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

CERTIFICATION TEST REPORT

FOR

BT, BLE and 802.11 a/b/g/n RADIO MODULE

MODEL NUMBER: CONAPPWM

FCC ID: MHI-CONAPPWM
IC ID: 3681C-CONAPPWM

REPORT NUMBER: 16U22930-E3V2
ISSUE DATE: 9/1/2016

Prepared for
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DRAPER, UT 84020, USA

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	03/25/16	Initial Issue	C. Vergonio
V2	09/01/16	Updated Section 5.5.	C. Vergonio

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: CARD ACCESS INC.
11778 SOUTH ELECTION RD. #260
DRAPER, UT 84020, USA

EUT DESCRIPTION: BT, BLE and 802.11 a/b/g/n RADIO MODULE

MODEL: CONAPPWM

SERIAL NUMBER: 427258, 427299, 427300

DATE TESTED: FEBRUARY 27 - March 24, 2016

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

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

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

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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 C63.10-2013, RSS-GEN Issue 4, RSS-247 Issue 1.

3. FACILITIES AND ACCREDITATION

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

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

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

The above test sites and facilities are covered under FCC Test Firm Registration # 208313.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0.

Chambers A through H are covered under Industry Canada company address code 2324B with site numbers 2324B -1 through 2324B-8, respectively.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 9KHz to 30 MHz	2.14 dB
Radiated Disturbance, 30 to 1000 MHz	4.98 dB
Radiated Disturbance,1000 to 6000 MHz	3.86 dB
Radiated Disturbance,6000 to 18000 MHz	4.23 dB
Radiated Disturbance,18000 to 26000 MHz	5.30 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a BT, BLE and 802.11 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	12.70	18.62
2412 - 2462	802.11g	17.13	51.64
2412 - 2462	802.11n HT20	15.50	35.48
2422 - 2452	802.11n HT40	12.17	16.48

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an PIFA antenna, with a maximum gain of -4dBi.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was BusyBox, rev.1.19.4 <2016-02-18 14:39:10 MST> built-In Shell (ash).

The test utility software used during testing was Tera Term, rev 4.8.3(SVN#5602)

5.5. WORST-CASE CONFIGURATION AND MODE

Below 1GHz 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 Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Z orientation.

Worst-case data rates as provided by the client were:
Based on the baseline scan, the worst-case data rates were:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	TRIAD	WSU120-0700	N/A	N/A
Laptop	Lenovo	T430	PB-05HPL	N/A
Laptop AC Adapter	Lenovo	ADLX90NLT2A	11S45N0707Z1ZL7436RDM2	N/A

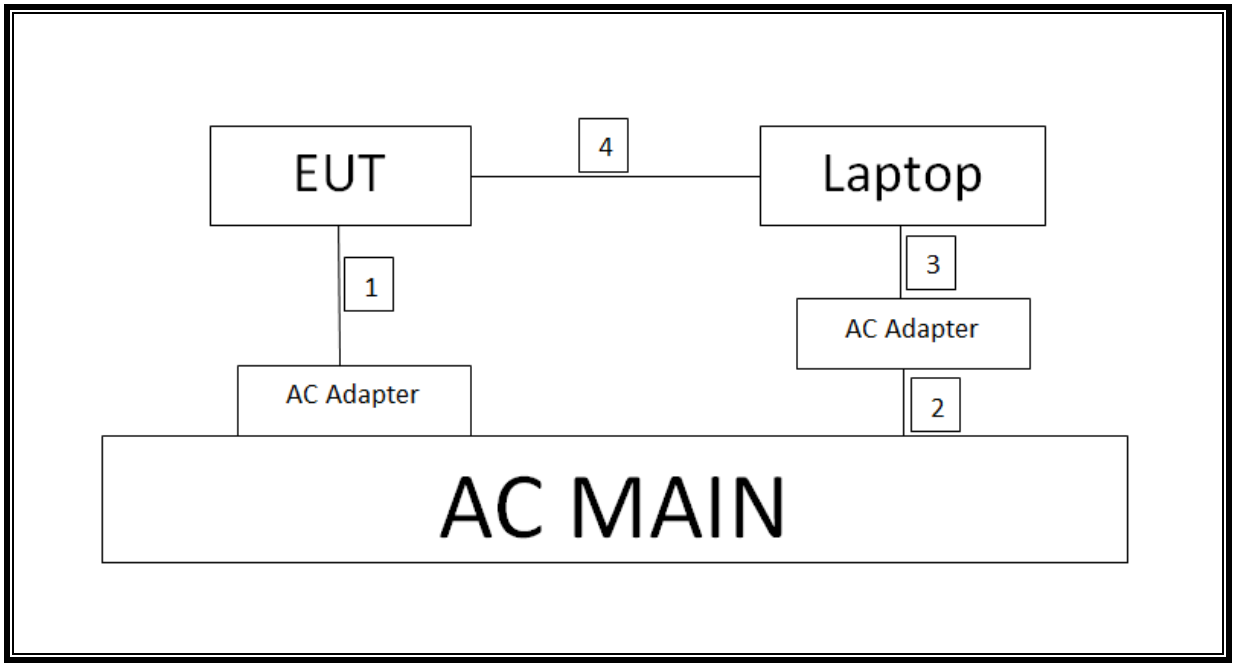
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC/DC	1	US115V/12V	Unshielded	1	
2	AC	1	US115V	Unshielded	1	
3	DC	1	20Vdc	Unshielded	1.5	Ferrite on Laptop end
4	Com	1	USB/Serial	Unshielded	1.5	

TEST SETUP

The EUT is stand-alone unit during the tests; test software exercised the radio card via USB-Serial cable.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	**Manufacturer**	**Model**	**T Number**	**Cal Due**
Amplifier, 1-18GHz	Miteq	AFS42-00101800-25-S-42	1165	07/20/16
Amplifier, 1-8GHz, 35 dB	Miteq	AMF-4D-01000800-30-29P	1172	07/20/16
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	122	01/29/17
Antenna, Horn, 18GHz	ETS Lindgren	3117	345	02/22/17
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	447	05/12/16
ESR7 EMI Test Receiver 7GHz	Rohde & Schwarz	ESR	1436	12/19/16
High Pass Filter 3GHz	Micro-Tronics	HPS17543	486	07/20/16
High Pass Filter 6GHz	Micro-Tronics	HPS17542	484	07/20/16
LISN, 30 MHz	FCC	FCC-LISN-50/250-25-2	1310	09/16/17
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	481	07/20/16
Peak / Average Power Sensor	Keysight	N1921A	750	09/17/16
Peak Power Meter	Agilent / HP	N1911A	1268	07/06/17
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	88	04/07/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	404	06/29/16
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	99	06/10/16
Spectrum Analyzer, PXA, 3 Hz to 44 GHz	Keysight	N9030A	PRE0126777	12/21/16

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Ver 9.5, June 24, 2015
Conducted Software	UL	UL EMC	Ver 9.5, May 26, 2015
Antenna Port Software	UL	UL RF	Ver 4.2, Feb 2, 2016

7. MEASUREMENT METHODS

On Time and Duty Cycle: KDB 558074 D01 v03r05, Section 6.

6 dB Emission BW: KDB 558074 D01 v03r05, Section 8.

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

Conducted Output Power: KDB 558074 D01 v03r05, Section 9.2.3.1 (Method AVGPM-G).

Power Spectral Density: KDB 558074 D01 v03r05, Section 10.3 (Method AVGPSD-1).

Unwanted emissions in restricted bands: KDB 558074 D01 v03r05, Section 12.0, 12.2.

Unwanted emissions in non-restricted bands: KDB 558074 D01 v03r05, Section 11.1, 11.2, and 11.3

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

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

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

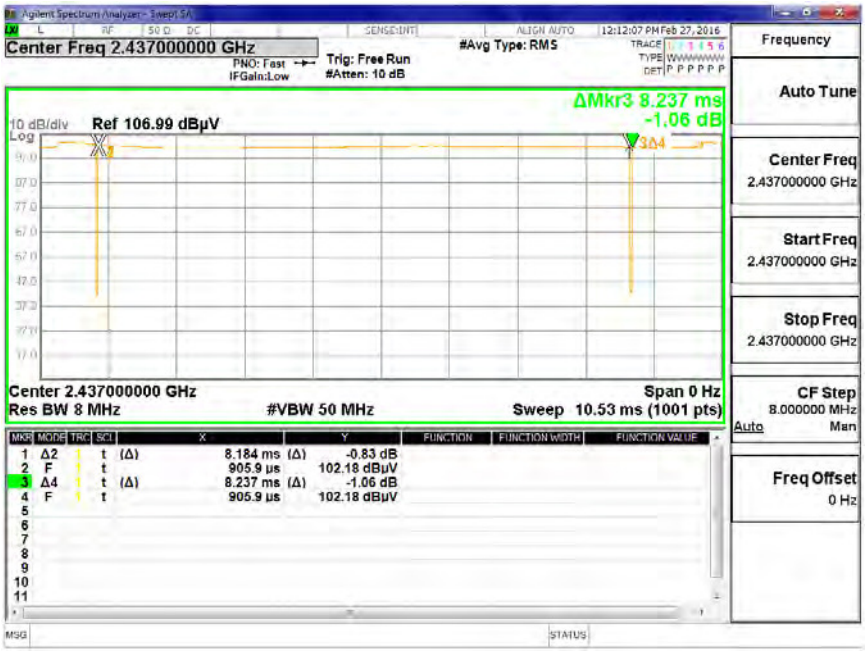
ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
802.11b	8.184	8.237	0.994	99.36%	0.00	0.010
802.11g	1.359	1.411	0.963	96.31%	0.16	0.736
802.11n HT20	1.270	1.322	0.961	96.07%	0.17	0.787
802.11n HT40	0.631	0.670	0.943	94.25%	0.26	1.584

DUTY CYCLE PLOTS

2.4 GHz BAND

DUTY CYCLE 802.11b MODE



DUTY CYCLE 802.11g MODE

DUTY CYCLE 802.11n HT20 MODE

DUTY CYCLE 802.11n HT40 MODE

9.2. 802.11b MODE IN THE 2.4 GHz BAND

9.2.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 5.2.1

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

TEST PROCEDURE

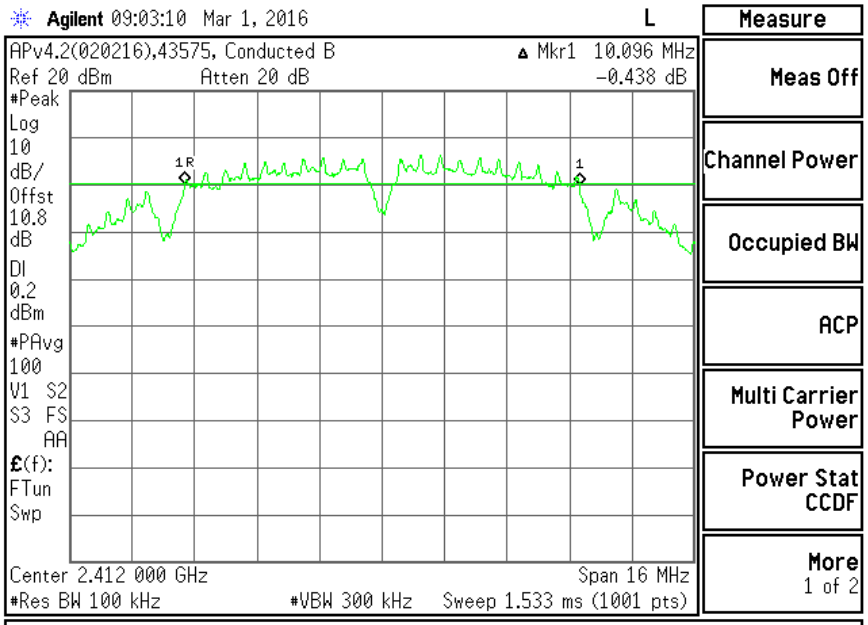
Reference to KDB 558074 D01 DTS Meas Guidance v03r05: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS

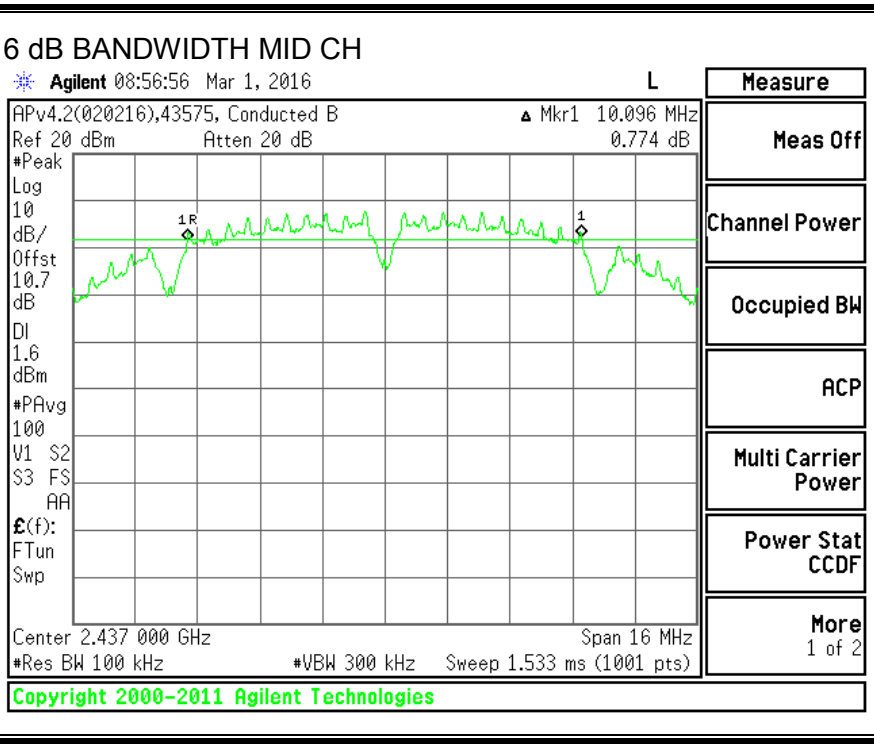
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	10.096	0.5
Mid	2437	10.096	0.5
High	2462	10.096	0.5

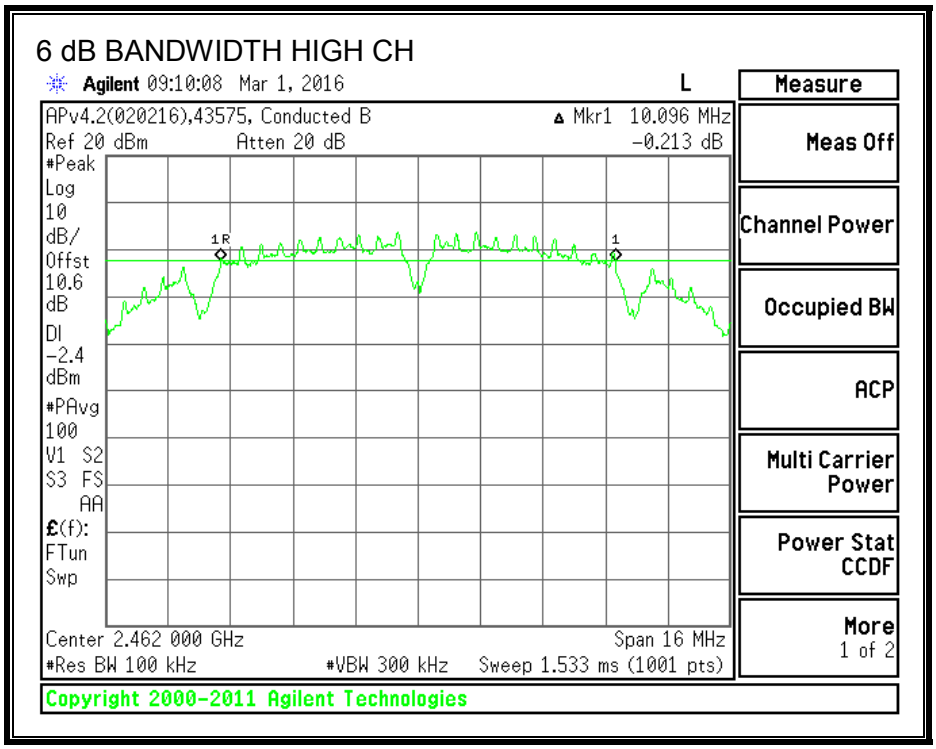
6 dB BANDWIDTH

6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH





9.2.1. 99% BANDWIDTH

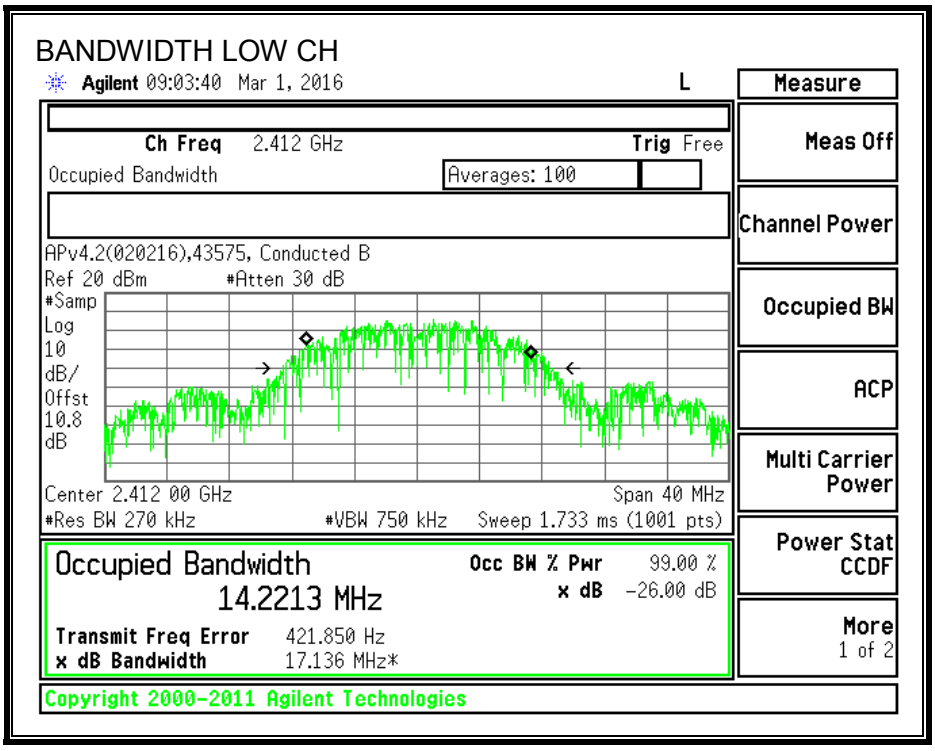
LIMITS

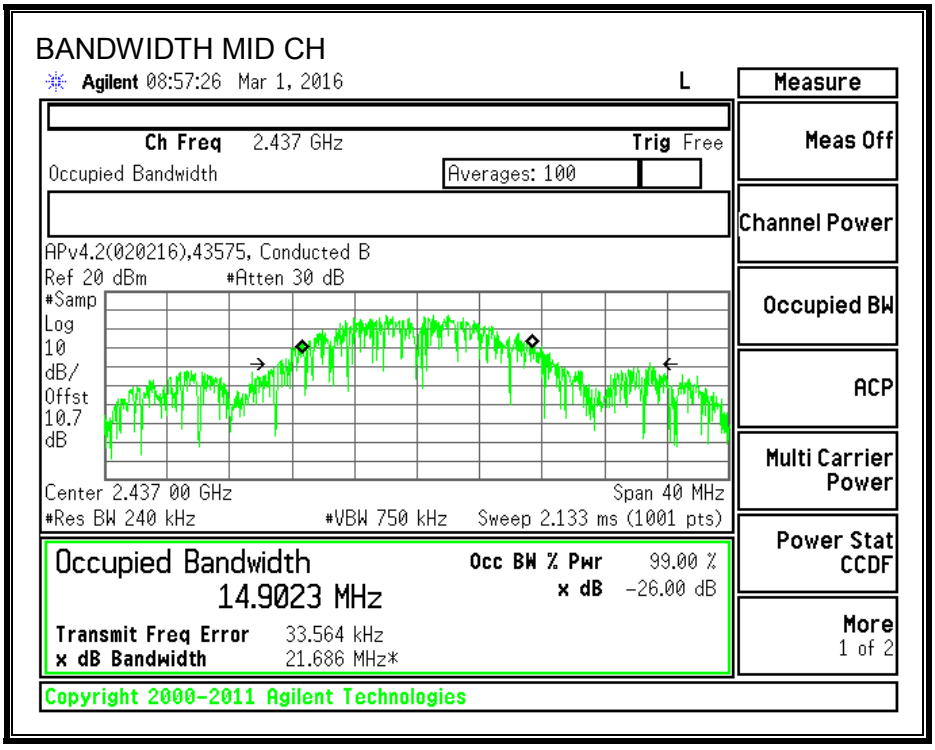
None; for reporting purposes only.

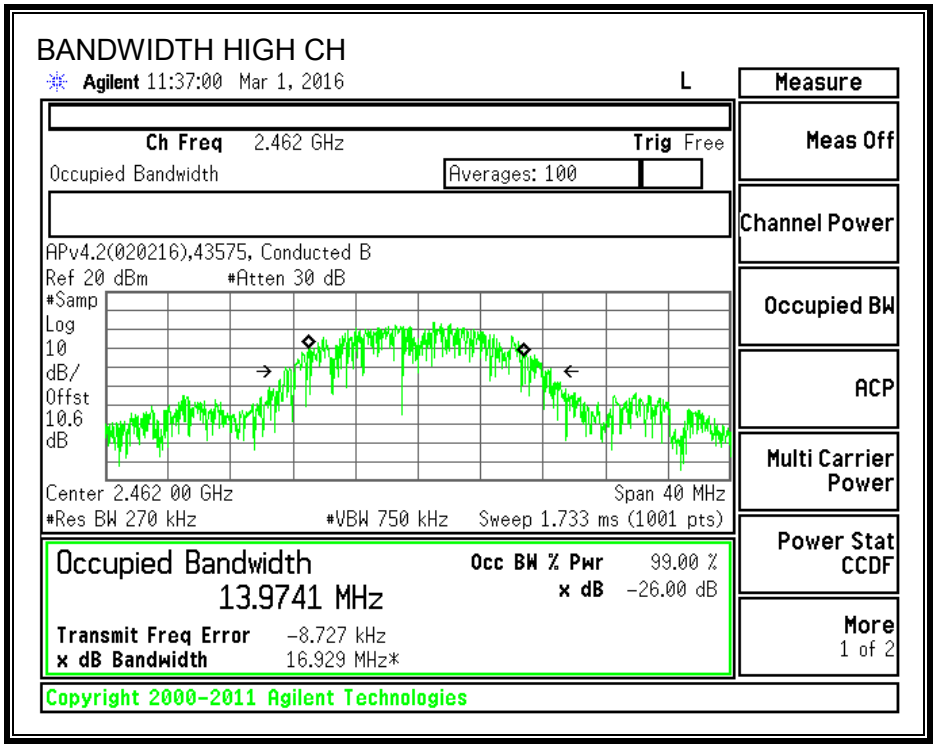
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	14.2213
Mid	2437	14.9023
High	2462	13.9741

99% BANDWIDTH







9.2.2. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 5.4.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power of 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	-4.00	30.00	30	36	30.00
Mid	2437	-4.00	30.00	30	36	30.00
High	2462	-4.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	12.70	12.70	30.00	-17.30
Mid	2437	12.60	12.60	30.00	-17.40
High	2462	12.20	12.20	30.00	-17.80

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

9.2.3. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 5.2.2

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

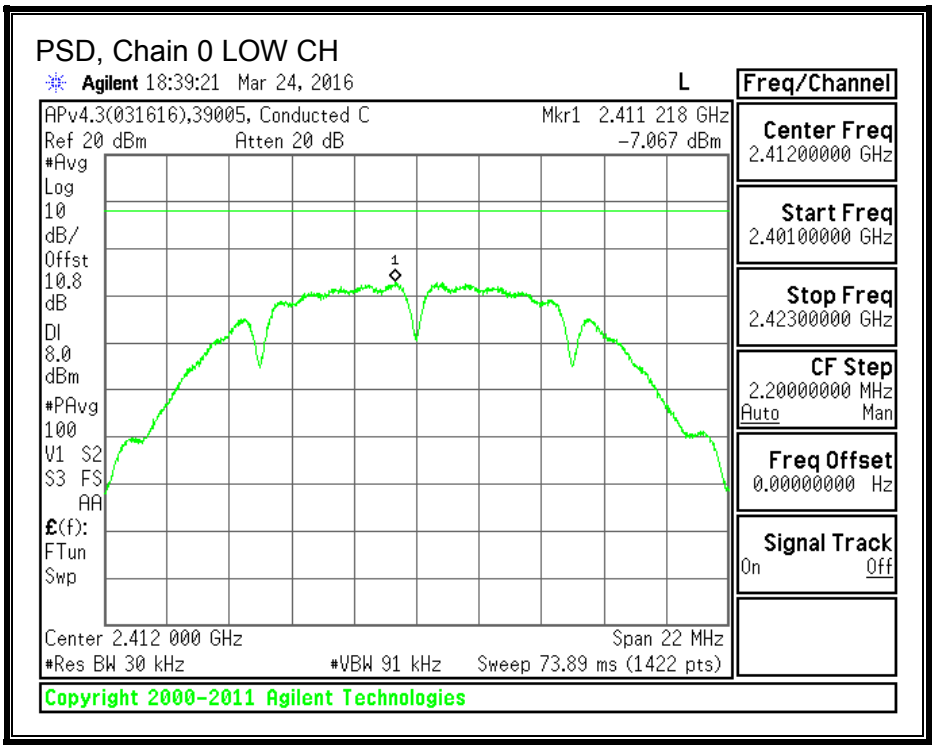
RESULTS

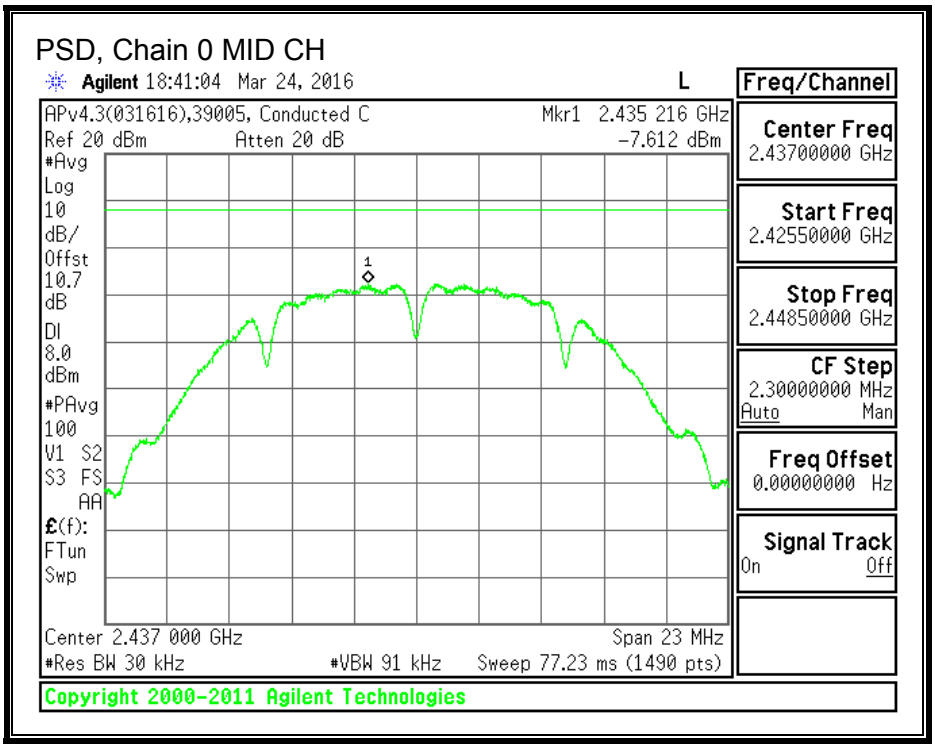
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

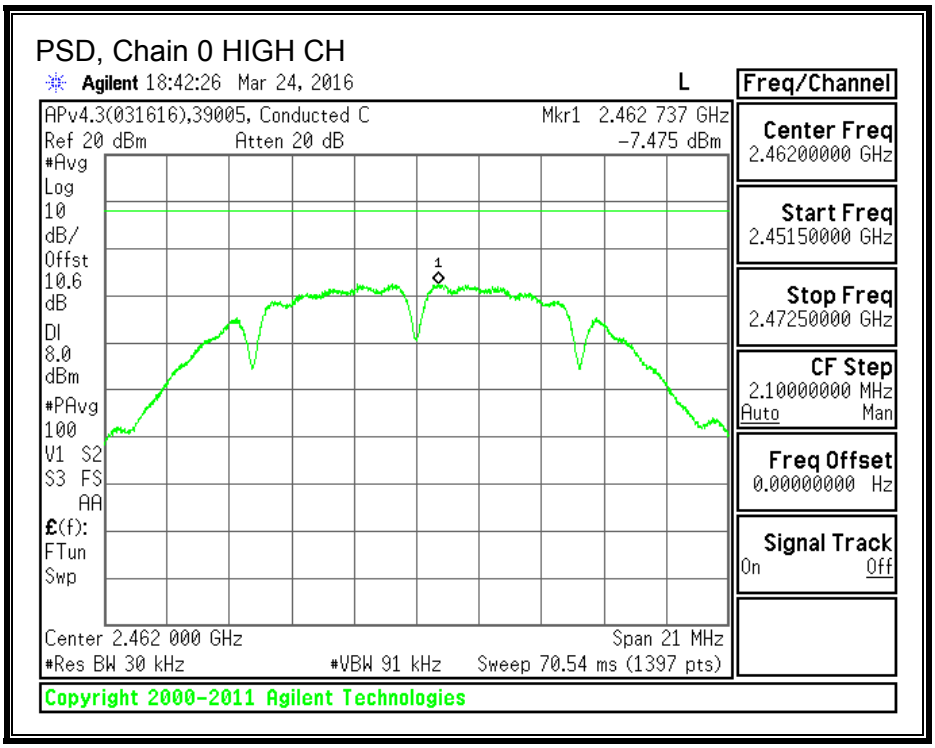
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-7.067	-7.07	8.0	-15.1
Mid	2437	-7.612	-7.61	8.0	-15.6
High	2462	-7.475	-7.48	8.0	-15.5

PSD, Chain 0





PSD, Chain 0 HIGH CH



9.2.4. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-247 5.5

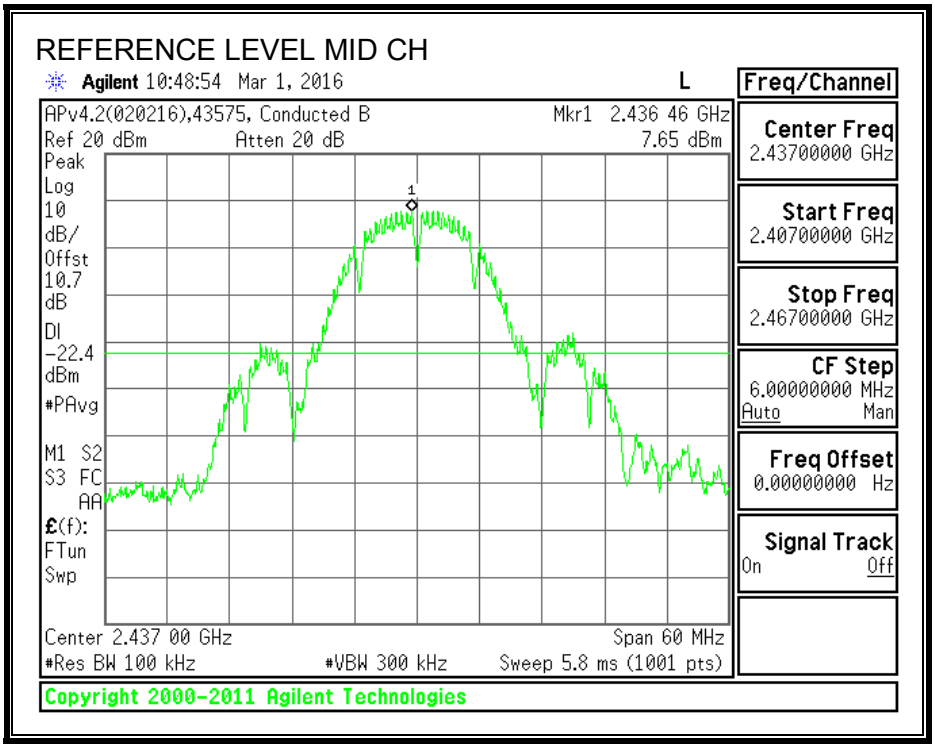
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

TEST PROCEDURE

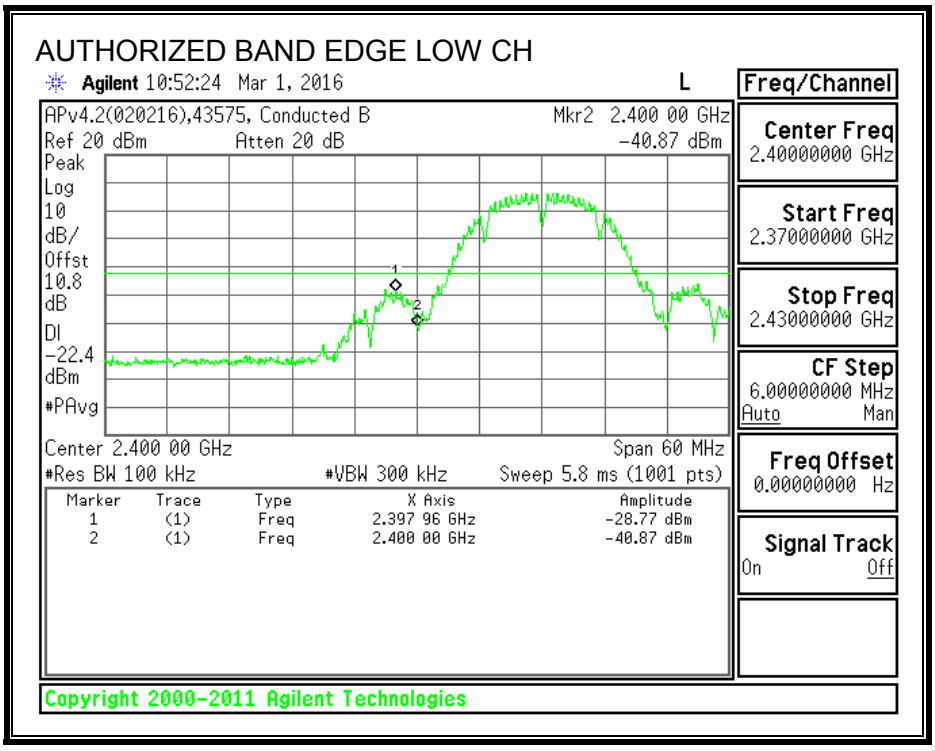
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

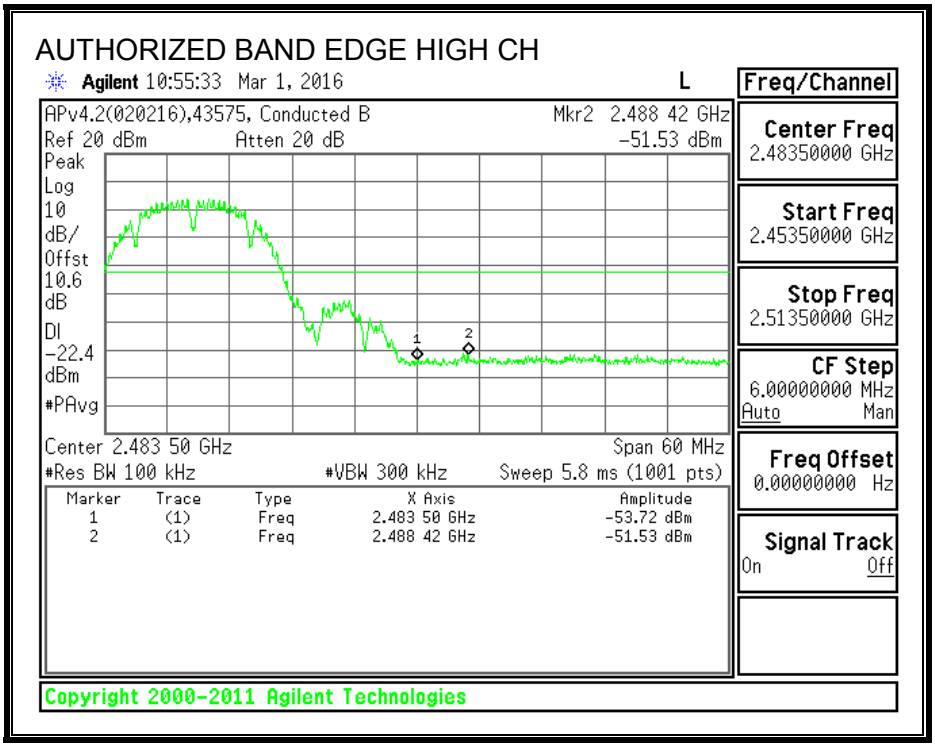
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE

