



**FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8**

**CERTIFICATION TEST REPORT
FOR
GSM/WCDMA/CDMA/LTE Phone + Bluetooth, DTS/UNII a/b/g/n/ac & NFC**

MODEL NUMBER: LG-VS986, VS986, LGVS986, LG-AS986, AS986, LGAS986

**FCC ID: ZNFVS986
IC: 2703C-VS986**

**REPORT NUMBER: 15I20402-E2
ISSUE DATE: April 20, 2015**

Prepared for
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NVLAP LAB CODE 200065-0

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Revision History

Issue			
Rev.	Date	Revisions	Revised By
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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: LG ELECTRONICS MOBILECOMM U.S.A., INC.
EUT DESCRIPTION: GSM/WCDMA/CDMA/LTE Phablet + Bluetooth, DTS/UNII
a/b/g/n/ac & NFC.
MODEL: LG-VS986, VS986, LGVS986, LG-AS986, AS986, LGAS986
SERIAL NUMBER: 0298-0469 (Conducted), 0298-0454 (Radiated)
DATE TESTED: MAR 25 – APR 20, 2015

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 ISSUE 8	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 ANSI C63.10-2013, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 4, and RSS-210 Issue 8.

Deviation -Radiated spurious emission above 1GHz EUT height is 1.5m not 0.8m.

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 26000 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/CDMA/LTE Phablet + 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	9.93	9.85
2402 - 2480	Enhanced 8PSK	8.48	7.04

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 -0.52 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 Y orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

Spots check also performed on SMART COVER and CHARGING DOCK station.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	LG	MCS-04WD2	EAY62991904	N/A
Smart Case Cover	LG	LG-P1	DK0227	N/A
Wireless Charger	LG	WCD-110	LF1212625283010049	N/A
Earphone	LG	N/A	N/A	N/A

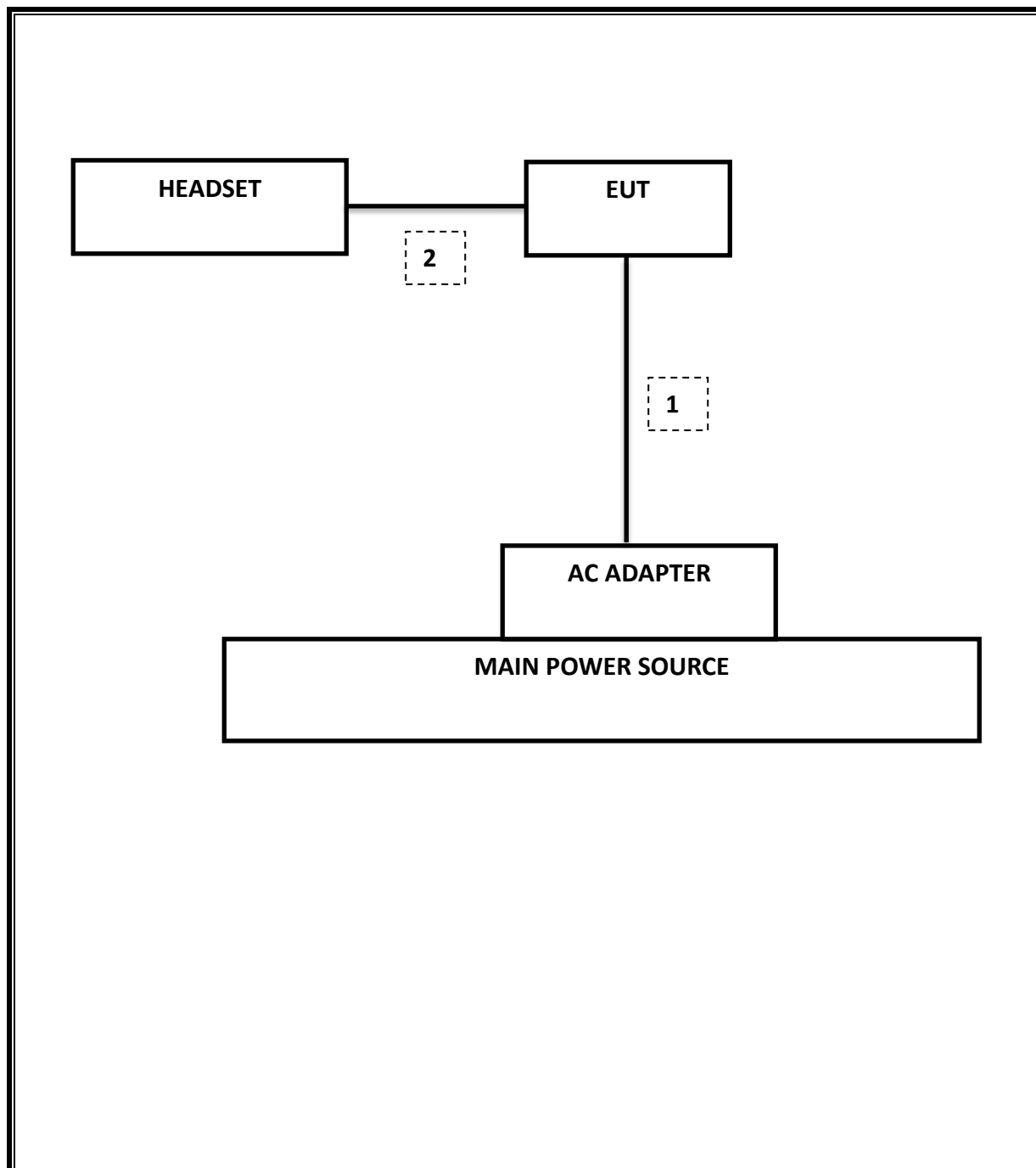
I/O CABLES

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	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.



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, 25.5 GHz	ARA	MWH-1826/B	C00980	11/14/15
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	01/28/16
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/22/15
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

Test Software List			
Description	Manufacturer	Model	Version
Radiated Software	UL	UL EMC	Version 9.5, 07/22/14
Conducted Software	UL	UL EMC	Version 9.5, 05/17/14
CLT Software	UL	UL RF	Version 1.0, 02/02/15
Antenna Port Software	UL	UL RF	Version 2.1.1.1, 1/20/15

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	1.337 MHz
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-53.90 dBm
15.247 (b)(1)	RSS-210 A8.4	TX conducted output power	<21dBm		Pass	9.93dBm
15.247 (a)(1)	RSS-210 A8.1(b)	Hopping frequency separation	> 25KHz		Pass	1 MHz
15.247 (a)(1)(iii)	RSS-210 A8.1(d)	Number of Hopping channels	More than 15 non-overlapping channels		Pass	79
15.247 (a)(1)(iii)	RSS-210 A8.1(d)	Avg Time of Occupancy	< 0.4sec		Pass	0.3731 s
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	54.26 dBuV(PK)
15.205, 15.209	RSS-GEN Clause 8.9, RSS-GEN Clause 7	Radiated Spurious Emission	< 54dBuV/m (AV)		Pass	45.39 dBuV/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

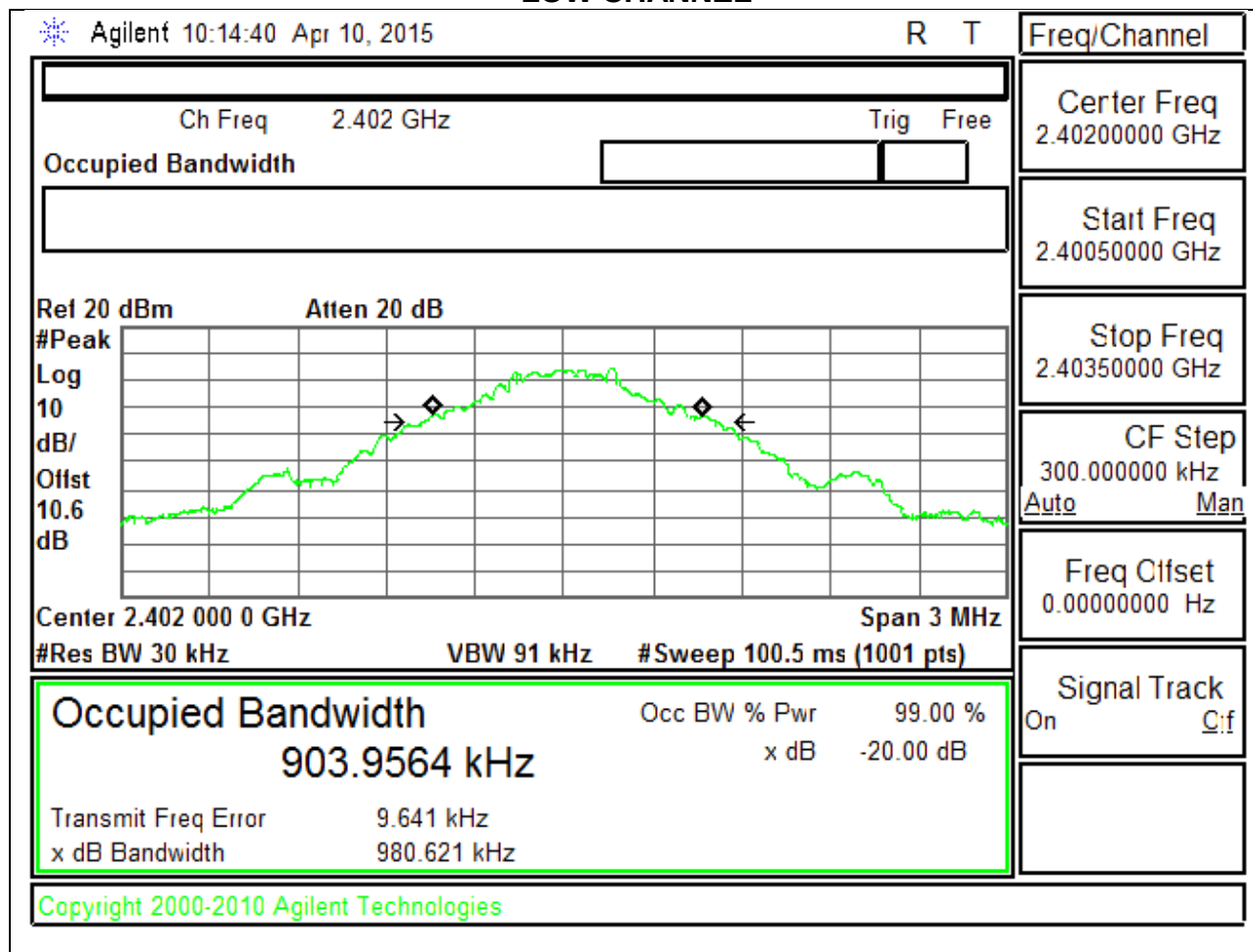
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	980.621	918.4126
Middle	2441	993.215	909.6382
High	2480	983.705	893.6299
Worst		993.215	918.4126

8.1.2. ENHANCED DATA RATE 8PSK MODULATION

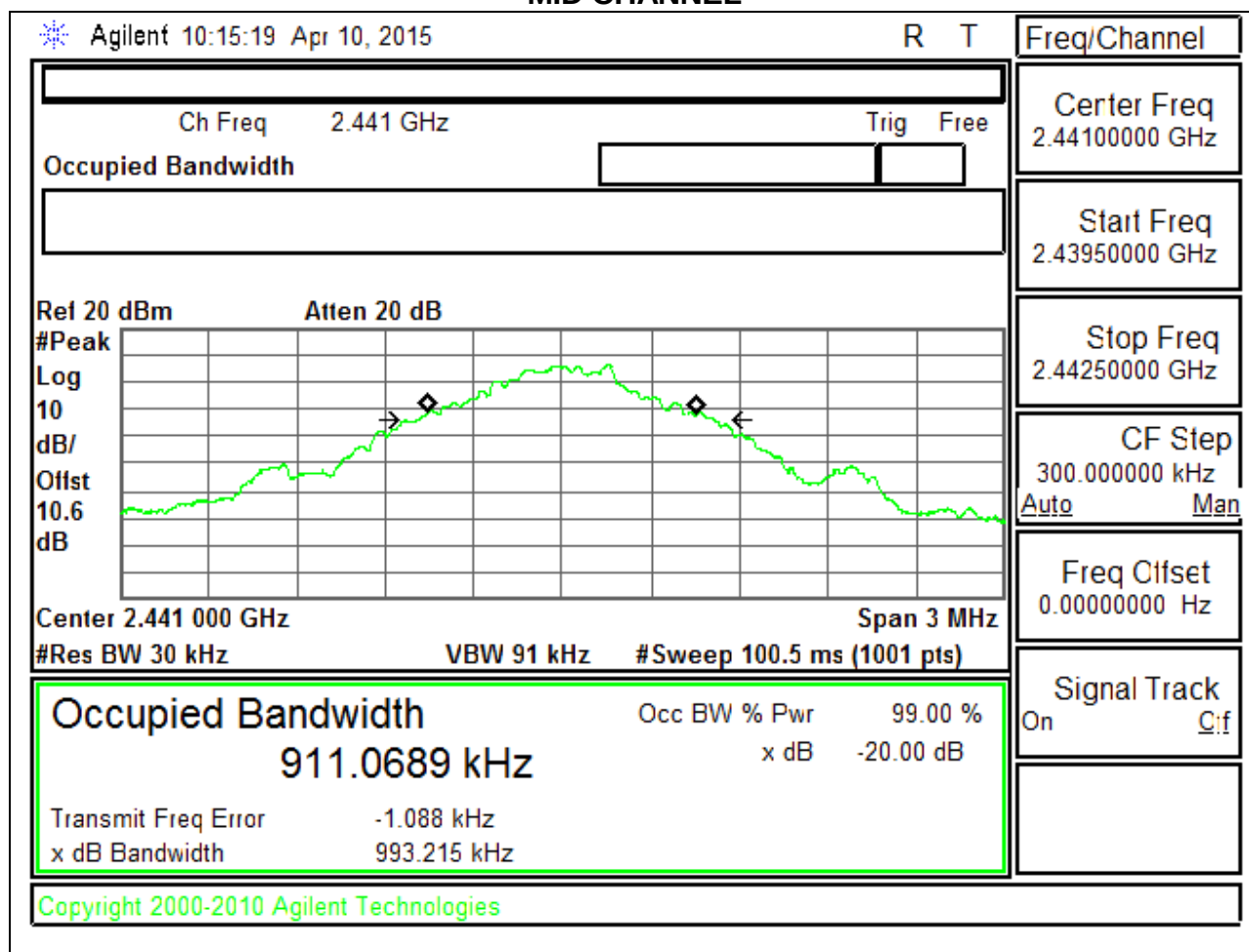
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	1.336	1.2069
Middle	2441	1.335	1.2175
High	2480	1.337	1.2161
Worst		1.337	1.2175

