FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-247 ISSUE 1

CERTIFICATION TEST REPORT

FOR

2400 to 2500MHz TRANSCEIVER

MODEL NUMBER: A43364A, A43364C*

FCC ID: X7J-A16020401
IC: 8975A-A16020401

REPORT NUMBER: 16M23387-E1V3

ISSUE DATE: AUGUST 24, 2016

Prepared for
ANAREN, INC.
6635 KIRKVILLE RD.
EAST SYRACUSE, NY, 13057, USA

Prepared by
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*Model differences are explained in the body of this report

NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	6/8/2016	Initial Issue	--
V2	8/23/2016	Updated limit table in section 10.1 Added section 10.5 for emissions below 30 MHz Updated section 11 with set up photos for below 30 MHz emissions	Huda Mustapha
V3	8/24/2016	Updated section 5.5 with open test site correlation statement	Huda Mustapha

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: ANAREN, INC.
6635 KIRKVILLE RD.
EAST SYRACUSE, NY, 13057, USA

EUT DESCRIPTION: 2400 to 2500MHz Transceiver

MODEL: A43364A, A43364C

SERIAL NUMBER: Conducted: 5C (A43364C)
Radiated: 1A (A43364A) & 10C (A43364C)

DATE TESTED: MAY 23 to AUGUST 23, 2016

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-247 Issue 1	Pass
INDUSTRY CANADA RSS-GEN Issue 4	Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Verification Services Inc. By:

Huda Mustapha

HUDA MUSTAPHA
WiSE PROJECT LEAD
UL Verification Services Inc.

Tested By:

JASON QIAN
EMC LABORATORY ENGINEER
UL Verification Services Inc.

FRANK IBRAHIM
PROGRAM MANAGER
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2013, RSS-GEN Issue 4, RSS-247 Issue 1, and KDB 558074 D01 v03r05.

3. FACILITIES AND ACCREDITATION

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

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
☒ Chamber A	☐ Chamber D
☐ Chamber B	☐ Chamber E
☒ Chamber C	☐ Chamber F
	☐ Chamber G
	☐ Chamber H

The above test sites and facilities are covered under FCC Test Firm Registration # 208313. Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://ts.nist.gov/standards/scopes/2000650.htm.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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
Conducted Disturbance, 0.15 to 30 MHz	± 3.52 dB
Radiated Disturbance, 9KHz to 30 MHz	± 3.15 dB
Radiated Disturbance, 30 to 1000 MHz	± 4.94 dB
Radiated Disturbance, 1 to 6 GHz	± 3.86 dB
Radiated Disturbance, 6 to 18 GHz	± 4.23 dB
Radiated Disturbance, 18 to 26 GHz	± 5.30 dB
Radiated Disturbance, 26 to 40 GHz	± 5.23 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an integrated Wi-Fi radio module that operates within 2400 to 2500 MHz frequency band.

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 - 2462	802.11b	24.35	272.27
2412 - 2462	802.11g	22.28	169.04
2412 - 2462	802.11n HT20	22.07	161.06

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integral printed antenna, with a maximum gain of 2 dBi and an external monopole antenna with a maximum gain of 3 dBi.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was revision 1.0.0.0.
The EUT driver software installed in the host support equipment during testing is FTDI v2.10.0.
The test utility software used during testing was A43364X Certification Test, rev. 1.0.0.0.

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission below 1 GHz and above 18 GHz, as well as AC power line conducted emissions 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 it was determined that Z orientation was worst-case for both antenna types; therefore, all final radiated testing was performed with the EUT in Z orientation for both antenna types.

Based on baseline scans, the worst-case data rates were as follows:

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

Models A43364A and A43364C are identical, except model A43364A has an integral printed 2dBi antenna while model A43364C has a U.FL connector for connection of an external monopole 3dBi antenna.

Based on the differences explained above, for antenna port testing, model A43364C was considered representative of model A43364A. For radiated emissions testing, both models A43364A and A43364C were tested.

For radiated emissions below 30 MHz, although this testing was performed at other than open area test site, adequate comparison measurements were confirmed against 30 m open area test site. Sufficient tests were made to demonstrate that the alternative site produces results that correlate with those obtained at an open field based on KDB 937606.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List			
Description	**Manufacturer**	**Model**	**Serial Number**
Laptop	Lenovo	T450	N/A
AC/DC Adapter	Lenovo	ADLX90NCC2A	N/A
Transceiver Evaluation Board	Anaren	A43364	N/A
Evaluation Board	Anaren	WES-12353	N/A
AC/DC Adapter (For EUT)	Unknown	JD-050-020	N/A

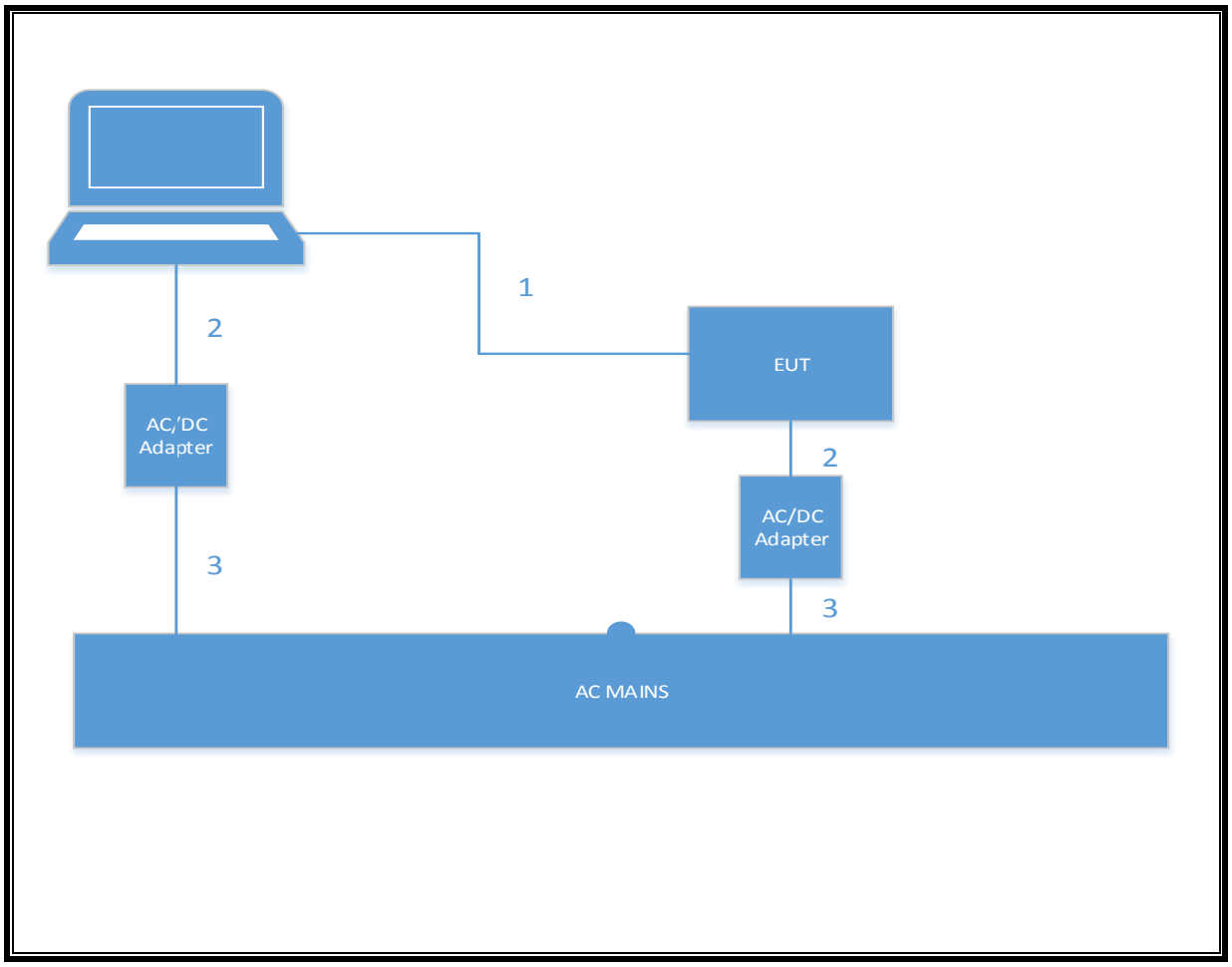
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	USB	1	Molex	Shielded	1.8	TTL to UART 6-pin adapter cable
2	DC	2	DC Plug	Shielded	1.5	Ferrite Bead at Laptop
3	AC	2	US120VAC	Unshielded	1.5	N/A

TEST SETUP

The EUT was installed in an evaluation board, which was in turn connected to a laptop computer via a TTL-232R -3V3 cable during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	**Manufacturer**	**Model**	**T Number**	**Cal Due**
Amplifier, 1-8GHz, 35 dB	Miteq	AMF-4D-01000800-30-29P	1156	03/09/17
Amplifier, 1-8GHz, 35 dB	Miteq	AMF-4D-01000800-30-29P	1172	07/20/16
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	122	01/29/17
Antenna, Horn, 18GHz	EMCO	3115	59	11/18/16
Antenna, Horn, 18GHz	ETS Lindgren	3117	344	02/22/17
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	447	05/30/16
Antenna, Loop Antenna Below 30MHz	EMCO	6502	35	03/24/17
ESR7 EMI Test Receiver 7GHz	Rohde & Schwarz	ESR	1436	12/19/16
High Pass Filter 3GHz	Micro-Tronics	HPS17543	485	03/09/17
LISN, 30 MHz	FCC	FCC-LISN-50/250-25-2	24	2/9/2017
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	482	03/09/17
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	481	07/20/16
Peak Power Meter	Agilent / HP	N1911A	1268	07/06/17
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	88	04/07/17
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	404	06/29/16
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	99	06/10/16
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	PRE0126762	03/09/17
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	907	01/06/17
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	1210	01/07/17
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	PRE0126777	12/21/16

Test Equipment List					
Description	**Manufacturer**	**Model**	**T No.**	**Cal Date**	**Cal Due**
Radiated Software	UL	UL EMC	Ver 9.5, June 24, 2015		
Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015		
Antenna Port Software	UL	UL RF	Ver 4.2, Mar 7, 2016		

7. MEASUREMENT METHODS

On Time and Duty Cycle: KDB 558074 D01 v03r05, Section 6.0.

6 dB BW: KDB 558074 D01 v03r05, Section 8.1.

99% BW: ANSI C63.10-2013, Section 6.9.3.

Output Power: KDB 558074 D01 v03r05, Section 9.2.3.2.

Power Spectral Density: KDB 558074 D01 v03r05, Section 10.3.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r05, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r05, Section 12.1.

AC Power Line Conducted Emissions: ANSI C63.10-2013 Section 6.2.

8. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result
15.247 (a)(2)	RSS-247 5.2.1	Occupied Band width (6dB)	>500KHz	Conducted	Pass
N/A	RSS-Gen 6.6	Emission Bandwidth (99%)	N/A		N/A
2.1051, 15.247 (d)	RSS-247 5.5	Band Edge / Conducted Spurious Emission	-30dBc		Pass
15.247	RSS-247 5.4.4	TX conducted output power	<30dBm		Pass
15.247	RSS-247 5.2.2	PSD	<8dBm		Pass
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass
15.205, 15.209, 15.247(d)	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m		Pass

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

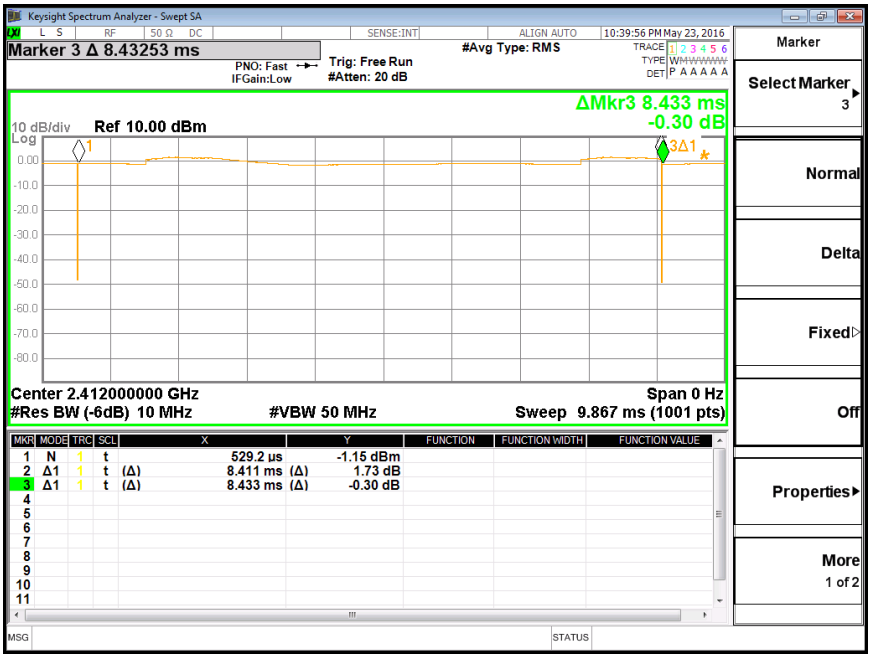
ON TIME AND DUTY CYCLE RESULTS

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	8.411	8.433	0.997	99.74%	0.00	0.010
802.11g	1.396	1.417	0.985	98.52%	0.00	0.010
802.11n HT20	1.308	1.329	0.984	98.42%	0.00	0.010

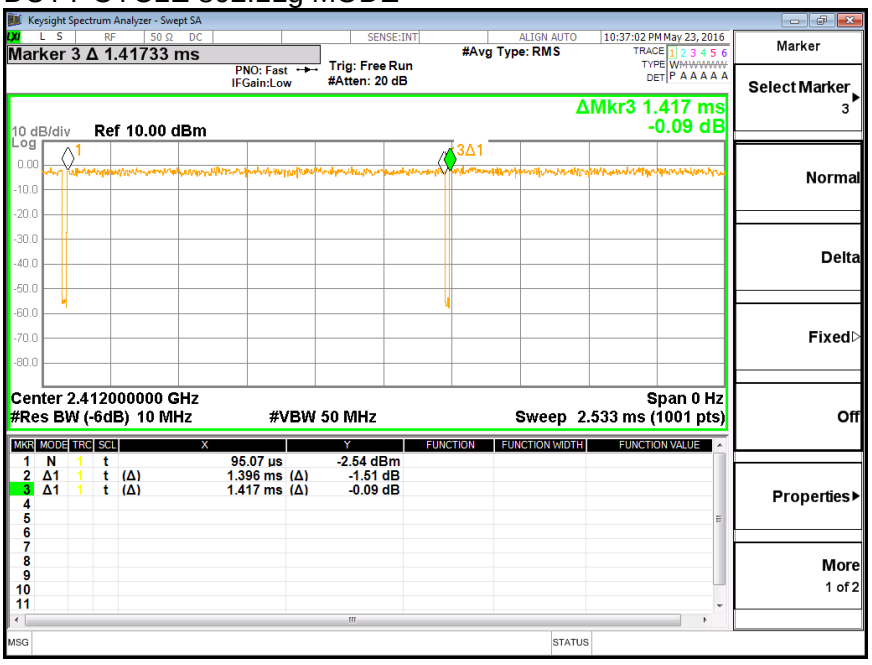
DUTY CYCLE PLOTS

2.4 GHz BAND

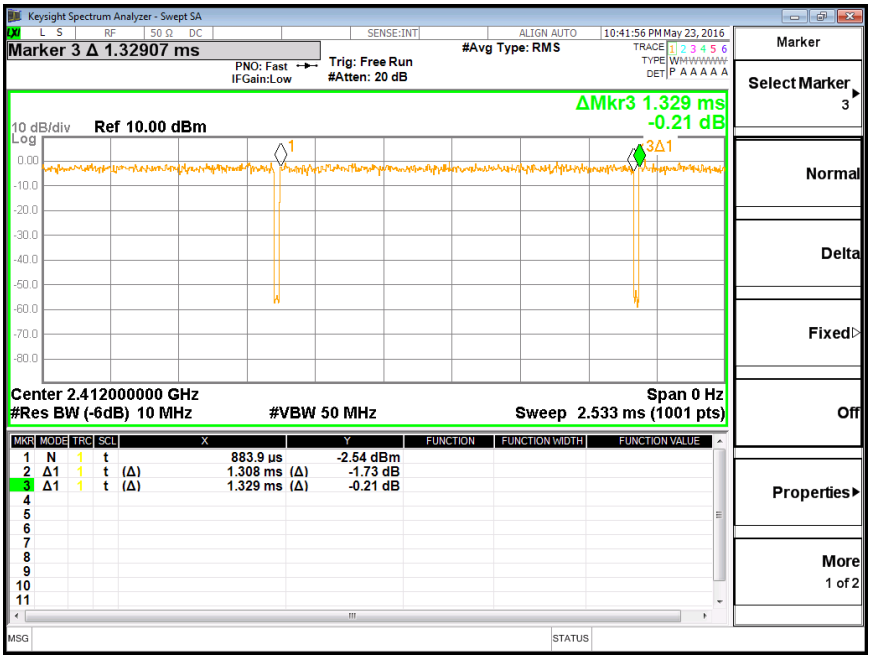
DUTY CYCLE 802.11b MODE



DUTY CYCLE 802.11g MODE



DUTY CYCLE 802.11n HT20 MODE



9.2. 802.11b MODE IN THE 2.4 GHz BAND

9.2.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

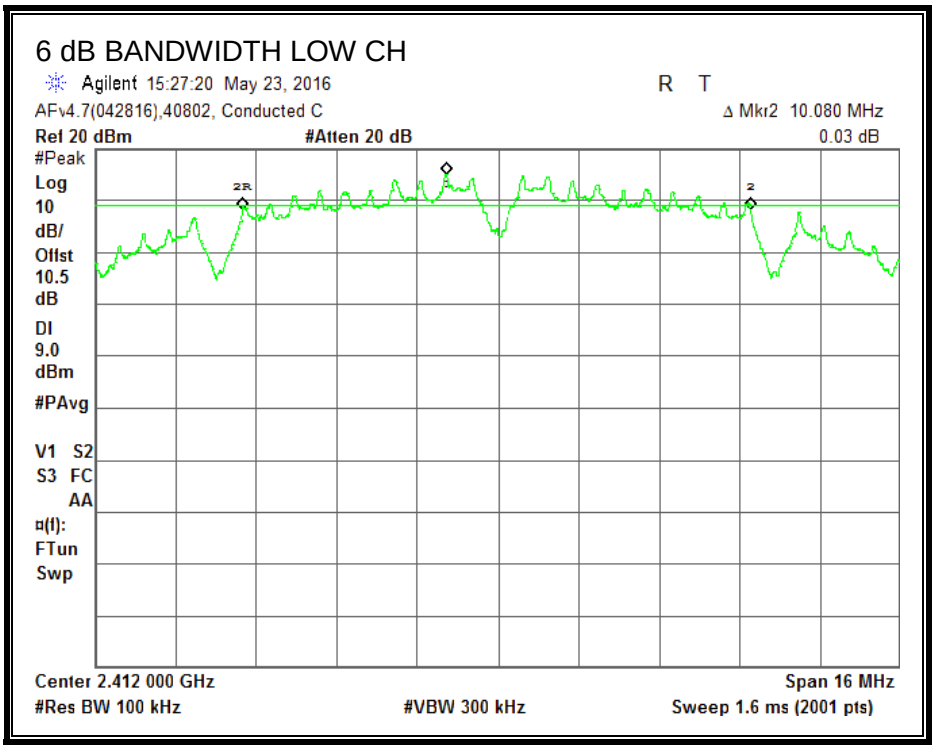
IC RSS-247 Clause 5.2 (1)

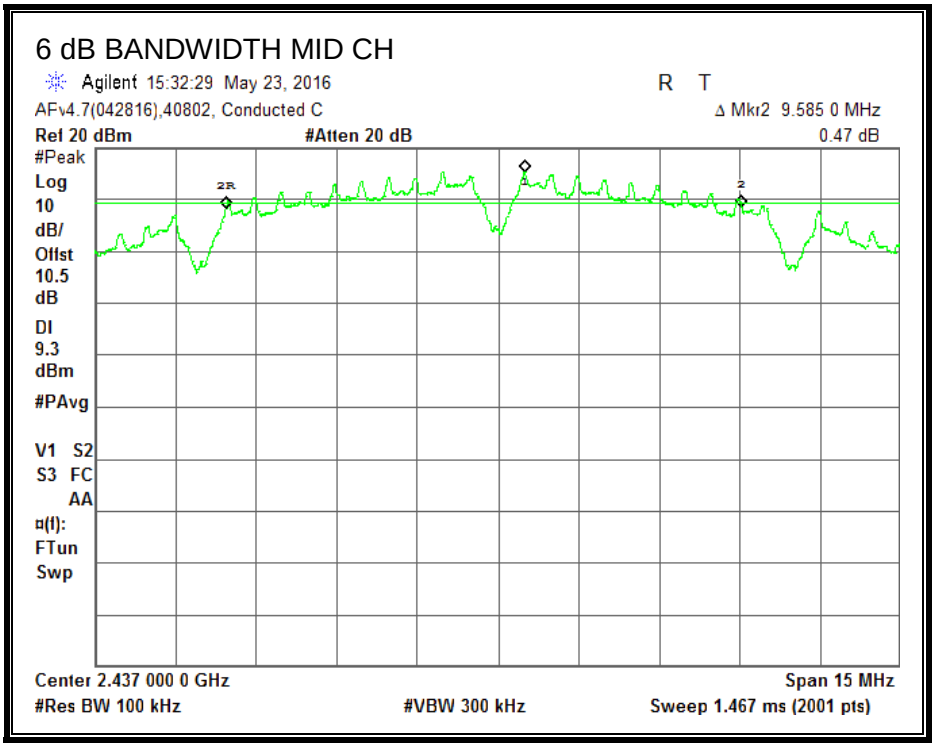
The minimum 6 dB bandwidth shall be at least 500 kHz.

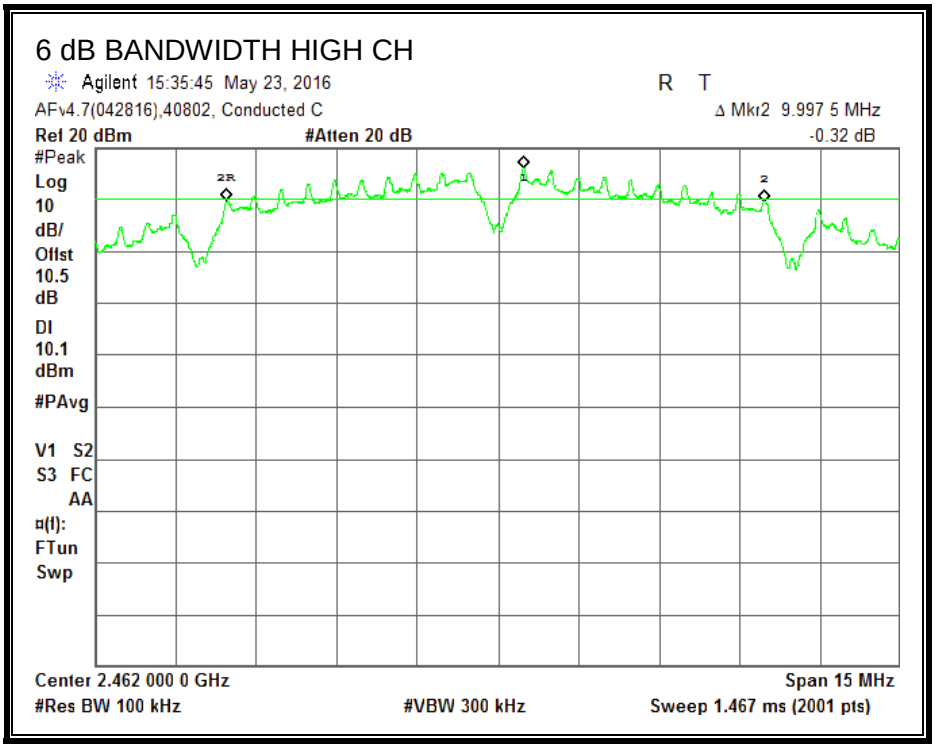
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	10.080	0.5
Mid	2437	9.585	0.5
High	2462	9.998	0.5

6 dB BANDWIDTH







9.2.1. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RSS-GEN 6.6

TEST PROCEDURE

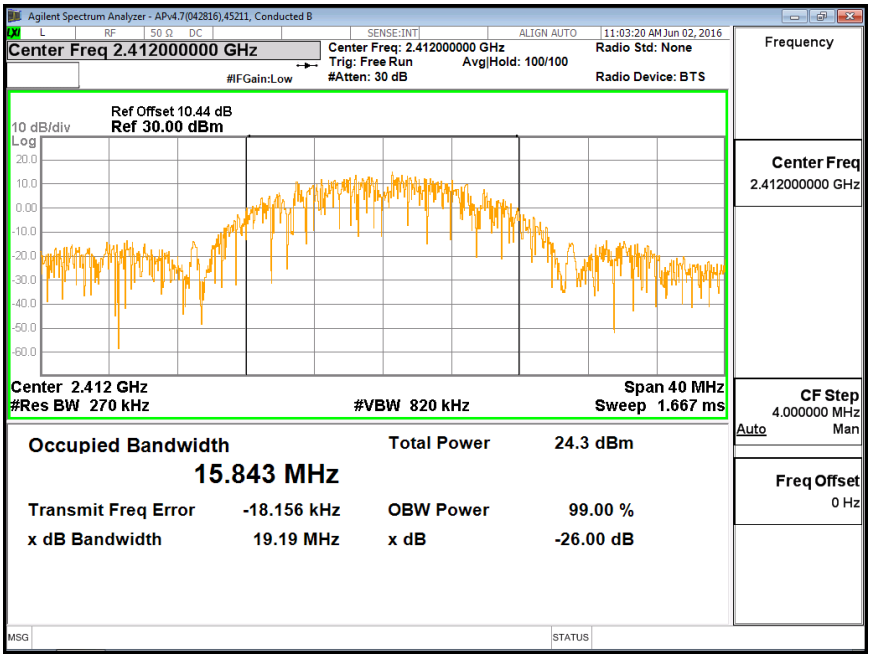
ANSI C63.10: 2013 Section 6.9.3

RESULTS

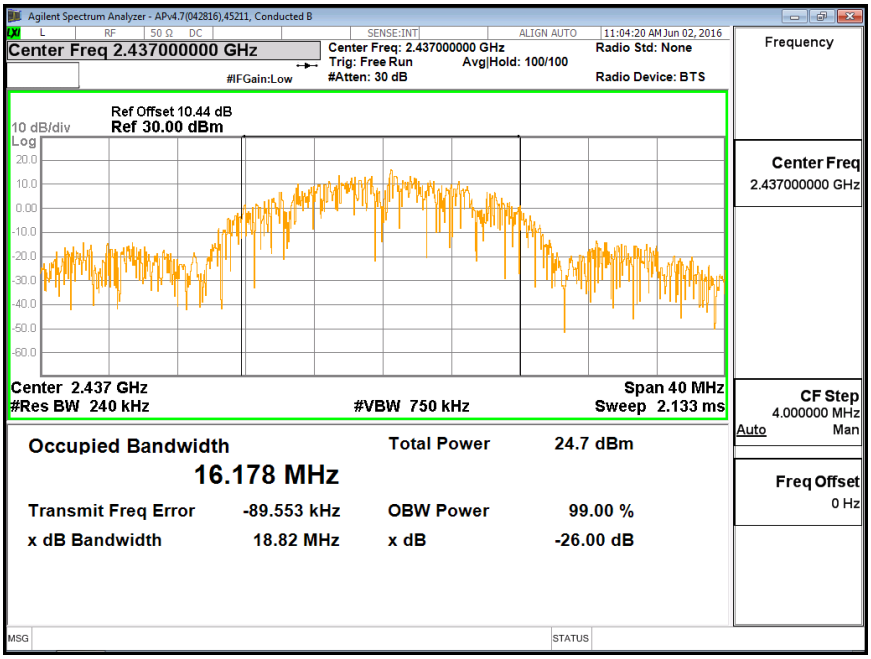
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	15.843
Mid	2437	16.178
High	2462	16.394

99% BANDWIDTH

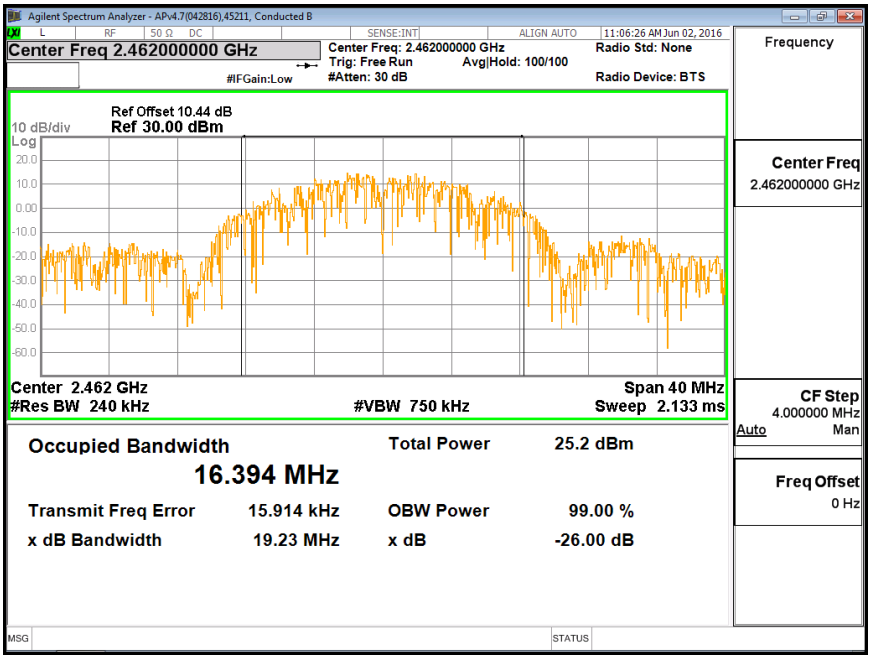
BANDWIDTH LOW CH



BANDWIDTH MID CH



BANDWIDTH HIGH CH



9.2.2. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 Clause 5.4(4)

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

2dBi Antenna

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
1	2412	2.00	30.00	30	36	30.00
2	2417	2.00	30.00	30	36	30.00
3	2422	2.00	30.00	30	36	30.00
4	2427	2.00	30.00	30	36	30.00
5	2432	2.00	30.00	30	36	30.00
6	2437	2.00	30.00	30	36	30.00
7	2442	2.00	30.00	30	36	30.00
8	2447	2.00	30.00	30	36	30.00
9	2452	2.00	30.00	30	36	30.00
10	2457	2.00	30.00	30	36	30.00
11	2462	2.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
1	2412	22.60	22.60	30.00	-7.40
2	2417	22.90	22.90	30.00	-7.10
3	2422	23.96	23.96	30.00	-6.04
4	2427	N/A	N/A	30.00	N/A
5	2432	N/A	N/A	30.00	N/A
6	2437	24.35	24.35	30.00	-5.65
7	2442	23.64	23.64	30.00	-6.36
8	2447	21.64	21.64	30.00	-8.36
9	2452	21.10	21.10	30.00	-8.90
10	2457	19.86	19.86	30.00	-10.14
11	2462	18.95	18.95	30.00	-11.05

Note 1: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

Note 2: Channels with “N/A” were not tested because the adjacent channels reached the highest power setting of the radio.

