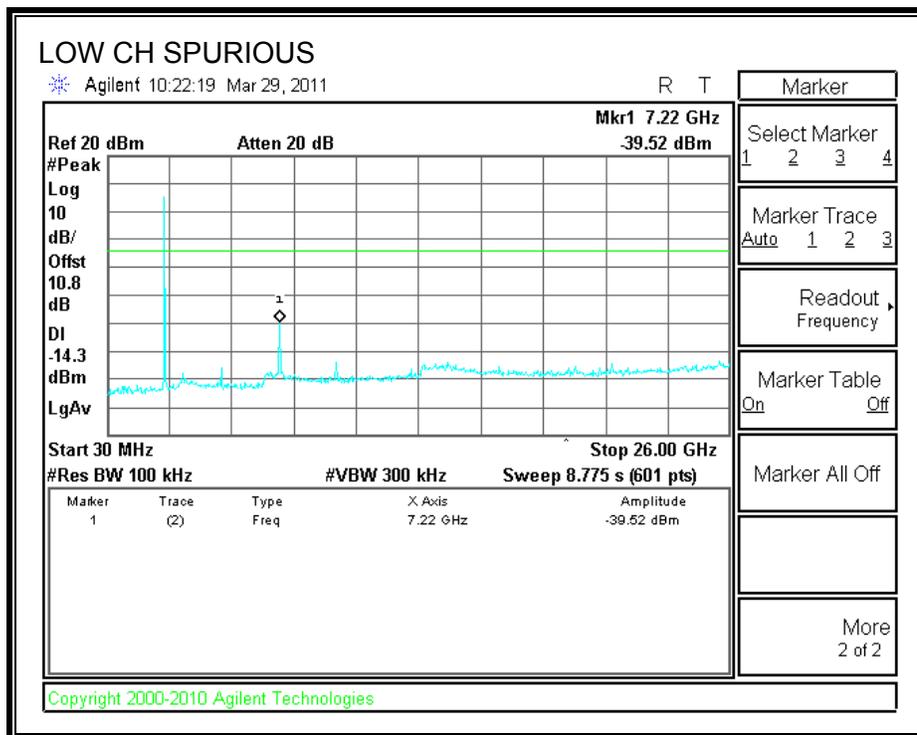
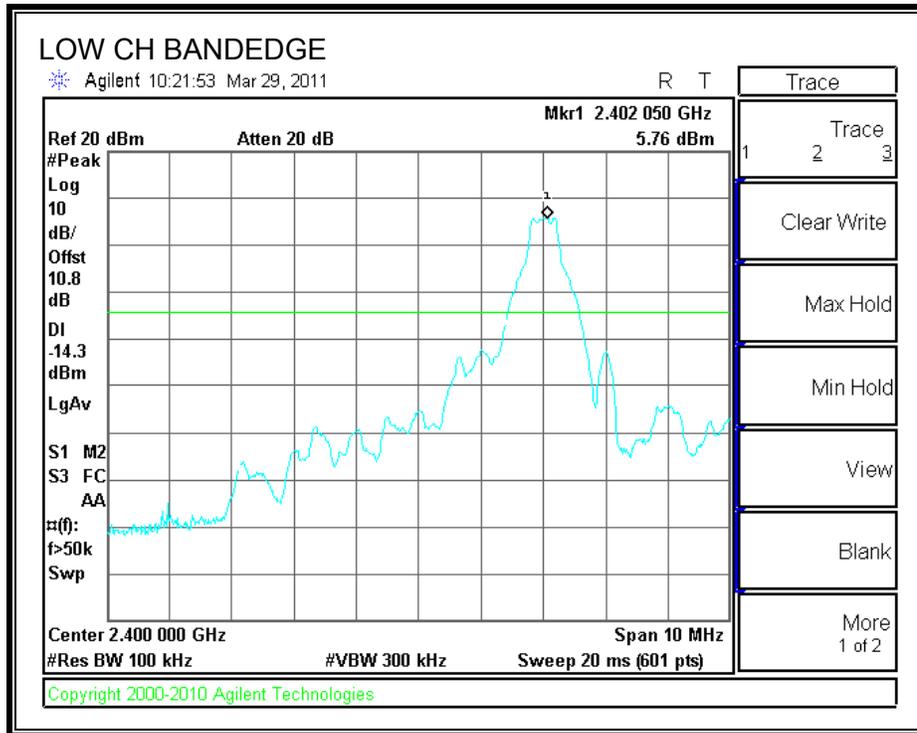
TEST PROCEDURE

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

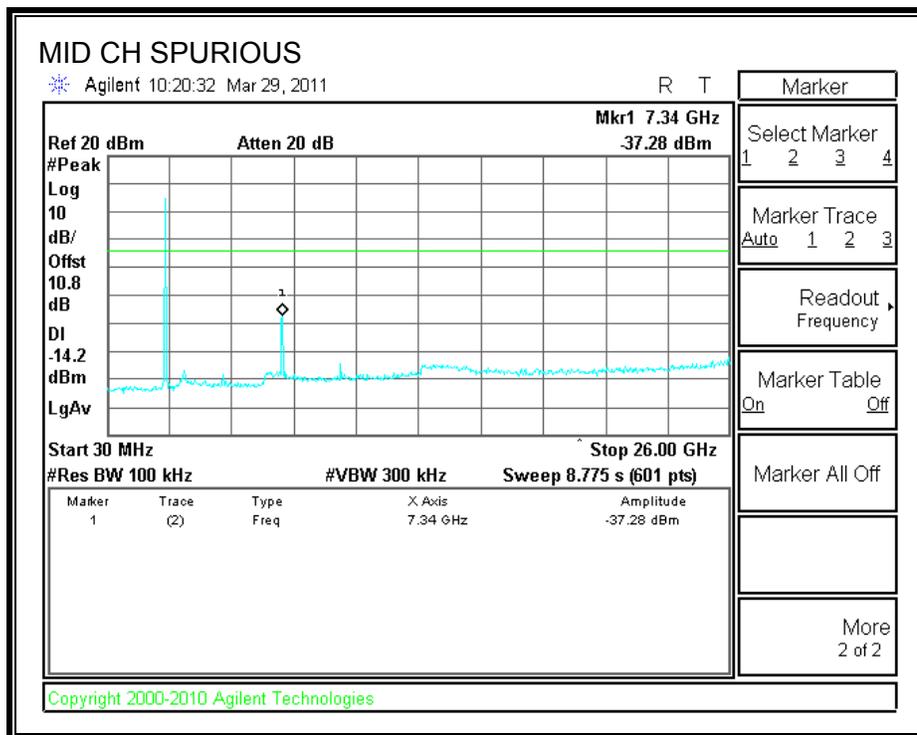
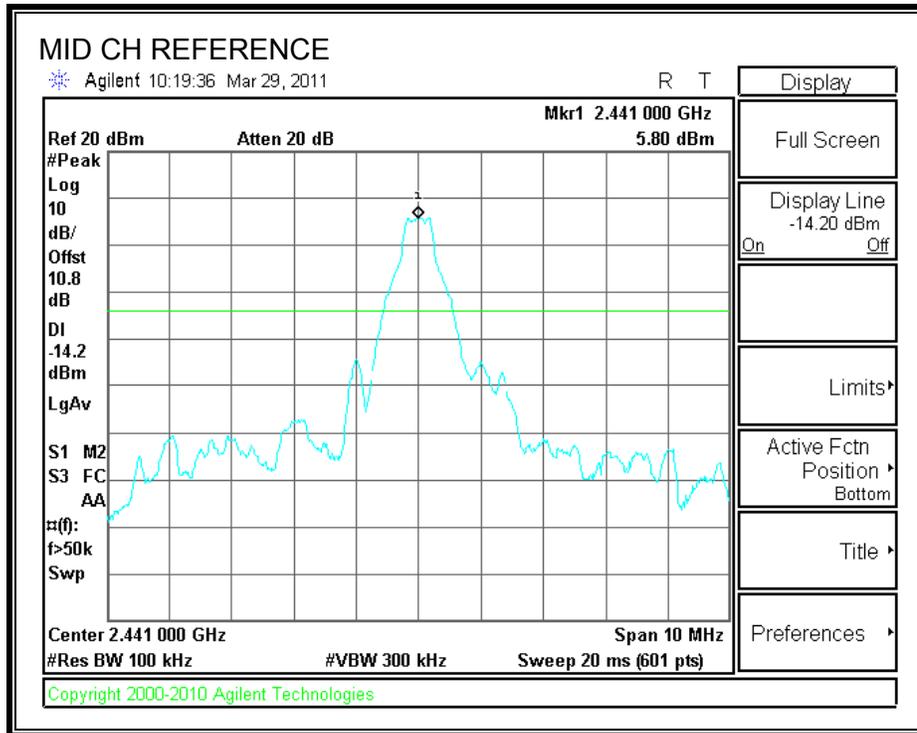
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

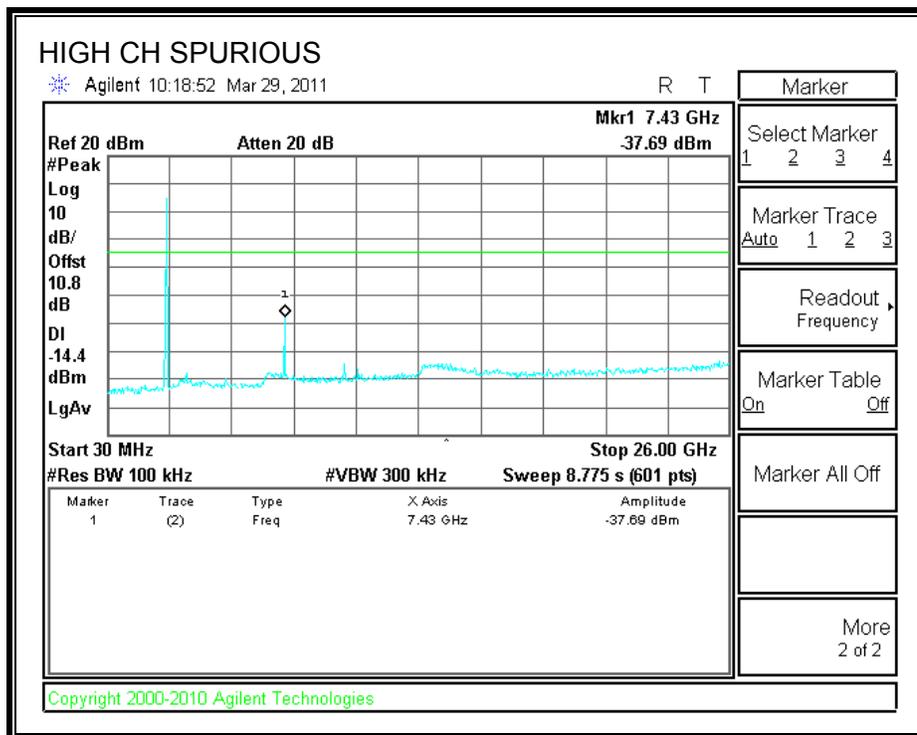
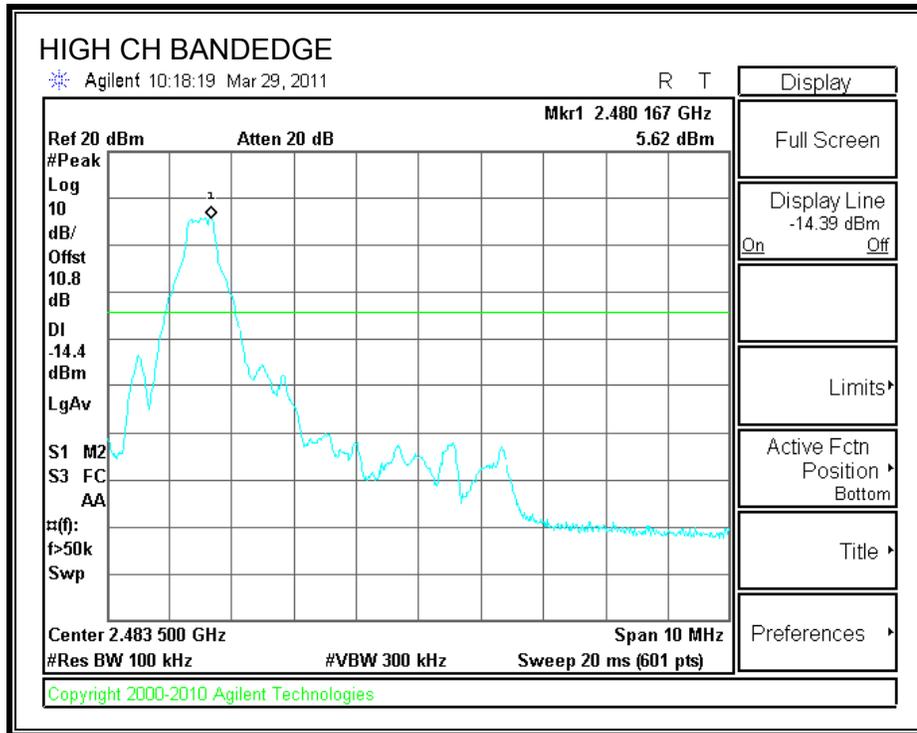
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7.8. BLUETOOTH 8PSK MODE IN THE 2.4 GHz BAND

7.8.1. 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	2.952	10	0.295	0.4	0.105

7.8.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

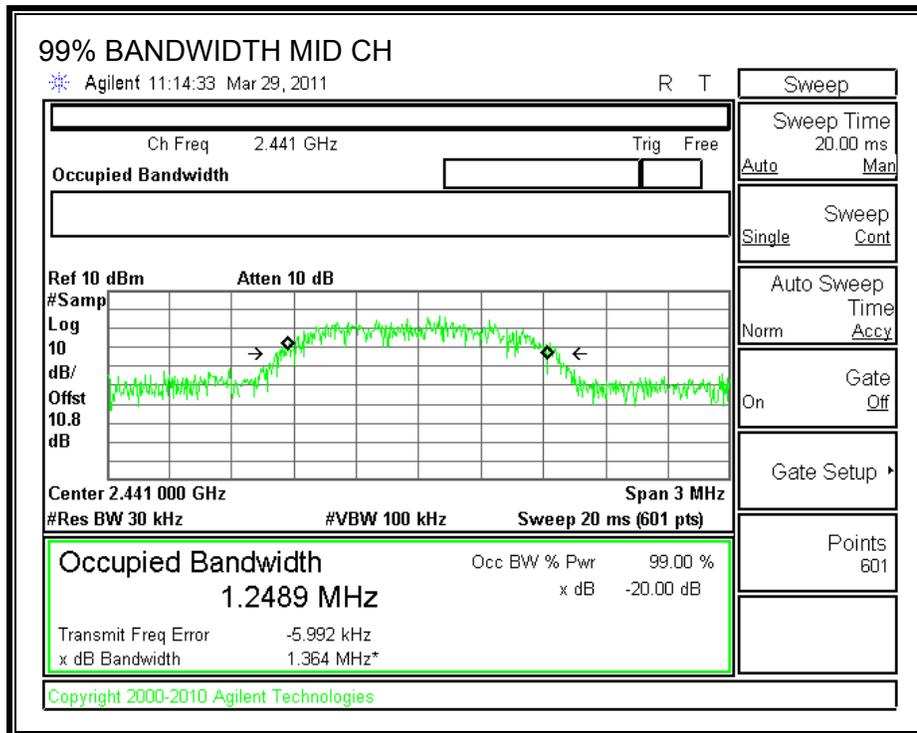
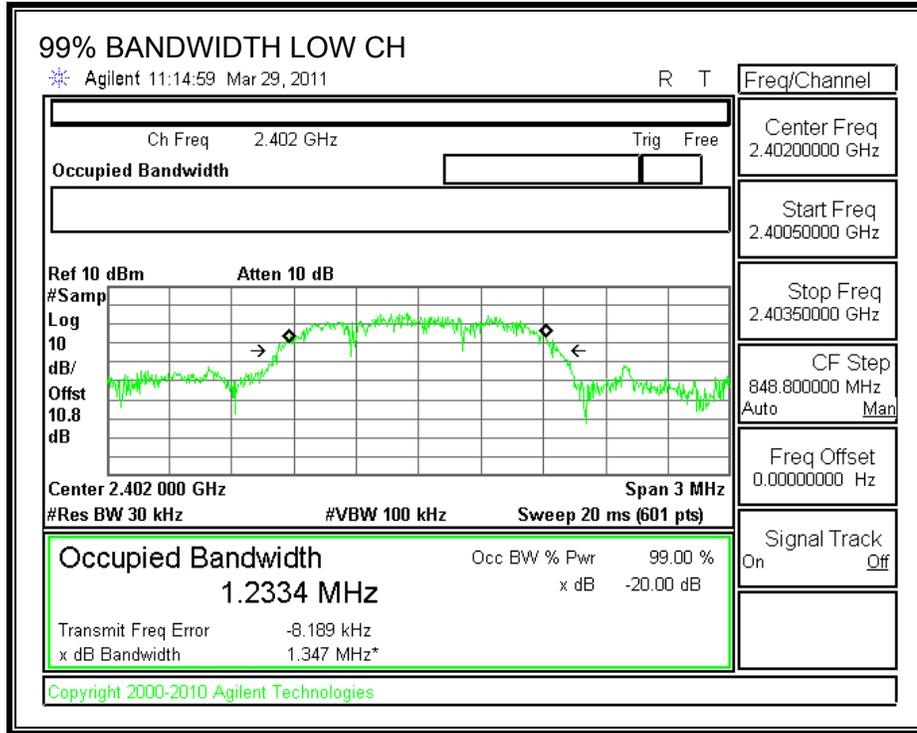
TEST PROCEDURE

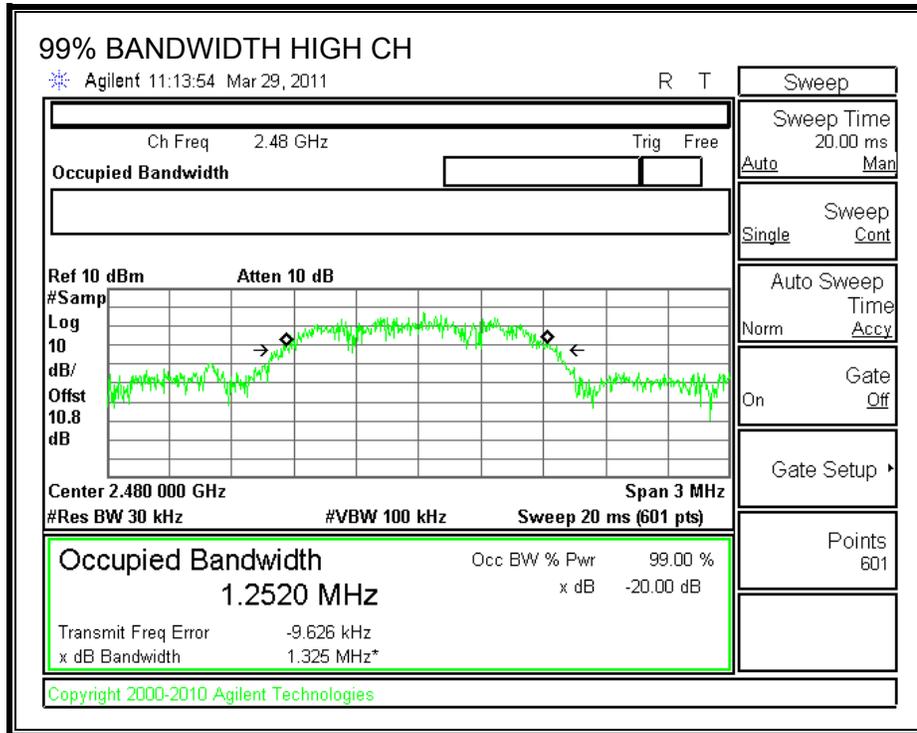
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.2334
Middle	2441	1.2489
High	2480	1.2520

99% BANDWIDTH





7.8.3. 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.

