



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

**BLUETOOTH LOW ENERGY
CERTIFICATION TEST REPORT**

FOR

LED INTERACTIVE WRISTBAND WITH BLE

MODEL NUMBER: LED INTERACTIVE WRISTBAND

FCC ID: 2AB8ZND13

IC: 1000X-ND13

REPORT NUMBER: 15U22361-E2V3

ISSUE DATE: DECEMBER 10, 2015

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
V1	12/04/2015	Initial Issue	C. Pang
V2	12/09/2015	Add Setup Photo	C. Pang
V3	12/10/2015	Address TCB's Question	C. Pang

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: INTEL CORPORATION
2200 MISSION COLLEGE BOULEVARD
SANTA CLARA, CA 95052, U.S.A.

EUT DESCRIPTION: LED interactive wristband with BLE

MODEL: LED Interactive Wristband

SERIAL NUMBER: 002

DATE TESTED: NOVEMBER 30TH – DECEMBER 1ST 2015

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

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

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

Approved & Released For
UL Verification Services Inc. By:

Tested By:



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SENIOR ENGINEER
UL Verification Services Inc.

CLIFFORD SUSA
EMC ENGINEER
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, 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 and 47266 Benicia Street, Fremont, California, USA. 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
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D
<input type="checkbox"/> Chamber B	<input type="checkbox"/> Chamber E
<input type="checkbox"/> Chamber C	<input type="checkbox"/> Chamber F
	<input type="checkbox"/> Chamber G
	<input checked="" type="checkbox"/> Chamber H

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

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

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

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

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

BLE interactive wristband

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	BLE	4.67	2.93

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a trace antenna, with a maximum gain of 1.7 dBi.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was debug-custom build 20151122

5.5. WORST-CASE CONFIGURATION AND MODE

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

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

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

BLE: 1 Mbps.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	Lenovo	Yoga 2 11	YB04282152	DoC
AC adapter	Lenovo	ADLX45NCC3A	11S45N0297Z1ZSH443G0XE	DoC
AC adapter	Phihong	PSC12R-050	P22501361A1	DoC

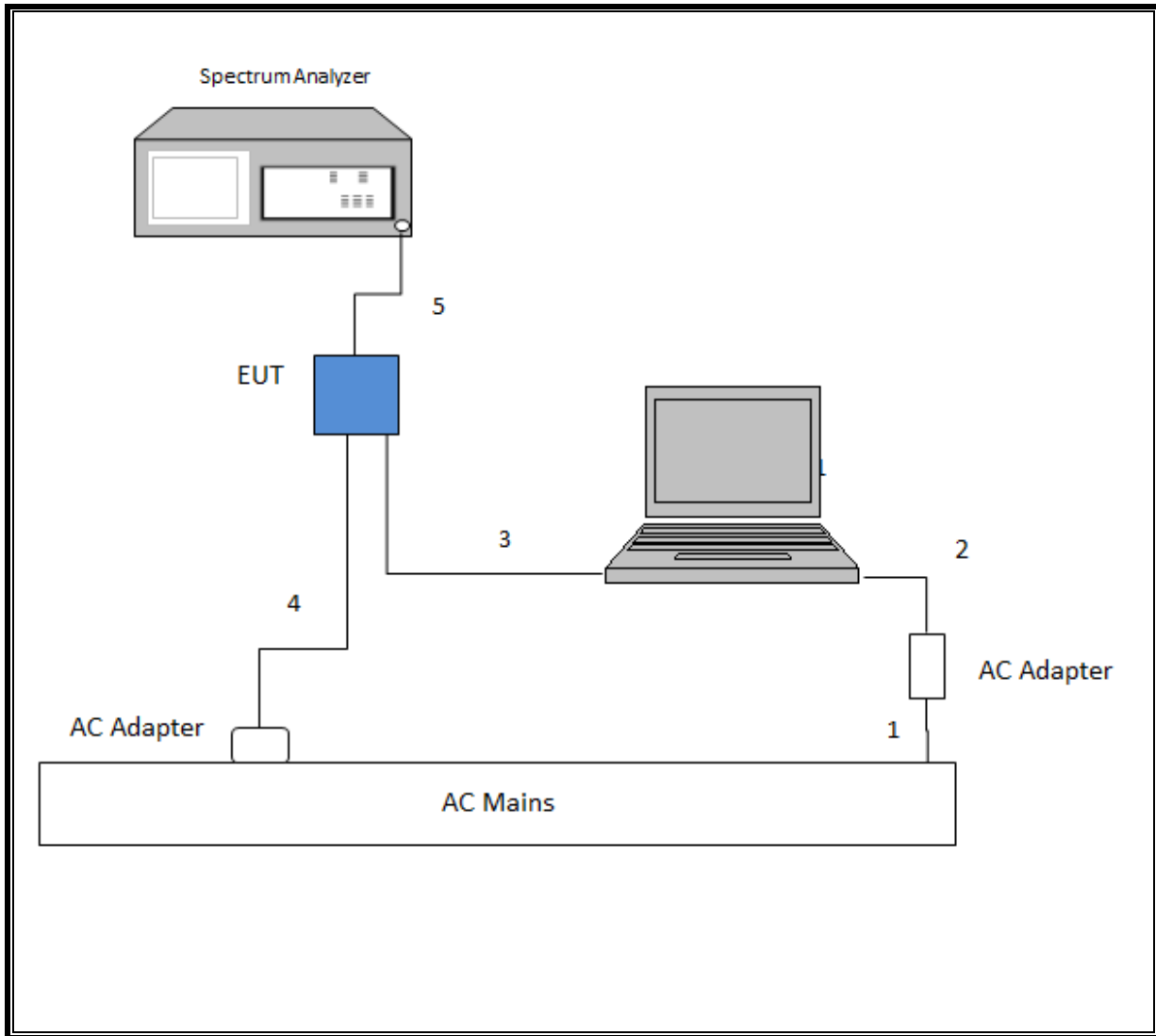
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	AC	1	3-Prong	Un-Shielded	1	N/A
2	DC	1	DC	Un-Shielded	1.75	N/A
3	USB	1	USB	Un-Shielded	1.75	Laptop to EUT
4	DC	1	DC	Un-Shielded	1.6	AC Adapter to EUT
5	Antenna	1	SMA	Shielded	0.1	EUT to spectrum Analyzer

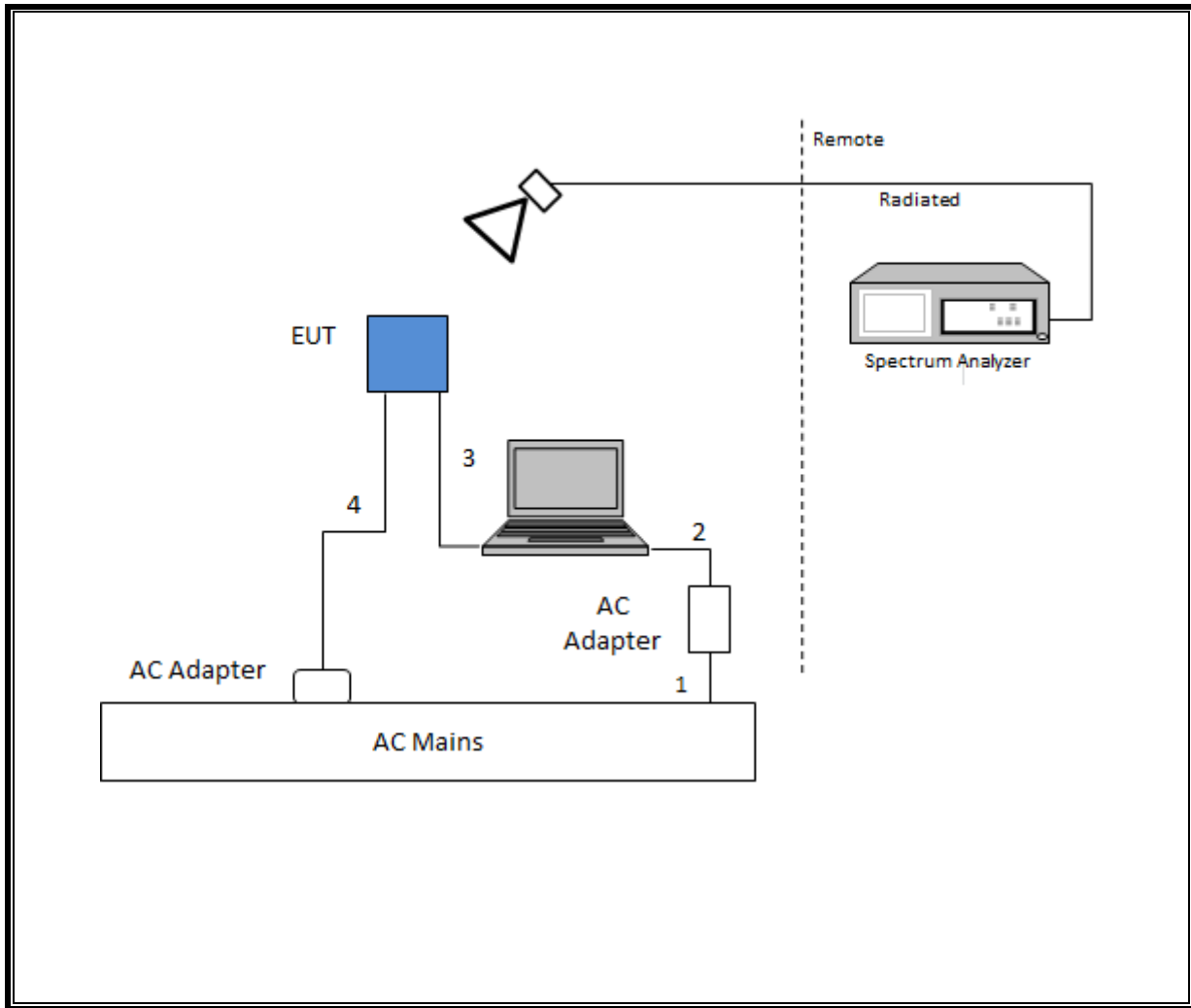
TEST SETUP

Test software exercised the radio card.

SETUP DIAGRAM FOR CONDUCTED TESTS



SETUP DIAGRAM FOR RADIATED TESTS



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 No.	Cal Date	Cal Due
Radiated Software	UL	UL EMC	Ver 9.5		
Conducted Software	UL	UL EMC	Ver 3.8		
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	906	6/11/2015	6/11/2016
Antenna, Horn 1-18GHz	ETS Lindgren	3117	863	4/10/2015	4/10/2016
Antenna, Broadband Hybrid, 30 to 2000MHz	Sunol Sciences	JB3	900	4/10/2015	4/10/2016
Amplifier, 1-18GHz	Miteq	AFS42-00101800-25-S-42	495	10/21/2015	10/21/2016
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	1210	5/22/2015	5/22/2016
Amplifier, 10kHz to 1GHz	Sonoma	310N	835	6/9/2015	6/9/2016
Power Meter	Keysight	N1911A	1244	7/2/2015	7/2/2016
Power Sensor	Keysight	N1921A	1226	7/6/2015	7/6/2016
Amplifier, 1-26.5GHz	Keysight	8449B	404	6/29/2015	6/29/2016
Antenna, Horn 18 - 26GHz	ARA	MWH-1826	89	12/17/2014	12/17/2015
Spectrum Analyzer, 40GHz	Keysight	8564E	106	8/14/2015	8/14/2016
Filter, HPF 3.0GHz	Micro-Tronics	HPM17543	427	1/31/2015	1/31/2016

6. ANTENNA PORT TEST RESULTS

6.1. MEASUREMENT METHODS

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

Output Power: KDB 558074 D01 v03r03, Section 9.1.2.

