FCC 47 CFR PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

PORTABLE COMPUTING DEVICE

MODEL NUMBER: 1724

FCC ID: C3K1724

REPORT NUMBER: R10880568-E1AV1

ISSUE DATE: 2015-09-25

Prepared for
MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052, U.S.A.

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Revision History

Ver.	Issue Date	Revisions	Revised By
1	2015-09-25	Initial Issue	Jeff Moser

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: MICROSOFT CORPORATION
ONE MICROSOFT WAY
REDMOND, WA 98052, U.S.A.

EUT DESCRIPTION: PORTABLE COMPUTING DEVICE

MODEL: 1724

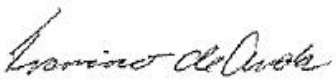
SERIAL NUMBER: 012785552253 (RF1), 012756752253 (RF2), 012810252253 (RF3)

DATE TESTED: August 03-17, 2015, September 19-24, 2015

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	PASS

UL LLC 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 LLC 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 LLC and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL LLC will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL LLC By:	Reviewed By:	Prepared By:
		
Francisco de Anda Project Lead UL Verification Services Inc.	Jeff Moser EMC Program Manager UL – Consumer Technology Division	Mark Nolting EMC Engineer UL – Consumer Technology Division

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15 and ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 12 Laboratory Dr., Research Triangle Park, NC 27709, USA and 2800 Suite B Perimeter Park Dr., Morrisville, NC 27560.

12 Laboratory Dr., RTP, NC 27709
☐ Chamber A
☐ Chamber C

2800 Suite B Perimeter Park Dr., Morrisville, NC 27560
☒ Chamber NORTH
☐ Chamber SOUTH

UL LLC (RTP) is accredited by NVLAP, Laboratory Code 200246-0. The full scope of accreditation can be viewed at http://www.nist.gov/nvlap/.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Total RF power, conducted	±0.45 dB
RF power density, conducted	±1.5 dB
Spurious emissions, conducted	±1.46 dB
Radiated Emissions (30-1000 MHz)	+/- 6.04 dB (3m)
Radiated Emissions (1-6 GHz)	+/- 5.96 dB
Radiated Emissions (6-18 GHz)	+/- 6.10 dB
Radiated Emissions (18-26 GHz)	+/- 6.81 dB
Temperature	±0.07°C
Humidity	±2.26% RH
DC and low frequency voltages	±1.27%

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a handheld computing device with 802.11 2x2, a/b/g/n/ac WLAN, Bluetooth, Bluetooth LE. This report covers 2.4 GHz 802.11. All other technologies are covered by separate reports.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2412 - 2472	802.11b	15.41	34.75
2412 - 2472	802.11g	15.43	34.91
2412 - 2472	802.11n HT20	15.43	34.91

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integrated antenna, with a maximum gain as follows:

Frequency Range (MHz)	MAIN Antenna Wi-Fi Main/BT Peak Gain (dBi) Chain B	MIMO Antenna Wi-Fi MIMO Peak Gain (dBi) Chain A
2400 to 2483.5 MHz	1.7	1.4

5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Mte OS 1.416.0.

The test utility software used during testing was WiFi tool v2.7.4.

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

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

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

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20mode: MCS0

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Laptop	Lenovo	E545	MP-06P9HP	DoC
Laptop AC/DC adapter	Lenovo	42T4430	11S42T4430Z1ZGWE25Y1ET	DoC
Ethernet to USB Adapter	Linksys	USB300M	C8D719E76E21	N/A
EUT AC/DC adapter	Microsoft	1625	0D130C07VLN51	DoC
Ear buds	-	Generic	-	N/A

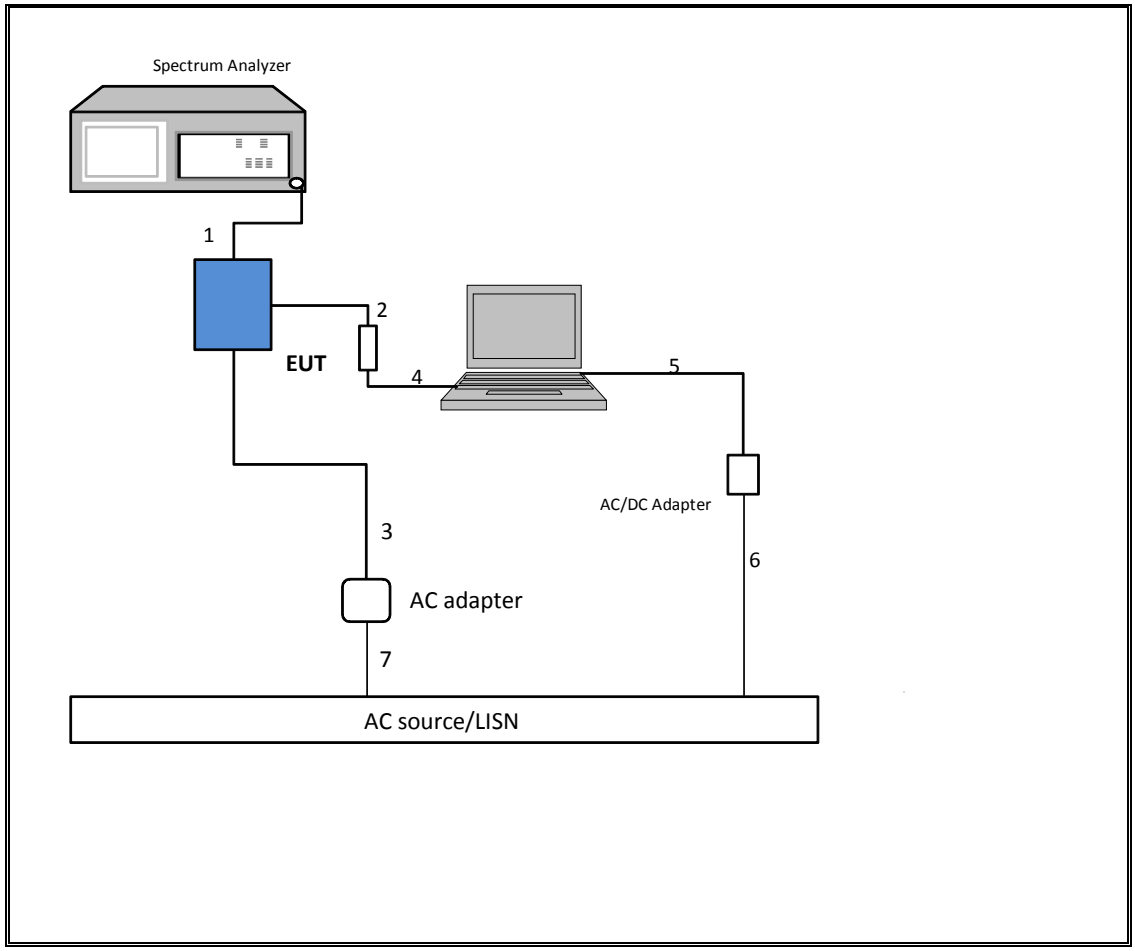
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	Antenna	1	SMA	Un-Shielded	0.3	To spectrum Analyzer
2	USB	1	USB	Shielded	0.2	To EUT
3	DC	1	DC	Un-shielded	1.8	N/A
4	Ether cable	1	RJ45- USB	Un-shielded	1	To laptop
5	DC	1	DC	Un-shielded	0.8	N/A
6	AC	1	2-Prong	Un-shielded	1.5	N/A
7	AC	1	2-Prong	Un-Shielded	0.5	N/A
8	Audio	1	3.5mm stereo	Un-Shielded	1.1	N/A

TEST SETUP- CONDUCTED PORT

The EUT was tested connected to a host Laptop via RJ45/USB cable and spectrum analyzer to antenna port. Test software exercised the EUT.

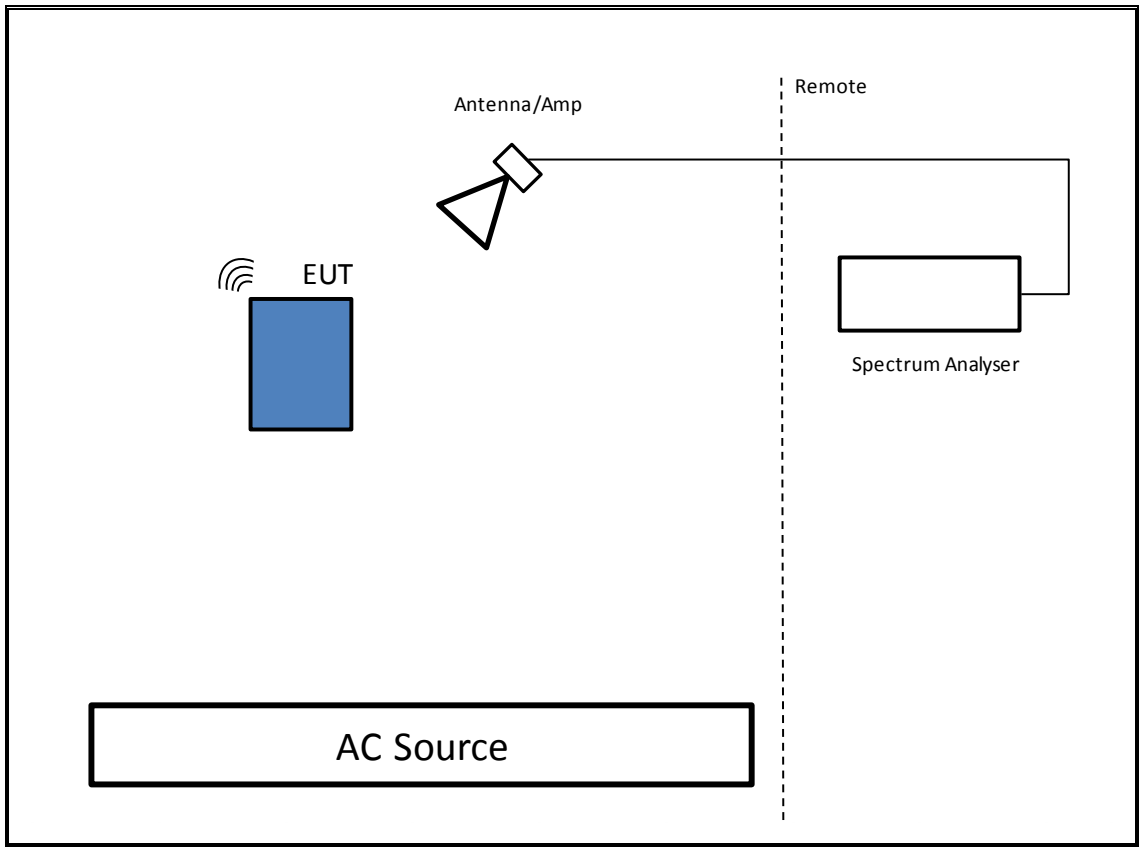
SETUP DIAGRAM



TEST SETUP- RADIATED-ABOVE 1 GHZ

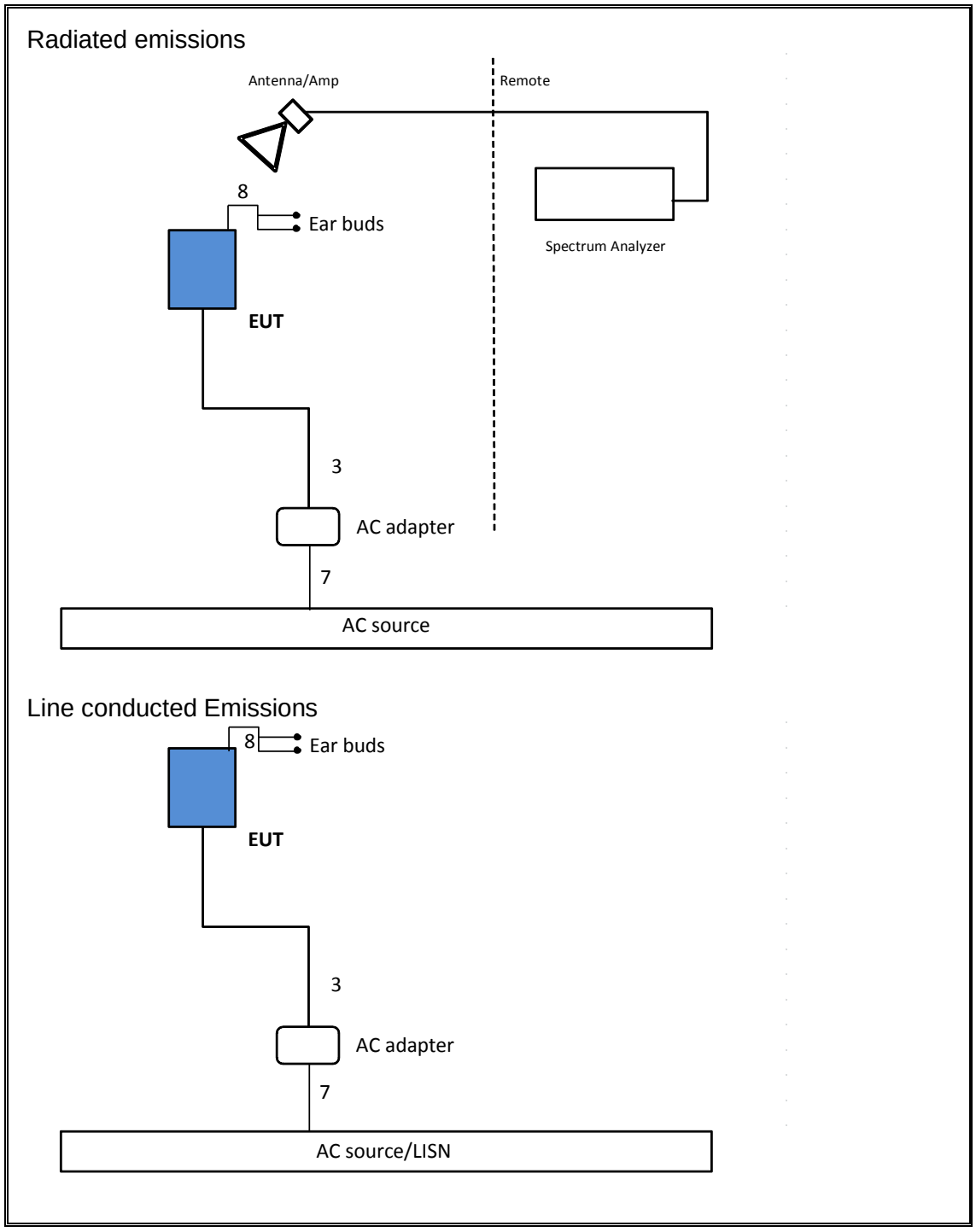
The EUT was tested battery powered. Test software exercised the EUT.

SETUP DIAGRAM



TEST SETUP - BELOW 1GHZ & AC LINE CONDUCTED TESTS

SETUP DIAGRAM



6. TEST AND MEASUREMENT EQUIPMENT

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

Radiated Disturbance Emissions Test Equipment (Morrisville - North Chamber)

Equip. ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
AT0073	Hybrid Broadband Antenna, 30-1000MHz	Sunol Sciences Corp.	JB3	2015-06-10	2016-06-30
AT0072	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2015-02-17	2016-02-29
SAC_N_ Hybrid (30-1000MHz)	Gain-Loss string for Hybrid antenna	Various	Various	2015-06-25	2016-06-30
SAC_N_Horn (1-18GHz)	Gain-Loss string for Horn antenna	Various	Various	2015-06-25	2016-06-30
AT0053	Horn Antenna, 18-26.5GHz	ARA	SWH-28 (S/N 1004)	2015-07-28	2016-07-31
	Amplifier (S/Ns 859993, 860112, 859864)	Miteq	JSD42-1800400-30-5A		
	Cable (S/N 204158-001)	Micro-coax	UFA147A-0-1181-200200		
SA0026	Spectrum Analyzer	Agilent	N9030A	2015-03-27	2016-03-31
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
43733	Temp/Humid/Pressure Meter	Cole Parmer	99760-00	2014-03-24	2016-03-24

Antenna-port Test Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
	Common Equipment				
T189	Spectrum Analyzer	Agilent Technologies	E4440A	2015-05-13	2016-05-31
PWM002	RF Power Meter	Keysight Technologies	N1911A	2015-06-08	2017-06-08
PWS004	Power Sensor, 50MHz to 6 GHz	Keysight Technologies	E9323A	2015-06-05	2016-06-05
43733	Temp/Humid/Pressure Meter	Cole Parmer	99760-00	2014-03-24	2016-03-24

Line Conducted Test Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
SA0021	EMI Test Receiver 9kHz-3.6GHz	Rohde & Schwarz	ESR3	2015-07-08	2016-07-31
ATA508	Transient Limiter, 0.009 to 100 MHz	Electro-Metrics	EM 7600	2015-08-03	2016-08-31
ATA509	Coaxial cable, 20 ft., BNC - male to BNC-male	UL	RG-223	2015-08-03	2016-08-31
HI0069	Temp/Humid/Pressure Meter	Cole-Parmer	99760-00	2015-07-01	2016-07-31
SOFTEMI	EMI Software	UL	Version 9.5	NA	NA
LISN002	LISN, 50-ohm/50-uH, 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50-25-2-01-550V	2014-09-04	2015-09-30

7. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r03, Section 8.1.

Output Power: KDB 558074 D01 v03r03, Section 9.2.3.1.

Power Spectral Density: KDB 558074 D01 v03r03, Section 10.2.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r03, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r03, Section 12.0.

Band-edge: KDB 558074 D01 v03r03, Section 13.3.1.

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

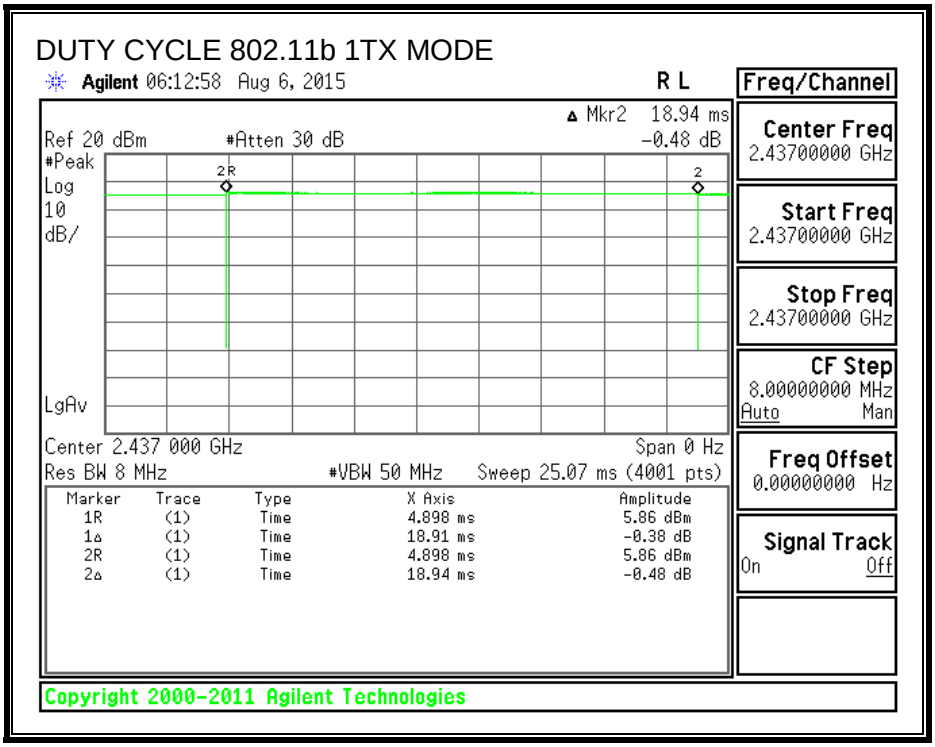
KDB 558074 Zero-Span Spectrum Analyzer Method.

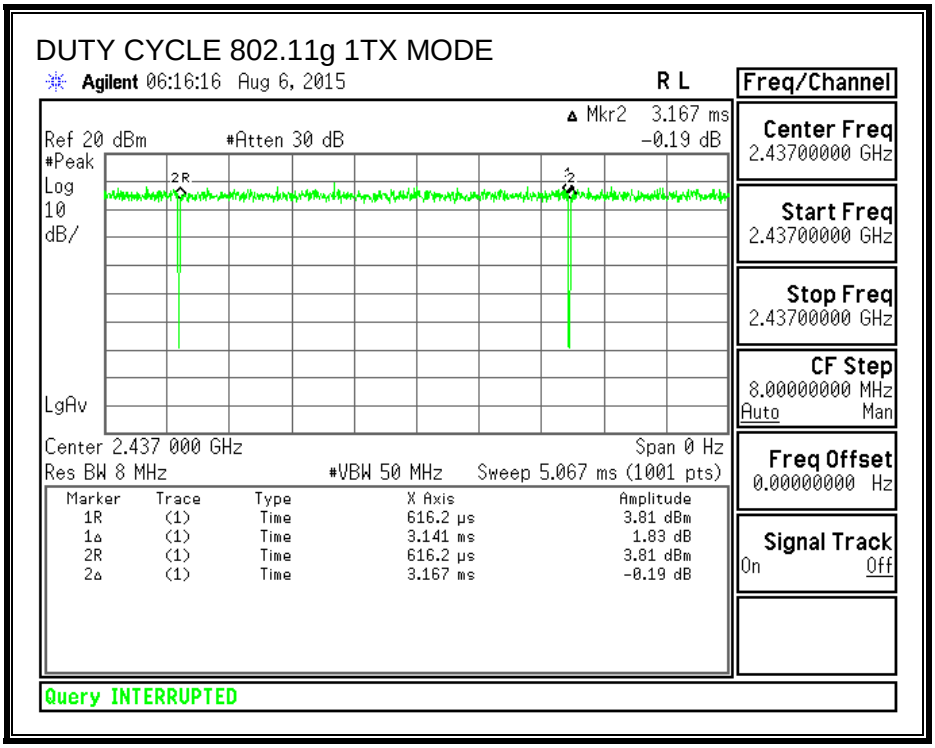
ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
802.11b 2Tx	18.910	18.940	0.998	99.84%	0.00	0.010
802.11g 2Tx	3.141	3.167	0.992	99.18%	0.00	0.010
802.11n HT20 2Tx	9.910	9.930	0.998	99.80%	0.00	0.010

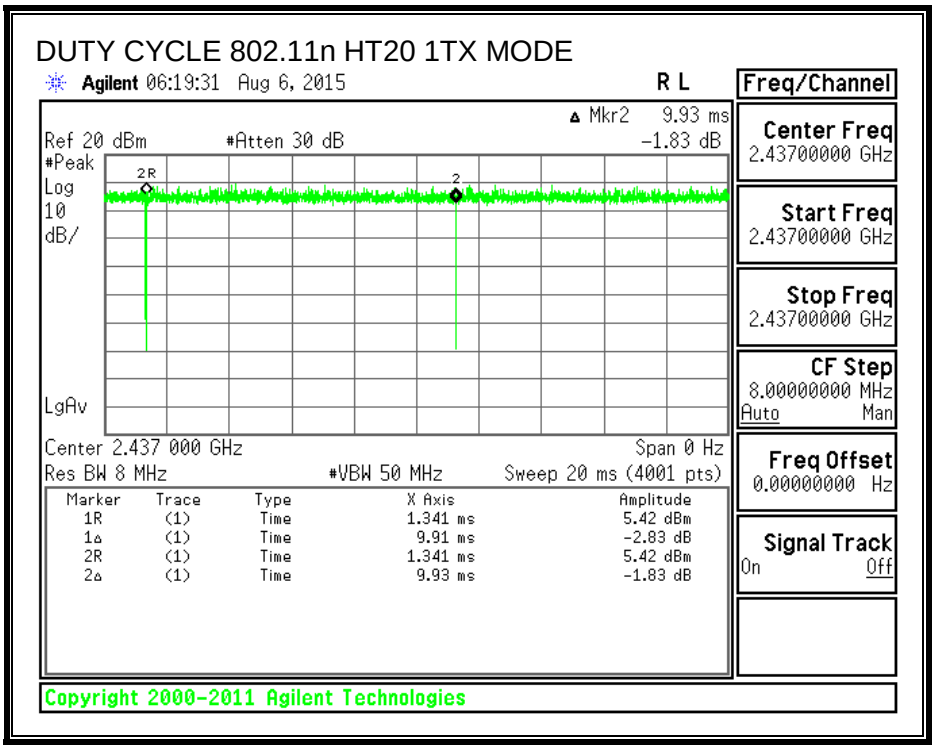
DUTY CYCLE PLOTS

2.4 GHz BAND





DUTY CYCLE 802.11n HT20 1TX MODE



8.2. 802.11b MODE IN THE 2.4 GHz BAND

8.2.1. 6 dB BANDWIDTH

LIMITS

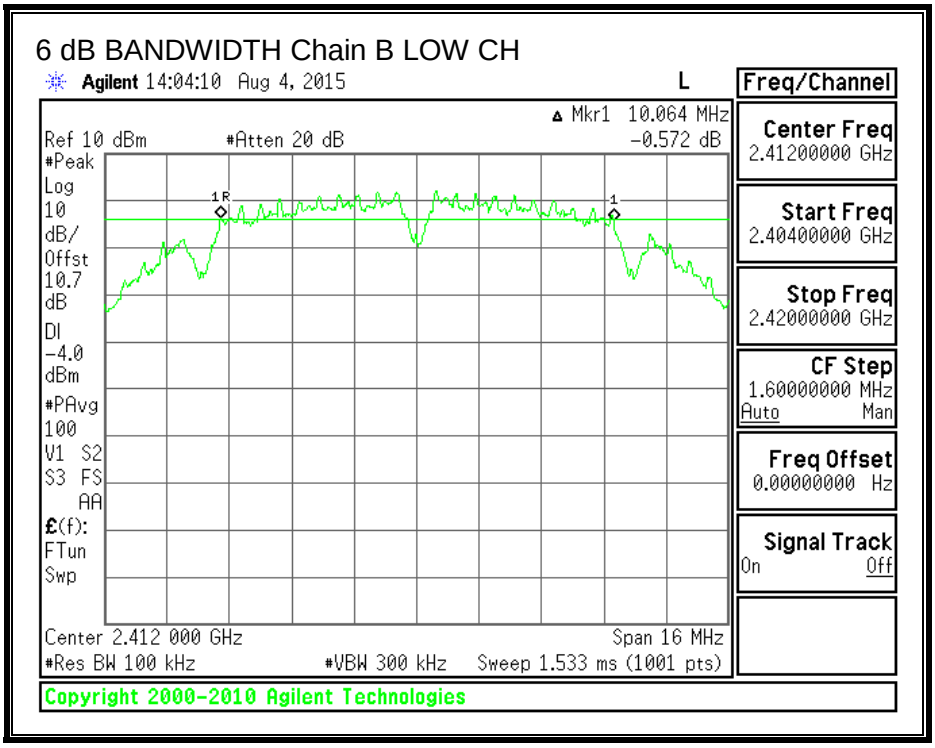
FCC §15.247 (a) (2)

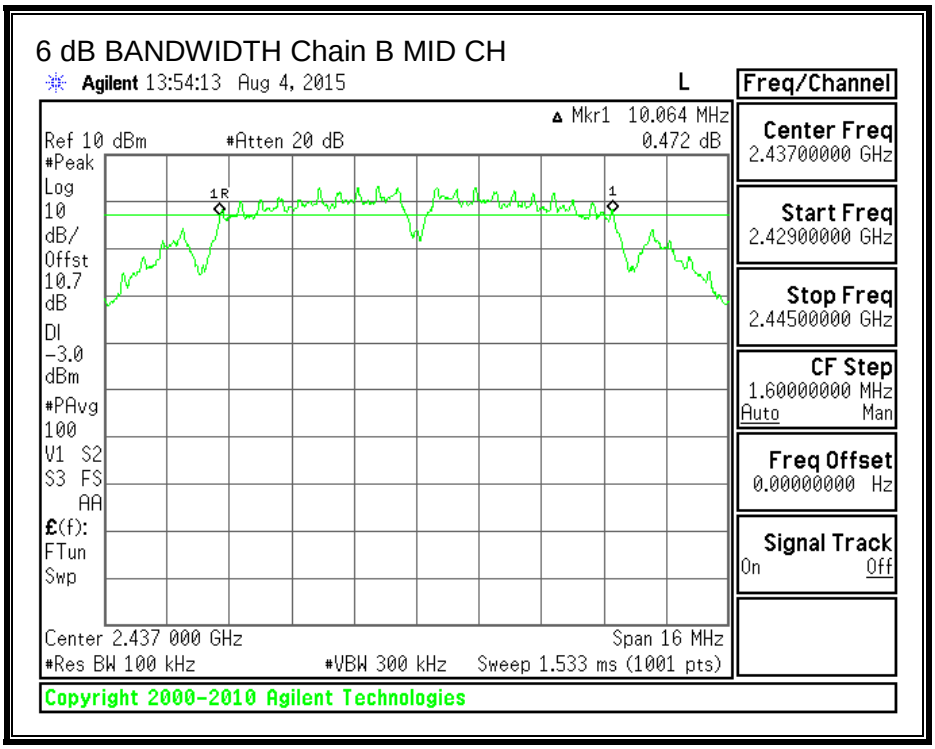
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS (802.11b)

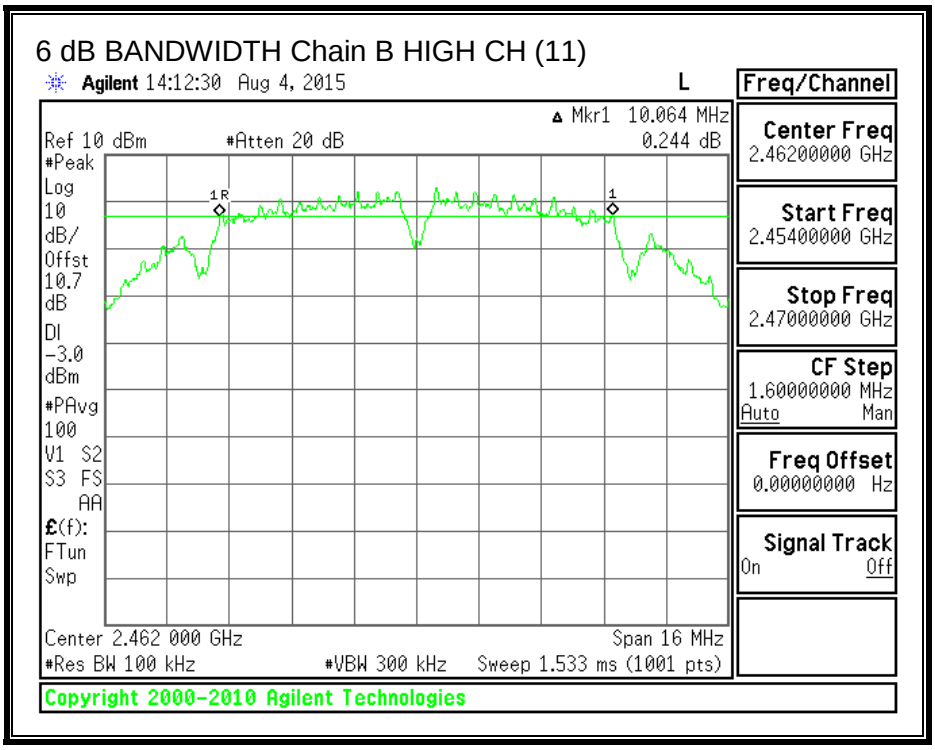
Channel	Frequency (MHz)	6 dB BW Chain B (MHz)	6 dB BW Chain A (MHz)	Minimum Limit (MHz)
Low	2412	10.064	9.825	0.5
Mid	2437	10.064	10.064	0.5
High CH 11	2462	10.064	10.080	0.5
High CH 12	2467	10.064	10.080	0.5
High CH 13	2472	10.080	10.096	0.5

6 dB BANDWIDTH, Chain B

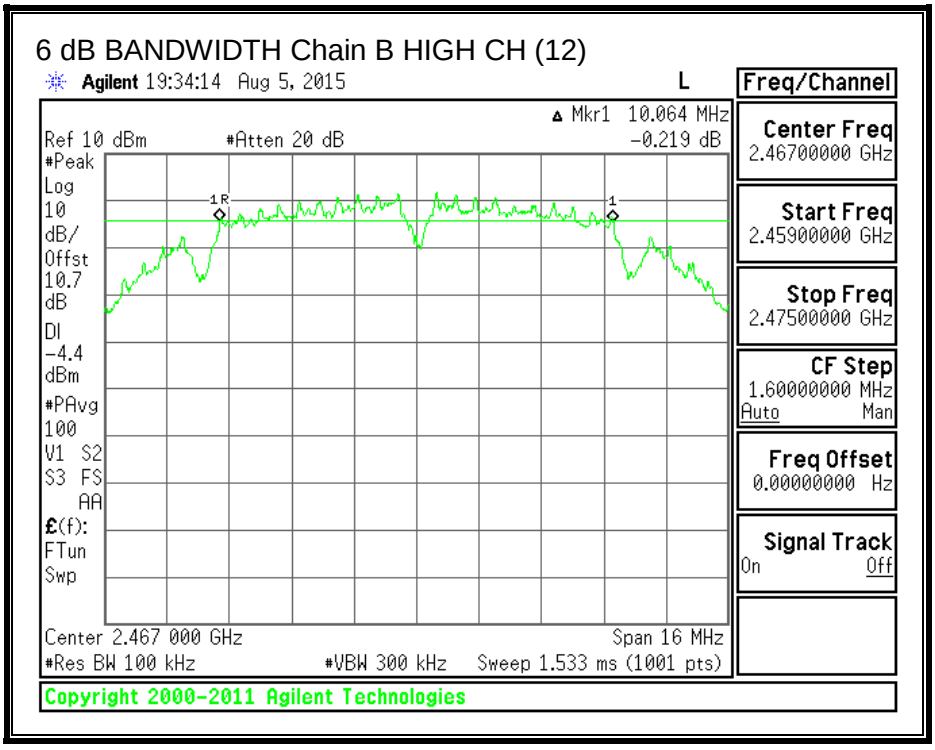




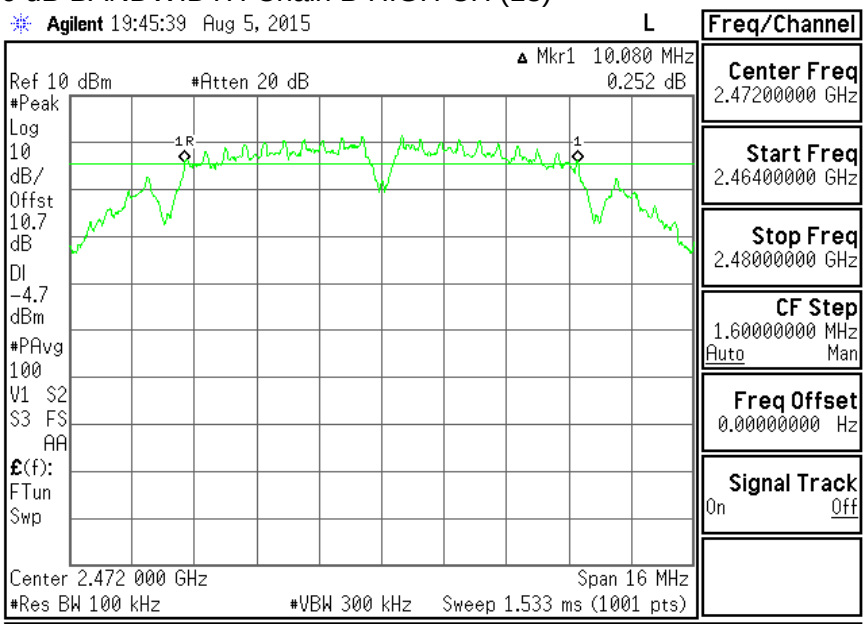
6 dB BANDWIDTH Chain B HIGH CH (11)



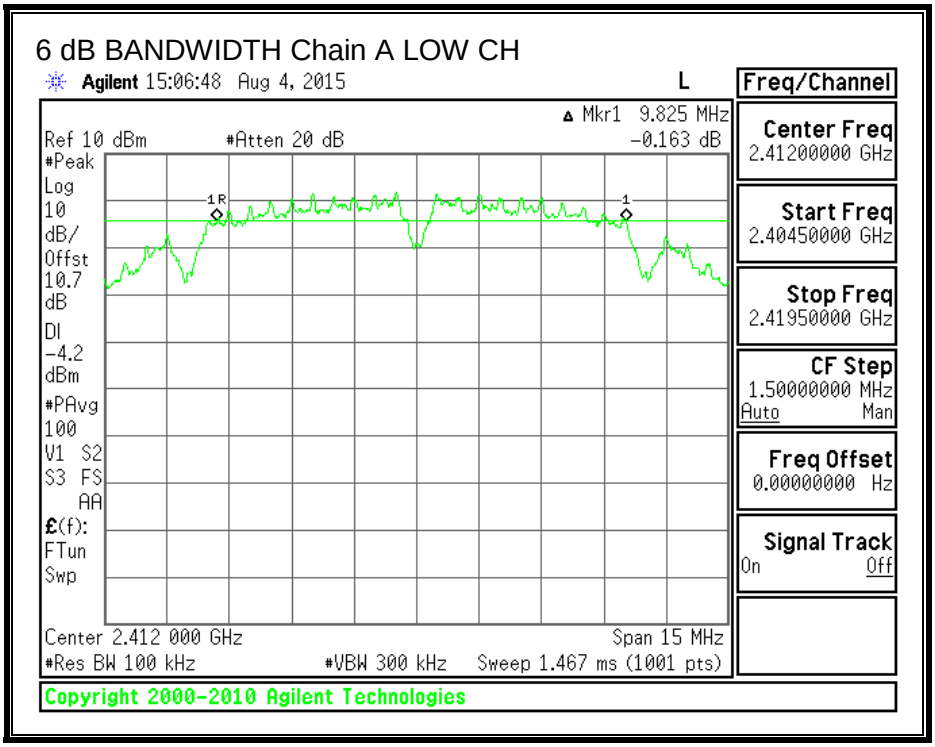
6 dB BANDWIDTH Chain B HIGH CH (12)



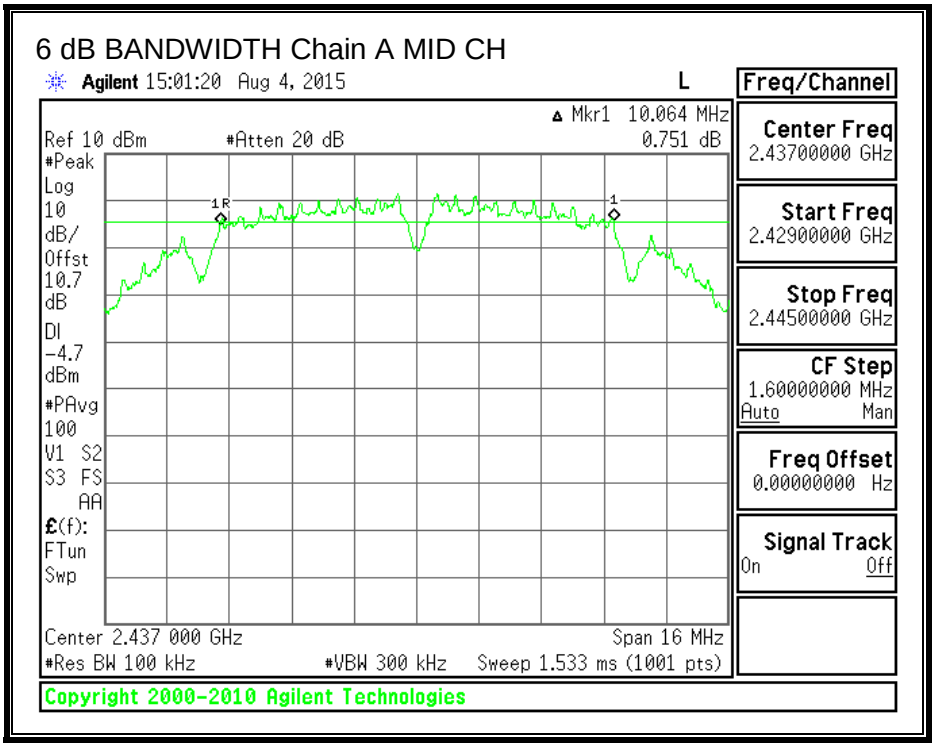
6 dB BANDWIDTH Chain B HIGH CH (13)



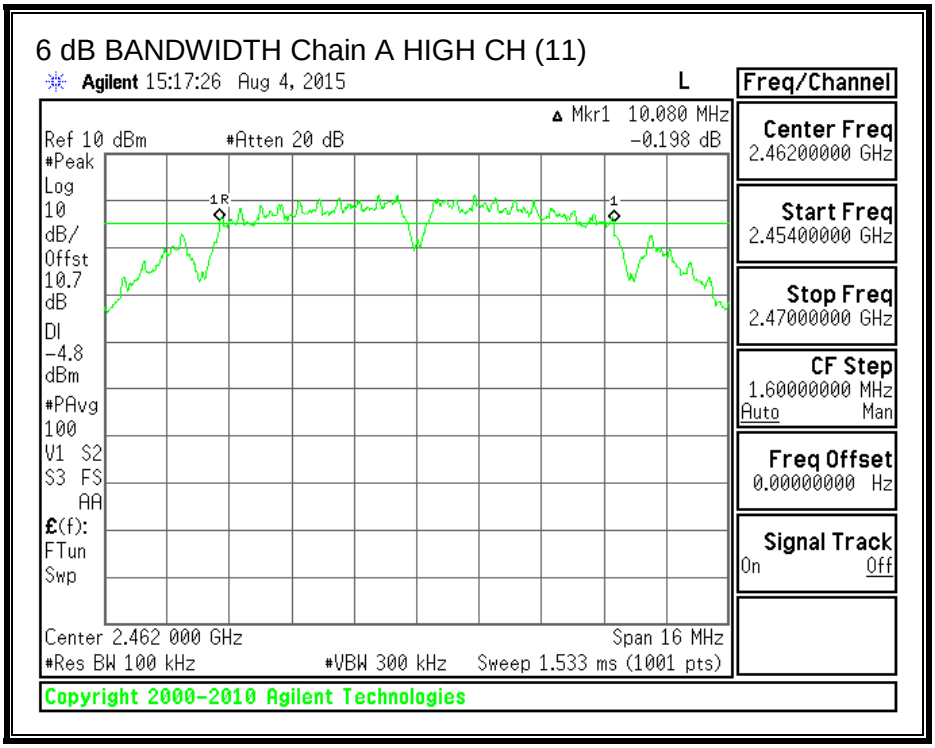
6 dB BANDWIDTH, Chain A



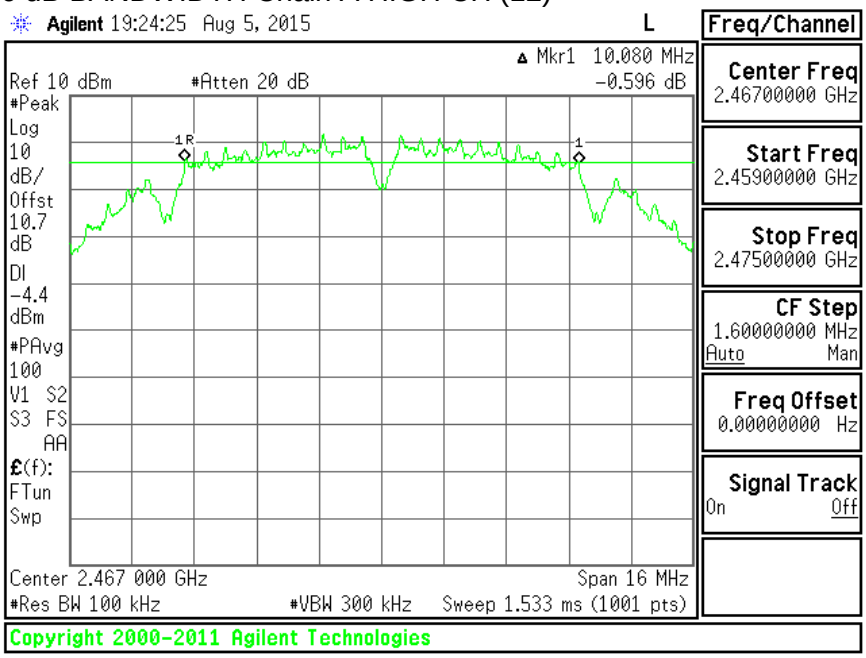
6 dB BANDWIDTH Chain A MID CH



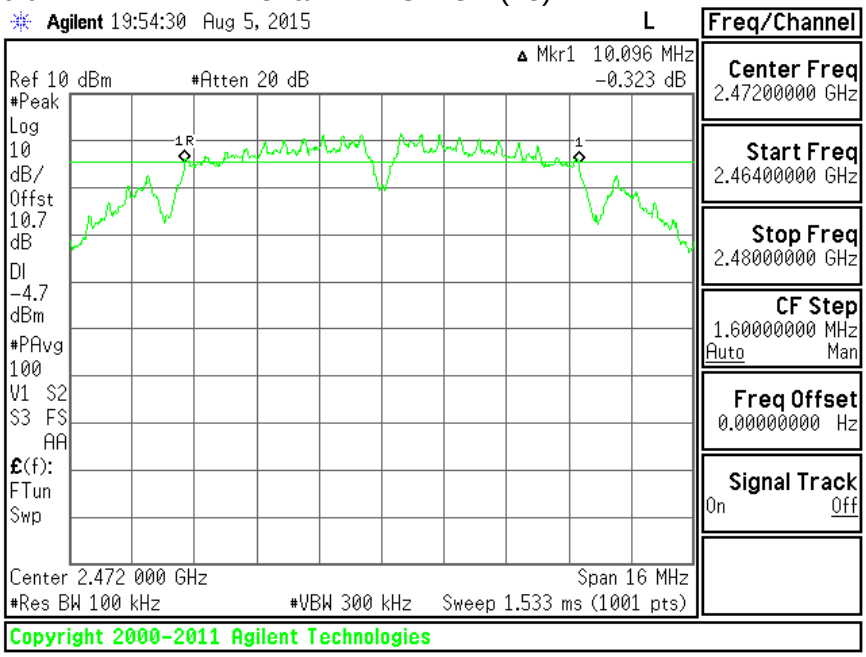
6 dB BANDWIDTH Chain A HIGH CH (11)



6 dB BANDWIDTH Chain A HIGH CH (12)



6 dB BANDWIDTH Chain A HIGH CH (13)



8.2.2. 99% BANDWIDTH

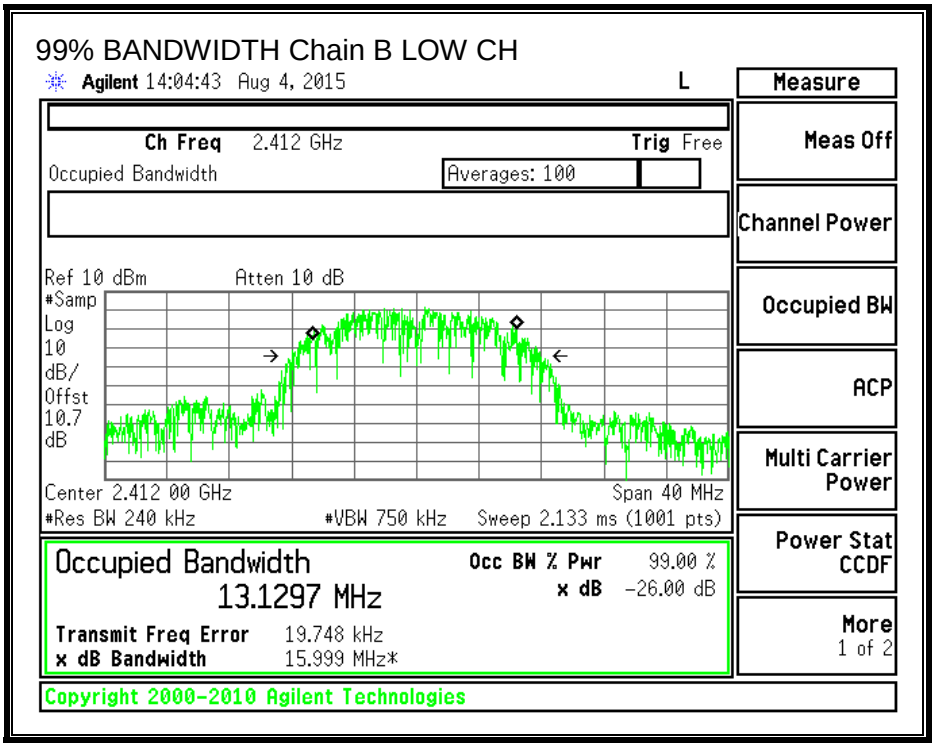
LIMITS

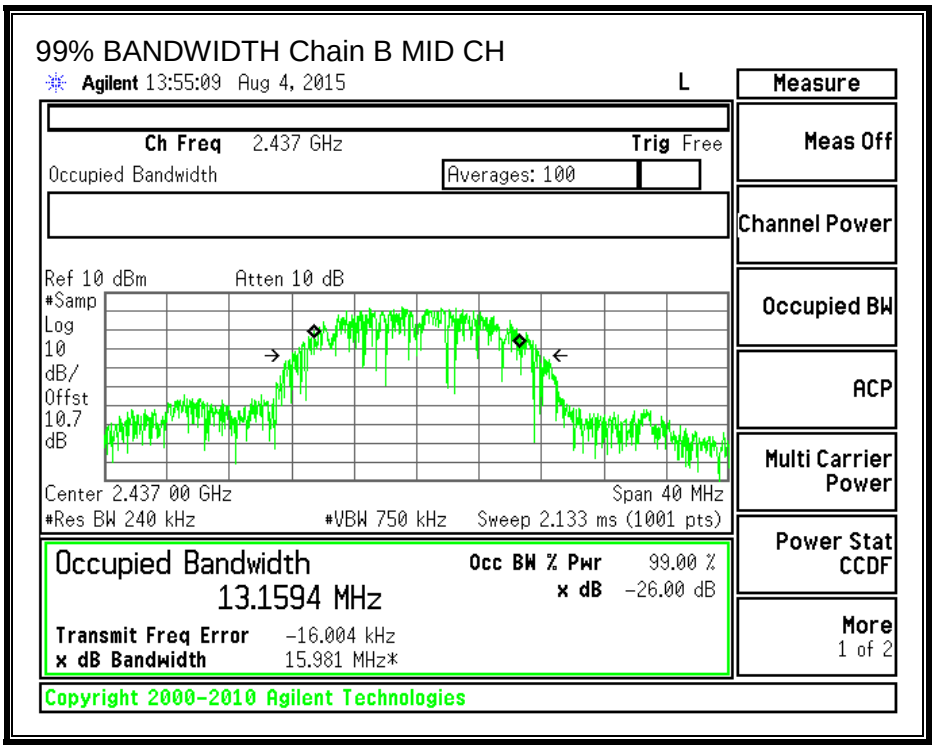
None; for reporting purposes only.

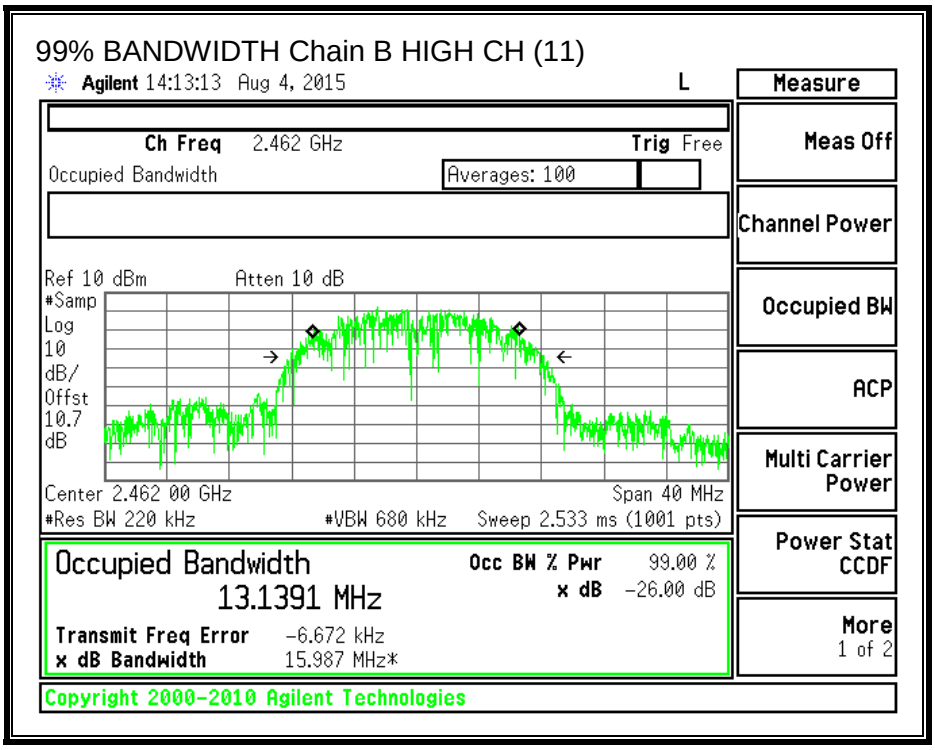
RESULTS (802.11b)

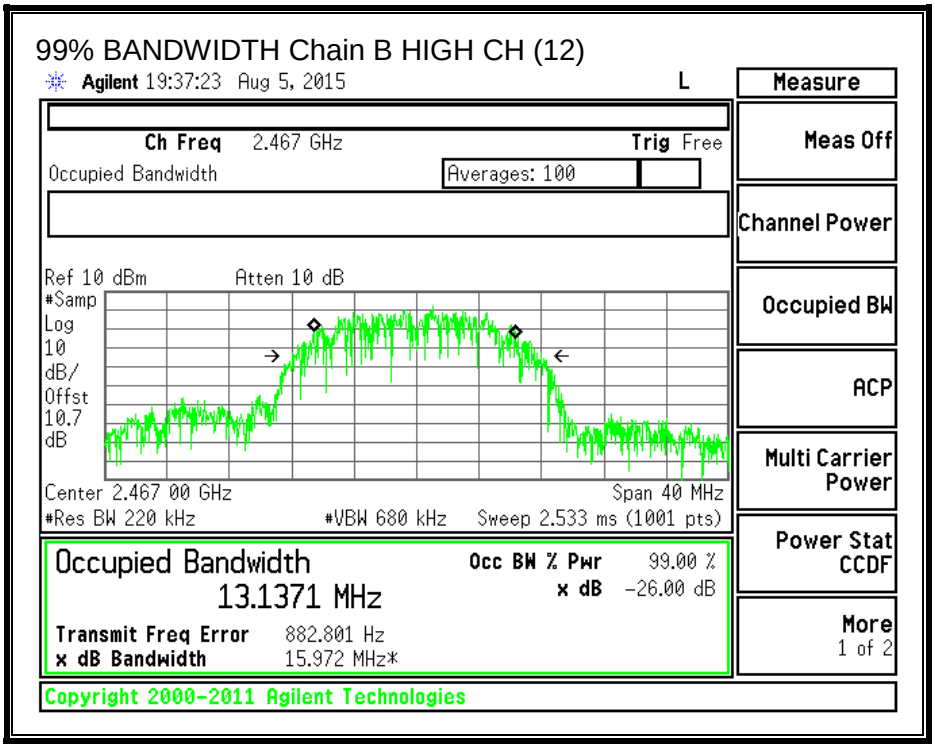
Channel	Frequency (MHz)	99% BW Chain B (MHz)	99% BW Chain A (MHz)
Low	2412	13.1297	13.1679
Mid	2437	13.1594	13.1620
High CH 11	2462	13.1391	13.1882
High CH 12	2467	13.1371	13.1918
High CH 13	2472	13.1561	13.2086

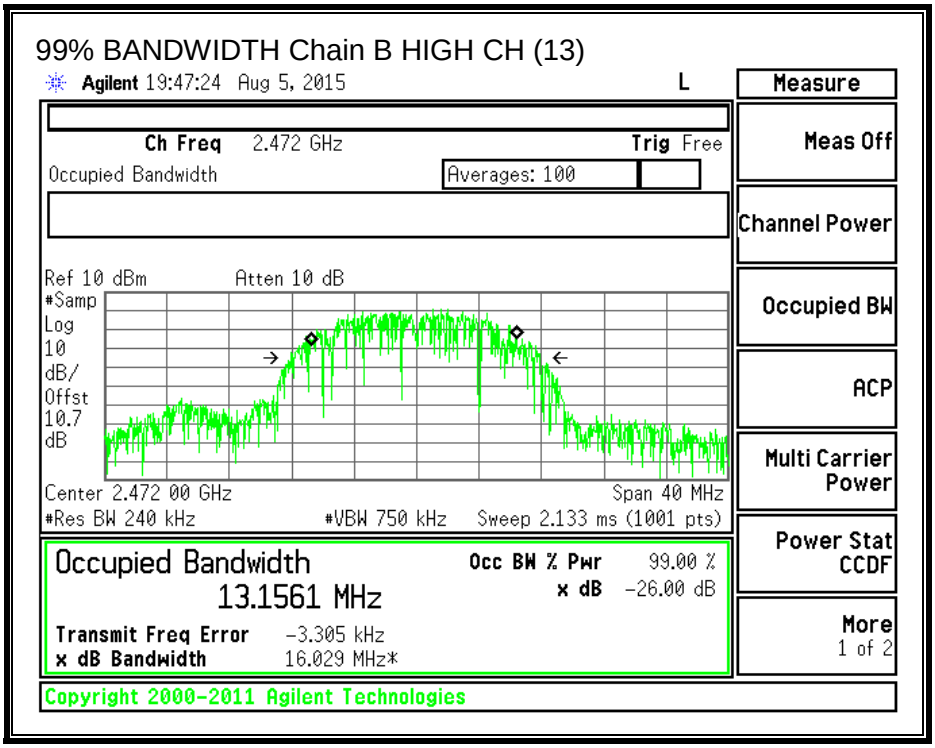
99% BANDWIDTH, Chain B



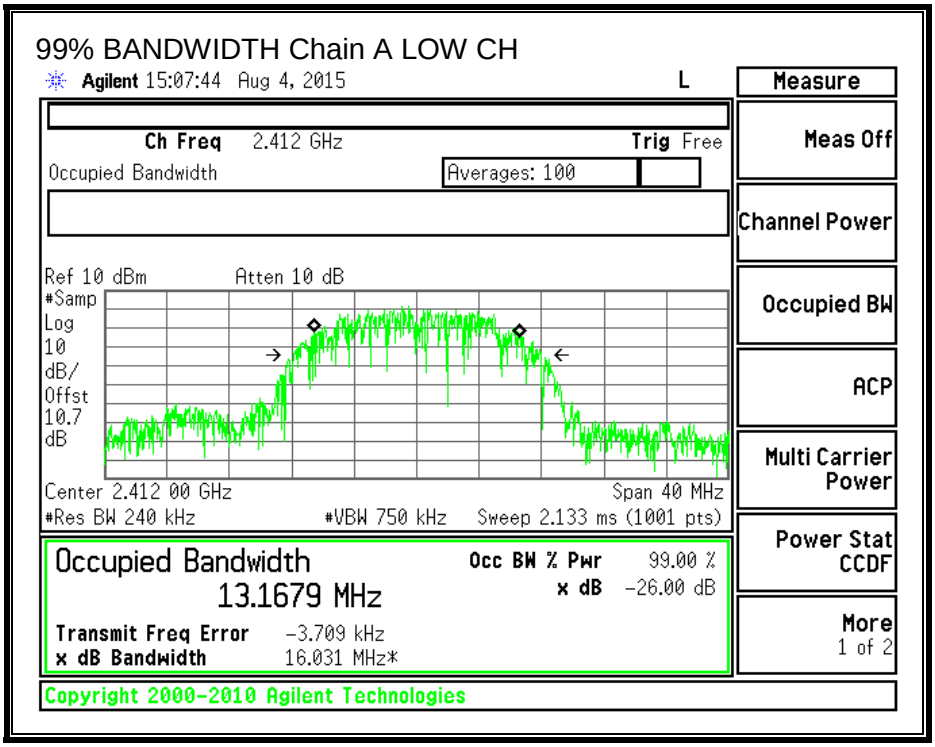




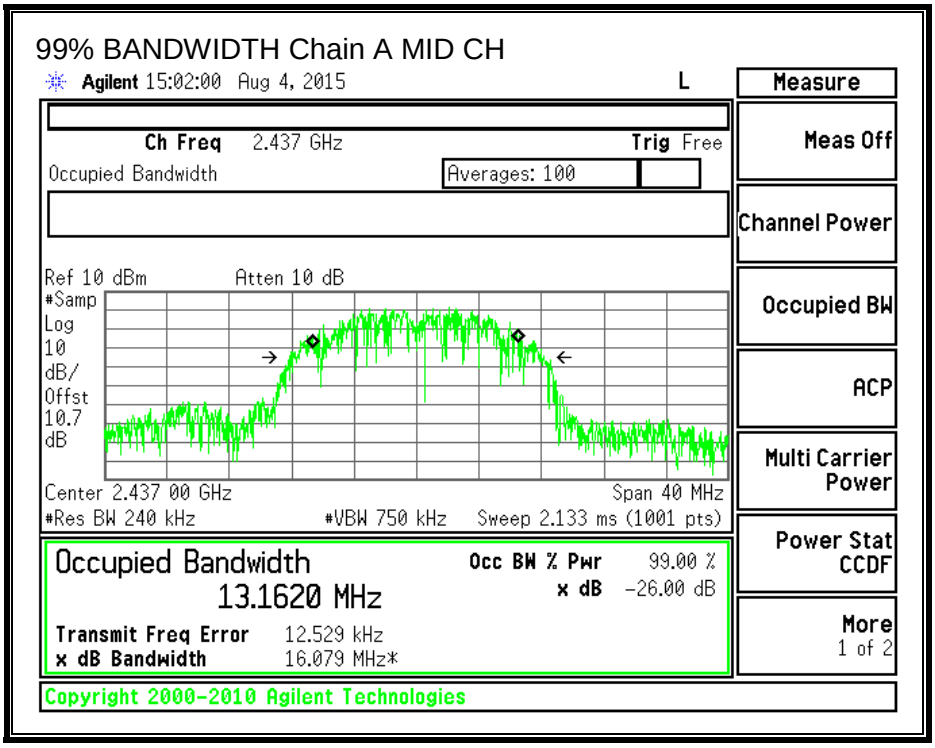




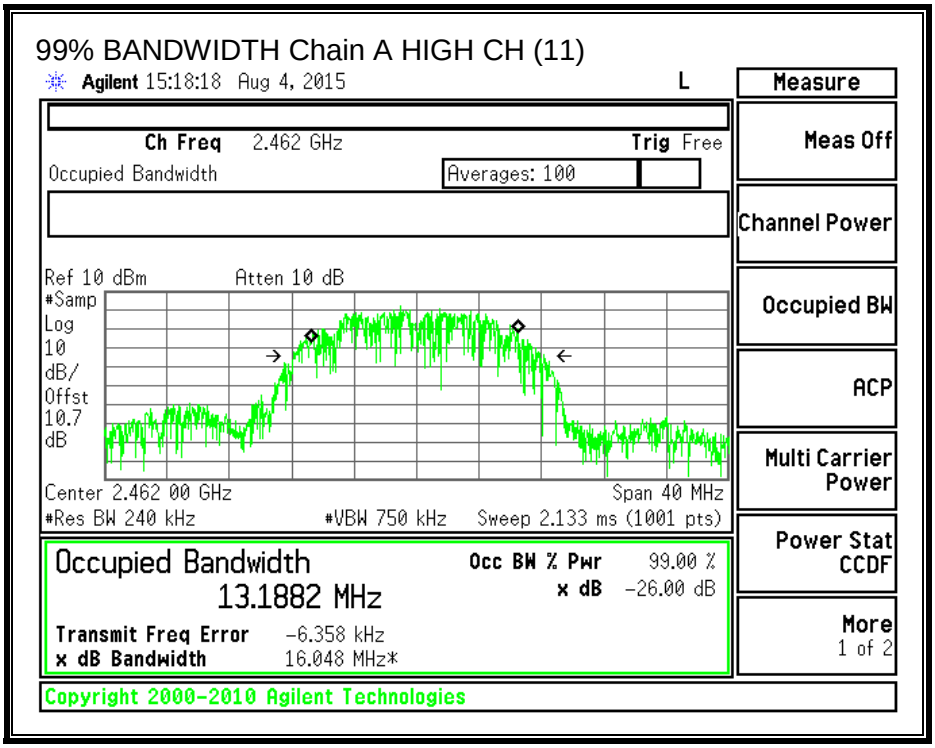
99% BANDWIDTH, Chain A

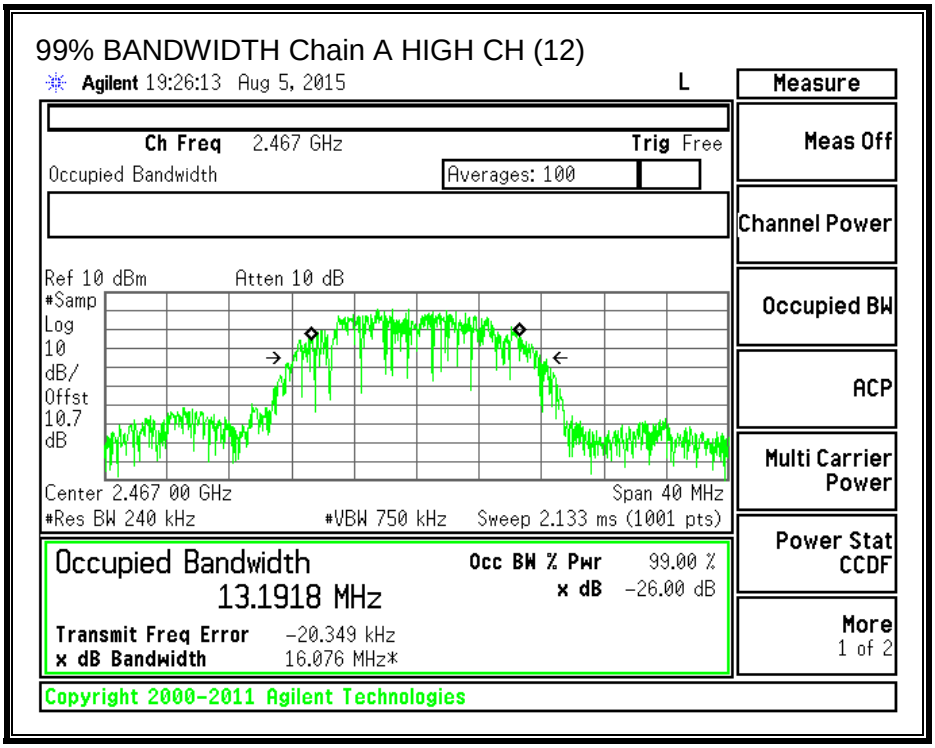


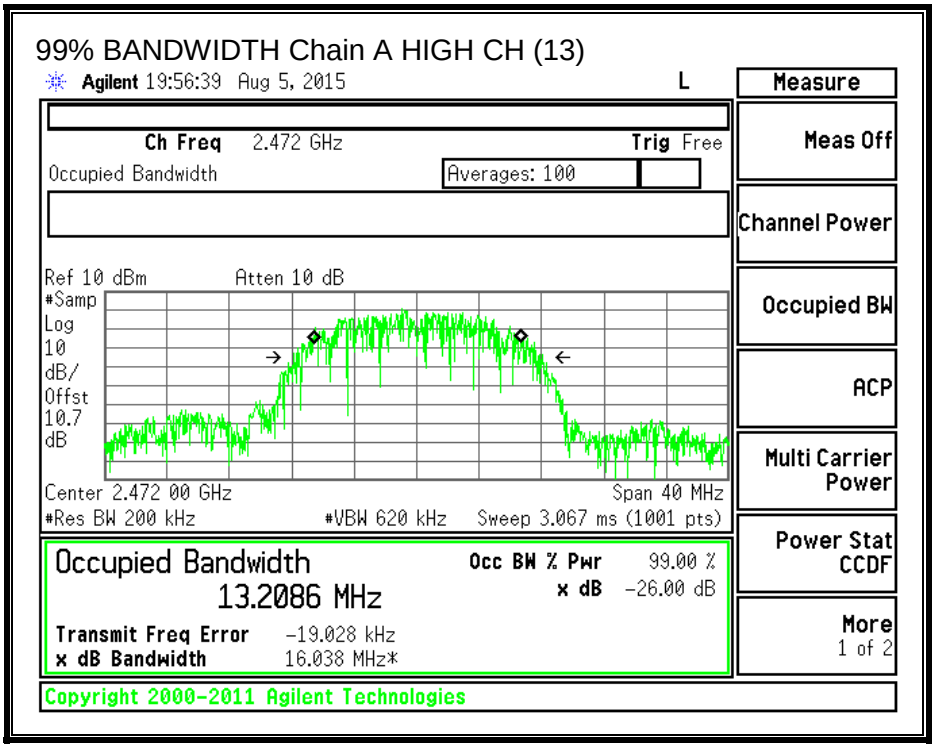
99% BANDWIDTH Chain A MID CH



99% BANDWIDTH Chain A HIGH CH (11)







8.2.3. OUTPUT POWER

LIMITS

FCC §15.247

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 unequal among the chains. The directional gain is:

Chain B Antenna Gain (dBi)	Chain A Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
1.70	1.40	1.55

RESULTS (802.11b)

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	1.55	30.00	30	36	30.00
Low 2	2417	1.55	30.00	30	36	30.00
Mid	2437	1.55	30.00	30	36	30.00
High 10	2457	1.55	30.00	30	36	30.00
High 11	2462	1.55	30.00	30	36	30.00
High 12	2467	1.55	30.00	30	36	30.00
High 13	2472	1.55	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Chain B Meas Power (dBm)	Chain A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)
Low 1	2412	10.96	10.76	13.87	30.00	-16.13	15.42	36.00	-20.58
Low 2	2417	12.38	12.15	15.28	30.00	-14.72	16.83	36.00	-19.17
Mid	2437	12.40	12.39	15.41	30.00	-14.59	16.96	36.00	-19.04
High 10	2457	12.41	12.01	15.22	30.00	-14.78	16.77	36.00	-19.23
High 11	2462	10.77	10.76	13.78	30.00	-16.22	15.33	36.00	-20.67
High 12	2467	9.18	7.73	11.53	30.00	-18.47	13.08	36.00	-22.92
High 13	2472	9.05	7.65	11.42	30.00	-18.58	12.97	36.00	-23.03

8.2.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

RESULTS (802.11b)

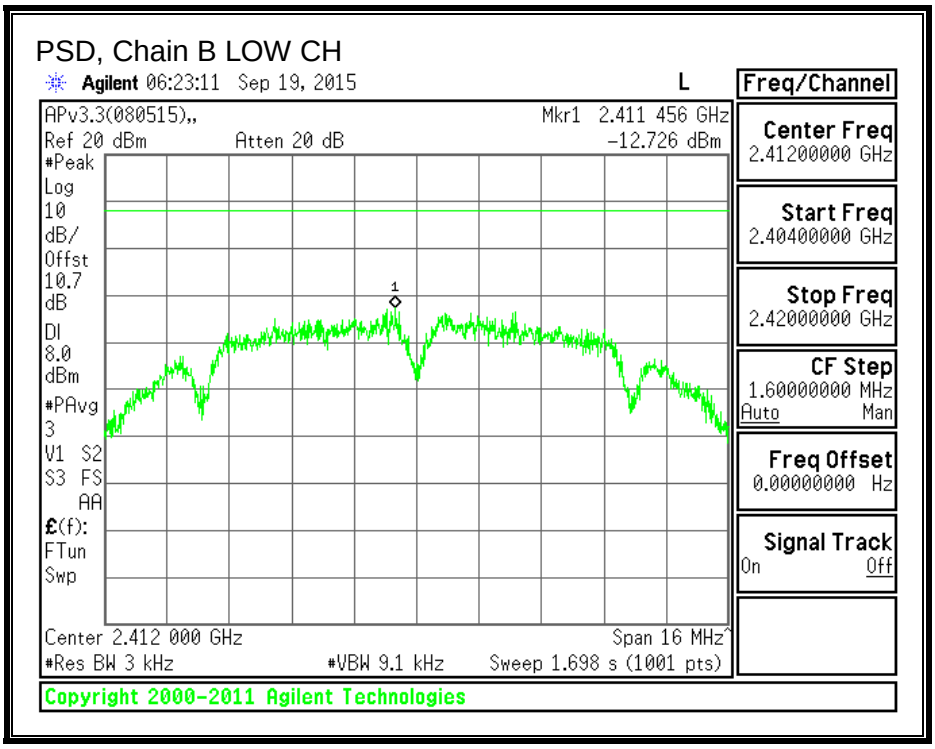
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

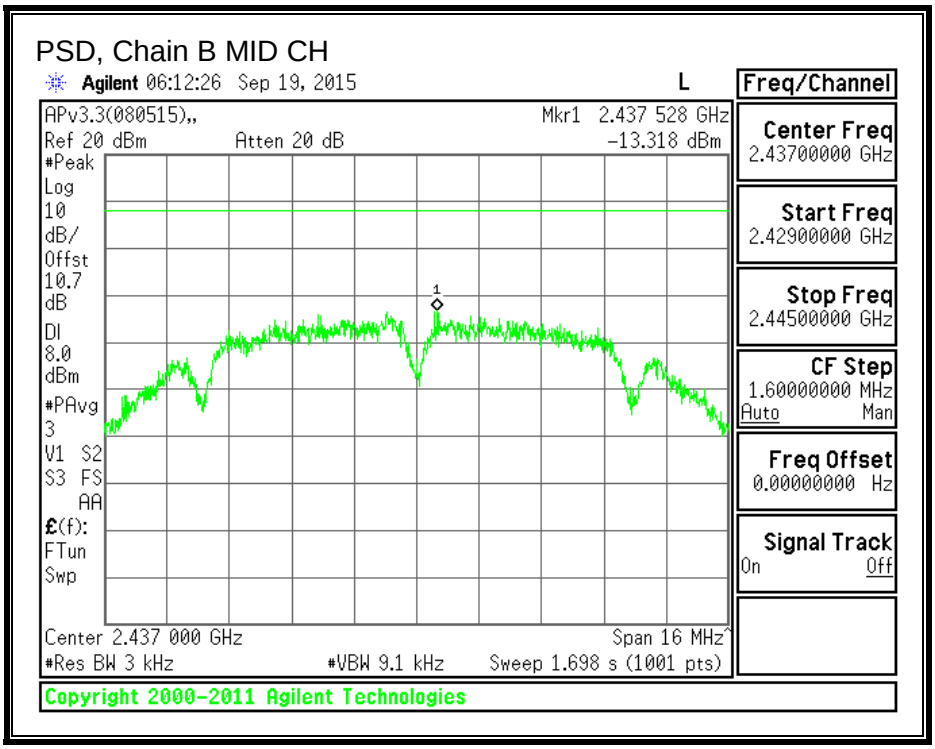
PSD Results

Channel	Frequency (MHz)	Chain B Meas (dBm)	Chain A Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-12.73	-12.31	-9.50	8.0	-17.5
Mid	2437	-13.32	-12.27	-9.75	8.0	-17.8
High CH 11	2462	-13.28	-12.31	-9.76	8.0	-17.8
High CH 12	2467	-12.41	-13.09	-9.72	8.0	-17.7
High CH 13	2472	-12.87	-12.94	-9.89	8.0	-17.9

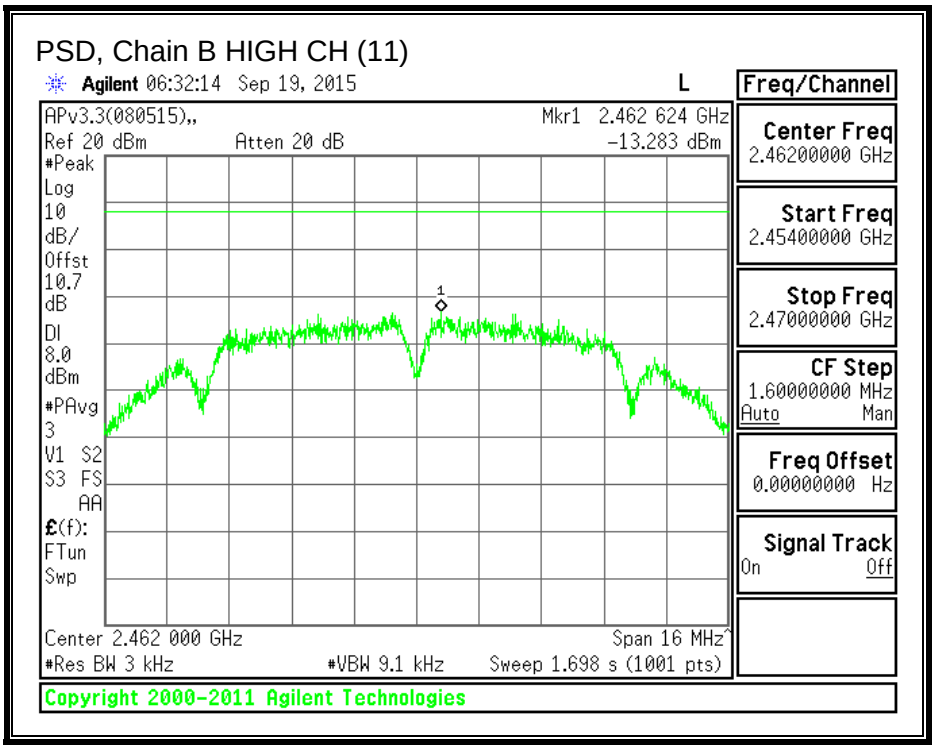
Note – For 802.11b, the power was set as a stair step: Channels 1 and 11 are the same power and Channels 2-10 are the same power. For PSD, Channels 1 and 11 were set at same power as the Mid Channel to achieve worst-case results.

