FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-247 ISSUE 1

CERTIFICATION TEST REPORT

FOR

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

MODEL NUMBER: LG-H790, LGH790, H790

FCC ID: ZNFH790
IC ID: 2703C-H790

REPORT NUMBER: 15I21235-E2V1

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Revision History

Rev.	Issue Date	Revisions	Revised By
--	08/31/15	Initial Issue	

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC.
EUT DESCRIPTION: CDMA/GSM/WCDMA/LTE PHONE + BLUETOOTH, DTS/UNII a/b/g/n/ac & NFC
MODEL: LG-H790, LGH790, H790
SERIAL NUMBER: 1ZC51, 1ZC4Z (Conducted) 1ZC50, 1ZC4Y (Radiated)
DATE TESTED: JULY 18-24, 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.

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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 C, and ANSI C63.10-2009 for FCC and ANSI C63.10-2013 for IC, RSS-GEN Issue 4, and RSS-247 Issue 1.

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
☐ 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)

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 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 CDMA/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	9.16	8.24
2402 - 2480	Enhanced 8PSK	8.46	7.01

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 PIF (Planar Inverted F) antenna, with a maximum gain of -0.05 dBi.

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 Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Z 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	N/A
Earphone	LG	N/A	N/A	N/A

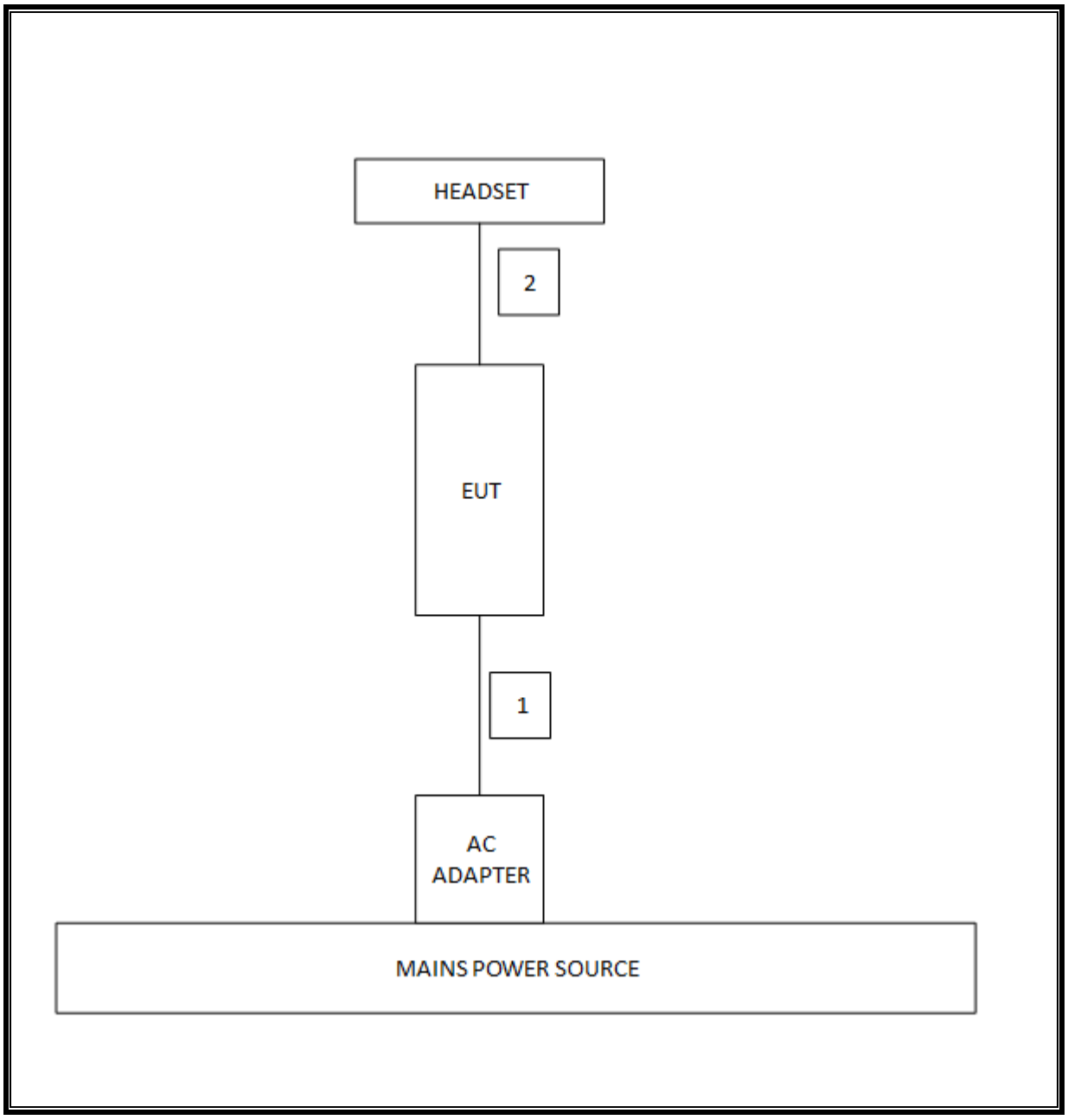
I/O CABLES

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	1.0m	N/A

TEST SETUP

EUT was set in the BT 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	T404	06/29/16
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15
CBT Bluetooth Tester	R & S	CBT	T258	06/30/16
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 6.6	Occupied Band width (99%)	N/A	Conducted	Pass	1.227MHz
2.1051, 15.247 (d)	RSS-247 5.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-45.32dBm
15.247 (b)(1)	RSS-247 5.4(1)	TX conducted output power	<21dBm		Pass	9.16dBm
15.247 (a)(1)	RSS-247 5.1 (1)	Hopping frequency separation	> 25KHz		Pass	1 MHz
15.247 (a)(1)(iii)	RSS-247 5.1(4)	Number of Hopping channels	More than 15 non-overlapping channels		Pass	79 channels
15.247 (a)(1)(iii)	RSS-247 5.1(4)	Avg Time of Occupancy	< 0.4sec		Pass	0.23072 s
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	55.79dBuV(PK)
15.205, 15.209	RSS-GEN 8.9	Radiated Spurious Emission	< 54dBuV/m		Pass	40.64dBuV/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 ≥ 1% of the 20 dB bandwidth. The VBW is set to ≥ 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	0.966	0.910
Middle	2441	0.958	0.889
High	2480	0.888	0.899
Worst		0.966	0.910

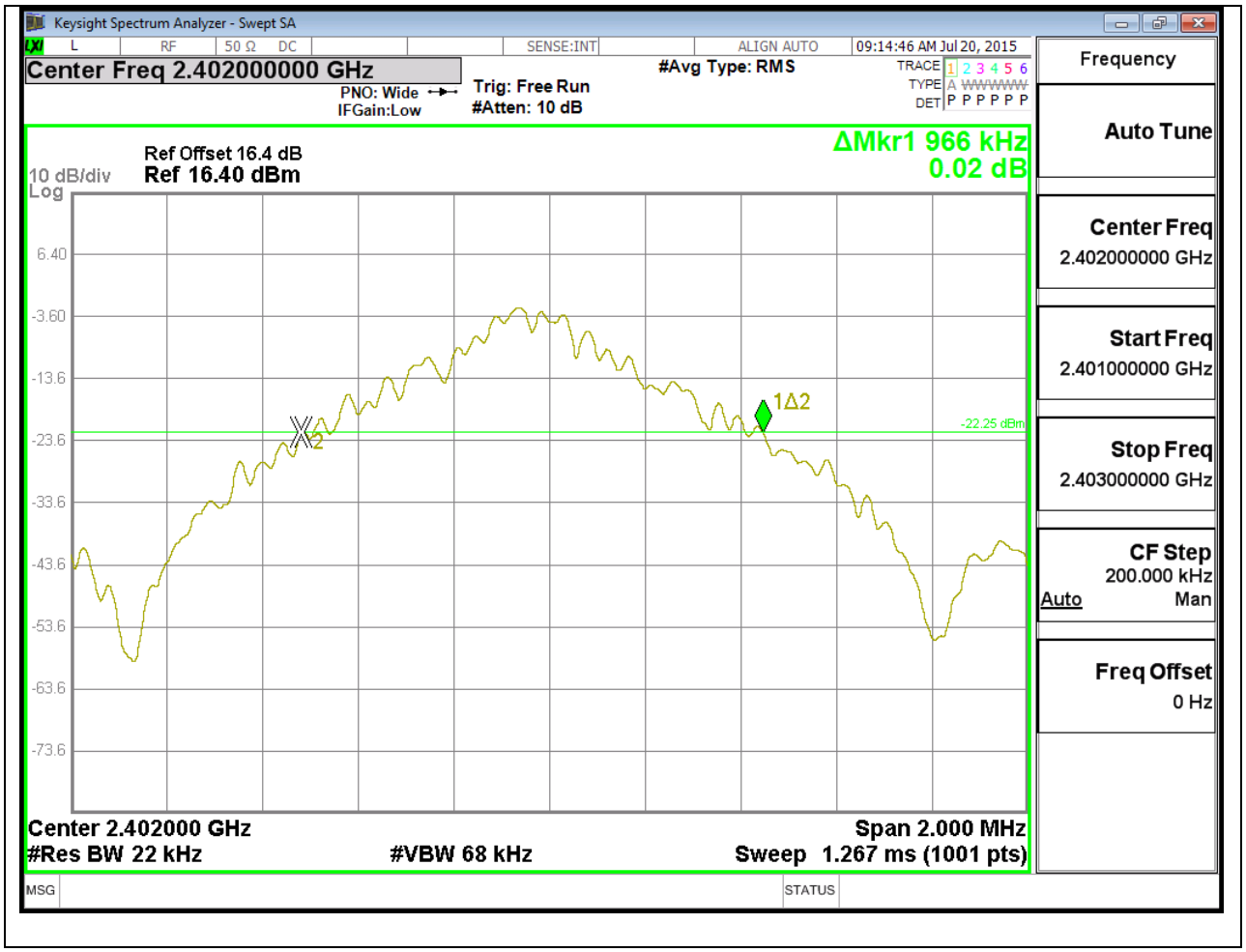
8.1.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	1.236	1.227
Middle	2441	1.299	1.181
High	2480	1.299	1.180
Worst		1.299	1.227

