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

CERTIFICATION TEST REPORT

FOR

SMART WATCH WITH 802.11B/G/N, BLUETOOTH AND BLE

MODEL NUMBER: DW1

FCC ID: 2AB8ZND10
IC: 1000X-ND10

REPORT NUMBER: 15U21900-E1V1

ISSUE DATE: OCTOBER 19, 2015

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	10/19/2015	Initial Issue	C. Pang
V2	10/22/2015	Updated antenna gains in section 5.3, 7.2.2, 7.7.2 and fixed section 7.2.6 plots to match titles	C. Susa

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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 WATCH with 802.11b/g/n, Bluetooth and BLE

MODEL: DW1

SERIAL NUMBER: TIDPC3FZ52800CH (Radiated); TIDPC1FZ536009X (Conducted)

DATE TESTED: OCTOBER 15 – 20, 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

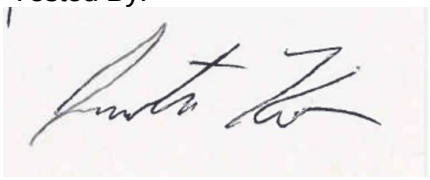
UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement 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:

CHIN PANG
SENIOR ENGINEER
UL VERIFICATION SERVICES INC.

Tested By:



JUSTIN KO
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 and RSS-247 Issue 1.

3. FACILITIES AND ACCREDITATION

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

47173 Benicia Street	47266 Benicia Street
☐ Chamber A(IC: 2324B-1)	☒ Chamber D(IC: 2324B-4)
☐ Chamber B(IC: 2324B-2)	☐ Chamber E(IC: 2324B-5)
☒ Chamber C(IC: 2324B-3)	☐ Chamber F(IC: 2324B-6)
	☐ Chamber G(IC: 2324B-7)
	☐ Chamber H(IC: 2324B-8)

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

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

4.3. MEASUREMENT UNCERTAINTY

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

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

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a smart watch with SMART WATCH with 802.11b/g/n, Bluetooth and BLE

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	Basic GFSK	11.09	12.85
2402 - 2480	Enhanced 8PSK	9.02	7.98

Note: GFSK, Pi/4-DQPSK, 8PSK average Power are all investigated, The GFSK & 8PSK Power are the worst case. Testing is based on this mode to showing compliance. For average power data please refer to section 8.6.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes a trace antenna, with a maximum gain of -0.84 dBi.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was DVT Eng. Build.

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

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
Laptop	Lenovo	Yoga 2 11	YB04282152	N/A
AC adapter	Lenovo	ADLX45NCC3A	11S45N0297Z1ZSH443G0XE	N/A

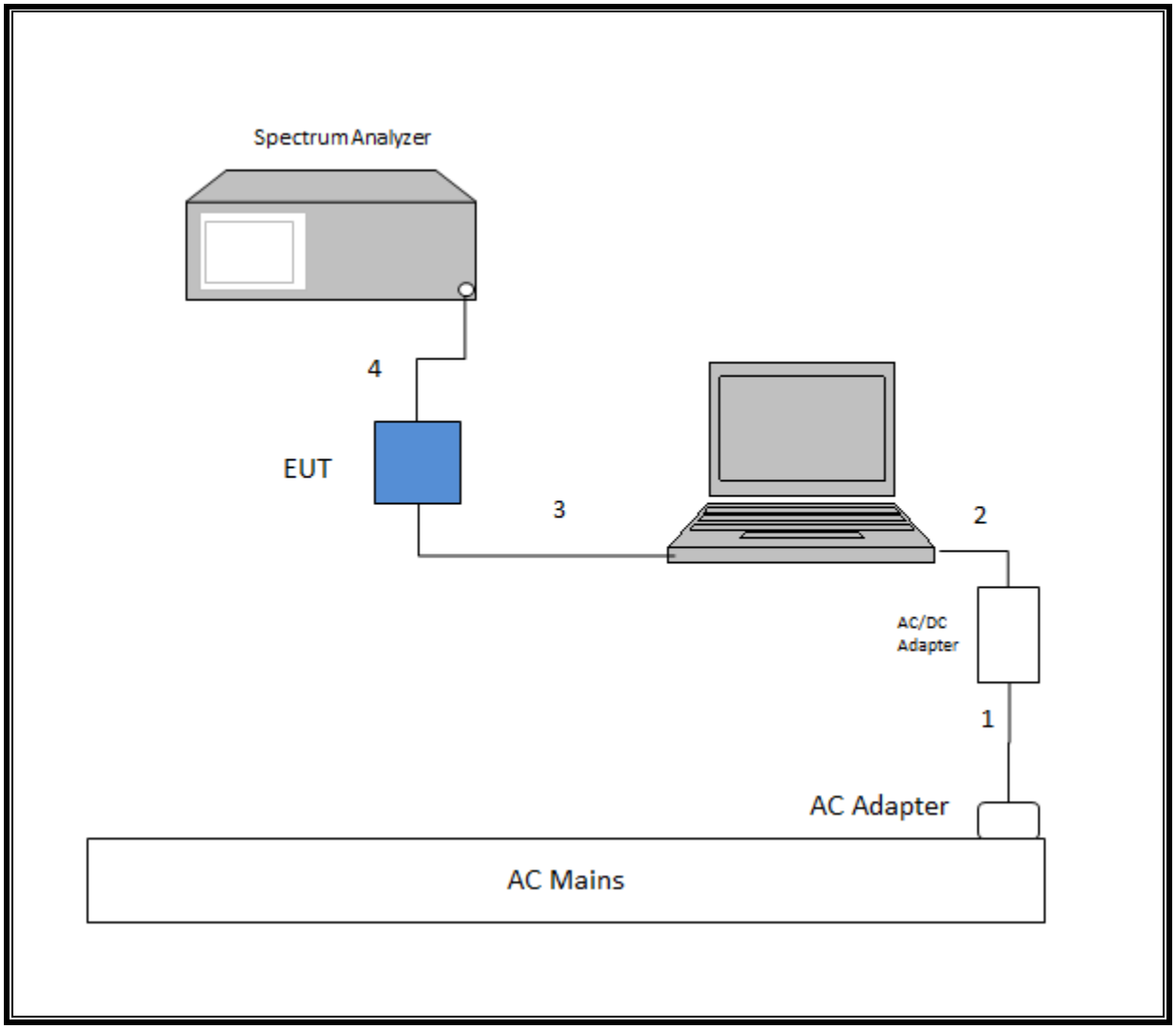
I/O CABLES

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	3-Prong	Un-Shielded	1.8	N/A
2	DC	1	DC	Un-Shielded	1	N/A
3	USB	1	USB	Un-Shielded	0.9	Laptop to EUT
4	Antenna	1	SMA	Shielded	0.3	EUT to spectrum Analyzer
5	AC/DC	1	USB Micro	Un-Shielded	0.9	

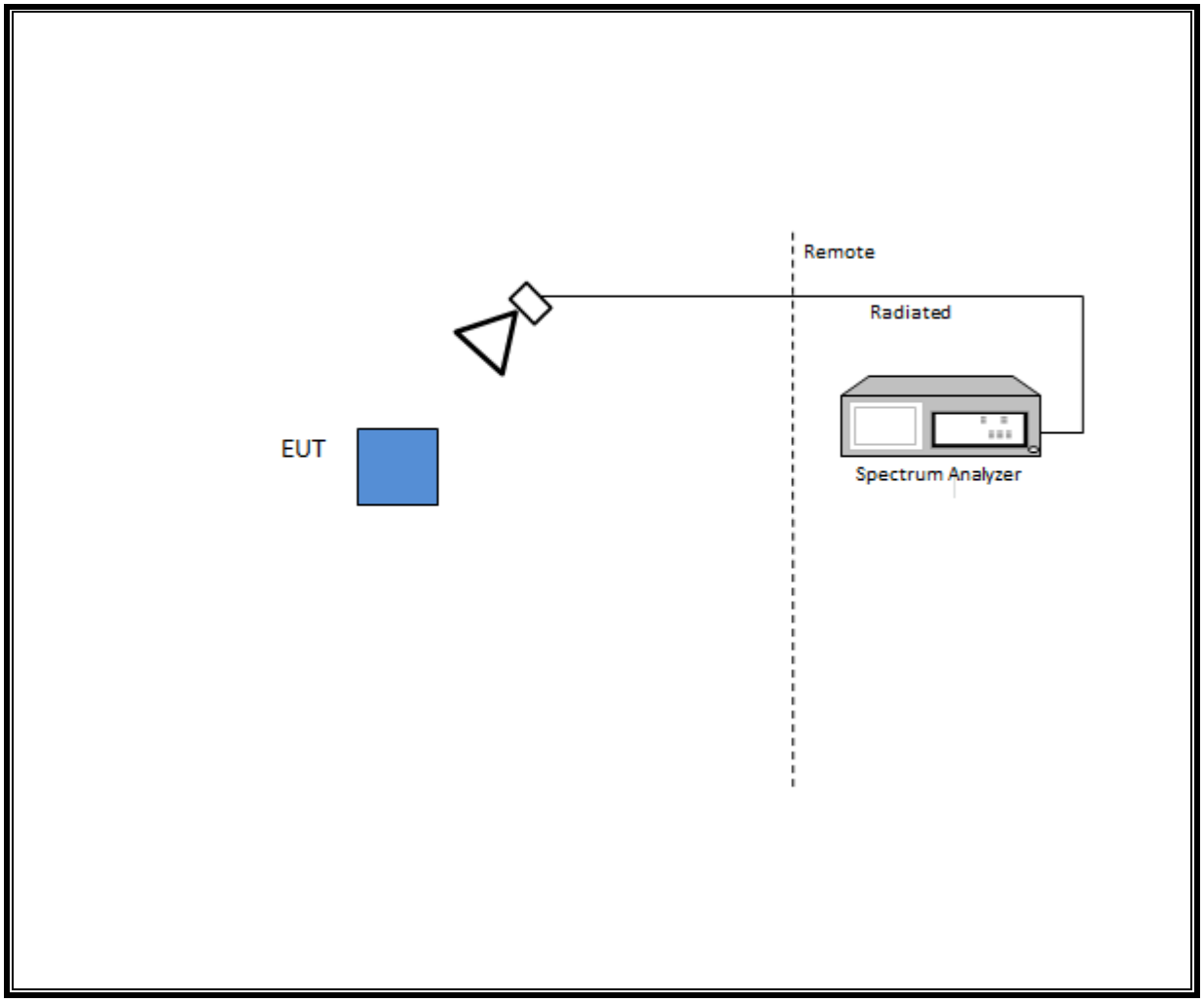
TEST SETUP

Test software exercised the radio card.

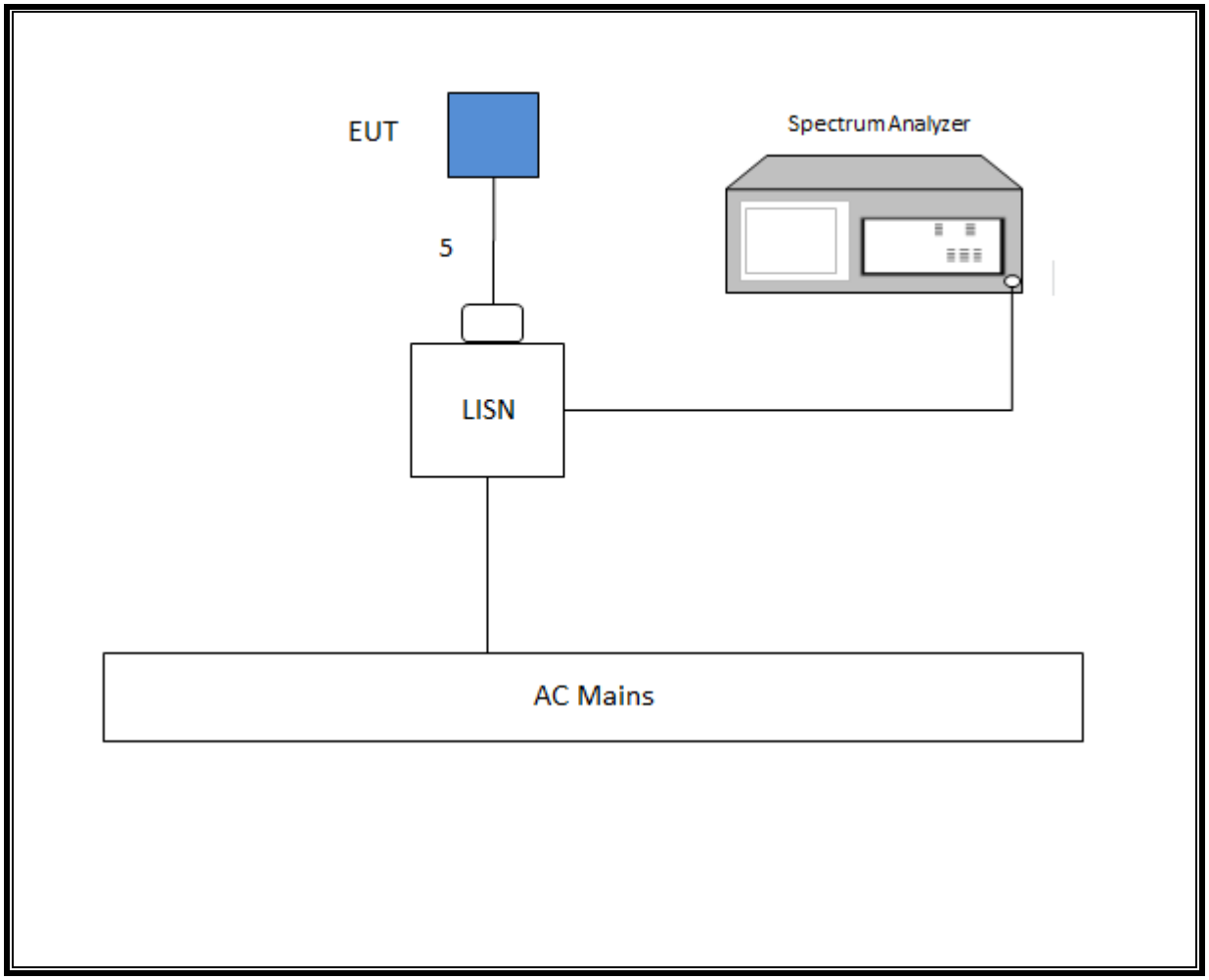
SETUP DIAGRAM FOR CONDUCTED TESTS



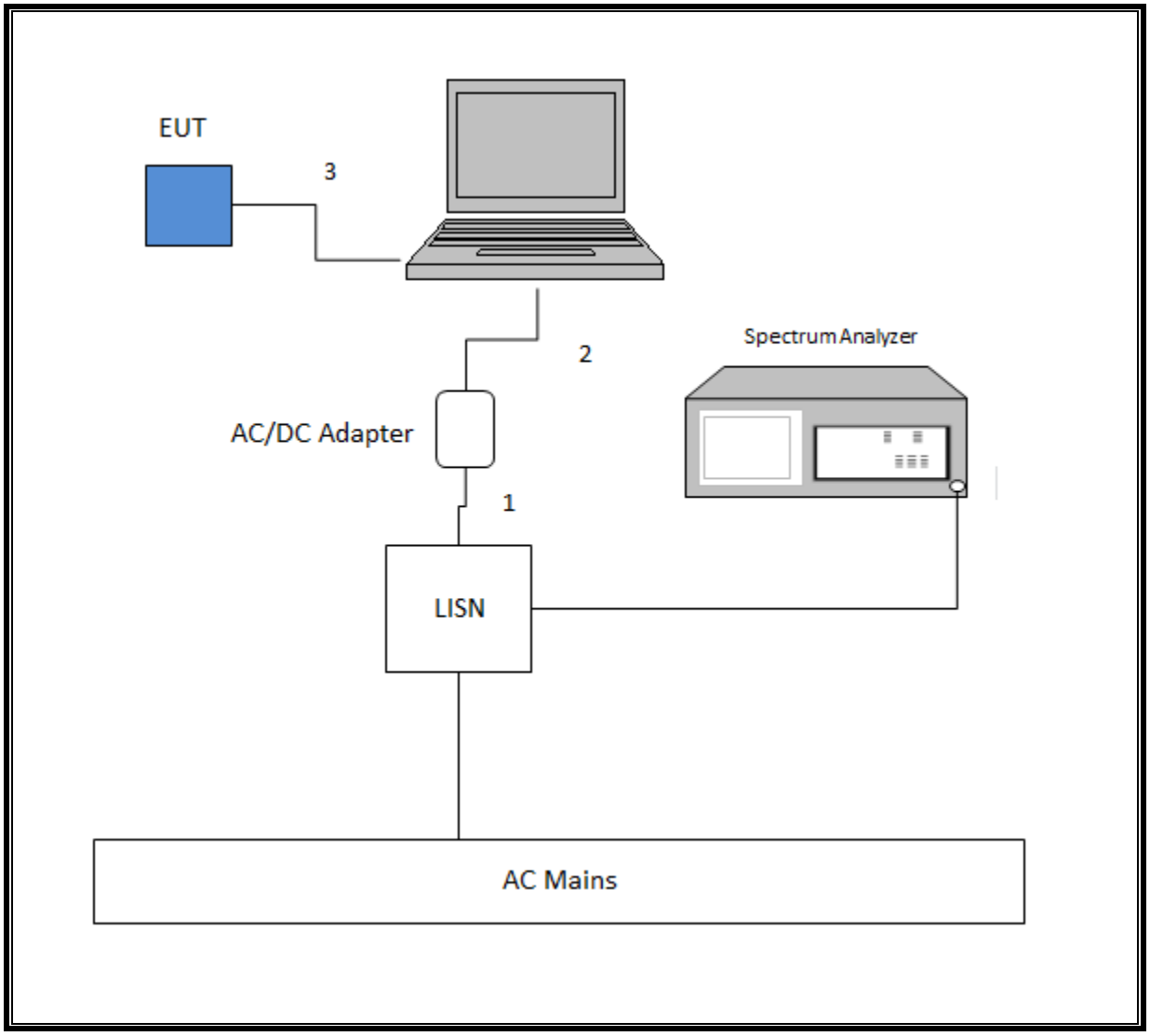
SETUP DIAGRAM FOR RADIATED TESTS



SETUP DIAGRAM 1 FOR LINE CONDUCTED TEST



SETUP DIAGRAM 2 FOR LINE CONDUCTED TEST



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 No.**	**Cal Date**	**Cal Due**
Radiated Software	UL	UL EMC	Ver 9.5, June 24, 2015		
Conducted Software	UL	UL EMC	Ver 3.5		
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	342	06/29/15	06/29/16
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	905	06/16/15	05/26/16
Antenna, Horn 1-18GHz	ETS Lindgren	3117	862	04/10/15	04/10/16
Antenna, Broadband Hybrid, 30 to 2000MHz	Sunol Sciences	JB3	899	04/30/15	04/30/16
Filter, HPF, 3.0GHz	Micro-Tronics	HPM17543	898	04/25/15	04/25/16
Amplifier, 1-18GHz	Miteq	AFS42-00101800-25-S-42	491	04/25/15	04/25/16
Amplifier, 10kHz to 1GHz, 32dB	Sonoma	310N	834	06/08/15	06/08/16
Power Meter	Keysight	N1911A	1244	07/02/15	07/02/16
Power Sensor	Keysight	N1921A	1228	07/06/15	07/06/16
LISN, 30MHz	FCC	50/250-25-2	24	01/16/15	01/16/16
EMI Test Receiver, 9kHz to 7GHz	Rhode & Schwarz	ESCI 7	212	08/07/15	08/07/16

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

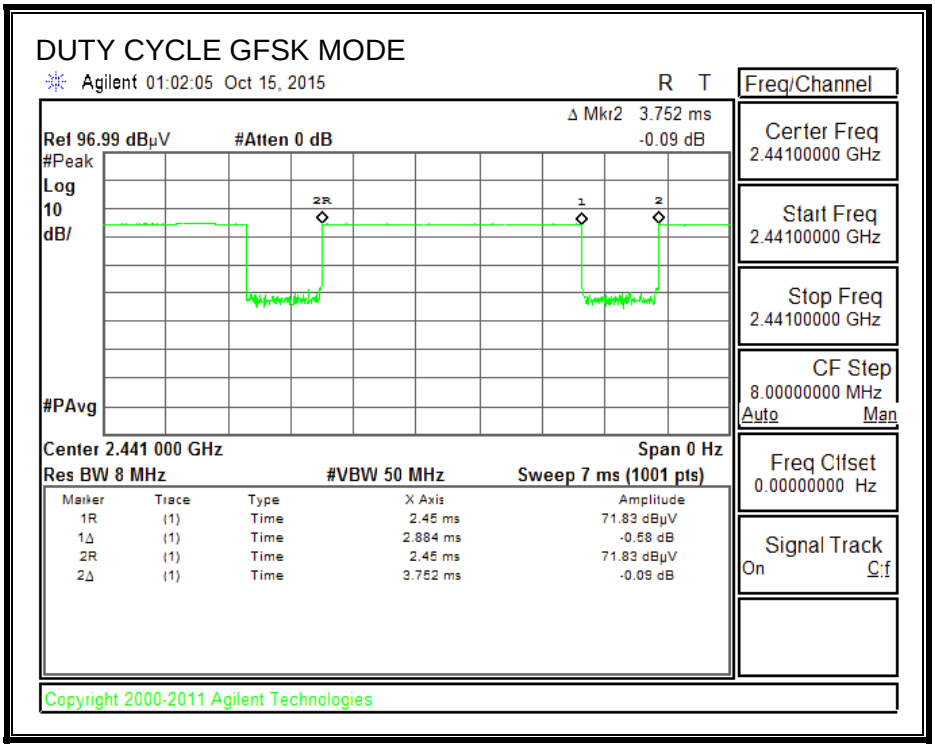
PROCEDURE

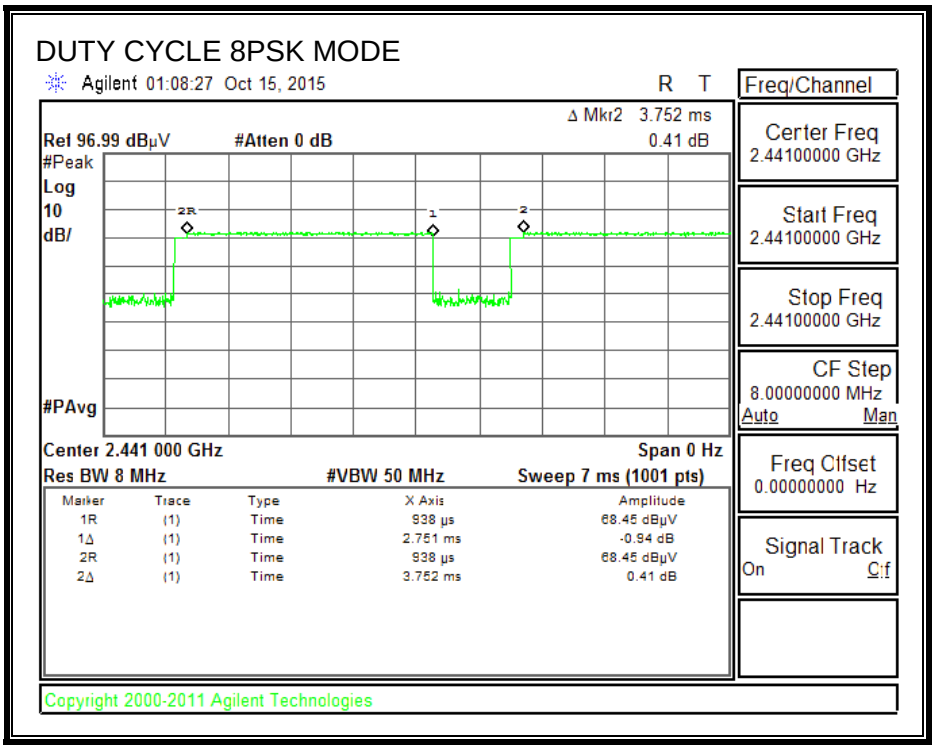
KDB 558074 Zero-Span Spectrum Analyzer Method.

7.1.1. 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)
2.4 GHz band						
Bluetooth GFSK	2.884	3.752	0.769	76.87%	1.14	0.347
Bluetooth 8PSK	2.751	3.752	0.733	73.32%	1.35	0.364

DUTY CYCLE PLOTS





7.2. BASIC DATA RATE GFSK MODULATION

7.2.1. 20 dB AND 99% BANDWIDTH

GFSK MODULATION

LIMIT

None; for reporting purposes only.