PSD, Chain B

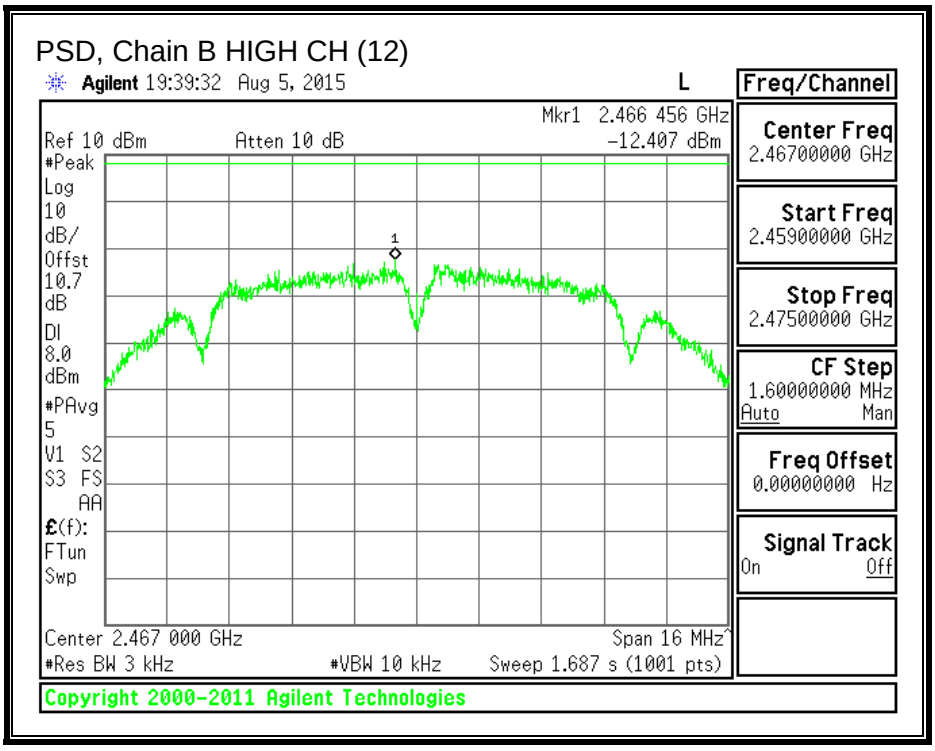




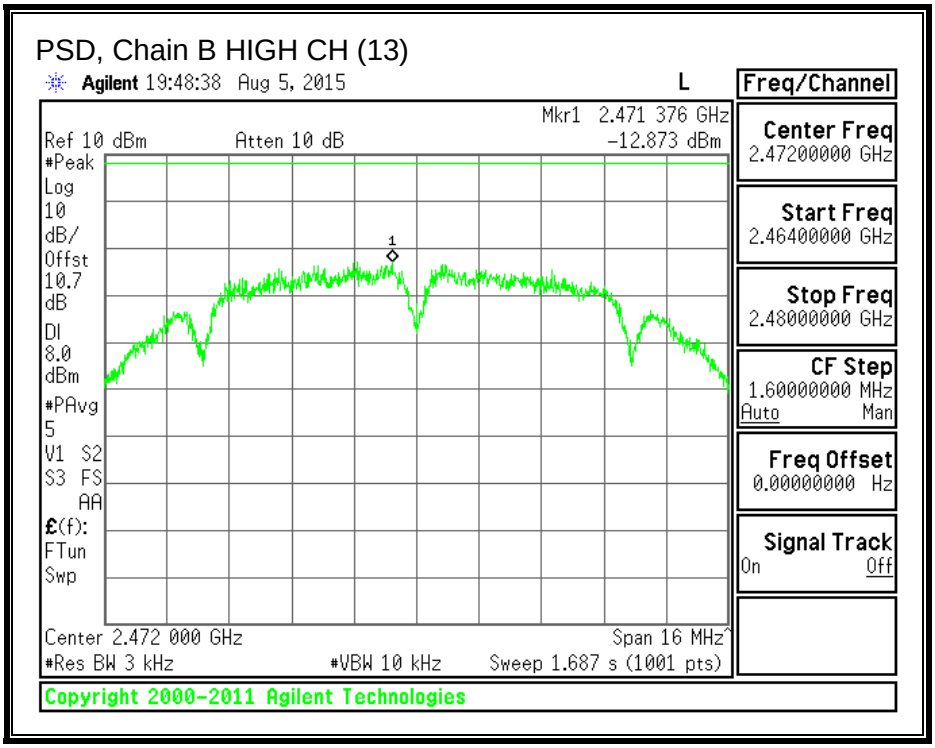
PSD, Chain B HIGH CH (11)



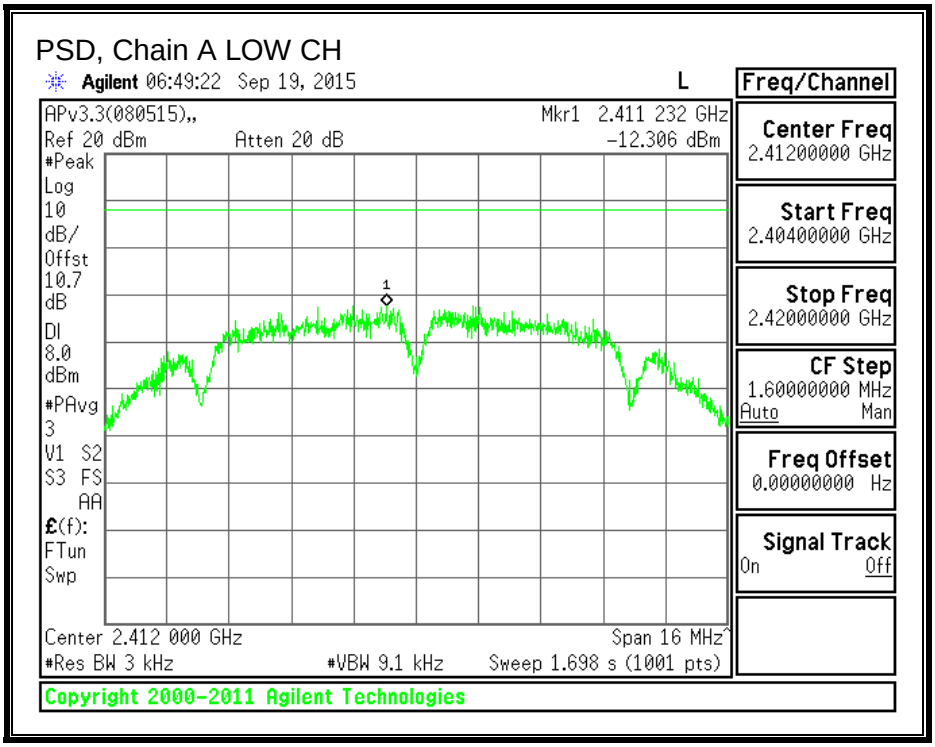
PSD, Chain B HIGH CH (12)



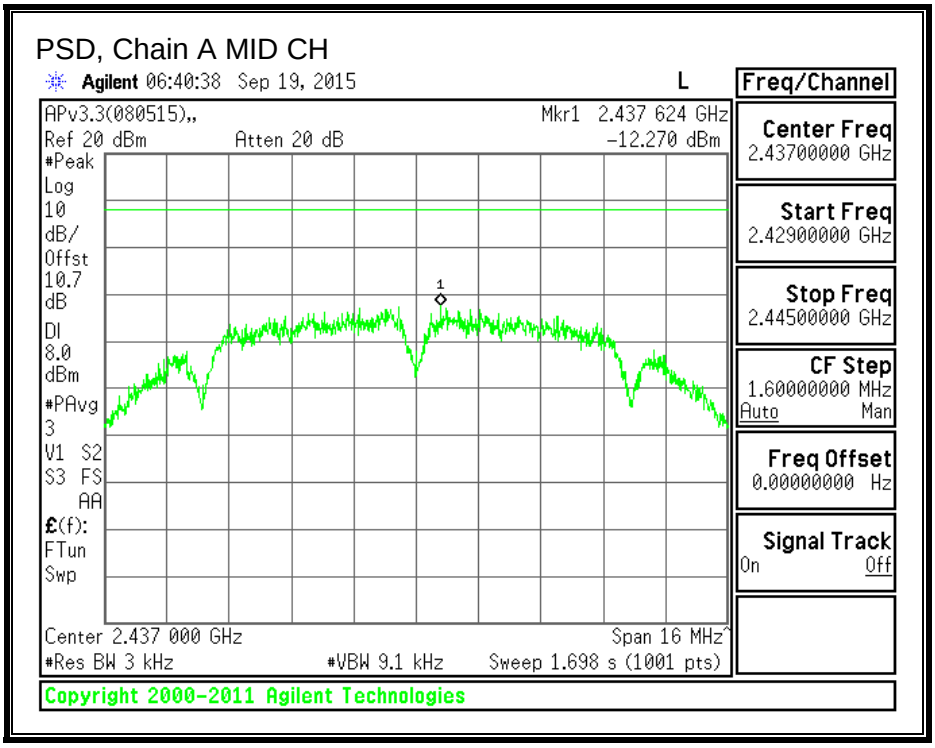
PSD, Chain B HIGH CH (13)



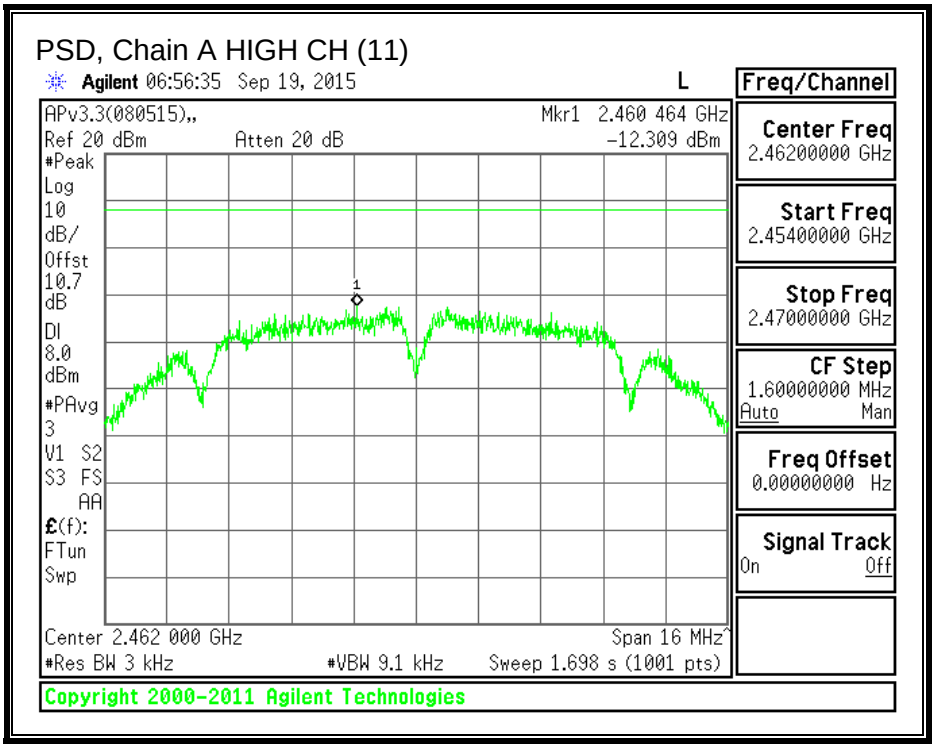
PSD, Chain A



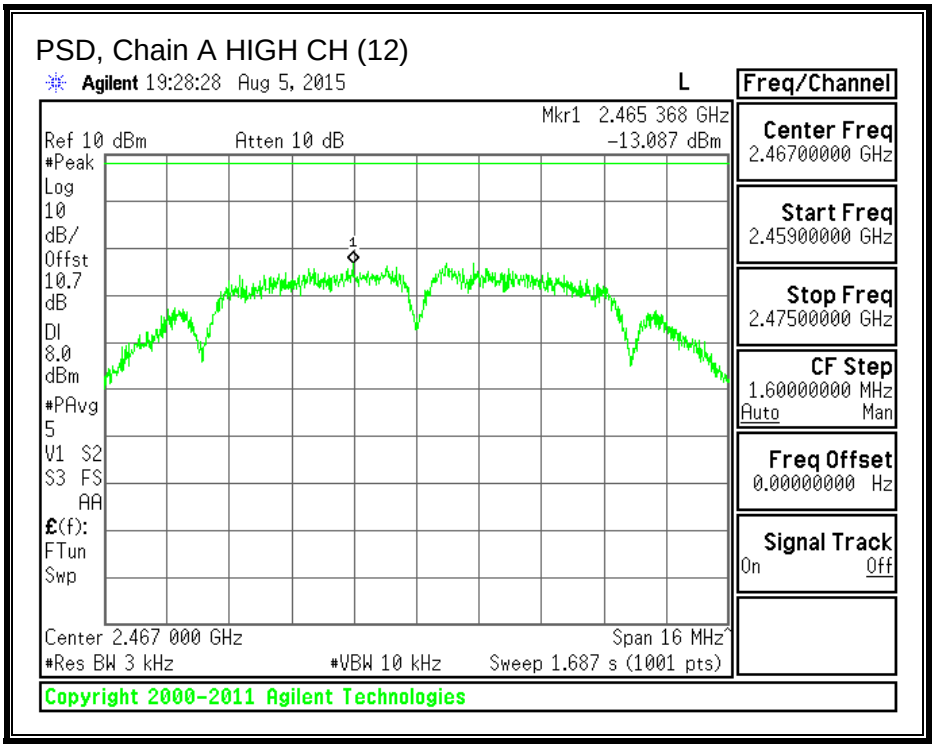
PSD, Chain A MID CH



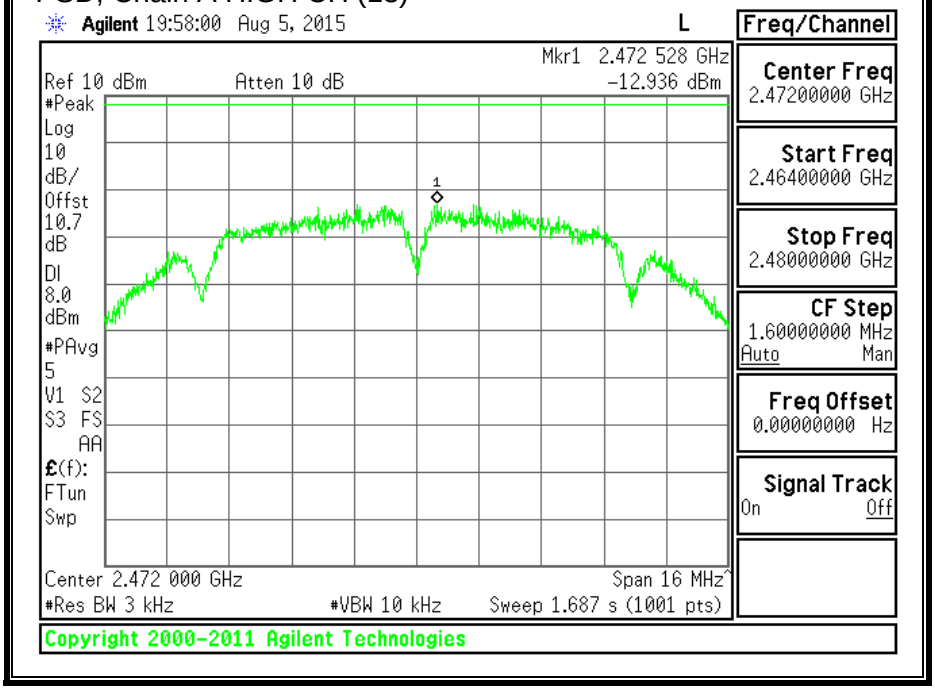
PSD, Chain A HIGH CH (11)



PSD, Chain A HIGH CH (12)



PSD, Chain A HIGH CH (13)



8.2.5. OUT-OF-BAND EMISSIONS

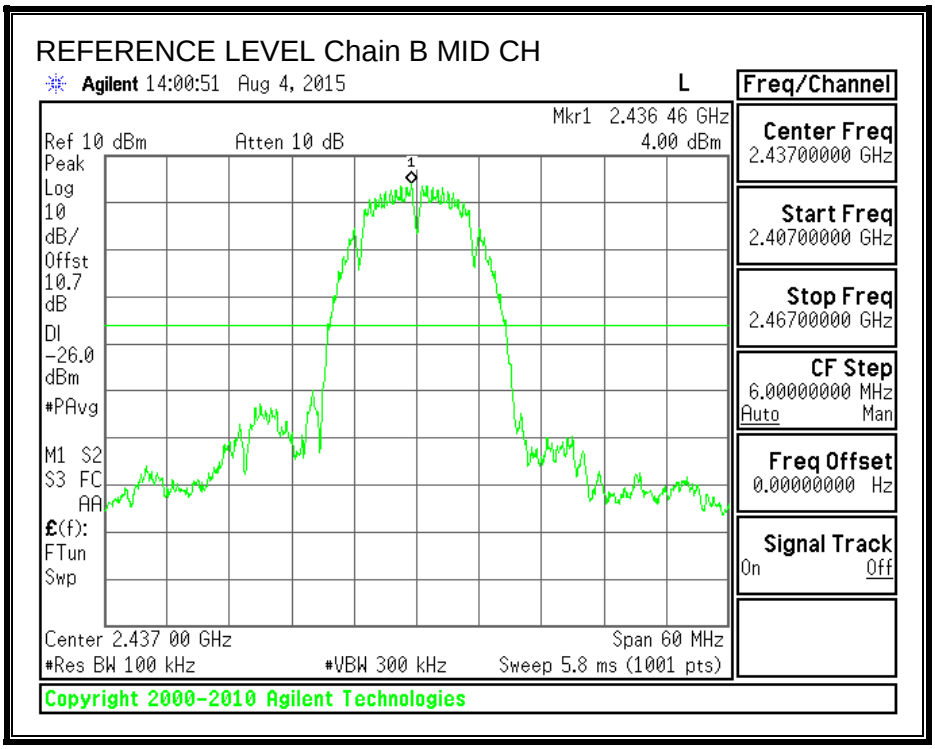
LIMITS

FCC §15.247 (d)

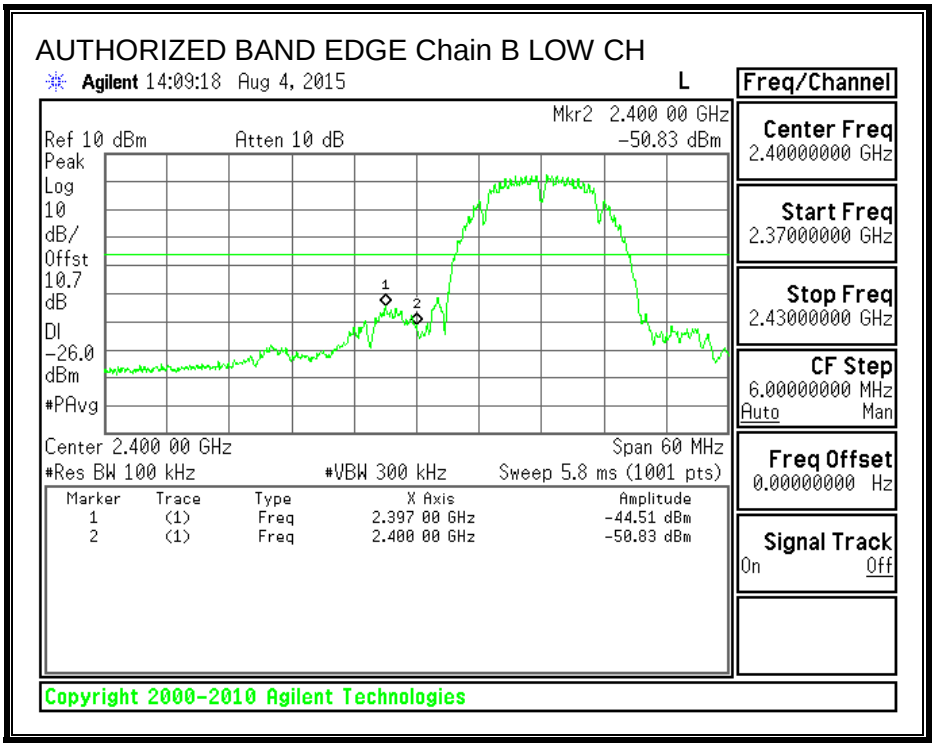
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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.

RESULTS (802.11b)

IN-BAND REFERENCE LEVEL, Chain B

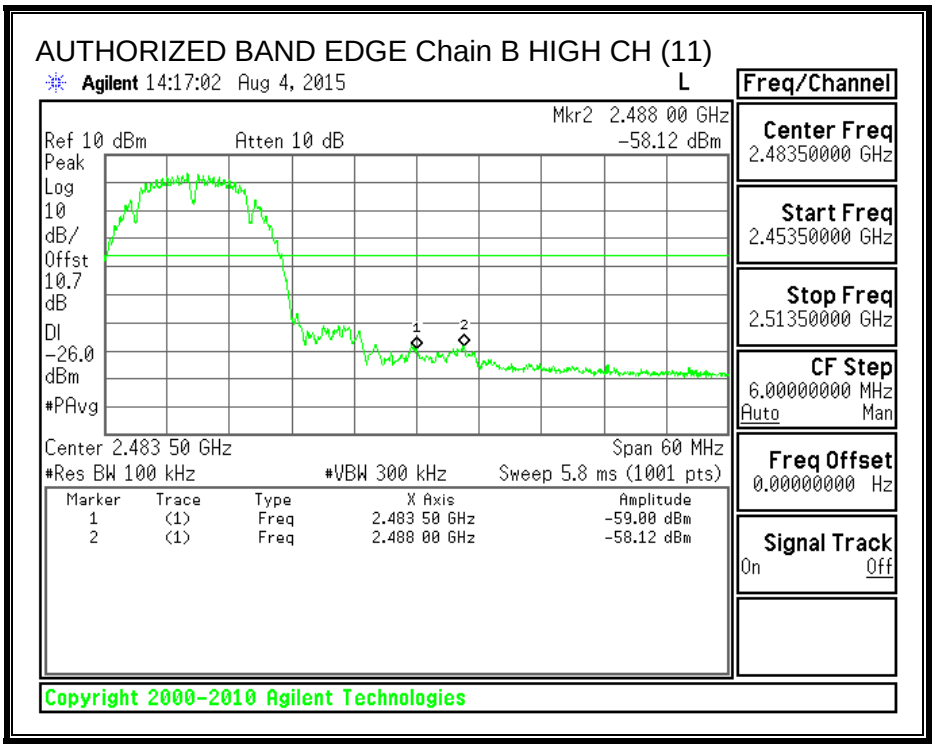


LOW CHANNEL BANDEDGE, Chain B

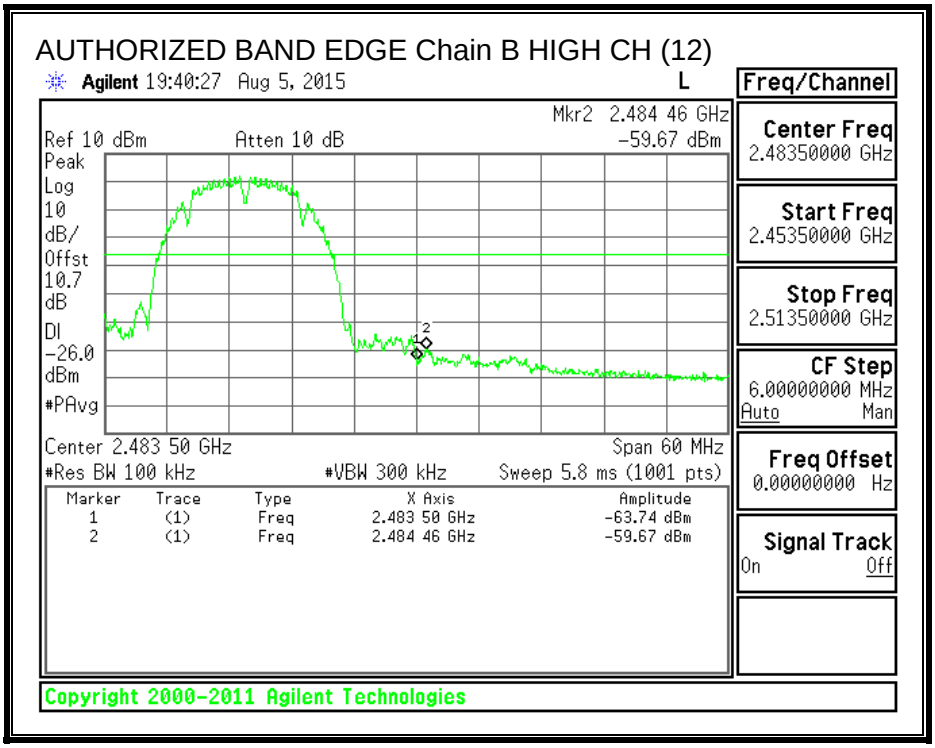


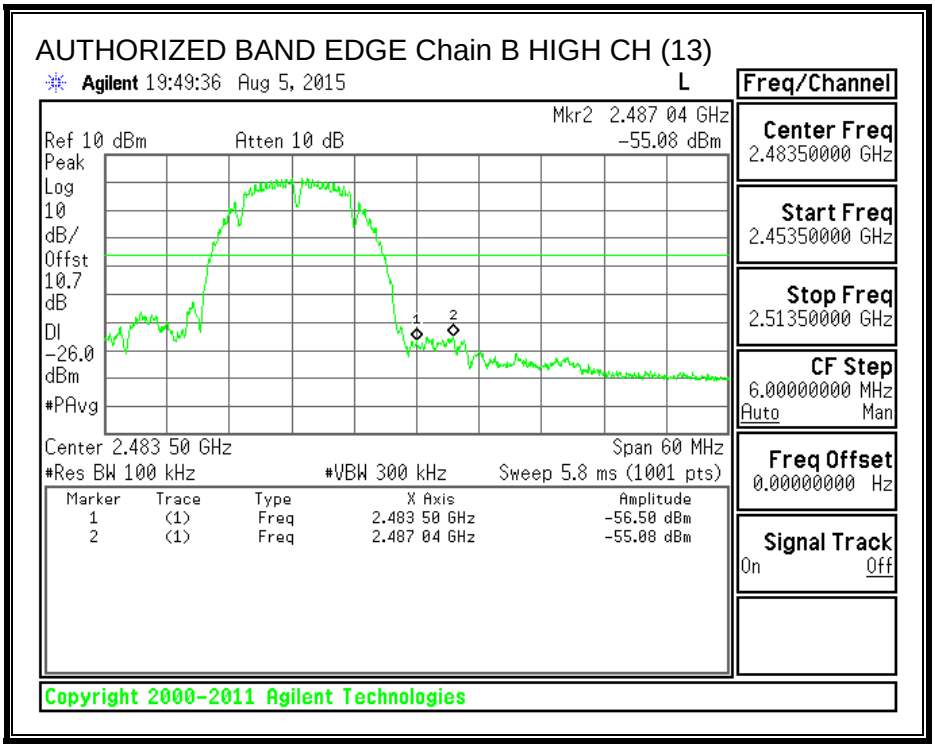
Note – The Low Channel was tested at Mid-Channel Power for worst-case results.

HIGH CHANNEL BANDEDGE, Chain B

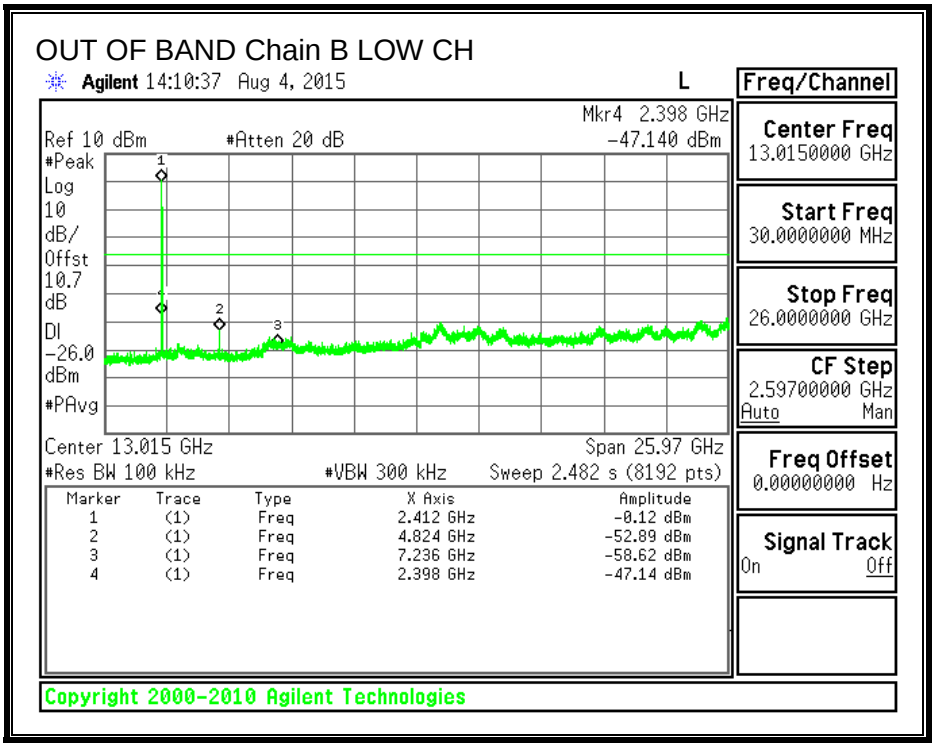


Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.

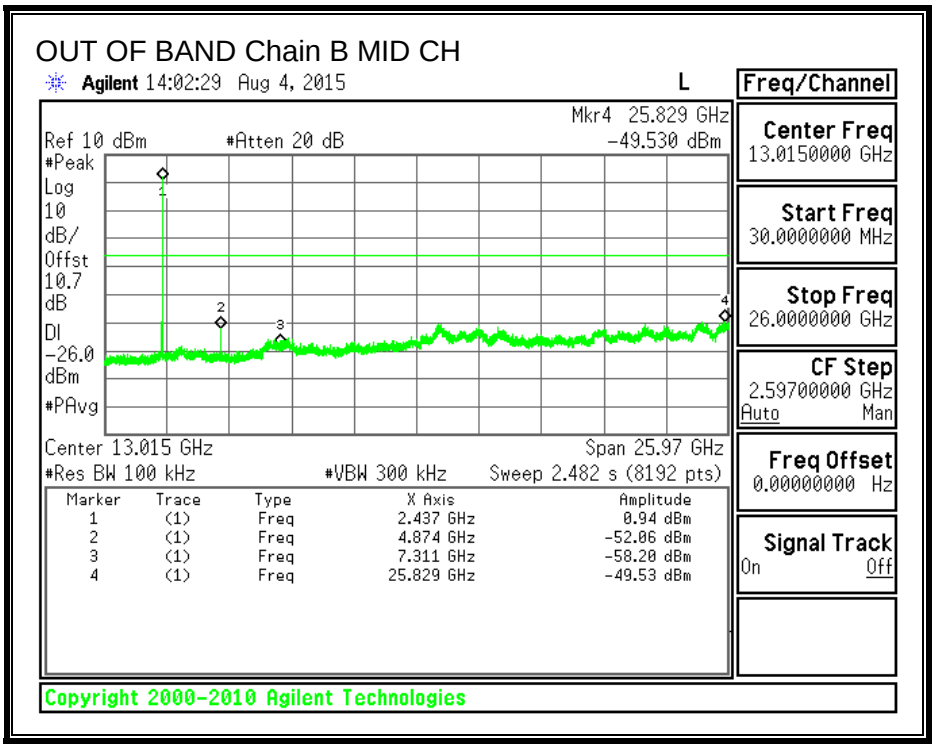


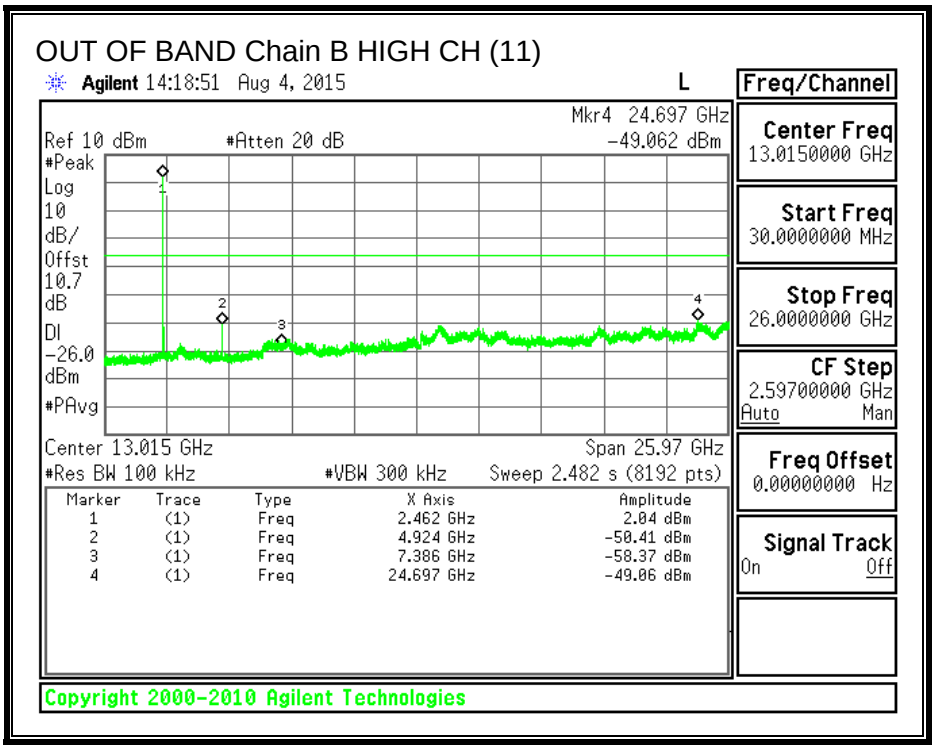


OUT-OF-BAND EMISSIONS, Chain B

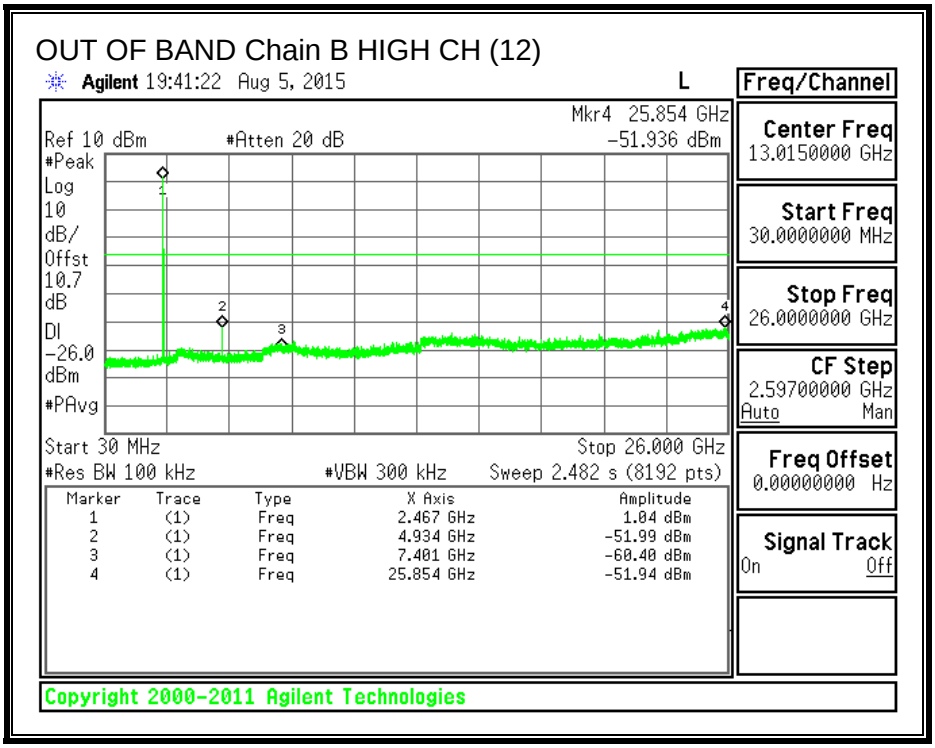


Note – The Low Channel was tested at Mid-Channel Power for worst-case results.

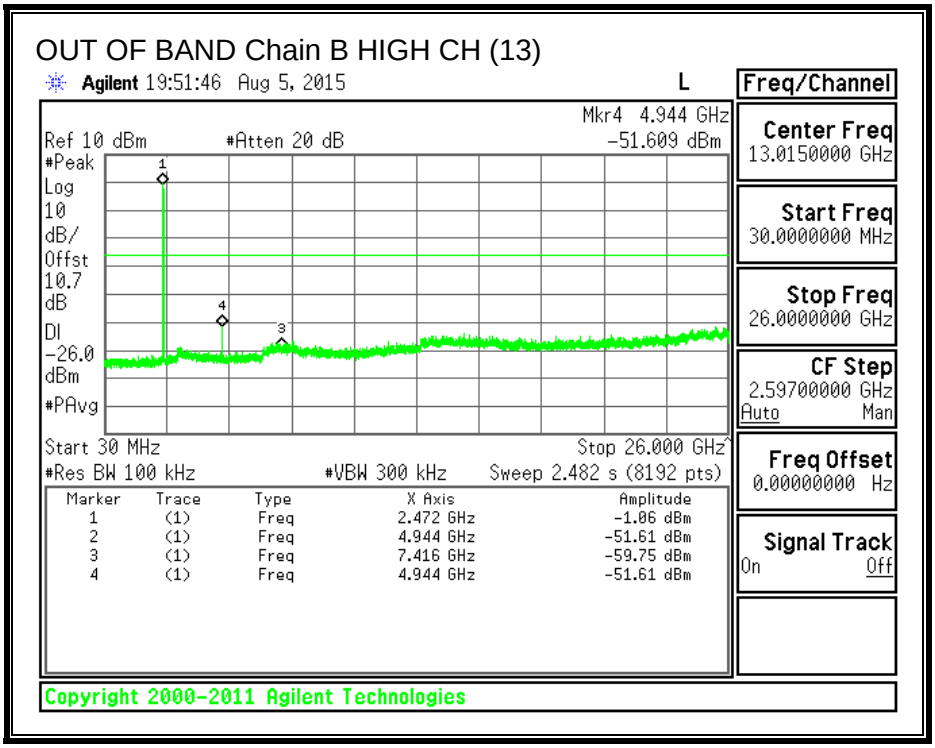




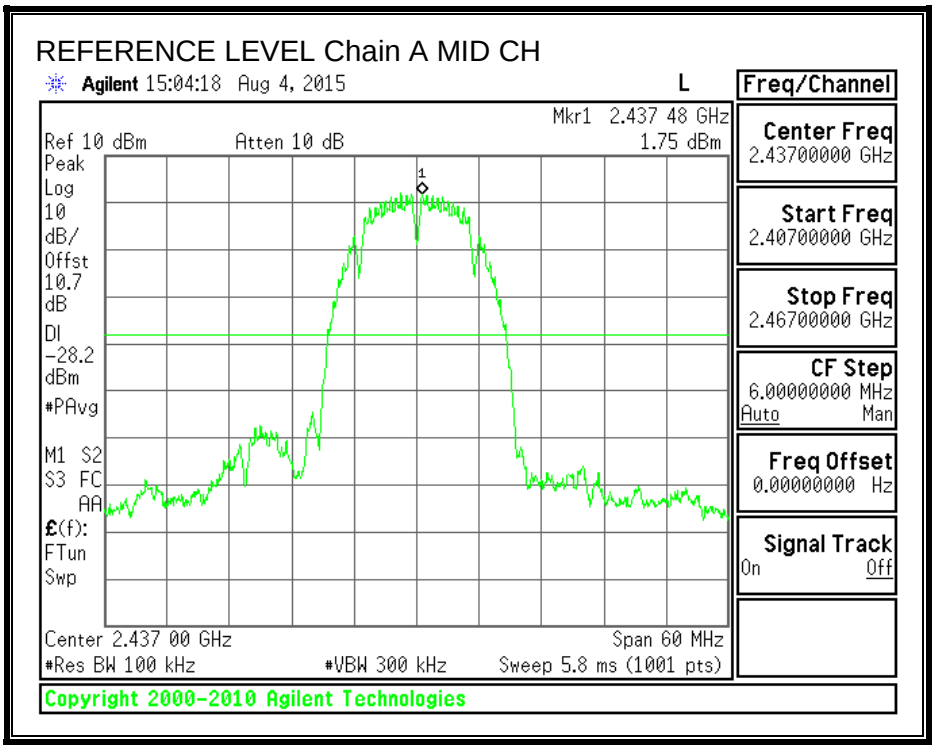
Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.



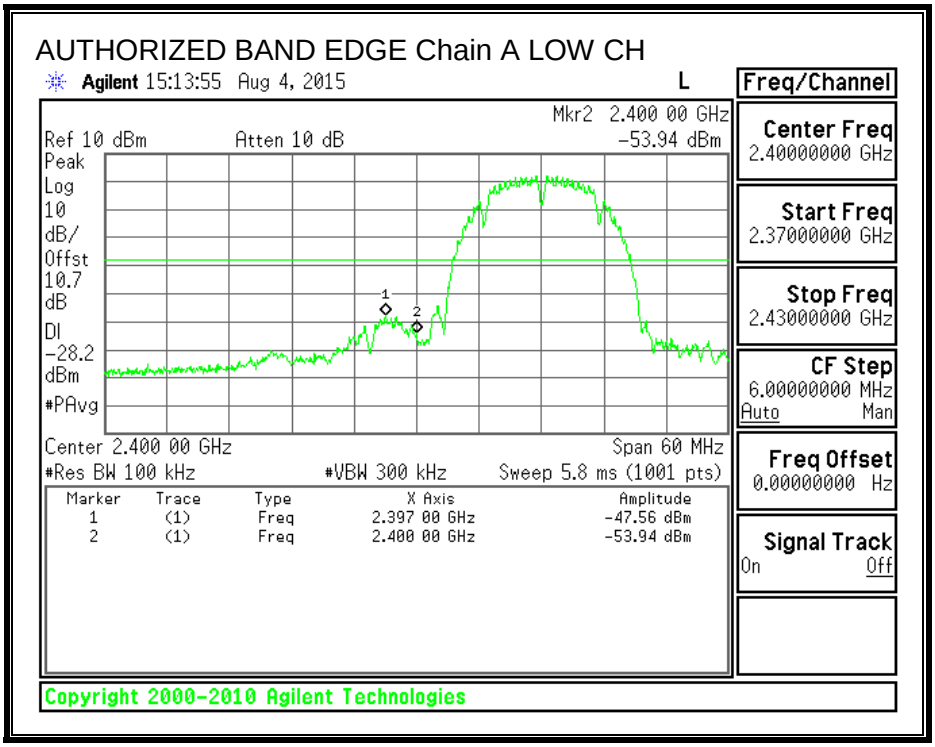
OUT OF BAND Chain B HIGH CH (13)



IN-BAND REFERENCE LEVEL, Chain A

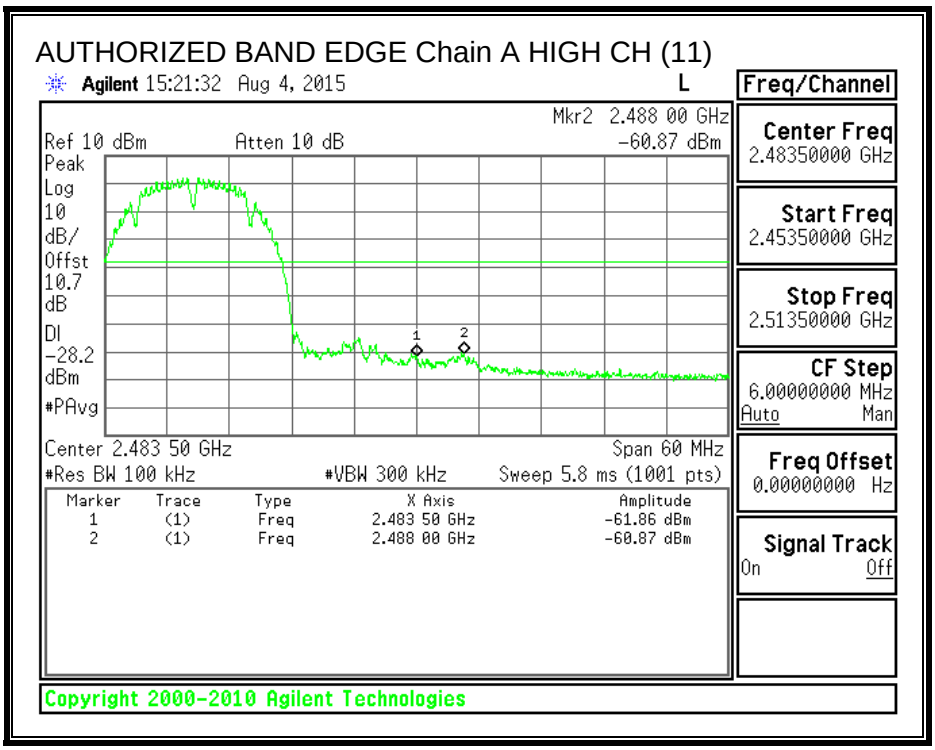


LOW CHANNEL BANDEDGE, Chain A

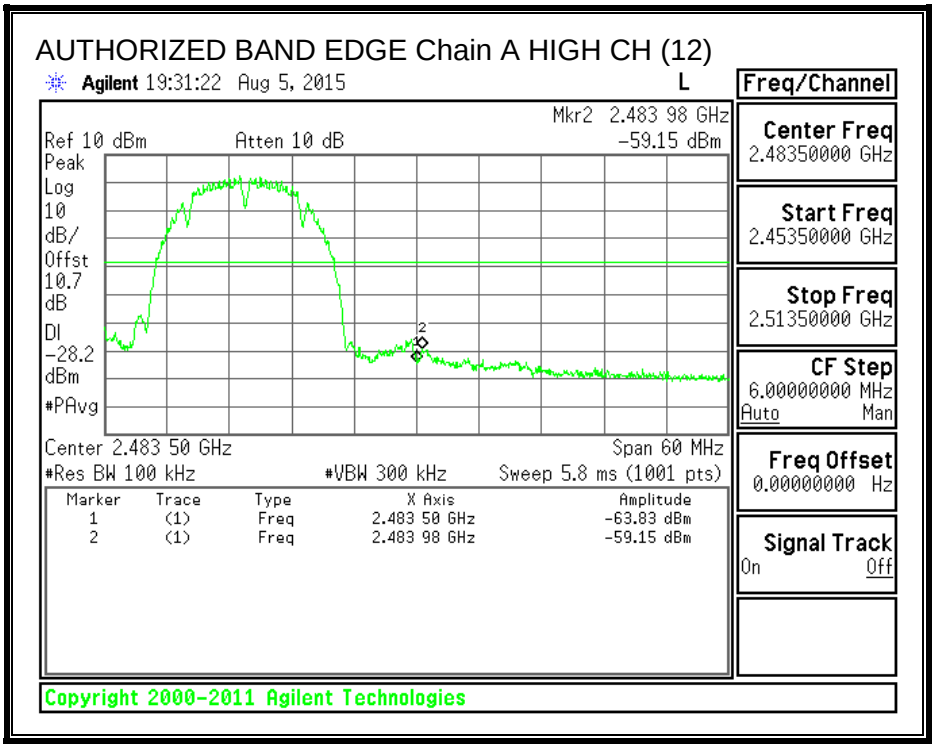


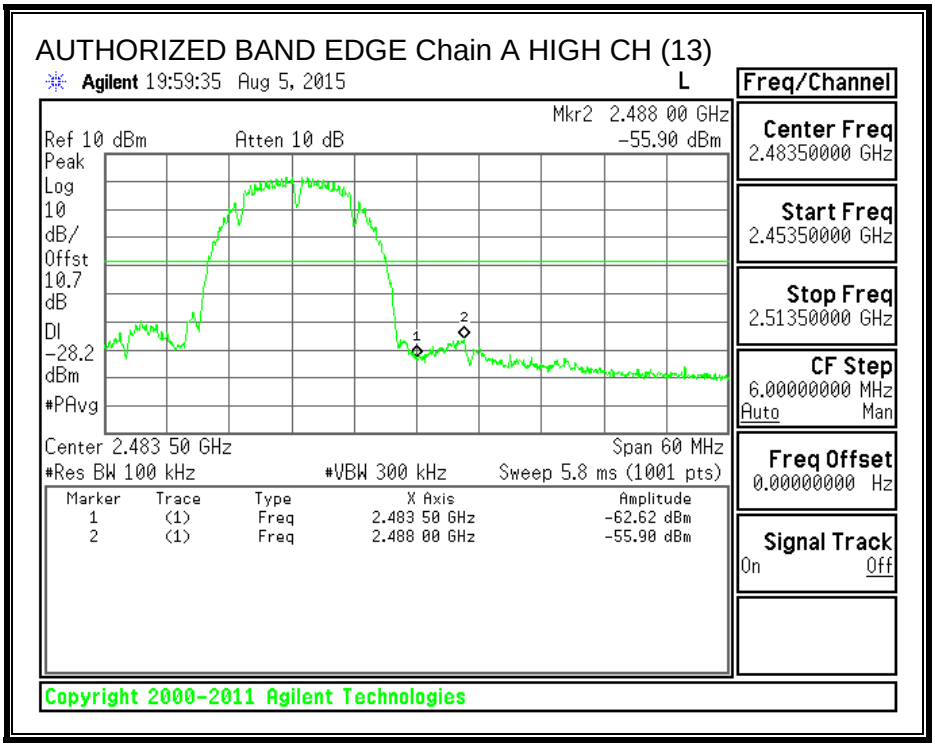
Note – The Low Channel was tested at Mid-Channel Power for worst-case results.

HIGH CHANNEL BANDEDGE, Chain 1

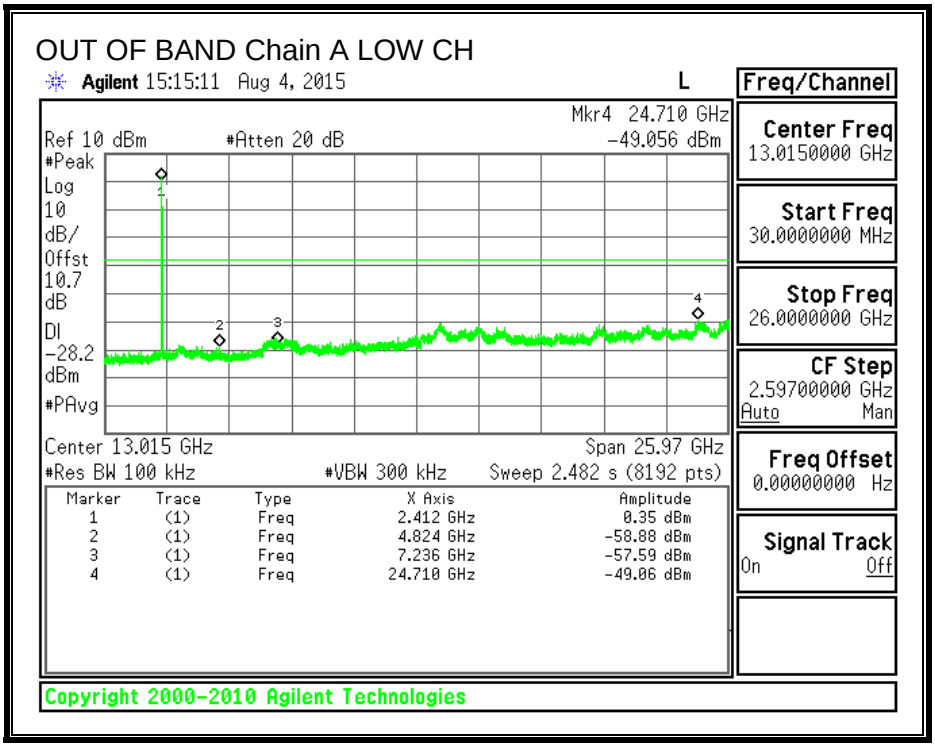


Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.

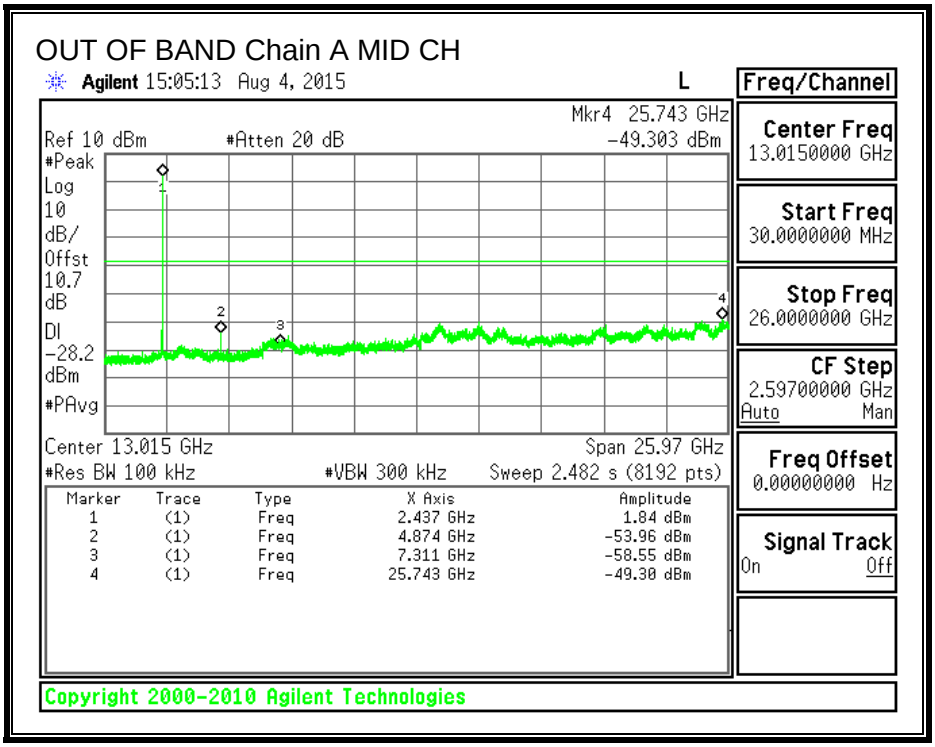


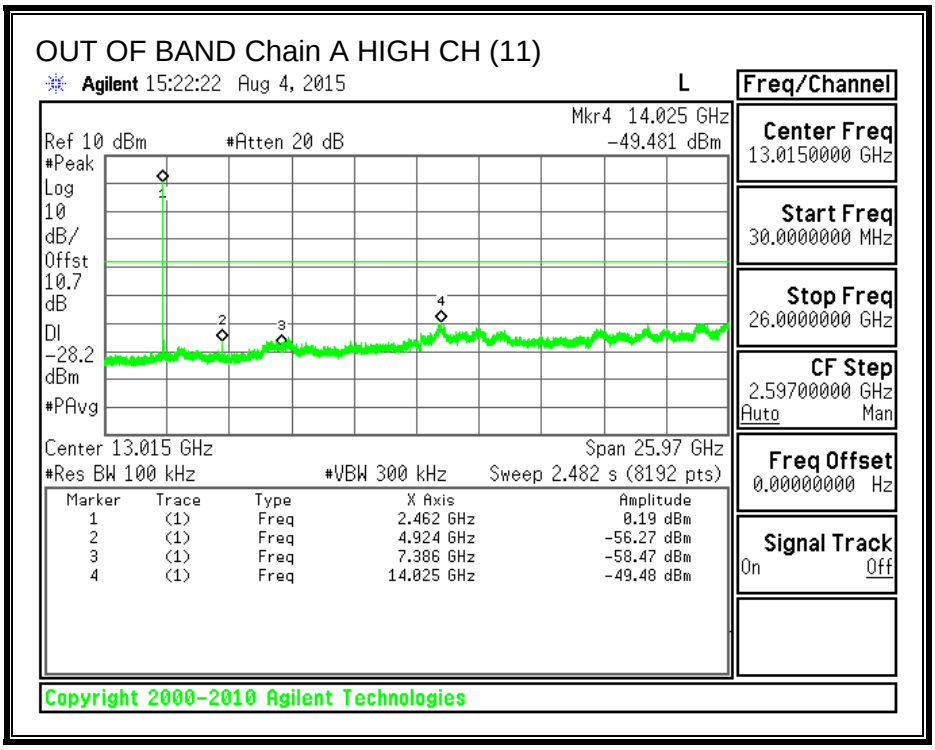


OUT-OF-BAND EMISSIONS, Chain A

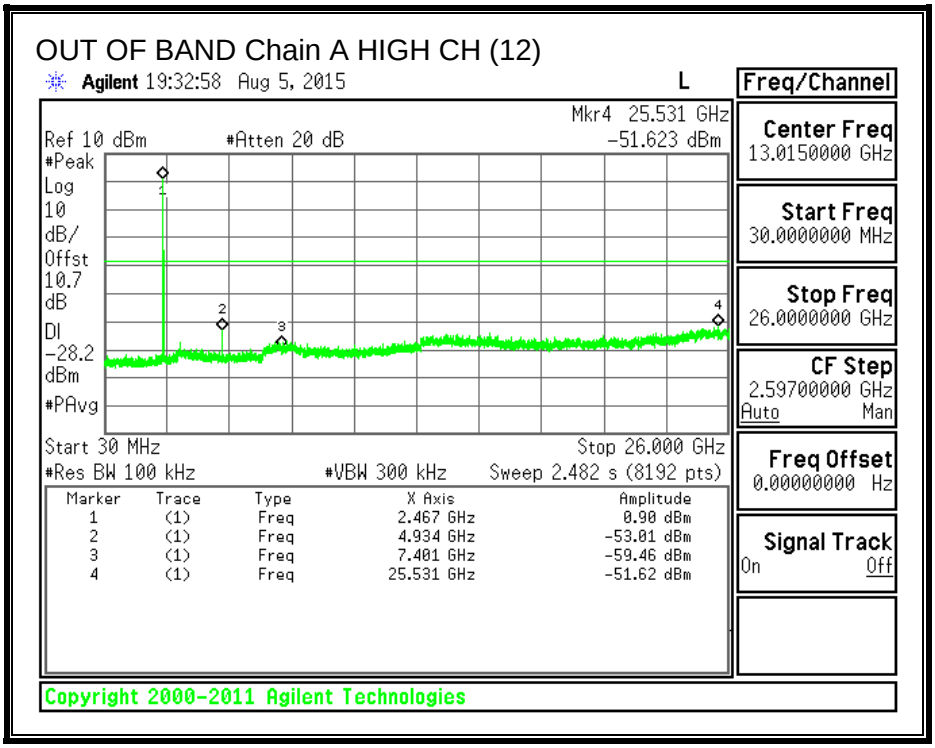


Note – The Low Channel was tested at Mid-Channel Power for worst-case results.

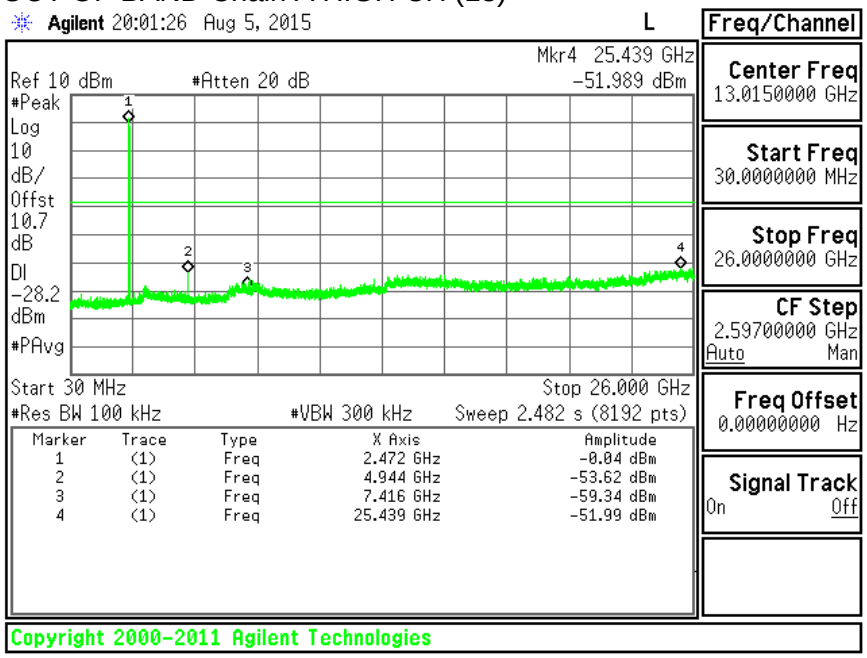




Note – The High Channel (11) was tested at Mid-Channel Power for worst-case results.



