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

CERTIFICATION TEST REPORT

FOR

CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODEL NUMBERS: A1723, A1724

FCC ID: BCG-E3042A
IC: 579C-E3042A

REPORT NUMBER: 15U21635-E4V2

ISSUE DATE: FEBRUARY 01, 2016

Prepared for
APPLE, INC.
1 INFINITE LOOP
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	01/22/2016	Initial Issue	M. Mekuria
V2	02/01/2016	Revised report to address TCB questions	T. Chu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE, INC.
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

EUT DESCRIPTION: CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

MODELS: A1723, A1724

SERIAL NUMBER: C39Q4026GR20 (Radiated) C39QG04YGX9X (Conducted)

DATE TESTED: AUGUST 24, 2015 – DECEMBER 10, 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:

MENGISTU MEKURIA
PROJECT LEADER
UL VERIFICATION SERVICES INC.

Tested By:

ERIC YU
EMC ENGINEER
UL VERIFICATION SERVICES INC.

2. TEST METHODOLOGY

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

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	☒ 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, 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, Model A1723 and A1724 is a mobile phone with multimedia functions (music, application support, and video), cellular GSM/GPRS/EGPRS/CDMA/WCDMA/HSPA+/DC-HSDPA/LTE radio, IEEE 802.11a/b/g/n/ac radio, Bluetooth radio and NFC. The rechargeable battery is not user accessible.

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 1TX	21.49	140.93
2412 - 2462	802.11g	Covered by HT20 1TX	
2412 - 2462	802.11n HT20 1TX	26.52	448.75

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

Frequency Band (GHz)	Antenna Gain (dBi)
2.4	-0.90

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was 7.47.130.1

5.5. WORST-CASE CONFIGURATION AND MODE

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

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

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

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

The target power for 802.11g and 802.11n HT20 1TX are the same and use the same modulation (OFDM).

There are two vendors of the WiFi/Bluetooth radio modules: variant 1 and variant 2. The Wi-Fi/Bluetooth radio modules have the same mechanical outline (e.g., the same package dimension and pin-out layout), use the same on-board antenna matching circuit, have an identical antenna structure, and are built and tested to conform to the same specifications and to operate within the same tolerances.

Baseline testing was performed on the two variants to determine the worst case on all conducted power and radiated emissions

For simultaneous transmission of multiple channels from the same antenna in the 2.4GHz, 5GHz and Cellular bands, tests were conducted for various configurations having the highest power, least separation in frequencies and widest operation bandwidths. No noticeable new emission was found.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop AC/DC adapter	Lenovo	92P1160	11S92P1160Z1ZBGH798B12	N/A
Laptop	Lenovo	7659	L3-AL664 08/03	N/A
Earphone	Apple	N/A	N/A	N/A
EUT AC/CD adapter	Apple	A1385	D293062F3WVDHLHCF	N/A

I/O CABLES (CONDUCTED TEST)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Antenna	1	SMA	Un-Shielded	0.2	To spectrum Analyzer
2	USB	1	USB	Shielded	1	N/A
3	AC	1	AC	Un-shielded	3	N/A

I/O CABLES (RADIATED ABOVE 1 GHZ)

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
None Used						

I/O CABLES (RADAITED BELOW 1 GHZ)

I/O Cable List						
Cable No	Port	# of identical	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Headphones Jack	1	3.5mm Audio	Shielded	0.9	N/A
2	AC	1	AC	Un-shielded	3	N/A

I/O CABLES (AC LINE CONDUCTED: AC/DC ADAPTER)

I/O Cable List						
Cable No	Port	# of identical	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Headphones Jack	1	3.5mm Audio	Shielded	0.9	N/A
2	AC	1	AC	Un-shielded	3	N/A

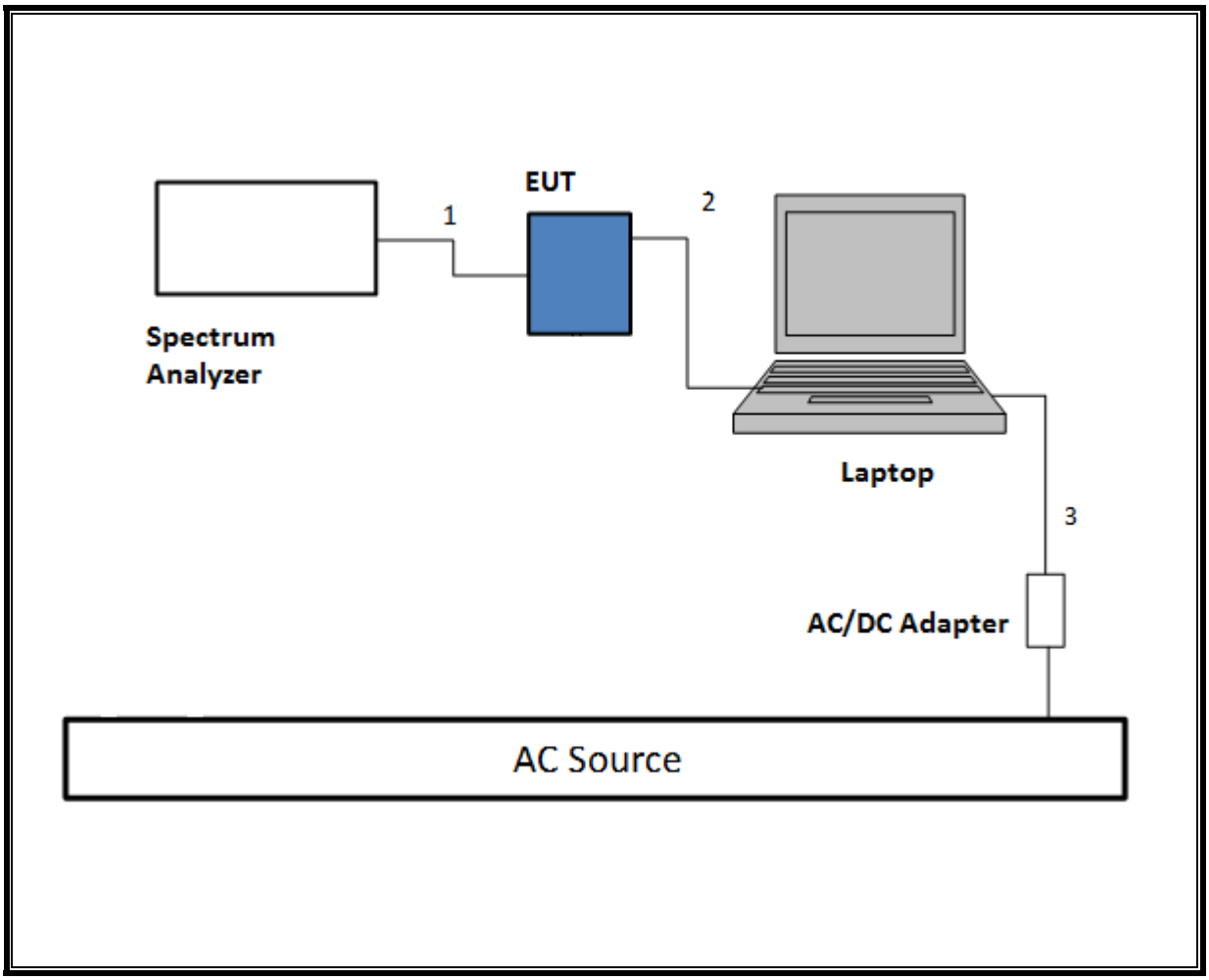
I/O CABLES (AC LINE CONDUCTED: LAPTOP CONFIGUARTION)

I/O Cable List						
Cable No	Port	# of identical	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Headphones Jack	1	3.5mm Audio	Shielded	0.9	N/A
2	USB	1	USB	Shielded	1	N/A
3	AC	1	AC	Un-shielded	3	N/A

TEST SETUP - CONDUCTED TESTS

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

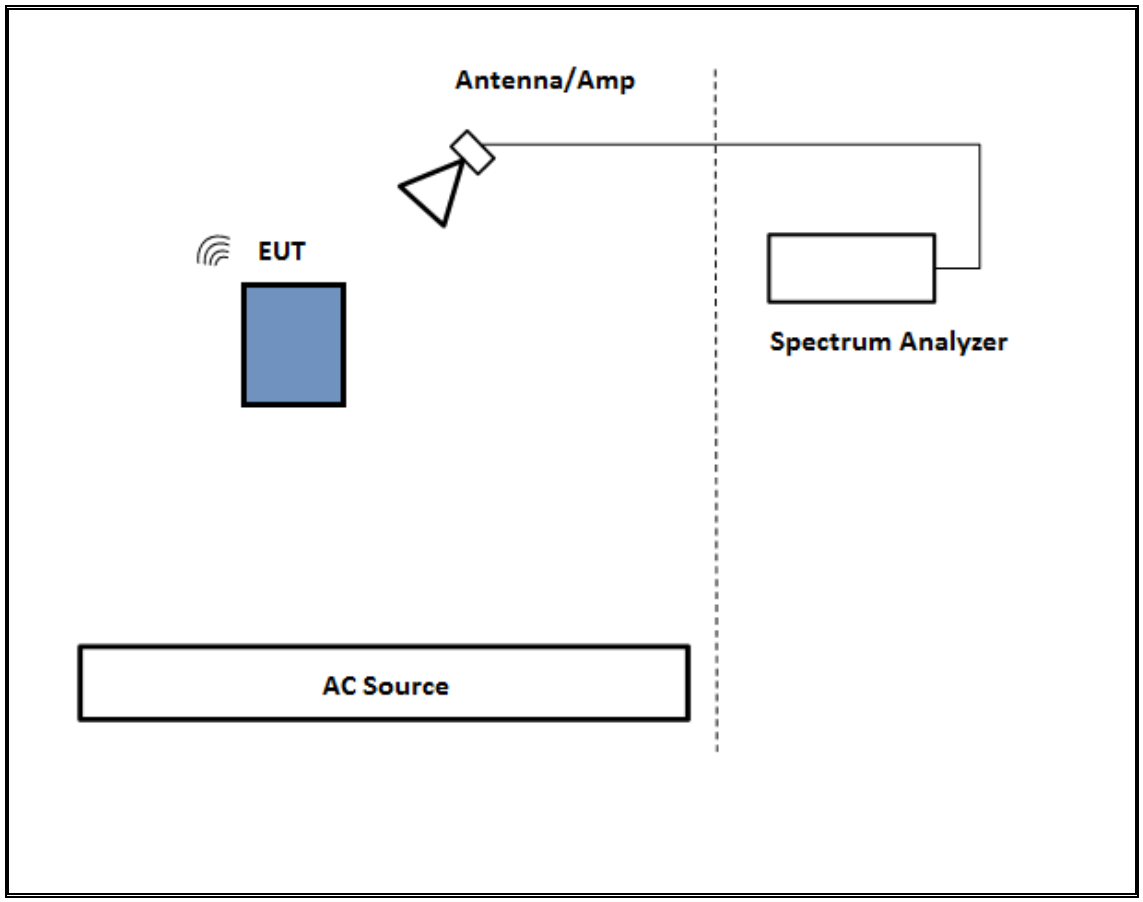
SETUP DIAGRAM



TEST SETUP- RADIATED-ABOVE 1 GHZ

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

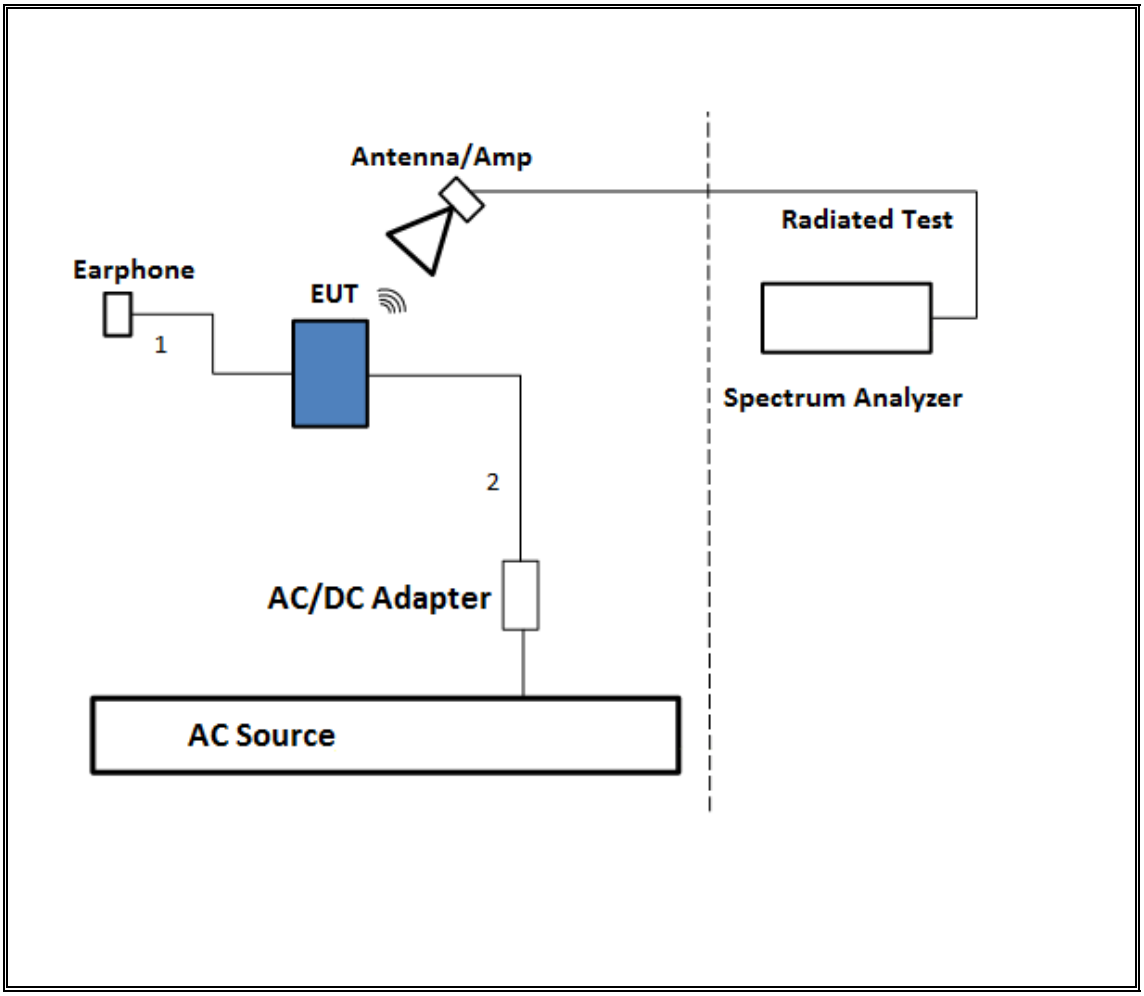
SETUP DIAGRAM



TEST SETUP- BELOW 1GHz

The EUT was tested with earphone connected and powered by AC adapter. Test software exercised the EUT.

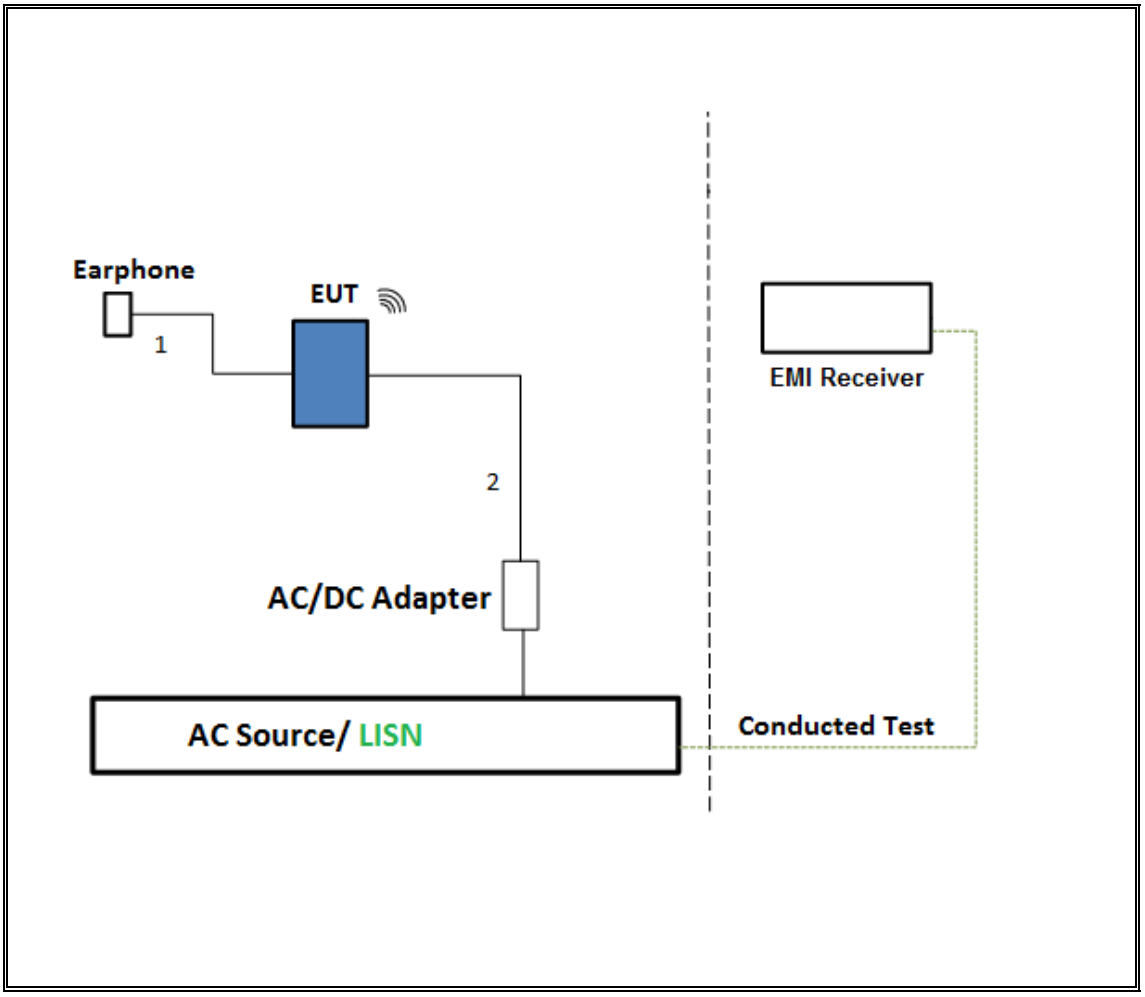
SETUP DIAGRAM



TEST SETUP- AC LINE CONDUCTED: AC/DC ADAPTER

The EUT was tested with earphone connected and powered by AC/DC adapter via USB cable. Test software exercised the EUT.

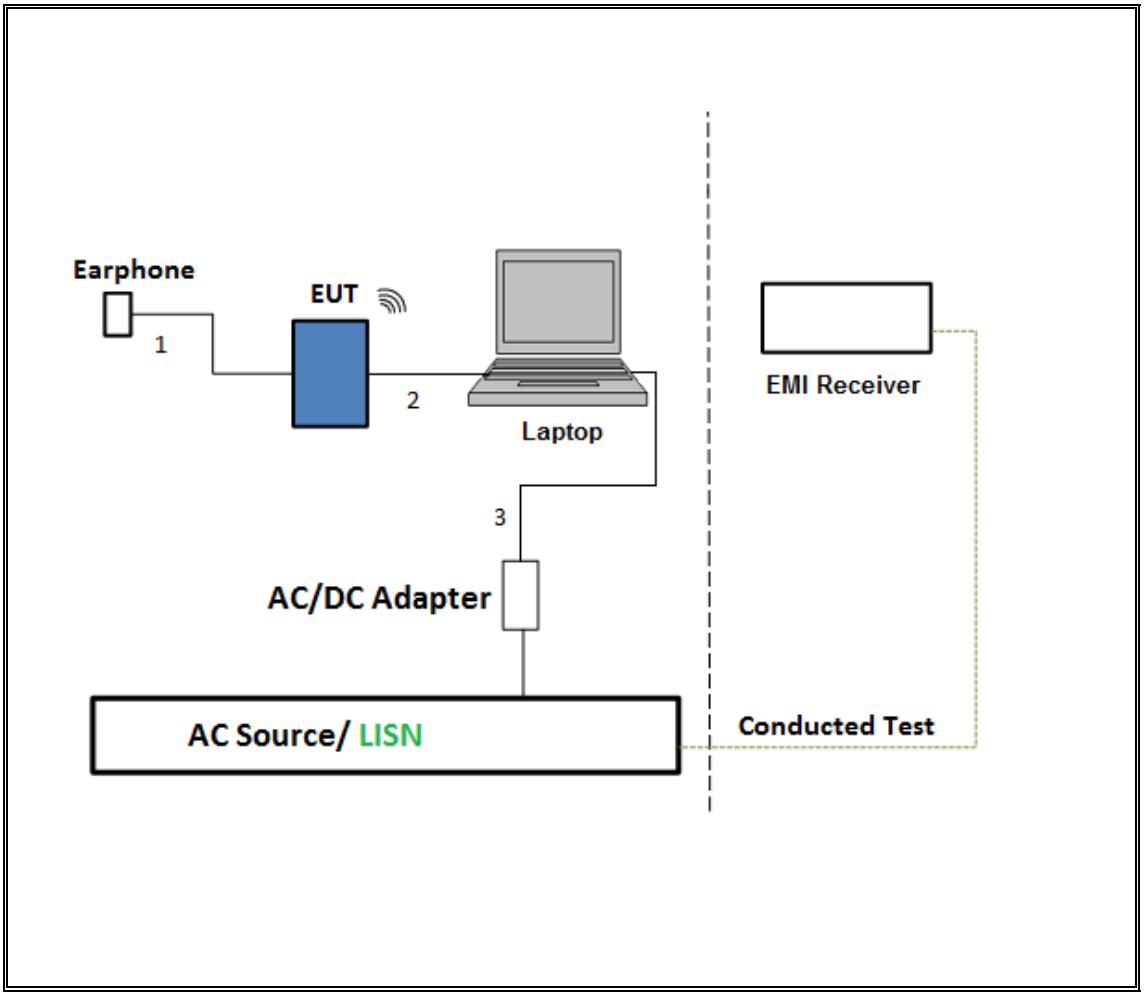
SETUP DIAGRAM



TEST SETUP- AC LINE CONDUCTED: LAPTOP CONFIGURATION

The EUT was tested with earphone connected and powered by host PC via USB cable. Test software exercised the EUT.

SETUP DIAGRAM



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**
Antenna, Horn 1-18GHz	ETS Lindgren	3117	00143449	2/10/2016
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB3	A022813-1	1/14/2016
Amplifier, 1 - 18GHz	Miteq	AFS42-00101800-25-S-42	1782158	1/26/2016
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	323561	6/8/2016
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	US51350187	6/1/2016
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	185623	6/9/2016
Spectrum Analyzer, PXA, 3Hz to 44GHz	Agilent	N9030A	MY51380911	2/20/2016
Power Meter, P-series single channel	Agilent	N1911A	GB45100212	9/25/2016
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Agilent	N1921A	MY53260010	4/7/2016
Antenna, Horn 18 to 26.5GHz	ARA	MWH-1826	1049	12/17/2015
Spectrum Analyzer, 40 GHz	Agilent	8564E	3943A01643	8/14/2016
Amplifier, 1 to 26.5GHz, 23.5dB Gain minimum	Agilent	8449B	3008A04710	6/29/2016
AC Line Conducted				
EMI Test Receiver 9Khz-7GHz	Rohde & Schwarz	ESCI7	100935	9/10/2016
LISN for Conducted Emissions CISPR-16	FCC	50/250-25-2	114	1/16/2016
Power Cable, Line Conducted Emissions ANSI 63.4	U L	PG1	N/A	7/28/2016
UL SOFTWARE				
* Radiated Software	UL	UL EMC	Ver 9.5, July 22, 2014	
* Conducted Software	UL	UL EMC	Ver 2.2, March 31, 2015	
* AC Line Conducted Software	UL	UL EMC	Ver 9.5, April 3, 2015	

Note: * indicates automation software version used in the compliance certification testing

7. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r04, Section 8.1.

Output Power: KDB 558074 D01 v03r04, Section 9.1.2

Power Spectral Density: KDB 558074 D01 v03r04, Section 10.2.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r04, Section 11.0.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r04, Section 12.1.

Band-edge: KDB 558074 D01 v03r04, Section 12.1

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

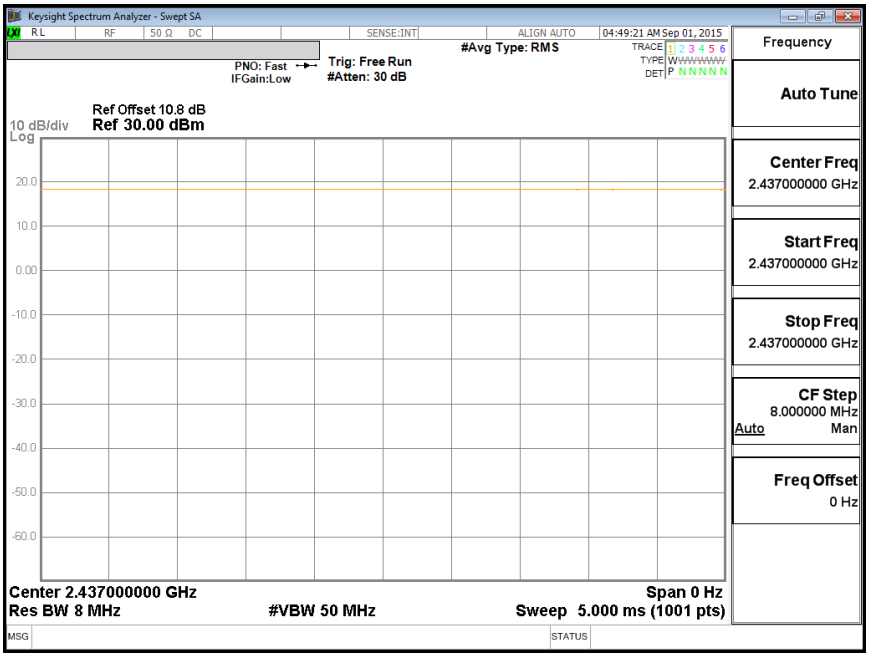
ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
802.11b 1TX	1.000	1.000	1.000	100.00%	0.00	0.010
802.11n HT20 1TX	1.917	1.941	0.988	98.76%	0.00	0.010

DUTY CYCLE PLOTS

2.4 GHz BAND

DUTY CYCLE 802.11b 1TX MODE



DUTY CYCLE 802.11n HT20 1TX MODE

8.2. 802.11b SISO MODE IN THE 2.4 GHz BAND

8.2.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 (5.2) (1)

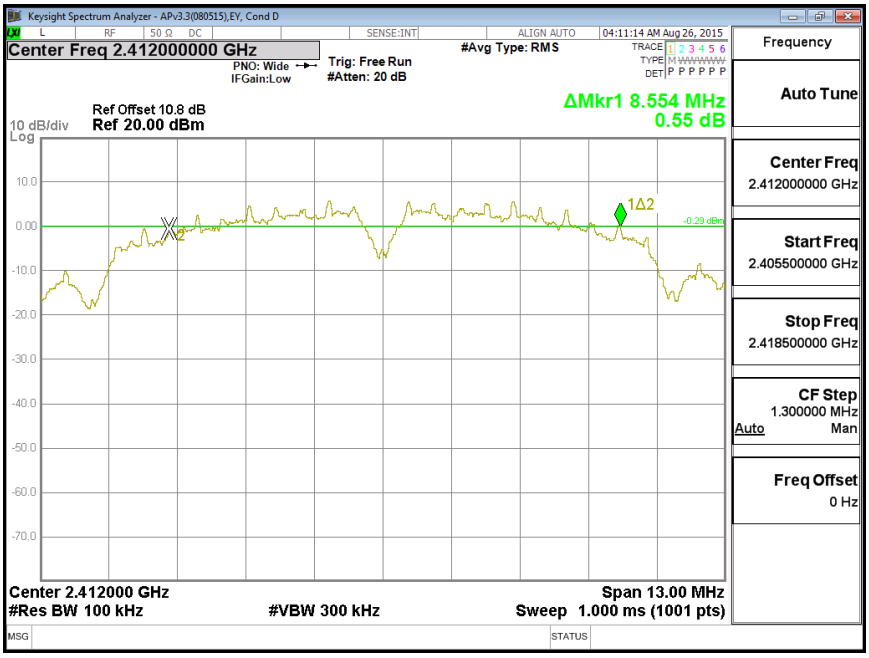
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

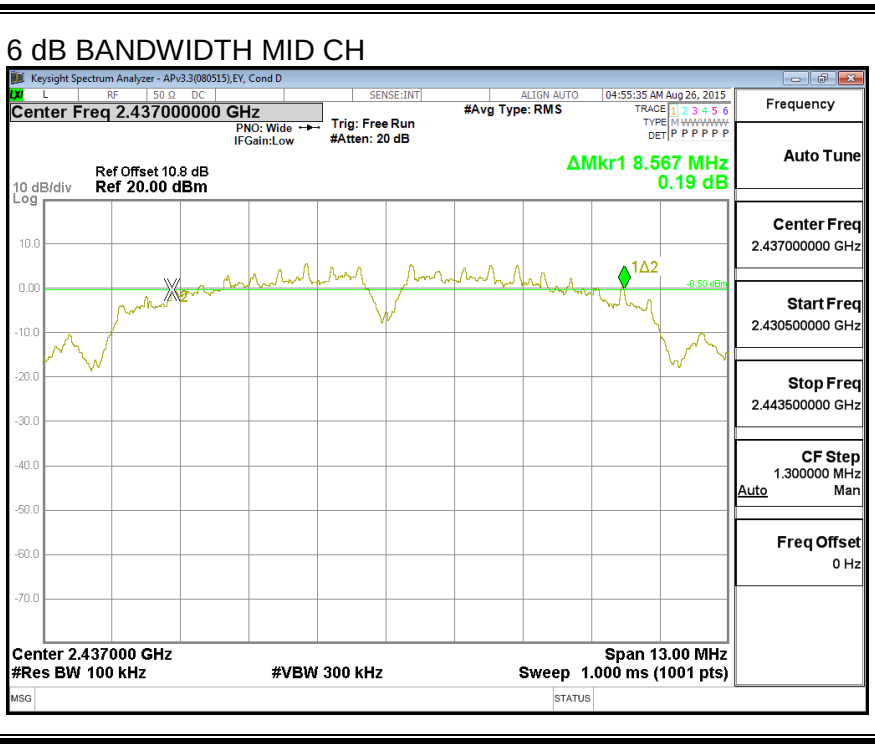
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	8.55	0.5
Mid	2437	8.57	0.5
High_11	2462	8.54	0.5
High_12	2467	8.58	0.5
High_13	2472	8.58	0.5

6 dB BANDWIDTH

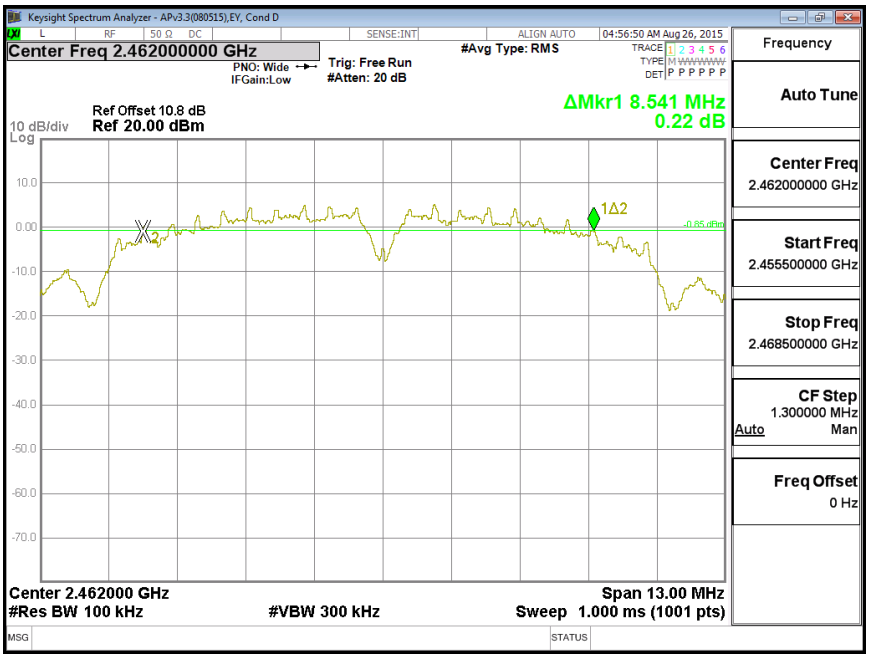
6 dB BANDWIDTH LOW CH



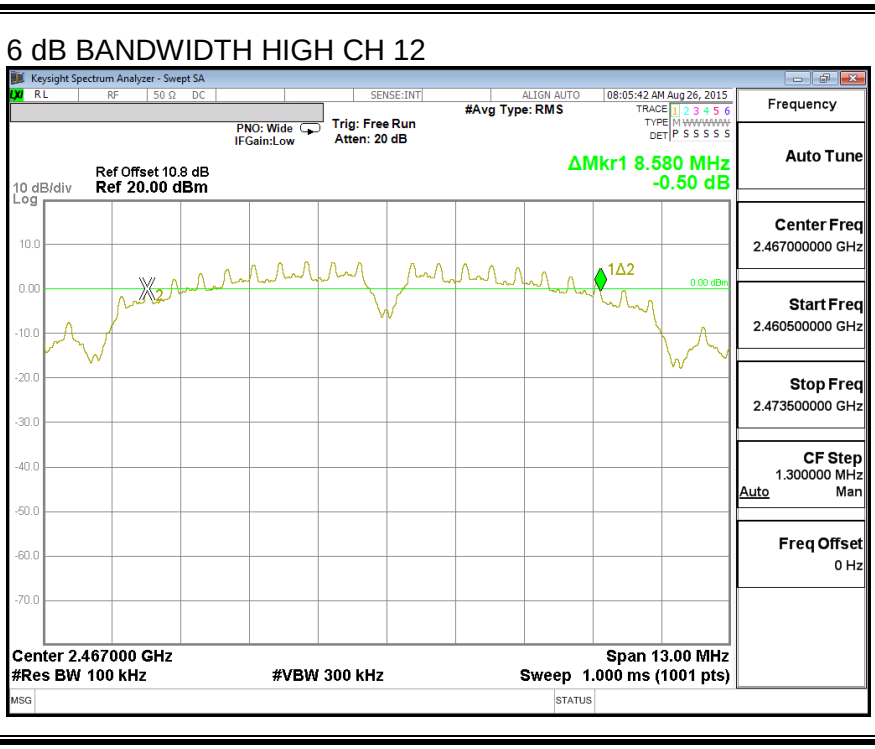
6 dB BANDWIDTH MID CH



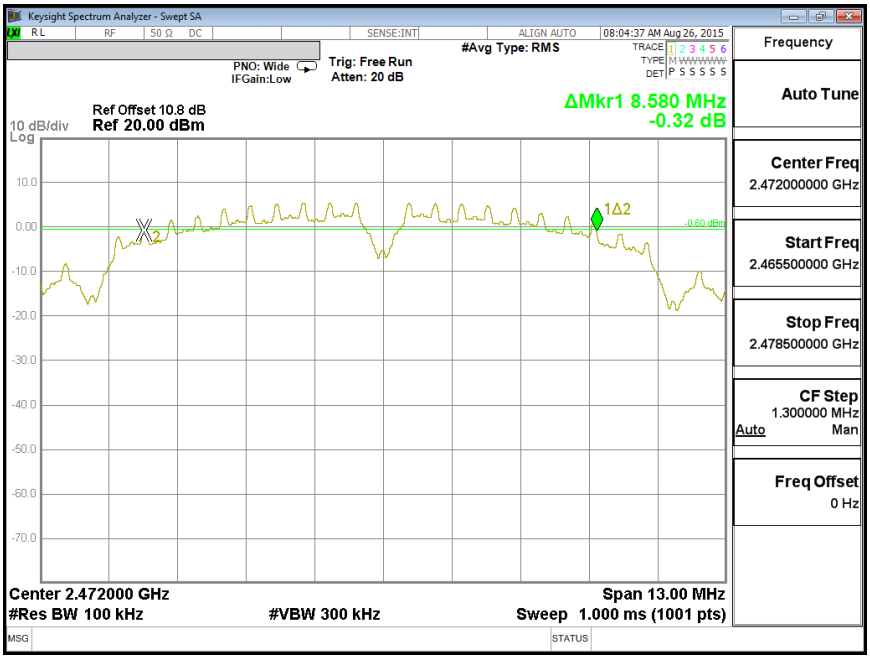
6 dB BANDWIDTH HIGH CH 11



6 dB BANDWIDTH HIGH CH 12



6 dB BANDWIDTH HIGH CH 13



8.2.2. 99% BANDWIDTH

LIMITS

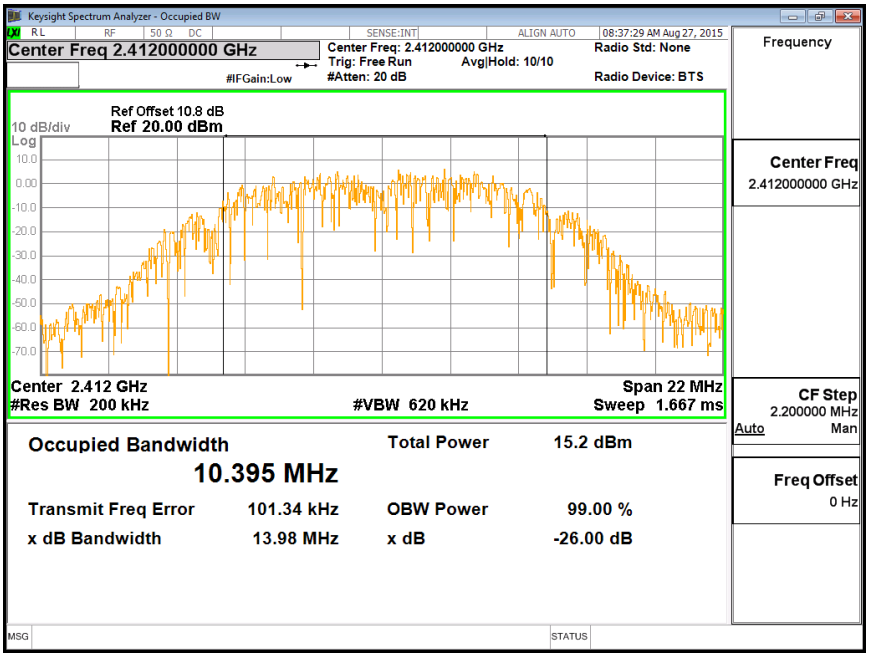
None; for reporting purposes only.