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

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

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r03, Section 12.1.

Band-edge: KDB 558074 D01 v03r03, Section 12.1

6.2. ON TIME, DUTY CYCLE

None; for reporting purposes only.

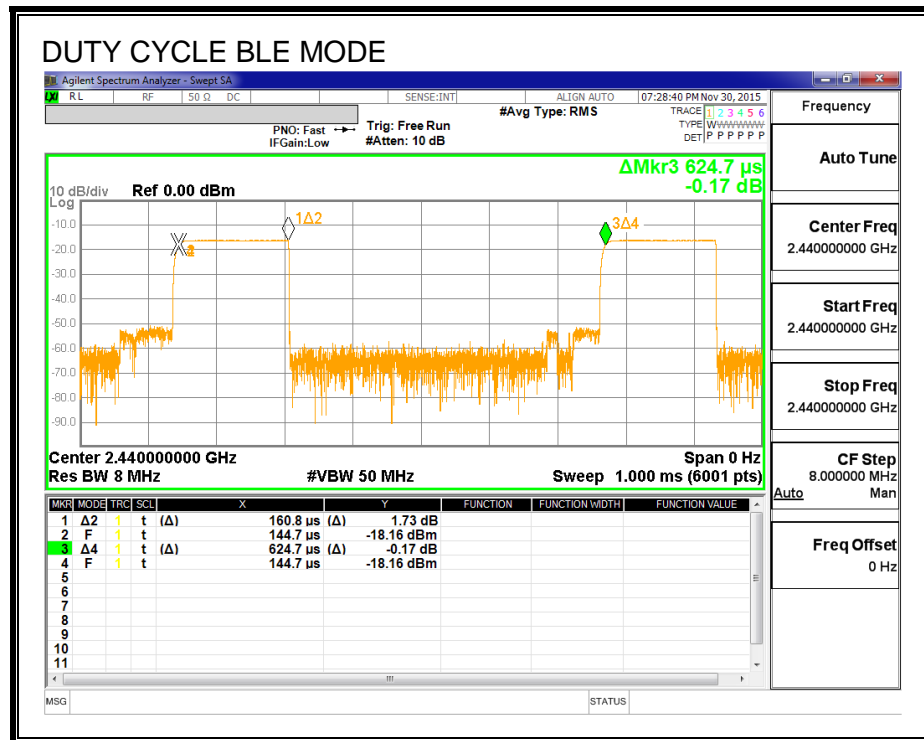
PROCEDURE

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)
BLE	0.161	0.625	0.257	25.74%	5.89	6.219

DUTY CYCLE PLOTS



6.3. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

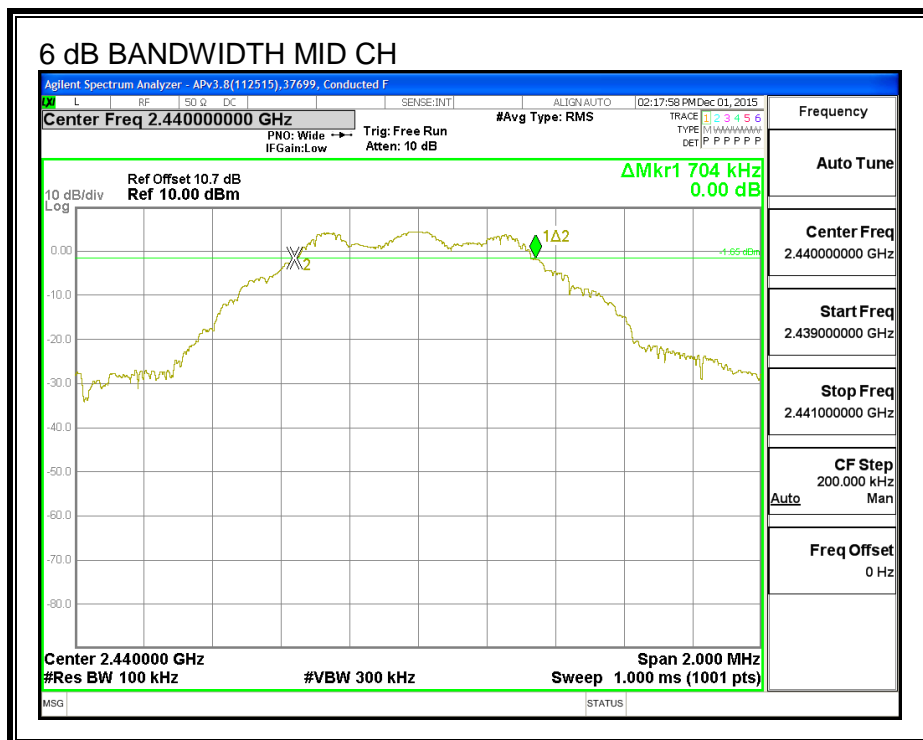
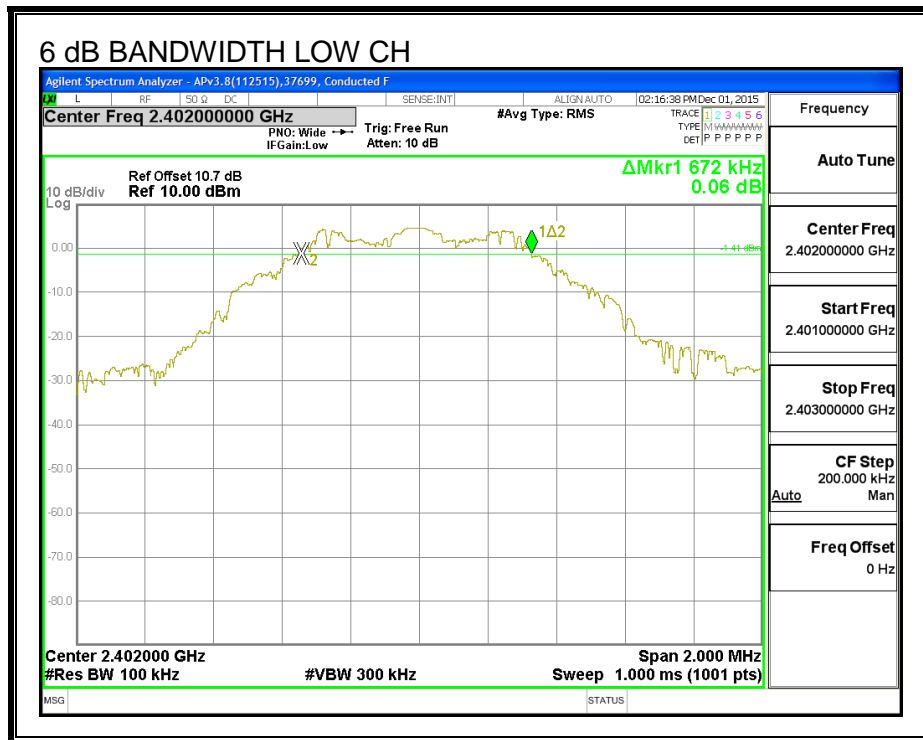
IC RSS-247 (5.2) (1)

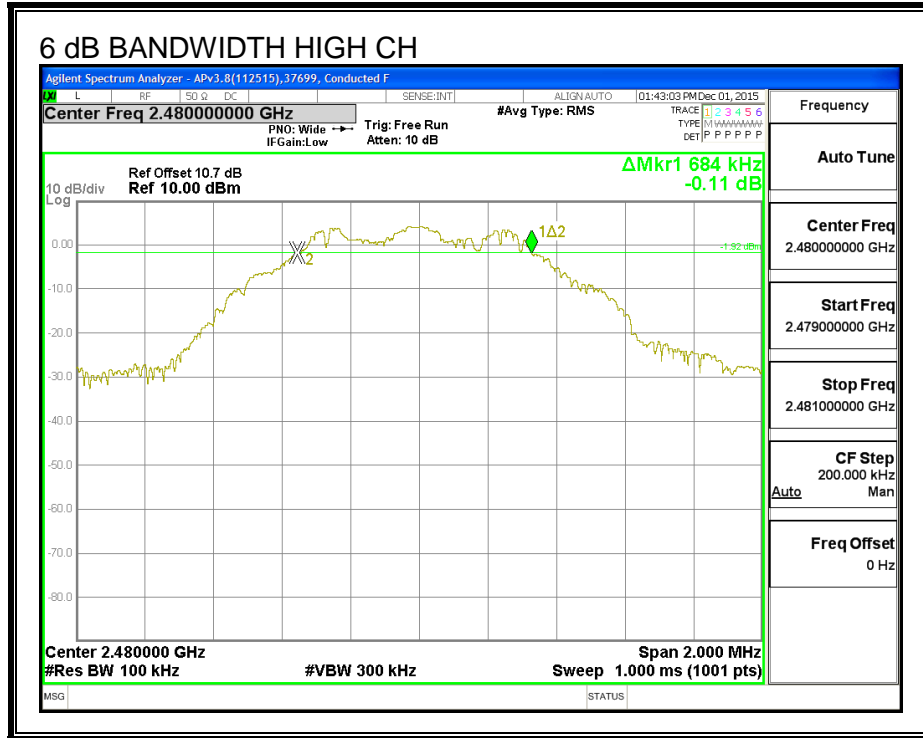
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.672	0.5
Middle	2440	0.704	0.5
High	2480	0.684	0.5