OUT OF BAND Chain A HIGH CH (13)



8.3. 802.11g MODE IN THE 2.4 GHz BAND

8.3.1. 6 dB BANDWIDTH

LIMITS

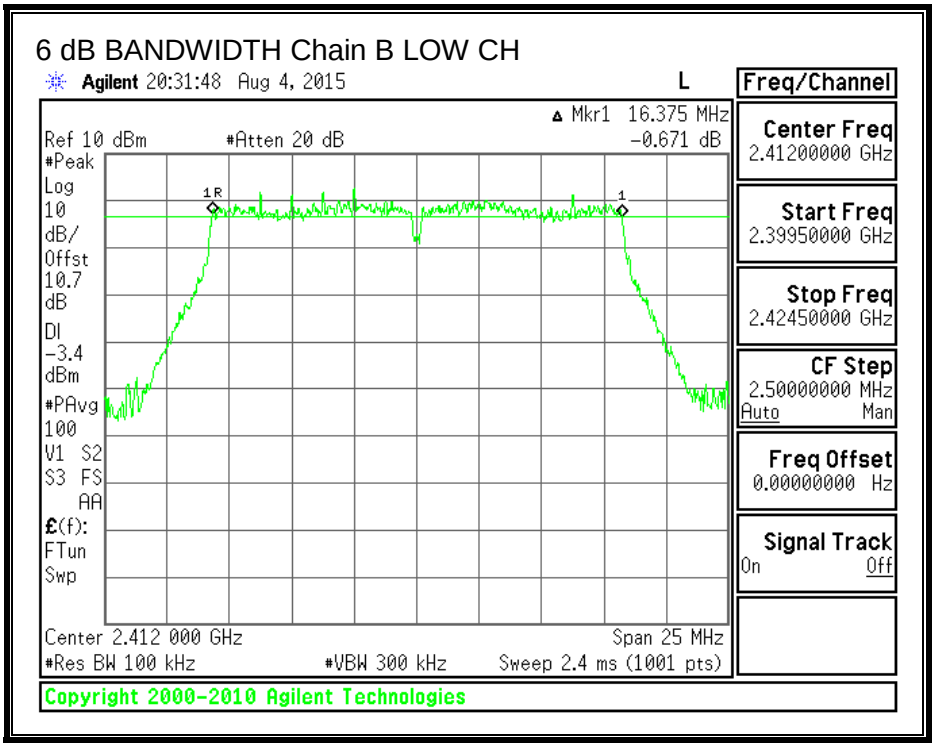
FCC §15.247 (a) (2)

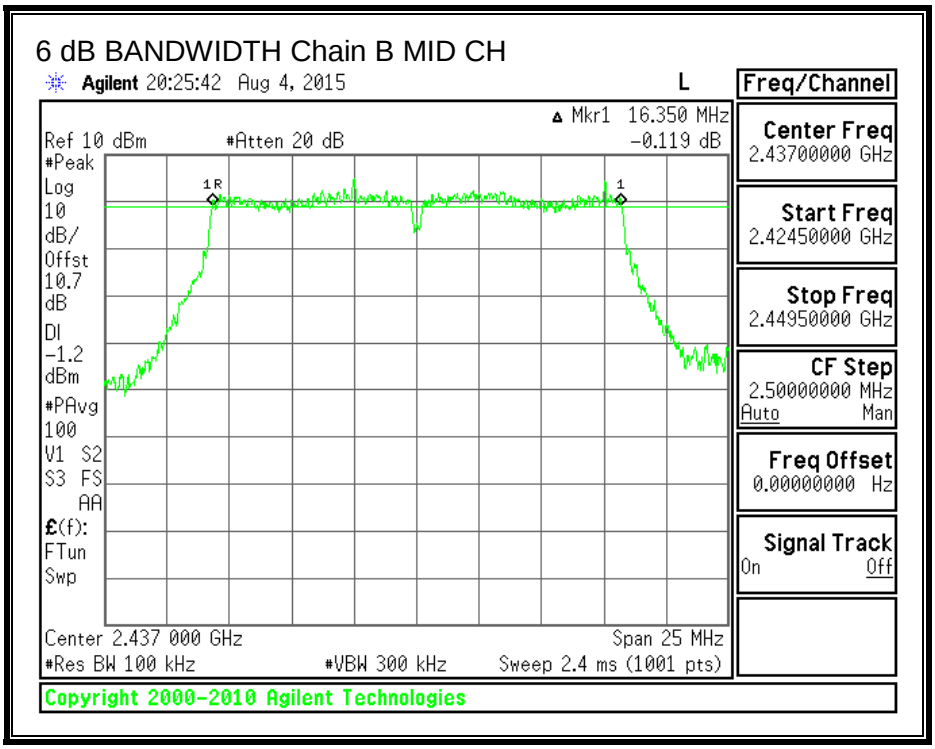
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS (802.11g)

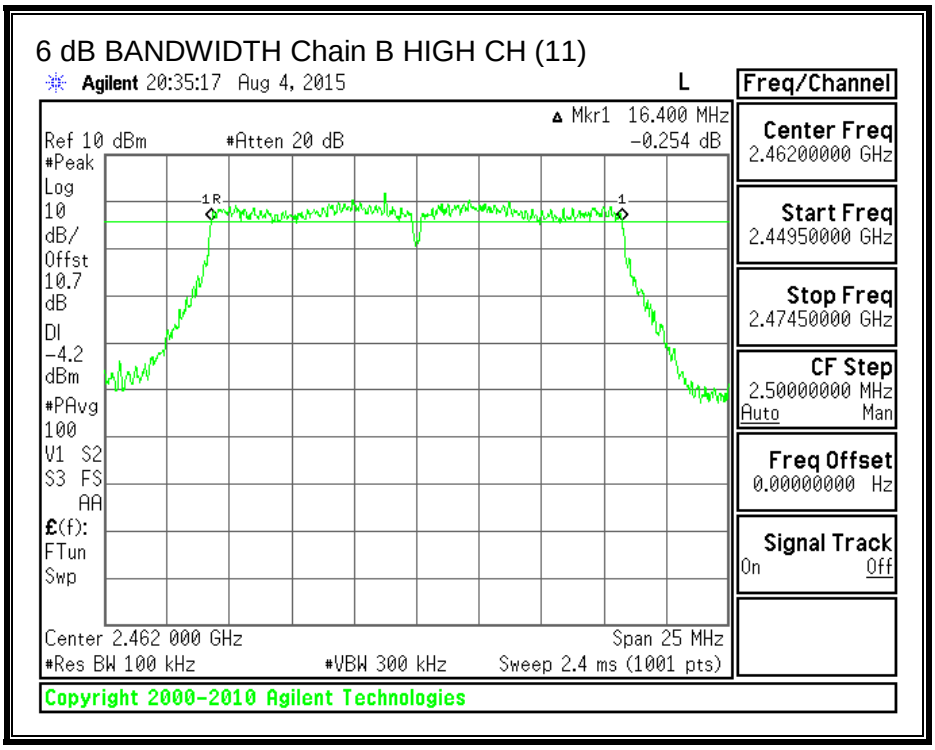
Channel	Frequency (MHz)	6 dB BW Chain B (MHz)	6 dB BW Chain A (MHz)	Minimum Limit (MHz)
Low	2412	16.375	16.375	0.5
Mid	2437	16.350	16.425	0.5
High CH 11	2462	16.400	16.350	0.5
High CH 12	2467	16.350	16.350	0.5
High CH 13	2472	16.375	16.400	0.5

6 dB BANDWIDTH, Chain B

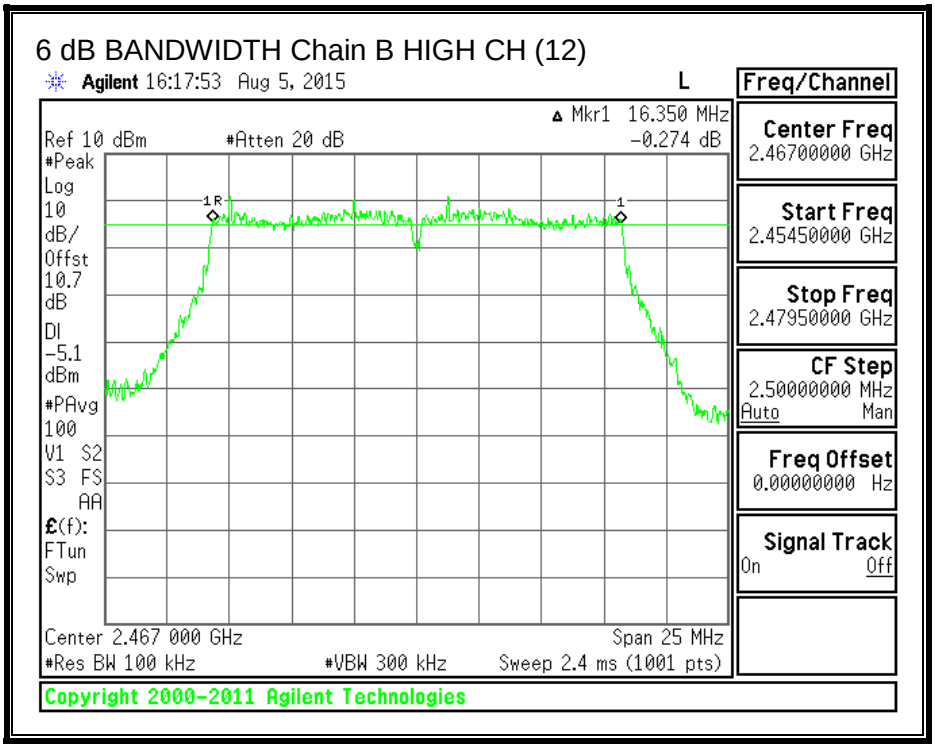




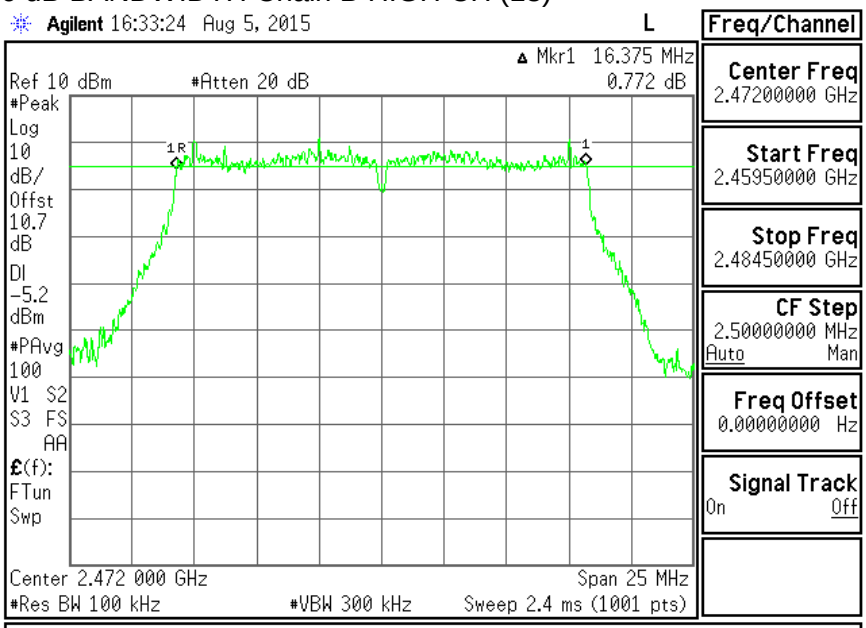
6 dB BANDWIDTH Chain B HIGH CH (11)



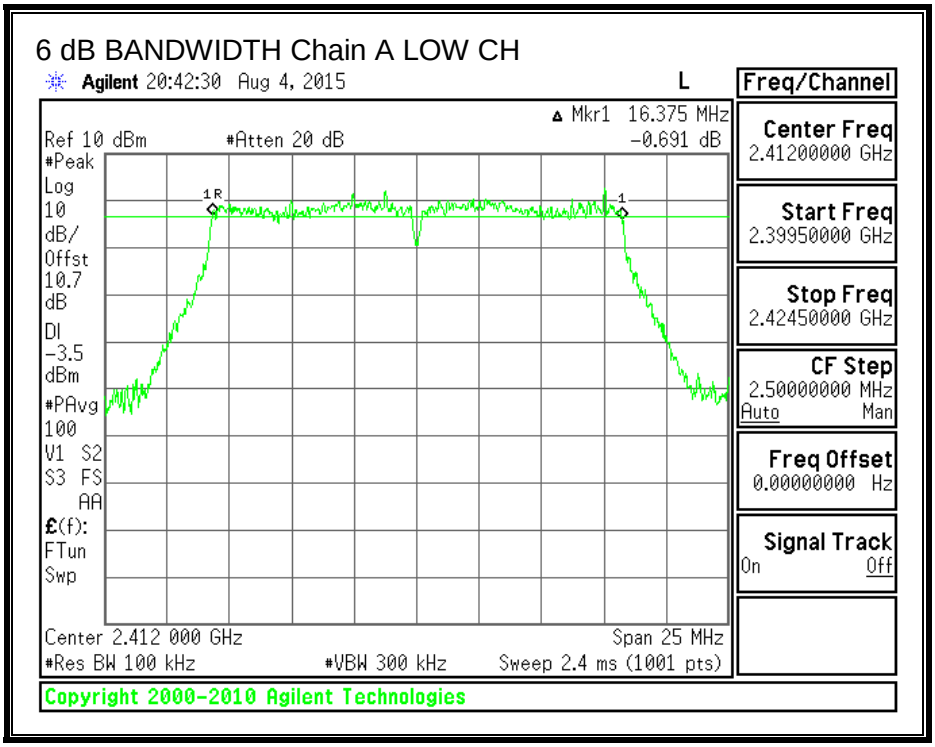
6 dB BANDWIDTH Chain B HIGH CH (12)



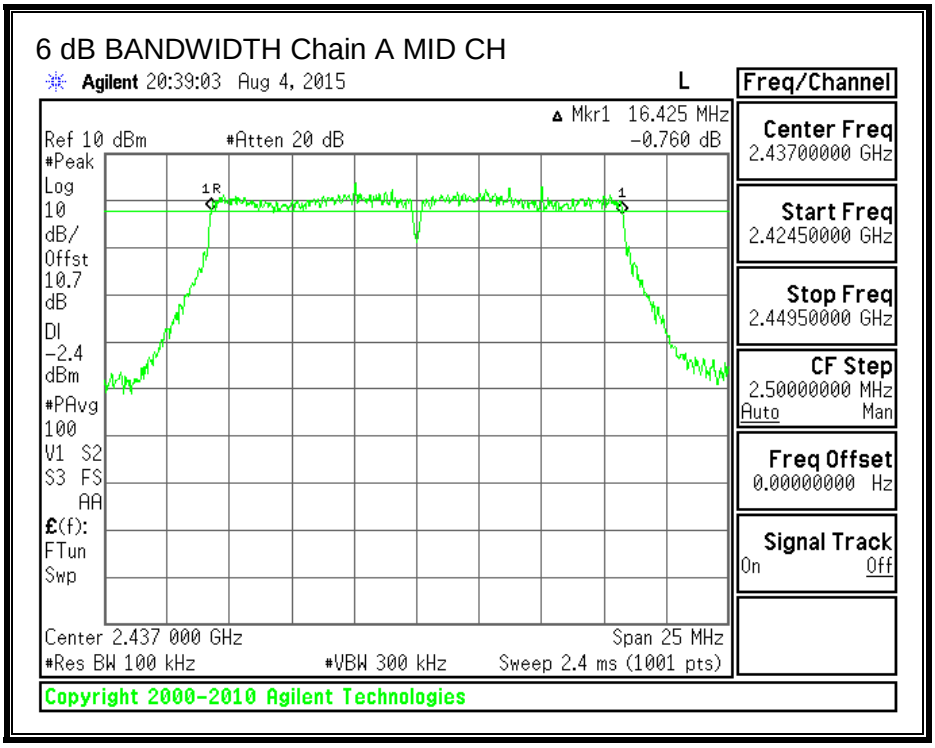
6 dB BANDWIDTH Chain B HIGH CH (13)



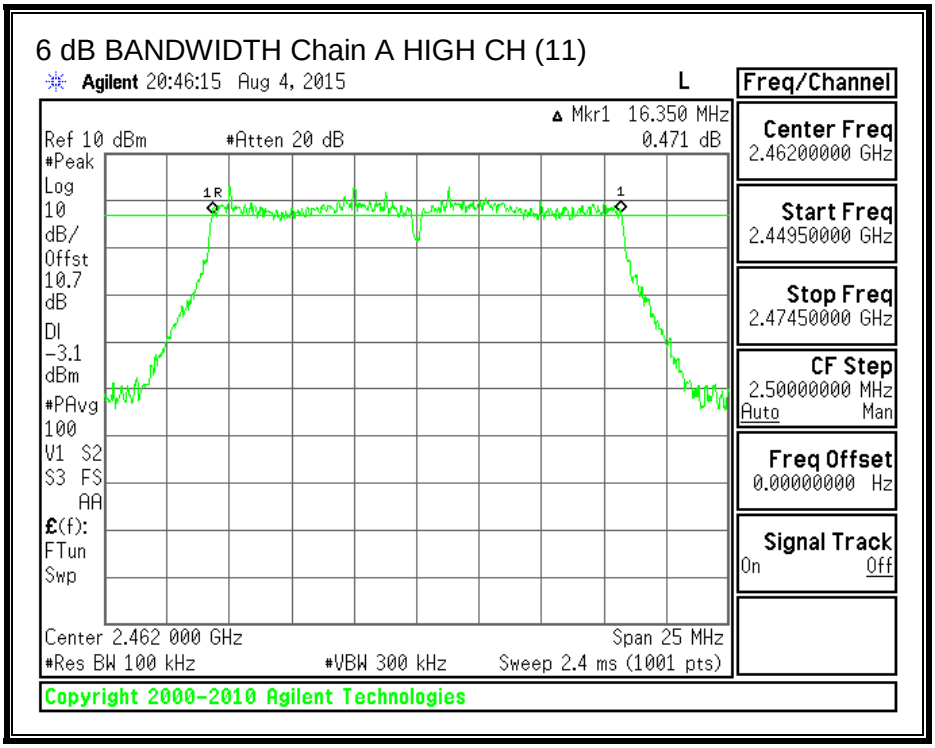
6 dB BANDWIDTH, Chain A



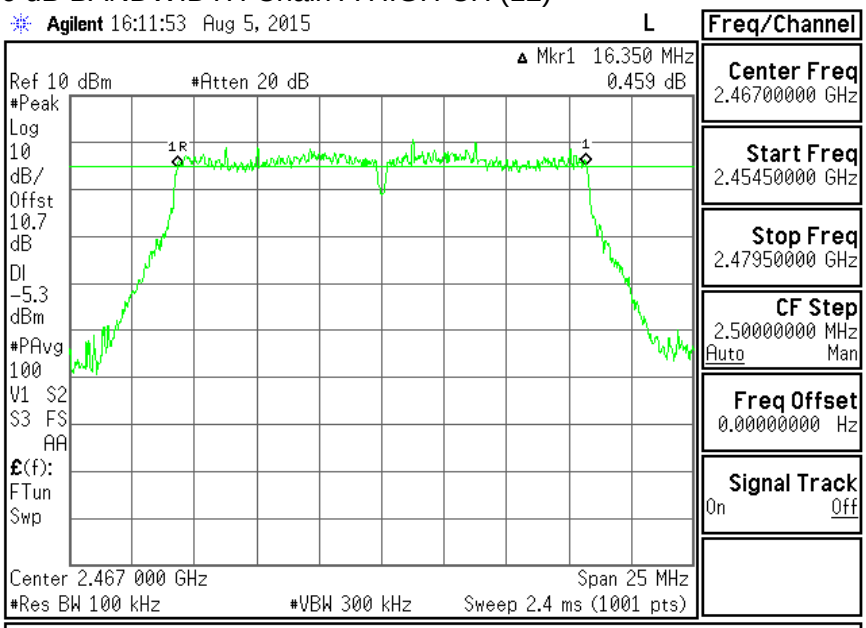
6 dB BANDWIDTH Chain A MID CH



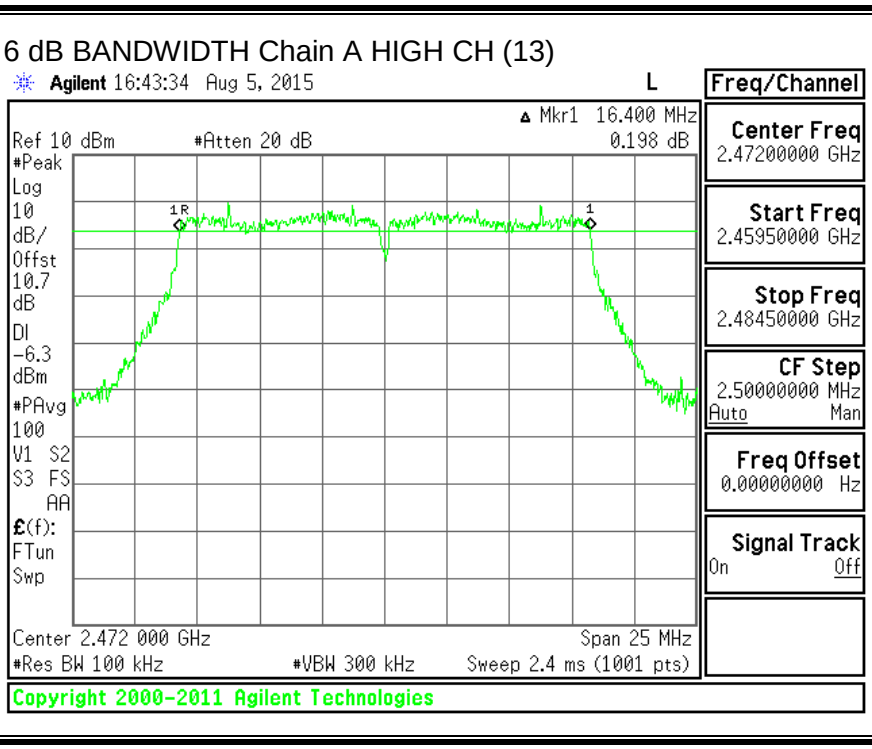
6 dB BANDWIDTH Chain A HIGH CH (11)



6 dB BANDWIDTH Chain A HIGH CH (12)



6 dB BANDWIDTH Chain A HIGH CH (13)



8.3.2. 99% BANDWIDTH

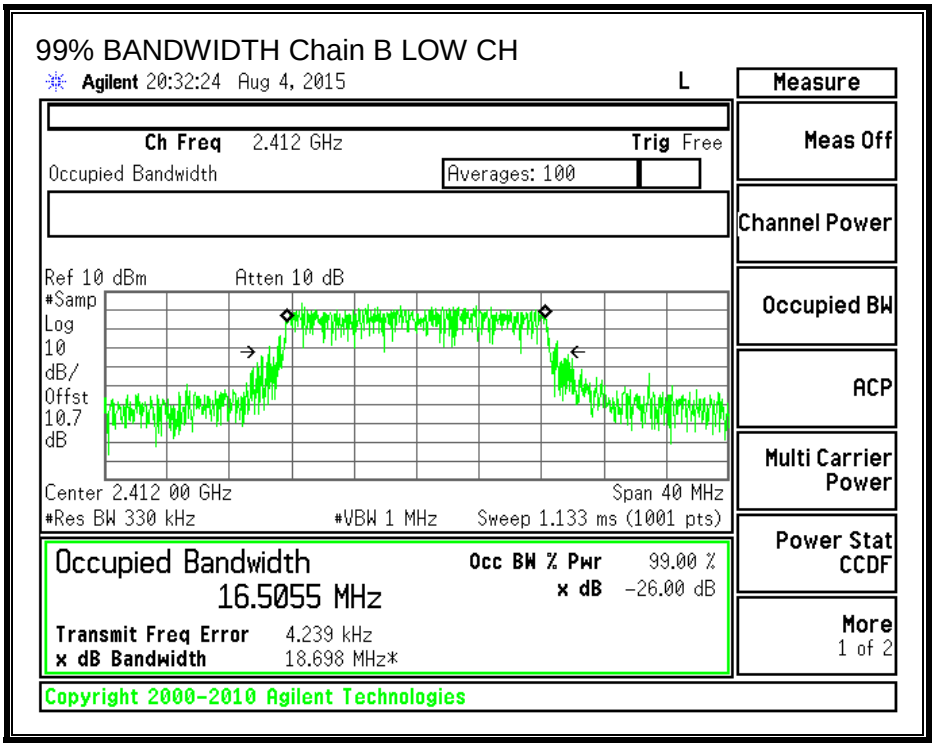
LIMITS

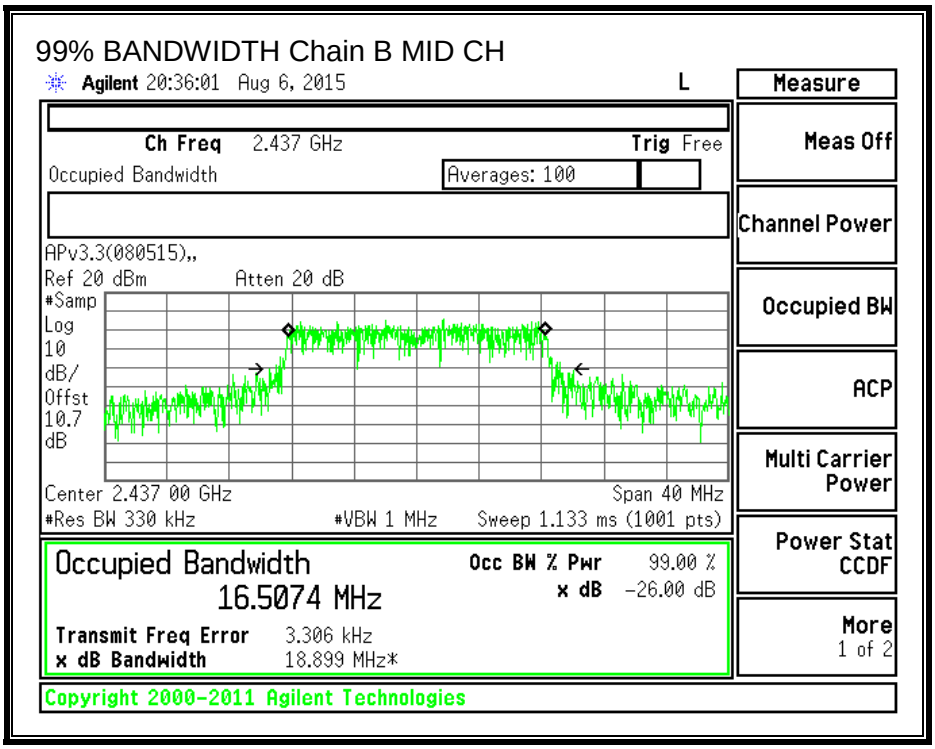
None; for reporting purposes only.

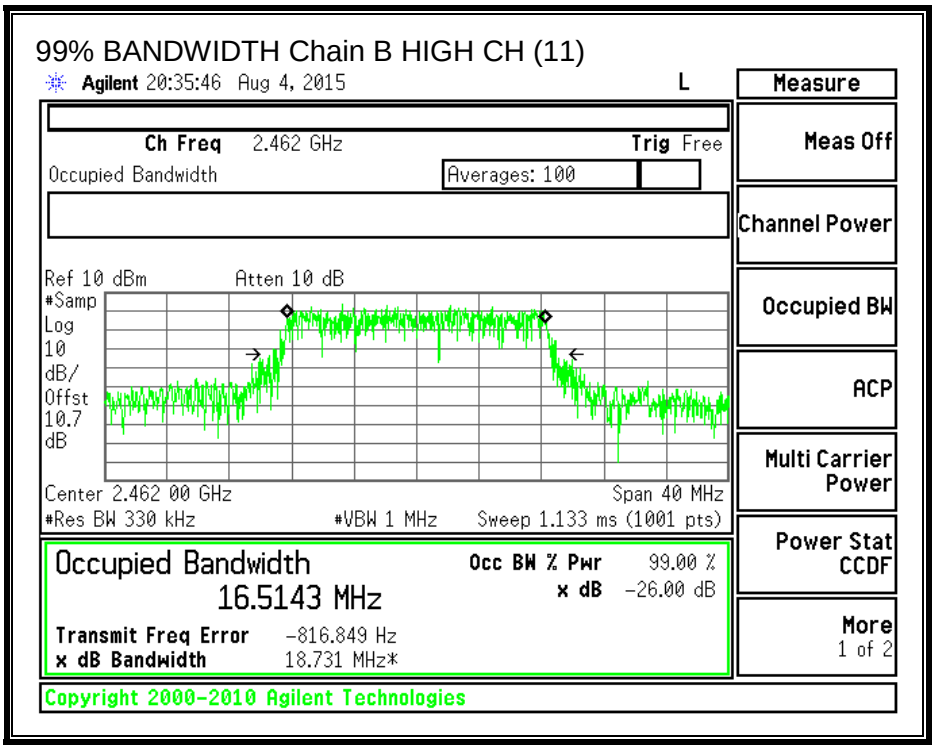
RESULTS (802.11g)

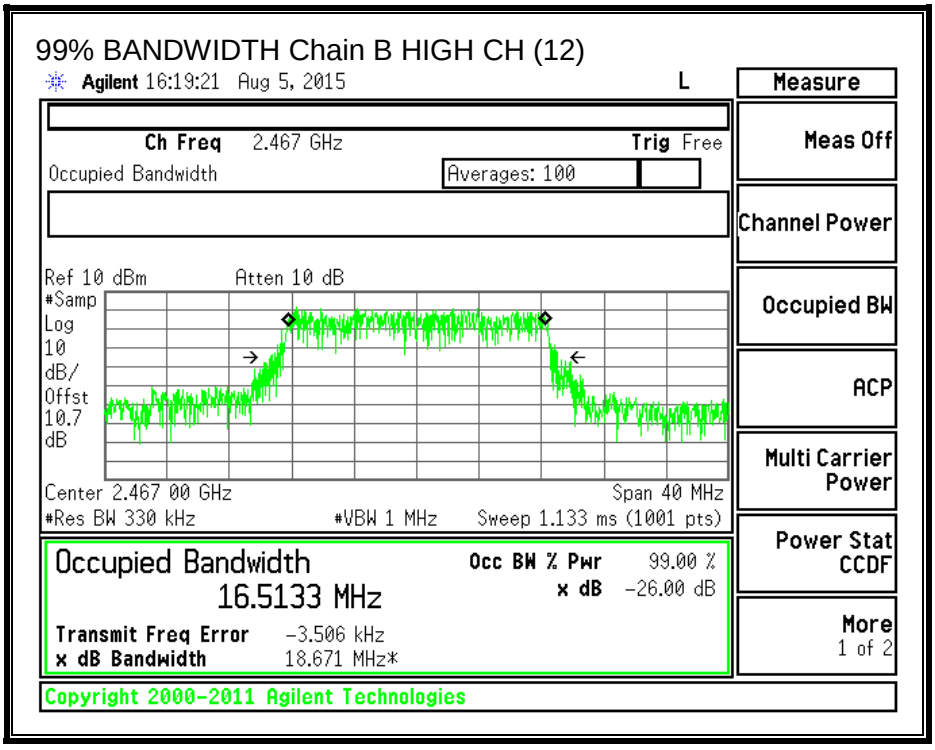
Channel	Frequency (MHz)	99% BW Chain B (MHz)	99% BW Chain A (MHz)
Low	2412	16.5055	16.5131
Mid	2437	16.5074	16.5258
High CH 11	2462	16.5143	16.5138
High CH 12	2467	16.5133	16.5187
High CH 13	2472	16.5147	16.5273

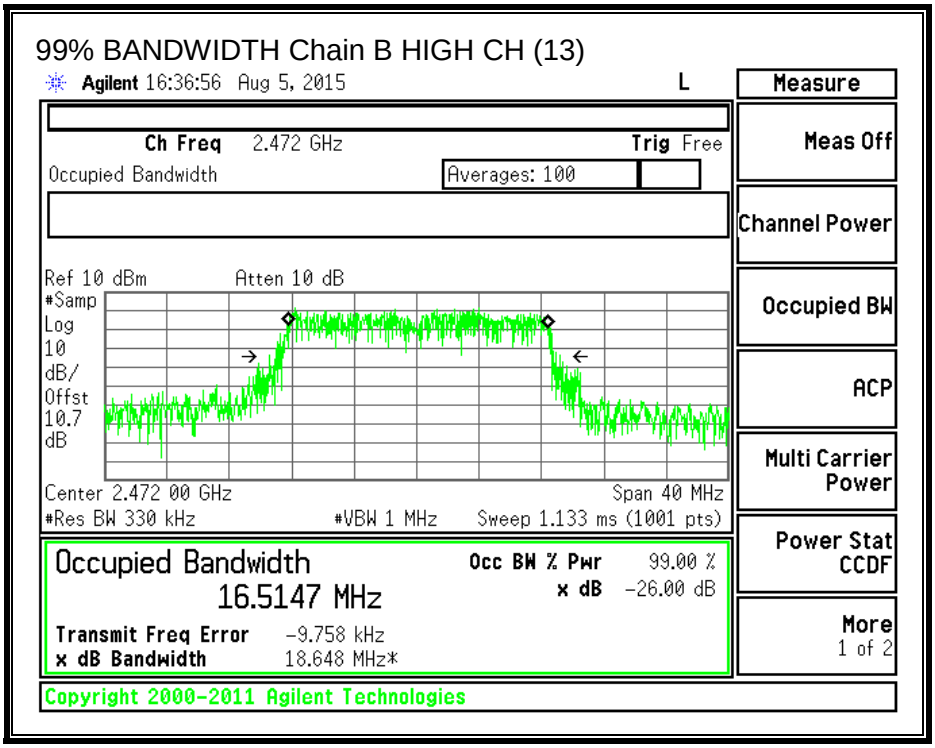
99% BANDWIDTH, Chain B



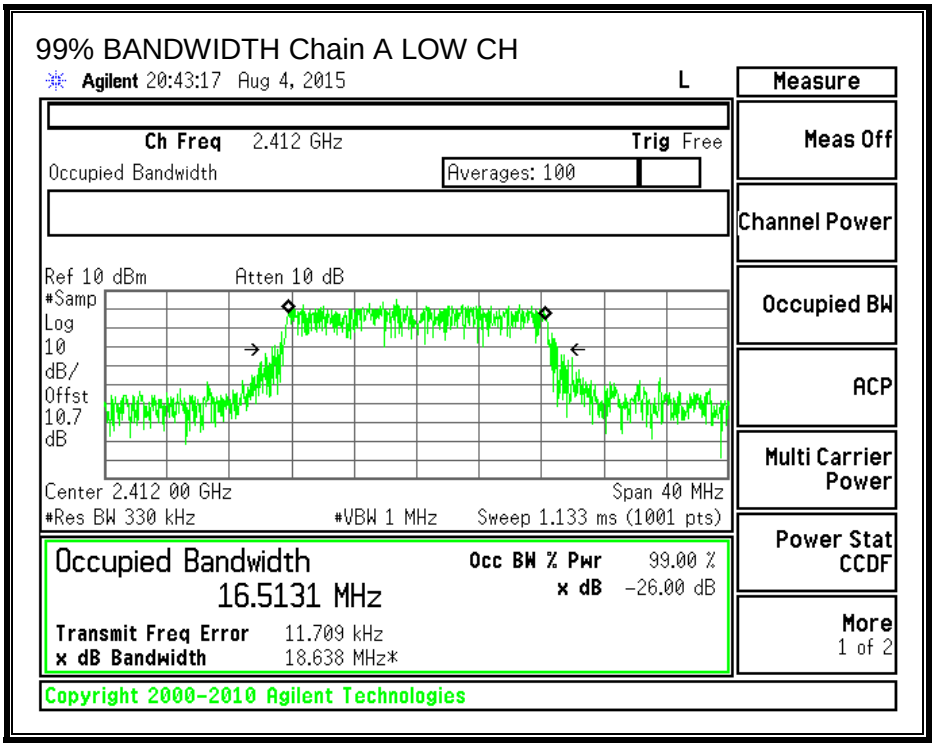




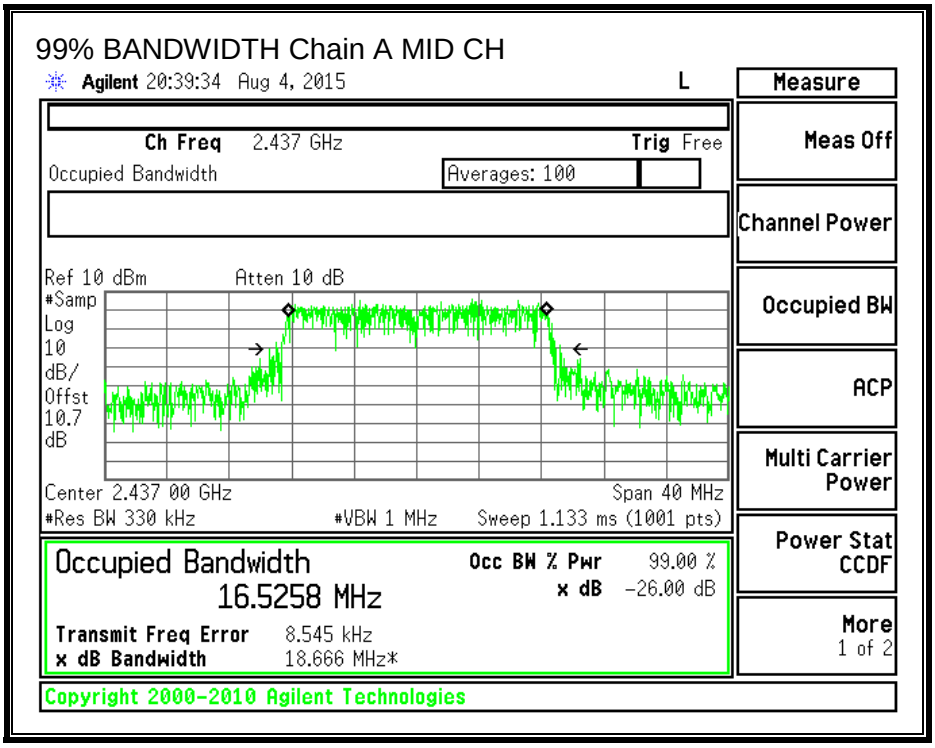




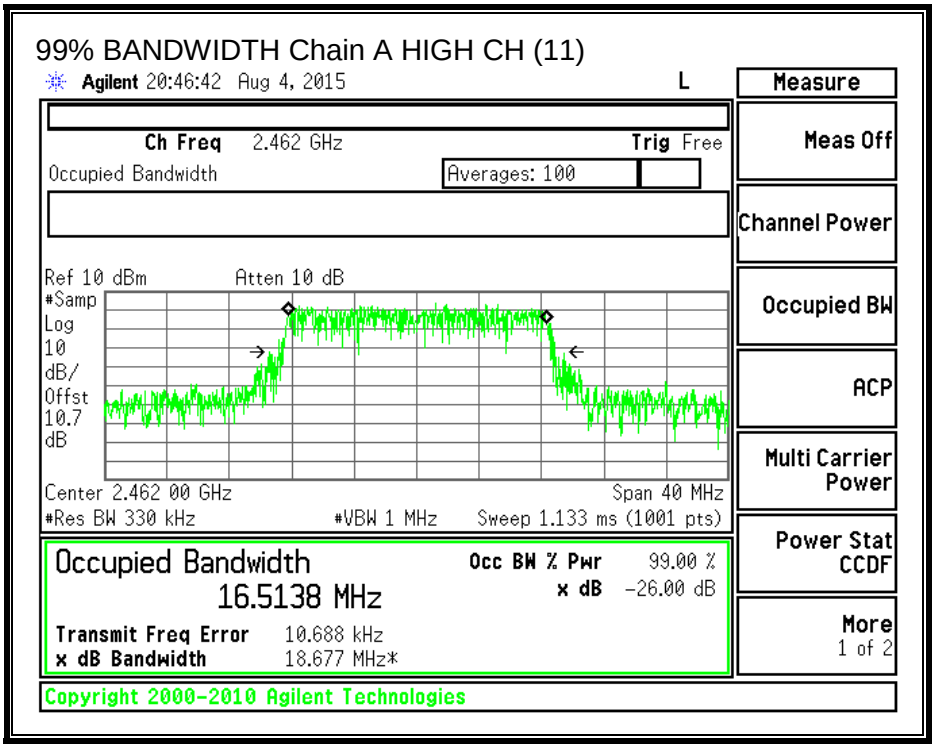
99% BANDWIDTH, Chain A

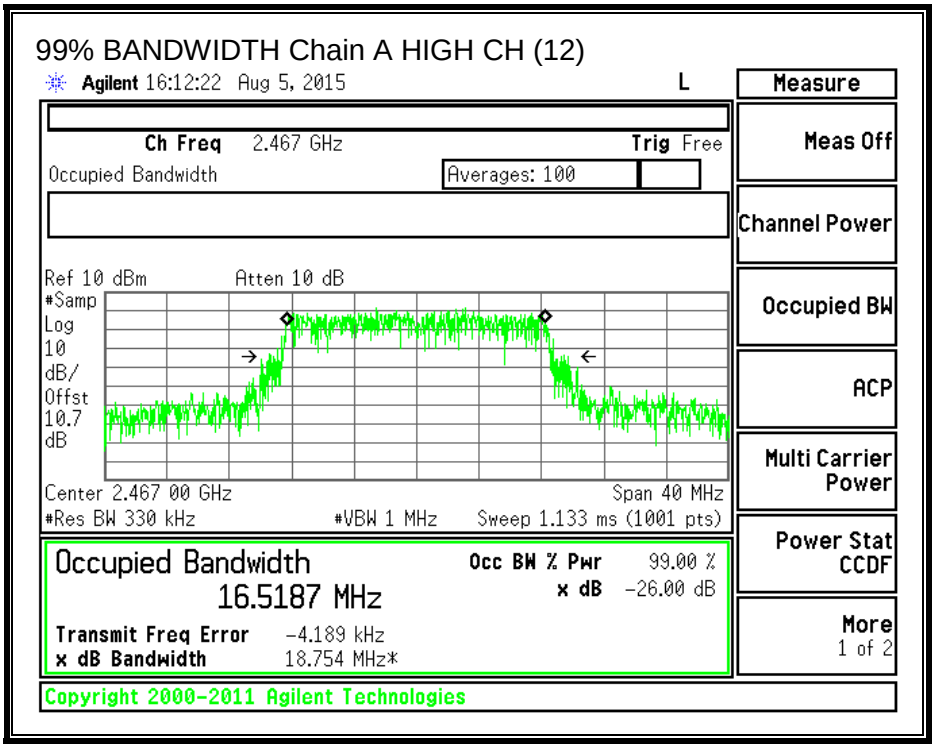


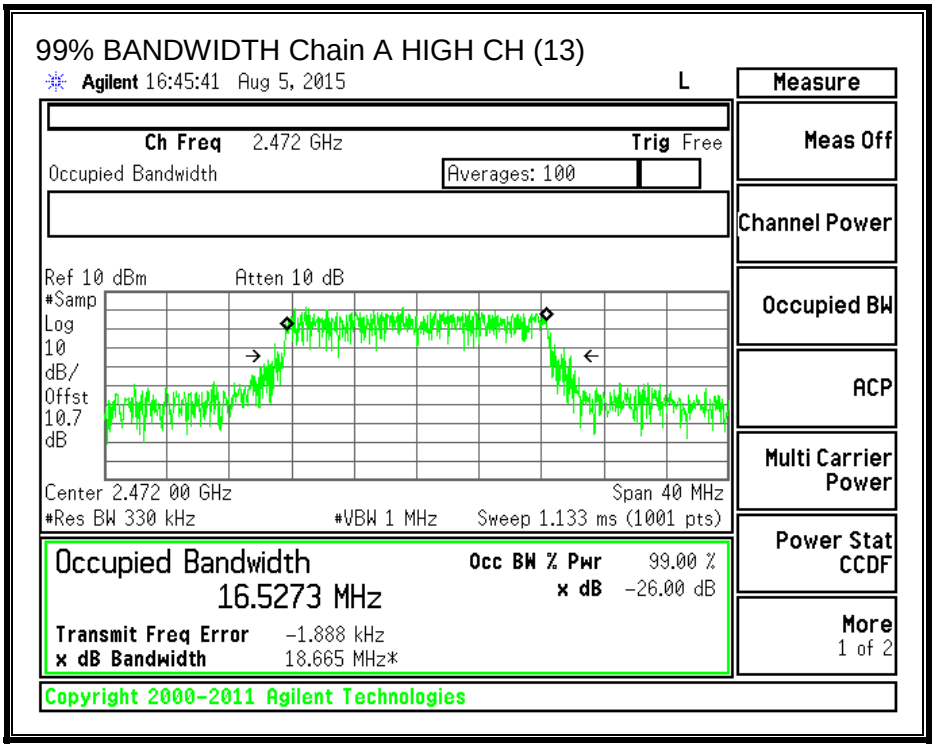
99% BANDWIDTH Chain A MID CH



99% BANDWIDTH Chain A HIGH CH (11)







8.3.3. OUTPUT POWER

LIMITS

FCC §15.247

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 unequal among the chains. The directional gain is:

Chain B Antenna Gain (dBi)	Chain A Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
1.70	1.40	1.55

RESULTS (802.11g)

Limits

Channel	Frequency (MHz)	Direct. Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low CH 1	2412	1.55	30.00	30	36	30.00
Mid	2437	1.55	30.00	30	36	30.00
High CH 11	2462	1.55	30.00	30	36	30.00
High CH 12	2467	1.55	30.00	30	36	30.00
High CH 13	2472	1.55	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Chain B Meas Power (dBm)	Chain A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)
Low CH 1	2412	12.34	12.41	15.39	30.00	-14.61	16.94	36.00	-19.06
Mid	2437	12.27	12.56	15.43	30.00	-14.57	16.98	36.00	-19.02
High CH 11	2462	11.40	11.33	14.38	30.00	-15.62	15.93	36.00	-20.07
High CH 12	2467	8.70	8.67	11.70	30.00	-18.30	13.25	36.00	-22.75
High CH 13	2472	8.68	8.65	11.68	30.00	-18.32	13.23	36.00	-22.77

8.3.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

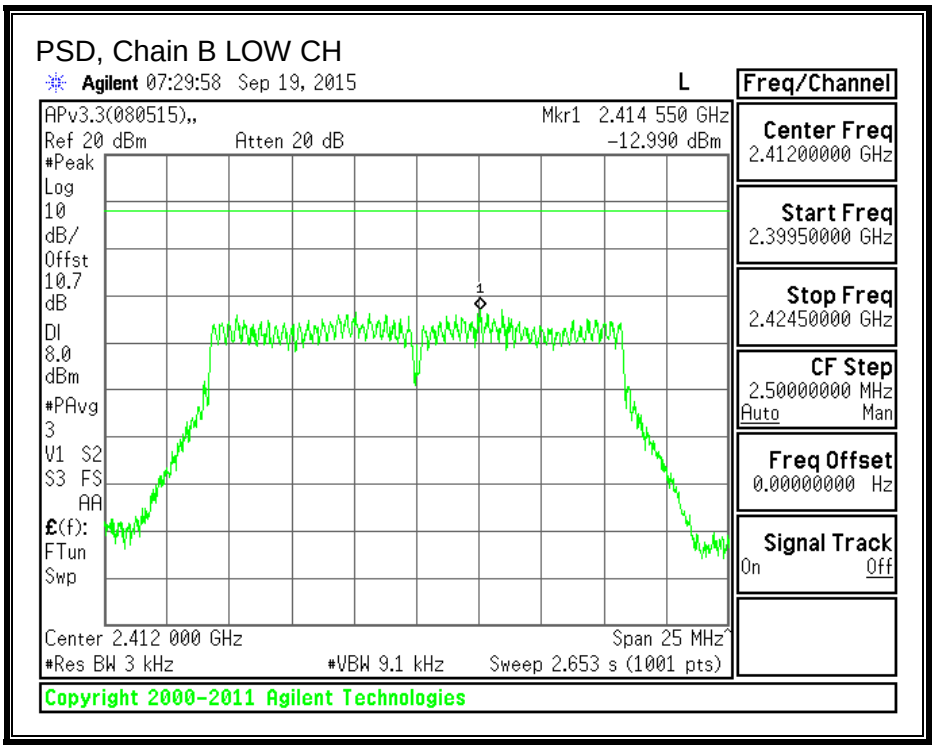
RESULTS (802.11g)

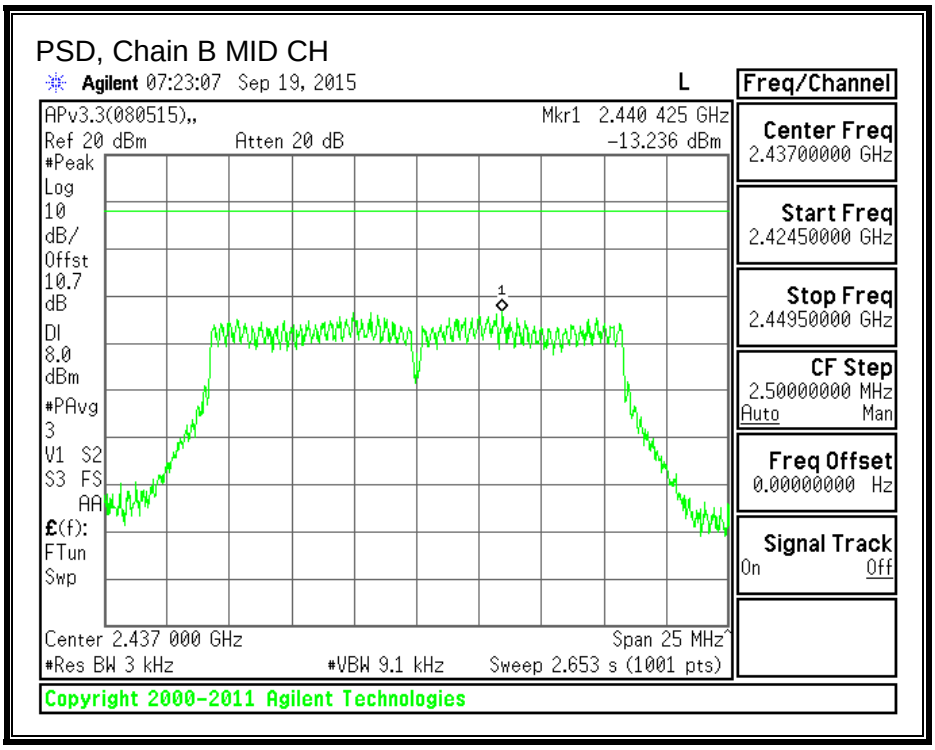
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

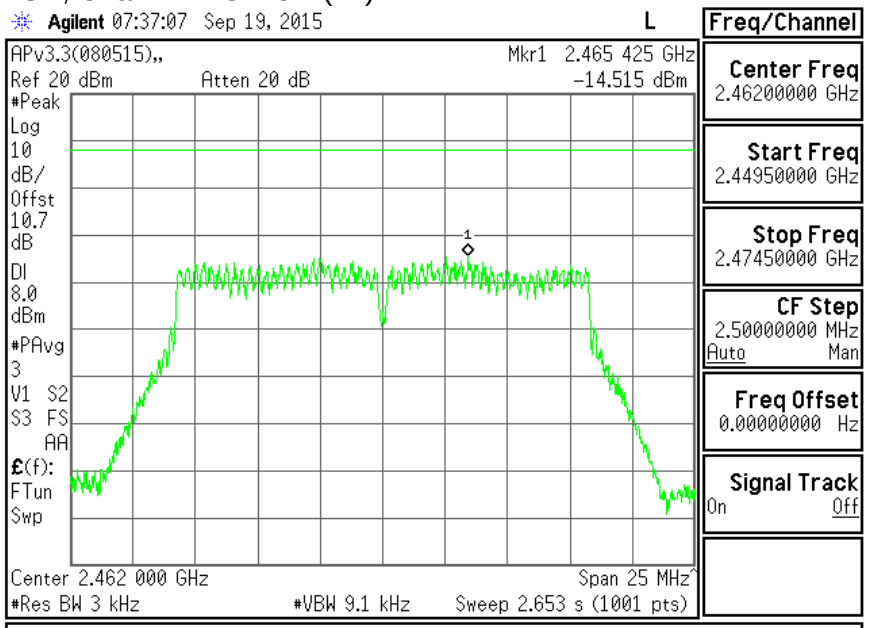
Channel	Frequency (MHz)	Chain B Meas (dBm)	Chain A Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-12.99	-12.54	-9.75	8.0	-17.8
Mid	2437	-13.24	-12.70	-9.95	8.0	-18.0
High CH 11	2462	-14.52	-14.01	-11.24	8.0	-19.2
High CH 12	2467	-17.46	-17.53	-14.49	8.0	-22.5
High CH 13	2472	-16.57	-18.09	-14.25	8.0	-22.3

PSD, Chain B

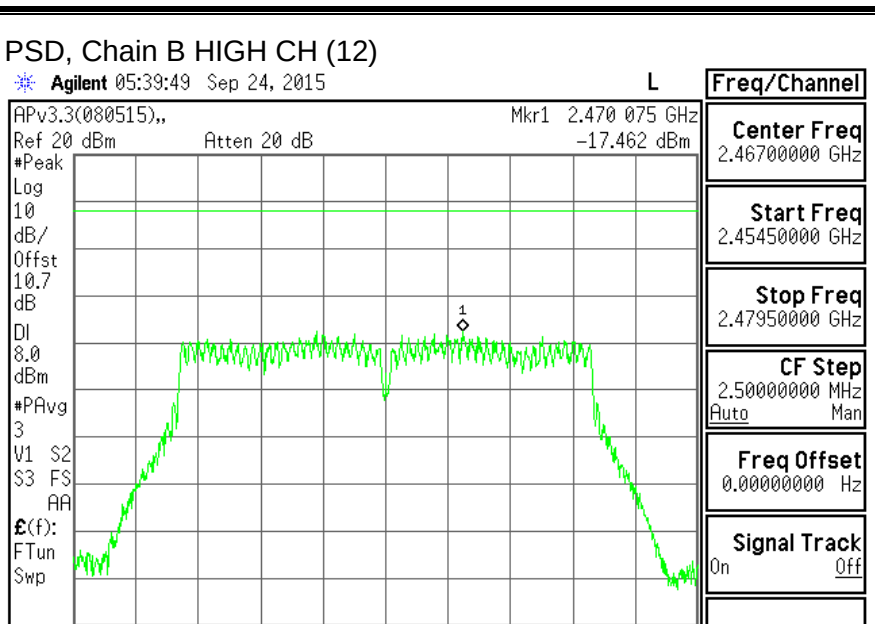




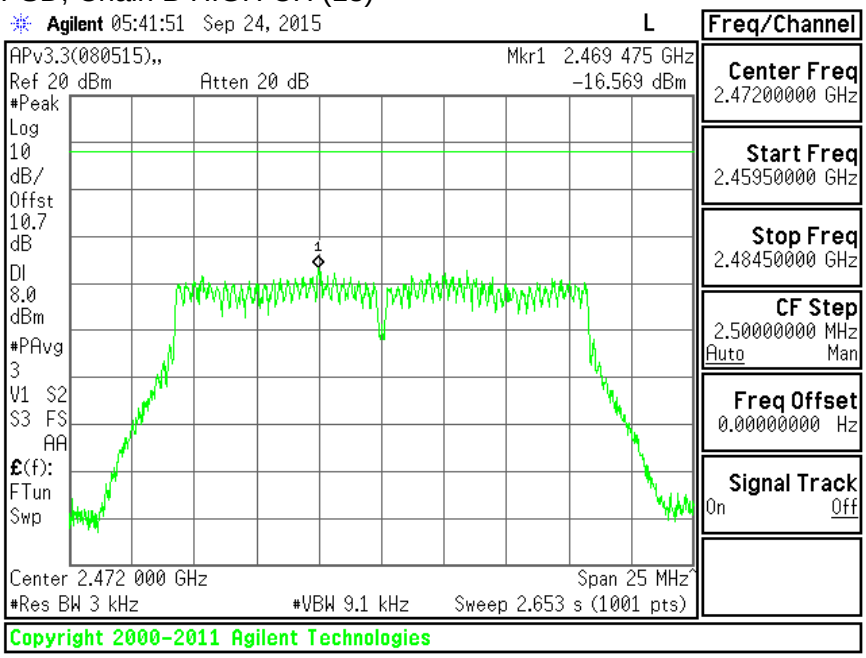
PSD, Chain B HIGH CH (11)



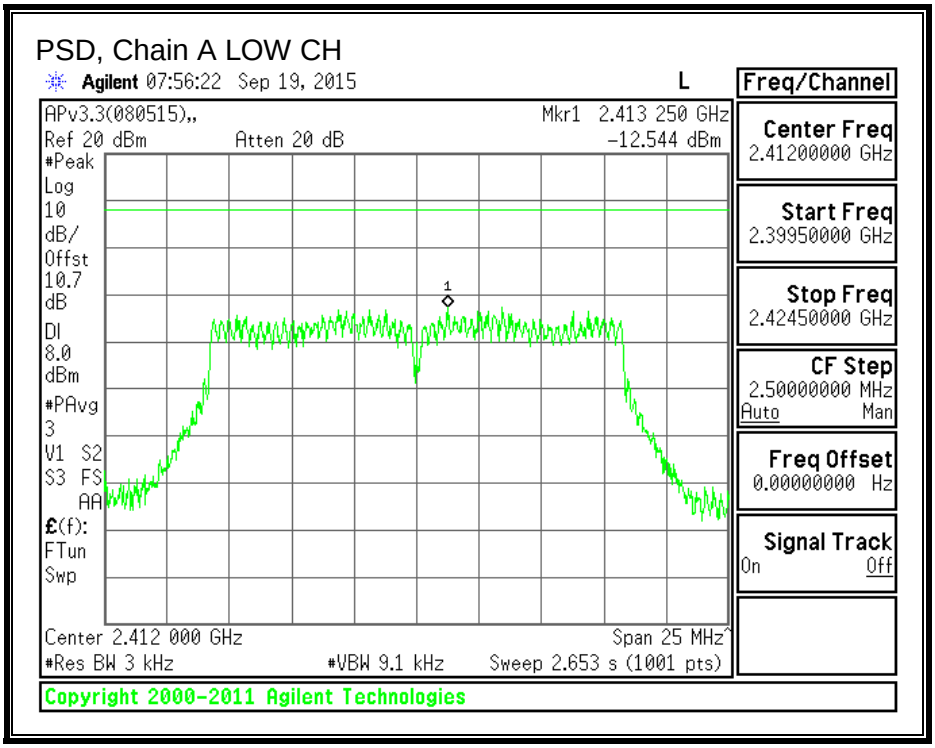
PSD, Chain B HIGH CH (12)



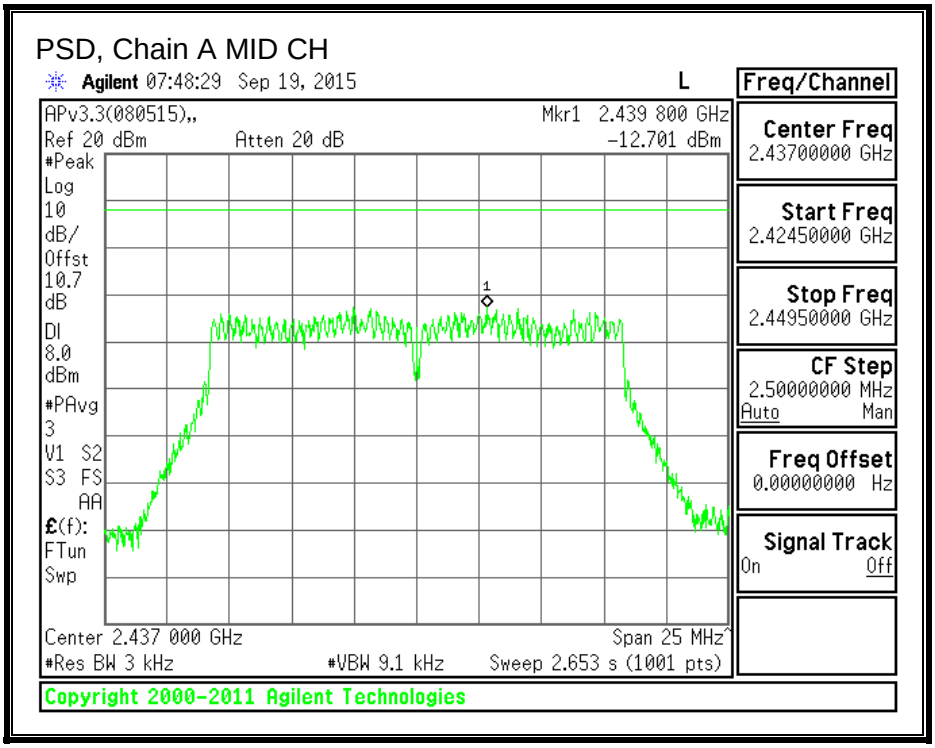
PSD, Chain B HIGH CH (13)



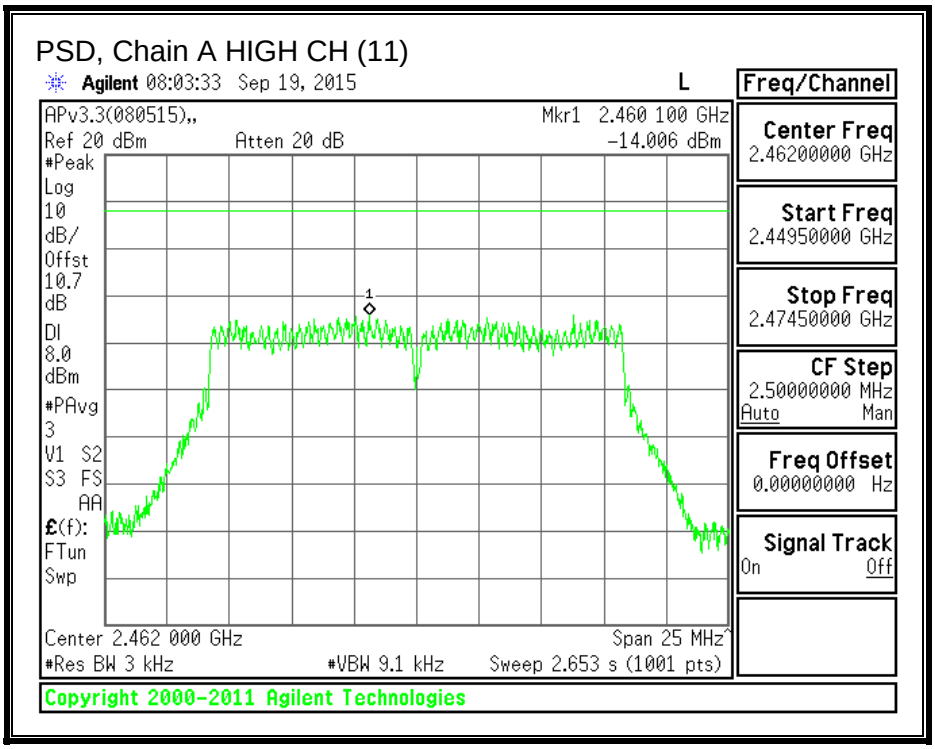
PSD, Chain A



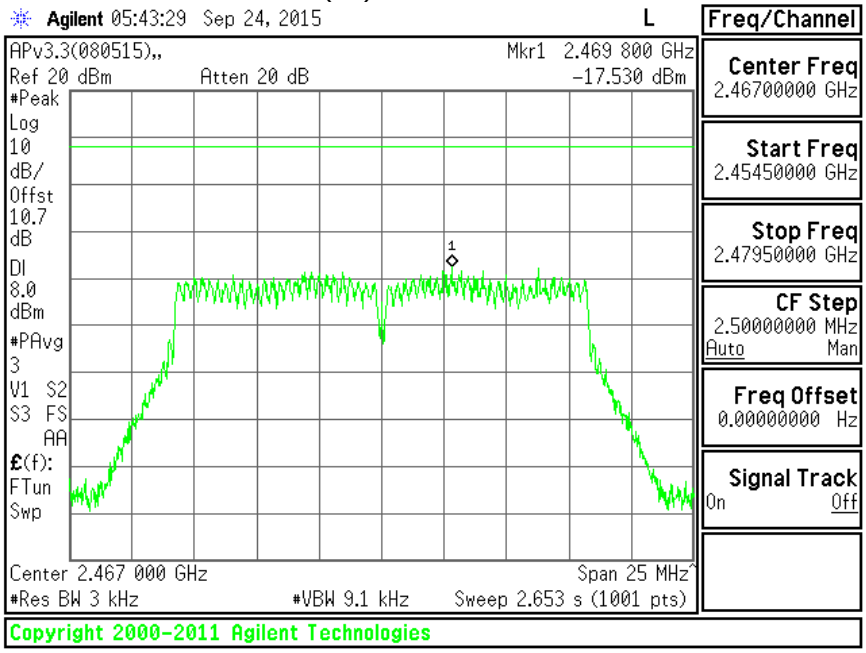
PSD, Chain A MID CH



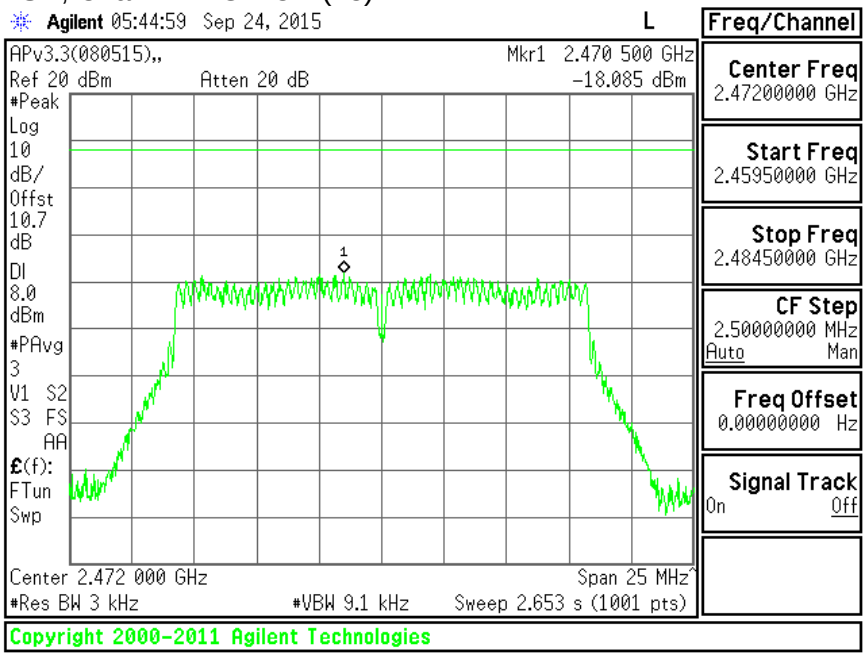
PSD, Chain A HIGH CH (11)



PSD, Chain A HIGH CH (12)



PSD, Chain A HIGH CH (13)



8.3.5. OUT-OF-BAND EMISSIONS

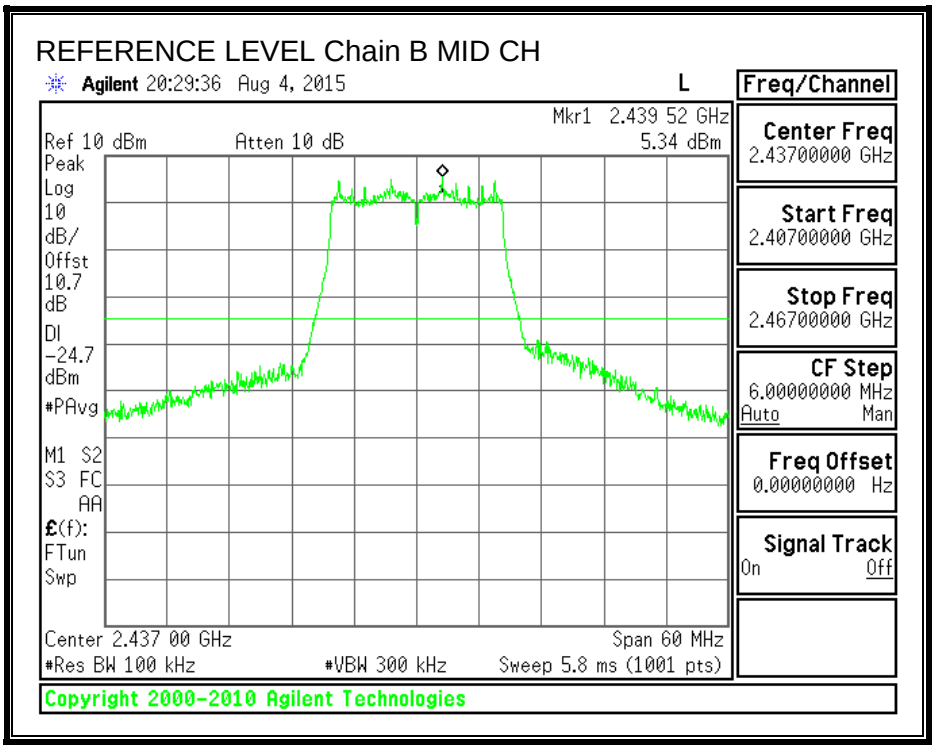
LIMITS

FCC §15.247 (d)

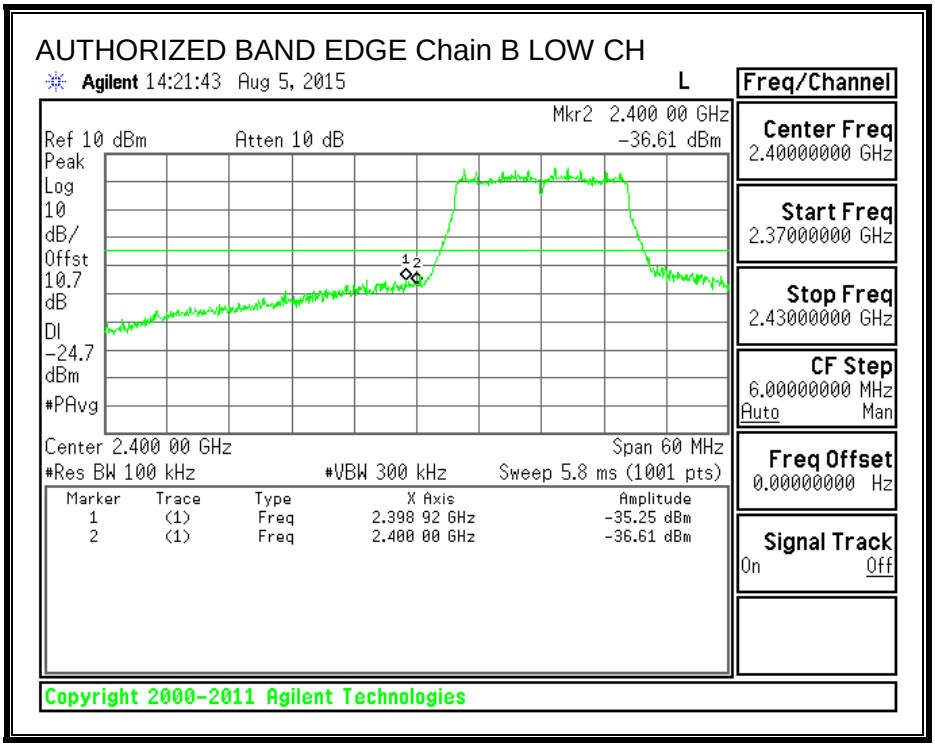
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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.

