FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

GSM/WCDMA/CDMA + BLUETOOTH + DTS/UNII a/b/g/n RADIO MODULE

MODEL NUMBER: QM8626

FCC ID: J9CQM8626

REPORT NUMBER: 15U19820-E4, Revision B

ISSUE DATE: AUGUST 26, 2015

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	5/12/15	Initial Issue	CHOON OOI
A	08/10/15	Revised Section 2 Revised KDB 558074 D01 DTS Meas Guidance v03r02 to v03r03 Revised Duty Cycle Factor on RSE Test Data Revised Setup Photo Revised Output Power to Peak Power, Conducted Spurious Emission and Conducted Band Edge Test Data Added Average Power Test Data on Section 9.3	CHOON OOI
B	8/26/15	Updated Conducted Emission Photo	CHOON OOI

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME:	QUALCOMM TECHNOLOGIES, INC.
EUT DESCRIPTION:	GSM/WCDMA/CDMA + BLUETOOTH + DTS/UNII a/b/g/n RADIO MODULE
MODEL:	QM8626
SERIAL NUMBER:	N10KRK5FL
DATE TESTED:	APRIL 10 – AUGUST 7, 2015

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

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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 C63.4-2009.

3. FACILITIES AND ACCREDITATION

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(IC: 2324B-1)	☐ Chamber D(IC: 2324B-4)
☐ Chamber B(IC: 2324B-2)	☐ Chamber E(IC: 2324B-5)
☒ Chamber C(IC: 2324B-3)	☐ Chamber F(IC: 2324B-6)
	☐ Chamber G(IC: 2324B-7)
	☐ Chamber H(IC: 2324B-8)

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, 30 to 26000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/CDMA + BLUETOOTH + DTS/UNII a/b/g/n radio module.

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	20.1	102.33
2412 - 2462	802.11g	22	158.49
2412 - 2462	802.11n HT20	21.3	134.90
2422 - 2452	802.11n HT40	21.8	151.36

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an antenna, with a maximum gain of 1.4 dBi.

5.4. WORST-CASE CONFIGURATION AND MODE

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

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

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

802.11b mode: 1 Mbps

802.11g mode: 6 Mbps

802.11a mode: 6 Mbps

802.11n HT20mode: MCS0

802.11n HT40mode: MCS0

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
LAPTOP	HP	N/A	N/A	N/A

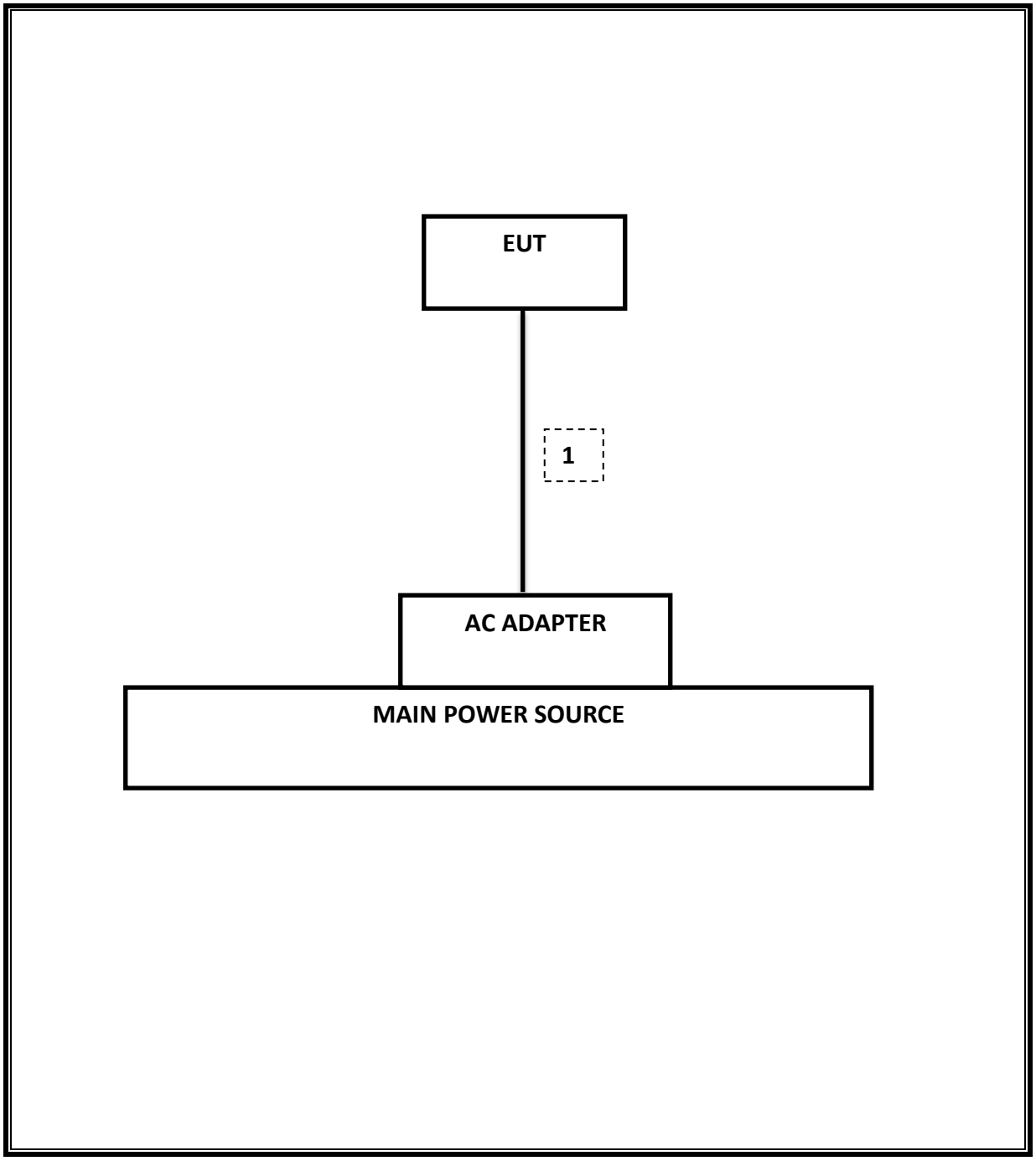
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1m	N/A

TEST SETUP

The EUT is a stand-alone unit 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**	**Asset**	**Cal Due**
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15
Spectrum Analyzer,9KHz-40GHz	HP	8564E	C00986	04/01/16
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/13/15
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/18/15
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/16
Antenna, Horn,18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/15
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/15
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/16
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/15
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/15
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR
RF Preamplifier, 1GHz - 40GHz	Miteq	NSP4000-SP2	C00990	08/20/15
Attenuator / Switch driver	HP	11713A	F00204	CNR
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	T420	04/29/16
High Pass Filter 3GHz	Micro-Tronics	HPS17543	T426	04/29/16
High Pass Filter 6GHz	Micro-Tronics	HPS17542	T424	04/29/16

Test Software List			
Description	**Manufacturer**	**Model**	**Version**
Radiated Software	UL	UL EMC	Version 9.5, 07/22/14
Conducted Software	UL	UL EMC	Version 9.5, 05/17/14
CLT Software	UL	UL RF	Version 1.0, 02/02/15
Antenna Port Software	UL	UL RF	Version 2.1.1.1, 1/20/15

7. MEASUREMENT METHODS

KDB 558074 D01 DTS Meas Guidance v03r03:Measurement Procedure PKPM1 is used for power and PKPSD is used for power spectral density.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

Band edge emissions within Restricted Bands are measured using RMS with duty cycle factor offset method.

8. SUMMARY TABLE

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)(2)	Occupied Band width (6dB)	>500KHz	Conducted	Pass	9.05 MHz
2.1051, 15.247 (d)	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-21.99 dBm
15.247	TX conducted output power	<30dBm		Pass	18.00 dBm
15.247	PSD	<8dBm		Pass	-13.51 dBm
15.207 (a)	AC Power Line conducted emissions	Section 10	Radiated	Pass	54.04dBuV(PK)
15.205, 15.209	Radiated Spurious Emission	< 54dBuV/m		Pass	53.73 dBuV/m

9. ANTENNA PORT TEST RESULTS

9.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

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

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r03: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS

9.1.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	9.06	0.5
Mid	2437	9.05	0.5
High	2462	9.57	0.5
Worst		9.05	

9.1.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	16.33	0.5
Mid	2437	16.10	0.5
High	2462	16.38	0.5
Worst		16.10	

9.1.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

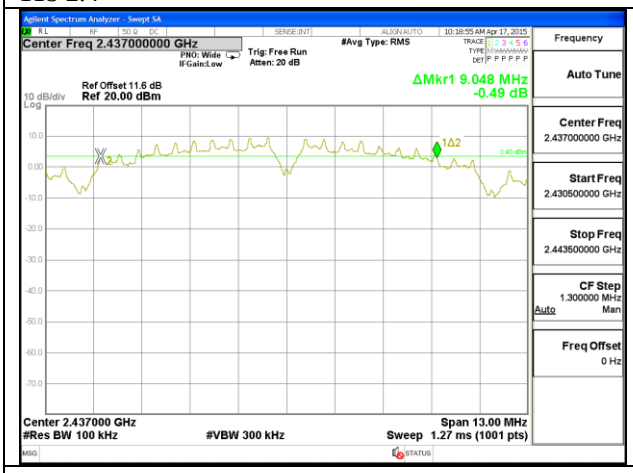
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	17.38	0.5
Mid	2437	17.23	0.5
High	2462	17.63	0.5
Worst		17.23	

9.1.4. 802.11n HT40 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2422	35.14	0.5
Mid	2437	35.19	0.5
High	2452	35.59	0.5
Worst		35.14	

9.1.5. 6 dB BANDWIDTH MID CH PLOTS

11b 2.4



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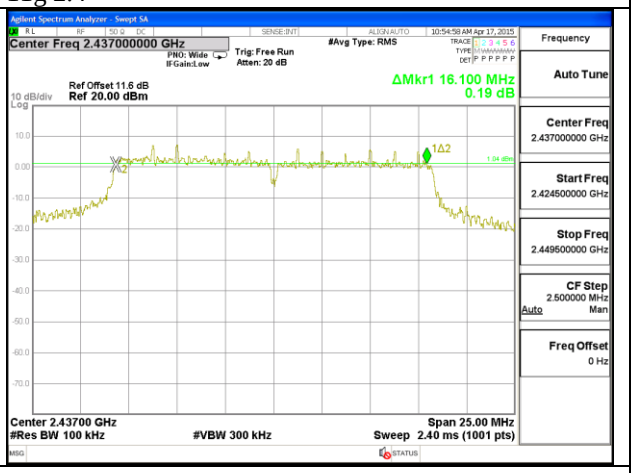

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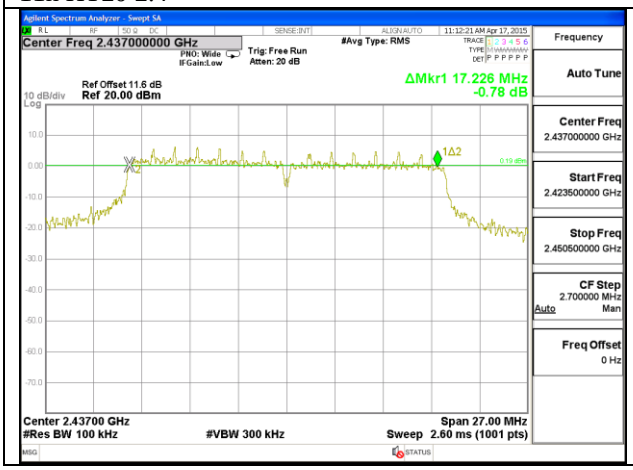

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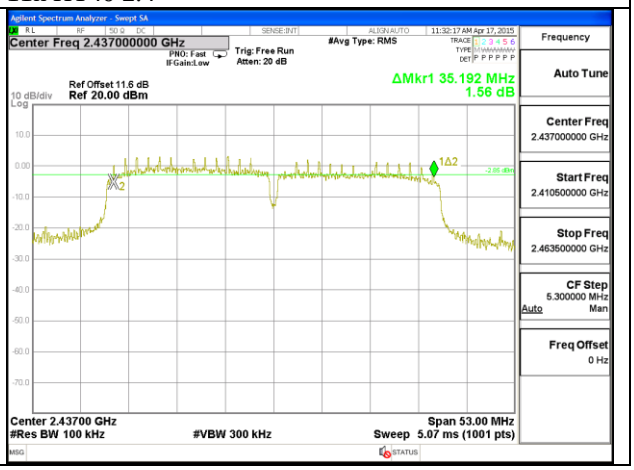


9.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

9.2.1. 802.11b MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	14.67
Mid	2437	14.29
High	2462	13.54
Worst		14.67

9.2.2. 802.11g MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.67
Mid	2437	17.42
High	2462	16.59
Worst		17.42

9.2.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

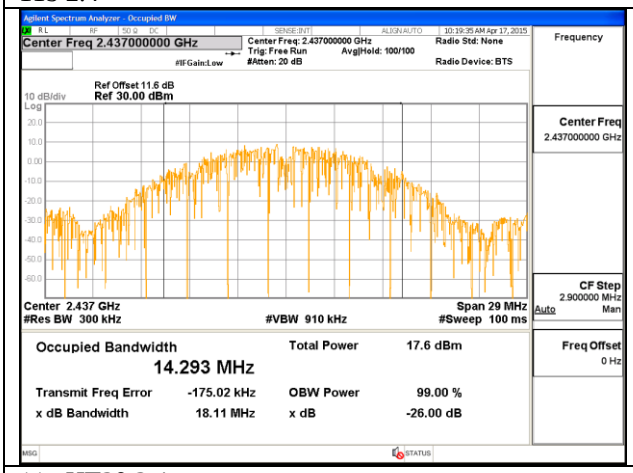
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.92
Mid	2437	17.81
High	2462	17.73
Worst		17.92

9.2.4. 802.11n HT40 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2422	36.01
Mid	2437	36.38
High	2452	36.14
Worst		36.38

9.2.5. 99% BANDWIDTH MID CH PLOTS

11b 2.4



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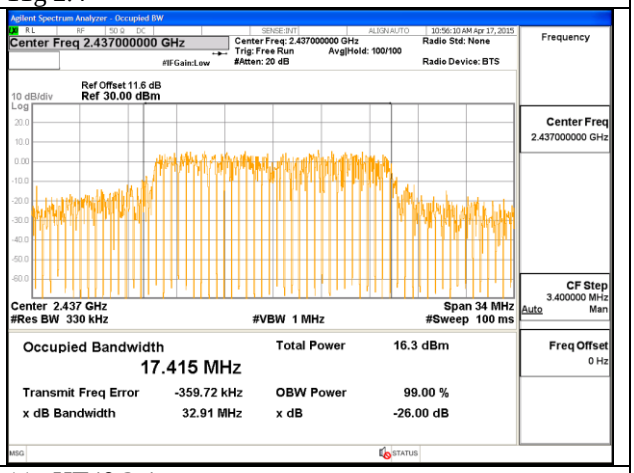

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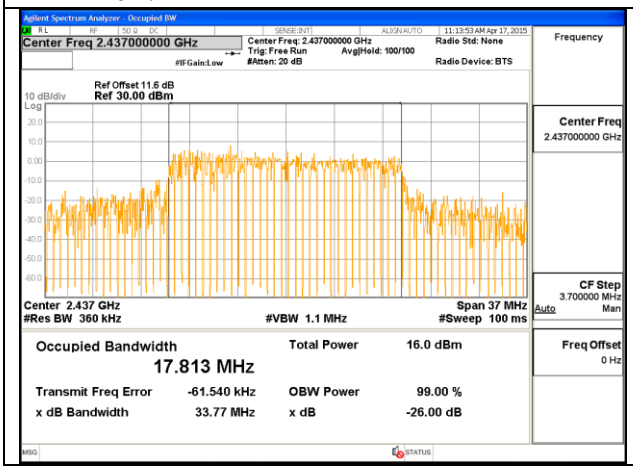
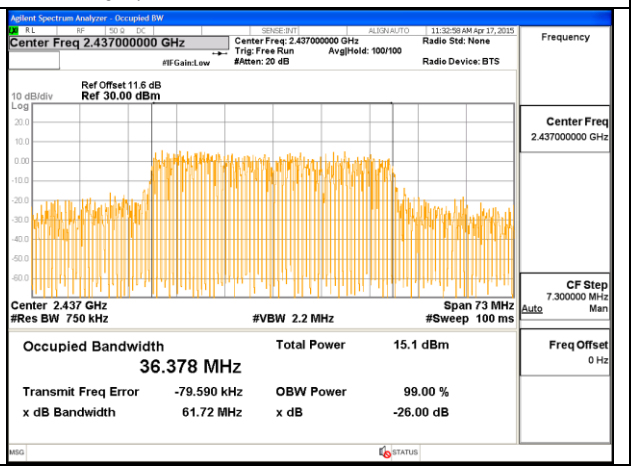


11n HT40 2.4



9.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Results

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
2.4	802.11b	1	2412	18
		6	2437	17.9
		11	2462	16.8
	802.11g	1	2412	12.8
		2	2417	12.82
		3	2422	12.6
		6	2437	16.9
		9	2452	15.93
		10	2457	14.72
		11	2462	11.1
	802.11n (HT20)	1	2412	13.7
		2	2417	13.25
		3	2422	13.35
		6	2437	16.5
		9	2452	15.48
		10	2457	14.23
		11	2462	10.9
	802.11n (HT40)	3	2422	10.79
		4	2427	10.5
		5	2432	11.8
		6	2437	14.72
		7	2442	13.09
		8	2447	12.08
		9	2452	11.19

9.4. OUTPUT POWER

LIMITS

FCC §15.247

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

9.4.1. 802.11b MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	1.40	30.00	30	36	30.00
Mid	2437	1.40	30.00	30	36	30.00
High	2462	1.40	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	19.90	19.90	30.00	-10.10
Mid	2437	20.10	20.10	30.00	-9.90
High	2462	19.40	19.40	30.00	-10.60
Worst			20.10		

Note: Peak Power is reported.

9.4.2. 802.11g MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	1.40	30.00	30	36	30.00
Mid	2437	1.40	30.00	30	36	30.00
High	2462	1.40	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	20.80	20.80	30.00	-9.20
Mid	2437	22.00	22.00	30.00	-8.00
High	2462	19.90	19.90	30.00	-10.10
Worst			22.00		

Note: Peak Power is reported.

9.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	1.40	30.00	30	36	30.00
Mid	2437	1.40	30.00	30	36	30.00
High	2462	1.40	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	21.10	21.10	30.00	-8.90
Mid	2437	21.30	21.30	30.00	-8.70
High	2462	20.00	20.00	30.00	-10.00
Worst			21.30		

Note: Peak Power is reported.

9.4.4. 802.11n HT40 MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2422	1.40	30.00	30	36	30.00
Mid	2437	1.40	30.00	30	36	30.00
High	2452	1.40	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2422	19.60	19.60	30.00	-10.40
Mid	2437	21.80	21.80	30.00	-8.20
High	2452	19.60	19.60	30.00	-10.40
Worst			21.80		

Note: Peak Power is reported.

9.5. PSD

LIMITS

FCC §15.247

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

RESULTS

9.5.1. 802.11b MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-5.62	8.0	-13.6
Mid	2437	-6.15	8.0	-14.2
High	2462	-6.89	8.0	-14.9

9.5.2. 802.11g MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-11.19	8.0	-19.2
Mid	2437	-6.96	8.0	-15.0
High	2462	-16.62	8.0	-24.6

9.5.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-13.25	8.0	-21.2
Mid	2437	-10.00	8.0	-18.0
High	2462	-16.68	8.0	-24.7

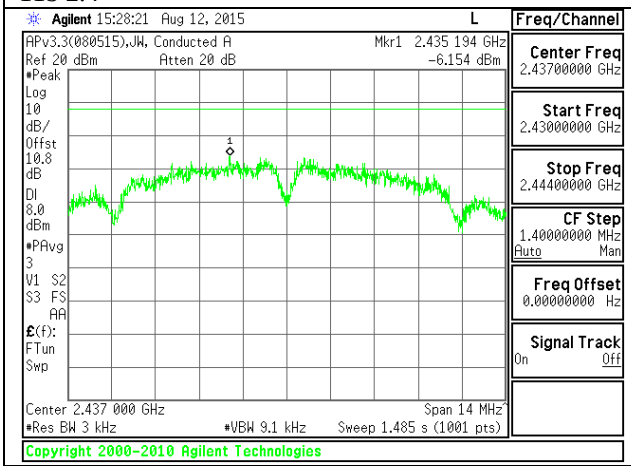
9.5.4. 802.11n HT40 MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2422	-19.15	8.0	-27.1
Mid	2437	-12.27	8.0	-20.3
High	2452	-18.99	8.0	-27.0

9.5.5. PSD MID CH PLOTS

11b 2.4



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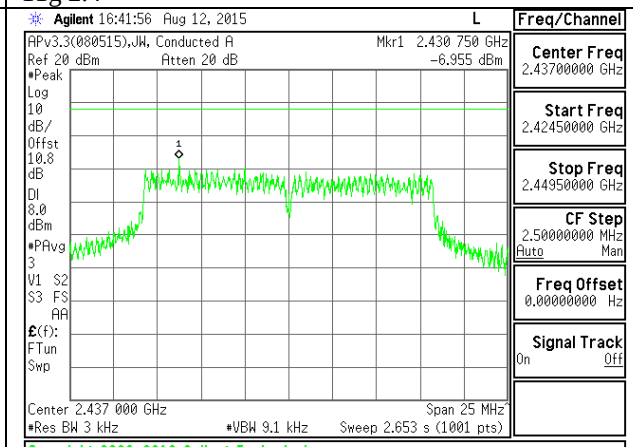

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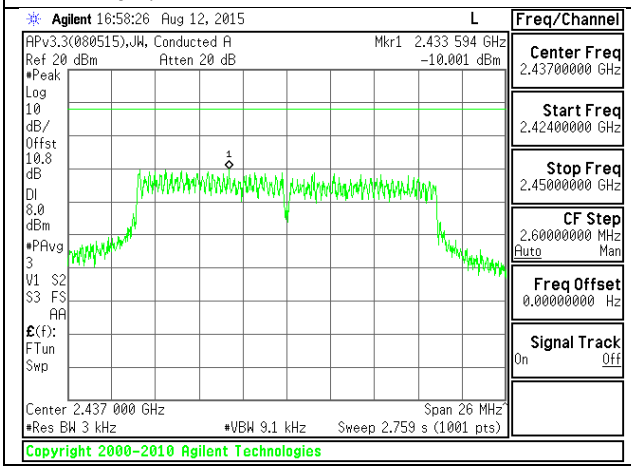

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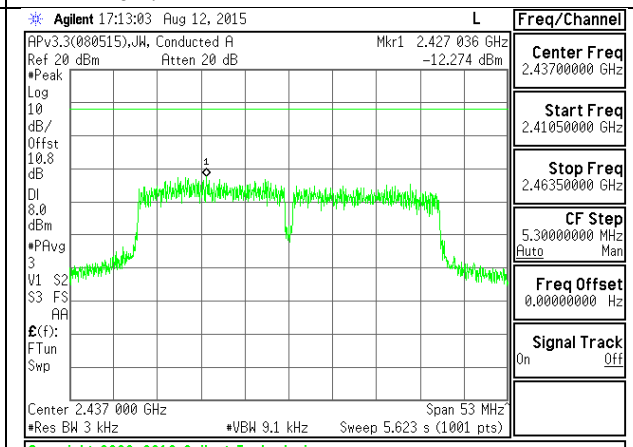


9.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

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

TEST PROCEDURE

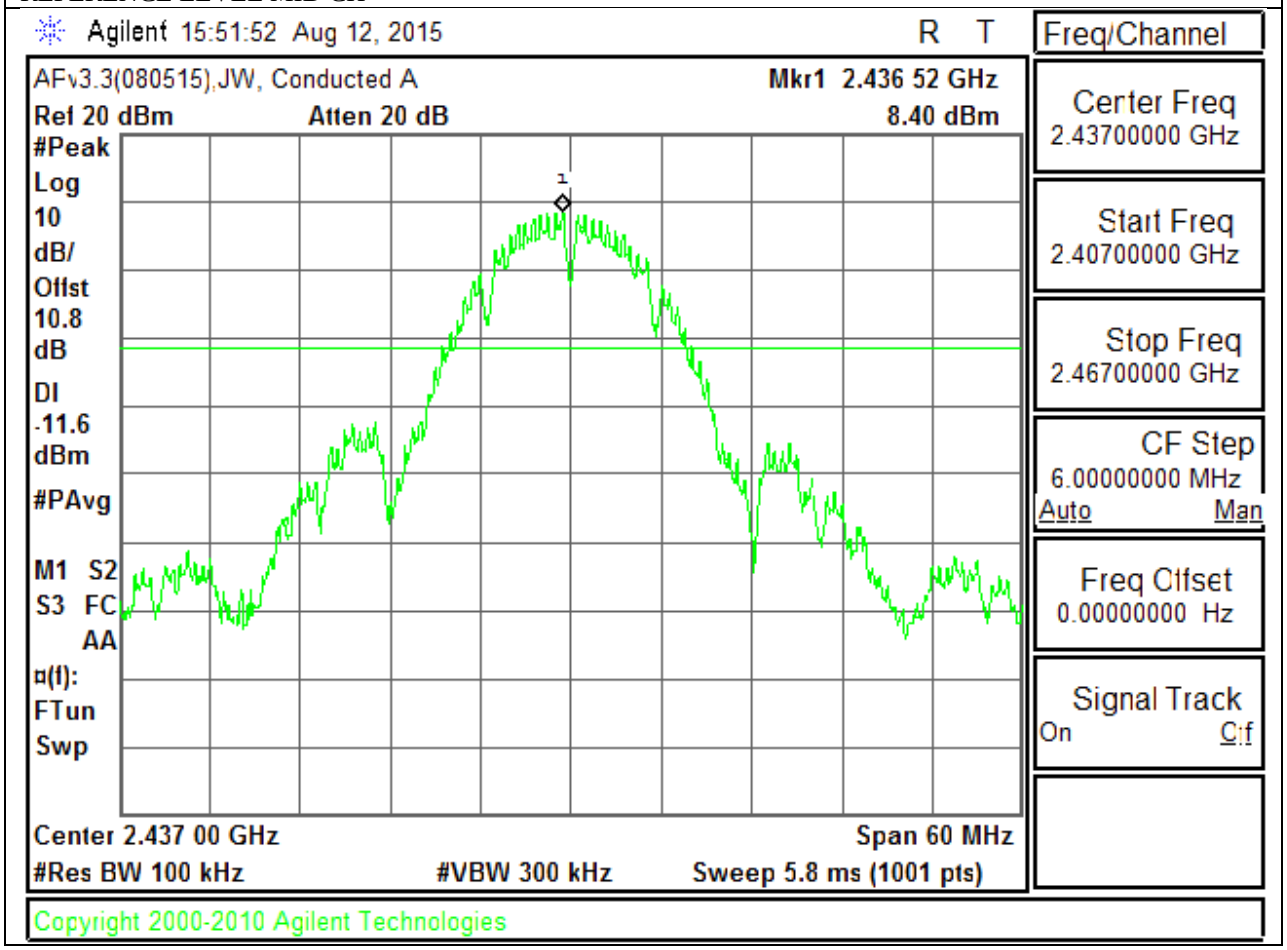
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

