



**FCC CFR47 PART 15 SUBPART C
CERTIFICATION TEST REPORT**

FOR

GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC

MODEL NUMBER: LG-H791, LGH791, H791

FCC ID: ZNFH791

REPORT NUMBER: 15I21237-E2V1

ISSUE DATE: JULY 23, 2015

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Date	Revisions	Revised By
--	7/23/15	Initial issue	C. OOI

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC
EUT DESCRIPTION: GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC
MODEL: LG-H791, LGH791, H791
SERIAL NUMBER: Conducted: 1ZBRT ; Radiated: 1ZBRK, 1ZBRL
DATE TESTED: JULY 13 -21, 2015

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

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

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

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, DA 00-705, ANSI C63.10-2009 for FCC.

ANSI C63.10-2009 Deviation

Radiated spurious emission above 1GHz was performed with the EUT elevated at 1.5m instead of 0.8m. 1.5m is the required height in ANSI C63.10:2013 as referenced by RSS GEN issue 4.

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 checked="" type="checkbox"/> Chamber A(IC: 2324B-1)	<input type="checkbox"/> Chamber D(IC: 2324B-4)
<input type="checkbox"/> Chamber B(IC: 2324B-2)	<input type="checkbox"/> Chamber E(IC: 2324B-5)
<input checked="" type="checkbox"/> Chamber C(IC: 2324B-3)	<input type="checkbox"/> Chamber F(IC: 2324B-6)
	<input type="checkbox"/> Chamber G(IC: 2324B-7)
	<input type="checkbox"/> Chamber H(IC: 2324B-8)

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:

$$\text{Field Strength (dBuV/m)} = \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Preamp Gain (dB)}$$

$$36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} = 28.9 \text{ dBuV/m}$$

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 18000 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 GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC.

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	9.32	8.55
2402 - 2480	Enhanced 8PSK	8.67	7.36

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 an FPCB antenna, with a maximum gain of -0.05dBi.

5.4. 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.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-N04WS	SA560000030	DoC
Earphone	LG	-	-	

I/O CABLES

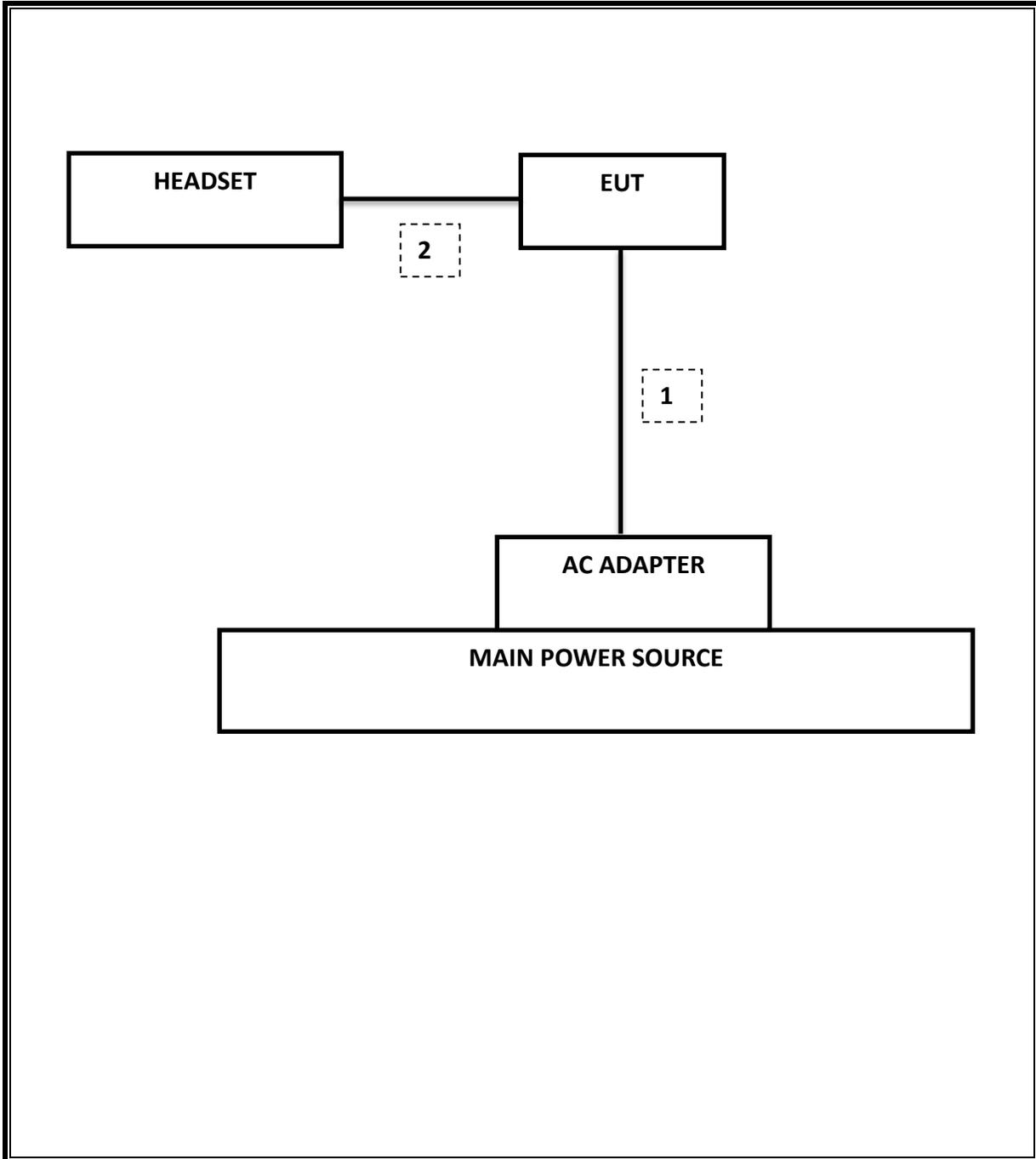
I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1m	N/A

TEST SETUP

The EUT is continuously communicating to the Bluetooth tester during the tests.

EUT was set in the Hidden menu mode to enable BT communications.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	C01171	02/13/16
Antenna, Horn, 18GHz	EMCO	3115	C00783	10/25/15
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	11/14/15
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/16
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/16
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15
CBT Bluetooth Tester	R & S	CBT	None	07/12/15
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/16
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	N02684	CNR
Radiated Software	UL	UL EMC	Ver 9.5, July 22, 2014	
Conducted Software	UL	UL EMC	Ver 9.5, May 17 2012	
CLT Software	UL	UL RF	Ver 1.0, Feb 2 2015	
Antenna Port Software	UL	UL RF	Ver 2.1.1.1, Jan 20 2015	

7. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
2.1049	RSS-GEN 4.6	Occupied Band width (99%)	N/A	Conducted	Pass	1.212MHz
2.1051, 15.247 (d)	RSS-247 5.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-51.29dBm
15.247 (b)(1)	RSS-247 5.4.2	TX conducted output power	<21dBm		Pass	9.32dBm
15.247 (a)(1)	RSS-247 5.1.2	Hopping frequency separation	> 25KHz		Pass	1MHz
15.247 (a)(1)(iii)	RSS-247 5.1.4	Number of Hopping channels	More than 15 non-overlapping channels		Pass	79
15.247 (a)(1)(iii)	RSS-247 5.1.4	Avg Time of Occupancy	< 0.4sec		Pass	0.3731sec
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	54.1dBuV(PK)
15.205, 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m		Pass	51.00dBuV/m

8. ANTENNA PORT TEST RESULTS

8.1. 20 dB AND 99% BANDWIDTH

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

DA 00-705: The transmitter output is connected to a spectrum analyzer. The RBW is set to $\geq 1\%$ of the 20 dB bandwidth. The VBW is set to \geq RBW. The sweep time is coupled.

RESULTS

8.1.1. BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	0.950	0.945
Middle	2441	0.936	0.917
High	2480	0.946	0.908
Worst		0.950	0.945

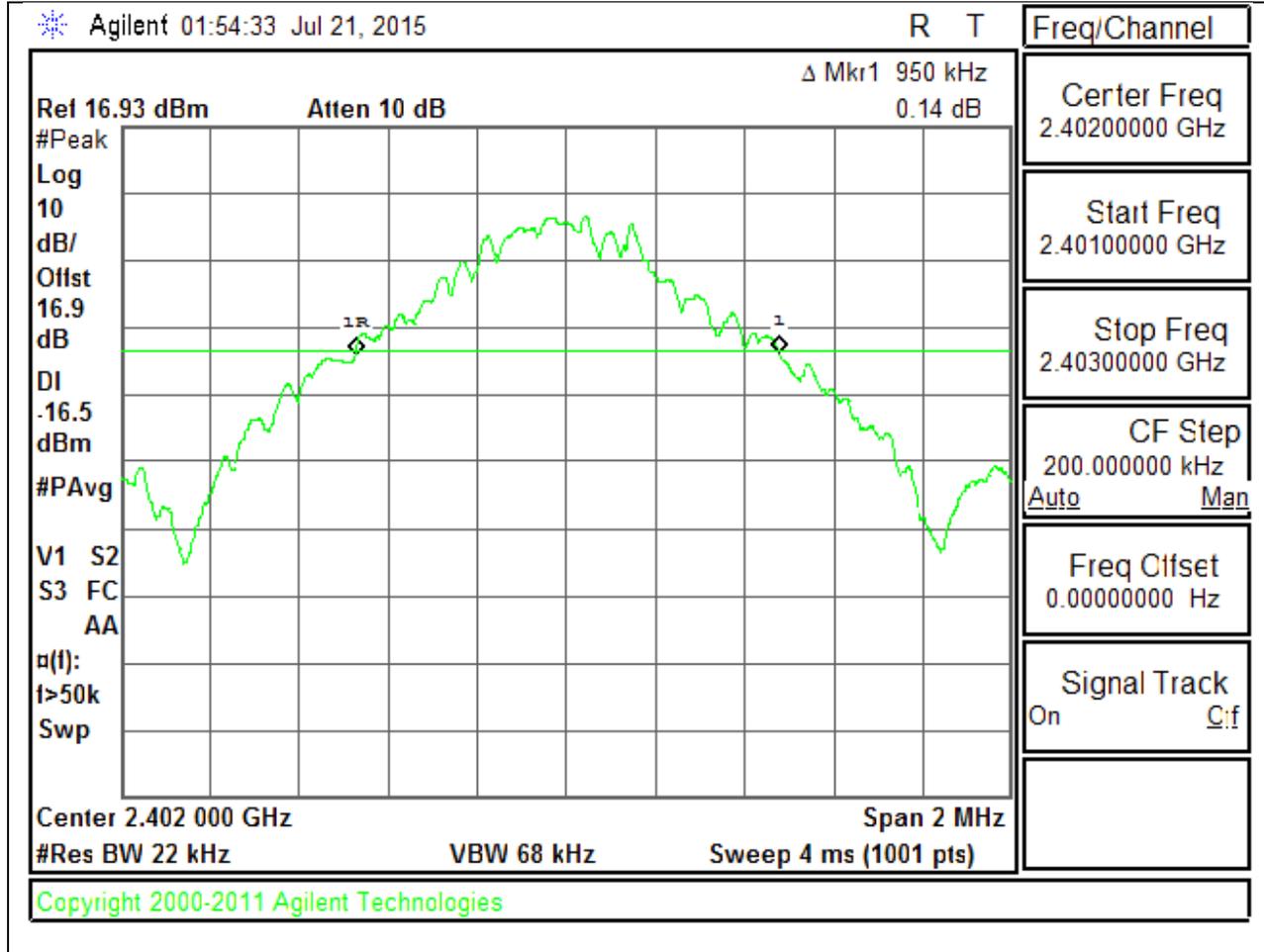
8.1.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	1.299	1.191
Middle	2441	1.308	1.201
High	2480	1.305	1.212
Worst		1.308	1.212