3dBi Antenna

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
1	2412	3.00	30.00	30	36	30.00
2	2417	3.00	30.00	30	36	30.00
3	2422	3.00	30.00	30	36	30.00
4	2427	3.00	30.00	30	36	30.00
5	2432	3.00	30.00	30	36	30.00
6	2437	3.00	30.00	30	36	30.00
7	2442	3.00	30.00	30	36	30.00
8	2447	3.00	30.00	30	36	30.00
9	2452	3.00	30.00	30	36	30.00
10	2457	3.00	30.00	30	36	30.00
11	2462	3.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
1	2412	21.12	21.12	30.00	-8.88
2	2417	21.94	21.94	30.00	-8.06
3	2422	23.37	23.37	30.00	-6.63
4	2427	23.49	23.49	30.00	-6.51
5	2432	24.00	24.00	30.00	-6.00
6	2437	24.35	24.35	30.00	-5.65
7	2442	23.86	23.86	30.00	-6.14
8	2447	23.35	23.35	30.00	-6.65
9	2452	23.32	23.32	30.00	-6.68
10	2457	21.63	21.63	30.00	-8.37
11	2462	21.38	21.38	30.00	-8.62

Note: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

9.2.3. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 Clause 5.2(2)

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of Section 5.4 (4), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

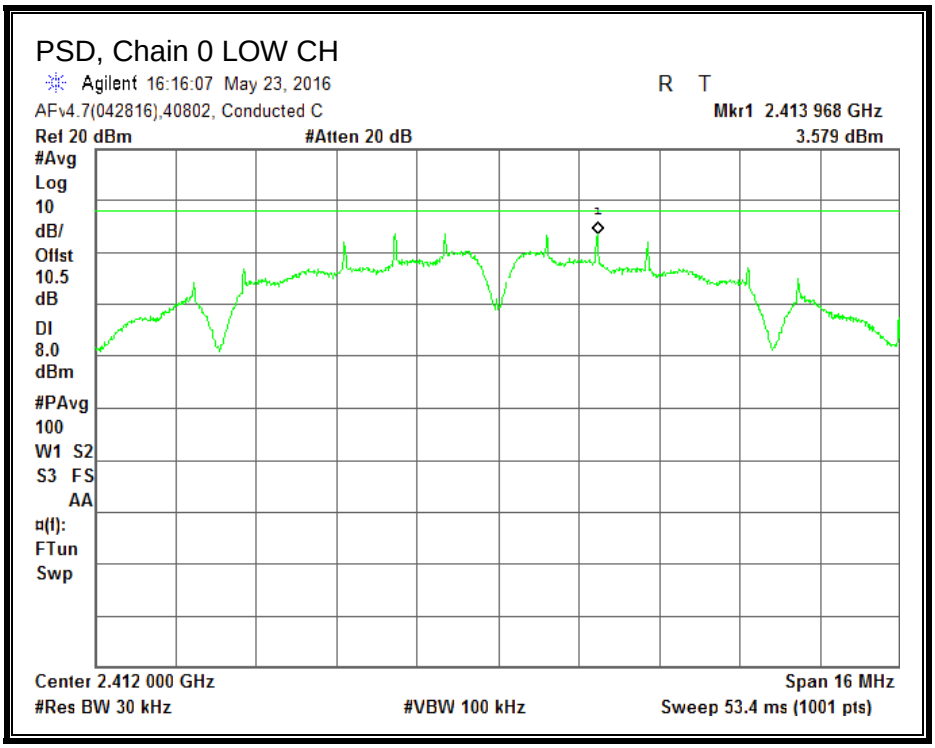
RESULTS

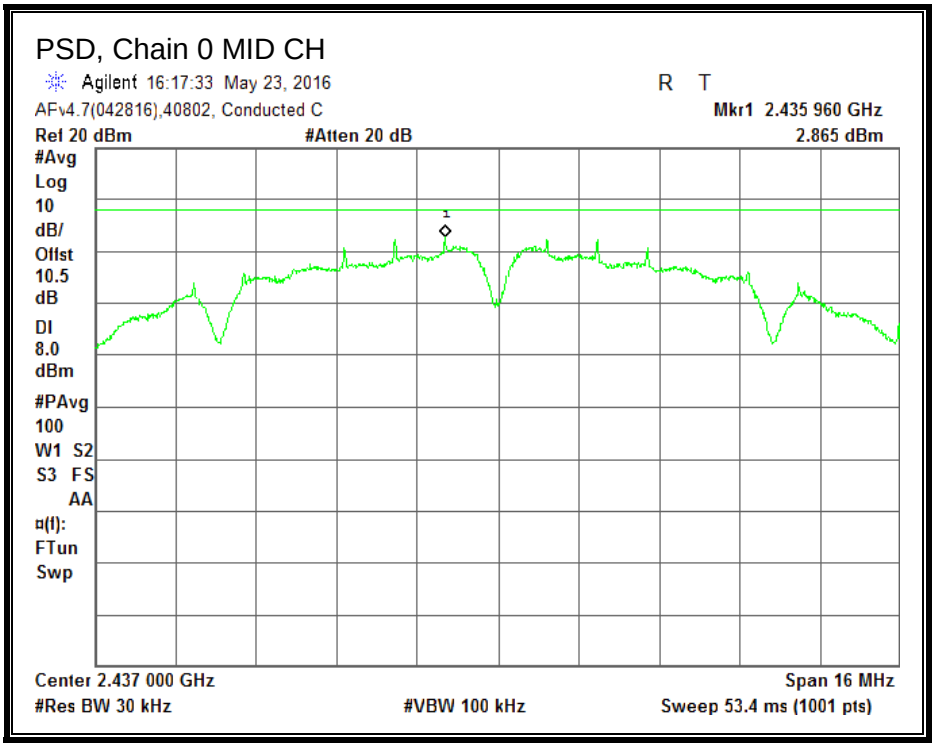
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

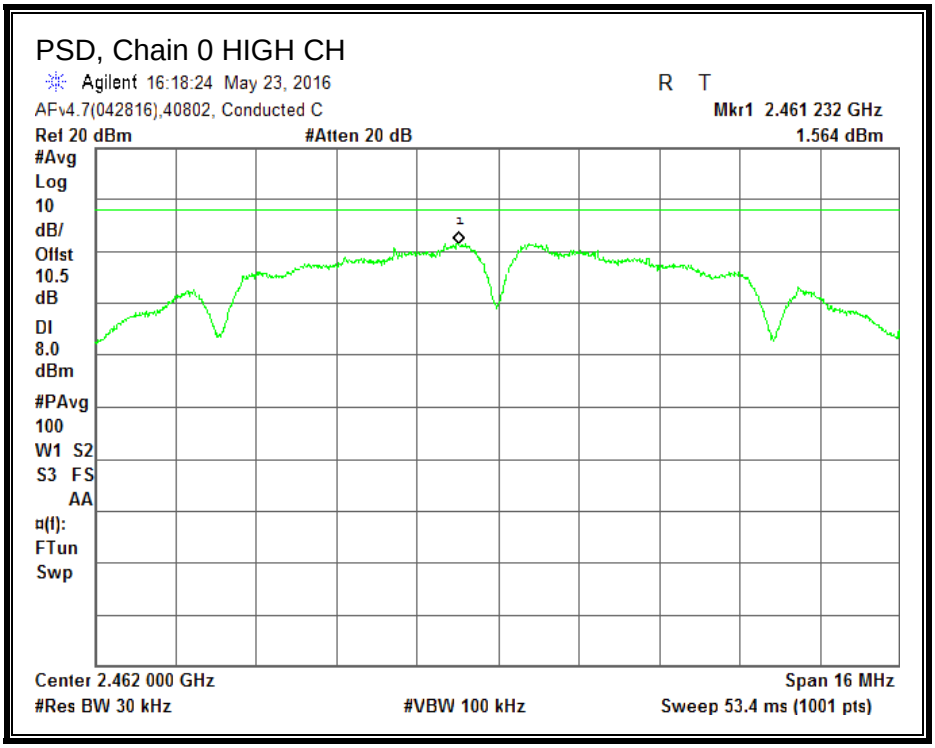
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	3.58	3.58	8.0	-4.4
Mid	2437	2.87	2.87	8.0	-5.1
High	2462	1.56	1.56	8.0	-6.4

PSD, Chain 0







9.2.4. OUT-OF-BAND EMISSIONS

LIMITS

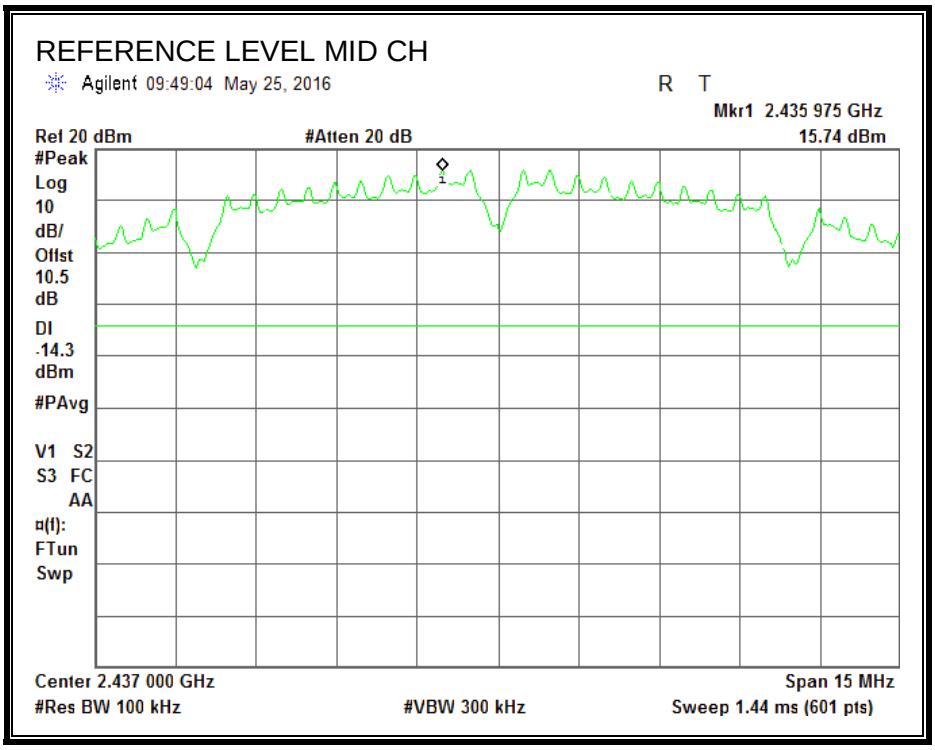
FCC §15.247 (d)

IC RSS-247 Clause 5.5

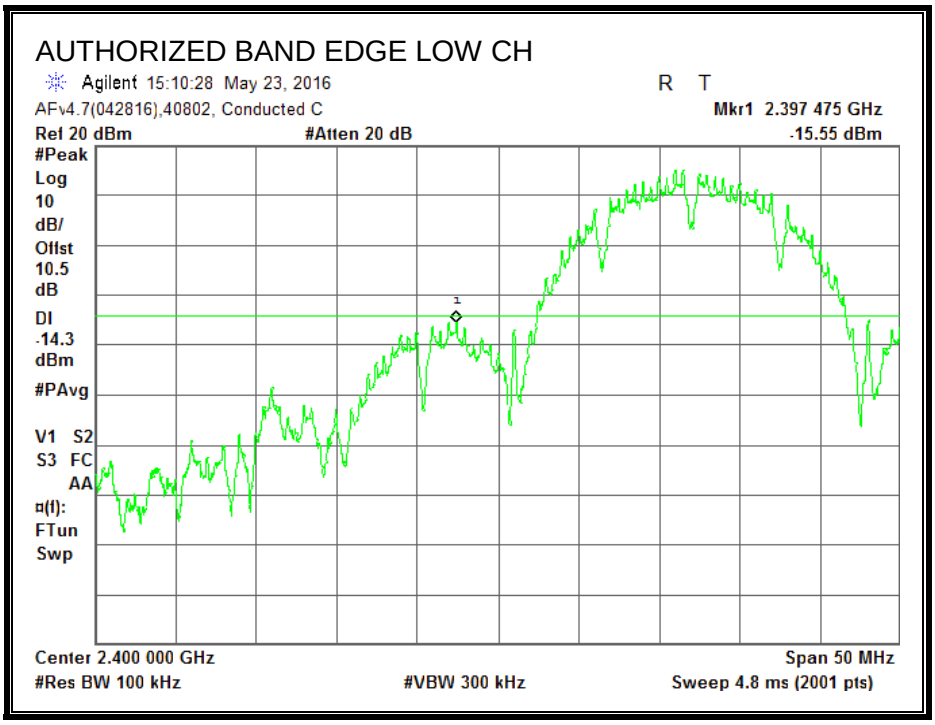
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

RESULTS

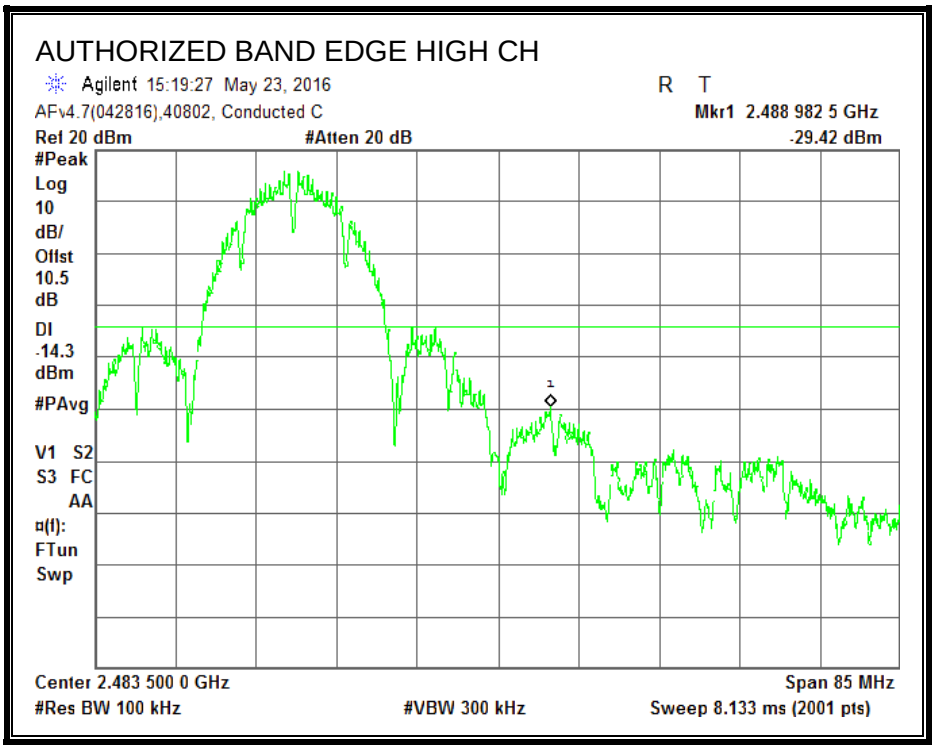
IN-BAND REFERENCE LEVEL



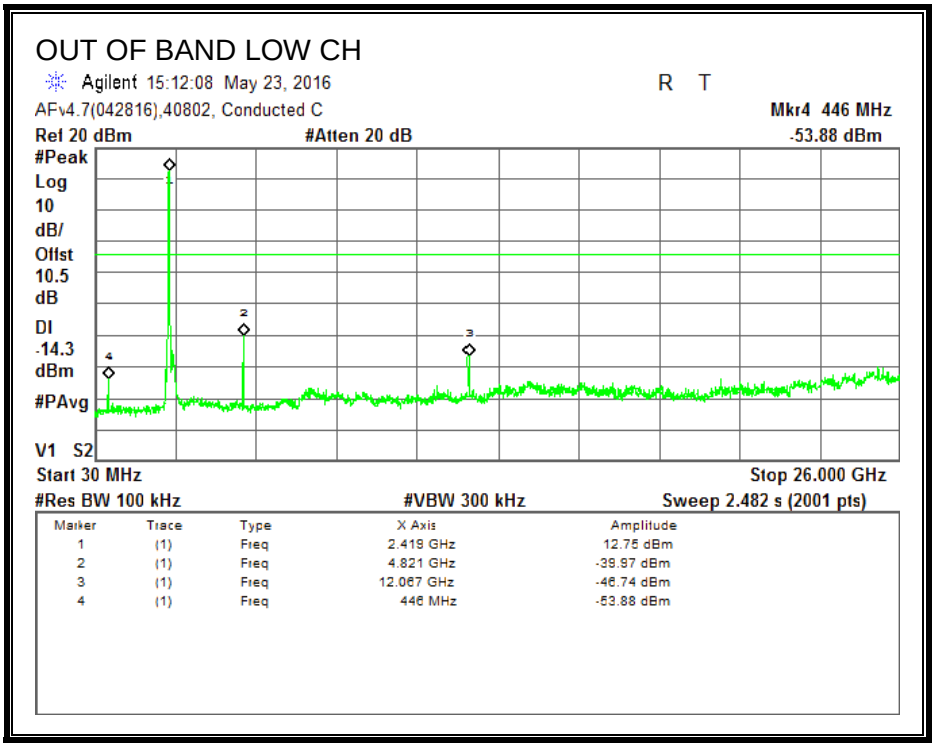
LOW CHANNEL BANDEDGE

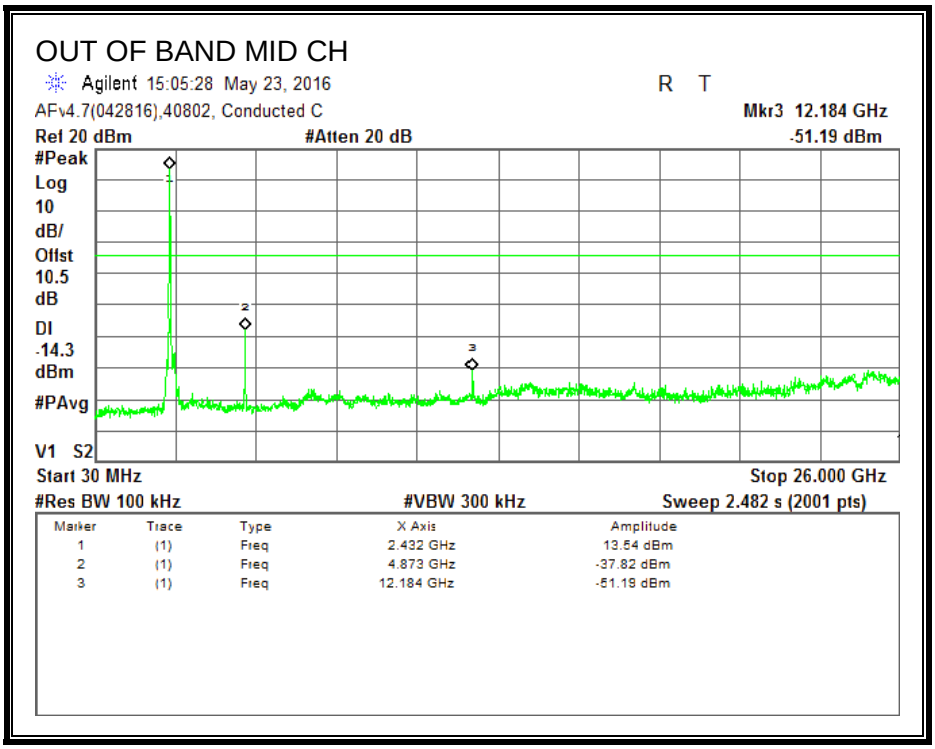


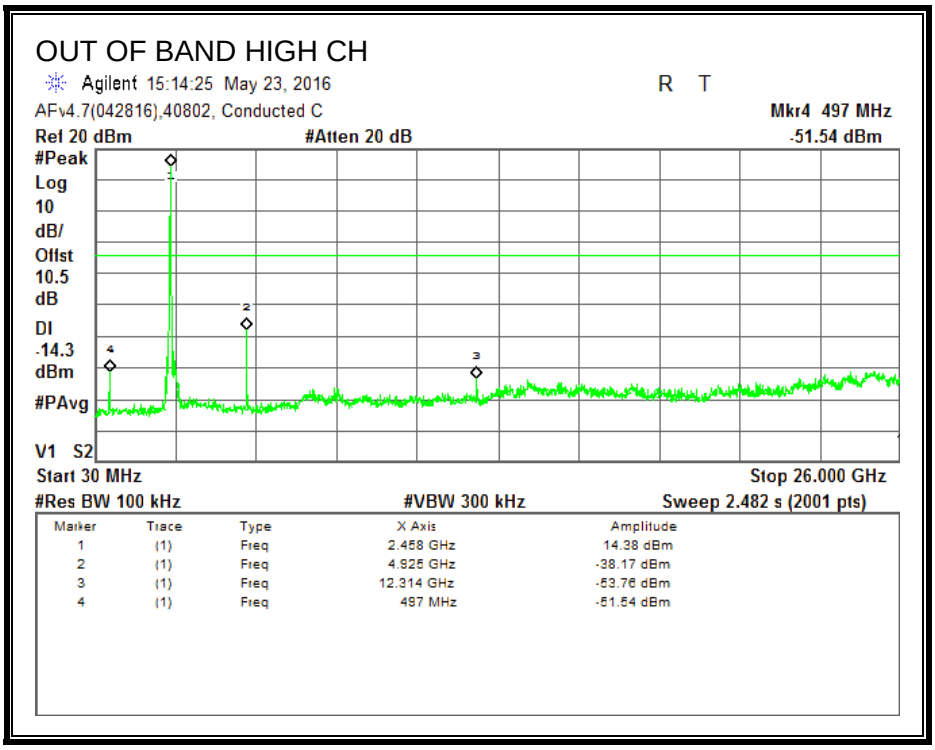
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS







9.3. 802.11g MODE IN THE 2.4 GHz BAND

9.3.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 Clause 5.2 (1)

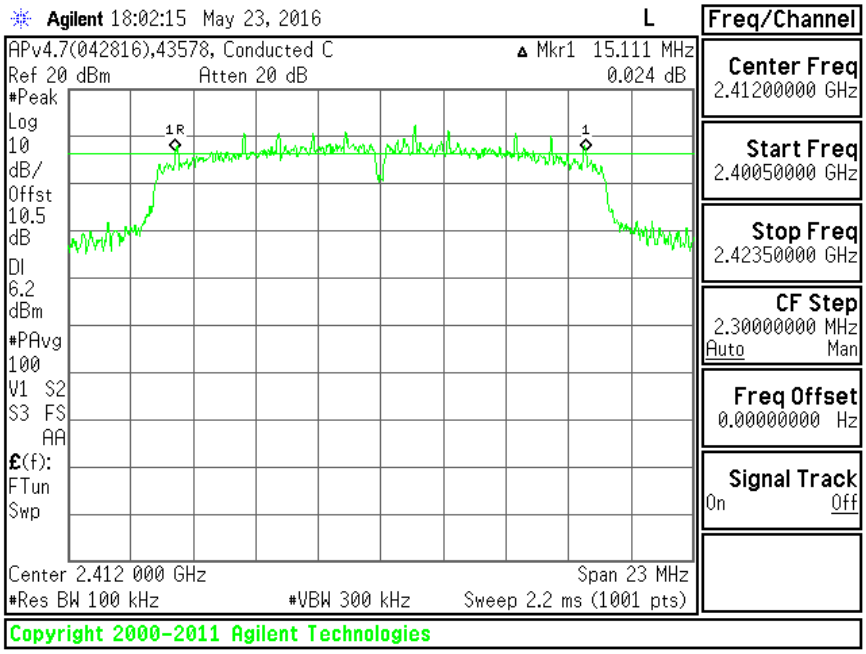
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

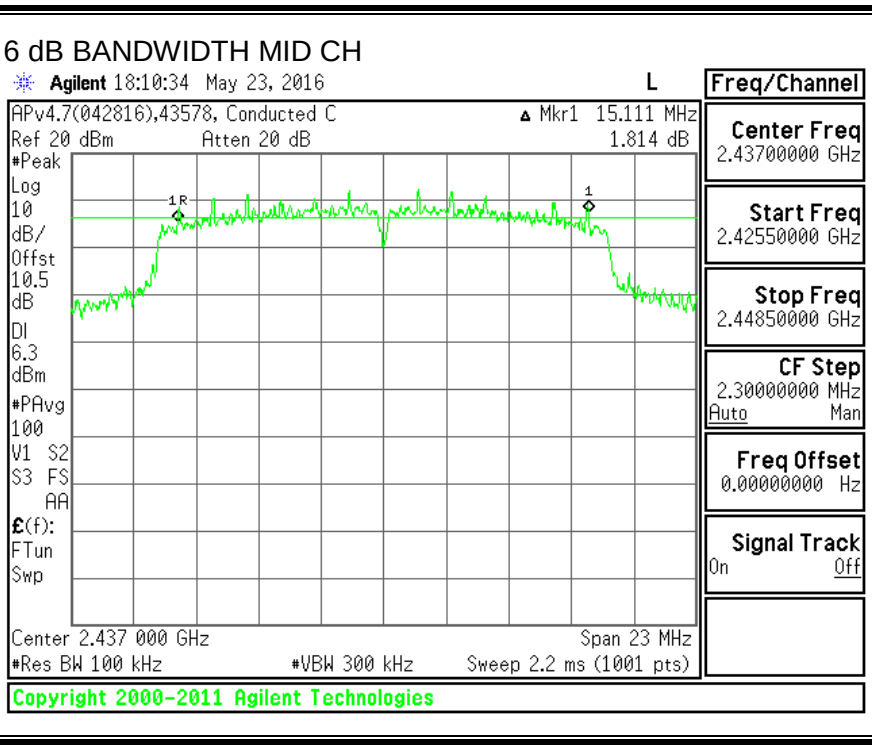
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.111	0.5
Mid	2437	15.111	0.5
High	2462	15.134	0.5

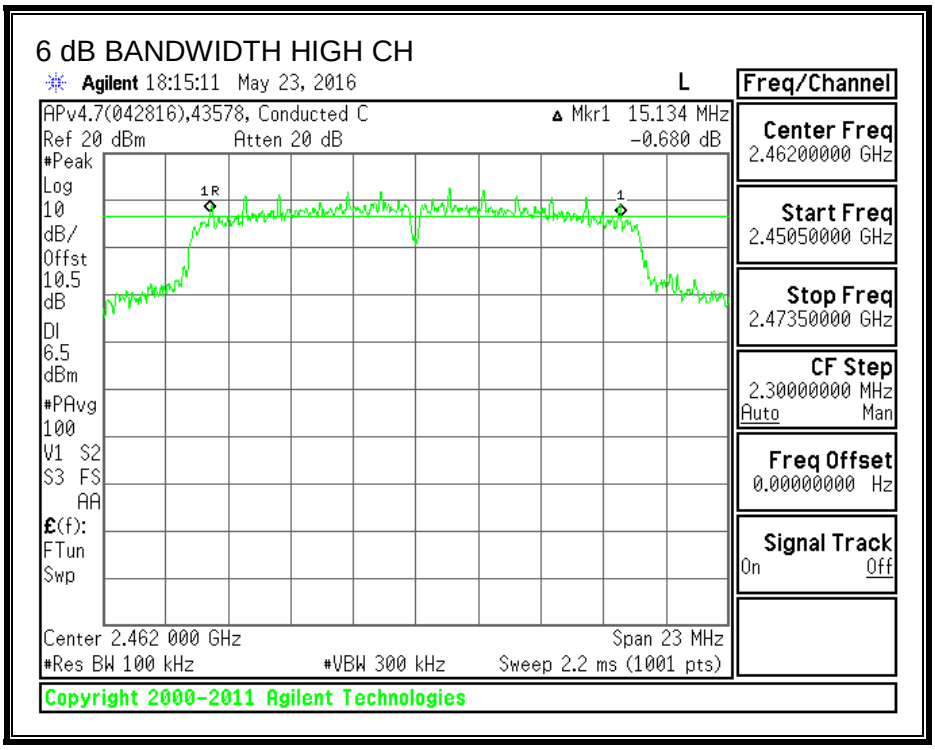
6 dB BANDWIDTH

6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH





9.3.1. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RSS- GEN 6.6

TEST PROCEDURE

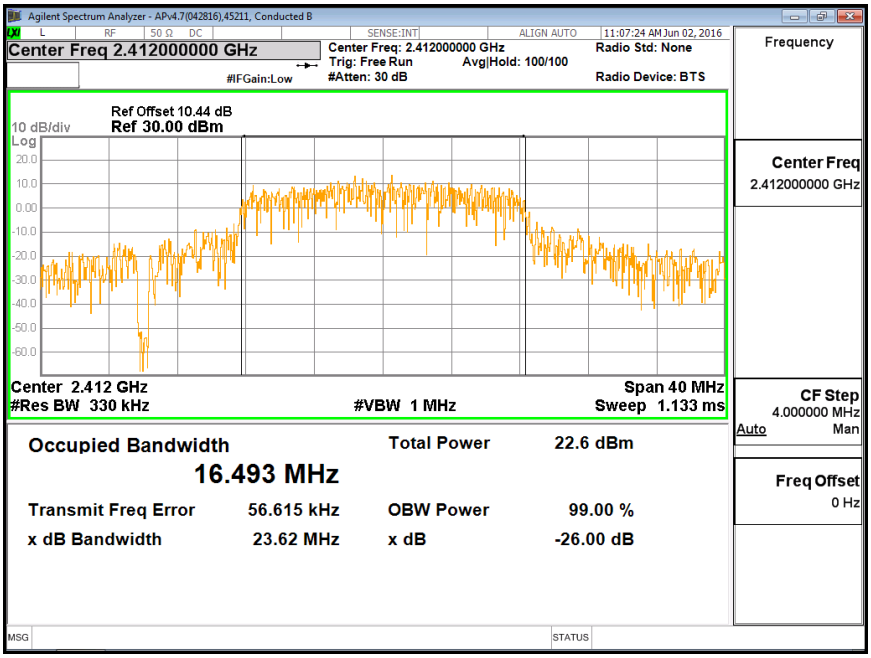
ANSI C63.10: 2013 Section 6.9.3

RESULTS

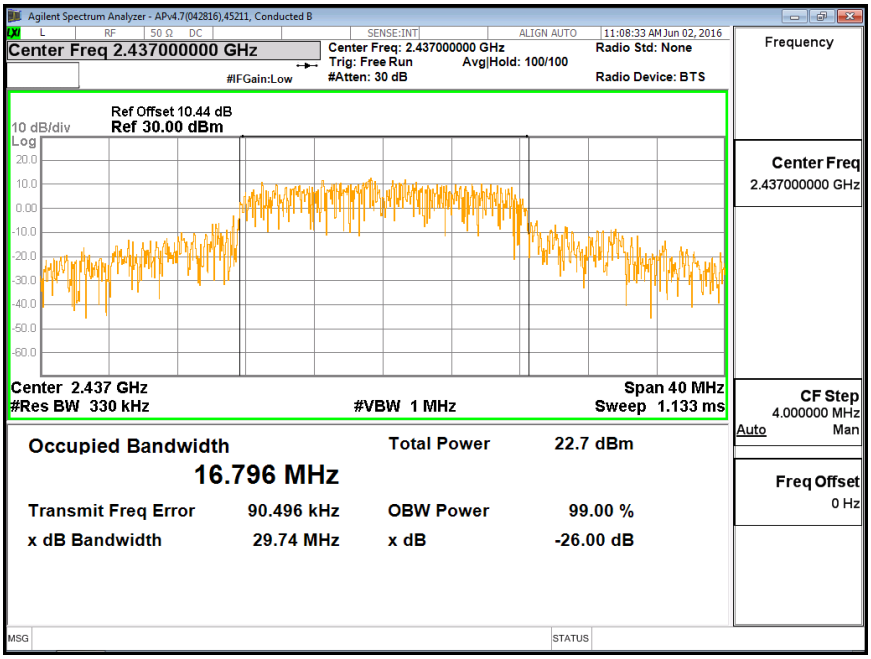
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.493
Mid	2437	16.796
High	2462	16.661

99% BANDWIDTH

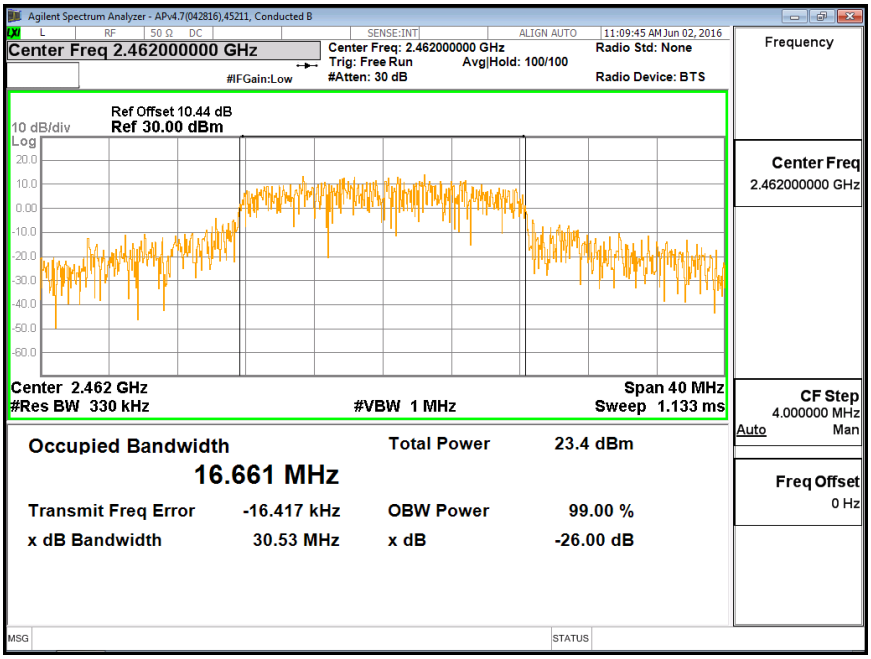
BANDWIDTH LOW CH



BANDWIDTH MID CH



BANDWIDTH HIGH CH



9.3.2. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 Clause 5.4(4)

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

2dBi Antenna

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
1	2412	2.00	30.00	30	36	30.00
2	2417	2.00	30.00	30	36	30.00
3	2422	2.00	30.00	30	36	30.00
4	2427	2.00	30.00	30	36	30.00
5	2432	2.00	30.00	30	36	30.00
6	2437	2.00	30.00	30	36	30.00
7	2442	2.00	30.00	30	36	30.00
8	2447	2.00	30.00	30	36	30.00
9	2452	2.00	30.00	30	36	30.00
10	2457	2.00	30.00	30	36	30.00
11	2462	2.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
1	2412	20.08	20.08	30.00	-9.92
2	2417	21.74	21.74	30.00	-8.26
3	2422	21.97	21.97	30.00	-8.03
4	2427	N/A	N/A	30.00	N/A
5	2432	N/A	N/A	30.00	N/A
6	2437	22.28	22.28	30.00	-7.72
7	2442	21.67	21.67	30.00	-8.33
8	2447	20.18	20.18	30.00	-9.82
9	2452	18.21	18.21	30.00	-11.79
10	2457	16.54	16.54	30.00	-13.46
11	2462	15.20	15.20	30.00	-14.80

Note 1: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

Note 2: Channels with "N/A" were not tested because the adjacent channels reached the highest power setting of the radio.

3dBi Antenna

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
1	2412	3.00	30.00	30	36	30.00
2	2417	3.00	30.00	30	36	30.00
3	2422	3.00	30.00	30	36	30.00
4	2427	3.00	30.00	30	36	30.00
5	2432	3.00	30.00	30	36	30.00
6	2437	3.00	30.00	30	36	30.00
7	2442	3.00	30.00	30	36	30.00
8	2447	3.00	30.00	30	36	30.00
9	2452	3.00	30.00	30	36	30.00
10	2457	3.00	30.00	30	36	30.00
11	2462	3.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
1	2412	19.12	19.12	30.00	-10.88
2	2417	20.59	20.59	30.00	-9.41
3	2422	21.88	21.88	30.00	-8.12
4	2427	22.05	22.05	30.00	-7.95
5	2432	N/A	N/A	30.00	N/A
6	2437	22.28	22.28	30.00	-7.72
7	2442	22.13	22.13	30.00	-7.87
8	2447	22.08	22.08	30.00	-7.92
9	2452	20.56	20.56	30.00	-9.44
10	2457	19.72	19.72	30.00	-10.28
11	2462	17.47	17.47	30.00	-12.53

Note 1: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

Note 2: Channels with "N/A" were not tested because the adjacent channels reached the highest power setting of the radio.