20 dB AND 99% BANDWIDTH PLOTS

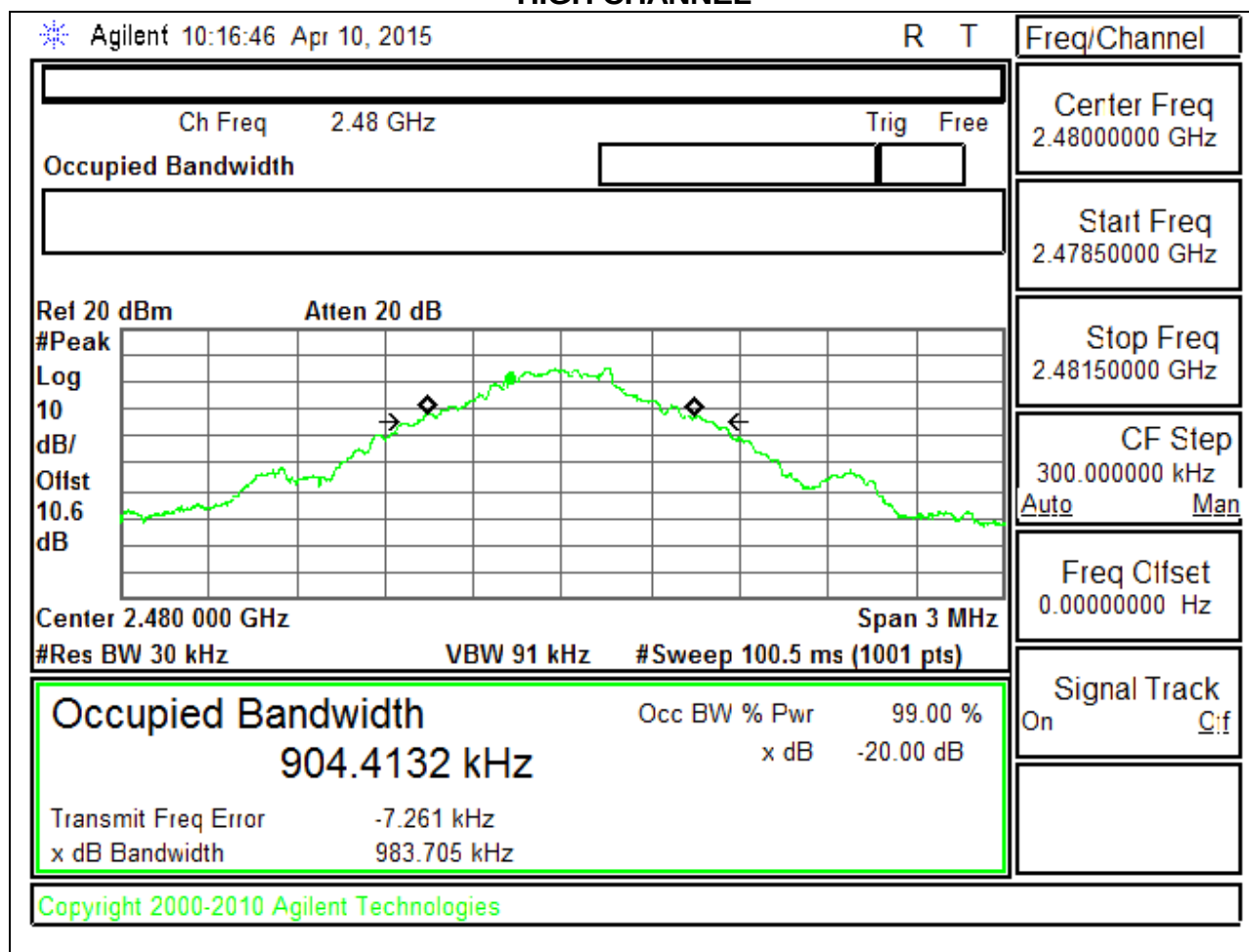
LOW CHANNEL



MID CHANNEL

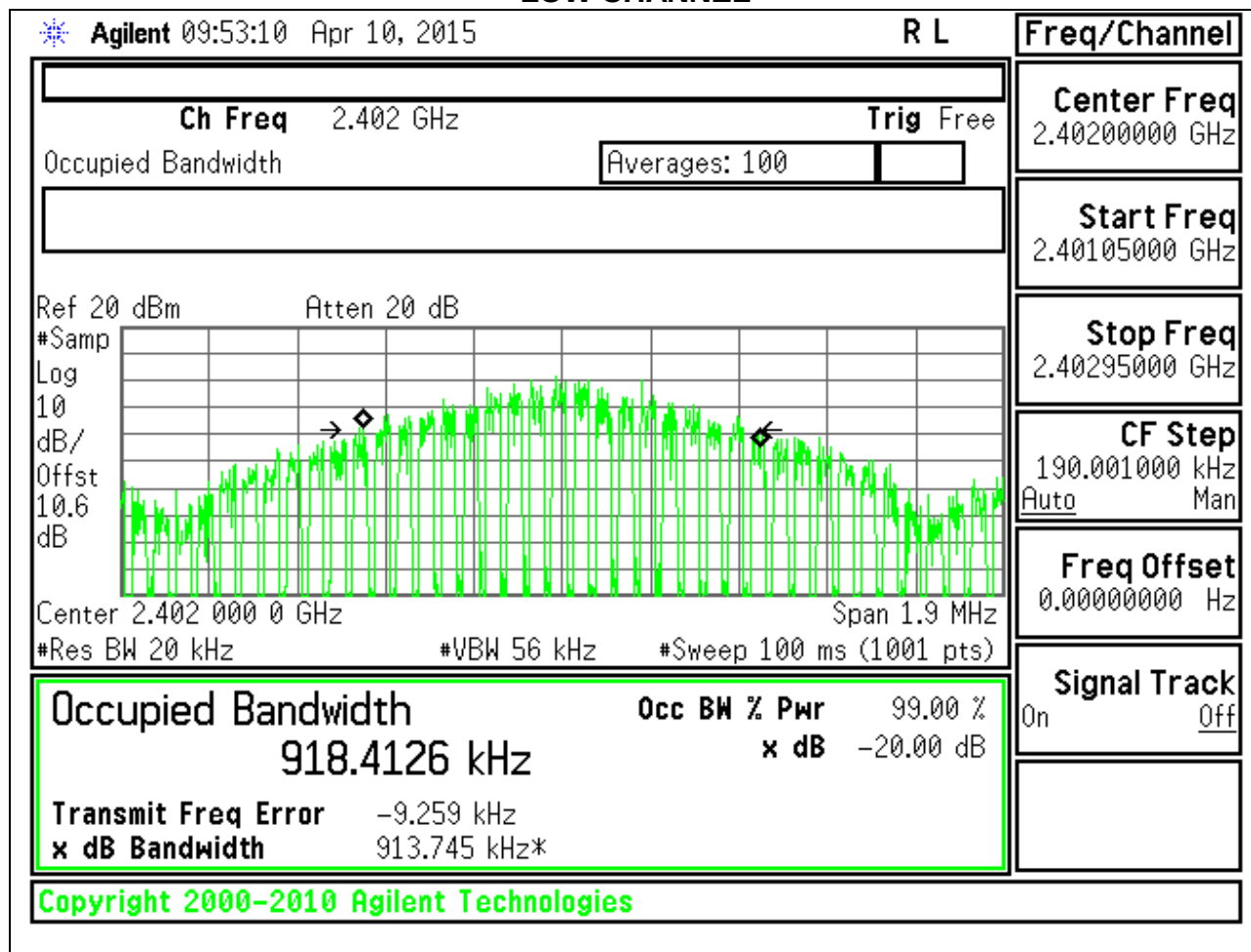


HIGH CHANNEL

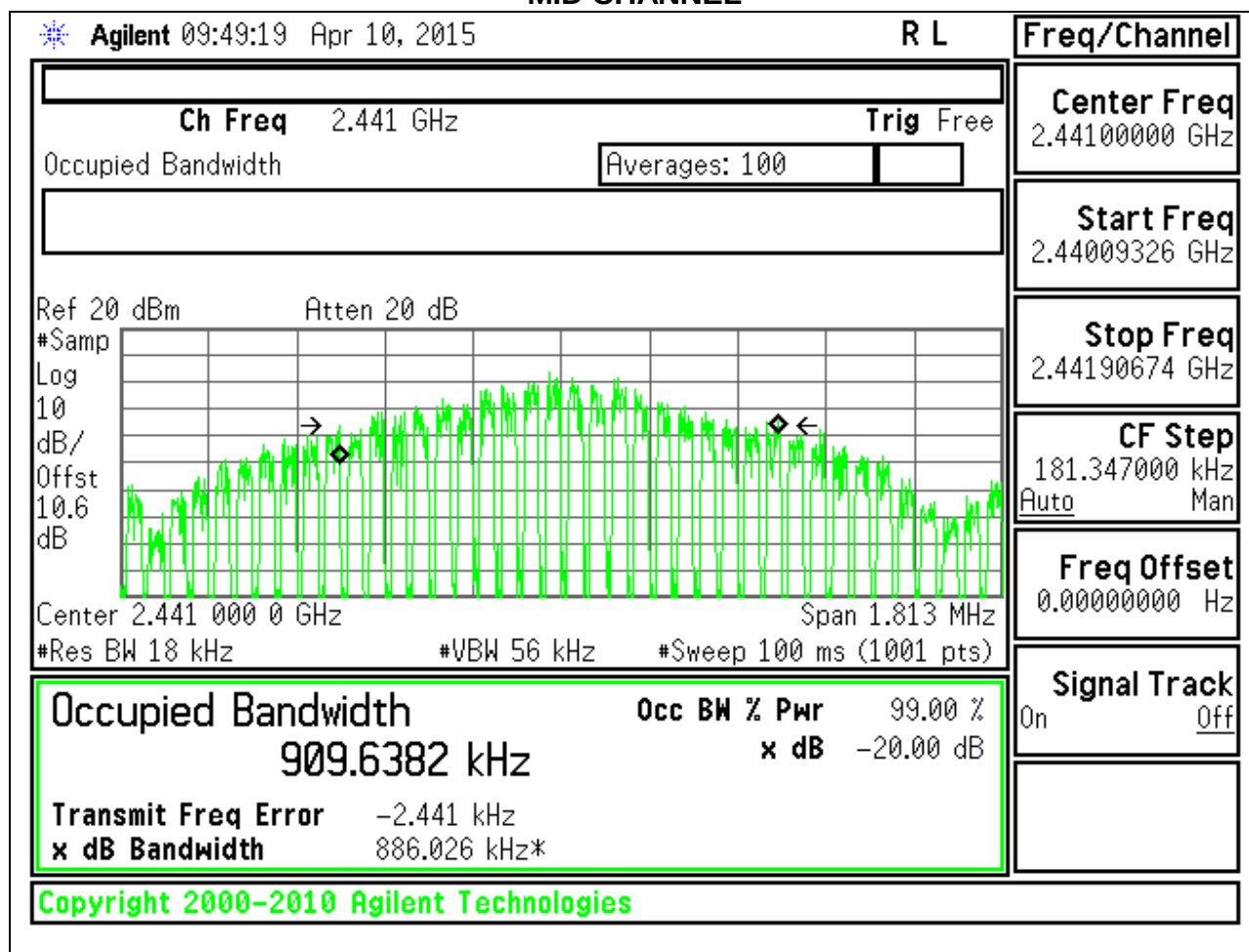


GFSK 99% BANDWIDTH

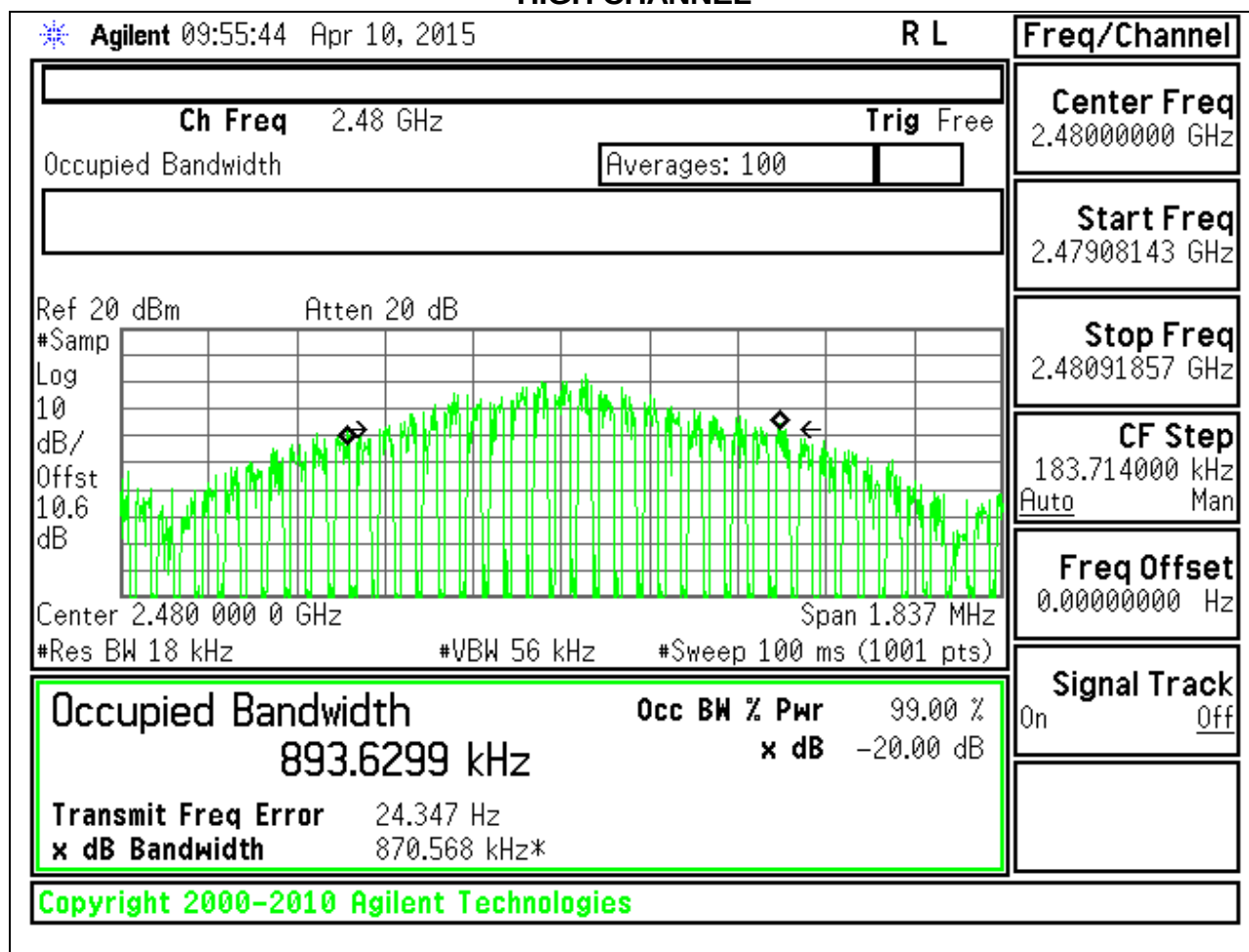
LOW CHANNEL



MID CHANNEL

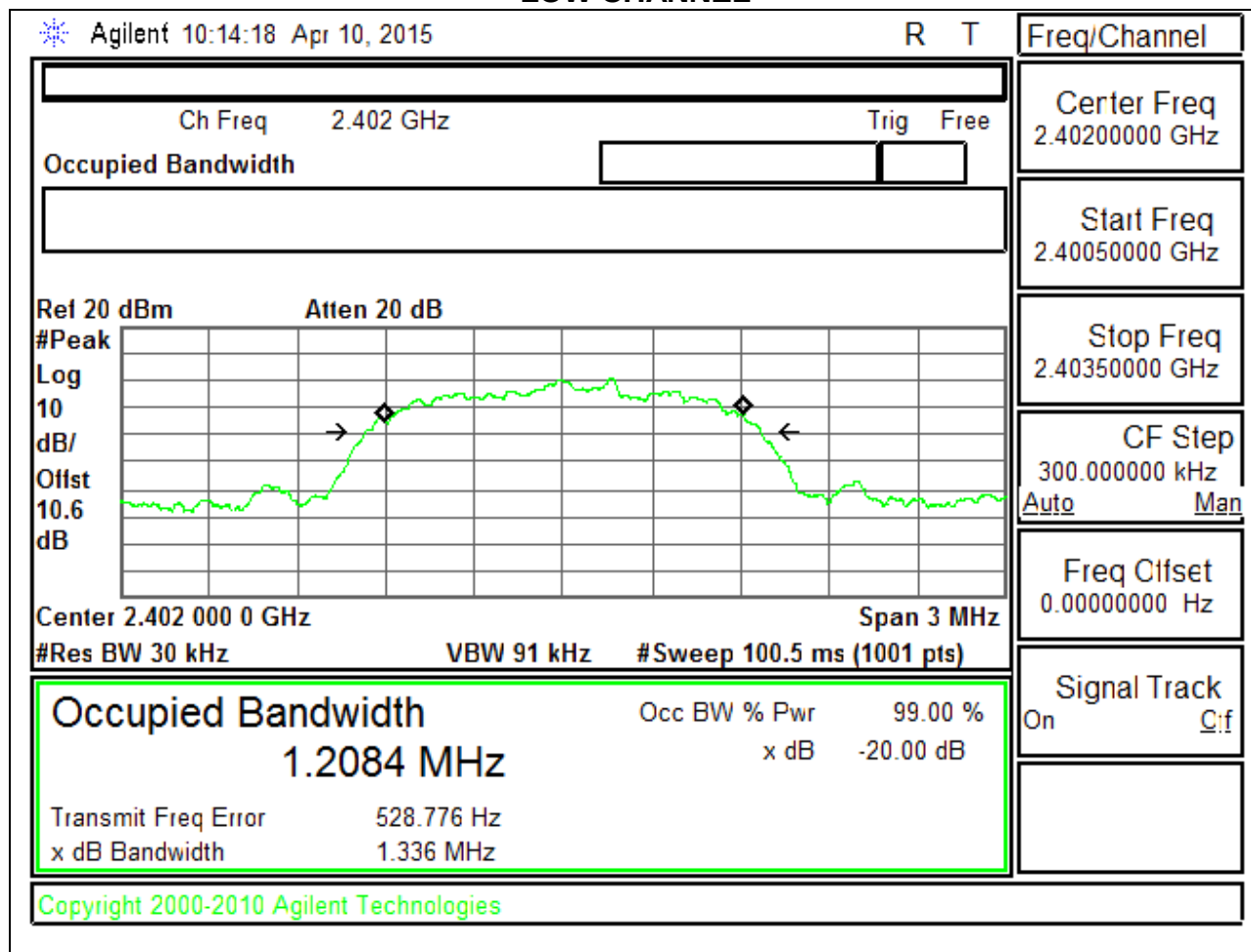


HIGH CHANNEL

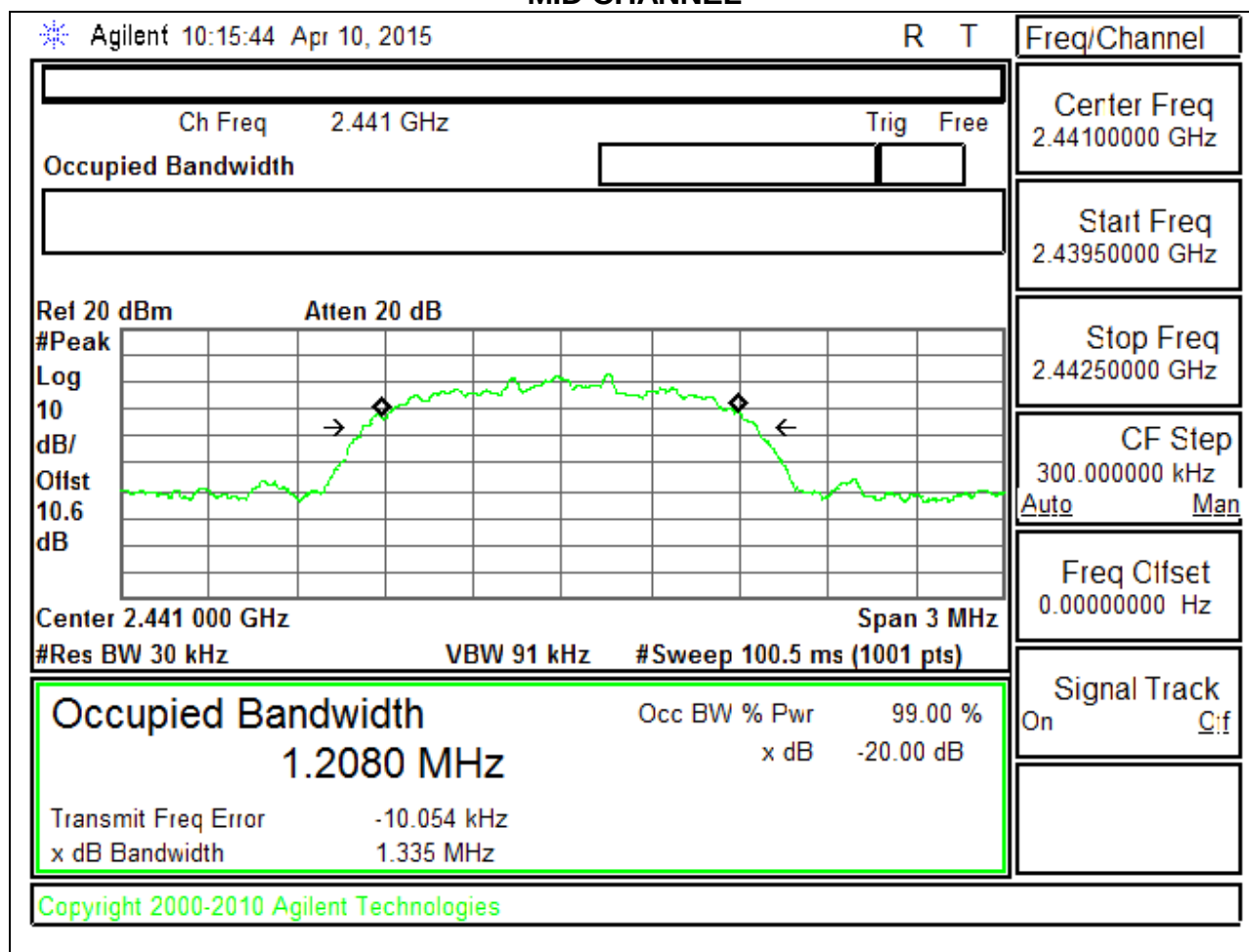