9.6.1. 802.11b MODE IN THE 2.4 GHz BAND

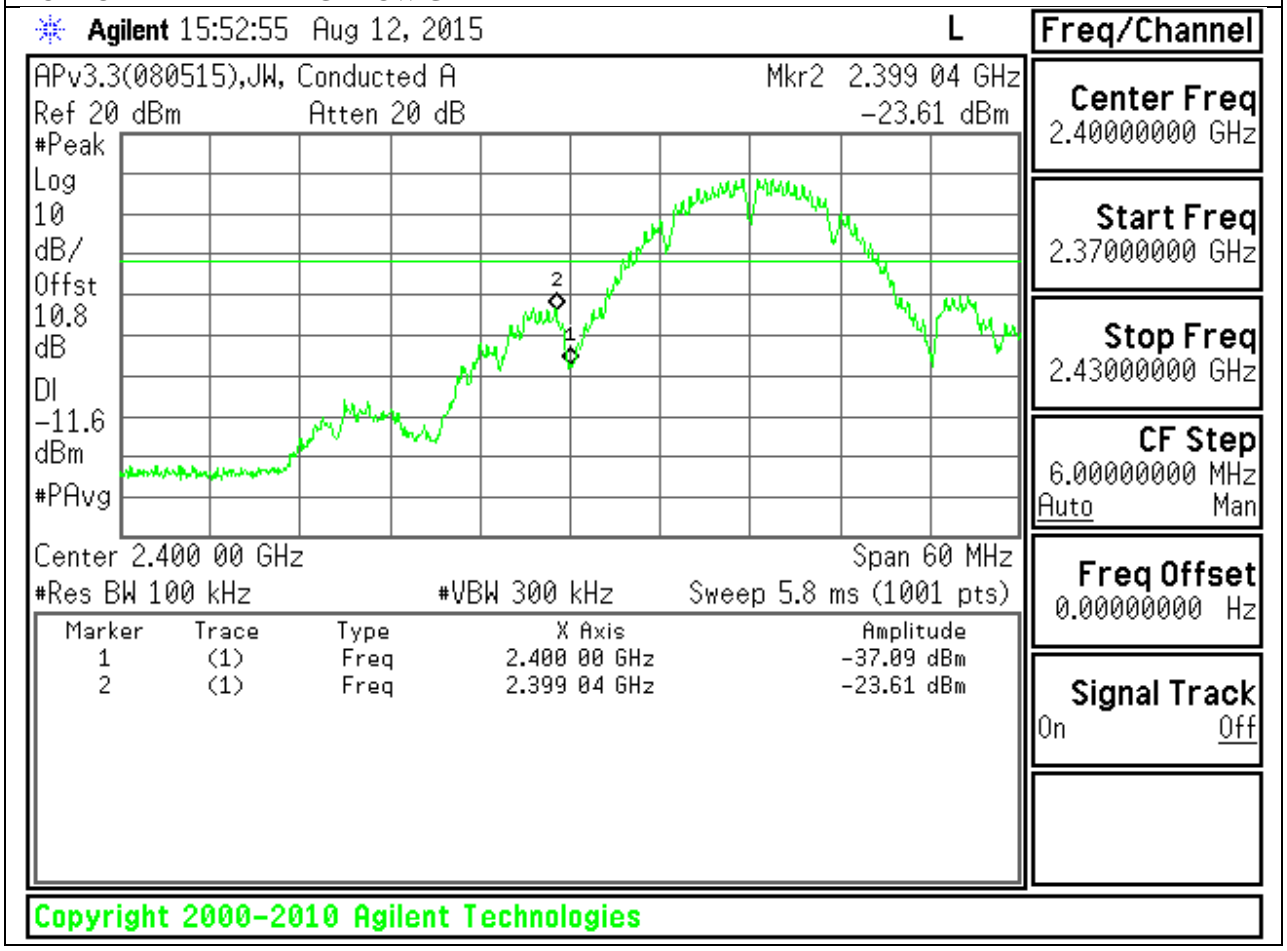
IN-BAND REFERENCE LEVEL

REFERENCE LEVEL MID CH



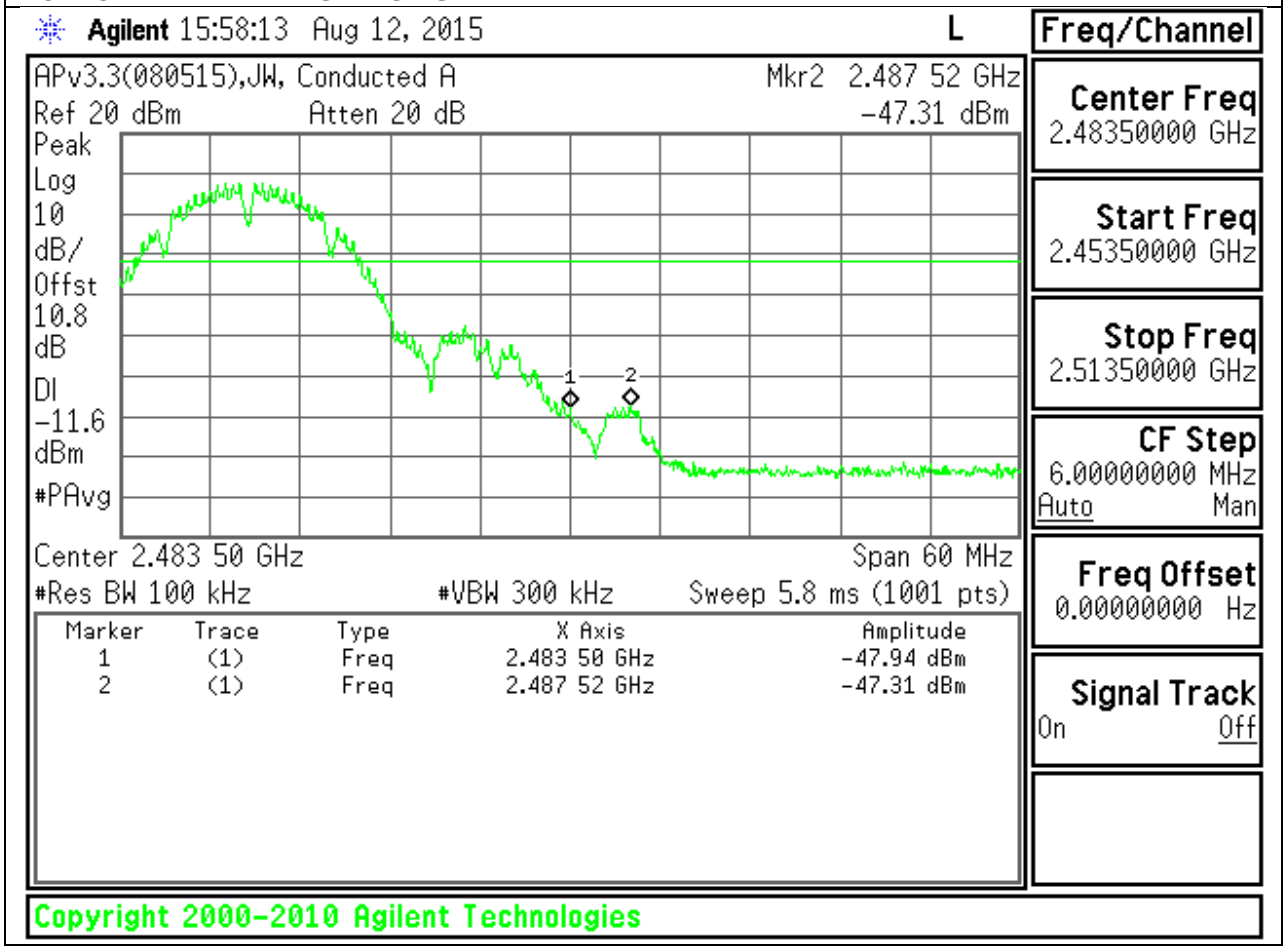
LOW CHANNEL BANDEDGE

AUTHORIZED BAND EDGE LOW CH



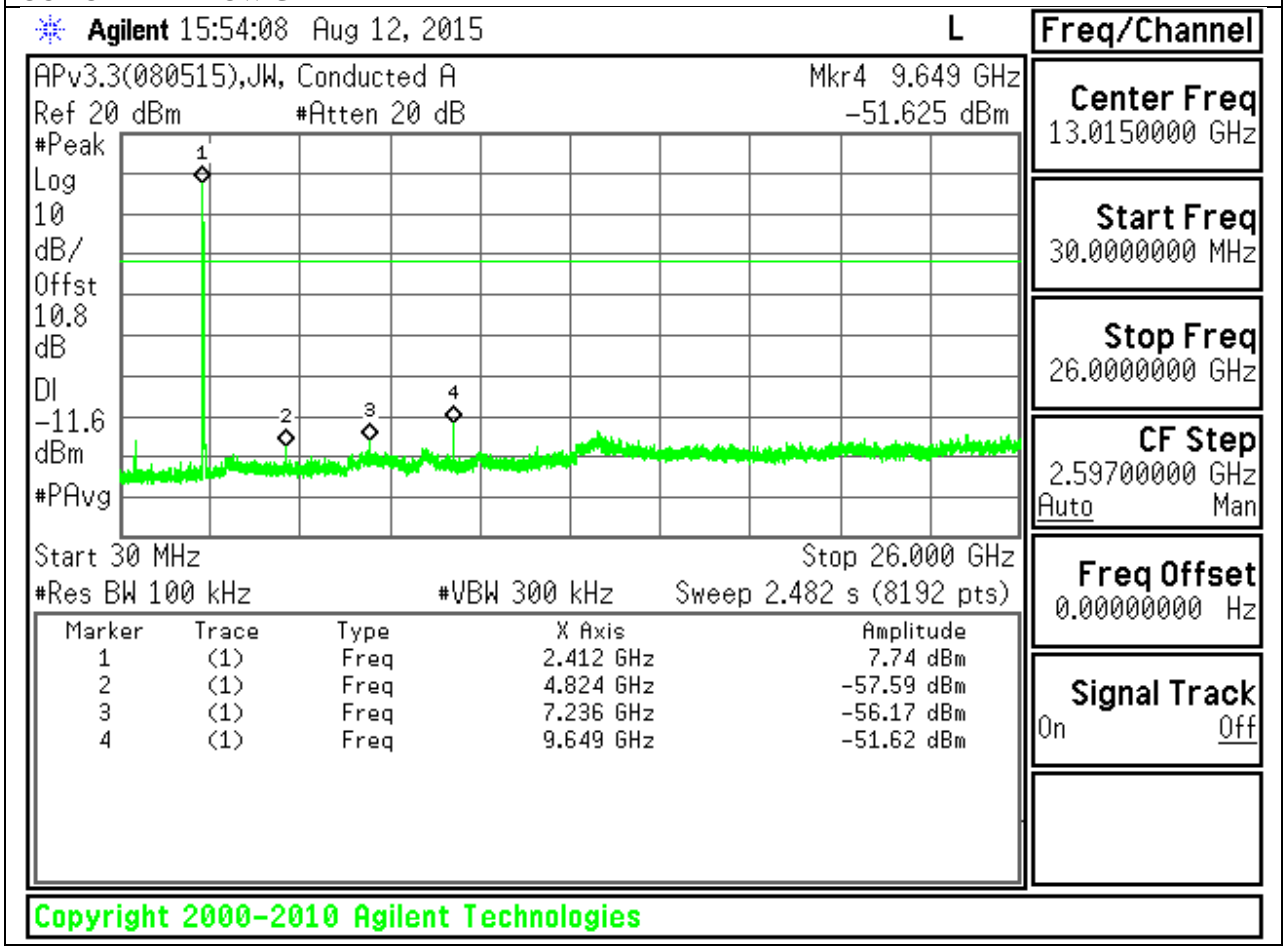
HIGH CHANNEL BANDEDGE

AUTHORIZED BAND EDGE HIGH CH

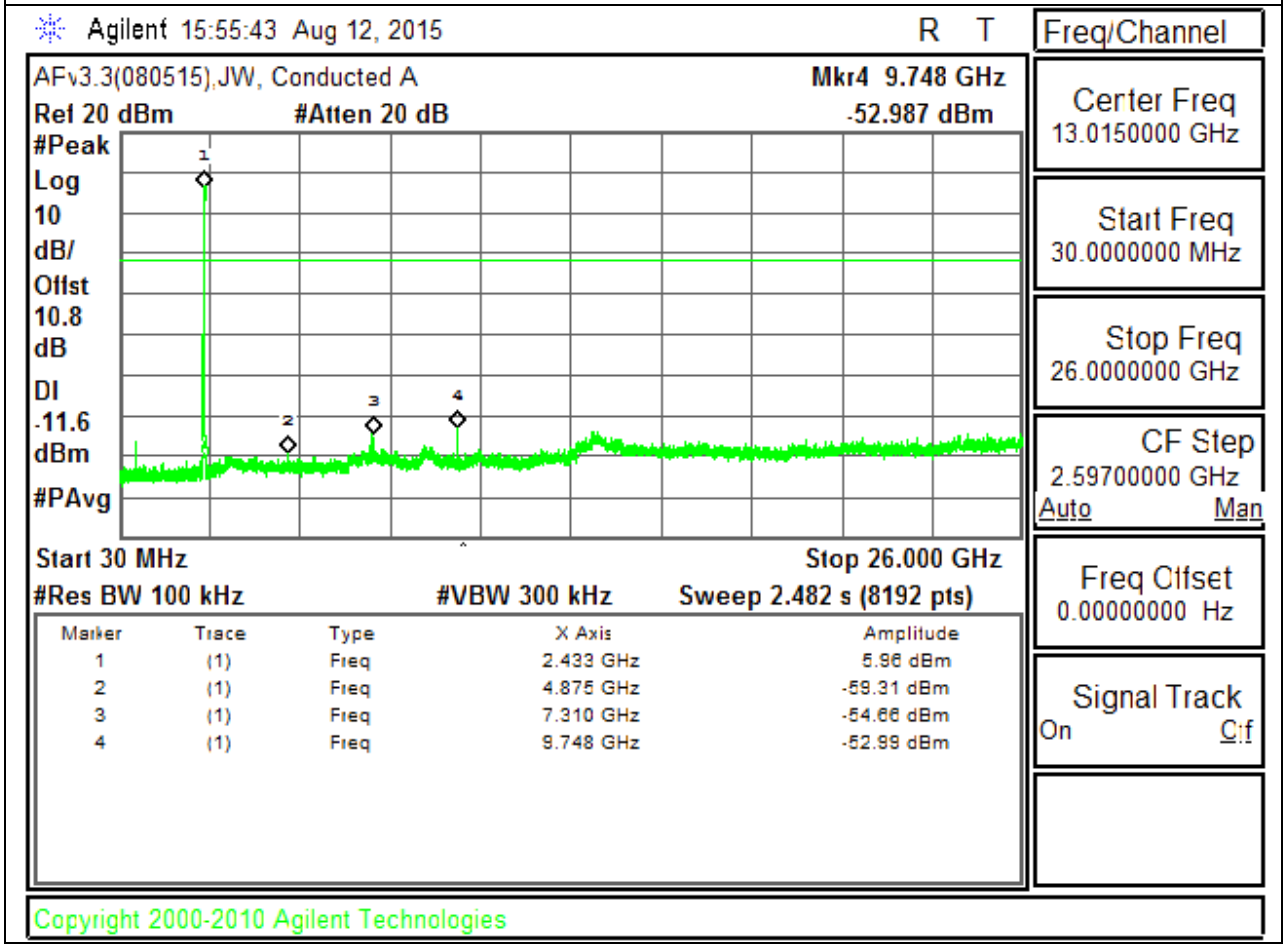


OUT-OF-BAND EMISSIONS

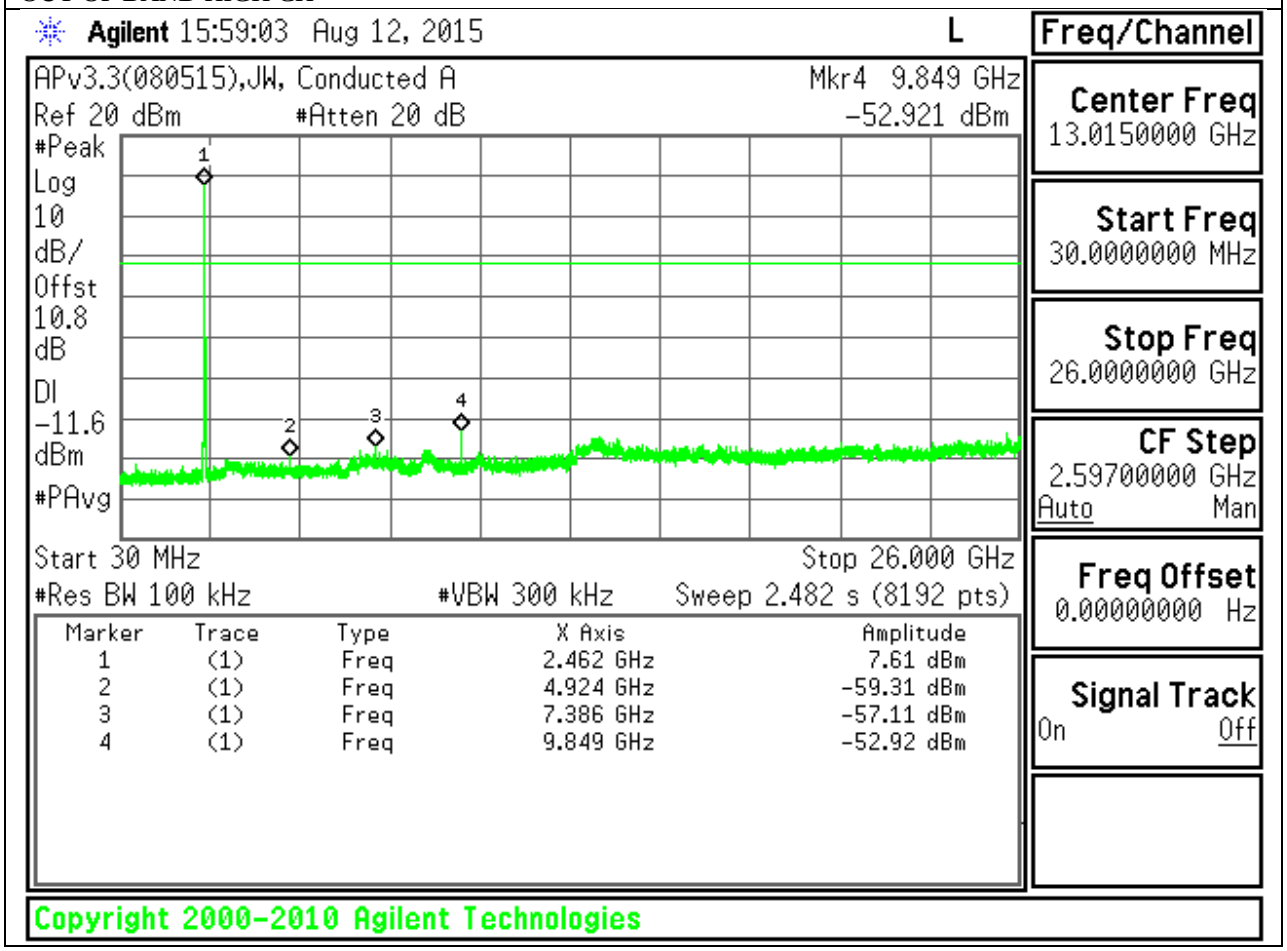
OUT OF BAND LOW CH



OUT OF BAND MID CH



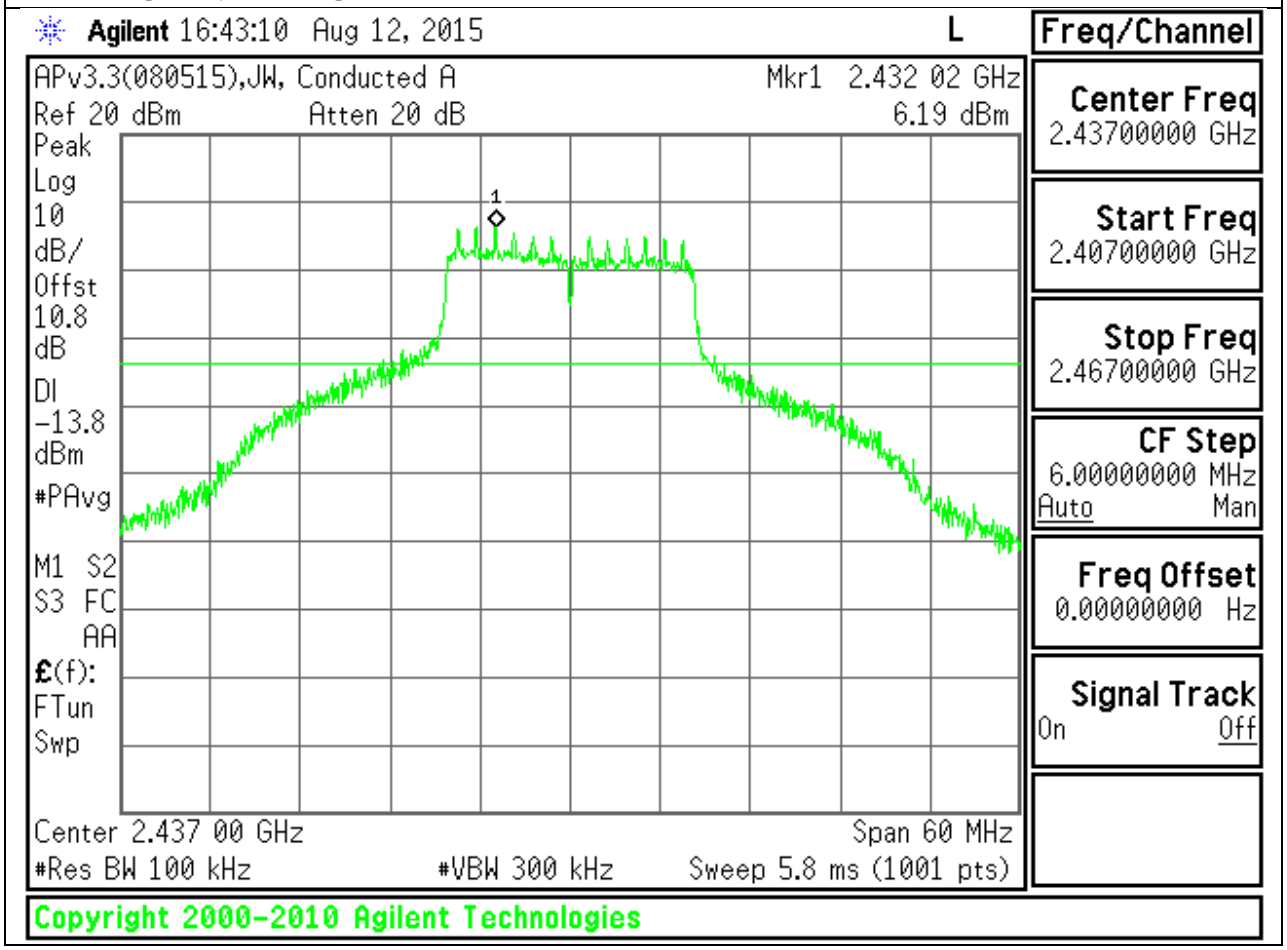
OUT OF BAND HIGH CH



9.6.2. 802.11g MODE IN THE 2.4 GHz BAND

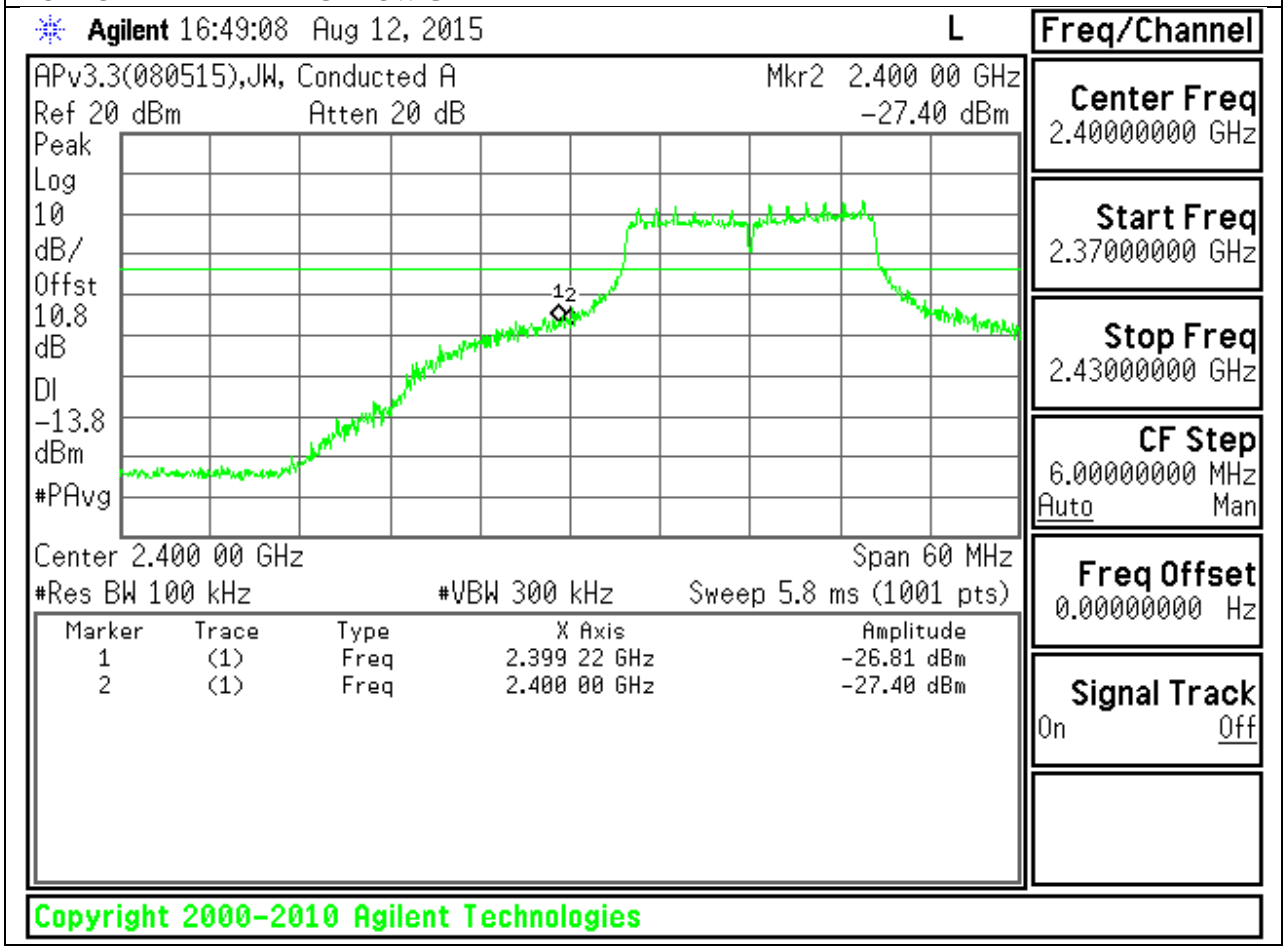
IN-BAND REFERENCE LEVEL

REFERENCE LEVEL MID CH



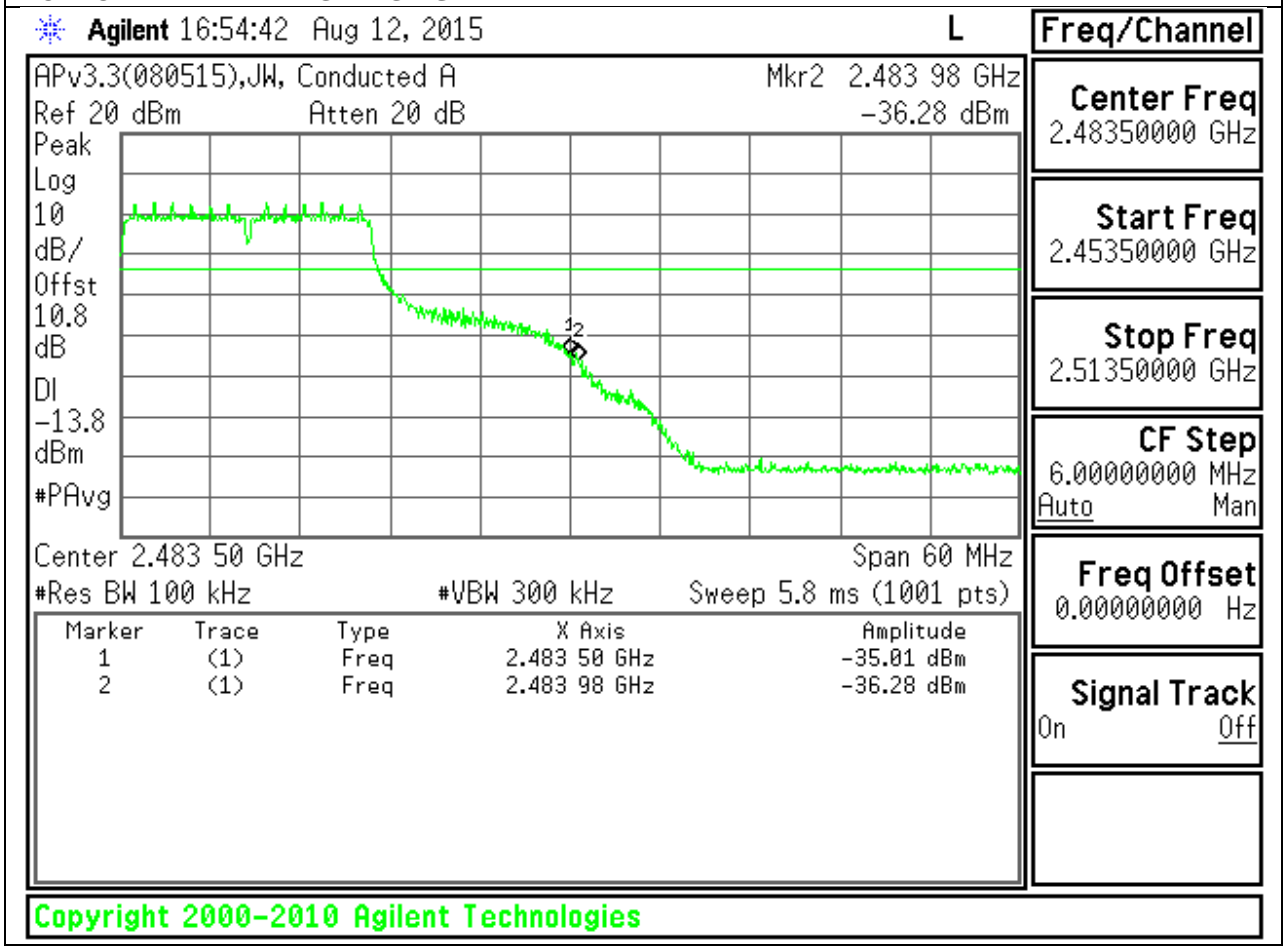
LOW CHANNEL BANDEDGE

AUTHORIZED BAND EDGE LOW CH



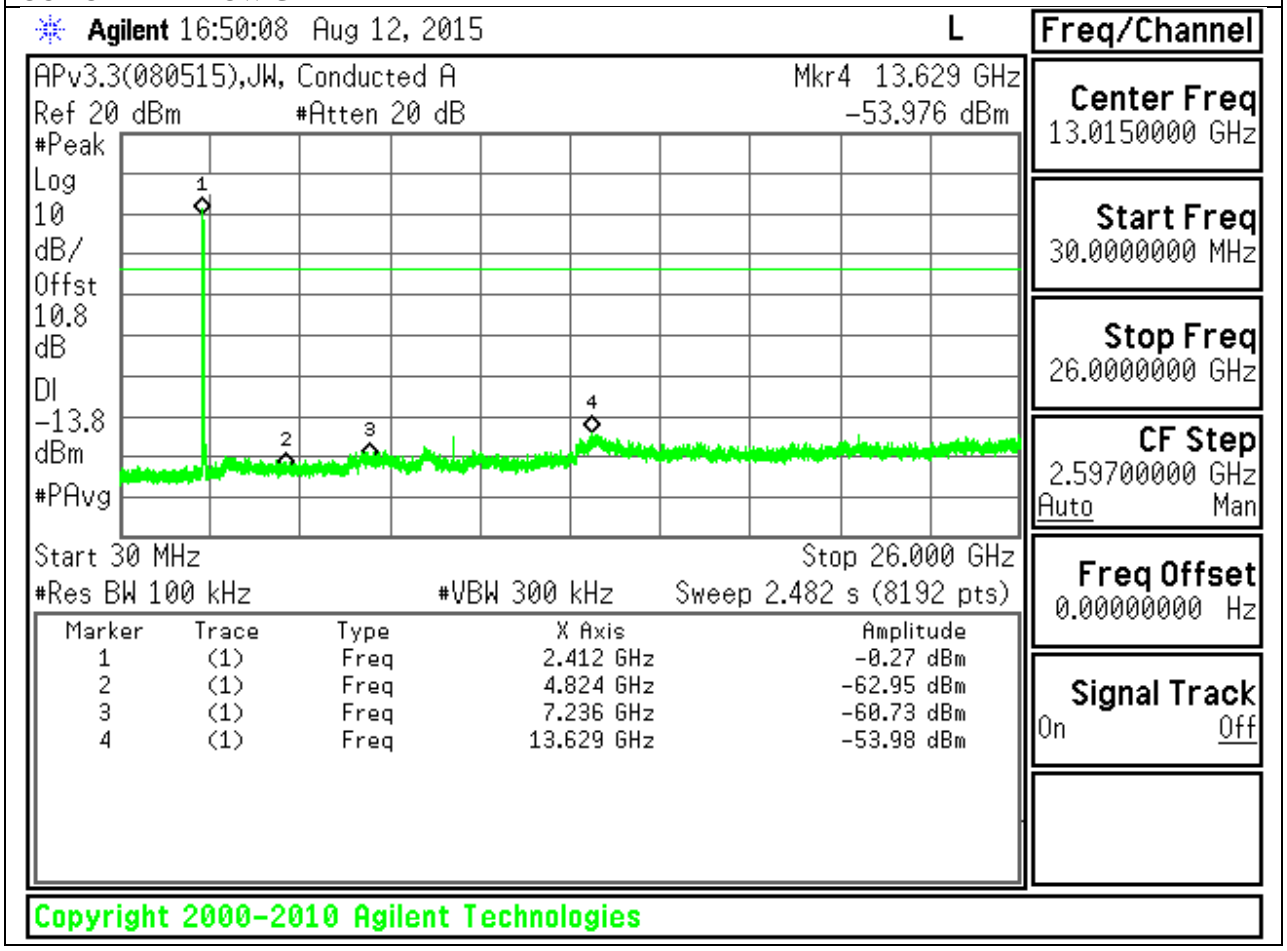
HIGH CHANNEL BANDEDGE

AUTHORIZED BAND EDGE HIGH CH

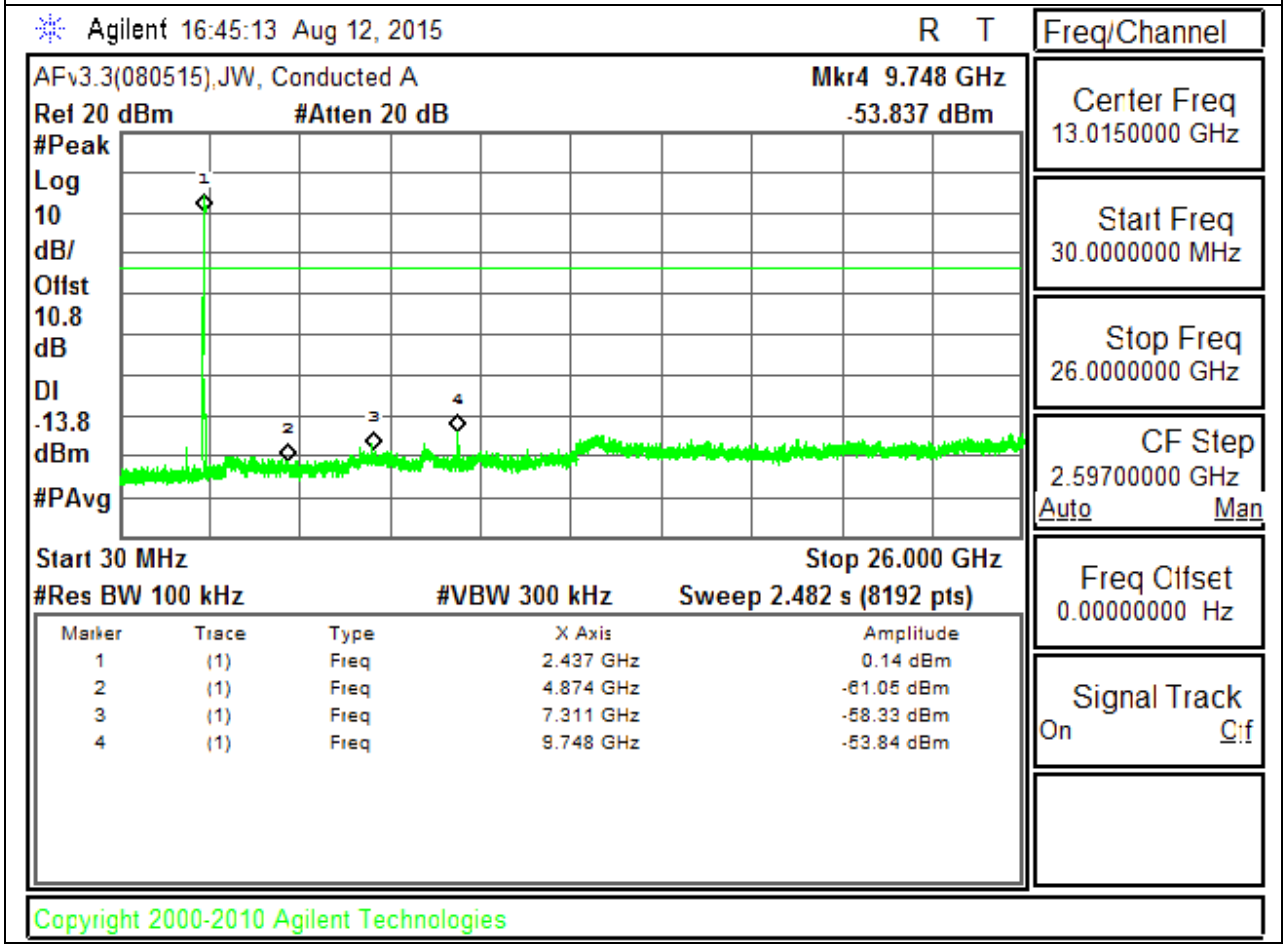


OUT-OF-BAND EMISSIONS

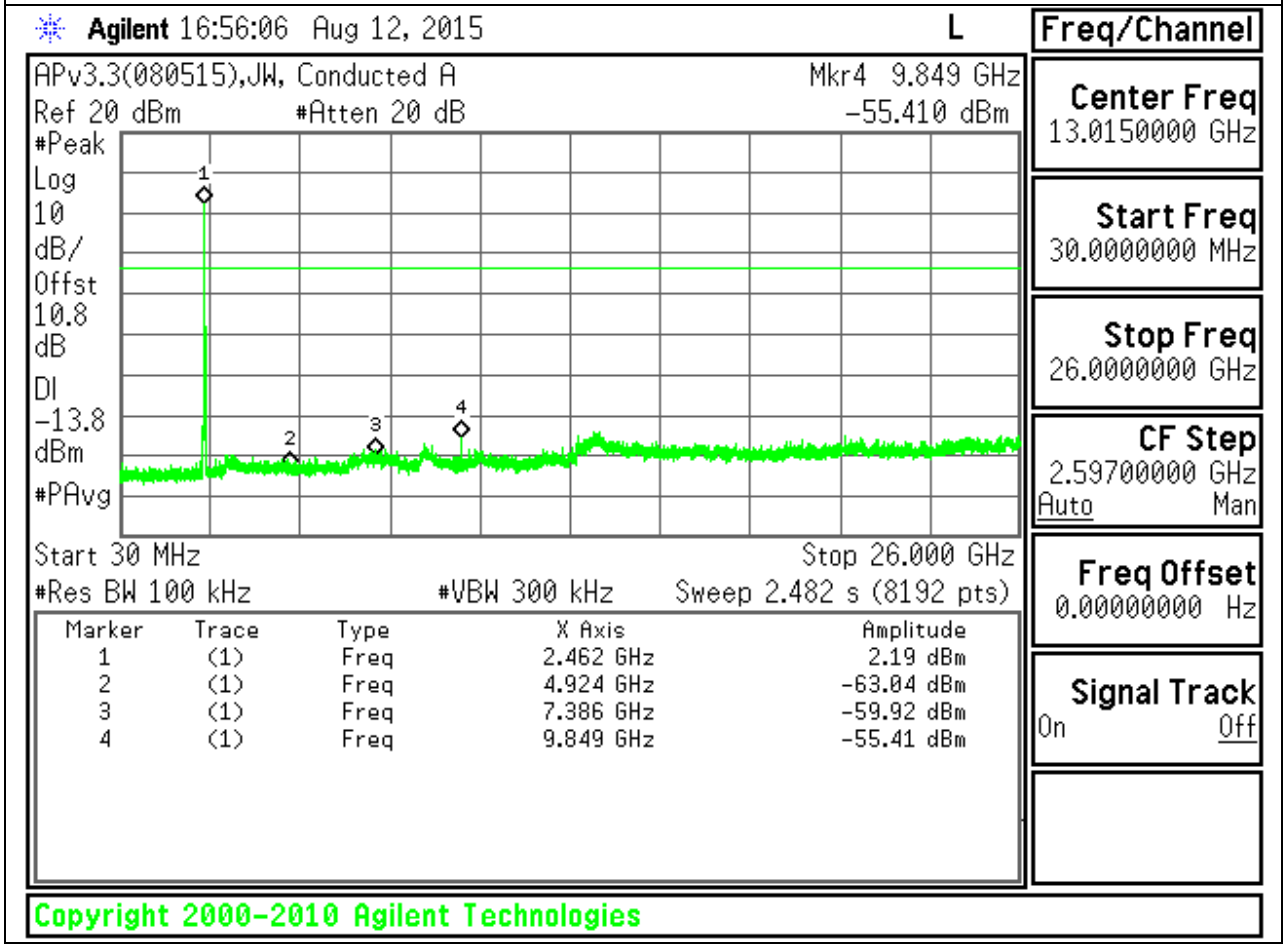
OUT OF BAND LOW CH



OUT OF BAND MID CH



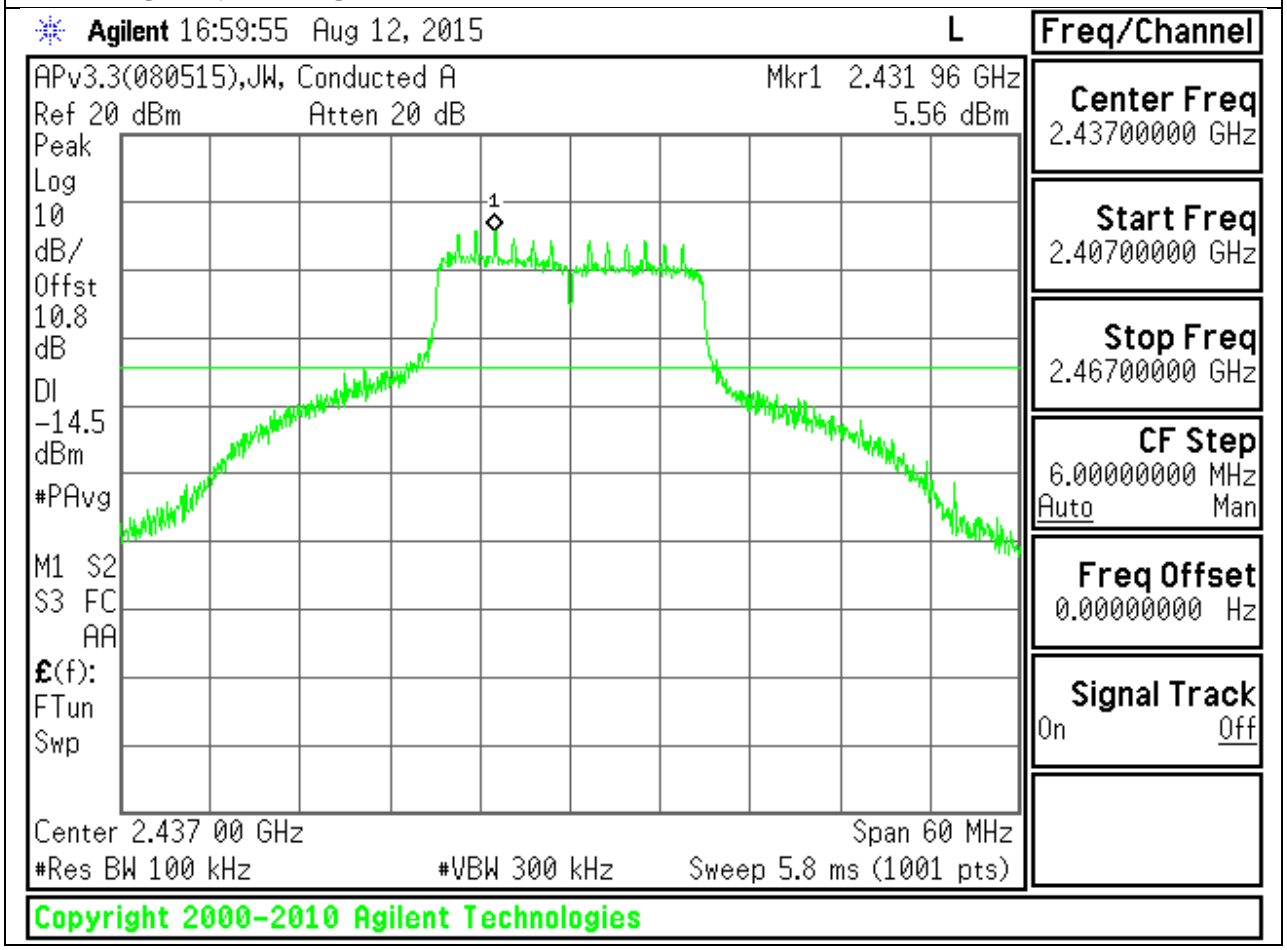
OUT OF BAND HIGH CH



9.6.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

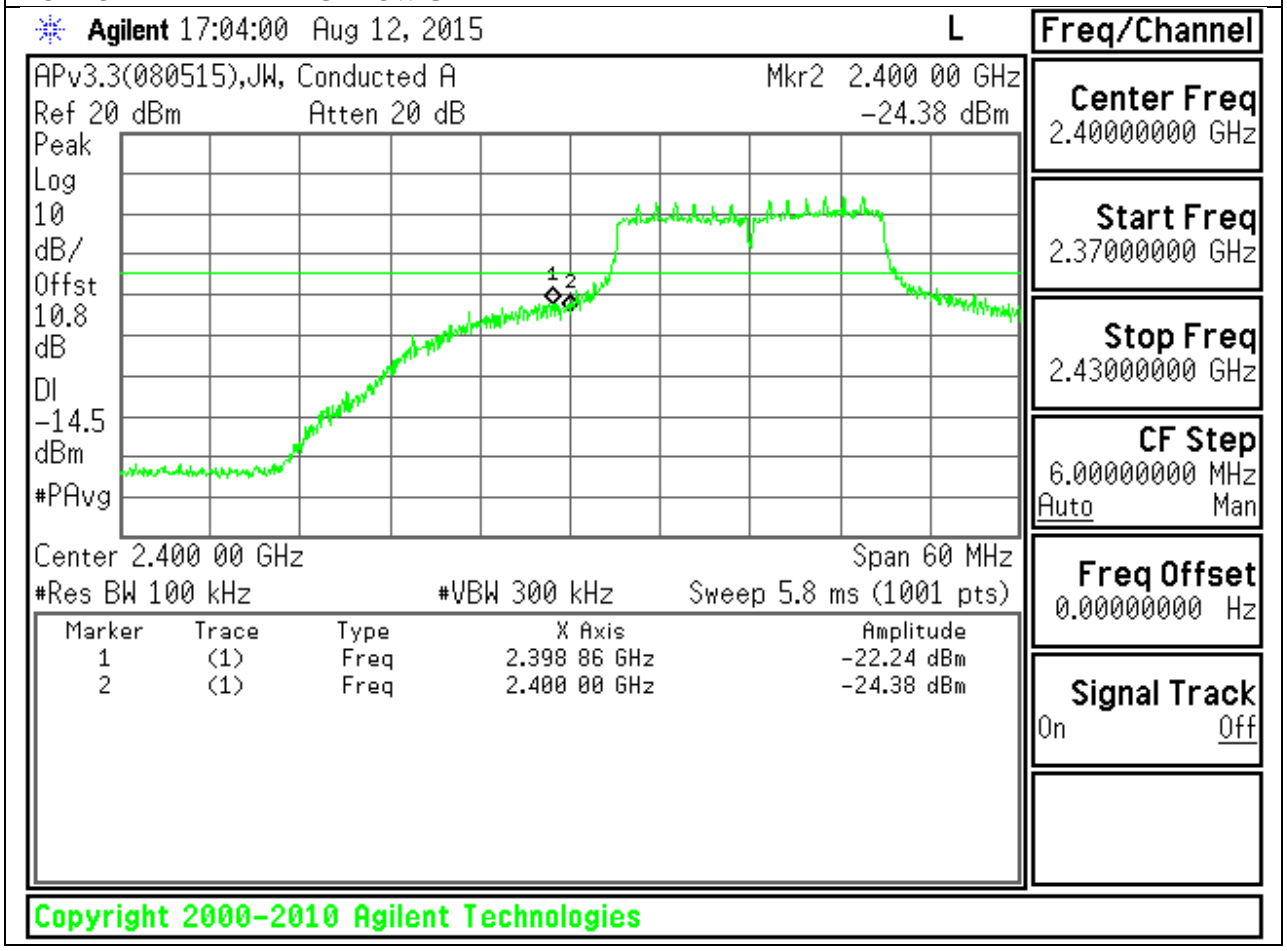
IN-BAND REFERENCE LEVEL

REFERENCE LEVEL MID CH



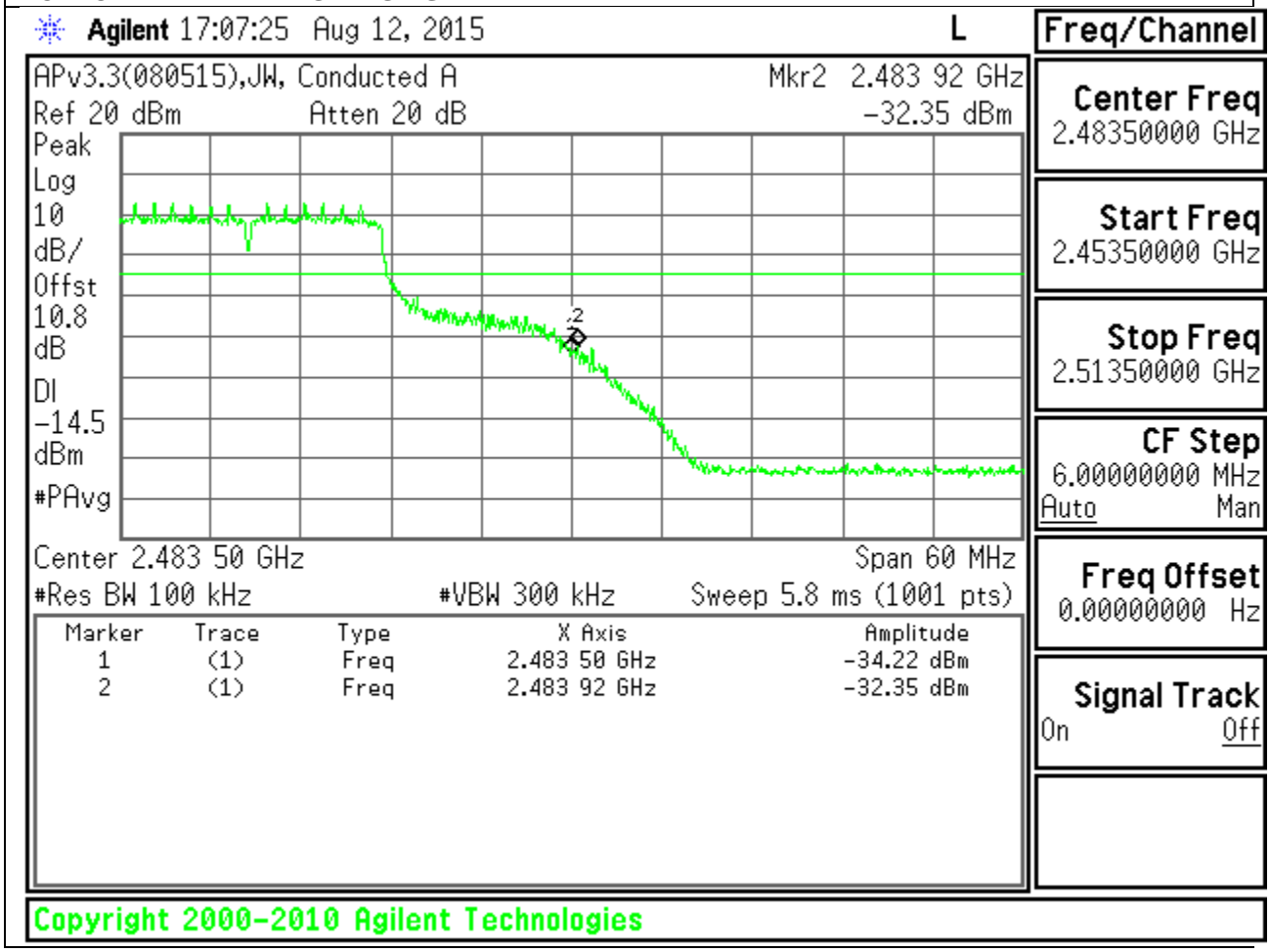
LOW CHANNEL BANDEDGE

AUTHORIZED BAND EDGE LOW CH



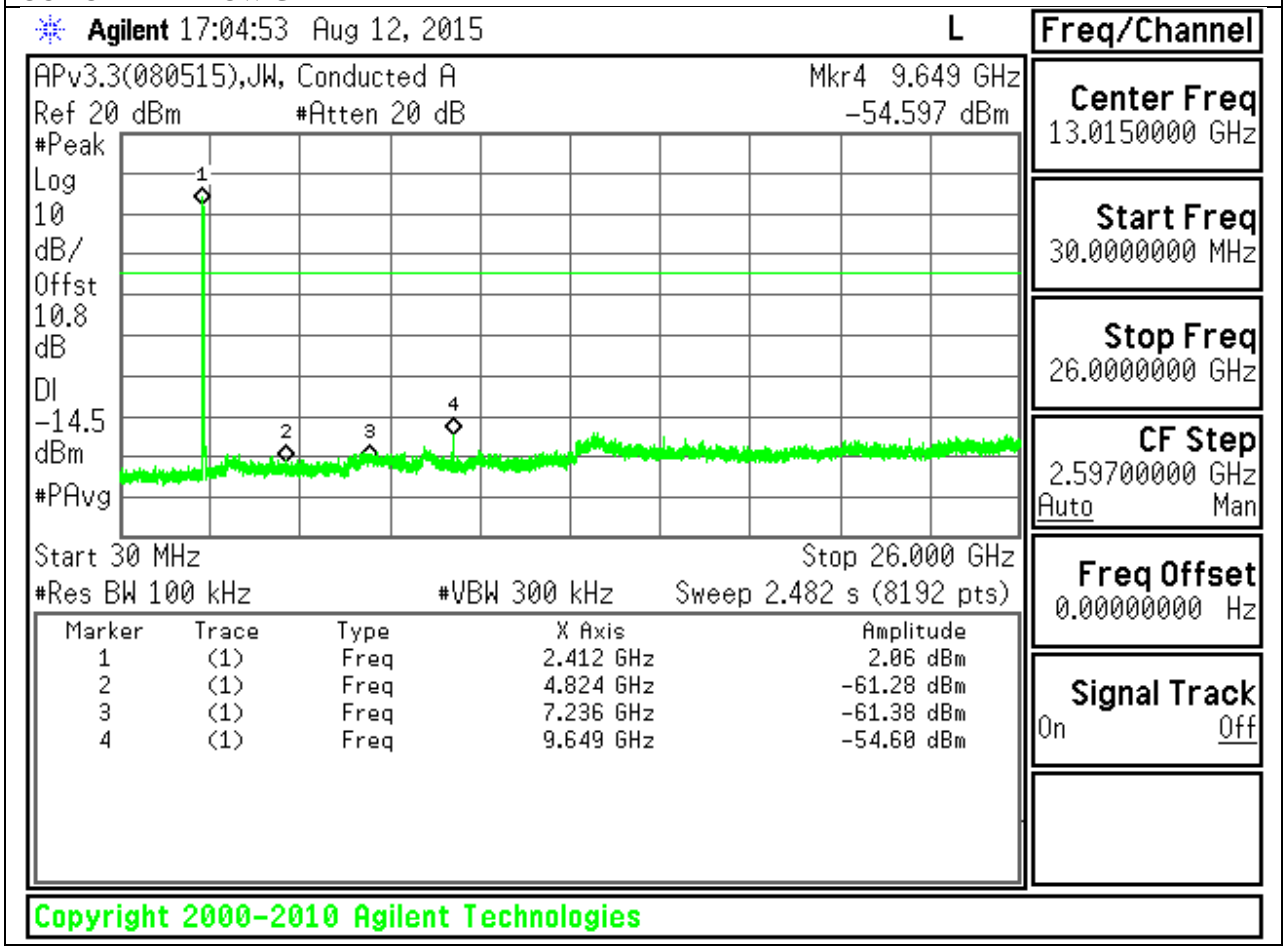
HIGH CHANNEL BANDEDGE

AUTHORIZED BAND EDGE HIGH CH