9.3.3. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 Clause 5.2(2)

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of Section 5.4 (4), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

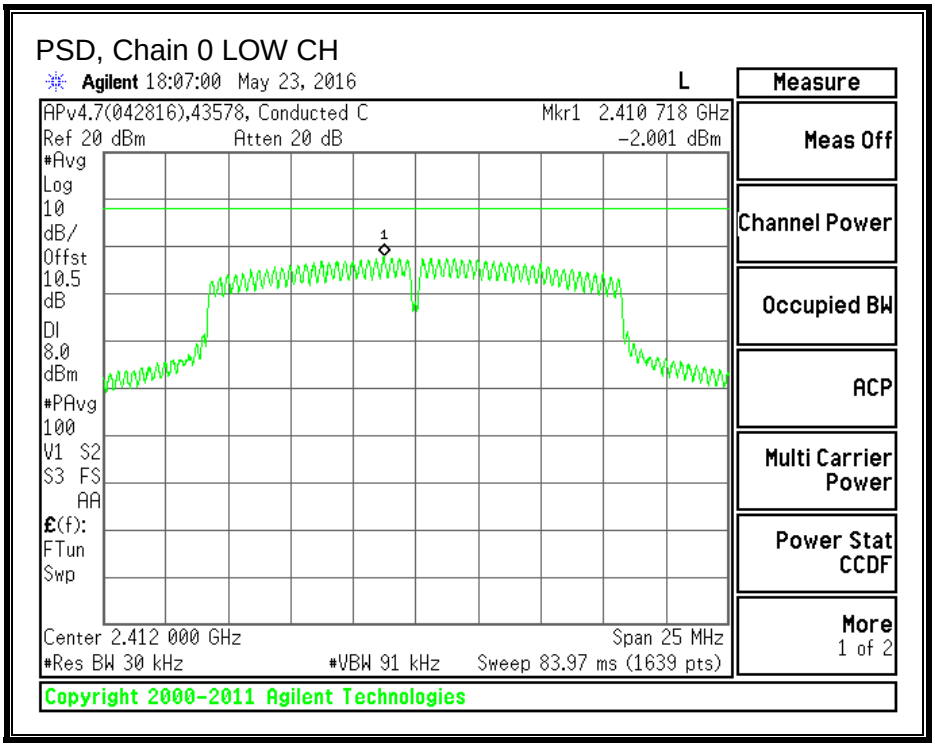
RESULTS

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

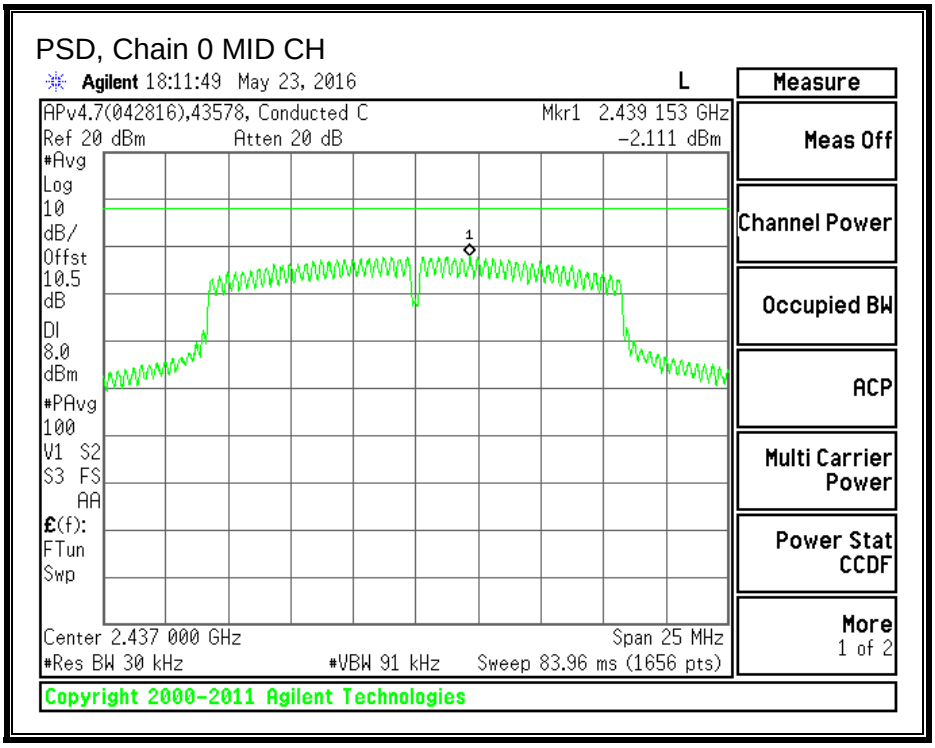
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-2.00	-2.00	8.0	-10.0
Mid	2437	-2.11	-2.11	8.0	-10.1
High	2462	-1.49	-1.49	8.0	-9.5

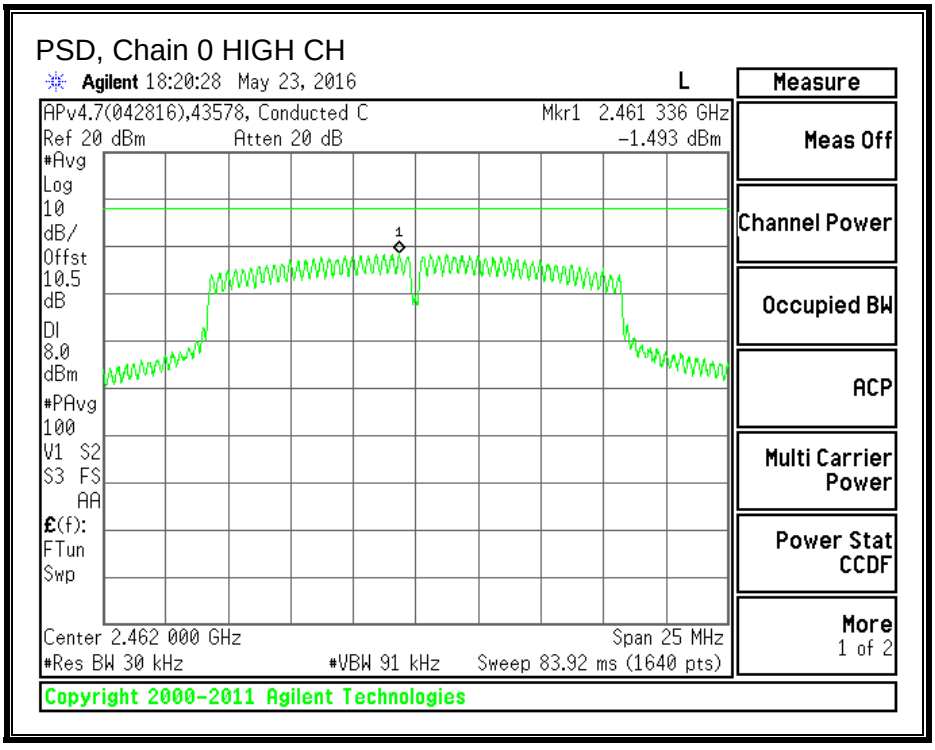
PSD, Chain 0



PSD, Chain 0 MID CH



PSD, Chain 0 HIGH CH



9.3.4. OUT-OF-BAND EMISSIONS

LIMITS

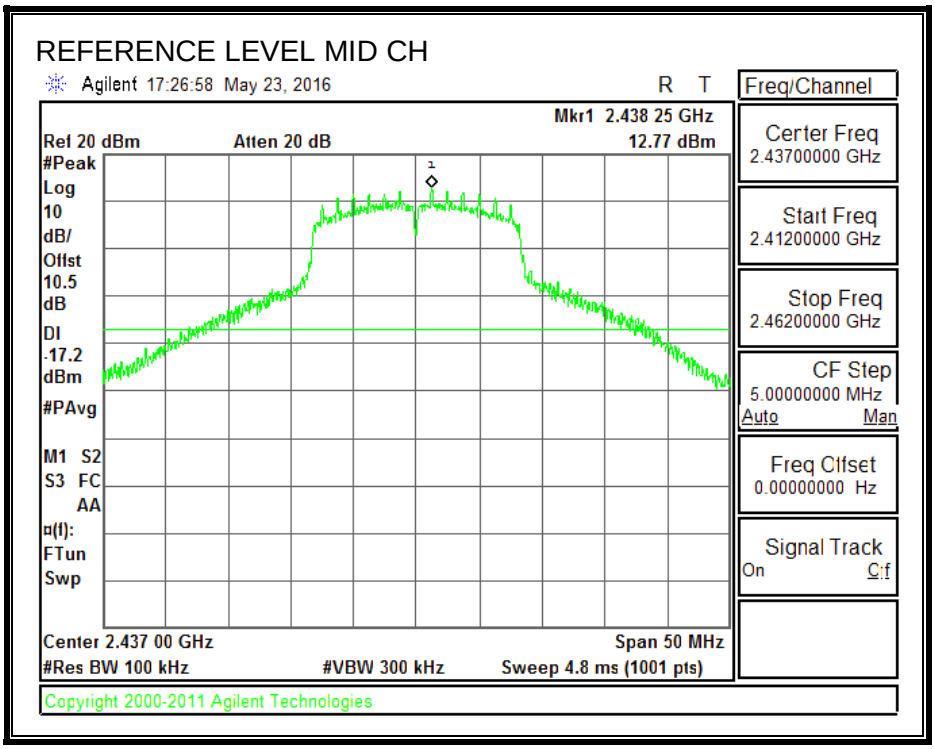
FCC §15.247 (d)

IC RSS-247 Clause 5.5

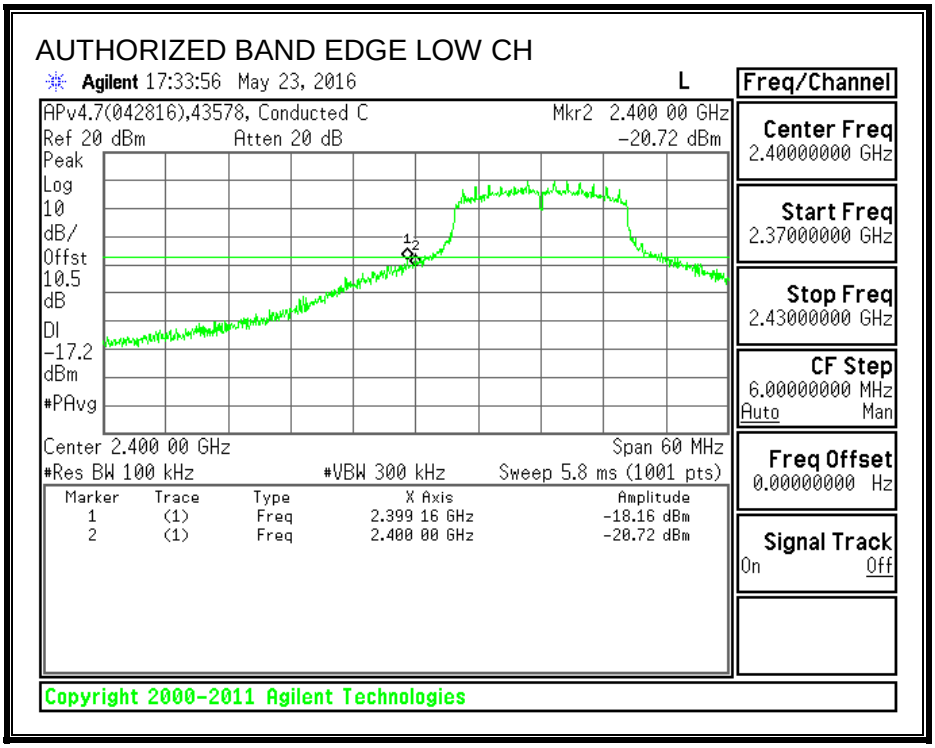
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

RESULTS

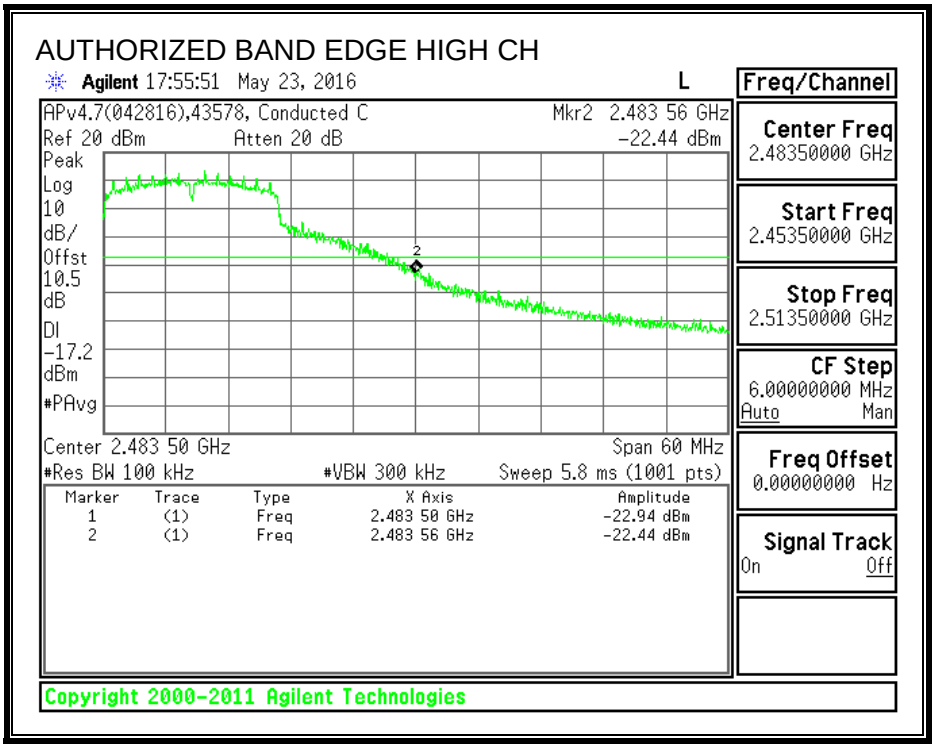
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE

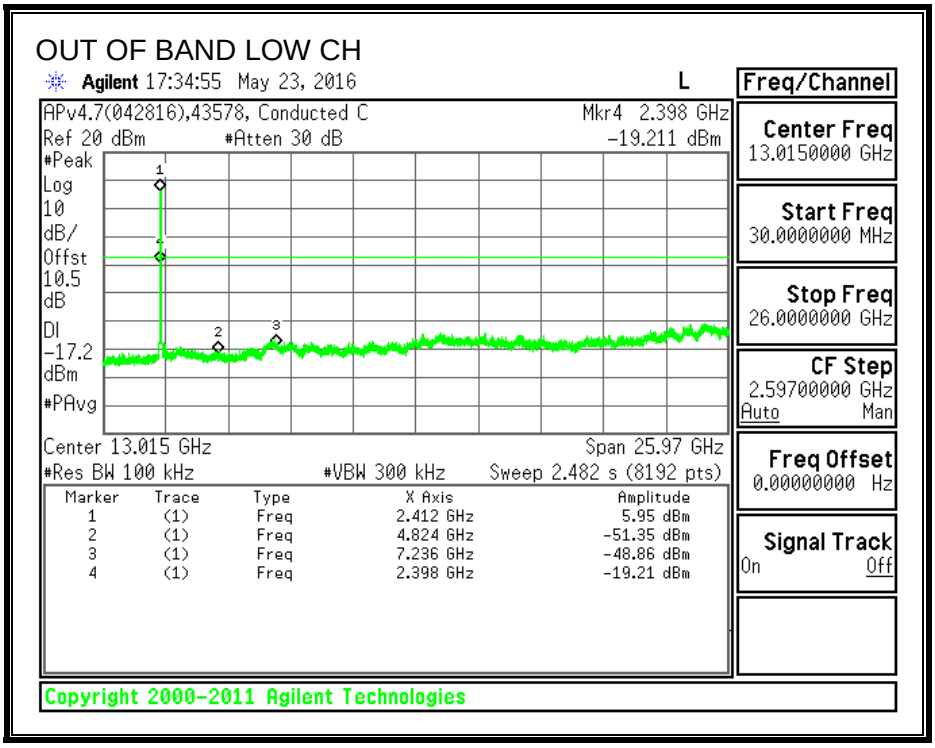


HIGH CHANNEL BANDEDGE

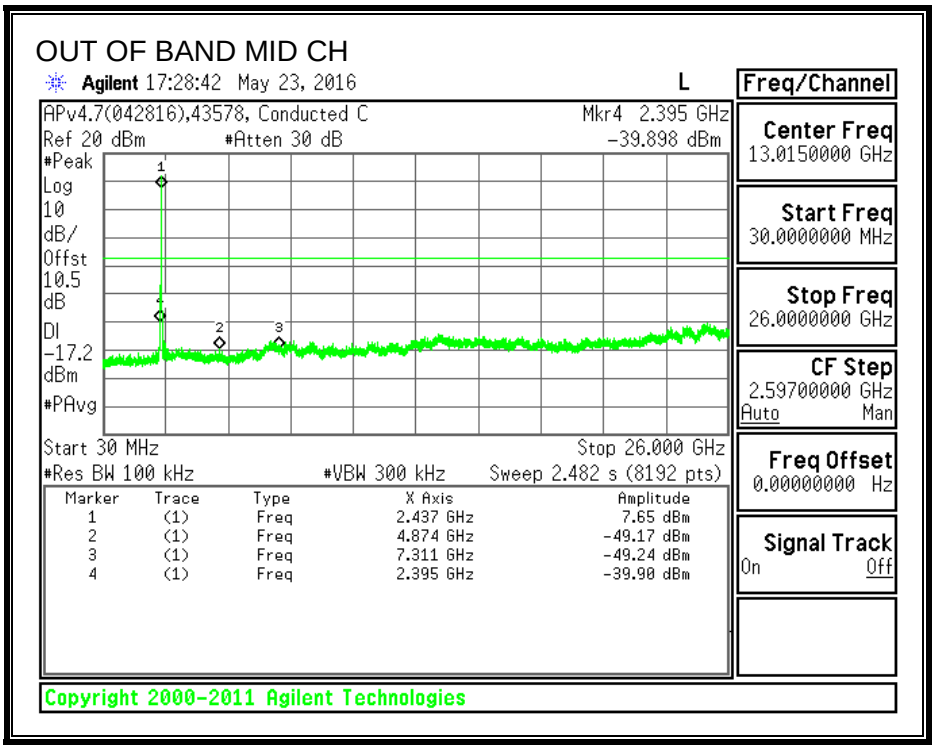


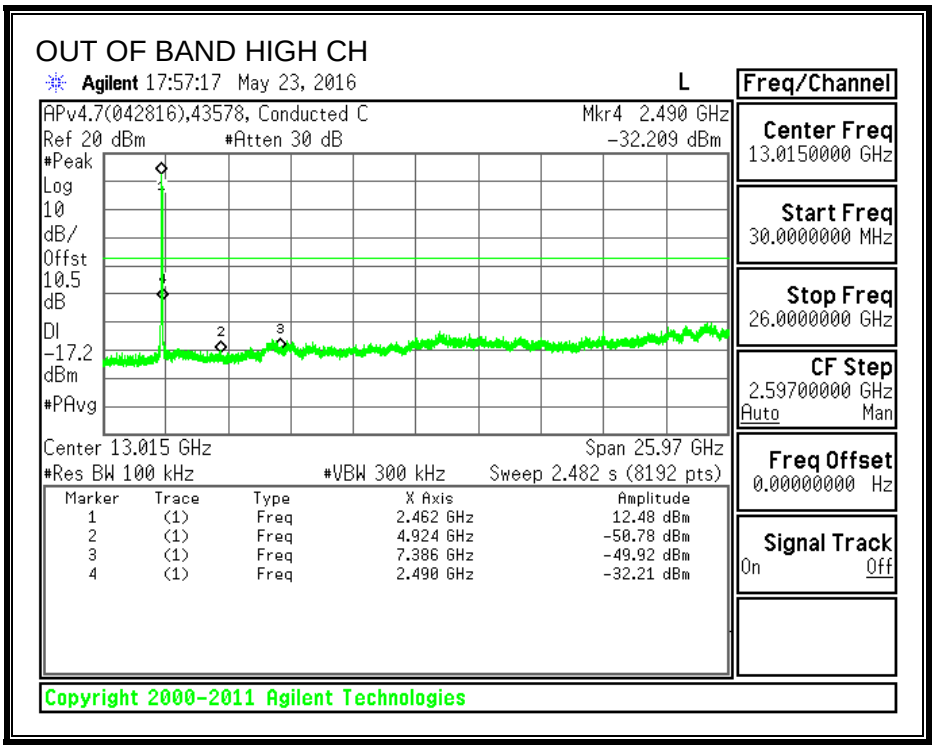
OUT-OF-BAND EMISSIONS

OUT OF BAND LOW CH



OUT OF BAND MID CH





9.4. 802.11n HT20 MODE IN THE 2.4 GHz BAND

9.4.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

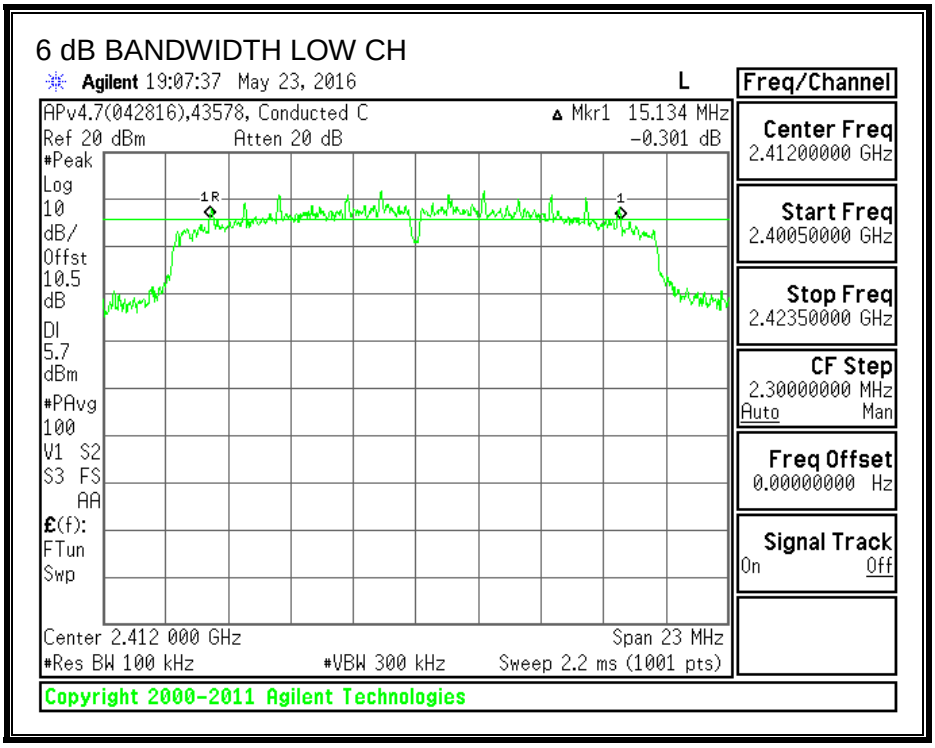
IC RSS-247 Clause 5.2 (1)

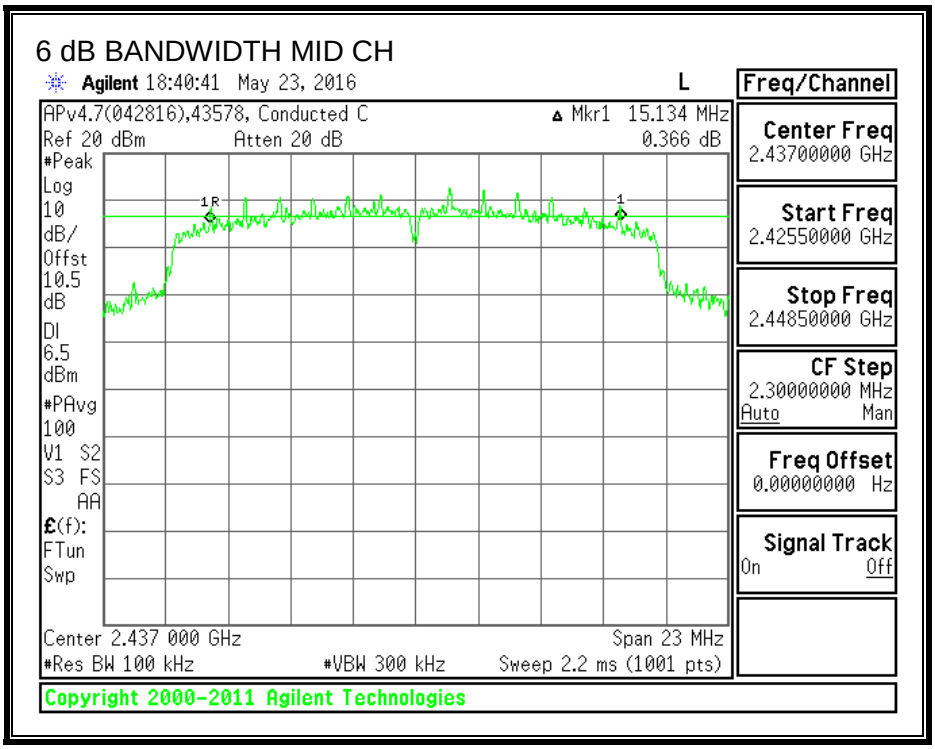
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

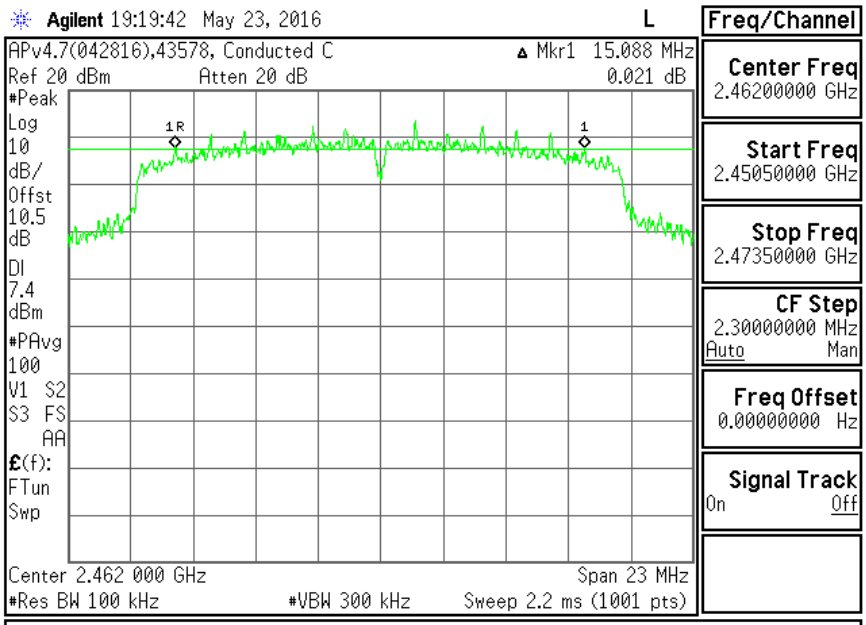
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	15.134	0.5
Mid	2437	15.134	0.5
High	2462	15.088	0.5

6 dB BANDWIDTH





6 dB BANDWIDTH HIGH CH



9.4.1. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RSS- GEN 6.6

TEST PROCEDURE

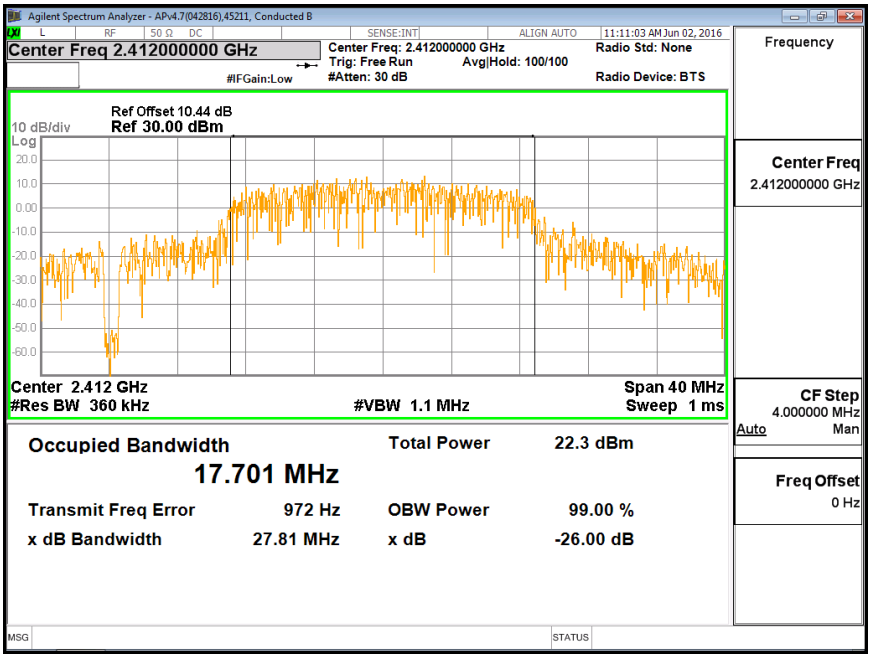
ANSI C63.10: 2013 Section 6.9.3

RESULTS

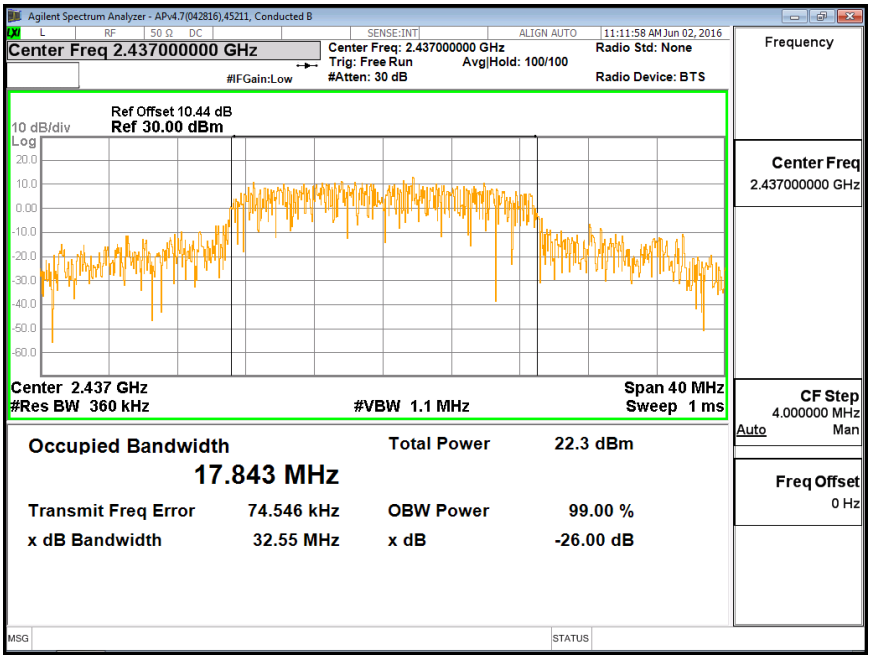
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.701
Mid	2437	17.843
High	2462	17.882

99% BANDWIDTH

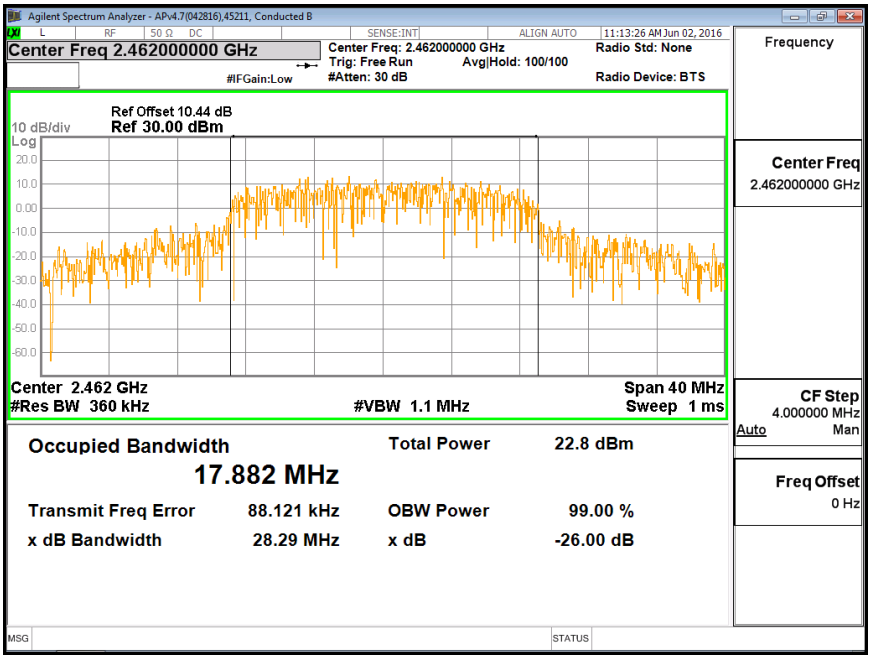
BANDWIDTH LOW CH



BANDWIDTH MID CH



BANDWIDTH HIGH CH



9.4.2. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 Clause 5.4(4)

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

2dBi Antenna

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
1	2412	2.00	30.00	30	36	30.00
2	2417	2.00	30.00	30	36	30.00
3	2422	2.00	30.00	30	36	30.00
4	2427	2.00	30.00	30	36	30.00
5	2432	2.00	30.00	30	36	30.00
6	2437	2.00	30.00	30	36	30.00
7	2442	2.00	30.00	30	36	30.00
8	2447	2.00	30.00	30	36	30.00
9	2452	2.00	30.00	30	36	30.00
10	2457	2.00	30.00	30	36	30.00
11	2462	2.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
1	2412	19.75	19.75	30.00	-10.25
2	2417	21.31	21.31	30.00	-8.69
3	2422	21.94	21.94	30.00	-8.06
4	2427	N/A	N/A	30.00	N/A
5	2432	N/A	N/A	30.00	N/A
6	2437	22.07	22.07	30.00	-7.93
7	2442	21.25	21.25	30.00	-8.75
8	2447	19.63	19.63	30.00	-10.37
9	2452	18.00	18.00	30.00	-12.00
10	2457	16.50	16.50	30.00	-13.50
11	2462	14.92	14.92	30.00	-15.08

Note 1: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

Note 2: Channels with "N/A" were not tested because the adjacent channels reached the highest power setting of the radio.

