



**FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8**

CERTIFICATION TEST REPORT

FOR

802.11 a/b/g/n/ac WLAN+ Bluetooth PCI-E Mini Card

MODEL NUMBER: BCM94352Z

**FCC ID: QDS-BRCM1076
IC: 4324A-BRCM1076**

REPORT NUMBER: 13U15029-1B

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Prepared for
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SUNNYVALE, CA 94086, U.S.A.**

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	7/10/2013	Initial Issue	K. Nguyen
A	7/18/2013	Revised EUT description and added 802.11g legacy data	K. Nguyen
B	07/24/2013	Remove HT40 from 2.4GHz Band	Vien Tran

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, U.S.A.

EUT DESCRIPTION: 802.11 a/b/g/n/ac WLAN+ Bluetooth PCI-E Mini Card

MODEL: BCM94352Z

SERIAL NUMBER: P203SN0032 & P203SN0033

DATE TESTED: April 23, 2013 – June 23, 2013

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

UL Verification Services Inc. 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 Verification Services Inc. 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 Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. 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
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WiSE PROJECT LEADER
UL Verification Services Inc.

Tested By:



KRISTOPHER NGUYEN
WiSE LABORATORY ENGINEER
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2009, 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 Verification Services Inc. 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 an 802.11 a/b/g/n/ac WLAN+ Bluetooth PCI-E Mini Card.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

2400 - 2483.5 MHz Authorized Frequency Band					
Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Total power (dBm)	Total power (mW)
2412 - 2462	802.11b CDD 2TX	19.40	19.31	22.37	172.41
2412 - 2462	802.11g Legacy 1TX	19.26	N/A	19.26	84.33
2412 - 2462	802.11n HT20 CDD 2TX	19.19	19.03	22.12	162.97
5725 - 5850 MHz Authorized Frequency Band					
Frequency Range (MHz)	Mode	Power, Chain 0 (dBm)	Power, Chain 1 (dBm)	Total power (dBm)	Total power (mW)
5745 - 5825	802.11n HT20 CDD 2TX	20.13	20.47	23.31	214.47
5755 - 5795	802.11n HT40 CDD 2TX	19.85	20.05	22.96	197.76
5775 MHz	802.11n AC80 CDD 2TX	13.88	14.67	17.30	53.74

List of test reduction and modes covering other modes:

2400 - 2483.5 MHz Authorized Frequency Band (Antenna Port Testing)		
Frequency Range (MHz)	Mode	Covered by
2412 - 2462	802.11b Legacy 1TX	802.11b CDD 2TX
2412 - 2462	802.11g CDD 2TX	802.11n HT20 CDD 2TX
2412 - 2462	802.11n HT20 1TX	802.11g Legacy 1TX

5725 - 5850 MHz Authorized Frequency Band (Antenna Port Testing)		
Frequency Range (MHz)	Mode	Covered by
5745 - 5825	802.11a Legacy 1TX	802.11n HT20 CDD 2TX
5745 - 5825	802.11a CDD 2TX	802.11n HT20 CDD 2TX
5745 - 5825	802.11n HT20 1TX	802.11n HT20 CDD 2TX
5755 - 5795	802.11n HT40 1TX	802.11n HT40 CDD 2TX
5775	802.11n AC80 1TX	802.11n AC80 CDD 2TX

2400 - 2483.5 MHz Authorized Frequency Band (Radiated Testing)		
Frequency Range (MHz)	Mode	Covered by
2412 - 2462	802.11b Legacy 1TX	802.11b CDD 2TX
2412 - 2462	802.11g Legacy 1TX (Harmonics)	802.11n HT20 CDD 2TX (Harmonics)
2412 - 2462	802.11g CDD 2TX	802.11n HT20 CDD 2TX
2412 - 2462	802.11n HT20 1TX	802.11g Legacy 1TX

5725 - 5850 MHz Authorized Frequency Band (Radiated Testing)		
Frequency Range (MHz)	Mode	Covered by
5745 - 5825	802.11g Legacy 1TX	802.11n HT20 CDD 2TX
5745 - 5825	802.11a CDD 2TX	802.11n HT20 CDD 2TX
5745 - 5825	802.11n HT20 1TX	802.11n HT20 CDD 2TX
5755 - 5795	802.11n HT40 1TX	802.11n HT40 CDD 2TX
5775	802.11n AC80 1TX	802.11n AC80 2TX

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

Set No.	Antenna Manufacturer	Antenna Type	Model	Peak gain (2400 - 2462 MHz) @2462MHz	Peak gain (5150-5250MHz) @5180MHz	Peak gain (5250-5350MHz) @5320MHz	Peak gain (5470-5725MHz) @5580	Peak gain (5725-5850MHz) @5745MHz
1	Ethertronics	802.11bgn WLAN Antenna	1000802	3.8	N/a	N/a	N/a	N/a
1	Ethertronics	802.11bgn WLAN Antenna	1000802	3.8	N/a	N/a	N/a	N/a
2	Ethertronics	802.11 5 GHz WLAN antenna	1000615a	N/a	4.2	4.5	6.6	5.4
2	Ethertronics	802.11 5 GHz WLAN antenna	1000615a	N/a	4.2	4.5	6.6	5.4

5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Broadcom, rev. 6.30.118.62.
The test utility software used during testing was BCM Internal, rev. 6.30.RC118.62.

5.5. WORST-CASE CONFIGURATION AND MODE

Worst-case mode and channel used for 30-1000 MHz radiated and power line conducted emissions was the mode and channel with the highest output power.

The fundamental of the EUT was investigated in three orthogonal orientations X,Y,Z, it was determined that Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Z orientation.

Worst-case data rates as provided by the client were:

Based on the baseline scan, the worst-case data rates were:

802.11b mode: 1 Mbps

802.11g mode: 6 Mbps

802.11a mode: 6 Mbps

802.11n HT20mode: MCS0

802.11n HT40mode: MCS0

802.11ac VHT80mode: MCS0.

The EUT was tested as an external module installed in a test jig board connected to a host Laptop PC.

For the modes where second low and second high were tested for output power, all other test items at low and high channels were performed with the higher power level between low and second low channels, and between second high and high channels as worst-case scenario.

For MIMO, the 2TX emissions testing are considered as a worst case scenario and were tested at power levels, per transmit chain, greater than or equal to the maximum power in any 1TX mode.

For SISO conducted measurements, the modes tested in this report will be considered as a worst case mode.

For 2TX conducted measurements, the modes tested in this report will be considered as the worst case mode.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	HP	EliteBook 2730p	2CE848852D	DoC
Laptop	Lenovo	4446	RA-CAD03 98/08	DoC
AC Adapter	Lenovo	ADP-65KH B	11S36001646ZZ10011FKY6	DoC
AC Adapter	HP	PPP09L	592C40CLLUTBUY	DoC
Adapter Board	Broadcom	BCMMONGFF2EC_1	SN0039	N/A

I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	2	US 115V	Un-Shielded	1.0m	NA
2	DC	2	DC	Un-Shielded	1.8m	Ferrite at laptop's end

TEST SETUP

The EUT is attached to a jig board which is installed in the PCMCIA slot of a host laptop computer during the tests. Test software exercised the radio card.

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 Date	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/13/11	12/13/13
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00986	04/01/13	04/01/14
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	07/13/12	07/06/13
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/08/12	08/08/13
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/11	12/13/13
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/11	12/13/13
Antenna, Horn, 18 GHz	ETS	3117	C01022	01/00/00	CNR
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00946	11/12/12	11/12/13
Antenna, Horn, 40 GHz	ARA	MWH-2640/B	C00981	06/14/12	06/14/13
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	C00885	08/14/12	08/14/13
Preamplifier, 1300 MHz	Agilent / HP	8447D	C01016	01/16/13	01/16/14
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/22/12	10/22/13
Preamplifier, 40 GHz	Miteq	NSP4000-SP2	C00990	08/02/11	08/02/13
LISN, 30 MHz	FCC	50/250-25-2	N02396	08/08/12	08/08/13
Reject Filter, 5.15-5.35 GHz	Micro-Tronics	BRC13190	N02680	CNR	CNR
Reject Filter, 5.47-5.725 GHz	Micro-Tronics	BRC13191	N02678	CNR	CNR
Reject Filter, 5.725-5.825 GHz	Micro-Tronics	BRC13192	N02676	CNR	CNR

7. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.1.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
2.4 GHz						
802.11b	12.42	12.66	0.981	98.1%	0.00	0.010
802.11g	12.360	12.480	0.990	99.0%	0.00	0.010
802.11n HT20	11.50	11.62	0.990	99.0%	0.00	0.010
5.0 GHz						
802.11a	2.06	2.09	0.987	98.7%	0.00	0.010
802.11n HT20 CDD	2.07	2.09	0.992	99.2%	0.00	0.010
802.11n HT20 STBC	2.07	2.09	0.991	99.1%	0.00	0.010
802.11n HT40 SISO	0.95	0.97	0.983	98.3%	0.00	0.010
802.11n HT40 CDD	0.95	0.96	0.982	98.2%	0.00	0.010
802.11n HT40 STBC	0.95	0.97	0.981	98.1%	0.00	0.010
802.11n HT80 SISO	0.46	0.48	0.964	96.4%	0.16	2.082
802.11n HT80 CDD	0.46	0.48	0.965	96.5%	0.16	2.083

7.1. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01.

Output Power: KDB 558074 D01.

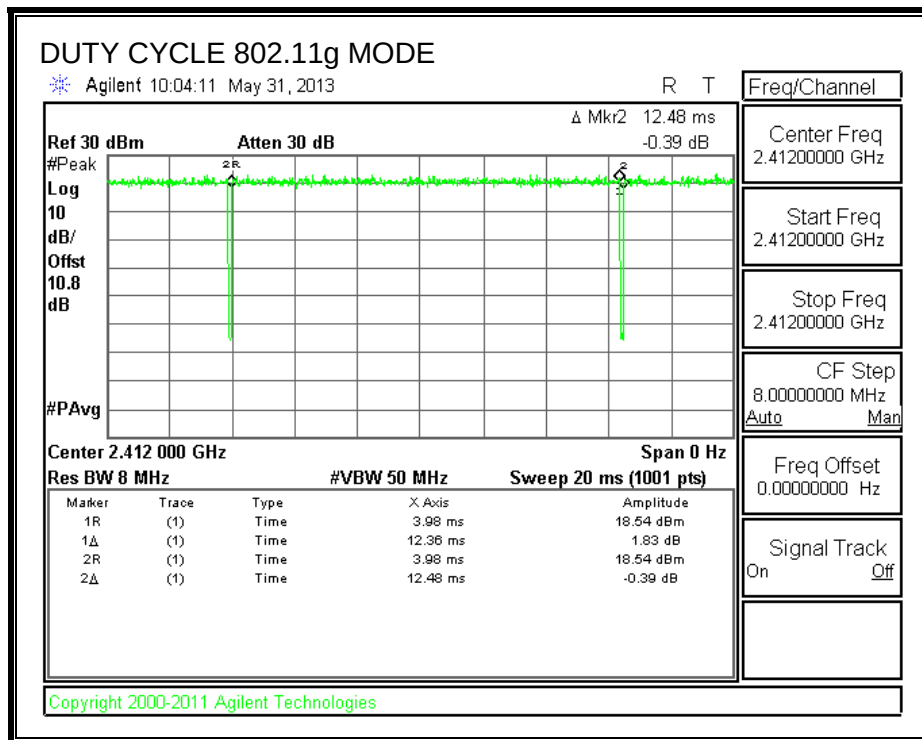
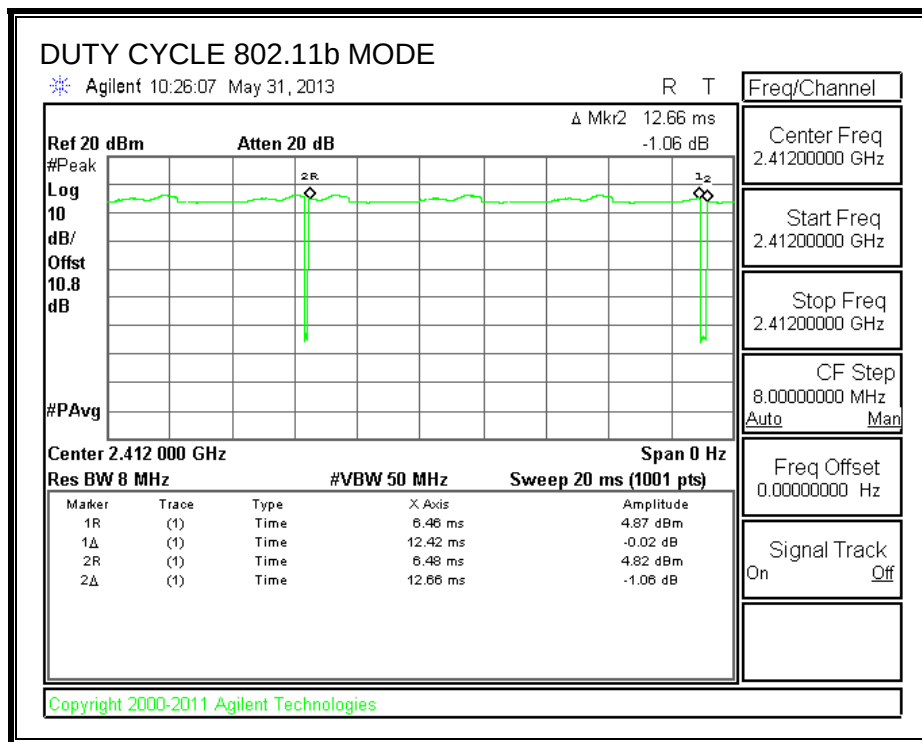
Power Spectral Density: KDB 558074 D01.

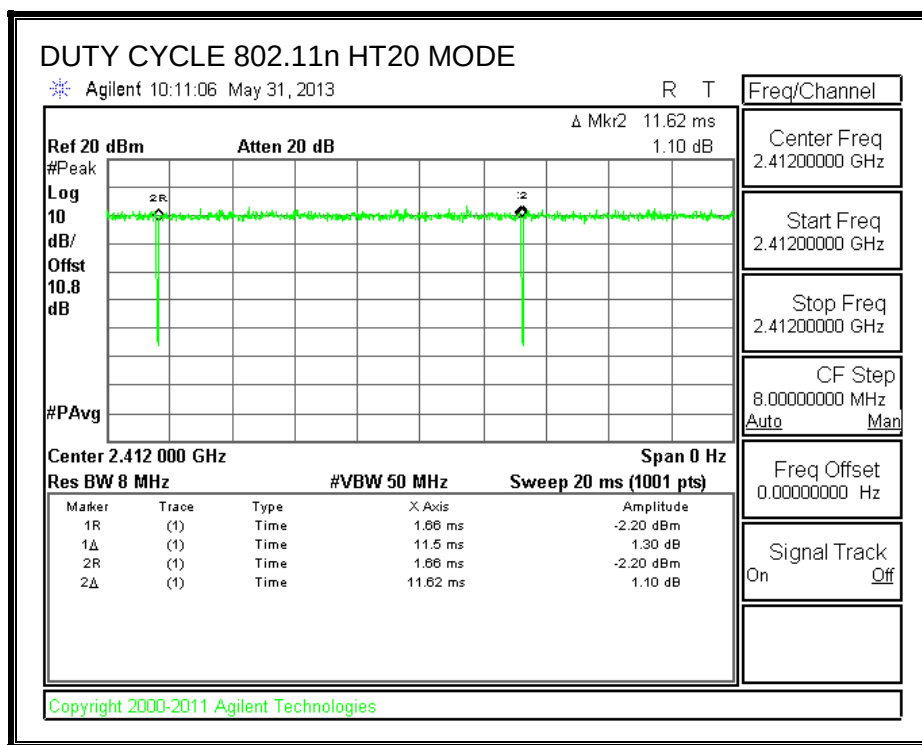
Out-of-band emissions in non-restricted bands: KDB 558074 D01.

Out-of-band emissions in restricted bands: KDB 558074 D01.

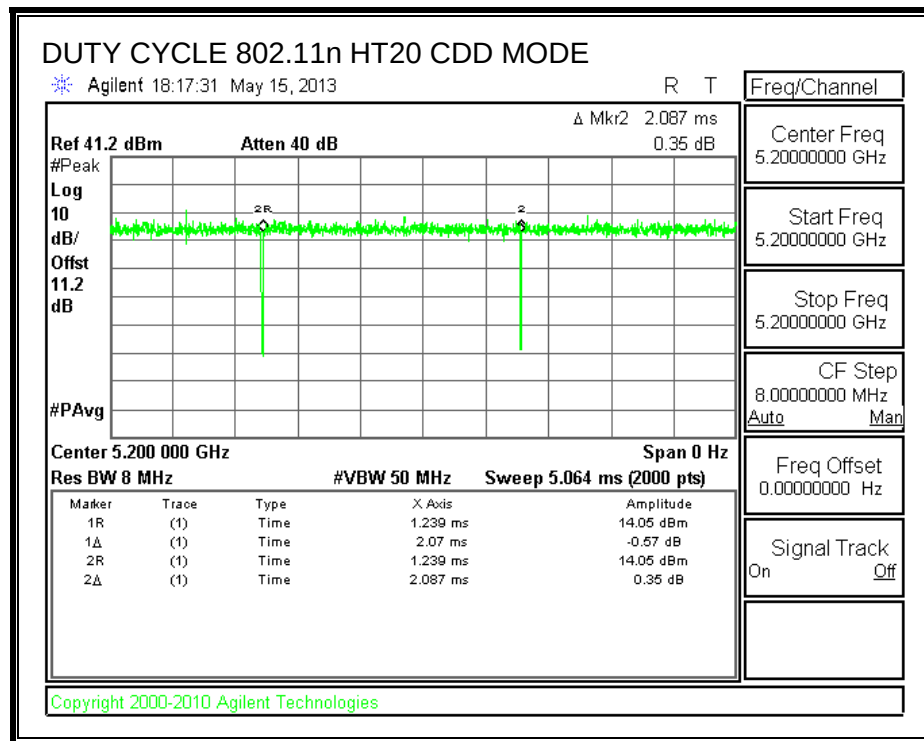
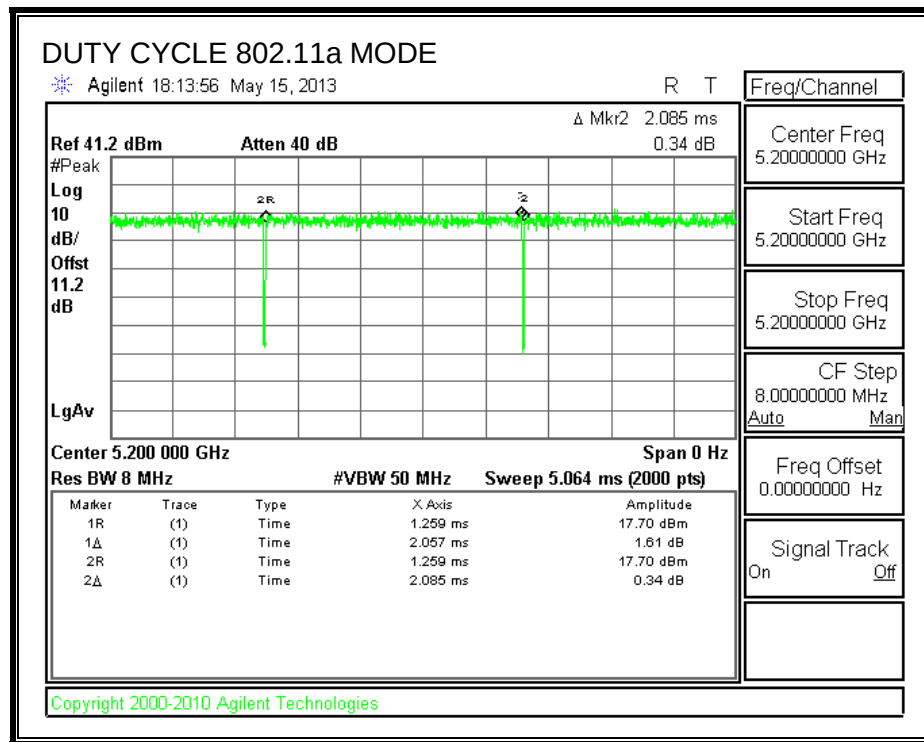
7.1.1. DUTY CYCLE PLOTS

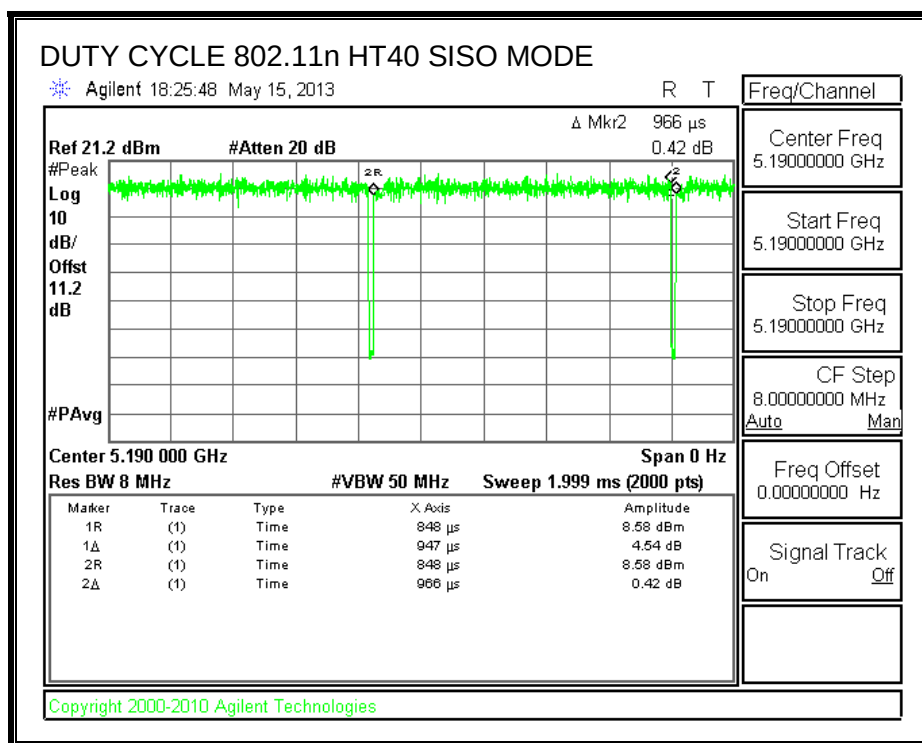
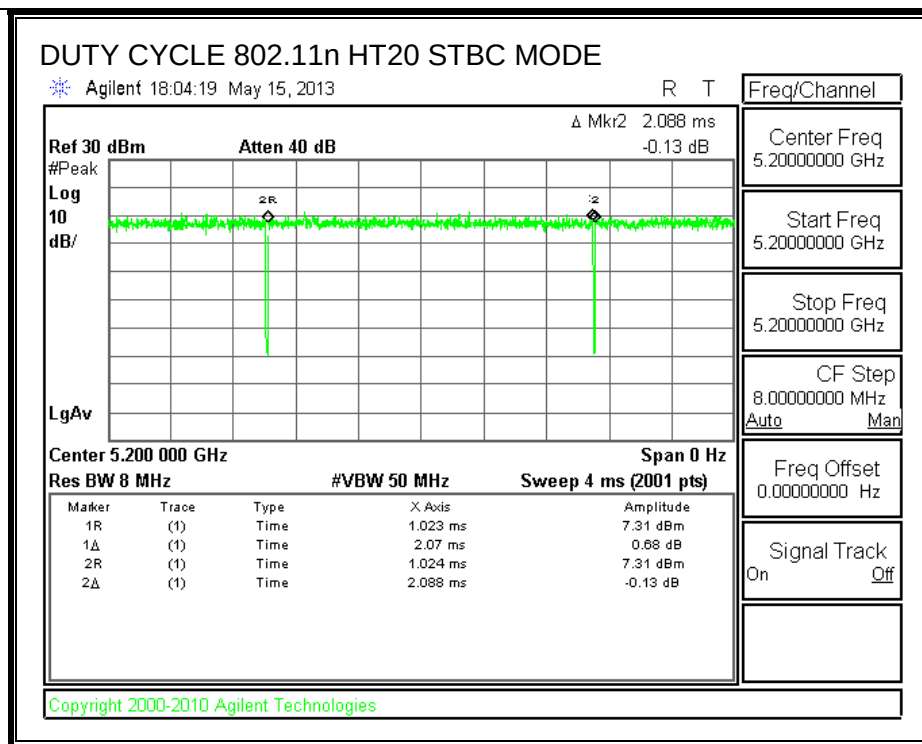
2.4 GHz Band

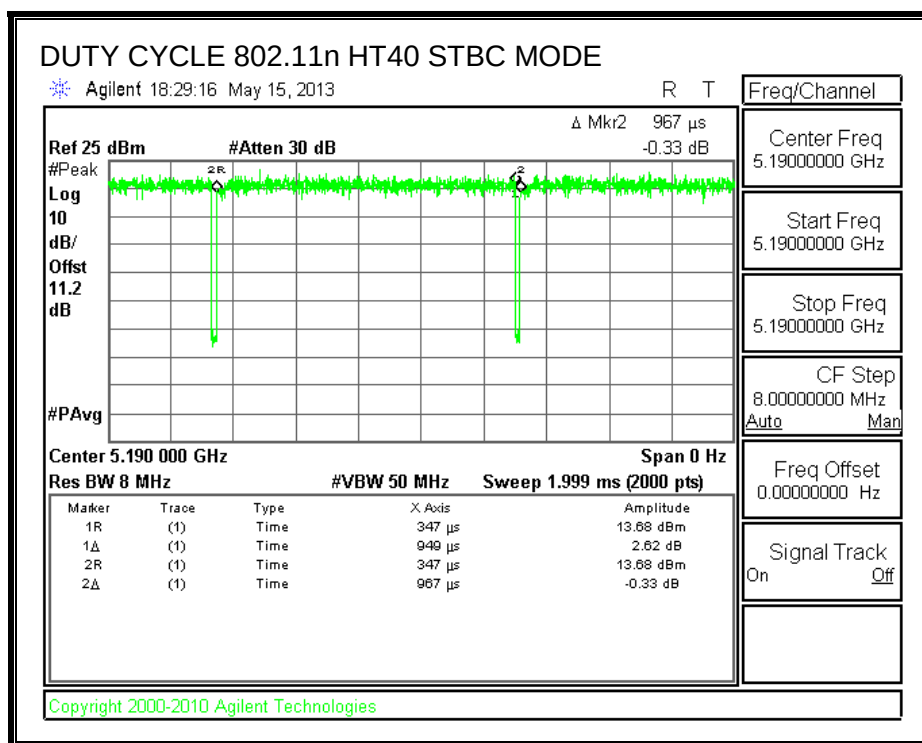
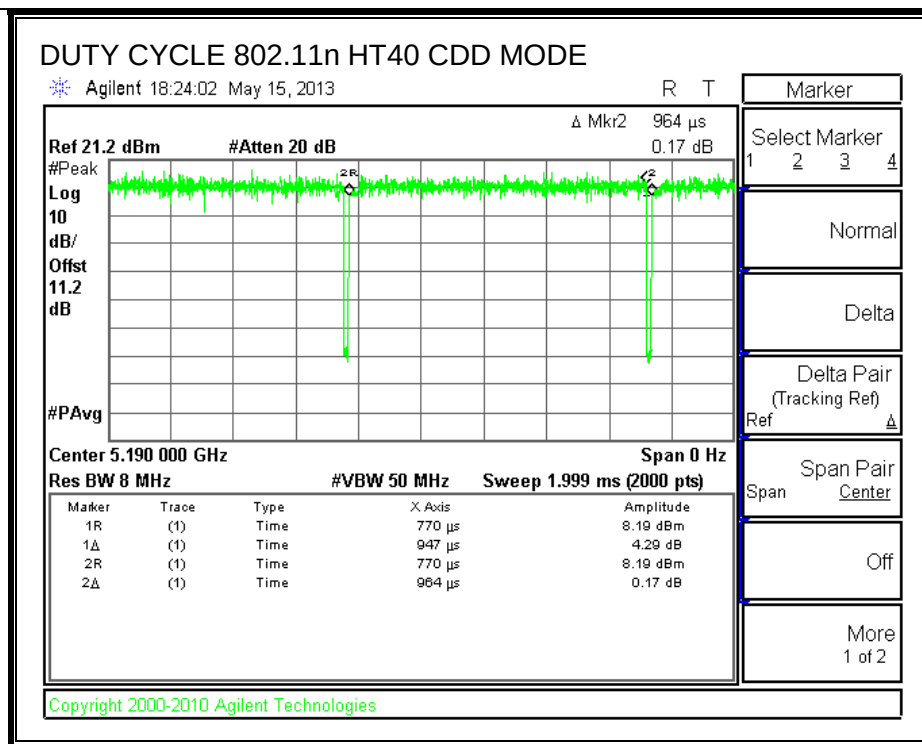


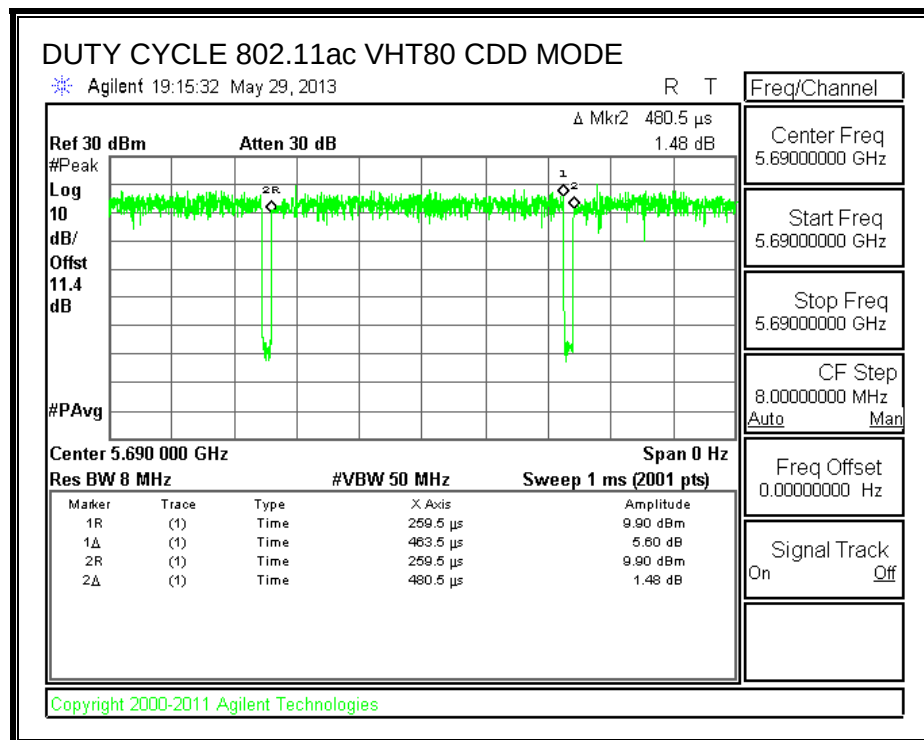
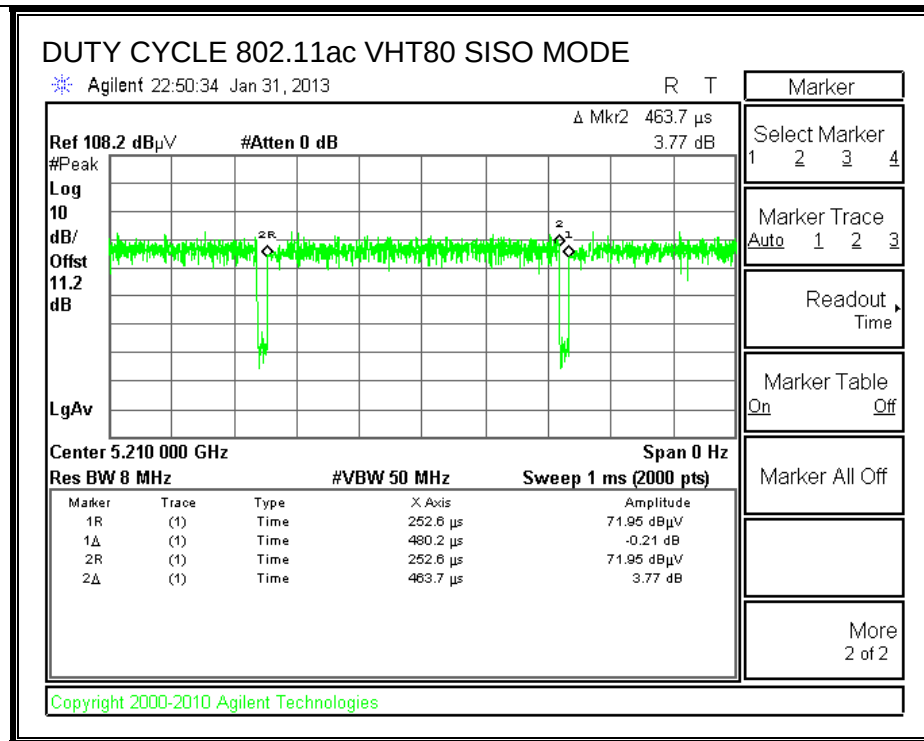


5GHz Band









8. ANTENNA PORT TEST RESULTS

8.1. 802.11b CDD 2TX MODE, 2.4 GHz BAND

8.1.1. 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.

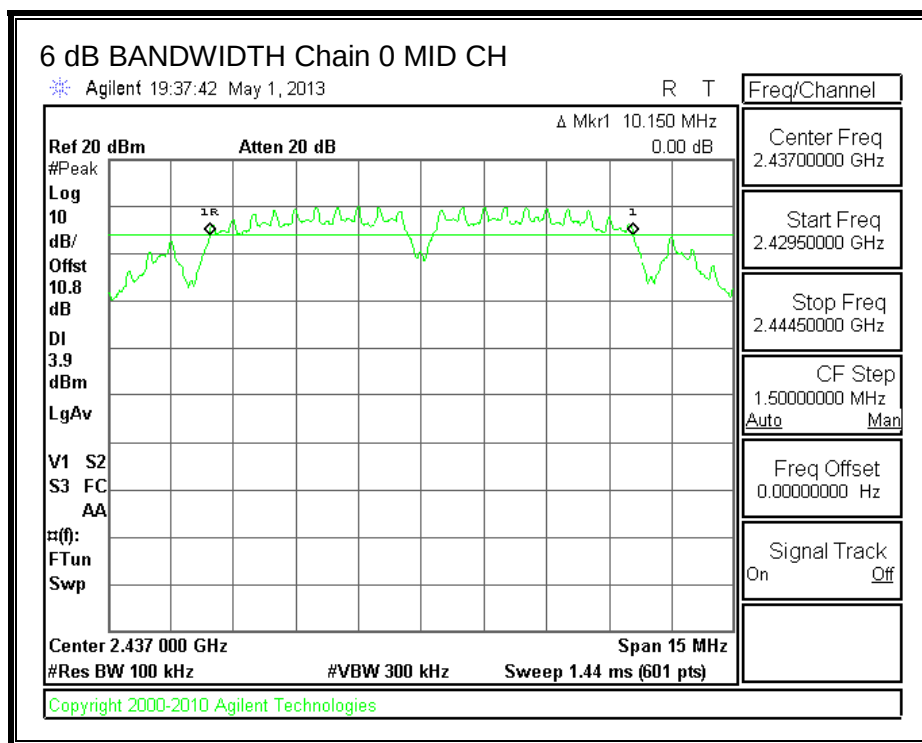
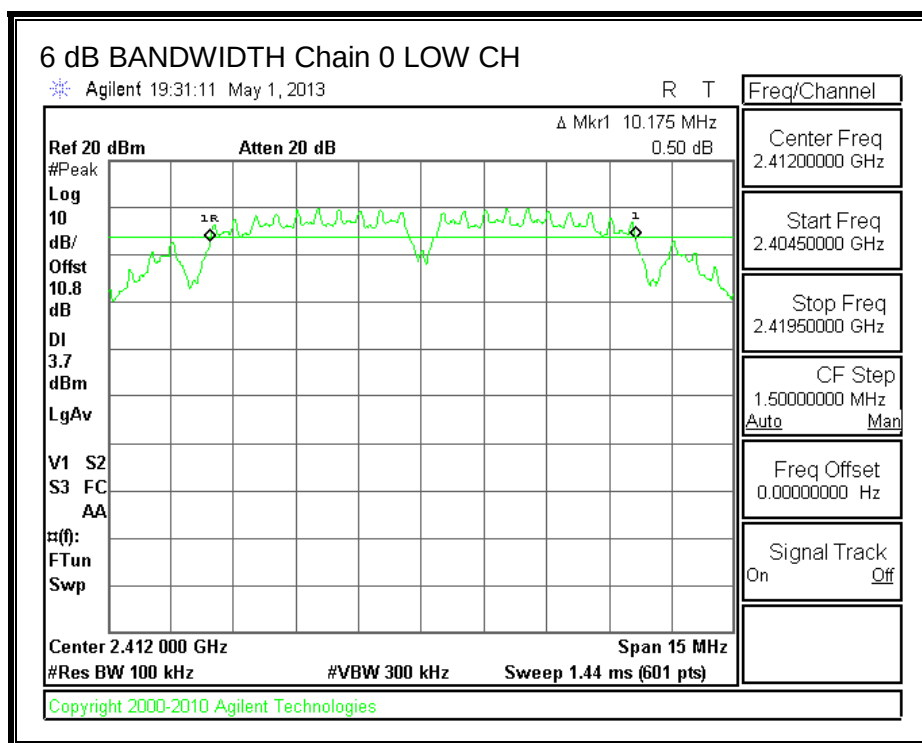
TEST PROCEDURE

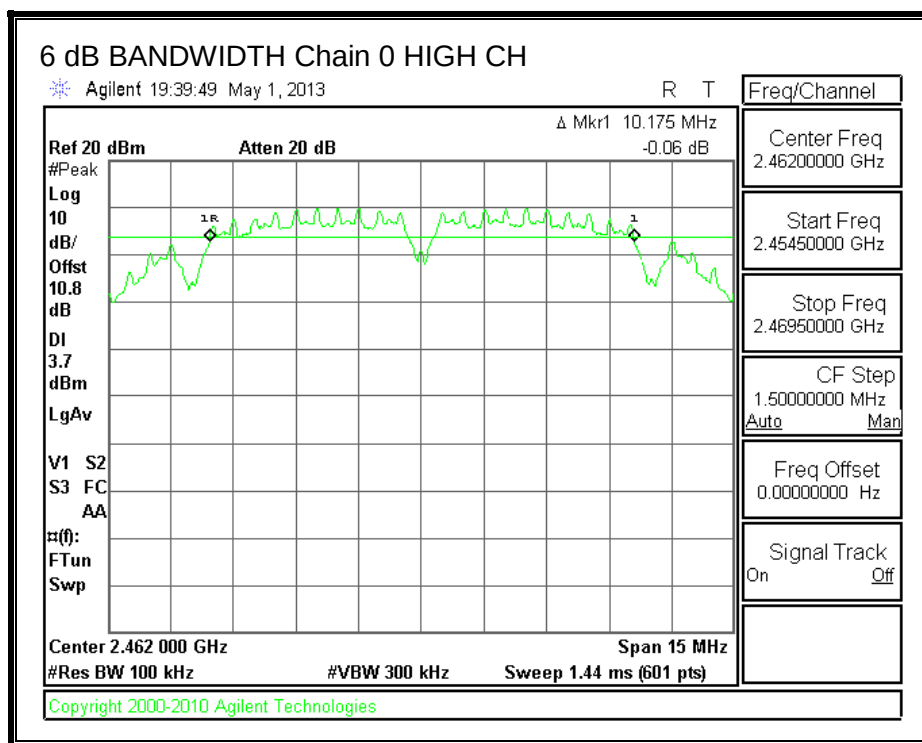
The transmitter output is connected to a spectrum analyzer with the RBW set to 100 kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

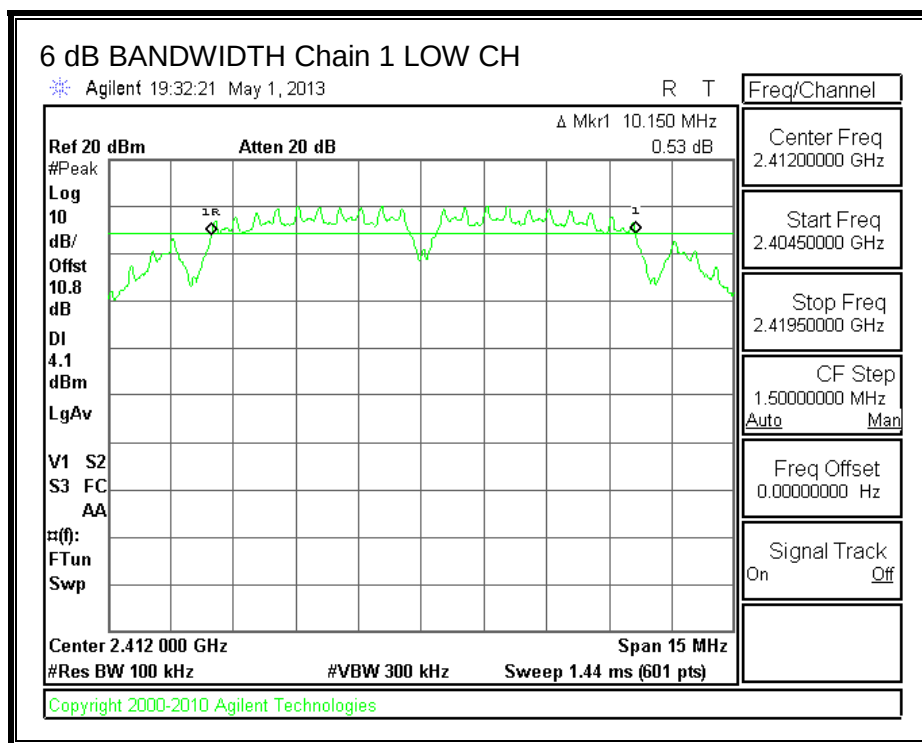
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	2412	10.175	10.150	0.5
Mid	2437	10.150	10.175	0.5
High	2462	10.175	10.150	0.5

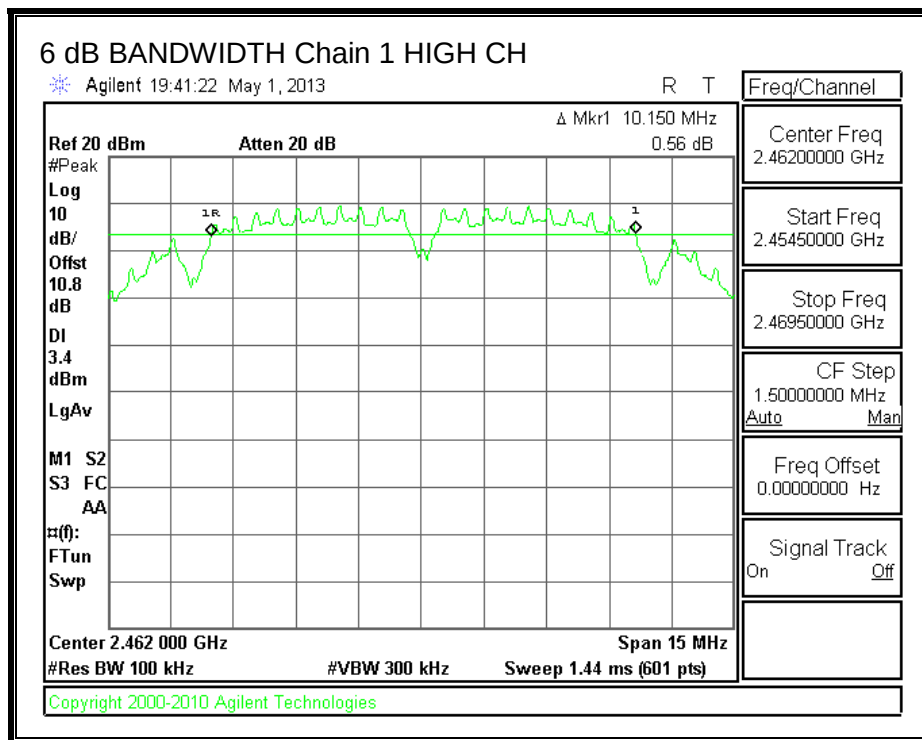
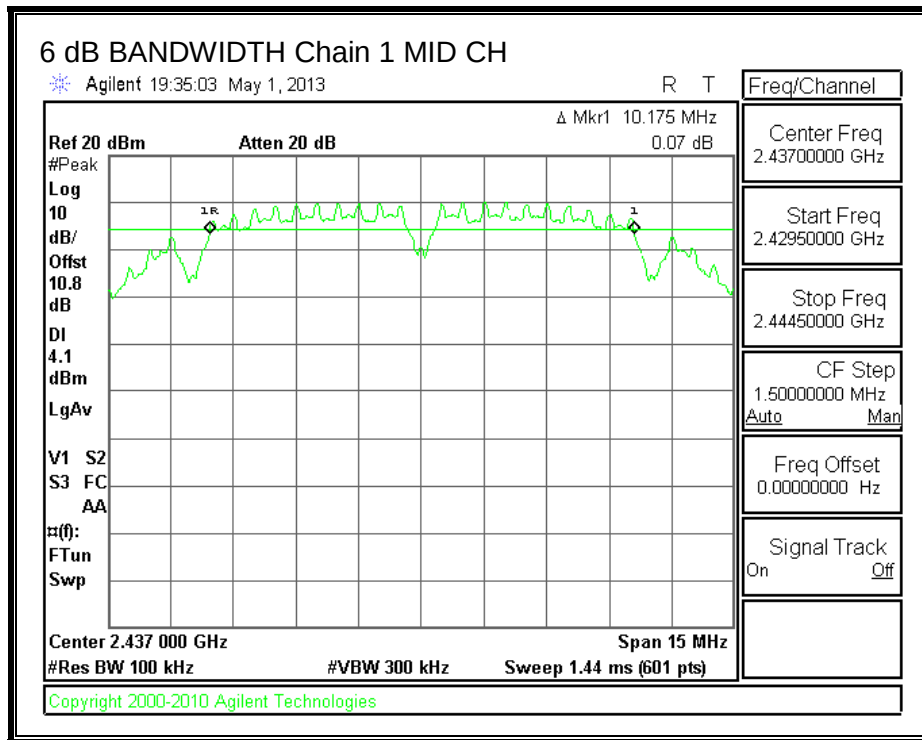
6 dB BANDWIDTH, Chain 0





6 dB BANDWIDTH, Chain 1





8.1.2. 99% BANDWIDTH

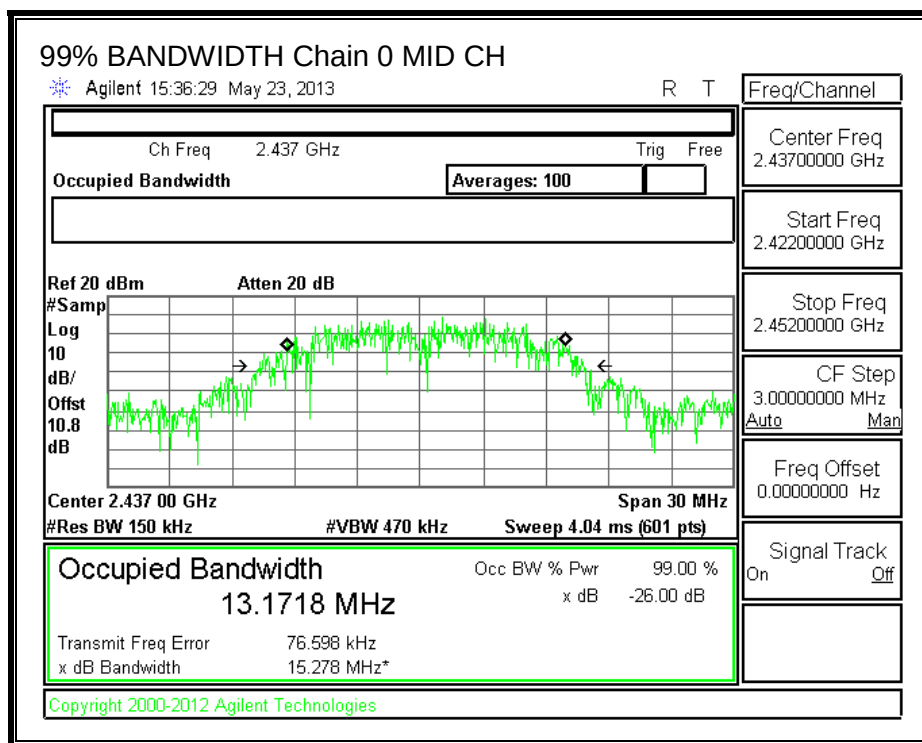
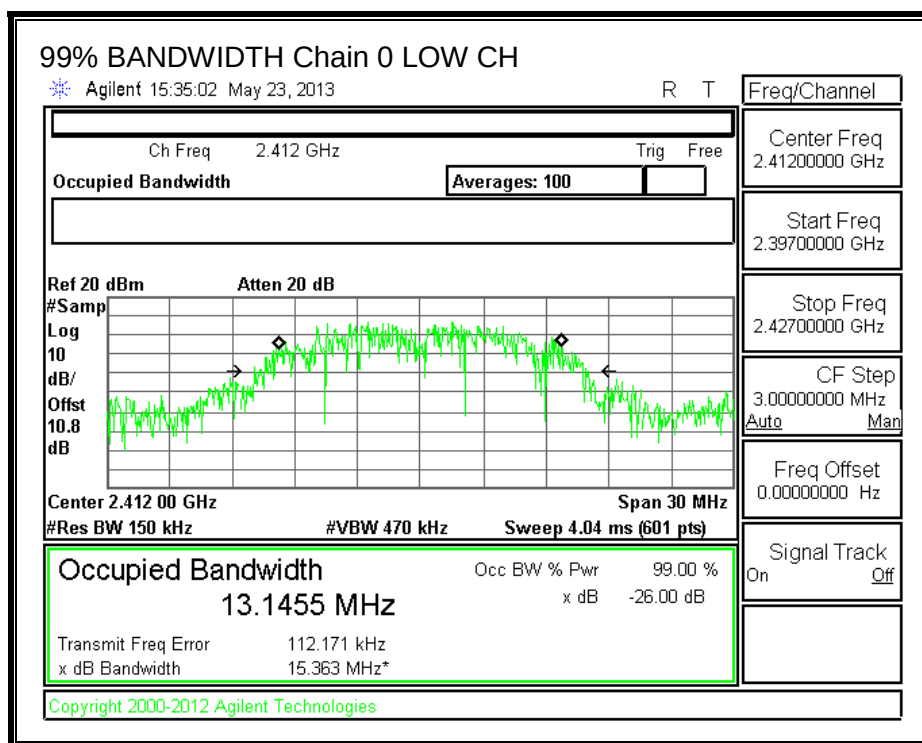
LIMITS

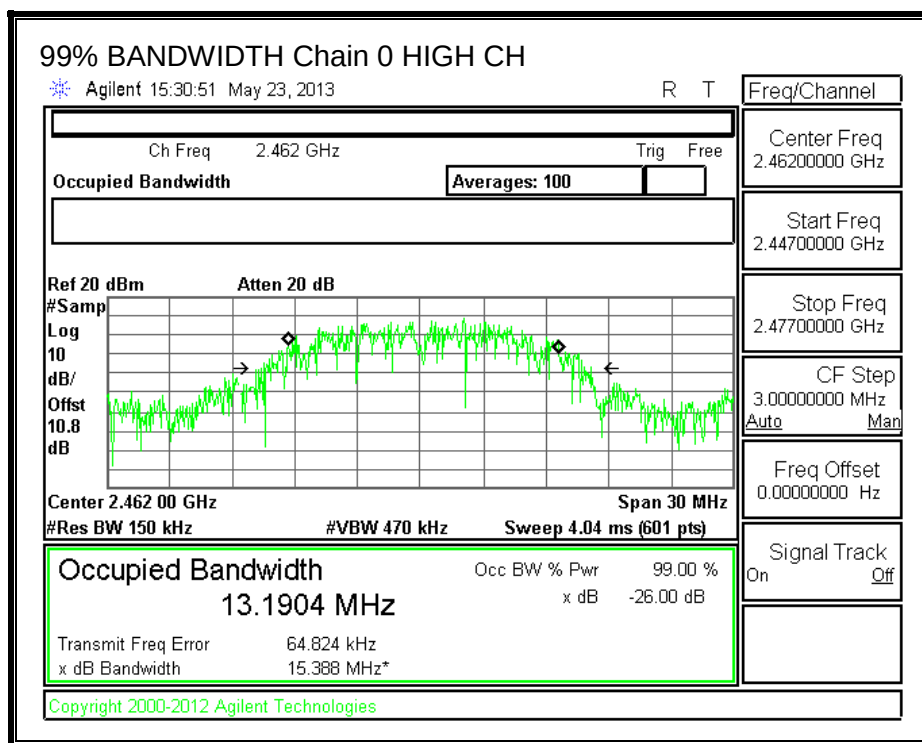
None; for reporting purposes only.

RESULTS

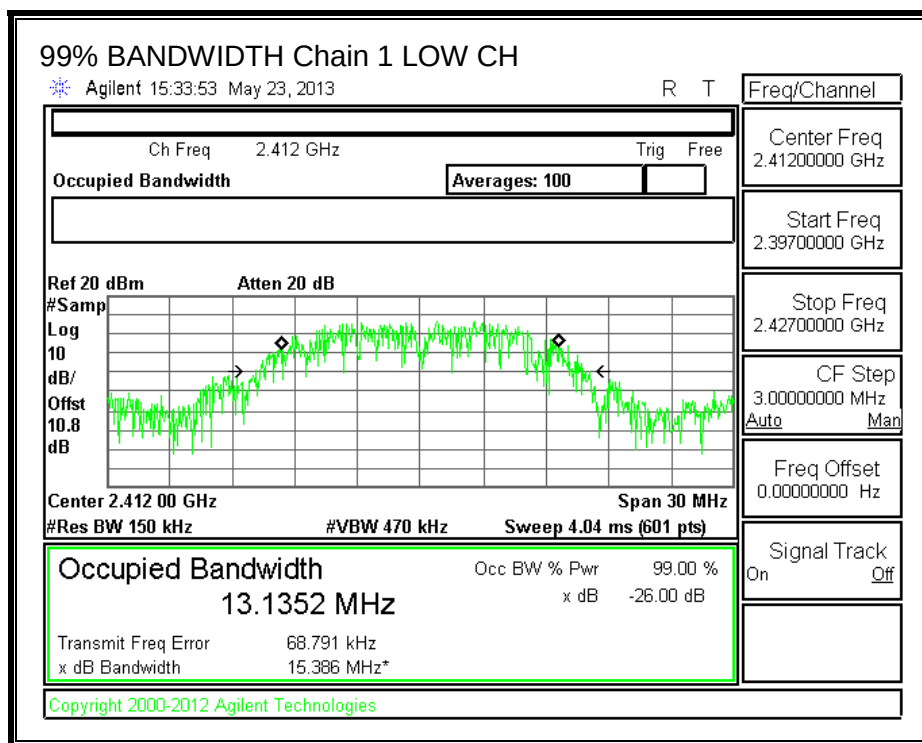
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	2412	13.1455	13.1352
Mid	2437	13.1718	13.1198
High	2462	13.1904	13.1183

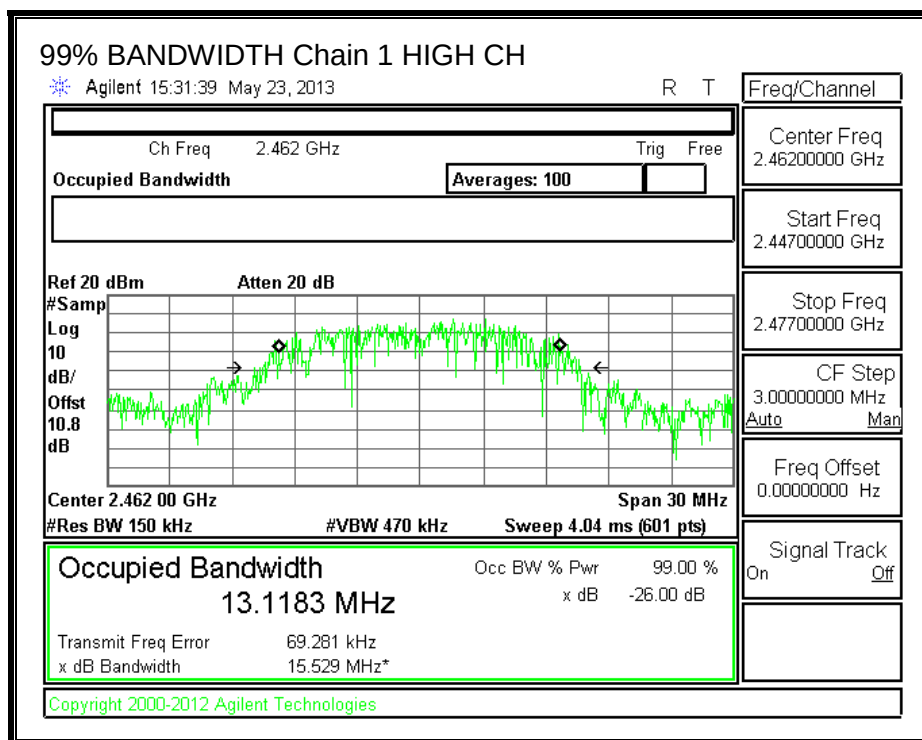
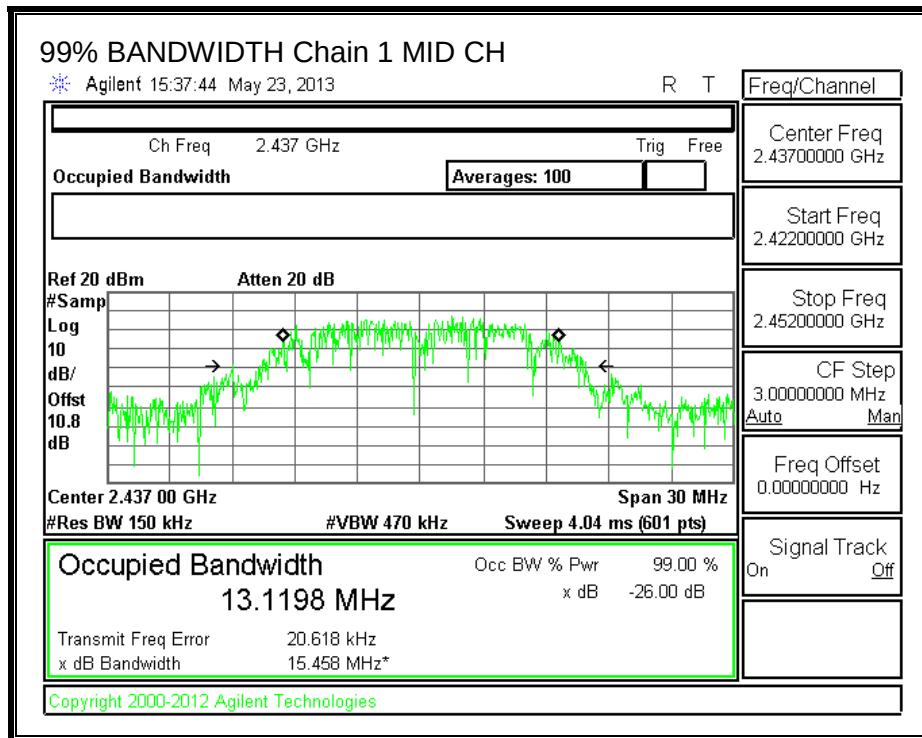
99% BANDWIDTH, Chain 0





99% BANDWIDTH, Chain 1





8.1.3. BAND OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

For output power, the TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.80	3.80	3.80

RESULTS

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	3.80	30.00	30	36	30.00
Mid	2437	3.80	30.00	30	36	30.00
High	2462	3.80	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
Low	2412	19.40	19.31	22.37	30.00	-7.63
Mid	2437	19.53	19.06	22.31	30.00	-7.69
High	2462	19.32	18.75	22.05	30.00	-7.95

8.1.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

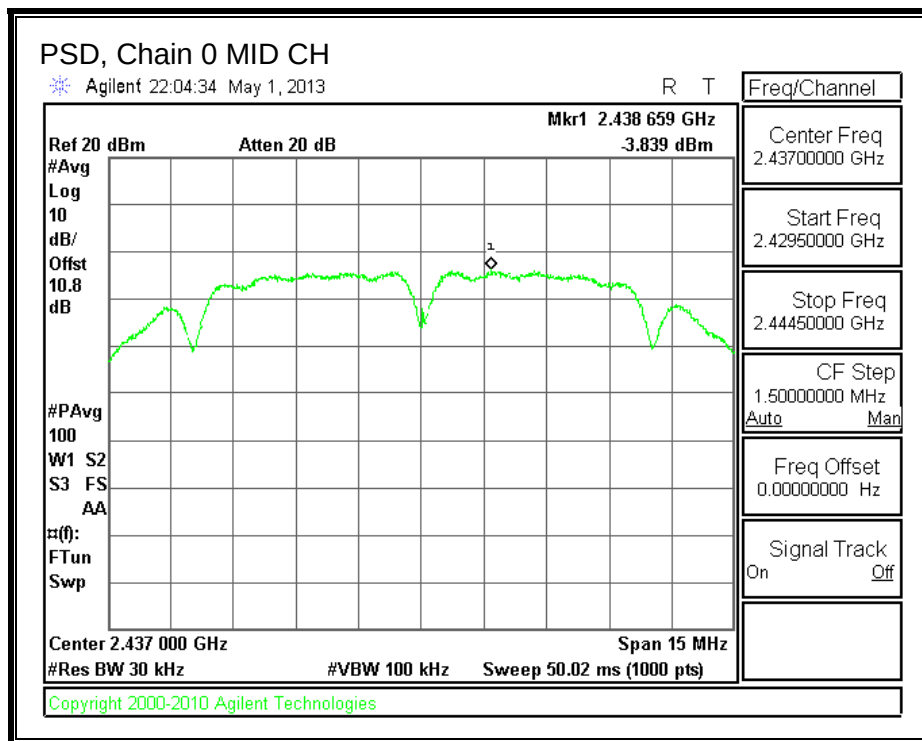
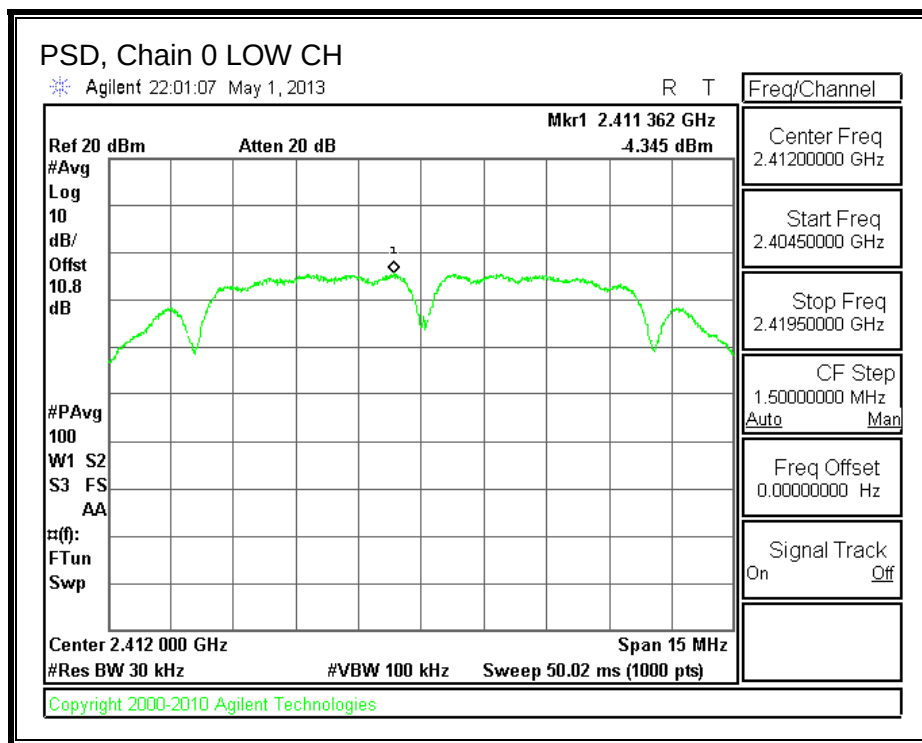
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

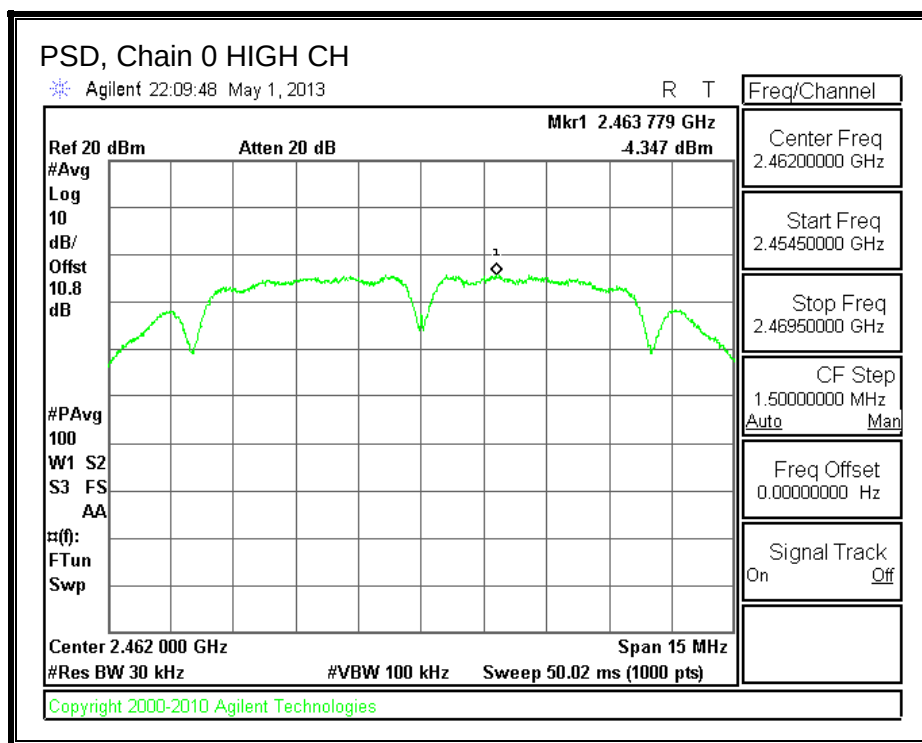
RESULTS

PSD Results

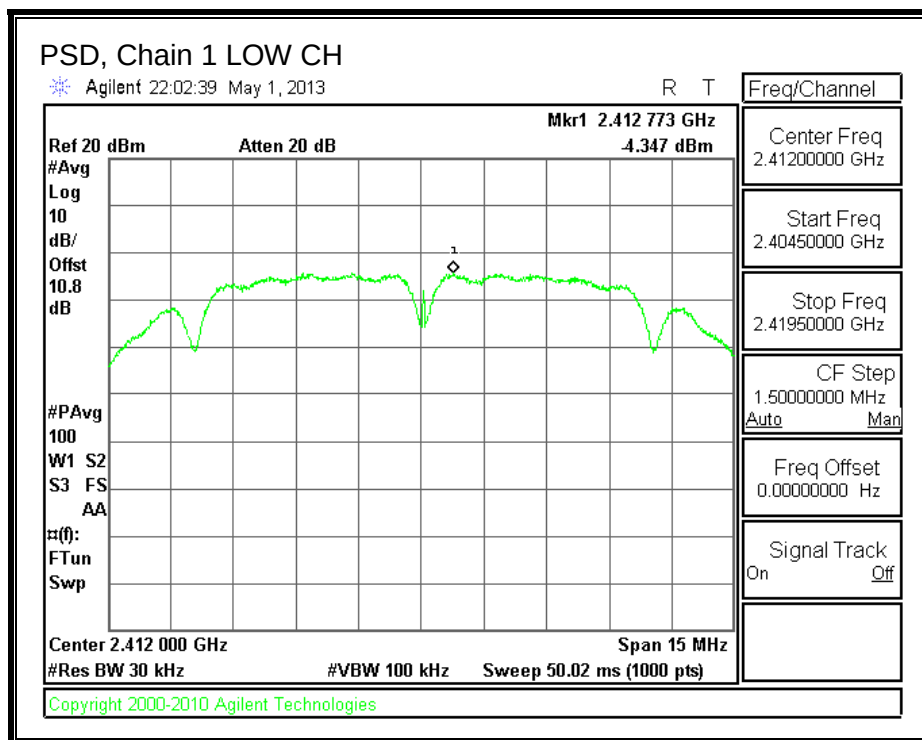
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-4.35	-4.35	-1.34	8.0	-9.3
Mid	2437	-3.84	-4.22	-1.01	8.0	-9.0
High	2462	-4.35	-4.81	-1.56	8.0	-9.6