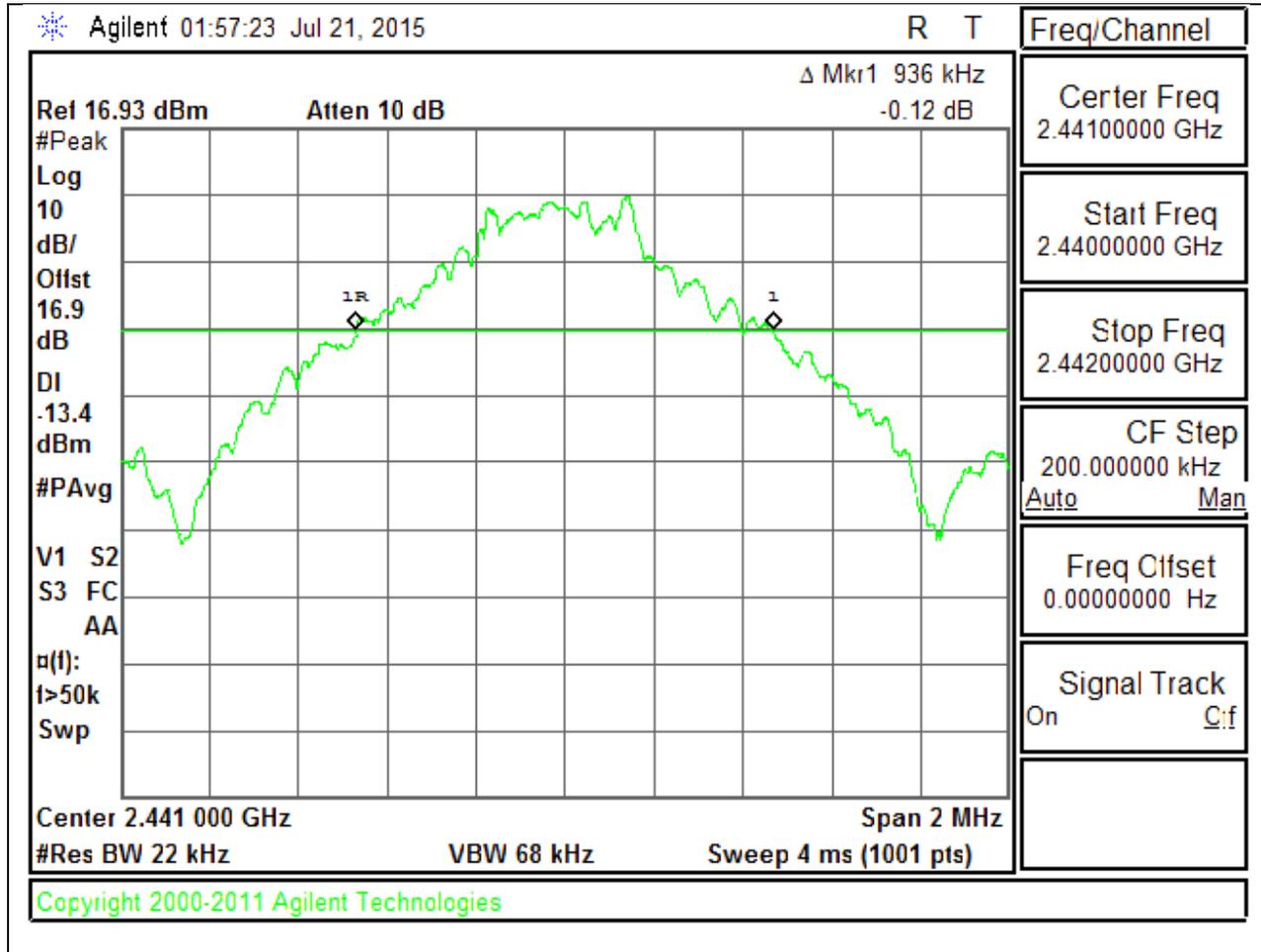
8.1.3. 20 dB AND 99% BANDWIDTH PLOTS

GFSK 20 dB BANDWIDTH

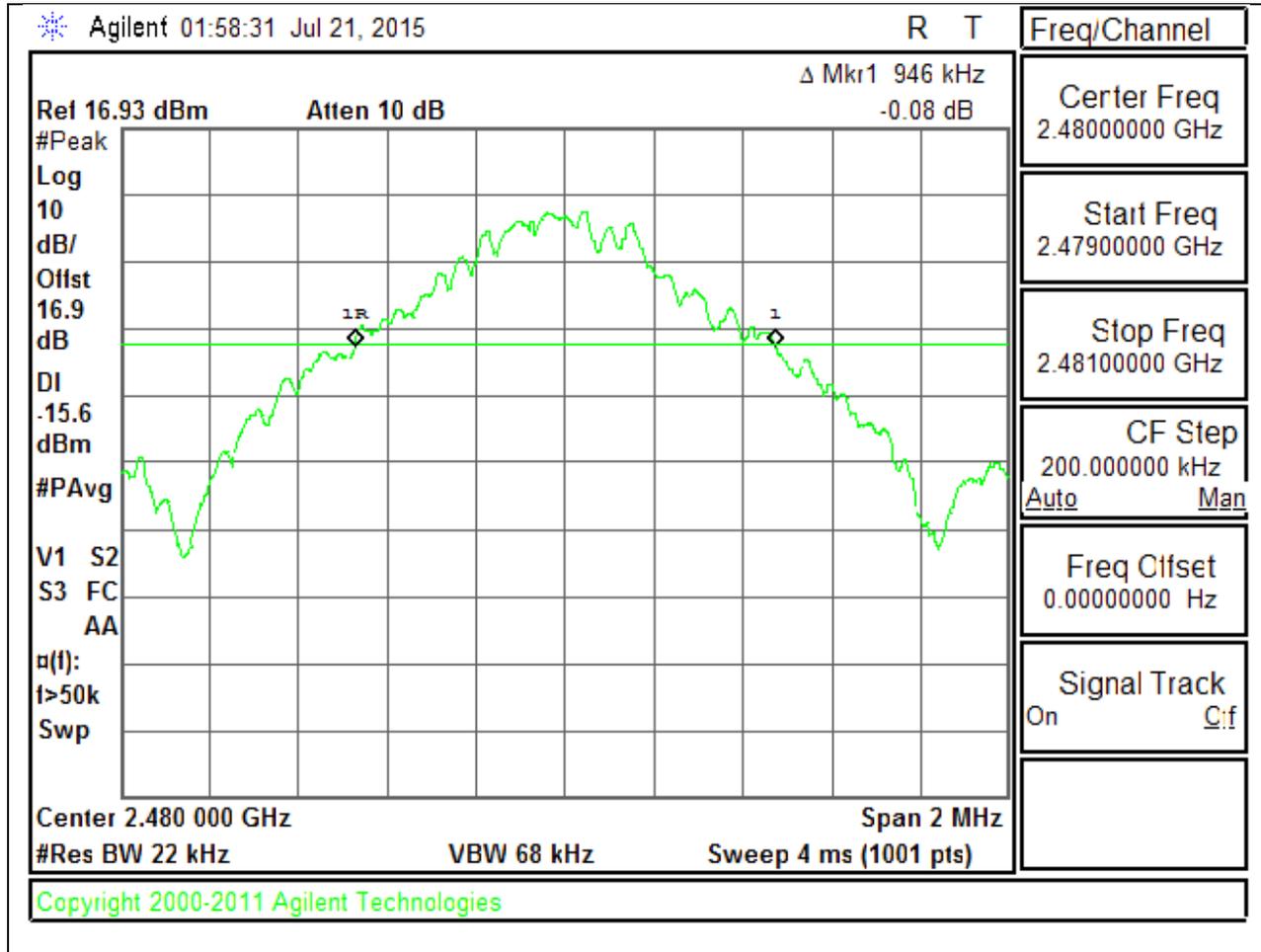
LOW CHANNEL



MID CHANNEL

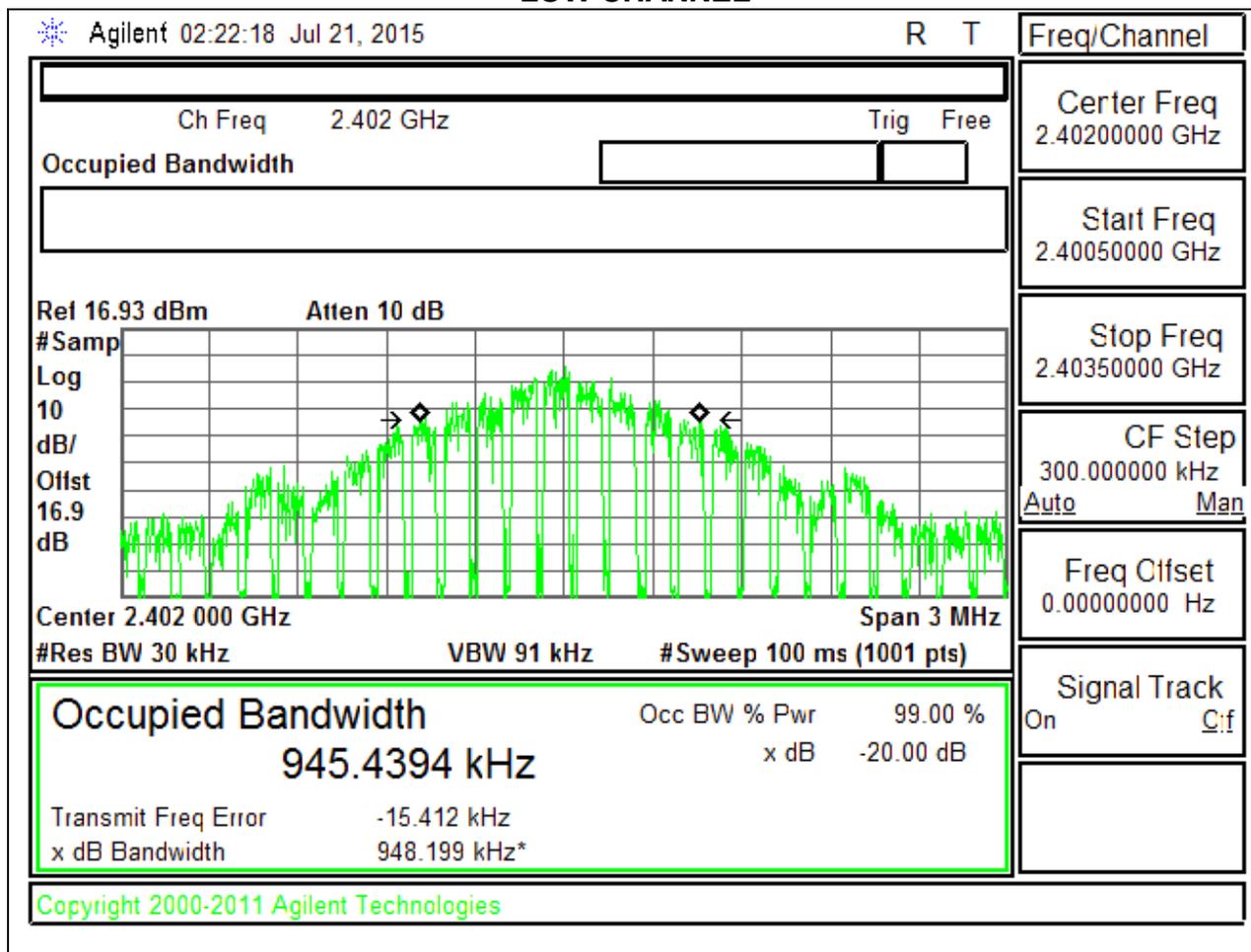


HIGH CHANNEL

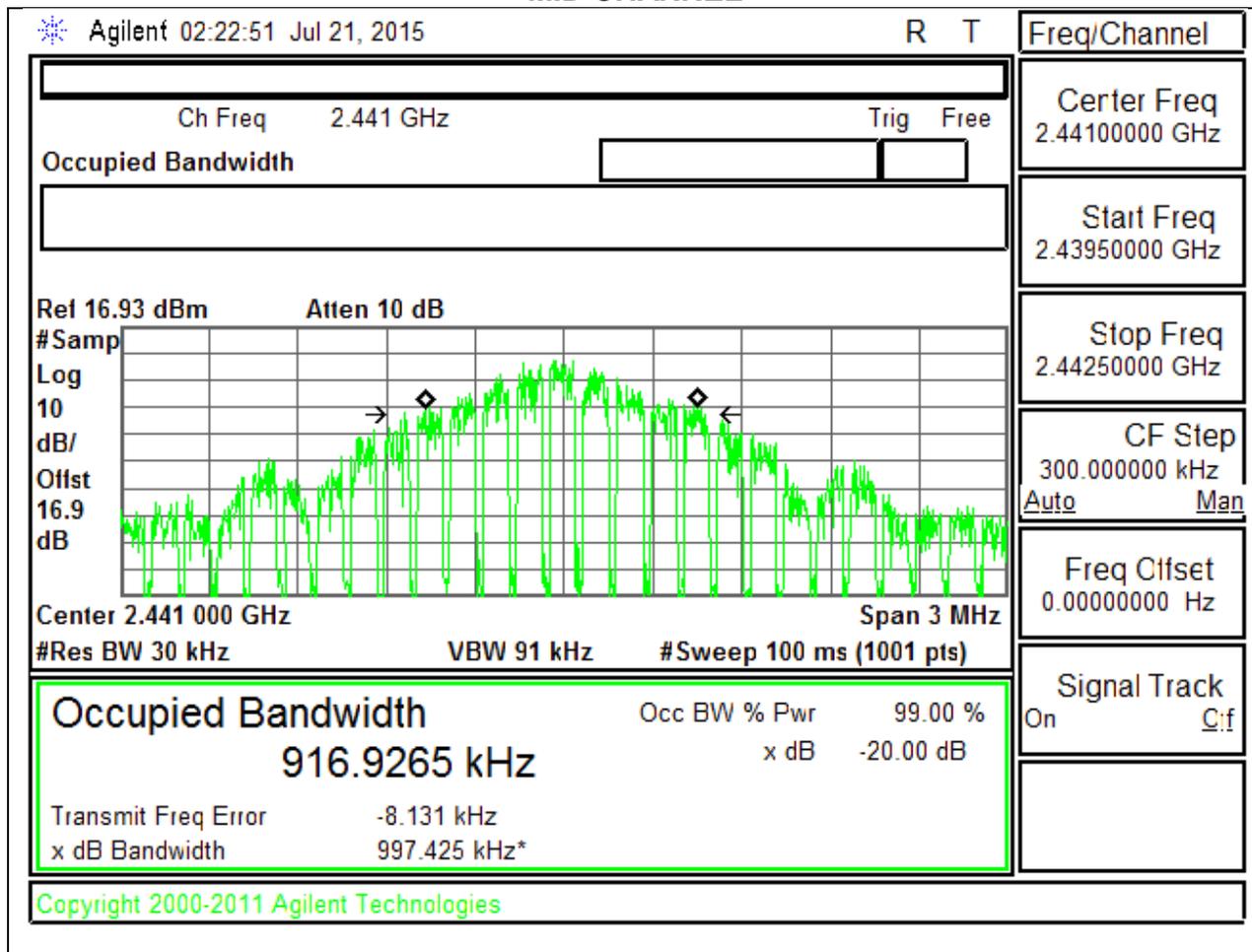


GFSK 99% BANDWIDTH

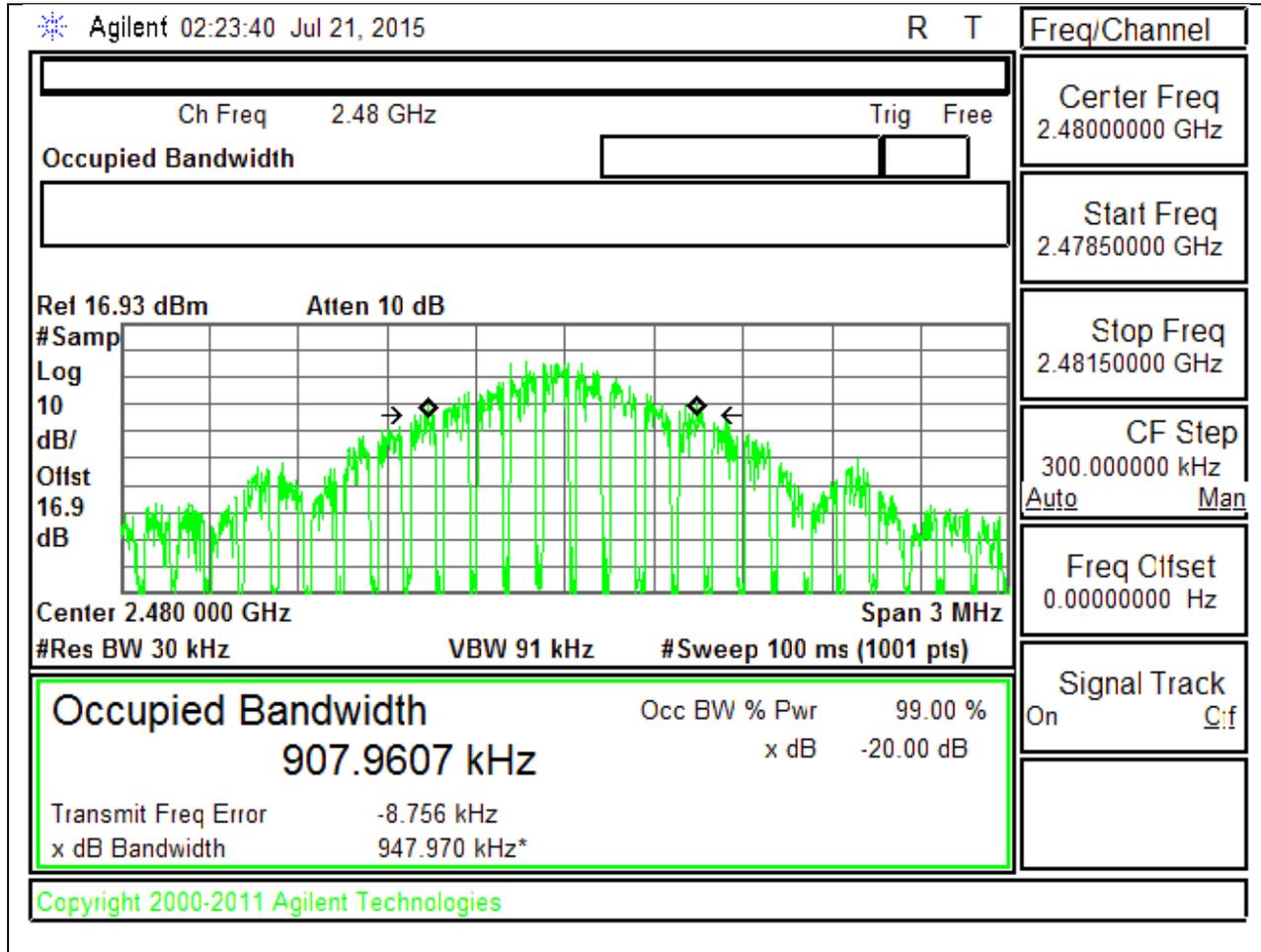
LOW CHANNEL



MID CHANNEL

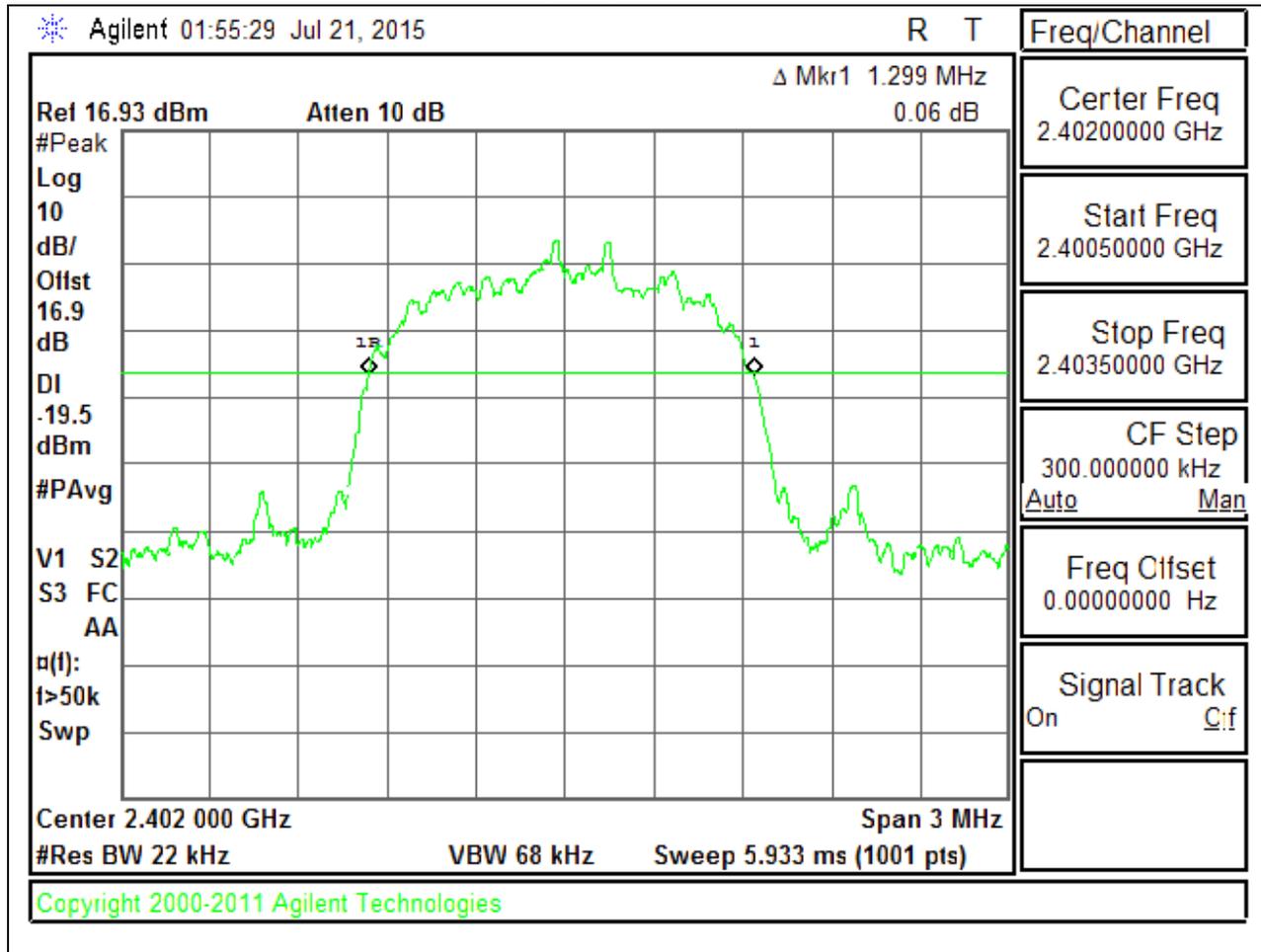


HIGH CHANNEL

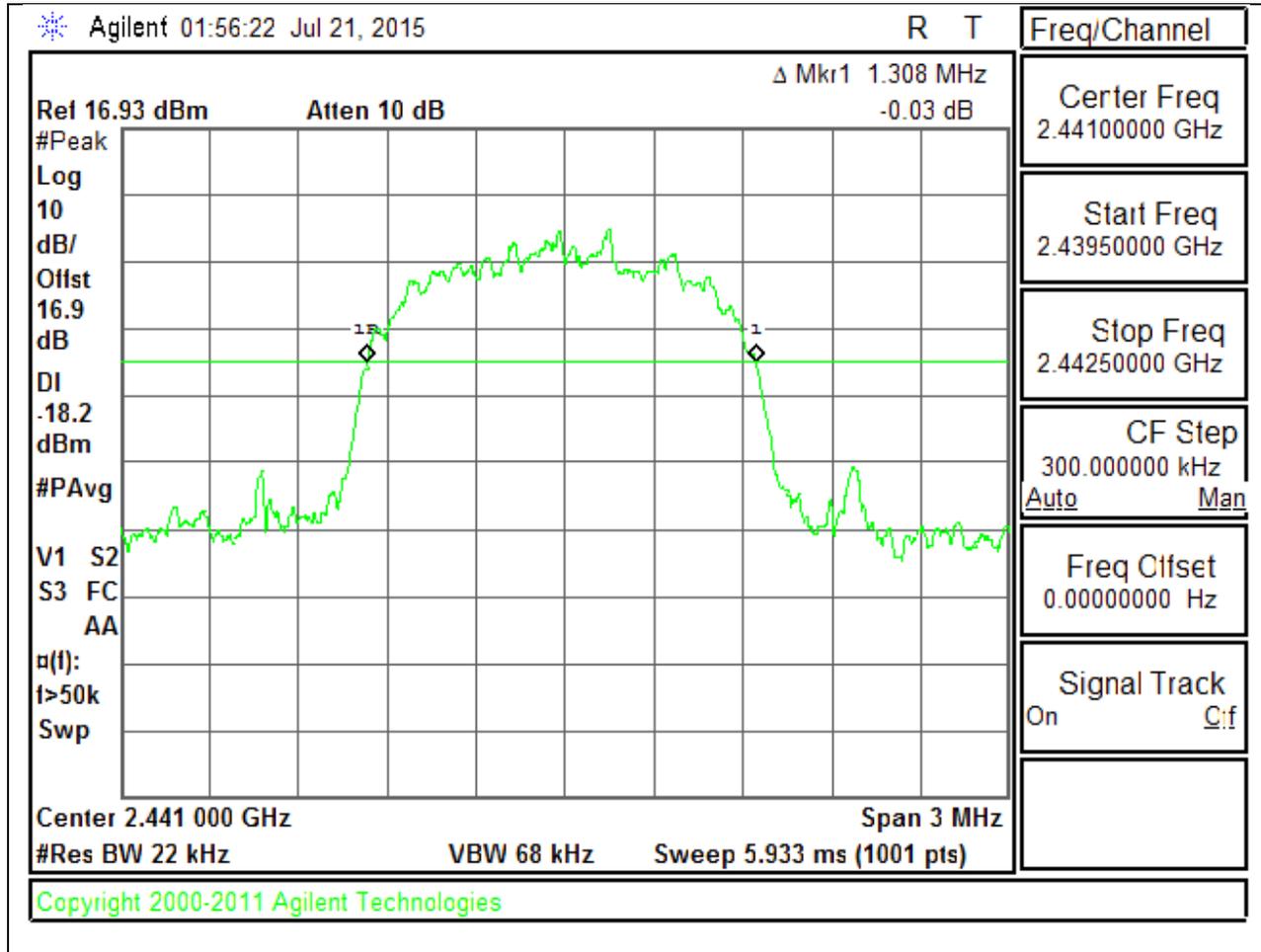


8PSK 20 dB BANDWIDTH

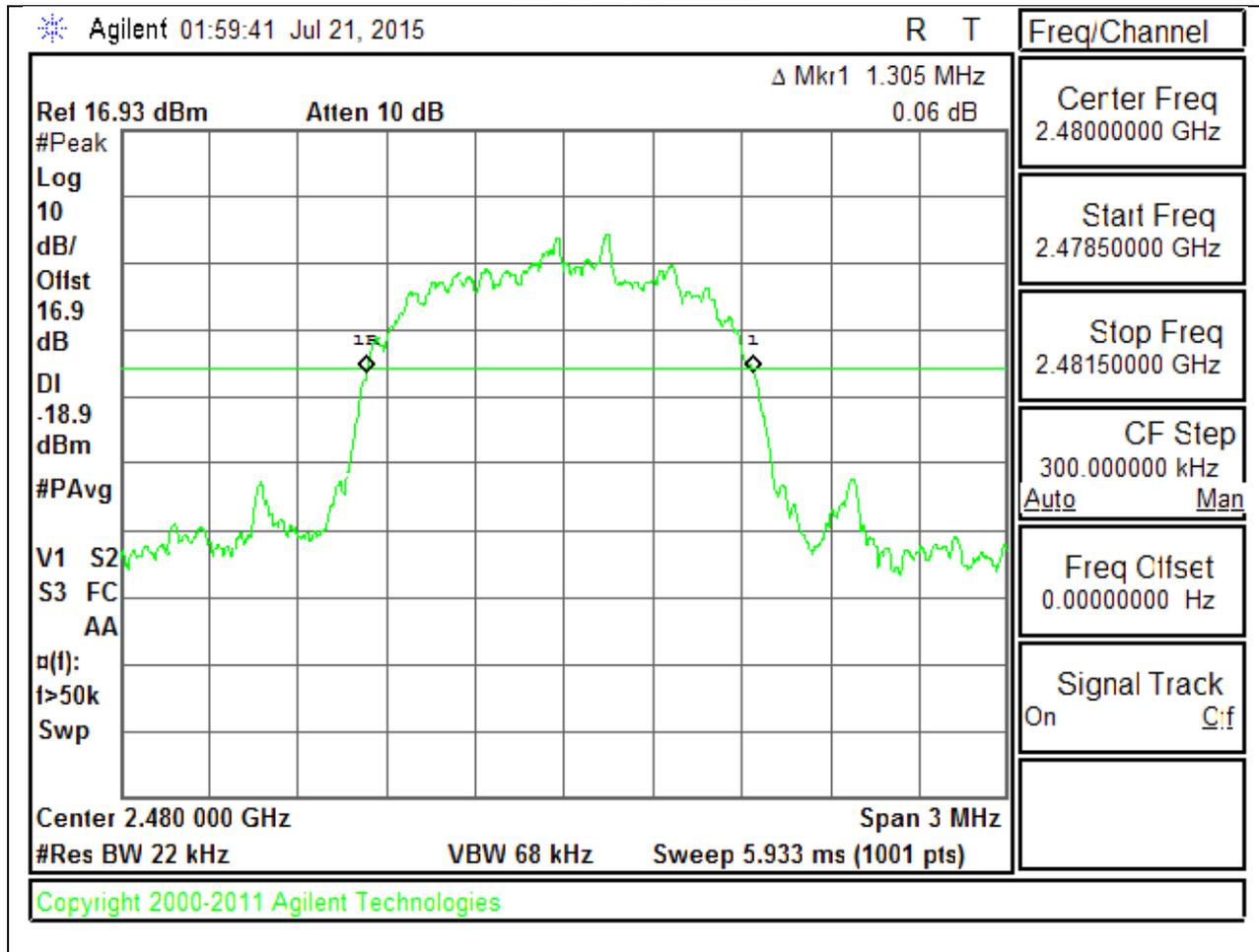
LOW CHANNEL



MID CHANNEL

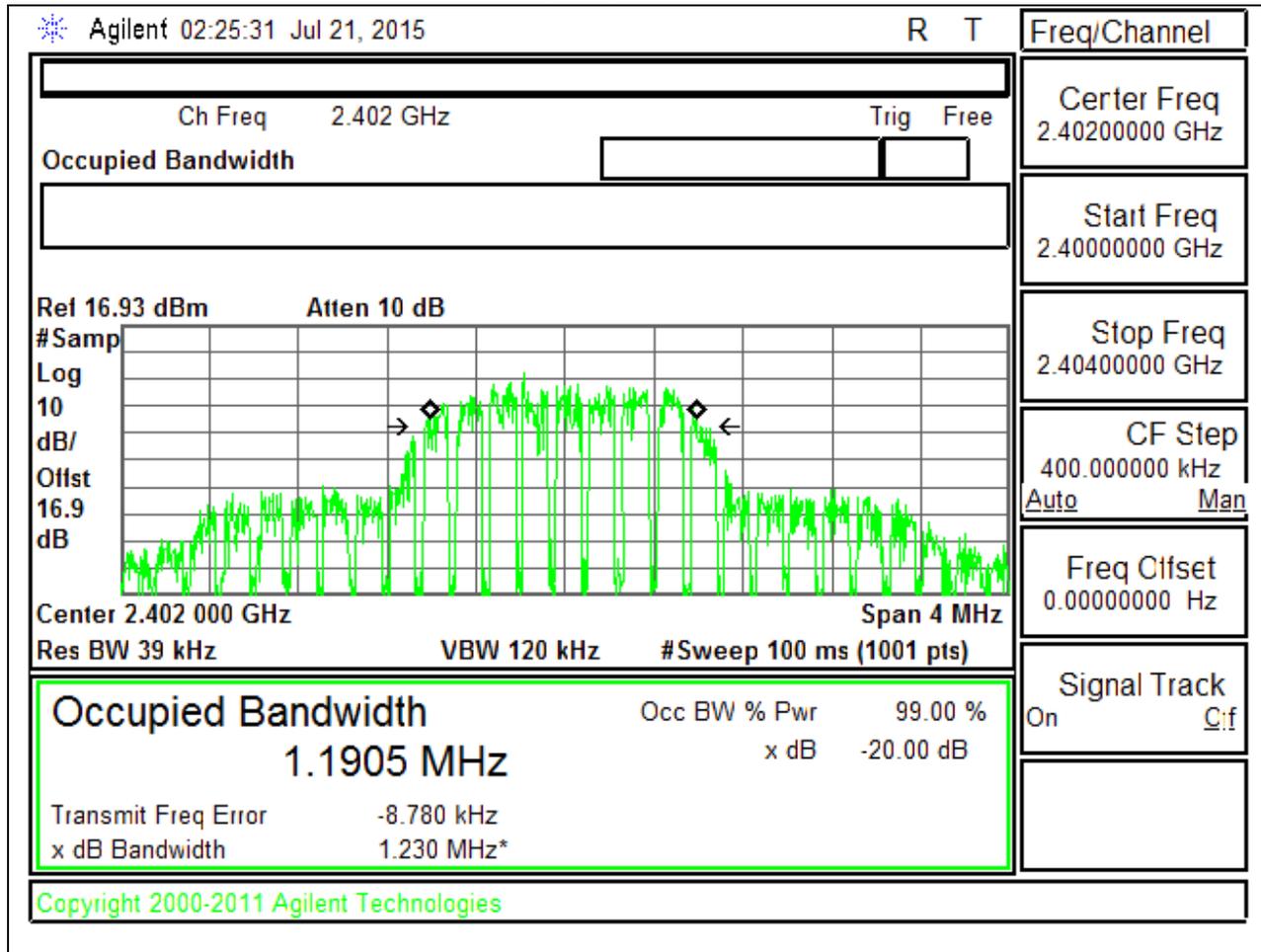


HIGH CHANNEL

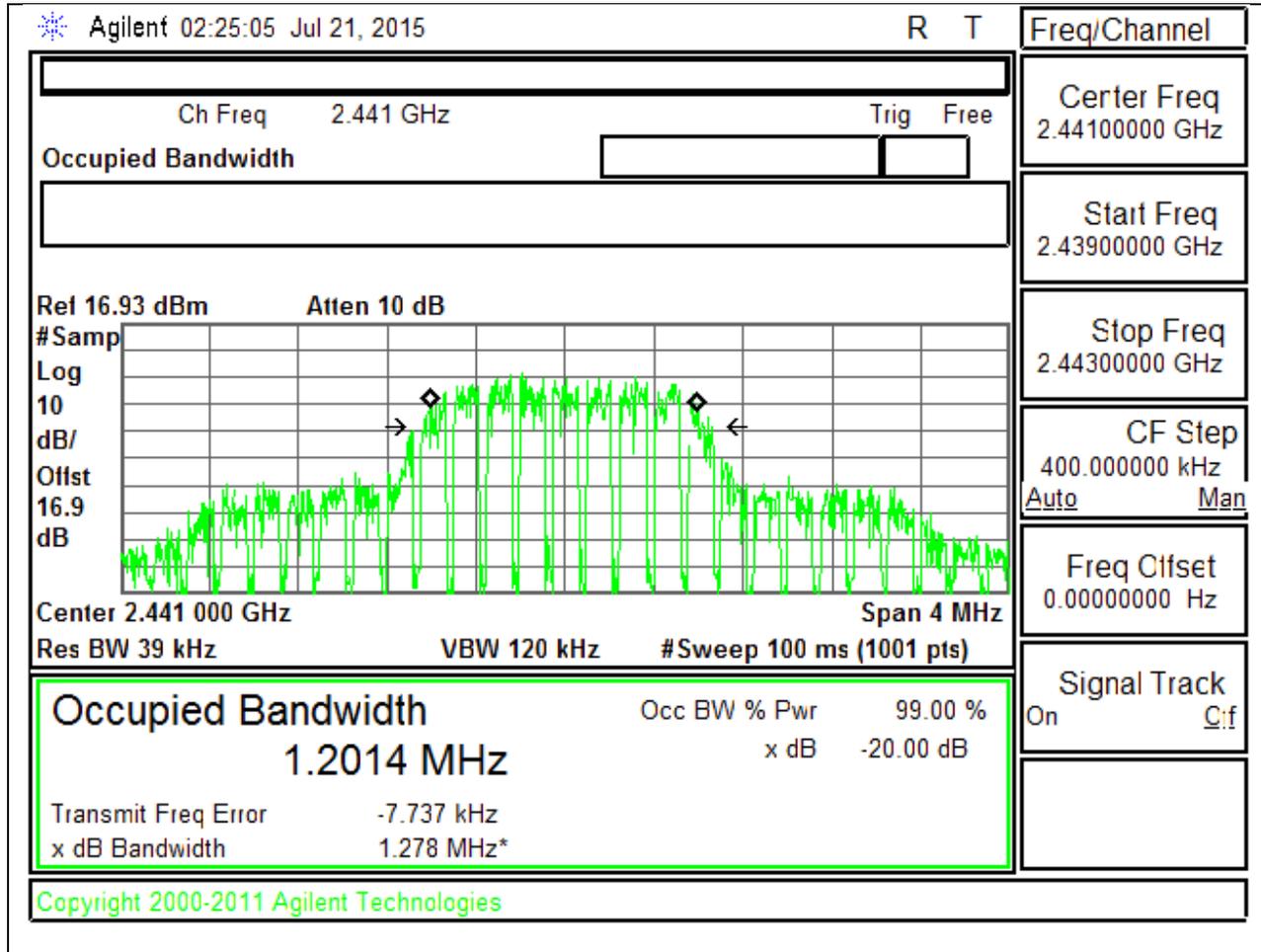


8PSK 99% BANDWIDTH

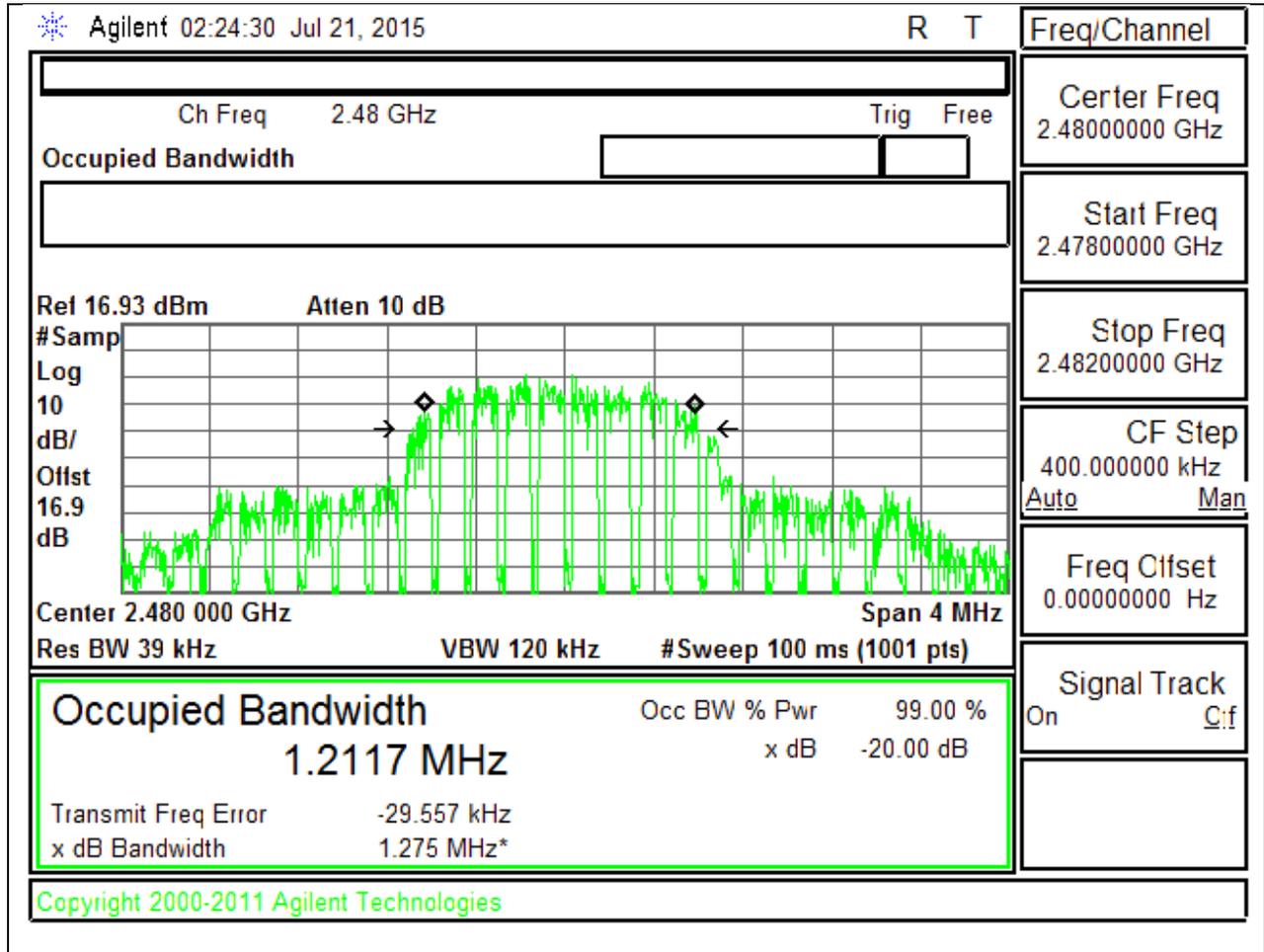
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.2. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)

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

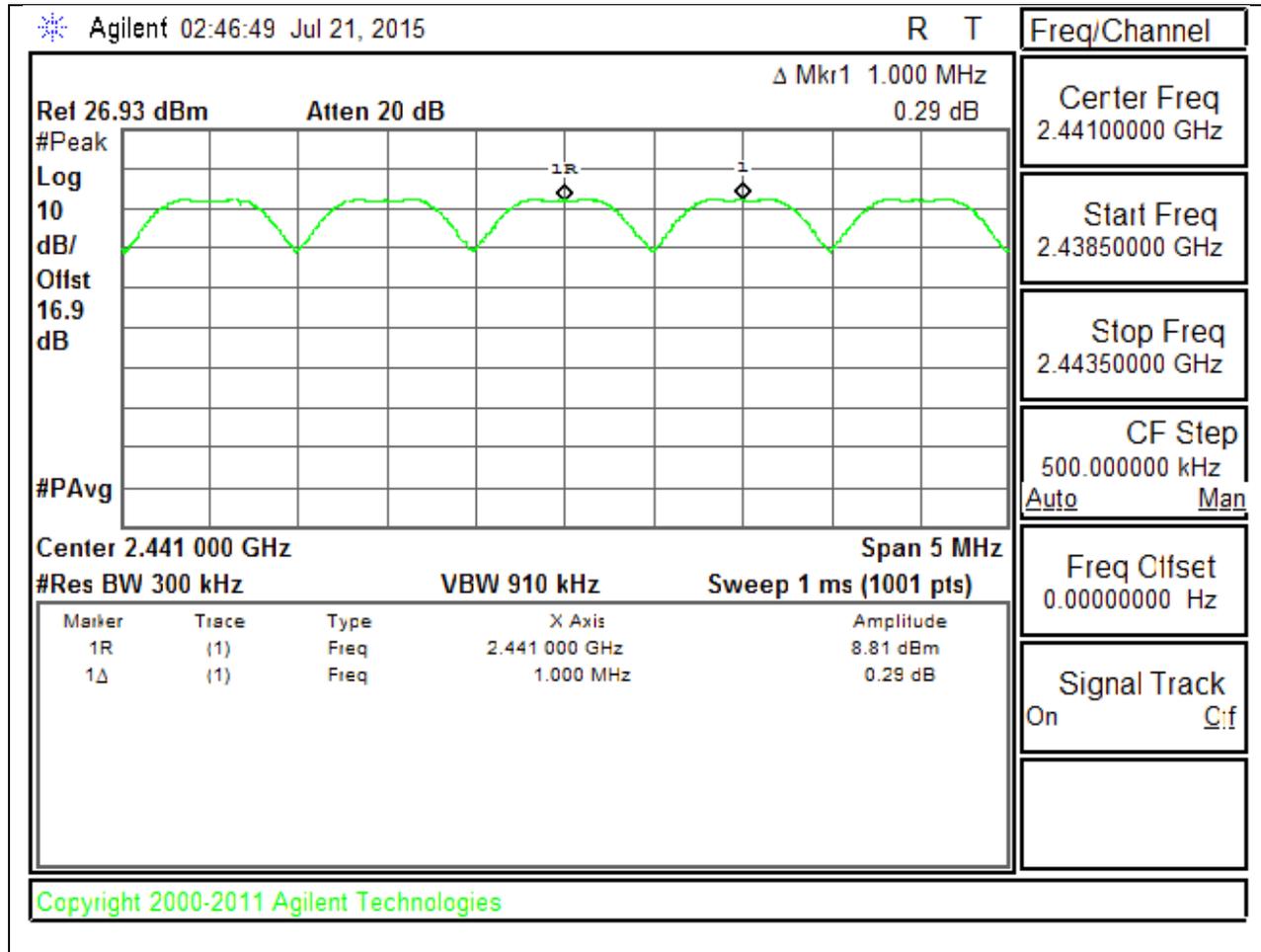
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than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

TEST PROCEDURE

DA 00-705: The transmitter output is connected to a spectrum analyzer. The RBW is set to 300 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

HOPPING FREQUENCY SEPARATION PLOT



8.3. NUMBER OF HOPPING CHANNELS

LIMIT

FCC §15.247 (a) (1) (iii)

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

TEST PROCEDURE

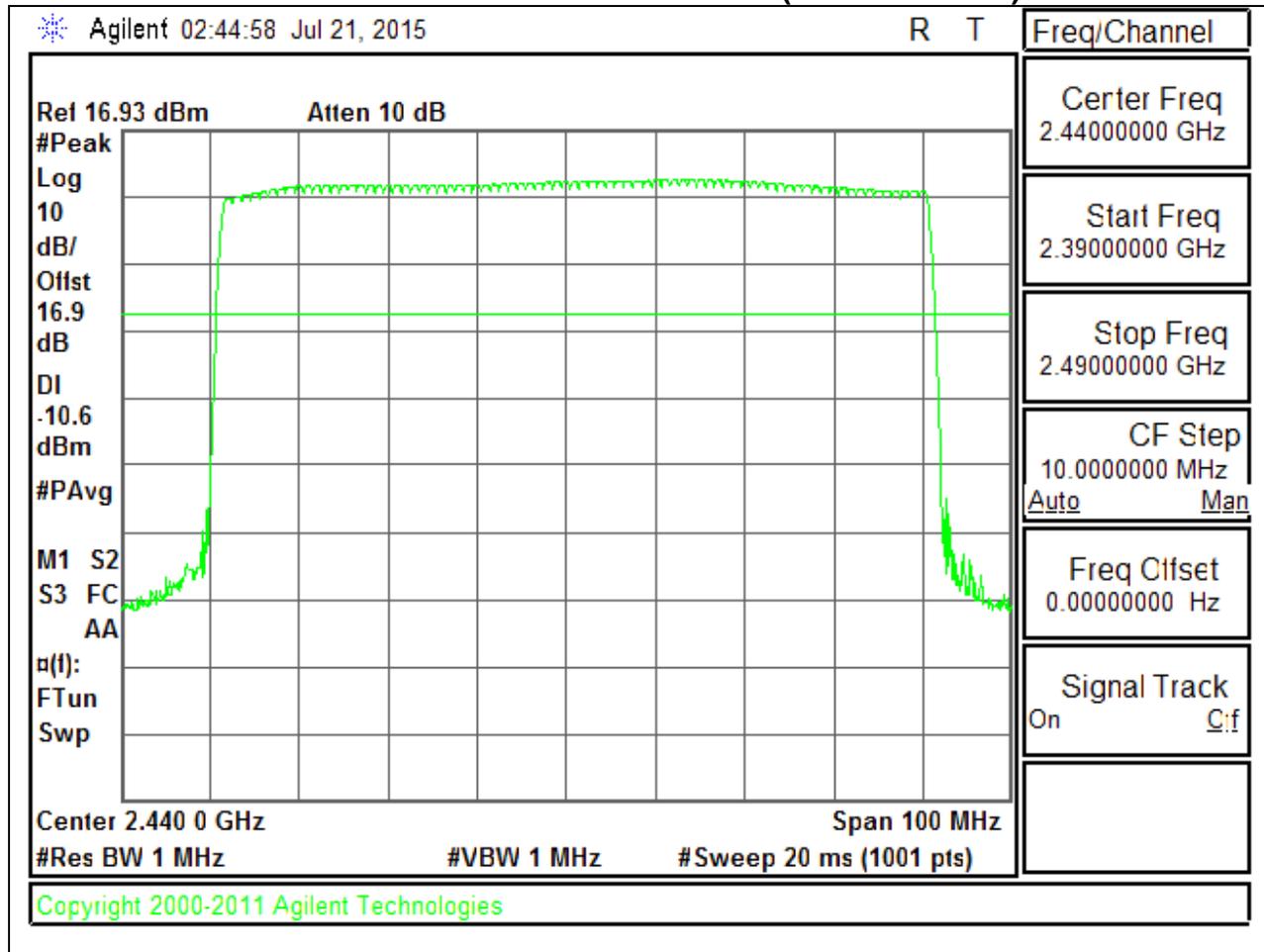
DA 00-705: The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

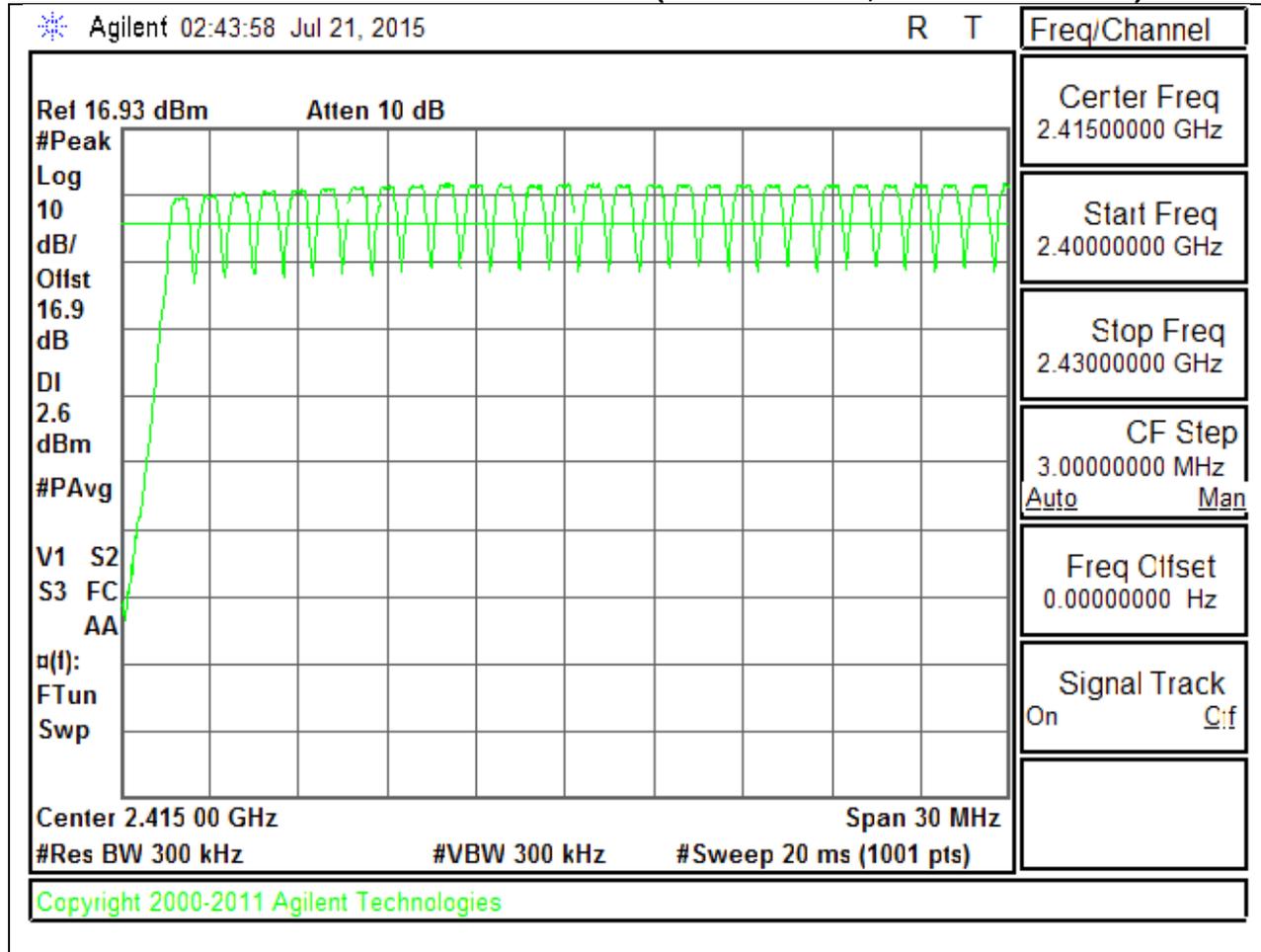
Normal Mode: 79 Channels observed.