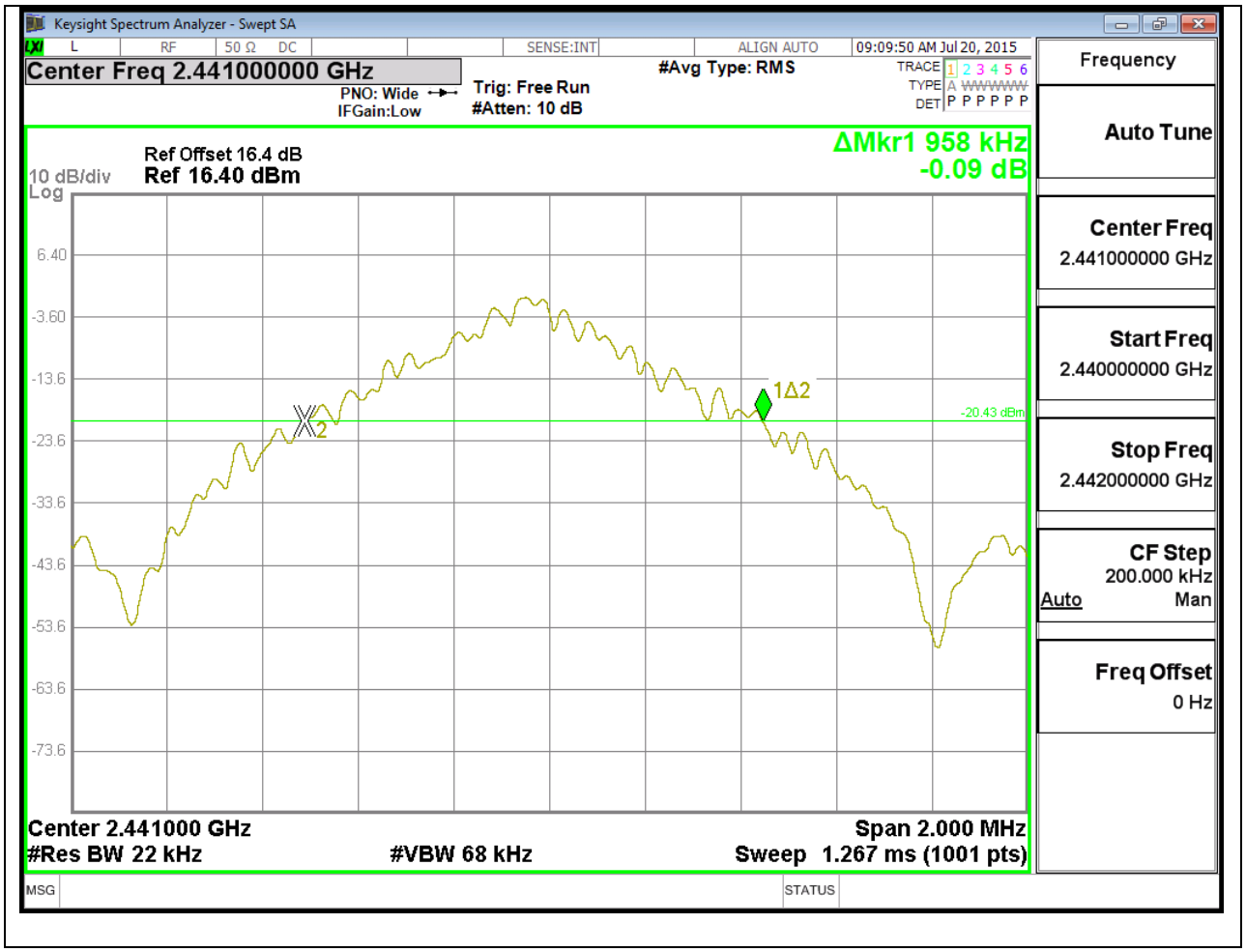
8.1.3. 20 dB AND 99% BANDWIDTH PLOTS

GFSK 20 dB BANDWIDTH

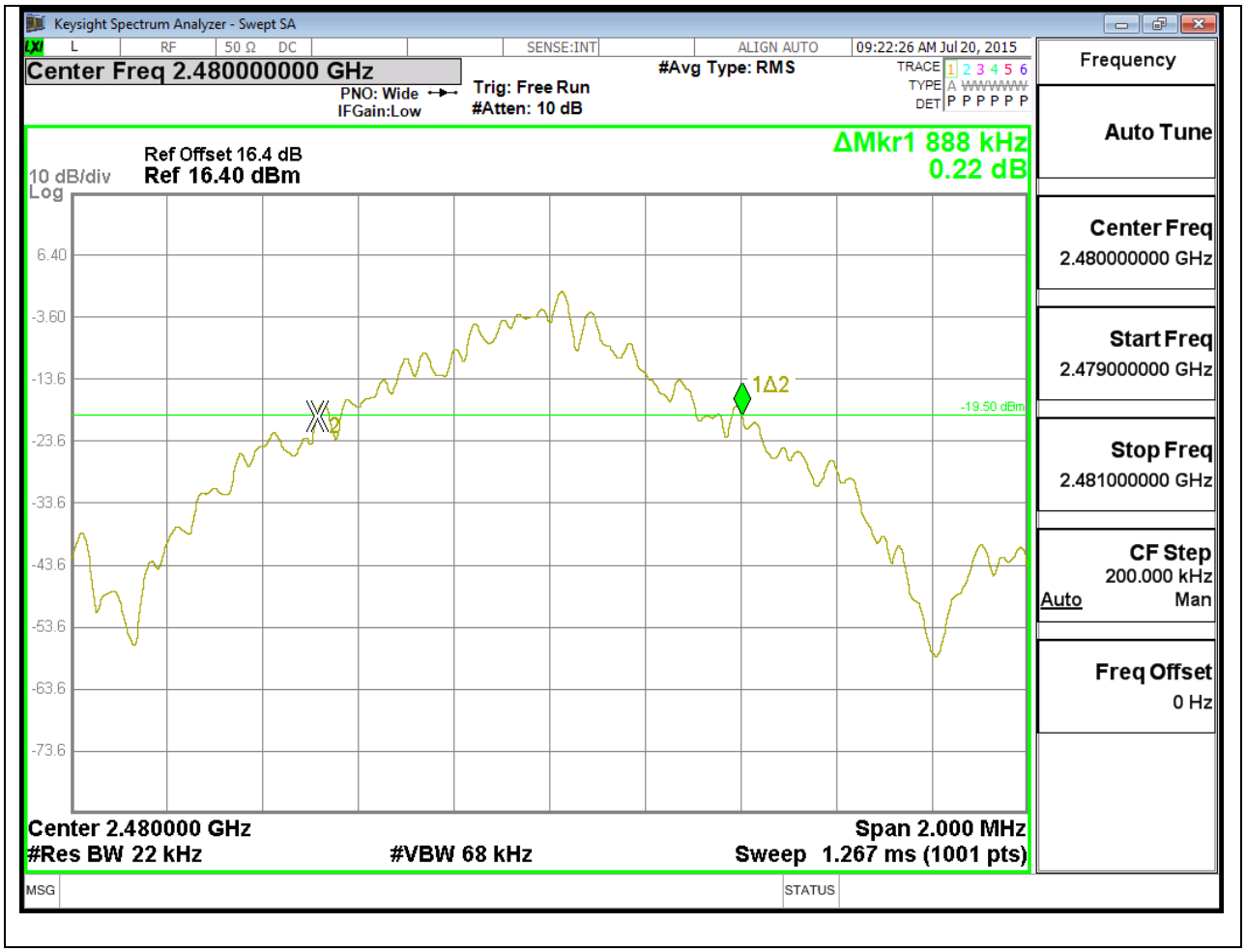
LOW CHANNEL



MID CHANNEL

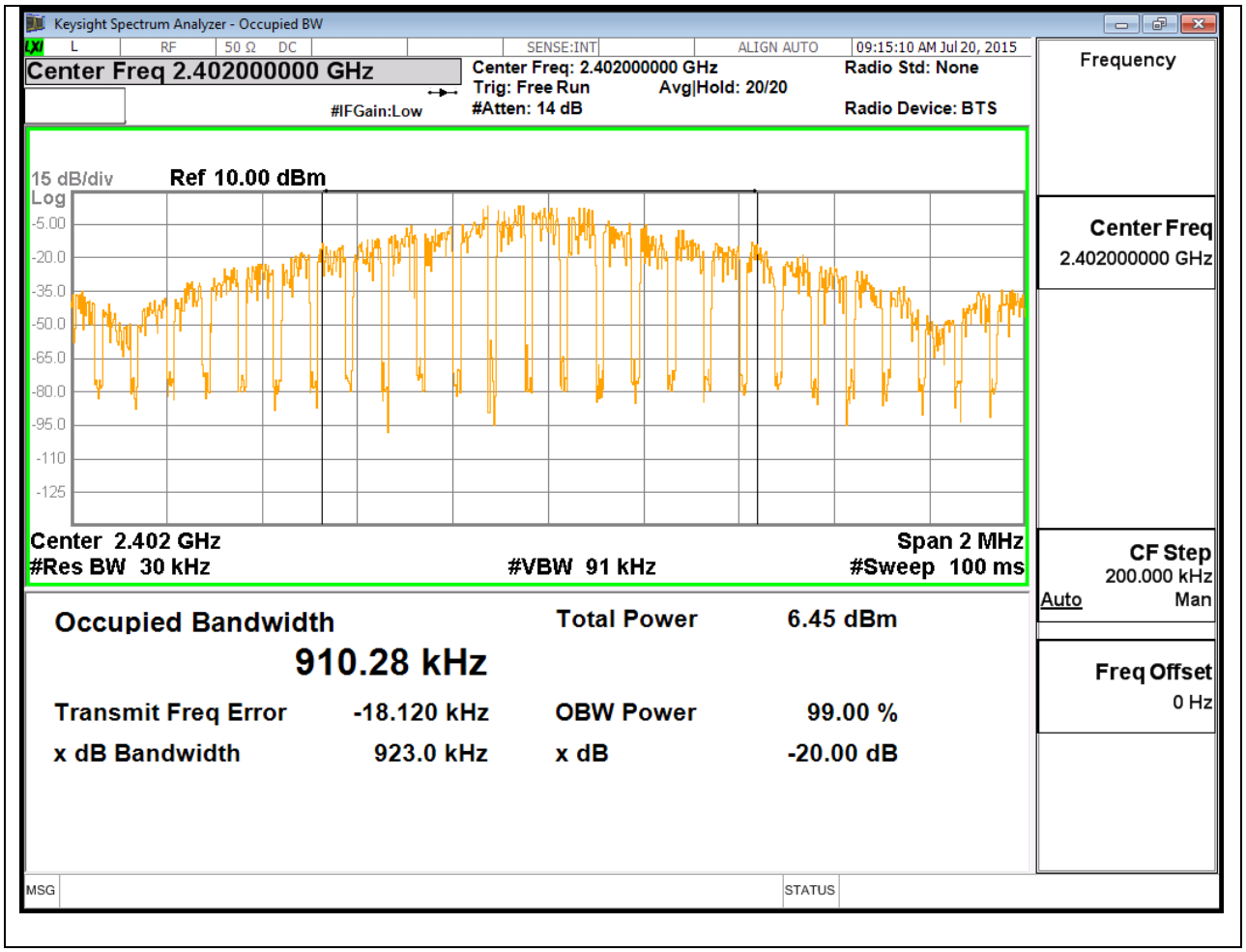


HIGH CHANNEL

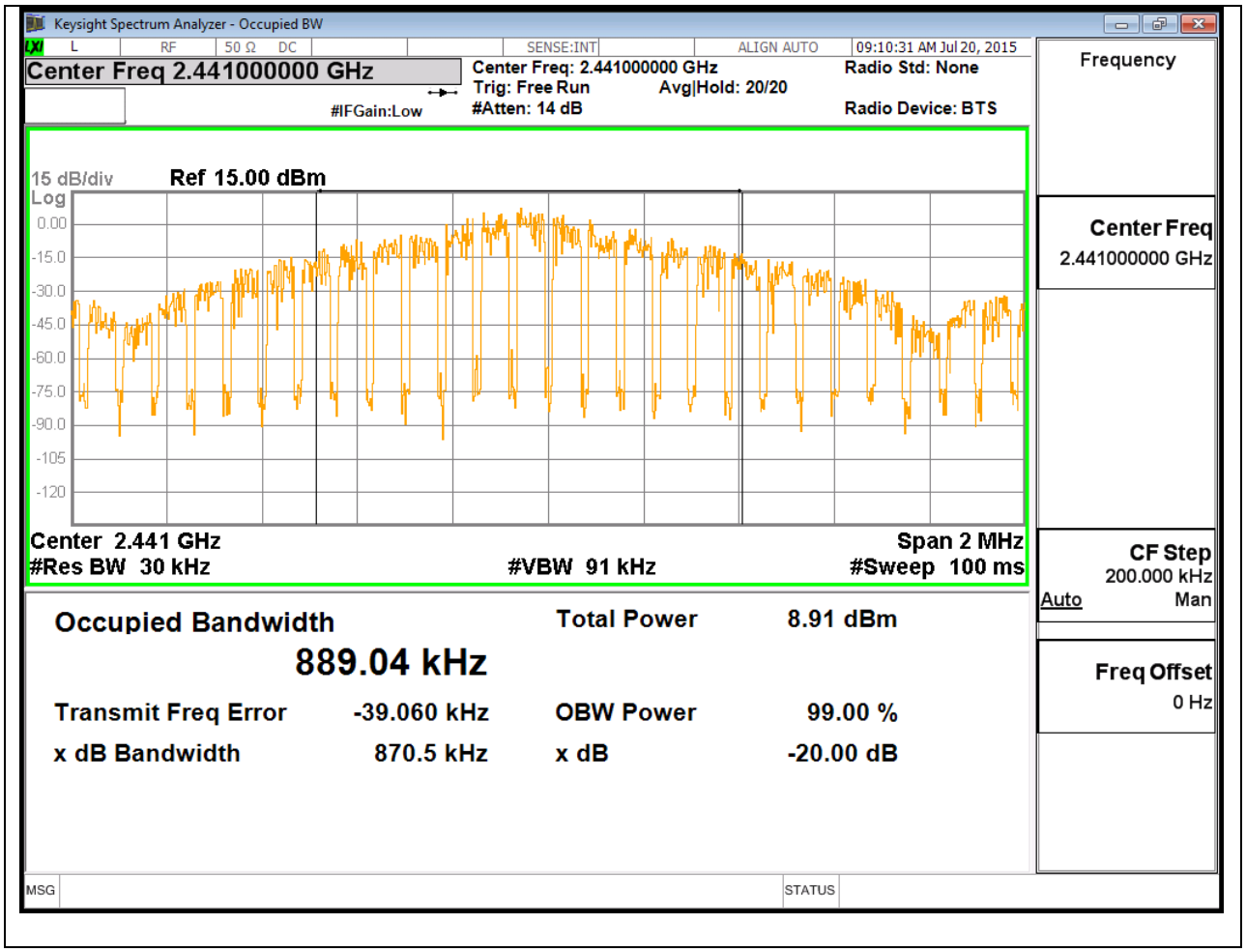


GFSK 99% BANDWIDTH

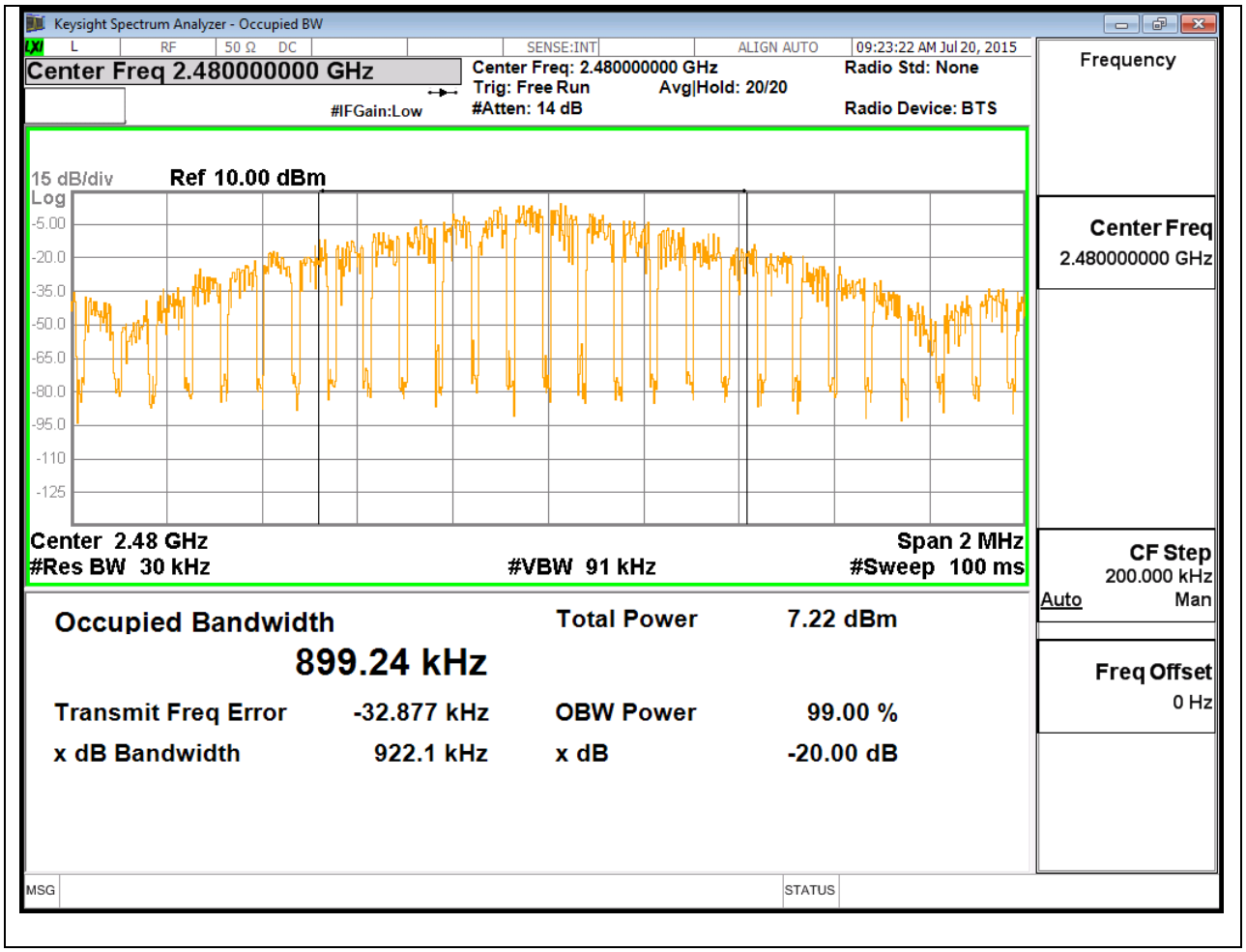
LOW CHANNEL



MID CHANNEL

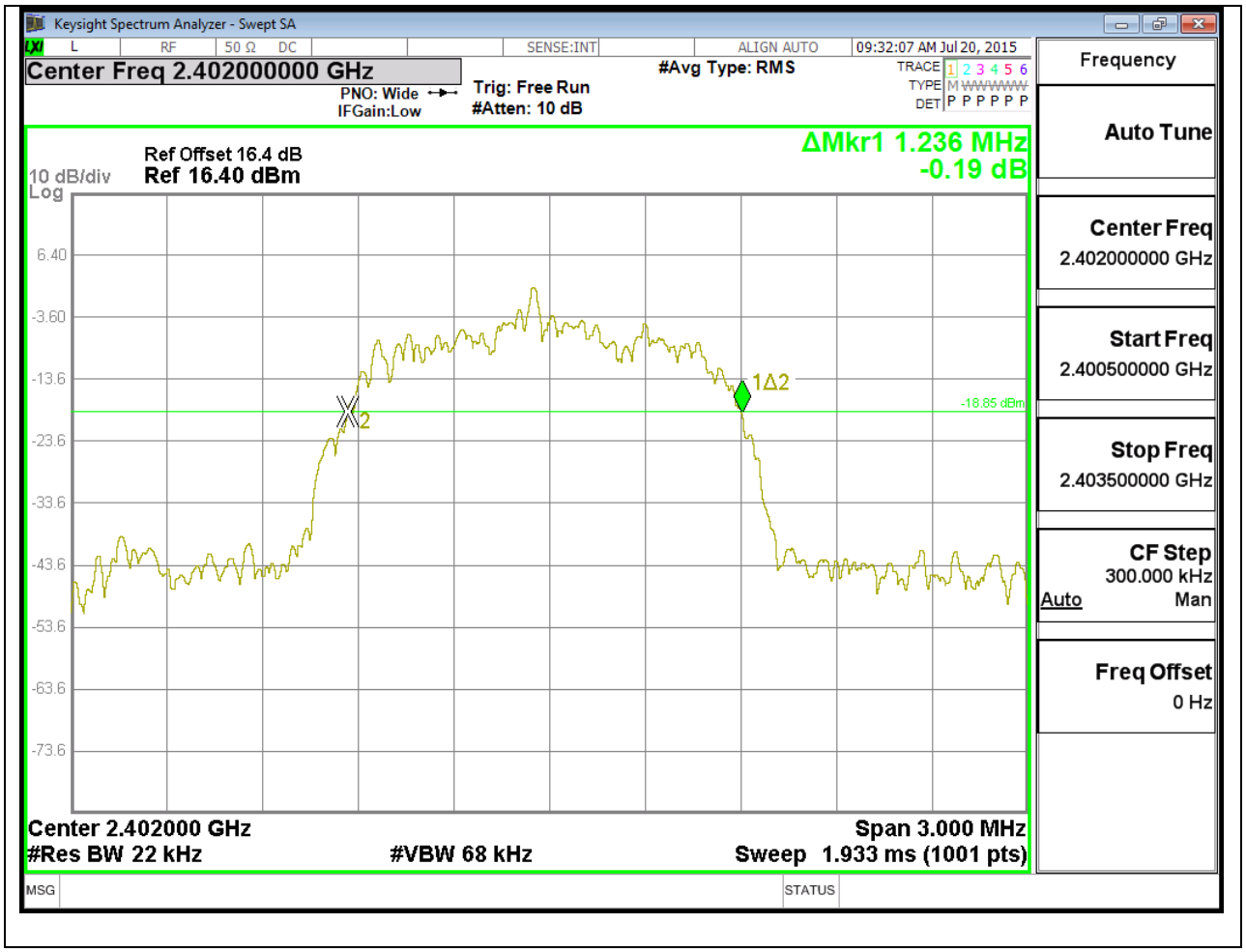


HIGH CHANNEL

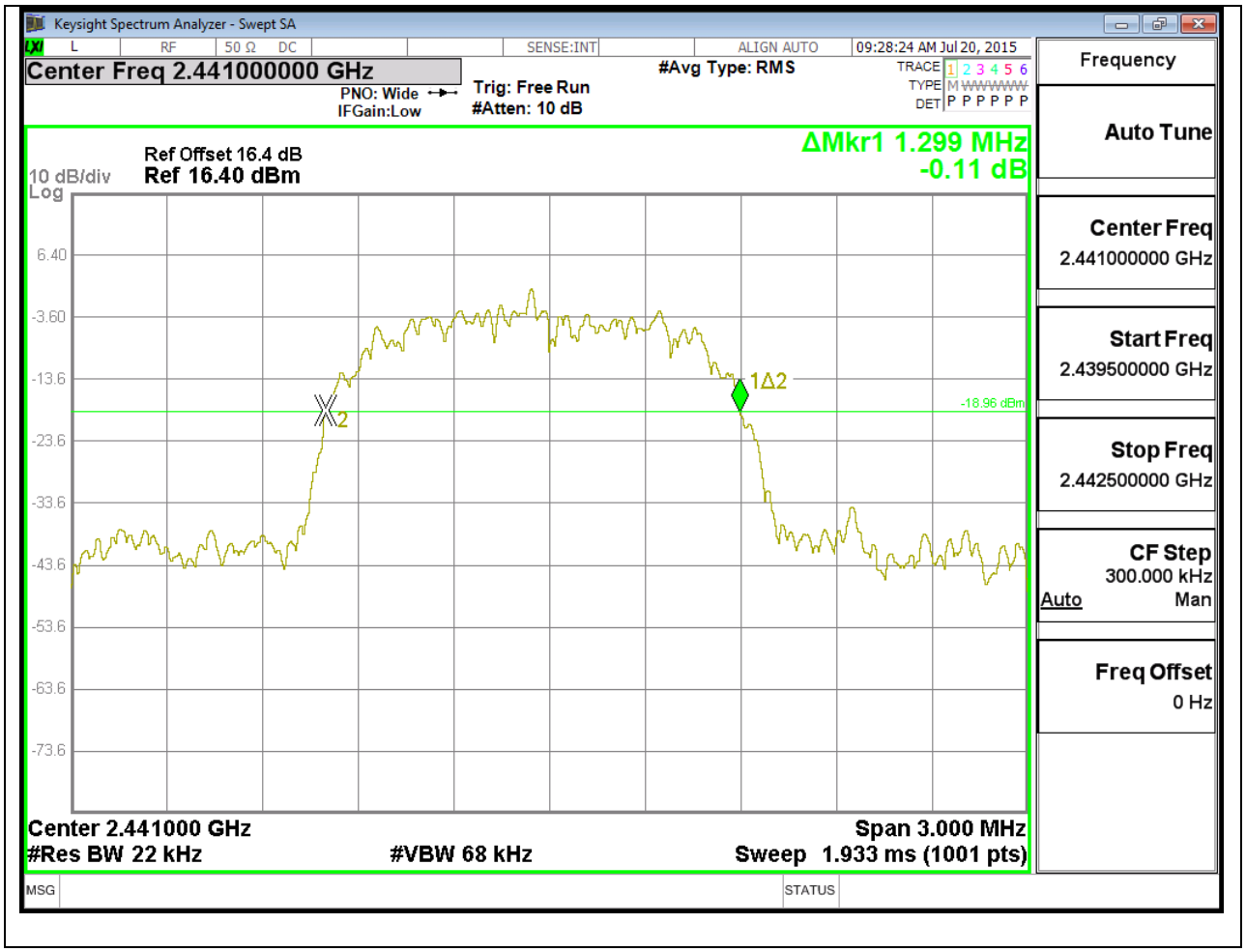


8PSK 20 dB BANDWIDTH

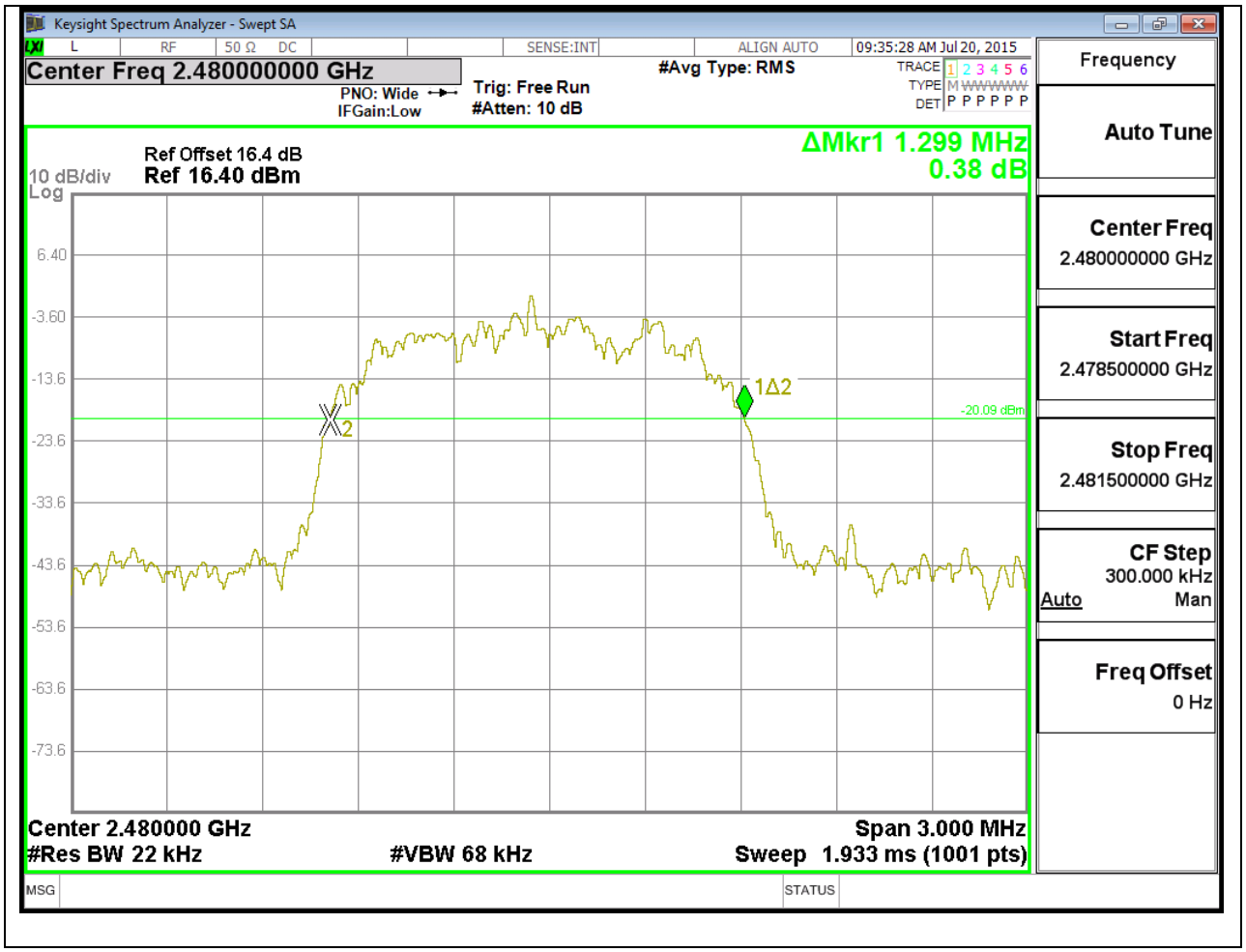
LOW CHANNEL



MID CHANNEL

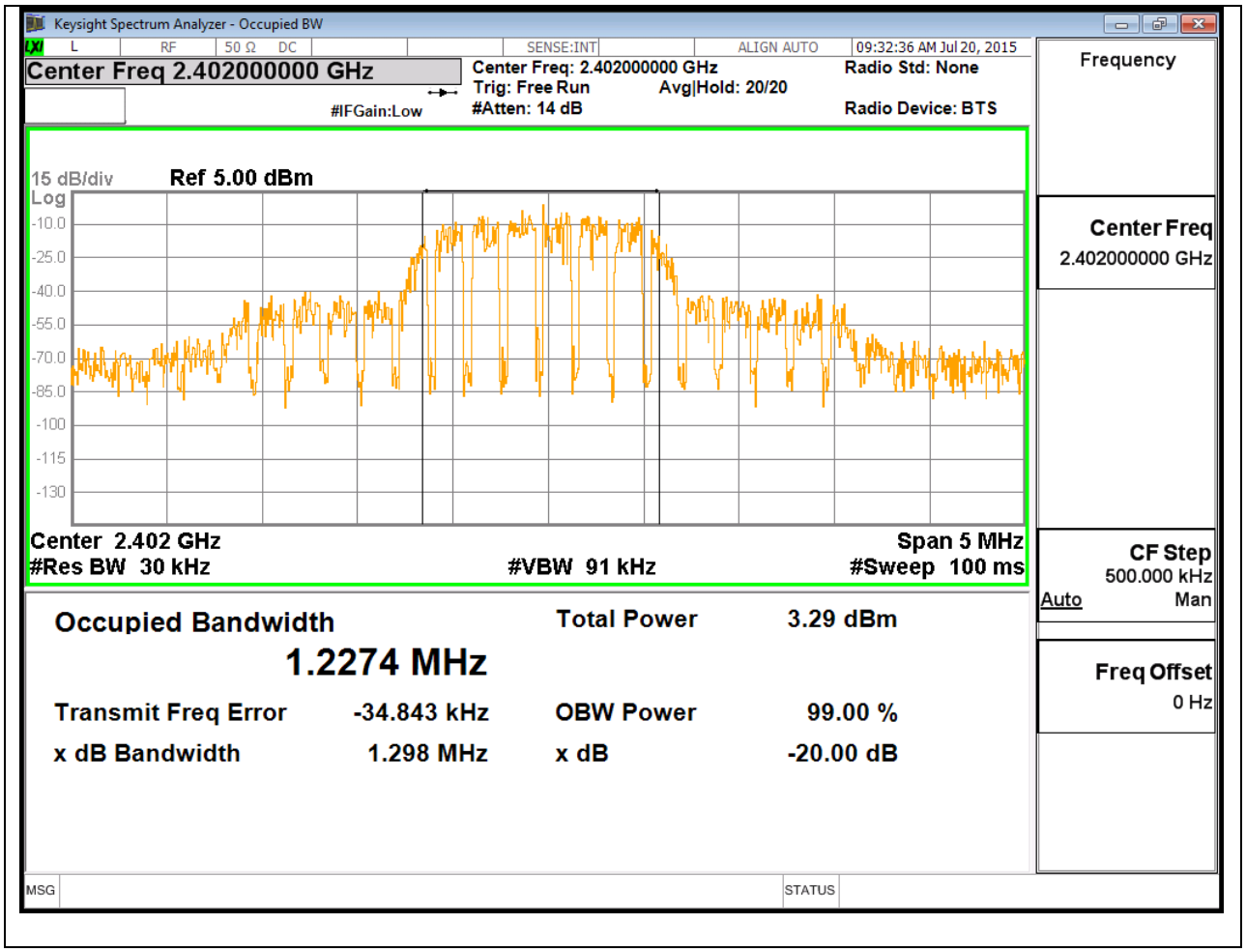


HIGH CHANNEL

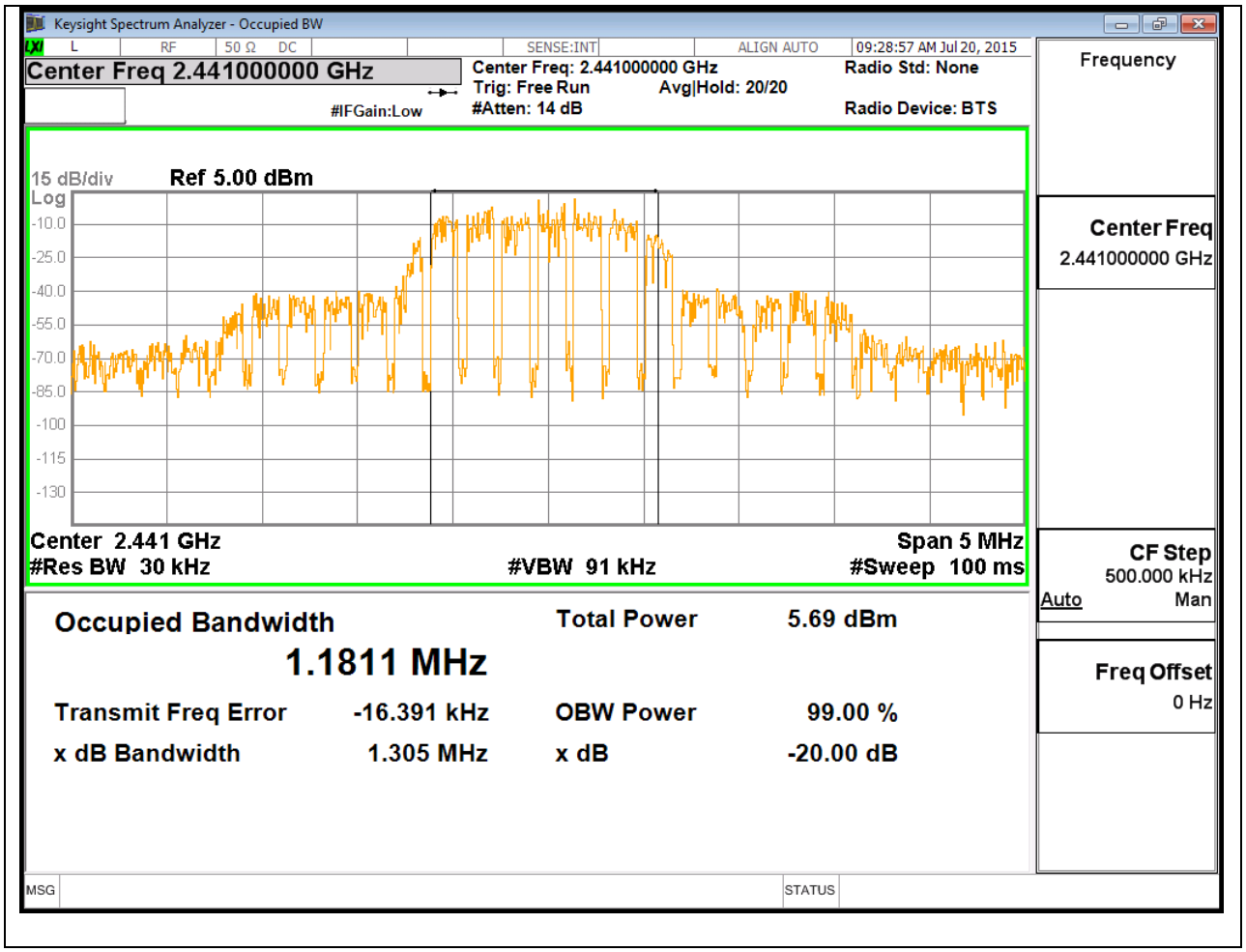


8PSK 99% BANDWIDTH

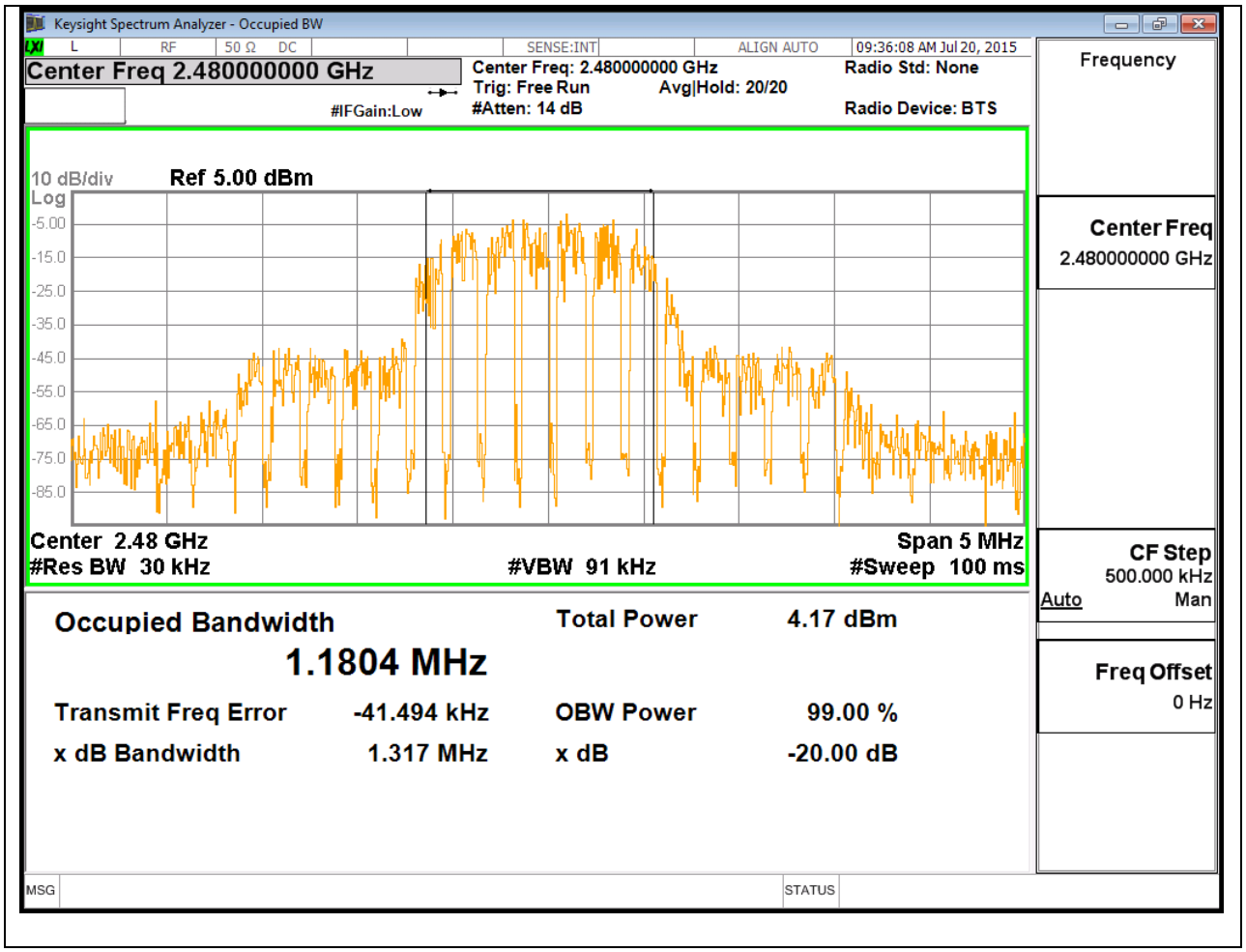
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.2. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)
IC RSS-247 5.1(1)
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.

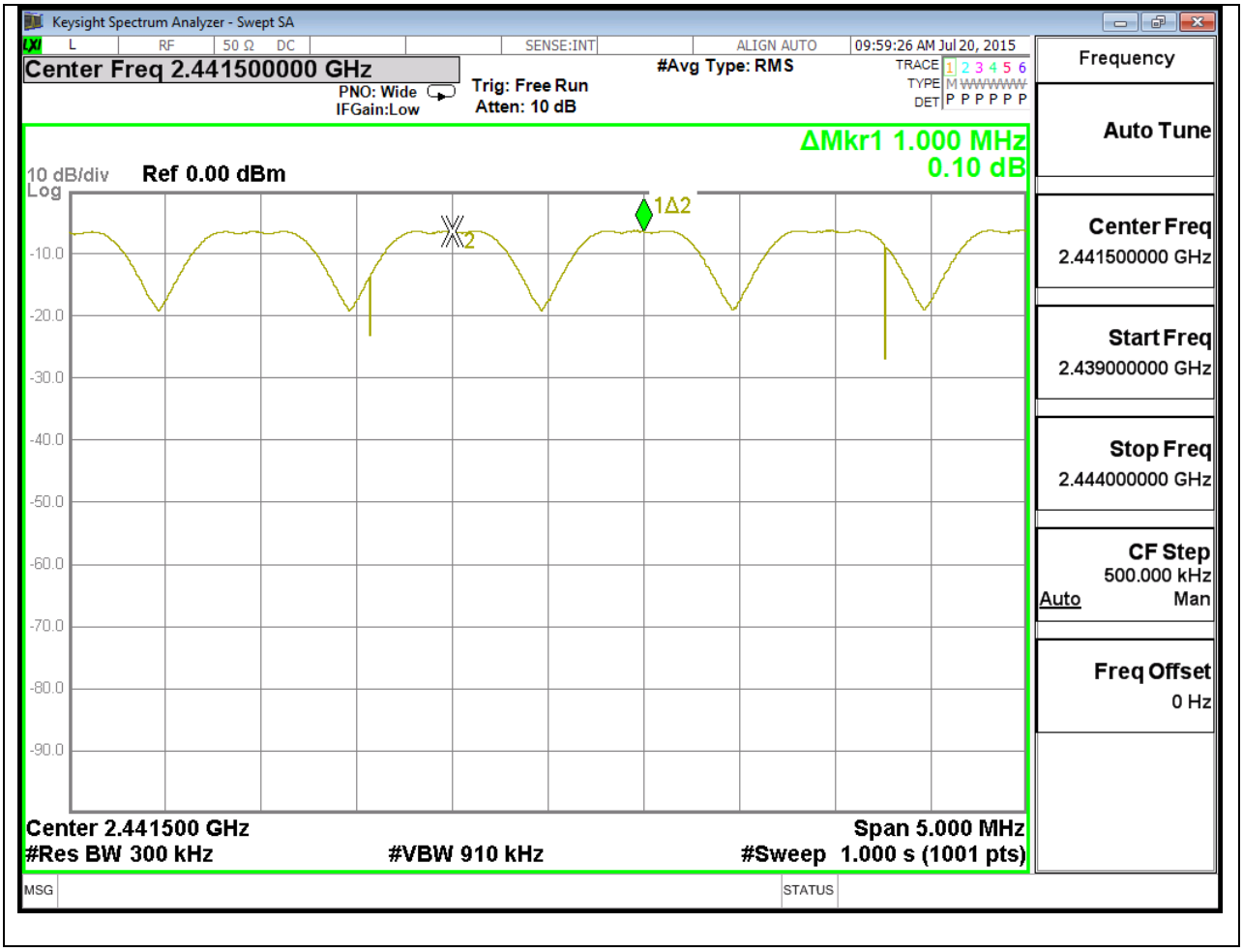
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than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

TEST PROCEDURE

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)
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

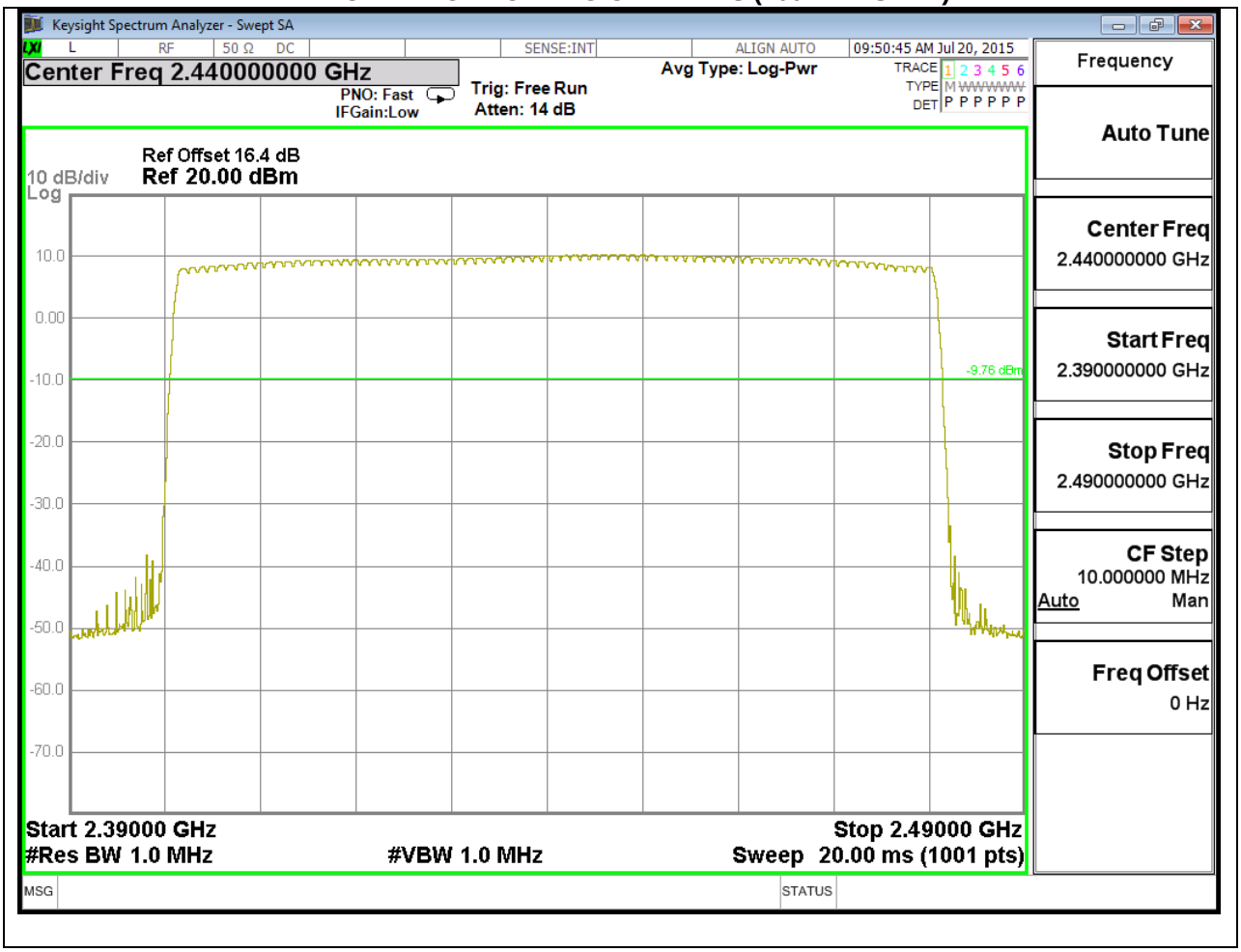
DA 00-705: The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

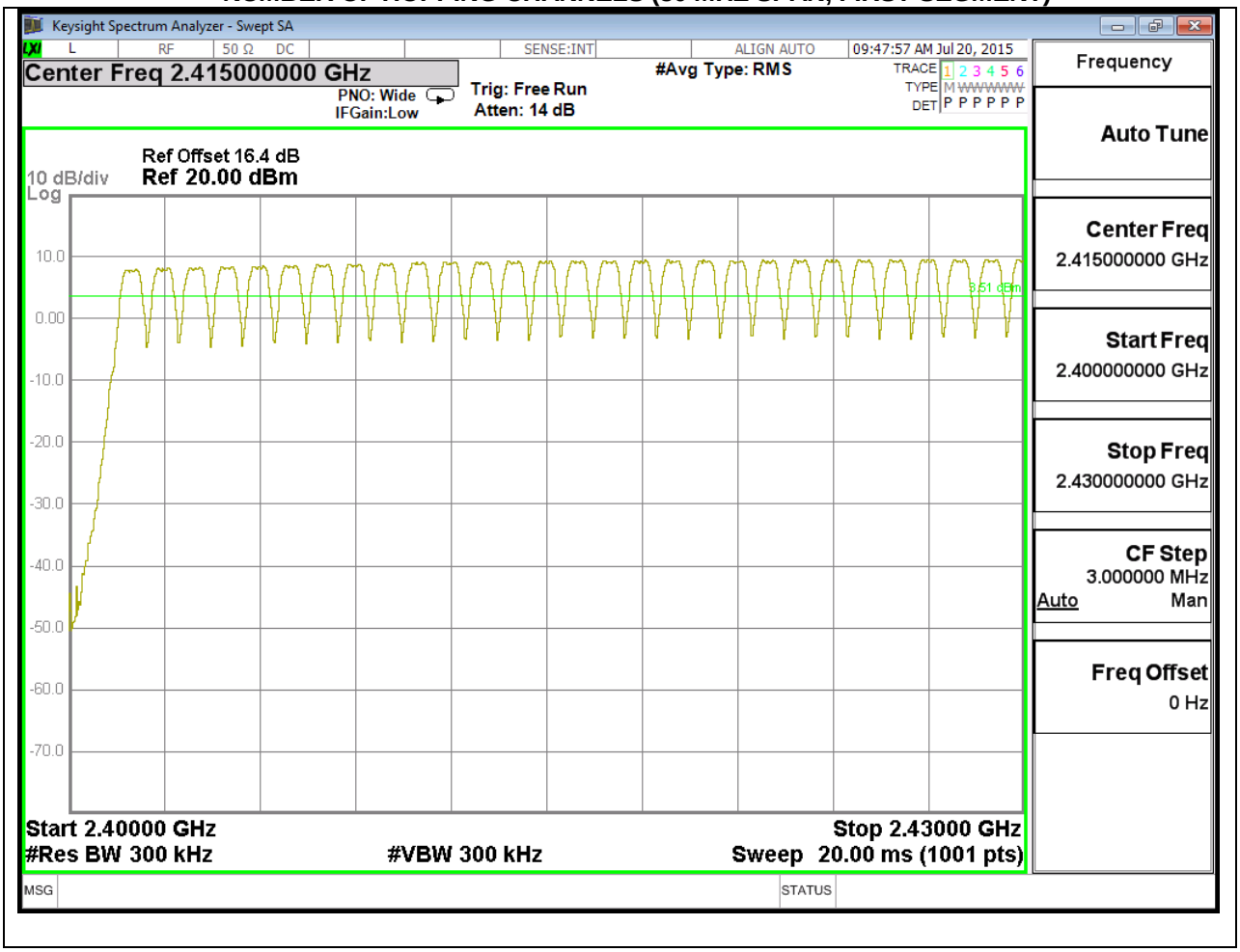
Normal Mode: 79 Channels observed.