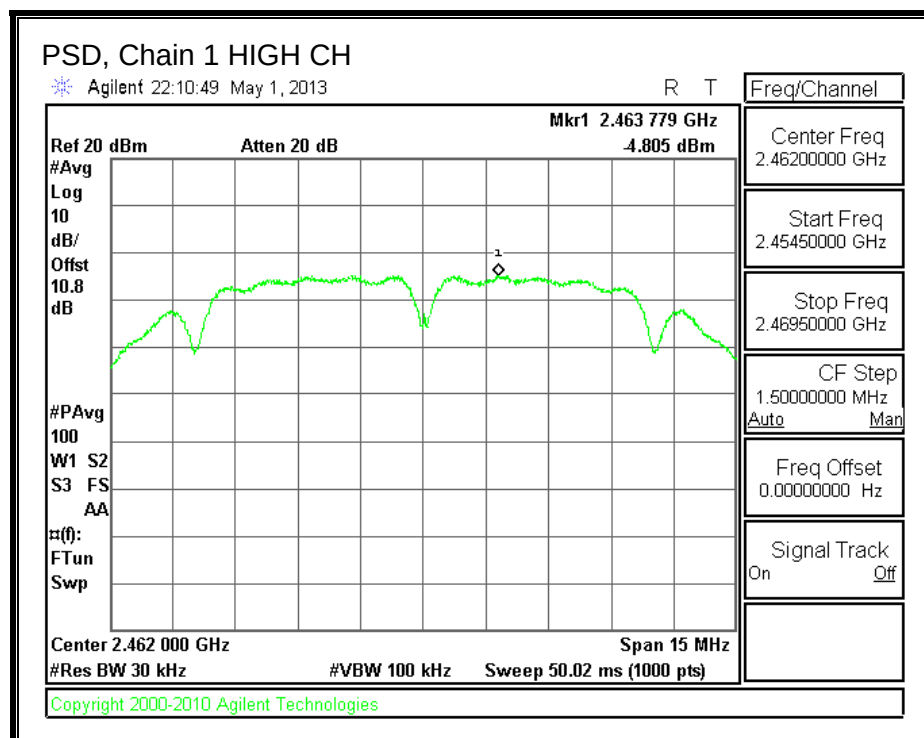
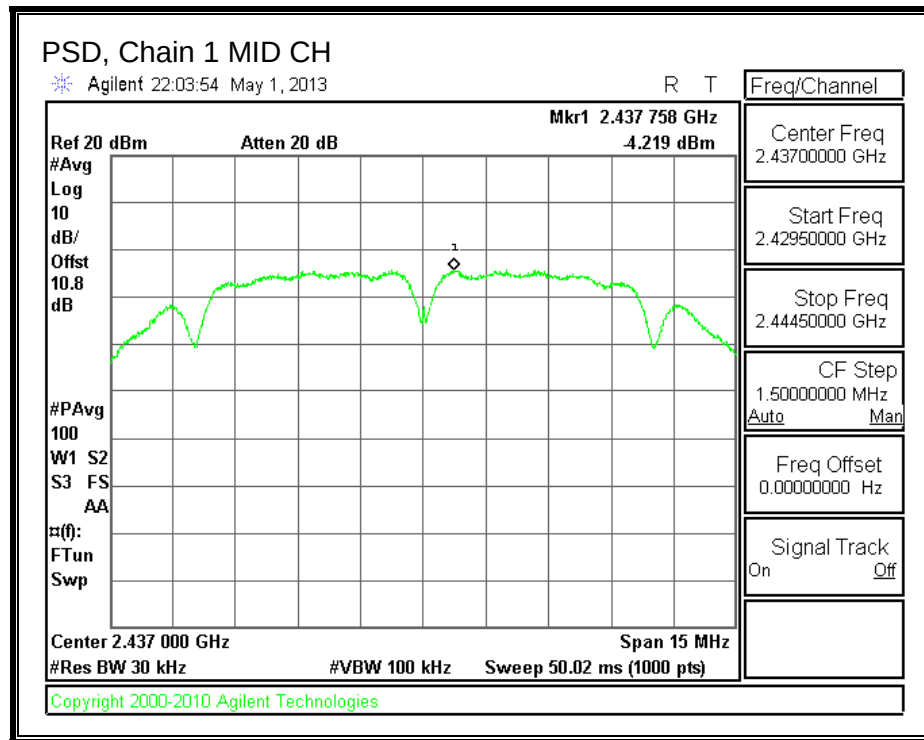
PSD, Chain 0





PSD, Chain 1





8.1.5. BAND OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

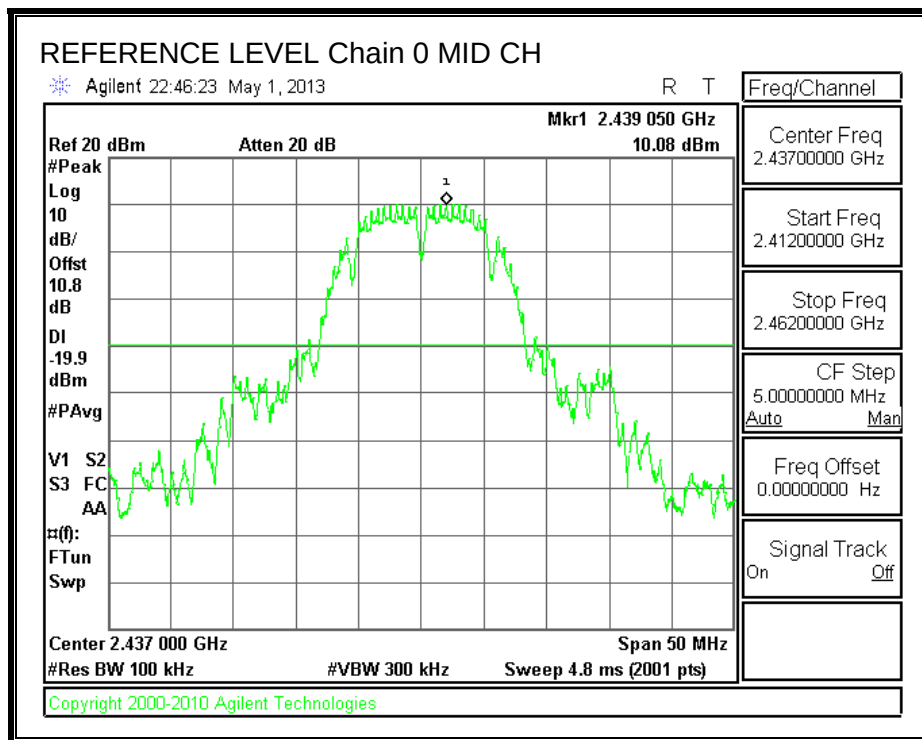
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

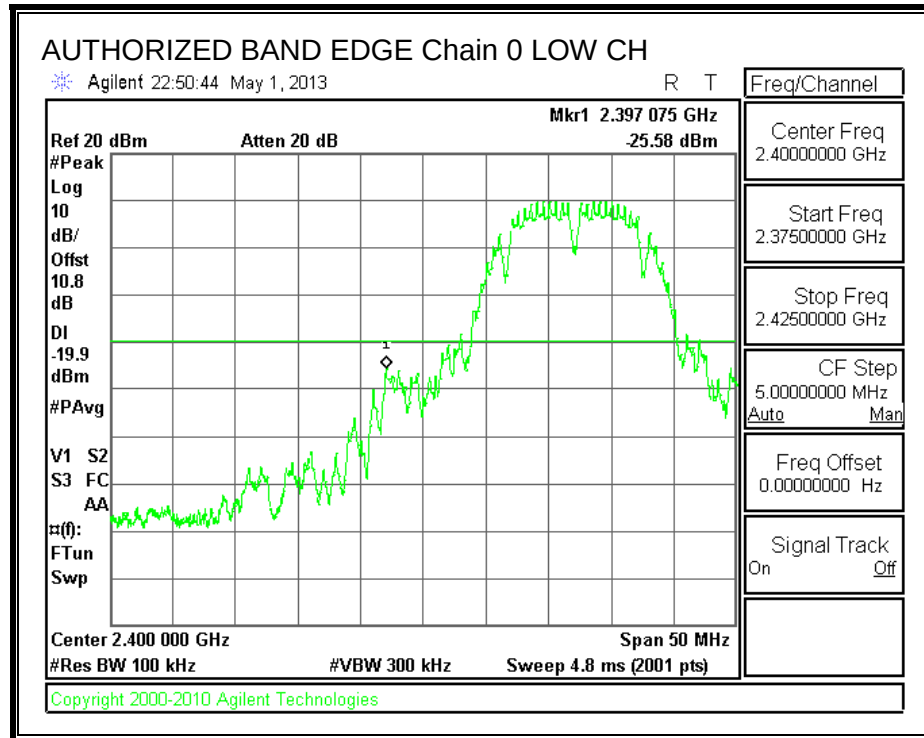
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

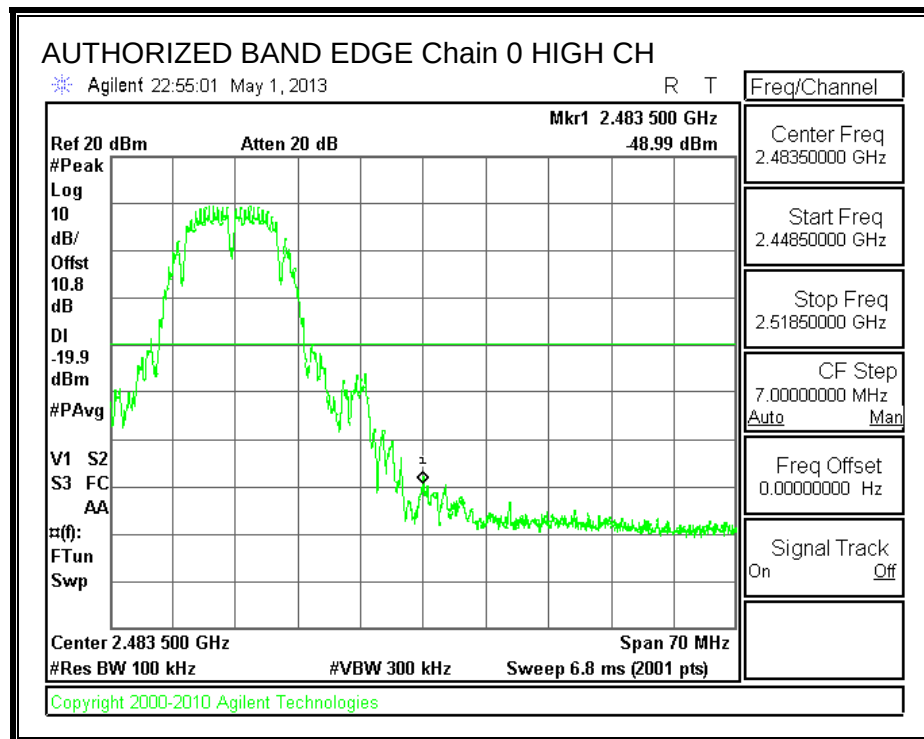
IN-BAND REFERENCE LEVEL, Chain 0



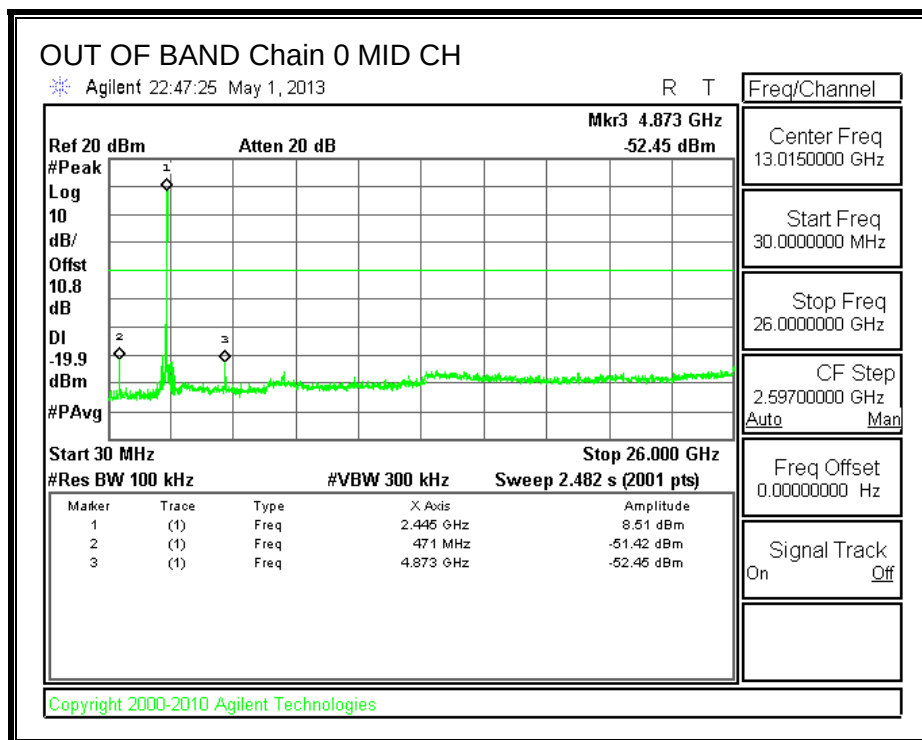
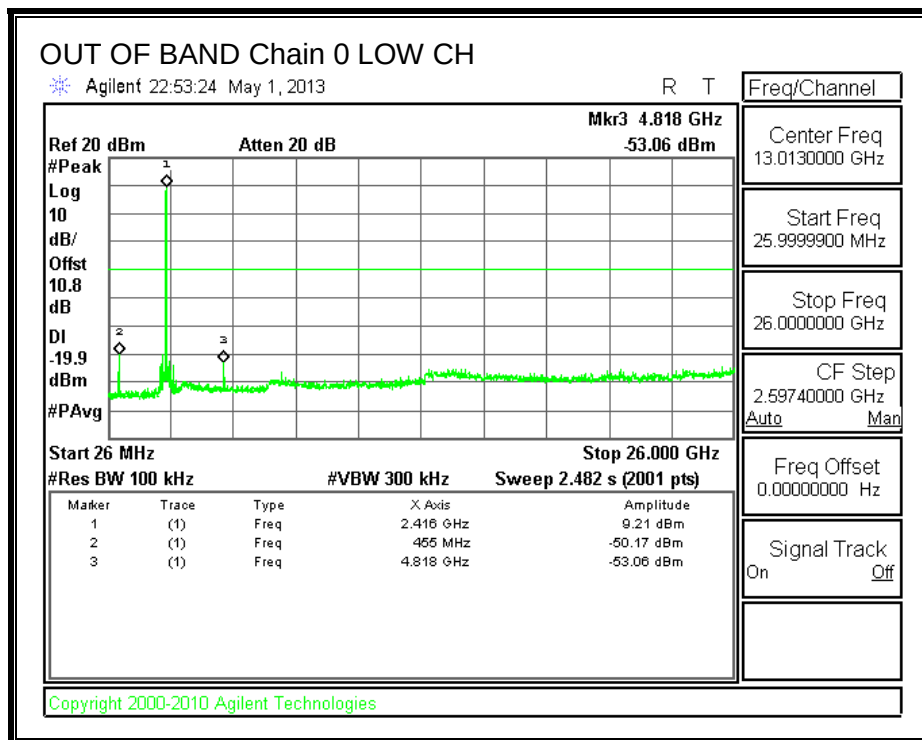
LOW CHANNEL BANDEDGE, Chain 0

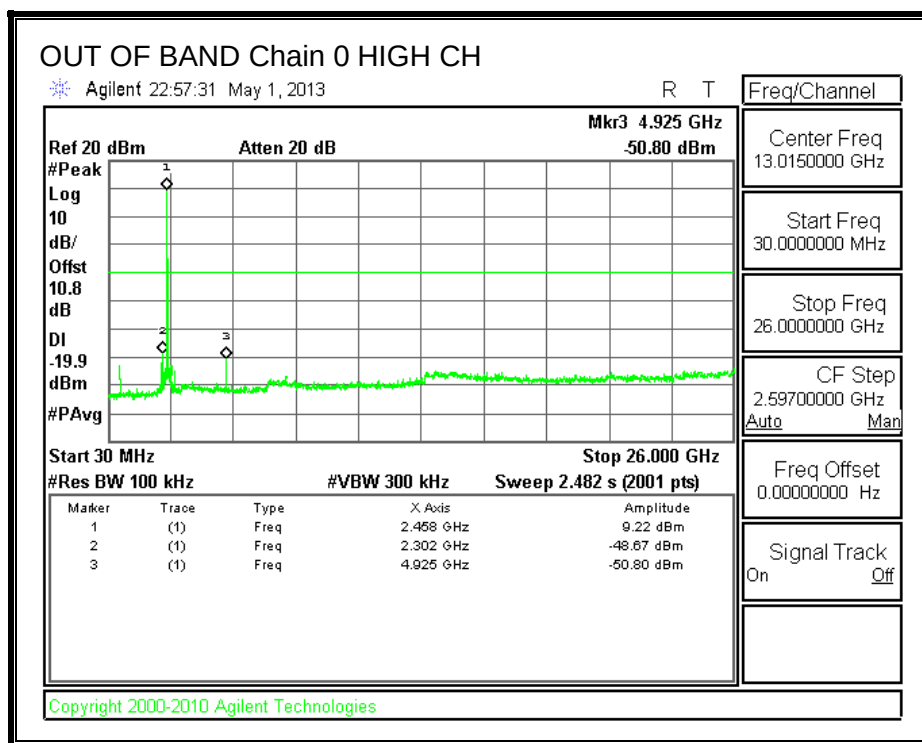


HIGH CHANNEL BANDEDGE, Chain 0

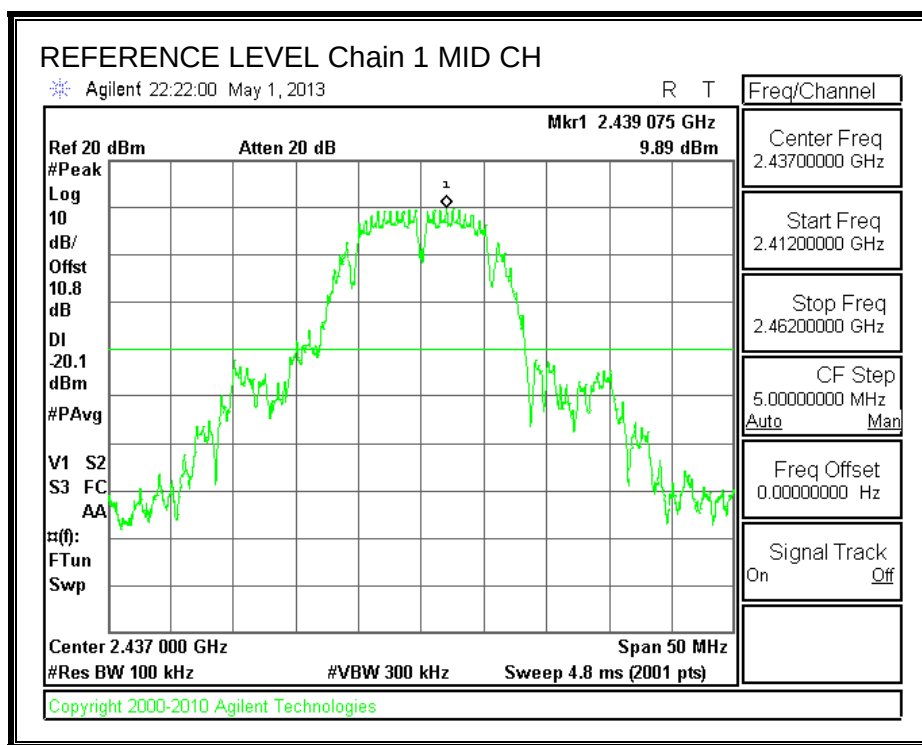


OUT-OF-BAND EMISSIONS, Chain 0

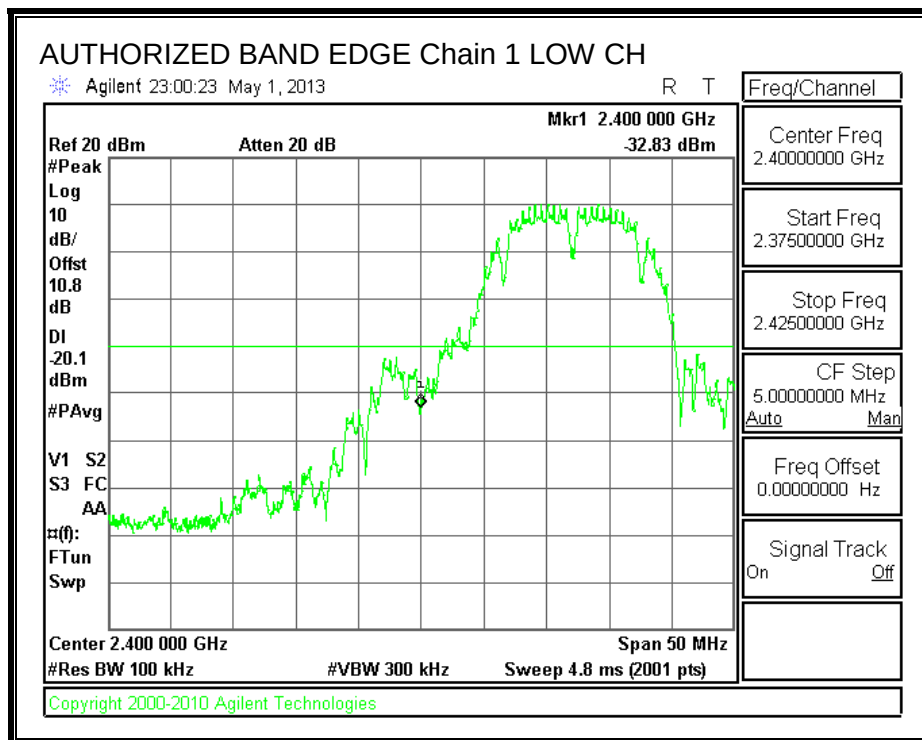




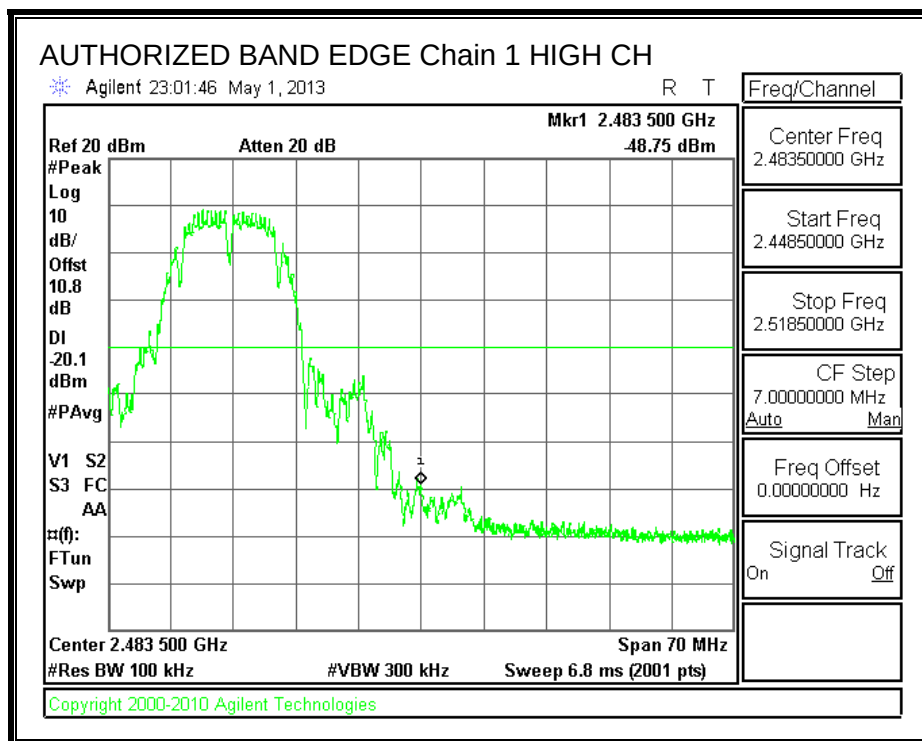
IN-BAND REFERENCE LEVEL, Chain 1

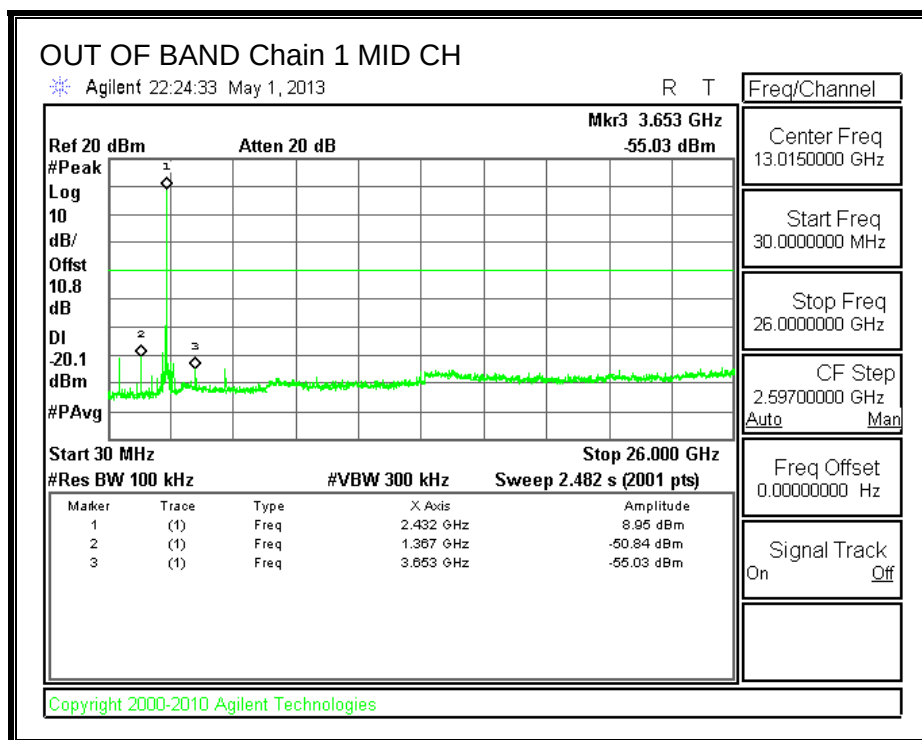
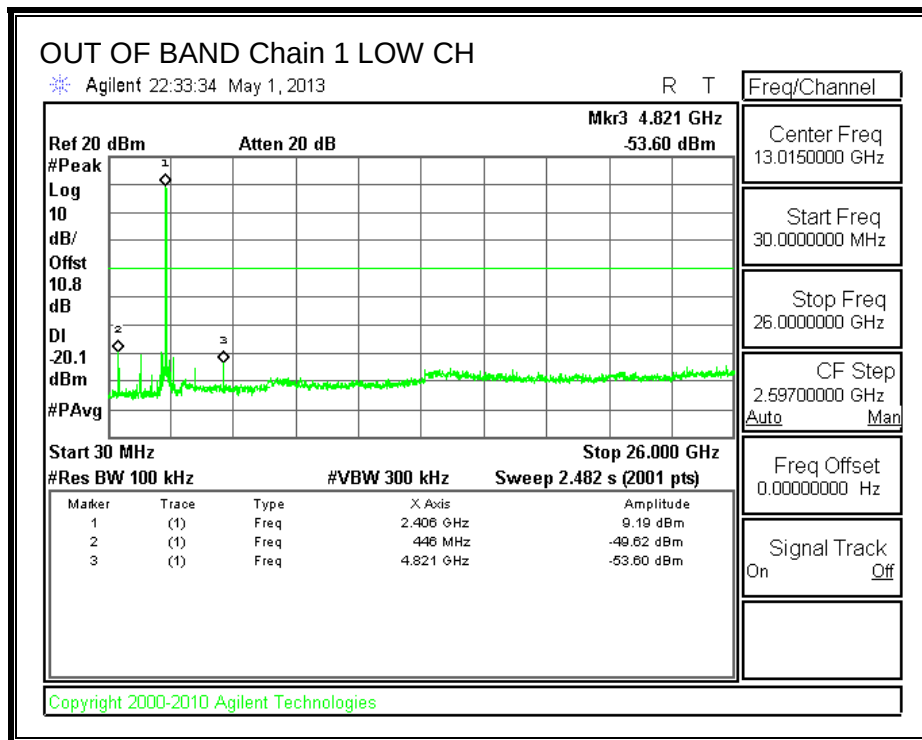


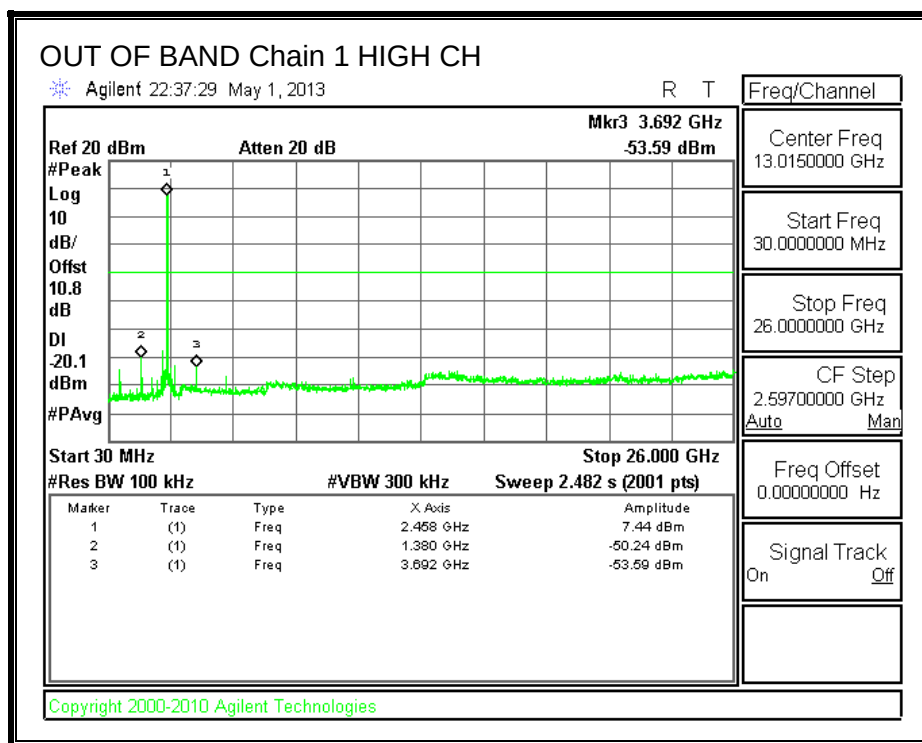
LOW CHANNEL BANDEDGE, Chain 1



HIGH CHANNEL BANDEDGE, Chain 1







8.2. 802.11g LEGACY 1TX MODE IN THE 2.4 GHz BAND

8.2.1. 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.

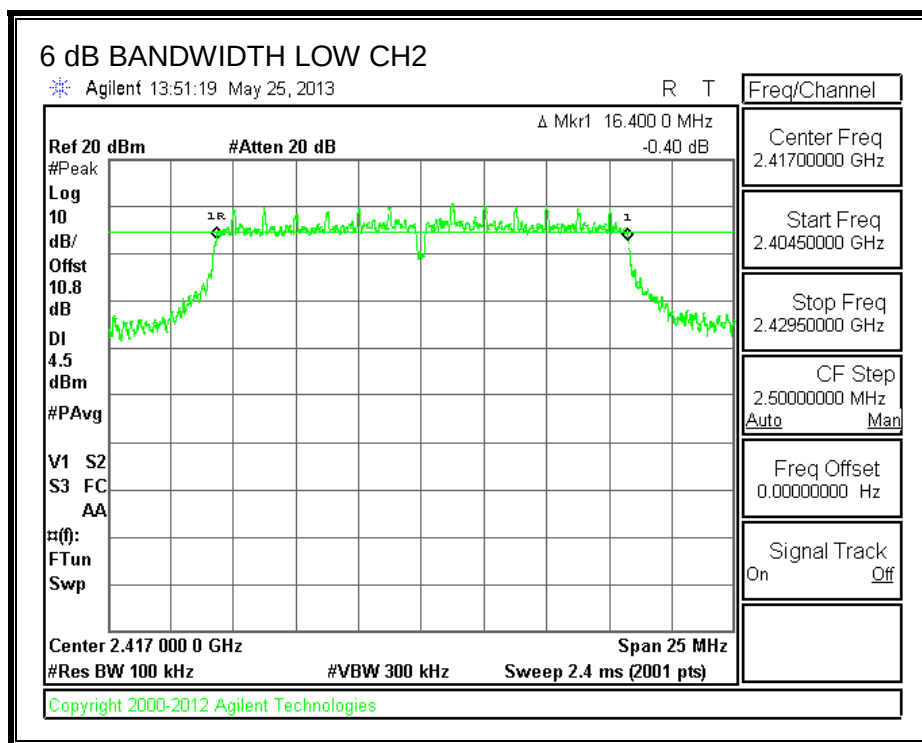
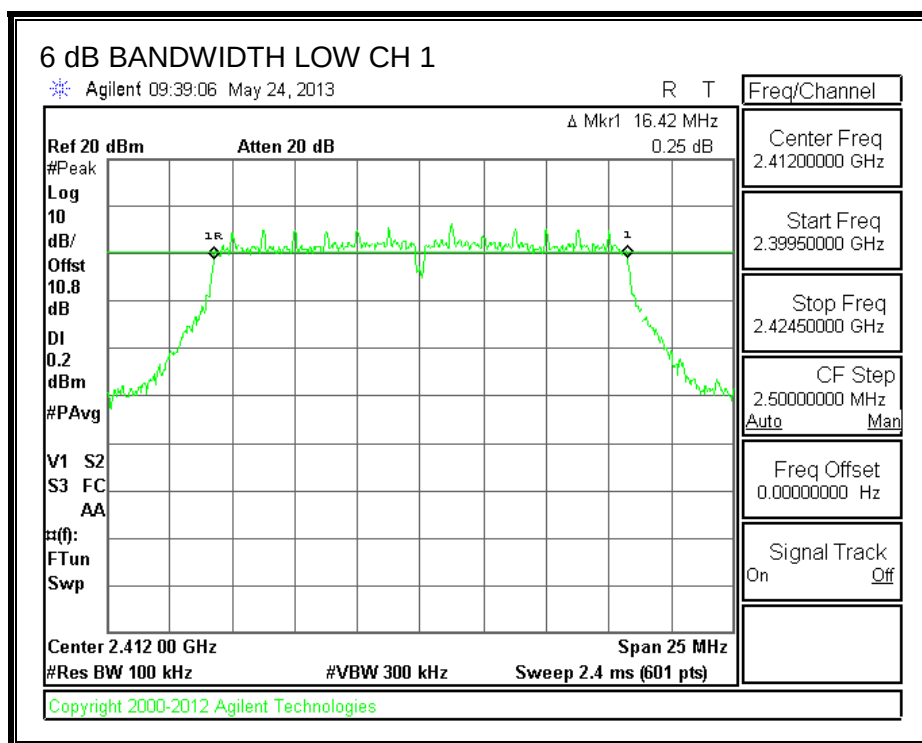
TEST PROCEDURE

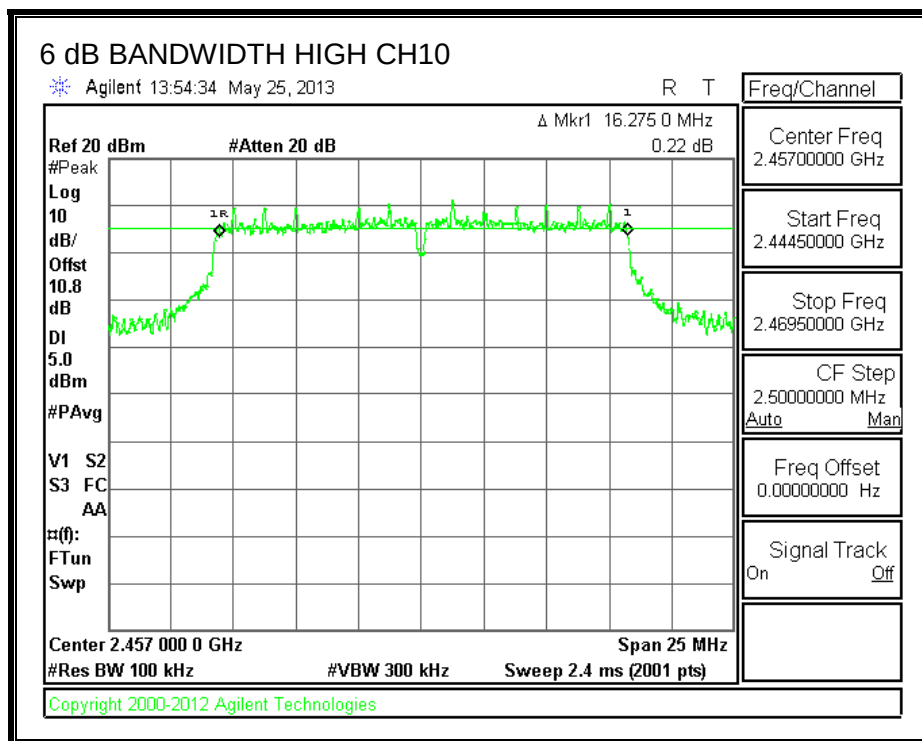
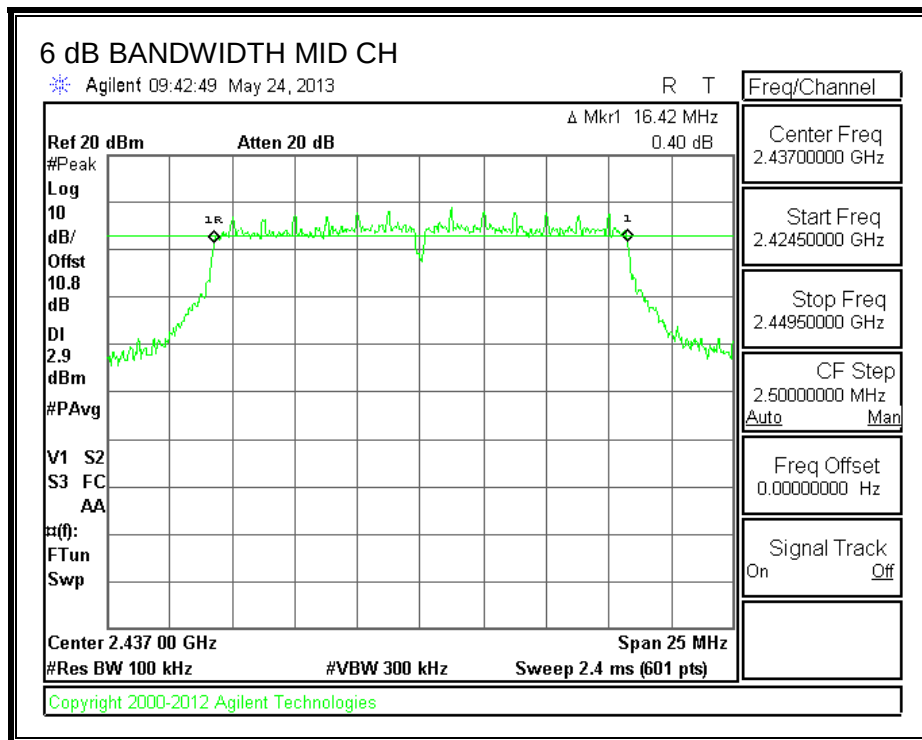
The transmitter output is connected to a spectrum analyzer with the RBW set to 100 kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

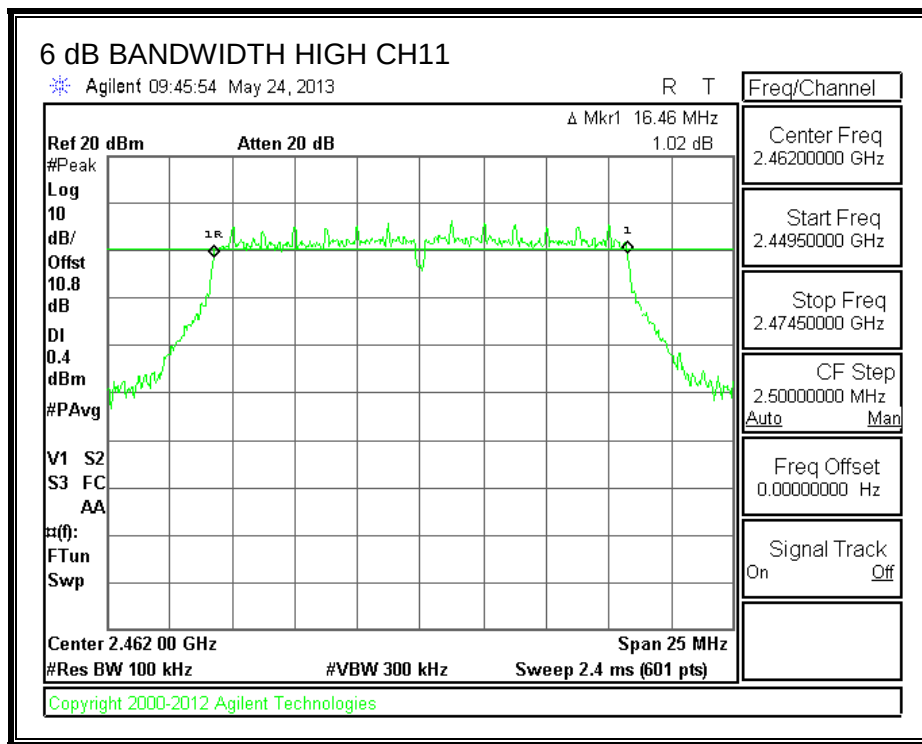
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low 1	2412	16.420	0.5
Low 2	2417	16.400	0.5
Mid	2437	16.420	0.5
High 10	2457	16.275	0.5
High 11	2462	16.460	0.5

6 dB BANDWIDTH







8.2.2. 99% BANDWIDTH

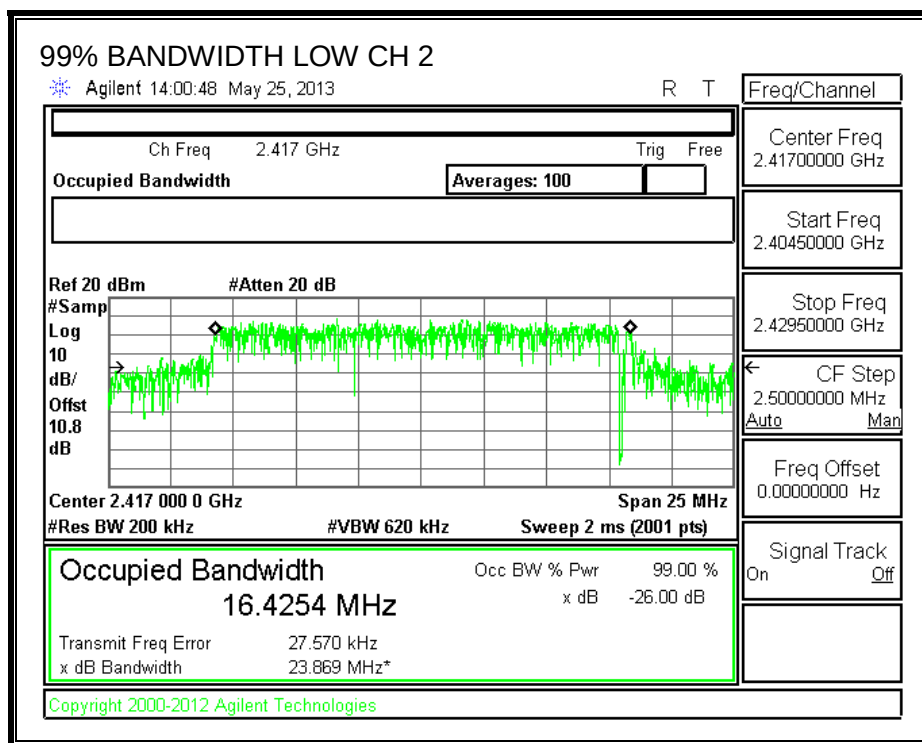
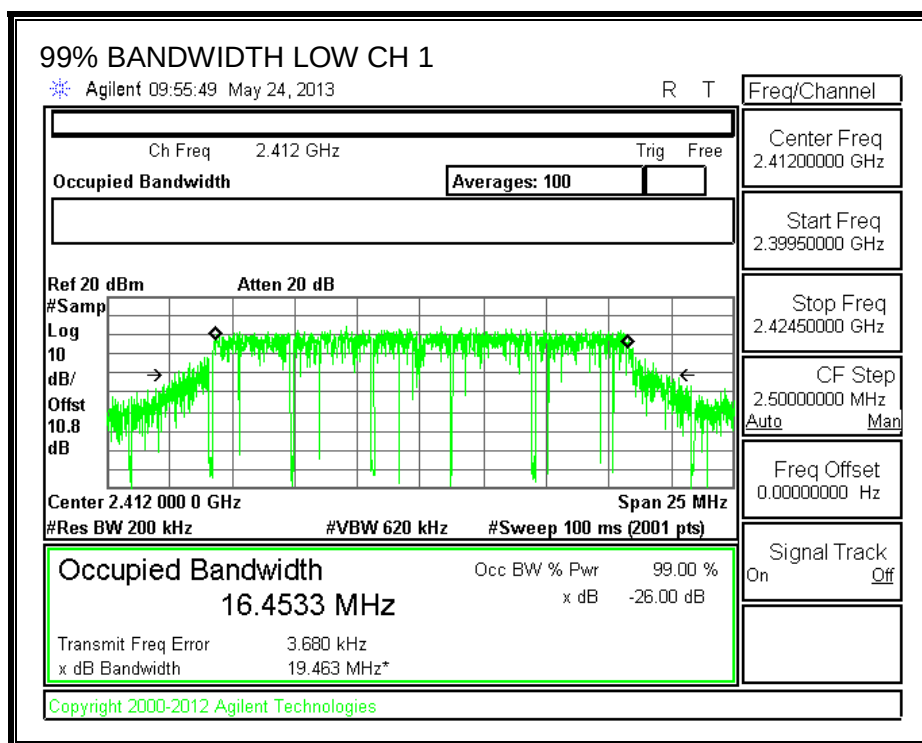
LIMITS

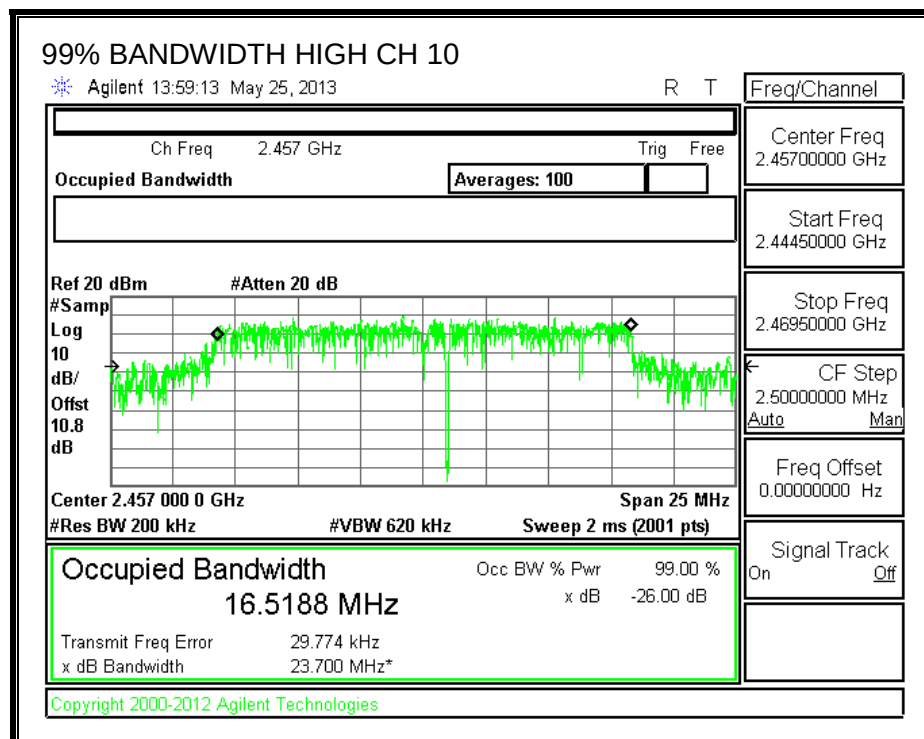
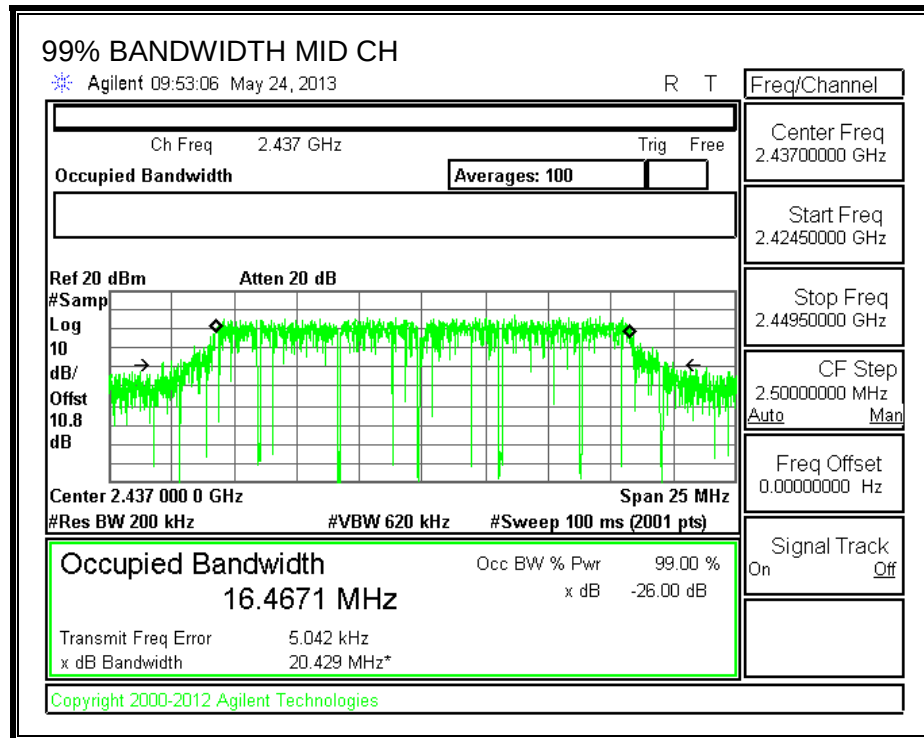
None; for reporting purposes only.

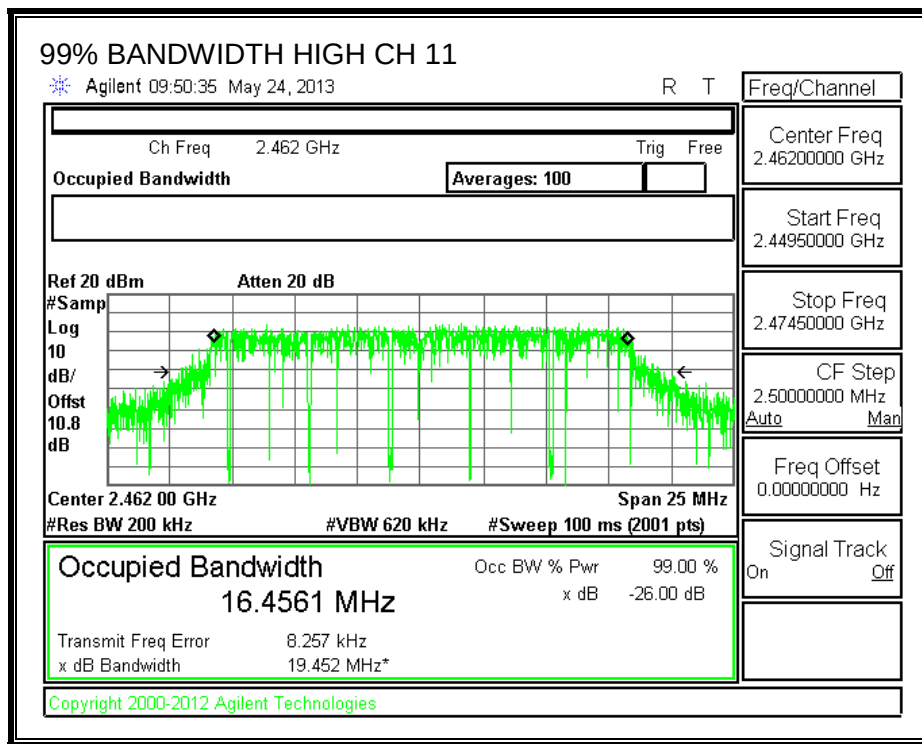
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low 1	2412	16.4533
Low 2	2417	16.4254
Mid	2437	16.4671
High 10	2457	16.5188
High 11	2462	16.4561

99% BANDWIDTH







8.2.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low 1	2412	3.80	30.00	30	36	30.00
Low 2	2417	3.80	30.00	30	36	30.00
Mid	2437	3.80	30.00	30	36	30.00
High 10	2452	3.80	30.00	30	36	30.00
High 11	2462	3.80	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low 1	2412	16.35	16.35	30.00	-13.65
Low 2	2417	19.02	19.02	30.00	-10.98
Mid	2437	18.92	18.92	30.00	-11.08
High 10	2457	19.26	19.26	30.00	-10.74
High 11	2462	16.64	16.64	30.00	-13.36

8.2.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

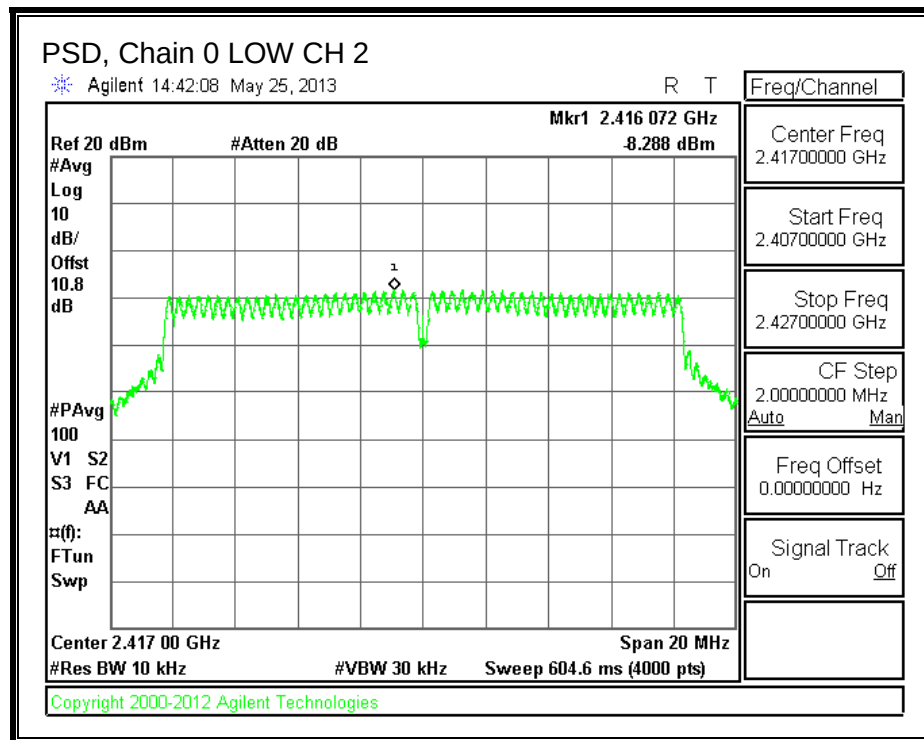
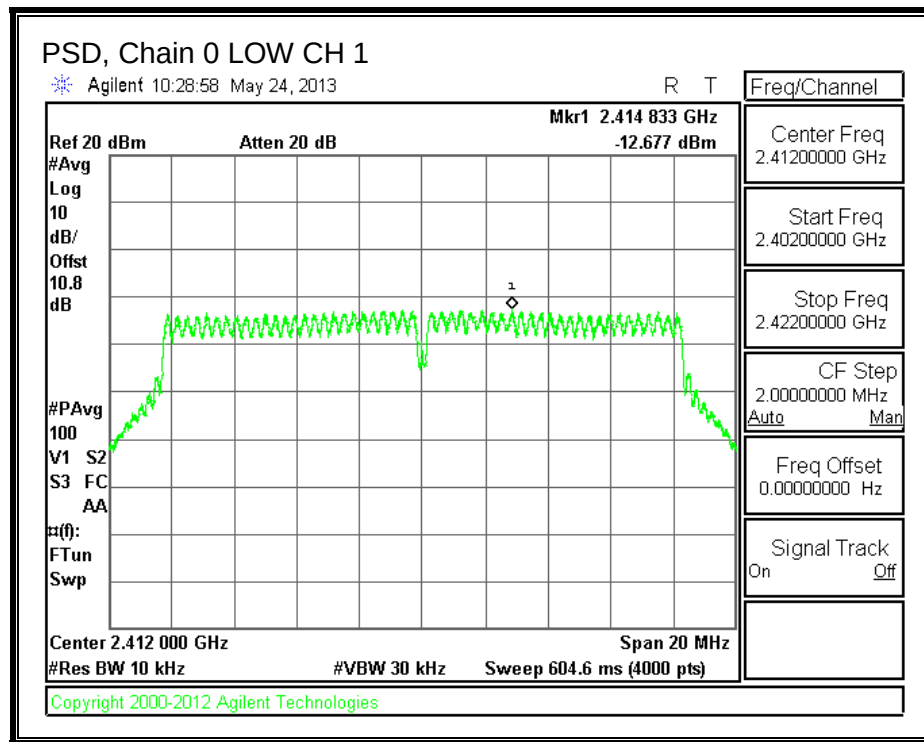
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

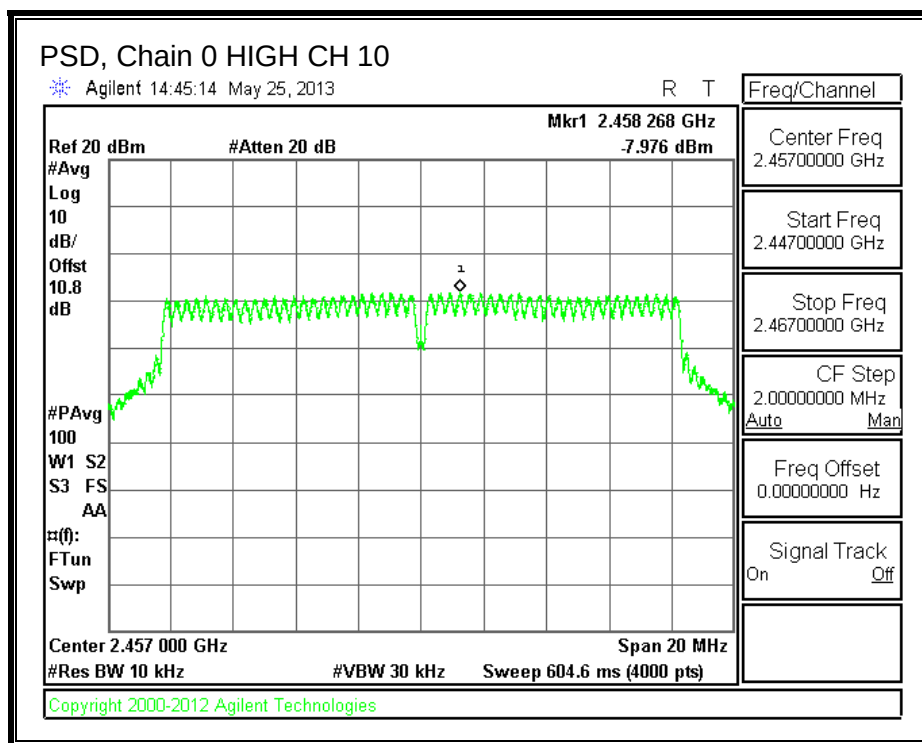
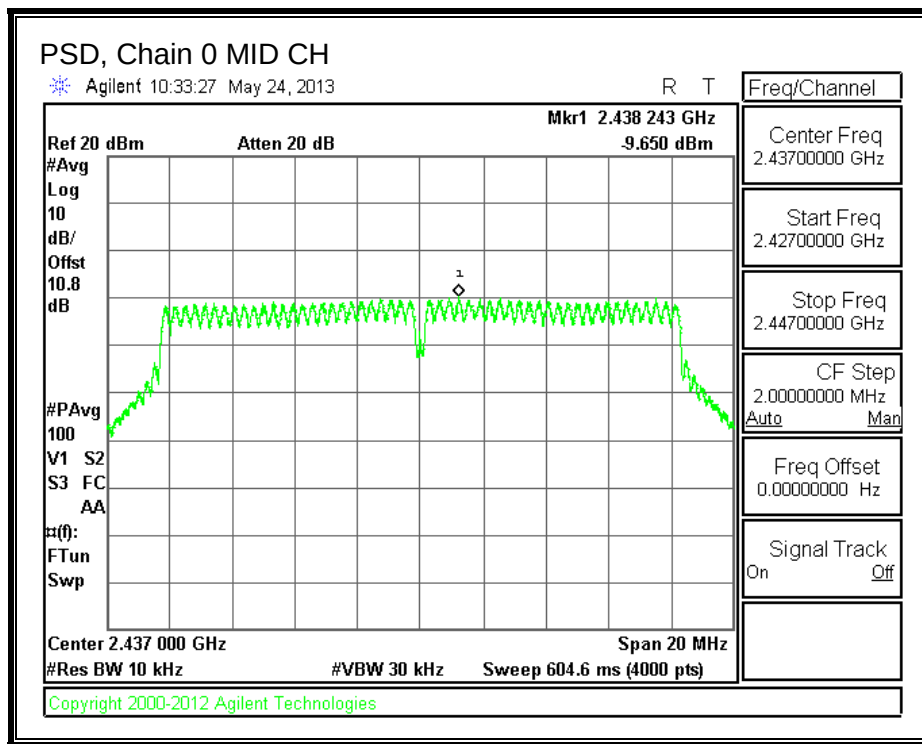
RESULTS

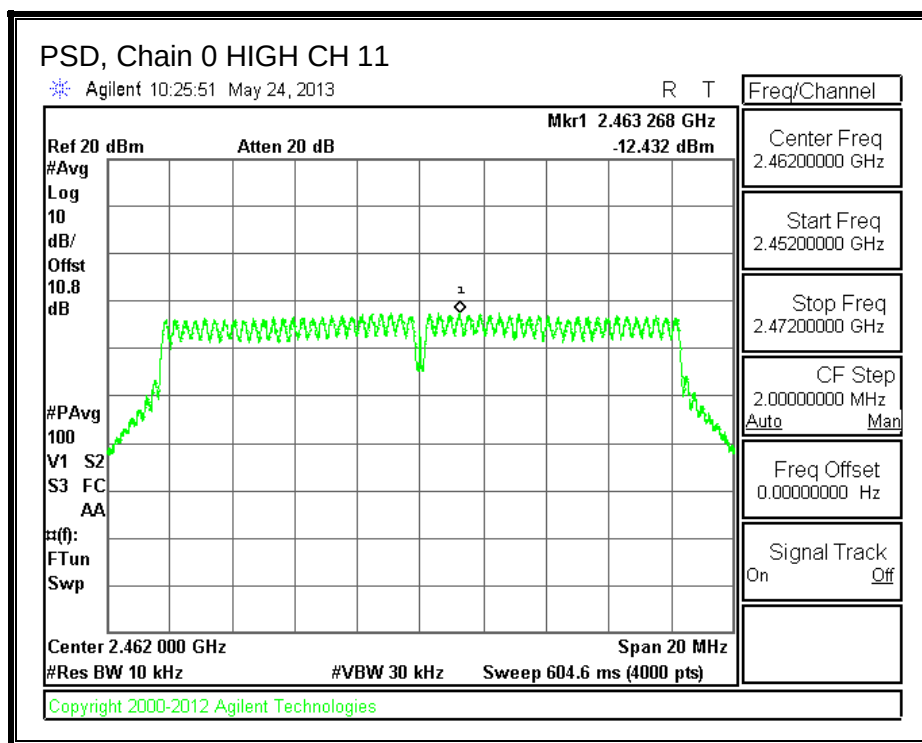
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low 1	2412	-12.677	8.0	-20.7
Low 2	2417	-8.288	8.0	-16.3
Mid	2437	-9.650	8.0	-17.7
High 10	2457	-7.976	8.0	-16.0
High 11	2462	-12.432	8.0	-20.4

PSD, Chain 0







8.2.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

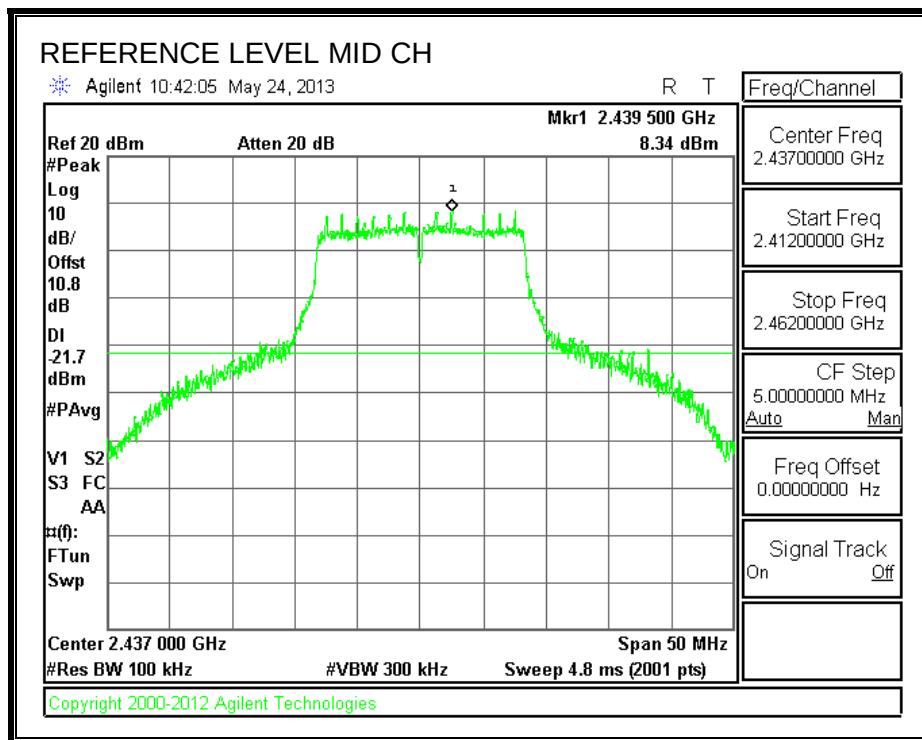
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

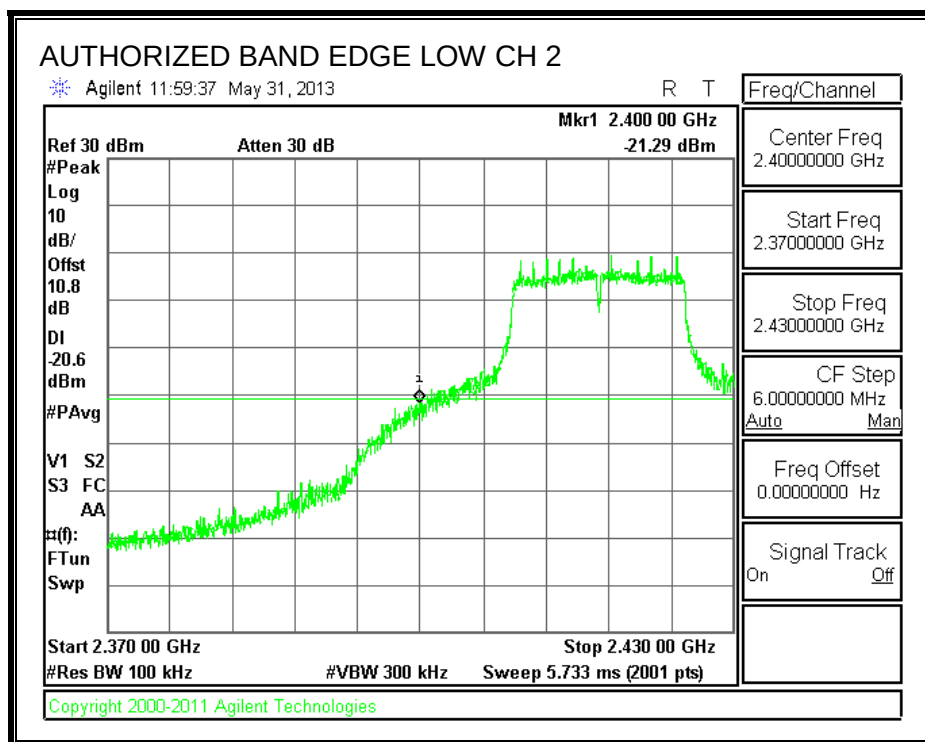
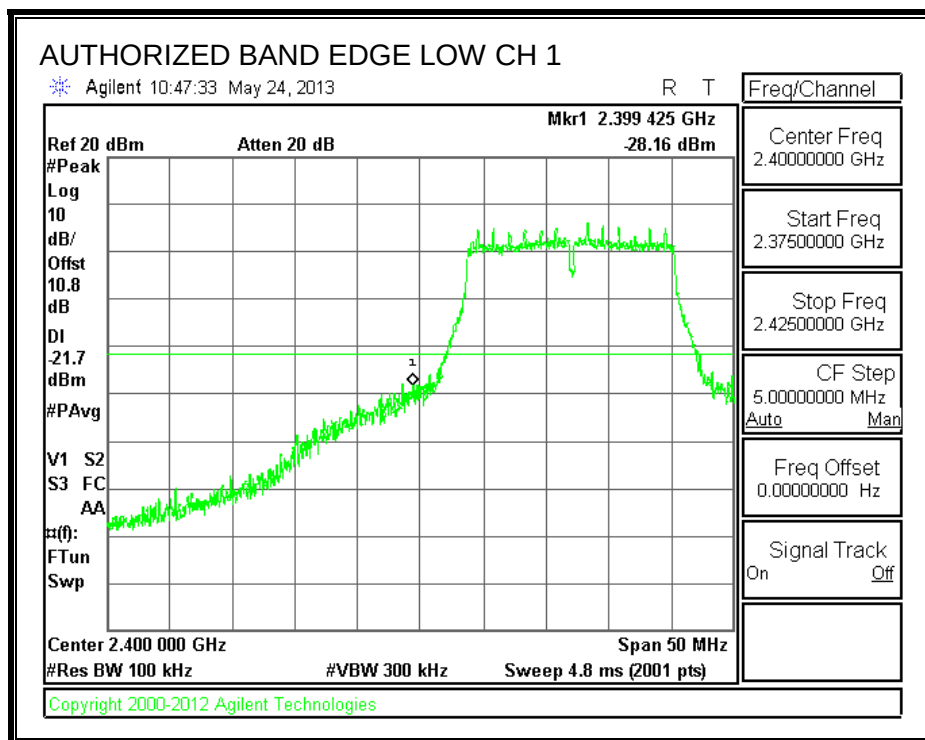
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