6 dB BANDWIDTH





6.4. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

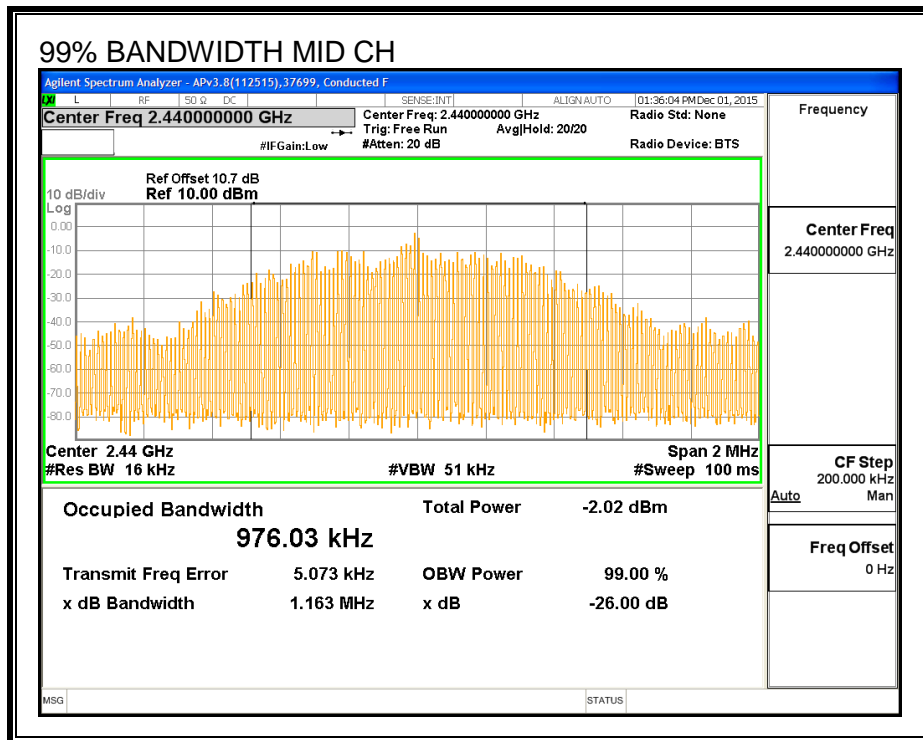
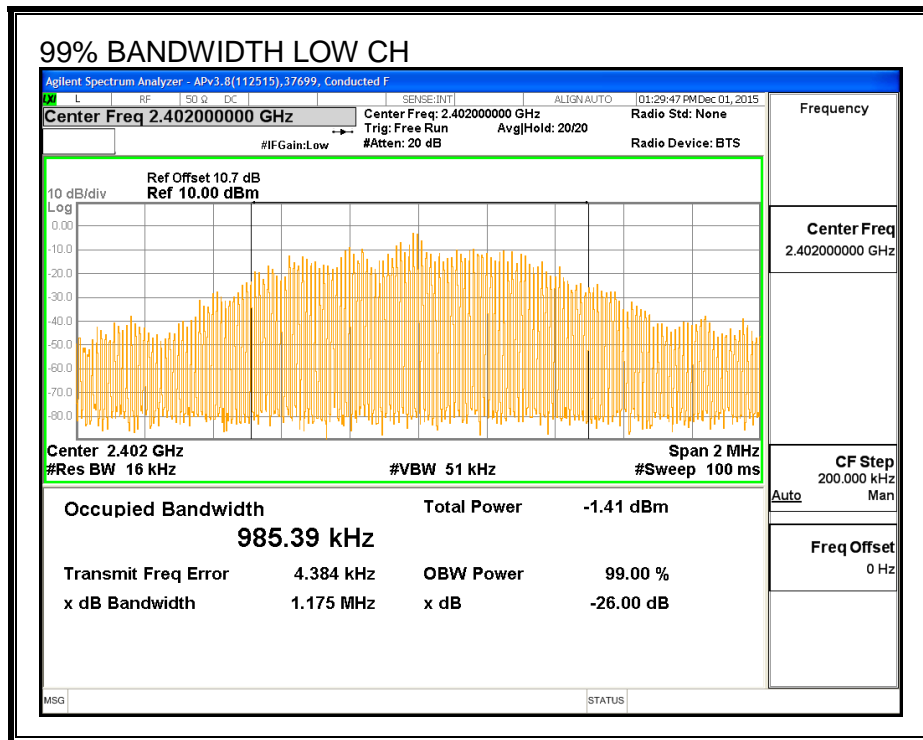
TEST PROCEDURE

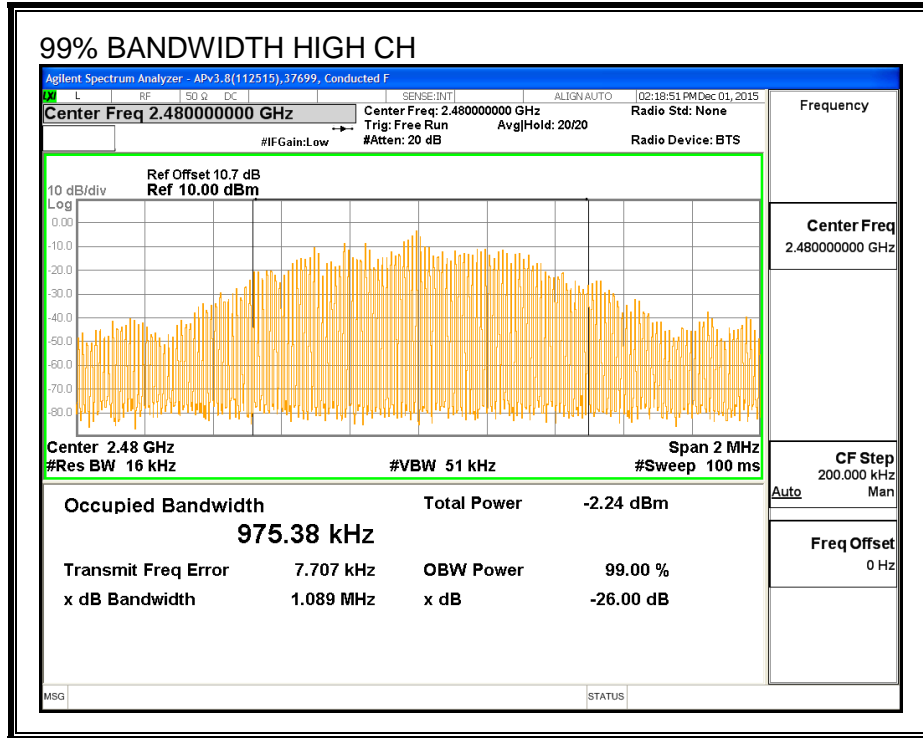
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth and to 1% of the span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	0.9854
Middle	2440	0.9760
High	2480	0.9754

99% BANDWIDTH





6.5. OUTPUT POWER

LIMITS

FCC §15.247 (b)

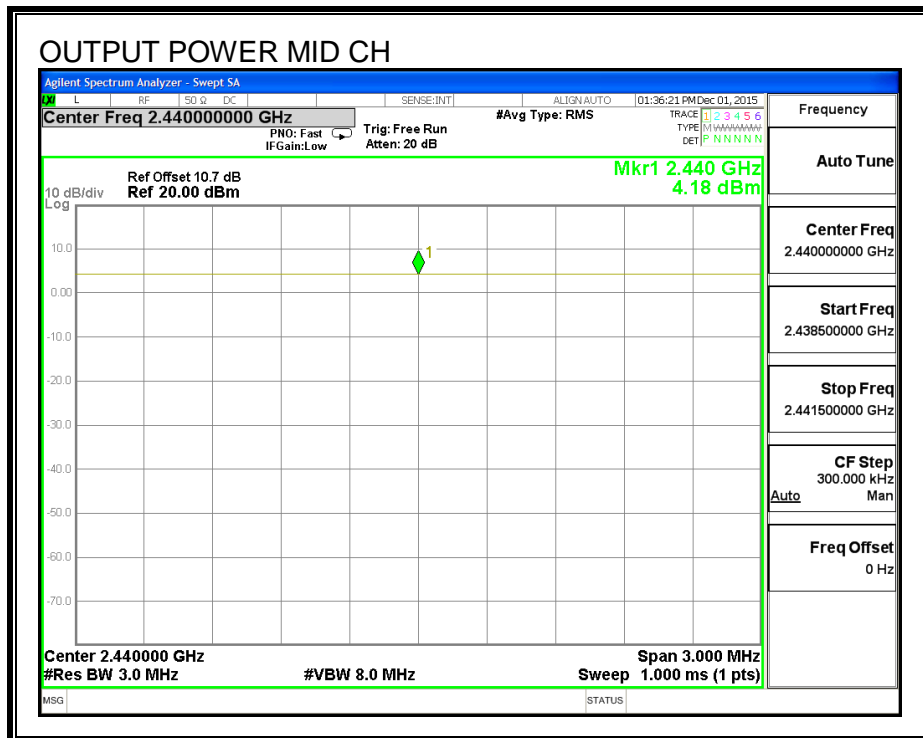
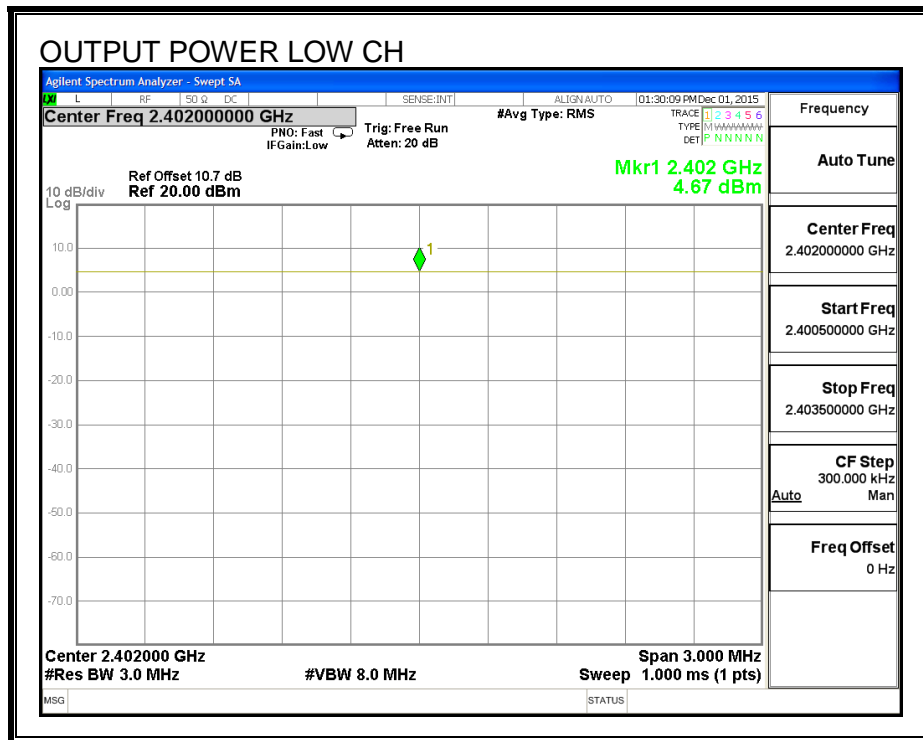
IC RSS-247 (5.4) (4)

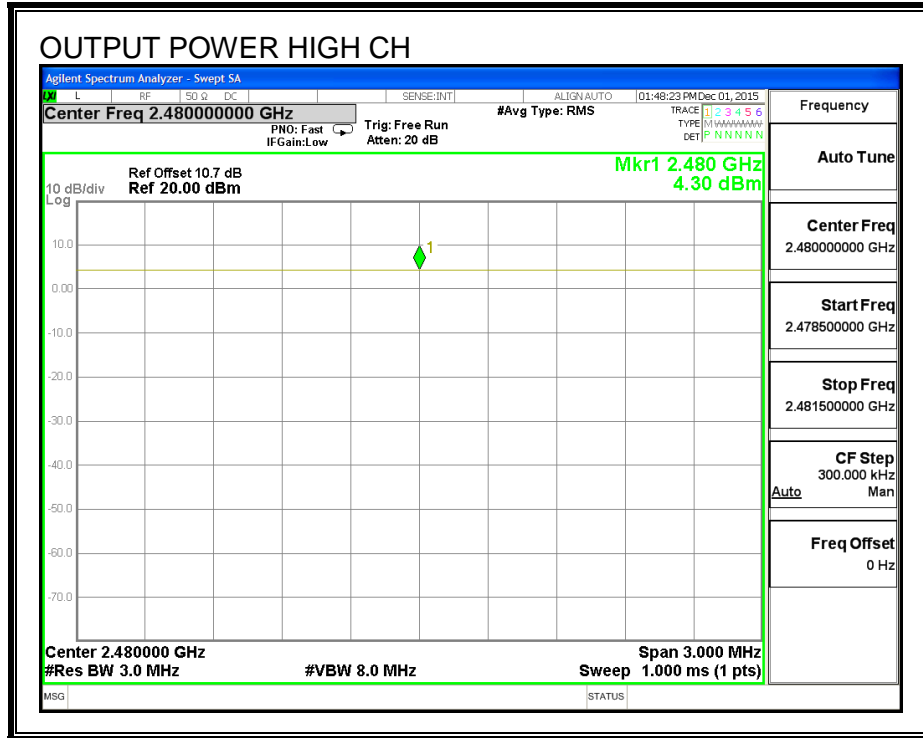
The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	4.67	30	-25.330
Middle	2440	4.18	30	-25.820
High	2480	4.30	30	-25.700