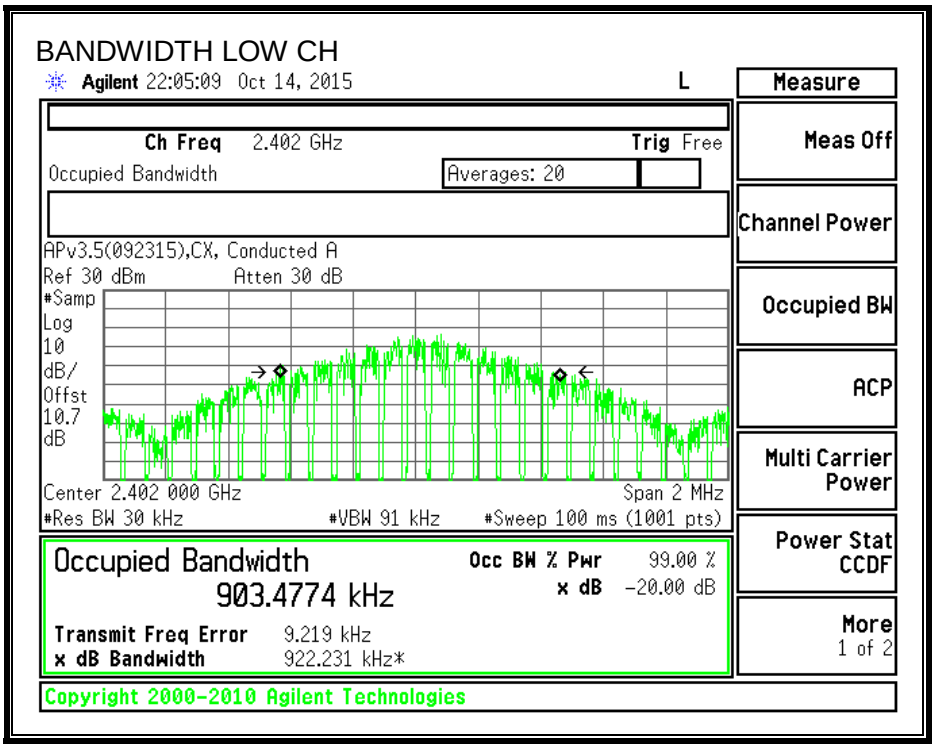
TEST PROCEDURE

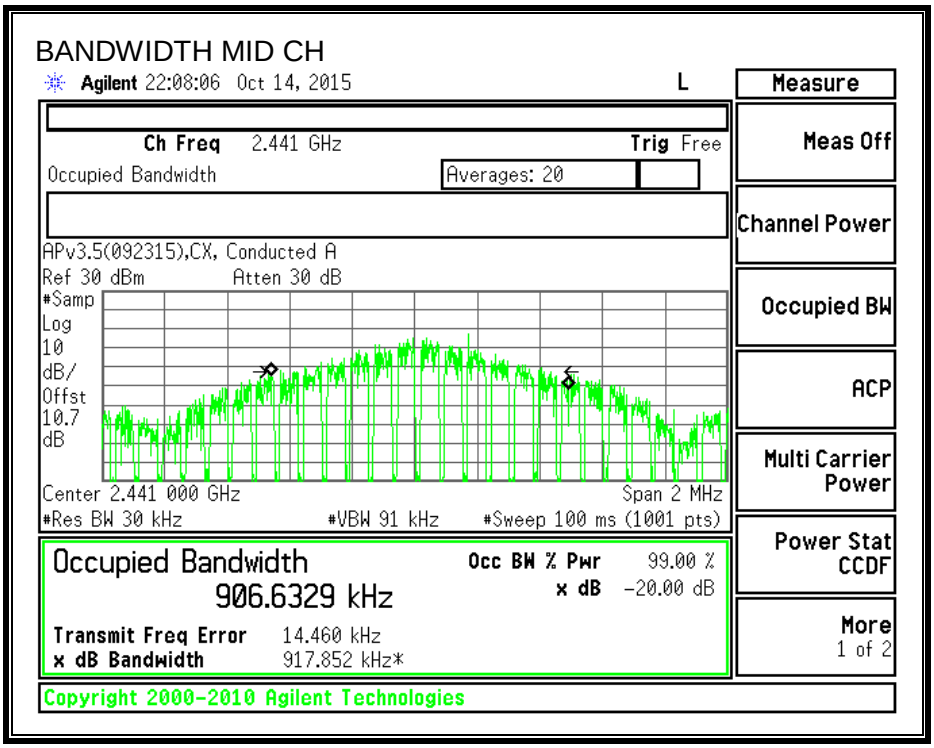
The transmitter output is connected to a spectrum analyzer. The RBW is set to ≥ 1% of the 20 dB bandwidth. The VBW is set to ≥ RBW. The sweep time is coupled.

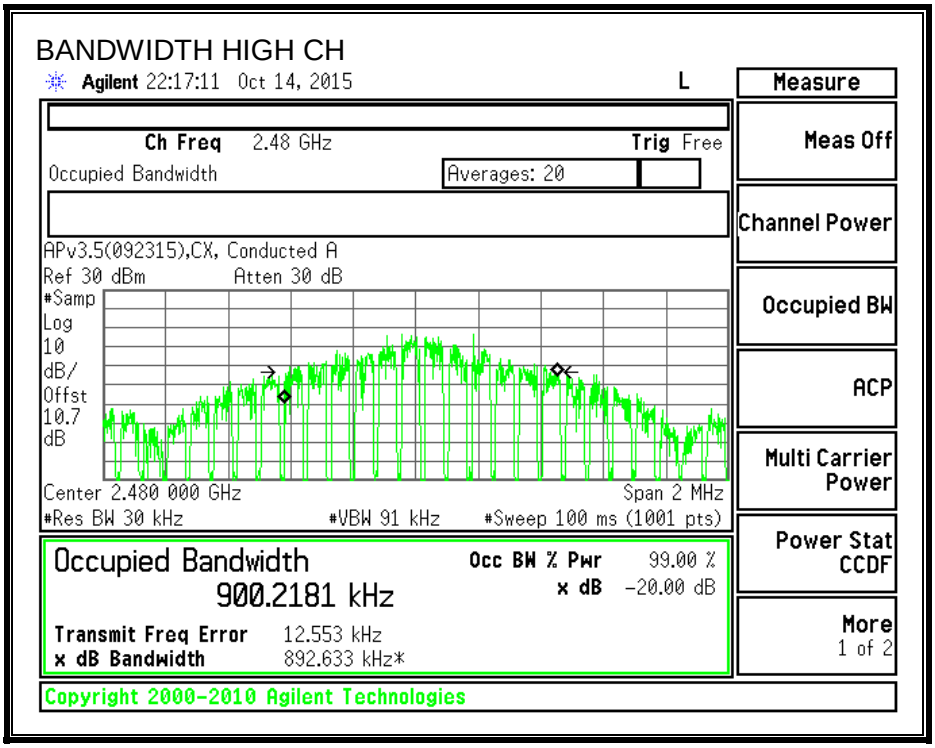
RESULTS

Channel	Frequency (MHz)	20 dB Bandwidth (kHz)	99% Bandwidth (kHz)
Low	2402	922.231	903.4774
Middle	2441	917.852	906.6329
High	2480	892.633	900.2181

20 dB AND 99% BANDWIDTH







7.2.2. OUTPUT POWER

LIMIT

§15.247 (b) (1)

IC RSS-247 (5.1) (2)

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

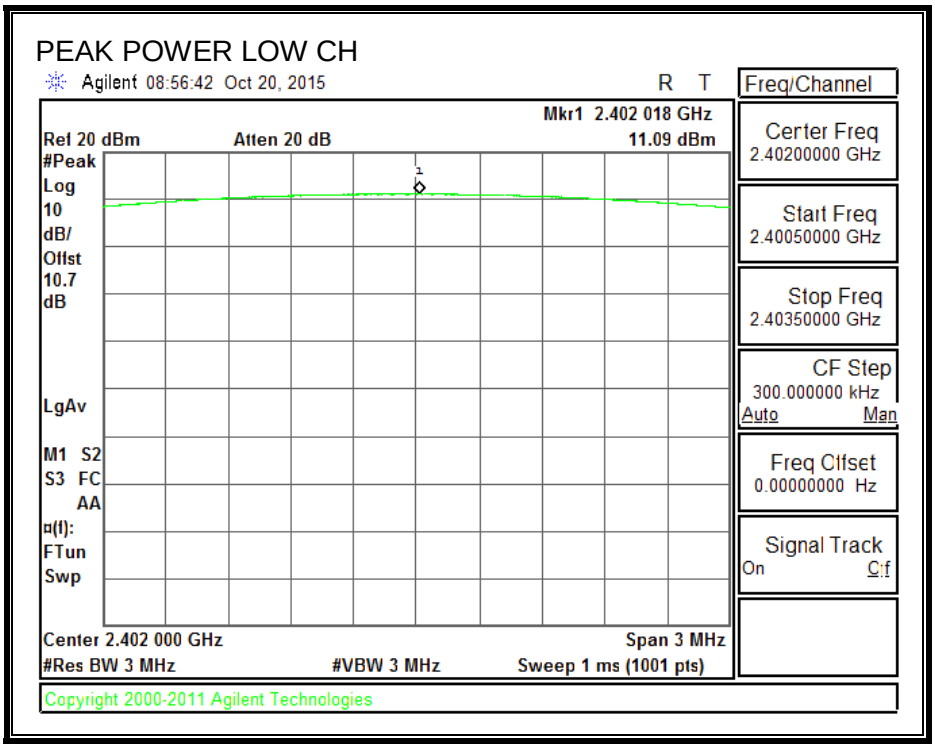
TEST PROCEDURE

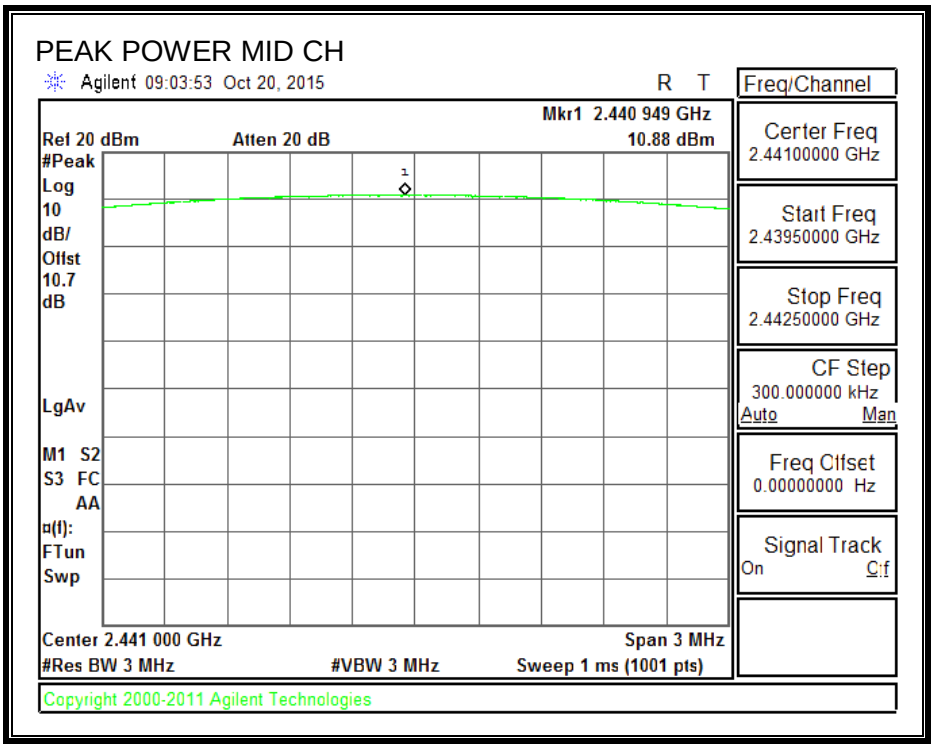
The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

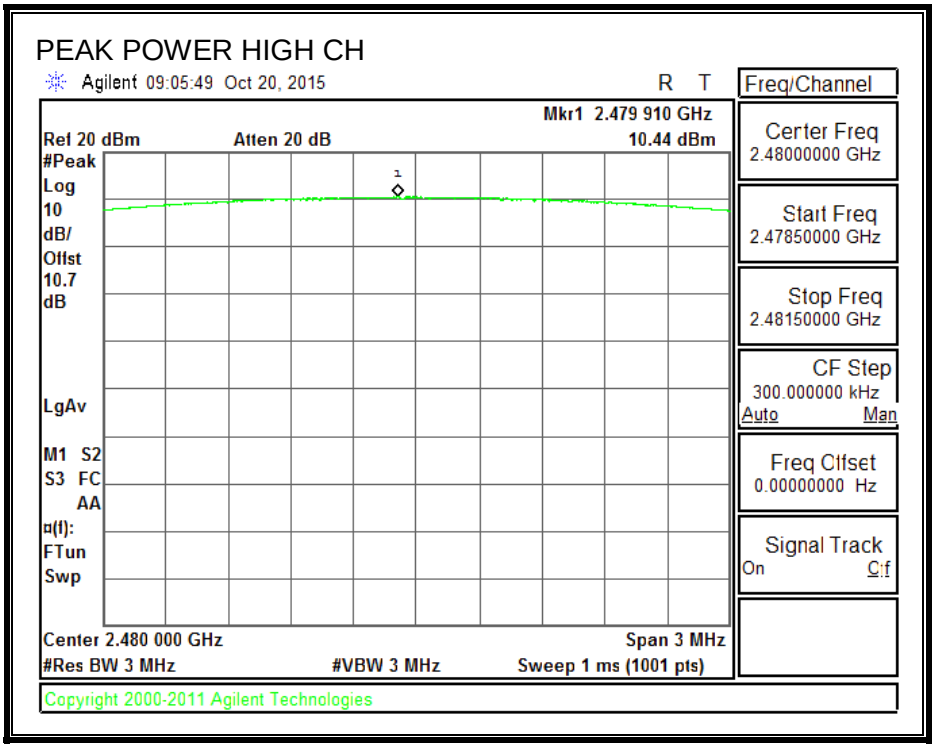
RESULTS

Channel	Frequency (MHz)	Output Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Margin (dB)
Low	2402	11.09	-0.84	30	-18.91
Middle	2441	10.88	-0.84	30	-19.12
High	2480	10.44	-0.84	30	-19.56

OUTPUT POWER







7.2.3. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-247 (5.5)

Limit = -20 dBc

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

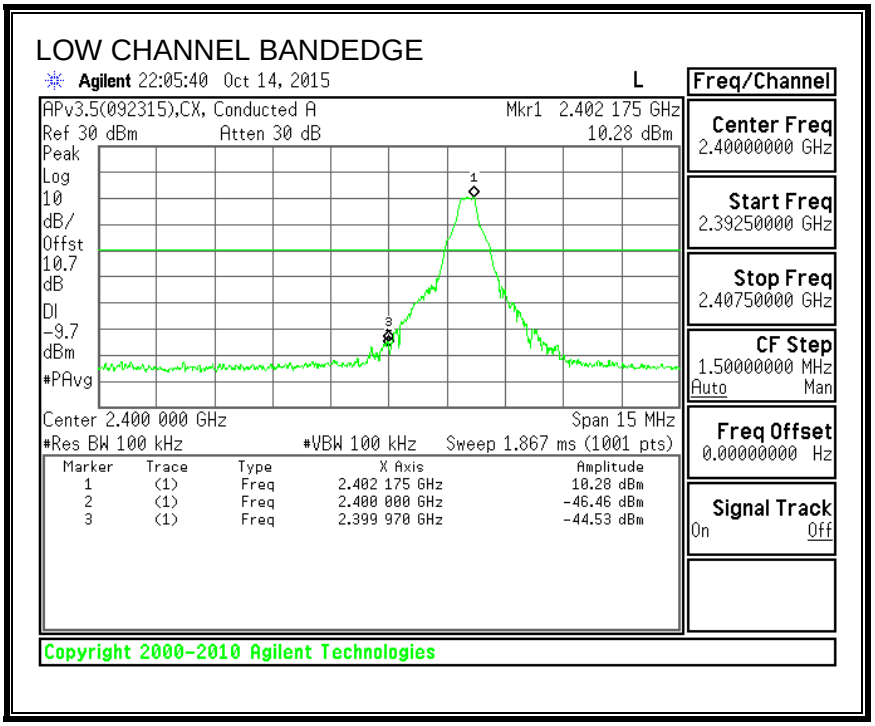
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

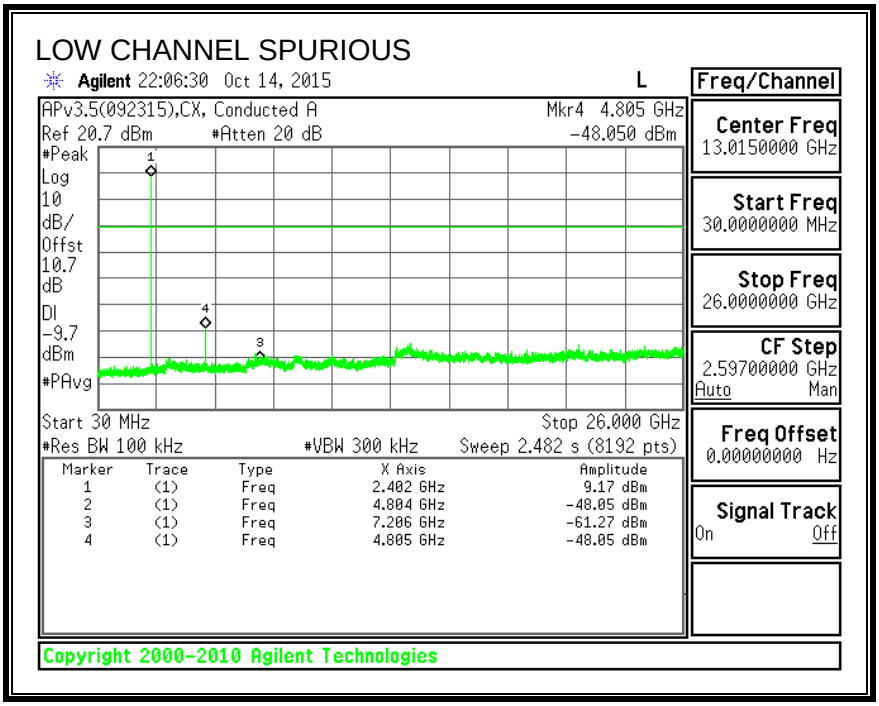
The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

.