NUMBER OF HOPPING CHANNELS PLOTS

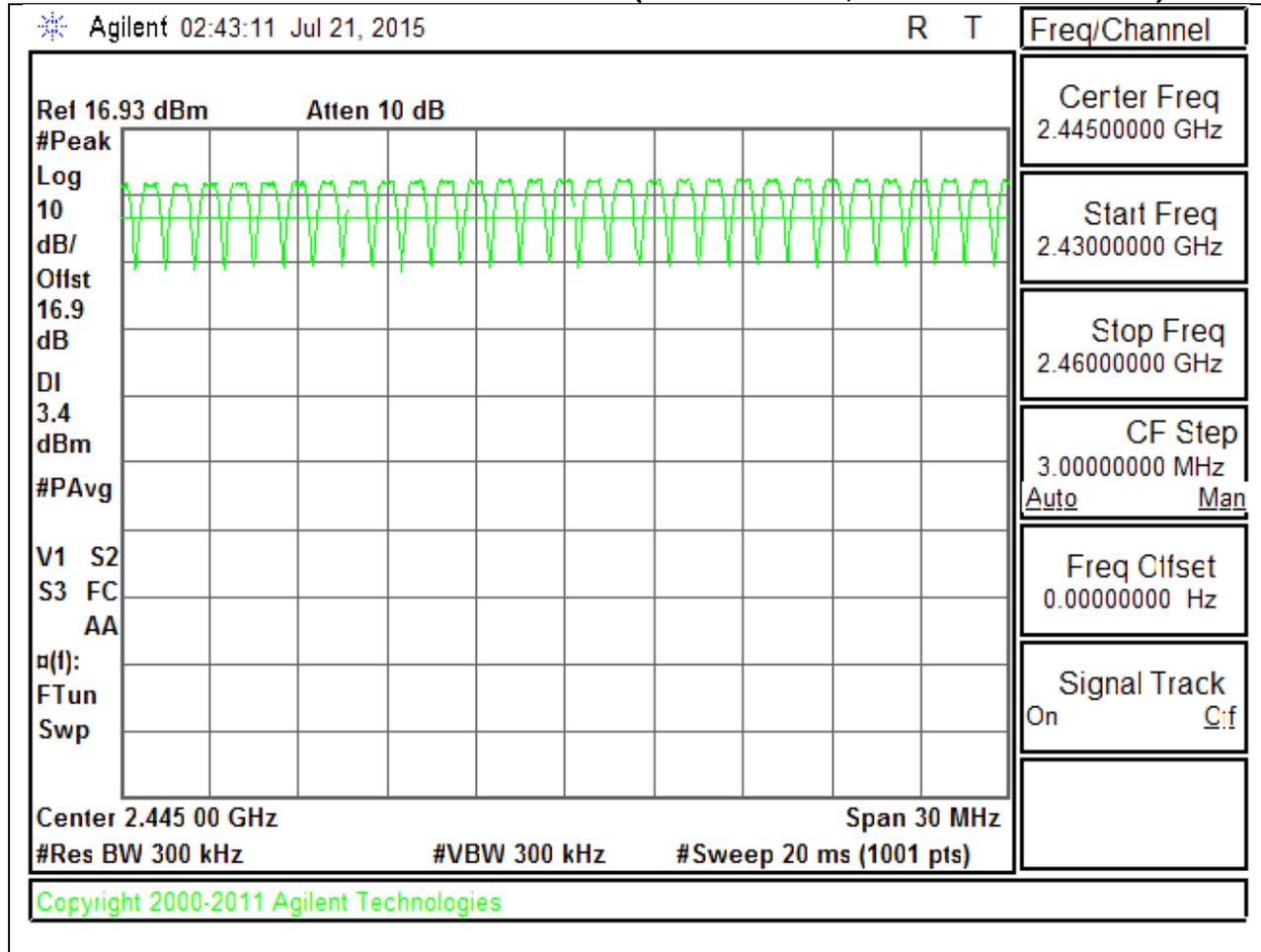
NUMBER OF HOPPING CHANNELS (100 MHz SPAN)



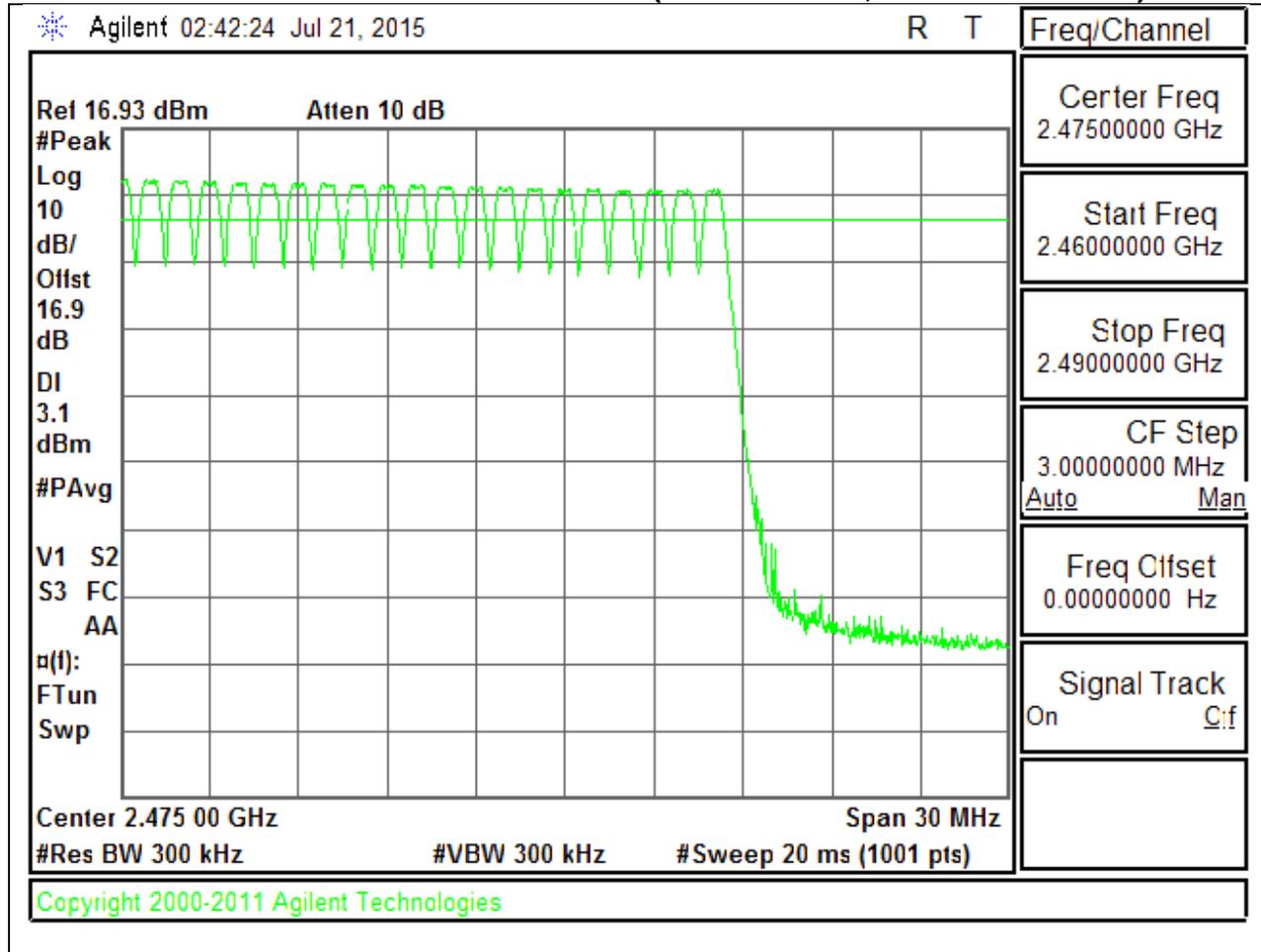
NUMBER OF HOPPING CHANNELS (30 MHz SPAN, FIRST SEGMENT)



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



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



8.4. AVERAGE TIME OF OCCUPANCY

LIMIT

FCC §15.247 (a) (1) (iii)

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.

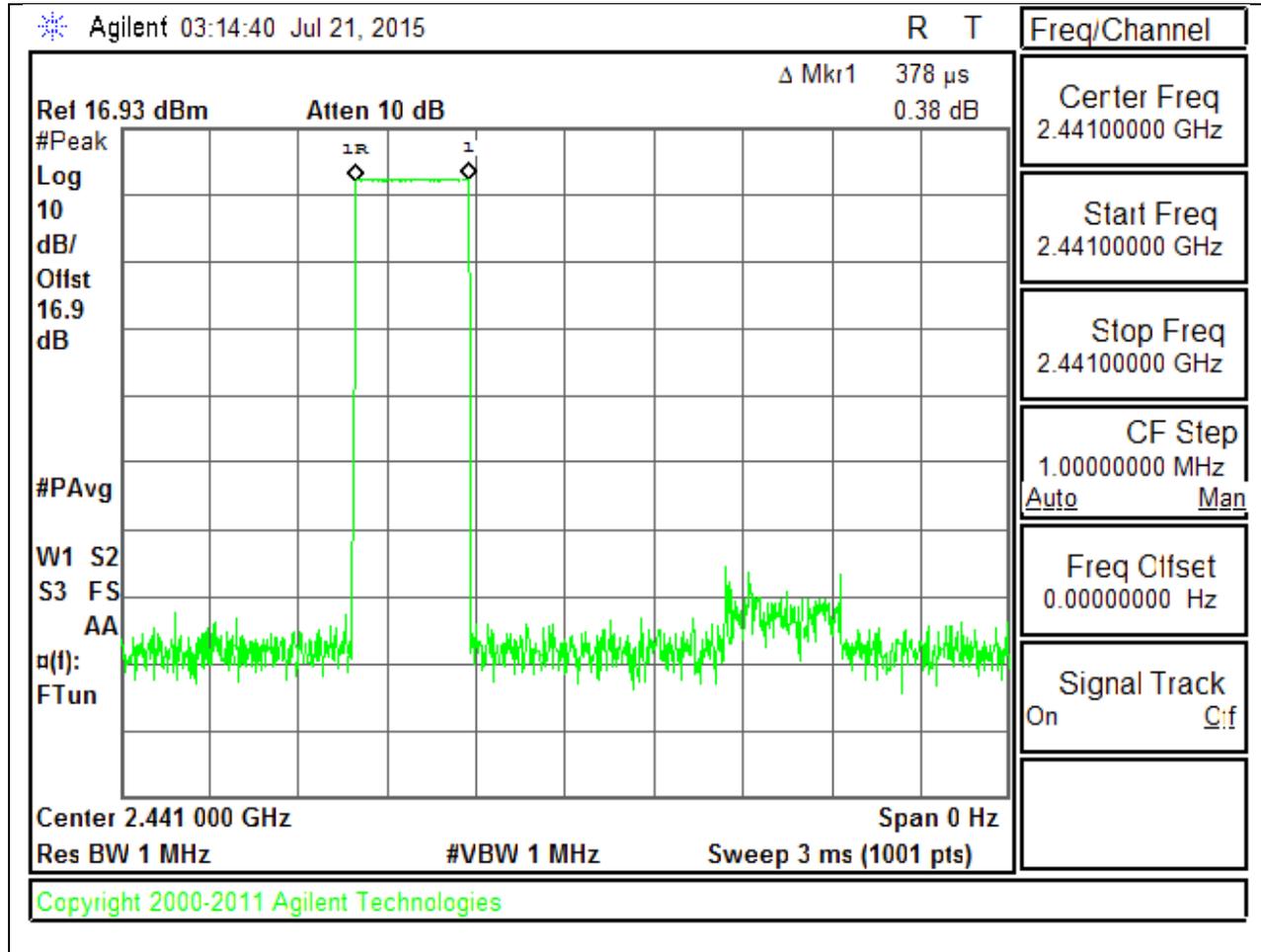
The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{ pulse width}$.

For AFH mode, the average time of occupancy in the specified 8 second period (20 channels * 0.4 seconds) is equal to $10 * (\# \text{ of pulses in } 0.8 \text{ s}) * \text{ pulse width}$.

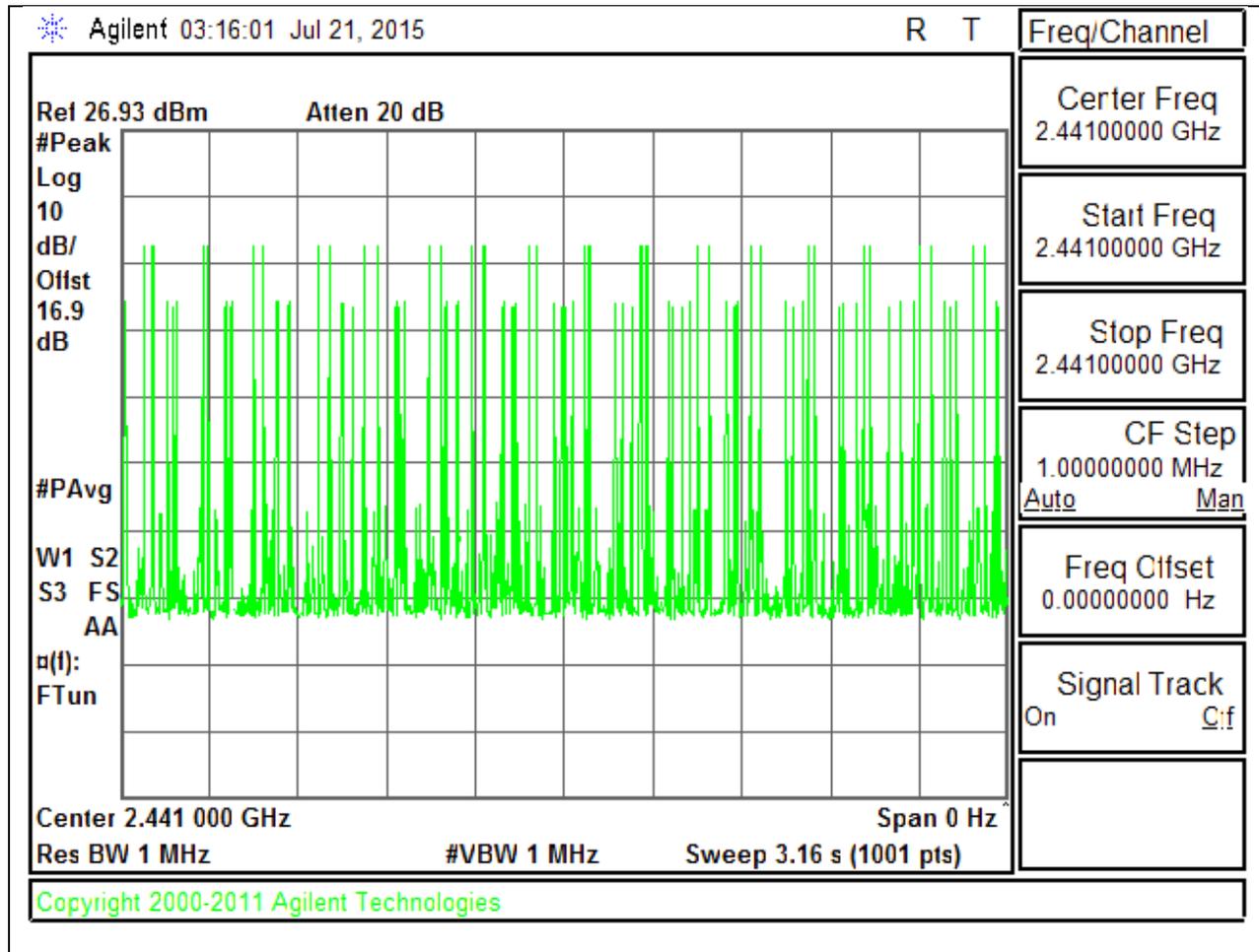
RESULTS

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	0.378	32	0.12096	0.4	-0.27904
DH3	1.63	19	0.3097	0.4	-0.0903
DH5	2.87	13	0.3731	0.4	-0.0269
DH Packet	Pulse Width (msec)	Number of Pulses in 0.8 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
GFSK AFH Mode					
DH1	0.378	8	0.03024	0.4	-0.36976
DH3	1.63	4.75	0.077425	0.4	-0.32258
DH5	2.87	3.25	0.093275	0.4	-0.30673

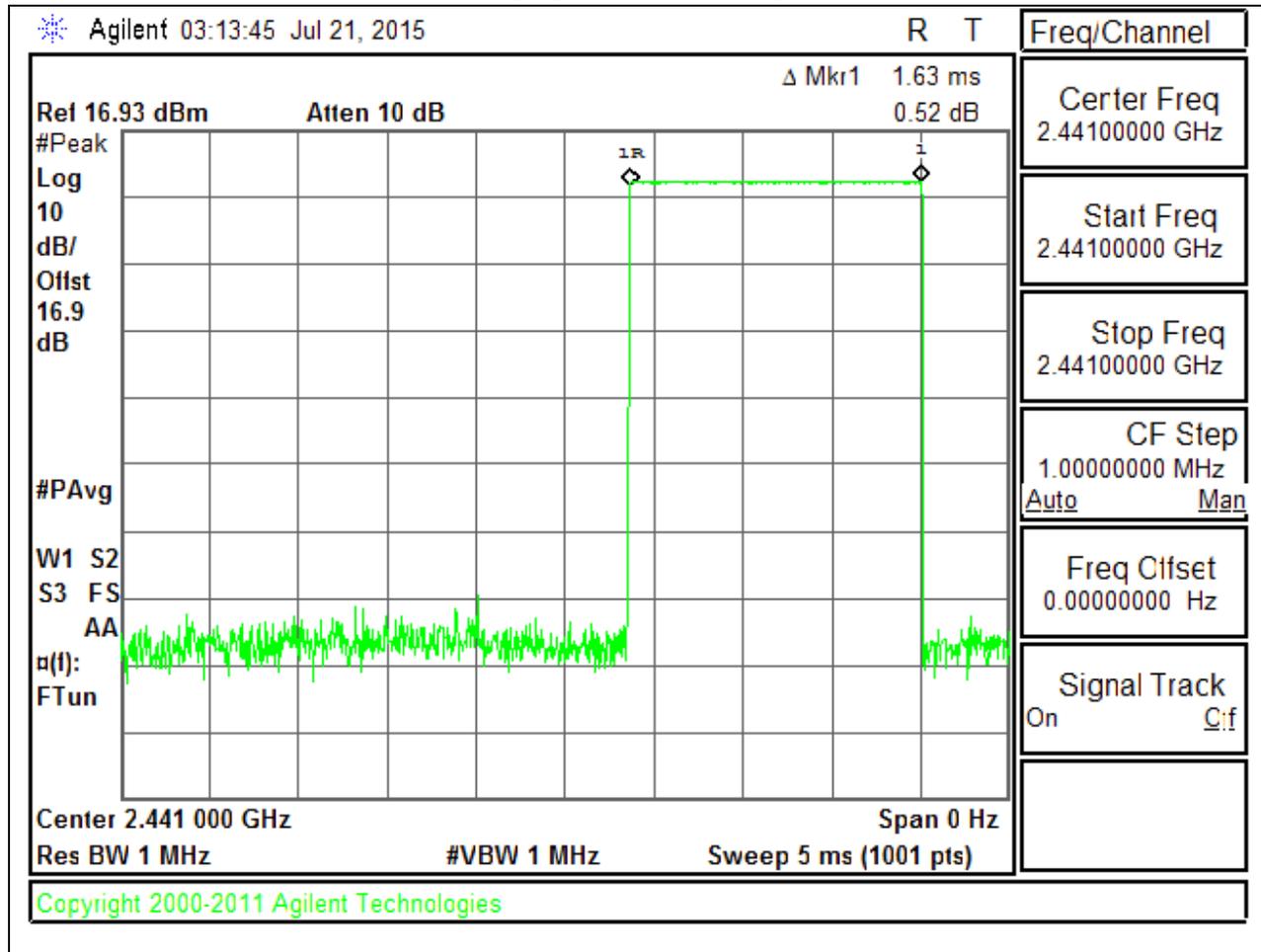
PULSE WIDTH - DH1



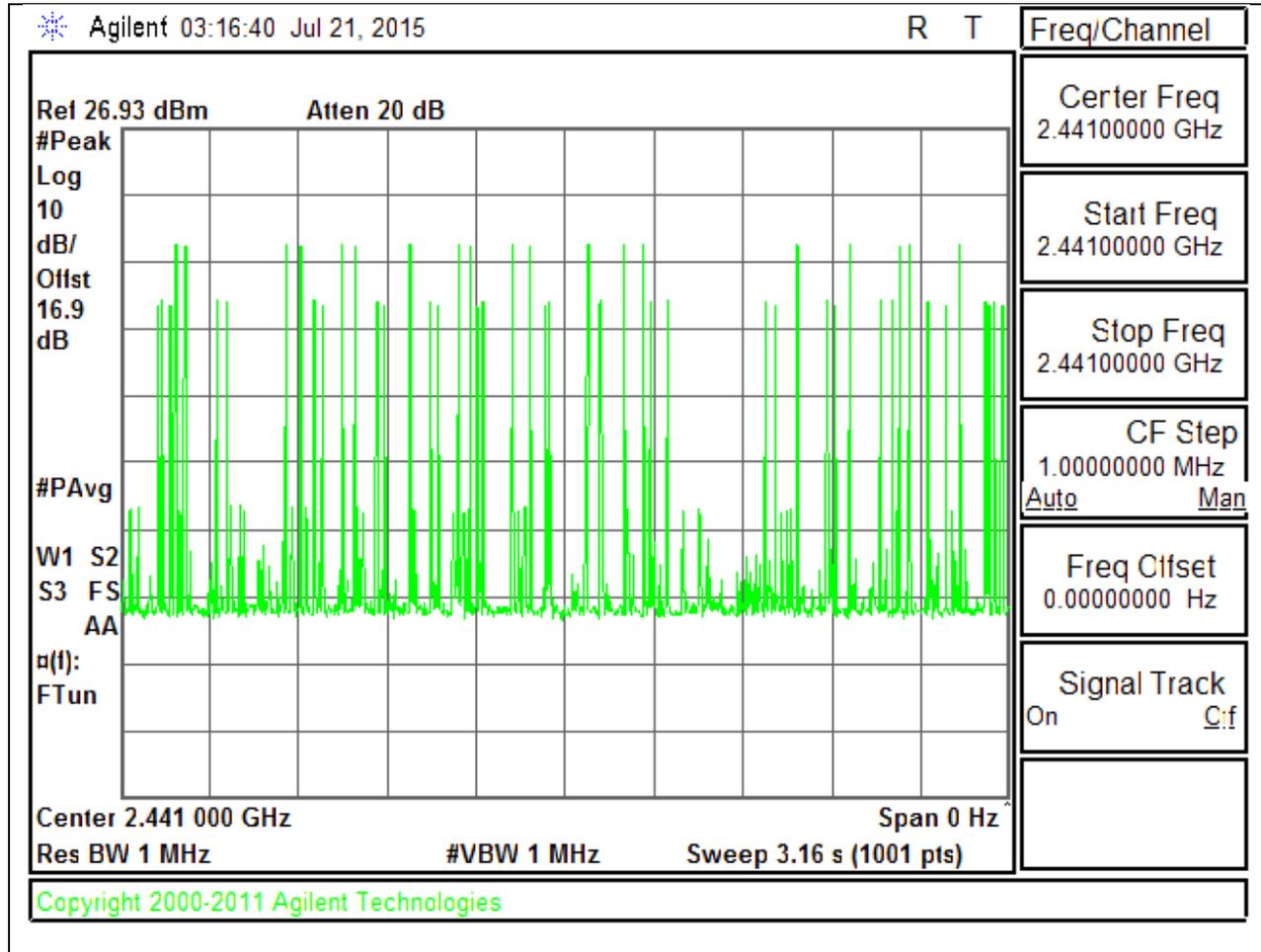
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH1



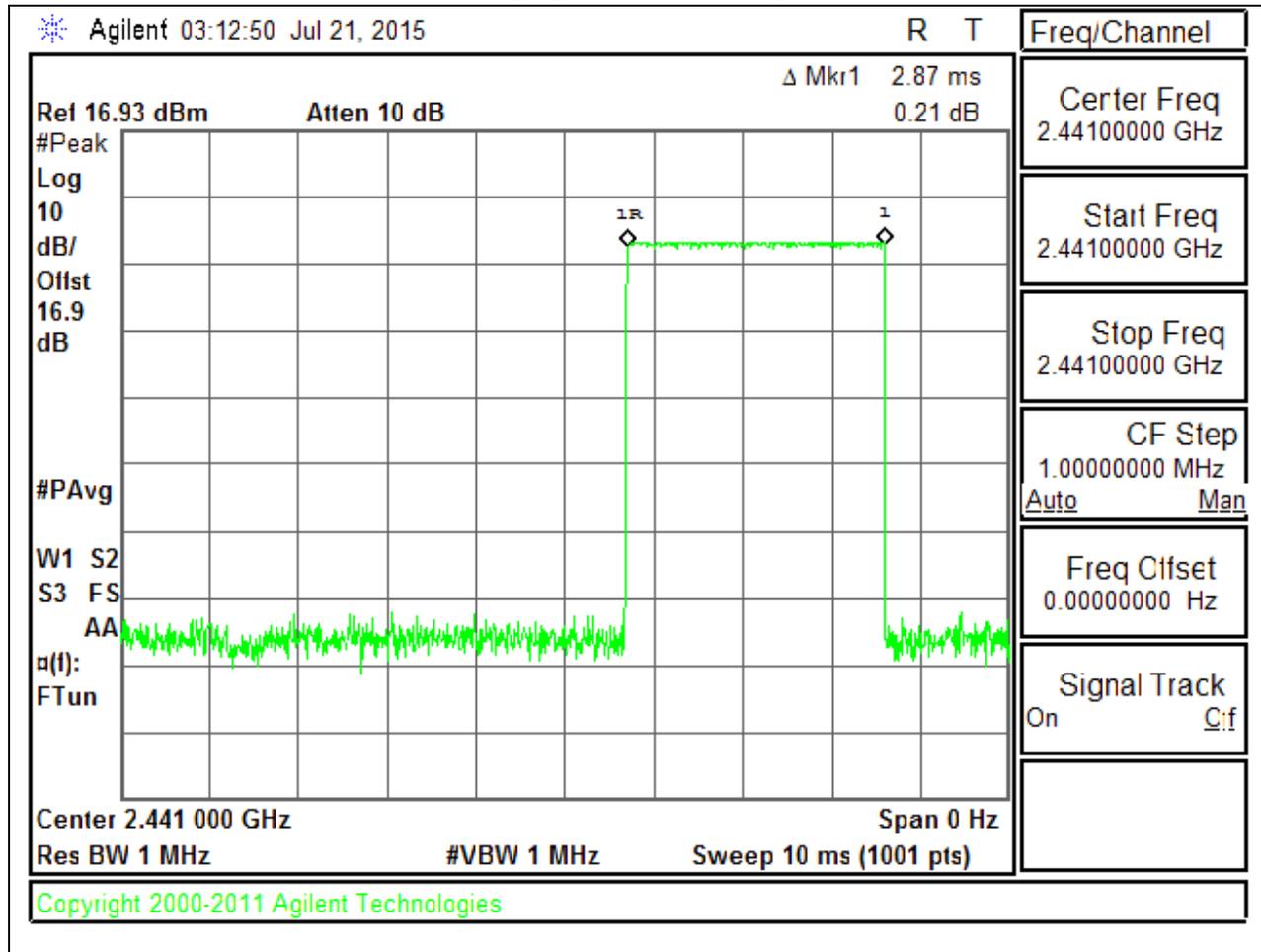
PULSE WIDTH - DH3



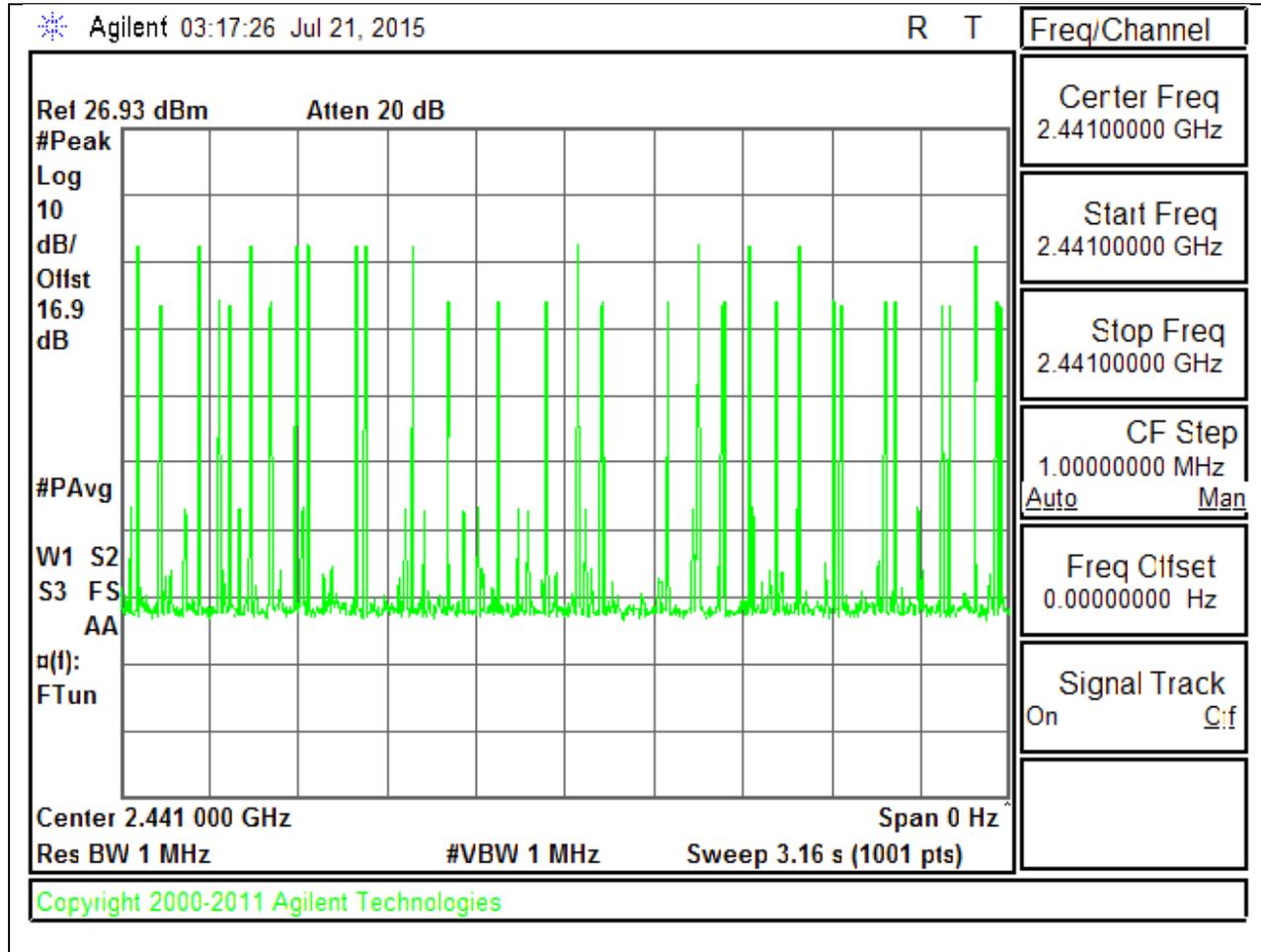
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH3



PULSE WIDTH - DH5



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH5



8.5. OUTPUT POWER

LIMIT

§15.247 (b) (1)

The maximum antenna gain is less than 6 dBi, therefore the limit is 21 dBm.