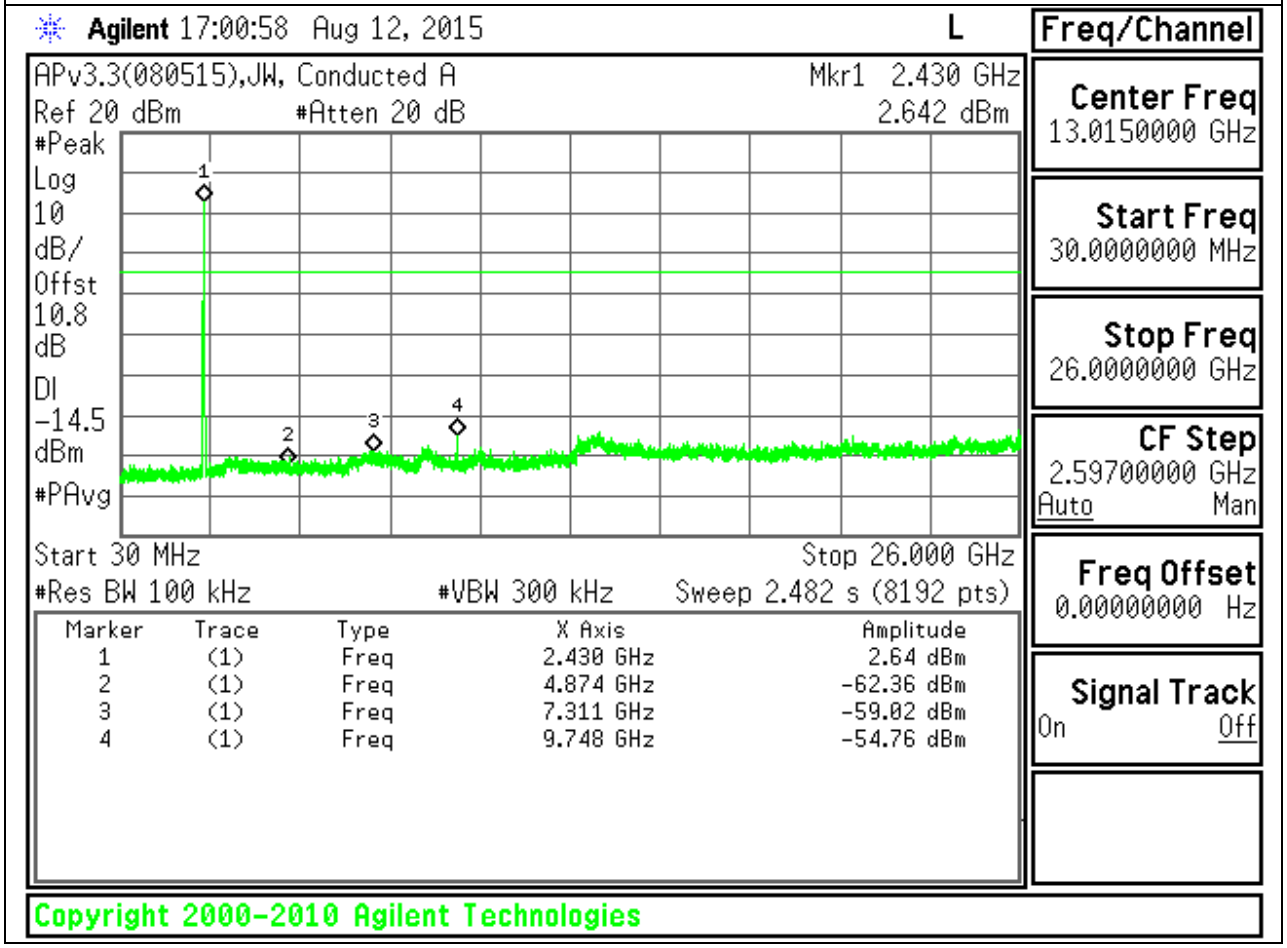


OUT-OF-BAND EMISSIONS

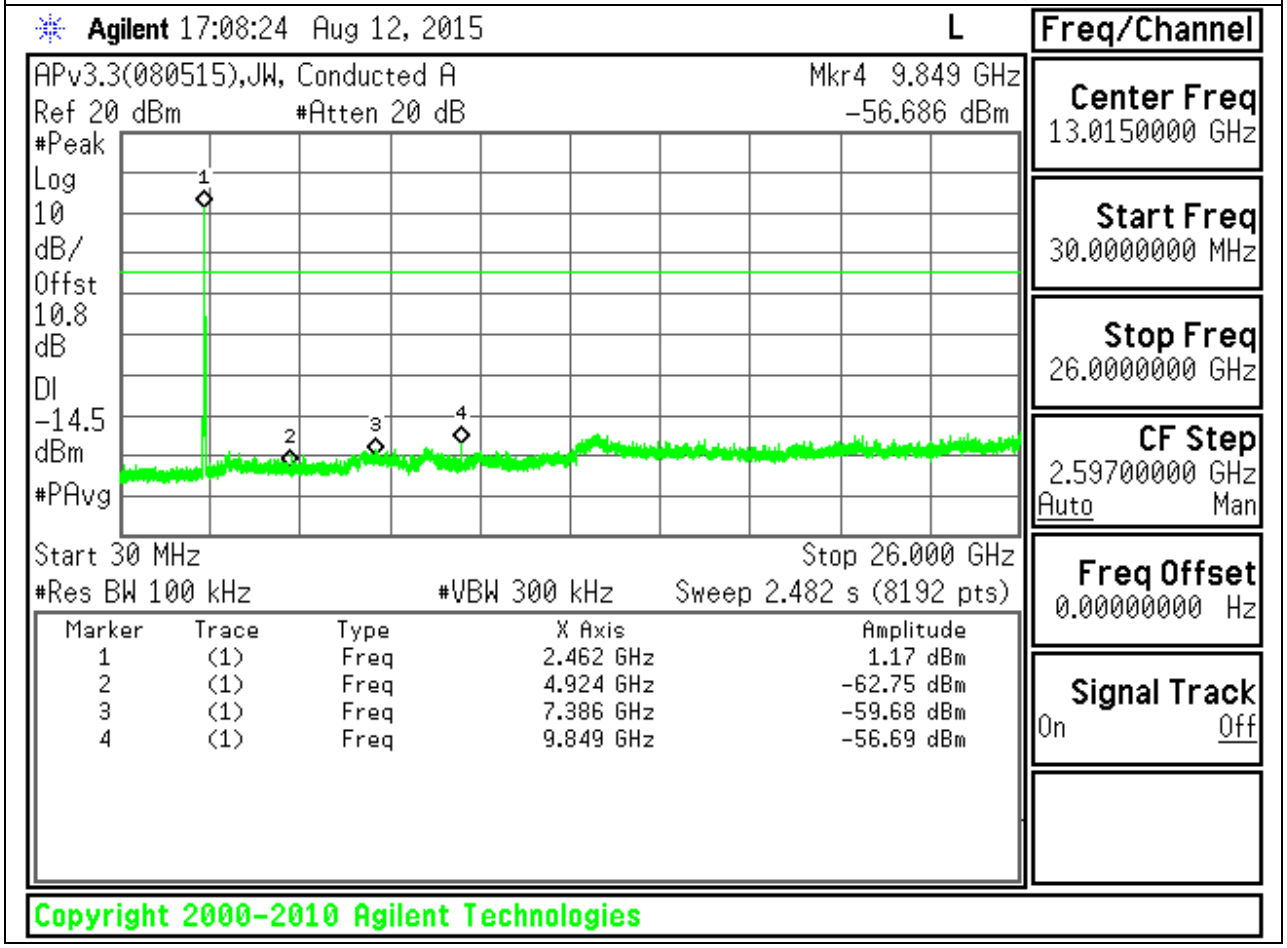
OUT OF BAND LOW CH



OUT OF BAND MID CH



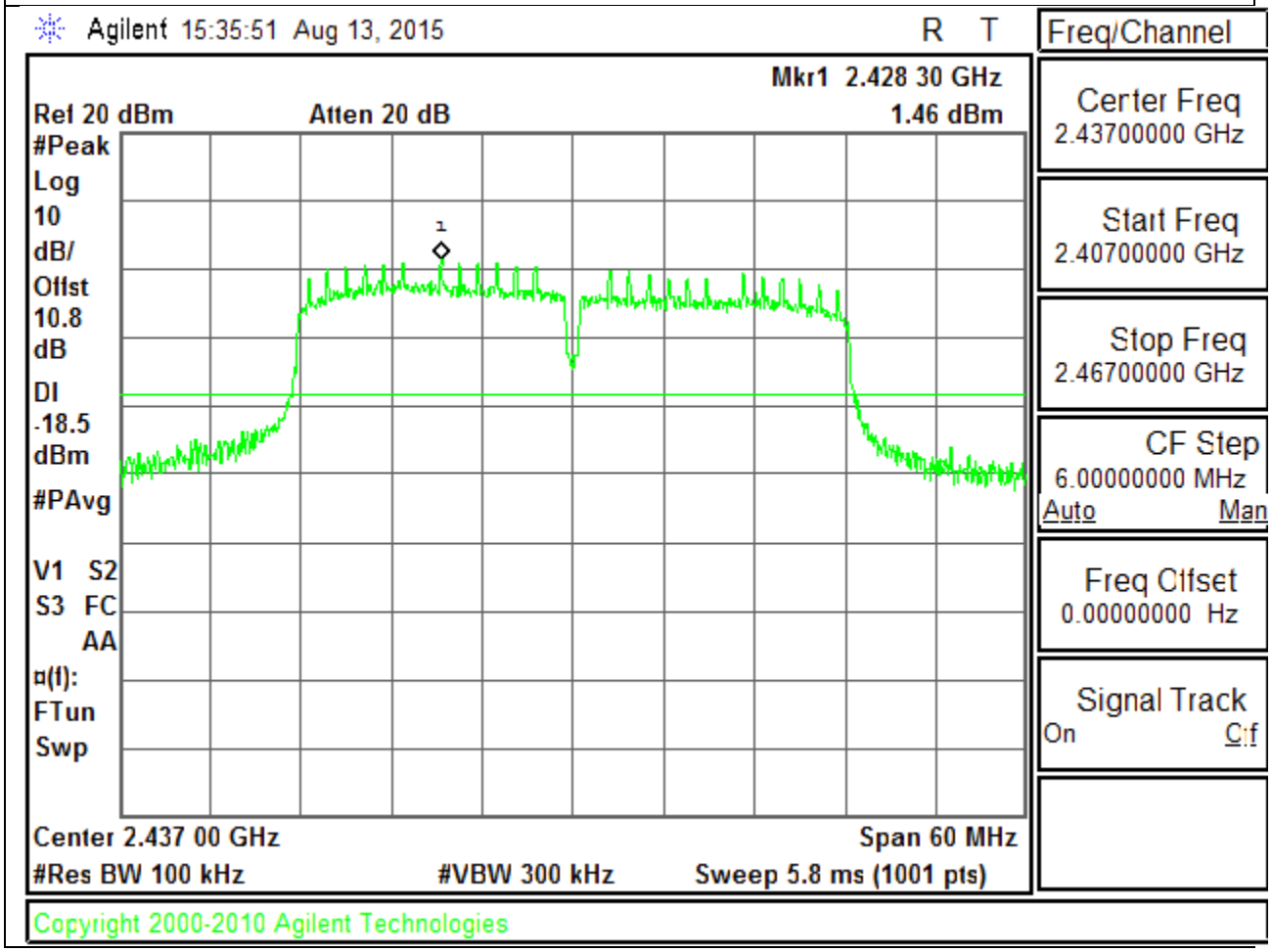
OUT OF BAND HIGH CH



9.6.4. 802.11n HT40 MODE IN THE 2.4 GHz BAND

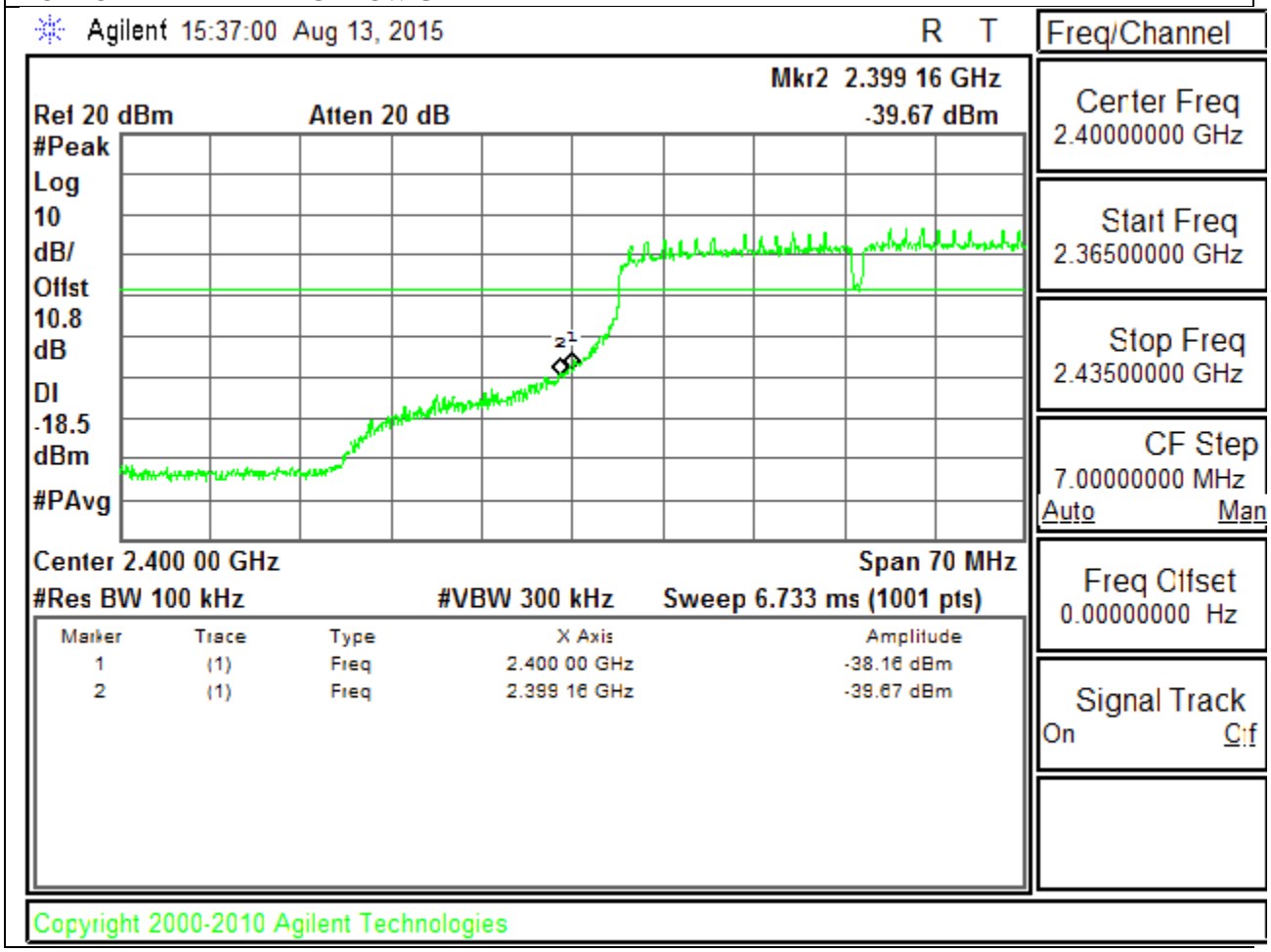
IN-BAND REFERENCE LEVEL

REFERENCE LEVEL MID CH



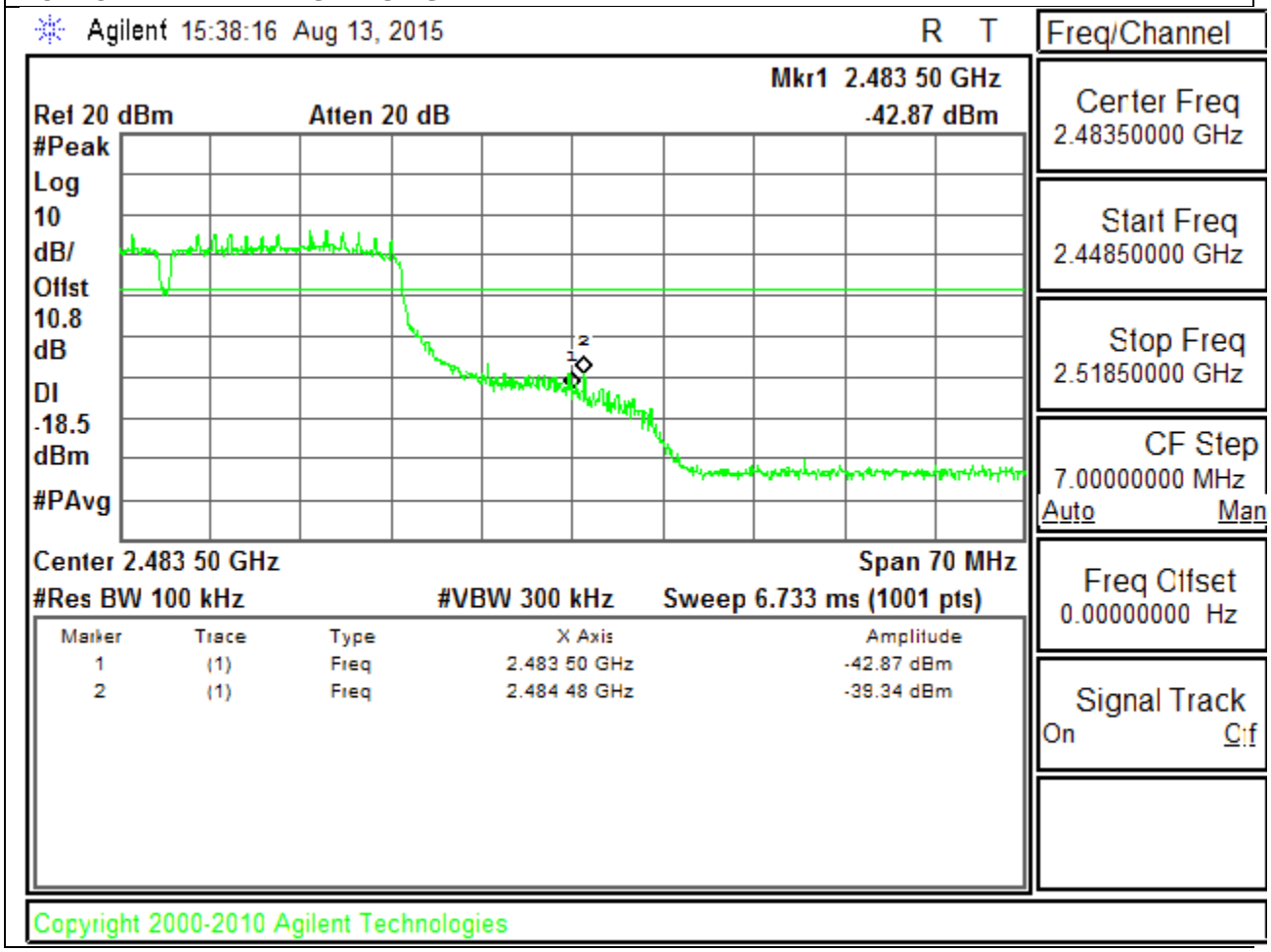
LOW CHANNEL BANDEDGE

AUTHORIZED BAND EDGE LOW CH



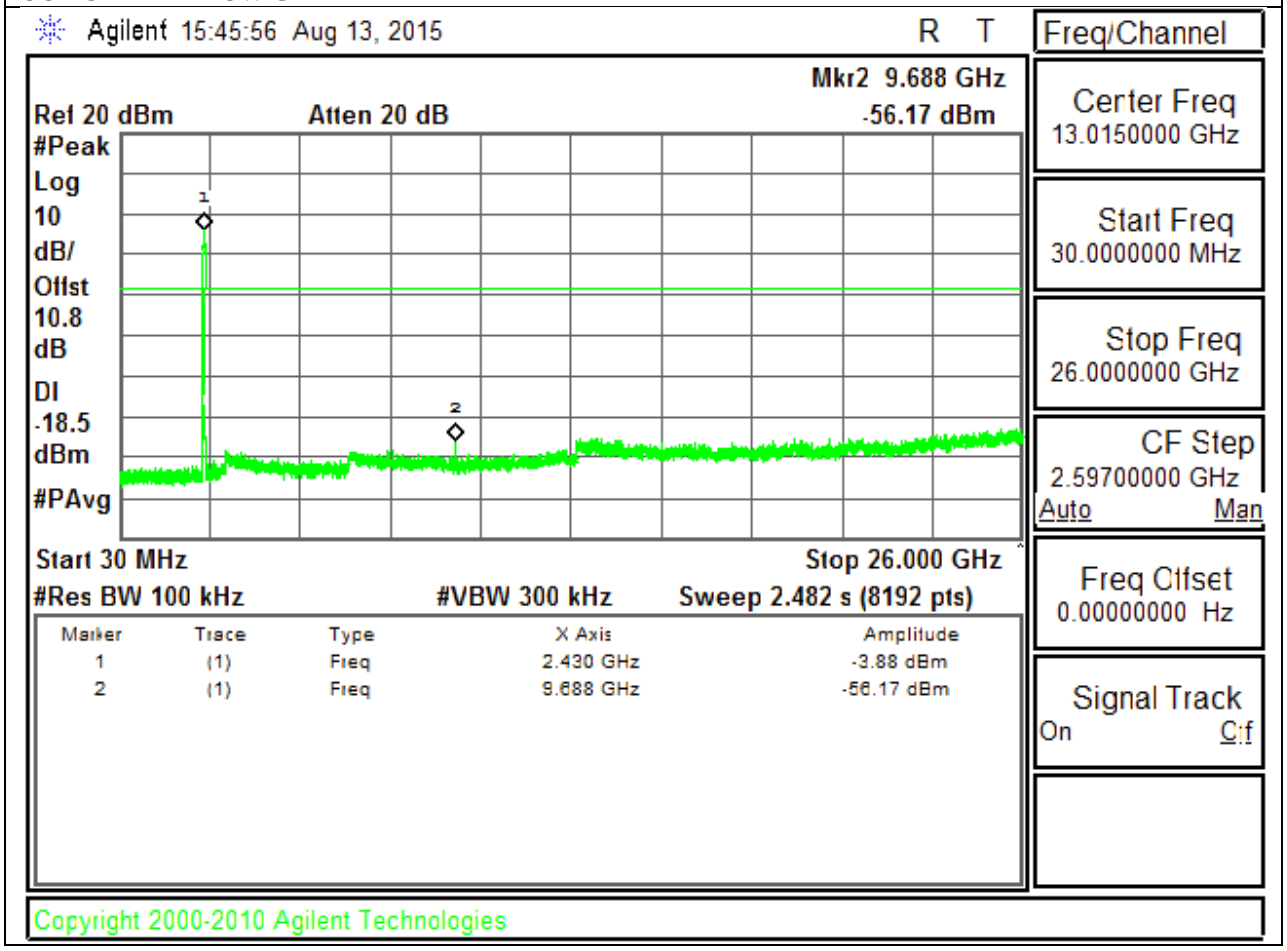
HIGH CHANNEL BANDEDGE

AUTHORIZED BAND EDGE HIGH CH

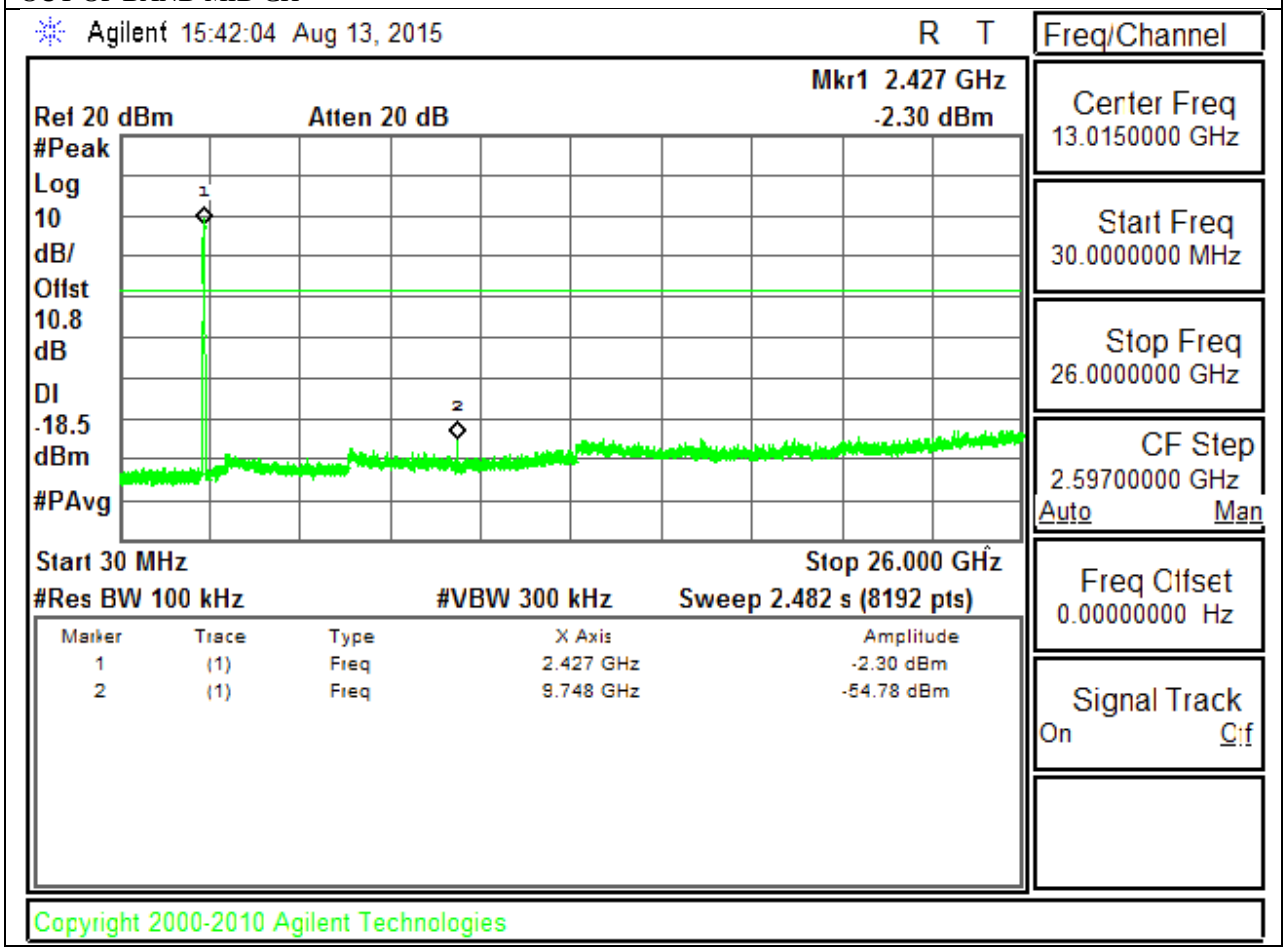


OUT-OF-BAND EMISSIONS

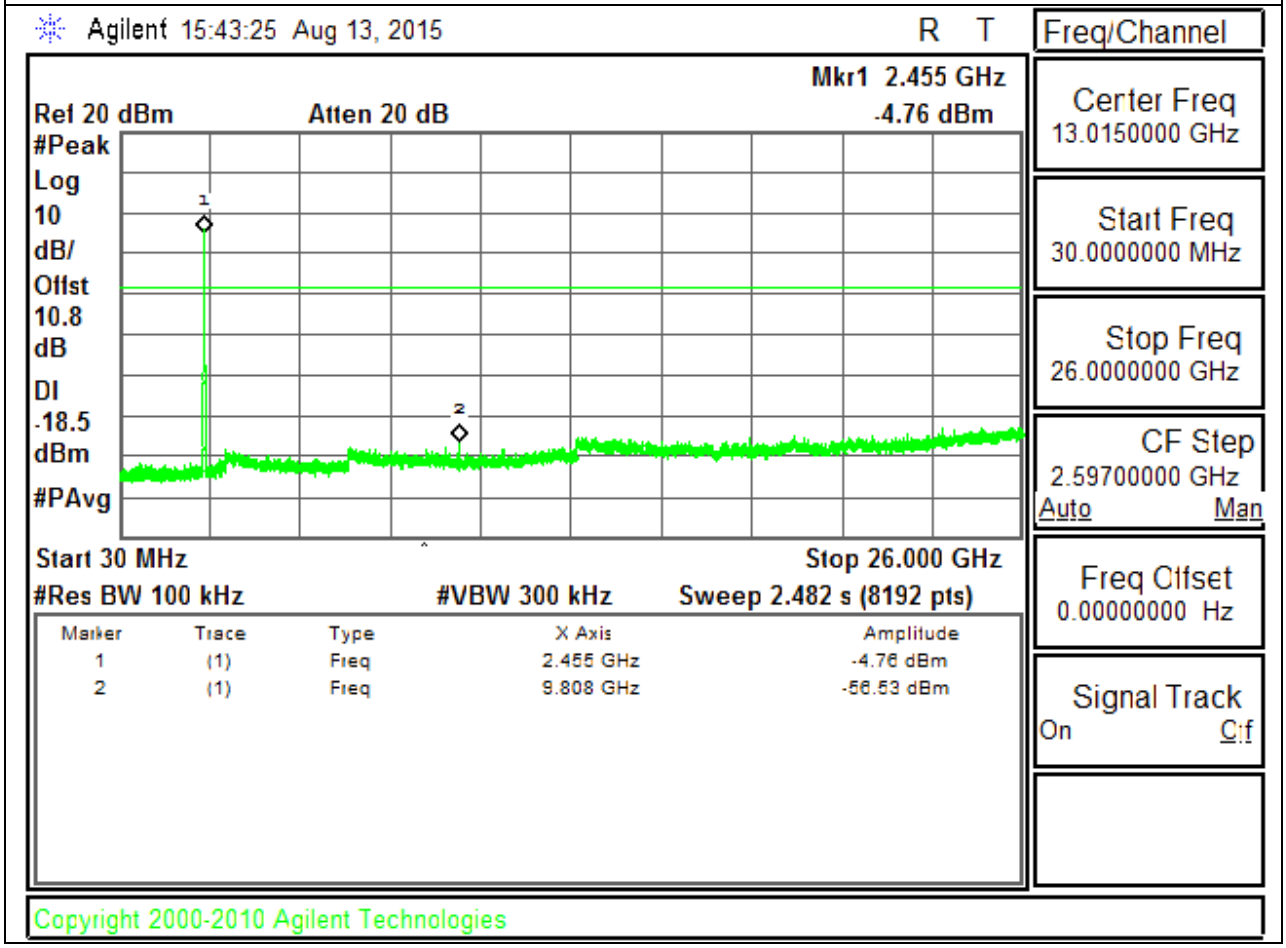
OUT OF BAND LOW CH



OUT OF BAND MID CH



OUT OF BAND HIGH CH



10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

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

TEST PROCEDURE

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

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

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor= 10log (1/x) For this sample B mode = 0dB (duty cycle >98%); G mode = 0.58dB; N HT20 mode = 0.62dB; N HT40 mode = 1.19 dB.

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

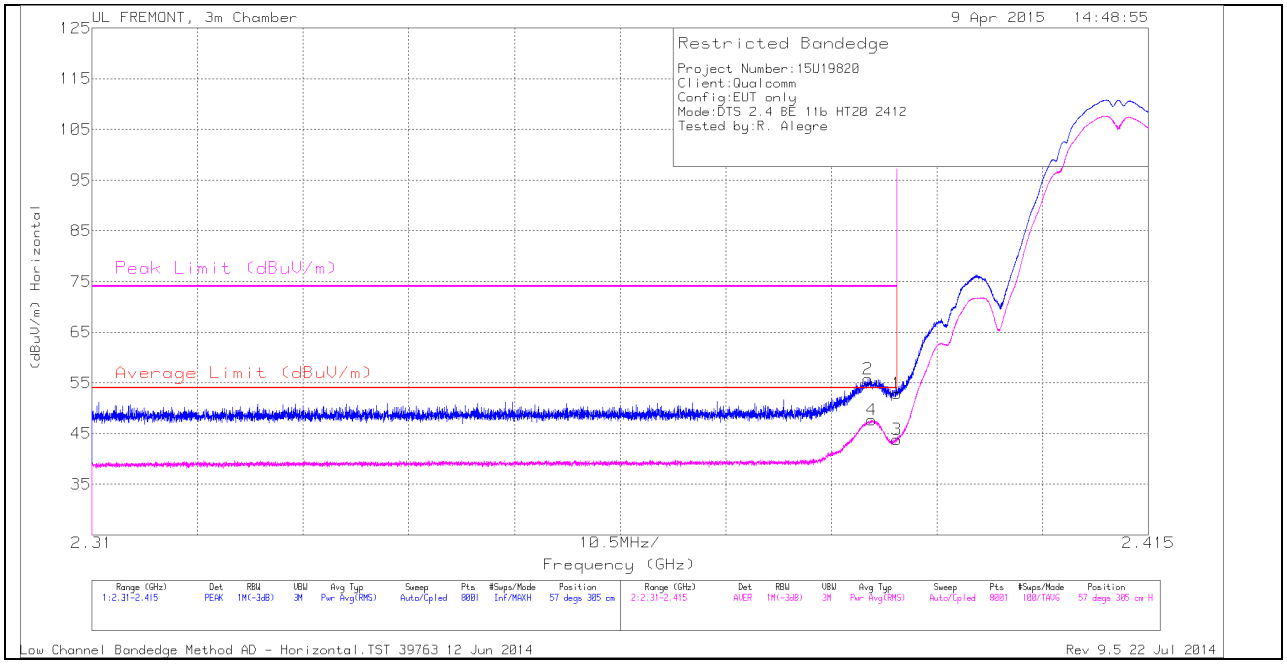
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

10.2. TRANSMITTER ABOVE 1 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

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	2.387	46.88	PK	32	-23.1	0	55.78	-	-	74	-18.22	57	305	H
