



**FCC CFR47 PART 15 SUBPART C**

**CERTIFICATION TEST REPORT**

**FOR**

**SMART BRACELET**

**MODEL NUMBER: MICA**

**REPORT NUMBER: 14U19370-E3, Revision B**

**FCC ID: 2AB8ZND2**

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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>
	11/19/2014	Initial Issue	C. Pang
A	11/26/2014	Addressed TCB's Questions on KDB rule and Page 40.	C. Pang
B	12/01/2014	Address TCB's questions on page 12, 18, 20, 23 and 27	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:** Smart Bracelet

**MODEL:** MICA

**SERIAL NUMBER:** FZMK4440002J, FZMK44400022

**DATE TESTED:** November 17-19, 2014

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services 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.

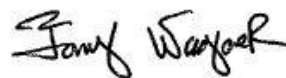
**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services 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:



Chin Pang  
Senior Engineer  
UL Verification Services Inc.

Tested By:



TONY WAGONER  
Lab Technician  
UL Verification Services Inc

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2009, FCC CFR 47 Part 2, FCC CFR 47 Part 15.

## 3. FACILITIES AND ACCREDITATION

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

47173 Benicia Street	47266 Benicia Street
<input type="checkbox"/> Chamber A	<input type="checkbox"/> Chamber D
<input type="checkbox"/> Chamber B	<input type="checkbox"/> Chamber E
<input checked="" type="checkbox"/> Chamber C	<input checked="" type="checkbox"/> Chamber F
	<input type="checkbox"/> Chamber G
	<input type="checkbox"/> Chamber H

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

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

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a smart bracelet with cellular GPRS/WCDMA/HSDPA and Bluetooth low power.

### 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	3.55	2.26

### 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a chip antenna with 2dBi gain:

### 5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was xmm6321\_xges2\_ndg\_mckee2.

### 5.5. WORST-CASE CONFIGURATION AND MODE

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

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

Worst-case data rates based on the baseline scan:  
BLE: 1 Mbps.

## 5.6. DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT & PERIPHERALS

PERIPHERAL SUPPORT EQUIPMENT LIST			
Description	Manufacturer	Model	S/N
Charging Adapter	Samsung	ETA0U83CBC	DW2F416DS/A-E

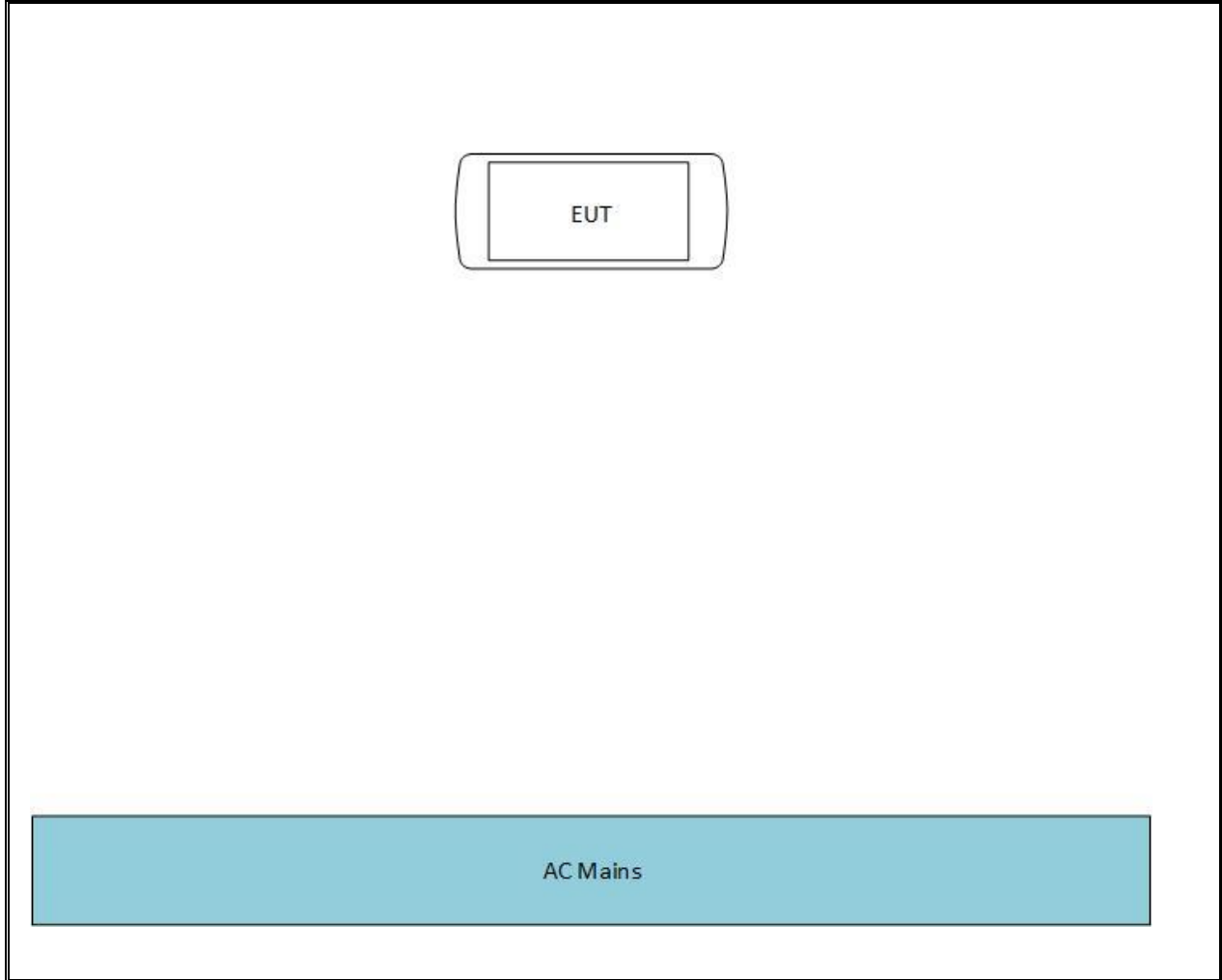
### I/O CABLES

I/O CABLE LIST						
Cable No.	Port	No. of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	USB	Unshielded	0.15	N/A

### TEST SETUP

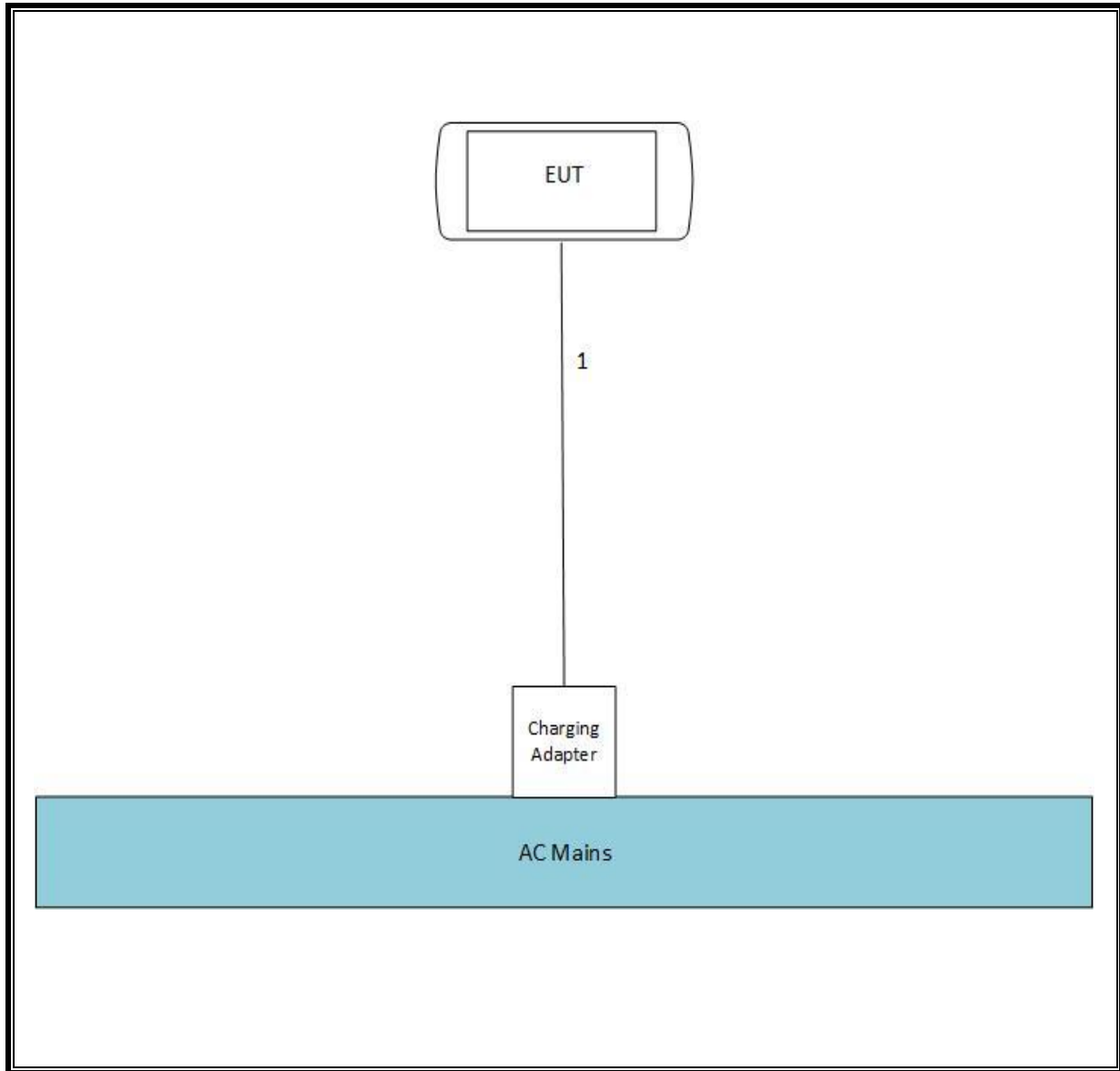
Test software exercised the EUT during test. Refer to the following diagram for testing configurations.

**SETUP DIAGRAM – CONFIGURATION A**





**SETUP DIAGRAM – CONFIGURATION B**



## 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	Serial Number	Cal Due
Spectrum Analyzer, PSA, 3Hz- 26.5GHz	Agilent	E4440A	MY46186329	05/09/15
Power Meter, P-series single channel	Agilent	N1911A	MY53060007	09/15/15
Power Sensor, Peak and average, 50MHz-	Agilent	E9323A	MY530770013	05/02/15
3mC Radiated Chamber Equipment				
Spectrum Analyzer, PSA, 3Hz- 44GHz	Agilent	E4446A	US42510266	06/03/15
Filter, Highpass 4.0Ghz	Micro-Tronics	HPM13351	4	CNR
Filter, Highpass 7.6 to 18Ghz	Micro-Tronics	HPM13195	7	CNR
Antenna, Horn 1-18GHz	ETS Lindgren	3117	3/21/1980	01/06/15
Antenna Broadband Hybrid 30 Mhz to	Sunol Sciences	JB1	A092308	02/12/15
Amplifier ,1-26.5GHz, 23.5 Gain Minimum	Agilent	8449B	3008A0713	08/19/15
Amplifier, 10KHz-1GHz, 32dB	Agilent	8447D	2944A06550	08/16/15
3mF Radiated Chamber Equipment				
Antenna, Horn 1-18GHz	ETS Lindgren	3117	00029310	03/20/15
Filter, High Pass, 3.0GHz	Micro-Tronics	HPM17543	002	01/20/15
Filter, Loss Pass, 5.0GHz	Micro-Tronics	LPS17541	002	01/20/15
Filter, High Pass, 6.0GHz	Micro-Tronics	HPS17542	003	01/20/15
Amplifier 1-18Ghz	Miteq	Miteq	AFS42-00101800-25-S-42	01/20/15
Spectrum Analyzer, PXA, 3Hz-44GHz	Agilent	N9030A	MY51380911	02/12/15
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	100935	09/16/15
LISN for Conducted Emissions CISPR-16	FCC	LISN-50/250-25-2	114	01/17/15

## 7. MEASUREMENT METHODS

6 dB BW: KDB 558074 D01 v03r02

Output Power: KDB 558074 D01 v03r02.

Power Spectral Density: KDB 558074 D01 v03r02.

Out-of-band emissions in non-restricted bands: KDB 558074 D01 v03r02.

Out-of-band emissions in restricted bands: KDB 558074 D01 v03r02.

## 8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

### LIMITS

None; for reporting purposes only.