OUTPUT POWER





6.6. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

The cable assembly insertion loss of 10.7 dB (including 10 dB pad and 0.7 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	AV power (dBm)
Low	2402	4.52
Middle	2440	4.07
High	2480	4.15

6.7. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

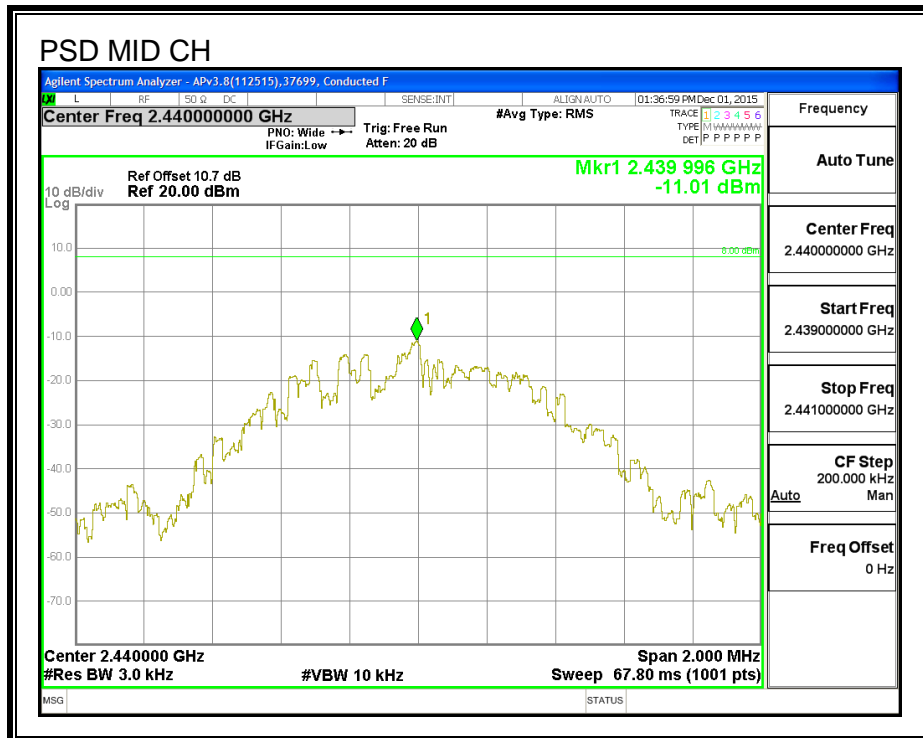
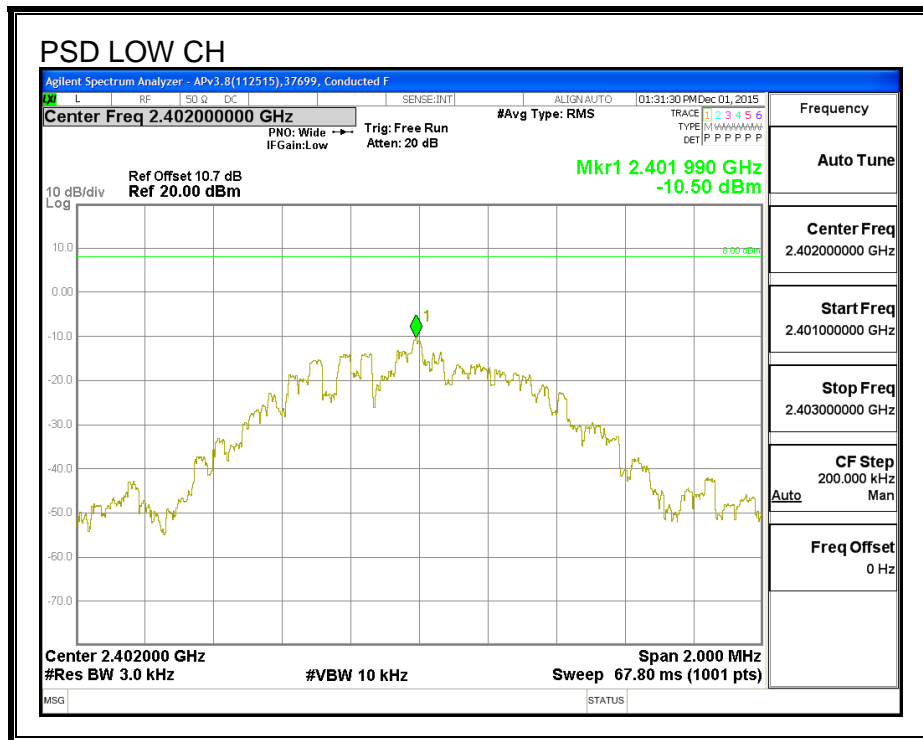
IC RSS-247 (5.2) (2)

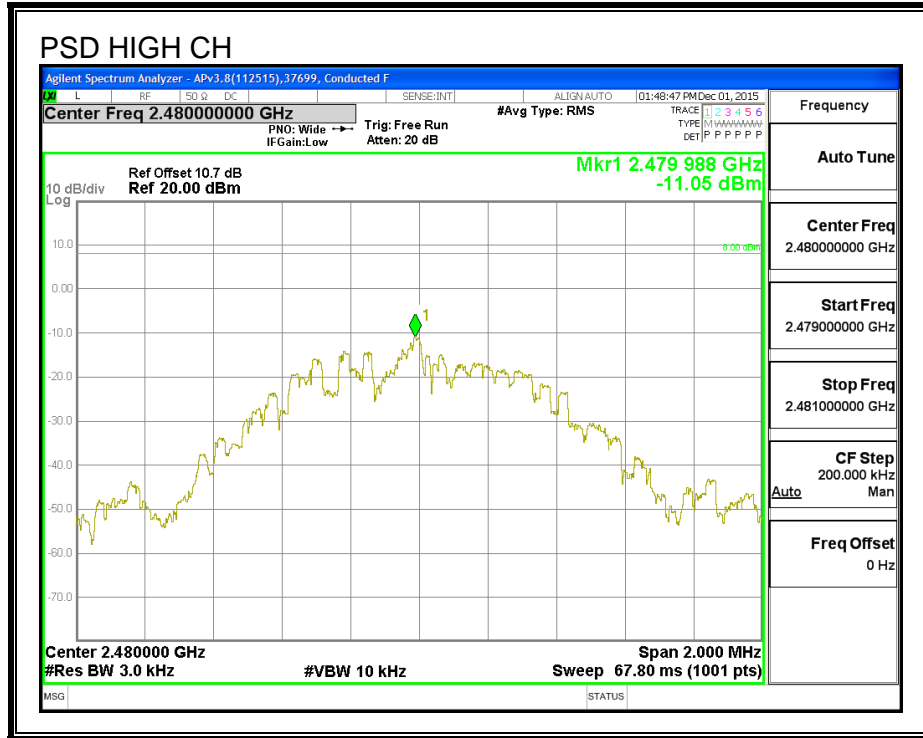
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

Channel	Frequency (MHz)	PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-10.50	8	-18.50
Middle	2440	-11.01	8	-19.01
High	2480	-11.05	8	-19.05

POWER SPECTRAL DENSITY





6.8. CONDUCTED SPURIOUS EMISSIONS

LIMITS

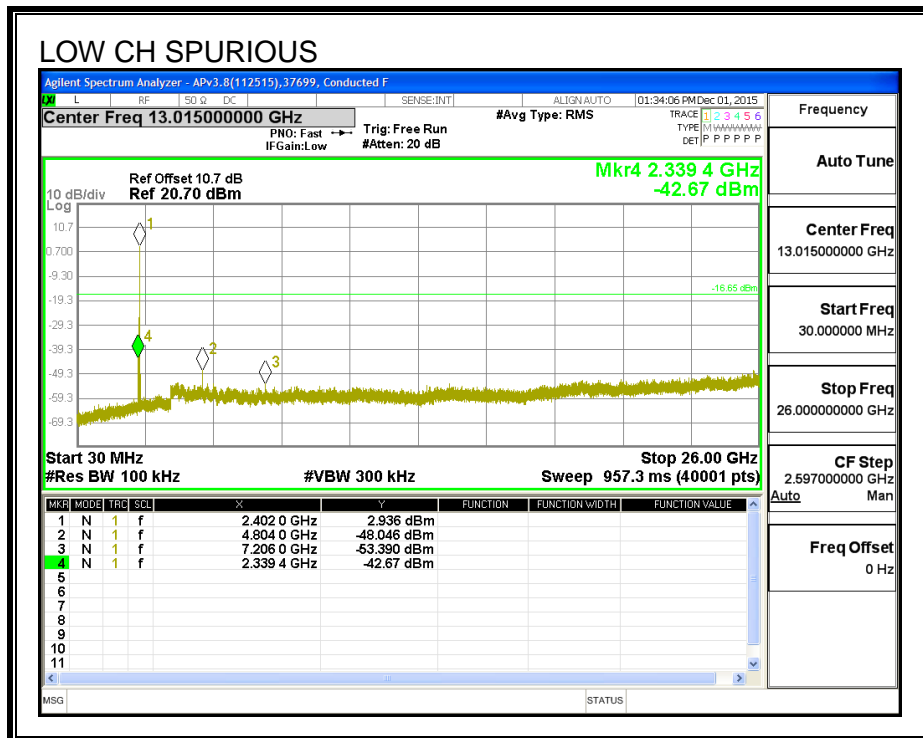
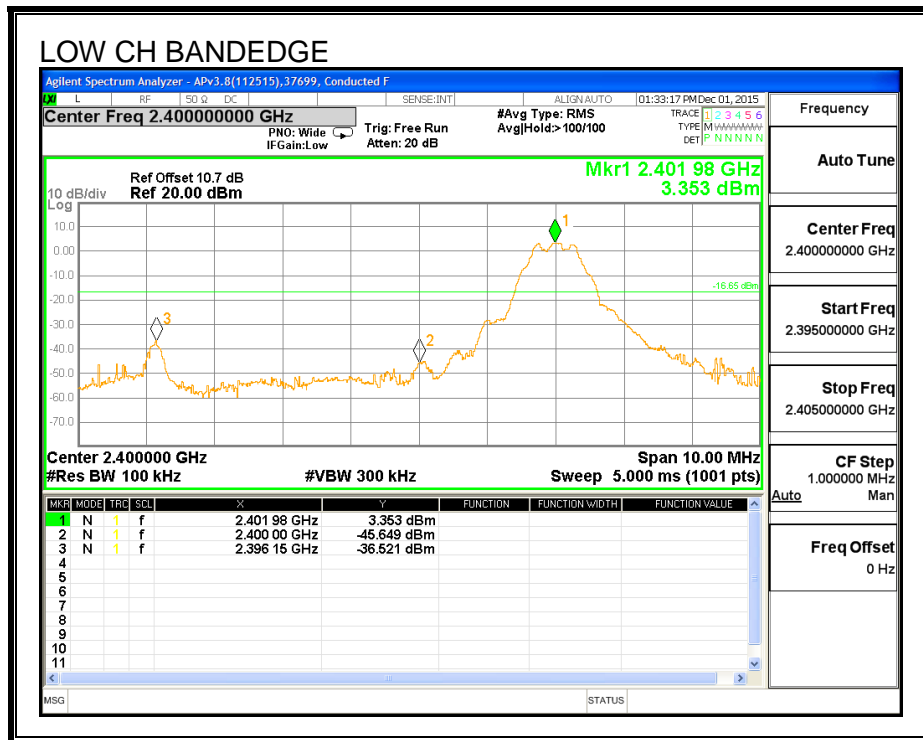
FCC §15.247 (d)