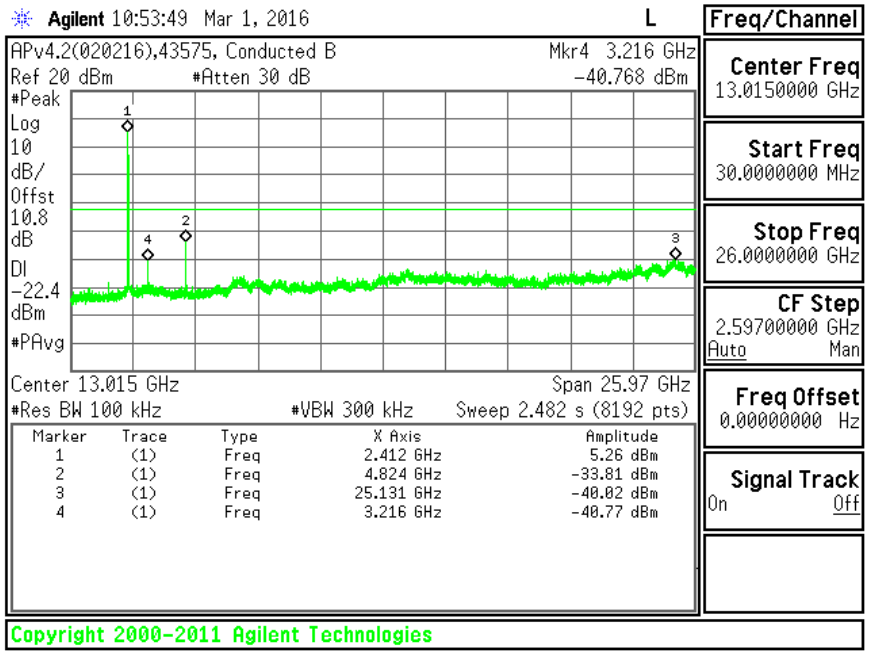


HIGH CHANNEL BANDEDGE

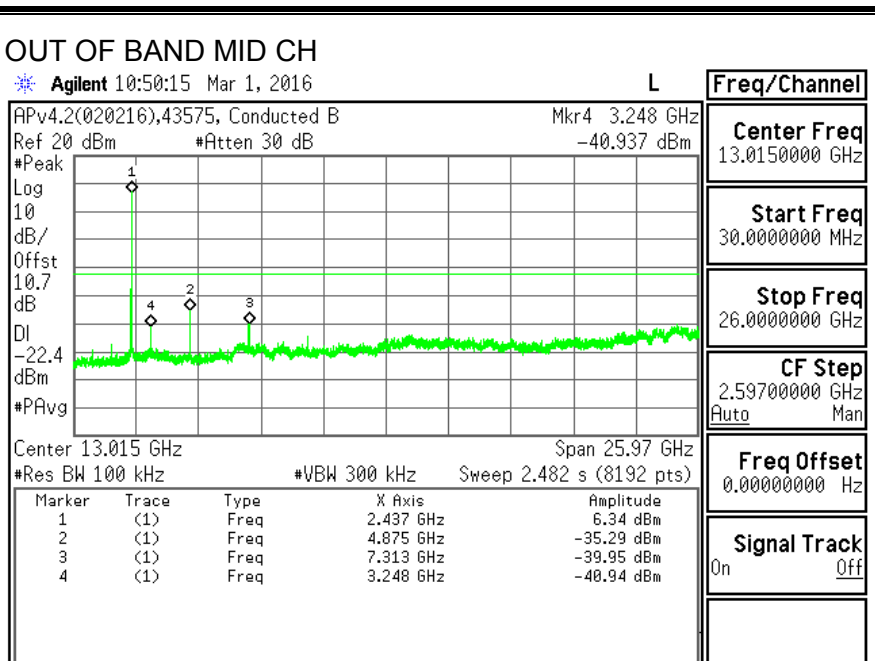


OUT-OF-BAND EMISSIONS

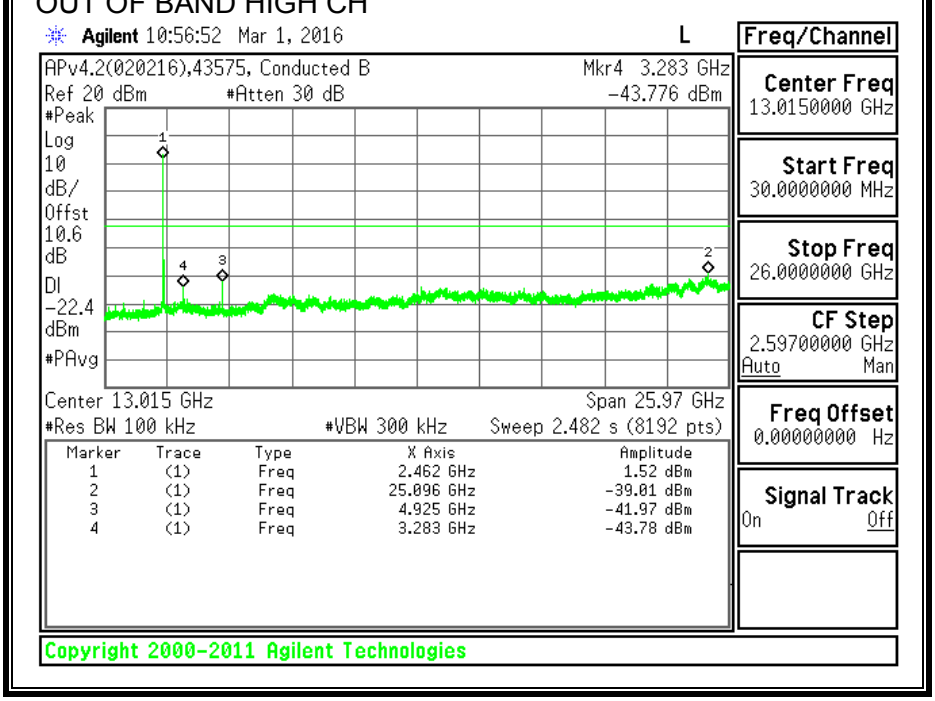
OUT OF BAND LOW CH



OUT OF BAND MID CH



OUT OF BAND HIGH CH



9.3. 802.11g MODE IN THE 2.4 GHz BAND

9.3.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 5.2.1

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

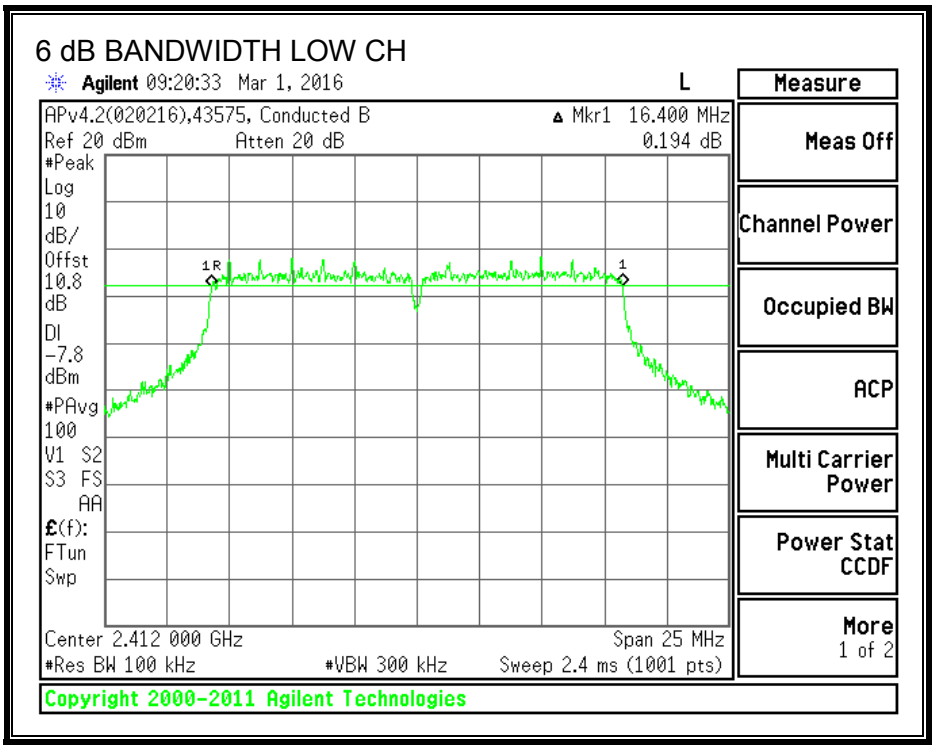
TEST PROCEDURE

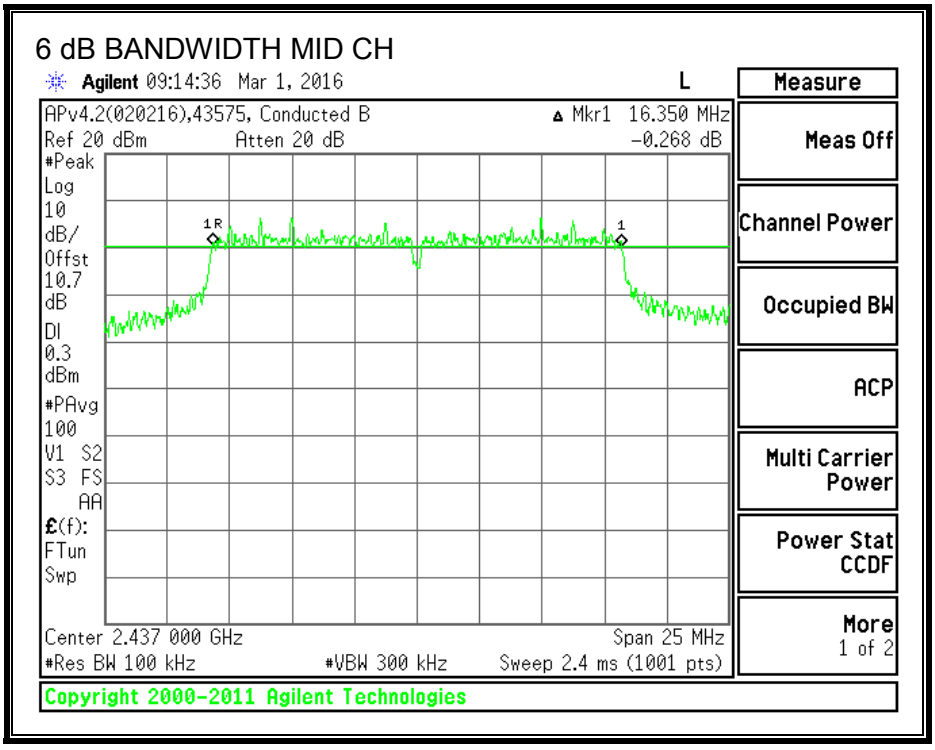
Reference to KDB 558074 D01 DTS Meas Guidance v03r05: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

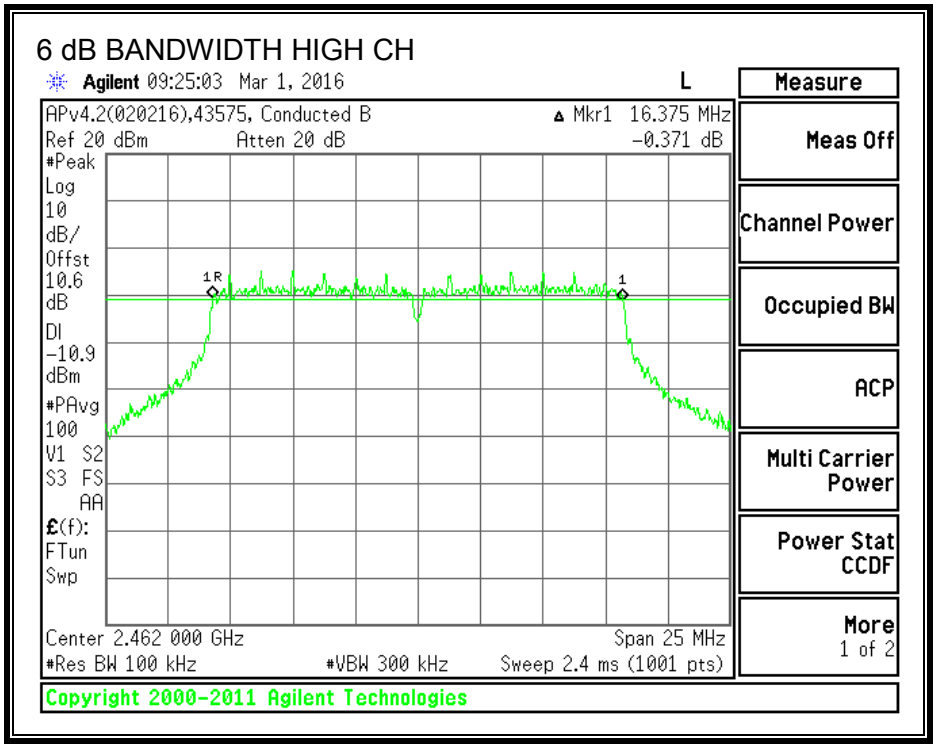
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	16.400	0.5
Mid	2437	16.350	0.5
High	2462	16.375	0.5

6 dB BANDWIDTH







9.3.1. 99% BANDWIDTH

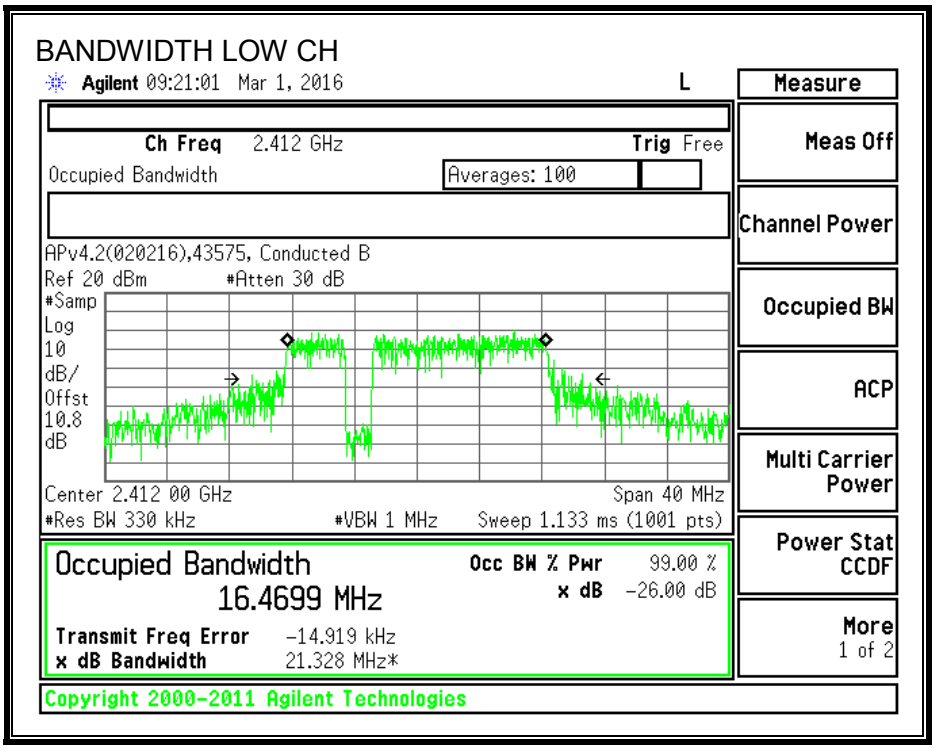
LIMITS

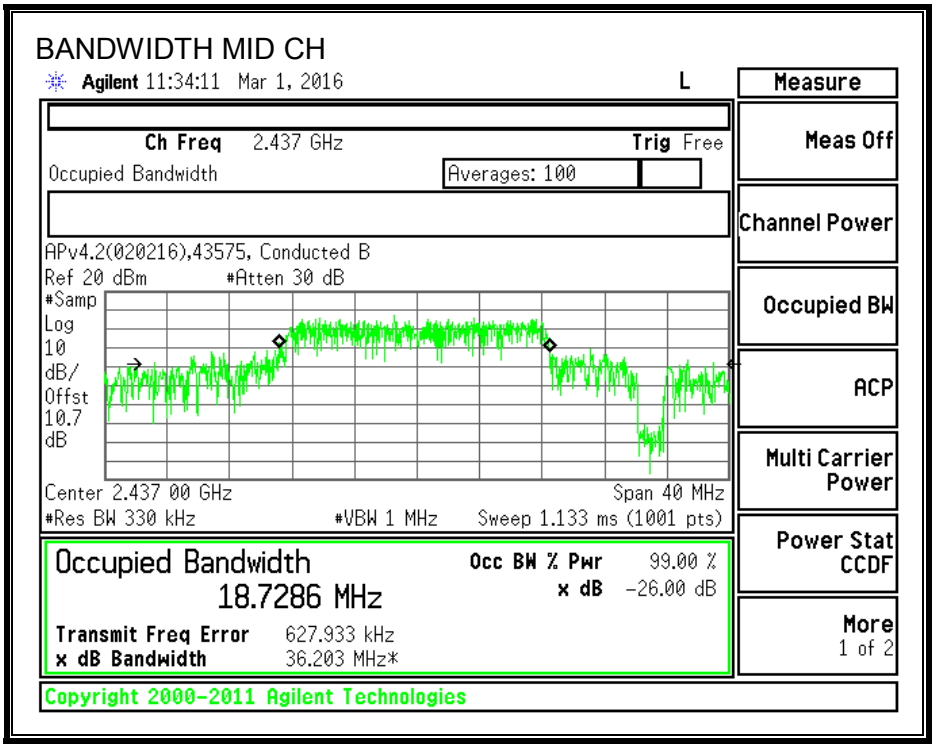
None; for reporting purposes only.

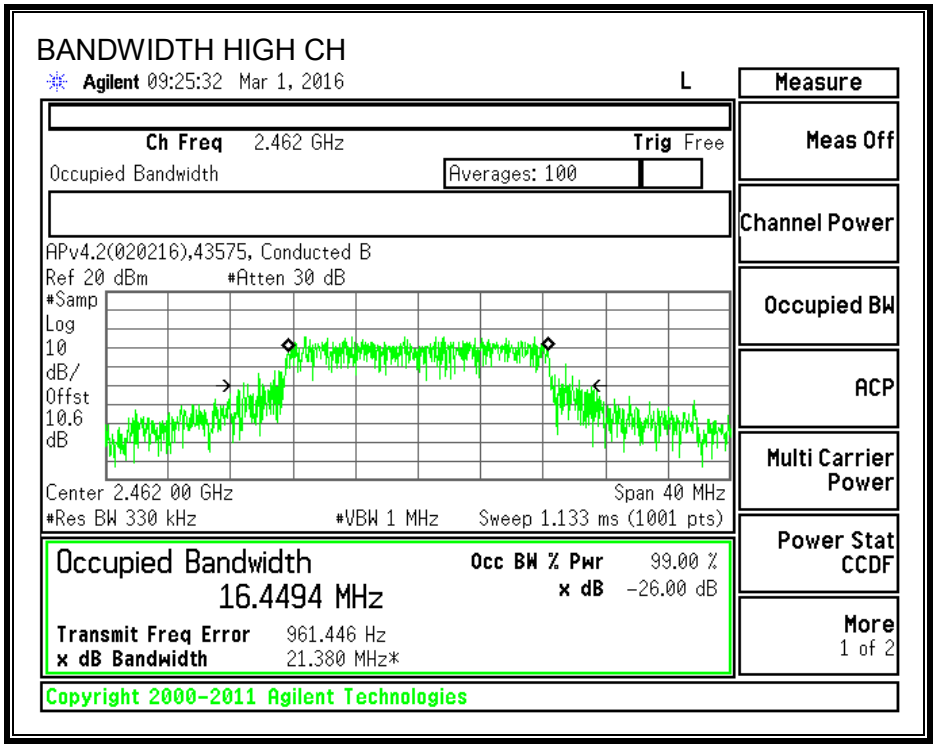
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.4699
Mid	2437	18.7286
High	2462	16.4494

99% BANDWIDTH







9.3.2. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 5.4.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power of 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	-4.00	30.00	30	36	30.00
2	2417	-4.00	30.00	30	36	30.00
3	2422	-4.00	30.00	30	36	30.00
Mid	2437	-4.00	30.00	30	36	30.00
8	2447	-4.00	30.00	30	36	30.00
9	2452	-4.00	30.00	30	36	30.00
10	2457	-4.00	30.00	30	36	30.00
High	2462	-4.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	13.40	13.40	30.00	-16.60
2	2417	16.42	16.42	30.00	-13.58
3	2422	16.78	16.78	30.00	-13.22
Mid	2437	17.13	17.13	30.00	-12.87
8	2447	17.00	17.00	30.00	-13.00
9	2452	15.19	15.19	30.00	-14.81
10	2457	14.65	14.65	30.00	-15.35
High	2462	11.40	11.40	30.00	-18.60

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

9.3.3. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 5.2.2

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

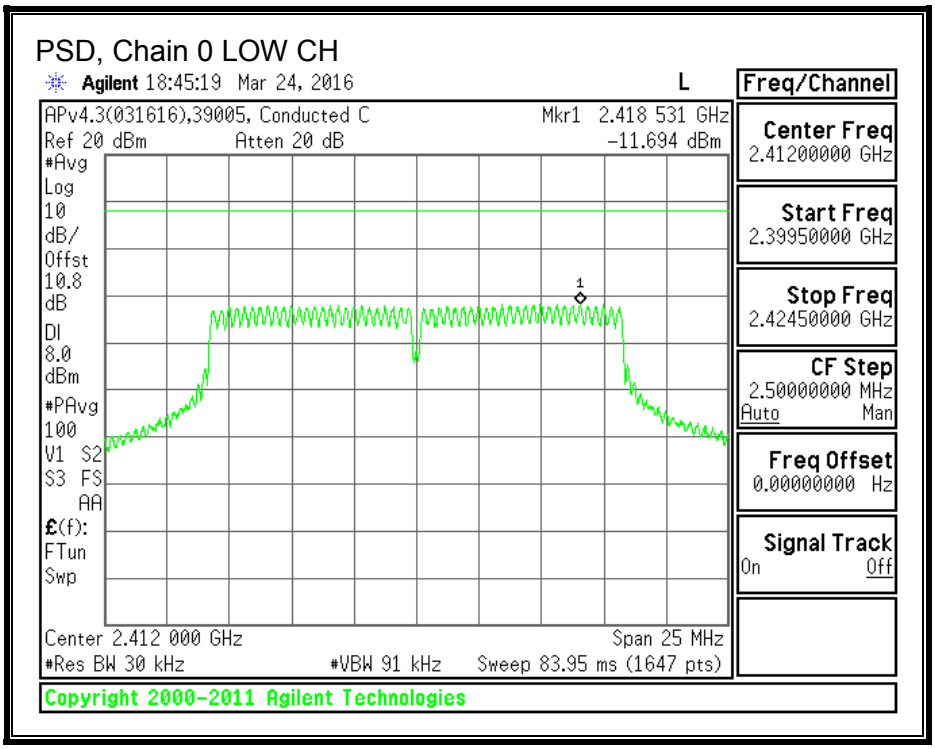
RESULTS

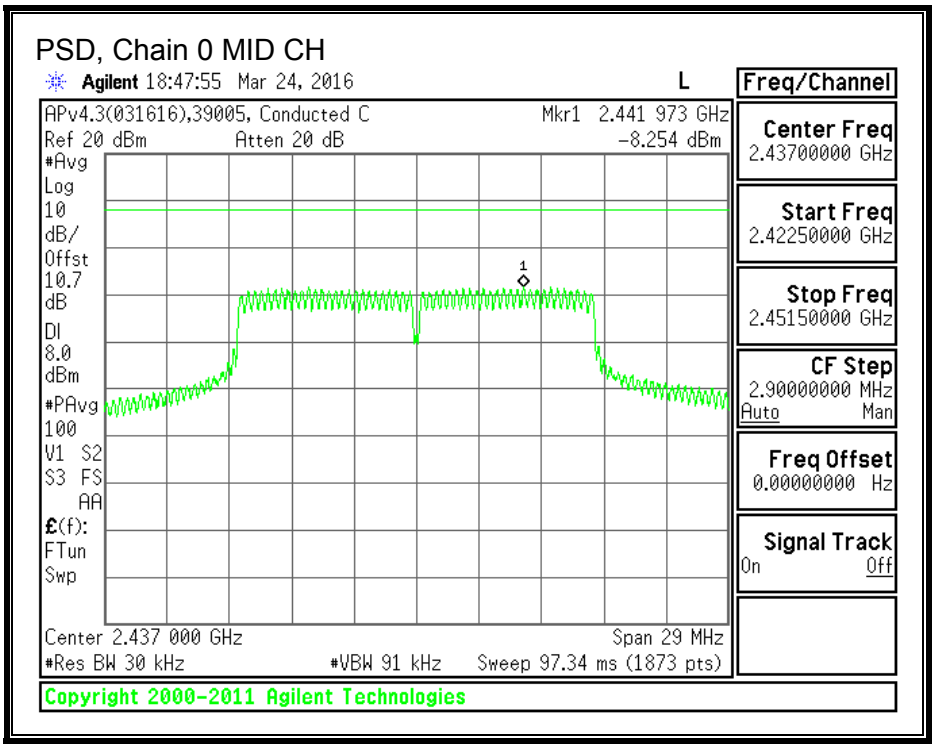
Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd PSD

PSD Results

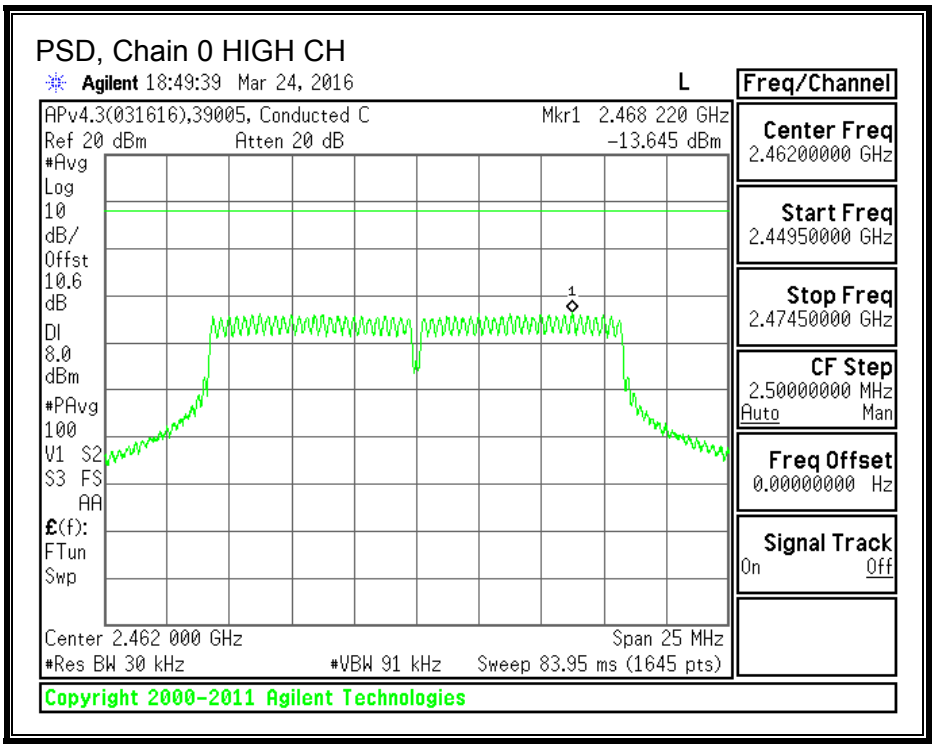
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-11.694	-11.53	8.0	-19.5
Mid	2437	-8.254	-8.09	8.0	-16.1
High	2462	-13.645	-13.49	8.0	-21.5

PSD, Chain 0





PSD, Chain 0 HIGH CH



9.3.4. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-247 5.5

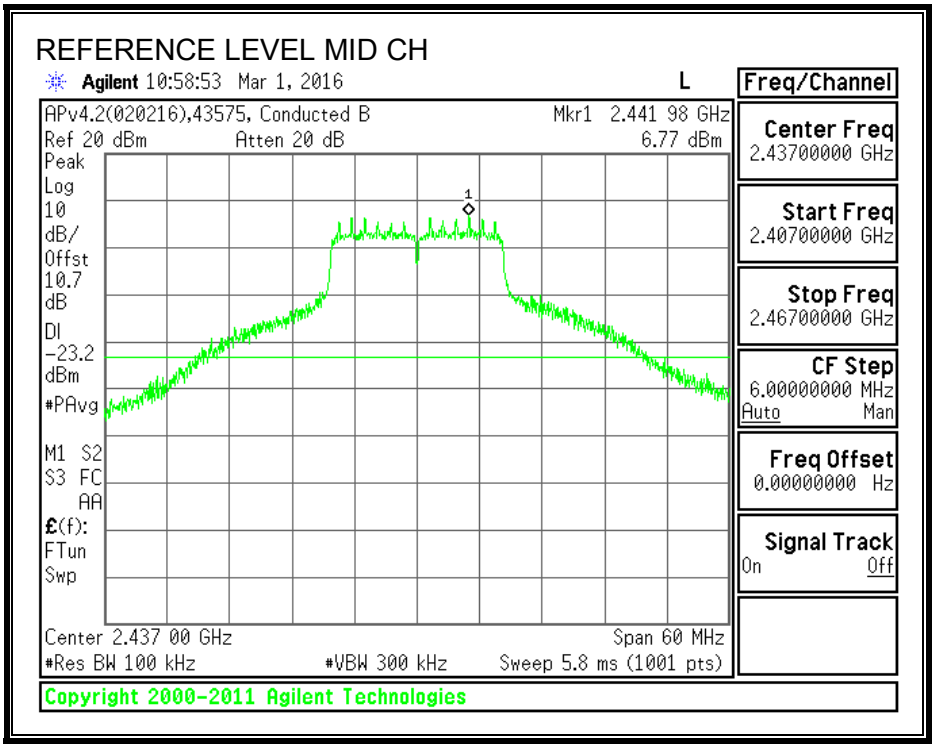
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

TEST PROCEDURE

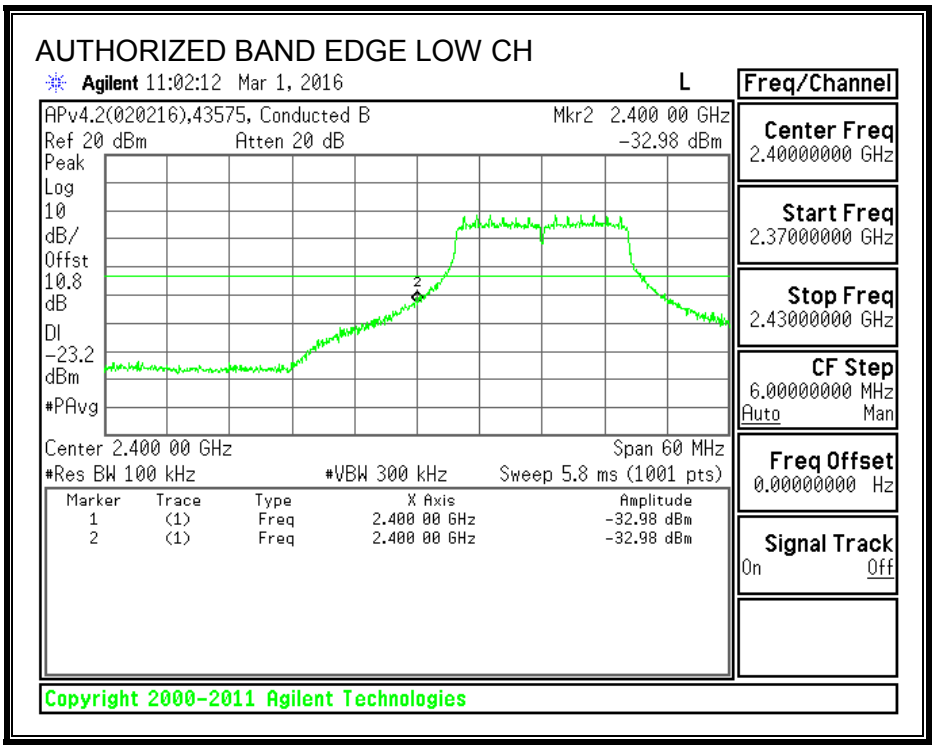
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

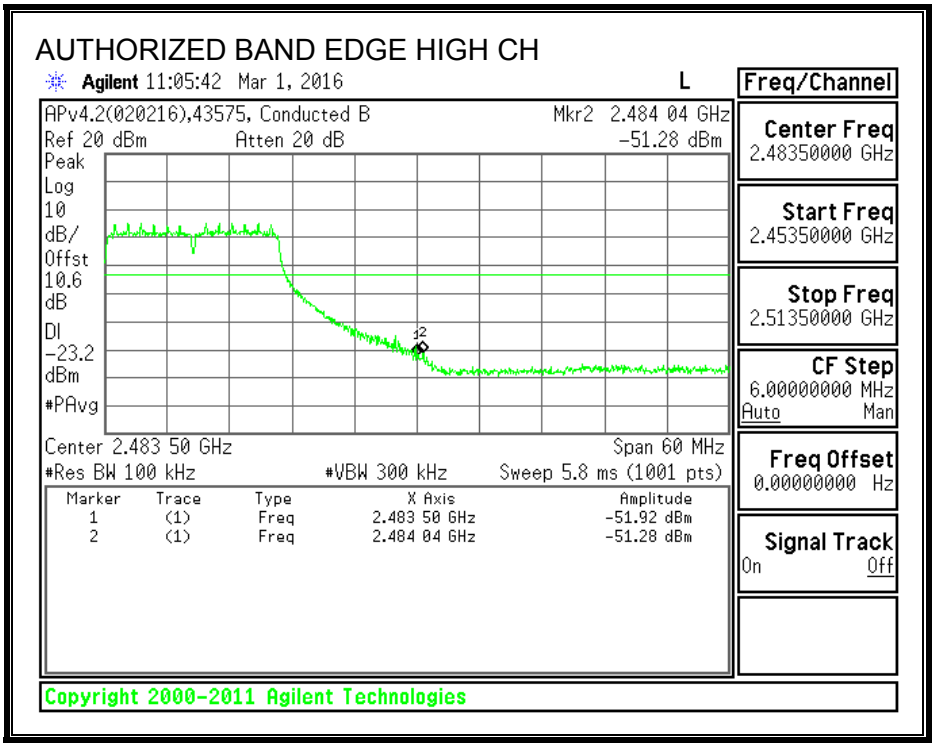
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE

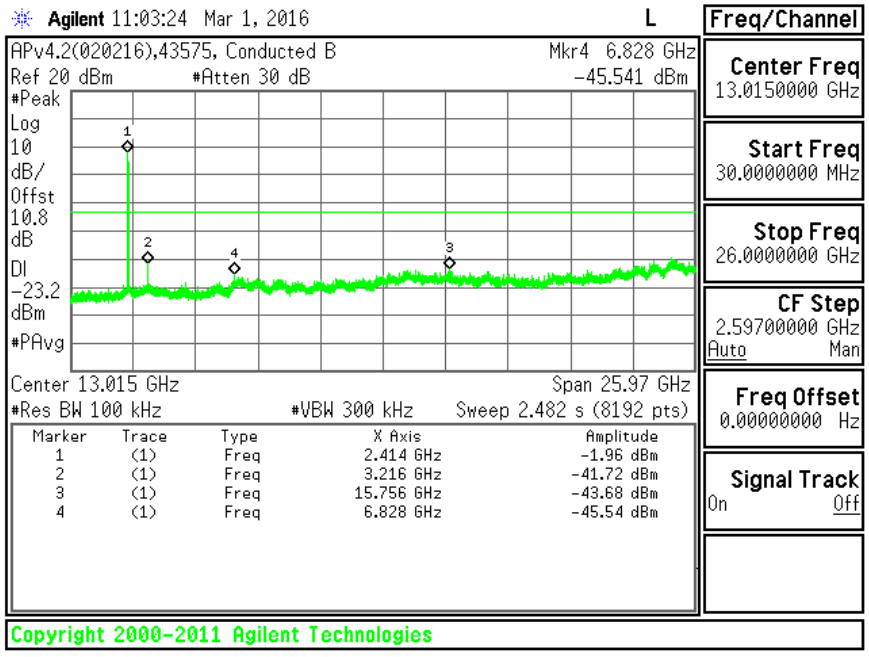


HIGH CHANNEL BANDEDGE

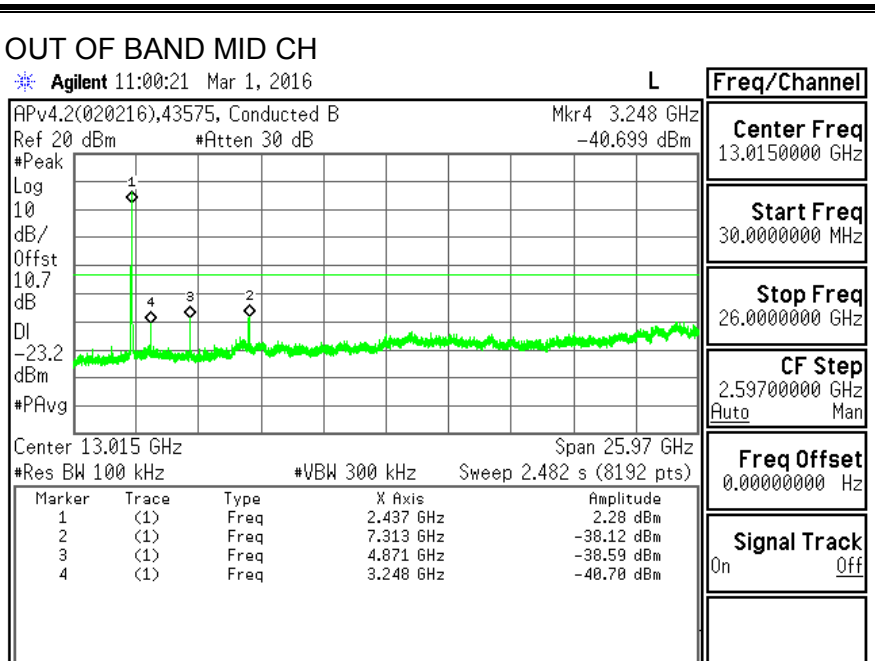


OUT-OF-BAND EMISSIONS

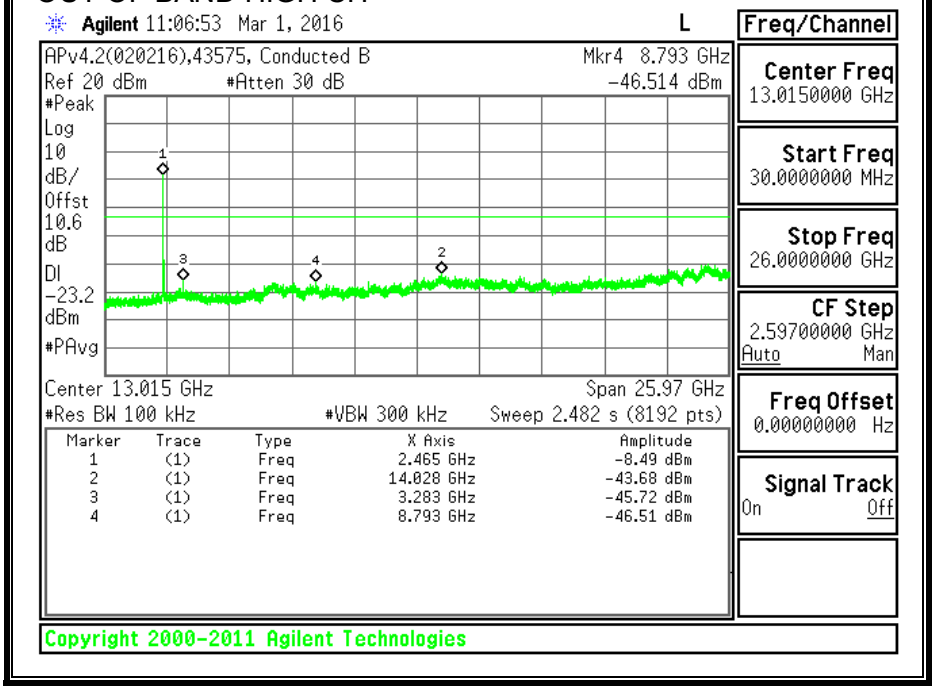
OUT OF BAND LOW CH



OUT OF BAND MID CH



OUT OF BAND HIGH CH



9.4. 802.11n HT20 MODE IN THE 2.4 GHz BAND

9.4.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-247 5.2.1

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

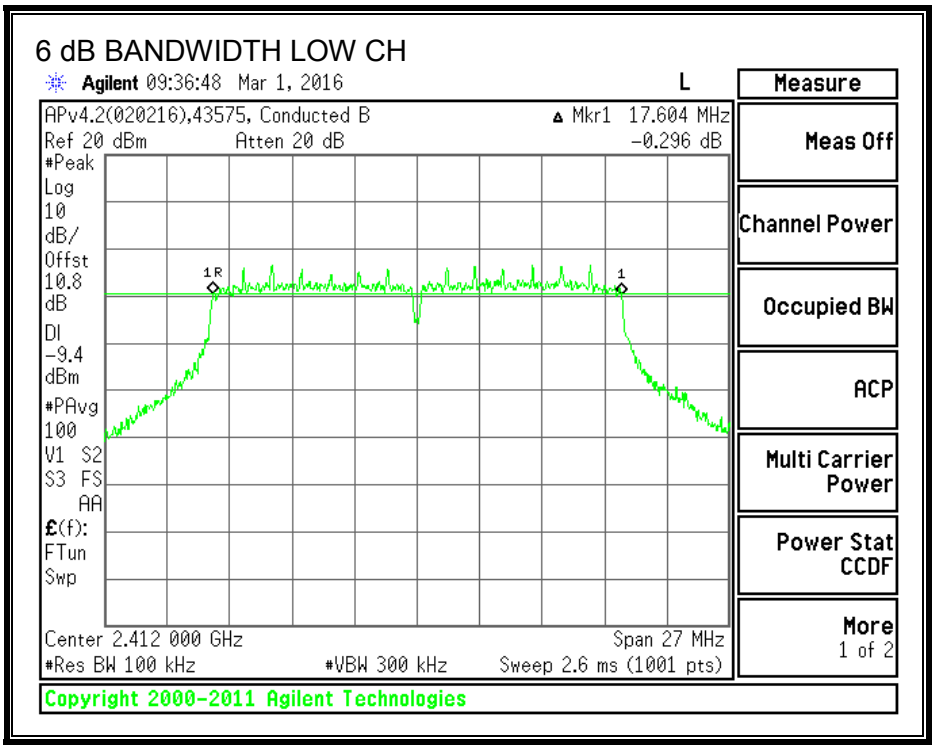
TEST PROCEDURE

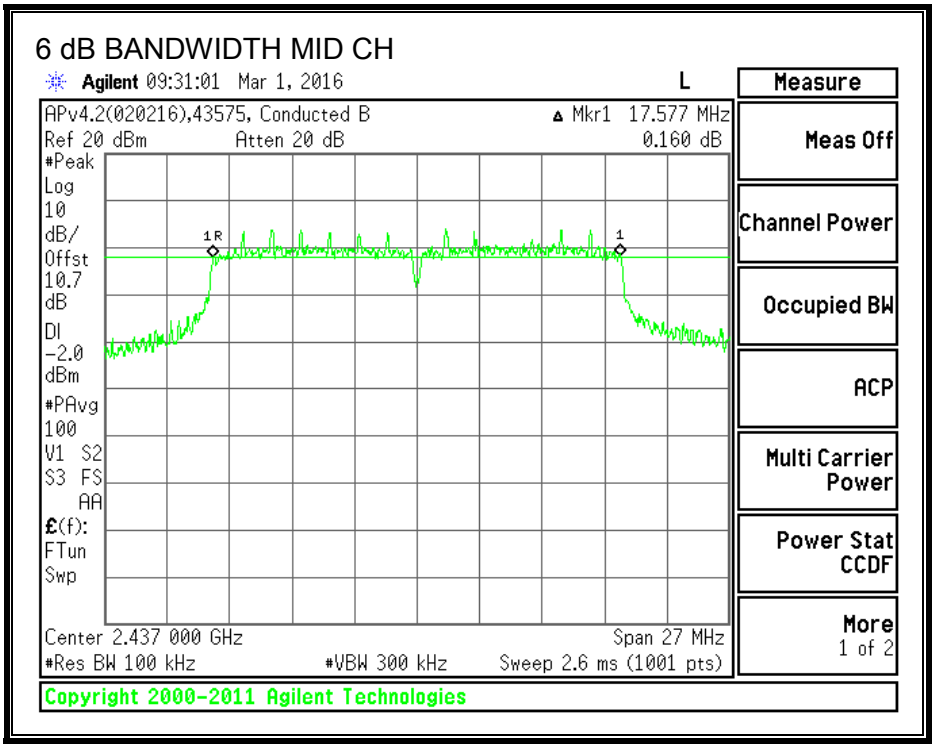
Reference to KDB 558074 D01 DTS Meas Guidance v03r05: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