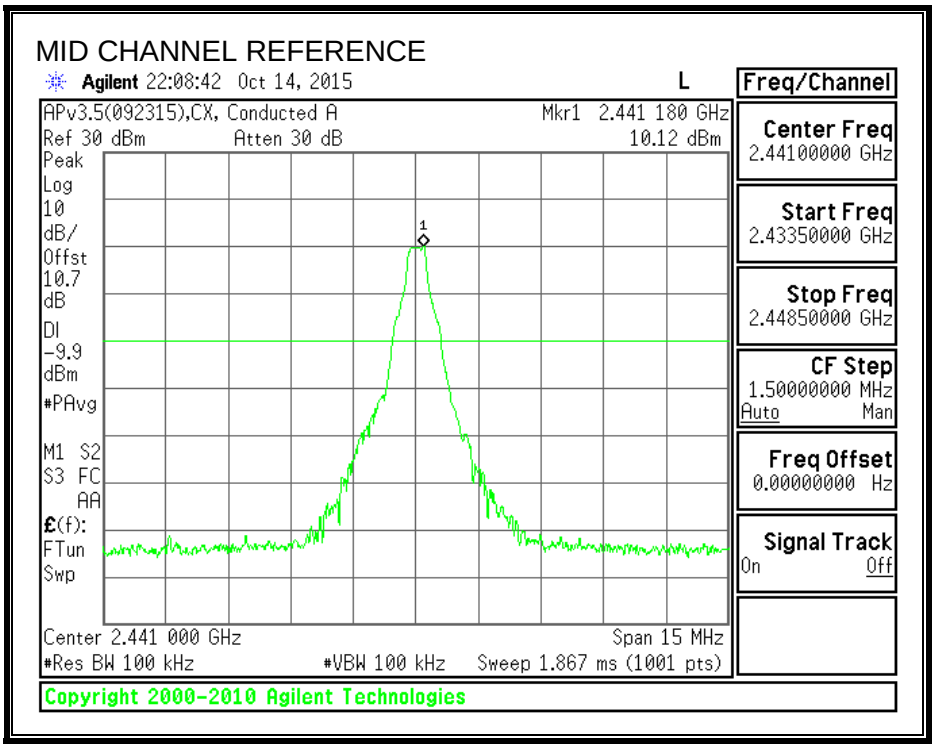
RESULTS

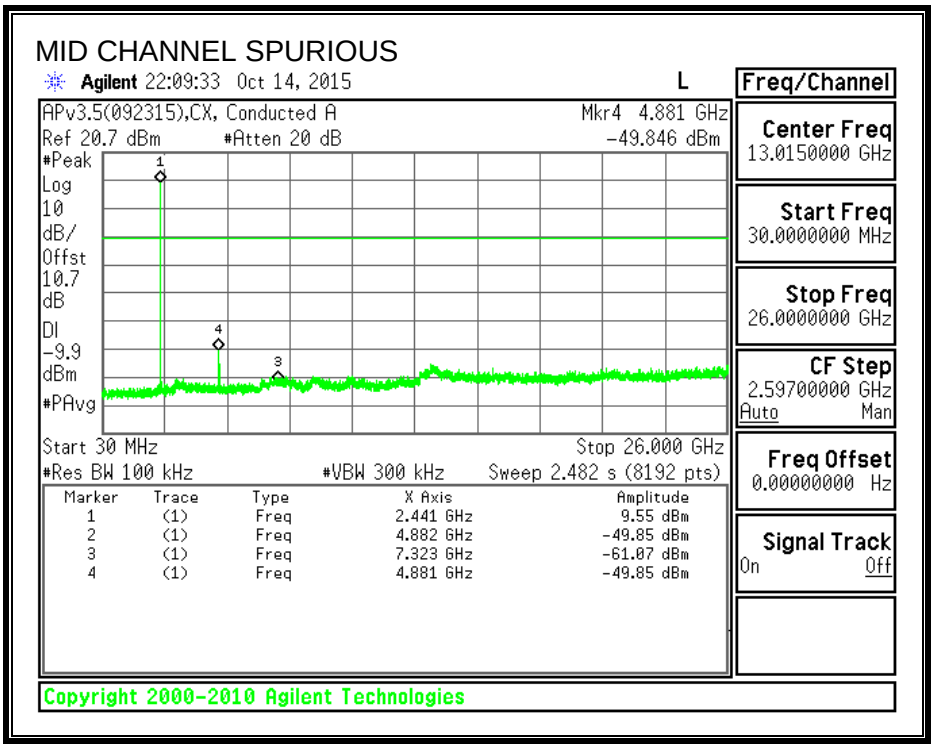
SPURIOUS EMISSIONS, LOW CHANNEL



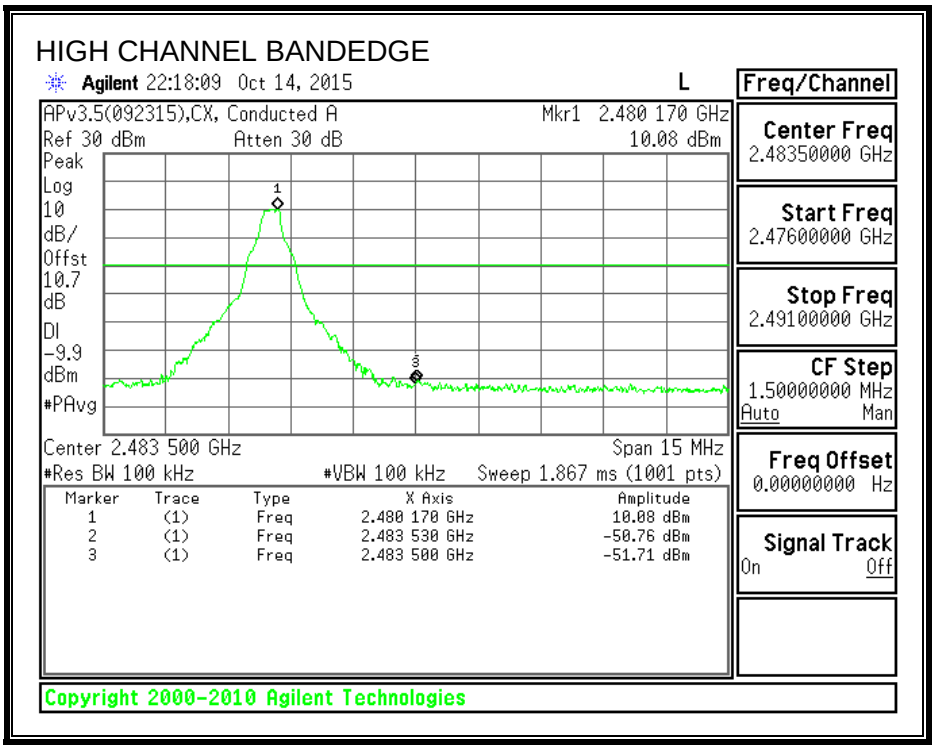


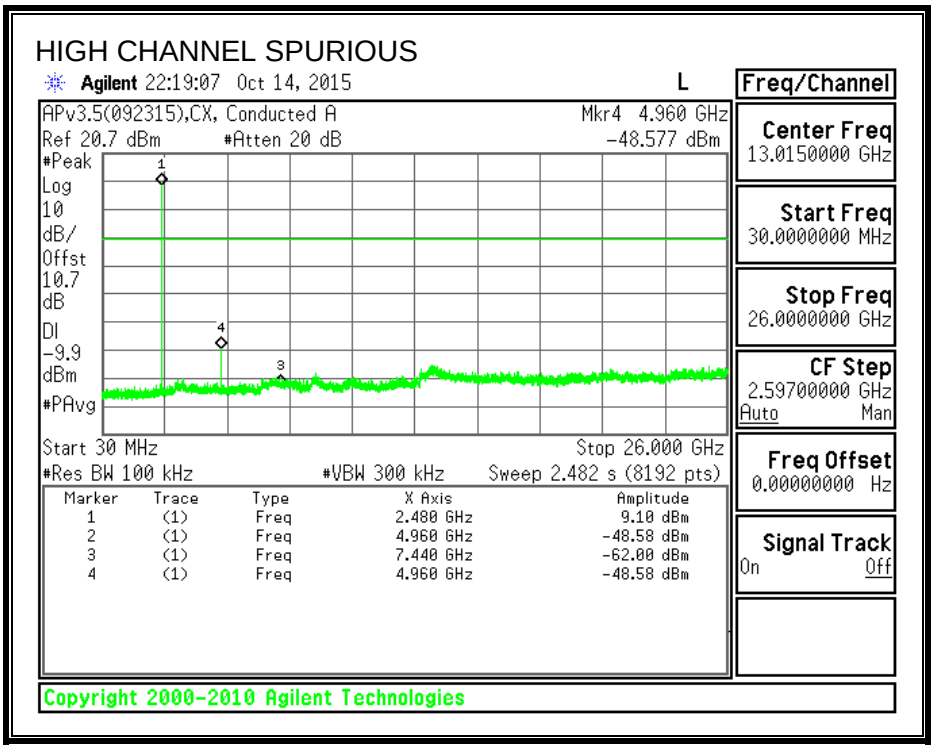
SPURIOUS EMISSIONS, MID CHANNEL





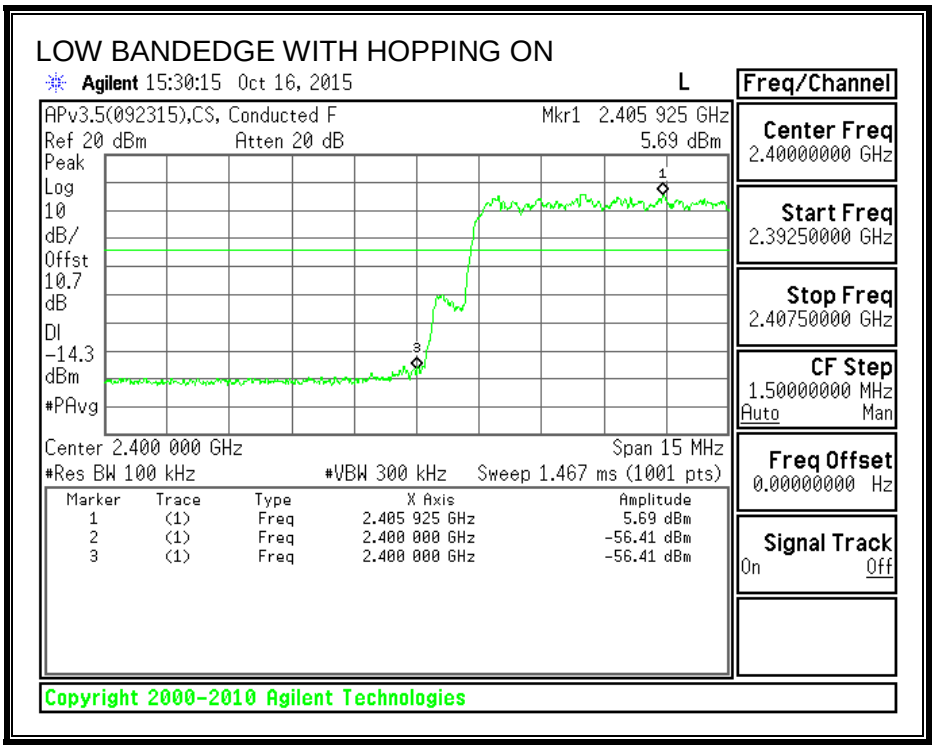
SPURIOUS EMISSIONS, HIGH CHANNEL



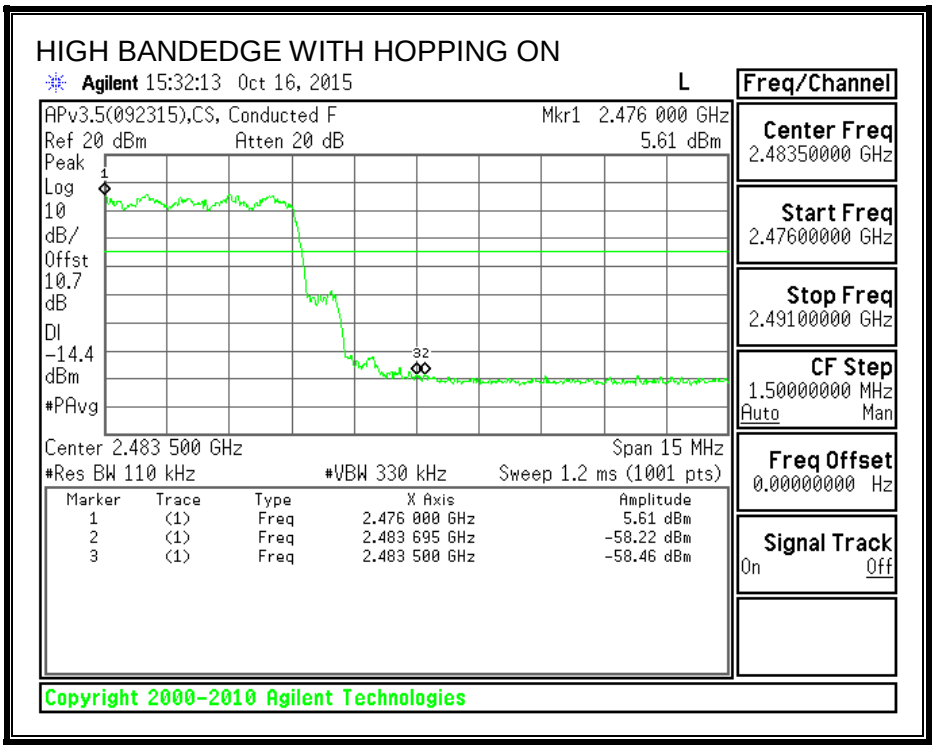


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



HIGH BANDEDGE WITH HOPPING ON



7.2.4. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)

IC RSS-247 (5.1) (2)

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hoping channel, whichever is greater.

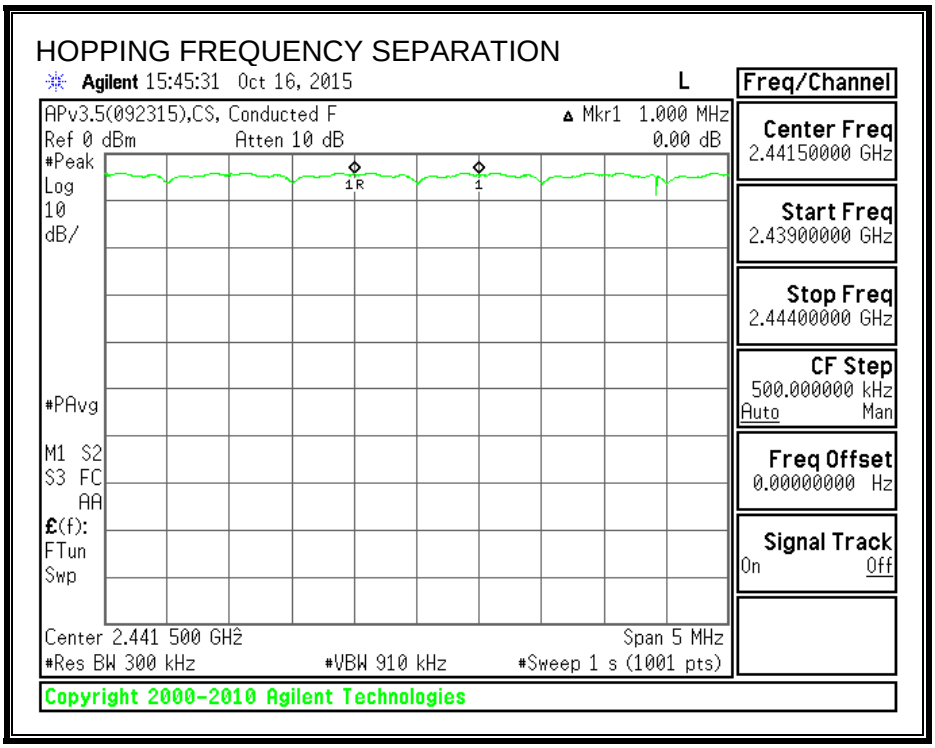
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The RBW is set to 300 kHz and the VBW is set to 910 kHz. The sweep time is coupled.

RESULTS

HOPPING FREQUENCY SEPARATION



7.2.5. NUMBER OF HOPPING CHANNELS

LIMIT

FCC §15.247 (a) (1) (iii)

IC RSS-247 (5.1) (4)

Frequency hopping systems in the 2400 – 2483.5 MHz band shall use at least 15 non-overlapping channels.

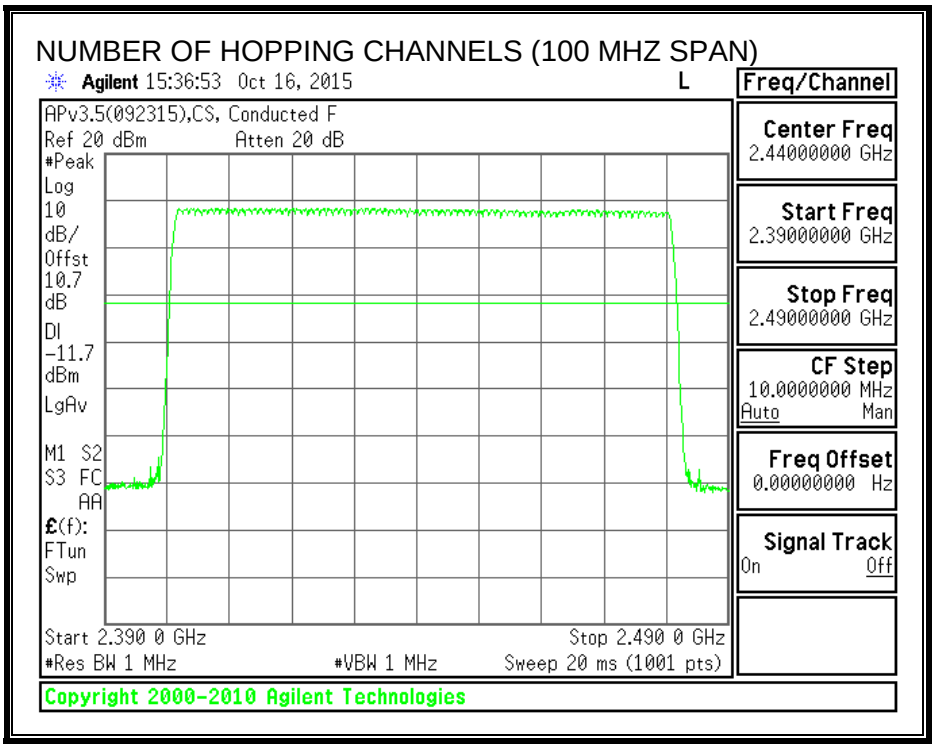
TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

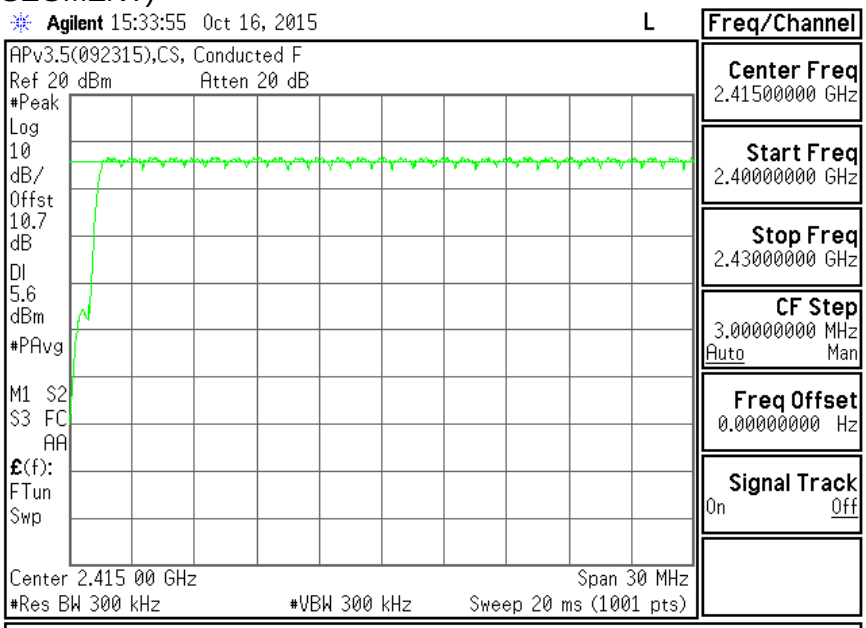
RESULTS

Normal Mode: 79 Channels observed.

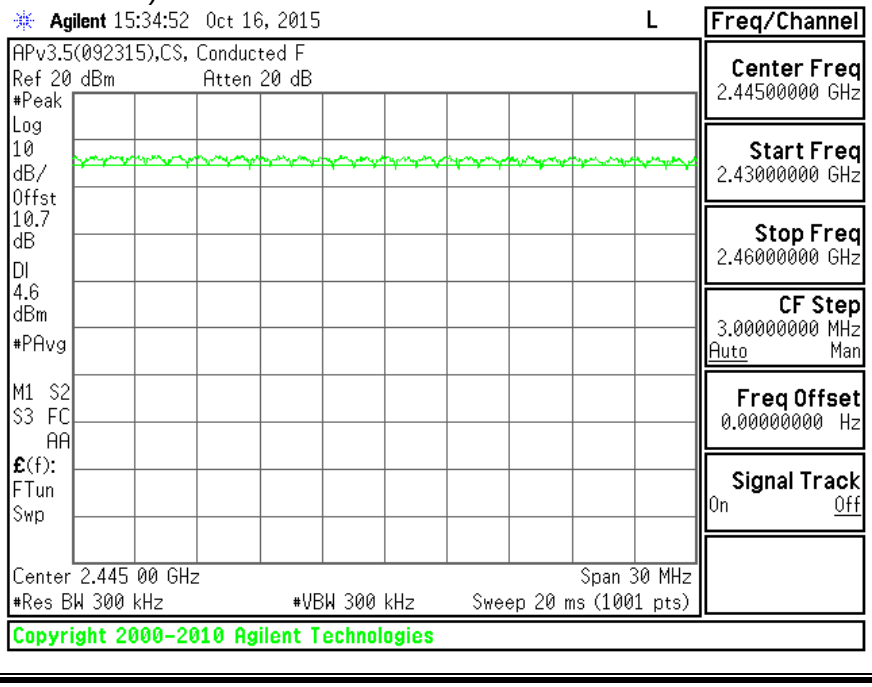
NUMBER OF HOPPING CHANNELS



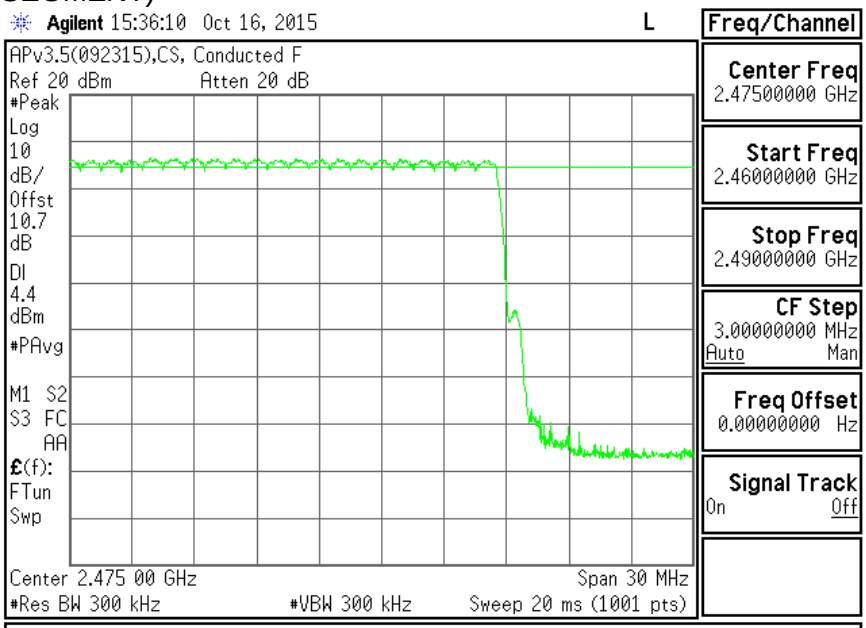
NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, FIRST SEGMENT)



NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, SECOND SEGMENT)



NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, THIRD SEGMENT)



7.2.6. AVERAGE TIME OF OCCUPANCY

LIMIT

FCC §15.247 (a) (1) (iii)

IC RSS-247 (5.1) (4)

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

TEST PROCEDURE

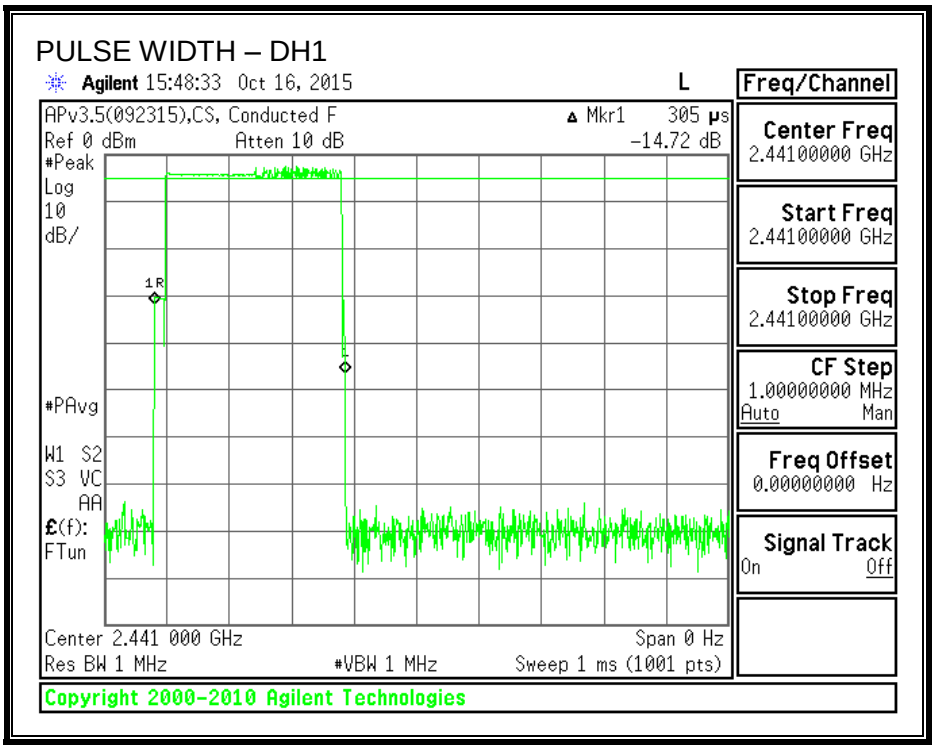
The transmitter output is connected to a spectrum analyzer. The span is set to 0 Hz, centered on a single, selected hopping channel. The width of a single pulse is measured in a fast scan. The number of pulses is measured in a 3.16 second scan, to enable resolution of each occurrence.

The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to 10 * (# of pulses in 3.16 s) * pulse width.

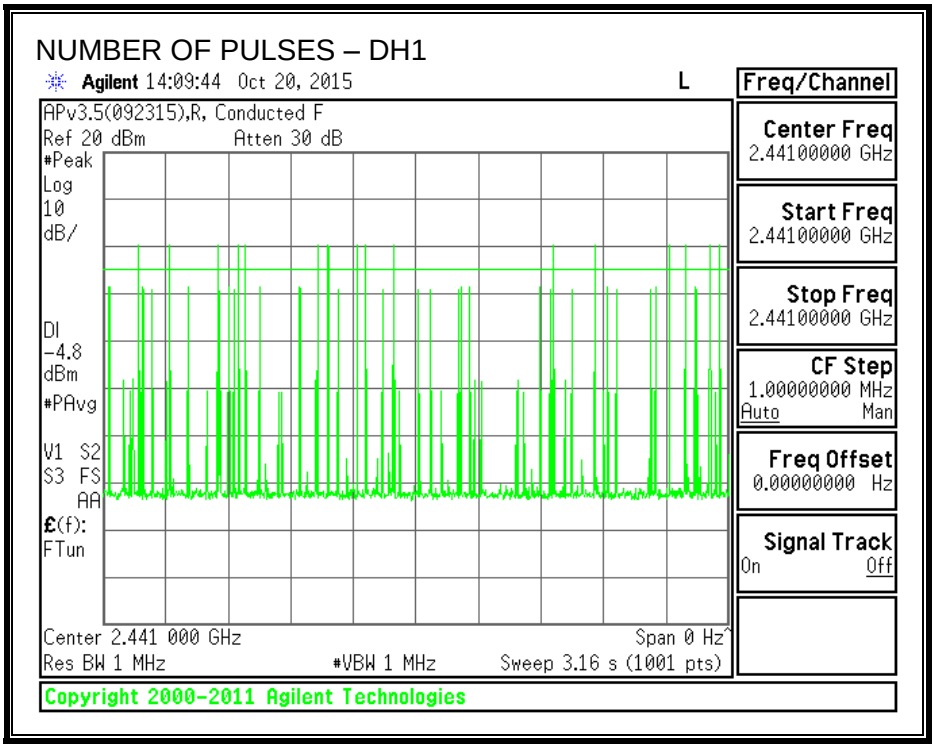
RESULTS

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
GFSK Normal Mode					
DH1	0.305	16	0.049	0.4	-0.351
DH3	0.928	11	0.102	0.4	-0.298
DH5	2.912	8	0.233	0.4	-0.167

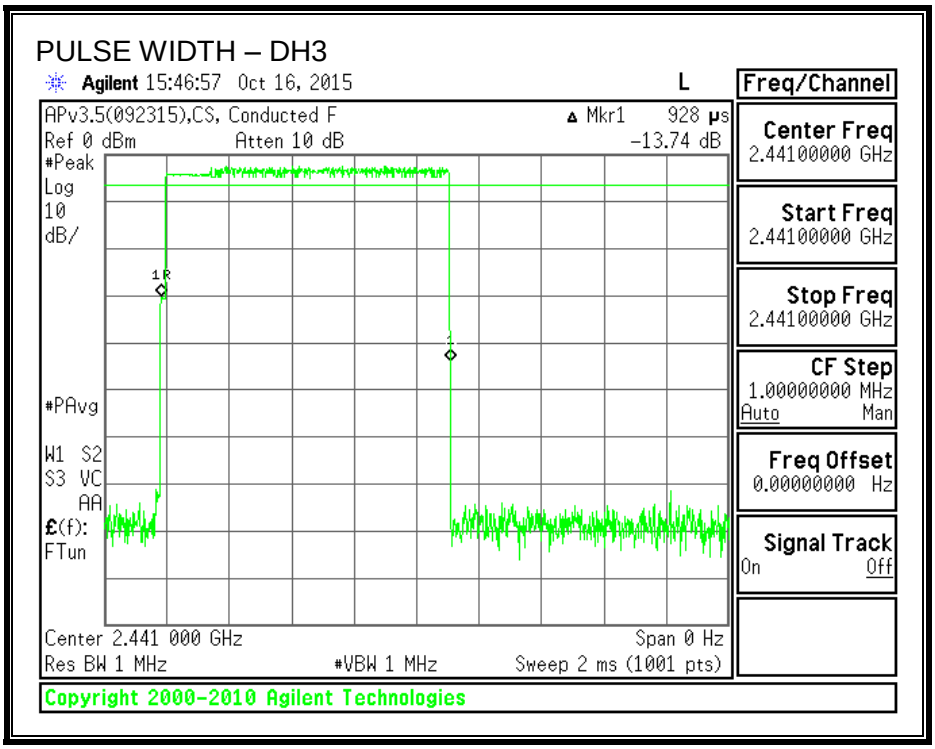
PULSE WIDTH - DH1



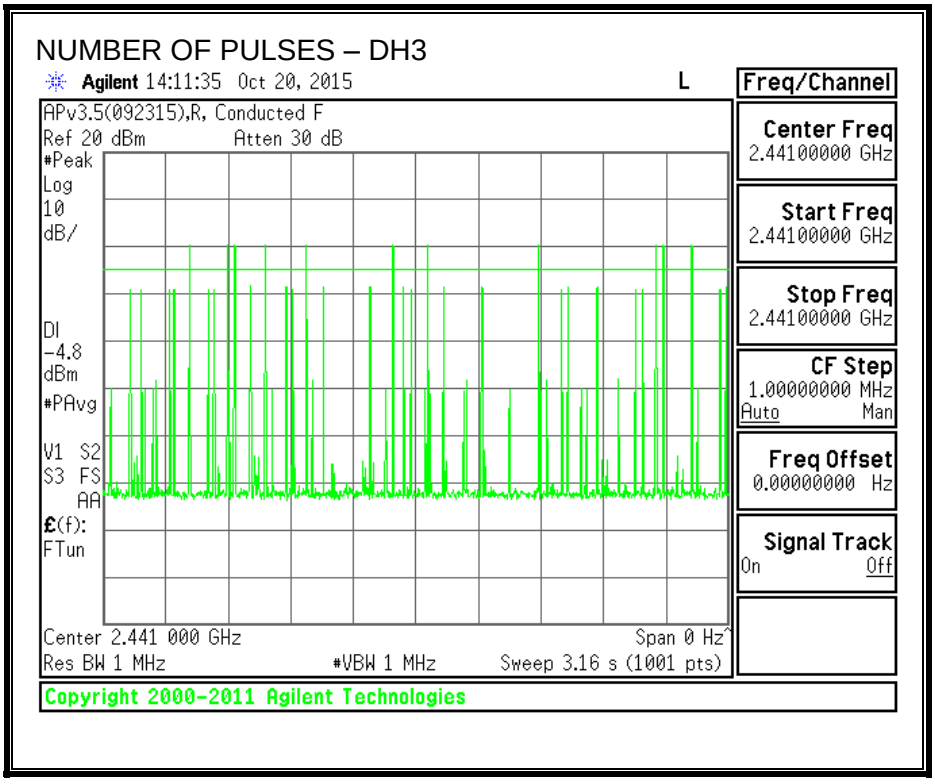
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD – DH1