IC RSS-247 (5.5)

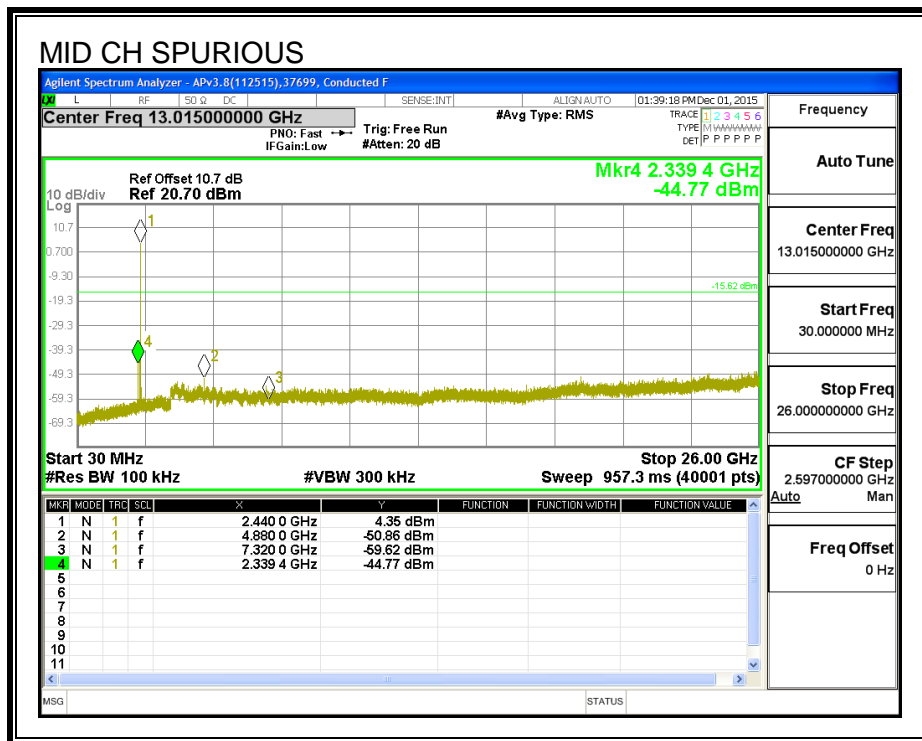
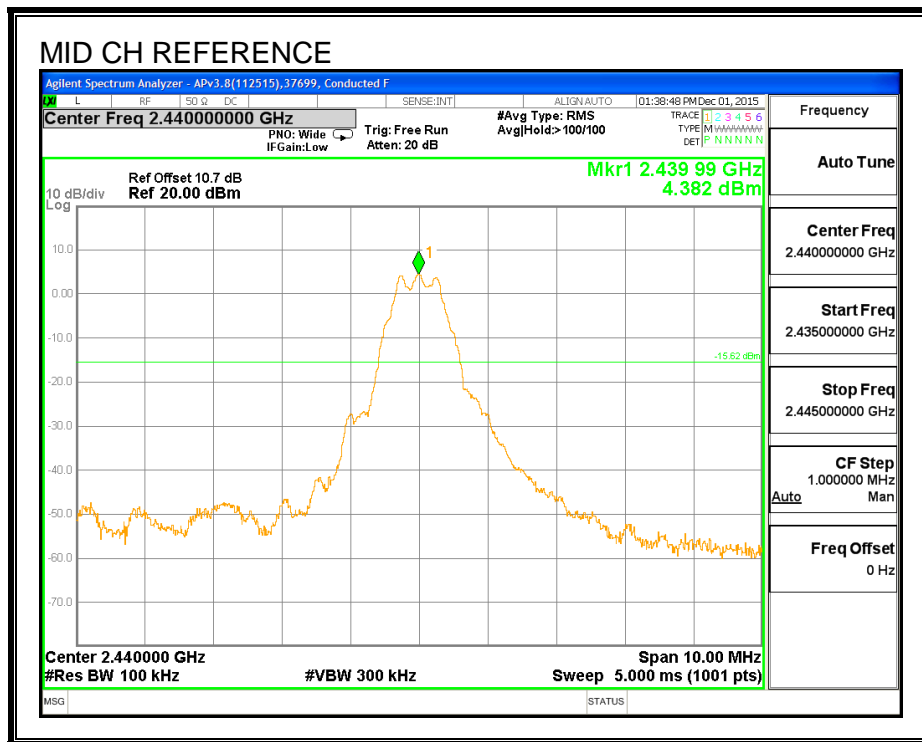
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

RESULTS

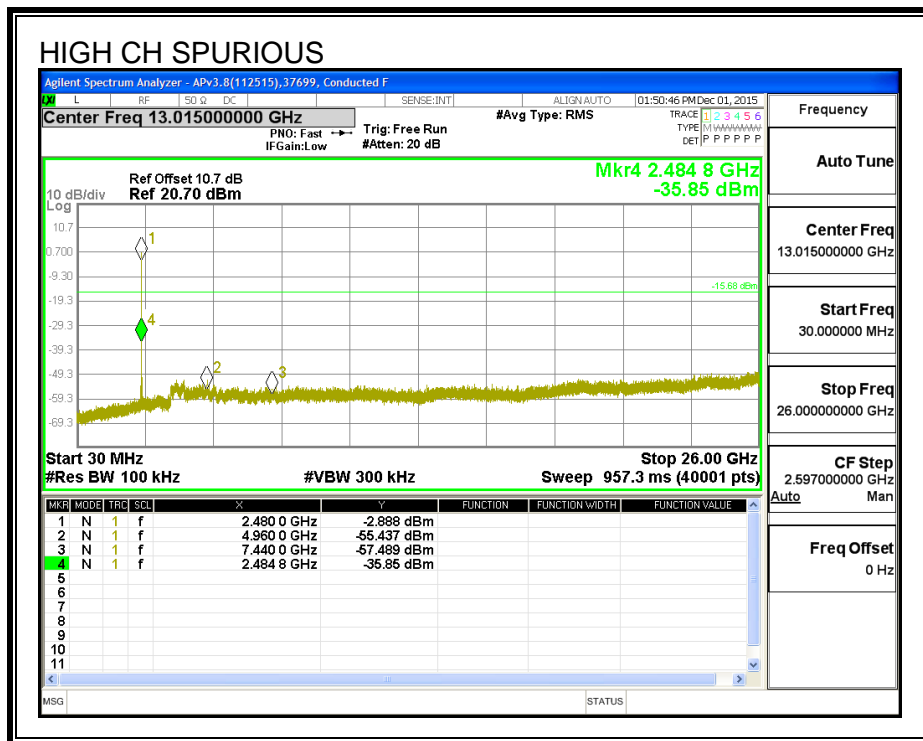
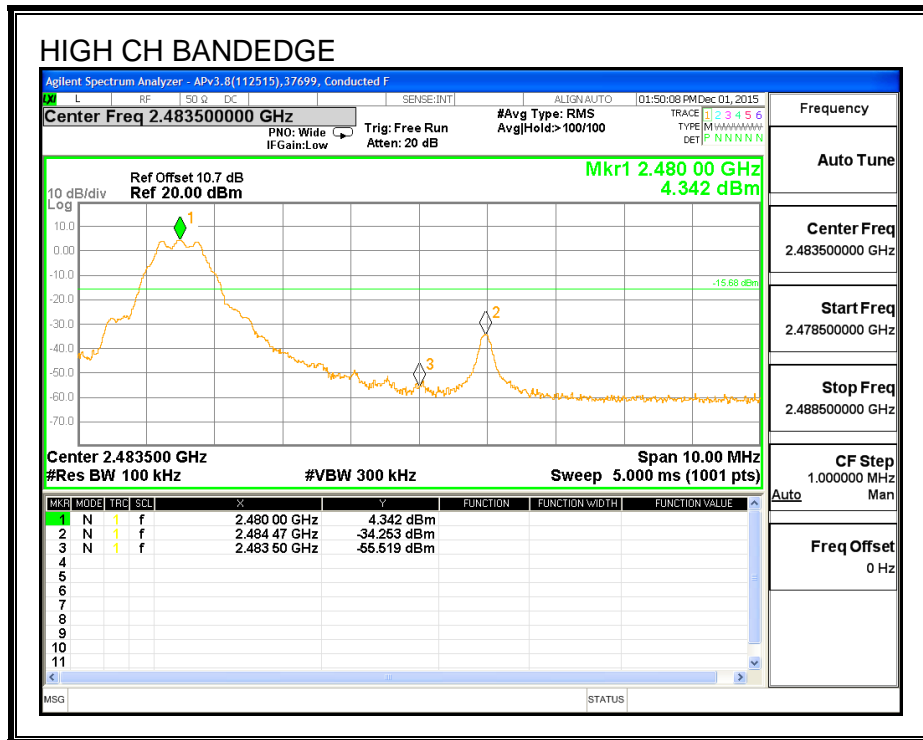
SPURIOUS EMISSIONS, LOW CHANNEL



SPURIOUS EMISSIONS, MID CHANNEL



SPURIOUS EMISSIONS, HIGH CHANNEL



7. RADIATED TEST RESULTS

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN, Section 8.9 and 8.10

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

TEST PROCEDURE

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

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

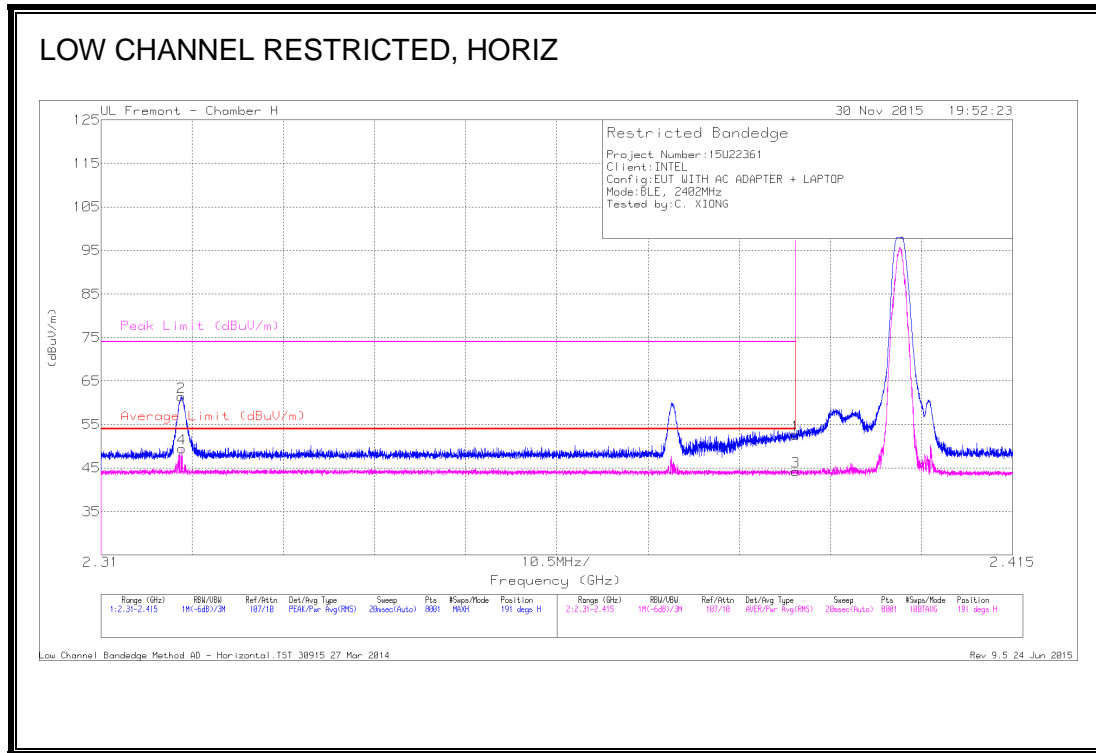
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 3MHz video bandwidth with average detector for average measurements.