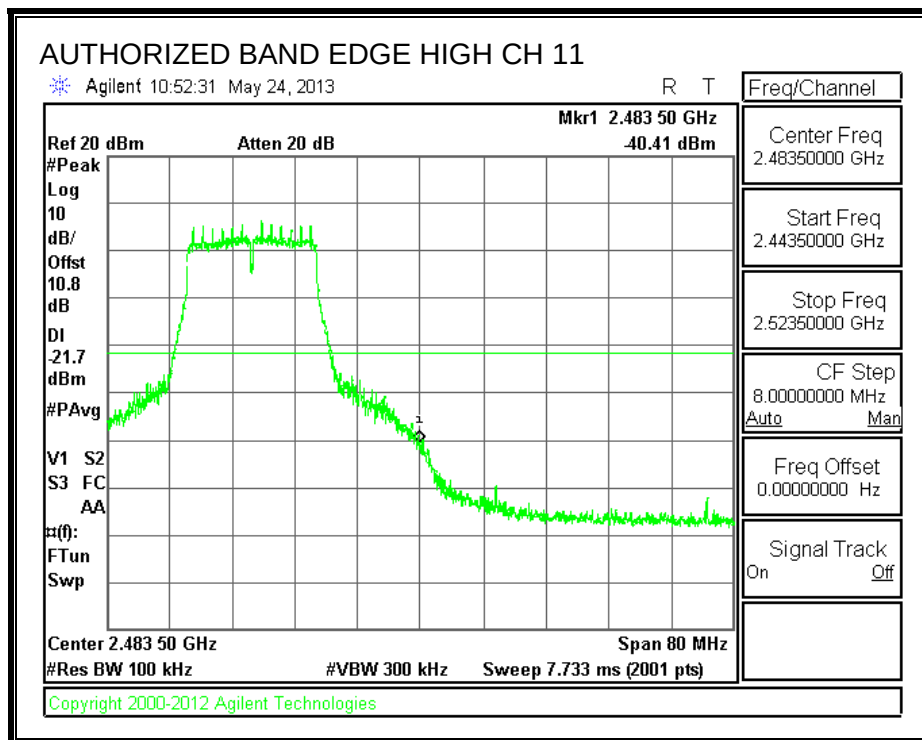
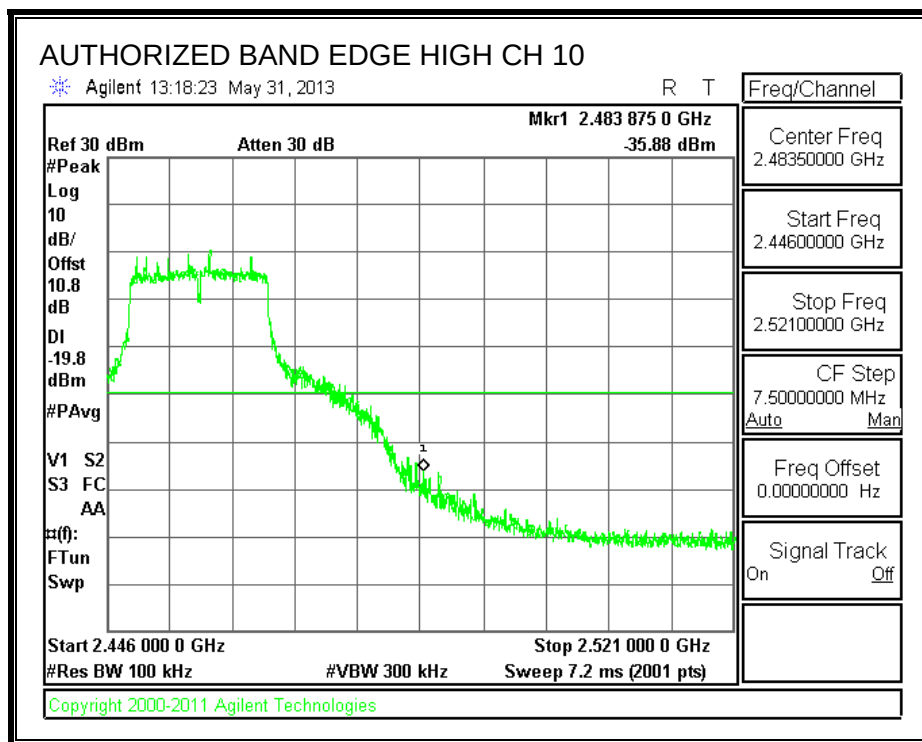
IN-BAND REFERENCE LEVEL



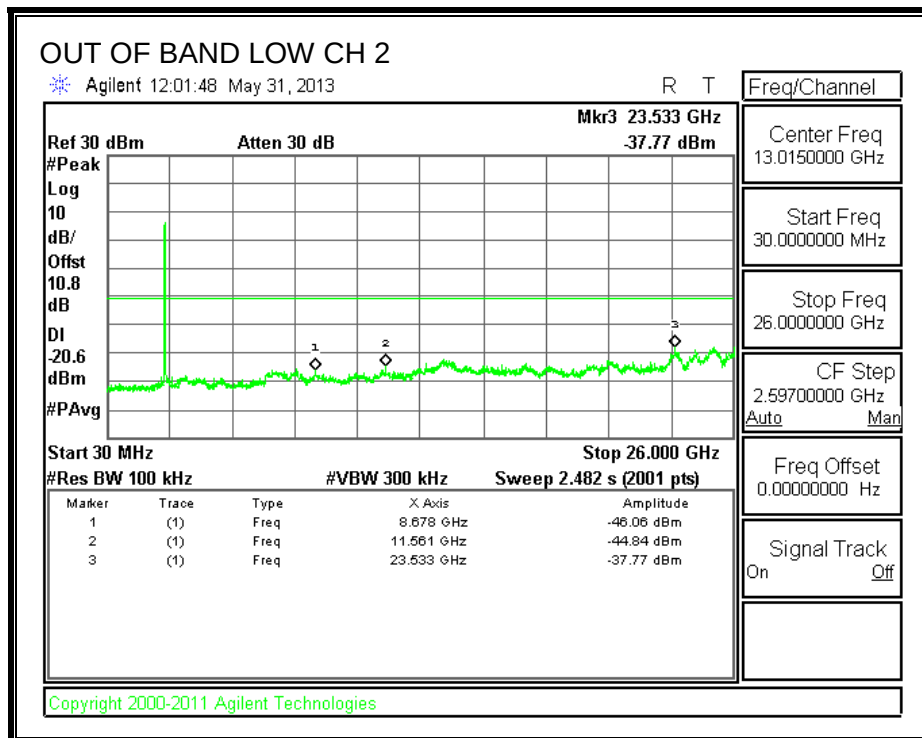
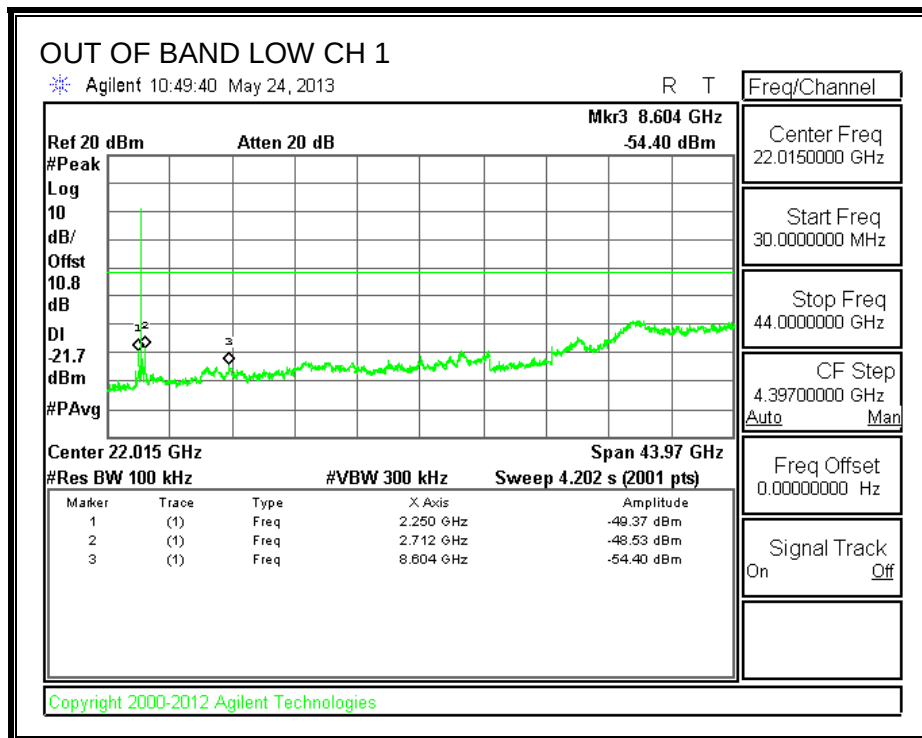
LOW CHANNEL BANDEDGE

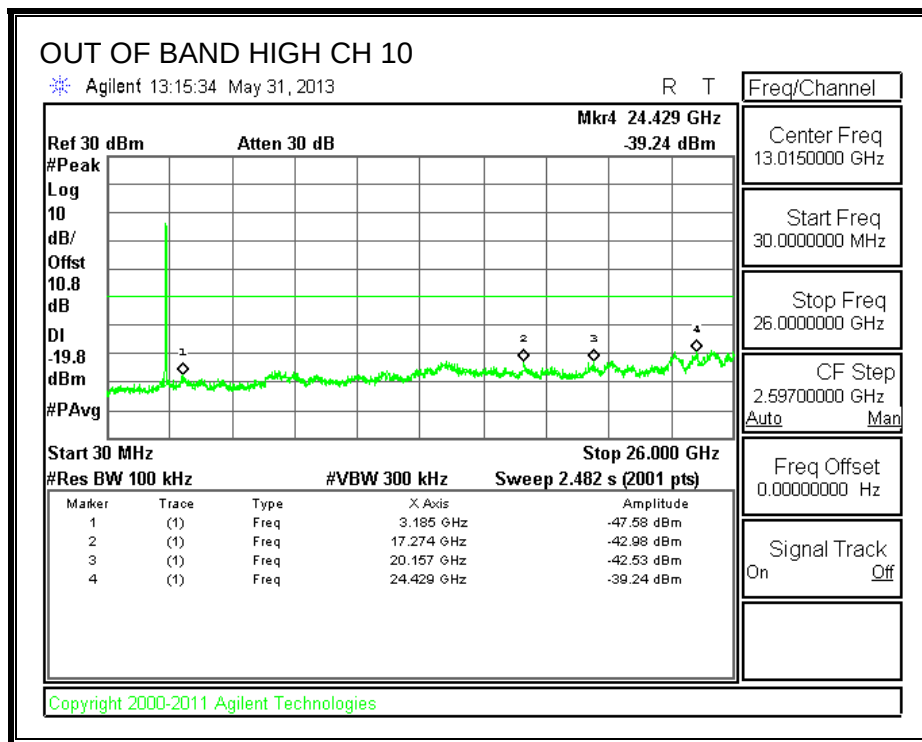
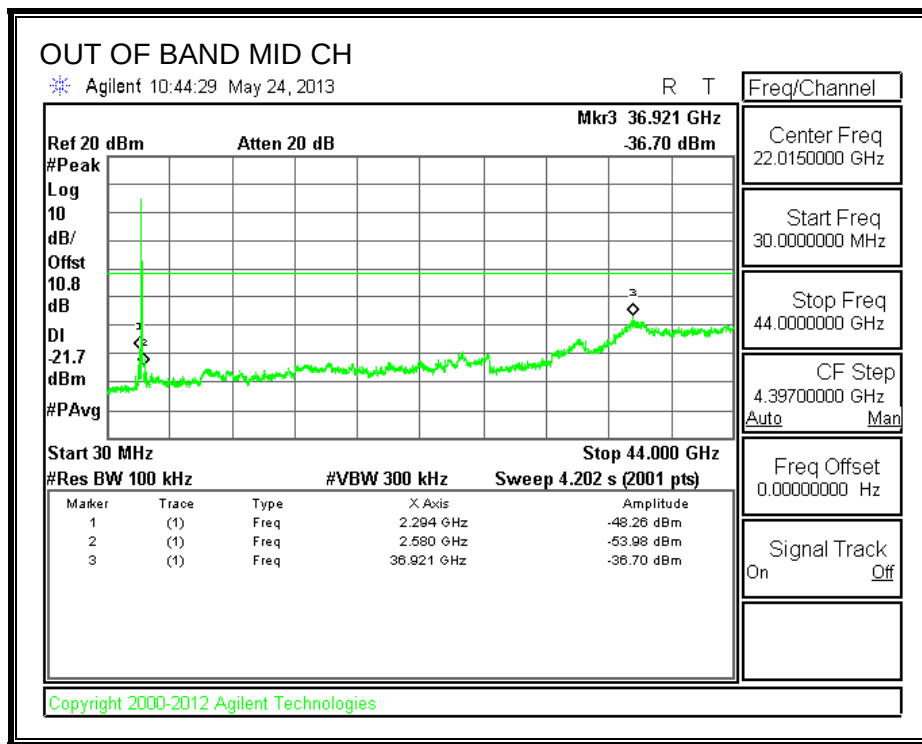


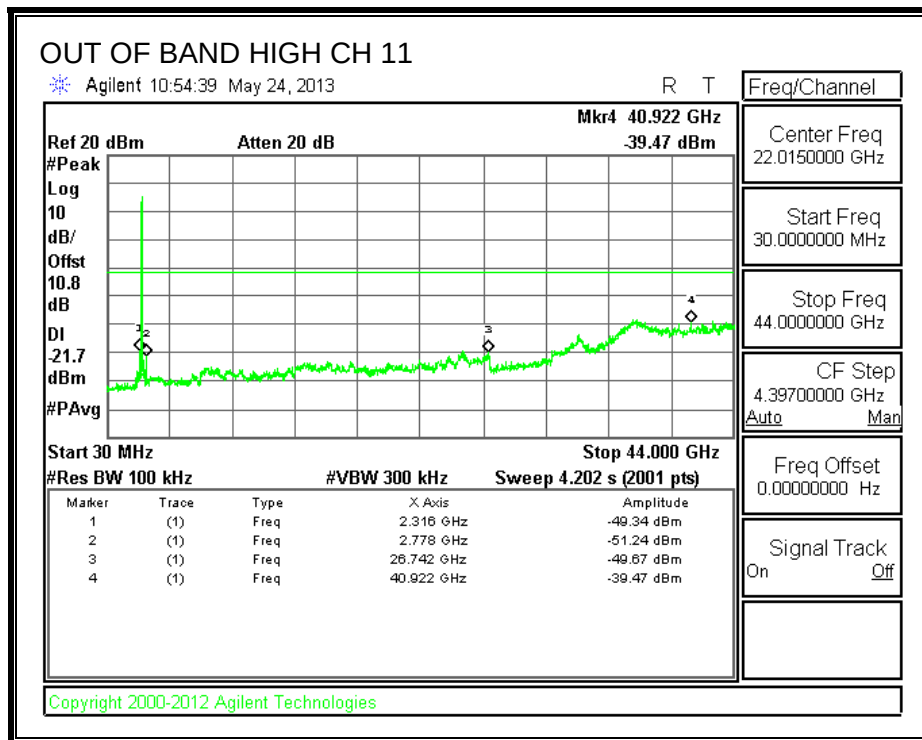
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS







8.3. 802.11n HT20 CDD 2TX MODE, 2.4 GHz BAND

8.3.1. 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.

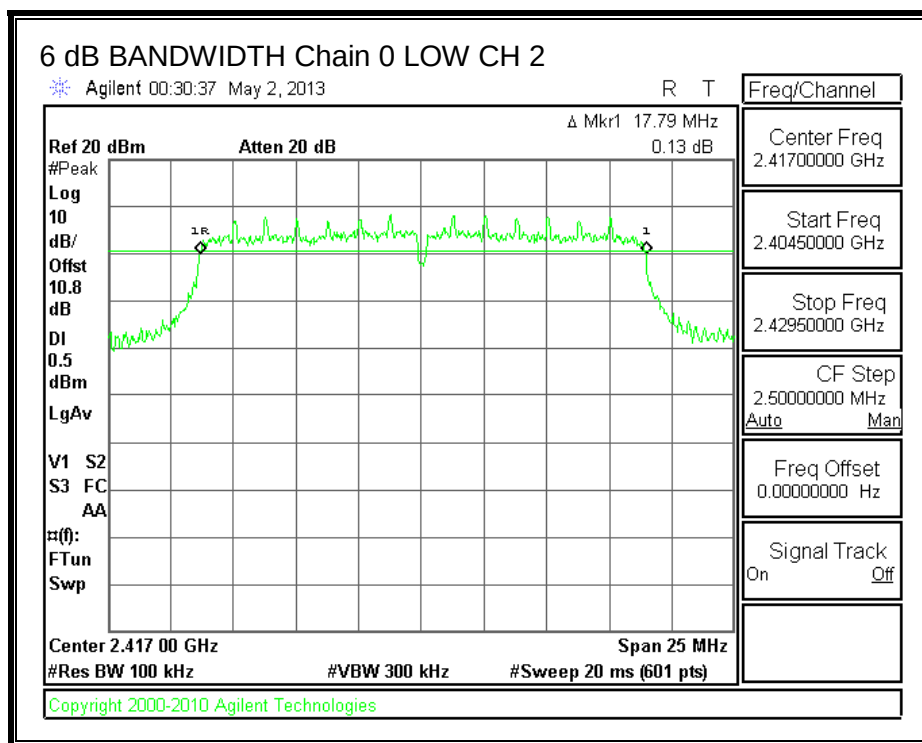
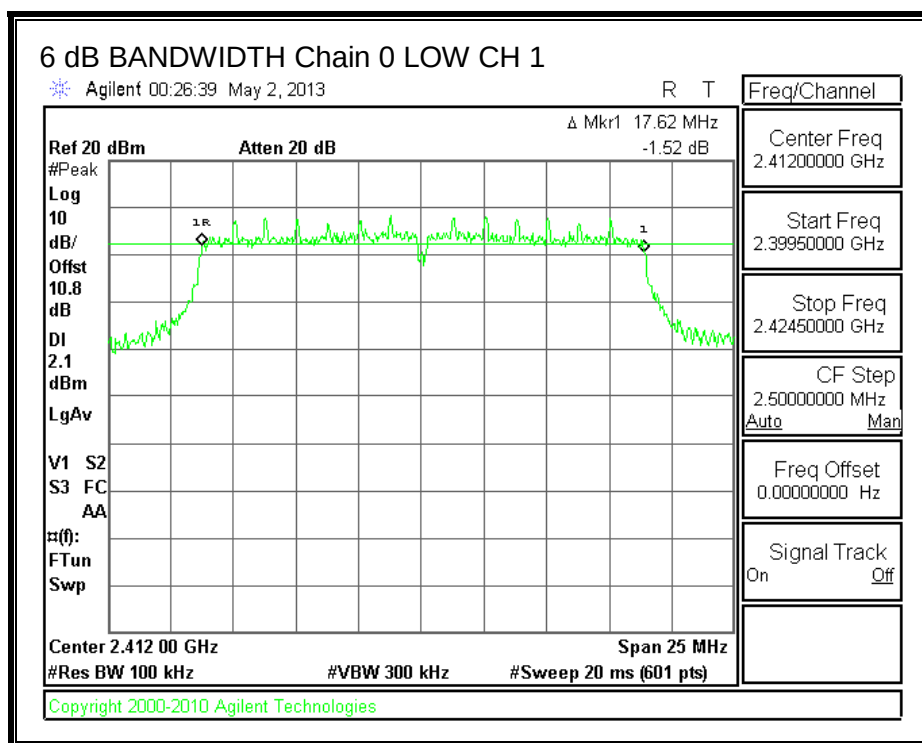
TEST PROCEDURE

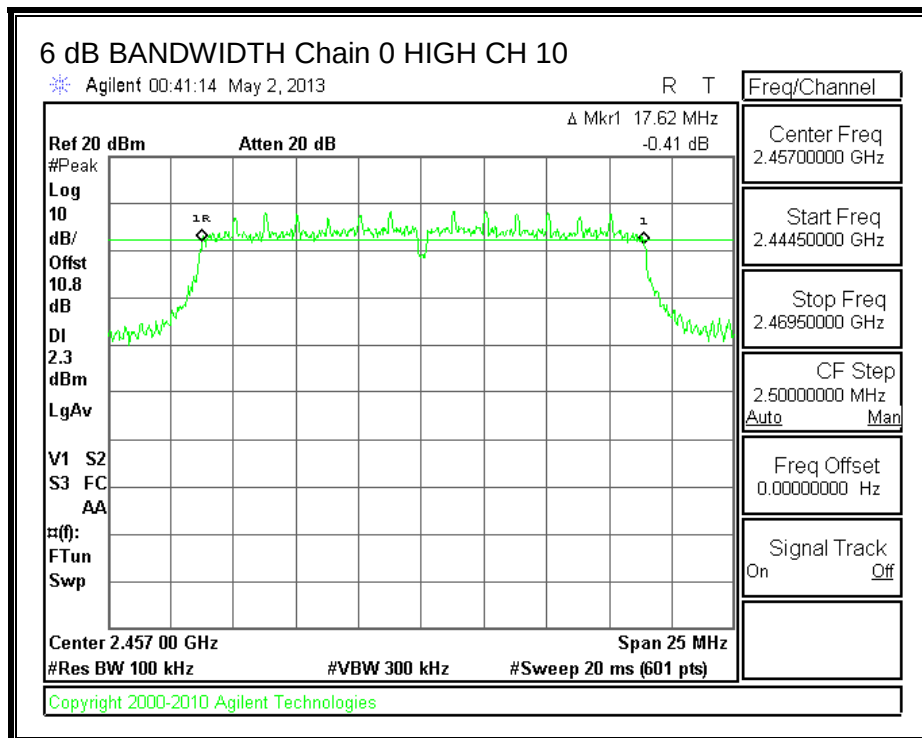
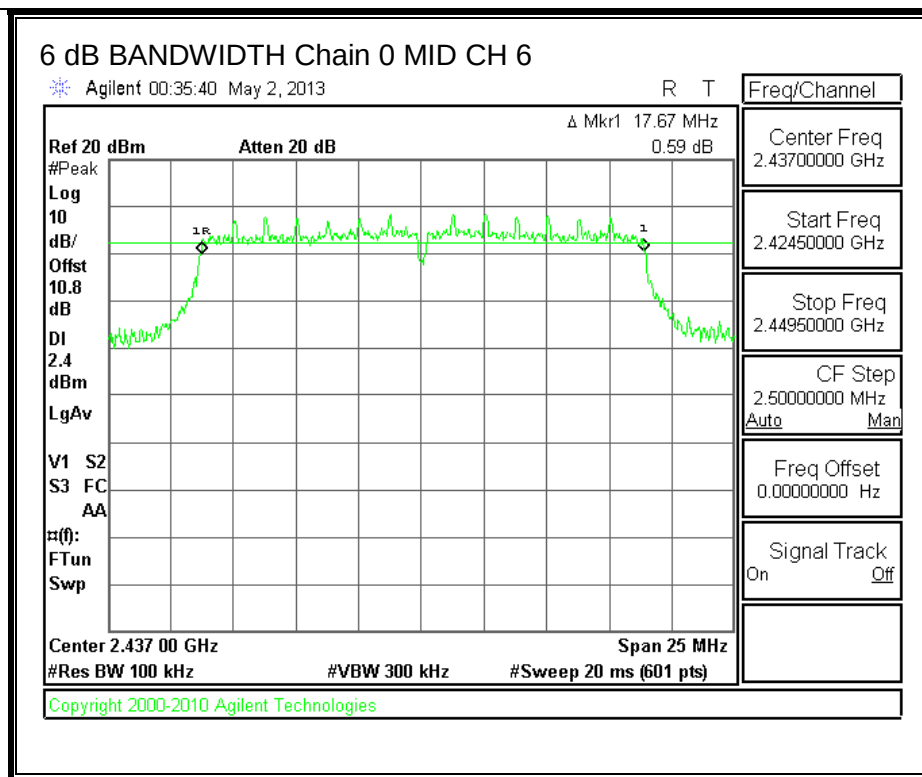
The transmitter output is connected to a spectrum analyzer with the RBW set to 100 kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

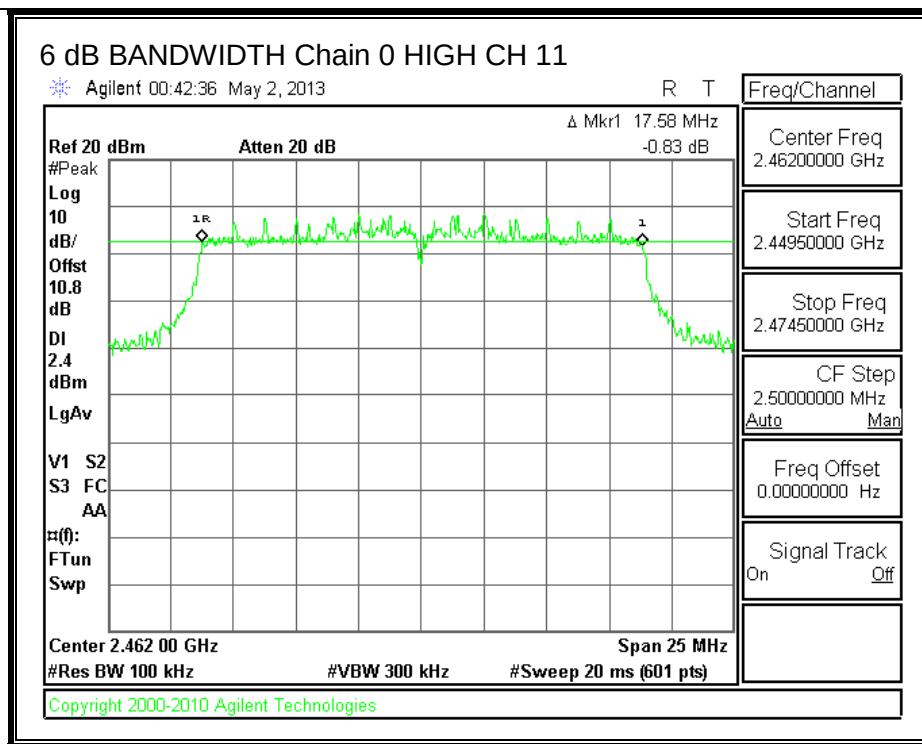
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low 1	2412	17.620	17.710	0.5
Low 2	2417	17.790	17.670	0.5
Mid 6	2437	17.670	17.620	0.5
High 10	2457	17.620	17.620	0.5
High 11	2462	17.580	17.670	0.5

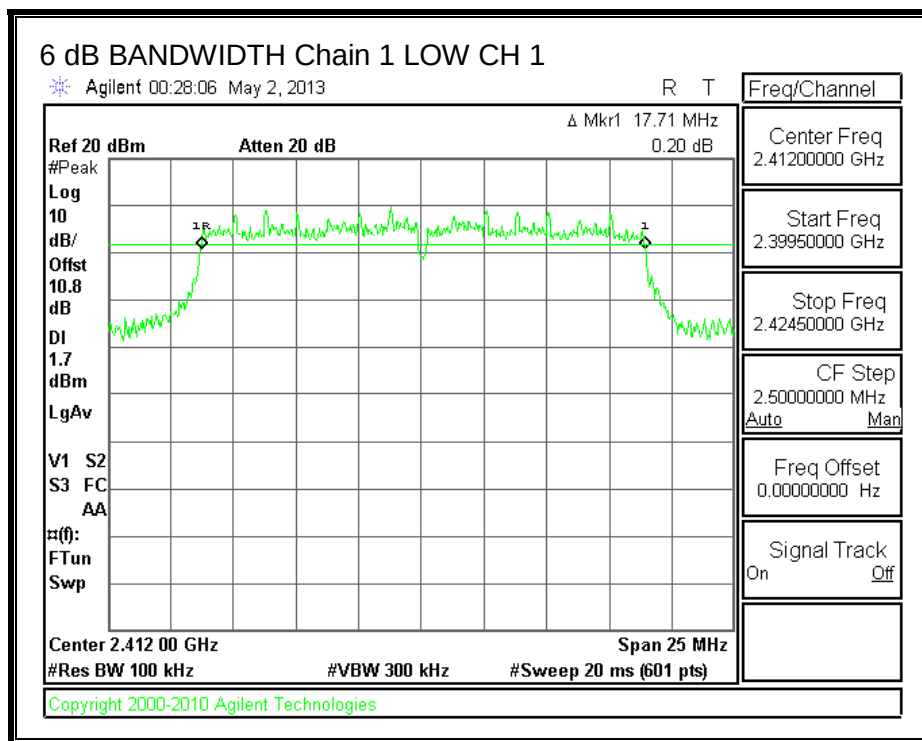
6 dB BANDWIDTH, Chain 0

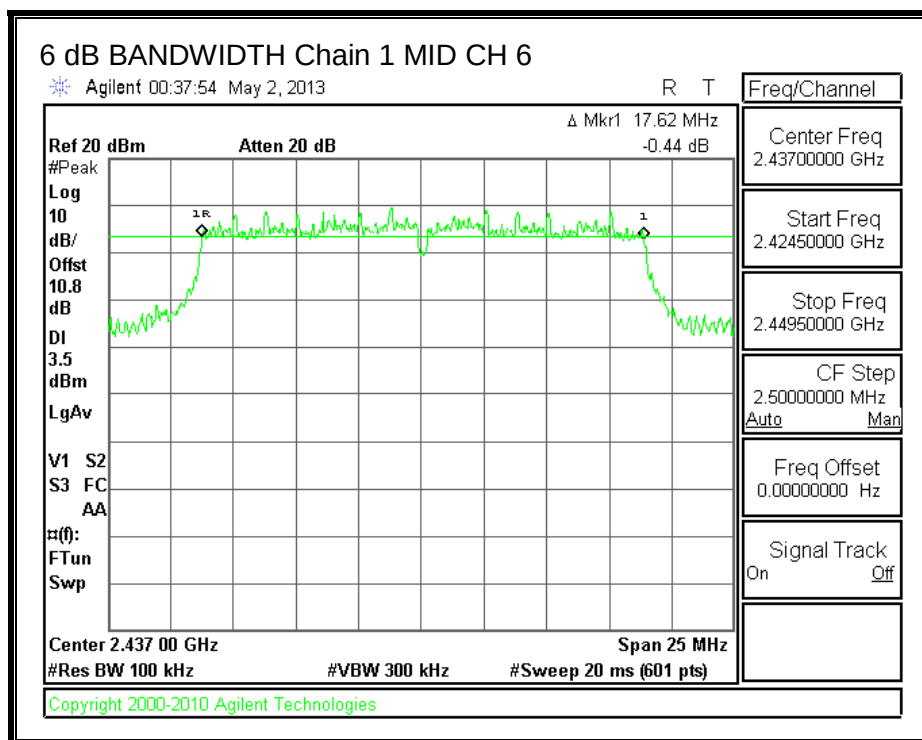
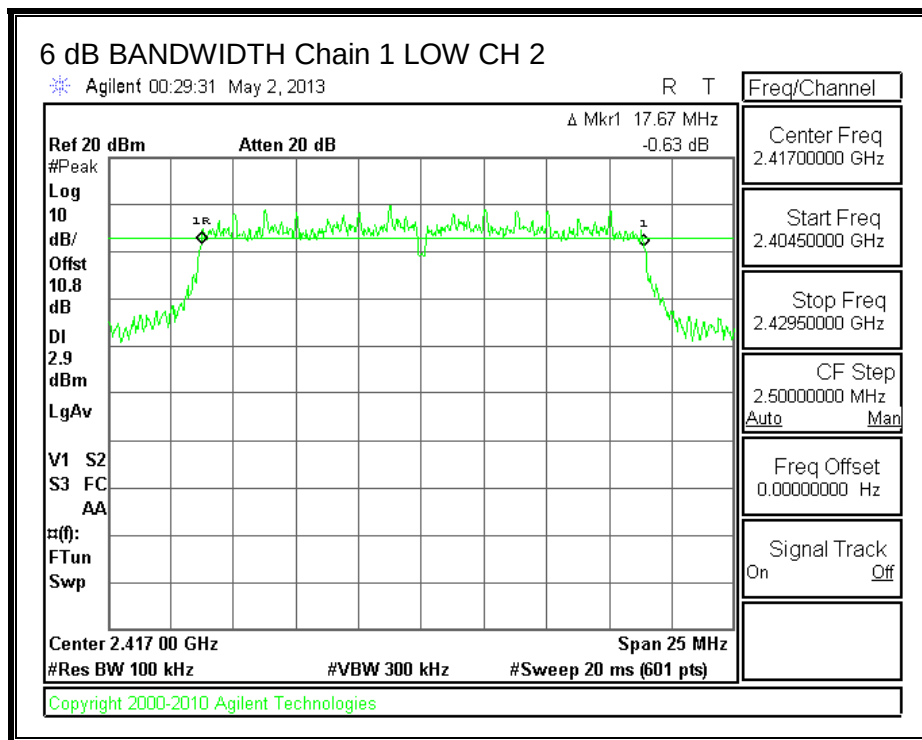


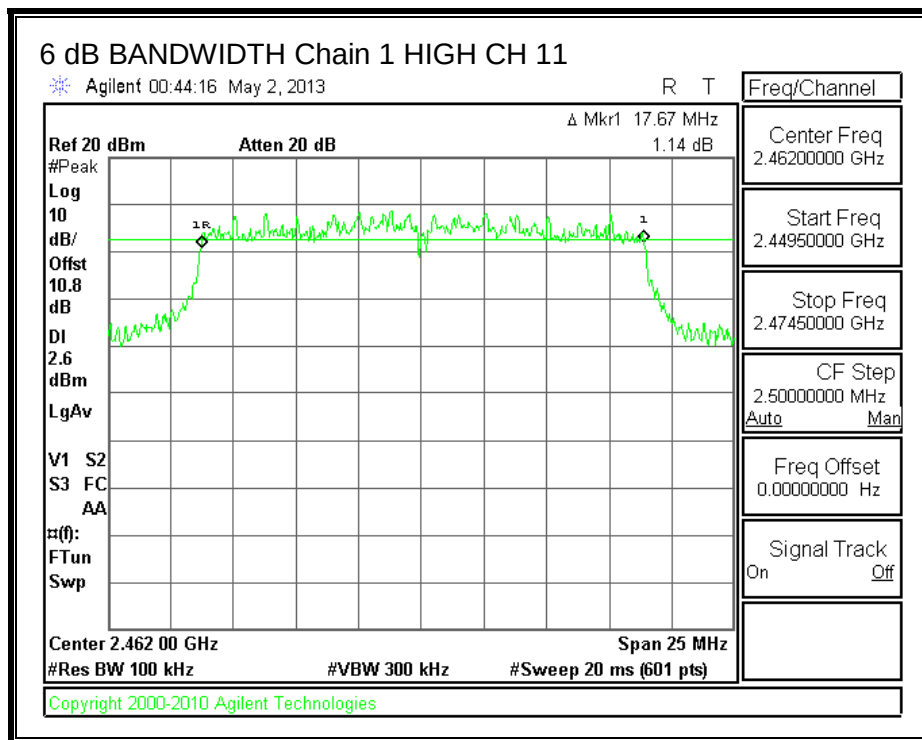
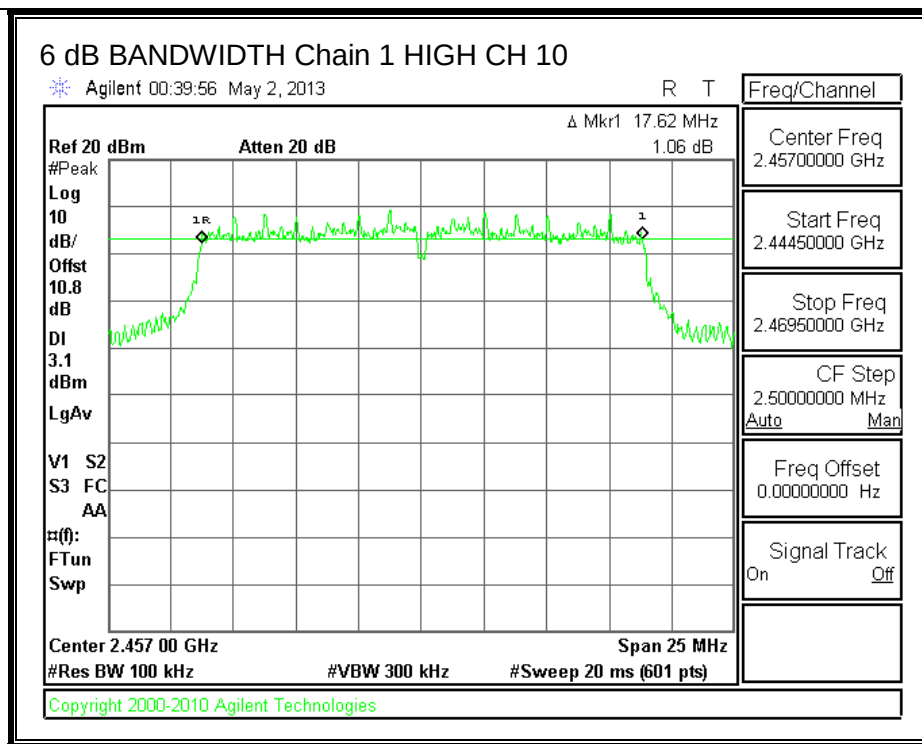




6 dB BANDWIDTH, Chain 1







8.3.2. 99% BANDWIDTH

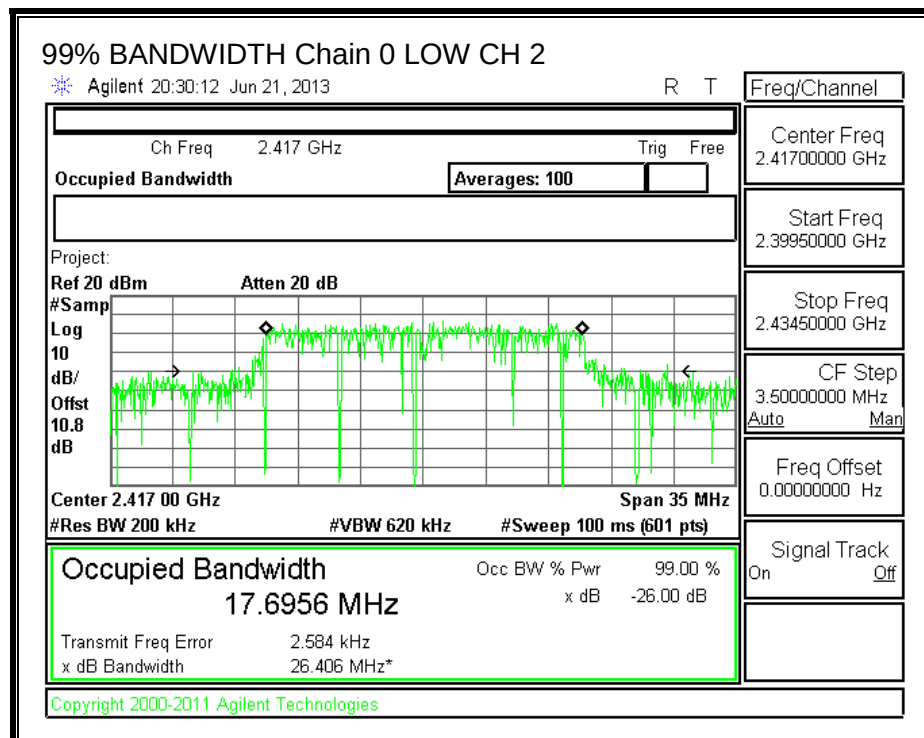
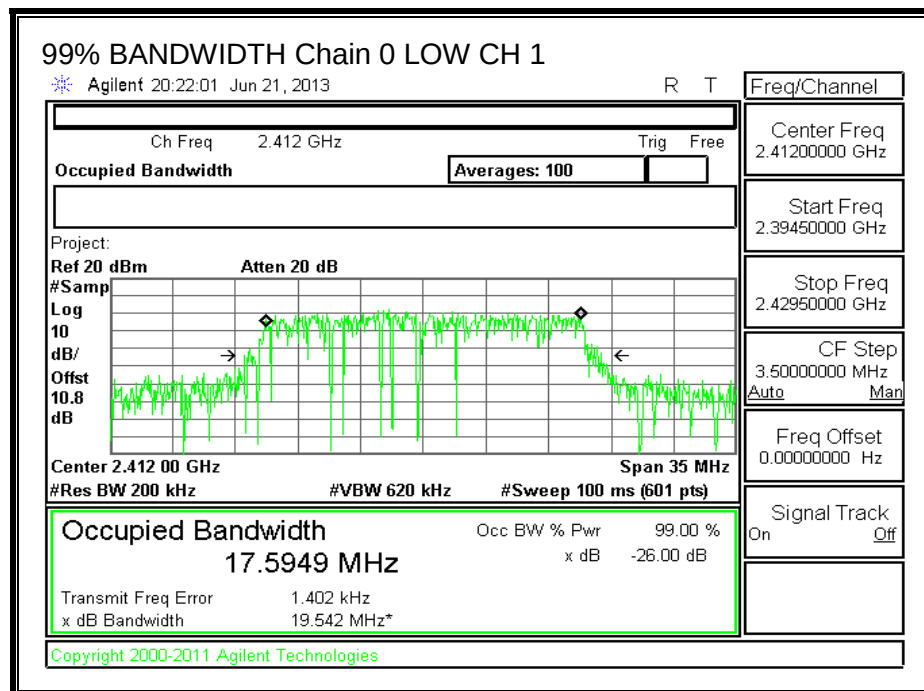
LIMITS

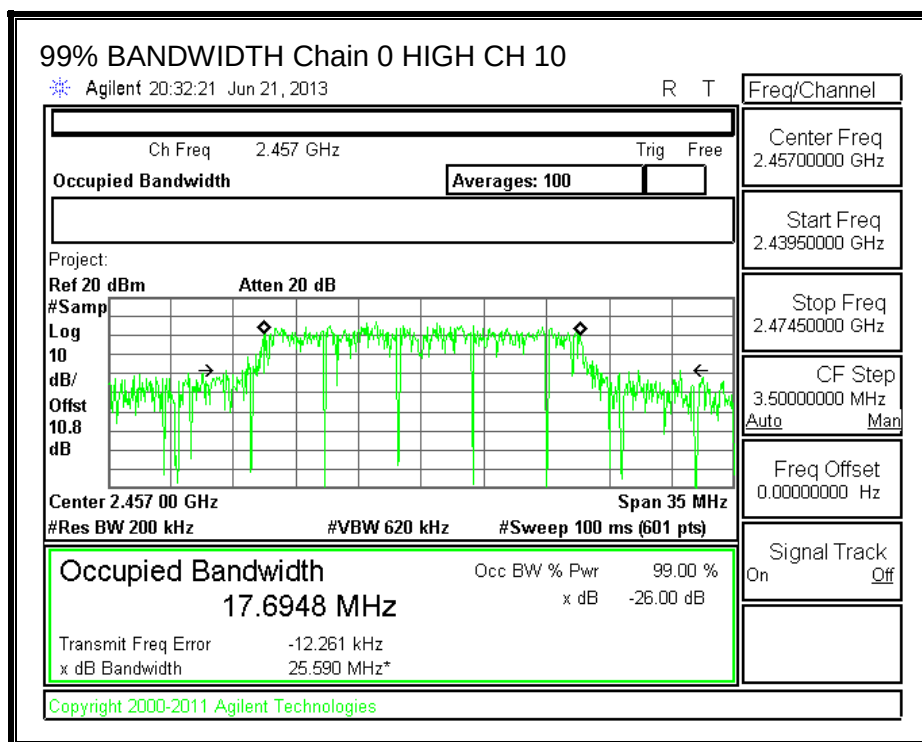
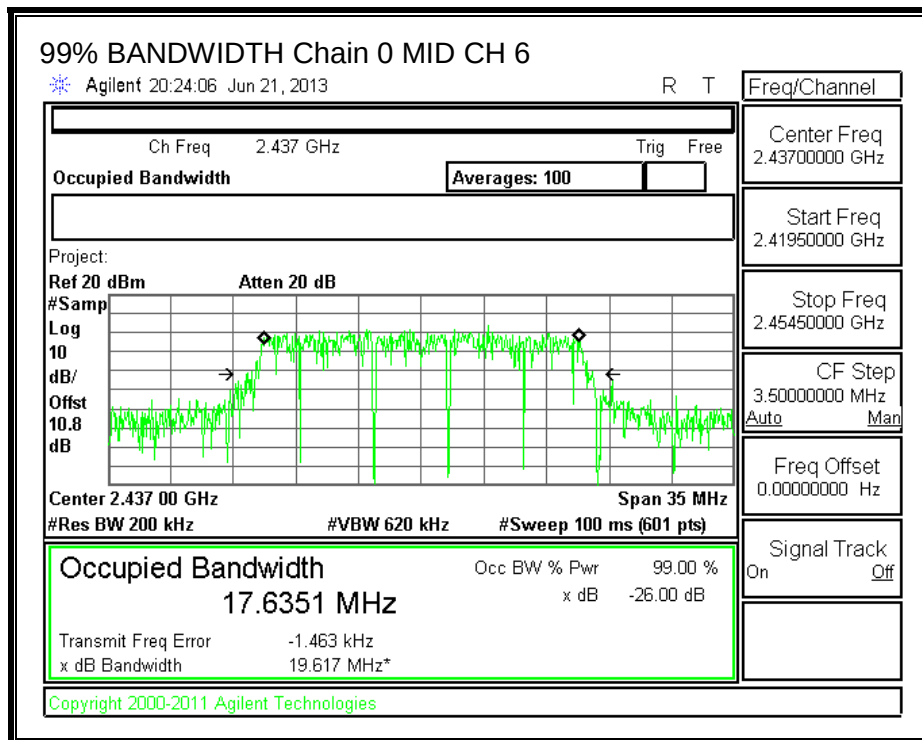
None; for reporting purposes only.

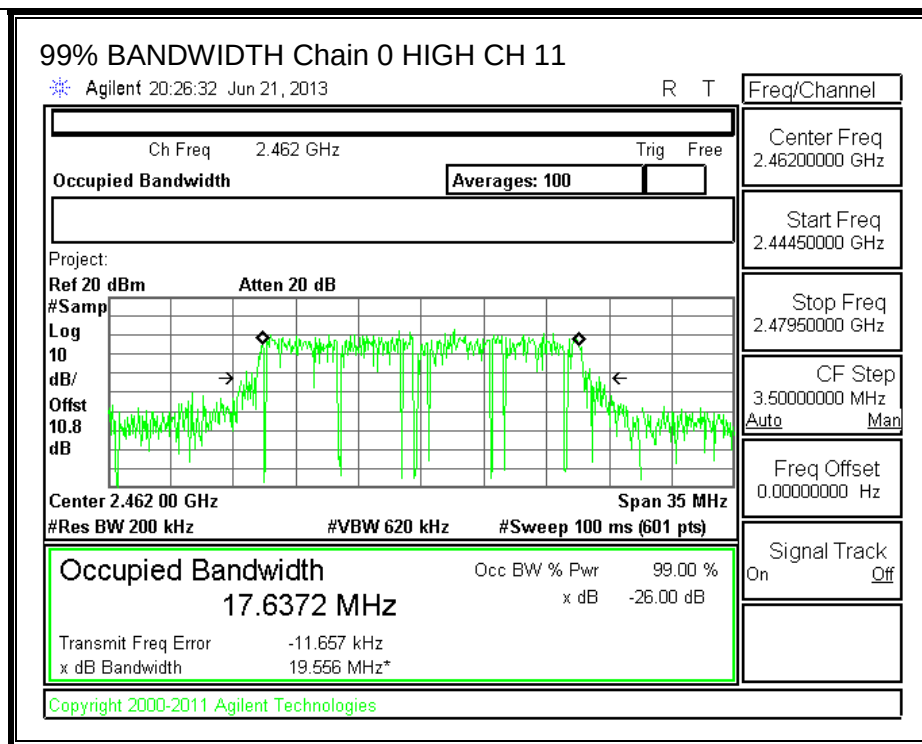
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low 1	2412	17.5949	17.6120
Low 2	2417	17.6956	17.6731
Mid 6	2437	17.6351	17.6263
High 10	2457	17.6948	17.6926
High 11	2462	17.6372	17.6310

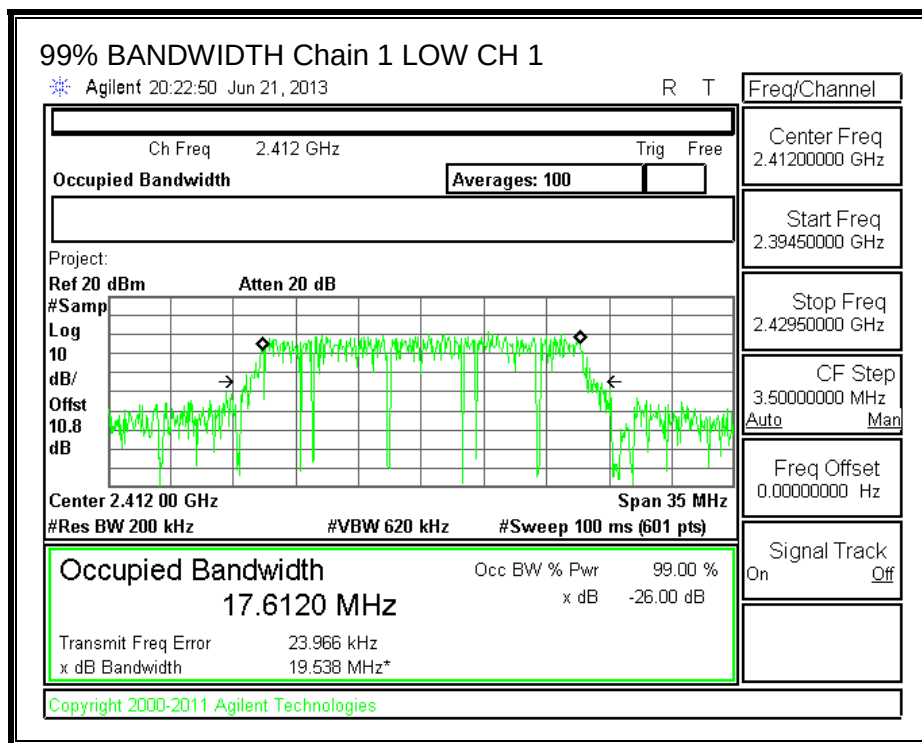
99% BANDWIDTH, Chain 0

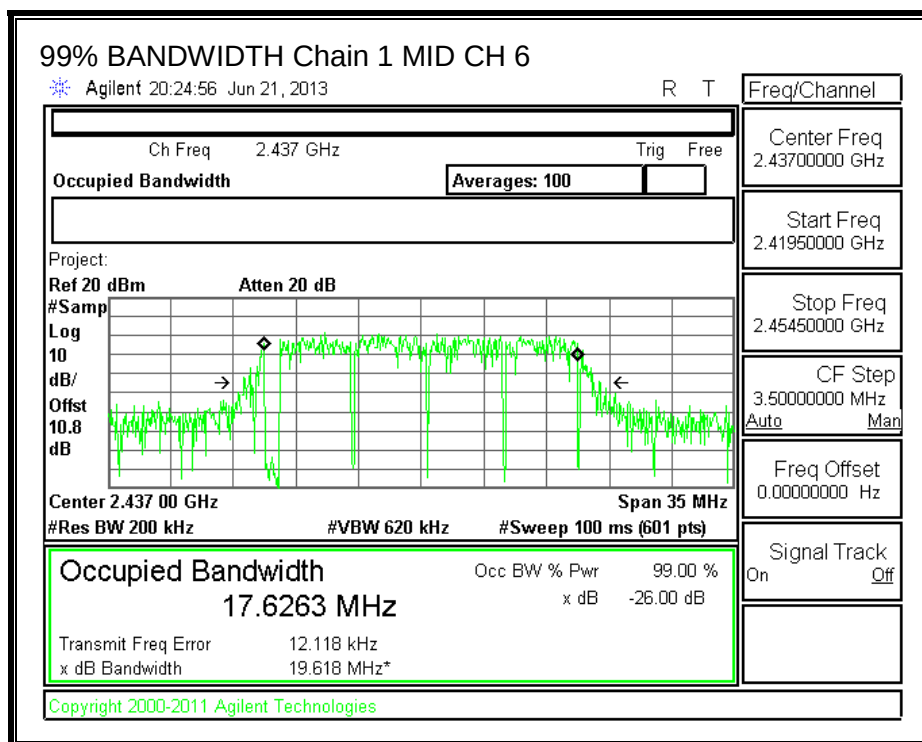
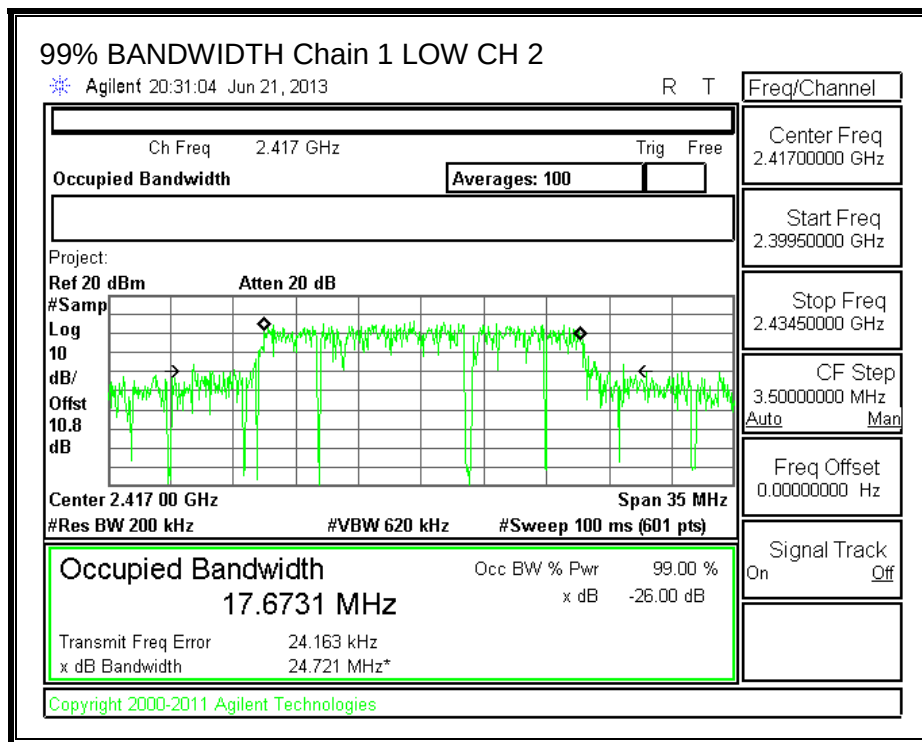


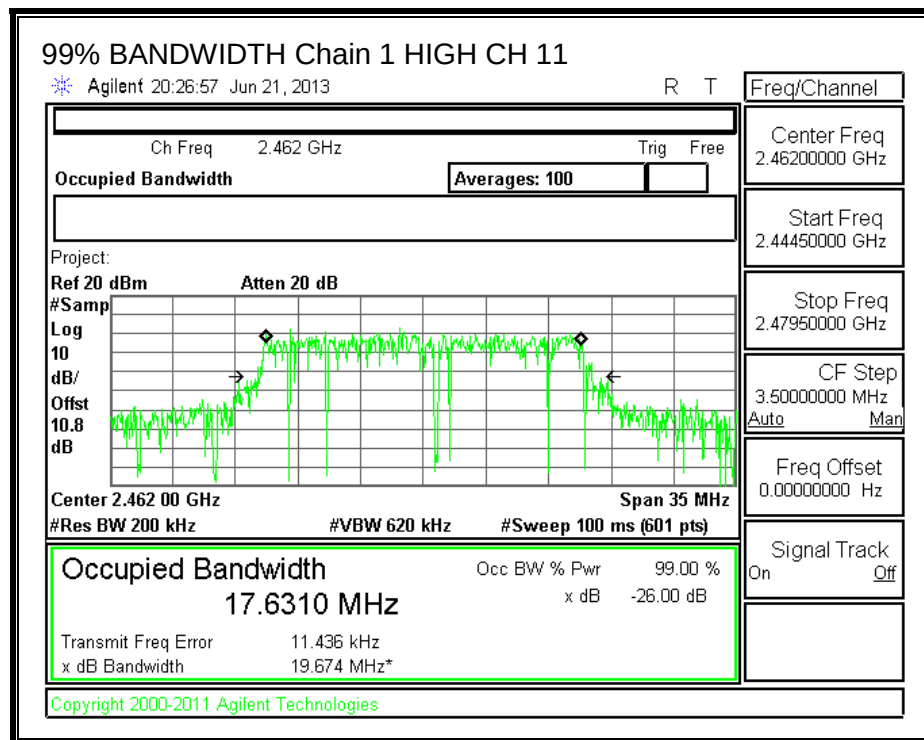
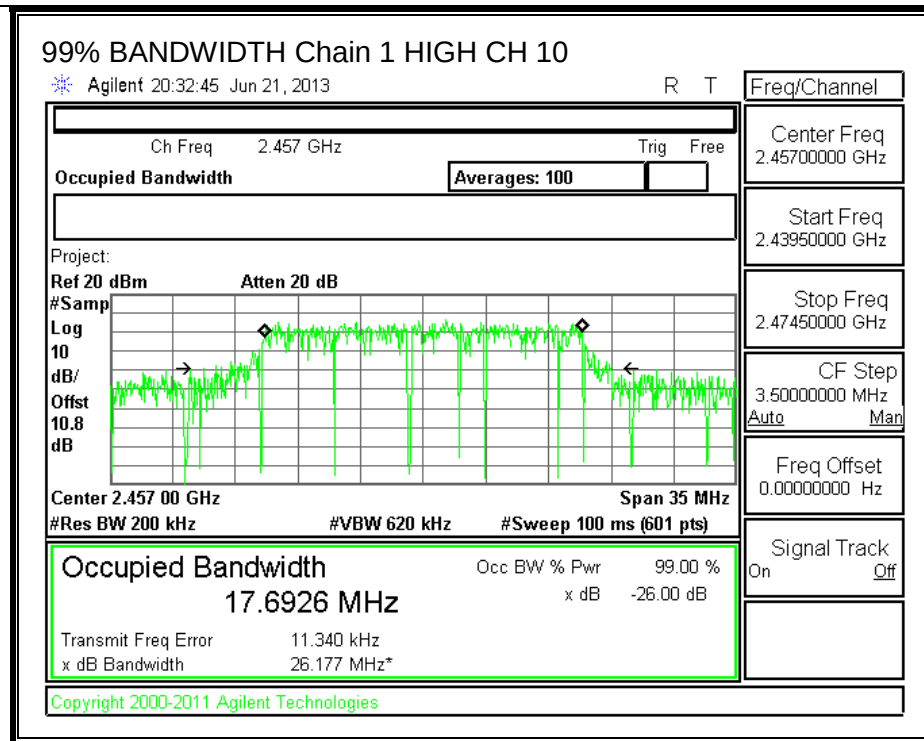




99% BANDWIDTH, Chain 1







8.3.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

For output power, the TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.80	3.80	3.80

RESULTS

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
1	2412	3.80	30.00	30	36	30.00
2	2417	3.80	30.00	30	36	30.00
6	2437	3.80	30.00	30	36	30.00
10	2457	3.80	30.00	30	36	30.00
11	2462	3.80	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
1	2412	14.89	15.86	18.41	30.00	-11.59
2	2417	19.00	18.30	21.67	30.00	-8.33
6	2437	19.19	19.03	22.12	30.00	-7.88
10	2457	19.00	19.16	22.09	30.00	-7.91
11	2462	14.46	14.59	17.54	30.00	-12.46

8.3.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

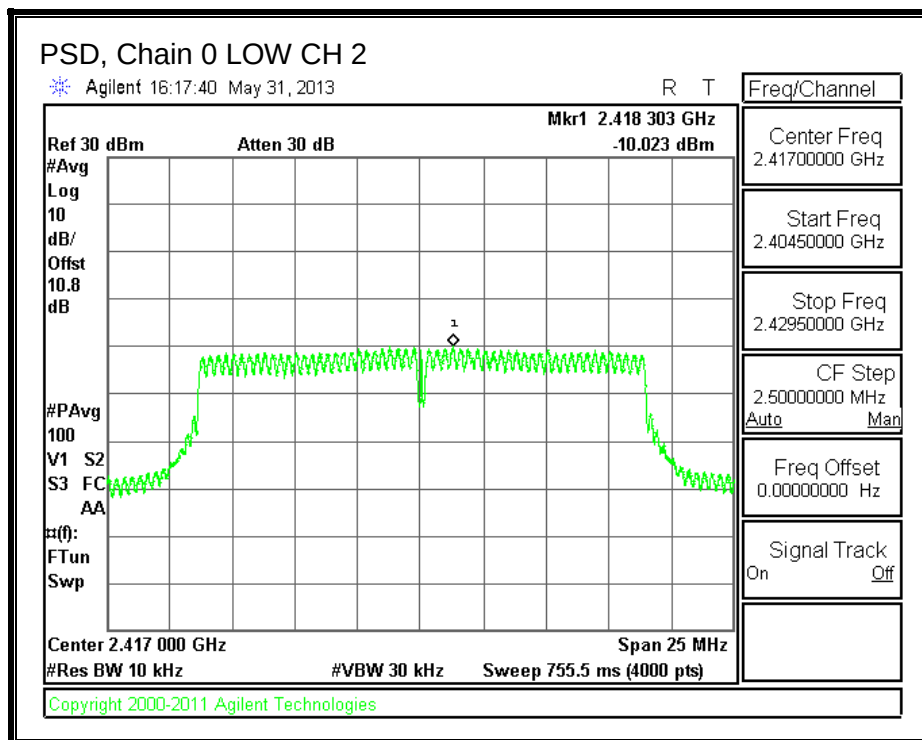
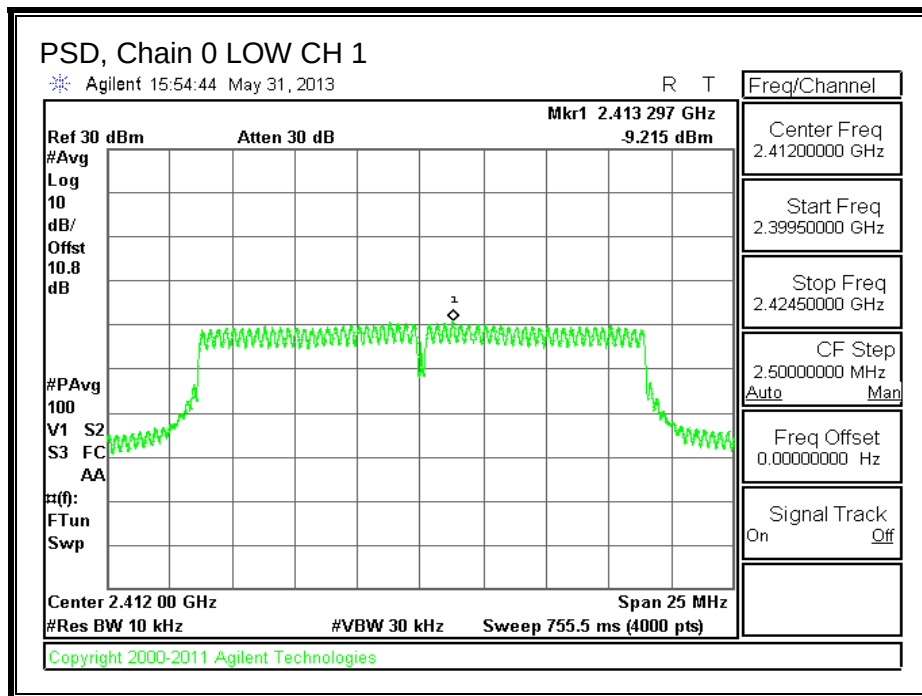
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

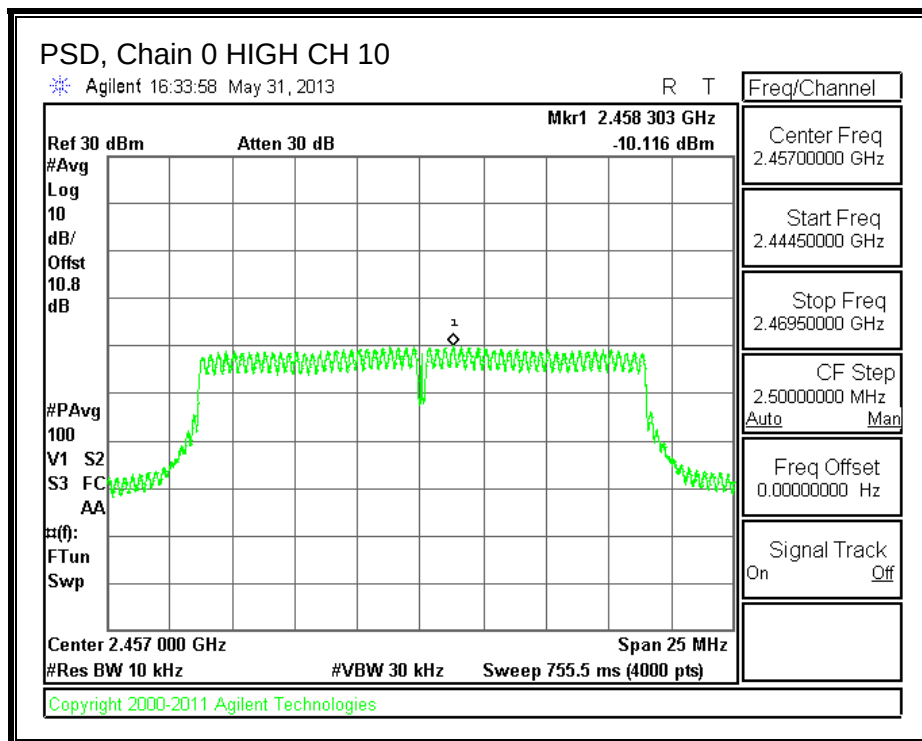
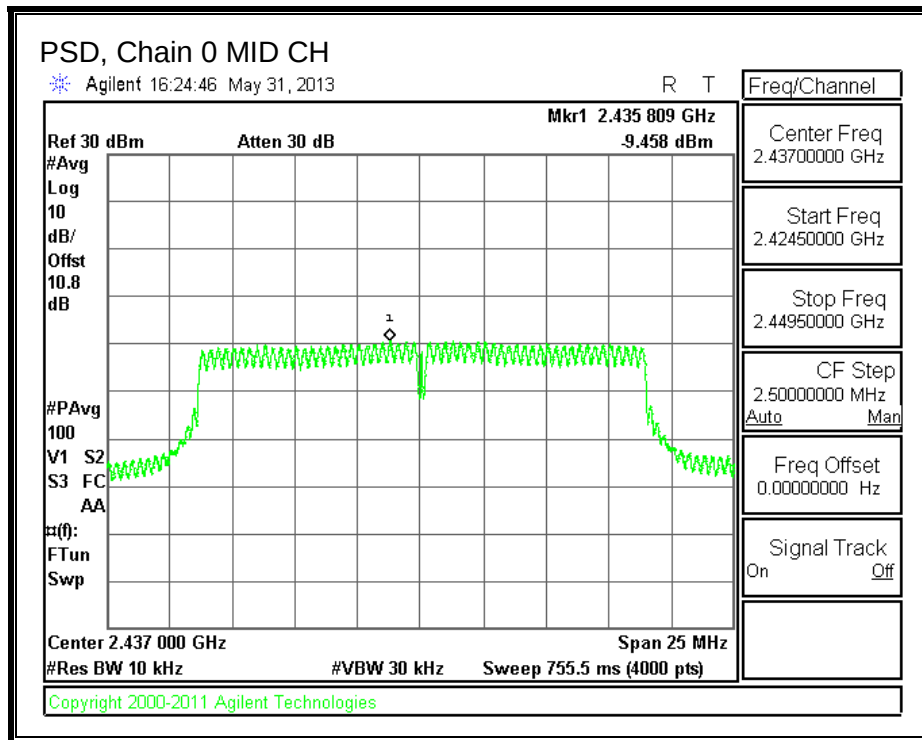
RESULTS

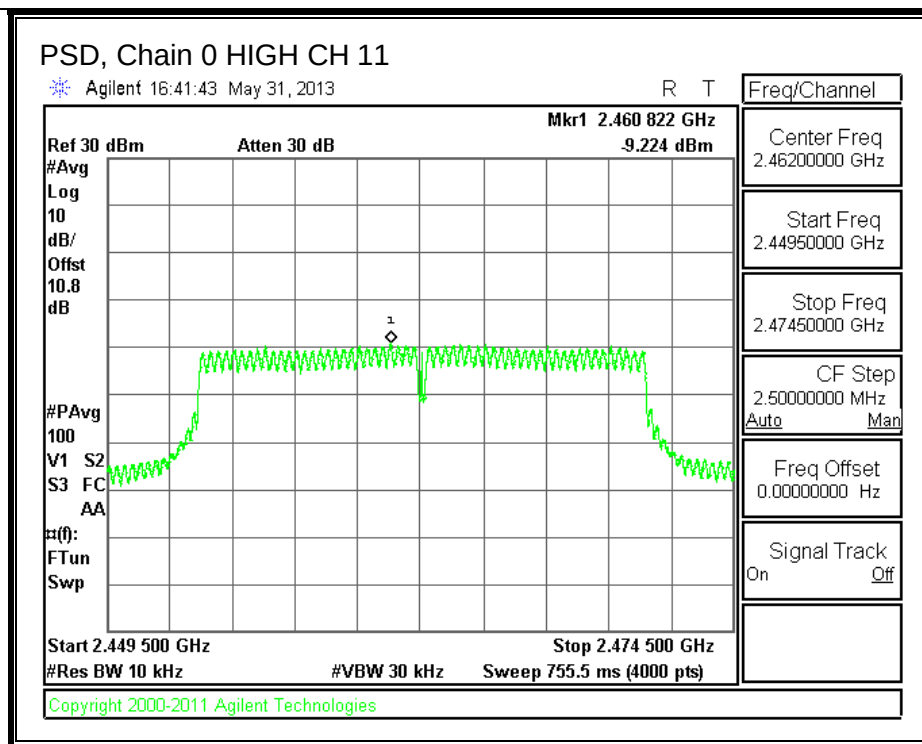
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low 1	2412	-9.215	-10.903	-6.97	8.0	-15.0
Low 2	2417	-10.023	-10.869	-7.42	8.0	-15.4
Mid	2437	-9.458	-9.914	-6.67	8.0	-14.7
High 10	2457	-10.116	-9.889	-6.99	8.0	-15.0
High 11	2462	-9.224	-9.658	-6.43	8.0	-14.4