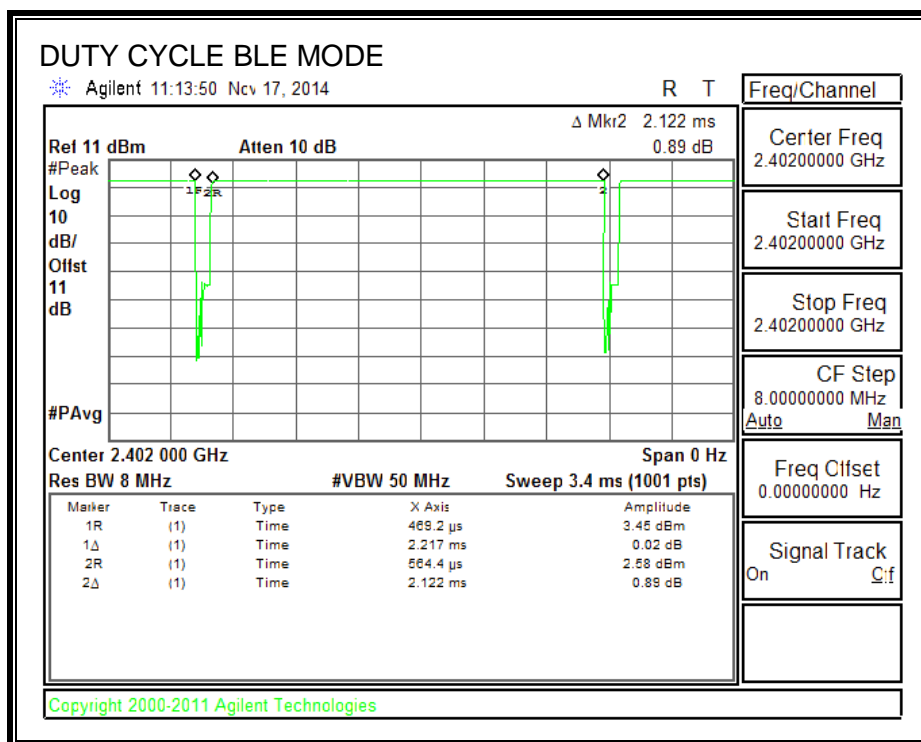
### PROCEDURE

KDB 789033 Zero-Span Spectrum Analyzer Method.

### 8.1. 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	0.469	0.564	0.831	83.1%	0.802	2.131

### DUTY CYCLE PLOT



## 9. ANTENNA PORT TEST RESULTS

### 9.1. 6 dB BANDWIDTH

#### LIMITS

FCC §15.247 (a) (2)

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

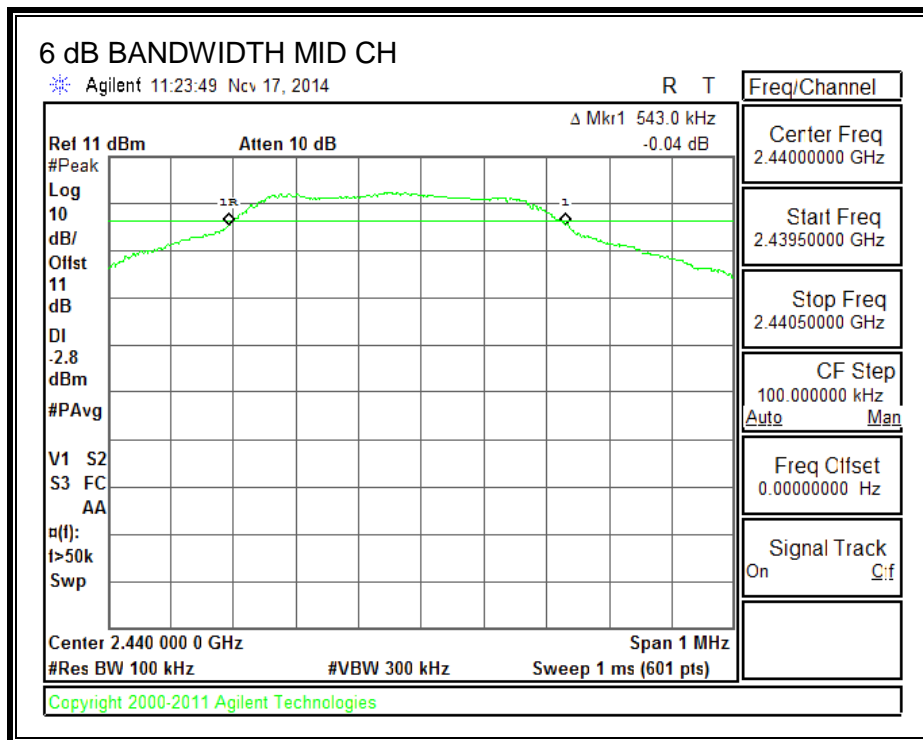
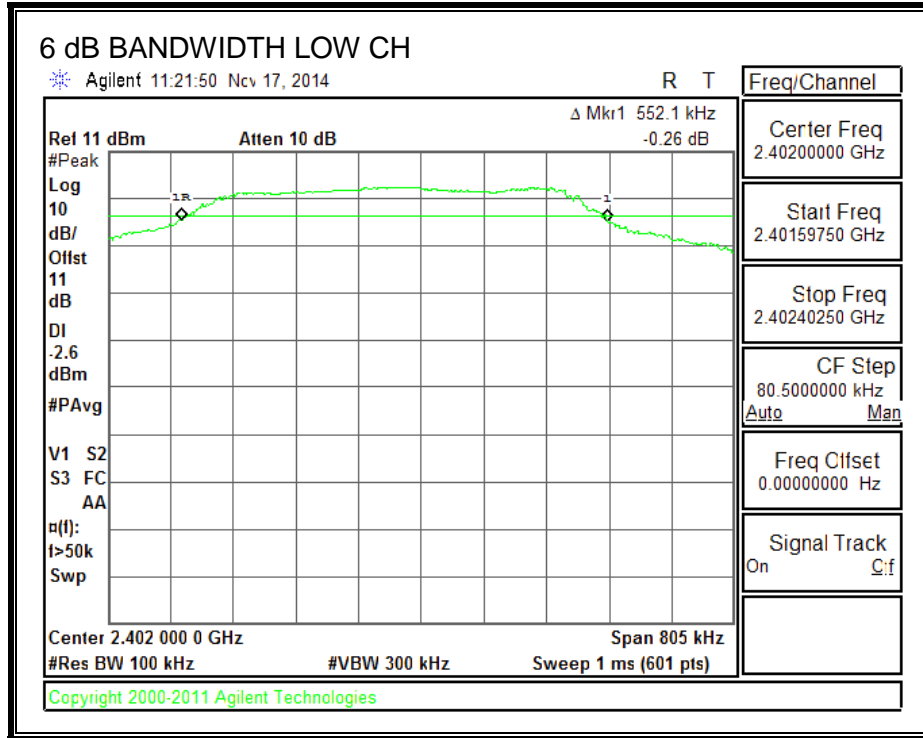
#### TEST PROCEDURE

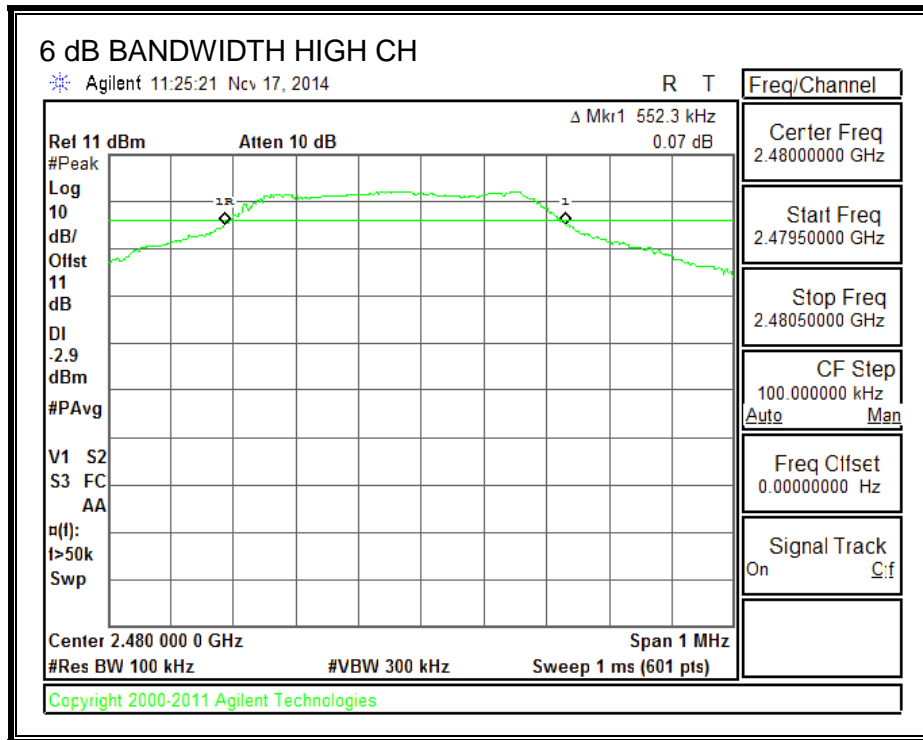
KDB 558074 D01 v03r02 "Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247".

#### RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (KHz)	Minimum Limit (KHz)
Low	2402	552.1	500.0
Middle	2440	543.0	500.0
High	2480	552.3	500.0

6 dB BANDWIDTH





## 9.2. 99% BANDWIDTH

### LIMIT

None; for reporting purposes only.

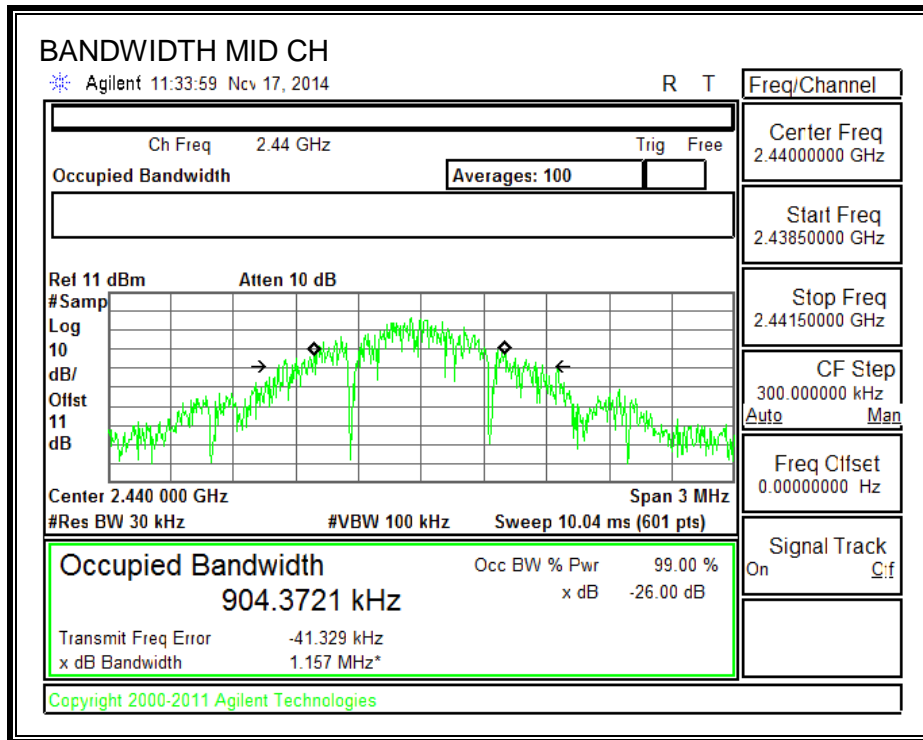
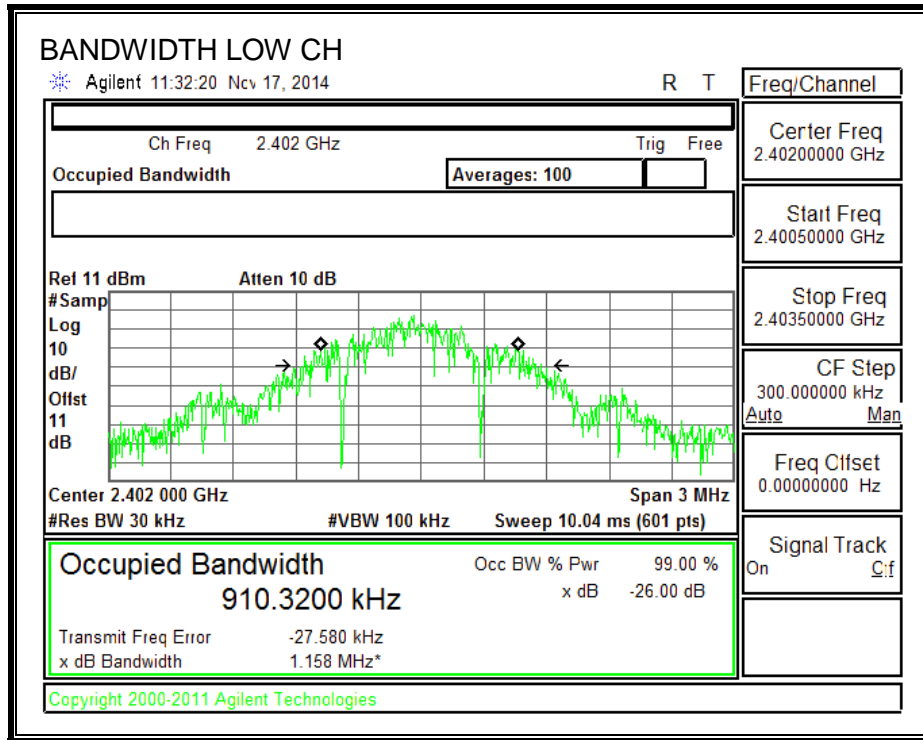
### TEST PROCEDURE

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.