NUMBER OF HOPPING CHANNELS PLOTS

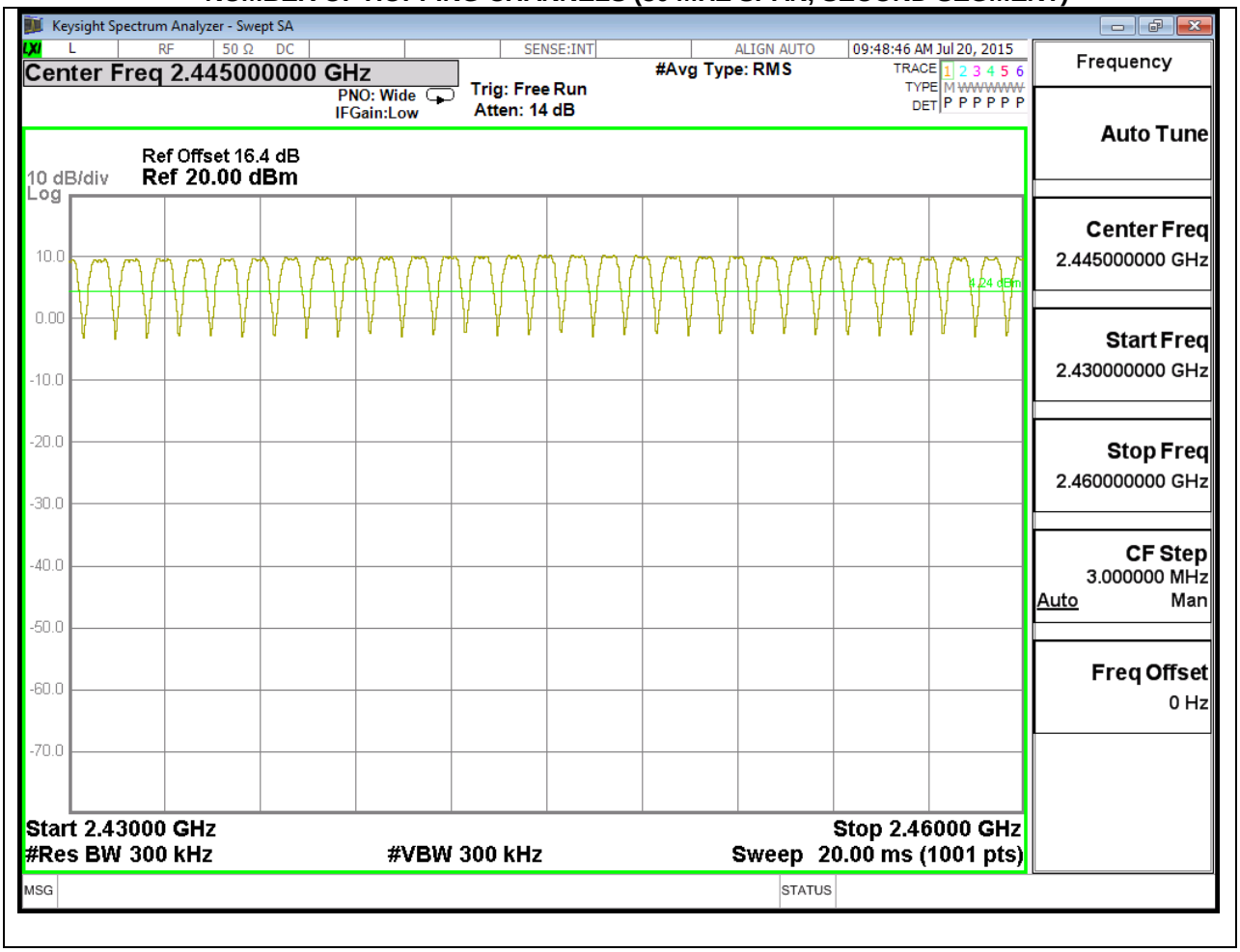
NUMBER OF HOPPING CHANNELS (100 MHZ SPAN)



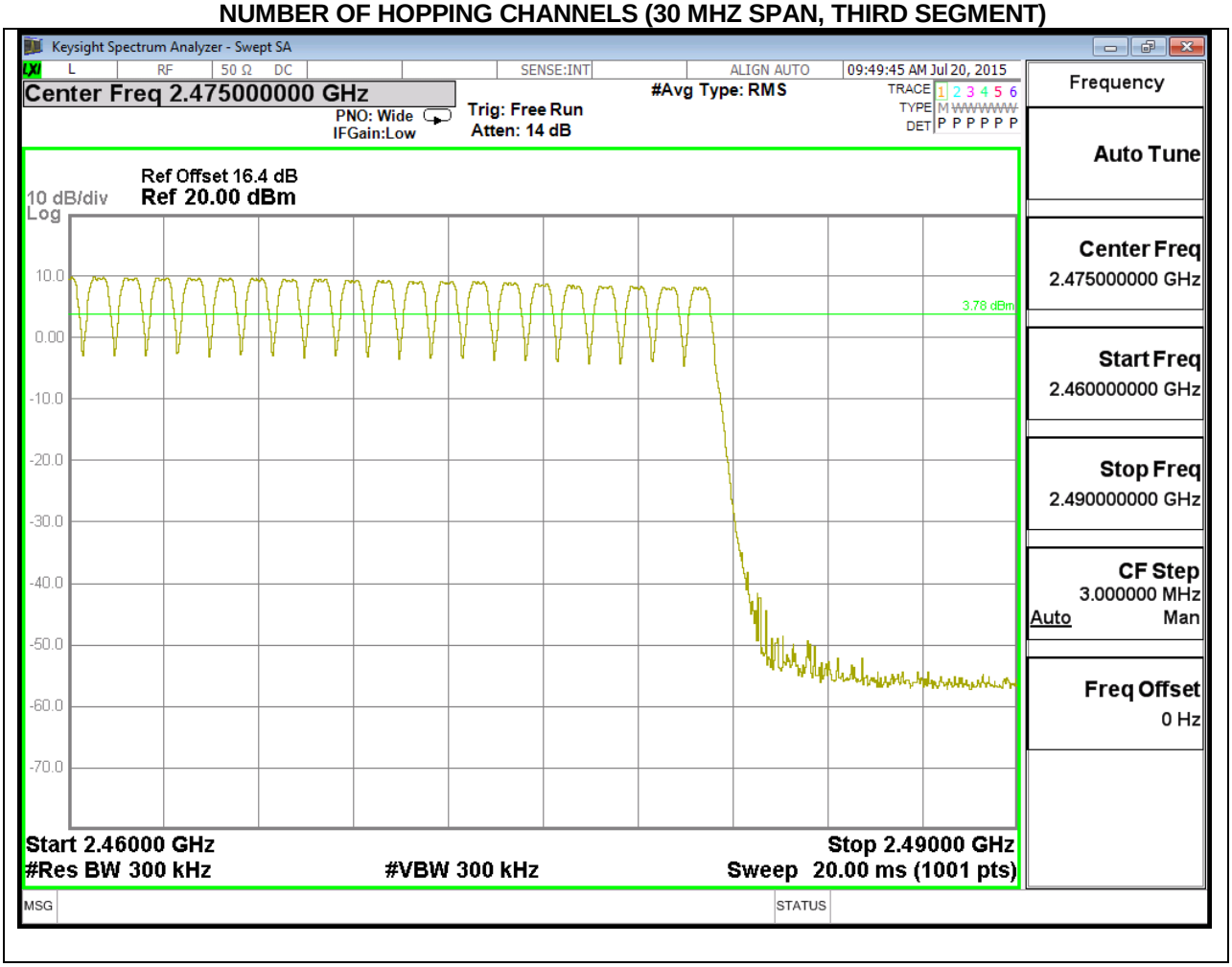
NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, FIRST SEGMENT)



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)
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.

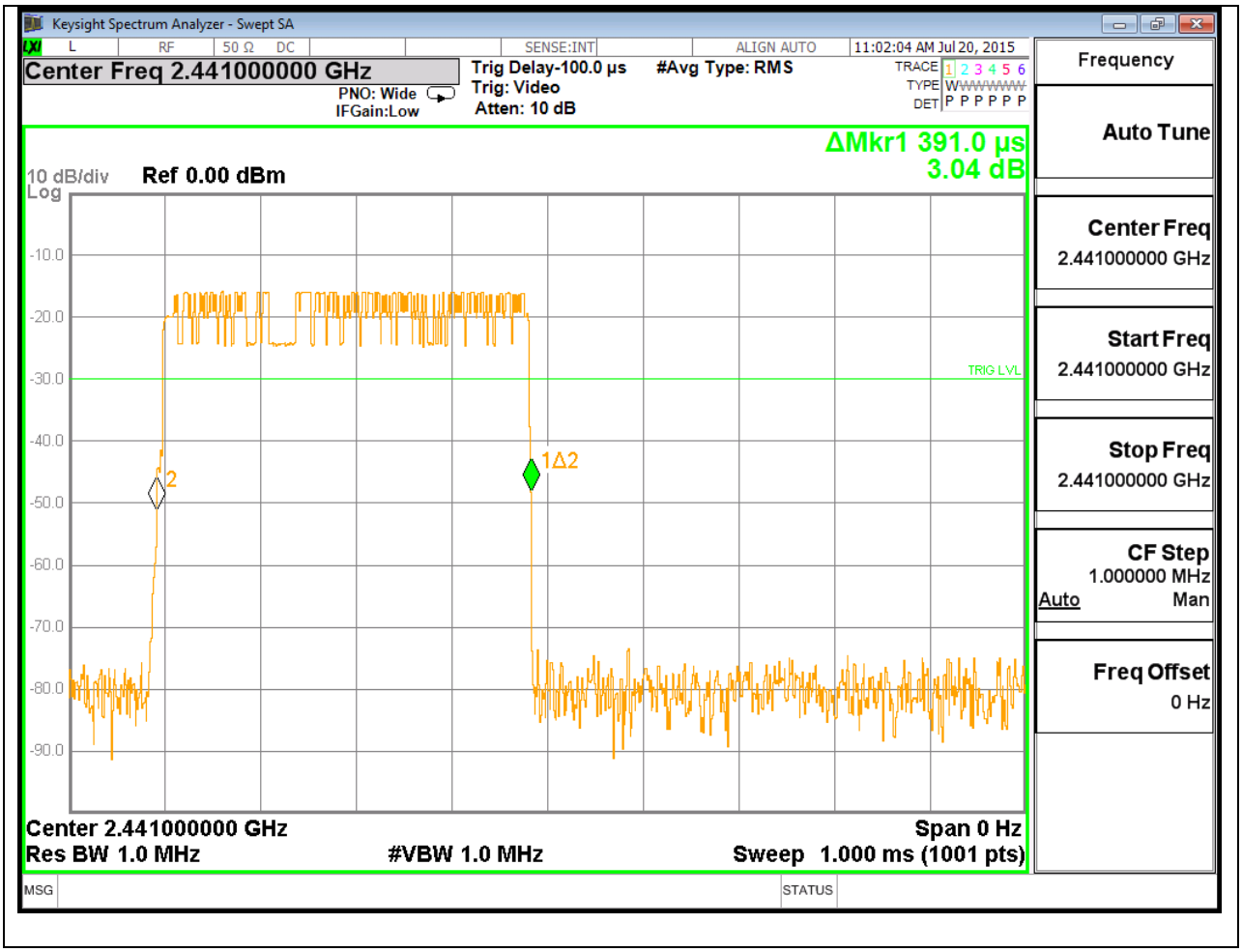
The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to 10 * (# of pulses in 3.16 s) * pulse width.

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

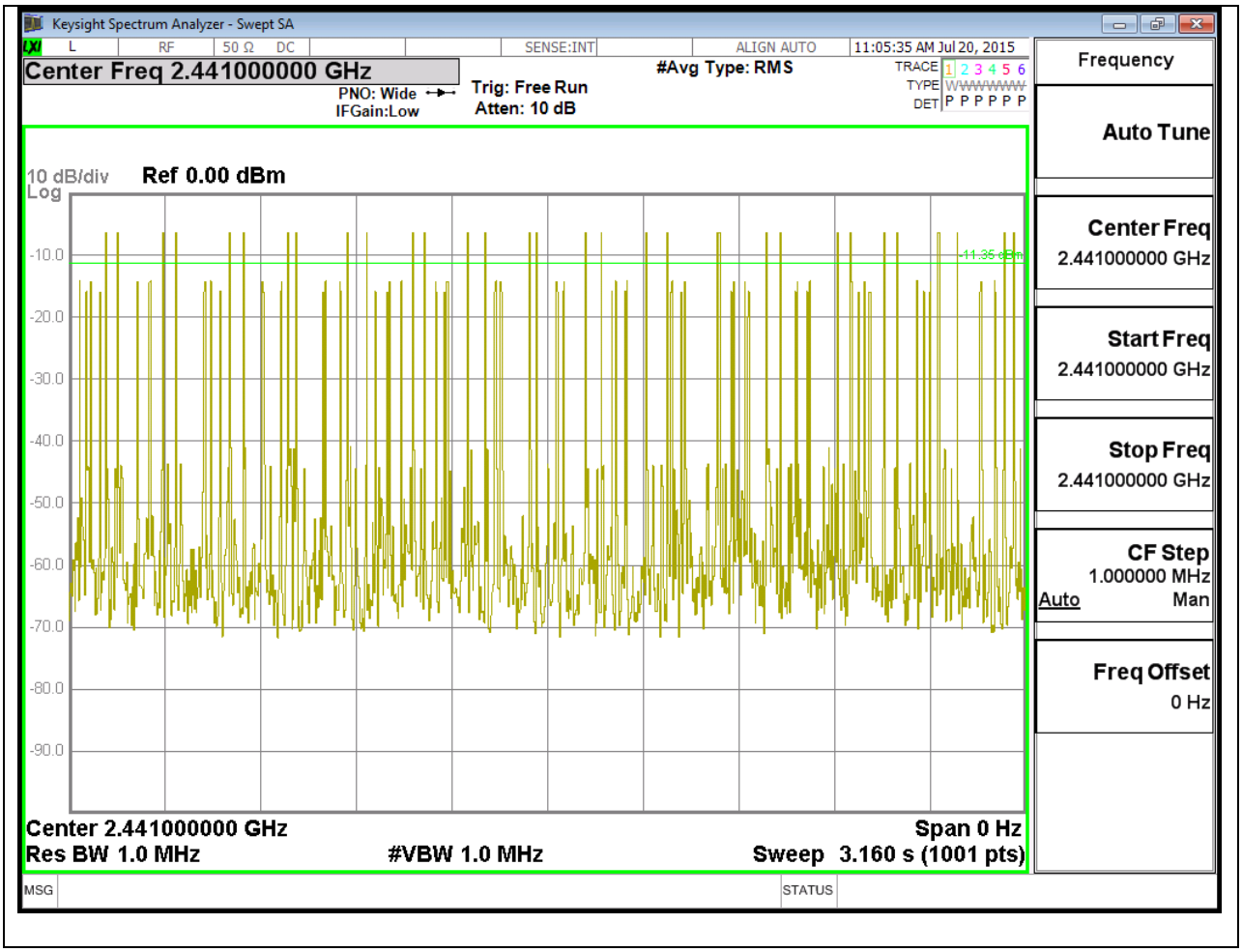
RESULTS

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	0.391	32	0.12512	0.4	-0.27488
DH3	1.648	14	0.23072	0.4	-0.16928
DH5	2.892	6	0.17352	0.4	-0.22648
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	0.391	8	0.03128	0.4	-0.36872
DH3	1.648	3.5	0.05768	0.4	-0.34232
DH5	2.892	1.5	0.04338	0.4	-0.35662

PULSE WIDTH - DH1



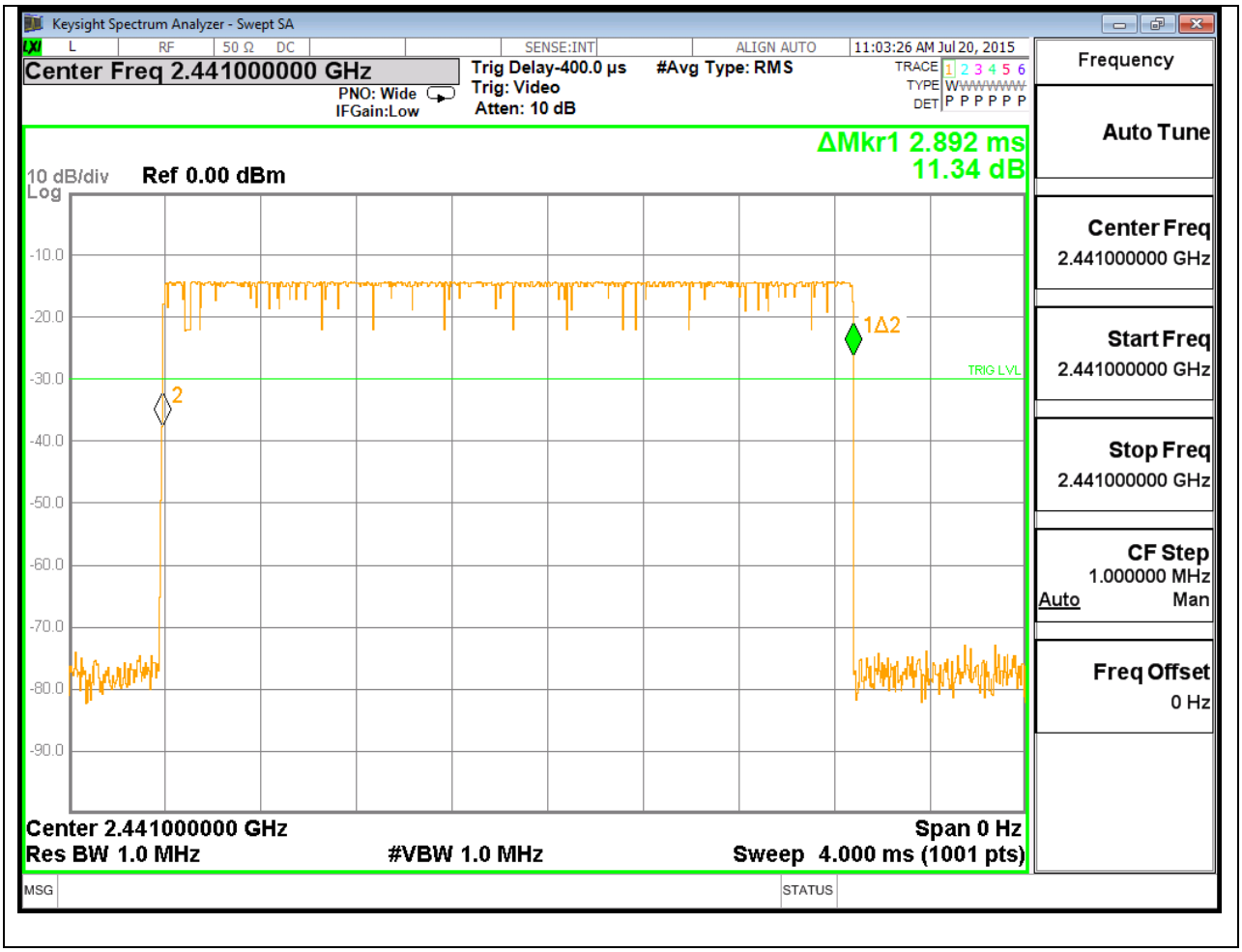
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH1



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)
RSS-247 5.4(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	6.6	21	-14.4
Middle	2441	9.16	21	-11.84
High	2480	7.61	21	-13.39
Worst		9.16		-11.84

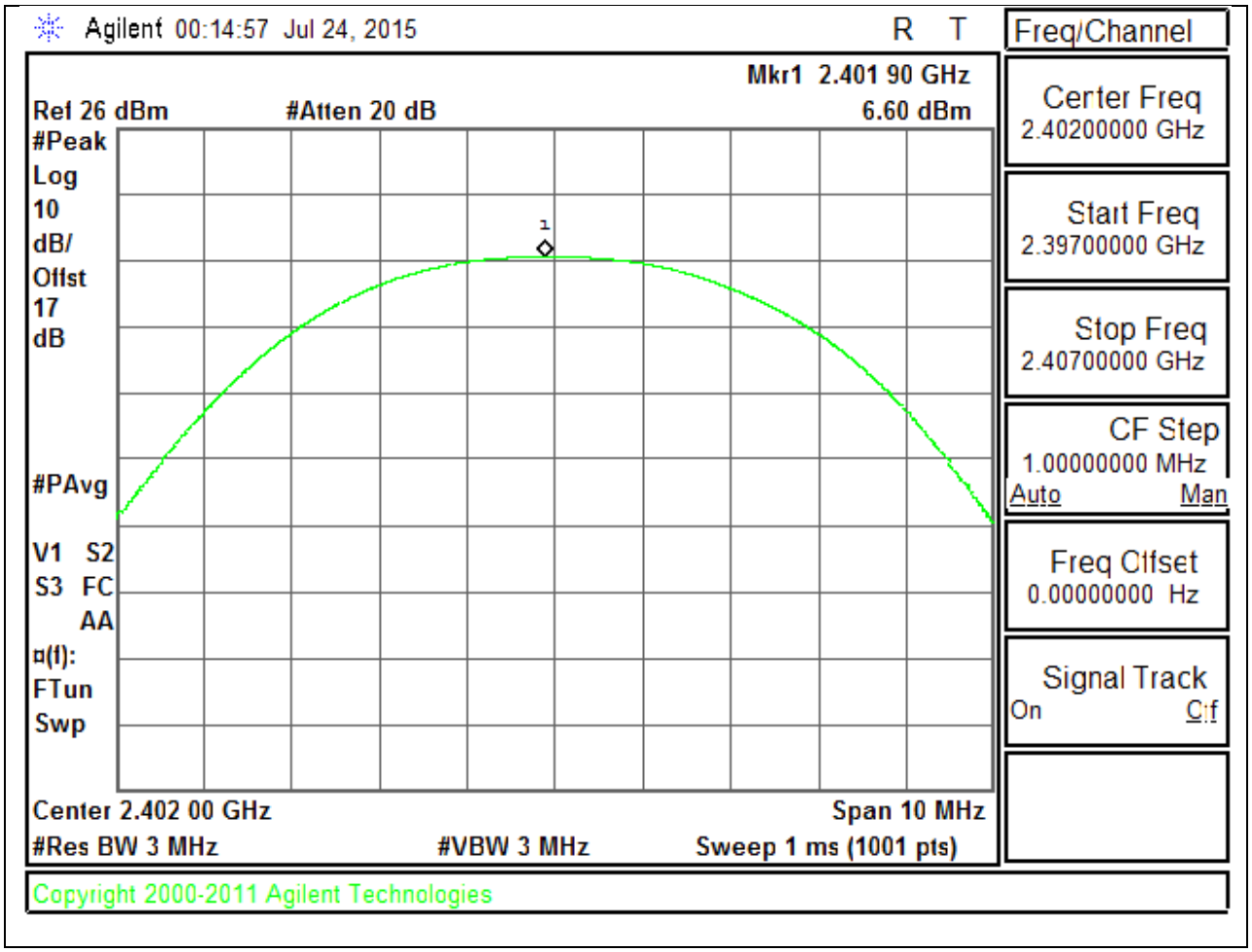
8.5.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	5.83	21	-15.17
Middle	2441	8.46	21	-12.54
High	2480	6.86	21	-14.14
Worst		8.46		-12.54