RESULTS (802.11g)

IN-BAND REFERENCE LEVEL, Chain B

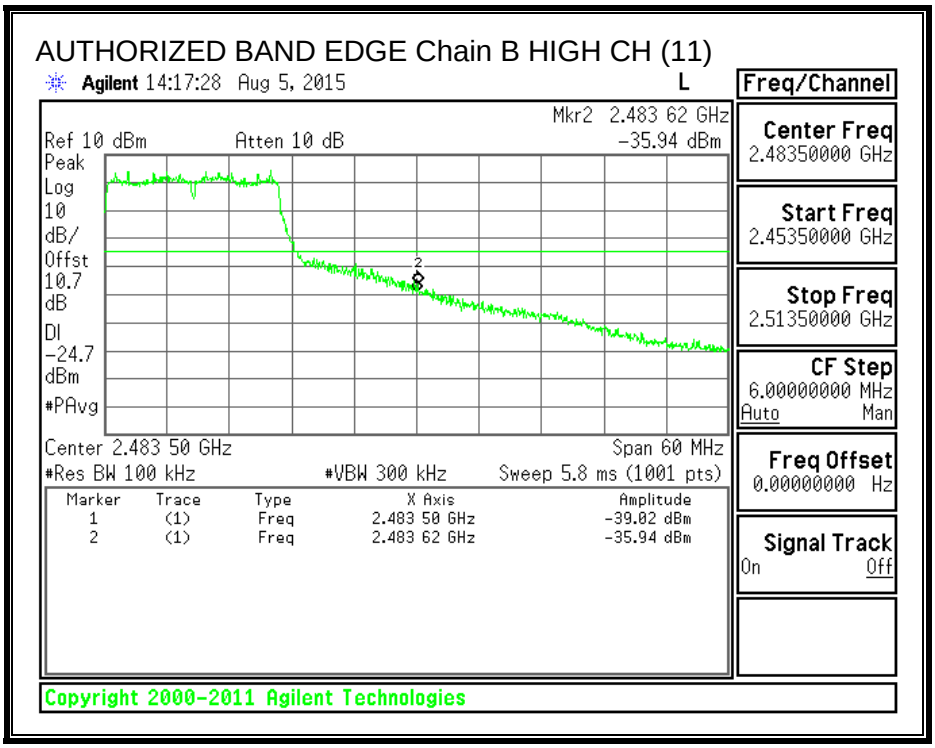


LOW CHANNEL BANDEDGE, Chain B



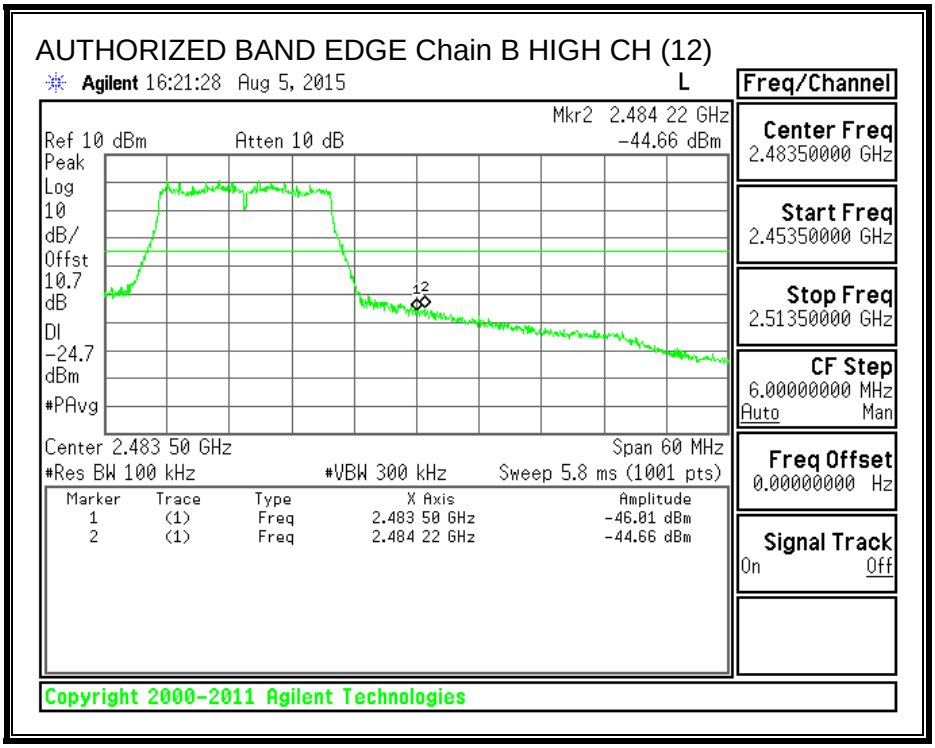
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

HIGH CHANNEL BANDEDGE, Chain B

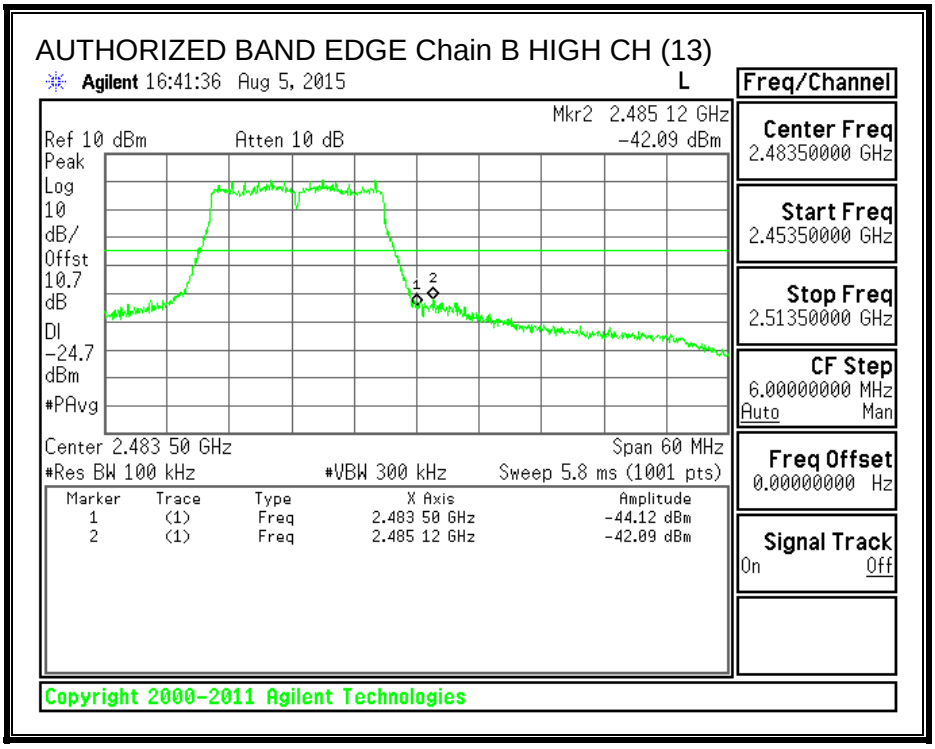


Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

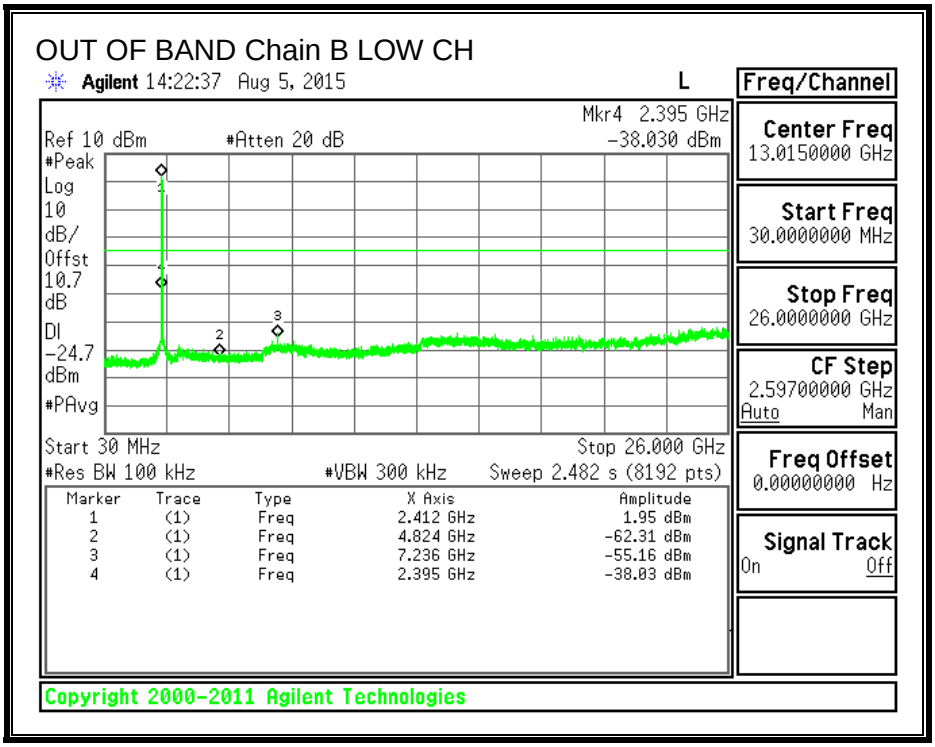
AUTHORIZED BAND EDGE Chain B HIGH CH (12)



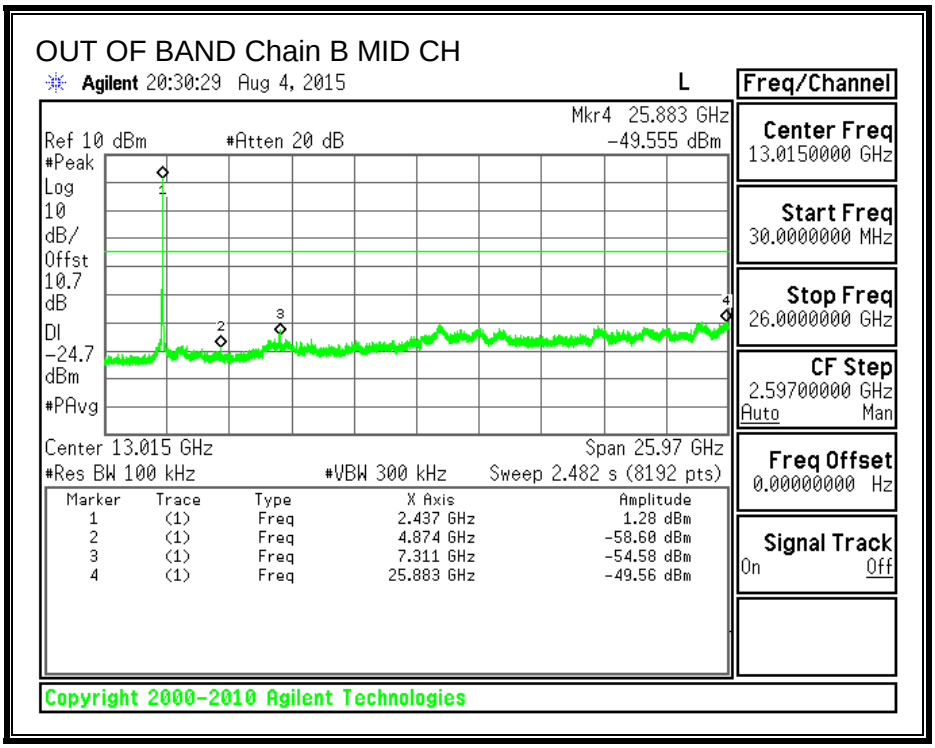
AUTHORIZED BAND EDGE Chain B HIGH CH (13)

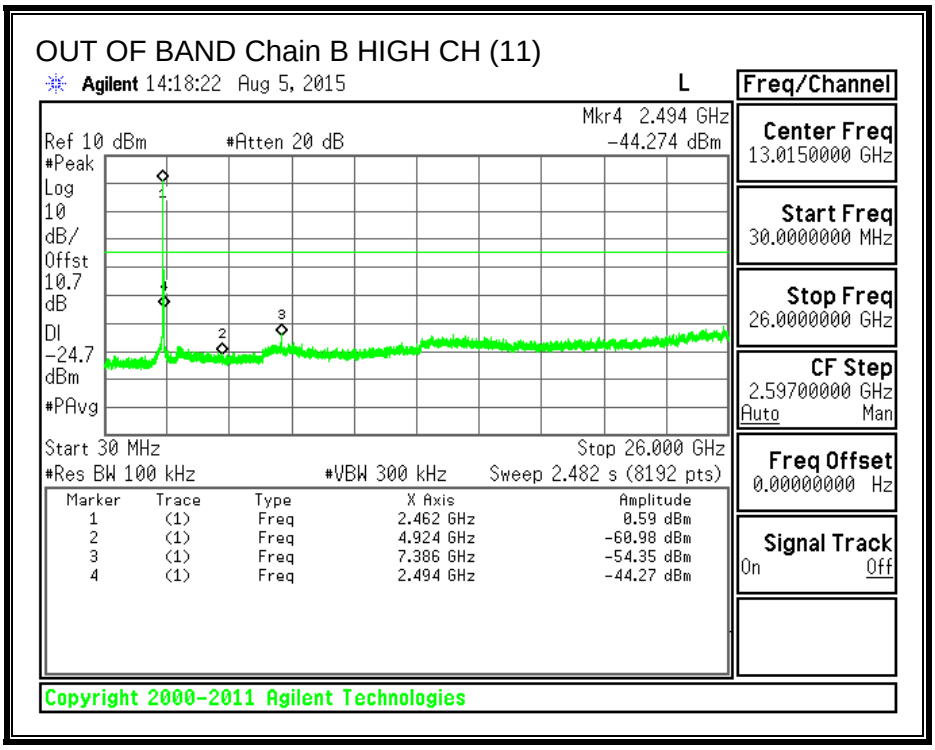


OUT-OF-BAND EMISSIONS, Chain B

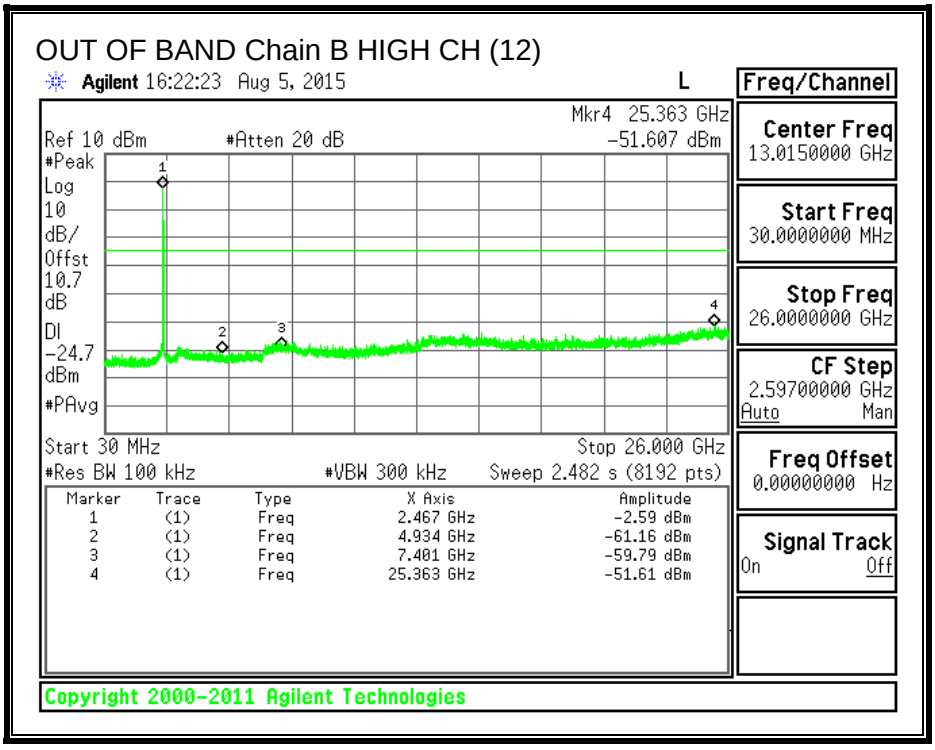


Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

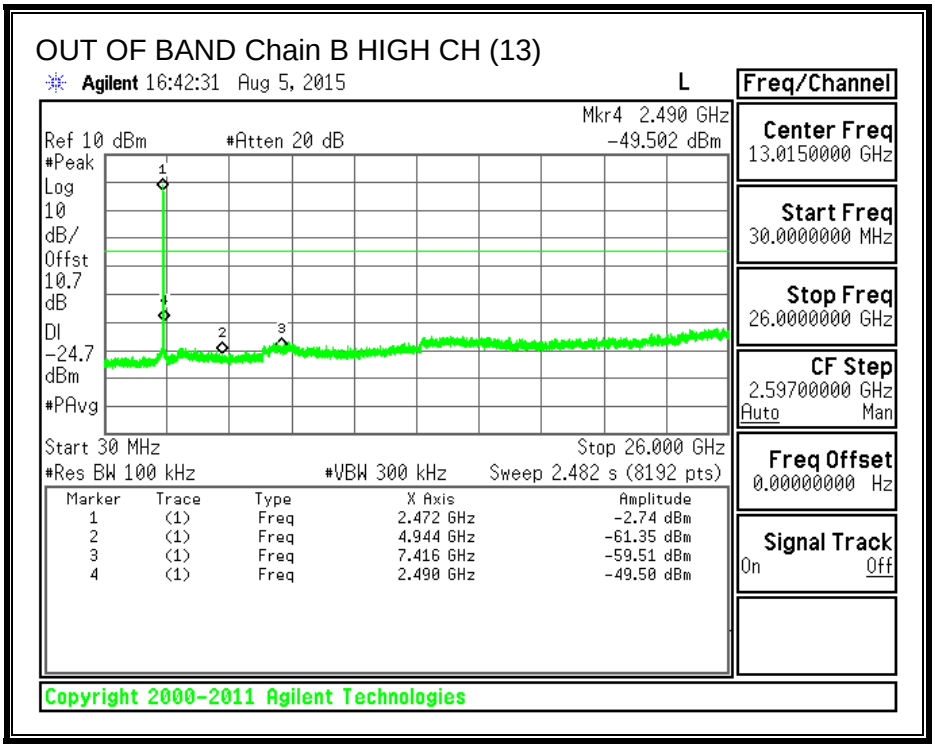




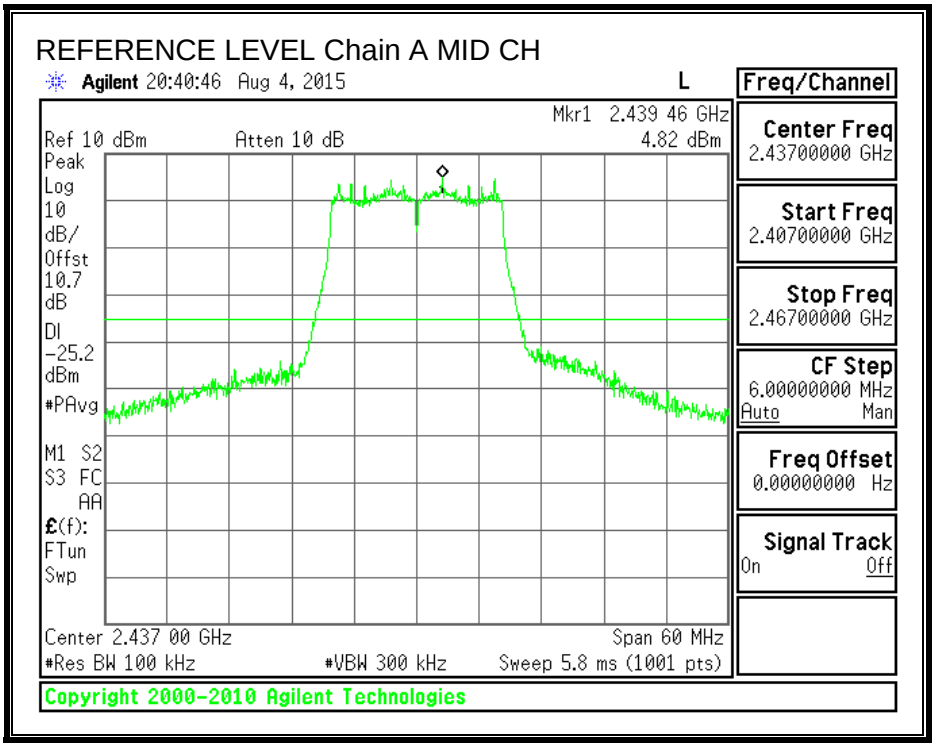
Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.



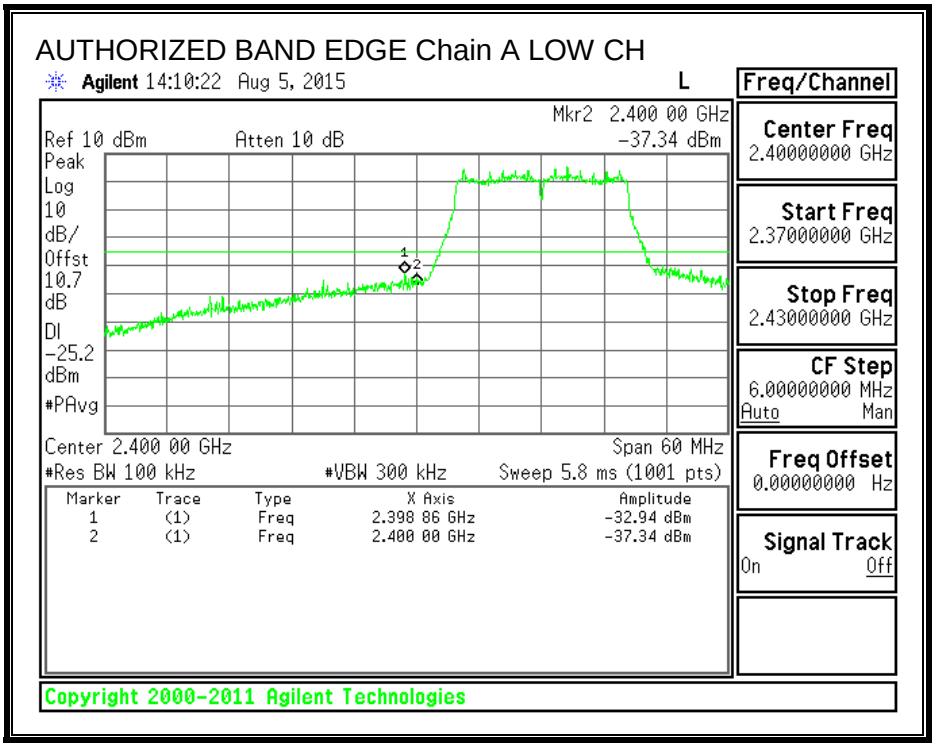
OUT OF BAND Chain B HIGH CH (13)



IN-BAND REFERENCE LEVEL, Chain A

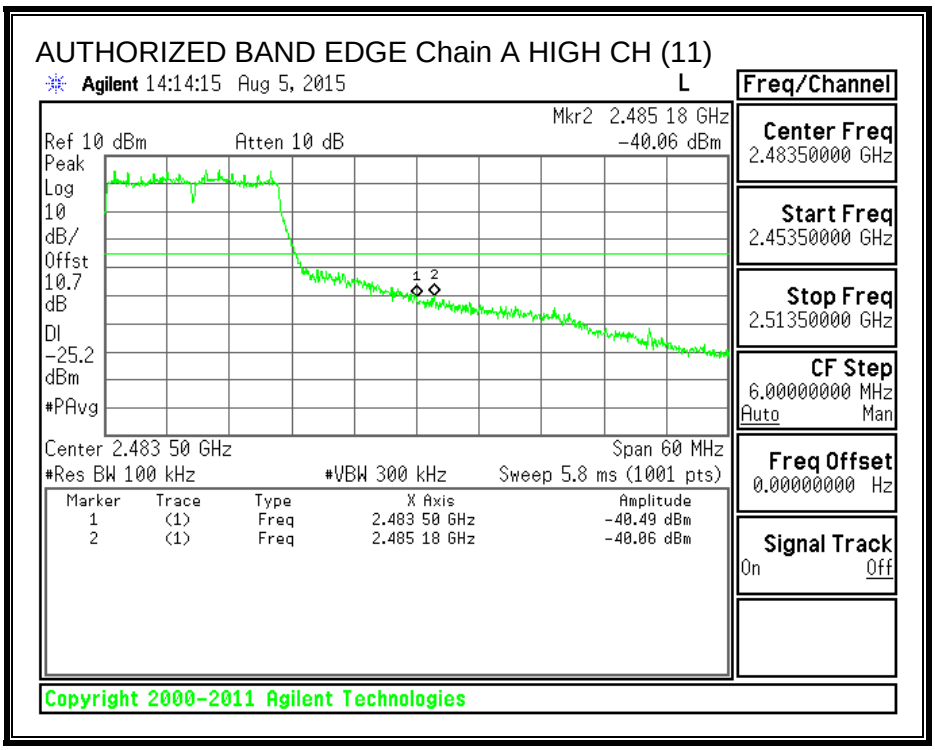


LOW CHANNEL BANDEDGE, Chain A

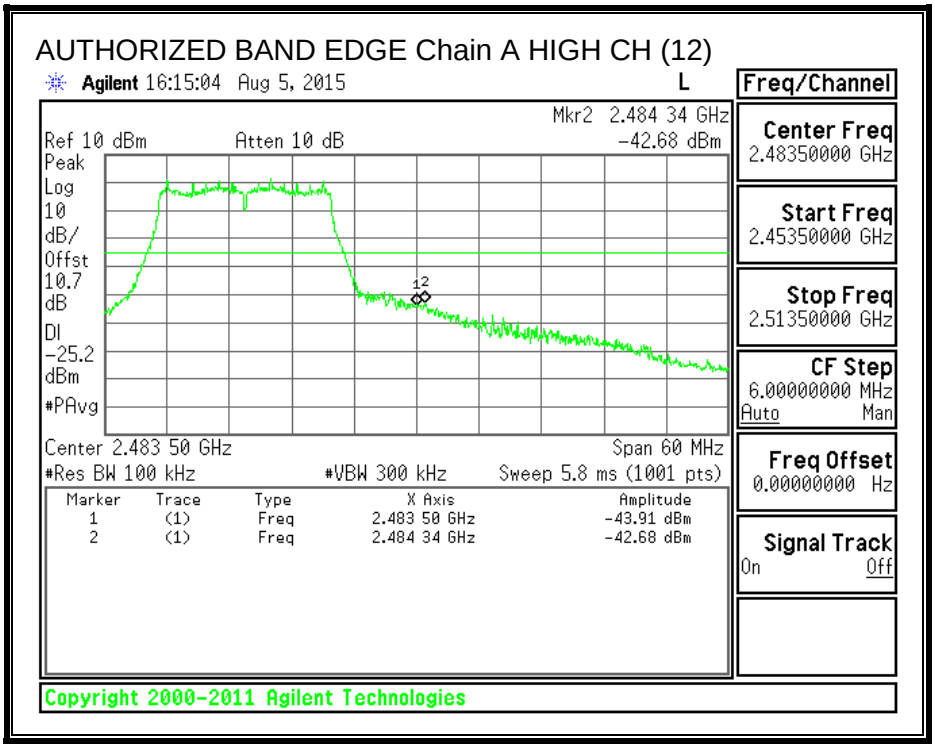


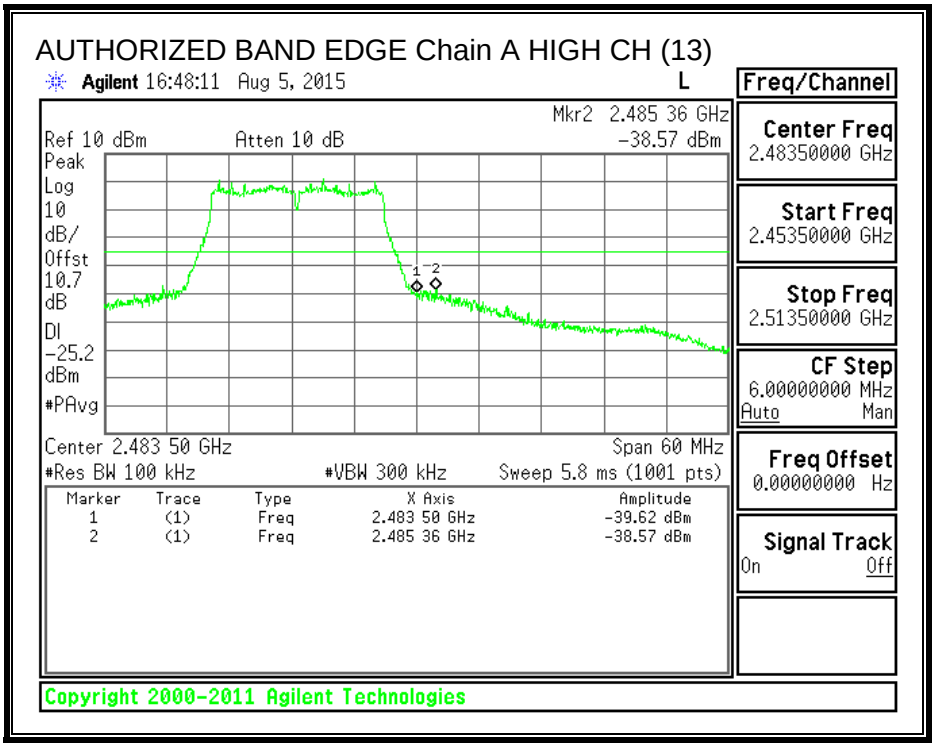
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

HIGH CHANNEL BANDEDGE, Chain A

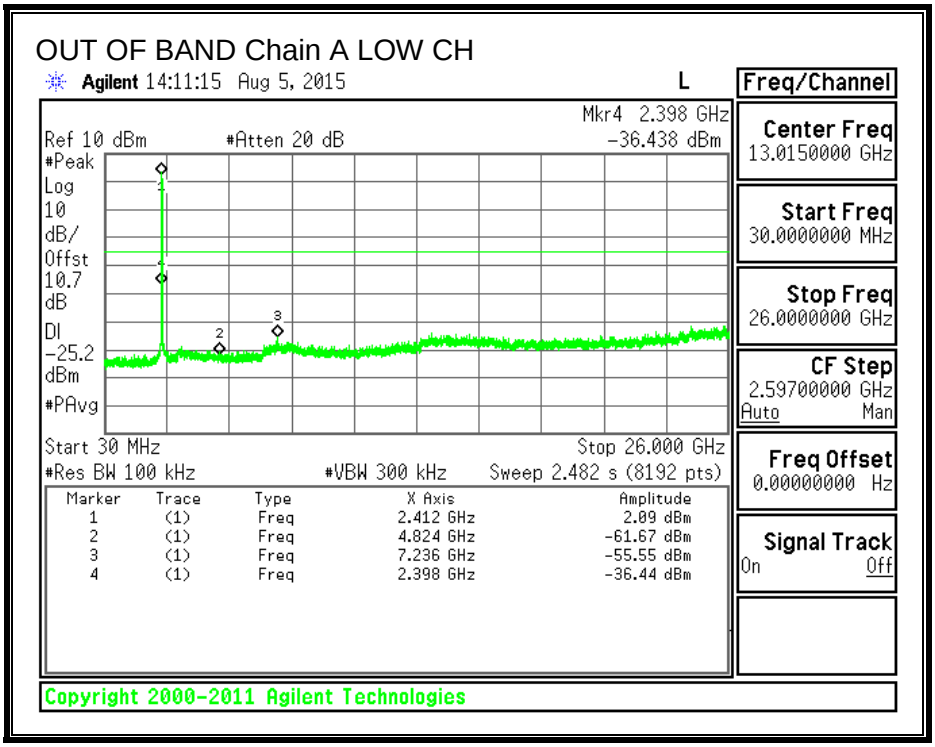


Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

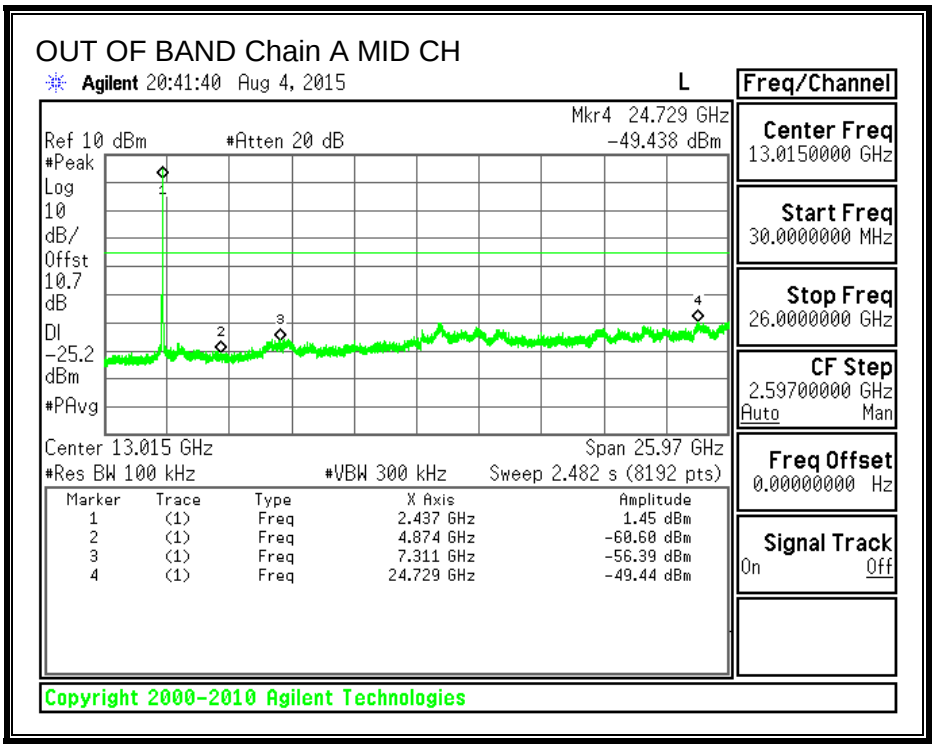


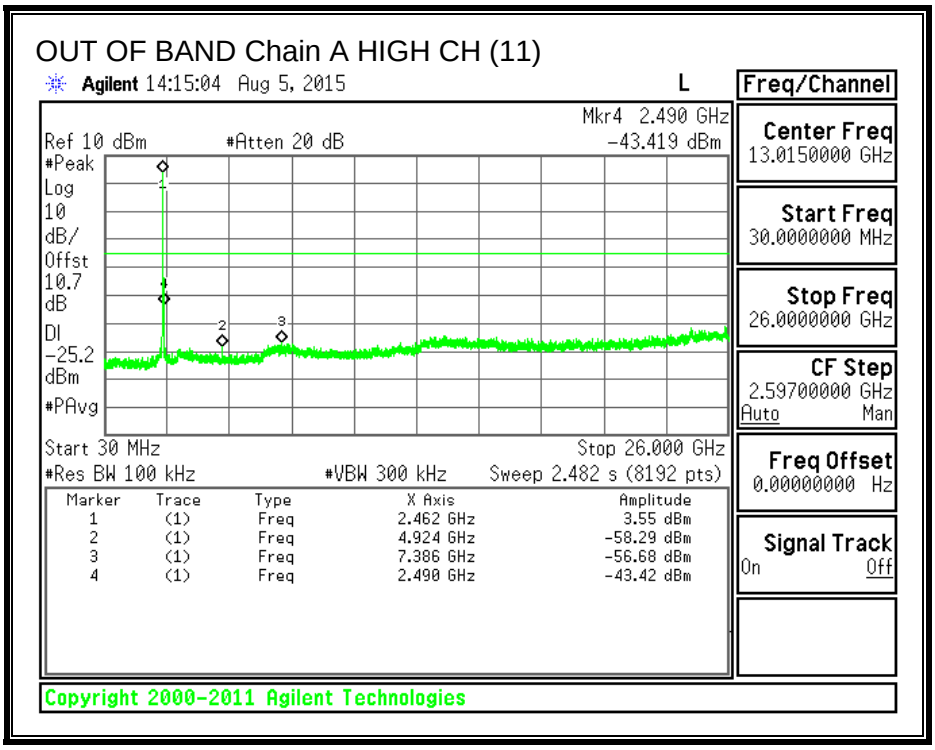


OUT-OF-BAND EMISSIONS, Chain A

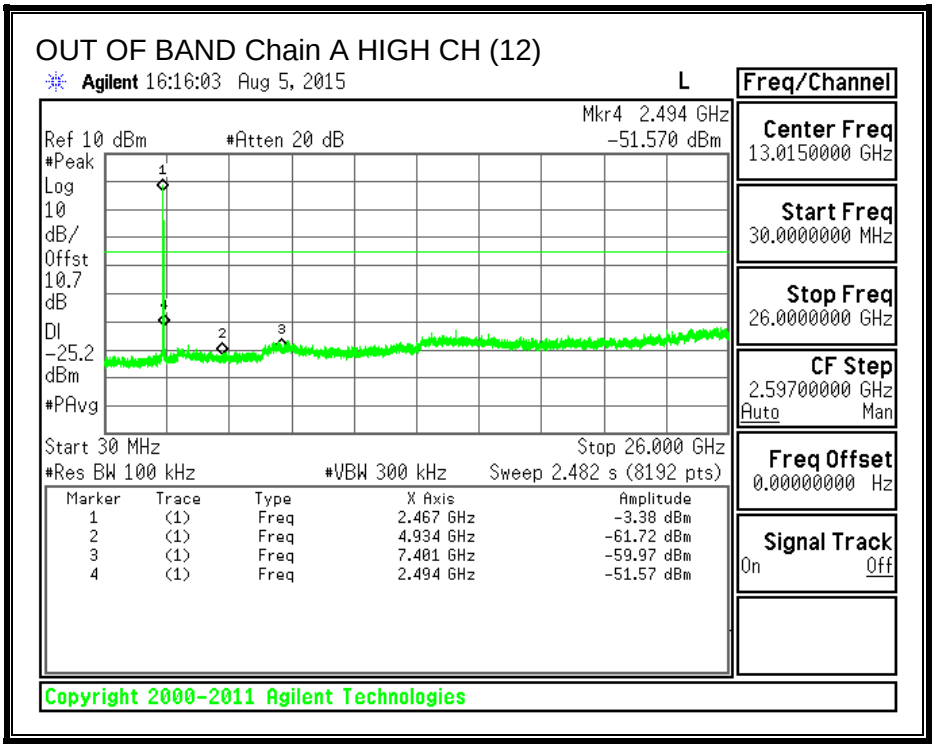


Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

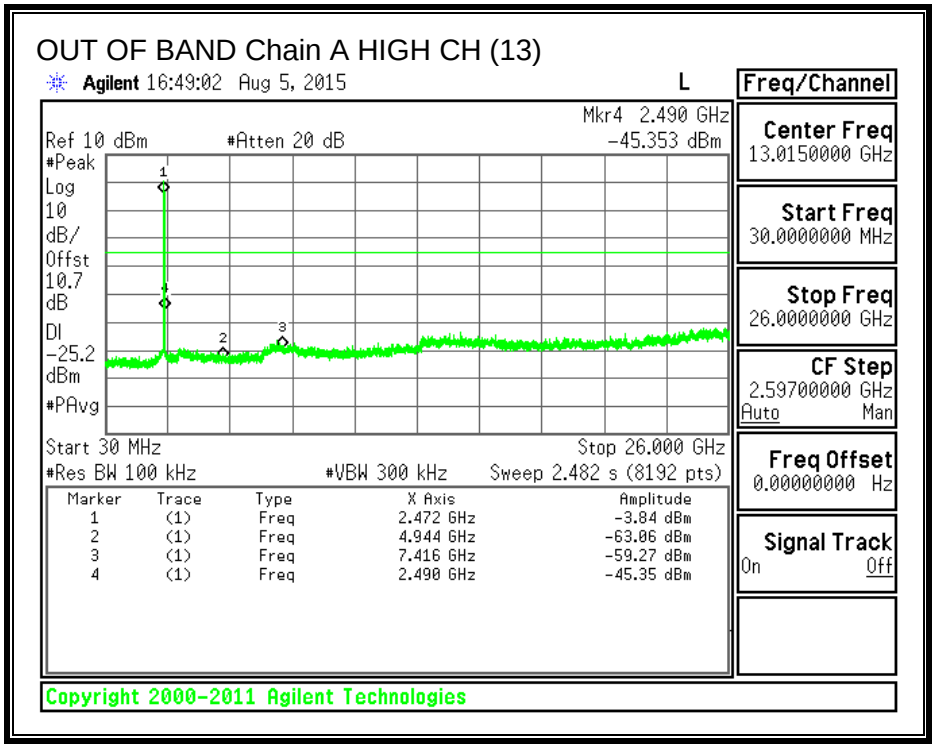




Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.



OUT OF BAND Chain A HIGH CH (13)



8.4. 802.11n HT20 MODE IN THE 2.4 GHz BAND

8.4.1. 6 dB BANDWIDTH

LIMITS

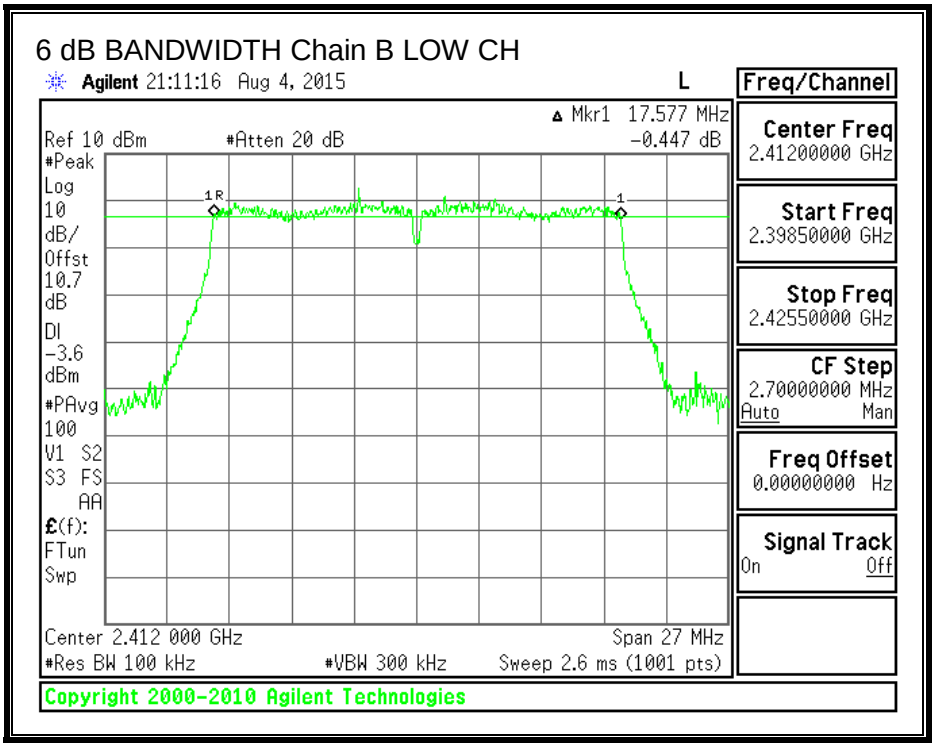
FCC §15.247 (a) (2)

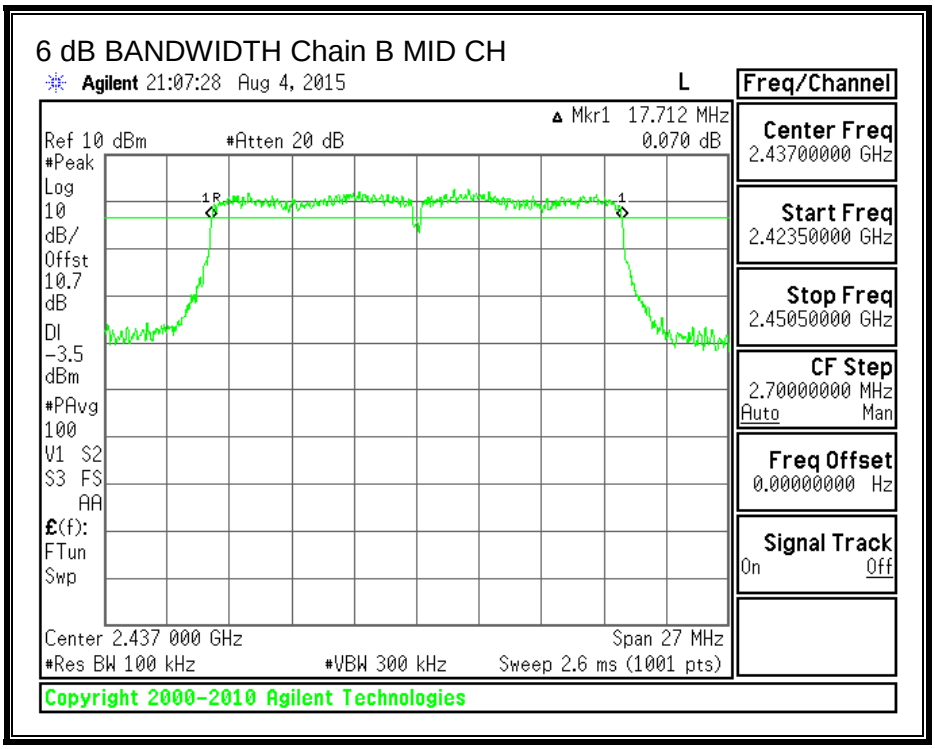
The minimum 6 dB bandwidth shall be at least 500 kHz.

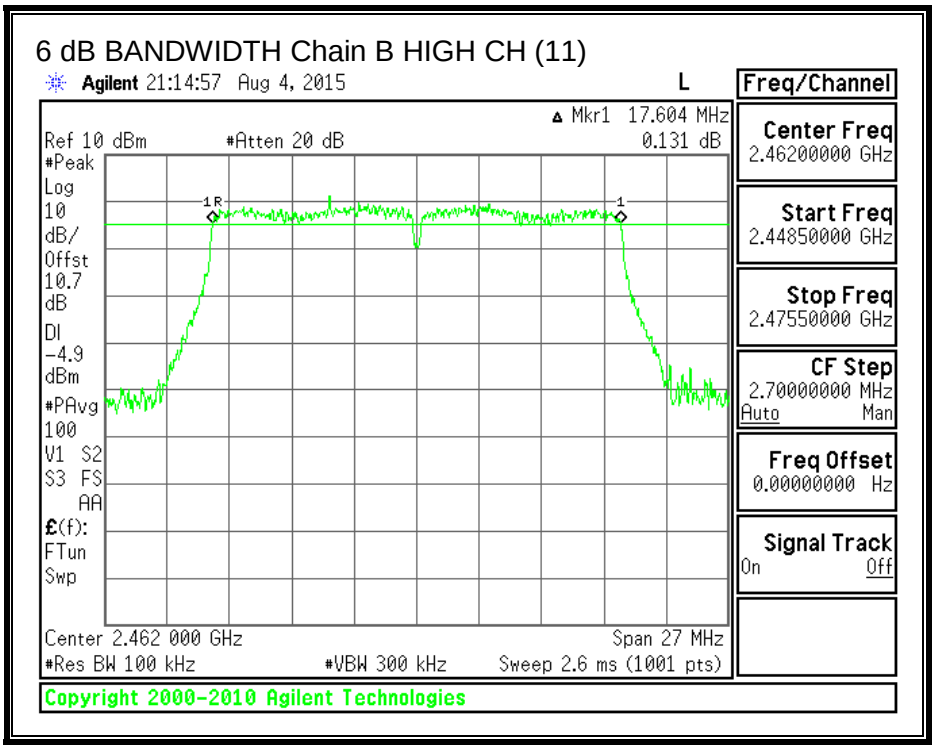
RESULTS (802.11n HT20)

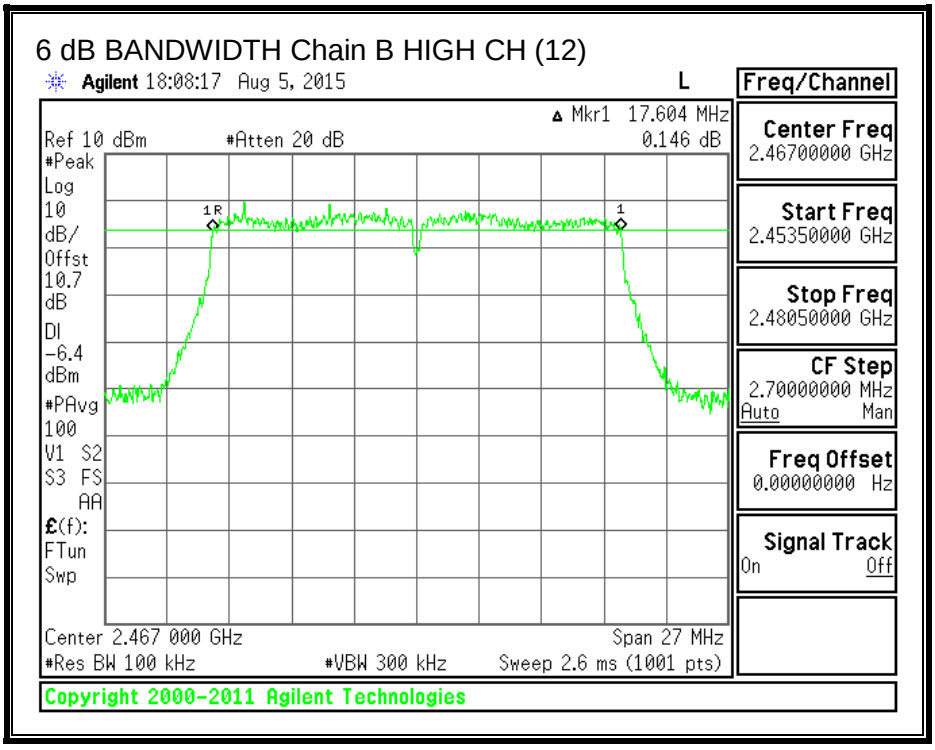
Channel	Frequency (MHz)	6 dB BW Chain B (MHz)	6 dB BW Chain A (MHz)	Minimum Limit (MHz)
Low	2412	17.577	17.631	0.5
Mid	2437	17.712	17.631	0.5
High CH 11	2462	17.604	17.604	0.5
High CH 12	2467	17.604	17.604	0.5
High CH 13	2472	17.604	17.604	0.5

6 dB BANDWIDTH, Chain B

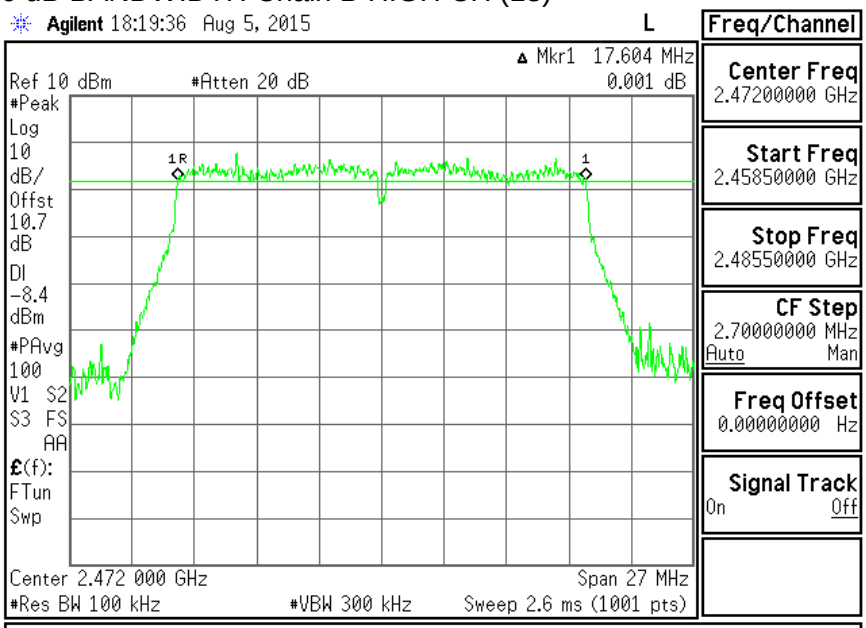




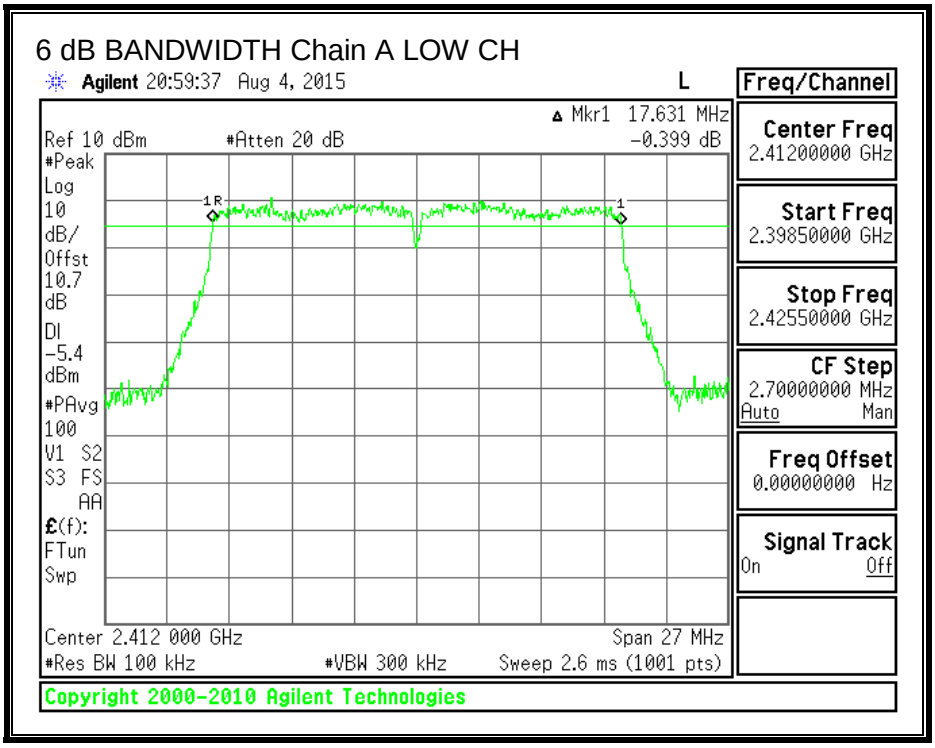


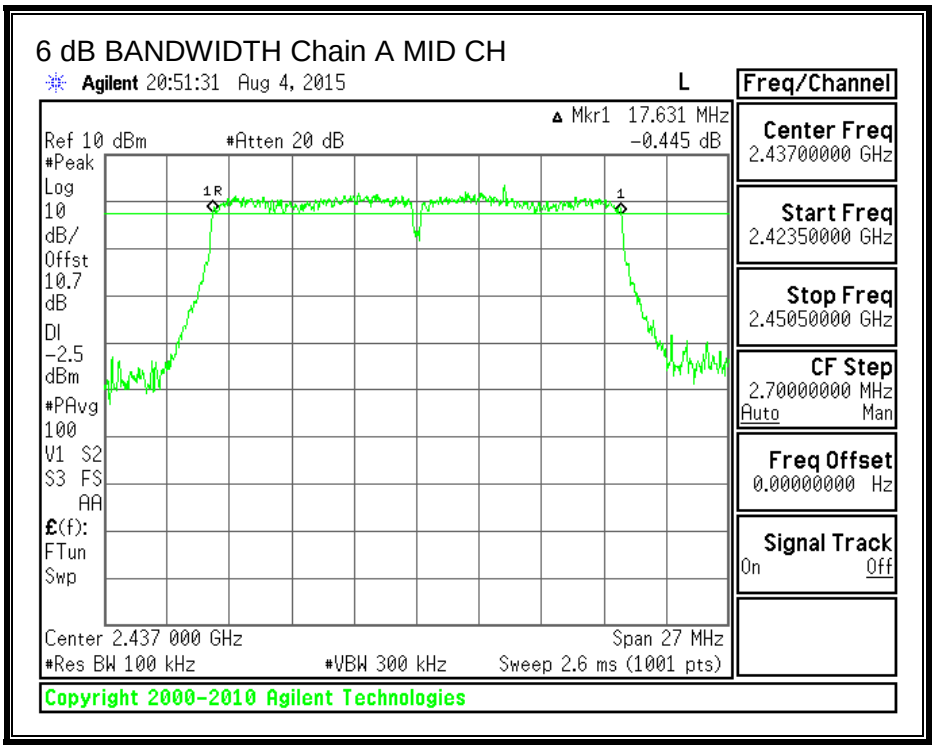


6 dB BANDWIDTH Chain B HIGH CH (13)

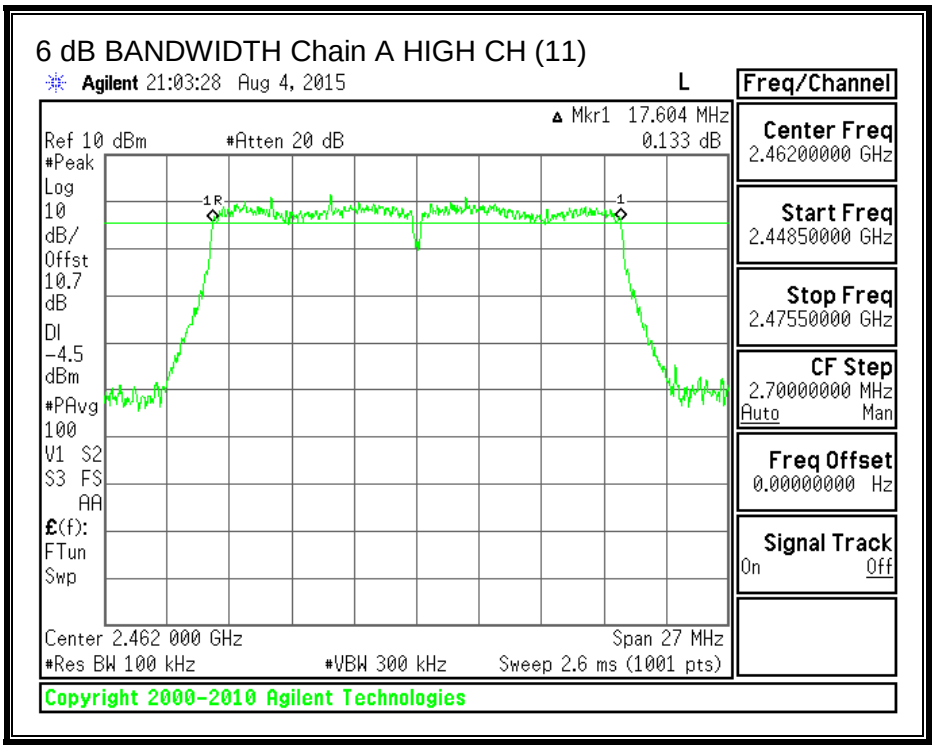


6 dB BANDWIDTH, Chain A

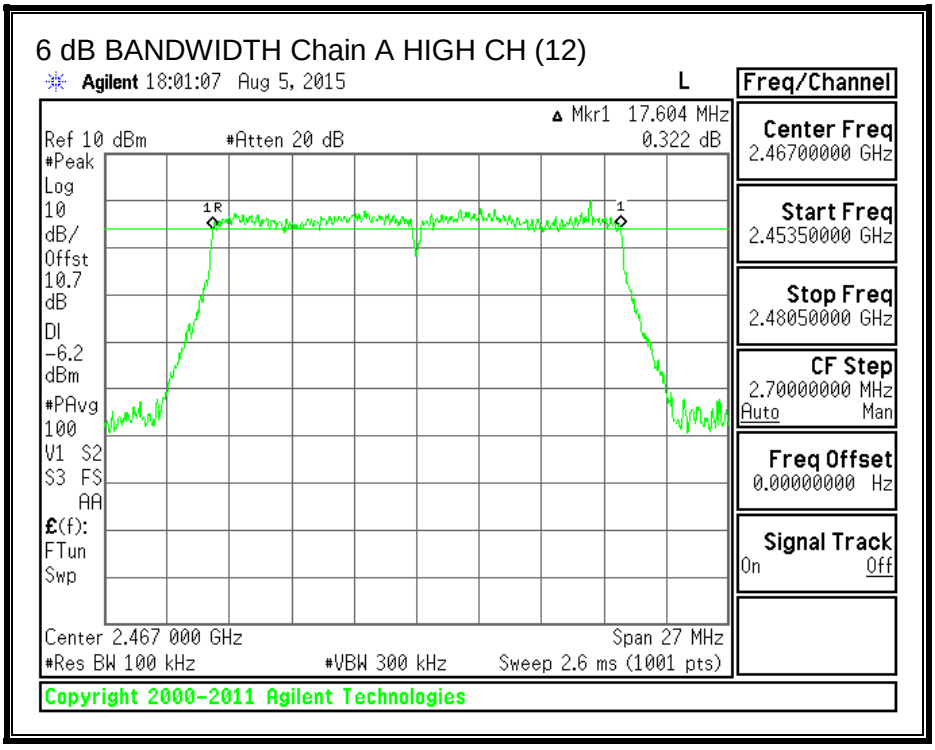




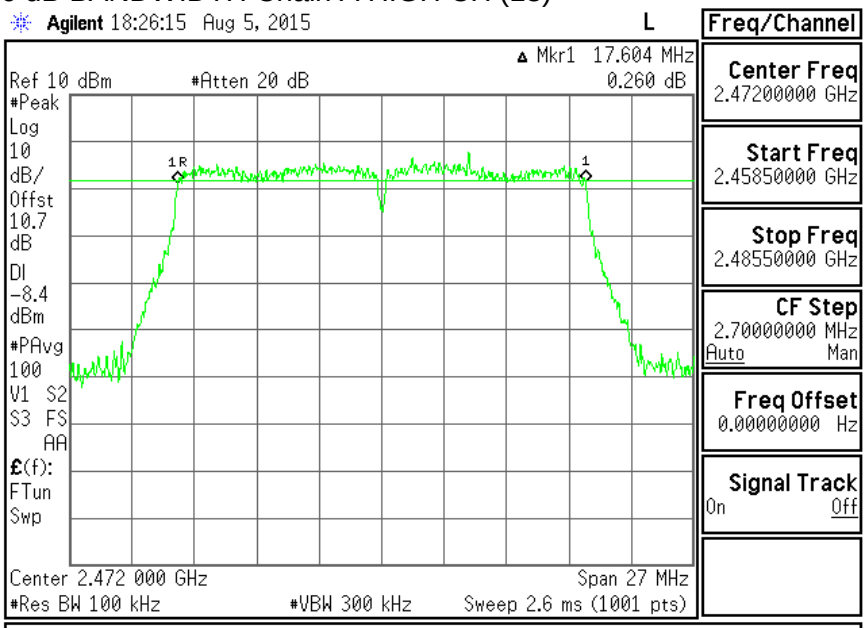
6 dB BANDWIDTH Chain A HIGH CH (11)



6 dB BANDWIDTH Chain A HIGH CH (12)



6 dB BANDWIDTH Chain A HIGH CH (13)



8.4.2. 99% BANDWIDTH

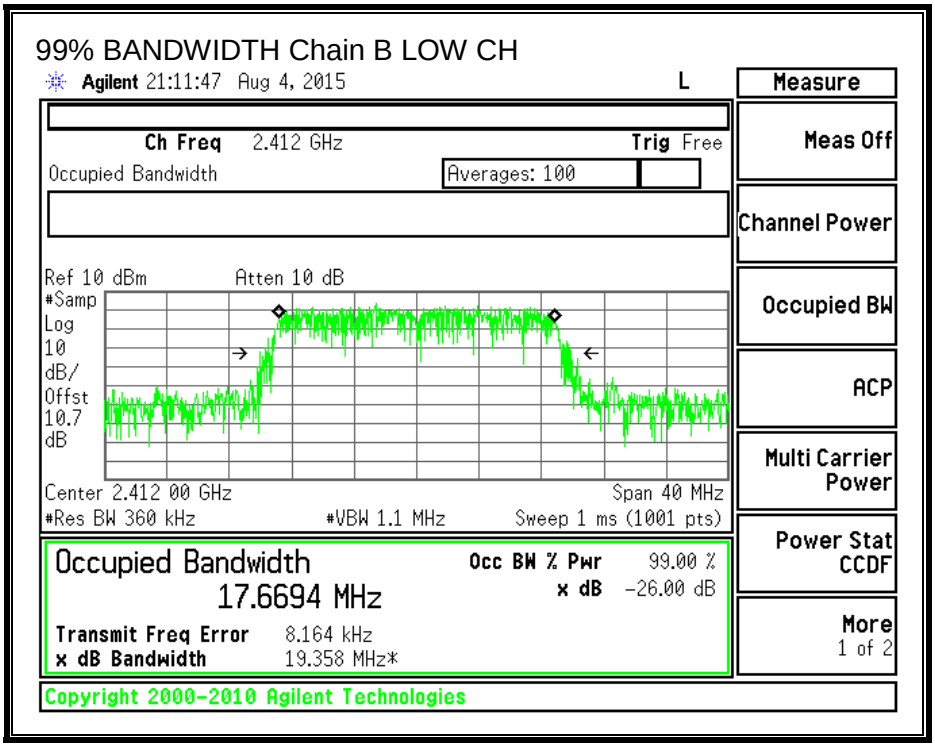
LIMITS

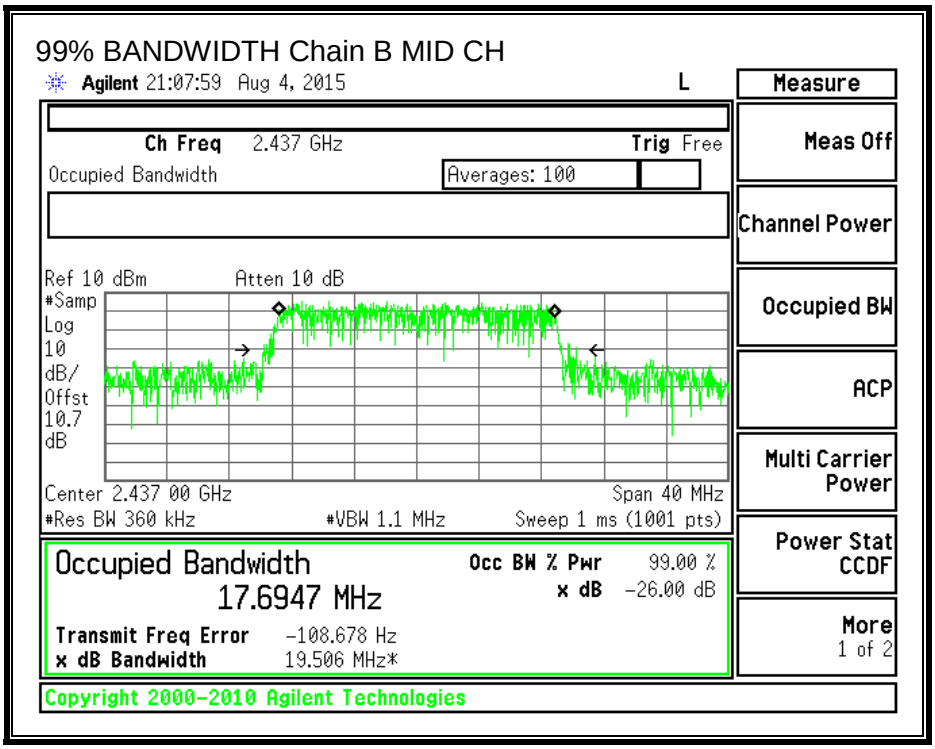
None; for reporting purposes only.