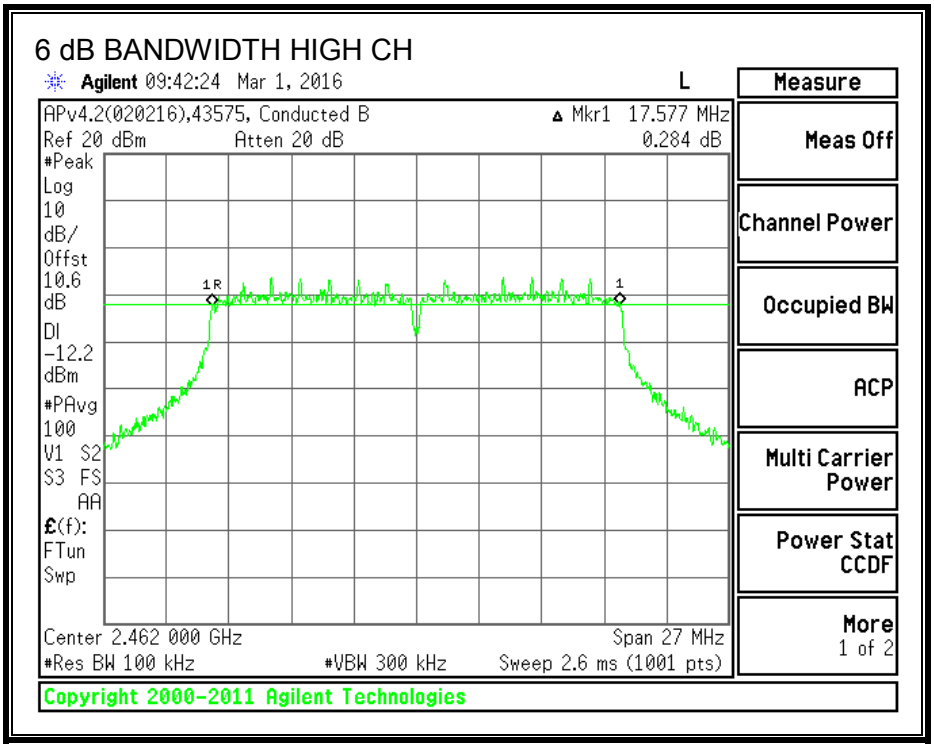
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	17.604	0.5
Mid	2437	17.577	0.5
High	2462	17.577	0.5

6 dB BANDWIDTH







9.4.1. 99% BANDWIDTH

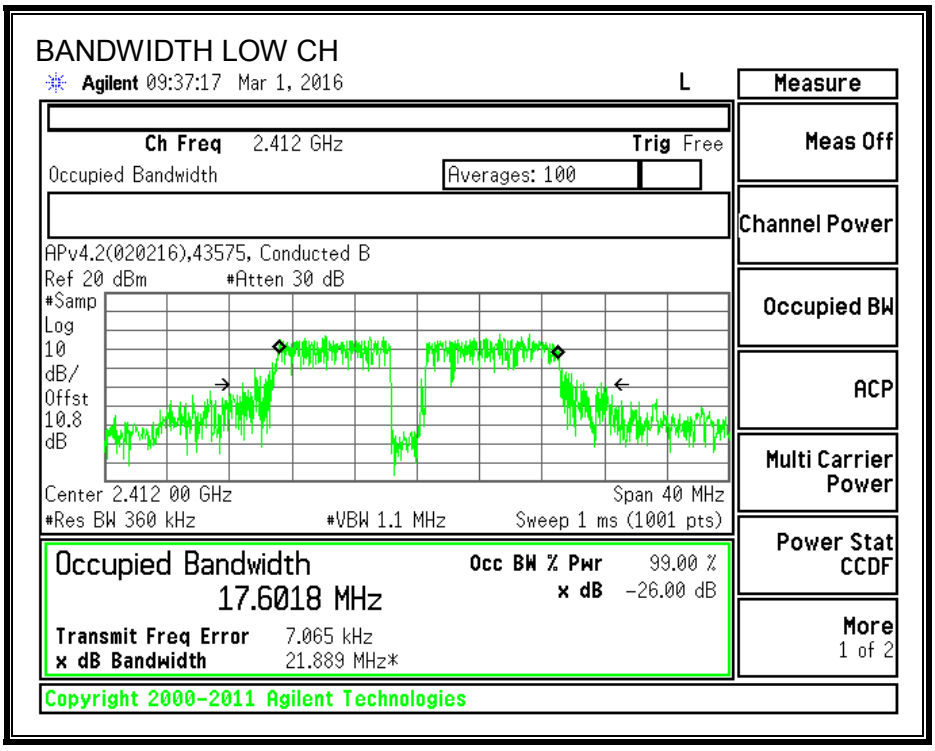
LIMITS

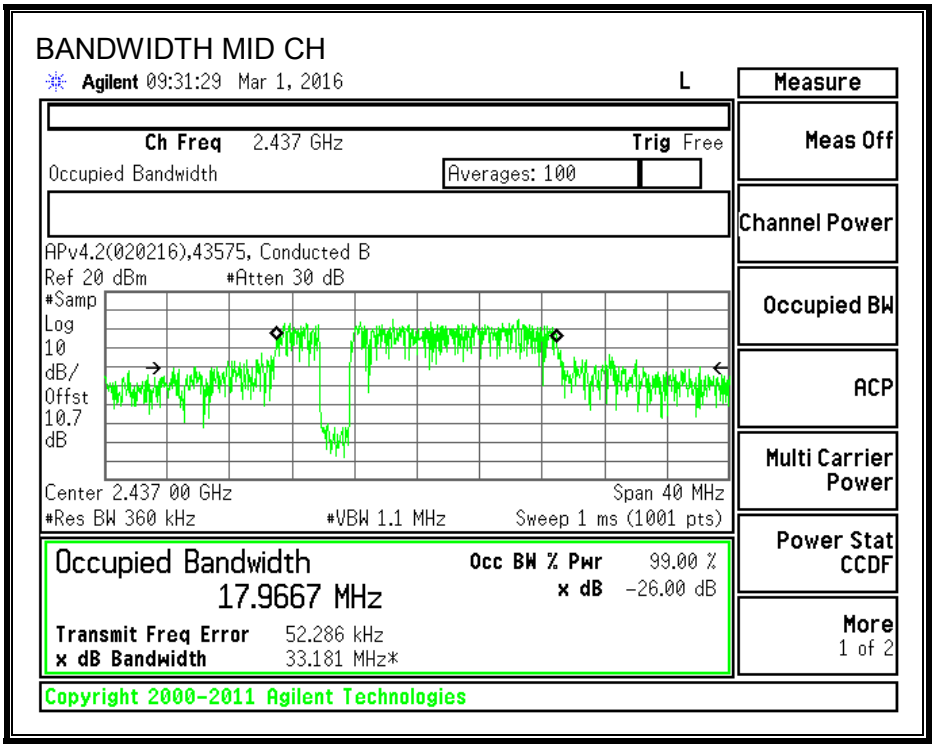
None; for reporting purposes only.

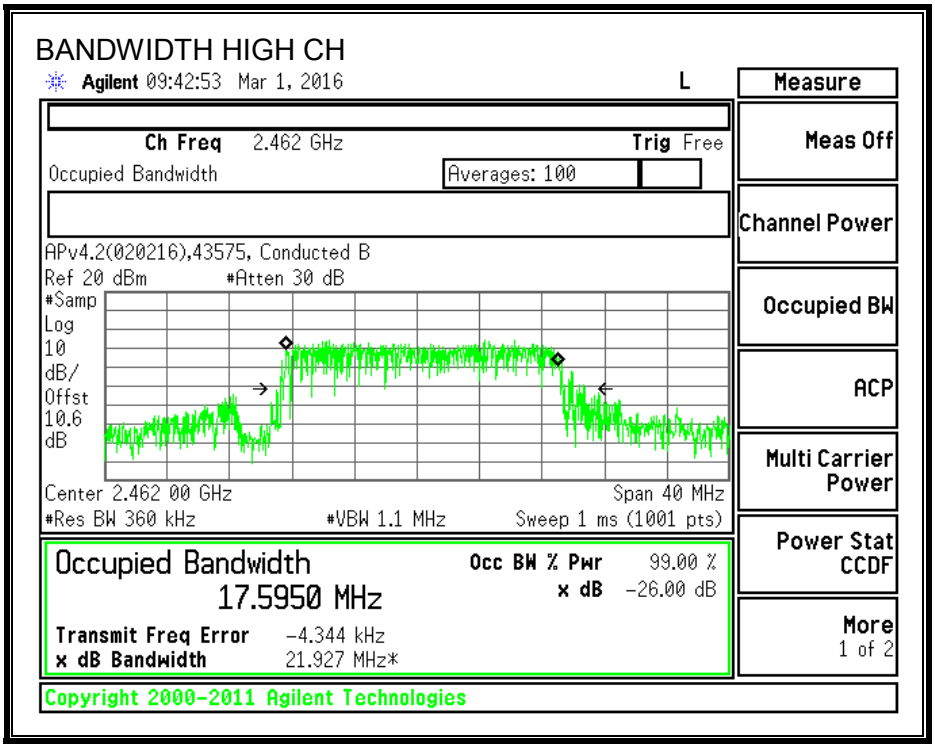
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.6018
Mid	2437	17.9667
High	2462	17.5950

99% BANDWIDTH







9.4.2. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 5.4.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power of 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	-4.00	30.00	30	36	30.00
2	2417	-4.00	30.00	30	36	30.00
3	2422	-4.00	30.00	30	36	30.00
Mid	2437	-4.00	30.00	30	36	30.00
9	2452	-4.00	30.00	30	36	30.00
10	2457	-4.00	30.00	30	36	30.00
High	2462	-4.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	12.06	12.06	30.00	-17.94
2	2417	14.68	14.68	30.00	-15.32
3	2422	15.50	15.50	30.00	-14.50
Mid	2437	15.17	15.17	30.00	-14.83
9	2452	15.38	15.38	30.00	-14.62
10	2457	14.09	14.09	30.00	-15.91
High	2462	10.80	10.80	30.00	-19.20

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

9.4.3. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 5.2.2

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

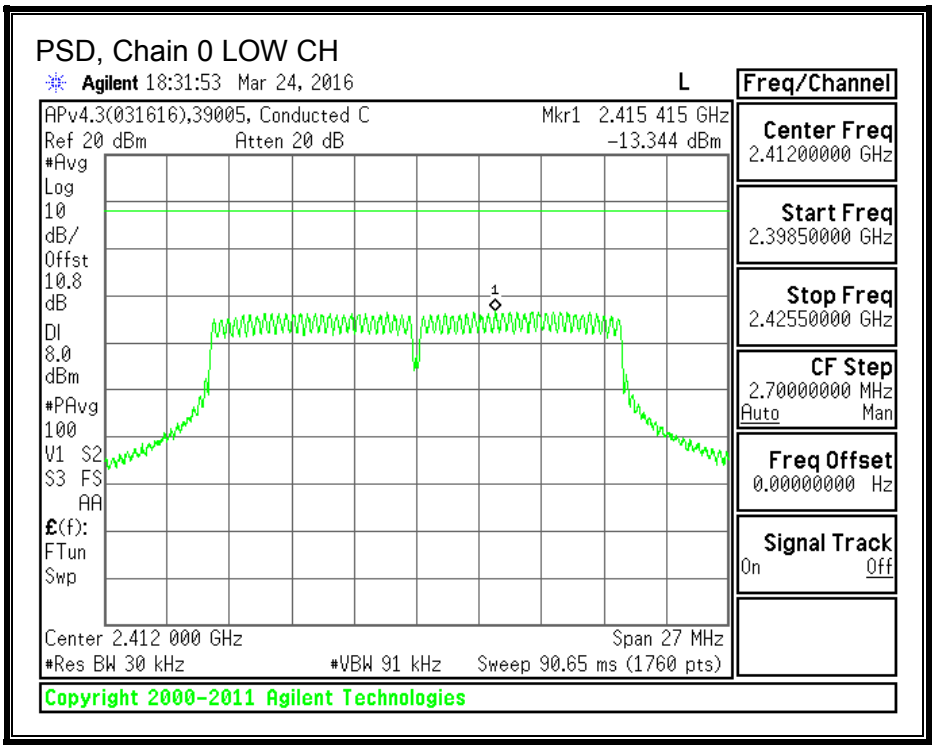
RESULTS

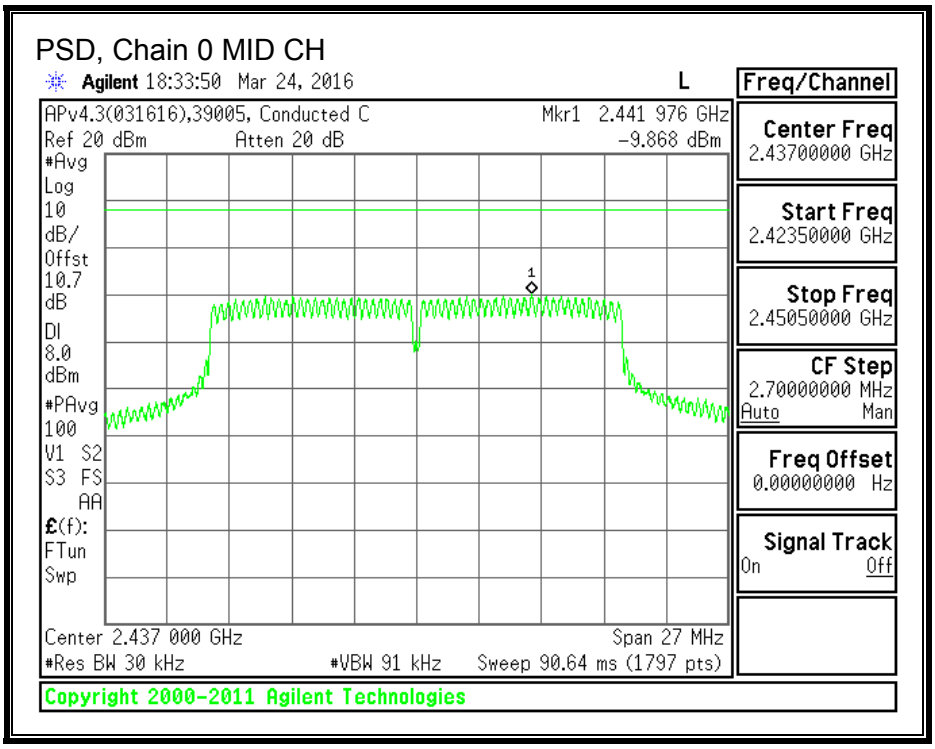
Duty Cycle CF (dB)	0.17	Included in Calculations of Corr'd PSD

PSD Results

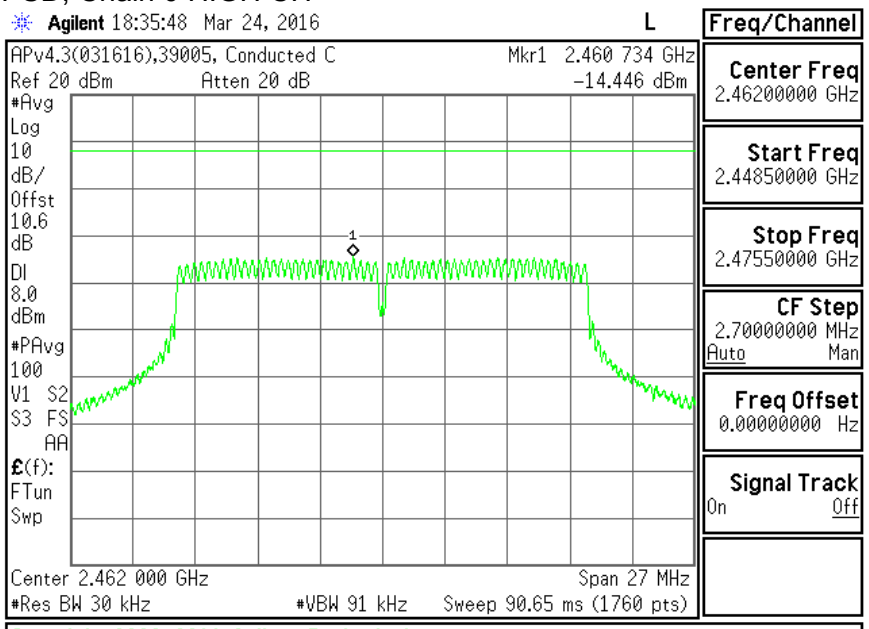
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-13.344	-13.17	8.0	-21.2
Mid	2437	-9.868	-9.70	8.0	-17.7
High	2462	-14.446	-14.28	8.0	-22.3

PSD, Chain 0





PSD, Chain 0 HIGH CH



9.4.4. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-247 5.5

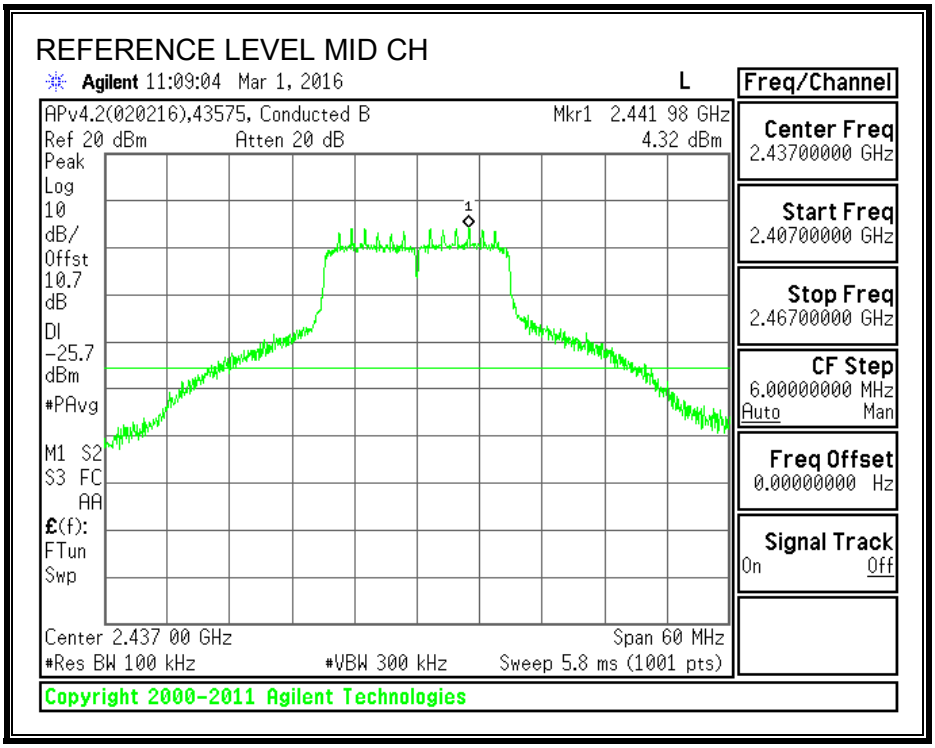
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

TEST PROCEDURE

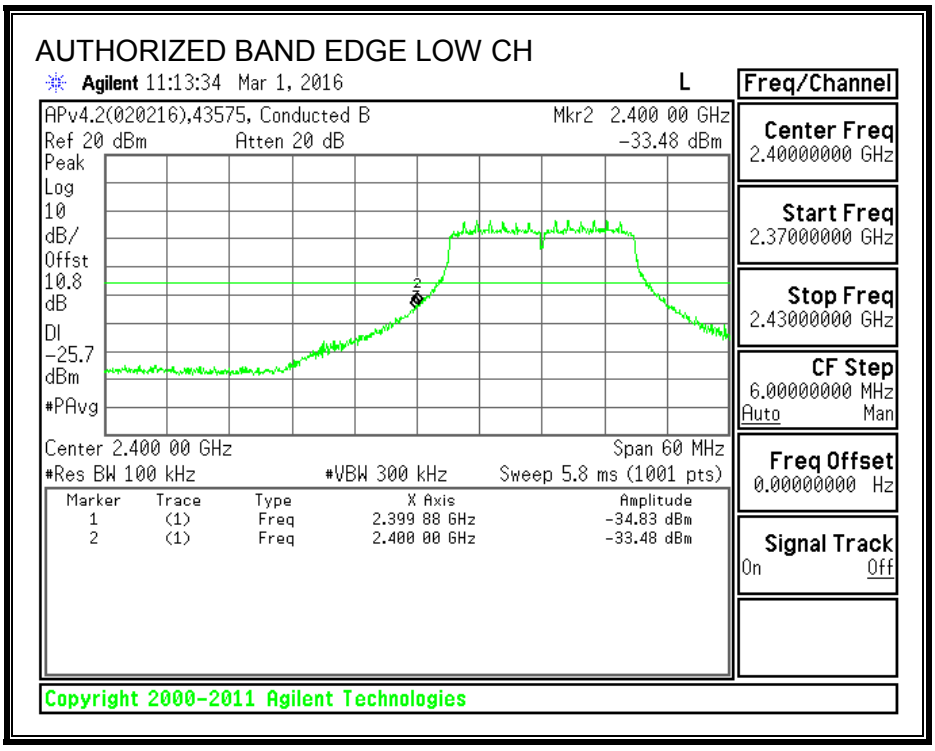
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

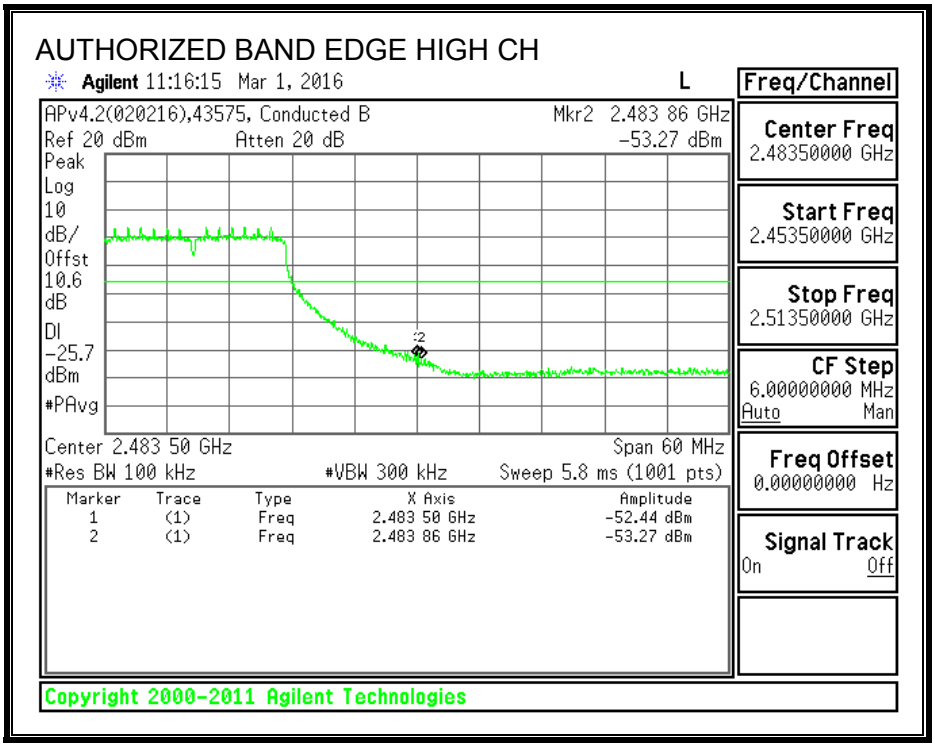
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE

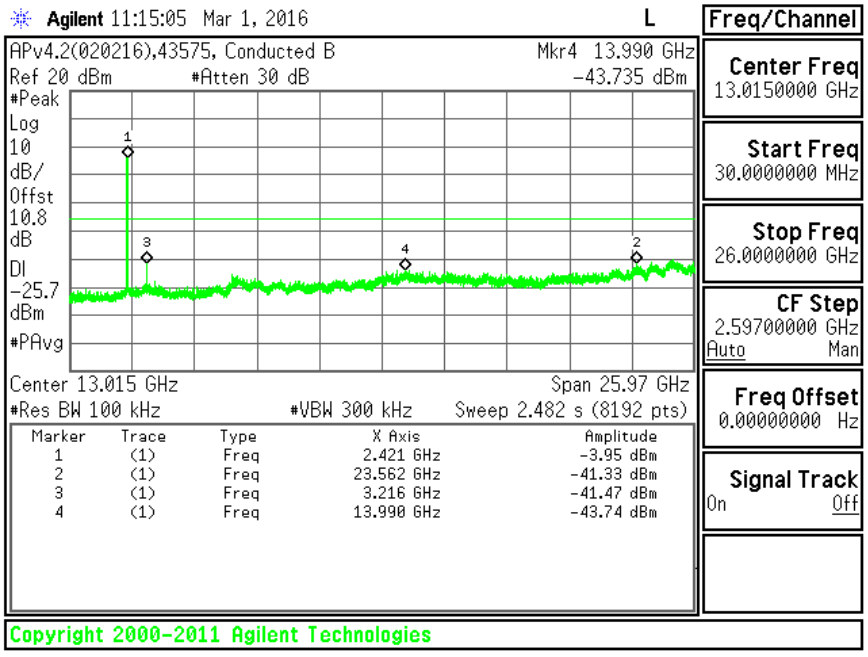


HIGH CHANNEL BANDEDGE

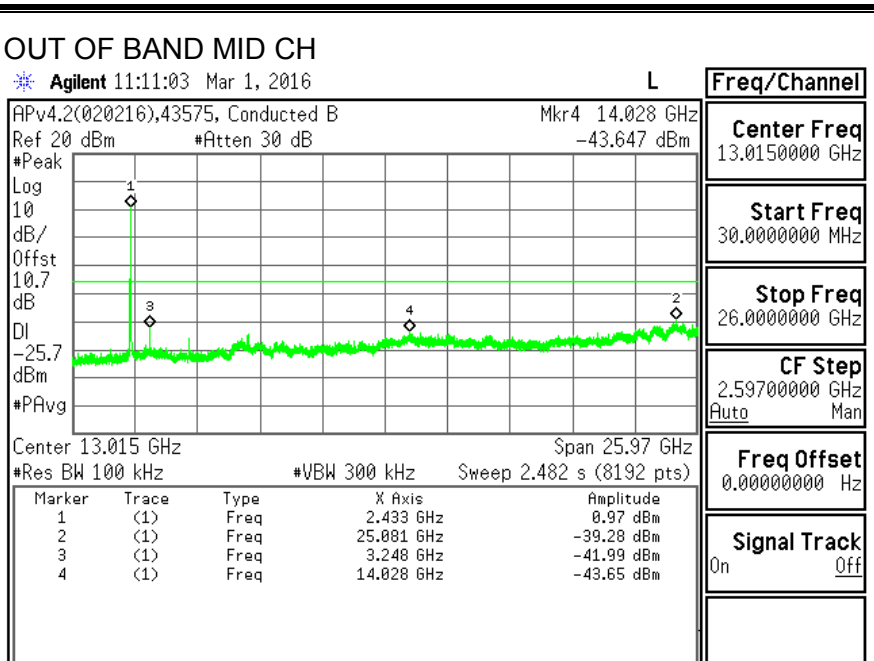


OUT-OF-BAND EMISSIONS

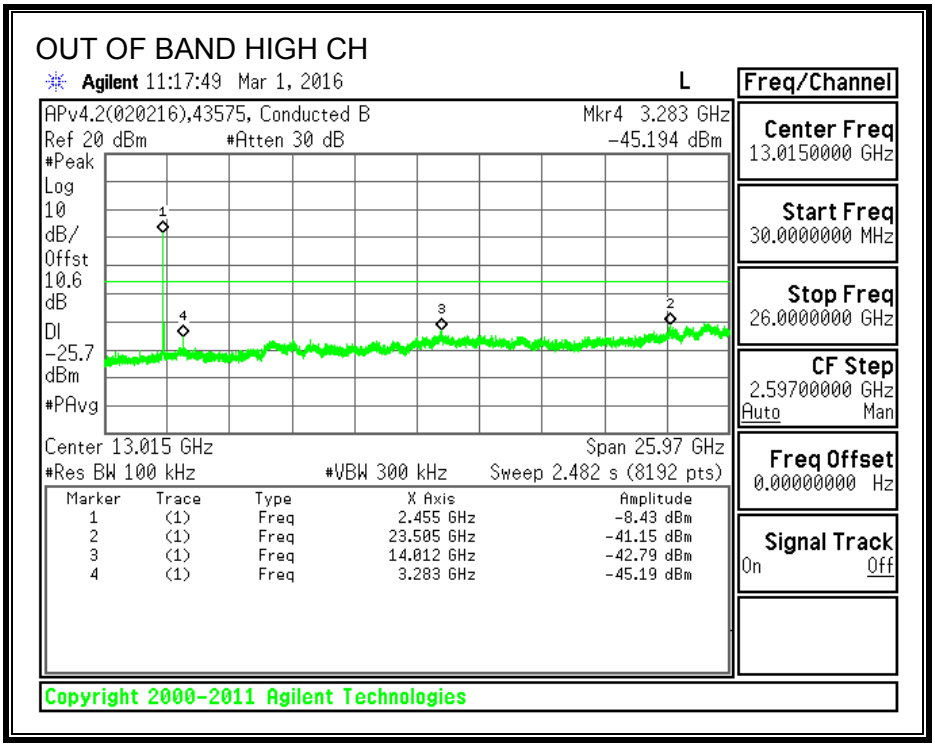
OUT OF BAND LOW CH



OUT OF BAND MID CH



OUT OF BAND HIGH CH



9.5. 802.11n HT40 MODE IN THE 2.4 GHz BAND

9.5.1. 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.

TEST PROCEDURE

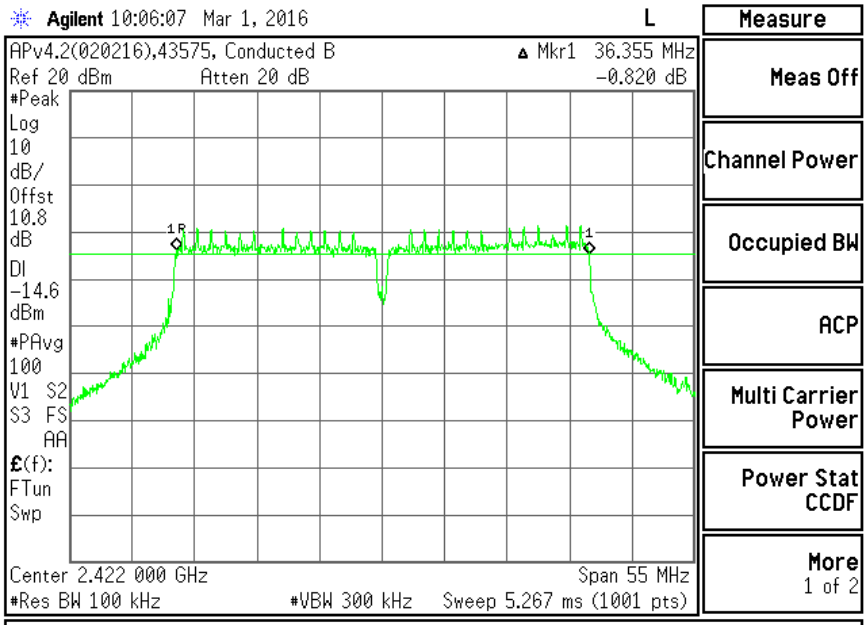
Reference to KDB 558074 D01 DTS Meas Guidance v03r05: The transmitter output is connected to a spectrum analyzer with the RBW set to100KHz, the VBW >= 3 x RBW, peak detector and max hold.

RESULTS

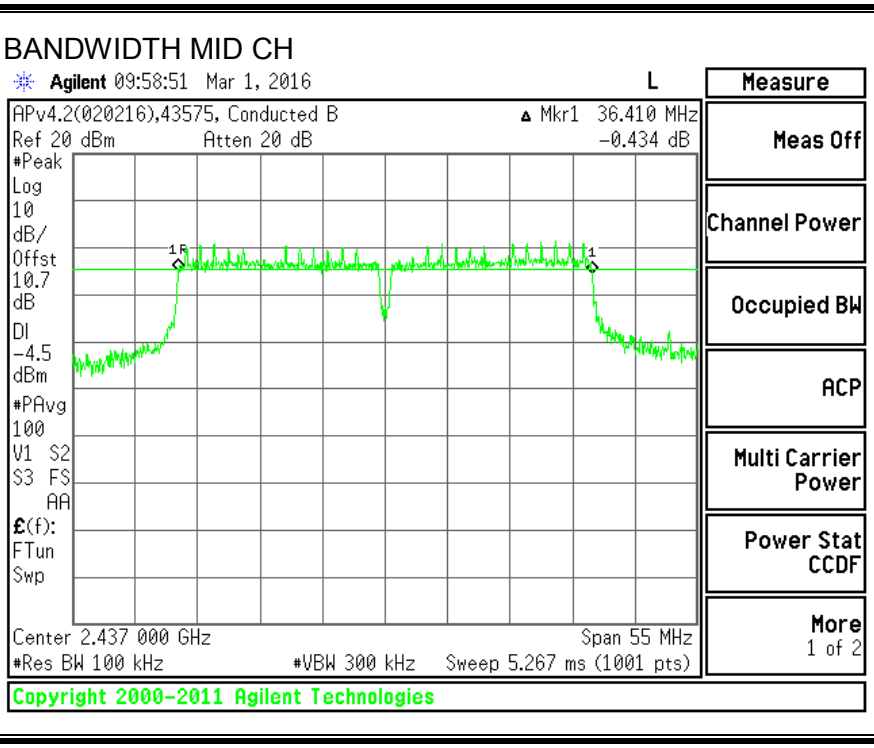
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2422	36.355	0.5
Mid	2437	36.410	0.5
High	2452	36.410	0.5

6 dB BANDWIDTH

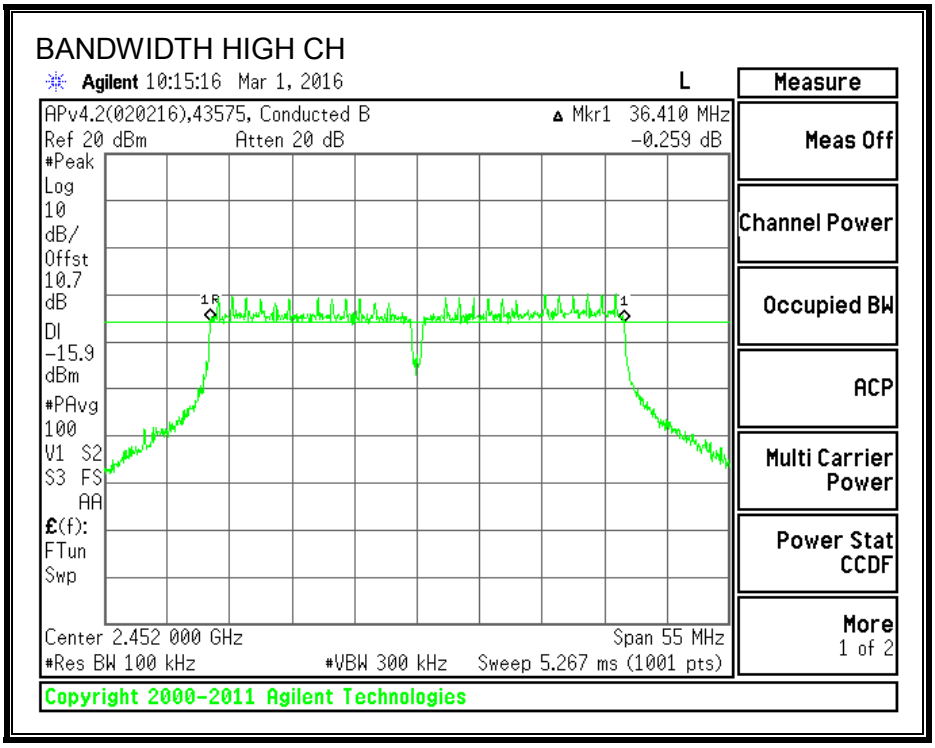
BANDWIDTH LOW CH



BANDWIDTH MID CH



BANDWIDTH HIGH CH



9.5.2. 99% BANDWIDTH

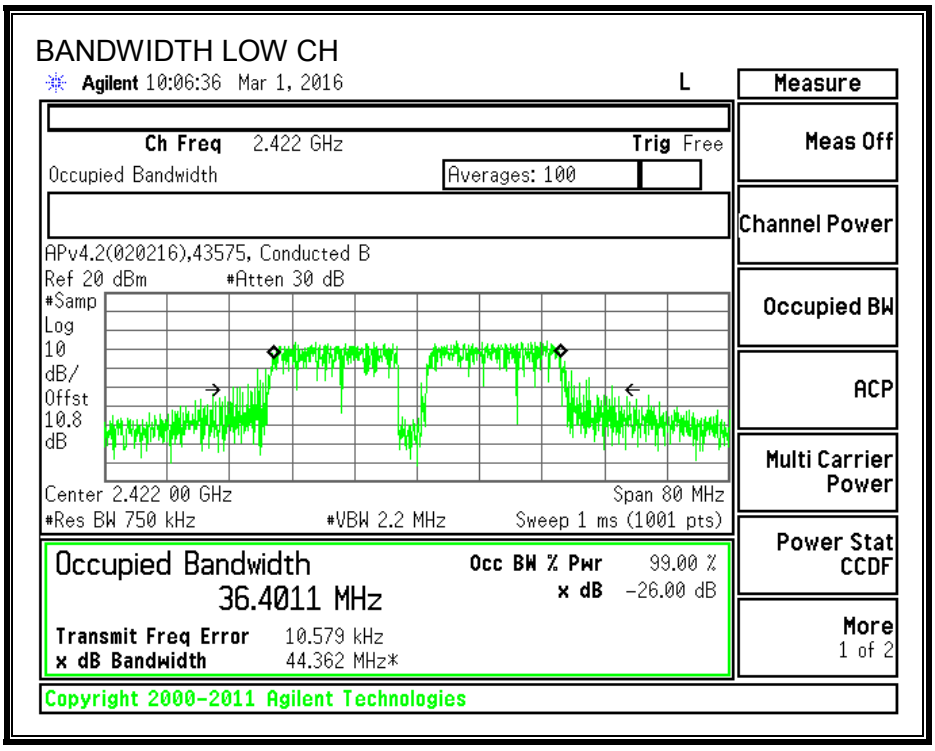
LIMITS

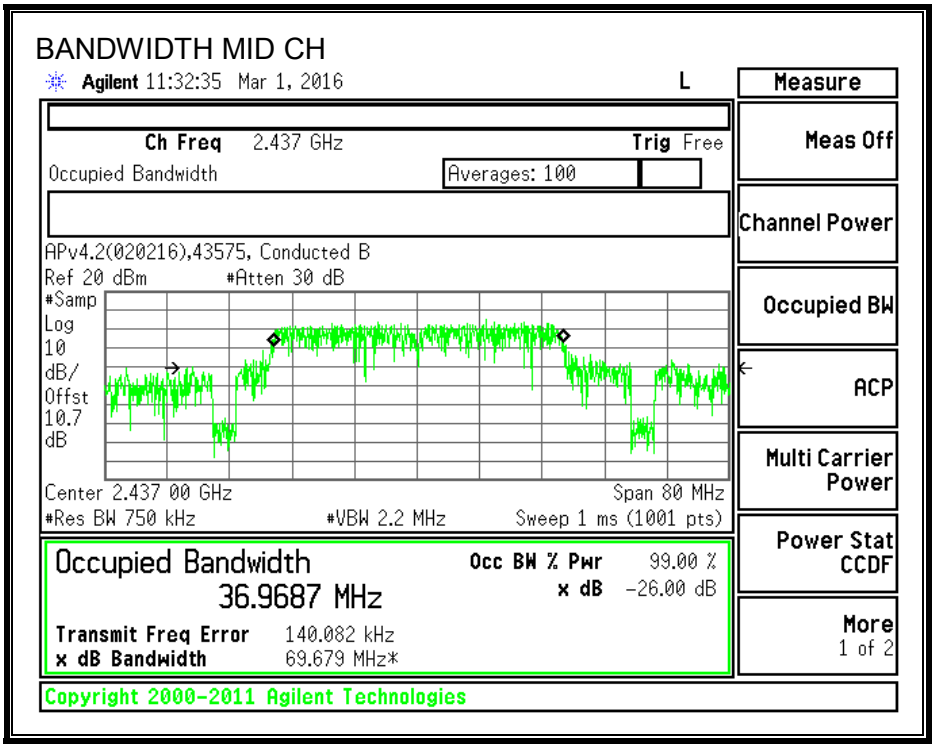
None; for reporting purposes only.