TEST PROCEDURE

DA 00-705: 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

8.5.1. BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	6.87	21	-14.13
Middle	2441	9.32	21	-11.68
High	2480	7.83	21	-13.17
Worst		9.32		-11.68

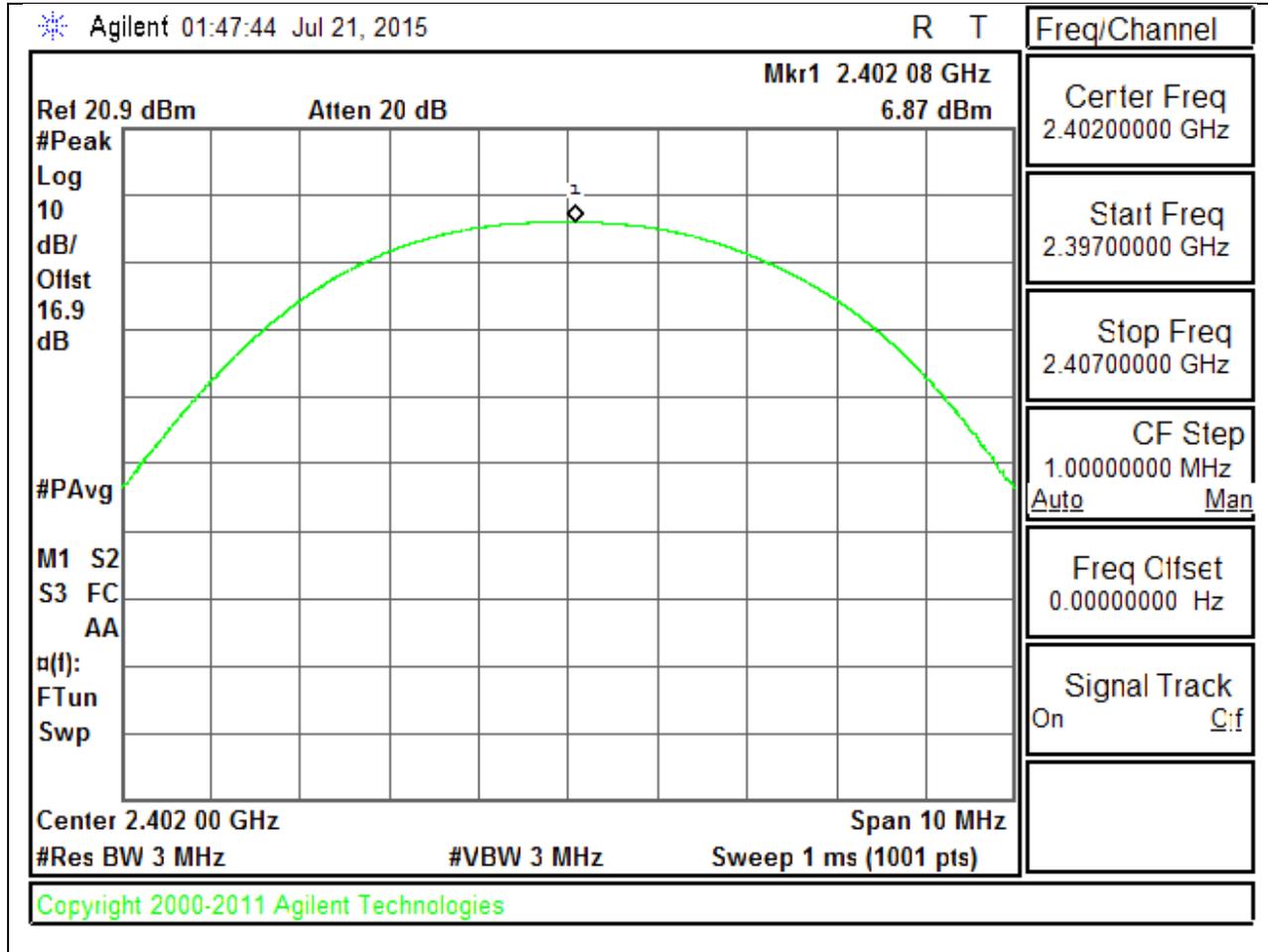
8.5.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	6.18	21	-14.82
Middle	2441	8.67	21	-12.33
High	2480	7.16	21	-13.84
Worst		8.67		-12.33

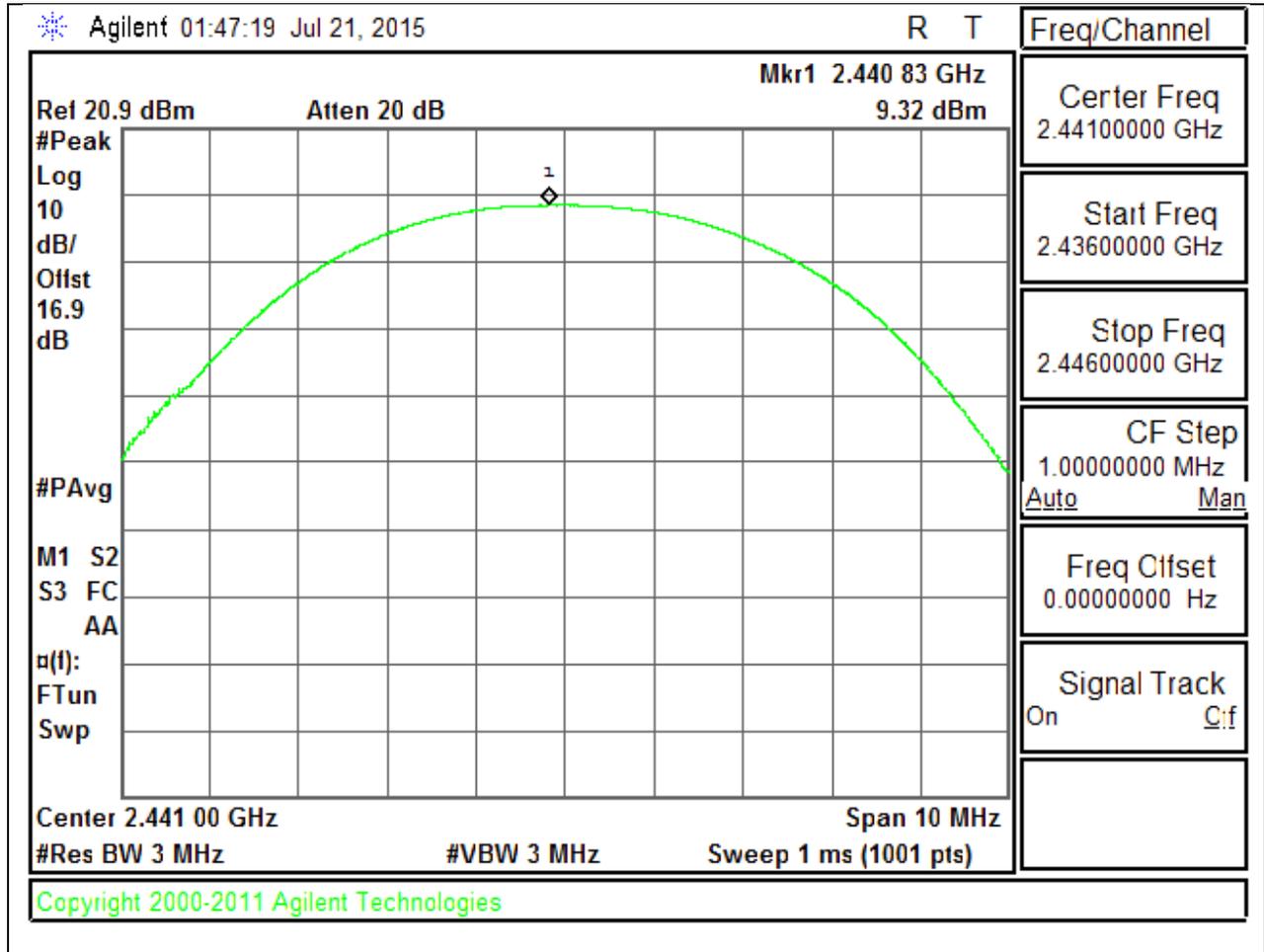
8.5.3. OUTPUT POWER PLOTS

GFSK OUTPUT POWER

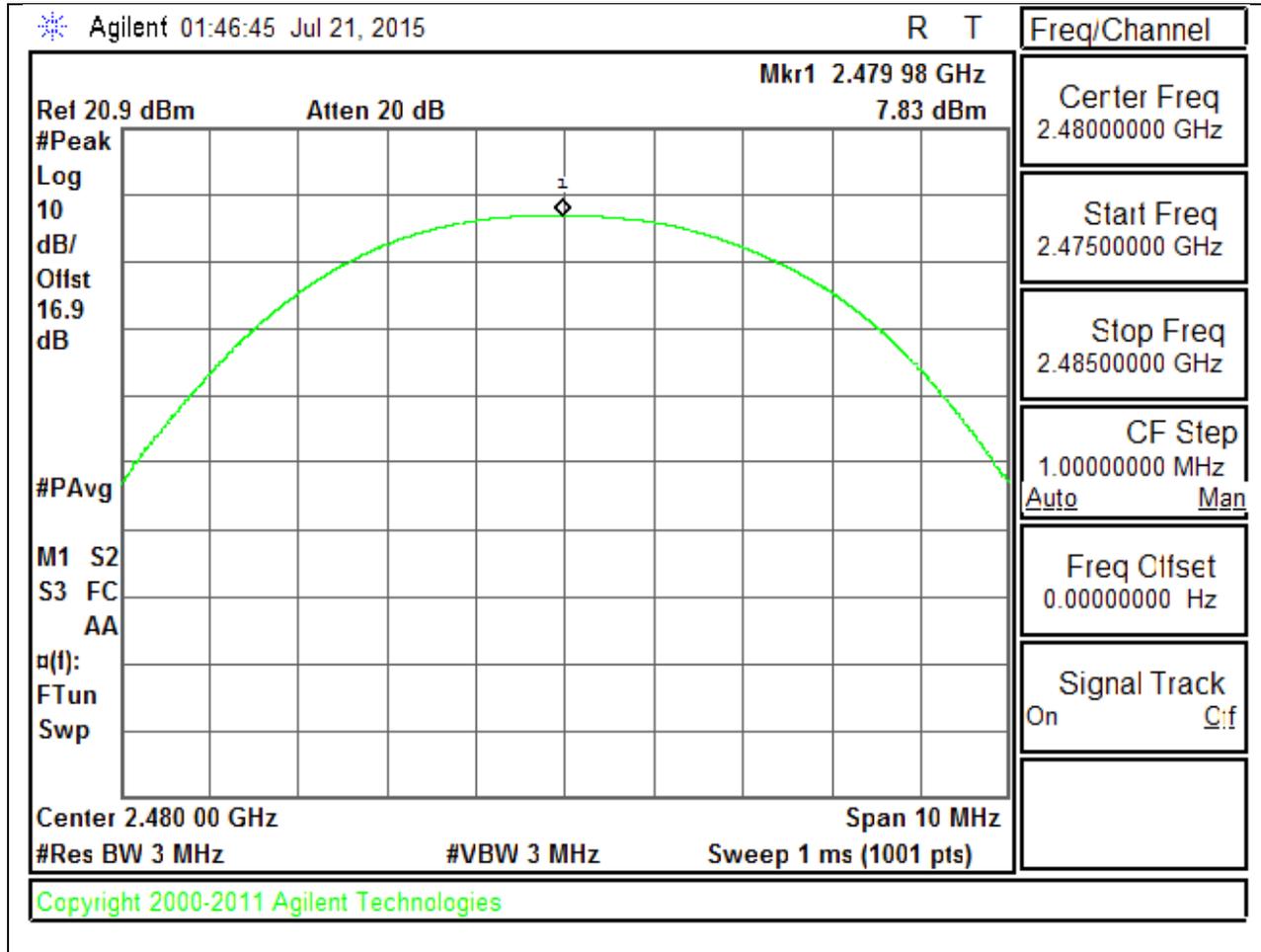
LOW CHANNEL



MID CHANNEL

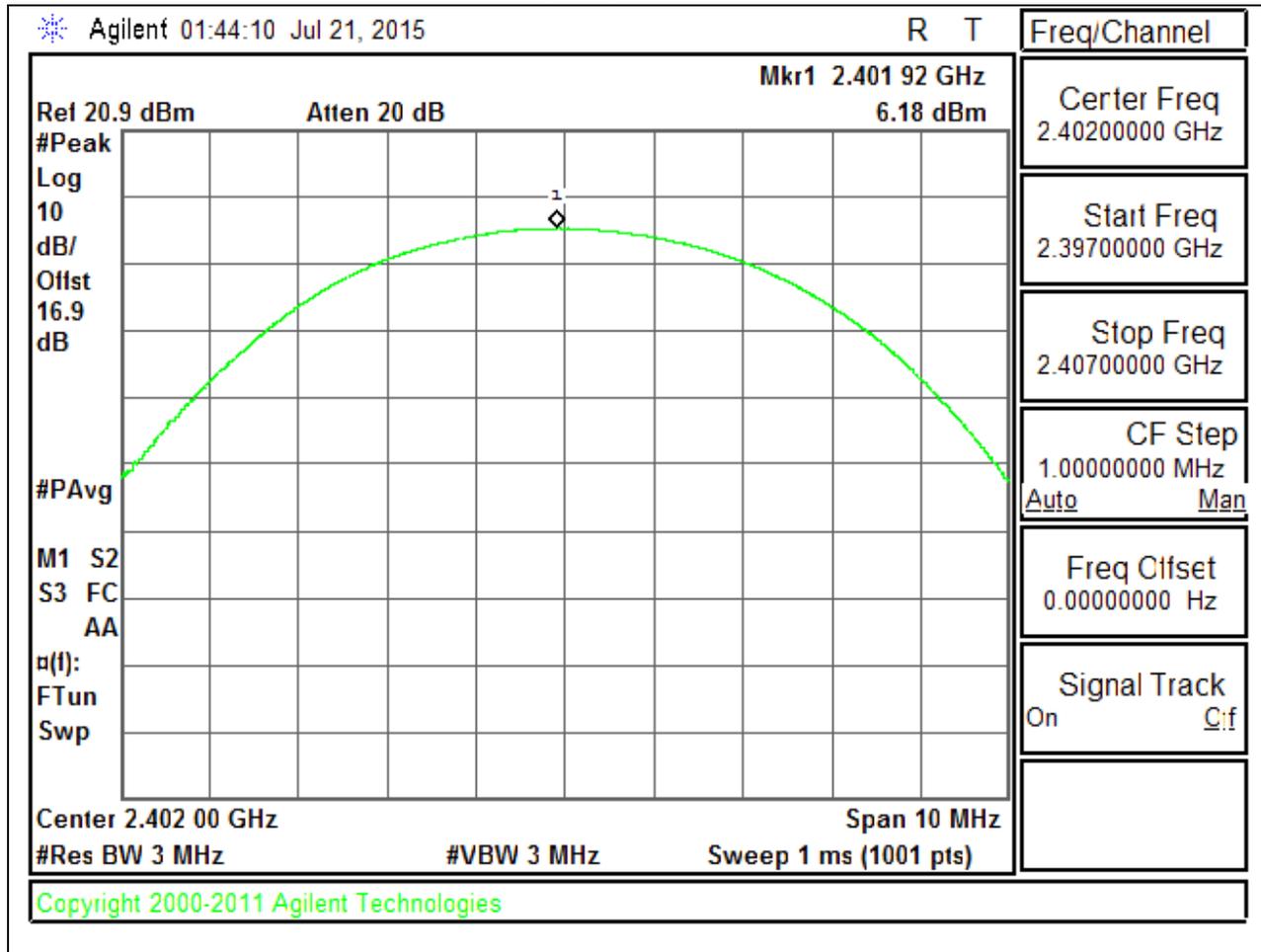


HIGH CHANNEL

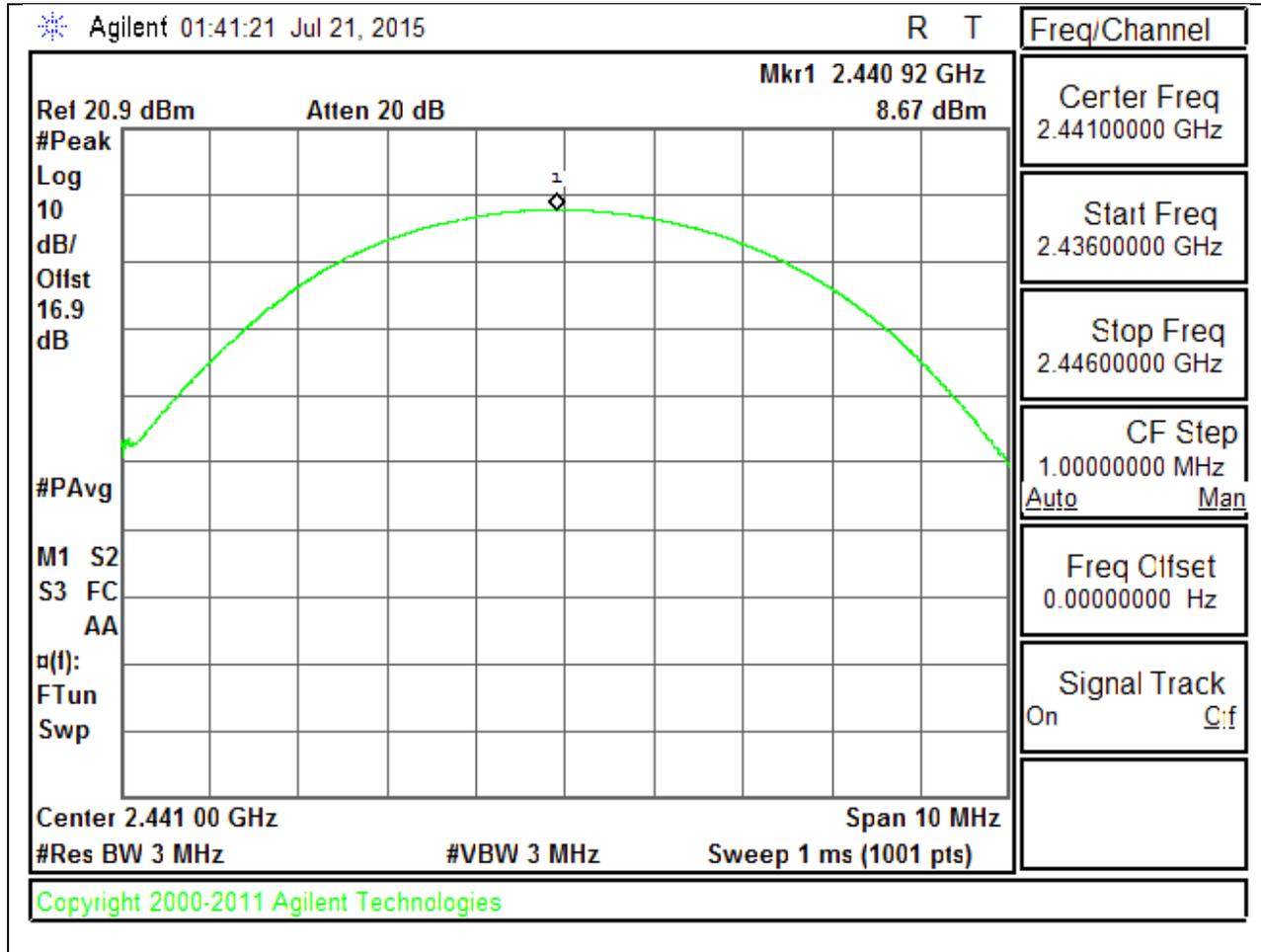


8PSK OUTPUT POWER

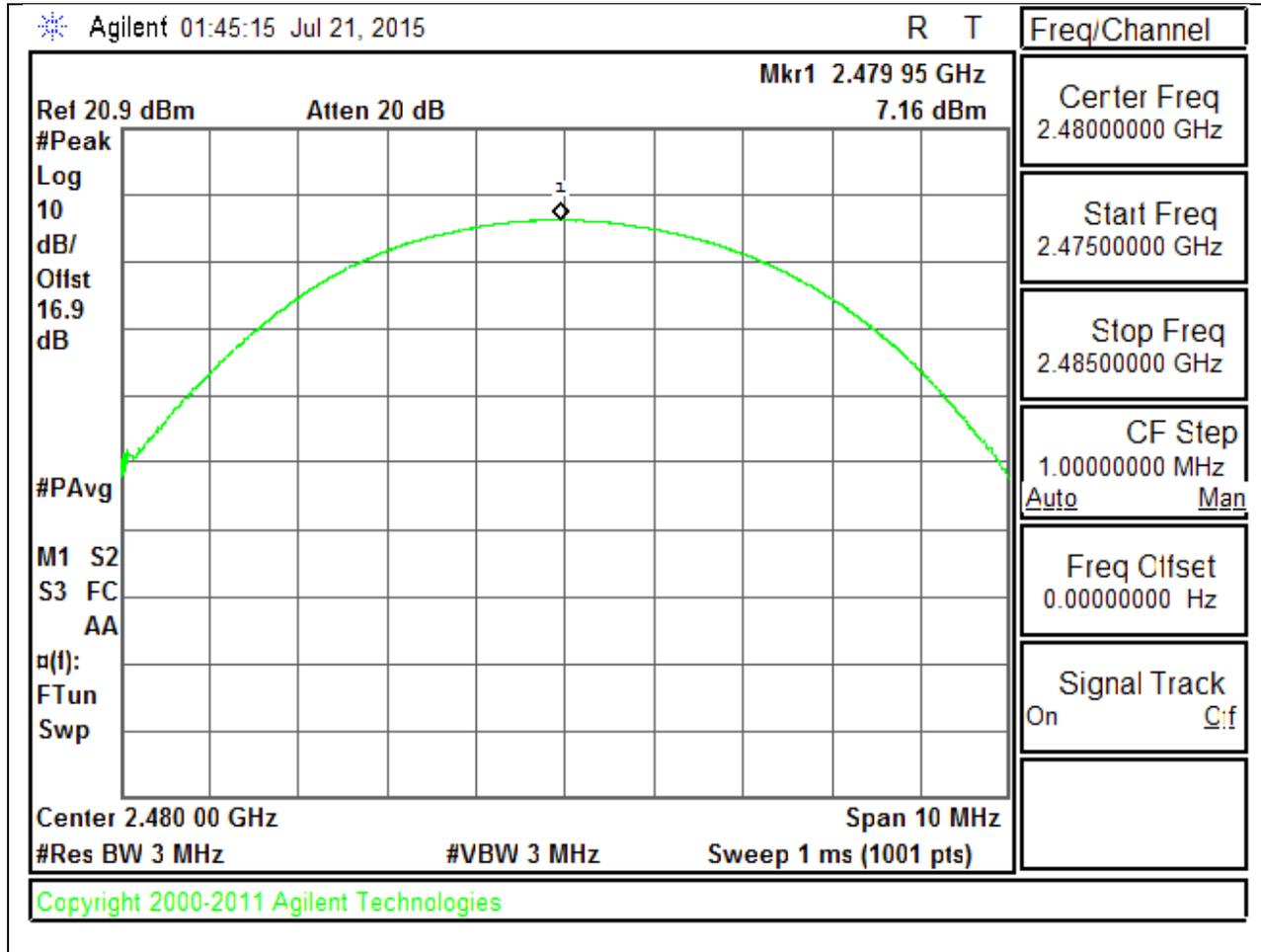
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.6. AVERAGE POWER

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

DA 00-705: The transmitter output is connected to a power meter.

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.

8.6.1. BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	6.93
Middle	2441	9.3
High	2480	7.7
Worst		9.3

8.6.2. DATA RATE PI/4-DQPSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	3.4
Middle	2441	5.8
High	2480	4.2
Worst		5.8

8.6.3. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	3.3
Middle	2441	5.8
High	2480	4.2
Worst		5.8

8.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

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.

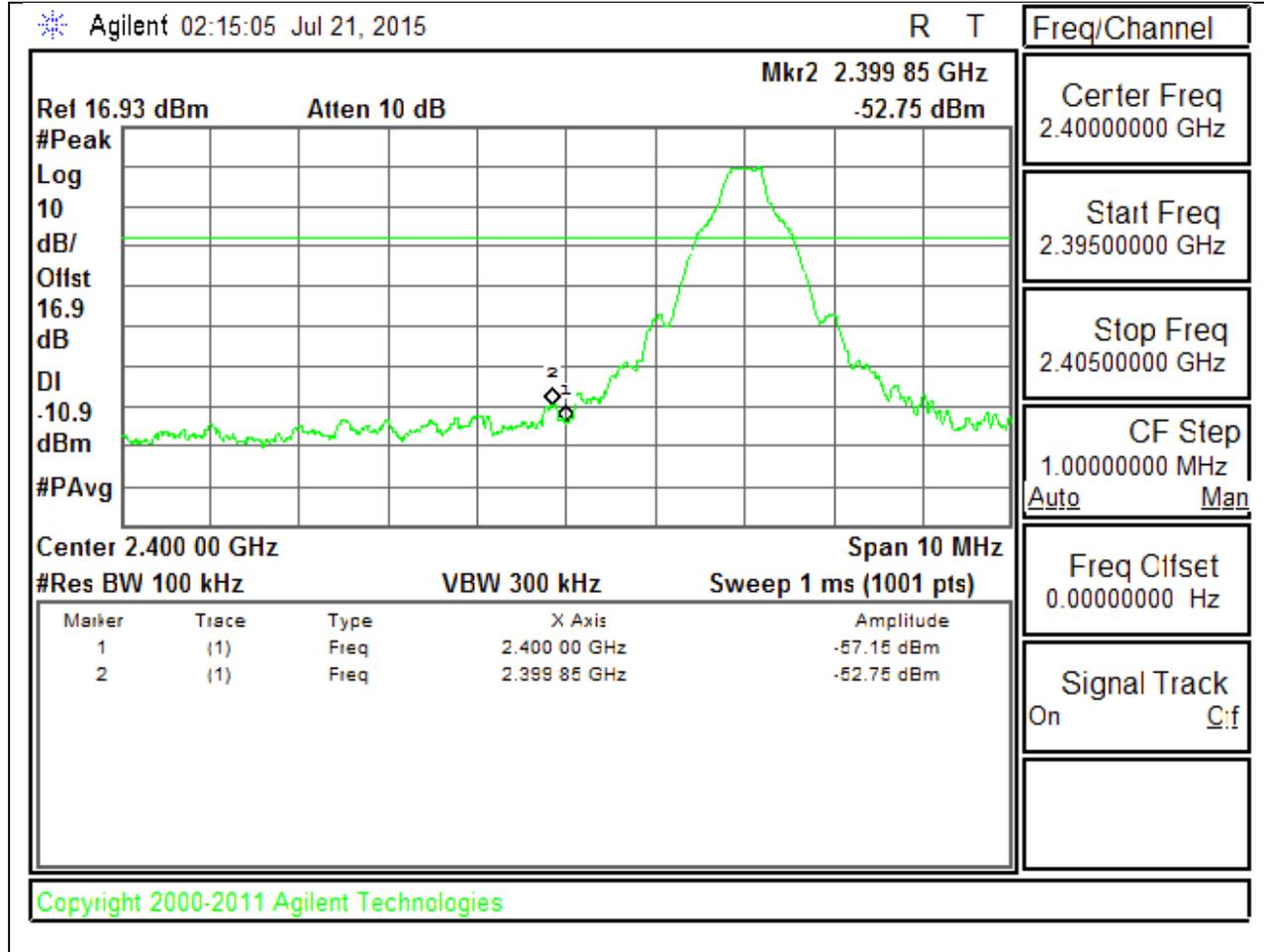
The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

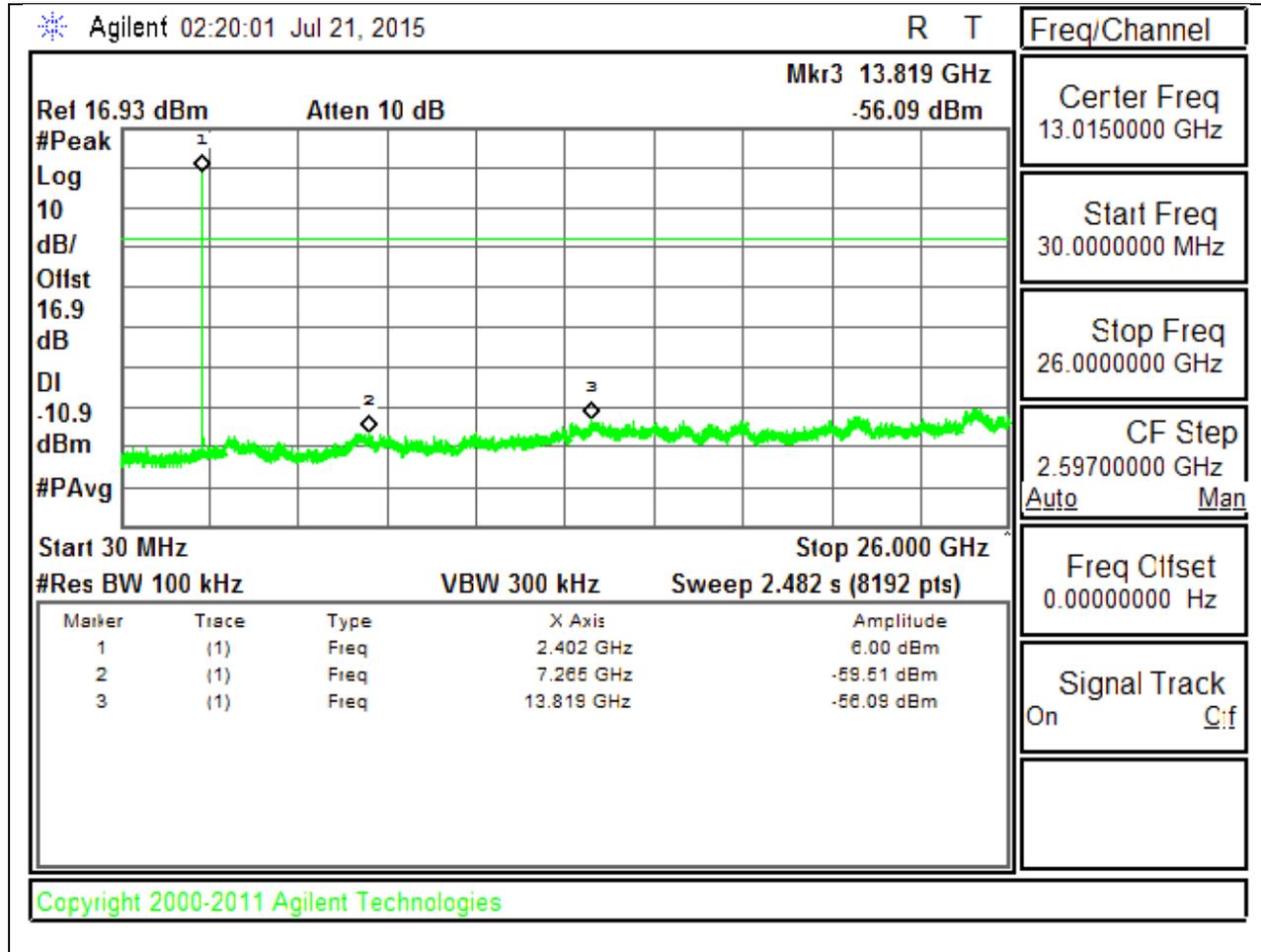
8.7.1. BASIC DATA RATE GFSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