8PSK 20 dB BANDWIDTH

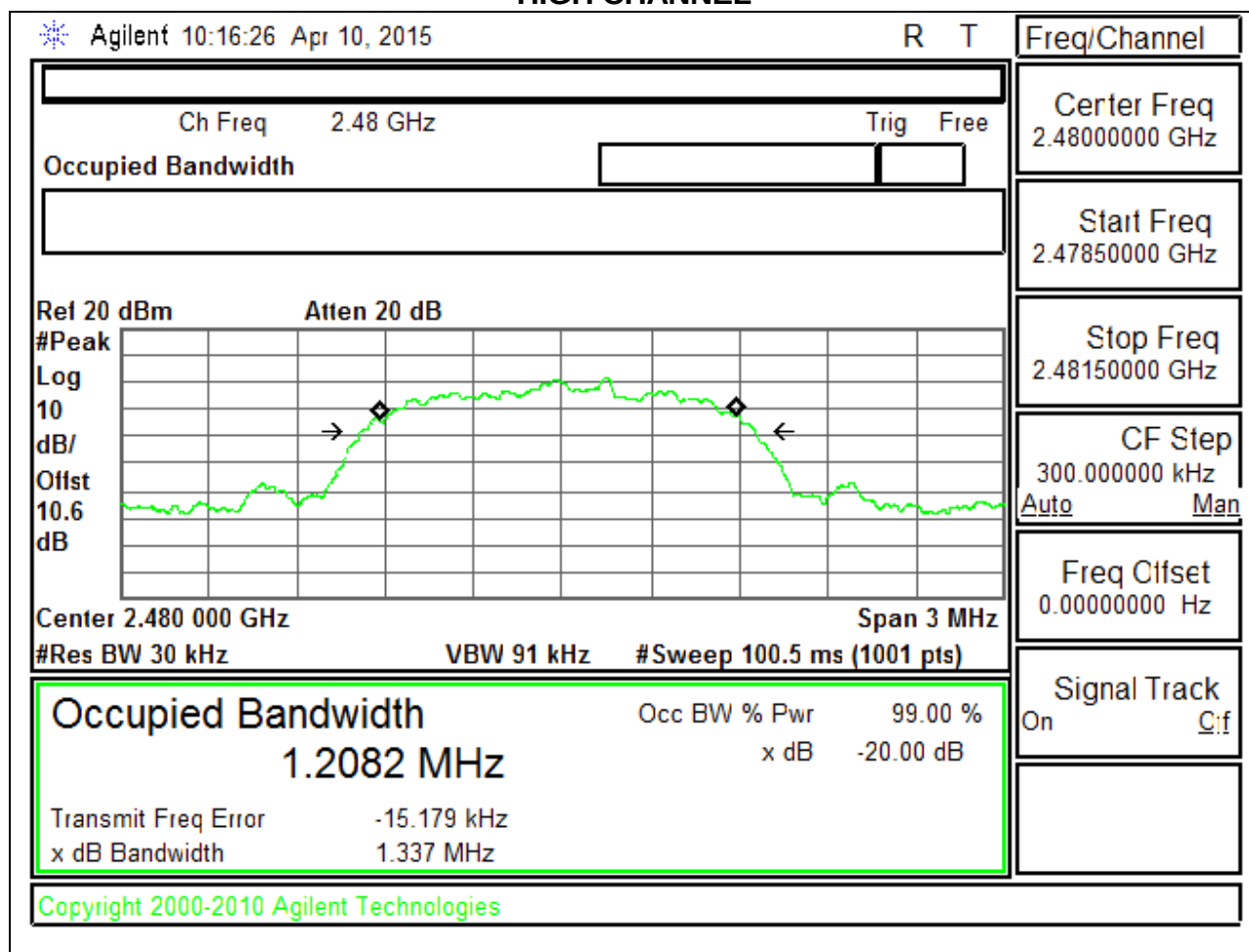
LOW CHANNEL



MID CHANNEL

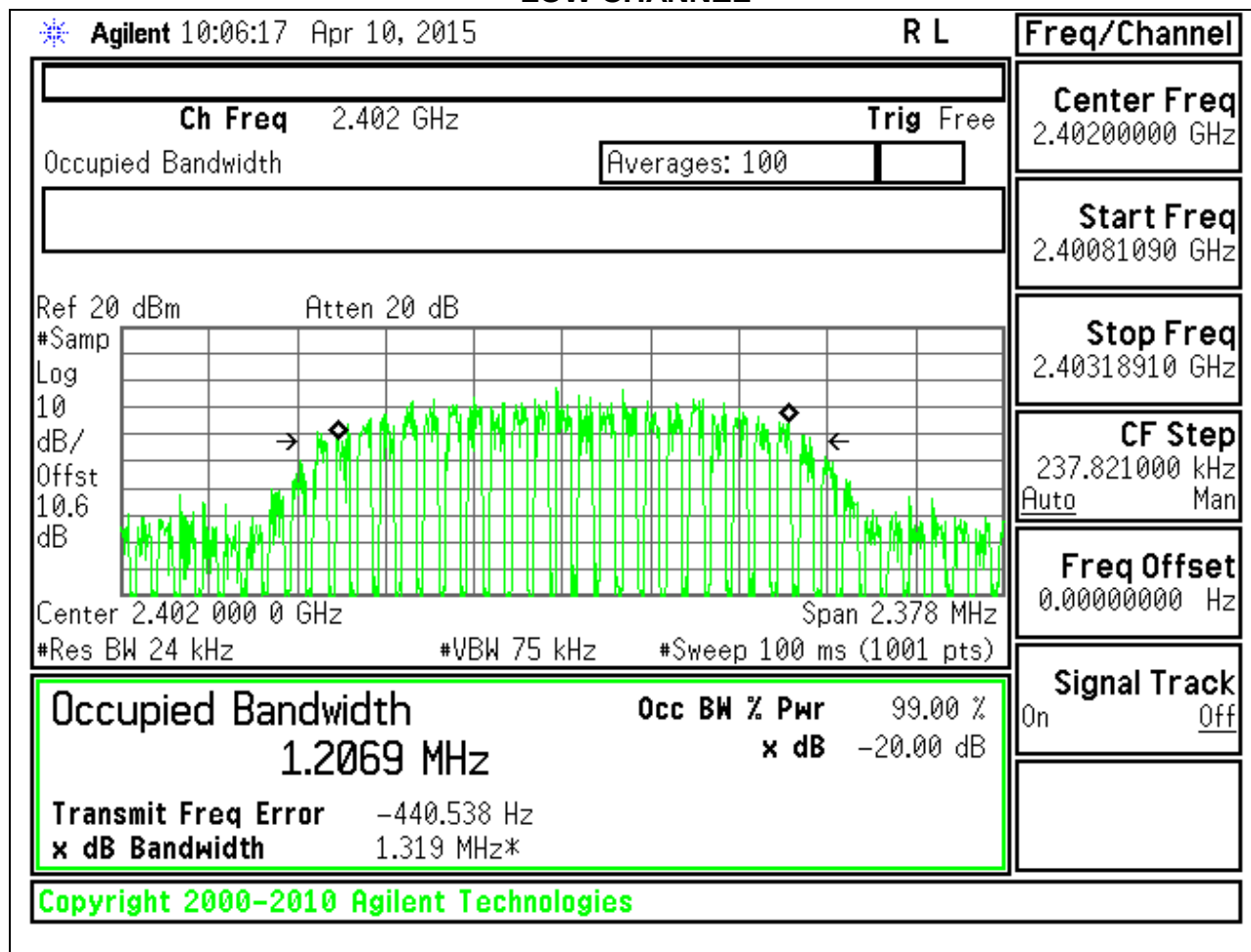


HIGH CHANNEL

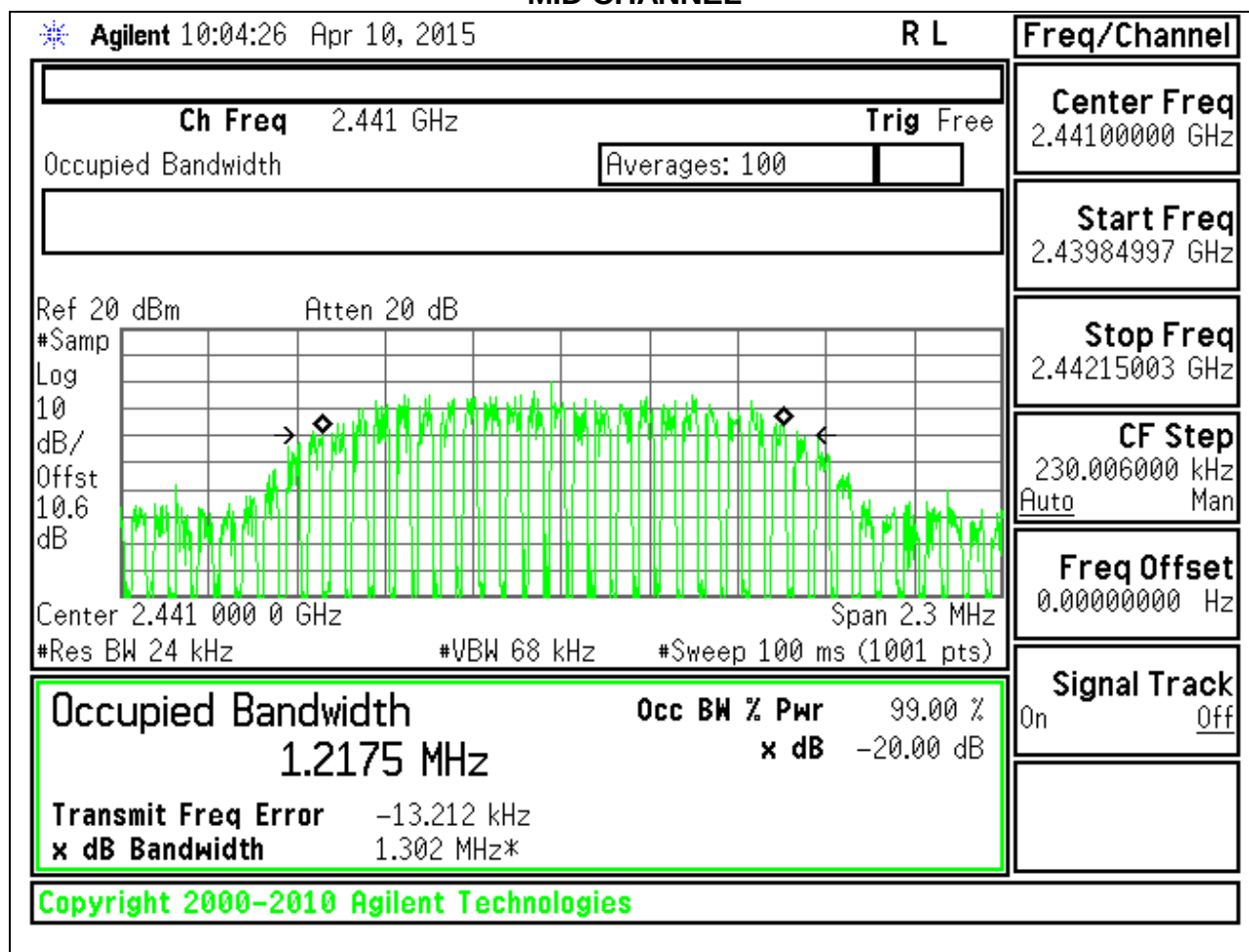


8PSK 99% BANDWIDTH

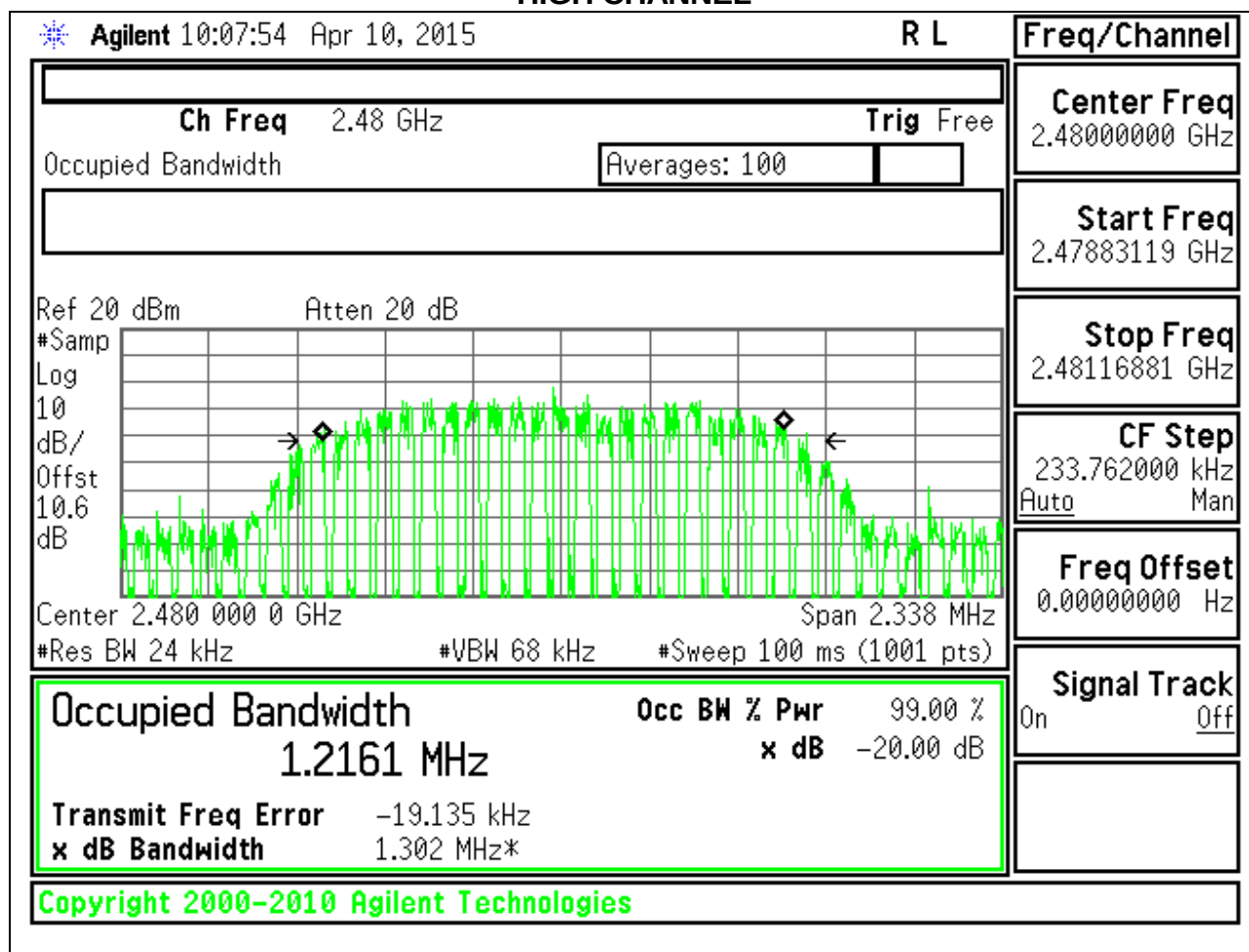
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.2. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)

IC RSS-210 A8.1 (b)