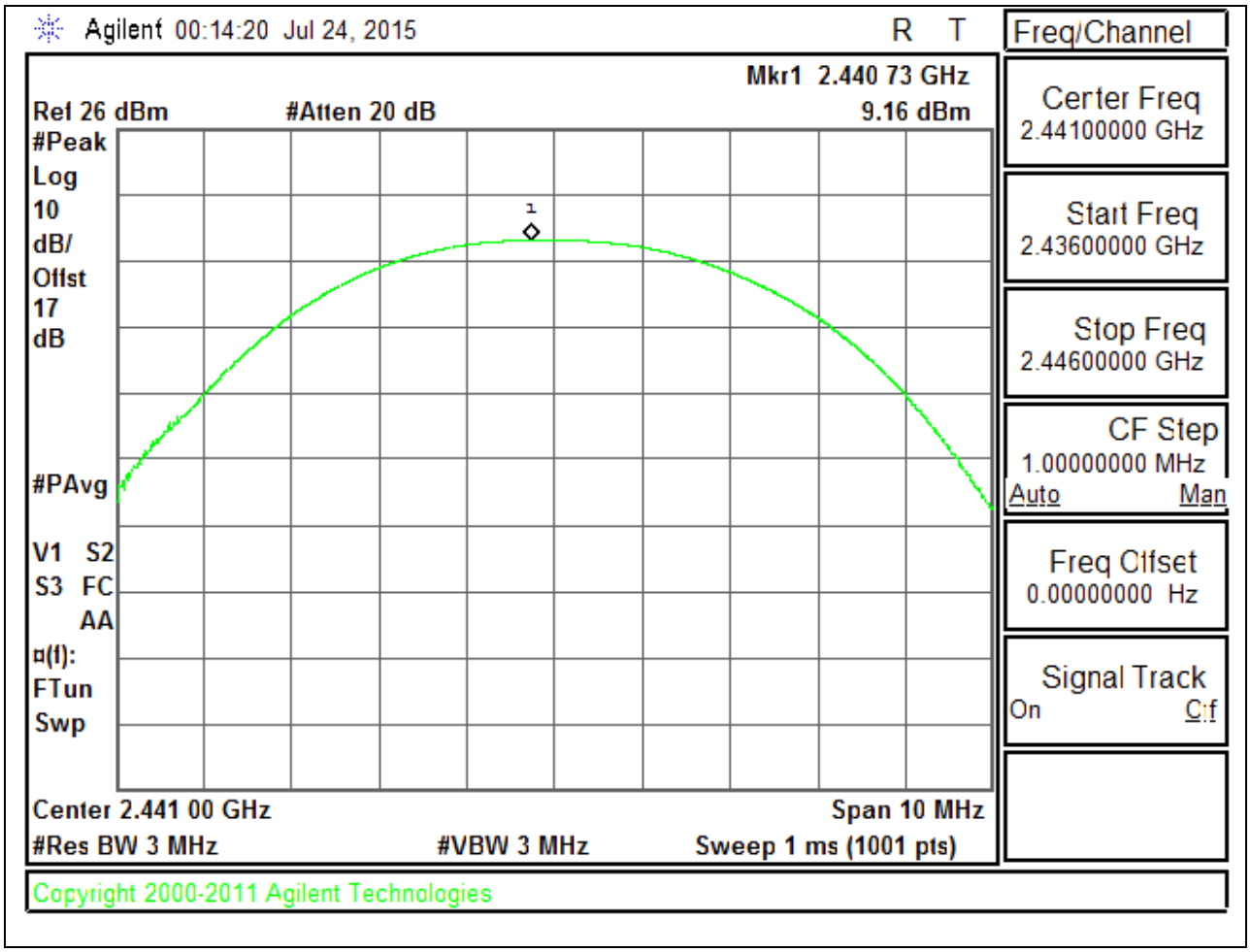
8.5.3. OUTPUT POWER PLOTS

GFSK OUTPUT POWER

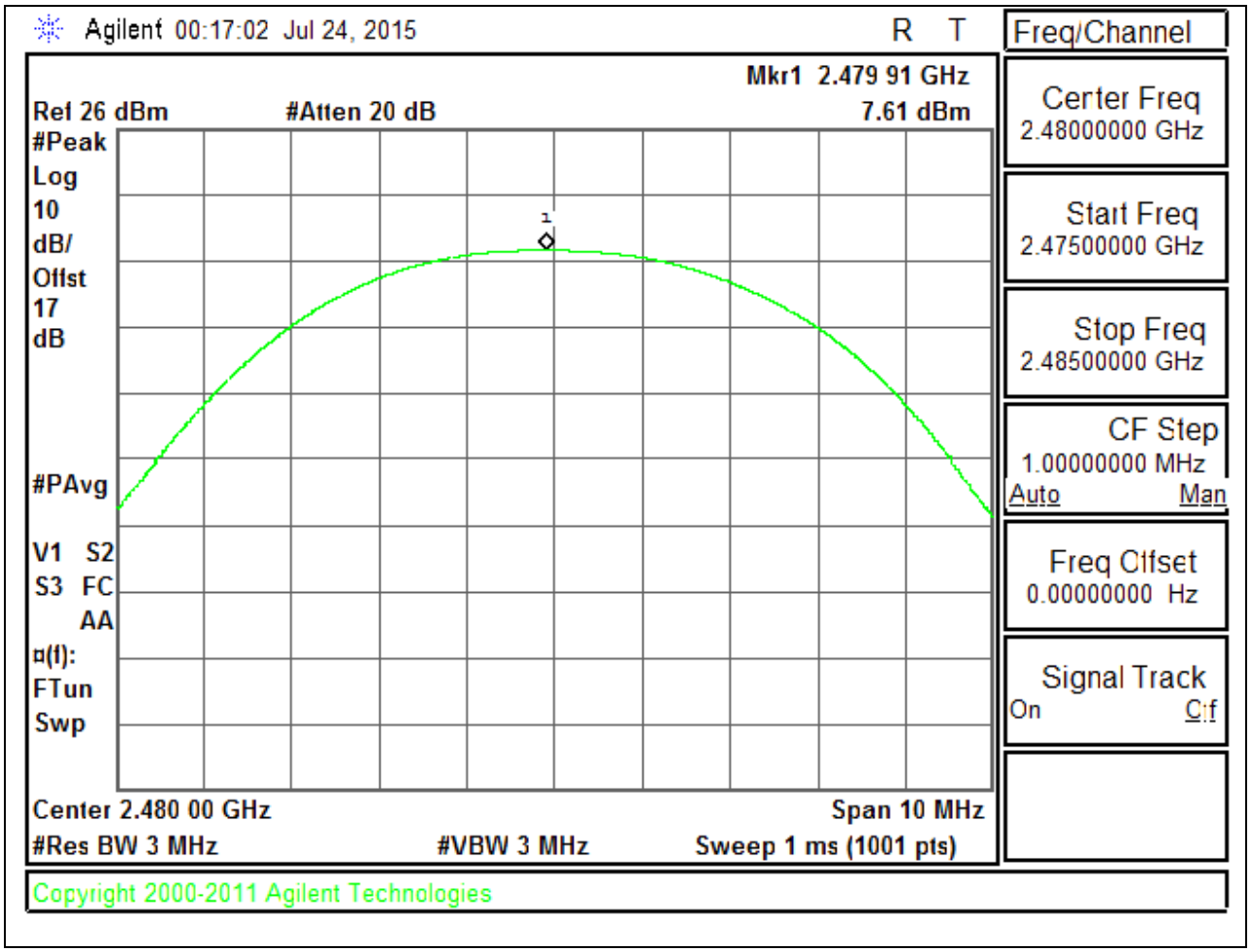
LOW CHANNEL



MID CHANNEL

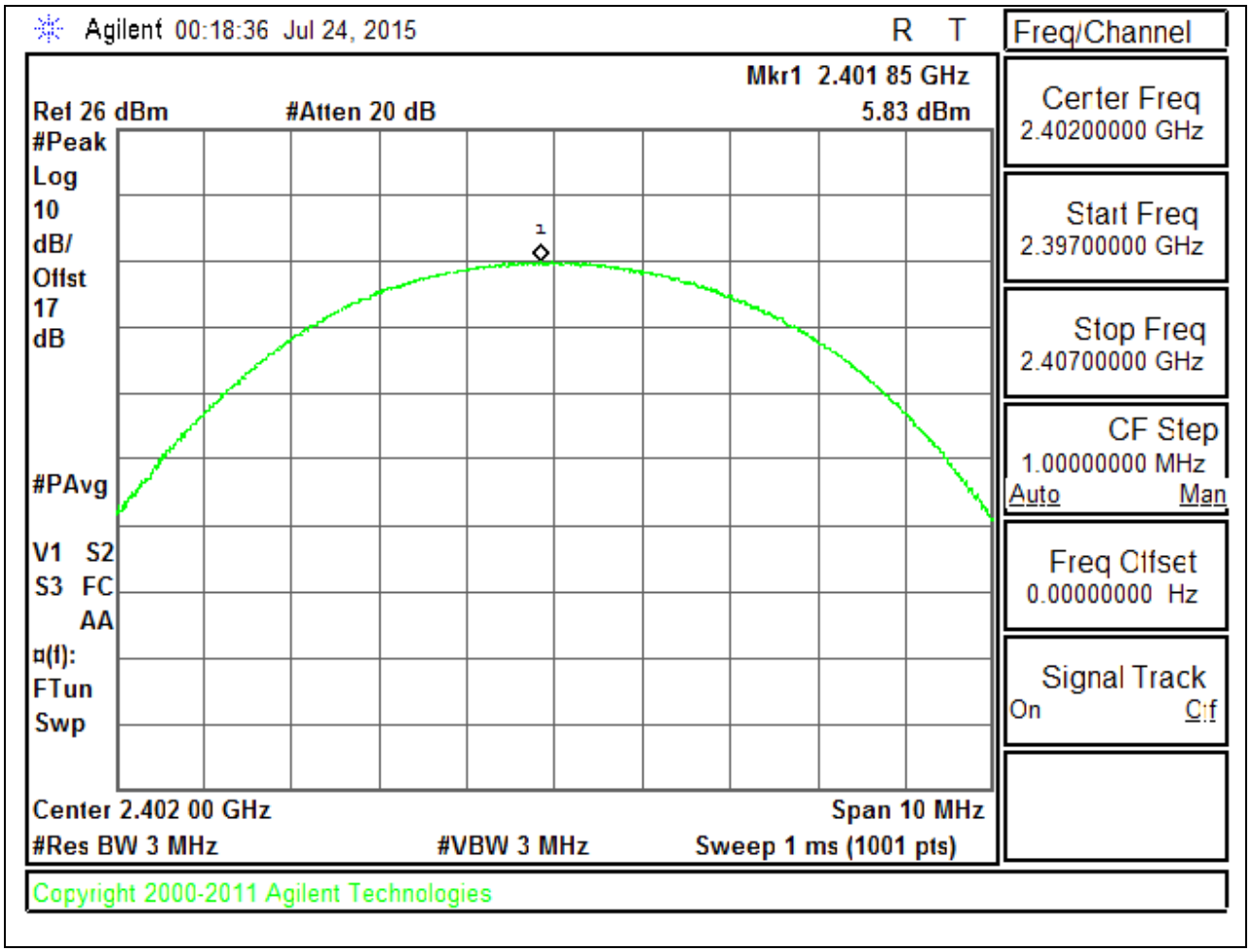


HIGH CHANNEL

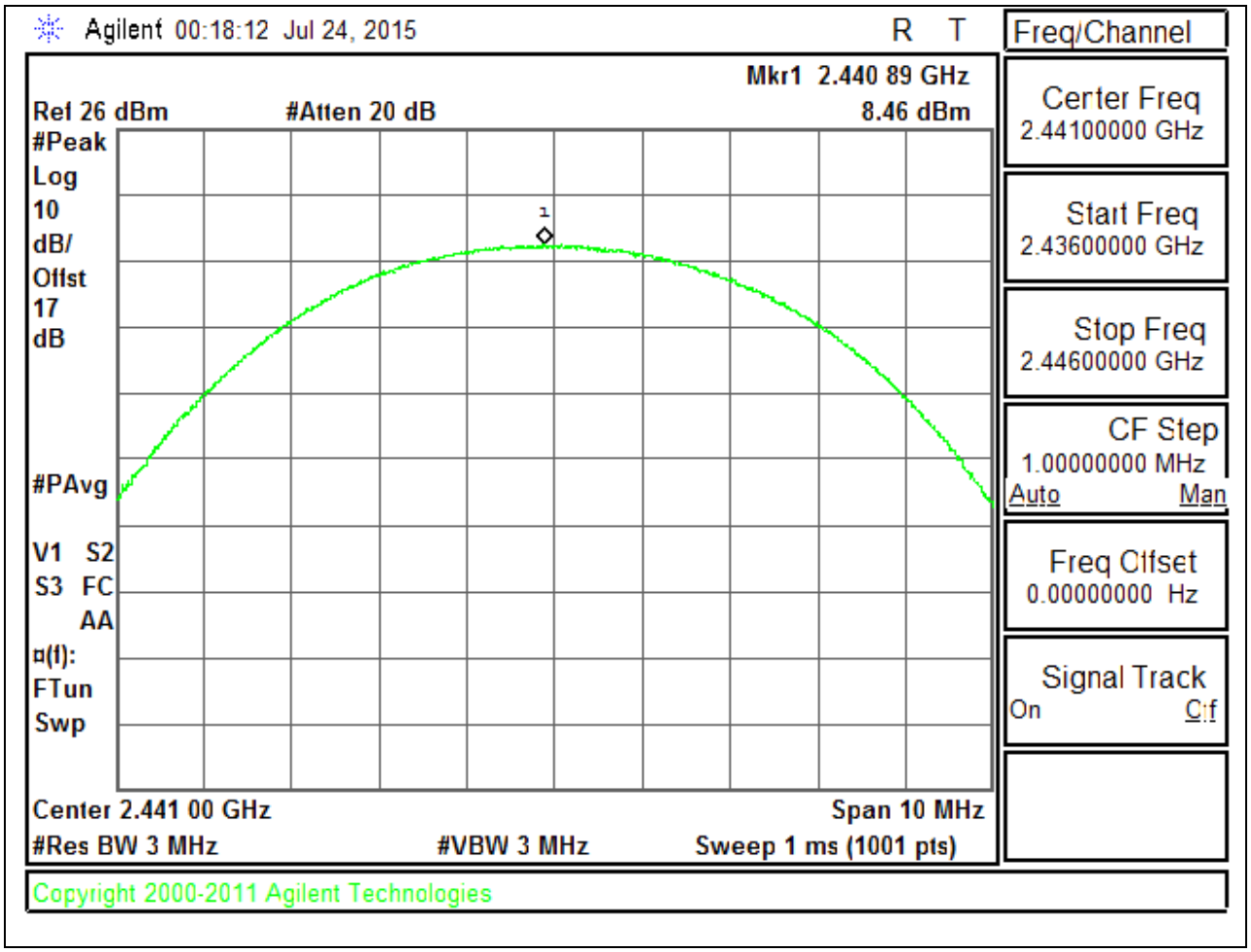


8PSK OUTPUT POWER

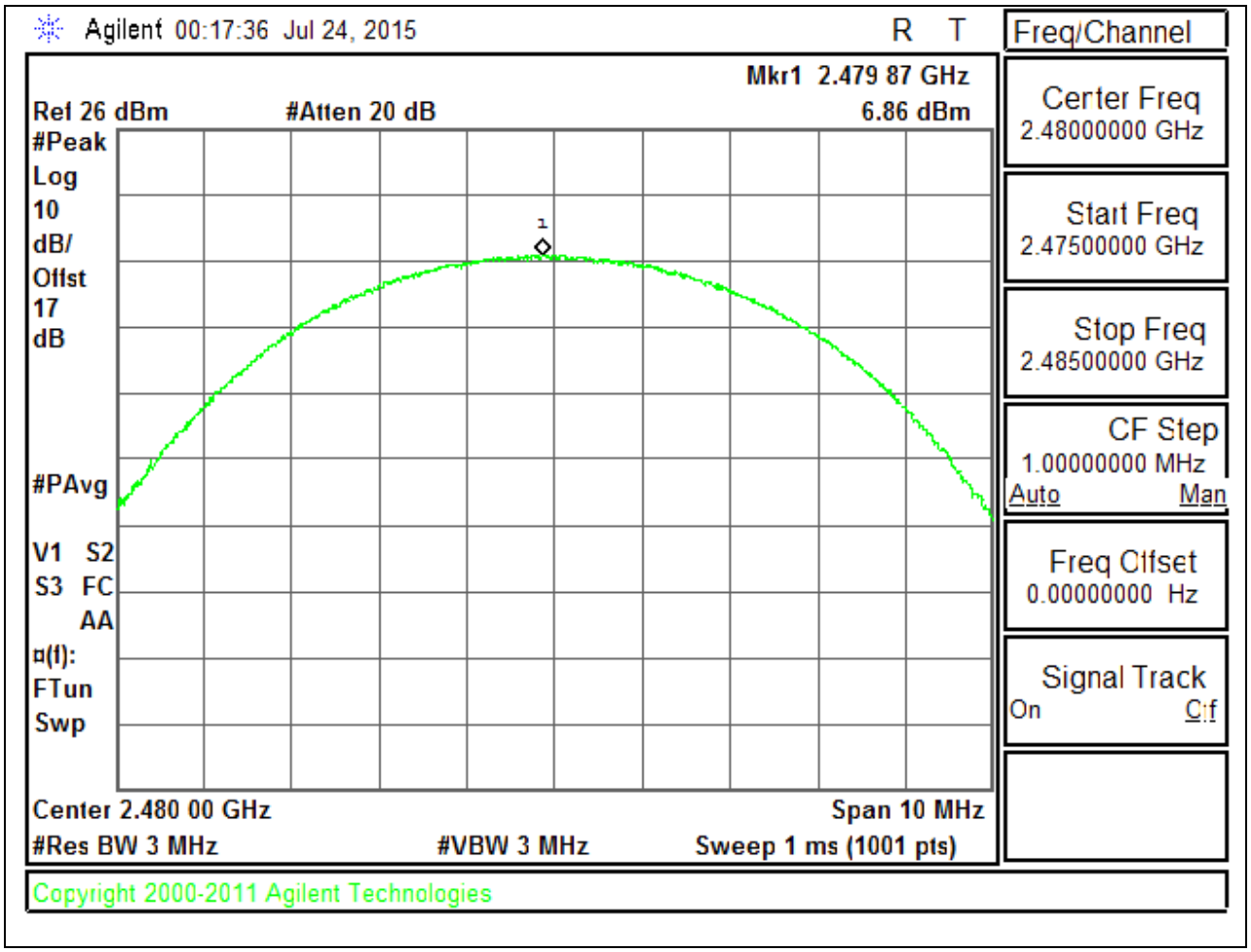
LOW CHANNEL



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	6.5
Middle	2441	8.8
High	2480	7.3
Worst		8.8

8.6.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	3.1
Middle	2441	5.5
High	2480	3.9
Worst		5.5

8.7. 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.

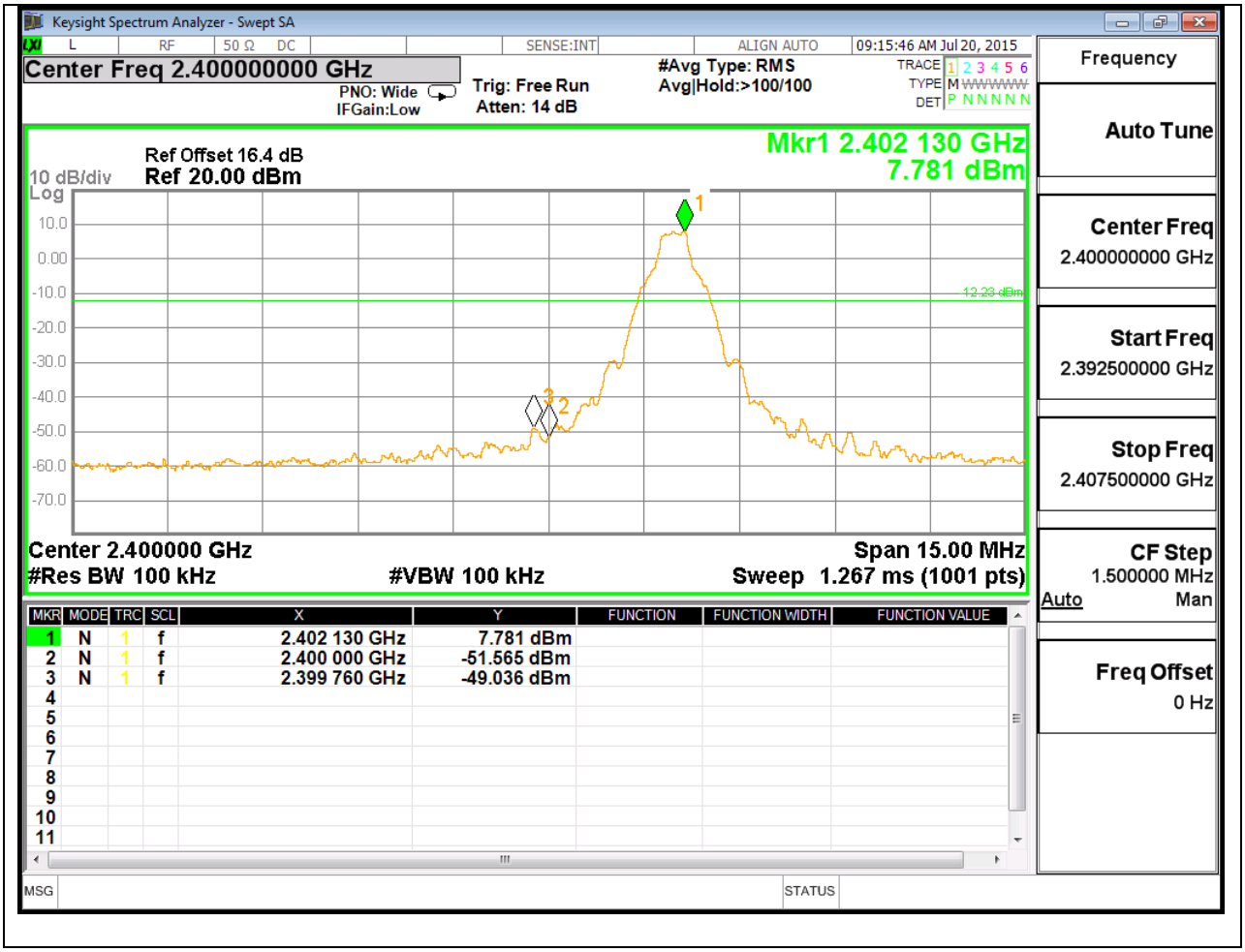
The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

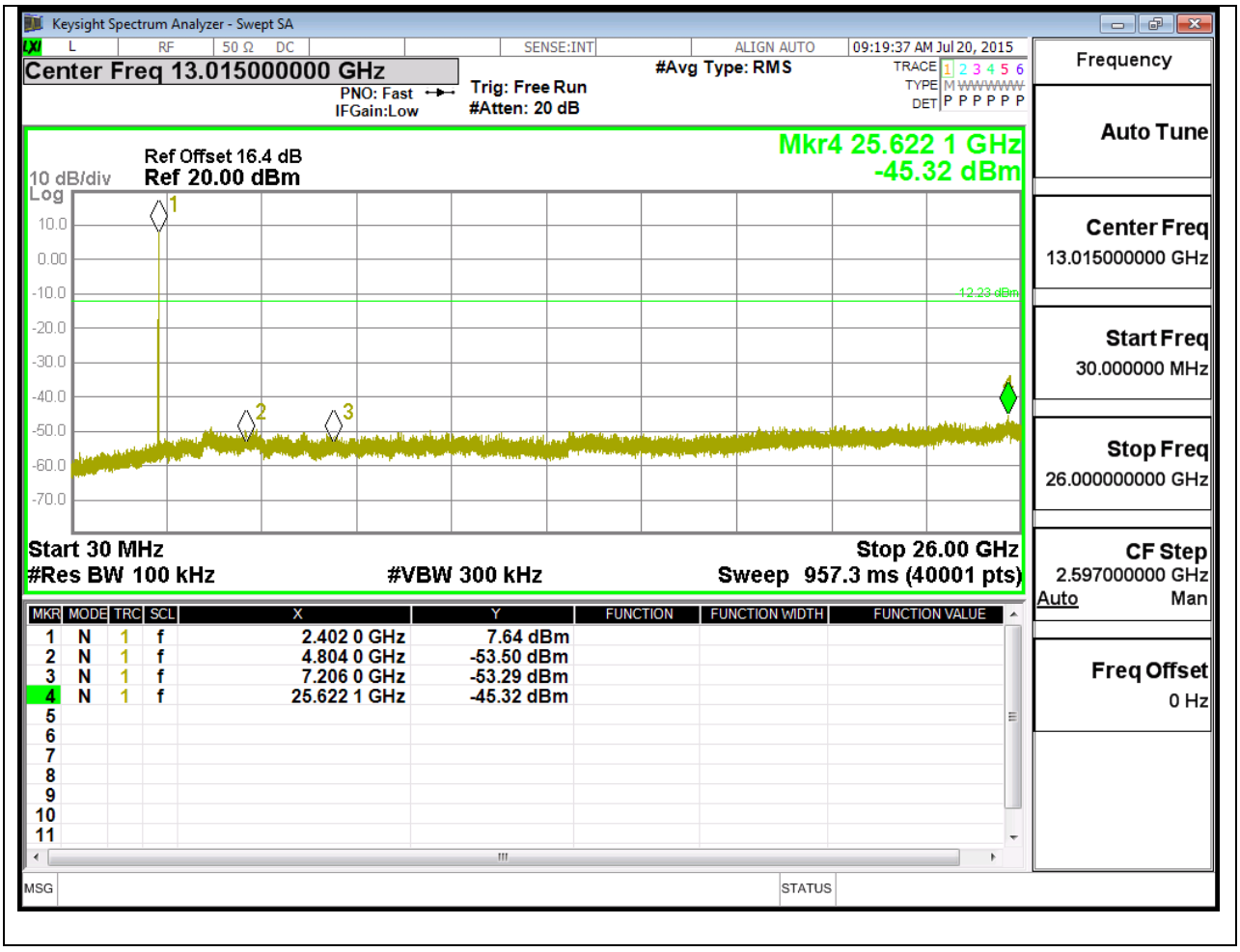
8.7.1. BASIC DATA RATE GFSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