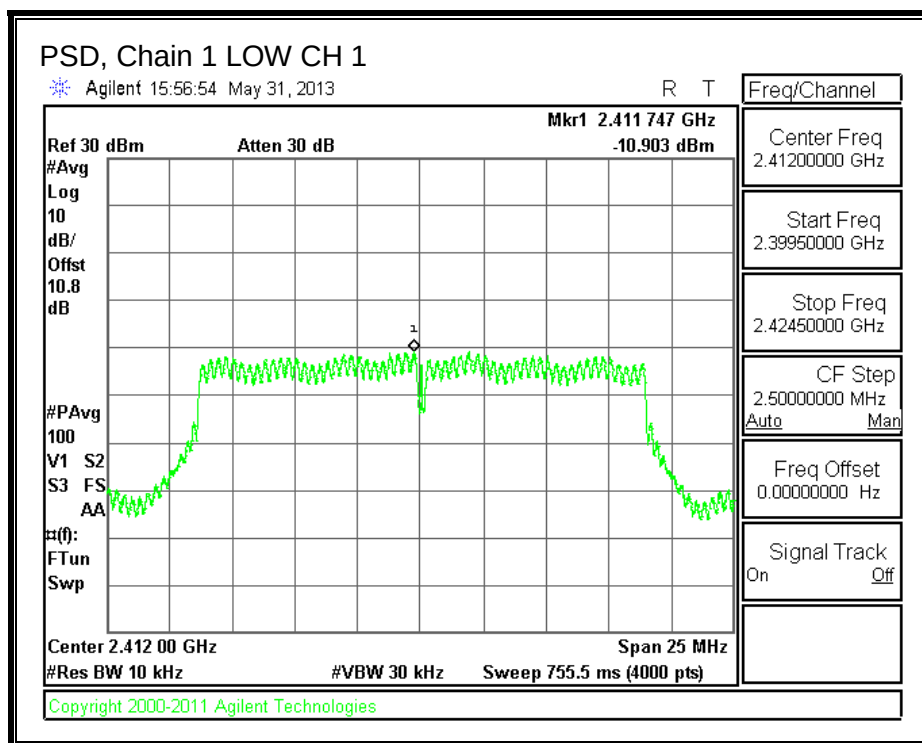
PSD, Chain 0

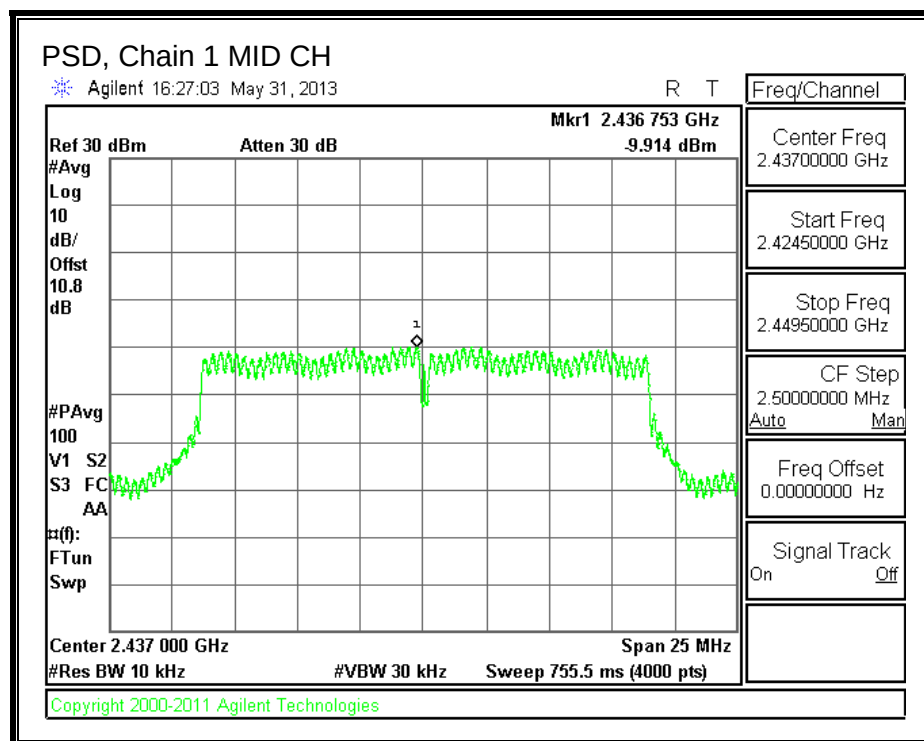
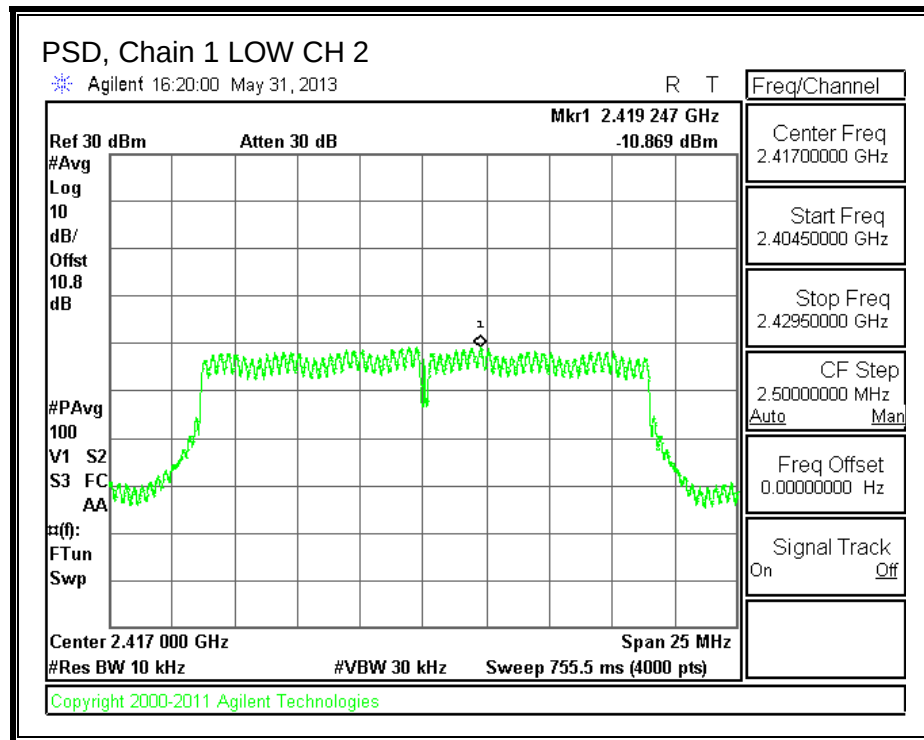


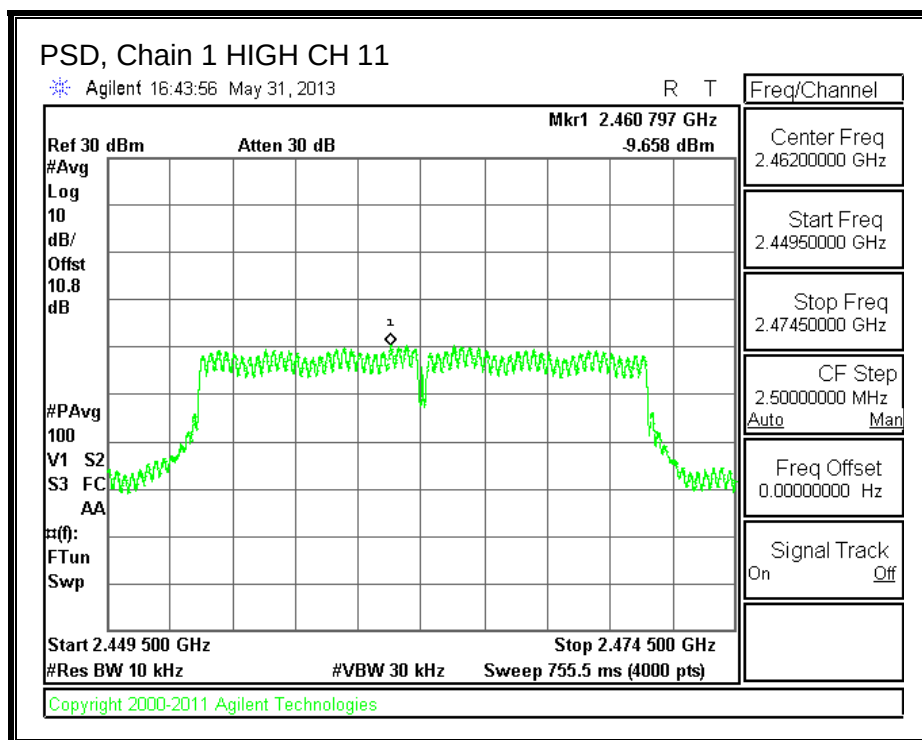
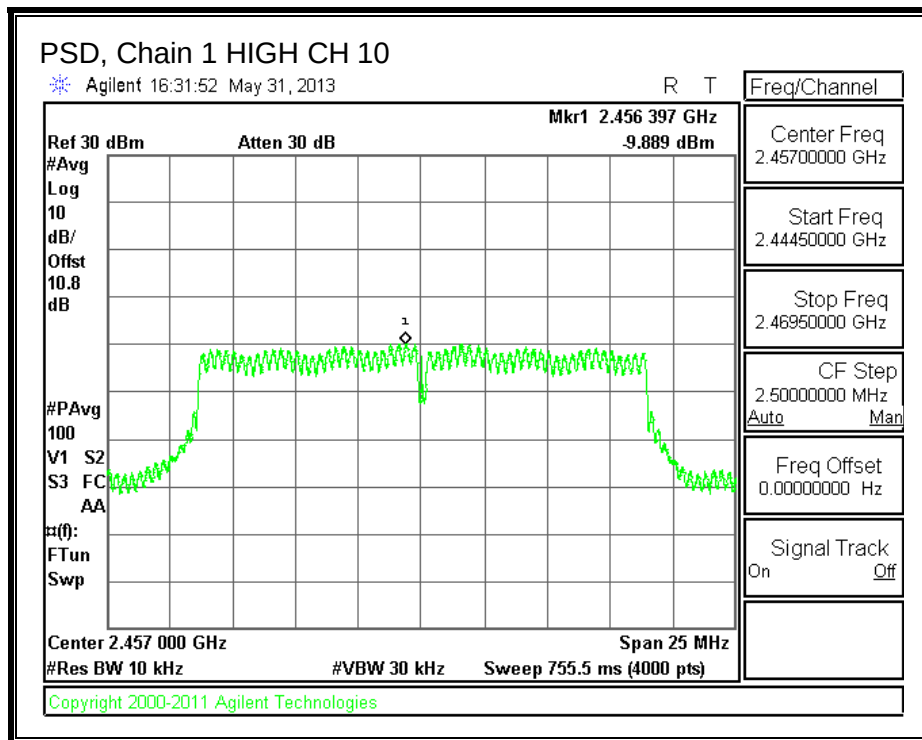




PSD, Chain 1







8.3.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

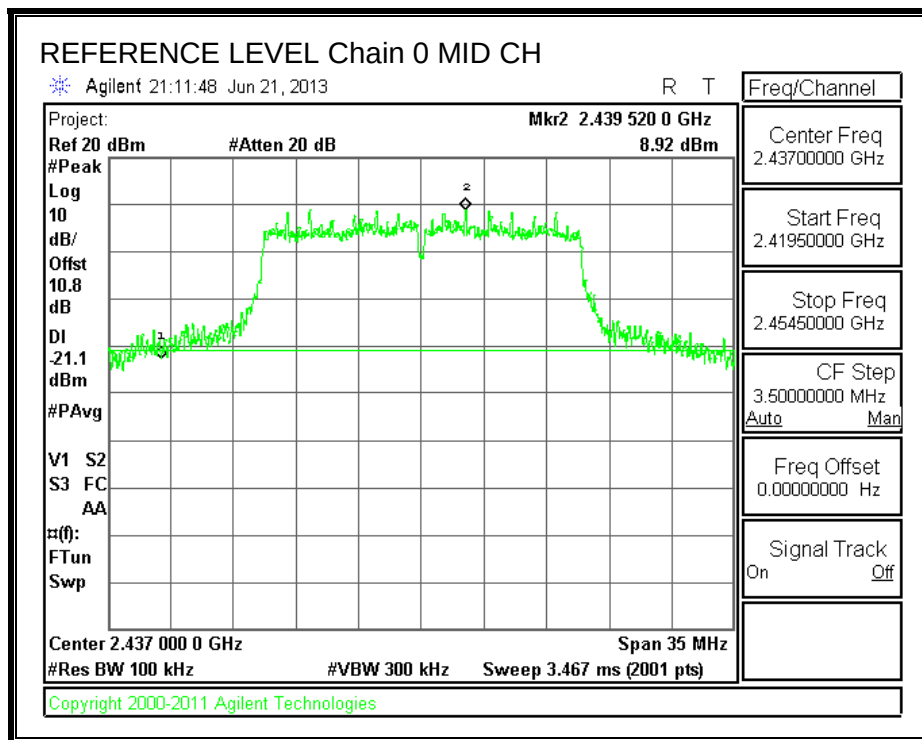
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

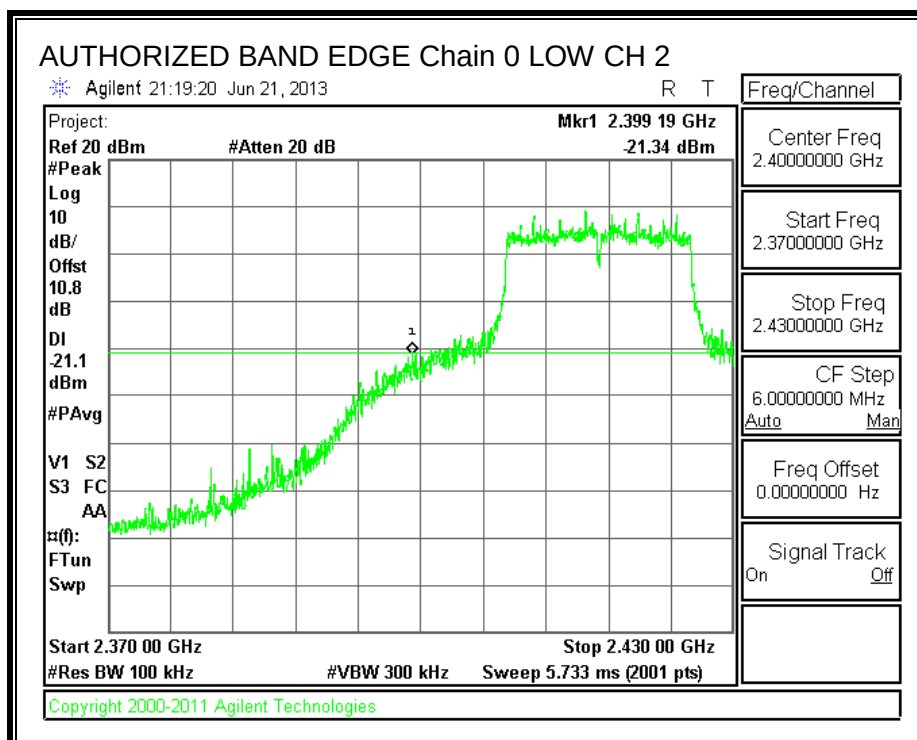
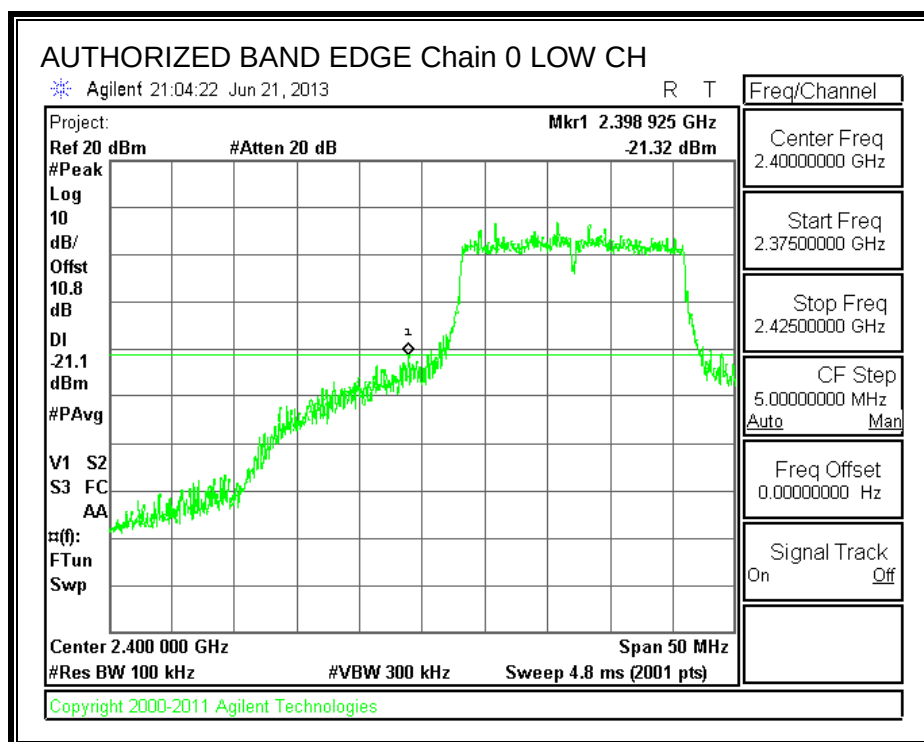
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

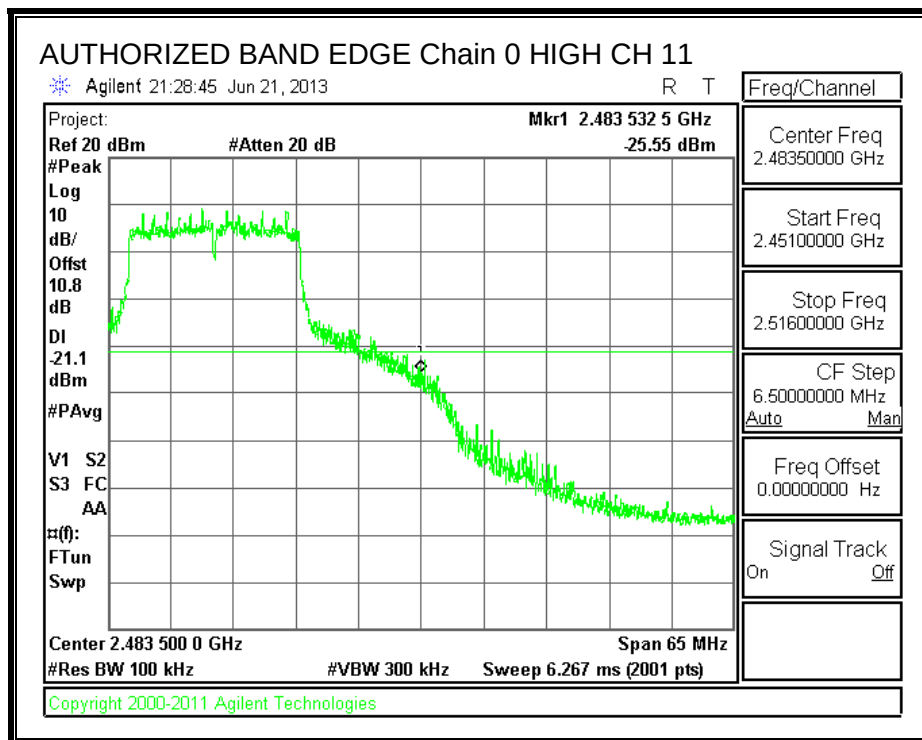
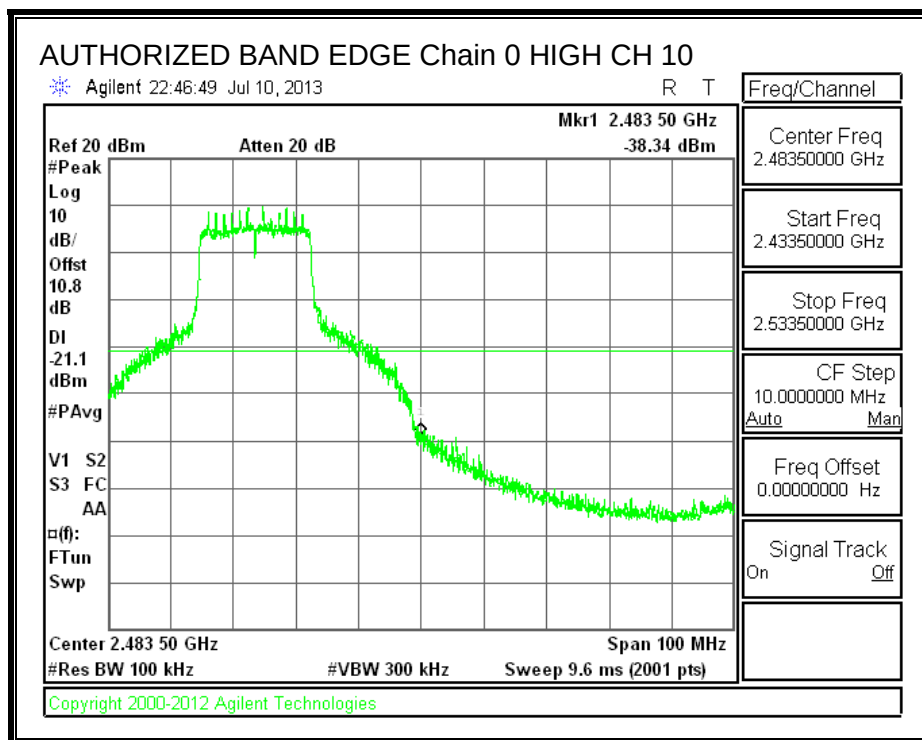
IN-BAND REFERENCE LEVEL, Chain 0



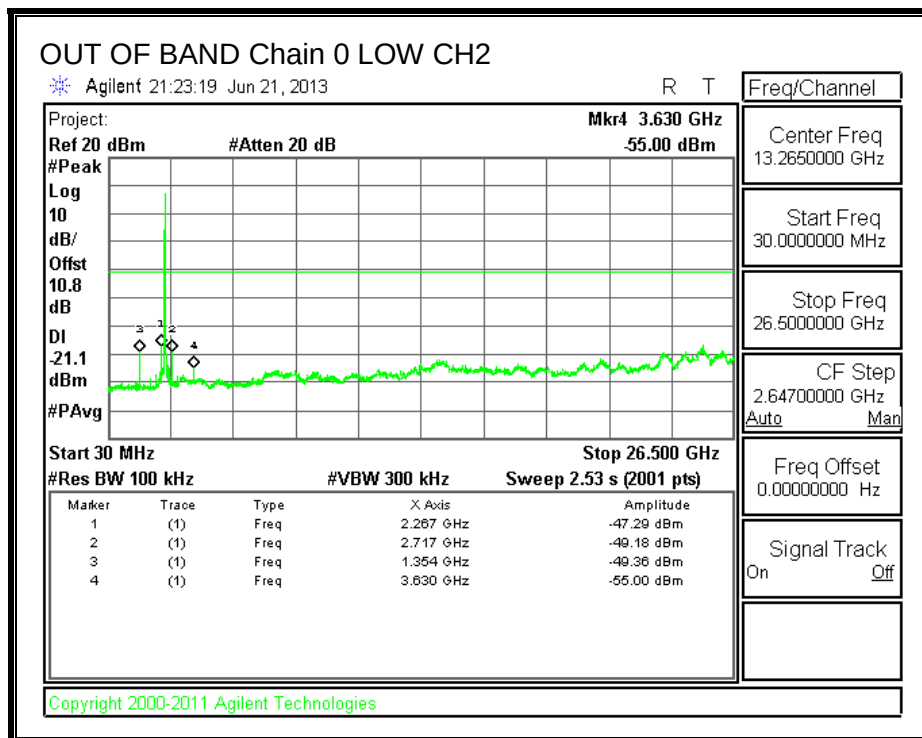
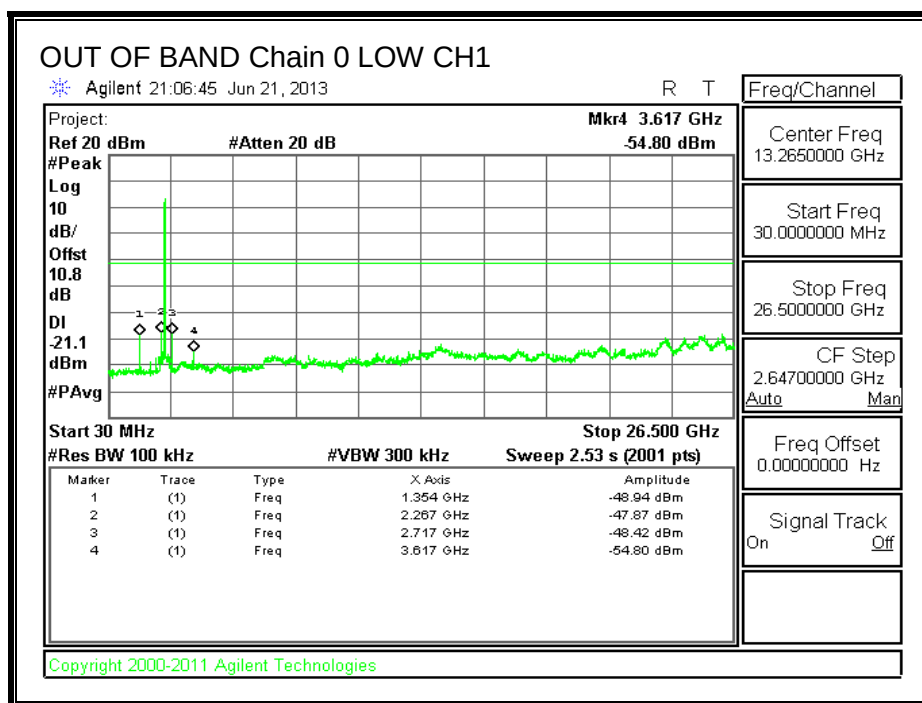
LOW CHANNEL BANDEDGE, Chain 0

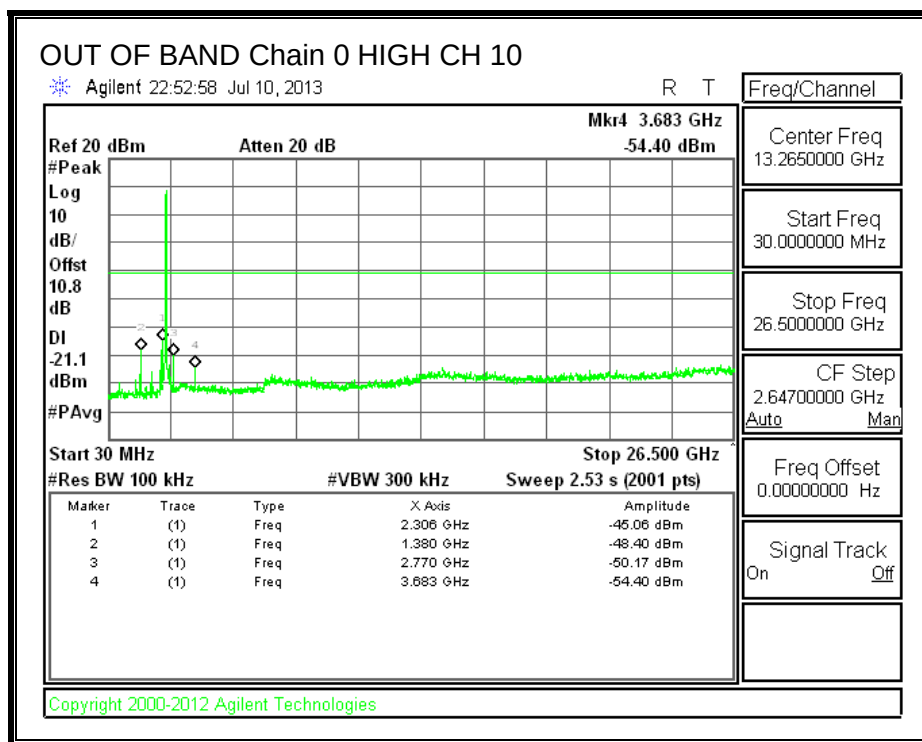
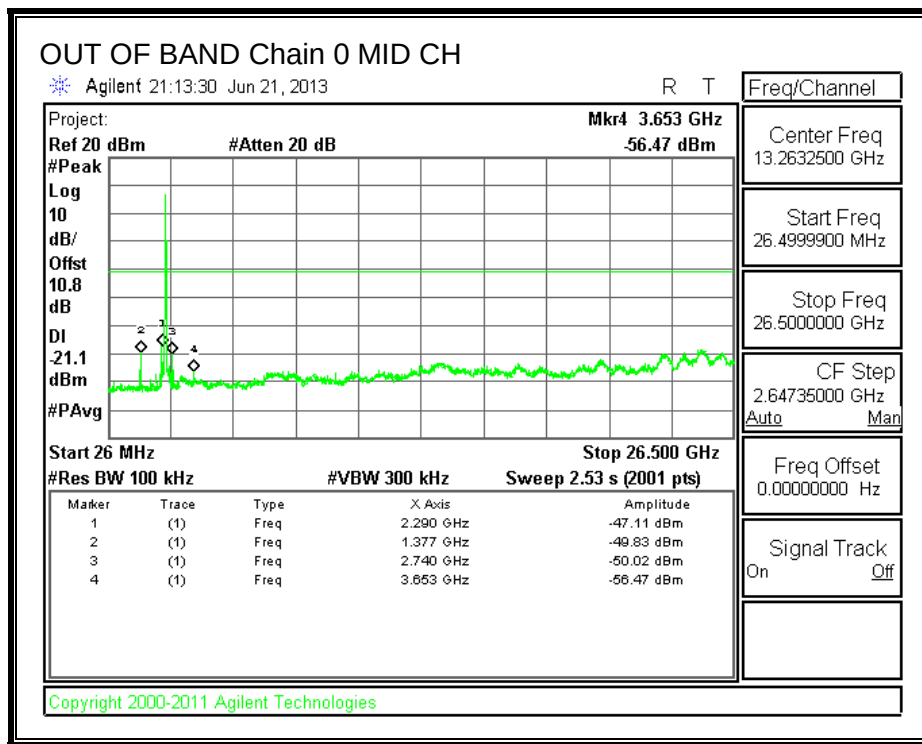


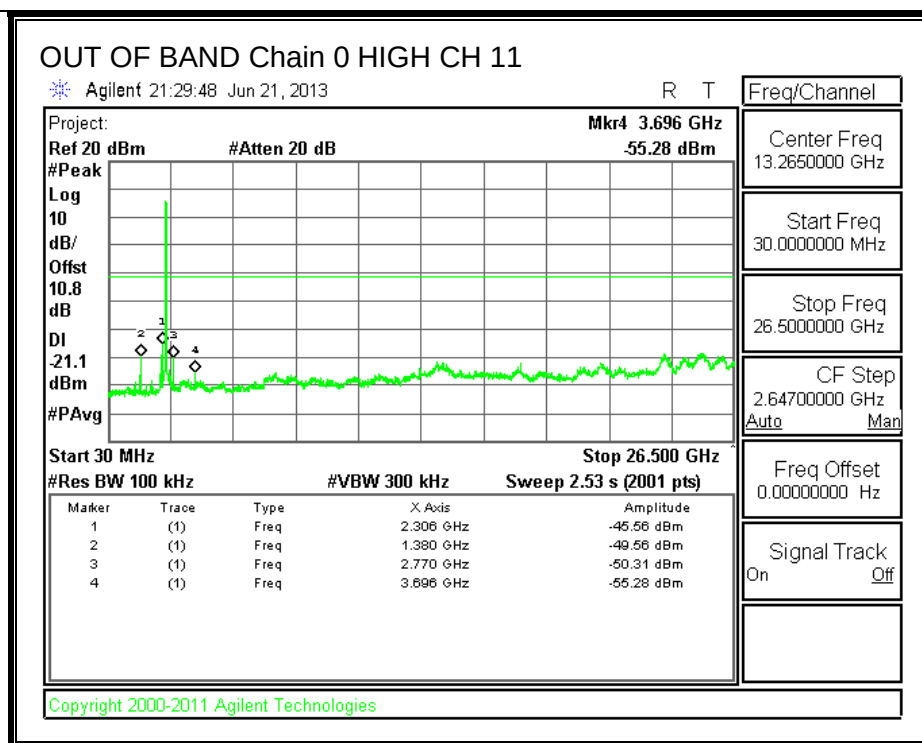
HIGH CHANNEL BANDEDGE, Chain 0



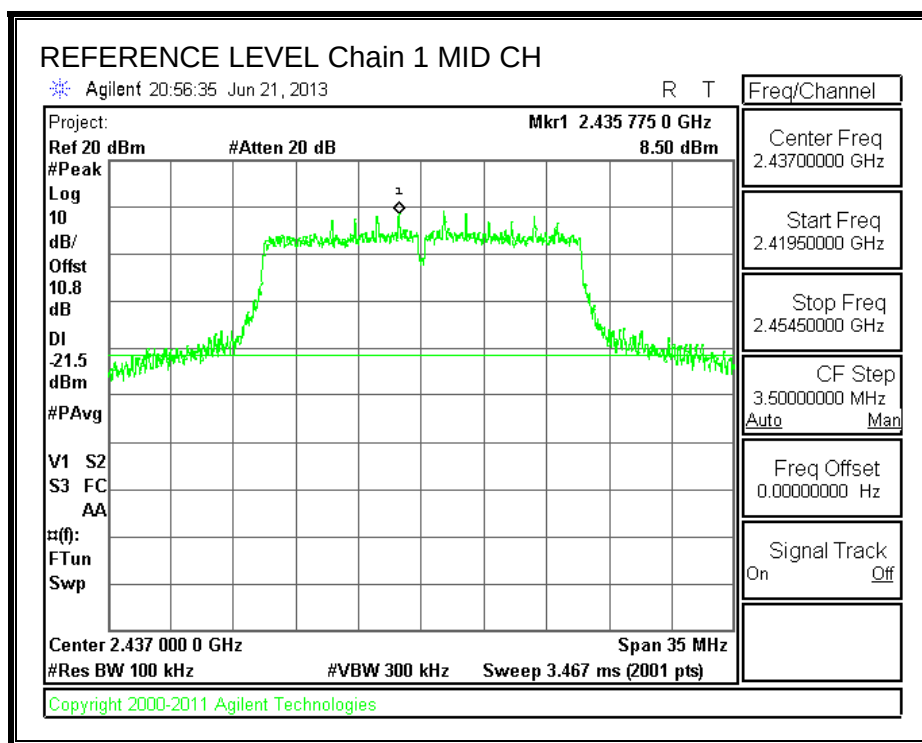
OUT-OF-BAND EMISSIONS, Chain 0



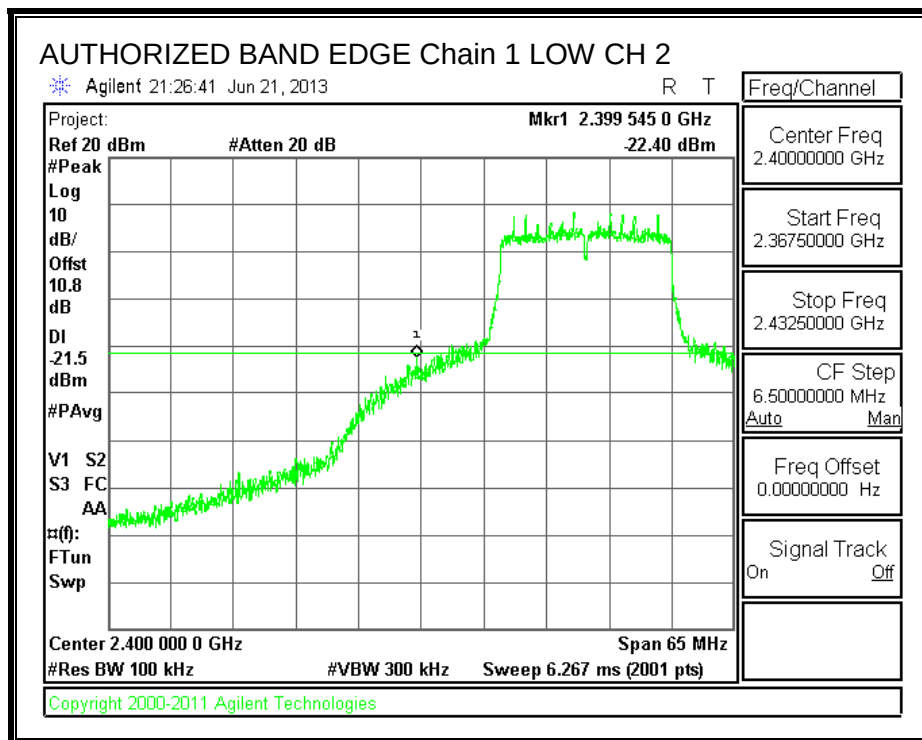
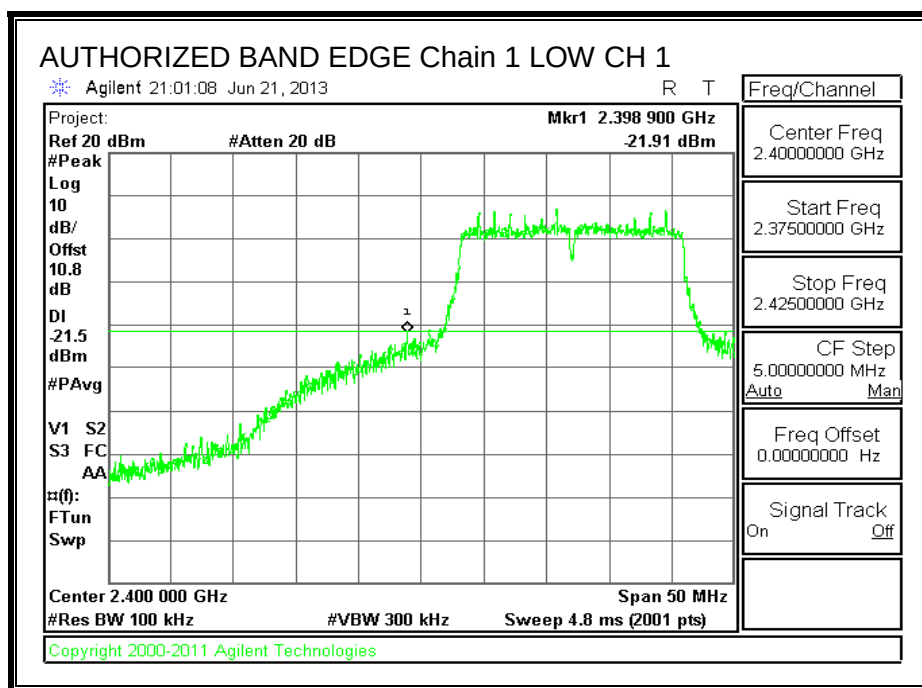




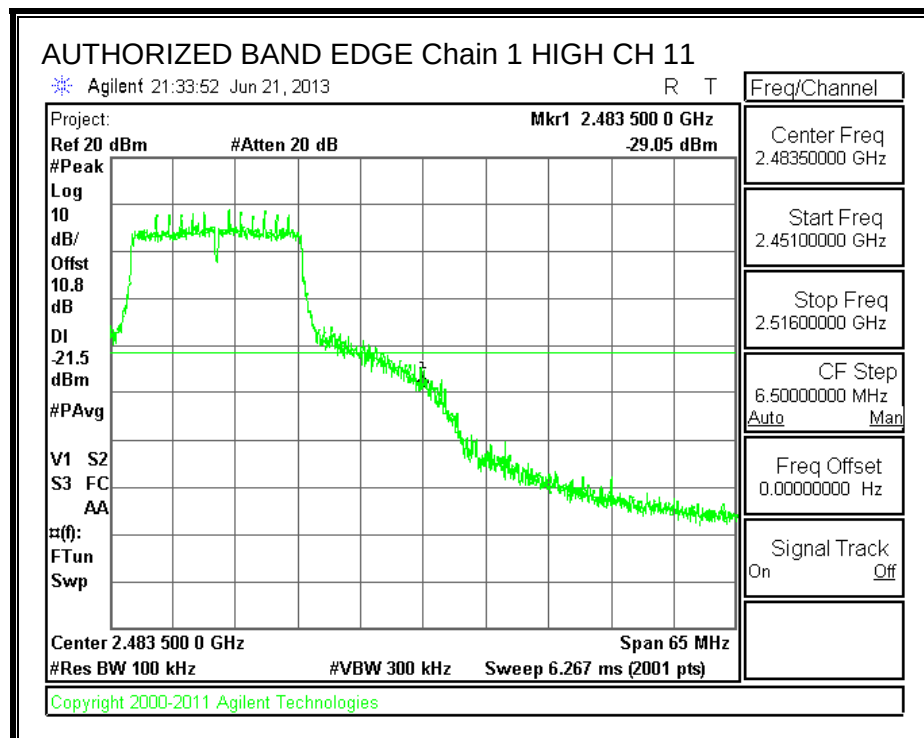
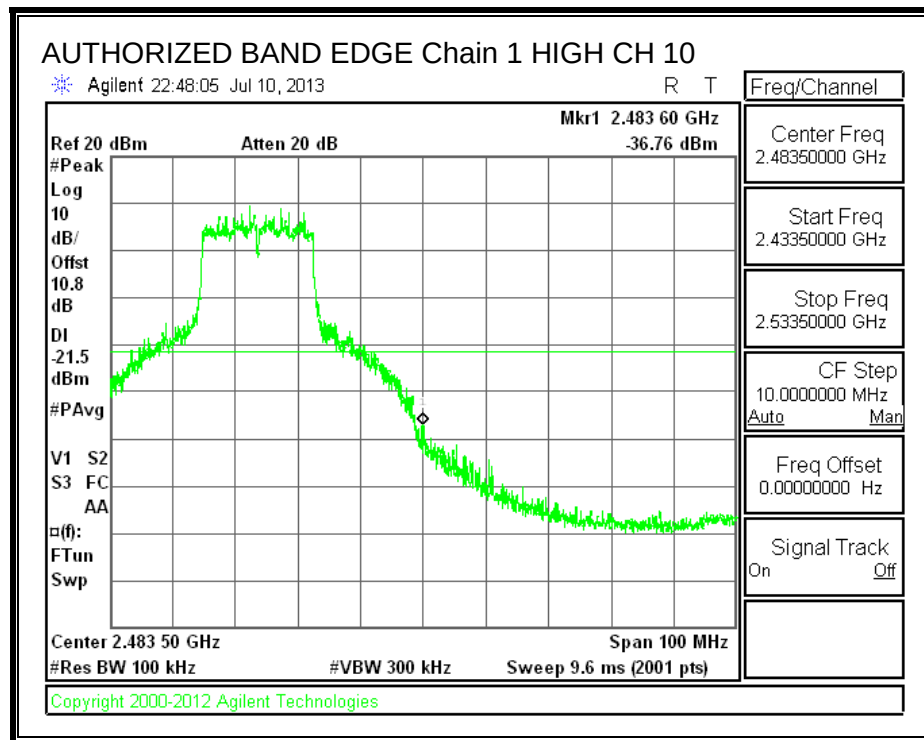
IN-BAND REFERENCE LEVEL, Chain 1



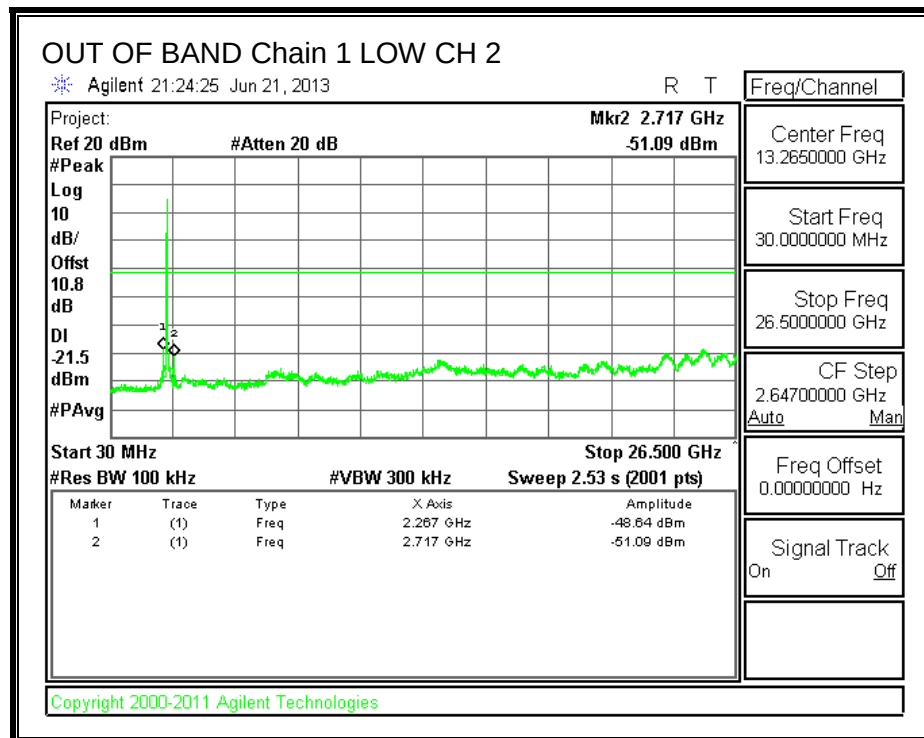
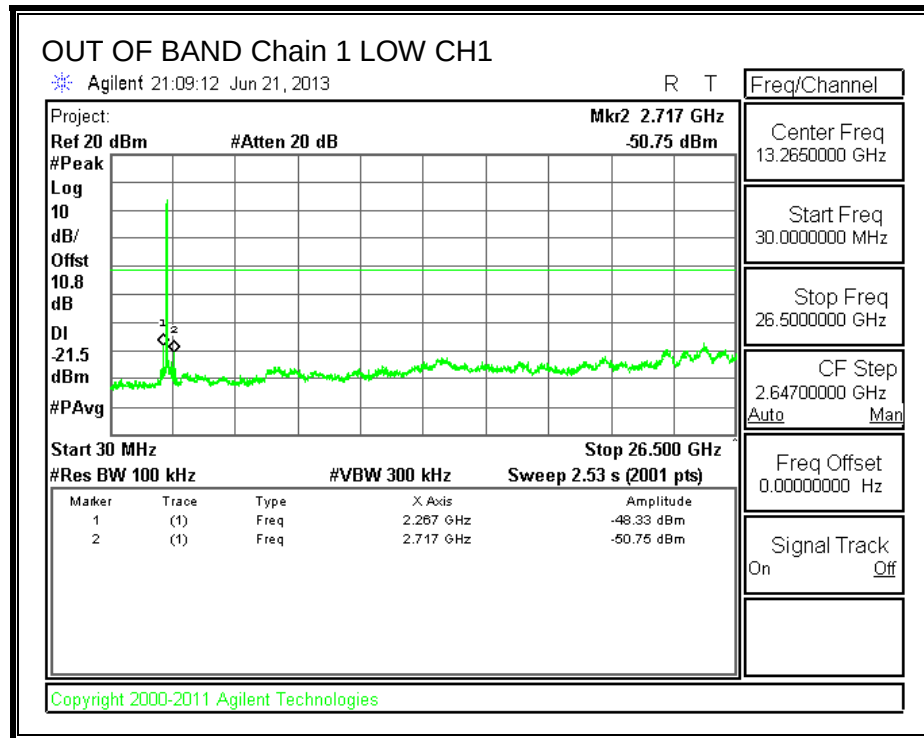
LOW CHANNEL BANDEDGE, Chain 1

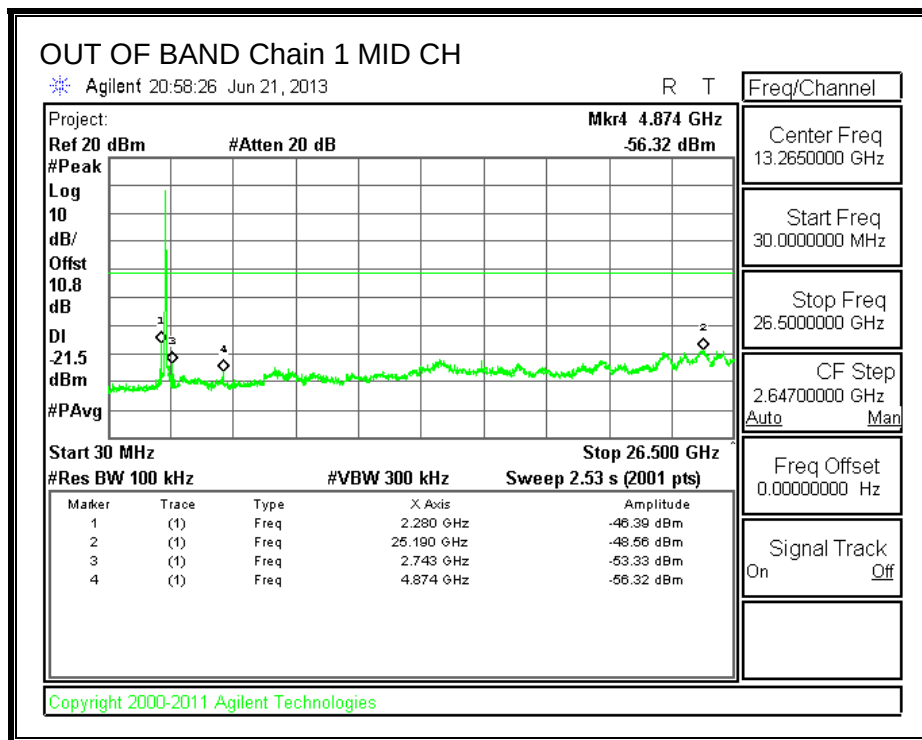


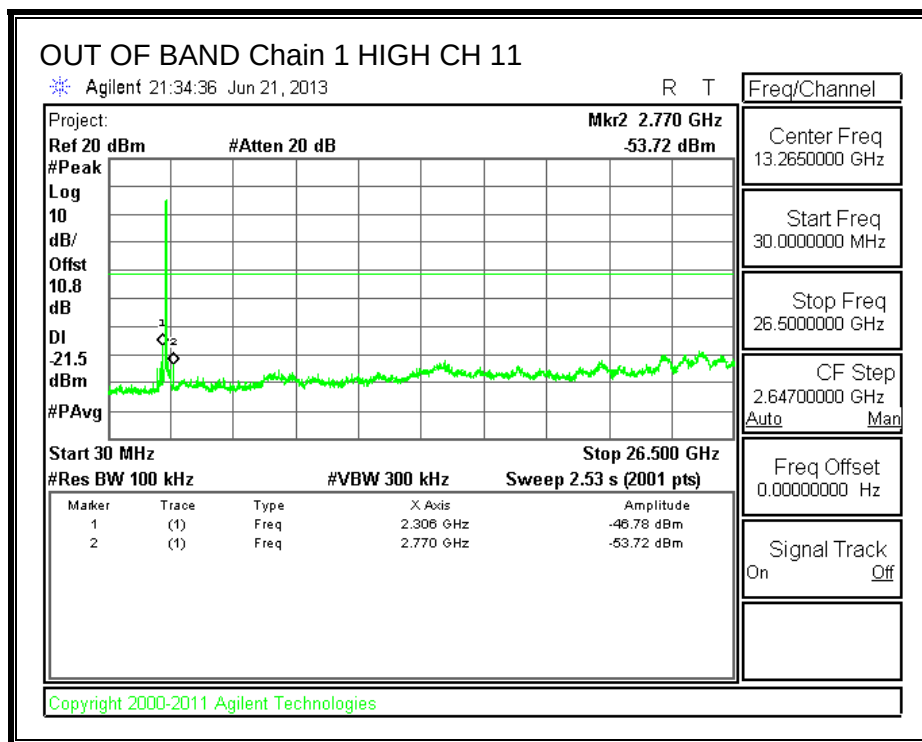
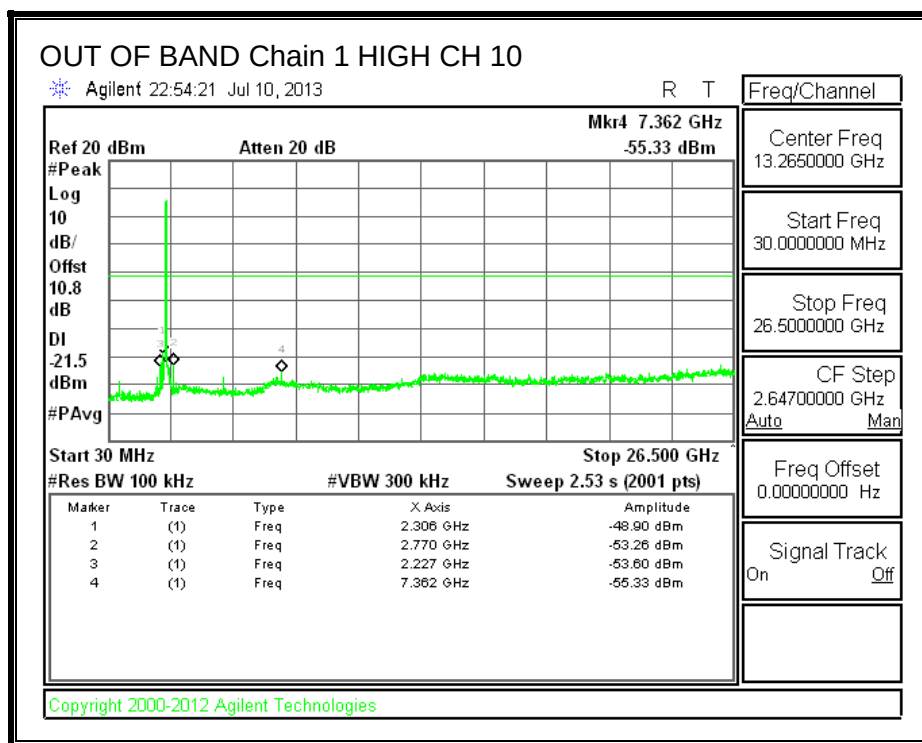
HIGH CHANNEL BANDEDGE, Chain 1



OUT-OF-BAND EMISSIONS, Chain 1







8.4. 802.11n HT20 CDD 2TX MODE, 5.8 GHz BAND

8.4.1. 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.

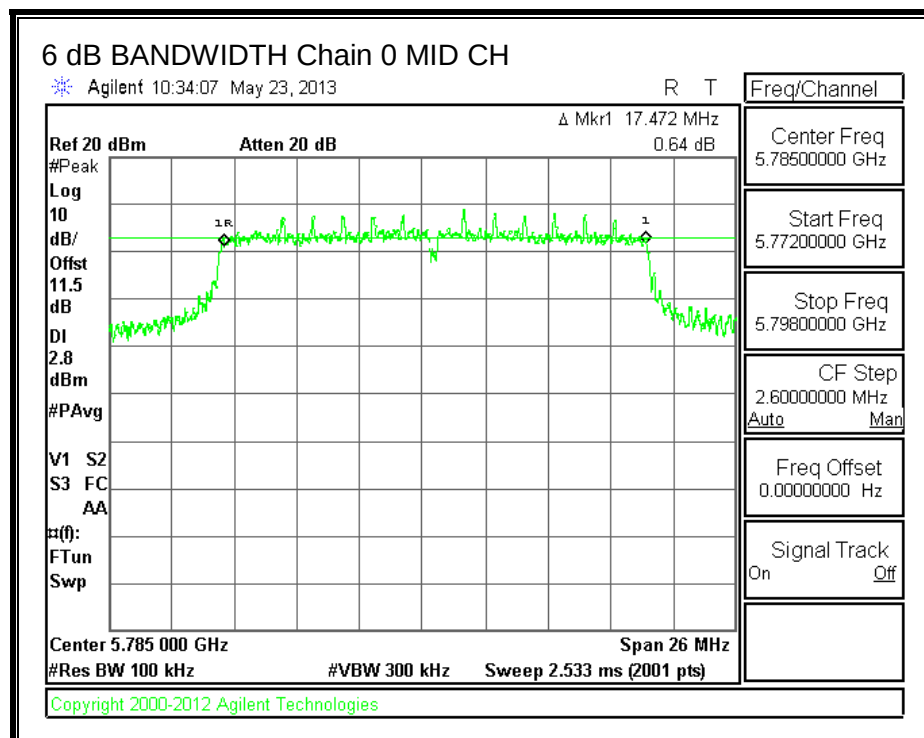
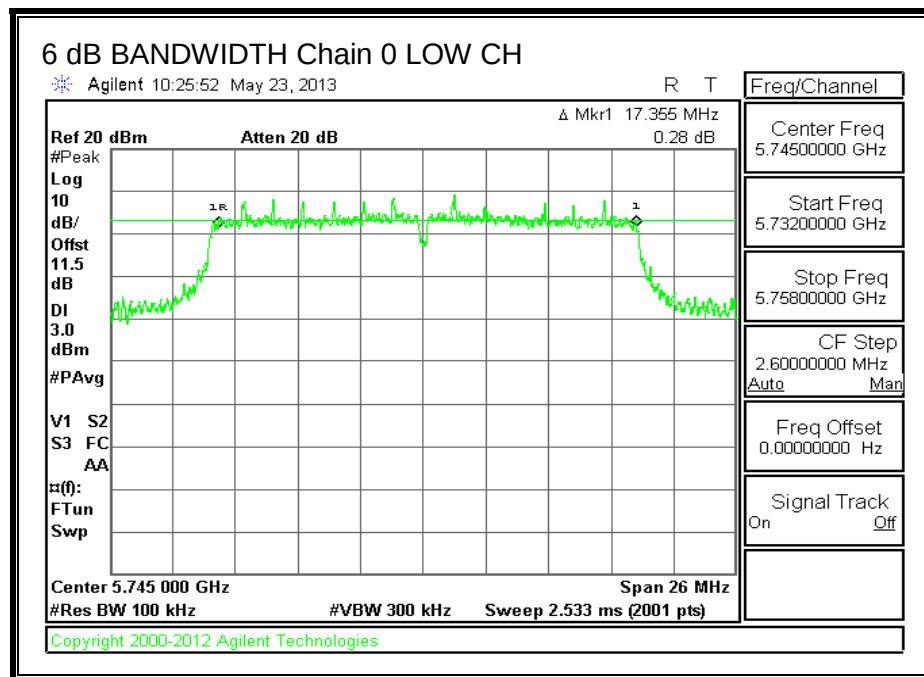
TEST PROCEDURE

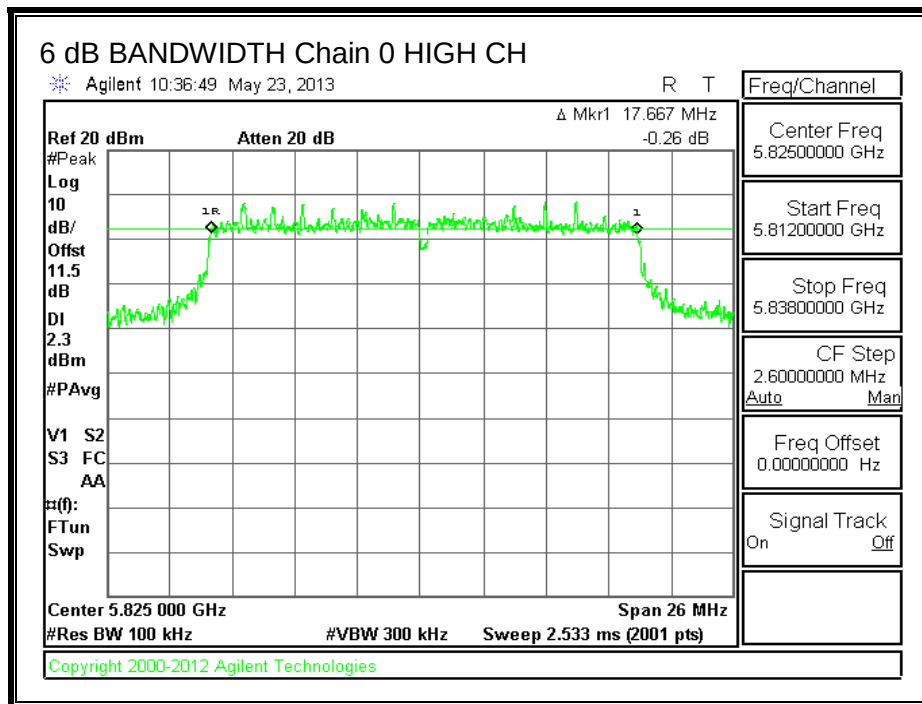
The transmitter output is connected to a spectrum analyzer with the RBW set to 100 kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

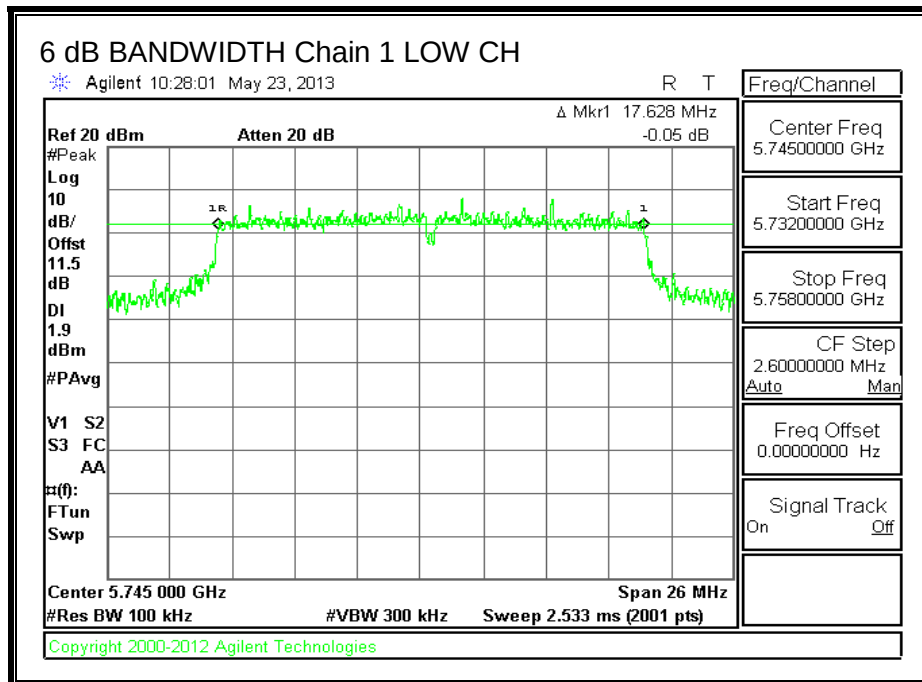
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	17.355	17.628	0.5
Mid	5785	17.472	17.615	0.5
High	5825	17.667	17.381	0.5

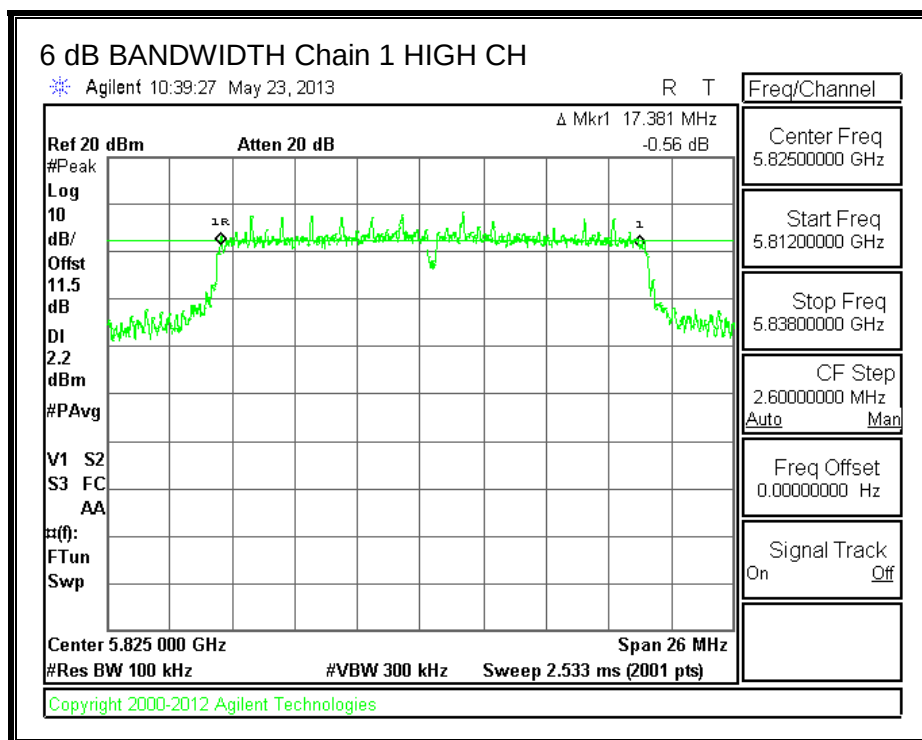
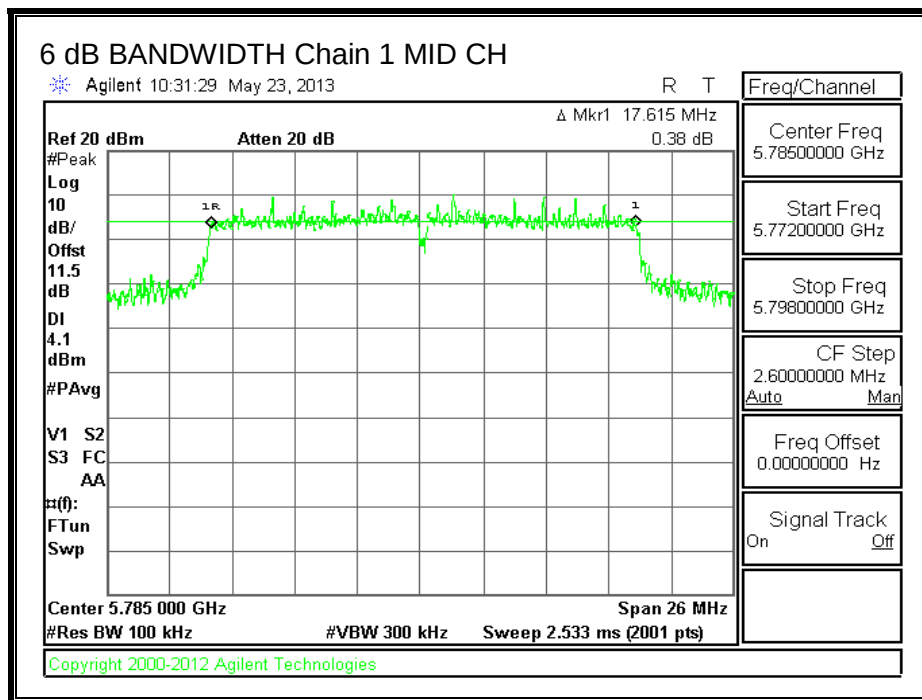
6 dB BANDWIDTH, Chain 0





6 dB BANDWIDTH, Chain 1





8.4.2. 99% BANDWIDTH

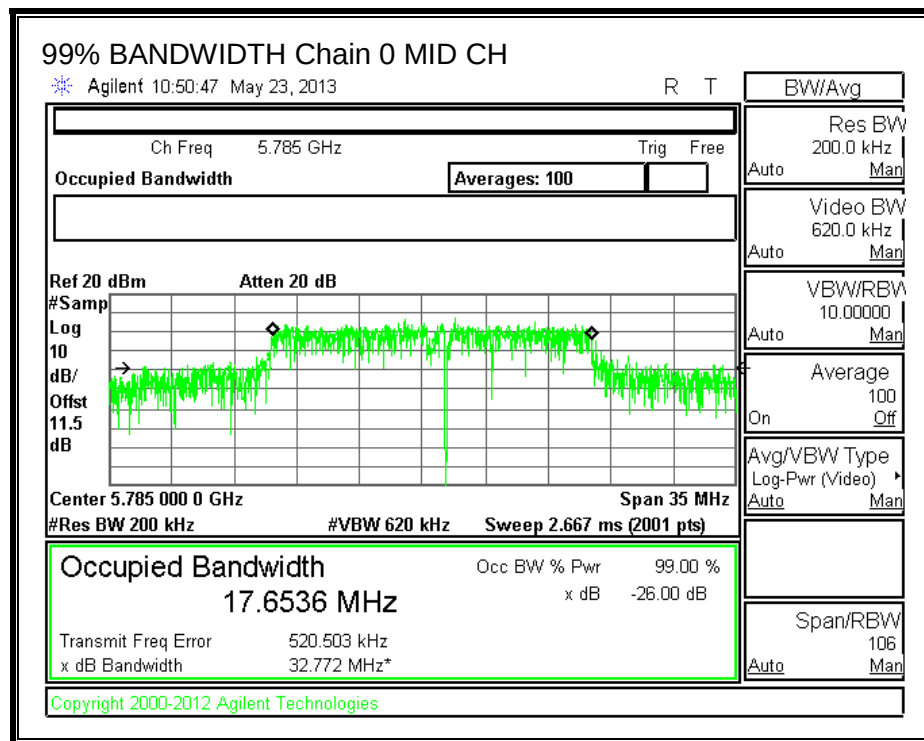
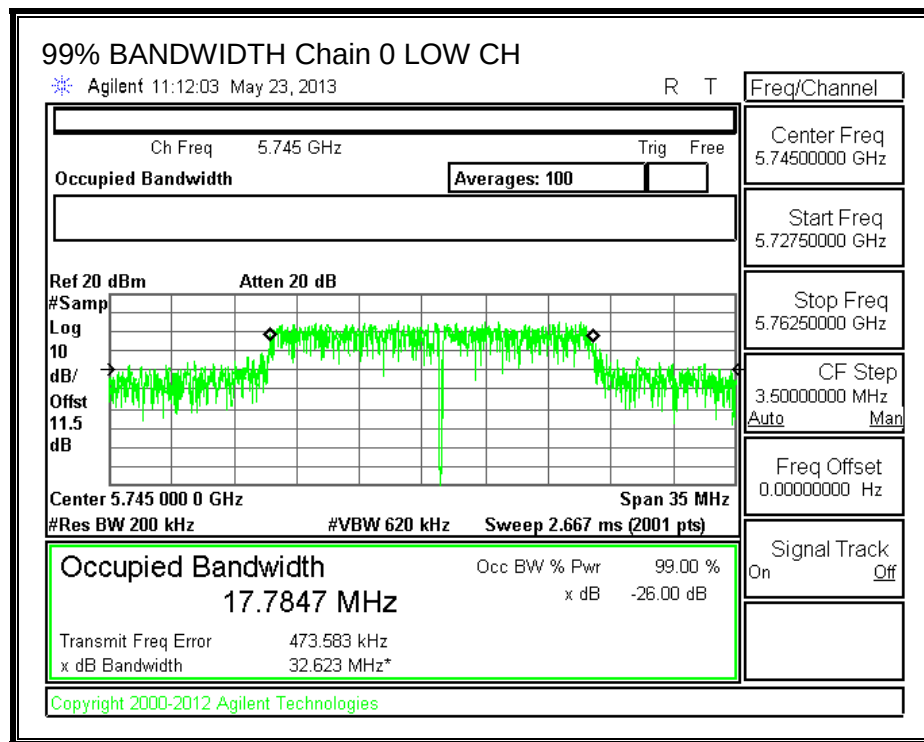
LIMITS

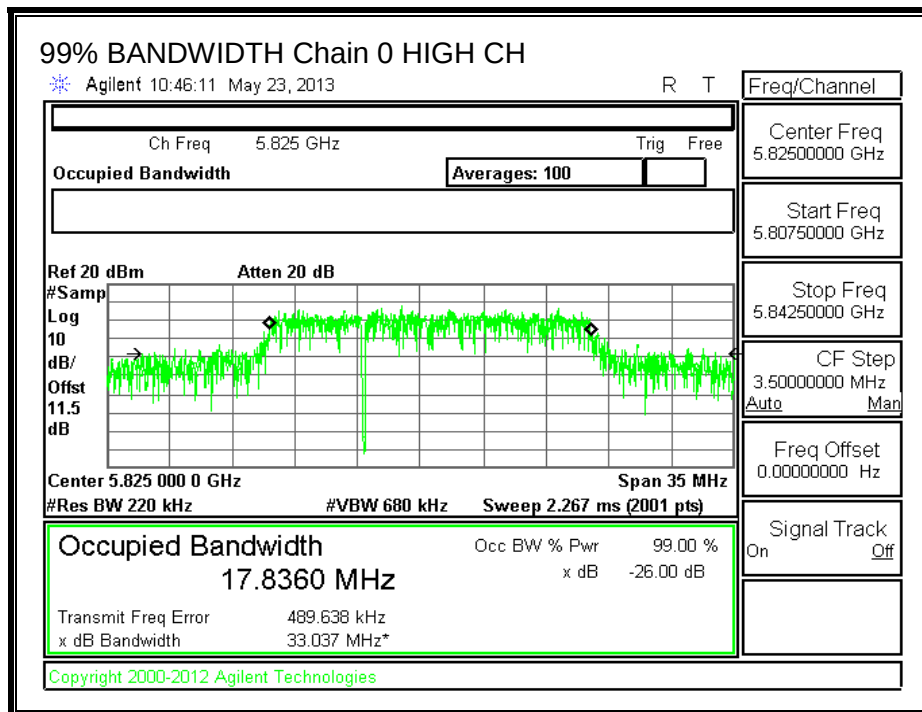
None; for reporting purposes only.