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.

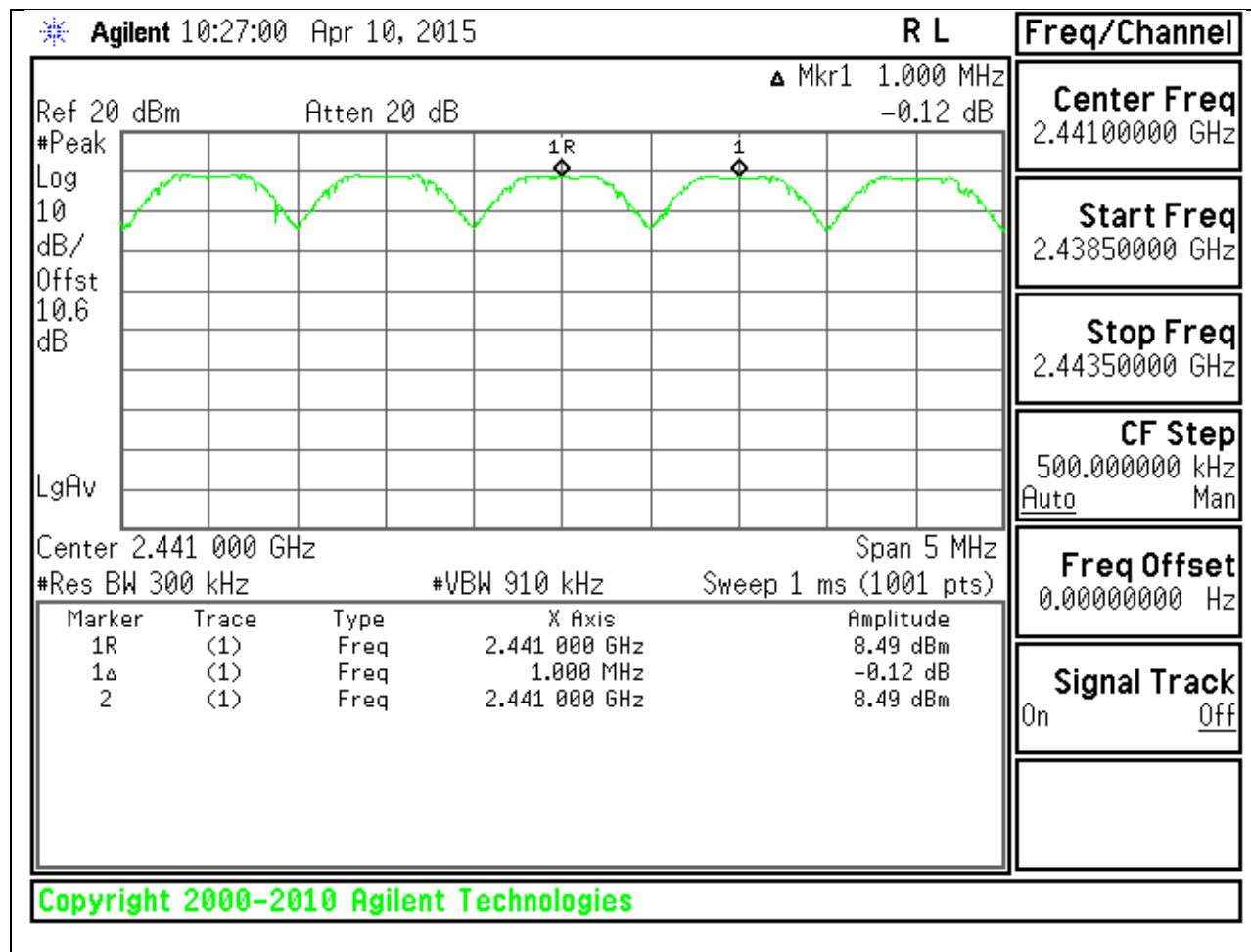
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than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

IC RSS-210 A8.1 (d)

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

TEST PROCEDURE

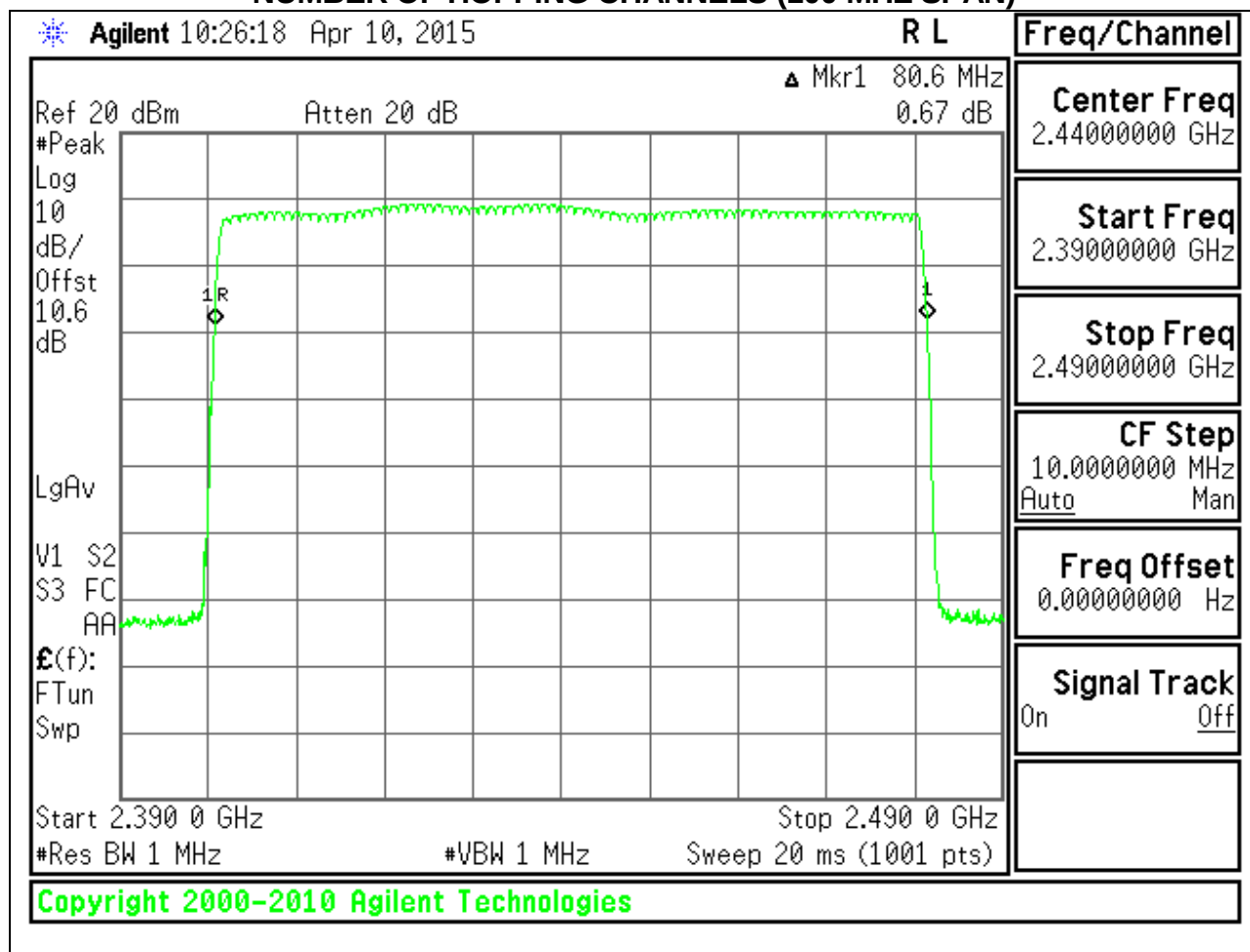
DA 00-705: The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