3dBi Antenna

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
1	2412	3.00	30.00	30	36	30.00
2	2417	3.00	30.00	30	36	30.00
3	2422	3.00	30.00	30	36	30.00
4	2427	3.00	30.00	30	36	30.00
5	2432	3.00	30.00	30	36	30.00
6	2437	3.00	30.00	30	36	30.00
7	2442	3.00	30.00	30	36	30.00
8	2447	3.00	30.00	30	36	30.00
9	2452	3.00	30.00	30	36	30.00
10	2457	3.00	30.00	30	36	30.00
11	2462	3.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
1	2412	18.01	18.01	30.00	-11.99
2	2417	20.57	20.57	30.00	-9.43
3	2422	21.12	21.12	30.00	-8.88
4	2427	21.98	21.98	30.00	-8.02
5	2432	N/A	N/A	30.00	N/A
6	2437	22.07	22.07	30.00	-7.93
7	2442	21.95	21.95	30.00	-8.05
8	2447	21.63	21.63	30.00	-8.37
9	2452	20.64	20.64	30.00	-9.36
10	2457	18.82	18.82	30.00	-11.18
11	2462	16.97	16.97	30.00	-13.03

Note 1: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

Note 2: Channels with "N/A" were not tested because the adjacent channels reached the highest power setting of the radio.

9.4.3. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 Clause 5.2(2)

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of Section 5.4 (4), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

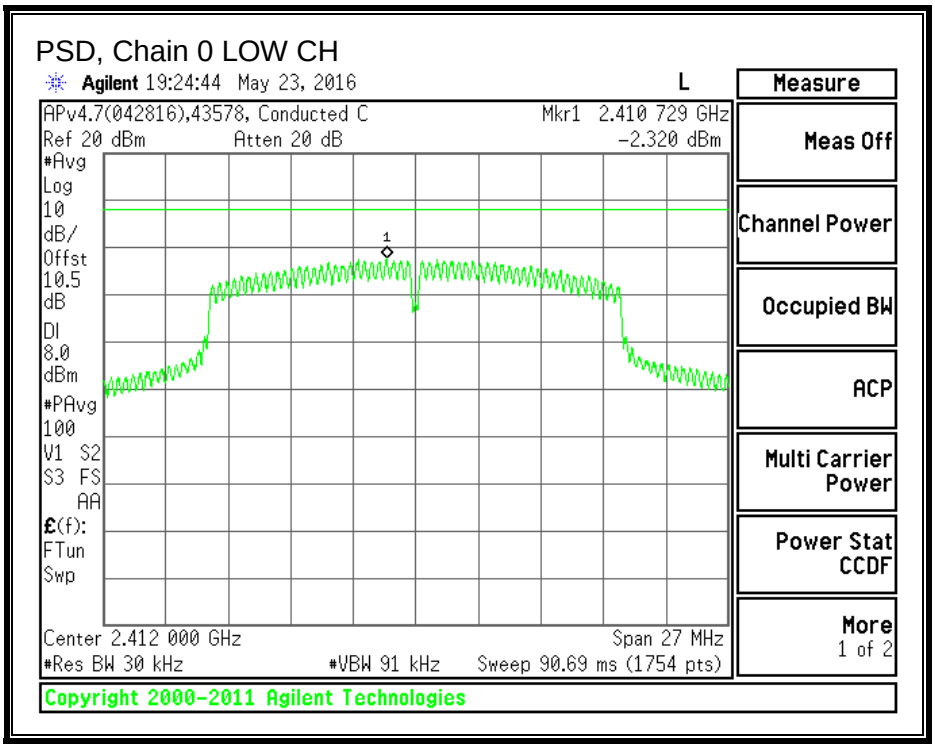
RESULTS

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

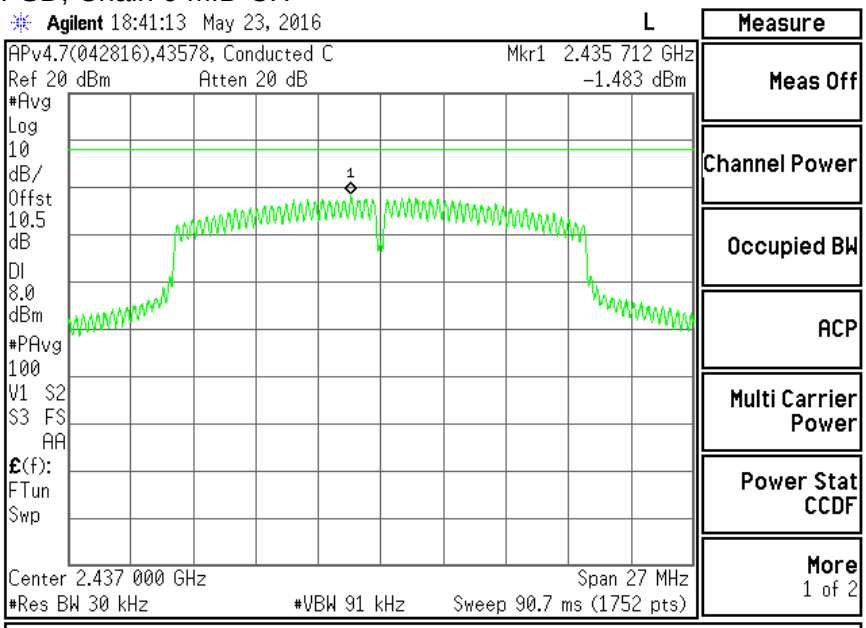
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-2.32	-2.32	8.0	-10.3
Mid	2437	-1.48	-1.48	8.0	-9.5
High	2462	-1.61	-1.61	8.0	-9.6

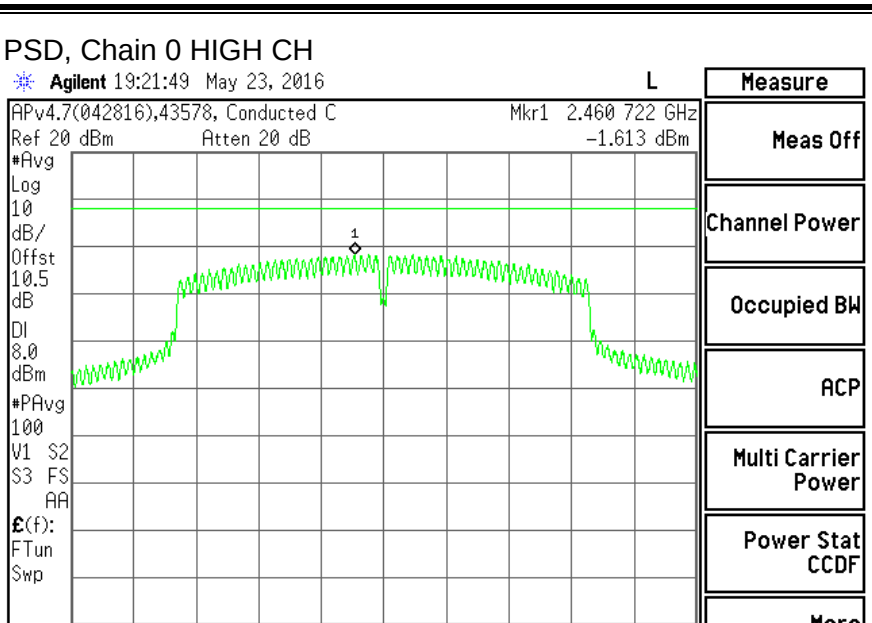
PSD, Chain 0



PSD, Chain 0 MID CH



PSD, Chain 0 HIGH CH



9.4.4. OUT-OF-BAND EMISSIONS

LIMITS

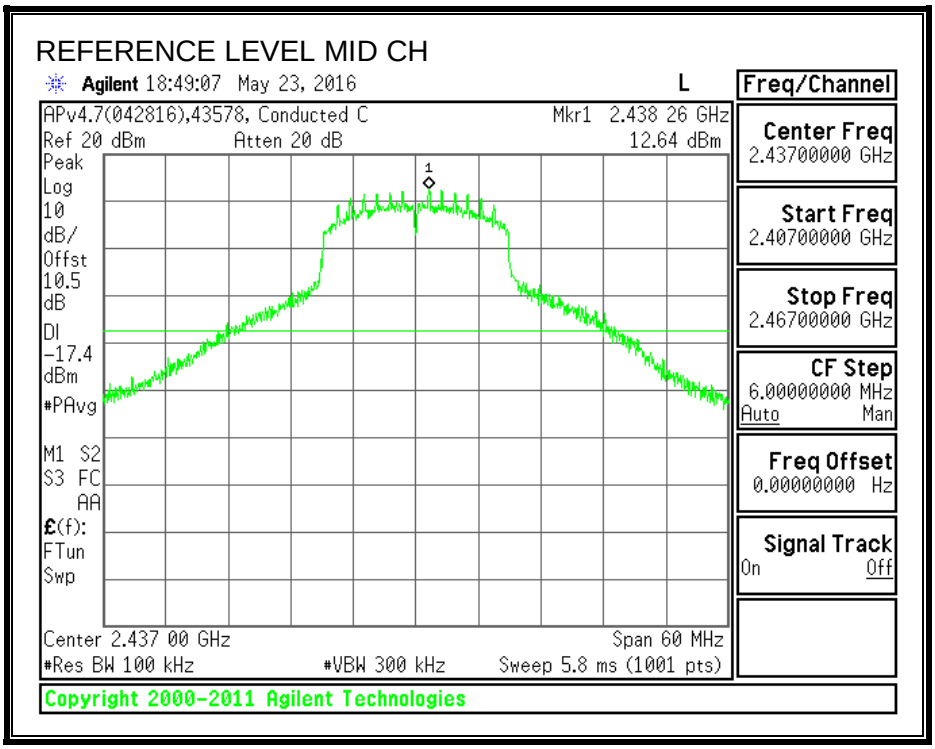
FCC §15.247 (d)

IC RSS-247 Clause 5.5

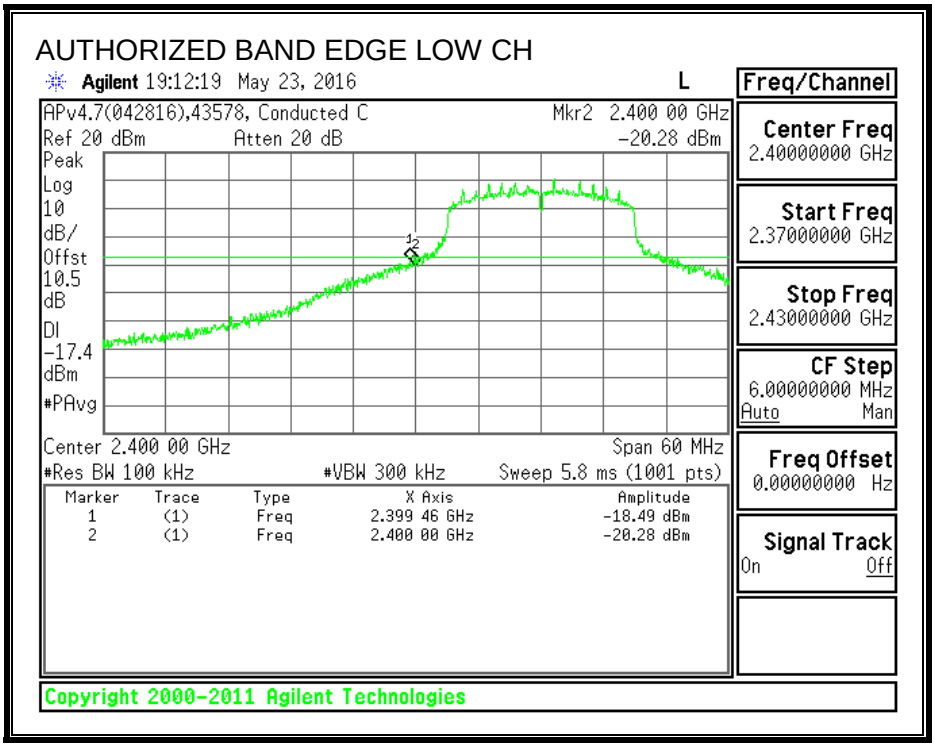
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

RESULTS

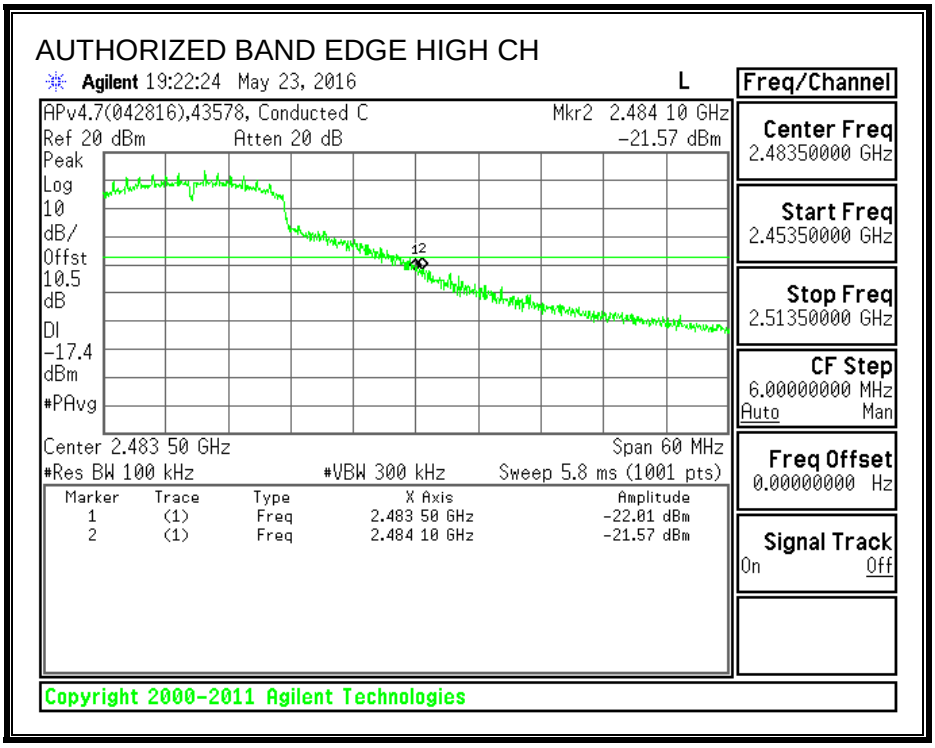
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE

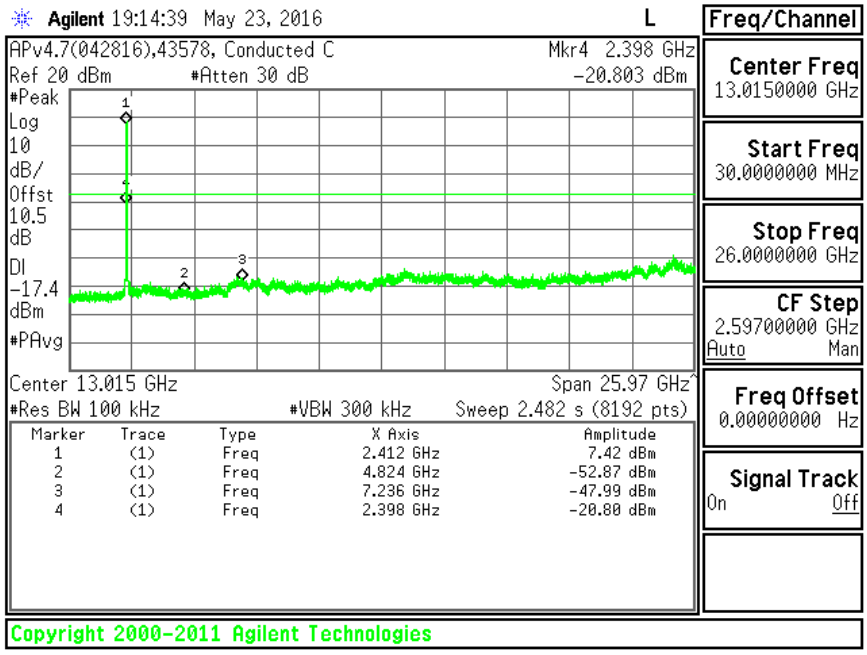


HIGH CHANNEL BANDEDGE

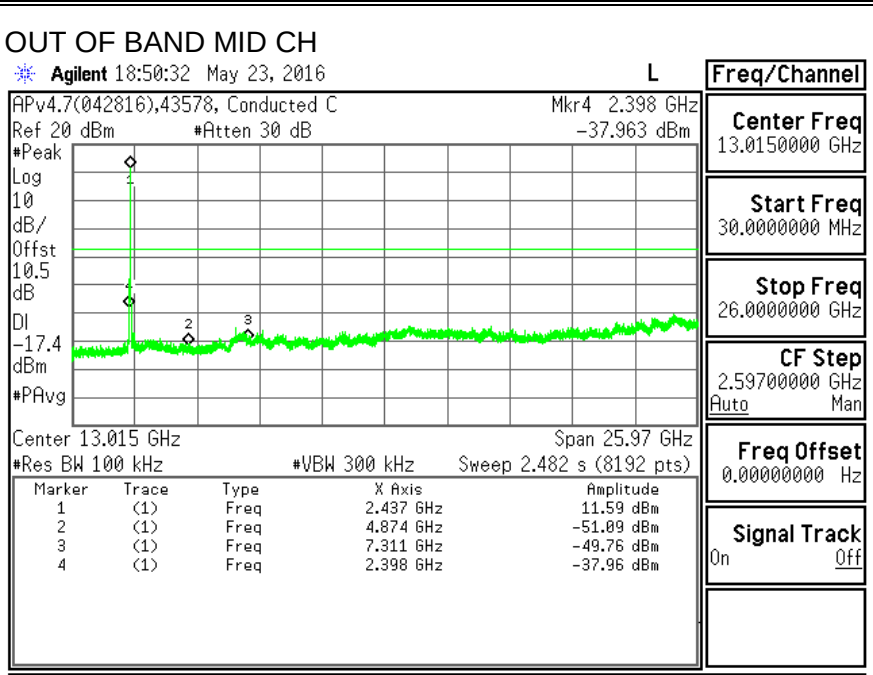


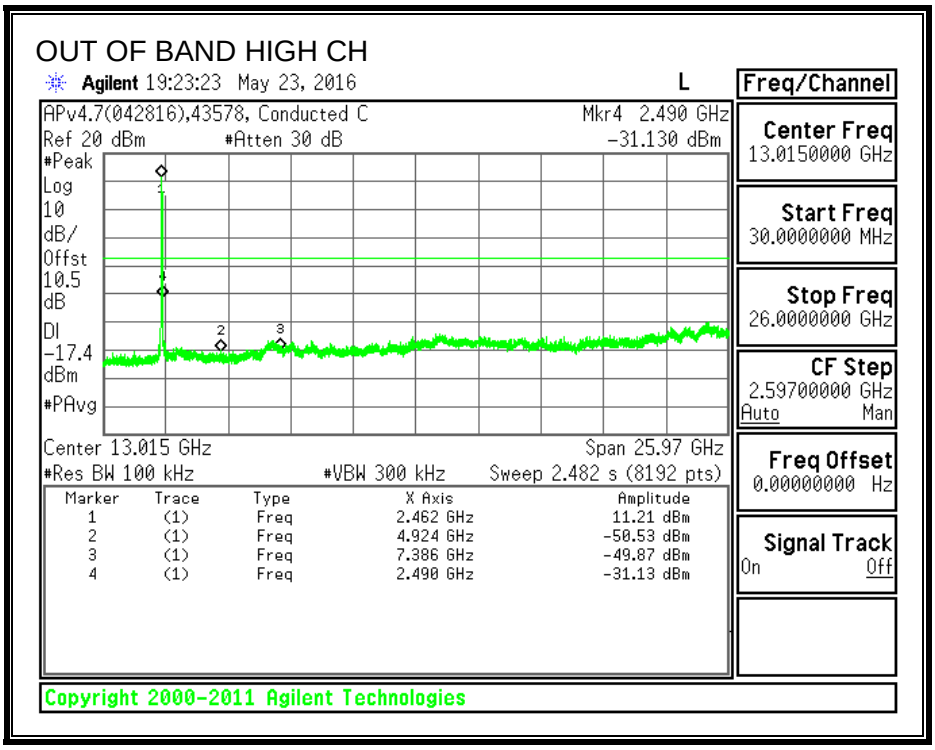
OUT-OF-BAND EMISSIONS

OUT OF BAND LOW CH



OUT OF BAND MID CH





10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN Clause 8.9 (Transmitter)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	2400/F(kHz) @ 300 m	-
0.490-1.705	24000/F(kHz) @ 30 m	-
1.705 - 30	30 @ 30m	-
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT was placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for above 1GHz. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz, the resolution bandwidth was set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz, the resolution bandwidth was set to 1 MHz; the video bandwidth was set to 3 MHz for peak measurements and duty cycle factor was added for average measurements. Please refer to test report section 9.1 for duty cycle factor information.

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

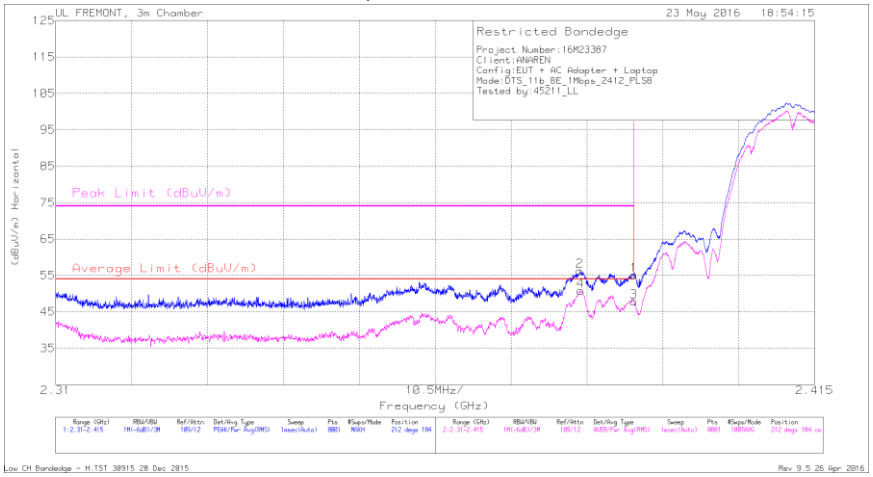
The frequency range of interest was monitored at a fixed antenna height and EUT azimuth. The EUT was rotated 360 degrees to maximize emissions received. The antenna was scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements were made with the antenna polarized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

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. 802.11b MODE IN THE 2.4 GHz BAND - 2dBi Antenna

RESTRICTED BANDEDGE (CHANNEL 1)

CHANNEL 1 RESTRICTED, HORIZ

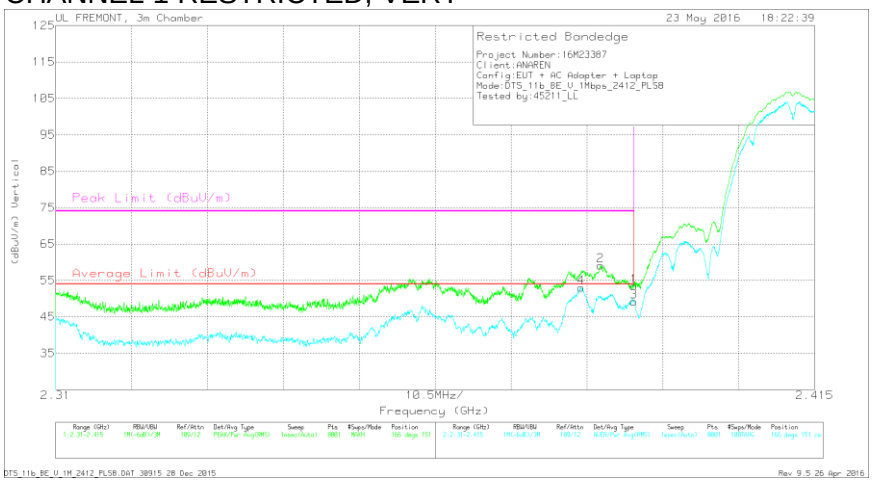


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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
2	2.383	45.34	Pk	32	-21.1	56.24	-	-	74	-17.76	212	184	H
4	2.383	39.93	RMS	32	-21.1	50.83	54	-3.17	-	-	212	184	H
1	2.39	44.24	Pk	32.1	-21.2	55.14	-	-	74	-18.86	212	184	H
3	2.39	36.89	RMS	32.1	-21.2	47.79	54	-6.21	-	-	212	184	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 1 RESTRICTED, VERT

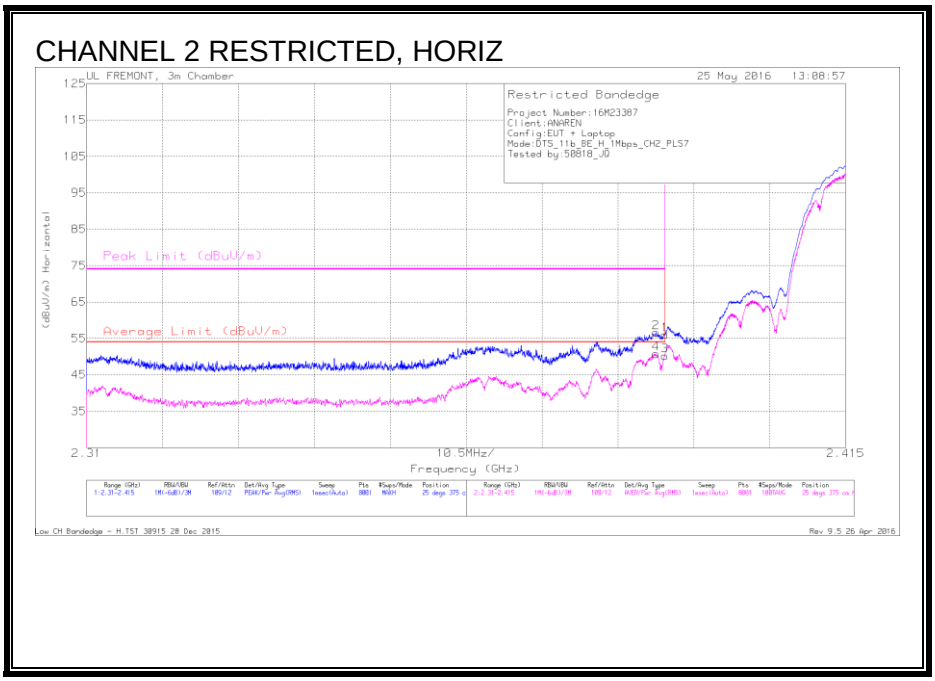


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.383	42.14	RMS	32	-21.1	0	53.04	54	-.96	-	-	166	151	V
2	2.385	48.25	Pk	32	-21.2	0	59.05	-	-	74	-14.95	166	151	V
1	2.39	42.47	Pk	32.1	-21.2	0	53.37	-	-	74	-20.63	166	151	V
3	2.39	38.29	RMS	32.1	-21.2	0	49.19	54	-4.81	-	-	166	151	V

Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 2)

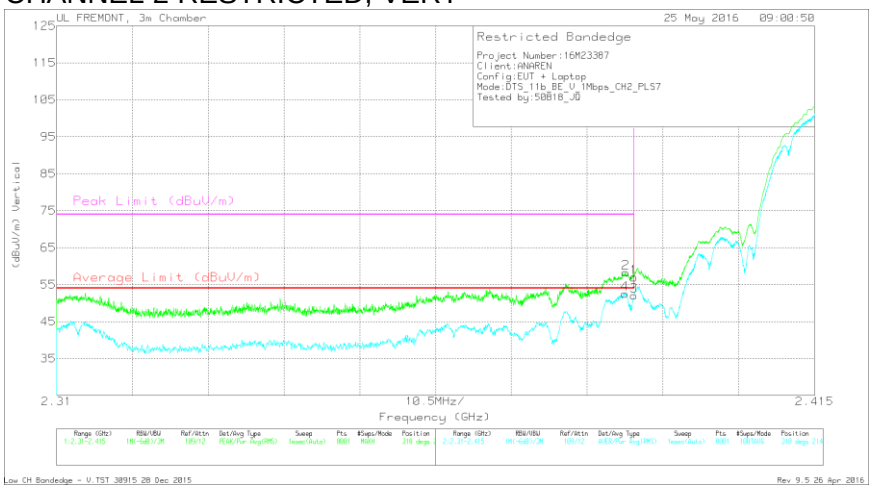


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.389	45.65	Pk	32.1	-21.1	0	56.65	-	-	74	-17.35	25	375	H
4	2.389	39.73	RMS	32.1	-21.1	0	50.73	54	-3.27	-	-	25	375	H
1	2.39	45.05	Pk	32.1	-21.2	0	55.95	-	-	74	-18.05	25	375	H
3	2.39	39.33	RMS	32.1	-21.2	0	50.23	54	-3.77	-	-	25	375	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 2 RESTRICTED, VERT



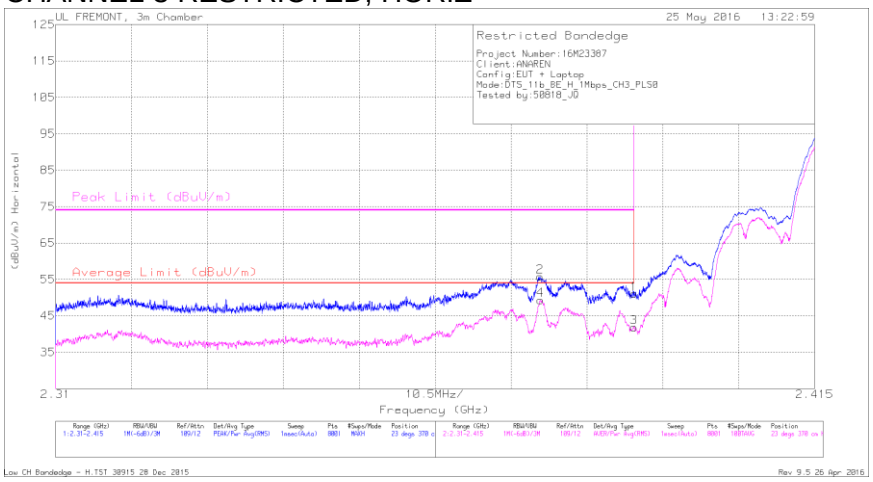
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.389	47.29	Pk	32.1	-21.1	0	58.29	-	-	74	-15.71	318	214	V
4	2.389	41.56	RMS	32.1	-21.1	0	52.56	54	-1.44	-	-	318	214	V
1	2.39	46.09	Pk	32.1	-21.2	0	56.99	-	-	74	-17.01	318	214	V
3	2.39	41.18	RMS	32.1	-21.2	0	52.08	54	-1.92	-	-	318	214	V

Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 3)

CHANNEL 3 RESTRICTED, HORIZ

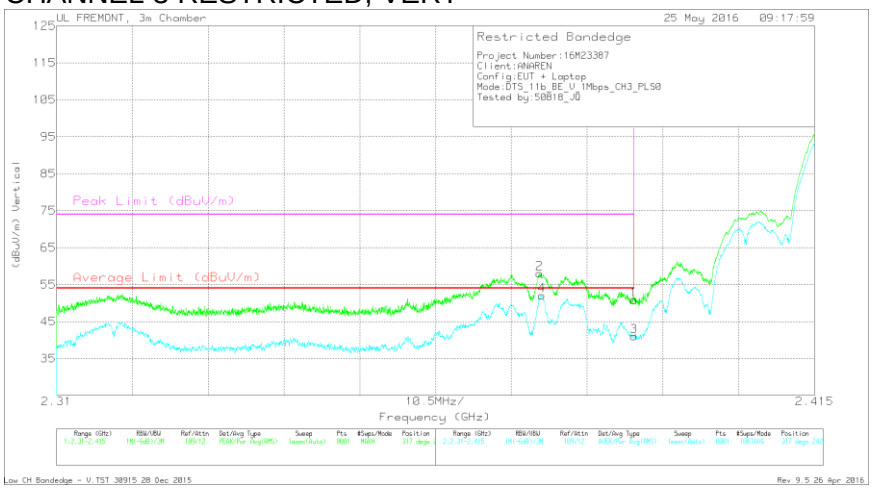


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.377	44.9	Pk	32	-21.2	0	55.7	-	-	74	-18.3	23	370	H
4	2.377	38.56	RMS	32	-21.2	0	49.36	54	-4.64	-	-	23	370	H
1	2.39	40.16	Pk	32.1	-21.2	0	51.06	-	-	74	-22.94	23	370	H
3	2.39	31	RMS	32.1	-21.2	0	41.9	54	-12.1	-	-	23	370	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 3 RESTRICTED, VERT