4	2.388	38.8	RMS	32	-23.1	0	47.7	54	-6.3	-	-	57	305	H
1	2.39	44	PK	32	-23.1	0	52.9	-	-	74	-21.1	57	305	H
3	2.39	34.94	RMS	32	-23.1	0	43.84	54	-10.16	-	-	57	305	H

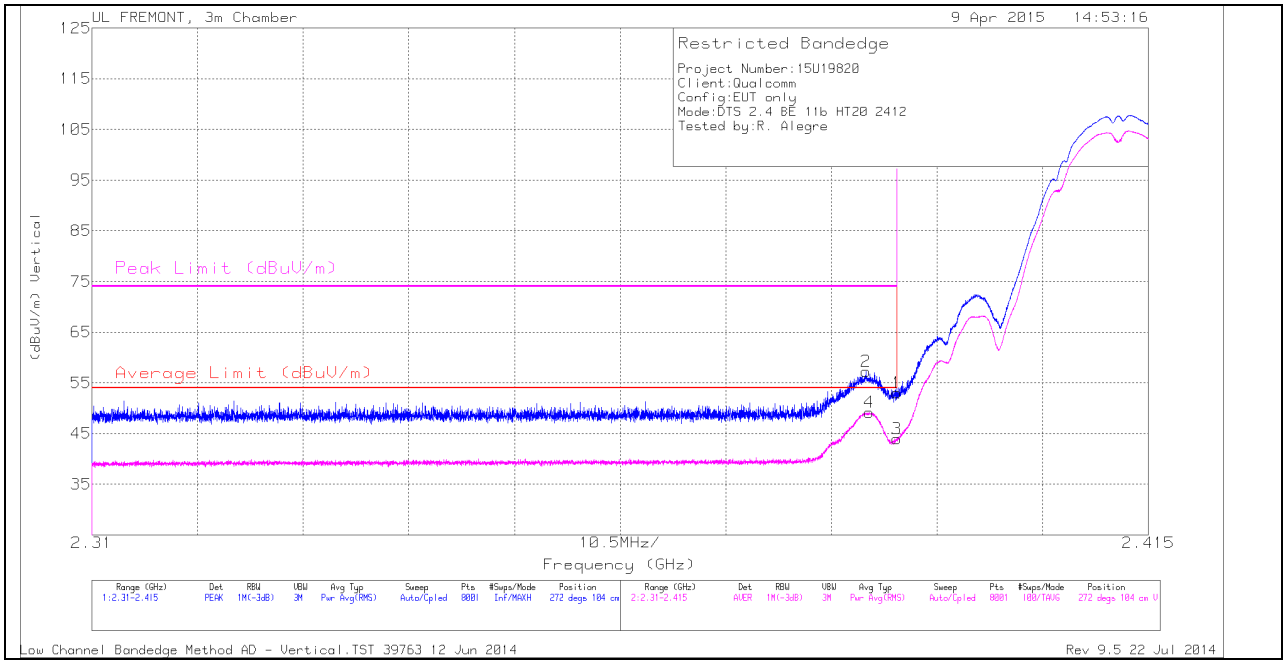
PK - Peak detector

RMS - RMS detection

Low Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

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	2.387	48.39	PK	32	-23.1	0	57.29	-	-	74	-16.71	272	104	V
4	2.387	40.32	RMS	32	-23.1	0	49.22	54	-4.78	-	-	272	104	V
1	2.39	44.12	PK	32	-23.1	0	53.02	-	-	74	-20.98	272	104	V
3	2.39	35.03	RMS	32	-23.1	0	43.93	54	-10.07	-	-	272	104	V

PK - Peak detector

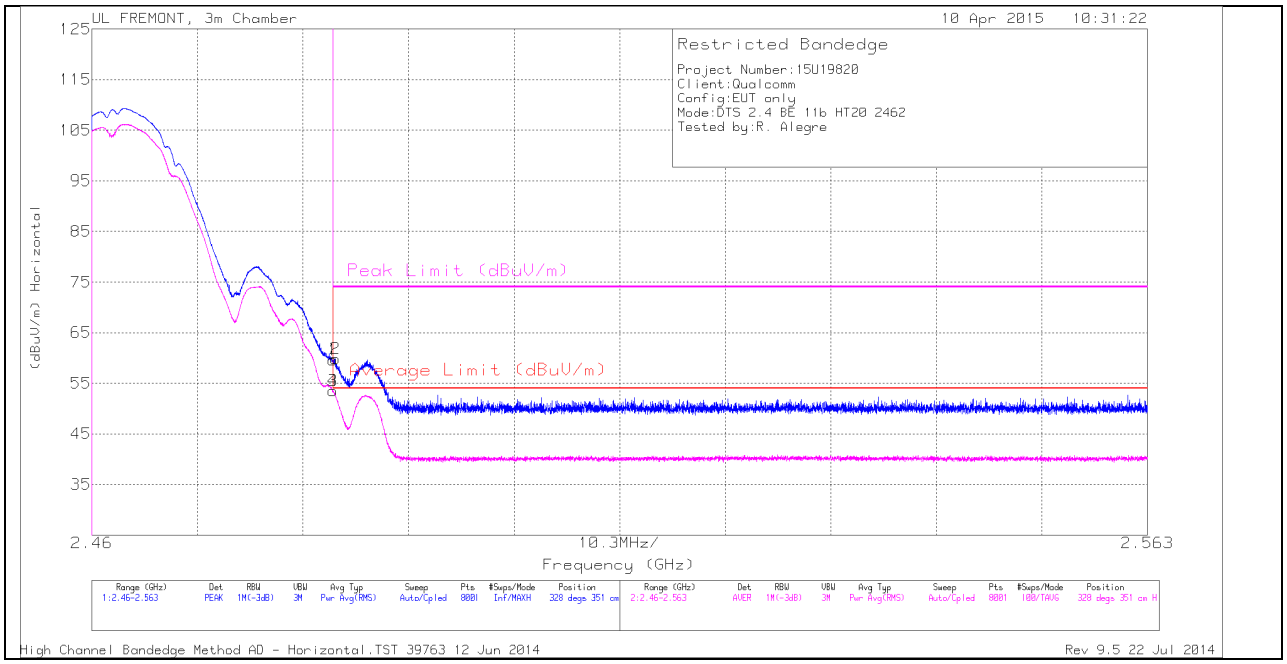
RMS - RMS detection

Low Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	50.14	PK	32.3	-22.8	0	59.64	-	-	74	-14.36	328	351	H
2	2.484	50.37	PK	32.3	-22.8	0	59.87	-	-	74	-14.13	328	351	H
3	2.484	43.85	RMS	32.3	-22.8	0	53.35	54	-0.65	-	-	328	351	H
4	2.484	43.85	RMS	32.3	-22.8	0	53.35	54	-0.65	-	-	328	351	H

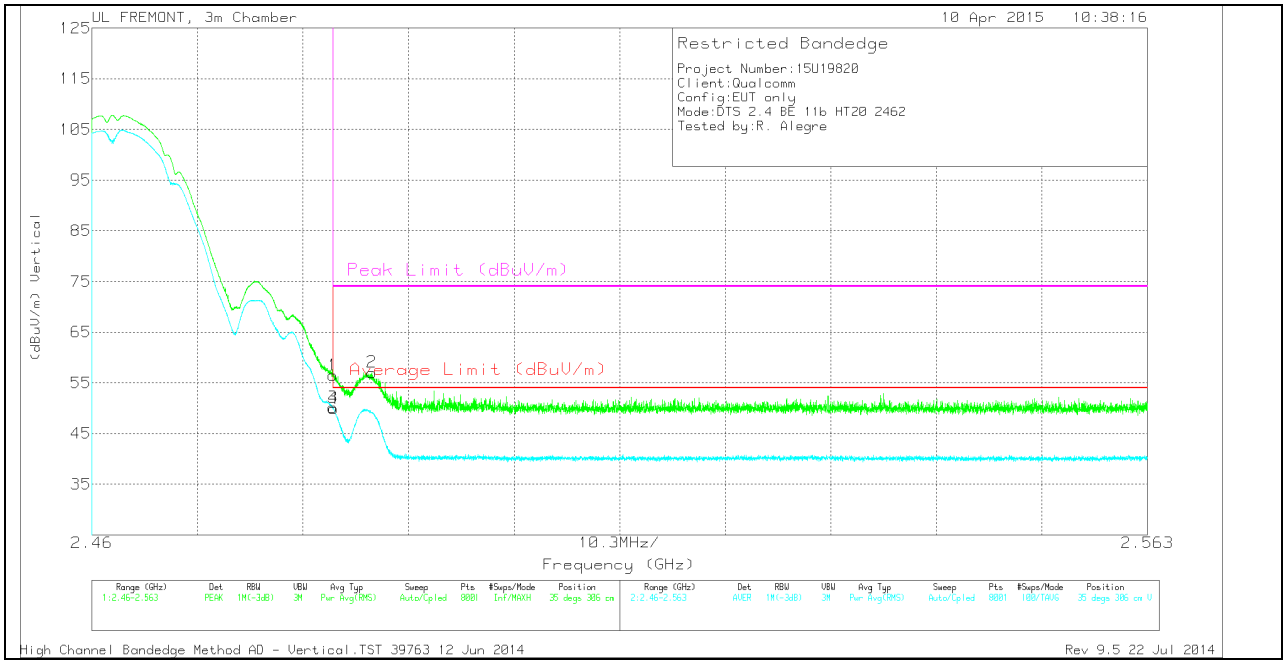
PK - Peak detector

RMS - RMS detection

High Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

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	47.02	PK	32.3	-22.8	0	56.52	-	-	74	-17.48	35	306	V
3	2.484	40.54	RMS	32.3	-22.8	0	50.04	54	-3.96	-	-	35	306	V
4	2.484	40.35	RMS	32.3	-22.8	0	49.85	54	-4.15	-	-	35	306	V
2	2.487	47.56	PK	32.3	-22.8	0	57.06	-	-	74	-16.94	35	306	V