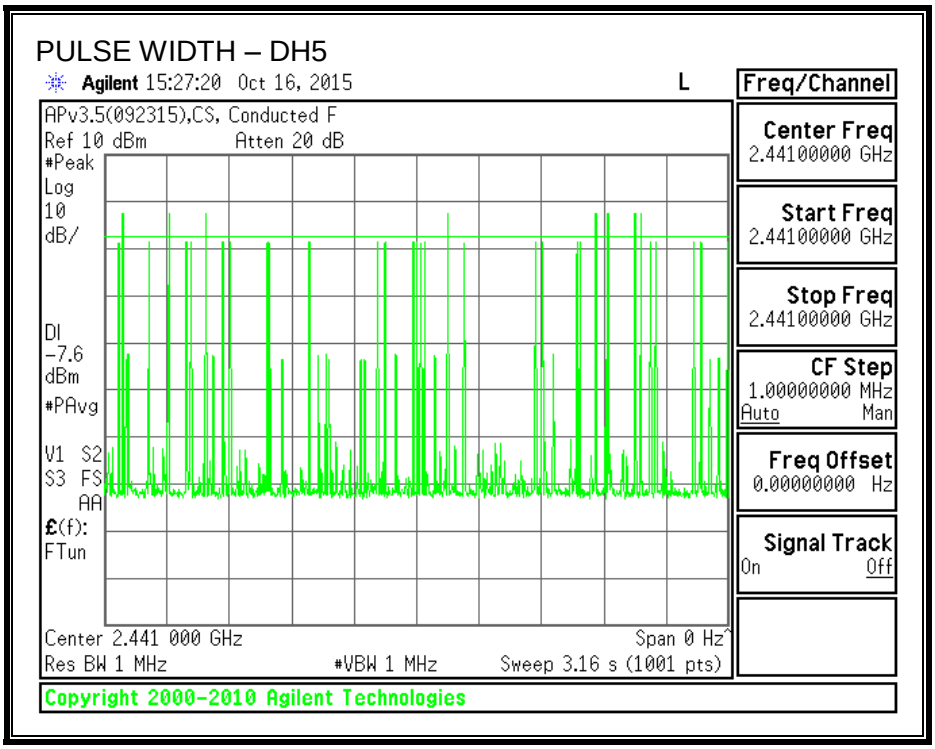
PULSE WIDTH – DH3



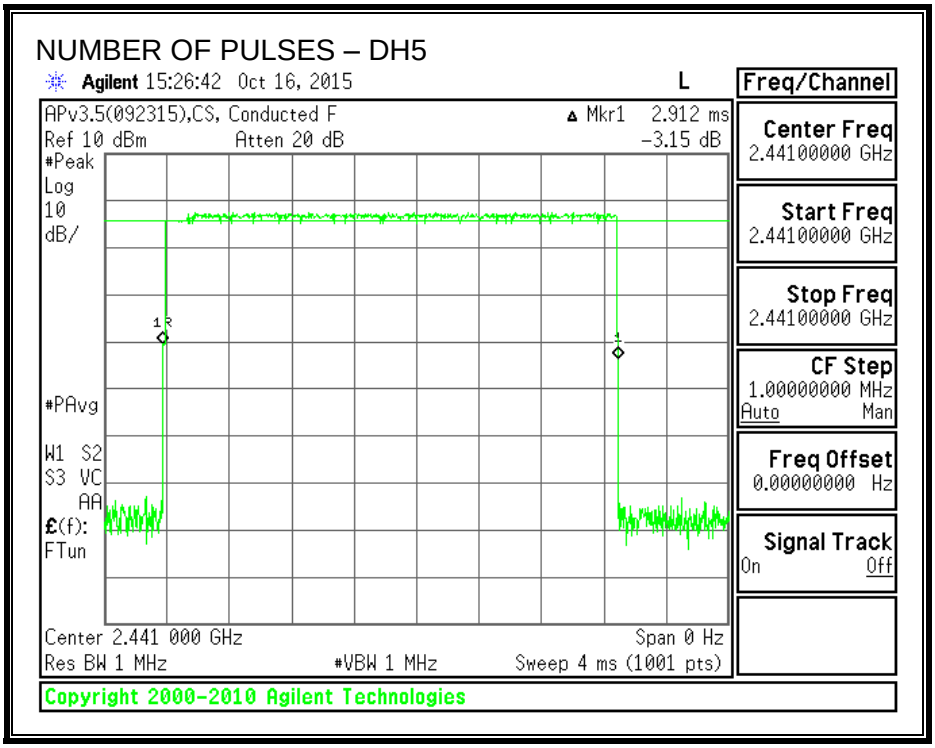
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD – DH3



PULSE WIDTH – DH5



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD – DH5



7.6. 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 10.3 dB (including 10 dB pad and 0.3 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

7.6.1. BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	10.3
Middle	2441	10.2
High	2480	10.1
Worst		10.3

7.6.2. DATA RATE PI/4-DQPSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	6.7
Middle	2441	6.4
High	2480	6.2
Worst		6.7

7.6.3. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	6.7
Middle	2441	6.4
High	2480	6.2
Worst		6.7

7.7. ENHANCED DATA RATE 8PSK MODULATION

7.7.1. 20dB AND 99% BANDWIDTH

LIMIT

None; for reporting purposes only.

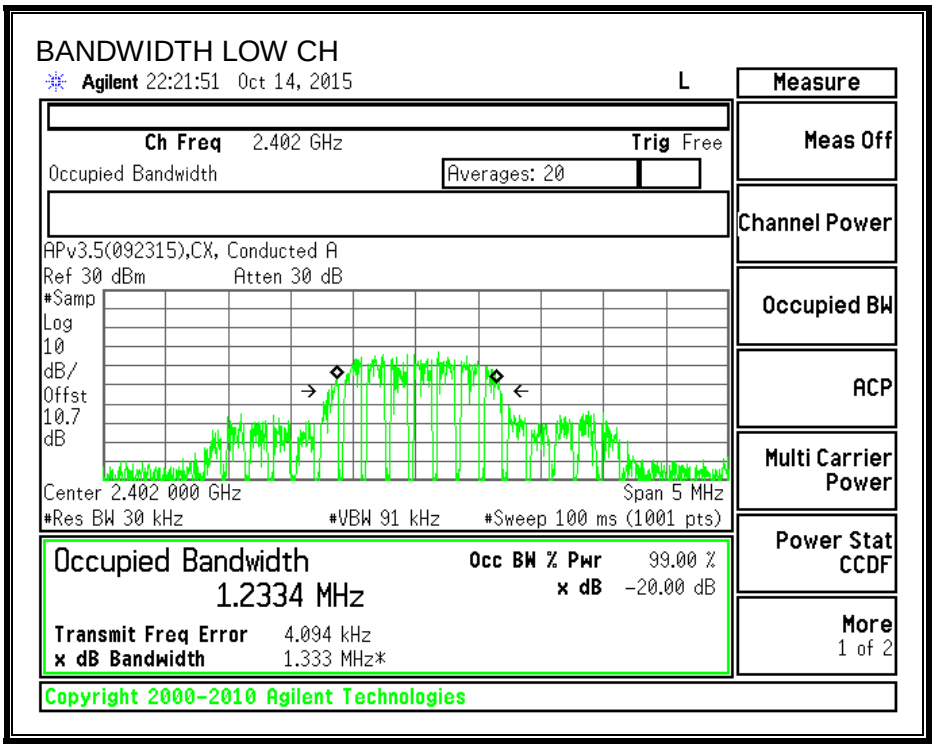
TEST PROCEDURE

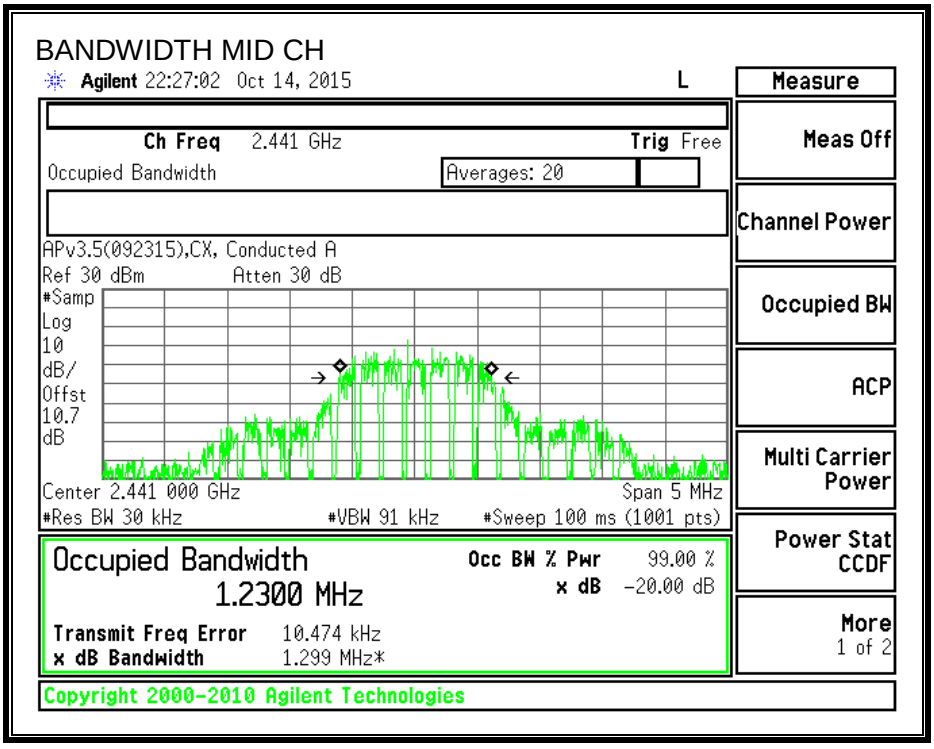
The transmitter output is connected to a spectrum analyzer. The RBW is set to ≥ 1% of the 20 dB bandwidth. The VBW is set to ≥ RBW. The sweep time is coupled.

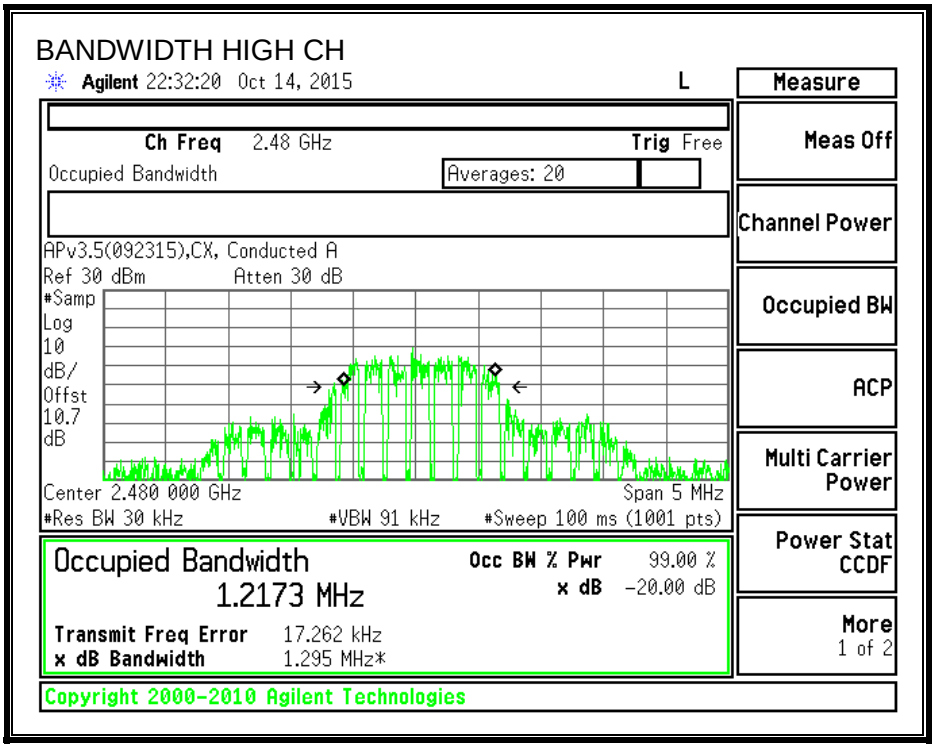
RESULTS

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	1.333	1.233
Middle	2441	1.299	1.230
High	2480	1.295	1.217

20 dB AND 99% BANDWIDTH







7.7.2. OUTPUT POWER

LIMIT

§15.247 (b) (1)

RSS-247 (5.4) (2)

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

TEST PROCEDURE

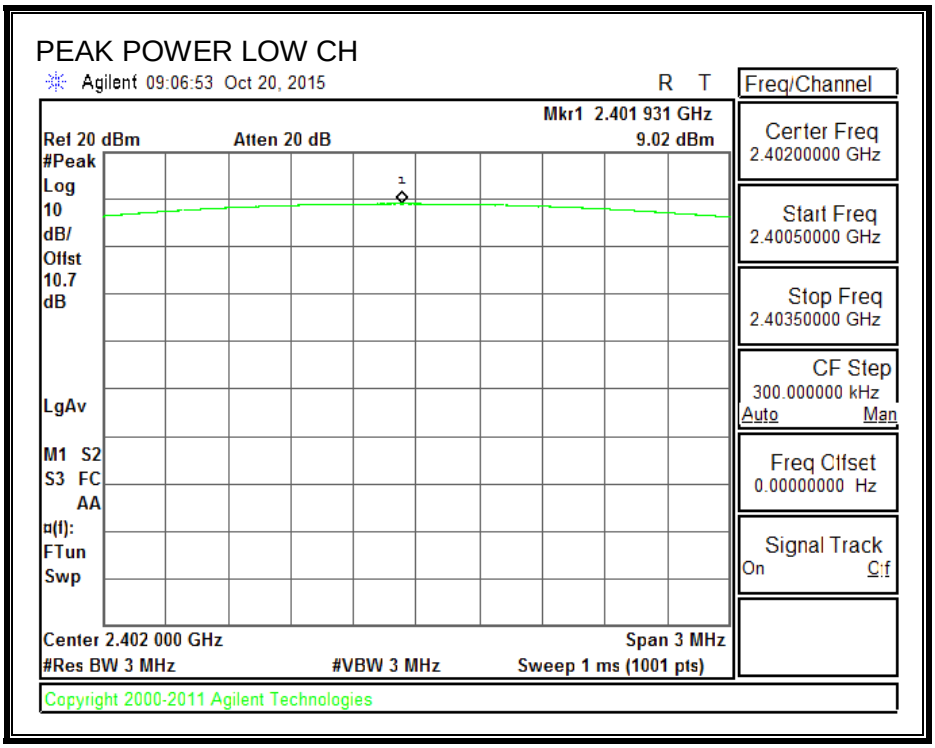
The transmitter output is connected to a wideband peak and average power meter.

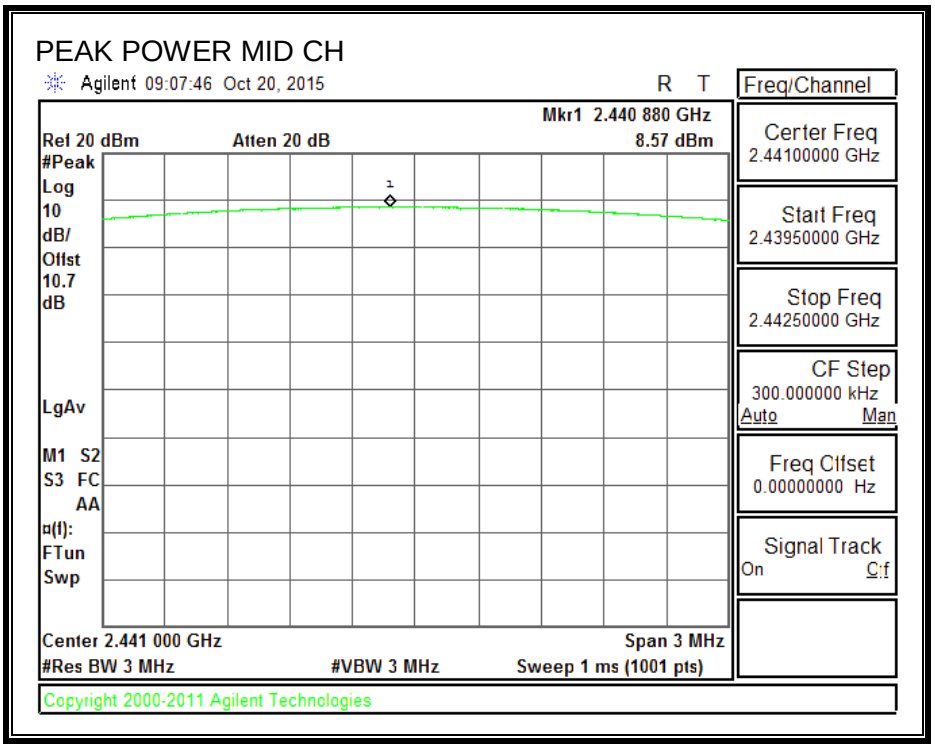
RESULTS

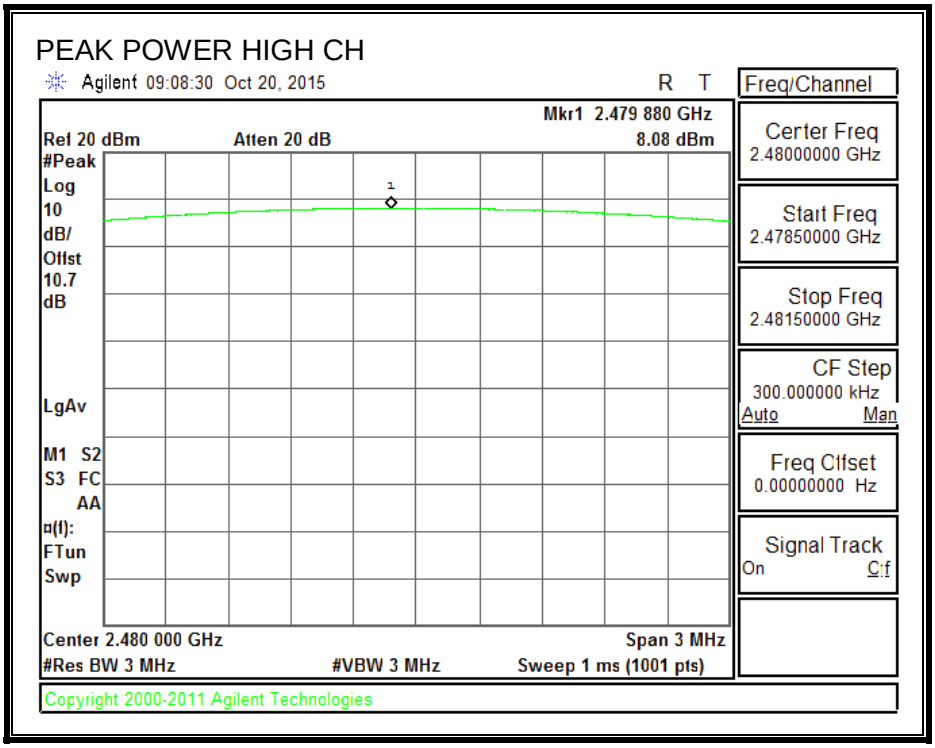
For 75 or more hopping channels

Channel	Frequency (MHz)	Output Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Margin (dB)
Low	2402	9.02	-0.84	21	-11.98
Middle	2441	8.57	-0.84	21	-12.43
High	2480	8.08	-0.84	21	-12.92

OUTPUT POWER







7.7.3. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-247 (5.5)

Limit = -20 dBc

TEST PROCEDURE

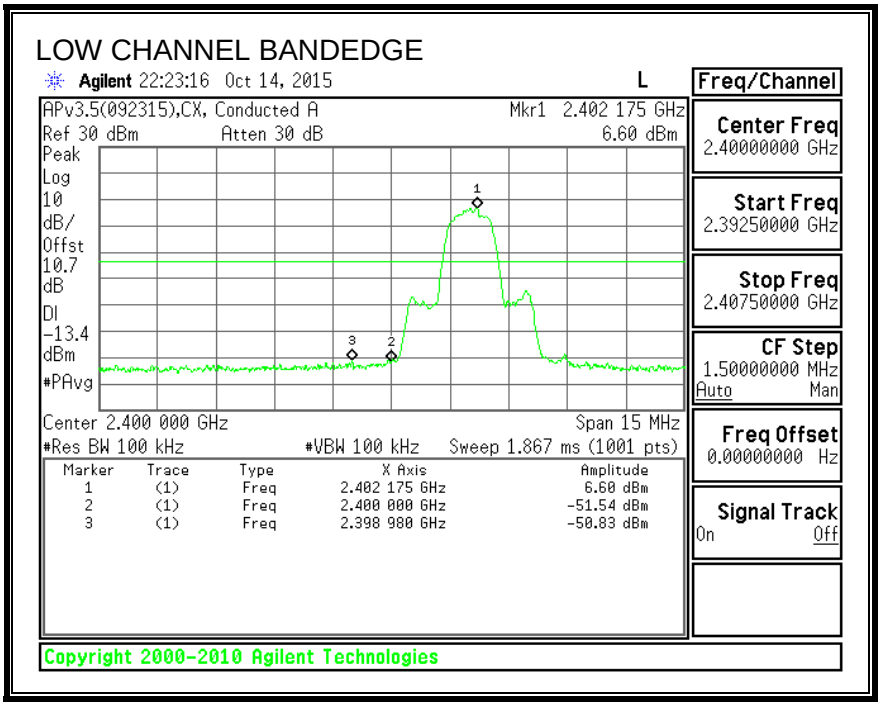
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

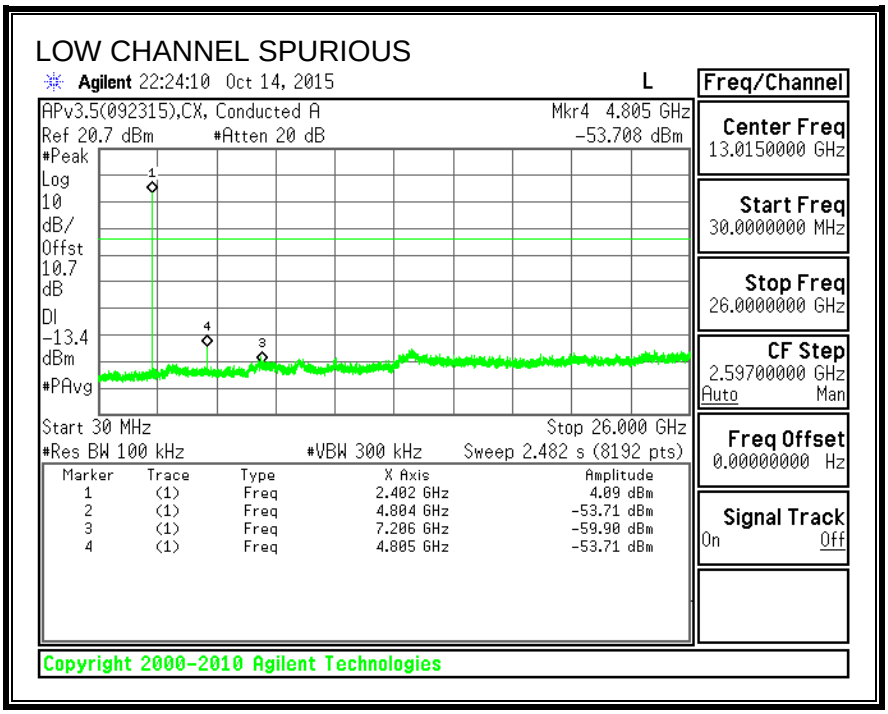
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