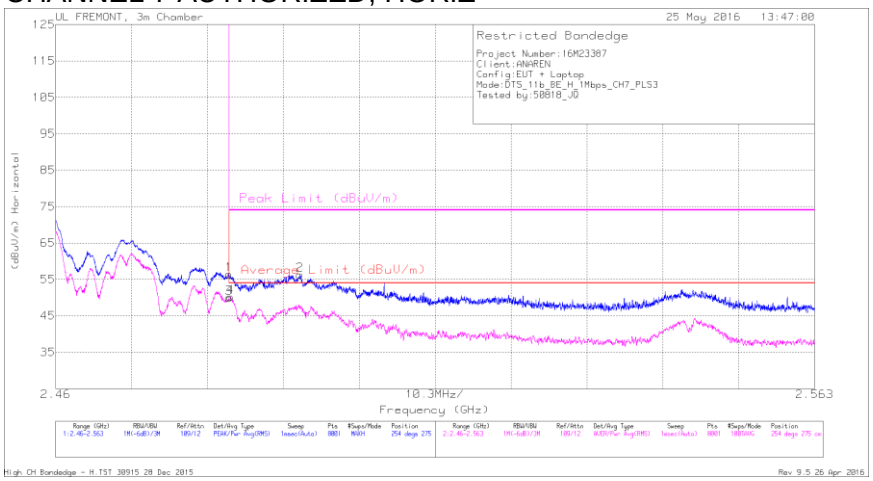
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.377	47.25	Pk	32	-21.2	0	58.05	-	-	74	-15.95	317	242	V
4	2.377	41.26	RMS	32	-21.2	0	52.06	54	-1.94	-	-	317	242	V
1	2.39	40	Pk	32.1	-21.2	0	50.9	-	-	74	-23.1	317	242	V
3	2.39	30.14	RMS	32.1	-21.2	0	41.04	54	-12.96	-	-	317	242	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 7)

CHANNEL 7 AUTHORIZED, HORIZ

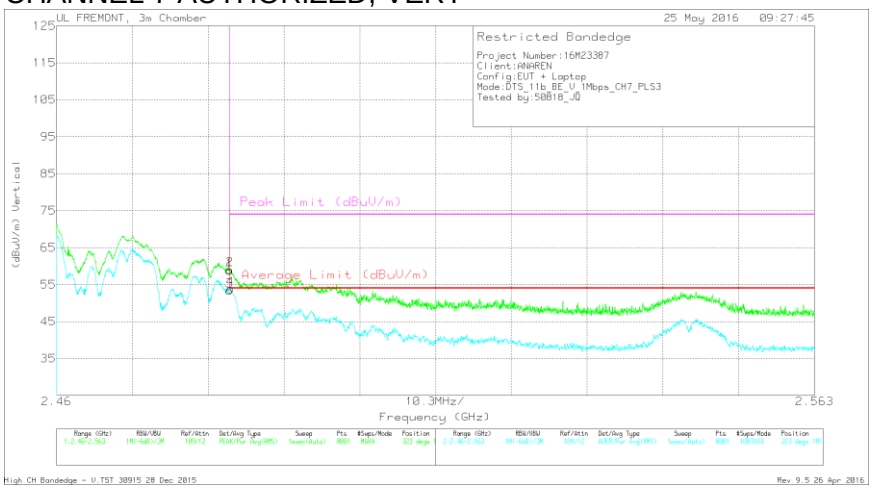


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	45.19	Pk	32.4	-21.2	0	56.39	-	-	74	-17.61	254	275	H
3	2.484	38.69	RMS	32.4	-21.2	0	49.89	54	-4.11	-	-	254	275	H
4	2.484	38.92	RMS	32.4	-21.2	0	50.12	54	-3.88	-	-	254	275	H
2	2.493	44.91	Pk	32.4	-21.1	0	56.21	-	-	74	-17.79	254	275	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 7 AUTHORIZED, VERT

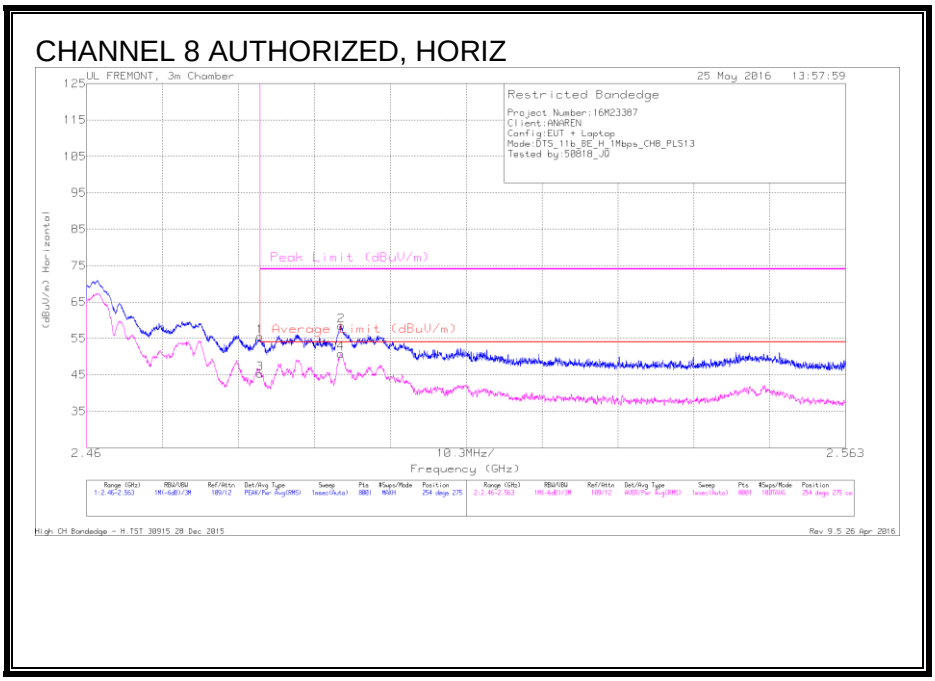


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	47.57	Pk	32.4	-21.2	0	58.77	-	-	74	-15.23	323	181	V
2	2.484	47.86	Pk	32.4	-21.2	0	59.06	-	-	74	-14.94	323	181	V
3	2.484	42.16	RMS	32.4	-21.2	0	53.36	54	-.64	-	-	323	181	V
4	2.484	42.63	RMS	32.4	-21.2	0	53.83	54	-.17	-	-	323	181	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 8)

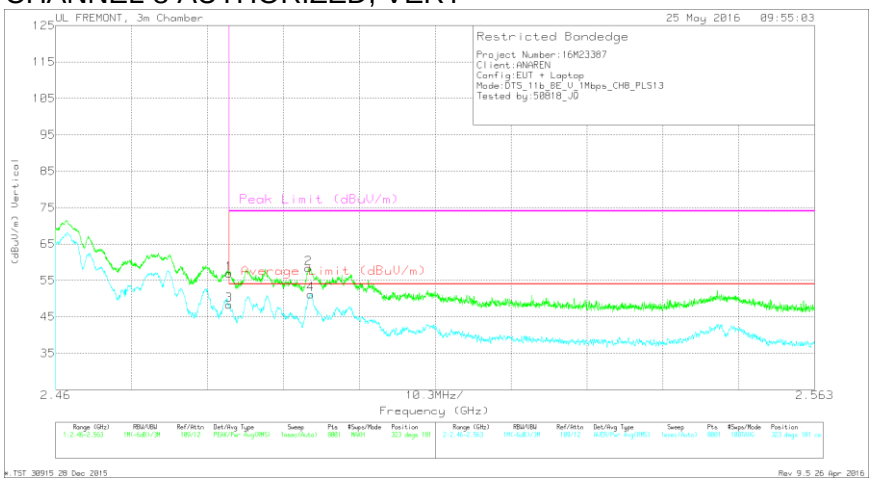


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	44.36	Pk	32.4	-21.2	0	55.56	-	-	74	-18.44	254	275	H
3	2.484	34.18	RMS	32.4	-21.2	0	45.38	54	-8.62	-	-	254	275	H
2	2.495	47.27	Pk	32.4	-21.2	0	58.47	-	-	74	-15.53	254	275	H
4	2.495	39.65	RMS	32.4	-21.2	0	50.85	54	-3.15	-	-	254	275	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 8 AUTHORIZED, VERT

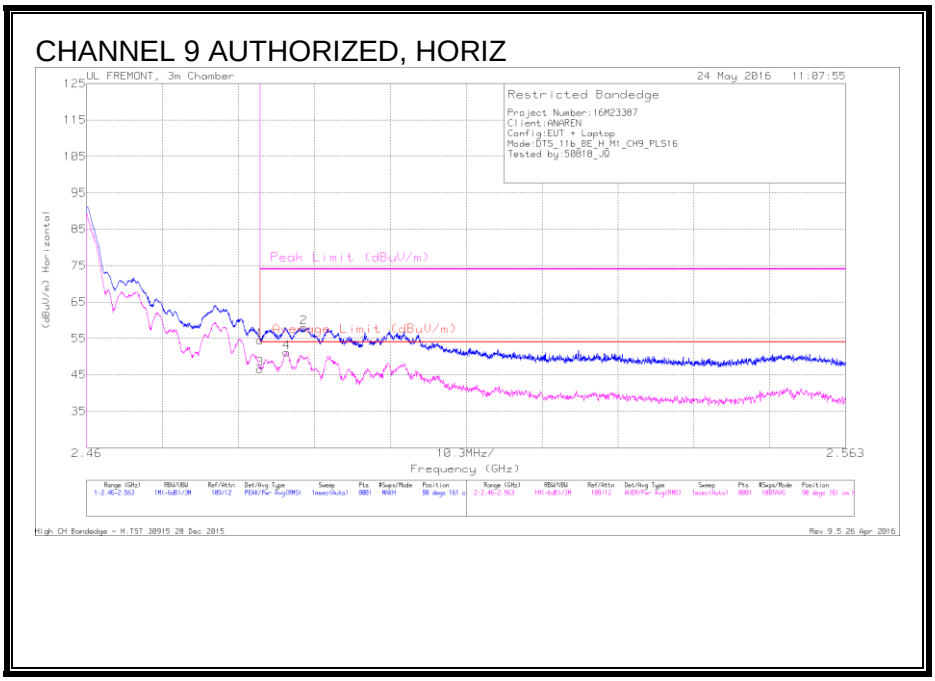


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	45.72	Pk	32.4	-21.2	0	56.92	-	-	74	-17.08	323	181	V
3	2.484	37.06	RMS	32.4	-21.2	0	48.26	54	-5.74	-	-	323	181	V
2	2.494	47.15	Pk	32.4	-21.2	0	58.35	-	-	74	-15.65	323	181	V
4	2.495	40.02	RMS	32.4	-21.2	0	51.22	54	-2.78	-	-	323	181	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 9)

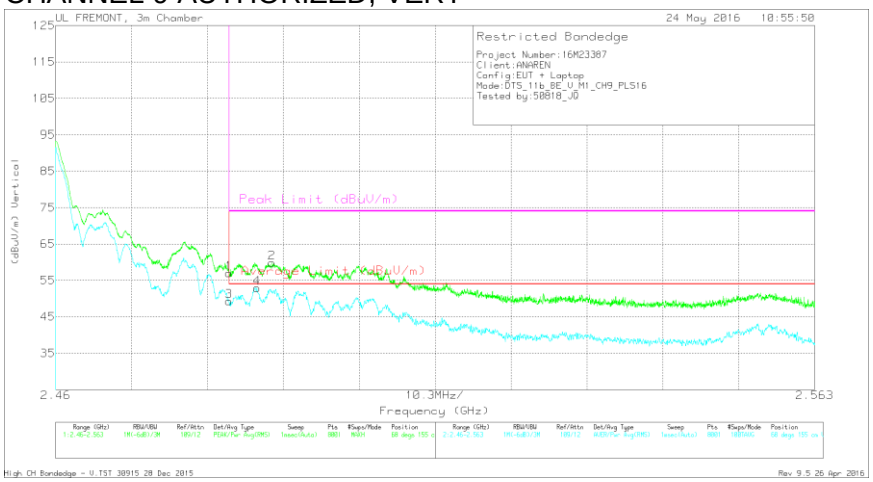


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	43.34	Pk	32.4	-21.2	0	54.54	-	-	74	-19.46	90	161	H
3	2.484	35.37	RMS	32.4	-21.2	0	46.57	54	-7.43	-	-	90	161	H
4	2.487	39.9	RMS	32.4	-21.1	0	51.2	54	-2.8	-	-	90	161	H
2	2.489	46.81	Pk	32.4	-21.2	0	58.01	-	-	74	-15.99	90	161	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 9 AUTHORIZED, VERT



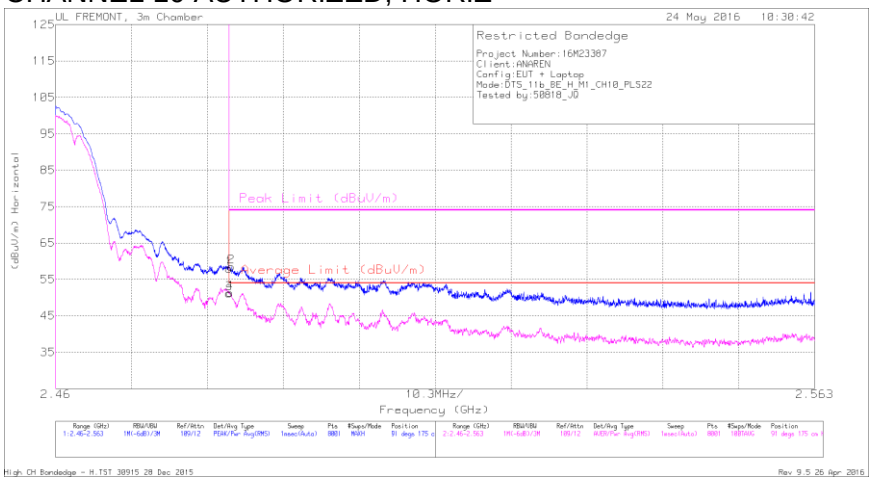
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	45.79	Pk	32.4	-21.2	0	56.99	-	-	74	-17.01	68	155	V
3	2.484	38.1	RMS	32.4	-21.2	0	49.3	54	-4.7	-	-	68	155	V
4	2.487	41.63	RMS	32.4	-21.1	0	52.93	54	-1.07	-	-	68	155	V
2	2.489	48.61	Pk	32.4	-21.2	0	59.81	-	-	74	-14.19	68	155	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 10)

CHANNEL 10 AUTHORIZED, HORIZ

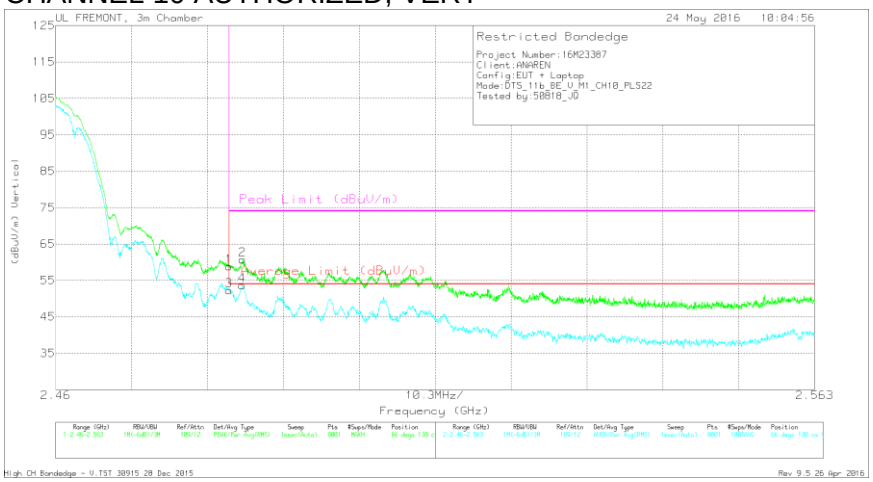


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	46.74	Pk	32.4	-21.2	0	57.94	-	-	74	-16.06	91	175	H
2	2.484	47.32	Pk	32.4	-21.2	0	58.52	-	-	74	-15.48	91	175	H
3	2.484	39.99	RMS	32.4	-21.2	0	51.19	54	-2.81	-	-	91	175	H
4	2.484	40.03	RMS	32.4	-21.2	0	51.23	54	-2.77	-	-	91	175	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 10 AUTHORIZED, VERT



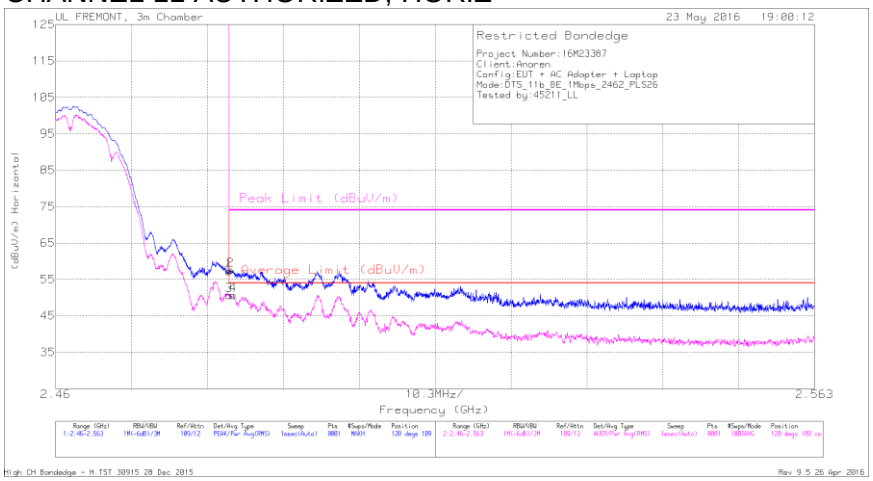
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	47.69	Pk	32.4	-21.2	0	58.89	-	-	74	-15.11	66	130	V
3	2.484	41.05	RMS	32.4	-21.2	0	52.25	54	-1.75	-	-	66	130	V
2	2.485	49.42	Pk	32.4	-21.1	0	60.72	-	-	74	-13.28	66	130	V
4	2.485	42.39	RMS	32.4	-21.1	0	53.69	54	-.31	-	-	66	130	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 11)

CHANNEL 11 AUTHORIZED, HORIZ

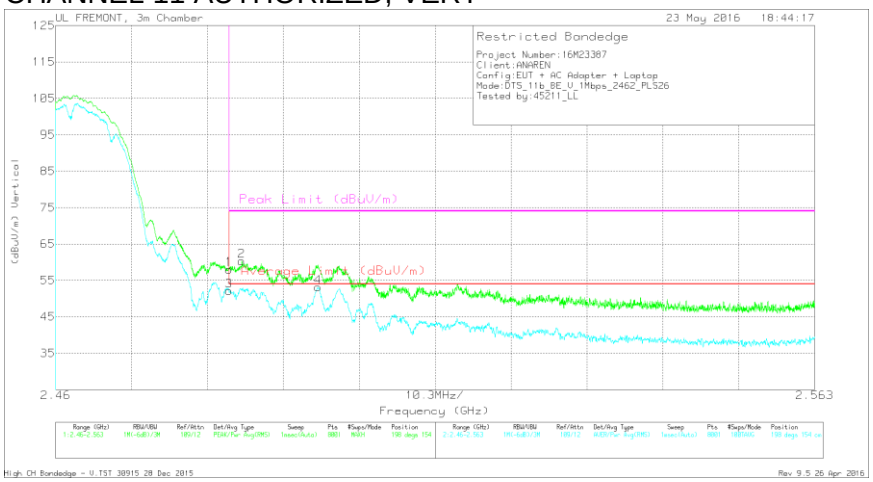


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	46.01	Pk	32.4	-21.2	0	57.21	-	-	74	-16.79	120	109	H
2	2.484	46.45	Pk	32.4	-21.2	0	57.65	-	-	74	-16.35	120	109	H
3	2.484	39.44	RMS	32.4	-21.2	0	50.64	54	-3.36	-	-	120	109	H
4	2.484	39.47	RMS	32.4	-21.2	0	50.67	54	-3.33	-	-	120	109	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 11 AUTHORIZED, VERT



Trace Markers

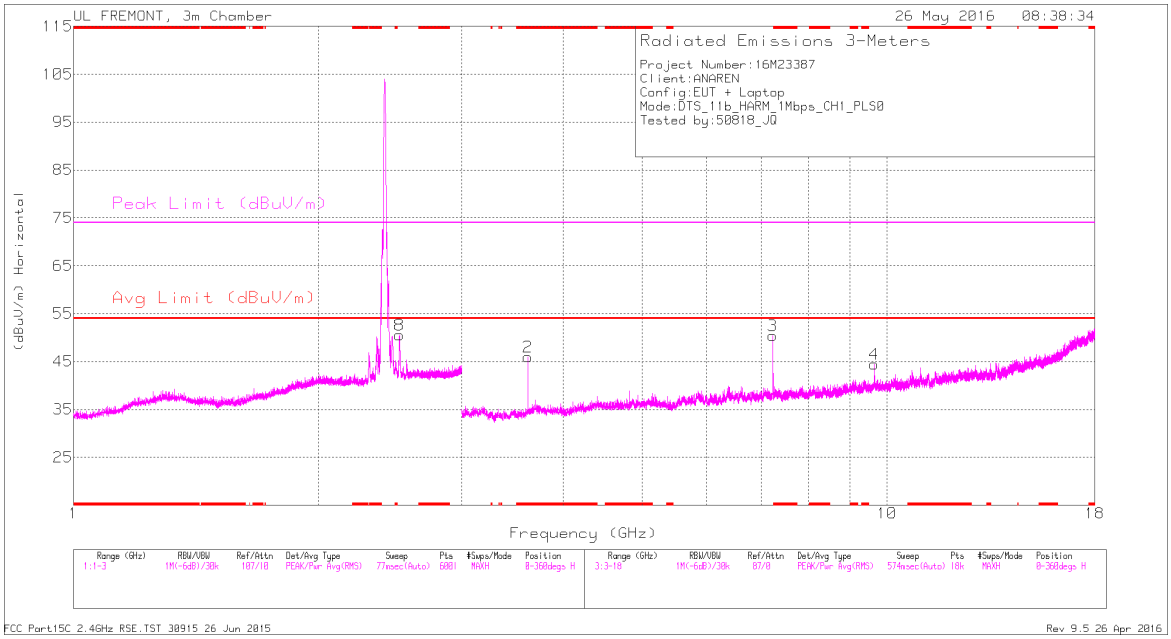
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	46.85	Pk	32.4	-21.2	0	58.05	-	-	74	-15.95	198	154	V
3	2.484	40.92	RMS	32.4	-21.2	0	52.12	54	-1.88	-	-	198	154	V
2	2.485	48.99	Pk	32.4	-21.1	0	60.29	-	-	74	-13.71	198	154	V
4	2.496	41.85	RMS	32.4	-21.1	0	53.15	54	-.85	-	-	198	154	V

Pk - Peak detector
RMS - RMS detection

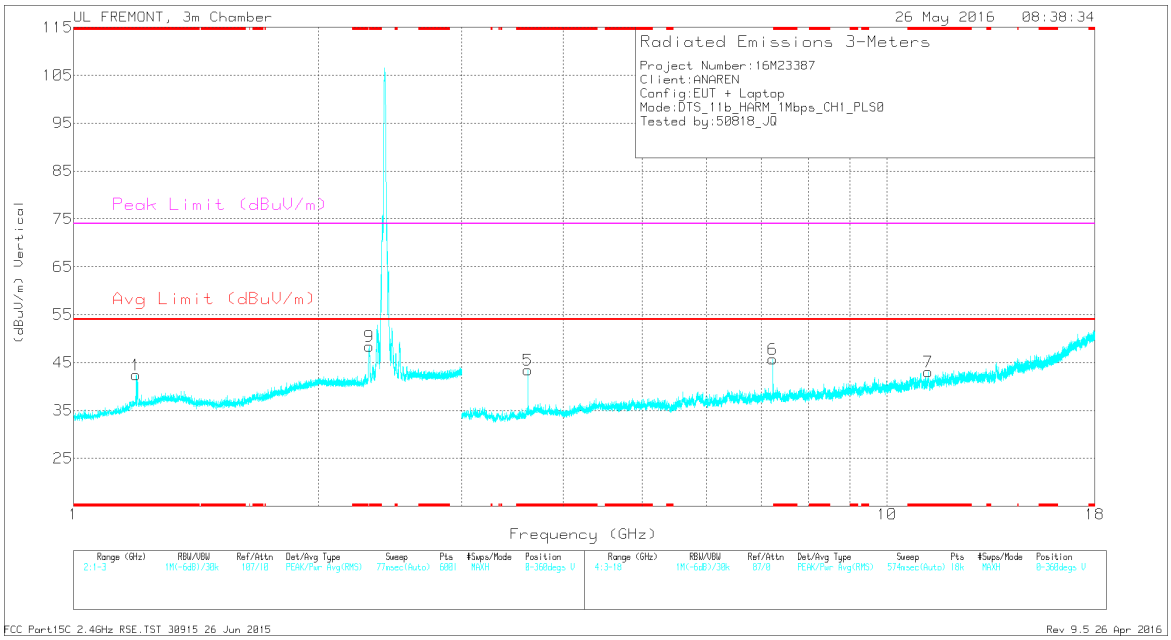
HARMONICS AND SPURIOUS EMISSIONS

CHANNEL 1

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.194	34.14	Pk	29.1	-20.8	0	42.44	-	-	74	-31.56	0-360	200	V
2	* 3.618	41.48	Pk	32.9	-28.4	0	45.98	-	-	74	-28.02	0-360	200	H
5	* 3.618	38.92	Pk	32.9	-28.4	0	43.42	-	-	74	-30.58	0-360	200	V
7	* 11.236	24.31	Pk	38.1	-19.4	0	43.01	-	-	74	-30.99	0-360	200	V
9	2.309	37.61	Pk	31.6	-20.8	0	48.41	-	-	-	-	0-360	100	V
8	2.515	39.17	Pk	32.4	-21	0	50.57	-	-	-	-	0-360	200	H
3	7.236	40.88	Pk	35.7	-26.2	0	50.38	-	-	-	-	0-360	100	H
6	7.236	36.18	Pk	35.7	-26.2	0	45.68	-	-	-	-	0-360	100	V
4	9.648	29.11	Pk	36.7	-21.3	0	44.51	-	-	-	-	0-360	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing
Pk - Peak detector

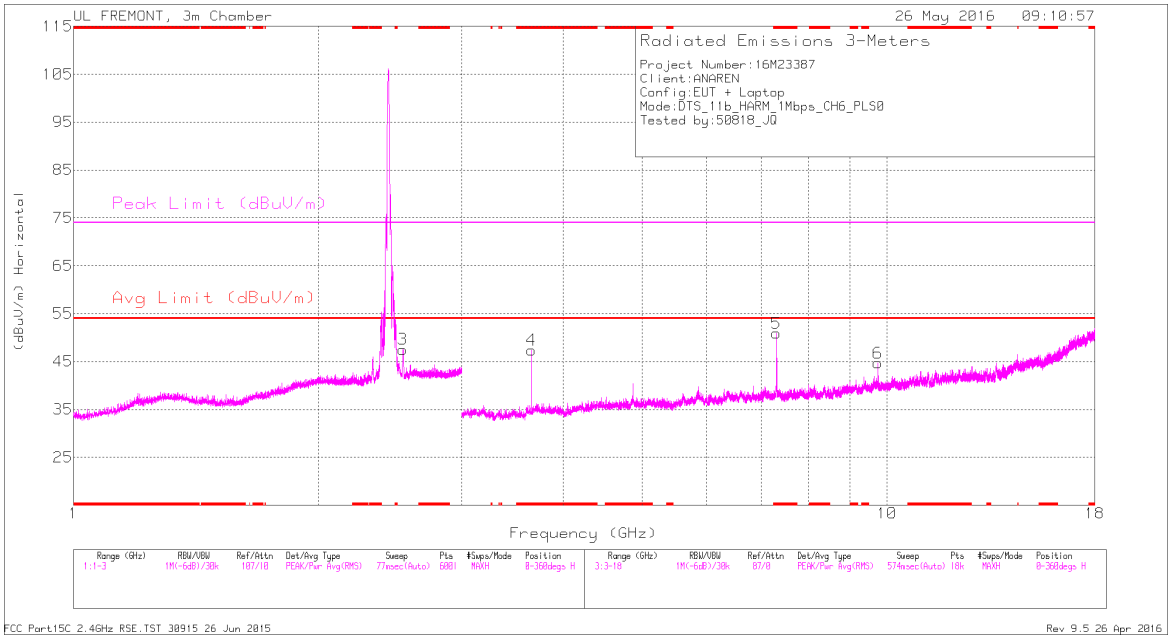
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.195	41.07	PK2	29.1	-20.9	0	49.27	-	-	74	-24.73	311	315	V
* 1.195	24.13	MAv1	29.1	-20.8	0	32.43	54	-21.57	-	-	311	315	V
* 3.618	44.4	PK2	32.9	-28.5	0	48.8	-	-	74	-25.2	123	204	H
* 3.618	41.39	MAv1	32.9	-28.5	0	45.79	54	-8.21	-	-	123	204	H
* 3.618	42.43	PK2	32.9	-28.5	0	46.83	-	-	74	-27.17	184	220	V
* 3.618	38.09	MAv1	32.9	-28.5	0	42.49	54	-11.51	-	-	184	220	V
* 11.238	29.61	PK2	38.1	-19.4	0	48.31	-	-	74	-25.69	328	282	V
* 11.235	19.4	MAv1	38.1	-19.4	0	38.1	54	-15.9	-	-	328	282	V

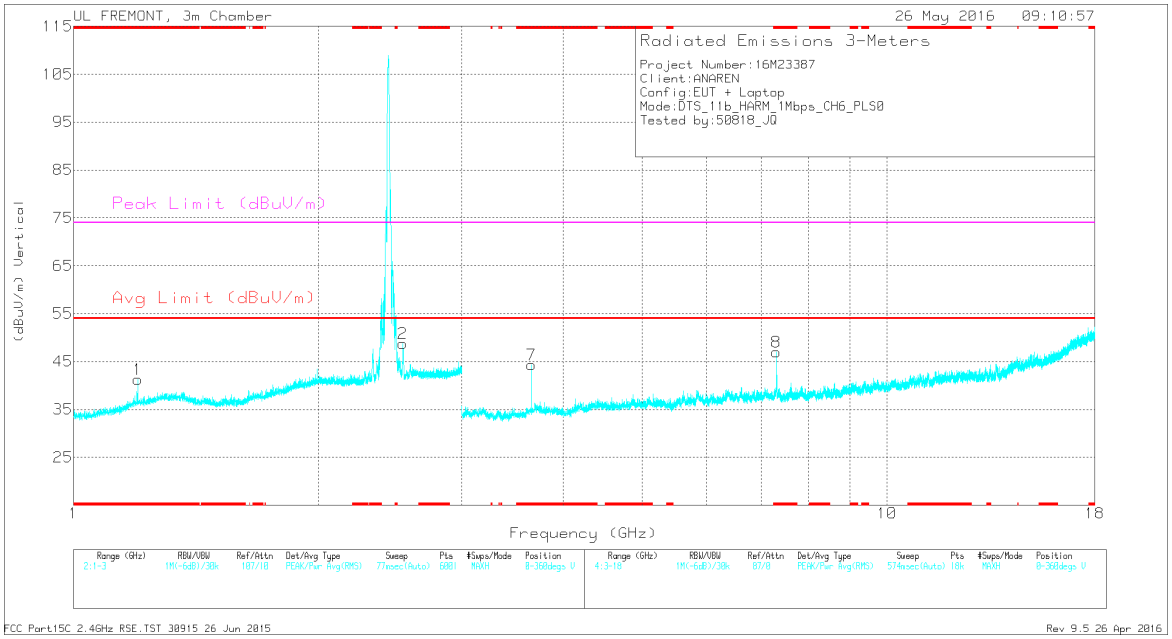
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

CHANNEL 6

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.2	32.74	Pk	29.2	-20.7	0	41.24	-	-	74	-32.76	0-360	200	V
4	* 3.656	42.64	Pk	33.1	-28.3	0	47.44	-	-	74	-26.56	0-360	200	H
5	* 7.311	40.19	Pk	35.7	-24.9	0	50.99	-	-	74	-23.01	0-360	100	H
7	* 3.656	39.56	Pk	33.1	-28.3	0	44.36	-	-	74	-29.64	0-360	100	V
8	* 7.31	36.14	Pk	35.7	-24.9	0	46.94	-	-	74	-27.06	0-360	200	V
3	2.54	36.37	Pk	32.4	-21.2	0	47.57	-	-	-	-	0-360	200	H
2	2.54	37.52	Pk	32.4	-21.2	0	48.72	-	-	-	-	0-360	100	V
6	9.747	29.79	Pk	36.8	-21.9	0	44.69	-	-	-	-	0-360	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing
Pk - Peak detector