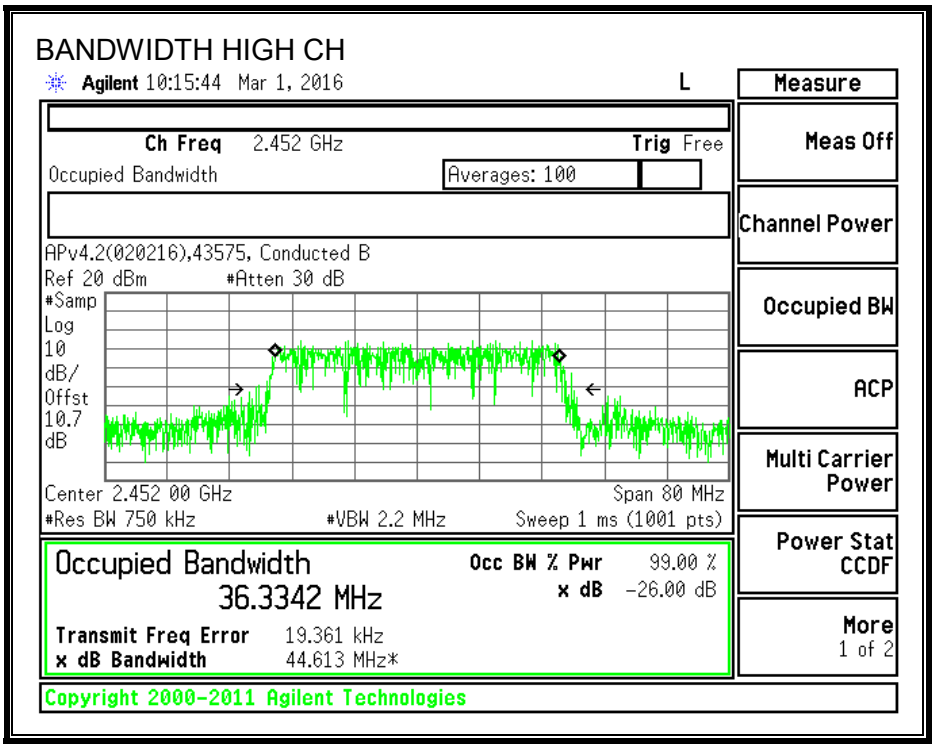
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2422	36.4011
Mid	2437	36.9687
High	2452	36.3342

99% BANDWIDTH







9.5.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-247 5.4.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power of 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	2422	-4.00	30.00	30	36	30.00
3	2427	-4.00	30.00	30	36	30.00
4	2432	-4.00	30.00	30	36	30.00
Mid	2437	-4.00	30.00	30	36	30.00
7	2442	-4.00	30.00	30	36	30.00
8	2447	-4.00	30.00	30	36	30.00
High	2452	-4.00	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2422	9.88	9.88	30.00	-20.12
3	2427	10.40	10.40	30.00	-19.60
4	2432	12.05	12.05	30.00	-17.95
Mid	2437	12.17	12.17	30.00	-17.83
7	2442	10.62	10.62	30.00	-19.38
8	2447	9.50	9.50	30.00	-20.50
High	2452	9.66	9.66	30.00	-20.34

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

9.5.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247

IC RSS-247 5.2.2

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

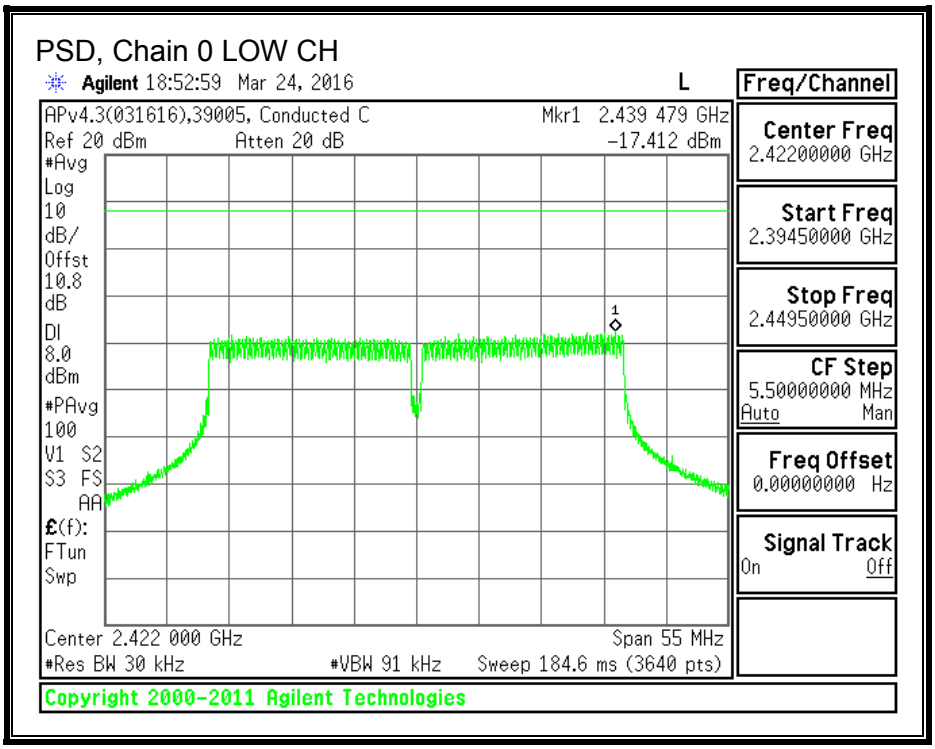
RESULTS

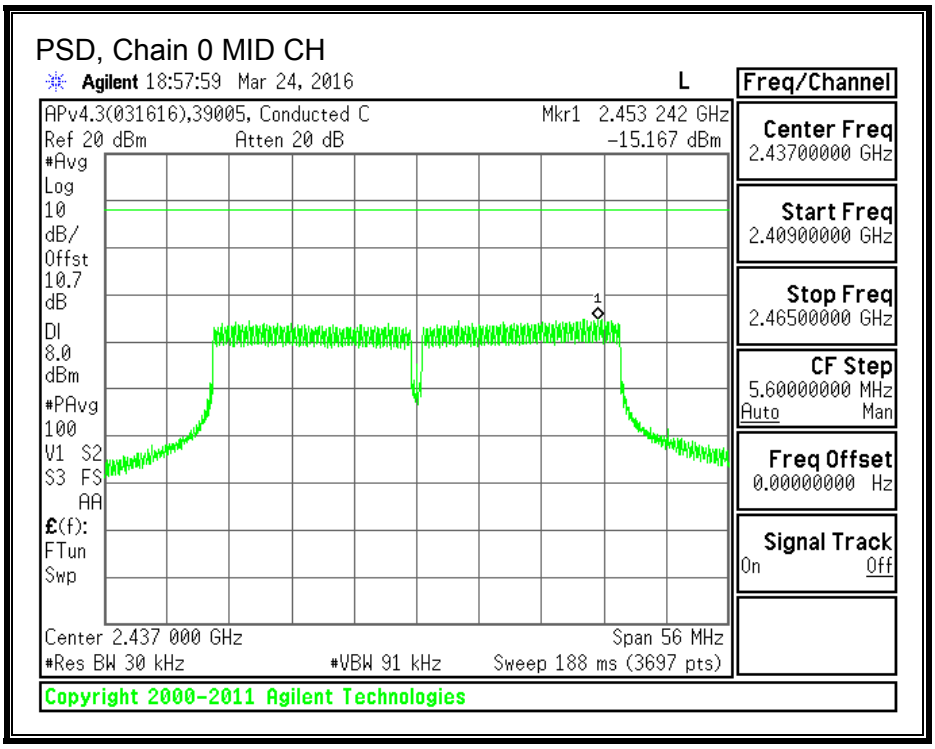
Duty Cycle CF (dB)	0.26	Included in Calculations of Corr'd PSD

PSD Results

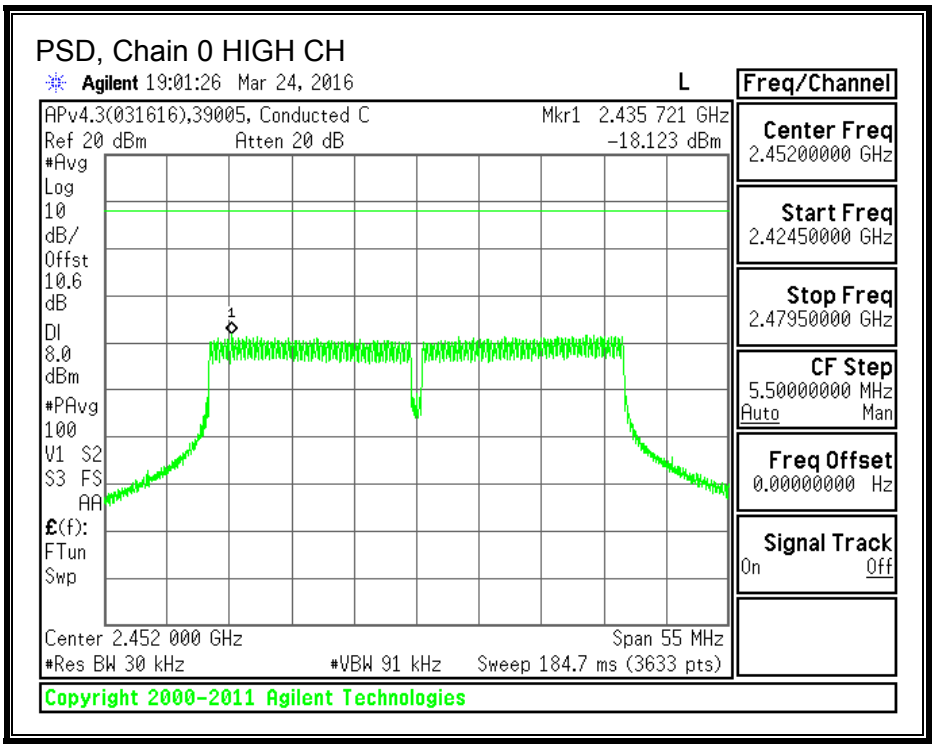
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Total Corr'd PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2422	-17.412	-17.15	8.0	-25.2
Mid	2437	-15.167	-14.91	8.0	-22.9
High	2452	-18.123	-17.86	8.0	-25.9

PSD, Chain 0





PSD, Chain 0 HIGH CH



9.5.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-247 5.5

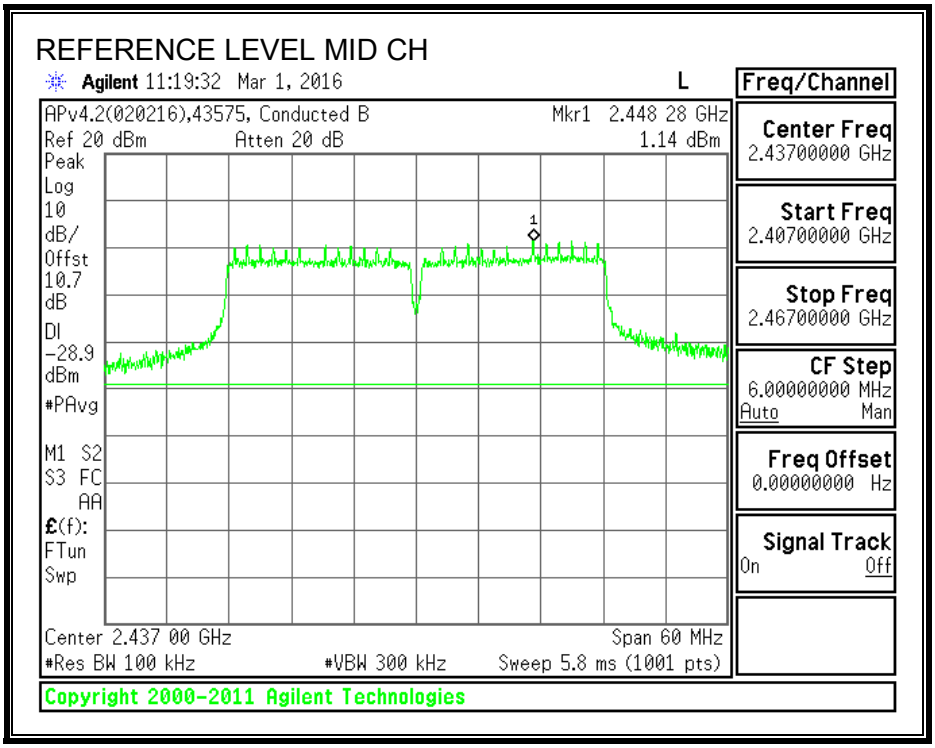
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the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

TEST PROCEDURE

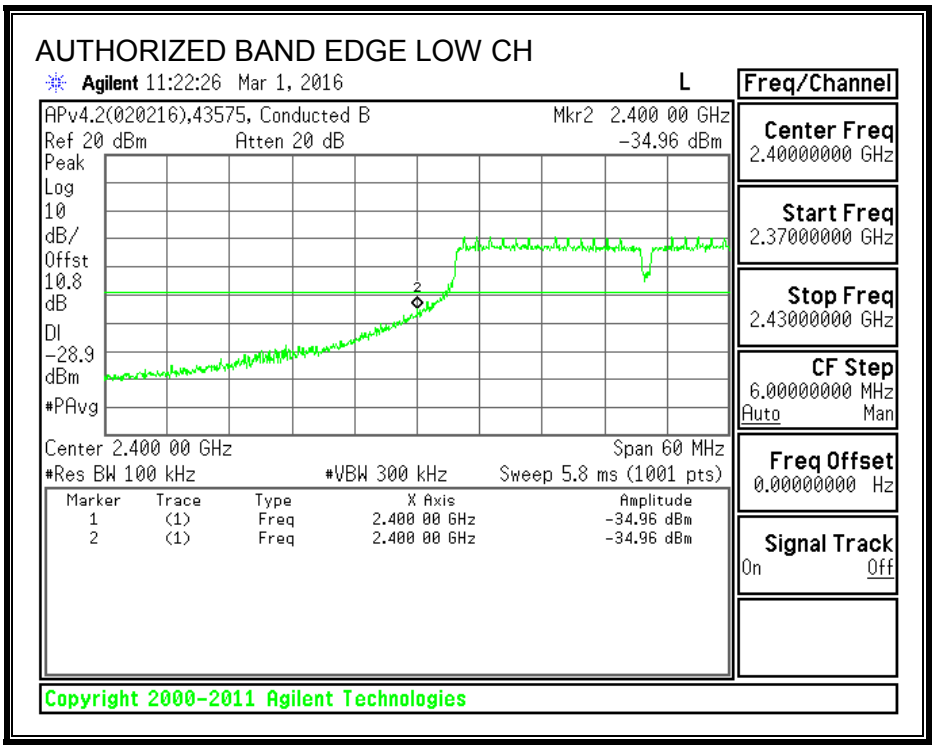
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

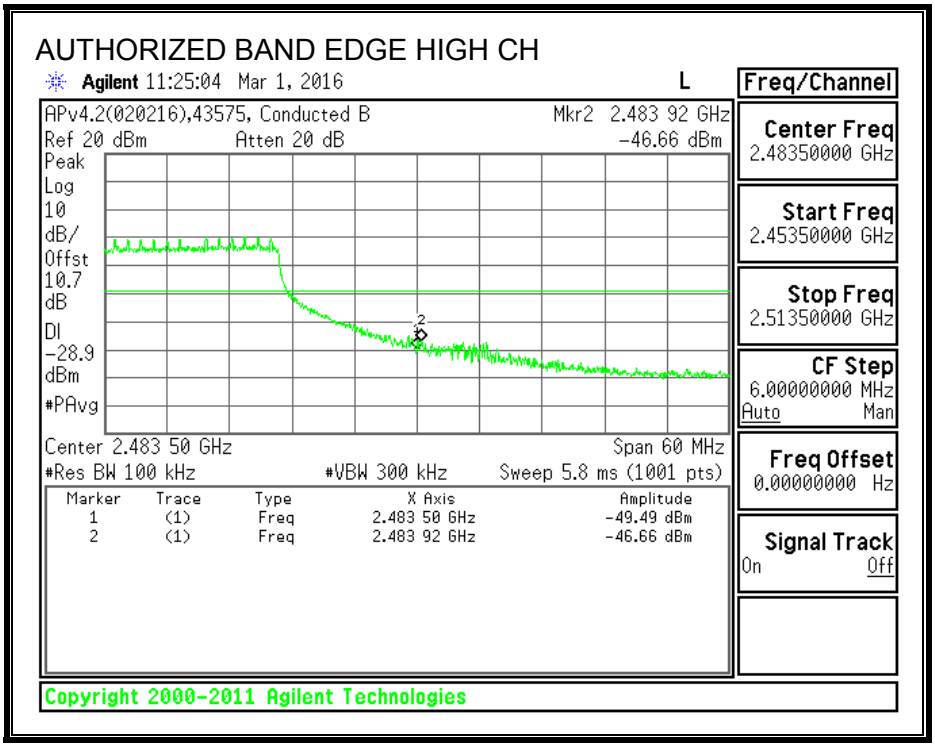
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE

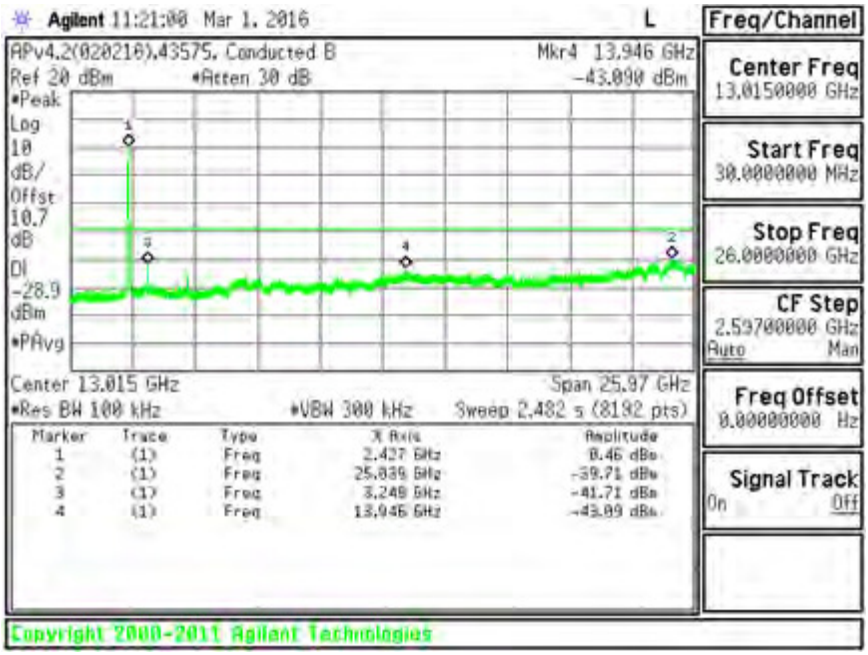


HIGH CHANNEL BANDEDGE

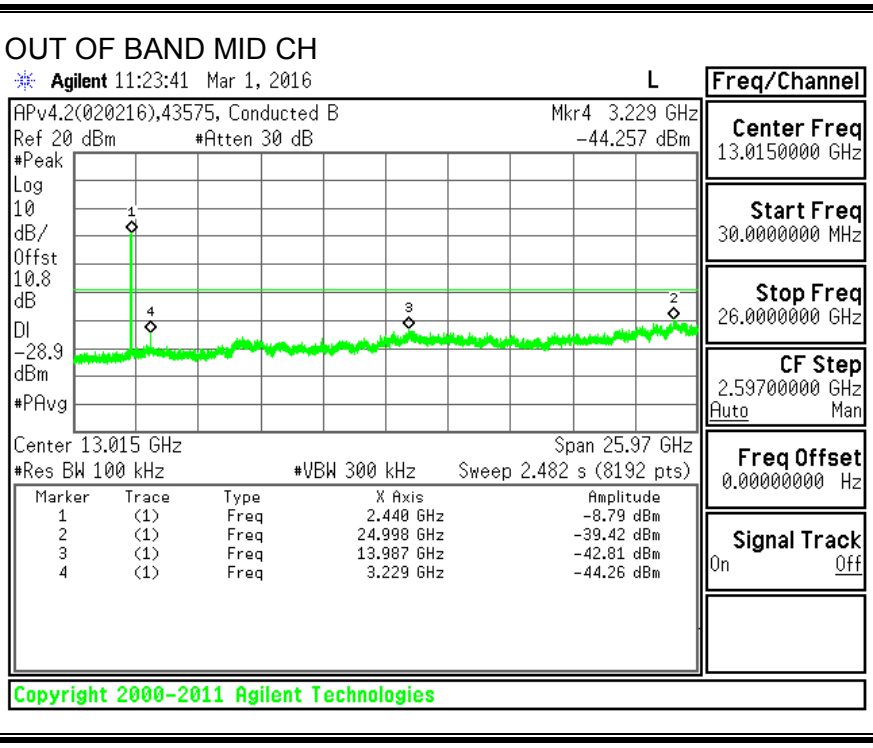


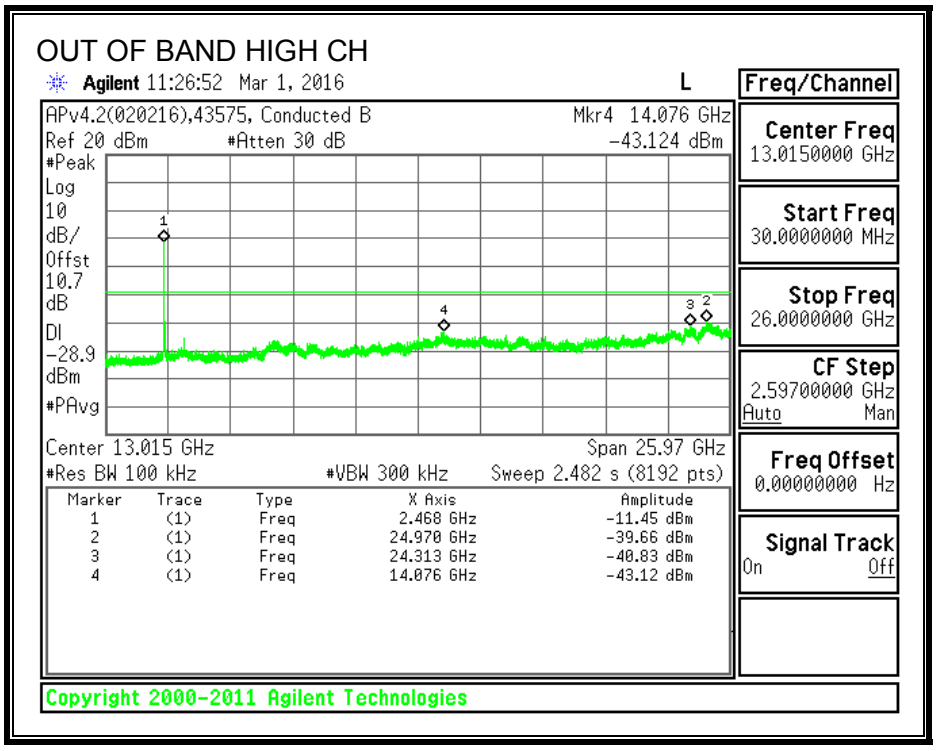
OUT-OF-BAND EMISSIONS

OUT OF BAND LOW CH



OUT OF BAND MID CH





10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN Clause 8.9 (Transmitter)

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150cm for 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, then the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor = 10 log (1/x).

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

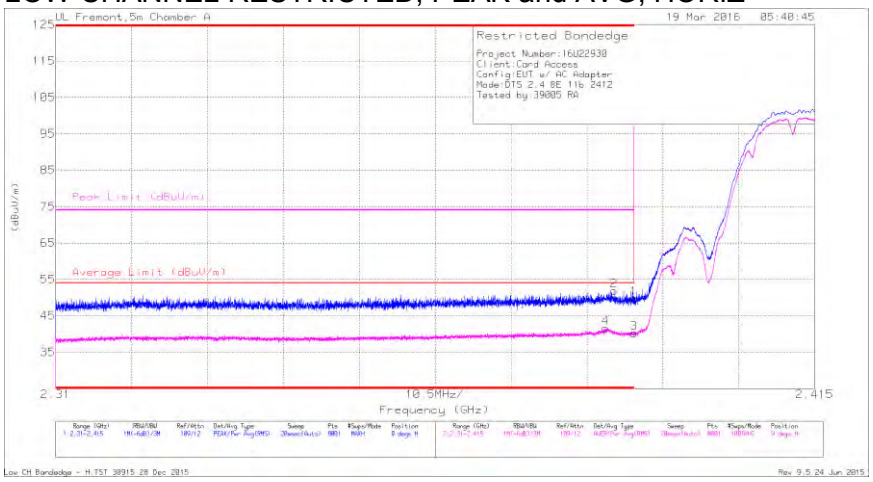
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

10.2. TRANSMITTER ABOVE 1 GHz

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

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

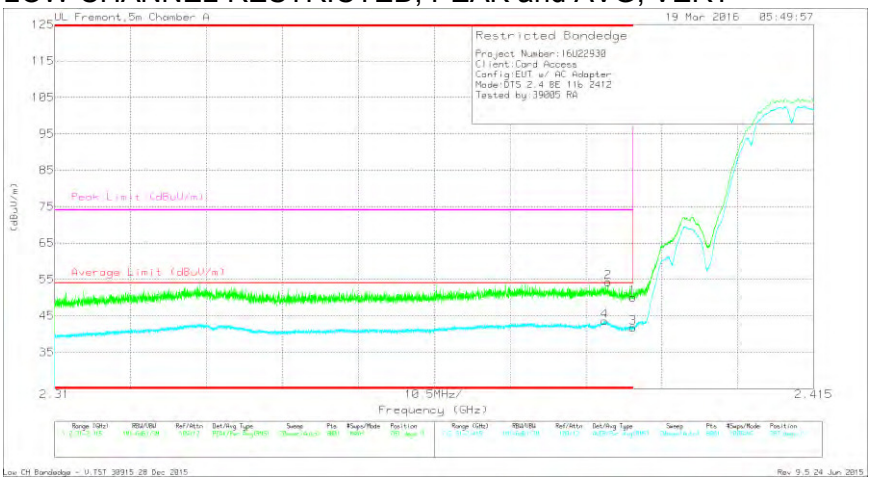
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	37.35	Pk	32.3	-19.9	0	49.75	-	-	74	-24.25	9	279	H
2	* 2.387	39.48	Pk	32.3	-19.9	0	51.88	-	-	74	-22.12	9	279	H
3	* 2.39	27.79	RMS	32.3	-19.9	0	40.19	54	-13.81	-	-	9	279	H
4	* 2.386	29.3	RMS	32.2	-19.9	0	41.6	54	-12.4	-	-	9	279	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 2.386	31.25	RMS	32.2	-19.9	0	43.55	54	-10.45	-	-	287	186	V
2	* 2.387	41.83	Pk	32.3	-19.9	0	54.23	-	-	74	-19.77	287	186	V
1	* 2.39	37.62	Pk	32.3	-19.9	0	50.02	-	-	74	-23.98	287	186	V
3	* 2.39	29.31	RMS	32.3	-19.9	0	41.71	54	-12.29	-	-	287	186	V

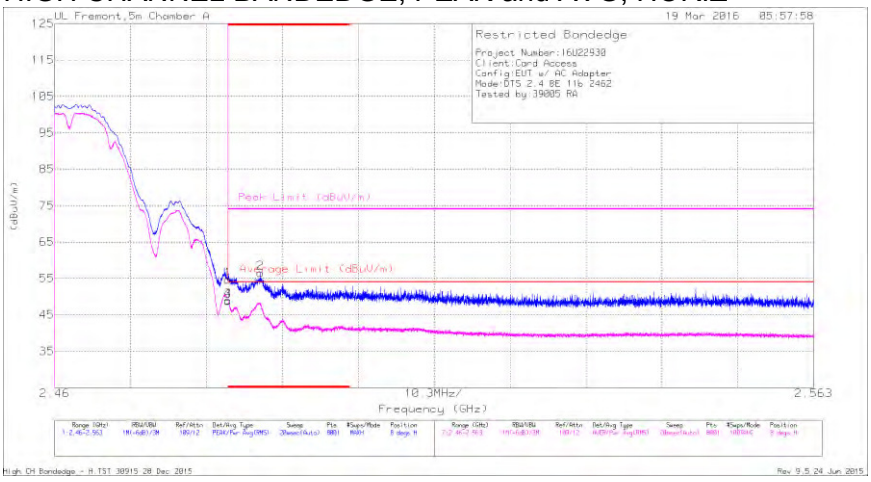
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HIGH CHANNEL BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

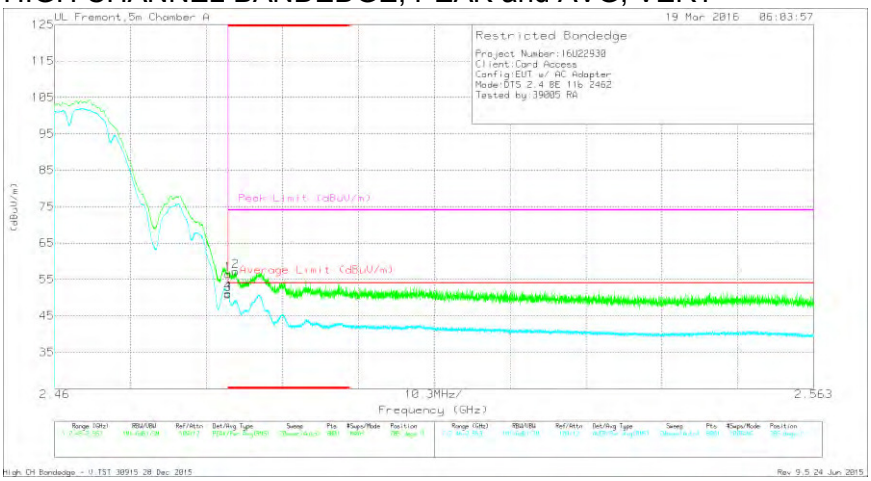
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.2	Pk	32.4	-20	0	54.6	-	-	74	-19.4	8	303	H
3	* 2.484	36.39	RMS	32.4	-20	0	48.79	54	-5.21	-	-	8	303	H
4	* 2.484	36.55	RMS	32.4	-20	0	48.95	54	-5.05	-	-	8	303	H
2	* 2.488	44	Pk	32.5	-20	0	56.5	-	-	74	-17.5	8	303	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	44.07	Pk	32.4	-20	0	56.47	-	-	74	-17.53	285	175	V
3	* 2.484	38.5	RMS	32.4	-20	0	50.9	54	-3.1	-	-	285	175	V
4	* 2.484	38.8	RMS	32.4	-20	0	51.2	54	-2.8	-	-	285	175	V
2	* 2.485	44.89	Pk	32.4	-20	0	57.29	-	-	74	-16.71	285	175	V

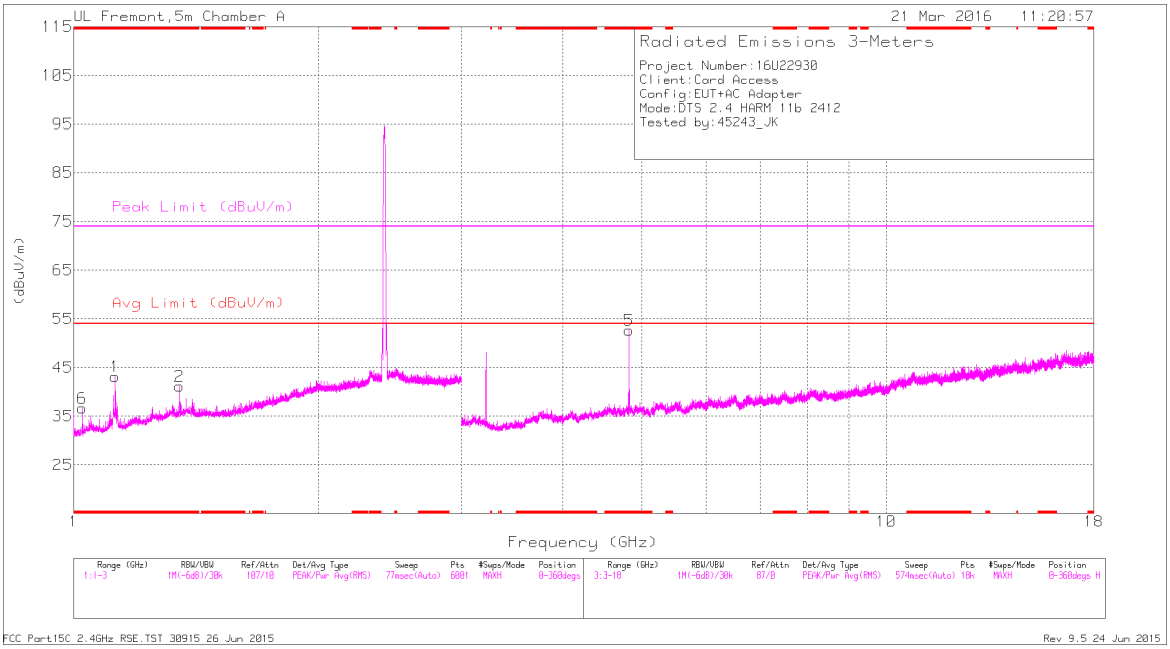
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

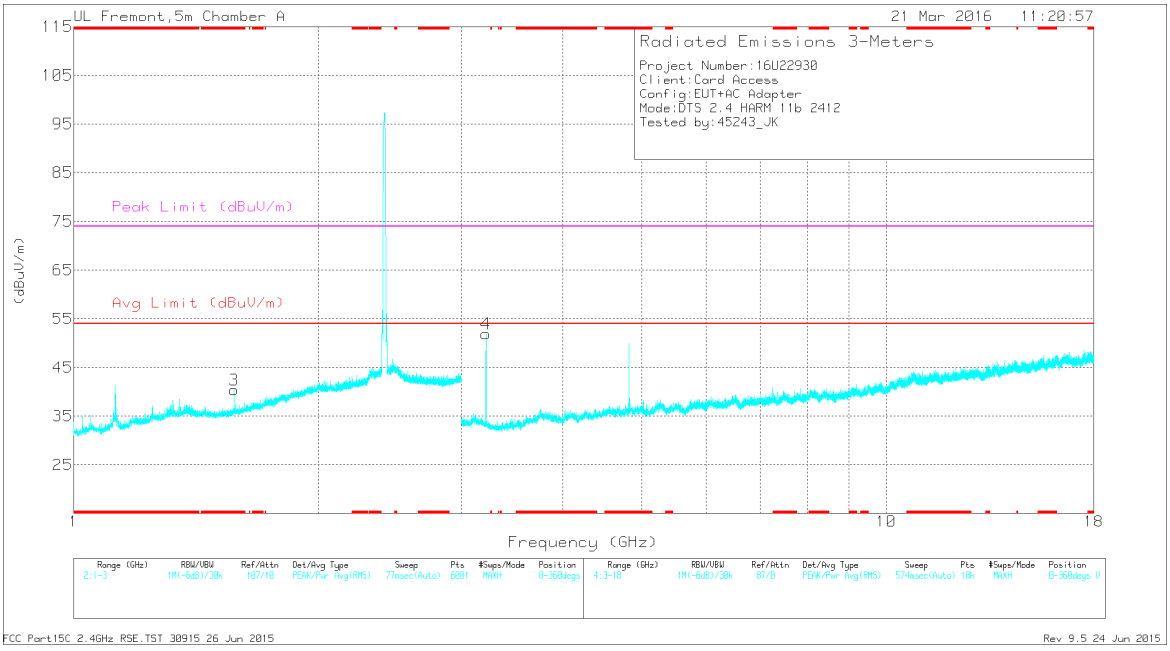
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

Low Channel Horizontal



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.125	37.44	Pk	27.9	-22.2	0	43.14	-	-	74	-30.86	0-360	201	H
2	* 1.35	33.05	Pk	29	-20.9	0	41.15	-	-	74	-32.85	0-360	201	H
6	* 1.025	32.27	Pk	27.6	-23.2	0	36.67	-	-	74	-37.33	0-360	101	H
3	* 1.575	32.39	Pk	28.1	-20.1	0	40.39	-	-	74	-33.61	0-360	200	V
5	* 4.824	47.94	Pk	34.3	-29.6	0	52.64	-	-	74	-21.36	0-360	100	H
4	3.216	50.93	Pk	33.2	-32.2	0	51.93	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

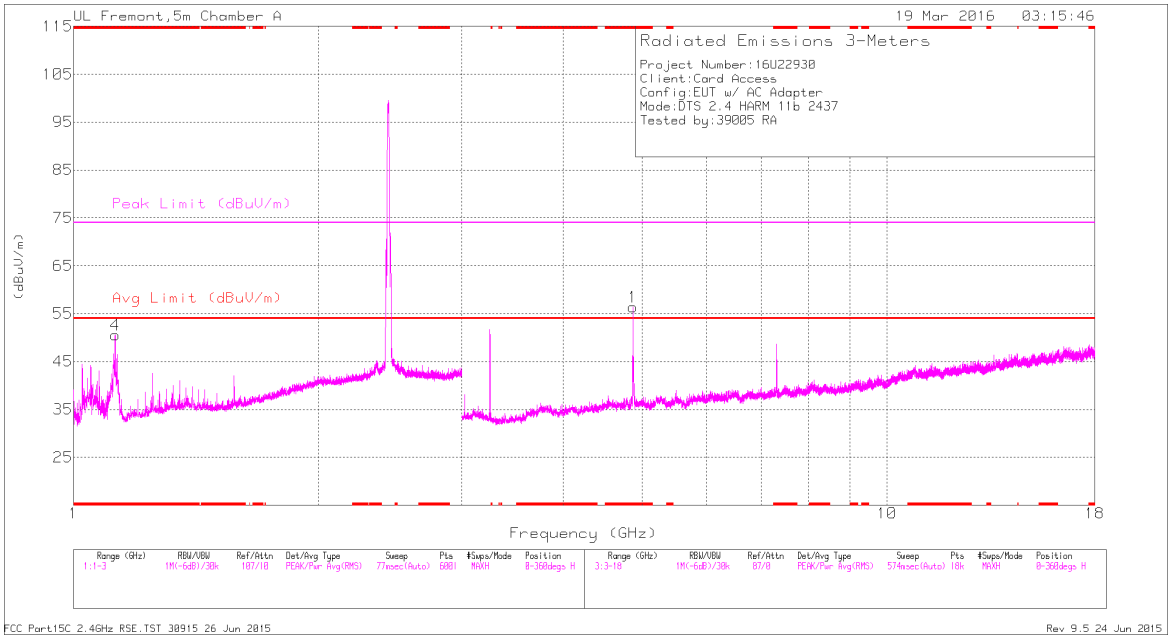
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.125	45.45	PK2	27.9	-22.2	0	51.15	-	-	74	-22.85	288	327	H
* 1.125	33.39	MAv1	27.9	-22.2	0	39.09	54	-14.91	-	-	288	327	H
* 1.35	39.8	PK2	29	-20.9	0	47.9	-	-	74	-26.1	278	210	H
* 1.35	30.88	MAv1	29	-20.9	0	38.98	54	-15.02	-	-	278	210	H
* 1.025	38.85	PK2	27.6	-23.2	0	43.25	-	-	74	-30.75	286	194	H
* 1.025	28.87	MAv1	27.6	-23.2	0	33.27	54	-20.73	-	-	286	194	H
* 1.575	41.11	PK2	28.1	-20.1	0	49.11	-	-	74	-24.89	151	114	V
* 1.575	27.61	MAv1	28.1	-20.1	0	35.61	54	-18.39	-	-	151	114	V
* 4.824	51.28	PK2	34.3	-29.6	0	55.98	-	-	74	-18.02	297	109	H
* 4.824	48.88	MAv1	34.3	-29.6	0	53.58	54	-.42	-	-	297	109	H
3.216	52.83	PK2	33.2	-32.2	0	53.83	-	-	74	-20.17	184	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

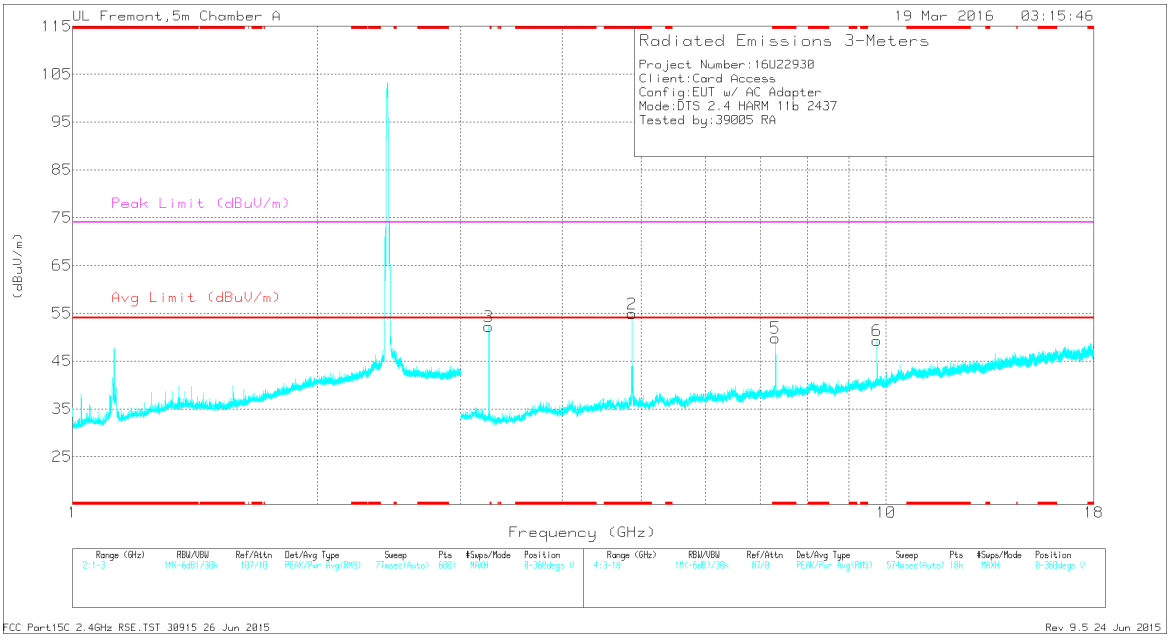
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