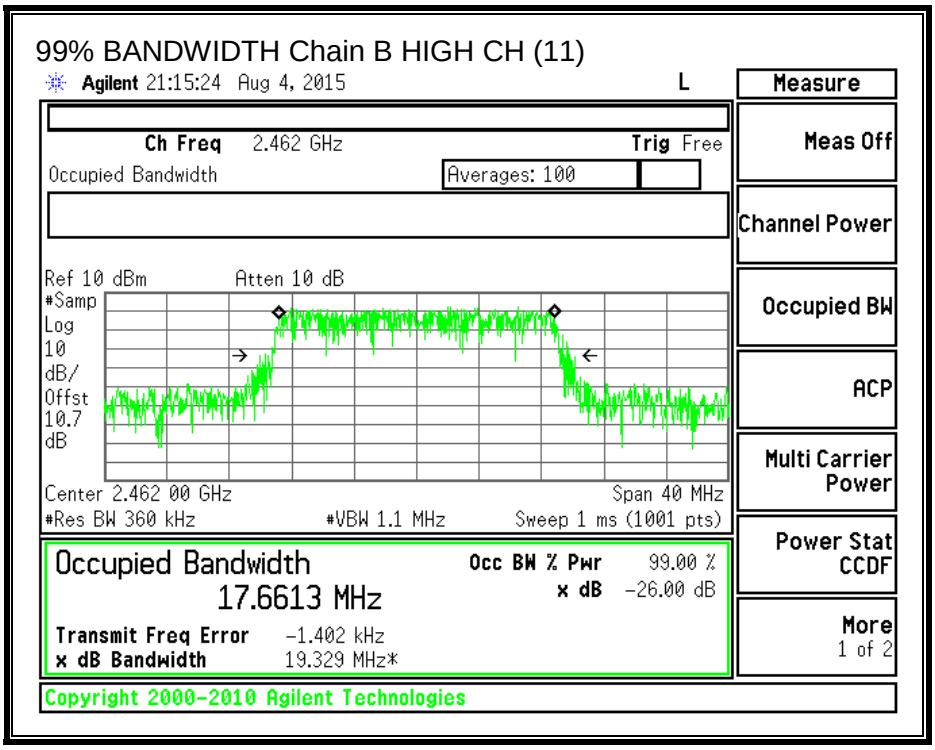
RESULTS (802.11n HT20)

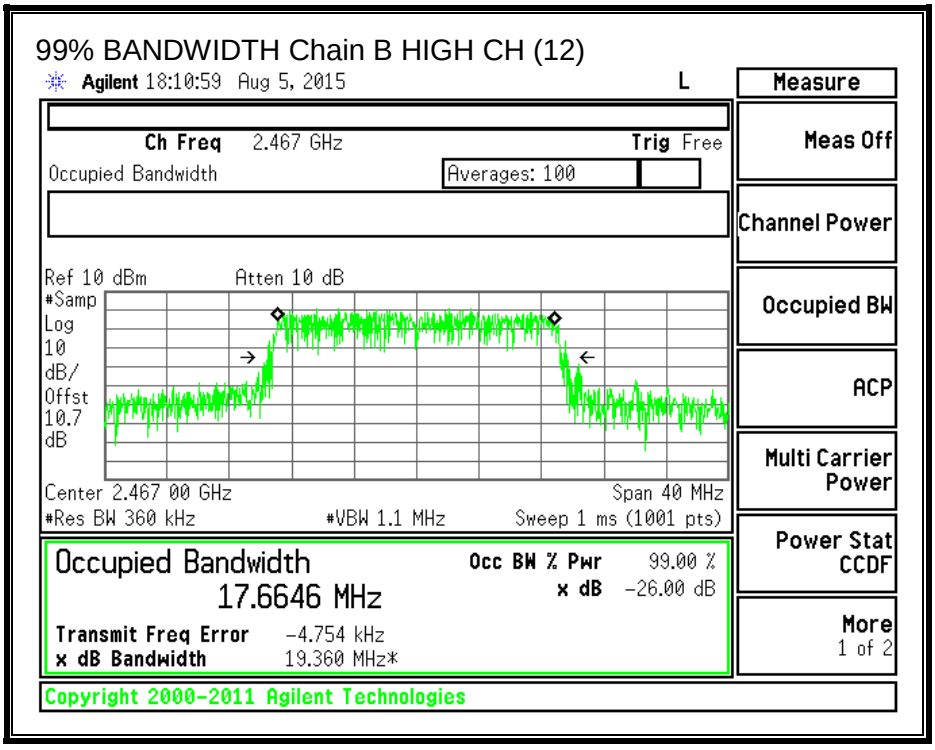
Channel	Frequency (MHz)	99% BW Chain B (MHz)	99% BW Chain A (MHz)
Low	2412	17.6694	17.6713
Mid	2437	17.6947	17.6603
High CH 11	2462	17.6613	17.6448
High CH 12	2467	17.6646	17.6577
High CH 13	2472	17.6667	17.6666

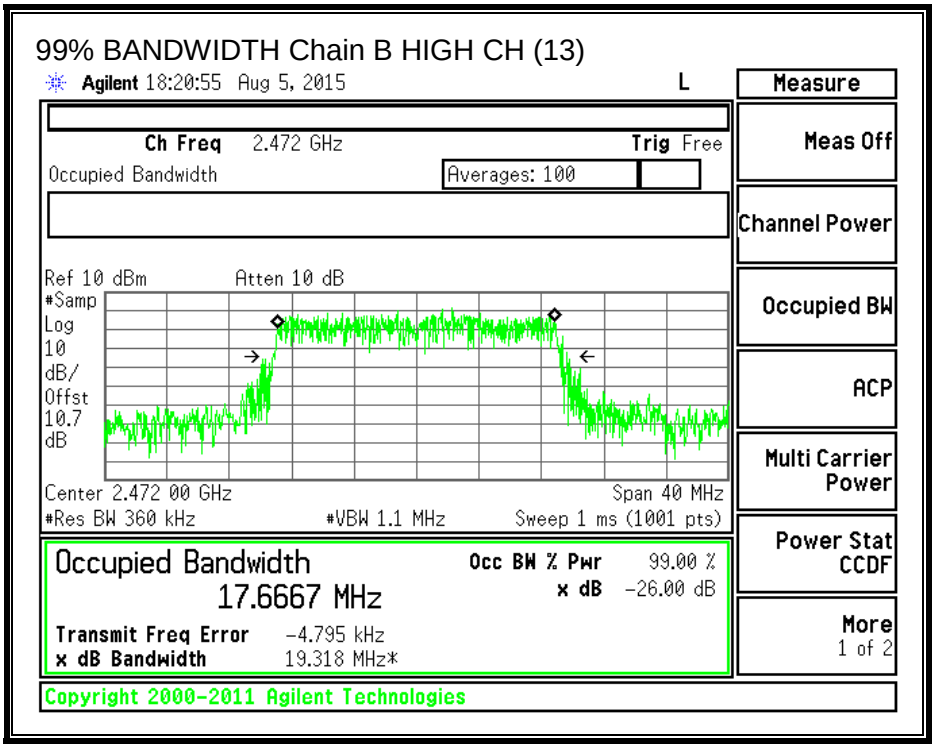
99% BANDWIDTH, Chain B



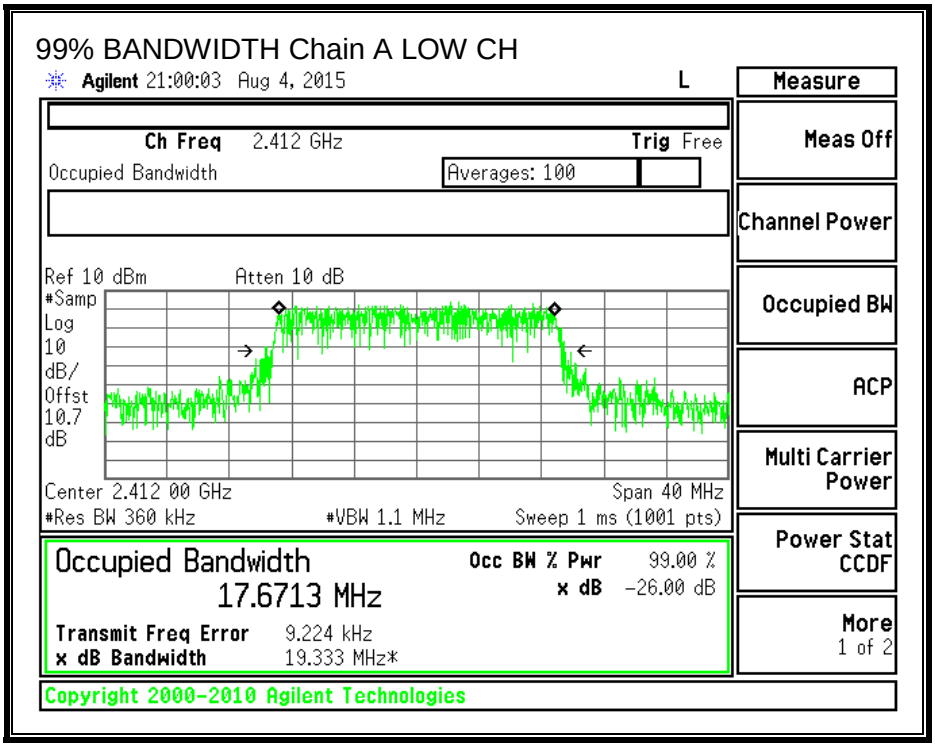




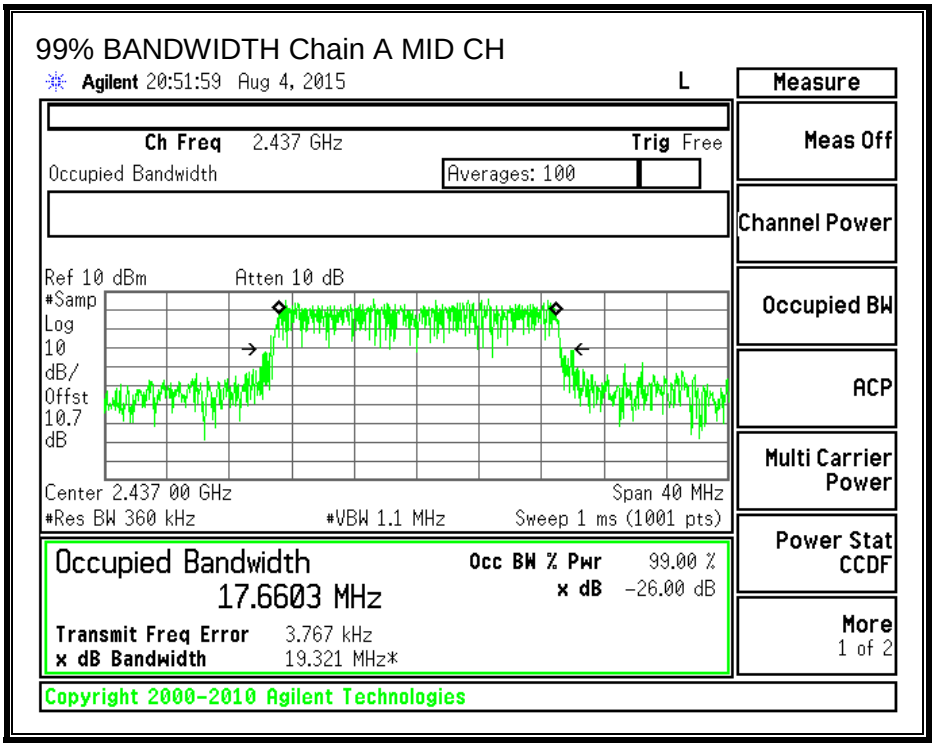




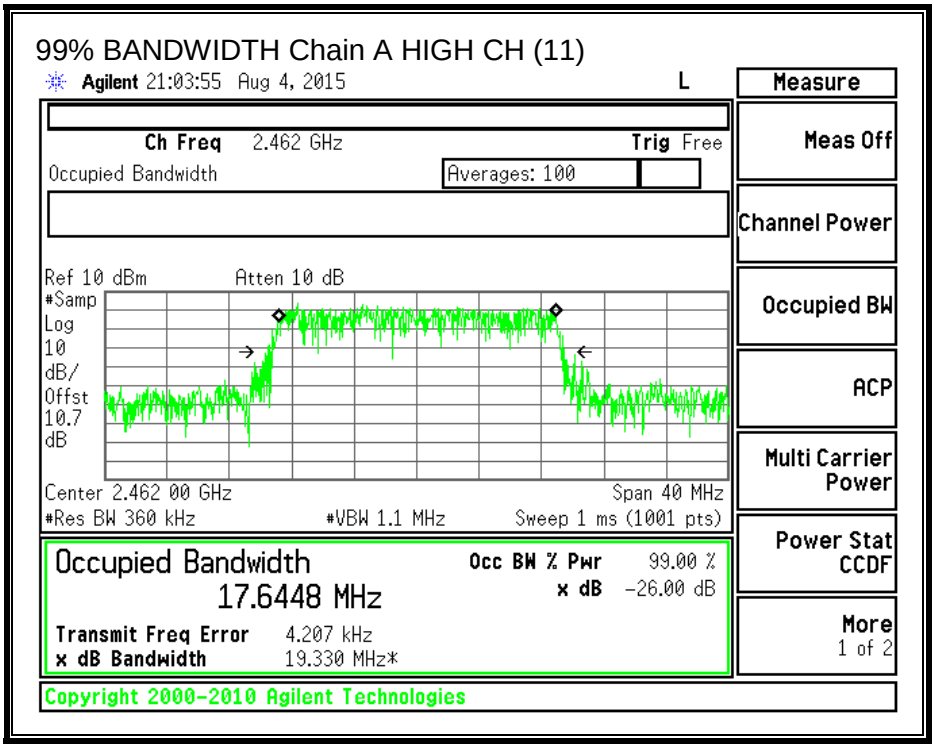
99% BANDWIDTH, Chain A

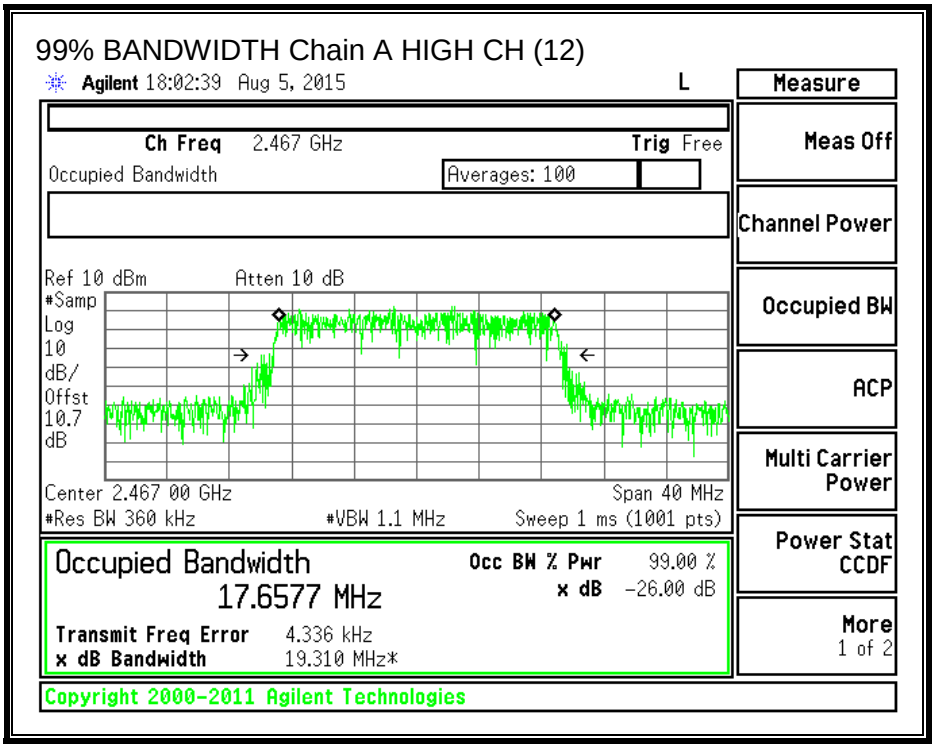


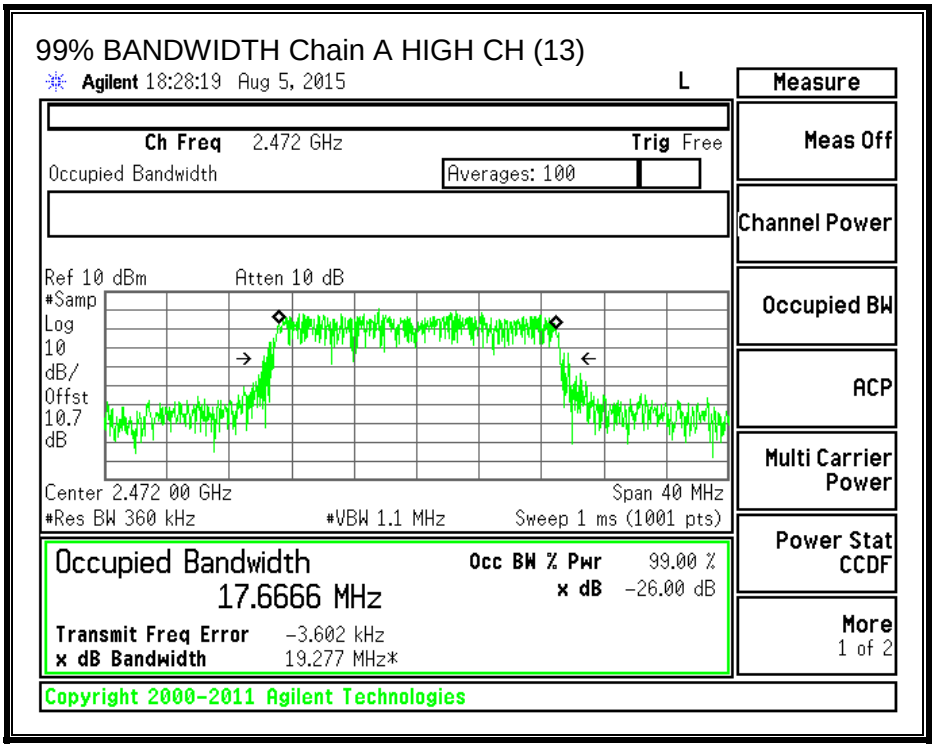
99% BANDWIDTH Chain A MID CH



99% BANDWIDTH Chain A HIGH CH (11)







8.4.3. OUTPUT POWER

LIMITS

FCC §15.247

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 unequal among the chains. The directional gain is:

Chain B Antenna Gain (dBi)	Chain A Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
1.70	1.40	1.55

RESULTS (802.11n HT20)

Limits

Channel	Frequency (MHz)	Direct. Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low CH 1	2412	1.55	30.00	30	36	30.00
Mid	2437	1.55	30.00	30	36	30.00
High CH 11	2462	1.55	30.00	30	36	30.00
High CH 12	2467	1.55	30.00	30	36	30.00
High CH 13	2472	1.55	30.00	30	36	30.00

Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd Power

Results

Channel	Frequency (MHz)	Chain B Meas Power (dBm)	Chain A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	Margin (dB)
Low CH 1	2412	12.16	12.66	15.43	30.00	-14.57	16.98	36.00	-19.02
Mid	2437	12.21	12.33	15.28	30.00	-14.72	16.83	36.00	-19.17
High CH 11	2462	11.10	11.49	14.31	30.00	-15.69	15.86	36.00	-20.14
High CH 12	2467	8.42	8.29	11.37	30.00	-18.63	12.92	36.00	-23.08
High CH 13	2472	8.79	8.27	11.55	30.00	-18.45	13.10	36.00	-22.90

8.4.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

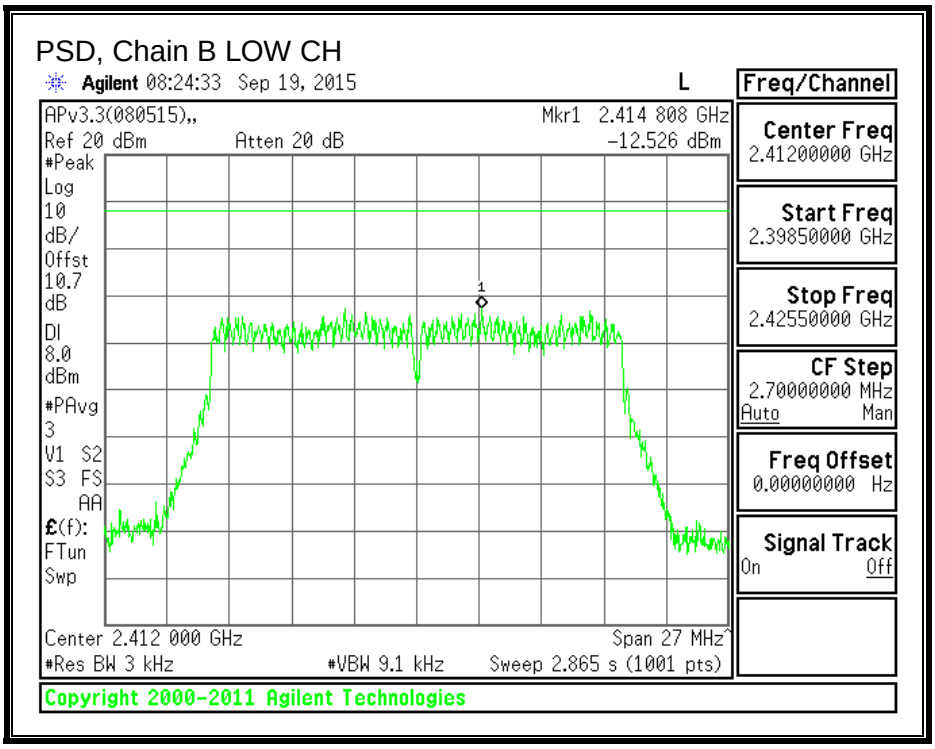
RESULTS (802.11n HT20)

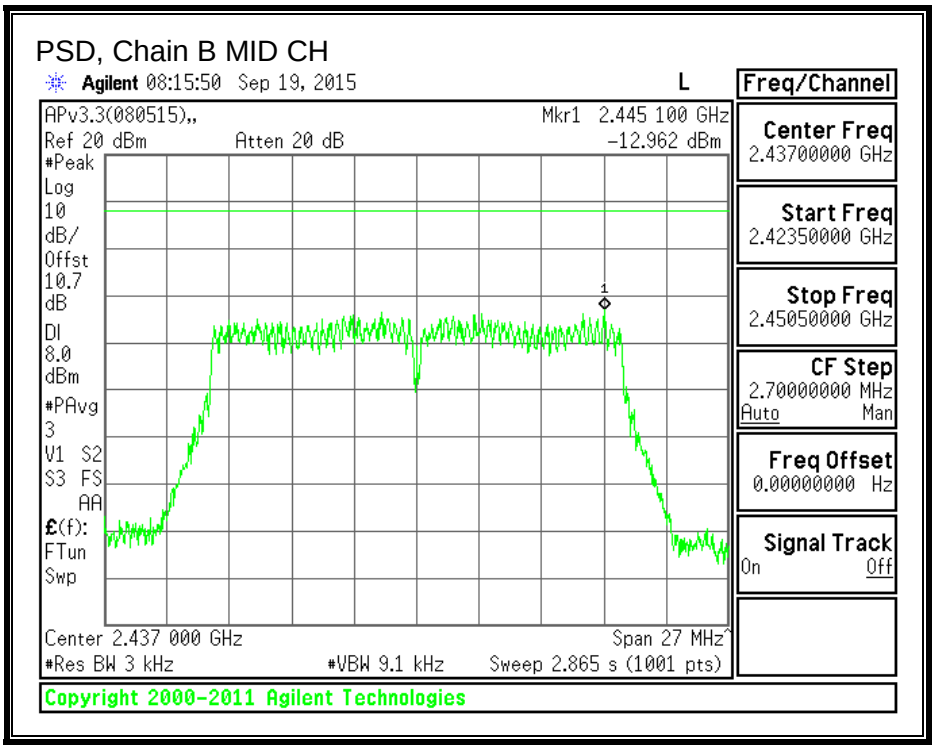
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

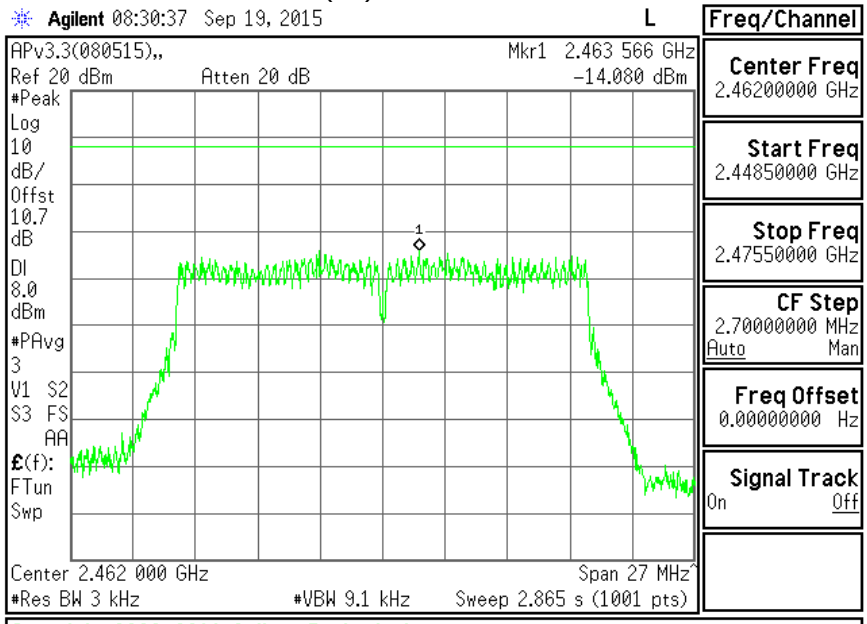
Channel	Frequency (MHz)	Chain B Meas (dBm)	Chain A Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-12.53	-11.91	-9.20	8.0	-17.2
Mid	2437	-12.96	-12.34	-9.63	8.0	-17.6
High CH 11	2462	-14.08	-13.28	-10.65	8.0	-18.7
High CH 12	2467	-16.23	-17.56	-13.83	8.0	-21.8
High CH 13	2472	-17.64	-16.57	-14.06	8.0	-22.1

PSD, Chain B

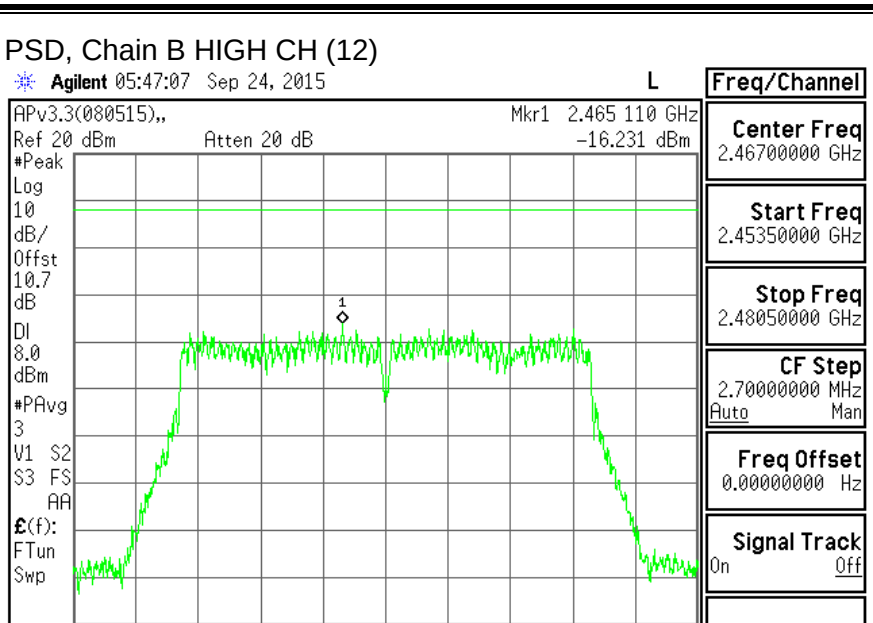




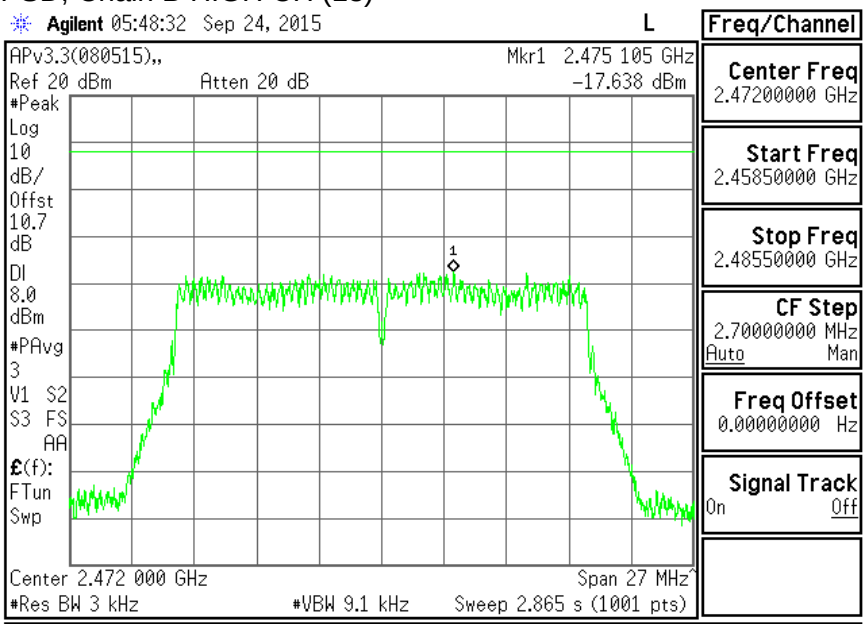
PSD, Chain B HIGH CH (11)



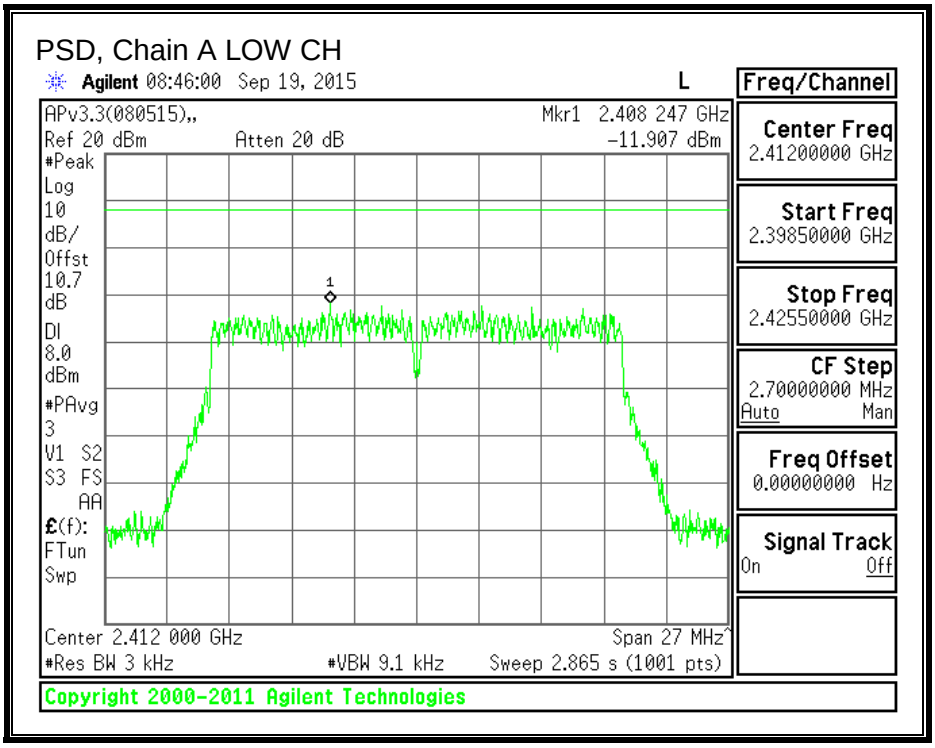
PSD, Chain B HIGH CH (12)

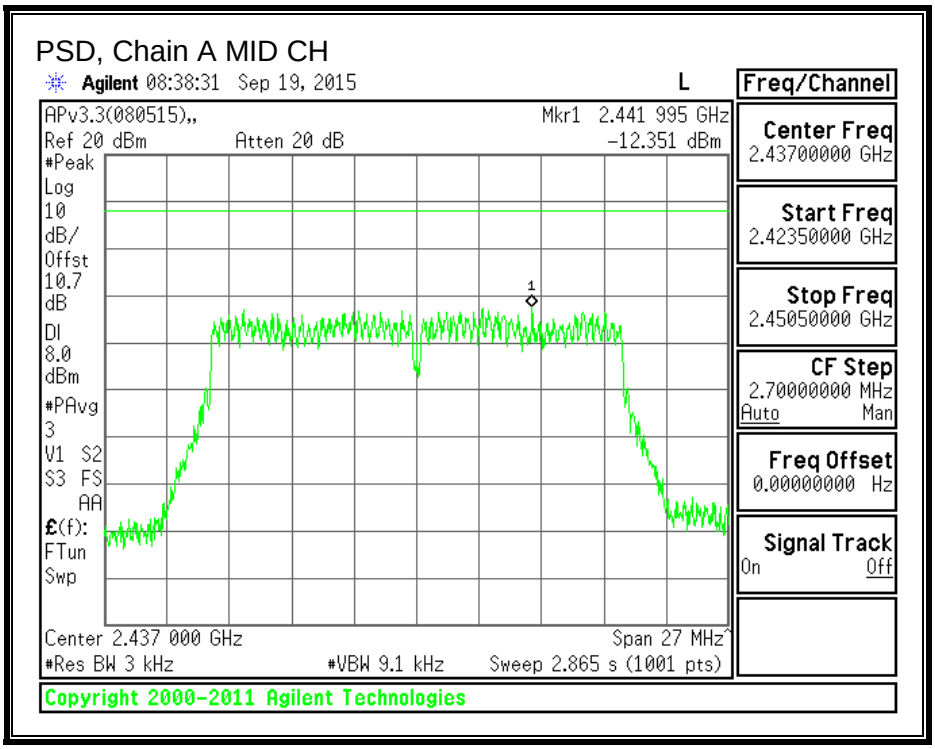


PSD, Chain B HIGH CH (13)

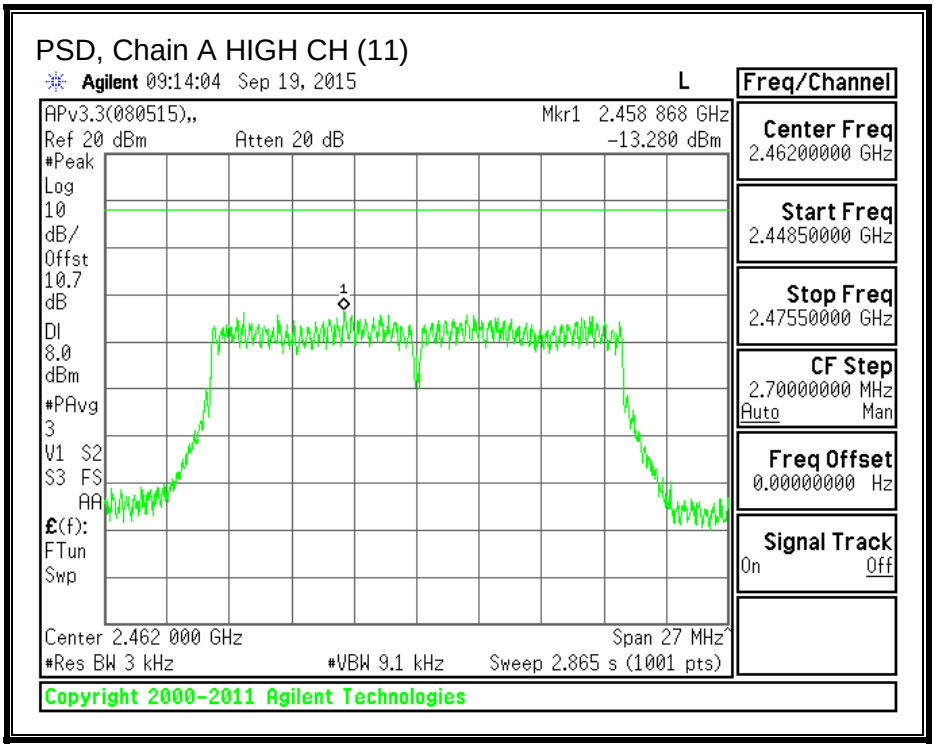


PSD, Chain A

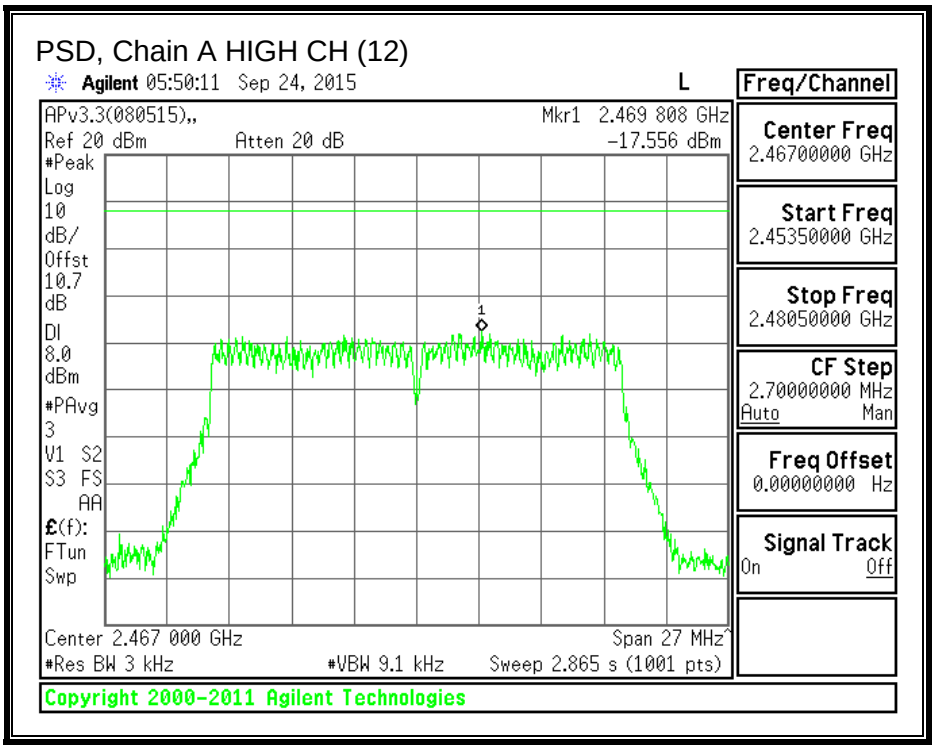




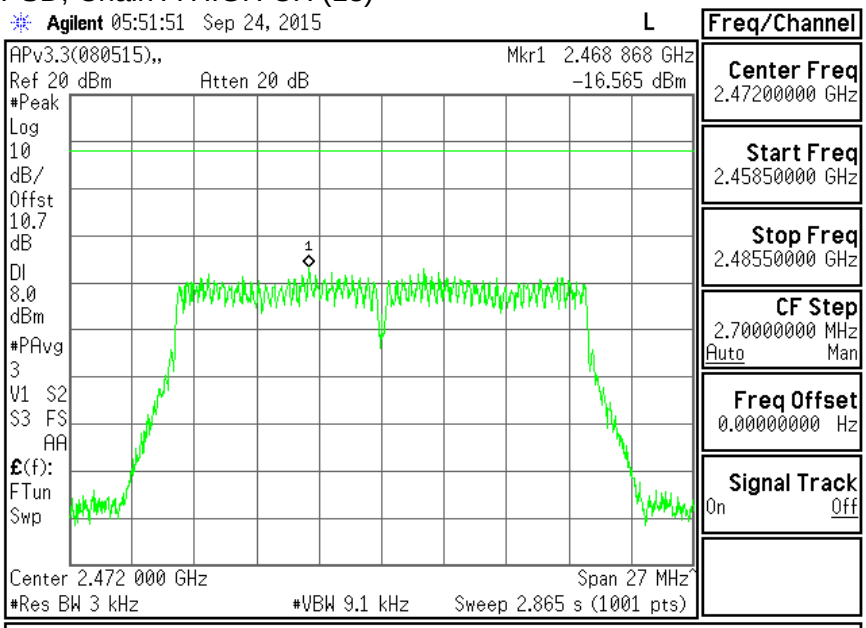
PSD, Chain A HIGH CH (11)



PSD, Chain A HIGH CH (12)



PSD, Chain A HIGH CH (13)



8.4.5. OUT-OF-BAND EMISSIONS

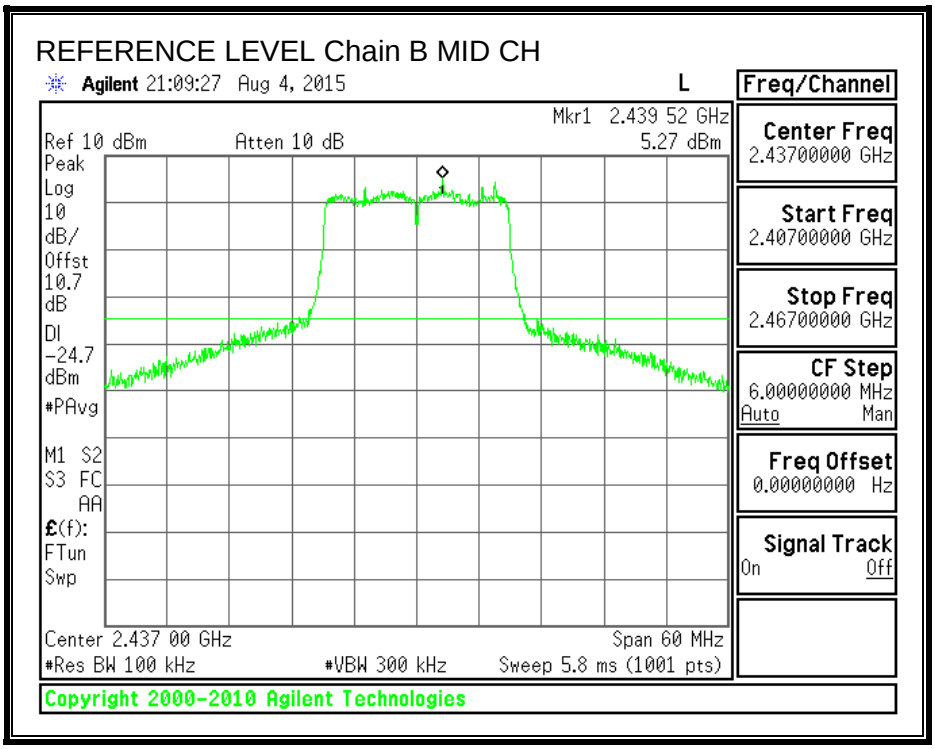
LIMITS

FCC §15.247 (d)

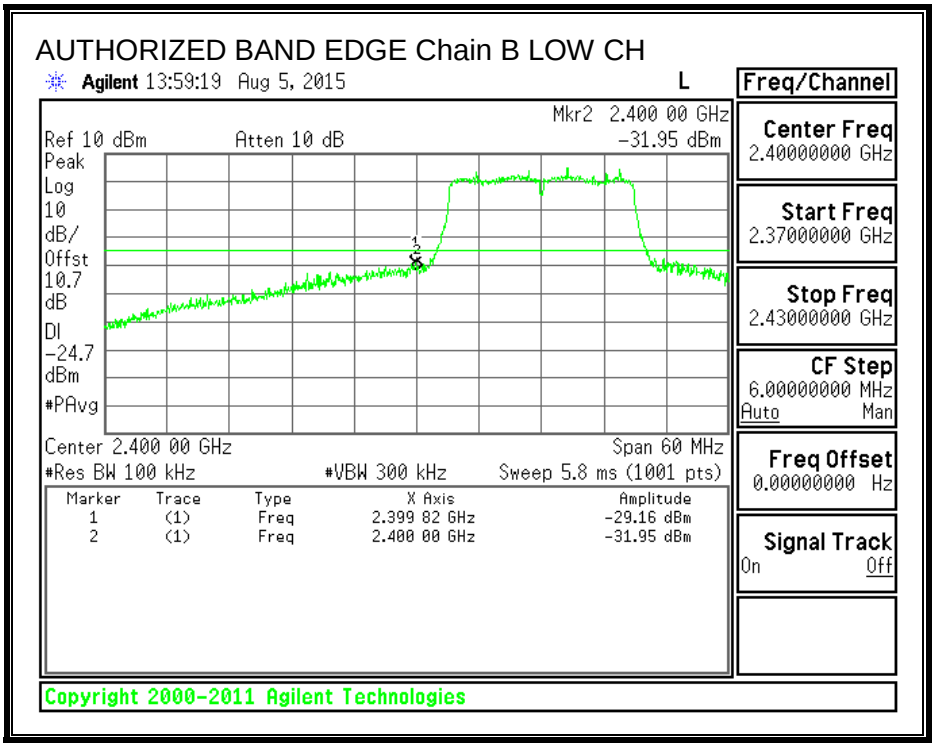
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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.

RESULTS (802.11n HT20)

IN-BAND REFERENCE LEVEL, Chain B

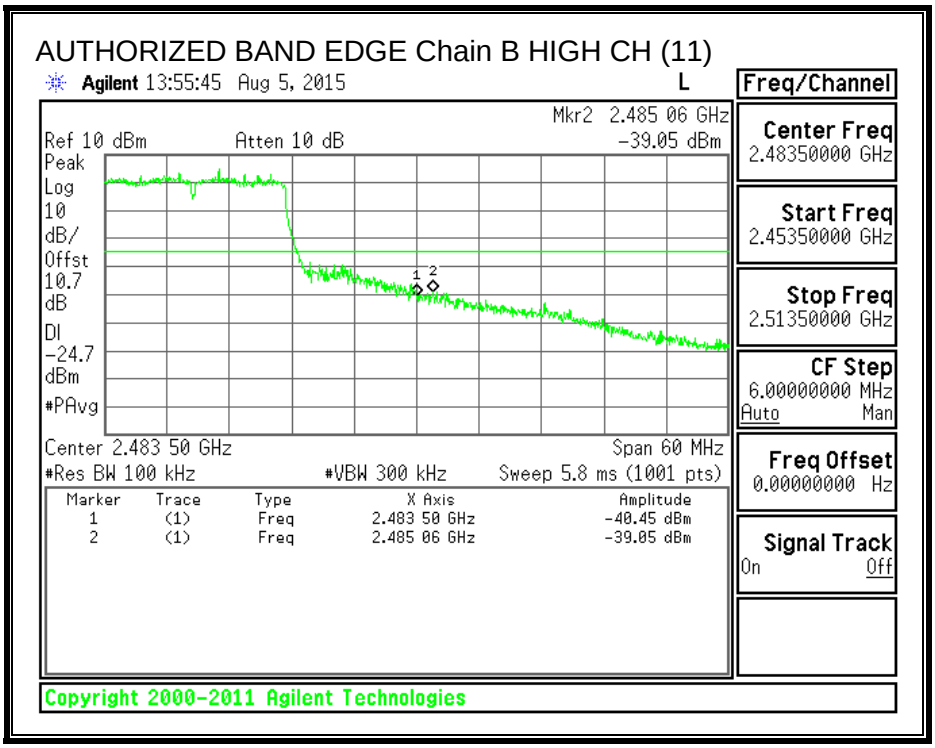


LOW CHANNEL BANDEDGE, Chain B



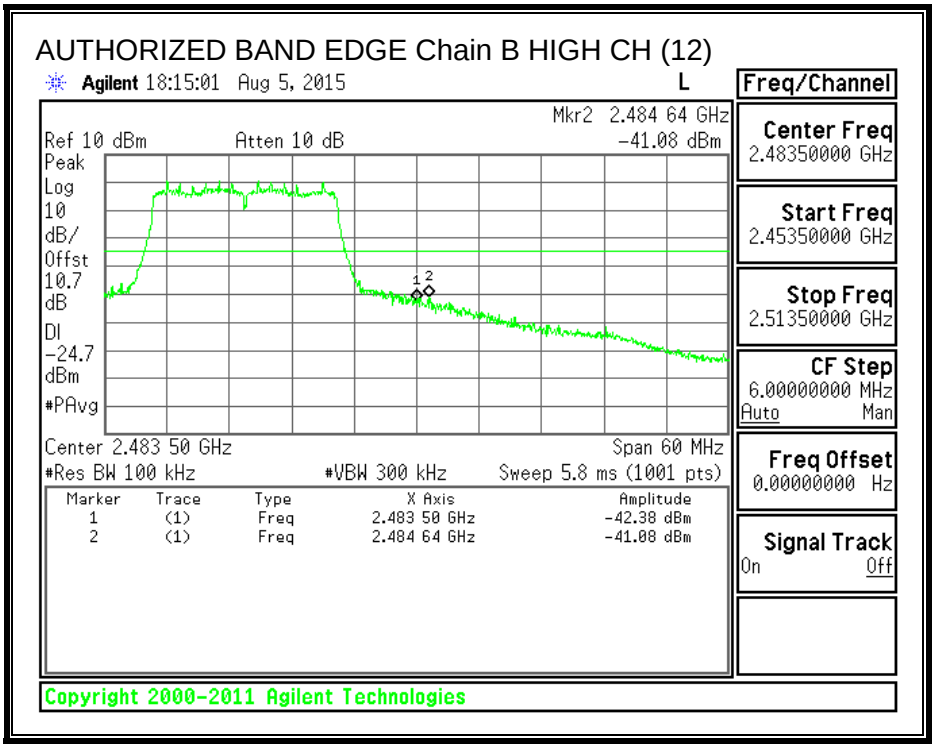
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

HIGH CHANNEL BANDEDGE, Chain B

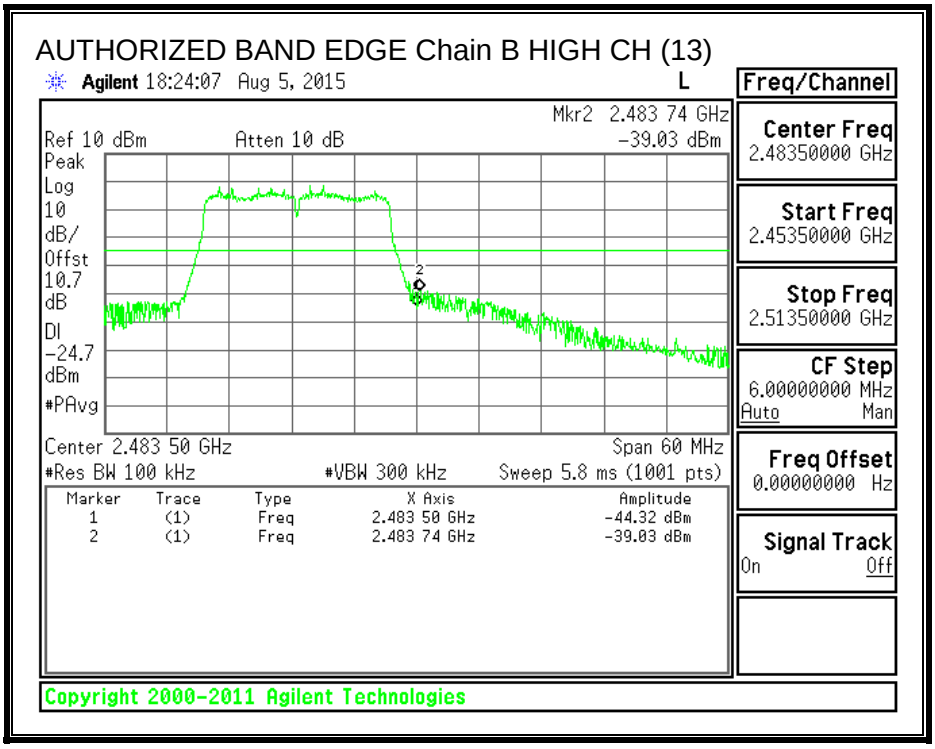


Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

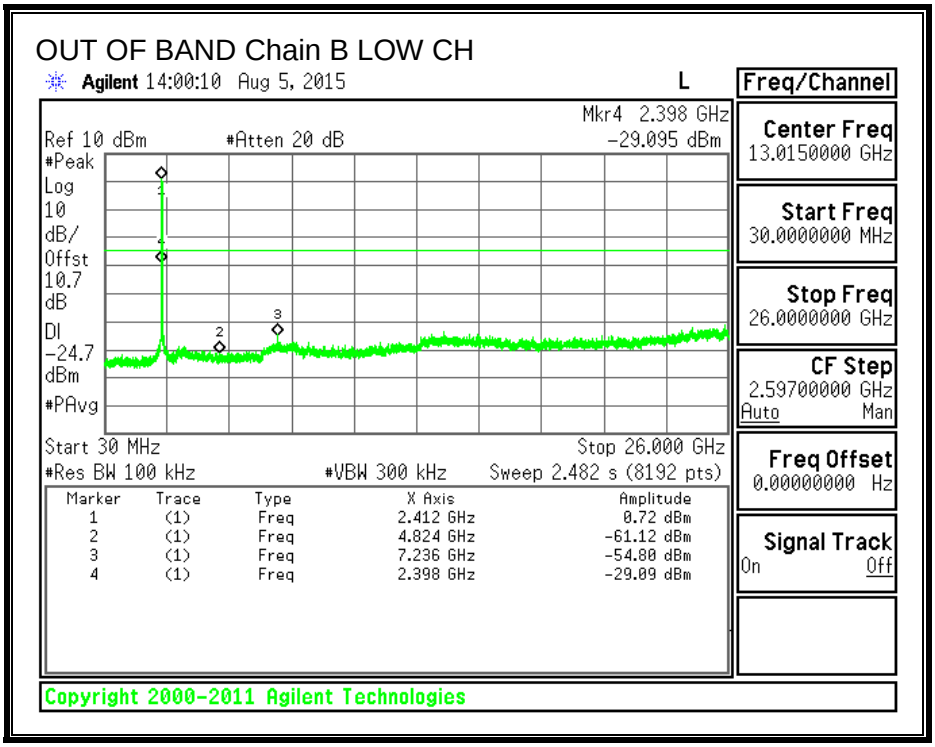
AUTHORIZED BAND EDGE Chain B HIGH CH (12)



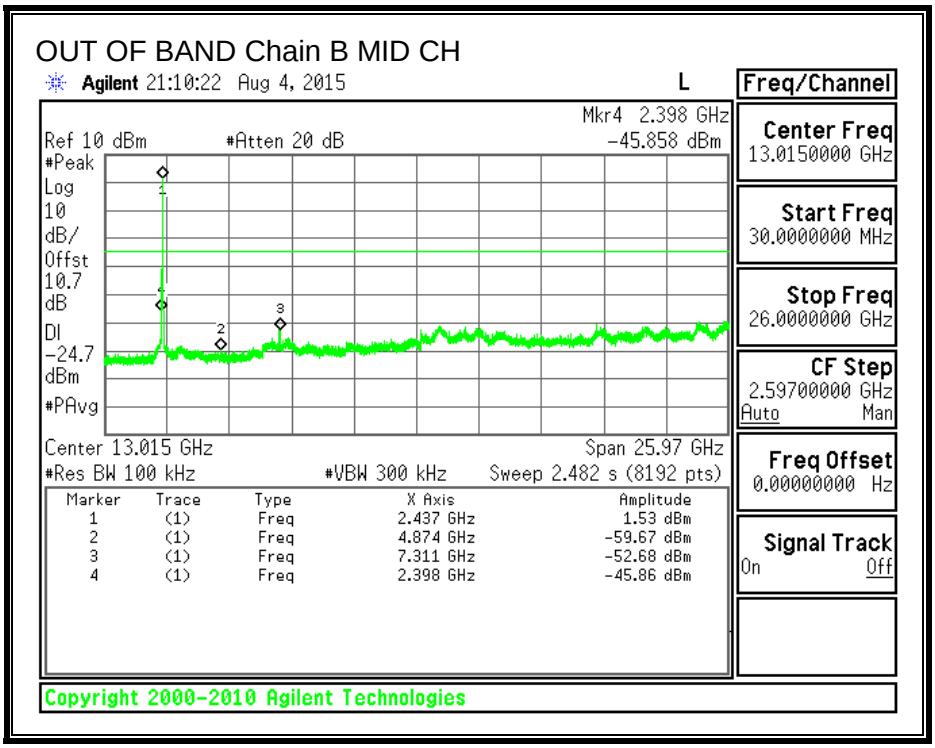
AUTHORIZED BAND EDGE Chain B HIGH CH (13)

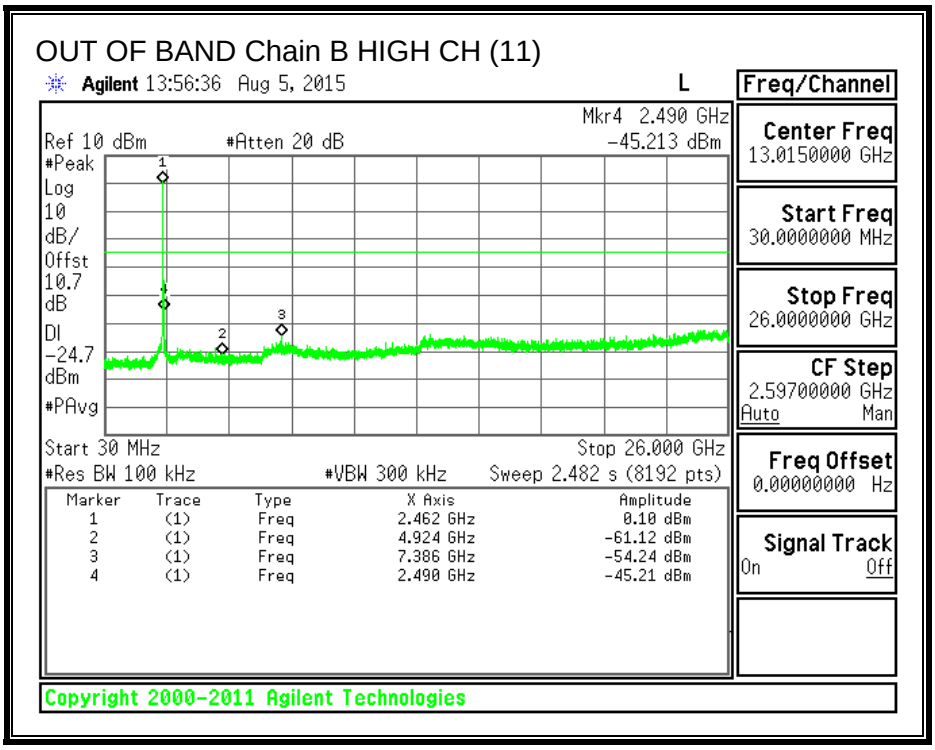


OUT-OF-BAND EMISSIONS, Chain B

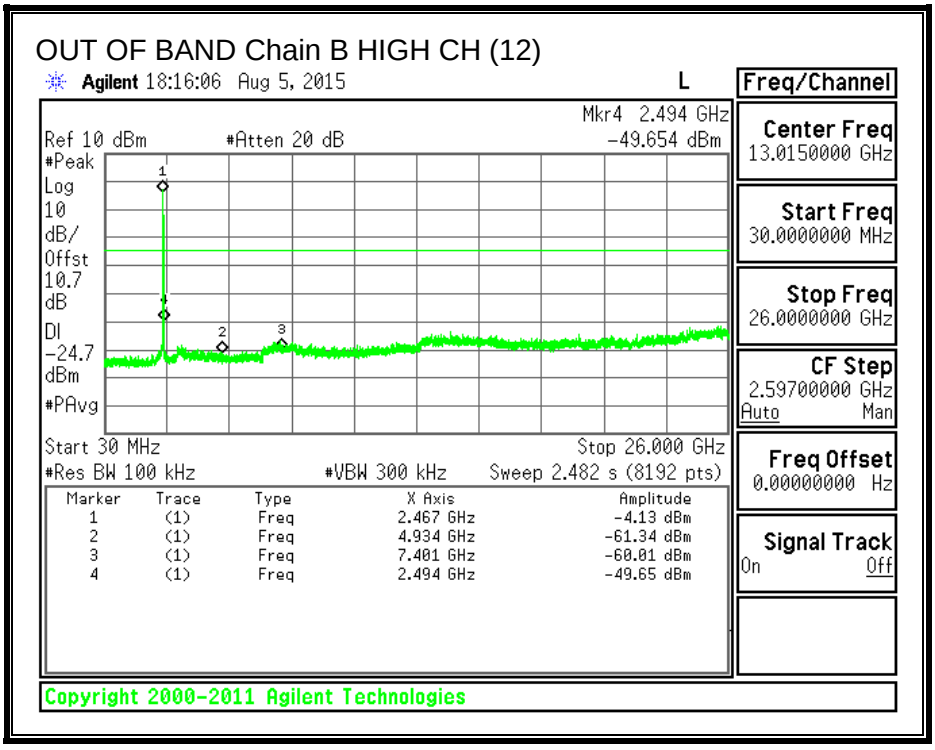


Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

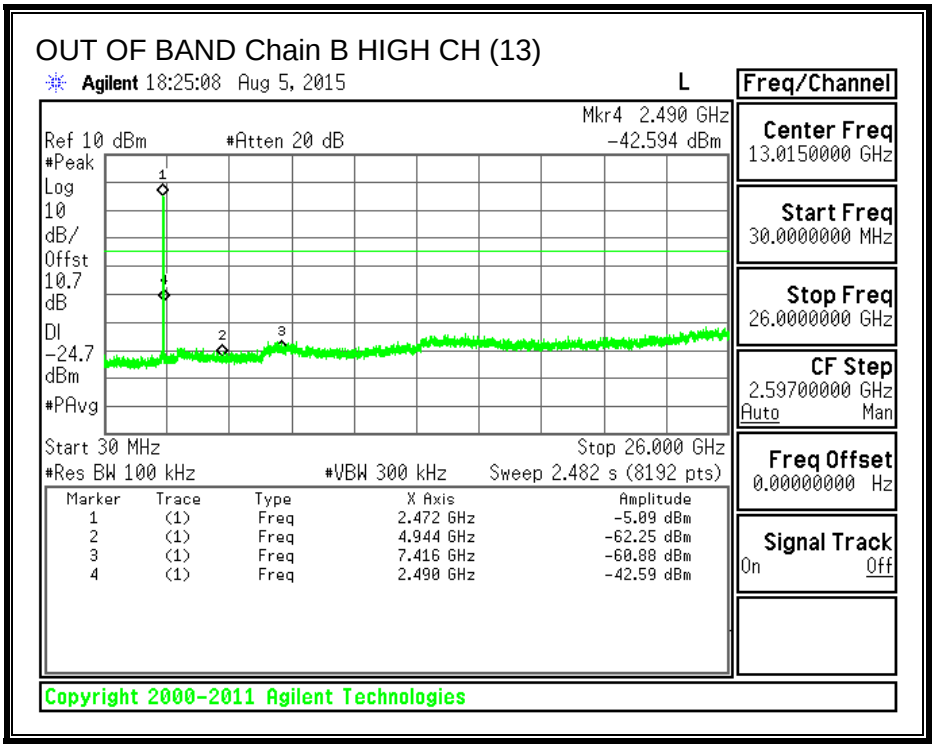




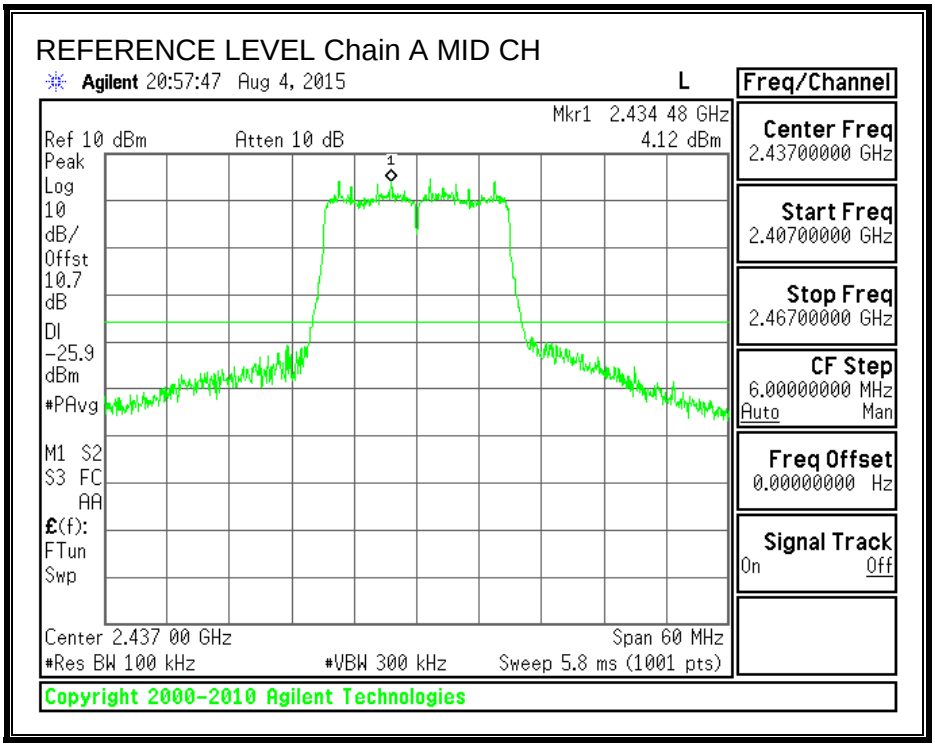
Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.