PK - Peak detector

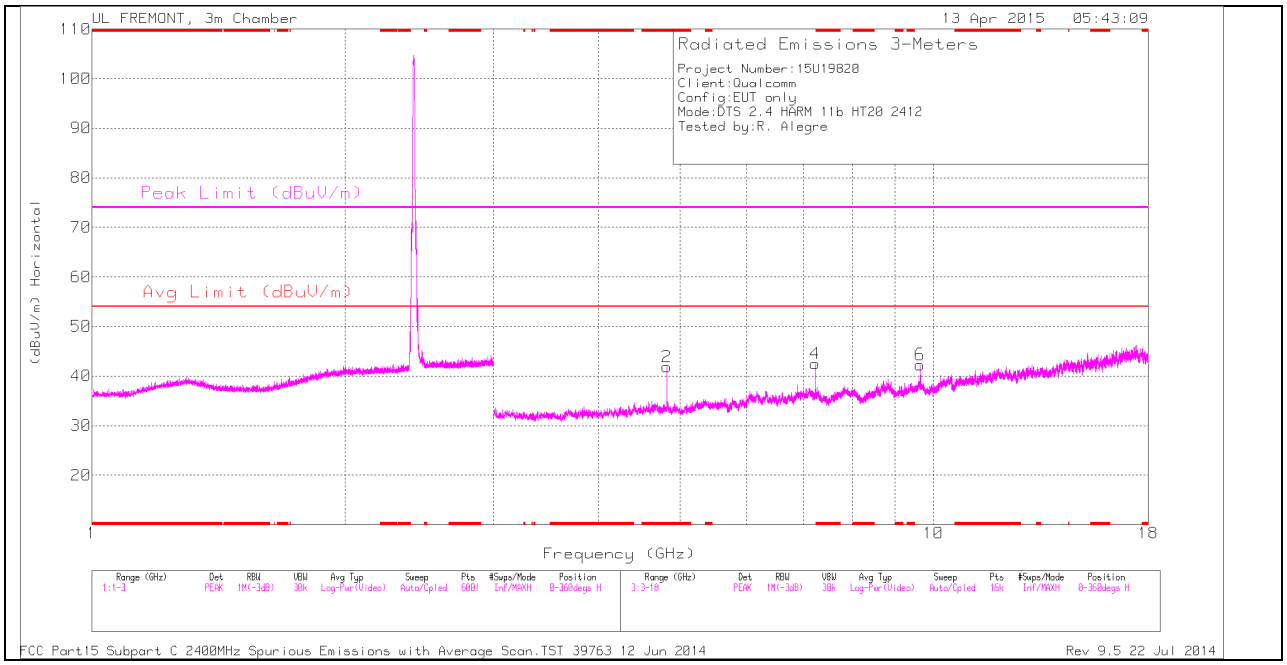
RMS - RMS detection

High Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

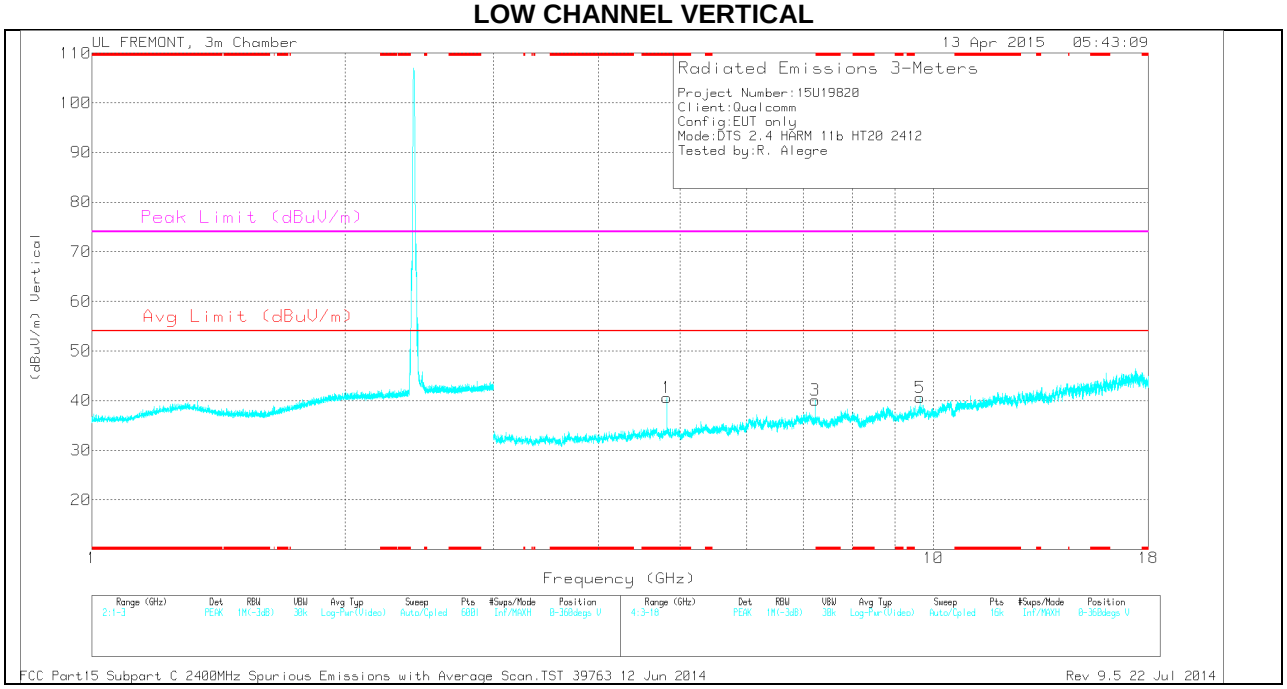
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

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
2	* 4.824	38.12	PK	34	-30.2	0	41.92	-	-	74	-32.08	0-360	100	H
1	* 4.824	36.77	PK	34	-30.2	0	40.57	-	-	74	-33.43	0-360	200	V
4	7.236	36.62	PK	35.6	-29.7	0	42.52	-	-	-	-	0-360	200	H
3	7.236	34.22	PK	35.6	-29.7	0	40.12	-	-	-	-	0-360	200	V
6	9.647	31.11	PK	36.8	-25.6	0	42.31	-	-	-	-	0-360	100	H
5	9.647	29.4	PK	36.8	-25.6	0	40.6	-	-	-	-	0-360	200	V

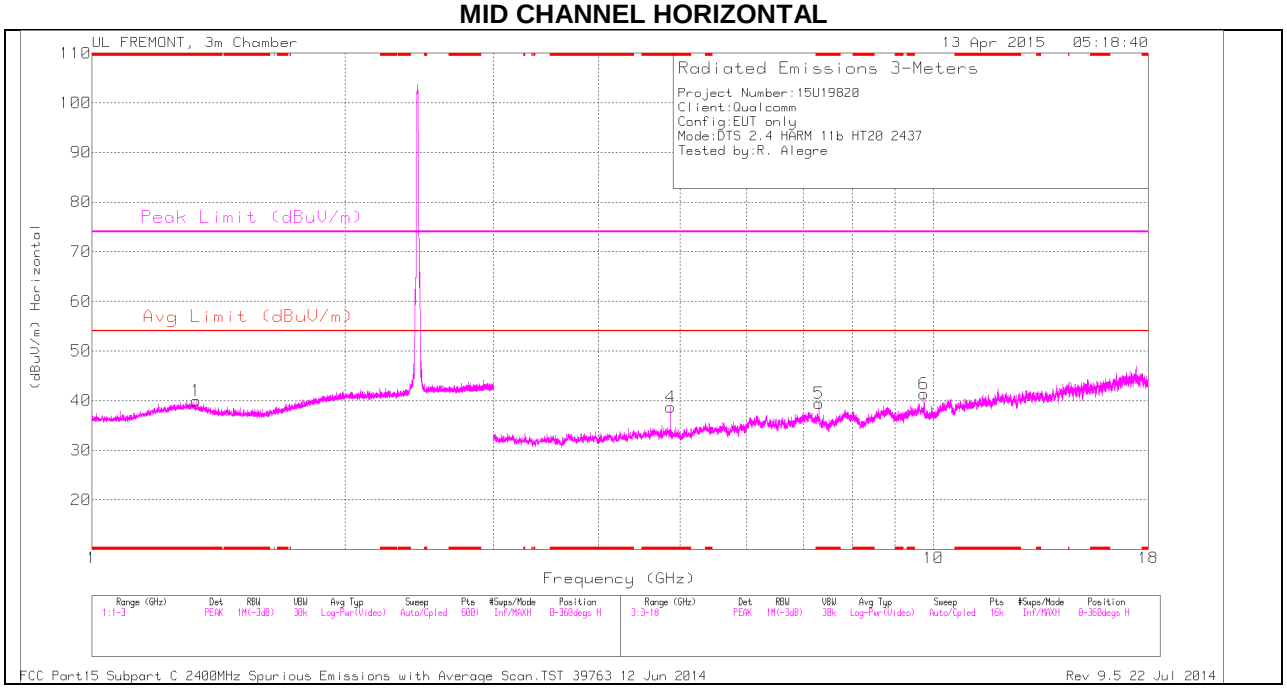
PK - Peak detector

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
* 4.824	45.35	PK2	34	-30.3	0	49.05	-	-	74	-24.95	34	112	H
* 4.824	39.2	MAv1	34	-30.3	0	42.9	54	-11.1	-	-	34	112	H
7.237	35.88	MAv1	35.6	-29.7	0	41.78	-	-	-	-	307	191	H
7.238	44.38	PK2	35.6	-29.7	0	50.28	-	-	-	-	307	191	H
9.648	39.1	PK2	36.8	-25.6	0	50.3	-	-	-	-	40	163	H
9.648	30.74	MAv1	36.8	-25.6	0	41.94	-	-	-	-	40	163	H

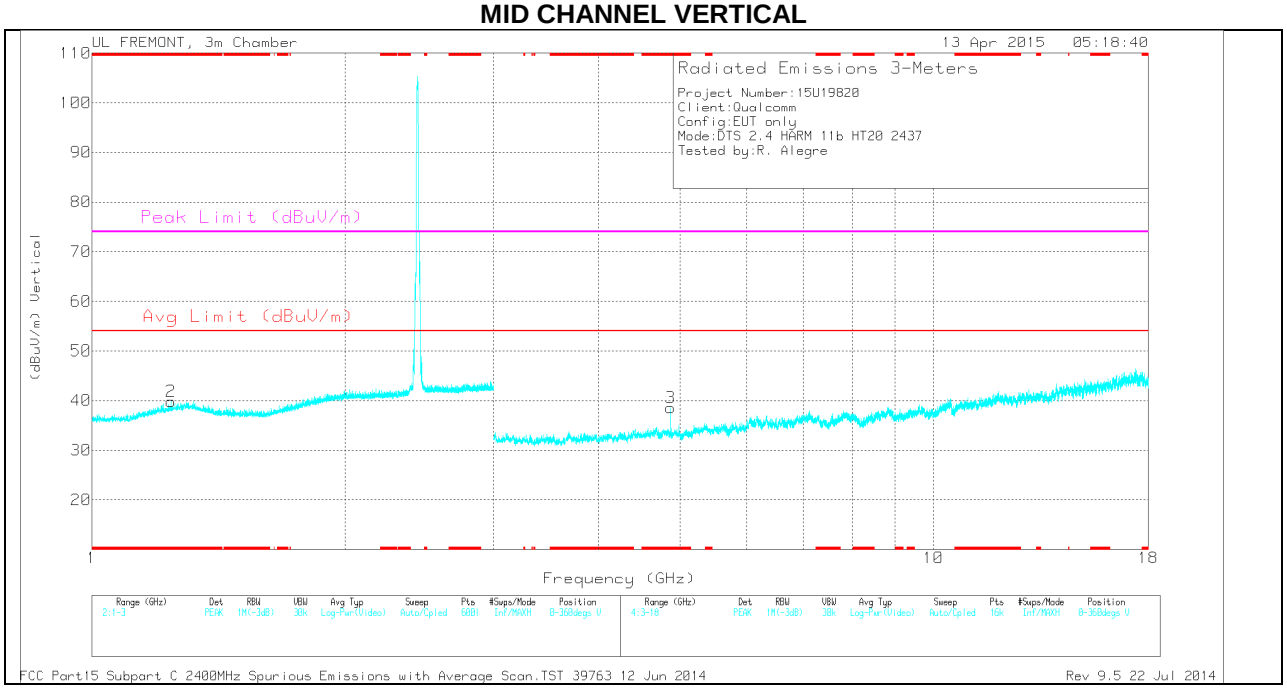
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

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	* 1.329	34.26	PK	29.5	-23.8	0	39.96	-	-	74	-34.04	0-360	200	H
2	* 1.241	34.32	PK	29.3	-23.8	0	39.82	-	-	74	-34.18	0-360	200	V
4	* 4.874	34.83	PK	34	-30.1	0	38.73	-	-	74	-35.27	0-360	100	H
5	* 7.311	32.44	PK	35.6	-28.6	0	39.44	-	-	74	-34.56	0-360	200	H
3	* 4.874	34.69	PK	34	-30.1	0	38.59	-	-	74	-35.41	0-360	200	V
6	9.748	30.15	PK	36.9	-25.7	0	41.35	-	-	-	-	0-360	100	H

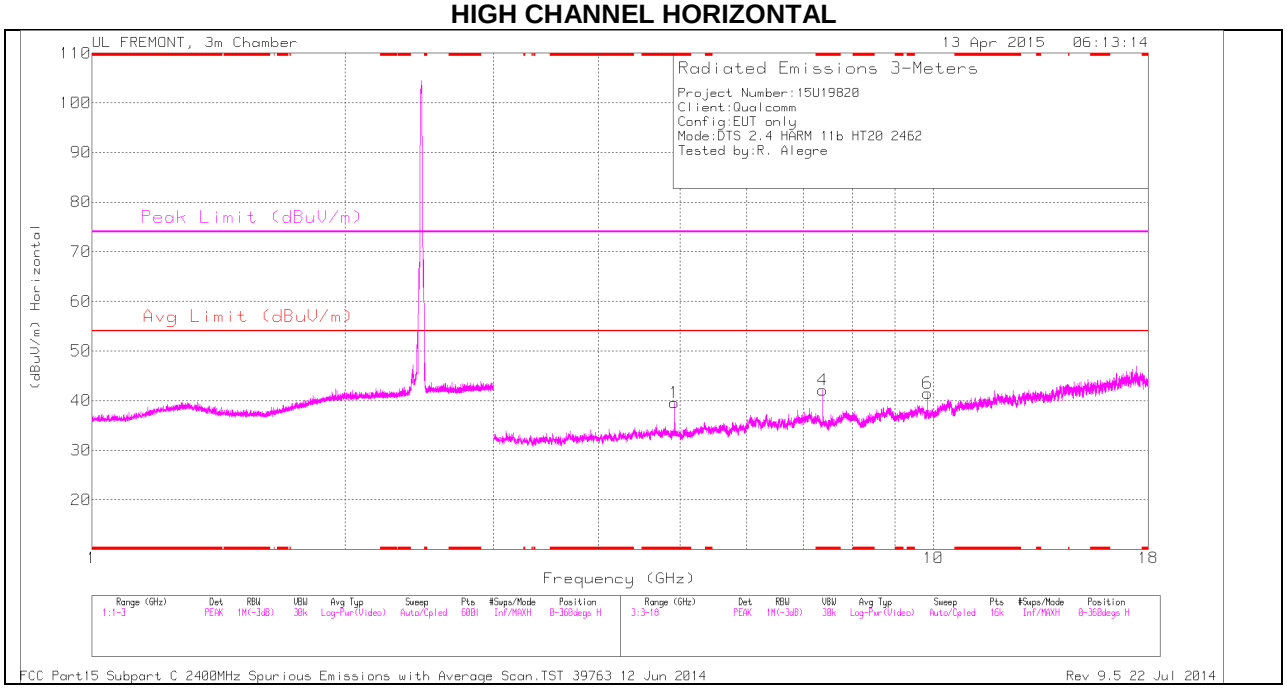
PK - Peak detector

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
* 4.874	42.63	PK2	34	-30.1	0	46.53	-	-	74	-27.47	339	112	H
* 4.874	35.5	MAv1	34	-30.1	0	39.4	54	-14.6	-	-	339	112	H
* 7.312	42.44	PK2	35.6	-28.6	0	49.44	-	-	74	-24.56	312	173	H
* 7.312	33.56	MAv1	35.6	-28.6	0	40.56	54	-13.44	-	-	312	173	H
9.748	37.43	PK2	36.9	-25.7	0	48.63	-	-	-	-	307	100	H
9.748	26.84	MAv1	36.9	-25.7	0	38.04	54	-15.96	-	-	307	100	H

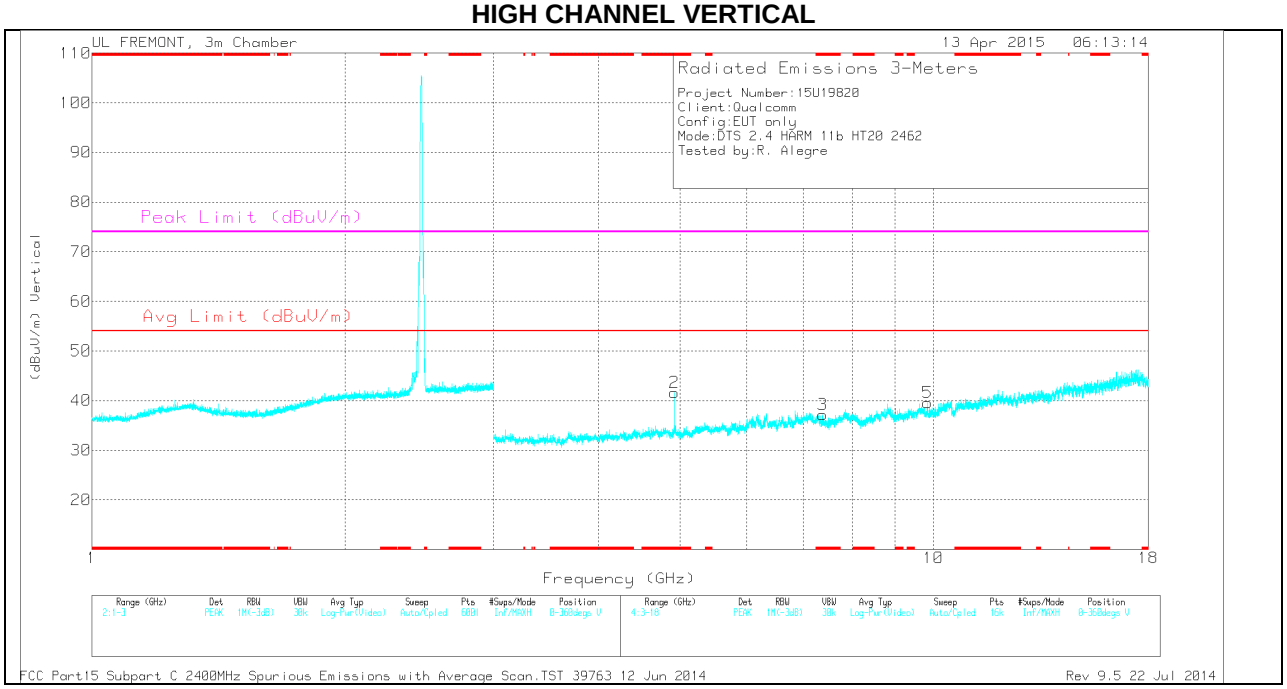
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

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	* 4.924	35.93	PK	34	-30.4	0	39.53	-	-	74	-34.47	0-360	200	H
4	* 7.387	34.84	PK	35.6	-28.3	0	42.14	-	-	74	-31.86	0-360	200	H
2	* 4.924	37.96	PK	34	-30.4	0	41.56	-	-	74	-32.44	0-360	100	V
3	* 7.389	29.77	PK	35.6	-28.2	0	37.17	-	-	74	-36.83	0-360	200	V
6	9.847	30.45	PK	36.9	-25.9	0	41.45	-	-	-	-	0-360	100	H
5	9.848	28.54	PK	36.9	-25.9	0	39.54	-	-	-	-	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

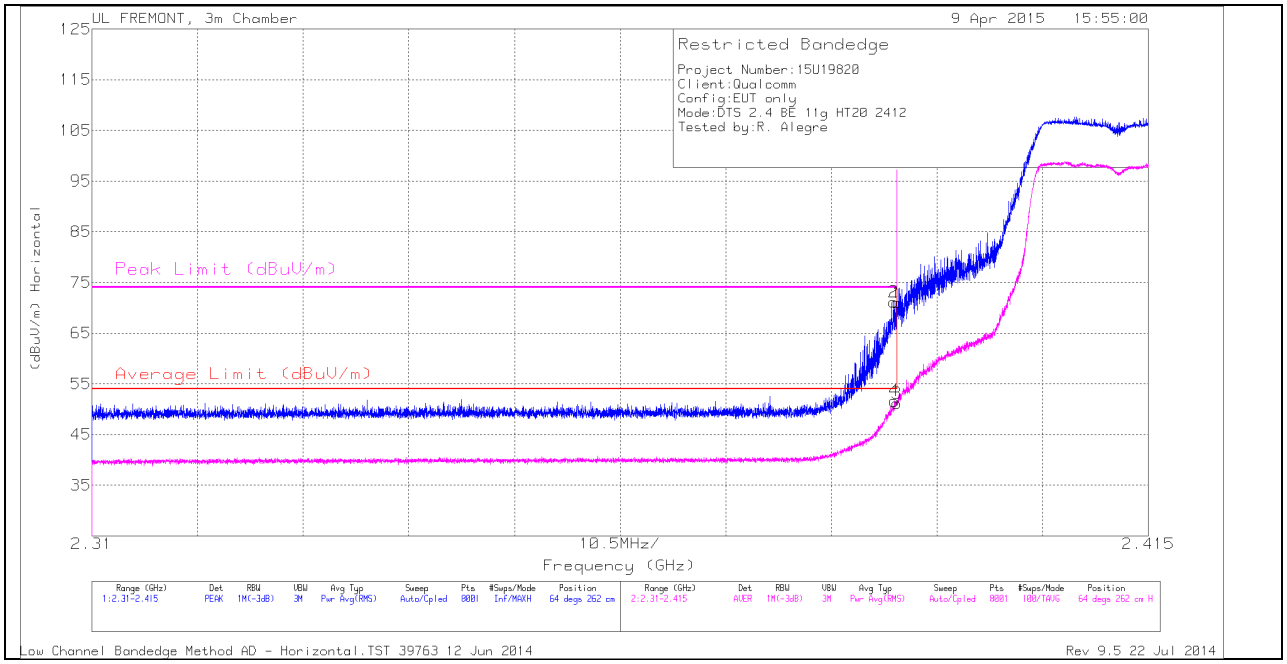
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.387	42.98	PK2	35.6	-28.3	0	50.28	-	-	74	-23.72	313	229	H
* 7.387	34.92	MAv1	35.6	-28.3	0	42.22	54	-11.78	-	-	313	229	H
* 4.924	45.14	PK2	34	-30.4	0	48.74	-	-	74	-25.26	81	104	V
* 4.924	38.69	MAv1	34	-30.4	0	42.29	54	-11.71	-	-	81	104	V
9.846	37.41	PK2	36.9	-25.9	0	48.41	-	-	-	-	261	100	H
9.848	25.8	MAv1	36.9	-25.9	0	36.8	-	-	-	-	261	100	H

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

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	62.14	PK	32	-23.1	0	71.04	-	-	74	-2.96	64	262	H
2	2.39	62.21	PK	32	-23.1	0	71.11	-	-	74	-2.89	64	262	H
3	2.39	41.7	RMS	32	-23.1	.58	51.18	54	-2.82	-	-	64	262	H
4	2.39	42.12	RMS	32	-23.1	.58	51.6	54	-2.4	-	-	64	262	H

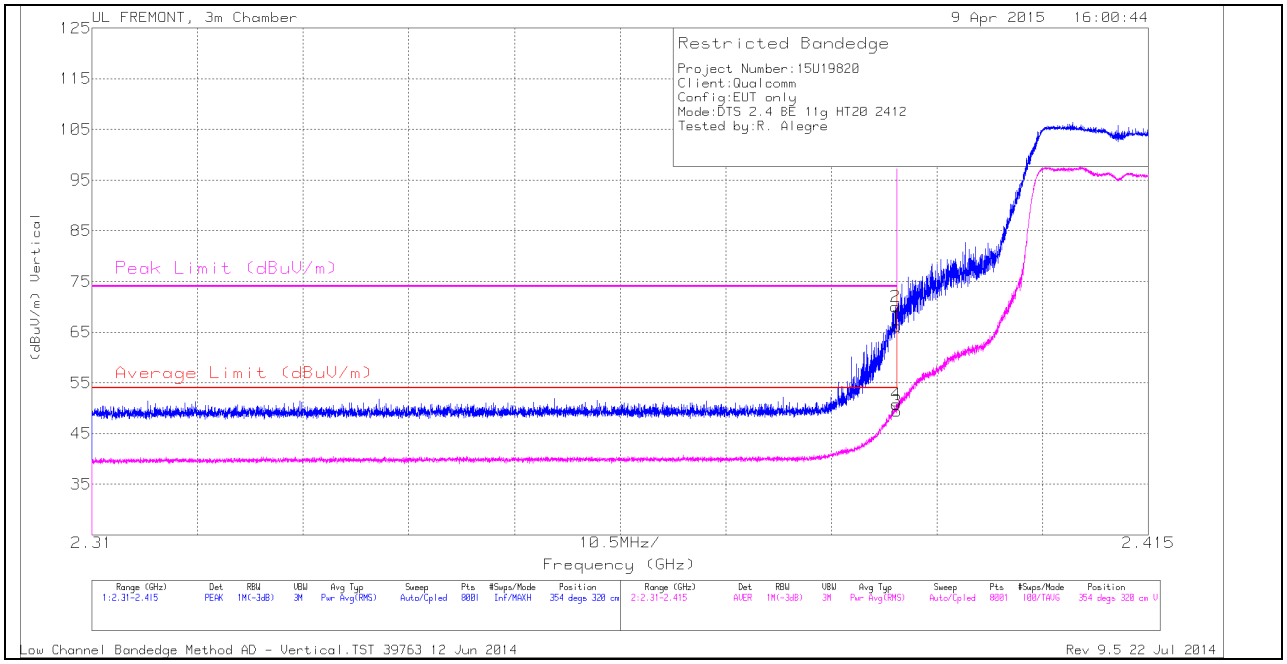
PK - Peak detector

RMS - RMS detection

Low Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	57.23	PK	32	-23.1	0	66.13	-	-	74	-7.87	354	320	V
2	2.39	61.09	PK	32	-23.1	0	69.99	-	-	74	-4.01	354	320	V
3	2.39	39.96	RMS	32	-23.1	.58	49.44	54	-4.56	-	-	354	320	V
4	2.39	41.27	RMS	32	-23.1	.58	50.75	54	-3.25	-	-	354	320	V

PK - Peak detector

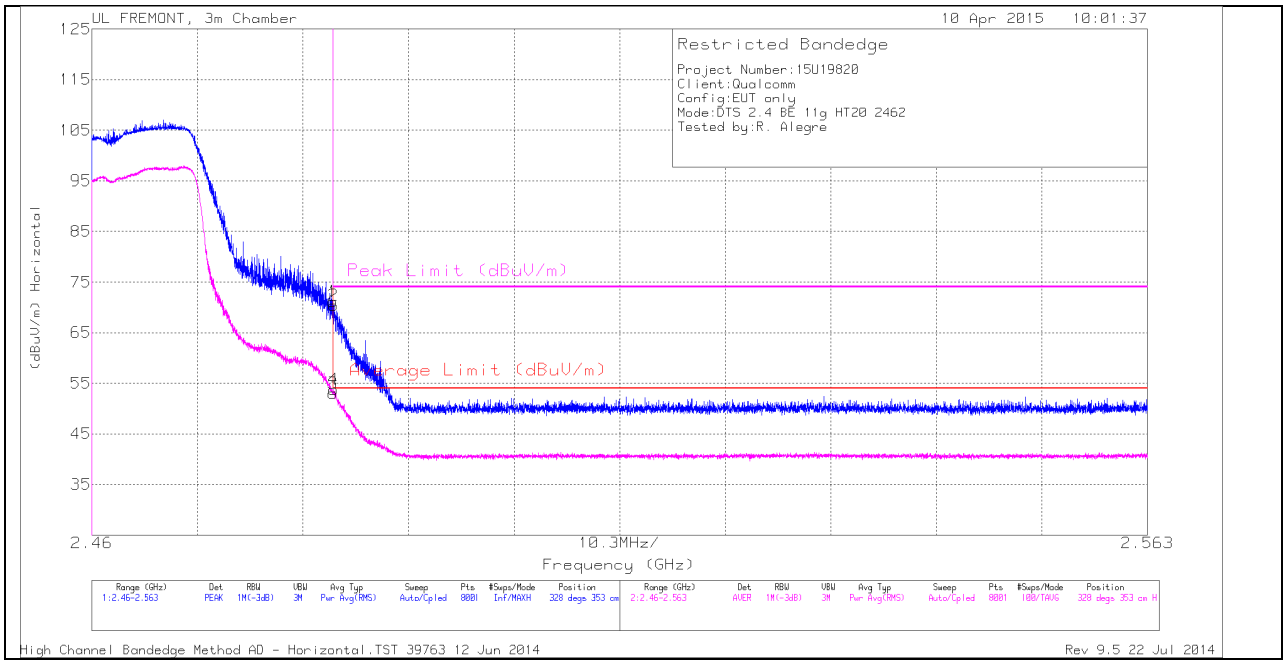
RMS - RMS detection

Low Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	61.64	PK	32.3	-22.8	0	71.14	-	-	74	-2.86	328	353	H
2	2.484	60.86	PK	32.3	-22.8	0	70.36	-	-	74	-3.64	328	353	H
3	2.484	42.9	RMS	32.3	-22.8	.58	52.98	54	-1.02	-	-	328	353	H
4	2.484	43.65	RMS	32.3	-22.8	.58	53.73	54	-.27	-	-	328	353	H

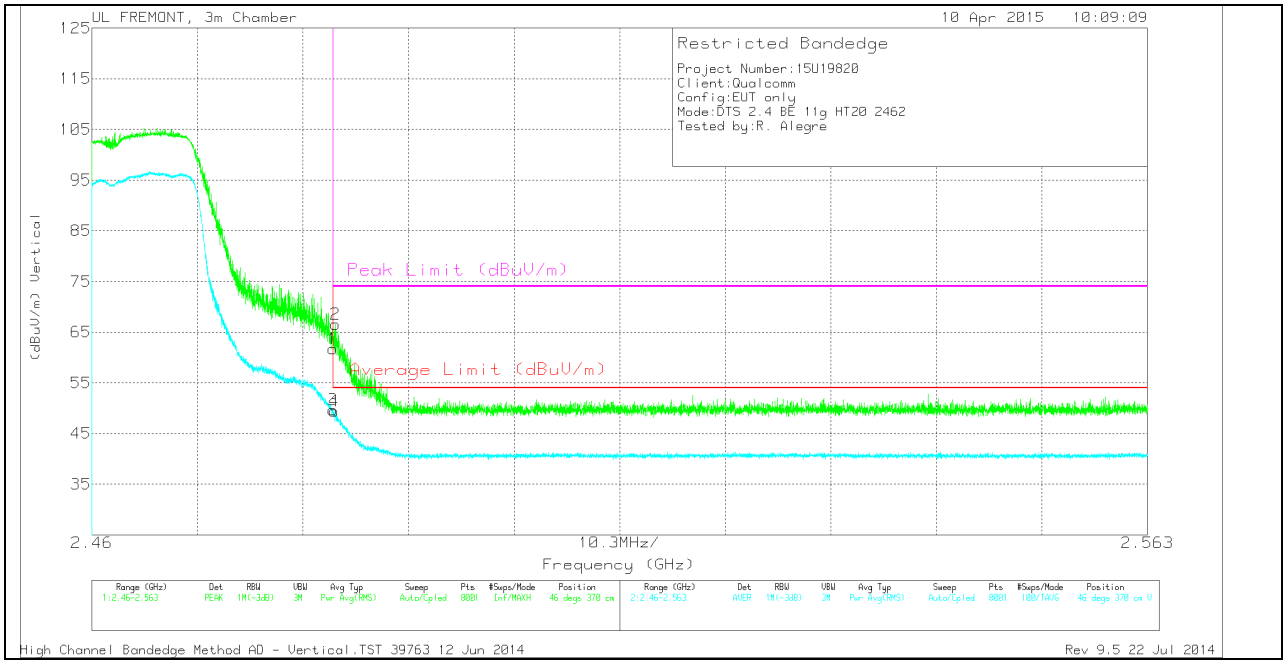
PK - Peak detector

RMS - RMS detection

High Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

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	52.18	PK	32.3	-22.8	0	61.68	-	-	74	-12.32	46	370	V
2	2.484	57.09	PK	32.3	-22.8	0	66.59	-	-	74	-7.41	46	370	V
3	2.484	39.57	RMS	32.3	-22.8	.58	49.65	54	-4.35	-	-	46	370	V
4	2.484	39.34	RMS	32.3	-22.8	.58	49.42	54	-4.58	-	-	46	370	V