Mid Channel Horizontal



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.125	44.85	Pk	27.9	-22.2	0	50.55	-	-	74	-23.45	0-360	100	H
1	* 4.874	51.36	Pk	34.3	-29.3	0	56.36	-	-	74	-17.64	0-360	100	H
2	* 4.874	49.86	Pk	34.3	-29.3	0	54.86	-	-	74	-19.14	0-360	200	V
5	* 7.312	40.75	Pk	35.7	-26.6	0	49.85	-	-	74	-24.15	0-360	100	V
3	3.249	51.67	Pk	33	-32.5	0	52.17	-	-	-	-	0-360	200	V
6	9.747	35.66	Pk	36.7	-23.1	0	49.26	-	-	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

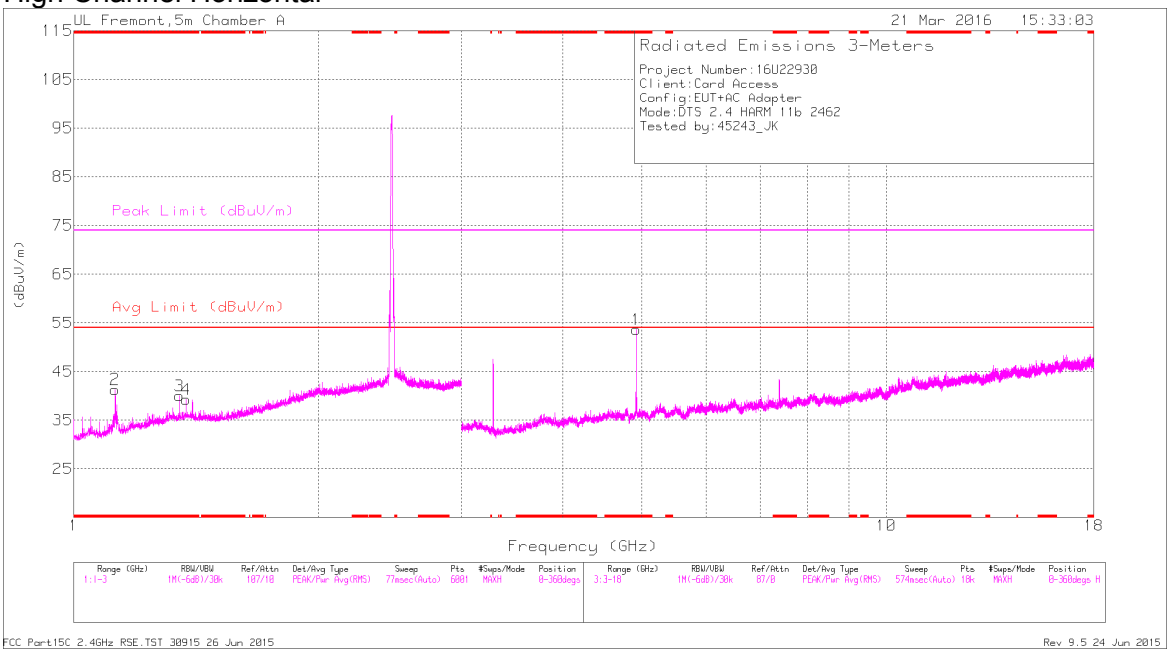
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.125	37.33	PK2	27.9	-22.2	0	43.03	-	-	74	-30.97	172	369	H
* 1.125	31.22	MAv1	27.9	-22.2	0	36.92	54	-17.08	-	-	172	369	H
* 4.874	50.16	PK2	34.3	-29.3	0	55.16	-	-	74	-18.84	189	104	H
* 4.874	48.84	MAv1	34.3	-29.3	0	53.84	54	-.16	-	-	189	104	H
* 4.874	48.53	PK2	34.3	-29.3	0	53.53	-	-	74	-20.47	182	134	V
* 4.874	47.13	MAv1	34.3	-29.3	0	52.13	54	-1.87	-	-	182	134	V
* 7.312	39.87	PK2	35.7	-26.6	0	48.97	-	-	74	-25.03	255	124	V
* 7.312	35.07	MAv1	35.7	-26.6	0	44.17	54	-9.83	-	-	255	124	V
3.249	52.75	PK2	33	-32.5	0	53.25	-	-	74	-20.75	37	159	V
9.748	33.74	PK2	36.7	-23	0	47.44	-	-	74	-26.56	54	101	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

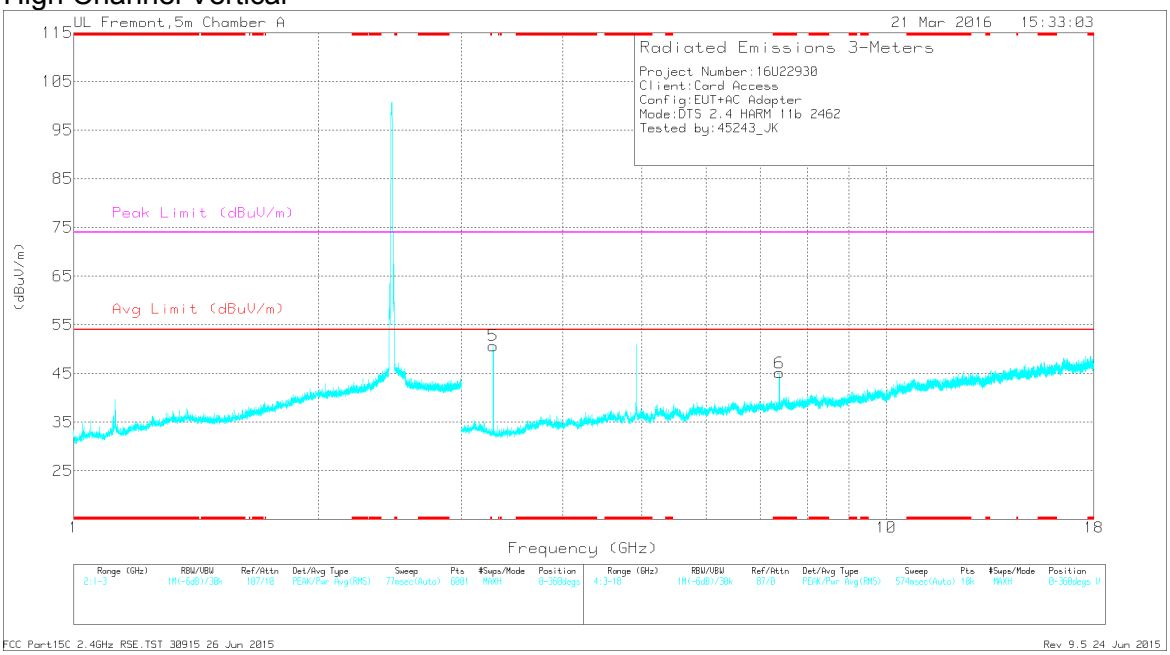
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

High Channel Horizontal



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.125	35.63	Pk	27.9	-22.2	0	41.33	-	-	74	-32.67	0-360	100	H
3	* 1.35	31.9	Pk	29	-20.9	0	40	-	-	74	-34	0-360	100	H
4	* 1.375	31.18	Pk	29	-20.9	0	39.28	-	-	74	-34.72	0-360	201	H
1	* 4.924	48.64	Pk	34.3	-29.3	0	53.64	-	-	74	-20.36	0-360	100	H
6	* 7.386	35.14	Pk	35.7	-25.7	0	45.14	-	-	74	-28.86	0-360	200	V
5	3.282	50.61	Pk	32.8	-32.7	0	50.71	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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
* 1.125	44.3	PK2	27.9	-22.2	0	50	-	-	74	-24	343	176	H
* 1.125	31.07	MAv1	27.9	-22.2	0	36.77	54	-17.23	-	-	343	176	H
* 1.35	38.6	PK2	29	-20.9	0	46.7	-	-	74	-27.3	261	277	H
* 1.35	27.5	MAv1	29	-20.9	0	35.6	54	-18.4	-	-	261	277	H
* 1.375	38.02	PK2	29	-20.9	0	46.12	-	-	74	-27.88	261	309	H
* 1.375	27.82	MAv1	29	-20.9	0	35.92	54	-18.08	-	-	261	309	H
* 4.924	50.64	PK2	34.3	-29.3	0	55.64	-	-	74	-18.36	289	128	H
* 4.924	47.59	MAv1	34.3	-29.3	0	52.59	54	-1.41	-	-	289	128	H
* 7.388	41.68	PK2	35.7	-25.7	0	51.68	-	-	74	-22.32	144	192	V
* 7.387	34.04	MAv1	35.7	-25.7	0	44.04	54	-9.96	-	-	144	192	V
3.283	53.62	PK2	32.8	-32.7	0	53.72	-	-	74	-20.28	110	252	V
3.283	51.36	MAv1	32.8	-32.7	0	51.46	-	-	-	-	110	252	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

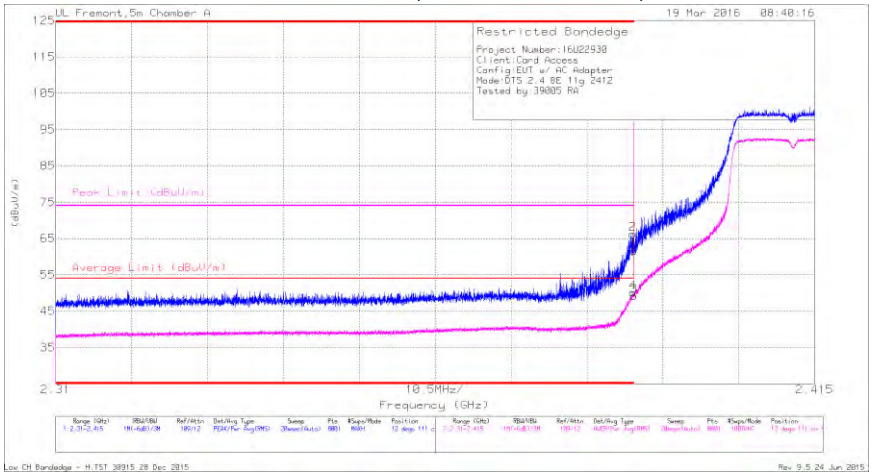
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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

RESTRICTED BANDEDGE (LOW CHANNEL 2412MHz)

LOW CHANNEL RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

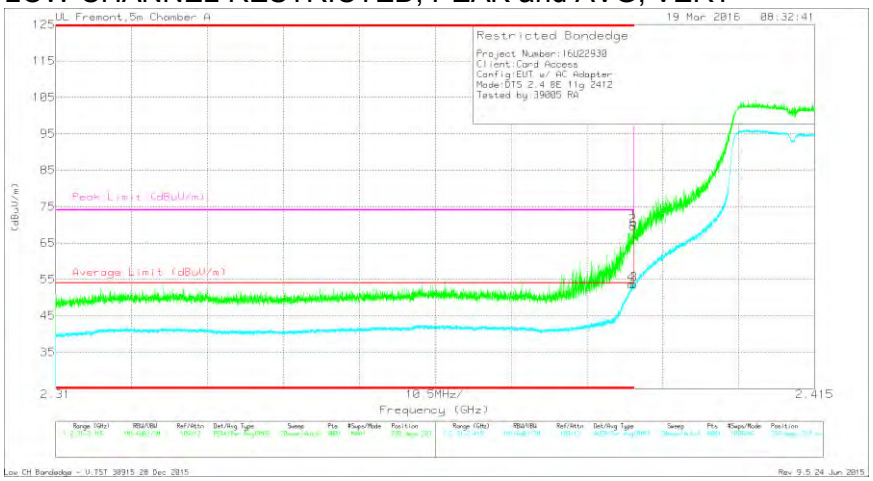
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	49.21	Pk	32.3	-19.9	0	61.61	-	-	74	-12.39	12	111	H
2	* 2.39	53.83	Pk	32.3	-19.9	0	66.23	-	-	74	-7.77	12	111	H
3	* 2.39	36.63	RMS	32.3	-19.9	.16	49.19	54	-4.81	-	-	12	111	H
4	* 2.39	37.65	RMS	32.3	-19.9	.16	50.21	54	-3.79	-	-	12	111	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	58.21	Pk	32.3	-19.9	0	70.61	-	-	74	-3.39	239	223	V
2	* 2.39	57.25	Pk	32.3	-19.9	0	69.65	-	-	74	-4.35	239	223	V
3	* 2.39	41.04	RMS	32.3	-19.9	.16	53.6	54	-.4	-	-	239	223	V
4	* 2.39	41.05	RMS	32.3	-19.9	.16	53.61	54	-.39	-	-	239	223	V

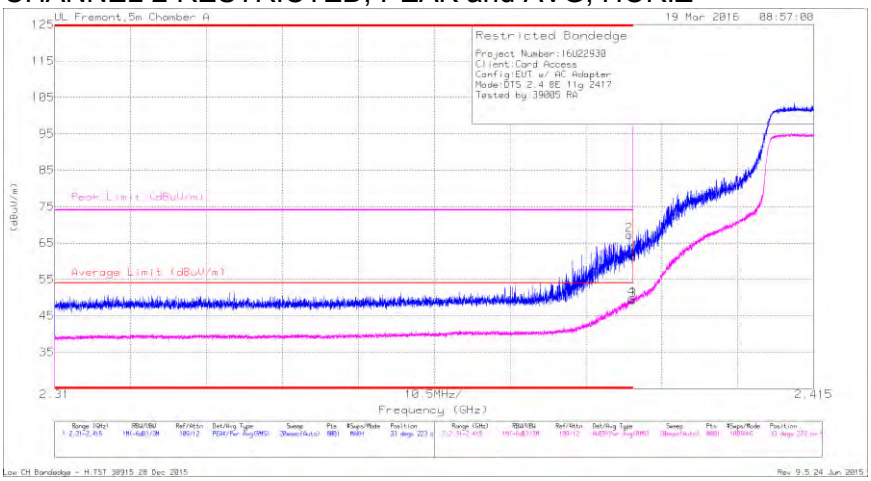
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 2, 2417MHz)

CHANNEL 2 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

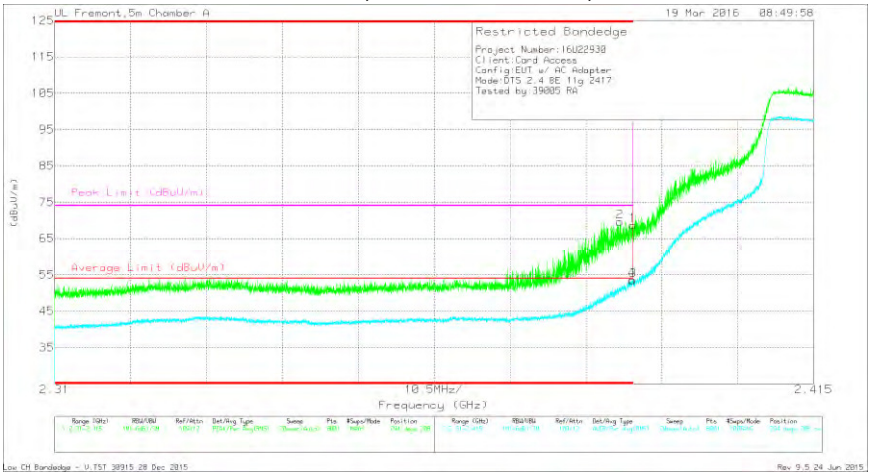
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	49.03	Pk	32.3	-19.9	0	61.43	-	-	74	-12.57	33	223	H
2	* 2.389	54.83	Pk	32.3	-19.9	0	67.23	-	-	74	-6.77	33	223	H
3	* 2.39	36.7	RMS	32.3	-19.9	.16	49.26	54	-4.74	-	-	33	223	H
4	* 2.39	37.09	RMS	32.3	-19.9	.16	49.65	54	-4.35	-	-	33	223	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 2 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	56.24	Pk	32.3	-19.9	0	68.64	-	-	74	-5.36	294	208	V
2	* 2.388	57.28	Pk	32.3	-19.9	0	69.68	-	-	74	-4.32	294	208	V
3	* 2.39	40.93	RMS	32.3	-19.9	.16	53.49	54	-.51	-	-	294	208	V
4	* 2.39	41.02	RMS	32.3	-19.9	.16	53.58	54	-.42	-	-	294	208	V

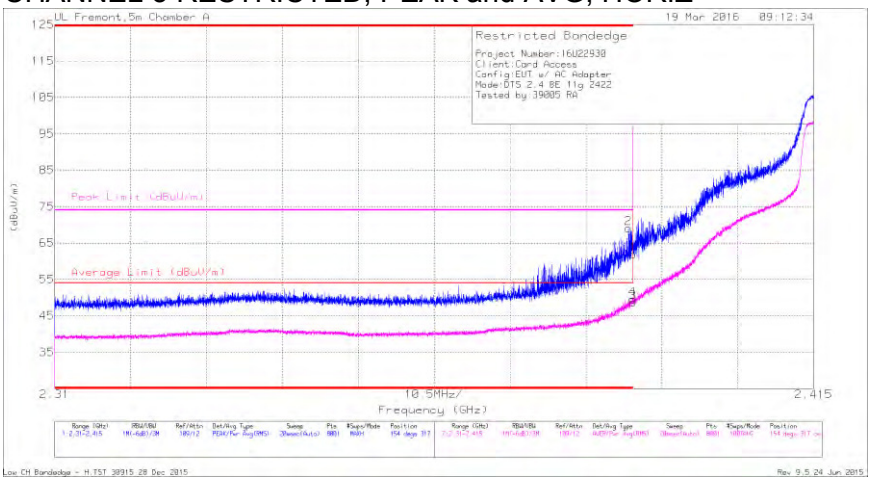
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 3, 2422MHz)

CHANNEL 3 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

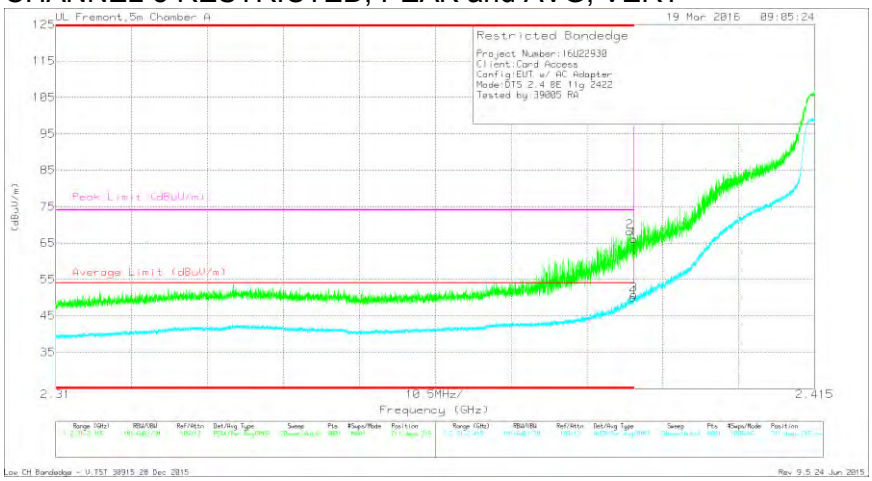
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	49.49	Pk	32.3	-19.9	0	61.89	-	-	74	-12.11	154	317	H
2	* 2.389	56.59	Pk	32.3	-19.9	0	68.99	-	-	74	-5.01	154	317	H
3	* 2.39	36.08	RMS	32.3	-19.9	.16	48.64	54	-5.36	-	-	154	317	H
4	* 2.39	36.94	RMS	32.3	-19.9	.16	49.5	54	-4.5	-	-	154	317	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 3 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	53.64	Pk	32.3	-19.9	0	66.04	-	-	74	-7.96	211	215	V
2	* 2.389	55.8	Pk	32.3	-19.9	0	68.2	-	-	74	-5.8	211	215	V
3	* 2.39	38.22	RMS	32.3	-19.9	.16	50.78	54	-3.22	-	-	211	215	V
4	* 2.39	37.48	RMS	32.3	-19.9	.16	50.04	54	-3.96	-	-	211	215	V

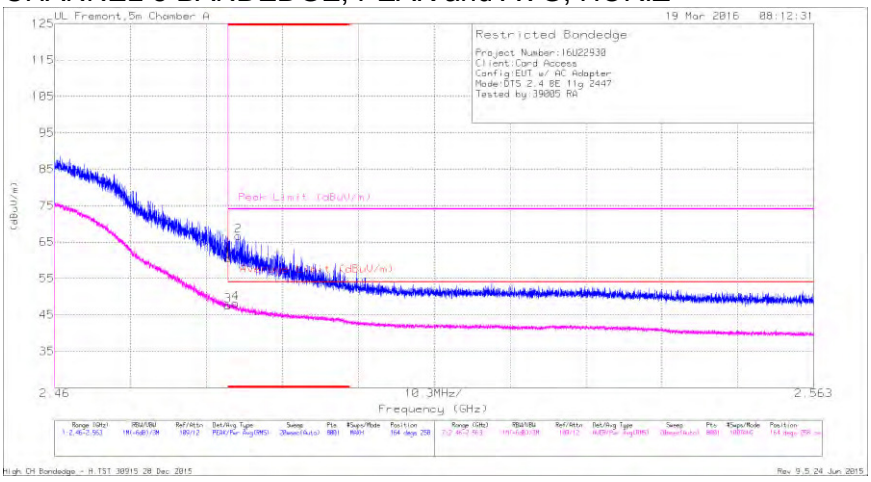
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 8, 2447MHz)

CHANNEL 8 BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

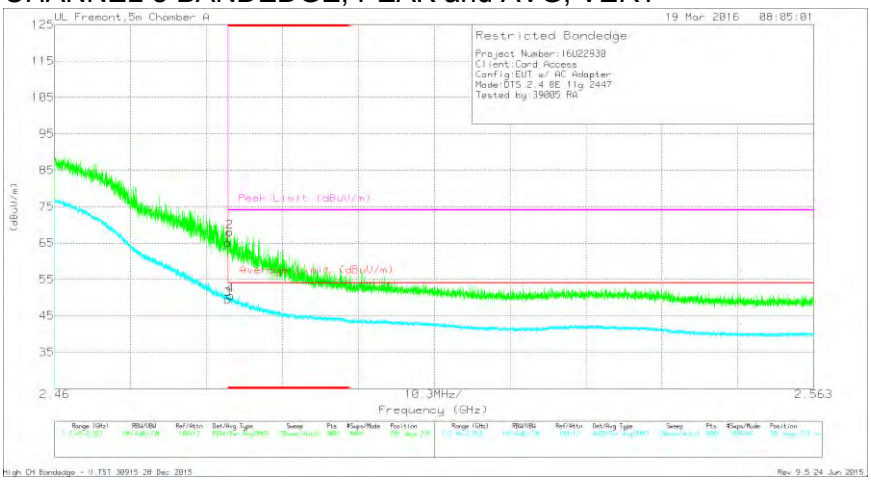
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	48.06	Pk	32.4	-20	0	60.46	-	-	74	-13.54	164	258	H
2	* 2.485	54.28	Pk	32.4	-20	0	66.68	-	-	74	-7.32	164	258	H
3	* 2.484	35.03	RMS	32.4	-20	.16	47.59	54	-6.41	-	-	164	258	H
4	* 2.485	35.63	RMS	32.4	-20	.16	48.19	54	-5.81	-	-	164	258	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 8 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	52.63	Pk	32.4	-20	0	65.03	-	-	74	-8.97	281	231	V
2	* 2.484	55.59	Pk	32.4	-20	0	67.99	-	-	74	-6.01	281	231	V
3	* 2.484	37.01	RMS	32.4	-20	.16	49.57	54	-4.43	-	-	281	231	V
4	* 2.484	38.03	RMS	32.4	-20	.16	50.59	54	-3.41	-	-	281	231	V

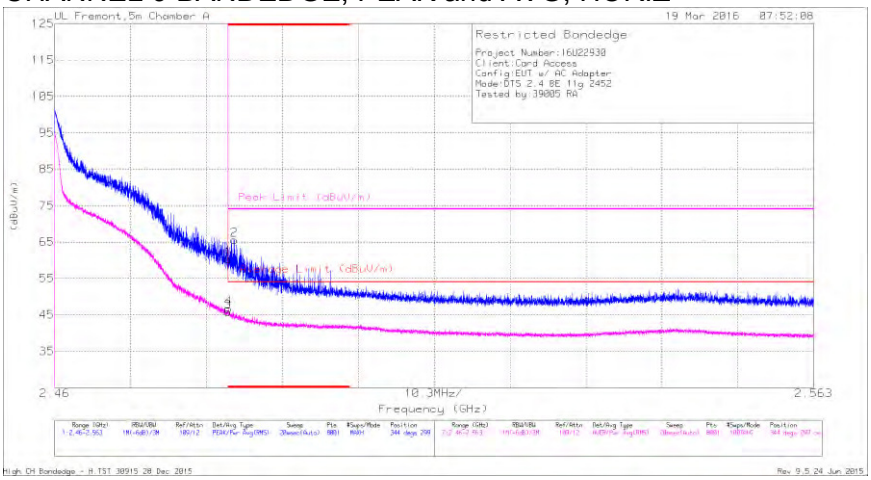
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 9, 2452MHz)

CHANNEL 9 BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

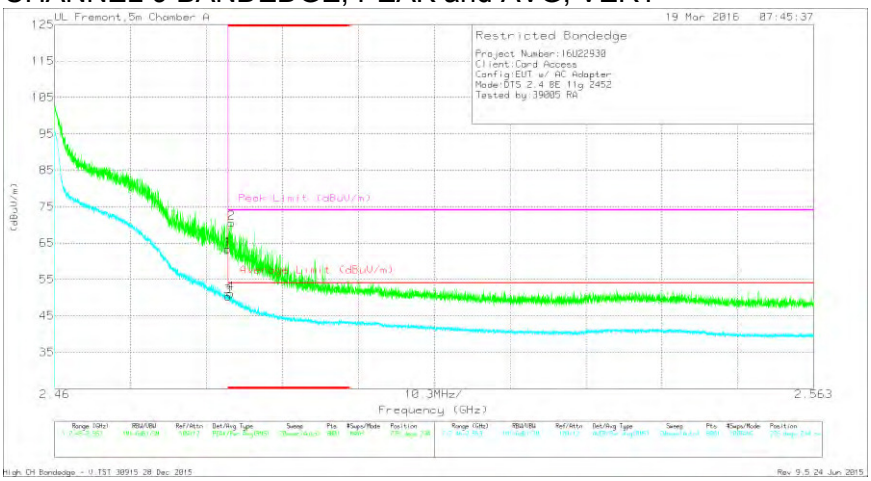
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	47.83	Pk	32.4	-20	0	60.23	-	-	74	-13.77	344	299	H
2	* 2.484	53.13	Pk	32.4	-20	0	65.53	-	-	74	-8.47	344	299	H
3	* 2.484	33.26	RMS	32.4	-20	.16	45.82	54	-8.18	-	-	344	299	H
4	* 2.484	34.19	RMS	32.4	-20	.16	46.75	54	-7.25	-	-	344	299	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 9 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	50.93	Pk	32.4	-20	0	63.33	-	-	74	-10.67	276	234	V
2	* 2.484	58.16	Pk	32.4	-20	0	70.56	-	-	74	-3.44	276	234	V
3	* 2.484	37.69	RMS	32.4	-20	.16	50.25	54	-3.75	-	-	276	234	V
4	* 2.484	38.63	RMS	32.4	-20	.16	51.19	54	-2.81	-	-	276	234	V

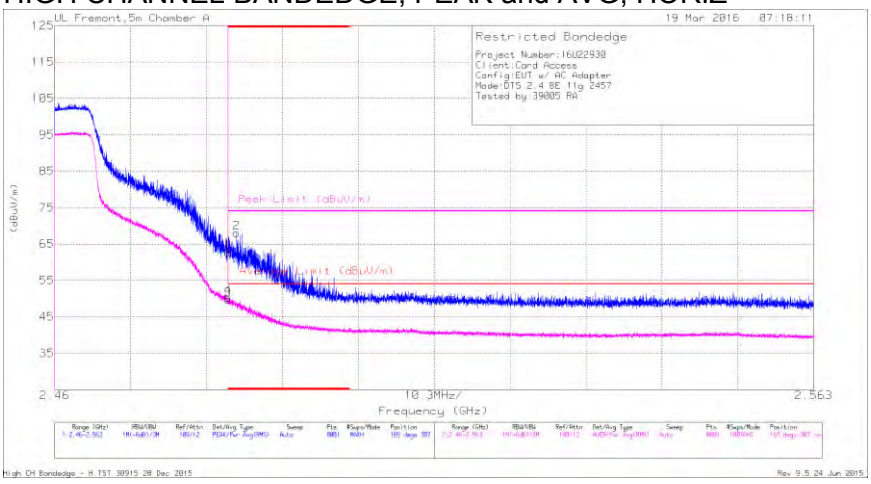
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL10, 2457MHz)

HIGH CHANNEL BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

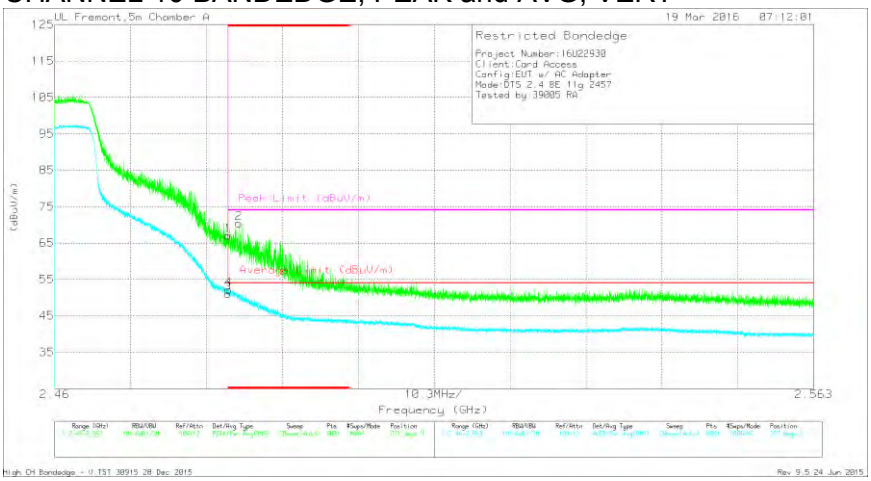
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	50.22	Pk	32.4	-20	0	62.62	-	-	74	-11.38	165	307	H
2	* 2.485	55.62	Pk	32.4	-20	0	68.02	-	-	74	-5.98	165	307	H
3	* 2.484	37.25	RMS	32.4	-20	.16	49.81	54	-4.19	-	-	165	307	H
4	* 2.484	37.77	RMS	32.4	-20	.16	50.33	54	-3.67	-	-	165	307	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 10 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	54.64	Pk	32.4	-20	0	67.04	-	-	74	-6.96	277	196	V
3	* 2.484	38.51	RMS	32.4	-20	.16	51.07	54	-2.93	-	-	277	196	V
4	* 2.484	39.57	RMS	32.4	-20	.16	52.13	54	-1.87	-	-	277	196	V
2	* 2.485	57.96	Pk	32.4	-20	0	70.36	-	-	74	-3.64	277	196	V

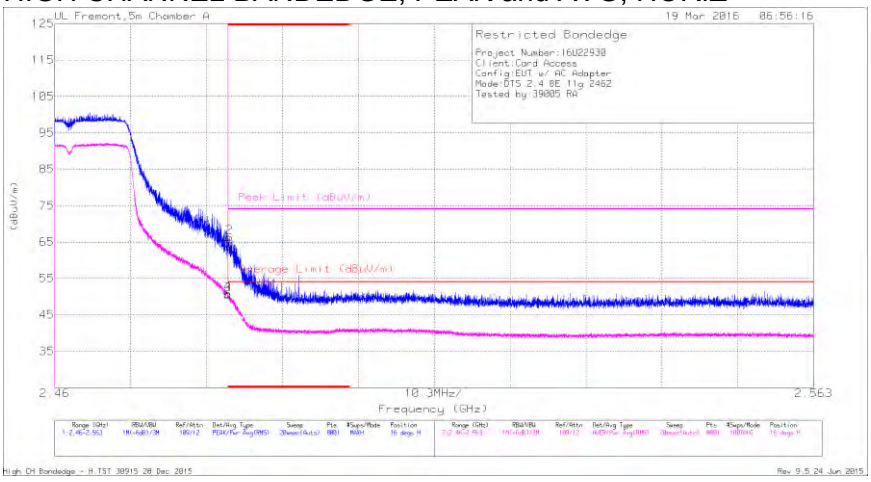
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL2462MHz)

HIGH CHANNEL BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

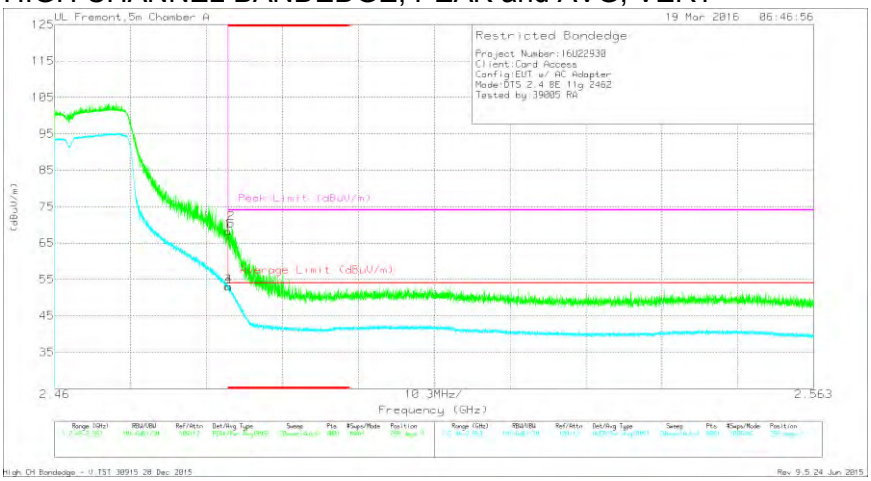
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	51.34	Pk	32.4	-20	0	63.74	-	-	74	-10.26	16	304	H
2	* 2.484	53.91	Pk	32.4	-20	0	66.31	-	-	74	-7.69	16	304	H
3	* 2.484	37.92	RMS	32.4	-20	.16	50.48	54	-3.52	-	-	16	304	H
4	* 2.484	38.23	RMS	32.4	-20	.16	50.79	54	-3.21	-	-	16	304	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	55.8	Pk	32.4	-20	0	68.2	-	-	74	-5.8	258	239	V
2	* 2.484	57.95	Pk	32.4	-20	0	70.35	-	-	74	-3.65	258	239	V
3	* 2.484	40.41	RMS	32.4	-20	.16	52.97	54	-1.03	-	-	258	239	V
4	* 2.484	40.45	RMS	32.4	-20	.16	53.01	54	-.99	-	-	258	239	V

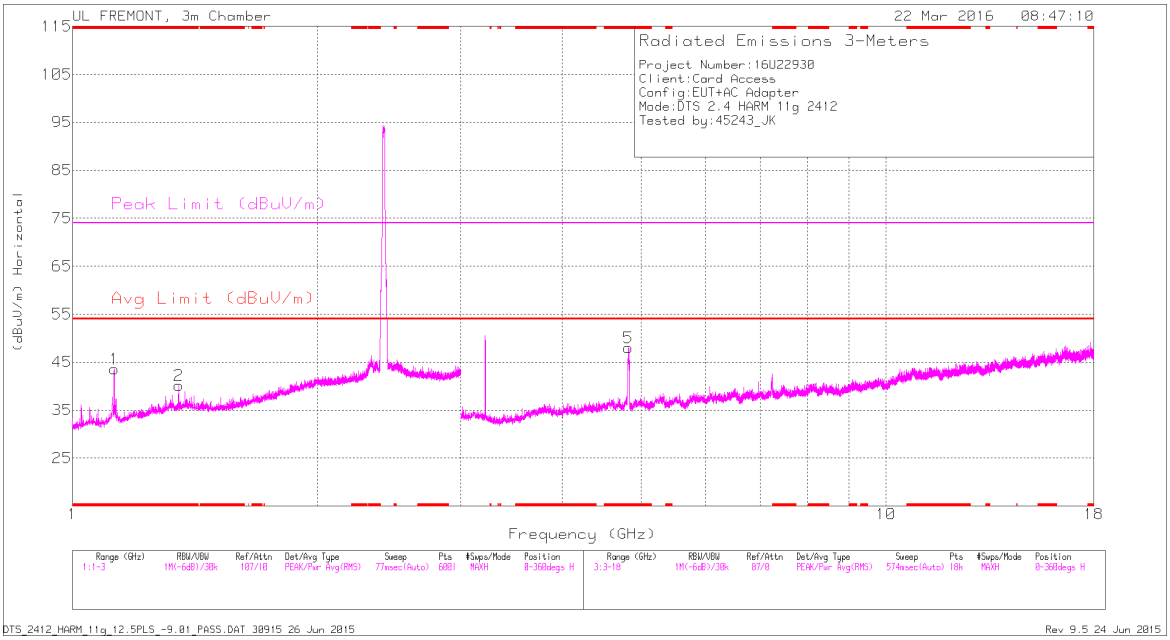
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

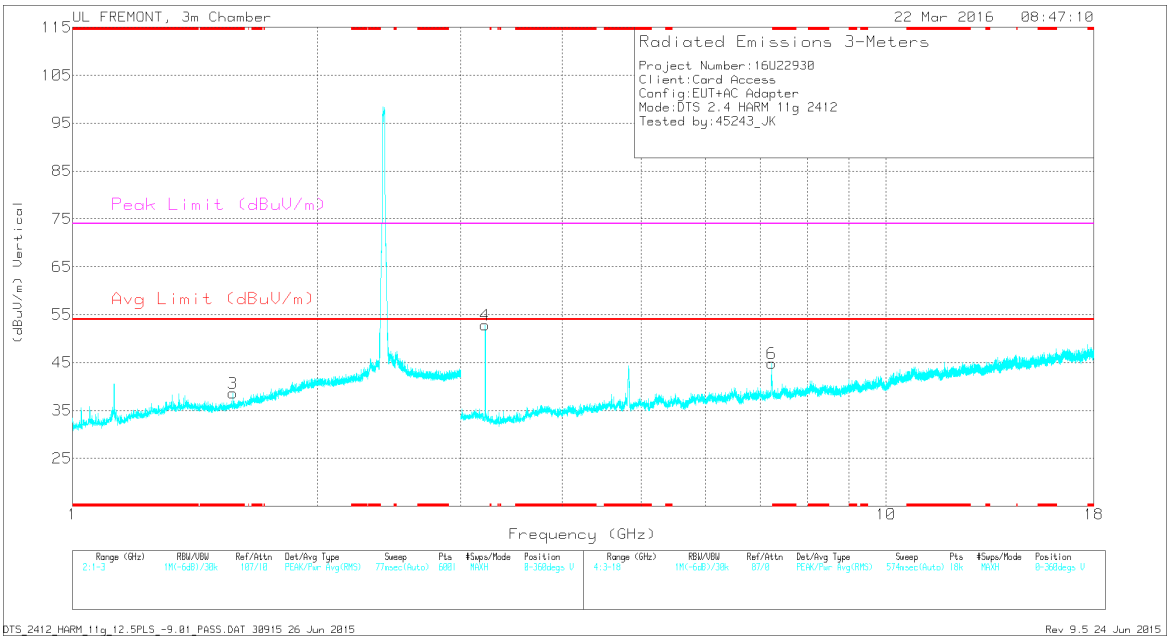
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.125	37.89	Pk	27.9	-22.2	0	43.59	-	-	74	-30.41	0-360	201	H
2	* 1.35	32.09	Pk	29	-20.9	0	40.19	-	-	74	-33.81	0-360	100	H
3	* 1.575	30.66	Pk	28.1	-20.1	0	38.66	-	-	74	-35.34	0-360	100	V
5	* 4.822	43.35	Pk	34.3	-29.6	0	48.05	-	-	74	-25.95	0-360	100	H
4	3.216	51.8	Pk	33.2	-32.2	0	52.8	-	-	-	-	0-360	200	V
6	7.236	35.76	Pk	35.7	-26.6	0	44.86	-	-	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