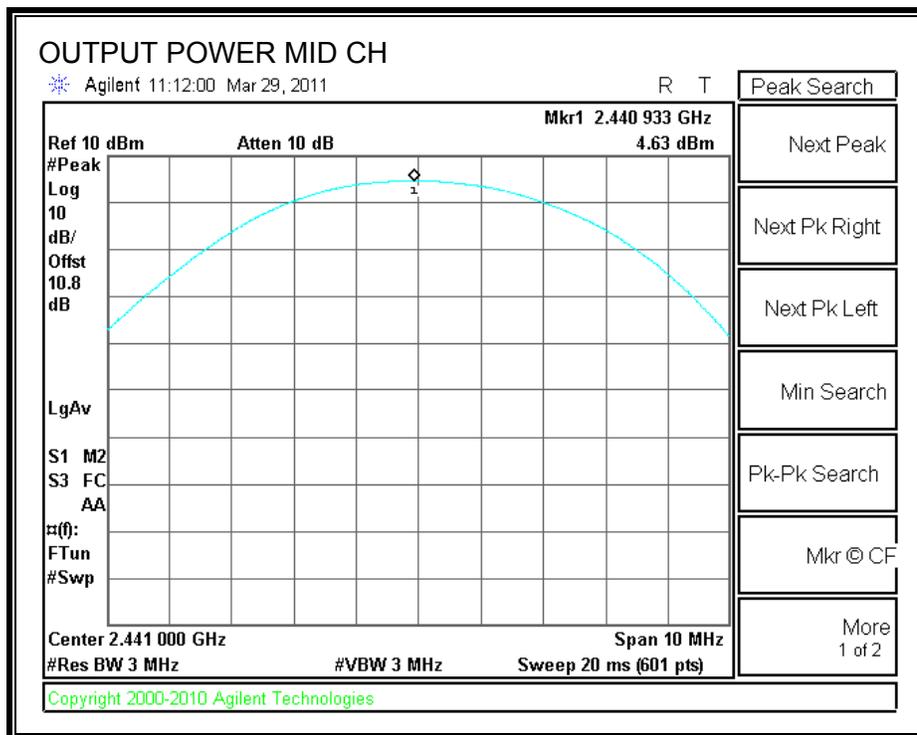
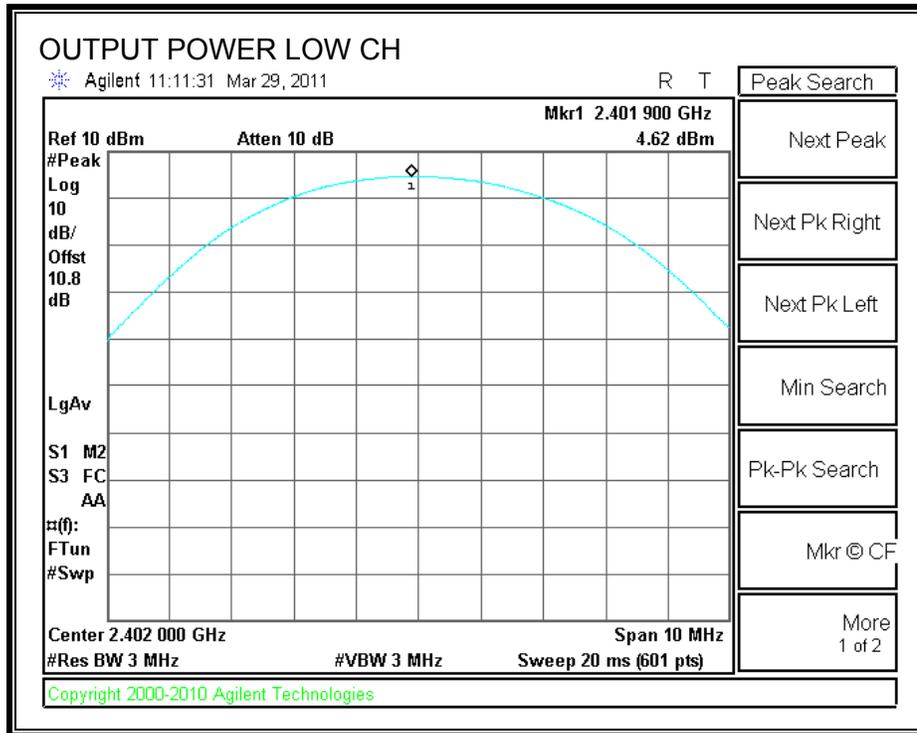
TEST PROCEDURE

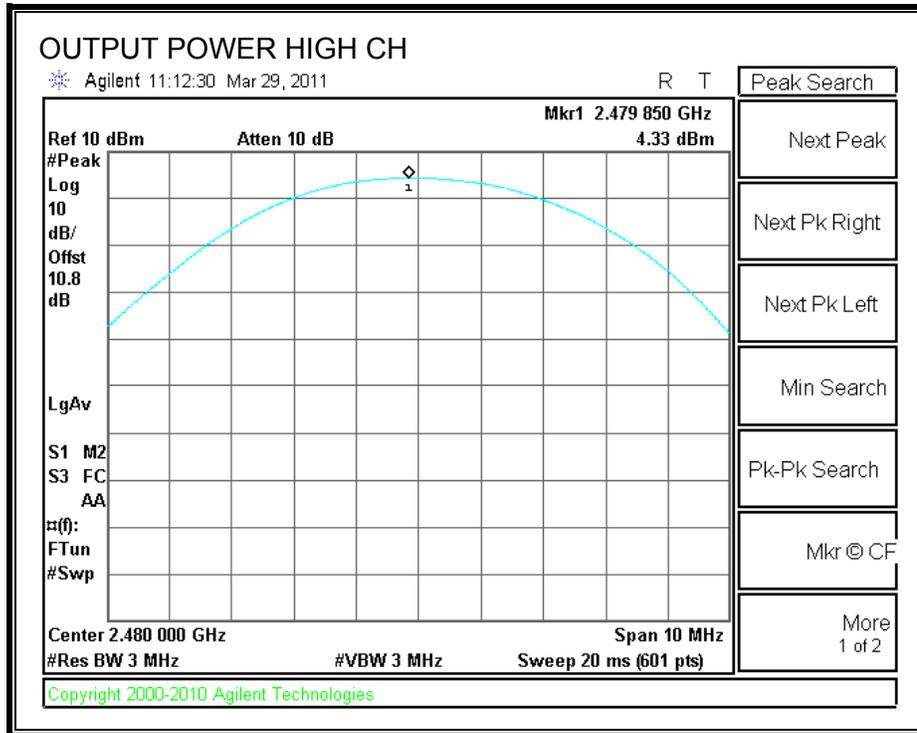
The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

RESULTS

Channel	Frequency (MHz)	Spectrum Analyzer Reading	Limit (dBm)	Margin (dB)
Low	2402	4.62	21	-16.38
Middle	2441	4.63	21	-16.37
High	2480	4.33	21	-16.67

OUTPUT POWER





7.8.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

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

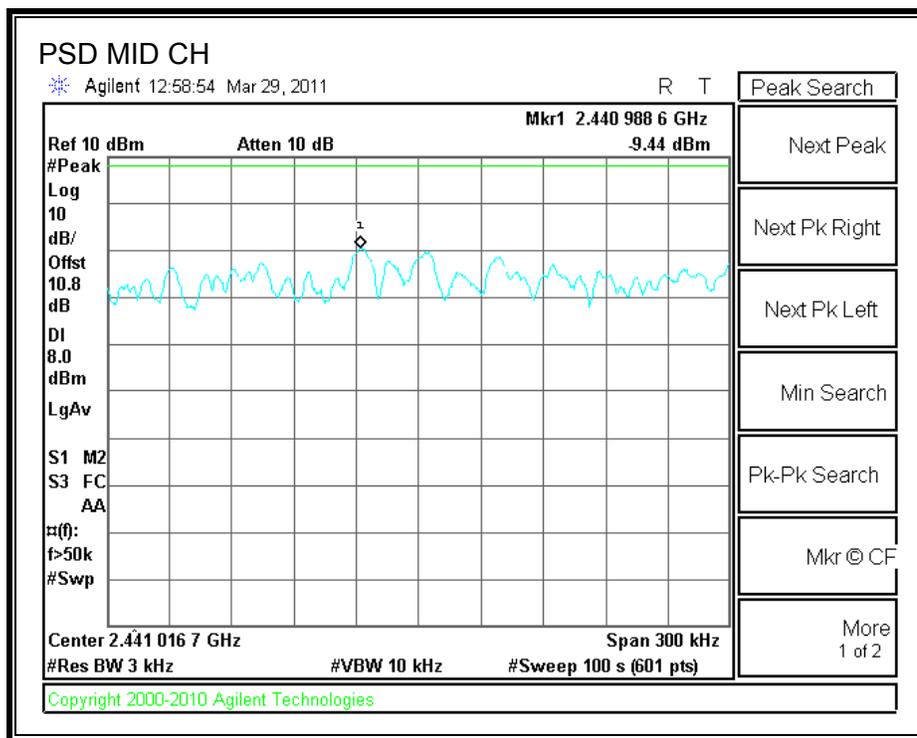
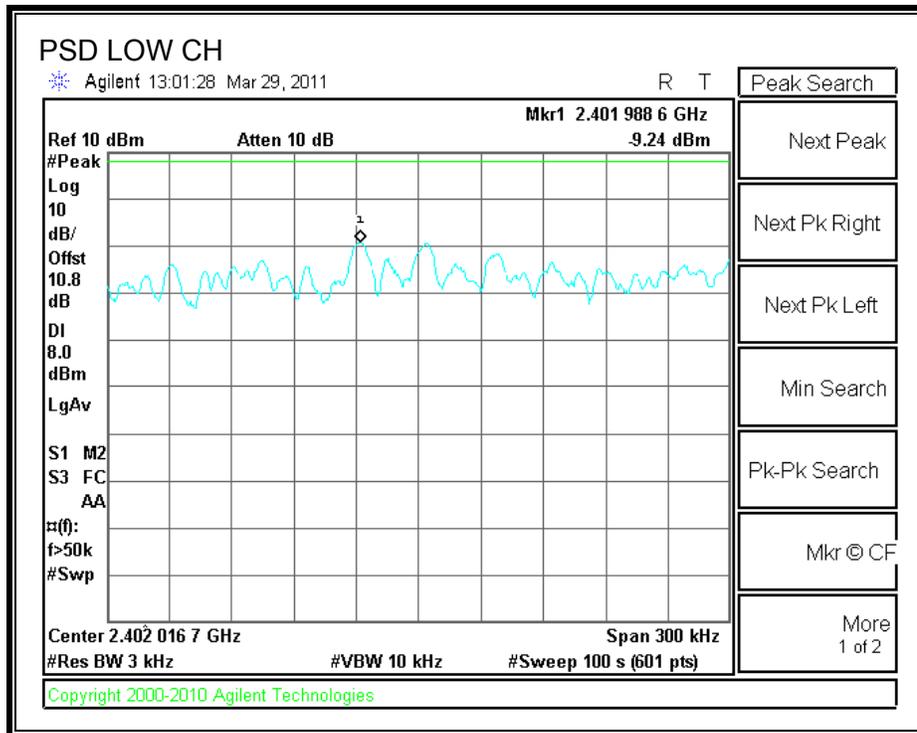
TEST PROCEDURE

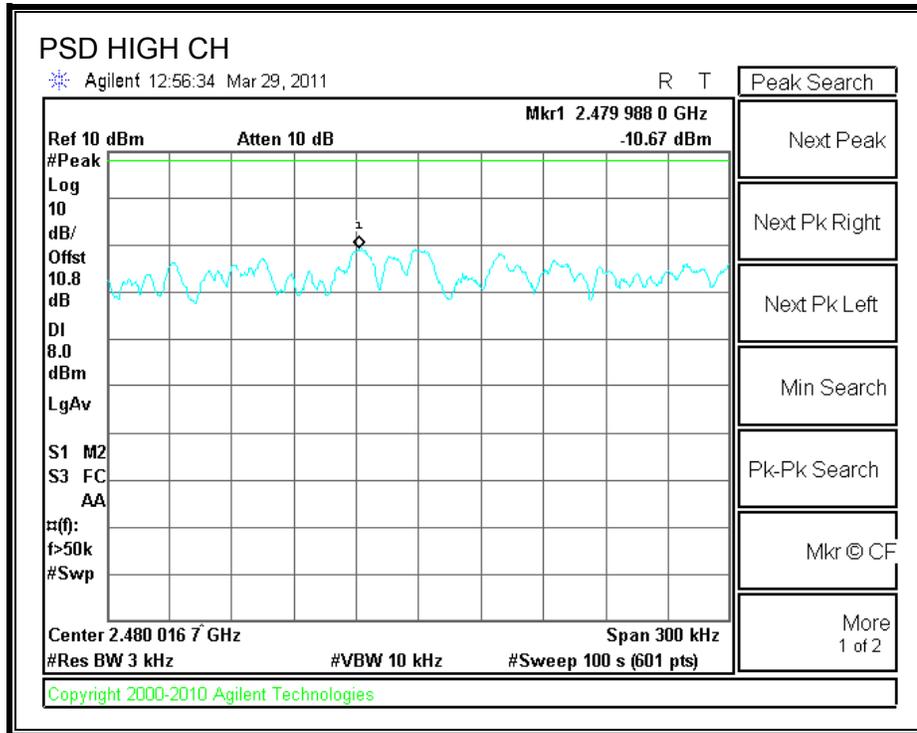
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-9.24	8	-17.24
Middle	2441	-9.44	8	-17.44
High	2480	-10.67	8	-18.67

POWER SPECTRAL DENSITY





7.8.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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

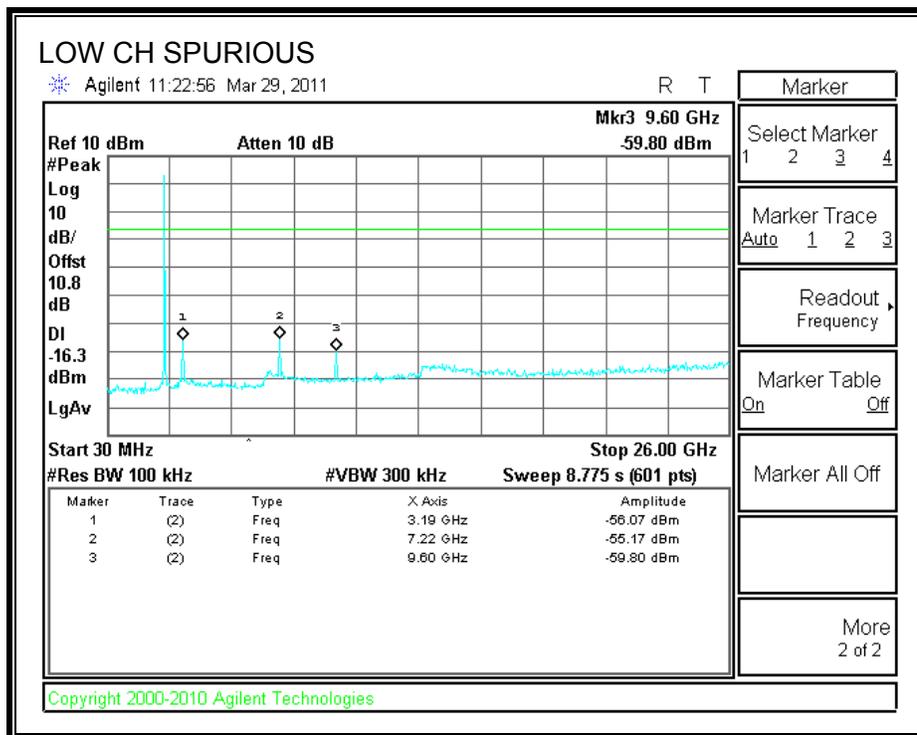
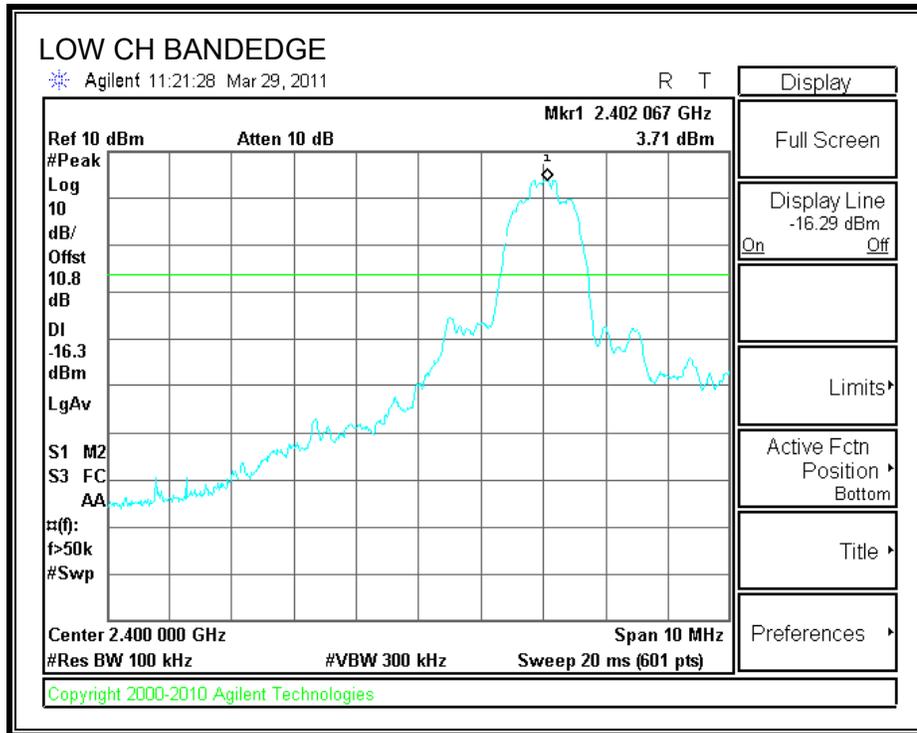
TEST PROCEDURE

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

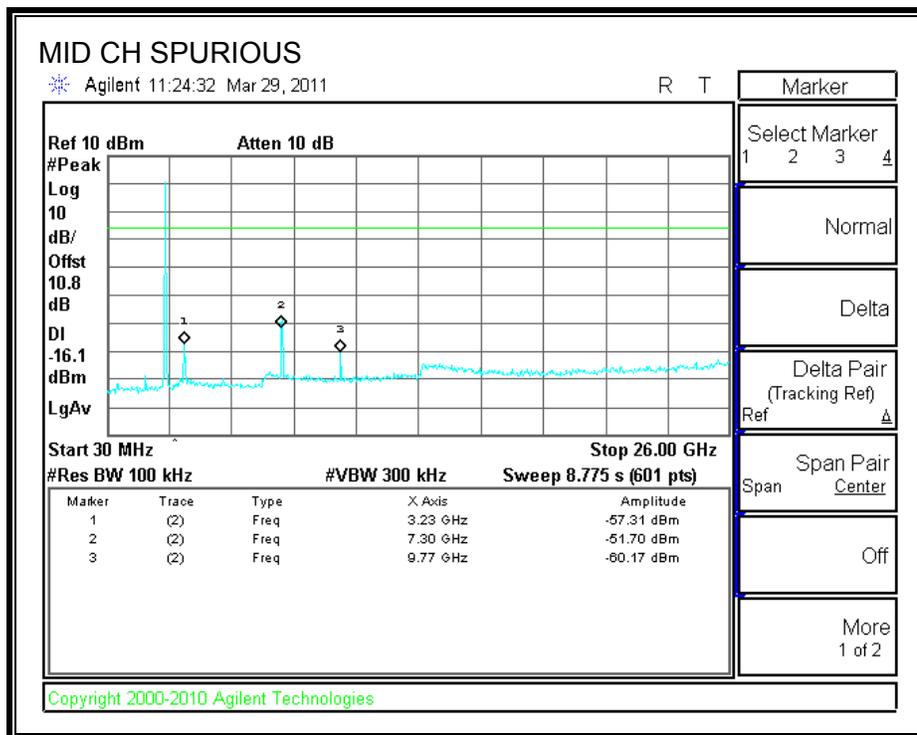
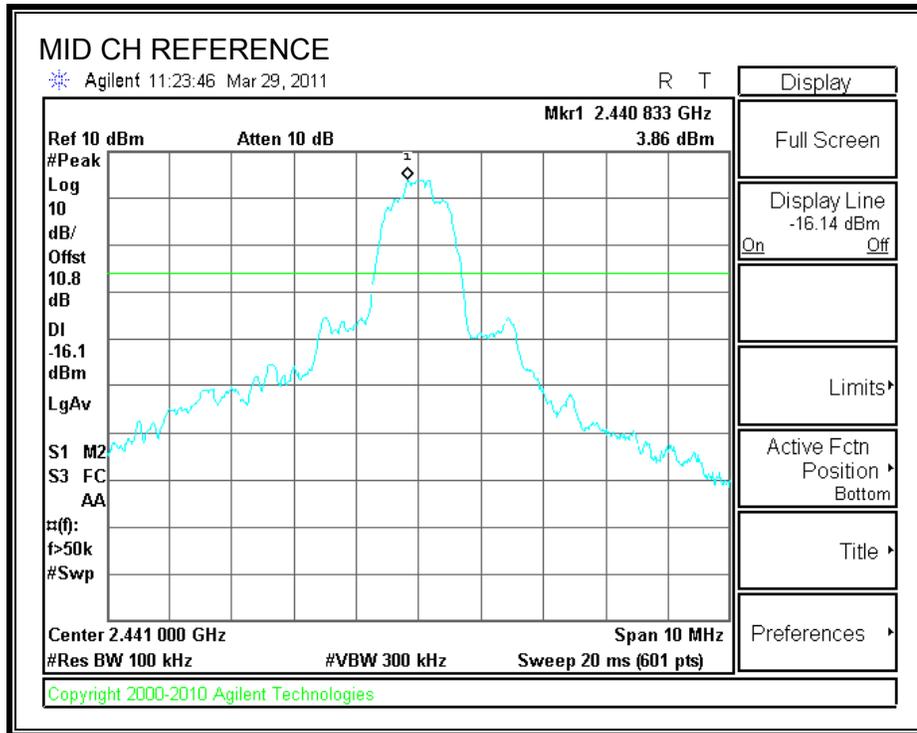
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

RESULTS

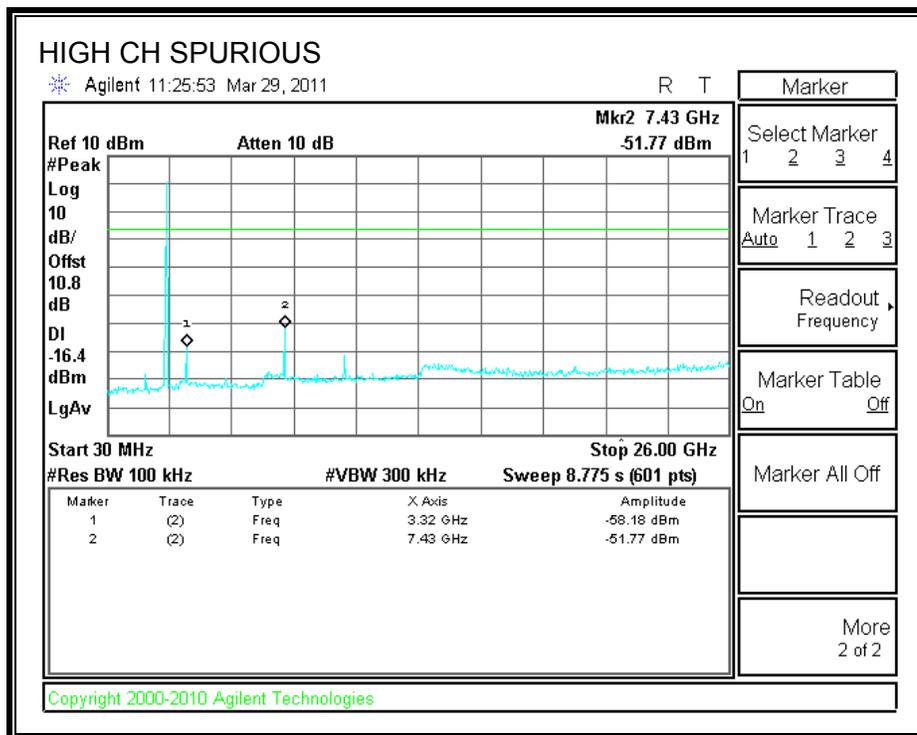
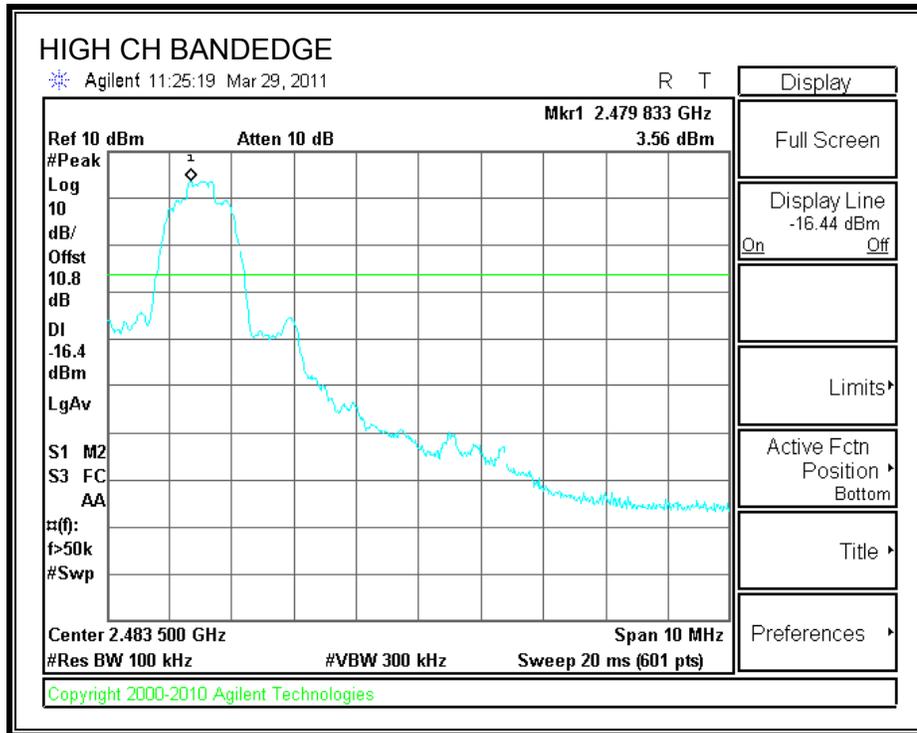
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



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.