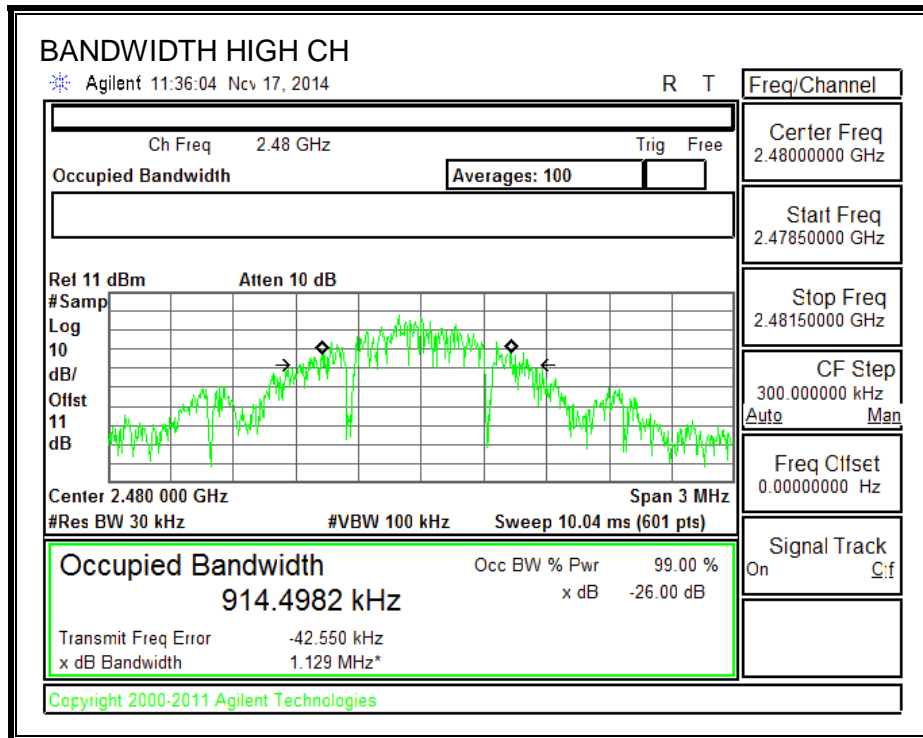
### RESULTS

Frequency (MHz)	99% Bandwidth (KHz)
2402	910.3200
2440	904.3721
2480	914.4982

**99% BANDWIDTH**







### 9.3. OUTPUT POWER

#### LIMIT

§15.247 (b) (1)

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

#### TEST PROCEDURE

KDB 558074 D01 v03r02 "Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247".

#### RESULTS

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	3.44	30	-26.56
Middle	2440	3.55	30	-26.45
High	2480	3.21	30	-26.79

## 9.4. AVERAGE POWER

### LIMIT

None; for reporting purposes only.

### TEST PROCEDURE

The transmitter output is connected to a power meter.

### RESULTS

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

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	3.39
Middle	2440	3.44
High	2480	3.19

## 9.5. POWER SPECTRAL DENSITY

### LIMITS

FCC §15.247 (e)

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.

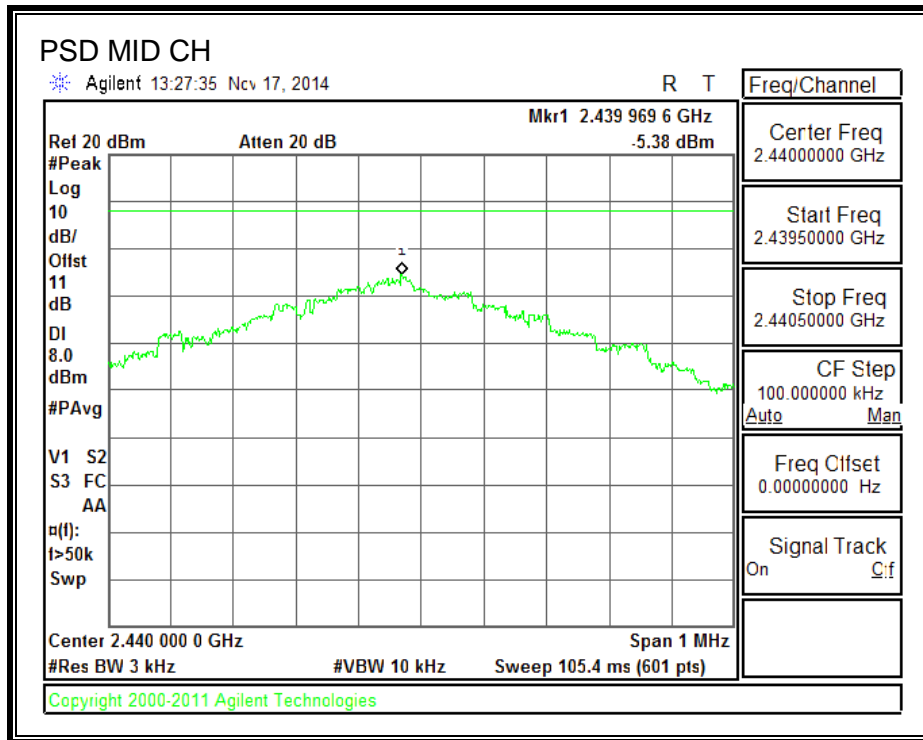
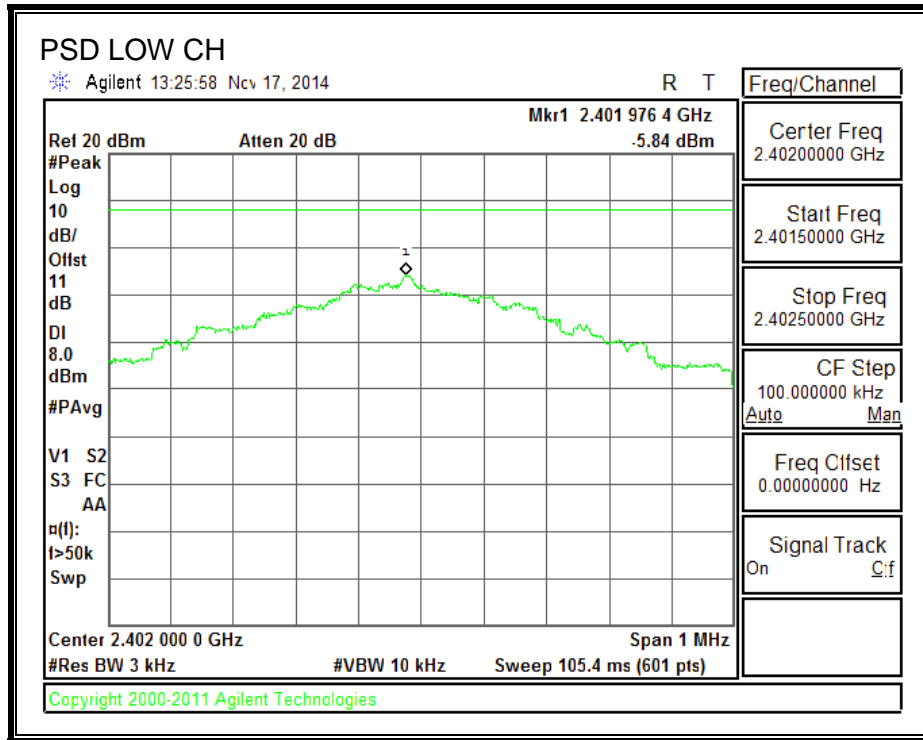
### TEST PROCEDURE

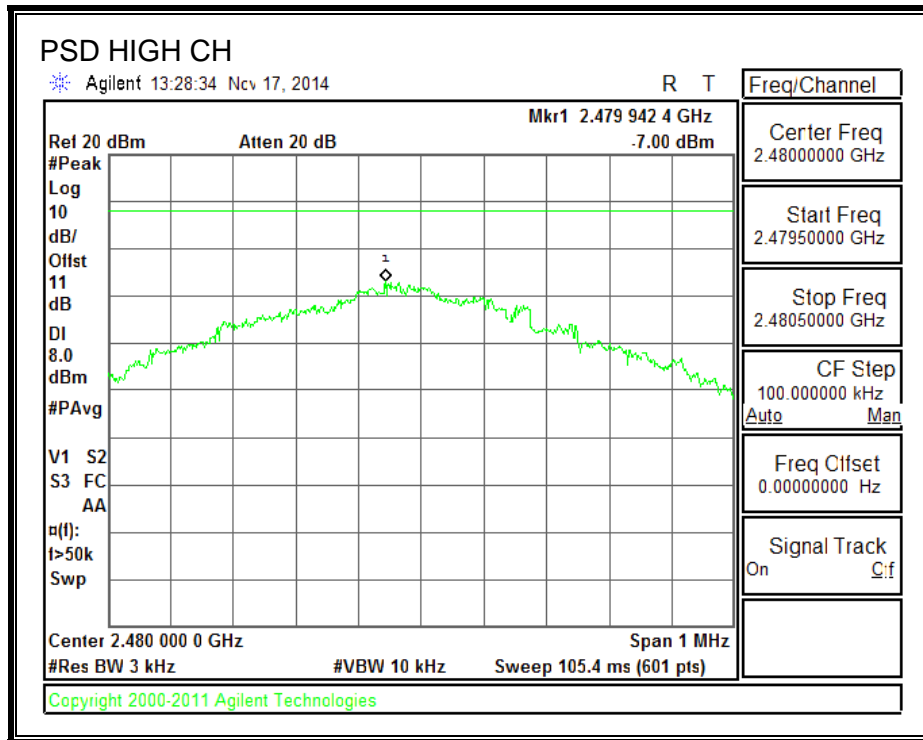
KDB 558074 D01 v03r02 "Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247".

### RESULTS

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-5.84	8	-13.84
Middle	2440	-5.38	8	-13.38
High	2480	-7.00	8	-15.00

**POWER SPECTRAL DENSITY**





## 9.6. CONDUCTED SPURIOUS EMISSIONS

### LIMITS

FCC §15.247 (d)

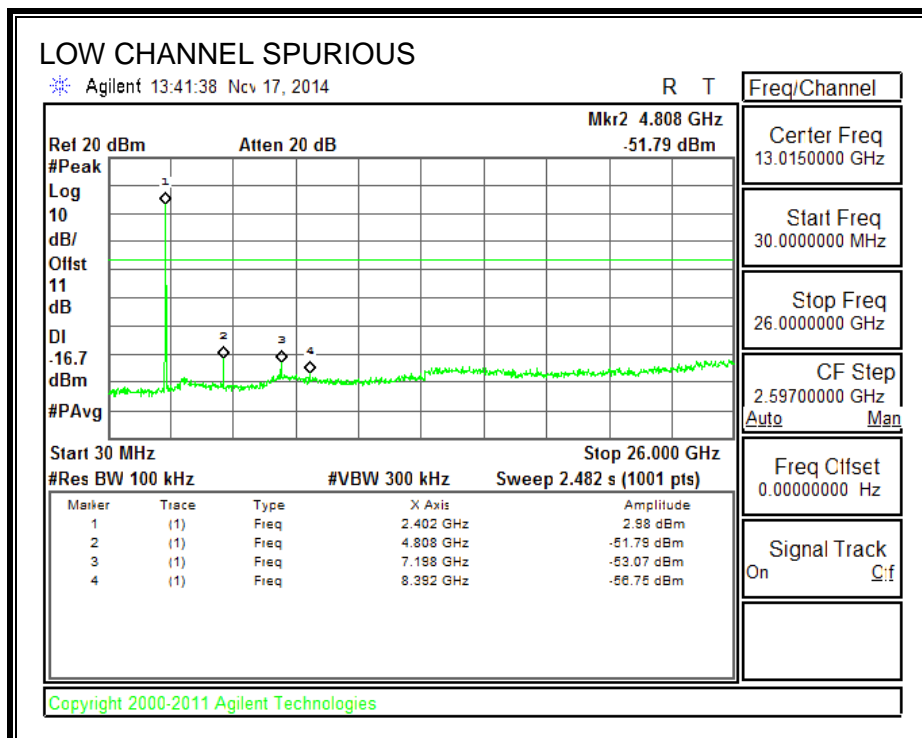
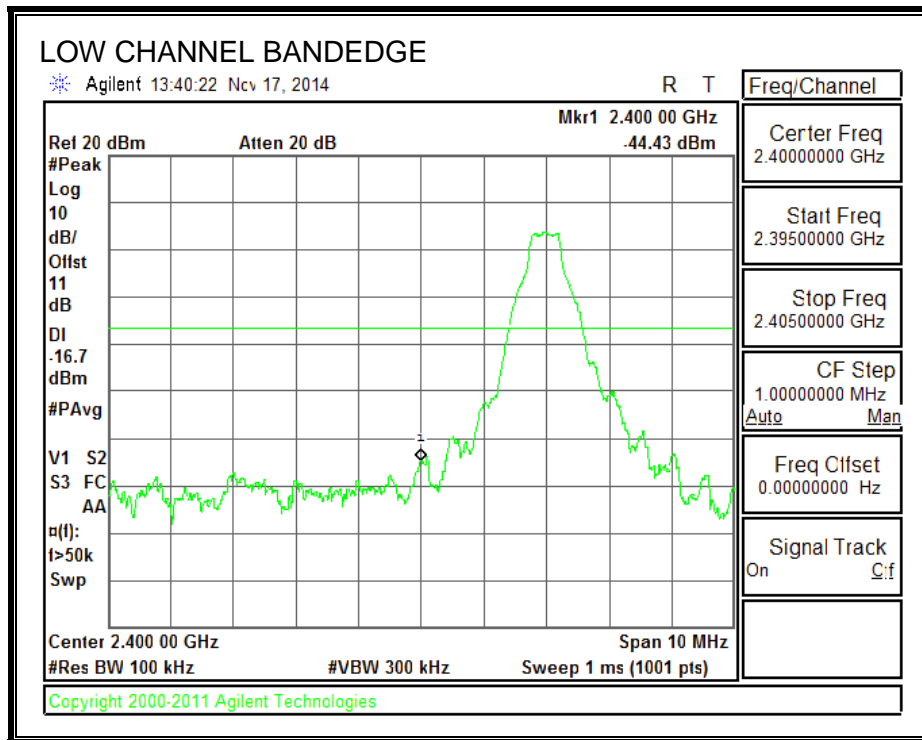
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

### TEST PROCEDURE

KDB 558074 D01 v03r02 "Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under 15.247".