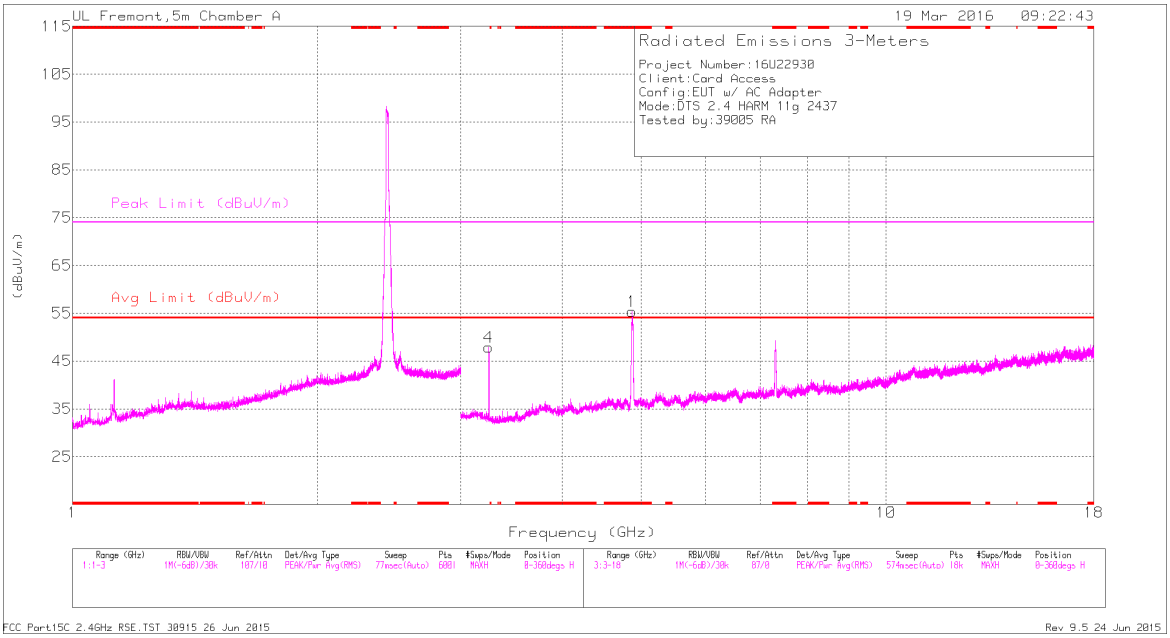
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/ m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.125	47.38	PK2	27.9	-22.2	0	53.08	-	-	74	-20.92	298	226	H
* 1.125	34.81	MAv1	27.9	-22.2	.16	40.67	54	-13.33	-	-	298	226	H
* 1.35	39.03	PK2	29	-20.9	0	47.13	-	-	74	-26.87	67	276	H
* 1.35	29.55	MAv1	29	-20.9	.16	37.81	54	-16.19	-	-	67	276	H
* 1.575	40	PK2	28.1	-20.1	0	48	-	-	74	-26	350	173	V
* 1.575	26.13	MAv1	28.1	-20.1	.16	34.29	54	-19.71	-	-	350	173	V
* 4.823	56.16	PK2	34.3	-29.6	0	60.86	-	-	74	-13.14	102	105	H
* 4.824	40.13	MAv1	34.3	-29.6	.16	44.99	54	-9.01	-	-	102	105	H
* 4.824	54.82	PK2	34.3	-29.6	0	59.52	-	-	74	-14.48	65	167	H
* 4.824	48.04	MAv1	34.3	-29.6	.16	52.9	54	-1.1	-	-	65	167	H
3.216	53.83	PK2	33.2	-32.2	0	54.83	-	-	74	-19.17	338	139	V
3.216	53.93	PK2	33.2	-32.2	0	54.93	-	-	74	-19.07	338	139	V
7.236	45.81	PK2	35.7	-26.6	0	54.91	-	-	74	-19.09	165	110	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

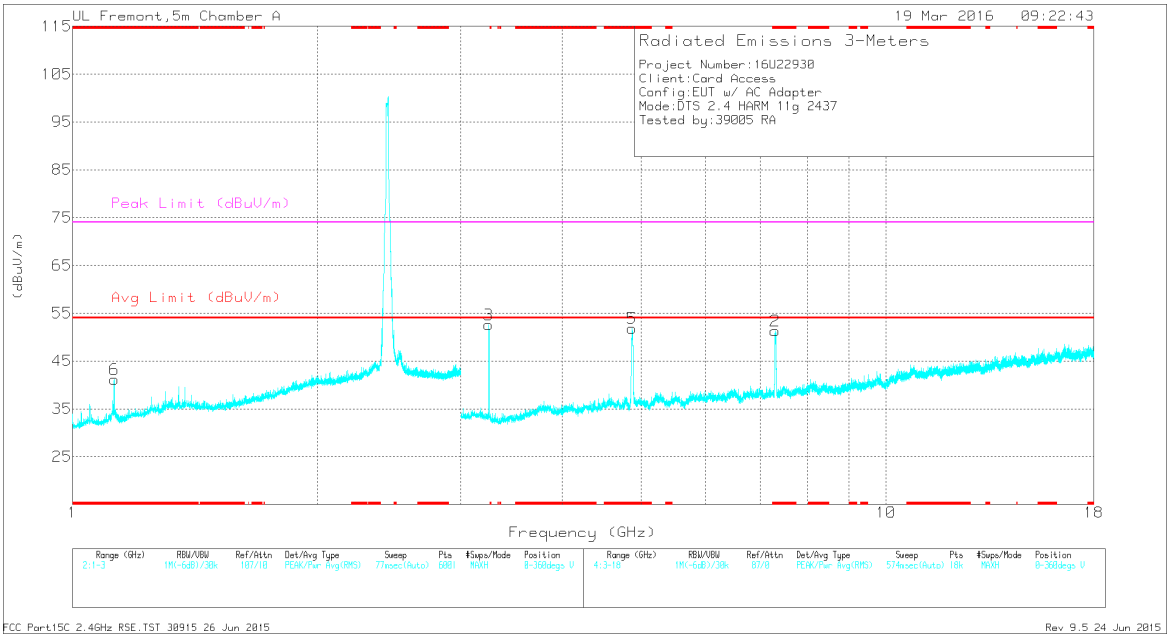
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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
6	* 1.125	35.51	Pk	27.9	-22.2	0	41.21	-	-	74	-32.79	0-360	100	V
1	* 4.874	50.34	Pk	34.3	-29.3	0	55.34	-	-	74	-18.66	0-360	100	H
2	* 7.303	42.2	Pk	35.7	-26.6	0	51.3	-	-	74	-22.7	0-360	100	V
5	* 4.874	46.79	Pk	34.3	-29.3	0	51.79	-	-	74	-22.21	0-360	100	V
4	3.249	47.37	Pk	33	-32.5	0	47.87	-	-	-	-	0-360	100	H
3	3.249	52.13	Pk	33	-32.5	0	52.63	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

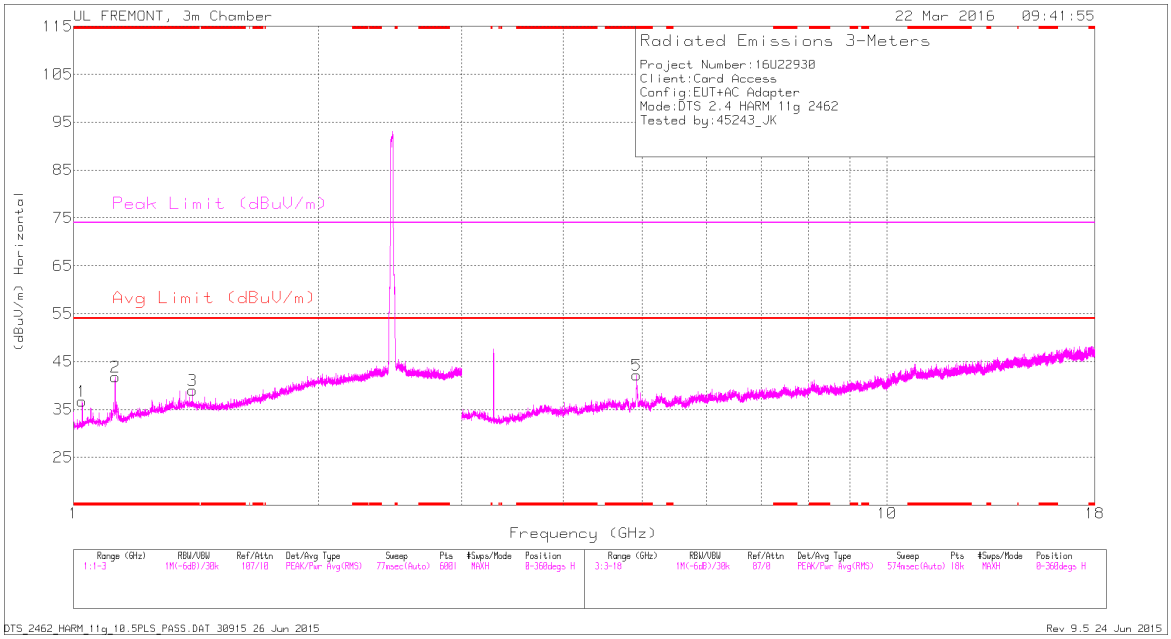
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.125	39.09	PK2	27.9	-22.2	0	44.79	-	-	74	-29.21	72	100	V
* 1.125	33.12	MAv1	27.9	-22.2	.16	38.98	54	-15.02	-	-	72	100	V
* 4.872	54.53	PK2	34.3	-29.3	0	59.53	-	-	74	-14.47	200	102	H
* 4.874	46.06	MAv1	34.3	-29.3	.16	51.22	54	-2.78	-	-	200	102	H
* 4.874	53.37	PK2	34.3	-29.3	0	58.37	-	-	74	-15.63	192	105	H
* 4.874	46.23	MAv1	34.3	-29.3	.16	51.39	54	-2.61	-	-	192	105	H
* 7.309	46.15	PK2	35.7	-26.6	0	55.25	-	-	74	-18.75	253	106	V
* 7.308	38.88	MAv1	35.7	-26.6	.16	48.14	54	-5.86	-	-	253	106	V
* 4.874	49.1	PK2	34.3	-29.3	0	54.1	-	-	74	-19.9	185	103	V
* 4.873	42.09	MAv1	34.3	-29.3	.16	47.25	54	-6.75	-	-	185	103	V
3.249	49.25	PK2	33	-32.5	0	49.75	-	-	74	-24.25	156	107	H
3.249	53.11	PK2	33	-32.5	0	53.61	-	-	74	-20.39	71	231	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

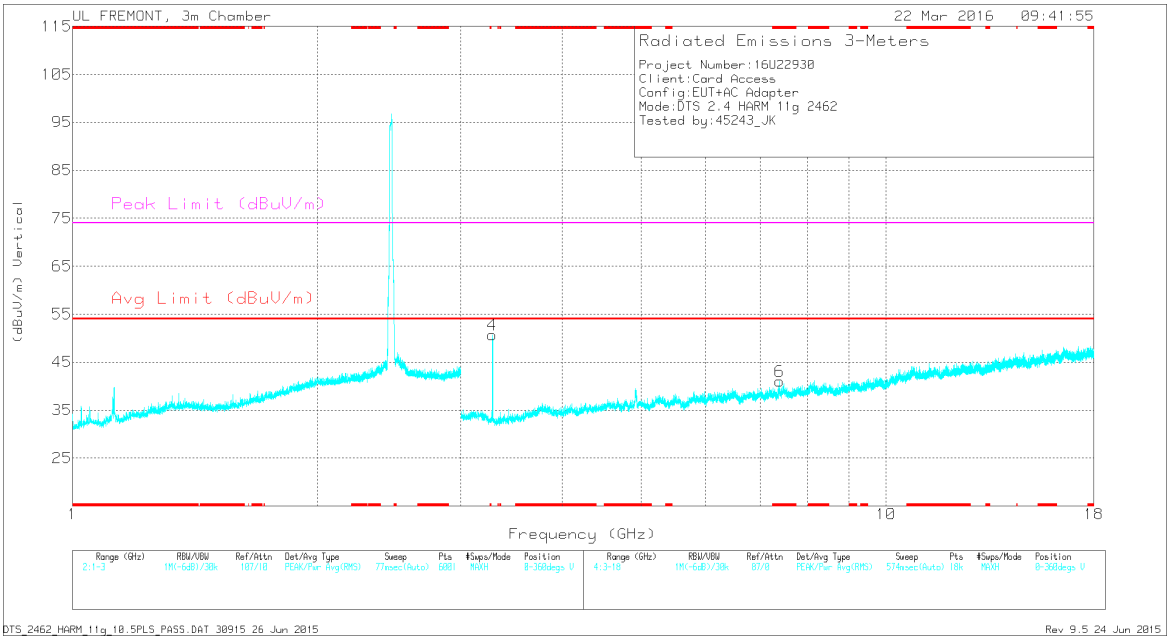
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.025	32.26	Pk	27.6	-23.2	0	36.66	-	-	74	-37.34	0-360	201	H
2	* 1.125	36.12	Pk	27.9	-22.2	0	41.82	-	-	74	-32.18	0-360	201	H
3	* 1.4	30.72	Pk	29	-20.7	0	39.02	-	-	74	-34.98	0-360	201	H
5	* 4.924	37.22	Pk	34.3	-29.3	0	42.22	-	-	74	-31.78	0-360	100	H
6	* 7.393	30.97	Pk	35.7	-25.6	0	41.07	-	-	74	-32.93	0-360	200	V
4	3.282	50.58	Pk	32.8	-32.7	0	50.68	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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
* 1.025	38.48	PK2	27.6	-23.2	0	42.88	-	-	74	-31.12	301	203	H
* 1.025	30.11	MAv1	27.6	-23.2	.16	34.67	54	-19.33	-	-	301	203	H
* 1.125	45.63	PK2	27.9	-22.2	0	51.33	-	-	74	-22.67	285	208	H
* 1.125	32.85	MAv1	27.9	-22.2	.16	38.71	54	-15.29	-	-	285	208	H
* 1.4	37.44	PK2	29	-20.7	0	45.74	-	-	74	-28.26	83	257	H
* 1.4	26.88	MAv1	29	-20.7	.16	35.34	54	-18.66	-	-	83	257	H
* 4.923	48.03	PK2	34.3	-29.3	0	53.03	-	-	74	-20.97	100	115	H
* 4.924	34.06	MAv1	34.3	-29.3	.16	39.22	54	-14.78	-	-	100	115	H
* 4.924	54.17	PK2	34.3	-29.3	0	59.17	-	-	74	-14.83	260	103	H
* 4.924	46.77	MAv1	34.3	-29.3	.16	51.93	54	-2.07	-	-	260	103	H
* 7.393	41.68	PK2	35.7	-25.6	0	51.78	-	-	74	-22.22	329	204	V
* 7.392	26.82	MAv1	35.7	-25.7	.16	36.98	54	-17.02	-	-	329	204	V
3.283	53.39	PK2	32.8	-32.7	0	53.49	-	-	74	-20.51	336	187	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

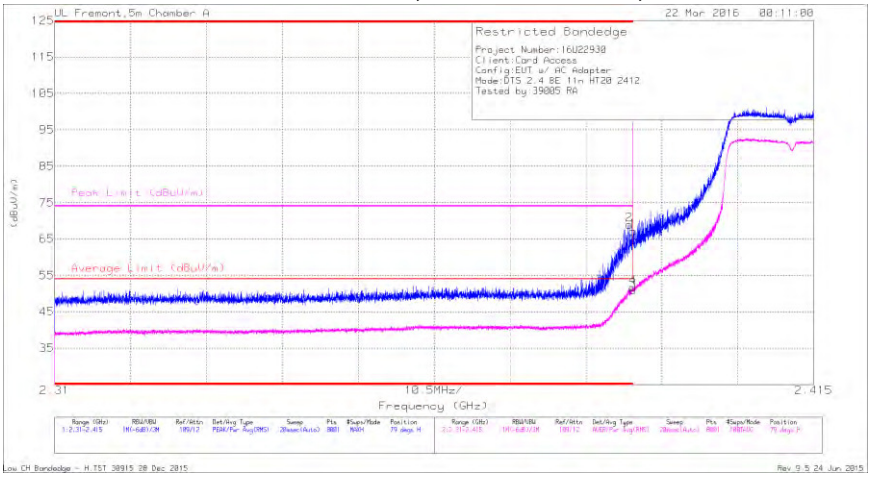
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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

RESTRICTED BANDEDGE (LOW CHANNEL 2412MHz)

LOW CHANNEL RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

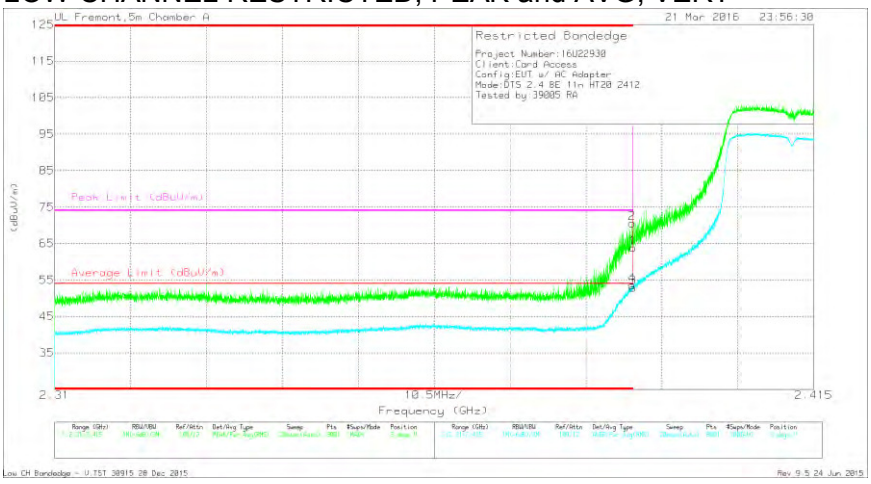
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	54.8	Pk	32.3	-19.9	0	67.2	-	-	74	-6.8	79	314	H
2	* 2.39	56.51	Pk	32.3	-19.9	0	68.91	-	-	74	-5.09	79	314	H
3	* 2.39	38.38	RMS	32.3	-19.9	.17	50.95	54	-3.05	-	-	79	314	H
4	* 2.39	39.14	RMS	32.3	-19.9	.17	51.71	54	-2.29	-	-	79	314	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	51.38	Pk	32.3	-19.9	0	63.78	-	-	74	-10.22	3	147	V
2	* 2.39	58.18	Pk	32.3	-19.9	0	70.58	-	-	74	-3.42	3	147	V
3	* 2.39	40.29	RMS	32.3	-19.9	.17	52.86	54	-1.14	-	-	3	147	V
4	* 2.39	40.9	RMS	32.3	-19.9	.17	53.47	54	-.53	-	-	3	147	V

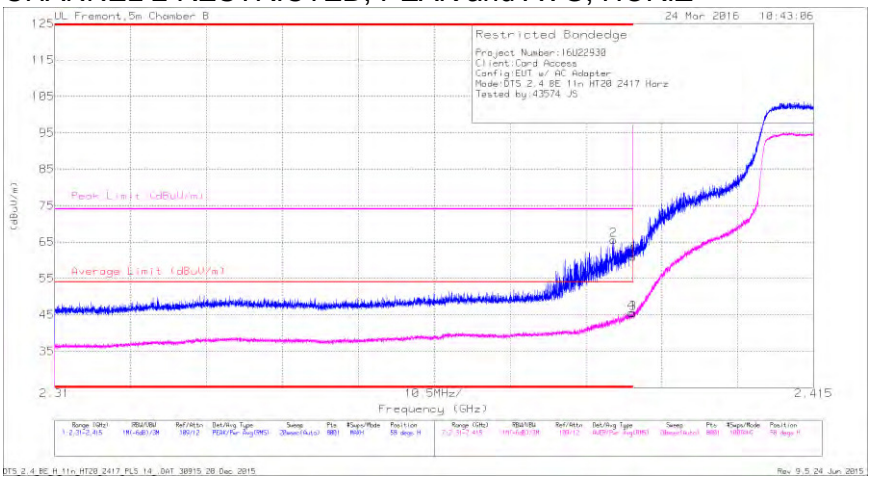
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 2, 2417MHz)

CHANNEL 2 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

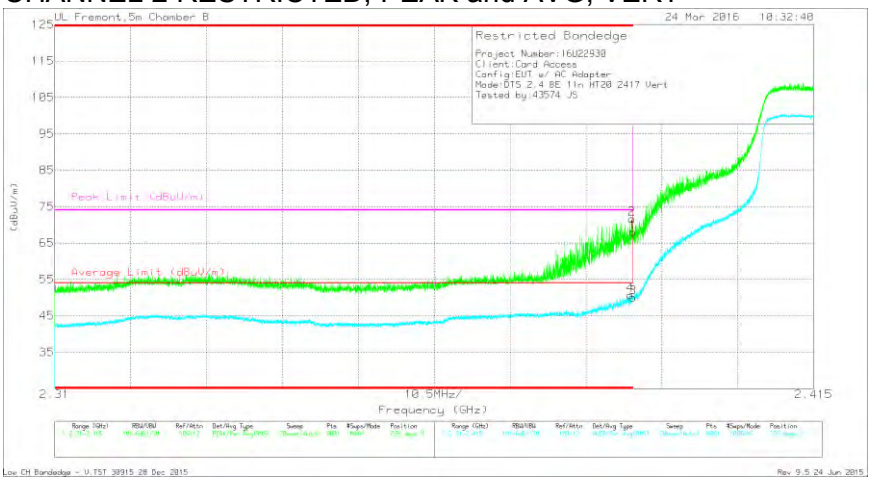
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	51.16	Pk	32.1	-22.3	0	60.96	-	-	74	-13.04	58	225	H
2	* 2.387	55.84	Pk	32.1	-22.4	0	65.54	-	-	74	-8.46	58	225	H
3	* 2.39	35.44	RMS	32.1	-22.3	.17	45.41	54	-8.59	-	-	58	225	H
4	* 2.39	35.59	RMS	32.1	-22.3	.17	45.56	54	-8.44	-	-	58	225	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 2 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	58.19	Pk	32.1	-22.3	0	67.99	-	-	74	-6.01	235	219	V
2	* 2.39	61.82	Pk	32.1	-22.3	0	71.62	-	-	74	-2.38	235	219	V
3	* 2.39	40.12	RMS	32.1	-22.3	.17	50.09	54	-3.91	-	-	235	219	V
4	* 2.39	40.74	RMS	32.1	-22.3	.17	50.71	54	-3.29	-	-	235	219	V

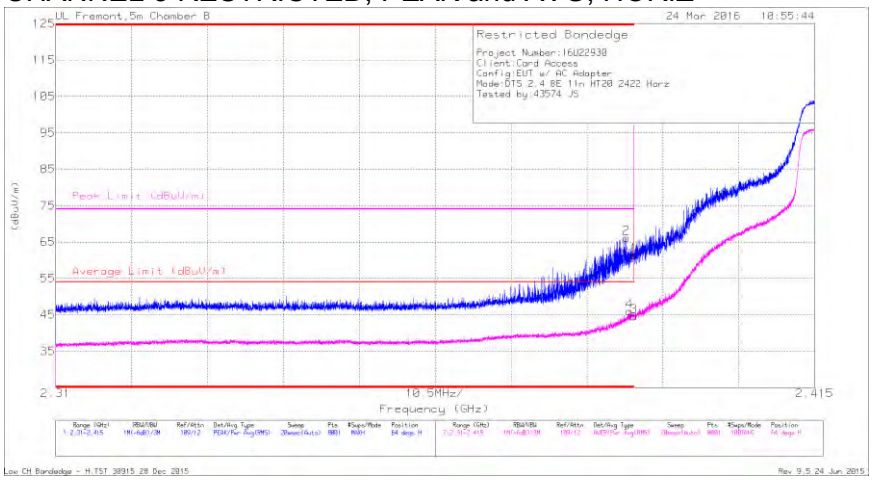
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 3, 2422MHz)

CHANNEL 3 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

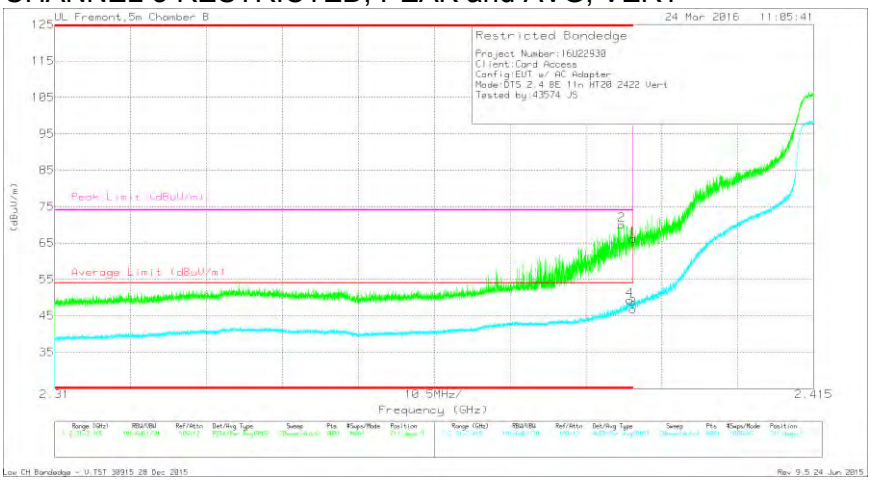
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	51.5	Pk	32.1	-22.3	0	61.3	-	-	74	-12.7	64	216	H
2	* 2.389	56.32	Pk	32.1	-22.3	0	66.12	-	-	74	-7.88	64	216	H
3	* 2.39	34.63	RMS	32.1	-22.3	.17	44.6	54	-9.4	-	-	64	216	H
4	* 2.389	35.96	RMS	32.1	-22.3	.17	45.93	54	-8.07	-	-	64	216	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 3 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	56.43	Pk	32.1	-22.3	0	66.23	-	-	74	-7.77	211	223	V
2	* 2.388	60.32	Pk	32.1	-22.4	0	70.02	-	-	74	-3.98	211	223	V
3	* 2.39	36.86	RMS	32.1	-22.3	.17	46.83	54	-7.17	-	-	211	223	V
4	* 2.39	39.34	RMS	32.1	-22.3	.17	49.31	54	-4.69	-	-	211	223	V

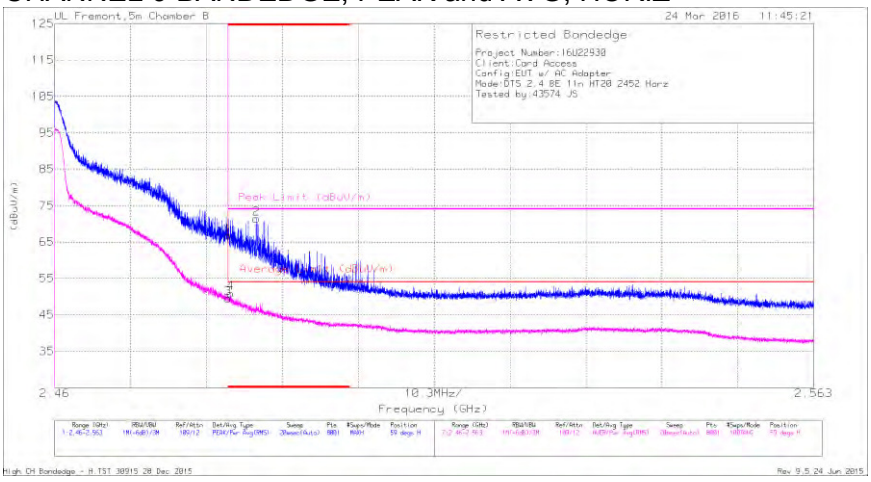
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 9, 2452MHz)

CHANNEL 9 BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

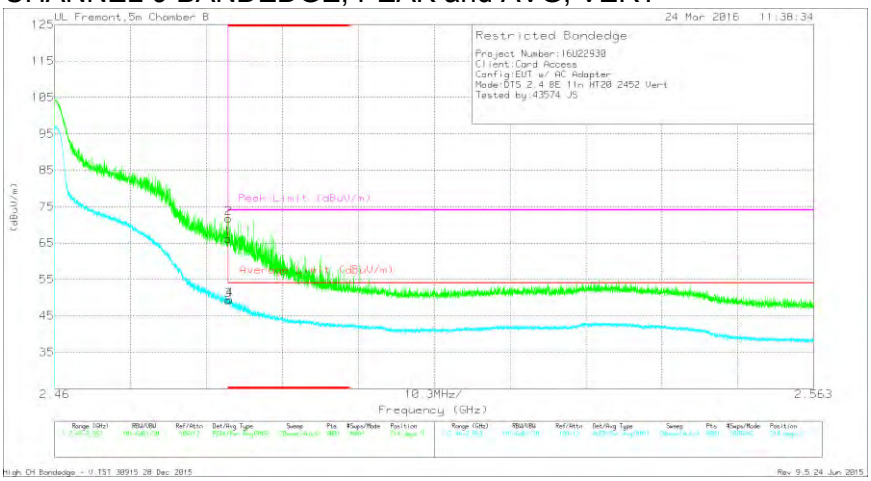
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	56.84	Pk	32.3	-22.3	0	66.84	-	-	74	-7.16	59	242	H
2	* 2.487	61.49	Pk	32.3	-22.4	0	71.39	-	-	74	-2.61	59	242	H
3	* 2.484	39.4	RMS	32.3	-22.3	.17	49.57	54	-4.43	-	-	59	242	H
4	* 2.484	40.8	RMS	32.3	-22.3	.17	50.97	54	-3.03	-	-	59	242	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 9 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	56.18	Pk	32.3	-22.3	0	66.18	-	-	74	-7.82	214	237	V
2	* 2.484	61.72	Pk	32.3	-22.3	0	71.72	-	-	74	-2.28	214	237	V
3	* 2.484	39.14	RMS	32.3	-22.3	.17	49.31	54	-4.69	-	-	214	237	V
4	* 2.484	39.25	RMS	32.3	-22.3	.17	49.42	54	-4.58	-	-	214	237	V

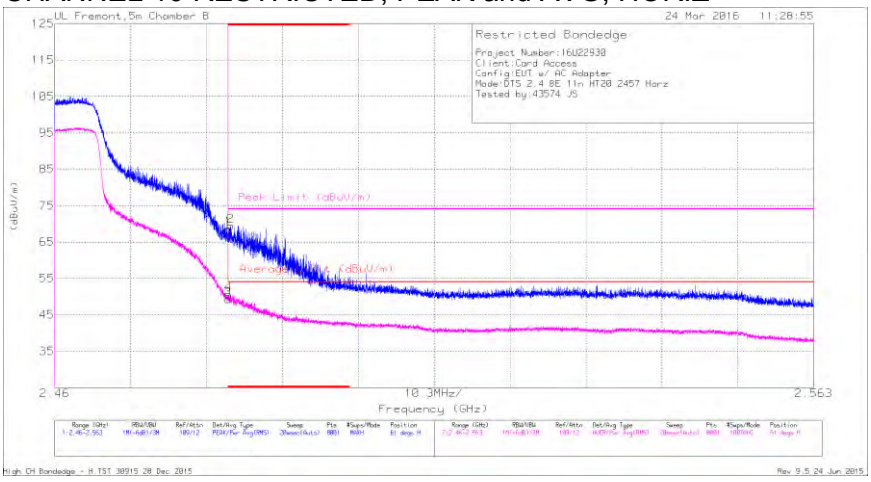
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 10 2457MHz)

CHANNEL 10 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

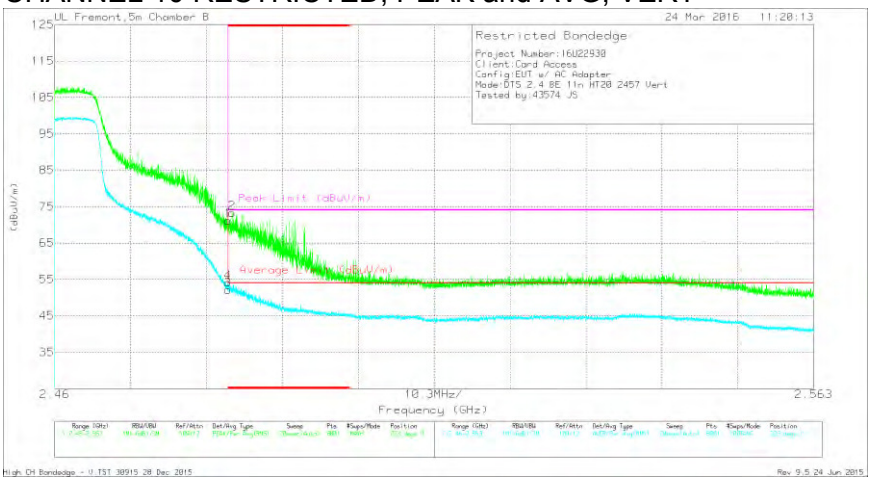
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	58.7	Pk	32.3	-22.3	0	68.7	-	-	74	-5.3	61	187	H
2	* 2.484	59.43	Pk	32.3	-22.3	0	69.43	-	-	74	-4.57	61	187	H
3	* 2.484	39.17	RMS	32.3	-22.3	.17	49.34	54	-4.66	-	-	61	187	H
4	* 2.484	40.34	RMS	32.3	-22.3	.17	50.51	54	-3.49	-	-	61	187	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 10 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	61.18	Pk	32.3	-22.3	0	71.18	-	-	74	-2.82	223	231	V
2	* 2.484	63.3	Pk	32.3	-22.3	0	73.3	-	-	74	-.7	223	231	V
3	* 2.484	41.93	RMS	32.3	-22.3	.17	52.1	54	-1.9	-	-	223	231	V
4	* 2.484	44.01	RMS	32.3	-22.3	.17	53.97	54	.03	-	-	223	231	V

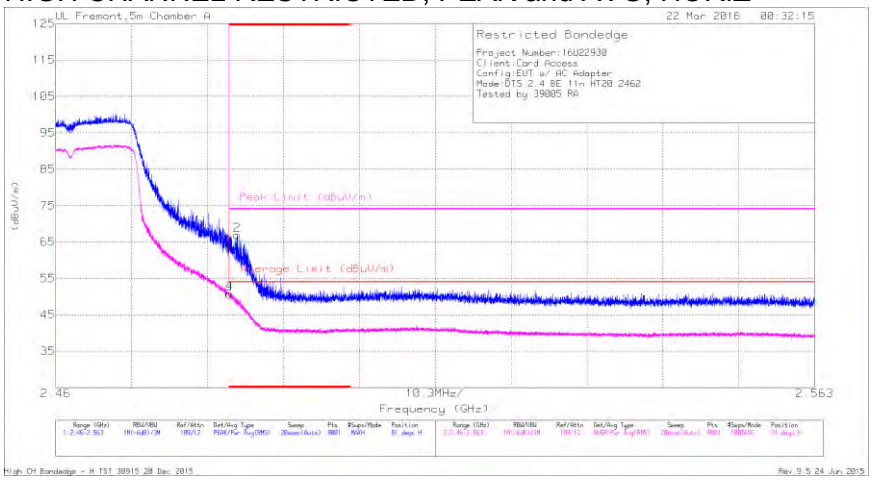
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (HIGH CHANNEL 2462MHz)

HIGH CHANNEL RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

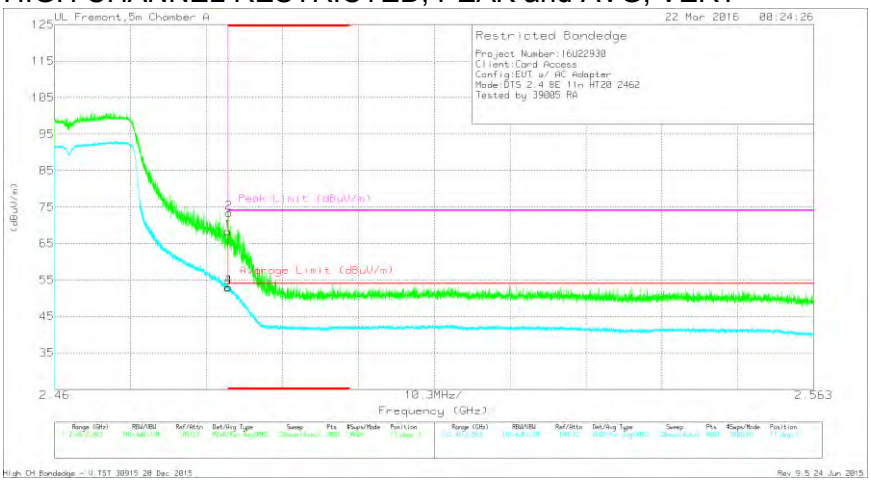
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	51.27	Pk	32.4	-20	0	63.67	-	-	74	-10.33	91	376	H
2	* 2.485	54.51	Pk	32.4	-20	0	66.91	-	-	74	-7.09	91	376	H
3	* 2.484	38.23	RMS	32.4	-20	.17	50.8	54	-3.2	-	-	91	376	H
4	* 2.484	38.28	RMS	32.4	-20	.17	50.85	54	-3.15	-	-	91	376	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

HIGH CHANNEL RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	55.88	Pk	32.4	-20	0	68.28	-	-	74	-5.72	17	307	V
2	* 2.484	60.99	Pk	32.4	-20	0	73.39	-	-	74	-.61	17	307	V
3	* 2.484	40.38	RMS	32.4	-20	.17	52.95	54	-1.05	-	-	17	307	V
4	* 2.484	40.42	RMS	32.4	-20	.17	52.99	54	-1.01	-	-	17	307	V

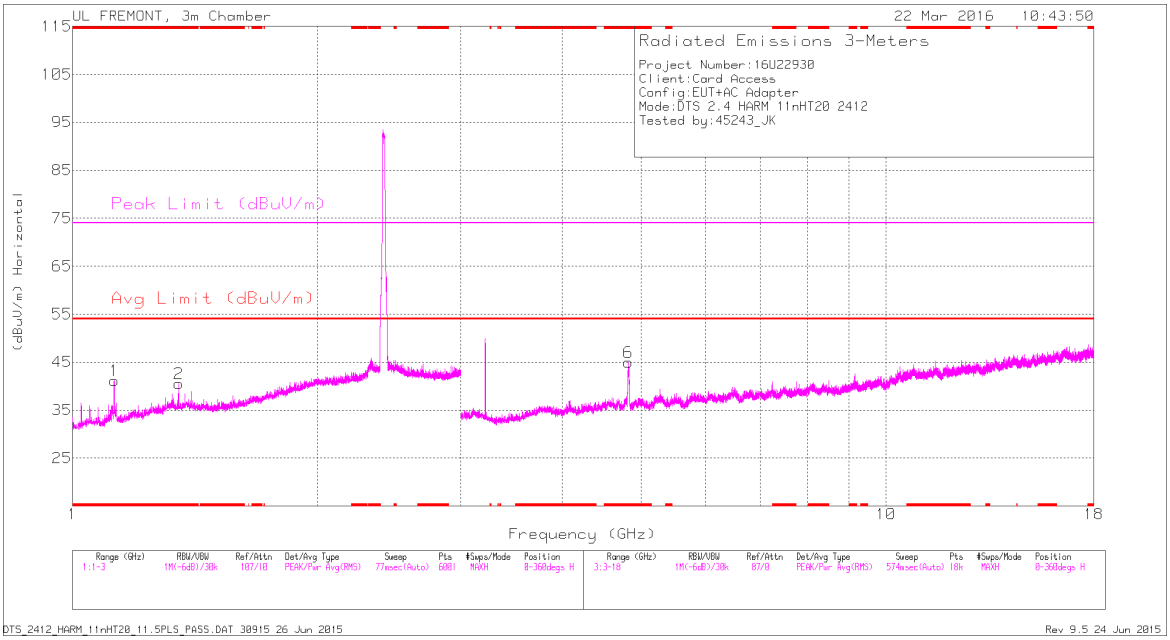
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