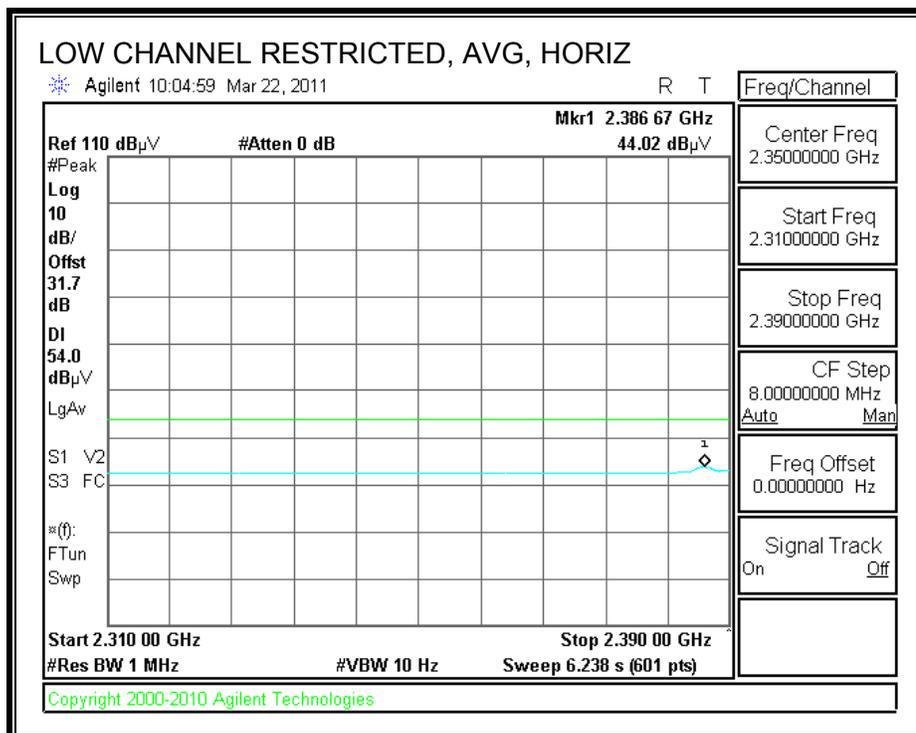
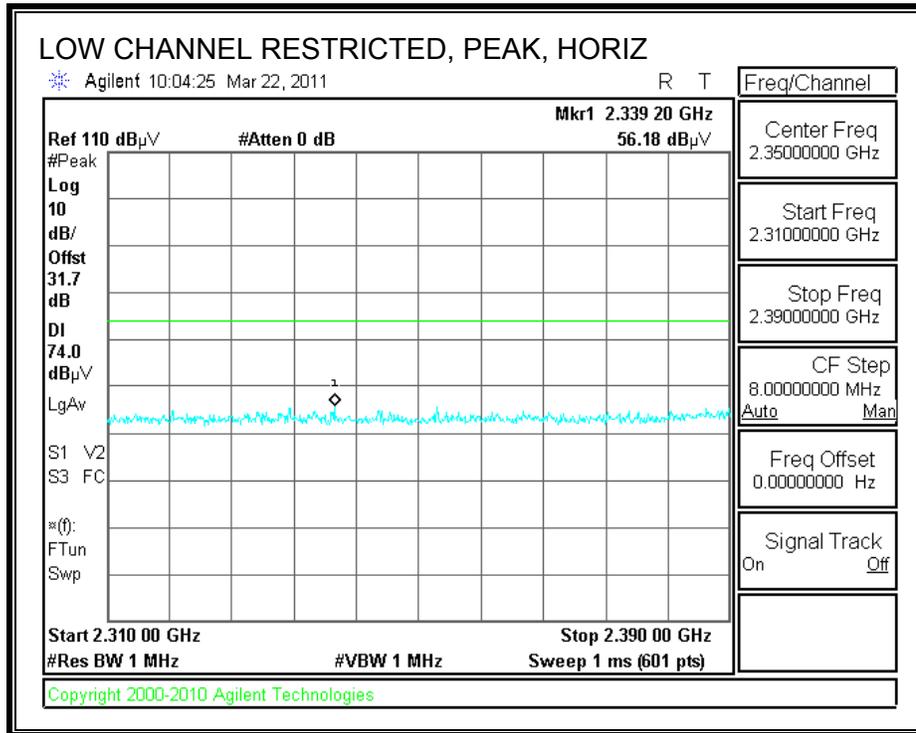
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

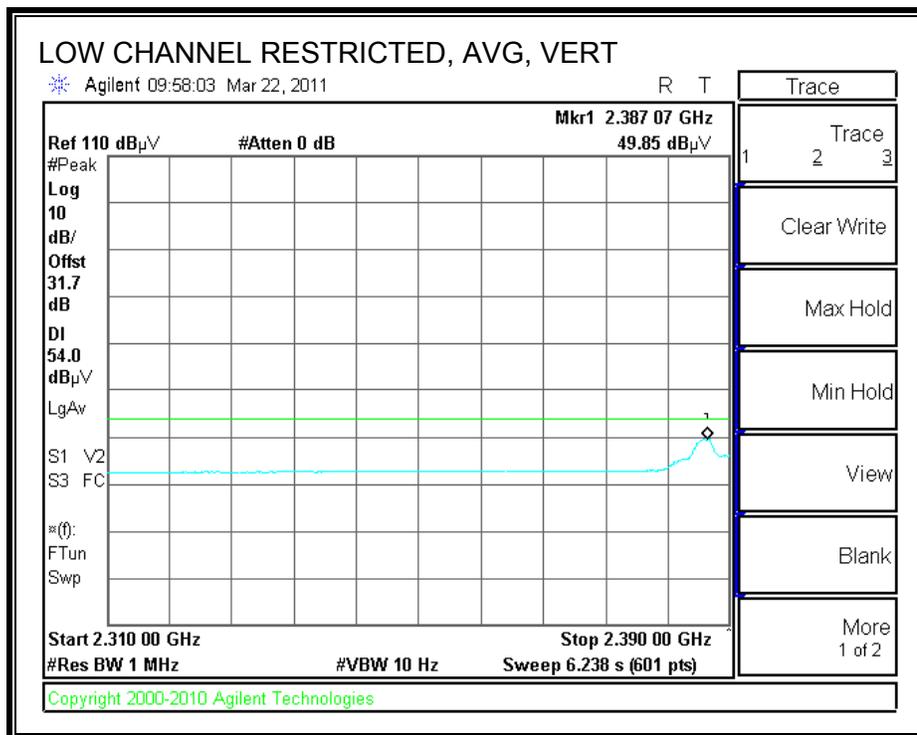
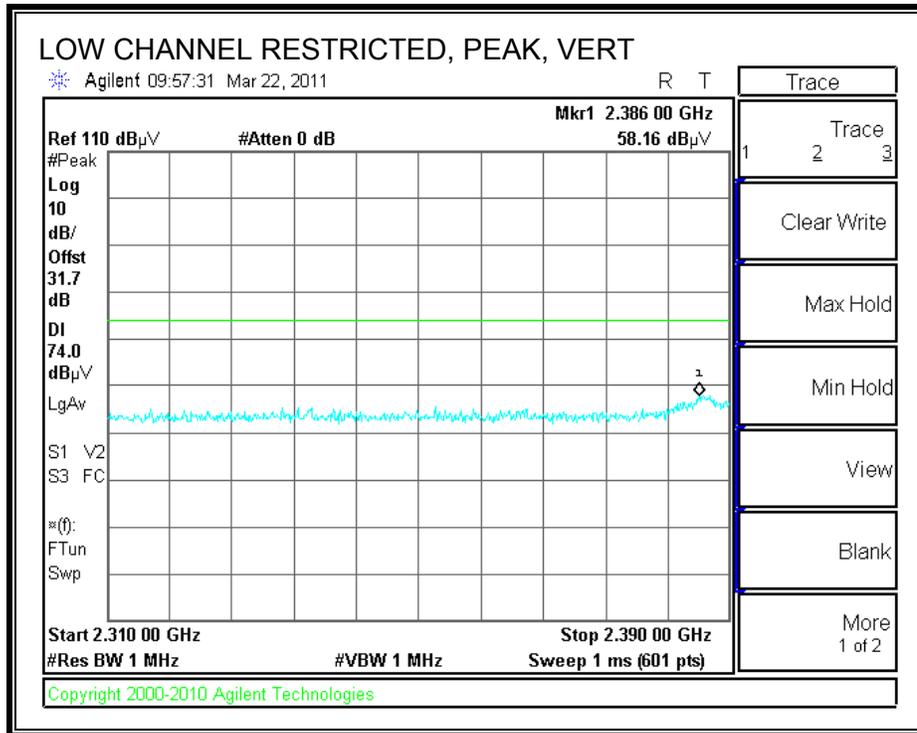
8.2. TRANSMITTER ABOVE 1 GHz

8.2.1. 802.11b MODE

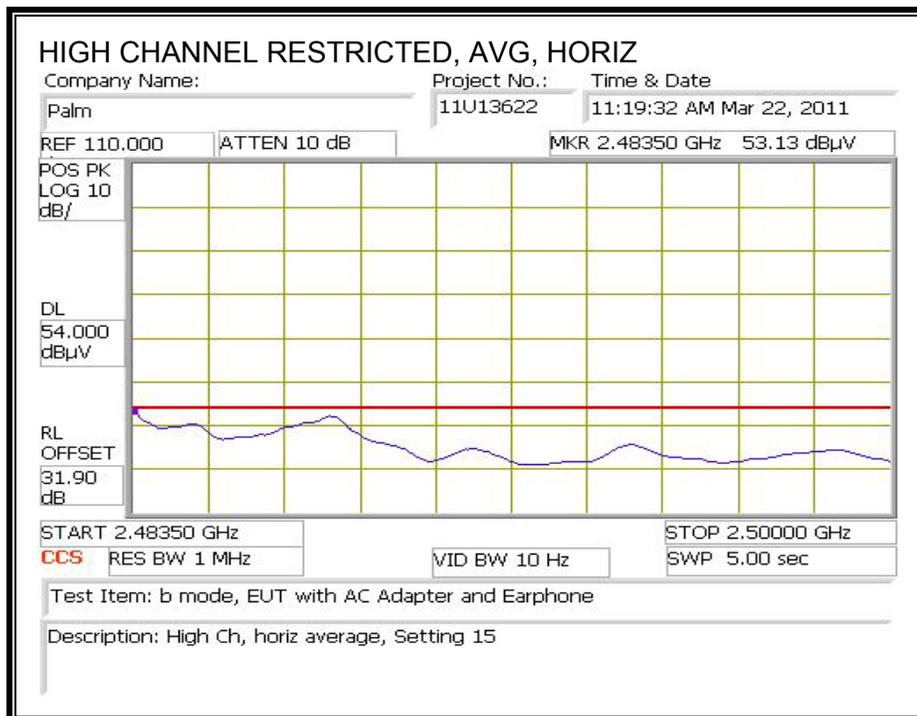
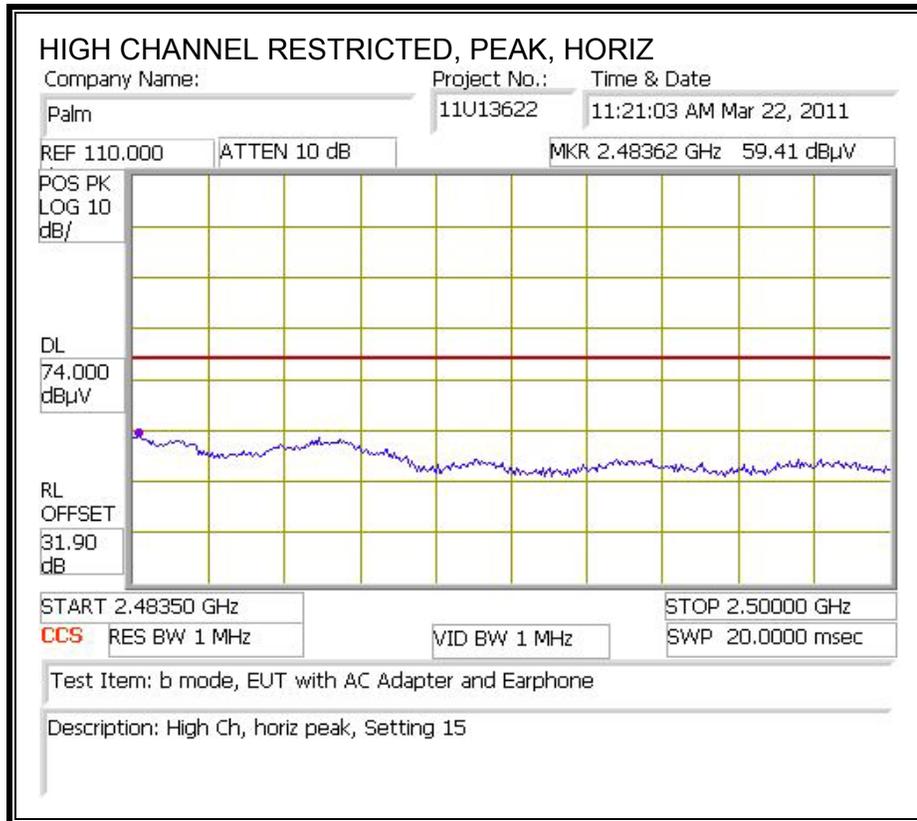
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



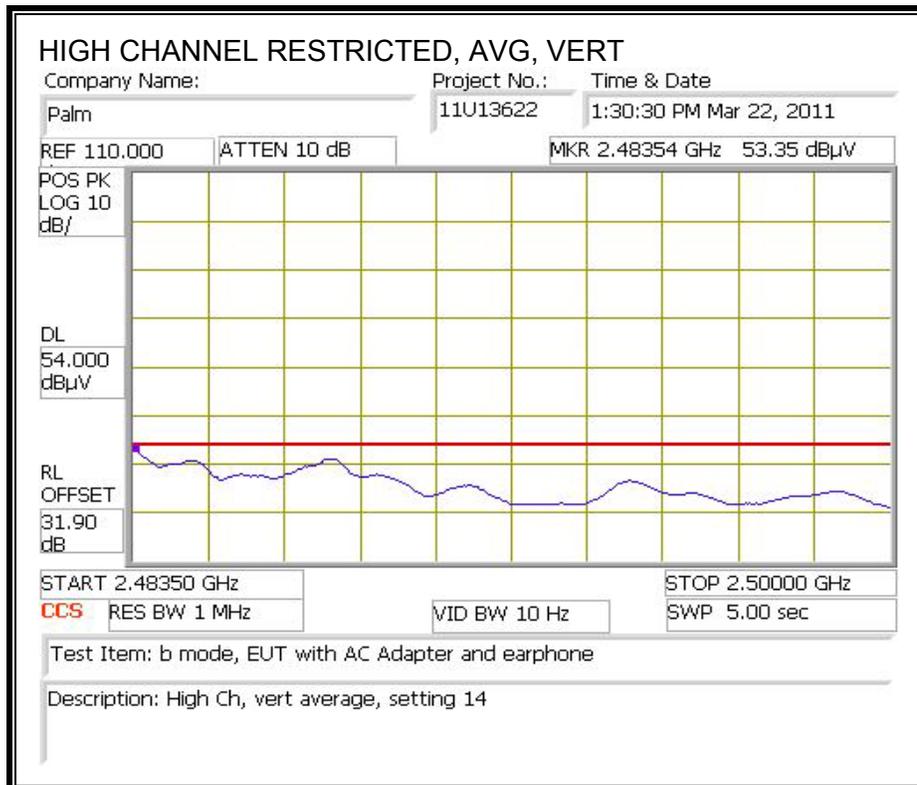
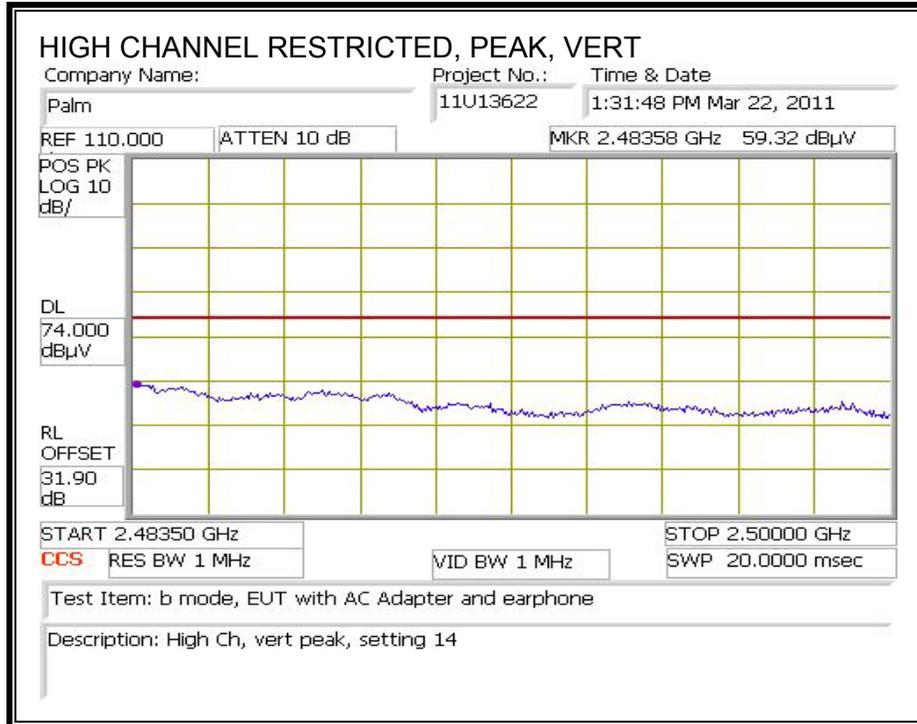
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