RESULTS for Chain 0

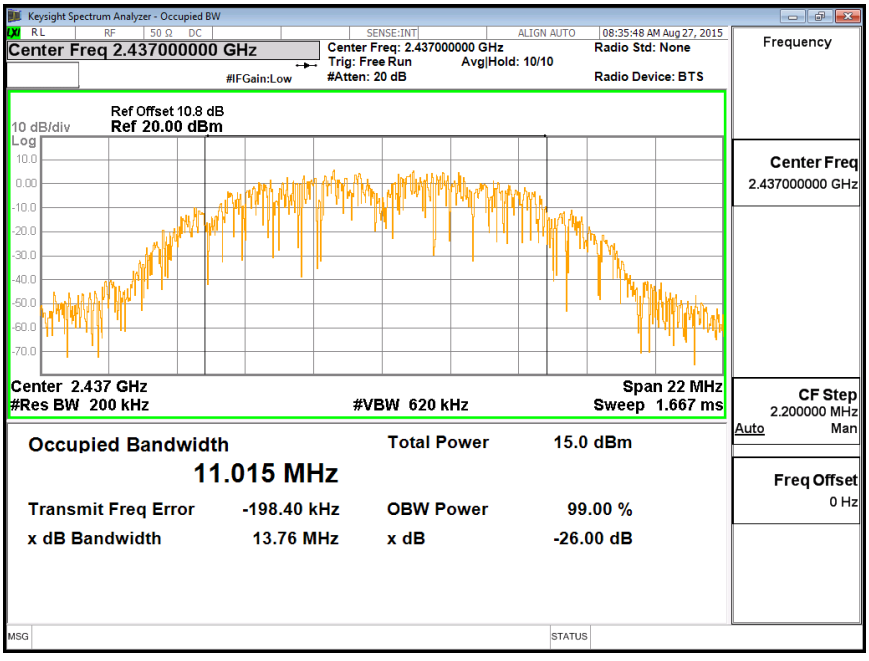
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	10.395
Mid	2437	11.015
High_11	2462	10.590
High_12	2467	10.963
High_13	2472	11.029

99% BANDWIDTH

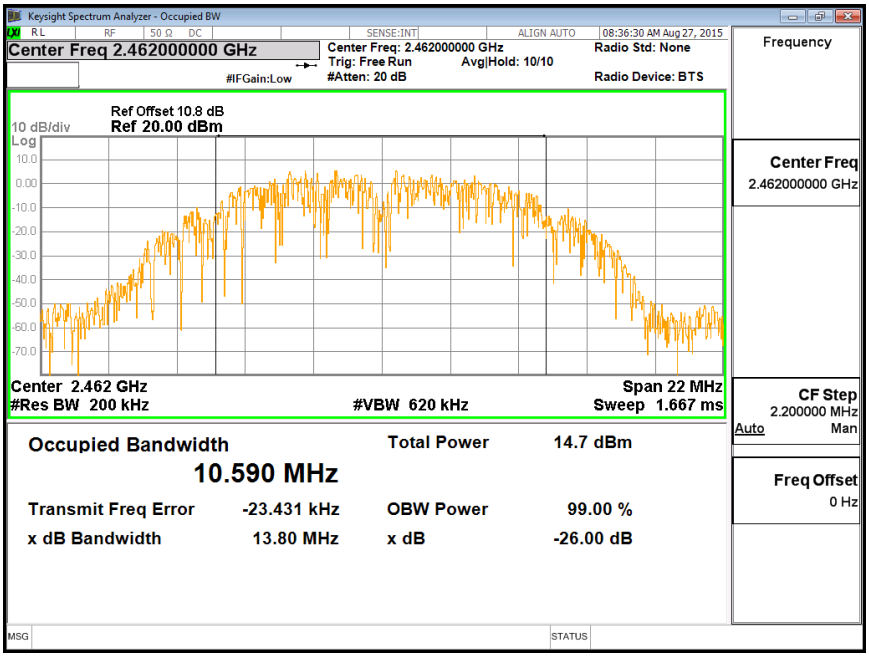
BANDWIDTH LOW CH



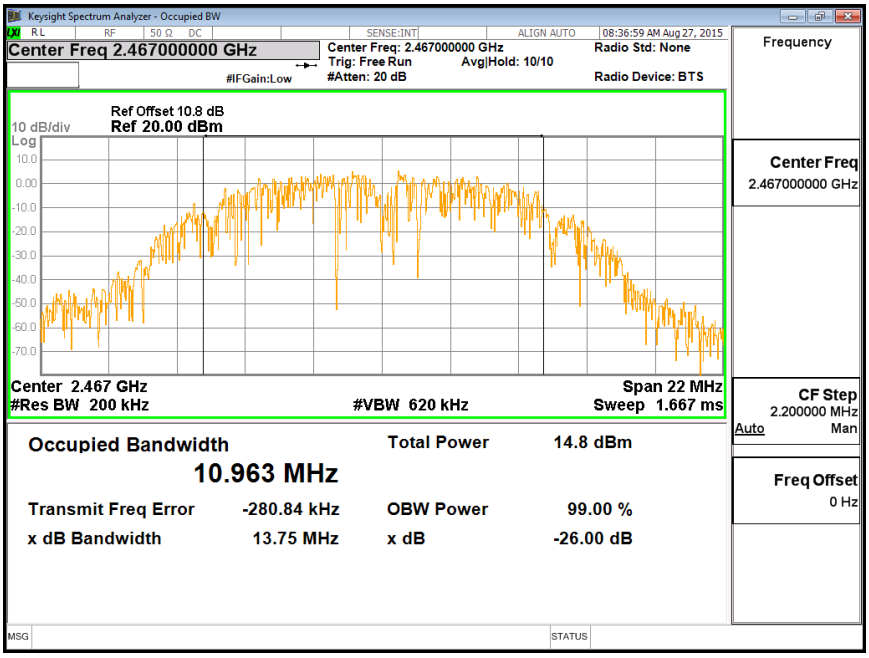
BANDWIDTH MID CH



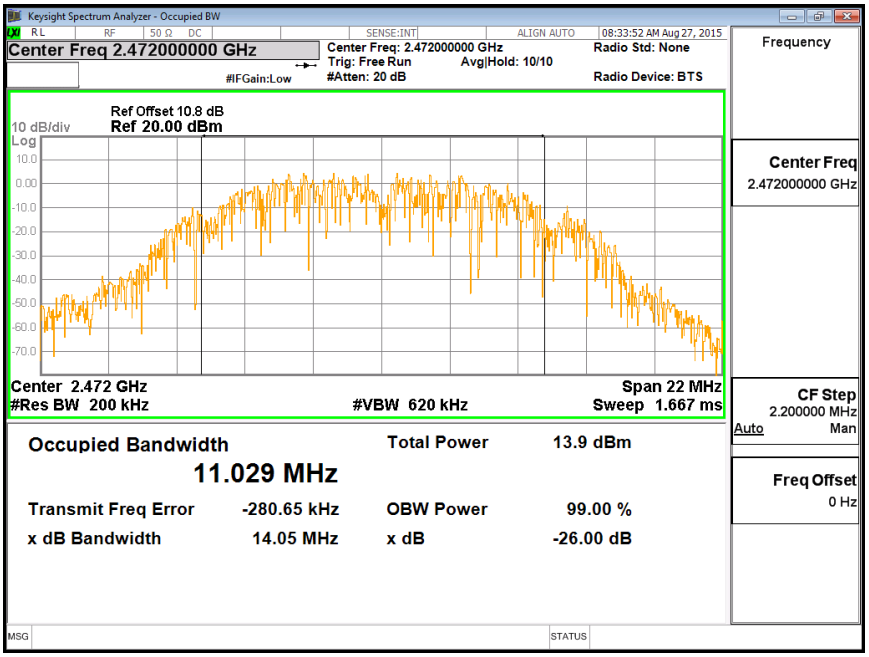
BANDWIDTH HIGH CH11



BANDWIDTH HIGH CH12



BANDWIDTH HIGH CH 13



8.2.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	2412	18.48
Mid	2437	18.42
High_11	2462	18.49
High_12	2467	17.95
High_13	2472	14.96

8.2.4. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 (5.4) (4)

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	-0.90	30.00	30	36	30.00
Mid	2437	-0.90	30.00	30	36	30.00
High_11	2462	-0.90	30.00	30	36	30.00
High_12	2467	-0.90	30.00	30	36	30.00
High_13	2472	-0.90	30.00	30	36	30.00

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

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	21.41	21.41	30.00	-8.59
Mid	2437	21.30	21.30	30.00	-8.70
High_11	2462	21.49	21.49	30.00	-8.51
High_12	2467	20.88	20.88	30.00	-9.12
High_13	2472	17.94	17.94	30.00	-12.06

8.2.5. POWER SPECTRAL DENSITY

IMITS

FCC §15.247

IC RSS-247 (5.2) (2)

For digitally modulated systems, the power spectral density conducted form the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 KHz band during any time interval of continuous transmissions.

RESULTS

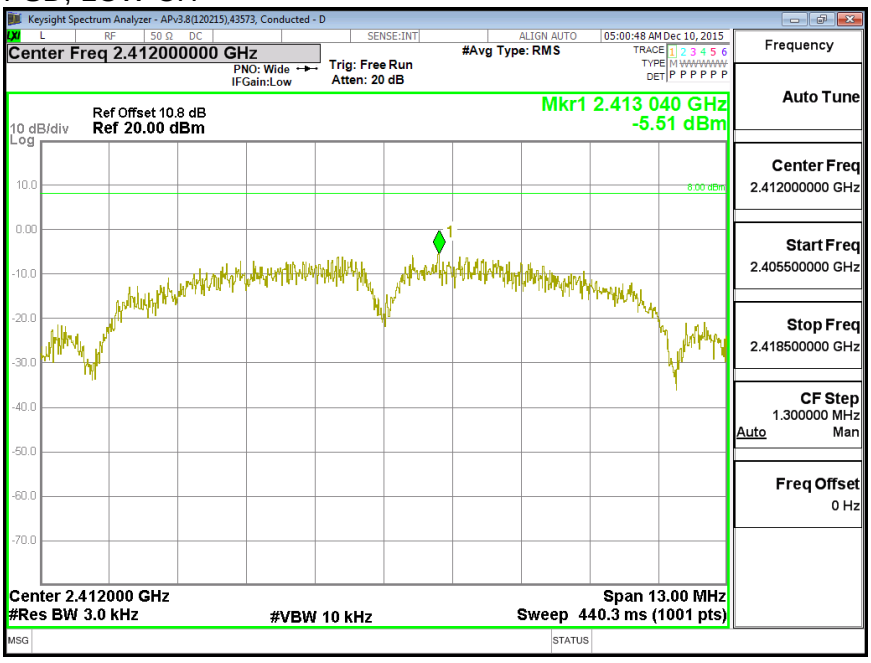
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

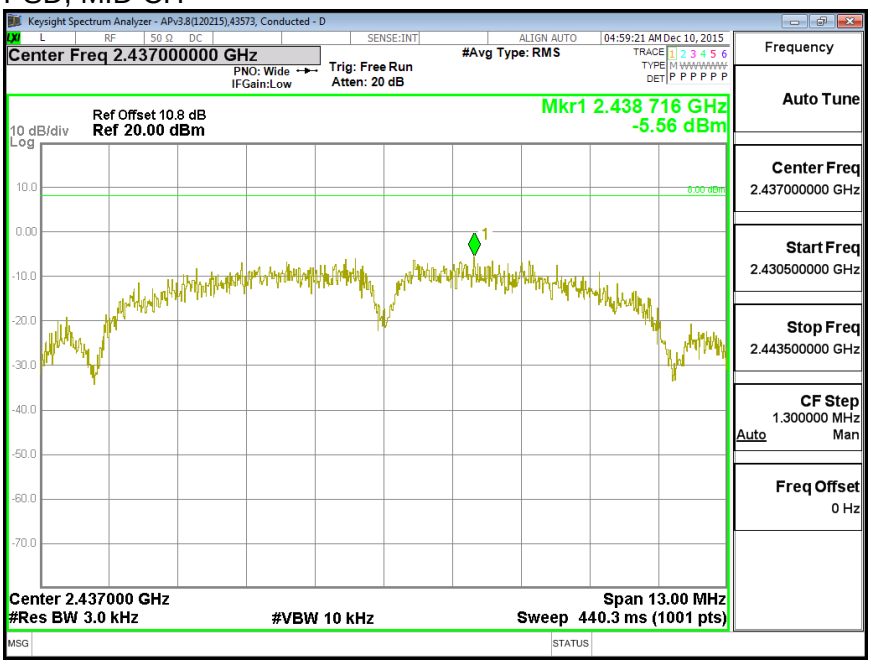
Channel	Frequency (MHz)	Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-5.51	-5.51	8.0	-13.5
Mid	2437	-5.56	-5.56	8.0	-13.6
High_11	2462	-5.34	-5.34	8.0	-13.3
High_12	2467	-5.72	-5.72	8.0	-13.7
High_13	2472	-8.52	-8.52	8.0	-16.5

PSD

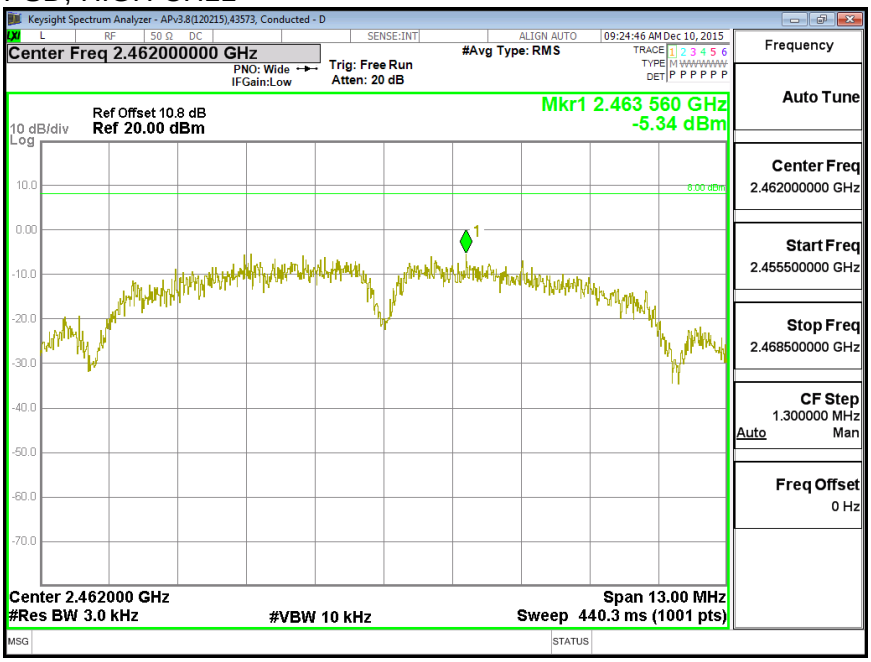
PSD, LOW CH



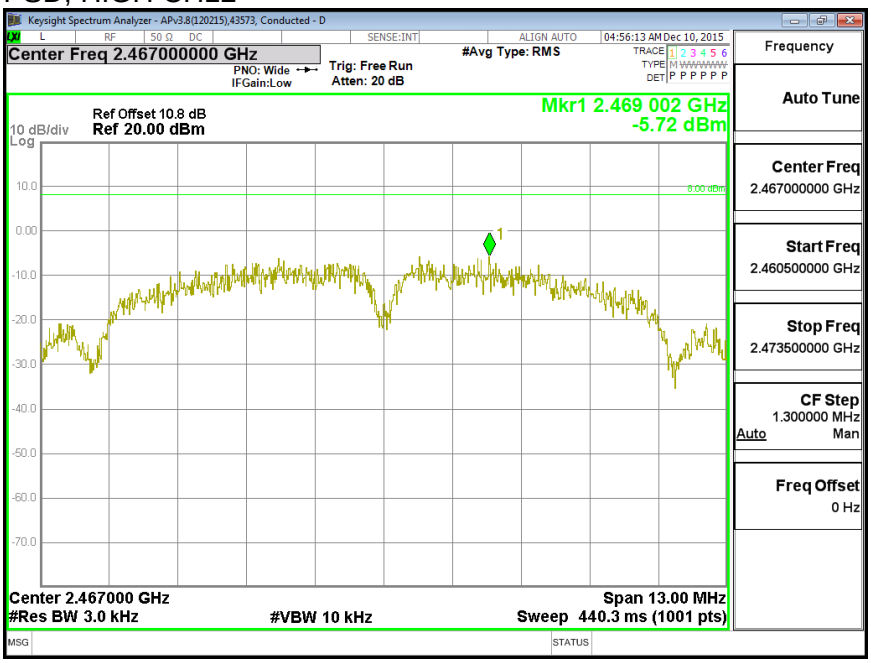
PSD, MID CH



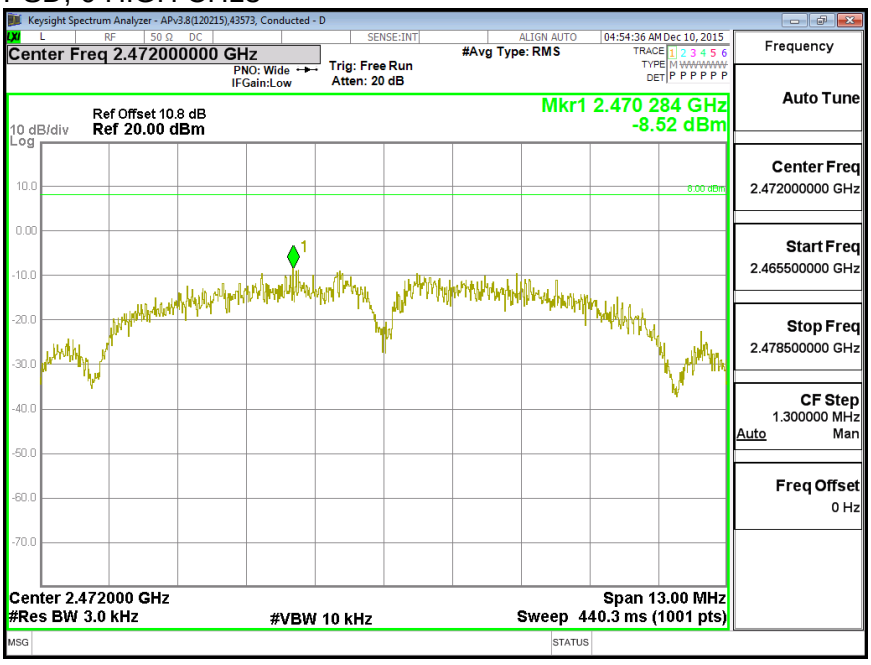
PSD, HIGH CH11



PSD, HIGH CH12



PSD, 0 HIGH CH13



8.2.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

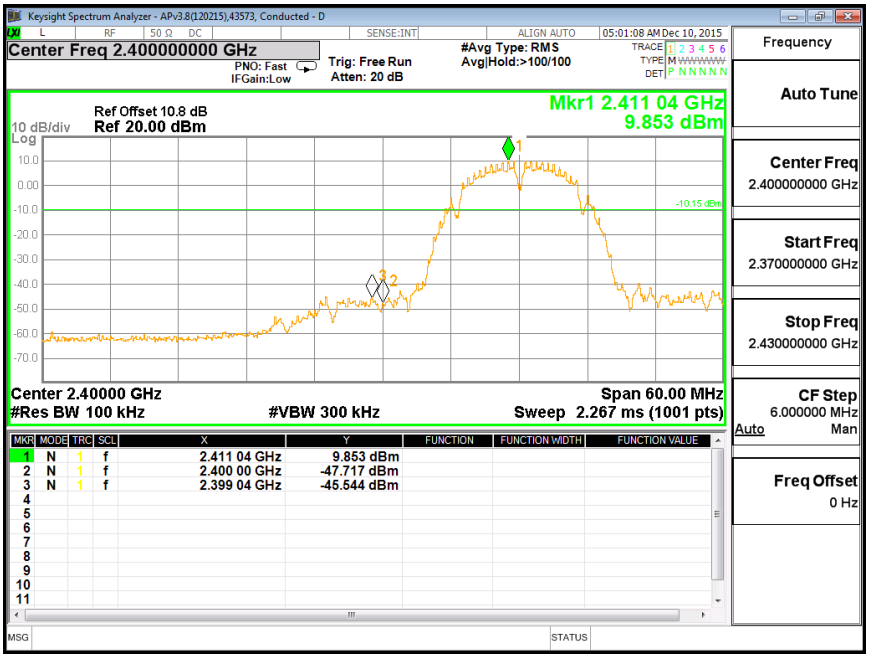
IC RSS-247 (5.5)

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.

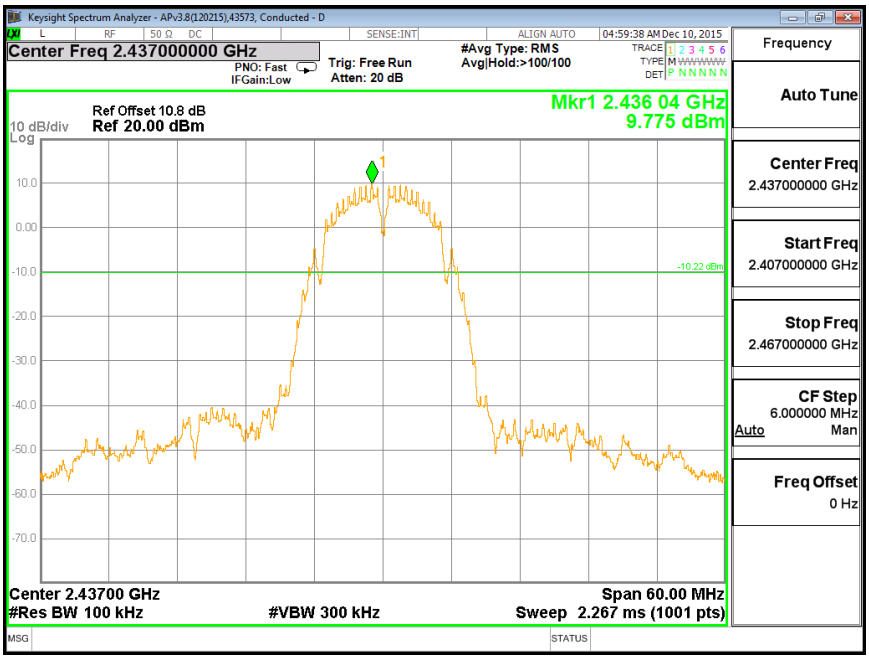
RESULTS

LOW CHANNEL BANDEDGE

AUTHORIZED BAND EDGE LOW CH

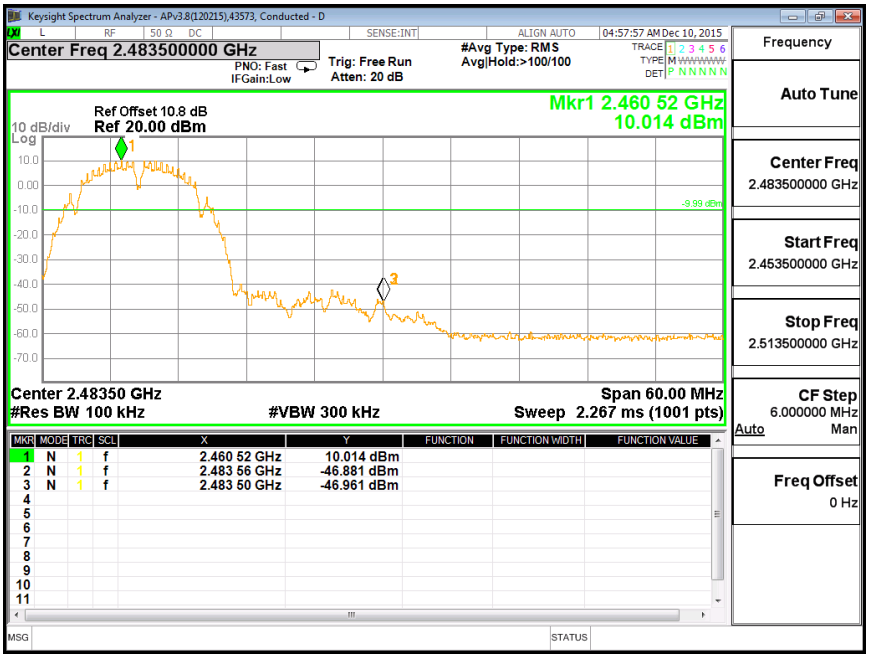


AUTHORIZED BAND EDGE MID CH

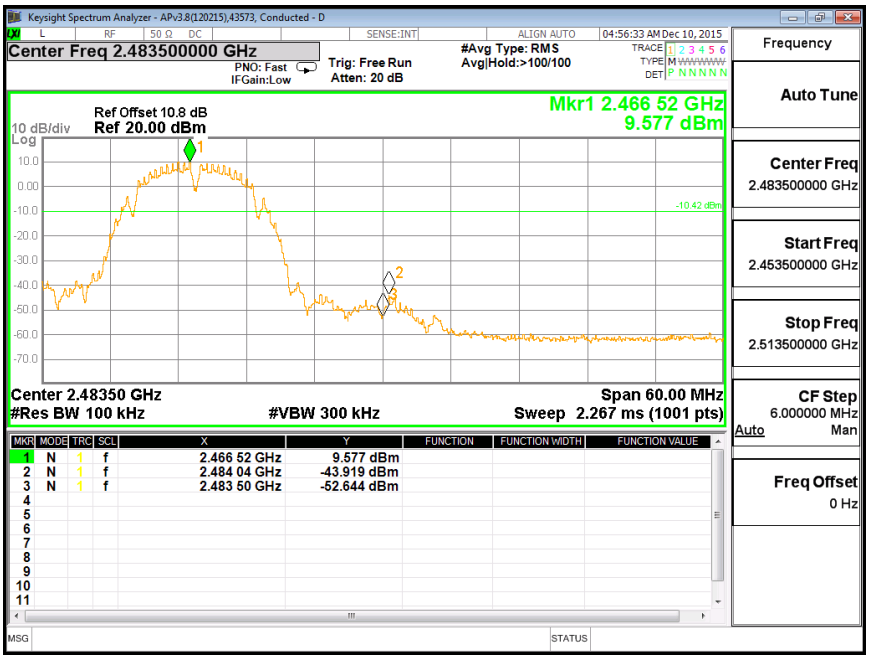


HIGH CHANNEL BANDEDGE

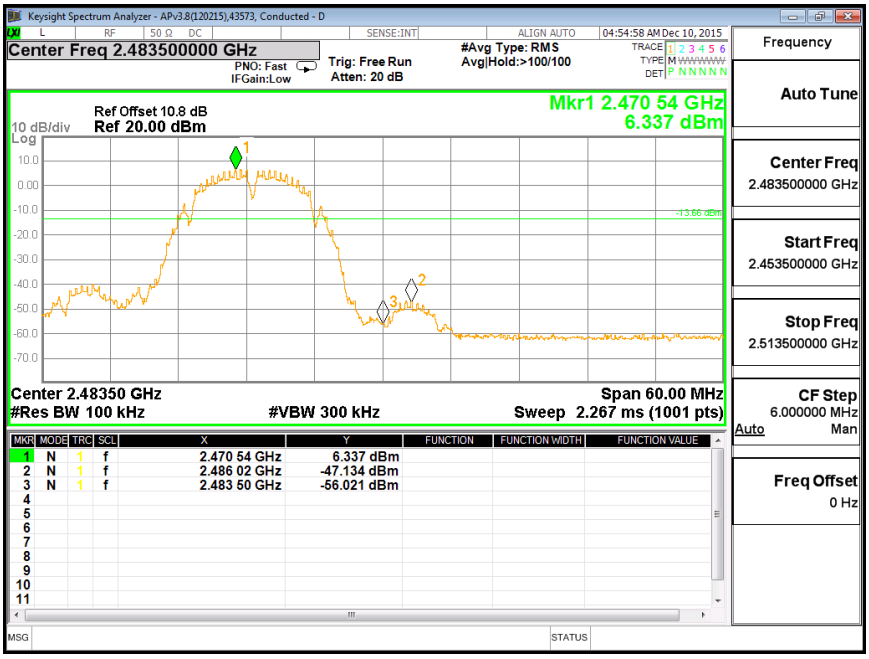
AUTHORIZED BAND EDGE HIGH CH11



AUTHORIZED BAND EDGE HIGH CH12

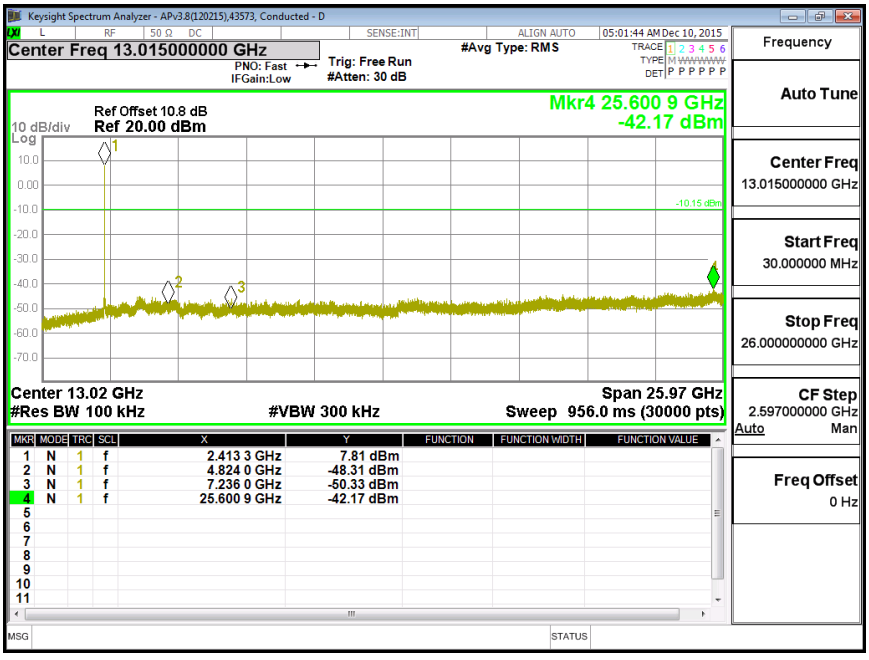


AUTHORIZED BAND EDGE HIGH CH13

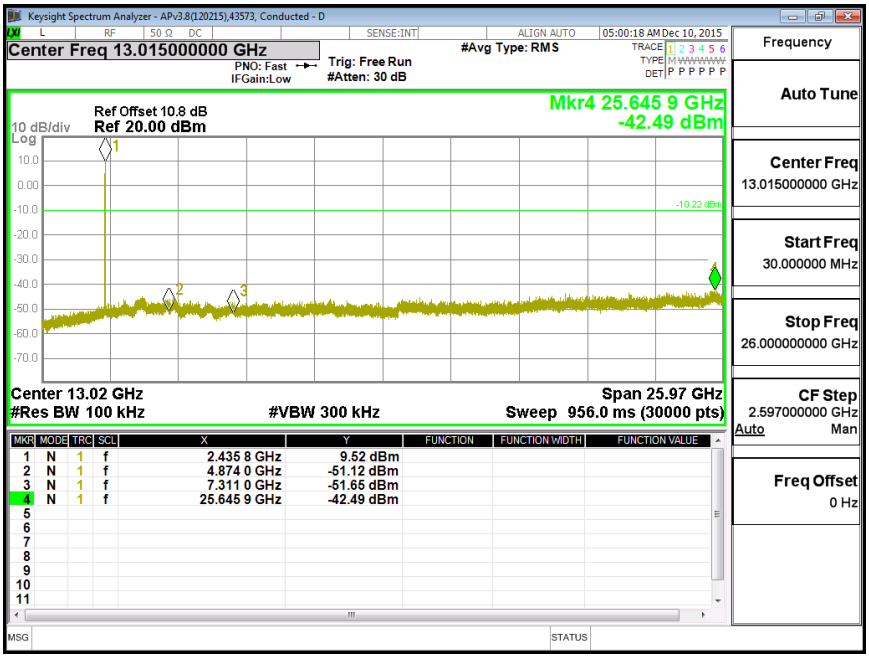


OUT-OF-BAND EMISSIONS

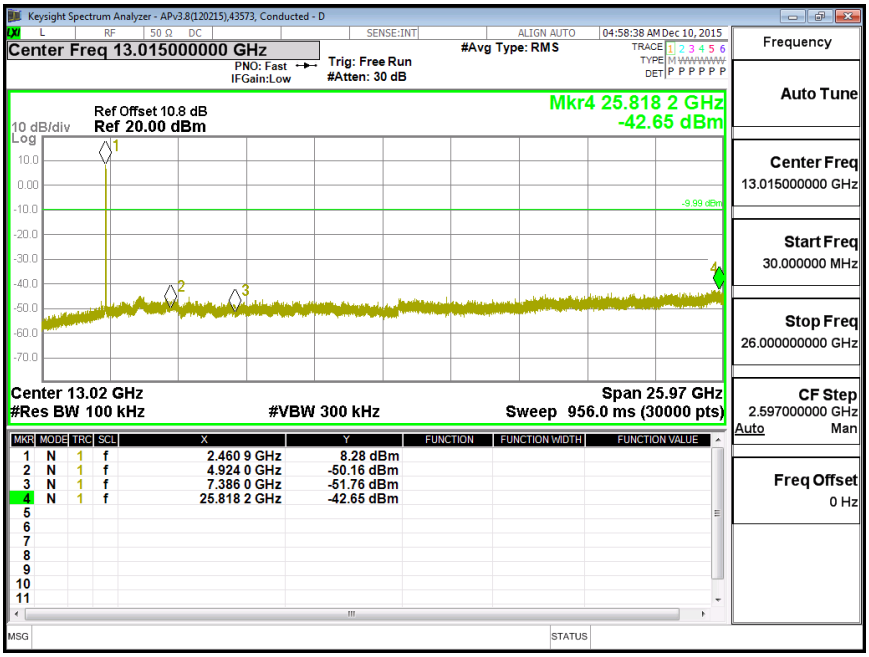
OUT OF BAND LOW CH



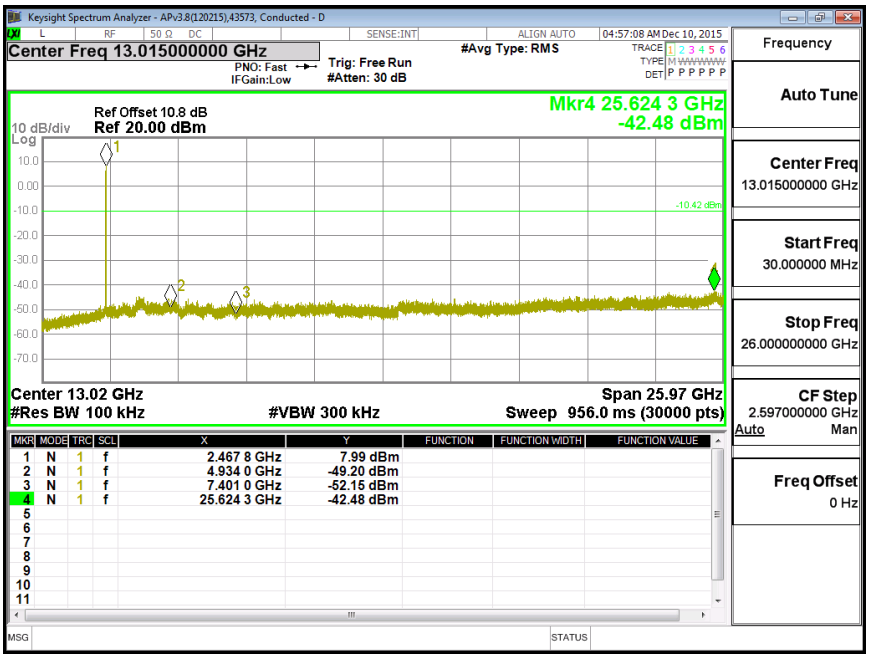
OUT OF BAND MID CH



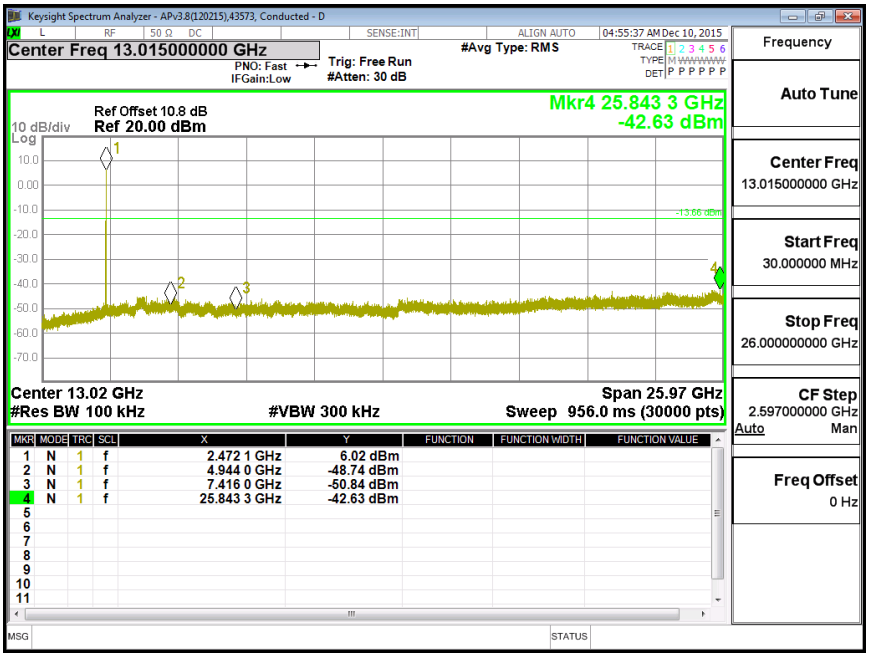
OUT OF BAND HIGH CH11



OUT OF BAND HIGH CH12



OUT OF BAND HIGH CH13



8.3. 802.11n HT20 SISO MODE IN THE 2.4 GHz BAND

8.3.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 (5.2) (1)