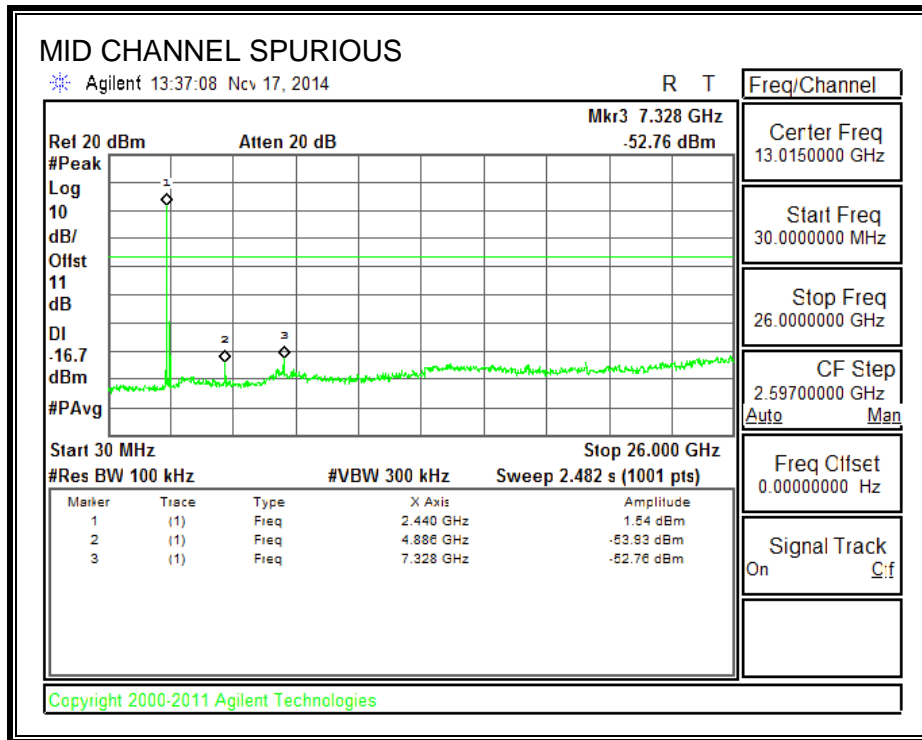
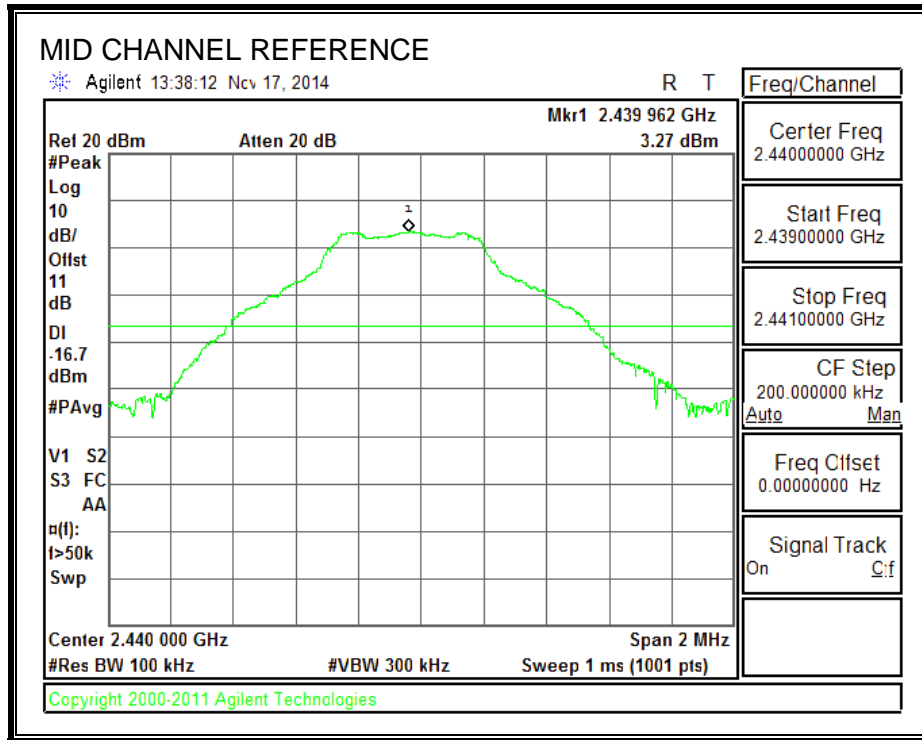
**RESULTS**

**SPURIOUS EMISSIONS, LOW CHANNEL**

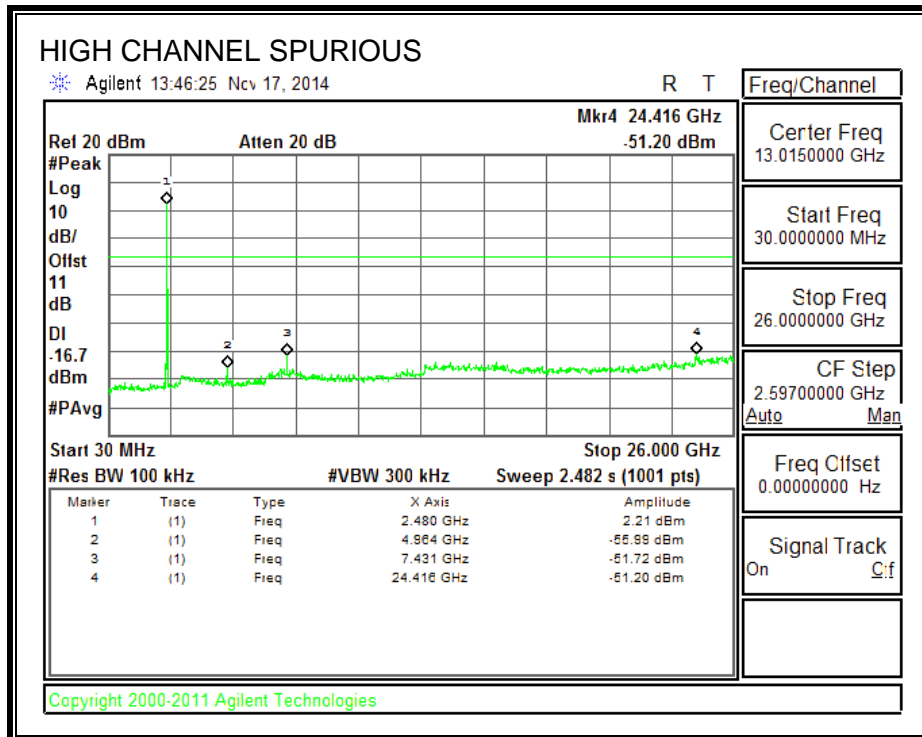
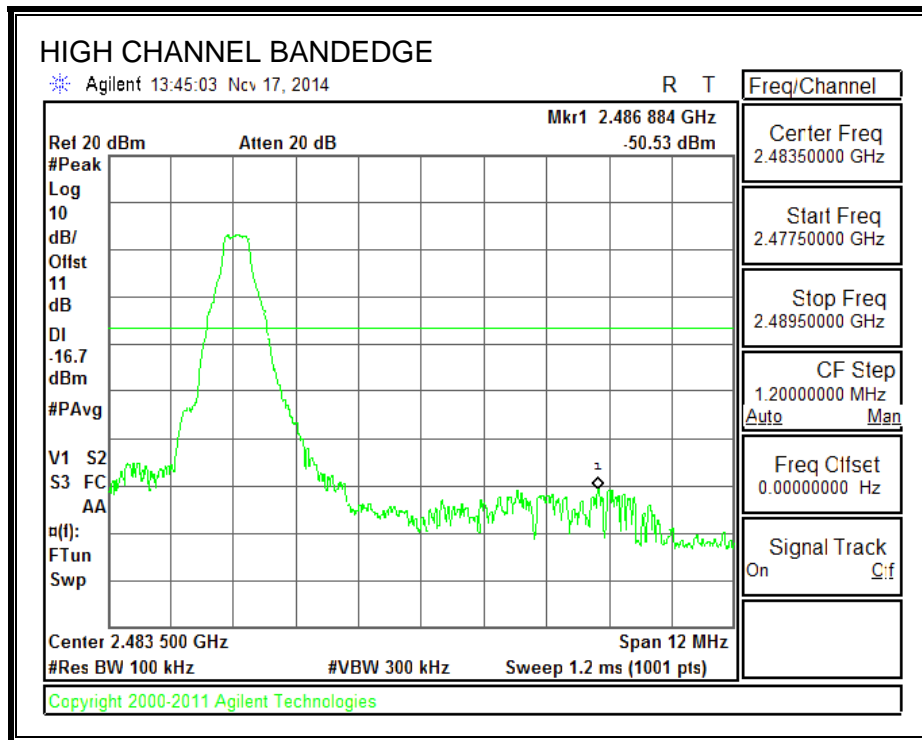




**SPURIOUS EMISSIONS, MID CHANNEL**



**SPURIOUS EMISSIONS, HIGH CHANNEL**



## 10. RADIATED TEST RESULTS

### 10.1. LIMITS AND PROCEDURE

#### LIMITS

FCC §15.205 and §15.209

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

#### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10-2009,. 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.

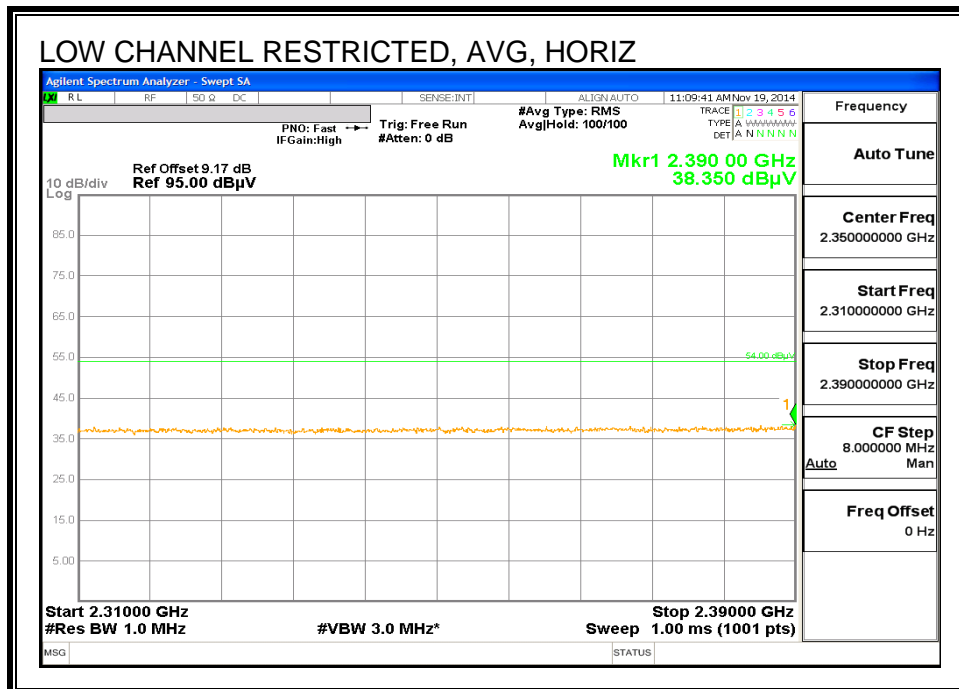
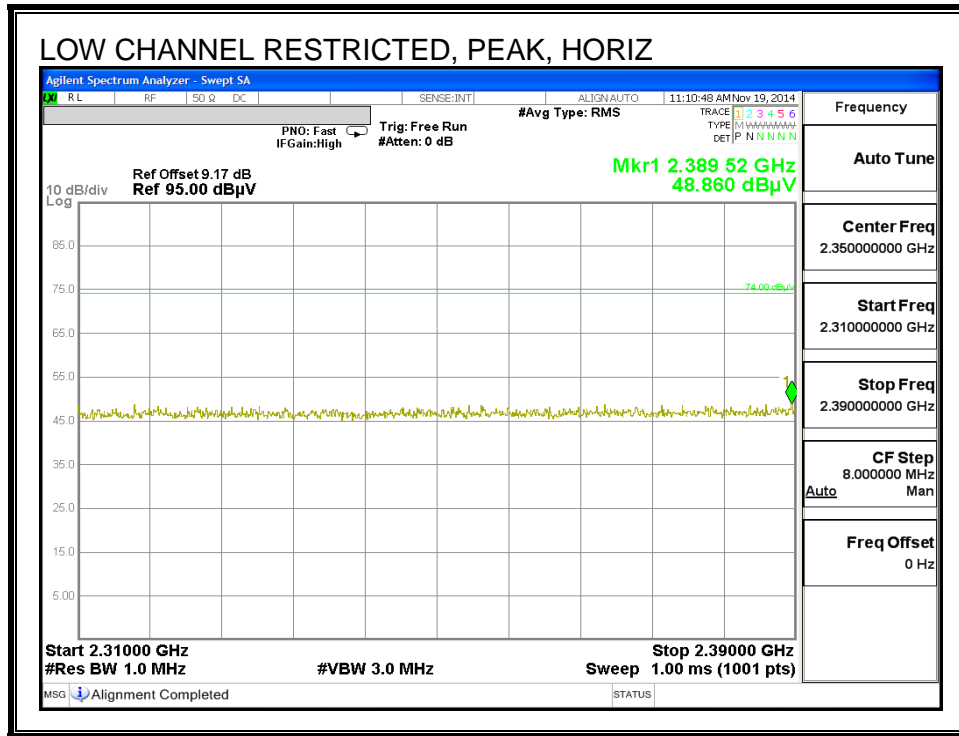
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