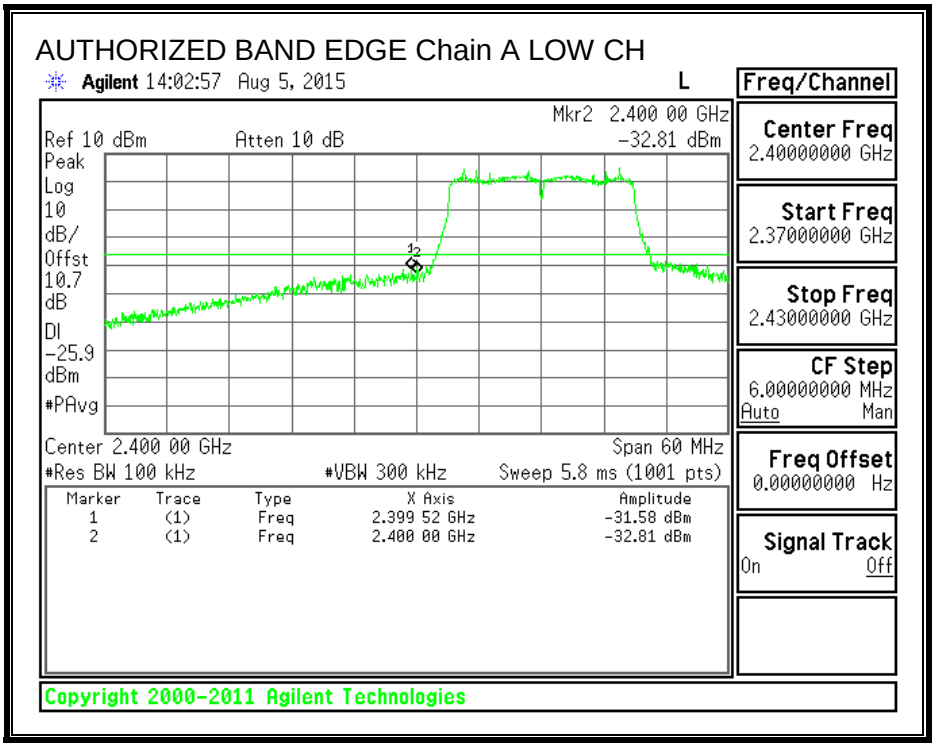
OUT OF BAND Chain B HIGH CH (13)



IN-BAND REFERENCE LEVEL, Chain A

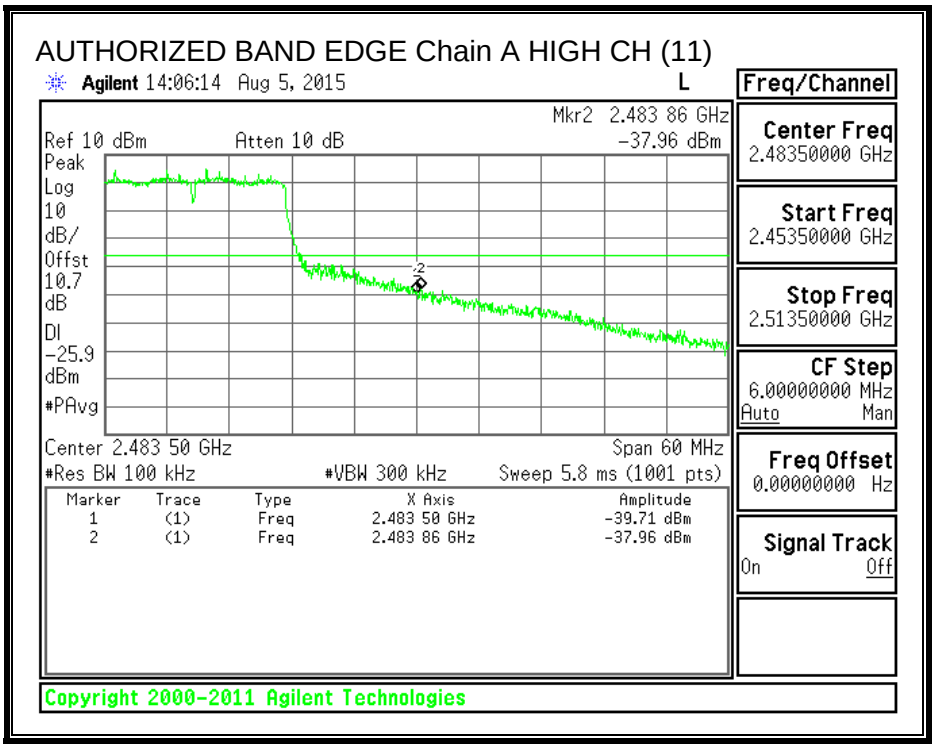


LOW CHANNEL BANDEDGE, Chain A

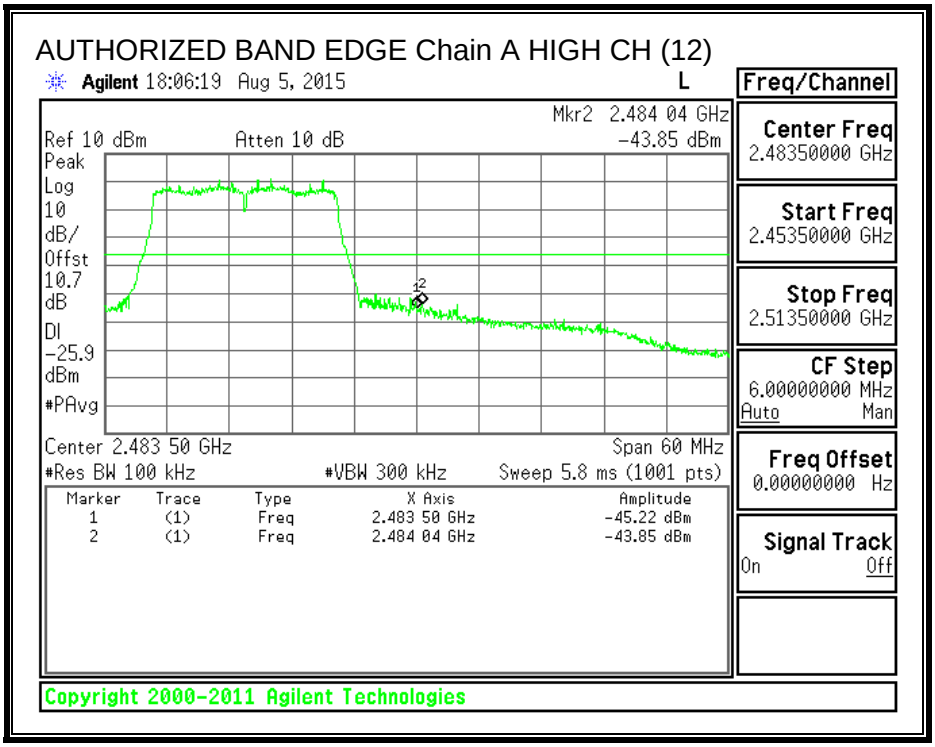


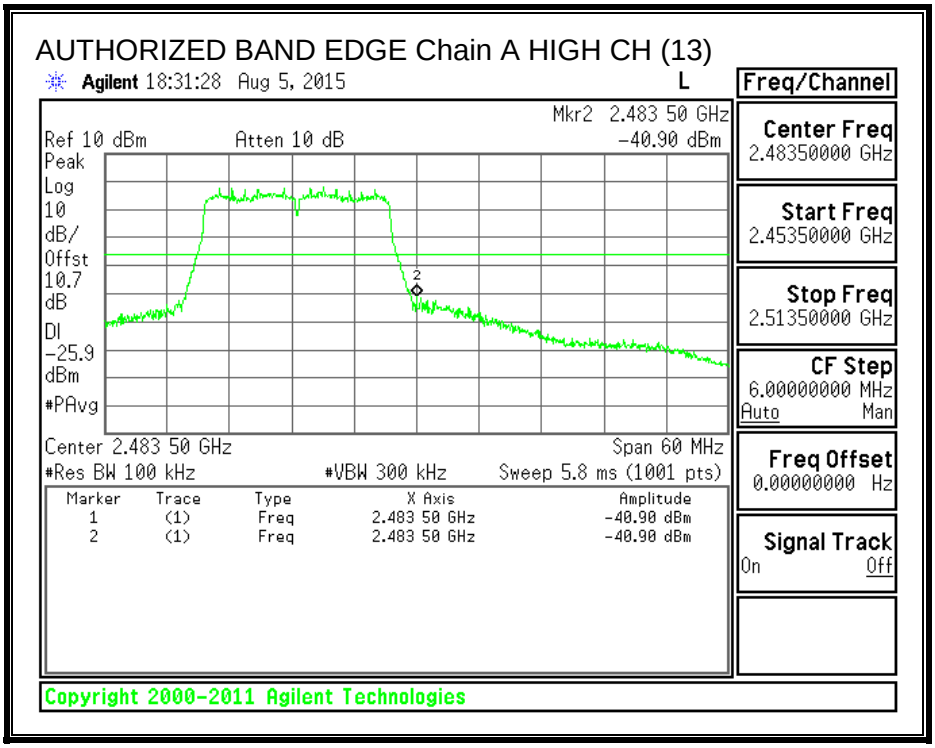
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.

HIGH CHANNEL BANDEDGE, Chain A

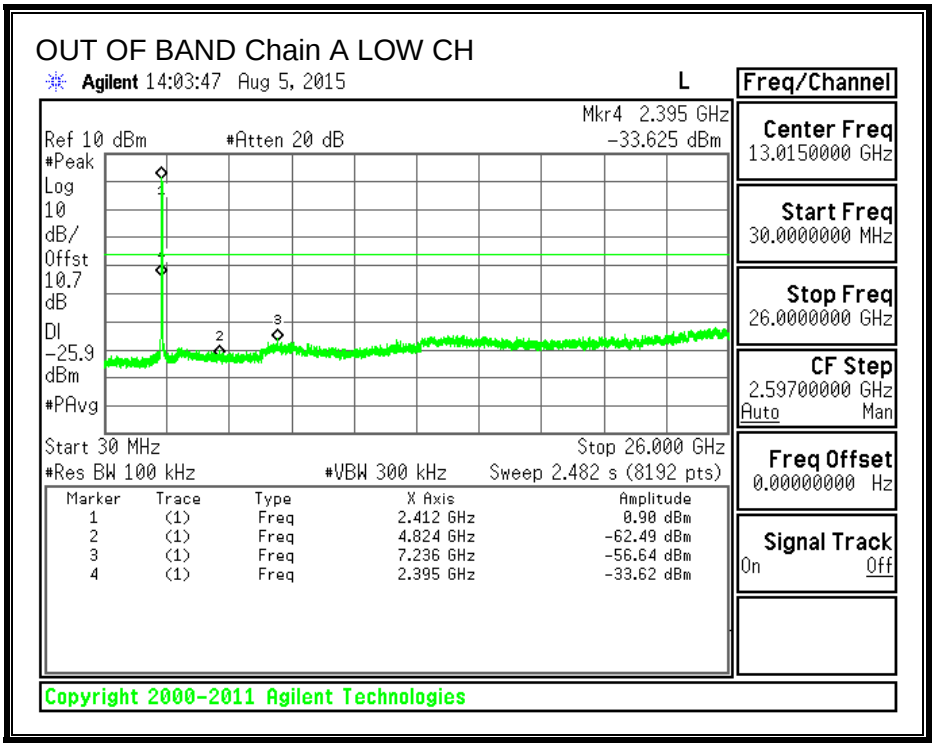


Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.

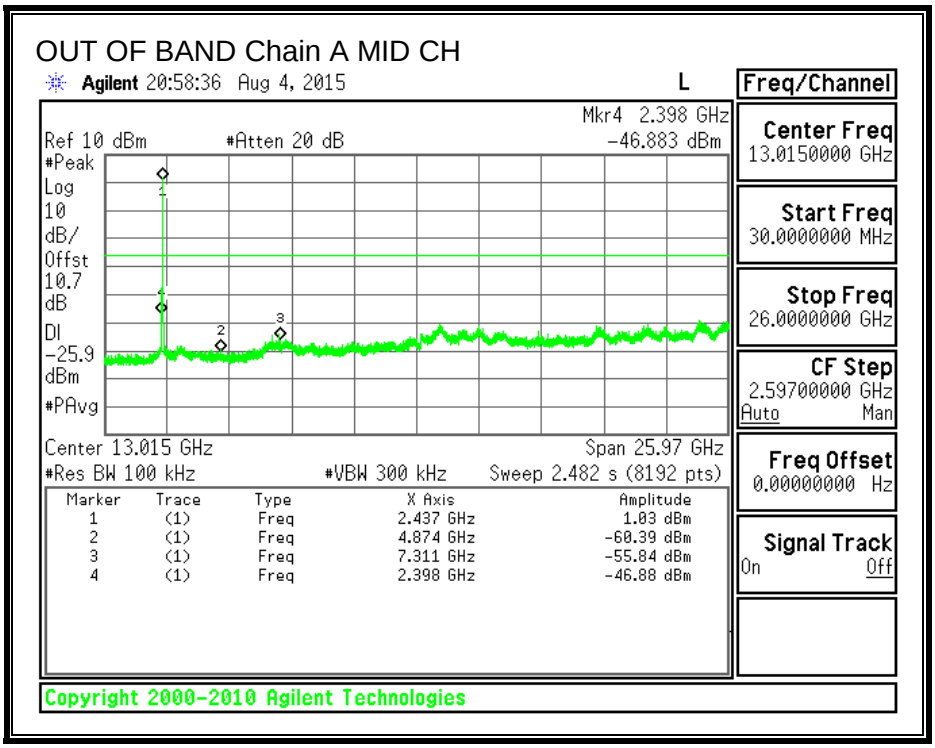


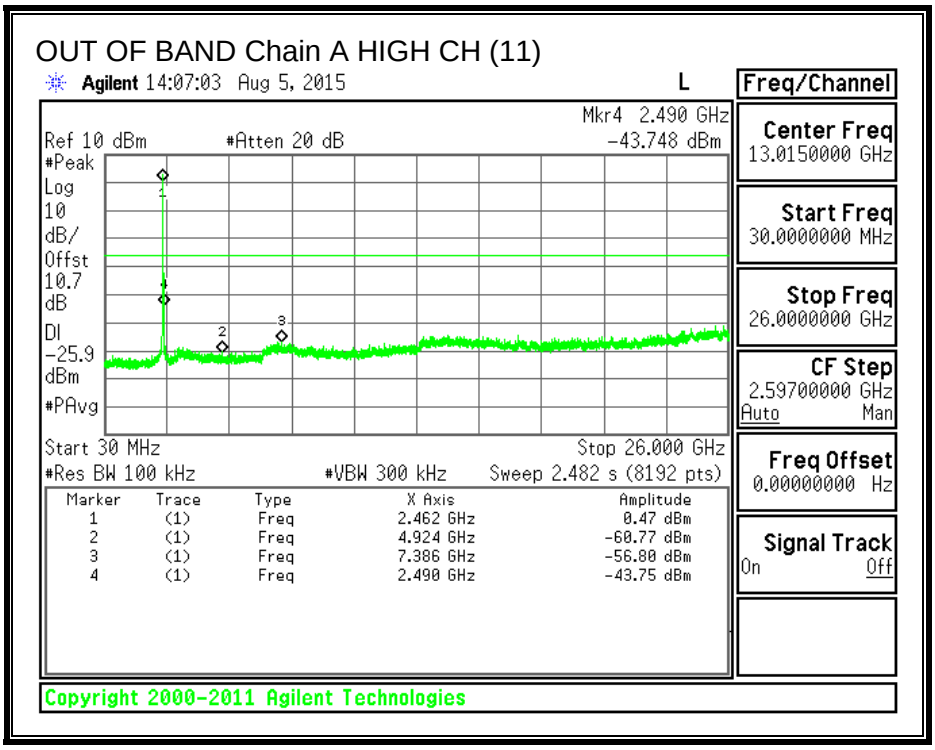


OUT-OF-BAND EMISSIONS, Chain A

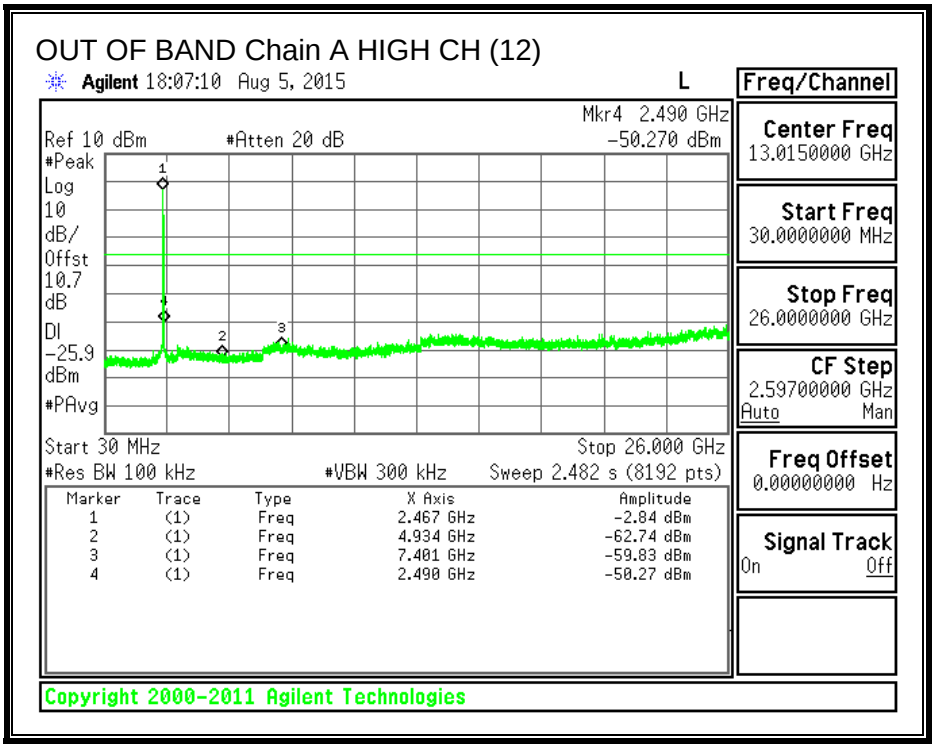


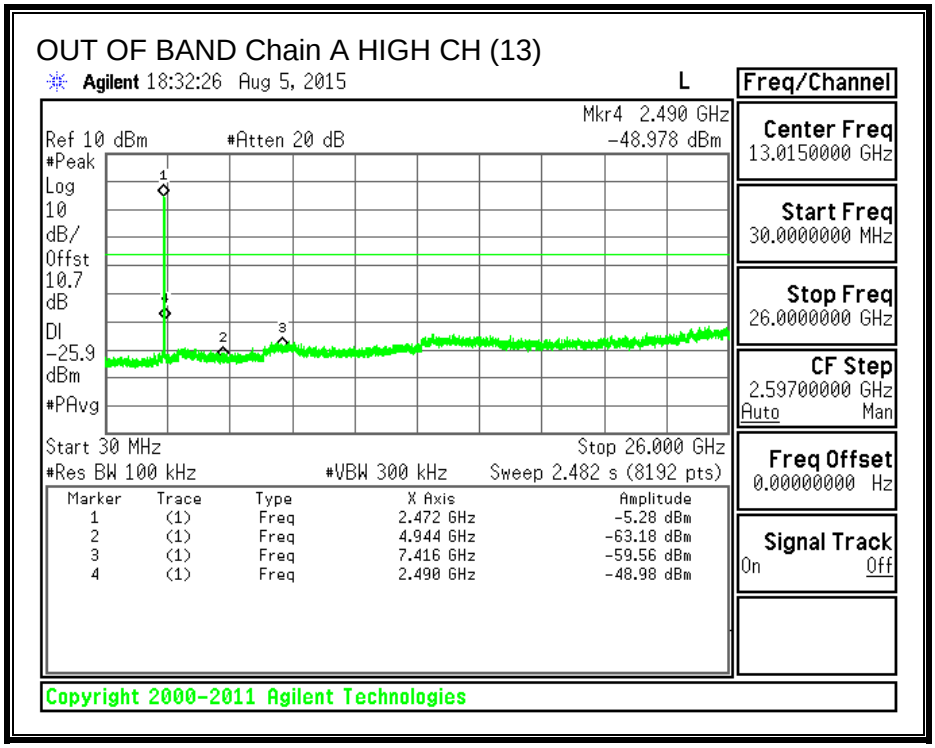
Note – CH1 was tested at the Mid Channel Power Setting to achieve worst-case results.





Note – CH11 was tested at the Mid Channel Power Setting to achieve worst-case results.





9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz measurements and 1.5 m above the ground plane for above 1GHz measurements. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 120 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 1 MHz for peak measurements and as applicable for average measurements.

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

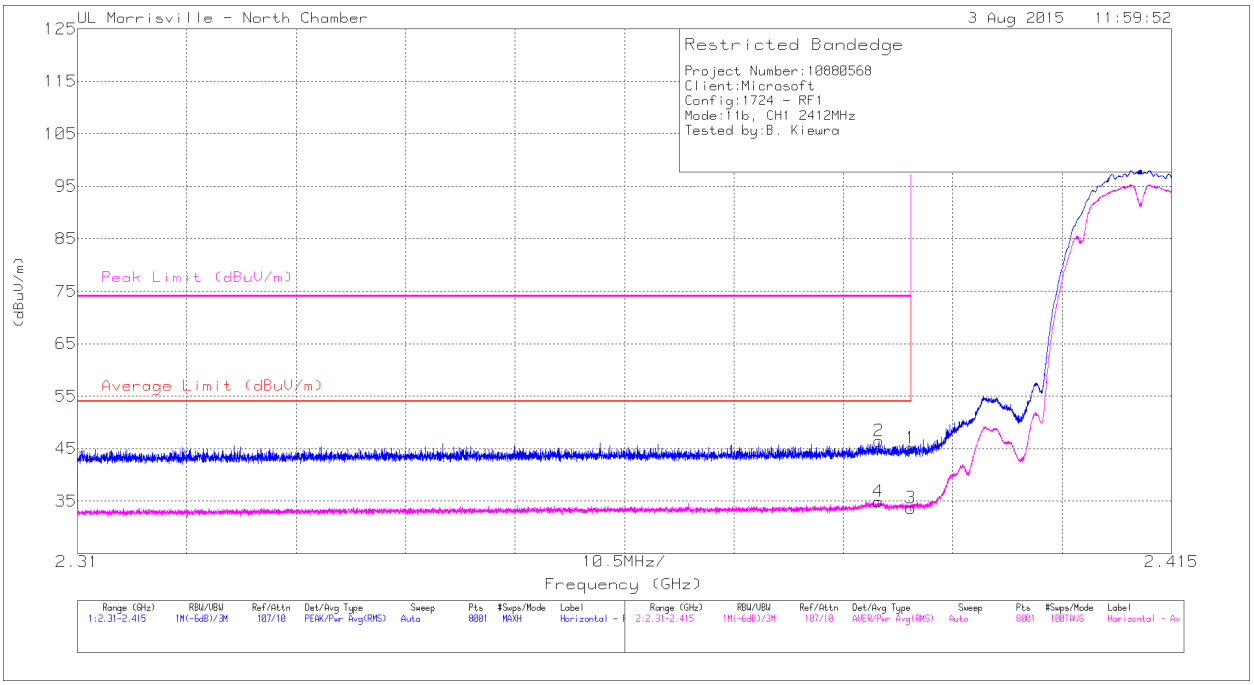
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL CH 1)

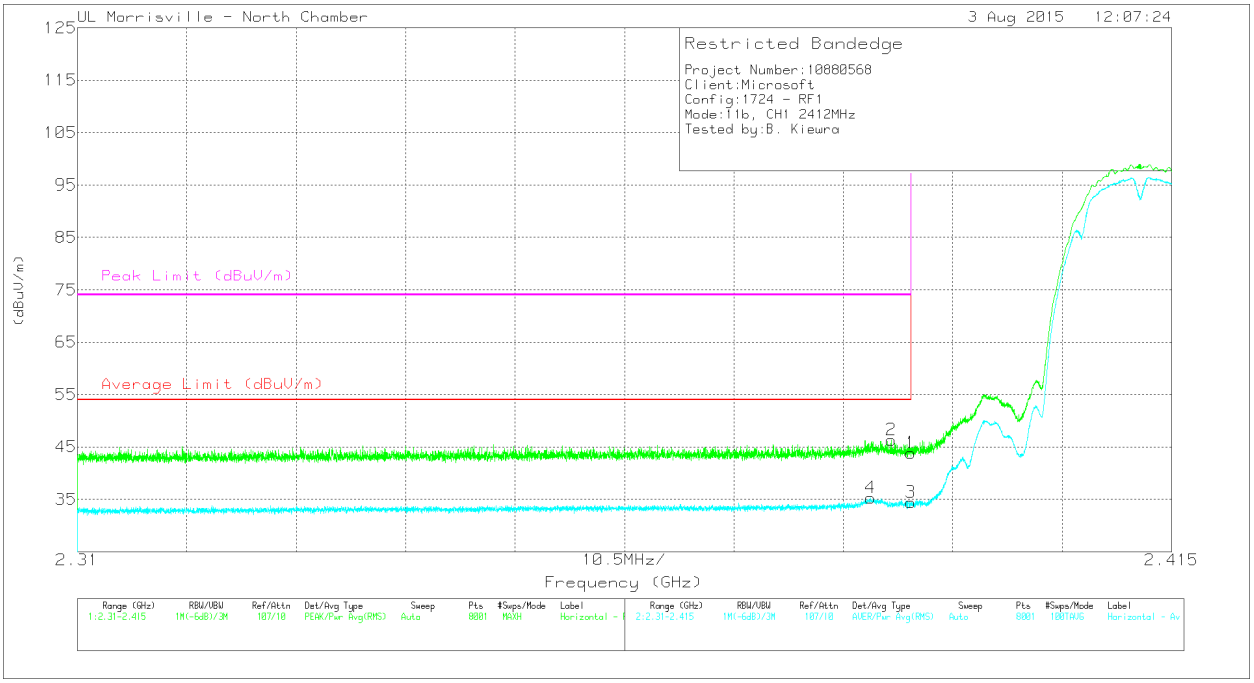
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	36.79	Pk	31.9	-23.6	45.09	-	-	74	-28.91	6	208	H
2	* 2.387	38.14	Pk	31.9	-23.6	46.44	-	-	74	-27.56	6	208	H
3	* 2.39	25.33	RMS	31.9	-23.6	33.63	54	-20.37	-	-	6	208	H
4	* 2.387	26.61	RMS	31.9	-23.6	34.91	54	-19.09	-	-	6	208	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

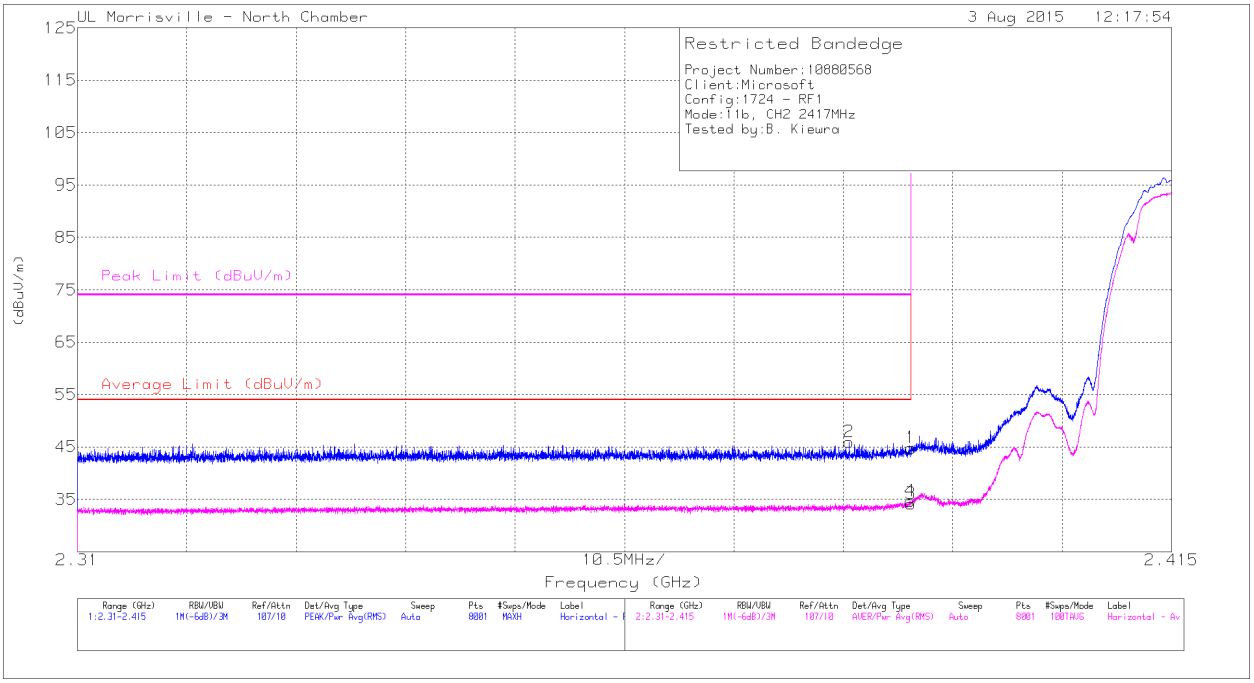


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	35.5	Pk	31.9	-23.6	43.8	-	-	74	-30.2	289	294	V
2	* 2.388	37.97	Pk	31.9	-23.6	46.27	-	-	74	-27.73	289	294	V
3	* 2.39	26.09	RMS	31.9	-23.6	34.39	54	-19.61	-	-	289	294	V
4	* 2.386	26.82	RMS	31.9	-23.5	35.22	54	-18.78	-	-	289	294	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (LOW CHANNEL CH 2)

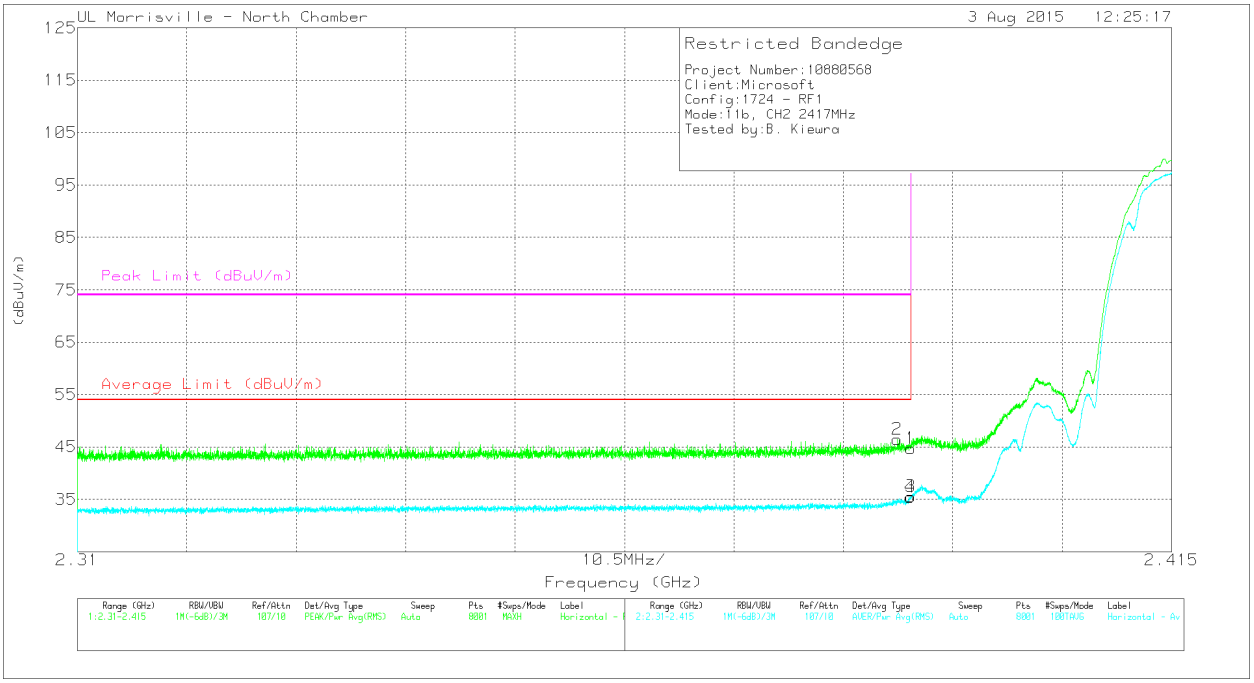
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	36.47	Pk	31.9	-23.6	44.77	-	-	74	-29.23	99	304	H
2	* 2.384	37.5	Pk	31.9	-23.5	45.9	-	-	74	-28.1	99	304	H
3	* 2.39	25.89	RMS	31.9	-23.6	34.19	54	-19.81	-	-	99	304	H
4	* 2.39	26.3	RMS	31.9	-23.6	34.6	54	-19.4	-	-	99	304	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

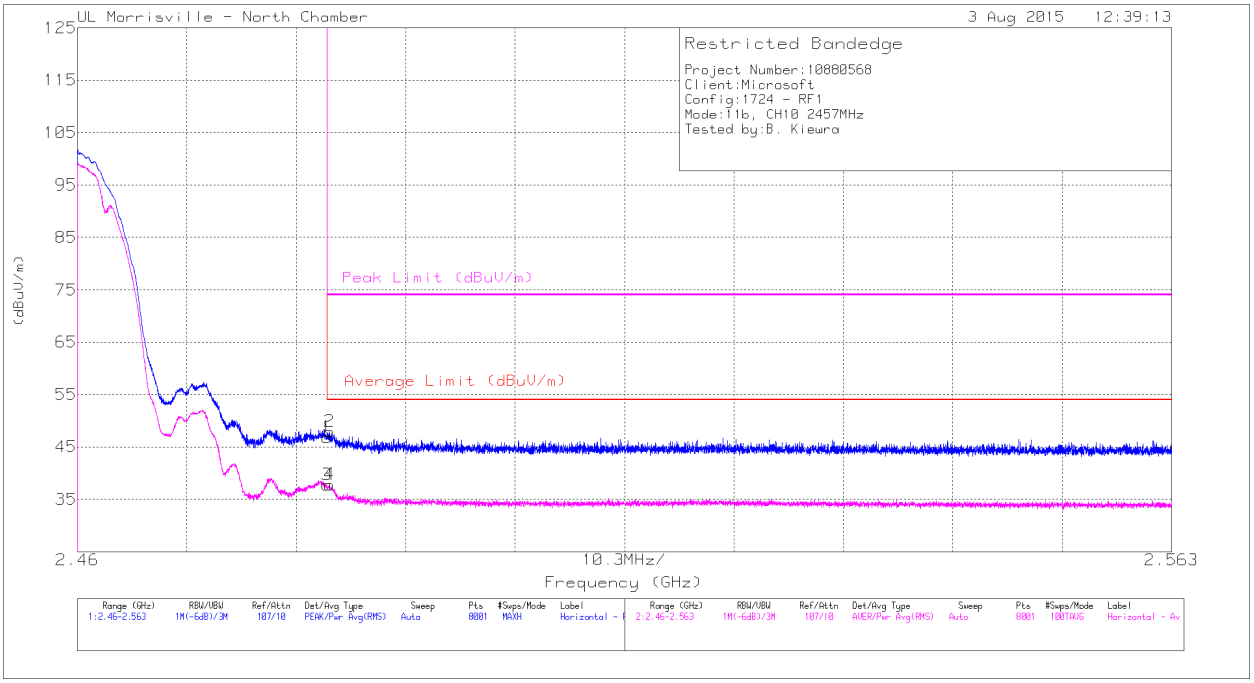


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	36.41	Pk	31.9	-23.6	44.71	-	-	74	-29.29	200	313	V
2	* 2.389	38.1	Pk	31.9	-23.6	46.4	-	-	74	-27.6	200	313	V
3	* 2.39	27.26	RMS	31.9	-23.6	35.56	54	-18.44	-	-	200	313	V
4	* 2.39	27.13	RMS	31.9	-23.6	35.43	54	-18.57	-	-	200	313	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 10)

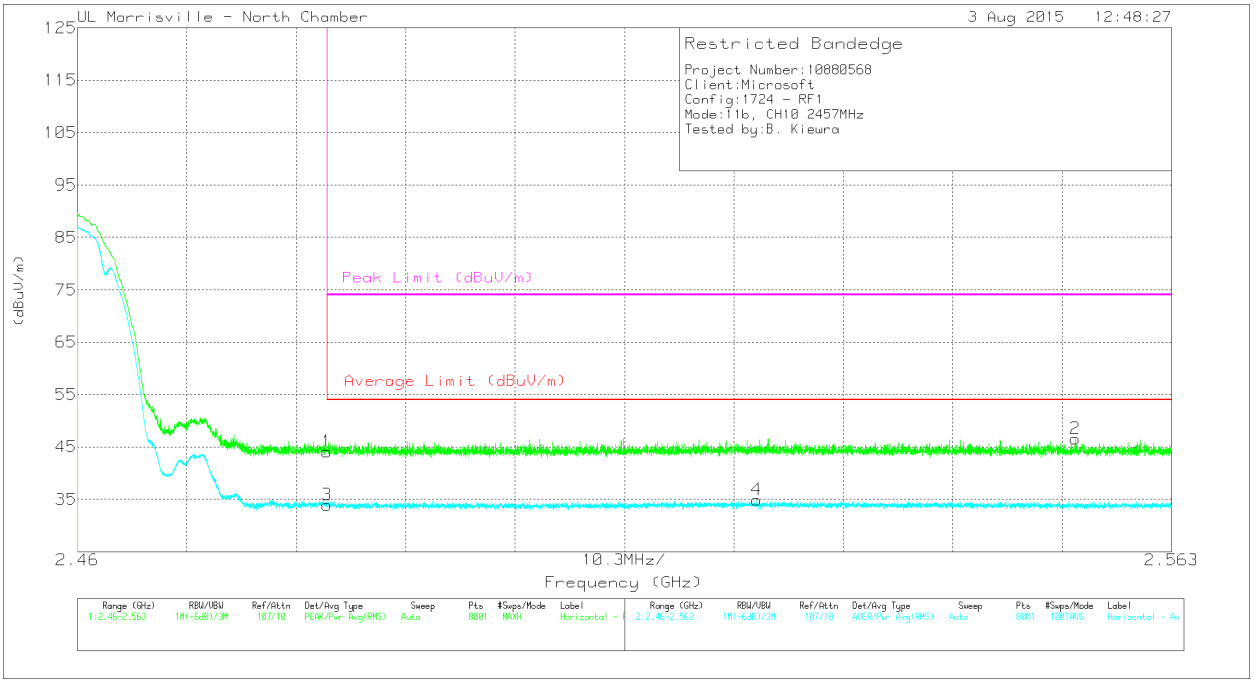
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	38.16	Pk	32.1	-23.4	46.86	-	-	74	-27.14	162	103	H
2	* 2.484	39.22	Pk	32.1	-23.4	47.92	-	-	74	-26.08	162	103	H
3	* 2.484	29.05	RMS	32.1	-23.4	37.75	54	-16.25	-	-	162	103	H
4	* 2.484	29.11	RMS	32.1	-23.4	37.81	54	-16.19	-	-	162	103	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

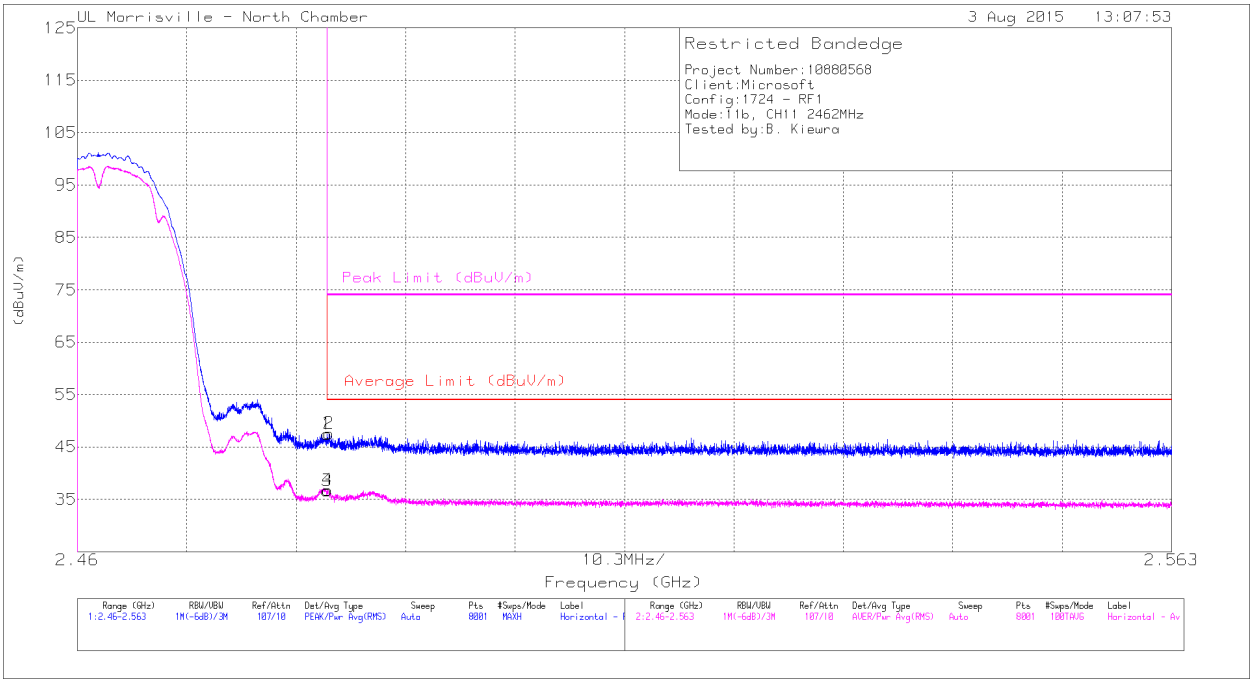


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	35.4	Pk	32.1	-23.4	44.1	-	-	74	-29.9	232	159	V
2	2.554	37.72	Pk	32.2	-23.3	46.62	-	-	74	-27.38	232	159	V
3	* 2.484	25.23	RMS	32.1	-23.4	33.93	54	-20.07	-	-	232	159	V
4	2.524	26.14	RMS	32.1	-23.3	34.94	54	-19.06	-	-	232	159	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 11)

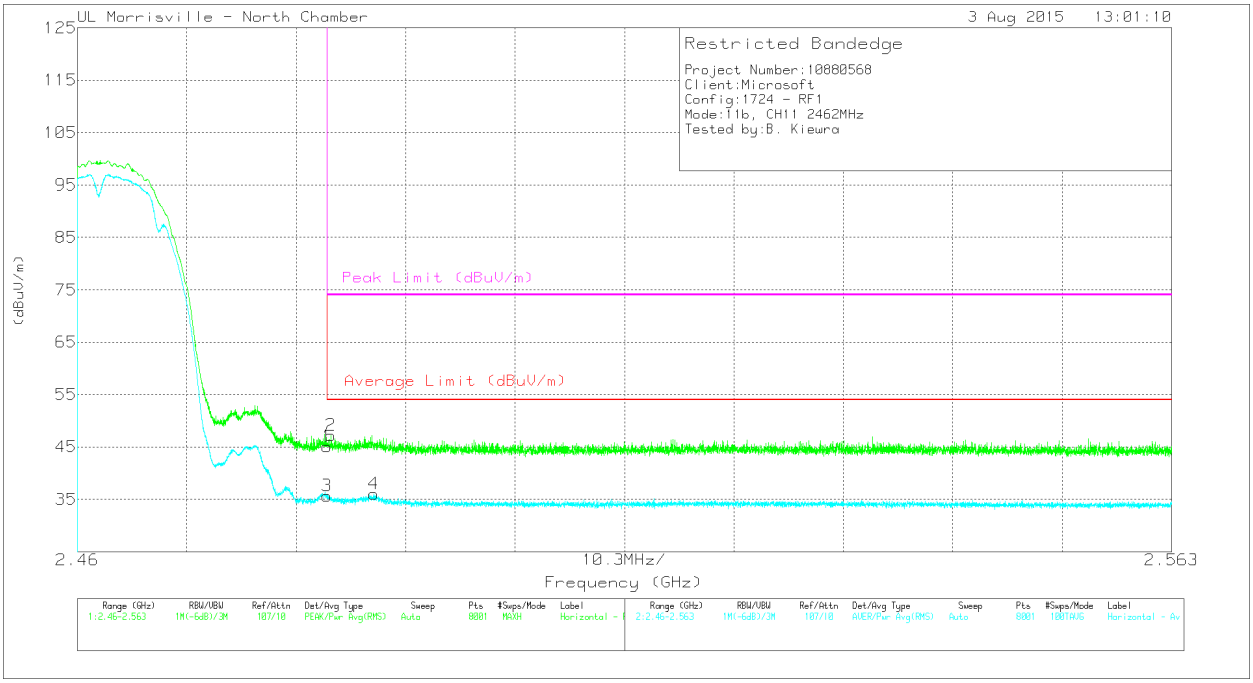
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	38.71	Pk	32.1	-23.4	47.41	-	-	74	-26.59	161	105	H
2	* 2.484	38.88	Pk	32.1	-23.4	47.58	-	-	74	-26.42	161	105	H
3	* 2.484	27.89	RMS	32.1	-23.4	36.59	54	-17.41	-	-	161	105	H
4	* 2.484	28.03	RMS	32.1	-23.4	36.73	54	-17.27	-	-	161	105	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

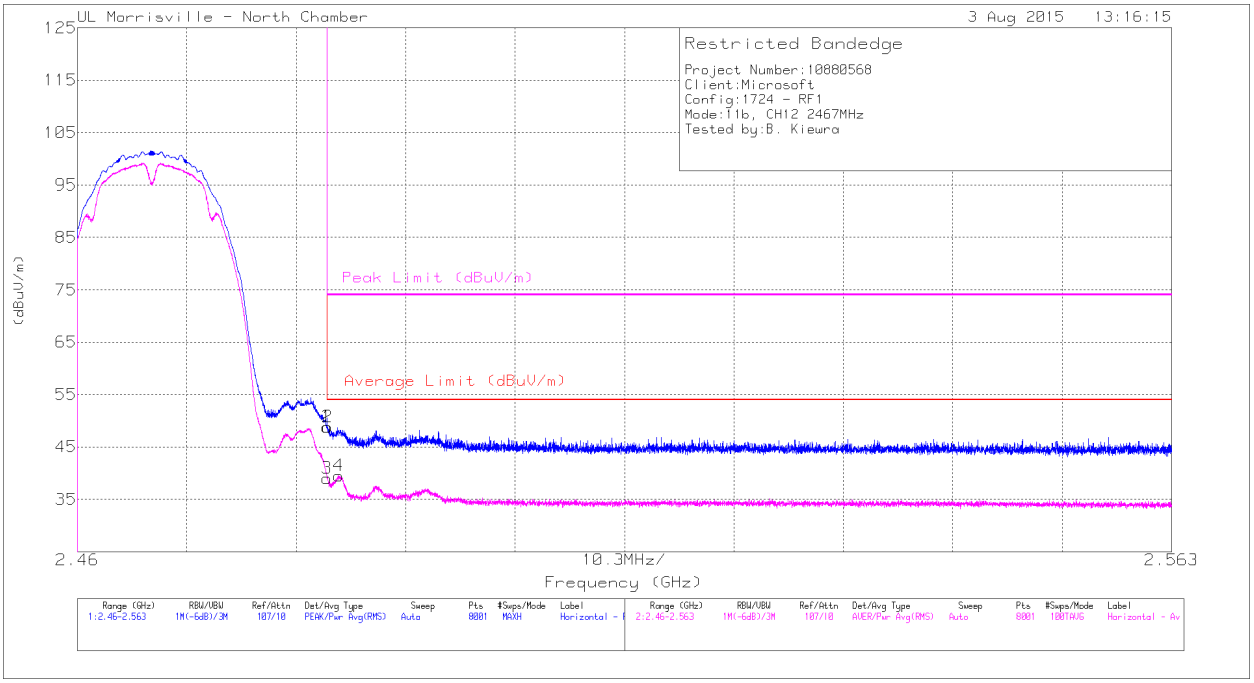


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	36.4	Pk	32.1	-23.4	45.1	-	-	74	-28.9	156	301	V
2	* 2.484	38.54	Pk	32.1	-23.4	47.24	-	-	74	-26.76	156	301	V
3	* 2.484	26.96	RMS	32.1	-23.4	35.66	54	-18.34	-	-	156	301	V
4	* 2.488	27.33	RMS	32.1	-23.4	36.03	54	-17.97	-	-	156	301	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 12)

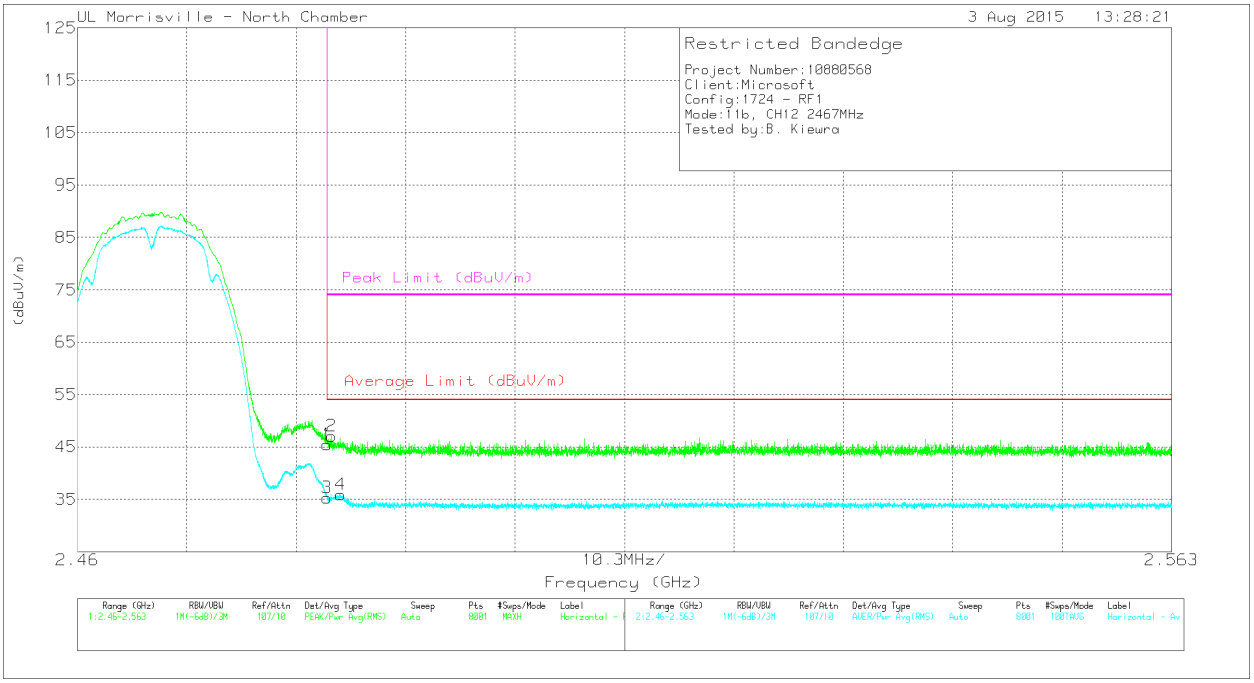
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.08	Pk	32.1	-23.4	48.78	-	-	74	-25.22	164	144	H
2	* 2.484	40.11	Pk	32.1	-23.4	48.81	-	-	74	-25.19	164	144	H
3	* 2.484	30.26	RMS	32.1	-23.4	38.96	54	-15.04	-	-	164	144	H
4	* 2.485	30.75	RMS	32.1	-23.4	39.45	54	-14.55	-	-	164	144	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

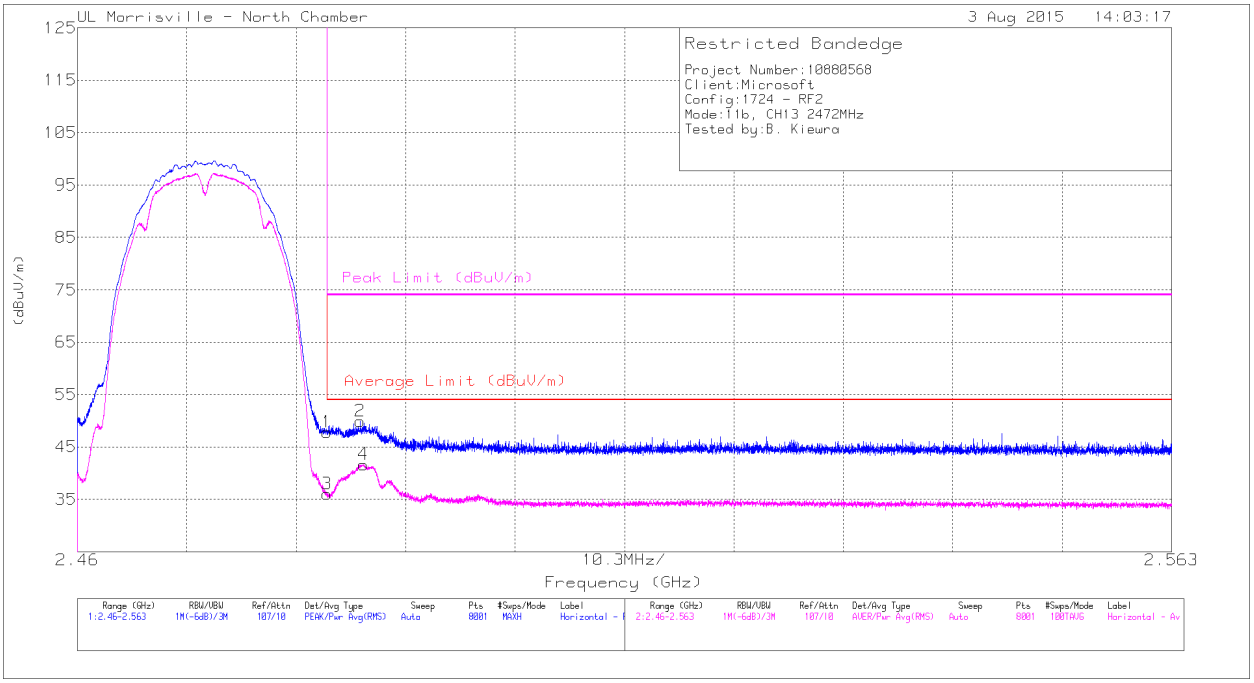


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	36.78	Pk	32.1	-23.4	45.48	-	-	74	-28.52	262	164	V
2	* 2.484	38.35	Pk	32.1	-23.4	47.05	-	-	74	-26.95	262	164	V
3	* 2.484	26.59	RMS	32.1	-23.4	35.29	54	-18.71	-	-	262	164	V
4	* 2.485	27.21	RMS	32.1	-23.4	35.91	54	-18.09	-	-	262	164	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 13)

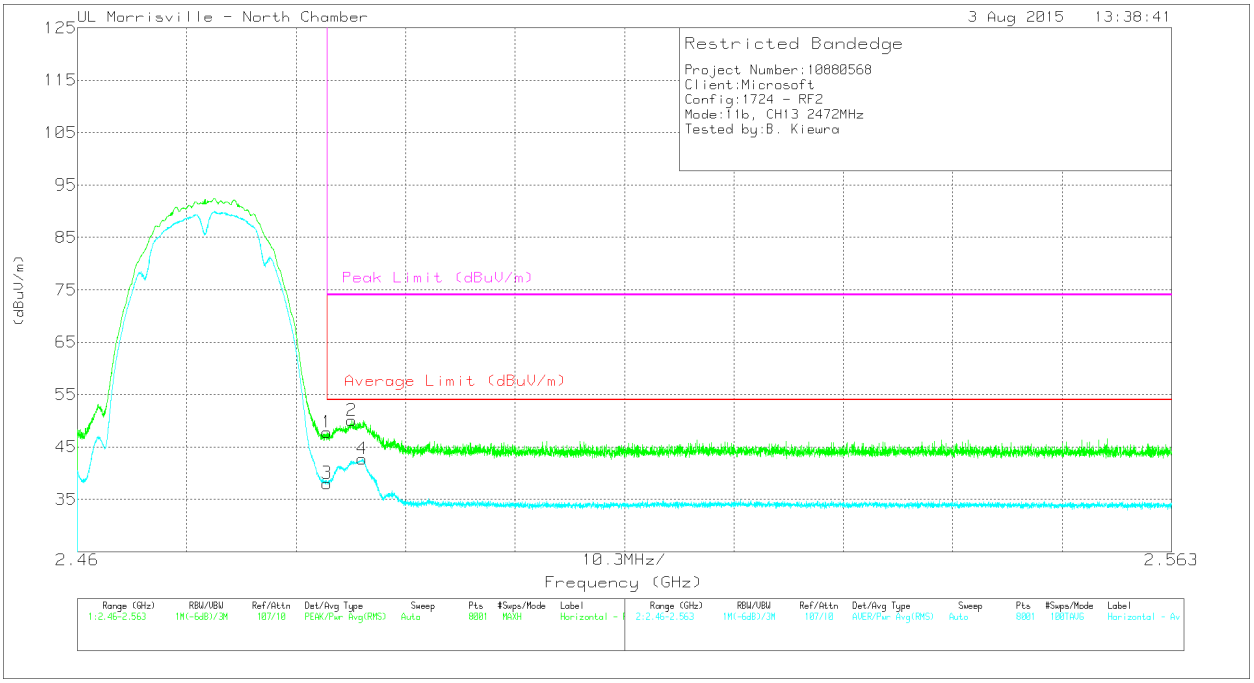
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	39.07	Pk	32.1	-23.4	47.77	-	-	74	-26.23	182	167	H
2	* 2.487	41.19	Pk	32.1	-23.4	49.89	-	-	74	-24.11	182	167	H
3	* 2.484	27.34	RMS	32.1	-23.4	36.04	54	-17.96	-	-	182	167	H
4	* 2.487	32.96	RMS	32.1	-23.4	41.66	54	-12.34	-	-	182	167	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL



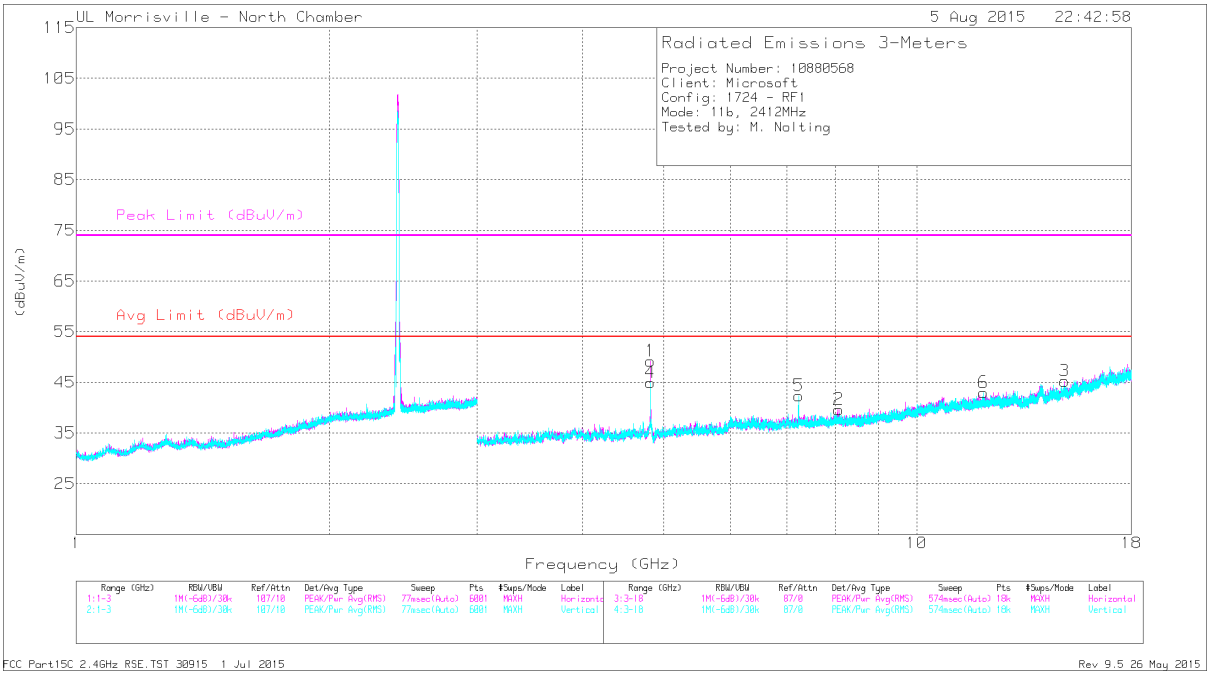
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	39.07	Pk	32.1	-23.4	47.77	-	-	74	-26.23	267	232	V
2	* 2.486	41.38	Pk	32.1	-23.4	50.08	-	-	74	-23.92	267	232	V
3	* 2.484	29.36	RMS	32.1	-23.4	38.06	54	-15.94	-	-	267	232	V
4	* 2.487	33.97	RMS	32.1	-23.4	42.67	54	-11.33	-	-	267	232	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

Note – Channel 1 was set to same power setting as the Mid channel to achieve worst-case results.



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.824	48.91	PK2	34.1	-30.8	52.21	-	-	74	-21.79	243	336	H
	* 4.824	45.39	MAv1	34.1	-30.8	48.69	54	-5.31	-	-	243	336	H
2	* 8.075	37.68	PK2	35.9	-27	46.58	-	-	74	-27.42	72	169	H
	* 8.071	25.47	MAv1	35.9	-27	34.37	54	-19.63	-	-	72	169	H
4	* 4.824	47.01	PK2	34.1	-30.8	50.31	-	-	74	-23.69	320	368	V
	* 4.824	42.61	MAv1	34.1	-30.8	45.91	54	-8.09	-	-	320	368	V
6	* 12.018	34.6	PK2	38.9	-24.1	49.4	-	-	74	-24.6	102	151	V
	* 12.012	23.01	MAv1	38.9	-24	37.91	54	-16.09	-	-	102	151	V
5	7.236	34.86	Pk	35.7	-28.2	42.36	-	-	-	-	0-360	200	V
3	14.999	29.17	Pk	39.9	-23.8	45.27	-	-	-	-	0-360	200	H

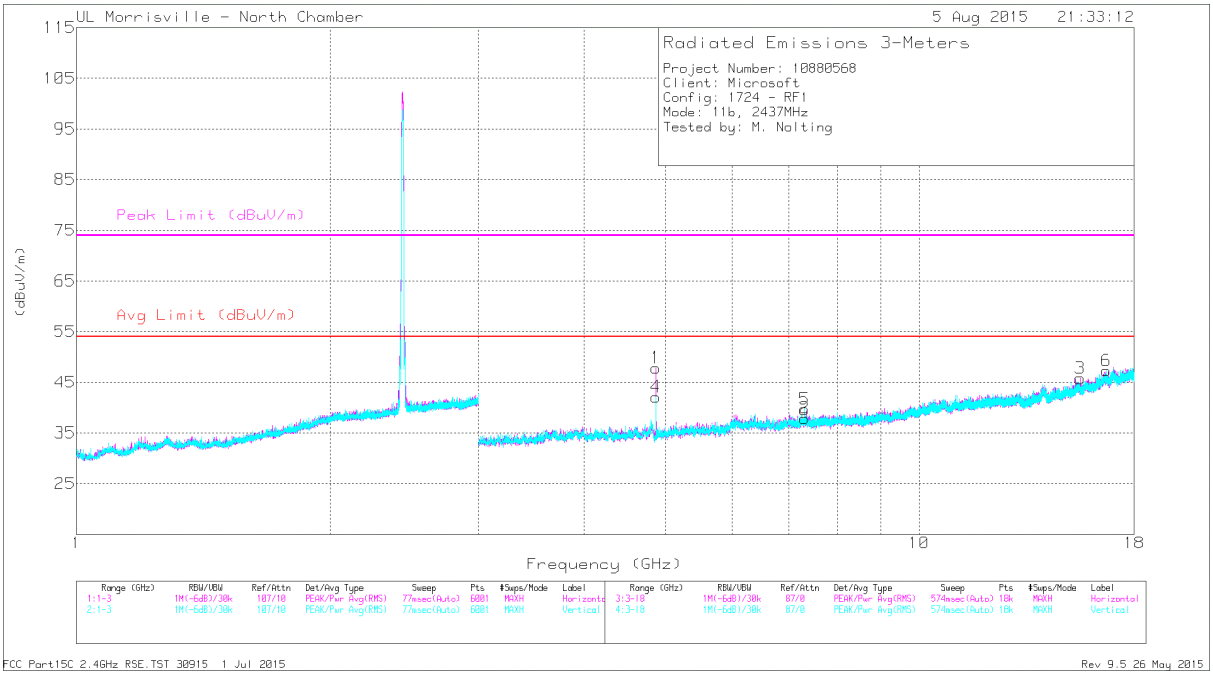
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.874	48.15	PK2	34.1	-30.4	51.85	-	-	74	-22.15	241	292	H
	* 4.874	44.35	MAv1	34.1	-30.4	48.05	54	-5.95	-	-	241	292	H
2	* 7.314	38.51	PK2	35.7	-27.8	46.41	-	-	74	-27.59	313	375	H
	* 7.312	27.53	MAv1	35.7	-27.8	35.43	54	-18.57	-	-	313	375	H
3	* 15.54	35.06	PK2	40.5	-23.5	52.06	-	-	74	-21.94	319	200	H
	* 15.538	23.46	MAv1	40.5	-23.5	40.46	54	-13.54	-	-	319	200	H
4	* 4.874	45.75	PK2	34.1	-30.4	49.45	-	-	74	-24.55	305	277	V
	* 4.874	41.29	MAv1	34.1	-30.4	44.99	54	-9.01	-	-	305	277	V
5	* 7.311	39.79	PK2	35.7	-27.8	47.69	-	-	74	-26.31	96	264	V
	* 7.312	29.83	MAv1	35.7	-27.8	37.73	54	-16.27	-	-	96	264	V
6	16.693	27.09	Pk	42.2	-22	47.29	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

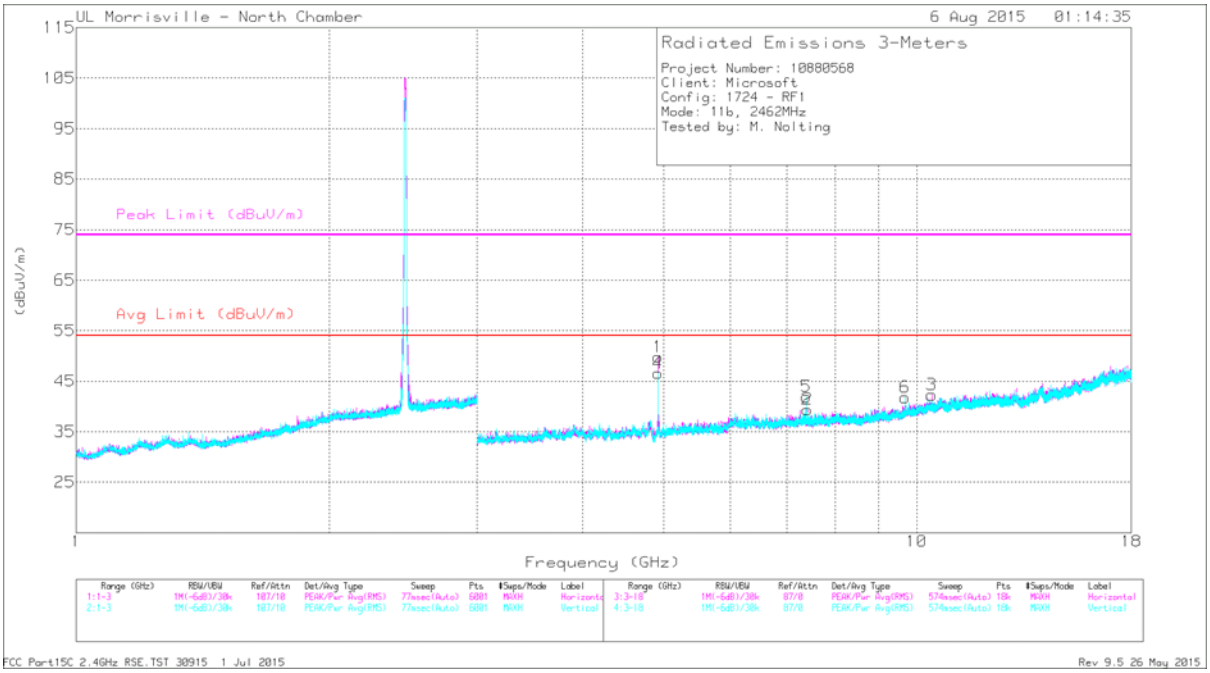
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (11)

Note – Channel 11 was set to same power setting as the Mid channel to achieve worst-case results.