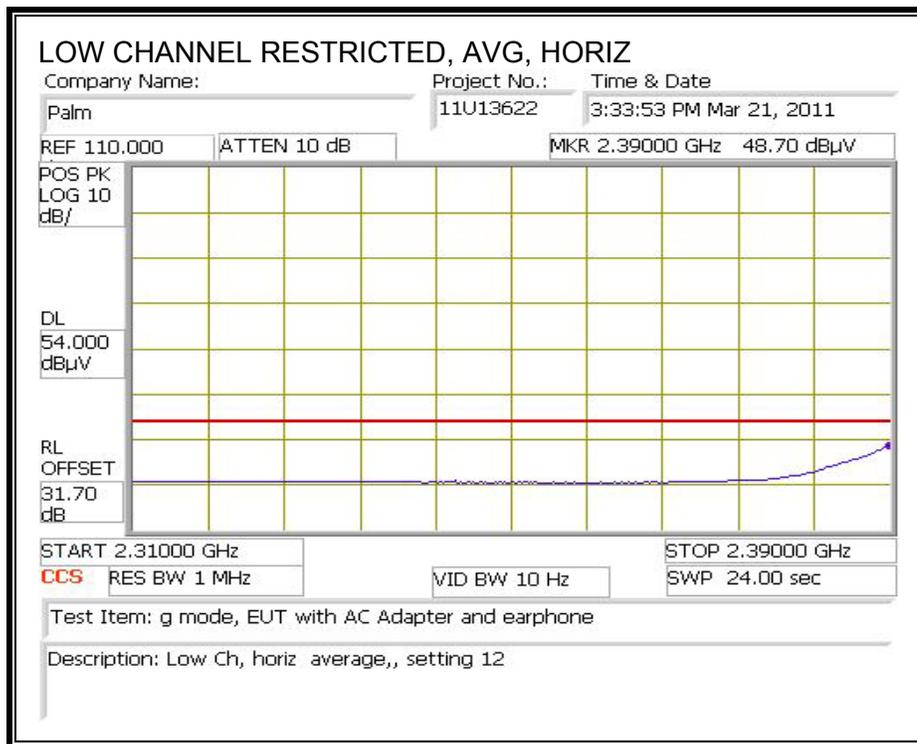
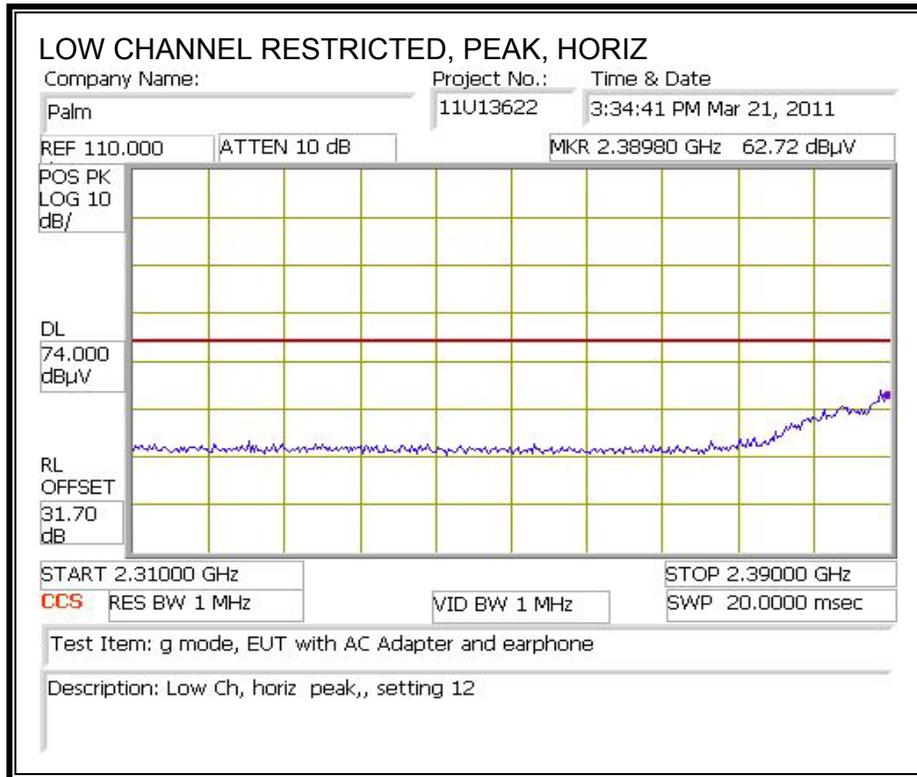


HARMONICS AND SPURIOUS EMISSIONS

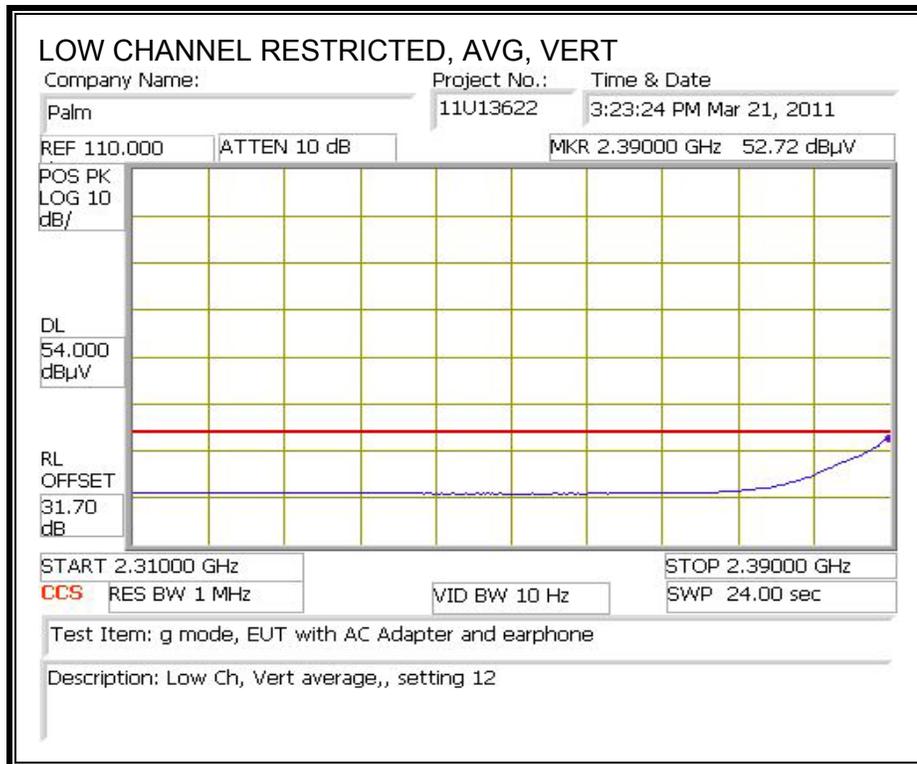
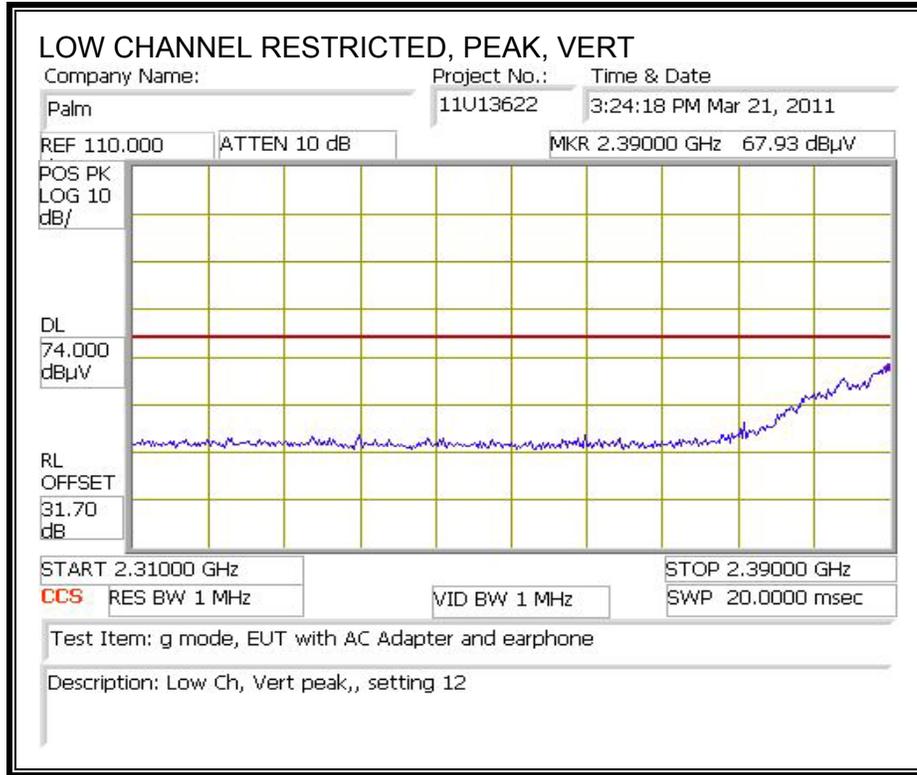
High Frequency Measurement													
Compliance Certification Services, Fremont 5m Chamber													
Test Engr:		Chin Pang											
Date:		03-23-11											
Project #:		11U13622											
Company:		Palm											
Test Target:		FCC 15.247											
Mode Oper:		b mode, TX											
f	Measurement 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	Dist	Read	AF	CL	Amp	D Corr	Filtr	Corr.	Limit	Margin	Ant. Pol.	Det.	Notes
GHz	(m)	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
Low Ch, 2412MHz													
4.824	3.0	50.8	32.8	5.8	-34.8	0.0	0.0	54.6	74.0	-19.5	V	P	
4.824	3.0	49.1	32.8	5.8	-34.8	0.0	0.0	52.8	54.0	-1.2	V	A	
4.824	3.0	47.2	32.8	5.8	-34.8	0.0	0.0	50.9	74.0	-23.1	H	P	
4.824	3.0	44.5	32.8	5.8	-34.8	0.0	0.0	48.2	54.0	-5.8	H	A	
Mid Ch, 2437MHz													
4.874	3.0	50.2	32.8	5.8	-34.9	0.0	0.0	54.0	74.0	-20.0	V	P	
4.874	3.0	48.4	32.8	5.8	-34.9	0.0	0.0	52.2	54.0	-1.8	V	A	
7.311	3.0	37.6	35.2	7.3	-34.7	0.0	0.0	45.4	74.0	-28.6	V	P	
7.311	3.0	24.9	35.2	7.3	-34.7	0.0	0.0	32.7	54.0	-21.3	V	A	
4.874	3.0	44.1	32.8	5.8	-34.9	0.0	0.0	47.9	74.0	-26.1	H	P	
4.874	3.0	40.3	32.8	5.8	-34.9	0.0	0.0	44.1	54.0	-9.9	H	A	
7.311	3.0	37.1	35.2	7.3	-34.7	0.0	0.0	44.9	74.0	-29.1	H	P	
7.311	3.0	24.9	35.2	7.3	-34.7	0.0	0.0	32.7	54.0	-21.3	H	A	
High Ch, 2462MHz													
4.924	3.0	48.7	32.8	5.9	-34.9	0.0	0.0	52.6	74.0	-21.4	V	P	
4.924	3.0	46.7	32.8	5.9	-34.9	0.0	0.0	50.6	54.0	-3.4	V	A	
7.386	3.0	37.0	35.3	7.3	-34.6	0.0	0.0	44.9	74.0	-29.1	V	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	V	A	
4.924	3.0	45.0	32.8	5.9	-34.9	0.0	0.0	48.8	74.0	-25.2	H	P	
4.924	3.0	41.6	32.8	5.9	-34.9	0.0	0.0	45.4	54.0	-8.6	H	A	
7.386	3.0	37.4	35.3	7.3	-34.6	0.0	0.0	45.3	74.0	-28.7	H	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	
Rev. 4.1.2.7													
Note: No other emissions were detected above the system noise floor.													

8.2.2. 802.11g MODE

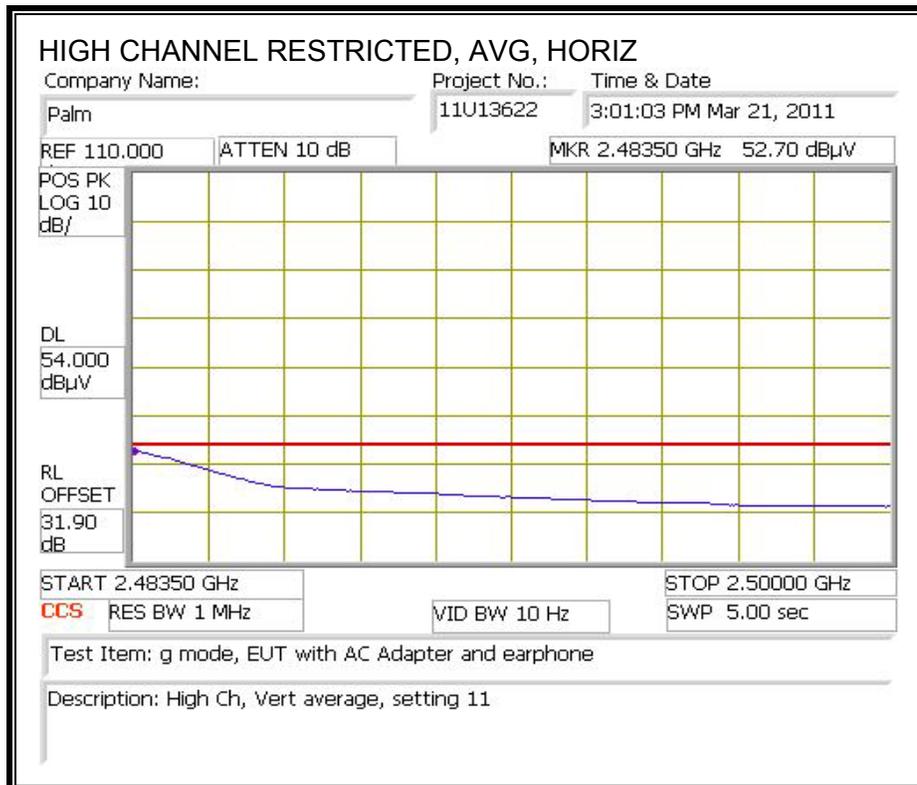
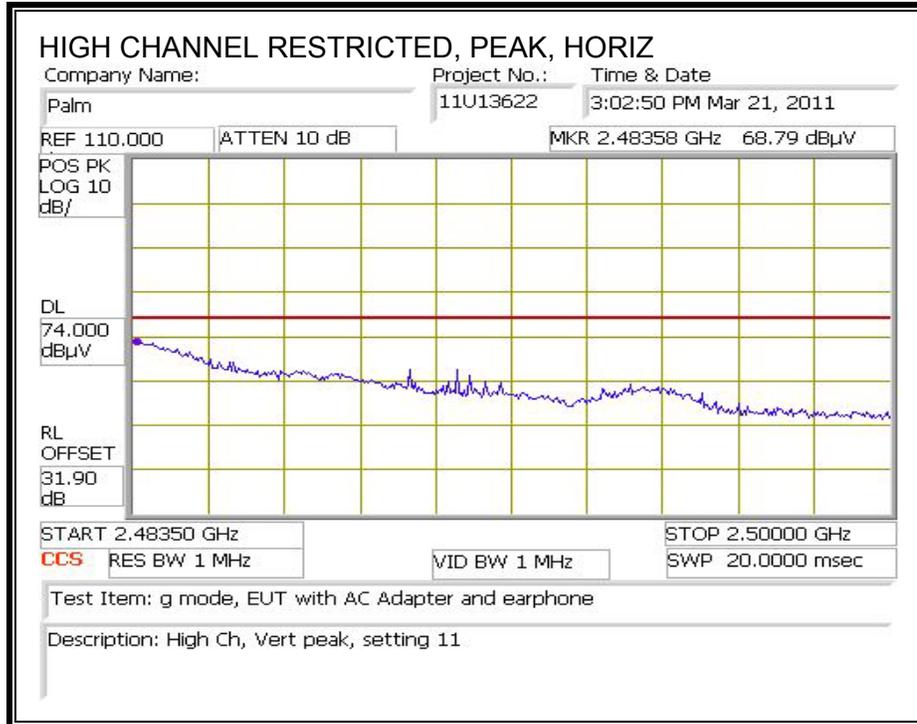
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



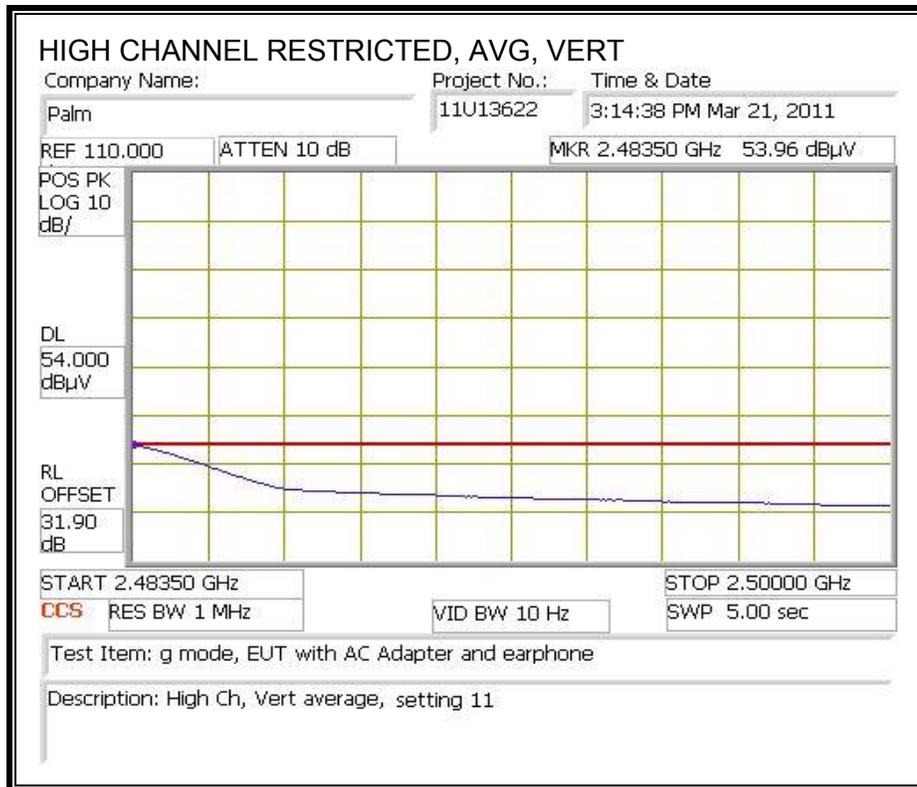
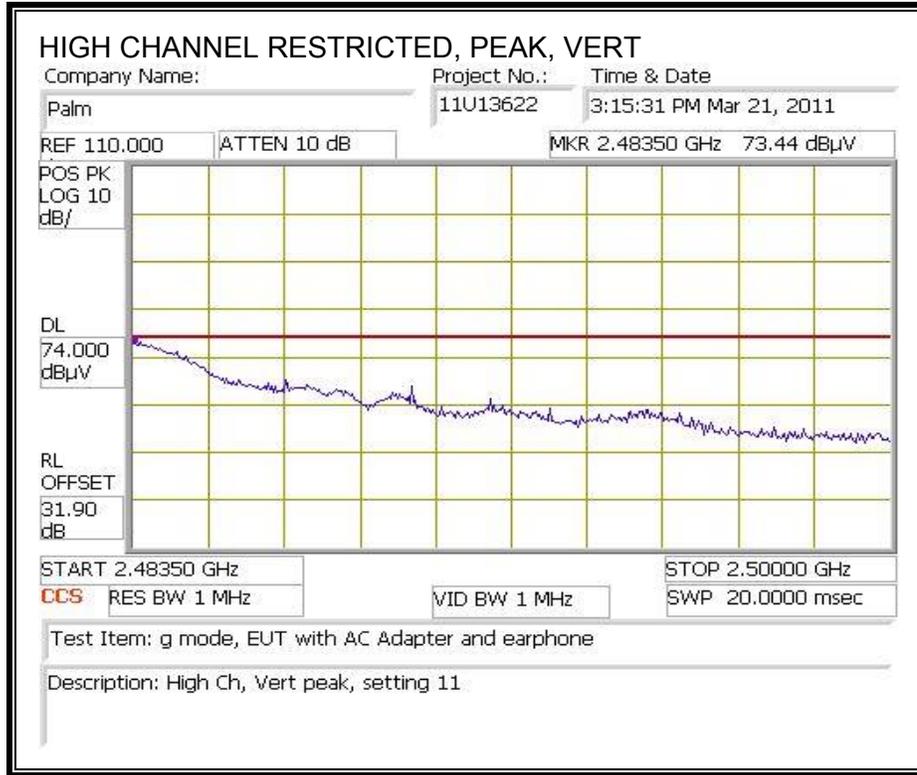
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

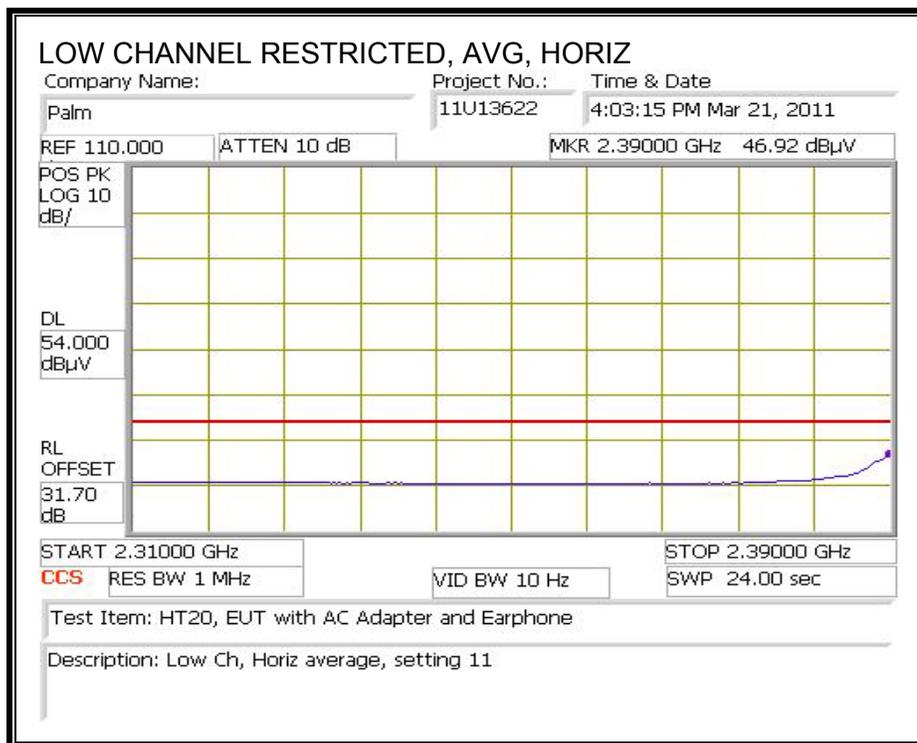
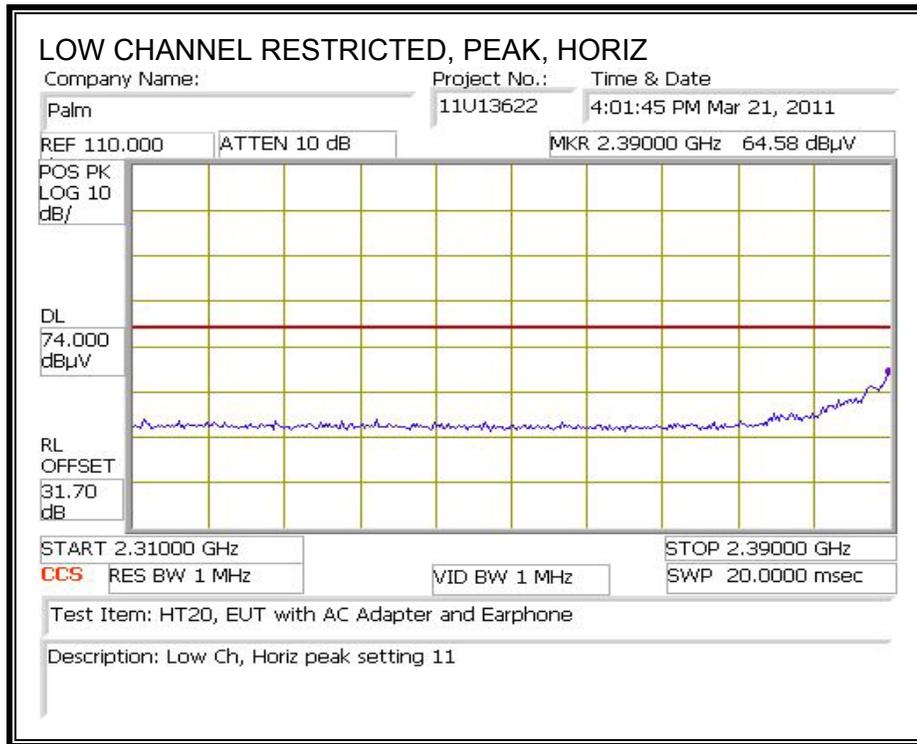