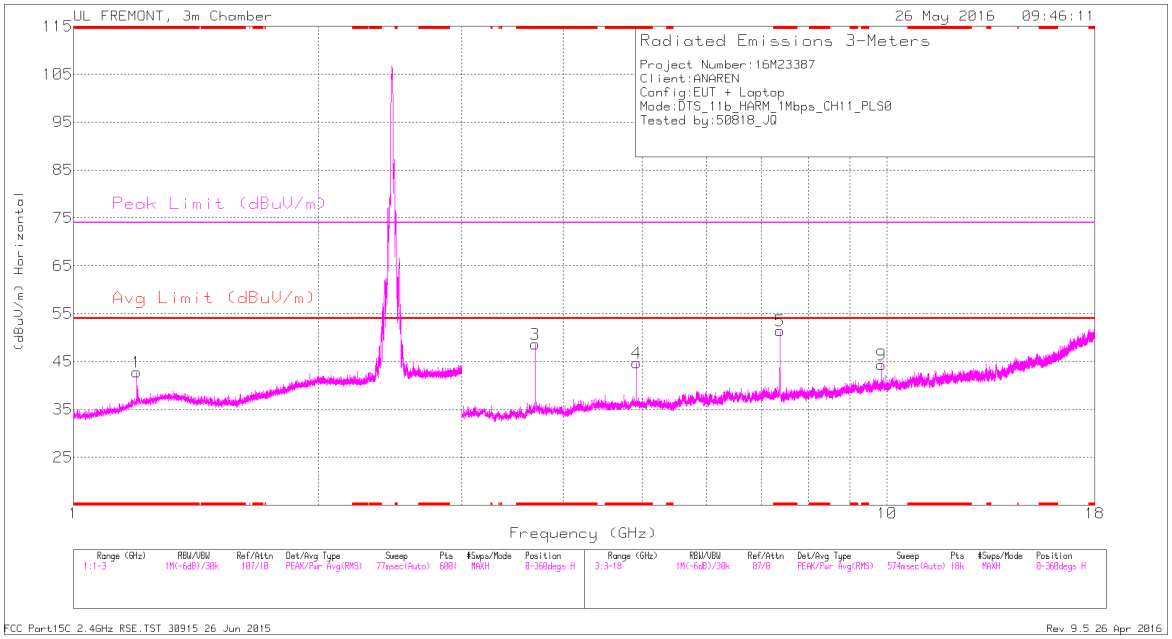
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.198	39.85	PK2	29.1	-20.8	0	48.15	-	-	74	-25.85	75	228	V
* 1.2	24.13	MAv1	29.2	-20.7	0	32.63	54	-21.37	-	-	75	228	V
* 3.655	45.26	PK2	33.1	-28.3	0	50.06	-	-	74	-23.94	132	201	H
* 3.655	42.47	MAv1	33.1	-28.3	0	47.27	54	-6.73	-	-	132	201	H
* 7.311	44.5	PK2	35.7	-24.9	0	55.3	-	-	74	-18.7	95	333	H
* 7.311	40.58	MAv1	35.7	-24.9	0	51.38	54	-2.62	-	-	95	333	H
* 3.655	43.52	PK2	33.1	-28.3	0	48.32	-	-	74	-25.68	16	243	V
* 3.655	40.25	MAv1	33.1	-28.3	0	45.05	54	-8.95	-	-	16	243	V
* 7.311	42.7	PK2	35.7	-24.9	0	53.5	-	-	74	-20.5	178	332	V
* 7.31	36.71	MAv1	35.7	-24.9	0	47.51	54	-6.49	-	-	178	332	V

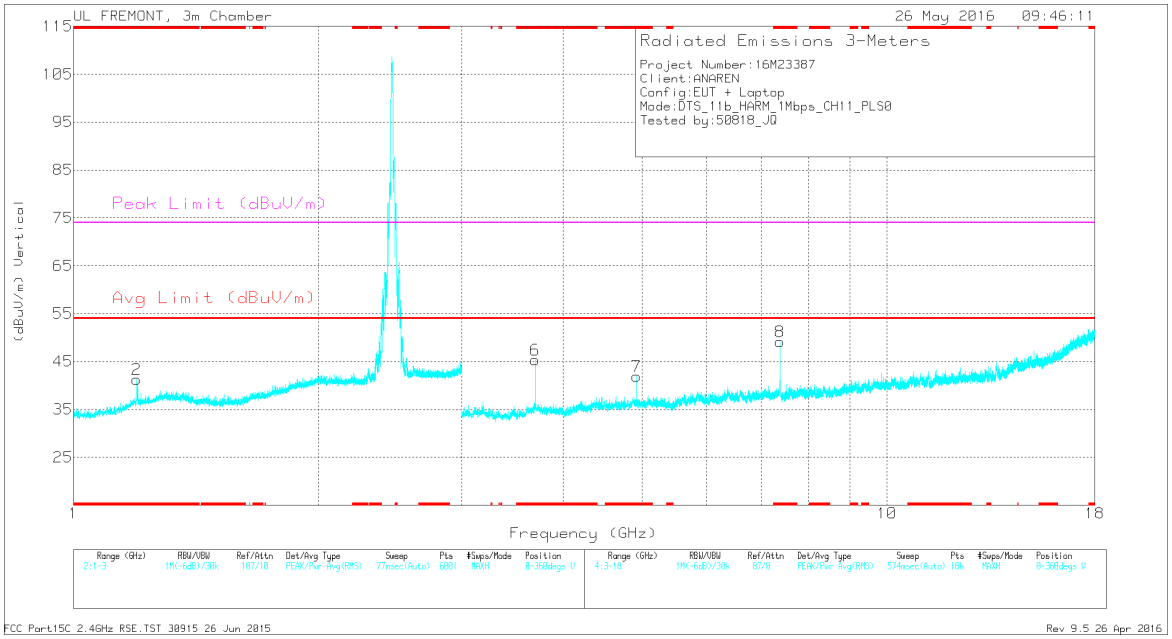
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

CHANNEL 11

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.196	34.66	Pk	29.1	-21	0	42.76	-	-	74	-31.24	0-360	232	H
2	* 1.196	33.03	Pk	29.1	-20.9	0	41.23	-	-	74	-32.77	0-360	200	V
3	* 3.693	43.07	Pk	33.2	-27.6	0	48.67	-	-	74	-25.33	0-360	100	H
4	* 4.924	37.85	Pk	34.2	-27.3	0	44.75	-	-	74	-29.25	0-360	200	H
5	* 7.385	40.38	Pk	35.8	-24.7	0	51.48	-	-	74	-22.52	0-360	100	H
6	* 3.693	39.8	Pk	33.2	-27.6	0	45.4	-	-	74	-28.6	0-360	100	V
7	* 4.924	35.05	Pk	34.2	-27.3	0	41.95	-	-	74	-32.05	0-360	200	V
8	* 7.385	38.03	Pk	35.8	-24.7	0	49.13	-	-	74	-24.87	0-360	200	V
9	9.847	29.65	Pk	36.9	-22.2	0	44.35	-	-	-	-	0-360	200	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing
Pk - Peak detector

Radiated Emissions

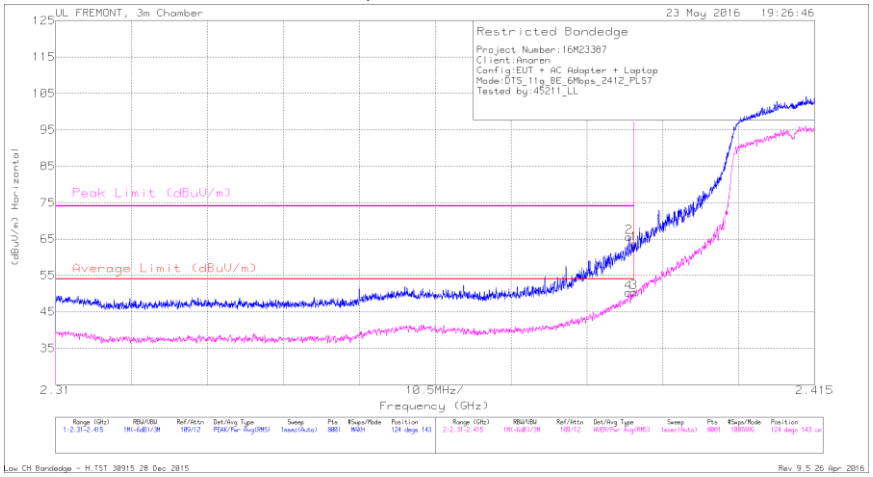
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.197	38.93	PK2	29.1	-21	0	47.03	-	-	74	-26.97	226	390	H
* 1.194	23.84	MAv1	29.1	-20.8	0	32.14	54	-21.86	-	-	226	390	H
* 1.195	41.01	PK2	29.1	-20.8	0	49.31	-	-	74	-24.69	26	148	V
* 1.197	24.64	MAv1	29.1	-21	0	32.74	54	-21.26	-	-	26	148	V
* 3.693	45.97	PK2	33.2	-27.6	0	51.57	-	-	74	-22.43	131	136	H
* 3.693	43.28	MAv1	33.2	-27.6	0	48.88	54	-5.12	-	-	131	136	H
* 4.924	42.57	PK2	34.2	-27.3	0	49.47	-	-	74	-24.53	235	320	H
* 4.924	38.59	MAv1	34.2	-27.3	0	45.49	54	-8.51	-	-	235	320	H
* 7.385	44.71	PK2	35.8	-24.7	0	55.81	-	-	74	-18.19	132	100	H
* 7.385	39.76	MAv1	35.8	-24.7	0	50.86	54	-3.14	-	-	132	100	H
* 3.693	42.92	PK2	33.2	-27.6	0	48.52	-	-	74	-25.48	15	101	V
* 3.693	39.03	MAv1	33.2	-27.6	0	44.63	54	-9.37	-	-	15	101	V
* 4.924	40.87	PK2	34.2	-27.3	0	47.77	-	-	74	-26.23	296	308	V
* 4.924	36.1	MAv1	34.2	-27.3	0	43	54	-11	-	-	296	308	V
* 7.385	43.25	PK2	35.8	-24.7	0	54.35	-	-	74	-19.65	97	246	V
* 7.385	37.14	MAv1	35.8	-24.7	0	48.24	54	-5.76	-	-	97	246	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2.2. 802.11g MODE IN THE 2.4 GHz BAND- 2dBi Antenna

RESTRICTED BANDEDGE (CHANNEL 1)

CHANNEL 1 RESTRICTED, HORIZ

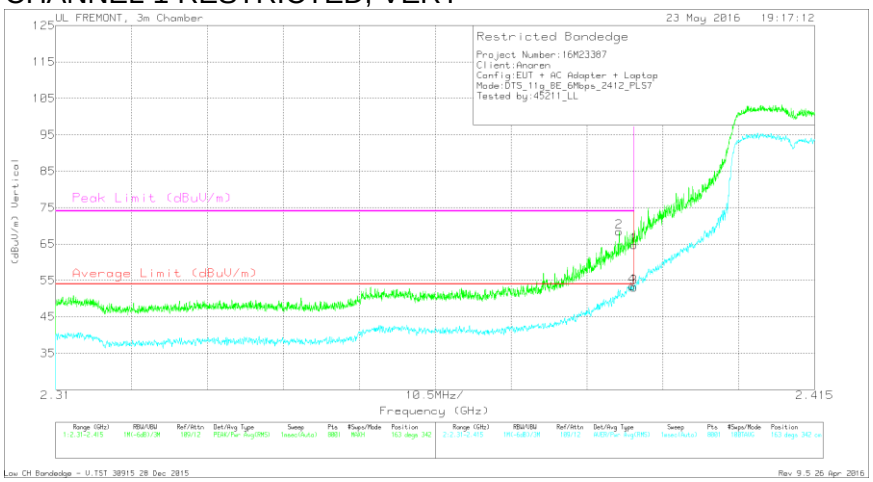


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.389	54.57	Pk	32.1	-21.1	0	65.57	-	-	74	-8.43	124	143	H
4	2.389	39.28	RMS	32.1	-21.1	0	50.28	54	-3.72	-	-	124	143	H
1	2.39	52.85	Pk	32.1	-21.2	0	63.75	-	-	74	-10.25	124	143	H
3	2.39	39.54	RMS	32.1	-21.2	0	50.44	54	-3.56	-	-	124	143	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 1 RESTRICTED, VERT

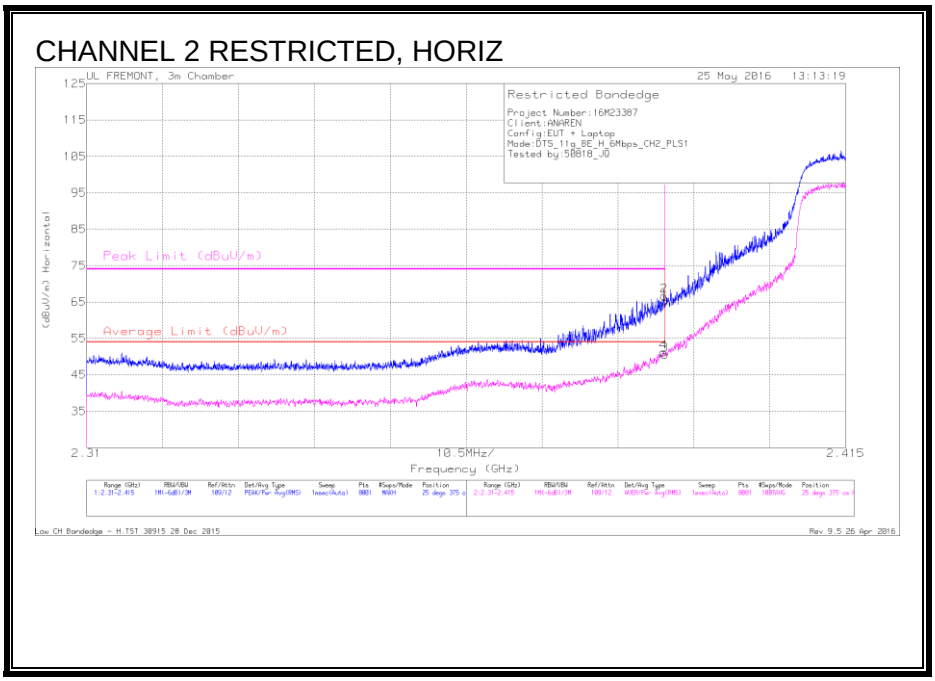


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.388	57.47	Pk	32.1	-21.1	0	68.47	-	-	74	-5.53	163	342	V
1	2.39	53.76	Pk	32.1	-21.2	0	64.66	-	-	74	-9.34	163	342	V
3	2.39	42.19	RMS	32.1	-21.2	0	53.09	54	-.91	-	-	163	342	V
4	2.39	42.49	RMS	32.1	-21.2	0	53.39	54	-.61	-	-	163	342	V

Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 2)

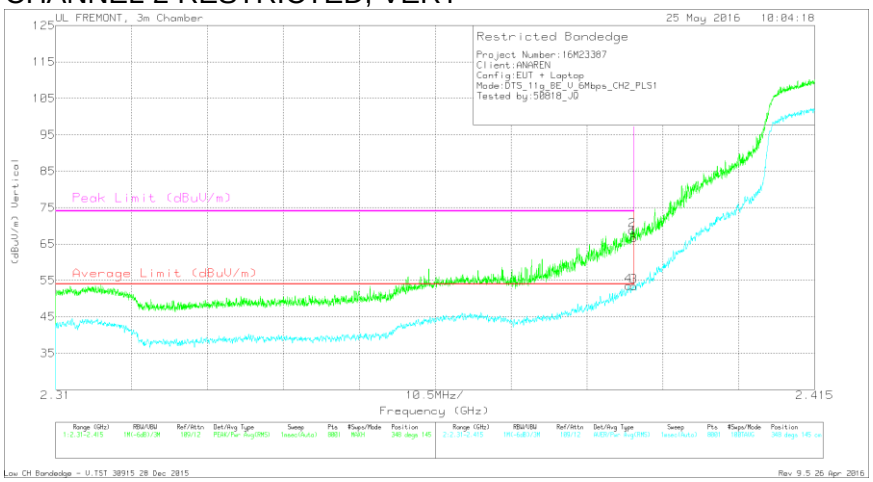


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	54.28	Pk	32.1	-21.2	0	65.18	-	-	74	-8.82	25	375	H
2	2.39	55.75	Pk	32.1	-21.2	0	66.65	-	-	74	-7.35	25	375	H
3	2.39	39.68	RMS	32.1	-21.2	0	50.58	54	-3.42	-	-	25	375	H
4	2.39	40.29	RMS	32.1	-21.2	0	51.19	54	-2.81	-	-	25	375	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 2 RESTRICTED, VERT



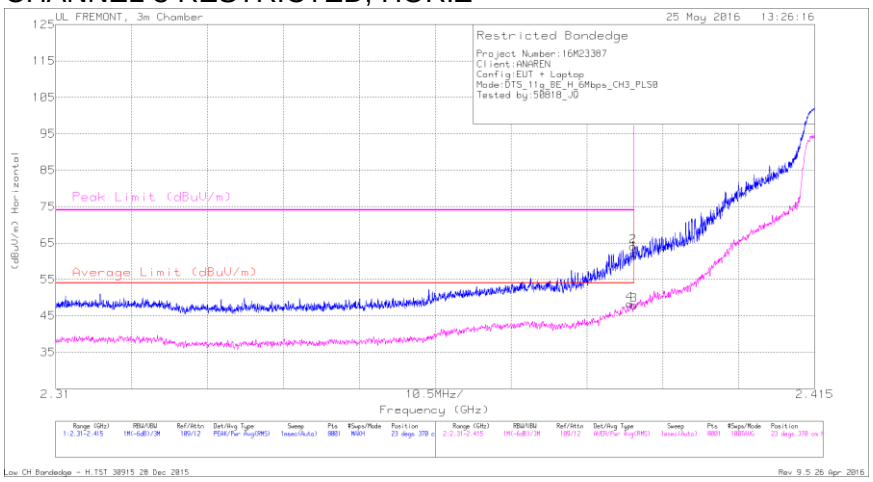
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.389	42.49	RMS	32.1	-21.1	0	53.49	54	-.51	-	-	348	145	V
1	2.39	55.81	Pk	32.1	-21.2	0	66.71	-	-	74	-7.29	348	145	V
2	2.39	57.9	Pk	32.1	-21.2	0	68.8	-	-	74	-5.2	348	145	V
3	2.39	42.51	RMS	32.1	-21.2	0	53.41	54	-.59	-	-	348	145	V

Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 3)

CHANNEL 3 RESTRICTED, HORIZ

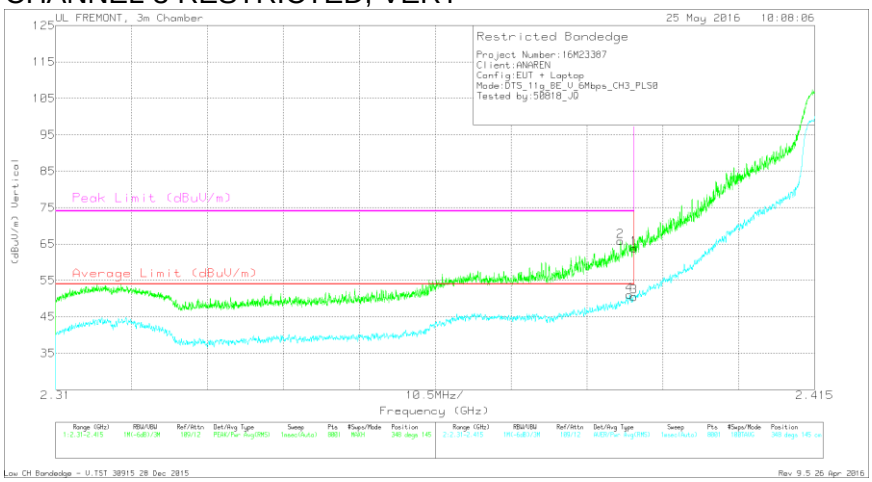


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.389	37.33	RMS	32.1	-21.1	0	48.33	54	-5.67	-	-	23	370	H
1	2.39	51.32	Pk	32.1	-21.2	0	62.22	-	-	74	-11.78	23	370	H
2	2.39	53.17	Pk	32.1	-21.2	0	64.07	-	-	74	-9.93	23	370	H
3	2.39	37.08	RMS	32.1	-21.2	0	47.98	54	-6.02	-	-	23	370	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 3 RESTRICTED, VERT

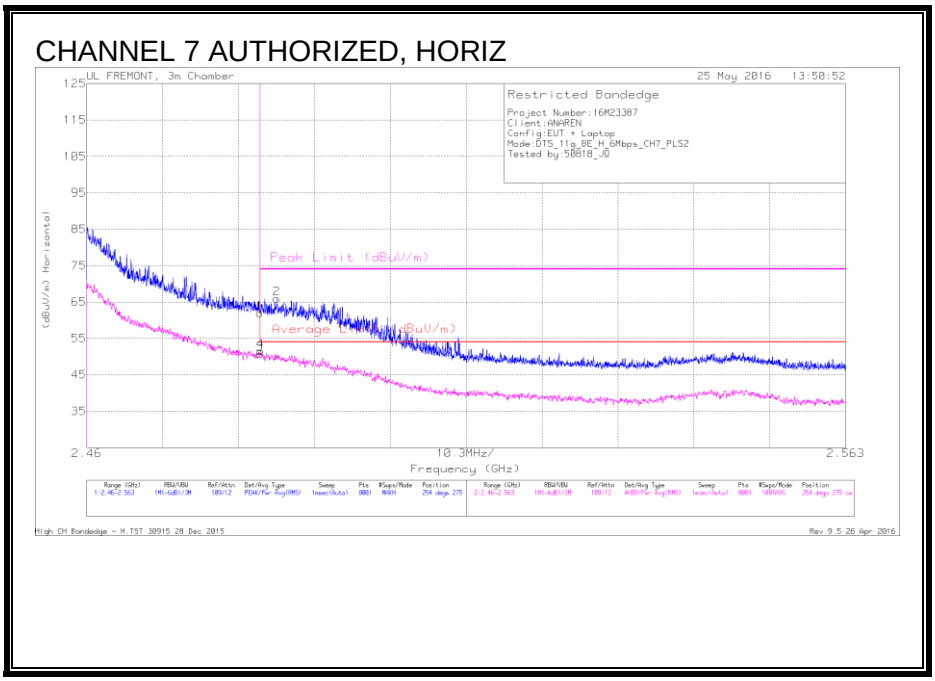


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.388	54.8	Pk	32.1	-21.1	0	65.8	-	-	74	-8.2	348	145	V
4	2.389	40.02	RMS	32.1	-21.1	0	51.02	54	-2.98	-	-	348	145	V
1	2.39	52.98	Pk	32.1	-21.2	0	63.88	-	-	74	-10.12	348	145	V
3	2.39	39.58	RMS	32.1	-21.2	0	50.48	54	-3.52	-	-	348	145	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 7)

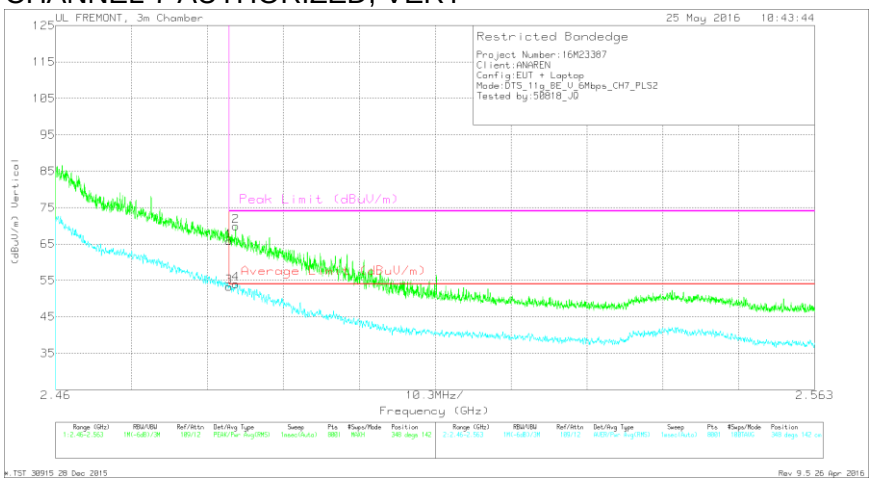


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	50.76	Pk	32.4	-21.2	0	61.96	-	-	74	-12.04	254	275	H
3	2.484	39.42	RMS	32.4	-21.2	0	50.62	54	-3.38	-	-	254	275	H
4	2.484	40.32	RMS	32.4	-21.2	0	51.52	54	-2.48	-	-	254	275	H
2	2.486	54.69	Pk	32.4	-21.1	0	65.99	-	-	74	-8.01	254	275	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 7 AUTHORIZED, VERT

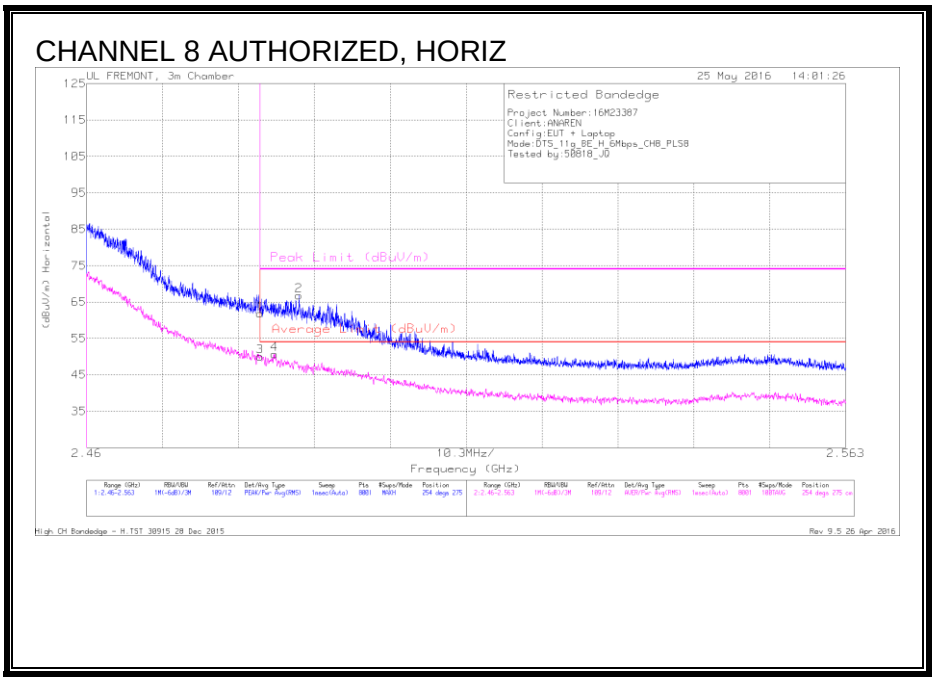


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	54.65	Pk	32.4	-21.2	0	65.85	-	-	74	-8.15	348	142	V
2	2.484	58.69	Pk	32.4	-21.2	0	69.89	-	-	74	-4.11	348	142	V
3	2.484	42.04	RMS	32.4	-21.2	0	53.24	54	-.76	-	-	348	142	V
4	2.484	42.76	RMS	32.4	-21.2	0	53.96	54	-.04	-	-	348	142	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 8)

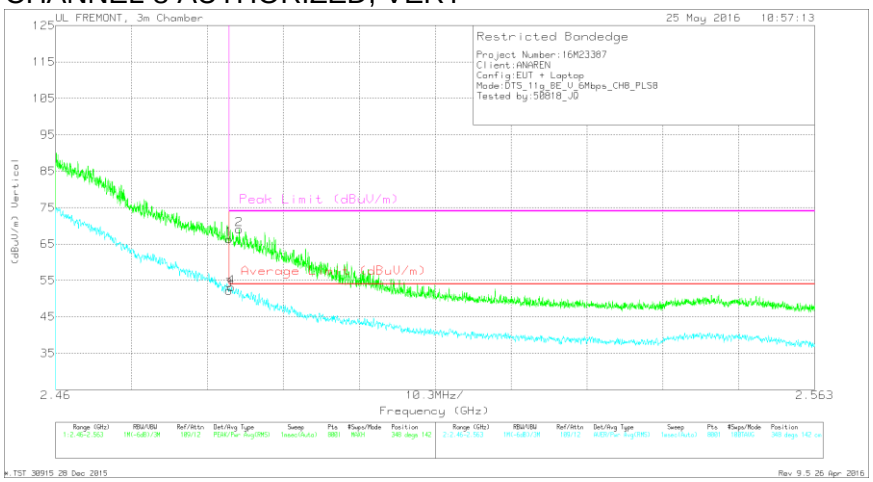


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	50.68	Pk	32.4	-21.2	0	61.88	-	-	74	-12.12	254	275	H
3	2.484	38.87	RMS	32.4	-21.2	0	50.07	54	-3.93	-	-	254	275	H
4	2.486	39.37	RMS	32.4	-21.1	0	50.67	54	-3.33	-	-	254	275	H
2	2.489	55.5	Pk	32.4	-21.1	0	66.8	-	-	74	-7.2	254	275	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 8 AUTHORIZED, VERT

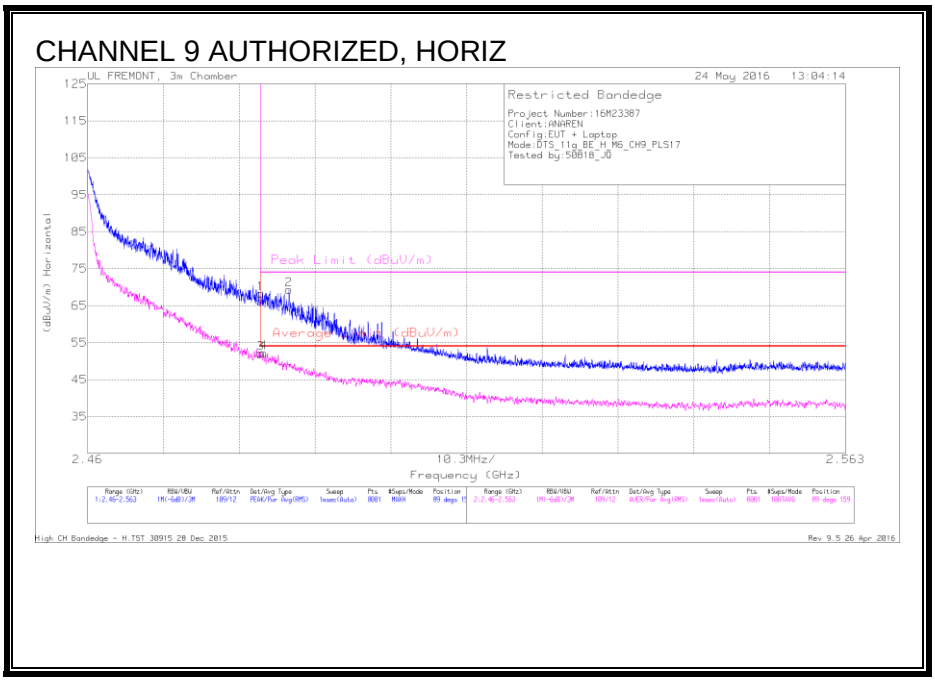


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	55.17	Pk	32.4	-21.2	0	66.37	-	-	74	-7.63	348	142	V
3	2.484	41.02	RMS	32.4	-21.2	0	52.22	54	-1.78	-	-	348	142	V
4	2.484	41.93	RMS	32.4	-21.2	0	53.13	54	-.87	-	-	348	142	V
2	2.485	57.75	Pk	32.4	-21.1	0	69.05	-	-	74	-4.95	348	142	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 9)

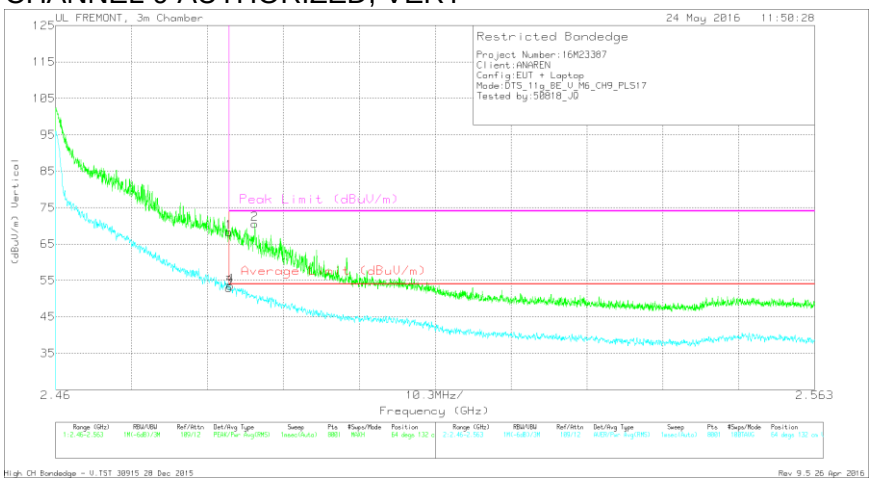


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	57.05	Pk	32.4	-21.2	0	68.25	-	-	74	-5.75	89	159	H
3	2.484	40.95	RMS	32.4	-21.2	0	52.15	54	-1.85	-	-	89	159	H
4	2.484	41.04	RMS	32.4	-21.2	0	52.24	54	-1.76	-	-	89	159	H
2	2.487	58.03	Pk	32.4	-21.1	0	69.33	-	-	74	-4.67	89	159	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 9 AUTHORIZED, VERT

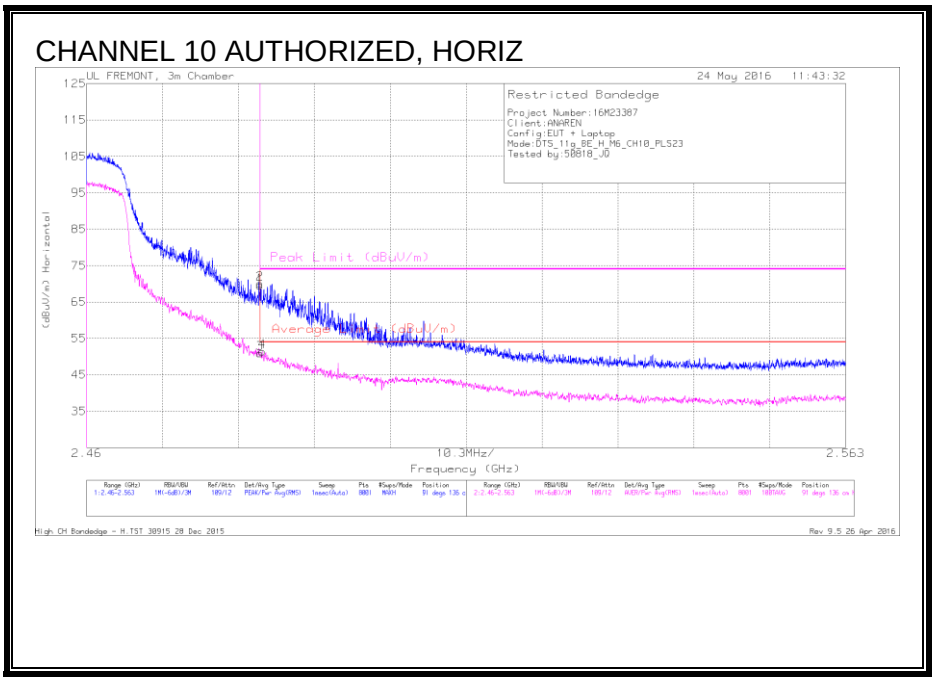


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	57.09	Pk	32.4	-21.2	0	68.29	-	-	74	-5.71	64	132	V
3	2.484	41.67	RMS	32.4	-21.2	0	52.87	54	-1.13	-	-	64	132	V
4	2.484	42.27	RMS	32.4	-21.2	0	53.47	54	-.53	-	-	64	132	V
2	2.487	59.25	Pk	32.4	-21.1	0	70.55	-	-	74	-3.45	64	132	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 10)