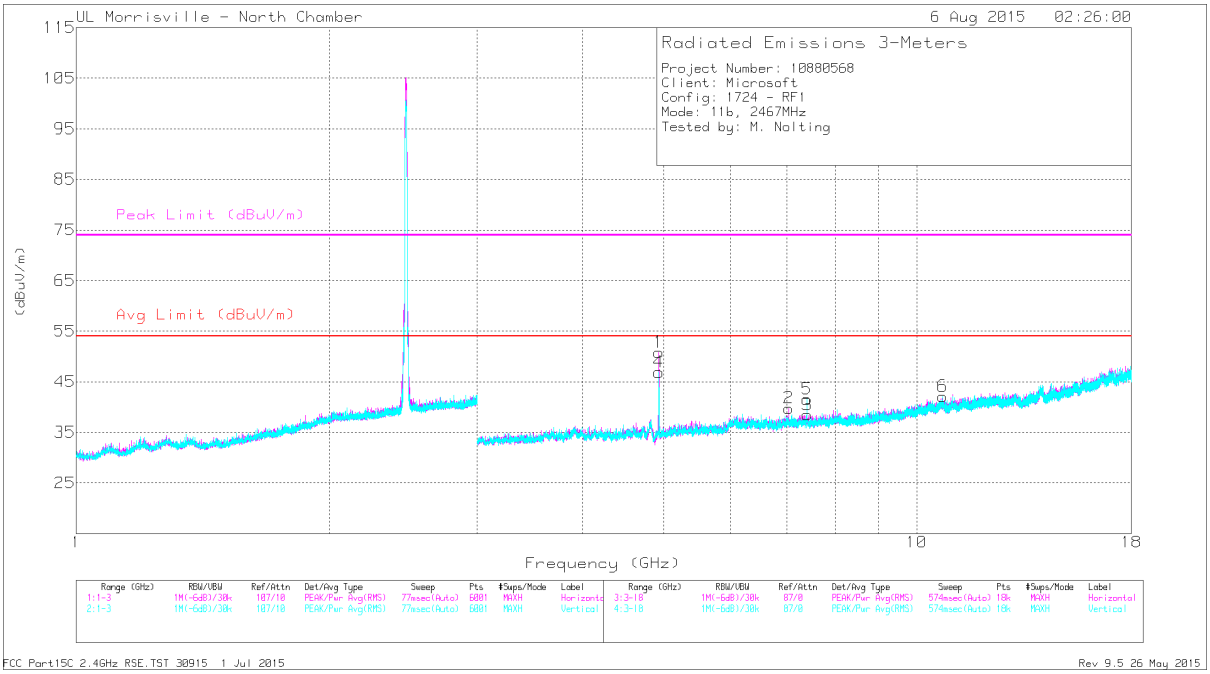


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.924	48.91	PK2	34.1	-30.9	52.11	-	-	74	-21.89	242	304	H
	* 4.924	45.97	MAv1	34.1	-30.9	49.17	54	-4.83	-	-	242	304	H
2	* 7.384	39.81	PK2	35.8	-27.9	47.71	-	-	74	-26.29	164	381	H
	* 7.387	29.7	MAv1	35.8	-27.9	37.6	54	-16.4	-	-	164	381	H
4	* 4.924	47.03	PK2	34.1	-30.9	50.23	-	-	74	-23.77	321	272	V
	* 4.924	43.31	MAv1	34.1	-30.9	46.51	54	-7.49	-	-	321	272	V
5	* 7.386	40.45	PK2	35.8	-27.9	48.35	-	-	74	-25.65	97	217	V
	* 7.387	31.21	MAv1	35.8	-27.9	39.11	54	-14.89	-	-	97	217	V
6	9.685	30.6	Pk	36.9	-25.7	41.8	-	-	-	-	0-360	102	V
3	10.419	28.89	Pk	37.6	-24.2	42.29	-	-	-	-	0-360	101	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (12)

Note – Channel 12 was set to same power setting as the Mid channel to achieve worst-case results.



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.934	49.33	PK2	34.1	-31	52.43	-	-	74	-21.57	242	269	H
	* 4.934	46.82	MAv1	34.1	-31	49.92	54	-4.08	-	-	242	269	H
2	7.041	32.18	Pk	35.6	-28	39.78	-	-	-	-	0-360	200	H
3	* 7.403	39.34	PK2	35.8	-27.9	47.24	-	-	74	-26.76	149	266	H
	* 7.402	28.23	MAv1	35.8	-27.9	36.13	54	-17.87	-	-	149	266	H
4	* 4.934	47.34	PK2	34.1	-31	50.44	-	-	74	-23.56	309	247	V
	* 4.934	43.44	MAv1	34.1	-31	46.54	54	-7.46	-	-	309	247	V
5	* 7.402	43.49	PK2	35.8	-27.9	51.39	-	-	74	-22.61	97	215	V
	* 7.402	36.1	MAv1	35.8	-27.9	44	54	-10	-	-	97	215	V
6	* 10.742	34.8	PK2	37.8	-23.6	49	-	-	74	-25	335	201	V
	* 10.741	23.23	MAv1	37.8	-23.6	37.43	54	-16.57	-	-	335	201	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

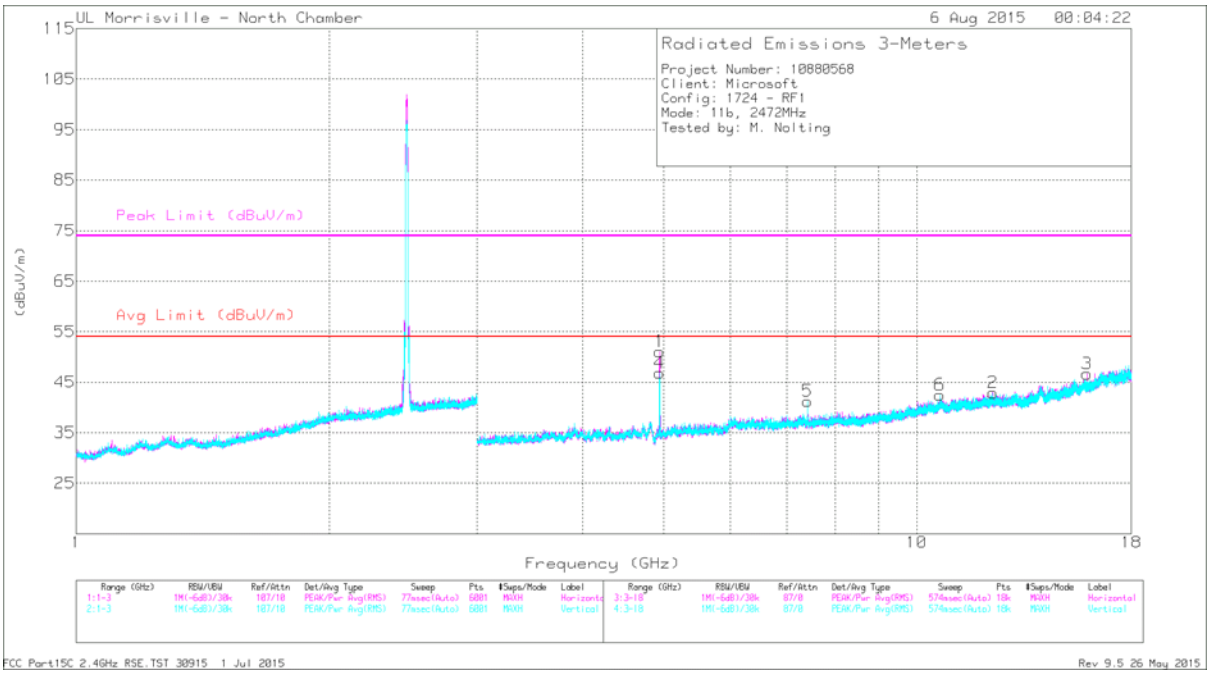
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (13)

Note – Channel 13 was set to same power setting as the Mid channel to achieve worst-case results.



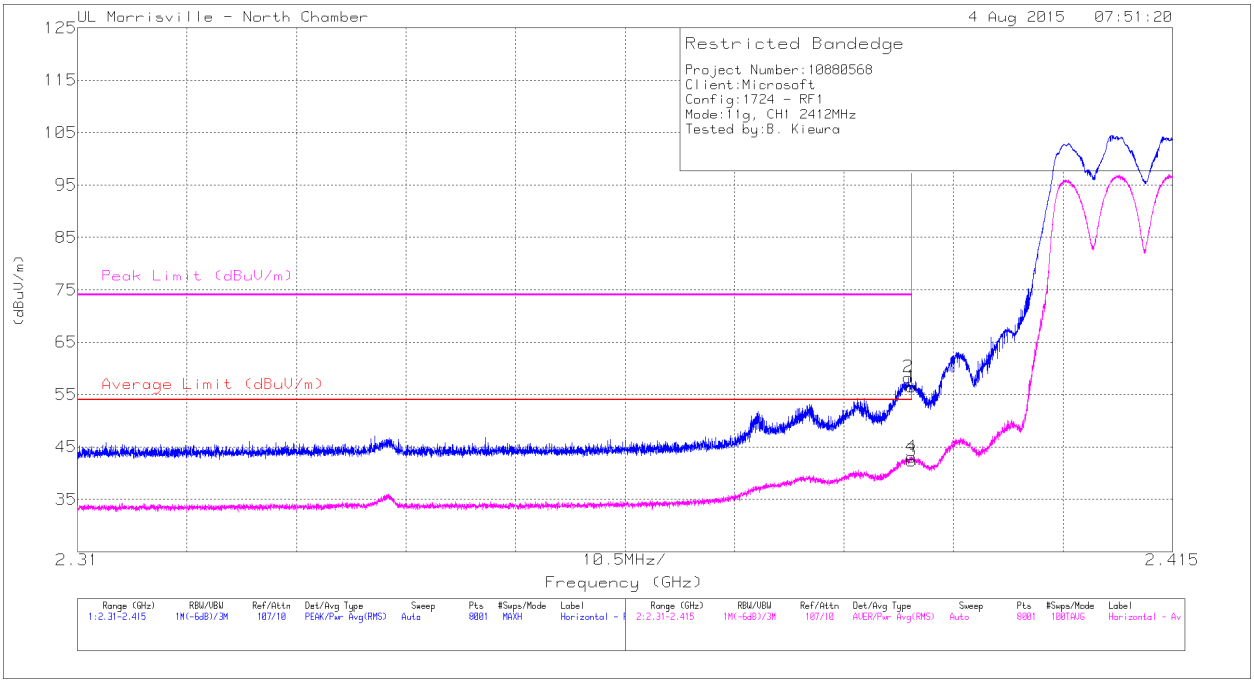
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.944	50.47	PK2	34.1	-31.1	53.47	-	-	74	-20.53	242	252	H
	* 4.944	47.98	MAv1	34.1	-31.1	50.98	54	-3.02	-	-	242	252	H
2	* 12.322	34.49	PK2	39	-24	49.49	-	-	74	-24.51	33	156	H
	* 12.318	23.07	MAv1	39	-24	38.07	54	-15.93	-	-	33	156	H
3	* 15.94	35.57	PK2	41.1	-24.1	52.57	-	-	74	-21.43	268	221	H
	* 15.941	24.06	MAv1	41.1	-24	41.16	54	-12.84	-	-	268	221	H
4	* 4.944	48.24	PK2	34.1	-31.1	51.24	-	-	74	-22.76	309	247	V
	* 4.944	45.01	MAv1	34.1	-31.1	48.01	54	-5.99	-	-	309	247	V
5	* 7.414	38.73	PK2	35.8	-27.8	46.73	-	-	74	-27.27	271	237	V
	* 7.415	27.43	MAv1	35.8	-27.8	35.43	54	-18.57	-	-	271	237	V
6	* 10.654	34.9	PK2	37.8	-23.4	49.3	-	-	74	-24.7	211	189	V
	* 10.654	23.23	MAv1	37.8	-23.4	37.63	54	-16.37	-	-	211	189	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL 1)

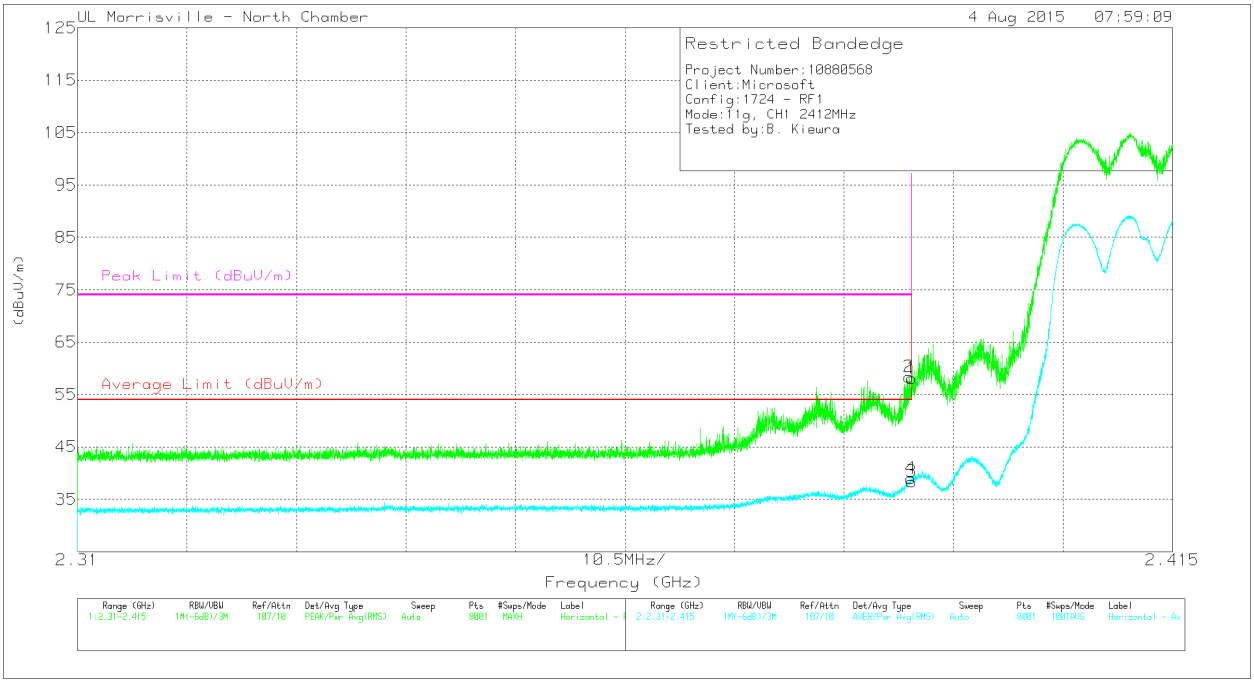
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	48.22	Pk	31.9	-23.6	56.52	-	-	74	-17.48	312	109	H
2	* 2.39	50	Pk	31.9	-23.6	58.3	-	-	74	-15.7	312	109	H
3	* 2.39	34.1	RMS	31.9	-23.6	42.4	54	-11.6	-	-	312	109	H
4	* 2.39	34.83	RMS	31.9	-23.6	43.13	54	-10.87	-	-	312	109	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

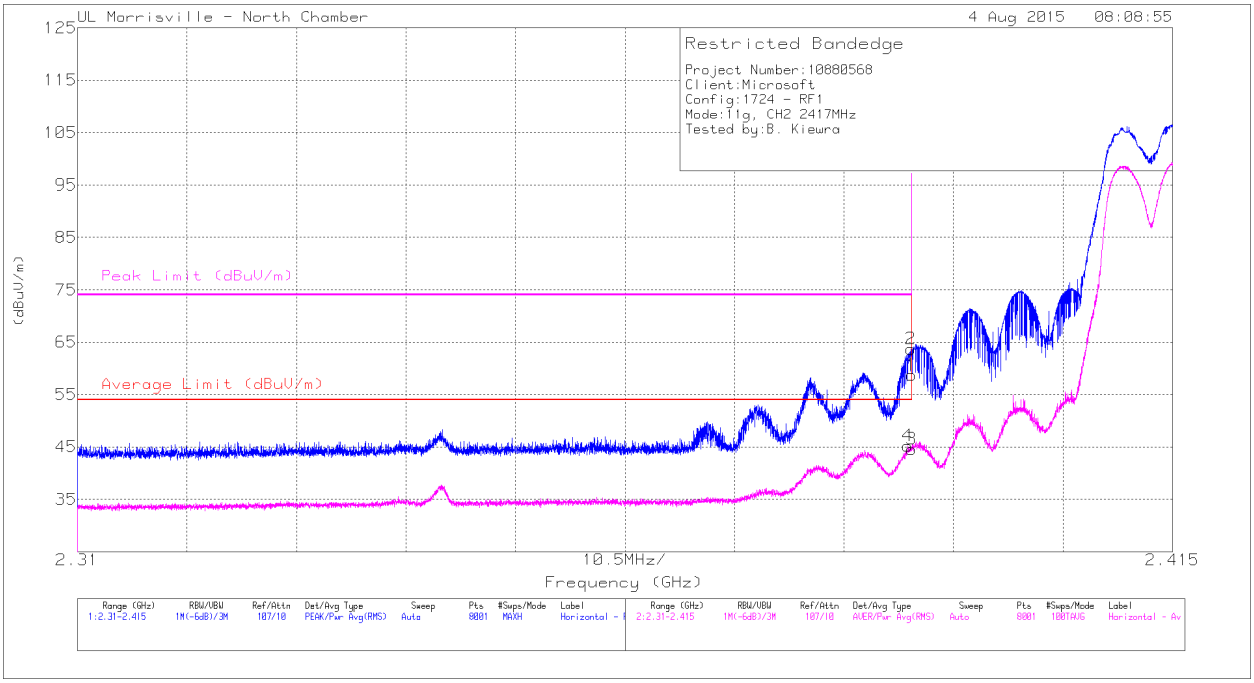


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	49.84	Pk	31.9	-23.6	58.14	-	-	74	-15.86	175	151	V
2	* 2.39	50.02	Pk	31.9	-23.6	58.32	-	-	74	-15.68	175	151	V
3	* 2.39	30.11	RMS	31.9	-23.6	38.41	54	-15.59	-	-	175	151	V
4	* 2.39	30.7	RMS	31.9	-23.6	39	54	-15	-	-	175	151	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (LOW CHANNEL 2)

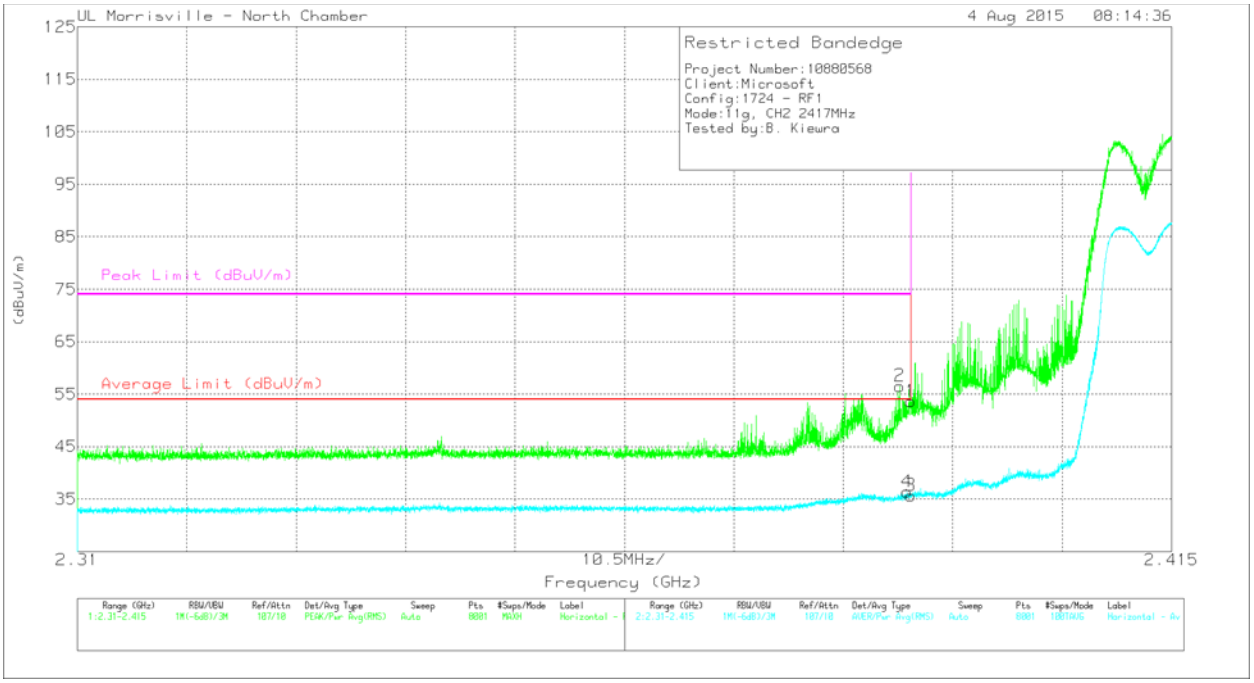
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	50.47	Pk	31.9	-23.6	58.77	-	-	74	-15.23	191	103	H
2	* 2.39	55.37	Pk	31.9	-23.6	63.67	-	-	74	-10.33	191	103	H
3	* 2.39	36.26	RMS	31.9	-23.6	44.56	54	-9.44	-	-	191	103	H
4	* 2.39	36.86	RMS	31.9	-23.6	45.16	54	-8.84	-	-	191	103	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

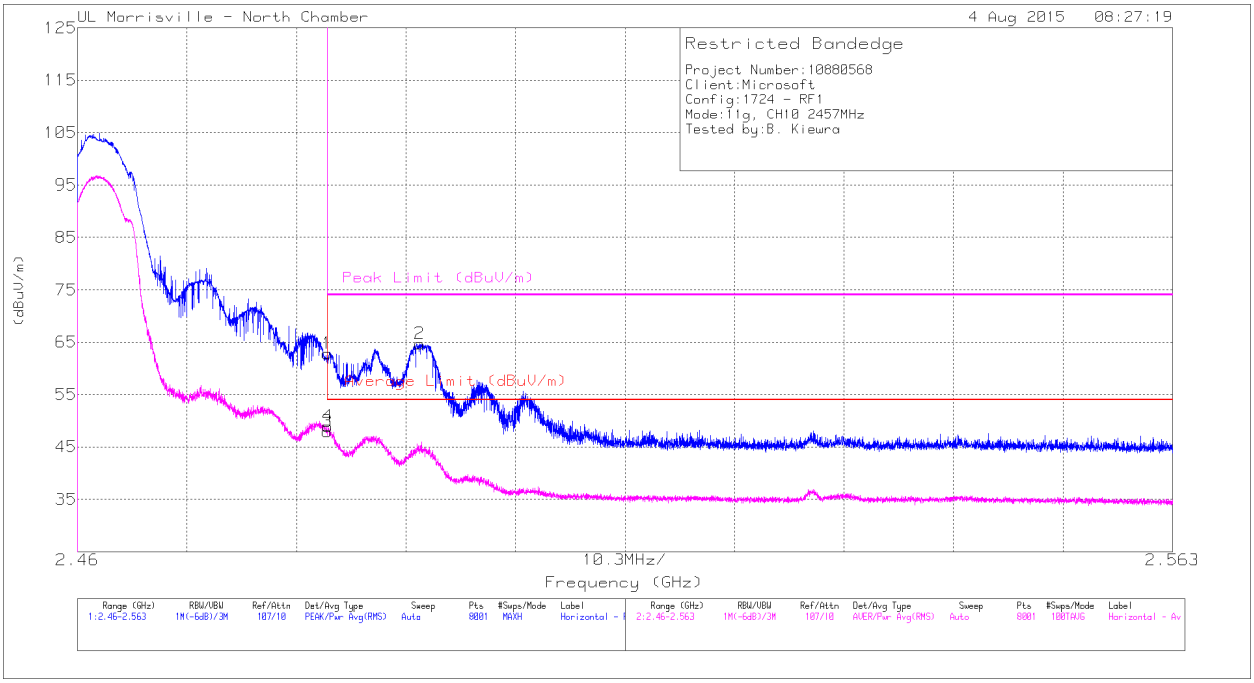


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	45.33	Pk	31.9	-23.6	53.63	-	-	74	-20.37	301	150	V
2	* 2.389	48.26	Pk	31.9	-23.6	56.56	-	-	74	-17.44	301	150	V
3	* 2.39	27.4	RMS	31.9	-23.6	35.7	54	-18.3	-	-	301	150	V
4	* 2.39	28.04	RMS	31.9	-23.6	36.34	54	-17.66	-	-	301	150	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 10)

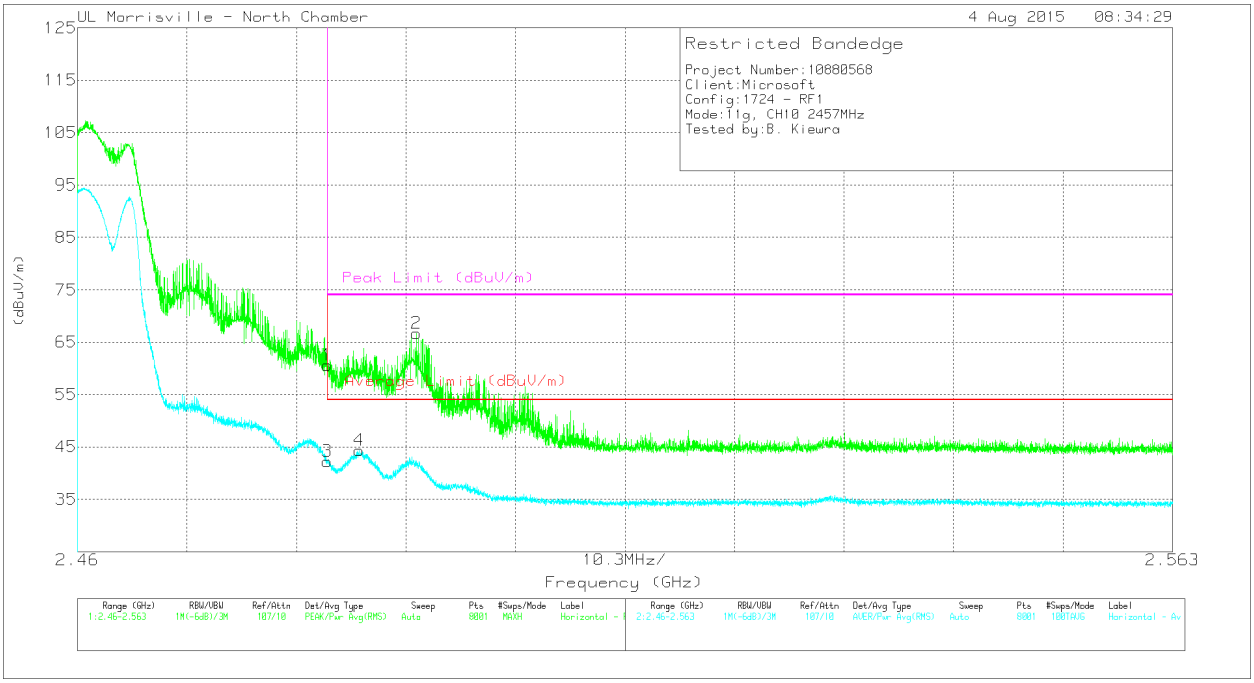
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	54.09	Pk	32.1	-23.4	62.79	-	-	74	-11.21	142	118	H
2	* 2.492	55.99	Pk	32.1	-23.4	64.69	-	-	74	-9.31	142	118	H
3	* 2.484	39.28	RMS	32.1	-23.4	47.98	54	-6.02	-	-	142	118	H
4	* 2.484	40.25	RMS	32.1	-23.4	48.95	54	-5.05	-	-	142	118	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

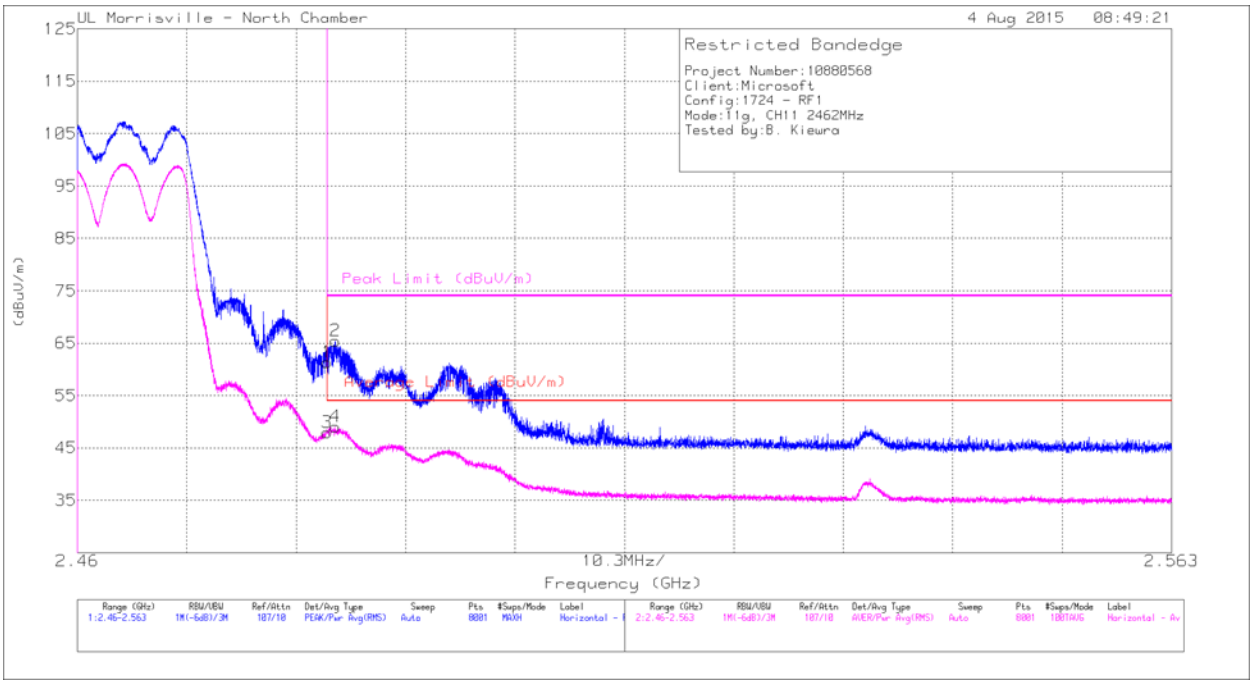


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	51.89	Pk	32.1	-23.4	60.59	-	-	74	-13.41	179	228	V
2	* 2.492	57.93	Pk	32.1	-23.4	66.63	-	-	74	-7.37	179	228	V
3	* 2.484	33.48	RMS	32.1	-23.4	42.18	54	-11.82	-	-	179	228	V
4	* 2.486	35.63	RMS	32.1	-23.4	44.33	54	-9.67	-	-	179	228	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 11)

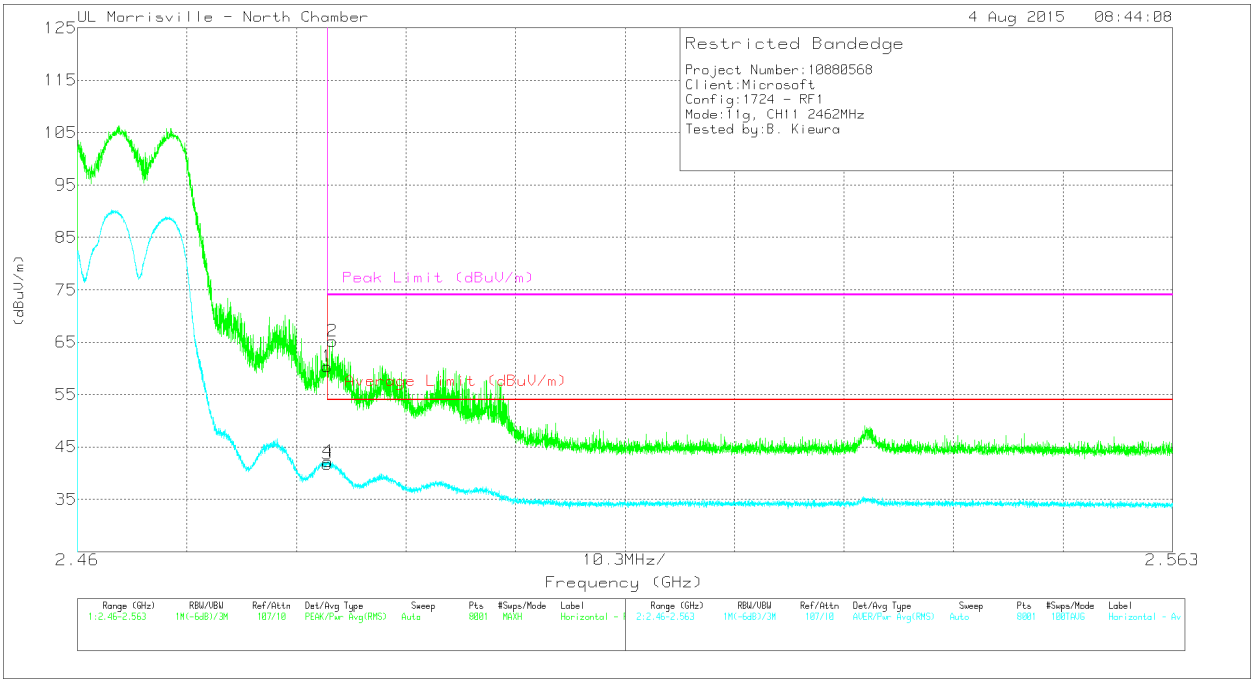
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	52.68	Pk	32.1	-23.4	61.38	-	-	74	-12.62	167	103	H
2	* 2.484	56.73	Pk	32.1	-23.4	65.43	-	-	74	-8.57	167	103	H
3	* 2.484	39.25	RMS	32.1	-23.4	47.95	54	-6.05	-	-	167	103	H
4	* 2.484	40.34	RMS	32.1	-23.4	49.04	54	-4.96	-	-	167	103	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

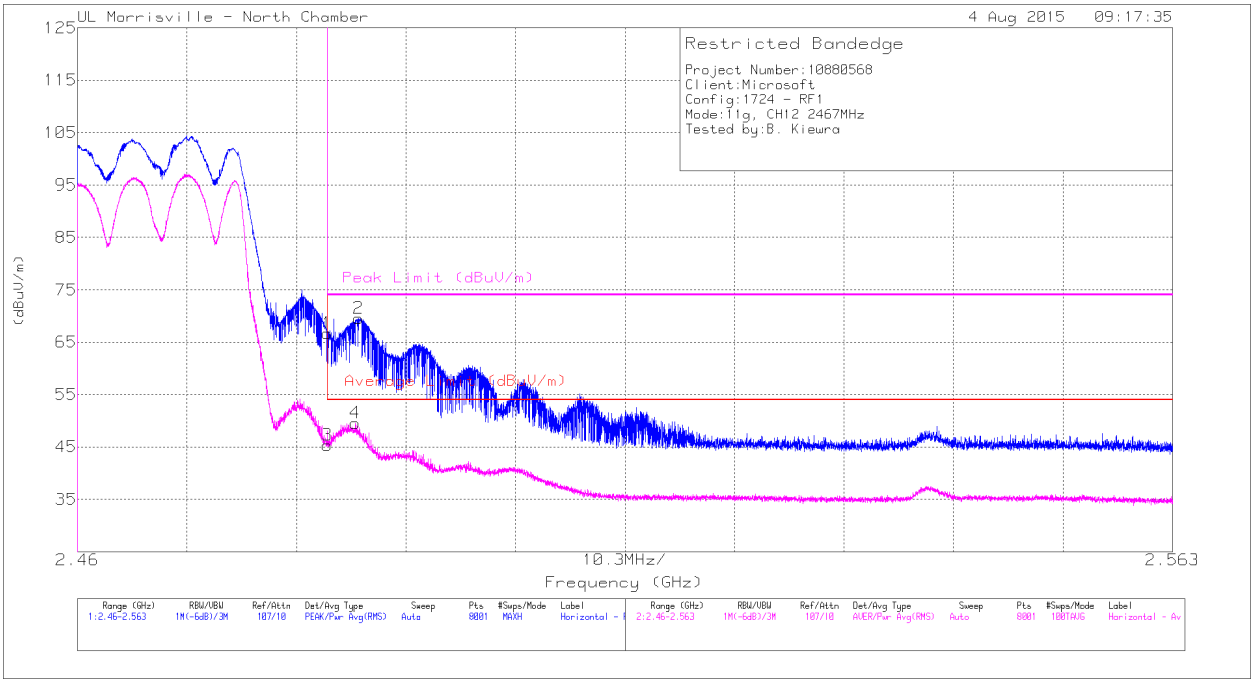


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	51.65	Pk	32.1	-23.4	60.35	-	-	74	-13.65	183	164	V
2	* 2.484	56.51	Pk	32.1	-23.4	65.21	-	-	74	-8.79	183	164	V
3	* 2.484	33.03	RMS	32.1	-23.4	41.73	54	-12.27	-	-	183	164	V
4	* 2.484	33.56	RMS	32.1	-23.4	42.26	54	-11.74	-	-	183	164	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 12)

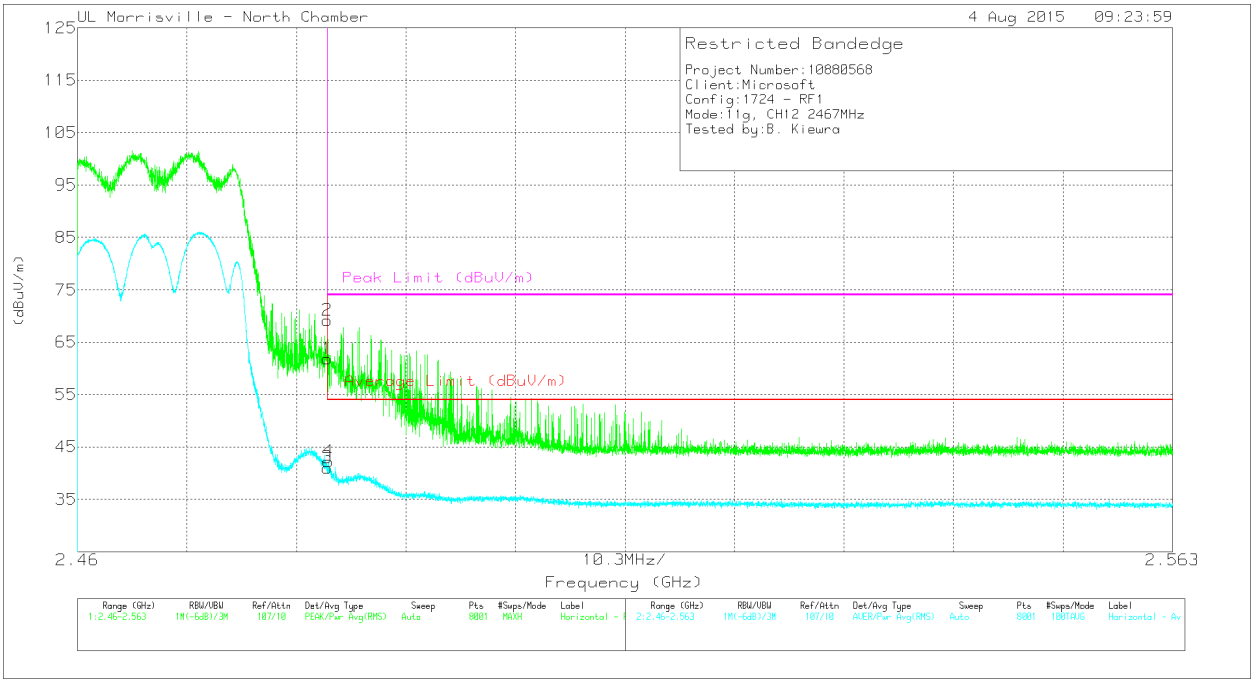
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	57.93	Pk	32.1	-23.4	66.63	-	-	74	-7.37	299	149	H
2	* 2.486	60.8	Pk	32.1	-23.4	69.5	-	-	74	-4.5	299	149	H
3	* 2.484	36.68	RMS	32.1	-23.4	45.38	54	-8.62	-	-	299	149	H
4	* 2.486	40.83	RMS	32.1	-23.4	49.53	54	-4.47	-	-	299	149	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

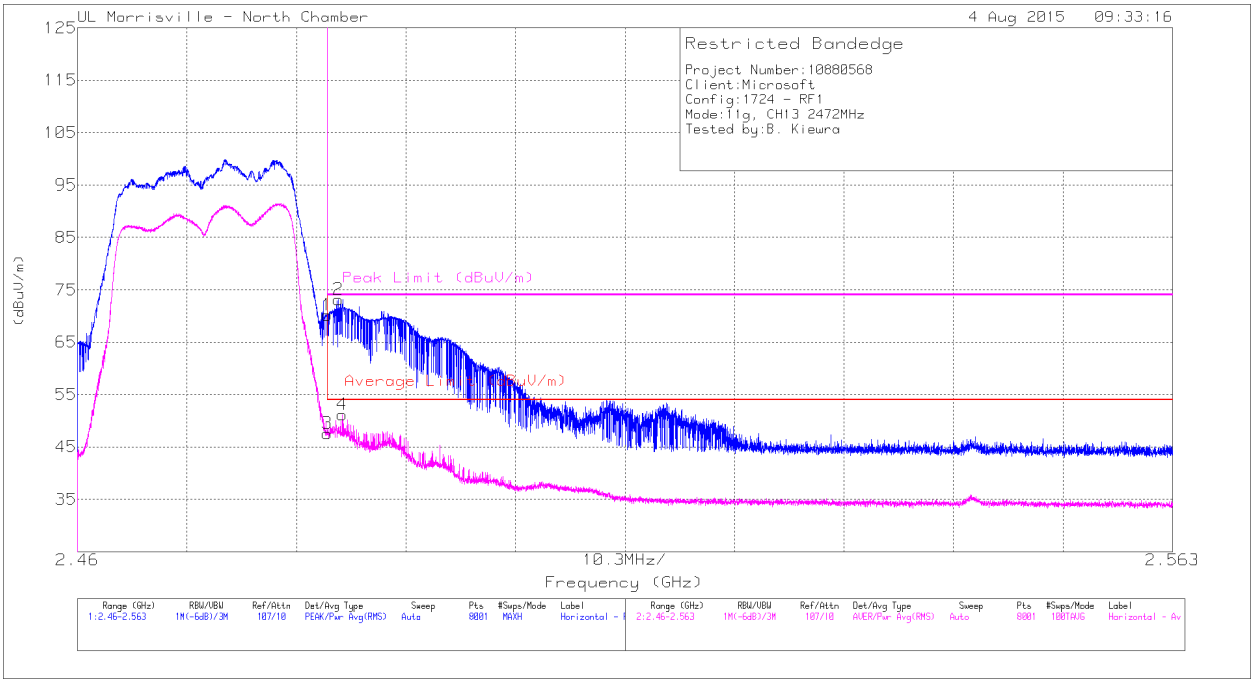


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	53.14	Pk	32.1	-23.4	61.84	-	-	74	-12.16	284	215	V
2	* 2.484	60.47	Pk	32.1	-23.4	69.17	-	-	74	-4.83	284	215	V
3	* 2.484	32.34	RMS	32.1	-23.4	41.04	54	-12.96	-	-	285	215	V
4	* 2.484	33.56	RMS	32.1	-23.4	42.26	54	-11.74	-	-	285	215	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 13)

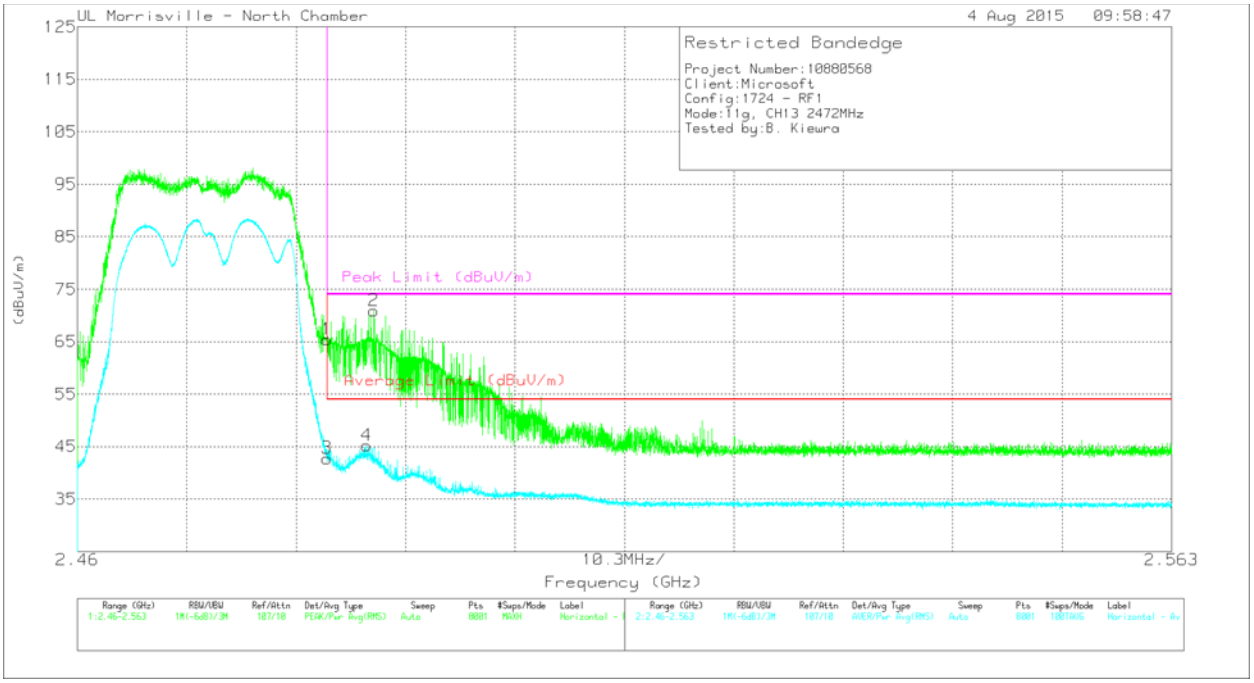
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	61.48	Pk	32.1	-23.4	70.18	-	-	74	-3.82	269	382	H
2	* 2.485	64.42	Pk	32.1	-23.4	73.12	-	-	74	-.88	269	382	H
3	* 2.484	38.82	RMS	32.1	-23.4	47.52	54	-6.48	-	-	269	382	H
4	* 2.485	42.49	RMS	32.1	-23.4	51.19	54	-2.81	-	-	269	382	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL



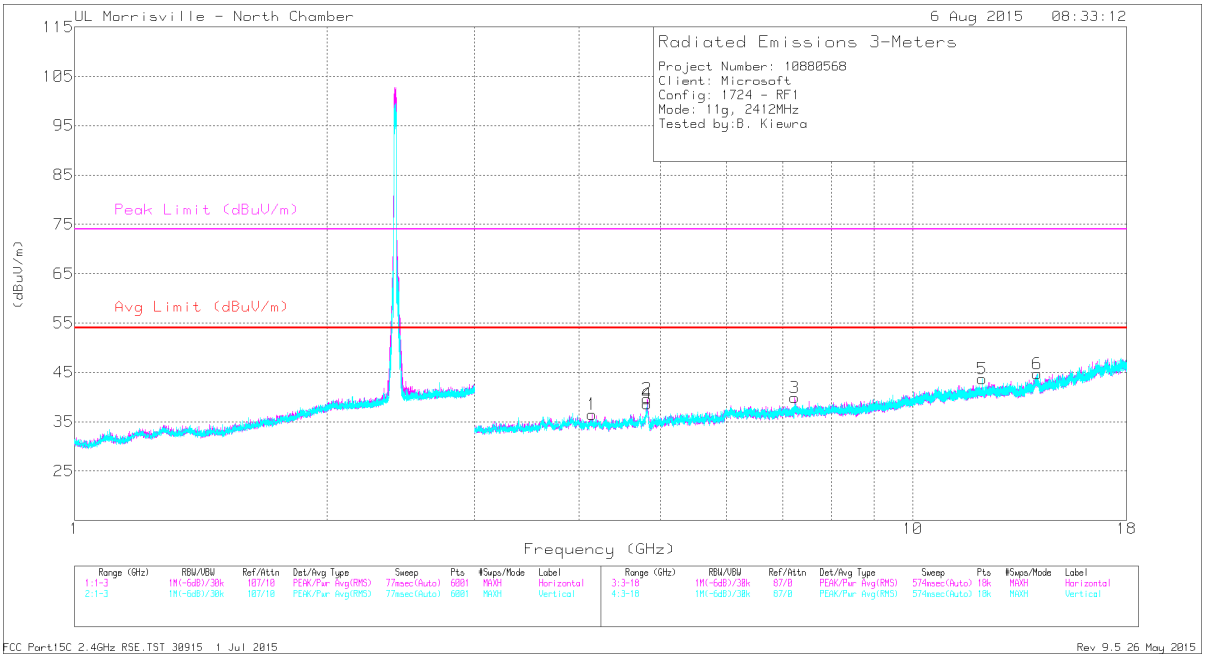
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	56.73	Pk	32.1	-23.4	65.43	-	-	74	-8.57	292	348	V
2	* 2.488	62.15	Pk	32.1	-23.4	70.85	-	-	74	-3.15	292	348	V
3	* 2.484	34.08	RMS	32.1	-23.4	42.78	54	-11.22	-	-	292	348	V
4	* 2.487	36.55	RMS	32.1	-23.4	45.25	54	-8.75	-	-	292	348	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

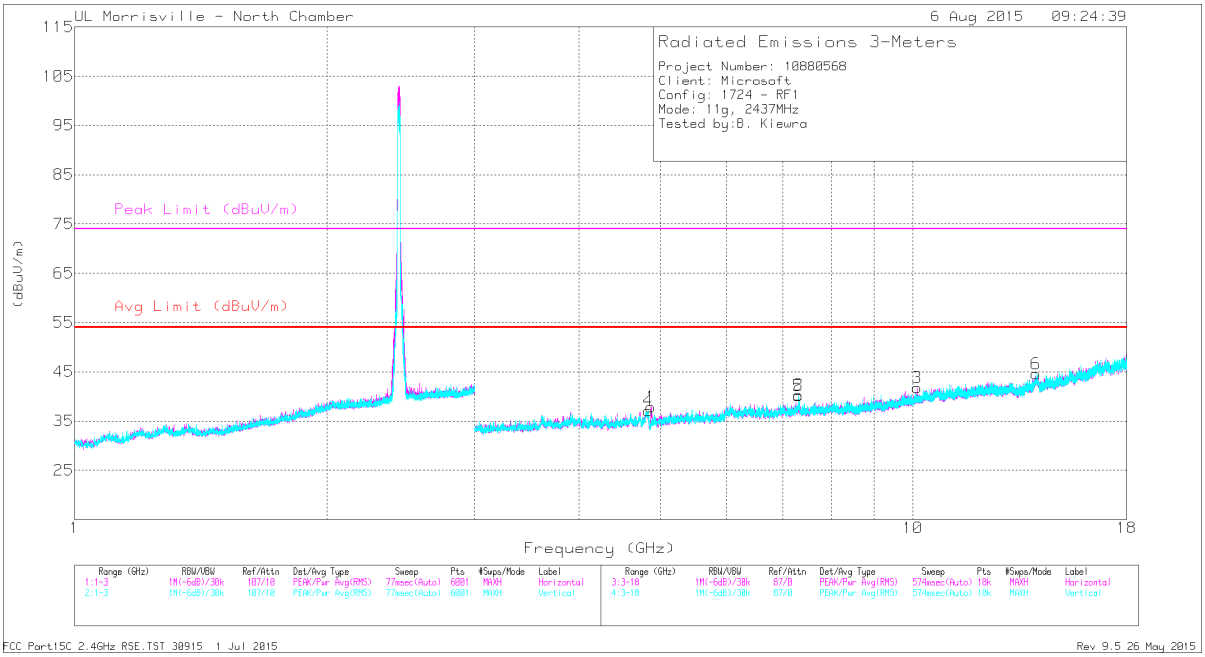
Note – Channel 1 was set to same power setting as the Mid channel to achieve worst-case results.



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.136	41.44	PK2	33.7	-31.6	43.54	-	-	74	-30.46	26	207	H
	* 4.126	29.81	MAv1	33.7	-31.7	31.81	54	-22.19	-	-	26	207	H
2	* 4.83	44.47	PK2	34.1	-30.7	47.87	-	-	74	-26.13	239	104	H
	* 4.824	33.27	MAv1	34.1	-30.8	36.57	54	-17.43	-	-	239	104	H
3	7.231	32.45	Pk	35.7	-28.3	39.85	-	-	74	-34.15	0-360	101	H
4	* 4.825	42.18	PK2	34.1	-30.8	45.48	-	-	74	-28.52	197	335	V
	* 4.824	31.08	MAv1	34.1	-30.8	34.38	54	-19.62	-	-	197	335	V
5	* 12.089	36.77	PK2	38.9	-23.8	51.87	-	-	74	-22.13	268	263	V
	* 12.127	23.19	MAv1	39	-24.3	37.89	54	-16.11	-	-	268	263	V
6	14.078	29.19	Pk	39.3	-23.8	44.69	-	-	74	-29.31	0-360	101	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL

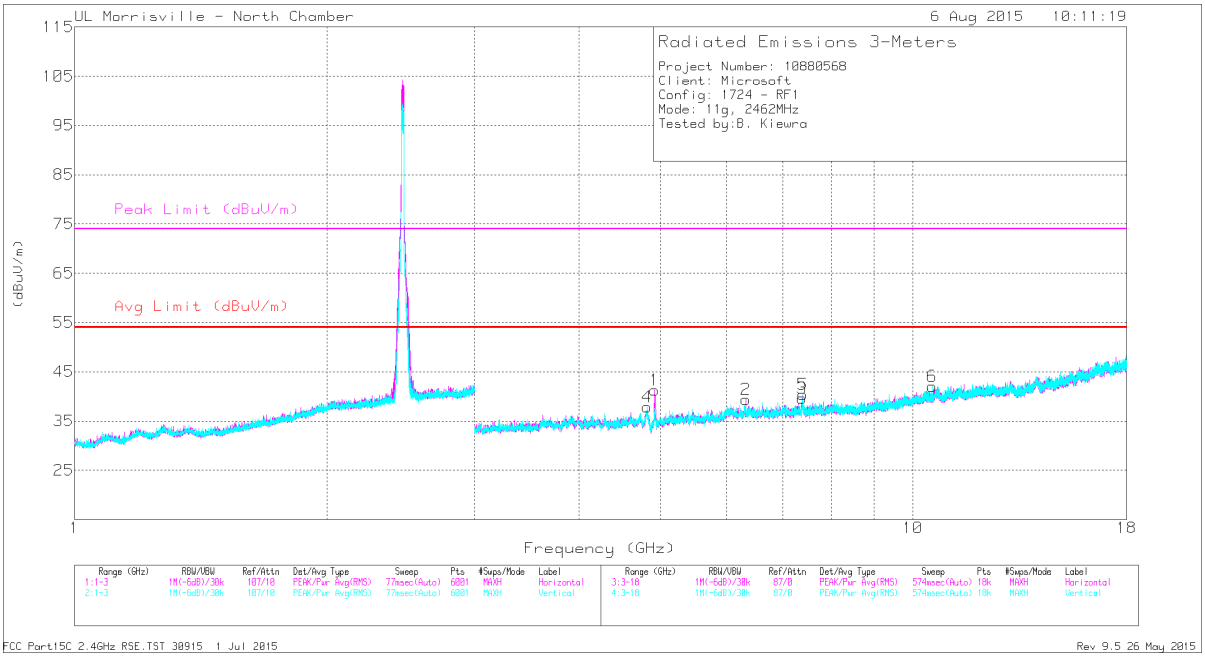


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.873	43.85	PK2	34.1	-30.4	47.55	-	-	74	-26.45	224	269	H
	* 4.873	32.29	MAv1	34.1	-30.4	35.99	54	-18.01	-	-	224	269	H
2	* 7.317	42.75	PK2	35.7	-27.9	50.55	-	-	74	-23.45	273	260	H
	* 7.315	29.04	MAv1	35.7	-27.9	36.84	54	-17.16	-	-	273	260	H
3	10.132	29.44	Pk	37.4	-25.1	41.74	-	-	74	-32.26	0-360	200	H
4	* 4.803	41.1	PK2	34.1	-30.7	44.5	-	-	74	-29.5	62	101	V
	* 4.812	29.94	MAv1	34.1	-30.8	33.24	54	-20.76	-	-	62	101	V
5	* 7.31	41.45	PK2	35.7	-27.8	49.35	-	-	74	-24.65	79	238	V
	* 7.31	29.1	MAv1	35.7	-27.8	37	54	-17	-	-	79	238	V
6	14.021	28.82	Pk	39.2	-23.4	44.62	-	-	74	-29.38	0-360	101	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (11)

Note – Channel 11 was set to same power setting as the Mid channel to achieve worst-case results.

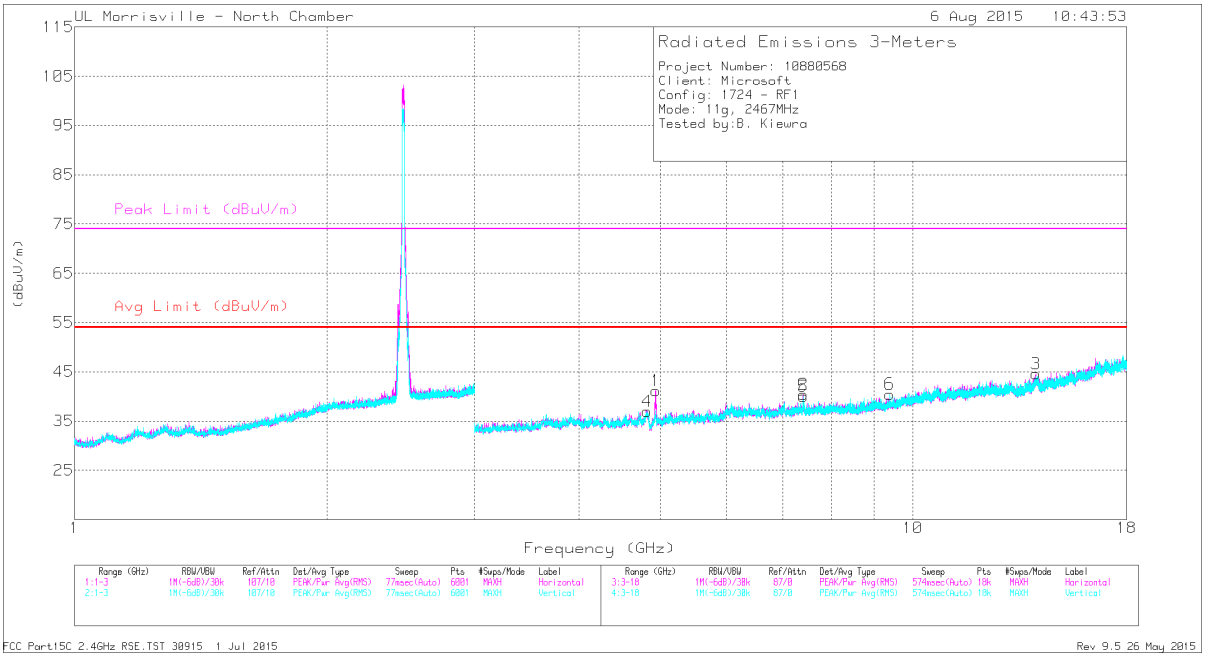


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.924	44.71	PK2	34.1	-30.9	47.91	-	-	74	-26.09	247	241	H
	* 4.924	33.36	MAv1	34.1	-30.9	36.56	54	-17.44	-	-	247	241	H
2	6.324	32.77	Pk	35.5	-28.9	39.37	-	-	74	-34.63	0-360	200	H
3	* 7.381	42.54	PK2	35.8	-27.9	50.44	-	-	74	-23.56	279	160	H
	* 7.385	29.77	MAv1	35.8	-27.9	37.67	54	-16.33	-	-	279	160	H
4	* 4.828	41.37	PK2	34.1	-30.7	44.77	-	-	74	-29.23	12	274	V
	* 4.828	29.85	MAv1	34.1	-30.7	33.25	54	-20.75	-	-	12	274	V
5	* 7.383	49.61	PK2	35.8	-27.9	57.51	-	-	74	-16.49	250	102	V
	* 7.389	33.21	MAv1	35.8	-27.9	41.11	54	-12.89	-	-	250	102	V
6	10.55	29.16	Pk	37.7	-24.8	42.06	-	-	74	-31.94	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (12)

Note – Channel 12 was set to same power setting as the Mid channel to achieve worst-case results.

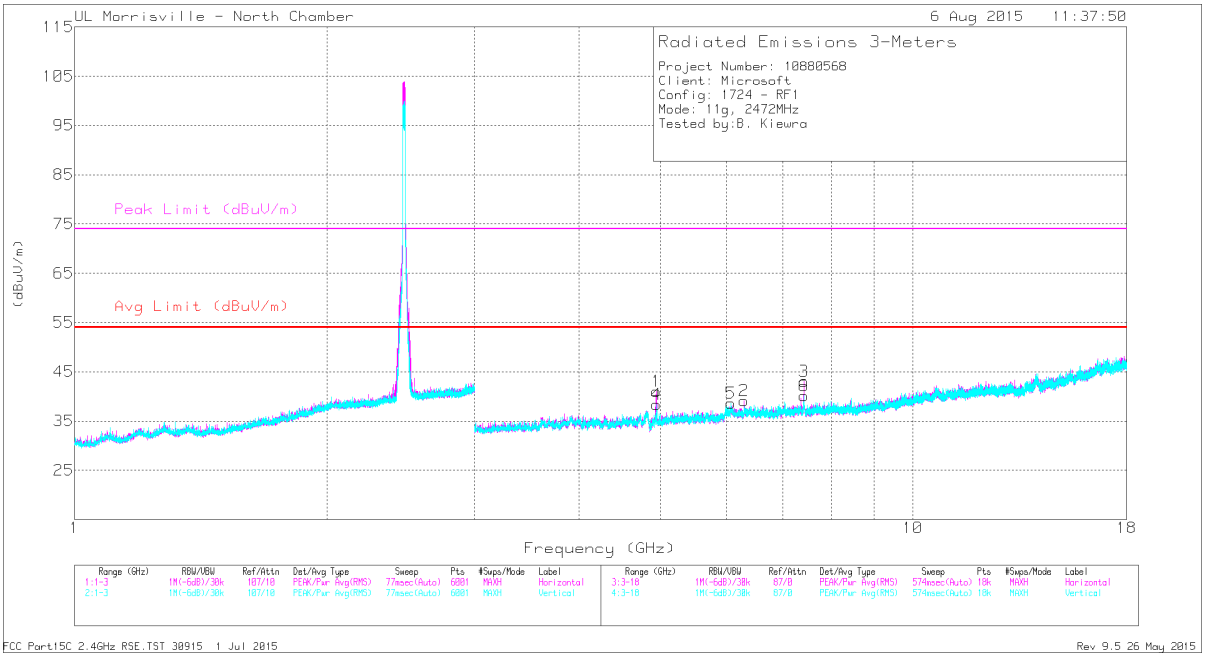


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.934	45.54	PK2	34.1	-31	48.64	-	-	74	-25.36	225	113	H
	* 4.933	34.16	MAv1	34.1	-31	37.26	54	-16.74	-	-	225	113	H
2	* 7.403	41.63	PK2	35.8	-27.9	49.53	-	-	74	-24.47	240	368	H
	* 7.403	28.65	MAv1	35.8	-27.9	36.55	54	-17.45	-	-	240	368	H
3	14.031	28.93	Pk	39.2	-23.6	44.53	-	-	74	-29.47	0-360	200	H
4	* 4.816	40.91	PK2	34.1	-30.8	44.21	-	-	74	-29.79	5	164	V
	* 4.828	29.78	MAv1	34.1	-30.8	33.08	54	-20.92	-	-	5	164	V
5	* 7.403	43.43	PK2	35.8	-27.9	51.33	-	-	74	-22.67	87	214	V
	* 7.403	30.87	MAv1	35.8	-27.9	38.77	54	-15.23	-	-	87	214	V
6	* 9.415	36.46	PK2	36.7	-26.2	46.96	-	-	74	-27.04	33	182	V
	* 9.377	25.08	MAv1	36.6	-26.3	35.38	54	-18.62	-	-	33	182	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (13)

Note – Channel 13 was set to same power setting as the Mid channel to achieve worst-case results.