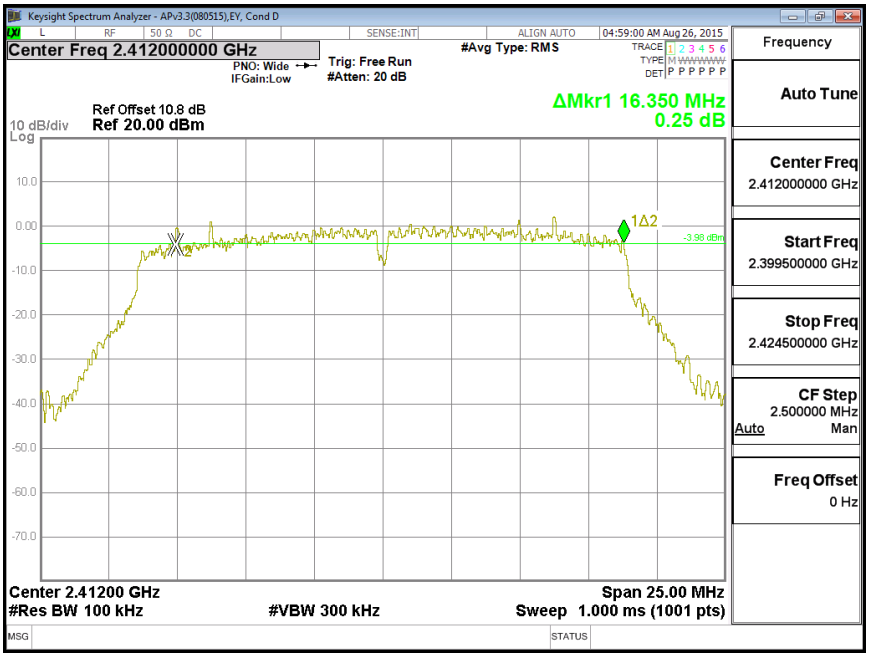
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

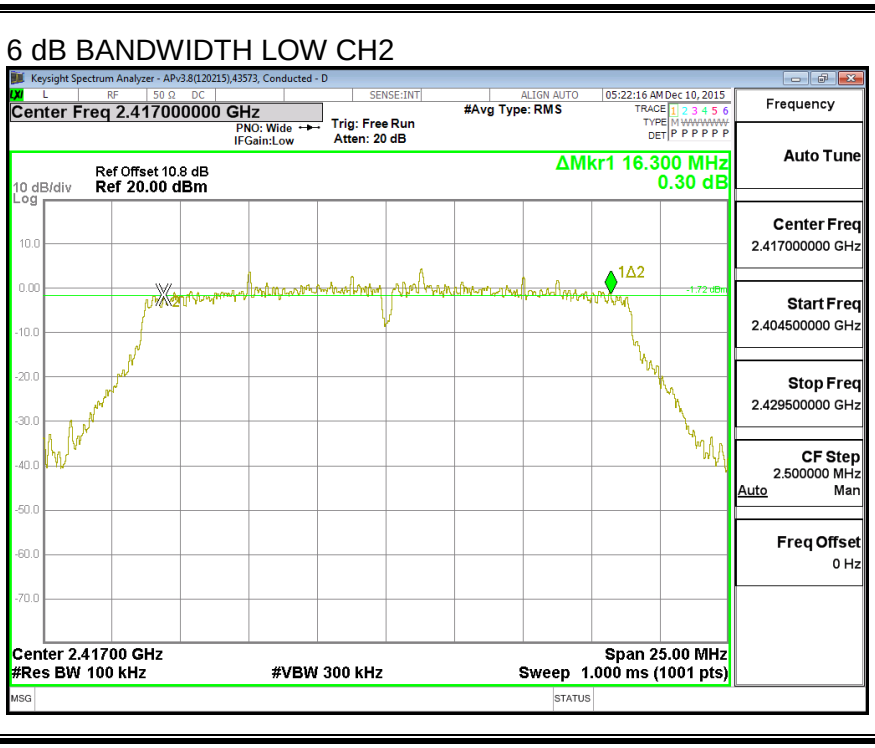
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low_1	2412	16.35	0.5
Low_2	2417	16.30	0.5
Mid	2437	16.90	0.5
High_10	2457	16.92	0.5
High_11	2462	16.65	0.5
High_12	2467	16.54	0.5
High_13	2472	16.55	0.5

6 dB BANDWIDTH, Chain 0

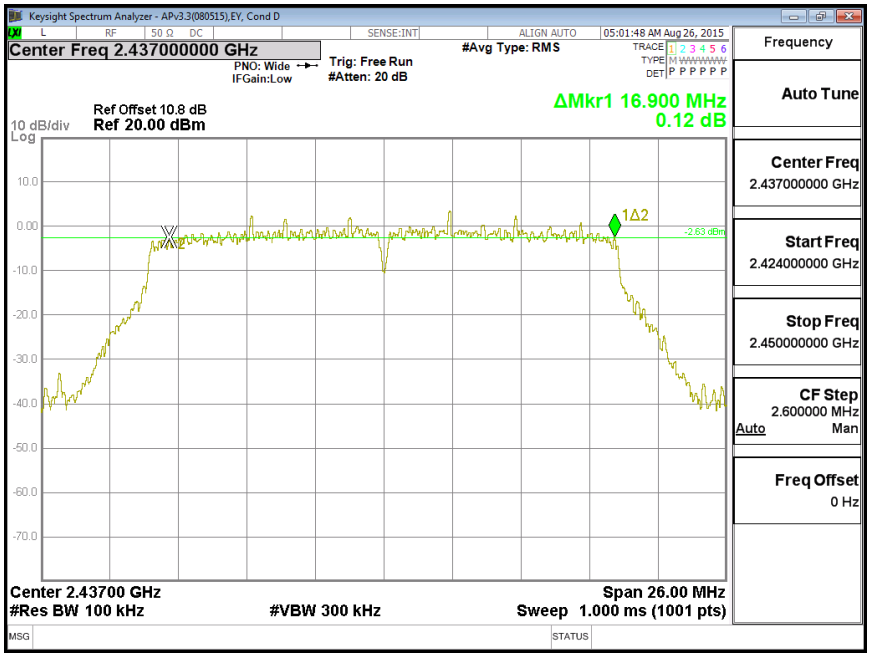
6 dB BANDWIDTH LOW CH1



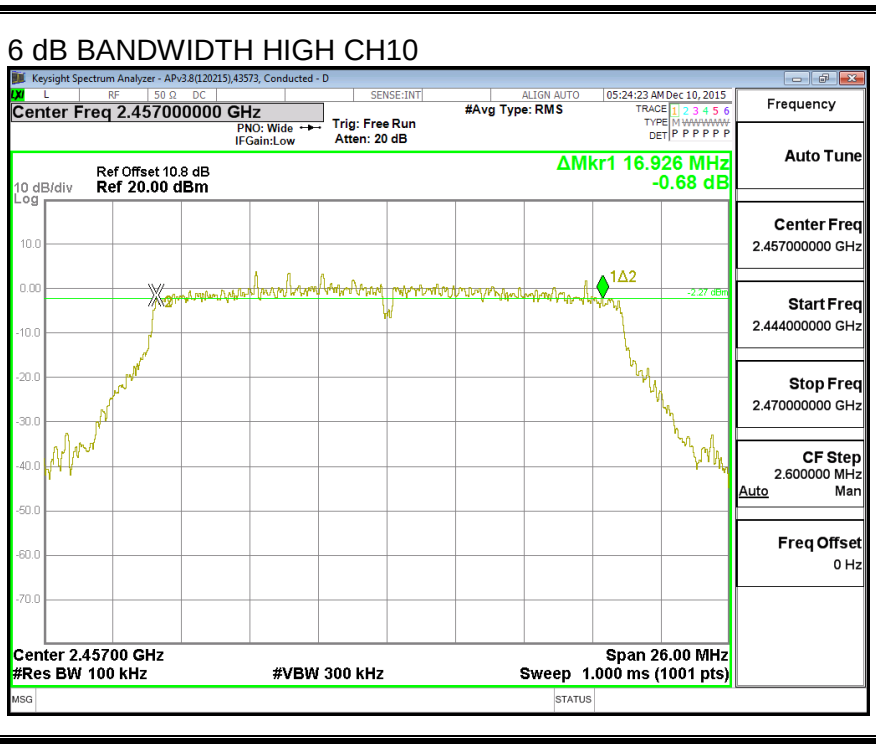
6 dB BANDWIDTH LOW CH2



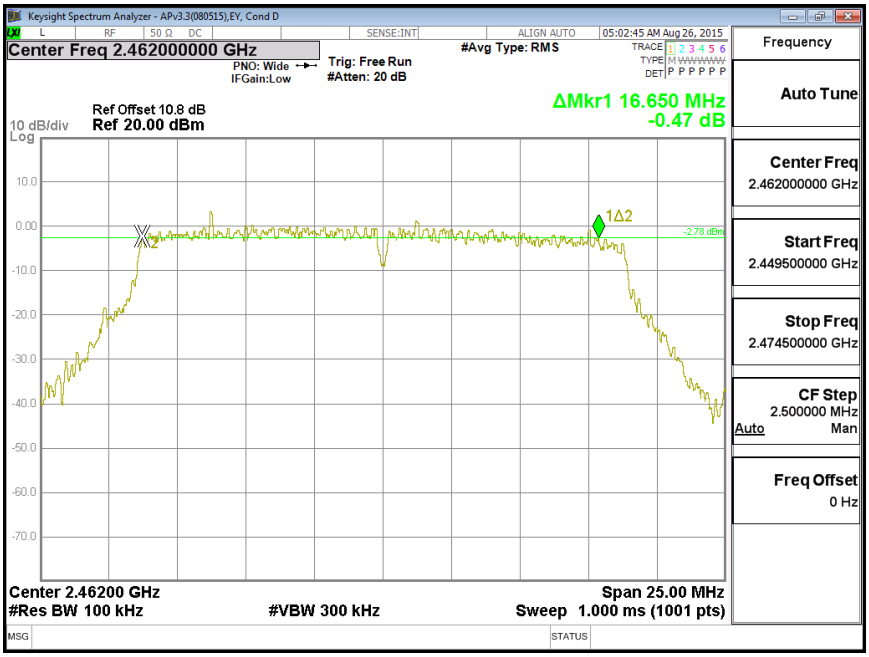
6 dB BANDWIDTH MID CH



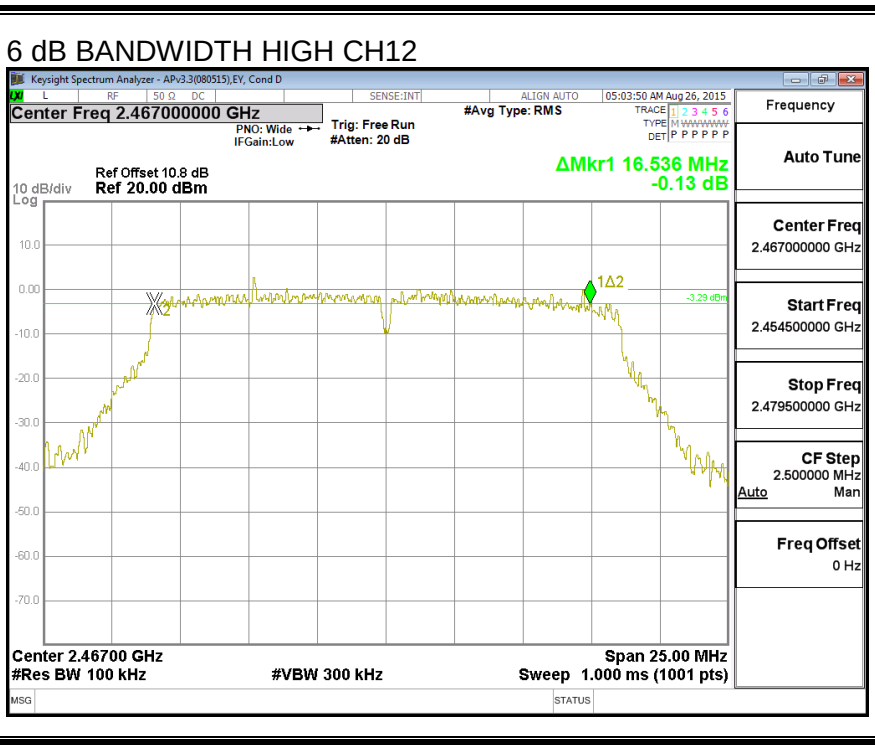
6 dB BANDWIDTH HIGH CH10



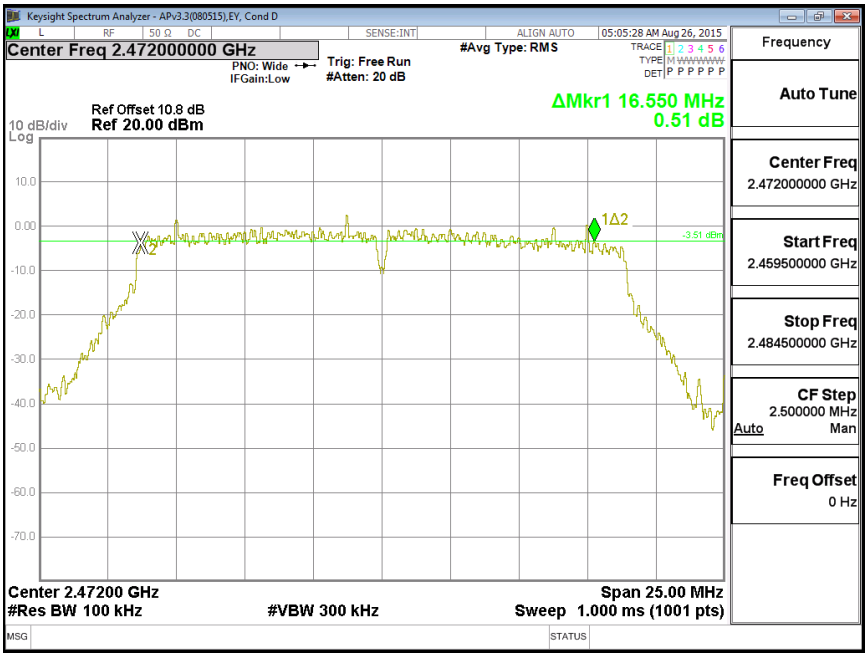
6 dB BANDWIDTH HIGH CH11



6 dB BANDWIDTH HIGH CH12



6 dB BANDWIDTH HIGH CH13



8.3.2. 99% BANDWIDTH

LIMITS

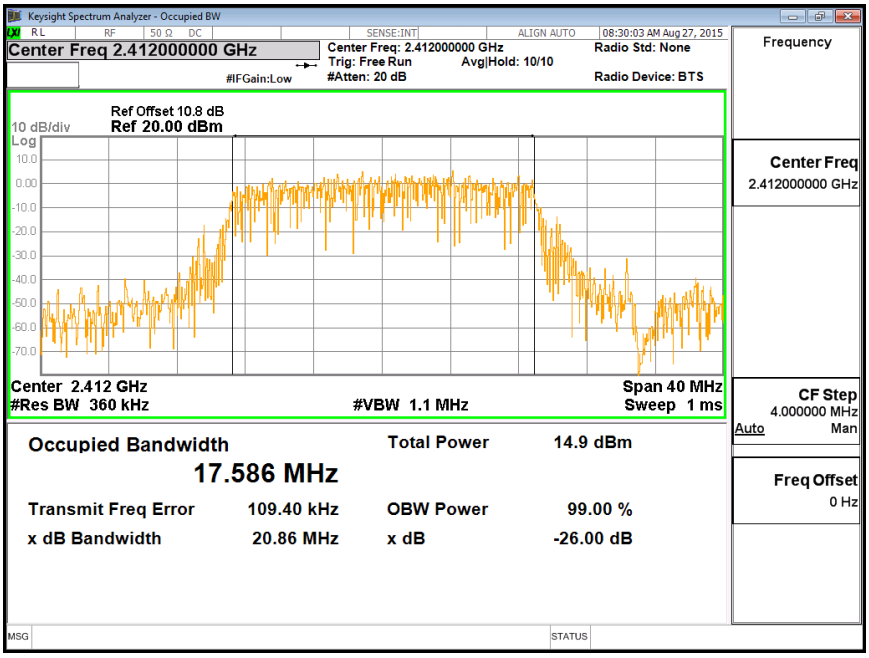
None; for reporting purposes only.

RESULTS

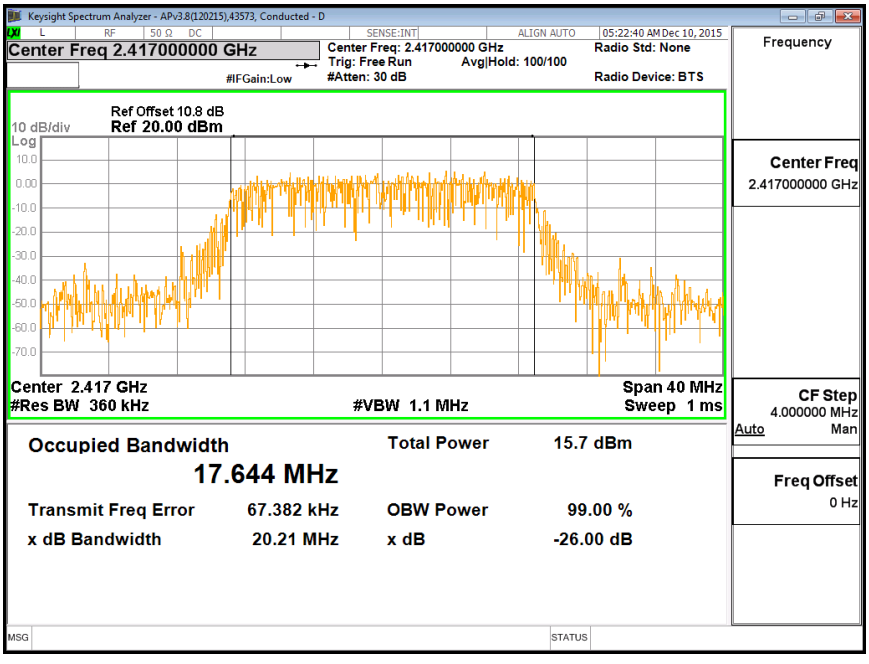
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low_1	2412	17.586
Low_2	2417	17.644
Mid	2437	17.710
High_10	2457	17.621
High_11	2462	17.662
High_12	2467	17.634
High_13	2472	17.596

99% BANDWIDTH

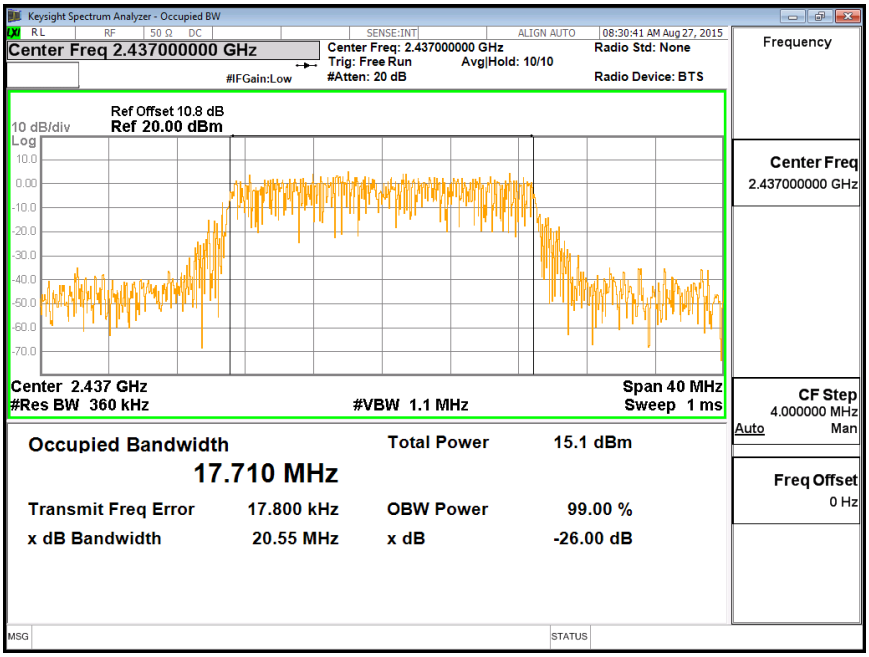
BANDWIDTH LOW CH1



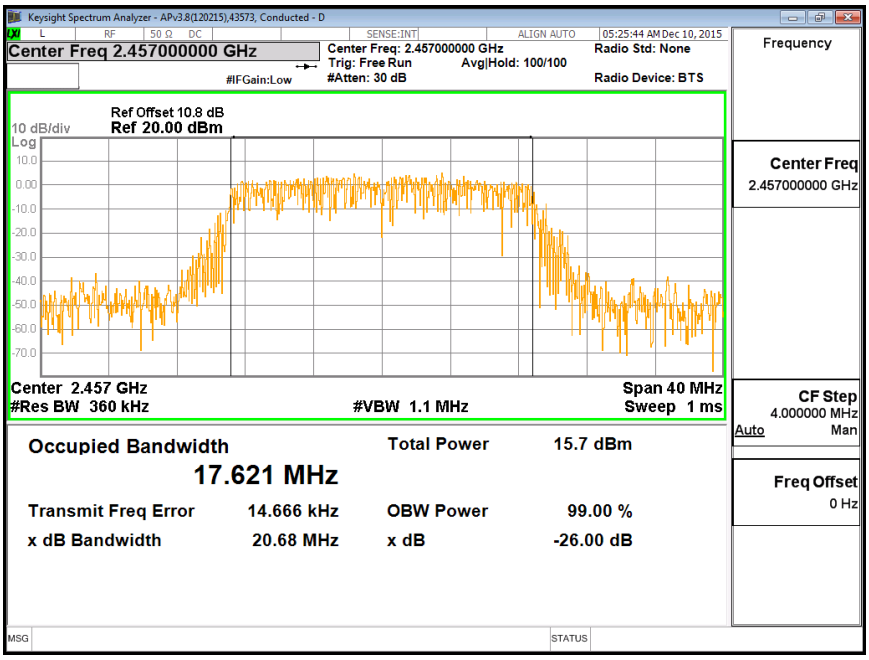
BANDWIDTH LOW CH2



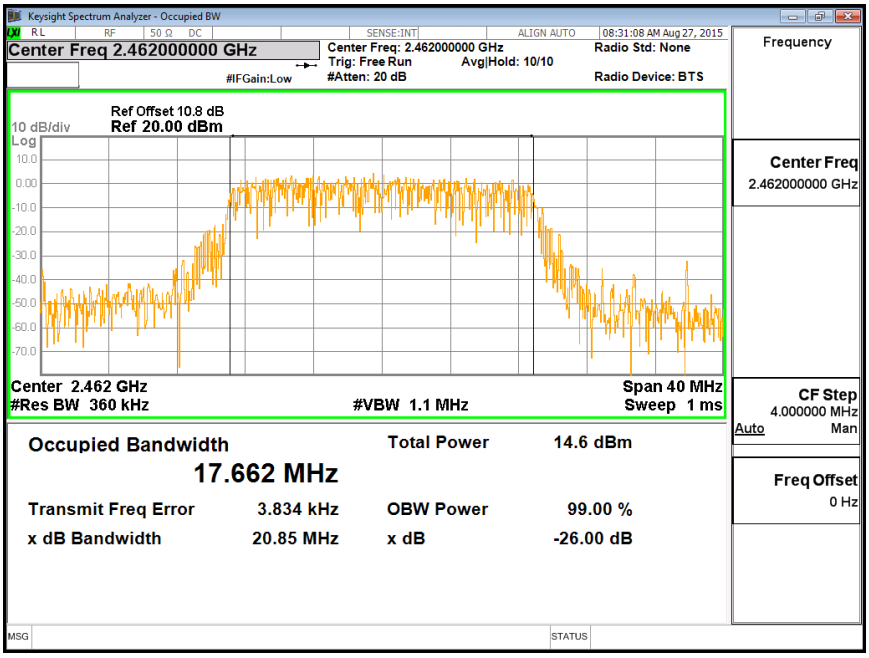
BANDWIDTH MID CH



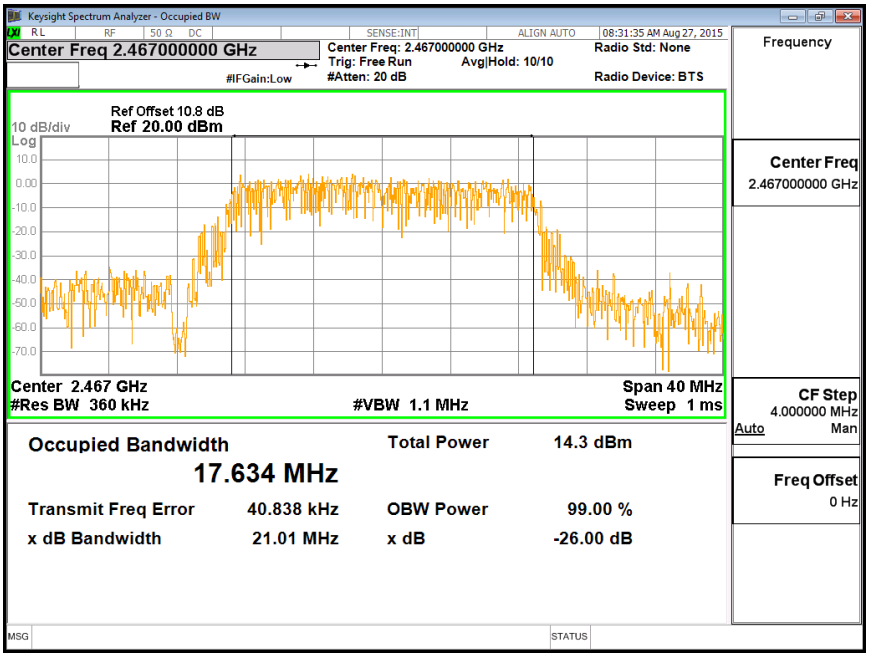
BANDWIDTH HIGH CH 10



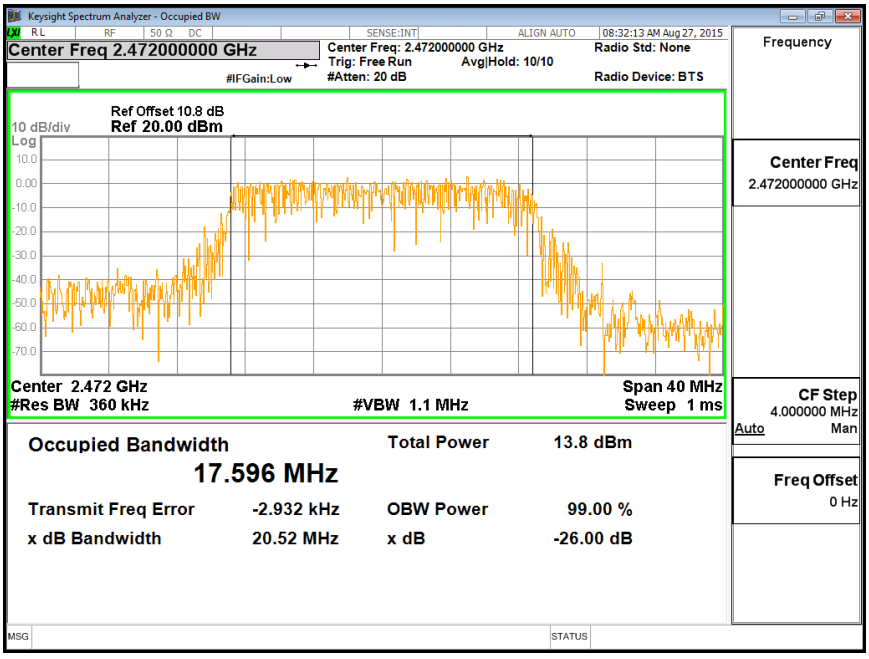
BANDWIDTH HIGH CH 11



BANDWIDTH HIGH CH 12



BANDWIDTH HIGH CH 13



8.3.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low_1	2412	15.87
Low_2	2417	18.41
Mid	2437	18.43
High_10	2457	17.41
High_11	2462	13.86
High_12	2467	12.00
High_13	2472	4.93

8.3.4. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 (5.4) (4)

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

DIRECTIONAL ANTENNA GAIN

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

RESULTS

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low_1	2412	-0.90	30.00	30	36	30.00
Low_2	2417	-0.90	30.00	30	36	30.00
Mid	2437	-0.90	30.00	30	36	30.00
High_10	2457	-0.90	30.00	30	36	30.00
High_11	2462	-0.90	30.00	30	36	30.00
High_12	2467	-0.90	30.00	30	36	30.00
High_13	2472	-0.90	30.00	30	36	30.00

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

Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low_1	2412	23.89	23.89	30.00	-6.11
Low_2	2417	26.48	26.48	30.00	-3.52
Mid	2437	26.52	26.52	30.00	-3.48
High_10	2457	25.53	25.53	30.00	-4.47
High_11	2462	21.92	21.92	30.00	-8.08
High_12	2467	20.13	20.13	30.00	-9.87
High_13	2472	12.98	12.98	30.00	-17.02

8.3.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 (5.2) (2)

For digitally modulated systems, the power spectral density conducted form the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 KHz band during any time interval of continuous transmissions.