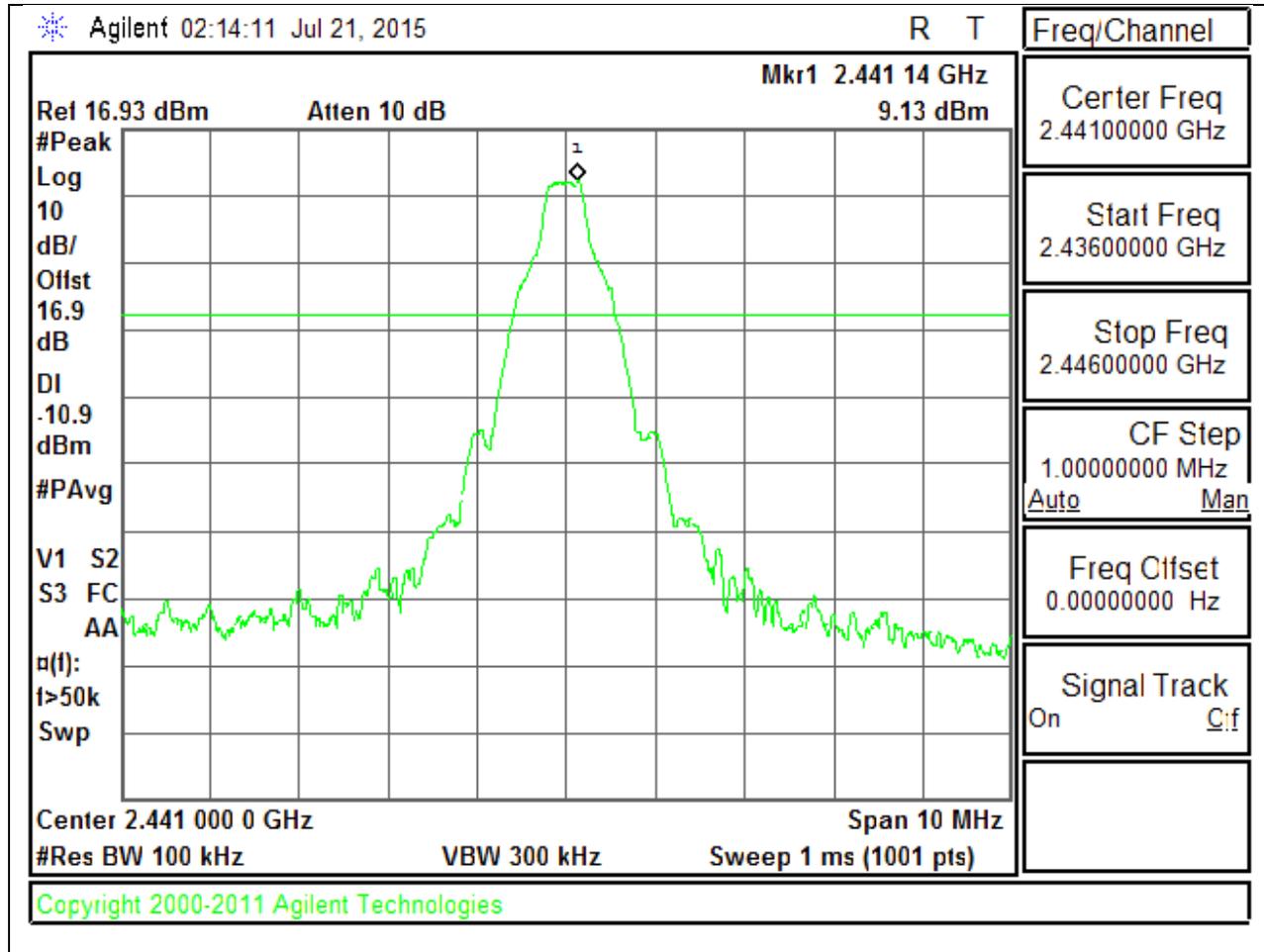


LOW CHANNEL SPURIOUS

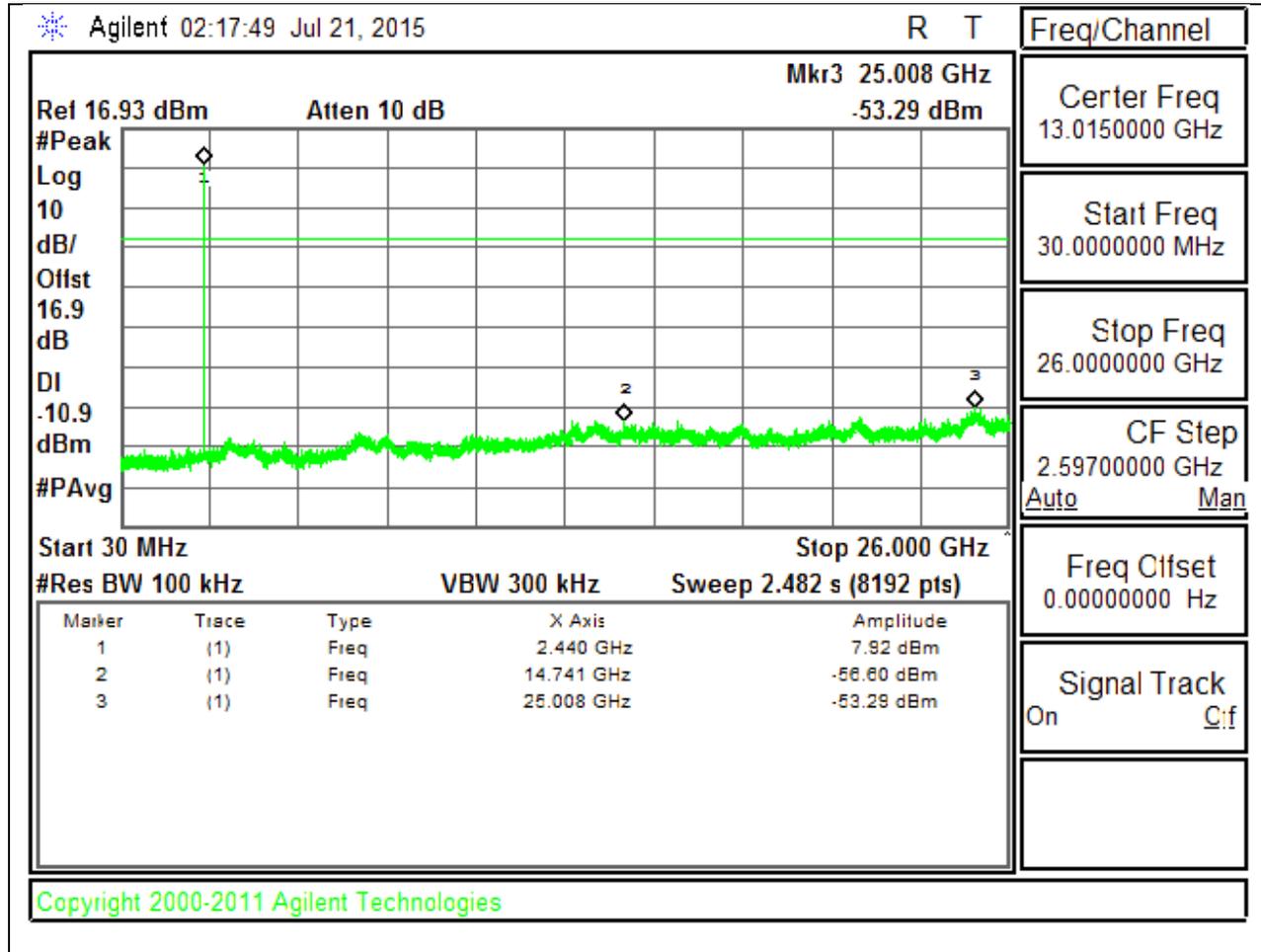


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

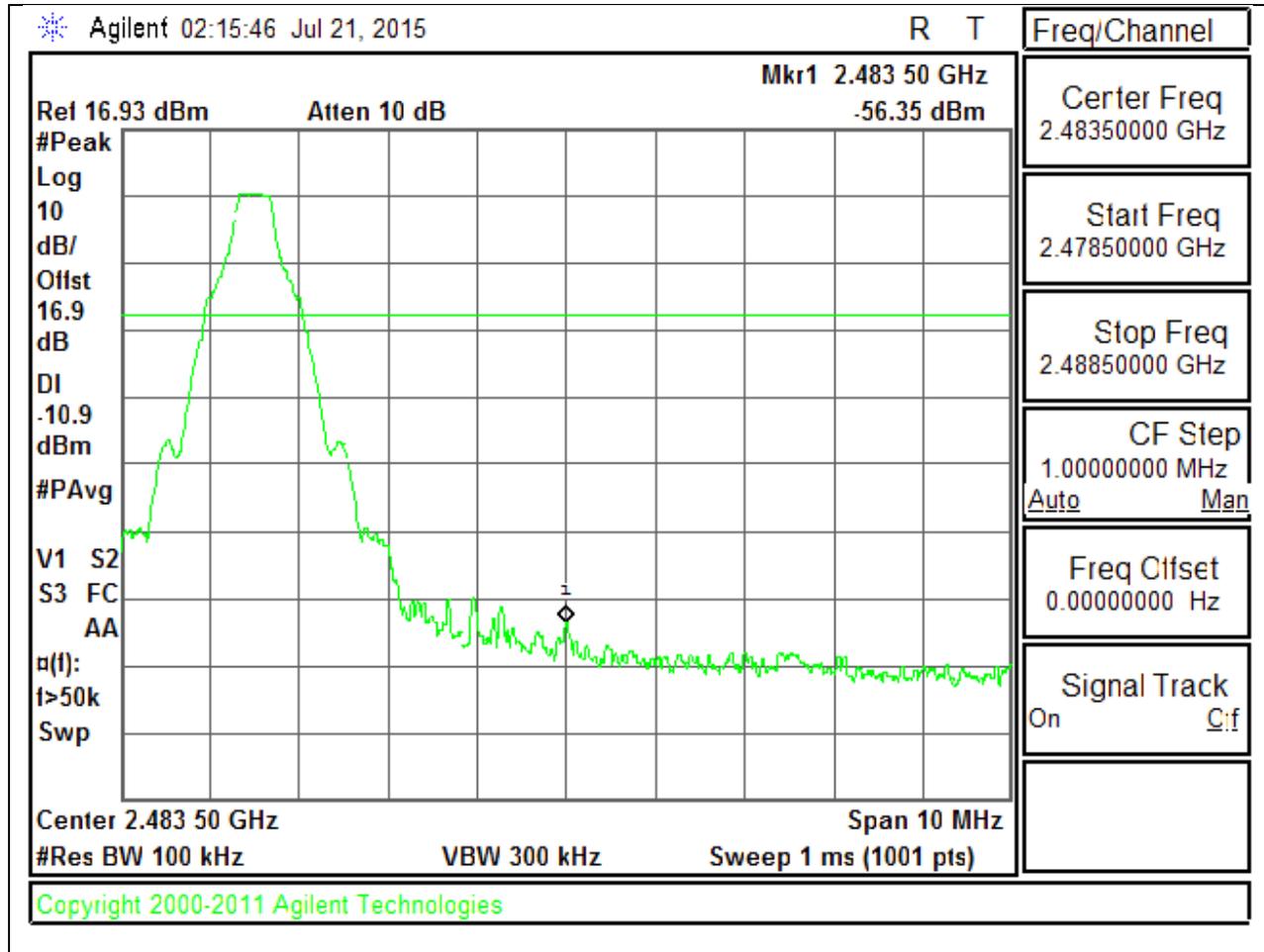


MID CHANNEL SPURIOUS

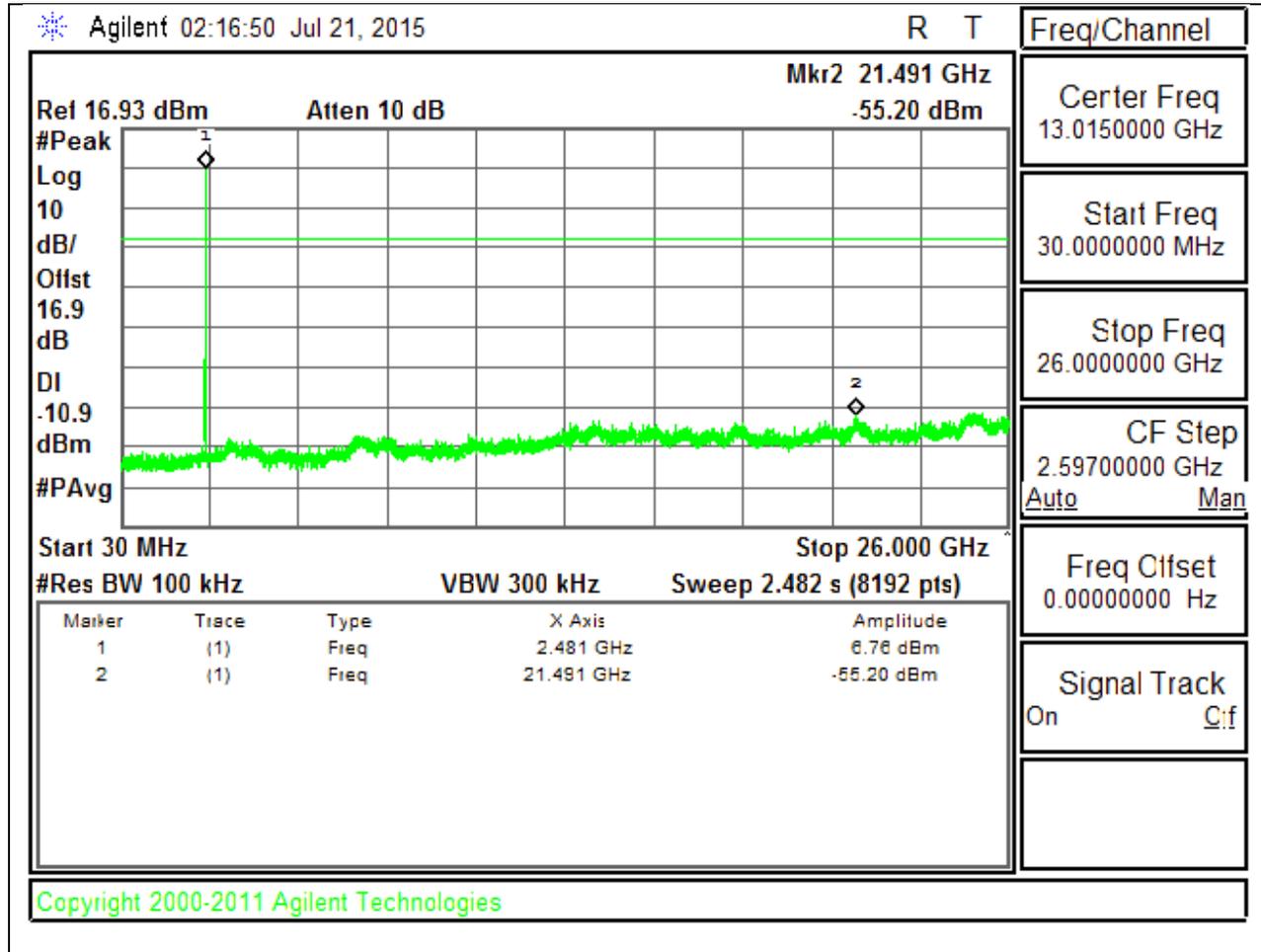


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

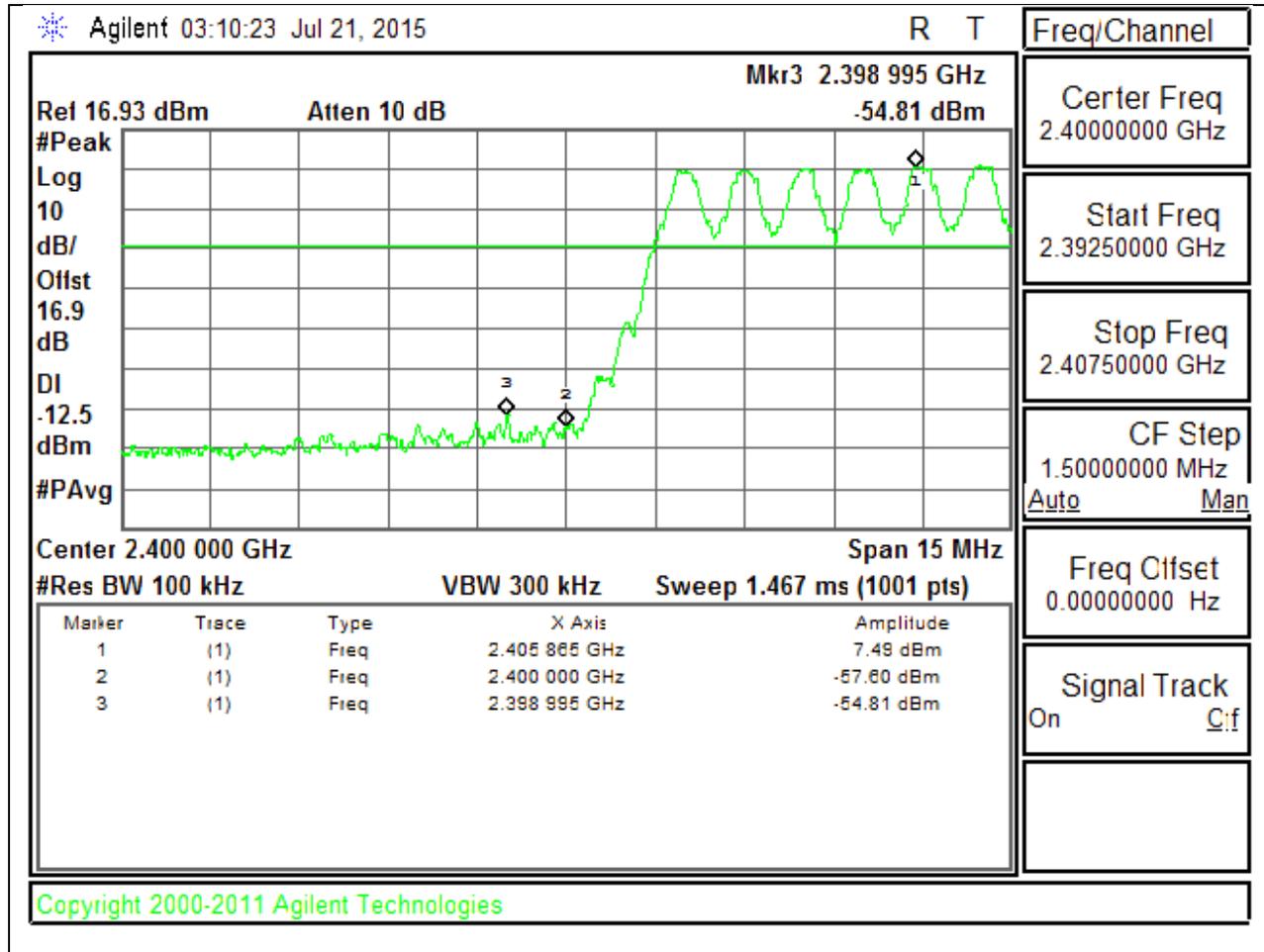


HIGH CHANNEL SPURIOUS

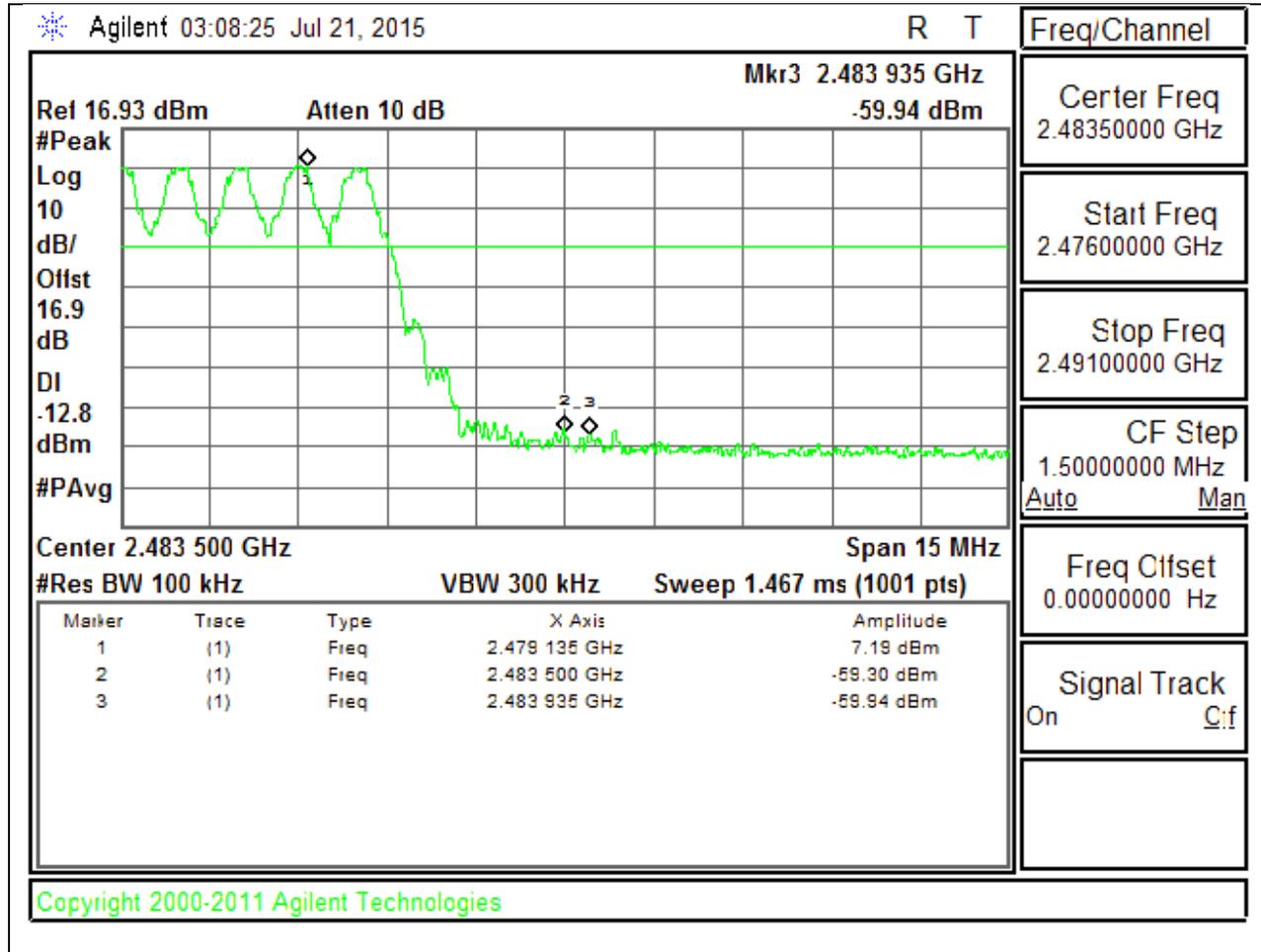


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



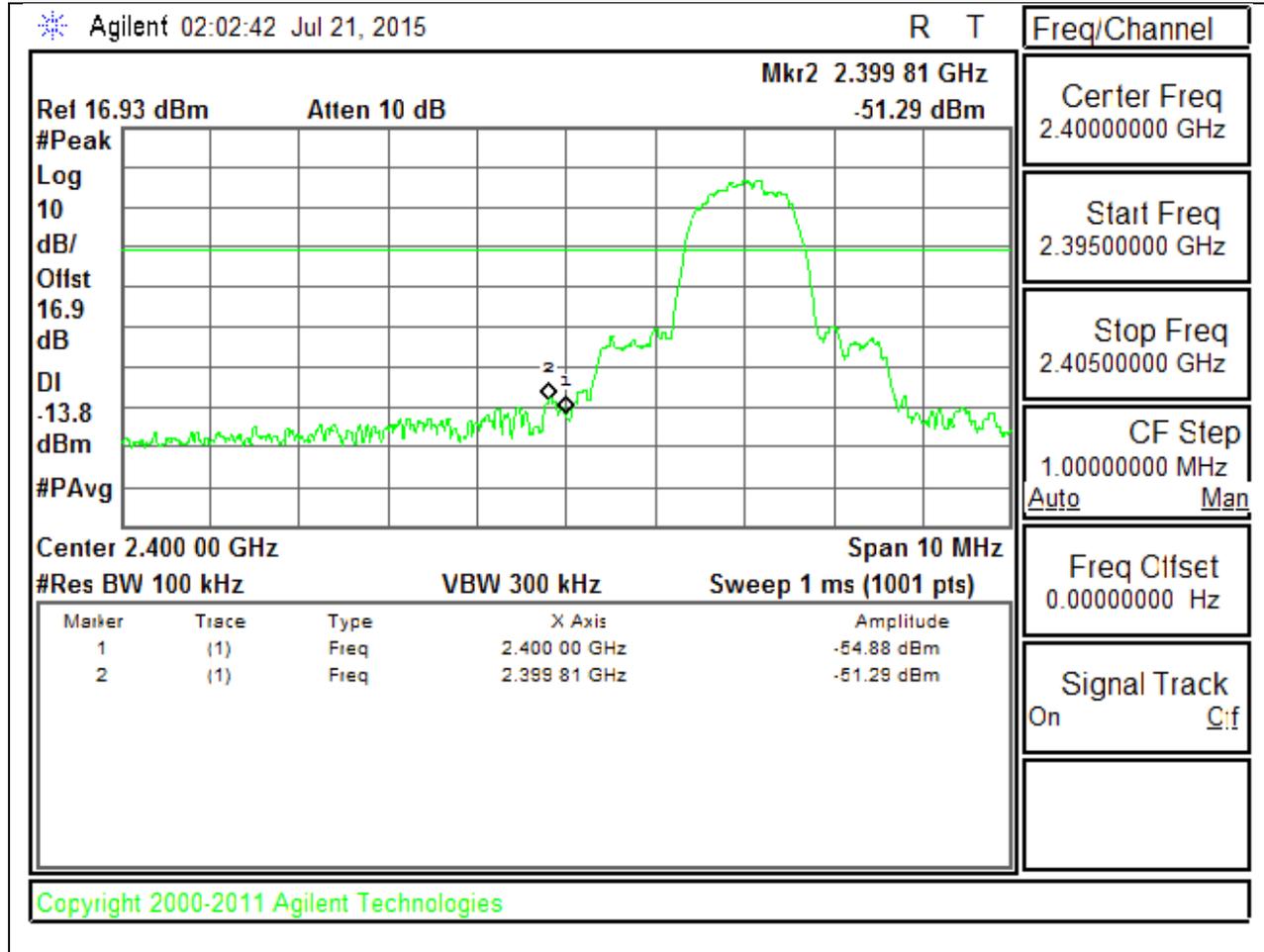
HIGH BANDEGE WITH HOPPING ON



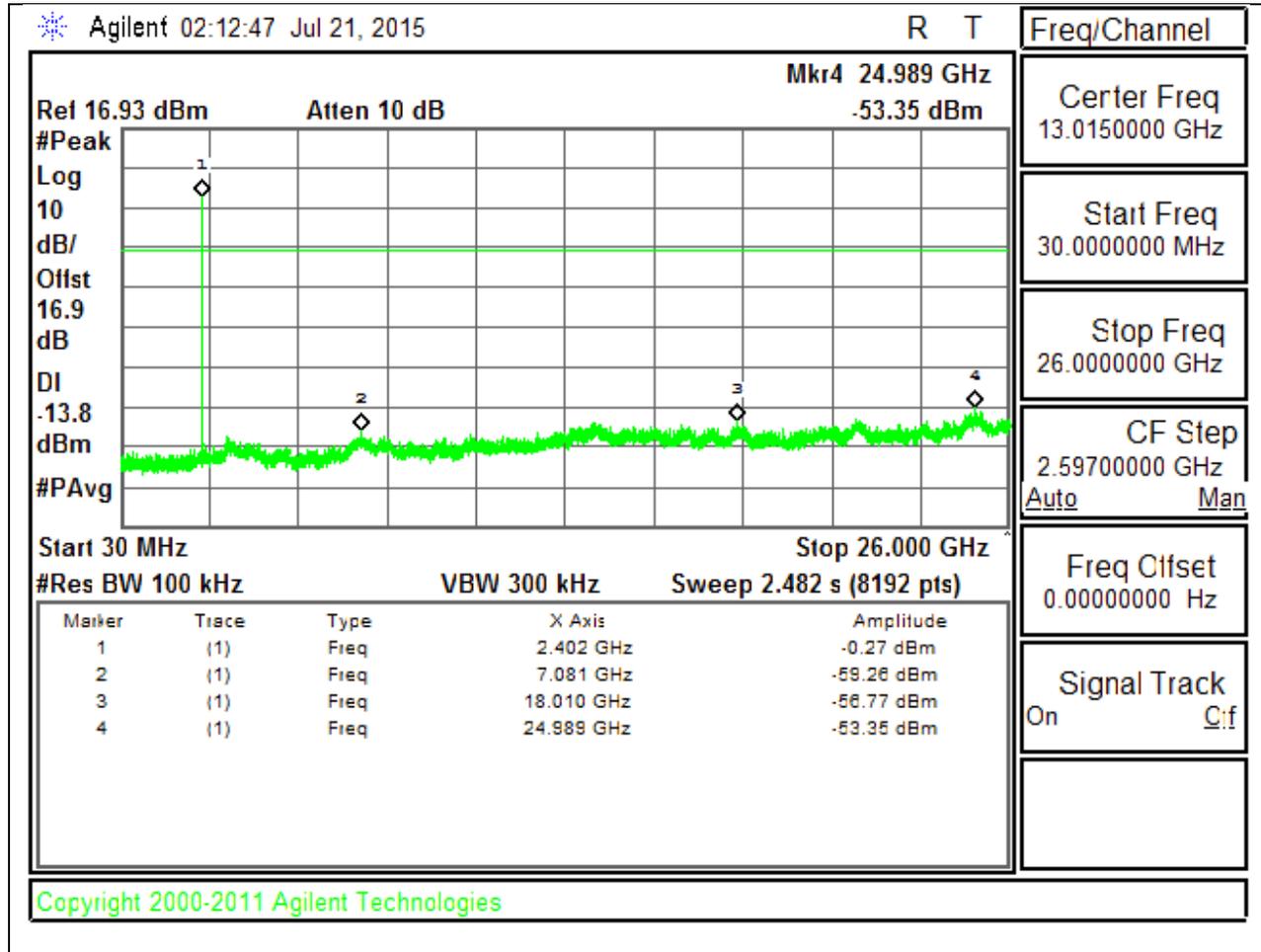
8.7.2. ENHANCED DATA RATE 8PSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