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

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

7.1. TRANSMITTER ABOVE 1 GHz

7.1.1. RESTRICTED BANDEGE (LOW CHANNEL)



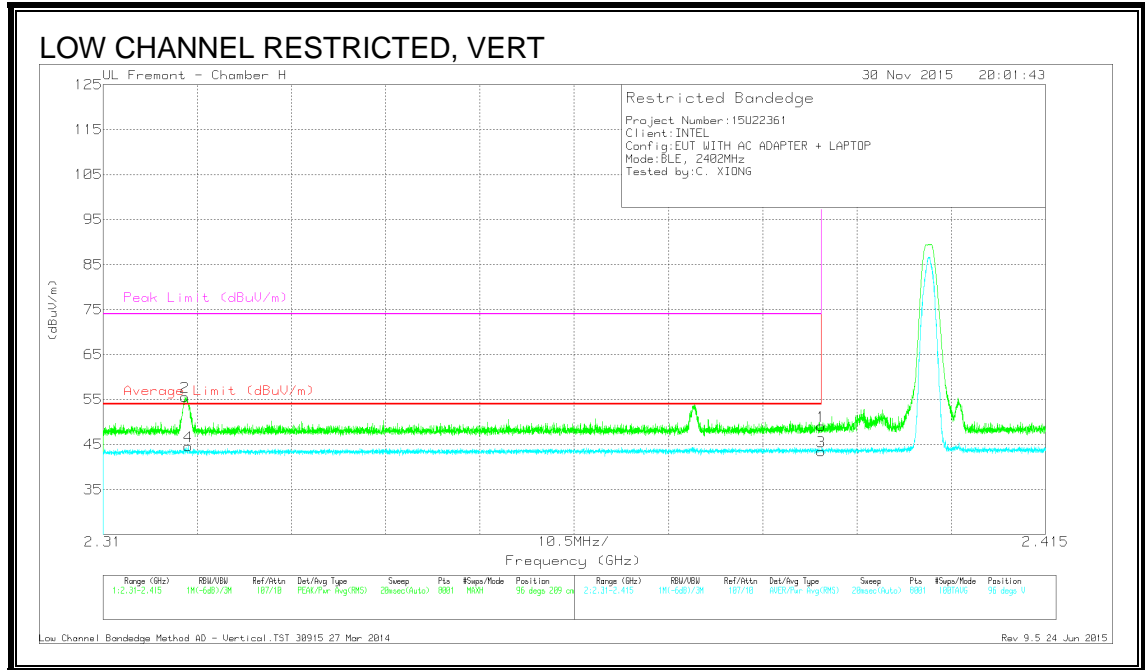
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/FI tr/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	44.11	Pk	32	-23.5	0	52.61	-	-	74	-21.39	191	215	H
2	* 2.319	53.08	Pk	31.8	-23.5	0	61.38	-	-	74	-12.62	191	215	H
3	* 2.39	29.81	RMS	32	-23.5	5.89	44.2	54	-9.8	-	-	191	215	H
4	* 2.319	35.26	RMS	31.8	-23.5	5.89	49.45	54	-4.55	-	-	191	215	H

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

Pk - Peak detector

RMS - RMS detection



Trace Markers

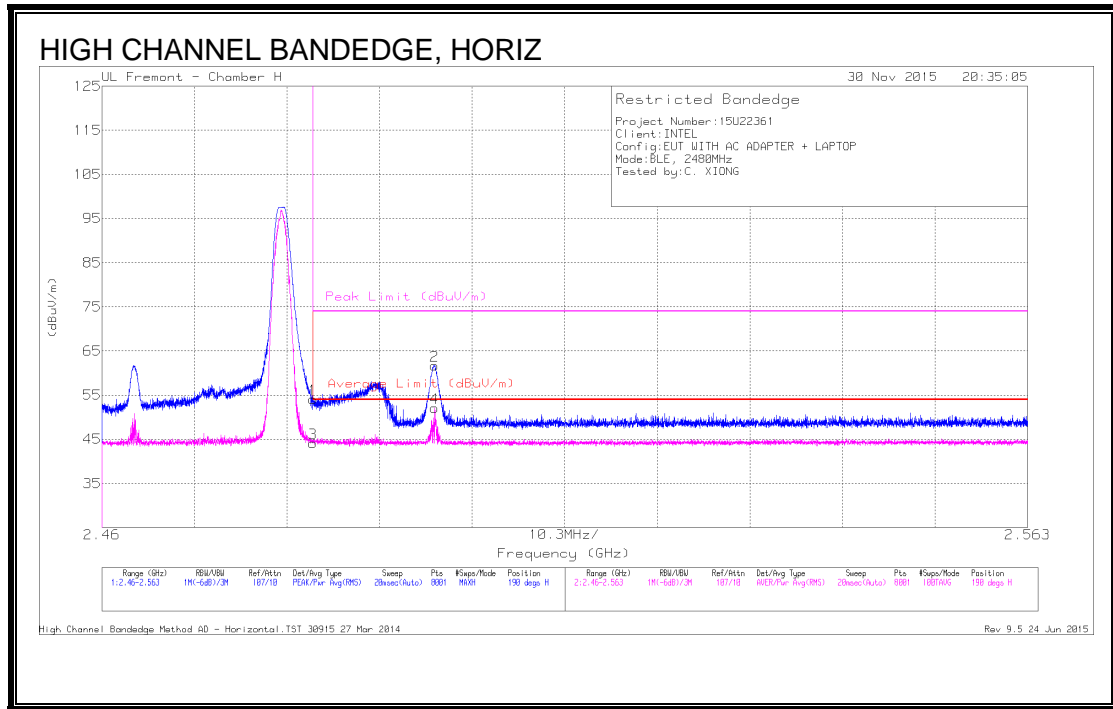
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T963 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.64	Pk	32	-23.5	0	49.14	-	-	74	-24.86	96	209	V
2	* 2.319	47.26	Pk	31.8	-23.5	0	55.56	-	-	74	-18.44	96	209	V
3	* 2.39	29.12	RMS	32	-23.5	5.89	43.51	54	-10.49	-	-	96	209	V
4	* 2.32	30.45	RMS	31.8	-23.5	5.89	44.64	54	-9.36	-	-	96	209	V

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

Pk - Peak detector

RMS - RMS detection

7.1.2. AUTHORIZED BANDEDGE (HIGH CHANNEL)



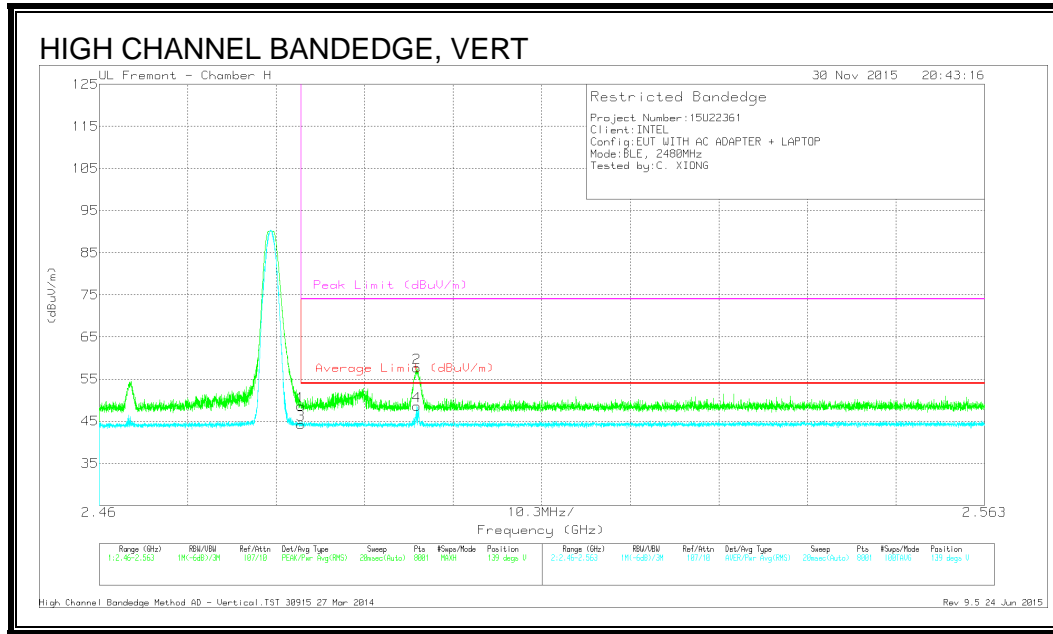
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	45.1	Pk	32.4	-23.4	0	54.1	-	-	74	-19.9	190	167	H
2	* 2.497	52.75	Pk	32.4	-23.4	0	61.75	-	-	74	-12.25	190	167	H
3	* 2.484	29.27	RMS	32.4	-23.4	5.89	44.16	54	-9.84	-	-	190	167	H
4	* 2.497	37.19	RMS	32.4	-23.4	5.89	52.08	54	-1.92	-	-	190	167	H

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

Pk - Peak detector

RMS - RMS detection



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/Fl tr/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	39.61	Pk	32.4	-23.4	0	48.61	-	-	74	-25.39	139	223	V
2	* 2.497	48.66	Pk	32.4	-23.4	0	57.66	-	-	74	-16.34	139	223	V
3	* 2.484	29.32	RMS	32.4	-23.4	5.89	44.21	54	-9.79	-	-	139	223	V
4	* 2.497	33.74	RMS	32.4	-23.4	5.89	48.63	54	-5.37	-	-	139	223	V