RESULTS

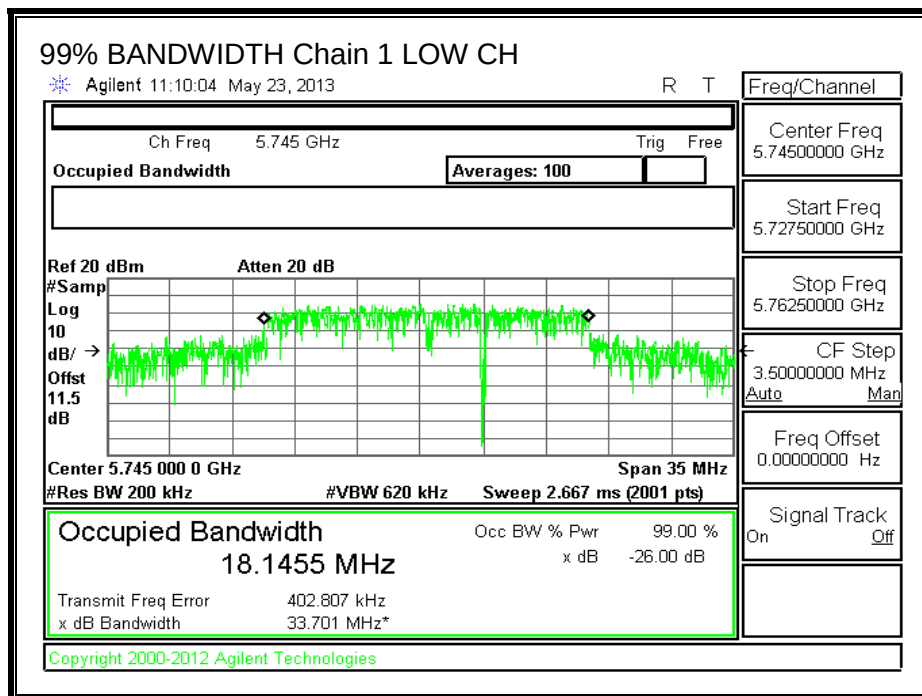
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.7847	18.1455
Mid	5785	17.6536	17.9539
High	5825	17.8360	17.8454

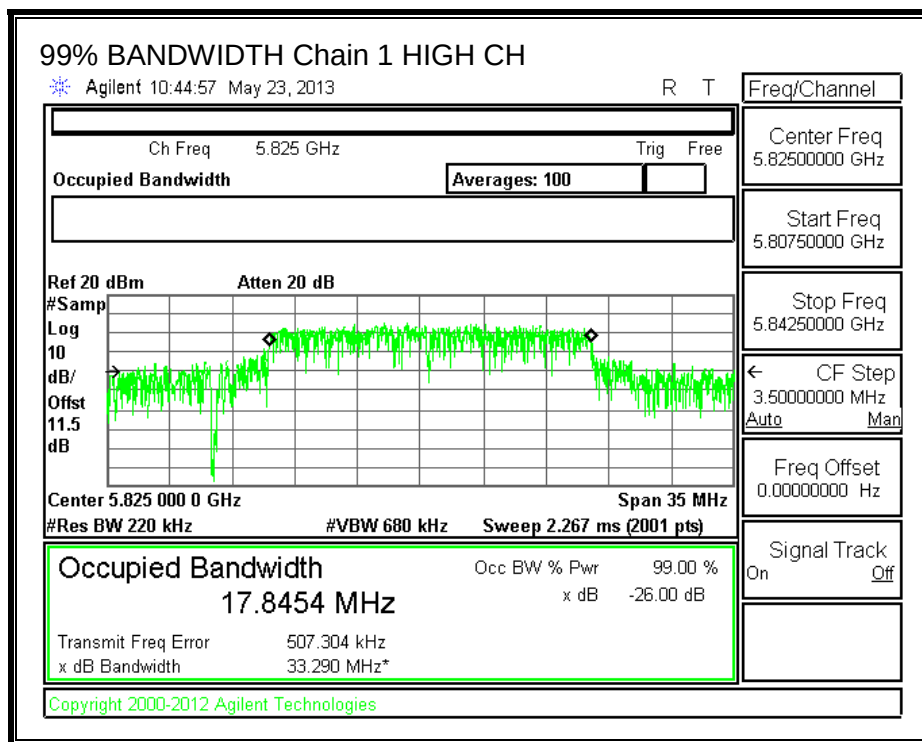
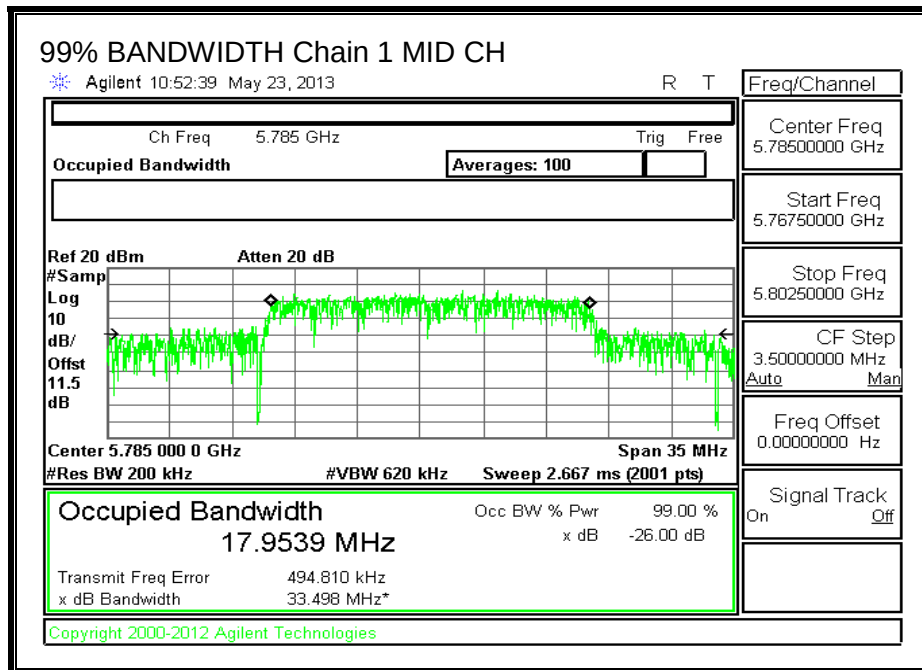
99% BANDWIDTH, Chain 0





99% BANDWIDTH, Chain 1





8.4.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.40	5.40	5.40

RESULTS

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5745	5.40	30.00	30	36	30.00
Mid	5785	5.40	30.00	30	36	30.00
High	5825	5.40	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	5745	20.01	20.09	23.06	30.00	-6.94
Mid	5785	20.13	20.47	23.31	30.00	-6.69
High	5825	20.04	20.41	23.24	30.00	-6.76

8.4.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

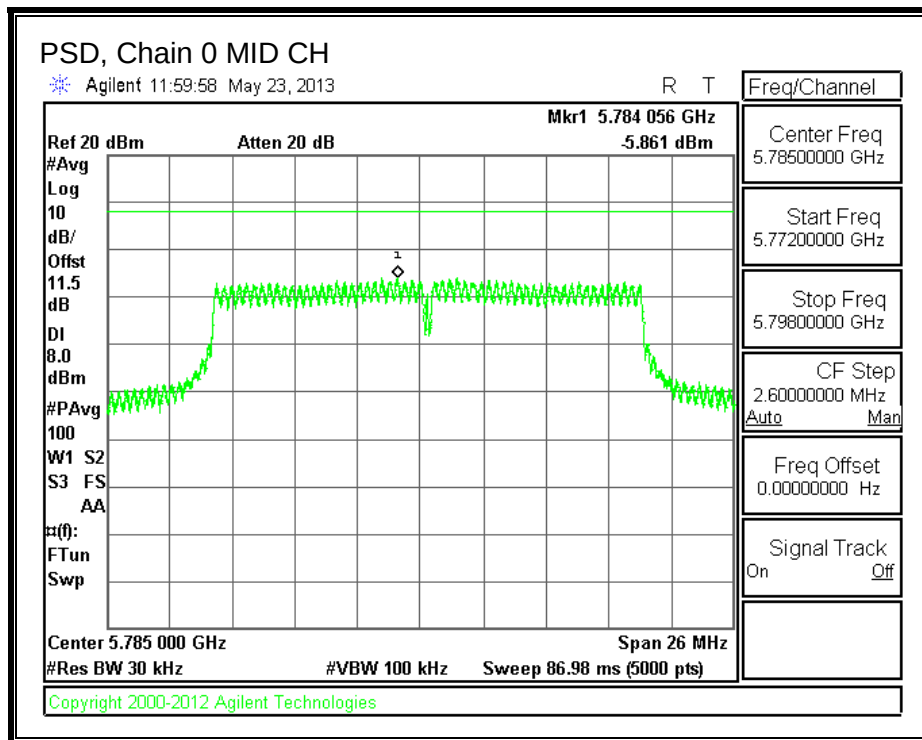
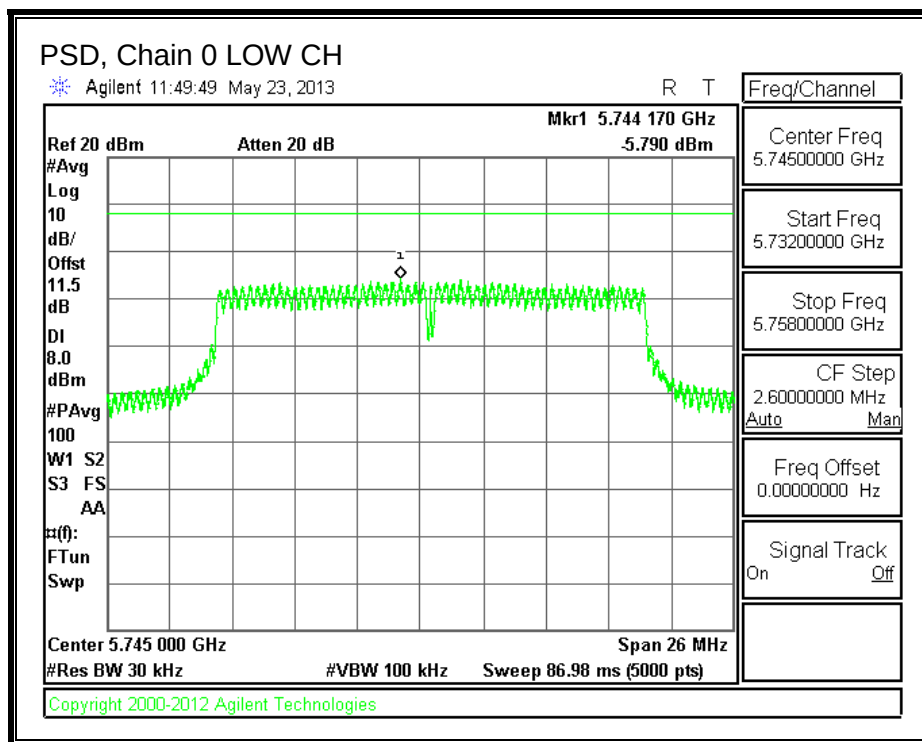
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

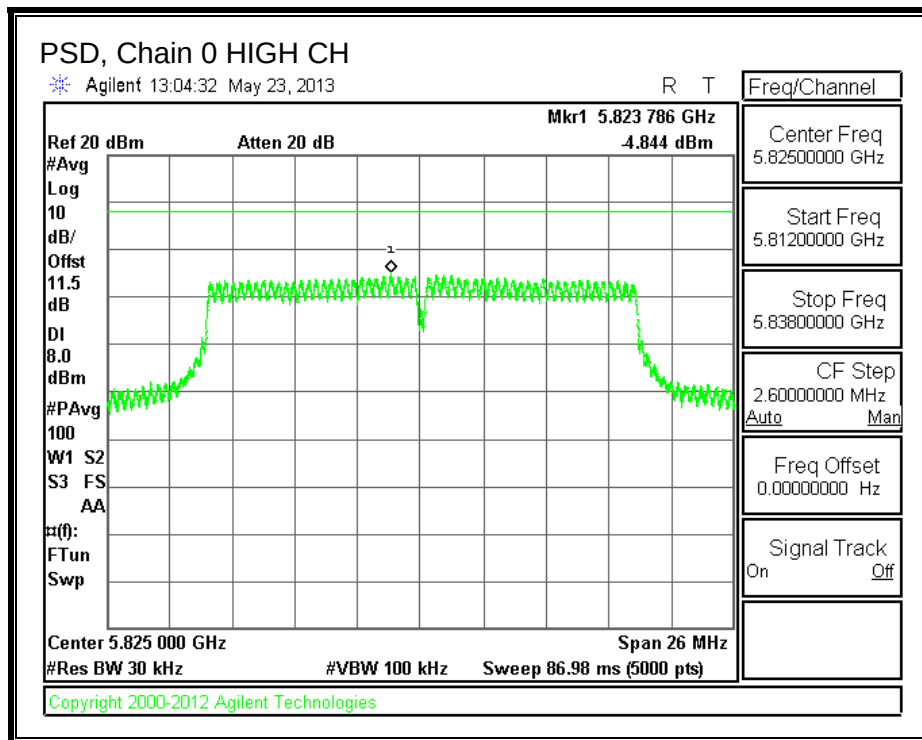
RESULTS

PSD Results

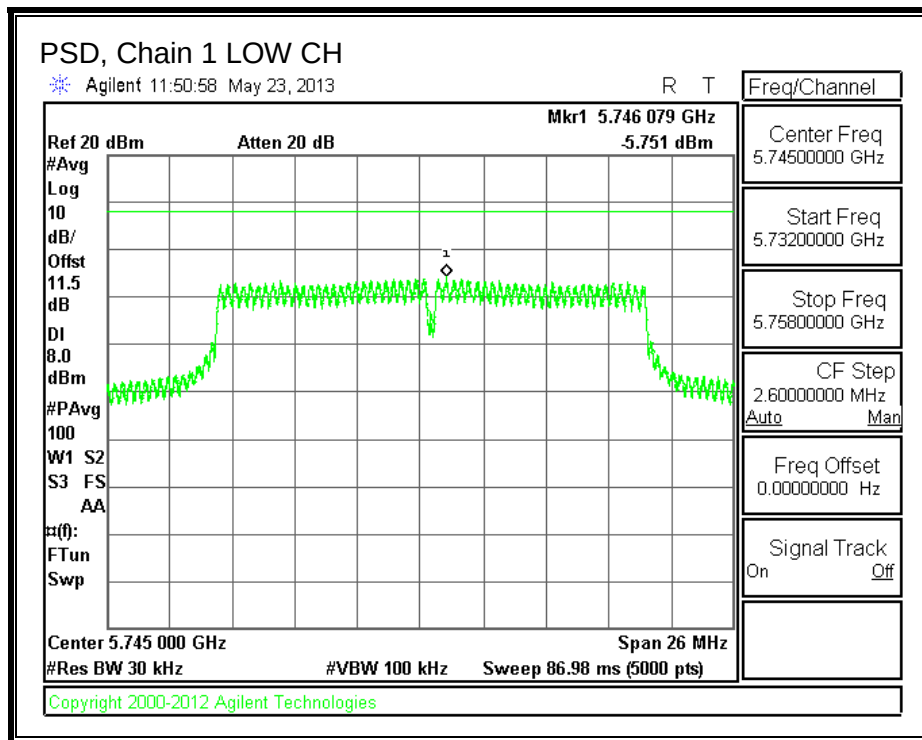
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-5.790	-5.751	-2.76	8.0	-10.8
Mid	5785	-5.861	-4.673	-2.22	8.0	-10.2
High	5825	-4.844	-5.574	-2.18	8.0	-10.2

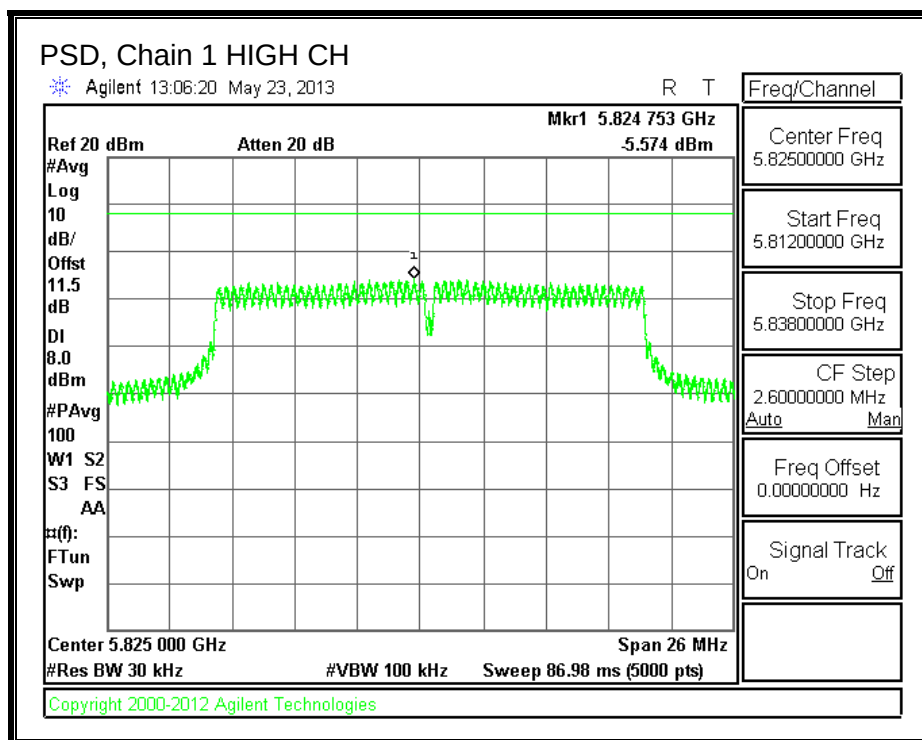
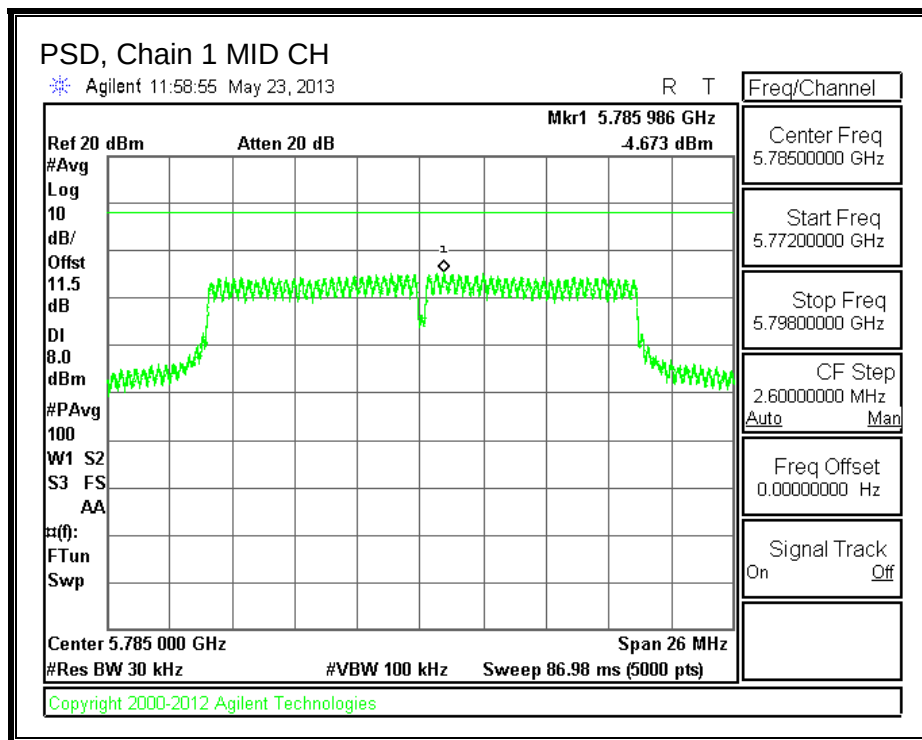
PSD, Chain 0





PSD, Chain 1





8.4.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

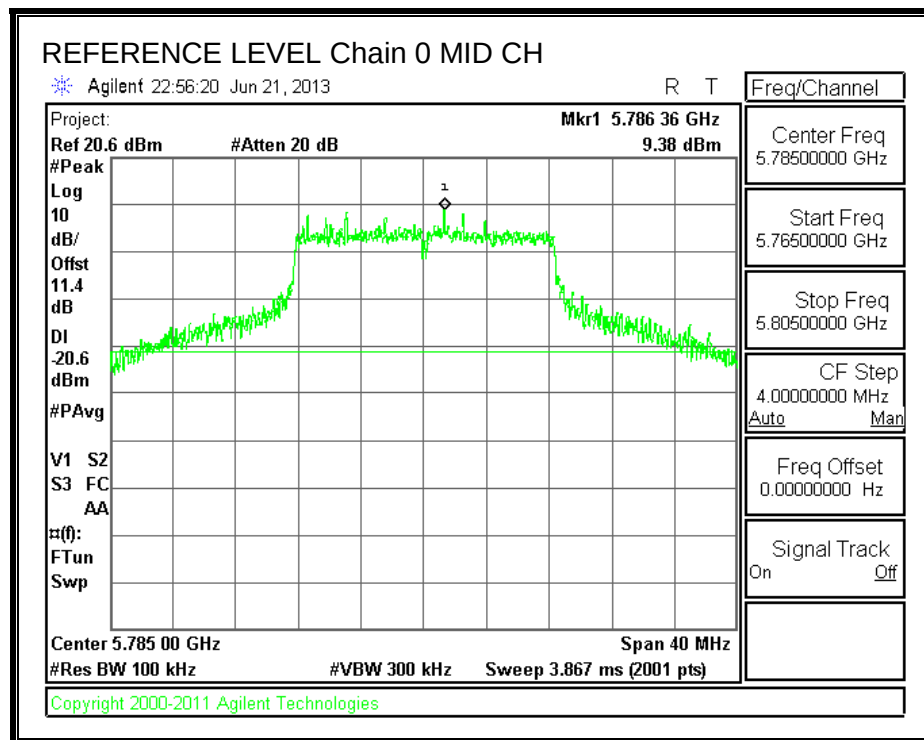
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

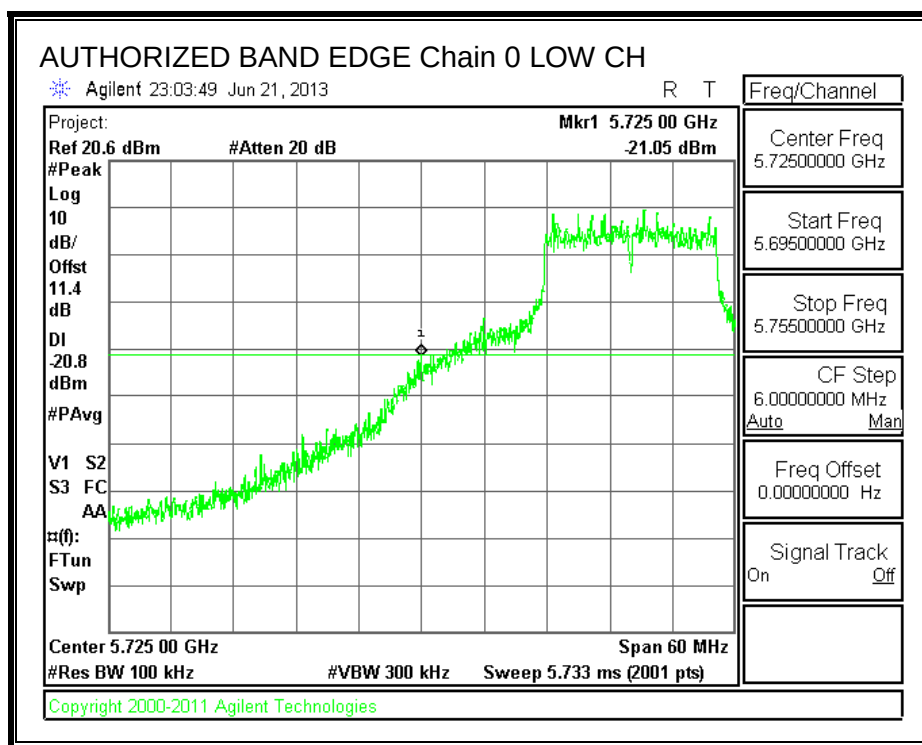
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

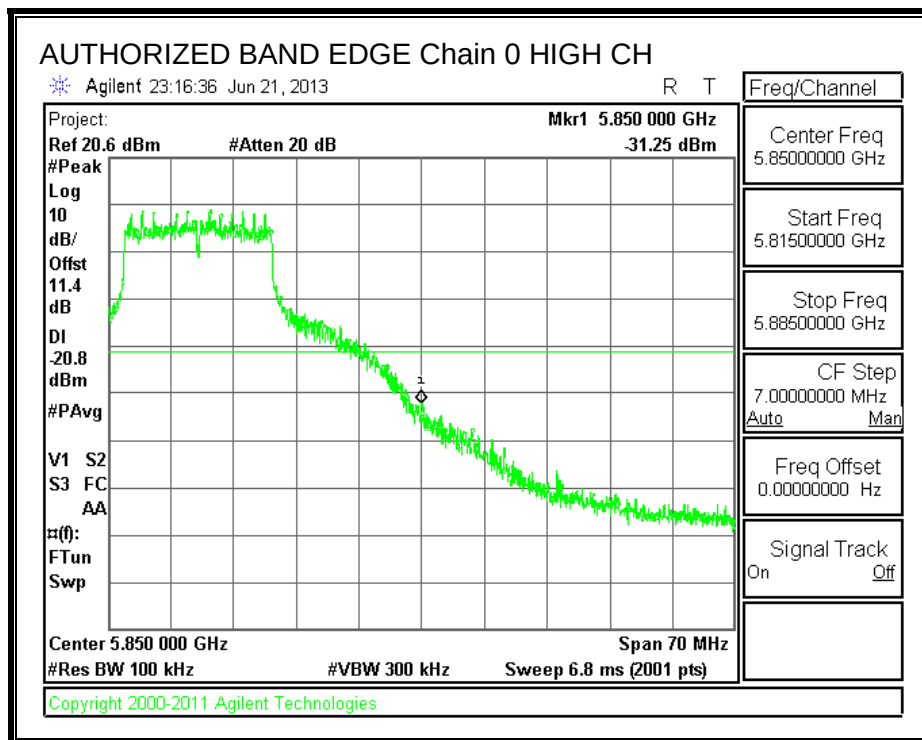
IN-BAND REFERENCE LEVEL, Chain 0



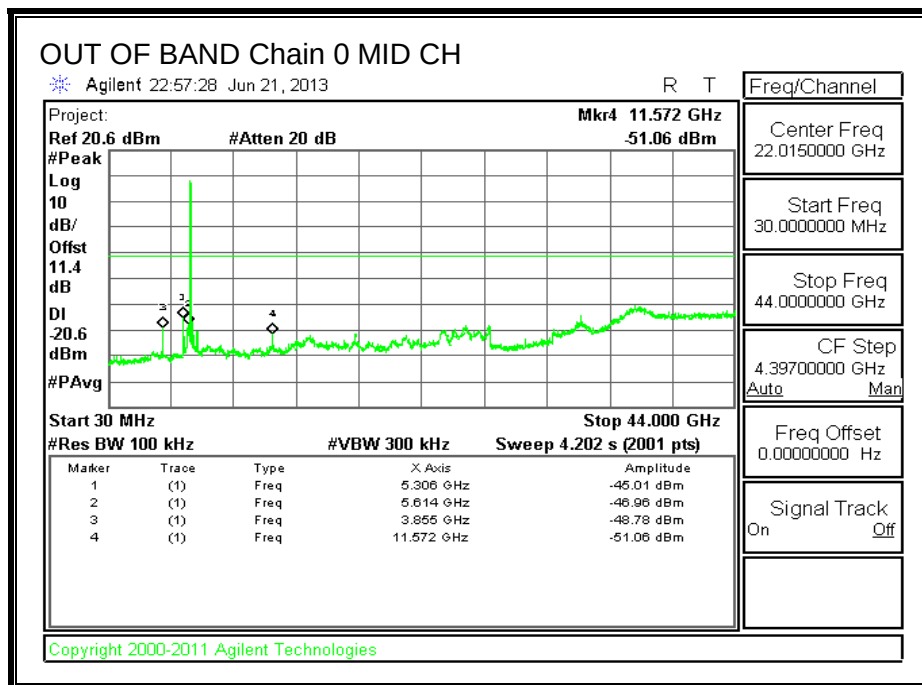
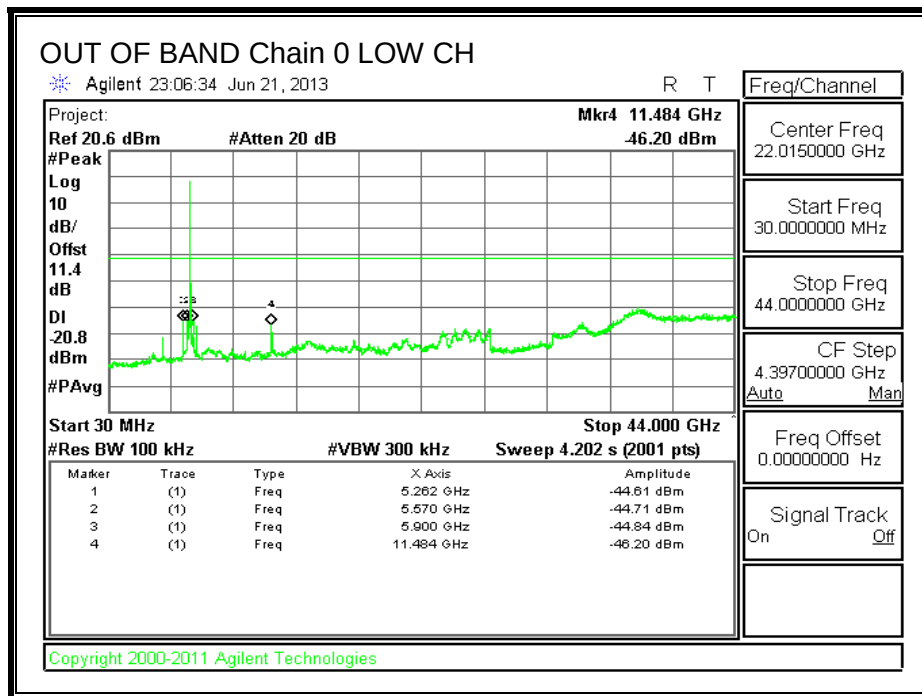
LOW CHANNEL BANDEDGE, Chain 0

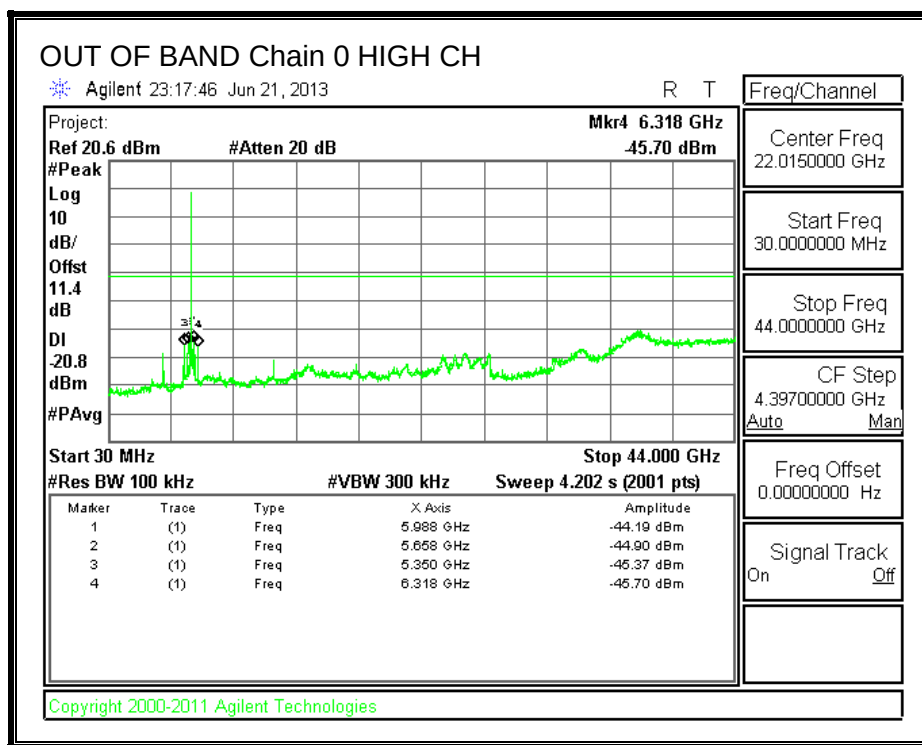


HIGH CHANNEL BANDEDGE, Chain 0

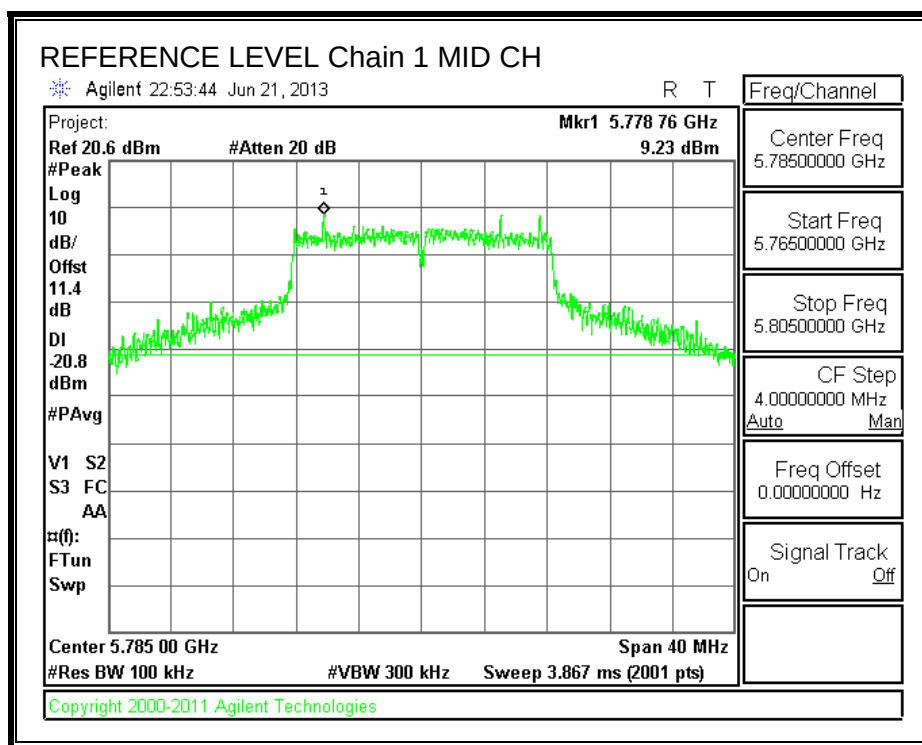


OUT-OF-BAND EMISSIONS, Chain 0

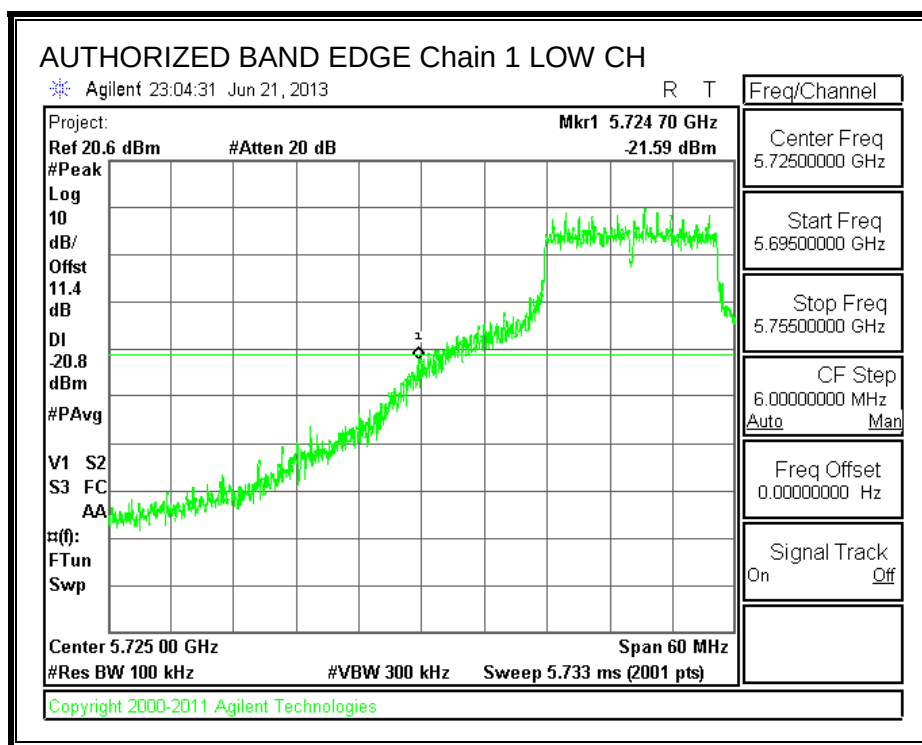




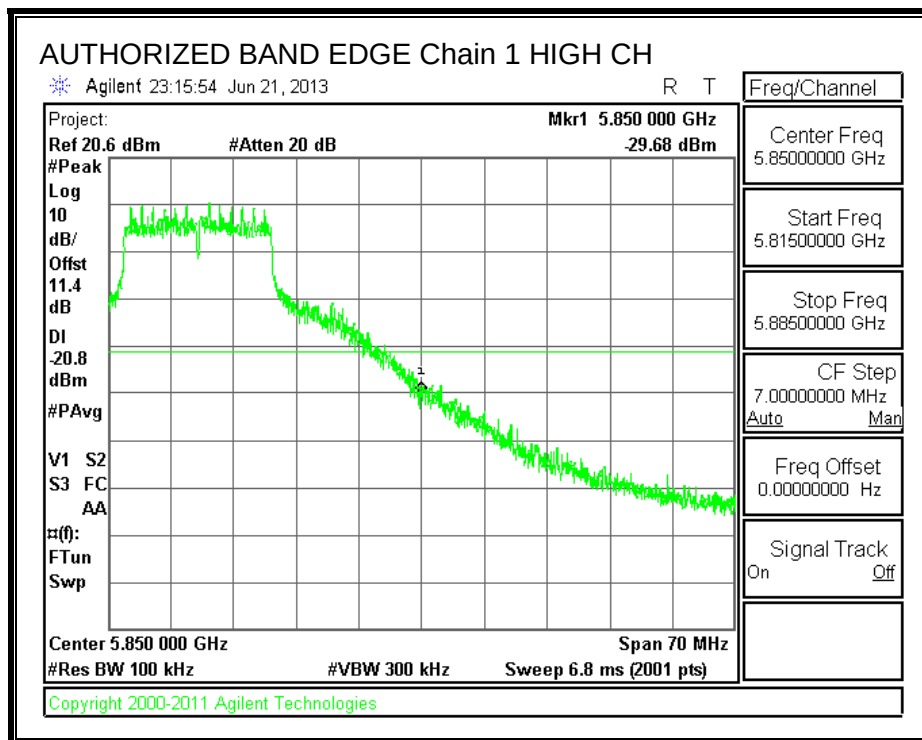
IN-BAND REFERENCE LEVEL, Chain 1

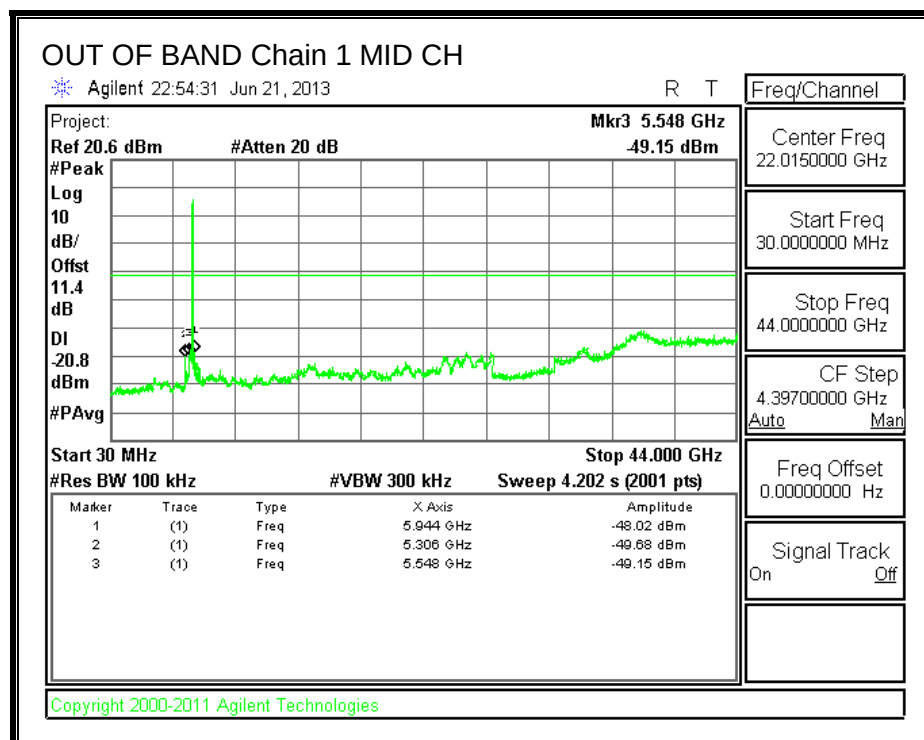
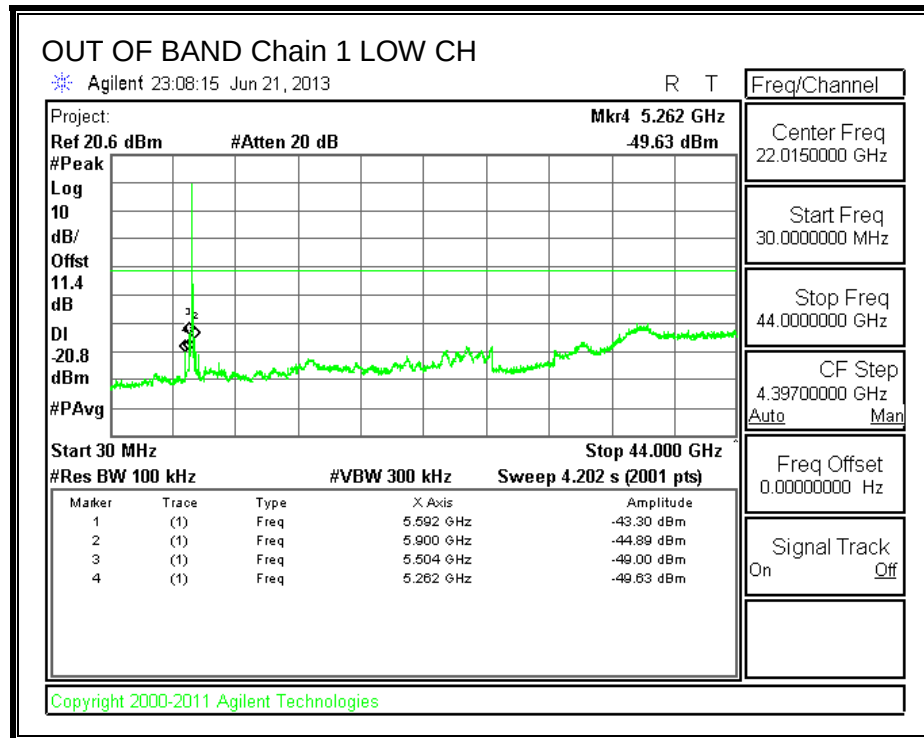


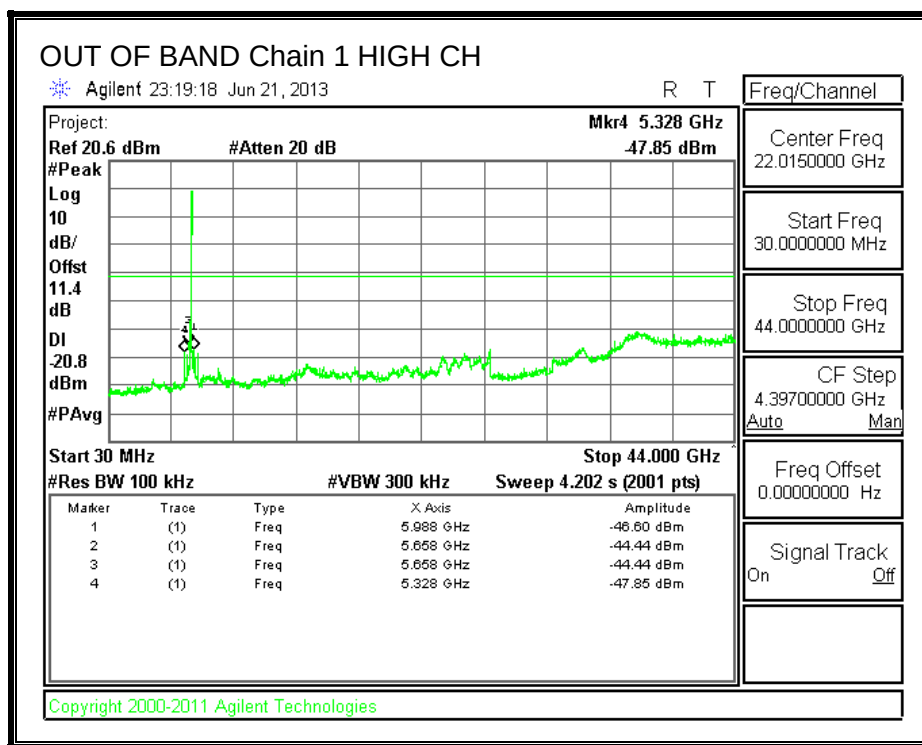
LOW CHANNEL BANDEDGE, Chain 1



HIGH CHANNEL BANDEDGE, Chain 1







8.5. 802.11n HT40 CDD 2TX MODE, 5.8 GHz BAND

8.5.1. 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.

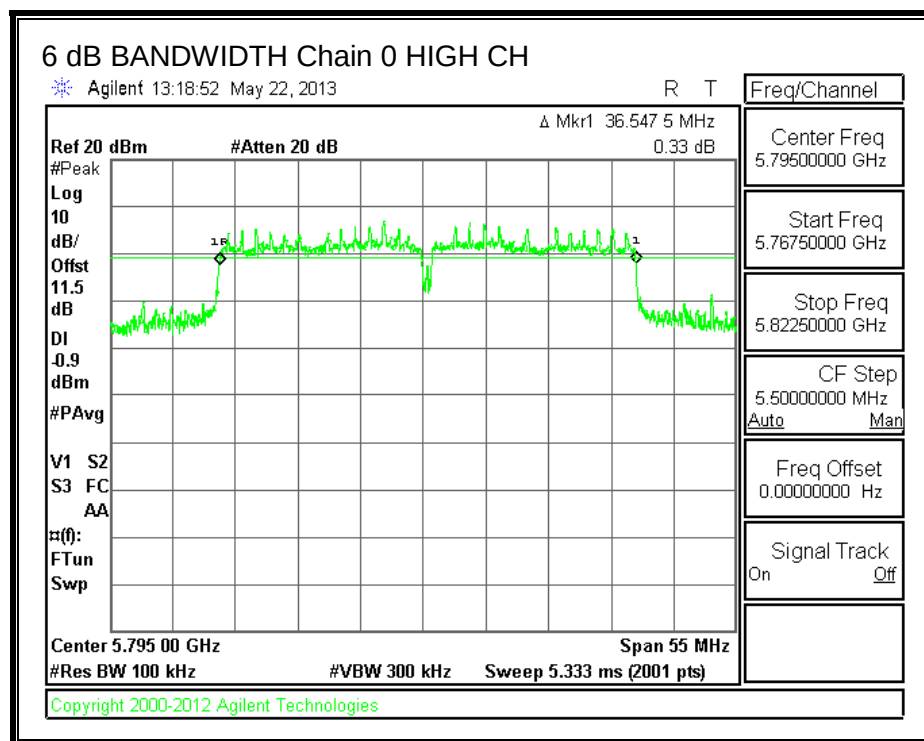
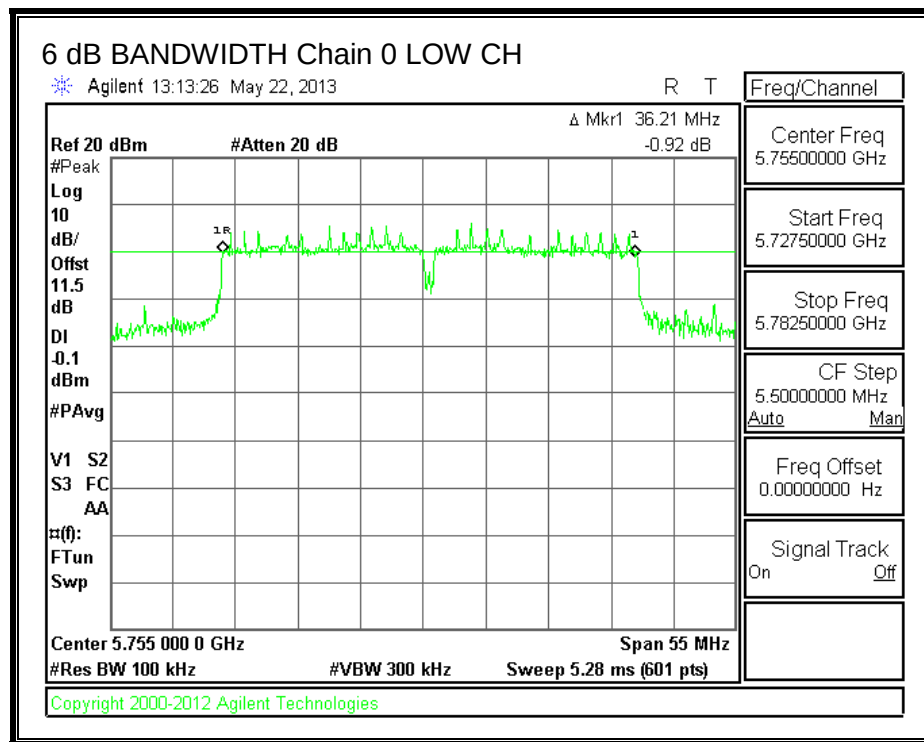
TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer with the RBW set to 100 kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

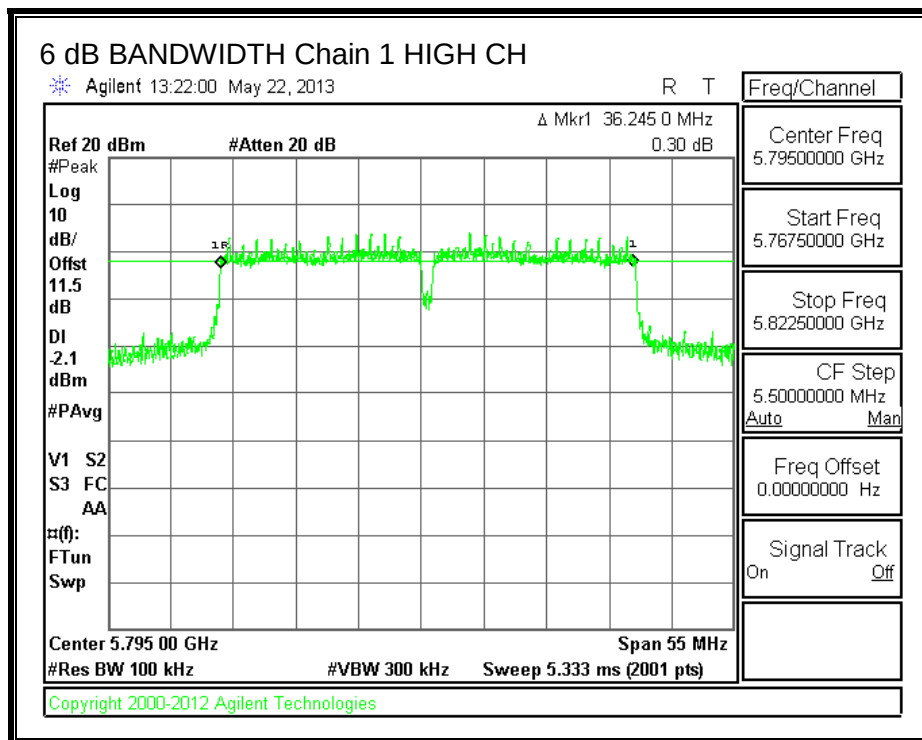
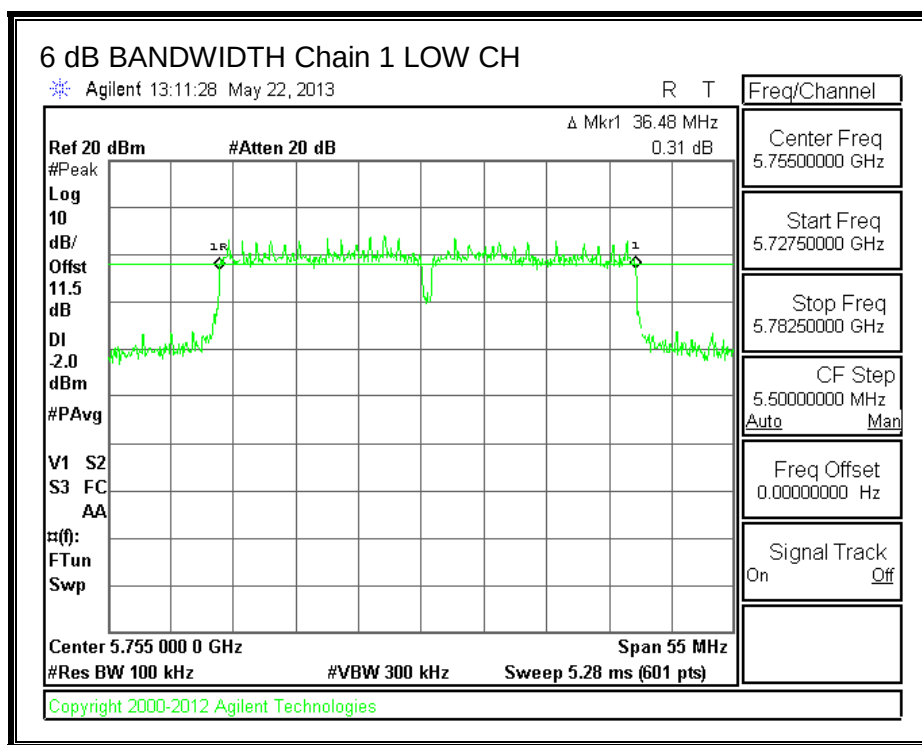
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5755	36.210	36.480	0.5
High	5795	36.547	36.245	0.5

6 dB BANDWIDTH, Chain 0



6 dB BANDWIDTH, Chain 1



8.5.2. 99% BANDWIDTH

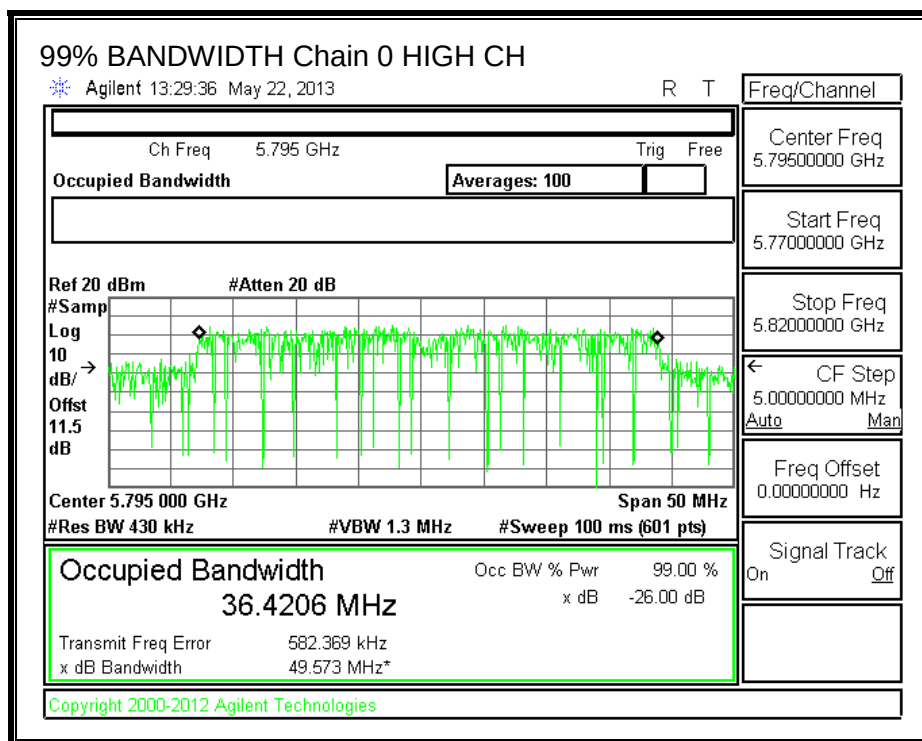
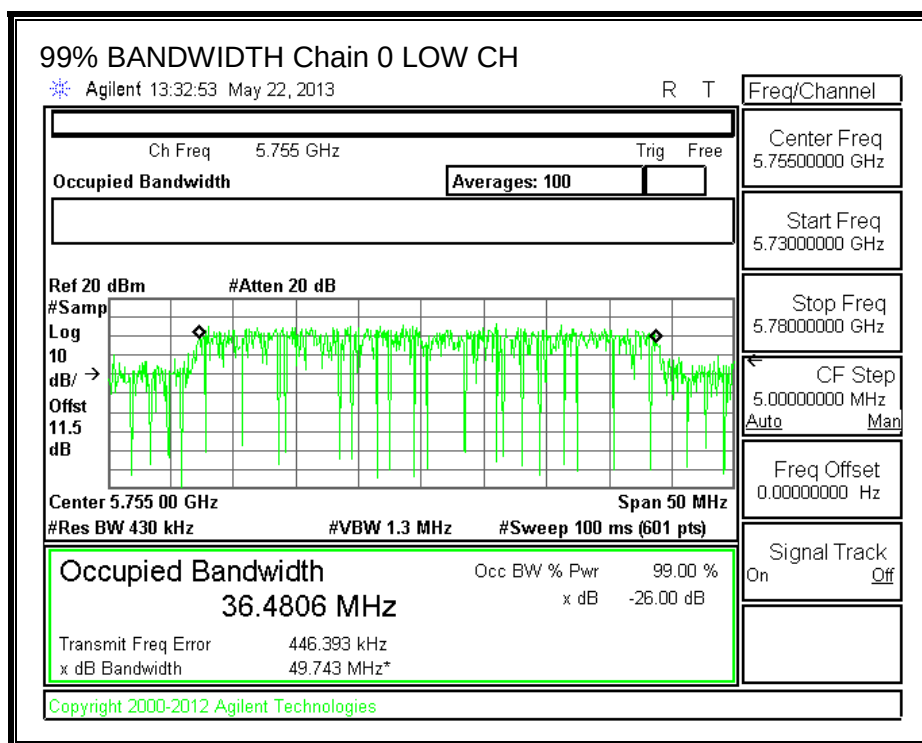
LIMITS

None; for reporting purposes only.