RESULTS

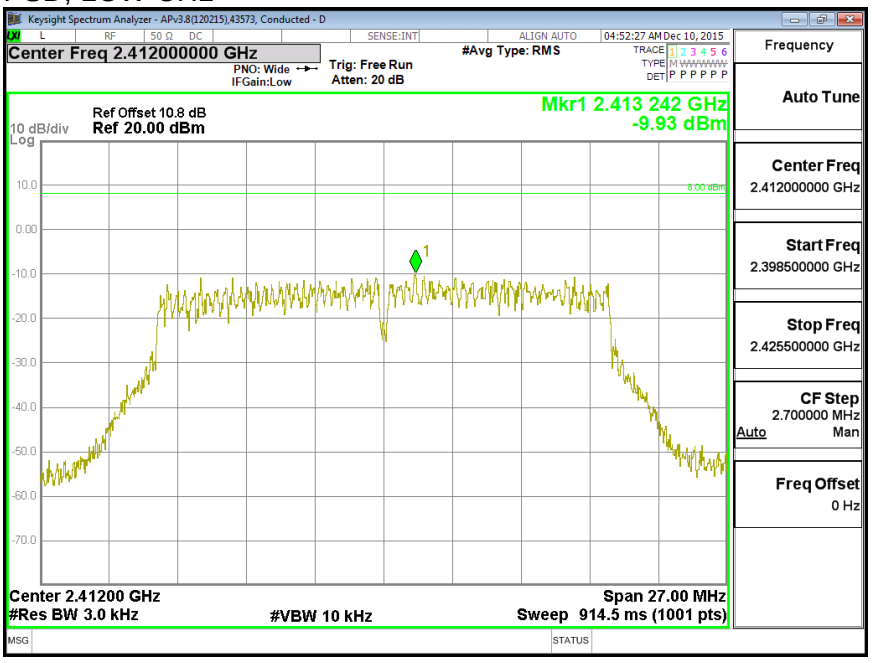
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

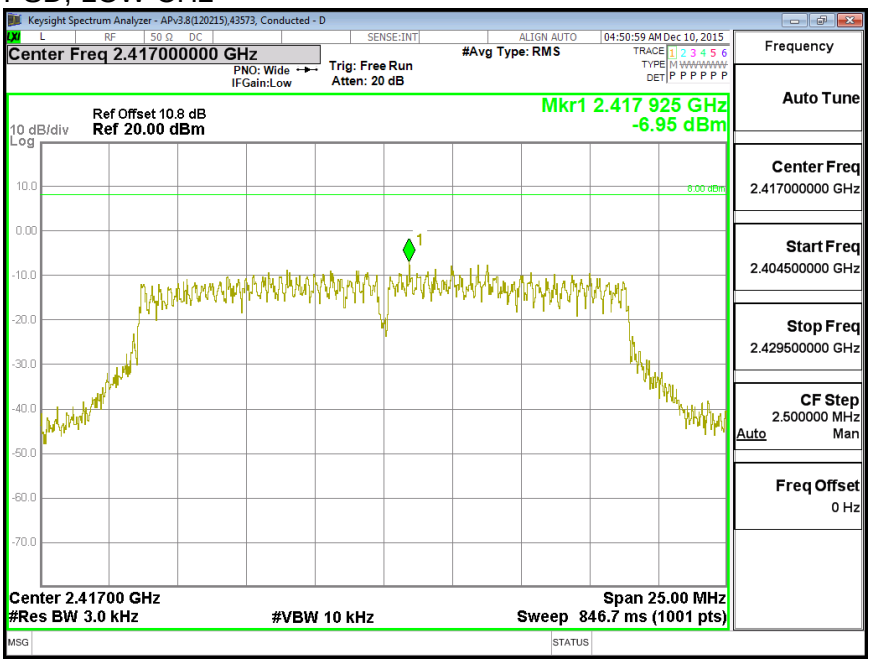
Channel	Frequency (MHz)	Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low_1	2412	-9.93	-9.93	8.0	-17.9
Low_2	2417	-6.95	-6.95	8.0	-15.0
Mid	2437	-7.23	-7.23	8.0	-15.2
High_10	2457	-8.80	-8.80	8.0	-16.8
High_11	2462	-10.11	-10.11	8.0	-18.1
High_12	2467	-13.62	-13.62	8.0	-21.6
High_13	2472	-20.45	-20.45	8.0	-28.5

PSD

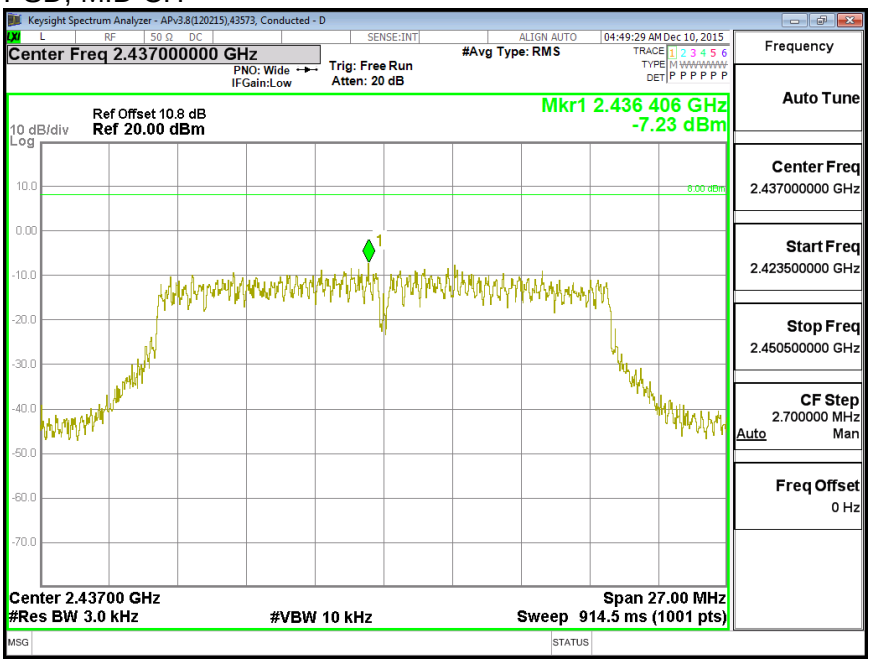
PSD, LOW CH1



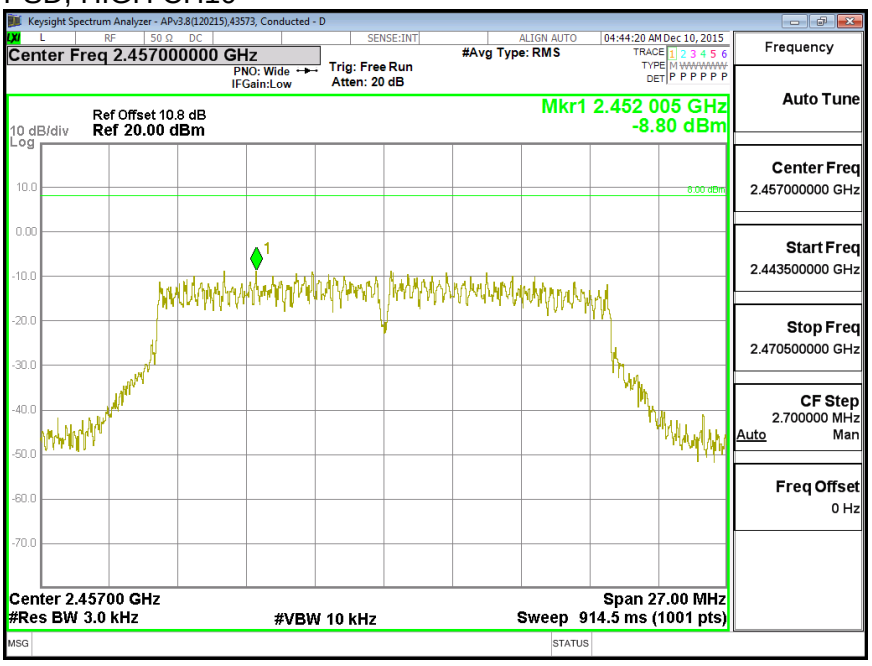
PSD, LOW CH2



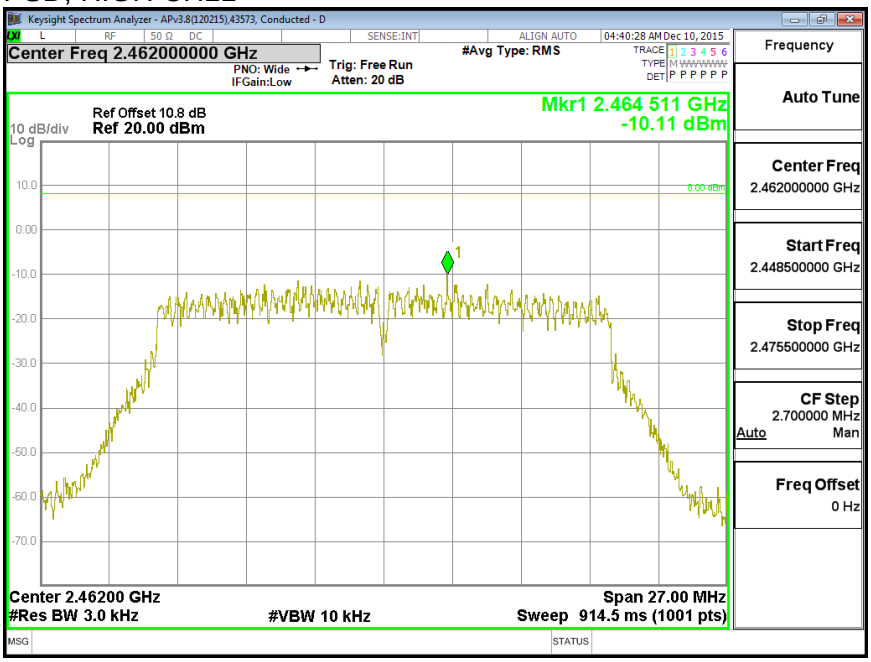
PSD, MID CH



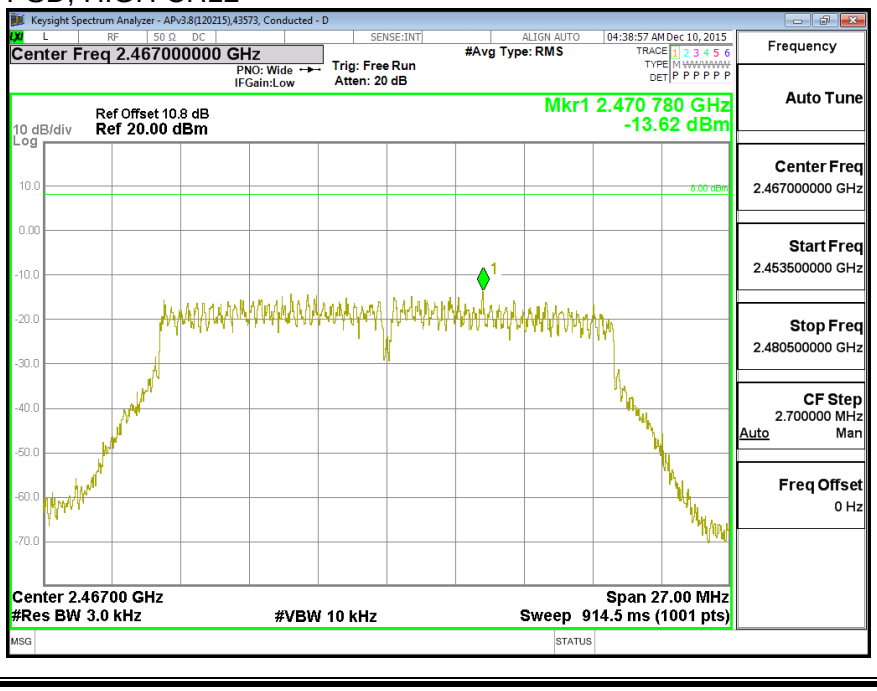
PSD, HIGH CH10



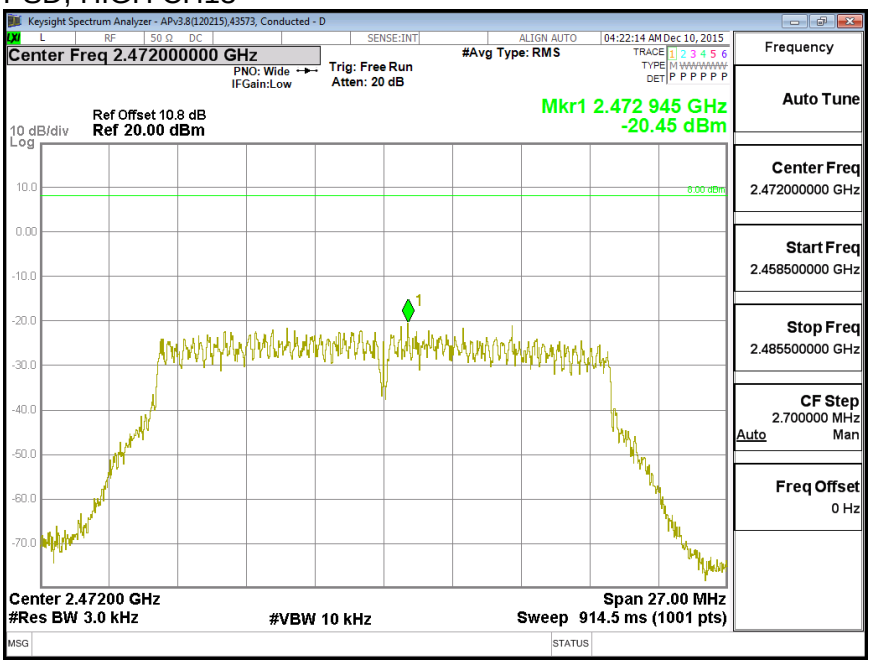
PSD, HIGH CH11



PSD, HIGH CH12



PSD, HIGH CH13



8.3.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

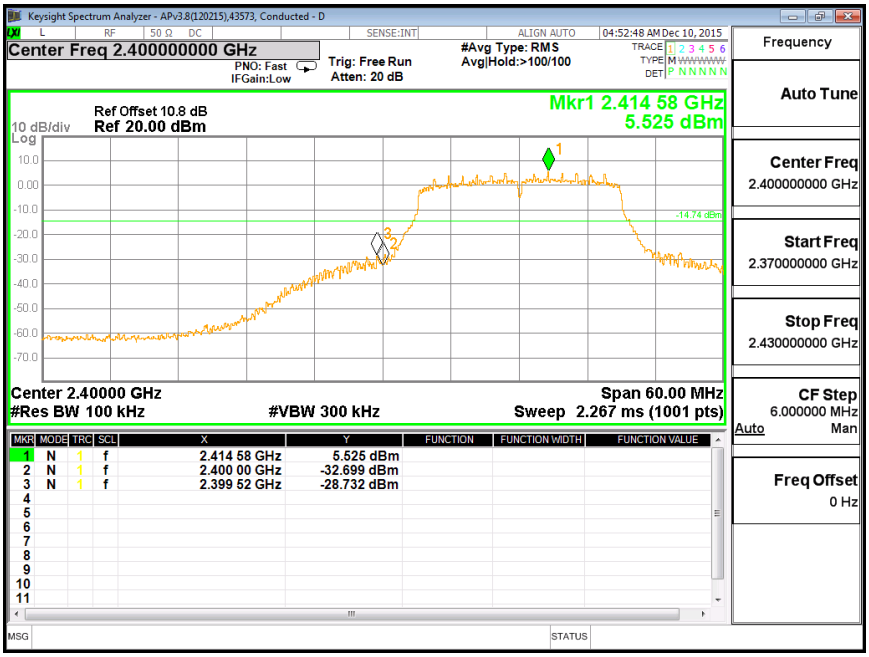
IC RSS-247 (5.5)

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.

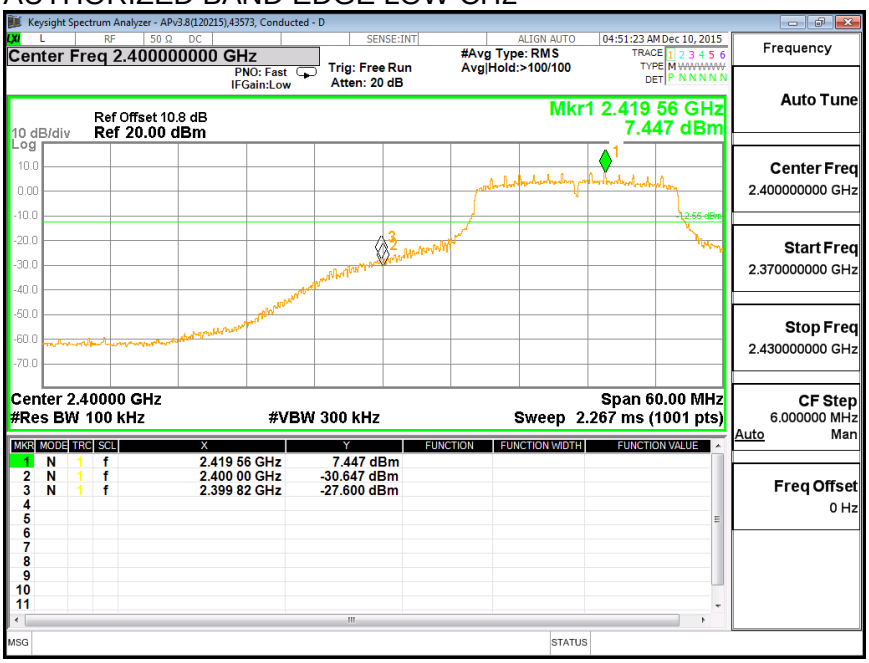
RESULTS 0

LOW CHANNEL BANDEDGE

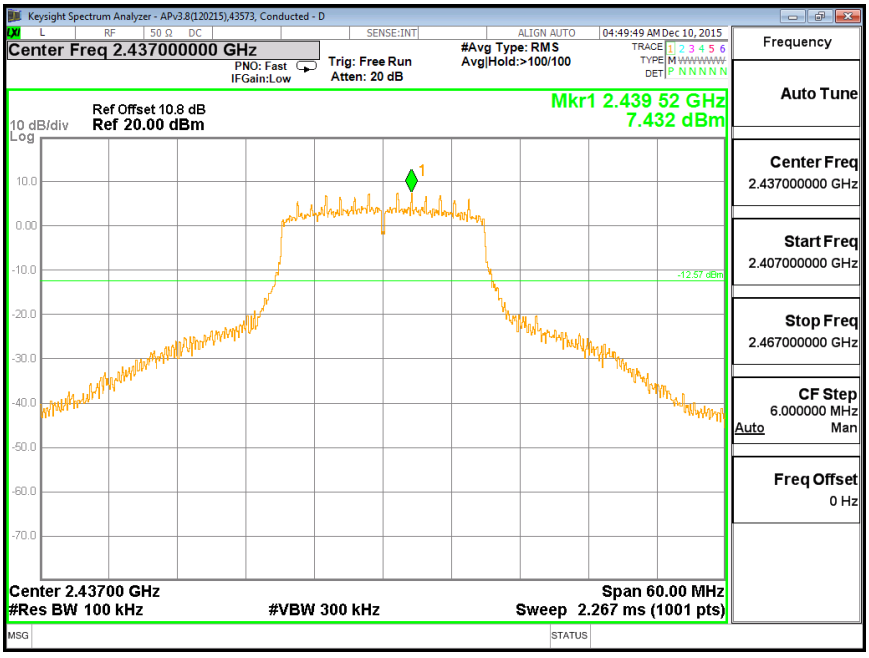
AUTHORIZED BAND EDGE LOW CH1



AUTHORIZED BAND EDGE LOW CH2

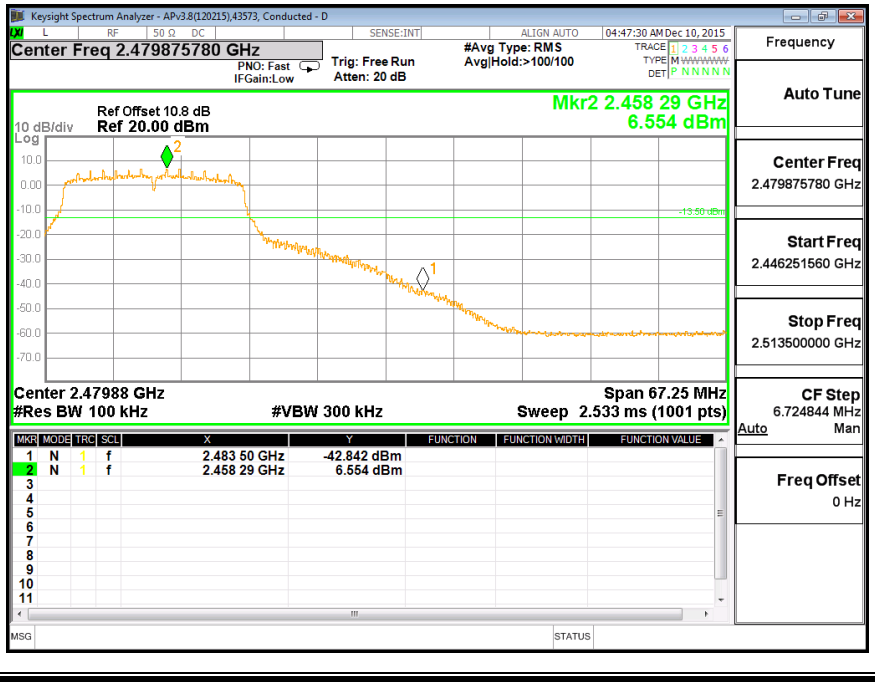


AUTHORIZED BAND EDGE MID CH

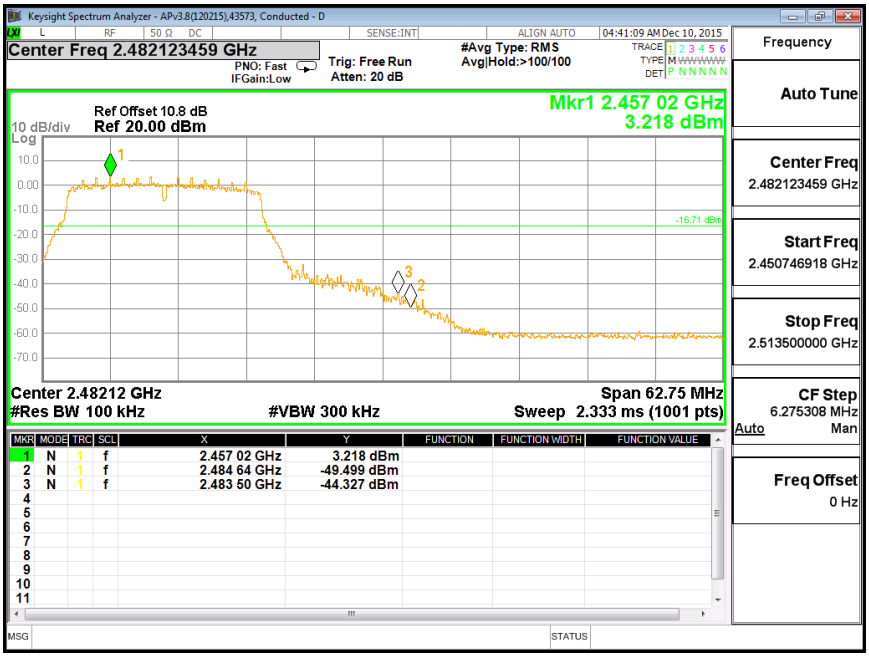


HIGH CHANNEL BANDEDGE

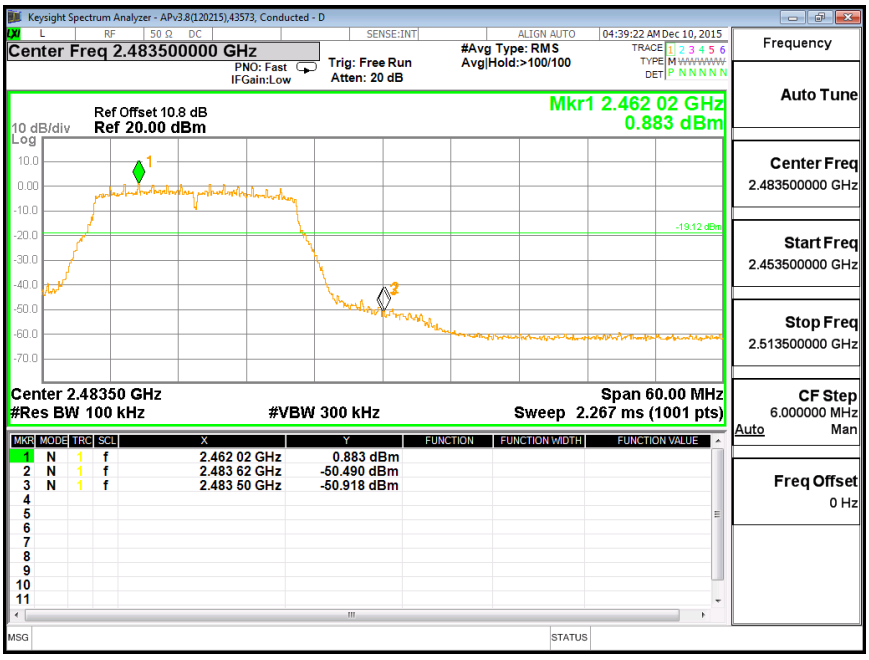
AUTHORIZED BAND EDGE HIGH CH10



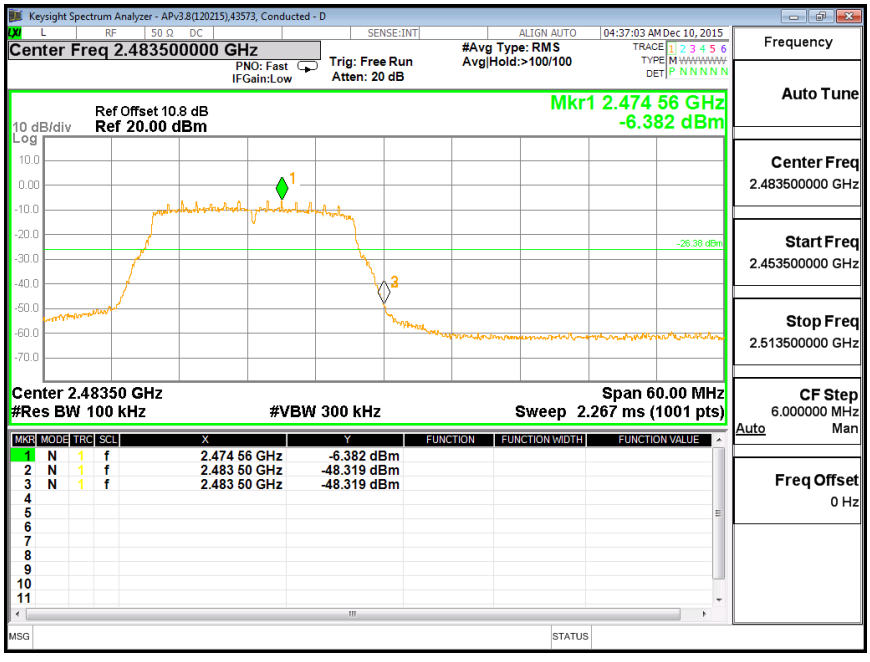
AUTHORIZED BAND EDGE HIGH CH11



AUTHORIZED BAND EDGE HIGH CH12

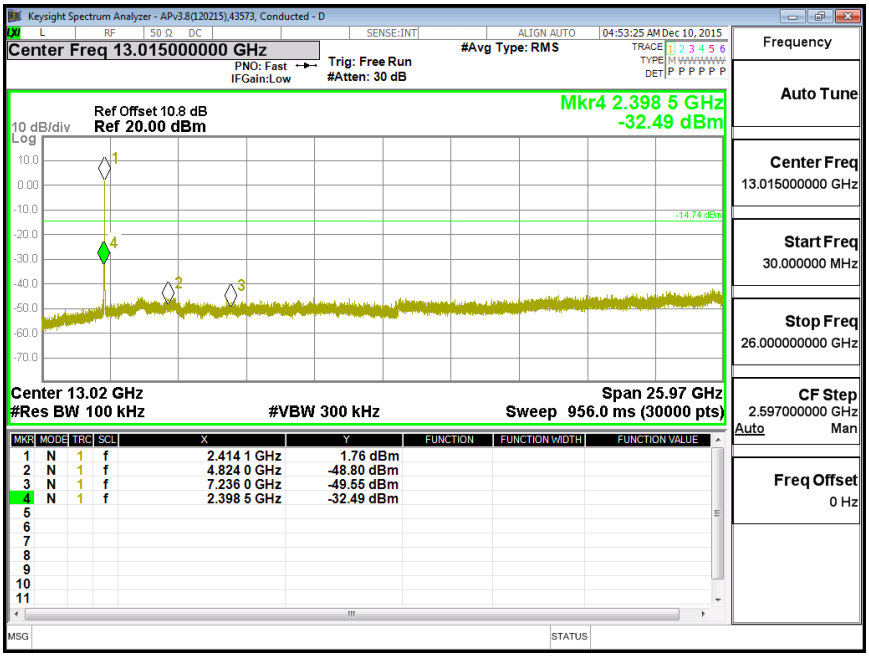


AUTHORIZED BAND EDGE HIGH CH13

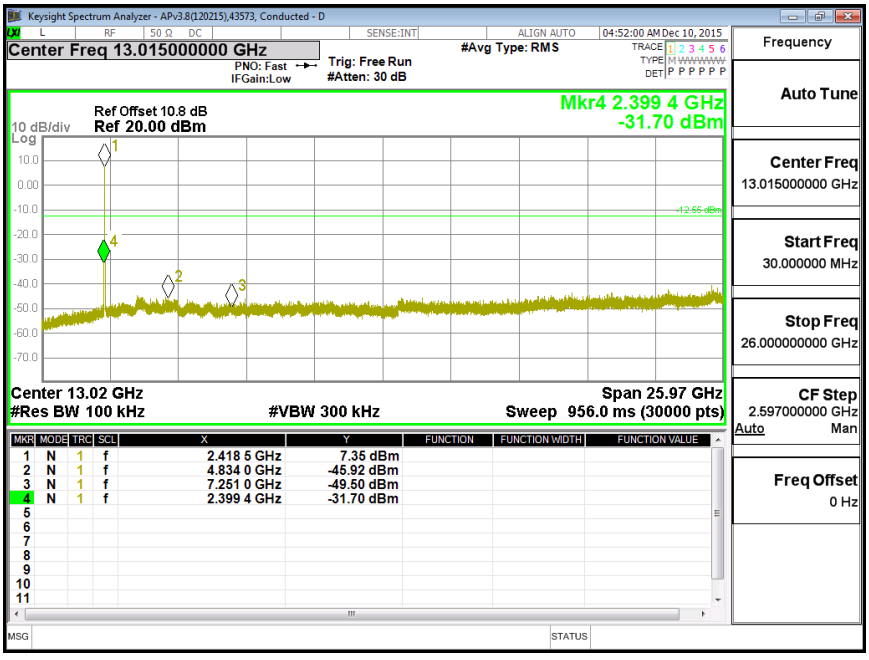


OUT-OF-BAND EMISSIONS

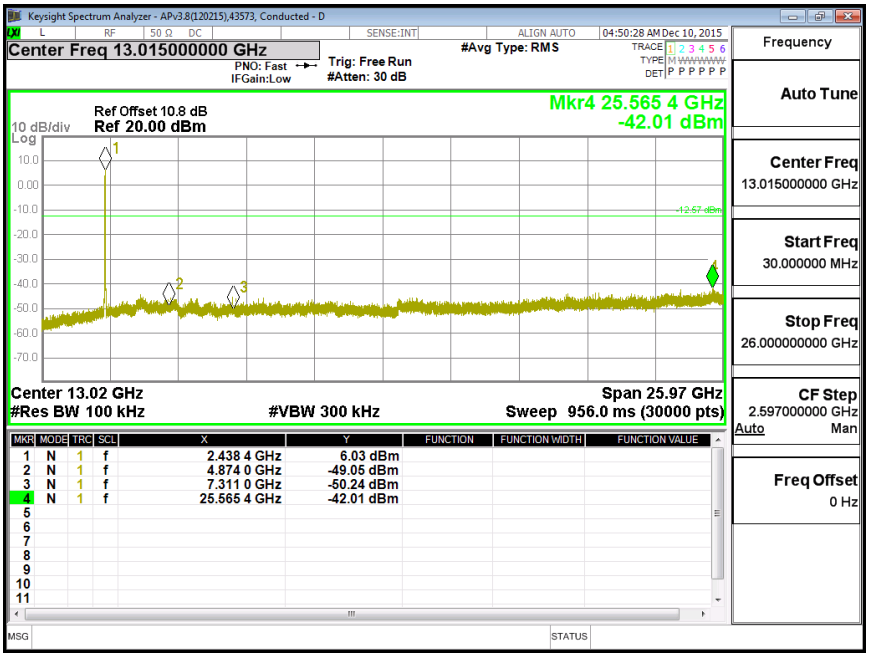
OUT OF BAND LOW CH1



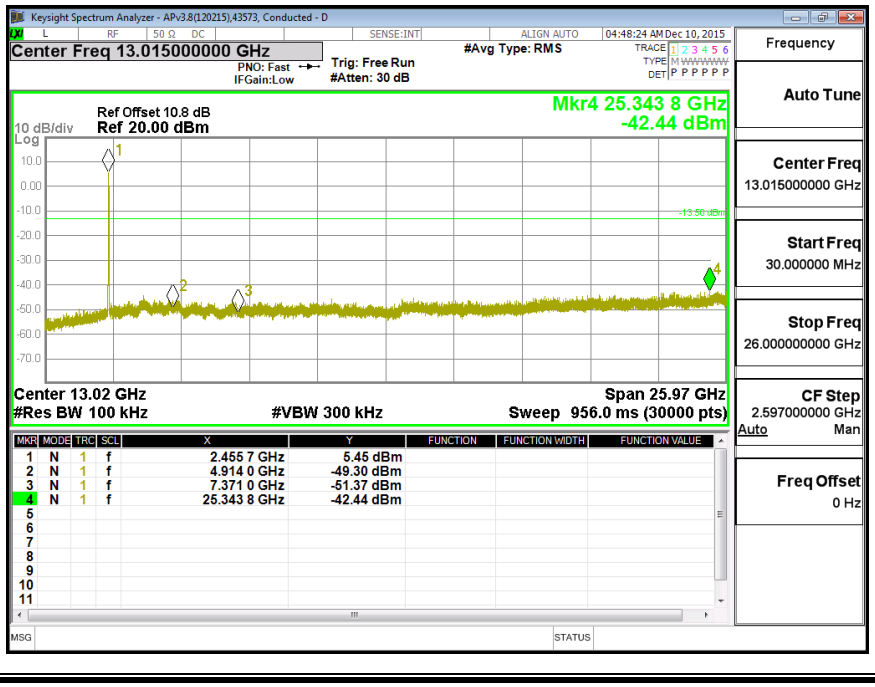
OUT OF BAND LOW CH2



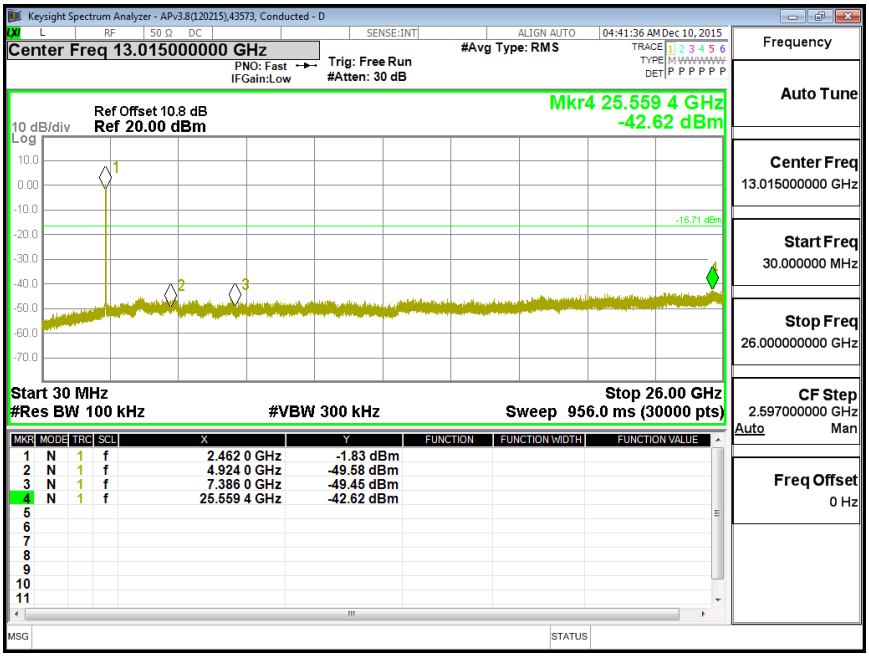
OUT OF BAND MID CH



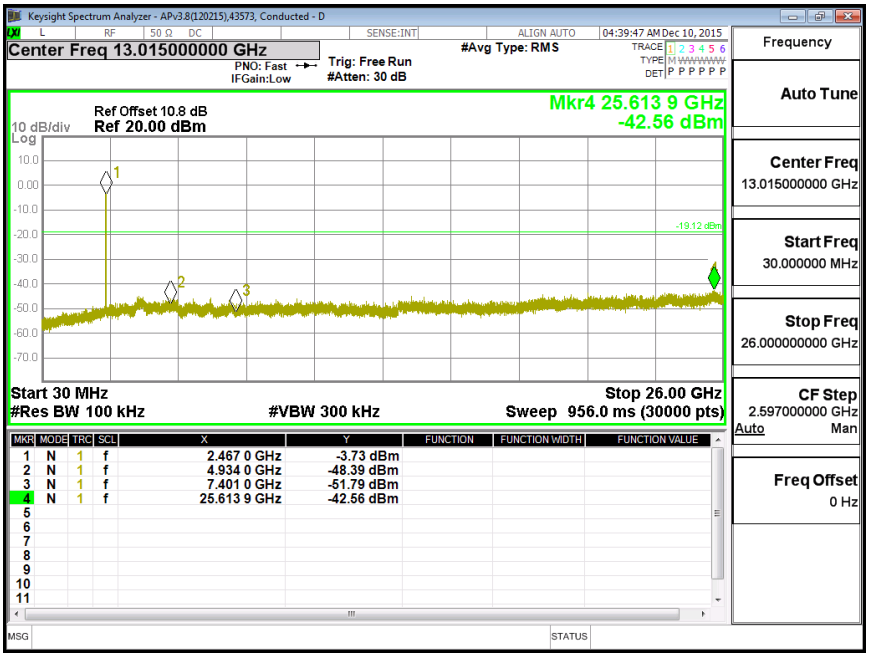
OUT OF BAND HIGH CH10



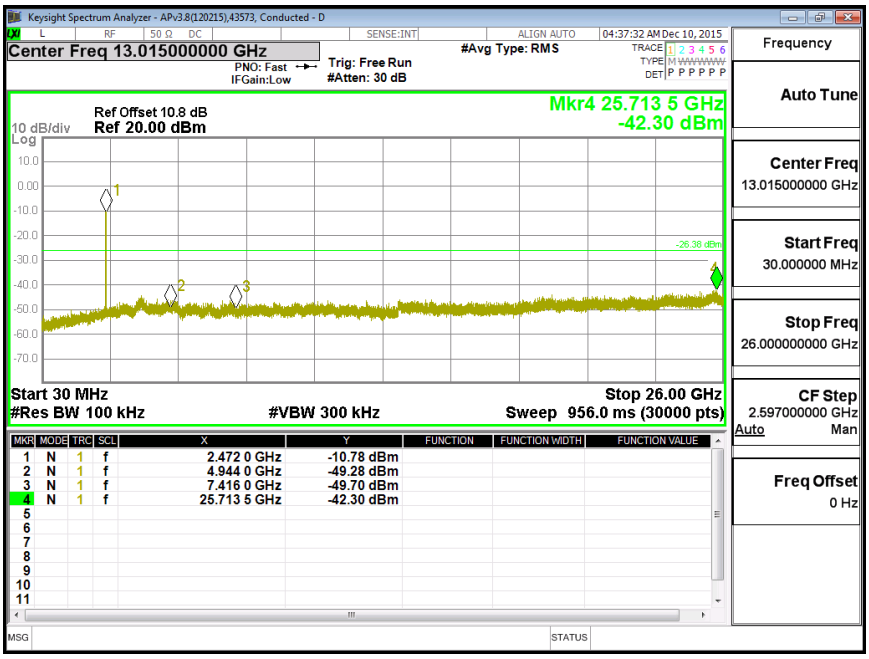
OUT OF BAND HIGH CH11



OUT OF BAND HIGH CH12



OUT OF BAND HIGH CH13



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN, Section 8.9 and 8.10.