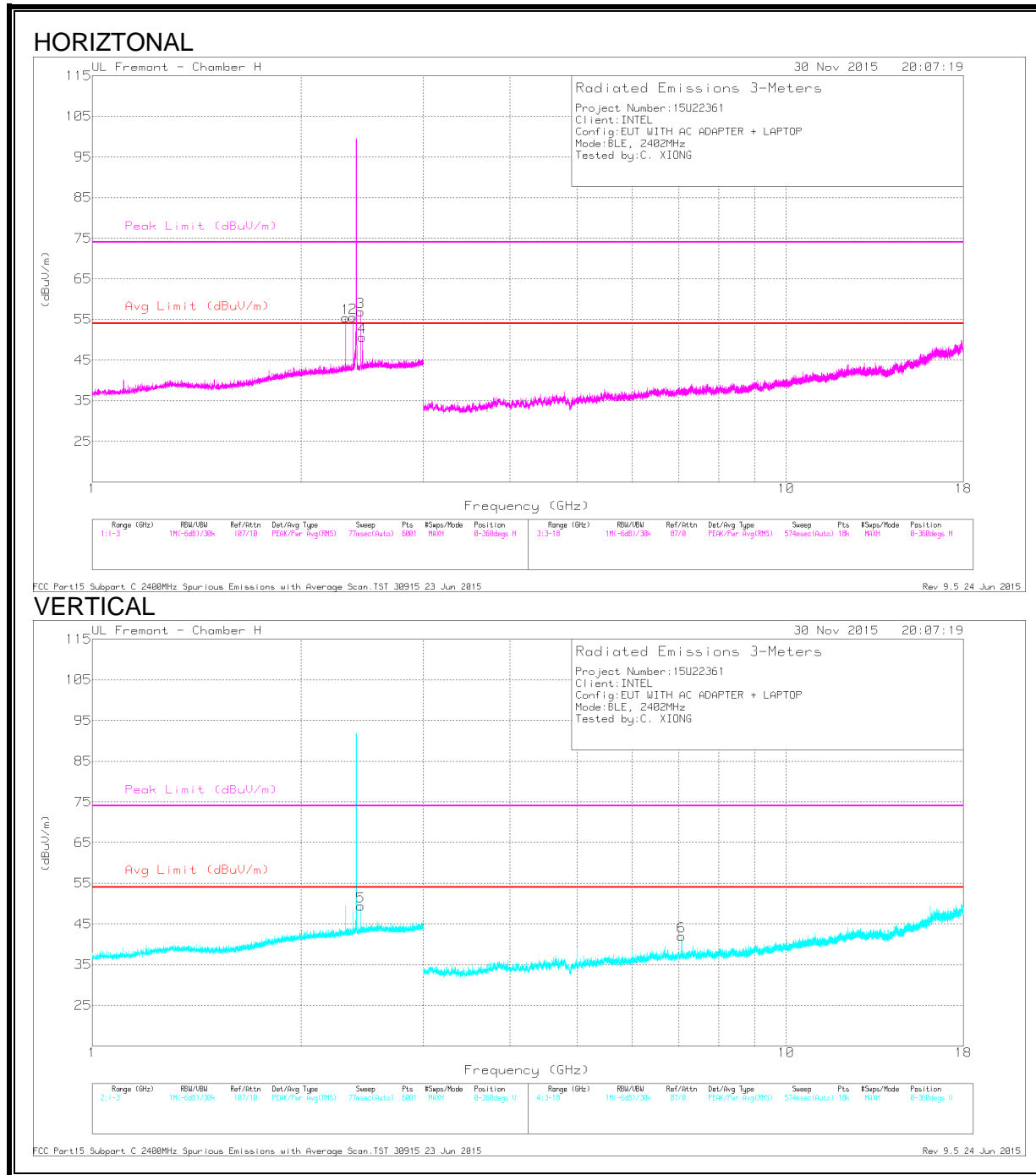
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

Pk - Peak detector

RMS - RMS detection

7.1.3. HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ Filt/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	* 2.319	53.1	PK2	31.8	-23.5	0	61.4	-	-	74	-12.6	173	122	H
	* 2.319	35.48	MAv1	31.8	-23.5	5.89	49.67	54	-4.33	-	-	173	122	H
2	* 2.376	50.85	PK2	32	-23.5	0	59.35	-	-	74	-14.65	199	167	H
	* 2.376	33.14	MAv1	32	-23.5	5.89	47.53	54	-6.47	-	-	199	167	H
3	2.436	48.11	Pk	32.2	-23.4	0	56.91	-	-	-	-	0-360	201	H
5	2.436	40.61	Pk	32.2	-23.4	0	49.41	-	-	-	-	0-360	100	V
4	2.451	41.78	Pk	32.3	-23.4	0	50.68	-	-	-	-	0-360	201	H
6	7.069	34.79	Pk	35.8	-28.6	0	41.99	-	-	-	-	0-360	200	V

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

* - Compliance for emissions in restricted bands near the fundamental is shown in radiated bandedge testing

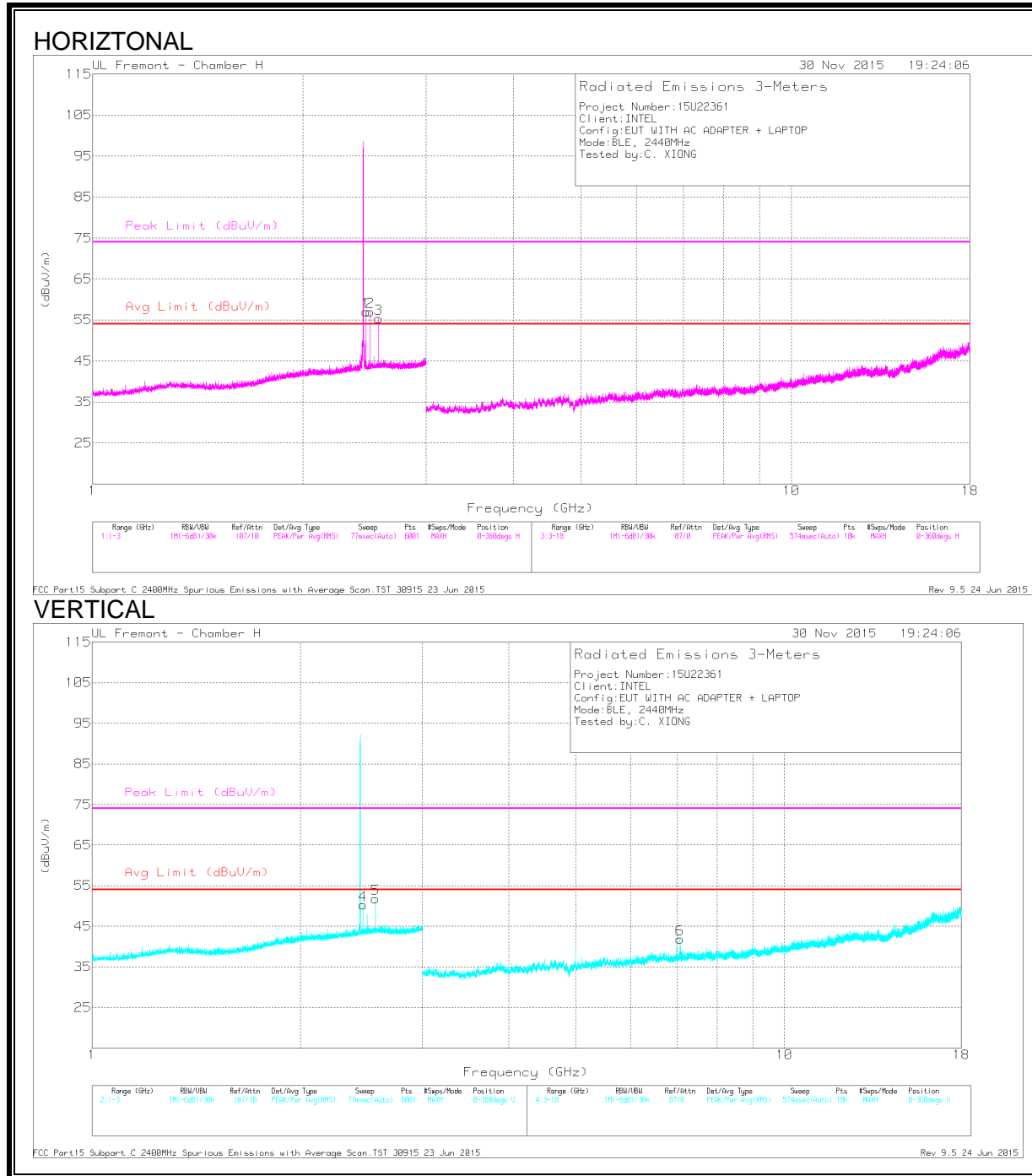
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl /Filtr/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	* 2.497	54.32	PK2	32.4	-23.4	0	63.32	-	-	74	-10.68	198	203	H
	* 2.497	35.2	MAv1	32.4	-23.4	5.89	50.09	54	-3.91	-	-	198	203	H
1	2.464	48.18	Pk	32.3	-23.4	0	57.08	-	-	-	-	0-360	100	H
4	2.464	41.41	Pk	32.3	-23.4	0	50.31	-	-	-	-	0-360	200	V
3	2.566	46.1	Pk	32.5	-23.2	0	55.4	-	-	-	-	0-360	201	H
5	2.567	42.47	Pk	32.5	-23.2	0	51.77	-	-	-	-	0-360	200	V
6	7.069	34.63	Pk	35.8	-28.6	0	41.83	-	-	-	-	0-360	200	V

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

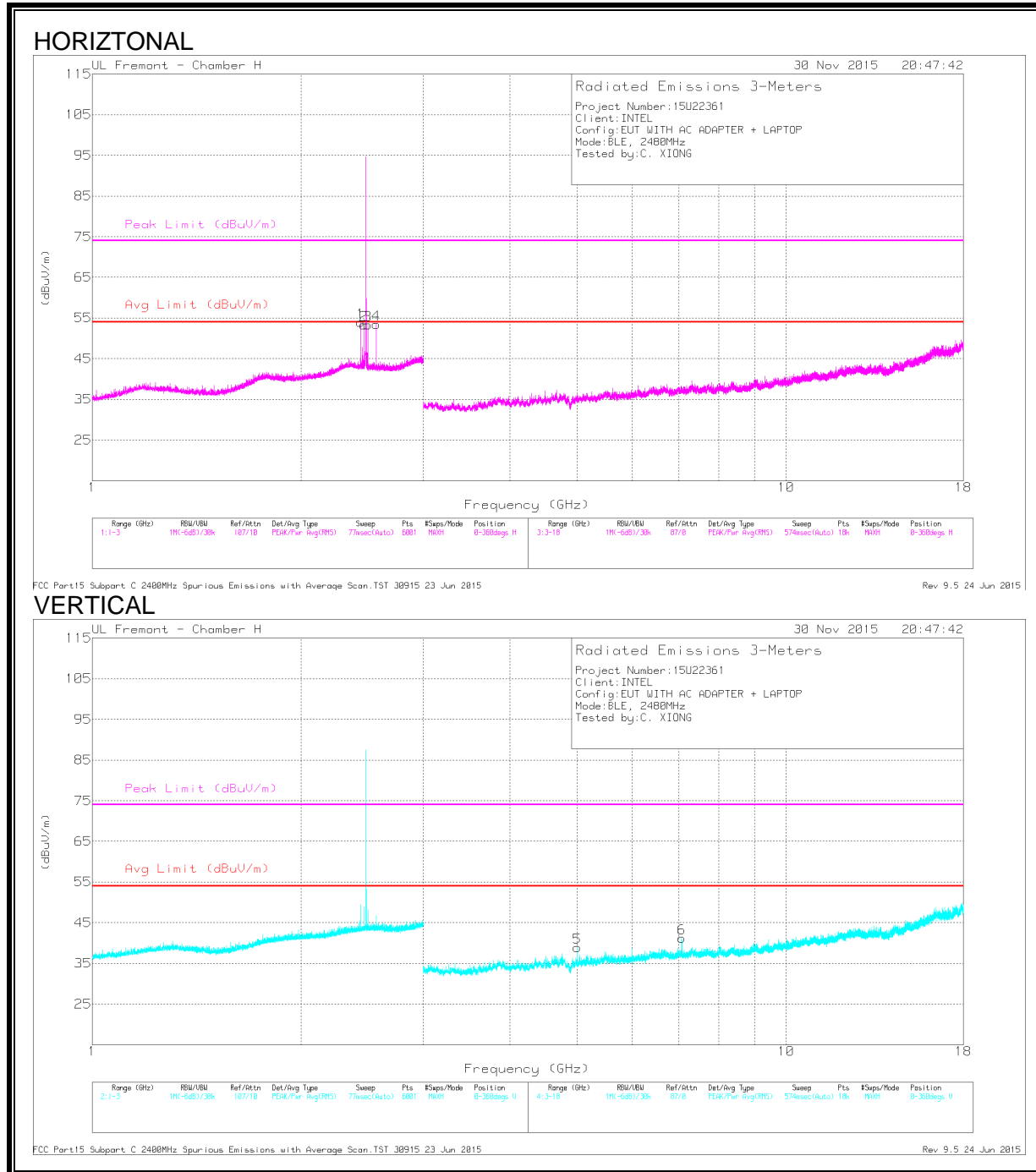
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl /Filtr/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
5	* 5.001	42.01	PK2	34.3	-30.7	0	45.61	-	-	74	-28.39	242	115	V
	* 5	32.74	MAv1	34.3	-30.7	5.89	42.23	54	-11.77	-	-	242	115	V
3	* 2.497	53.08	PK2	32.4	-23.4	0	62.08	-	-	74	-11.92	168	130	H
	* 2.497	36.39	MAv1	32.4	-23.4	5.89	51.28	54	-2.72	-	-	168	130	H
1	2.436	45.18	Pk	32.2	-23.4	0	53.98	-	-	-	-	0-360	100	H
2	2.463	44.46	Pk	32.3	-23.4	0	53.36	-	-	-	-	0-360	201	H
4	2.566	44.21	Pk	32.5	-23.2	0	53.51	-	-	-	-	0-360	201	H
6	7.07	34.05	Pk	35.8	-28.6	0	41.25	-	-	-	-	0-360	200	V