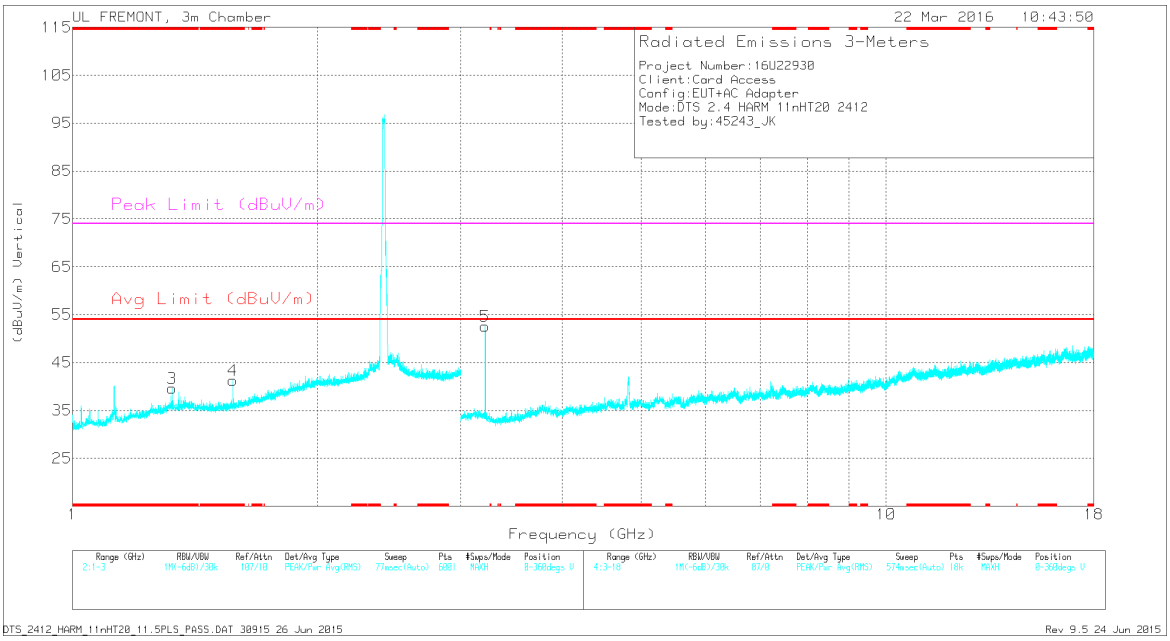
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.125	35.5	Pk	27.9	-22.2	0	41.2	-	-	74	-32.8	0-360	201	H
2	* 1.35	32.48	Pk	29	-20.9	0	40.58	-	-	74	-33.42	0-360	100	H
3	* 1.325	31.6	Pk	29	-21	0	39.6	-	-	74	-34.4	0-360	100	V
4	* 1.575	33.29	Pk	28.1	-20.1	0	41.29	-	-	74	-32.71	0-360	100	V
6	* 4.823	40.32	Pk	34.3	-29.6	0	45.02	-	-	74	-28.98	0-360	100	H
5	3.216	51.61	Pk	33.2	-32.2	0	52.61	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

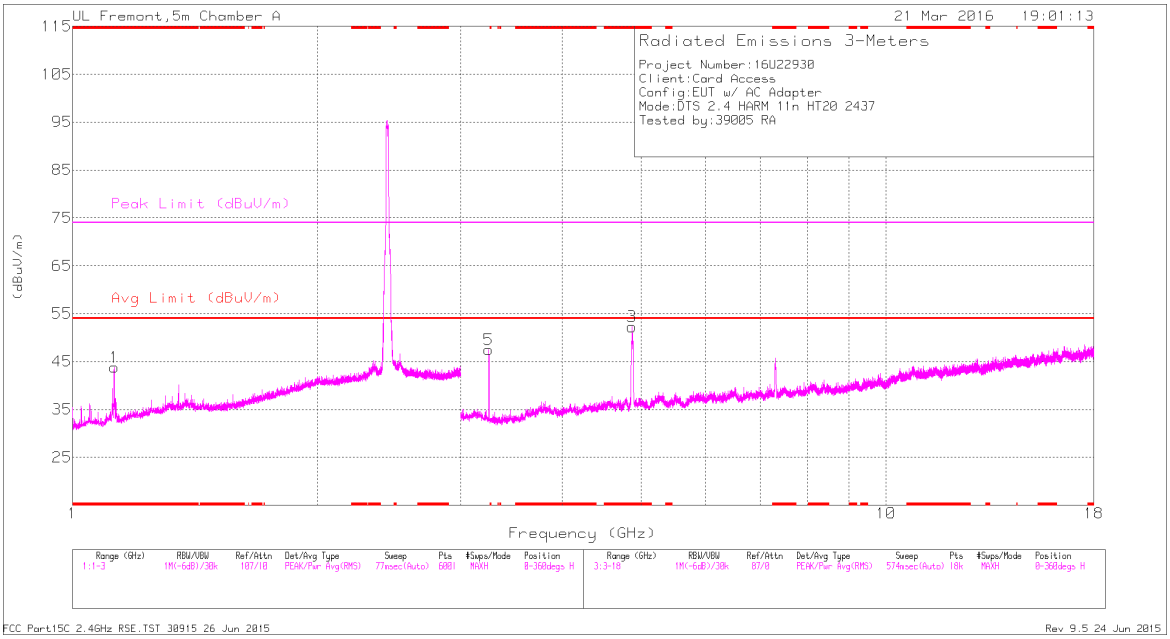
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.125	43.52	PK2	27.9	-22.2	0	49.22	-	-	74	-24.78	73	353	H
* 1.125	30.36	MAv1	27.9	-22.2	.17	36.23	54	-17.77	-	-	73	353	H
* 1.35	39.43	PK2	29	-20.9	0	47.53	-	-	74	-26.47	78	271	H
* 1.35	30.06	MAv1	29	-20.9	.17	38.33	54	-15.67	-	-	78	271	H
* 1.325	38.07	PK2	29	-21	0	46.07	-	-	74	-27.93	254	110	V
* 1.325	27.89	MAv1	29	-21	.17	36.06	54	-17.94	-	-	254	110	V
* 1.575	40.79	PK2	28.1	-20.1	0	48.79	-	-	74	-25.21	320	104	V
* 1.575	27.42	MAv1	28.1	-20.1	.17	35.59	54	-18.41	-	-	320	104	V
* 4.824	54.69	PK2	34.3	-29.6	0	59.39	-	-	74	-14.61	103	115	H
* 4.824	38.06	MAv1	34.3	-29.6	.17	42.93	54	-11.07	-	-	103	115	H
* 4.824	52.07	PK2	34.3	-29.6	0	56.77	-	-	74	-17.23	80	120	H
* 4.824	45.32	MAv1	34.3	-29.6	.17	50.19	54	-3.81	-	-	80	120	H
3.216	53.85	PK2	33.2	-32.2	0	54.85	-	-	74	-19.15	338	157	V
3.216	53.78	PK2	33.2	-32.2	0	54.78	-	-	74	-19.22	336	217	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

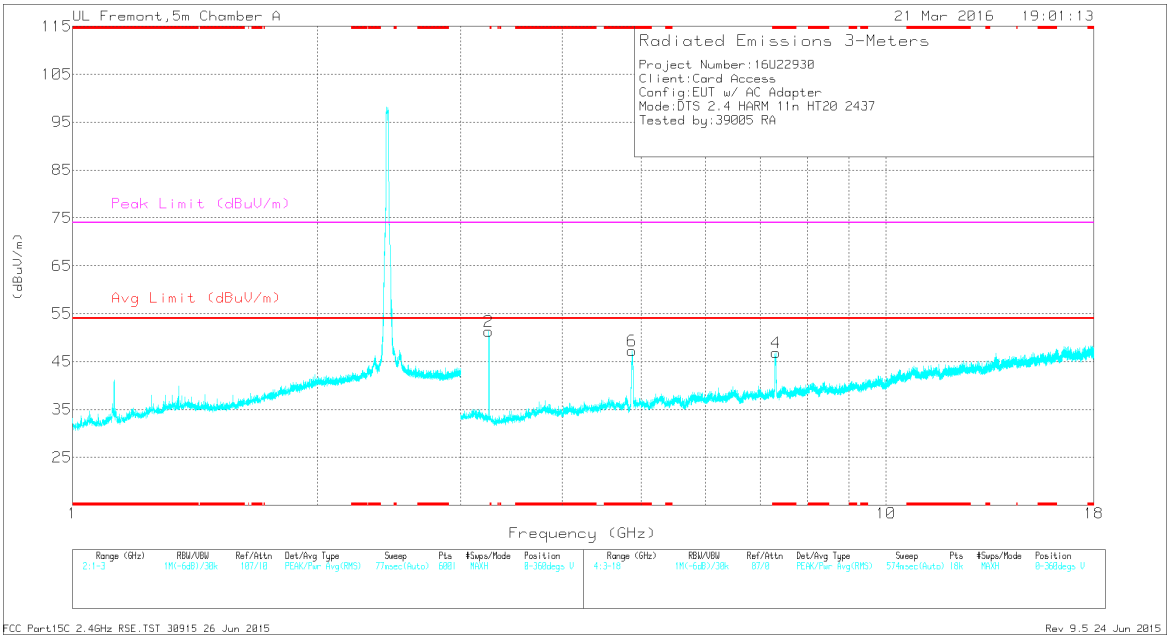
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.125	38.12	Pk	27.9	-22.2	0	43.82	-	-	74	-30.18	0-360	100	H
3	* 4.874	47.27	Pk	34.3	-29.3	0	52.27	-	-	74	-21.73	0-360	100	H
4	* 7.321	37.69	Pk	35.7	-26.5	0	46.89	-	-	74	-27.11	0-360	100	V
6	* 4.872	42.23	Pk	34.3	-29.3	0	47.23	-	-	74	-26.77	0-360	100	V
5	3.249	46.98	Pk	33	-32.5	0	47.48	-	-	-	-	0-360	100	H
2	3.249	50.87	Pk	33	-32.5	0	51.37	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

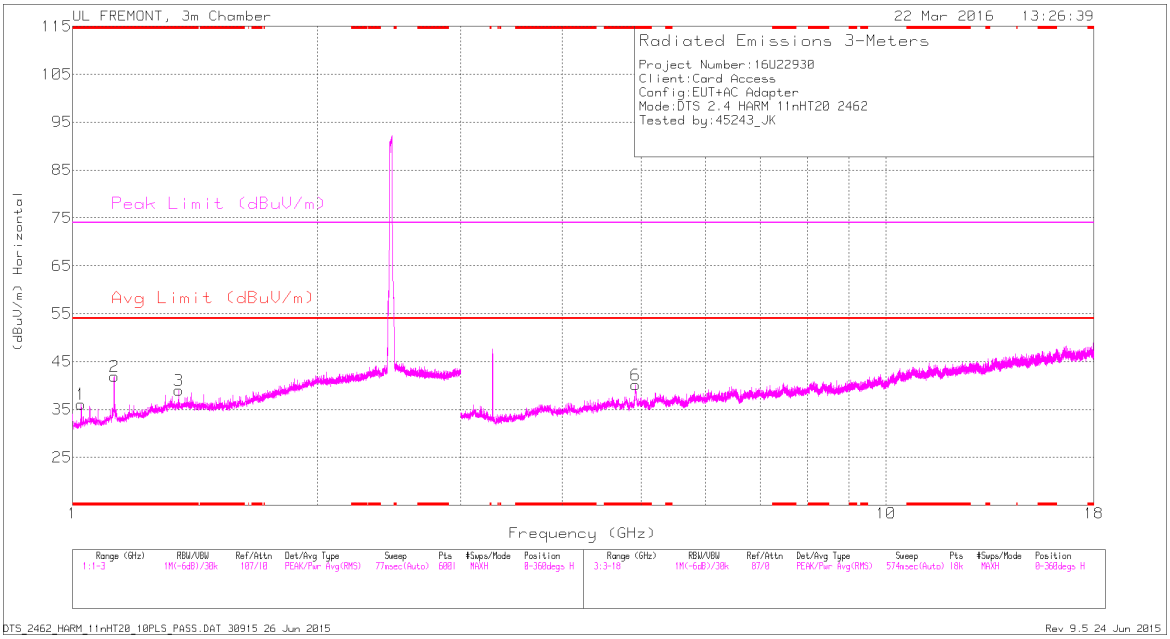
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.125	33.7	PK2	27.9	-22.2	0	39.4	-	-	74	-34.6	5	194	H
* 1.125	26.71	MAv1	27.9	-22.2	.17	32.58	54	-21.42	-	-	5	194	H
* 4.874	48.61	PK2	34.3	-29.3	0	53.61	-	-	74	-20.39	281	113	H
* 4.874	41.62	MAv1	34.3	-29.3	.17	46.79	54	-7.21	-	-	281	113	H
* 7.313	40.76	PK2	35.7	-26.6	0	49.86	-	-	74	-24.14	160	242	V
* 7.312	33.42	MAv1	35.7	-26.6	.17	42.69	54	-11.31	-	-	160	242	V
* 4.873	44.13	PK2	34.3	-29.3	0	49.13	-	-	74	-24.87	354	172	V
* 4.874	36.93	MAv1	34.3	-29.3	.17	42.1	54	-11.9	-	-	354	172	V
3.249	48.45	PK2	33	-32.5	0	48.95	-	-	74	-25.05	291	146	H
3.249	52.57	PK2	33	-32.5	0	53.07	-	-	74	-20.93	168	263	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

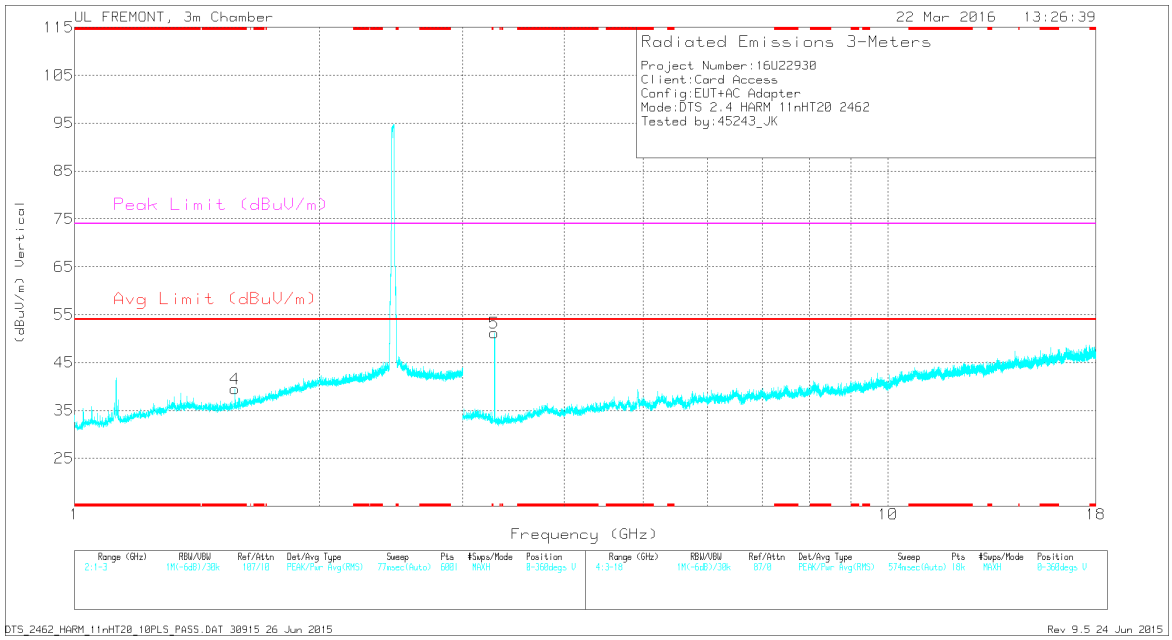
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.025	31.74	Pk	27.6	-23.2	0	36.14	-	-	74	-37.86	0-360	201	H
2	* 1.125	36.18	Pk	27.9	-22.2	0	41.88	-	-	74	-32.12	0-360	201	H
3	* 1.35	30.95	Pk	29	-20.9	0	39.05	-	-	74	-34.95	0-360	100	H
4	* 1.575	31.48	Pk	28.1	-20.1	0	39.48	-	-	74	-34.52	0-360	100	V
6	* 4.924	35.18	Pk	34.3	-29.3	0	40.18	-	-	74	-33.82	0-360	100	H
5	3.282	51.04	Pk	32.8	-32.7	0	51.14	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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
* 1.025	38.15	PK2	27.6	-23.2	0	42.55	-	-	74	-31.45	300	210	H
* 1.025	29.11	MAv1	27.6	-23.2	.17	33.68	54	-20.32	-	-	300	210	H
* 1.125	46.81	PK2	27.9	-22.2	0	52.51	-	-	74	-21.49	293	197	H
* 1.125	33.91	MAv1	27.9	-22.2	.17	39.78	54	-14.22	-	-	293	197	H
* 1.35	38.57	PK2	29	-20.9	0	46.67	-	-	74	-27.33	118	132	H
* 1.35	27.09	MAv1	29	-20.9	.17	35.36	54	-18.64	-	-	118	132	H
* 1.575	41.59	PK2	28.1	-20.1	0	49.59	-	-	74	-24.41	243	134	V
* 1.575	27.36	MAv1	28.1	-20.1	.17	35.53	54	-18.47	-	-	243	134	V
* 4.925	45.99	PK2	34.3	-29.3	0	50.99	-	-	74	-23.01	97	122	H
* 4.924	33.11	MAv1	34.3	-29.3	.17	38.28	54	-15.72	-	-	97	122	H
* 4.923	49.67	PK2	34.3	-29.3	0	54.67	-	-	74	-19.33	263	100	H
* 4.925	41.63	MAv1	34.3	-29.3	.17	46.8	54	-7.2	-	-	263	100	H
3.283	53.73	PK2	32.8	-32.7	0	53.83	-	-	74	-20.17	336	234	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

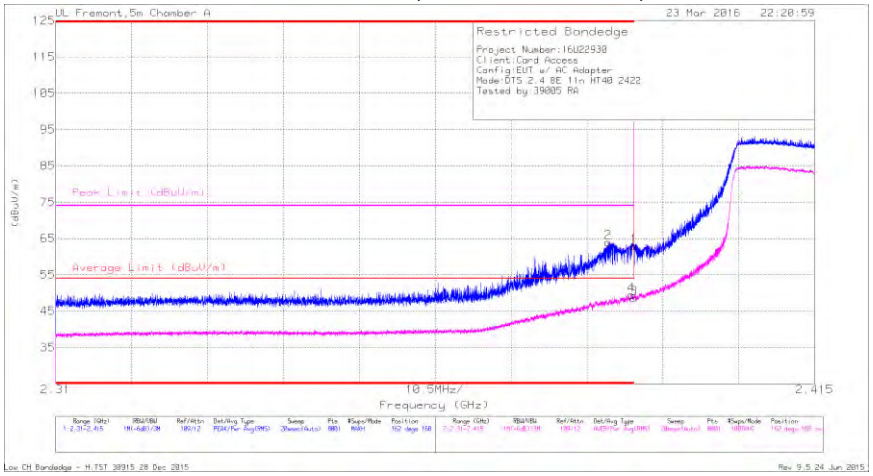
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

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

RESTRICTED BANDEDGE (LOW CHANNEL 2422MHz)

LOW CHANNEL RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

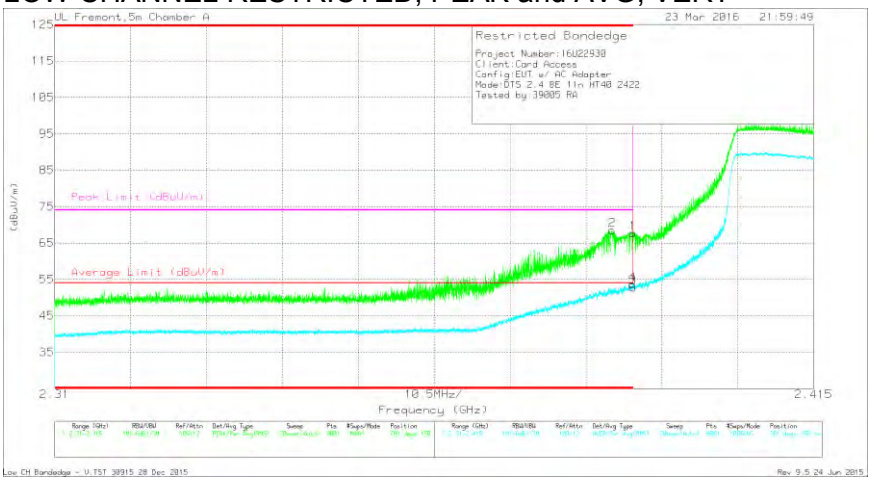
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.386	51.55	Pk	32.3	-19.9	0	63.95	-	-	74	-10.05	162	168	H
1	* 2.39	50.48	Pk	32.3	-19.9	0	62.88	-	-	74	-11.12	162	168	H
3	* 2.39	35.91	RMS	32.3	-19.9	.26	48.57	54	-5.43	-	-	162	168	H
4	* 2.39	36.74	RMS	32.3	-19.9	.26	49.4	54	-4.6	-	-	162	168	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	55.27	Pk	32.3	-19.9	0	67.67	-	-	74	-6.33	281	150	V
2	* 2.387	56.11	Pk	32.3	-19.9	0	68.51	-	-	74	-5.49	281	150	V
3	* 2.39	40.12	RMS	32.3	-19.9	.26	52.78	54	-1.22	-	-	281	150	V
4	* 2.39	40.97	RMS	32.3	-19.9	.26	53.63	54	-.37	-	-	281	150	V

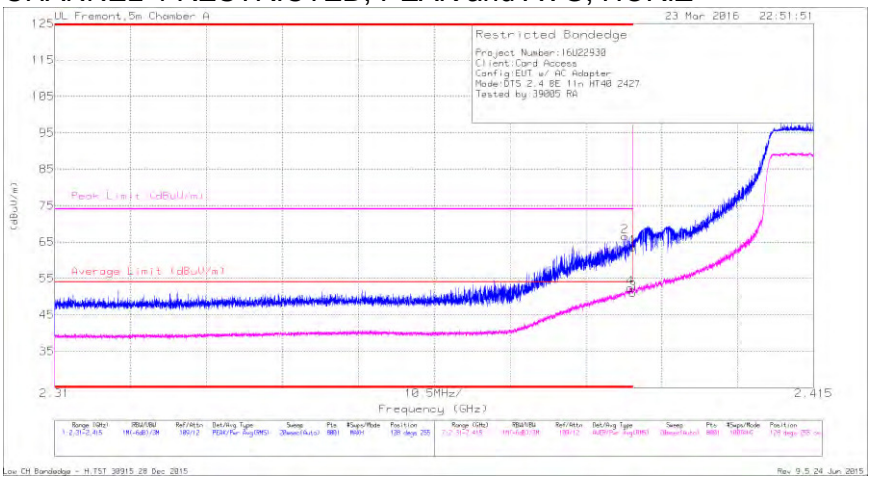
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 4, 2427MHz)

CHANNEL 4 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

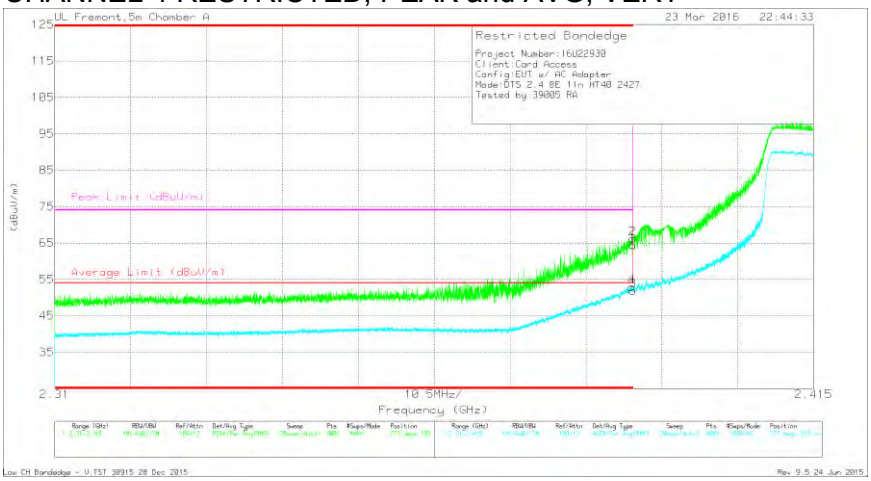
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 2.389	54.1	Pk	32.3	-19.9	0	66.5	-	-	74	-7.5	128	255	H
1	* 2.39	51.16	Pk	32.3	-19.9	0	63.56	-	-	74	-10.44	128	255	H
3	* 2.39	38.37	RMS	32.3	-19.9	.26	51.03	54	-2.97	-	-	128	255	H
4	* 2.39	39.76	RMS	32.3	-19.9	.26	52.42	54	-1.58	-	-	128	255	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 4 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	52.03	Pk	32.3	-19.9	0	64.43	-	-	74	-9.57	277	199	V
2	* 2.39	53.83	Pk	32.3	-19.9	0	66.23	-	-	74	-7.77	277	199	V
3	* 2.39	39.26	RMS	32.3	-19.9	.26	51.92	54	-2.08	-	-	277	199	V
4	* 2.39	40.23	RMS	32.3	-19.9	.26	52.89	54	-1.11	-	-	277	199	V

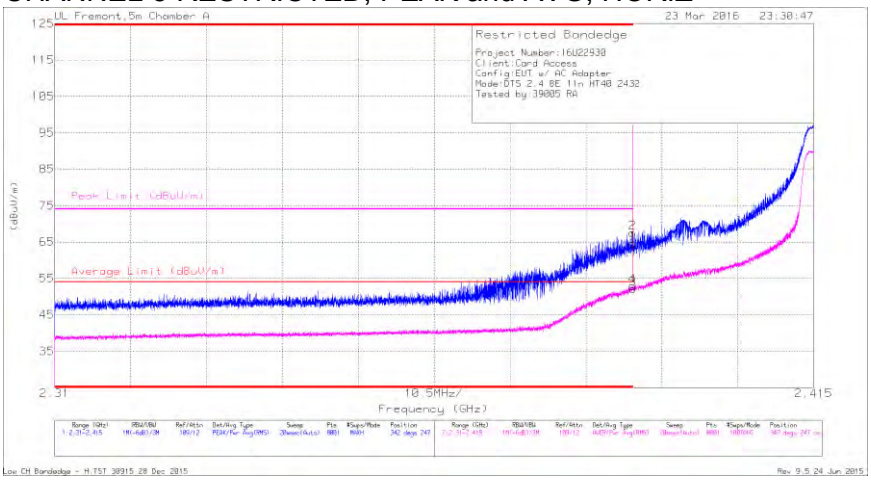
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 5, 2432MHz)

CHANNEL 5 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

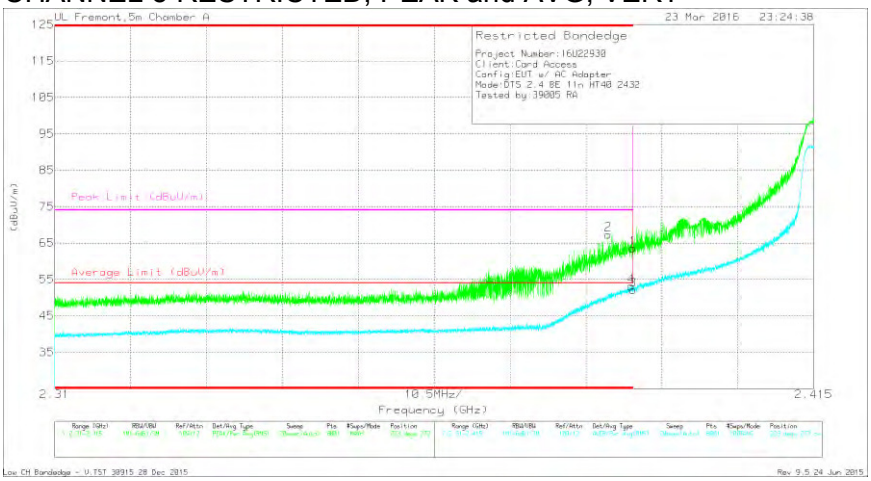
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	52.17	Pk	32.3	-19.9	0	64.57	-	-	74	-9.43	342	247	H
2	* 2.39	55.17	Pk	32.3	-19.9	0	67.57	-	-	74	-6.43	342	247	H
3	* 2.39	39.48	RMS	32.3	-19.9	.26	52.14	54	-1.86	-	-	342	247	H
4	* 2.39	40.27	RMS	32.3	-19.9	.26	52.93	54	-1.07	-	-	342	247	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 5 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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
2	* 2.387	54.96	Pk	32.3	-19.9	0	67.36	-	-	74	-6.64	223	272	V
1	* 2.39	51.21	Pk	32.3	-19.9	0	63.61	-	-	74	-10.39	223	272	V
3	* 2.39	39.45	RMS	32.3	-19.9	.26	52.11	54	-1.89	-	-	223	272	V
4	* 2.39	40.43	RMS	32.3	-19.9	.26	53.09	54	-.91	-	-	223	272	V

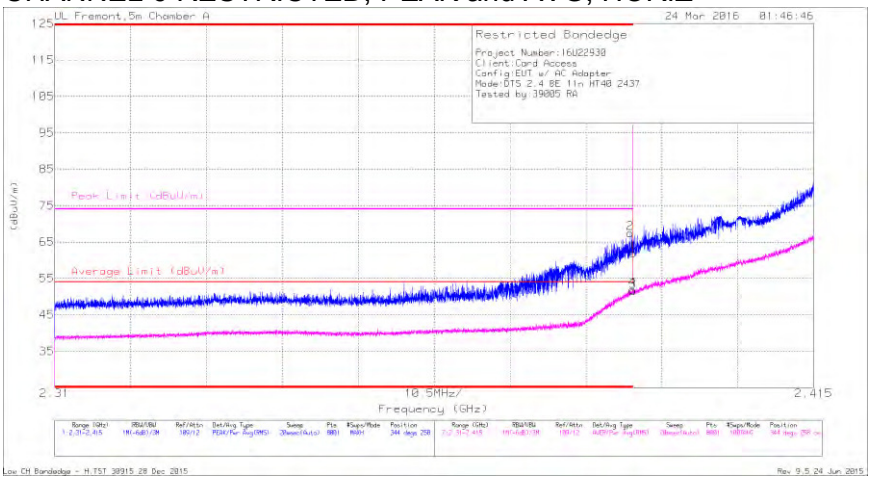
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

RESTRICTED BANDEDGE (CHANNEL 6, 2437MHz)

CHANNEL 6 RESTRICTED, PEAK and AVG, HORIZ



Trace Markers

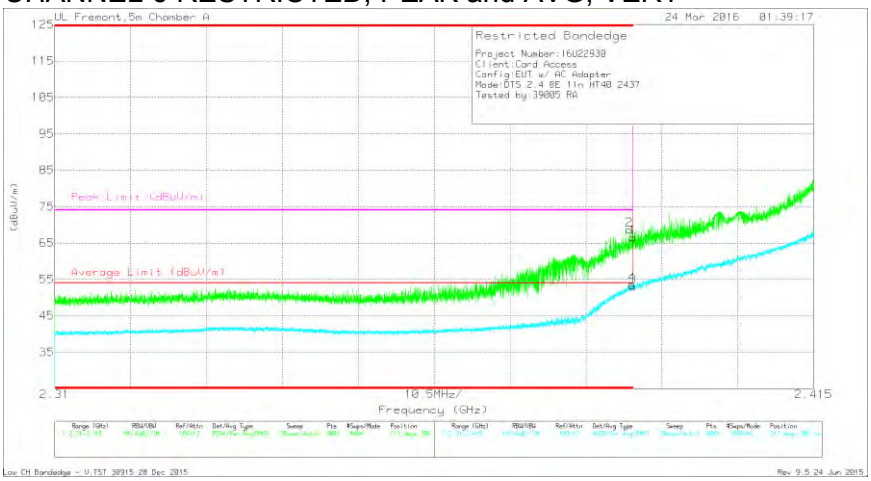
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	49.59	Pk	32.3	-19.9	0	61.99	-	-	74	-12.01	344	258	H
2	* 2.39	55.05	Pk	32.3	-19.9	0	67.45	-	-	74	-6.55	344	258	H
3	* 2.39	38.87	RMS	32.3	-19.9	.26	51.53	54	-2.47	-	-	344	258	H
4	* 2.39	39.22	RMS	32.3	-19.9	.26	51.88	54	-2.12	-	-	344	258	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 6 RESTRICTED, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	54.15	Pk	32.3	-19.9	0	66.55	-	-	74	-7.45	217	306	V
2	* 2.389	56.22	Pk	32.3	-19.9	0	68.62	-	-	74	-5.38	217	306	V
3	* 2.39	40.38	RMS	32.3	-19.9	.26	53.04	54	-.96	-	-	217	306	V
4	* 2.39	40.8	RMS	32.3	-19.9	.26	53.46	54	-.54	-	-	217	306	V

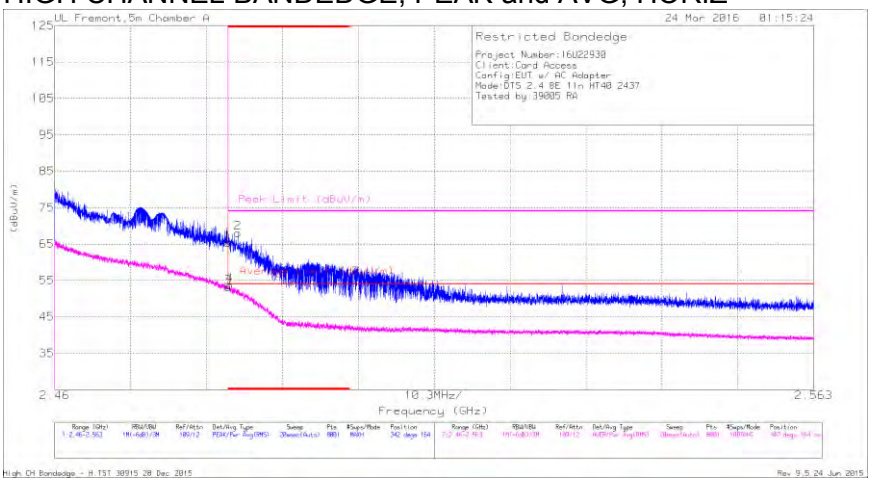
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 6, 2437MHz)

HIGH CHANNEL BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

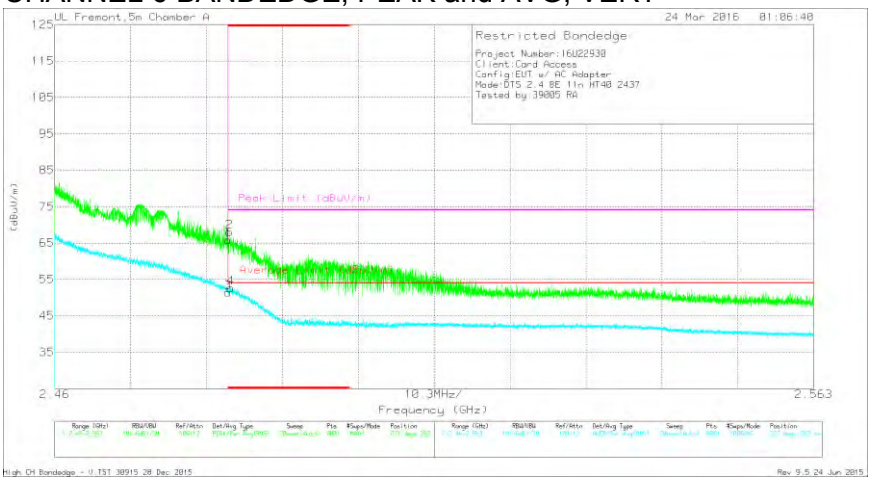
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	52.91	Pk	32.4	-20	0	65.31	-	-	74	-8.69	342	164	H
2	* 2.485	55.6	Pk	32.4	-20	0	68	-	-	74	-6	342	164	H
3	* 2.484	40.5	RMS	32.4	-20	.26	53.16	54	-.84	-	-	342	164	H
4	* 2.484	40.94	RMS	32.4	-20	.26	53.6	54	-.4	-	-	342	164	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 6 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	53.39	Pk	32.4	-20	0	65.79	-	-	74	-8.21	227	262	V
2	* 2.484	55.68	Pk	32.4	-20	0	68.08	-	-	74	-5.92	227	262	V
3	* 2.484	38.74	RMS	32.4	-20	.26	51.4	54	-2.6	-	-	227	262	V
4	* 2.484	40.01	RMS	32.4	-20	.26	52.67	54	-1.33	-	-	227	262	V

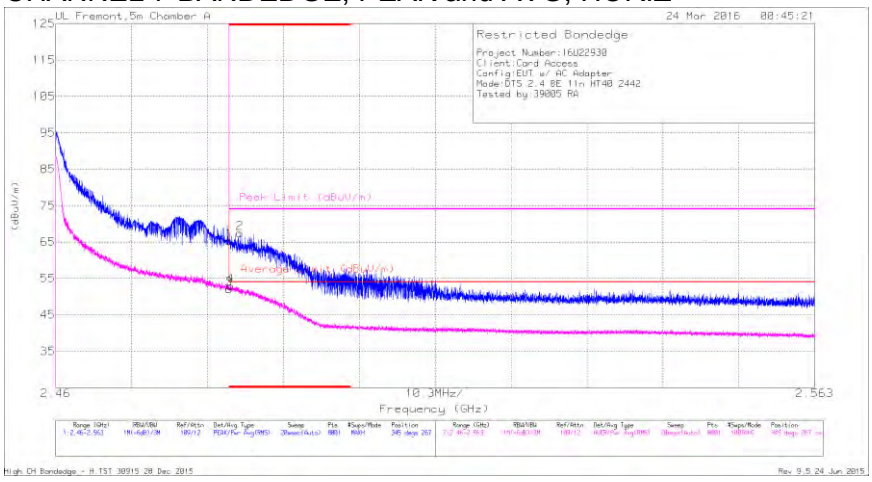
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 7, 2442MHz)

CHANNEL 7 BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

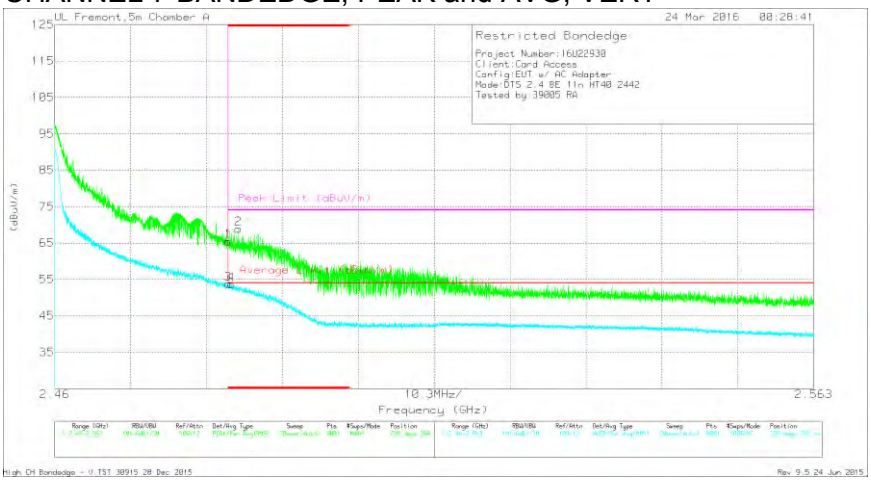
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	52.95	Pk	32.4	-20	0	65.35	-	-	74	-8.65	345	267	H
2	* 2.485	54.98	Pk	32.4	-20	0	67.38	-	-	74	-6.62	345	267	H
3	* 2.484	39.36	RMS	32.4	-20	.26	52.02	54	-1.98	-	-	345	267	H
4	* 2.484	40.23	RMS	32.4	-20	.26	52.89	54	-1.11	-	-	345	267	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 7 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	53.04	Pk	32.4	-20	0	65.44	-	-	74	-8.56	228	266	V
2	* 2.485	56.5	Pk	32.4	-20	0	68.9	-	-	74	-5.1	228	266	V
3	* 2.484	41.06	RMS	32.4	-20	.26	53.72	54	-.28	-	-	228	266	V
4	* 2.484	41.01	RMS	32.4	-20	.26	53.67	54	-.33	-	-	228	266	V

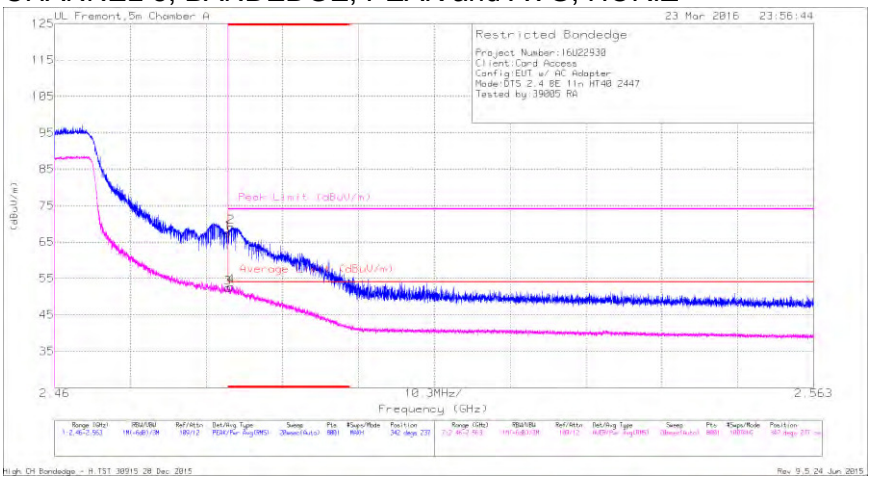
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 8, 2447MHz)