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

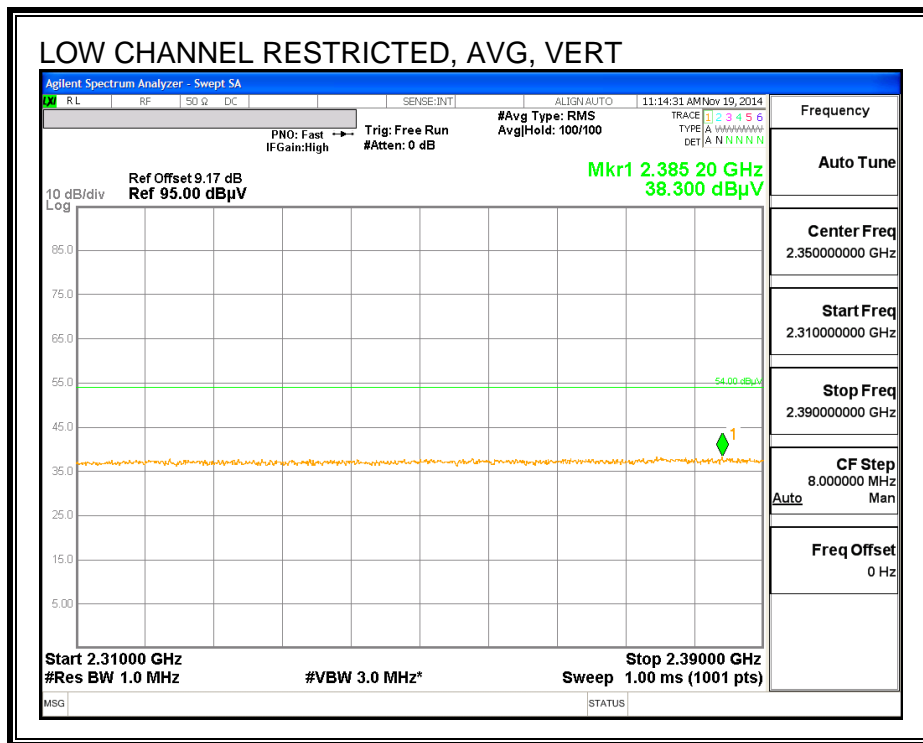
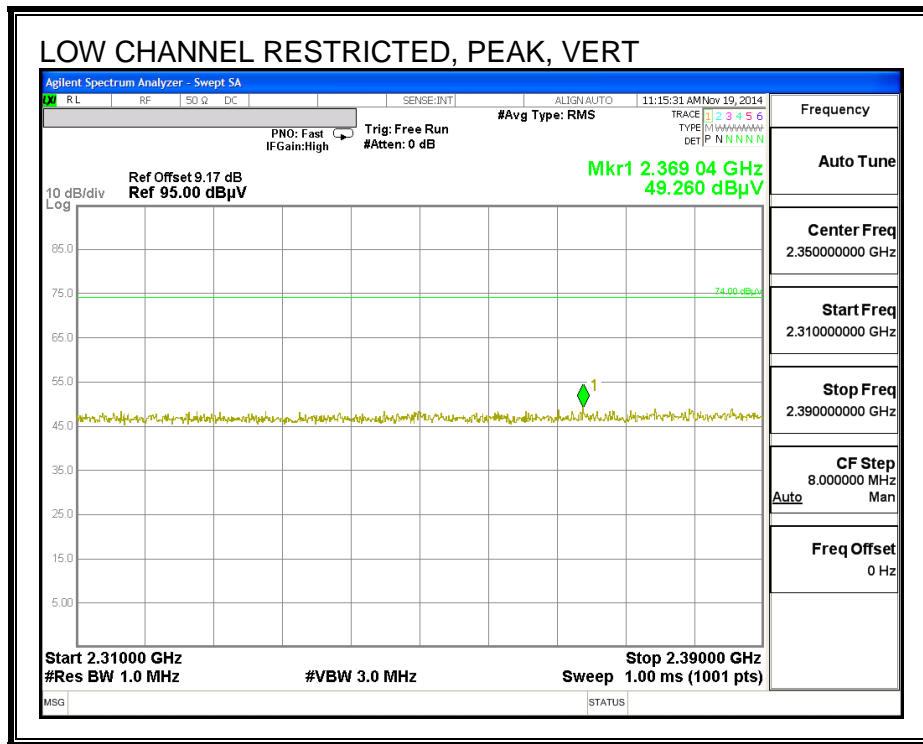
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

## 10.2. TRANSMITTER ABOVE 1 GHz

### RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

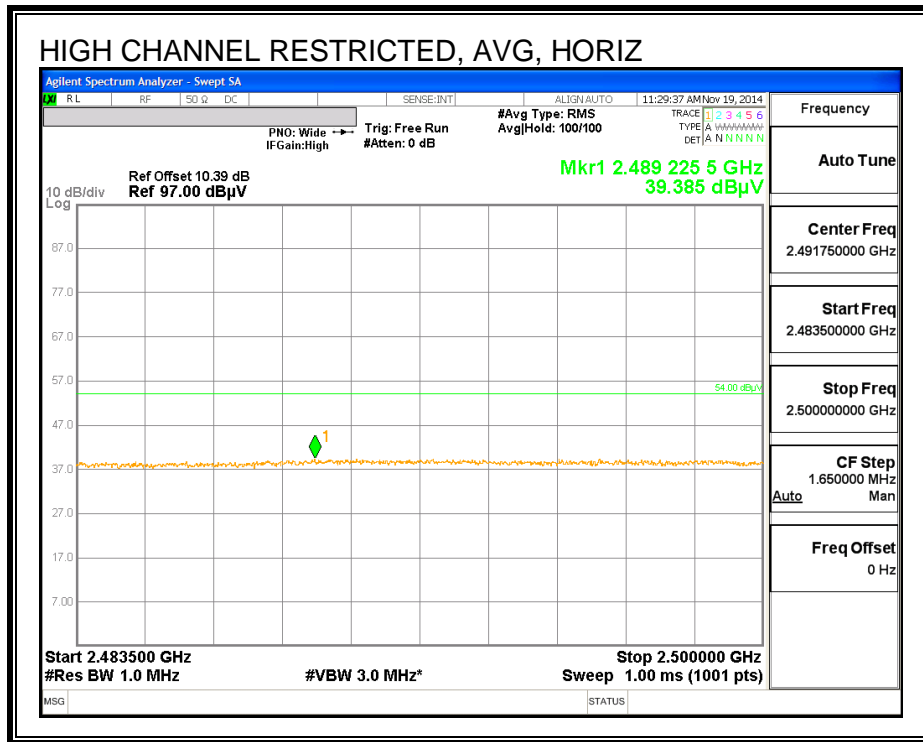
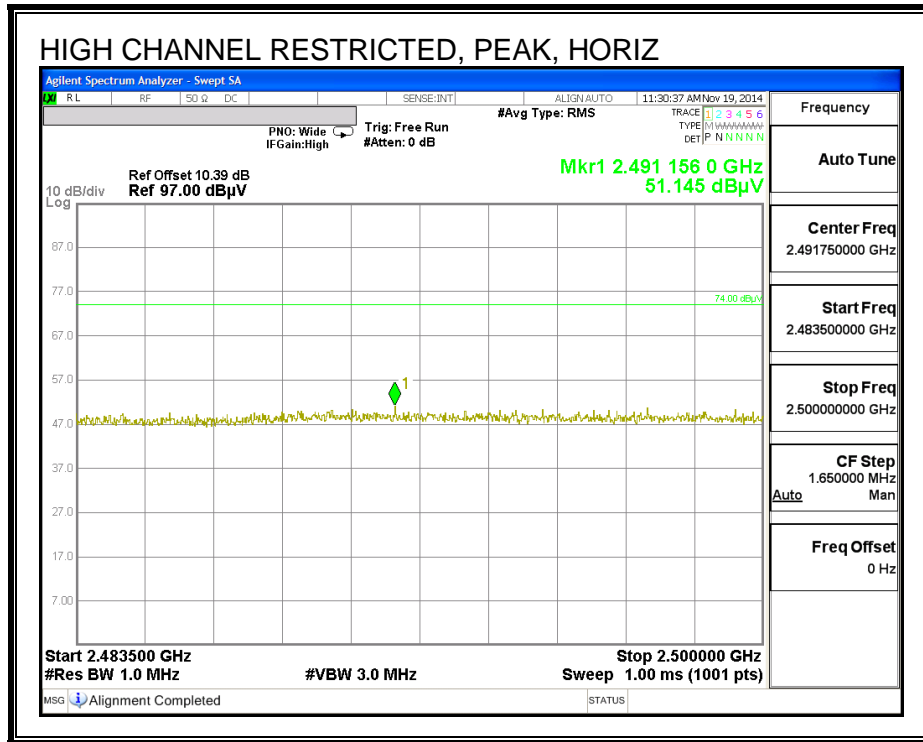


**RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**

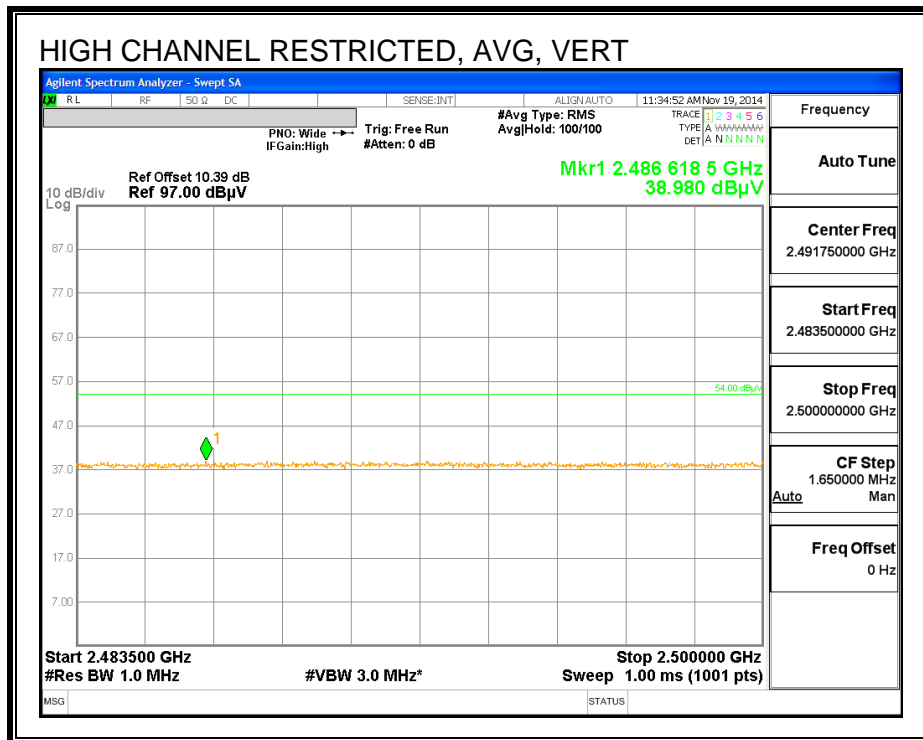
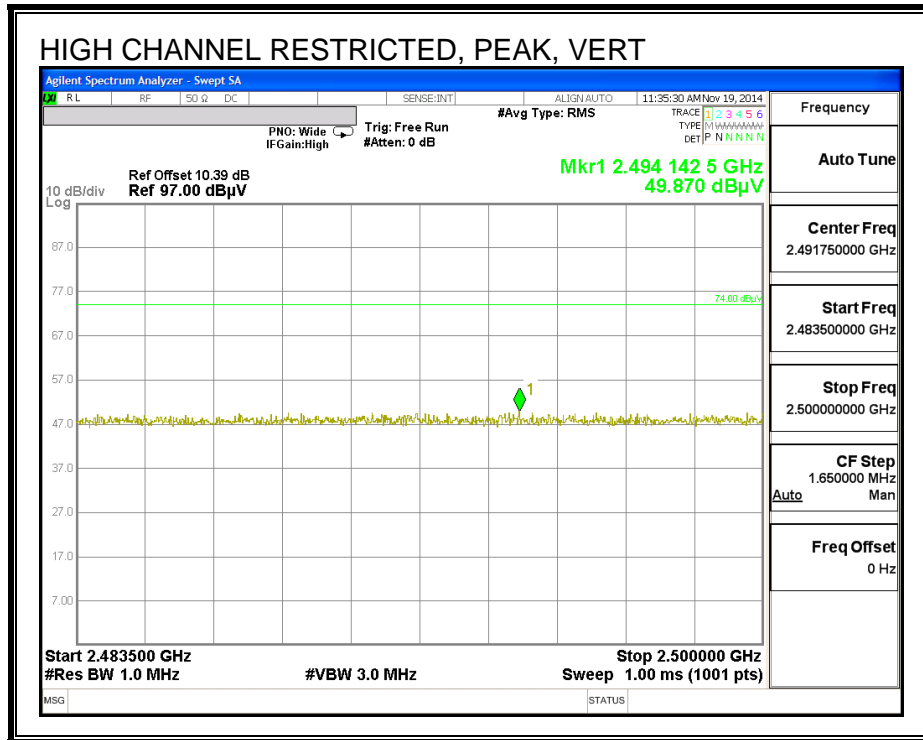