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

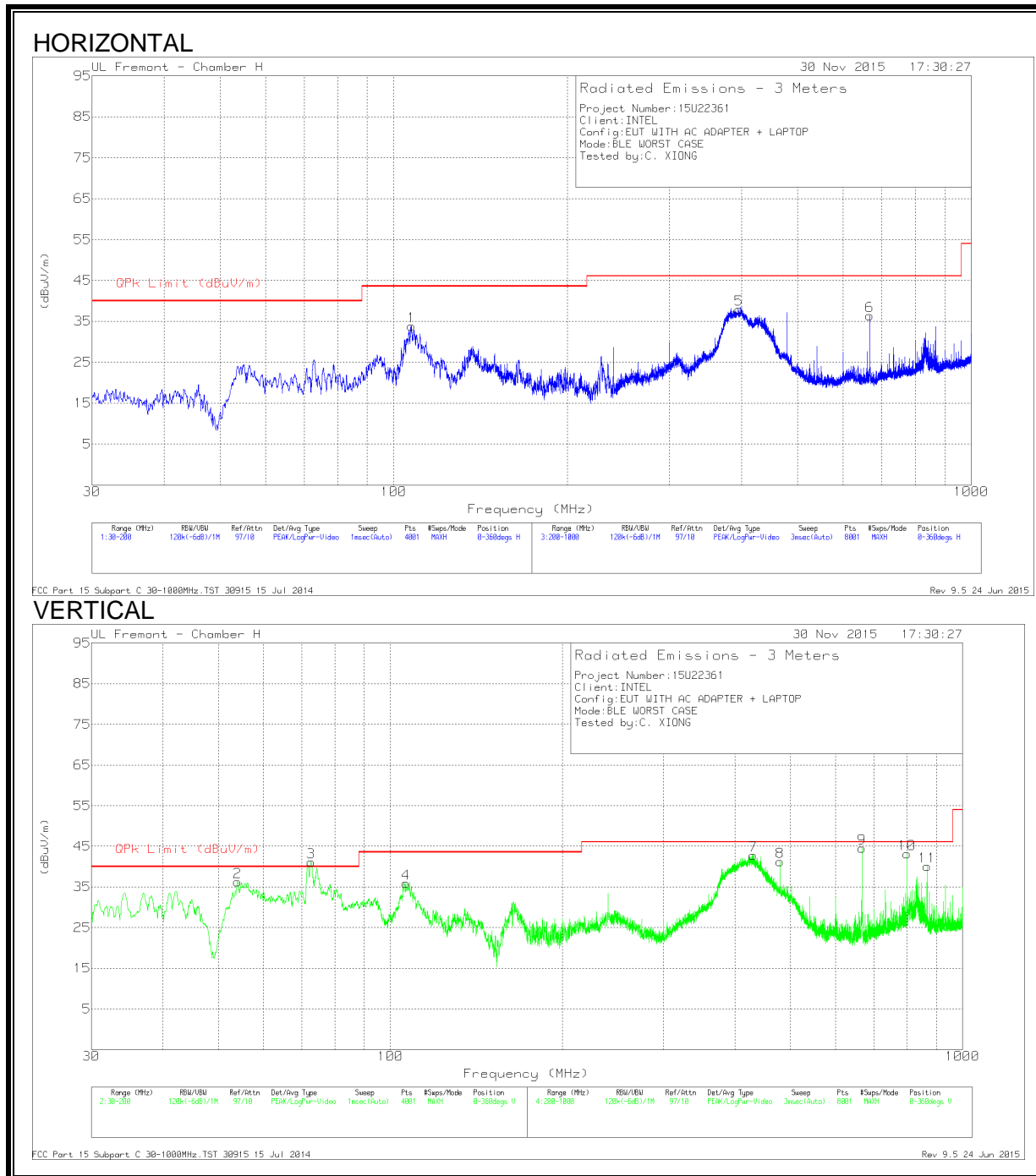
- Compliance for emissions in non-restricted bands is shown in conducted out of band testing

Pk - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

7.2. WORST-CASE BELOW 1 GHz

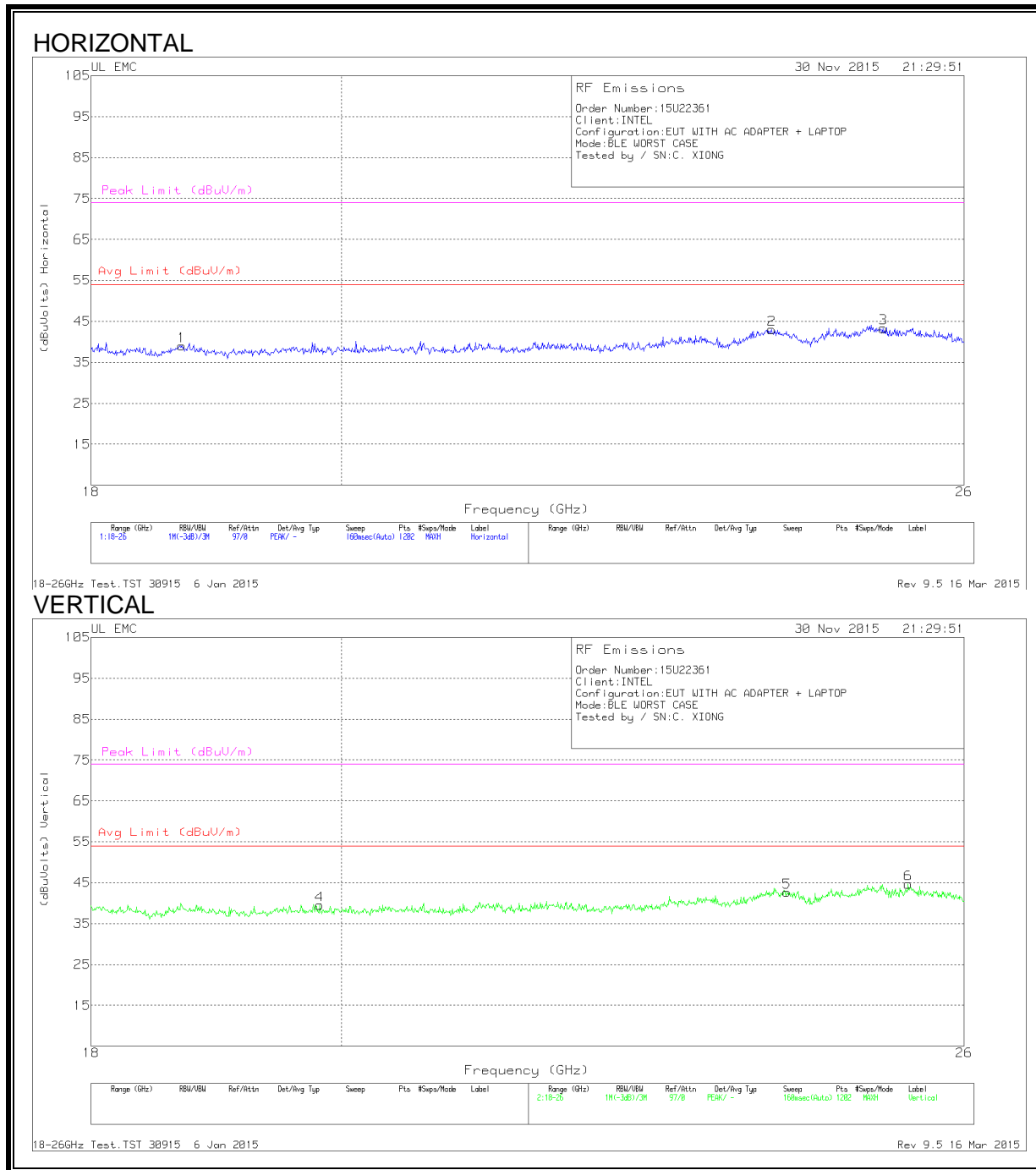


DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T900 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	55.225	54.14	Qp	7.2	-30.9	30.44	40	-9.56	296	158	V
3	72.8275	48.51	Qp	8.5	-30.8	26.21	40	-13.79	359	240	V
4	106.415	54.66	Pk	11.7	-30.5	35.86	43.52	-7.66	0-360	100	V
1	107.265	52.34	Pk	11.9	-30.4	33.84	43.52	-9.68	0-360	301	H
5	395.8	51.42	Pk	15.2	-28.7	37.92	46.02	-8.1	0-360	100	H
7	430.38	51.03	Qp	16.4	-28.6	38.83	46.02	-7.19	318	104	V
8	480.015	49.89	Qp	17.7	-28.3	39.29	46.02	-6.73	155	107	V
6	666.7	44.71	Pk	19.5	-27.8	36.41	46.02	-9.61	0-360	201	H
9	666.675	49.71	Qp	19.5	-27.8	41.41	46.02	-4.61	127	109	V
10	800.02	43.31	Qp	21.4	-27.4	37.31	46.02	-8.71	267	116	V
11	866.71	38.87	Qp	21.7	-26.8	33.77	46.02	-12.25	228	126	V

Pk - Peak detector
 Qp - Quasi-Peak detector

7.3. WORST-CASE 18 - 26GHz



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T89 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
1	18.699	40.2	Pk	32.5	-24.2	-9.5	39	54	-15	74	-35
2	23.975	43.4	Pk	33.3	-24.2	-9.5	43	54	-11	74	-31
3	25.127	43.63	Pk	33.8	-24.6	-9.5	43.333	54	-10.667	74	-30.667
4	19.818	41.4	Pk	32.7	-25.1	-9.5	39.5	54	-14.5	74	-34.5
5	24.128	43.07	Pk	33.4	-24.3	-9.5	42.667	54	-11.333	74	-31.333
6	25.394	44.77	Pk	33.7	-24.3	-9.5	44.667	54	-9.333	74	-29.333

Pk - Peak detector