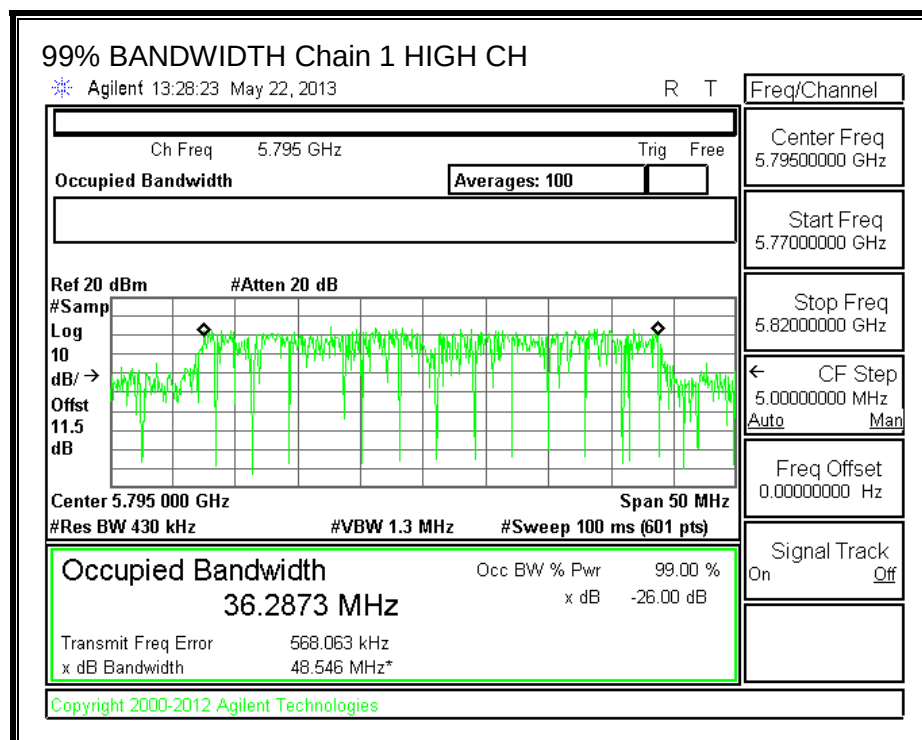
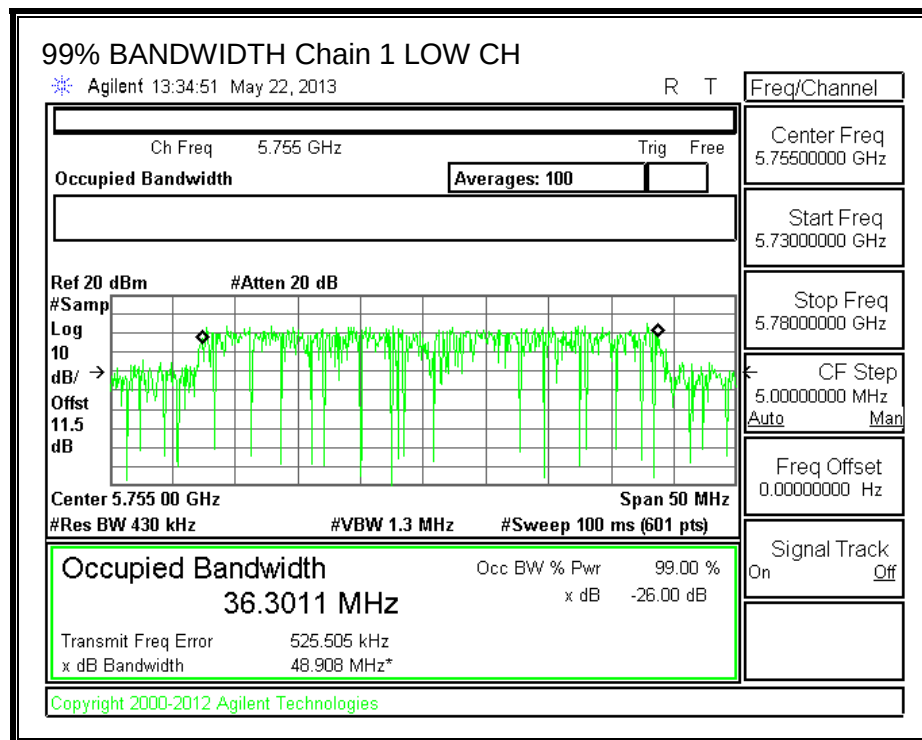
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5755	36.4806	36.3011
High	5795	36.4206	36.2873

99% BANDWIDTH, Chain 0



99% BANDWIDTH, Chain 1



8.5.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.40	5.40	5.40

RESULTS

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5755	5.40	30.00	30	36	30.00
High	5795	5.40	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
Low	5755	14.07	14.68	17.40	30.00	-12.60
High	5795	19.85	20.05	22.96	30.00	-7.04

8.5.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

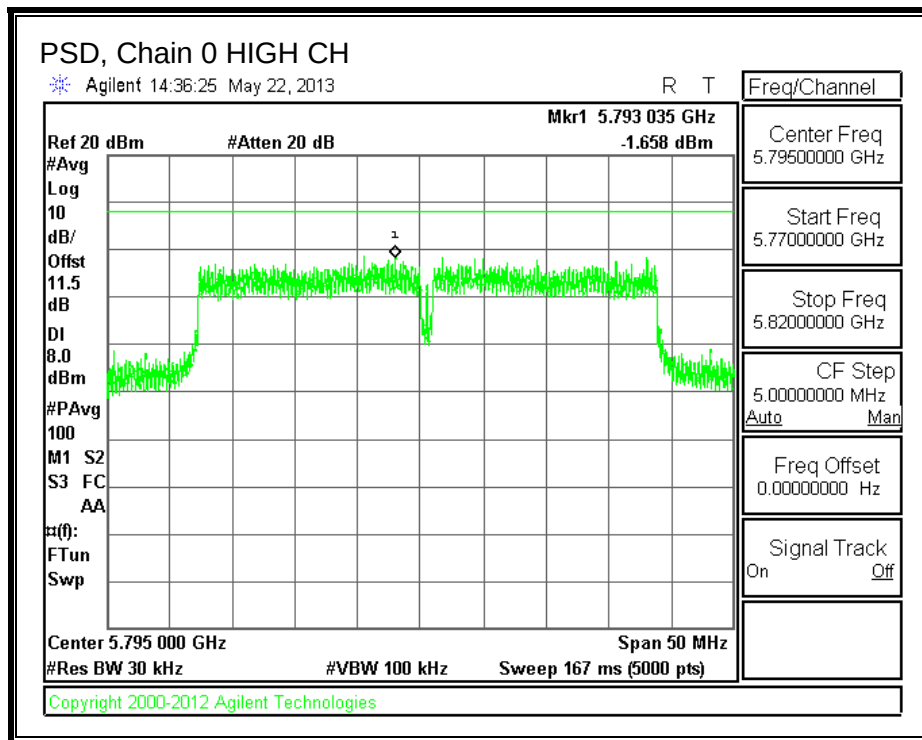
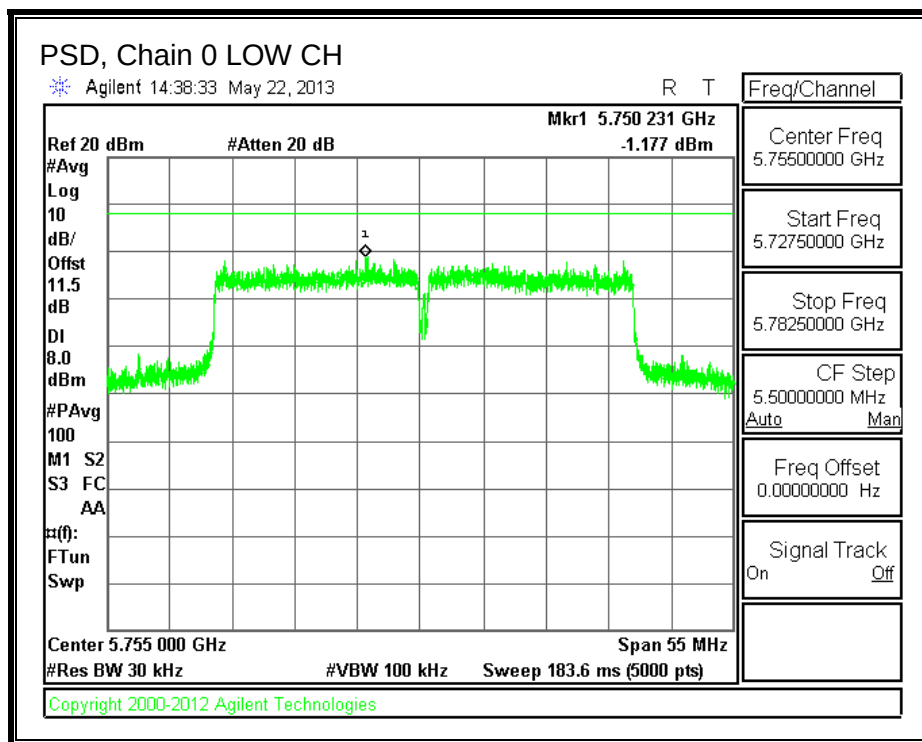
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

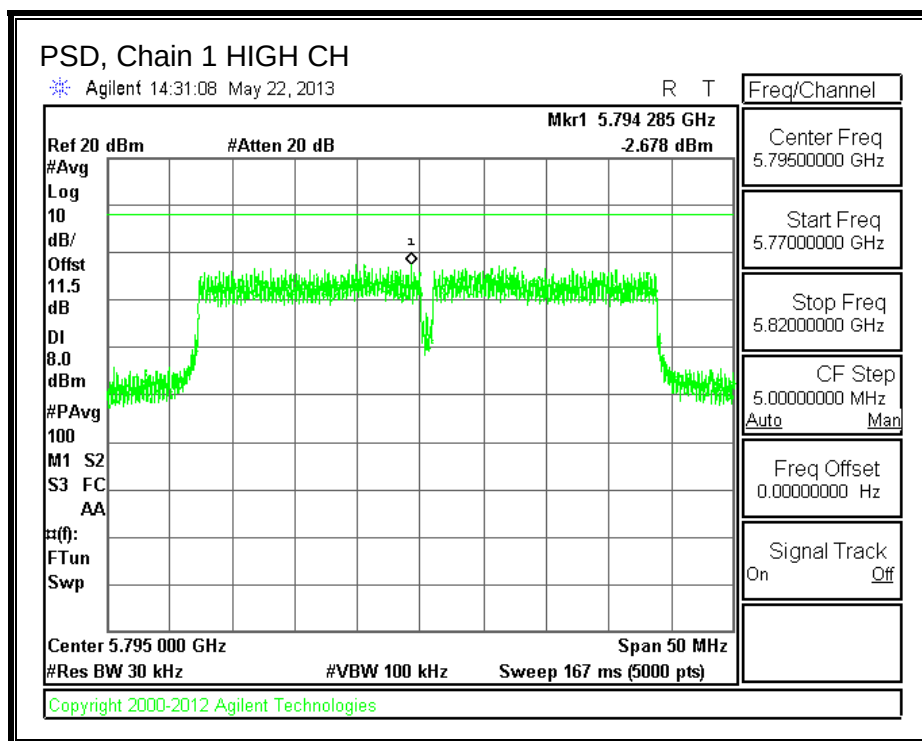
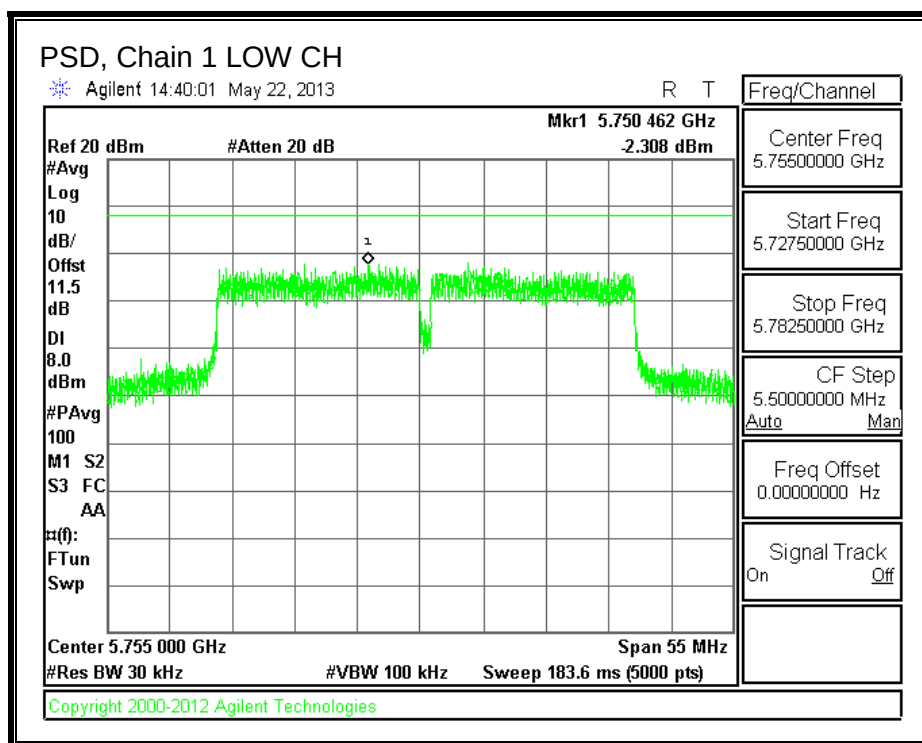
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	5755	-1.177	-2.308	1.30	8.0	-6.7
High	5795	-1.658	-2.678	0.87	8.0	-7.1

PSD, Chain 0



PSD, Chain 1



8.5.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

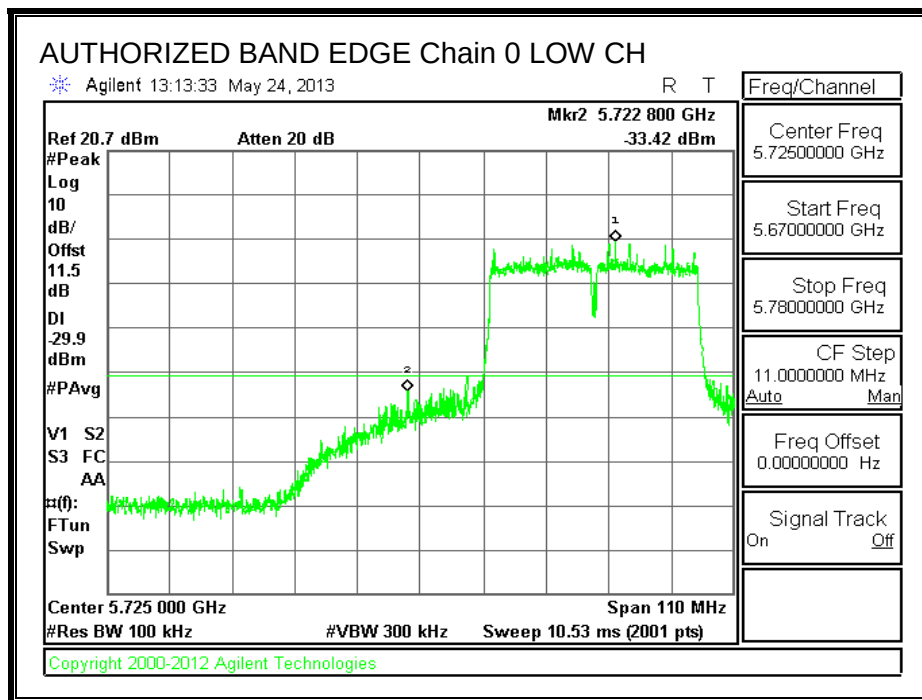
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

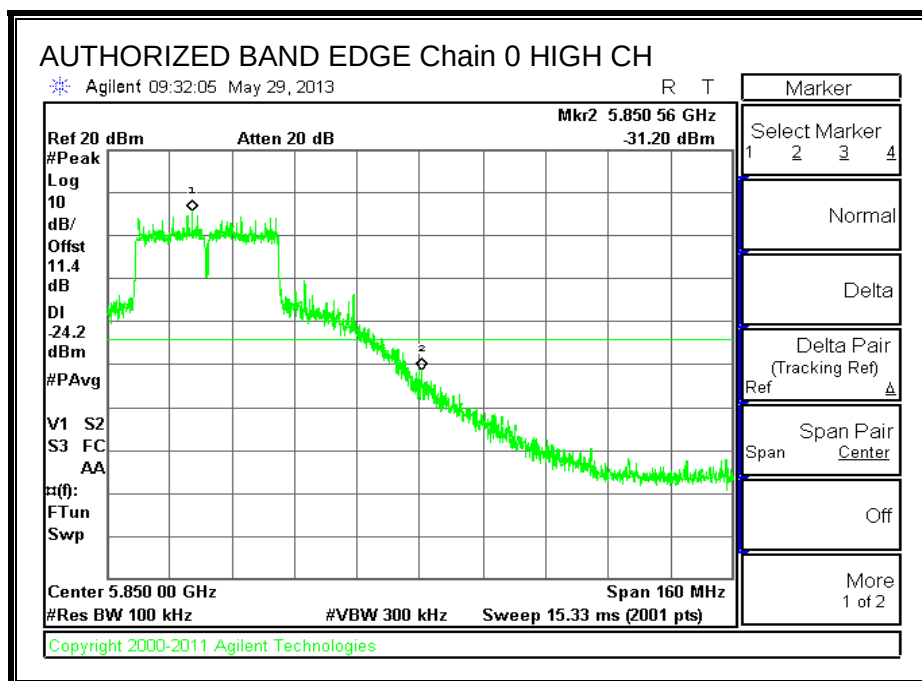
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

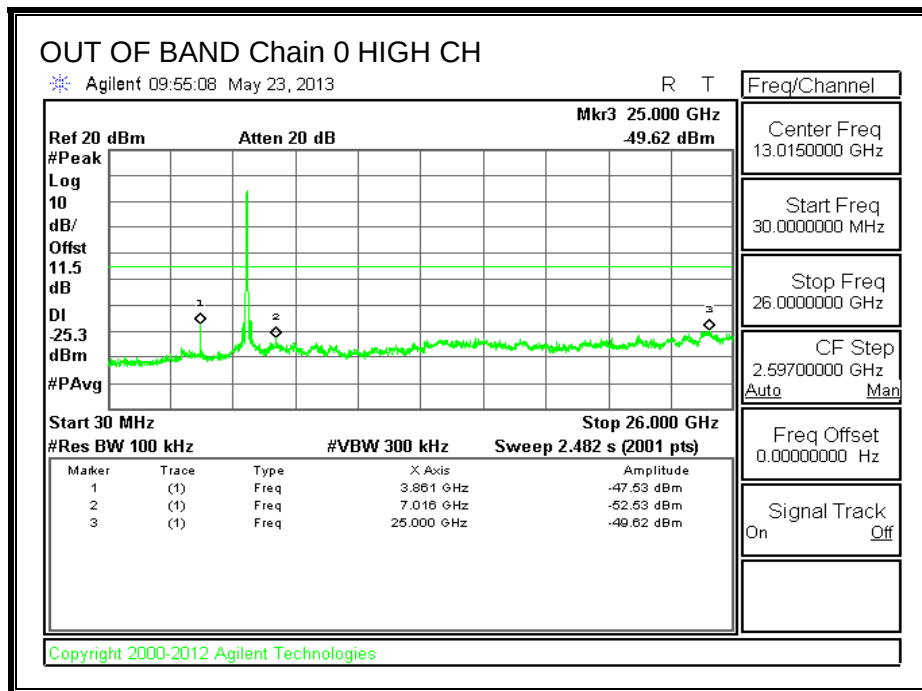
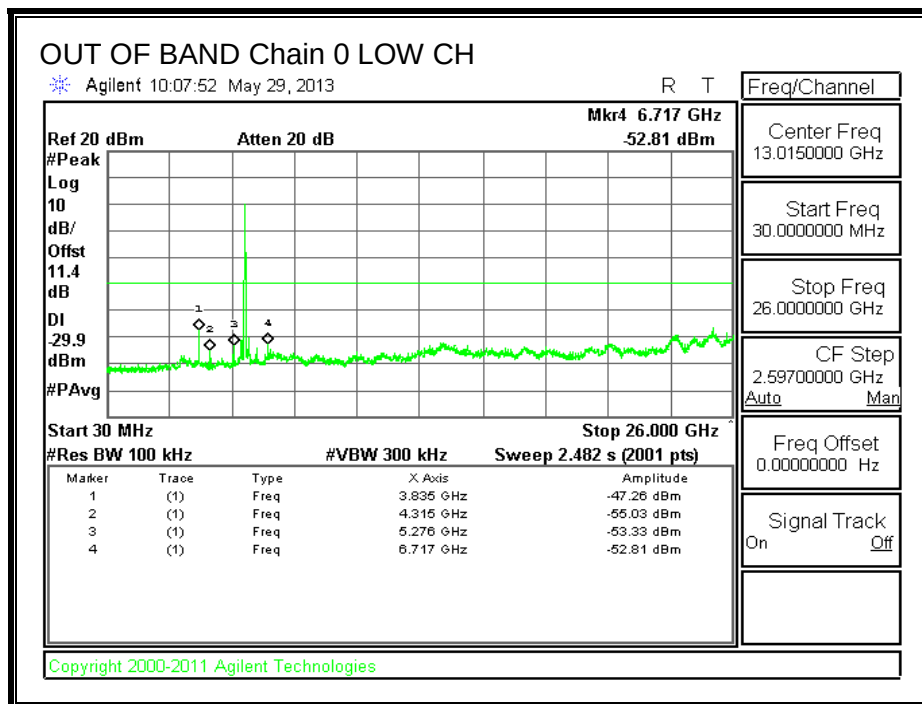
LOW CHANNEL BANDEDGE, Chain 0



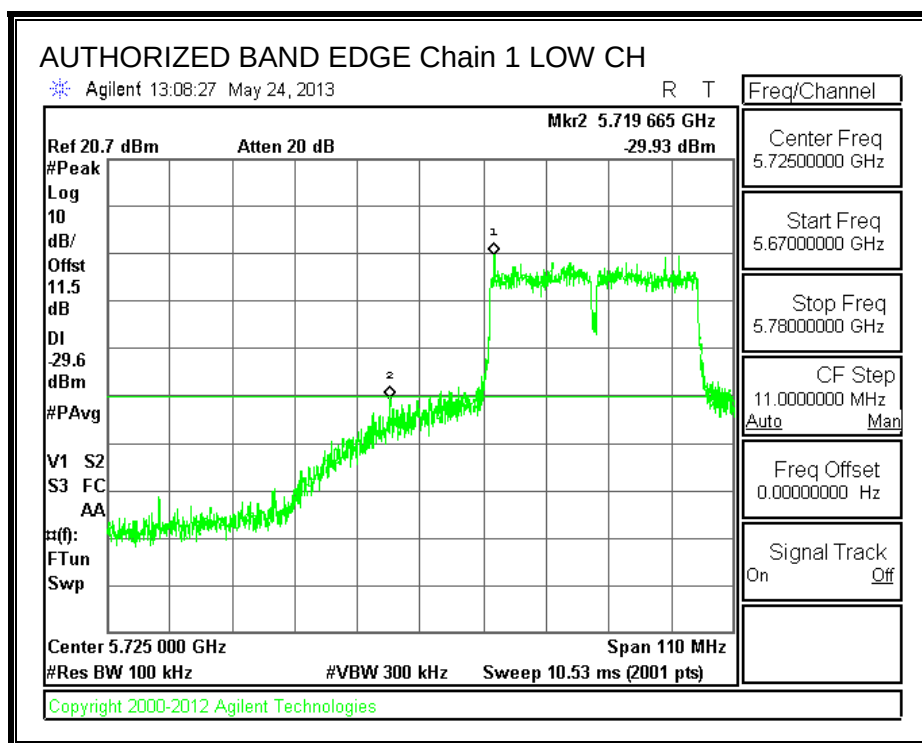
HIGH CHANNEL BANDEDGE, Chain 0



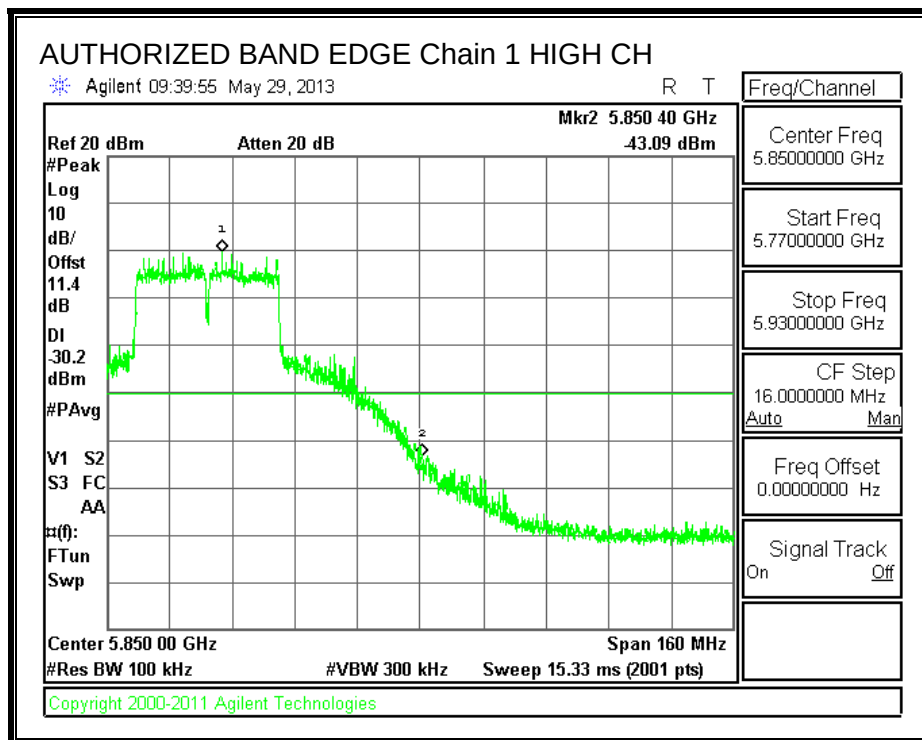
OUT-OF-BAND EMISSIONS, Chain 0

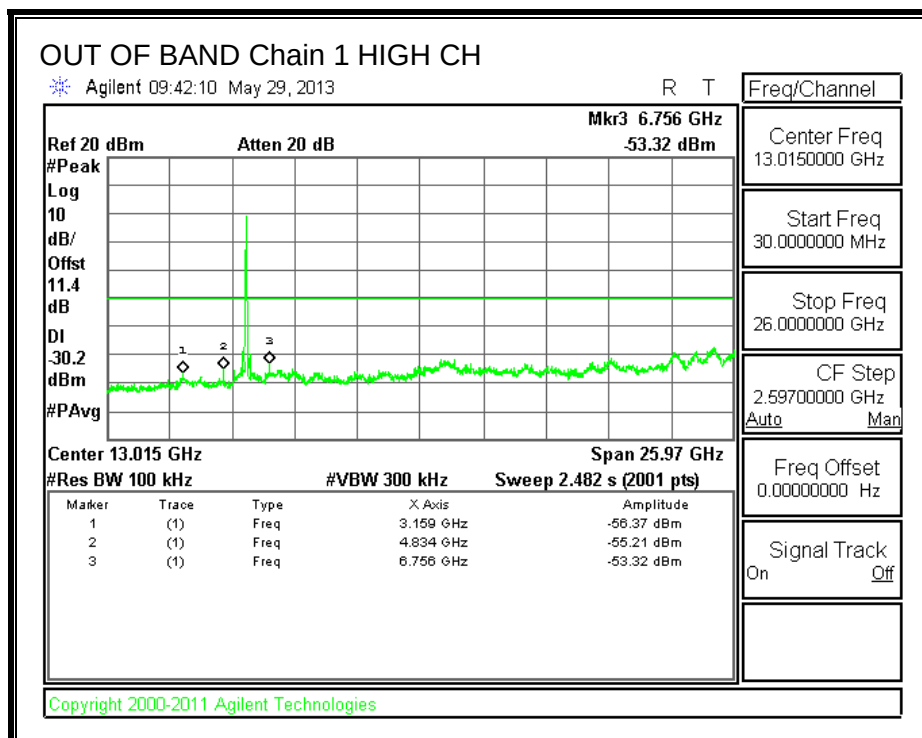
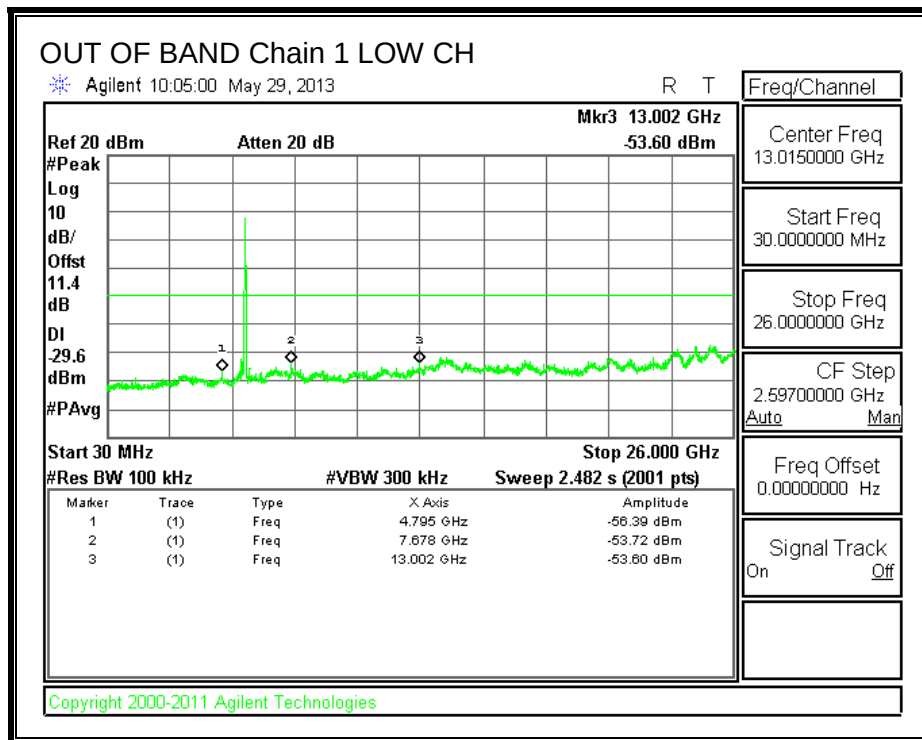


LOW CHANNEL BANDEDGE, Chain 1



HIGH CHANNEL BANDEDGE, Chain 1





8.6. 802.11n AC80 CDD 2TX MODE IN THE 5.8 GHz BAND

8.6.1. 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.

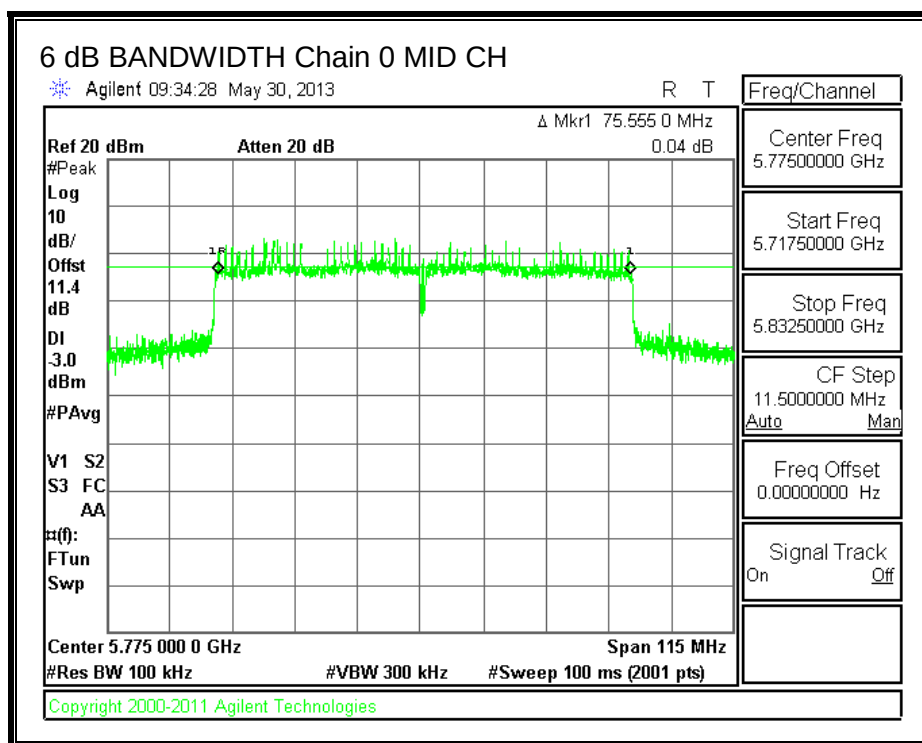
TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer with the RBW set to 100 kHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

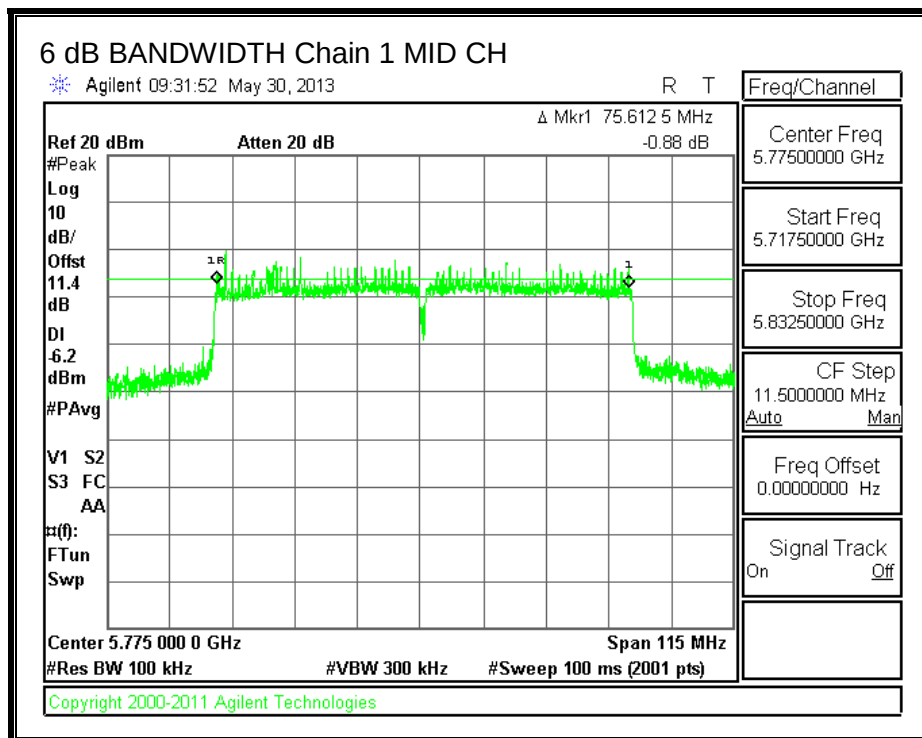
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Mid	5775	75.555	75.613	0.5

6 dB BANDWIDTH, Chain 0



6 dB BANDWIDTH, Chain 1



8.6.2. 99% BANDWIDTH

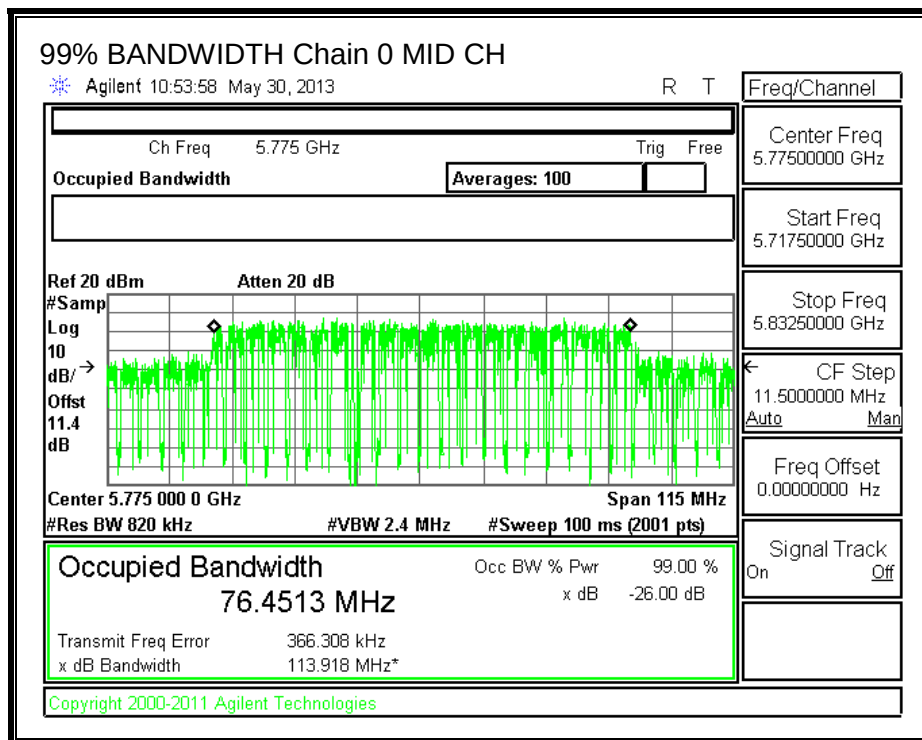
LIMITS

None; for reporting purposes only.

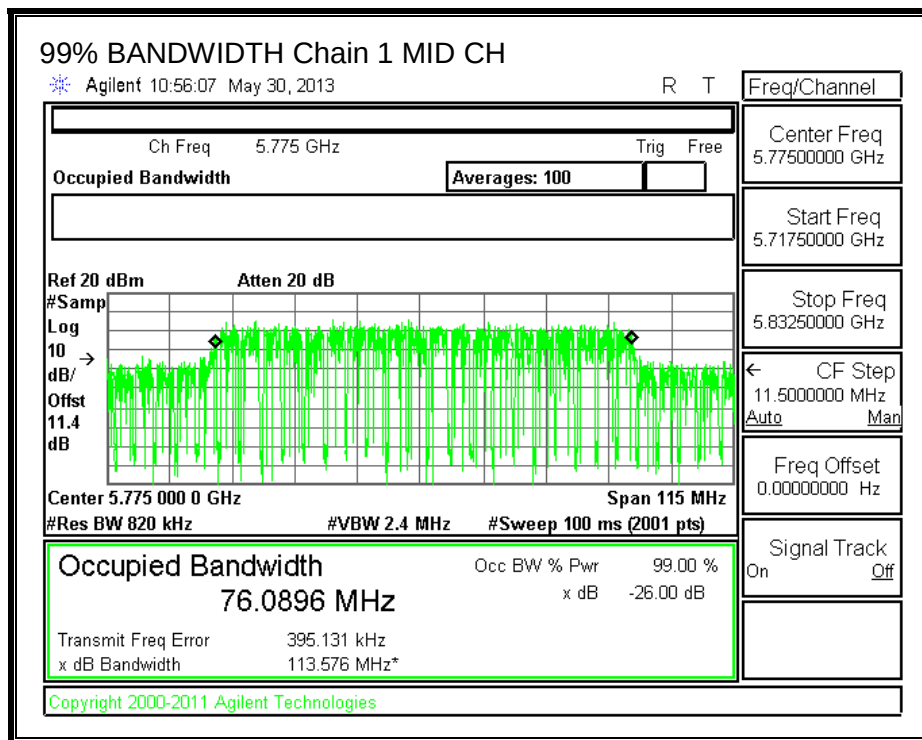
RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Mid	5775	76.4513	76.0896

99% BANDWIDTH, Chain 0



99% BANDWIDTH, Chain 1



8.6.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.40	5.40	5.40

RESULTS

Limits

Channel	Frequency	Directional Gain	FCC Power Limit	IC Power Limit	IC EIRP Limit	Max Power
	(MHz)	(dBi)	(dBm)	(dBm)	(dBm)	(dBm)
Mid	5775	5.40	30.00	30	36	30.00

Results

Channel	Frequency	Chain 0 Meas Power	Chain 1 Meas Power	Total Corr'd Power	Power Limit	Margi
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dB)
Mid	5775	13.88	14.67	17.30	30.00	-12.70

8.6.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

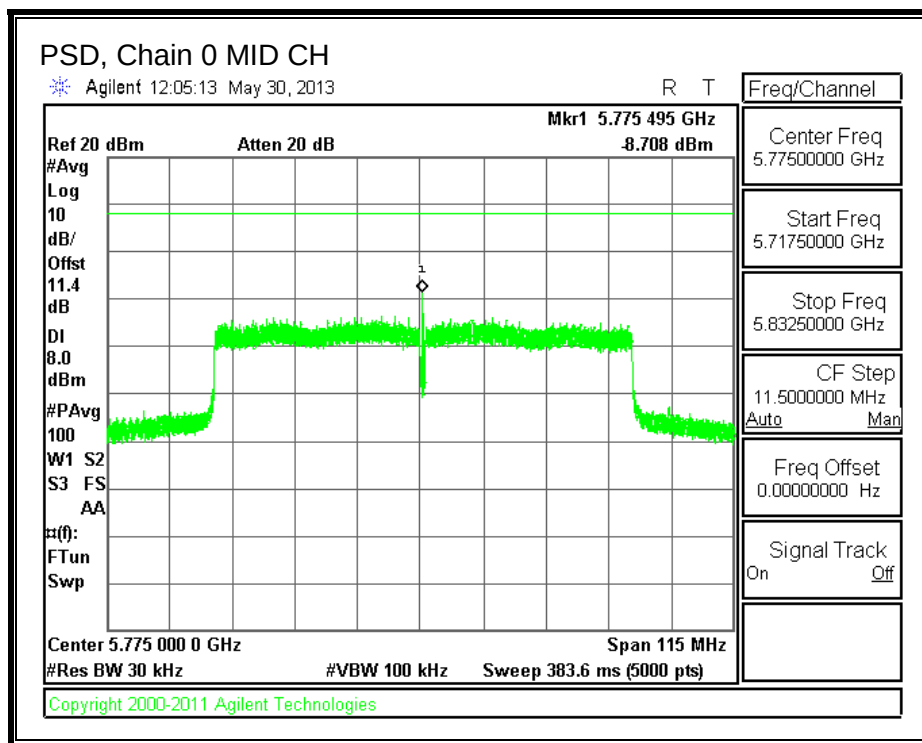
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

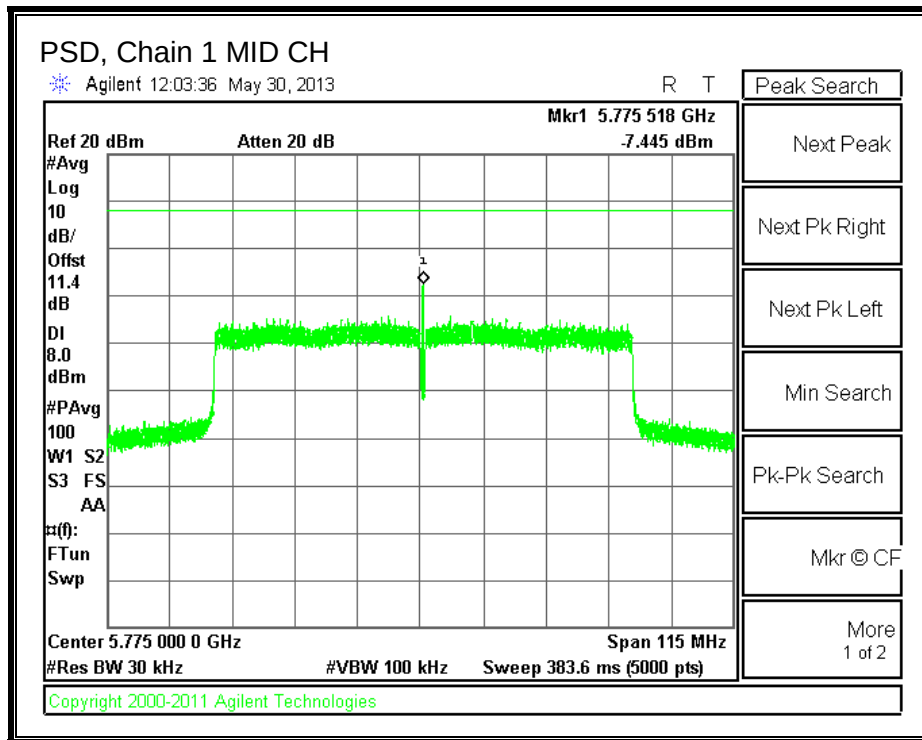
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Mid	5775	-8.708	-7.445	-5.02	8.0	-13.0

PSD, Chain 0



PSD, Chain 1



8.6.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

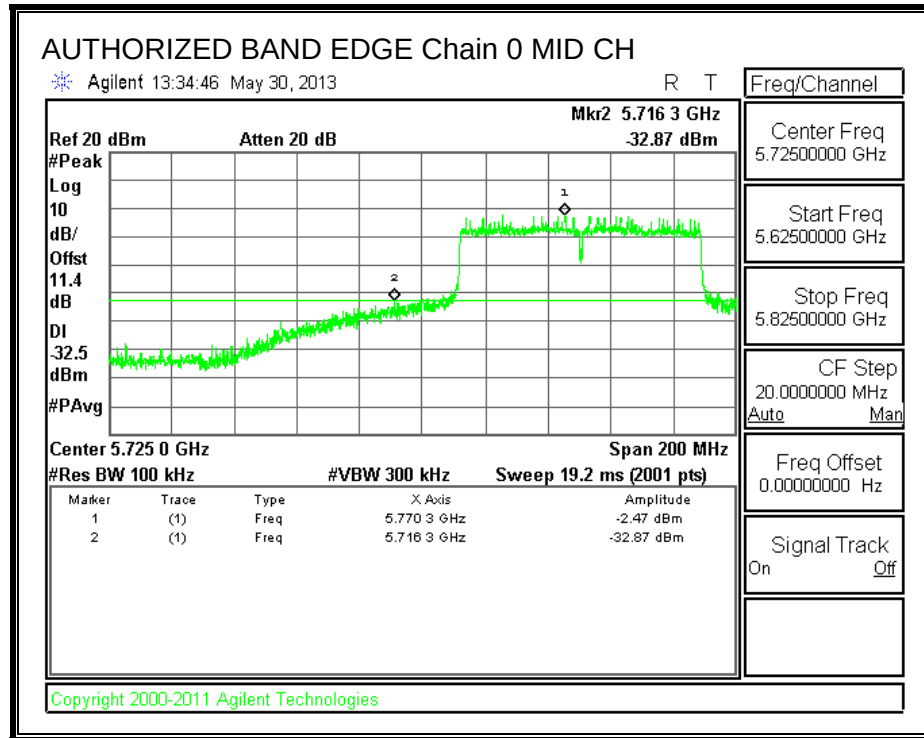
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

TEST PROCEDURE

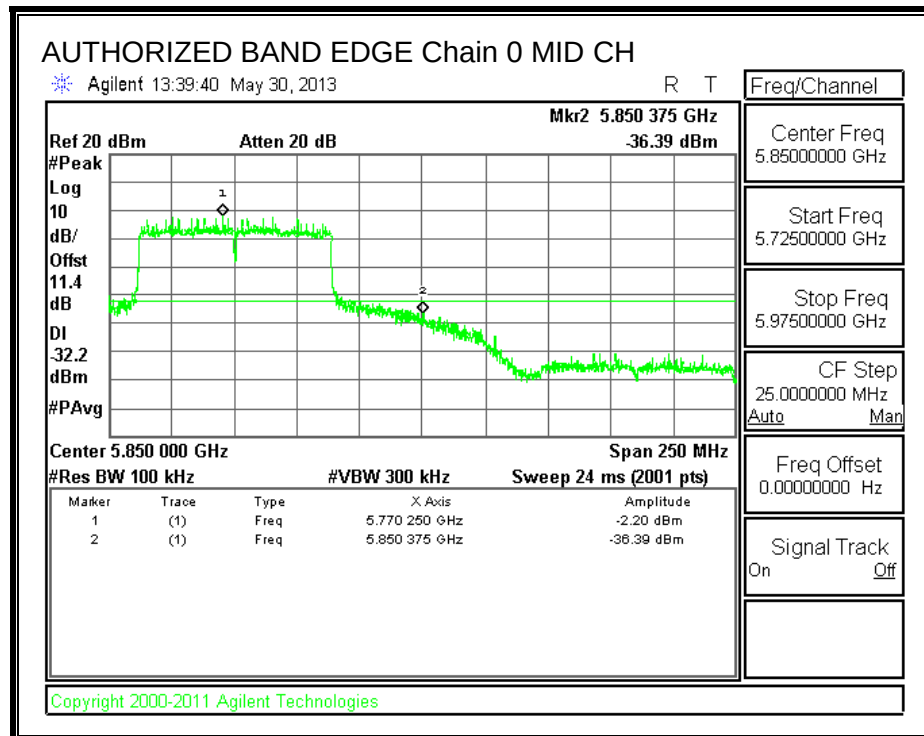
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

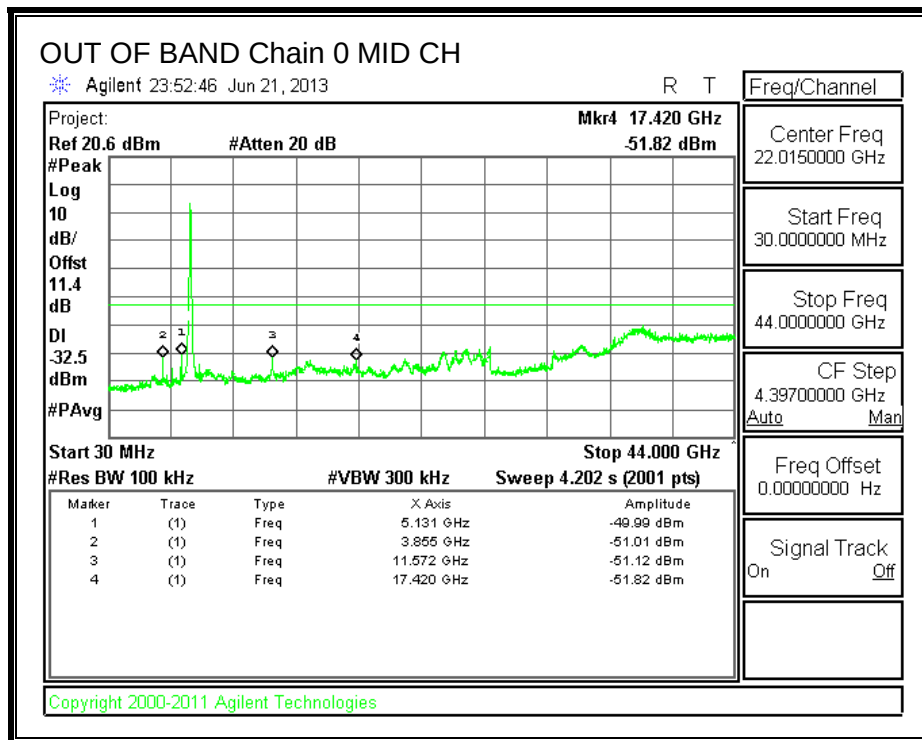
LOW BANDEDGE, Chain 0



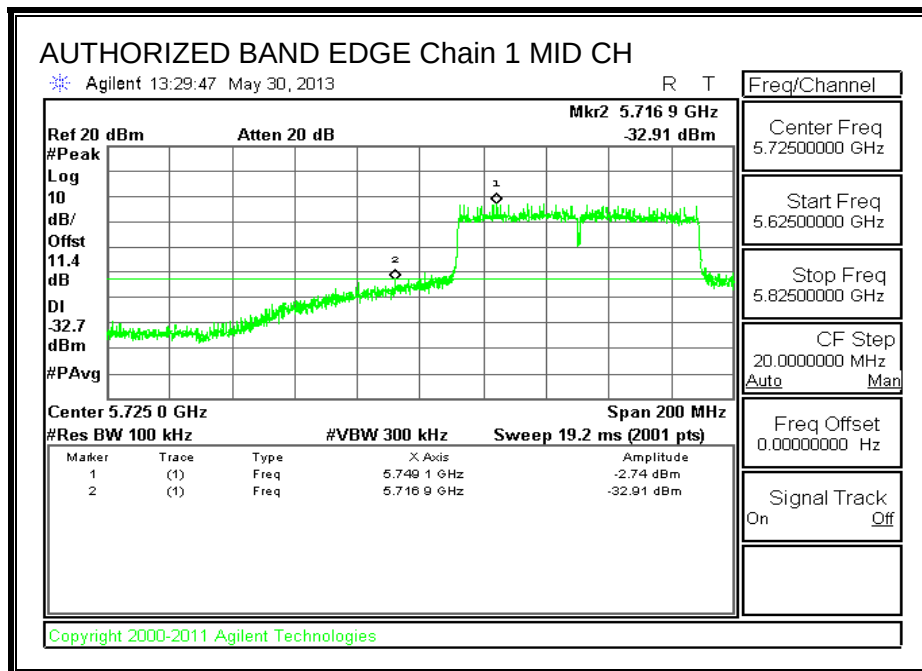
HIGH BANDEDGE, Chain 0



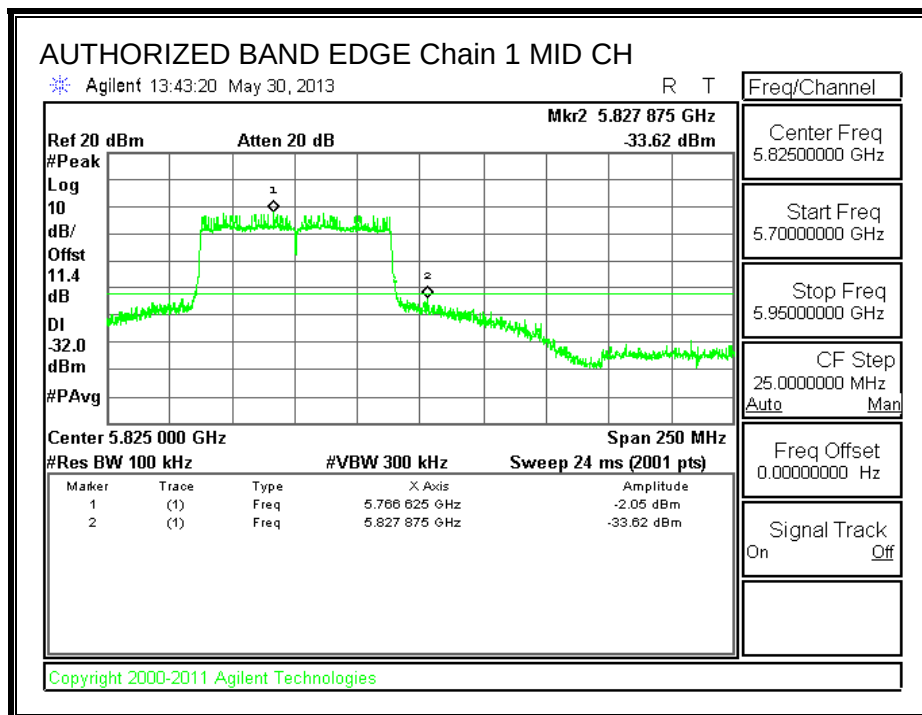
OUT-OF-BAND EMISSIONS, Chain 0

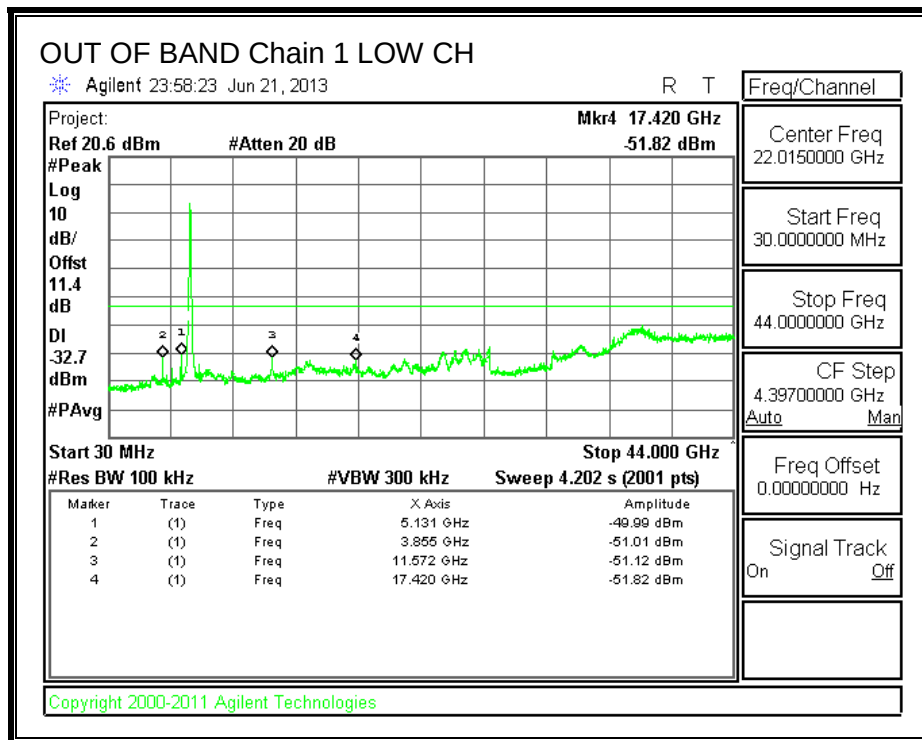


LOW BANDEDGE, Chain 1



HIGH BANDEDGE, Chain 1





9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

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.

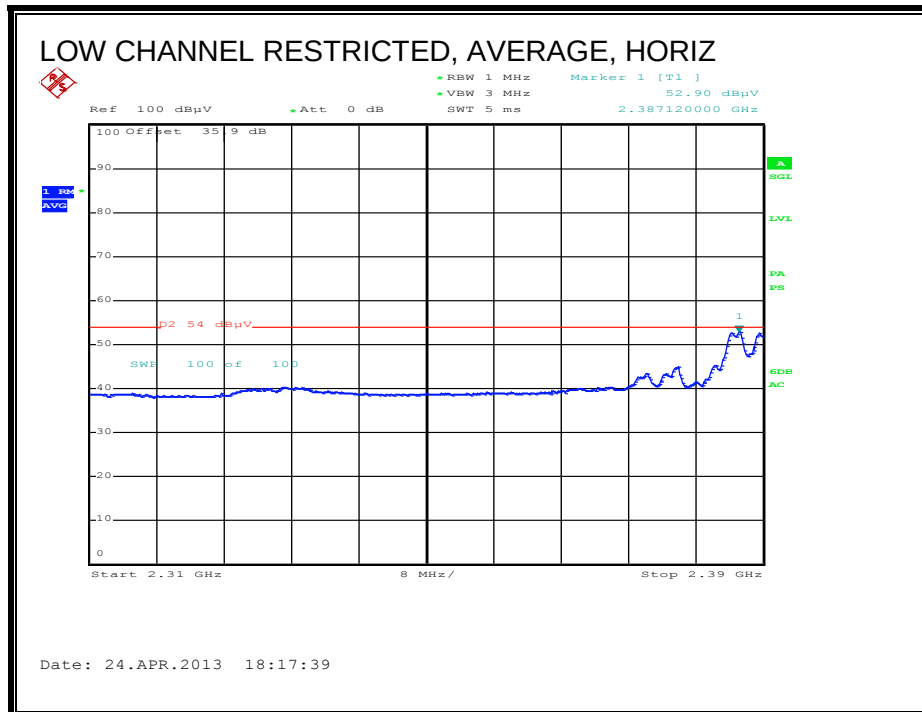
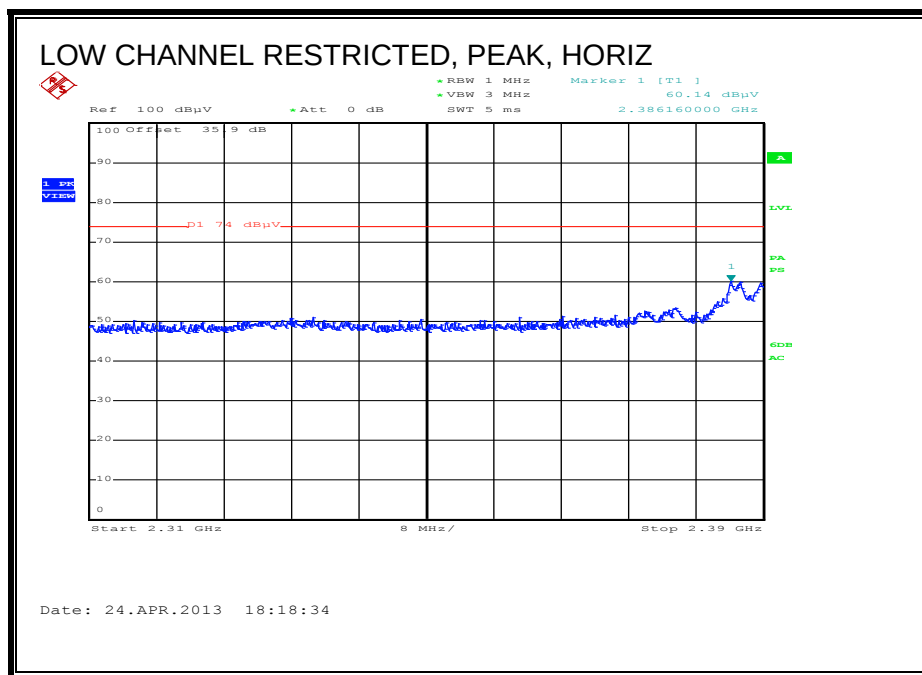
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

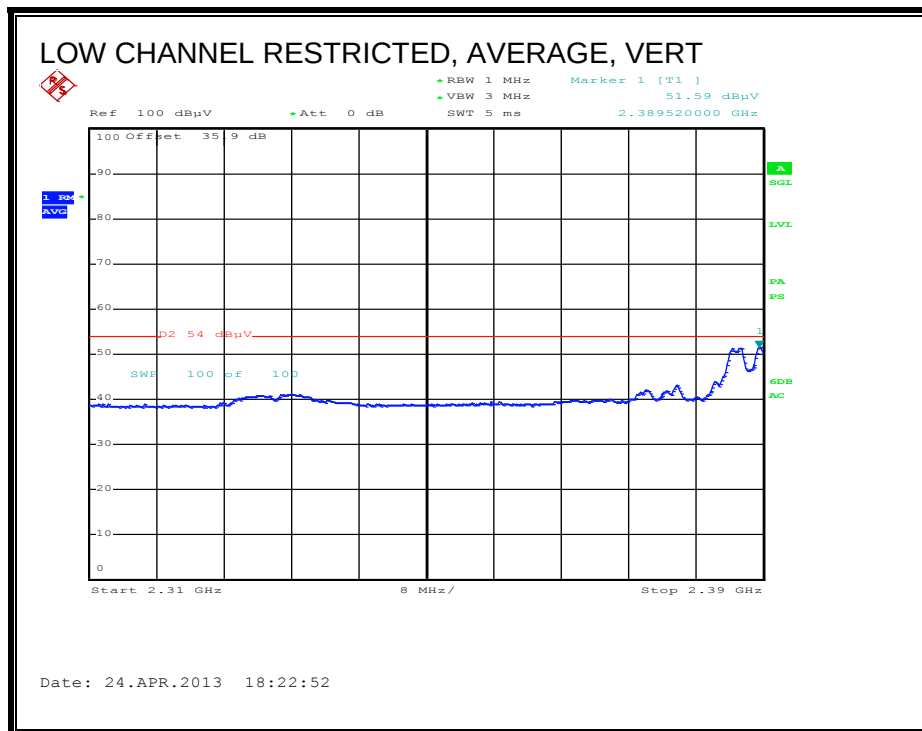
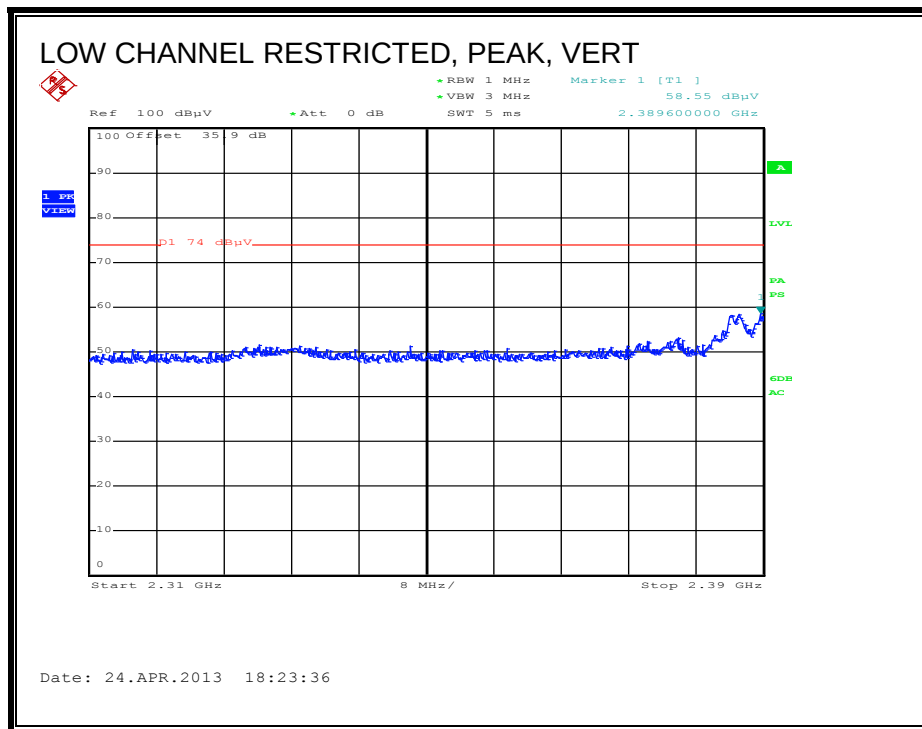
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

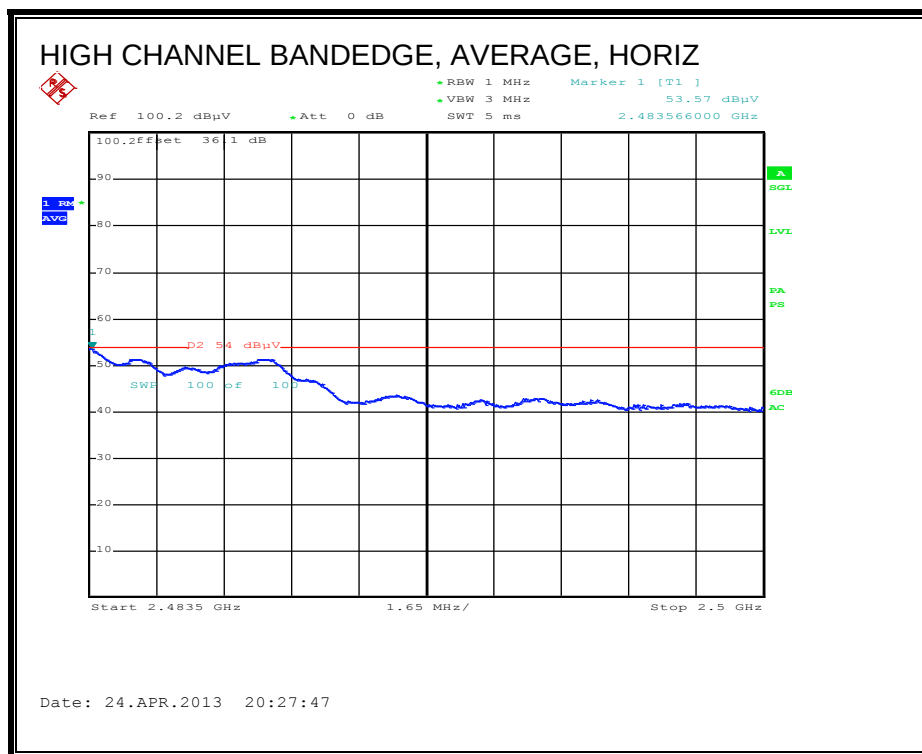
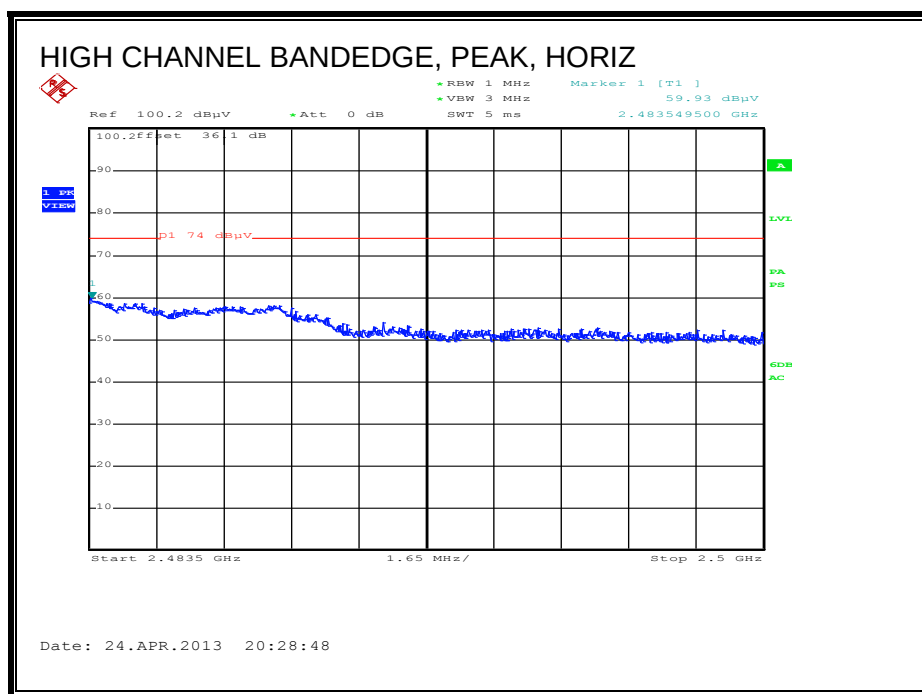
9.2. TX ABOVE 1 GHz 802.11b CDD 2TX MODE, 2.4 GHz BAND

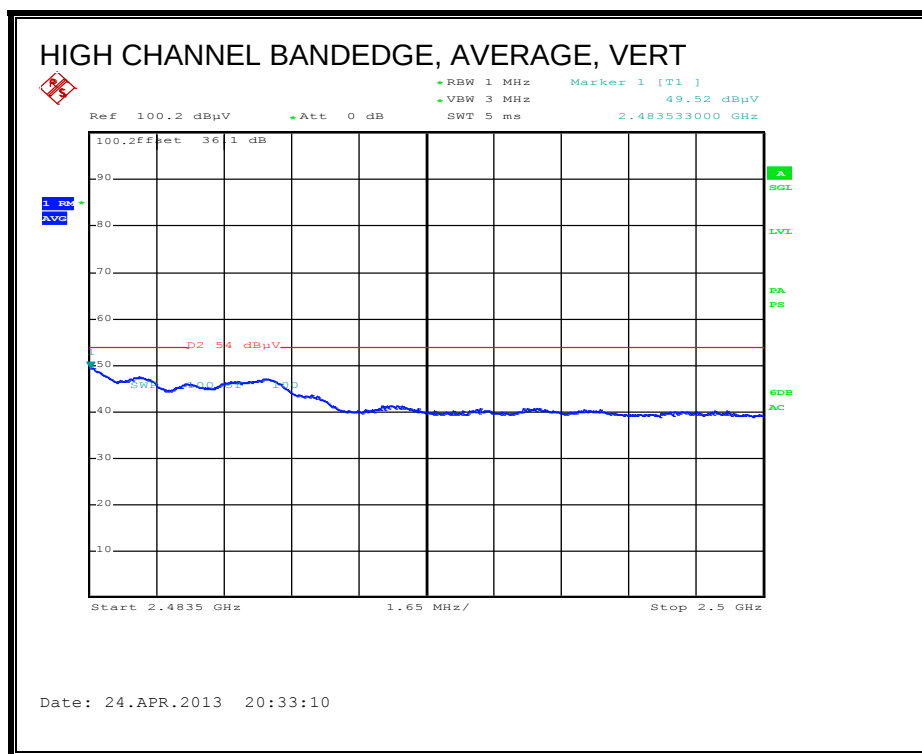
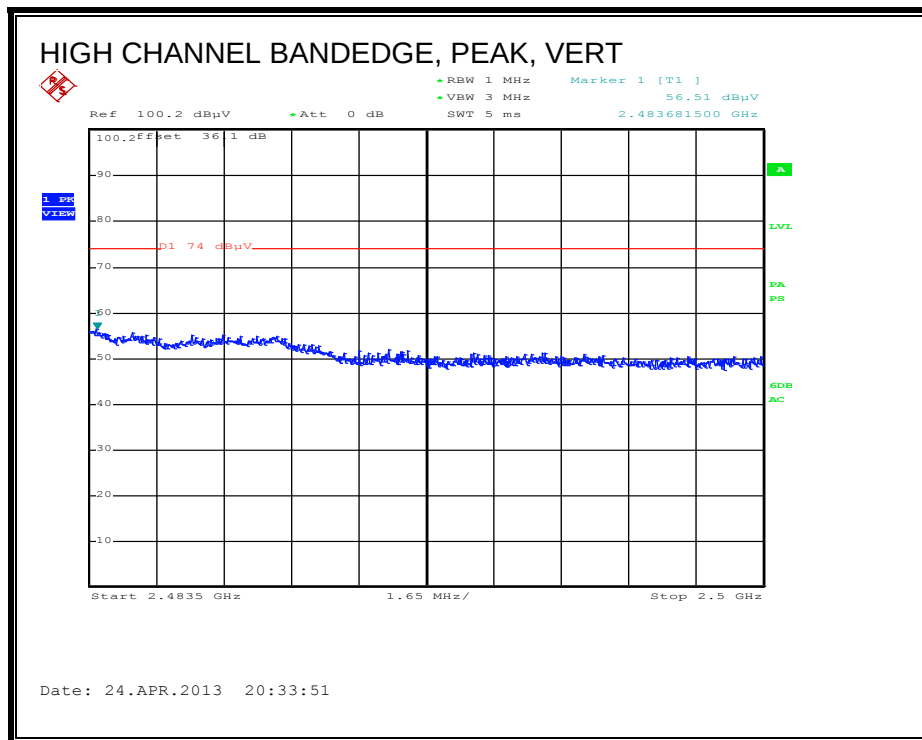
RESTRICTED BANDEDGE (LOW CHANNEL)





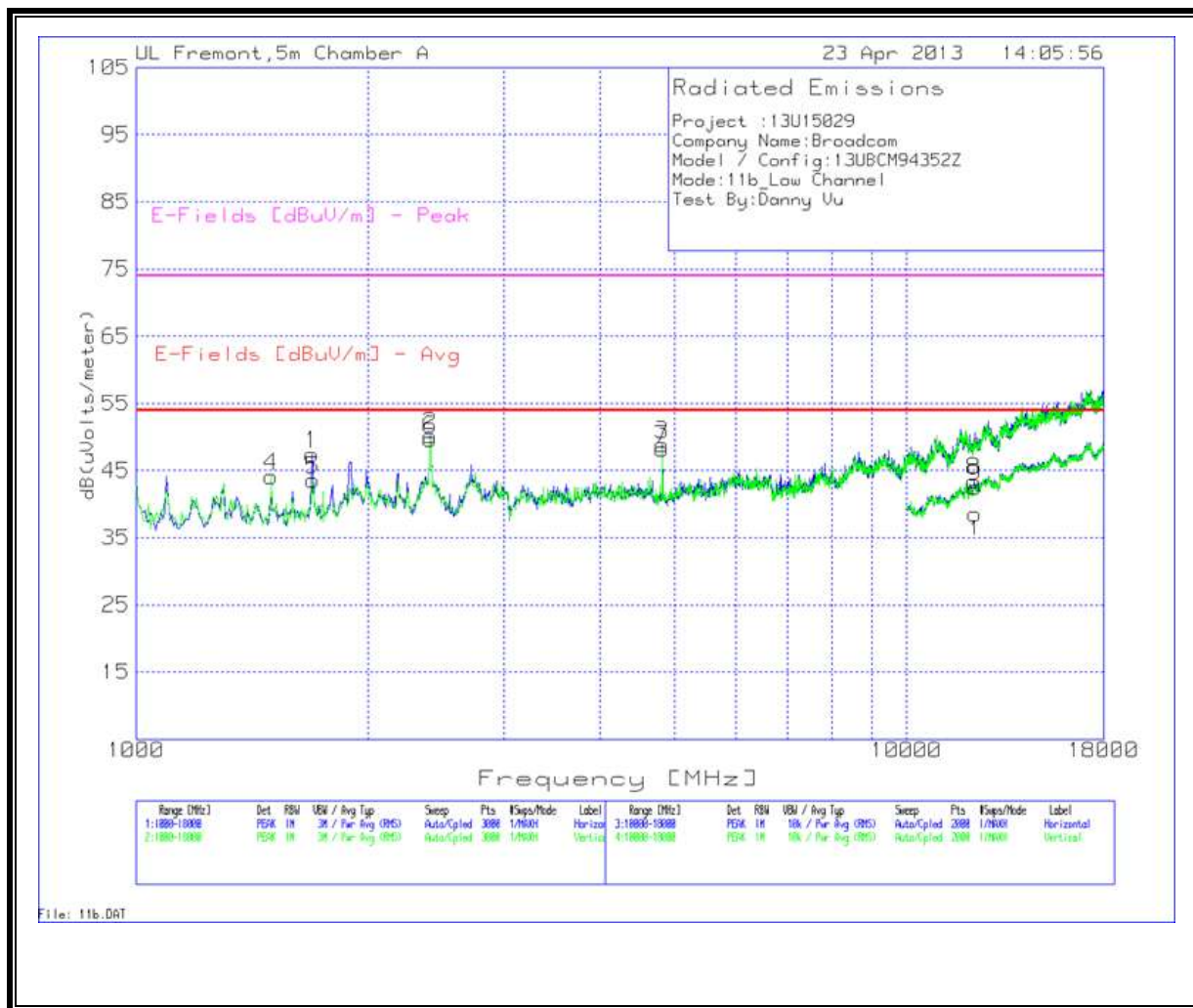
AUTHORIZED BANDEDGE (HIGH CHANNEL)





HARMONICS AND SPURIOUS EMISSIONS

Low Channel



Horizontal 1000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
1	1690.873	51.21	PK	29.3	-37.5	3.7	0.7	47.41	53.97	-6.56	74	-26.59	100	Horz
2*	2410.06	49.65	PK	32.2	-36.9	4.4	0.9	50.25	-	-	-	-	200	Horz
3	4822.452	43.78	PK	33.9	-35.7	6.7	0.2	48.88	53.97	-5.09	74	-25.12	100	Horz
4*	8667.555	37.87	PK	35.8	-36	9.6	0.4	47.67	-	-	-	-	100	Horz
5	9477.348	37.01	PK	36.6	-36.2	10.1	0.5	48.01	53.97	-5.96	74	-25.99	200	Horz

Vertical 1000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
6	1696.536	47.29	PK	29.4	-37.5	3.7	0.7	43.59	53.97	-10.38	74	-30.41	100	Vert
7*	2410.06	49.13	PK	32.2	-36.9	4.4	0.9	49.73	-	-	-	-	200	Vert
8	4822.452	43.12	PK	33.9	-35.7	6.7	0.2	48.22	53.97	-5.75	74	-25.78	100	Vert
9*	7178.215	35.84	PK	35.4	-35.7	8.6	0.3	44.44	-	-	-	-	200	Vert
10*	8554.297	37.4	PK	35.7	-36	9.5	0.4	47	-	-	-	-	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
11	10723.638	27.45	PK	37.9	-35.8	10.8	0.7	41.05	53.97	-12.92	74	-32.95	200	Horz

Vertical 10000 - 18000MHz

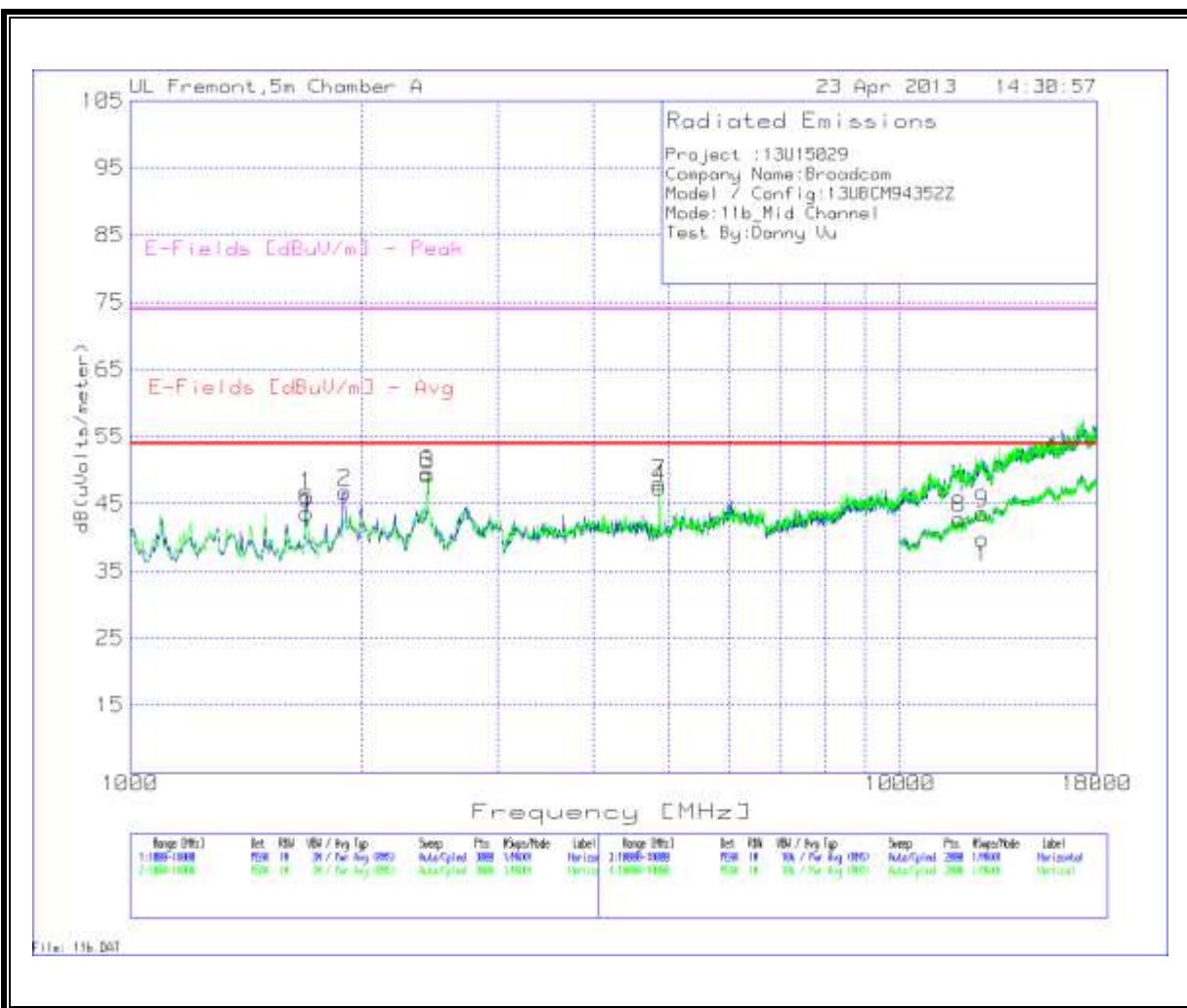
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
12	12134.933	26.68	PK	38.9	-35.5	11.5	0.5	42.08	53.97	-11.89	74	-31.92	200	Vert

PK - Peak detector

* - Notes a frequency in an unrestricted band.