Corrected Value = Marker reading + Duty Cycle Factor  
 Final Corrected Average Value: 39.399dBuV + 3.72 = 43.119dBuV

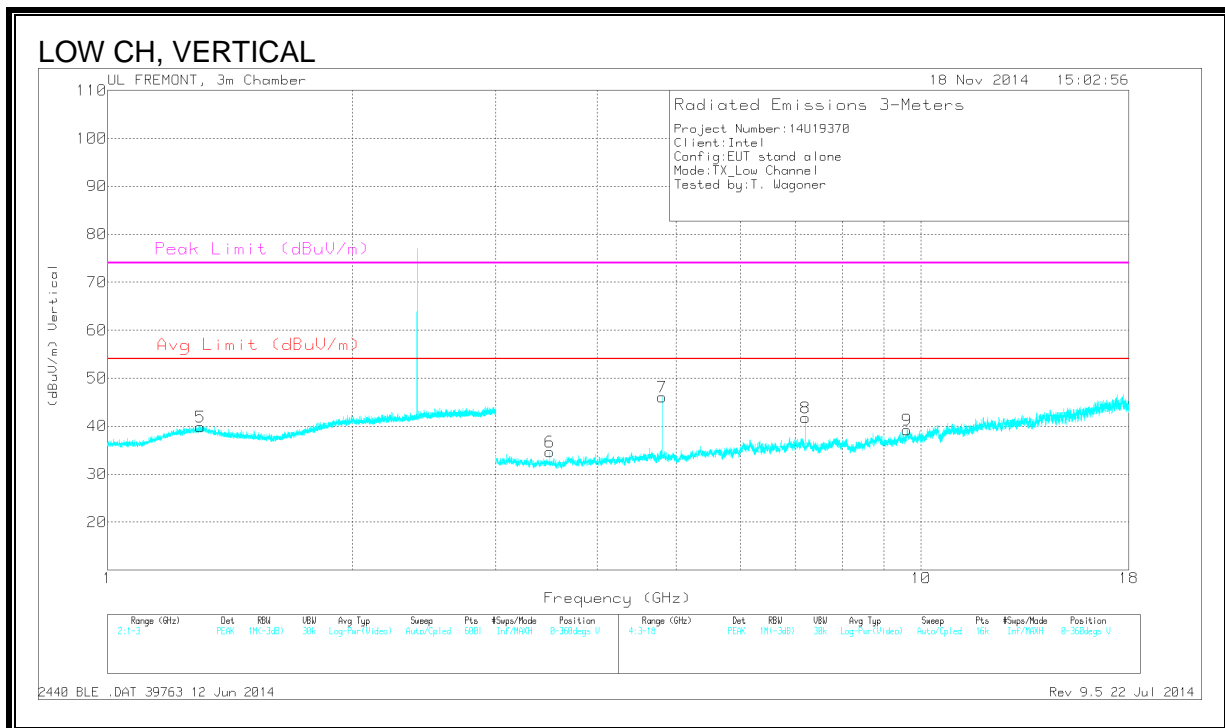
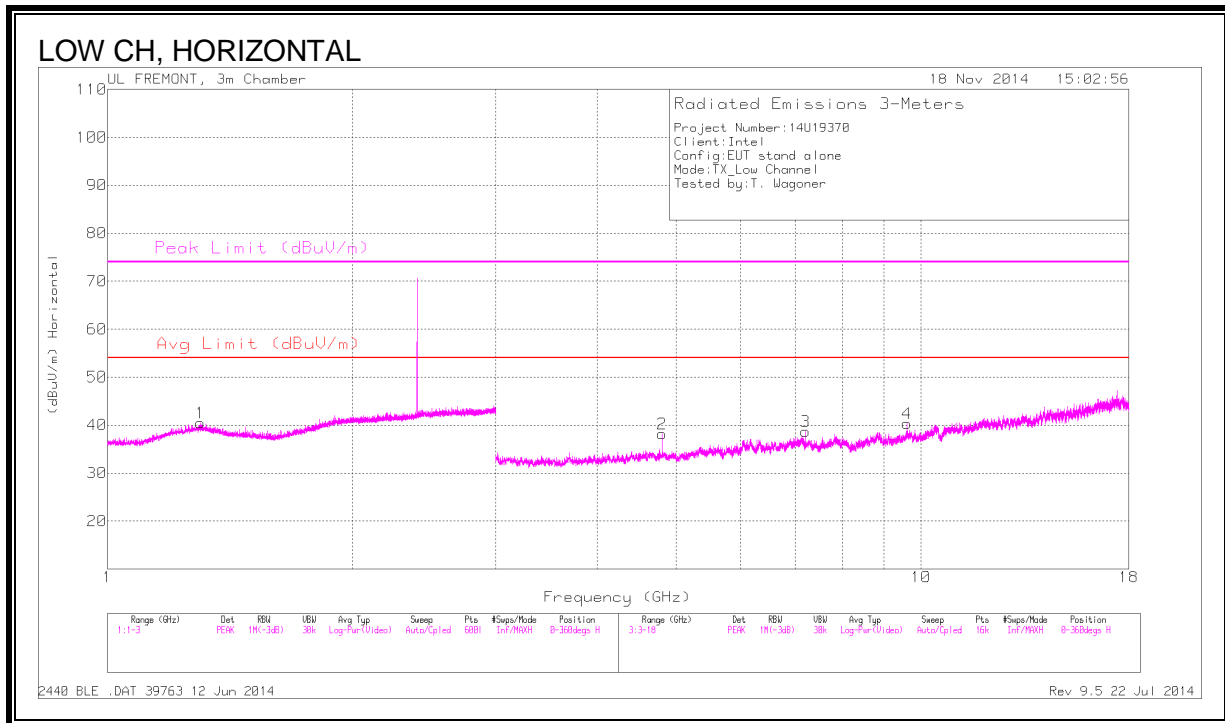
**RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**



**RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)**



**LOW CHANNEL HARMONICS AND SPURIOUS EMISSIONS**





**DATA**

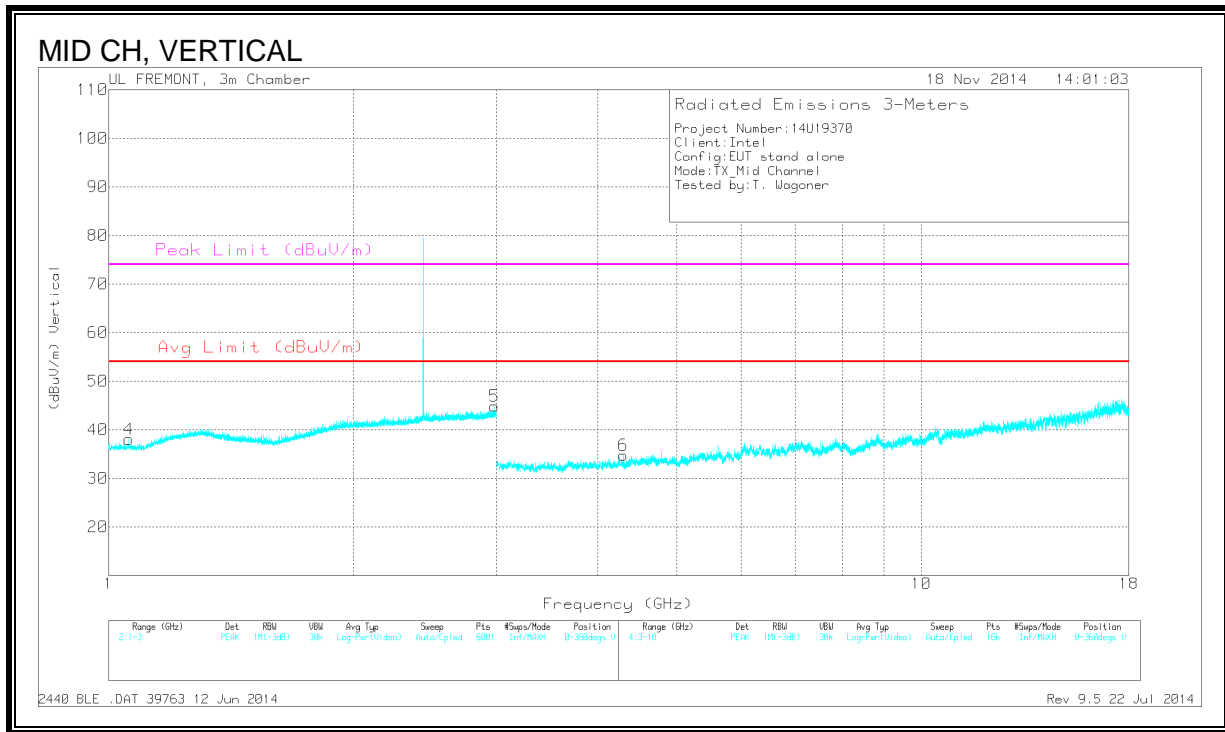
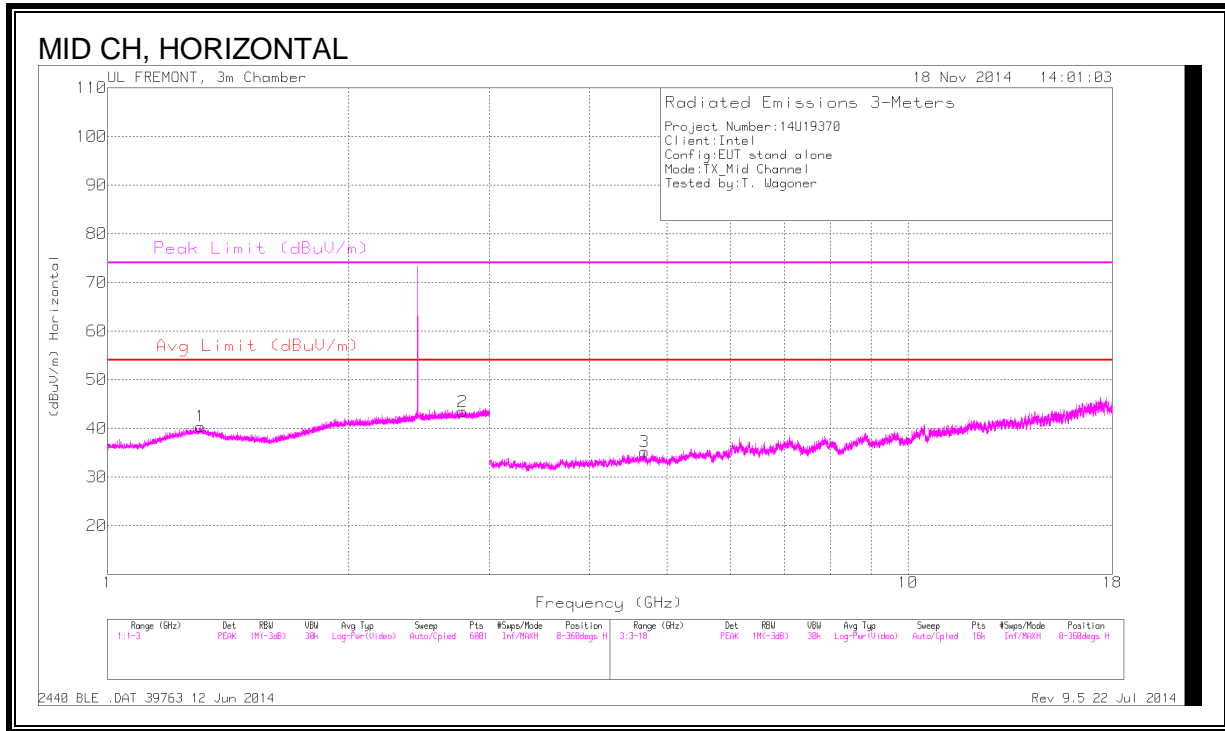
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/ Ftr/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	1.3	33.41	PK	30.2	-23.8	0	39.81	54	-14.19	74	-34.19	0-360	100	V
1	1.301	34.03	PK	30.2	-23.8	0	40.43	54	-13.57	74	-33.57	0-360	200	H
6	3.496	32.5	PK	33	-30.9	0	34.6	-	-	-	-	0-360	200	V
2	4.804	34.36	PK	34.1	-30.3	0	38.16	54	-15.84	74	-35.84	0-360	200	H
7	4.804	42.23	PK	34.1	-30.3	0	46.03	54	-7.97	74	-27.97	0-360	100	V
3	7.205	32.33	PK	35.6	-29.2	0	38.73	-	-	-	-	0-360	100	H
8	7.205	35.38	PK	35.6	-29.2	0	41.78	-	-	-	-	0-360	200	V
4	9.607	28.9	PK	36.7	-25.2	0	40.4	-	-	-	-	0-360	200	H
9	9.607	27.67	PK	36.7	-25.2	0	39.17	-	-	-	-	0-360	200	V