HARMONICS AND SPURIOUS EMISSIONS

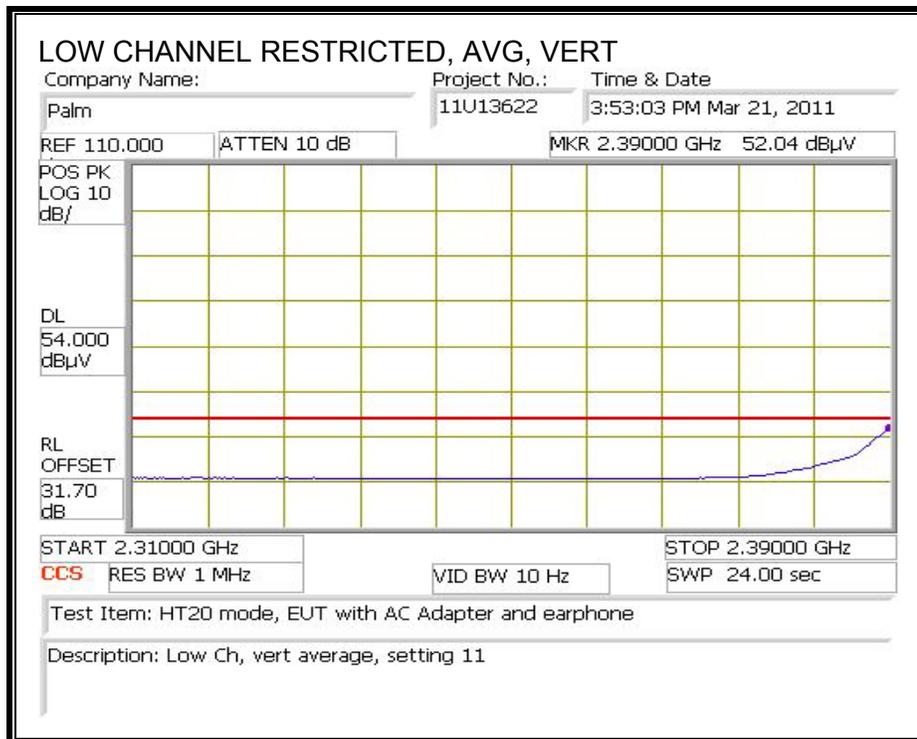
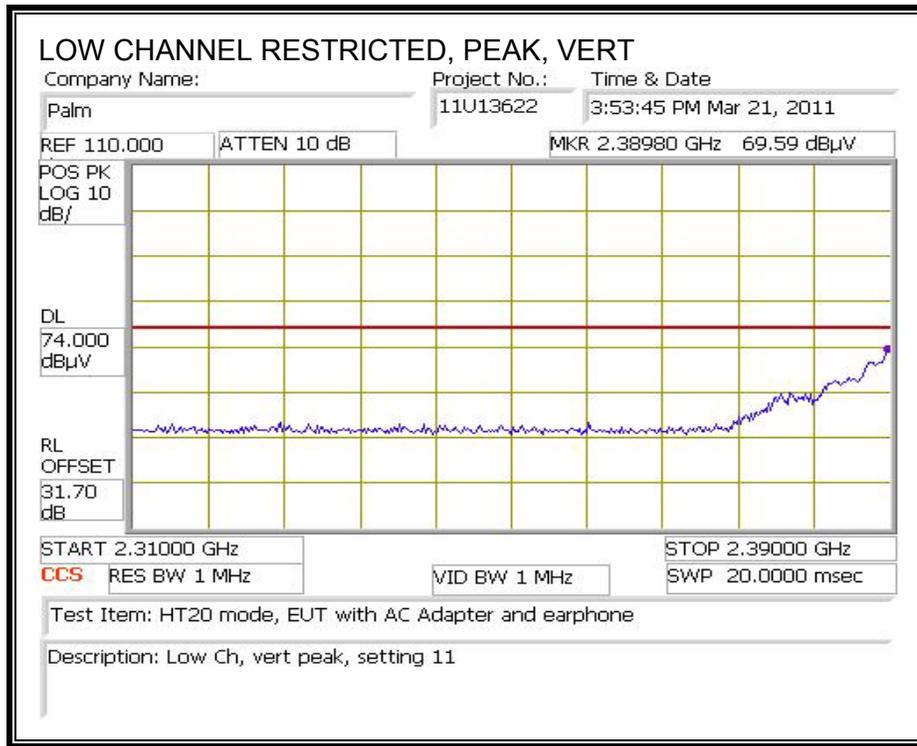
High Frequency Measurement													
Compliance Certification Services, Fremont 5m Chamber													
Test Engr:		Chin Pang											
Date:		03-23-11											
Project #:		11U13622											
Company:		Palm											
Test Target:		FCC 15.247											
Mode Oper:		g, mode, TX											
f	Measurement 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	Dist	Read	AF	CL	Amp	D Corr	Filtr	Corr.	Limit	Margin	Ant. Pol.	Det.	Notes
GHz	(m)	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
Low Ch, 2412MHz													
4.824	3.0	45.2	32.8	5.8	-34.8	0.0	0.0	48.9	74.0	-25.1	H	P	
4.824	3.0	33.1	32.8	5.8	-34.8	0.0	0.0	36.8	54.0	-17.2	H	A	
4.824	3.0	51.1	32.8	5.8	-34.8	0.0	0.0	54.8	74.0	-19.2	V	P	
4.824	3.0	38.8	32.8	5.8	-34.8	0.0	0.0	42.5	54.0	-11.5	V	A	
Mid Ch, 2437MHz													
4.874	3.0	42.2	32.8	5.8	-34.9	0.0	0.0	46.0	74.0	-28.0	H	P	
4.874	3.0	30.2	32.8	5.8	-34.9	0.0	0.0	34.0	54.0	-20.0	H	A	
7.311	3.0	36.7	35.2	7.3	-34.7	0.0	0.0	44.5	74.0	-29.5	H	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	H	A	
4.874	3.0	47.8	32.8	5.8	-34.9	0.0	0.0	51.6	74.0	-22.4	V	P	
4.874	3.0	35.5	32.8	5.8	-34.9	0.0	0.0	39.3	54.0	-14.7	V	A	
7.311	3.0	37.4	35.2	7.3	-34.7	0.0	0.0	45.2	74.0	-28.8	V	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	V	A	
High Ch, 2462MHz													
4.924	3.0	41.1	32.8	5.9	-34.9	0.0	0.0	45.0	74.0	-29.0	H	P	
4.924	3.0	28.8	32.8	5.9	-34.9	0.0	0.0	32.6	54.0	-21.4	H	A	
7.386	3.0	37.1	35.3	7.3	-34.6	0.0	0.0	45.0	74.0	-29.0	H	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	
4.924	3.0	43.6	32.8	5.9	-34.9	0.0	0.0	47.5	74.0	-26.5	V	P	
4.924	3.0	31.5	32.8	5.9	-34.9	0.0	0.0	35.4	54.0	-18.6	V	A	
7.386	3.0	37.3	35.3	7.3	-34.6	0.0	0.0	45.2	74.0	-28.8	V	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	V	A	
Rev. 4.1.2.7													
Note: No other emissions were detected above the system noise floor.													

8.2.3. 802.11n HT20 SISO MODE

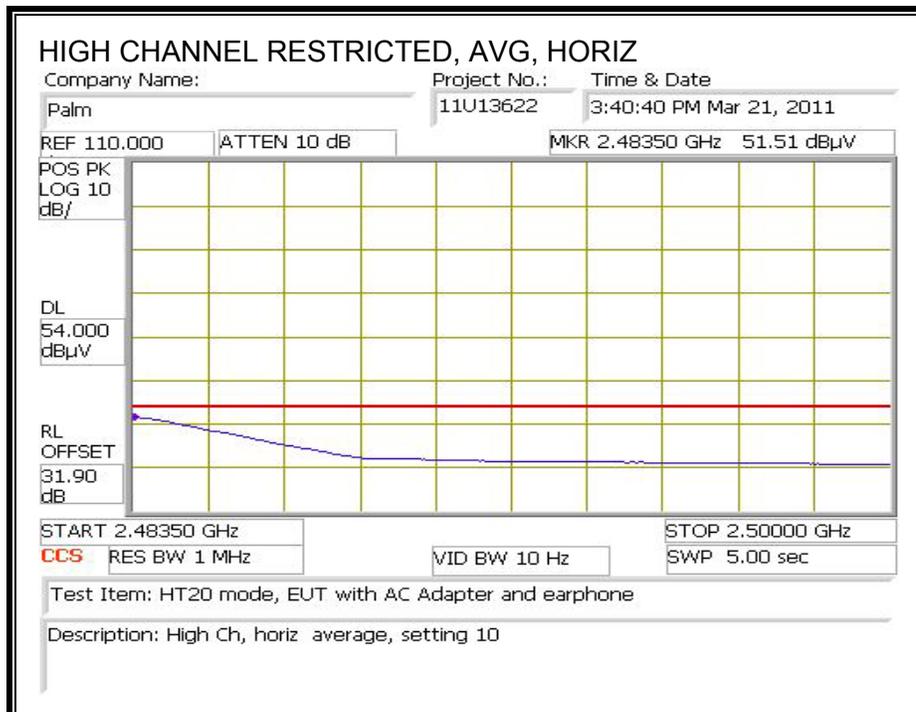
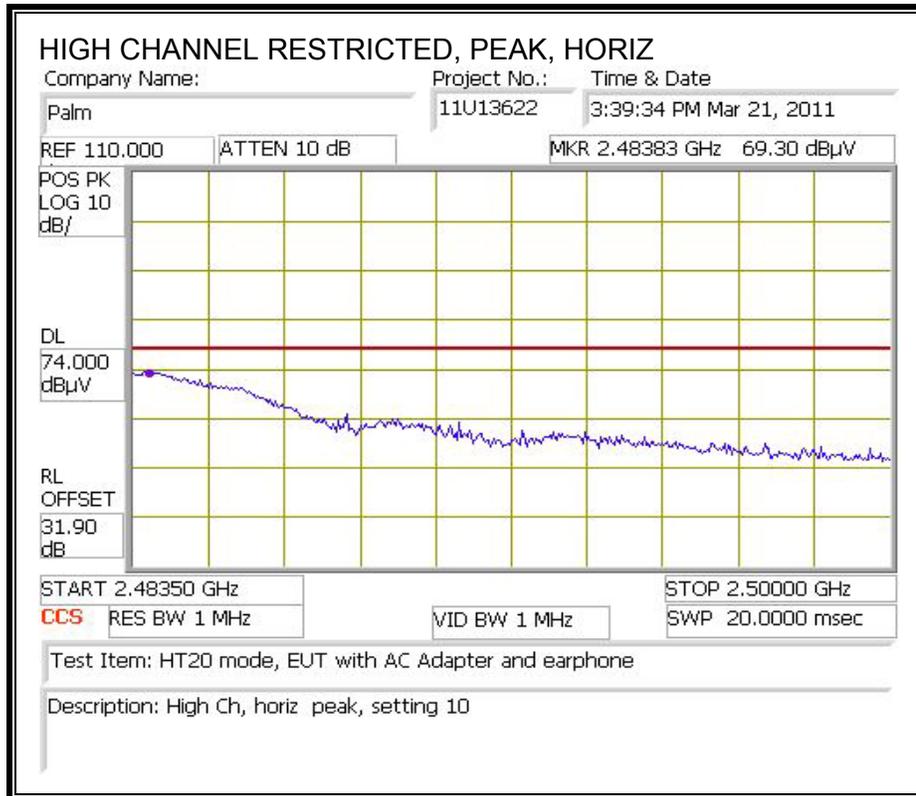
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



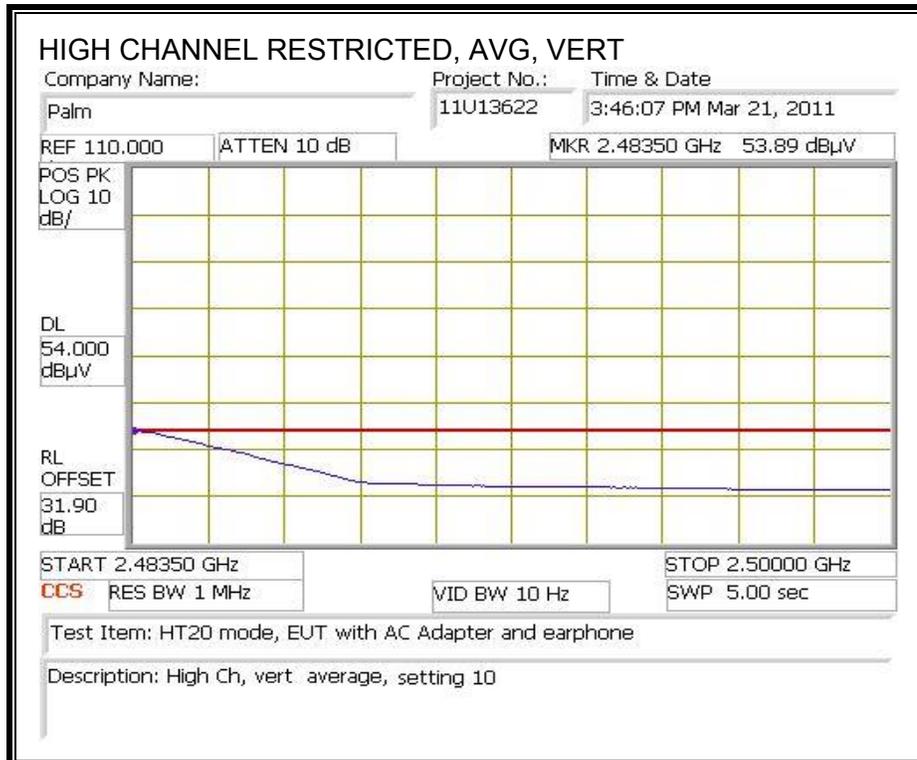
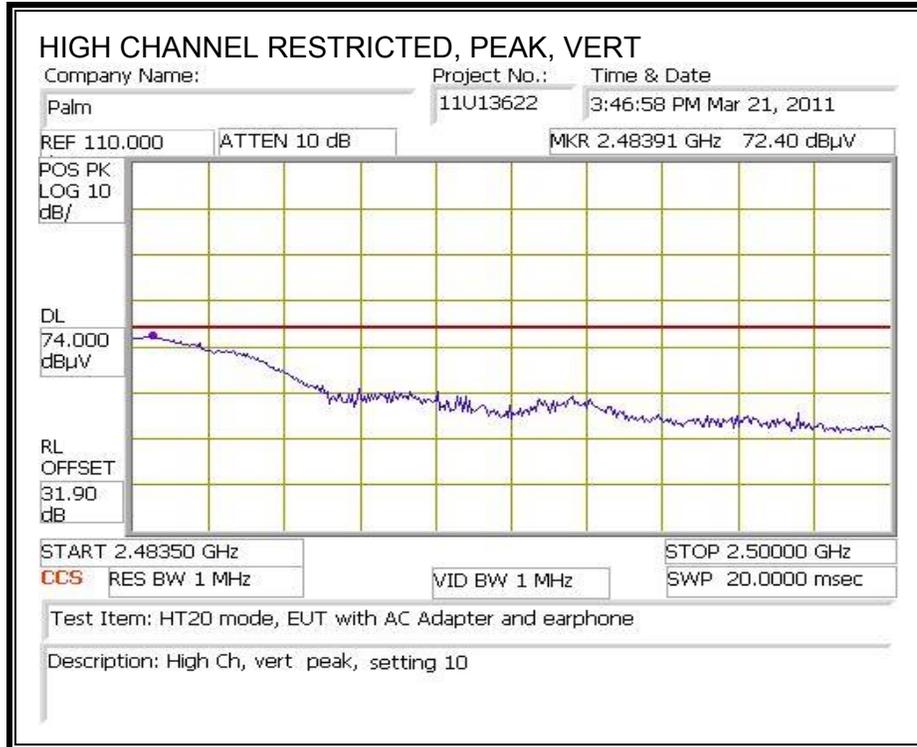
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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:		03-23-11											
Project #:		11U13622											
Company:		Palm											
Test Target:		FC 15.247											
Mode Oper:		HT20, TX											
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	Dist	Read	AF	CL	Amp	D Corr	Fltr	Corr.	Limit	Margin	Ant. Pol.	Det.	Notes
GHz	(m)	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
Low Ch, 2412MHz													
4.824	3.0	50.5	32.8	5.8	-34.8	0.0	0.0	54.2	74.0	-19.8	V	P	
4.824	3.0	37.4	32.8	5.8	-34.8	0.0	0.0	41.1	54.0	-12.9	V	A	
4.824	3.0	46.6	32.8	5.8	-34.8	0.0	0.0	50.3	74.0	-23.7	H	P	
4.824	3.0	33.4	32.8	5.8	-34.8	0.0	0.0	37.1	54.0	-16.9	H	A	
Mid Ch, 2437MHz													
4.874	3.0	47.1	32.8	5.8	-34.9	0.0	0.0	50.9	74.0	-23.1	V	P	
4.874	3.0	34.6	32.8	5.8	-34.9	0.0	0.0	38.4	54.0	-15.6	V	A	
7.311	3.0	37.8	35.2	7.3	-34.7	0.0	0.0	45.6	74.0	-28.4	V	P	
7.311	3.0	24.8	35.2	7.3	-34.7	0.0	0.0	32.6	54.0	-21.4	V	A	
4.874	3.0	45.0	32.8	5.8	-34.9	0.0	0.0	48.8	74.0	-25.2	H	P	
4.874	3.0	32.4	32.8	5.8	-34.9	0.0	0.0	36.2	54.0	-17.8	H	A	
7.311	3.0	36.9	35.2	7.3	-34.7	0.0	0.0	44.7	74.0	-29.3	H	P	
7.311	3.0	24.7	35.2	7.3	-34.7	0.0	0.0	32.5	54.0	-21.5	H	A	
High Ch, 2462MHz													
4.924	3.0	43.2	32.8	5.9	-34.9	0.0	0.0	47.1	74.0	-26.9	V	P	
4.924	3.0	29.9	32.8	5.9	-34.9	0.0	0.0	33.7	54.0	-20.3	V	A	
7.386	3.0	37.0	35.3	7.3	-34.6	0.0	0.0	44.9	74.0	-29.1	V	P	
7.386	3.0	24.7	35.3	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	V	A	
4.924	3.0	39.7	32.8	5.9	-34.9	0.0	0.0	43.6	74.0	-30.4	H	P	
4.924	3.0	26.8	32.8	5.9	-34.9	0.0	0.0	30.6	54.0	-23.4	H	A	
7.386	3.0	37.0	35.3	7.3	-34.6	0.0	0.0	45.0	74.0	-29.0	H	P	
7.386	3.0	24.6	35.3	7.3	-34.6	0.0	0.0	32.6	54.0	-21.4	H	A	
Rev. 4.1.2.7													
Note: No other emissions were detected above the system noise floor.													