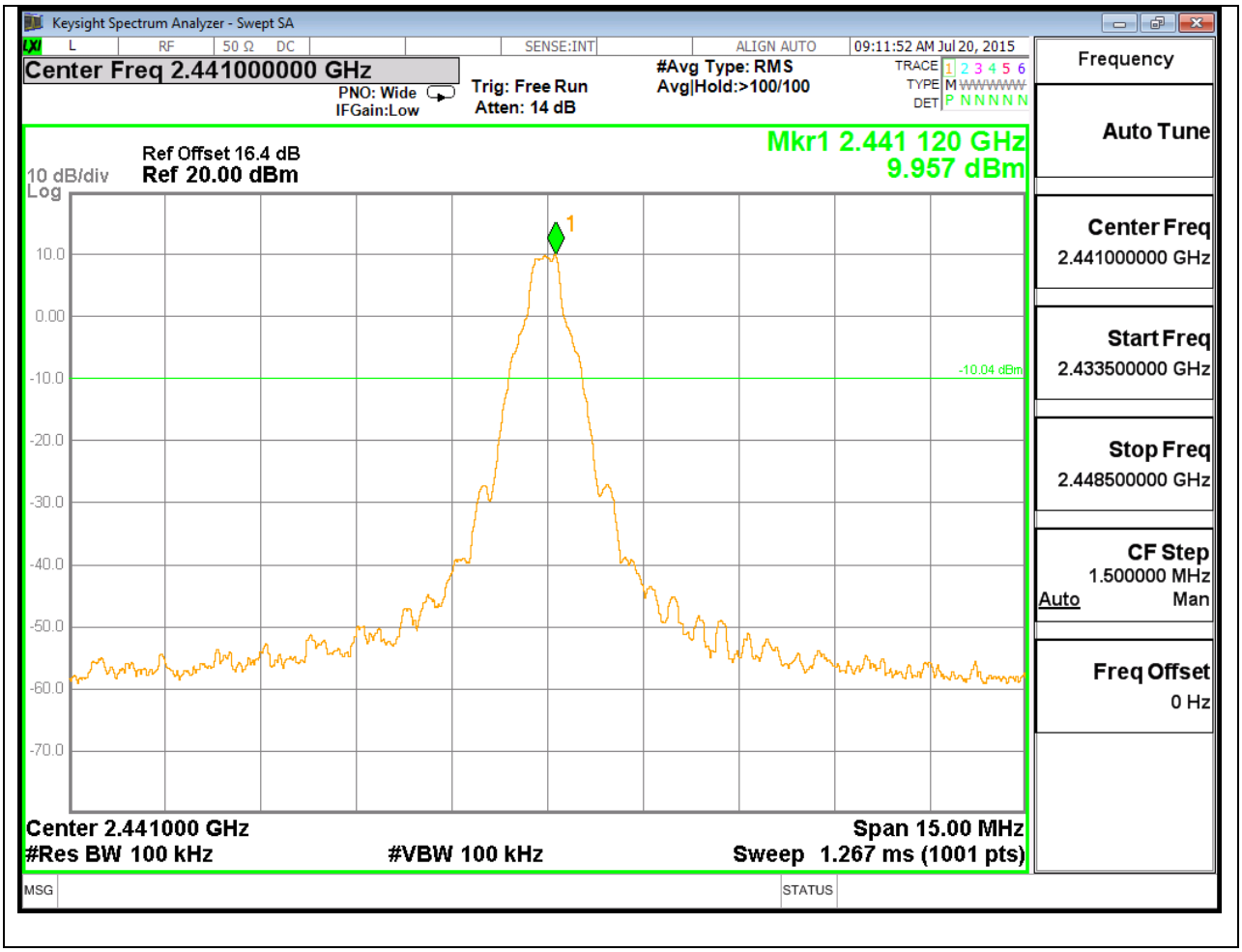


LOW CHANNEL SPURIOUS

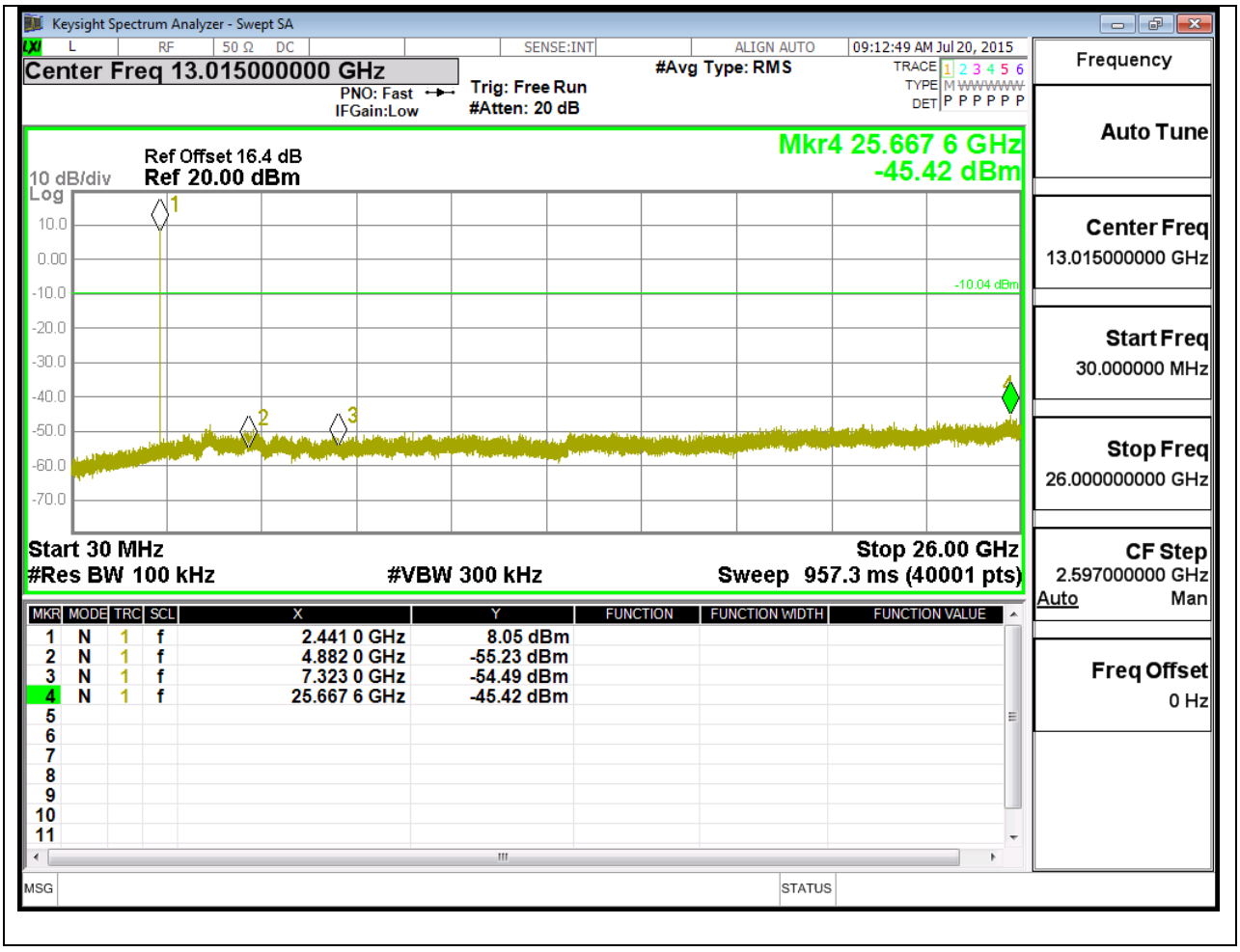


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

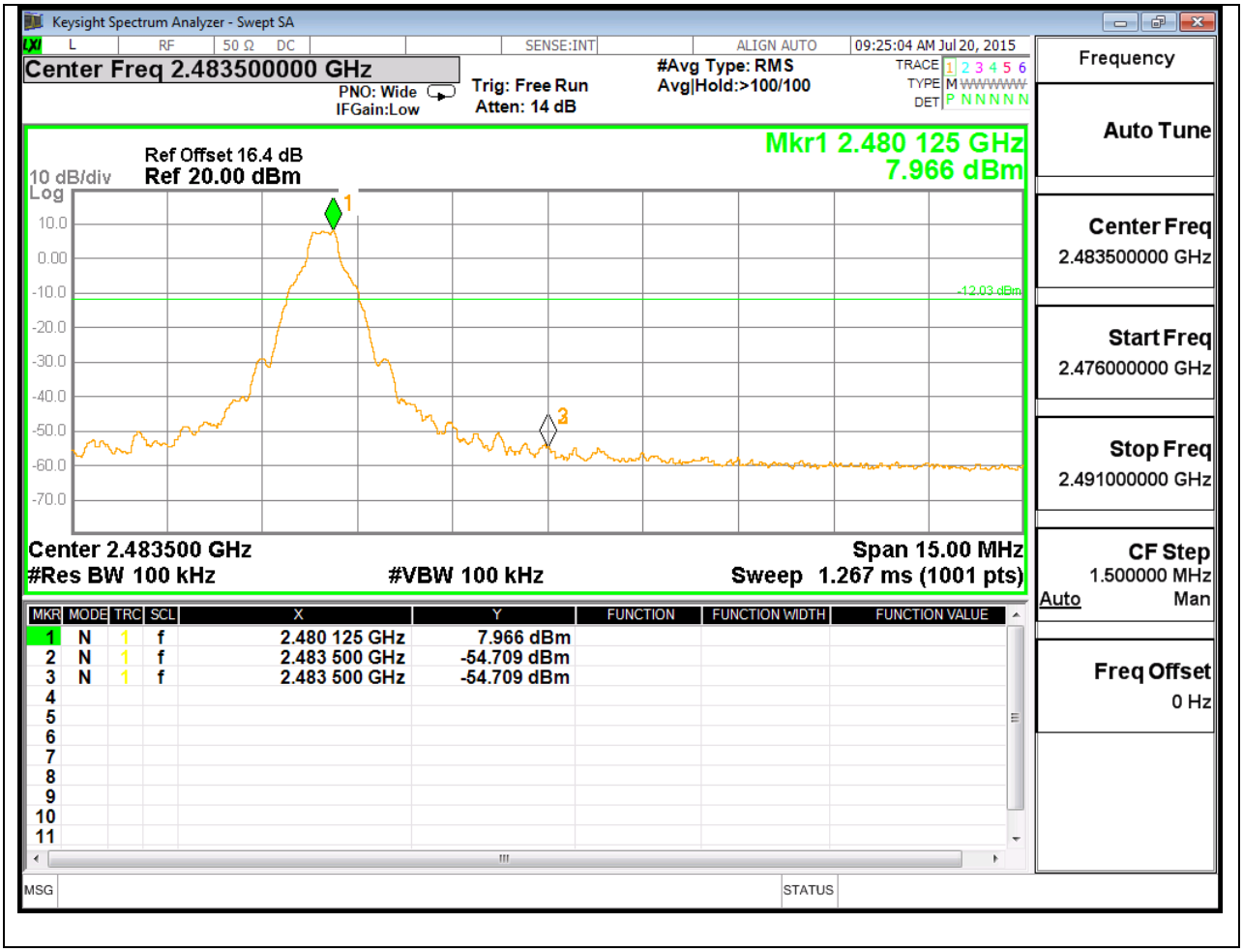


MID CHANNEL SPURIOUS

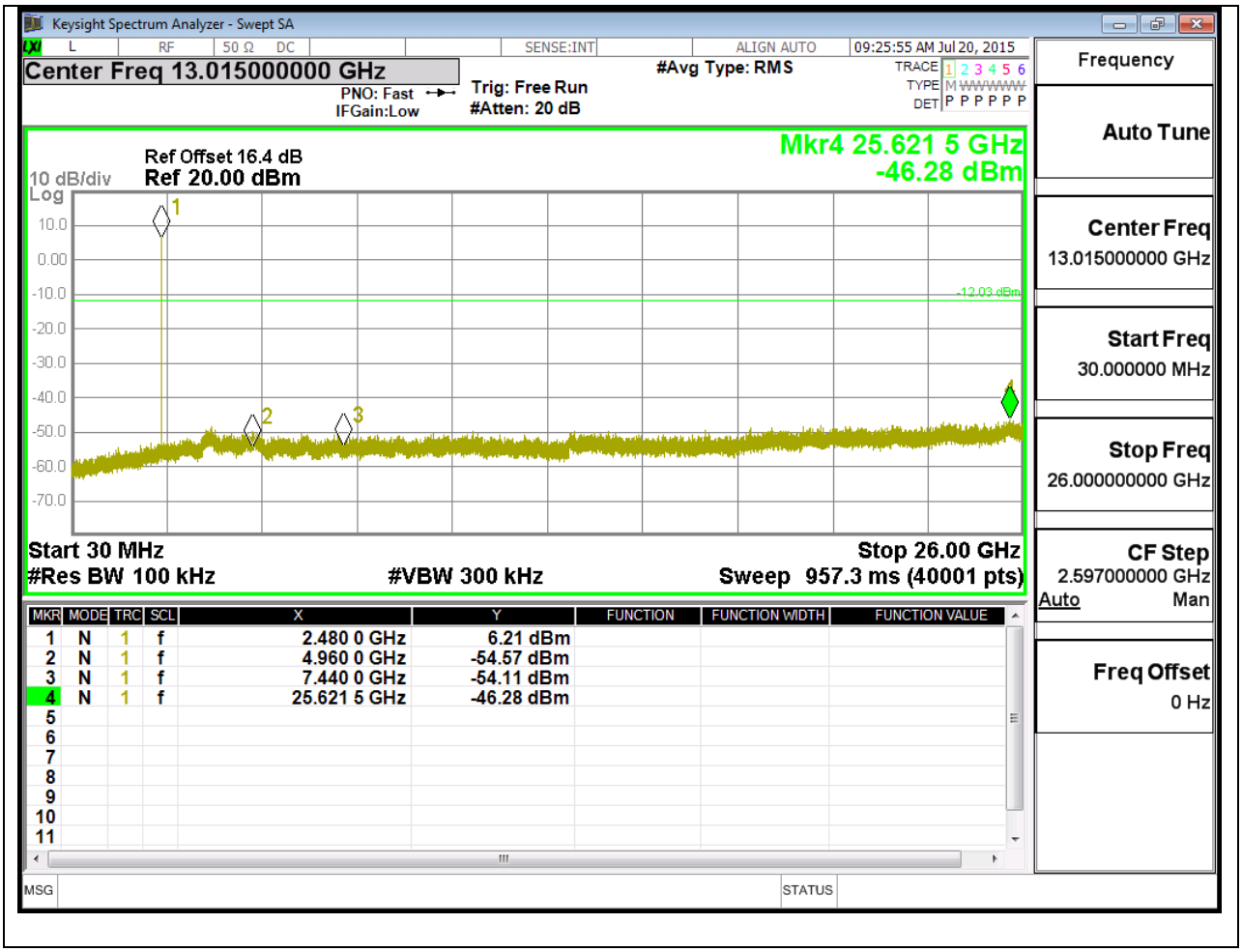


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

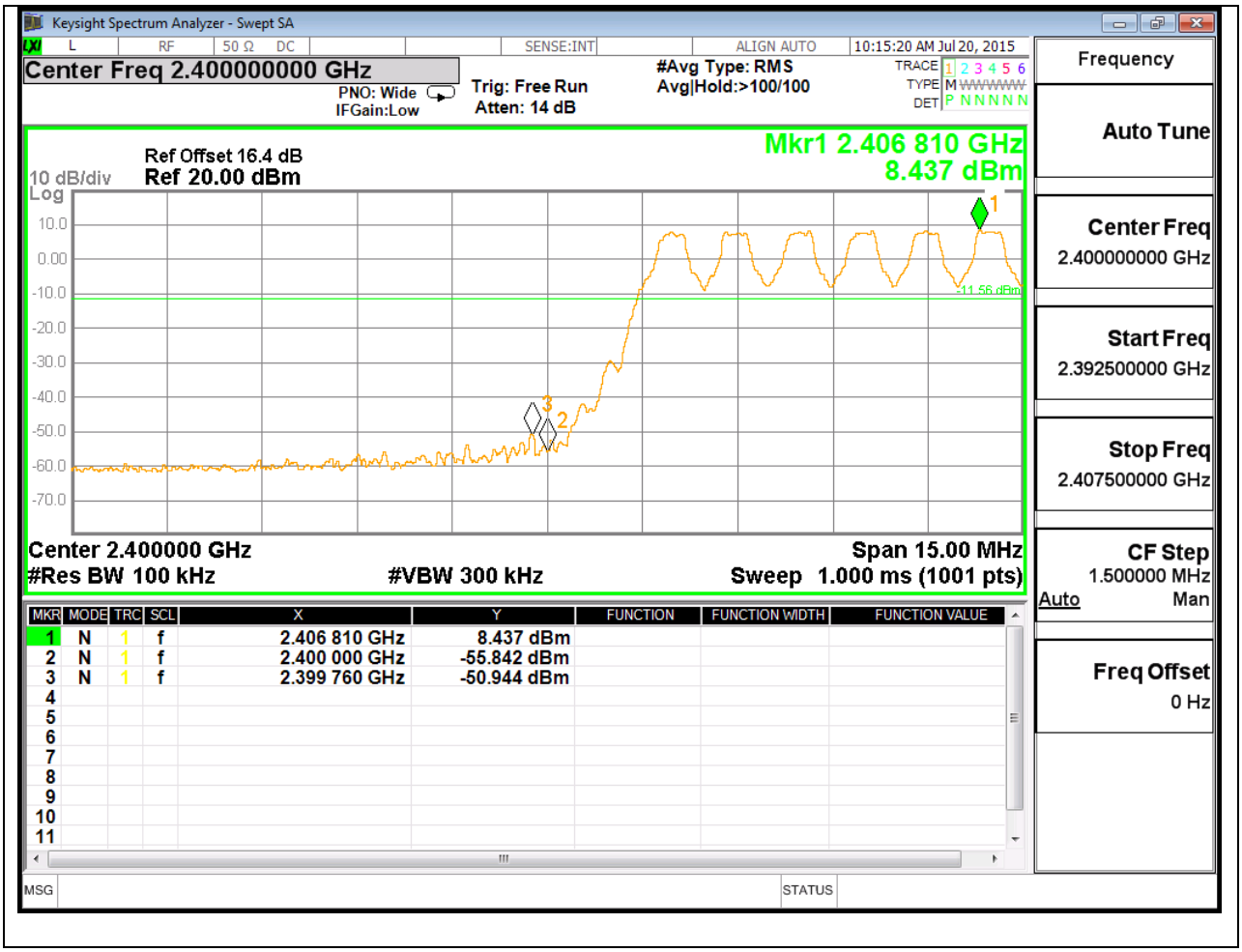


HIGH CHANNEL SPURIOUS

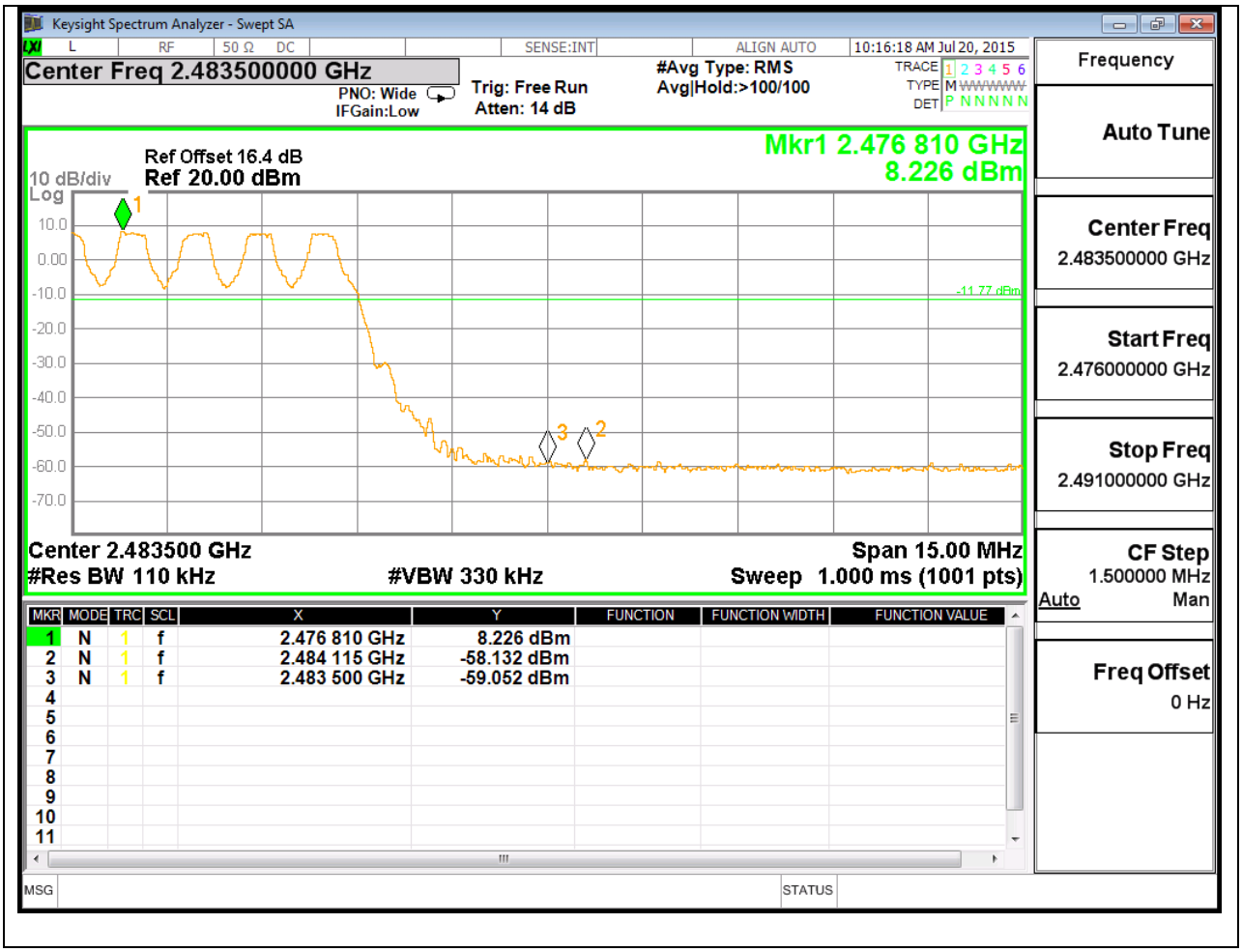


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



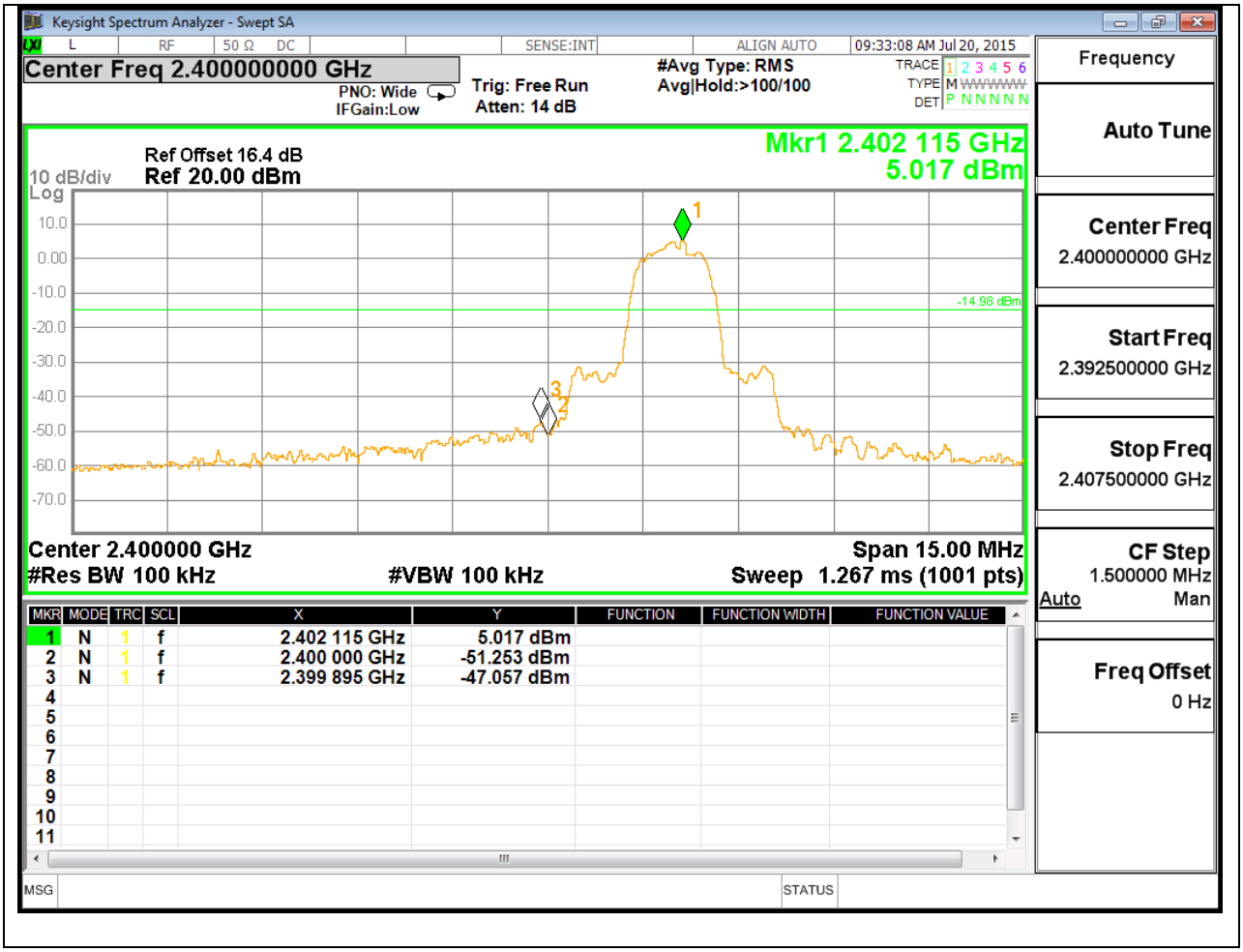
HIGH BANDEDGE WITH HOPPING ON



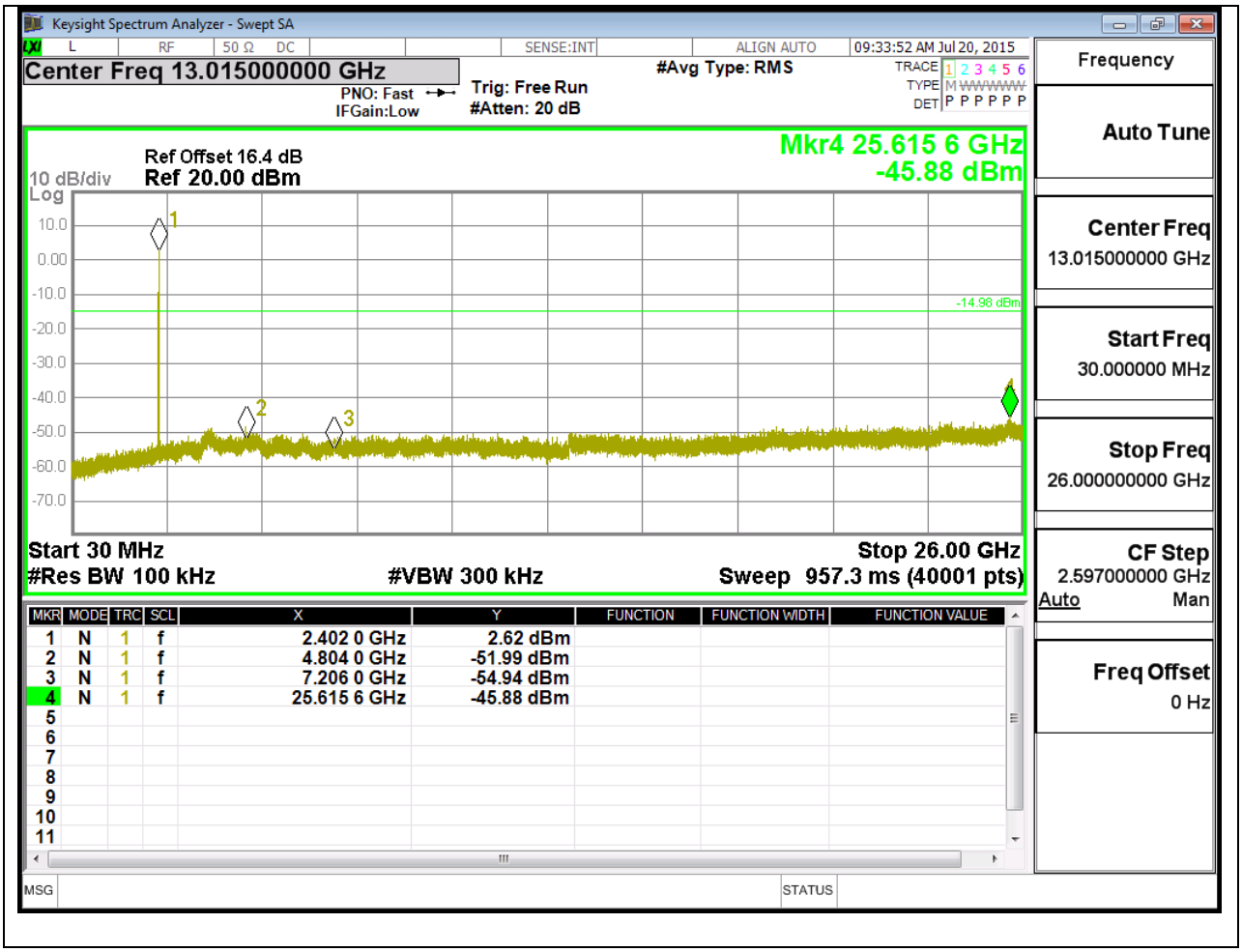
8.7.2. ENHANCED DATA RATE 8PSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