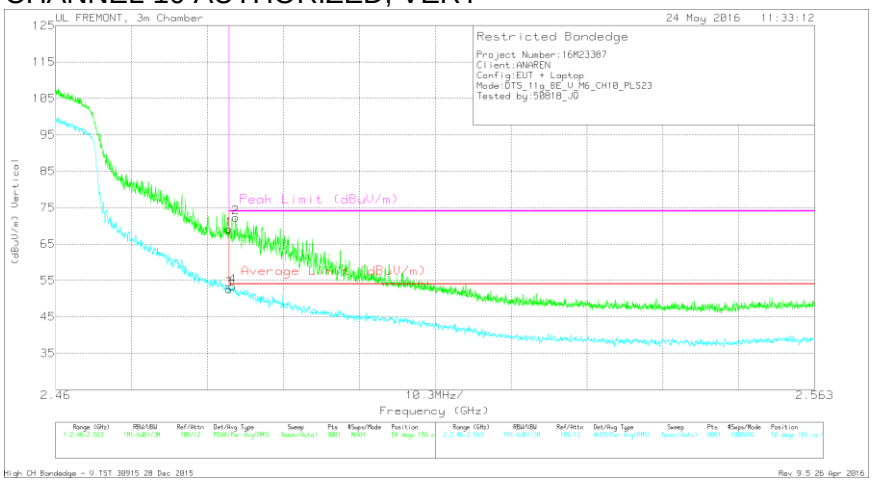


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	58.33	Pk	32.4	-21.2	0	69.53	-	-	74	-4.47	91	136	H
2	2.484	58.88	Pk	32.4	-21.2	0	70.08	-	-	74	-3.92	91	136	H
3	2.484	39.71	RMS	32.4	-21.2	0	50.91	54	-3.09	-	-	91	136	H
4	2.484	40.24	RMS	32.4	-21.2	0	51.44	54	-2.56	-	-	91	136	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 10 AUTHORIZED, VERT

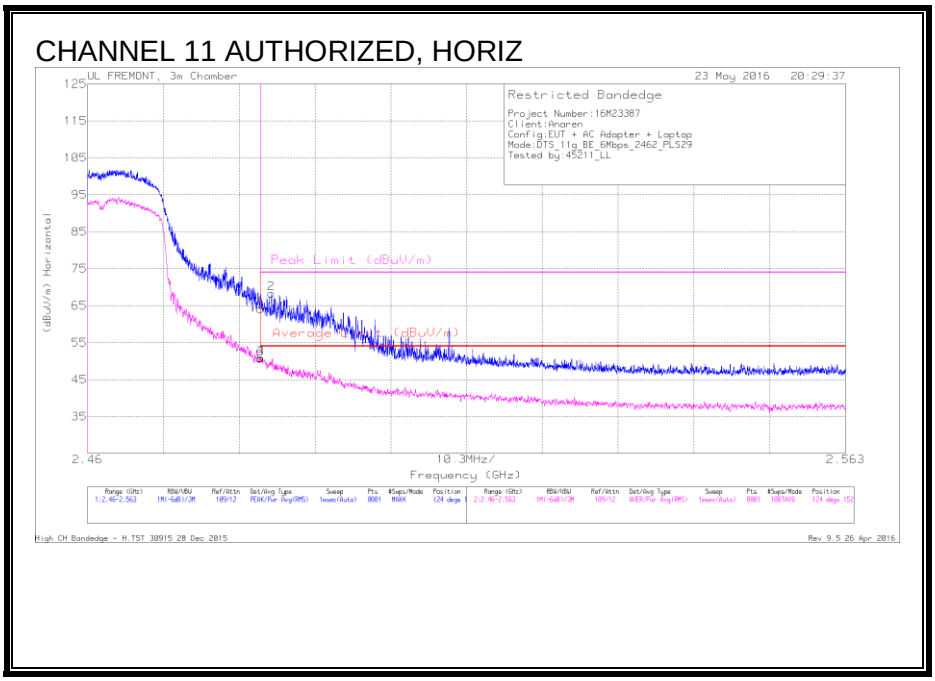


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	57.82	Pk	32.4	-21.2	0	69.02	-	-	74	-4.98	58	156	V
2	2.484	61.08	Pk	32.4	-21.2	0	72.28	-	-	74	-1.72	58	156	V
3	2.484	41.3	RMS	32.4	-21.2	0	52.5	54	-1.5	-	-	58	156	V
4	2.484	42.17	RMS	32.4	-21.2	0	53.37	54	-.63	-	-	58	156	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 11)

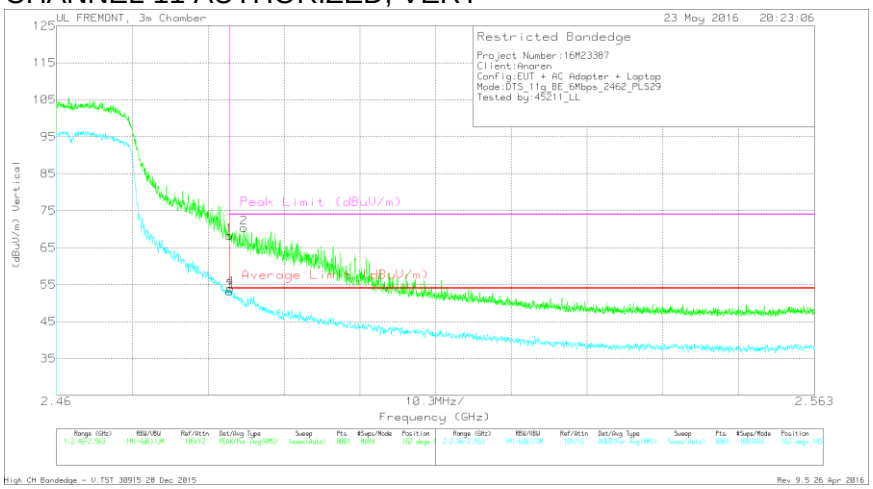


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	52.97	Pk	32.4	-21.2	0	64.17	-	-	74	-9.83	124	152	H
3	2.484	39.48	RMS	32.4	-21.2	0	50.68	54	-3.32	-	-	124	152	H
4	2.484	39.63	RMS	32.4	-21.2	0	50.83	54	-3.17	-	-	124	152	H
2	2.485	56.97	Pk	32.4	-21.1	0	68.27	-	-	74	-5.73	124	152	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 11 AUTHORIZED, VERT



Trace Markers

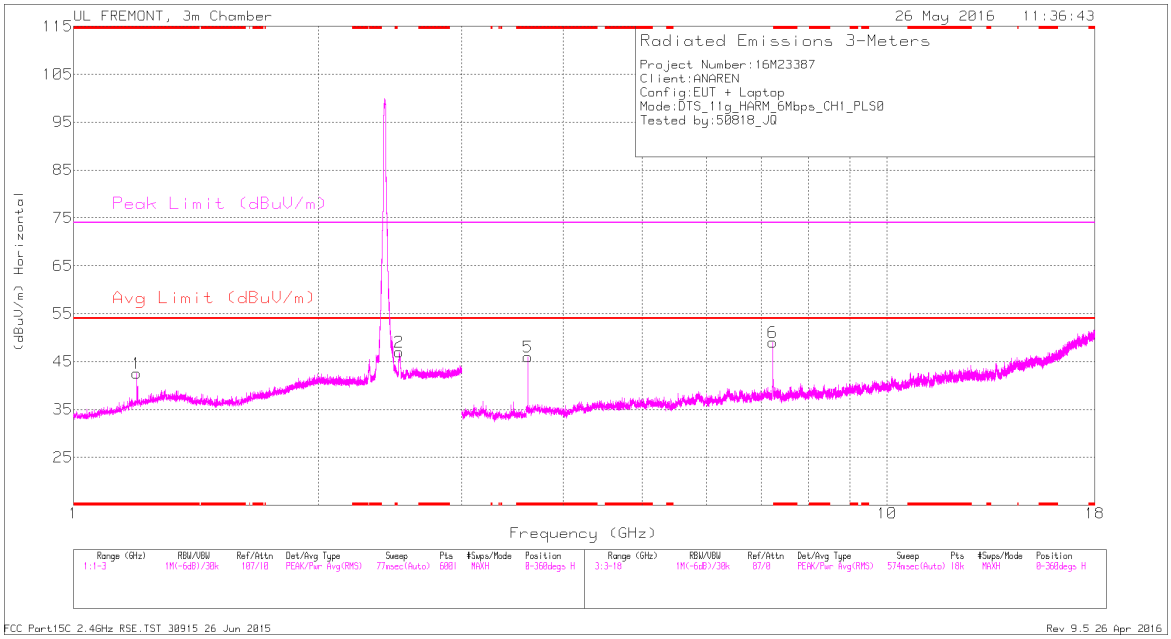
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	57.05	Pk	32.4	-21.2	0	68.25	-	-	74	-5.75	162	145	V
3	2.484	41.92	RMS	32.4	-21.2	0	53.12	54	-.88	-	-	162	145	V
4	2.484	42.77	RMS	32.4	-21.2	0	53.97	54	-.03	-	-	162	145	V
2	2.485	59.07	Pk	32.4	-21.1	0	70.37	-	-	74	-3.63	162	145	V

Pk - Peak detector
RMS - RMS detection

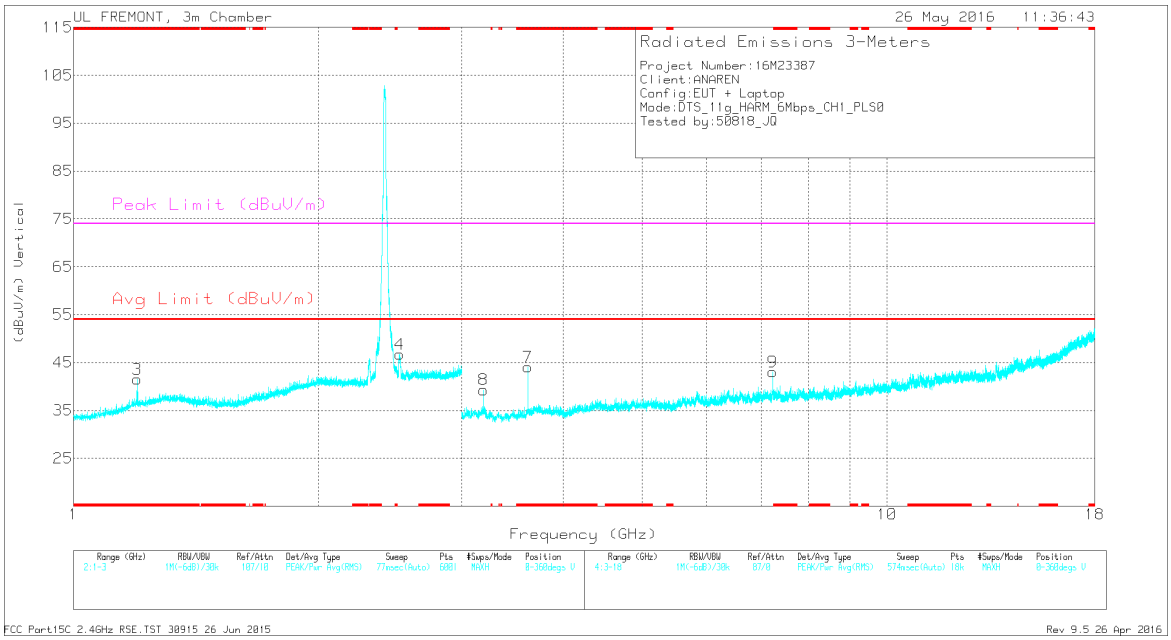
HARMONICS AND SPURIOUS EMISSIONS

CHANNEL 1

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.195	34.32	Pk	29.1	-20.9	0	42.52	-	-	74	-31.48	0-360	200	H
3	* 1.197	33.45	Pk	29.1	-21	0	41.55	-	-	74	-32.45	0-360	200	V
5	* 3.618	41.53	Pk	32.9	-28.4	0	46.03	-	-	74	-27.97	0-360	100	H
7	* 3.617	39.62	Pk	32.9	-28.5	0	44.02	-	-	74	-29.98	0-360	200	V
2	2.514	35.62	Pk	32.4	-21	0	47.02	-	-	-	-	0-360	200	H
4	2.518	35.5	Pk	32.4	-21.1	0	46.8	-	-	-	-	0-360	100	V
8	3.192	34.42	Pk	33	-28.1	0	39.32	-	-	-	-	0-360	200	V
6	7.236	39.56	Pk	35.7	-26.2	0	49.06	-	-	-	-	0-360	100	H
9	7.236	33.58	Pk	35.7	-26.2	0	43.08	-	-	-	-	0-360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

- Compliance for emissions in non-restricted bands is shown in conducted out of band testing

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.195	40.81	PK2	29.1	-20.9	0	49.01	-	-	74	-24.99	205	221	H
* 1.195	25.02	MAv1	29.1	-20.8	0	33.32	54	-20.68	-	-	205	221	H
* 1.196	42.71	PK2	29.1	-20.9	0	50.91	-	-	74	-23.09	26	102	V
* 1.196	24.53	MAv1	29.1	-20.9	0	32.73	54	-21.27	-	-	26	102	V
* 3.618	45.23	PK2	32.9	-28.5	0	49.63	-	-	74	-24.37	121	121	H
* 3.618	42.15	MAv1	32.9	-28.5	0	46.55	54	-7.45	-	-	121	121	H
* 3.618	42.53	PK2	32.9	-28.4	0	47.03	-	-	74	-26.97	50	100	V
* 3.618	38.75	MAv1	32.9	-28.5	0	43.15	54	-10.85	-	-	50	100	V

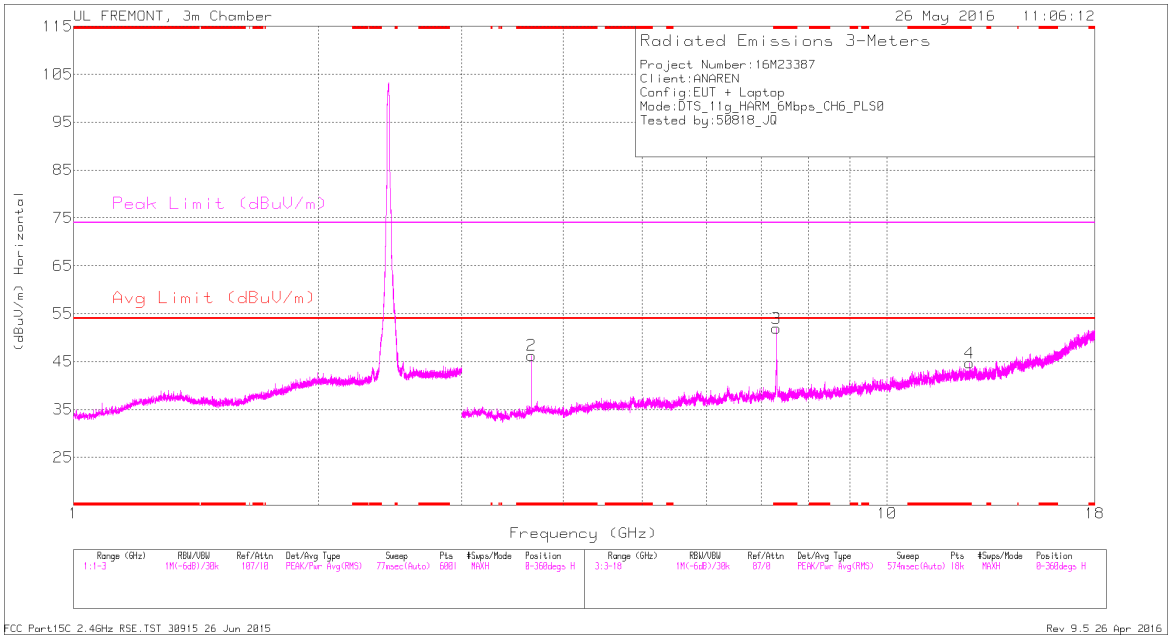
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK2 - KDB558074 Method: Maximum Peak

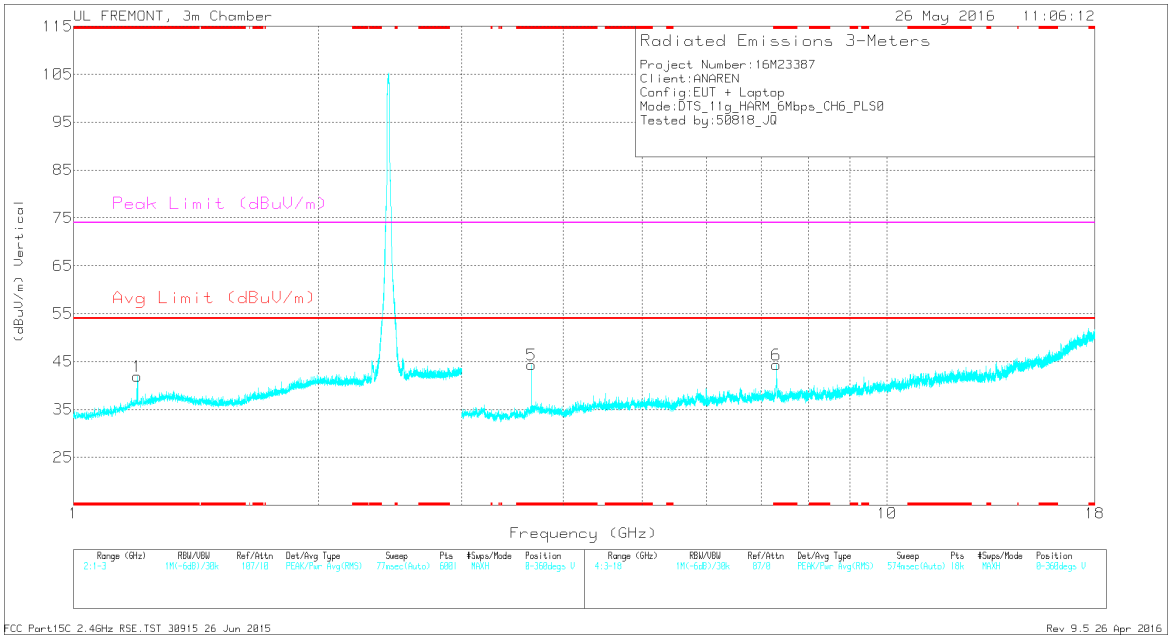
MAv1 - KDB558074 Option 1 Maximum RMS Average

CHANNEL 6

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.198	33.57	Pk	29.1	-20.8	0	41.87	-	-	74	-32.13	0-360	100	V
2	* 3.656	41.5	Pk	33.1	-28.3	0	46.3	-	-	74	-27.7	0-360	200	H
3	* 7.311	41.11	Pk	35.7	-24.9	0	51.91	-	-	74	-22.09	0-360	100	H
4	* 12.619	26.64	Pk	39.3	-21.2	0	44.74	-	-	74	-29.26	0-360	100	H
5	* 3.656	39.54	Pk	33.1	-28.3	0	44.34	-	-	74	-29.66	0-360	200	V
6	* 7.311	33.51	Pk	35.7	-24.9	0	44.31	-	-	74	-29.69	0-360	200	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing
Pk - Peak detector

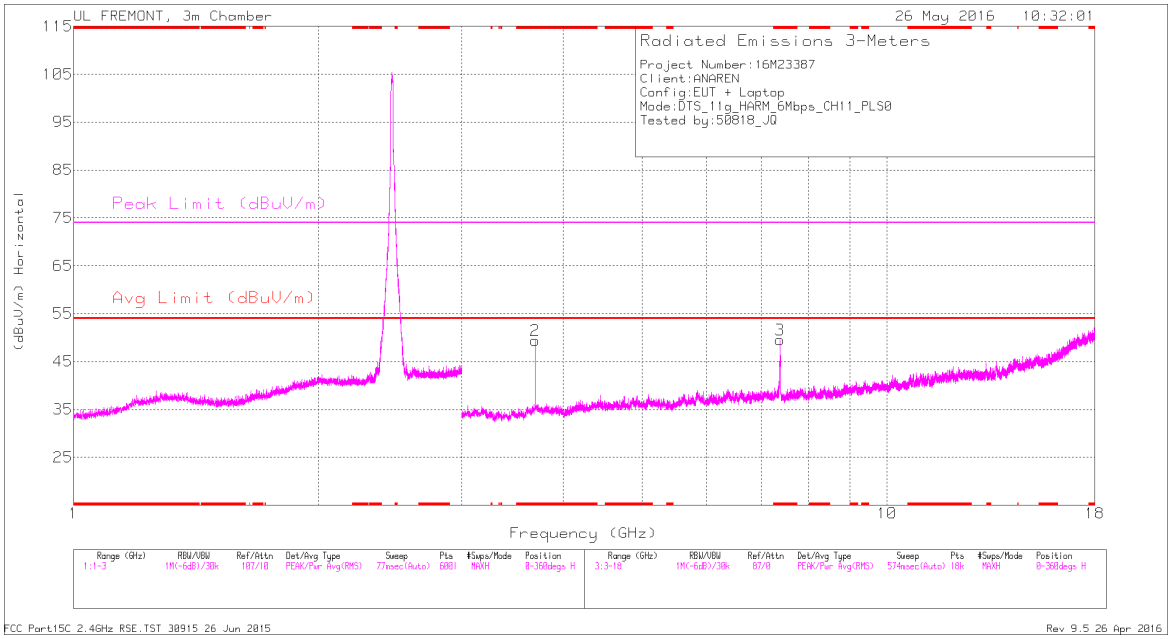
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.199	42.23	PK2	29.1	-20.7	0	50.63	-	-	74	-23.37	17	292	V
* 1.198	25.24	MAv1	29.1	-20.8	0	33.54	54	-20.46	-	-	17	292	V
* 3.655	45.14	PK2	33.1	-28.3	0	49.94	-	-	74	-24.06	131	183	H
* 3.655	42.26	MAv1	33.1	-28.3	0	47.06	54	-6.94	-	-	131	183	H
* 7.311	45.22	PK2	35.7	-24.9	0	56.02	-	-	74	-17.98	95	335	H
* 7.311	40.24	MAv1	35.7	-24.9	0	51.04	54	-2.96	-	-	95	335	H
* 12.619	30.69	PK2	39.3	-21.2	0	48.79	-	-	74	-25.21	2	298	H
* 12.618	20.95	MAv1	39.3	-21.2	0	39.05	54	-14.95	-	-	2	298	H
* 3.655	43.23	PK2	33.1	-28.3	0	48.03	-	-	74	-25.97	331	200	V
* 3.655	39.73	MAv1	33.1	-28.3	0	44.53	54	-9.47	-	-	331	200	V
* 7.311	39.45	PK2	35.7	-24.9	0	50.25	-	-	74	-23.75	95	253	V
* 7.311	33.13	MAv1	35.7	-24.9	0	43.93	54	-10.07	-	-	95	253	V

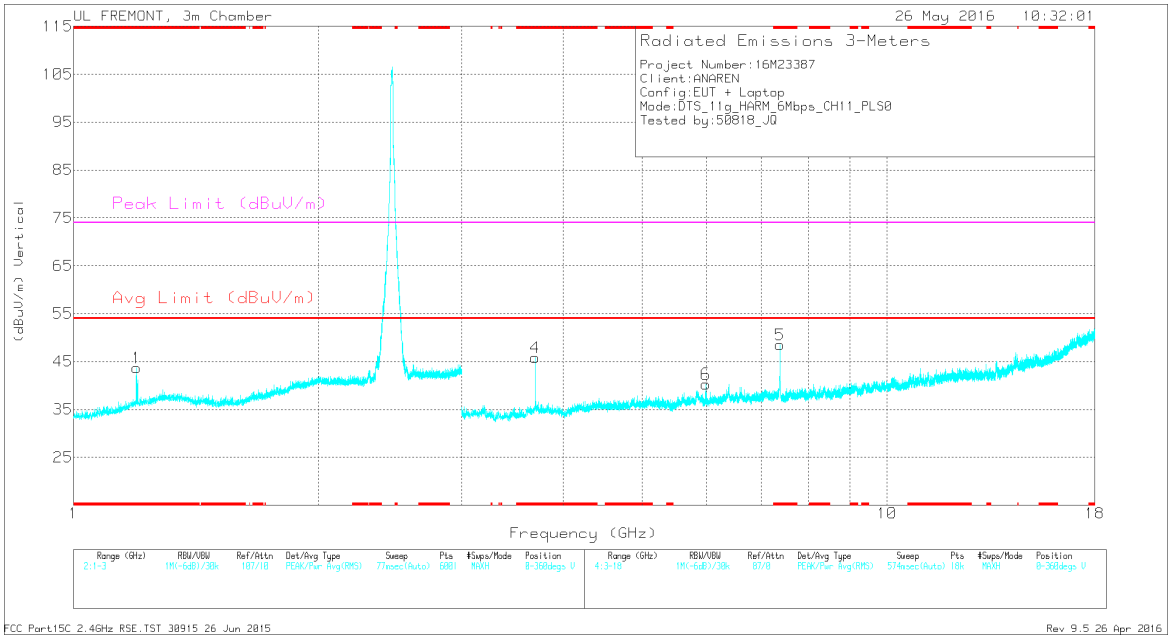
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

CHANNEL 11

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.195	35.44	Pk	29.1	-20.8	0	43.74	-	-	74	-30.26	0-360	200	V
2	* 3.693	43.83	Pk	33.2	-27.6	0	49.43	-	-	74	-24.57	0-360	100	H
3	* 7.386	38.43	Pk	35.8	-24.7	0	49.53	-	-	74	-24.47	0-360	200	H
4	* 3.692	40.23	Pk	33.2	-27.6	0	45.83	-	-	74	-28.17	0-360	100	V
5	* 7.386	37.42	Pk	35.8	-24.7	0	48.52	-	-	74	-25.48	0-360	100	V
6	5.991	31.93	Pk	35.1	-26.7	0	40.33	-	-	-	-	0-360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing
Pk - Peak detector

Radiated Emissions

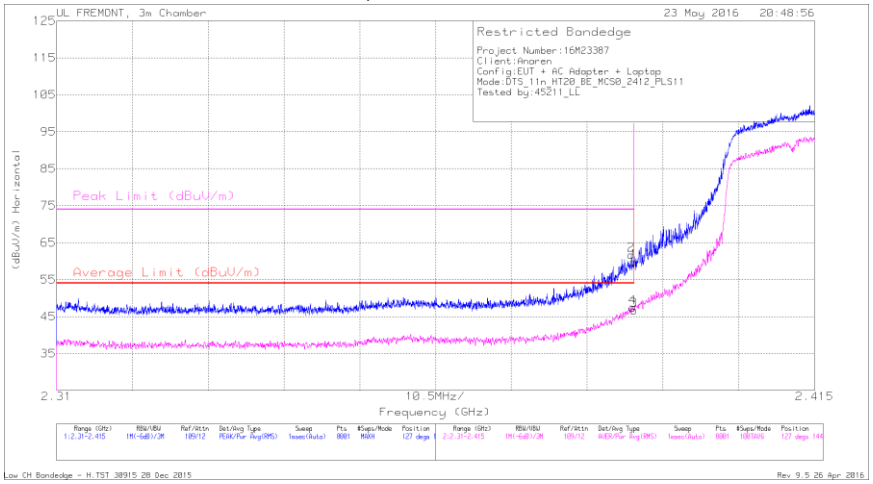
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/ Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.196	42.06	PK2	29.1	-20.9	0	50.26	-	-	74	-23.74	29	136	V
* 1.196	24.83	MAv1	29.1	-21	0	32.93	54	-21.07	-	-	29	136	V
* 3.693	46.55	PK2	33.2	-27.6	0	52.15	-	-	74	-21.85	130	136	H
* 3.693	43.59	MAv1	33.2	-27.6	0	49.19	54	-4.81	-	-	130	136	H
* 7.386	44.49	PK2	35.8	-24.7	0	55.59	-	-	74	-18.41	98	318	H
* 7.386	39.61	MAv1	35.8	-24.7	0	50.71	54	-3.29	-	-	98	318	H
* 3.693	43.13	PK2	33.2	-27.6	0	48.73	-	-	74	-25.27	22	101	V
* 3.693	39.52	MAv1	33.2	-27.6	0	45.12	54	-8.88	-	-	22	101	V
* 7.386	42.28	PK2	35.8	-24.7	0	53.38	-	-	74	-20.62	68	100	V
* 7.386	37.01	MAv1	35.8	-24.7	0	48.11	54	-5.89	-	-	68	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

10.2.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND - 2dBi Antenna

RESTRICTED BANDEDGE (CHANNEL 1)

CHANNEL 1 RESTRICTED, HORIZ

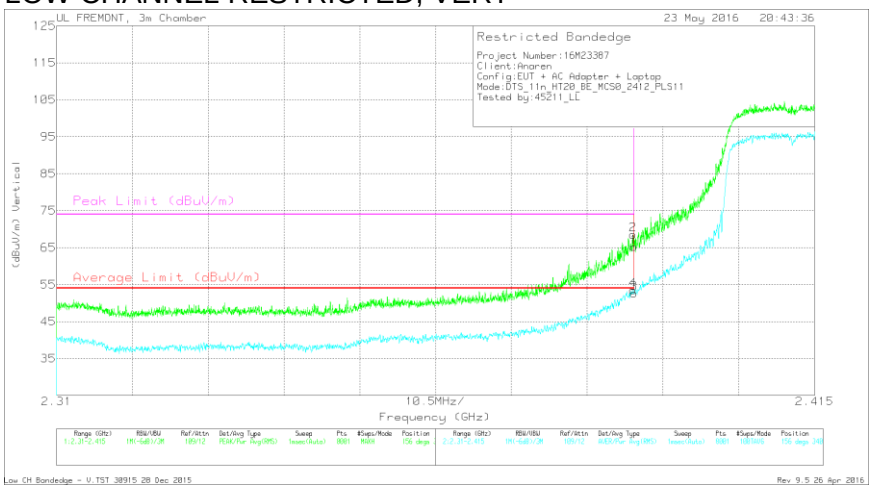


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (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	Pk	32.1	-21.2	59.9	-	-	74	-14.1	127	144	H
2	2.39	50.74	Pk	32.1	-21.1	61.74	-	-	74	-12.26	127	144	H
3	2.39	35.83	RMS	32.1	-21.2	46.73	54	-7.27	-	-	127	144	H
4	2.39	36.54	RMS	32.1	-21.2	47.44	54	-6.56	-	-	127	144	H

Pk - Peak detector
RMS - RMS detection

LOW CHANNEL RESTRICTED, VERT



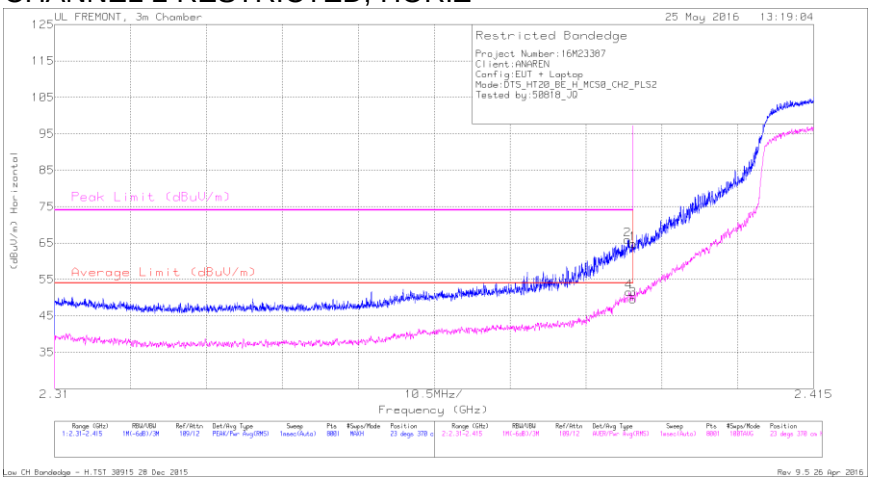
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	54.3	Pk	32.1	-21.2	0	65.2	-	-	74	-8.8	156	340	V
2	2.39	57.63	Pk	32.1	-21.2	0	68.53	-	-	74	-5.47	156	340	V
3	2.39	41.73	RMS	32.1	-21.2	0	52.63	54	-1.37	-	-	156	340	V
4	2.39	42.61	RMS	32.1	-21.2	0	53.51	54	-.49	-	-	156	340	V

Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 2)

CHANNEL 2 RESTRICTED, HORIZ

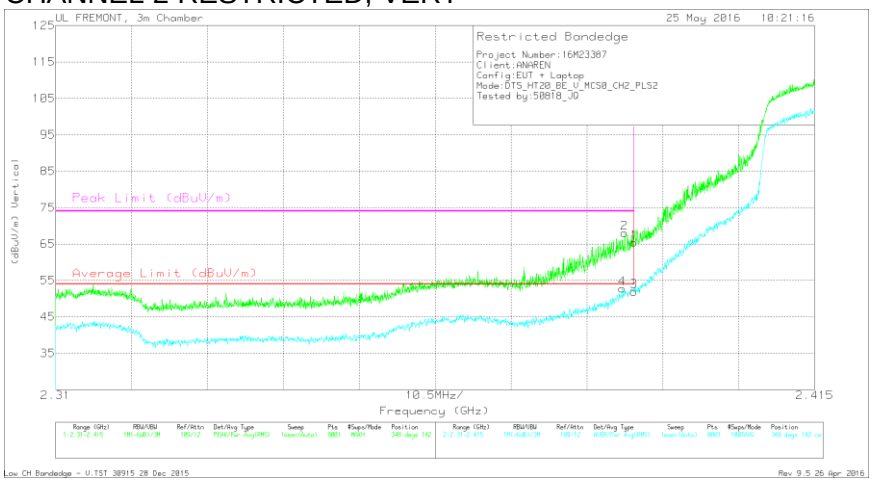


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.389	54.88	Pk	32.1	-21.1	0	65.88	-	-	74	-8.12	23	370	H
4	2.389	40.59	RMS	32.1	-21.1	0	51.59	54	-2.41	-	-	23	370	H
1	2.39	53.89	Pk	32.1	-21.2	0	64.79	-	-	74	-9.21	23	370	H
3	2.39	38.65	RMS	32.1	-21.2	0	49.55	54	-4.45	-	-	23	370	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 2 RESTRICTED, VERT