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

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

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

For 2.4 GHz band, the spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

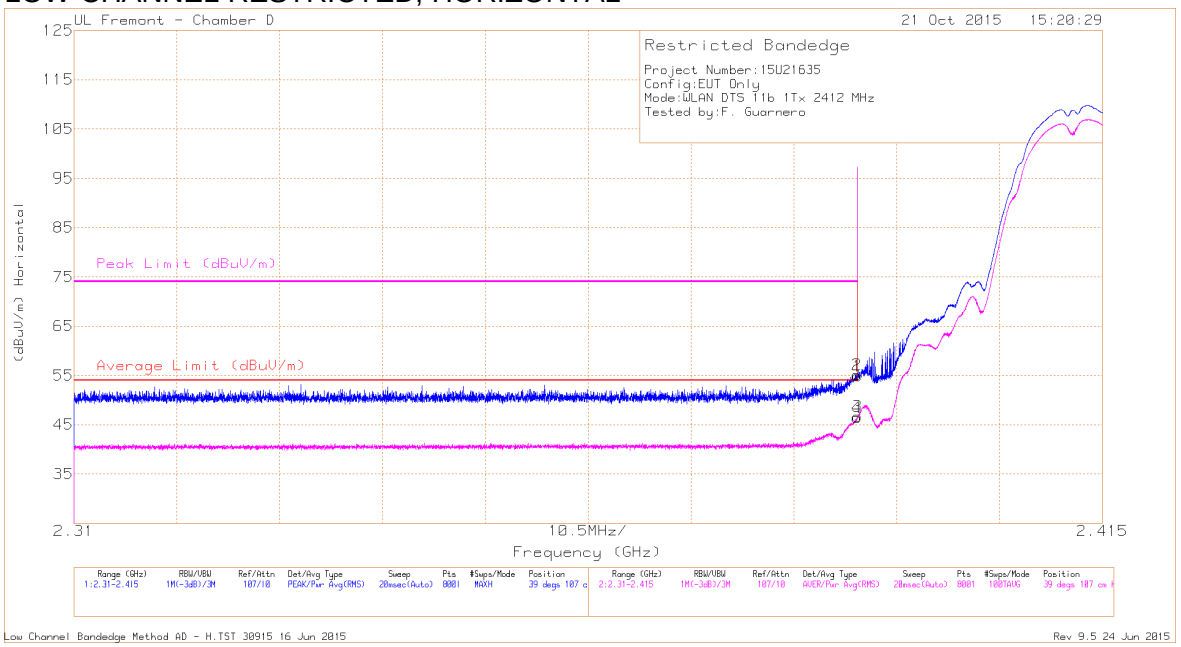
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. 802.11b 1Tx MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL, CH 1)

LOW CHANNEL RESTRICTED, HORIZONTAL



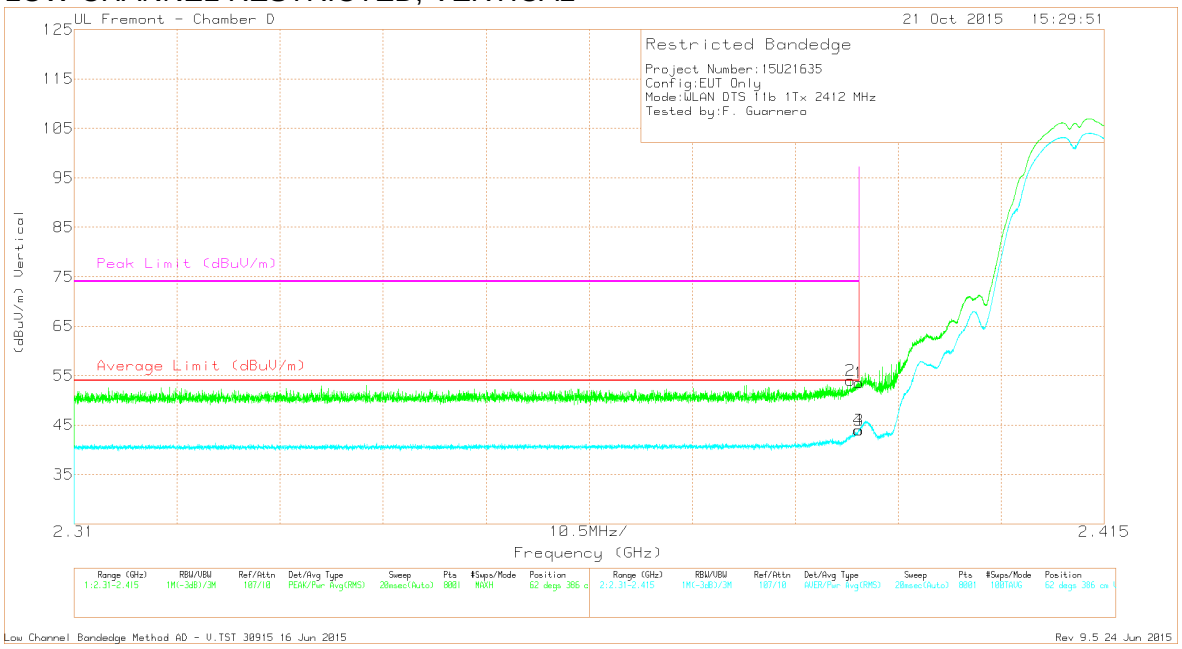
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	43.52	Pk	32.1	-20.7	54.92	-	-	74	-19.08	39	107	H
2	* 2.39	43.78	Pk	32.1	-20.7	55.18	-	-	74	-18.82	39	107	H
3	* 2.39	35.24	RMS	32.1	-20.7	46.64	54	-7.36	-	-	39	107	H
4	* 2.39	35.07	RMS	32.1	-20.7	46.47	54	-7.53	-	-	39	107	H

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

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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	* 2.389	42.6	Pk	32.1	-20.7	54	-	-	74	-20	62	386	V
1	* 2.39	42.09	Pk	32.1	-20.7	53.49	-	-	74	-20.51	62	386	V
3	* 2.39	32.54	RMS	32.1	-20.7	43.94	54	-10.06	-	-	62	386	V
4	* 2.39	32.61	RMS	32.1	-20.7	44.01	54	-9.99	-	-	62	386	V

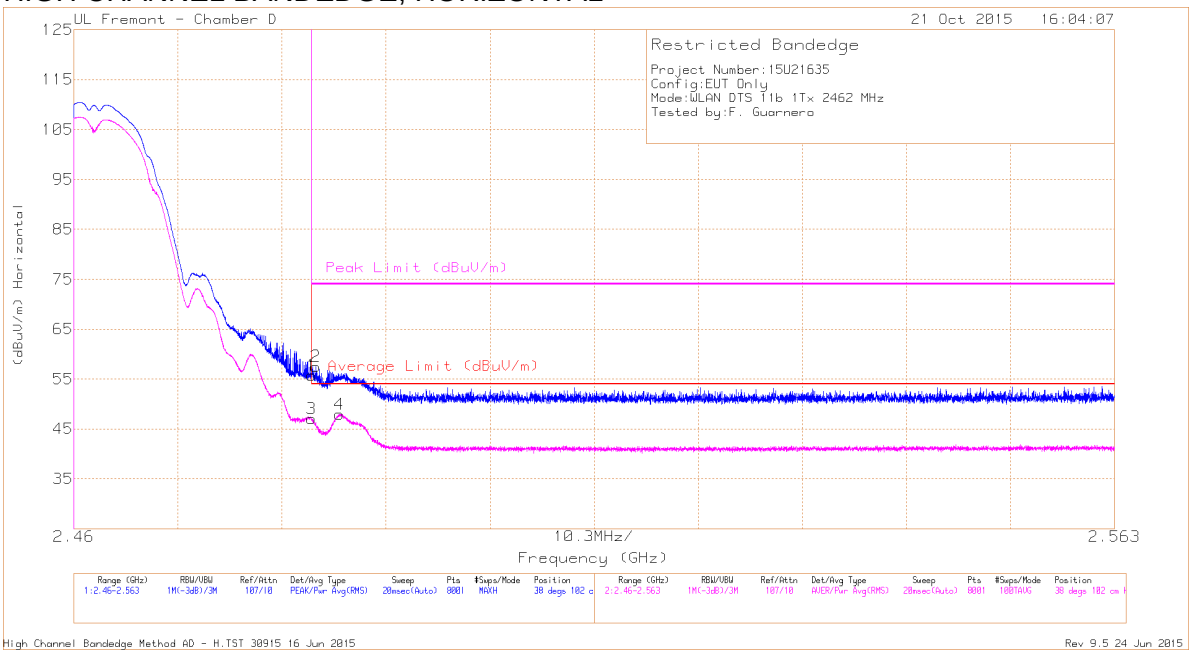
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL, CH 11)

HIGH CHANNEL BANDEDGE, HORIZONTAL



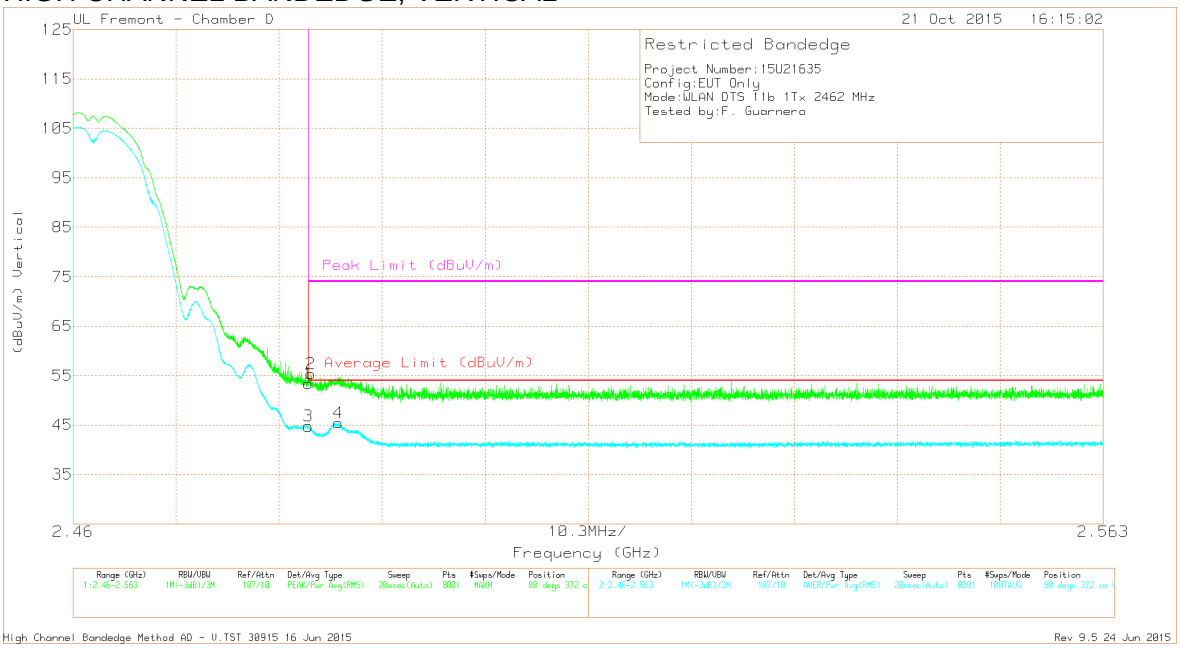
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.41	Pk	32.2	-20.8	55.81	-	-	74	-18.19	38	102	H
2	* 2.484	46.15	Pk	32.2	-20.8	57.55	-	-	74	-16.45	38	102	H
3	* 2.484	35.71	RMS	32.2	-20.8	47.11	54	-6.89	-	-	38	102	H
4	* 2.486	36.55	RMS	32.2	-20.8	47.95	54	-6.05	-	-	38	102	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



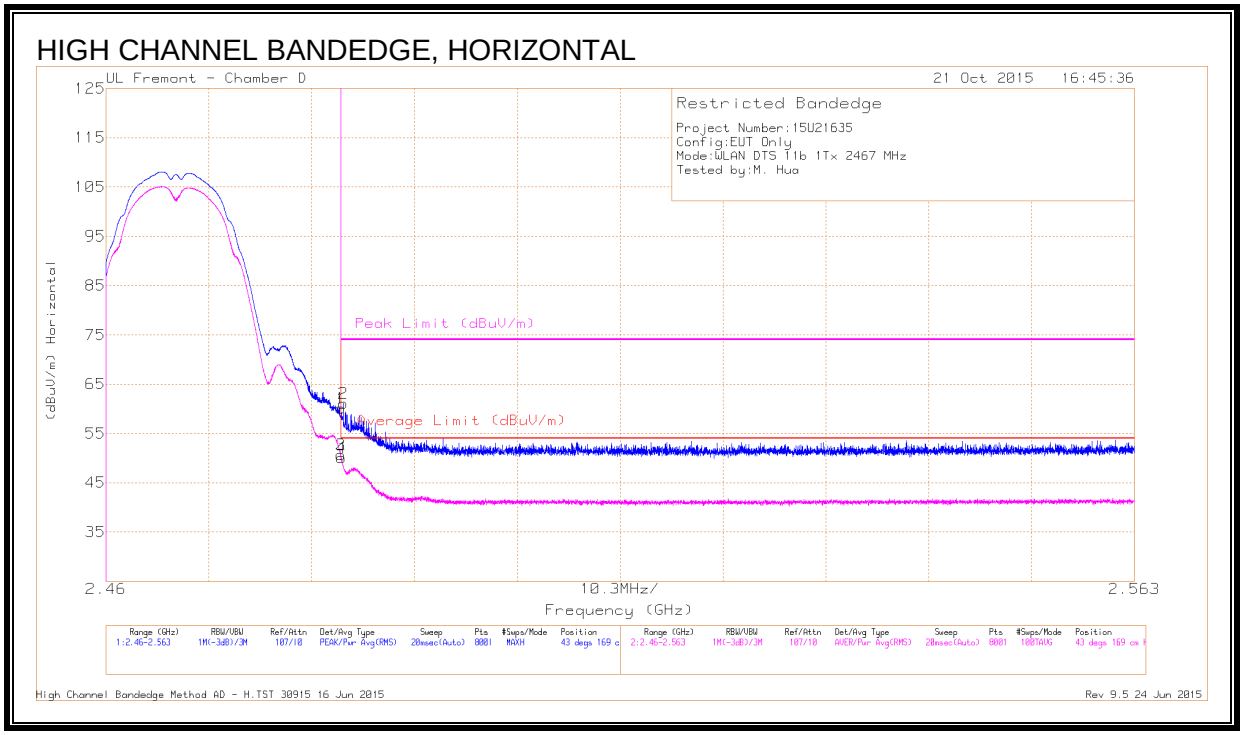
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.97	Pk	32.2	-20.8	53.37	-	-	74	-20.63	80	372	V
2	* 2.484	44.02	Pk	32.2	-20.8	55.42	-	-	74	-18.58	80	372	V
3	* 2.484	33.37	RMS	32.2	-20.8	44.77	54	-9.23	-	-	80	372	V
4	* 2.486	34.01	RMS	32.2	-20.8	45.41	54	-8.59	-	-	80	372	V

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

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL, CH 12)



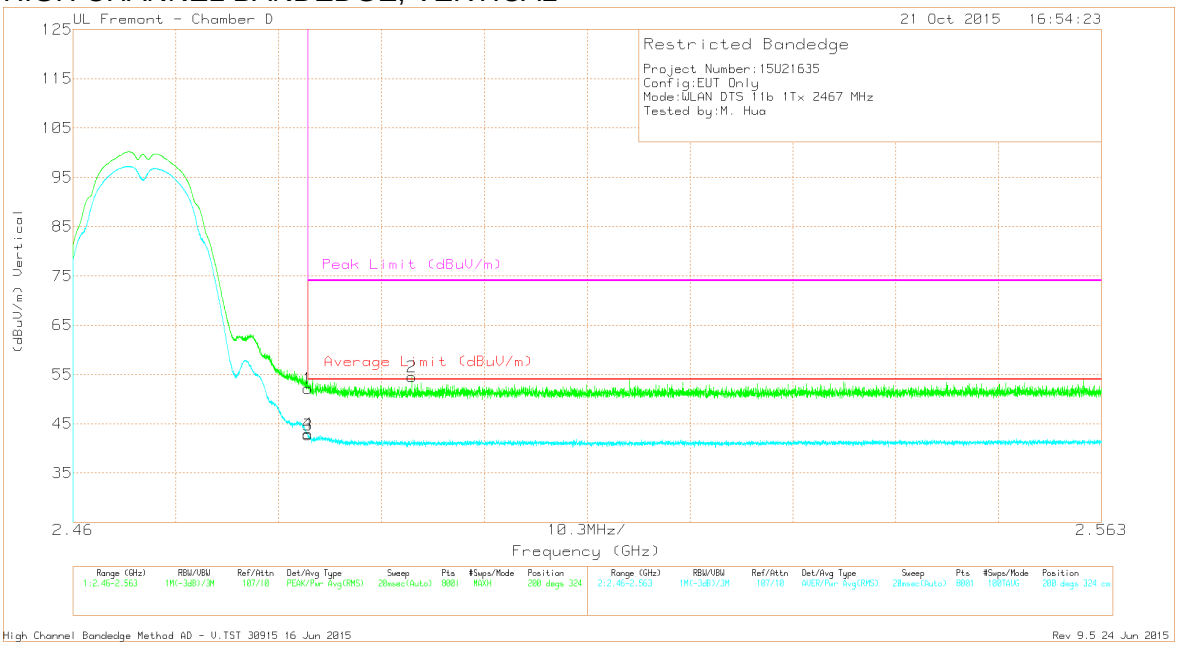
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	48.67	Pk	32.2	-20.8	60.07	-	-	74	-13.93	43	169	H
2	* 2.484	49.68	Pk	32.2	-20.8	61.08	-	-	74	-12.92	43	169	H
3	* 2.484	39.26	RMS	32.2	-20.8	50.66	54	-3.34	-	-	43	169	H
4	* 2.484	38.67	RMS	32.2	-20.8	50.07	54	-3.93	-	-	43	169	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.7	Pk	32.2	-20.8	52.1	-	-	74	-21.9	200	324	V
3	* 2.484	31.36	RMS	32.2	-20.8	42.76	54	-11.24	-	-	200	324	V
4	* 2.484	31.54	RMS	32.2	-20.8	42.94	54	-11.06	-	-	200	324	V
2	* 2.494	43.16	Pk	32.2	-20.8	54.56	-	-	74	-19.44	200	324	V

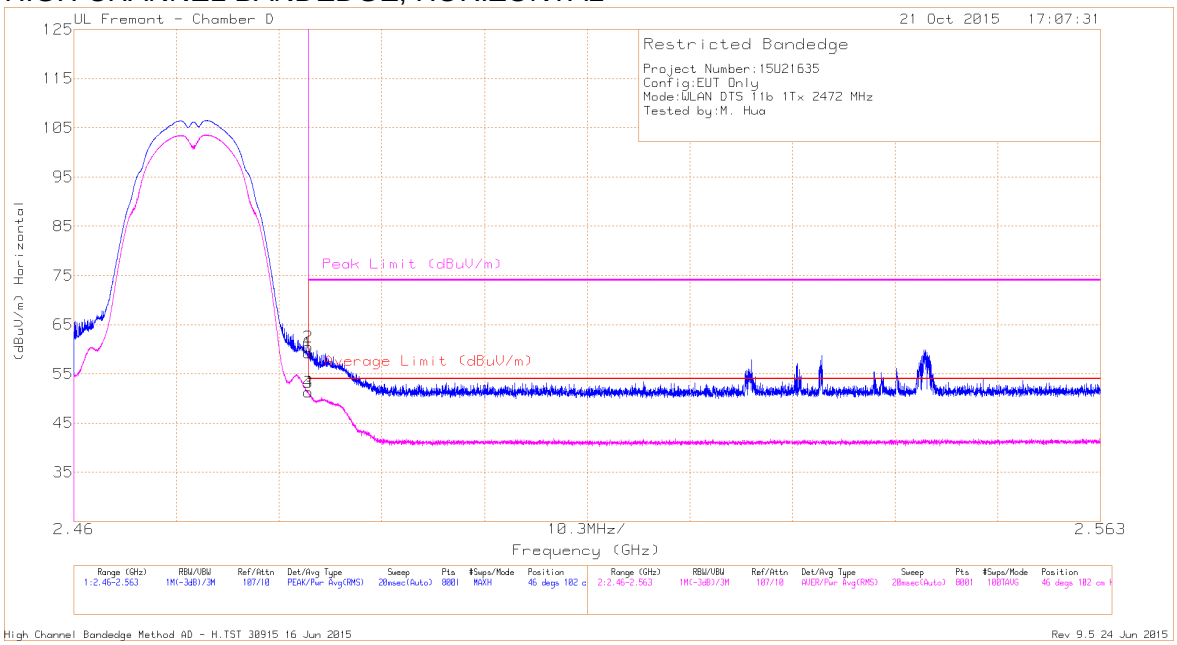
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL, CH 13)

HIGH CHANNEL BANDEDGE, HORIZONTAL



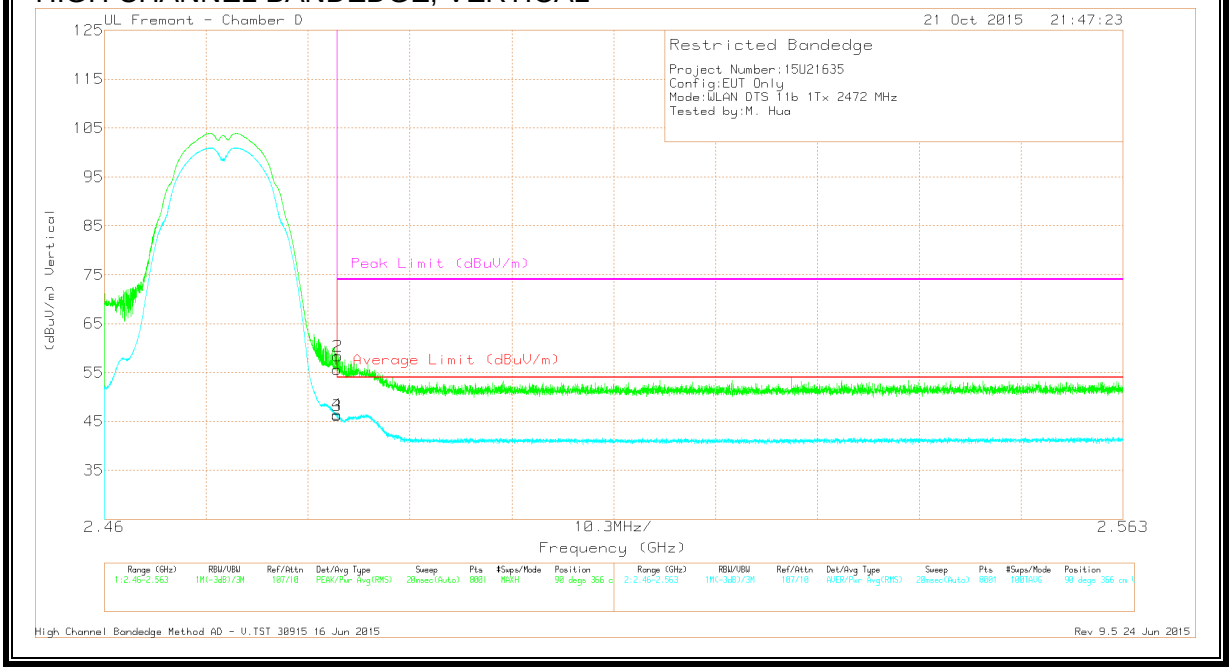
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	47.82	Pk	32.2	-20.8	59.22	-	-	74	-14.78	46	102	H
2	* 2.484	49.06	Pk	32.2	-20.8	60.46	-	-	74	-13.54	46	102	H
3	* 2.484	39.91	RMS	32.2	-20.8	51.31	54	-2.69	-	-	46	102	H
4	* 2.484	39.92	RMS	32.2	-20.8	51.32	54	-2.68	-	-	46	102	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.23	Pk	32.2	-20.8	55.63	-	-	74	-18.37	90	366	V
2	* 2.484	46.93	Pk	32.2	-20.8	58.33	-	-	74	-15.67	90	366	V
3	* 2.484	34.84	RMS	32.2	-20.8	46.24	54	-7.76	-	-	90	366	V
4	* 2.484	35.06	RMS	32.2	-20.8	46.46	54	-7.54	-	-	90	366	V

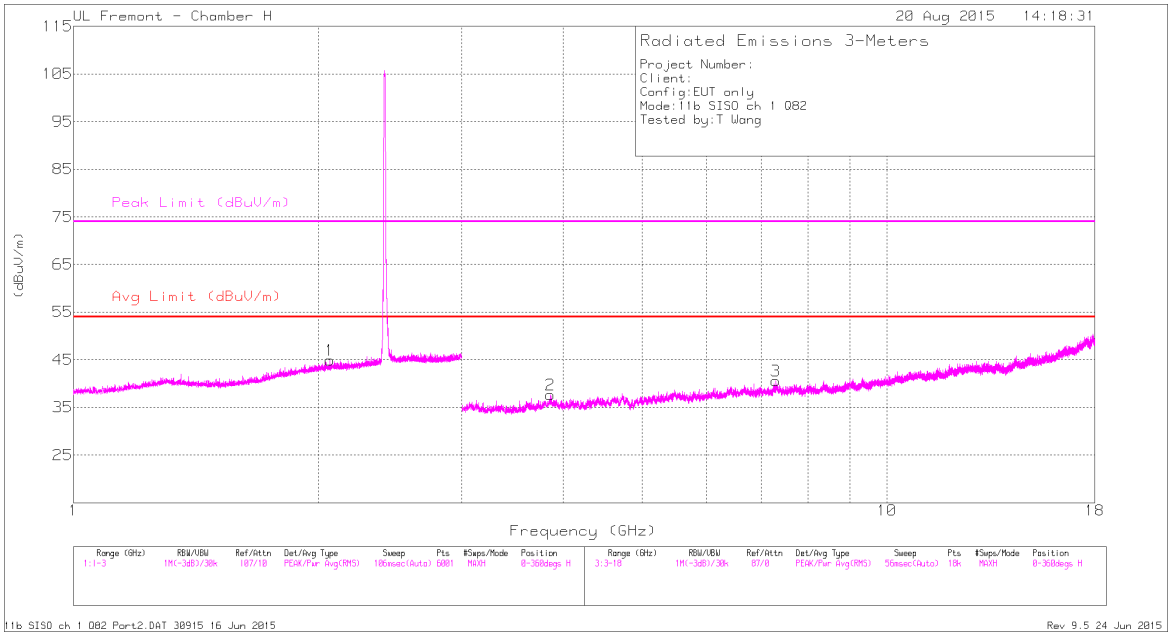
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

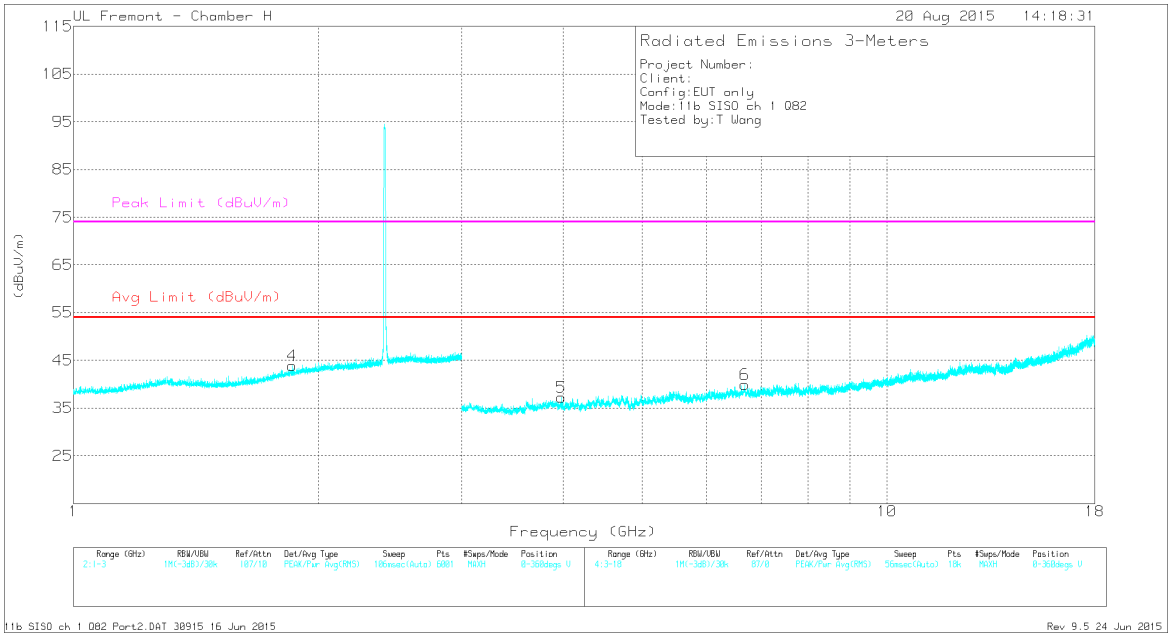
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL, CH 1

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.067	37.46	Pk	31.4	-23.9	44.96	-	-	-	-	0-360	100	H
2	* 3.86	41.99	Pk2	33.5	-31.2	44.29	-	-	74	-29.71	53	112	H
	* 3.86	31.07	MAv1	33.5	-31.2	33.37	54	-20.63	-	-	53	112	H
3	* 7.292	40.25	Pk2	35.9	-28.7	47.45	-	-	74	--26.55	114	201	H
	* 7.292	28.18	MAv1	35.9	-28.7	35.39	54	-18.61	-	-	114	201	H
4	1.857	37.47	Pk	30.6	-24.2	43.87	-	-	-	-	0-360	200	V
5	* 3.982	35.78	Pk2	33.5	-32	43.57	-	-	74	-3043	235	352	V
	* 3.982	35.78	MAv1	33.5	-32	32.45	54	-21.55	-	-	235	352	V
6	6.688	32.72	Pk	35.8	-28.6	39.92	-	-	-	-	0-360	100	V

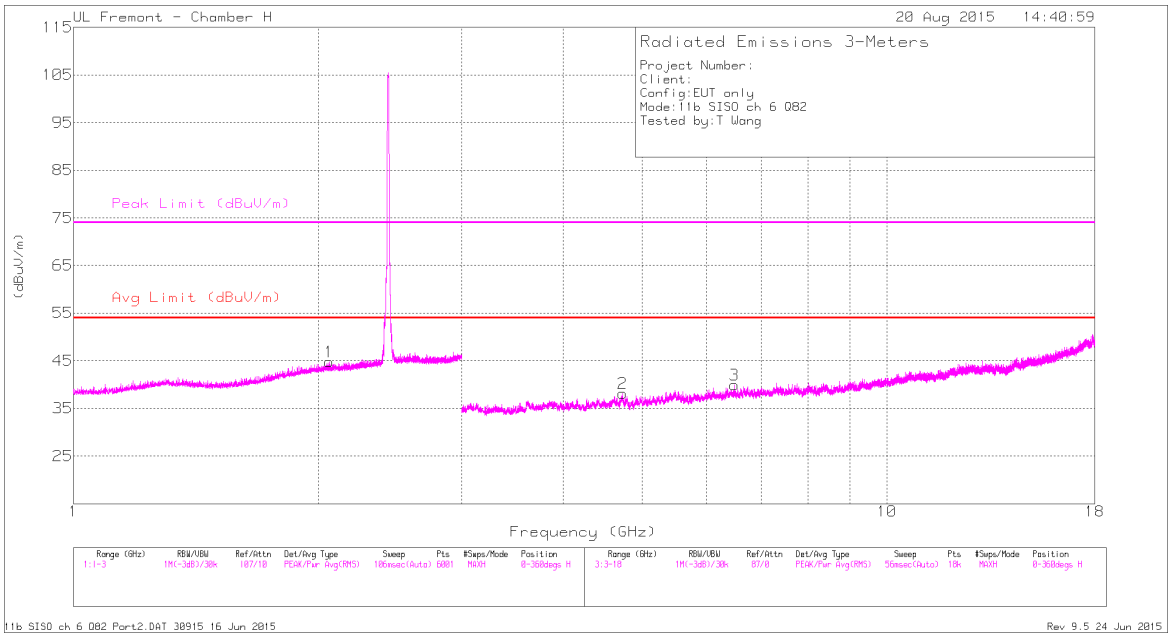
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

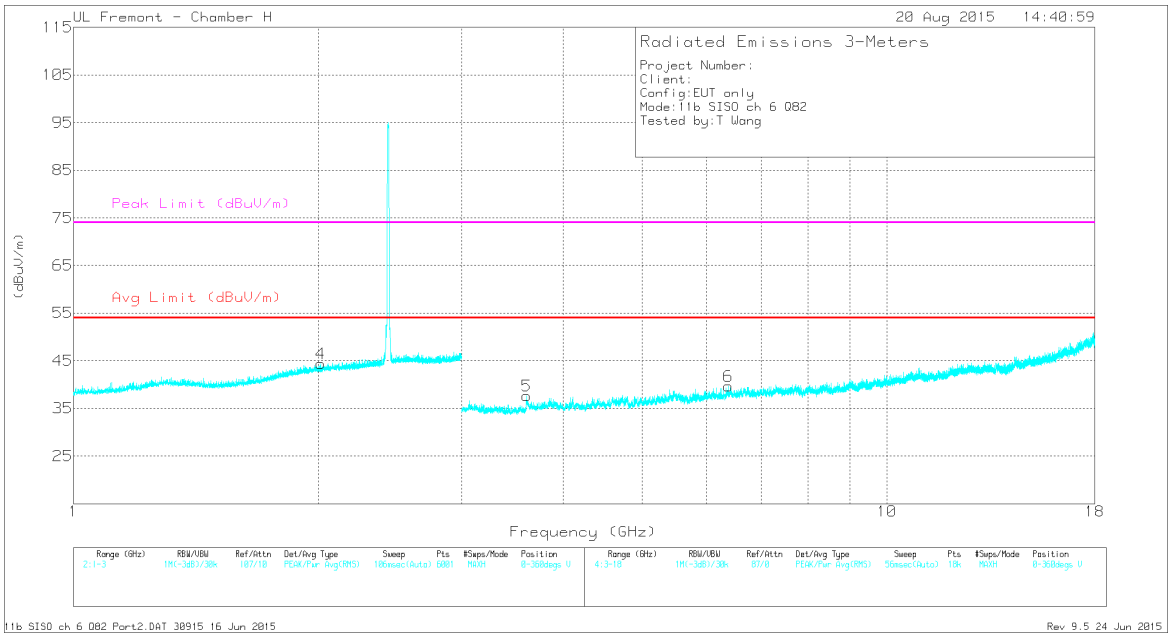
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL, CH 6

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.062	37.28	Pk	31.4	-23.9	44.78	-	-	-	-	0-360	100	H
2	* 4.732	41.84	Pk2	34.2	-30.8	45.24	-	-	74	-28.76	72	145	H
	* 4.732	30.34	MAv1	34.2	-30.8	33.74	54	-20.26			72	145	H
3	6.494	34.37	Pk	35.8	-30.2	39.97	-	-	-	-	0-360	100	H
4	2.015	37.06	Pk	31.2	-23.9	44.36	-	-	-	-	0-360	200	V
5	* 3.604	42.02	Pk2	33	-31.7	43.32	-	-	74	-30.68	224	200	V
	* 3.604	30.73	MAv1	33	-31.7	32.03	54	-21.97			224	200	V
6	6.377	33.65	Pk	35.6	-29.5	39.75	-	-	-	-	0-360	200	V