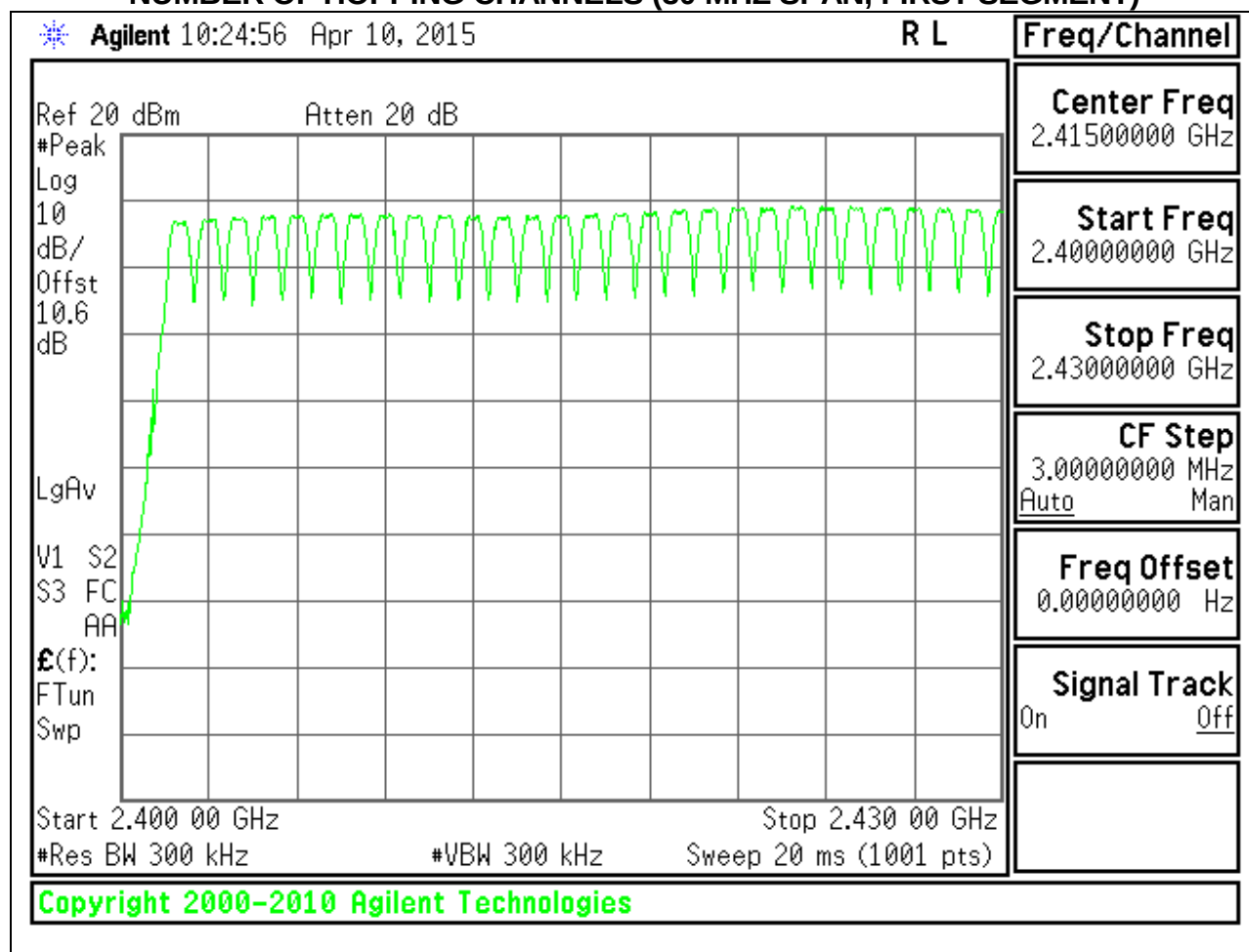
Normal Mode: 79 Channels observed.

NUMBER OF HOPPING CHANNELS PLOTS

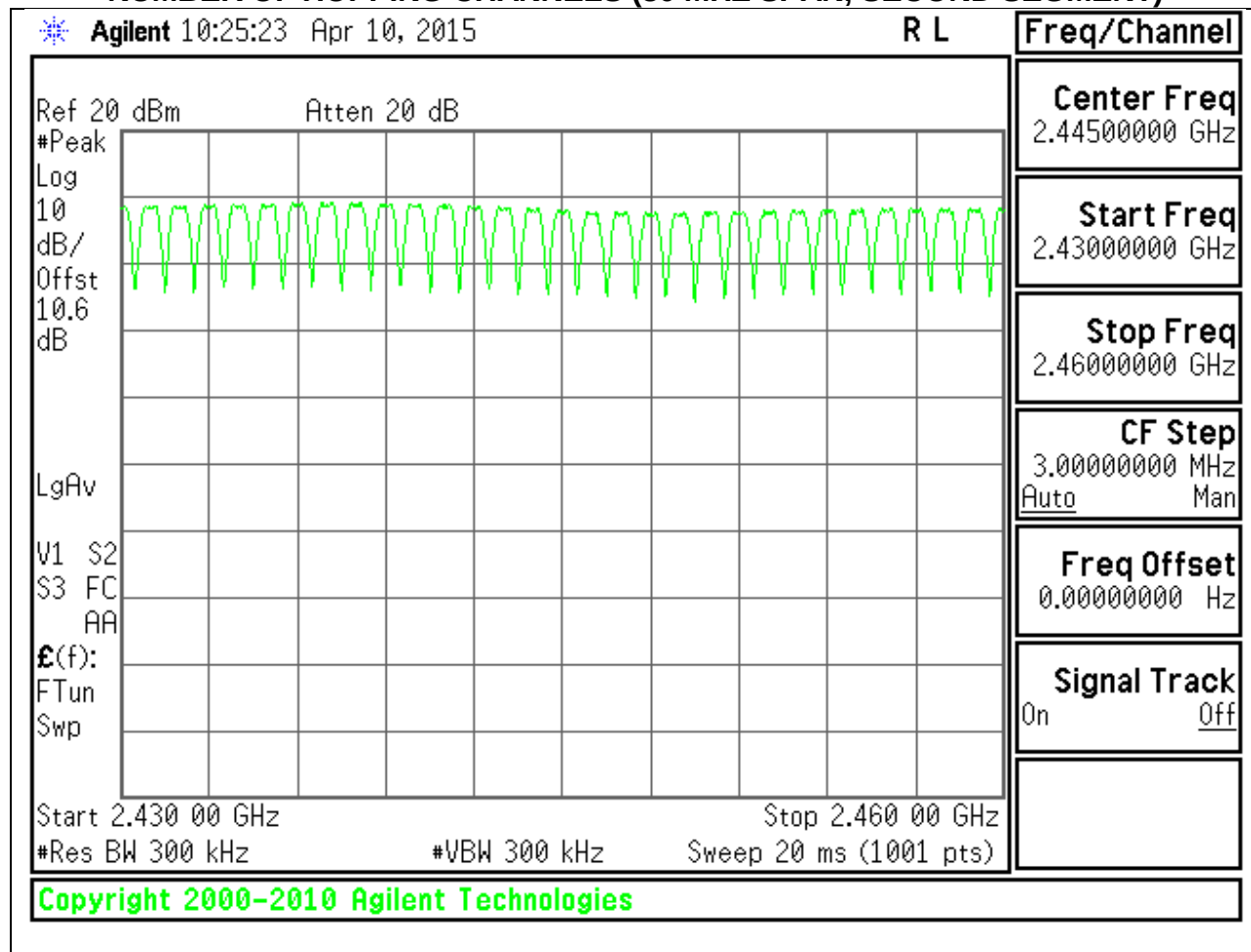
NUMBER OF HOPPING CHANNELS (100 MHz SPAN)



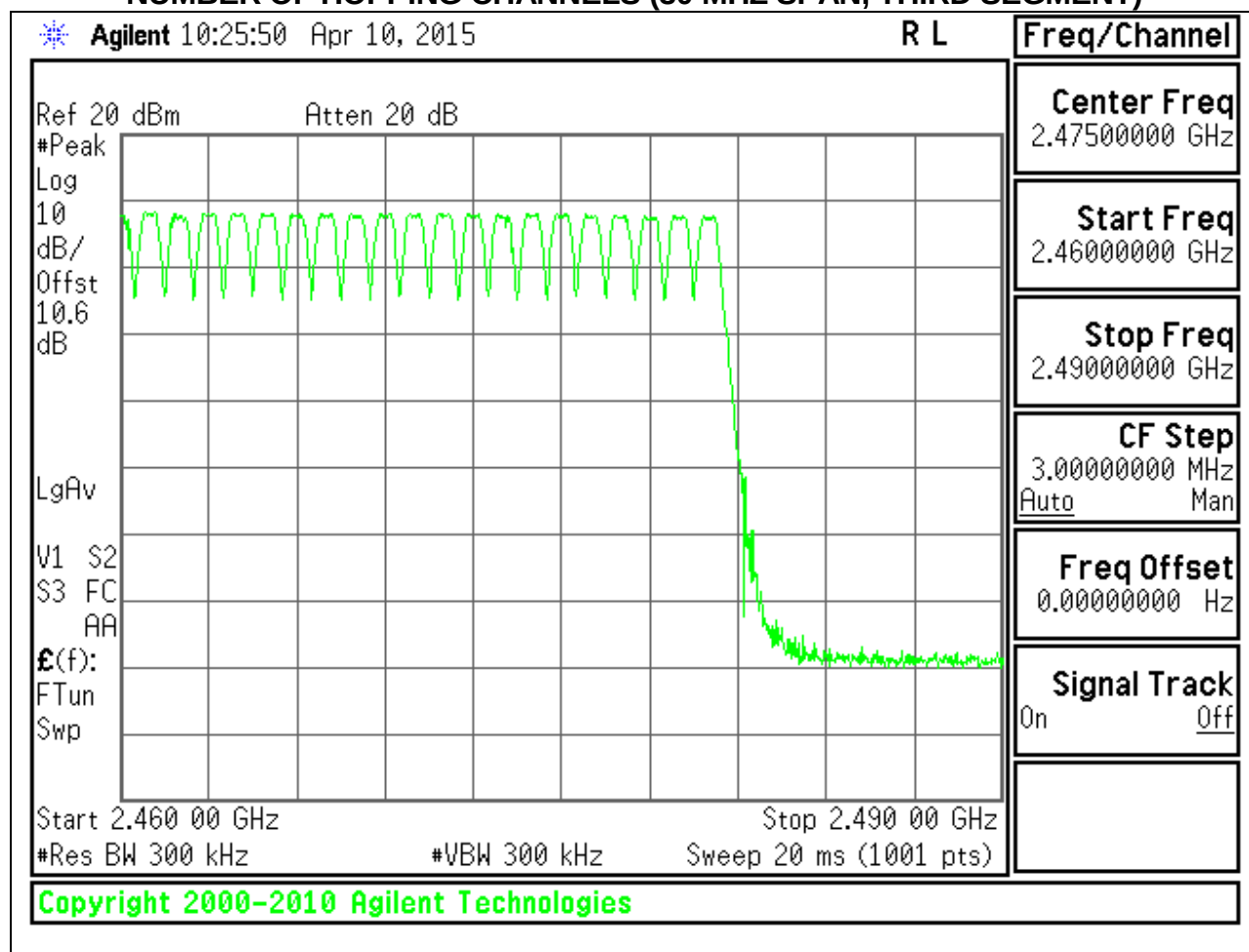
NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, FIRST SEGMENT)



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-210 A8.1 (d)

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.

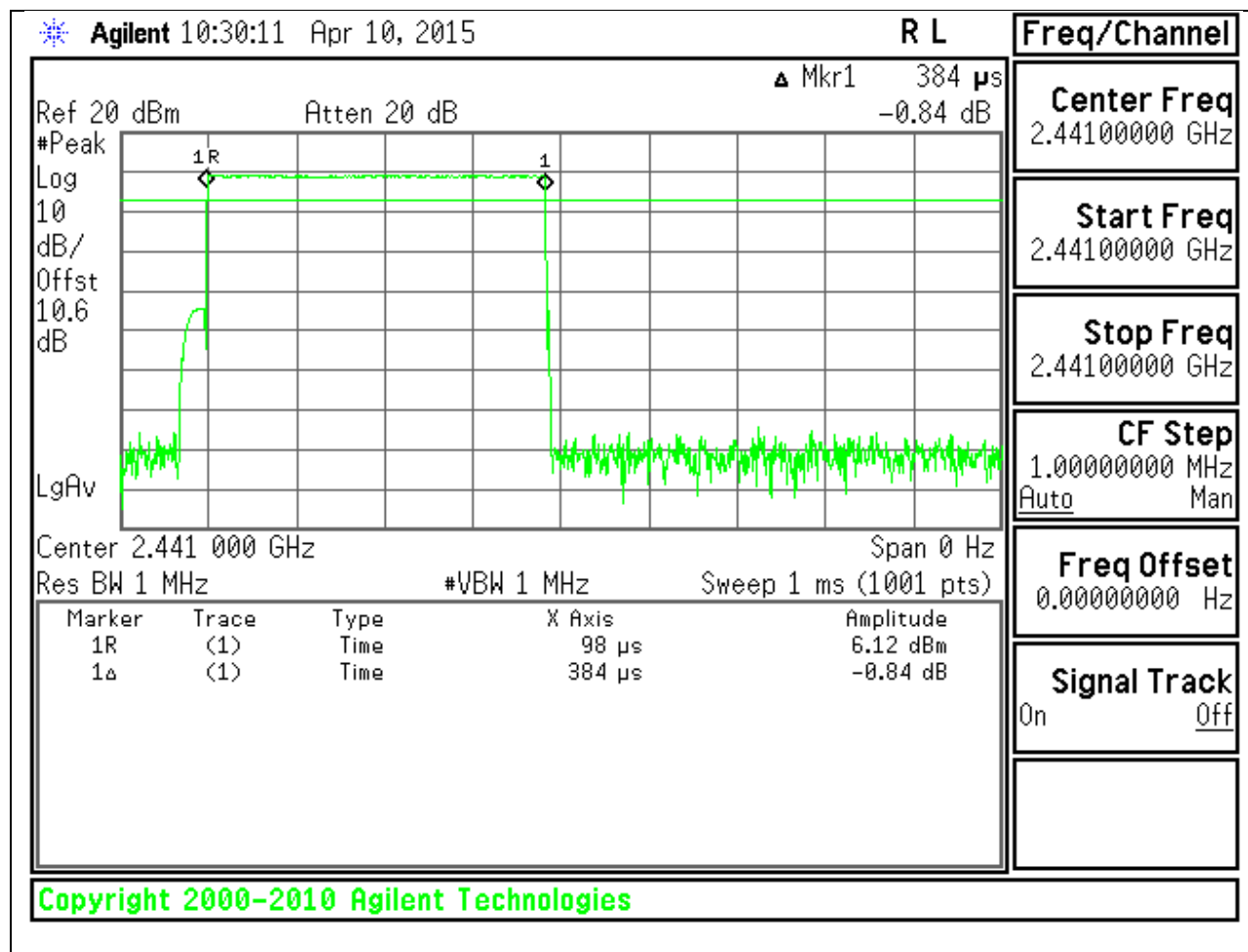
The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{ pulse width}$.