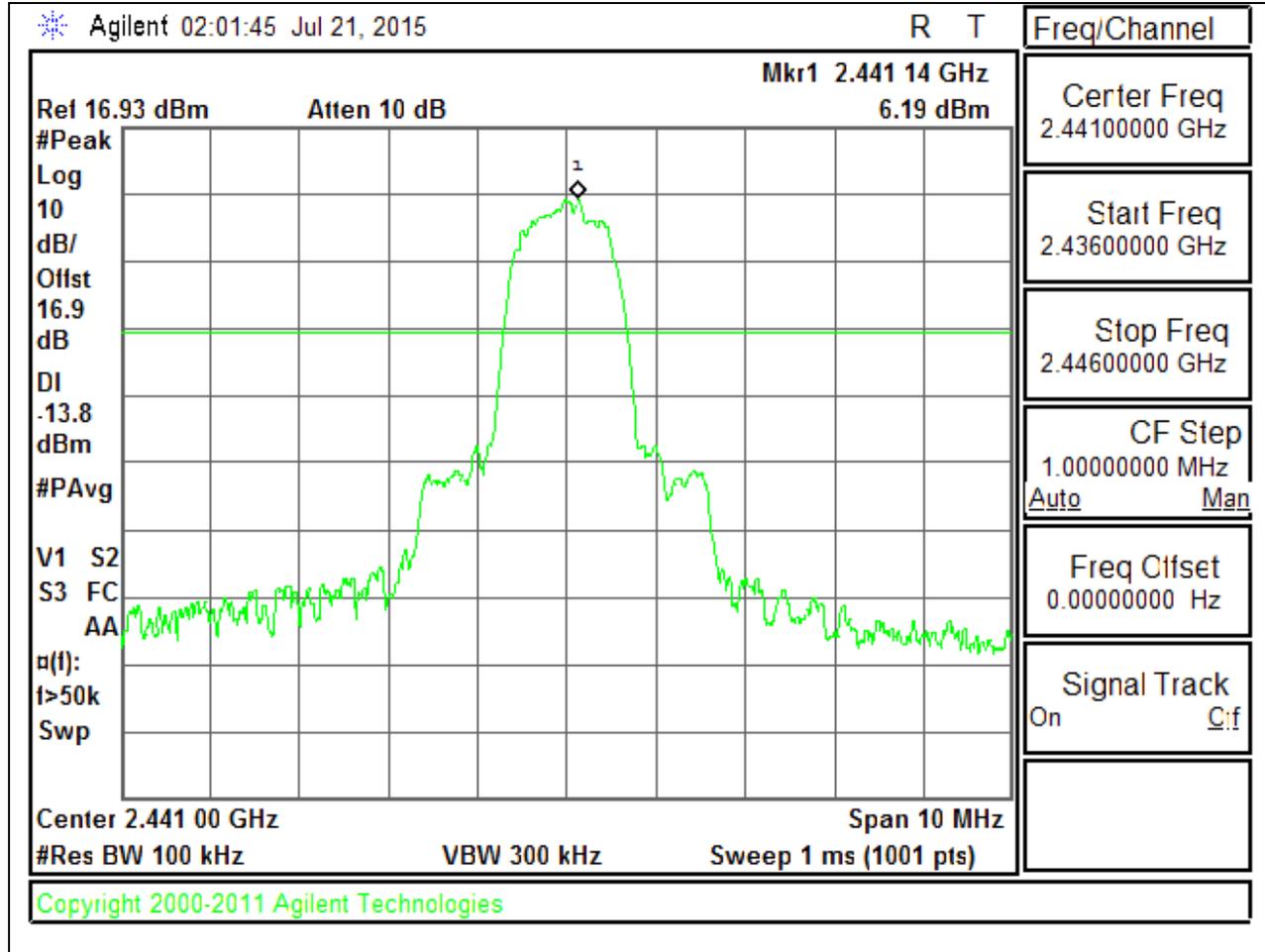


LOW CHANNEL SPURIOUS

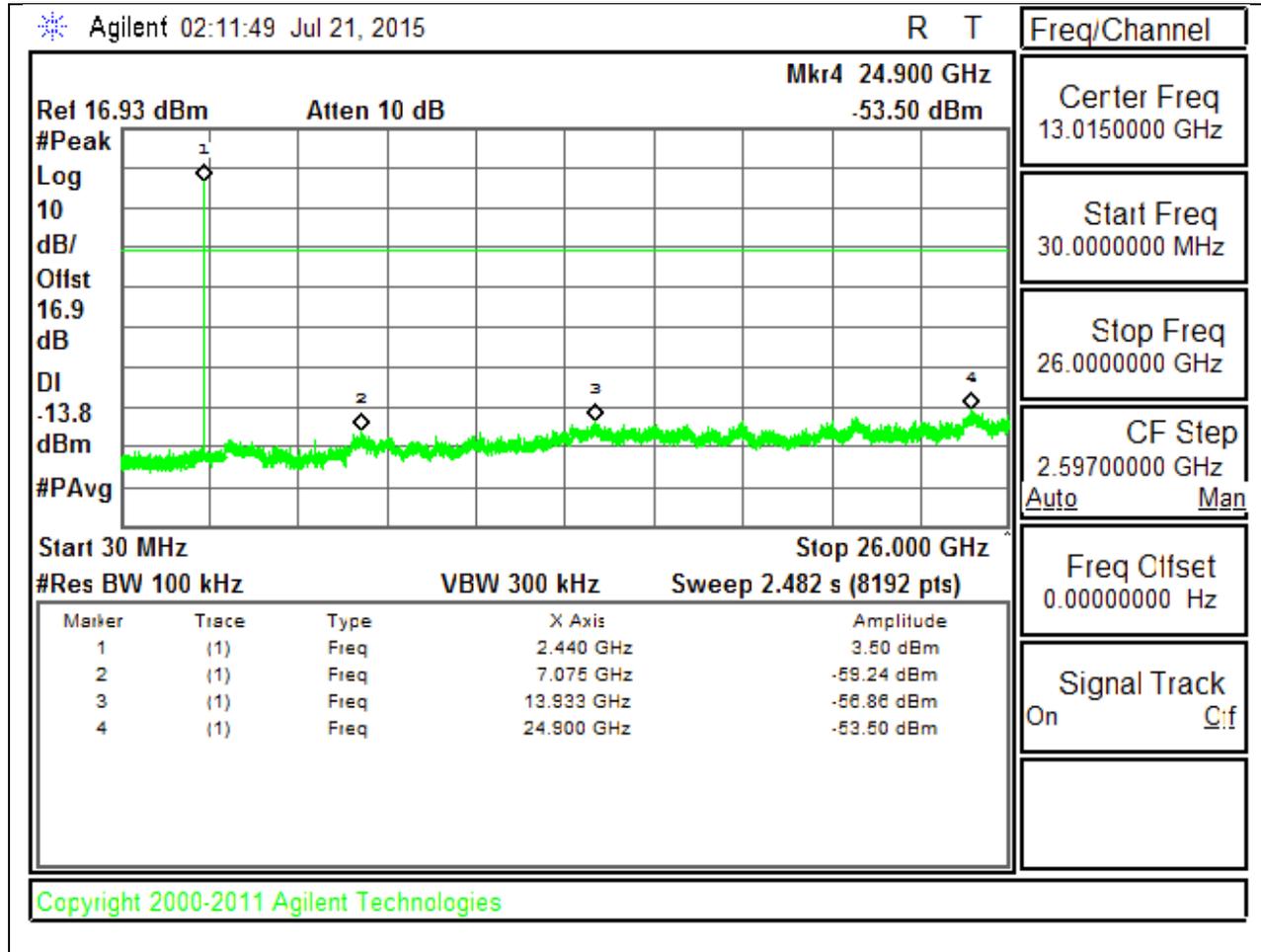


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

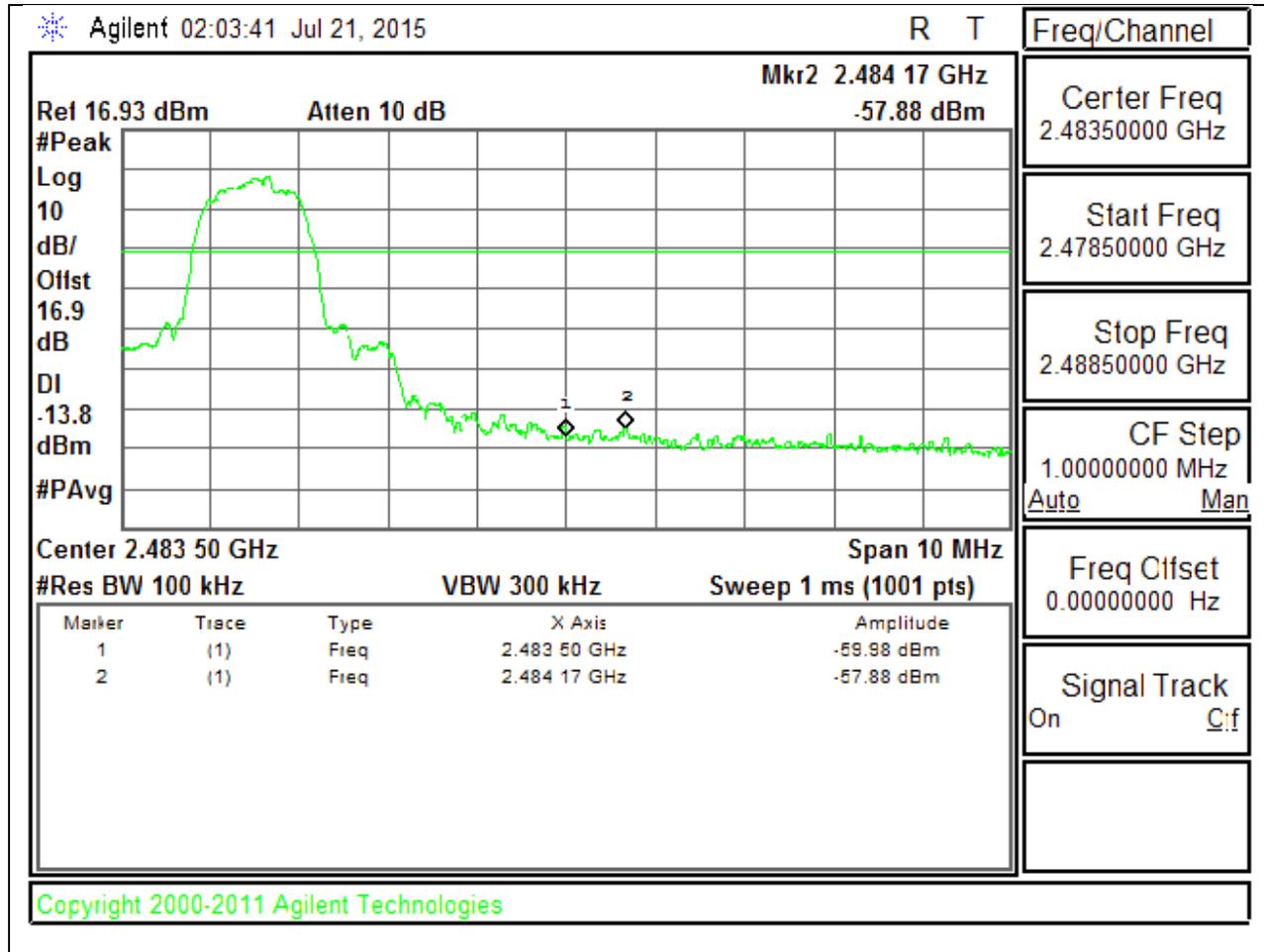


MID CHANNEL SPURIOUS

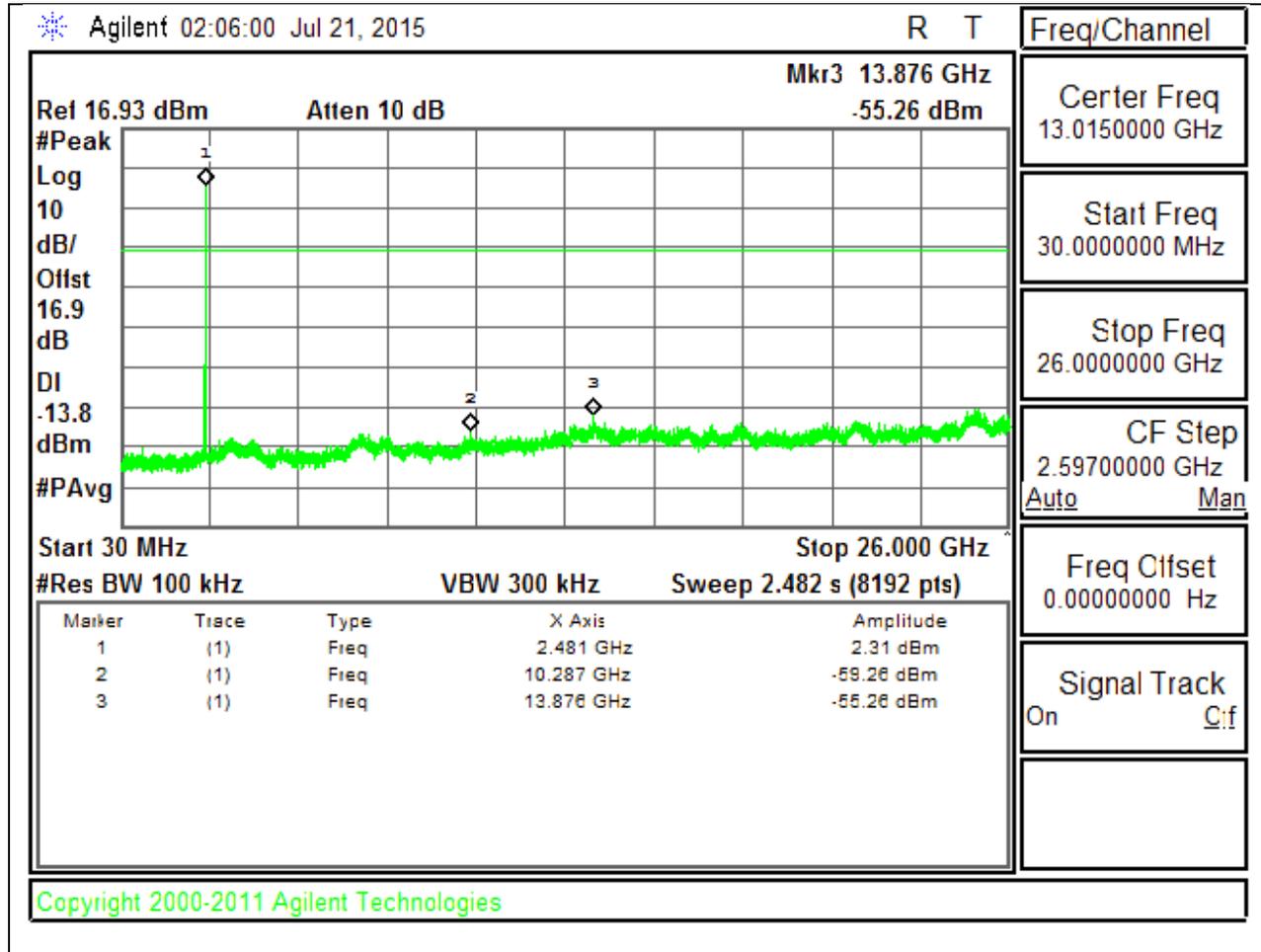


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

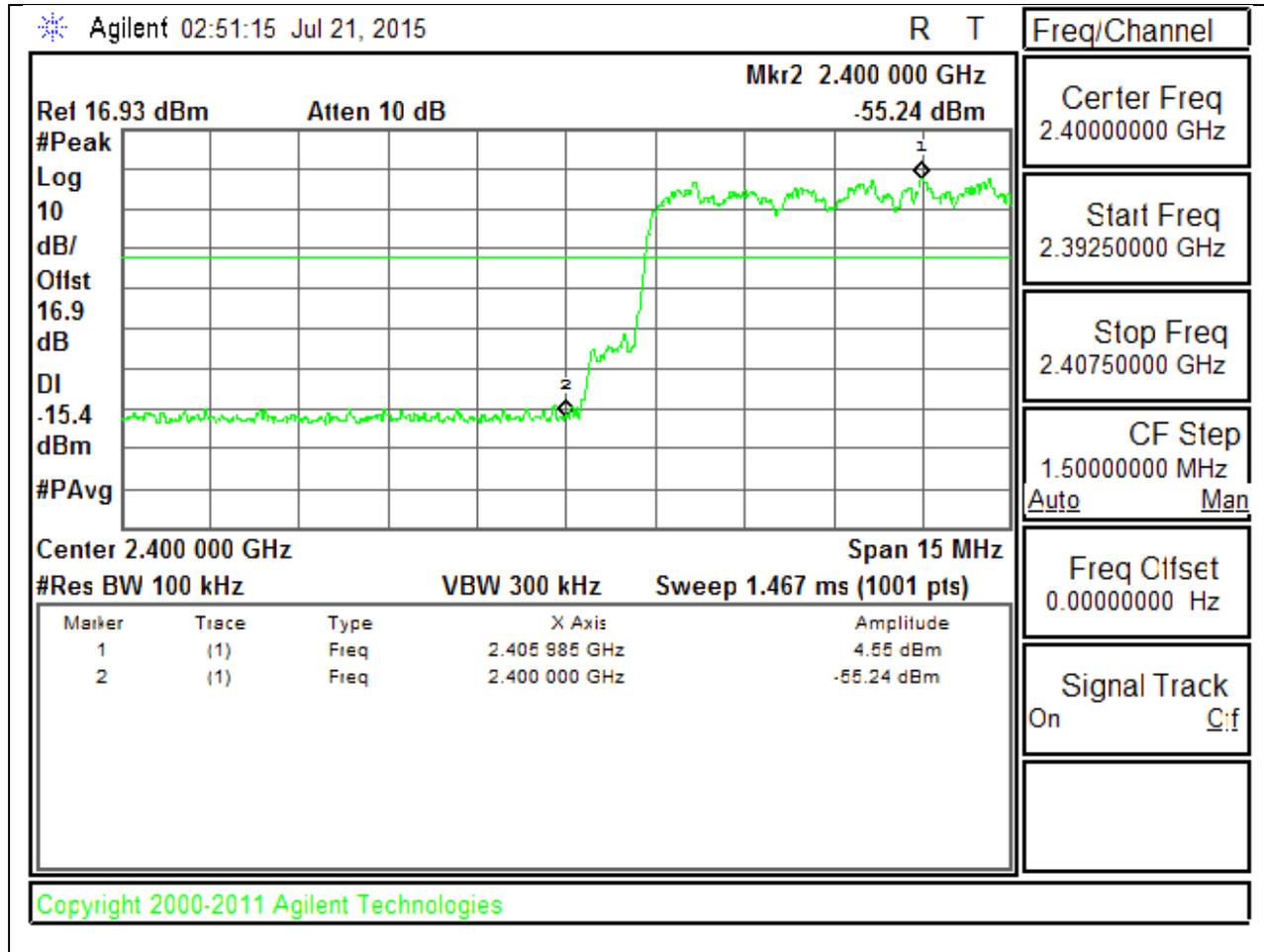


HIGH CHANNEL SPURIOUS

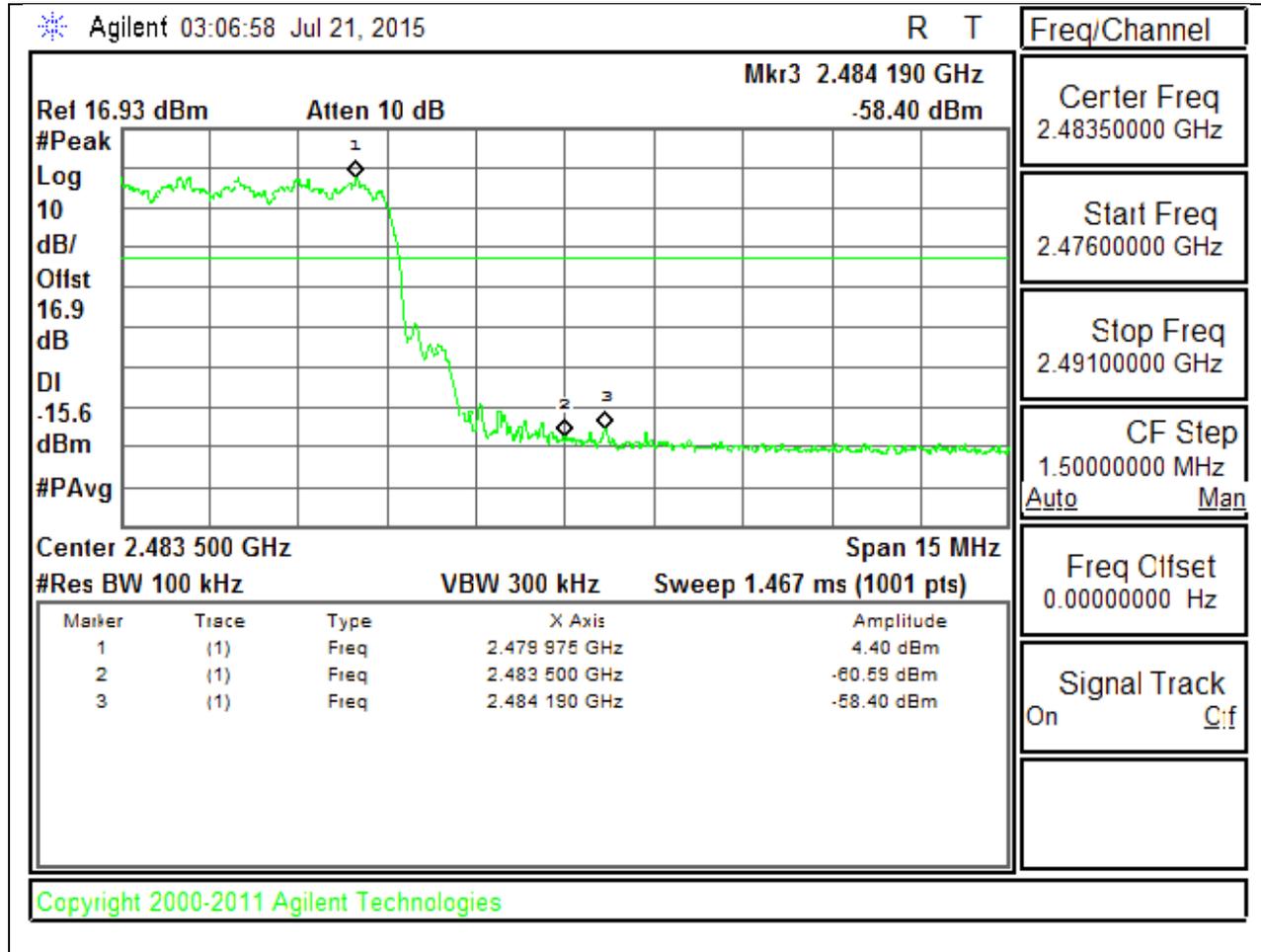


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



HIGH BANDEDGE WITH HOPPING ON



9. RADIATED TEST RESULTS

9.1. 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. 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 band edge measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 1/T (on time) for average measurement.
 $GFSK = 1/T = 1 / 0.0029S = 360Hz.$

The spectrum from 1GHzHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

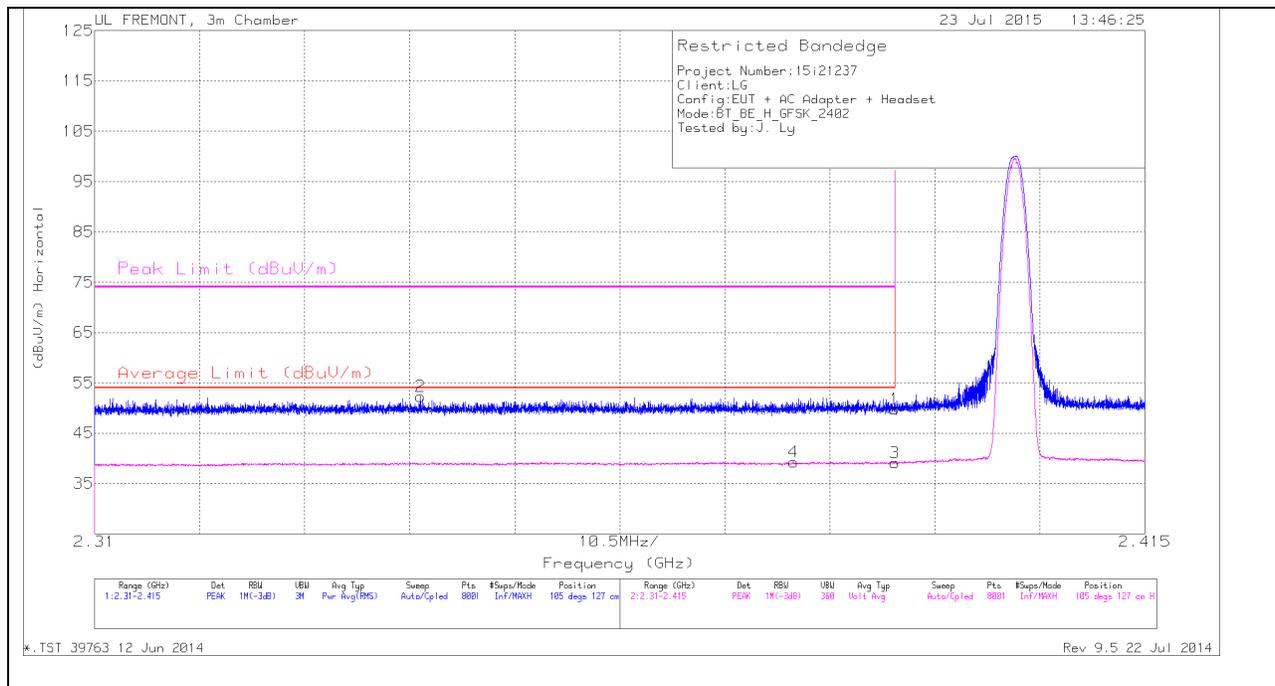
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. BASIC DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



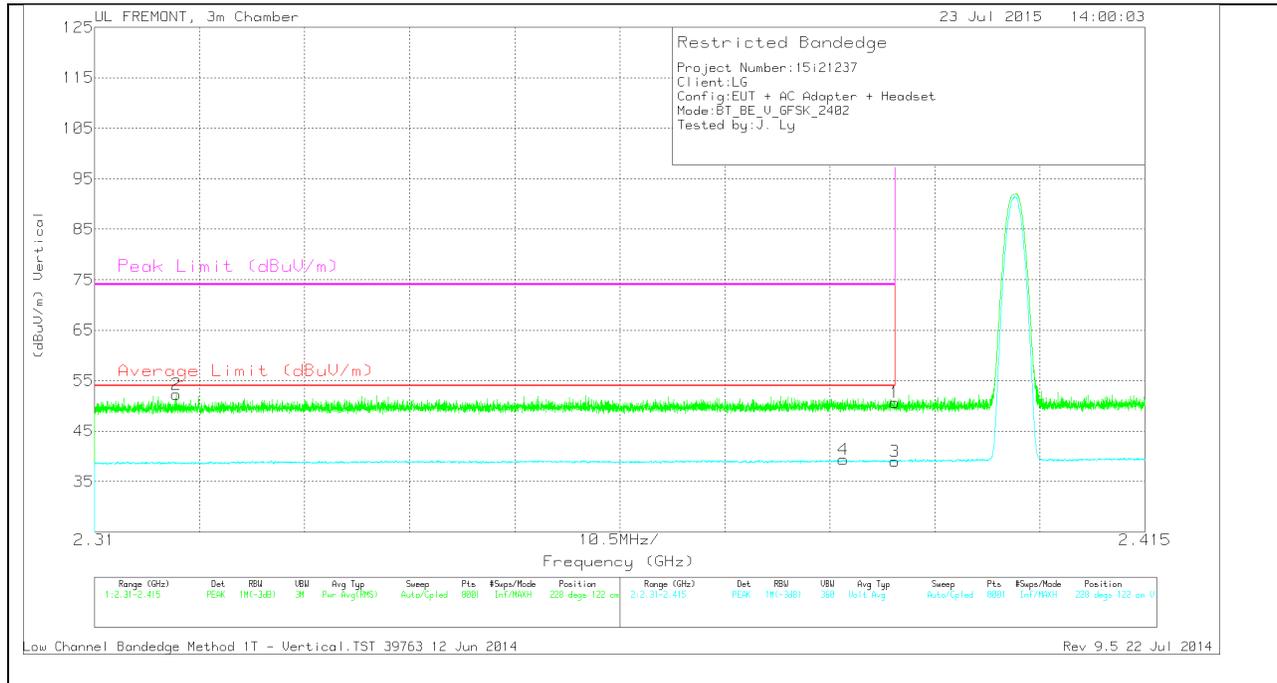
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cb/ Fitr/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	2.343	42.87	PK	31.8	-22.4	52.27	-	-	74	-21.73	105	127	H
4	2.38	29.78	VB1T	31.9	-22.4	39.28	54	-14.72	-	-	105	127	H
1	2.39	40.15	PK	32	-22.4	49.75	-	-	74	-24.25	105	127	H
3	2.39	29.5	VB1T	32	-22.4	39.1	54	-14.9	-	-	105	127	H

PK - Peak detector

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

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

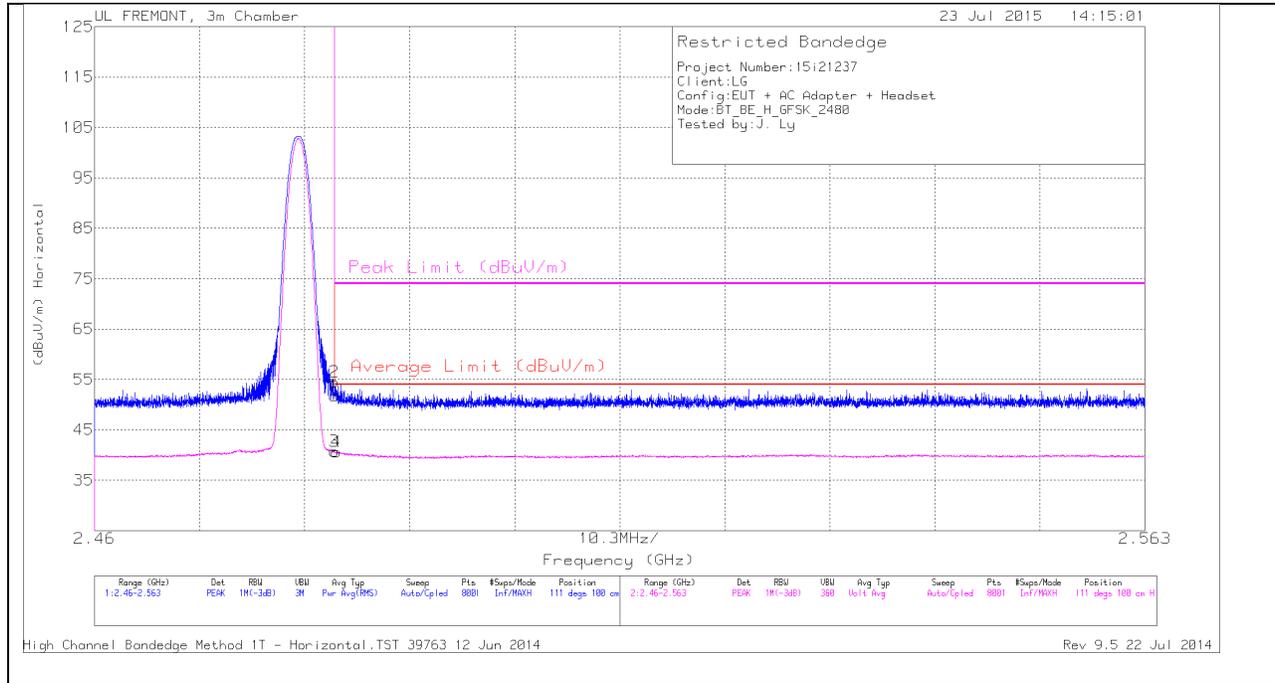
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.318	42.94	PK	31.7	-22.4	52.24	-	-	74	-21.76	228	122	V
4	2.385	29.71	VB1T	32	-22.4	39.31	54	-14.69	-	-	228	122	V
1	2.39	41.1	PK	32	-22.4	50.7	-	-	74	-23.3	228	122	V
3	2.39	29.39	VB1T	32	-22.4	38.99	54	-15.01	-	-	228	122	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)

HORIZONTAL PEAK AND AVERAGE PLOT



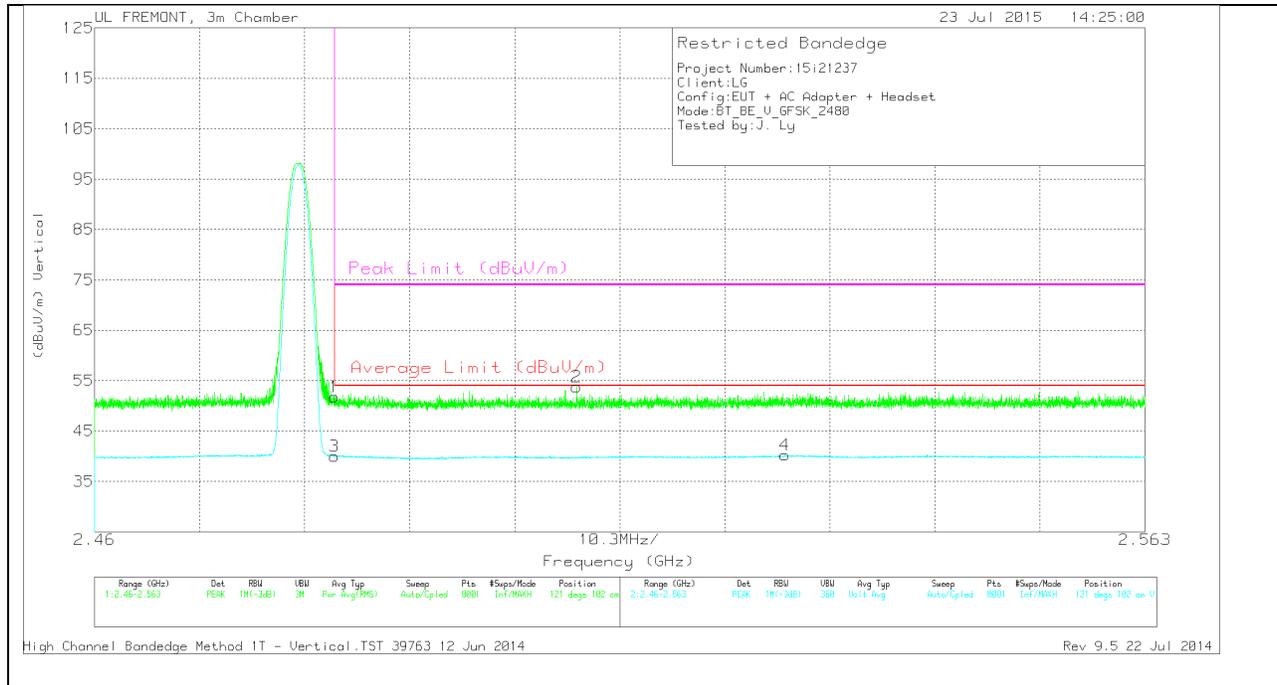
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	41.56	PK	32.3	-22.1	51.76	-	-	74	-22.24	111	100	H
2	2.484	44.36	PK	32.3	-22.1	54.56	-	-	74	-19.44	111	100	H
3	2.484	30.54	VB1T	32.3	-22.1	40.74	54	-13.26	-	-	111	100	H
4	2.484	30.44	VB1T	32.3	-22.1	40.64	54	-13.36	-	-	111	100	H

PK - Peak detector

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

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

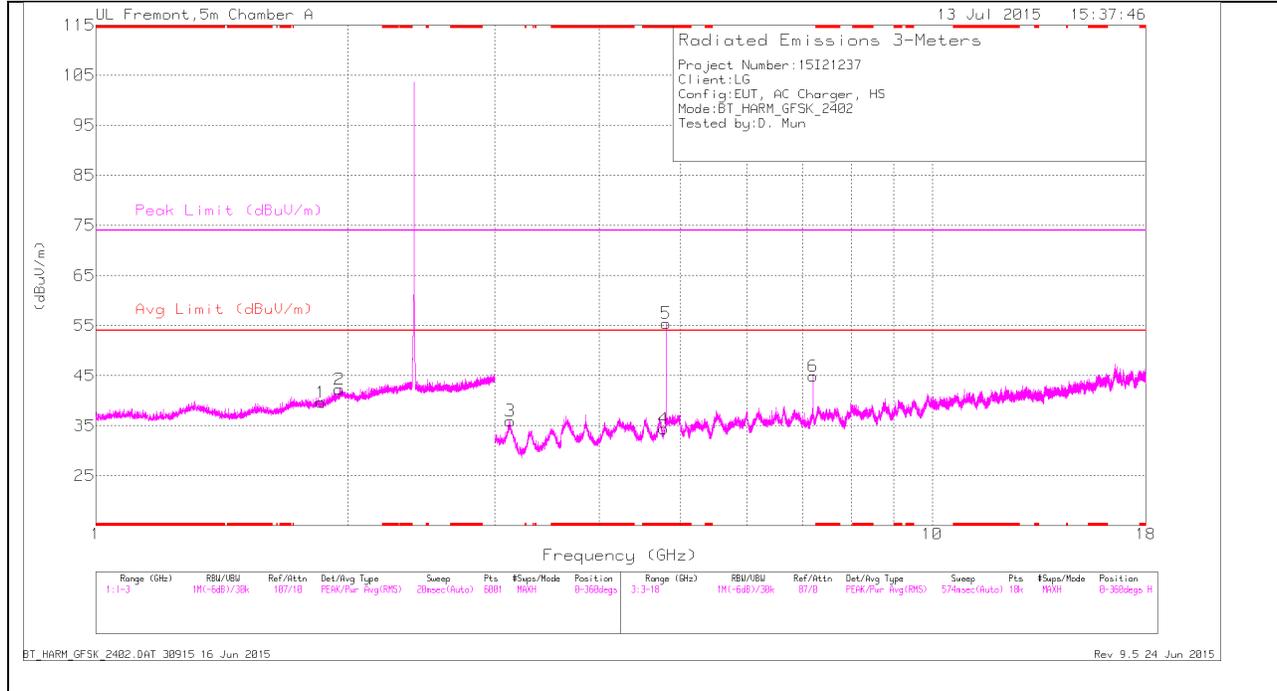
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	41.63	PK	32.3	-22.1	51.83	-	-	74	-22.17	121	102	V
3	2.484	29.84	VB1T	32.3	-22.1	40.04	54	-13.96	-	-	121	102	V
2	2.507	43.58	PK	32.3	-22.1	53.78	-	-	74	-20.22	121	102	V
4	2.528	29.8	VB1T	32.4	-22	40.2	54	-13.8	-	-	121	102	V