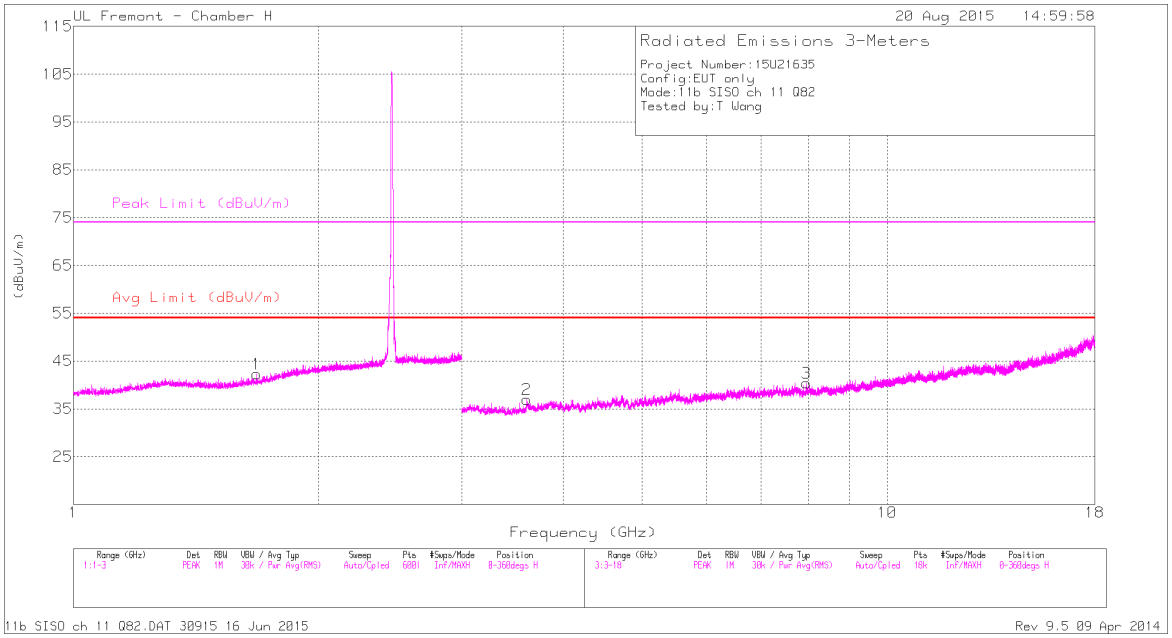
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

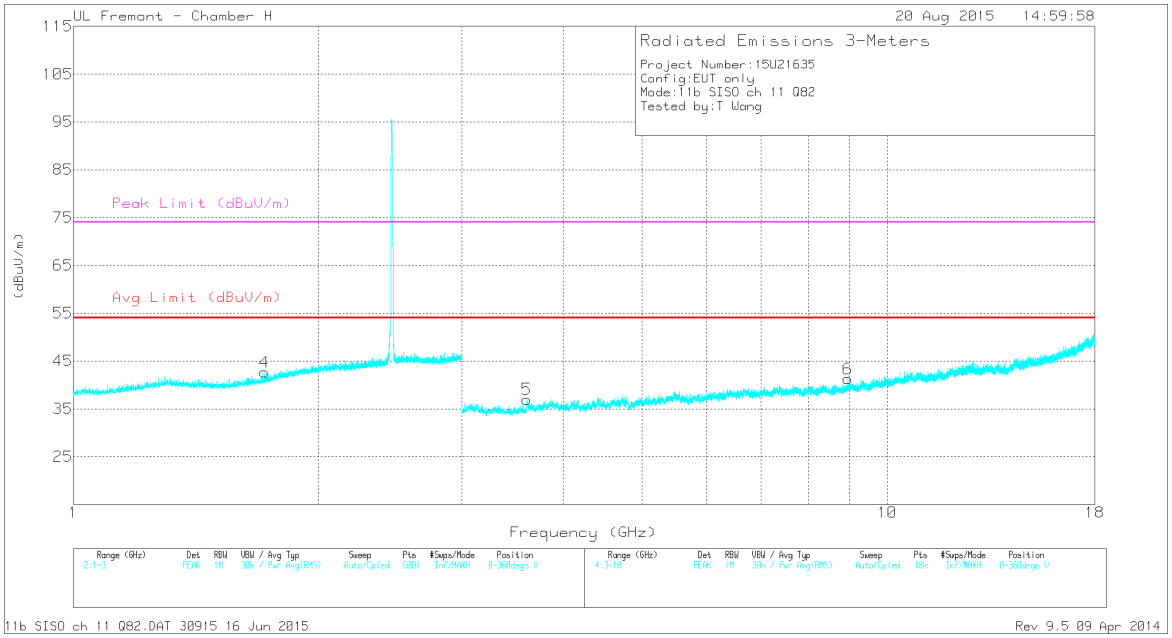
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL, CH 11

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.68	43.8	Pk2	28.8	-24	48.6	-	-	74	-25.4	32	126	H
	* 1.68	32.06	MAv1	28.8	-24	36.86	54	-17.14	-	-	32	126	H
2	* 3.609	42.36	Pk2	33	-31.7	43.66	-	-	74	-30.34	54	114	H
	* 3.609	31.23	MAv1	33	-31.7	32.53	54	-21.47	-	-	54	114	H
3	7.964	32.63	Pk	35.9	-28.1	40.43	-	-	-	-	0-360	201	H
4	1.716	37.56	Pk	29.1	-24	42.66	-	-	-	-	0-360	100	V
5	* 3.606	42.22	Pk2	33	-31.7	43.52	-	-	74	-30.48	212	200	V
	* 3.606	31.2	MAv1	33	-31.7	32.5	54	-21.5	-	-	212	200	V
6	8.948	32.19	Pk	36.2	-27.1	41.29	-	-	-	-	0-360	100	V

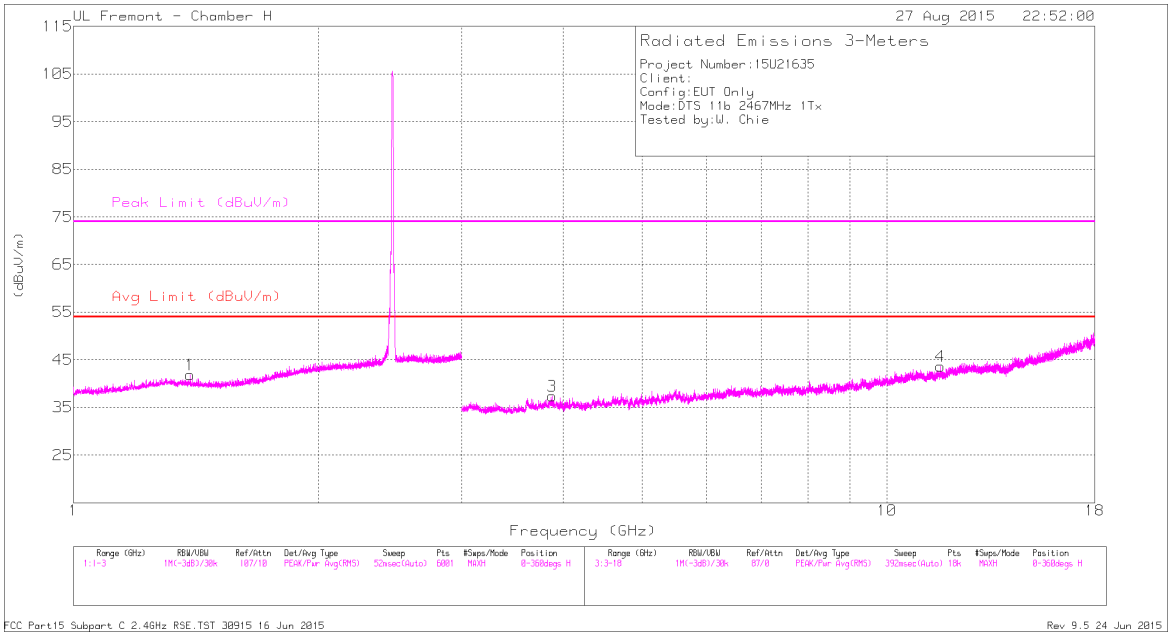
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

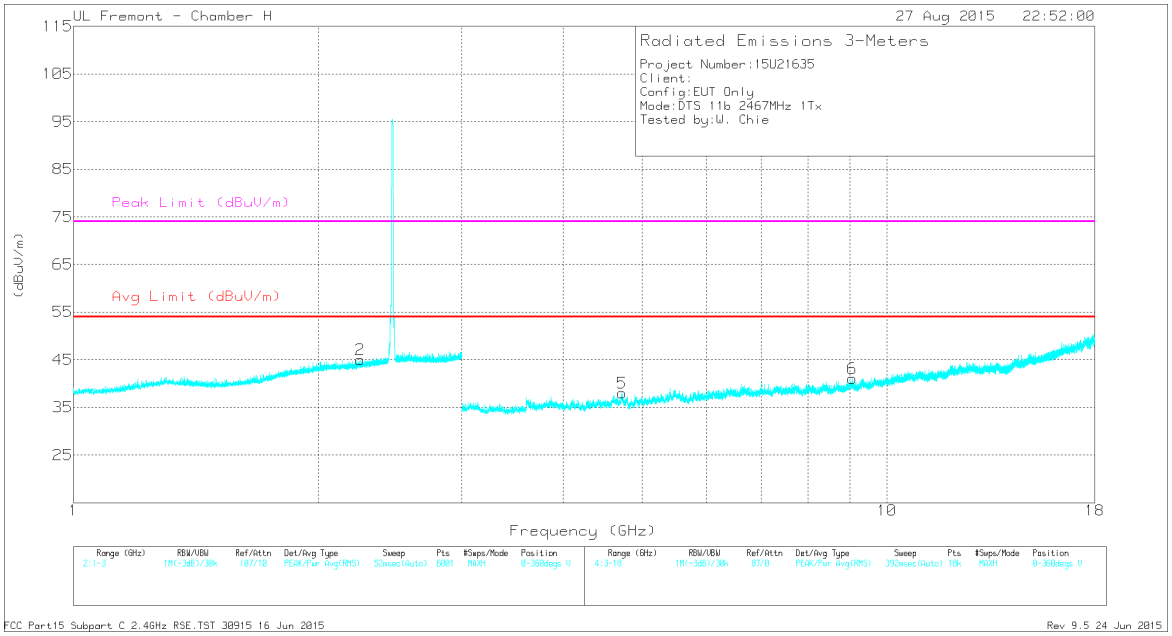
PK2 - KDB558074 Method: Maximum Peak
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL, CH 12

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.392	43.58	PK2	28.5	-24.6	47.48	-	-	74	-26.52	187	100	H
	* 1.39	31.75	MAv1	28.5	-24.6	35.65	54	-18.35	-	-	187	100	H
2	* 2.253	43.74	PK2	31.6	-23.6	51.74	-	-	74	-22.26	4	104	V
	* 2.252	31.45	MAv1	31.6	-23.6	39.45	54	-14.55	-	-	4	104	V
3	* 3.88	41.6	PK2	33.6	-31.3	43.9	-	-	74	-30.1	10	400	H
	* 3.88	30.16	MAv1	33.6	-31.3	32.46	54	-21.54	-	-	10	400	H
4	* 11.627	35.93	PK2	38	-24.2	49.73	-	-	74	-24.27	286	253	H
	* 11.63	24.24	MAv1	38	-24.3	37.94	54	-16.06	-	-	286	253	H
5	* 4.726	41.3	PK2	34.2	-30.6	44.9	-	-	74	-29.1	80	278	V
	* 4.725	29.7	MAv1	34.2	-30.6	33.3	54	-20.7	-	-	80	278	V
6	* 9.068	38.09	PK2	36.2	-25.9	48.39	-	-	74	-25.61	240	106	V
	* 9.067	25.75	MAv1	36.2	-26	35.95	54	-18.05	-	-	240	106	V

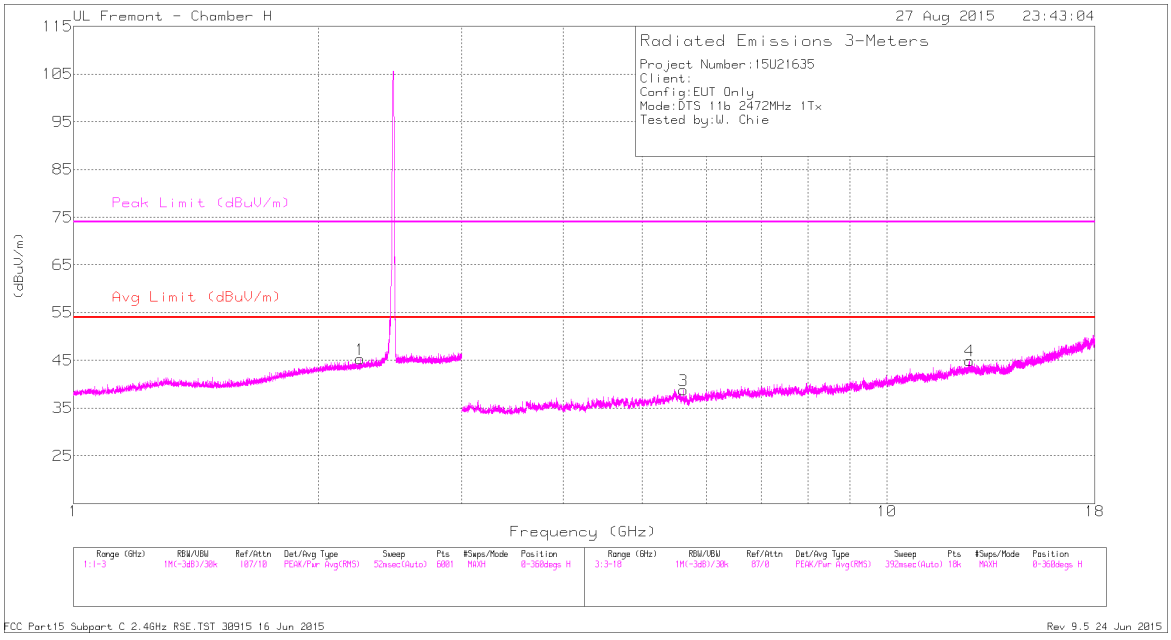
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

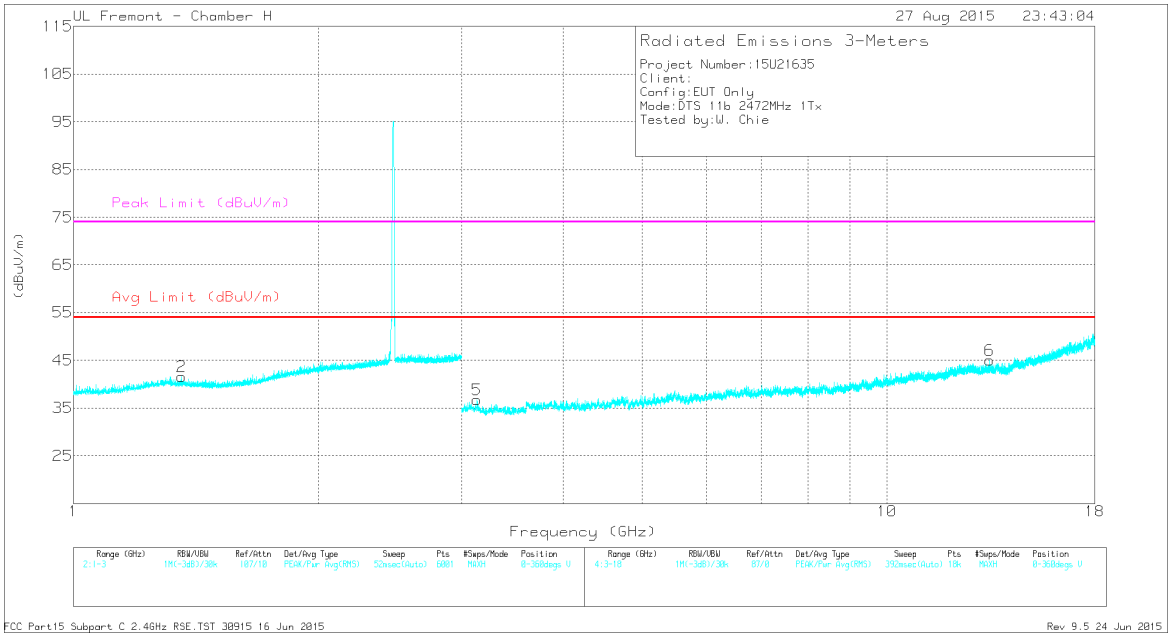
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL, CH 13

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.254	43.47	PK2	31.6	-23.6	51.47	-	-	74	-22.53	58	377	H
	* 2.253	31.48	MAv1	31.6	-23.6	39.48	54	-14.52	-	-	58	377	H
2	* 1.359	44.32	PK2	28.7	-24.7	48.32	-	-	74	-25.68	45	171	V
	* 1.36	31.92	MAv1	28.7	-24.7	35.92	54	-18.08	-	-	45	171	V
4	* 12.63	35.55	PK2	39.4	-24.5	50.45	-	-	74	-23.55	209	381	H
	* 12.628	24.31	MAv1	39.4	-24.5	39.21	54	-14.79	-	-	209	381	H
6	* 13.36	37.31	PK2	39.5	-25.2	51.61	-	-	74	-22.39	298	141	V
	* 13.359	24.71	MAv1	39.5	-25.3	38.91	54	-15.09	-	-	298	141	V
5	3.134	42.13	PK2	32.9	-31.4	43.63	-	-	-	-	176	321	V
3	5.617	40.92	PK2	34.9	-31	44.82	-	-	-	-	74	183	H

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

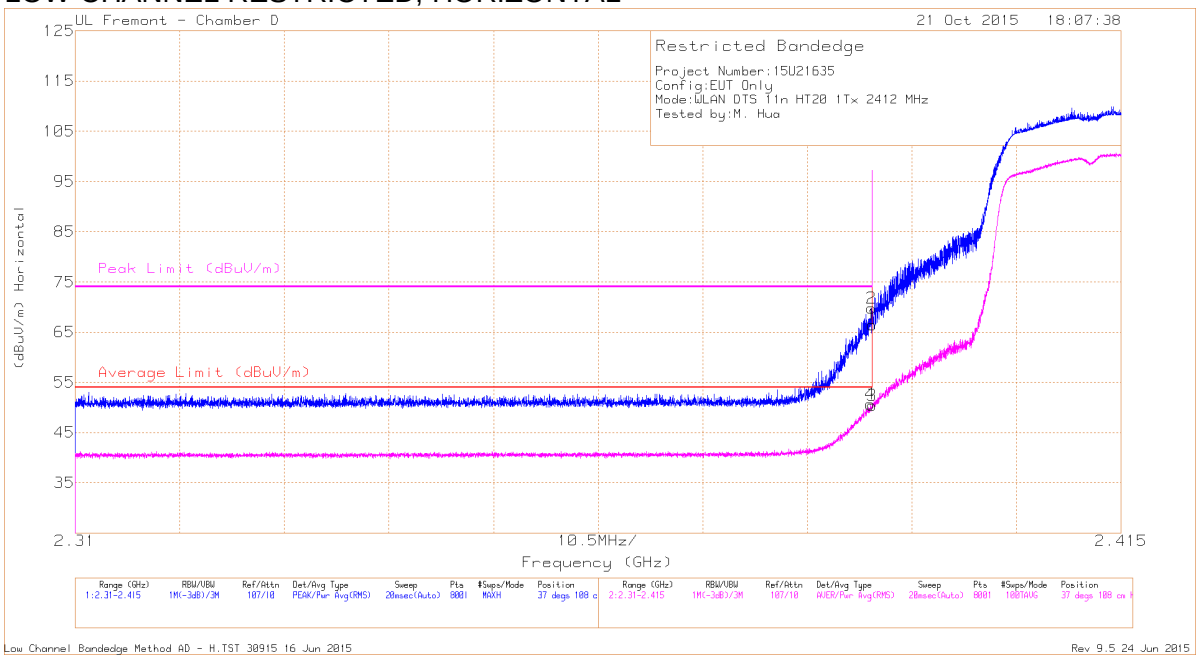
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.2.2. 802.11n HT20 1Tx MODE IN THE 2.4 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL, CH 1)

LOW CHANNEL RESTRICTED, HORIZONTAL



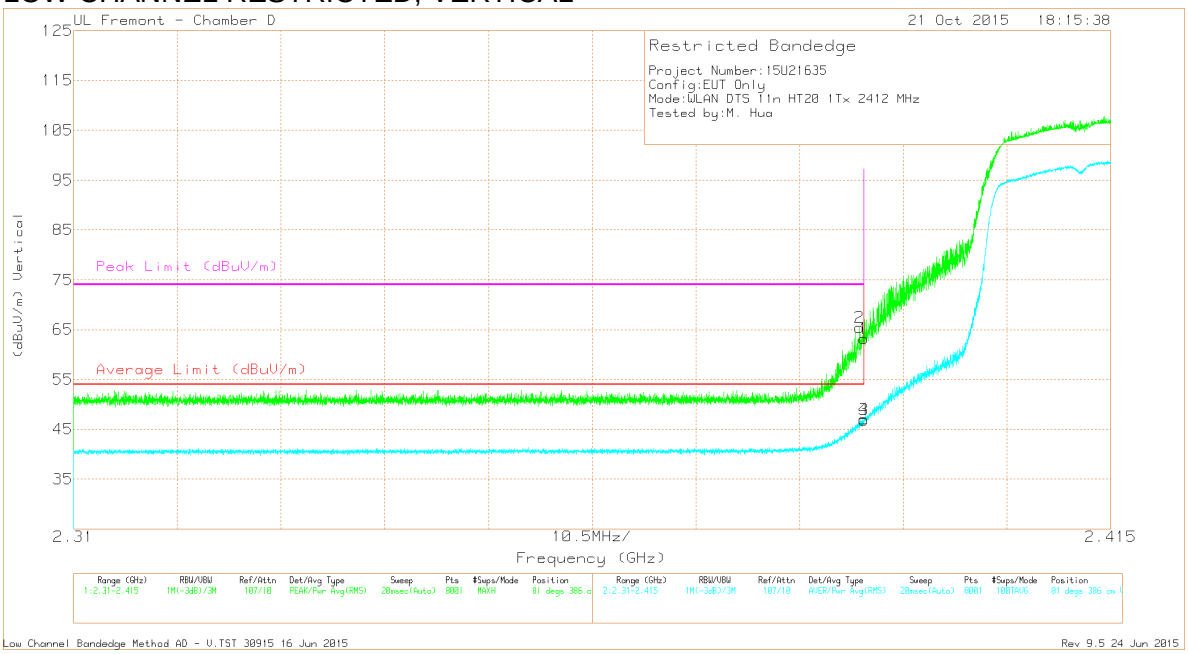
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	54.98	Pk	32.1	-20.7	66.38	-	-	74	-7.62	37	108	H
2	* 2.39	58.39	Pk	32.1	-20.7	69.79	-	-	74	-4.21	37	108	H
3	* 2.39	39.07	RMS	32.1	-20.7	50.47	54	-3.53	-	-	37	108	H
4	* 2.39	39.31	RMS	32.1	-20.7	50.71	54	-3.29	-	-	37	108	H

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

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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	51.85	Pk	32.1	-20.7	63.25	-	-	74	-10.75	81	386	V
2	* 2.39	54.08	Pk	32.1	-20.7	65.48	-	-	74	-8.52	81	386	V
3	* 2.39	35.48	RMS	32.1	-20.7	46.88	54	-7.12	-	-	81	386	V
4	* 2.39	35.66	RMS	32.1	-20.7	47.06	54	-6.94	-	-	81	386	V

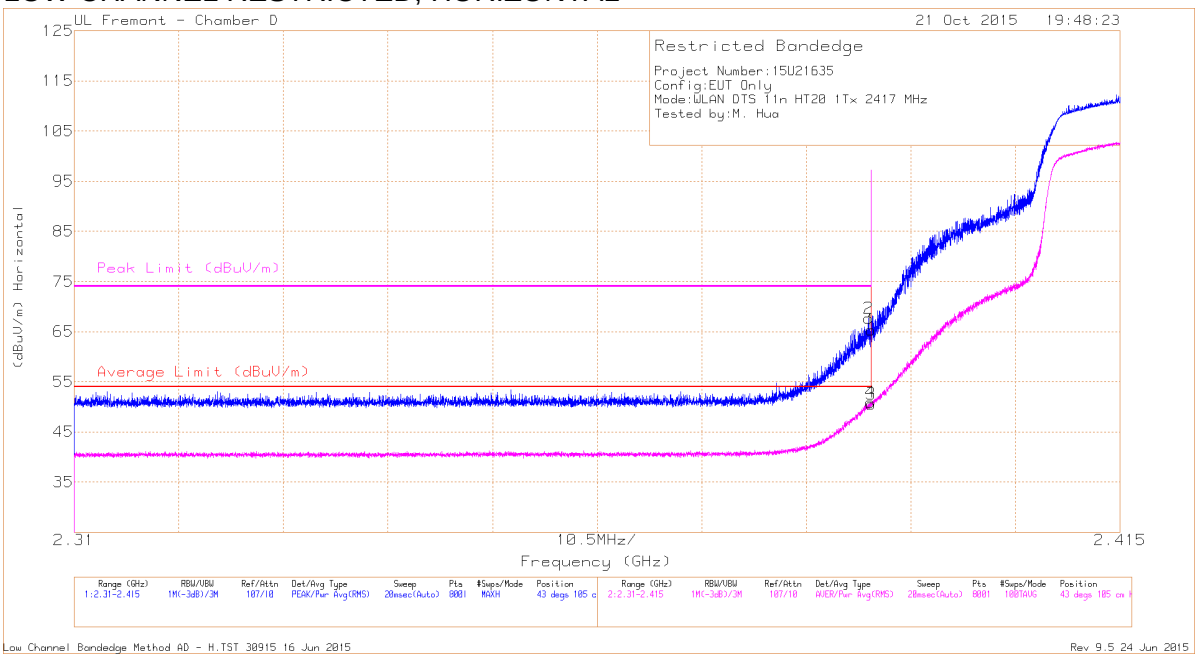
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (LOW CHANNEL, CH 2)

LOW CHANNEL RESTRICTED, HORIZONTAL



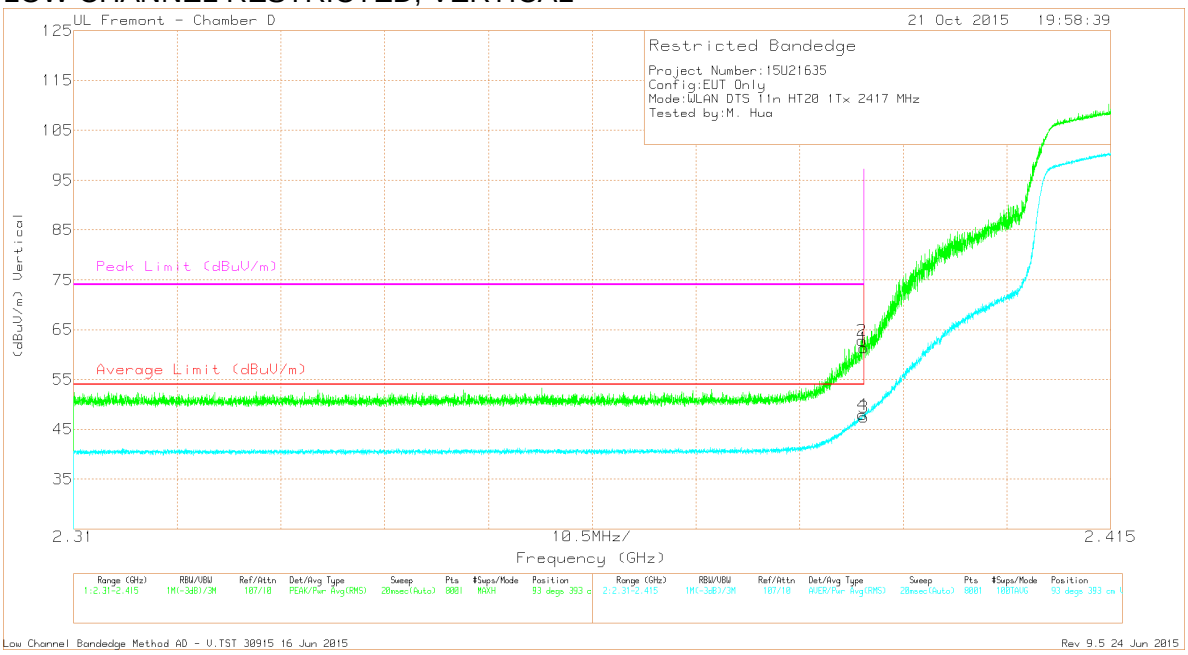
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr /Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	53.87	Pk	32.1	-20.7	0	65.27	-	-	74	-8.73	43	105	H
2	* 2.39	56.27	Pk	32.1	-20.7	0	67.67	-	-	74	-6.33	43	105	H
3	* 2.39	39.2	RMS	32.1	-20.7	0	50.6	54	-3.40	-	-	43	105	H
4	* 2.39	39.56	RMS	32.1	-20.7	0	50.96	54	-3.04	-	-	43	105	H

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

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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	49.96	Pk	32.1	-20.7	0	61.36	-	-	74	-12.64	93	393	V
2	* 2.39	51.38	Pk	32.1	-20.7	0	62.78	-	-	74	-11.22	93	393	V
3	* 2.39	36.09	RMS	32.1	-20.7	0	47.49	54	-6.51	-	-	93	393	V
4	* 2.39	36.58	RMS	32.1	-20.7	0	47.98	54	-6.02	-	-	93	393	V

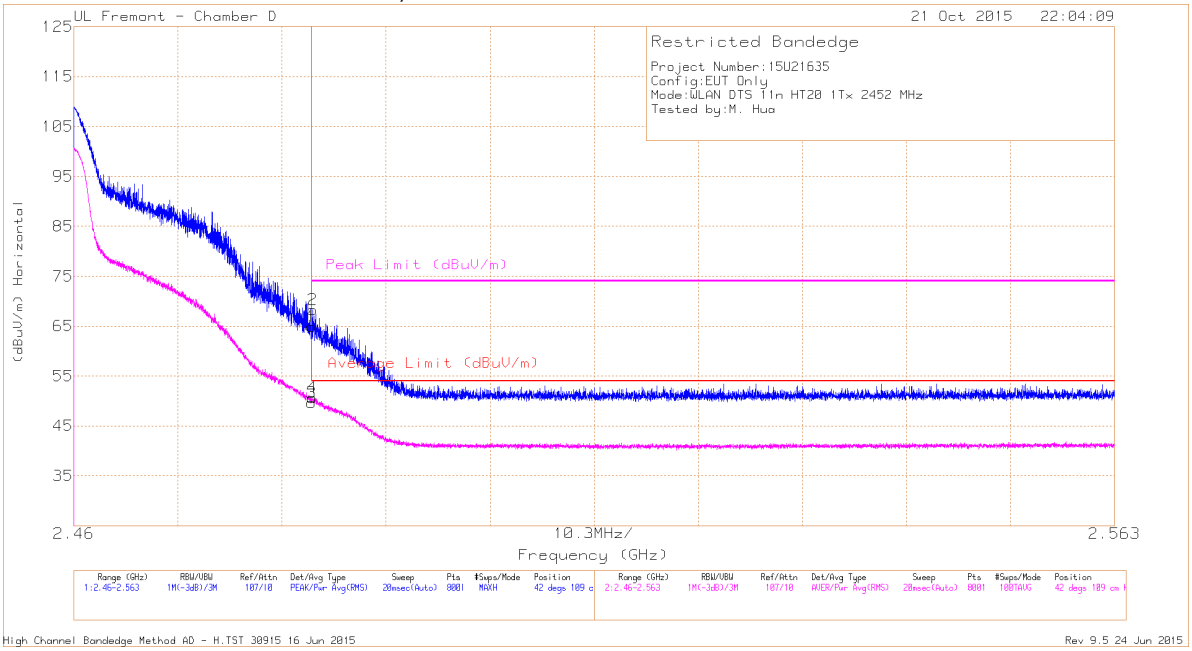
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL, CH 10)

HIGH CHANNEL BANDEDGE, HORIZONTAL



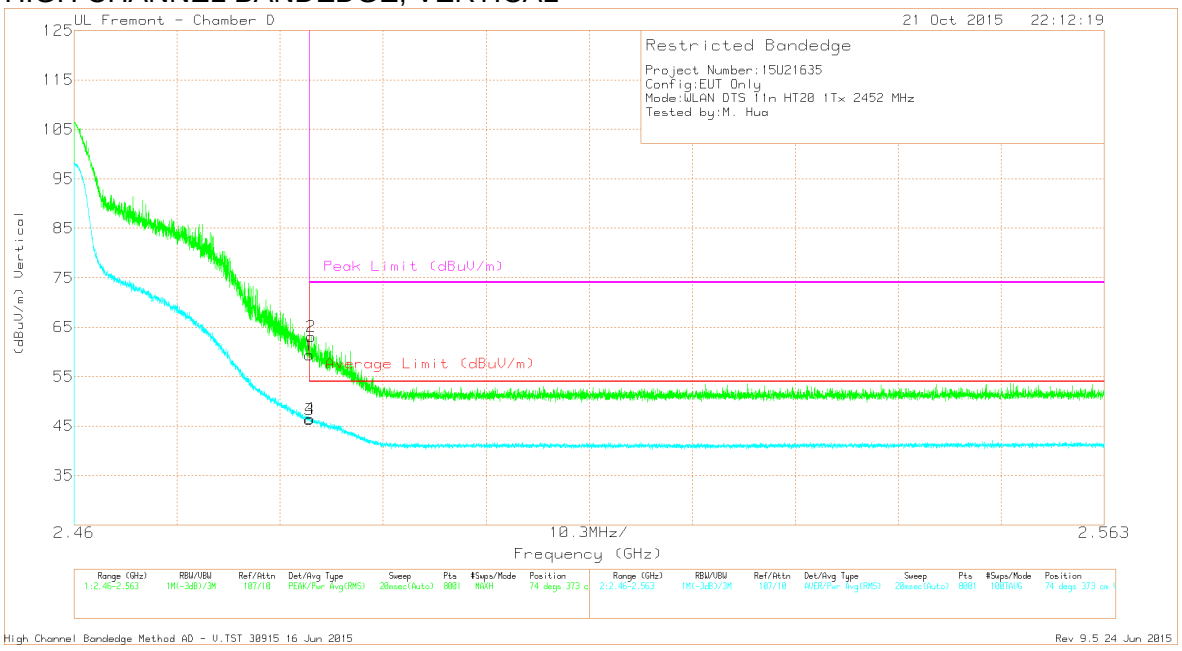
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	53.53	Pk	32.2	-20.8	0	64.93	-	-	74	-9.07	42	109	H
2	* 2.484	56.84	Pk	32.2	-20.8	0	68.24	-	-	74	-5.76	42	109	H
3	* 2.484	38.29	RMS	32.2	-20.8	0	49.69	-54	-4.31	-	-	42	109	H
4	* 2.484	39.22	RMS	32.2	-20.8	0	50.62	-54	-3.38	-	-	42	109	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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	48.01	Pk	32.2	-20.8	0	59.41	-	-	74	-14.59	74	373	V
2	* 2.484	51.71	Pk	32.2	-20.8	0	63.11	-	-	74	-10.89	74	373	V
3	* 2.484	34.92	RMS	32.2	-20.8	0	46.32	54	-7.68	-	-	74	373	V
4	* 2.484	35.1	RMS	32.2	-20.8	0	46.5	54	-7.50	-	-	74	373	V

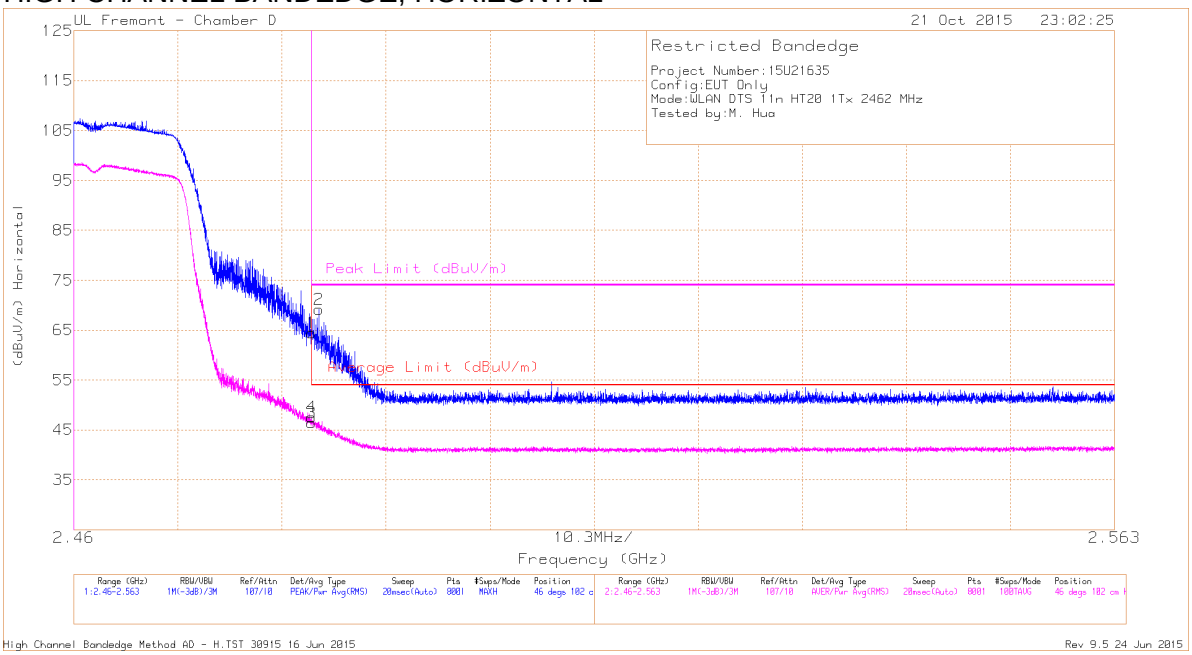
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL, CH 11)