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

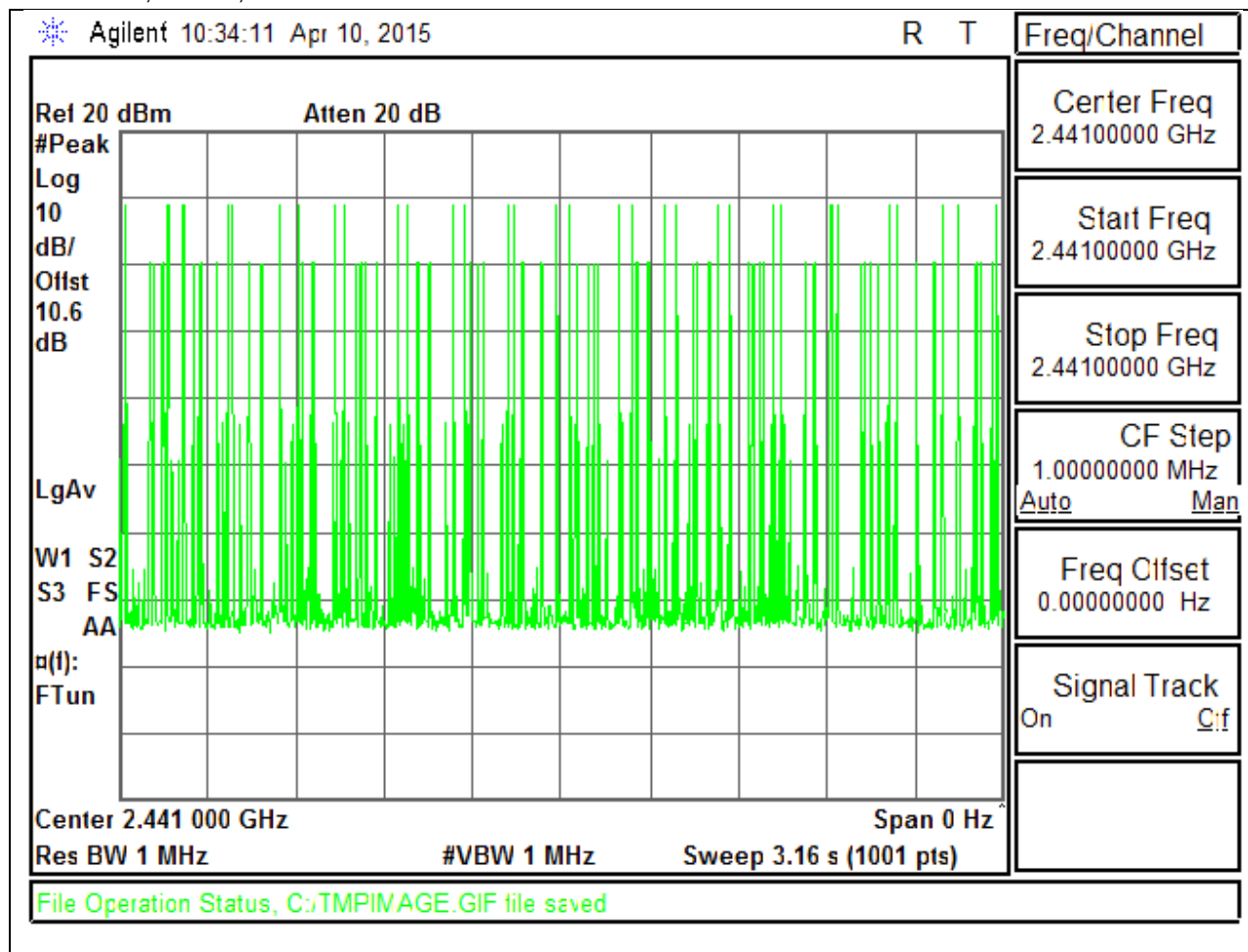
RESULTS

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	0.384	31	0.11904	0.4	-0.28096
DH3	1.668	19	0.31692	0.4	-0.08308
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	0.384	7.75	0.02976	0.4	-0.37024
DH3	1.668	4.75	0.07923	0.4	-0.32077
DH5	2.87	3.25	0.093275	0.4	-0.30673

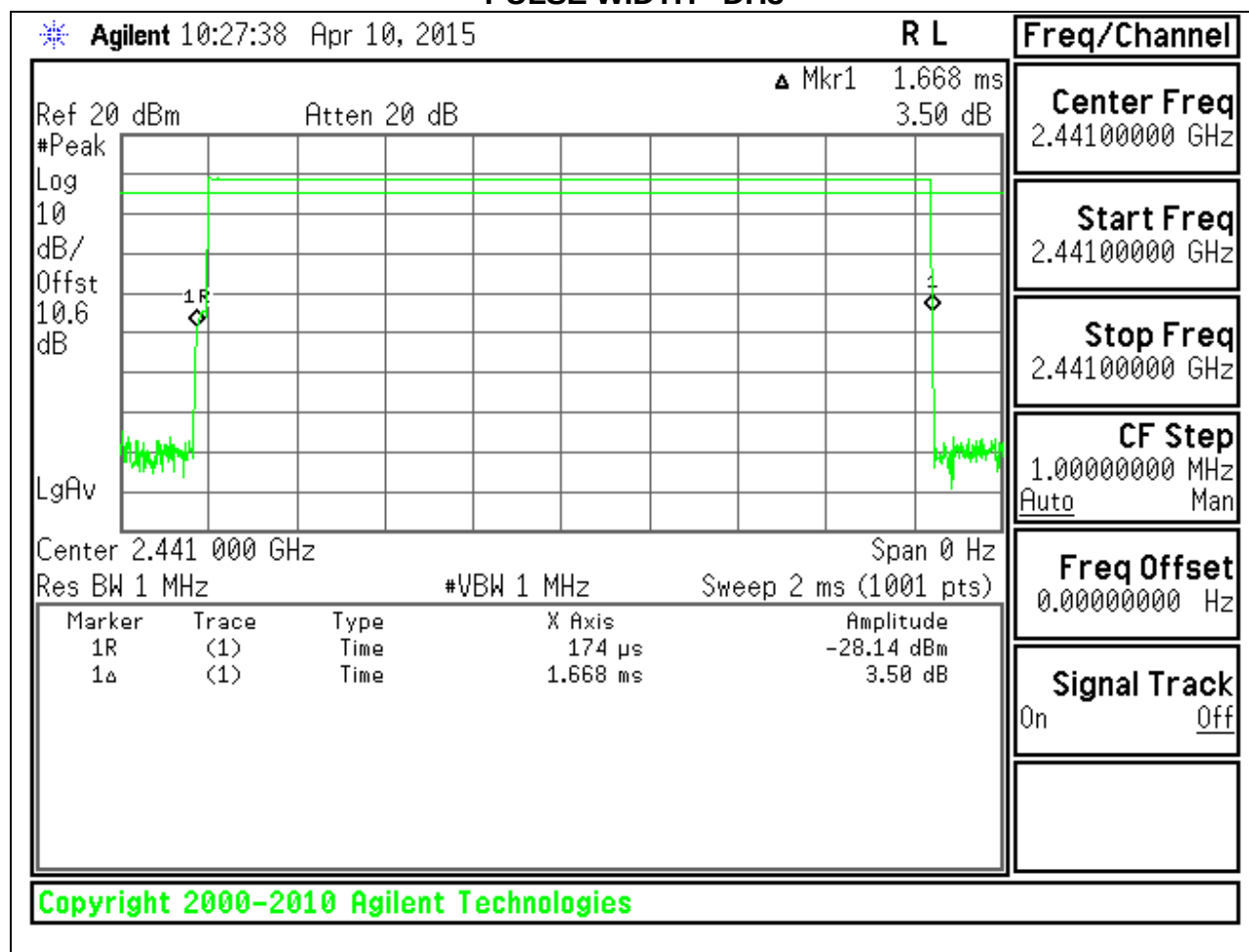
PULSE WIDTH - DH1



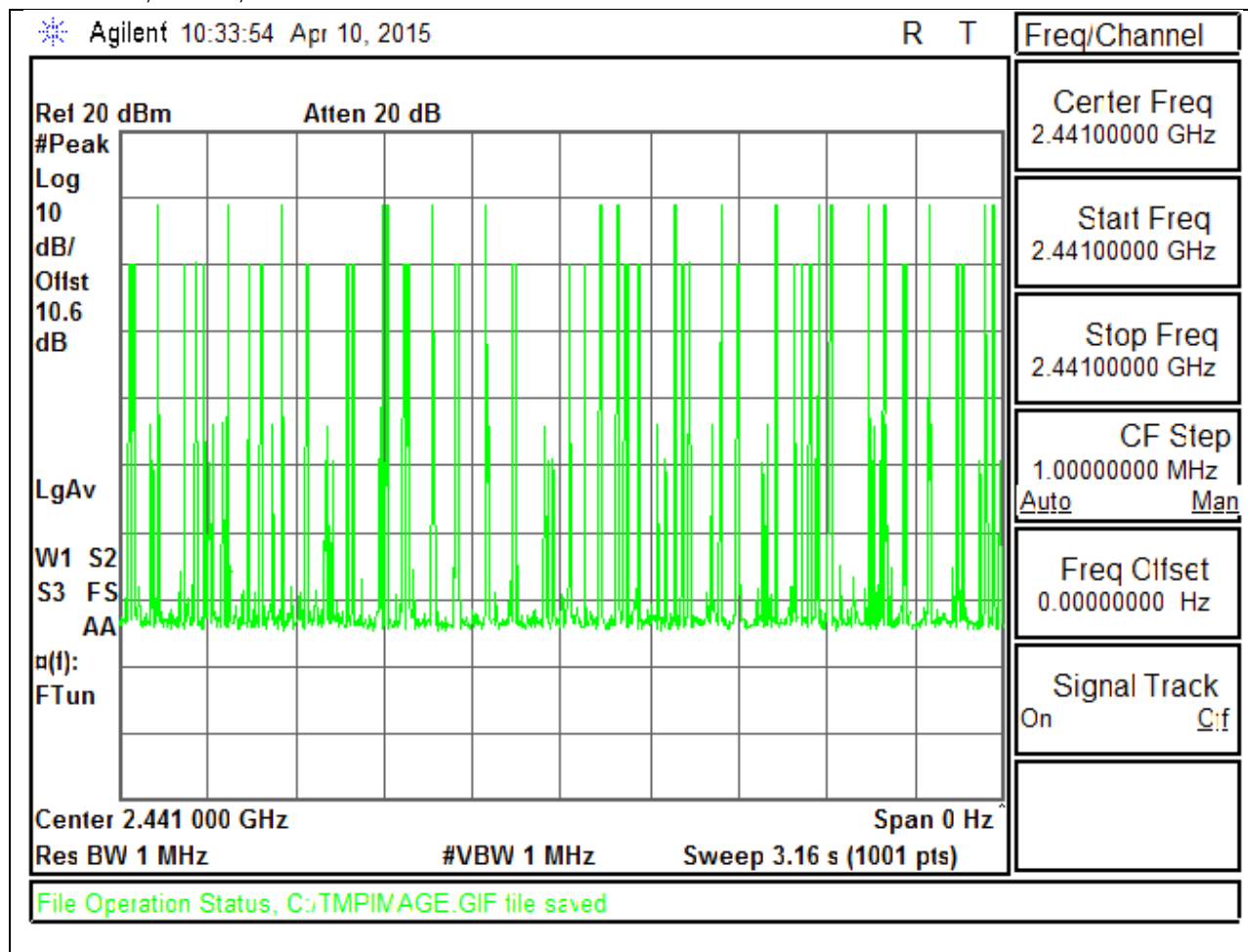
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH1