PK - Peak detector

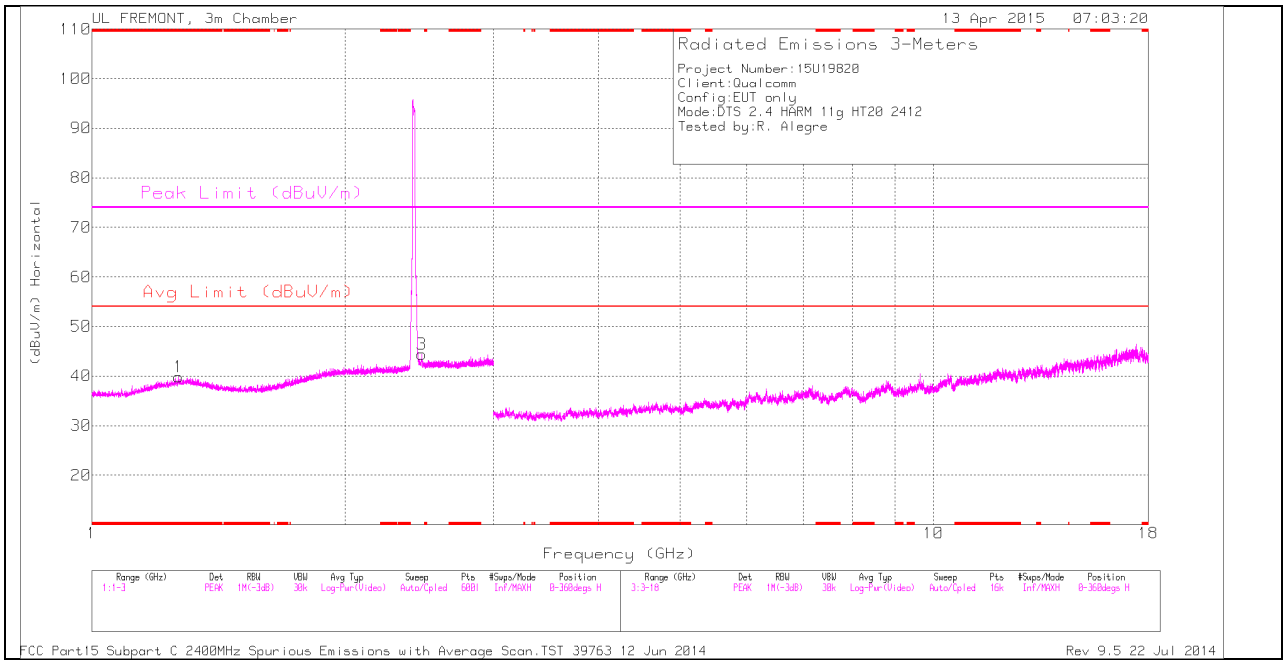
RMS - RMS detection

High Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

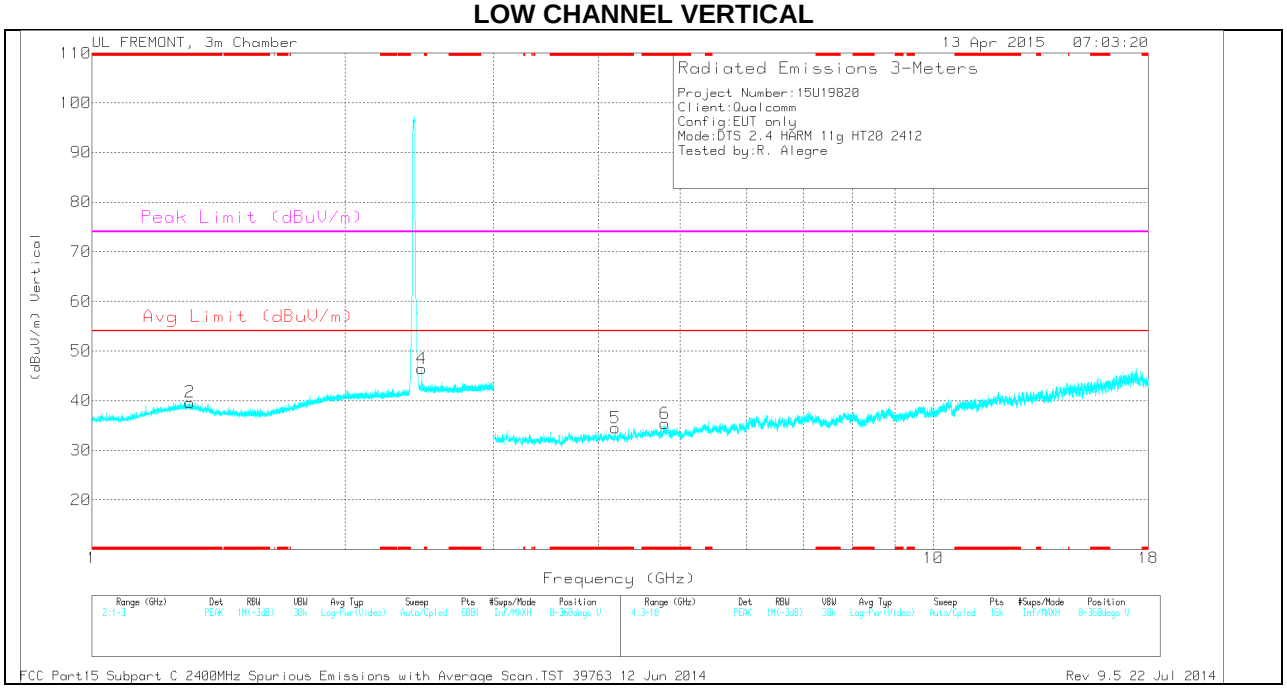
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

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	* 1.267	34.01	PK	29.6	-23.8	0	39.81	-	-	74	-34.19	0-360	200	H
2	* 1.308	33.65	PK	29.8	-23.8	0	39.65	-	-	74	-34.35	0-360	100	V
5	* 4.185	31.56	PK	33.3	-30.4	0	34.46	-	-	74	-39.54	0-360	200	V
6	* 4.8	31.67	PK	34	-30.3	0	35.37	-	-	74	-38.63	0-360	100	V
3	2.464	35.07	PK	32.2	-22.9	0	44.37	-	-	-	-	0-360	200	H
4	2.465	37.13	PK	32.2	-22.9	0	46.43	-	-	-	-	0-360	200	V

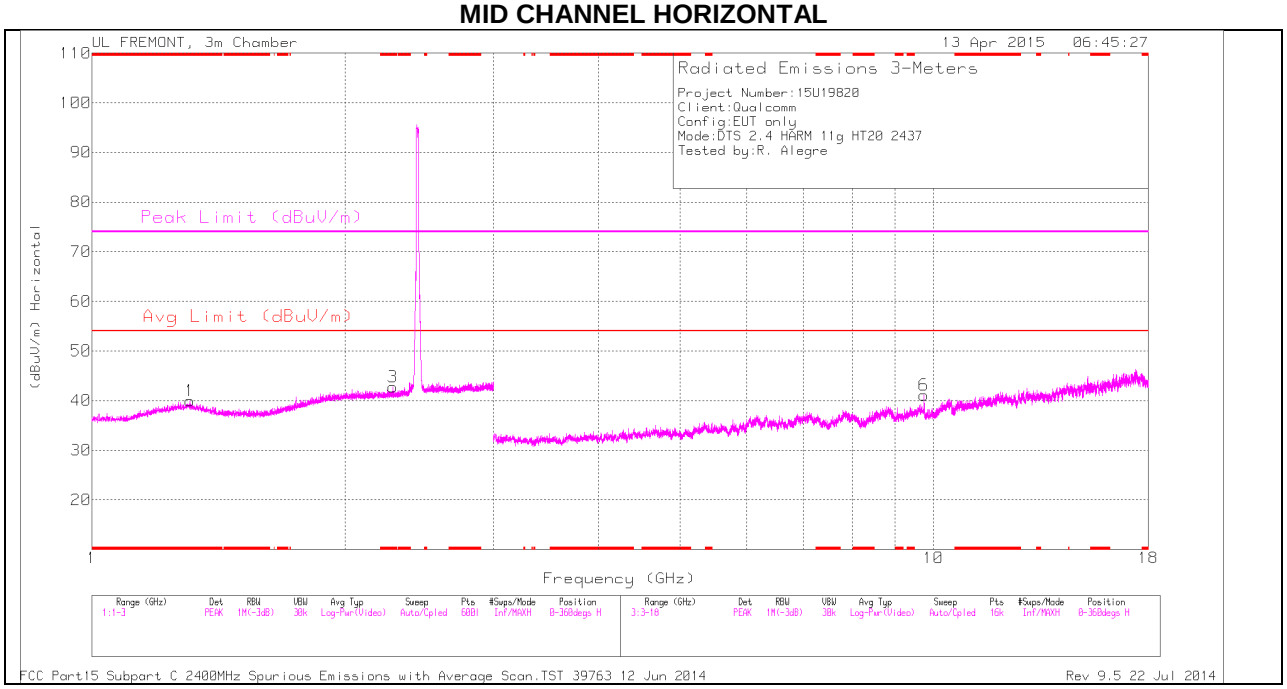
PK - Peak detector

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
2.464	47.21	PK2	32.2	-22.9	0	56.51	-	-	-	-	141	200	V
2.464	35.68	MAv1	32.2	-22.9	.58	45.56	54	-8.44	-	-	141	200	V

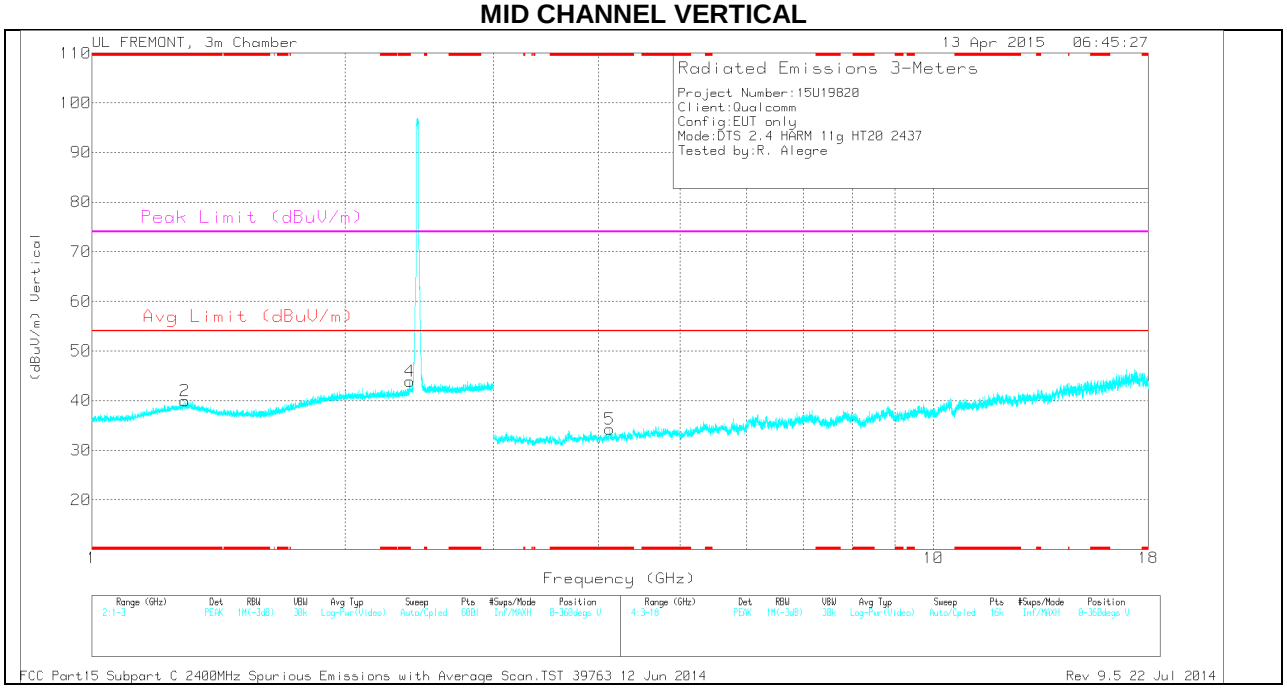
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

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	* 1.307	33.91	PK	29.8	-23.8	0	39.91	-	-	74	-34.09	0-360	100	H
3	* 2.279	34.28	PK	31.6	-23.1	0	42.78	-	-	74	-31.22	0-360	200	H
2	* 1.29	33.83	PK	29.8	-23.7	0	39.93	-	-	74	-34.07	0-360	100	V
4	* 2.385	35.01	PK	32	-23.1	0	43.91	-	-	74	-30.09	0-360	100	V
5	* 4.123	32.01	PK	33.3	-31	0	34.31	-	-	74	-39.69	0-360	200	V
6	9.748	29.87	PK	36.9	-25.7	0	41.07	-	-	-	-	0-360	100	H

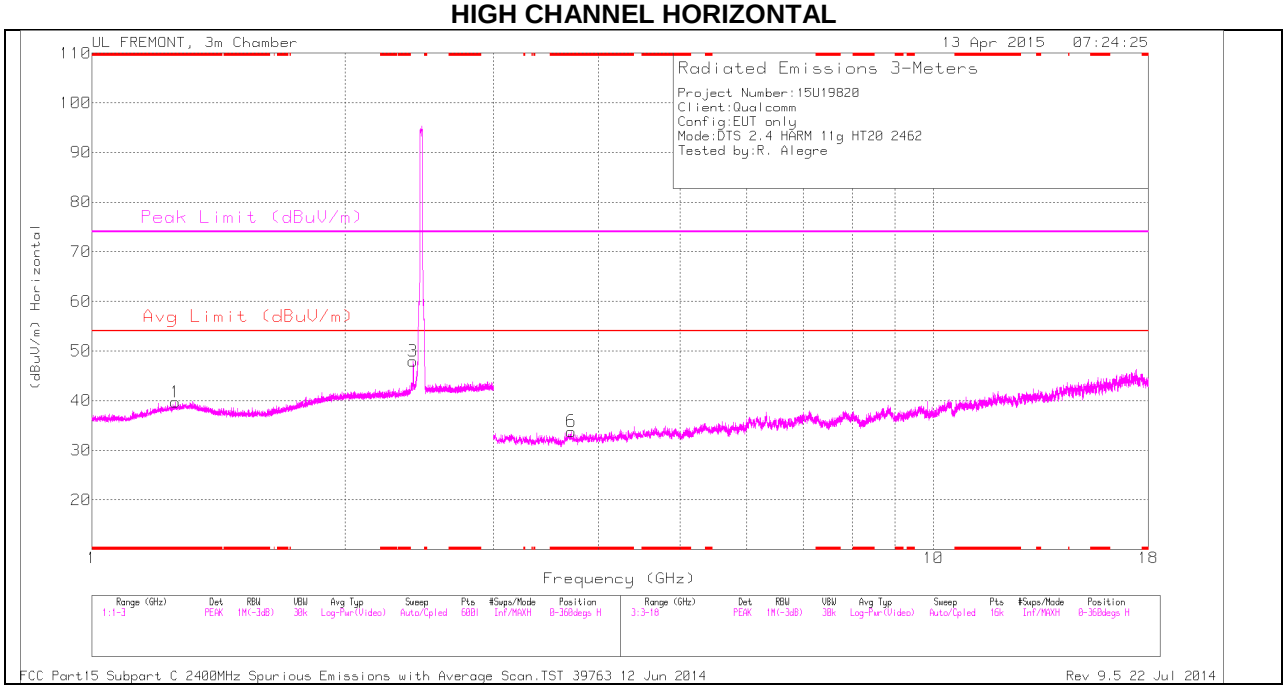
PK - Peak detector

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
* 2.385	43.68	PK2	32	-23.1	0	52.58	-	-	74	-21.42	269	100	V
* 2.385	32.54	MAv1	32	-23.1	.58	42.02	54	-11.98	-	-	269	100	V
9.748	37.43	PK2	36.9	-25.7	0	48.63	-	-	-	-	279	100	H
9.748	26.2	MAv1	36.9	-25.7	0	37.4	-	-	-	-	279	100	H

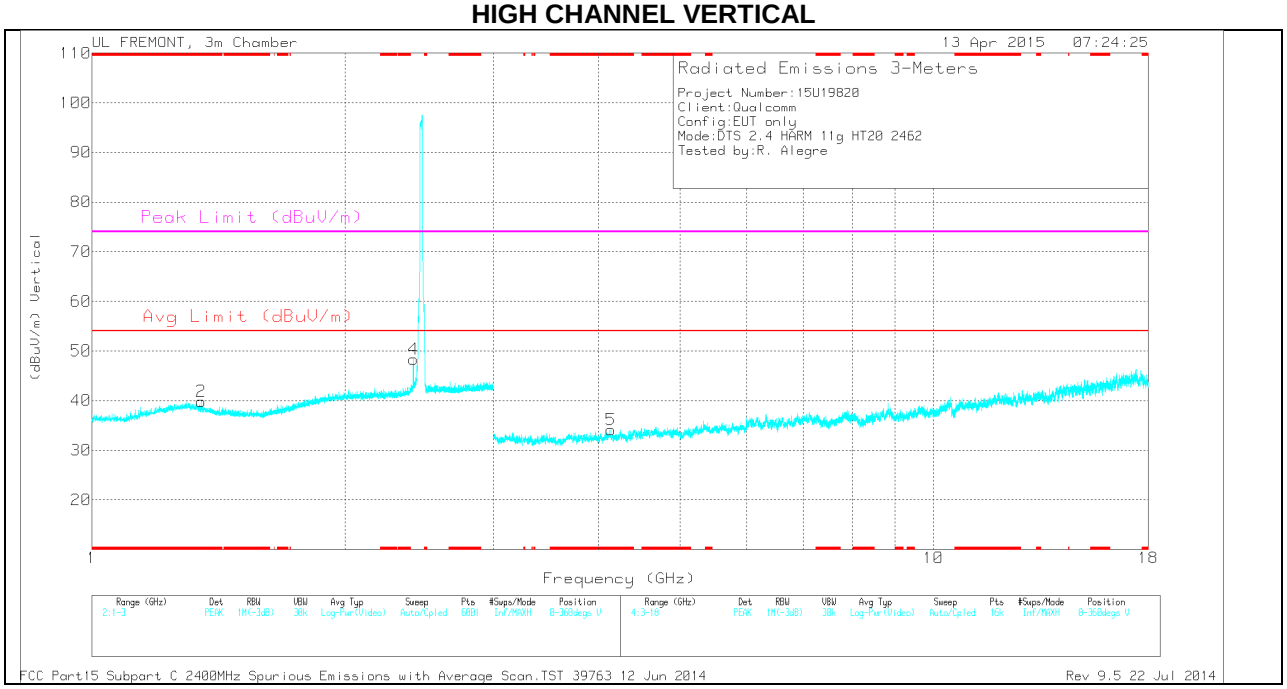
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

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	* 1.257	33.96	PK	29.5	-23.8	0	39.66	-	-	74	-34.34	0-360	100	H
2	* 1.348	34.36	PK	29.3	-23.8	0	39.86	-	-	74	-34.14	0-360	100	V
6	* 3.712	31.71	PK	33	-30.9	0	33.81	-	-	74	-40.19	0-360	100	H
5	* 4.135	31.87	PK	33.3	-31.1	0	34.07	-	-	74	-39.93	0-360	100	V
3	2.409	38.96	PK	32.1	-23.1	0	47.96	-	-	-	-	0-360	200	H
4	2.41	39.3	PK	32.1	-23.1	0	48.3	-	-	-	-	0-360	100	V

PK - Peak detector

RADIATED EMISSIONS

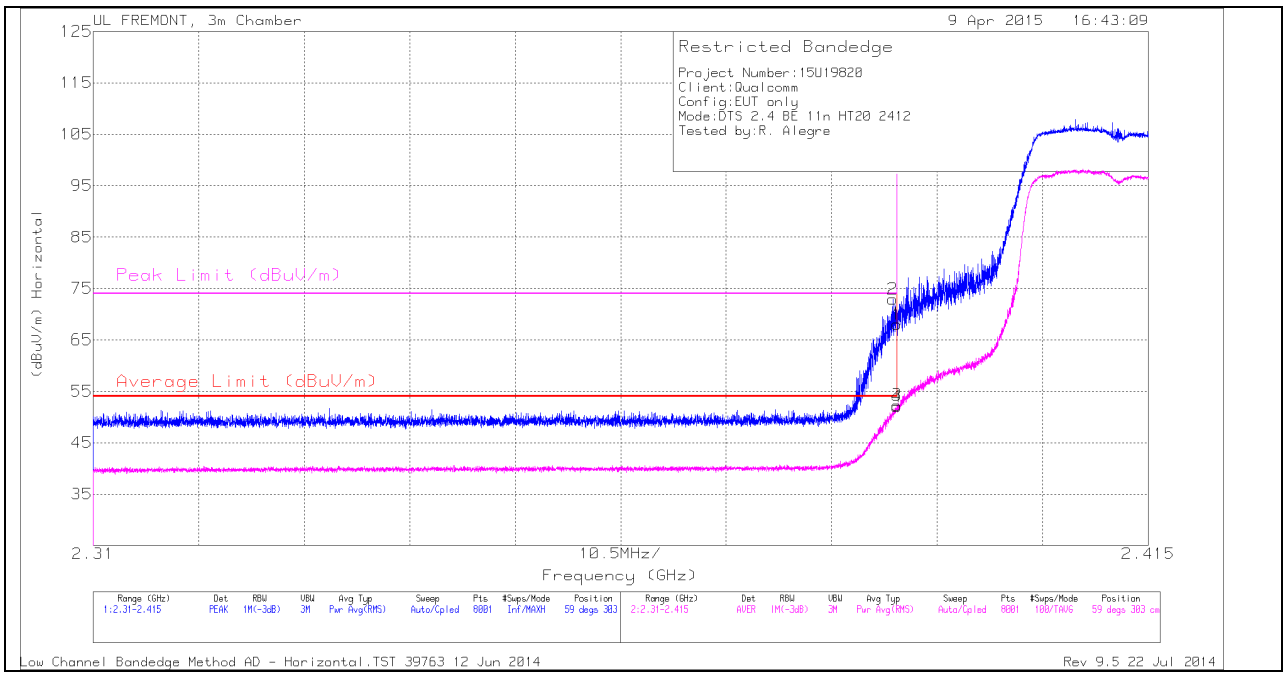
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2.409	48.05	PK2	32.1	-23.1	0	57.05	-	-	-	-	160	116	V
2.409	37.43	MAv1	32.1	-23.1	.58	47.01	54	-6.99	-	-	160	116	V

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	59.16	PK	32	-23.1	0	68.06	-	-	74	-5.94	59	303	H
2	2.39	64.04	PK	32	-23.1	0	72.94	-	-	74	-1.06	59	303	H
3	2.39	42.76	RMS	32	-23.1	.62	52.28	54	-1.72	-	-	59	303	H
4	2.39	42.48	RMS	32	-23.1	.62	52	54	-2	-	-	59	303	H

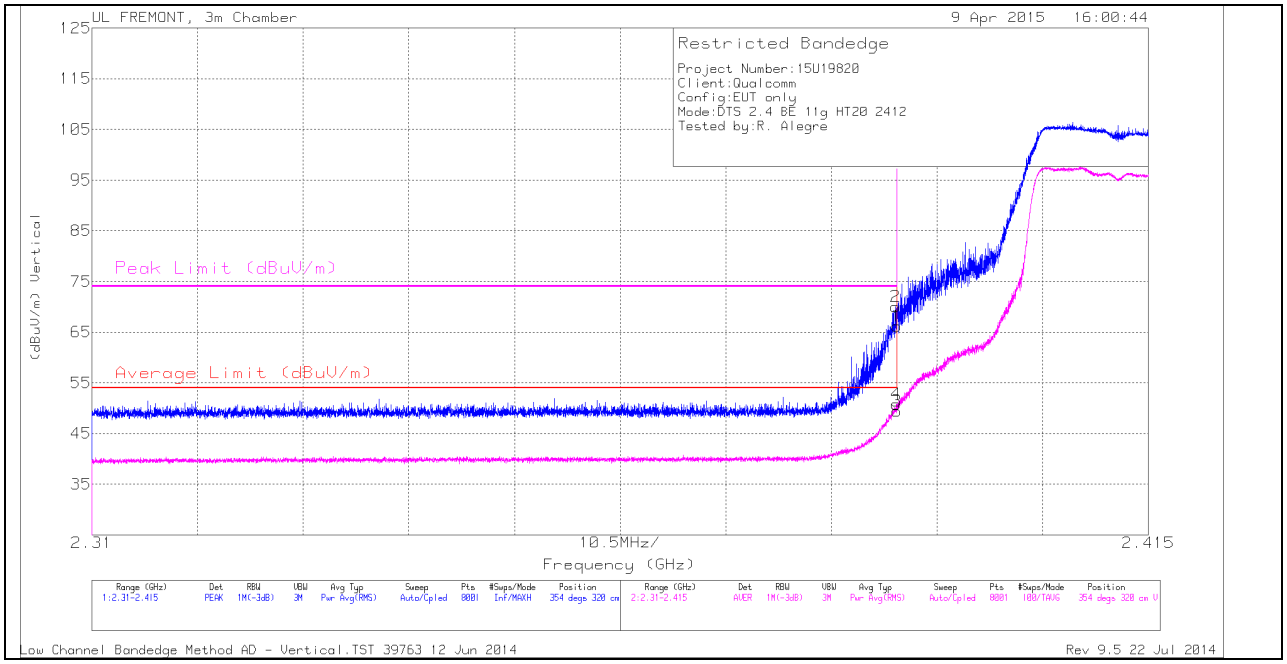
PK - Peak detector

RMS - RMS detection

Low Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	57.23	PK	32	-23.1	0	66.13	-	-	74	-7.87	354	320	V
2	2.39	61.09	PK	32	-23.1	0	69.99	-	-	74	-4.01	354	320	V
3	2.39	39.96	RMS	32	-23.1	.62	49.48	54	-4.52	-	-	354	320	V
4	2.39	41.27	RMS	32	-23.1	.62	50.79	54	-3.21	-	-	354	320	V

PK - Peak detector

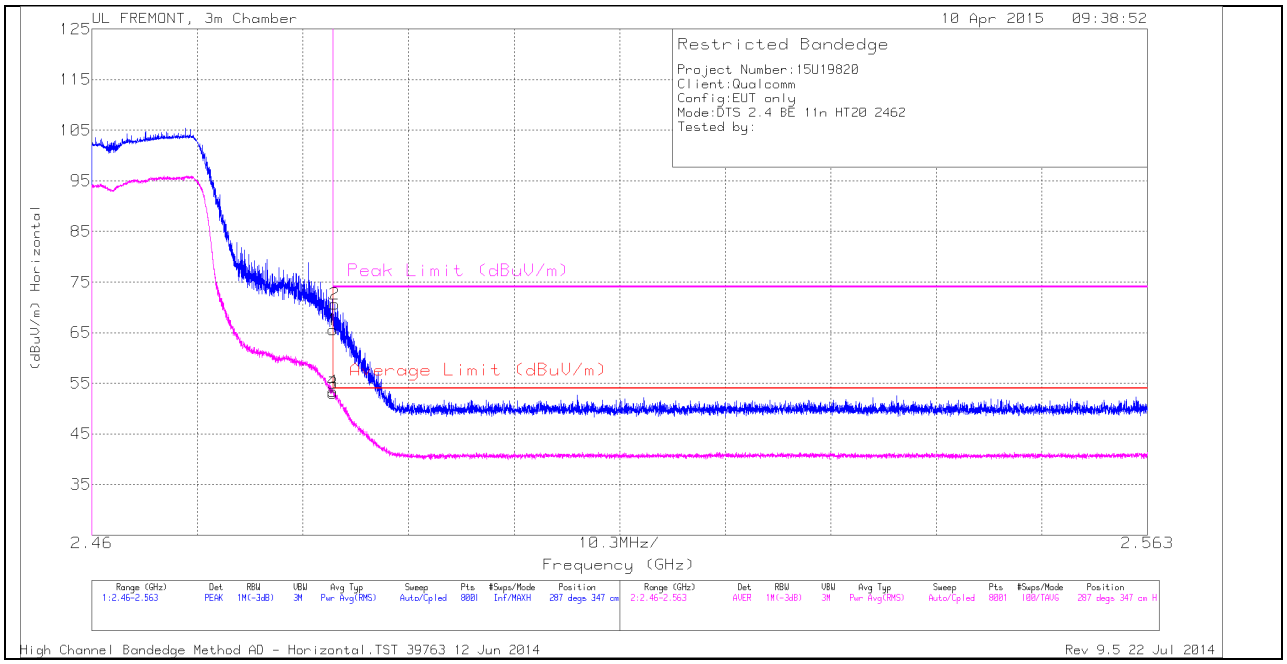
RMS - RMS detection

Low Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	56.11	PK	32.3	-22.8	0	65.61	-	-	74	-8.39	287	347	H
2	2.484	61.17	PK	32.3	-22.8	0	70.67	-	-	74	-3.33	287	347	H
3	2.484	42.93	RMS	32.3	-22.8	.62	53.05	54	-0.95	-	-	287	347	H
4	2.484	43.31	RMS	32.3	-22.8	.62	53.43	54	-0.57	-	-	287	347	H

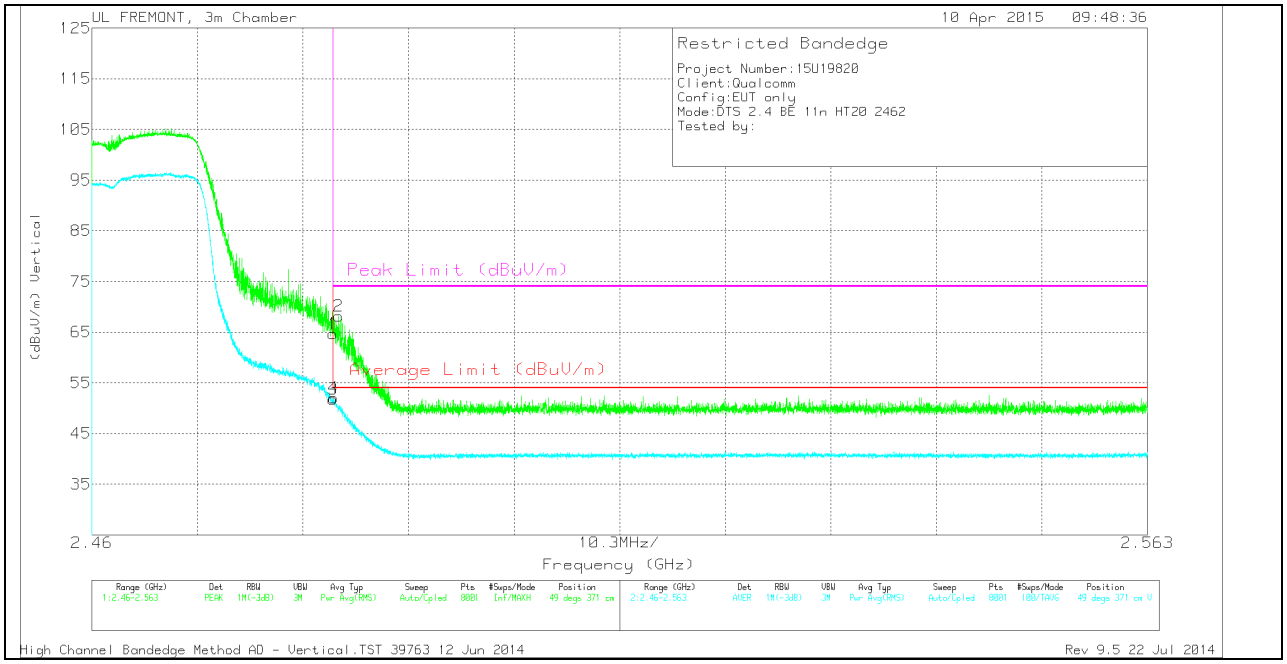
PK - Peak detector

RMS - RMS detection

High Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	55.18	PK	32.3	-22.8	0	64.68	-	-	74	-9.32	49	371	V
2	2.484	58.63	PK	32.3	-22.8	0	68.13	-	-	74	-5.87	49	371	V
3	2.484	41.59	RMS	32.3	-22.8	.62	51.71	54	-2.29	-	-	49	371	V
4	2.484	41.92	RMS	32.3	-22.8	.62	52.04	54	-1.96	-	-	49	371	V