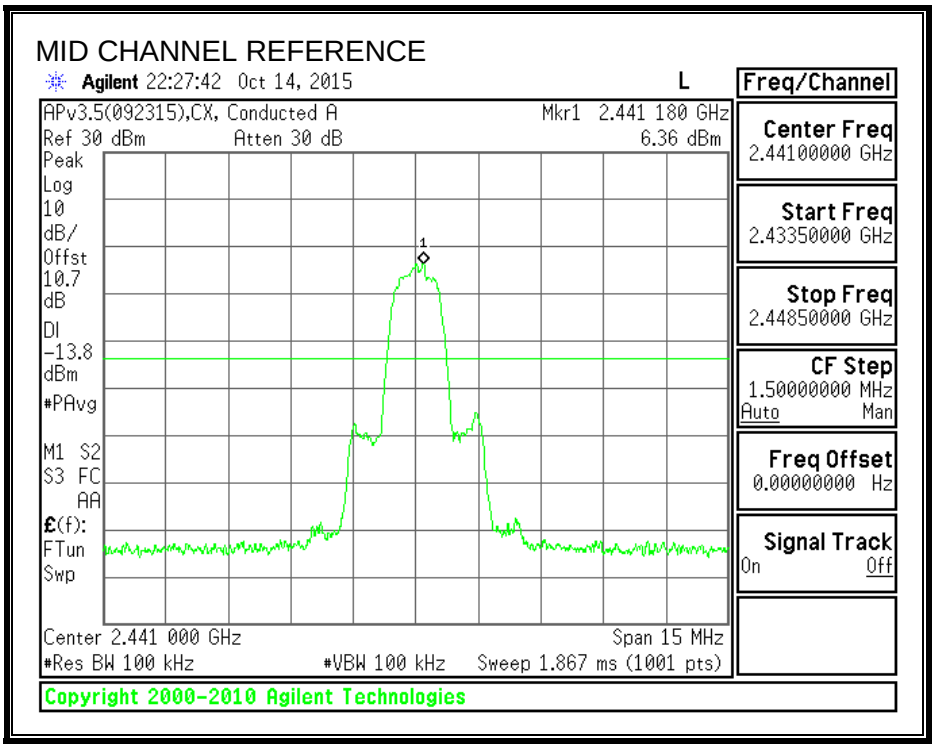
RESULTS

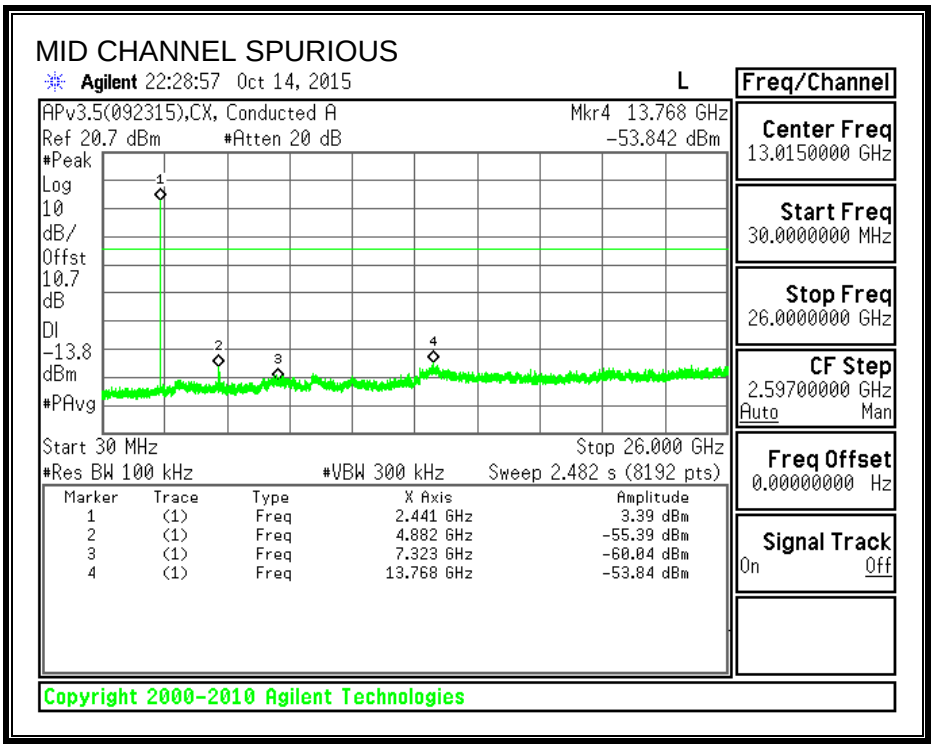
SPURIOUS EMISSIONS, LOW CHANNEL



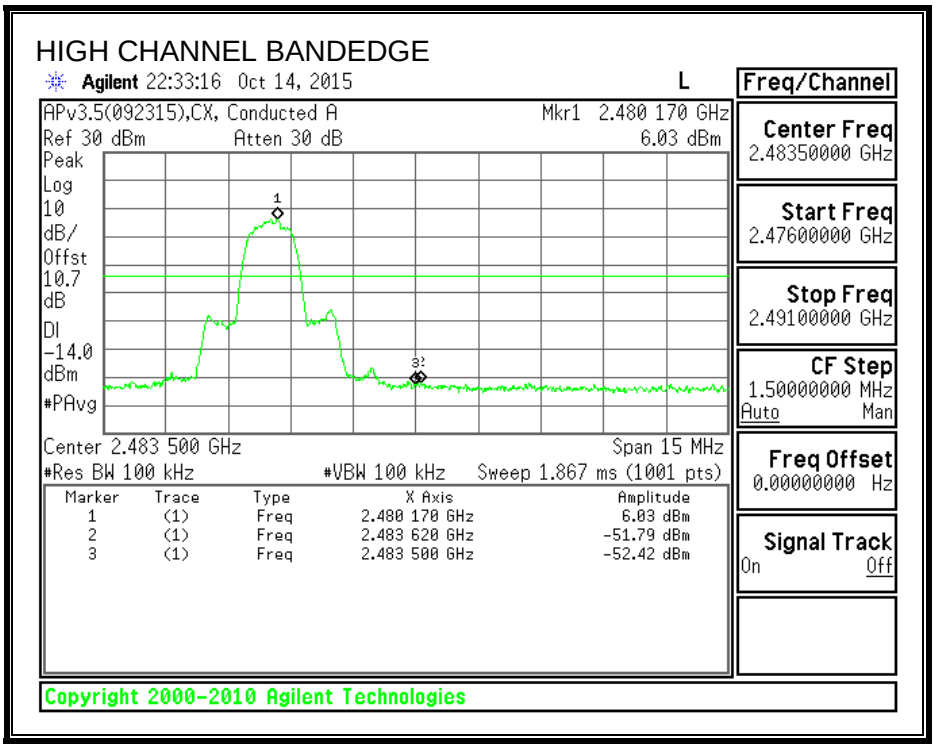


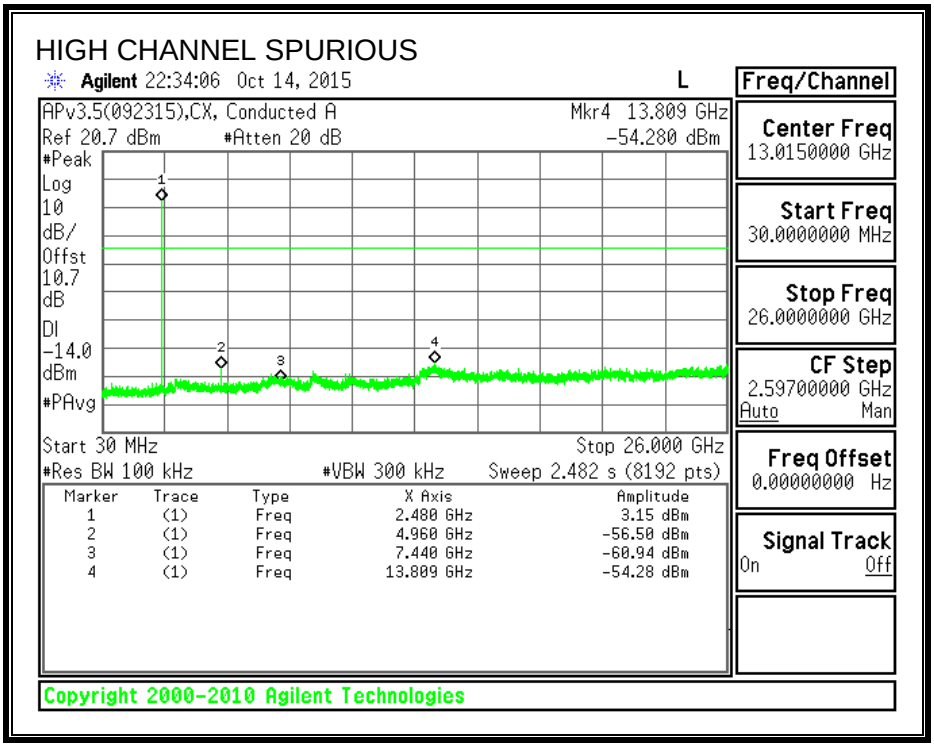
SPURIOUS EMISSIONS, MID CHANNEL





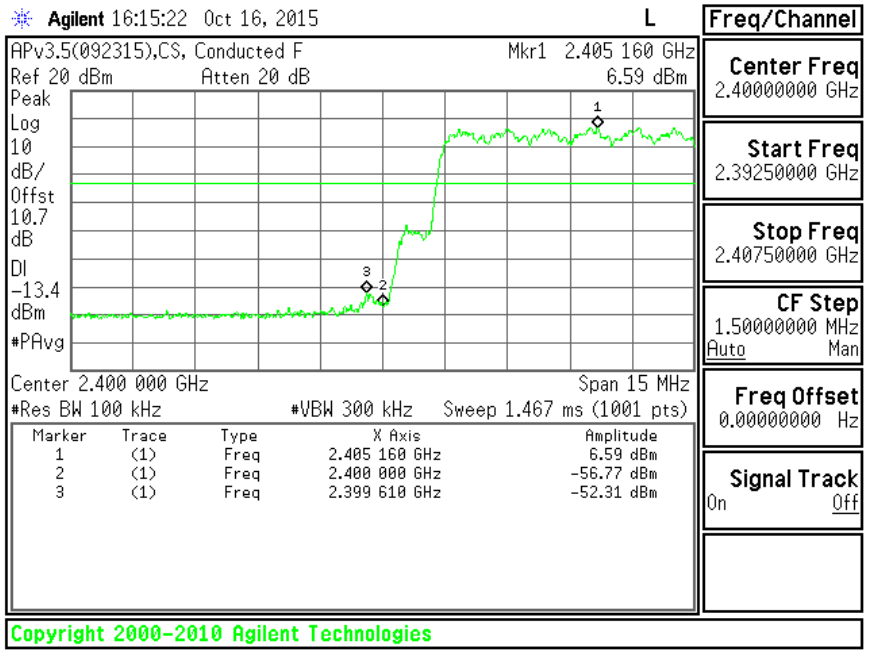
SPURIOUS EMISSIONS, HIGH CHANNEL



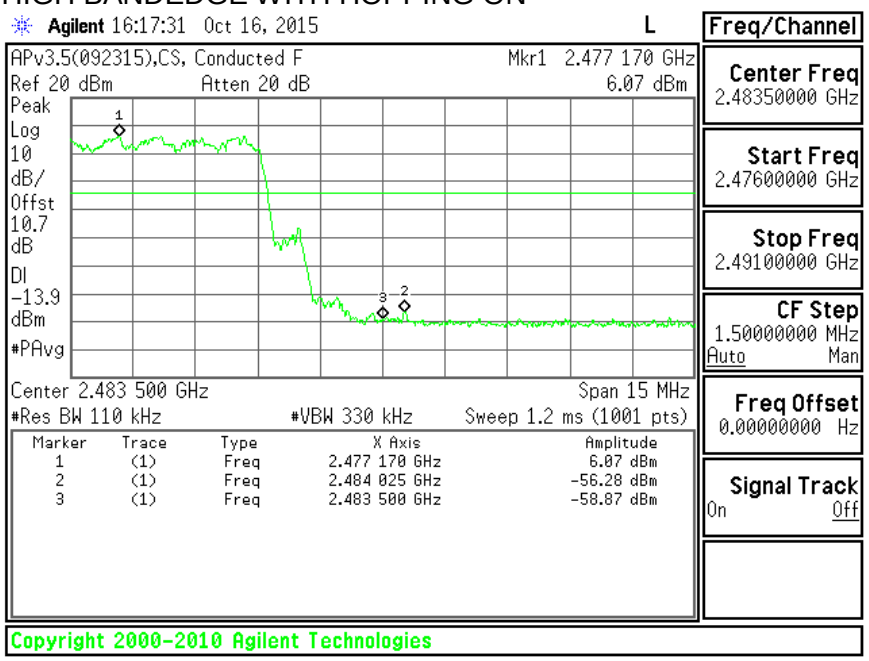


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



HIGH BANDEDGE WITH HOPPING ON



8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-GEN, Section 8.9 and 8.10.

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

TEST PROCEDURE

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

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

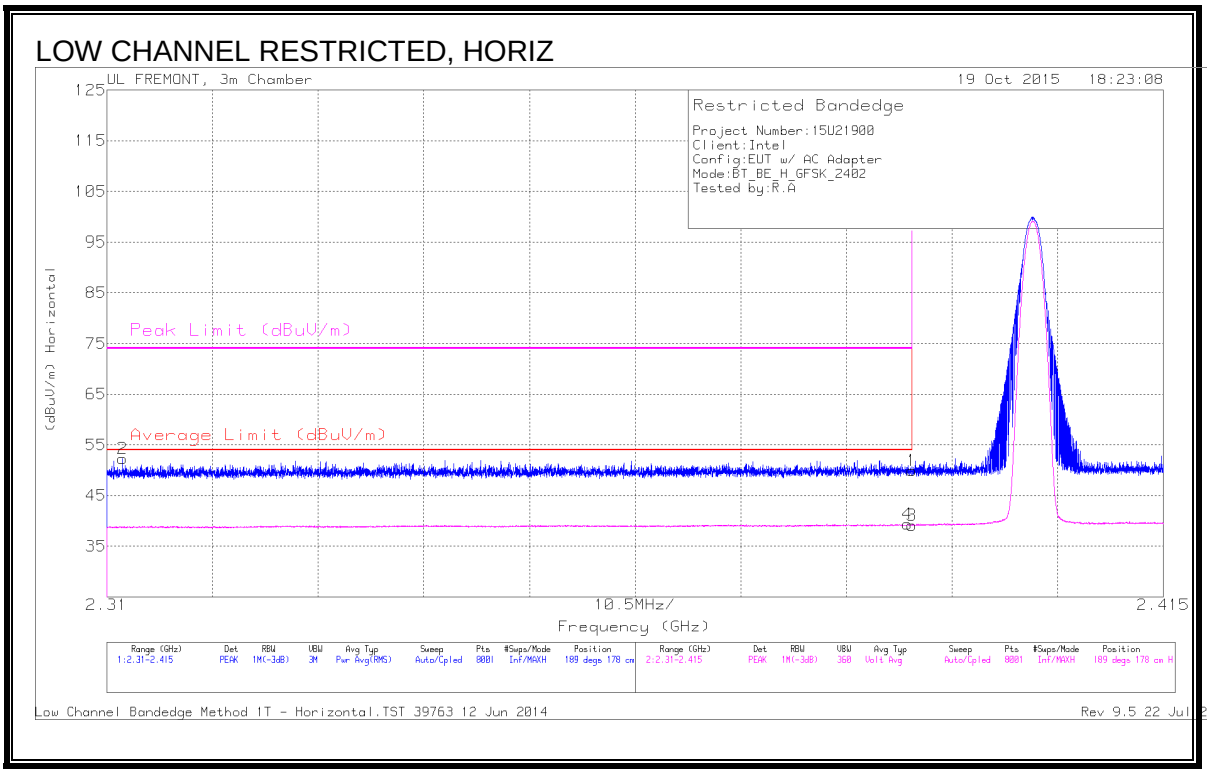
For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T (10 Hz) video bandwidth with peak detector for average measurements.

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

8.2. TX ABOVE 1 GHz BASIC DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL)



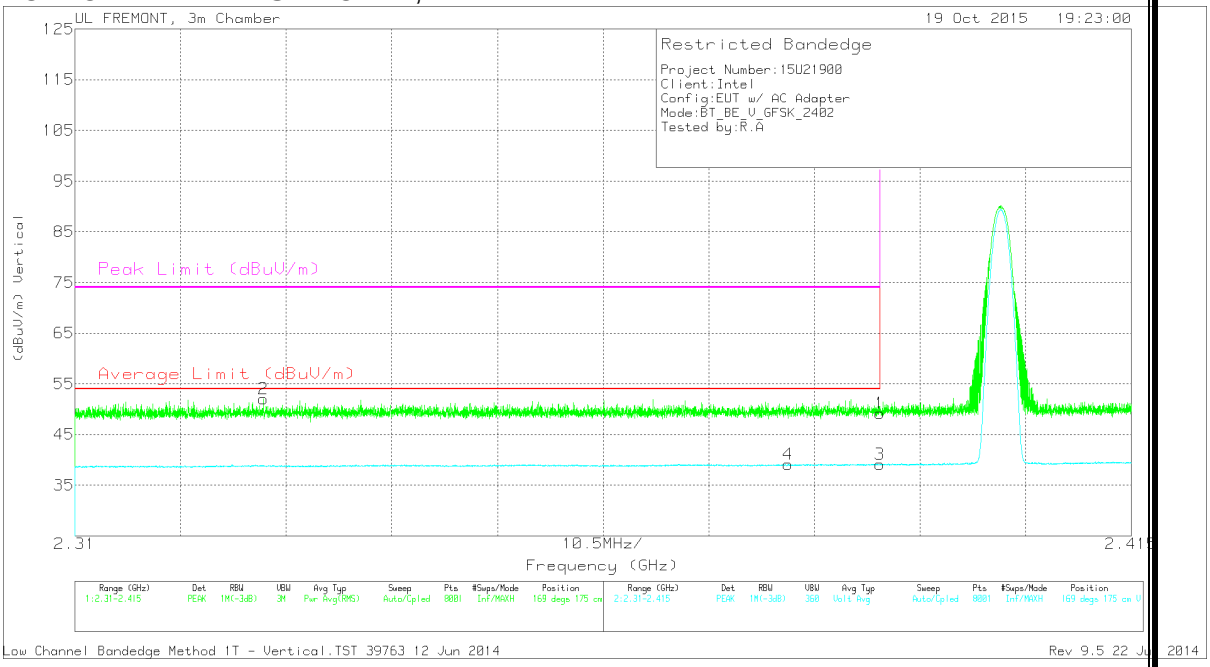
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.312	43.03	PK	31.7	-22.4	52.33	-	-	74	-21.67	189	178	H
1	2.39	40.31	PK	32	-22.4	49.91	-	-	74	-24.09	189	178	H
3	2.39	29.57	VB1T	32	-22.4	39.17	54	-14.83	-	-	189	178	H
4	2.39	29.71	VB1T	32	-22.4	39.31	54	-14.69	-	-	189	178	H

PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

LOW CHANNEL RESTRICTED, VERT



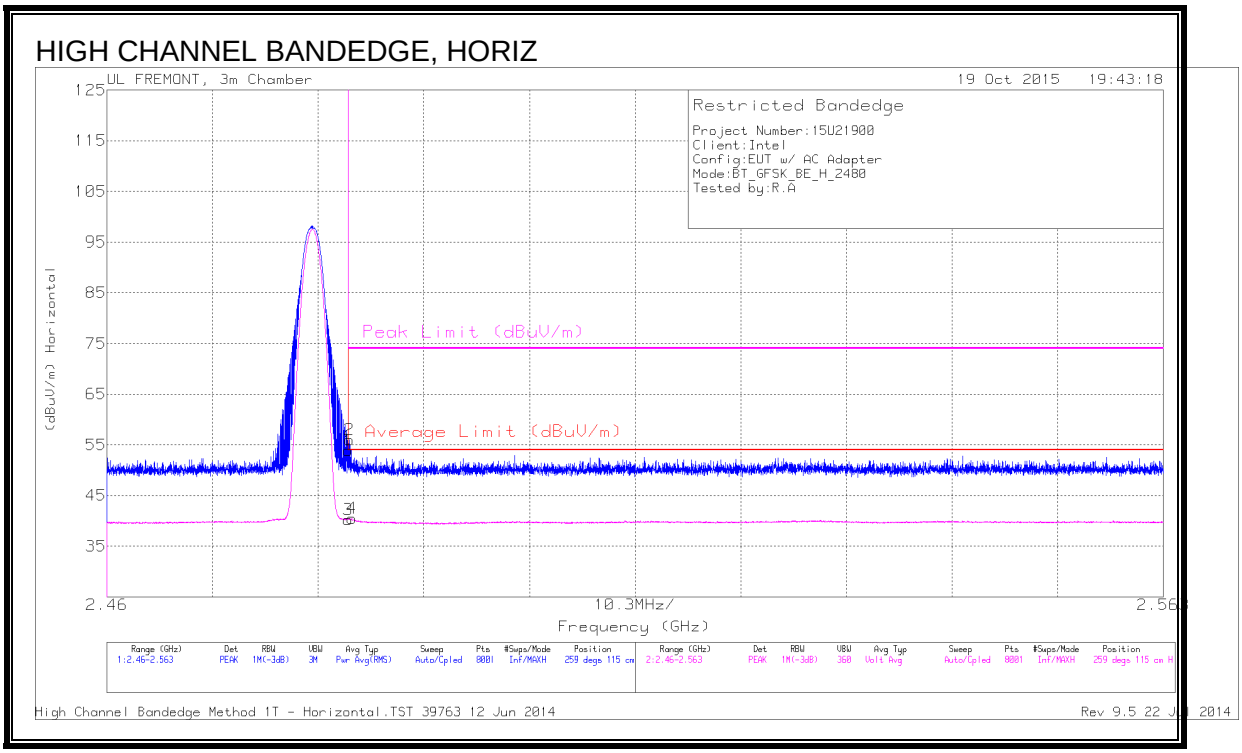
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.329	42.74	PK	31.7	-22.4	52.04	-	-	74	-21.96	169	175	V
4	2.381	29.66	VB1T	31.9	-22.4	39.16	54	-14.84	-	-	169	175	V
1	2.39	39.63	PK	32	-22.4	49.23	-	-	74	-24.77	169	175	V
3	2.39	29.48	VB1T	32	-22.4	39.08	54	-14.92	-	-	169	175	V

PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

AUTHORIZED BANDEDGE (HIGH CHANNEL)

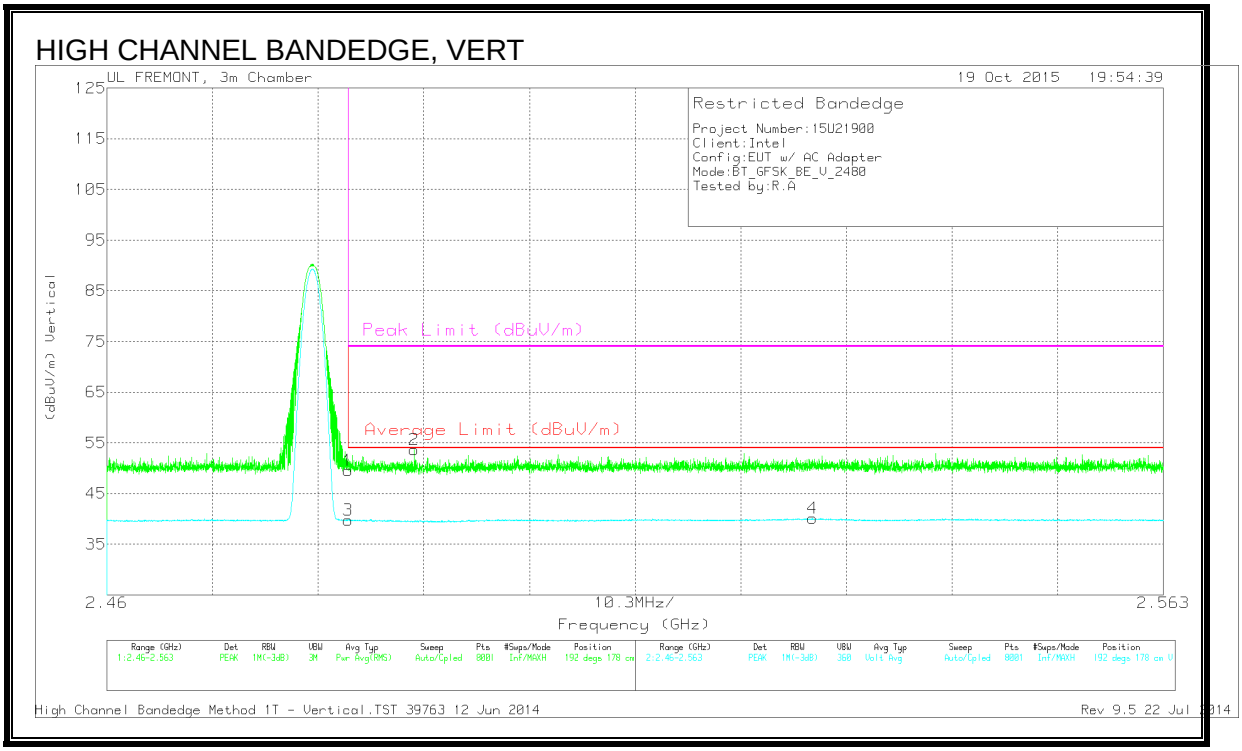


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	43.67	PK	32.3	-22.1	53.87	-	-	74	-20.13	259	115	H
2	2.484	45.77	PK	32.3	-22.1	55.97	-	-	74	-18.03	259	115	H
3	2.484	29.98	VB1T	32.3	-22.1	40.18	54	-13.82	-	-	259	115	H
4	2.484	30.27	VB1T	32.3	-22.1	40.47	54	-13.53	-	-	259	115	H

PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	39.38	PK	32.3	-22.1	49.58	-	-	74	-24.42	192	178	V
3	2.484	29.56	VB1T	32.3	-22.1	39.76	54	-14.24	-	-	192	178	V
2	2.49	43.51	PK	32.3	-22.2	53.61	-	-	74	-20.39	192	178	V
4	2.529	29.69	VB1T	32.4	-22	40.09	54	-13.91	-	-	192	178	V

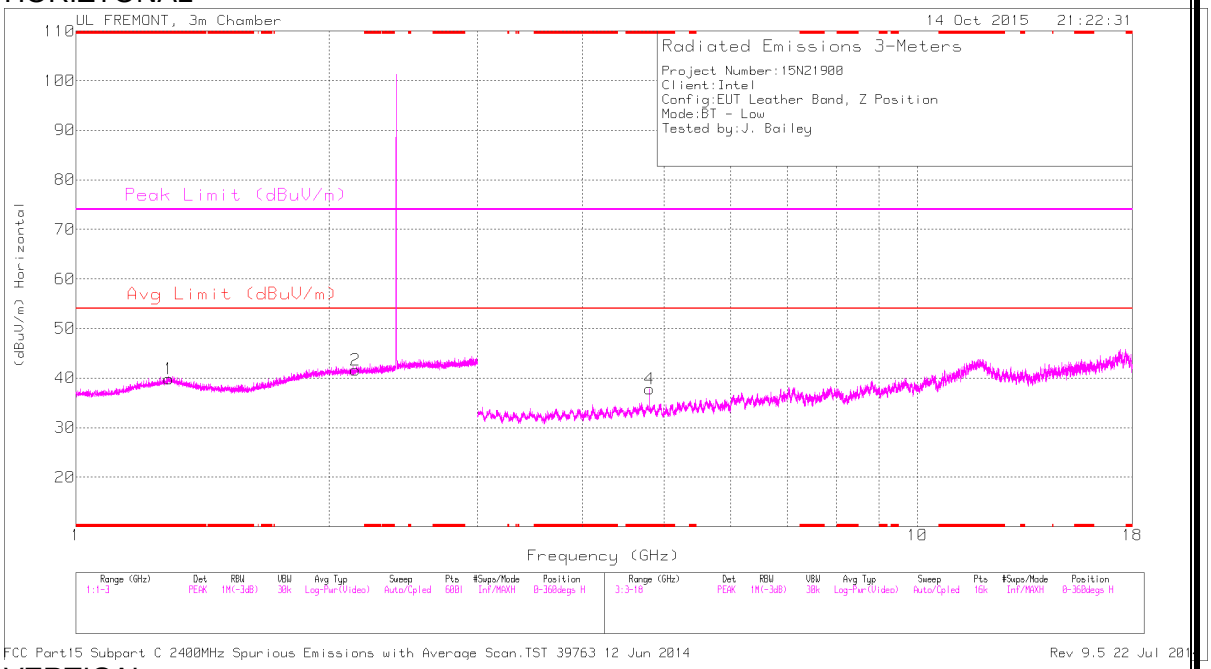
PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

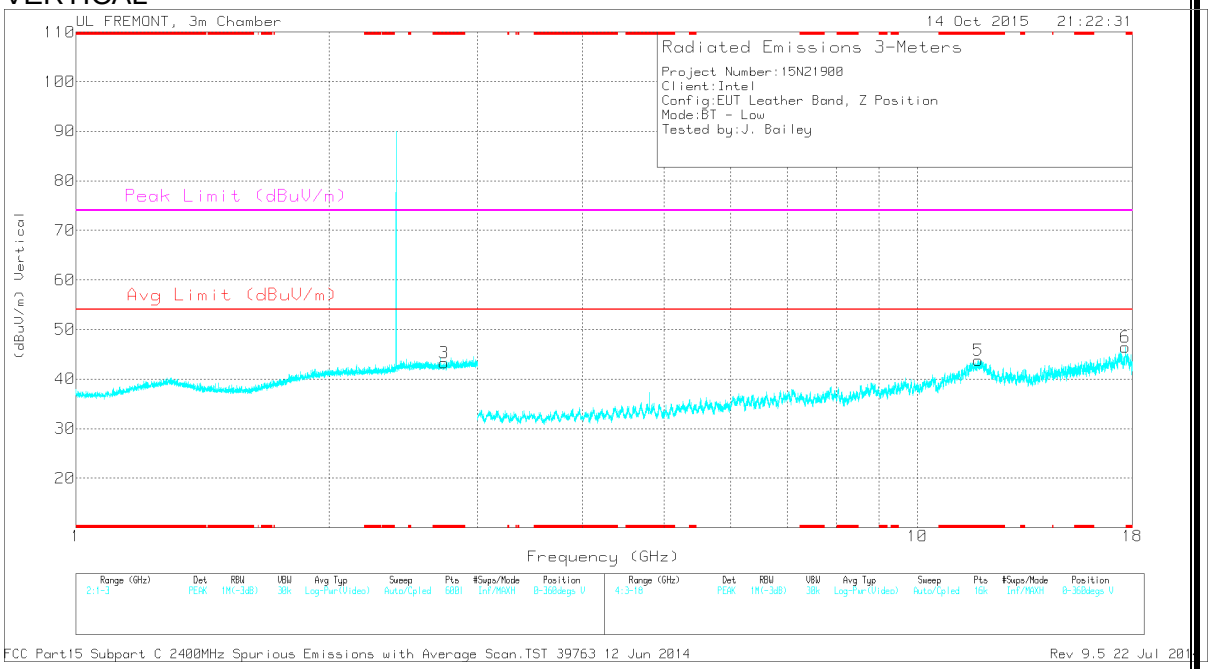
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

HORIZTONAL



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.

DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.29	42.99	PK3	29.8	-23.1	49.69	-	-	74	-24.31	259	197	H
	* 1.29	30.02	VB1T	29.8	-23.1	36.72	54	-17.28	-	-	259	197	H
3	* 2.74	42.2	PK3	32.4	-22.1	52.5	-	-	74	-21.5	51	361	V
	* 2.741	29.5	VB1T	32.4	-22.1	39.8	54	-14.2	-	-	51	361	V
4	* 4.804	40.99	PK3	34	-29.4	45.59	-	-	74	-28.41	51	271	H
	* 4.804	30.75	VB1T	34	-29.4	35.35	54	-18.65	-	-	51	271	H
5	* 11.803	36.99	PK3	39	-22.5	53.49	-	-	74	-20.51	10	199	V
	* 11.804	24.21	VB1T	39	-22.5	40.71	54	-13.29	-	-	10	199	V
2	2.149	29.56	VB1T	31.5	-22.3	38.76	-	-	-	-	10	100	H
	2.151	43.19	PK3	31.5	-22.3	52.39	-	-	-	-	10	100	H
6	17.663	35.49	PK3	41.4	-20.7	56.19	-	-	-	-	10	200	V
	17.666	22.23	VB1T	41.4	-20.9	42.73	-	-	-	-	10	200	V

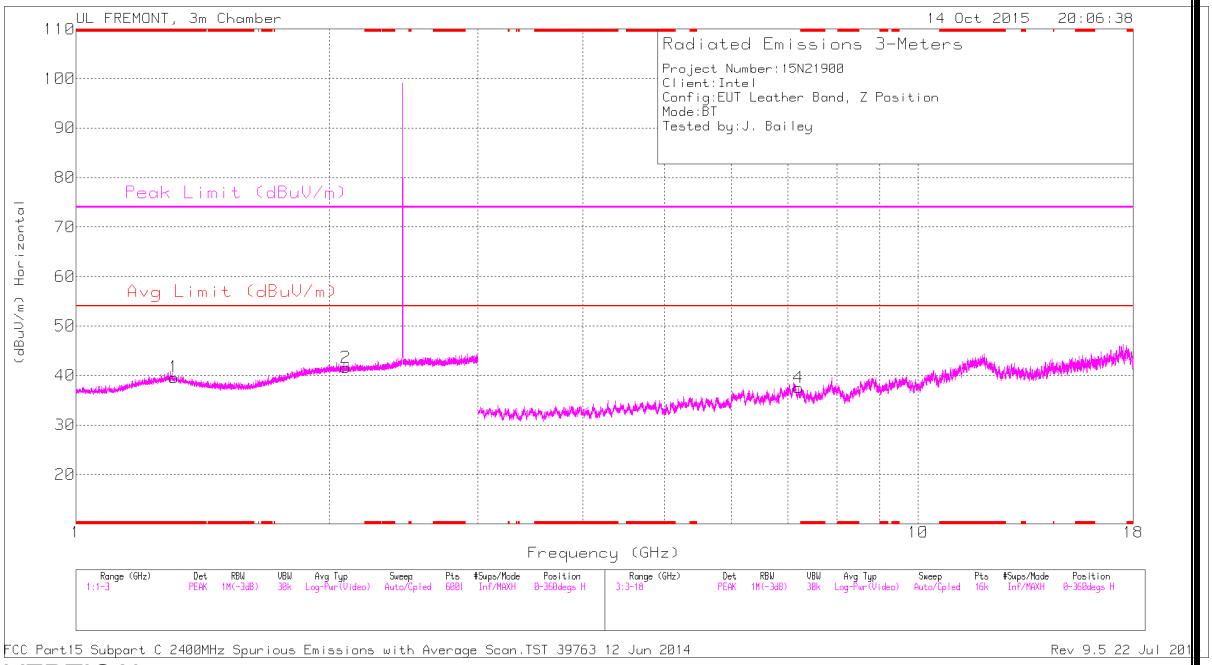
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

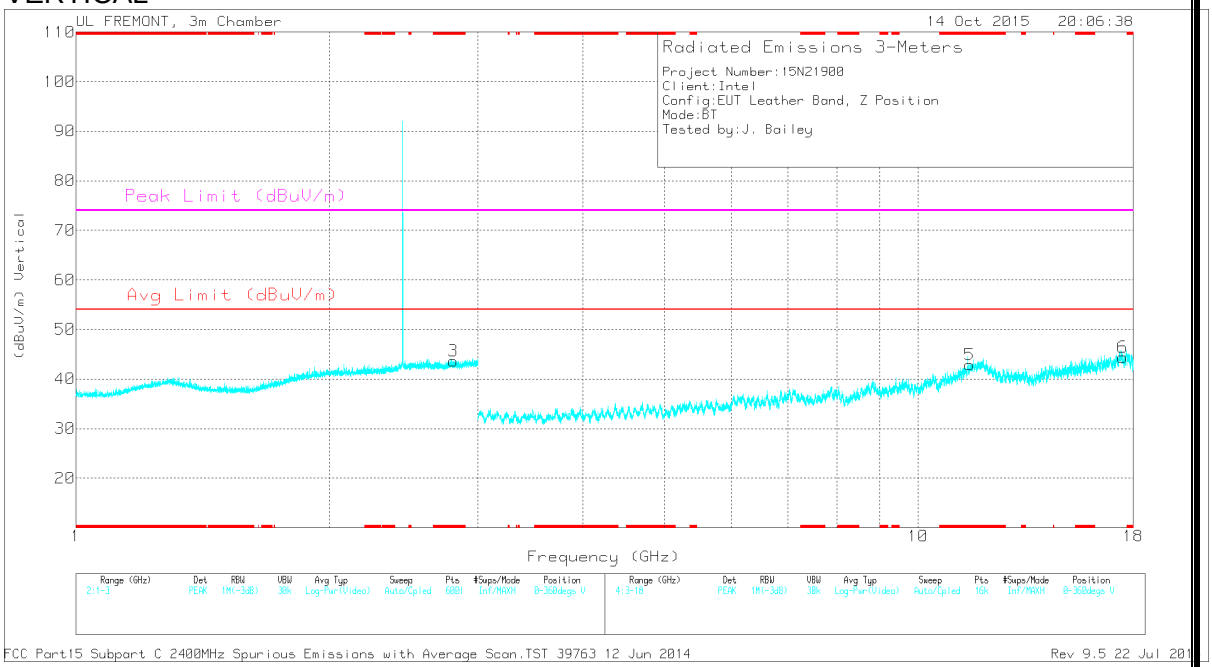
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

MID CHANNEL

HORIZTONAL



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.

DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.318	43.17	PK3	29.7	-23.1	49.77	-	-	74	-24.23	304	387	H
* 1.301	30.1	VB1T	29.9	-23.2	36.8	54	-17.2	-	-	304	387	H
* 2.796	42.34	PK3	32.6	-22.1	52.84	-	-	74	-21.16	294	342	V
* 2.8	29.74	VB1T	32.6	-22	40.34	54	-13.66	-	-	294	342	V
* 11.514	36.43	PK3	38.4	-22	52.83	-	-	74	-21.17	260	122	V
* 11.514	23.52	VB1T	38.4	-22	39.92	54	-14.08	-	-	260	122	V
2.079	29.51	VB1T	31.5	-22.3	38.71	54	-15.29	-	-	260	100	H
2.082	41.77	PK3	31.5	-22.3	50.97	-	-	74	-23.03	260	100	H
7.214	39.87	PK3	35.6	-28.6	46.87	-	-	74	-27.13	260	100	H
7.214	26.78	VB1T	35.6	-28.6	33.78	54	-20.22	-	-	260	100	H
17.492	35.61	PK3	41.4	-22.4	54.61	-	-	74	-19.39	260	200	V
17.492	22.73	VB1T	41.4	-22.3	41.83	54	-12.17	-	-	260	200	V

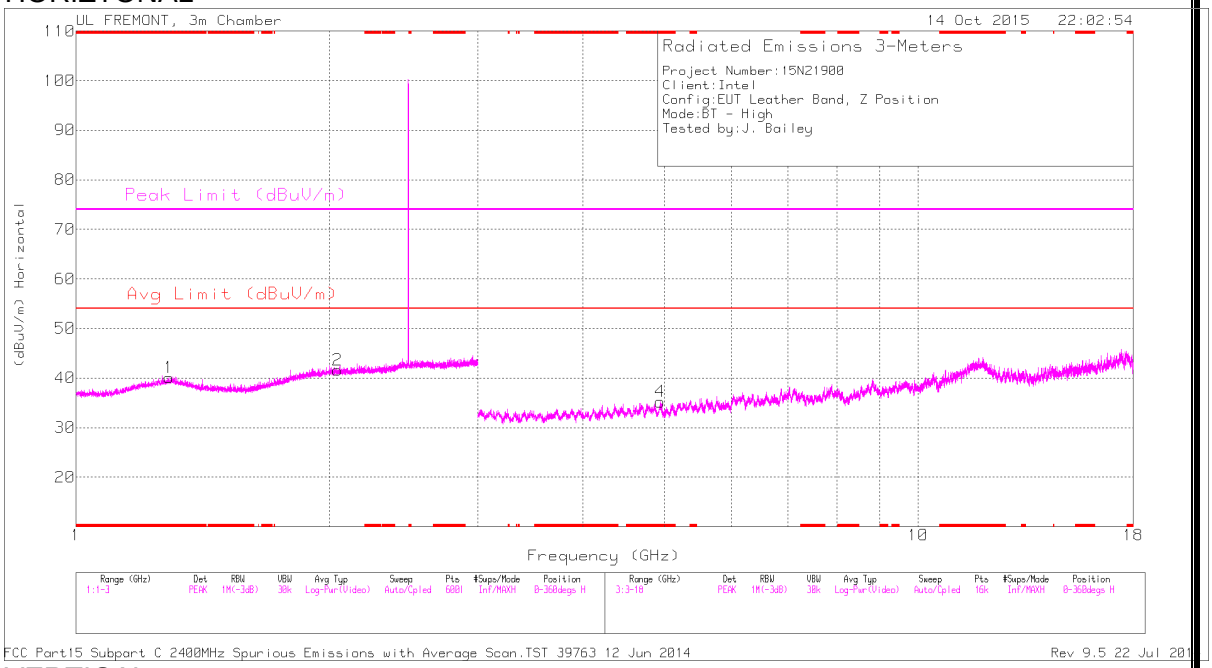
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

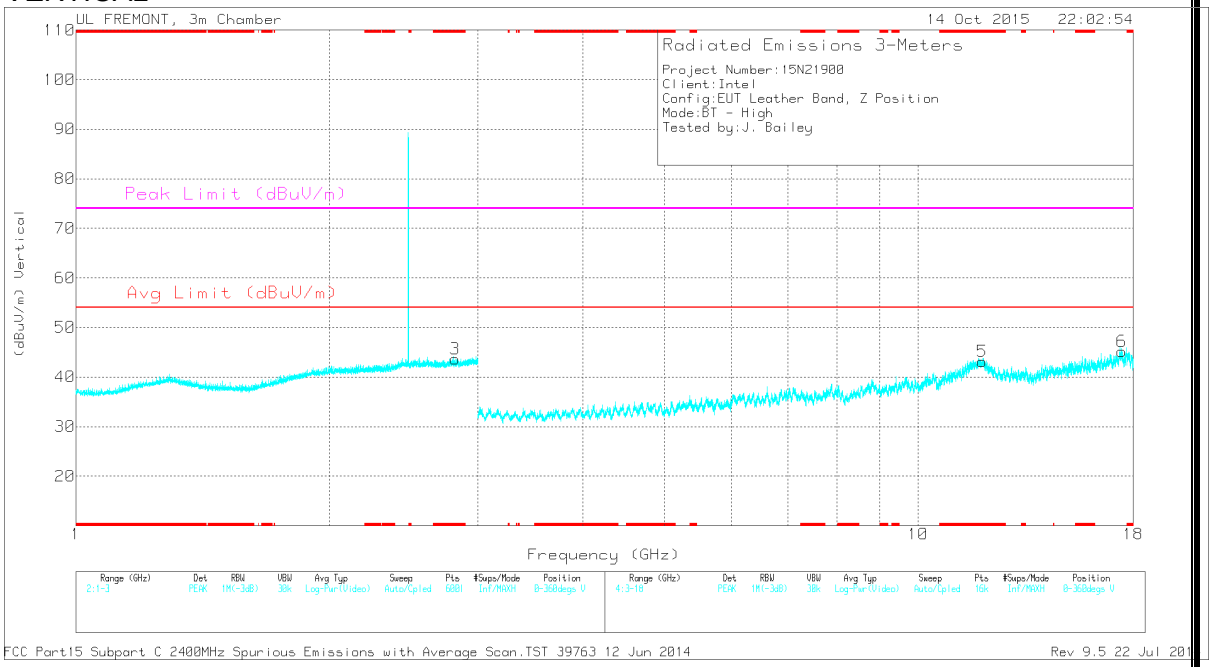
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

HIGH CHANNEL

HORIZTONAL



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.

DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.29	42.98	PK3	29.8	-23.1	49.68	-	-	74	-24.32	190	103	H
* 1.29	30	VB1T	29.8	-23.1	36.7	54	-17.3	-	-	190	103	H
* 2.818	42.63	PK3	32.6	-22.1	53.13	-	-	74	-20.87	161	219	V
* 2.818	29.56	VB1T	32.6	-22.1	40.06	54	-13.94	-	-	161	219	V
* 4.938	40.9	PK3	34	-29.8	45.1	-	-	74	-28.9	313	340	H
* 4.938	28.01	VB1T	34	-29.8	32.21	54	-21.79	-	-	313	340	H
* 11.906	36.23	PK3	39.1	-22.7	52.63	-	-	74	-21.37	58	399	V
* 11.907	23.5	VB1T	39.1	-22.8	39.8	54	-14.2	-	-	58	399	V
2.046	29.58	VB1T	31.5	-22.5	38.58	54	-15.42	-	-	58	100	H
2.048	42.43	PK3	31.5	-22.5	51.43	-	-	74	-22.57	58	100	H
17.432	22.74	VB1T	41.4	-21.9	42.24	54	-11.76	-	-	58	200	V
17.435	36.02	PK3	41.4	-21.9	55.52	-	-	74	-18.48	58	200	V

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

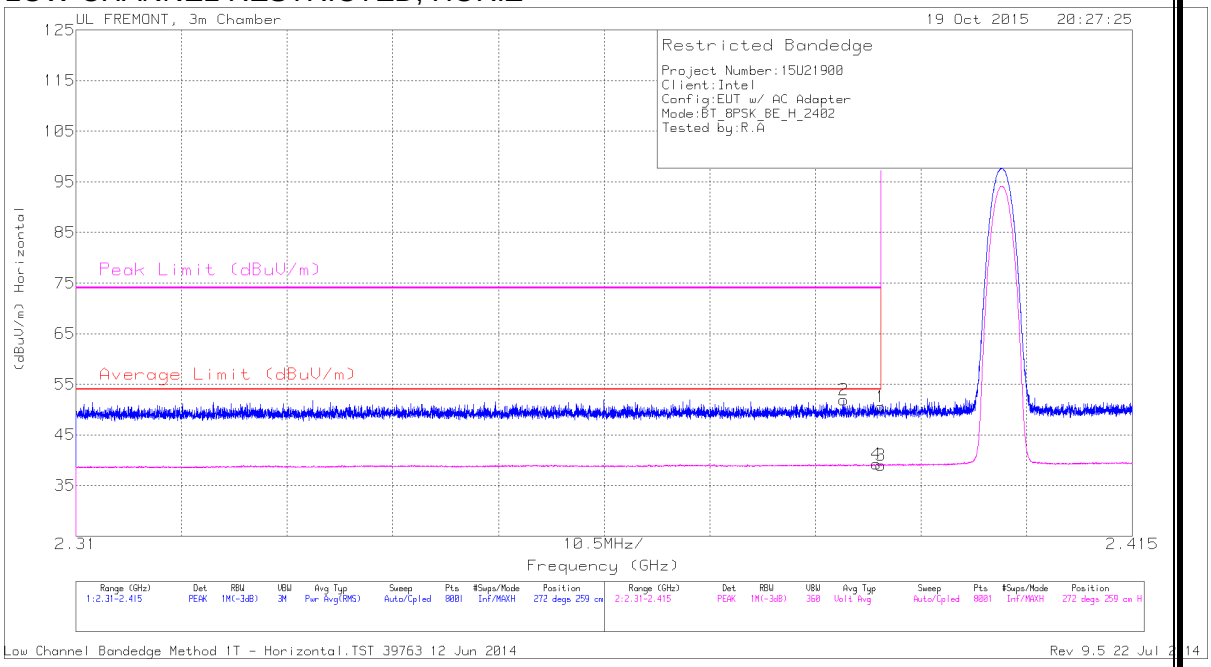
PK3 - FHSS Method: Maximum Peak

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

8.3. TX ABOVE 1 GHz ENHANCED DATA RATE 8PSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL)

LOW CHANNEL RESTRICTED, HORIZ



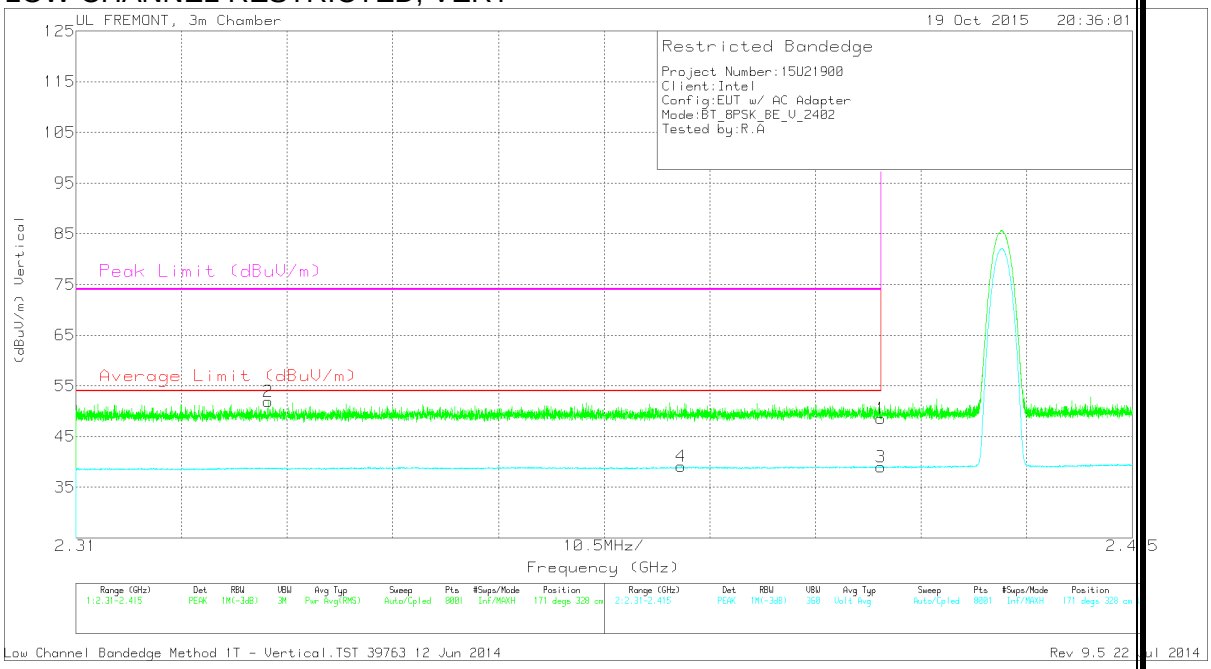
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.386	42.33	PK	32	-22.4	51.93	-	-	74	-22.07	272	259	H
1	2.39	40.89	PK	32	-22.4	50.49	-	-	74	-23.51	272	259	H
3	2.39	29.38	VB1T	32	-22.4	38.98	54	-15.02	-	-	272	259	H
4	2.39	29.62	VB1T	32	-22.4	39.22	54	-14.78	-	-	272	259	H

PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

LOW CHANNEL RESTRICTED, VERT



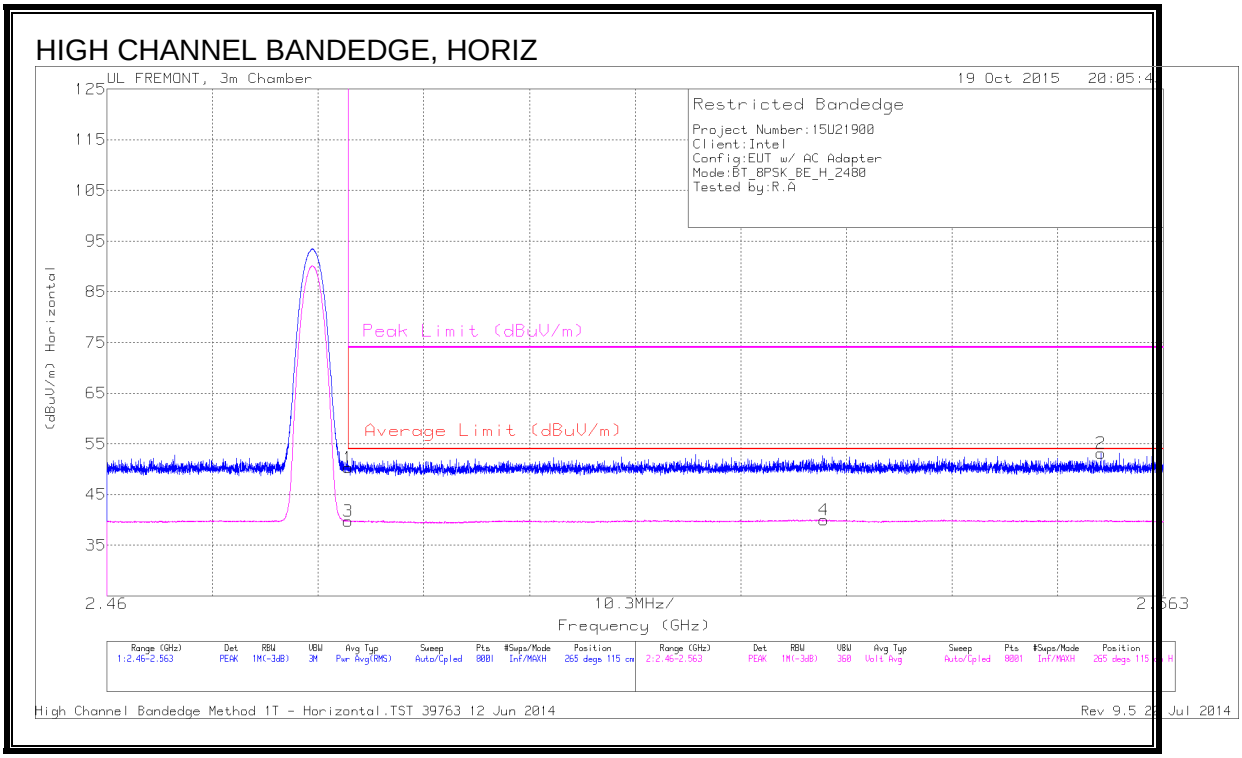
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.329	42.58	PK	31.7	-22.4	51.88	-	-	74	-22.12	171	328	V
4	2.37	29.62	VB1T	31.9	-22.4	39.12	54	-14.88	-	-	171	328	V
1	2.39	38.99	PK	32	-22.4	48.59	-	-	74	-25.41	171	328	V
3	2.39	29.43	VB1T	32	-22.4	39.03	54	-14.97	-	-	171	328	V

PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

AUTHORIZED BANDEDGE (HIGH CHANNEL)

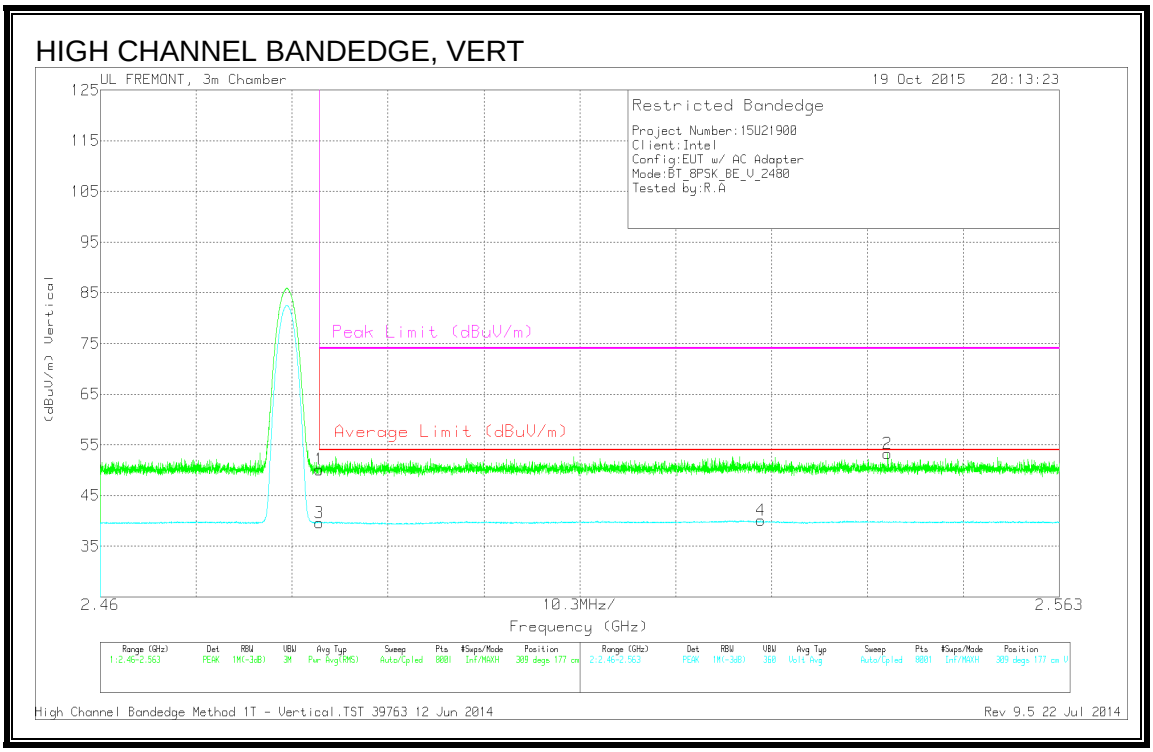


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	40.06	PK	32.3	-22.1	50.26	-	-	74	-23.74	265	115	H
3	2.484	29.54	VB1T	32.3	-22.1	39.74	54	-14.26	-	-	265	115	H
4	2.53	29.6	VB1T	32.4	-22	40	54	-14	-	-	265	115	H
2	2.557	42.8	PK	32.4	-22	53.2	-	-	74	-20.8	265	115	H

PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	39.91	PK	32.3	-22.1	50.11	-	-	74	-23.89	309	177	V
3	2.484	29.39	VB1T	32.3	-22.1	39.59	54	-14.41	-	-	309	177	V
4	2.531	29.67	VB1T	32.4	-22	40.07	54	-13.93	-	-	309	177	V
2	2.545	42.91	PK	32.4	-22	53.31	-	-	74	-20.69	309	177	V

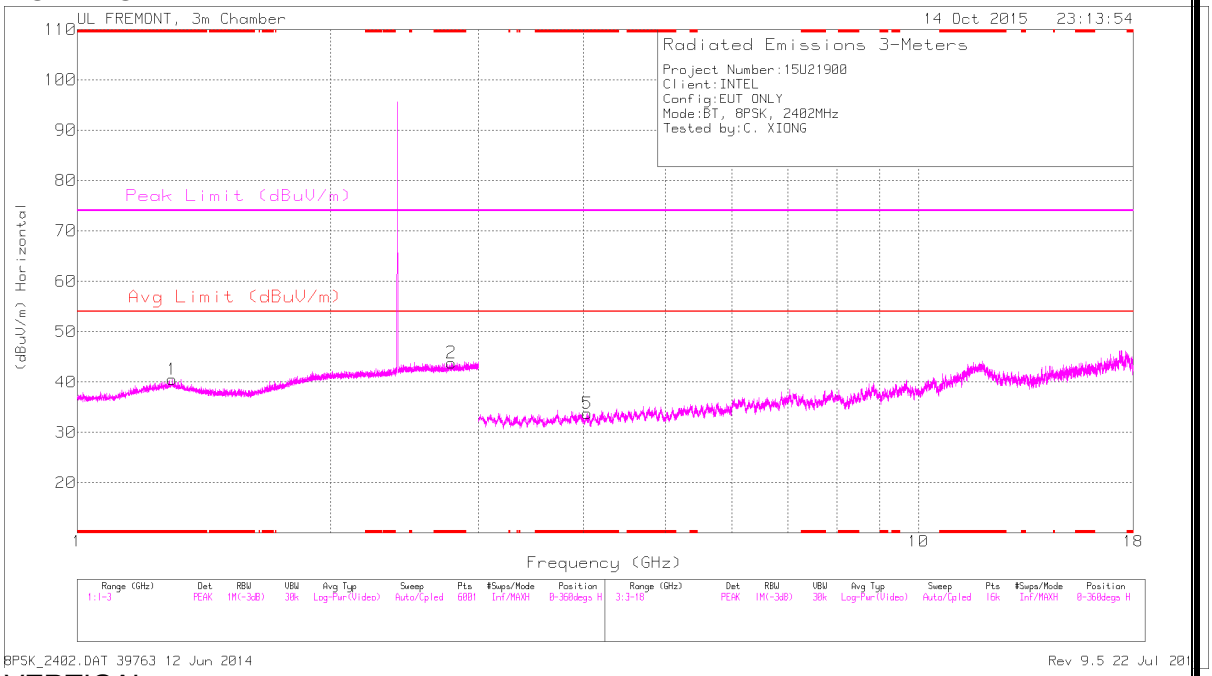
PK - Peak detector

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

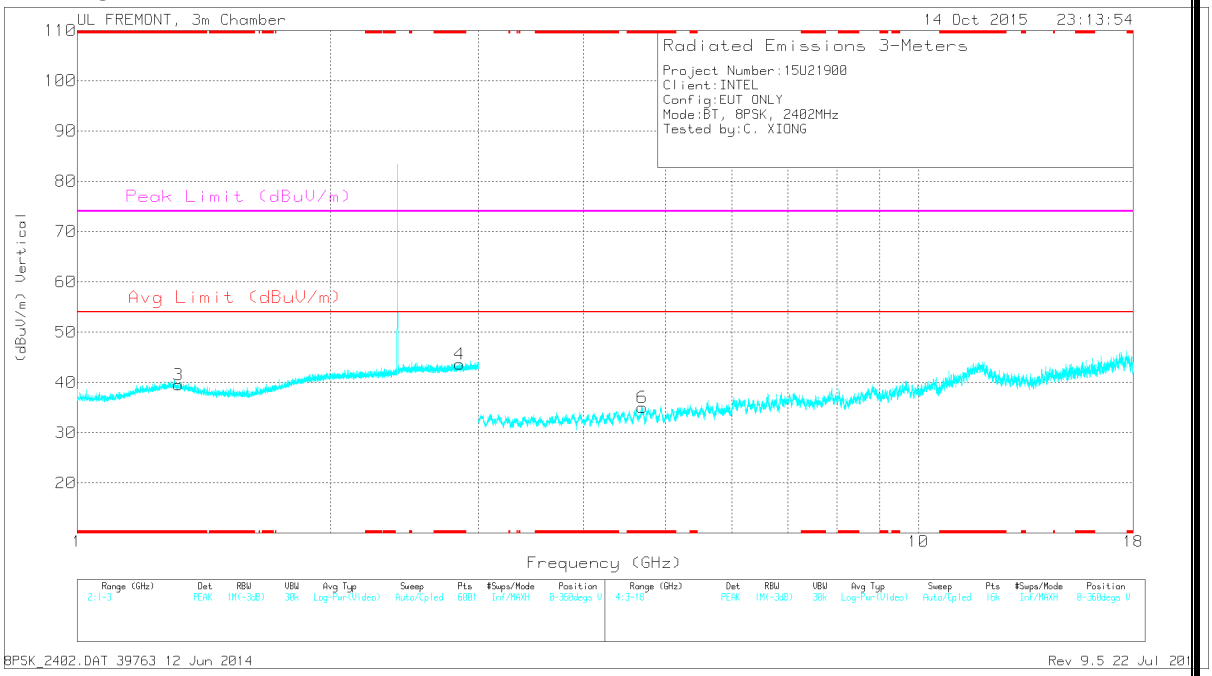
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL

HORIZTONAL



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.

DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.296	43.06	PK3	29.9	-23.2	0	49.76	-	-	74	-24.24	3	100	H
* 1.297	29.71	VB1T	29.9	-23.2	0	36.41	54	-17.59	-	-	3	100	H
* 2.783	42.41	PK3	32.5	-22.2	0	52.71	-	-	74	-21.29	3	100	H
* 2.784	29.45	VB1T	32.5	-22.2	0	39.75	54	-14.25	-	-	3	100	H
* 1.32	42.93	PK3	29.6	-23.1	0	49.43	-	-	74	-24.57	3	100	V
* 1.32	29.62	VB1T	29.6	-23.1	0	36.12	54	-17.88	-	-	3	100	V
* 2.85	42.33	PK3	32.6	-22	0	52.93	-	-	74	-21.07	3	100	V
* 2.85	29.24	VB1T	32.6	-22	0	39.84	54	-14.16	-	-	3	100	V
* 4.043	40.92	PK3	33.3	-30.7	0	43.52	-	-	74	-30.48	3	100	H
* 4.042	27.67	VB1T	33.3	-30.7	0	30.27	54	-23.73	-	-	3	100	H
* 4.697	40.41	PK3	34.1	-30.1	0	44.41	-	-	74	-29.59	3	100	V
* 4.696	27.4	VB1T	34	-30.1	0	31.3	54	-22.7	-	-	3	100	V

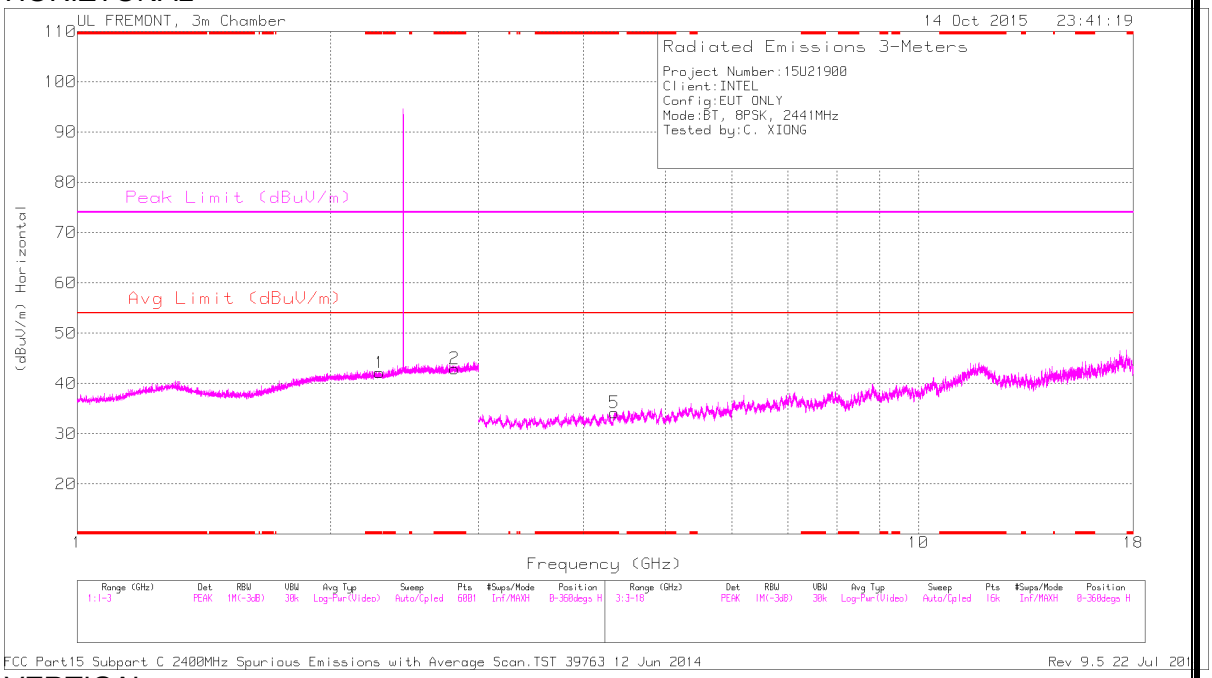
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

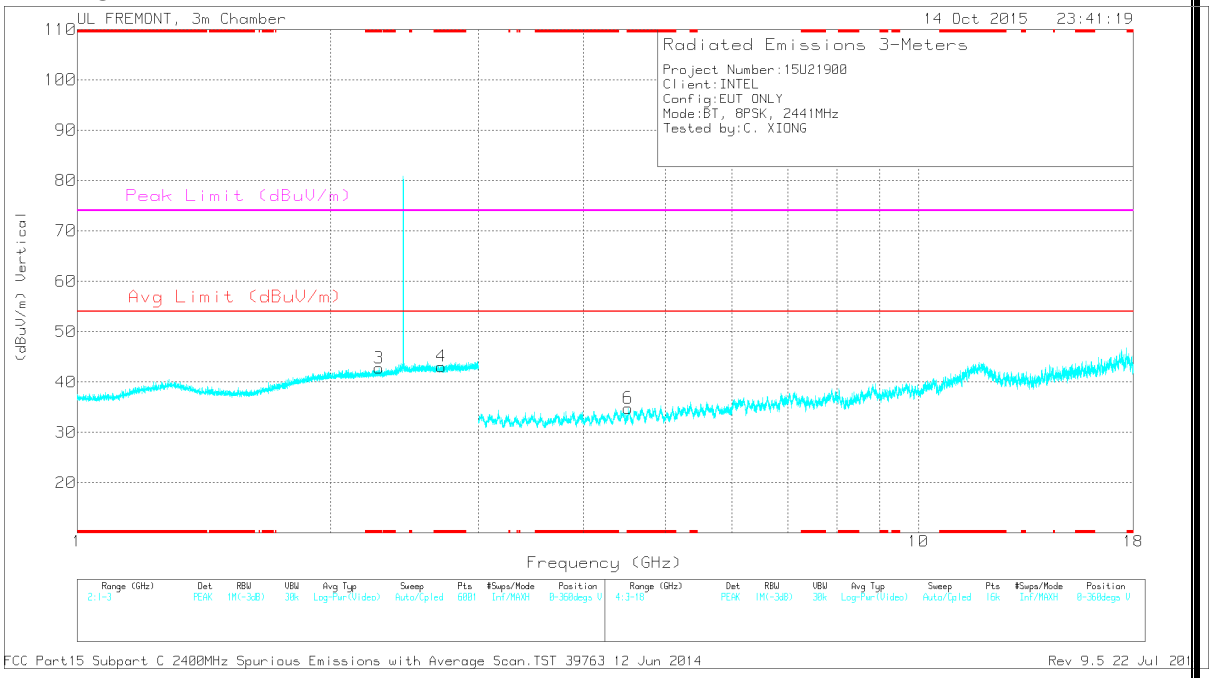
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

MID CHANNEL

HORIZTONAL



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.

DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.288	42.6	PK3	31.6	-22.3	0	51.9	-	-	74	-22.1	1	100	H
* 2.288	29.34	VB1T	31.6	-22.3	0	38.64	54	-15.36	-	-	1	100	H
* 2.811	42.01	PK3	32.6	-22.1	0	52.51	-	-	74	-21.49	1	100	H
* 2.811	29.18	VB1T	32.6	-22.1	0	39.68	54	-14.32	-	-	1	100	H
* 2.283	42.32	PK3	31.6	-22.3	0	51.62	-	-	74	-22.38	1	100	V
* 2.285	29.37	VB1T	31.6	-22.3	0	38.67	54	-15.33	-	-	1	100	V
* 2.71	42.66	PK3	32.3	-22.1	0	52.86	-	-	74	-21.14	1	100	V
* 2.71	29.32	VB1T	32.3	-22.1	0	39.52	54	-14.48	-	-	1	100	V
* 4.35	39.82	PK3	33.6	-29.5	0	43.92	-	-	74	-30.08	1	100	H
* 4.35	26.62	VB1T	33.6	-29.5	0	30.72	54	-23.28	-	-	1	100	H
* 4.516	40.48	PK3	33.8	-30.8	0	43.48	-	-	74	-30.52	1	100	V
* 4.518	27.68	VB1T	33.8	-30.8	0	30.68	54	-23.32	-	-	1	100	V

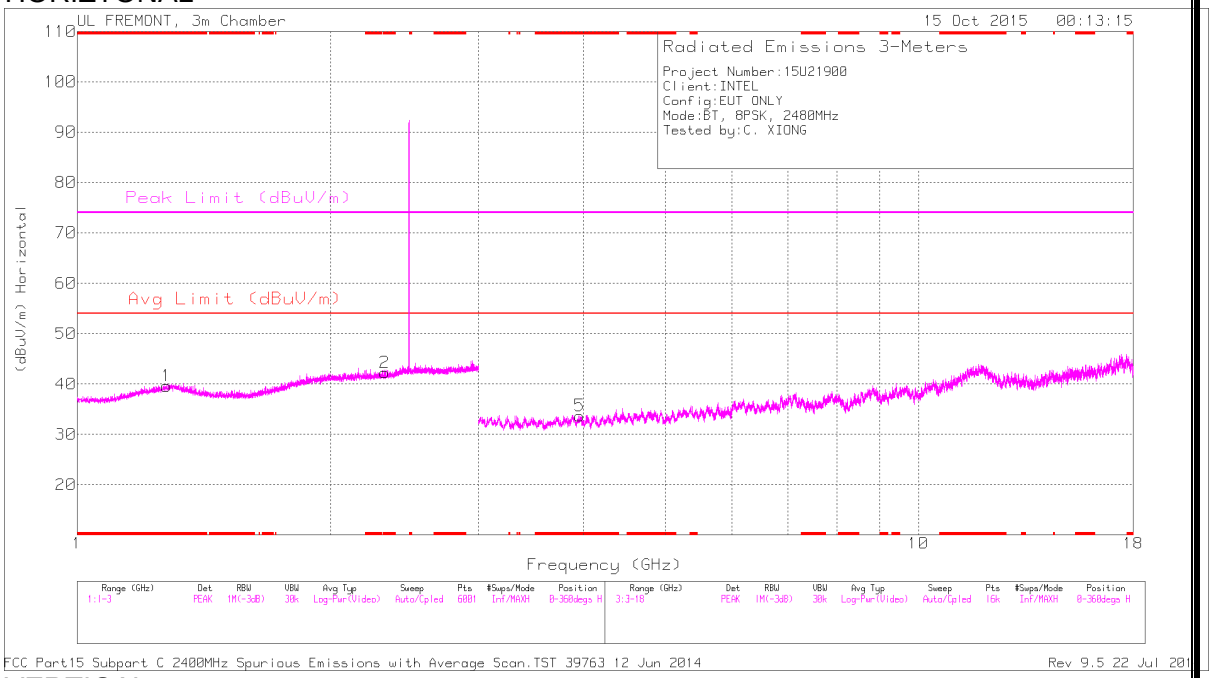
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

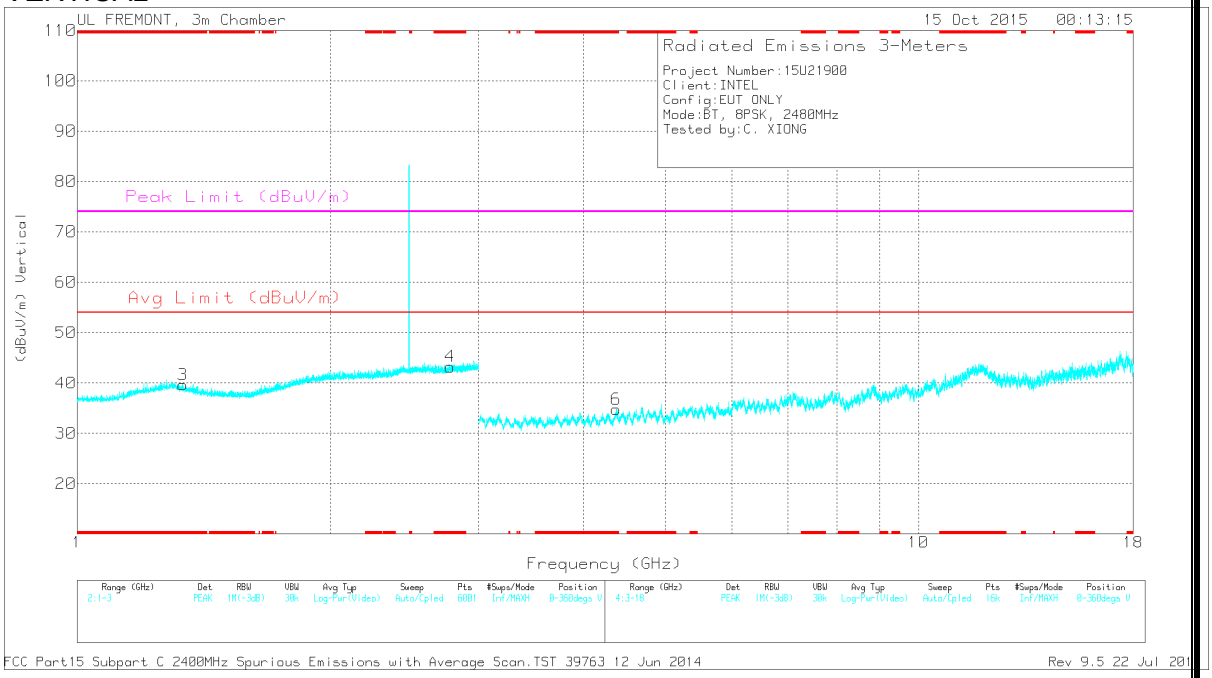
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

HIGH CHANNEL

HORIZTONAL



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.