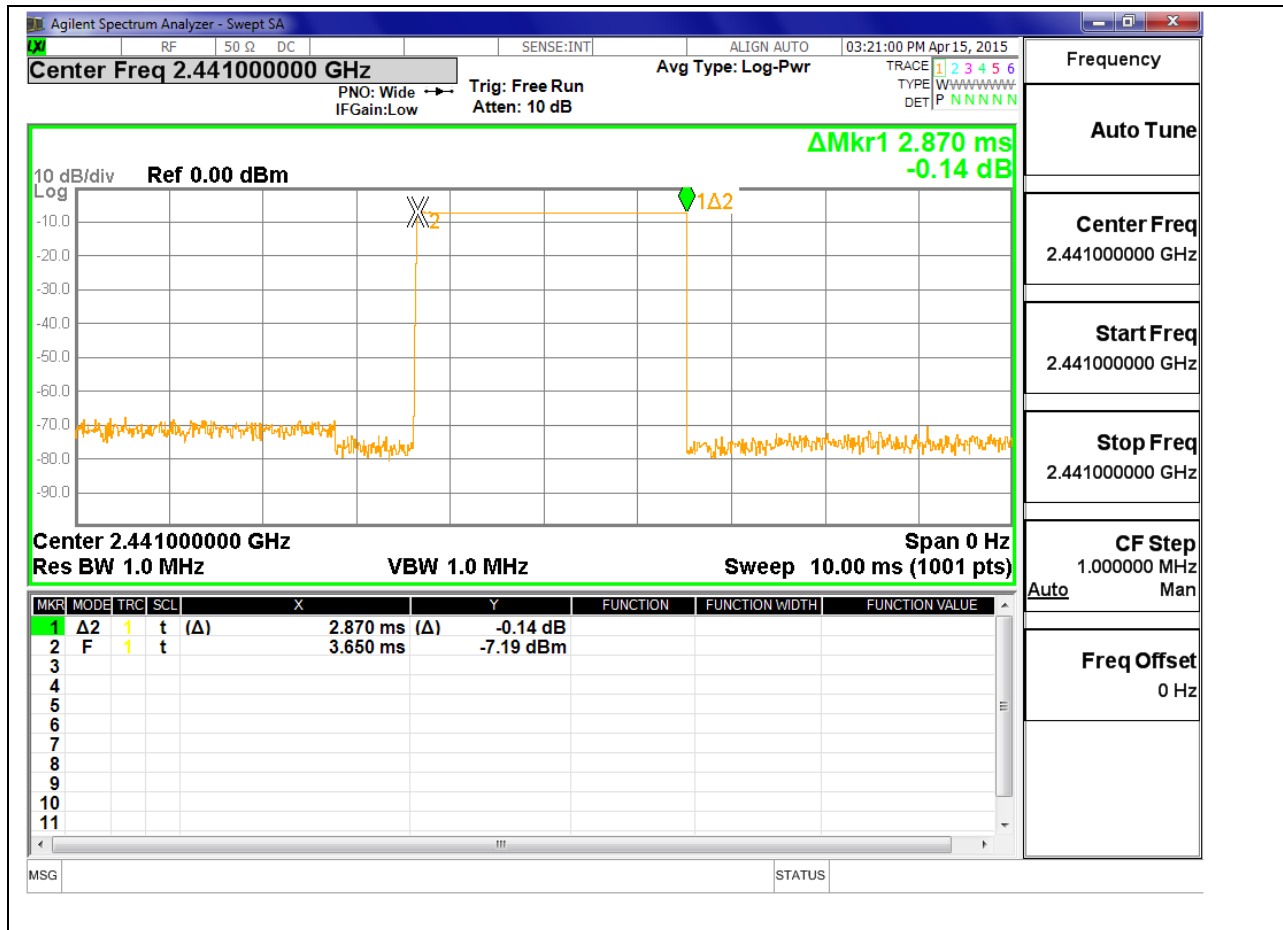
PULSE WIDTH - DH3



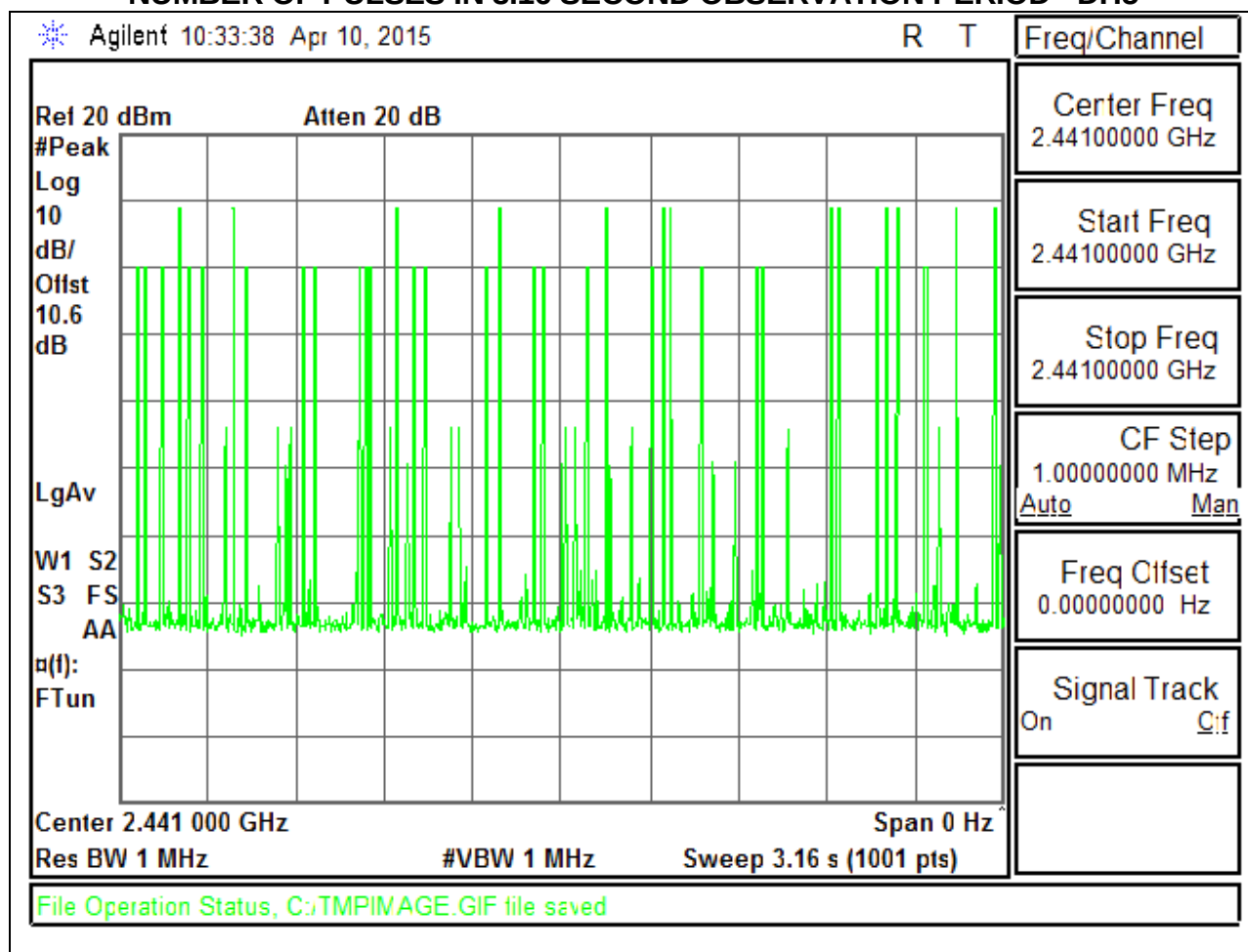
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH3



PULSE WIDTH - DH5



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH5



8.5. OUTPUT POWER

LIMIT

§15.247 (b) (1)

RSS-210 Issue 7 Clause A8.4

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	8.604	21	-12.396
Middle	2441	9.933	21	-11.067
High	2480	8.884	21	-12.116
Worst		9.933		-11.067

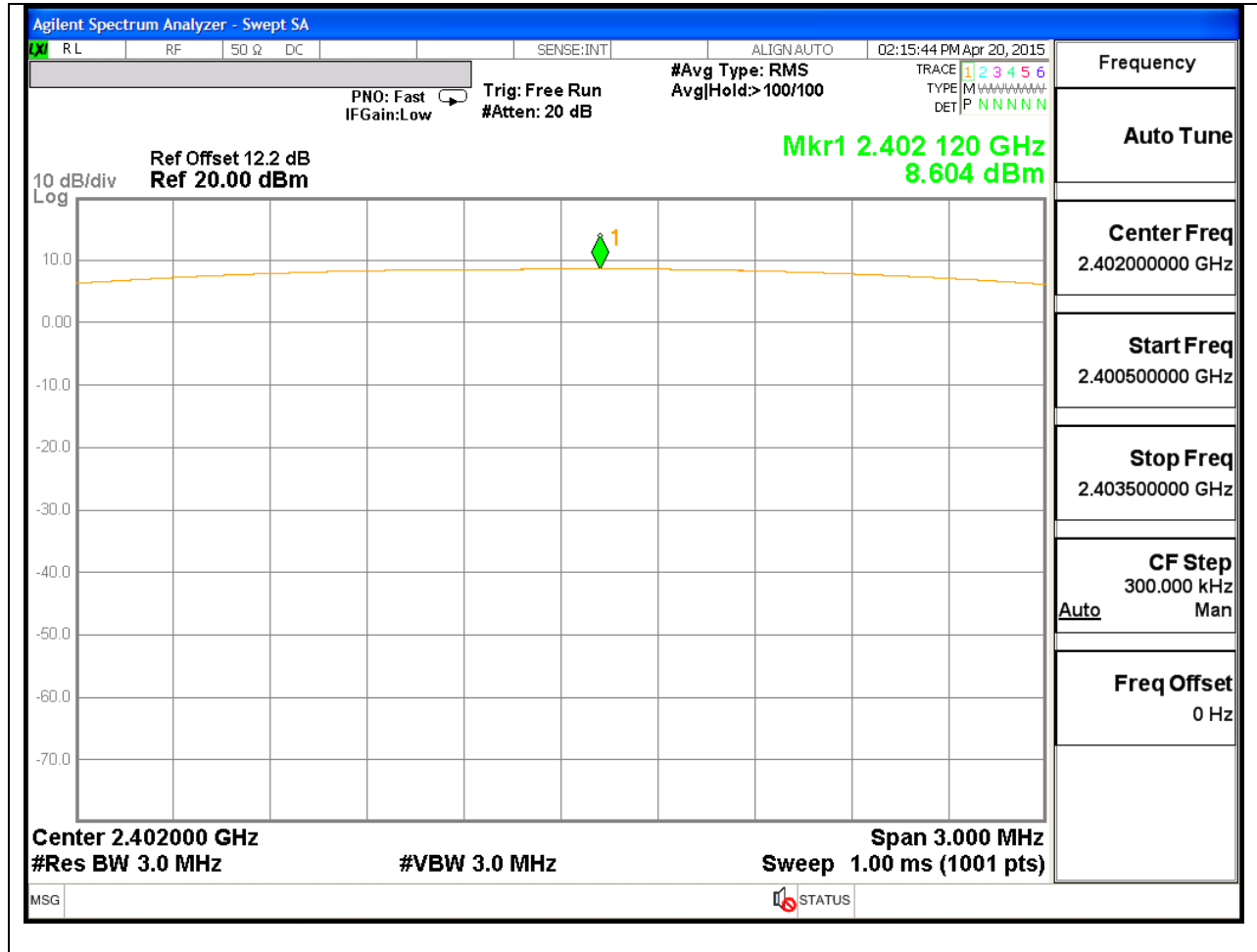
8.5.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	7.248	21	-13.752
Middle	2441	8.477	21	-12.523
High	2480	7.358	21	-13.642
Worst		8.477		-12.523