HIGH CHANNEL BANDEDGE, HORIZONTAL



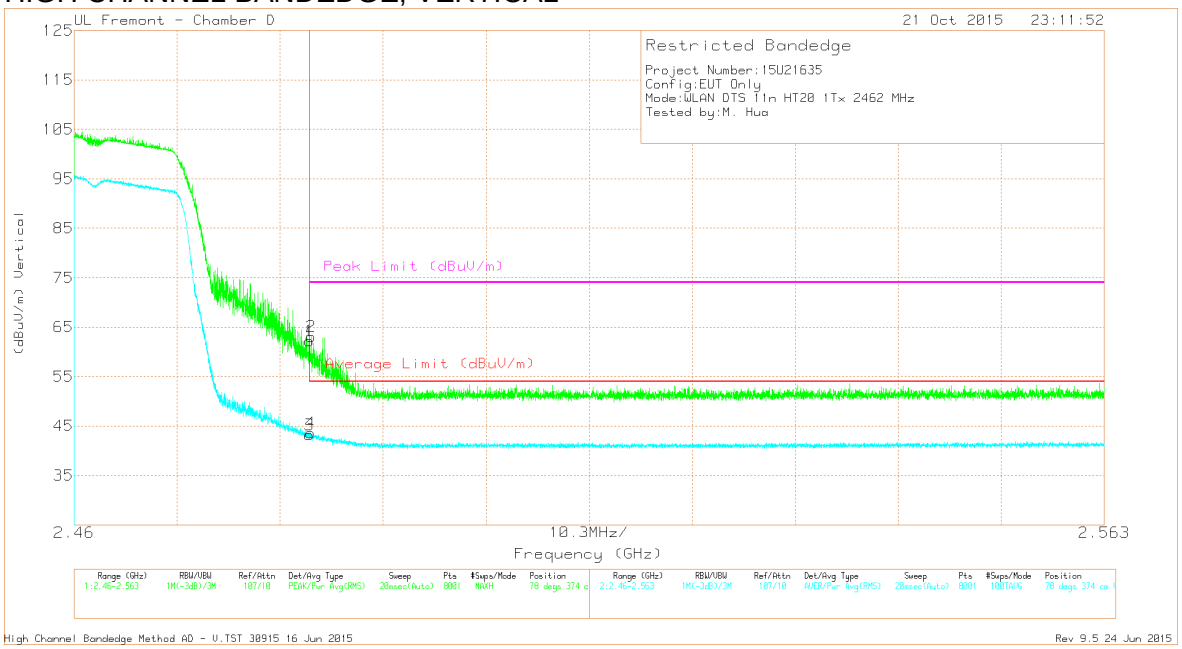
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	53.09	Pk	32.2	-20.8	64.49	-	-	74	-9.51	46	102	H
2	* 2.484	57.71	Pk	32.2	-20.8	69.11	-	-	74	-4.89	46	102	H
3	* 2.484	35.05	RMS	32.2	-20.8	46.45	54	-7.05	-	-	46	102	H
4	* 2.484	36.19	RMS	32.2	-20.8	47.59	54	-6.05	-	-	46	102	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



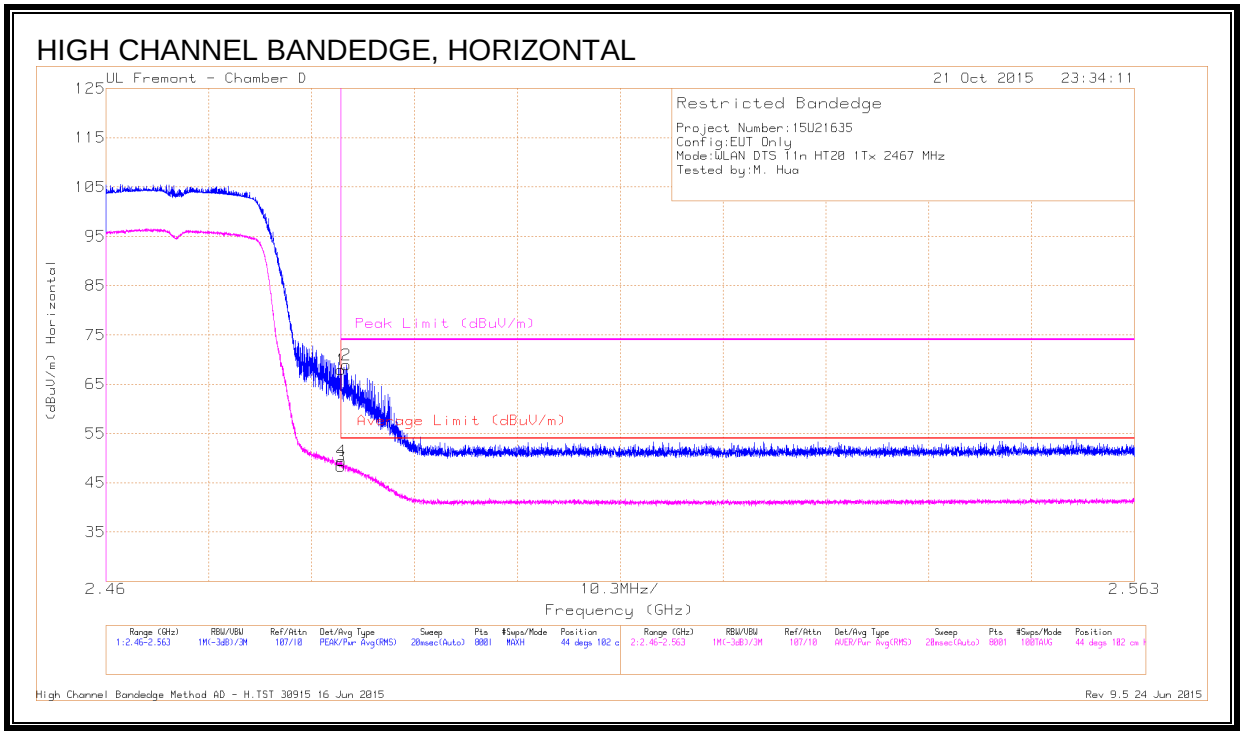
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	50.77	Pk	32.2	-20.8	62.17	-	-	74	-11.83	78	374	V
2	* 2.484	51.64	Pk	32.2	-20.8	63.04	-	-	74	-10.96	78	374	V
3	* 2.484	31.78	RMS	32.2	-20.8	43.18	54	-4.77	-	-	78	374	V
4	* 2.484	32.16	RMS	32.2	-20.8	43.56	54	-10.44	-	-	78	374	V

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

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL, CH 12)



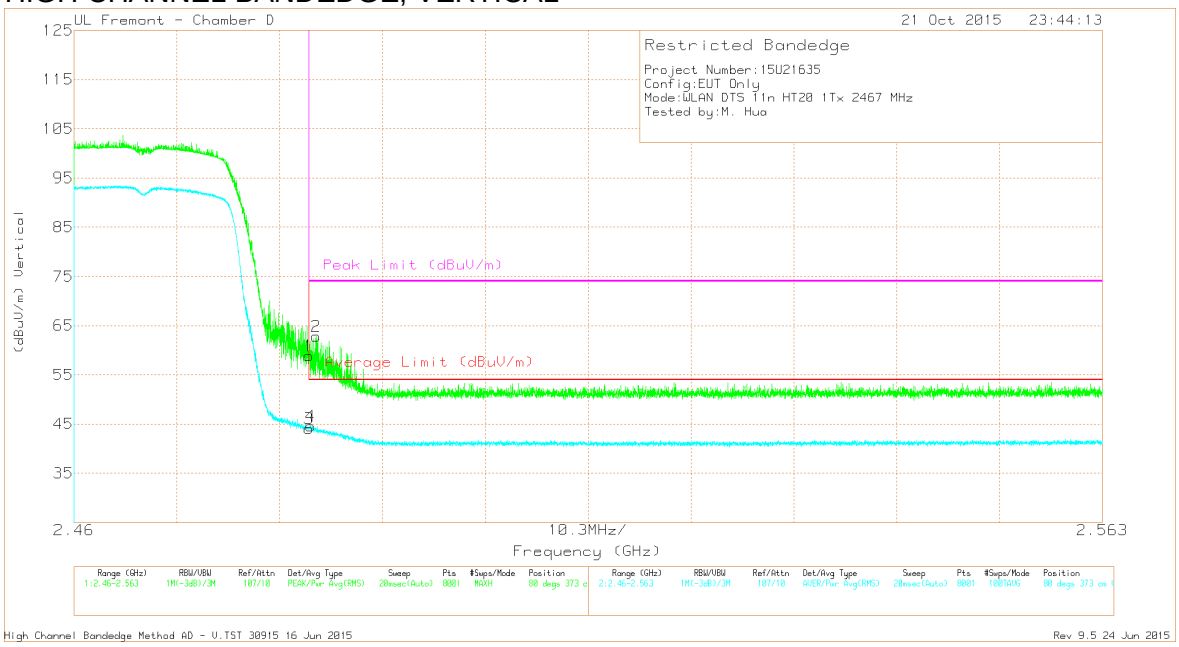
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	56.55	Pk	32.2	-20.8	67.95	-	-	74	-6.05	44	102	H
2	* 2.484	57.57	Pk	32.2	-20.8	68.97	-	-	74	-5.03	44	102	H
3	* 2.484	36.94	RMS	32.2	-20.8	48.34	54	-5.66	-	-	44	102	H
4	* 2.484	38.01	RMS	32.2	-20.8	49.41	54	-4.59	-	-	44	102	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	47.46	Pk	32.2	-20.8	58.86	-	-	74	-15.14	80	373	V
2	* 2.484	51.43	Pk	32.2	-20.8	62.83	-	-	74	-11.17	80	373	V
3	* 2.484	32.7	RMS	32.2	-20.8	44.1	54	-9.90	-	-	80	373	V
4	* 2.484	33.23	RMS	32.2	-20.8	44.63	54	-9.37	-	-	80	373	V

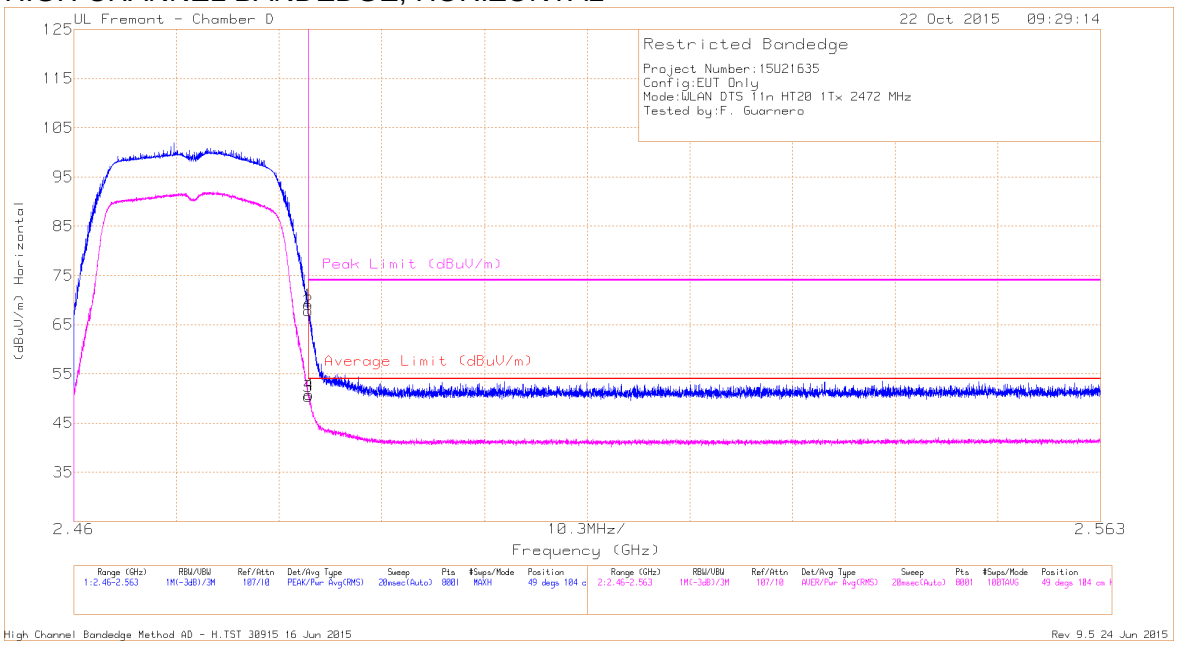
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL, CH 13)

HIGH CHANNEL BANDEDGE, HORIZONTAL



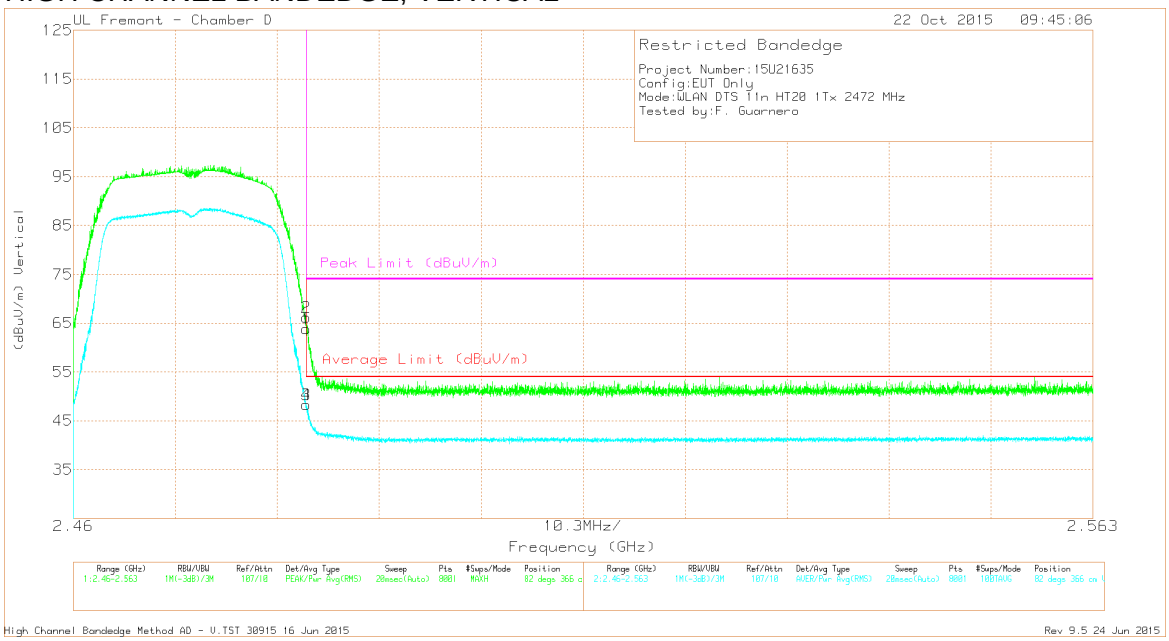
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	57.64	Pk	32.2	-20.8	69.04	-	-	74	-4.96	49	104	H
2	* 2.484	56.35	Pk	32.2	-20.8	67.75	-	-	74	-6.25	49	104	H
3	* 2.484	39.03	RMS	32.2	-20.8	50.43	54	-3.57	-	-	49	104	H
4	* 2.484	39.39	RMS	32.2	-20.8	50.79	54	-3.21	-	-	49	104	H

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

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, VERTICAL



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	52.41	Pk	32.2	-20.8	63.81	-	-	74	-10.19	82	366	V
2	* 2.484	54.83	Pk	32.2	-20.8	66.23	-	-	74	-7.77	82	366	V
3	* 2.484	36.92	RMS	32.2	-20.8	48.32	54	-5.68	-	-	82	366	V
4	* 2.484	36.88	RMS	32.2	-20.8	48.28	54	-5.72	-	-	82	366	V

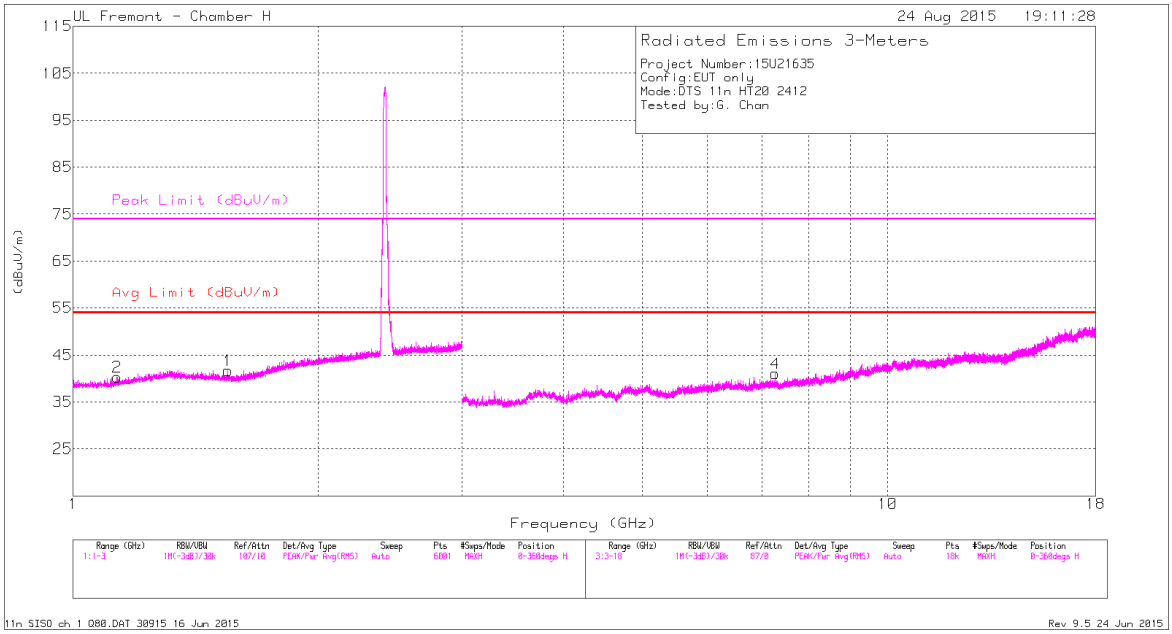
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

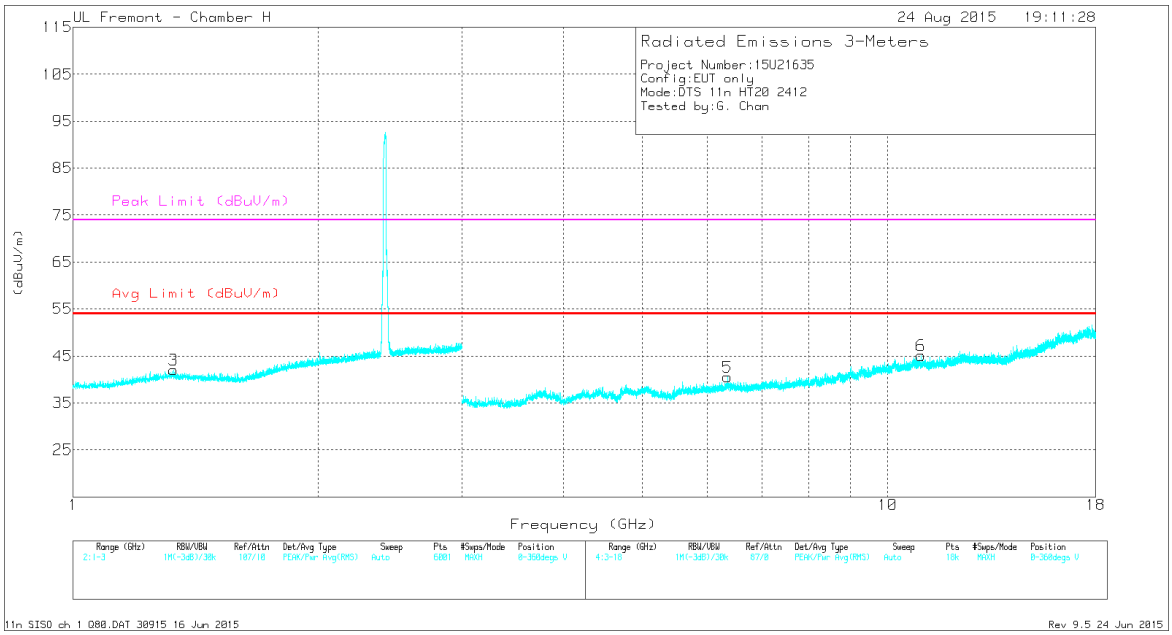
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL, CH 1

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.547	41.5	PK2	28.1	-21.9	47.7	-	-	74	-26.3	60	258	H
	* 1.548	30.14	MAv1	28.1	-21.9	36.34	54	-17.66	-	-	60	258	H
2	* 1.133	42.33	PK2	27.5	-22.5	47.33	-	-	74	-26.67	90	136	H
	* 1.133	30.67	MAv1	27.5	-22.5	35.67	54	-18.33	-	-	90	136	H
3	* 1.328	41.99	PK2	28.9	-22.2	48.69	-	-	74	-25.31	103	191	V
	* 1.327	30.34	MAv1	28.9	-22.2	37.04	54	-16.96	-	-	103	191	V
4	* 7.274	35.9	PK2	35.5	-25.2	46.2	-	-	74	-27.8	209	182	H
	* 7.273	25.33	MAv1	35.5	-25.2	35.63	54	-18.37	-	-	209	182	H
6	* 10.987	33.98	PK2	38.1	-21.2	50.88	-	-	74	-23.12	179	226	V
	* 10.988	22.87	MAv1	38.1	-21.2	39.77	54	-14.23	-	-	179	226	V
5	6.356	36.71	PK2	35.4	-26	46.11	-	-	74	-27.89	323	137	V

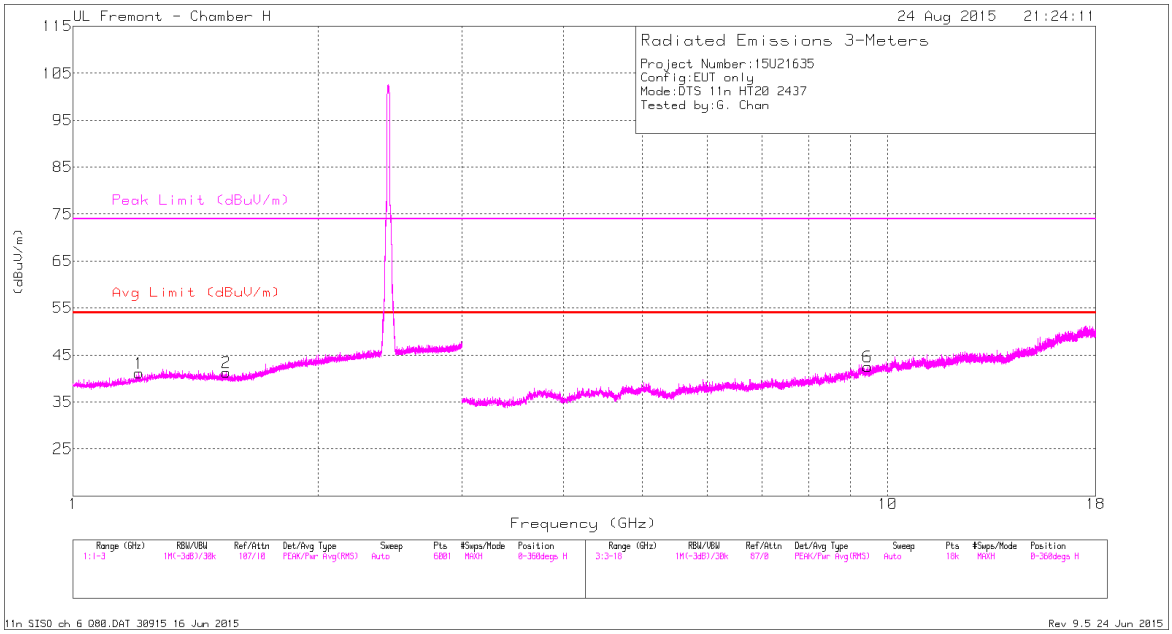
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

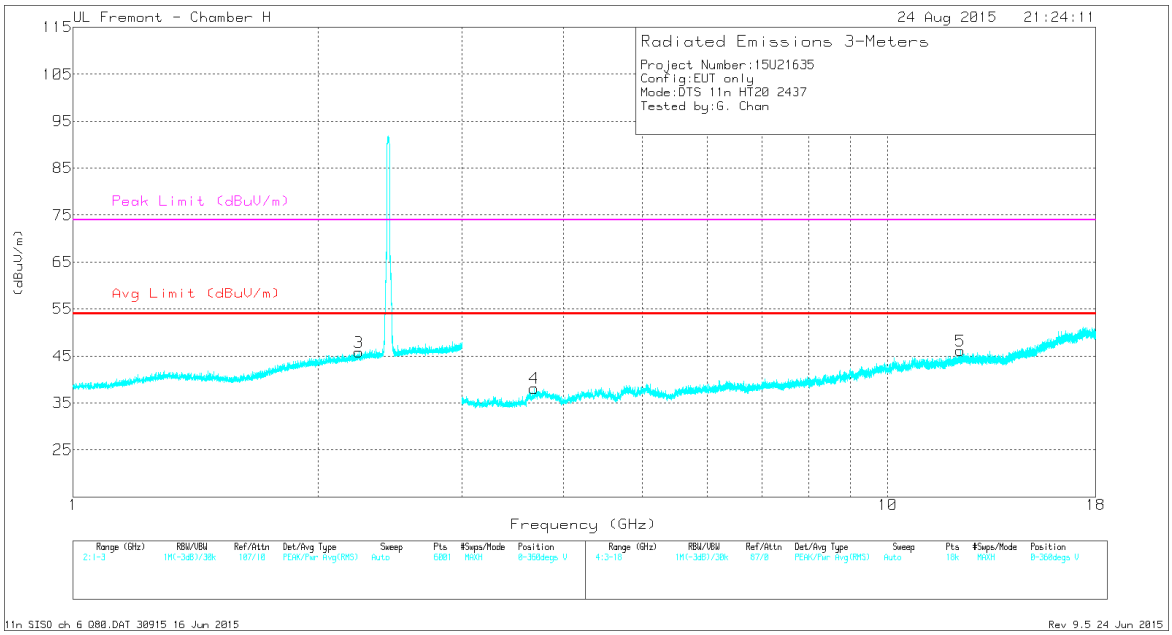
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS MID CHANNEL, CH 6

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.204	42.01	PK2	28.1	-22.4	47.71	-	-	74	-26.29	33	120	H
	* 1.204	30.42	MAv1	28.1	-22.4	36.12	54	-17.88	-	-	33	120	H
2	* 1.542	42.01	PK2	28.1	-21.9	48.21	-	-	74	-25.79	63	135	H
	* 1.541	30.16	MAv1	28.1	-21.9	36.36	54	-17.64	-	-	63	135	H
3	* 2.243	41.45	PK2	31.8	-21	52.25	-	-	74	-21.75	187	269	V
	* 2.243	30.21	MAv1	31.8	-21	41.01	54	-12.99	-	-	187	269	V
6	* 9.451	33.96	PK2	36.5	-21.6	48.86	-	-	74	-25.14	213	159	H
	* 9.45	22.99	MAv1	36.5	-21.6	37.89	54	-16.11	-	-	213	159	H
4	* 3.682	39.26	PK2	33.2	-29.1	43.36	-	-	74	-30.64	228	171	V
	* 3.683	27.69	MAv1	33.2	-29.1	31.79	54	-22.21	-	-	228	171	V
5	* 12.269	34.48	PK2	39	-21.7	51.78	-	-	74	-22.22	354	237	V
	* 12.267	22.75	MAv1	39	-21.6	40.15	54	-13.85	-	-	354	237	V

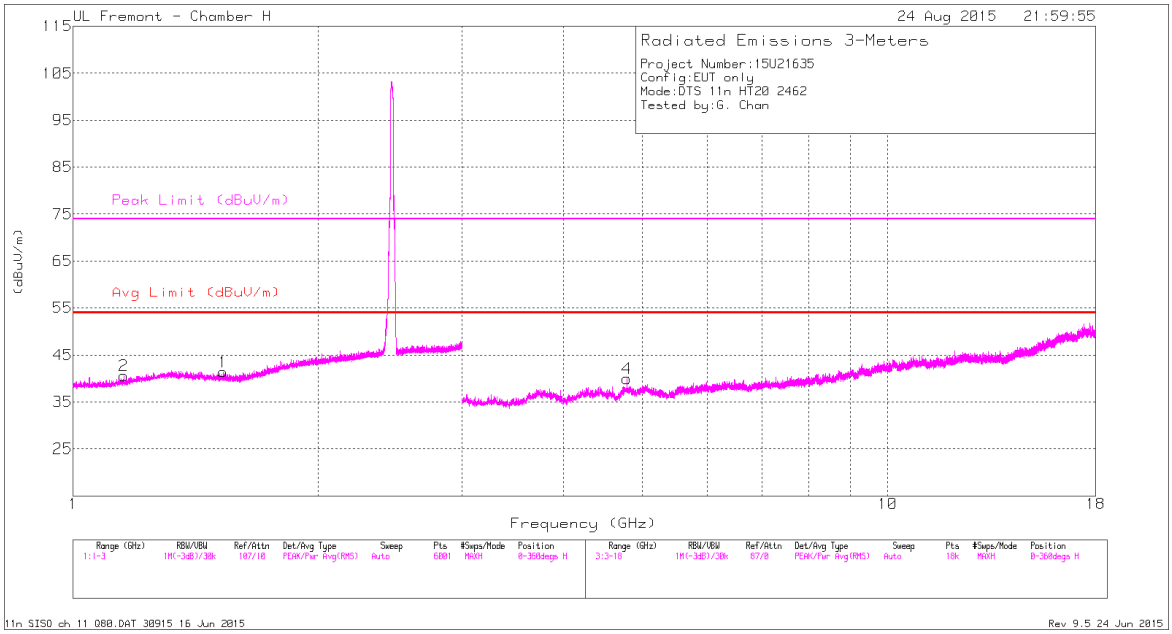
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

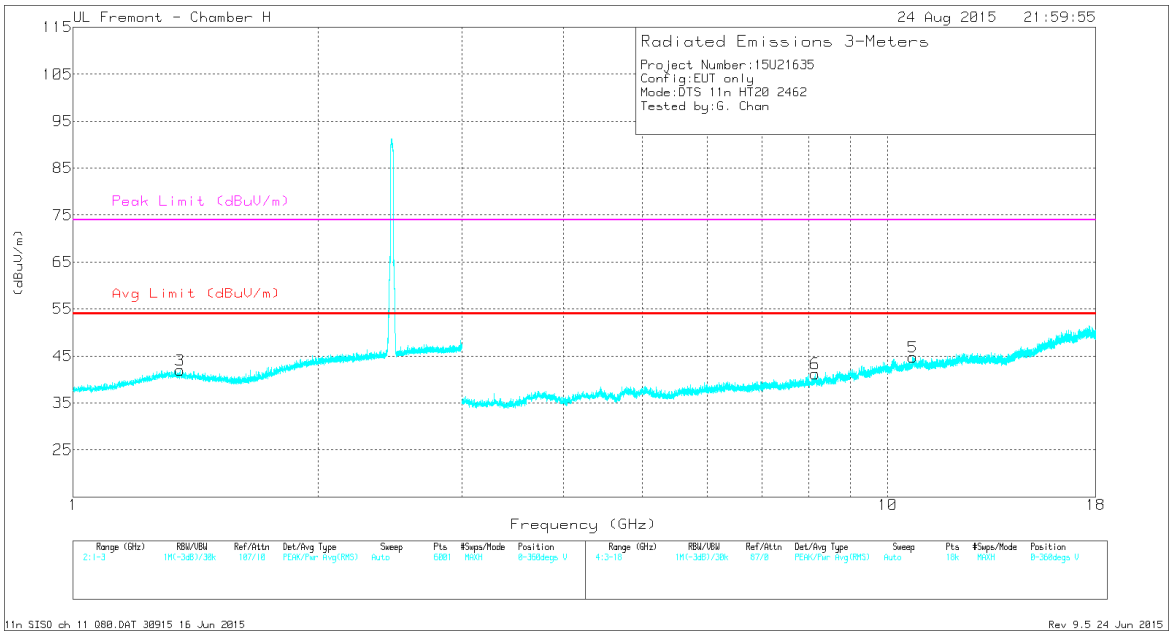
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL, CH 11

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.527	41.7	PK2	28.2	-21.9	48	-	-	74	-26	204	115	H
	* 1.529	30.14	MAv1	28.2	-21.9	36.44	54	-17.56	-	-	204	115	H
2	* 1.155	41.91	PK2	27.7	-22.5	47.11	-	-	74	-26.89	154	133	H
	* 1.155	30.42	MAv1	27.7	-22.5	35.62	54	-18.38	-	-	154	133	H
3	* 1.353	41.88	PK2	28.8	-22.2	48.48	-	-	74	-25.52	98	160	V
	* 1.355	30.28	MAv1	28.8	-22.2	36.88	54	-17.12	-	-	98	160	V
4	* 4.783	37.56	PK2	34.1	-26.6	45.06	-	-	74	-28.94	245	152	H
	* 4.782	26.68	MAv1	34.1	-26.6	34.18	54	-19.82	-	-	245	152	H
5	* 10.728	34.03	PK2	37.9	-21	50.93	-	-	74	-23.07	281	190	V
	* 10.729	22.74	MAv1	37.9	-21	39.64	54	-14.36	-	-	281	190	V
6	* 8.147	34.98	PK2	35.6	-23	47.58	-	-	74	-26.42	310	216	V
	* 8.147	24.11	MAv1	35.6	-23	36.71	54	-17.29	-	-	310	216	V

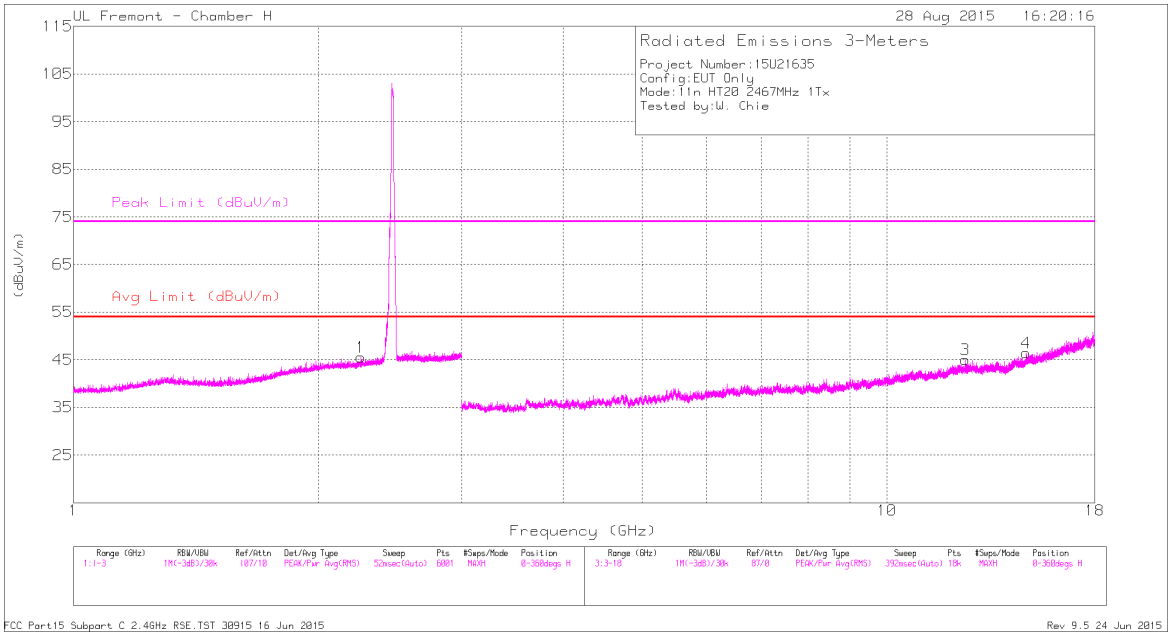
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