8.2.4. TRANSMITTER ABOVE 1 GHz FOR 802.11a MODE IN THE 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement Compliance Certification Services, Fremont 5m Chamber																																						
Test Engr:		Chin Pang																																				
Date:		03-24-11																																				
Project #:		11U13622																																				
Company:		Palm																																				
Test Target:		FCC 15.247																																				
Mode Oper:		5.8GHz, Legacy, TX																																				
<table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">f</td> <td style="width: 25%;">Measurement Frequency</td> <td style="width: 5%;">Amp</td> <td style="width: 20%;">Preamp Gain</td> <td style="width: 40%;">Average Field Strength Limit</td> </tr> <tr> <td>Dist</td> <td>Distance to Antenna</td> <td>D Corr</td> <td>Distance Correct to 3 meters</td> <td>Peak Field Strength Limit</td> </tr> <tr> <td>Read</td> <td>Analyzer Reading</td> <td>Avg</td> <td>Average Field Strength @ 3 m</td> <td>Margin vs. Average Limit</td> </tr> <tr> <td>AF</td> <td>Antenna Factor</td> <td>Peak</td> <td>Calculated Peak Field Strength</td> <td>Margin vs. Peak Limit</td> </tr> <tr> <td>CL</td> <td>Cable Loss</td> <td>HPF</td> <td>High Pass Filter</td> <td></td> </tr> </table>														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	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit																																		
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit																																		
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit																																		
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs. Peak Limit																																		
CL	Cable Loss	HPF	High Pass Filter																																			
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes																									
Low Ch, 5745MHz																																						
11.490	3.0	35.2	38.1	9.5	-33.1	0.0	0.7	50.4	74.0	-23.6	V	P																										
11.490	3.0	22.3	38.1	9.5	-33.1	0.0	0.7	37.4	54.0	-16.6	V	A																										
11.490	3.0	34.5	38.1	9.5	-33.1	0.0	0.7	49.6	74.0	-24.4	H	P																										
11.490	3.0	22.3	38.1	9.5	-33.1	0.0	0.7	37.5	54.0	-16.5	H	A																										
Mid Ch, 5785MHz																																						
11.570	3.0	34.1	38.1	9.5	-33.0	0.0	0.7	49.4	74.0	-24.6	V	P																										
11.570	3.0	22.0	38.1	9.5	-33.0	0.0	0.7	37.4	54.0	-16.6	V	A																										
11.570	3.0	34.9	38.1	9.5	-33.0	0.0	0.7	50.3	74.0	-23.7	H	P																										
11.570	3.0	22.0	38.1	9.5	-33.0	0.0	0.7	37.4	54.0	-16.6	H	A																										
High Ch, 5825MHz																																						
11.650	3.0	34.8	38.2	9.6	-32.9	0.0	0.7	50.3	74.0	-23.7	V	P																										
11.650	3.0	22.0	38.2	9.6	-32.9	0.0	0.7	37.6	54.0	-16.4	V	A																										
11.650	3.0	34.0	38.2	9.6	-32.9	0.0	0.7	49.6	74.0	-24.4	H	P																										
11.650	3.0	22.0	38.2	9.6	-32.9	0.0	0.7	37.6	54.0	-16.4	H	A																										
Rev. 4.1.2.7																																						
Note: No other emissions were detected above the system noise floor.																																						

8.2.5. TRANSMITTER ABOVE 1 GHz FOR 802.11n HT20 SISO MODE IN THE 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement Compliance Certification Services, Fremont 5m Chamber																																						
Test Engr:		Chin Pang																																				
Date:		03-24-11																																				
Project #:		11U13622																																				
Company:		Palm																																				
Test Target:		FCC 15.247																																				
Mode Oper:		5.8GHz, HT20, TX																																				
<table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">f</td> <td style="width: 25%;">Measurement Frequency</td> <td style="width: 5%;">Amp</td> <td style="width: 15%;">Preamp Gain</td> <td style="width: 45%;">Average Field Strength Limit</td> </tr> <tr> <td>Dist</td> <td>Distance to Antenna</td> <td>D Corr</td> <td>Distance Correct to 3 meters</td> <td>Peak Field Strength Limit</td> </tr> <tr> <td>Read</td> <td>Analyzer Reading</td> <td>Avg</td> <td>Average Field Strength @ 3 m</td> <td>Margin vs. Average Limit</td> </tr> <tr> <td>AF</td> <td>Antenna Factor</td> <td>Peak</td> <td>Calculated Peak Field Strength</td> <td>Margin vs. Peak Limit</td> </tr> <tr> <td>CL</td> <td>Cable Loss</td> <td>HPF</td> <td>High Pass Filter</td> <td></td> </tr> </table>														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	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit																																		
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit																																		
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit																																		
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs. Peak Limit																																		
CL	Cable Loss	HPF	High Pass Filter																																			
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol V/H	Det. P/A/QP	Notes																									
Low Ch, 5745MHz																																						
11.490	3.0	34.4	38.1	9.5	-33.1	0.0	0.7	49.6	74.0	-24.4	H	P																										
11.490	3.0	22.2	38.1	9.5	-33.1	0.0	0.7	37.4	54.0	-16.6	H	A																										
11.490	3.0	34.9	38.1	9.5	-33.1	0.0	0.7	50.0	74.0	-24.0	V	P																										
11.490	3.0	22.3	38.1	9.5	-33.1	0.0	0.7	37.5	54.0	-16.5	V	A																										
Mid Ch, 5785MHz																																						
11.570	3.0	34.7	38.1	9.5	-33.0	0.0	0.7	50.1	74.0	-23.9	H	P																										
11.570	3.0	21.9	38.1	9.5	-33.0	0.0	0.7	37.3	54.0	-16.7	H	A																										
11.570	3.0	35.5	38.1	9.5	-33.0	0.0	0.7	50.8	74.0	-23.2	V	P																										
11.570	3.0	22.1	38.1	9.5	-33.0	0.0	0.7	37.4	54.0	-16.6	V	A																										
High Ch, 5825MHz																																						
11.650	3.0	34.6	38.2	9.6	-32.9	0.0	0.7	50.2	74.0	-23.8	H	P																										
11.650	3.0	22.0	38.2	9.6	-32.9	0.0	0.7	37.5	54.0	-16.5	H	A																										
11.650	3.0	33.9	38.2	9.6	-32.9	0.0	0.7	49.5	74.0	-24.5	V	P																										
11.650	3.0	22.0	38.2	9.6	-32.9	0.0	0.7	37.6	54.0	-16.4	V	A																										
Rev. 4.1.2.7 Note: No other emissions were detected above the system noise floor.																																						

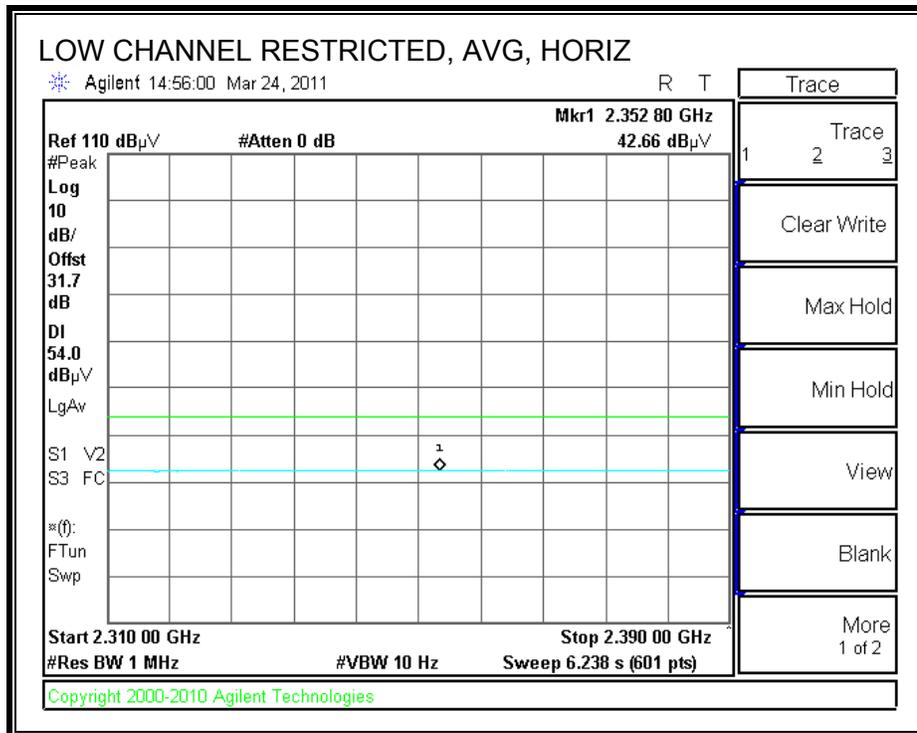
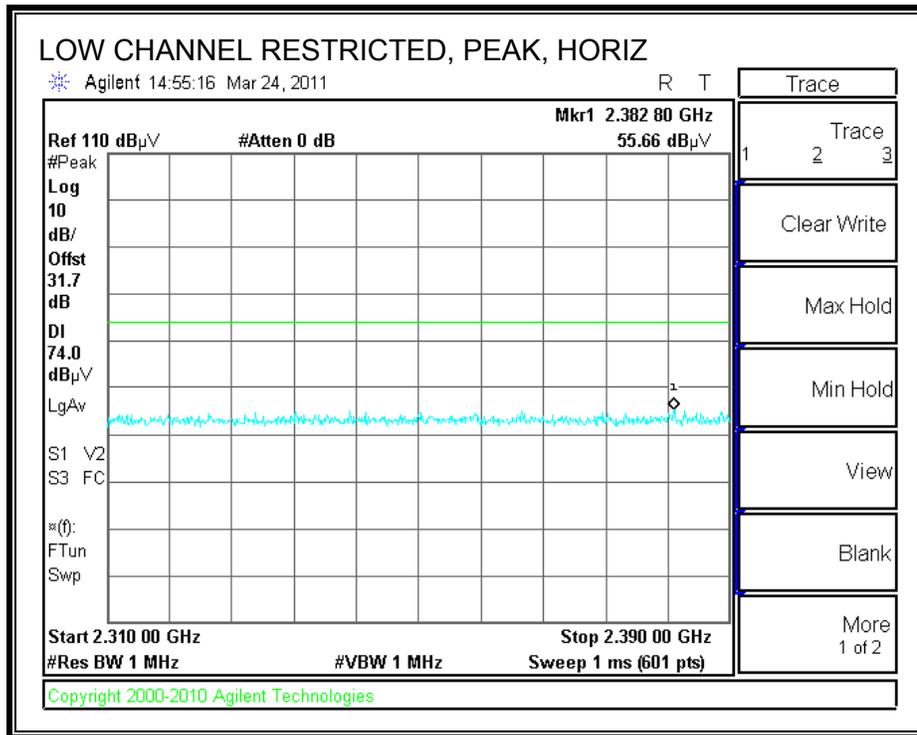
8.2.6. TRANSMITTER ABOVE 1 GHz FOR 802.11n HT40 SISO MODE IN THE 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS

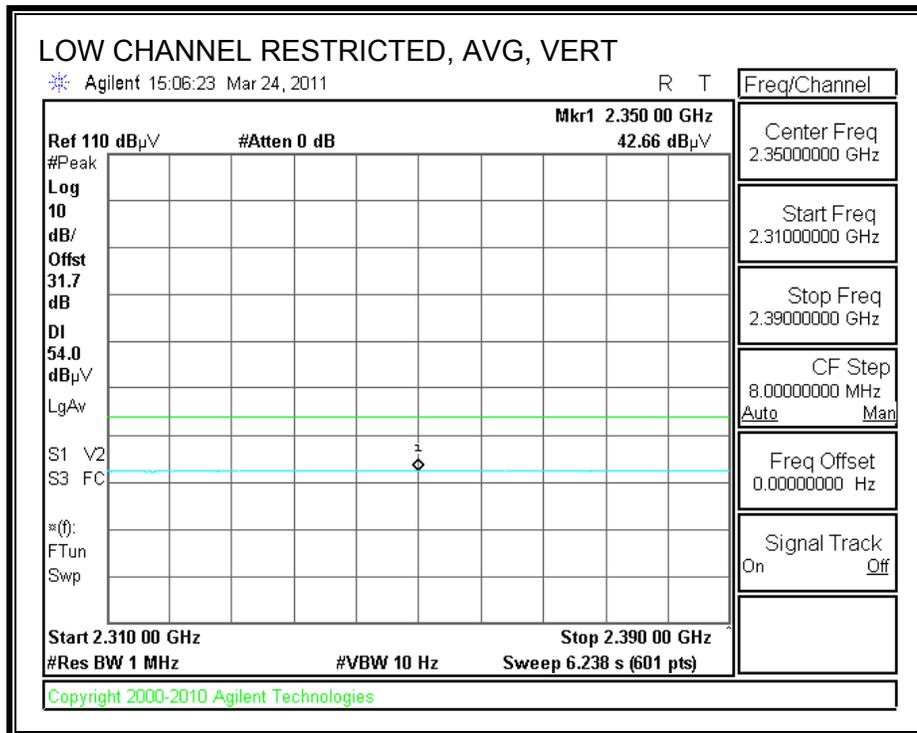
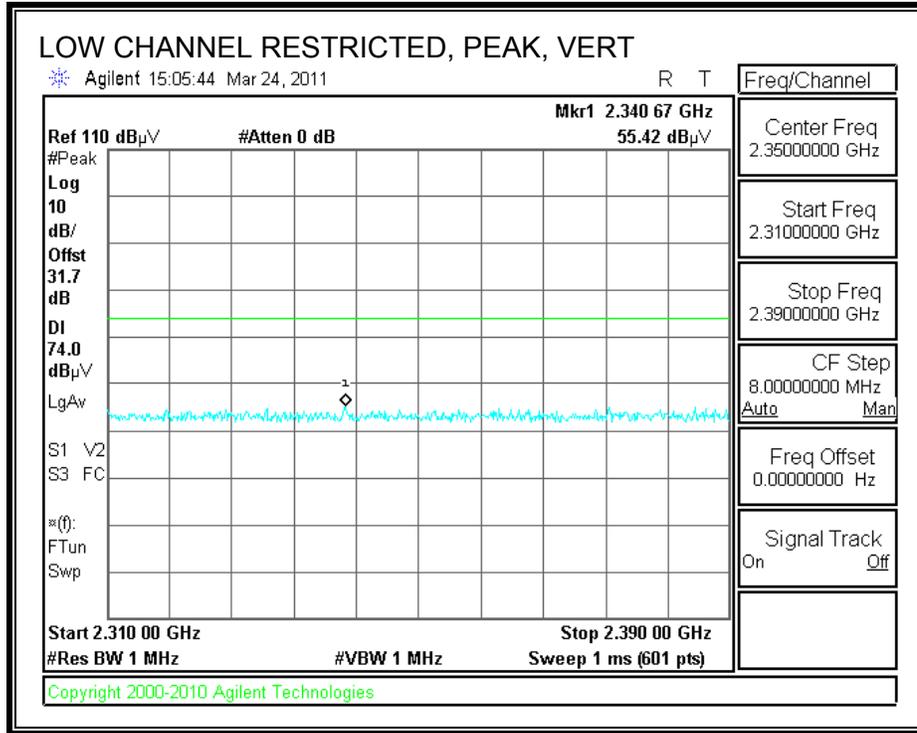
High Frequency Measurement Compliance Certification Services, Fremont 5m Chamber													
Test Engr:		Chin Pang											
Date:		03-24-11											
Project #:		11U13622											
Company:		Palm											
Test Target:		FCC 15.247											
Mode Oper:		5.8GHz, HT40, TX											
f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit									
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit									
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit									
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs. Peak Limit									
CL	Cable Loss	HPF	High Pass Filter										
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol V/H	Det P/A/QP	Notes
Low Ch, 5755MHz													
11.510	3.0	33.8	38.1	9.5	-33.1	0.0	0.7	49.0	74.0	-25.0	V	P	
11.510	3.0	22.0	38.1	9.5	-33.1	0.0	0.7	37.2	54.0	-16.8	V	A	
11.510	3.0	34.7	38.1	9.5	-33.1	0.0	0.7	49.9	74.0	-24.1	H	P	
11.510	3.0	22.0	38.1	9.5	-33.1	0.0	0.7	37.2	54.0	-16.8	H	A	
High Ch, 5795MHz													
11.590	3.0	33.9	38.2	9.5	-33.0	0.0	0.7	49.3	74.0	-24.7	V	P	
11.590	3.0	21.9	38.2	9.5	-33.0	0.0	0.7	37.3	54.0	-16.7	V	A	
11.590	3.0	33.9	38.2	9.5	-33.0	0.0	0.7	49.3	74.0	-24.7	H	P	
11.590	3.0	21.9	38.2	9.5	-33.0	0.0	0.7	37.3	54.0	-16.7	H	A	
Rev. 4.1.2.7													
Note: No other emissions were detected above the system noise floor.													

8.2.7. BLUETOOTH GFSK MODE

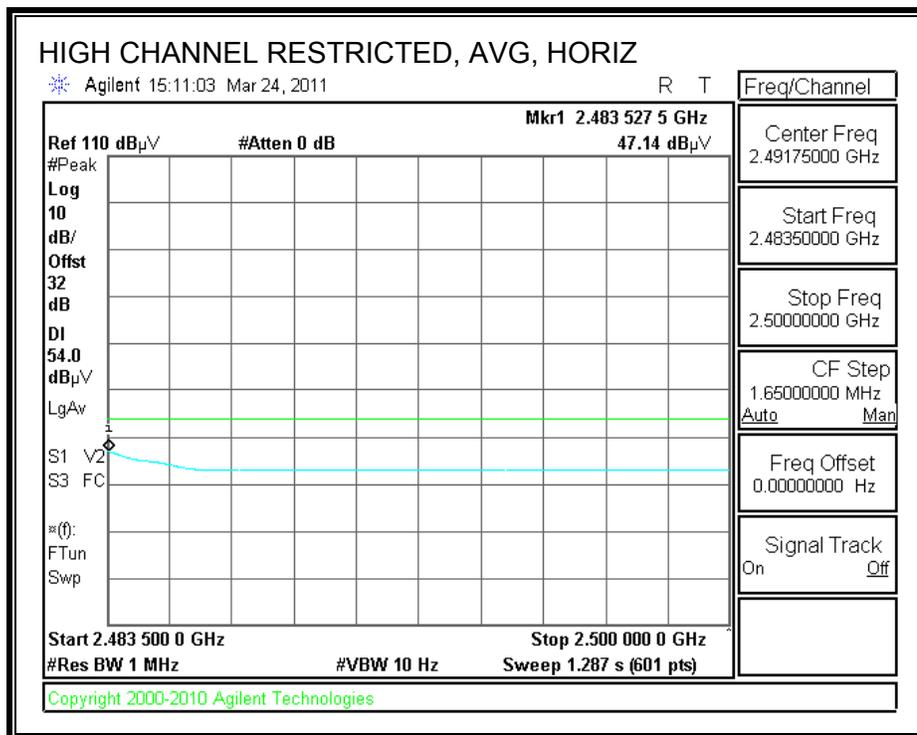
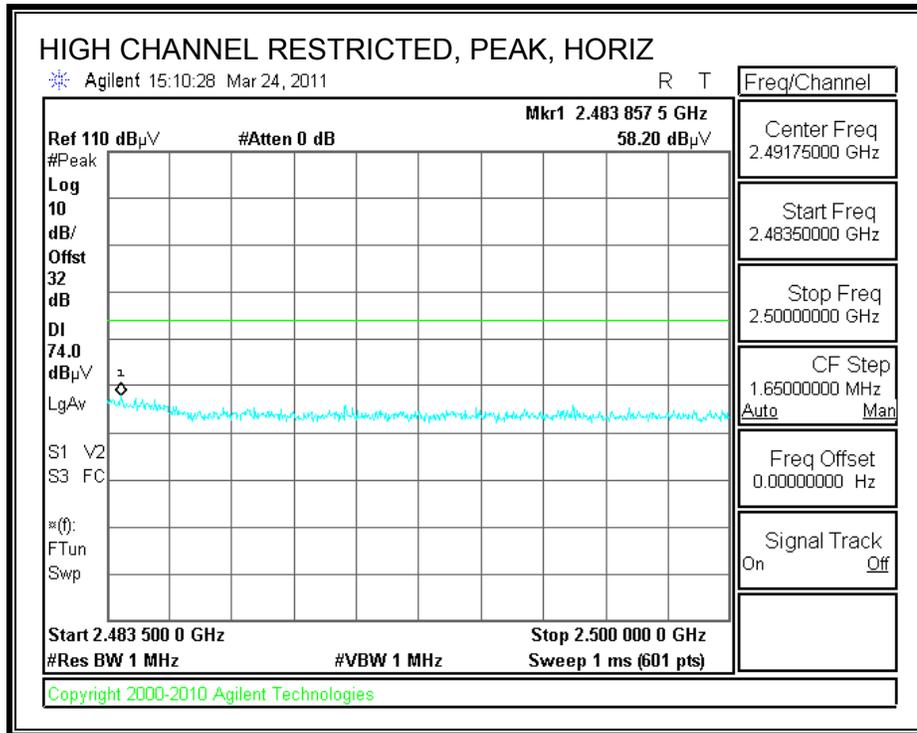
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



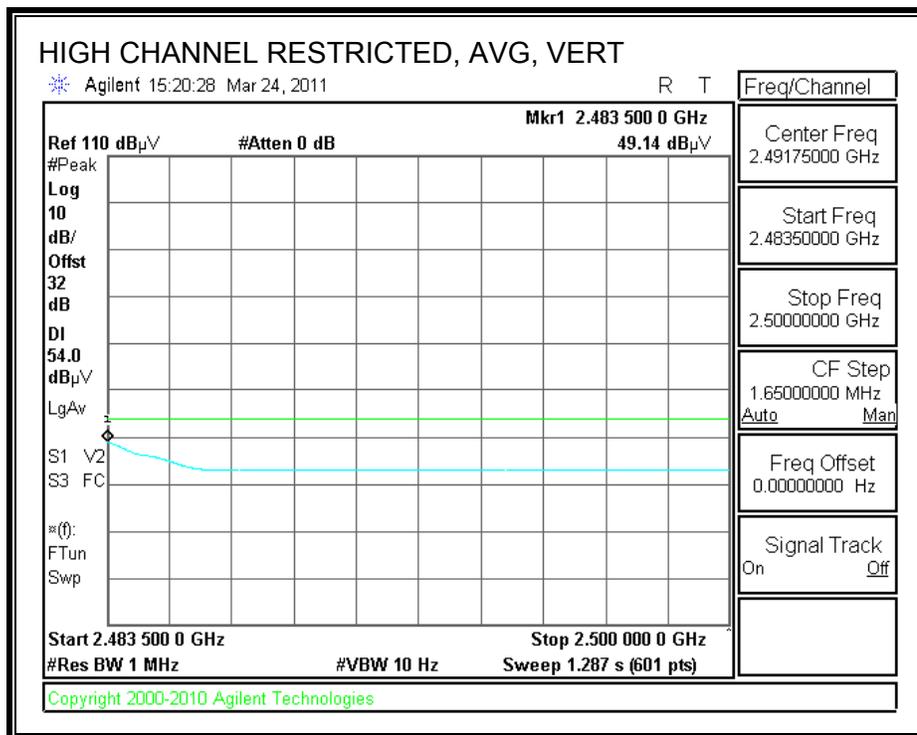
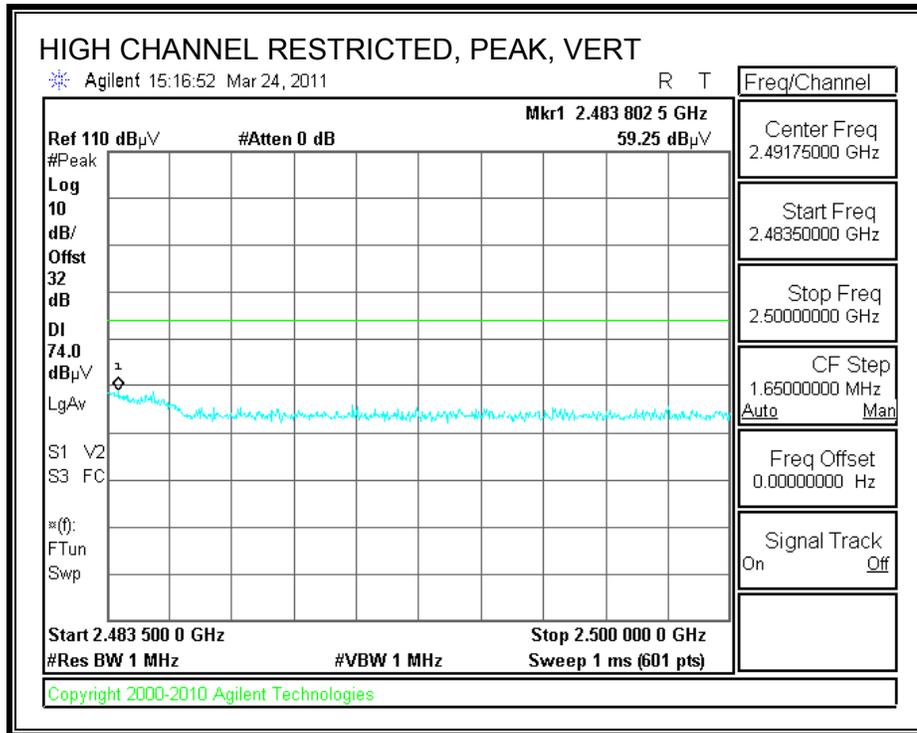
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