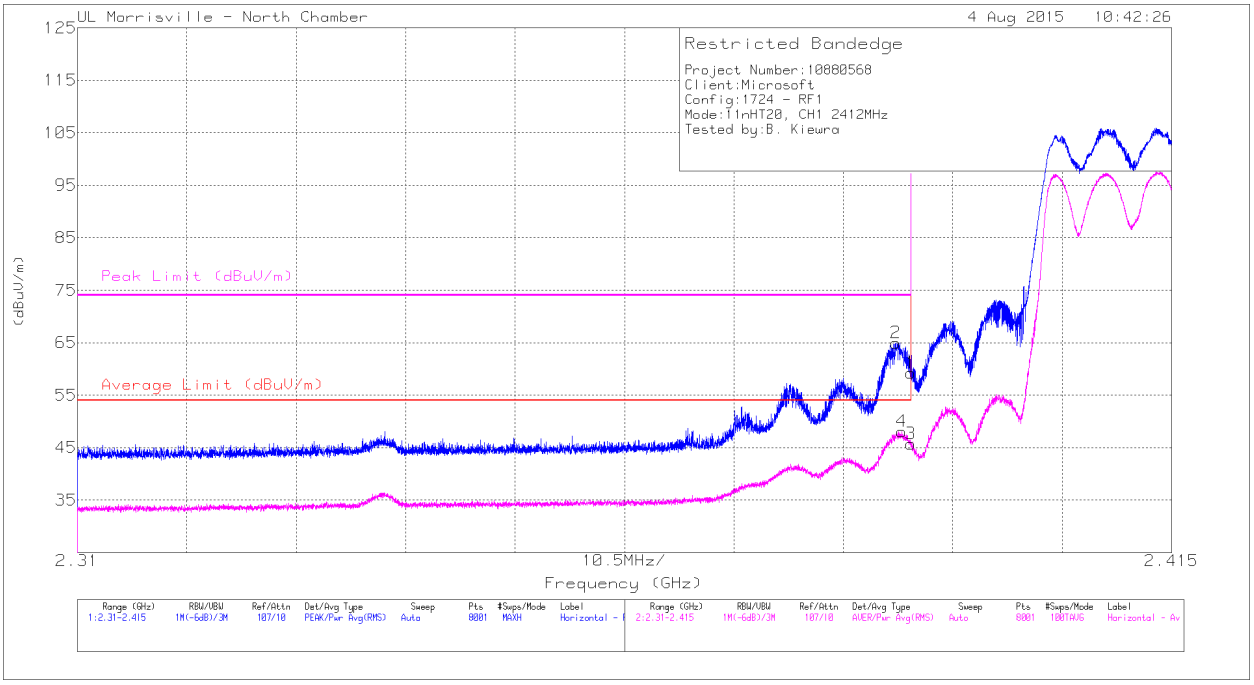
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.943	45.02	PK2	34.1	-31.1	48.02	-	-	74	-25.98	280	271	H
	* 4.943	33.54	MAv1	34.1	-31.1	36.54	54	-17.46	-	-	280	271	H
3	* 7.415	42.88	PK2	35.8	-27.8	50.88	-	-	74	-23.12	278	102	H
	* 7.415	29.79	MAv1	35.8	-27.8	37.79	54	-16.21	-	-	278	102	H
4	* 4.944	44.68	PK2	34.1	-31.1	47.68	-	-	74	-26.32	330	293	V
	* 4.944	33.05	MAv1	34.1	-31.1	36.05	54	-17.95	-	-	330	293	V
6	* 7.404	40.7	PK2	35.8	-27.9	48.6	-	-	74	-25.4	91	279	V
	* 7.419	29.27	MAv1	35.8	-27.7	37.37	54	-16.63	-	-	91	279	V
5	6.072	31.8	Pk	35.2	-28.4	38.6	-	-	74	-35.4	0-360	101	V
2	6.293	32.88	Pk	35.4	-29.1	39.18	-	-	74	-34.82	0-360	101	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL 1)

HORIZONTAL



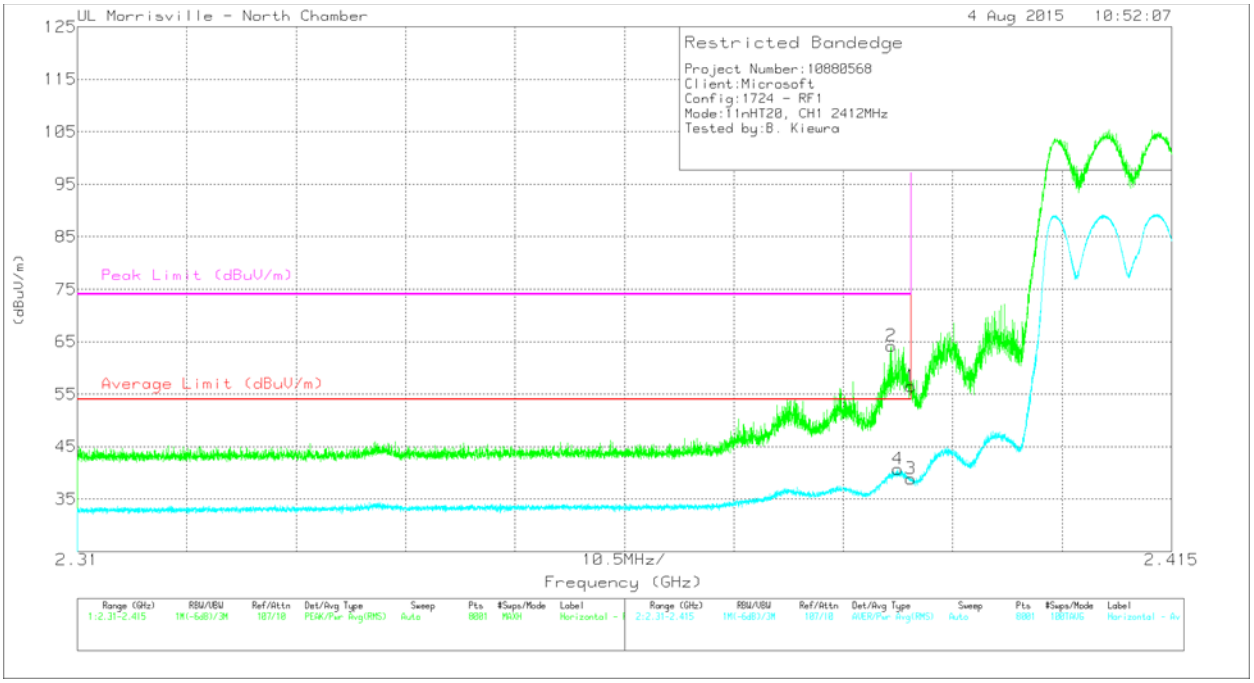
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	50.98	Pk	31.9	-23.6	59.28	-	-	74	-14.72	177	181	H
2	* 2.389	56.69	Pk	31.9	-23.6	64.99	-	-	74	-9.01	177	181	H
3	* 2.39	37.35	RMS	31.9	-23.6	45.65	54	-8.35	-	-	177	181	H
4	* 2.389	39.73	RMS	31.9	-23.6	48.03	54	-5.97	-	-	177	181	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL

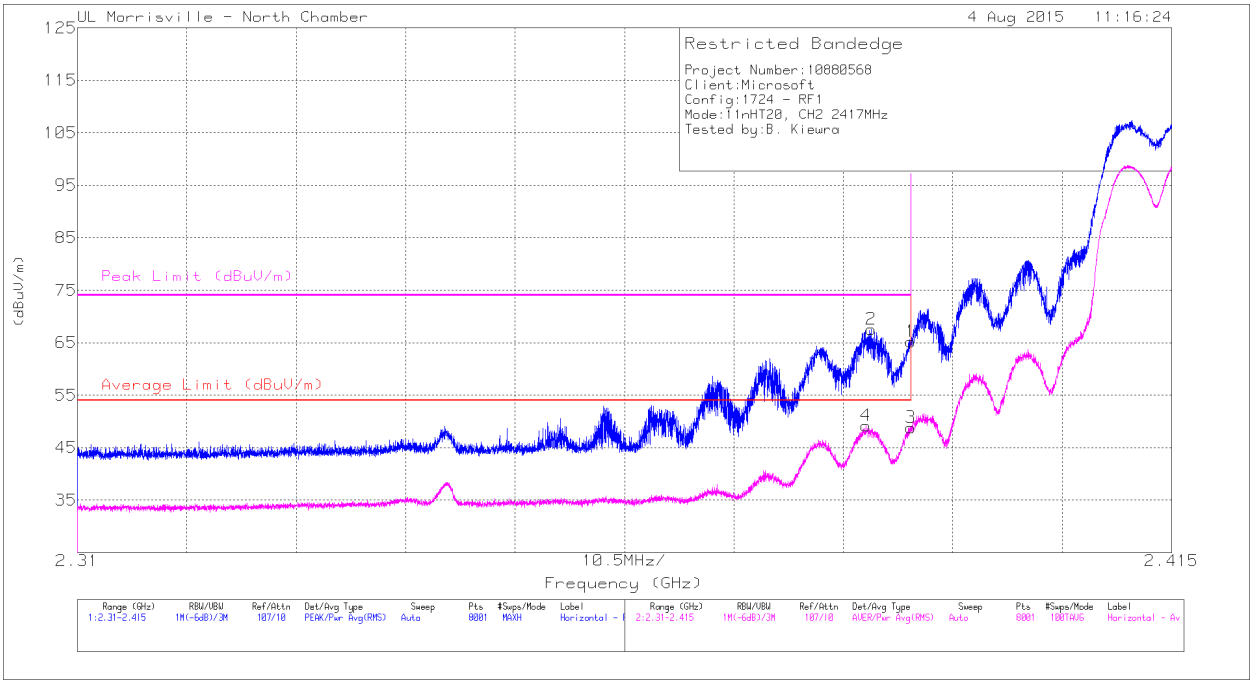


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	48.22	Pk	31.9	-23.6	56.52	-	-	74	-17.48	180	197	V
2	* 2.388	55.95	Pk	31.9	-23.6	64.25	-	-	74	-9.75	180	197	V
3	* 2.39	30.54	RMS	31.9	-23.6	38.84	54	-15.16	-	-	180	197	V
4	* 2.389	32.4	RMS	31.9	-23.6	40.7	54	-13.3	-	-	180	197	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (LOW CHANNEL 2)

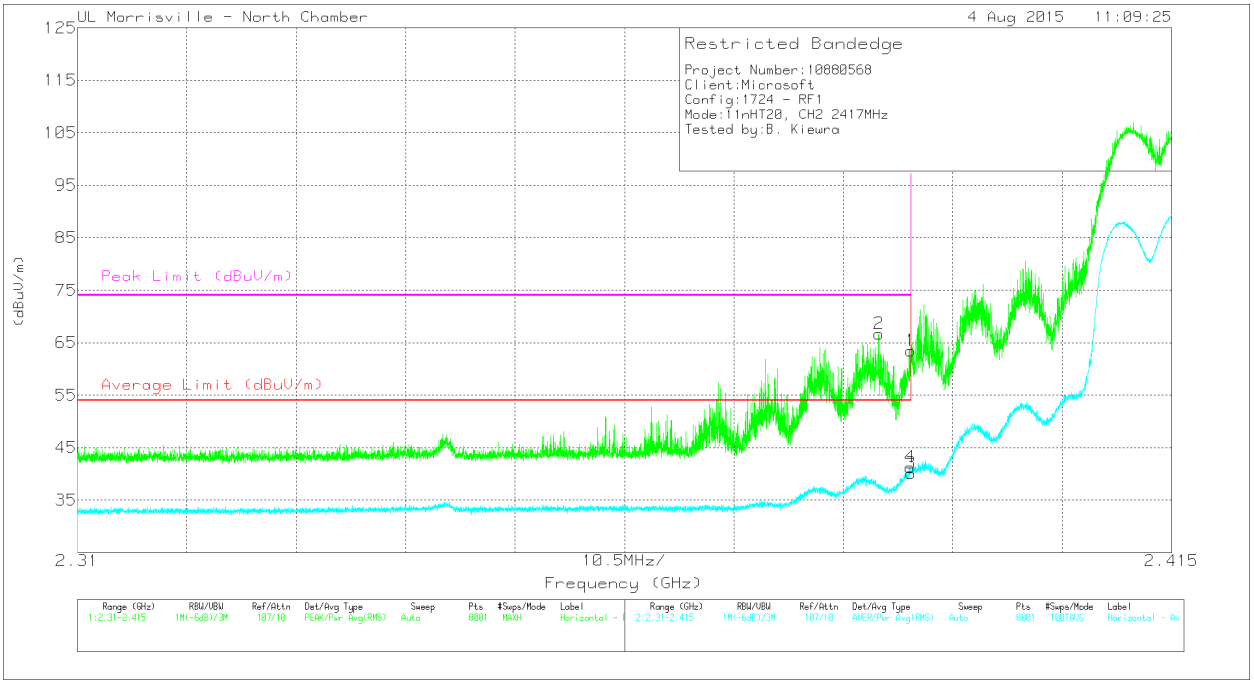
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	56.94	Pk	31.9	-23.6	65.24	-	-	74	-8.76	179	135	H
2	* 2.386	59.17	Pk	31.9	-23.5	67.57	-	-	74	-6.43	179	135	H
3	* 2.39	40.55	RMS	31.9	-23.6	48.85	54	-5.15	-	-	179	135	H
4	* 2.386	40.77	RMS	31.9	-23.5	49.17	54	-4.83	-	-	179	135	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

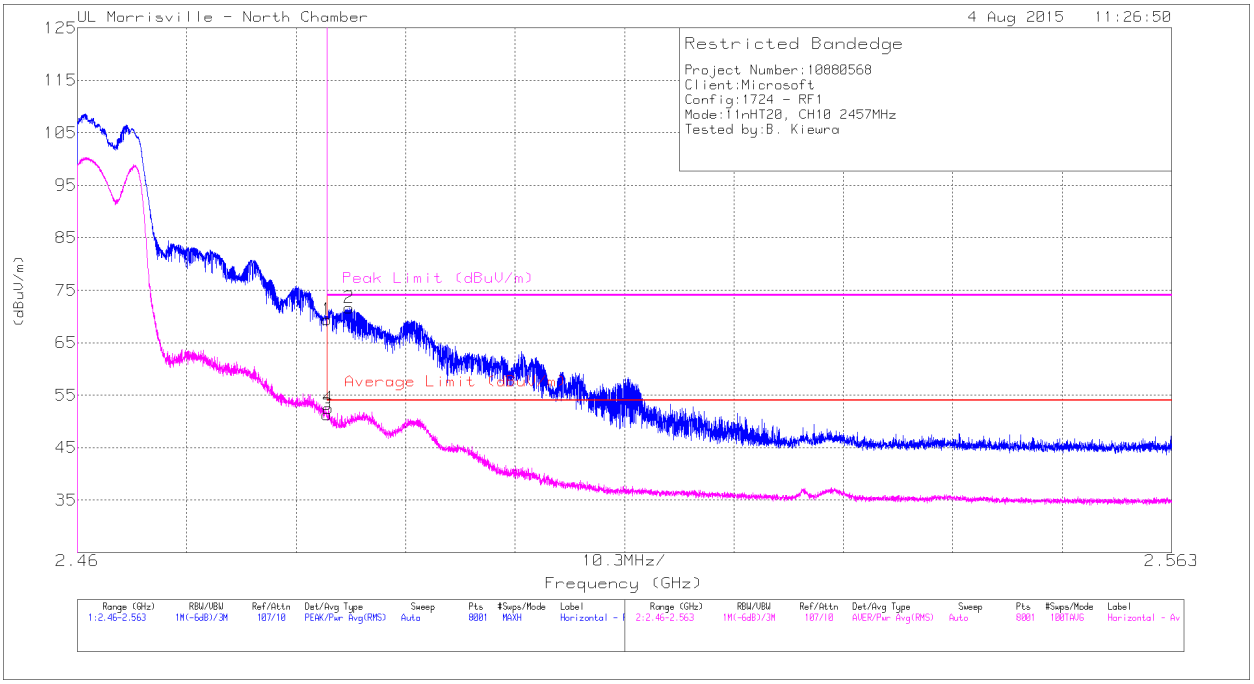


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	55.1	Pk	31.9	-23.6	63.4	-	-	74	-10.6	175	134	V
2	* 2.387	58.41	Pk	31.9	-23.6	66.71	-	-	74	-7.29	175	134	V
3	* 2.39	31.78	RMS	31.9	-23.6	40.08	54	-13.92	-	-	175	134	V
4	* 2.39	32.91	RMS	31.9	-23.6	41.21	54	-12.79	-	-	175	134	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 10)

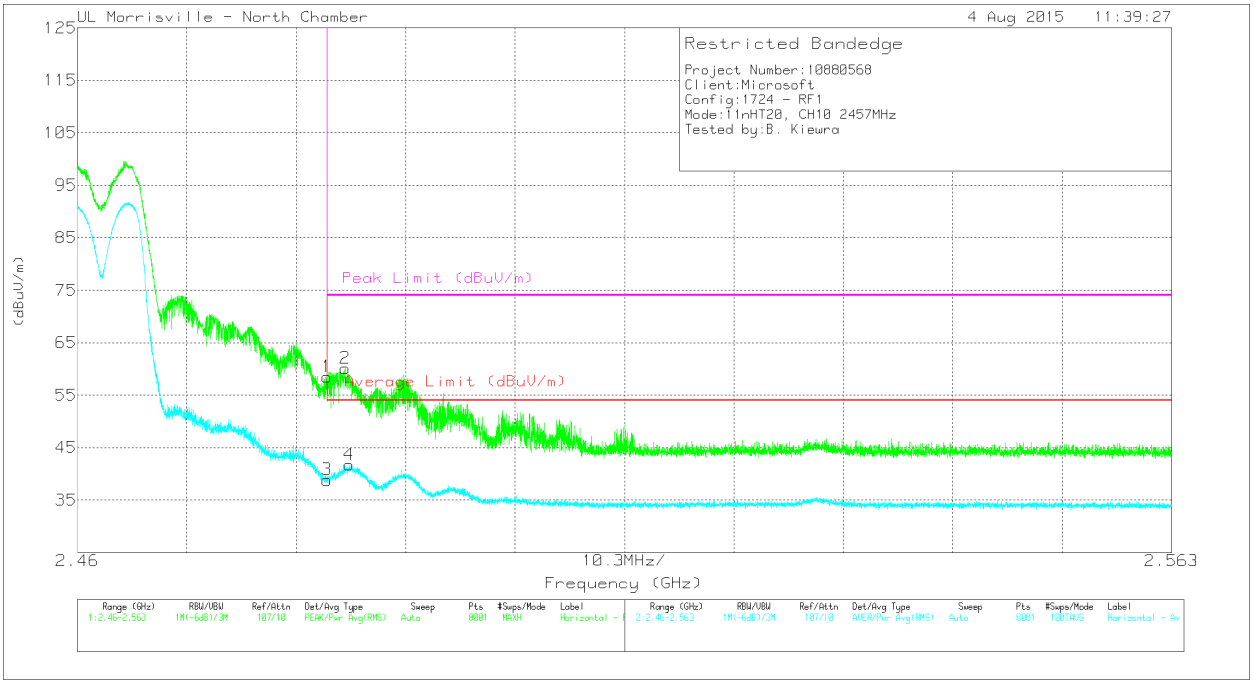
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	60.72	Pk	32.1	-23.4	69.42	-	-	74	-4.58	188	145	H
2	* 2.486	62.95	Pk	32.1	-23.4	71.65	-	-	74	-2.35	188	145	H
3	* 2.484	42.6	RMS	32.1	-23.4	51.3	54	-2.7	-	-	188	145	H
4	* 2.484	43.79	RMS	32.1	-23.4	52.49	54	-1.51	-	-	188	145	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

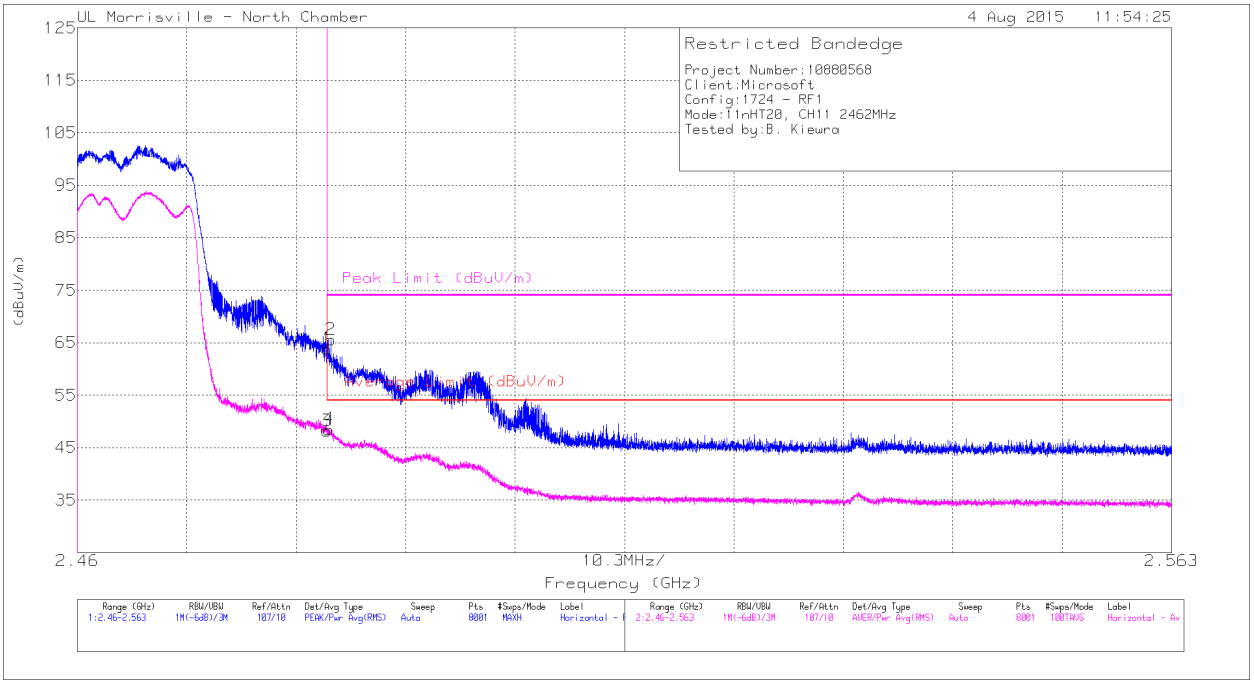


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	49.81	Pk	32.1	-23.4	58.51	-	-	74	-15.49	195	125	V
2	* 2.485	51.38	Pk	32.1	-23.4	60.08	-	-	74	-13.92	195	125	V
3	* 2.484	30.11	RMS	32.1	-23.4	38.81	54	-15.19	-	-	195	125	V
4	* 2.486	33.05	RMS	32.1	-23.4	41.75	54	-12.25	-	-	195	125	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 11)

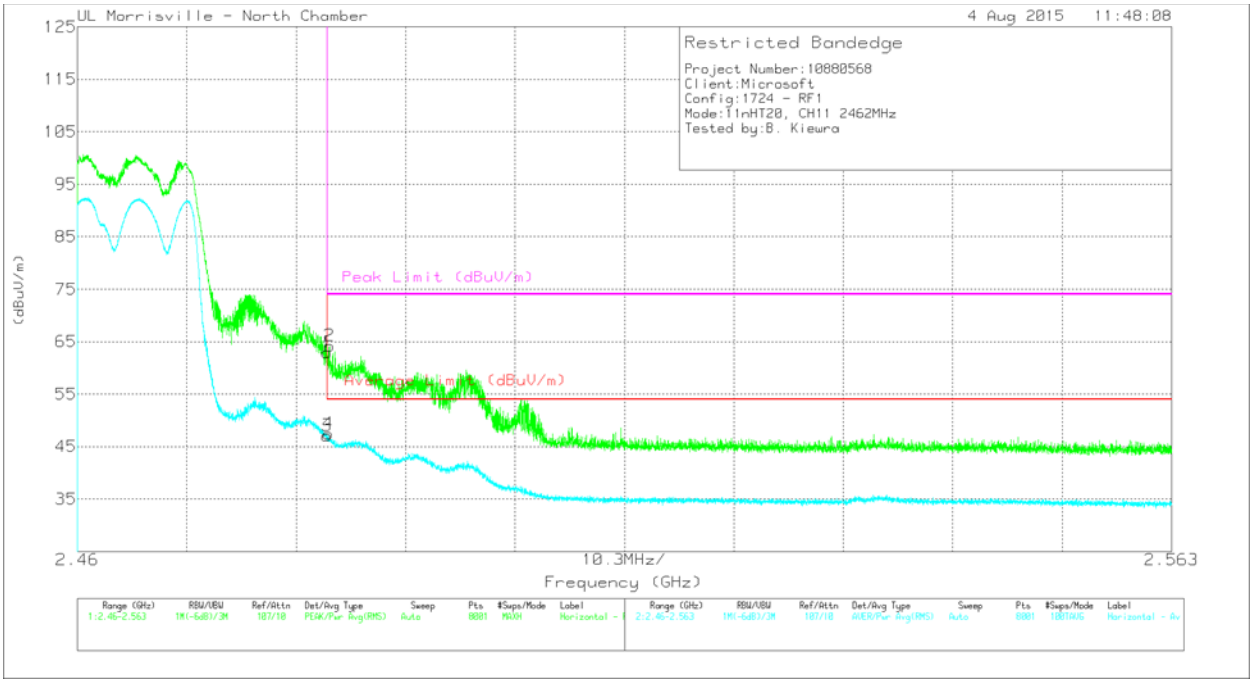
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	55.11	Pk	32.1	-23.4	63.81	-	-	74	-10.19	272	129	H
2	* 2.484	56.87	Pk	32.1	-23.4	65.57	-	-	74	-8.43	272	129	H
3	* 2.484	39.46	RMS	32.1	-23.4	48.16	54	-5.84	-	-	272	129	H
4	* 2.484	39.79	RMS	32.1	-23.4	48.49	54	-5.51	-	-	272	129	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL

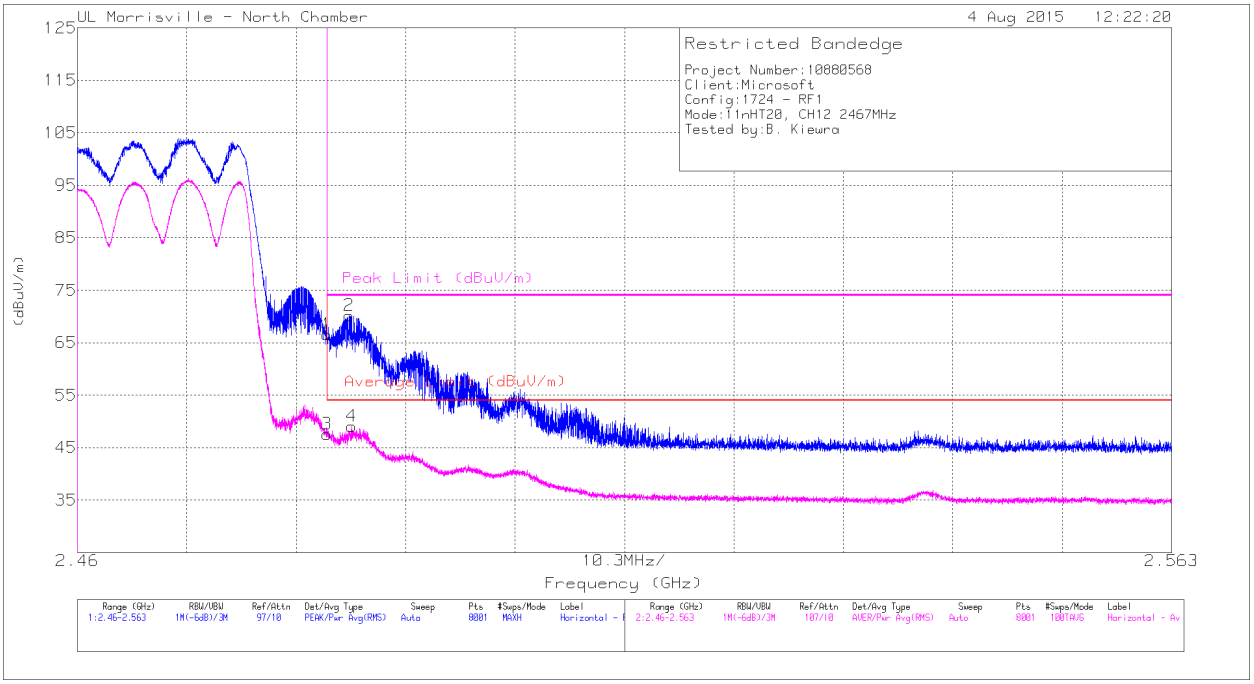


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	54.23	Pk	32.1	-23.4	62.93	-	-	74	-11.07	305	346	V
2	* 2.484	55.55	Pk	32.1	-23.4	64.25	-	-	74	-9.75	305	346	V
3	* 2.484	38.38	RMS	32.1	-23.4	47.08	54	-6.92	-	-	305	346	V
4	* 2.484	38.71	RMS	32.1	-23.4	47.41	54	-6.59	-	-	305	346	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 12)

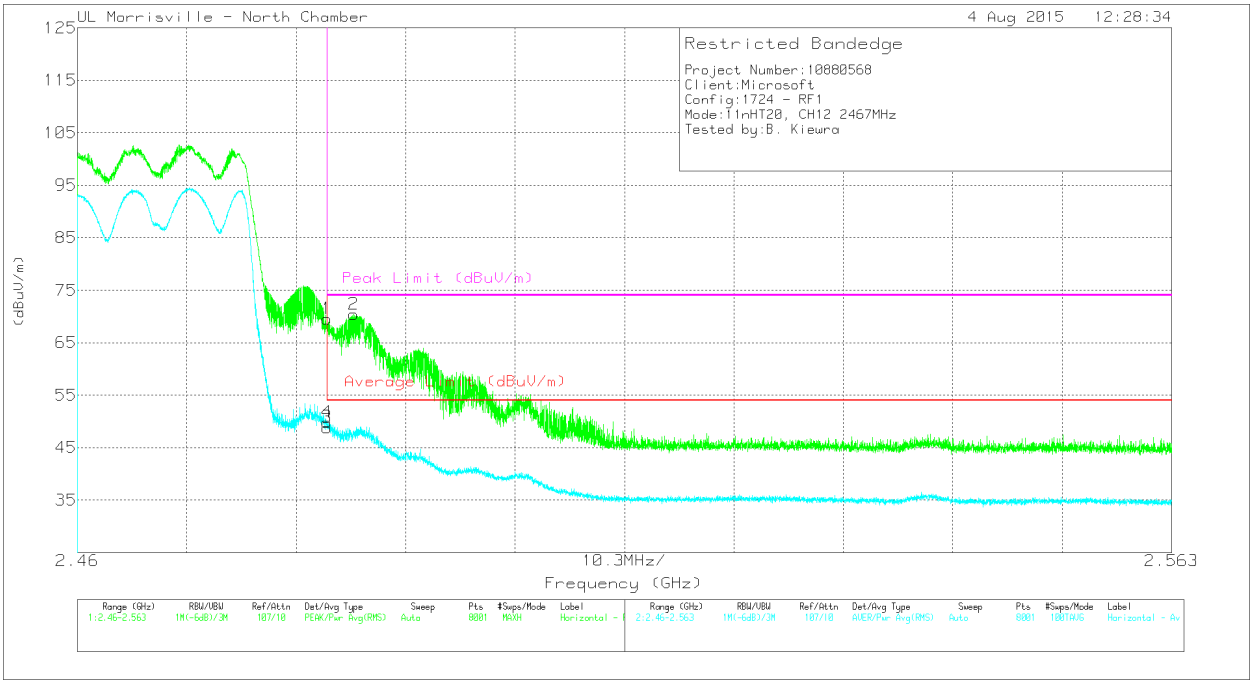
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	57.91	Pk	32.1	-23.4	66.61	-	-	74	-7.39	303	195	H
2	* 2.486	61.4	Pk	32.1	-23.4	70.1	-	-	74	-3.9	303	195	H
3	* 2.484	38.86	RMS	32.1	-23.4	47.56	54	-6.44	-	-	303	195	H
4	* 2.486	40.33	RMS	32.1	-23.4	49.03	54	-4.97	-	-	303	195	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	60.85	Pk	32.1	-23.4	69.55	-	-	74	-4.45	344	352	V
2	* 2.486	61.73	Pk	32.1	-23.4	70.43	-	-	74	-3.57	344	352	V
3	* 2.484	40.16	RMS	32.1	-23.4	48.86	54	-5.14	-	-	344	352	V
4	* 2.484	41.13	RMS	32.1	-23.4	49.83	54	-4.17	-	-	344	352	V

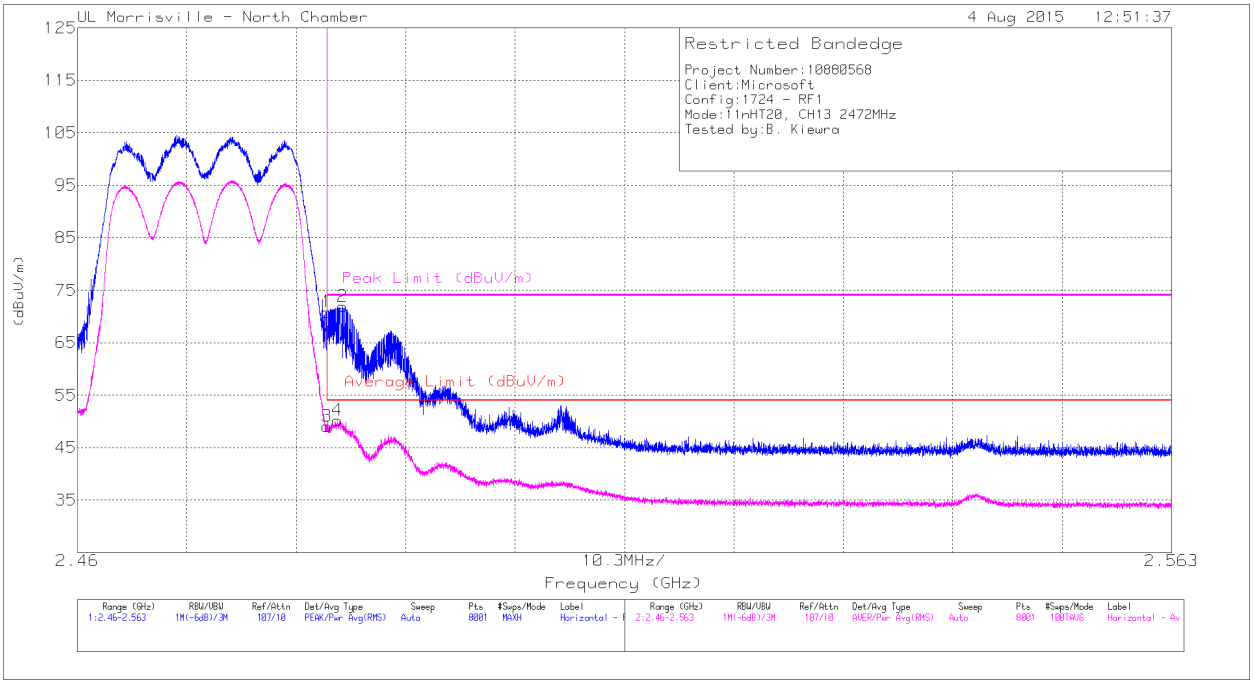
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL 13)

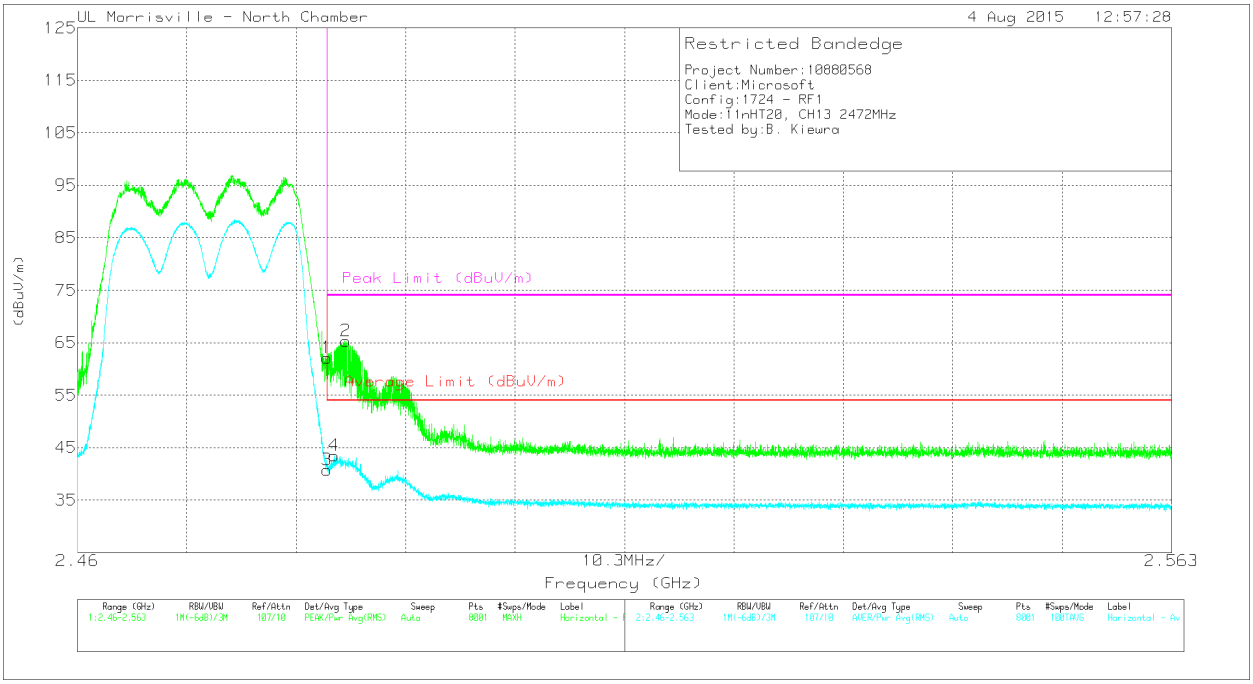
HORIZONTAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	62.14	Pk	32.1	-23.4	70.84	-	-	74	-3.16	164	126	H
2	* 2.485	63.24	Pk	32.1	-23.4	71.94	-	-	74	-2.06	164	126	H
3	* 2.484	40.31	RMS	32.1	-23.4	49.01	54	-4.99	-	-	164	126	H
4	* 2.484	41.44	RMS	32.1	-23.4	50.14	54	-3.86	-	-	164	126	H

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector
RMS - RMS detection

VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	53.38	Pk	32.1	-23.4	62.08	-	-	74	-11.92	278	275	V
2	* 2.485	56.66	Pk	32.1	-23.4	65.36	-	-	74	-8.64	278	275	V
3	* 2.484	32	RMS	32.1	-23.4	40.7	54	-13.3	-	-	278	275	V
4	* 2.484	34.81	RMS	32.1	-23.4	43.51	54	-10.49	-	-	278	275	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

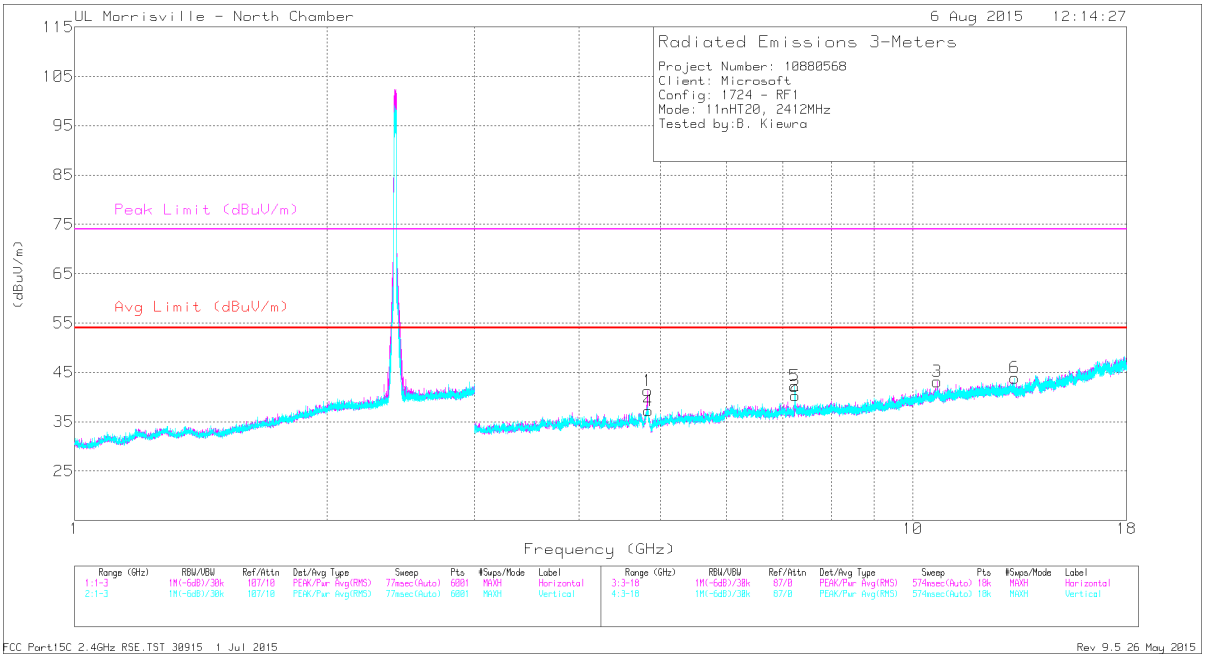
Pk - Peak detector

RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

Note – Channel 1 was set to same power setting as the Mid channel to achieve worst-case results.



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.823	43.48	PK2	34.1	-30.8	46.78	-	-	74	-27.22	211	298	H
	* 4.823	32.39	MAv1	34.1	-30.8	35.69	54	-18.31	-	-	211	298	H
2	7.237	32.75	Pk	35.7	-28.2	40.25	-	-	74	-33.75	0-360	101	H
3	* 10.712	34.93	PK2	37.8	-23.4	49.33	-	-	74	-24.67	93	323	H
	* 10.692	23.27	MAv1	37.8	-23.3	37.77	54	-16.23	-	-	93	323	H
4	* 4.824	40.93	PK2	34.1	-30.8	44.23	-	-	74	-29.77	217	111	V
	* 4.828	30.04	MAv1	34.1	-30.7	33.44	54	-20.56	-	-	217	111	V
5	7.231	34.84	Pk	35.7	-28.3	42.24	-	-	74	-31.76	0-360	200	V
6	13.236	30.29	Pk	39.2	-25.6	43.89	-	-	74	-30.11	0-360	200	V

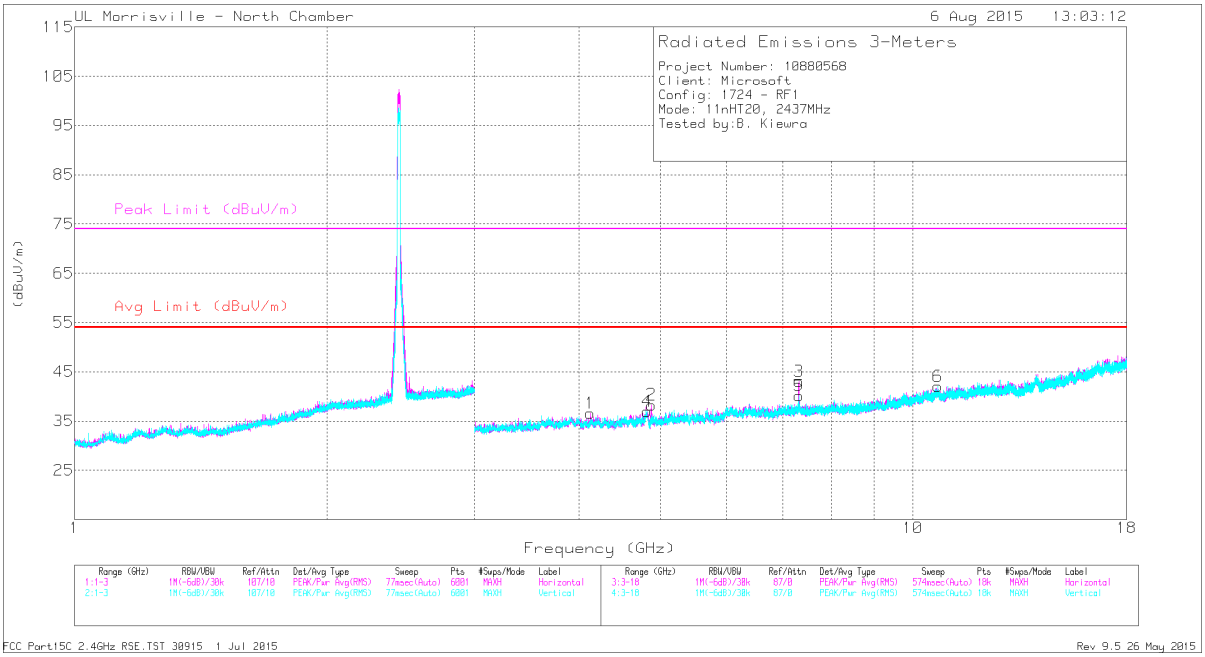
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.121	41.65	PK2	33.7	-31.8	43.55	-	-	74	-30.45	160	396	H
	* 4.121	30.31	MAv1	33.7	-31.8	32.21	54	-21.79	-	-	160	396	H
2	* 4.878	43.41	PK2	34.1	-30.4	47.11	-	-	74	-26.89	228	227	H
	* 4.872	32.15	MAv1	34.1	-30.4	35.85	54	-18.15	-	-	228	227	H
3	* 7.306	41.67	PK2	35.7	-27.9	49.47	-	-	74	-24.53	249	360	H
	* 7.315	28.22	MAv1	35.7	-27.9	36.02	54	-17.98	-	-	249	360	H
4	* 4.819	41.73	PK2	34.1	-30.8	45.03	-	-	74	-28.97	294	240	V
	* 4.82	29.97	MAv1	34.1	-30.8	33.27	54	-20.73	-	-	294	240	V
5	* 7.313	41.02	PK2	35.7	-27.8	48.92	-	-	74	-25.08	204	198	V
	* 7.312	27.77	MAv1	35.7	-27.8	35.67	54	-18.33	-	-	204	198	V
6	* 10.718	35.11	PK2	37.8	-23.4	49.51	-	-	74	-24.49	305	157	V
	* 10.719	23.28	MAv1	37.8	-23.4	37.68	54	-16.32	-	-	305	157	V

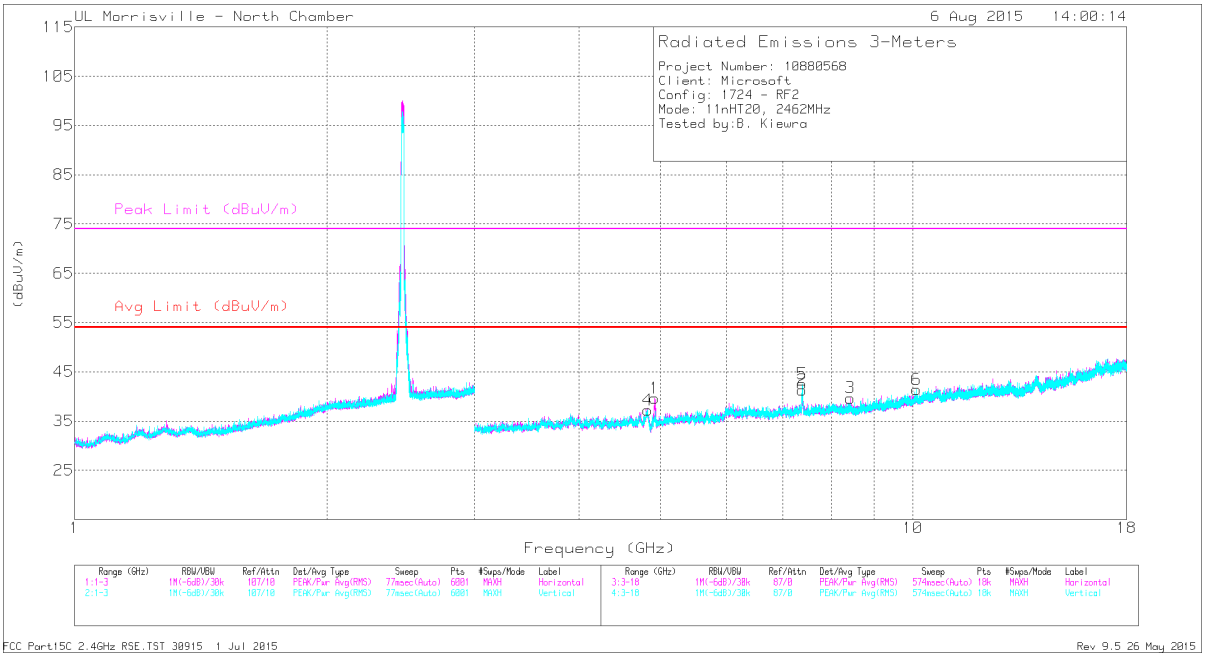
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (11)

Note – Channel 11 was set to same power setting as the Mid channel to achieve worst-case results.



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.923	44.8	PK2	34.1	-30.9	48	-	-	74	-26	204	240	H
	* 4.924	33.11	MAv1	34.1	-30.9	36.31	54	-17.69	-	-	204	240	H
2	* 7.375	45.27	PK2	35.8	-27.9	53.17	-	-	74	-20.83	252	327	H
	* 7.384	30.9	MAv1	35.8	-27.9	38.8	54	-15.2	-	-	252	327	H
3	* 8.42	36.86	PK2	35.9	-26.7	46.06	-	-	74	-27.94	345	210	H
	* 8.42	25.22	MAv1	35.9	-26.7	34.42	54	-19.58	-	-	345	210	H
4	* 4.819	41.09	PK2	34.1	-30.8	44.39	-	-	74	-29.61	270	164	V
	* 4.828	29.75	MAv1	34.1	-30.7	33.15	54	-20.85	-	-	270	164	V
5	* 7.375	46.66	PK2	35.8	-27.9	54.56	-	-	74	-19.44	94	384	V
	* 7.387	32.5	MAv1	35.8	-27.9	40.4	54	-13.6	-	-	94	384	V
6	10.102	28.79	Pk	37.4	-24.8	41.39	-	-	74	-32.61	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

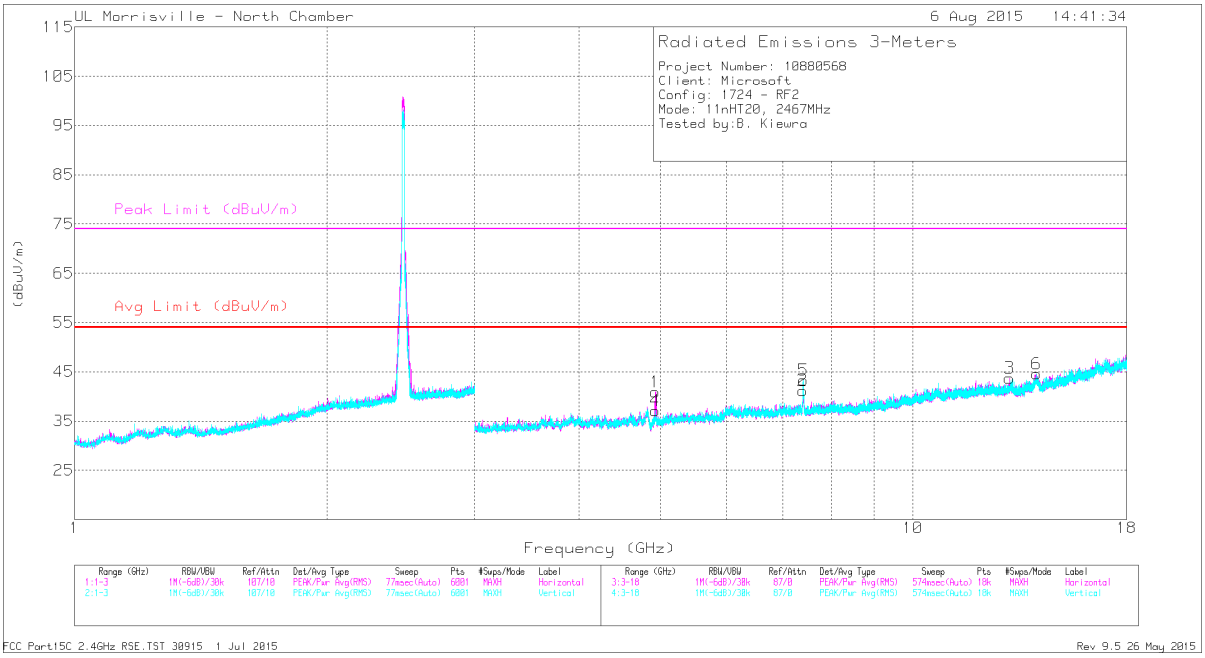
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (12)

Note – Channel 12 was set to same power setting as the Mid channel to achieve worst-case results.



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.934	47.59	PK2	34.1	-31	50.69	-	-	74	-23.31	228	227	H
	* 4.934	34.85	MAv1	34.1	-31	37.95	54	-16.05	-	-	228	227	H
2	* 7.405	43.66	PK2	35.8	-27.9	51.56	-	-	74	-22.44	242	250	H
	* 7.399	30.13	MAv1	35.8	-27.9	38.03	54	-15.97	-	-	242	250	H
3	13.044	28.76	Pk	39.3	-24.3	43.76	-	-	74	-30.24	0-360	200	H
4	* 4.938	40.82	PK2	34.1	-31	43.92	-	-	74	-30.08	227	217	V
	* 4.934	29.98	MAv1	34.1	-31	33.08	54	-20.92	-	-	227	217	V
5	* 7.403	46.61	PK2	35.8	-27.9	54.51	-	-	74	-19.49	87	248	V
	* 7.404	32.49	MAv1	35.8	-27.9	40.39	54	-13.61	-	-	87	248	V
6	14.057	28.96	Pk	39.2	-23.6	44.56	-	-	74	-29.44	0-360	200	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

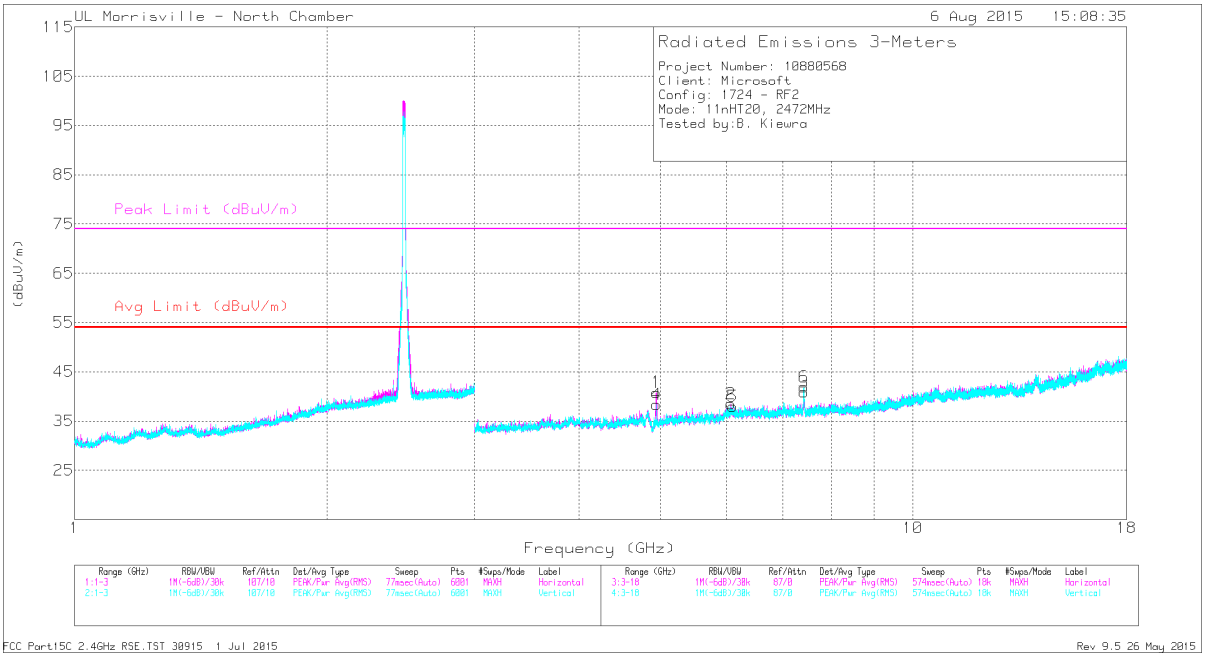
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL (13)

Note – Channel 13 was set to same power setting as the Mid channel to achieve worst-case results.



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF AT0072 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.943	44.99	PK2	34.1	-31.1	47.99	-	-	74	-26.01	206	102	H
	* 4.944	33.27	MAv1	34.1	-31.1	36.27	54	-17.73	-	-	206	102	H
3	* 7.409	43.13	PK2	35.8	-27.9	51.03	-	-	74	-22.97	251	210	H
	* 7.416	29.31	MAv1	35.8	-27.8	37.31	54	-16.69	-	-	251	210	H
4	* 4.949	41.74	PK2	34.1	-31.2	44.64	-	-	74	-29.36	7	346	V
	* 4.944	30.48	MAv1	34.1	-31.1	33.48	54	-20.52	-	-	7	346	V
6	* 7.406	45.85	PK2	35.8	-27.9	53.75	-	-	74	-20.25	74	241	V
	* 7.417	31.61	MAv1	35.8	-27.7	39.71	54	-14.29	-	-	74	241	V
2	6.071	31.75	Pk	35.2	-28.4	38.55	-	-	74	-35.45	0-360	101	H
5	6.096	31.66	Pk	35.2	-28.9	37.96	-	-	74	-36.04	0-360	101	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

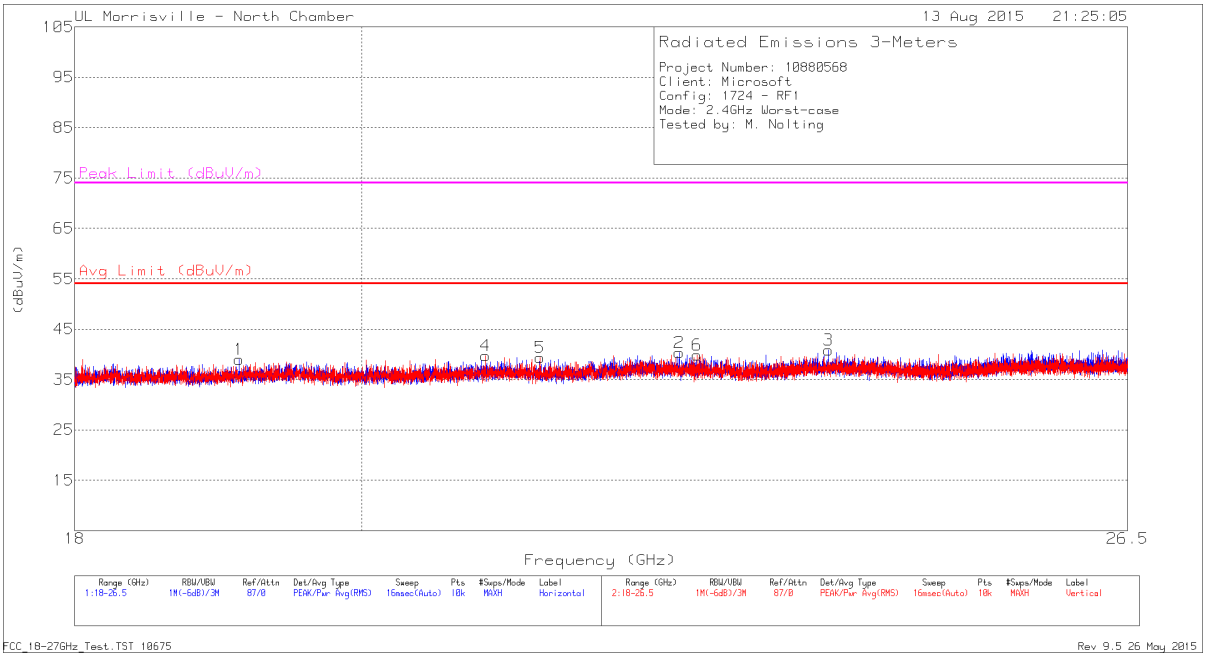
Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.3. WORST-CASE 18-26 GHz

SPURIOUS EMISSIONS 18 to 26 GHz (WORST-CASE CONFIGURATION)

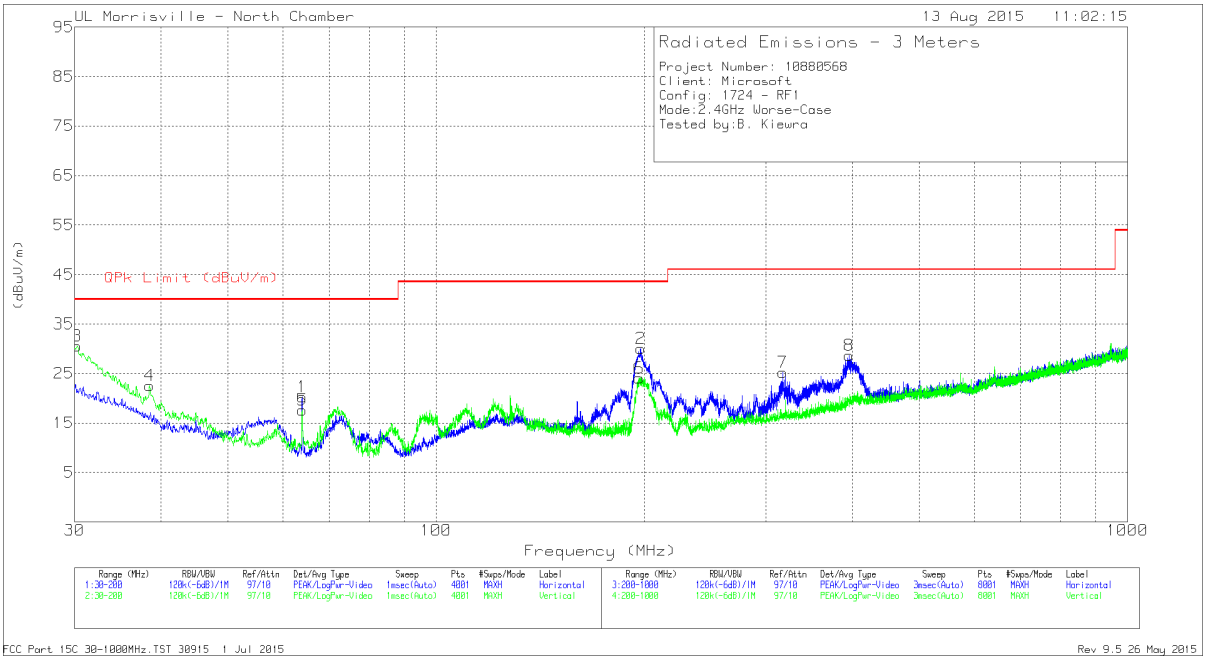


Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF & G/L (dB/m)	Dist Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)
1	* 19.119	41.2	Pk	7.3	-9.5	39	54	-15	74	-35	0-360
2	* 22.477	38.7	Pk	11.2	-9.5	40.4	54	-13.6	74	-33.6	0-360
3	* 23.74	38.72	Pk	11.6	-9.5	40.82	54	-13.18	74	-33.18	0-360
4	* 20.934	39.34	Pk	9.9	-9.5	39.74	54	-14.26	74	-34.26	0-360
5	* 21.356	38.99	Pk	9.9	-9.5	39.39	54	-14.61	74	-34.61	0-360
6	* 22.626	38.14	Pk	11.2	-9.5	39.84	54	-14.16	74	-34.16	0-360

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
Pk - Peak detector

9.4. WORST-CASE BELOW 1 GHz

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



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF JB3 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	64	39.8	Pk	11.7	-31.2	20.3	40	-19.7	0-360	299	H
2	197.4925	43.43	Pk	16.7	-30.1	30.03	43.52	-13.49	0-360	100	H
7	317.3	36.67	Pk	17.9	-29.4	25.17	46.02	-20.85	0-360	102	H
8	395.8	37.93	Pk	19.7	-29	28.63	46.02	-17.39	0-360	102	H
3	30.255	37.1	Pk	25	-31.6	30.5	40	-9.5	0-360	102	V
4	38.5	35	Pk	19	-31.5	22.5	40	-17.5	0-360	102	V
5	64	37.11	Pk	11.7	-31.2	17.61	40	-22.39	0-360	102	V
6	196.6425	37.72	Pk	16.5	-30.1	24.12	43.52	-19.4	0-360	102	V

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

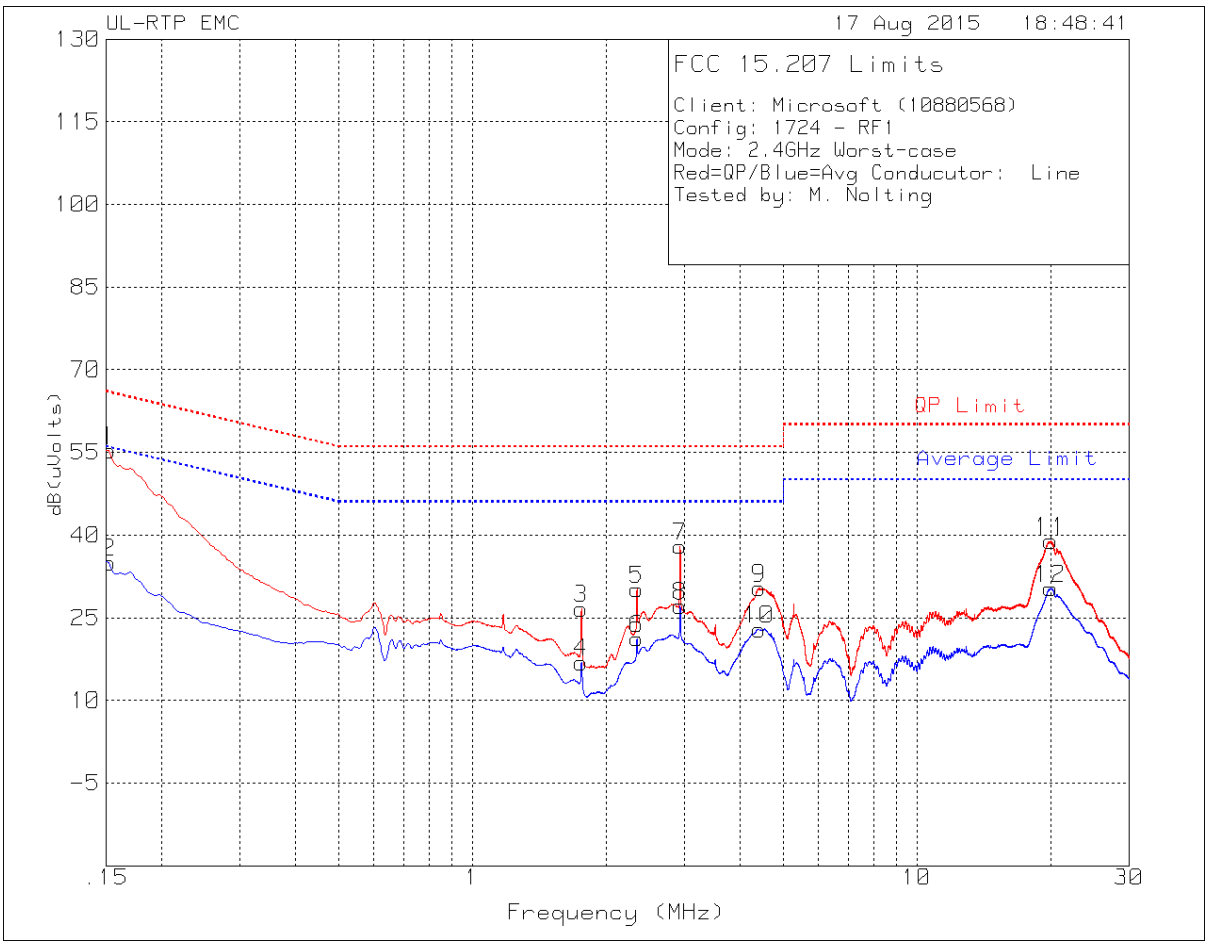
* Decreases with the logarithm of the frequency.

TEST PROCEDURE

ANSI C63.10

RESULTS

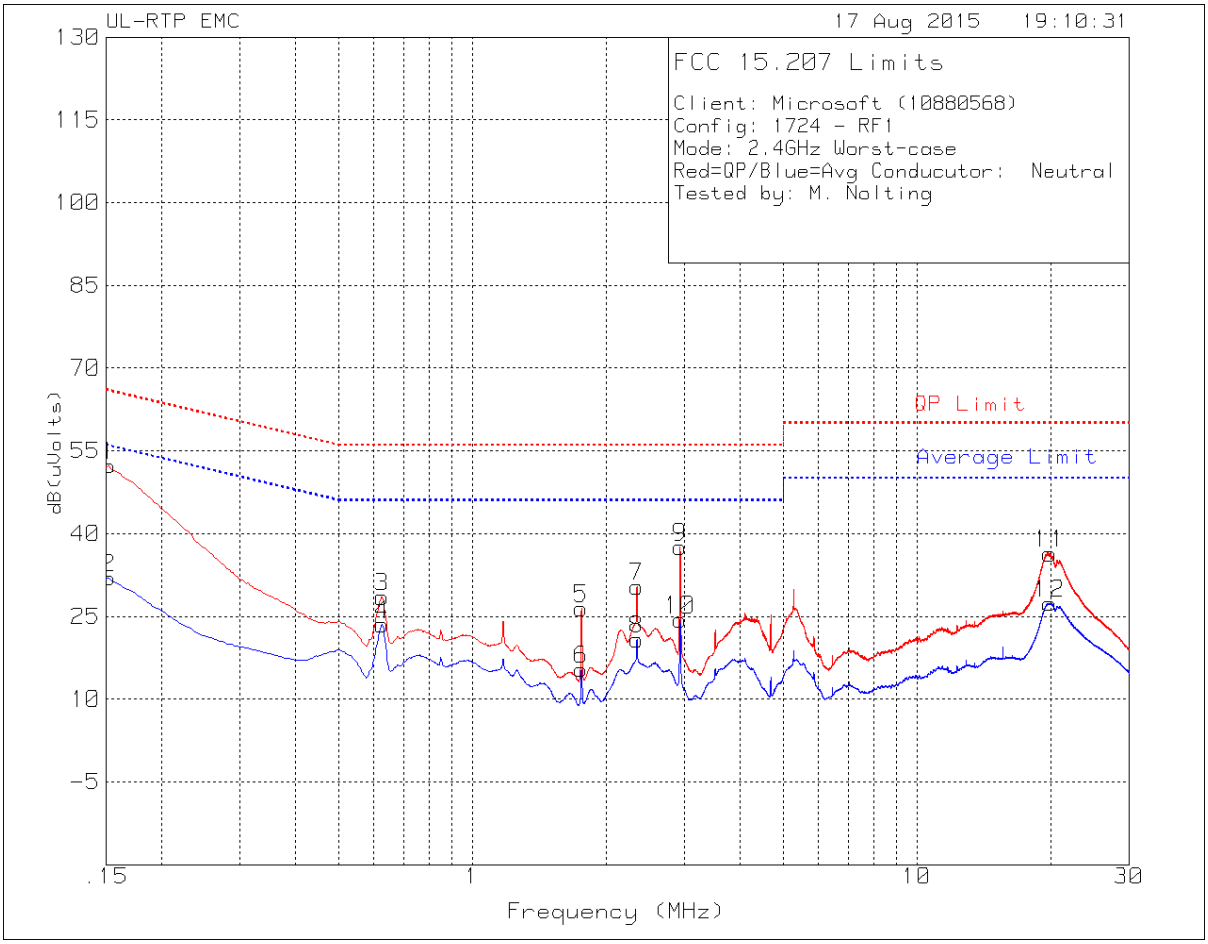
LINE 1 RESULTS



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Limiter/Cbl (dB)	Corrected Reading dB(uVolts)	QP Limit	Margin (dB)	Average Limit	Margin (dB)
1	.15225	45.63	Qp	.4	9.3	55.33	65.88	-10.55	-	-
2	.15225	25.3	Ca	.4	9.3	35	-	-	55.88	-20.88
3	1.75875	17.26	Qp	0	9.4	26.66	56	-29.34	-	-
4	1.75875	7.52	Ca	0	9.4	16.92	-	-	46	-29.08
5	2.346	20.75	Qp	0	9.4	30.15	56	-25.85	-	-
6	2.346	11.85	Ca	0	9.4	21.25	-	-	46	-24.75
7	2.93325	28.56	Qp	0	9.4	37.96	56	-18.04	-	-
8	2.93325	17.69	Ca	0	9.4	27.09	-	-	46	-18.91
9	4.42275	20.86	Qp	.1	9.4	30.36	56	-25.64	-	-
10	4.41825	13.37	Ca	.1	9.4	22.87	-	-	46	-23.13
11	20.00175	29	Qp	.2	9.7	38.9	60	-21.1	-	-
12	20.0085	20.43	Ca	.2	9.7	30.33	-	-	50	-19.67

Qp - Quasi-Peak detector
Ca - CISPR average detection

LINE 2 RESULTS



Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VCF (dB)	Limiter/Cbl (dB)	Corrected Reading dB(uVolts)	QP Limit	Margin (dB)	Average Limit	Margin (dB)
1	.15225	42.64	Qp	.4	9.3	52.34	65.88	-13.54	-	-
2	.15225	22.33	Ca	.4	9.3	32.03	-	-	55.88	-23.85
3	.627	19.01	Qp	.1	9.4	28.51	56	-27.49	-	-
4	.627	14.01	Ca	.1	9.4	23.51	-	-	46	-22.49
5	1.75875	17.03	Qp	0	9.4	26.43	56	-29.57	-	-
6	1.75875	6	Ca	0	9.4	15.4	-	-	46	-30.6
7	2.346	21	Qp	0	9.4	30.4	56	-25.6	-	-
8	2.346	11.45	Ca	0	9.4	20.85	-	-	46	-25.15
9	2.931	28.12	Qp	0	9.4	37.52	56	-18.48	-	-
10	2.931	14.98	Ca	0	9.4	24.38	-	-	46	-21.62
11	19.914	26.6	Qp	.2	9.6	36.4	60	-23.6	-	-
12	19.914	17.57	Ca	.2	9.6	27.37	-	-	50	-22.63

Qp - Quasi-Peak detector
Ca - CISPR average detection