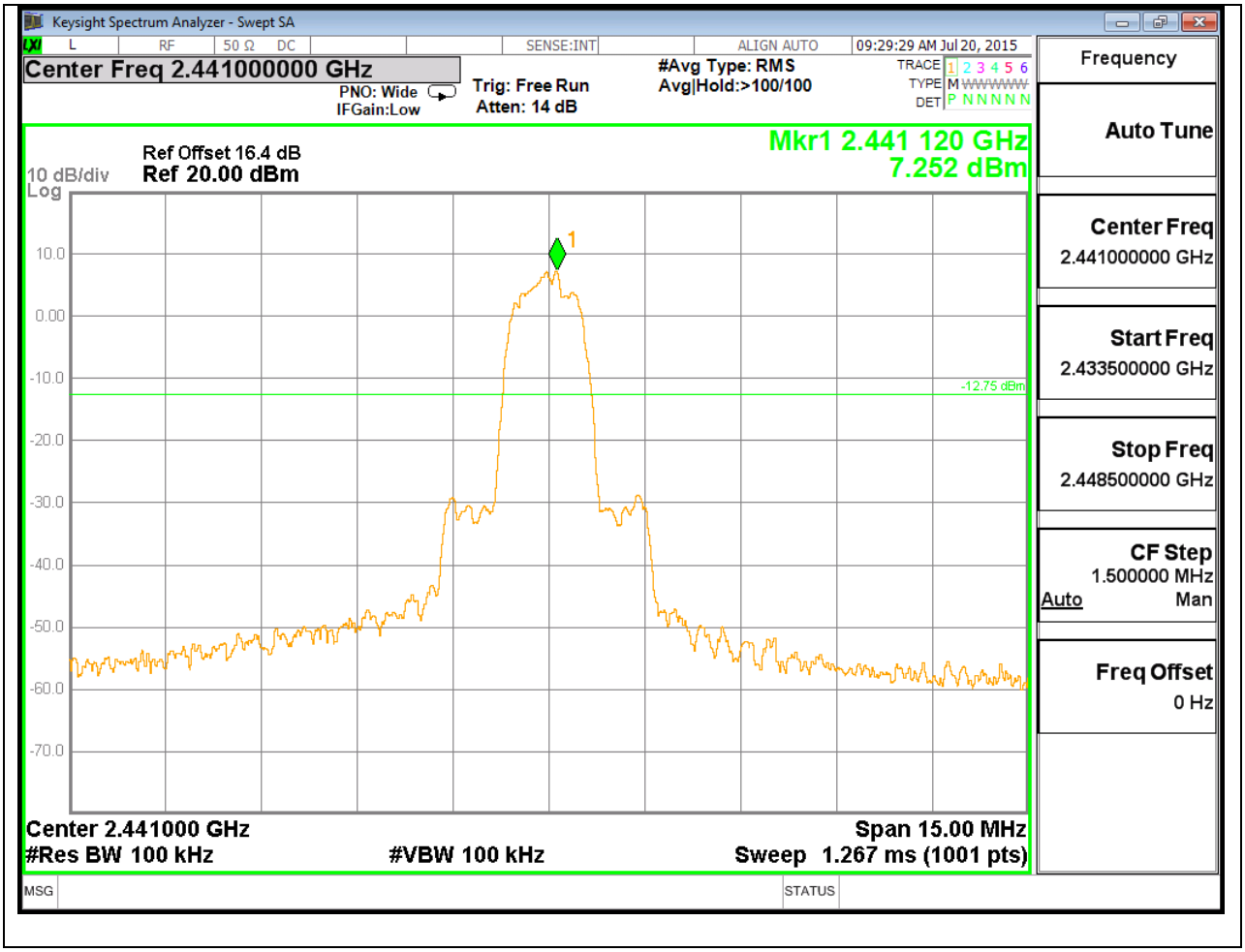


LOW CHANNEL SPURIOUS

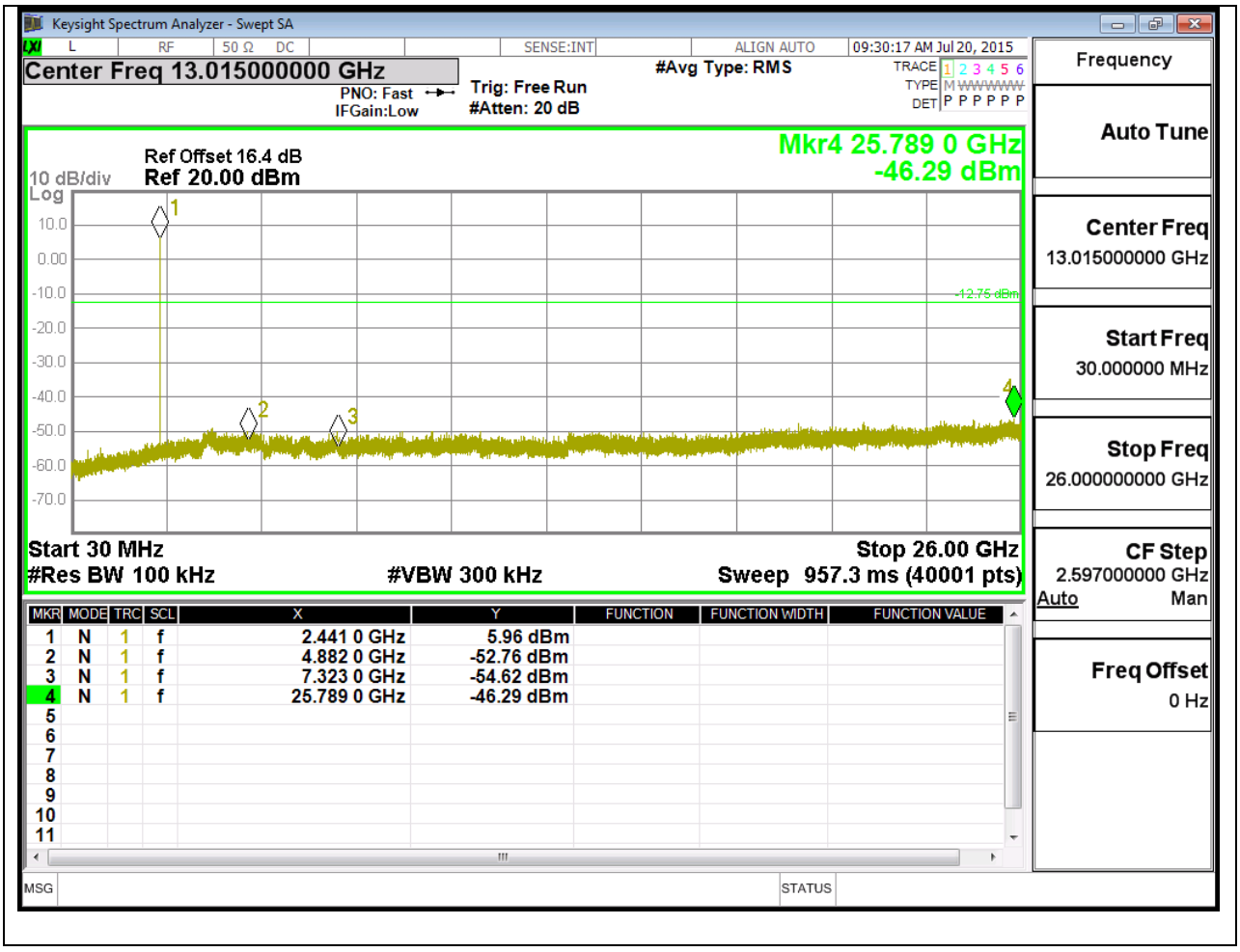


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

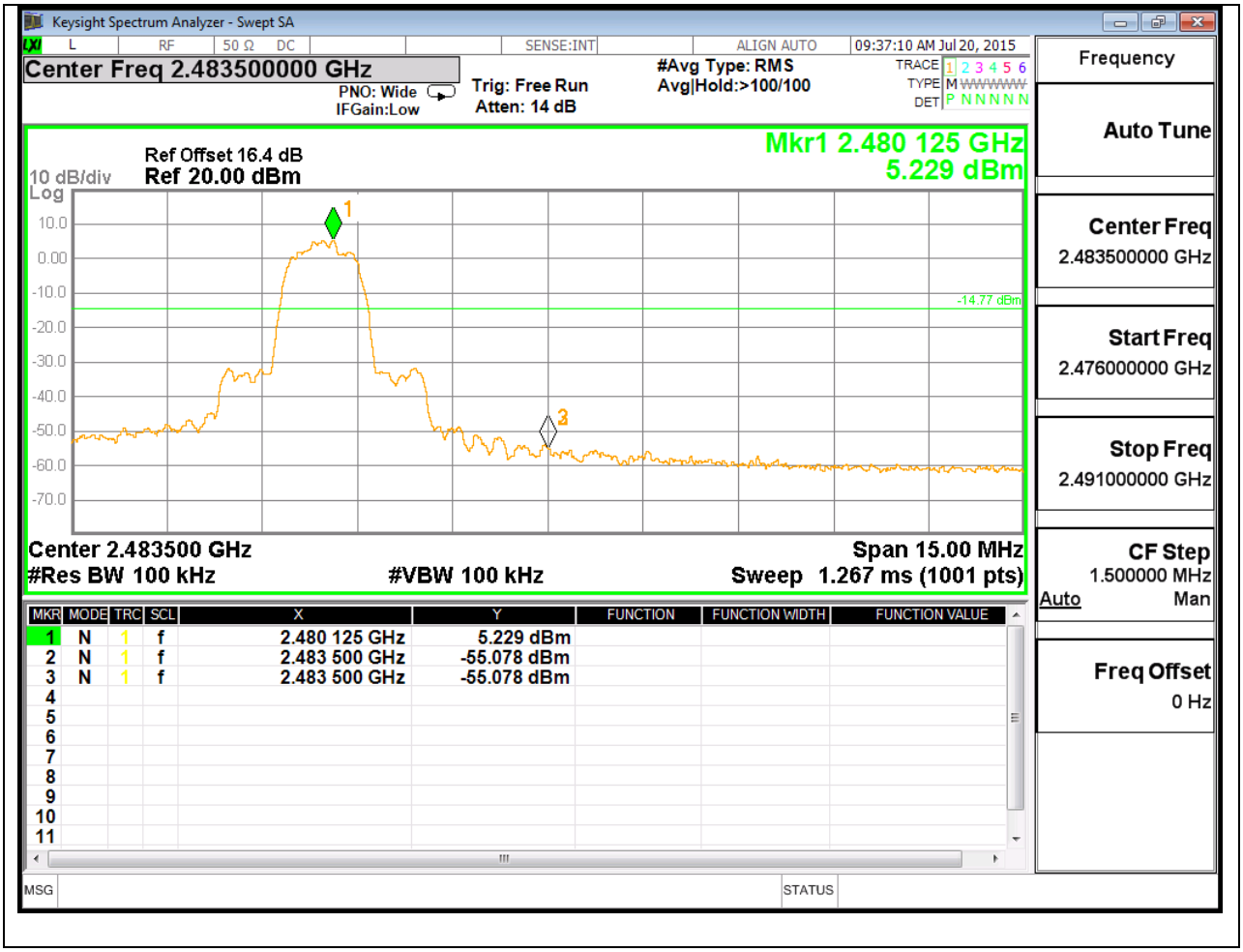


MID CHANNEL SPURIOUS

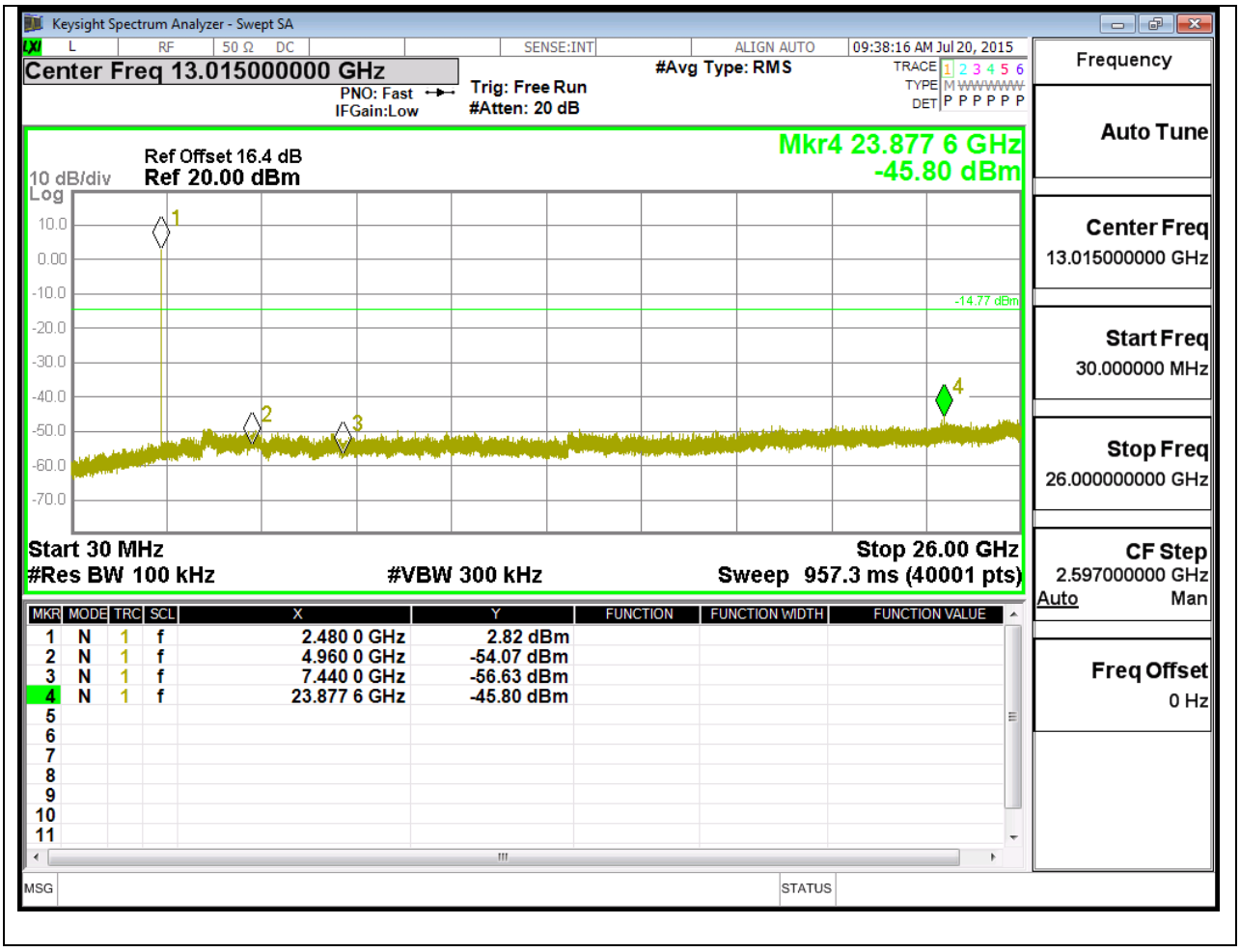


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

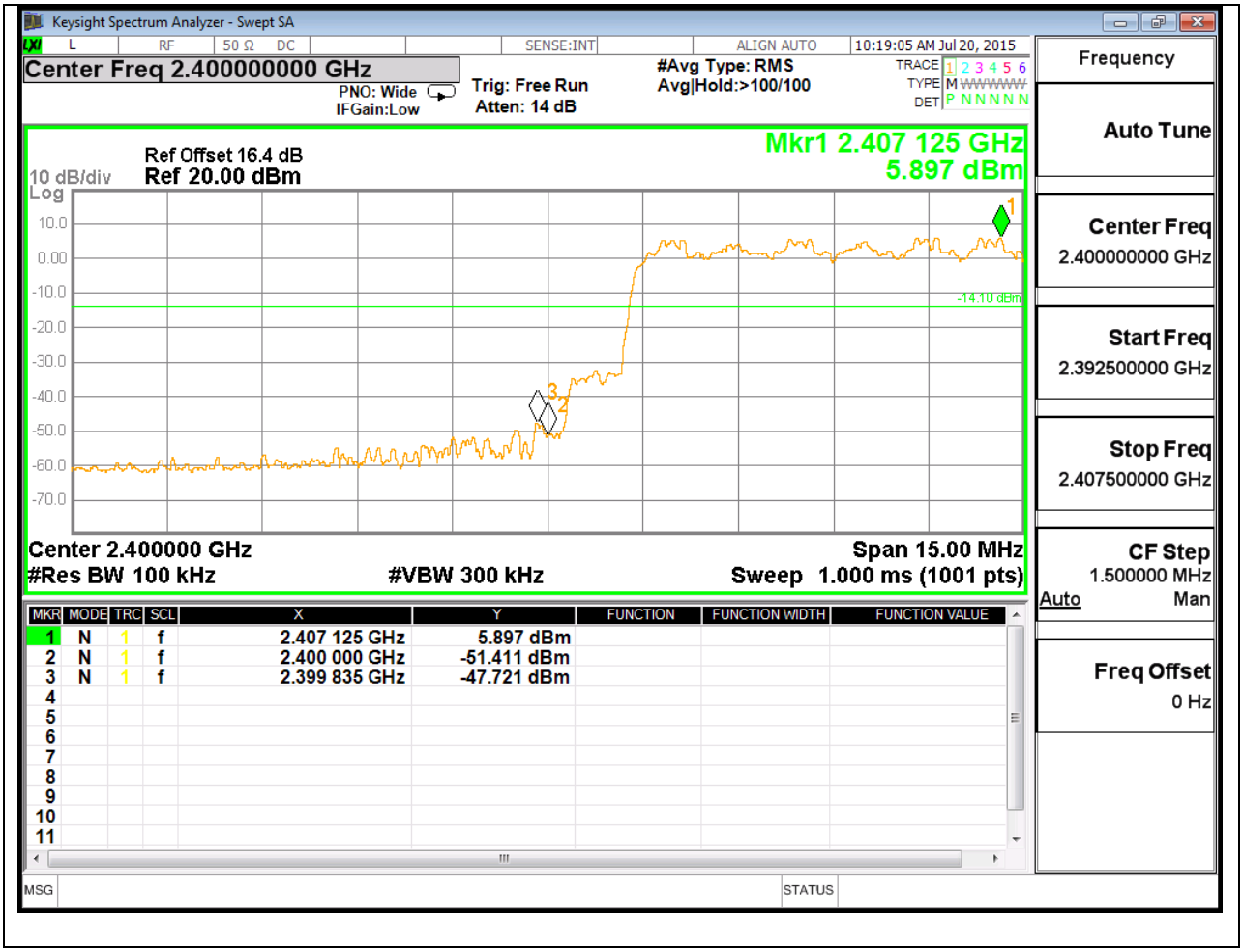


HIGH CHANNEL SPURIOUS

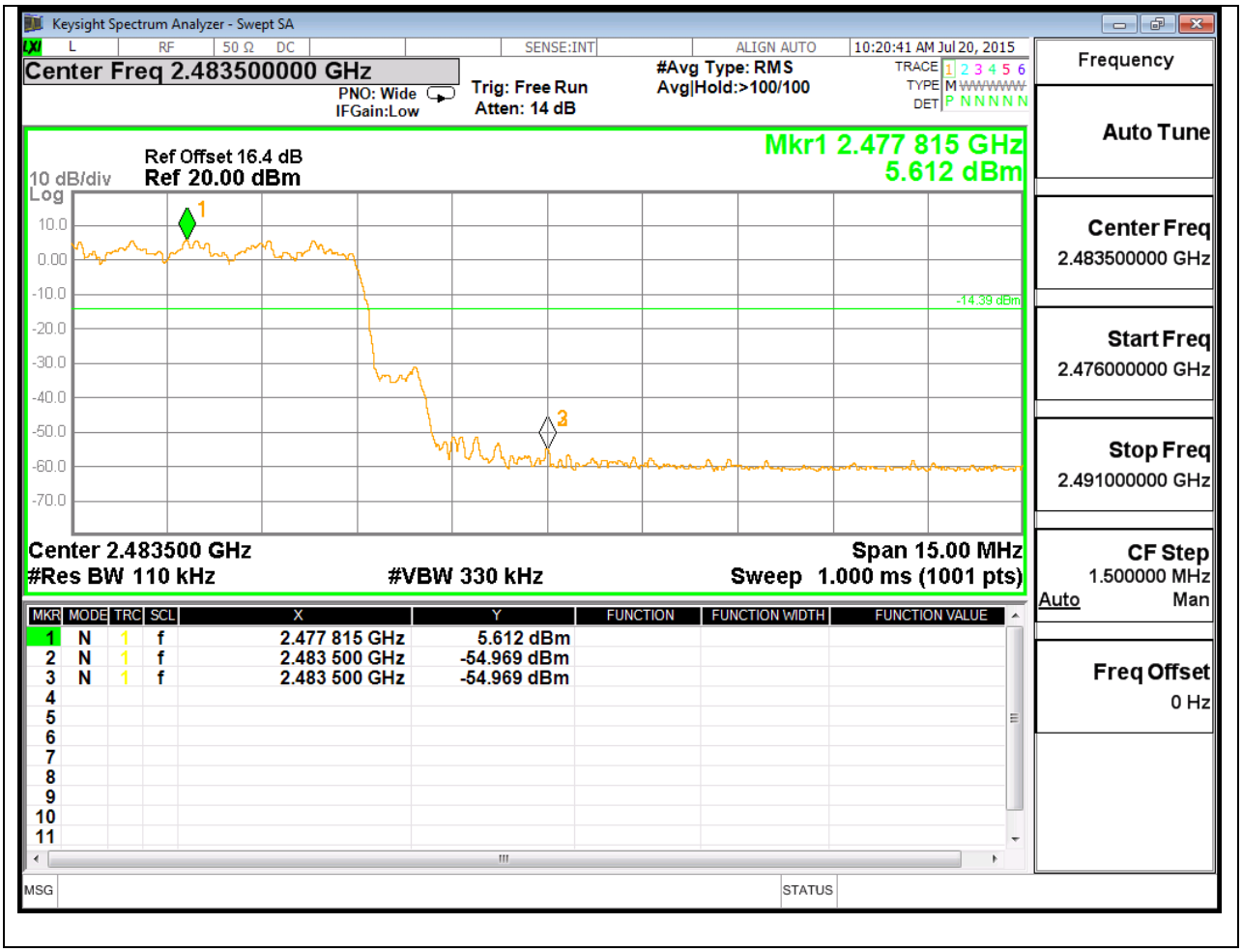


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

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
IC RSS-GEN Clause 8.9 (Transmitter)
IC RSS-GEN Clause 7 (Receiver)

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 C63.4. 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 / 0.002901S = 345Hz.

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.

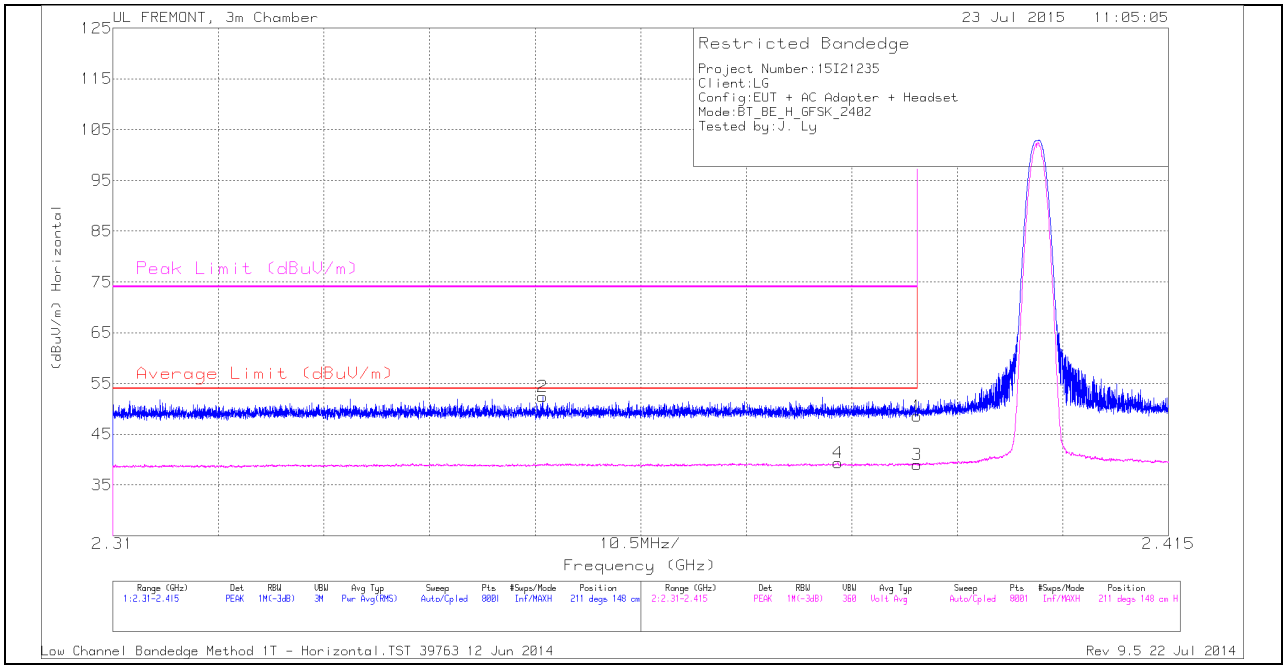
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

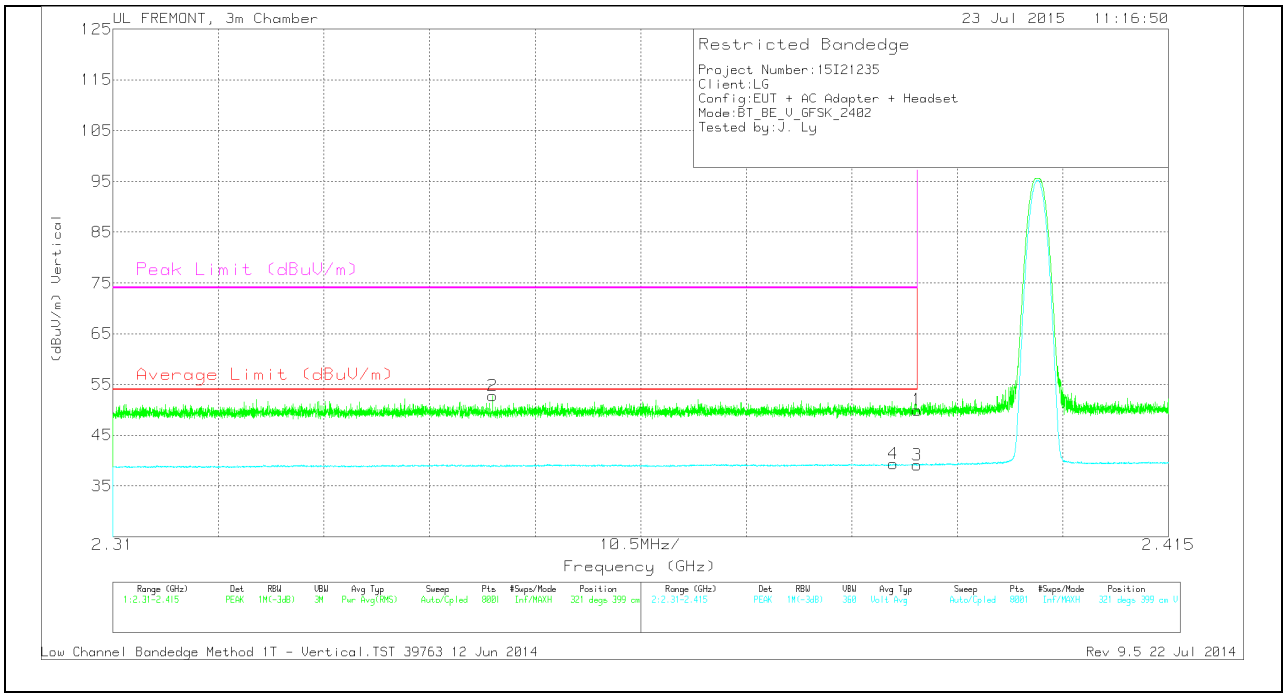


HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/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	2.353	43.01	PK	31.8	-22.4	52.41	-	-	74	-21.59	211	148	H
4	2.382	29.74	VB1T	32	-22.4	39.34	54	-14.66	-	-	211	148	H
1	2.39	38.96	PK	32	-22.4	48.56	-	-	74	-25.44	211	148	H
3	2.39	29.45	VB1T	32	-22.4	39.05	54	-14.95	-	-	211	148	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

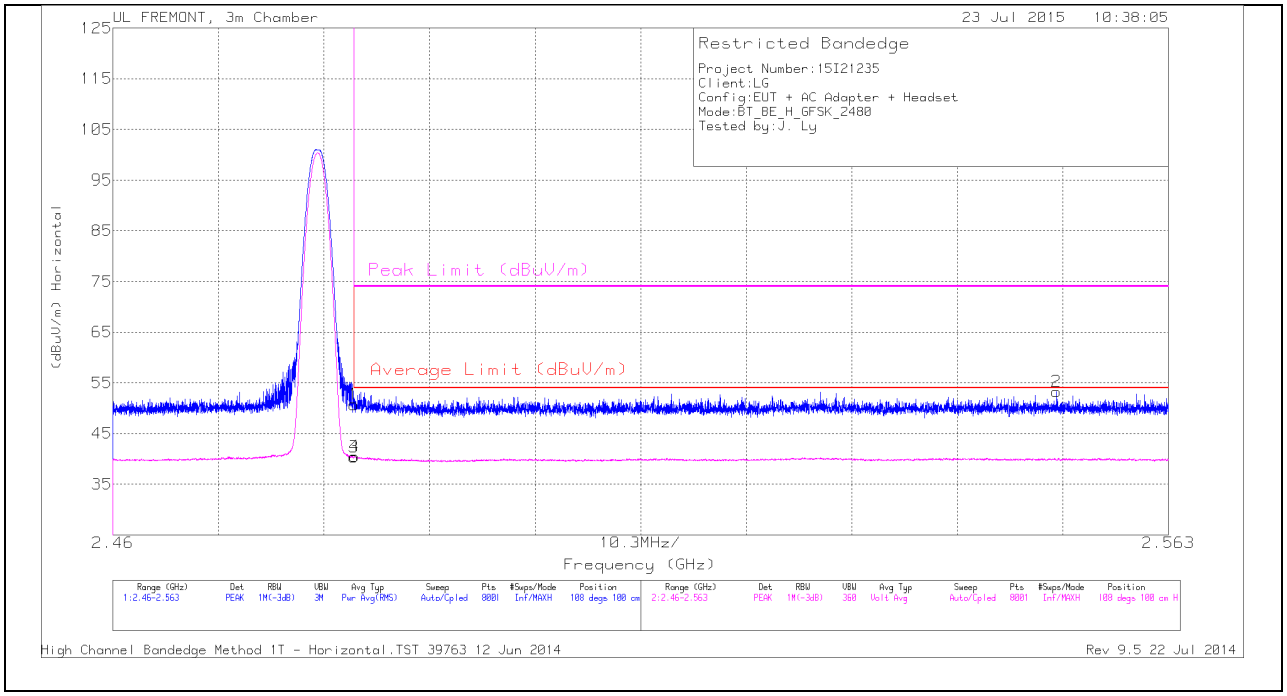
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.348	43.53	PK	31.8	-22.5	52.83	-	-	74	-21.17	321	399	V
4	2.388	29.76	VB1T	32	-22.4	39.36	54	-14.64	-	-	321	399	V
1	2.39	40.38	PK	32	-22.4	49.98	-	-	74	-24.02	321	399	V
3	2.39	29.51	VB1T	32	-22.4	39.11	54	-14.89	-	-	321	399	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



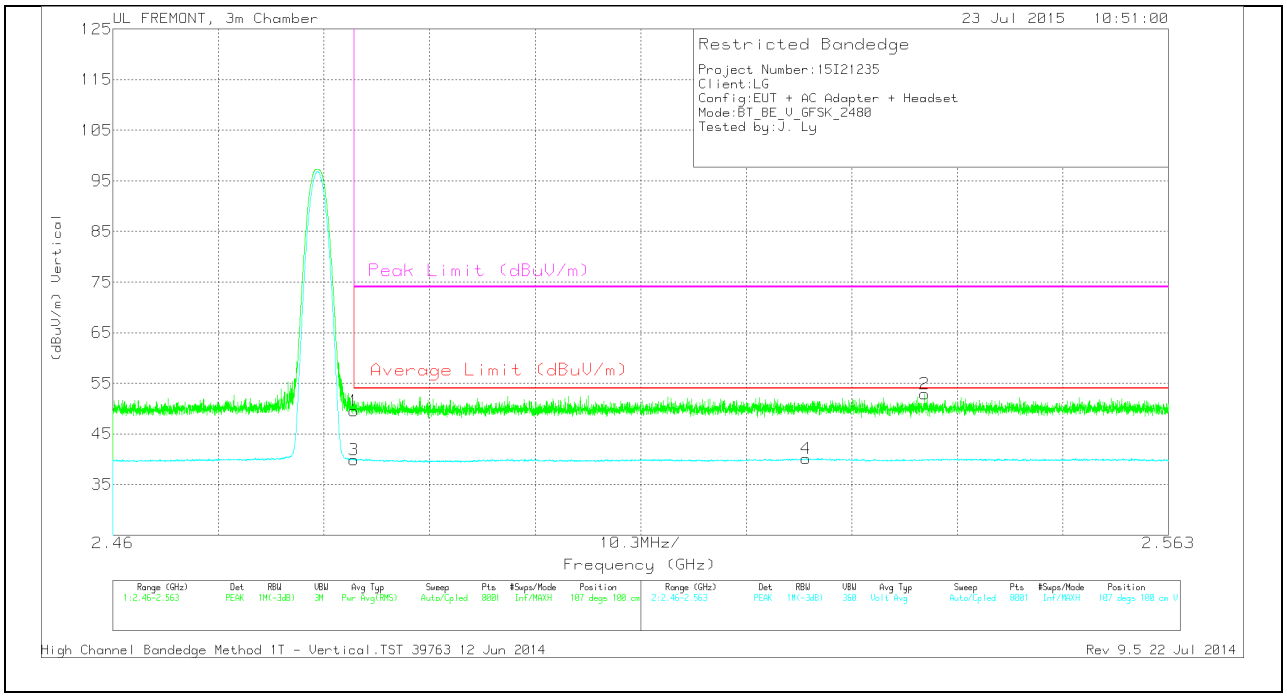
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ 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	40.53	PK	32.3	-22.1	50.73	-	-	74	-23.27	108	100	H
3	2.484	30.12	VB1T	32.3	-22.1	40.32	54	-13.68	-	-	108	100	H
4	2.484	30.25	VB1T	32.3	-22.1	40.45	54	-13.55	-	-	108	100	H
2	2.552	42.87	PK	32.4	-22	53.27	-	-	74	-20.73	108	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

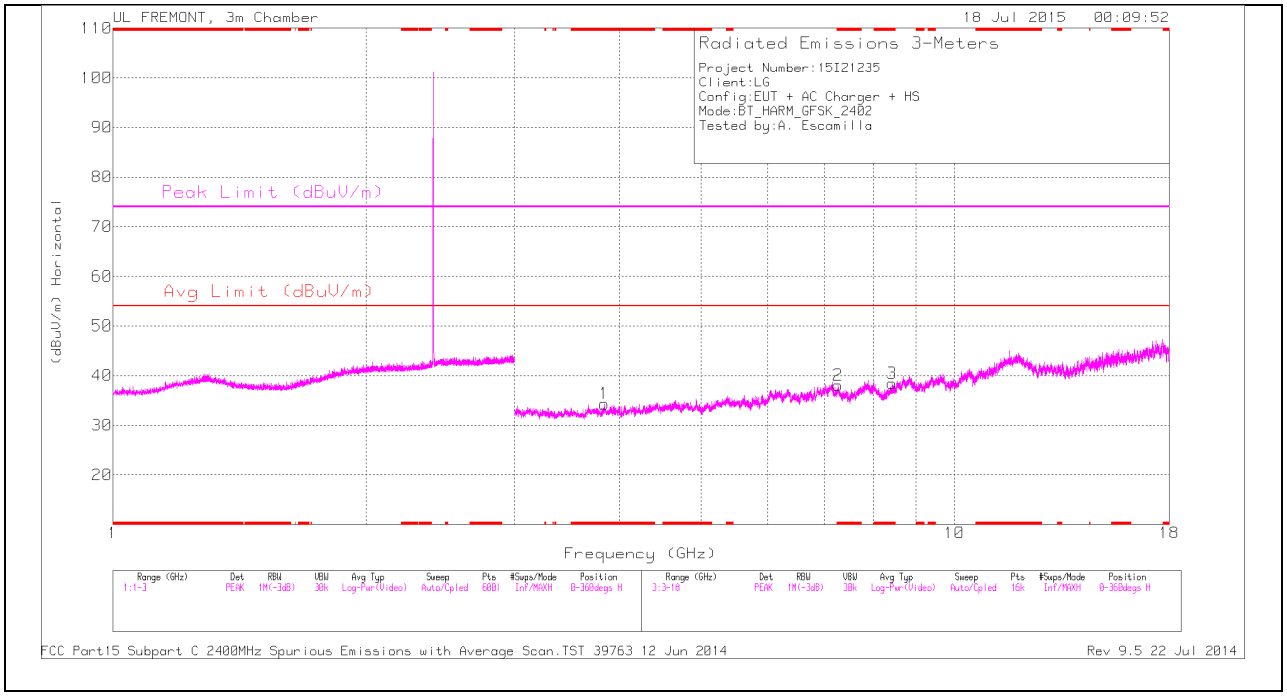
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	39.3	PK	32.3	-22.1	49.5	-	-	74	-24.5	107	100	V
3	2.484	29.71	VB1T	32.3	-22.1	39.91	54	-14.09	-	-	107	100	V
4	2.528	29.75	VB1T	32.4	-22	40.15	54	-13.85	-	-	107	100	V
2	2.539	42.54	PK	32.4	-22	52.94	-	-	74	-21.06	107	100	V

PK - Peak detector

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

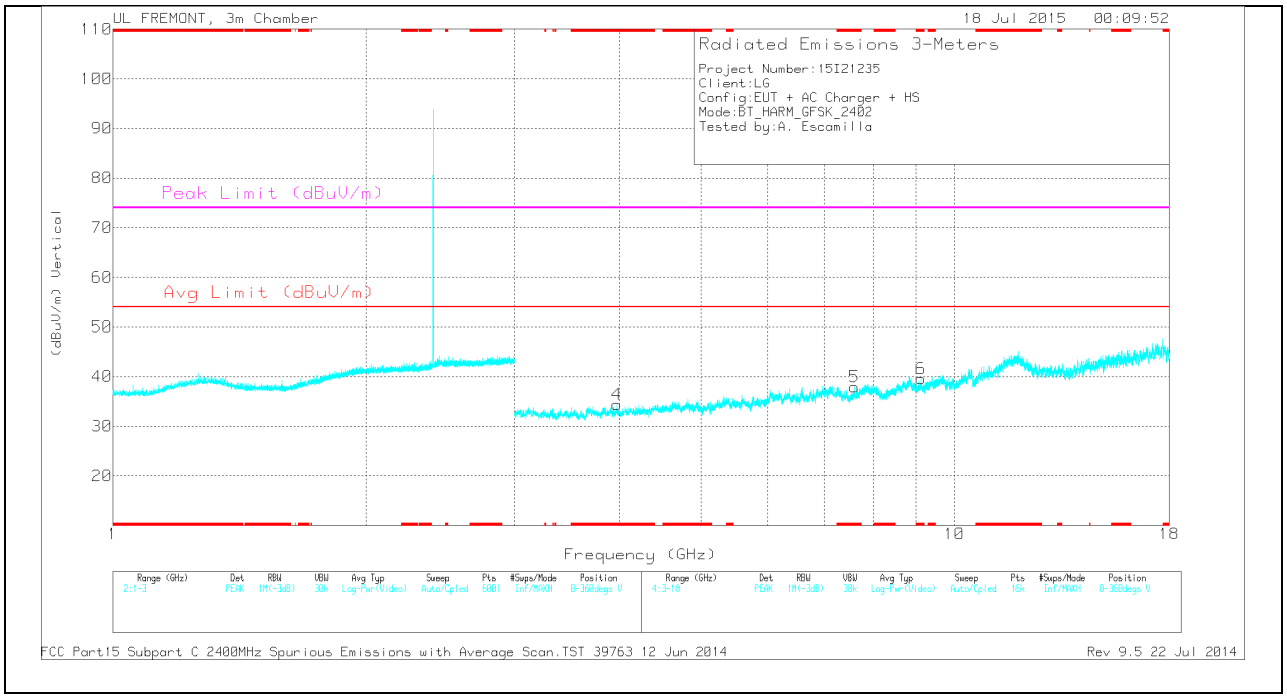
HARMONICS AND SPURIOUS EMISSIONS

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 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	* 3.838	31.52	PK	33.1	-30.3	34.32	-	-	74	-39.68	0-360	200	H
4	* 3.967	31.59	PK	33.2	-30.4	34.39	-	-	74	-39.61	0-360	200	V
2	* 7.267	30.83	PK	35.6	-28.4	38.03	-	-	74	-35.97	0-360	100	H
5	* 7.601	29.04	PK	35.7	-26.8	37.94	-	-	74	-36.06	0-360	100	V
3	* 8.428	28.73	PK	35.8	-26.1	38.43	-	-	74	-35.57	0-360	100	H
6	* 9.121	27.95	PK	36.1	-24.5	39.55	-	-	74	-34.45	0-360	200	V

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

PK - Peak detector

Radiated Emissions

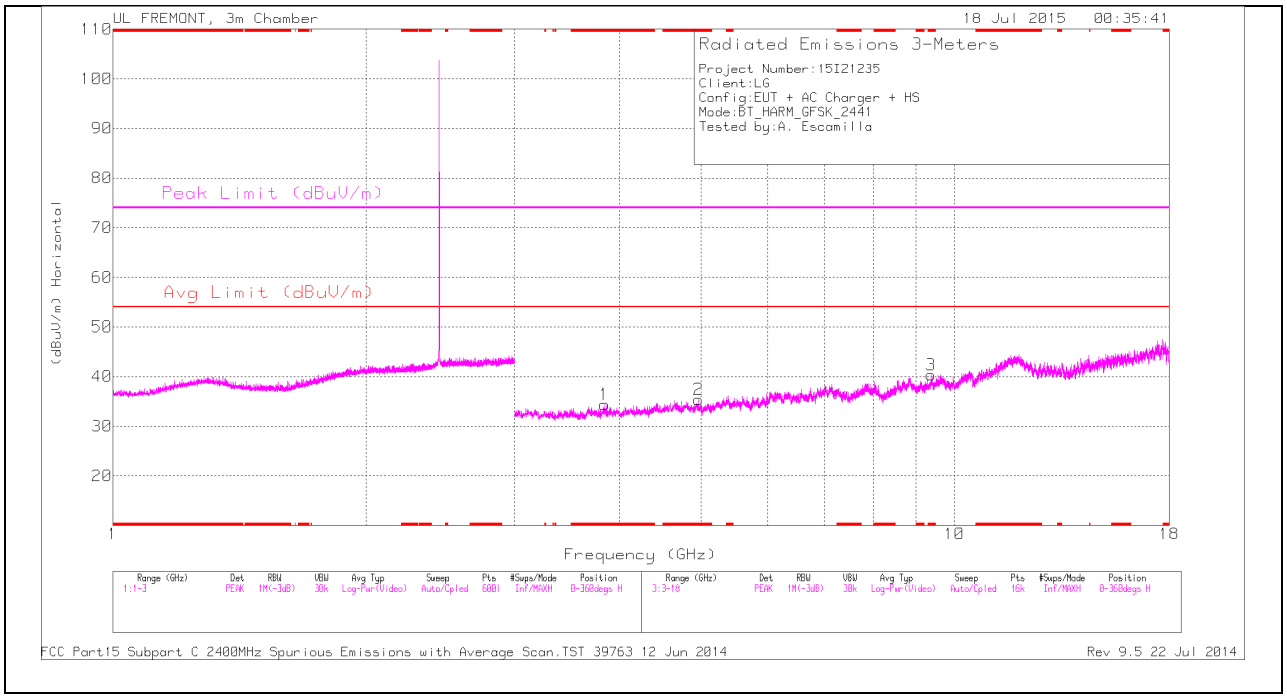
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.837	40.76	PK3	33.1	-30.3	43.56	-	-	74	-30.44	44	196	H
* 3.839	27.85	VB1T	33.1	-30.3	30.65	54	-23.35	-	-	44	196	H
* 7.268	39.75	PK3	35.6	-28.4	46.95	-	-	74	-27.05	62	143	H
* 7.269	27	VB1T	35.6	-28.4	34.2	54	-19.8	-	-	62	143	H
* 8.427	37.54	PK3	35.8	-26.1	47.24	-	-	74	-26.76	92	178	H
* 8.427	24.99	VB1T	35.8	-26.1	34.69	54	-19.31	-	-	92	178	H
* 3.969	40.59	PK3	33.2	-30.4	43.39	-	-	74	-30.61	119	227	V
* 3.968	27.84	VB1T	33.2	-30.4	30.64	54	-23.36	-	-	119	227	V
* 7.602	38.49	PK3	35.7	-26.7	47.49	-	-	74	-26.51	106	205	V
* 7.599	25.71	VB1T	35.7	-26.8	34.61	54	-19.39	-	-	106	205	V
* 9.12	37.64	PK3	36.1	-24.5	49.24	-	-	74	-24.76	87	172	V
* 9.12	24.54	VB1T	36.1	-24.5	36.14	54	-17.86	-	-	87	172	V