PK - Peak detector

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

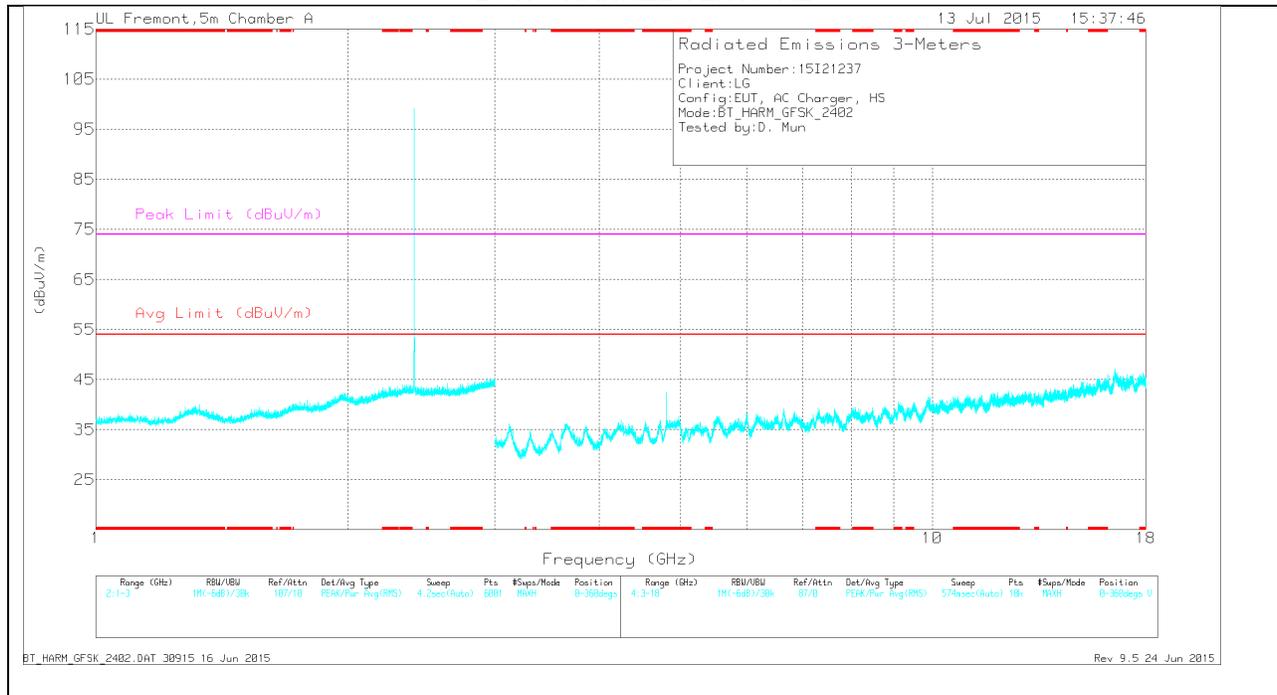
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/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
4	* 4.775	31.9	Pk	34	-31.5	0	34.4	-	-	74	-39.6	0-360	100	H
5	* 4.804	52.52	Pk	34	-31.1	0	55.42	-	-	74	-18.58	0-360	100	H
1	1.858	34.64	Pk	30.5	-25.5	0	39.64	-	-	-	-	0-360	100	H
2	1.956	36.69	Pk	31	-25.4	0	42.29	-	-	-	-	0-360	201	H
3	3.129	35.04	Pk	32.9	-32	0	35.94	-	-	-	-	0-360	100	H
6	7.206	36.68	Pk	35.5	-27.3	0	44.88	-	-	-	-	0-360	100	H

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

Pk - Peak detector

Radiated Emissions

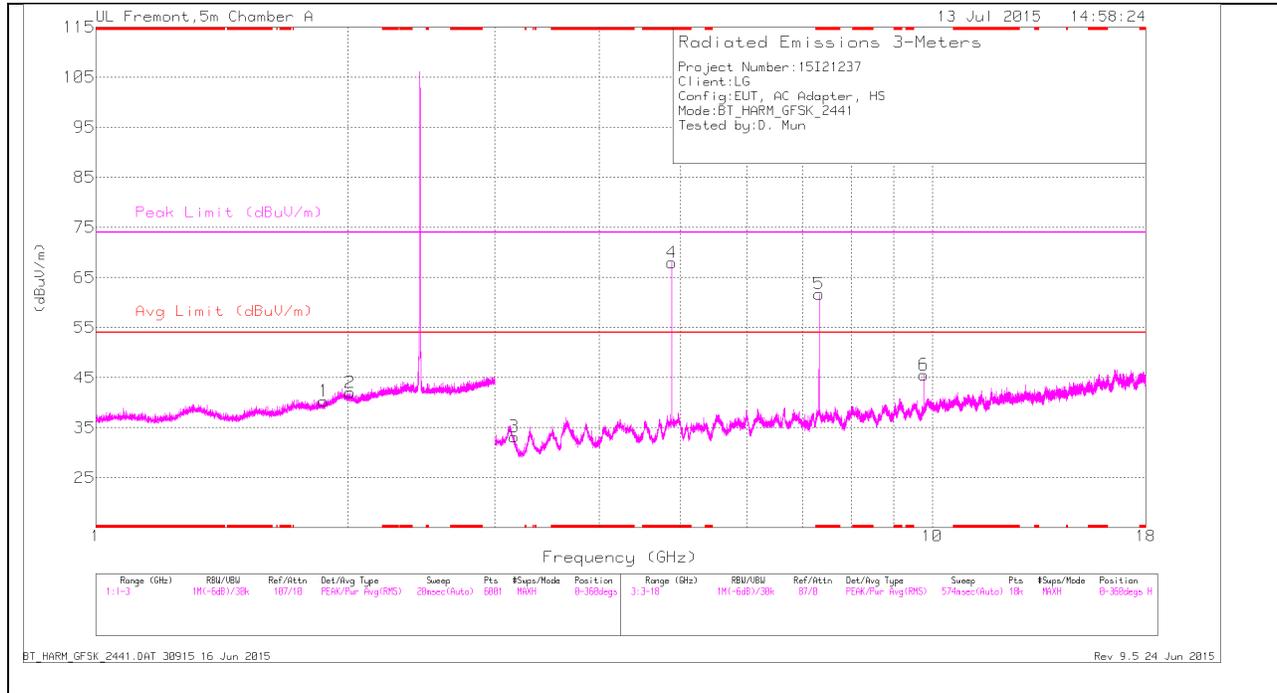
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.775	39.84	PK2	34	-31.5	42.34	-	-	74	-31.66	360	100	H
* 4.776	29.83	VB1T	34	-31.5	32.33	54	-21.67	-	-	360	100	H
* 4.804	44.6	PK2	34	-31.1	47.5	-	-	74	-26.5	360	100	H
* 4.804	38.24	VB1T	34	-31.2	41.04	54	-12.96	-	-	360	100	H
1.857	43.48	PK2	30.5	-25.5	48.48	-	-	-	-	360	100	H
1.859	32.66	VB1T	30.5	-25.5	37.66	-	-	-	-	360	100	H
1.955	33.81	VB1T	31	-25.4	39.41	-	-	-	-	360	202	H
1.956	44.55	PK2	31	-25.4	50.15	-	-	-	-	360	202	H
3.127	32.91	VB1T	32.9	-31.9	33.91	-	-	-	-	360	100	H
3.131	43.43	PK2	32.9	-32	44.33	-	-	-	-	360	100	H
7.205	38.25	PK2	35.5	-27.3	46.45	-	-	-	-	360	100	H
7.206	27.82	VB1T	35.5	-27.3	36.02	-	-	-	-	360	100	H

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

PK2: Maximum Peak

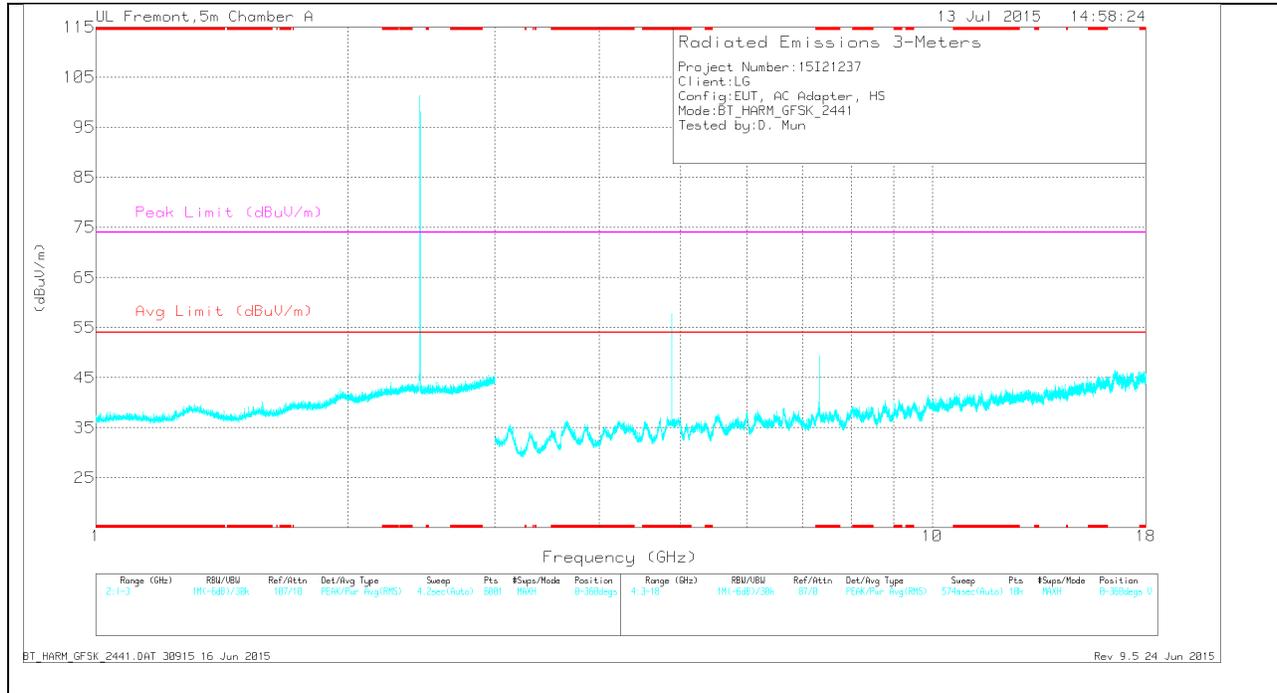
VB1T: VB-A VB=1/Ton, RMS Average where: Ton is packet duration

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

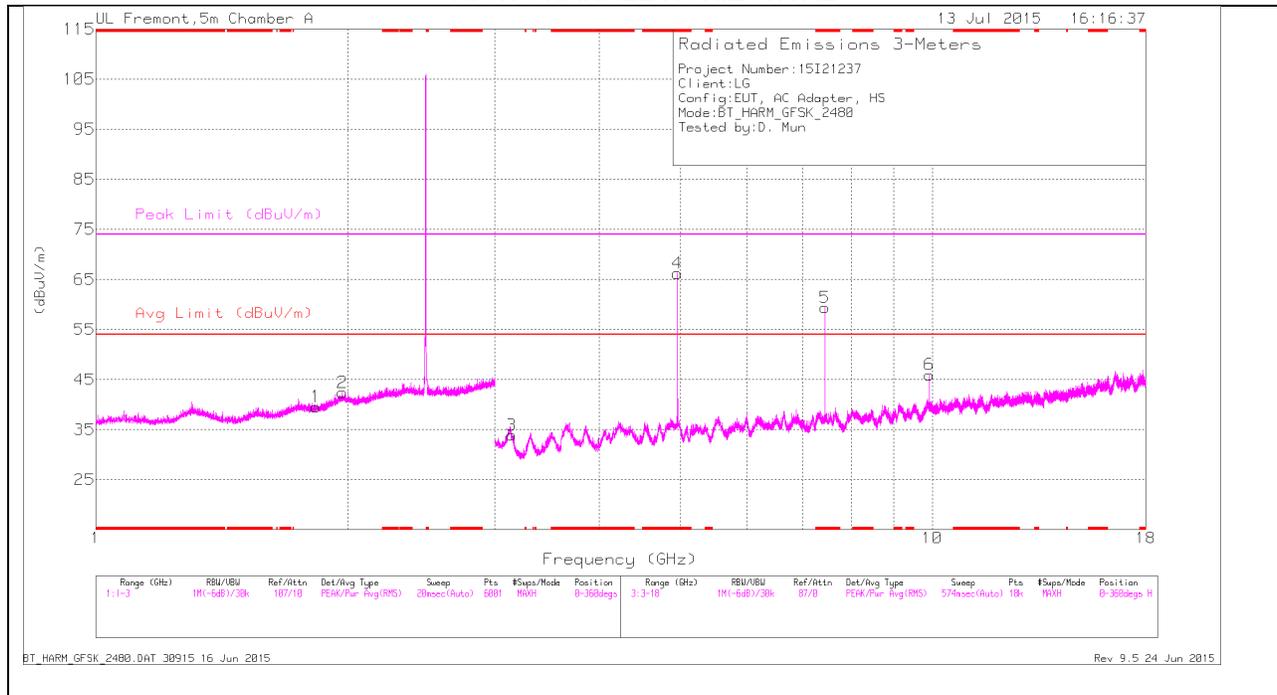
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.882	51.45	PK2	33.9	-30	55.35	-	-	74	-18.65	360	100	H
* 4.882	47.16	VB1T	33.9	-30	51.00	54	-3.00	-	-	360	100	H
* 7.323	42.01	PK2	35.5	-26.4	51.11	-	-	74	-22.89	360	100	H
* 7.323	33.28	VB1T	35.5	-26.4	42.38	54	-11.62	-	-	360	100	H
1.872	43.2	PK2	30.6	-25.5	48.3	-	-	-	-	360	100	H
1.875	32.69	VB1T	30.6	-25.5	37.79	-	-	-	-	360	100	H
2.014	33.51	VB1T	31.2	-25.3	39.41	-	-	-	-	360	202	H
2.015	43.75	PK2	31.2	-25.3	49.65	-	-	-	-	360	202	H
3.161	41.97	PK2	32.8	-32.5	42.27	-	-	-	-	360	100	H
3.161	31.01	VB1T	32.8	-32.5	31.31	-	-	-	-	360	100	H
9.762	34.81	PK2	36.9	-24.3	47.41	-	-	-	-	360	100	H
9.763	24.76	VB1T	36.9	-24.3	37.36	-	-	-	-	360	100	H

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

PK2: Maximum Peak

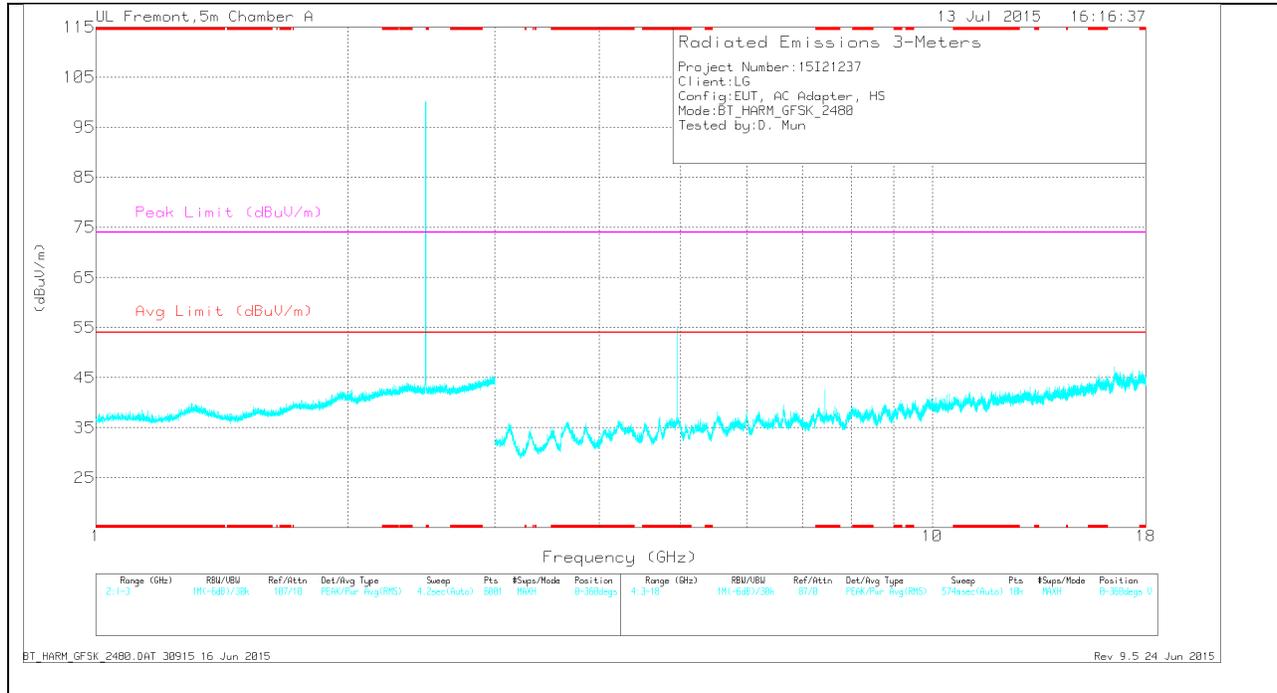
VB1T: VB-A VB=1/Ton, RMS Average where: Ton is packet duration

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
4	* 4.96	62.22	Pk	33.9	-29.9	0	66.22	-	-	74	-7.78	0-360	100	H
5	* 7.44	50.08	Pk	35.5	-26.2	0	59.38	-	-	74	-14.62	0-360	100	H
1	1.832	34.87	Pk	30.2	-25.5	0	39.57	-	-	-	-	0-360	100	H
2	1.972	36.81	Pk	31	-25.4	0	42.41	-	-	-	-	0-360	201	H
3	3.144	33.31	Pk	32.8	-32.2	0	33.91	-	-	-	-	0-360	100	H
6	9.92	32.26	Pk	37	-23.3	0	45.96	-	-	-	-	0-360	100	H

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

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.96	50.45	PK2	33.9	-30	53.84	-	-	74	-20.16	360	100	H
* 4.96	46.82	VB1T	33.9	-30	50.72	54	-3.28	-	-	360	100	H
* 7.44	42.1	PK2	35.5	-26.2	51.4	-	-	74	-22.6	360	100	H
* 7.44	36.34	VB1T	35.5	-26.2	45.64	54	-8.36	-	-	360	100	H
1.832	32.89	VB1T	30.2	-25.5	37.59	-	-	-	-	360	100	H
1.834	43.54	PK2	30.3	-25.5	48.34	-	-	-	-	360	100	H
1.971	33.91	VB1T	31	-25.4	39.51	-	-	-	-	360	202	H
1.973	44.32	PK2	31	-25.3	50.02	-	-	-	-	360	202	H
3.143	42.97	PK2	32.8	-32.1	43.67	-	-	-	-	360	100	H
3.145	32.18	VB1T	32.8	-32.2	32.78	-	-	-	-	360	100	H
9.762	34.81	PK2	36.9	-24.3	47.41	-	-	-	-	360	100	H
9.763	24.76	VB1T	36.9	-24.3	37.36	-	-	-	-	360	100	H
9.92	35.16	PK2	37	-23.3	48.86	-	-	-	-	360	100	H
9.92	25.75	VB1T	37	-23.3	39.45	-	-	-	-	360	100	H

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

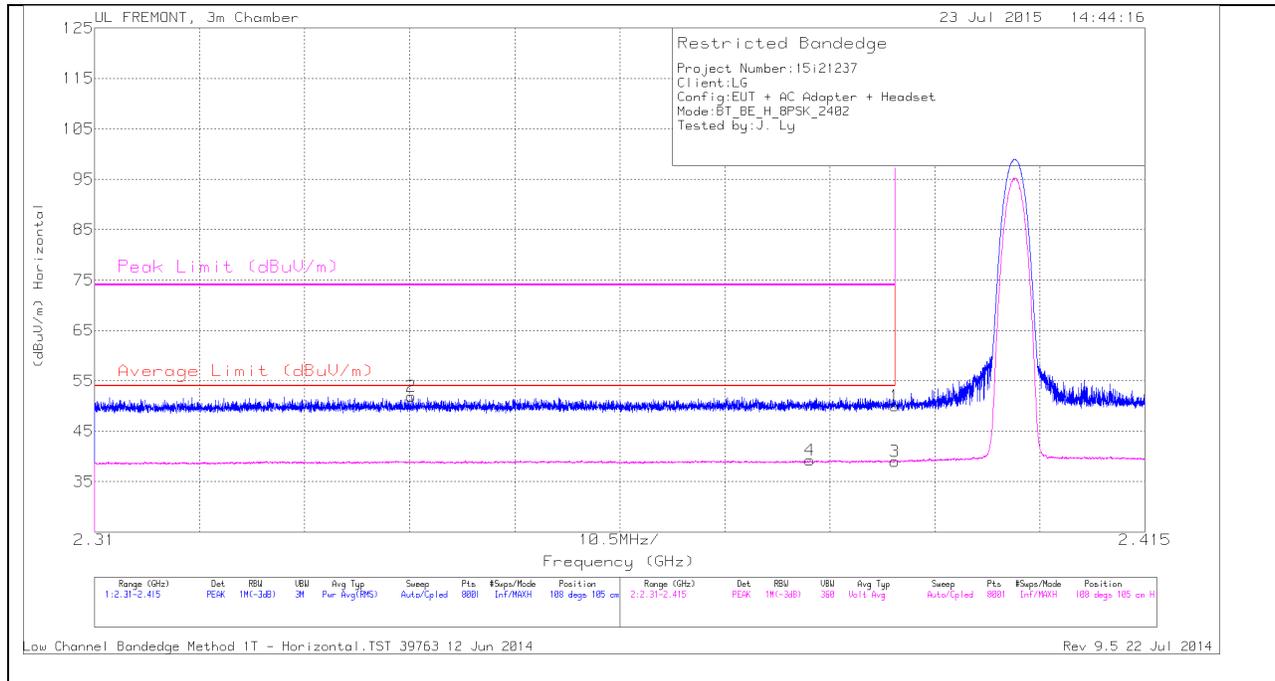
PK2: Maximum Peak

VB1T: VB-A VB=1/Ton, RMS Average where: Ton is packet duration

FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

9.2.2. ENHANCED DATA RATE 8PSK MODULATION RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



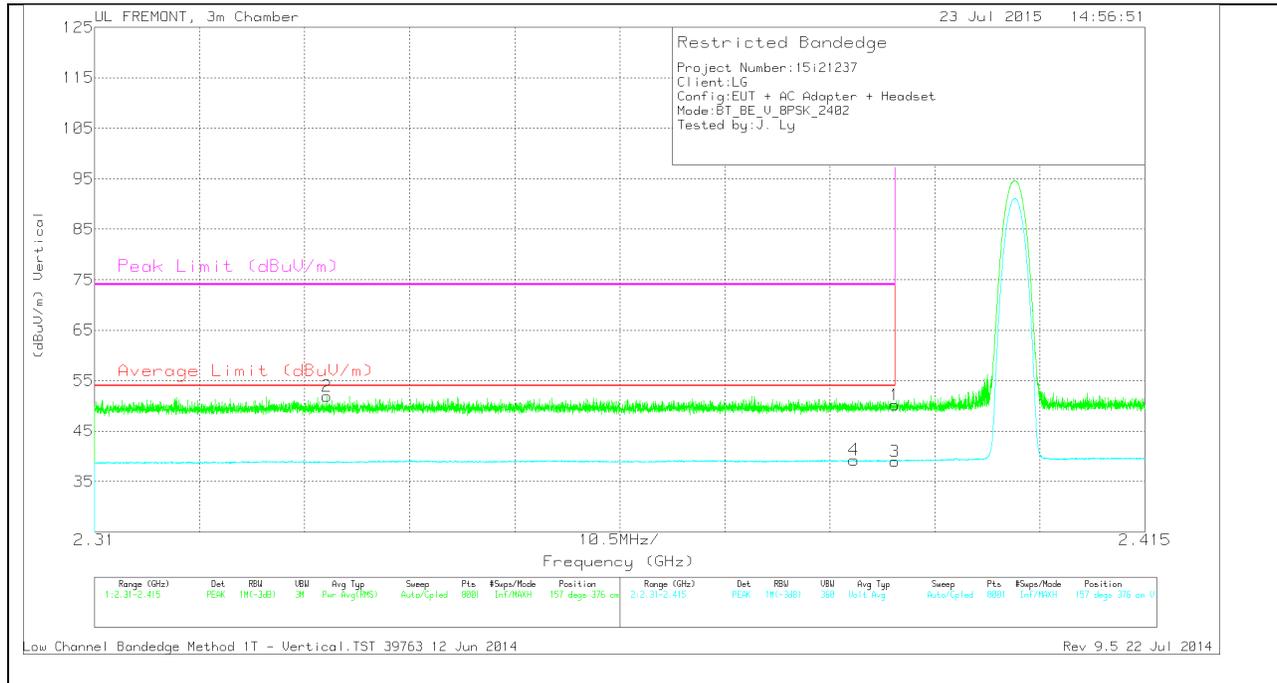
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/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	2.342	42.53	PK	31.8	-22.4	51.93	-	-	74	-22.07	108	105	H
4	2.382	29.62	VB1T	32	-22.4	39.22	54	-14.78	-	-	108	105	H
1	2.39	40.42	PK	32	-22.4	50.02	-	-	74	-23.98	108	105	H
3	2.39	29.39	VB1T	32	-22.4	38.99	54	-15.01	-	-	108	105	H

PK - Peak detector

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

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

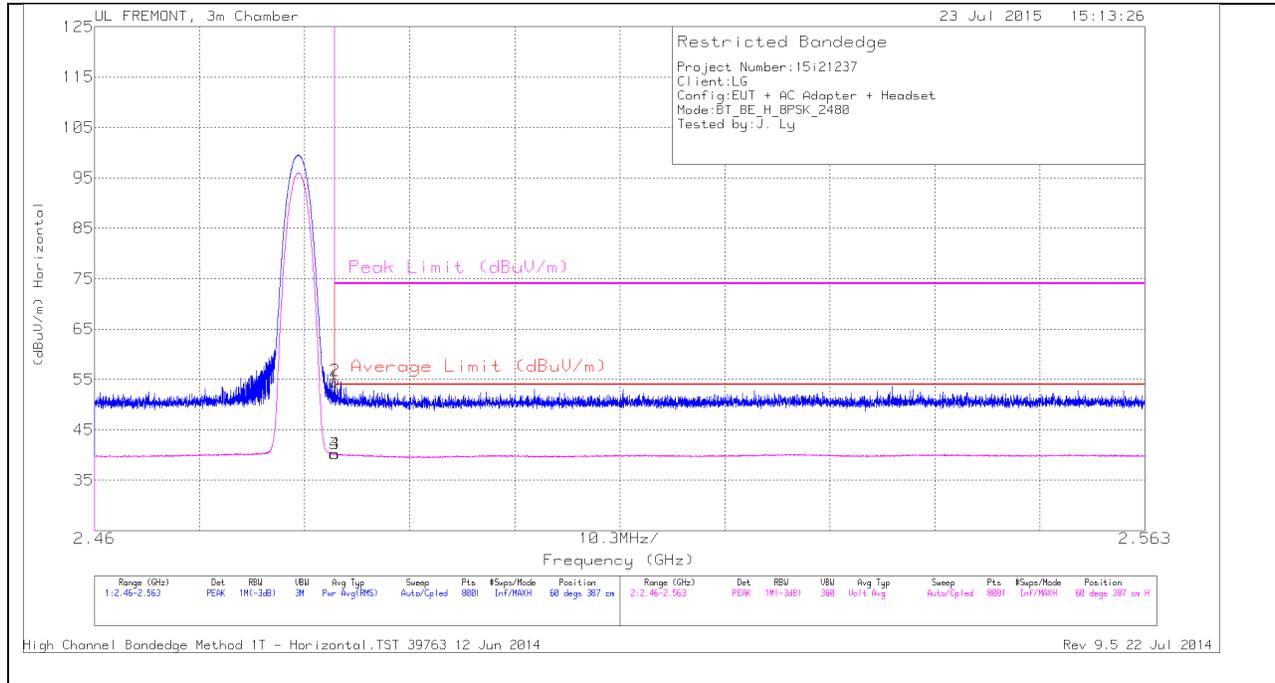
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.333	42.64	PK	31.8	-22.5	51.94	-	-	74	-22.06	157	376	V
4	2.386	29.7	VB1T	32	-22.4	39.3	54	-14.7	-	-	157	376	V
1	2.39	40.53	PK	32	-22.4	50.13	-	-	74	-23.87	157	376	V
3	2.39	29.42	VB1T	32	-22.4	39.02	54	-14.98	-	-	157	376	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)

HORIZONTAL PEAK AND AVERAGE PLOT



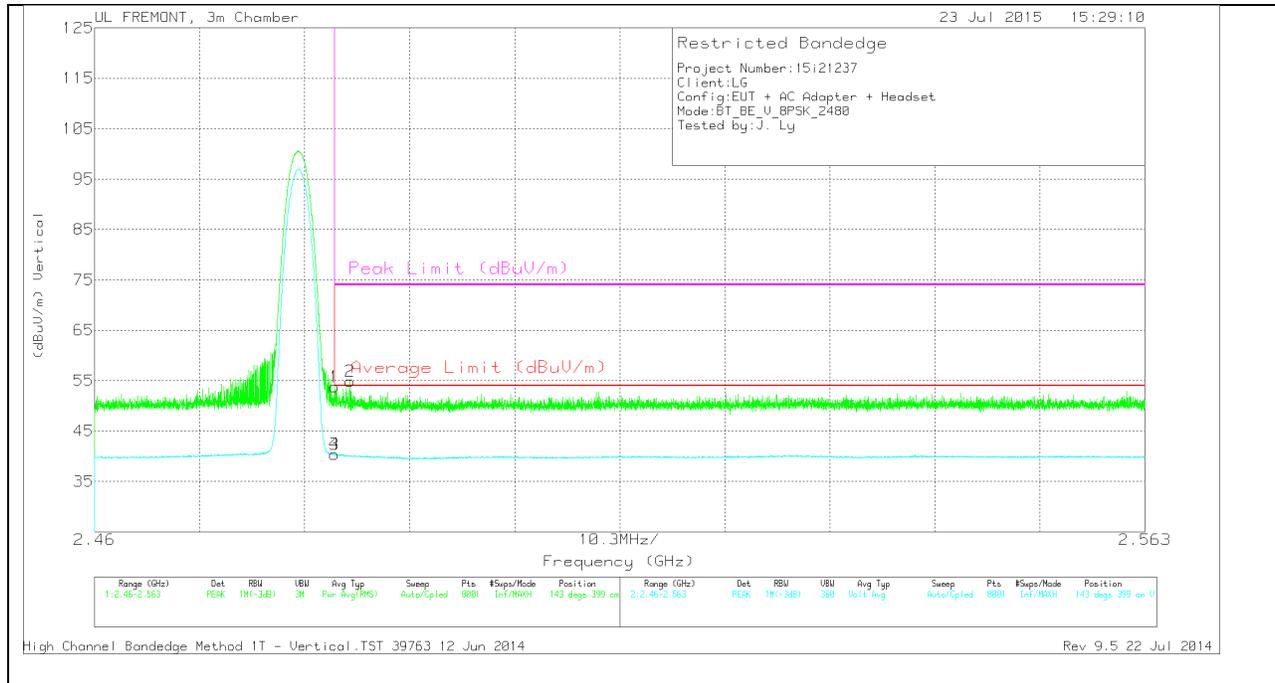
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fitr/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	43.12	PK	32.3	-22.1	53.32	-	-	74	-20.68	60	387	H
2	2.484	44.53	PK	32.3	-22.1	54.73	-	-	74	-19.27	60	387	H
3	2.484	29.99	VB1T	32.3	-22.1	40.19	54	-13.81	-	-	60	387	H
4	2.484	30.02	VB1T	32.3	-22.1	40.22	54	-13.78	-	-	60	387	H