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

Mid Channel



Horizontal 1000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
1	1696.536	49.9	PK	29.4	-37.5	3.7	0.7	46.2	53.97	-7.77	74	-27.8	100	Horz
2*	1900.4	47.41	PK	31.7	-37.2	3.9	0.9	46.71	-	-	-	-	100	Horz
3*	2435.543	48.45	PK	32.3	-36.9	4.5	0.9	49.25	-	-	-	-	200	Horz
4	4873.418	42.16	PK	34	-35.7	6.8	0.2	47.46	53.97	-6.51	74	-26.54	200	Horz

Vertical 1000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
5	1696.536	47.25	PK	29.4	-37.5	3.7	0.7	43.55	53.97	-10.42	74	-30.45	100	Vert
*6	2432.712	48.81	PK	32.3	-36.9	4.5	0.9	49.61	-	-	-	-	200	Vert
7	4873.418	42.84	PK	34	-35.7	6.8	0.2	48.14	53.97	-5.83	74	-25.86	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
8	11931.034	27.66	PK	38.7	-35.7	11.4	0.7	42.76	53.97	-11.21	74	-31.24	100	Horz

Vertical 10000 - 18000MHz

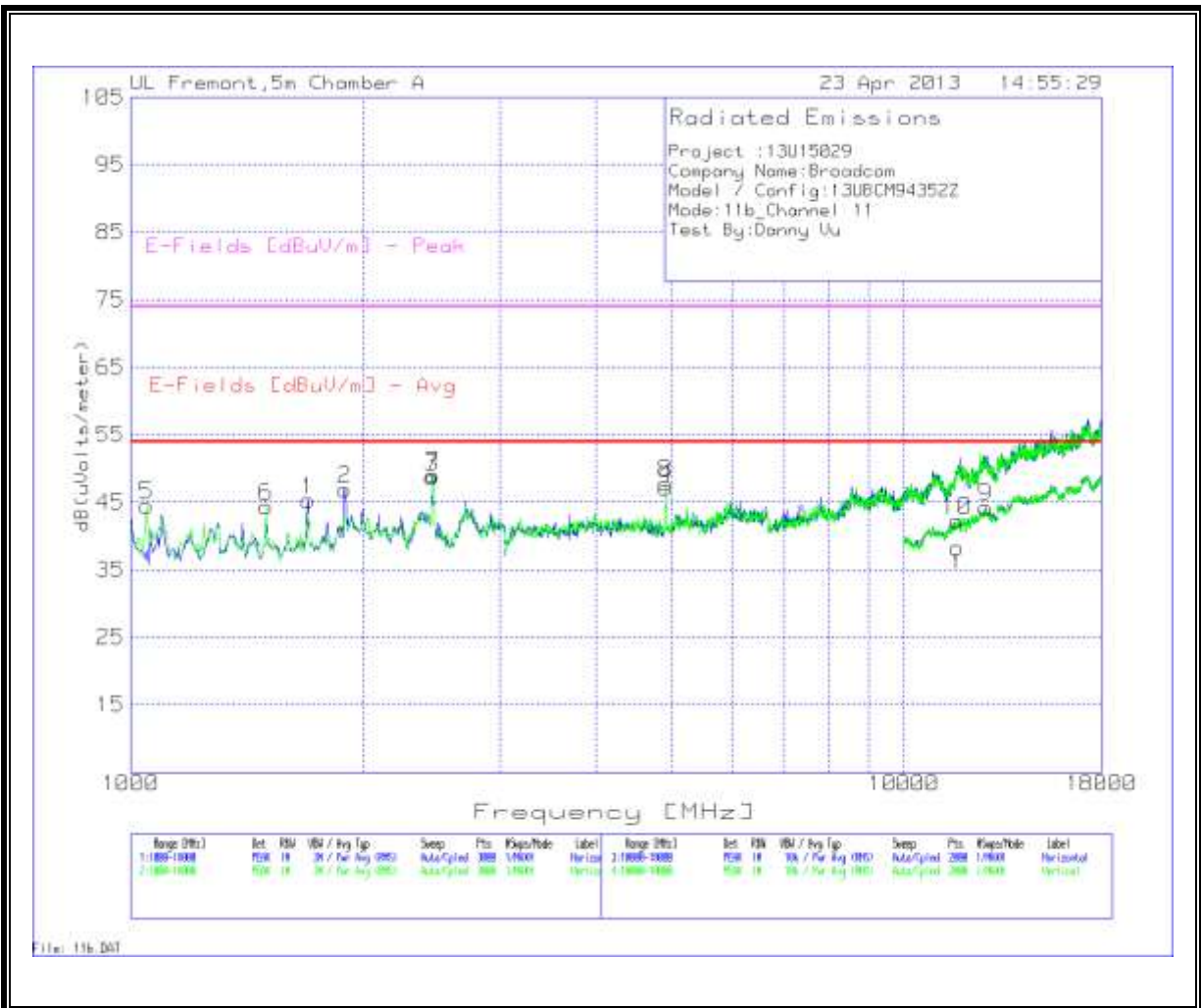
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
9*	12782.609	26.85	PK	39.1	-34.5	11.8	0.4	43.65	-	-	-	-	200	Vert

PK - Peak detector

* - Notes a frequency in an unrestricted band.

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

High Channel



Horizontal 1000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRG [dB]	dB(μVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
1	1696.536	48.95	PK	29.4	-37.5	3.7	0.7	45.25	53.97	-8.72	74	-28.75	100	Horz
2*	1894.737	47.78	PK	31.6	-37.2	3.9	0.8	46.88	-	-	-	-	200	Horz
3*	2455.363	47.81	PK	32.4	-36.8	4.5	0.9	48.81	-	-	-	-	200	Horz
4	4924.384	41.89	PK	34	-35.7	6.8	0.2	47.19	53.97	-6.78	74	-26.81	100	Horz

Vertical 1000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRG [dB]	dB(μVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
5	1050.966	51.97	PK	28	-38.8	3.1	0.3	44.57	53.97	-9.4	74	-29.43	200	Vert
6*	1498.334	49.27	PK	28.9	-37.8	3.5	0.5	44.37	-	-	-	-	100	Vert
7*	2461.026	47.99	PK	32.4	-36.8	4.5	0.9	48.99	-	-	-	-	200	Vert
8	4918.721	42.56	PK	34	-35.7	6.8	0.2	47.86	53.97	-6.11	74	-26.14	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRG [dB]	dB(μVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
9*	12758.621	27.41	PK	39.1	-34.5	11.8	0.4	44.21	-	-	-	-	100	Horz

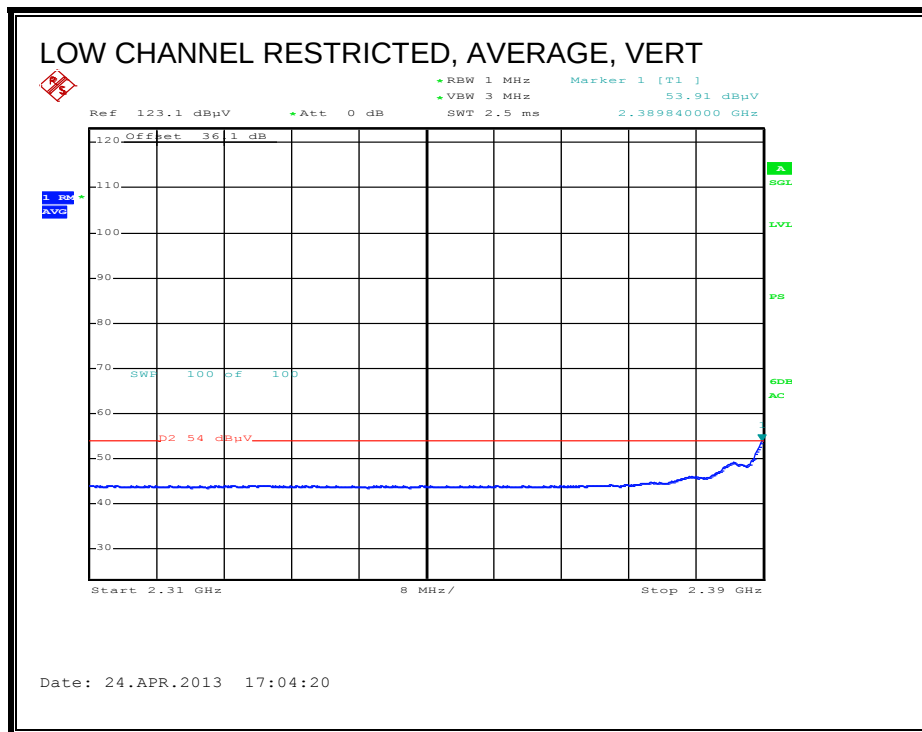
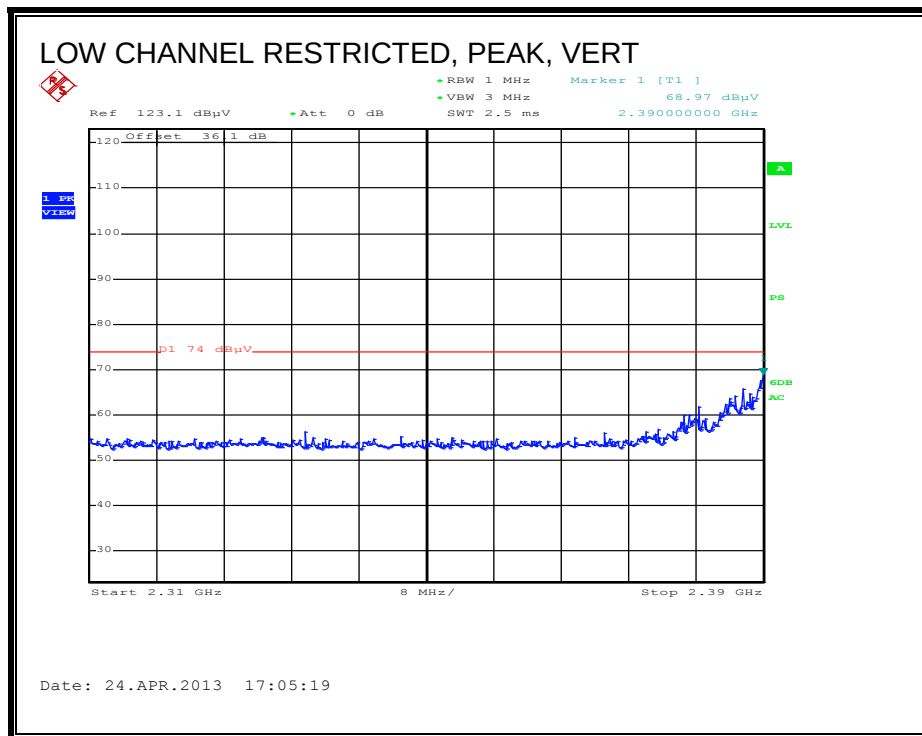
Vertical 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRG [dB]	dB(μVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
10	11719.14	27.34	PK	38.5	-35.6	11.3	0.7	42.24	53.97	-11.73	74	-31.76	200	Vert

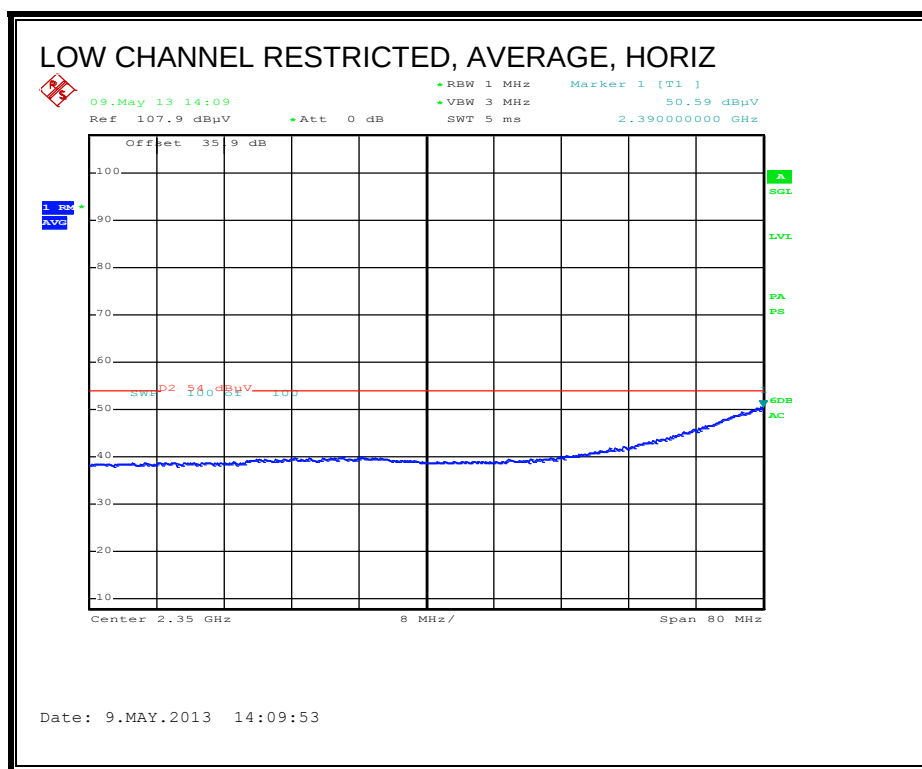
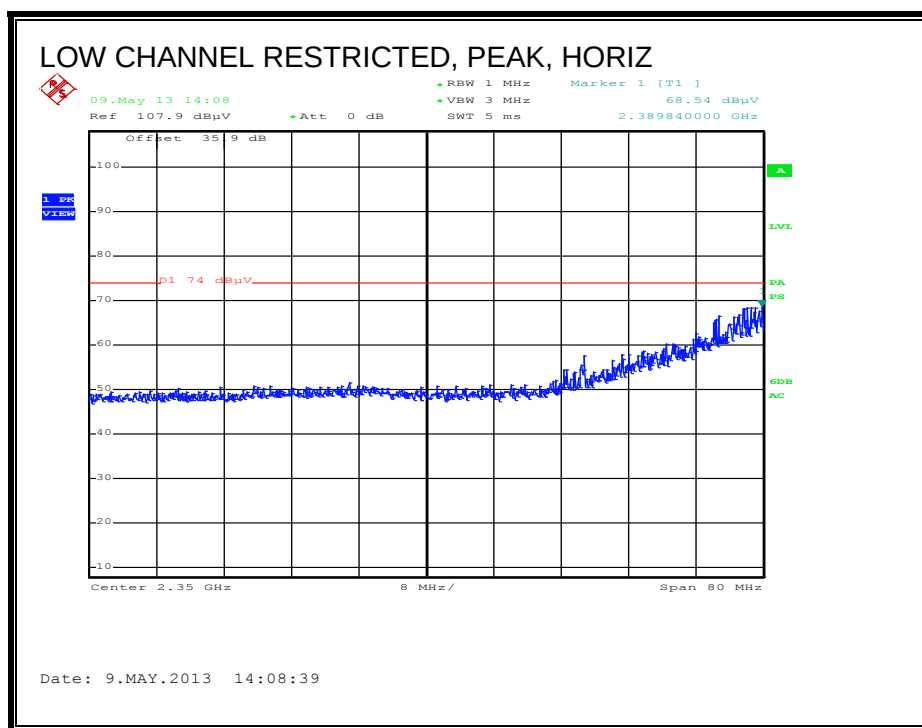
PK - Peak detector

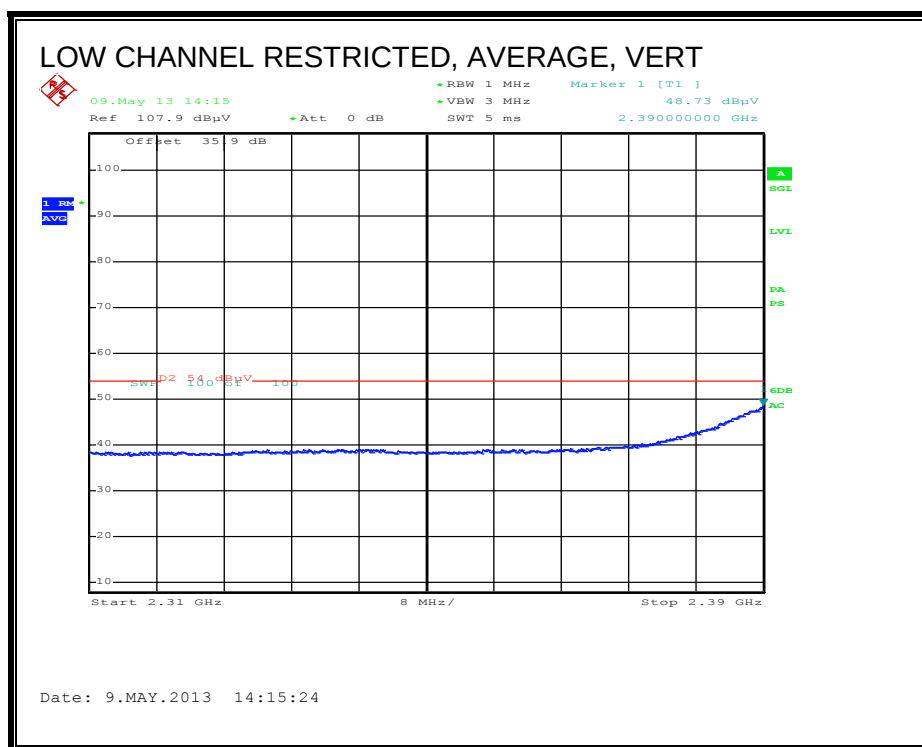
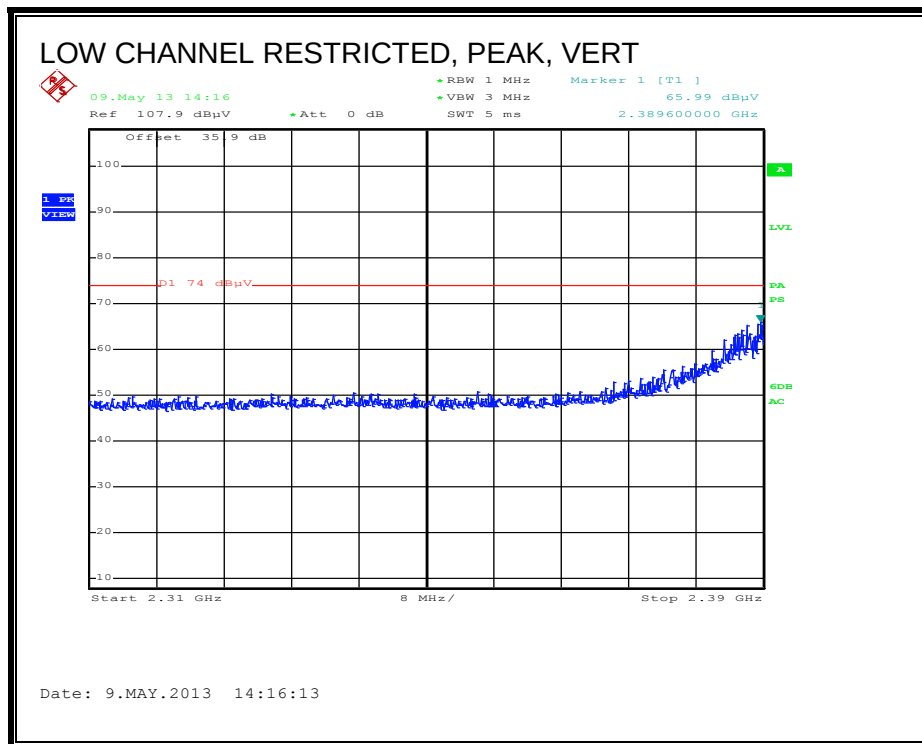
* - Notes a frequency in an unrestricted band.

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

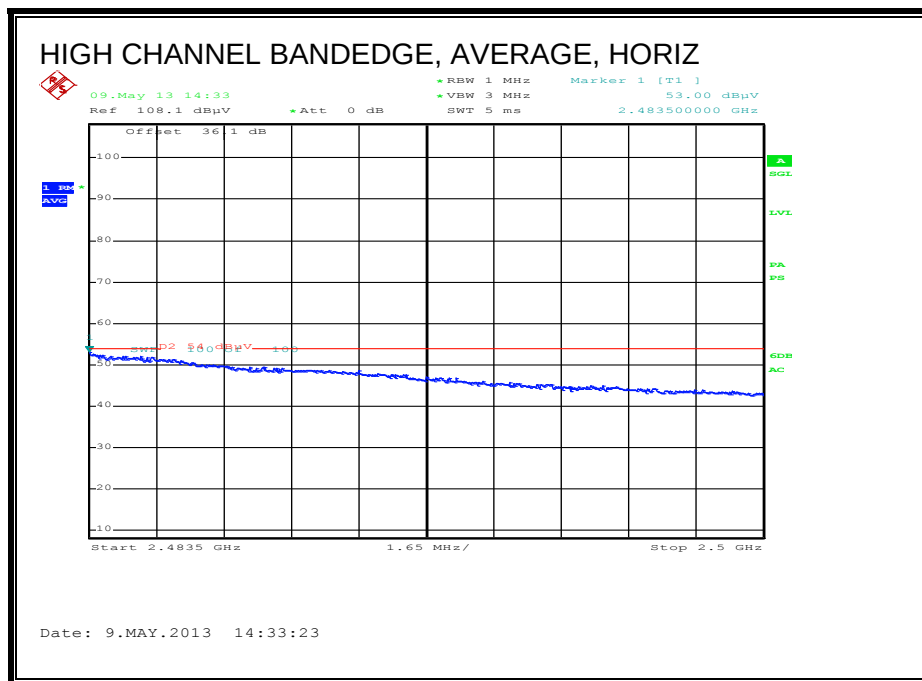
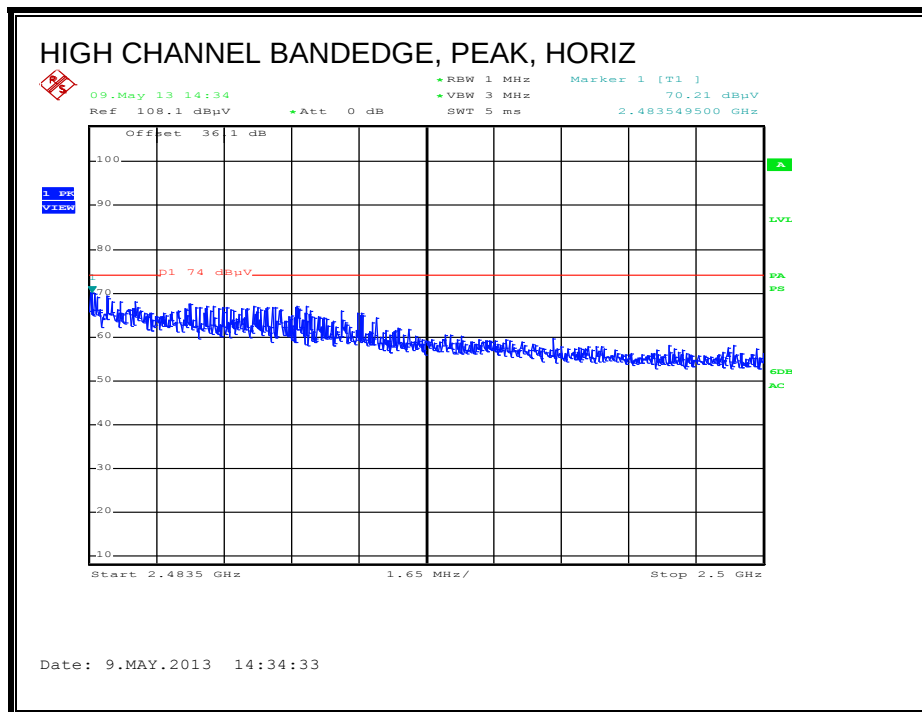


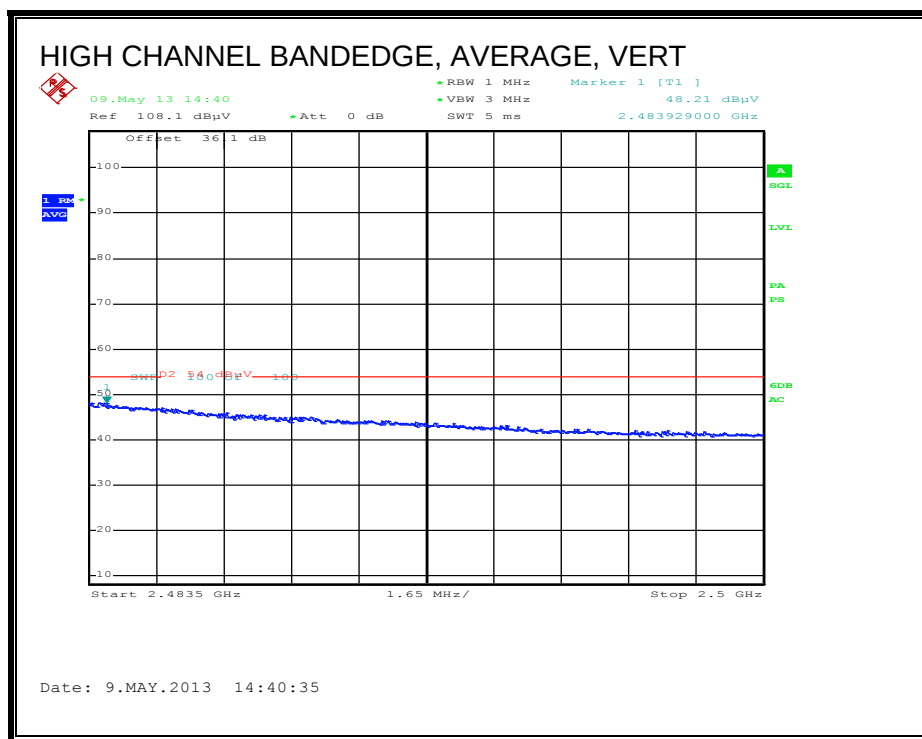
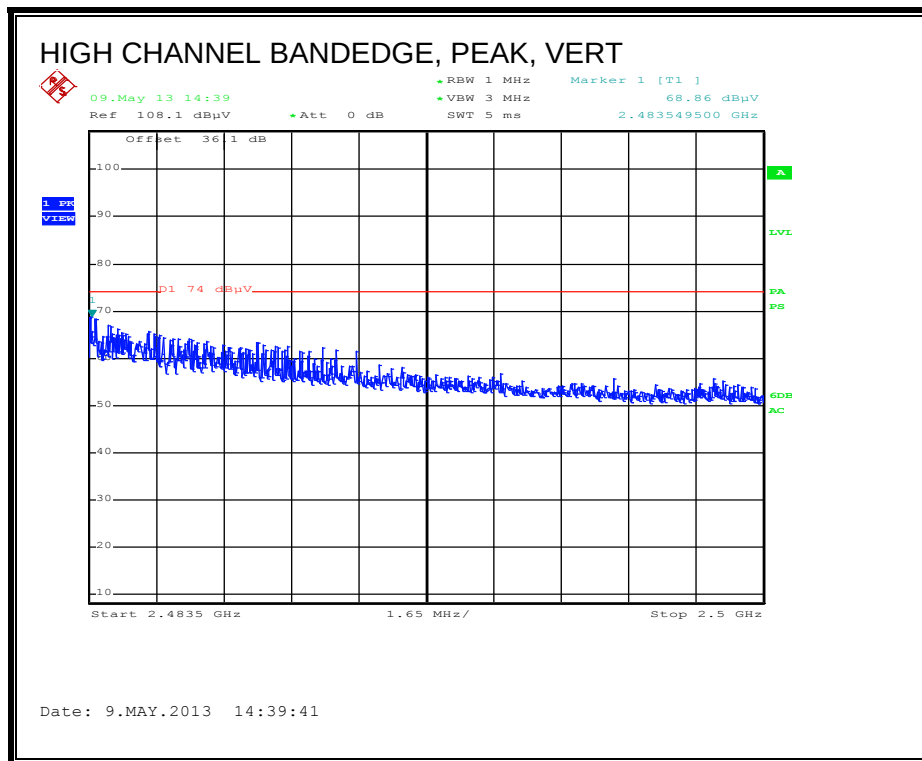
RESTRICTED BANDEDGE (LOW CHANNEL 2)



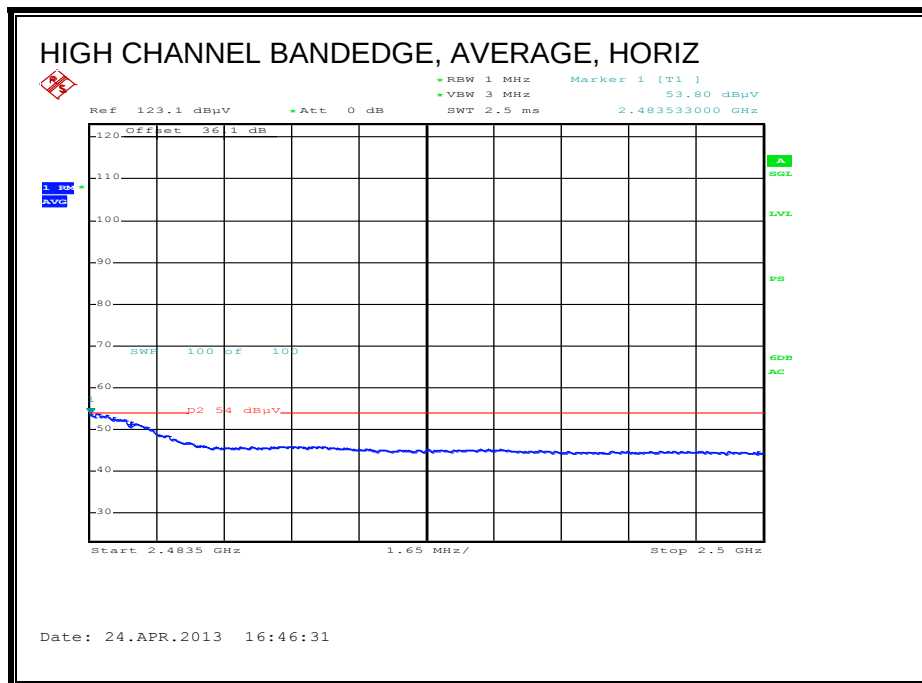
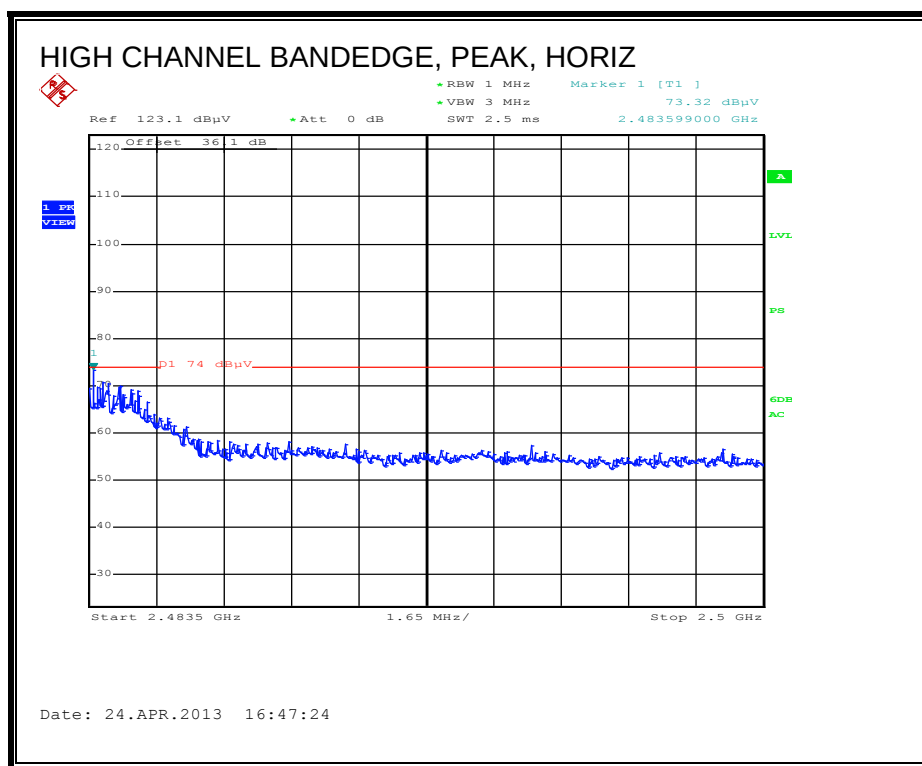


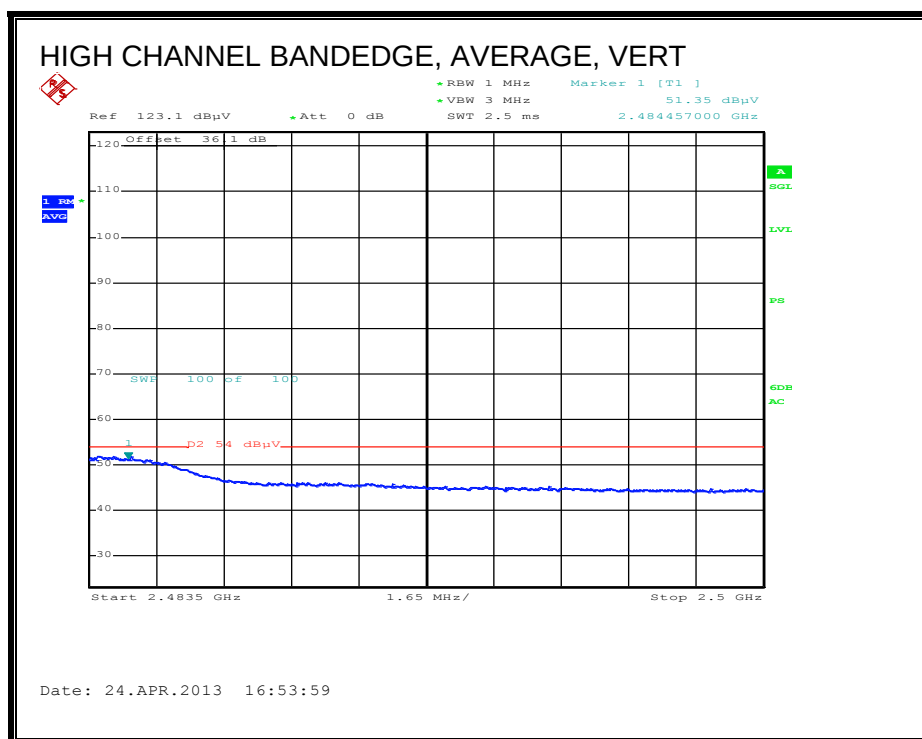
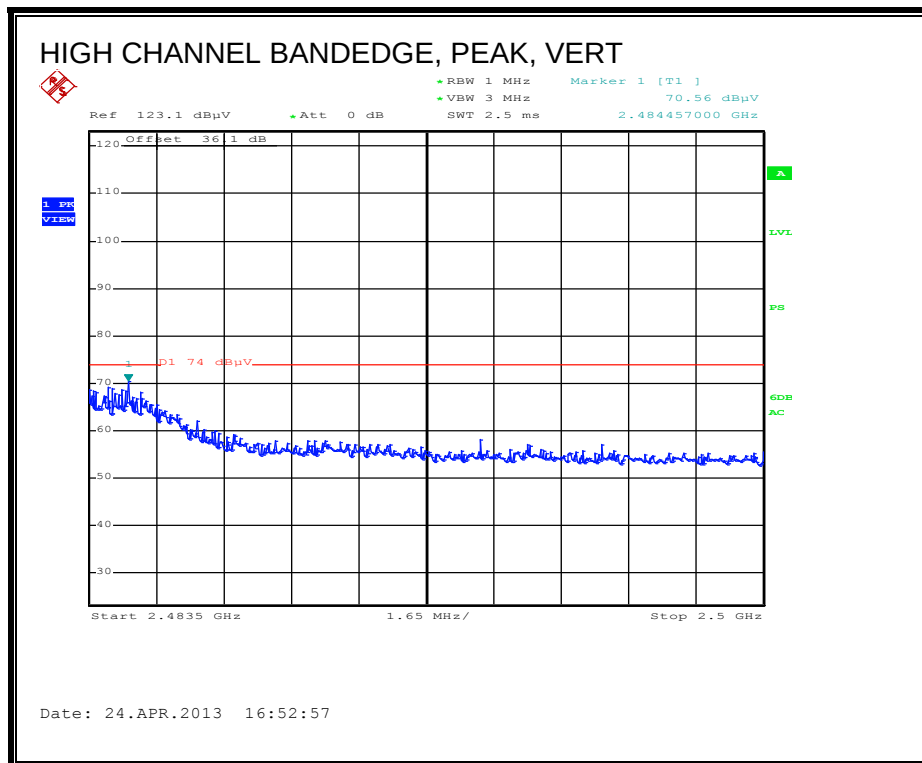
AUTHORIZED BANDEDGE (HIGH CHANNEL 10)





AUTHORIZED BANDEDGE (HIGH CHANNEL 11)



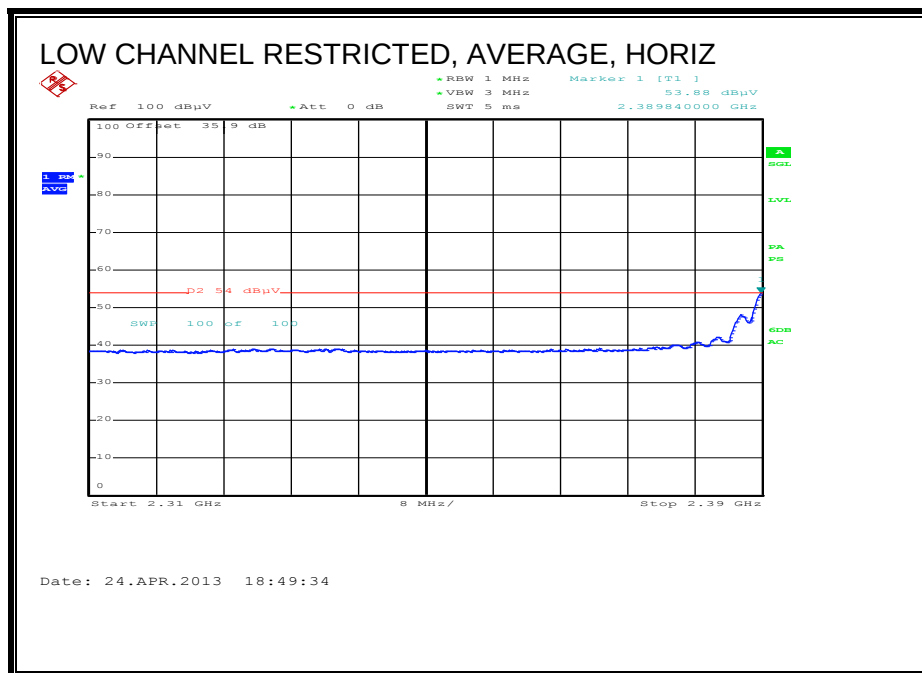
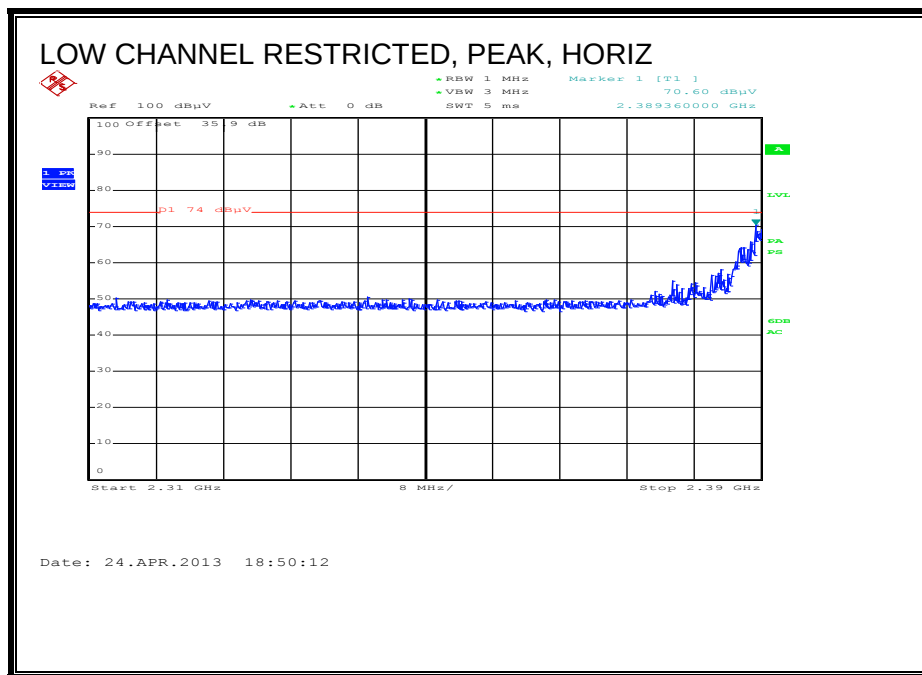


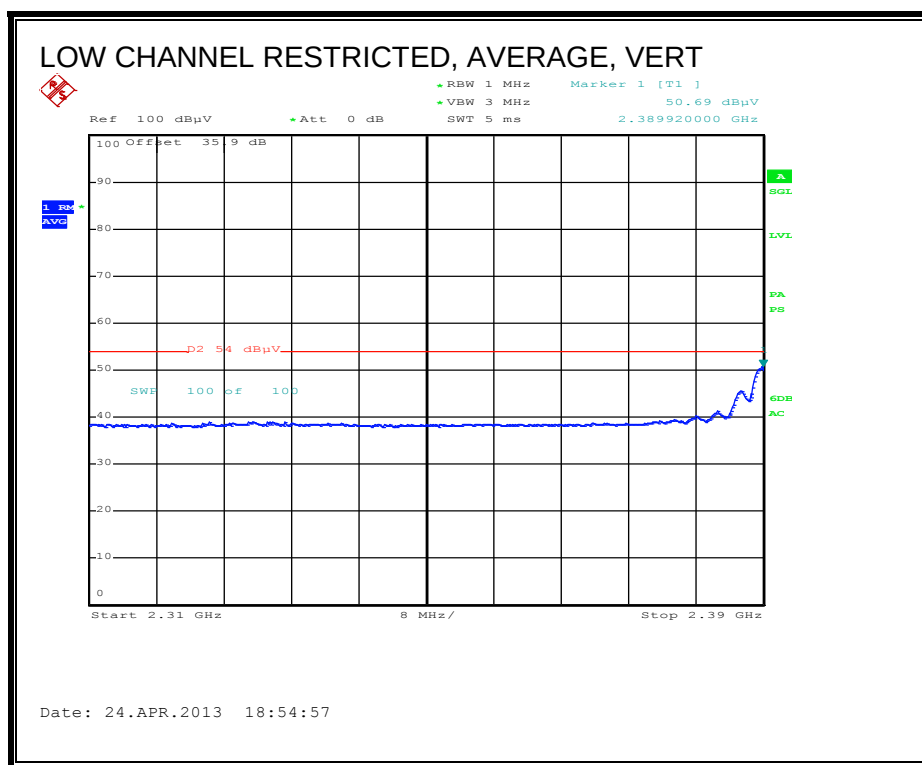
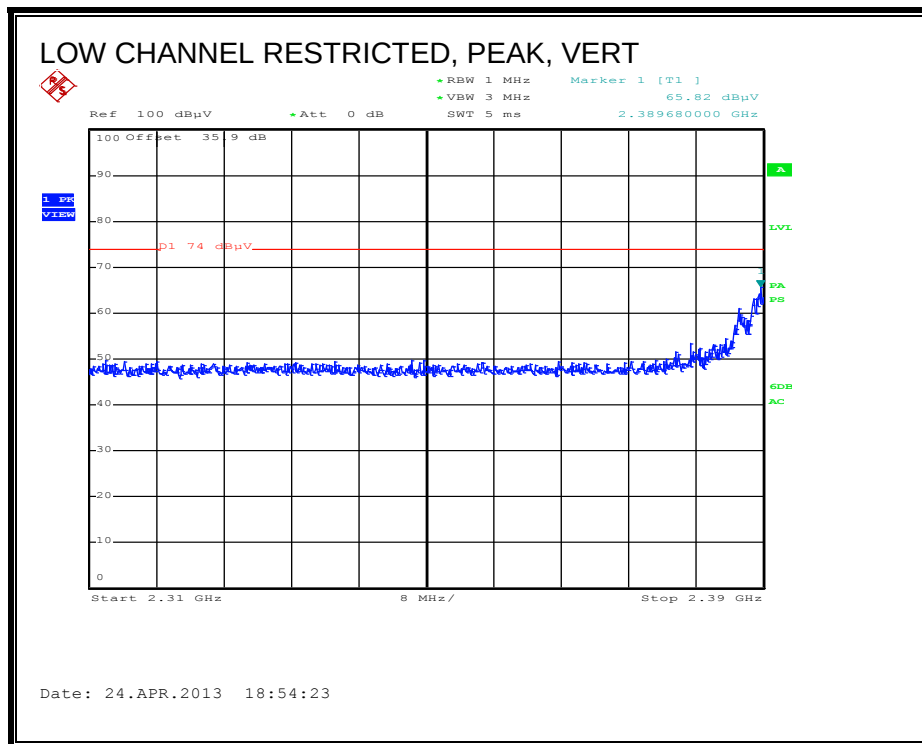
HARMONICS AND SPURIOUS EMISSIONS

Covered by worst case testing to 802.11n HT20 CDD 2TX mode at power levels, per transmit chain, greater than or equal to the maximum power in any 1TX mode.

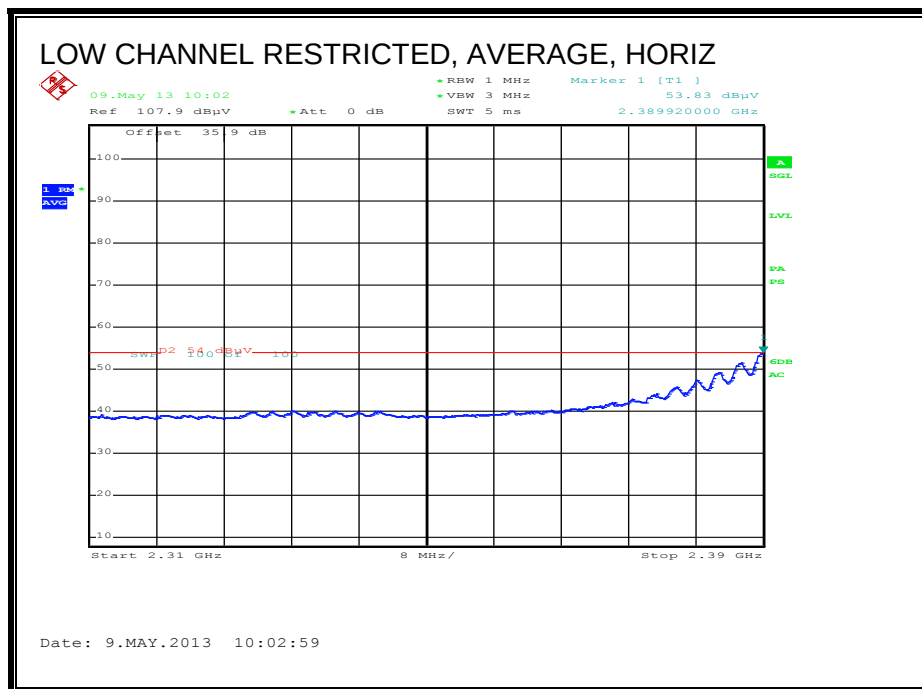
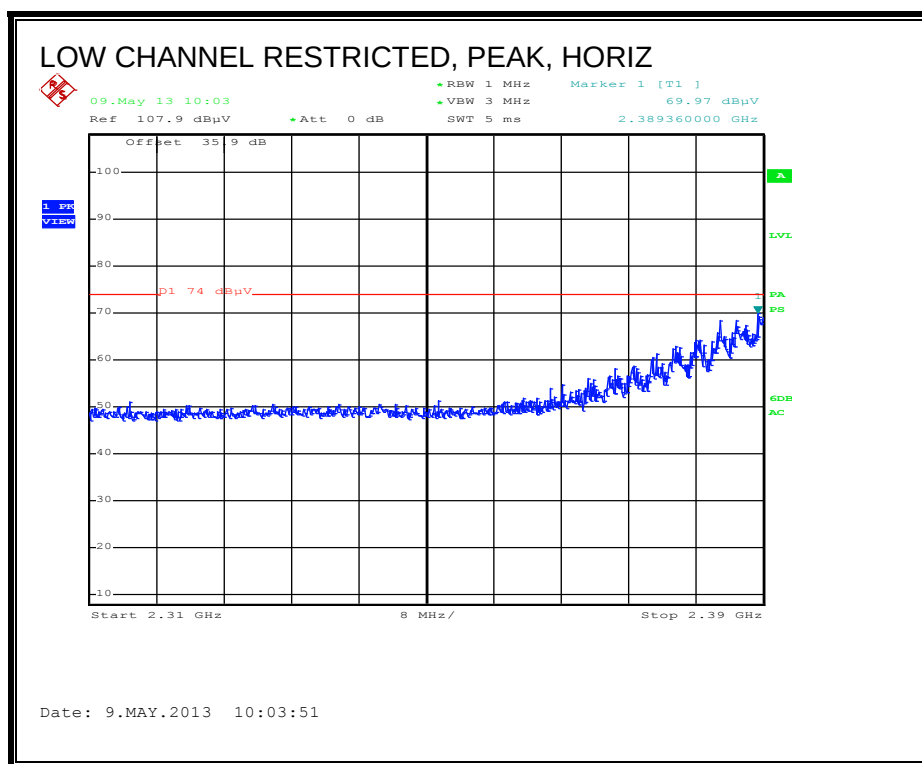
9.4. TX ABOVE 1 GHz 802.11n HT20 CDD 2TX MODE, 2.4 GHz BAND

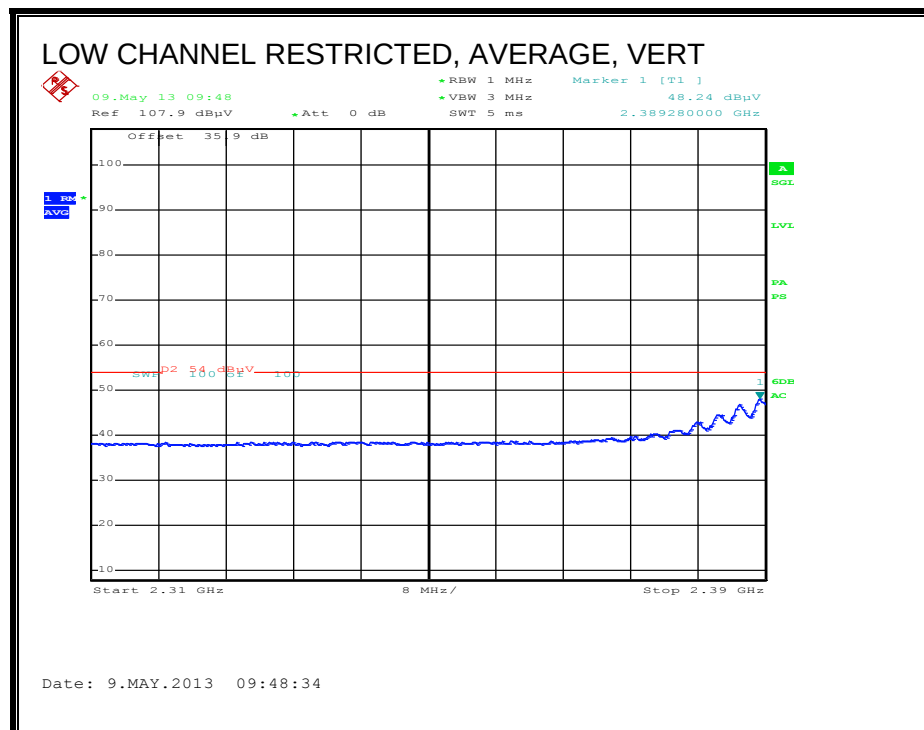
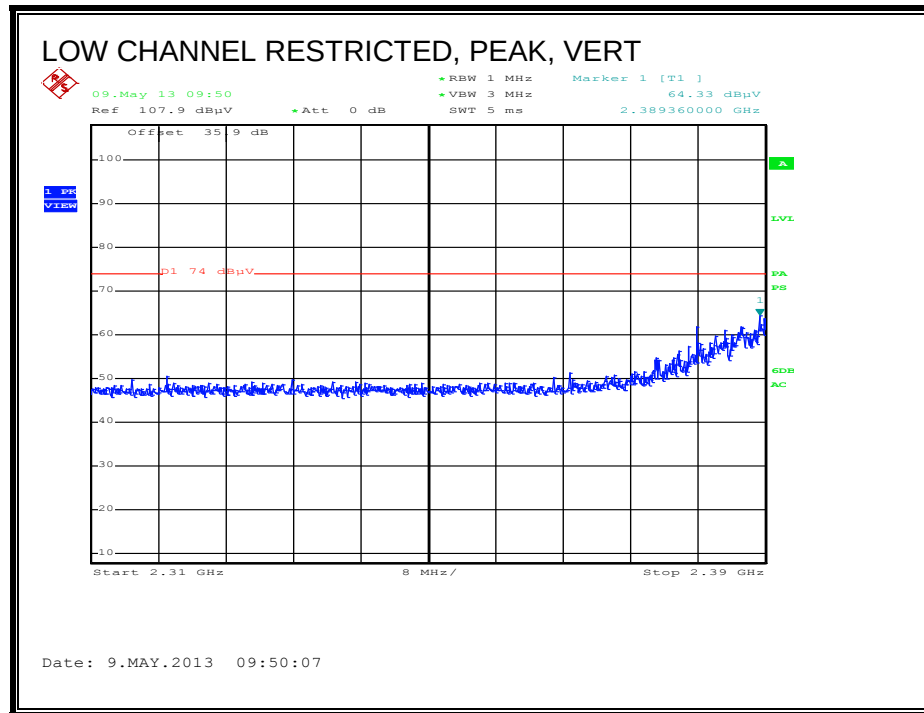
RESTRICTED BANDEDGE (LOW CHANNEL 1)



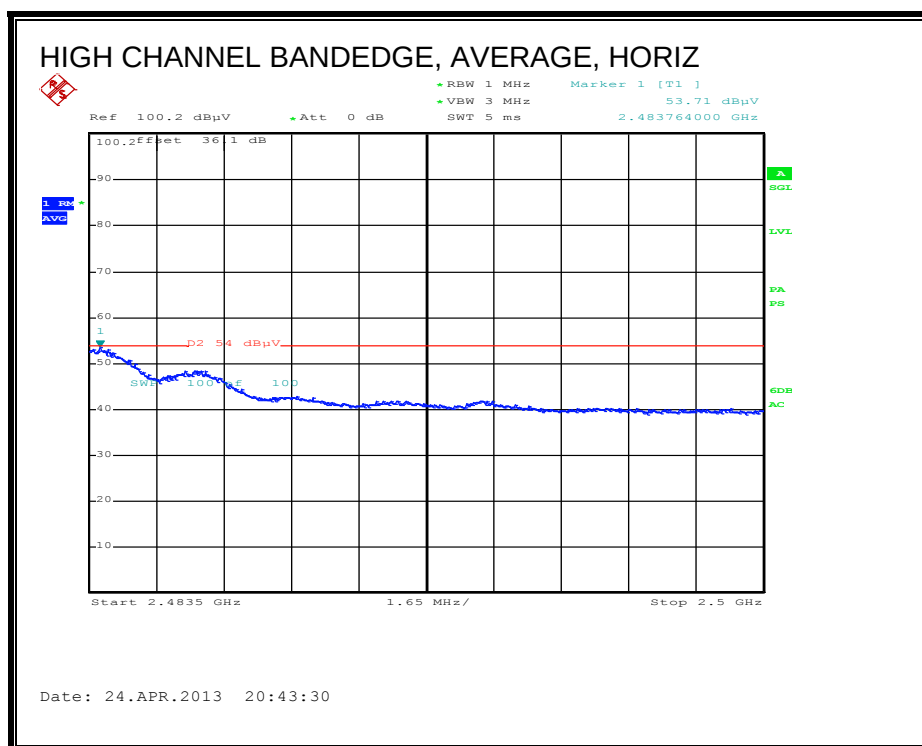
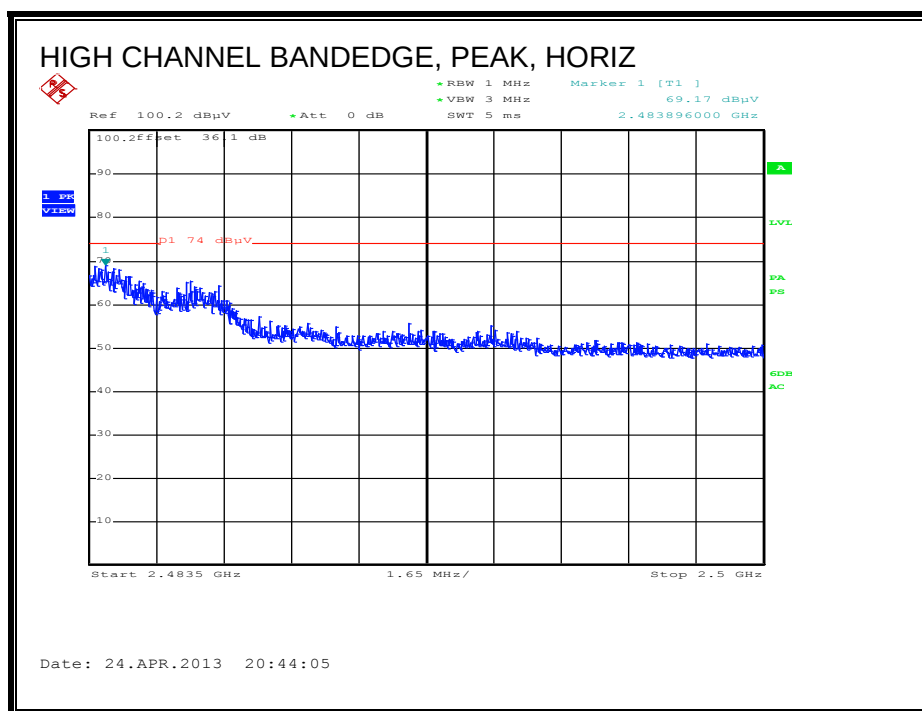


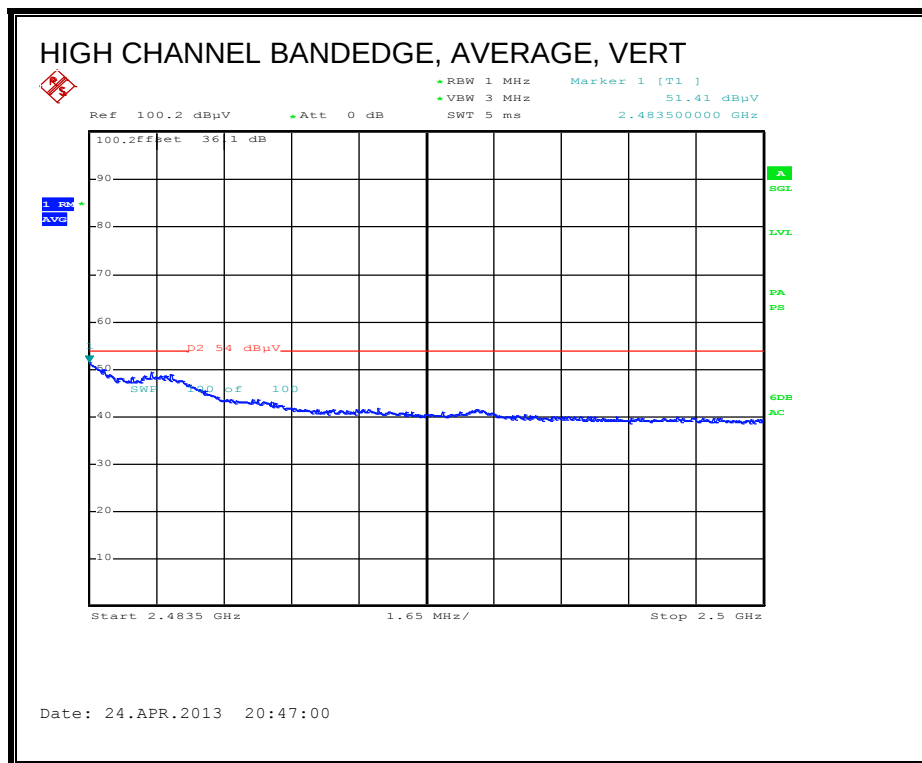
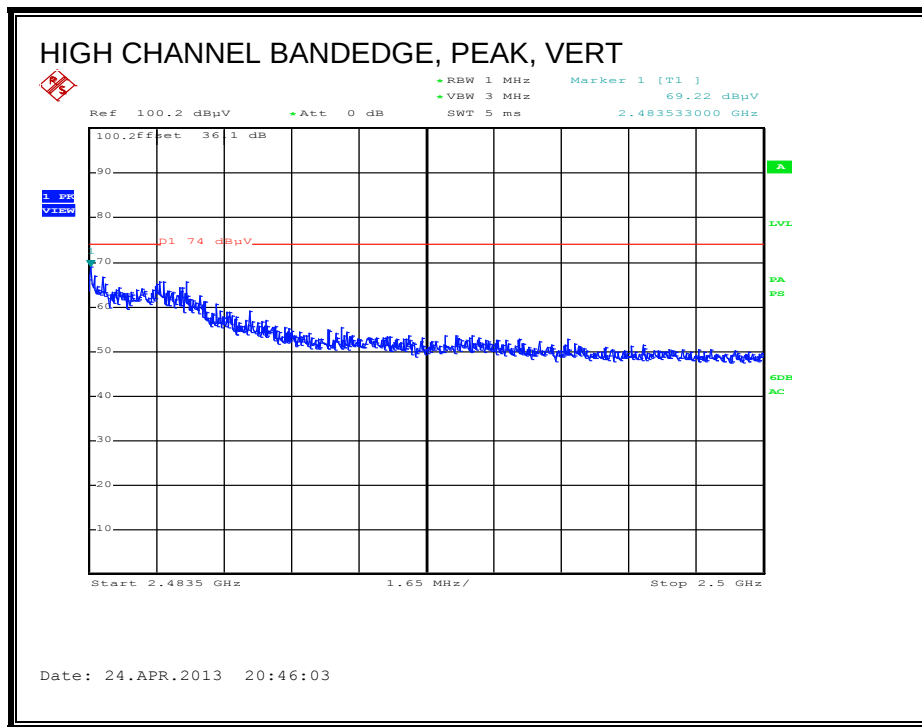
RESTRICTED BANDEDGE (LOW CHANNEL 2)





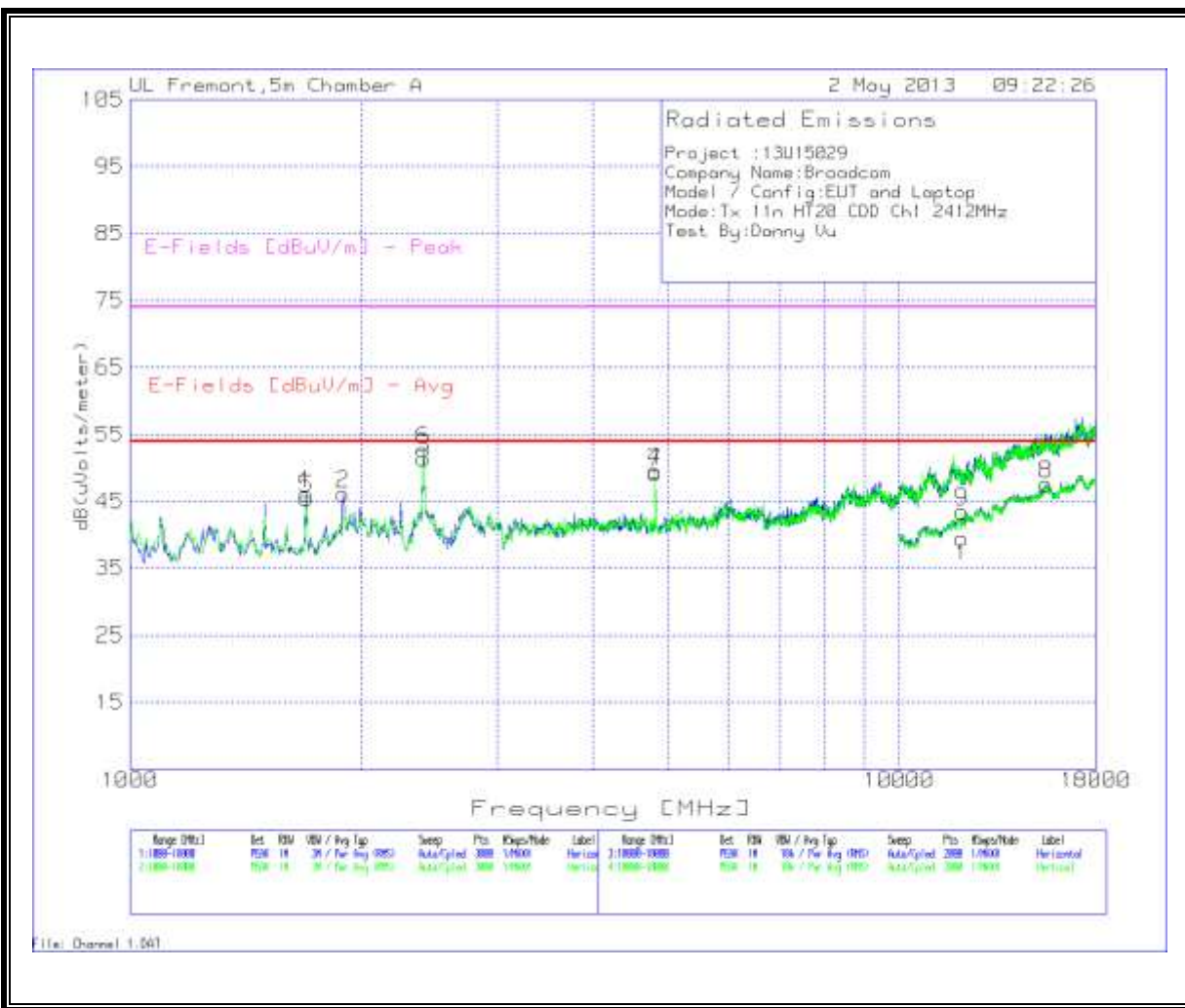
AUTHORIZED BANDEDGE (HIGH CHANNEL 11)





HARMONICS AND SPURIOUS EMISSIONS

Low Channel 1



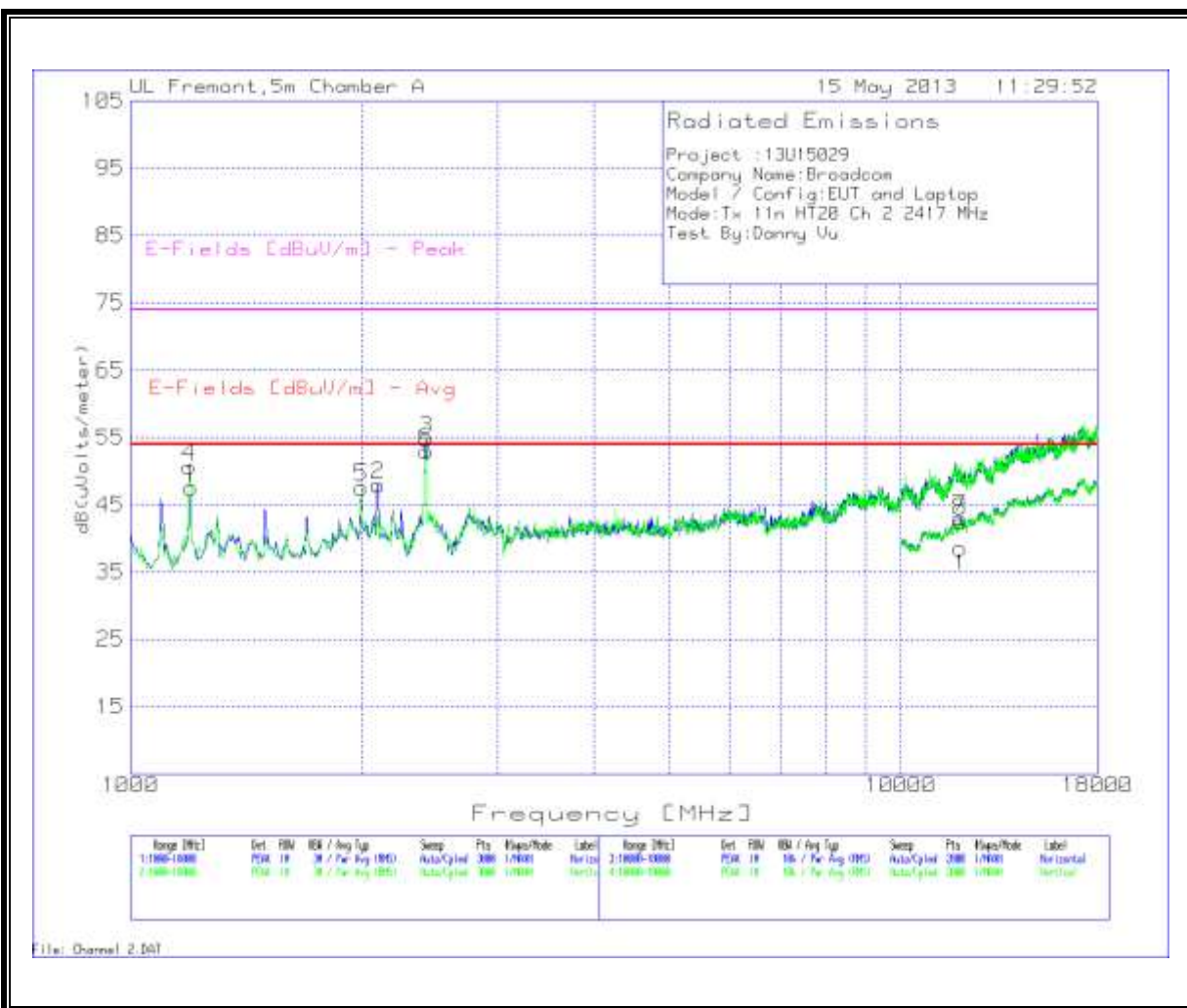
Horizontal 1000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
1	1696.536	49.77	PK	29.4	-37.5	3.7	0.7	46.07	53.97	-7.9	74	-27.93	100	Horz
2*	1894.737	46.99	PK	31.6	-37.2	3.9	0.8	46.09	-	-	-	-	200	Horz
3*	2410.06	50.8	PK	32.2	-36.9	4.4	0.9	51.4	-	-	-	-	200	Horz
4	4822.452	44.44	PK	33.9	-35.7	6.7	0.2	49.54	53.97	-4.43	74	-24.46	200	Horz
Vertical 1000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
5	1696.536	49.1	PK	29.4	-37.5	3.7	0.7	45.4	53.97	-8.57	74	-28.6	100	Vert
6*	2410.06	52.18	PK	32.2	-36.9	4.4	0.9	52.78	-	-	-	-	200	Vert
7	4822.452	44.23	PK	33.9	-35.7	6.7	0.2	49.33	53.97	-4.64	74	-24.67	100	Vert
Horizontal 10000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
8	15541.229	28.52	PK	40.6	-35.1	13.2	0.4	47.62	53.97	-6.35	74	-26.38	200	Horz
Vertical 10000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
9	12058.971	27.65	PK	38.9	-35.6	11.5	1	43.45	53.97	-10.52	74	-30.55	200	Vert
Radiated Emission Data														
Horizontal 1000 - 18000MHz														
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
4824.08	42.84	MAv1	33.9	-35.7	6.7	0.2	47.94	53.97	-6.03	-	-	294	169	Horz
Vertical 1000 - 18000MHz														
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
4823.04	35.89	MAv1	33.9	-35.7	6.7	0.2	40.99	53.97	-12.98	-	-	325	225	Vert

PK - Peak detector
MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

* - Notes a frequency in an unrestricted band.