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

PK3 - FHSS Method: Maximum Peak

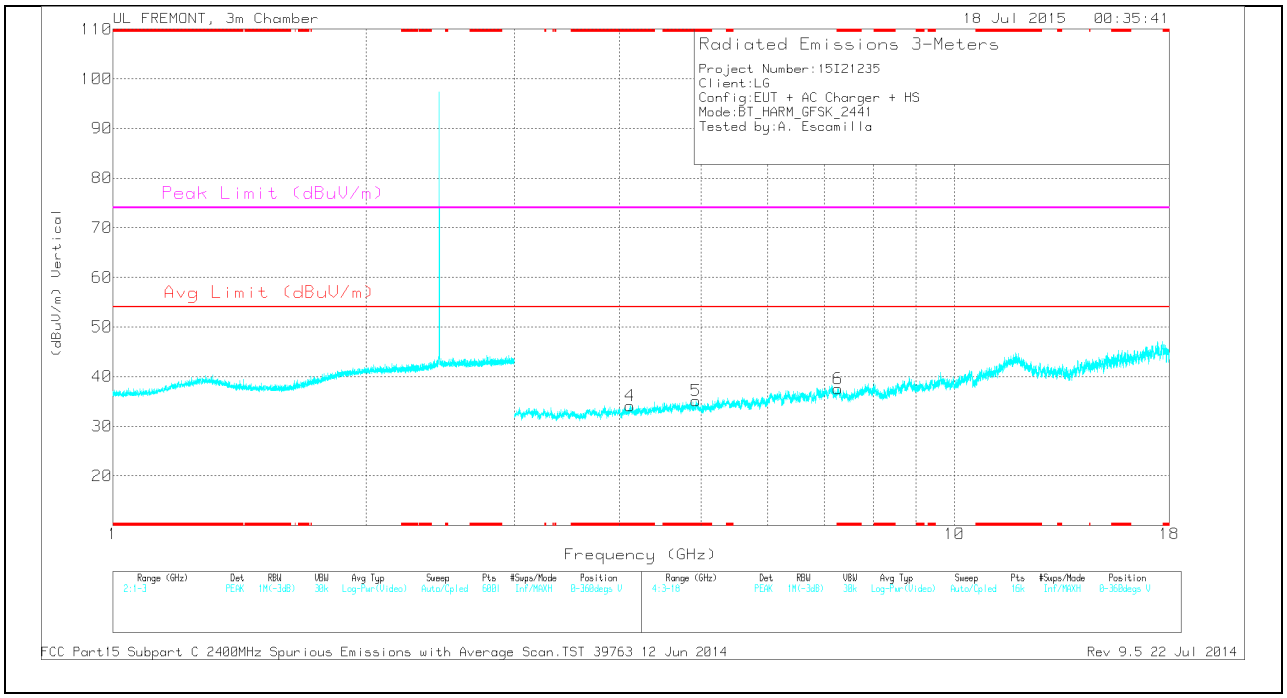
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

MID CHANNEL 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 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	* 3.839	31.54	PK	33.1	-30.3	34.34	-	-	74	-39.66	0-360	200	H
2	* 4.965	31.91	PK	34	-30.5	35.41	-	-	74	-38.59	0-360	200	H
3	* 9.382	28.22	PK	36.4	-24.3	40.32	-	-	74	-33.68	0-360	100	H
4	* 4.116	31.25	PK	33.3	-30.4	34.15	-	-	74	-39.85	0-360	200	V
5	* 4.926	30.8	PK	34	-29.6	35.2	-	-	74	-38.8	0-360	200	V
6	* 7.267	30.41	PK	35.6	-28.4	37.61	-	-	74	-36.39	0-360	100	V

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

PK - Peak detector

Radiated Emissions

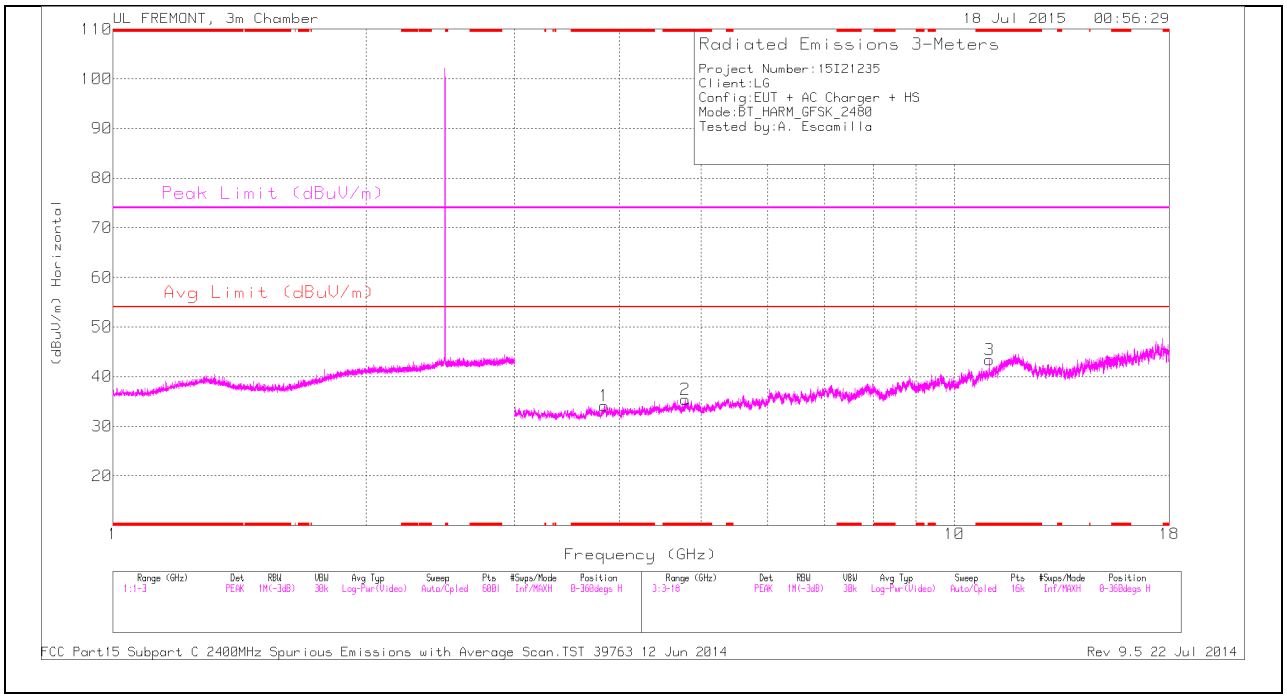
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.838	40.5	PK3	33.1	-30.3	43.3	-	-	74	-30.7	36	197	H
* 3.84	27.9	VB1T	33.1	-30.3	30.7	54	-23.3	-	-	36	197	H
* 4.966	40.52	PK3	34	-30.5	44.02	-	-	74	-29.98	21	215	H
* 4.963	27.8	VB1T	34	-30.4	31.4	54	-22.6	-	-	21	215	H
* 9.384	36.11	PK3	36.4	-24.3	48.21	-	-	74	-25.79	63	187	H
* 9.381	23.96	VB1T	36.4	-24.3	36.06	54	-17.94	-	-	63	187	H
* 4.115	40.91	PK3	33.3	-30.4	43.81	-	-	74	-30.19	116	232	V
* 4.115	27.97	VB1T	33.3	-30.4	30.87	54	-23.13	-	-	116	232	V
* 4.928	40.21	PK3	34	-29.6	44.61	-	-	74	-29.39	146	189	V
* 4.925	27.41	VB1T	34	-29.6	31.81	54	-22.19	-	-	146	189	V
* 7.269	39.83	PK3	35.6	-28.4	47.03	-	-	74	-26.97	124	171	V
* 7.269	27.02	VB1T	35.6	-28.4	34.22	54	-19.78	-	-	124	171	V

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

PK3 - FHSS Method: Maximum Peak

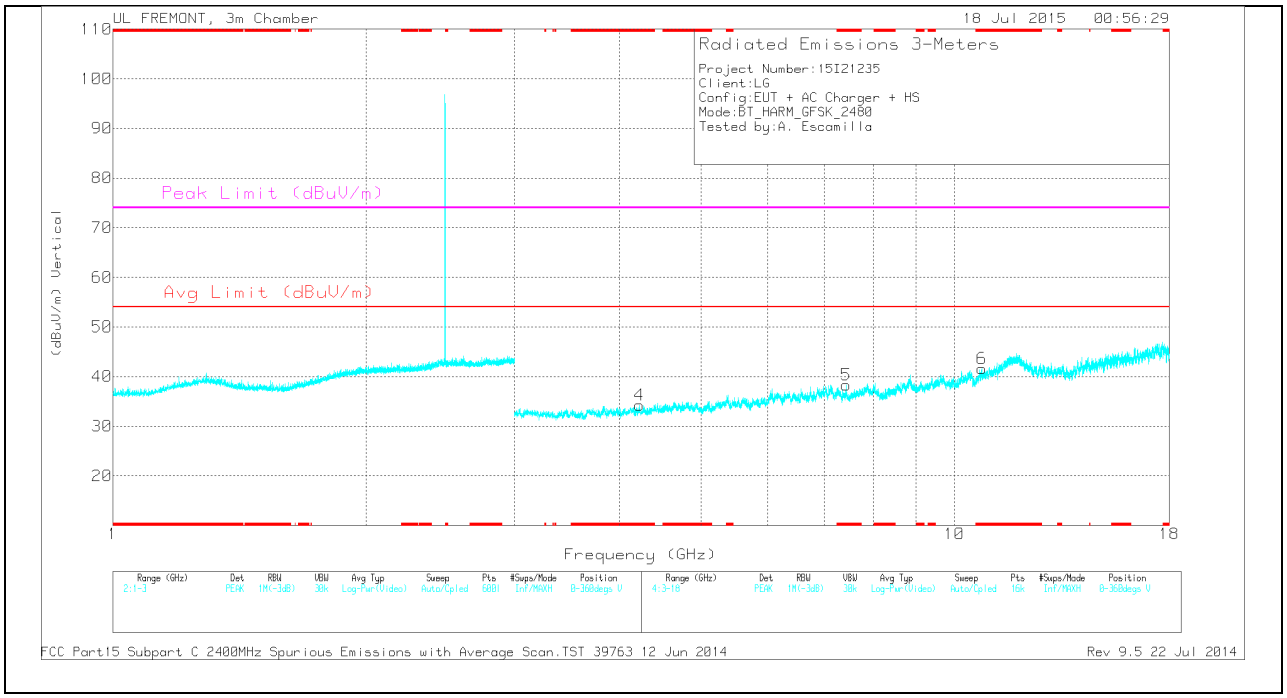
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

HIGH CHANNEL 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 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	* 3.838	31.38	PK	33.1	-30.3	34.18	-	-	74	-39.82	0-360	100	H
2	* 4.785	31.17	PK	34	-29.8	35.37	-	-	74	-38.63	0-360	100	H
3	* 11.009	28.7	PK	37.9	-23.2	43.4	-	-	74	-30.6	0-360	200	H
4	* 4.223	30.85	PK	33.4	-30	34.25	-	-	74	-39.75	0-360	100	V
5	* 7.44	30.09	PK	35.7	-27.5	38.29	-	-	74	-35.71	0-360	100	V
6	* 10.783	27.38	PK	37.9	-23.7	41.58	-	-	74	-32.42	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 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
* 3.84	40.66	PK3	33.1	-30.3	43.46	-	-	74	-30.54	3	238	H
* 3.839	27.92	VB1T	33.1	-30.3	30.72	54	-23.28	-	-	3	238	H
* 4.783	40.38	PK3	34	-29.9	44.48	-	-	74	-29.52	30	205	H
* 4.783	27.43	VB1T	34	-29.9	31.53	54	-22.47	-	-	30	205	H
* 11.008	36.64	PK3	37.9	-23.1	51.44	-	-	74	-22.56	52	200	H
* 11.008	23.77	VB1T	37.9	-23.2	38.47	54	-15.53	-	-	52	200	H
* 4.224	40.01	PK3	33.4	-30	43.41	-	-	74	-30.59	81	168	V
* 4.224	27.23	VB1T	33.4	-30	30.63	54	-23.37	-	-	81	168	V
* 7.44	39.03	PK3	35.7	-27.6	47.13	-	-	74	-26.87	231	142	V
* 7.44	26.5	VB1T	35.7	-27.6	34.6	54	-19.4	-	-	231	142	V
* 10.781	36.37	PK3	37.9	-23.6	50.67	-	-	74	-23.33	260	189	V
* 10.782	23.73	VB1T	37.9	-23.7	37.93	54	-16.07	-	-	260	189	V

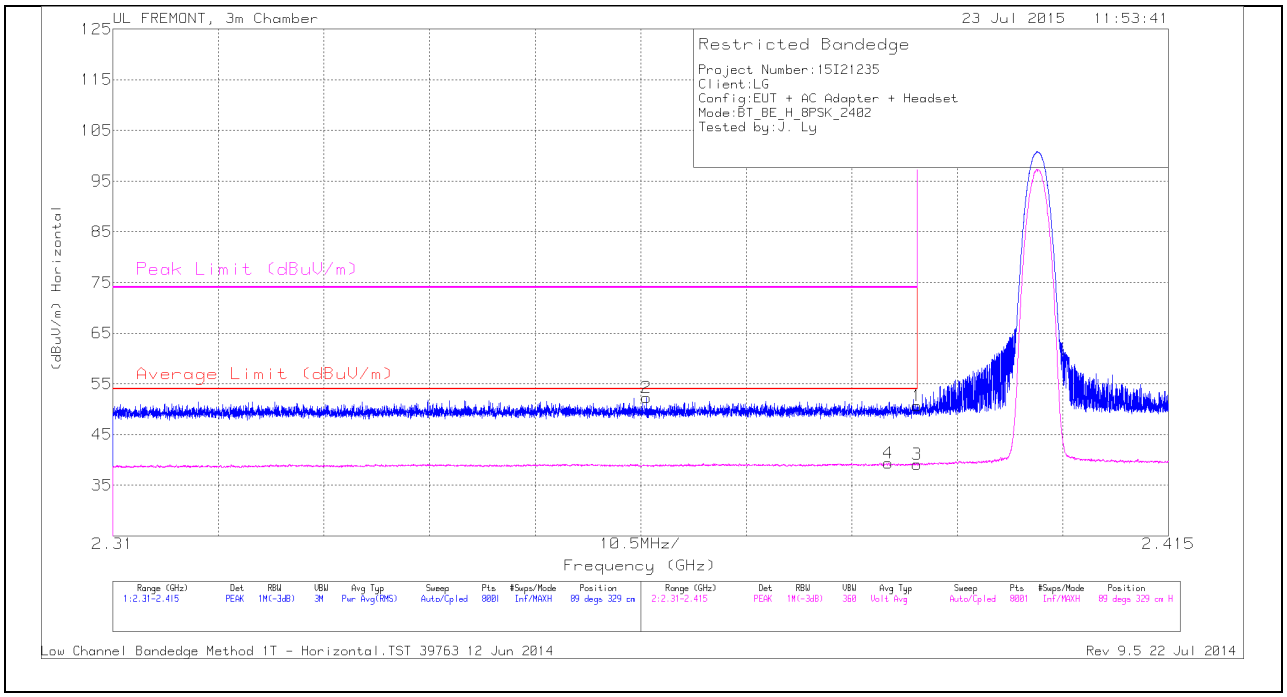
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

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

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

HORIZONTAL PEAK AND AVERAGE PLOT



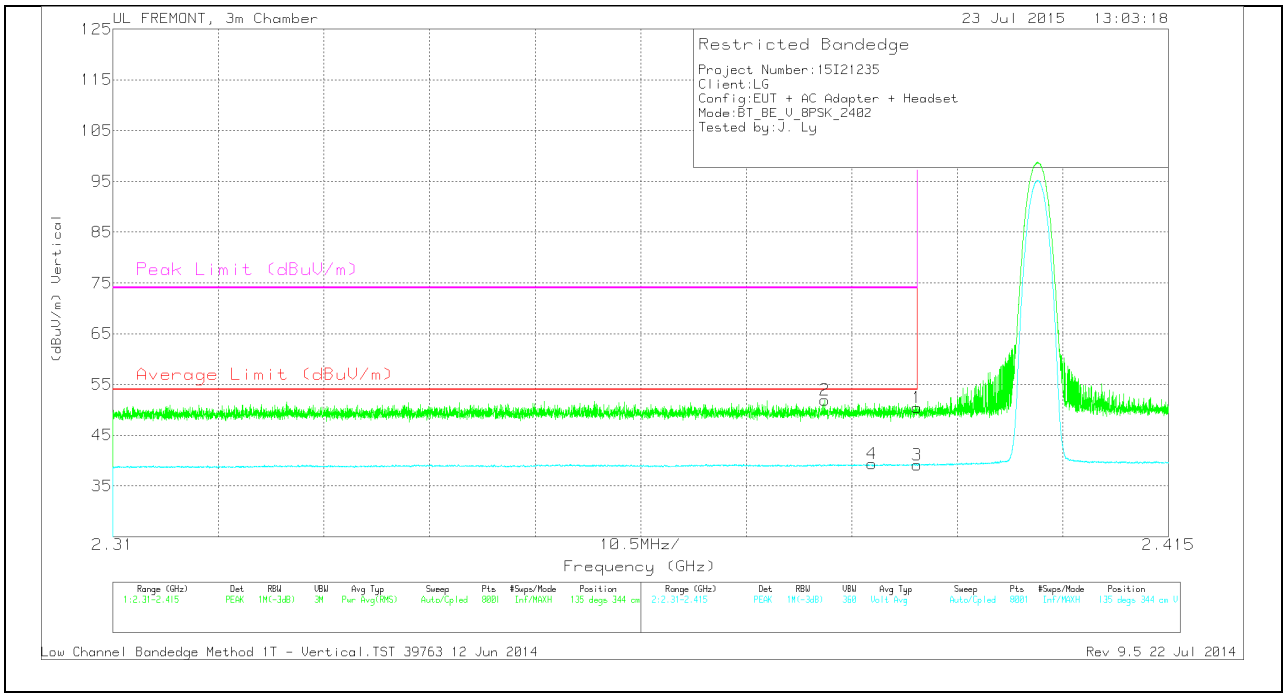
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ 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	2.363	42.84	PK	31.9	-22.5	52.24	-	-	74	-21.76	89	329	H
4	2.387	29.76	VB1T	32	-22.4	39.36	54	-14.64	-	-	89	329	H
1	2.39	41.08	PK	32	-22.4	50.68	-	-	74	-23.32	89	329	H
3	2.39	29.5	VB1T	32	-22.4	39.1	54	-14.9	-	-	89	329	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

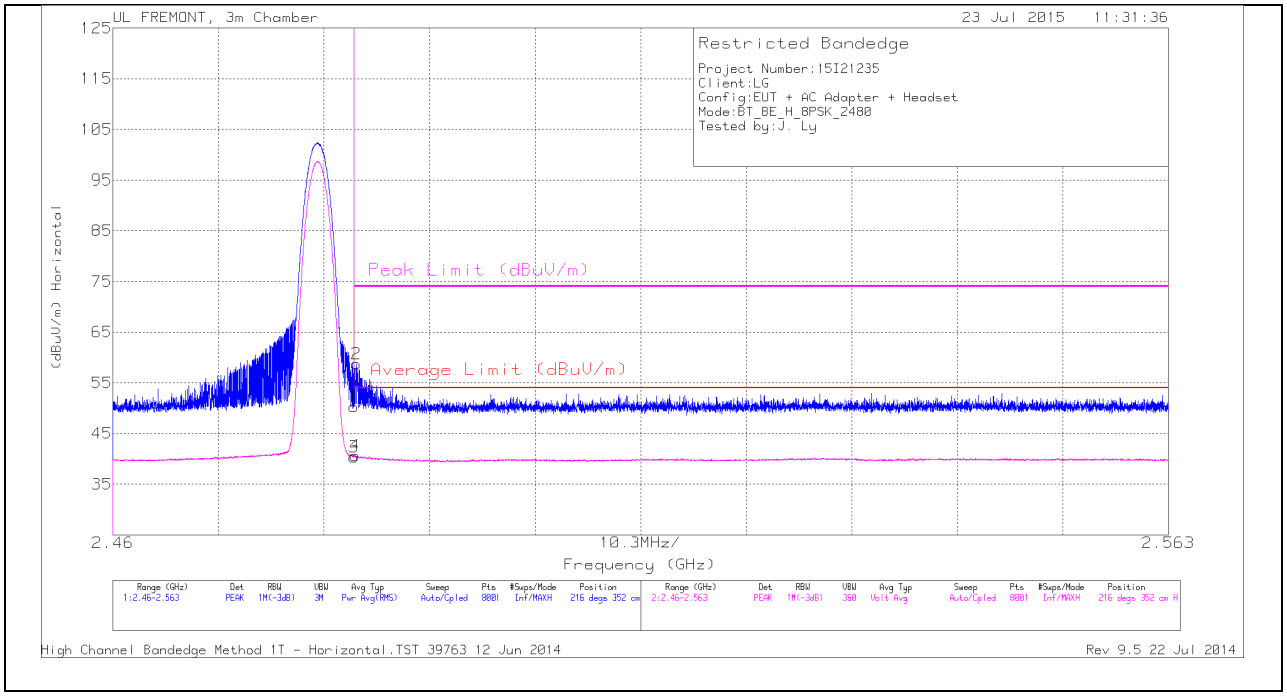
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.381	42.42	PK	31.9	-22.4	51.92	-	-	74	-22.08	135	344	V
4	2.386	29.76	VB1T	32	-22.4	39.36	54	-14.64	-	-	135	344	V
1	2.39	40.87	PK	32	-22.4	50.47	-	-	74	-23.53	135	344	V
3	2.39	29.56	VB1T	32	-22.4	39.16	54	-14.84	-	-	135	344	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



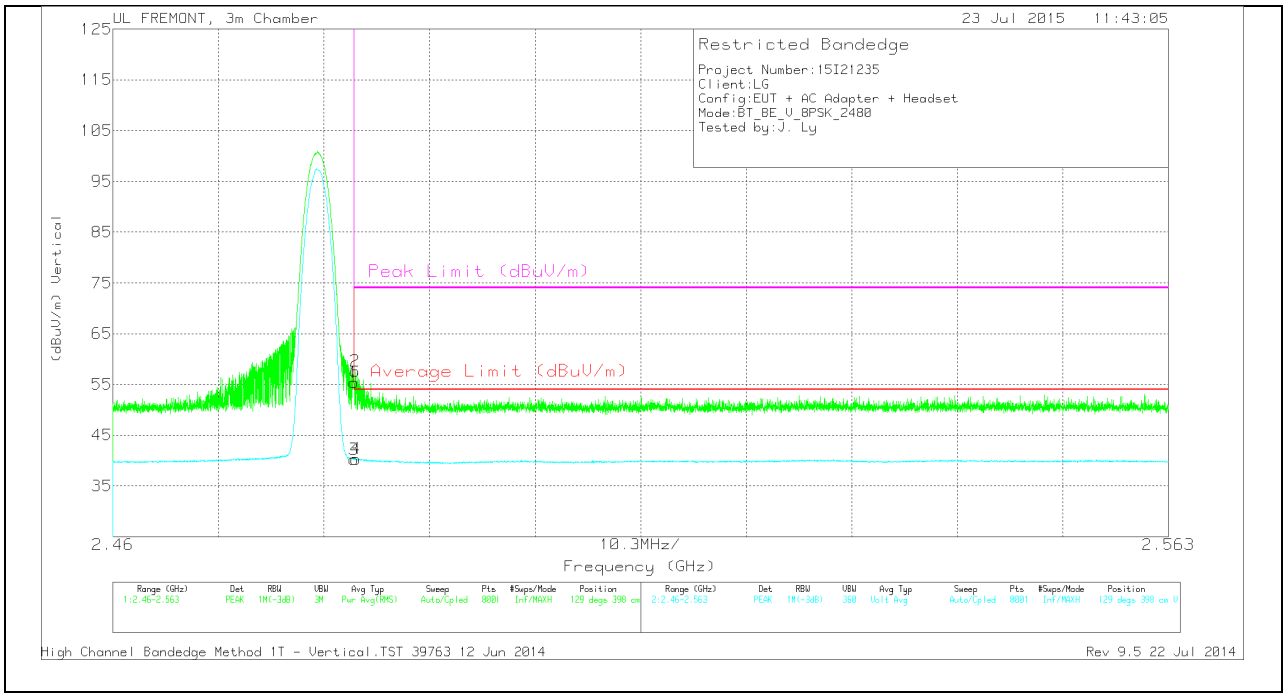
HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ 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	40.04	PK	32.3	-22.1	50.24	-	-	74	-23.76	216	352	H
2	2.484	48.49	PK	32.3	-22.1	58.69	-	-	74	-15.31	216	352	H
3	2.484	30.21	VB1T	32.3	-22.1	40.41	54	-13.59	-	-	216	352	H
4	2.484	30.44	VB1T	32.3	-22.1	40.64	54	-13.36	-	-	216	352	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

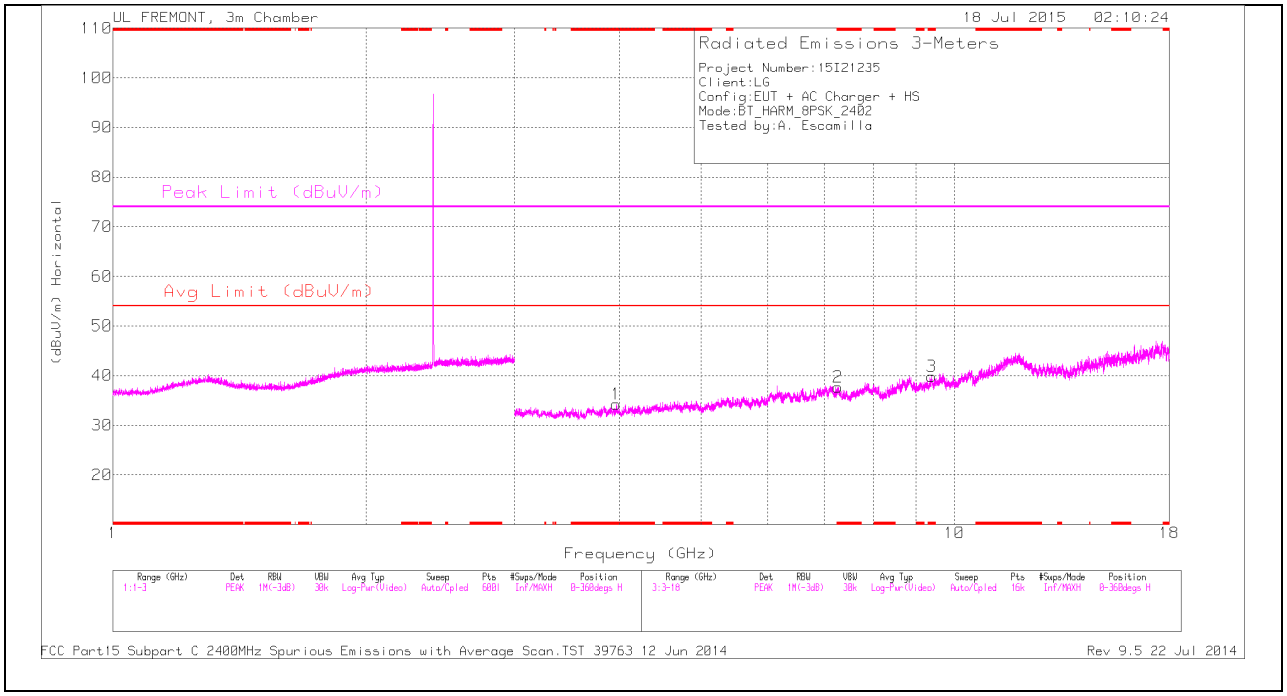
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	45.23	PK	32.3	-22.1	55.43	-	-	74	-18.57	129	398	V
2	2.484	47.44	PK	32.3	-22.1	57.64	-	-	74	-16.36	129	398	V
3	2.484	30.06	VB1T	32.3	-22.1	40.26	54	-13.74	-	-	129	398	V
4	2.484	30.1	VB1T	32.3	-22.1	40.3	54	-13.7	-	-	129	398	V

PK - Peak detector

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

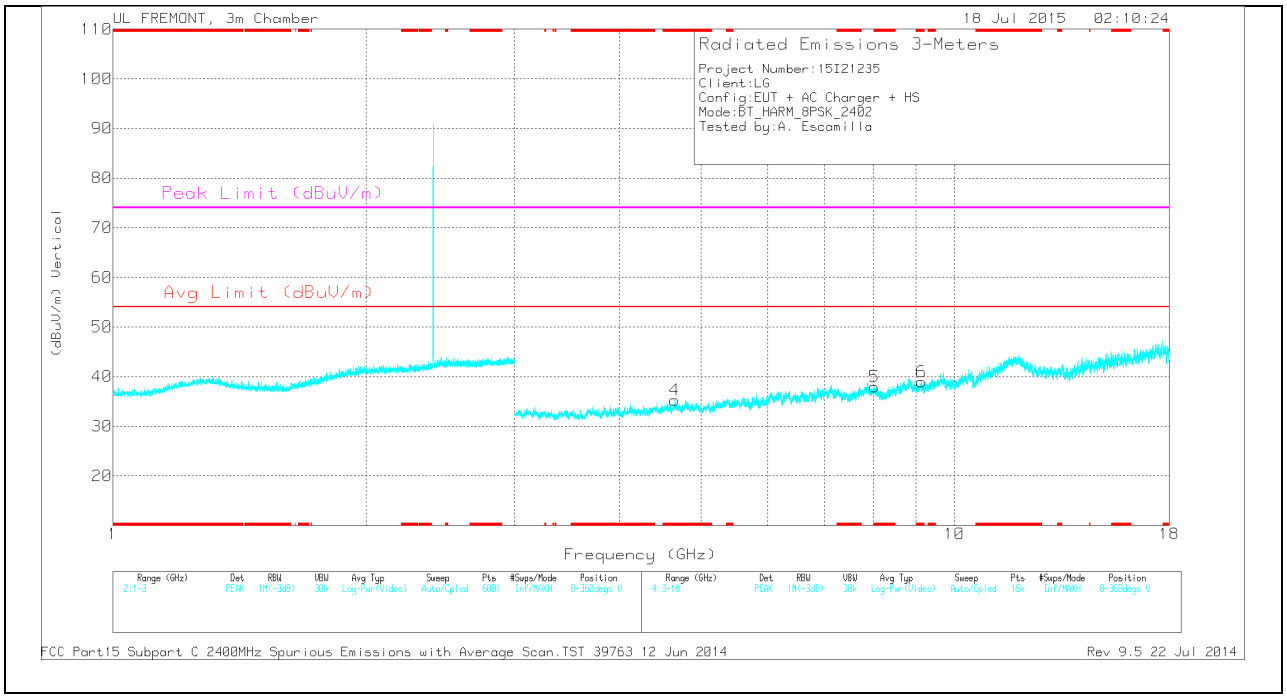
HARMONICS AND SPURIOUS EMISSIONS

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 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	* 3.965	31.43	PK	33.2	-30.4	34.23	-	-	74	-39.77	0-360	100	H
2	* 7.278	30.34	PK	35.6	-28.3	37.64	-	-	74	-36.36	0-360	200	H
3	* 9.392	27.56	PK	36.4	-24.1	39.86	-	-	74	-34.14	0-360	100	H
4	* 4.653	31.24	PK	34	-30	35.24	-	-	74	-38.76	0-360	200	V
5	* 8.037	29.29	PK	35.7	-27	37.99	-	-	74	-36.01	0-360	100	V
6	* 9.144	27.42	PK	36.2	-24.7	38.92	-	-	74	-35.08	0-360	100	V