PK - Peak detector

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

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

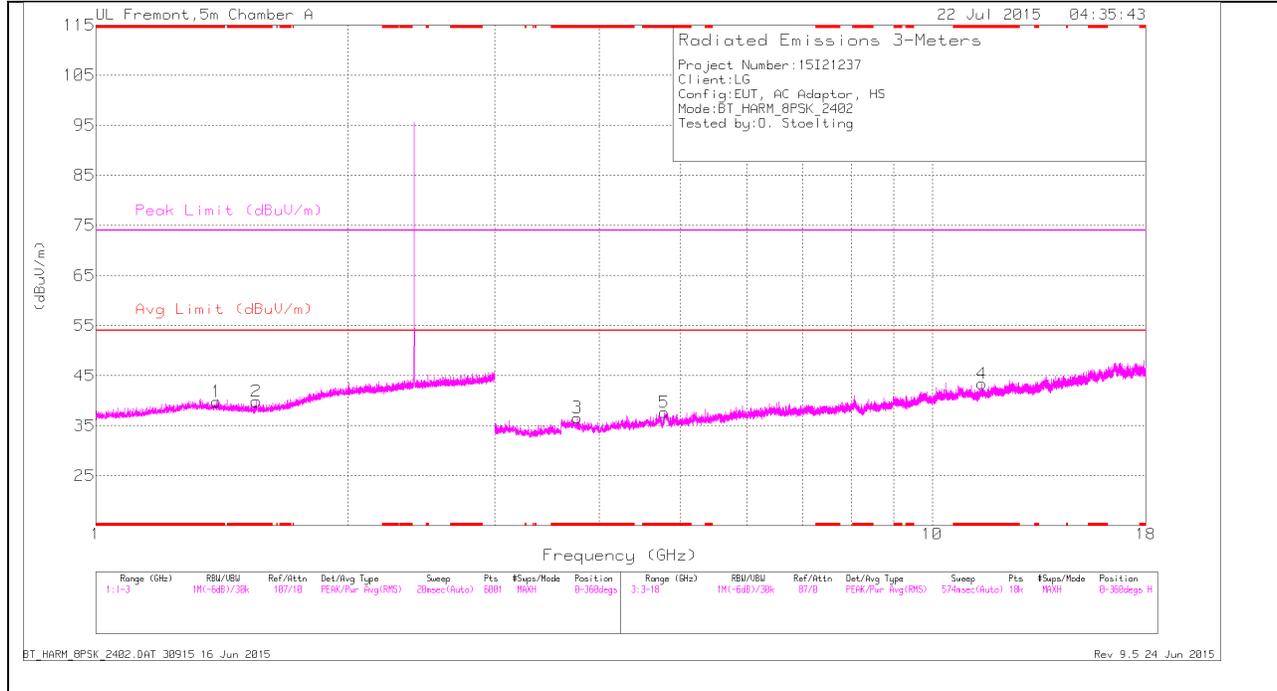
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	43.56	PK	32.3	-22.1	53.76	-	-	74	-20.24	143	399	V
3	2.484	30.11	VB1T	32.3	-22.1	40.31	54	-13.69	-	-	143	399	V
4	2.484	30.22	VB1T	32.3	-22.1	40.42	54	-13.58	-	-	143	399	V
2	2.485	44.65	PK	32.3	-22.1	54.85	-	-	74	-19.15	143	399	V

PK - Peak detector

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

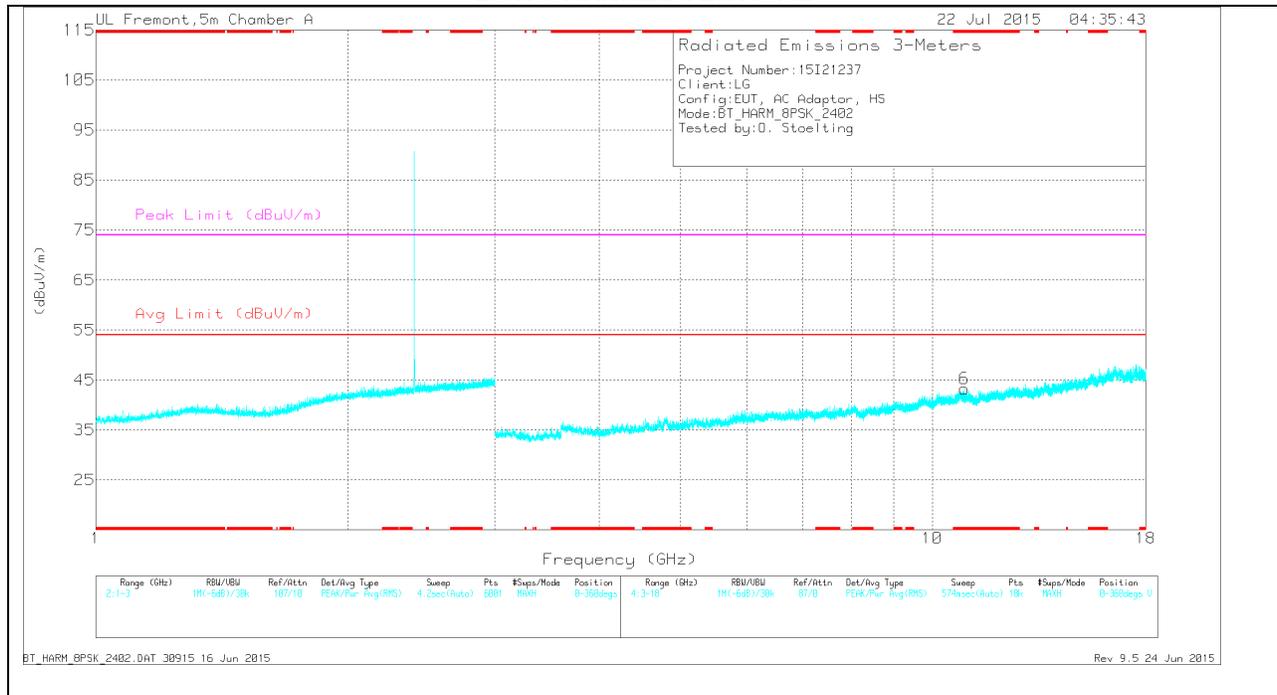
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (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
1	* 1.395	37	Pk	28.5	-25.7	0	39.8	-	-	74	-34.2	0-360	100	H
2	* 1.556	37.46	Pk	28	-25.6	0	39.86	-	-	74	-34.14	0-360	100	H
3	* 3.766	35.07	Pk	33.3	-31.8	0	36.57	-	-	74	-37.43	0-360	201	H
4	* 11.463	26.98	Pk	38	-21.6	0	43.38	-	-	74	-30.62	0-360	100	H
5	* 4.785	33.53	Pk	34	-29.9	0	37.63	-	-	74	-36.37	0-360	201	H
6	* 10.925	27.74	Pk	37.8	-22.3	0	43.24	-	-	74	-30.76	0-360	100	V

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

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.395	44.93	PK2	28.5	-25.7	47.73	-	-	74	-26.27	360	100	H
* 1.396	34.31	VB1T	28.5	-25.7	37.11	54	-16.89	-	-	360	100	H
* 1.557	44.51	PK2	28	-25.6	46.91	-	-	74	-27.09	360	100	H
* 1.554	34.32	VB1T	28	-25.6	36.72	54	-17.28	-	-	360	100	H
* 3.767	41.94	PK2	33.3	-31.8	43.44	-	-	74	-30.56	360	202	H
* 3.766	32.05	VB1T	33.3	-31.8	33.55	54	-20.45	-	-	360	202	H
* 11.463	33.9	PK2	38	-21.6	50.3	-	-	74	-23.7	360	100	H
* 11.462	24.12	VB1T	38	-21.6	40.52	54	-13.48	-	-	360	100	H
* 4.786	40.82	PK2	34	-29.9	44.92	-	-	74	-29.08	346	207	H
* 4.787	30.47	VB1T	34	-29.9	34.57	54	-19.43	-	-	346	207	H
* 10.924	34.64	PK2	37.8	-22.3	50.14	-	-	74	-23.86	346	100	V
* 10.924	24.59	VB1T	37.8	-22.3	40.09	54	-13.91	-	-	346	100	V

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

PK2 - KDB558074 Method: Maximum Peak

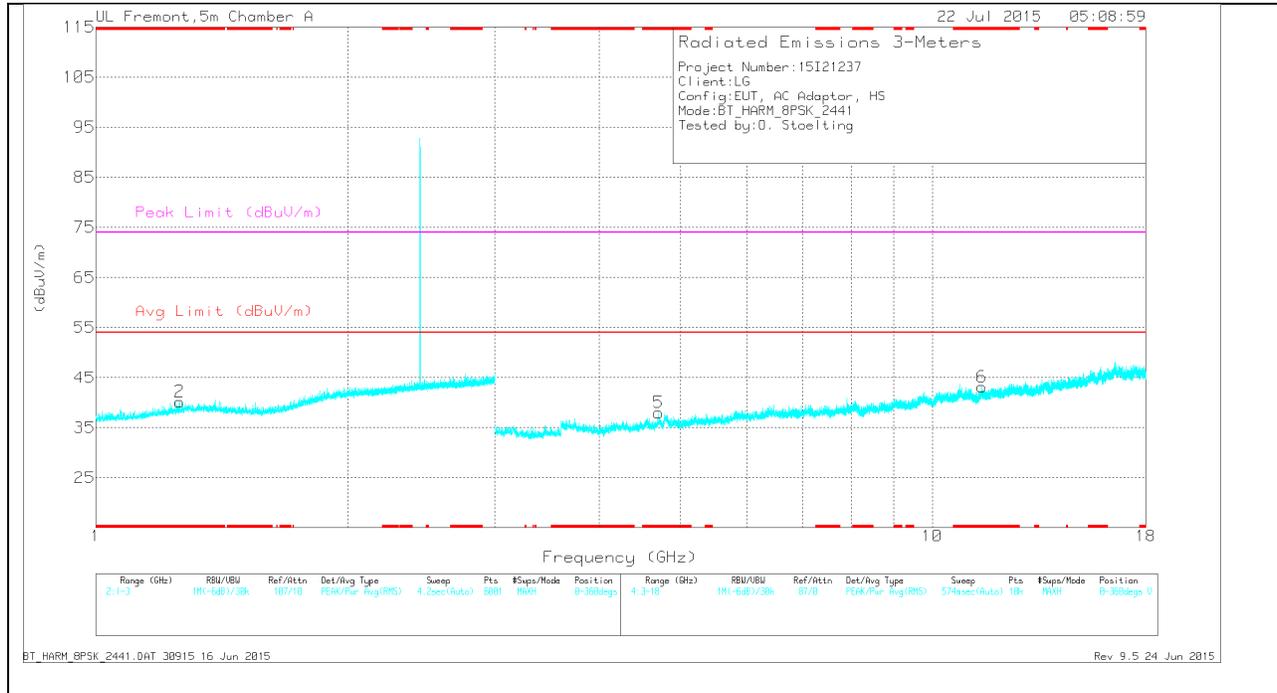
VB1T: VB-A VB=1/Ton, RMS Average where: Ton is packet duration

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/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
1	* 1.474	37.41	Pk	28.2	-25.6	0	40.01	-	-	74	-33.99	0-360	100	H
2	* 1.259	37.69	Pk	28.5	-26	0	40.19	-	-	74	-33.81	0-360	100	V
3	* 4.798	33.14	Pk	34	-29.8	0	37.34	-	-	74	-36.66	0-360	201	H
4	* 11.765	26.57	Pk	38.3	-22	0	42.87	-	-	74	-31.13	0-360	201	H
5	* 4.709	34.68	Pk	34.1	-30.8	0	37.98	-	-	74	-36.02	0-360	200	V
6	* 11.458	26.75	Pk	38	-21.6	0	43.15	-	-	74	-30.85	0-360	200	V

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

Pk - Peak detector

Radiated Emissions

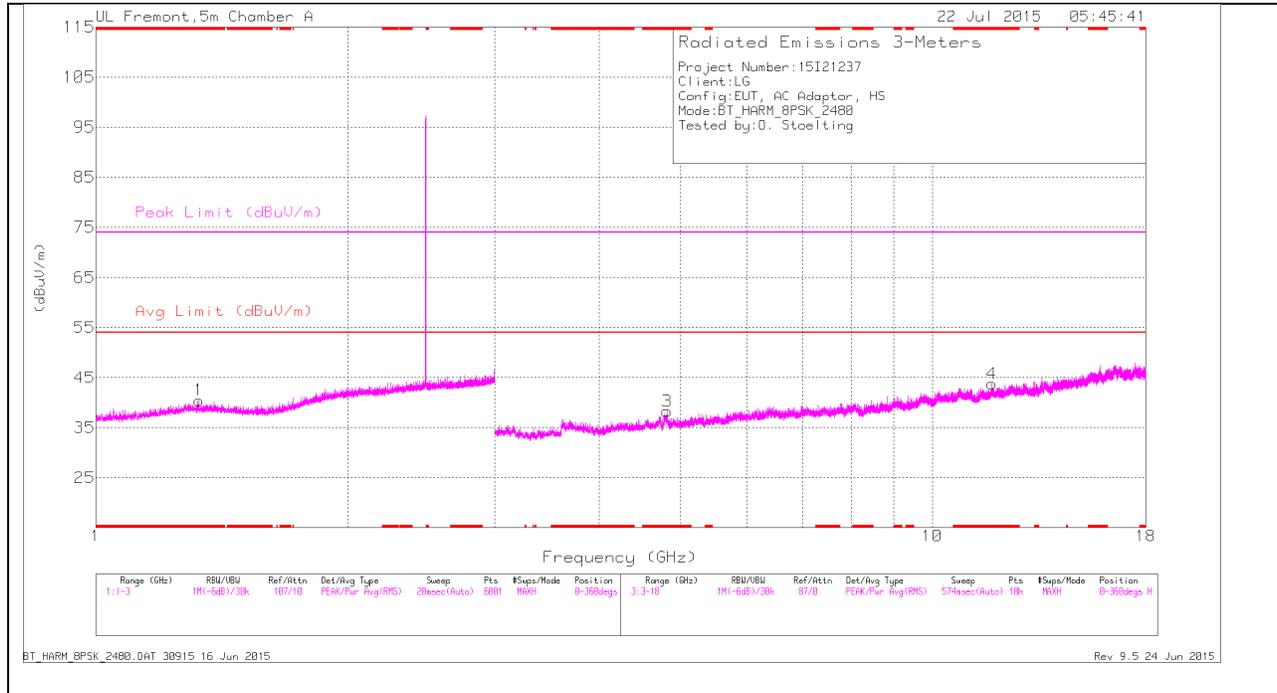
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.474	44.94	PK2	28.2	-25.6	47.54	-	-	74	-26.46	360	100	H
* 1.476	34.24	VB1T	28.2	-25.6	36.84	54	-17.16	-	-	360	100	H
* 1.261	44.98	PK2	28.5	-26	47.48	-	-	74	-26.52	360	100	V
* 1.261	34.36	VB1T	28.5	-26	36.86	54	-17.14	-	-	360	100	V
* 4.798	41.61	PK2	34	-29.8	45.81	-	-	74	-28.19	360	202	H
* 4.798	31.19	VB1T	34	-29.8	35.39	54	-18.61	-	-	360	202	H
* 11.763	34.33	PK2	38.3	-22	50.63	-	-	74	-23.37	360	202	H
* 11.765	24.38	VB1T	38.3	-22	40.68	54	-13.32	-	-	360	202	H
* 4.71	41.89	PK2	34.1	-30.8	45.19	-	-	74	-28.81	360	202	V
* 4.711	31.47	VB1T	34.1	-30.8	34.77	54	-19.23	-	-	360	202	V
* 11.459	33.97	PK2	38	-21.6	50.37	-	-	74	-23.63	356	272	V
* 11.46	23.46	VB1T	38	-21.6	39.86	54	-14.14	-	-	356	272	V

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

PK2 - KDB558074 Method: Maximum Peak

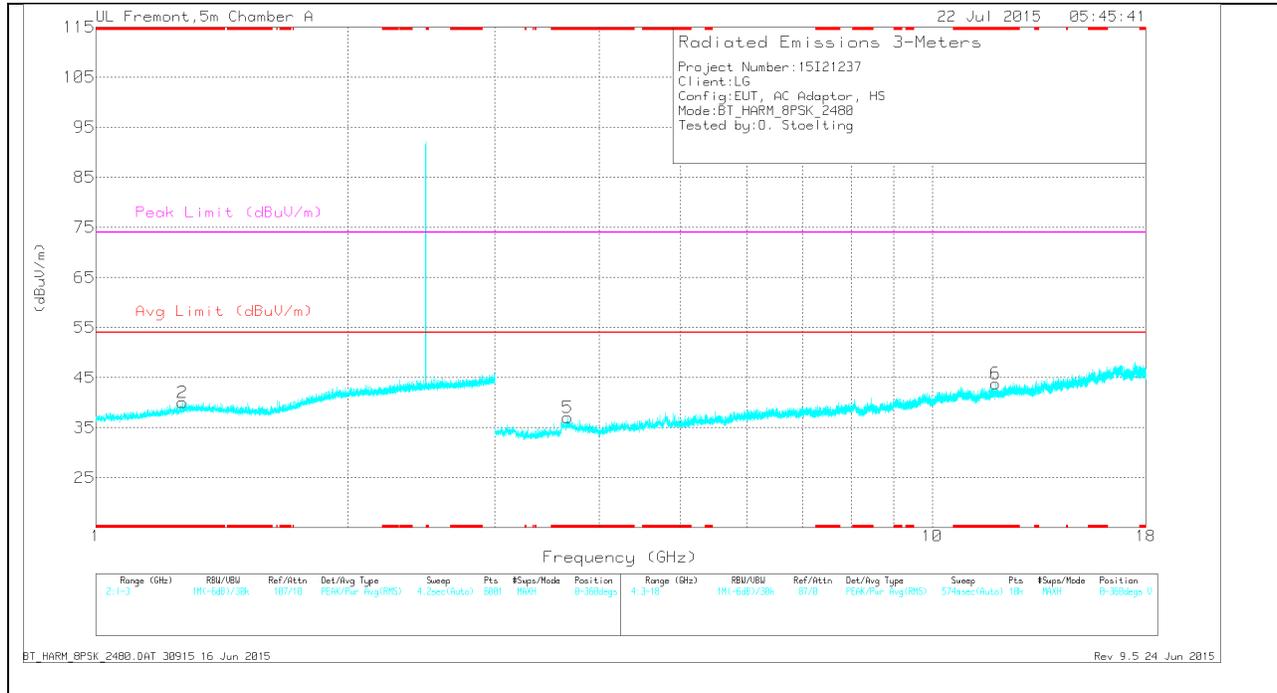
VB1T: VB-A VB=1/Ton, RMS Average where: Ton is packet duration

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/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
1	* 1.328	37.57	Pk	28.8	-25.9	0	40.47	-	-	74	-33.53	0-360	100	H
2	* 1.27	37.43	Pk	28.6	-26	0	40.03	-	-	74	-33.97	0-360	100	V
3	* 4.819	34.07	Pk	33.9	-29.7	0	38.27	-	-	74	-35.73	0-360	201	H
4	* 11.778	27.37	Pk	38.3	-21.9	0	43.77	-	-	74	-30.23	0-360	100	H
5	* 3.666	35.62	Pk	33.2	-31.8	0	37.02	-	-	74	-36.98	0-360	200	V
6	* 11.9	27.51	Pk	38.6	-22.3	0	43.81	-	-	74	-30.19	0-360	100	V

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

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/Ftr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.329	45.02	PK2	28.8	-25.9	47.92	-	-	74	-26.08	360	100	H
* 1.33	34.38	VB1T	28.7	-25.9	37.18	54	-16.82	-	-	360	100	H
* 1.268	44.64	PK2	28.6	-26	47.24	-	-	74	-26.76	360	100	V
* 1.269	34.57	VB1T	28.6	-26	37.17	54	-16.83	-	-	360	100	V
* 4.819	40.97	PK2	33.9	-29.7	45.17	-	-	74	-28.83	360	202	H
* 4.817	31.2	VB1T	33.9	-29.7	35.4	54	-18.6	-	-	360	202	H
* 11.777	35.61	PK2	38.3	-21.9	52.01	-	-	74	-21.99	360	100	H
* 11.777	24.21	VB1T	38.3	-21.9	40.61	54	-13.39	-	-	360	100	H
* 3.665	42.41	PK2	33.2	-31.8	43.81	-	-	74	-30.19	360	201	V
* 3.667	32.39	VB1T	33.2	-31.7	33.89	54	-20.11	-	-	360	201	V
* 11.9	33.85	PK2	38.6	-22.3	50.15	-	-	74	-23.85	332	345	V
* 11.898	23.73	VB1T	38.6	-22.3	40.03	54	-13.97	-	-	332	345	V

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

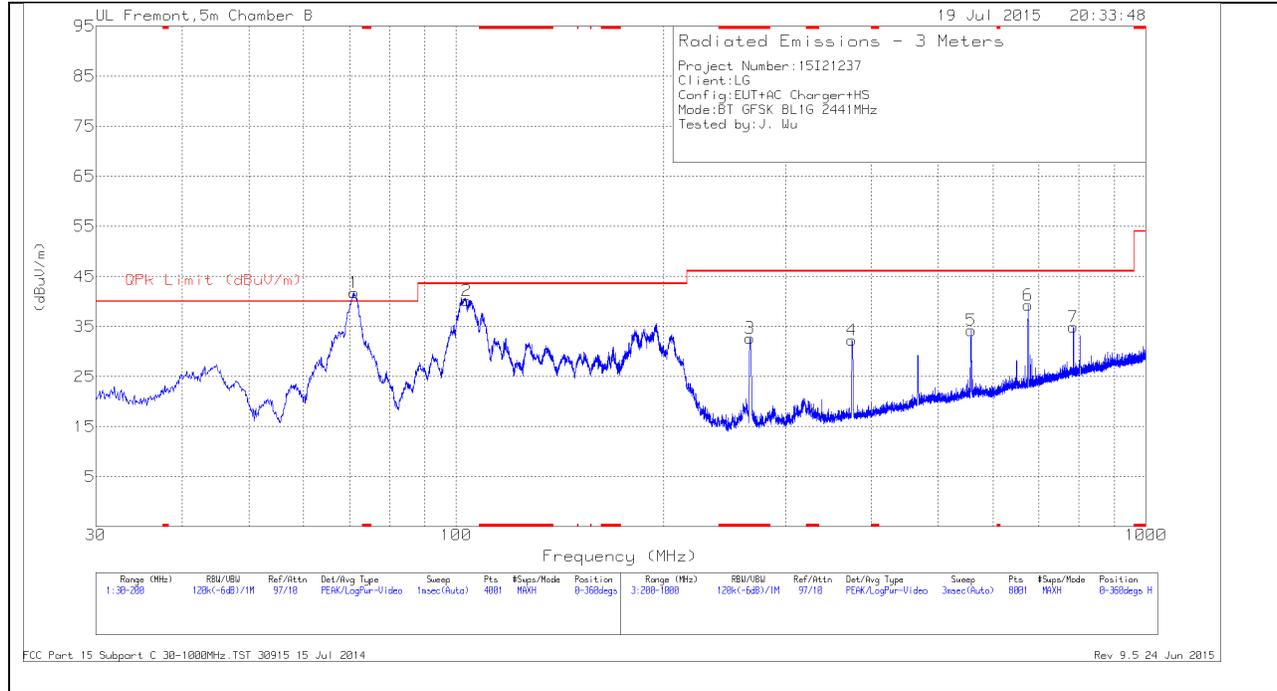
PK2 - KDB558074 Method: Maximum Peak

VB1T: VB-A VB=1/Ton, RMS Average where: Ton is packet duration

9.3. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



VERTICAL PLOT



BELOW 1 GHz TABLE

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 266.8	45.66	Pk	13.1	-26.1	32.66	46.02	-13.36	0-360	299	H
8	48.7425	73.01	Pk	8.6	-28.6	53.01	40	13.01	0-360	101	V
1	71.0975	61.94	Pk	8.1	-28.3	41.74	40	1.74	0-360	199	H
9	101.3575	53.61	Pk	10.6	-28	36.21	43.52	-7.31	0-360	101	V
2	103.44	56.85	Pk	11.2	-27.9	40.15	43.52	-3.37	0-360	199	H
4	374.8	42.84	Pk	15.2	-25.8	32.24	46.02	-13.78	0-360	101	H
10	556	32.85	Pk	18.6	-25.4	26.05	46.02	-19.97	0-360	101	V
5	558.1	41.02	Pk	18.6	-25.4	34.22	46.02	-11.8	0-360	299	H
6	675.2	44.07	Pk	19.9	-24.7	39.27	46.02	-6.75	0-360	199	H
7	785.3	37.08	Pk	21.4	-23.6	34.88	46.02	-11.14	0-360	299	H

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

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
48.3225	48.21	Pk	8.8	-28.6	28.41	40	-11.59	26	108	V
70.9895	52.1	Pk	8.1	-28.3	31.9	40	-8.1	79	292	H
103.452	52.35	Qp	11.2	-27.9	35.65	43.52	-7.87	137	157	H

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

Pk - Peak detector

Qp - Quasi-Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 8.8

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

*Decreases with the logarithm of the frequency.

TEST PROCEDURE

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

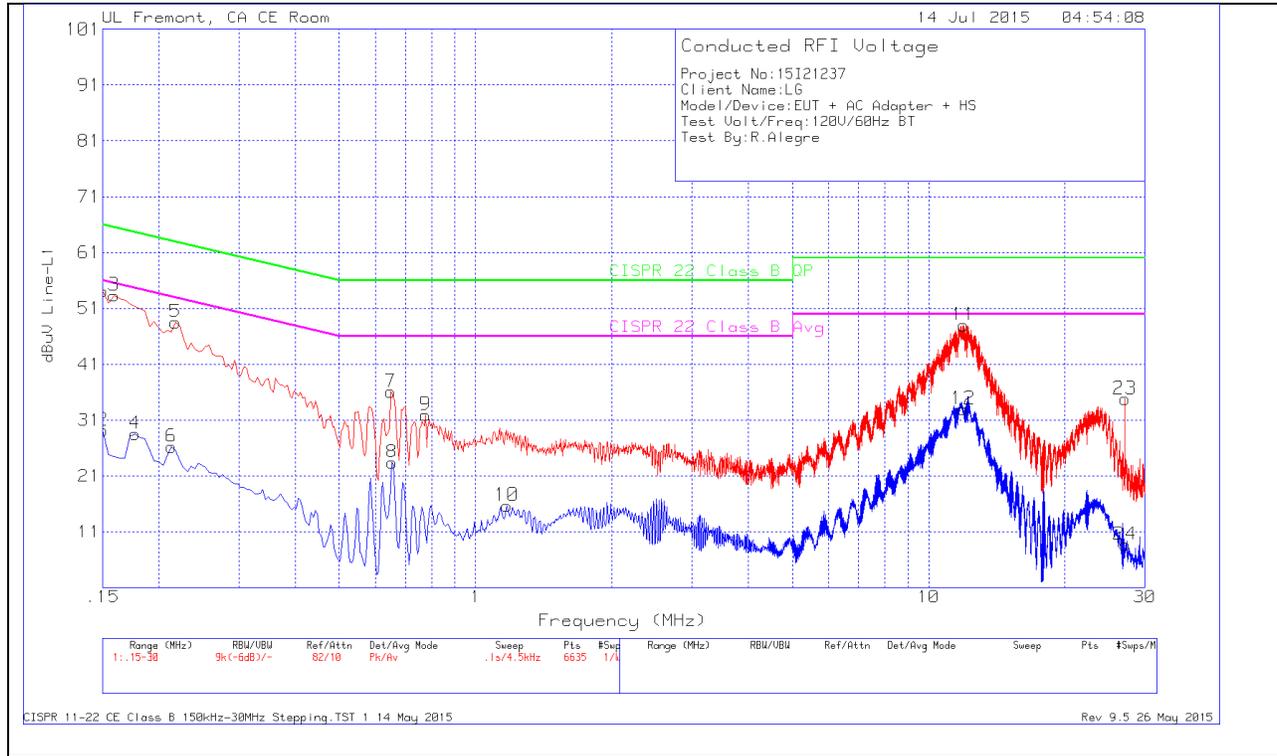
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

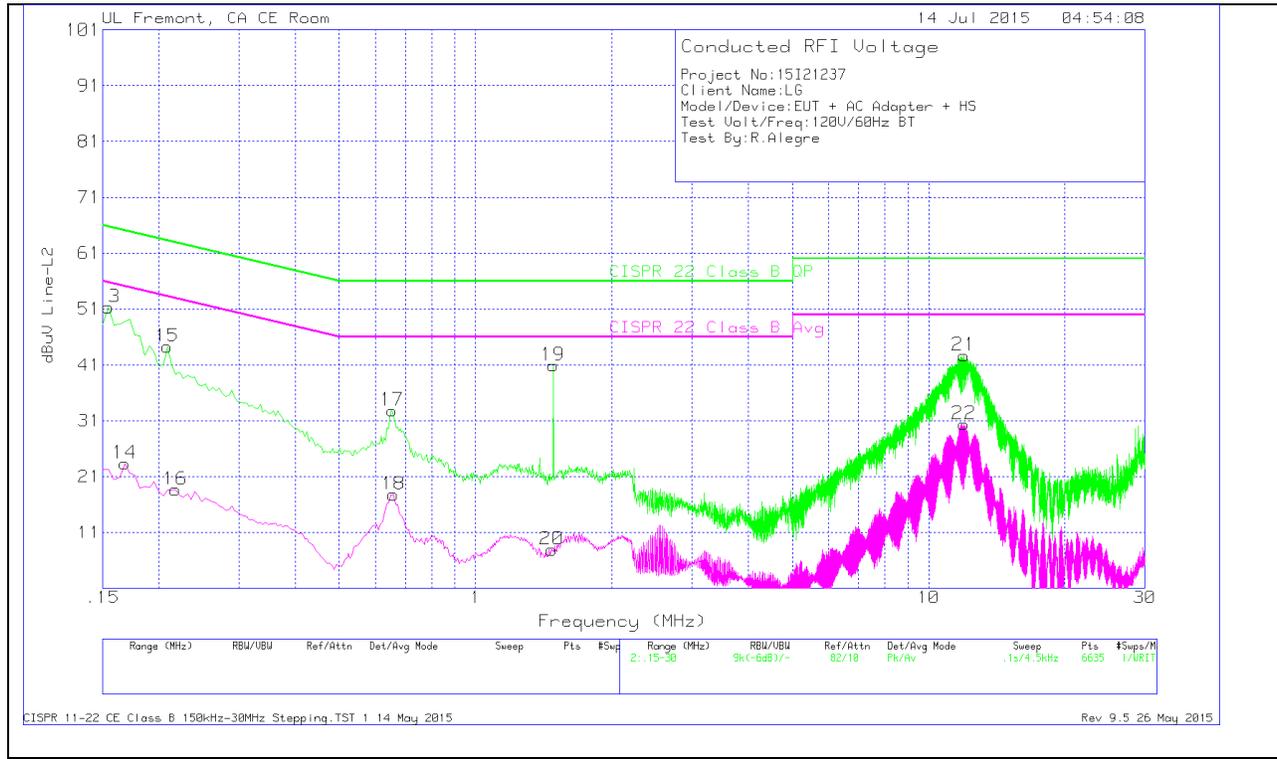
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.15	52.7	Pk	1.4	0	54.1	66	-11.9		
2	.15	27.74	Av	1.4	0	29.14	-	-	56	-26.86
3	.159	52.01	Pk	1.3	0	53.31	65.52	-12.21		
4	.177	27.46	Av	1.1	0	28.56	-	-	54.63	-26.07
5	.2175	47.72	Pk	.8	0	48.52	62.91	-14.39		
6	.213	25.31	Av	.9	0	26.21	-	-	53.09	-26.88
7	.6495	35.76	Pk	.3	0	36.06	56	-19.94		
8	.654	23.11	Av	.3	0	23.41	-	-	46	-22.59
9	.7755	31.62	Pk	.3	0	31.92	56	-24.08		
10	1.1715	15.37	Av	.2	.1	15.67	-	-	46	-30.33
11	11.94	47.6	Pk	.2	.2	48	60	-12		
12	11.9175	32.57	Av	.2	.2	32.97	-	-	50	-17.03
23	27.123	34.17	Pk	.3	.3	34.77	60	-25.23		
24	27.159	8.07	Av	.3	.3	8.67	-	-	50	-41.33

Pk - Peak detector

Av - Average detection

LINE 2 PLOT



LINE 2 RESULTS

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
13	.1545	49.91	Pk	1.4	0	51.31	65.75	-14.44		
14	.168	22.06	Av	1.3	0	23.36	-	-	55.06	-31.7
15	.2085	43.3	Pk	1	0	44.3	63.26	-18.96		
16	.2175	17.76	Av	.9	0	18.66	-	-	52.91	-34.25
17	.654	32.54	Pk	.3	0	32.84	56	-23.16		
18	.6585	17.49	Av	.3	0	17.79	-	-	46	-28.21
19	1.482	40.61	Pk	.2	.1	40.91	56	-15.09		
20	1.473	7.65	Av	.2	.1	7.95	-	-	46	-38.05
21	11.9625	42.28	Pk	.2	.2	42.68	60	-17.32		
22	11.9625	29.99	Av	.2	.2	30.39	-	-	50	-19.61

Pk - Peak detector

Av - Average detection