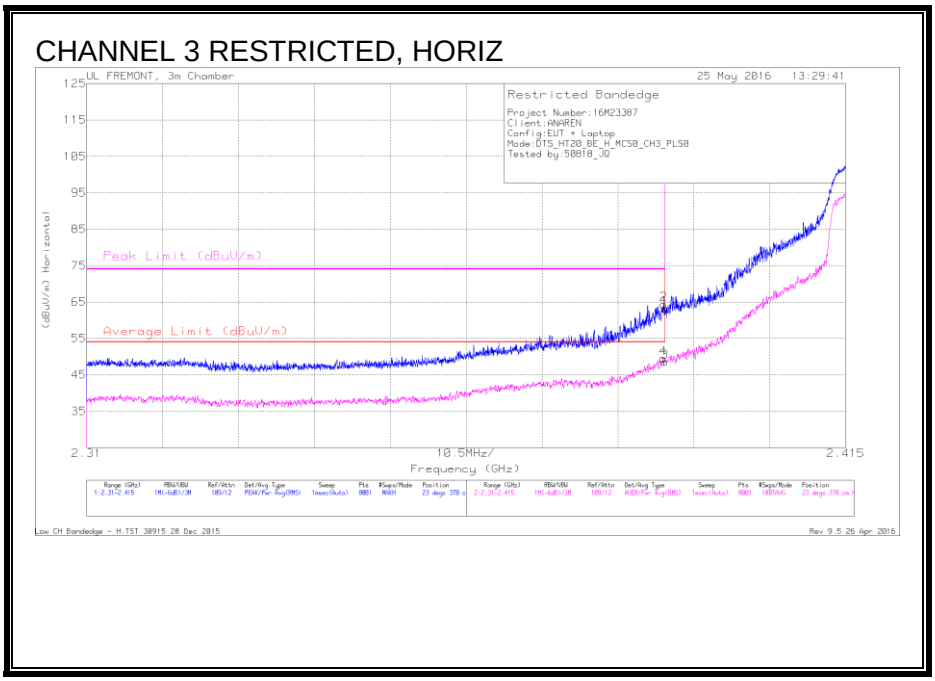


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	2.388	41.72	RMS	32.1	-21.1	0	52.72	54	-1.28	-	-	348	142	V
2	2.389	56.99	Pk	32.1	-21.1	0	67.99	-	-	74	-6.01	348	142	V
1	2.39	54.57	Pk	32.1	-21.2	0	65.47	-	-	74	-8.53	348	142	V
3	2.39	41.07	RMS	32.1	-21.2	0	51.97	54	-2.03	-	-	348	142	V

Pk - Peak detector
RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 3)

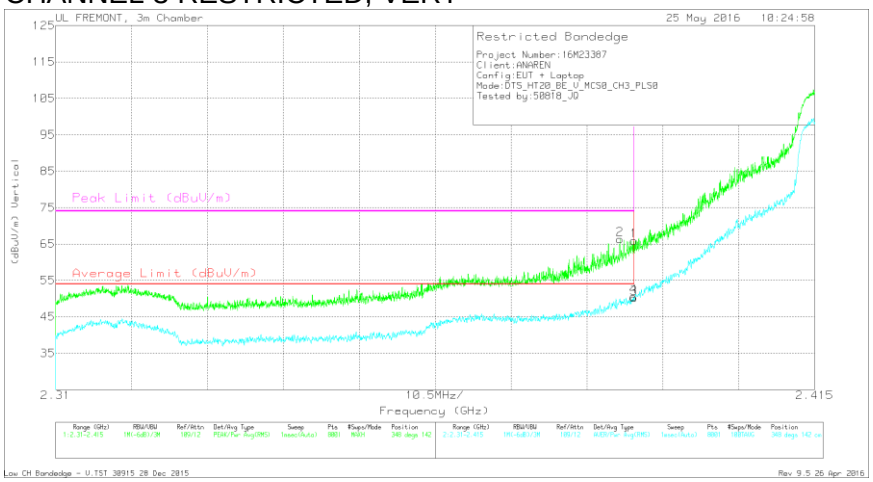


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	52.26	Pk	32.1	-21.2	0	63.16	-	-	74	-10.84	23	370	H
2	2.39	53.48	Pk	32.1	-21.2	0	64.38	-	-	74	-9.62	23	370	H
3	2.39	37.69	RMS	32.1	-21.2	0	48.59	54	-5.41	-	-	23	370	H
4	2.39	38.67	RMS	32.1	-21.2	0	49.57	54	-4.43	-	-	23	370	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 3 RESTRICTED, VERT



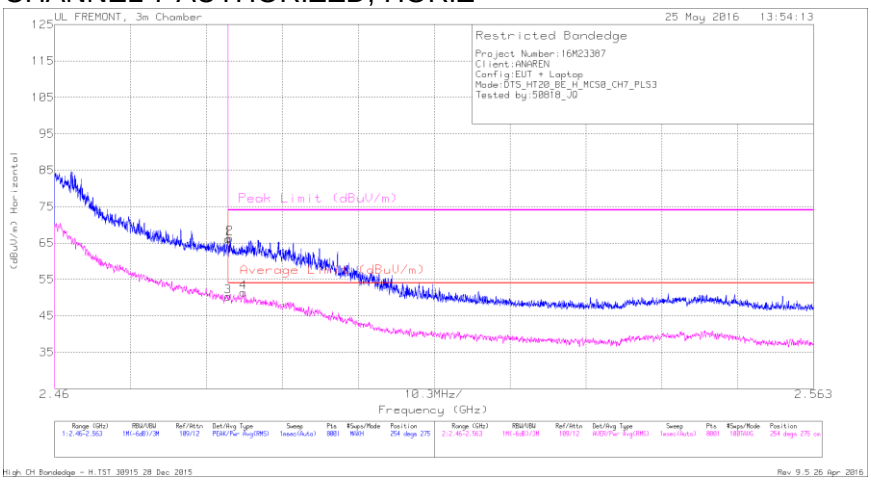
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.388	55.34	Pk	32.1	-21.1	0	66.34	-	-	74	-7.66	348	142	V
1	2.39	54.99	Pk	32.1	-21.2	0	65.89	-	-	74	-8.11	348	142	V
3	2.39	39.31	RMS	32.1	-21.2	0	50.21	54	-3.79	-	-	348	142	V
4	2.39	39.58	RMS	32.1	-21.2	0	50.48	54	-3.52	-	-	348	142	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 7)

CHANNEL 7 AUTHORIZED, HORIZ

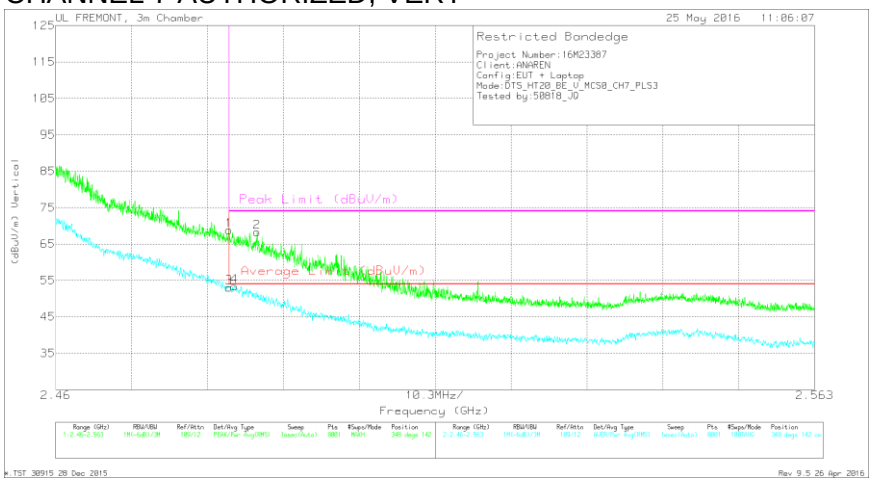


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	54.86	Pk	32.4	-21.2	0	66.06	-	-	74	-7.94	254	275	H
2	2.484	55.17	Pk	32.4	-21.2	0	66.37	-	-	74	-7.63	254	275	H
3	2.484	39.05	RMS	32.4	-21.2	0	50.25	54	-3.75	-	-	254	275	H
4	2.486	40.15	RMS	32.4	-21.1	0	51.45	54	-2.55	-	-	254	275	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 7 AUTHORIZED, VERT

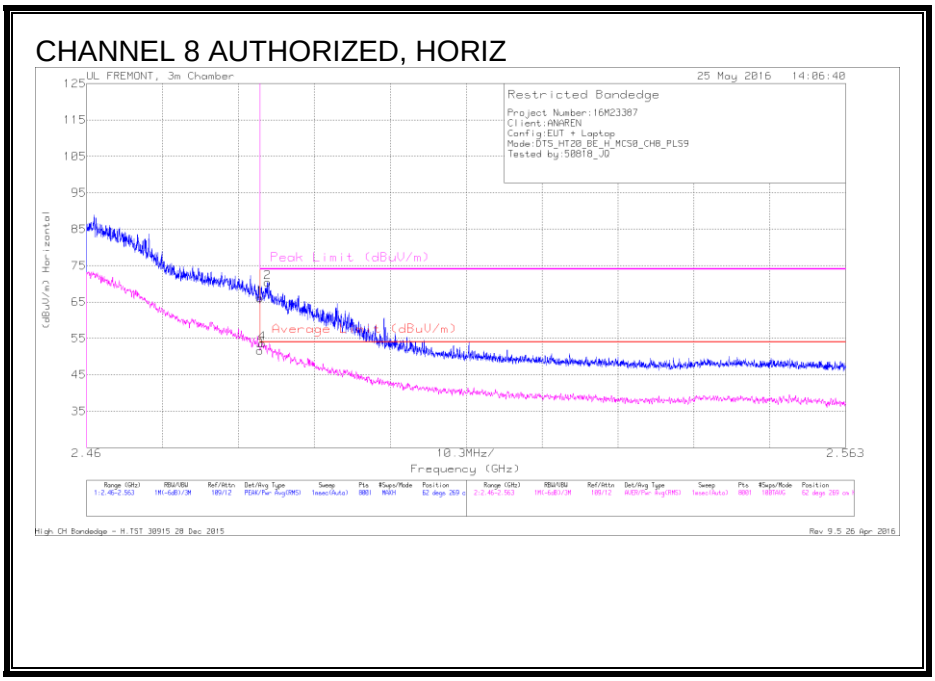


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	57.56	Pk	32.4	-21.2	0	68.76	-	-	74	-5.24	348	142	V
3	2.484	41.88	RMS	32.4	-21.2	0	53.08	54	-.92	-	-	348	142	V
4	2.484	42.25	RMS	32.4	-21.2	0	53.45	54	-.55	-	-	348	142	V
2	2.487	57.04	Pk	32.4	-21.1	0	68.34	-	-	74	-5.66	348	142	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 8)

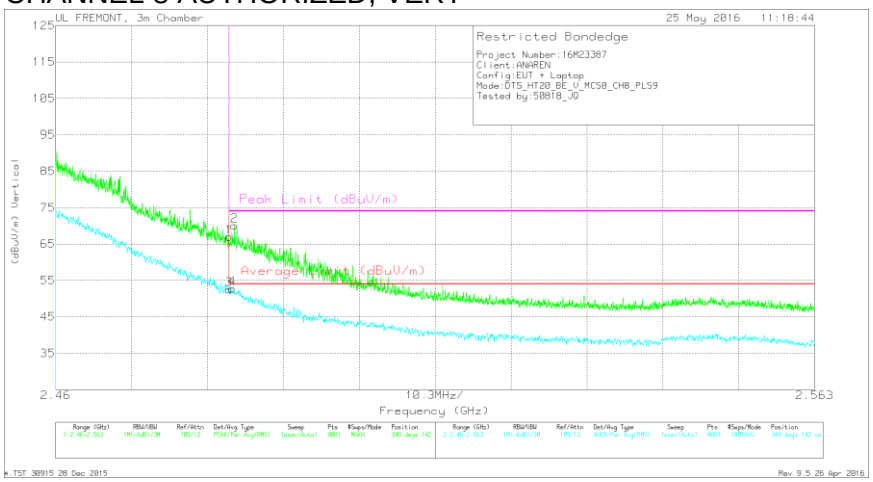


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	54.9	Pk	32.4	-21.2	0	66.1	-	-	74	-7.9	62	269	H
3	2.484	40.5	RMS	32.4	-21.2	0	51.7	54	-2.3	-	-	62	269	H
4	2.484	42.48	RMS	32.4	-21.2	0	53.68	54	-.32	-	-	62	269	H
2	2.485	59.07	Pk	32.4	-21.1	0	70.37	-	-	74	-3.63	62	269	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 8 AUTHORIZED, VERT

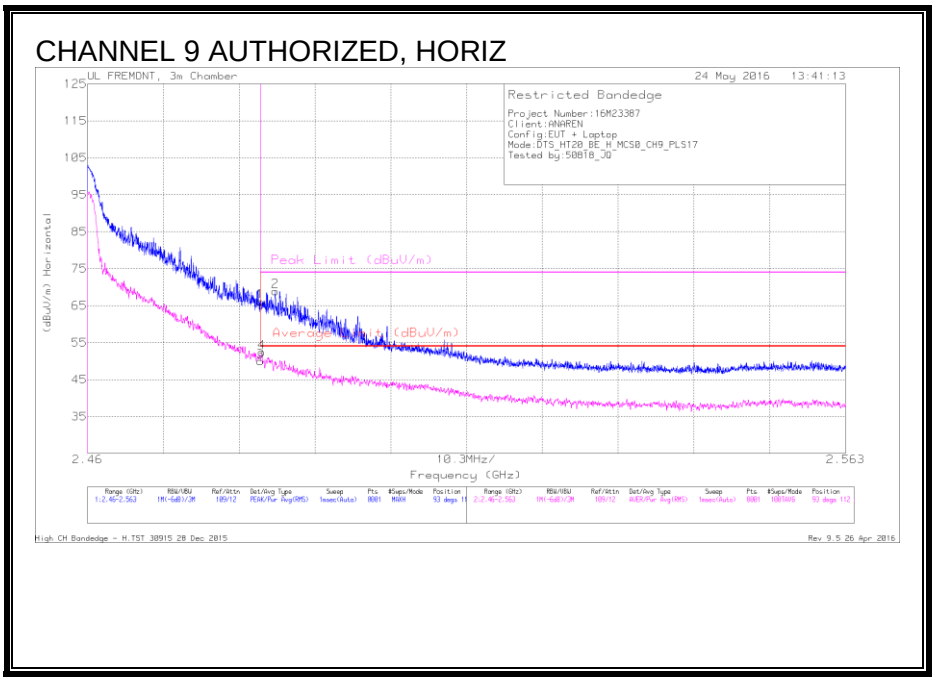


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	55.76	Pk	32.4	-21.2	0	66.96	-	-	74	-7.04	348	142	V
2	2.484	58.82	Pk	32.4	-21.2	0	70.02	-	-	74	-3.98	348	142	V
3	2.484	41.33	RMS	32.4	-21.2	0	52.53	54	-1.47	-	-	348	142	V
4	2.484	41.61	RMS	32.4	-21.2	0	52.81	54	-1.19	-	-	348	142	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 9)

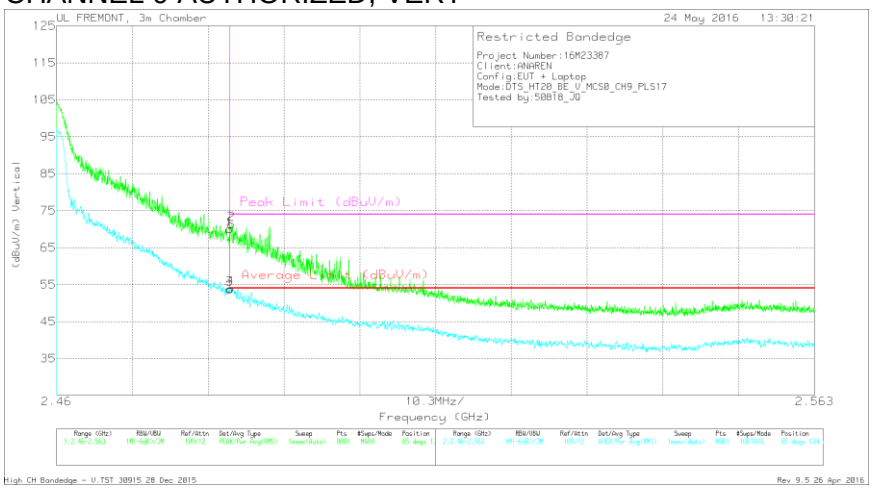


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	54.94	Pk	32.4	-21.2	0	66.14	-	-	74	-7.86	93	112	H
3	2.484	38.77	RMS	32.4	-21.2	0	49.97	54	-4.03	-	-	93	112	H
4	2.484	41.21	RMS	32.4	-21.2	0	52.41	54	-1.59	-	-	93	112	H
2	2.486	57.63	Pk	32.4	-21.1	0	68.93	-	-	74	-5.07	93	112	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 9 AUTHORIZED, VERT

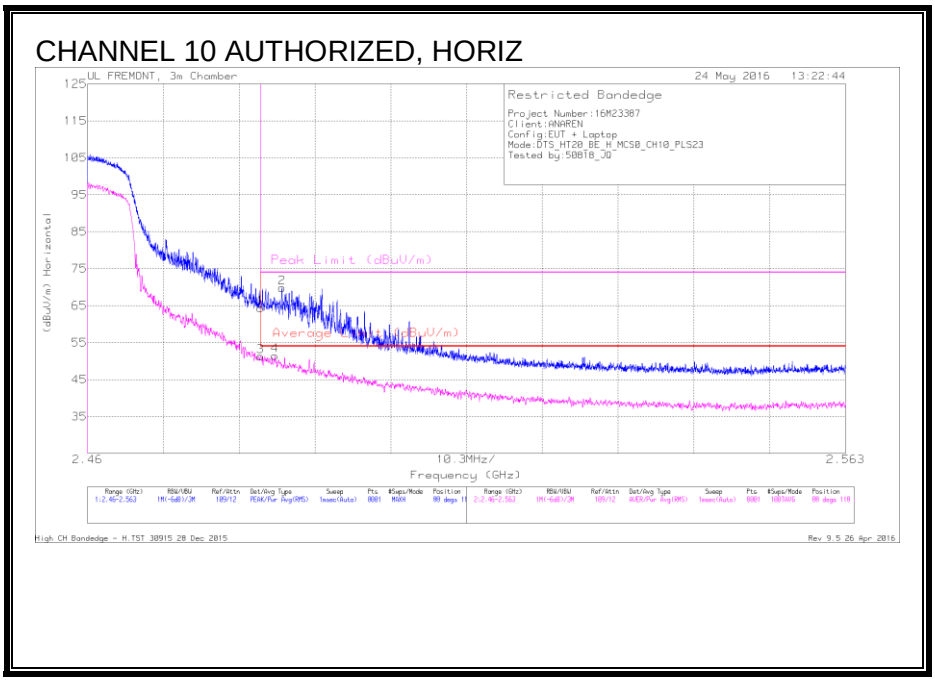


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	58.79	Pk	32.4	-21.2	0	69.99	-	-	74	-4.01	65	134	V
2	2.484	60.16	Pk	32.4	-21.2	0	71.36	-	-	74	-2.64	65	134	V
3	2.484	42.6	RMS	32.4	-21.2	0	53.8	54	-.2	-	-	65	134	V
4	2.484	42.73	RMS	32.4	-21.2	0	53.93	54	-.07	-	-	65	134	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 10)

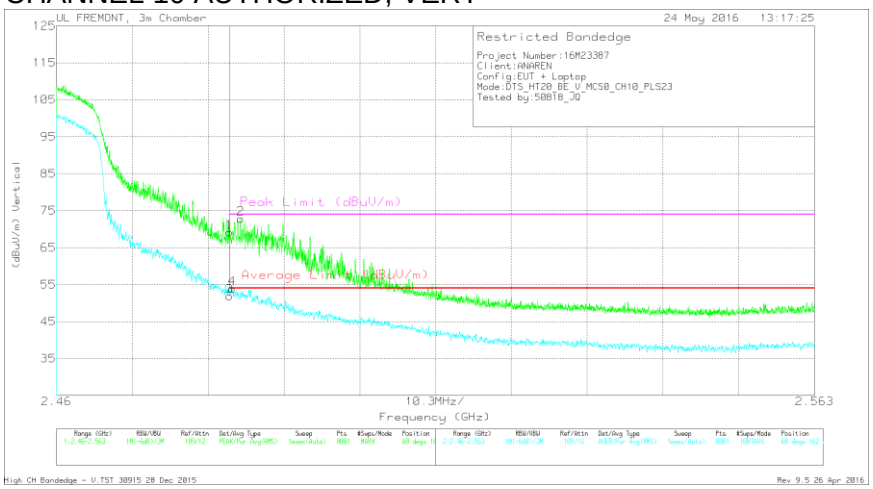


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	53.2	Pk	32.4	-21.2	0	64.4	-	-	74	-9.6	88	118	H
3	2.484	40.09	RMS	32.4	-21.2	0	51.29	54	-2.71	-	-	88	118	H
4	2.485	40.19	RMS	32.4	-21.1	0	51.49	54	-2.51	-	-	88	118	H
2	2.486	58.53	Pk	32.4	-21.1	0	69.83	-	-	74	-4.17	88	118	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 10 AUTHORIZED, VERT

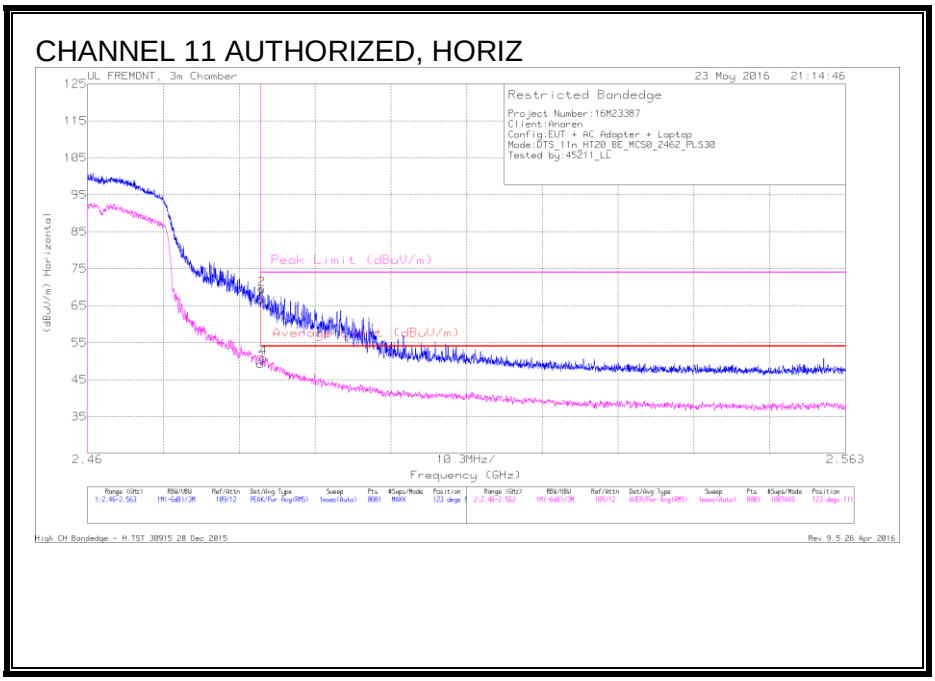


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	57.96	Pk	32.4	-21.2	0	69.16	-	-	74	-4.84	68	162	V
3	2.484	40.68	RMS	32.4	-21.2	0	51.88	54	-2.12	-	-	68	162	V
4	2.484	42.71	RMS	32.4	-21.2	0	53.91	54	-.09	-	-	68	162	V
2	2.485	61.53	Pk	32.4	-21.1	0	72.83	-	-	74	-1.17	68	162	V

Pk - Peak detector
RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 11)

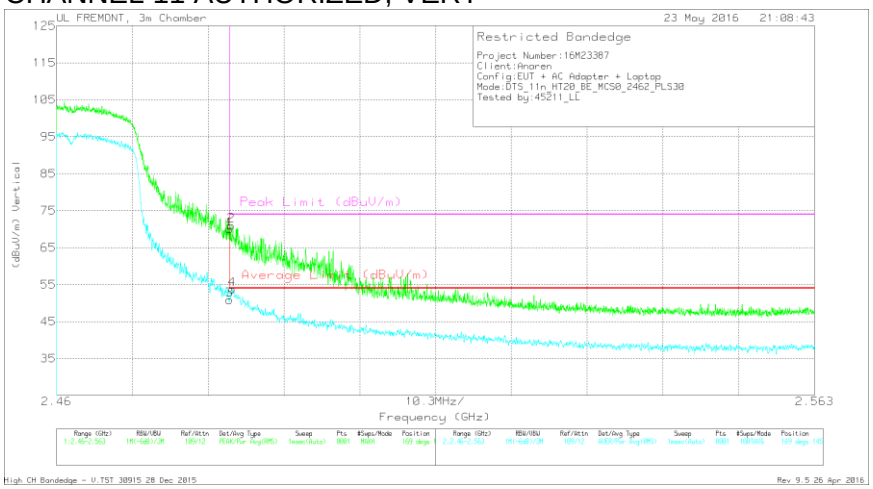


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (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	55.52	Pk	32.4	-21.2	0	66.72	-	-	74	-7.28	123	111	H
2	2.484	58.3	Pk	32.4	-21.2	0	69.5	-	-	74	-4.5	123	111	H
3	2.484	38.04	RMS	32.4	-21.2	0	49.24	54	-4.76	-	-	123	111	H
4	2.484	39.67	RMS	32.4	-21.2	0	50.87	54	-3.13	-	-	123	111	H

Pk - Peak detector
RMS - RMS detection

CHANNEL 11 AUTHORIZED, VERT



Trace Markers

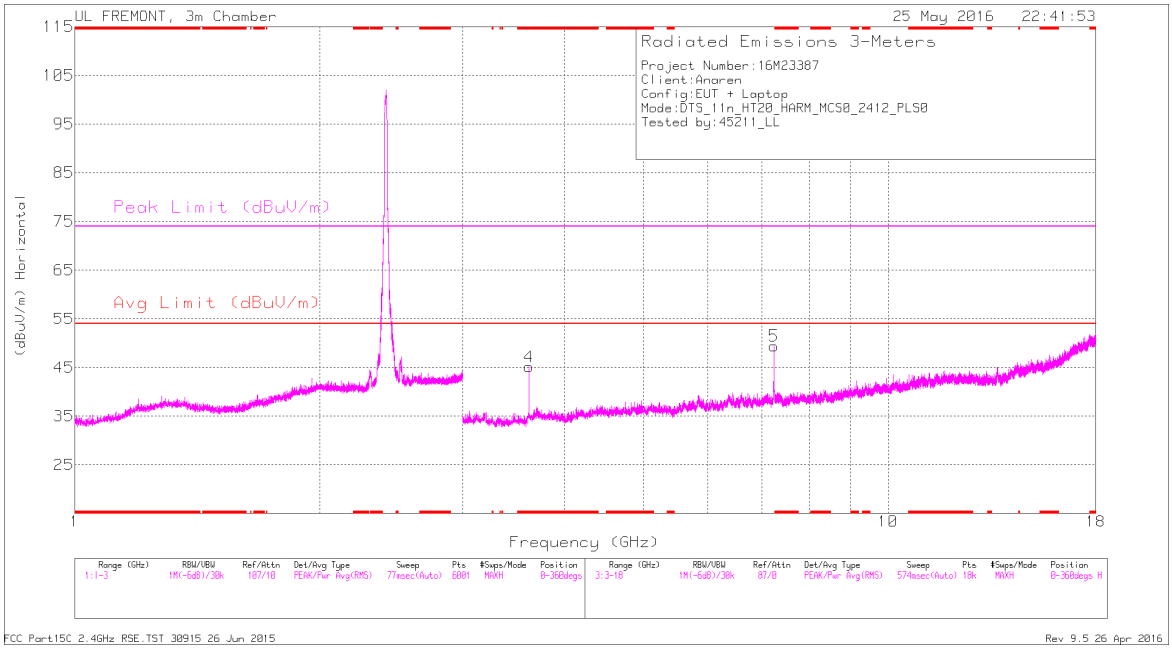
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	58.78	Pk	32.4	-21.2	0	69.98	-	-	74	-4.02	169	145	V
2	2.484	59.79	Pk	32.4	-21.2	0	70.99	-	-	74	-3.01	169	145	V
3	2.484	39.7	RMS	32.4	-21.2	0	50.9	54	-3.1	-	-	169	145	V
4	2.484	42.54	RMS	32.4	-21.2	0	53.74	54	-.26	-	-	169	145	V

Pk - Peak detector
RMS - RMS detection

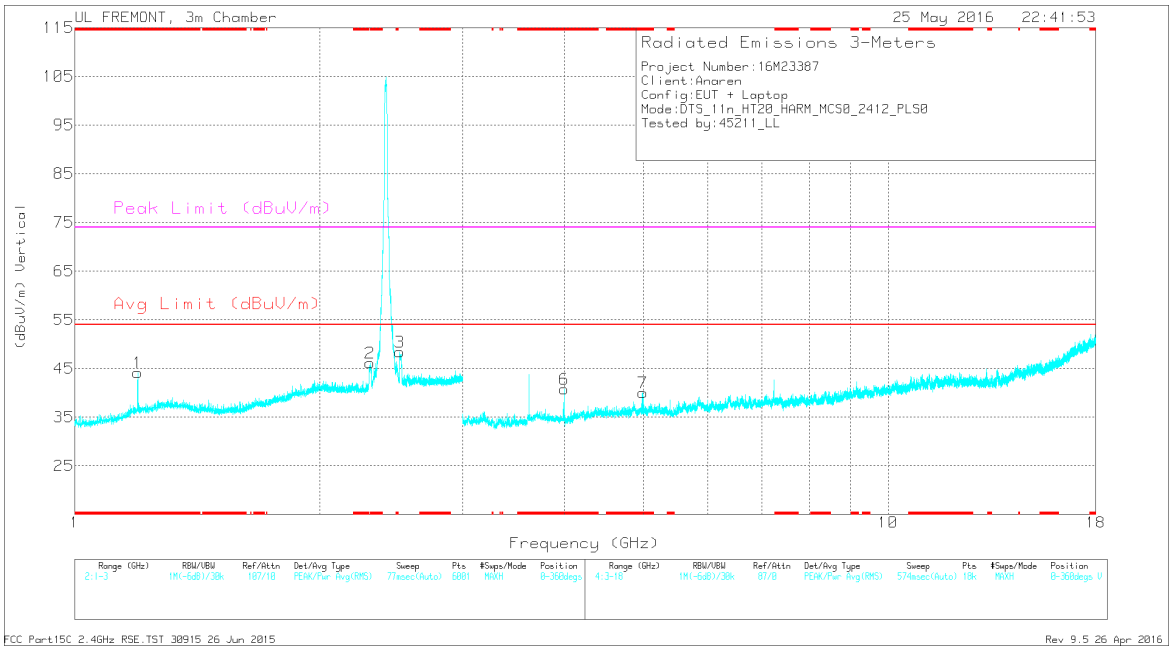
HARMONICS AND SPURIOUS EMISSIONS

CHANNEL 1

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.195	35.95	Pk	29.1	-20.9	0	44.15	-	-	74	-29.85	0-360	200	V
4	* 3.618	40.64	Pk	32.9	-28.4	0	45.14	-	-	74	-28.86	0-360	200	H
6	* 4	36.47	Pk	32.9	-28.6	0	40.77	-	-	74	-33.23	0-360	200	V
7	* 4.996	33.72	Pk	34.2	-27.9	0	40.02	-	-	74	-33.98	0-360	200	V
2	2.307	35.32	Pk	31.6	-20.8	0	46.12	-	-	-	-	0-360	100	V
3	2.51	37.01	Pk	32.4	-21	0	48.41	-	-	-	-	0-360	100	V
5	7.236	39.92	Pk	35.7	-26.2	0	49.42	-	-	-	-	0-360	100	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
- Compliance for emissions in non-restricted bands shown in conducted out of band testing
Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.196	41.03	PK2	29.1	-21	0	49.13	-	-	74	-24.87	4	216	V
* 1.195	23.98	MAv1	29.1	-20.8	0	32.28	54	-21.72	-	-	4	216	V
* 3.618	44.41	PK2	32.9	-28.5	0	48.81	-	-	74	-25.19	22	167	H
* 3.618	40.95	MAv1	32.9	-28.5	0	45.35	54	-8.65	-	-	22	167	H
* 3.999	44.5	PK2	32.9	-28.5	0	48.9	-	-	74	-25.1	308	119	V
* 3.996	26.64	MAv1	32.9	-28.5	0	31.04	54	-22.96	-	-	308	119	V
* 4.992	36.84	PK2	34.2	-27.9	0	43.14	-	-	74	-30.86	59	301	V
* 4.995	25.91	MAv1	34.2	-27.9	0	32.21	54	-21.79	-	-	59	301	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average