PK - Peak detector

Rev 9.5 22 Jul 2014

**MID CHANNEL HARMONICS AND SPURIOUS EMISSIONS**



**DATA**

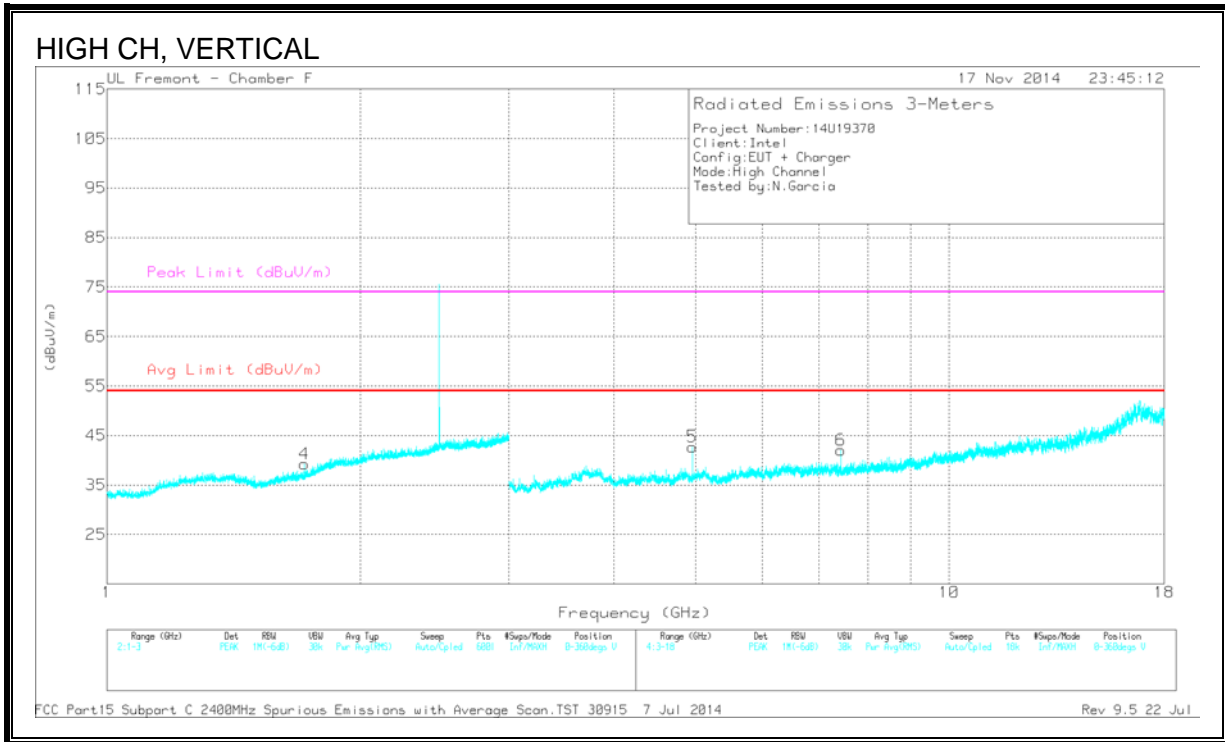
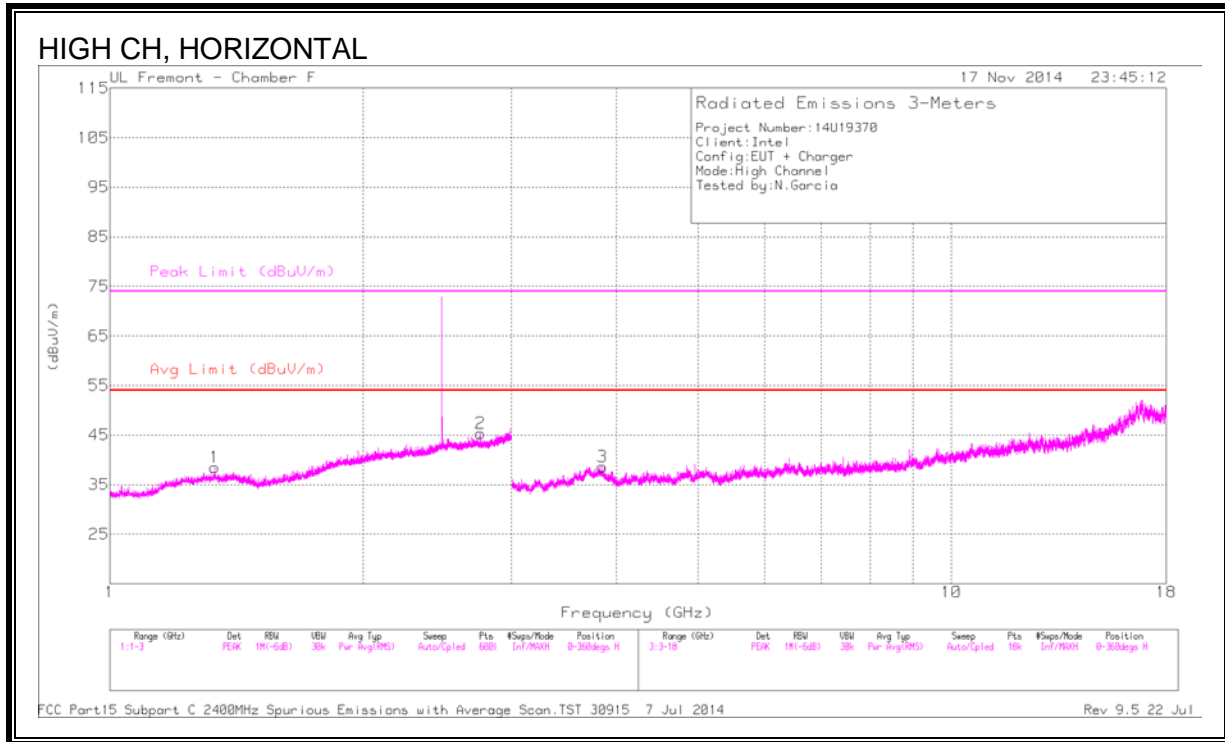
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT119 (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	1.059	34.75	PK	27.2	-23.9	0	38.05	54	-15.95	74	-35.95	0-360	100	V
1	1.305	34.01	PK	30.2	-23.8	0	40.41	54	-13.59	74	-33.59	0-360	100	H
2	2.777	33.57	PK	32.7	-22.8	0	43.47	54	-10.53	74	-30.53	0-360	100	H
5	2.984	34.37	PK	32.9	-22.4	0	44.87	-	-	-	-	0-360	100	V
6	4.299	31.97	PK	33.6	-30.8	0	34.77	54	-19.23	74	-39.23	0-360	200	V
3	4.684	31.77	PK	34.1	-30.7	0	35.17	54	-18.83	74	-38.83	0-360	100	H

PK - Peak detector

Rev 9.5 22 Jul 2014

**HIGH CHANNEL HARMONICS AND SPURIOUS EMISSIONS**



**DATA**

**Radiated Emissions**

Markers	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/ Fitr/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	* 1.331	42.25	PK2	29.8	-26.5	0	45.55	-	-	74	-28.45	126	126	H
	* 1.332	31.13	MAv1	29.8	-26.5	.8	35.23	54	-18.77	-	-	126	126	H
2	* 2.759	41.76	PK2	32.8	-22.8	0	51.76	-	-	74	-22.24	144	238	H
	* 2.759	30.01	MAv1	32.8	-22.8	.8	40.81	54	-13.19	-	-	144	238	H
3	* 3.848	39.14	PK2	34.2	-29.1	0	44.24	-	-	74	-29.76	265	116	H
	* 3.846	27.63	MAv1	34.2	-29	.8	33.63	54	-20.37	-	-	265	116	H
4	1.716	41.28	PK2	29.4	-25.5	0	45.18	-	-	-	-	155	113	V
5	* 4.958	42.95	PK2	34.2	-29.2	0	47.95	-	-	74	-26.05	255	247	V
	* 4.958	36.44	MAv1	34.2	-29.2	.8	42.24	54	-11.76	-	-	255	247	V
6	* 7.437	40.76	PK2	35.6	-26.2	0	50.16	-	-	74	-23.84	242	308	V
	* 7.437	33.25	MAv1	35.6	-26.2	.8	43.45	54	-10.55	-	-	242	308	V

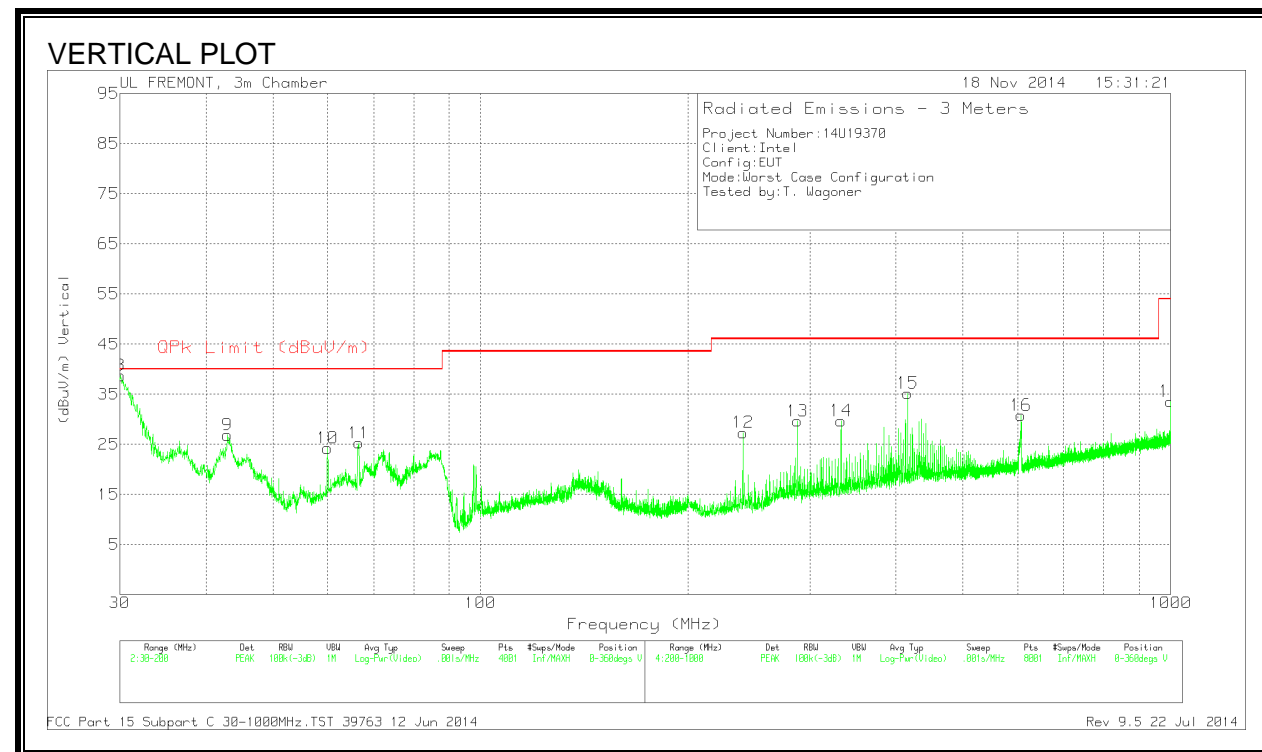
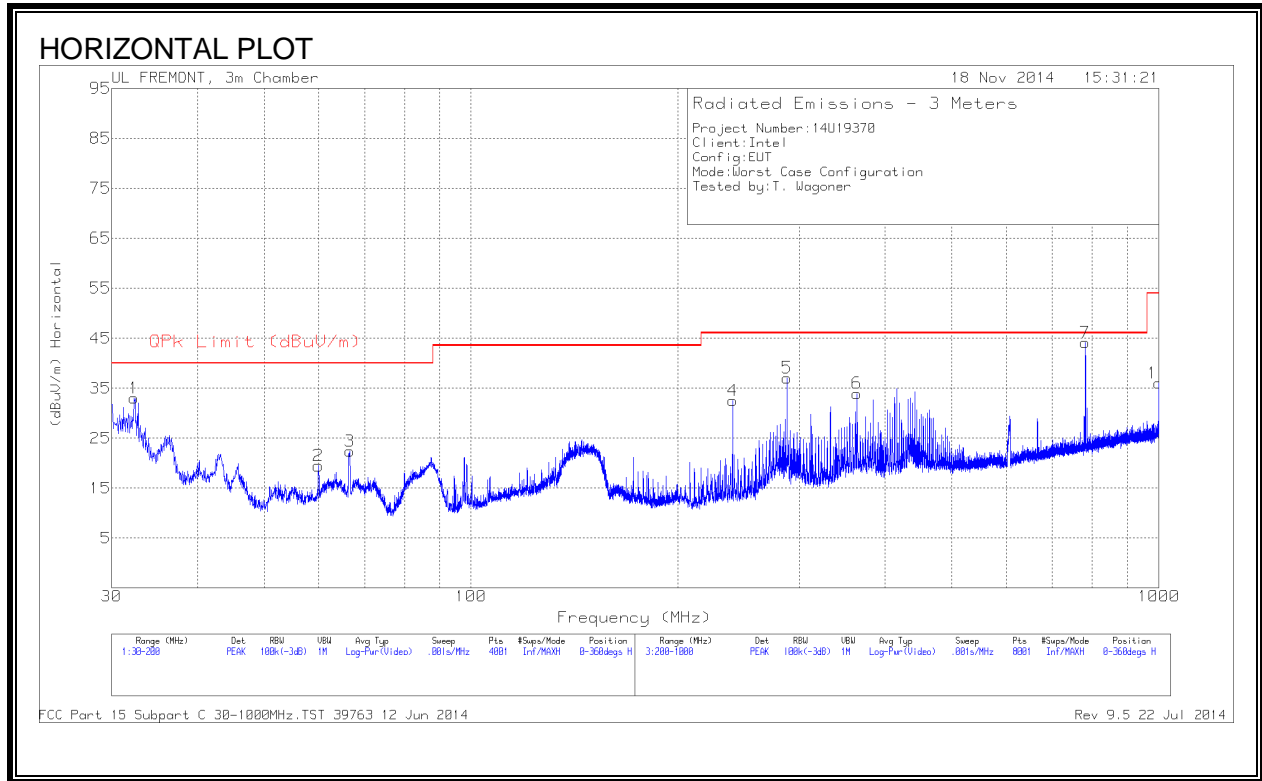
\* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