CHANNEL 8, BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

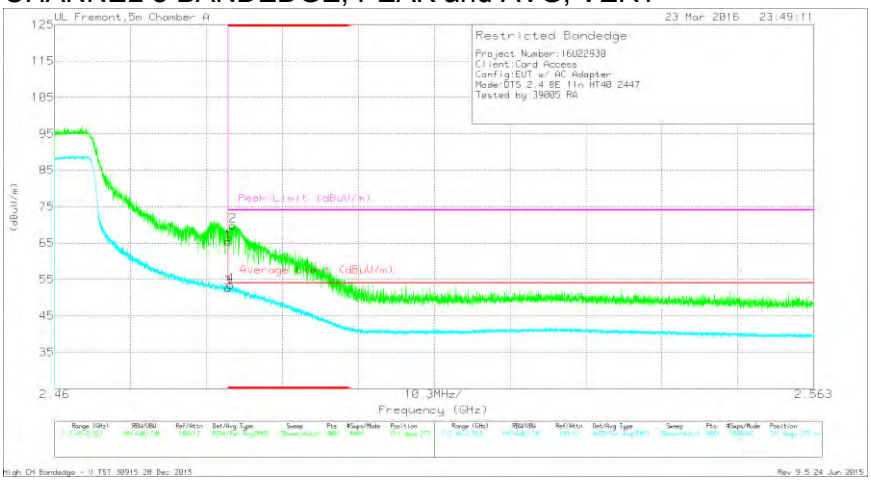
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	55.1	Pk	32.4	-20	0	67.5	-	-	74	-6.5	342	237	H
2	* 2.484	56.77	Pk	32.4	-20	0	69.17	-	-	74	-4.83	342	237	H
3	* 2.484	39.76	RMS	32.4	-20	.26	52.42	54	-1.58	-	-	342	237	H
4	* 2.484	40.17	RMS	32.4	-20	.26	52.83	54	-1.17	-	-	342	237	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 8 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	53.02	Pk	32.4	-20	0	65.42	-	-	74	-8.58	211	277	V
2	* 2.484	57.44	Pk	32.4	-20	0	69.84	-	-	74	-4.16	211	277	V
3	* 2.484	39.95	RMS	32.4	-20	.26	52.61	54	-1.39	-	-	211	277	V
4	* 2.484	40.73	RMS	32.4	-20	.26	53.39	54	-.61	-	-	211	277	V

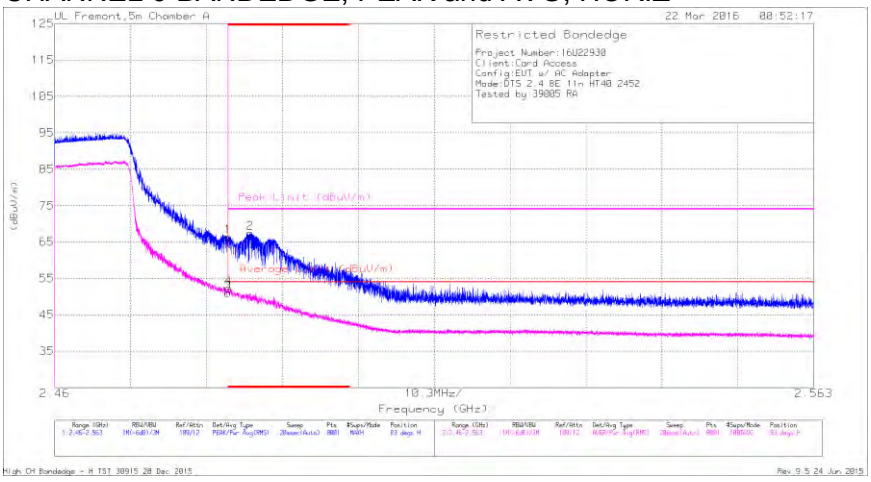
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (CHANNEL 9, 2452MHz)

CHANNEL 9 BANDEDGE, PEAK and AVG, HORIZ



Trace Markers

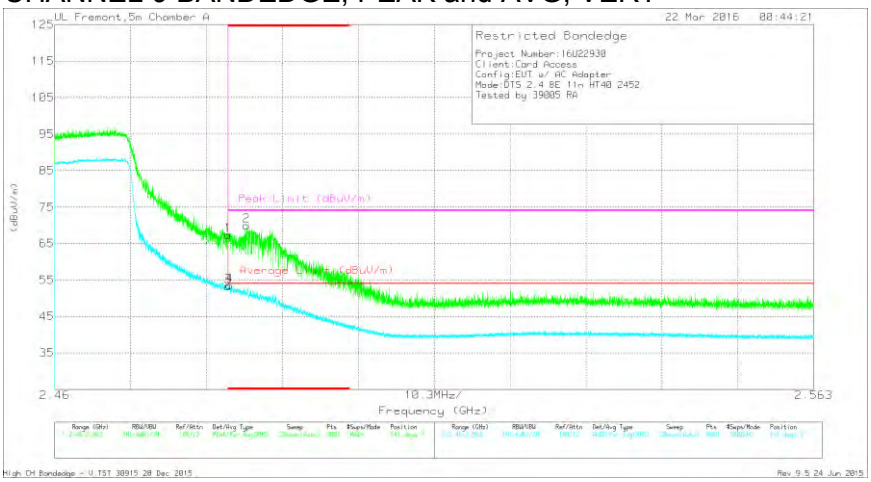
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/Flt r/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	53.98	Pk	32.4	-20	0	66.38	-	-	74	-7.62	83	377	H
2	* 2.487	54.98	Pk	32.5	-20	0	67.48	-	-	74	-6.52	83	377	H
3	* 2.484	38.35	RMS	32.4	-20	.26	51.01	54	-2.99	-	-	83	377	H
4	* 2.484	39.58	RMS	32.4	-20	.26	52.24	54	-1.76	-	-	83	377	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

CHANNEL 9 BANDEDGE, PEAK and AVG, VERT



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	54.87	Pk	32.4	-20	0	67.27	-	-	74	-6.73	141	376	V
2	* 2.486	57.37	Pk	32.5	-20	0	69.87	-	-	74	-4.13	141	376	V
3	* 2.484	40.56	RMS	32.4	-20	.26	53.22	54	-.78	-	-	141	376	V
4	* 2.484	40.83	RMS	32.4	-20	.26	53.49	54	-.51	-	-	141	376	V

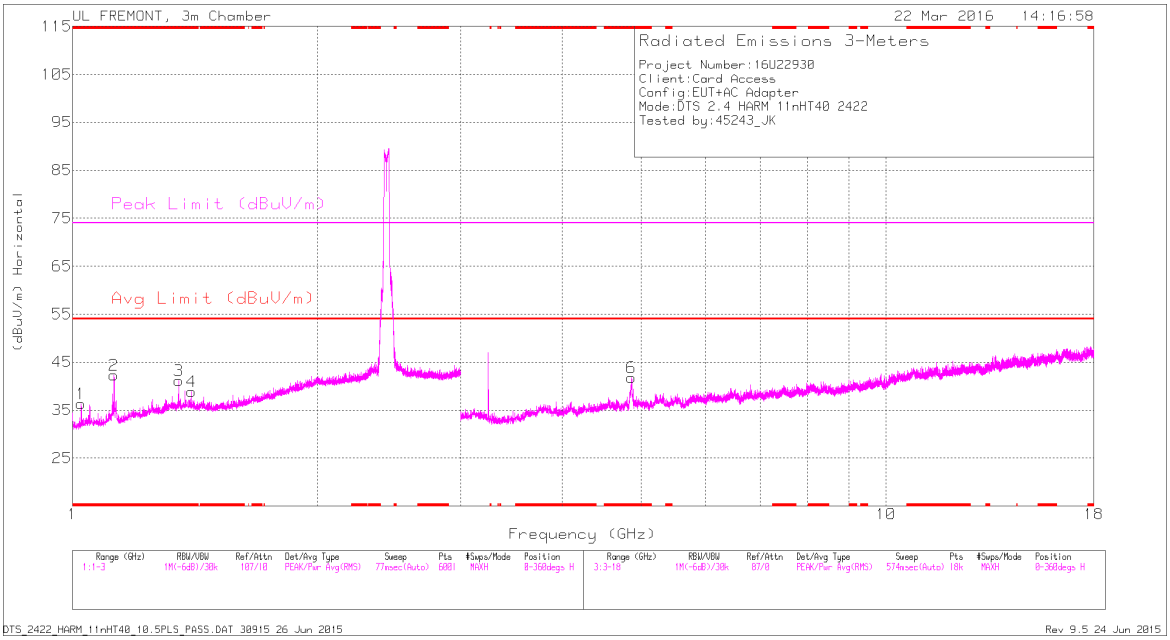
* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

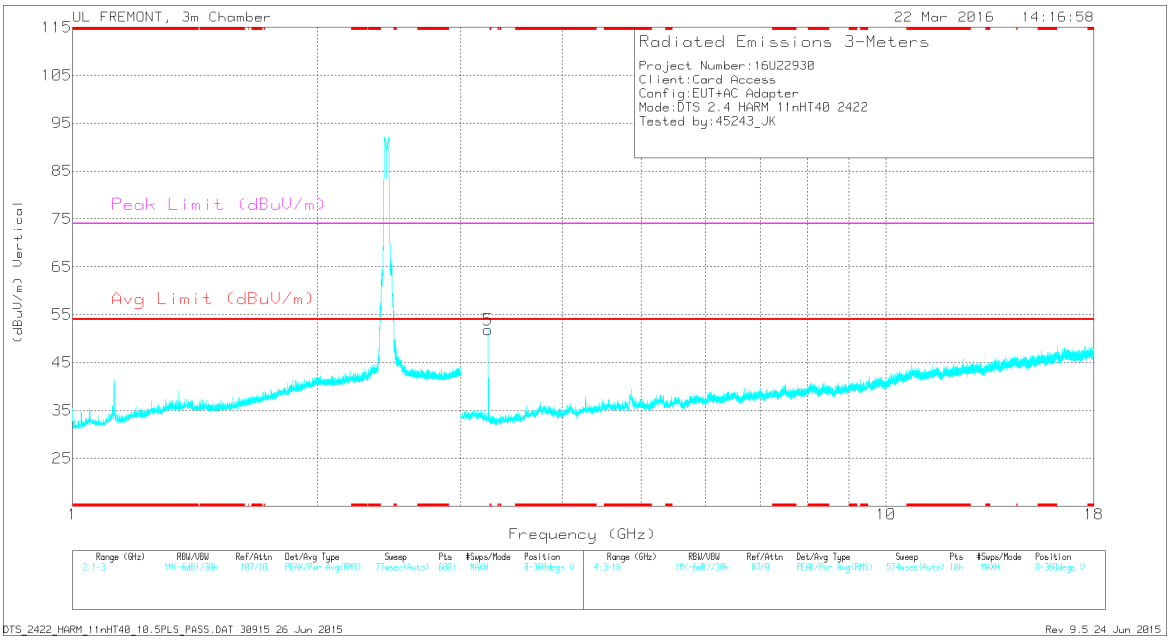
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.025	31.94	Pk	27.6	-23.2	0	36.34	-	-	74	-37.66	0-360	201	H
2	* 1.125	36.55	Pk	27.9	-22.2	0	42.25	-	-	74	-31.75	0-360	201	H
3	* 1.35	33.05	Pk	29	-20.9	0	41.15	-	-	74	-32.85	0-360	100	H
4	* 1.4	30.52	Pk	29	-20.7	0	38.82	-	-	74	-35.18	0-360	100	H
6	* 4.865	36.73	Pk	34.3	-29.2	0	41.83	-	-	74	-32.17	0-360	100	H
5	3.242	51.28	Pk	33	-32.4	0	51.88	-	-	-	-	0-360	100	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

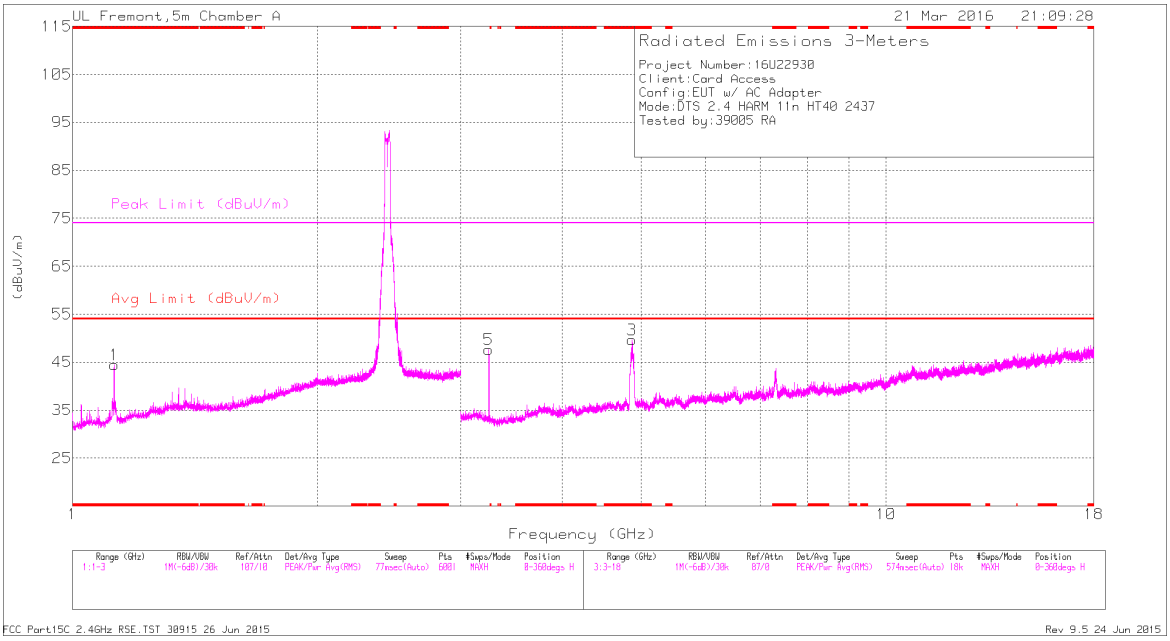
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.025	38.21	PK2	27.6	-23.2	0	42.61	-	-	74	-31.39	302	202	H
* 1.025	29.31	MAv1	27.6	-23.2	.26	33.97	54	-20.03	-	-	302	202	H
* 1.125	45.28	PK2	27.9	-22.2	0	50.98	-	-	74	-23.02	297	193	H
* 1.125	32.39	MAv1	27.9	-22.2	.26	38.35	54	-15.65	-	-	297	193	H
* 1.35	39.36	PK2	29	-20.9	0	47.46	-	-	74	-26.54	69	269	H
* 1.35	30.19	MAv1	29	-20.9	.26	38.55	54	-15.45	-	-	69	269	H
* 1.4	37.33	PK2	29	-20.7	0	45.63	-	-	74	-28.37	54	164	H
* 1.4	27.52	MAv1	29	-20.7	.26	36.08	54	-17.92	-	-	54	164	H
* 4.866	47.88	PK2	34.3	-29.2	0	52.98	-	-	74	-21.02	114	100	H
* 4.864	32.82	MAv1	34.3	-29.3	.26	38.08	54	-15.92	-	-	114	100	H
* 4.863	46.1	PK2	34.3	-29.3	0	51.1	-	-	74	-22.9	232	138	H
* 4.863	39.17	MAv1	34.3	-29.3	.26	44.43	54	-9.57	-	-	232	138	H
3.243	53.04	PK2	33	-32.4	0	53.64	-	-	74	-20.36	341	162	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

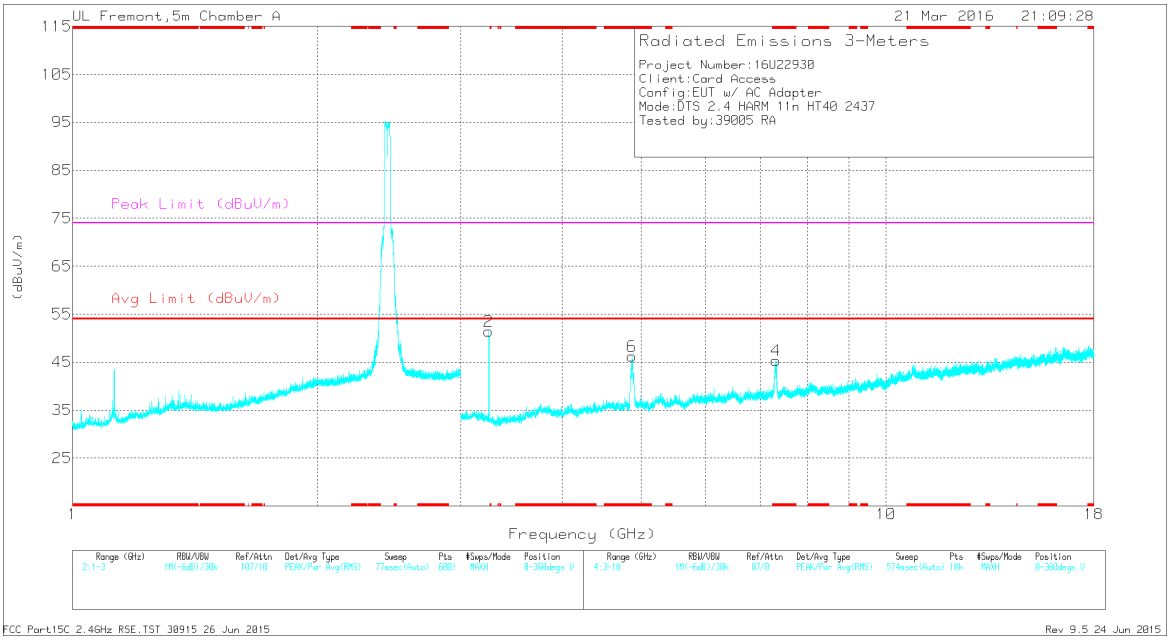
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.125	38.77	Pk	27.9	-22.2	0	44.47	-	-	74	-29.53	0-360	100	H
3	* 4.871	44.69	Pk	34.3	-29.3	0	49.69	-	-	74	-24.31	0-360	100	H
4	* 7.325	36.1	Pk	35.7	-26.5	0	45.3	-	-	74	-28.7	0-360	100	V
6	* 4.871	41.24	Pk	34.3	-29.3	0	46.24	-	-	74	-27.76	0-360	100	V
5	3.249	47.18	Pk	33	-32.5	0	47.68	-	-	-	-	0-360	100	H
2	3.249	50.93	Pk	33	-32.5	0	51.43	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

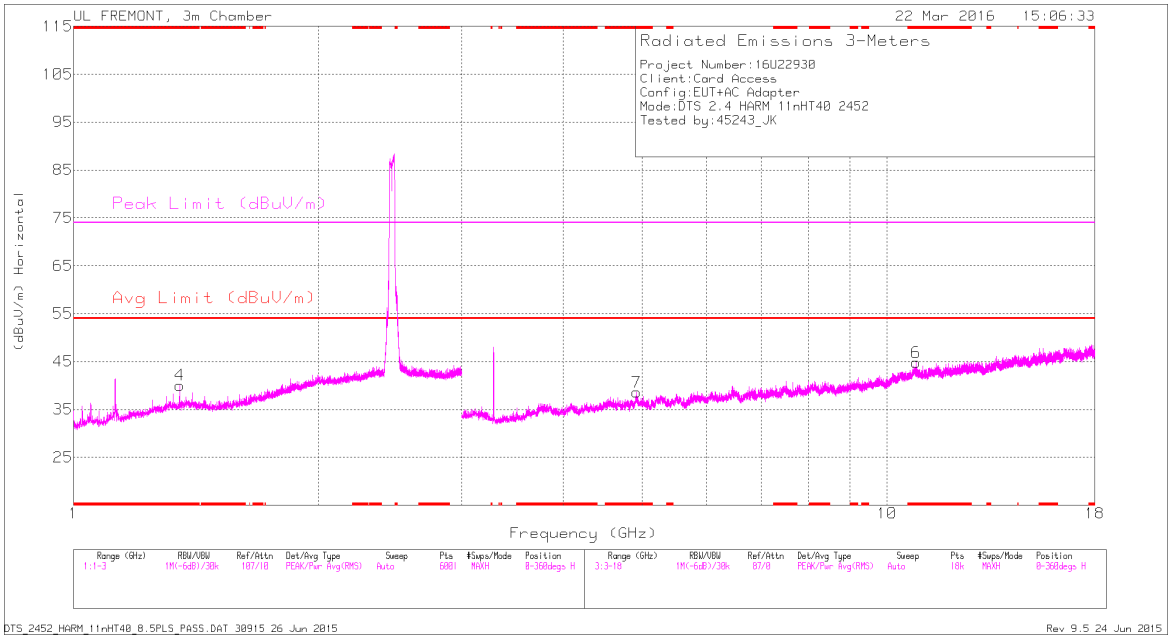
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (db/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.125	41.05	PK2	27.9	-22.2	0	46.75	-	-	74	-27.25	83	107	H
* 1.125	36.05	MAv1	27.9	-22.2	.26	42.01	54	-11.99	-	-	83	107	H
* 4.874	44.54	PK2	34.3	-29.3	0	49.54	-	-	74	-24.46	296	101	H
* 4.873	37.51	MAv1	34.3	-29.3	.26	42.77	54	-11.23	-	-	296	101	H
* 7.319	38.54	PK2	35.7	-26.5	0	47.74	-	-	74	-26.26	176	391	V
* 7.307	31.27	MAv1	35.7	-26.6	.26	40.63	54	-13.37	-	-	176	391	V
* 4.874	41.9	PK2	34.3	-29.3	0	46.9	-	-	74	-27.1	310	103	V
* 4.874	34.88	MAv1	34.3	-29.3	.26	40.14	54	-13.86	-	-	310	103	V
3.249	48.79	PK2	33	-32.5	0	49.29	-	-	74	-24.71	252	390	H
3.249	52.5	PK2	33	-32.5	0	53	-	-	74	-21.00	168	263	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

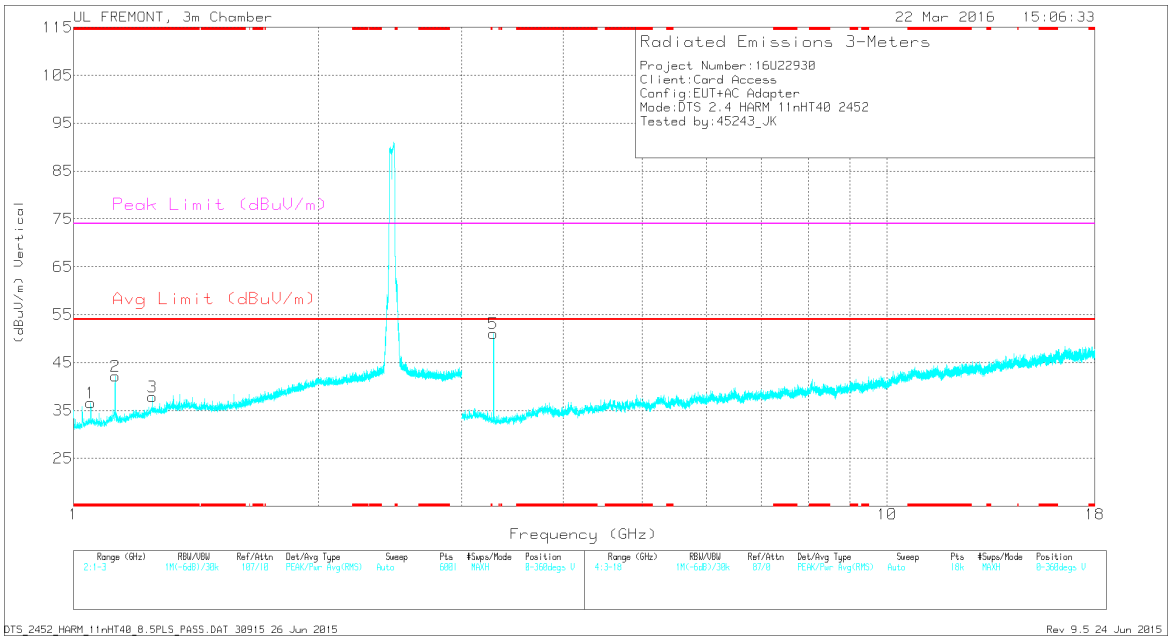
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



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.

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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	* 1.35	31.98	Pk	29	-20.9	0	40.08	-	-	74	-33.92	0-360	100	H
1	* 1.05	31.67	Pk	27.6	-22.7	0	36.57	-	-	74	-37.43	0-360	100	V
2	* 1.125	36.53	Pk	27.9	-22.2	0	42.23	-	-	74	-31.77	0-360	200	V
3	* 1.25	30.84	Pk	28.6	-21.6	0	37.84	-	-	74	-36.16	0-360	200	V
6	* 10.86	28.94	Pk	37.8	-21.9	0	44.84	-	-	74	-29.16	0-360	100	H
7	* 4.924	33.57	Pk	34.3	-29.3	0	38.57	-	-	74	-35.43	0-360	100	H
5	3.282	50.98	Pk	32.8	-32.7	0	51.08	-	-	-	-	0-360	200	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (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
* 1.35	39.13	PK2	29	-20.9	0	47.23	-	-	74	-26.77	70	129	H
* 1.35	28.45	MAv1	29	-20.9	.26	36.81	54	-17.19	-	-	70	129	H
* 1.05	38.77	PK2	27.6	-22.7	0	43.67	-	-	74	-30.33	324	105	V
* 1.05	29.63	MAv1	27.6	-22.7	.26	34.79	54	-19.21	-	-	324	105	V
* 1.125	46.02	PK2	27.9	-22.2	0	51.72	-	-	74	-22.28	270	250	V
* 1.125	32.16	MAv1	27.9	-22.2	.26	38.12	54	-15.88	-	-	270	250	V
* 1.25	37.66	PK2	28.6	-21.6	0	44.66	-	-	74	-29.34	245	202	V
* 1.25	27.86	MAv1	28.6	-21.6	.26	35.12	54	-18.88	-	-	245	202	V
* 10.86	35.92	PK2	37.8	-22	0	51.72	-	-	74	-22.28	110	168	H
* 10.86	23.67	MAv1	37.8	-21.9	.26	39.83	54	-14.17	-	-	110	168	H
* 4.924	49.47	PK2	34.3	-29.3	0	54.47	-	-	74	-19.53	231	106	H
* 4.923	39.61	MAv1	34.3	-29.3	.26	44.87	54	-9.13	-	-	231	106	H
3.283	53.68	PK2	32.8	-32.7	0	53.78	-	-	74	-20.22	336	166	V
3.283	51.7	MAv1	32.8	-32.7	.26	52.06	-	-	-	-	336	166	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

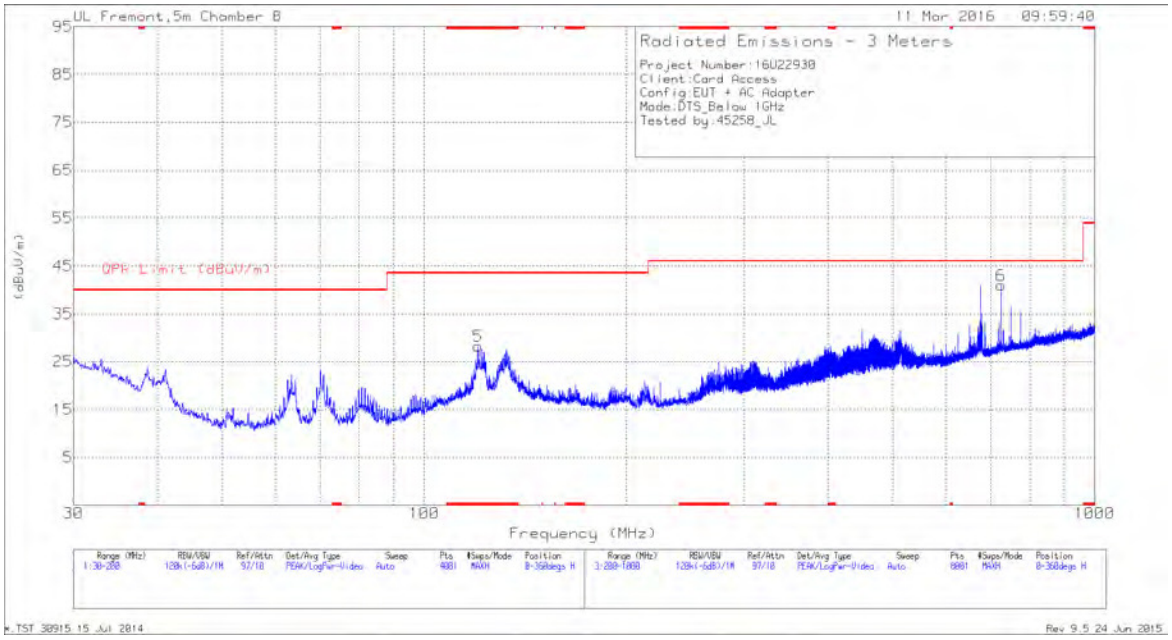
PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

10.7. WORST-CASE BELOW 1 GHz

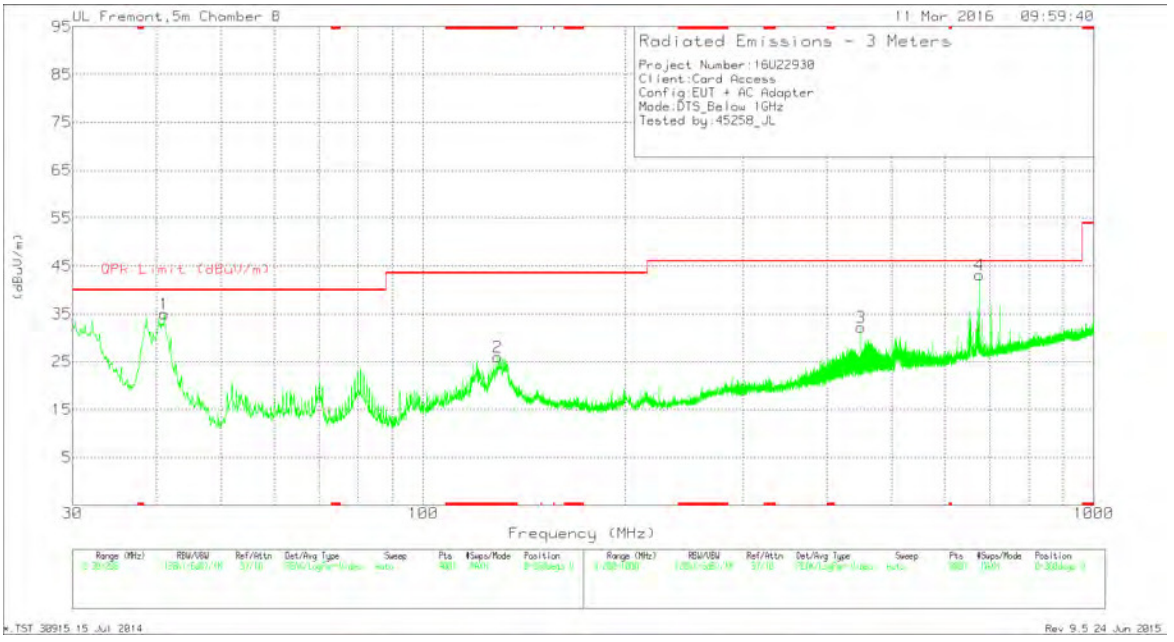
SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT



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

VERTICAL PLOT



DATA

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 120.2275	38.44	Pk	17.7	-27.9	28.24	43.52	-15.28	0-360	199	H
2	* 129.2375	36	Pk	17.8	-27.8	26	43.52	-17.52	0-360	101	V
1	41.135	46.68	Pk	17.1	-28.8	34.98	40	-5.02	0-360	101	V
3	450	37.75	Pk	20.8	-26.4	32.15	46.02	-13.87	0-360	199	V
4	675	44.92	Pk	23.8	-25.6	43.12	46.02	-2.9	0-360	101	V
6	725	41.74	Pk	24.4	-25.2	40.94	46.02	-5.08	0-360	199	H

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
41.1081	43.43	Qp	17.1	-28.8	31.73	40	-8.27	326	102	V
675.0178	34.88	Qp	23.8	-25.6	33.08	46.02	-12.94	297	185	V

* - indicates frequency in CFR15.205/IC 8.10 Restricted Band

Qp - Quasi-Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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 C63.10.

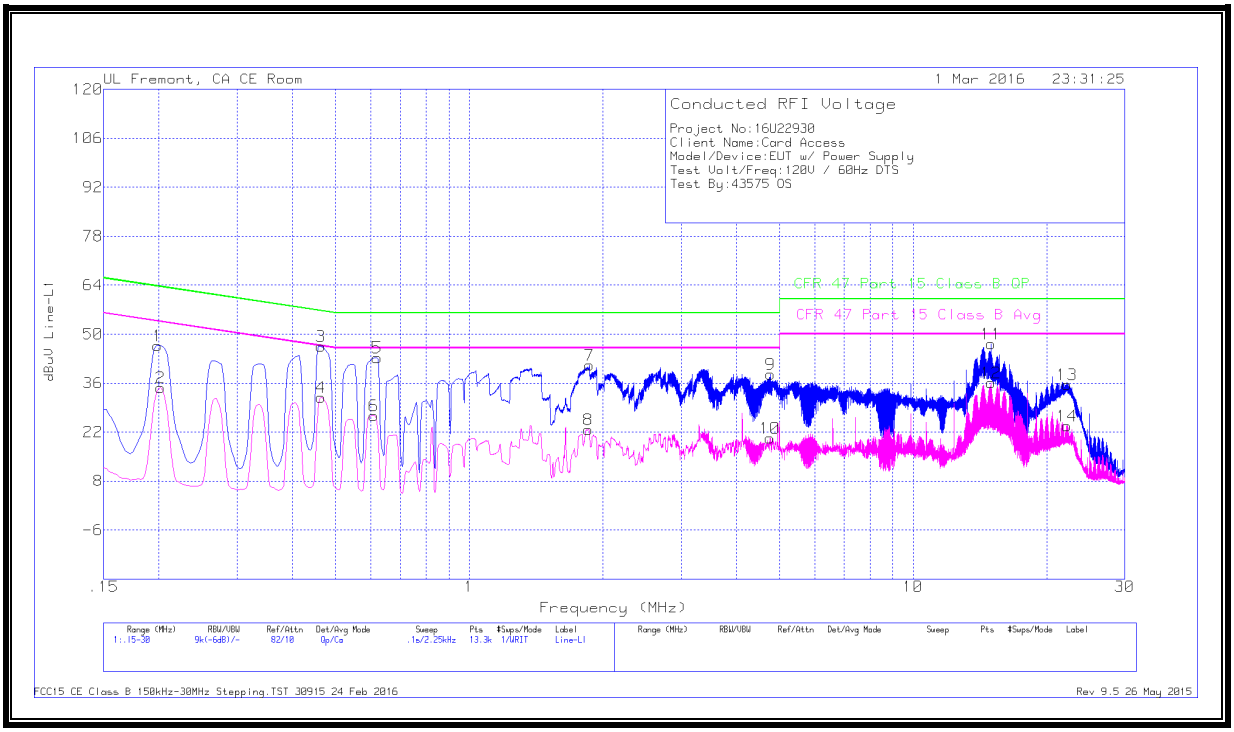
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 RESULTS



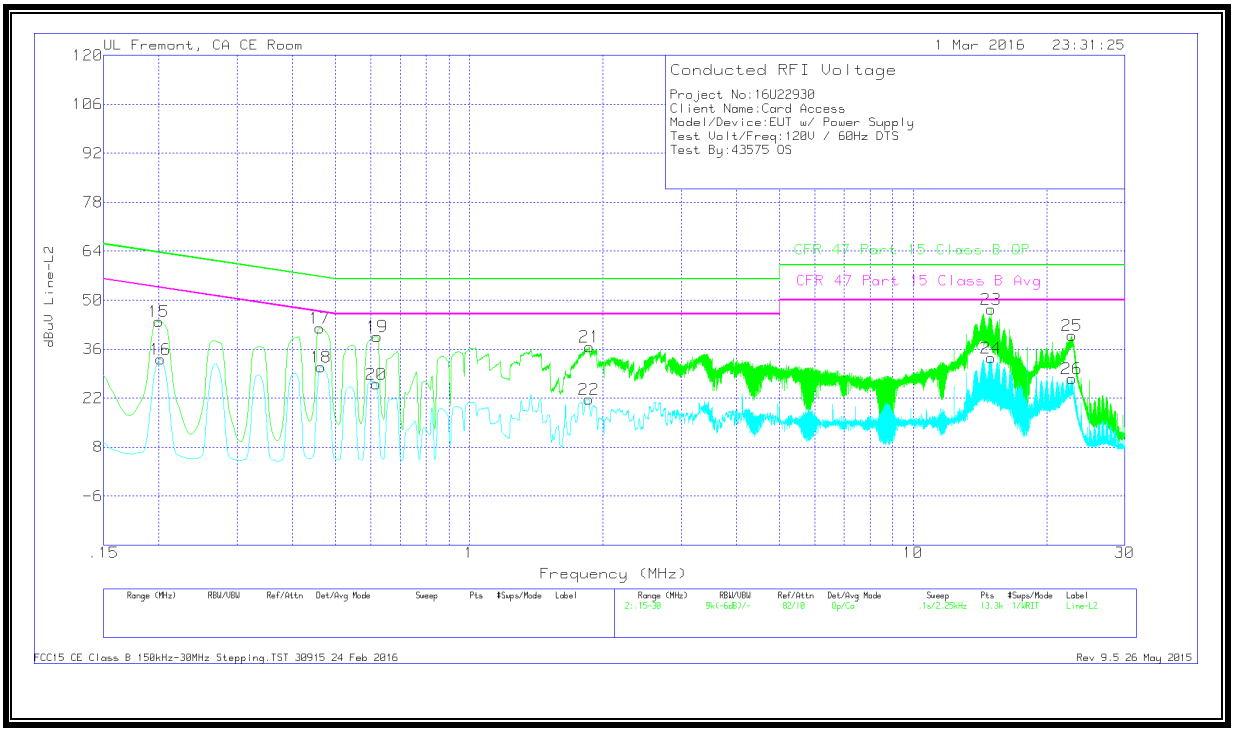
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L1	LC Cables 1&3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
1	.19838	36.66	Qp	0	0	10.1	46.76	63.68	-16.92	-	-
2	.20175	24.61	Ca	0	0	10.1	34.71	-	-	53.54	-18.83
3	.46275	36.4	Qp	0	0	10.1	46.5	56.64	-10.14	-	-
4	.46275	21.89	Ca	0	0	10.1	31.99	-	-	46.64	-14.65
5	.62025	33.2	Qp	0	0	10.1	43.3	56	-12.7	-	-
6	.609	16.63	Ca	0	0	10.1	26.73	-	-	46	-19.27
7	1.8645	30.93	Qp	0	.1	10.1	41.13	56	-14.87	-	-
8	1.8555	12.49	Ca	0	.1	10.1	22.69	-	-	46	-23.31
9	4.767	28.33	Qp	0	.1	10.1	38.53	56	-17.47	-	-
10	4.76475	10.09	Ca	0	.1	10.1	20.29	-	-	46	-25.71
11	15	36.87	Qp	0	.2	10.2	47.27	60	-12.73	-	-
12	15	25.75	Ca	0	.2	10.2	36.15	-	-	50	-13.85
13	22.23825	24.94	Qp	0	.2	10.4	35.54	60	-24.46	-	-
14	22.2405	13.19	Ca	0	.2	10.4	23.79	-	-	50	-26.21

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L2	LC Cables 2&3	Limiter (dB)	Corrected Reading dBuV	CFR 47 Part 15 Class B QP	QP Margin (dB)	CFR 47 Part 15 Class B Avg	Av(CISPR) Margin (dB)
15	.1995	33.88	Qp	0	0	10.1	43.98	63.63	-19.65	-	-
16	.20175	23.04	Ca	0	0	10.1	33.14	-	-	53.54	-20.4
17	.4605	31.88	Qp	0	0	10.1	41.98	56.68	-14.7	-	-
18	.46387	20.8	Ca	0	0	10.1	30.9	-	-	46.62	-15.72
19	.62025	29.55	Qp	0	0	10.1	39.65	56	-16.35	-	-
20	.618	15.88	Ca	0	0	10.1	25.98	-	-	46	-20.02
21	1.86675	26.5	Qp	0	.1	10.1	36.7	56	-19.3	-	-
22	1.86225	11.49	Ca	0	.1	10.1	21.69	-	-	46	-24.31
23	15	37	Qp	0	.2	10.2	47.4	60	-12.6	-	-
24	15	23.16	Ca	0	.2	10.2	33.56	-	-	50	-16.44
25	22.80075	29.2	Qp	0	.3	10.4	39.9	60	-20.1	-	-
26	22.76025	16.86	Ca	0	.3	10.4	27.56	-	-	50	-22.44

Qp - Quasi-Peak detector

Ca - CISPR average detection

12. FINAL POWER SETTING

All Power numbers in Q s		Channel ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
SKU	Countries	Center Fre	2412	2417	2422	2427	2432	2437	2442	2447	2452	2457	2462	2467	2472	2484	Comment
SISO	FCC/IC	11b	12.5					12.5					12.5				See Note 1
		11g	12.5	16	17			17		17	15	14	10.5				
		11n 20	11.5	14	15			15			15	13.5	10				
		11n 40			9	9.5	11	11.5	10	8.5	8.5						