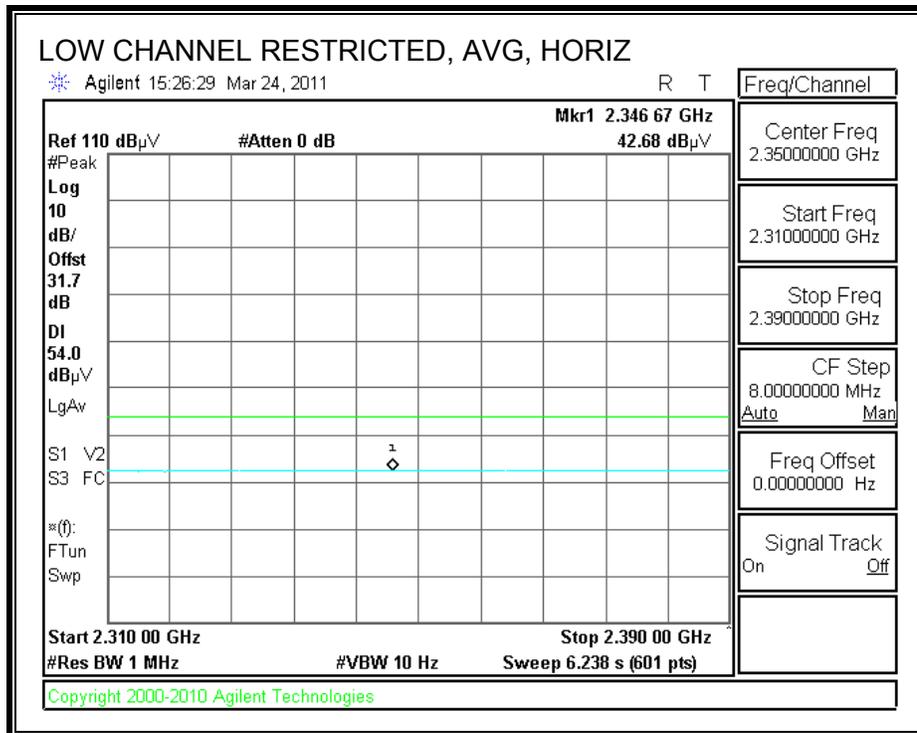
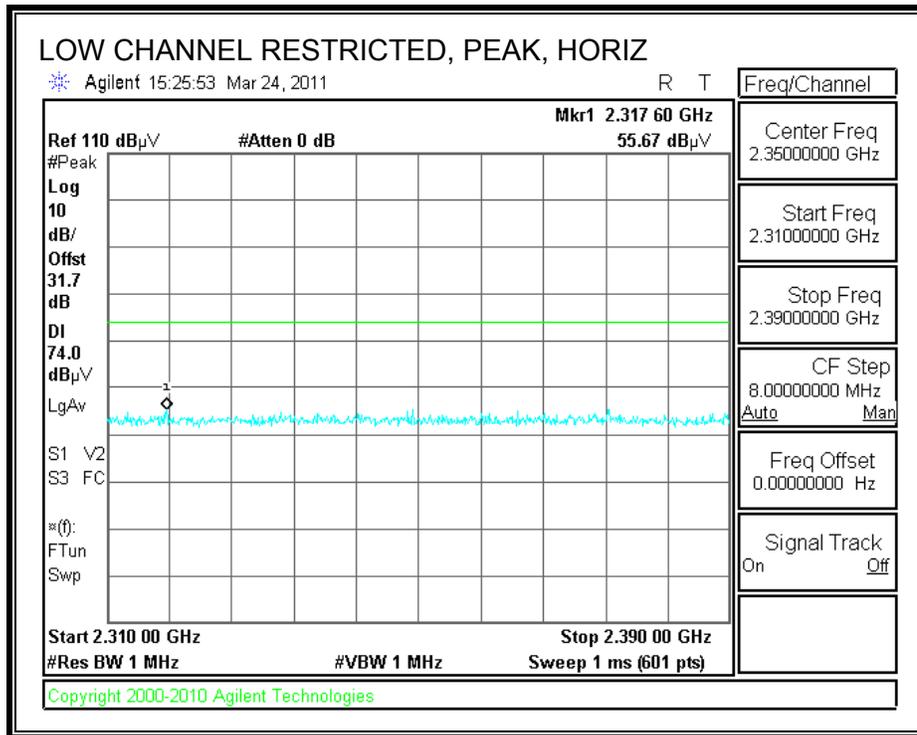


HARMONICS AND SPURIOUS EMISSIONS

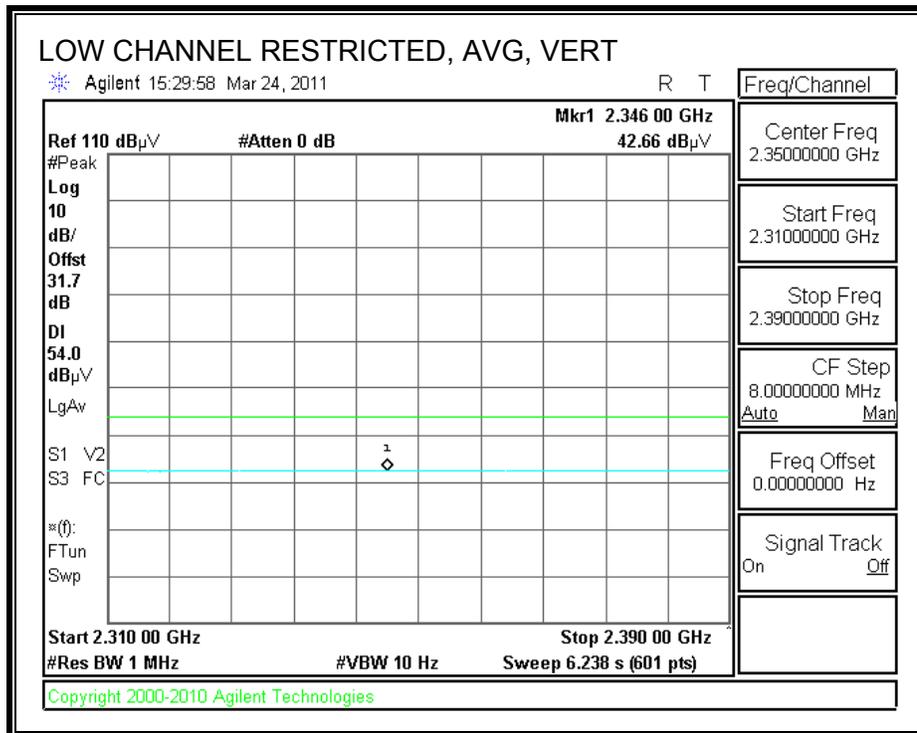
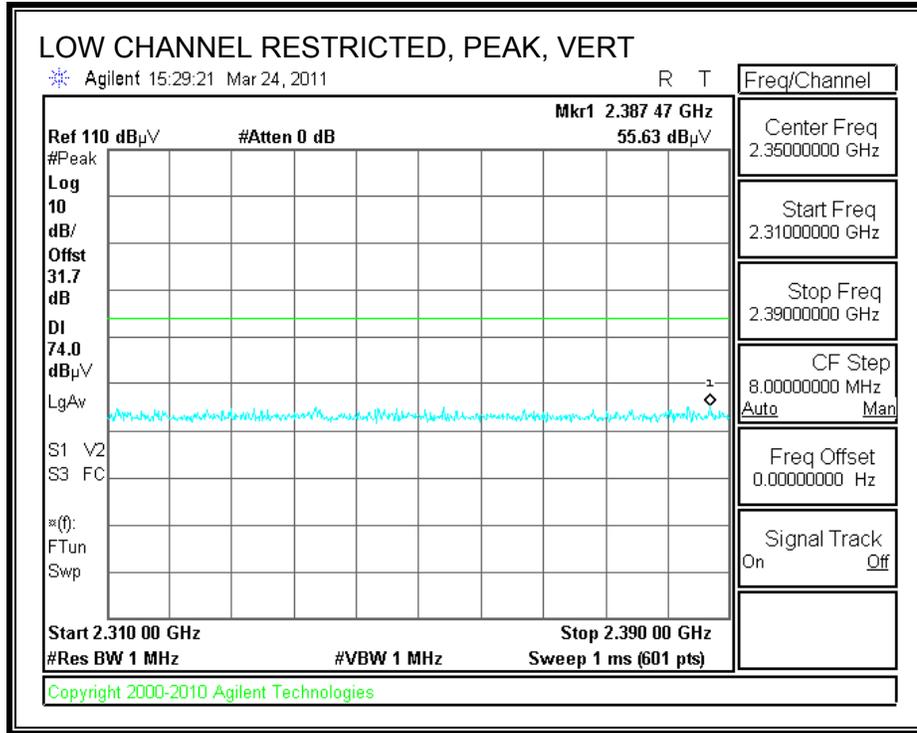
High Frequency Measurement													
Compliance Certification Services, Fremont 5m Chamber													
Test Engr:		Chin Pang											
Date:		2011-3-29											
Project #:		11U13622											
Company:		Palm											
Test Target:		FCC 15.247											
Mode Oper:		TX, GFSK											
f	Measurement Frequency			Amp	Preamp Gain			Average Field Strength Limit					
Dist	Distance to Antenna			D Corr	Distance Correct to 3 meters			Peak Field Strength Limit					
Read	Analyzer Reading			Avg	Average Field Strength @ 3 m			Margin vs. Average Limit					
AF	Antenna Factor			Peak	Calculated Peak Field Strength			Margin vs. Peak Limit					
CL	Cable Loss			HPF	High Pass Filter								
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filtr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol V/H	Det. P/A/QP	Notes
Low Ch, 2402MHz													
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	39.3	32.8	5.8	-34.8	0.0	0.0	43.0	54.0	-11.0	V	A	
4.804	3.0	44.6	32.8	5.8	-34.8	0.0	0.0	48.3	74.0	-25.7	H	P	
4.804	3.0	36.9	32.8	5.8	-34.8	0.0	0.0	40.6	54.0	-13.4	H	A	
Mid Ch, 2441MHz													
4.882	3.0	44.4	32.8	5.8	-34.9	0.0	0.0	48.2	74.0	-25.8	V	P	
4.882	3.0	37.4	32.8	5.8	-34.9	0.0	0.0	41.2	54.0	-12.8	V	A	
7.323	3.0	38.3	35.2	7.3	-34.7	0.0	0.0	46.1	74.0	-27.9	V	P	
7.323	3.0	26.4	35.2	7.3	-34.7	0.0	0.0	34.2	54.0	-19.8	V	A	
4.882	3.0	42.9	32.8	5.8	-34.9	0.0	0.0	46.8	74.0	-27.3	H	P	
4.882	3.0	35.8	32.8	5.8	-34.9	0.0	0.0	39.6	54.0	-14.4	H	A	
7.323	3.0	36.5	35.2	7.3	-34.7	0.0	0.0	44.3	74.0	-29.7	H	P	
7.323	3.0	24.5	35.2	7.3	-34.7	0.0	0.0	32.3	54.0	-21.7	H	A	
High Ch, 2480MHz													
4.960	3.0	42.7	32.9	5.9	-34.9	0.0	0.0	46.7	74.0	-27.3	V	P	
4.960	3.0	35.5	32.9	5.9	-34.9	0.0	0.0	39.4	54.0	-14.6	V	A	
7.440	3.0	36.9	35.4	7.3	-34.6	0.0	0.0	45.0	74.0	-29.0	V	P	
7.440	3.0	26.1	35.4	7.3	-34.6	0.0	0.0	34.2	54.0	-19.8	V	A	
4.960	3.0	42.6	32.9	5.9	-34.9	0.0	0.0	46.5	74.0	-27.5	H	P	
4.960	3.0	34.9	32.9	5.9	-34.9	0.0	0.0	38.8	54.0	-15.2	H	A	
7.440	3.0	36.5	35.4	7.3	-34.6	0.0	0.0	44.6	74.0	-29.4	H	P	
7.440	3.0	25.0	35.4	7.3	-34.6	0.0	0.0	33.1	54.0	-20.9	H	A	
Rev. 4.1.2.7													
Note: No other emissions were detected above the system noise floor.													

8.2.8. BLUETOOTH 8PSK MODE

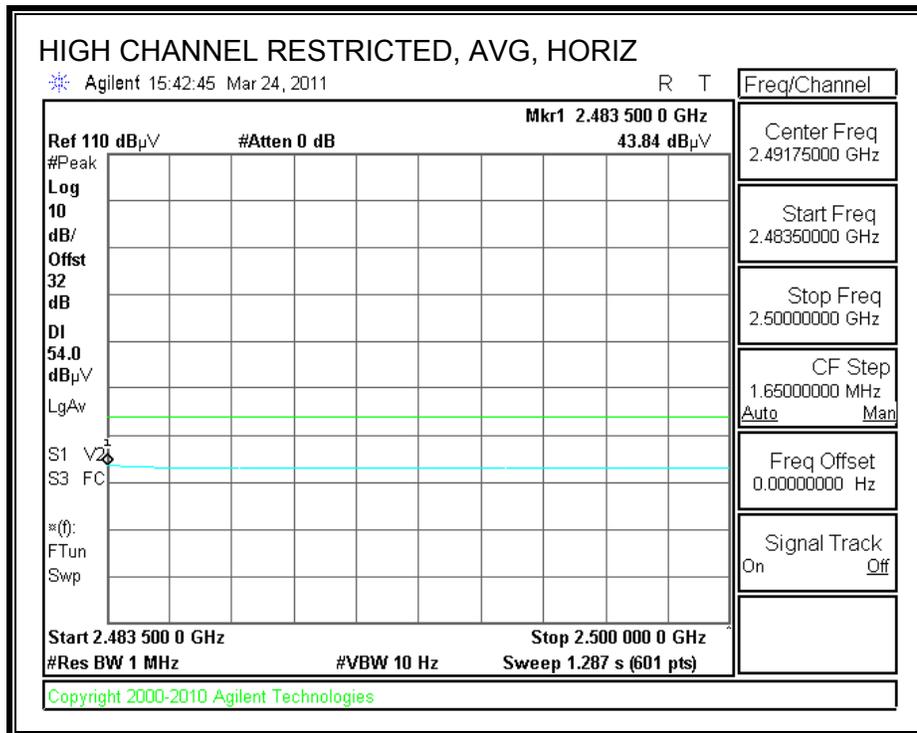
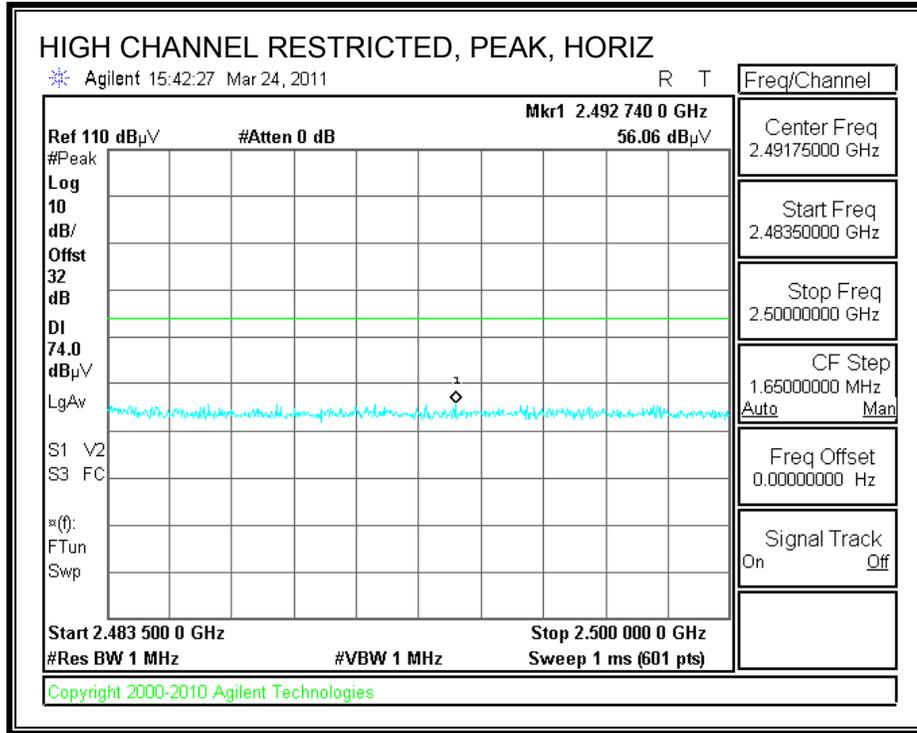
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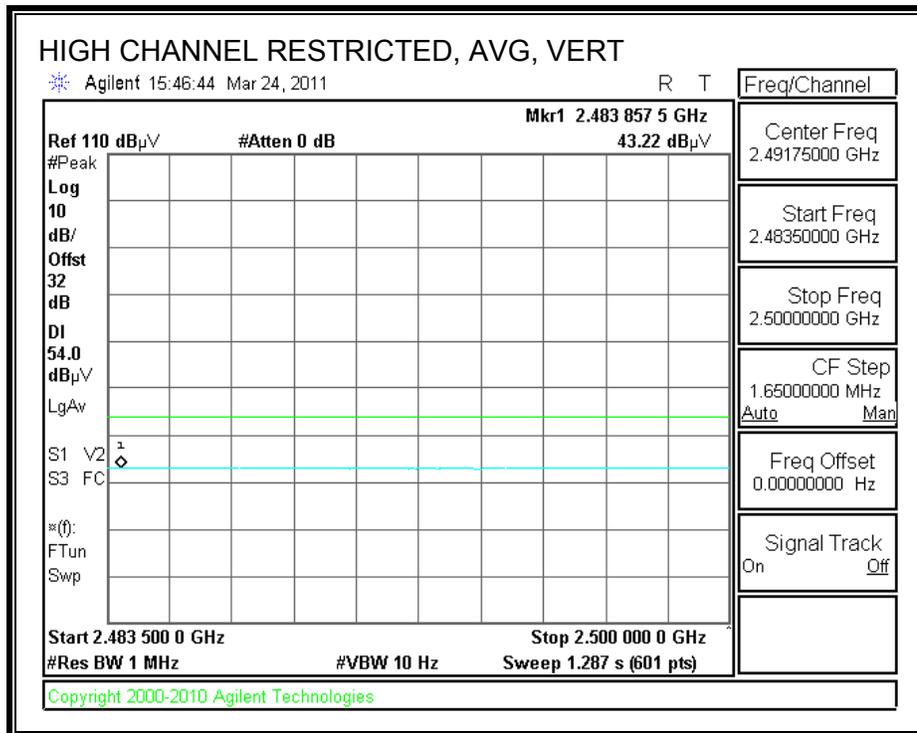
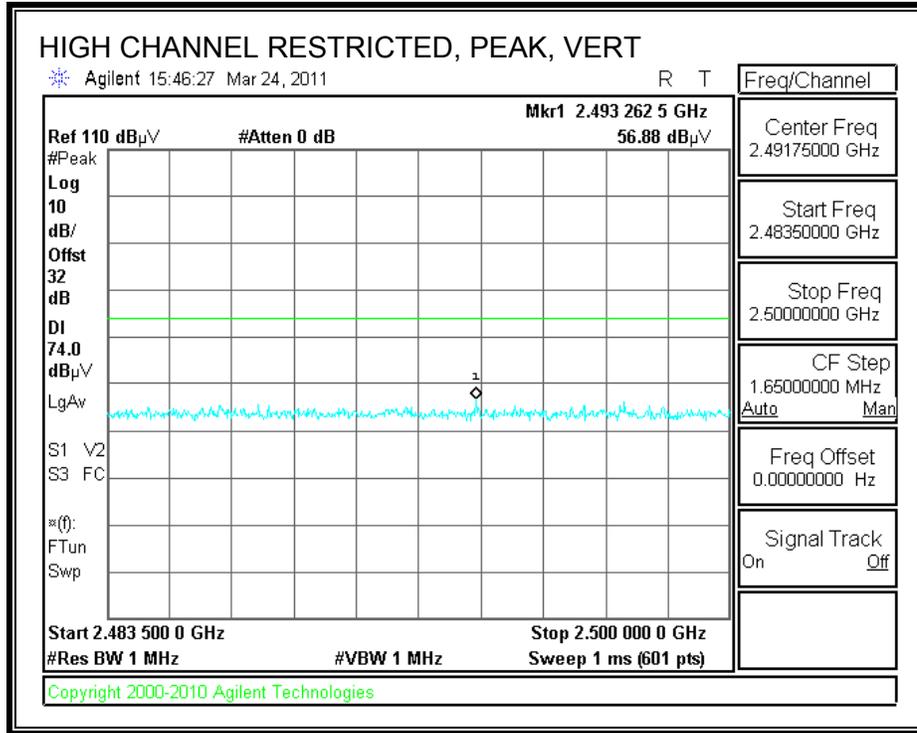
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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:		03-29-11											
Project #:		11U13622											
Company:		Palm											
Test Target:		FCC 15.247											
Mode Oper:		TX, 8PSK											
f	Measurement Frequency	Amp	Preamp Gain	Average Field Strength Limit									
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Peak Field Strength Limit									
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Margin vs. Average Limit									
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Margin vs. Peak Limit									
CL	Cable Loss	HPF	High Pass Filter										
f	Dist	Read	AF	CL	Amp	D Corr	Filtr	Corr.	Limit	Margin	Ant. Pol.	Det.	Notes
GHz	(m)	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
Low Ch, 2402MHz													
4.804	3.0	39.4	32.8	5.8	-34.8	0.0	0.0	43.1	74.0	-30.9	H	P	
4.804	3.0	29.0	32.8	5.8	-34.8	0.0	0.0	32.7	54.0	-21.3	H	A	
4.804	3.0	40.8	32.8	5.8	-34.8	0.0	0.0	44.5	74.0	-29.5	V	P	
4.804	3.0	30.4	32.8	5.8	-34.8	0.0	0.0	34.1	54.0	-19.9	V	A	
Mid CH, 2441MHz													
4.882	3.0	39.5	32.8	5.8	-34.9	0.0	0.0	43.3	74.0	-30.7	H	P	
4.882	3.0	29.5	32.8	5.8	-34.9	0.0	0.0	33.3	54.0	-20.7	H	A	
7.323	3.0	36.7	35.2	7.3	-34.7	0.0	0.0	44.5	74.0	-29.5	H	P	
7.323	3.0	24.4	35.2	7.3	-34.7	0.0	0.0	32.3	54.0	-21.7	H	A	
4.882	3.0	41.2	32.8	5.8	-34.9	0.0	0.0	45.0	74.0	-29.0	V	P	
4.882	3.0	30.4	32.8	5.8	-34.9	0.0	0.0	34.2	54.0	-19.8	V	A	
7.323	3.0	37.5	35.2	7.3	-34.7	0.0	0.0	45.3	74.0	-28.7	V	P	
7.323	3.0	25.9	35.2	7.3	-34.7	0.0	0.0	33.7	54.0	-20.3	V	A	
High Ch, 2480MHz													
4.960	3.0	39.0	32.9	5.9	-34.9	0.0	0.0	42.9	74.0	-31.1	H	P	
4.960	3.0	28.5	32.9	5.9	-34.9	0.0	0.0	32.4	54.0	-21.6	H	A	
7.440	3.0	36.2	35.4	7.3	-34.6	0.0	0.0	44.3	74.0	-29.7	H	P	
7.440	3.0	24.4	35.4	7.3	-34.6	0.0	0.0	32.5	54.0	-21.5	H	A	
4.960	3.0	38.5	32.9	5.9	-34.9	0.0	0.0	42.4	74.0	-31.6	V	P	
4.960	3.0	27.3	32.9	5.9	-34.9	0.0	0.0	31.3	54.0	-22.7	V	A	
7.440	3.0	37.2	35.4	7.3	-34.6	0.0	0.0	45.2	74.0	-28.8	V	P	
7.440	3.0	26.2	35.4	7.3	-34.6	0.0	0.0	34.2	54.0	-19.8	V	A	
Rev. 4.1.2.7													
Note: No other emissions were detected above the system noise floor.													