DATA

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.276	42.74	PK3	29.7	-23.1	0	49.34	-	-	74	-24.66	1	100	H
* 1.276	29.7	VB1T	29.7	-23.1	0	36.3	54	-17.7	-	-	1	100	H
* 2.322	43.51	PK3	31.7	-22.5	0	52.71	-	-	74	-21.29	1	100	H
* 2.322	29.33	VB1T	31.7	-22.5	0	38.53	54	-15.47	-	-	1	100	H
* 1.335	43.37	PK3	29.4	-23.1	0	49.67	-	-	74	-24.33	1	100	V
* 1.337	29.64	VB1T	29.4	-23.1	0	35.94	54	-18.06	-	-	1	100	V
* 2.775	42.79	PK3	32.5	-22.1	0	53.19	-	-	74	-20.81	1	100	V
* 2.774	29.37	VB1T	32.5	-22.1	0	39.77	54	-14.23	-	-	1	100	V
* 3.958	40.14	PK3	33.2	-30.4	0	42.94	-	-	74	-31.06	1	100	H
* 3.958	27.51	VB1T	33.2	-30.4	0	30.31	54	-23.69	-	-	1	100	H
* 4.37	39.78	PK3	33.6	-29.3	0	44.08	-	-	74	-29.92	1	100	V
* 4.37	27.01	VB1T	33.6	-29.3	0	31.31	54	-22.69	-	-	1	100	V

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

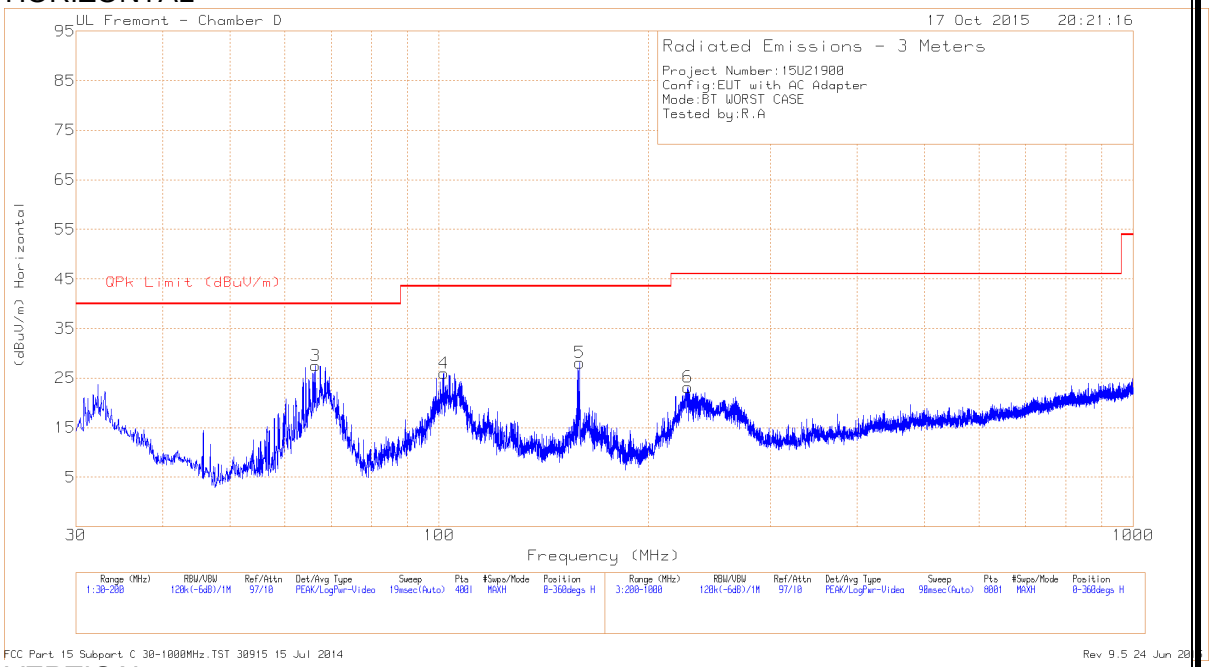
PK3 - FHSS Method: Maximum Peak

VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

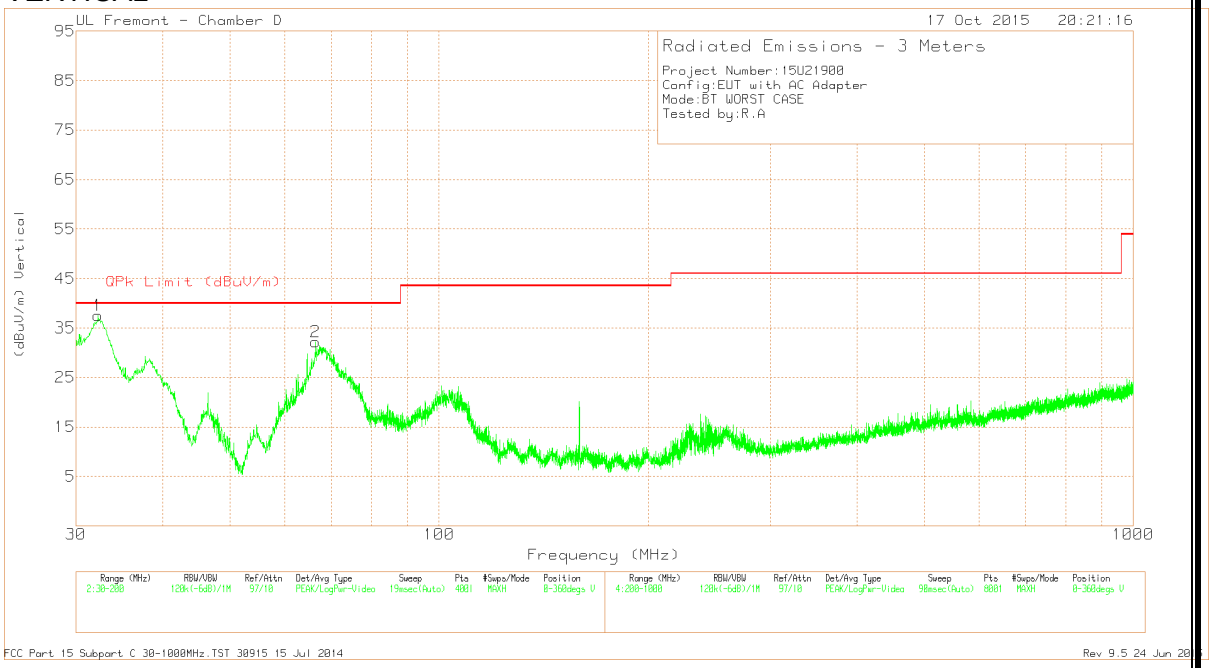
8.4. WORST-CASE BELOW 1 GHz

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

HORIZONTAL



VERTICAL



DATA

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T407 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	32.295	49.29	Pk	20.1	-31.9	37.49	40	-2.51	0-360	100	V
3	66.38	51.06	Pk	8	-31.5	27.56	40	-12.44	0-360	401	H
2	66.465	55.65	Pk	8	-31.5	32.15	40	-7.85	0-360	100	V
4	101.5275	46.84	Pk	10.5	-31.4	25.94	43.52	-17.58	0-360	301	H
5	159.4125	46.98	Pk	12.1	-31	28.08	43.52	-15.44	0-360	401	H
6	228.3	42.93	Pk	10.9	-30.7	23.13	46.02	-22.89	0-360	100	H

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T407 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
32.4781	37.34	Qp	19.9	-31.8	25.44	40	-14.56	276	105	V

Qp - Quasi-Peak detector

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

TEST PROCEDURE

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

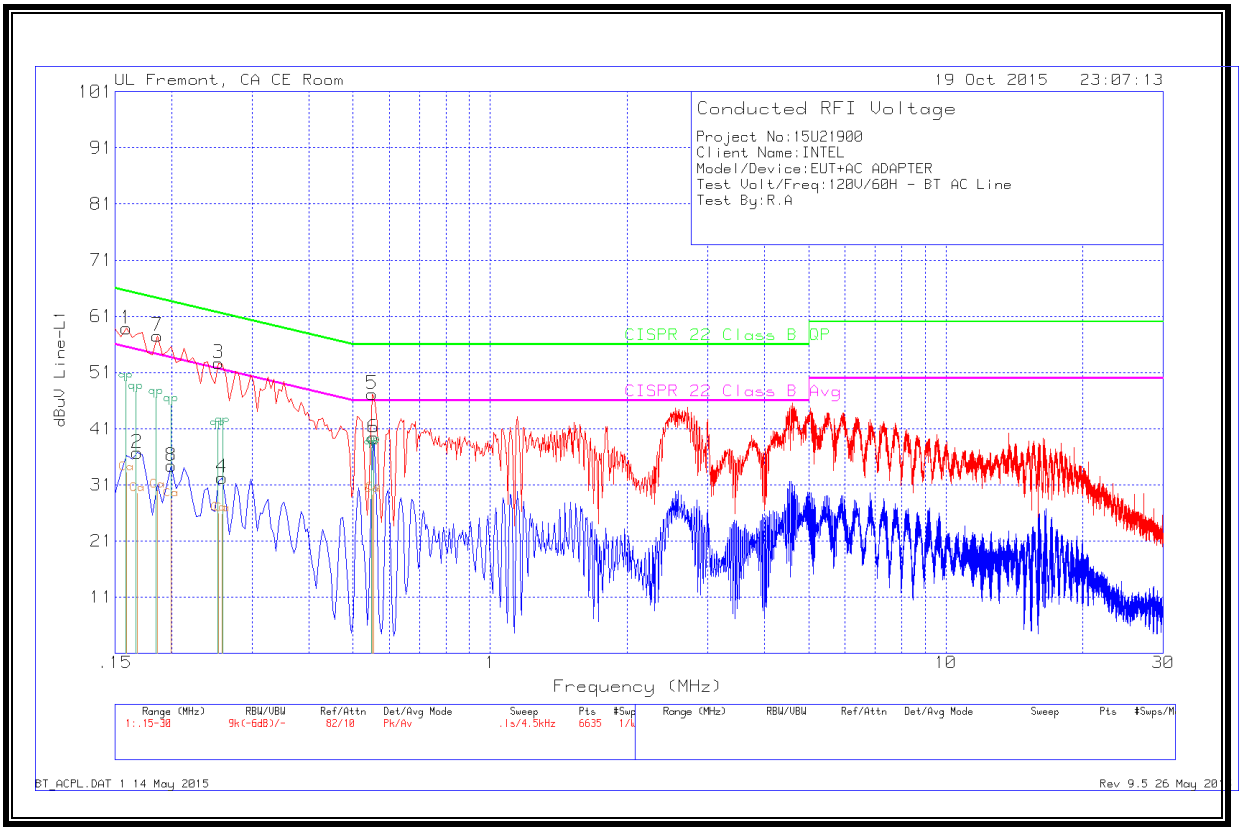
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

9.1. EUT WITH AC ADAPTER

LINE 1 RESULTS



DATA

Range 1: Line-L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
.15878	31.81	Ca	1.3	0	33.11	-	-	55.53	-22.42
.16688	28.22	Ca	1.2	0	29.42	-	-	55.11	-25.69
.25238	25.2	Ca	.7	0	25.9	-	-	51.68	-25.78
.25868	25.09	Ca	.7	0	25.79	-	-	51.47	-25.68
.54938	28.9	Ca	.3	0	29.2	-	-	46	-16.8
.55388	29.29	Ca	.3	0	29.59	-	-	46	-16.41
.18488	29.03	Ca	1	0	30.03	-	-	54.26	-24.23
.19928	27.53	Ca	.9	0	28.43	-	-	53.64	-25.21

Ca - CISPR average detection

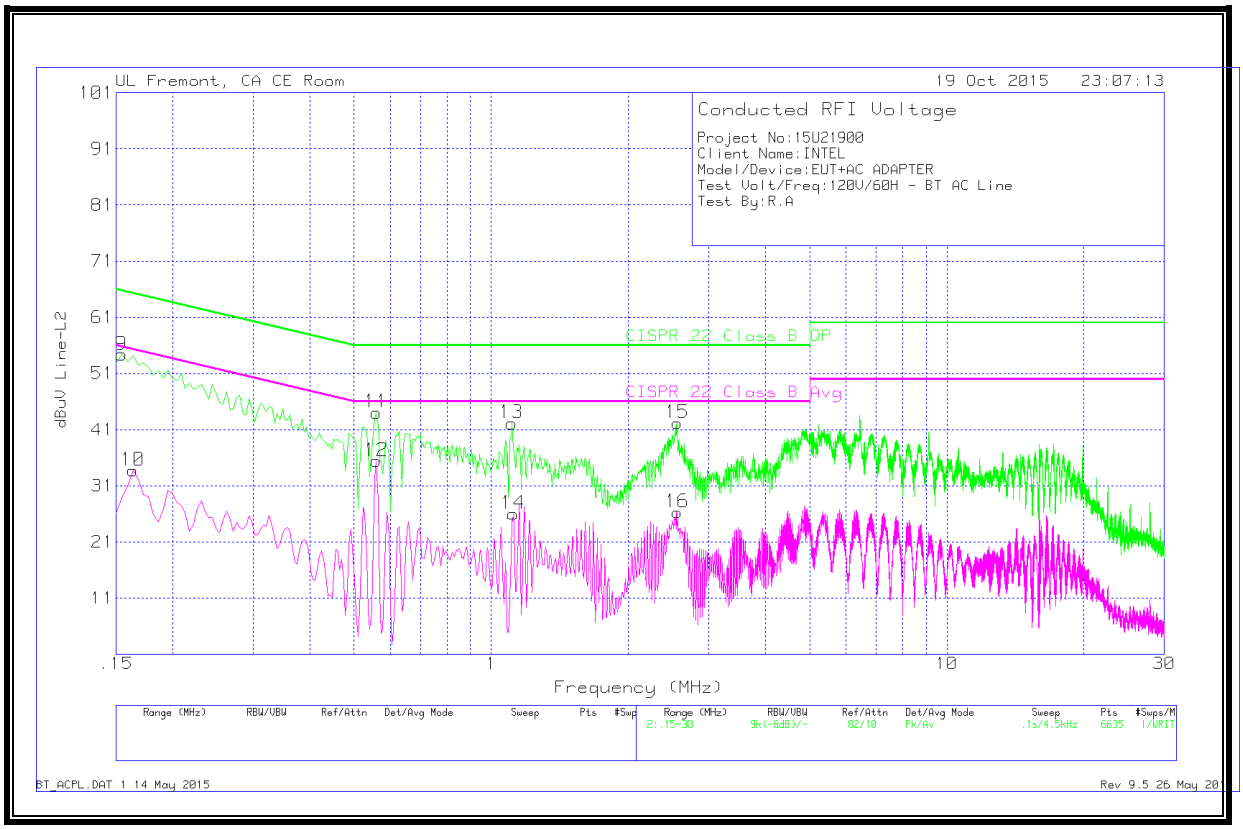
Quasi-Peak Emissions

Range 1: Line-L1 .15 - 30MHz

Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
.15878	48.23	Qp	1.3	0	49.53	65.53	-16	-	-
.16688	46.37	Qp	1.2	0	47.57	65.11	-17.54	-	-
.25238	40.38	Qp	.7	0	41.08	61.68	-20.6	-	-
.25868	40.9	Qp	.7	0	41.6	61.47	-19.87	-	-
.54938	37.32	Qp	.3	0	37.62	56	-18.38	-	-
.55388	37.76	Qp	.3	0	38.06	56	-17.94	-	-
.18488	45.62	Qp	1	0	46.62	64.26	-17.64	-	-
.19928	44.46	Qp	.9	0	45.36	63.64	-18.28	-	-

Qp - Quasi-Peak detector

LINE 2 RESULTS



DATA

Range 2: Line-L2 .15 - 30MHz

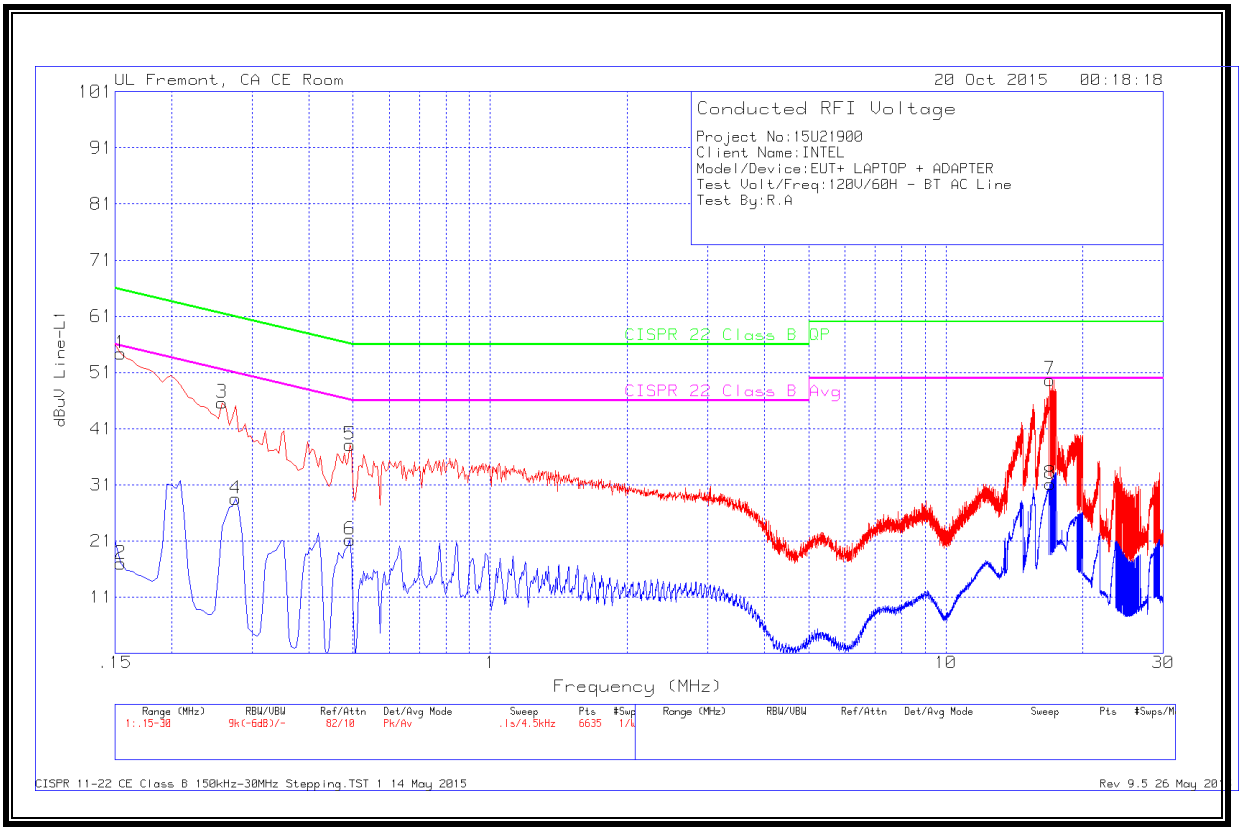
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
9	.1545	52.98	Pk	1.4	0	54.38	65.75	-11.37		
10	.1635	32.44	Av	1.3	0	33.74	-	-	55.28	-21.54
11	.5595	43.78	Pk	.3	0	44.08	56	-11.92		
12	.5595	35.11	Av	.3	0	35.41	-	-	46	-10.59
13	1.1085	41.85	Pk	.3	0	42.15	56	-13.85		
14	1.1175	25.73	Av	.3	0	26.03	-	-	46	-19.97
15	2.562	41.88	Pk	.2	.1	42.18	56	-13.82		
16	2.562	26	Av	.2	.1	26.3	-	-	46	-19.7

Pk - Peak detector

Av - Average detection

9.2. EUT WITH USB LAPTOP

LINE 1 RESULTS



DATA

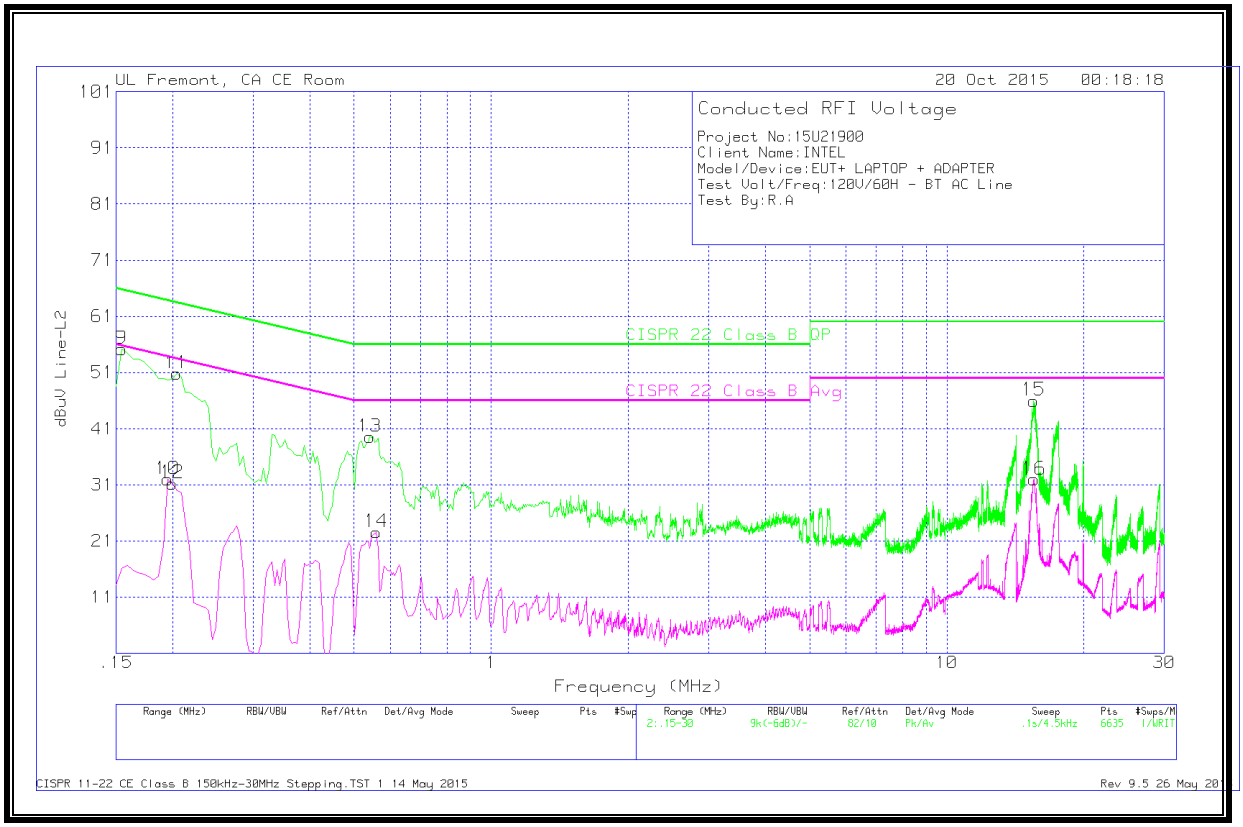
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.1545	53.11	Pk	1.3	0	54.41	65.75	-11.34		
2	.1545	15.67	Av	1.3	0	16.97	-	-	55.75	-38.78
3	.258	44.92	Pk	.7	0	45.62	61.5	-15.88		
4	.276	27.92	Av	.6	0	28.52	-	-	50.94	-22.42
5	.492	37.83	Pk	.3	0	38.13	56.13	-18		
6	.492	20.94	Av	.3	0	21.24	-	-	46.13	-24.89
7	16.926	49.21	Pk	.3	.2	49.71	60	-10.29		
8	16.9485	30.67	Av	.3	.2	31.17	-	-	50	-18.83

Pk - Peak detector

Av - Average detection

LINE 2 RESULTS



DATA

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
9	.1545	53.81	Pk	1.4	0	55.21	65.75	-10.54		
10	.195	30.99	Av	1	0	31.99	-	-	53.82	-21.83
11	.204	49.83	Pk	1	0	50.83	63.45	-12.62		
12	.1995	30.27	Av	1	0	31.27	-	-	53.63	-22.36
13	.5415	39.26	Pk	.3	0	39.56	56	-16.44		
14	.5595	22.27	Av	.3	0	22.57	-	-	46	-23.43
15	15.513	45.5	Pk	.3	.2	46	60	-14		
16	15.5355	31.47	Av	.3	.2	31.97	-	-	50	-18.03

Pk - Peak detector

Av - Average detection