PK - Peak detector

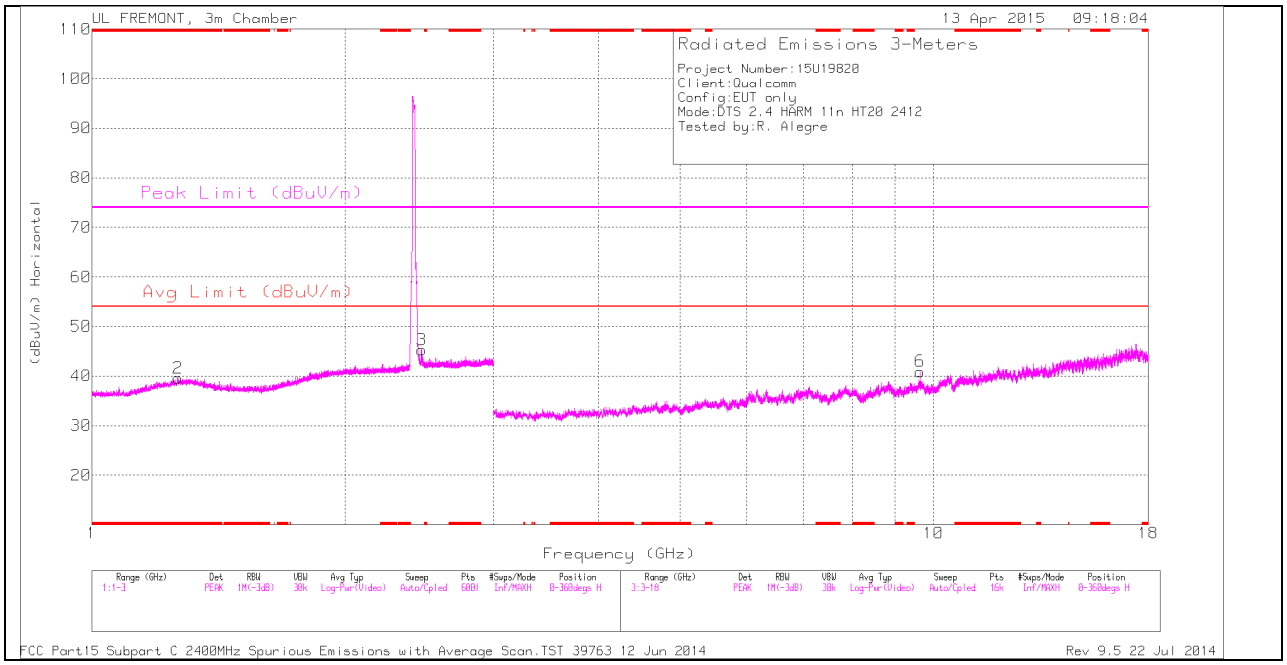
RMS - RMS detection

High Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

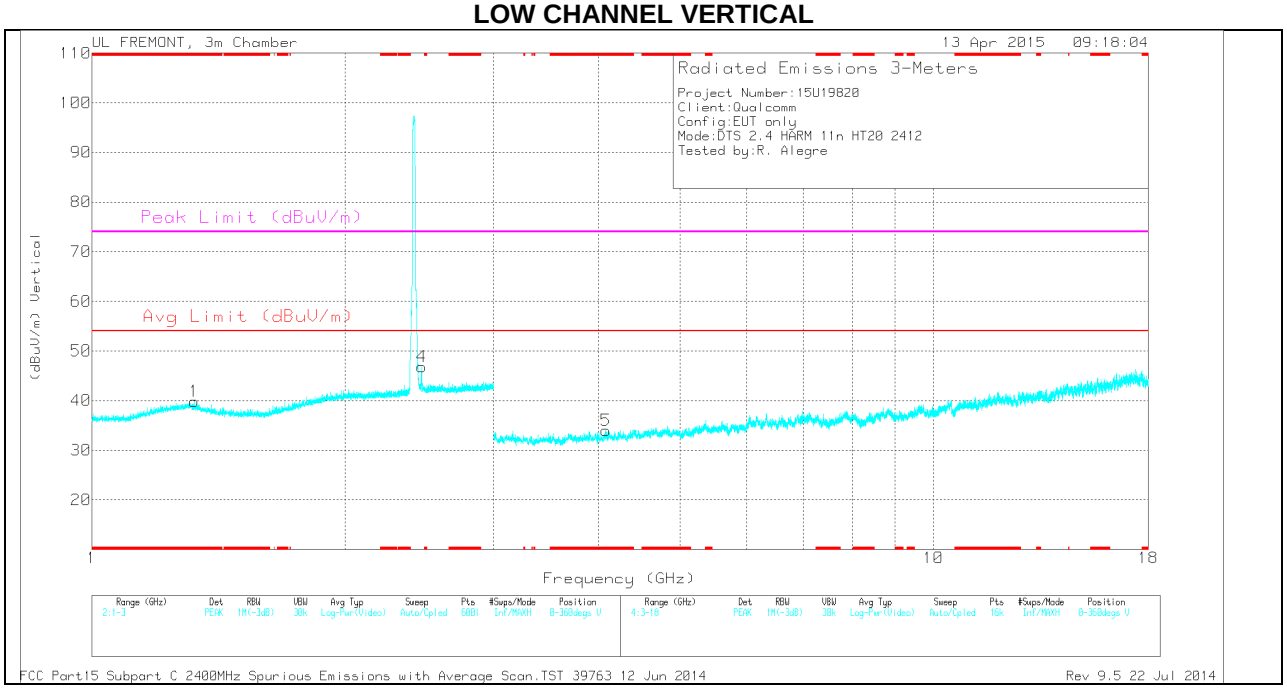
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

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
2	* 1.265	33.73	PK	29.6	-23.8	0	39.53	-	-	74	-34.47	0-360	100	H
1	* 1.324	34.01	PK	29.6	-23.8	0	39.81	-	-	74	-34.19	0-360	200	V
5	* 4.079	32.22	PK	33.3	-31.5	0	34.02	-	-	74	-39.98	0-360	100	V
3	2.464	36.01	PK	32.2	-22.9	0	45.31	-	-	-	-	0-360	200	H
4	2.465	37.52	PK	32.2	-22.9	0	46.82	-	-	-	-	0-360	200	V
6	9.647	29.72	PK	36.8	-25.6	0	40.92	-	-	-	-	0-360	100	H

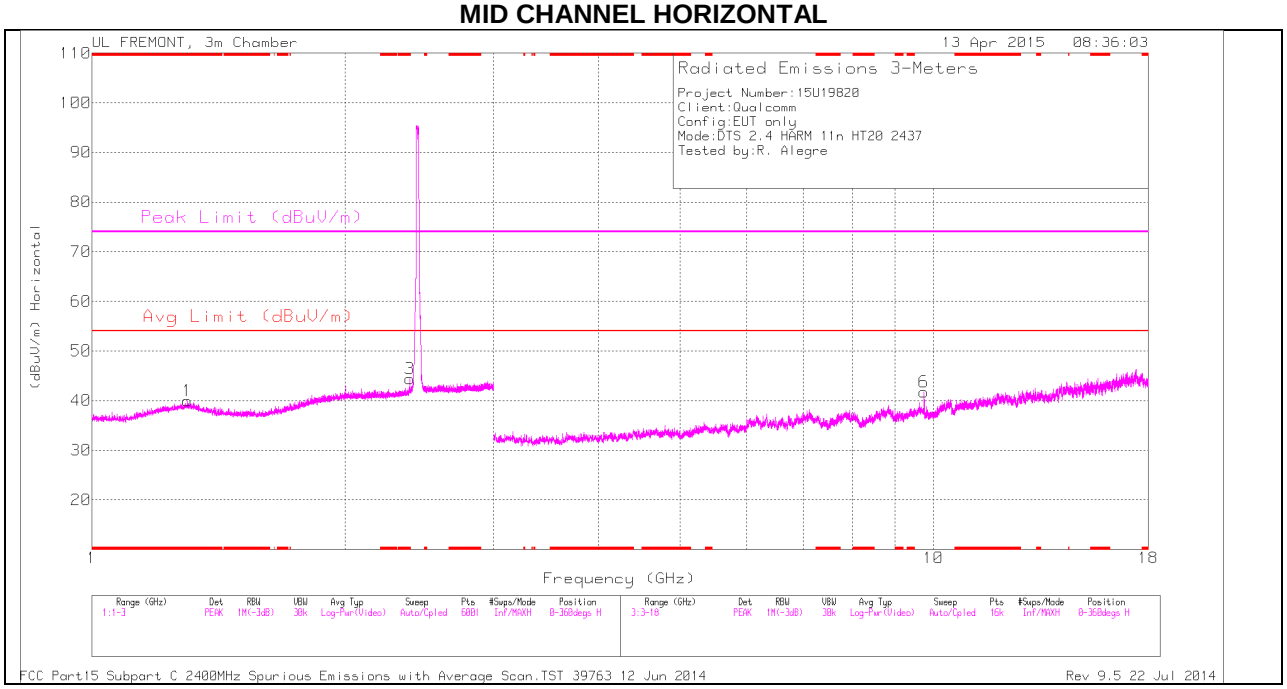
PK - Peak detector

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
2.464	47.58	PK2	32.2	-22.9	0	56.88	-	-	-	-	137	124	V
2.464	36.59	MAv1	32.2	-22.9	.62	46.51	-	-	-	-	137	124	V
9.648	37.5	PK2	36.8	-25.6	0	48.7	-	-	-	-	343	124	H
9.648	37.91	PK2	36.8	-25.6	0	49.11	-	-	-	-	343	124	H
9.648	27.91	MAv1	36.8	-25.6	.62	39.73	-	-	-	-	343	124	H

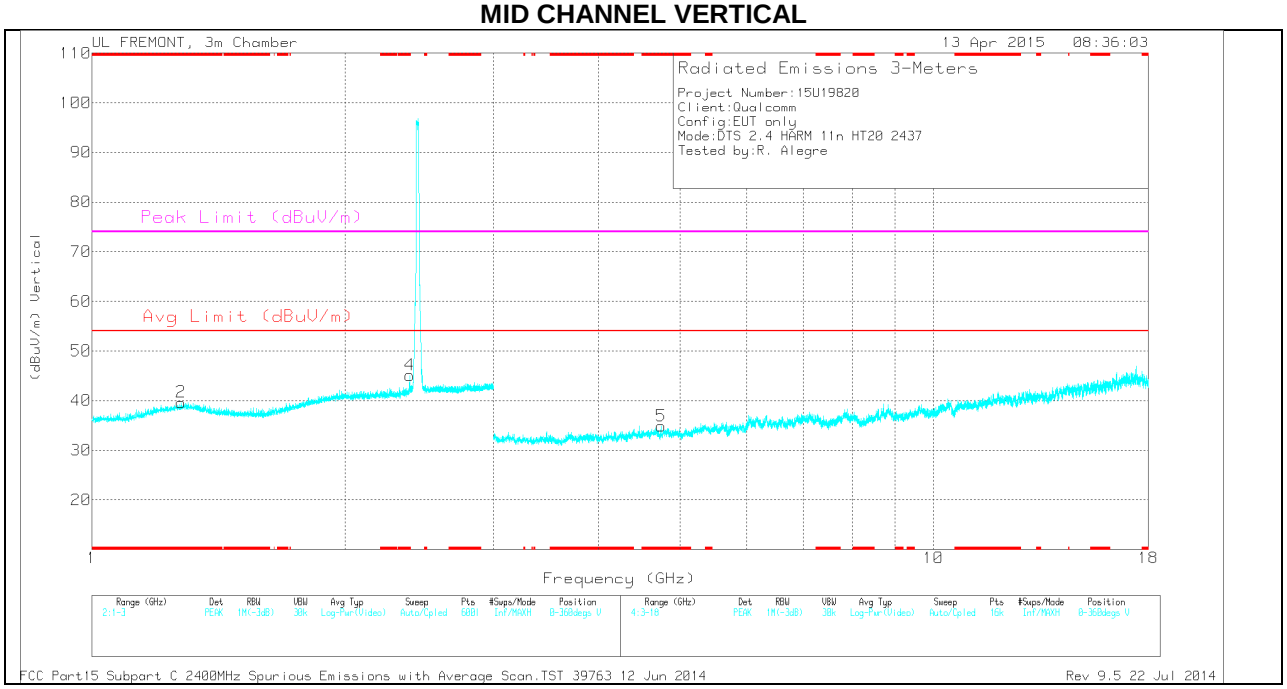
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

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	* 1.298	33.87	PK	29.9	-23.8	0	39.97	-	-	74	-34.03	0-360	100	H
3	* 2.385	35.46	PK	32	-23.1	0	44.36	-	-	74	-29.64	0-360	200	H
2	* 1.276	33.75	PK	29.7	-23.8	0	39.65	-	-	74	-34.35	0-360	200	V
4	* 2.385	36.21	PK	32	-23.1	0	45.11	-	-	74	-28.89	0-360	200	V
5	* 4.744	31.67	PK	34	-30.8	0	34.87	-	-	74	-39.13	0-360	100	V
6	9.748	30.52	PK	36.9	-25.7	0	41.72	-	-	-	-	0-360	100	H

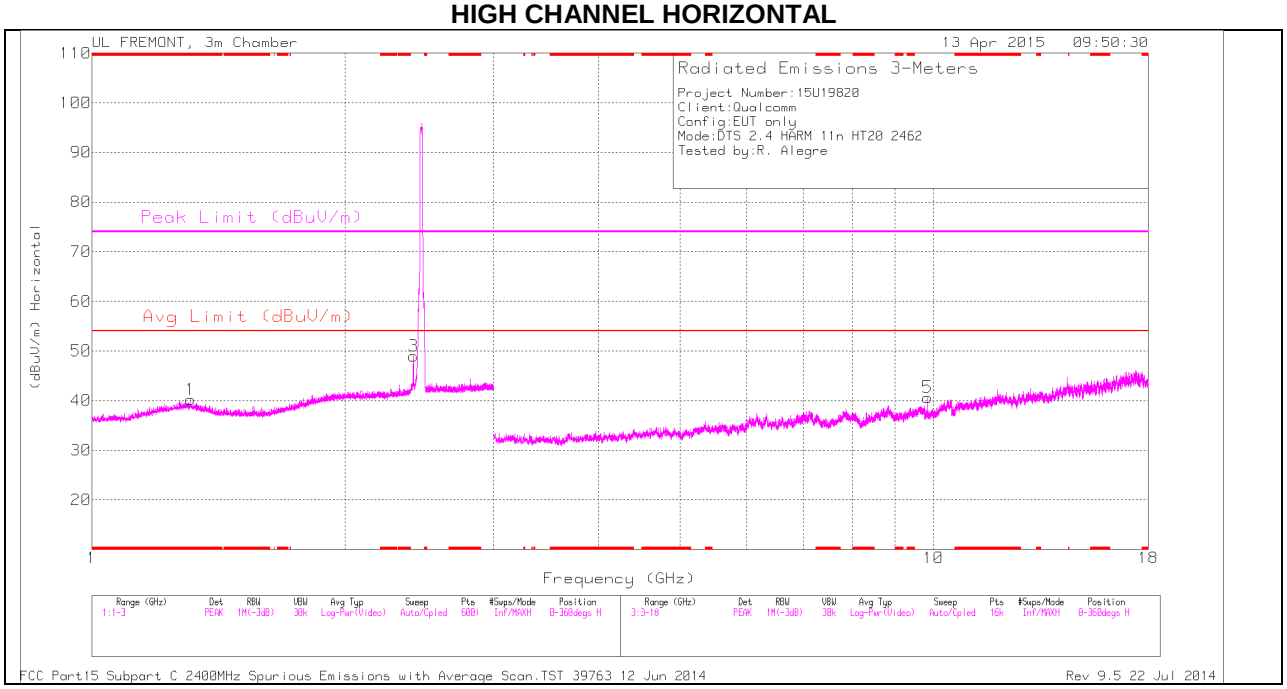
PK - Peak detector

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
* 2.384	46.41	PK2	32	-23.1	0	55.31	-	-	74	-18.69	144	125	V
* 2.385	35.37	MAv1	32	-23.1	.62	44.89	54	-9.11	-	-	144	125	V
9.747	38	PK2	36.9	-25.7	0	49.2	-	-	-	-	38	123	H
9.748	27.83	MAv1	36.9	-25.7	0	39.03	-	-	-	-	38	123	H

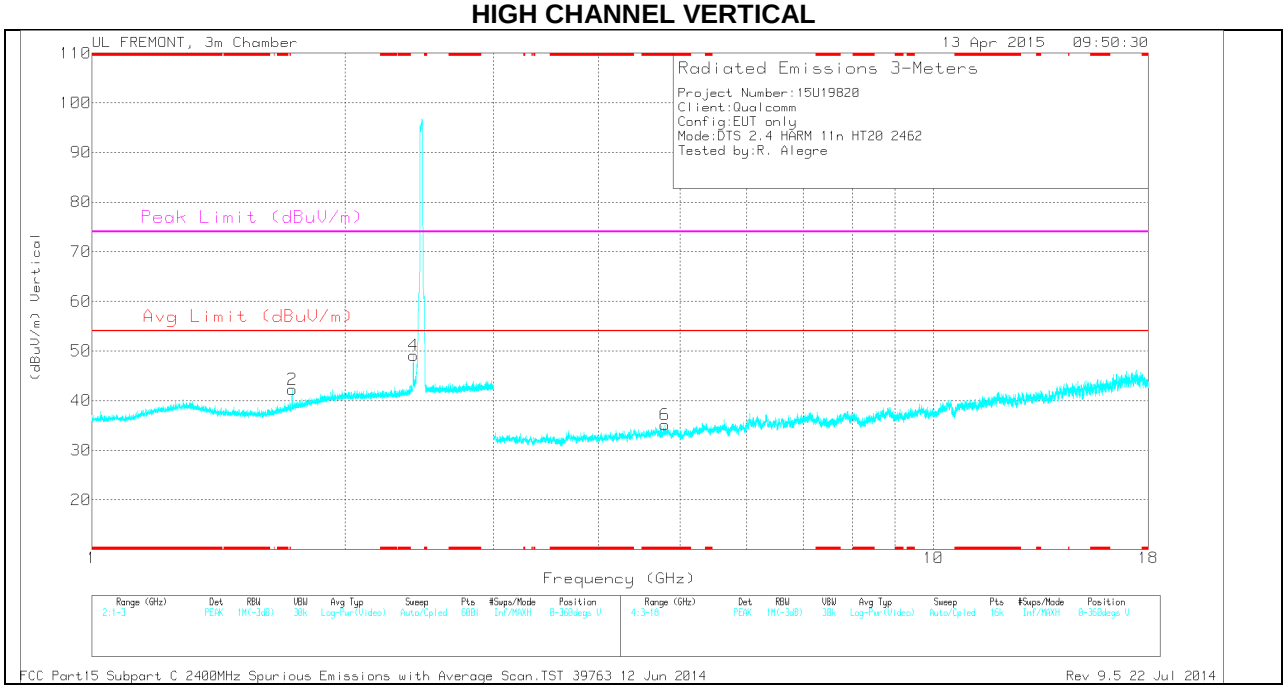
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

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	* 1.31	34.2	PK	29.8	-23.8	0	40.2	-	-	74	-33.8	0-360	200	H
6	* 4.793	31.52	PK	34	-30.4	0	35.12	-	-	74	-38.88	0-360	100	V
2	1.73	36.3	PK	29.4	-23.4	0	42.3	-	-	-	-	0-360	100	V
3	2.41	39.96	PK	32.1	-23.1	0	48.96	-	-	-	-	0-360	200	H
4	2.41	40.02	PK	32.1	-23	0	49.12	-	-	-	-	0-360	100	V
5	9.848	29.66	PK	36.9	-25.9	0	40.66	-	-	-	-	0-360	100	H

PK - Peak detector

RADIATED EMISSIONS

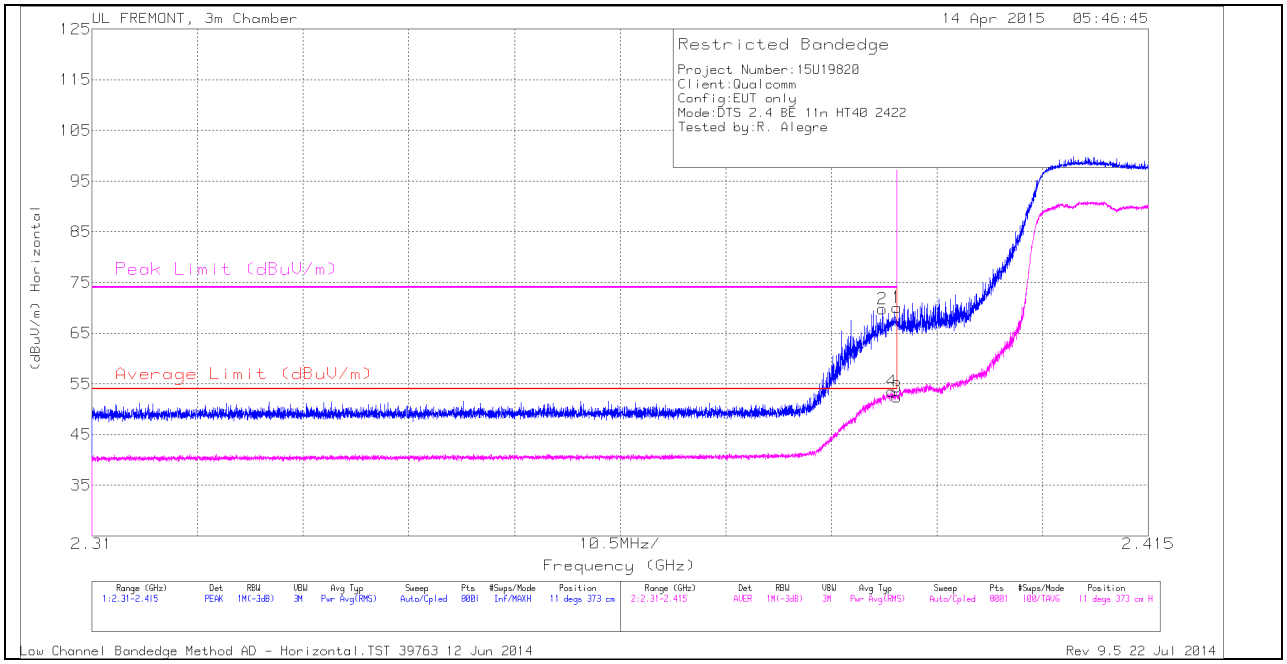
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.73	42.75	PK2	29.4	-23.4	0	48.75	-	-	-	-	219	111	V
1.73	30.7	MAv1	29.4	-23.4	.62	37.32	-	-	-	-	219	111	V
2.41	49.14	PK2	32.1	-23	0	58.24	-	-	-	-	124	119	V
2.41	38.59	MAv1	32.1	-23	.62	48.31	-	-	-	-	124	119	V
9.848	39.08	PK2	36.9	-25.9	0	50.08	-	-	-	-	356	148	H
9.848	31.08	MAv1	36.9	-25.9	.62	42.7	-	-	-	-	356	148	H

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

10.2.4. TX ABOVE 1 GHz 802.11n HT40 MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

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	60.88	PK	32	-23.1	0	69.78	-	-	74	-4.22	11	373	H
1	2.39	61.19	PK	32	-23.1	0	70.09	-	-	74	-3.91	11	373	H
3	2.39	42.36	RMS	32	-23.1	1.19	52.45	54	-1.55	-	-	11	373	H
4	2.39	43.39	RMS	32	-23.1	1.19	53.48	54	-.52	-	-	11	373	H

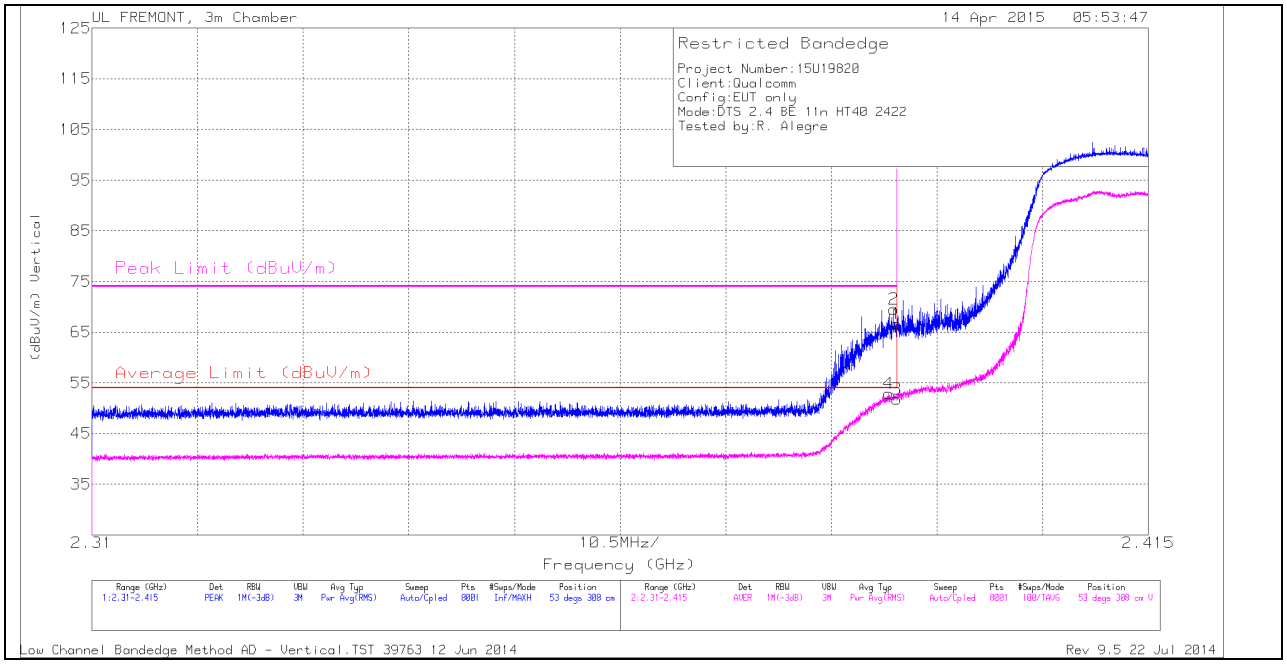
PK - Peak detector

RMS - RMS detection

Low Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	42.82	RMS	32	-23.1	1.19	52.91	54	-1.09	-	-	53	308	V
1	2.39	57.75	PK	32	-23.1	0	66.65	-	-	74	-7.35	53	308	V
2	2.39	60.62	PK	32	-23.1	0	69.52	-	-	74	-4.48	53	308	V
3	2.39	41.71	RMS	32	-23.1	1.19	51.8	54	-2.2	-	-	53	308	V

PK - Peak detector

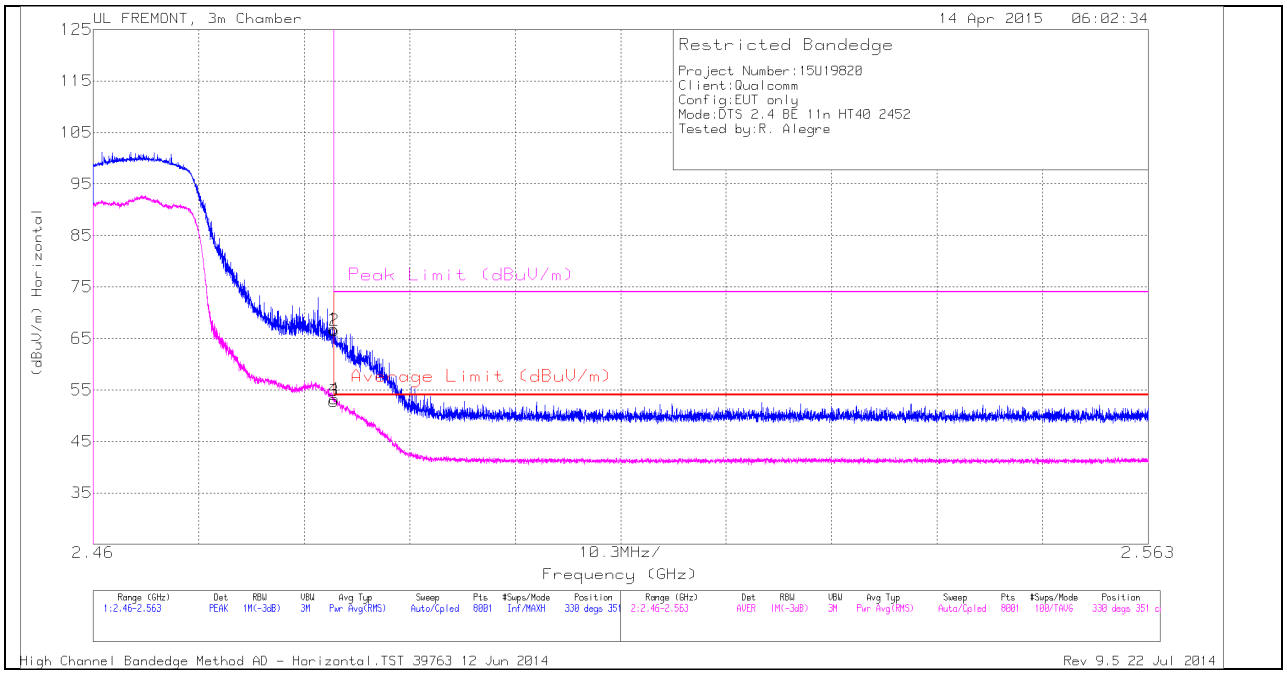
RMS - RMS detection

Low Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

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	57.33	PK	32.3	-22.8	0	66.83	-	-	74	-7.17	330	351	H
2	2.484	57.06	PK	32.3	-22.8	0	66.56	-	-	74	-7.44	330	351	H
3	2.484	42.15	RMS	32.3	-22.8	1.19	52.84	54	-1.16	-	-	330	351	H
4	2.484	42.55	RMS	32.3	-22.8	1.19	53.24	54	-.76	-	-	330	351	H

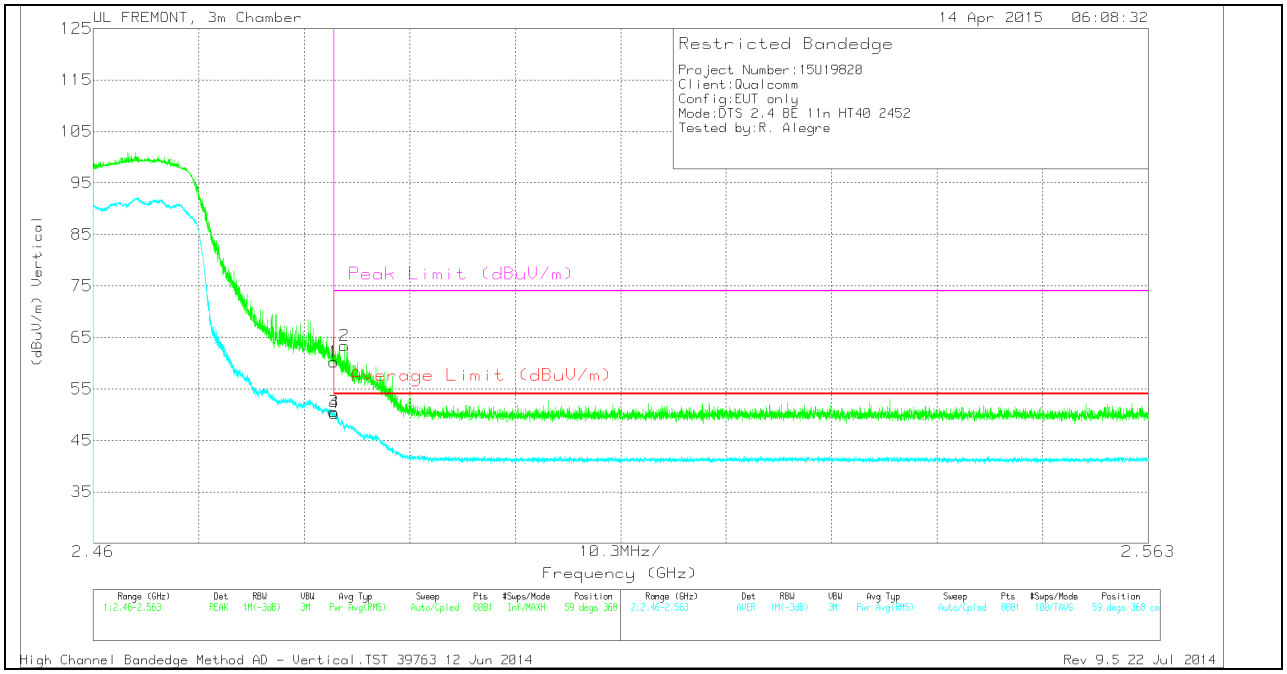
PK - Peak detector

RMS - RMS detection

High Channel Bandedge Method AD - Horizontal.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Flt r/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	50.73	PK	32.3	-22.8	0	60.23	-	-	74	-13.77	59	368	V
3	2.484	39.85	RMS	32.3	-22.8	1.19	50.54	54	-3.46	-	-	59	368	V
4	2.484	39.58	RMS	32.3	-22.8	1.19	50.27	54	-3.73	-	-	59	368	V
2	2.485	53.88	PK	32.3	-22.8	0	63.38	-	-	74	-10.62	59	368	V