### 10.3. WORST-CASE BELOW 1 GHz

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



**DATA**

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AFT185 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	30.0425	45.22	PK	21	-27.5	38.72	40	-1.28	0-360	100	V
1	32.3375	41.3	PK	19.2	-27.5	33	40	-7	0-360	200	H
9	43.005	42.85	PK	11.4	-27.4	26.85	40	-13.15	0-360	100	V
2	59.9625	39.59	PK	7.1	-27.2	19.49	40	-20.51	0-360	300	H
10	60.005	44.23	PK	7.1	-27.1	24.23	40	-15.77	0-360	100	V
3	66.5925	41.7	PK	7.8	-27.1	22.4	40	-17.6	0-360	200	H
11	66.5925	44.56	PK	7.8	-27.1	25.26	40	-14.74	0-360	100	V
4	240	46.2	PK	11.7	-25.4	32.5	46.02	-13.52	0-360	100	H
12	240	41.04	PK	11.7	-25.4	27.34	46.02	-18.68	0-360	100	V
5	288	48.86	PK	13.3	-25.1	37.06	46.02	-8.96	0-360	100	H
13	288	41.42	PK	13.3	-25.1	29.62	46.02	-16.4	0-360	100	V
14	333	40.9	PK	14	-25.2	29.7	46.02	-16.32	0-360	100	V
6	364	44.35	PK	15	-25.4	33.95	46.02	-12.07	0-360	100	H
15	416	44.69	PK	16.2	-25.7	35.19	46.02	-10.83	0-360	100	V
16	607.2	37.79	PK	18.6	-25.6	30.79	46.02	-15.23	0-360	100	V
7	781.3	47.73	PK	21.1	-24.7	44.13	46.02	-1.89	0-360	200	H
18	999	36.11	PK	23.3	-23.4	36.01	53.97	-17.96	0-360	200	H
17	999	33.65	PK	23.3	-23.4	33.55	53.97	-20.42	0-360	100	V

PK - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AFT185 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
30.0104	40.62	QP	21	-27.5	34.12	40	-5.88	111	115	V
34.7216	26.9	QP	17.5	-27.5	16.9	40	-23.1	260	227	H
784.8309	22.93	QP	21.2	-24.7	19.43	46.02	-26.59	103	112	H

QP - Quasi-Peak detector

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

Rev 9.5 22 Jul 2014

## 11. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

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

\*Decreases with the logarithm of the frequency.

### TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.2009.

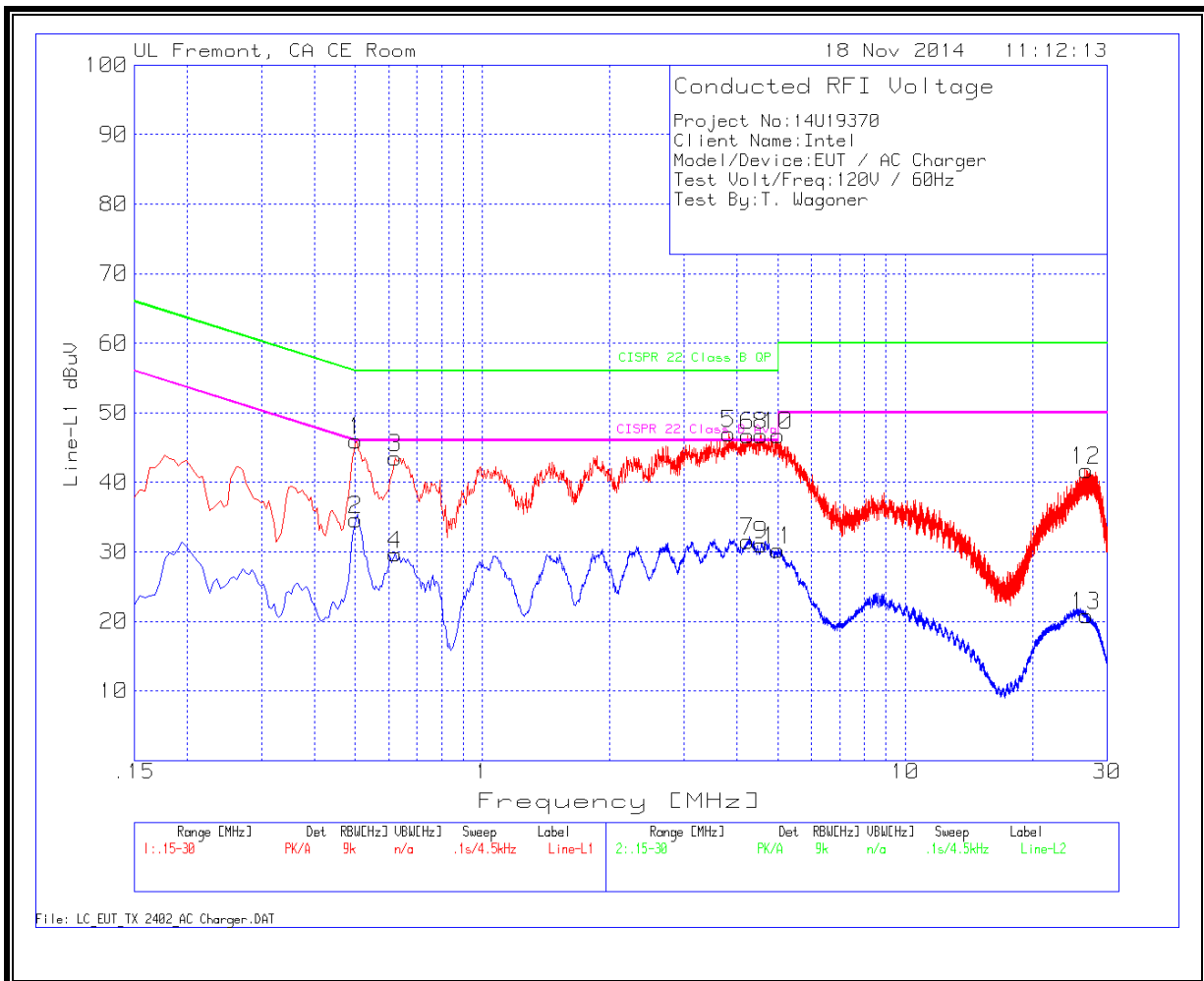
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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



**DATA RESULTS**

**LINE 1 PLOT**



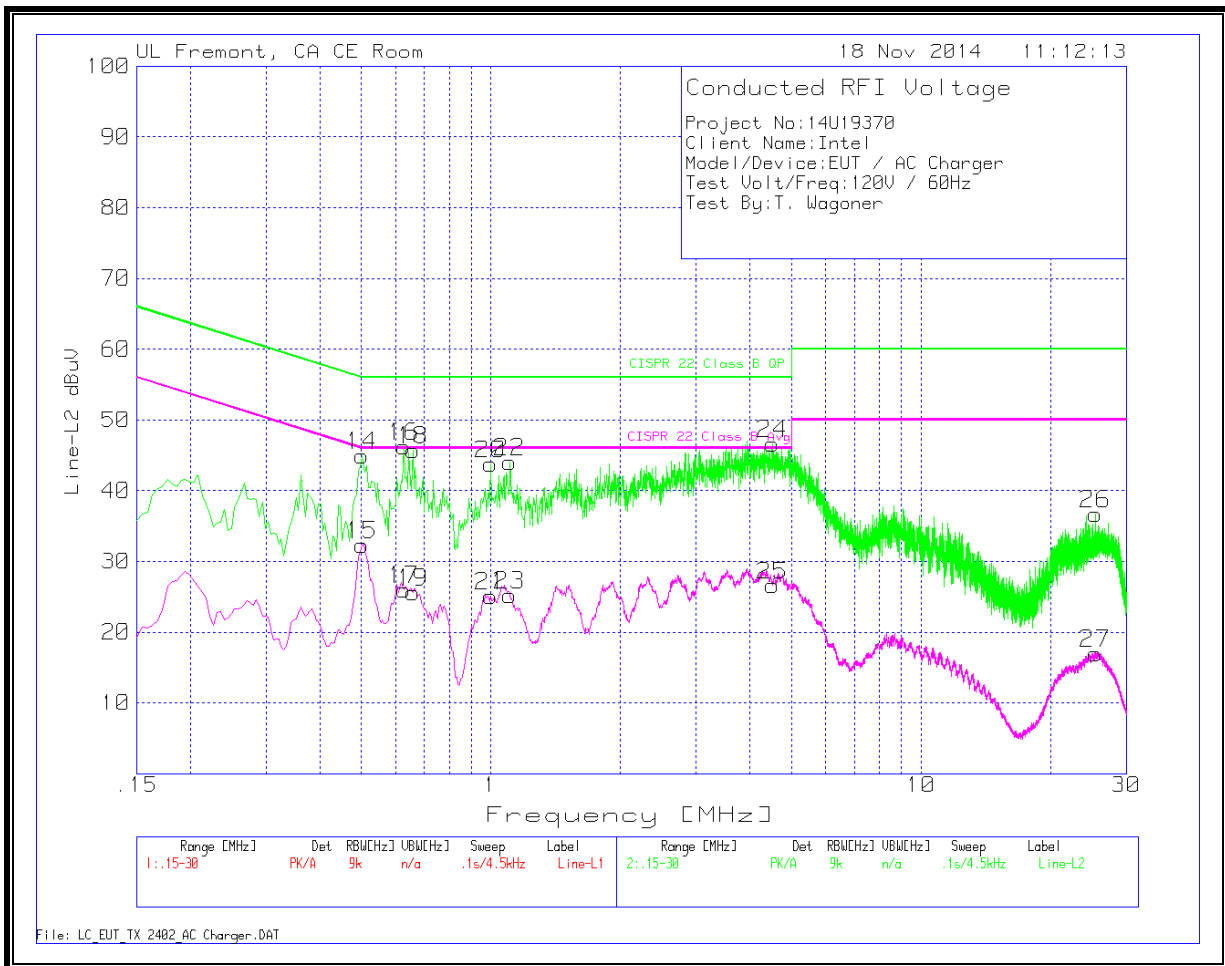
**DATA**

Line-L1 .15 - 30MHz

**Trace Markers**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
1	.501	45.7	PK	.3	0	46	56	-10	-	-
2	.501	34.37	Av	.3	0	34.67	-	-	46	-11.33
3	.6225	43.26	PK	.3	0	43.56	56	-12.44	-	-
4	.6225	29.37	Av	.3	0	29.67	-	-	46	-16.33
5	3.831	46.67	PK	.2	.1	46.97	56	-9.03	-	-
6	4.2405	46.42	PK	.2	.1	46.72	56	-9.28	-	-
7	4.2405	31.24	Av	.2	.1	31.54	-	-	46	-14.46
8	4.5645	46.5	PK	.2	.1	46.8	56	-9.2	-	-
9	4.5645	30.75	Av	.2	.1	31.05	-	-	46	-14.95
10	5.01	46.48	PK	.2	.1	46.78	60	-13.22	-	-
11	5.01	30.01	Av	.2	.1	30.31	-	-	50	-19.69
12	26.7585	41.15	PK	.3	.3	41.75	60	-18.25	-	-
13	26.7585	20.3	Av	.3	.3	20.9	-	-	50	-29.1

**LINE 2 PLOT**



**DATA**

Line-L2 .15 - 30MHz

**Trace Markers**

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
14	.501	44.5	PK	.4	0	44.9	56	-11.1	-	-
15	.501	31.89	Av	.4	0	32.29	-	-	46	-13.71
16	.627	45.99	PK	.3	0	46.29	56	-9.71	-	-
17	.627	25.74	Av	.3	0	26.04	-	-	46	-19.96
18	.6585	45.37	PK	.3	0	45.67	56	-10.33	-	-
19	.6585	25.34	Av	.3	0	25.64	-	-	46	-20.36
20	1.0005	43.43	PK	.3	0	43.73	56	-12.27	-	-
21	1.0005	24.81	Av	.3	0	25.11	-	-	46	-20.89
22	1.1085	43.71	PK	.3	0	44.01	56	-11.99	-	-
23	1.1085	24.93	Av	.3	0	25.23	-	-	46	-20.77
28	1.1085	24.93	Av	.3	0	25.23	-	-	46	-20.77
29	3.8445	46.01	PK	.2	.1	46.31	56	-9.69	-	-
30	3.8445	28.09	Av	.2	.1	28.39	-	-	46	-17.61
31	3.9435	46.68	PK	.2	.1	46.98	56	-9.02	-	-
32	3.9435	28.3	Av	.2	.1	28.6	-	-	46	-17.4
24	4.524	46.33	PK	.2	.1	46.63	56	-9.37	-	-
25	4.524	26.28	Av	.2	.1	26.58	-	-	46	-19.42
26	25.4625	36.07	PK	.3	.3	36.67	60	-23.33	-	-
27	25.4625	16.33	Av	.3	.3	16.93	-	-	50	-33.07
33	25.4625	36.07	PK	.3	.3	36.67	60	-23.33	-	-
34	25.4625	16.33	Av	.3	.3	16.93	-	-	50	-33.07

PK - Peak detector

QP - Quasi-Peak detector