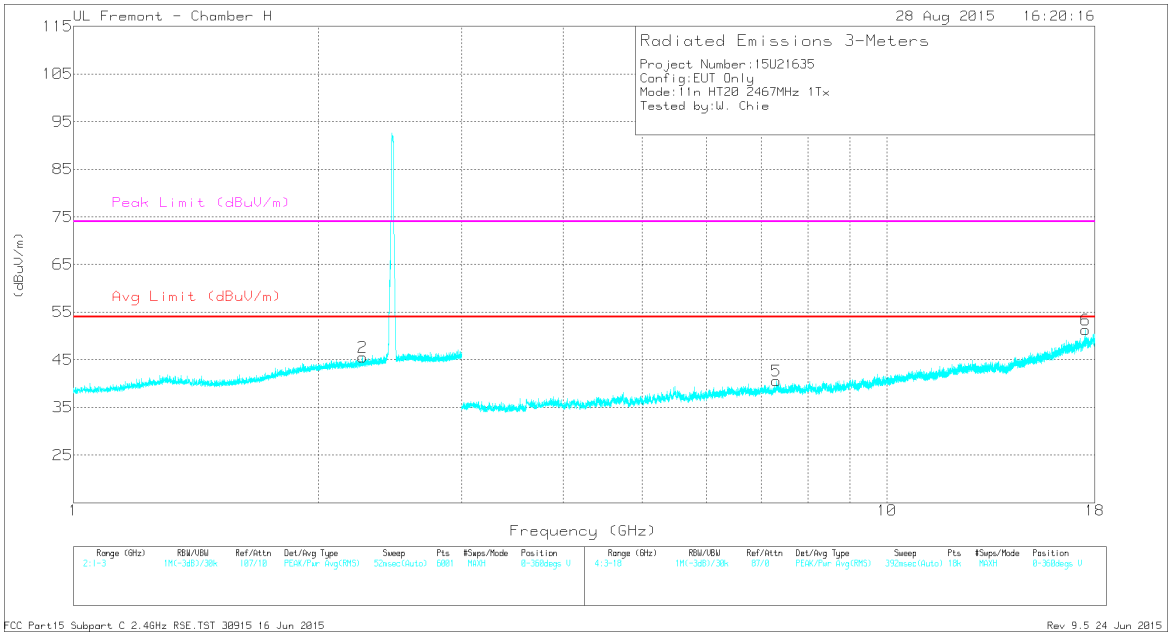
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL, CH 12

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.258	43.61	PK2	31.6	-23.6	51.61	-	-	74	-22.39	267	257	H
	* 2.255	31.63	MAv1	31.6	-23.6	39.63	54	-14.37	-	-	267	257	H
2	* 2.267	43.56	PK2	31.7	-23.5	51.76	-	-	74	-22.24	230	252	V
	* 2.268	31.62	MAv1	31.7	-23.5	39.82	54	-14.18	-	-	230	252	V
3	* 12.476	36.41	PK2	39.2	-24.9	50.71	-	-	74	-23.29	347	353	H
	* 12.475	24.82	MAv1	39.2	-24.9	39.12	54	-14.88	-	-	347	353	H
5	* 7.313	39.55	PK2	35.9	-28.3	47.15	-	-	74	-26.85	66	273	V
	* 7.313	27.57	MAv1	35.9	-28.3	35.17	54	-18.83	-	-	66	273	V
4	14.828	37.09	PK2	40.4	-25	52.49	-	-	-	-	313	132	H
6	17.524	34.19	PK2	41.9	-19.4	56.69	-	-	-	-	100	217	V

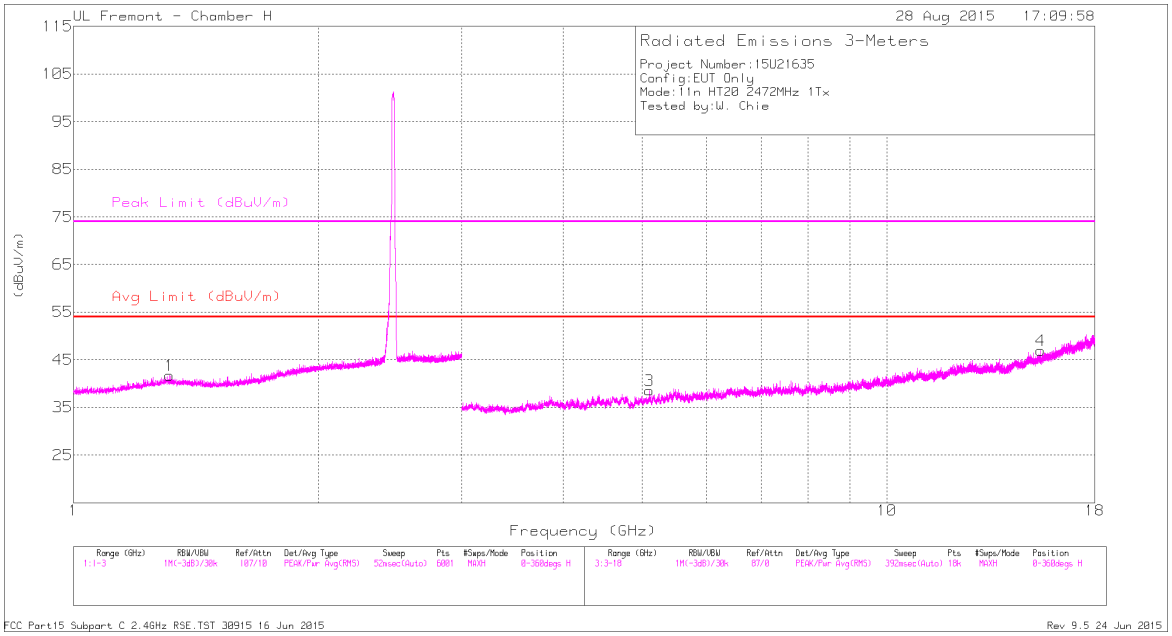
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

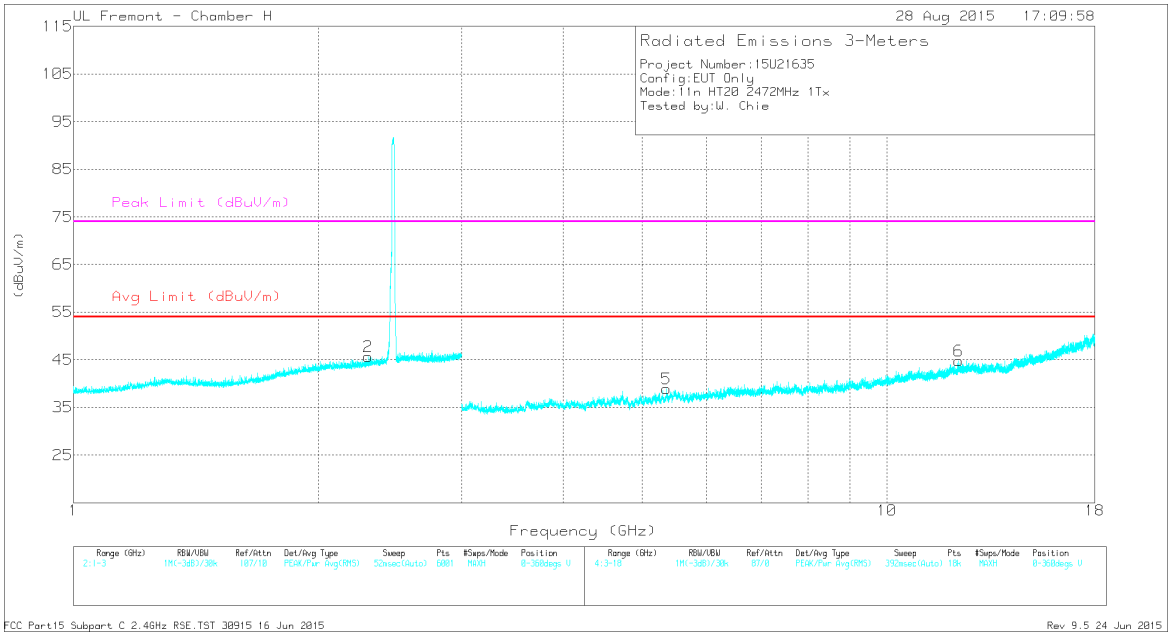
MAv1 - KDB558074 Option 1 Maximum RMS Average

HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL, CH 13

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.313	43.78	PK2	28.9	-24.8	47.88	-	-	74	-26.12	272	184	H
	* 1.312	32.07	MAv1	28.9	-24.8	36.17	54	-17.83	-	-	272	184	H
3	* 5.102	42.55	PK2	34.3	-31.1	45.75	-	-	74	-28.25	88	229	H
	* 5.103	29.98	MAv1	34.3	-31.1	33.18	54	-20.82	-	-	88	229	H
4	* 15.448	36.47	PK2	40.8	-24.5	52.77	-	-	74	-21.23	47	148	H
	* 15.447	24.84	MAv1	40.8	-24.5	41.14	54	-12.86	-	-	47	148	H
5	* 5.359	40.68	PK2	35.1	-31.2	44.58	-	-	74	-29.42	292	378	V
	* 5.357	29.29	MAv1	35.1	-31.2	33.19	54	-20.81	-	-	292	378	V
6	* 12.241	35.66	PK2	39.1	-24.4	50.36	-	-	74	-23.64	6	288	V
	* 12.241	24.2	MAv1	39.1	-24.4	38.9	54	-15.1	-	-	6	288	V
2	2.3	43.86	PK2	31.8	-23.5	52.16	-	-	-	-	287	188	V

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

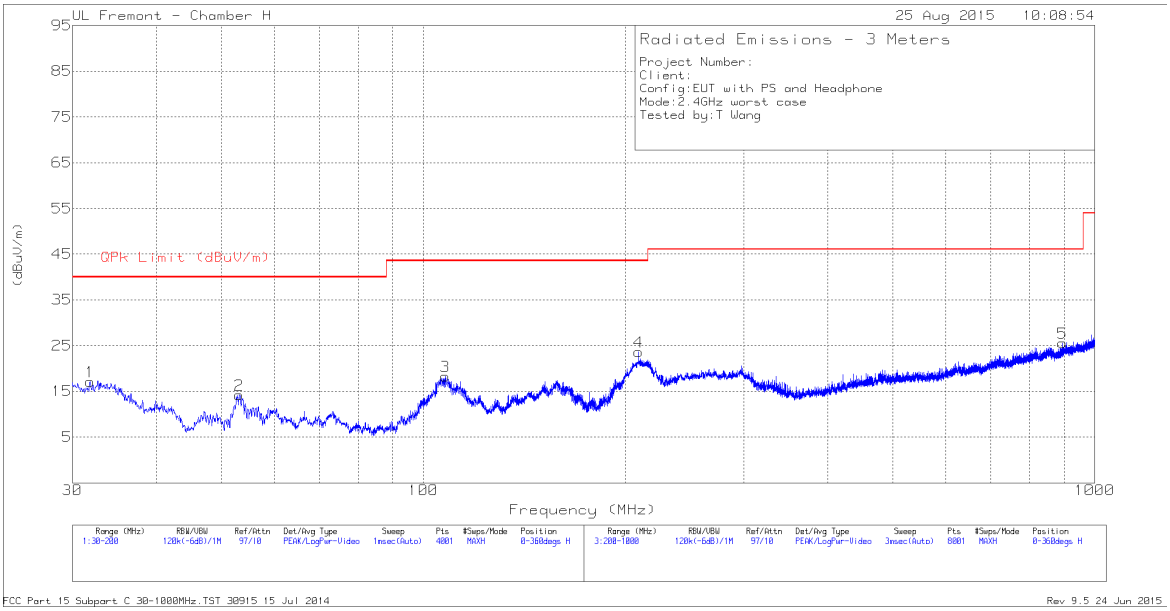
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

9.3. WORST-CASE BELOW 1 GHz

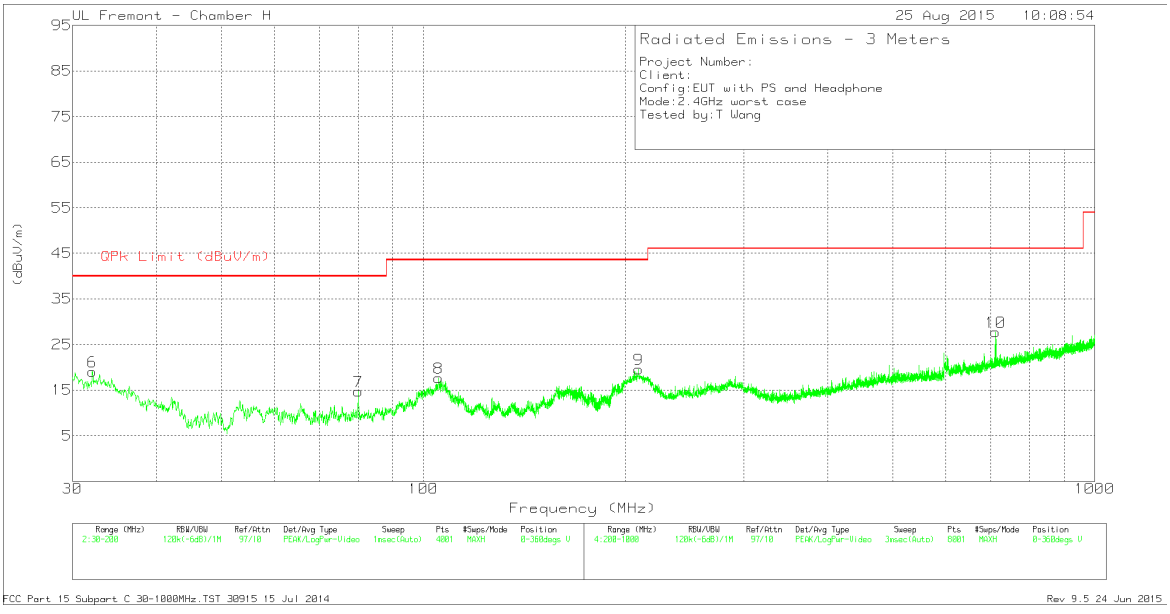
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



DATA

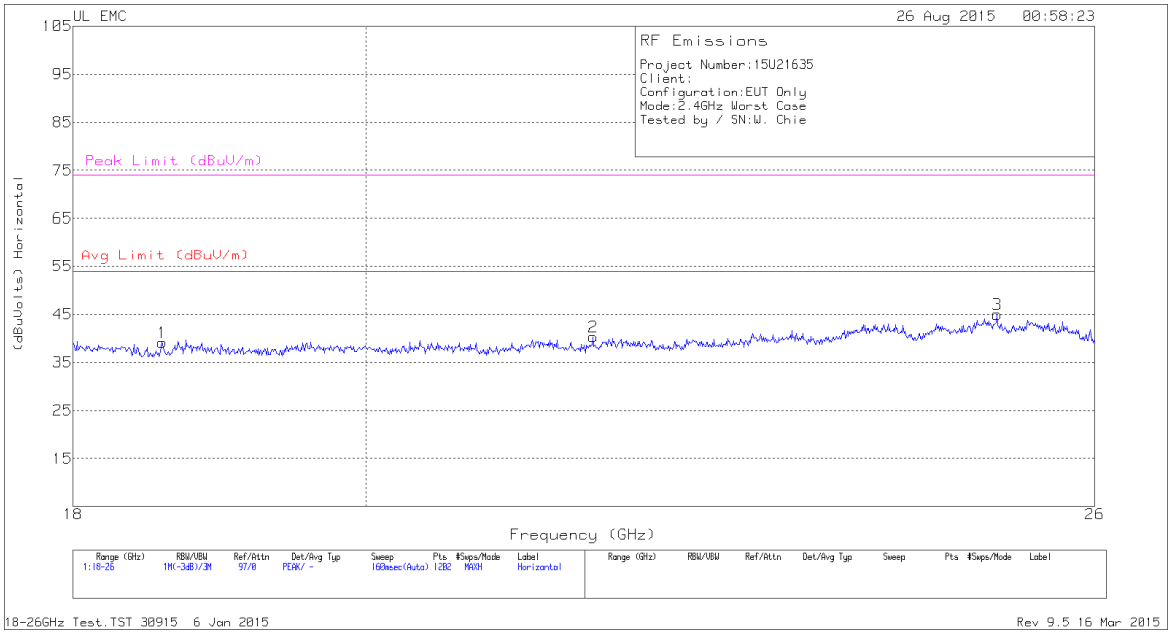
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	31.87	27.79	Pk	20.7	-31.3	17.19	40	-22.81	0-360	201	H
6	32.125	29.76	Pk	20.6	-31.3	19.06	40	-20.94	0-360	100	V
2	53.1625	38.04	Pk	7.2	-31	14.24	40	-25.76	0-360	401	H
7	80.0225	37.57	Pk	7.8	-30.7	14.67	40	-25.33	0-360	100	V
8	105.3525	36.8	Pk	11.4	-30.5	17.7	43.52	-25.82	0-360	100	V
3	107.86	36.63	Pk	12.1	-30.4	18.33	43.52	-25.19	0-360	201	H
9	209.2	38.86	Pk	10.4	-29.7	19.56	43.52	-23.96	0-360	201	V
4	209.3	42.9	Pk	10.4	-29.7	23.6	43.52	-19.92	0-360	100	H
10	711.5	34.98	Pk	20.4	-27.7	27.68	46.02	-18.34	0-360	201	V
5	894.6	30.12	Pk	22	-26.5	25.62	46.02	-20.4	0-360	100	H

Pk - Peak detector

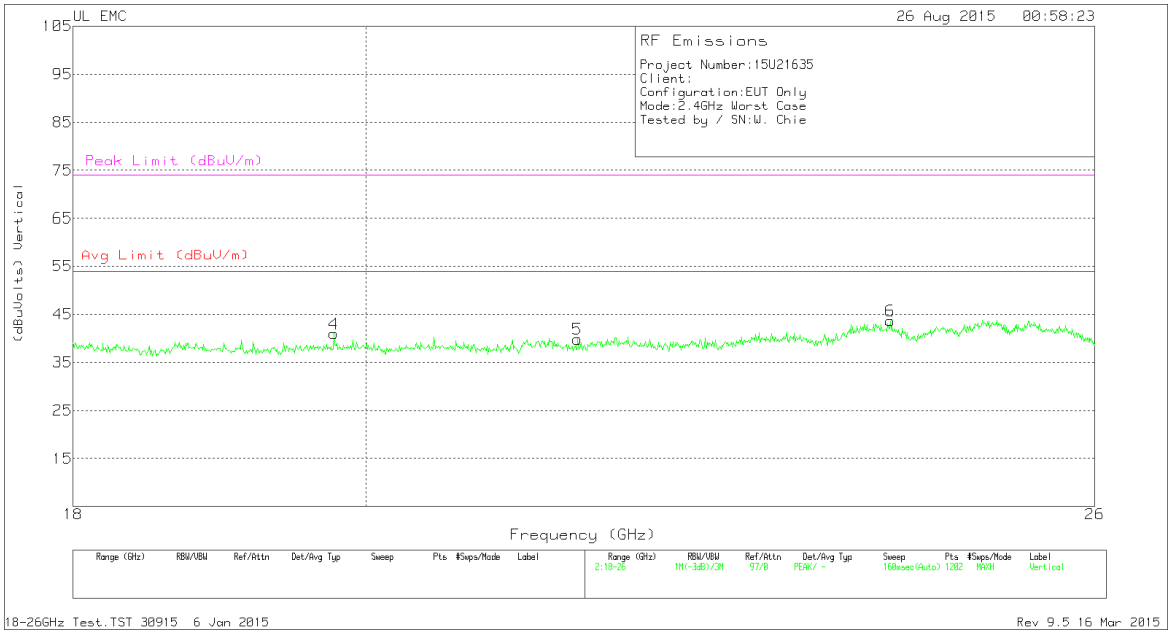
9.4. WORST-CASE 18 to 26 GHz

SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE)

HORIZONTAL PLOT



VERTICAL PLOT



HORIZONTAL & VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	18.586	41.37	Pk	32.5	-25.2	-9.5	39.16	54	-14.83	74	-34.83
2	21.704	41.13	Pk	33.3	-24.6	-9.5	40.33	54	-13.66	74	-33.66
3	25.101	45	Pk	33.9	-24.4	-9.5	45	54	-9	74	-29
4	19.772	42.6	Pk	32.6	-24.7	-9.5	41	54	-13	74	-33
5	21.584	41.53	Pk	33.1	-25.3	-9.5	39.83	54	-14.16	74	-34.16
6	24.155	44.17	Pk	33.4	-24.4	-9.5	43.66	54	-10.33	74	-30.33

Pk - Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBµV)	
	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

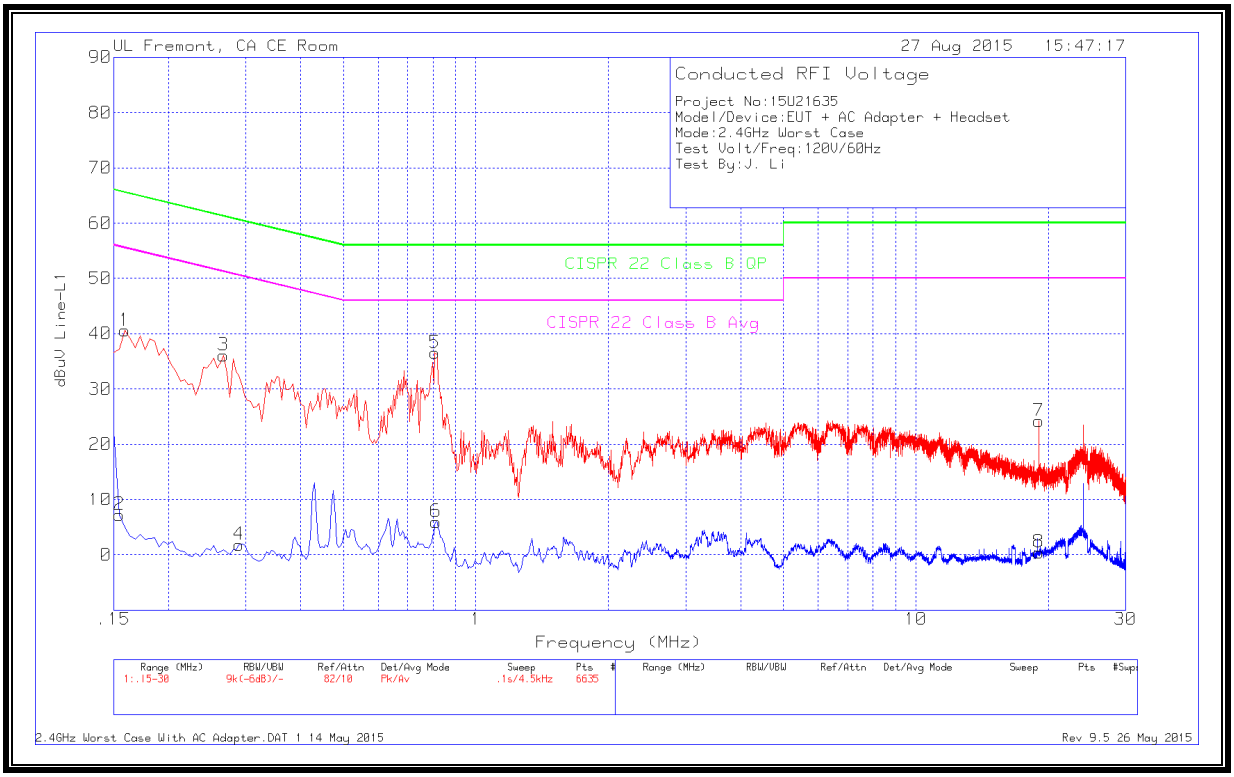
The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

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.

10.1. EUT POWERED BY AC/DC ADAPTER VIA USB CABLE

LINE 1



LINE 1 RESULTS

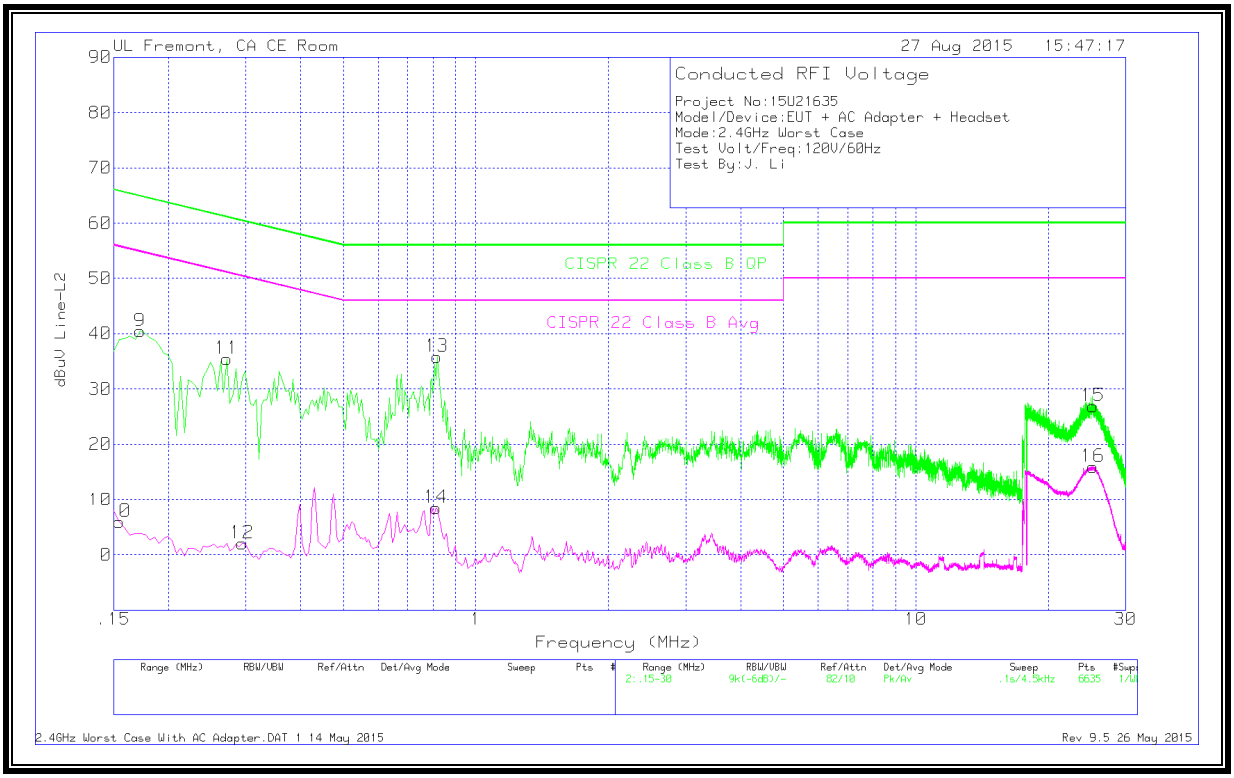
Range 1: Line-L1 .15 - 30MHz

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	.159	39.25	Pk	1.3	0	40.55	65.52	-24.97	-	-
2	.1545	5.92	Av	1.3	0	7.22	-	-	55.75	-48.53
3	.267	35.48	Pk	.6	0	36.08	61.21	-25.13	-	-
4	.2895	1.21	Av	.6	0	1.81	-	-	50.54	-48.73
5	.807	36.22	Pk	.3	0	36.52	56	-19.48	-	-
6	.8115	5.68	Av	.3	0	5.98	-	-	46	-40.02
7	19.014	23.68	Pk	.3	.2	24.18	60	-35.82	-	-
8	19.0365	-.07	Av	.3	.2	.43	-	-	50	-49.57

Pk - Peak detector

Av - Average detection

LINE 2



LINE 2 RESULTS

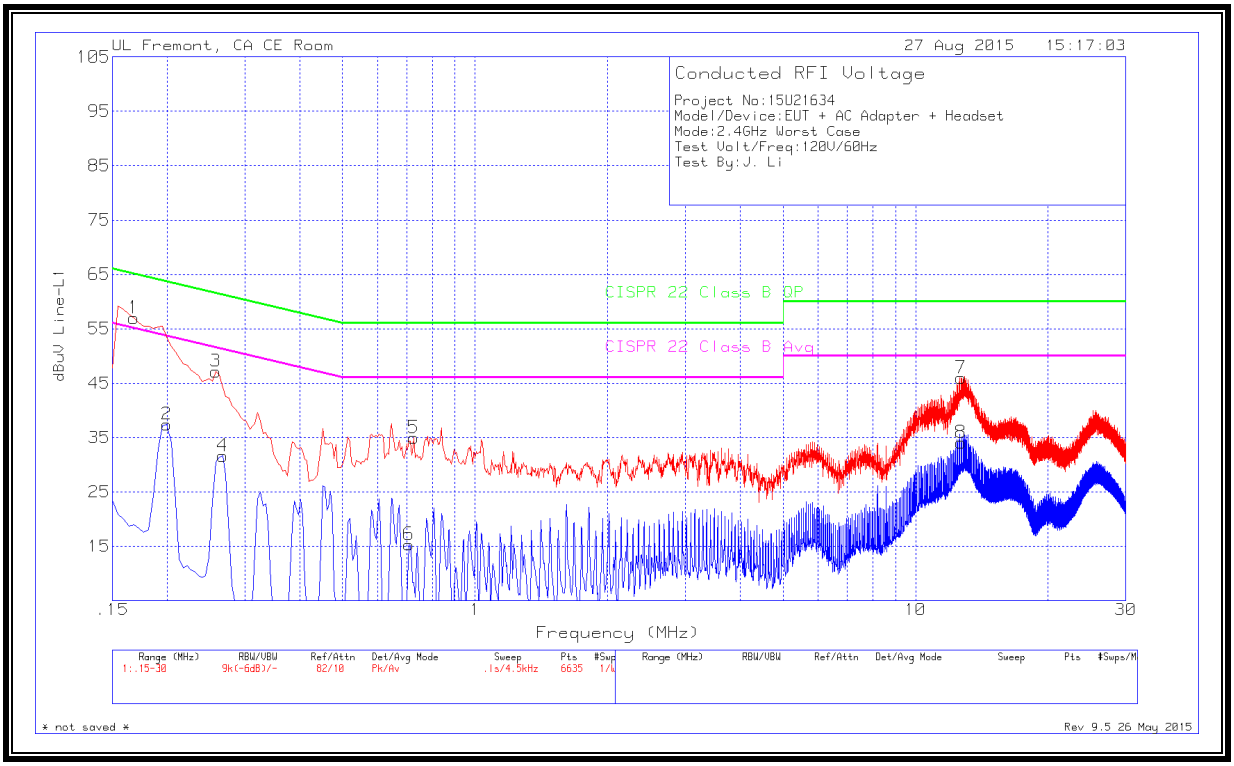
Range 2: Line-L2 .15 - 30MHz

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)
9	.1725	39.23	Pk	1.2	0	40.43	64.84	-24.41	-	-
10	.1545	4.58	Av	1.4	0	5.98	-	-	55.75	-49.77
11	.2715	34.79	Pk	.7	0	35.49	61.07	-25.58	-	-
12	.294	1.44	Av	.6	0	2.04	-	-	50.41	-48.37
13	.816	35.51	Pk	.3	0	35.81	56	-20.19	-	-
14	.8115	8.18	Av	.3	0	8.48	-	-	46	-37.52
15	25.26	26.32	Pk	.3	.3	26.92	60	-33.08	-	-
16	25.296	15.36	Av	.3	.3	15.96	-	-	50	-34.04

Pk - Peak detector
Av - Average detection

10.2. EUT POWERED BY HOST PC VIA USB CABLE

LINE 1



LINE 1 RESULTS

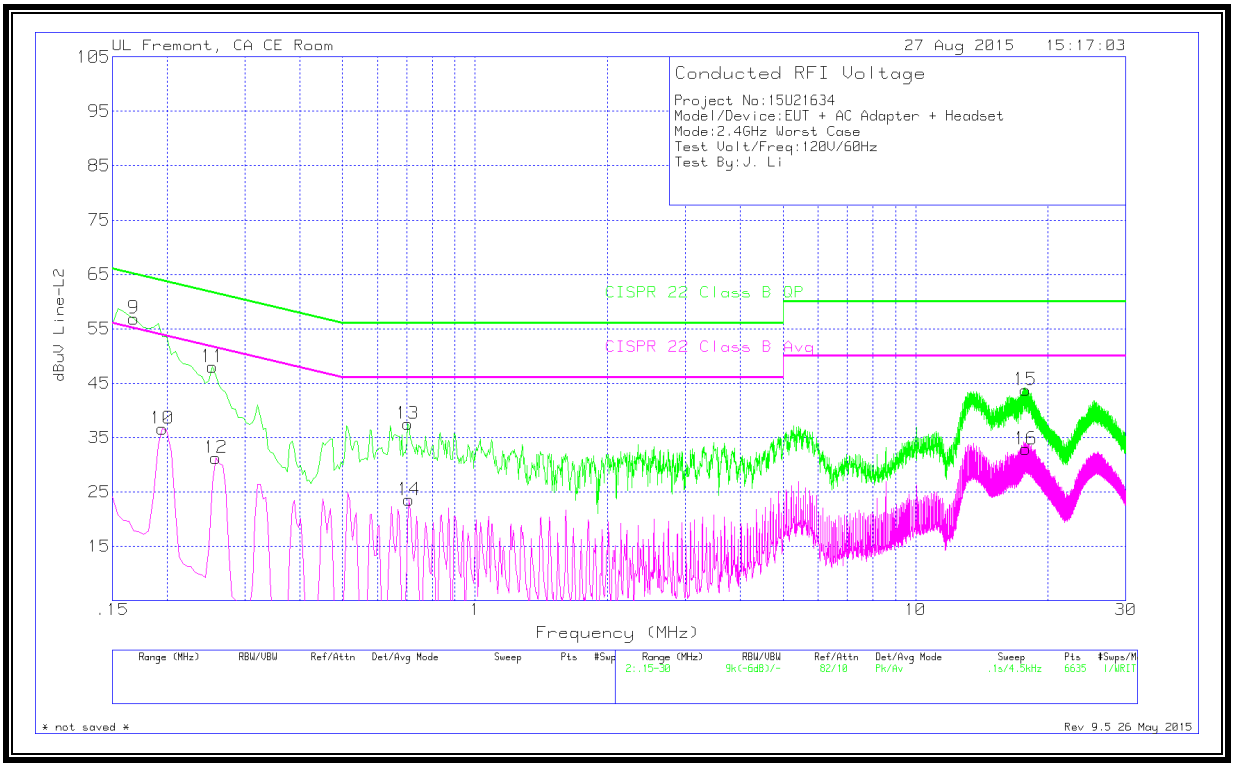
Range 1: Line-L1 .15 - 30MHz

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	.168	55.76	Pk	1.2	0	56.96	65.06	-8.1	-	-
2	.1995	36.52	Av	.9	0	37.42	-	-	53.63	-16.21
3	.258	46.46	Pk	.7	0	47.16	61.5	-14.34	-	-
4	.267	31	Av	.6	0	31.6	-	-	51.21	-19.61
5	.726	34.64	Pk	.3	0	34.94	56	-21.06	-	-
6	.708	15.01	Av	.3	0	15.31	-	-	46	-30.69
7	12.6735	45.54	Pk	.2	.2	45.94	60	-14.06	-	-
8	12.6735	33.64	Av	.2	.2	34.04	-	-	50	-15.96

Pk - Peak detector

Av - Average detection

LINE 2



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)
9	.168	55.61	Pk	1.3	0	56.91	65.06	-8.15	-	-
10	.195	35.64	Av	1	0	36.64	-	-	53.82	-17.18
11	.2535	47.3	Pk	.7	0	48	61.64	-13.64	-	-
12	.258	30.57	Av	.7	0	31.27	-	-	51.5	-20.23
13	.7035	37.22	Pk	.3	0	37.52	56	-18.48	-	-
14	.708	23.23	Av	.3	0	23.53	-	-	46	-22.47
15	17.7585	43.25	Pk	.3	.2	43.75	60	-16.25	-	-
16	17.799	32.39	Av	.3	.2	32.89	-	-	50	-17.11

Pk - Peak detector
Av - Average detection