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

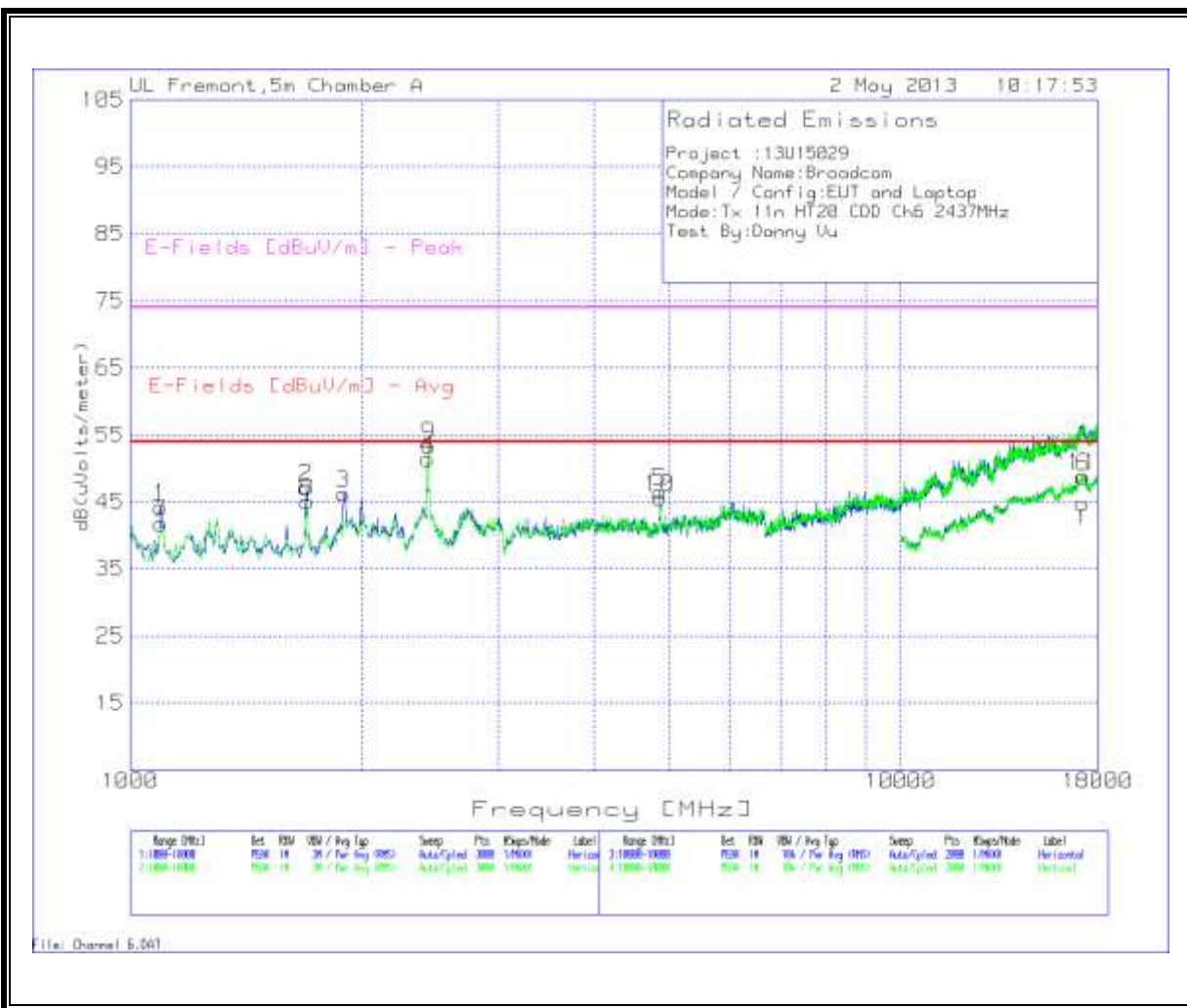
Low Channel 2



Trace Markers															
Horizontal 1000 - 18000MHz															
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	Distance Correction	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
1	1198.201	52.96	PK	29.5	-38.4	3.2	0.3	0	47.56	53.97	-6.41	74	-26.44	300	Horz
2*	2098.601	48.3	PK	31.6	-37	4.1	0.9	0	47.9	-	-	-	-	300	Horz
3*	2421.386	54.07	PK	32.2	-36.9	4.5	0.9	0	54.77	-	-	-	-	300	Horz
Vertical 1000 - 18000MHz															
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	Distance Correction	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
4	1192.538	56.17	PK	29.4	-38.4	3.2	0.3	0	50.67	53.97	-3.3	74	-23.33	200	Vert
5*	1996.669	47.86	PK	31.9	-37.1	4	0.9	0	47.56	-	-	-	-	200	Vert
6*	2421.386	52.23	PK	32.2	-36.9	4.5	0.9	0	52.93	-	-	-	-	400	Vert
Horizontal 10000 - 18000MHz															
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	Distance Correction	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
7	11959.02	27.97	PK	38.8	-35.7	11.4	0.6	0	43.07	53.97	-10.9	74	-30.93	200	Horz
Vertical 10000 - 18000MHz															
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	Distance Correction	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
8	11955.022	27.62	PK	38.8	-35.7	11.4	0.4	0	42.52	53.97	-11.45	74	-31.48	100	Vert
Radiated Emissions															
Vertical 1000 - 18000MHz															
Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	DC Corr [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1192.538	40.97	MAv1	29.4	-38.4	3.2	0.3	0	35.47	53.97	-18.5	74	-38.53	348	199	Vert
PK - Peak detector MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average * - Notes a frequency in an unrestricted band.															

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

Mid Channel



Horizontal 1000 - 18000MHz														
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
1	1096.269	51.67	PK	27.9	-38.7	3.1	0.3	44.27	53.97	-9.7	74	-29.73	200	Horz
2	1690.873	50.98	PK	29.3	-37.5	3.7	0.7	47.18	53.97	-6.79	74	-26.82	100	Horz
3*	1894.737	47.08	PK	31.6	-37.2	3.9	0.8	46.18	-	-	-	-	200	Horz
4*	2432.712	50.65	PK	32.3	-36.9	4.5	0.9	51.45	-	-	-	-	200	Horz
5	4873.418	41.19	PK	34	-35.7	6.8	0.2	46.49	53.97	-7.48	74	-27.51	200	Horz
Vertical 1000 - 18000MHz														
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
7	1096.269	49.12	PK	27.9	-38.7	3.1	0.3	41.72	53.97	-12.25	74	-32.28	100	Vert
8	1696.536	48.74	PK	29.4	-37.5	3.7	0.7	45.04	53.97	-8.93	74	-28.96	100	Vert
9*	2438.374	52.57	PK	32.3	-36.9	4.5	0.9	53.37	-	-	-	-	200	Vert
10	4873.418	40.26	PK	34	-35.7	6.8	0.2	45.56	53.97	-8.41	74	-28.44	100	Vert
Horizontal 10000 - 18000MHz														
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
6*	17256.372	27.32	PK	41	-34.3	14.1	0.6	48.72	-	-	-	-	100	Horz
Vertical 10000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
11*	17212.394	27.57	PK	40.9	-34.3	14.1	0.5	48.77	-	-	-	-	200	Vert

PK - Peak detector

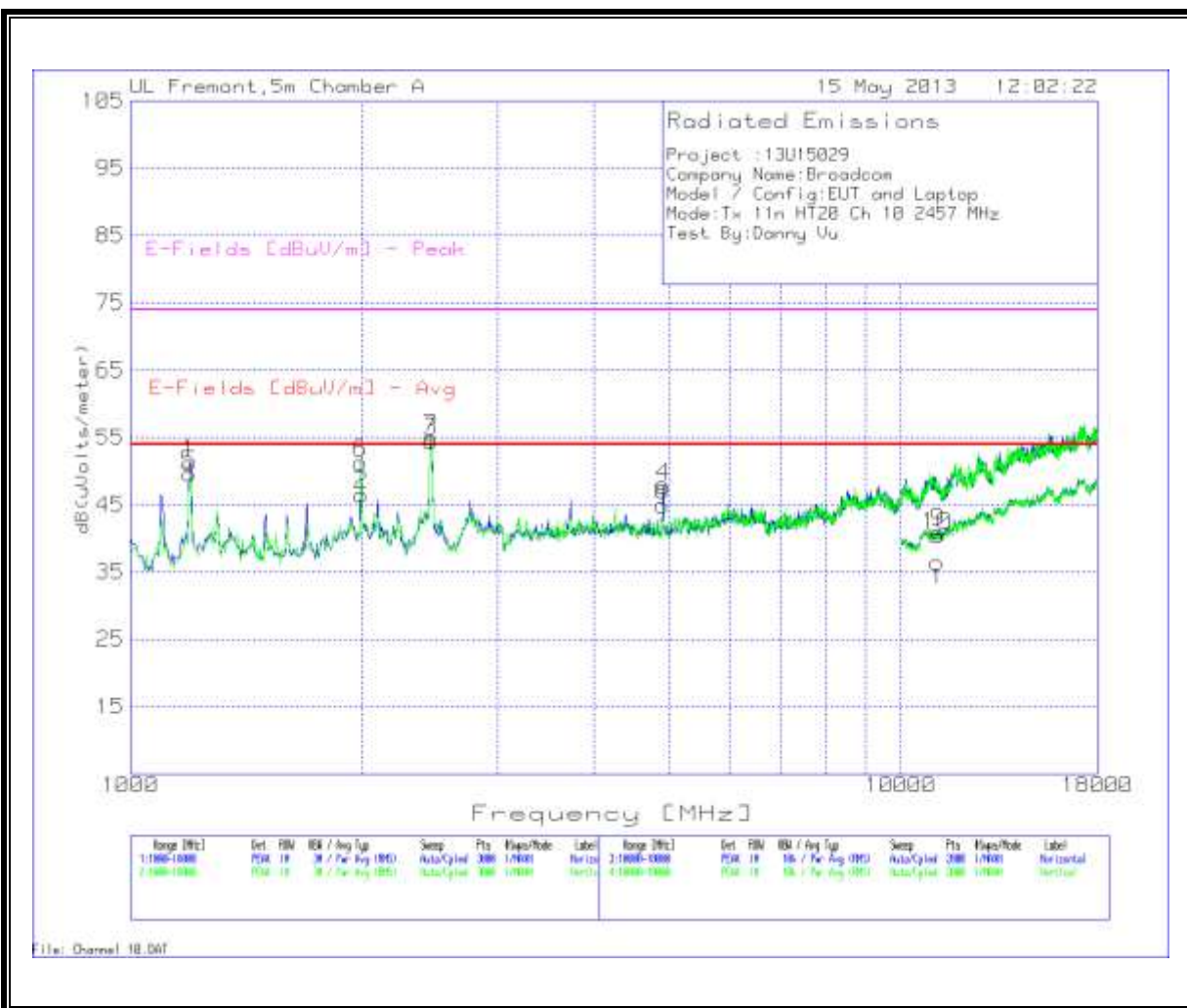
* - Notes a frequency in an unrestricted band.

PK - Peak detector

* - Notes a frequency in an unrestricted band.

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

High Channel 10



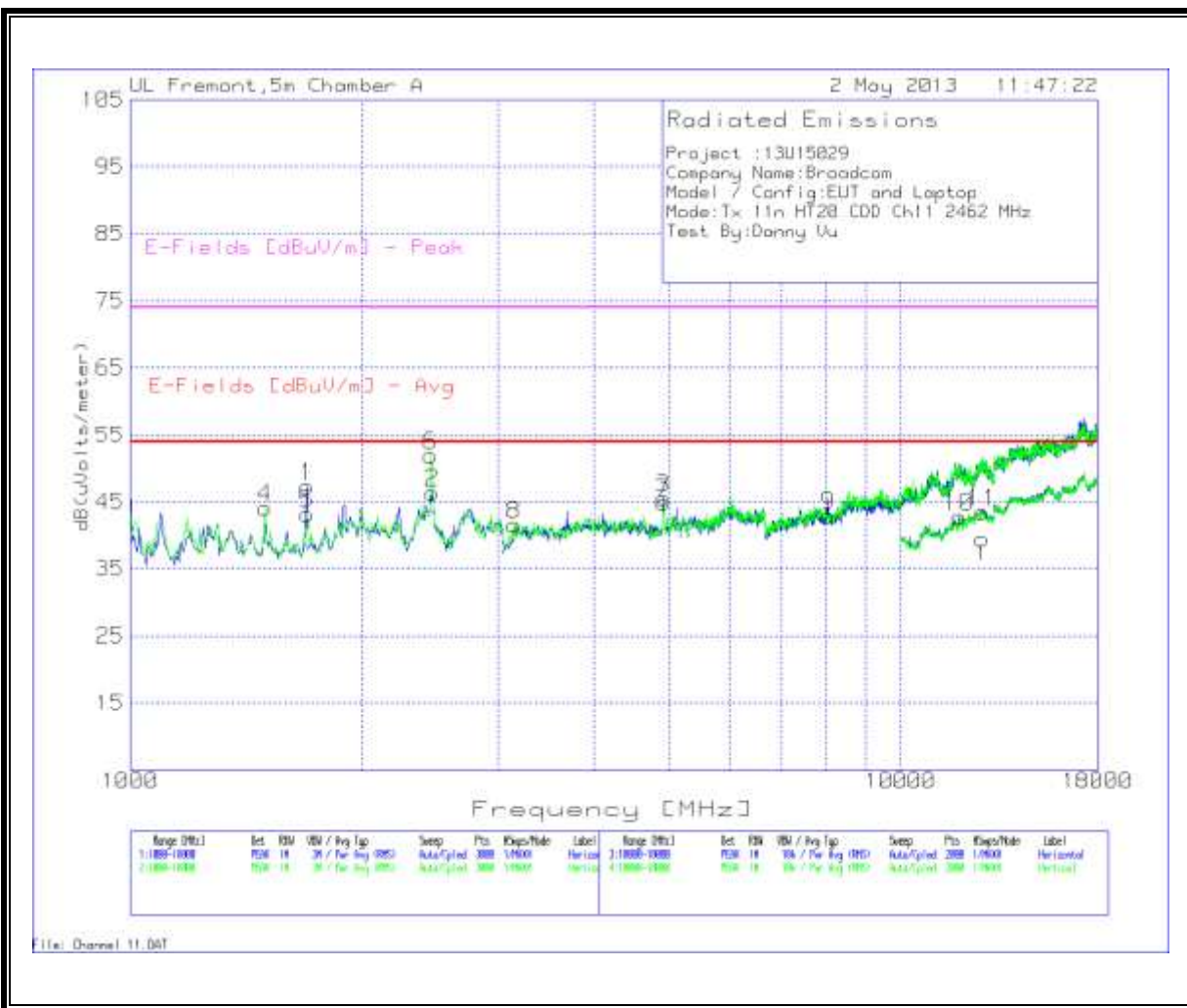
Horizontal 1000 - 18000MHz														
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
1	1192.538	56.76	PK	29.4	-38.4	3.2	0.3	51.26	53.97	-2.71	74	-22.74	199	Horz
2*	1996.669	46.81	PK	31.9	-37.1	4	0.9	46.51	-	-	-	-	199	Horz
3*	2455.363	53.45	PK	32.4	-36.8	4.5	0.9	54.45	-	-	-	-	199	Horz
4	4918.721	42.39	PK	34	-35.7	6.8	0.2	47.69	53.97	-6.28	74	-26.31	199	Horz
Vertical 1000 - 18000MHz														
Marker	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Peak Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Average Margin (dB)	Height [cm]	Polarity
6*	1991.006	51.57	PK	31.9	-37.1	4	0.9	51.27	-	-	-	-	199	Vert
7*	2455.363	53.91	PK	32.4	-36.8	4.5	0.9	54.91	-	-	-	-	199	Vert
8	4907.395	39.65	PK	34	-35.7	6.8	0.2	44.95	53.97	-9.02	74	-29.05	199	Vert
Horizontal 10000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
9	11171.414	27.2	PK	37.9	-35.6	11	0.5	41	53.97	-12.97	74	-33	199	Horz
Vertical 10000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
10	11151.424	26.41	PK	37.9	-35.6	11	0.7	40.41	53.97	-13.56	74	-33.59	199	Vert

PK - Peak detector

* - Notes a frequency in an unrestricted band.

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

High Channel 11



Horizontal 1000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
1	1696.536	50.99	PK	29.4	-37.5	3.7	0.7	47.29	53.97	-6.68	74	-26.71	100	Horz
2*	2466.689	45.39	PK	32.4	-36.8	4.5	0.9	46.39	-	-	-	-	100	Horz
3	4918.721	40.28	PK	34	-35.7	6.8	0.2	45.58	53.97	-8.39	74	-28.42	200	Horz

Vertical 1000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
4*	1498.334	49.06	PK	28.9	-37.8	3.5	0.5	44.16	-	-	-	-	200	Vert
5	1696.536	46.84	PK	29.4	-37.5	3.7	0.7	43.14	53.97	-10.83	74	-30.86	200	Vert
6*	2455.363	50.89	PK	32.4	-36.8	4.5	0.9	51.89	-	-	-	-	200	Vert
7	4918.721	39.61	PK	34	-35.7	6.8	0.2	44.91	53.97	-9.06	74	-29.09	200	Vert
8*	3151.899	39.15	PK	33.2	-36.6	5.2	0.6	41.55	-	-	-	-	100	Vert
9	8067.288	33.87	PK	35.5	-35.9	9.2	0.3	42.97	53.97	-11.00	74	-31.03	100	Vert

Horizontal 10000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
10	11903.048	27.66	PK	38.7	-35.7	11.4	0.7	42.76	53.97	-11.21	74	-31.24	200	Horz

Vertical 10000 - 18000MHz														
Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height [cm]	Polarity
11*	12754.623	26.71	PK	39.1	-34.5	11.8	0.4	43.51	-	-	-	-	200	Vert

PK - Peak detector

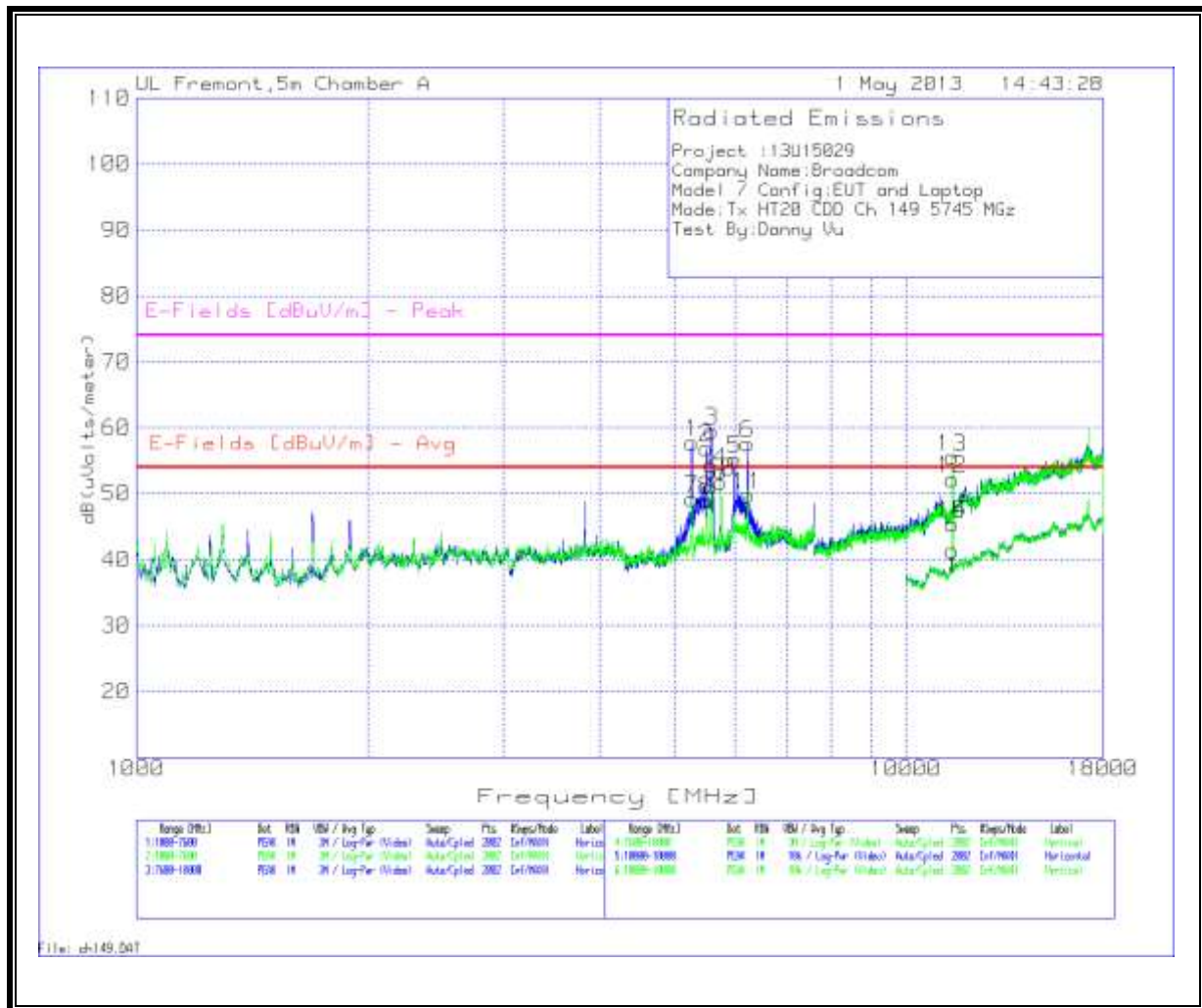
* - Notes a frequency in an unrestricted band.

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

9.5. TX ABOVE 1 GHz 802.11n HT20 CDD 2TX MODE, 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS

Low Channel



Trace Markers

Horizontal 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
1*	5268.066	51.69	PK	34.3	-35.5	7.1	0.2	57.79	-	-	-	-	200	Horz
2*	5502.249	50.26	PK	34.4	-35.5	7.3	0.5	56.96	-	-	-	-	200	Horz
3*	5588.006	52.31	PK	34.4	-35.5	7.4	0.9	59.51	-	-	-	-	200	Horz
4*	5739.73	45.84	PK	34.7	-35.5	7.5	0.9	53.44	-	-	-	-	200	Horz
5*	5987.106	47.01	PK	35.2	-35.6	7.7	0.9	55.21	-	-	-	-	200	Horz
6*	6224.588	49.66	PK	35.4	-35.6	7.9	0.3	57.66	-	-	-	-	200	Horz

Vertical 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
7*	5268.066	43.1	PK	34.3	-35.5	7.1	0.2	49.2	-	-	-	-	200	Vert
8*	5508.846	42.3	PK	34.4	-35.5	7.3	0.6	49.1	-	-	-	-	200	Vert
9*	5581.409	43.94	PK	34.4	-35.5	7.4	0.9	51.14	-	-	-	-	100	Vert
10*	5739.73	44.13	PK	34.7	-35.5	7.5	0.9	51.73	-	-	-	-	200	Vert
11*	6224.588	41.71	PK	35.4	-35.6	7.9	0.3	49.71	-	-	-	-	100	Vert

Horizontal 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
12	11487.656	37.84	PK	38.3	-35.6	11.2	0.4	52.14	-	-	74	-21.86	100	Horz

Vertical 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
13	11487.656	41.21	PK	38.3	-35.6	11.2	0.4	55.53	-	-	74	-18.49	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
14	11491.254	31.15	PK	38.3	-35.6	11.2	0.4	45.45	53.97	-8.52	-	-	100	Horz
15	11491.254	31.15	PK	38.3	-35.6	11.2	0.4	45.45	53.97	-8.52	-	-	100	Horz

Radiated Emissions

Horizontal 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11490	32.34	MAv1	38.3	-35.6	11.2	0.4	46.64	53.97	-7.33	-	-	303	113	Horz

Vertical 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11490.68	36.82	MAv1	38.3	-35.6	11.2	0.4	51.12	53.97	-2.85	-	-	312	117	Vert

Vertical 10000 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11400.32	35.21	MAv1	38.2	-35.6	11.1	0.4	49.31	53.97	-4.66	-	-	318	128	Vert

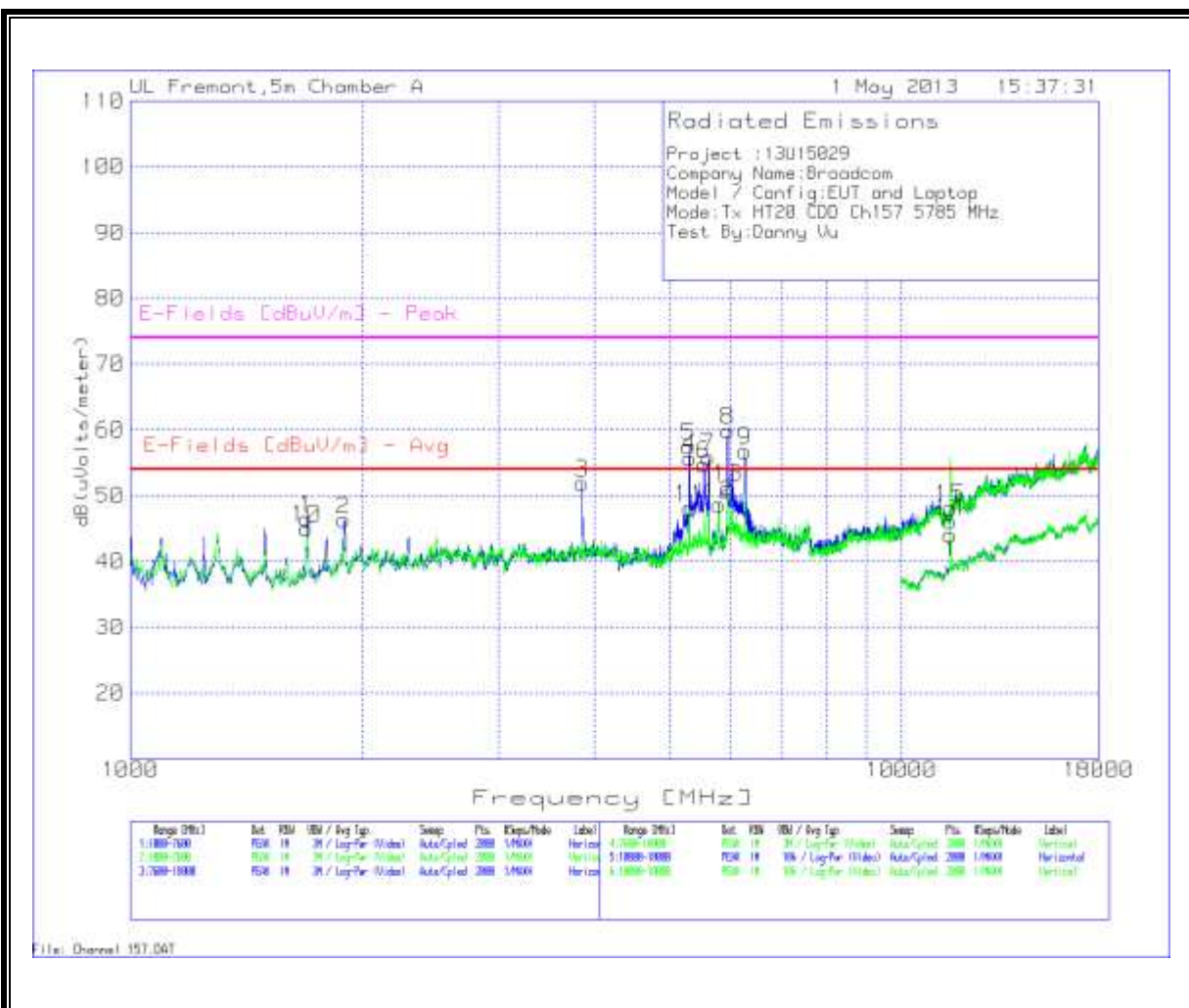
PK - Peak detector

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

* - Notes a frequency in an unrestricted band.

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

Mid Channel



Trace Markers

Horizontal 1000 - 7600MHz														
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor (dB/m)	T144 Preamp Gain (dB)	Cable Factor (dB)	T163 BRP (dB)	dB(uVolts/meter)	E-Fields (dBuV/m) - Avg	Margin (dB)	E-Fields (dBuV/m) - Peak	Margin (dB)	Height (cm)	Polarity
1	3856.372	48.46	PK	33.6	-36.1	5.9	0.1	51.96	53.97	-2.01	74	-22.04	200	Horz
2*	5301.049	51.41	PK	34.3	-35.5	7.1	0.2	57.51	-	-	-	-	200	Horz
3*	5545.127	47.85	PK	34.4	-35.5	7.3	0.7	54.75	-	-	-	-	200	Horz
4*	5627.586	48.1	PK	34.5	-35.5	7.4	0.9	55.4	-	-	-	-	200	Horz
5*	5950.825	51.73	PK	35.2	-35.6	7.7	0.9	59.93	-	-	-	-	200	Horz
6*	6267.466	48.69	PK	35.5	-35.6	7.9	0.3	56.79	-	-	-	-	200	Horz
Vertical 1000 - 7600MHz														
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor (dB/m)	T144 Preamp Gain (dB)	Cable Factor (dB)	T163 BRP (dB)	dB(uVolts/meter)	E-Fields (dBuV/m) - Avg	Margin (dB)	E-Fields (dBuV/m) - Peak	Margin (dB)	Height (cm)	Polarity
7*	5307.646	42.09	PK	34.3	-35.5	7.1	0.2	48.19	-	-	-	-	200	Vert
8*	5541.829	40.17	PK	34.4	-35.5	7.3	0.7	47.07	-	-	-	-	200	Vert
9*	5627.586	40.57	PK	34.5	-35.5	7.4	0.9	47.87	-	-	-	-	100	Vert
10*	5954.123	43.01	PK	35.2	-35.6	7.7	0.9	51.21	-	-	-	-	200	Vert
11*	6267.466	41.85	PK	35.5	-35.6	7.9	0.3	49.95	-	-	-	-	100	Vert
Horizontal 7600 - 18000MHz														
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor (dB/m)	T144 Preamp Gain (dB)	Cable Factor (dB)	T163 BRP (dB)	dB(uVolts/meter)	E-Fields (dBuV/m) - Avg	Margin (dB)	E-Fields (dBuV/m) - Peak	Margin (dB)	Height (cm)	Polarity
12	11570.815	38.75	PK	38.4	-35.6	11.2	0.4	53.15	53.97	-0.82	74	-20.85	100	Horz
Vertical 7600 - 18000MHz														
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor (dB/m)	T144 Preamp Gain (dB)	Cable Factor (dB)	T163 BRP (dB)	dB(uVolts/meter)	E-Fields (dBuV/m) - Avg	Margin (dB)	E-Fields (dBuV/m) - Peak	Margin (dB)	Height (cm)	Polarity
13	11576.012	41.27	PK	38.4	-35.6	11.2	0.4	55.67	53.97	1.7	74	-18.33	100	Vert
Horizontal 10000 - 18000MHz														
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor (dB/m)	T144 Preamp Gain (dB)	Cable Factor (dB)	T163 BRP (dB)	dB(uVolts/meter)	E-Fields (dBuV/m) - Avg	Margin (dB)	E-Fields (dBuV/m) - Peak	Margin (dB)	Height (cm)	Polarity
14	11571.214	31.72	PK	38.4	-35.6	11.2	0.4	46.12	53.97	-7.85	74	-27.88	100	Horz
15	11571.214	31.72	PK	38.4	-35.6	11.2	0.4	46.12	53.97	-7.85	74	-27.88	100	Horz

Radiated Emissions

Horizontal 7600 - 18000MHz														
Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRP [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11490	32.34	MAv1	38.3	-35.6	11.2	0.4	46.64	53.97	-7.33	-	-	303	113	Horz
Vertical 7600 - 18000MHz														
Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRP [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11490.68	36.82	MAv1	38.3	-35.6	11.2	0.4	51.12	53.97	-2.85	-	-	312	117	Vert
Vertical 10000 - 18000MHz														
Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRP [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11400.32	35.21	MAv1	38.2	-35.6	11.1	0.4	49.31	53.97	-4.66	-	-	318	128	Vert

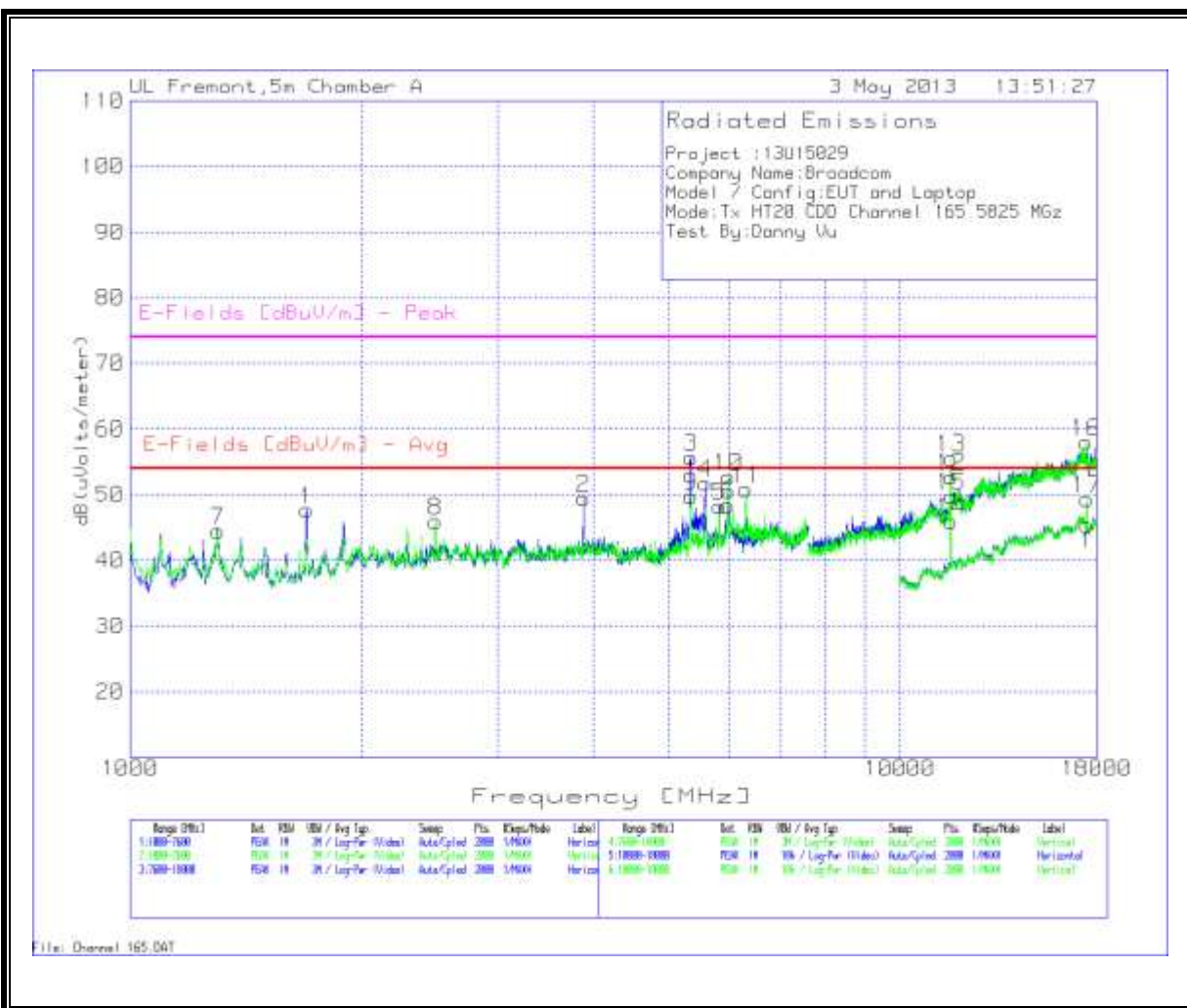
PK - Peak detector

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

* - Notes a frequency in an unrestricted band.

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

High Channel



Trace Markers

Horizontal 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height (cm)	Polarity
1	3882.759	45.64	PK	33.7	-36	6	0.1	49.44	53.97	-4.53	74	-24.56	200	Horz
2*	5334.033	49.1	PK	34.3	-35.5	7.2	0.2	55.3	-	-	-	-	200	Horz
3*	5584.708	44.62	PK	34.4	-35.5	7.4	0.9	51.82	-	-	-	-	200	Horz
4*	5825.487	40.36	PK	34.9	-35.5	7.6	0.9	48.26	-	-	-	-	200	Horz
5*	5990.405	40.19	PK	35.2	-35.6	7.7	0.9	48.39	-	-	-	-	200	Horz
6*	6310.345	38.74	PK	35.5	-35.6	7.9	0.3	46.84	-	-	-	-	100	Horz

Vertical 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height (cm)	Polarity
7	5350.525	43.45	PK	34.4	-35.5	7.2	0.2	49.75	53.97	-4.22	74	-24.25	200	Vert
8*	5584.708	40.68	PK	34.4	-35.5	7.4	0.9	47.88	-	-	-	-	100	Vert
9*	5825.487	39.53	PK	34.9	-35.5	7.6	0.9	47.43	-	-	-	-	200	Vert
10*	5987.106	44.54	PK	35.2	-35.6	7.7	0.9	52.74	-	-	-	-	100	Vert
11*	6313.643	42.77	PK	35.5	-35.6	7.9	0.3	50.87	-	-	-	-	200	Vert

Horizontal 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height (cm)	Polarity
12	11649.578	38.46	PK	38.4	-35.6	11.3	0.2	52.76	53.97	-1.21	74	-21.24	100	Horz

Vertical 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height (cm)	Polarity
13	11648.776	41.22	PK	38.4	-35.6	11.3	0.3	55.62	53.97	1.65	74	-18.38	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height (cm)	Polarity
14	11651.174	31.48	PK	38.5	-35.6	11.3	0.3	45.98	53.97	-7.99	74	-28.02	100	Horz

Vertical 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] - Avg	Margin (dB)	E-Fields [dBuV/m] - Peak	Margin (dB)	Height (cm)	Polarity
15	11647.176	35.4	PK	38.4	-35.6	11.3	0.2	49.7	53.97	-4.27	74	-24.3	100	Vert

Radiated Emissions

Horizontal 1000 - 7600MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
3875.02	29.65	MAv1	33.7	-36.1	5.9	0.1	33.25	53.97	-20.72	-	-	33	176	Horz

Vertical 1000 - 7600MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
5343.02	25.09	MAv1	34.3	-35.5	7.2	0.2	32.29	53.97	-21.68	-	-	96	224	Vert

Horizontal 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11650.16	29.32	MAv1	38.5	-35.6	11.3	0.3	43.82	53.97	-10.15	-	-	297	129	Horz

Vertical 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11649.94	36.95	MAv1	38.4	-35.6	11.3	0.3	51.35	53.97	-2.62	-	-	299	121	Vert

PK - Peak detector

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

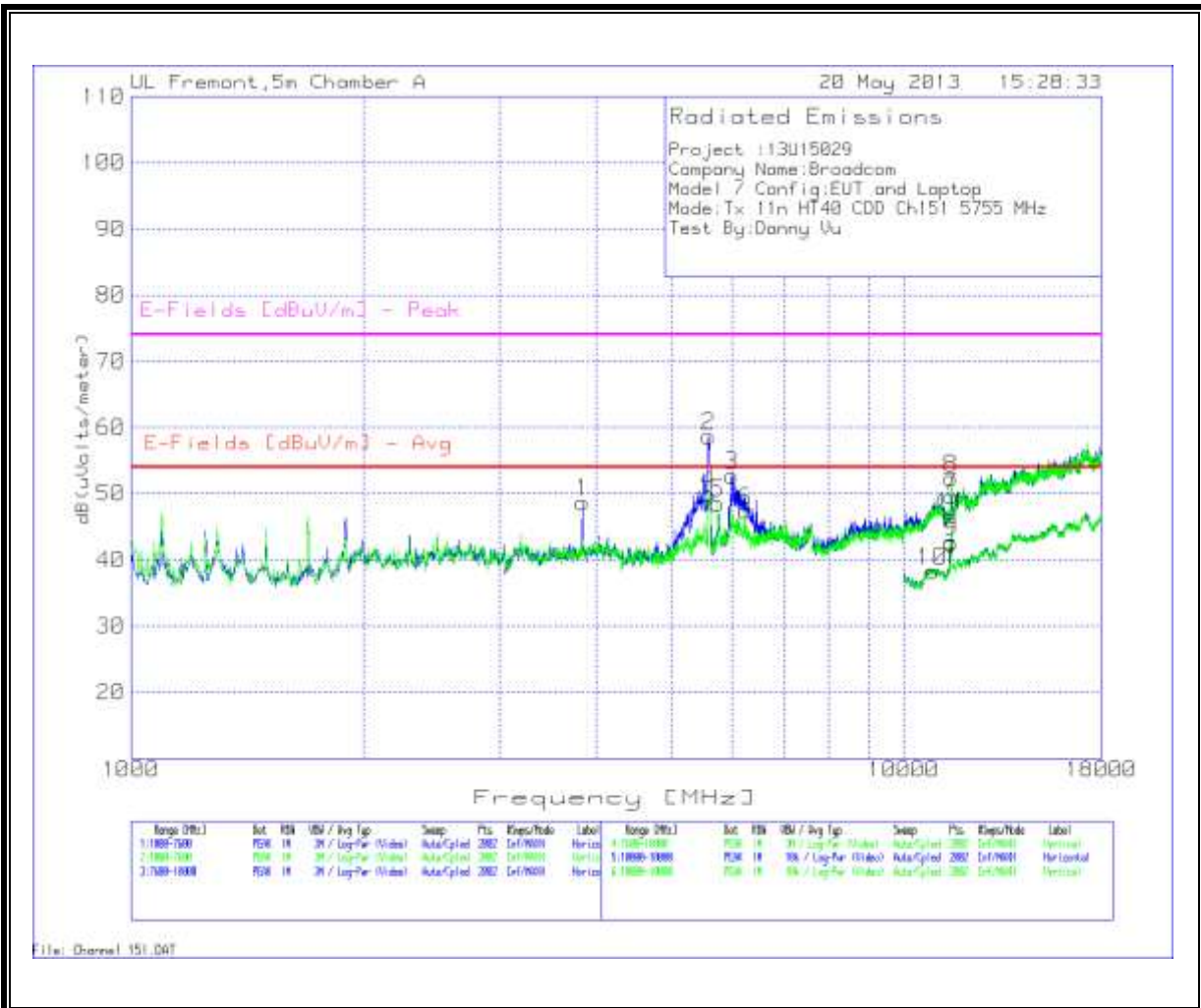
* - Notes a frequency in an unrestricted band.

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

9.6. TX ABOVE 1 GHz 802.11n HT40 CDD 2TX MODE, 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS

Low Channel



Trace Markers

Horizontal 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
1	3836.582	45.04	PK	33.6	-36.1	5.9	0.2	48.64	53.97	-5.33	74	-25.36	200	Horz
2*	5584.708	51.51	PK	34.4	-35.5	7.4	0.9	58.71	-	-	-	-	148	Horz
3*	5997.001	44.58	PK	35.2	-35.6	7.7	0.9	52.78	-	-	-	-	148	Horz

Vertical 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
4*	5591.304	42.77	PK	34.4	-35.5	7.4	0.9	49.97	-	-	-	-	100	Vert
5*	5739.73	40.94	PK	34.7	-35.5	7.5	0.9	48.54	-	-	-	-	200	Vert
6*	6241.079	39.39	PK	35.4	-35.6	7.9	0.3	47.39	-	-	-	-	100	Vert

Horizontal 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
7	11518.841	35.38	PK	38.3	-35.6	11.2	0.4	49.68	53.97	-4.29	74	-24.32	100	Horz

Vertical 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
8	11508.446	38	PK	38.3	-35.6	11.2	0.4	52.3	53.97	-1.67	74	-21.7	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
10	10879.56	24.91	PK	37.9	-35.7	10.8	0.4	38.31	53.97	-15.66	74	-35.69	200	Horz
9	11515.242	28.46	PK	38.3	-35.6	11.2	0.4	42.76	53.97	-11.21	74	-31.24	100	Horz

Vertical 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
11	11511.244	32.38	PK	38.3	-35.6	11.2	0.4	46.68	53.97	-7.29	74	-27.32	100	Vert

Radiated Emissions

Horizontal 1000 - 7600MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
3837.14	39.01	MAv1	33.6	-36.1	5.9	0.2	42.61	53.97	-11.36	-	-	151	132	Horz

Horizontal 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11520.74	25.49	MAv1	38.3	-35.6	11.2	0.4	39.79	53.97	-14.18	-	-	0	141	Horz

Vertical 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/m eter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11509.51	28.87	MAv1	38.3	-35.6	11.2	0.4	43.17	53.97	-10.8	-	-	3	182	Vert

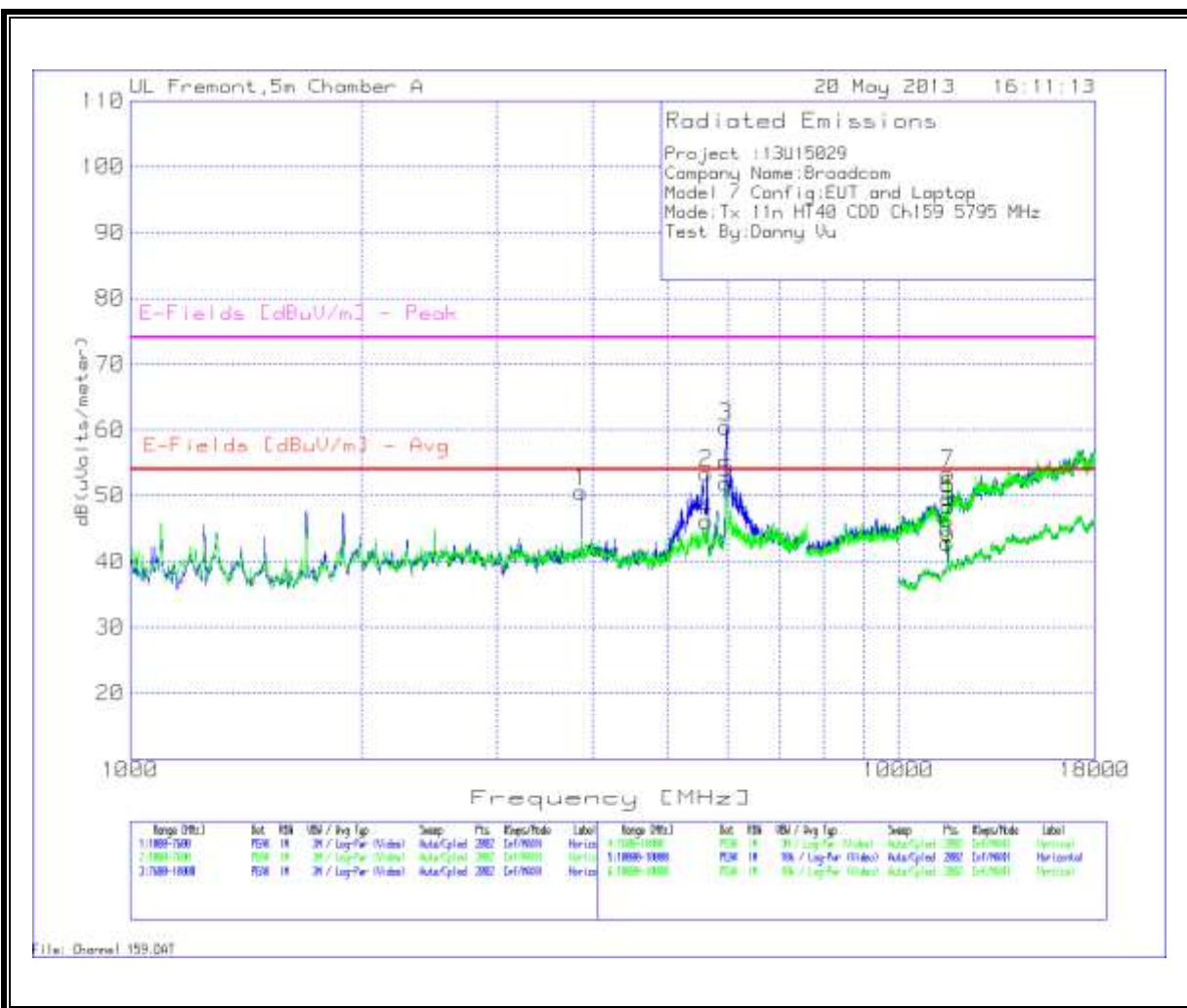
PK - Peak detector

MAv1 - KDS558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

* - Notes a frequency in an unrestricted band.

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

High Channel



Trace Markers

Horizontal 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
1	3836.582	45.04	PK	33.6	-36.1	5.9	0.2	48.64	53.97	-5.33	74	-25.36	200	Horz
2*	5584.708	51.51	PK	34.4	-35.5	7.4	0.9	58.71	-	-	-	-	148	Horz
3*	5997.001	44.58	PK	35.2	-35.6	7.7	0.9	52.78	-	-	-	-	148	Horz

Vertical 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
4*	5591.304	42.77	PK	34.4	-35.5	7.4	0.9	49.97	-	-	-	-	100	Vert
5*	5739.73	40.94	PK	34.7	-35.5	7.5	0.9	48.54	-	-	-	-	200	Vert
6*	6241.079	39.39	PK	35.4	-35.6	7.9	0.3	47.39	-	-	-	-	100	Vert

Horizontal 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
7	11518.841	35.38	PK	38.3	-35.6	11.2	0.4	49.68	53.97	-4.29	74	-24.32	100	Horz

Vertical 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
8	11508.446	38	PK	38.3	-35.6	11.2	0.4	52.3	53.97	-1.67	74	-21.7	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
10	10879.56	24.91	PK	37.9	-35.7	10.8	0.4	38.31	53.97	-15.66	-	-	200	Horz
9	11518.841	28.46	PK	38.3	-35.6	11.2	0.4	42.76	53.97	-11.21	-	-	100	Horz

Vertical 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
11	11508.446	32.38	PK	38.3	-35.6	11.2	0.4	46.68	53.97	-7.29	-	-	100	Vert

Radiated Emissions

Horizontal 1000 - 7600MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
3837.14	39.01	MAv1	33.6	-36.1	5.9	0.2	42.61	53.97	-11.36	-	-	151	132	Horz

Horizontal 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11520.74	25.49	MAv1	38.3	-35.6	11.2	0.4	39.79	53.97	-14.18	-	-	0	141	Horz

Vertical 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T163 BRF [dB]	dB(uVolts/meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11509.51	28.87	MAv1	38.3	-35.6	11.2	0.4	43.17	53.97	-10.8	-	-	3	182	Vert

PK - Peak detector

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

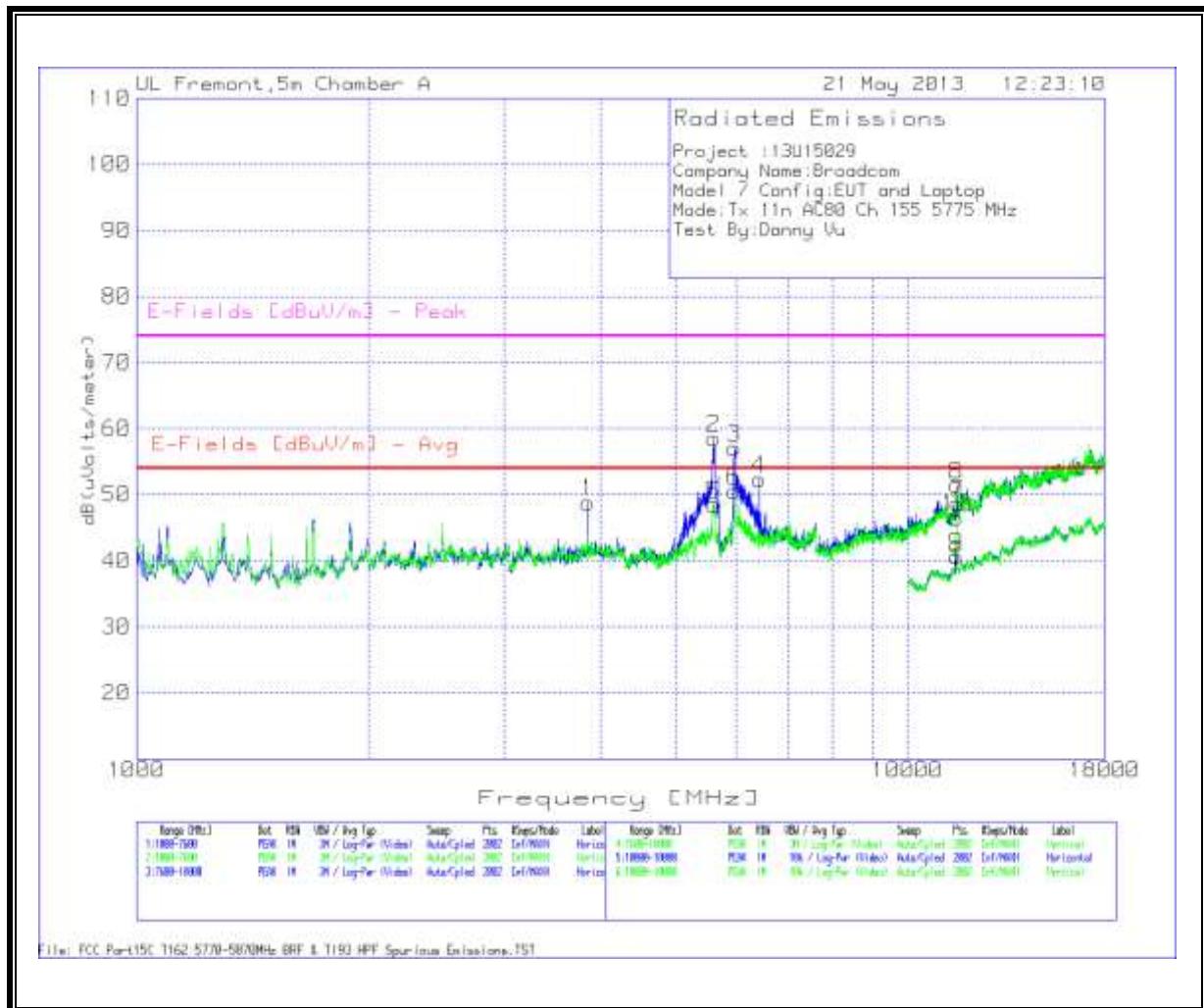
* - Notes a frequency in an unrestricted band.

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

9.7. TX ABOVE 1 GHz 802.11n HT80 CDD 2TX MODE, 5.8 GHz BAND

HARMONICS AND SPURIOUS EMISSIONS

Mid Channel



Trace Markers

Horizontal 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
1	3849.775	45.27	PK	33.6	-36.1	5.9	0.2	48.87	53.97	-5.1	74	-25.13	200	Horz
2*	5604.498	51.38	PK	34.4	-35.5	7.4	0.9	58.58	-	-	-	-	200	Horz
3*	5964.018	48.85	PK	35.2	-35.6	7.7	0.9	57.05	-	-	-	-	200	Horz
4*	6419.19	44.12	PK	35.5	-35.6	8	0.3	52.32	-	-	-	-	137	Horz

Vertical 1000 - 7600MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
5*	5601.199	41.27	PK	34.4	-35.5	7.4	0.9	48.47	-	-	-	-	200	Vert
6*	5957.421	42.36	PK	35.2	-35.6	7.7	0.9	50.56	-	-	-	-	200	Vert

Horizontal 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
7	11596.802	34.13	PK	38.4	-35.6	11.2	0.5	48.63	53.97	-5.34	74	-25.37	200	Horz

Vertical 7600 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
8	11570.815	37.15	PK	38.4	-35.6	11.2	0.3	51.45	53.97	-2.52	74	-22.55	100	Vert

Horizontal 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
9	11579.21	26.3	PK	38.4	-35.6	11.2	0.4	40.7	53.97	-13.27	74	-33.3	100	Horz

Vertical 10000 - 18000MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Height (cm)	Polarity
10	11571.214	32.19	PK	38.4	-35.6	11.2	0.3	46.49	53.97	-7.48	74	-27.51	100	Vert

Radiated Emissions

Horizontal 1000 - 7600MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
3850.58	40.27	RMS	33.6	-36.1	5.9	0.2	43.87	53.97	-10.1	-	-	283	189	Horz

Horizontal 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11598.9	25.45	RMS	38.4	-35.6	11.2	0.5	39.95	53.97	-14.02	-	-	72	104	Horz

Vertical 7600 - 18000MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T136 Ant Factor [dB/m]	T144 Preamp Gain [dB]	Cable Factor [dB]	T159 BRF [dB]	dB(uVolts/ meter)	E-Fields Limit [dBuV/m] - Avg	Average Margin (dB)	E-Fields Limit [dBuV/m] - Peak	Peak Margin (dB)	Azimuth (Deg)	Height (cm)	Polarity
11574.39	25.43	RMS	38.4	-35.6	11.2	0.4	39.83	53.97	-14.14	-	-	360	171	Vert

PK - Peak detector

MAv1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average

* - Notes a frequency in an unrestricted band.

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

9.8. WORST-CASE BELOW 1 GHz

VERTICAL & HORIZONTAL DATA

Project : 13U15029
Company: Broadcom Corporation
Config: EUT with laptop
Mode: TX; Worst case
Test By: K. Nguyen

Horizontal 30 - 1000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T185 Antenna Factor (dB/m)	T64 preamp/cable loss [dB]	Corrected Reading dBuV	E-Fields [dBuV/m] - QPk	Margin (dB)	Height [cm]	Polarity
1	30.9693	29.02	PK	20.5	-27.7	21.82	40	-18.18	100	Horz
2	215.8581	48.28	PK	10.5	-26.1	32.68	43.52	-10.84	100	Horz
3	239.8476	55.94	PK	11.6	-26.2	41.34	46.02	-4.68	100	Horz
4	399.7777	52.65	PK	15.5	-25.2	42.95	46.02	-3.07	100	Horz
5	799.6028	41.2	PK	21	-23	39.2	46.02	-6.82	100	Horz

Vertical 30 - 1000MHz

Marker No.	Test Frequency (MHz)	Meter Reading (dBuV)	Detector	T185 Antenna Factor (dB/m)	T64 preamp/cable loss [dB]	Corrected Reading dBuV	E-Fields [dBuV/m] - QPk	Margin (dB)	Height [cm]	Polarity
6	31.4539	30.41	PK	20.1	-27.7	22.81	40	-17.19	100	Vert
7	132.5006	32.3	PK	13.8	-26.9	19.2	43.52	-24.32	100	Vert
8	399.7777	41.78	PK	15.5	-25.2	32.08	46.02	-13.94	100	Vert
9	599.6902	44.91	PK	18.3	-23.7	39.51	46.02	-6.51	100	Vert
10	799.6028	33.4	PK	21	-23	31.4	46.02	-14.62	100	Vert

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear Average detector
LgAv - Log Average detector
Av - Average detector
CAV - CISPR Average detector
RMS - RMS detection
CRMS - CISPR RMS detection
PK1 - KDB 789033 v01r02 G)5) Method: Peak
AD1 - KDB 789033 v01r02 G)6) Method: AD Primary Power Average
VB1 - KDB 789033 v01r02 G)6) Method: VB Alternative Reduced Video
PK2 - KDB558074 v02 10.2.3.2/8.1.1 Method: Maximum Peak
MAV1 - KDB558074 v02 10.2.3.2/8.2.1 Option 1 Maximum RMS Average
MAV2 - KDB558074 v02 10.2.3.2/8.2.2 Option 2 Slow Sweep RMS Average

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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

^{*} Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

6 WORST EMISSIONS

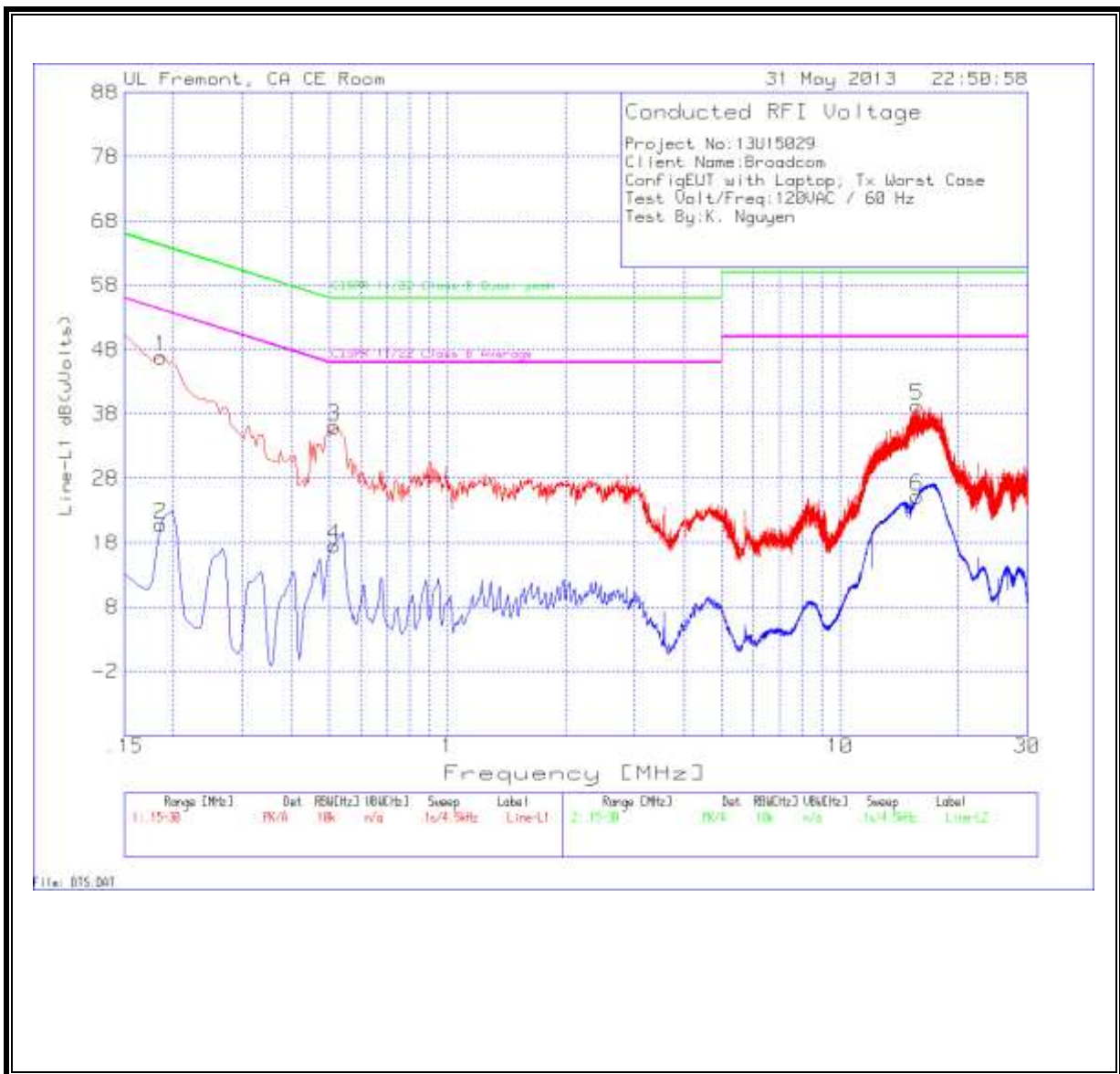
Project No:13U15029
Client Name:Broadcom
ConfigEUT with Laptop; Tx Worst Case
Test Volt/Freq:120VAC / 60 Hz
Test By:K. Nguyen

Line-L1 .15 - 30MHz									
Frequency (MHz)	Meter Reading (dBuV)	Detector	IL L1 (dB)	LC Cables 1&3 (dB)	dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Peak Margin	CISPR 11/22 Class B Average	Average Margin
0.186	46.72	PK	0.1	0	46.82	64.2	-17.38	-	-
0.186	20.78	Av	0.1	0	20.88	-	-	54.2	-33.32
0.5145	35.93	PK	0.1	0	36.03	56	-19.97	-	-
0.5145	17.44	Av	0.1	0	17.54	-	-	46	-28.46
15.7155	38.83	PK	0.2	0.2	39.23	60	-20.77	-	-
15.7155	24.78	Av	0.2	0.2	25.18	-	-	50	-24.82

Line-L2 .15 - 30MHz									
Frequency (MHz)	Meter Reading (dBuV)	Detector	IL L2 (dB)	LC Cables 2&3 (dB)	dB(uVolts)	CISPR 11/22 Class B Quasi-peak	Peak Margin	CISPR 11/22 Class B Average	Average Margin
0.1995	46.08	PK	0.1	0	46.18	63.6	-17.42	-	-
0.1995	25.33	Av	0.1	0	25.43	-	-	53.6	-28.17
0.528	38.53	PK	0.1	0	38.63	56	-17.37	-	-
0.528	18.63	Av	0.1	0	18.73	-	-	46	-27.27
16.0215	35.42	PK	0.2	0.2	35.82	60	-24.18	-	-
16.0215	23.82	Av	0.2	0.2	24.22	-	-	50	-25.78

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear Average detector
LgAv - Log Average detector
Av - Average detector
CAV - CISPR Average detector
RMS - RMS detection
CRMS - CISPR RMS detection

LINE 1 RESULTS



LINE 2 RESULTS