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

PK - Peak detector

Radiated Emissions

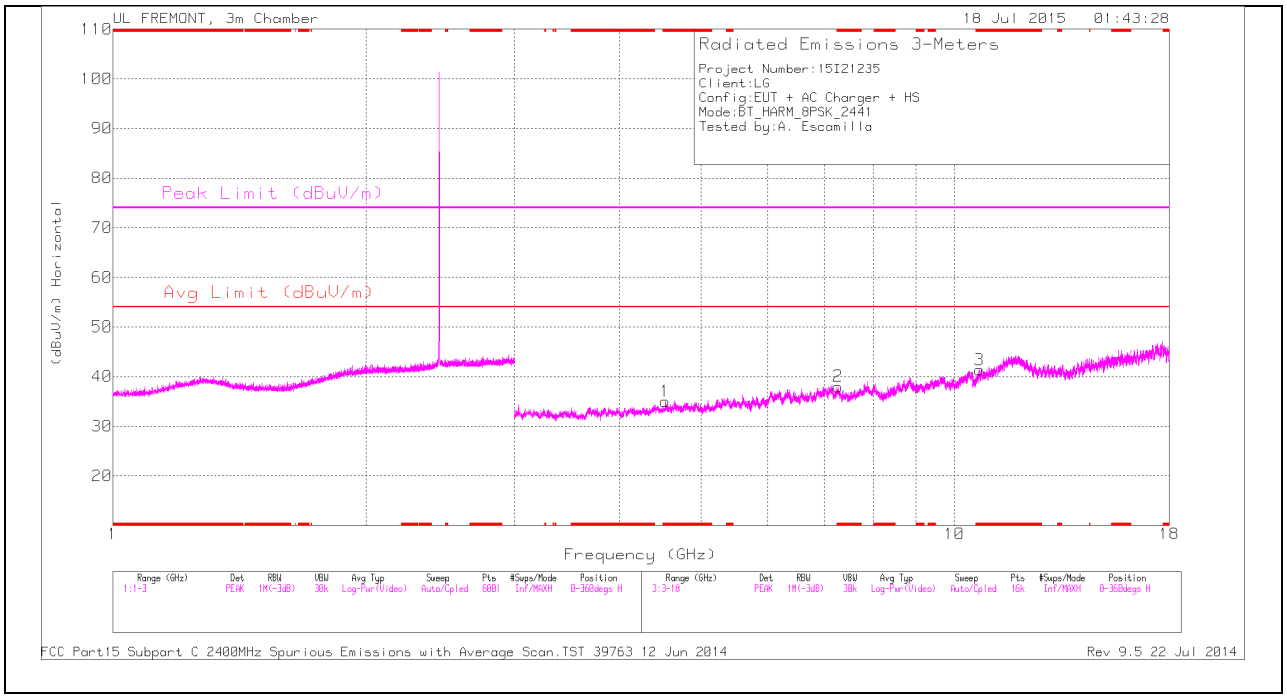
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.965	40.09	PK3	33.2	-30.4	42.89	-	-	74	-31.11	317	196	H
* 3.966	27.66	VB1T	33.2	-30.4	30.46	54	-23.54	-	-	317	196	H
* 7.278	40	PK3	35.6	-28.3	47.3	-	-	74	-26.7	275	221	H
* 7.279	26.73	VB1T	35.6	-28.3	34.03	54	-19.97	-	-	275	221	H
* 9.391	36.59	PK3	36.4	-24.1	48.89	-	-	74	-25.11	222	186	H
* 9.39	23.8	VB1T	36.4	-24.1	36.1	54	-17.9	-	-	222	186	H
* 4.653	40.86	PK3	34	-30	44.86	-	-	74	-29.14	148	219	V
* 4.654	27.73	VB1T	34	-30	31.73	54	-22.27	-	-	148	219	V
* 8.039	37.72	PK3	35.7	-26.9	46.52	-	-	74	-27.48	94	141	V
* 8.039	25.53	VB1T	35.7	-26.9	34.33	54	-19.67	-	-	94	141	V
* 9.143	36.6	PK3	36.2	-24.7	48.1	-	-	74	-25.9	77	171	V
* 9.142	24.26	VB1T	36.2	-24.7	35.76	54	-18.24	-	-	77	171	V

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

PK3 - FHSS Method: Maximum Peak

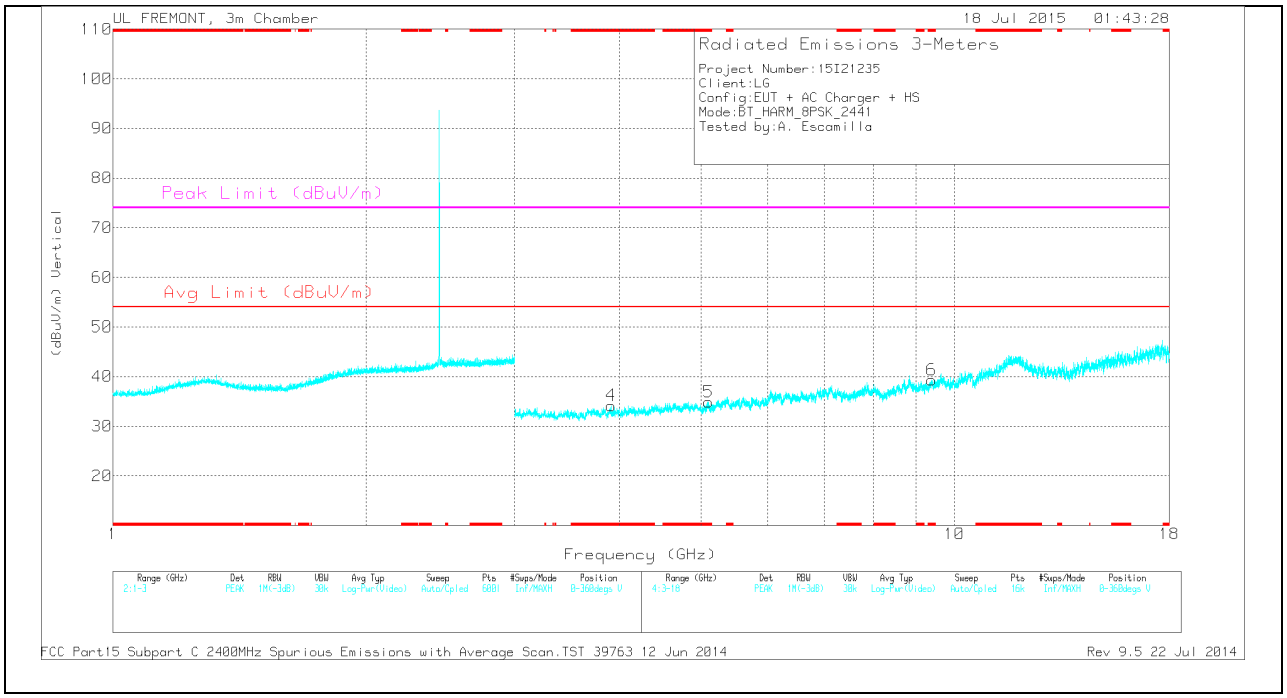
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

MID CHANNEL 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 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	* 4.532	31.96	PK	33.8	-30.7	35.06	-	-	74	-38.94	0-360	100	H
2	* 7.266	30.8	PK	35.6	-28.4	38	-	-	74	-36	0-360	200	H
3	* 10.707	26.39	PK	37.8	-22.8	41.39	-	-	74	-32.61	0-360	100	H
4	* 3.908	31.49	PK	33.2	-30.5	34.19	-	-	74	-39.81	0-360	200	V
5	* 5.106	30.06	PK	34.1	-29.3	34.86	-	-	74	-39.14	0-360	100	V
6	* 9.391	27.06	PK	36.4	-24.1	39.36	-	-	74	-34.64	0-360	200	V

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

PK - Peak detector

Radiated Emissions

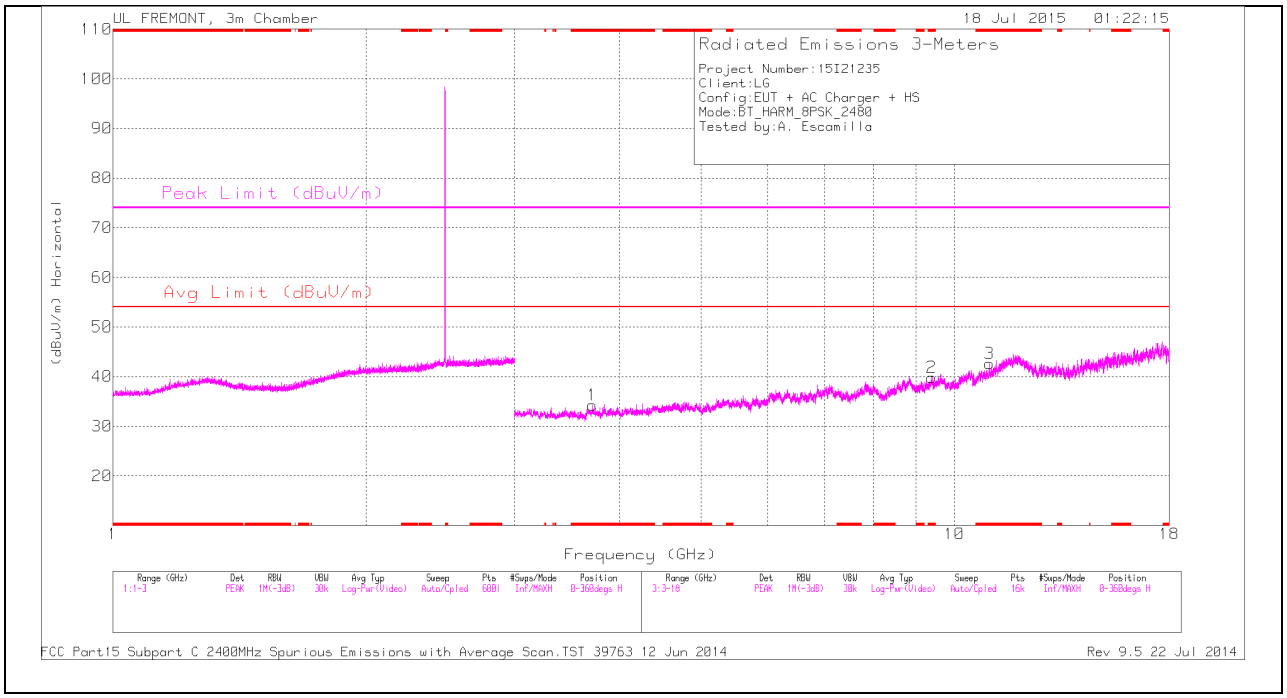
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.533	40.44	PK3	33.8	-30.7	43.54	-	-	74	-30.46	28	169	H
* 4.533	27.69	VB1T	33.8	-30.6	30.89	54	-23.11	-	-	28	169	H
* 7.267	39.28	PK3	35.6	-28.4	46.48	-	-	74	-27.52	44	200	H
* 7.268	26.75	VB1T	35.6	-28.4	33.95	54	-20.05	-	-	44	200	H
* 10.707	35.58	PK3	37.8	-22.8	50.58	-	-	74	-23.42	90	155	H
* 10.709	22.99	VB1T	37.8	-22.8	37.99	54	-16.01	-	-	90	155	H
* 3.908	40.54	PK3	33.2	-30.5	43.24	-	-	74	-30.76	78	209	V
* 3.908	27.8	VB1T	33.2	-30.5	30.5	54	-23.5	-	-	78	209	V
* 5.108	39.24	PK3	34.1	-29.3	44.04	-	-	74	-29.96	131	190	V
* 5.106	26.87	VB1T	34.1	-29.3	31.67	54	-22.33	-	-	131	190	V
* 9.39	37.08	PK3	36.4	-24.1	49.38	-	-	74	-24.62	230	228	V
* 9.39	23.91	VB1T	36.4	-24.1	36.21	54	-17.79	-	-	230	228	V

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

PK3 - FHSS Method: Maximum Peak

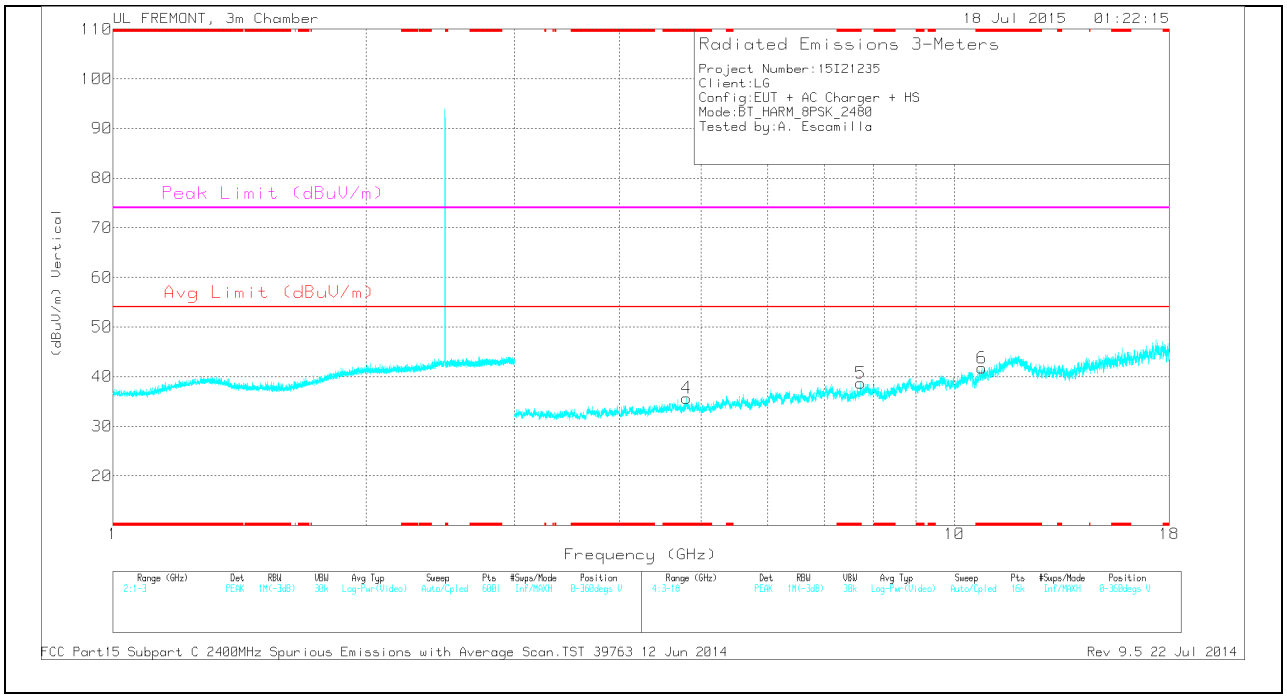
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

HIGH CHANNEL 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 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	* 3.714	31.27	PK	33	-30	34.27	-	-	74	-39.73	0-360	100	H
2	* 9.396	27.51	PK	36.4	-24.1	39.81	-	-	74	-34.19	0-360	100	H
3	* 11.001	27.64	PK	37.9	-22.9	42.64	-	-	74	-31.36	0-360	100	H
4	* 4.805	31.11	PK	34	-29.4	35.71	-	-	74	-38.29	0-360	200	V
5	* 7.73	30.99	PK	35.8	-28.1	38.69	-	-	74	-35.31	0-360	100	V
6	* 10.773	27.03	PK	37.9	-23.2	41.73	-	-	74	-32.27	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 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
* 3.714	40.68	PK3	33	-30	43.68	-	-	74	-30.32	323	236	H
* 3.713	27.2	VB1T	33	-30	30.2	54	-23.8	-	-	323	236	H
* 9.396	36.79	PK3	36.4	-24.1	49.09	-	-	74	-24.91	305	217	H
* 9.398	23.73	VB1T	36.4	-24.1	36.03	54	-17.97	-	-	305	217	H
* 11	36.77	PK3	37.9	-22.9	51.77	-	-	74	-22.23	257	194	H
* 10.999	23.92	VB1T	37.9	-22.8	39.02	54	-14.98	-	-	257	194	H
* 4.803	40.31	PK3	34	-29.4	44.91	-	-	74	-29.09	194	200	V
* 4.803	27.27	VB1T	34	-29.4	31.87	54	-22.13	-	-	194	200	V
* 7.732	39.49	PK3	35.8	-28.2	47.09	-	-	74	-26.91	136	147	V
* 7.729	26.66	VB1T	35.8	-28.1	34.36	54	-19.64	-	-	136	147	V
* 10.773	36.42	PK3	37.9	-23.2	51.12	-	-	74	-22.88	108	194	V
* 10.775	23.8	VB1T	37.9	-23.3	38.4	54	-15.6	-	-	108	194	V

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

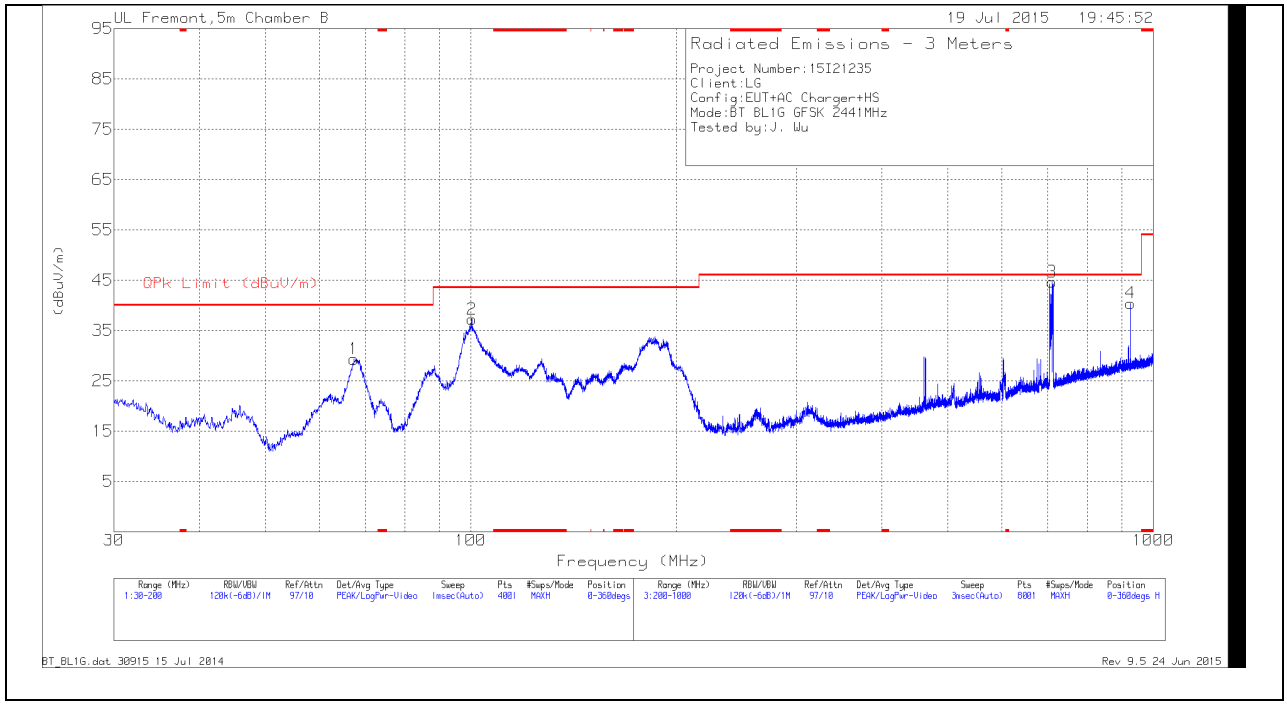
PK3 - FHSS Method: Maximum Peak

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

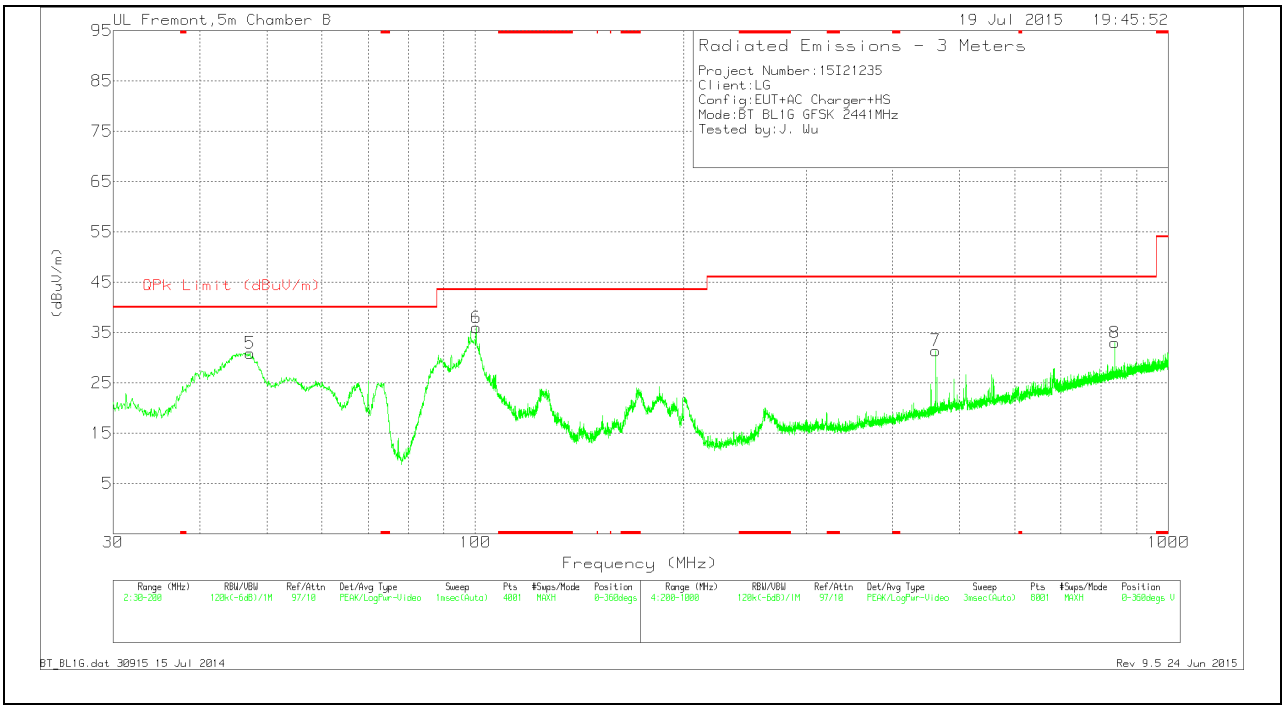
9.3. WORST-CASE BELOW 1 GHz

GFSK SPURIOUS 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
5	47.2975	50.07	Pk	9.3	-28.5	30.87	40	-9.13	0-360	101	V
1	67.4425	49.6	Pk	8	-28.3	29.3	40	-10.7	0-360	299	H
6	100.295	53.66	Pk	10.3	-28	35.96	43.52	-7.56	0-360	101	V
2	100.3375	54.9	Pk	10.3	-28	37.2	43.52	-6.32	0-360	199	H
7	461.5	39.99	Pk	17.1	-25.7	31.39	46.02	-14.63	0-360	101	V
3	710.4	48.51	Pk	20.4	-24.3	44.61	46.02	-1.41	0-360	199	H
8	836.7	34.24	Pk	21.9	-23.2	32.94	46.02	-13.08	0-360	101	V
4	926.6	40.3	Pk	22.6	-22.5	40.4	46.02	-5.62	0-360	399	H

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
711.428	22.79	Qp	20.4	-24.3	18.89	46.02	-27.13	255	257	H
926.872	22.09	Qp	22.6	-22.5	22.19	46.02	-23.83	315	193	H

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.

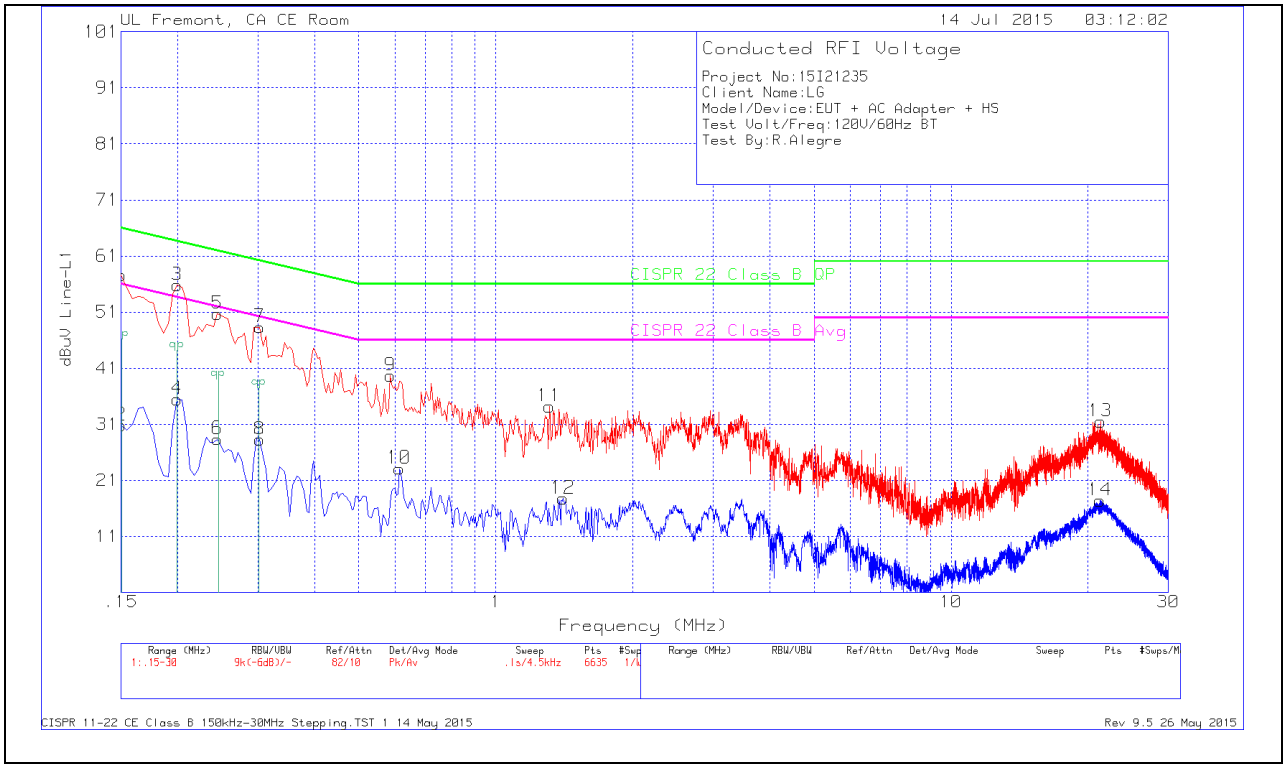
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT

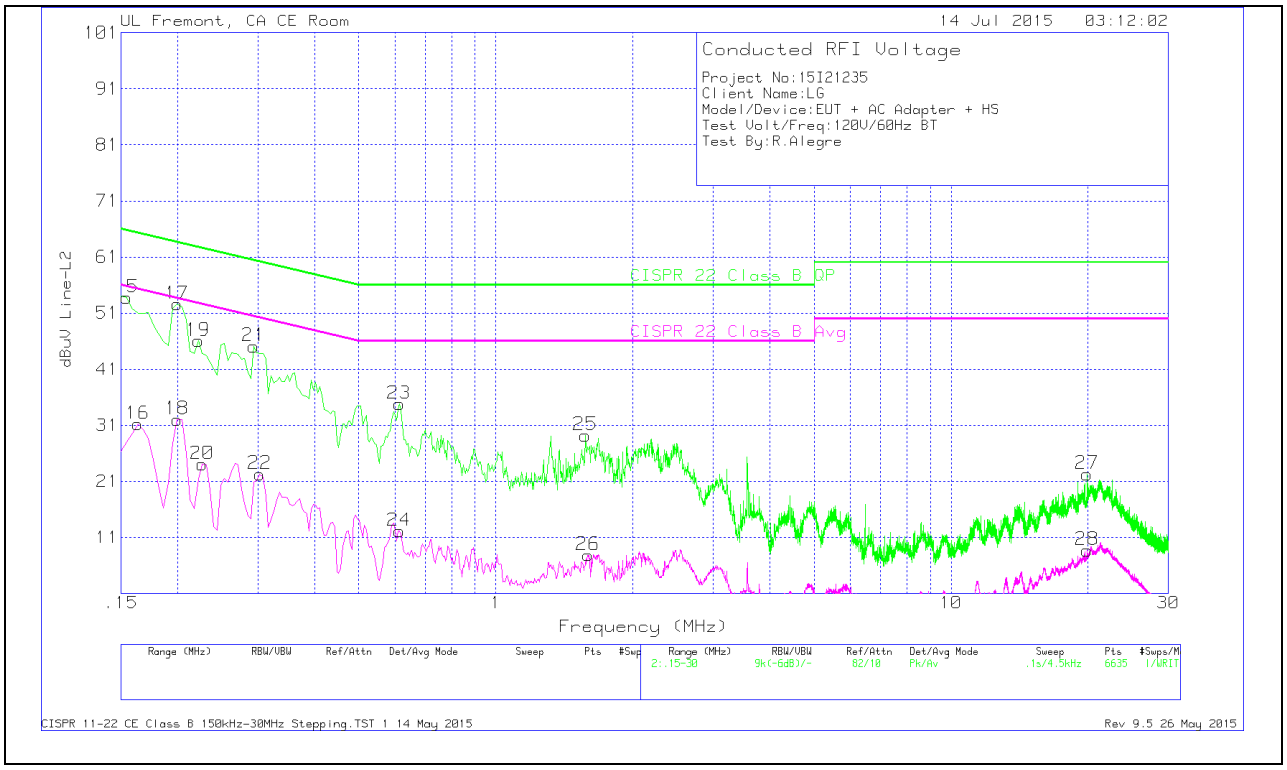


LINE 1 RESULTS

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	56.24	Pk	1.4	0	57.64	66	-8.36		
2	.15	29.4	Av	1.4	0	30.8	-	-	56	-25.2
3	.1995	54.89	Pk	.9	0	55.79	63.63	-7.84		
4	.1995	34.57	Av	.9	0	35.47	-	-	53.63	-18.16
5	.2445	49.98	Pk	.7	0	50.68	61.94	-11.26		
6	.2445	27.65	Av	.7	0	28.35	-	-	51.94	-23.59
7	.303	47.81	Pk	.5	0	48.31	60.16	-11.85		
8	.303	27.76	Av	.5	0	28.26	-	-	50.16	-21.9
9	.5865	39.36	Pk	.3	0	39.66	56	-16.34		
10	.6135	22.79	Av	.3	0	23.09	-	-	46	-22.91
11	1.311	33.9	Pk	.2	.1	34.2	56	-21.8		
12	1.4055	17.54	Av	.2	0	17.74	-	-	46	-28.26
13	21.3	30.98	Pk	.3	.2	31.48	60	-28.52		
14	21.255	16.92	Av	.3	.2	17.42	-	-	50	-32.58

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)
15	.1545	52.36	Pk	1.4	0	53.76	65.75	-11.99		
16	.1635	29.92	Av	1.3	0	31.22	-	-	55.28	-24.06
17	.1995	51.6	Pk	1	0	52.6	63.63	-11.03		
18	.1995	31.04	Av	1	0	32.04	-	-	53.63	-21.59
19	.222	45.15	Pk	.9	0	46.05	62.74	-16.69		
20	.2265	23.19	Av	.9	0	24.09	-	-	52.58	-28.49
21	.294	44.5	Pk	.6	0	45.1	60.41	-15.31		
22	.303	21.7	Av	.6	0	22.3	-	-	50.16	-27.86
23	.6135	34.5	Pk	.3	0	34.8	56	-21.2		
24	.6135	11.87	Av	.3	0	12.17	-	-	46	-33.83
25	1.572	28.92	Pk	.2	.1	29.22	56	-26.78		
26	1.5945	7.56	Av	.2	.1	7.86	-	-	46	-38.14
27	19.9005	21.81	Pk	.3	.2	22.31	60	-37.69		
28	19.9005	8.23	Av	.3	.2	8.73	-	-	50	-41.27