PK - Peak detector

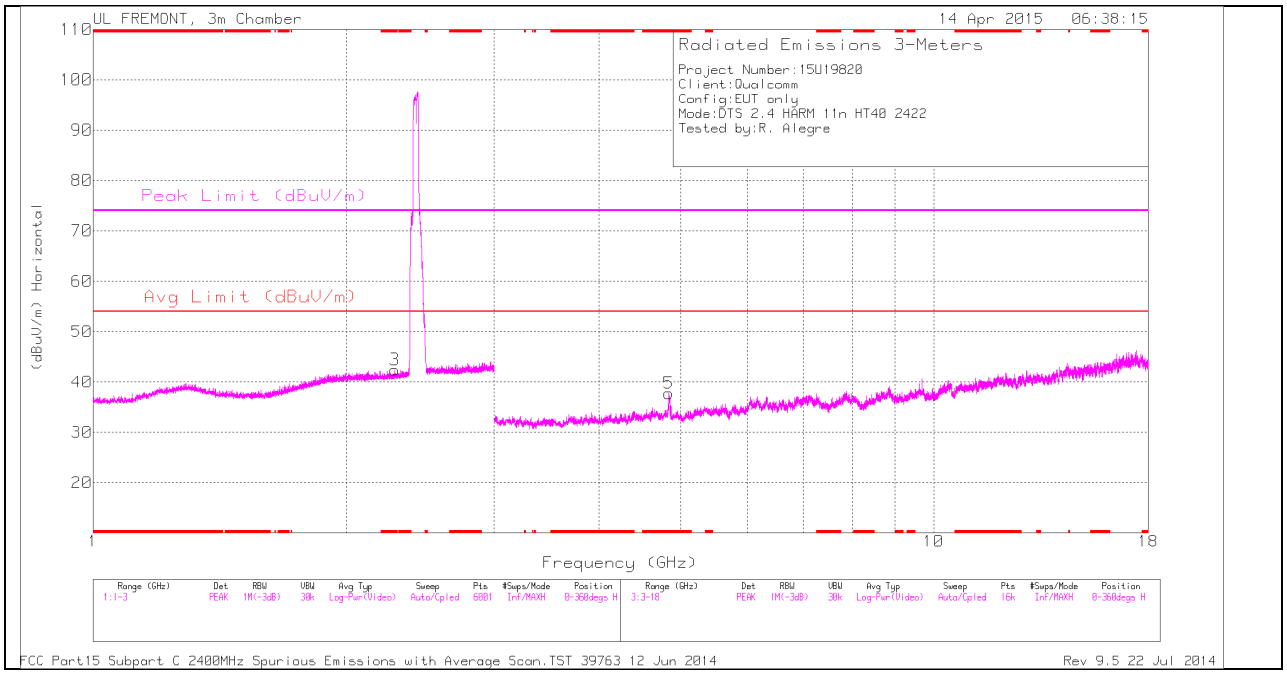
RMS - RMS detection

High Channel Bandedge Method AD - Vertical.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

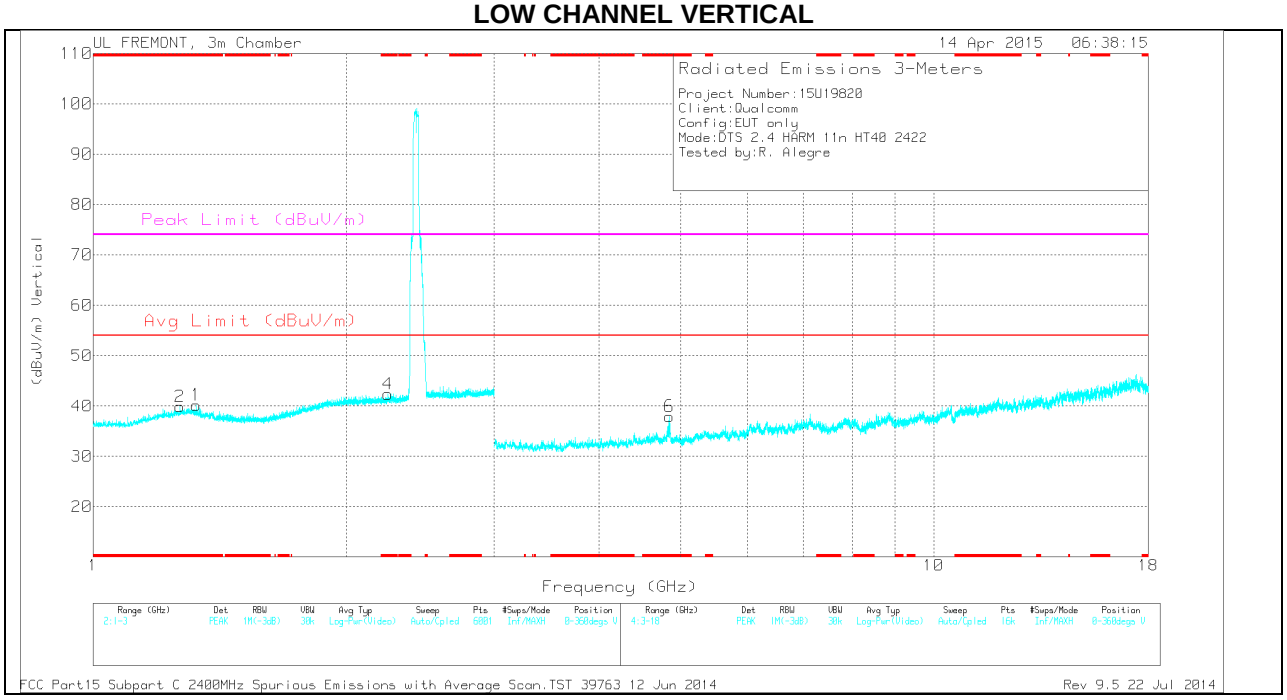
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

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
3	* 2.285	33.83	PK	31.6	-23	0	42.43	-	-	74	-31.57	0-360	200	H
1	* 1.327	34.49	PK	29.5	-23.8	0	40.19	-	-	74	-33.81	0-360	100	V
2	* 1.268	34.08	PK	29.6	-23.8	0	39.88	-	-	74	-34.12	0-360	100	V
4	* 2.243	33.86	PK	31.5	-23	0	42.36	-	-	74	-31.64	0-360	200	V
5	* 4.842	33.54	PK	34	-29.8	0	37.74	-	-	74	-36.26	0-360	100	H
6	* 4.851	33.72	PK	34	-29.8	0	37.92	-	-	74	-36.08	0-360	100	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

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
* 4.842	39.72	PK2	34	-29.8	0	43.92	-	-	74	-30.08	75	239	V
* 4.85	28.36	MAv1	34	-29.8	1.19	33.75	54	-20.25	-	-	75	239	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

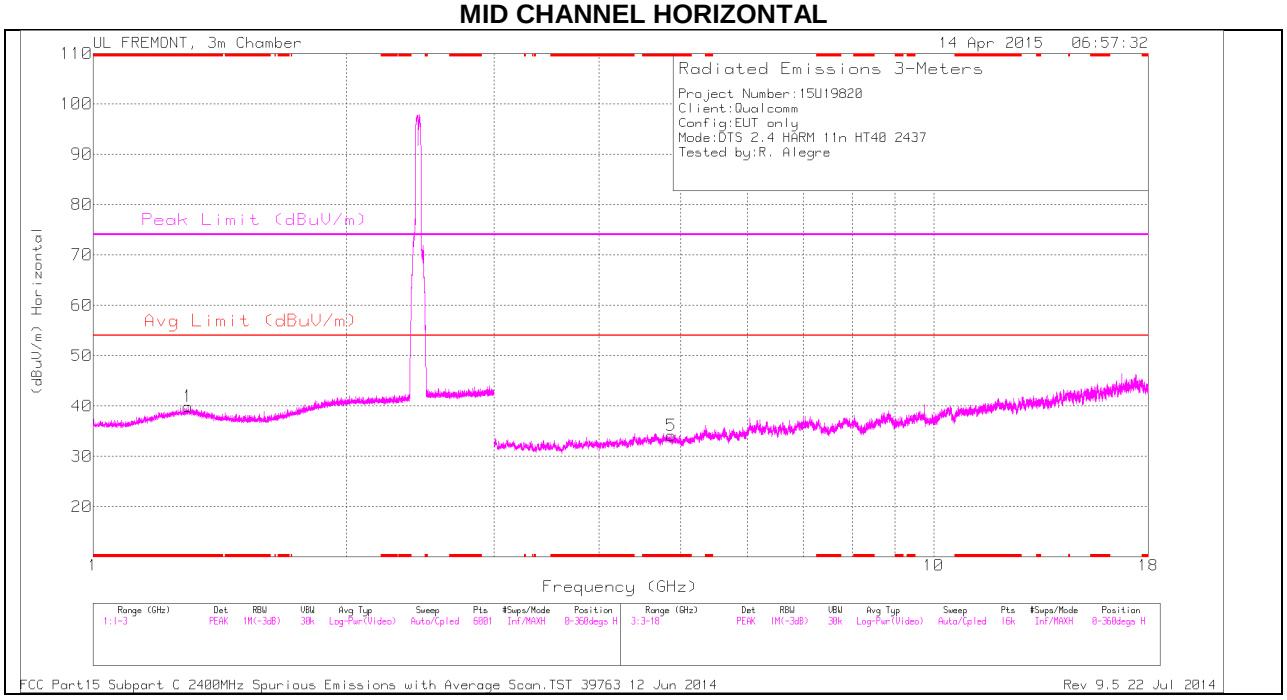
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 39763 12 Jun 2014

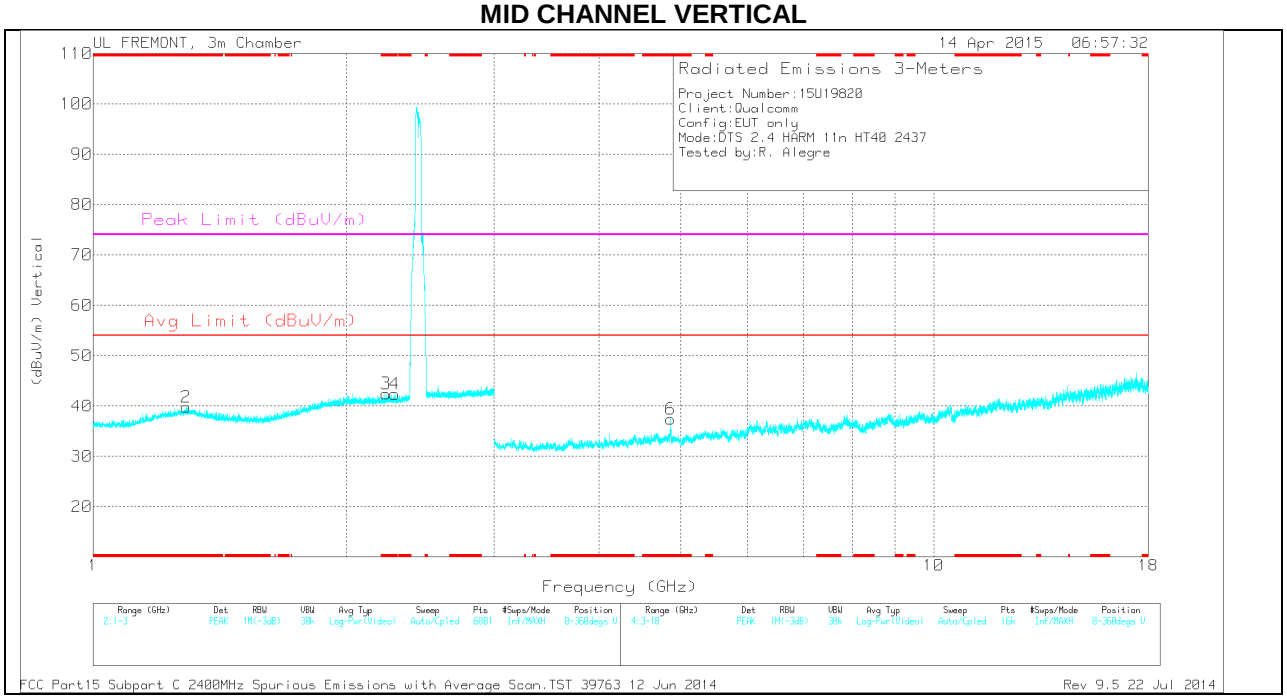
Rev 9.5 22 Jul 2014

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

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	* 1.297	33.82	PK	29.9	-23.8	0	39.92	-	-	74	-34.08	0-360	200	H
2	* 1.29	33.68	PK	29.8	-23.7	0	39.78	-	-	74	-34.22	0-360	200	V
3	* 2.231	33.94	PK	31.5	-23	0	42.44	-	-	74	-31.56	0-360	100	V
4	* 2.287	33.75	PK	31.6	-23	0	42.35	-	-	74	-31.65	0-360	100	V
5	* 4.871	30.25	PK	34	-30.1	0	34.15	-	-	74	-39.85	0-360	200	H
6	* 4.863	33.4	PK	34	-30	0	37.4	-	-	74	-36.6	0-360	200	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

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
* 4.861	44.34	PK2	34	-30	0	48.34	-	-	74	-25.66	106	315	V
* 4.861	28.3	MAv1	34	-30	1.19	33.49	54	-20.51	-	-	106	315	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

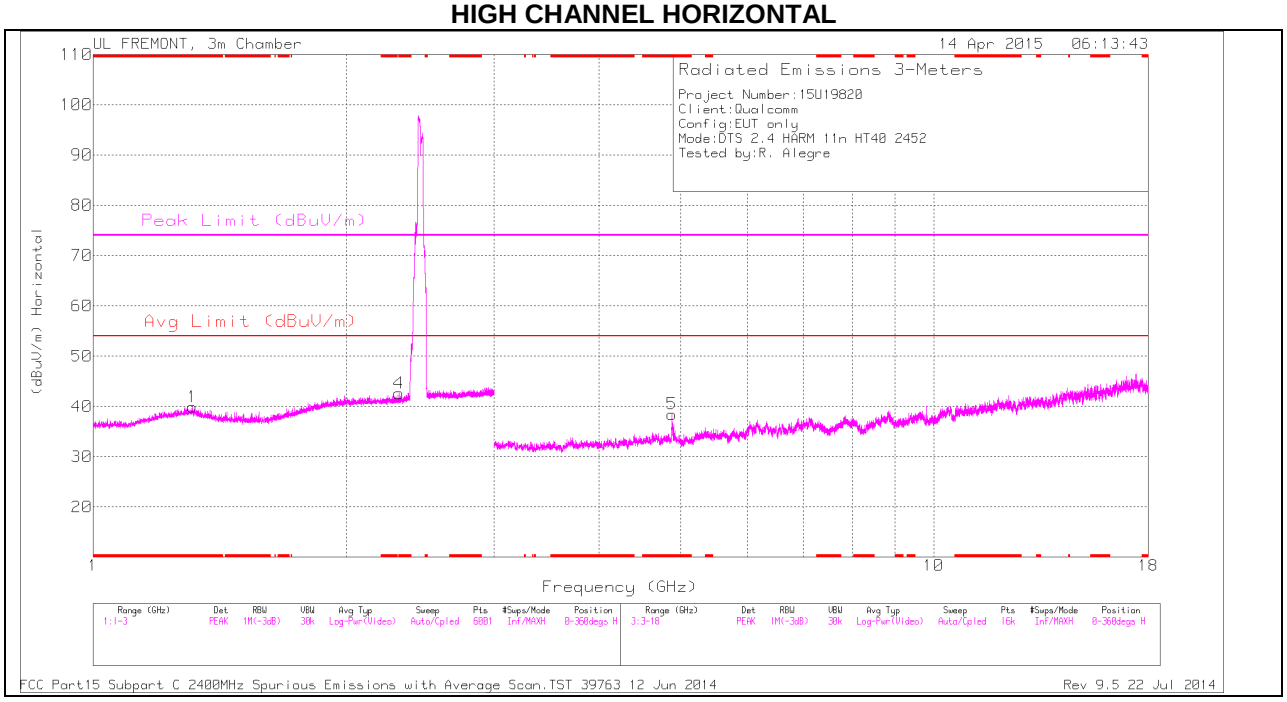
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 39763 12 Jun 2014

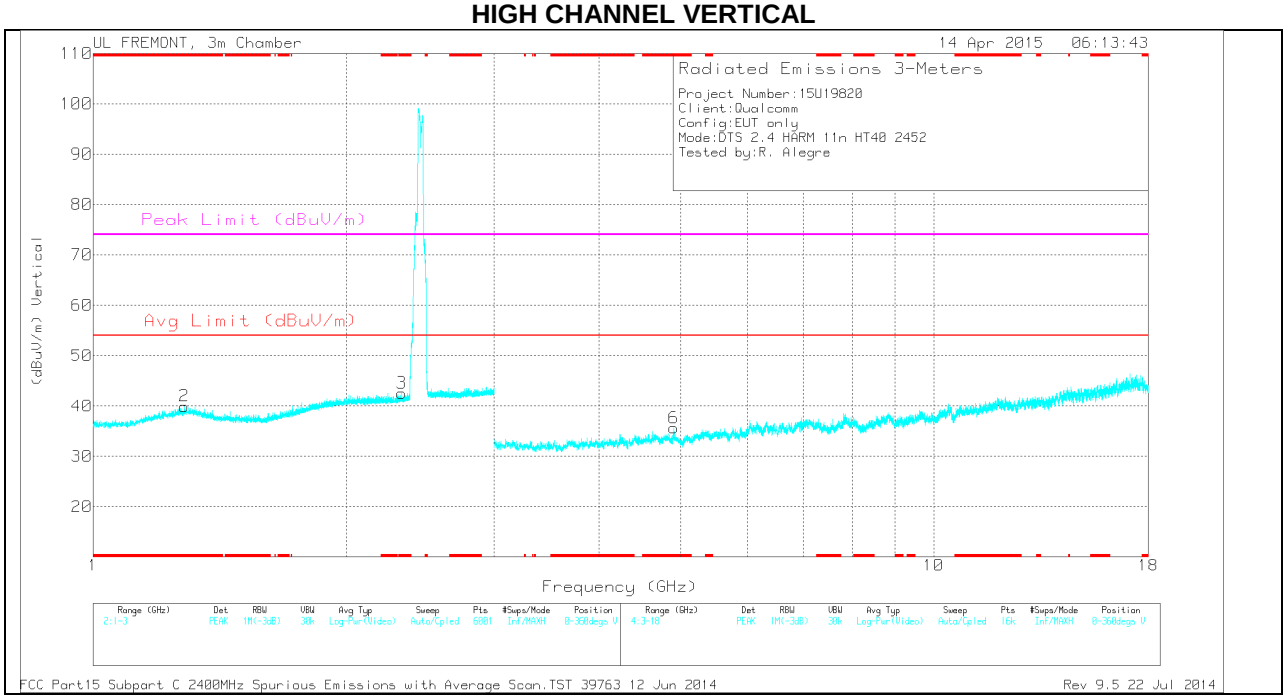
Rev 9.5 22 Jul 2014

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

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	* 1.312	33.97	PK	29.7	-23.8	0	39.87	-	-	74	-34.13	0-360	200	H
4	* 2.311	34	PK	31.7	-23.1	0	42.6	-	-	74	-31.4	0-360	100	H
2	* 1.283	34.06	PK	29.7	-23.8	0	39.96	-	-	74	-34.04	0-360	200	V
3	* 2.33	33.97	PK	31.7	-23.1	0	42.57	-	-	74	-31.43	0-360	200	V
5	* 4.883	34.57	PK	34	-30.1	0	38.47	-	-	74	-35.53	0-360	200	H
6	* 4.904	31.64	PK	34	-30	0	35.64	-	-	74	-38.36	0-360	200	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

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
* 4.882	45.04	PK2	34	-30.1	0	48.94	-	-	74	-25.06	82	396	H
* 4.881	27.9	MAv1	34	-30.2	1.19	32.89	54	-21.11	-	-	82	396	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

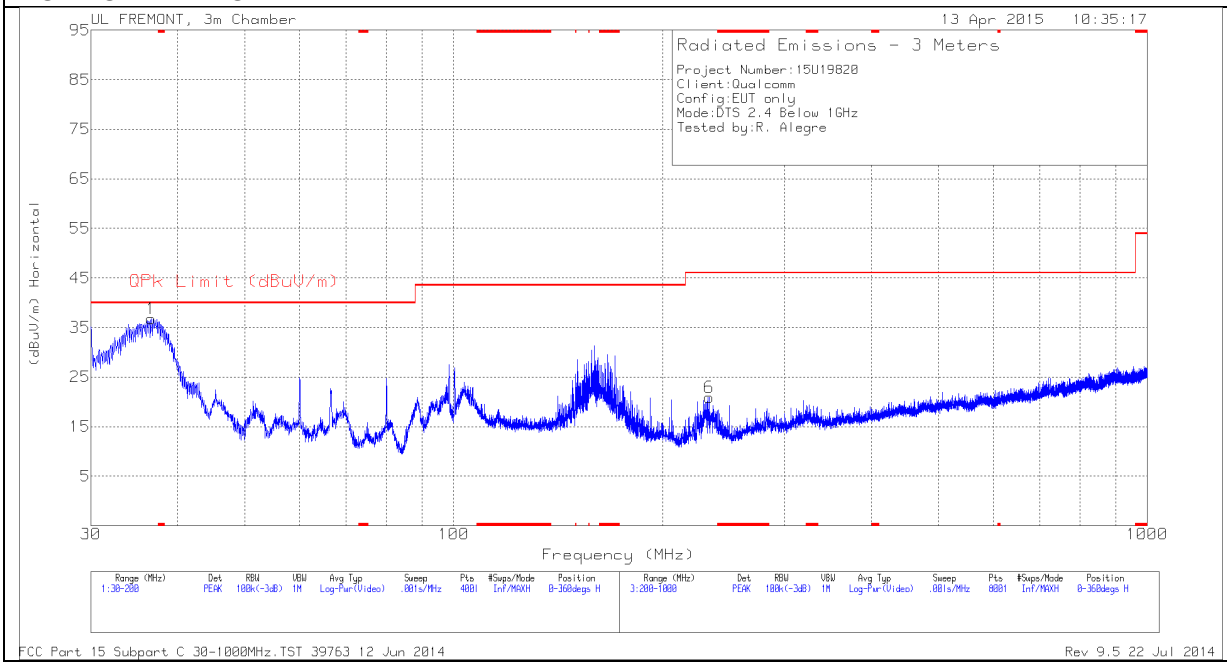
FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

10.3. WORST-CASE BELOW 1 GHz

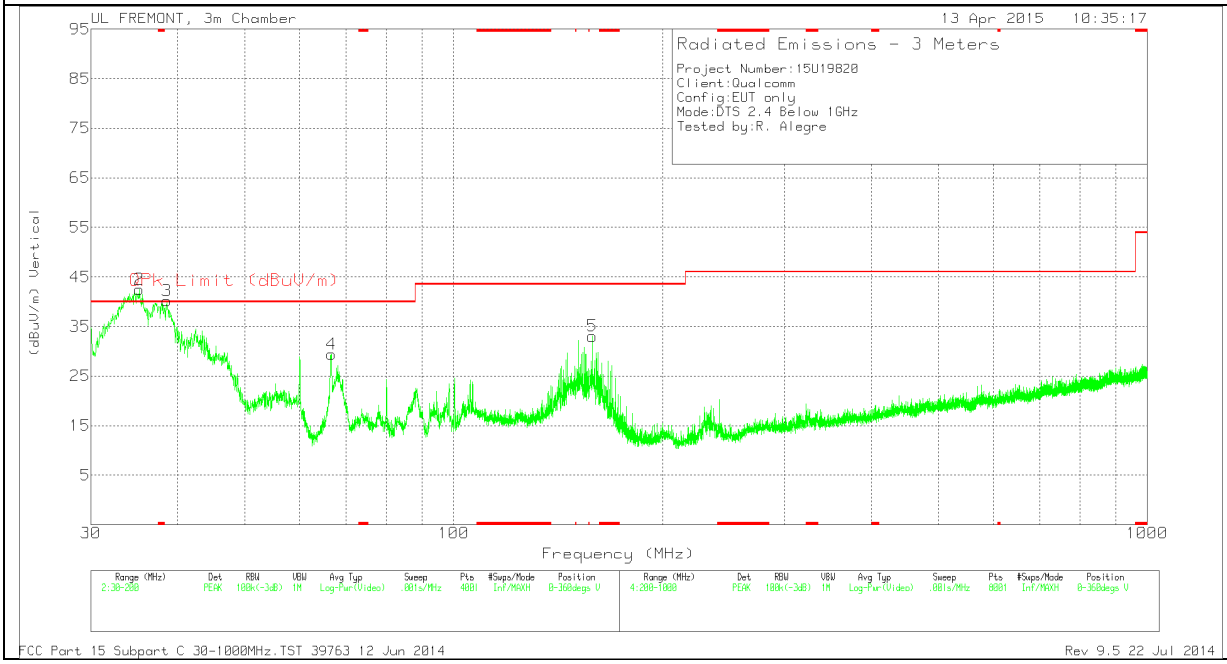
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



Below 1G Data

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T185 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	35.185	52.13	PK	17.9	-27.5	42.53	40	2.53	0-360	100	V
1	36.63	47.42	PK	16.8	-27.4	36.82	40	-3.18	0-360	300	H
3	38.585	52.34	PK	15.3	-27.4	40.24	40	.24	0-360	100	V
4	66.635	48.41	PK	8.1	-27.1	29.41	40	-10.59	0-360	100	V
5	158.3925	47.23	PK	12	-26.2	33.03	43.52	-10.49	0-360	100	V
6	233.5	35.25	PK	11.2	-25.5	20.95	46.02	-25.07	0-360	200	H

PK - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T185 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
35.185	38.11	QP	17.9	-27.5	28.51	40	-11.49	110	282	V
38.585	40.13	QP	15.3	-27.4	28.03	40	-11.97	117	201	V

QP - Quasi-Peak detector

FCC Part 15 Subpart C 30-1000MHz.TST 39763 12 Jun 2014

Rev 9.5 22 Jul 2014

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4 2009.

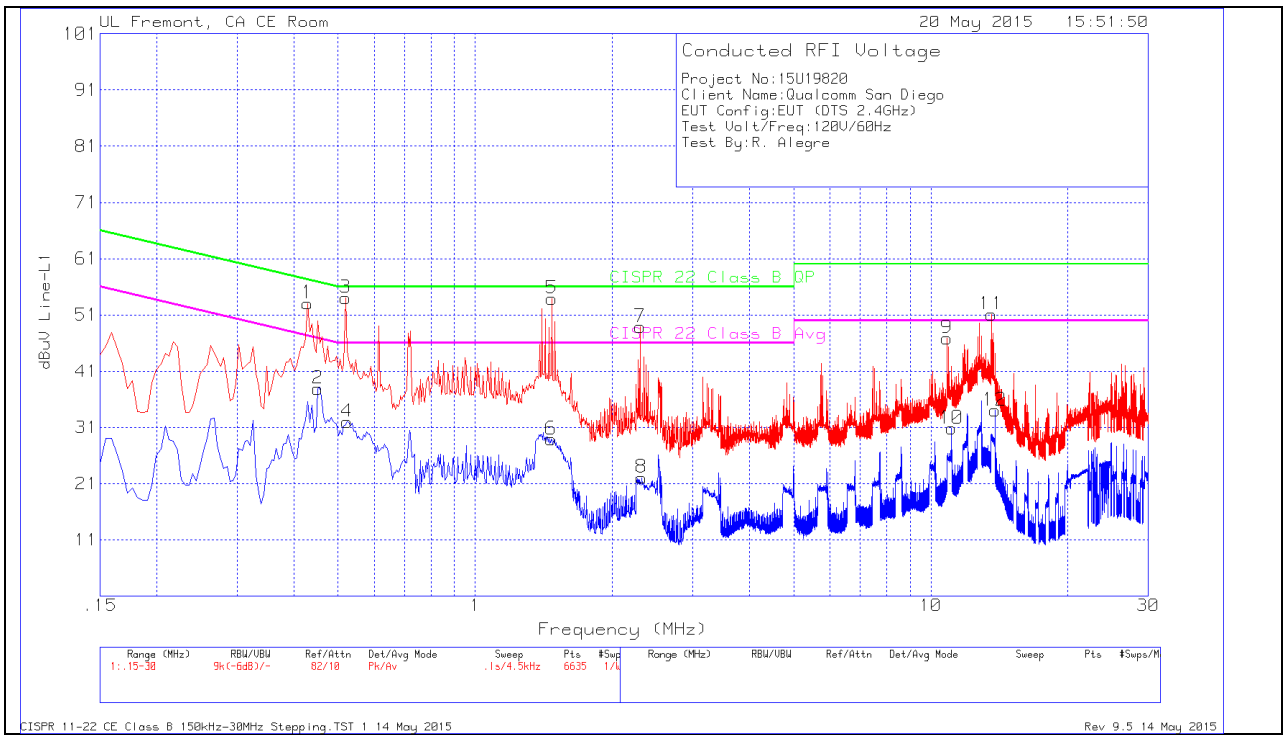
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT

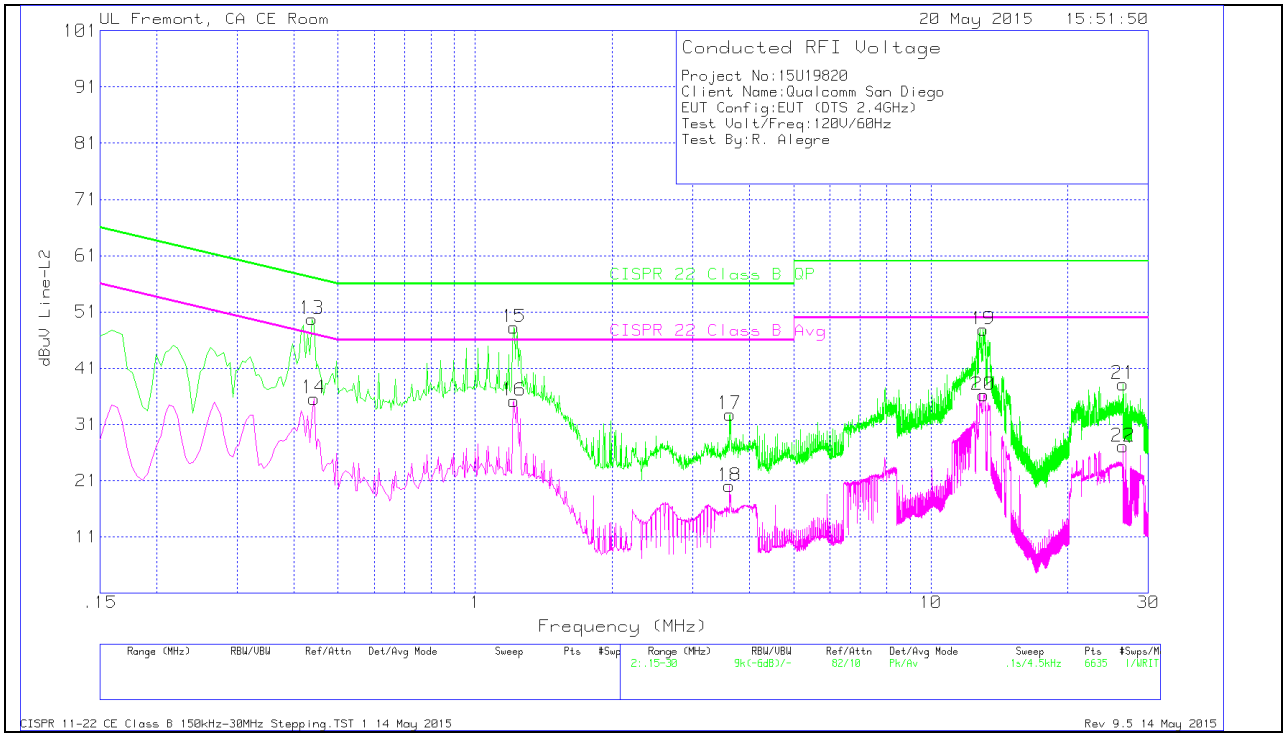


LINE 1 RESULTS

Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.429	52.65	Pk	.4	0	53.05	57.27	-4.22	-	-
2	.4515	37.48	Av	.4	0	37.88	-	-	46.85	-8.97
3	.519	53.74	Pk	.3	0	54.04	56	-1.96	-	-
4	.5235	31.68	Av	.3	0	31.98	-	-	46	-14.02
5	1.473	53.6	Pk	.2	.1	53.9	56	-2.1	-	-
6	1.4685	28.59	Av	.2	.1	28.89	-	-	46	-17.11
7	2.301	48.57	Pk	.2	.1	48.87	56	-7.13	-	-
8	2.319	21.76	Av	.2	.1	22.06	-	-	46	-23.94
9	10.8375	46.47	Pk	.2	.2	46.87	60	-13.13	-	-
10	11.103	30.4	Av	.2	.2	30.8	-	-	50	-19.2
11	13.5825	50.71	Pk	.2	.2	51.11	60	-8.89	-	-
12	13.821	33.6	Av	.2	.2	34	-	-	50	-16

LINE 2 PLOT



LINE 2 RESULTS

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
13	.438	49.34	Pk	.4	0	49.74	57.1	-7.36	-	-
14	.4425	35.23	Av	.4	0	35.63	-	-	47.01	-11.38
15	1.2165	47.99	Pk	.2	.1	48.29	56	-7.71	-	-
16	1.2165	34.93	Av	.2	.1	35.23	-	-	46	-10.77
17	3.6195	32.51	Pk	.2	.1	32.81	56	-23.19	-	-
18	3.615	19.79	Av	.2	.1	20.09	-	-	46	-25.91
19	13.0335	47.48	Pk	.2	.2	47.88	60	-12.12	-	-
20	13.047	35.85	Av	.2	.2	36.25	-	-	50	-13.75
21	26.43	37.58	Pk	.3	.3	38.18	60	-21.82	-	-
22	26.4345	26.49	Av	.3	.3	27.09	-	-	50	-22.91