8.3. RECEIVER ABOVE 1 GHz

8.3.1. FOR 20 MHz BANDWIDTH

High Frequency Measurement
 Compliance Certification Services, Fremont 5m Chamber

Company: Palm
 Project #: 11U13622
 Date: 04-01-11
 Test Engineer: Chin Pang
 Configuration: EUT and AC Adapter
 Mode: RX, 20MHz

Test Equipment:

Horn 1-18GHz	Pre-amplifier 1-26GHz	Pre-amplifier 26-40GHz	Horn > 18GHz	Limit
T59; S/N: 3245 @3m	T145 Agilent 3008A0056			RX RSS 210

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter	Peak Measurements RBW=VBW=1MHz
3' cable 22807700	12' cable 22807600	20' cable 22807500			Average Measurements RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fldr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
1.133	3.0	52.7	31.6	24.4	2.5	-36.0	0.0	0.0	43.6	22.5	74	54	-30.4	-31.5	V
3.250	3.0	45.8	30.0	30.6	4.6	-35.1	0.0	0.0	45.8	30.0	74	54	-28.2	-24.0	V
1.053	3.0	48.6	29.3	24.1	2.4	-36.1	0.0	0.0	39.0	19.7	74	54	-35.0	-34.3	H
1.660	3.0	46.9	32.0	26.4	3.1	-35.7	0.0	0.0	40.7	25.8	74	54	-33.3	-28.2	H

Rev. 07.22.09

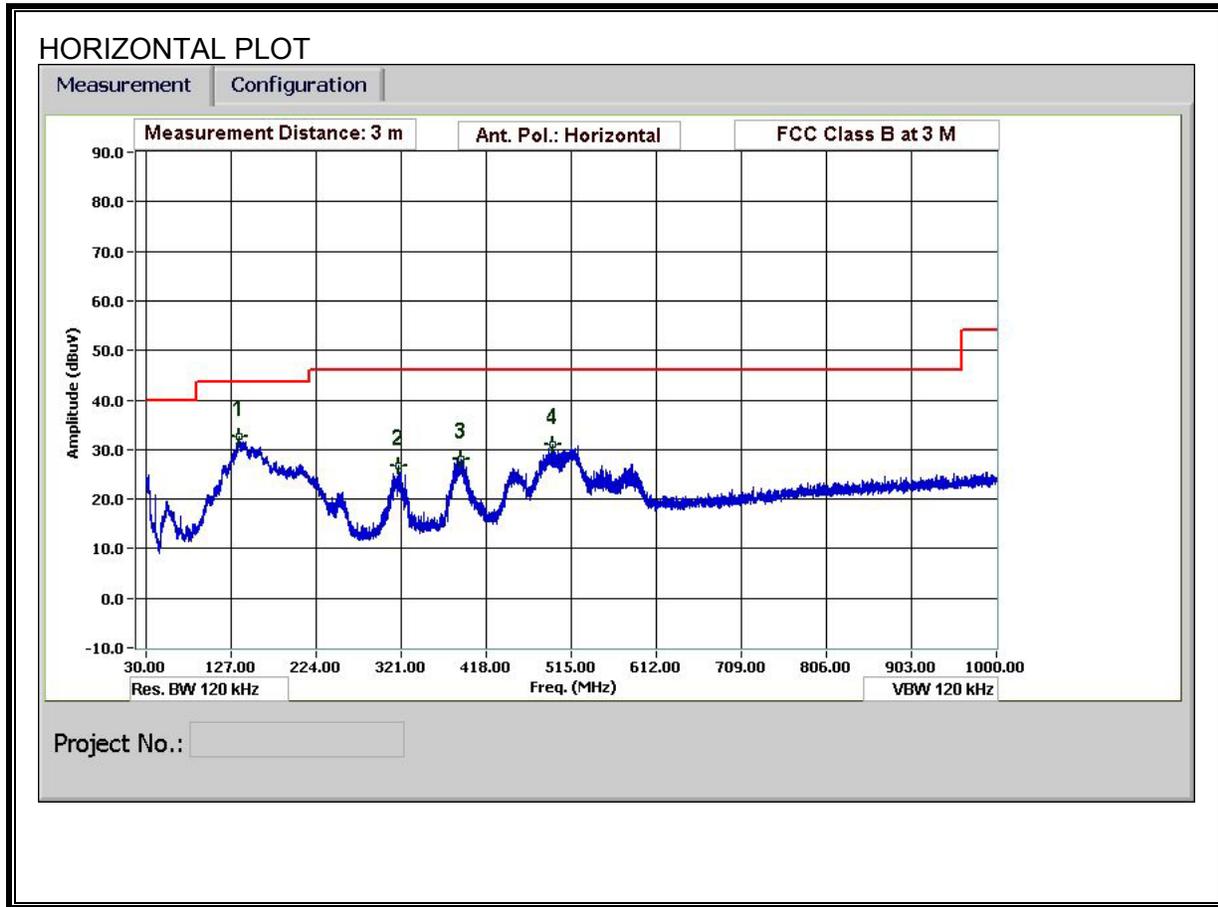
f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field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

8.3.2. FOR 40 MHz BANDWIDTH

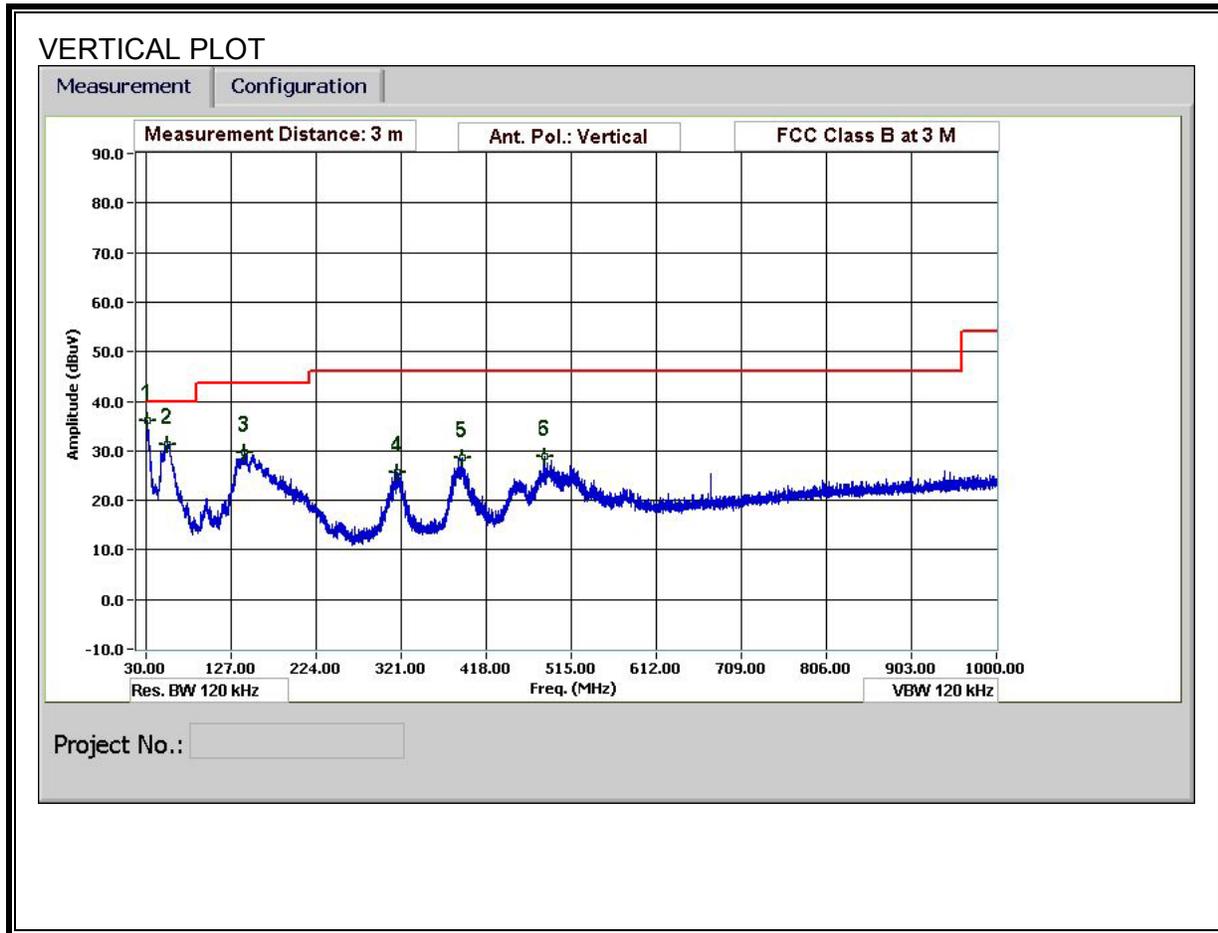
High Frequency Measurement																							
Compliance Certification Services, Fremont 5m Chamber																							
Company:		Palm																					
Project #:		11U13622																					
Date:		04-01-11																					
Test Engineer:		Chin Pang																					
Configuration:		EUT and AC Adapter																					
Mode:		RX, HT40MHz																					
Test Equipment:																							
Horn 1-18GHz				Pre-amplifer 1-26GHz				Pre-amplifer 26-40GHz				Horn > 18GHz				Limit							
T59; S/N: 3245 @3m				T145 Agilent 3008A0056												RX RSS 210							
Hi Frequency Cables																							
3' cable 22807700				12' cable 22807600				20' cable 22807500				HPF				Reject Filter				Peak Measurements RBW=VBW=1MHz			
3' cable 22807700				12' cable 22807600				20' cable 22807500												Average Measurements RBW=1MHz ; VBW=10Hz			
f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Ftr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)								
1.160	3.0	56.0	31.5	24.5	2.6	-36.0	0.0	0.0	47.0	22.5	74	54	-27.0	-31.5	V								
2.560	3.0	48.0	29.6	28.7	4.0	-35.1	0.0	0.0	45.5	27.1	74	54	-28.5	-26.9	V								
3.485	3.0	45.0	30.0	31.0	4.7	-35.0	0.0	0.0	45.8	30.8	74	54	-28.2	-23.2	V								
1.223	3.0	50.0	30.0	24.8	2.6	-36.0	0.0	0.0	41.4	21.4	74	54	-32.6	-32.6	H								
2.260	3.0	45.0	29.5	28.0	3.7	-35.2	0.0	0.0	41.5	26.0	74	54	-32.5	-28.0	H								
Rev. 07.22.09																							
f	Measurement Frequency					Amp	Preamp Gain					Avg Lim	Average Field Strength Limit										
Dist	Distance to Antenna					D Corr	Distance Correct to 3 meters					Pk Lim	Peak Field Strength Limit										
Read	Analyzer Reading					Avg	Average Field Strength @ 3 m					Avg Mar	Margin vs. Average Limit										
AF	Antenna Factor					Peak	Calculated Peak Field Strength					Pk Mar	Margin vs. Peak Limit										
CL	Cable Loss					HPF	High Pass Filter																

8.4. WORST-CASE BELOW 1 GHz

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



RADIATED EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)



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

HORIZONTAL AND VERTICAL DATA													
30-1000MHz Frequency Measurement													
Compliance Certification Services, Fremont 5m Chamber													
Test Engr:		Chin Pang											
Date:		04-01-11											
Project #:		11U13622											
Company:		Palm											
Test Target:		FCC 15C											
Mode Oper:		TX, (Worst Case)											
f	Measurement Frequency			Amp	Preamp Gain			Margin	Margin vs. Limit				
Dist	Distance to Antenna			D Corr	Distance Correct to 3 meters								
Read	Analyzer Reading			Filter	Filter Insert Loss								
AF	Antenna Factor			Corr.	Calculated Field Strength								
CL	Cable Loss			Limit	Field Strength Limit								
f	Dist	Read	AF	CL	Amp	D Corr	Pad	Corr.	Limit	Margin	Ant. Pol.	Det.	Notes
MHz	(m)	dBuV	dB/m	dB	dB	dB	dB	dBuV/m	dBuV/m	dB	V/H	P/A/QP	
135.484	3.0	47.6	13.4	1.0	29.4	0.0	0.0	32.7	43.5	-10.3	H	P	
317.652	3.0	40.4	13.6	1.6	28.9	0.0	0.0	26.8	46.0	-19.2	H	P	
388.695	3.0	40.5	14.8	1.9	29.2	0.0	0.0	28.0	46.0	-18.0	H	P	
494.179	3.0	41.9	16.7	2.1	29.7	0.0	0.0	31.1	46.0	-14.9	H	P	
31.44	3.0	45.5	19.7	0.5	29.7	0.0	0.0	36.0	40.0	-4.0	V	P	
54.601	3.0	52.4	7.9	0.6	29.6	0.0	0.0	31.4	40.0	-8.6	V	P	
142.085	3.0	44.8	13.1	1.1	29.4	0.0	0.0	29.6	43.5	-13.9	V	P	
316.092	3.0	39.2	13.6	1.6	28.9	0.0	0.0	25.6	46.0	-20.4	V	P	
391.095	3.0	41.0	14.9	1.9	29.3	0.0	0.0	28.5	46.0	-17.5	V	P	
484.939	3.0	39.8	16.5	2.1	29.7	0.0	0.0	28.8	46.0	-17.2	V	P	

Rev. 1.27.09
 Note: No other emissions were detected above the system noise floor.

8.5. 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

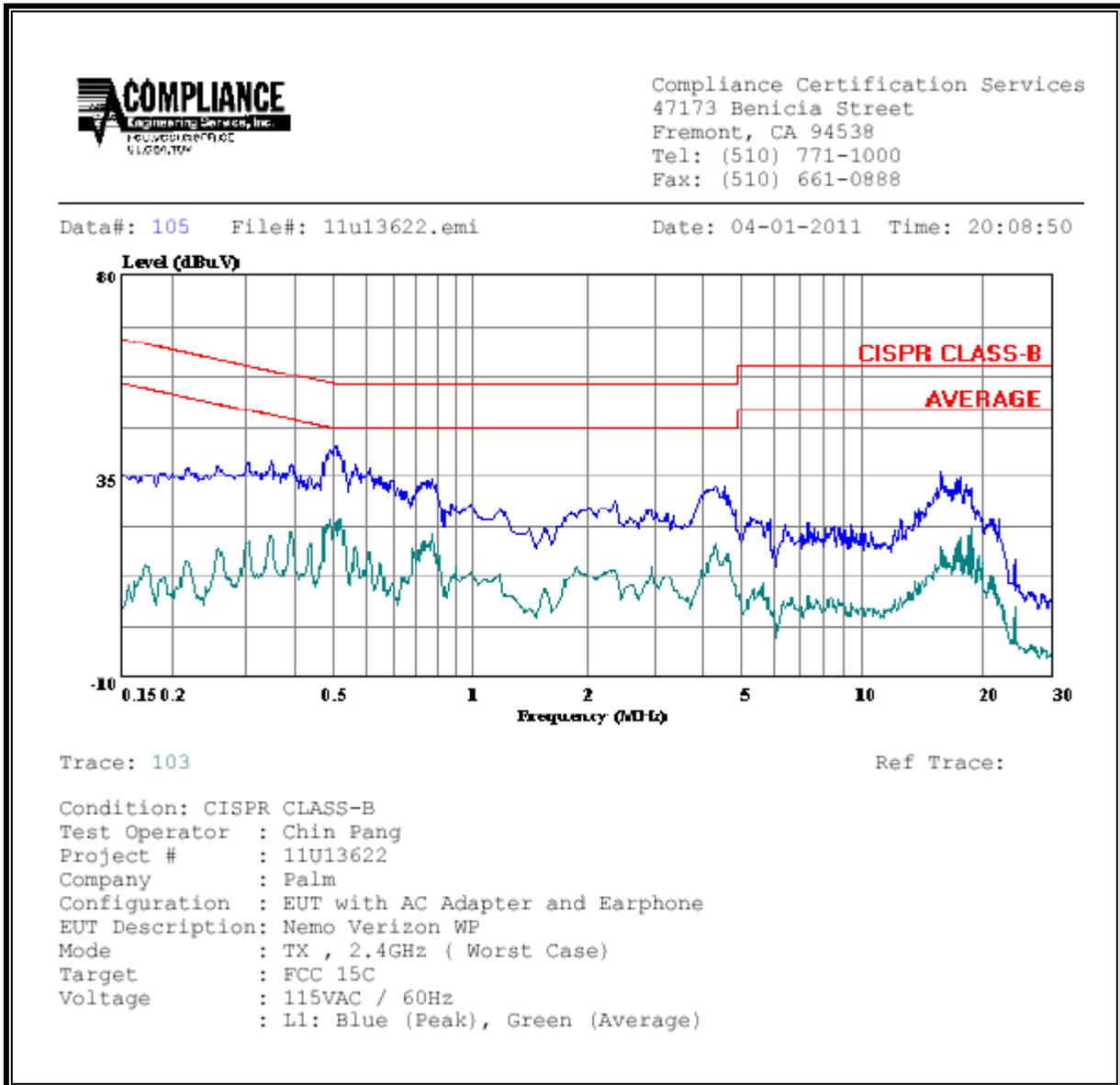
ANSI C63.4

RESULTS

6 WORST EMISSIONS

CONDUCTED EMISSIONS DATA (115VAC 60Hz)									
Freq. (MHz)	Reading			Class (dB)	Limit QP	EN B AV	Margin		Remark L1 / L2
	PK (dBuV)	QP (dBuV)	AV (dBuV)				QP (dB)	AV (dB)	
0.48	41.70	--	24.32	0.00	56.41	46.41	-14.71	-22.09	L1
0.88	33.46	--	22.20	0.00	56.00	46.00	-22.54	-23.80	L1
18.72	35.29	--	23.58	0.00	60.00	50.00	-24.71	-26.42	L1
0.48	42.60	--	25.29	0.00	56.32	46.32	-13.72	-21.03	L2
0.88	35.47	--	29.89	0.00	56.00	46.00	-20.53	-16.11	L2
18.76	35.68	--	18.45	0.00	60.00	50.00	-24.32	-31.55	L2
6 Worst Data									

LINE 1 RESULTS



LINE 2 RESULTS