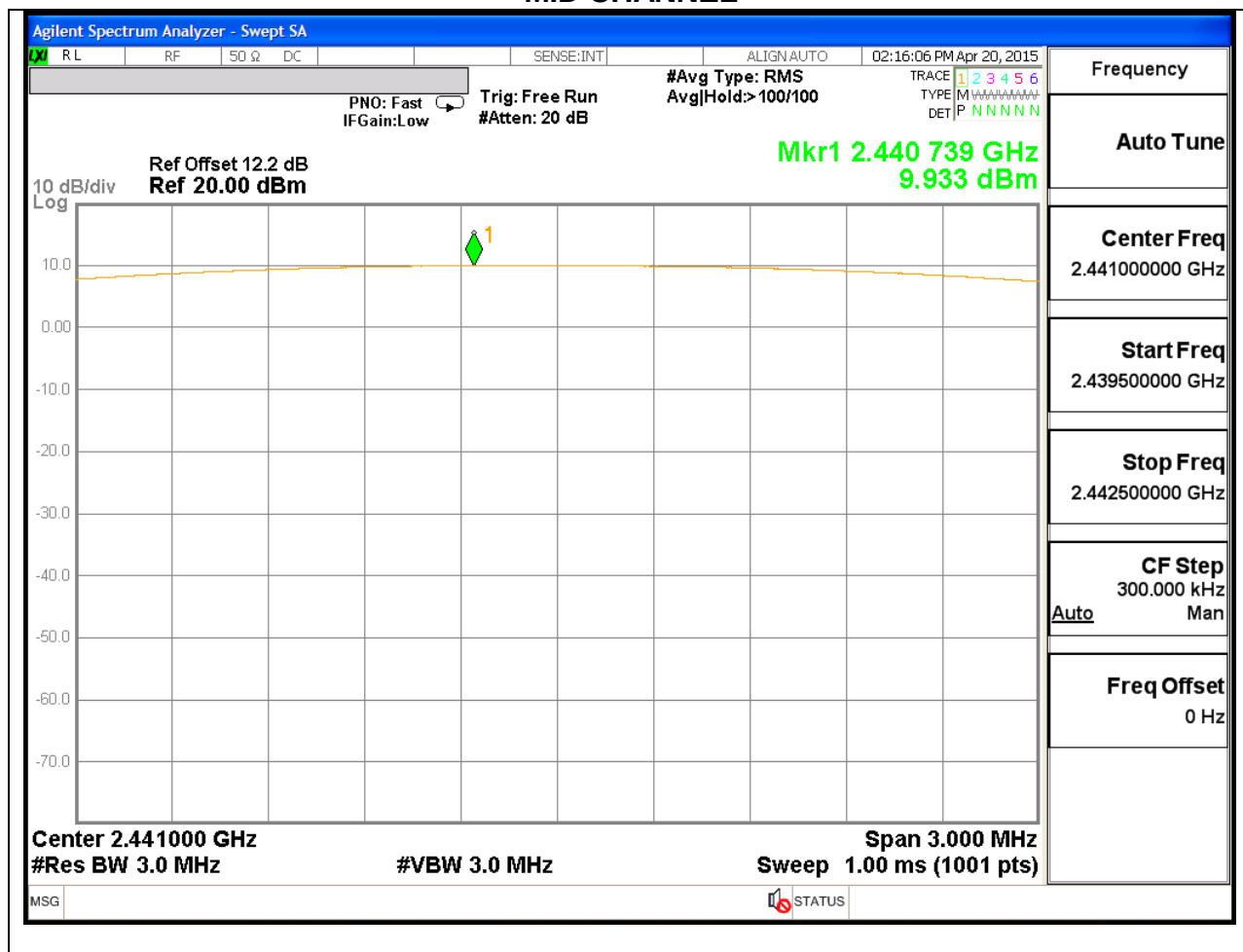
8.5.3. OUTPUT POWER PLOTS

GFSK OUTPUT POWER

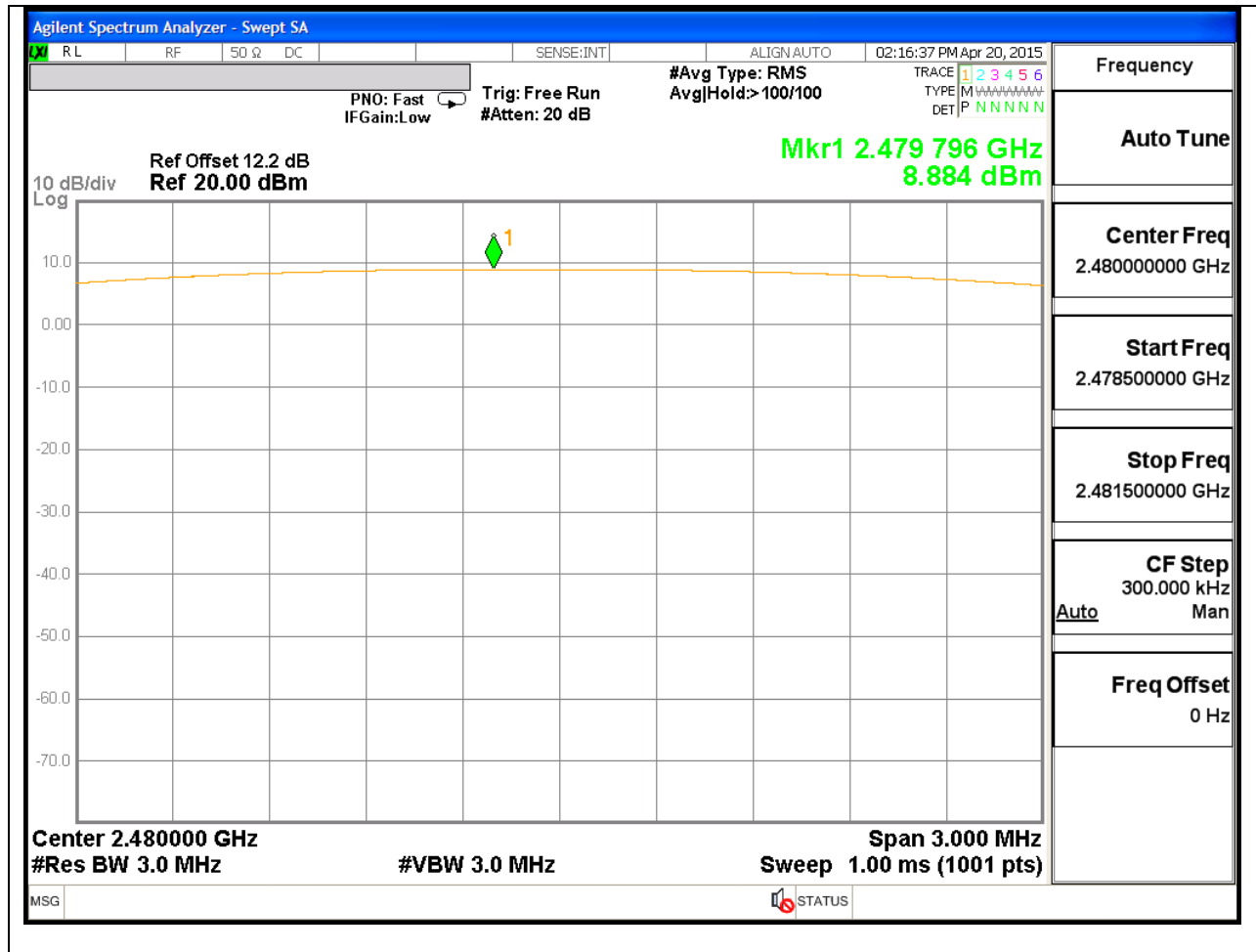
LOW CHANNEL



MID CHANNEL

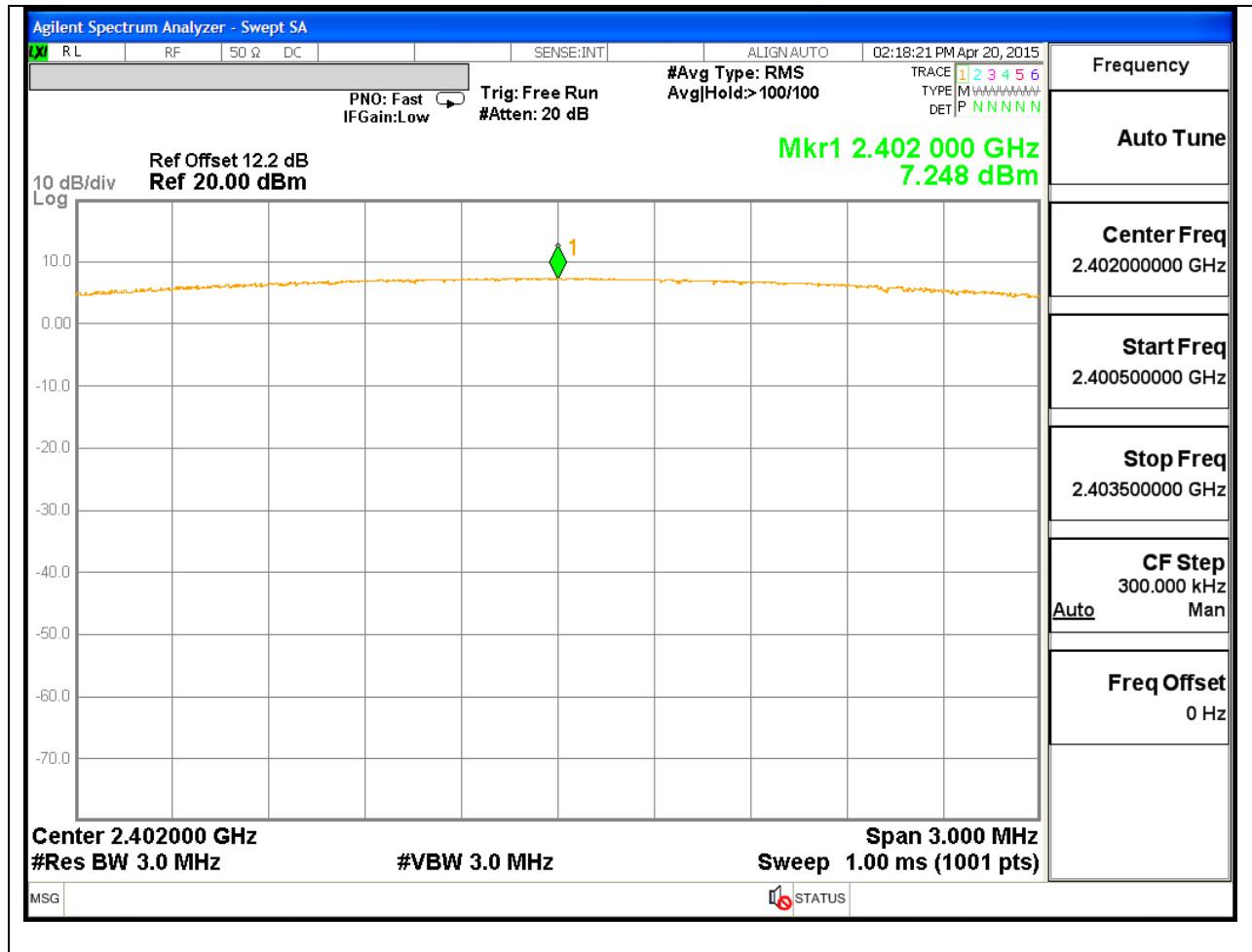


HIGH CHANNEL

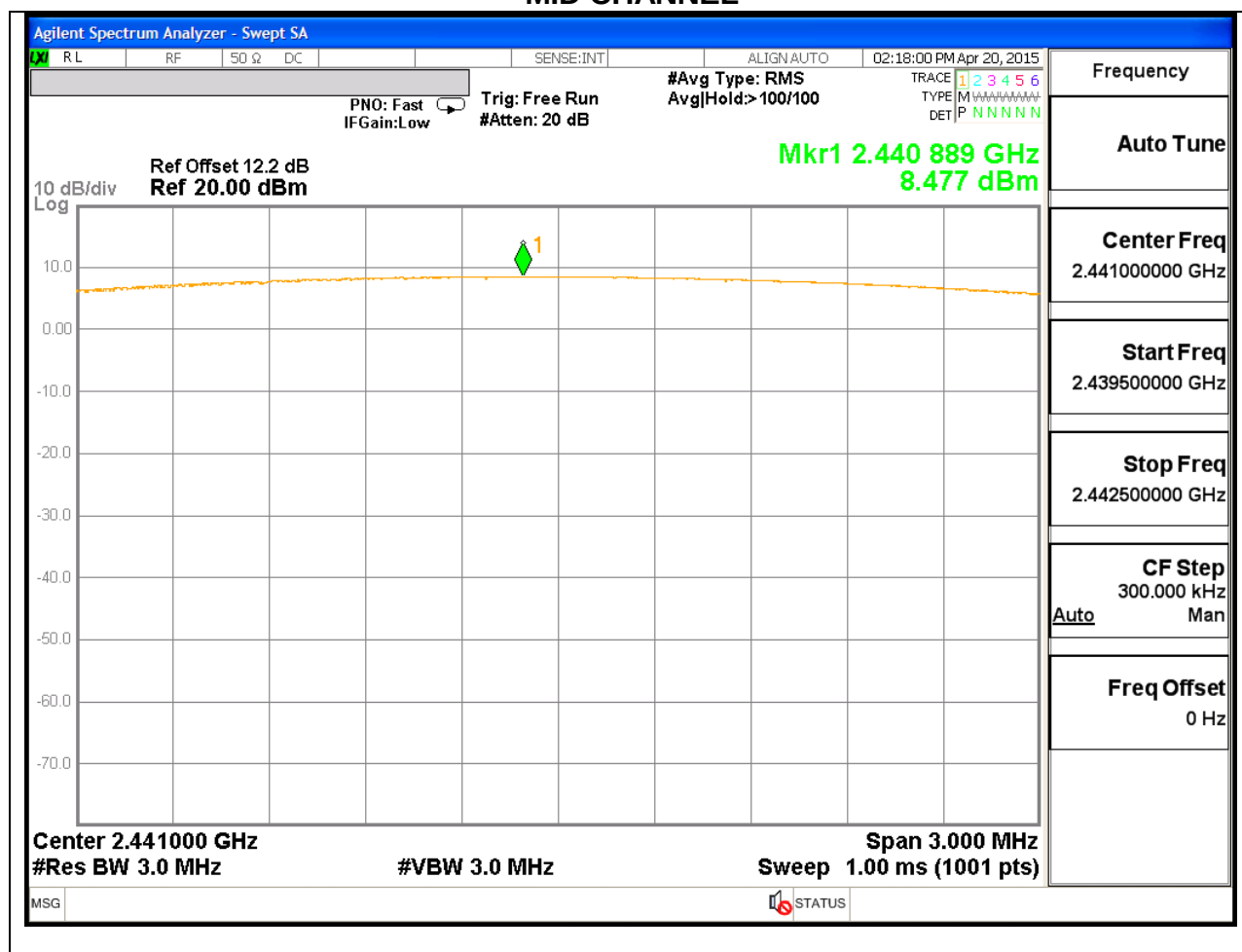


8PSK OUTPUT POWER

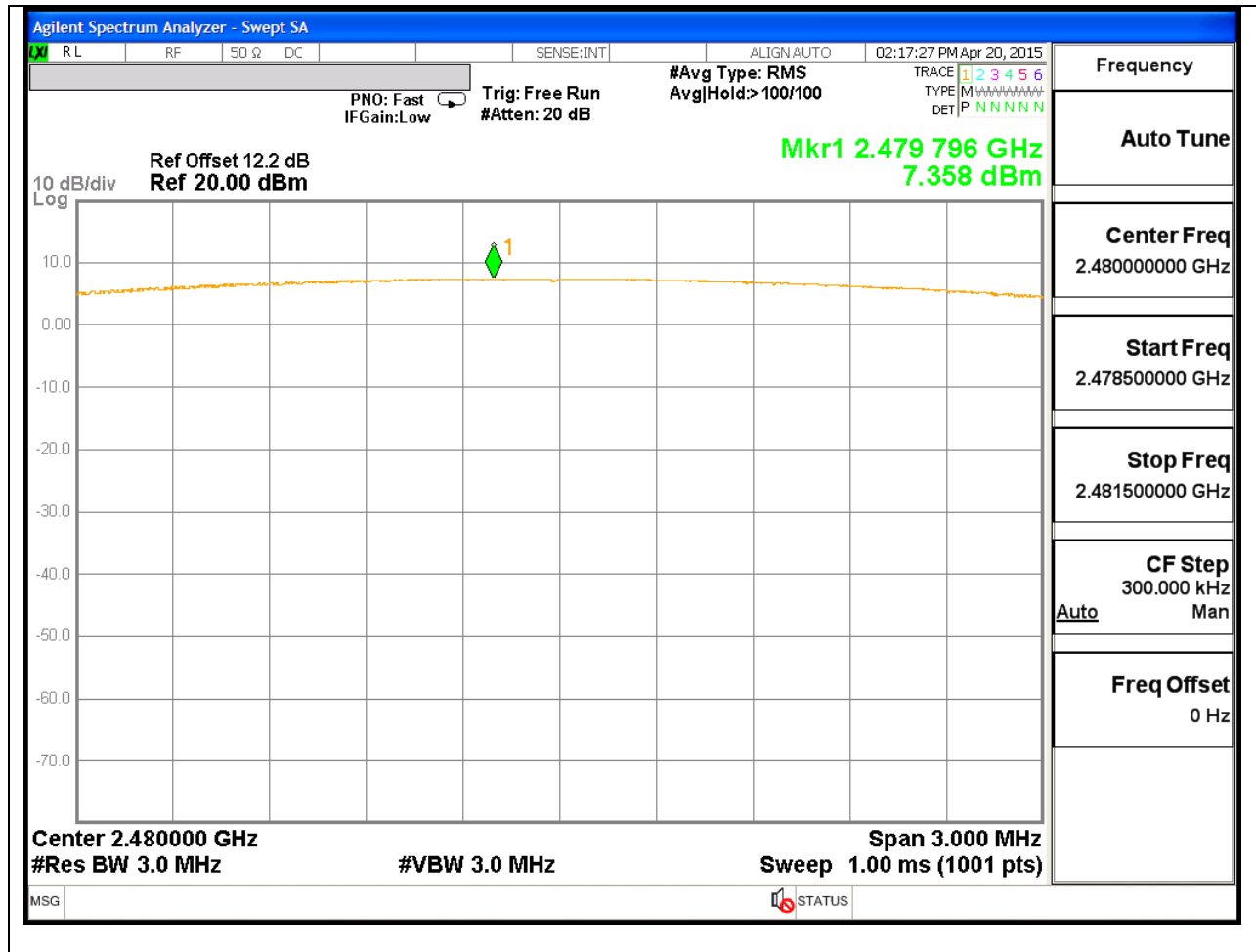
LOW CHANNEL



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	8.1
Middle	2441	9.9
High	2480	8.8
Worst		9.9

8.6.2. DATA RATE PI/4-DQPSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	4.60
Middle	2441	6.30
High	2480	5.10
Worst		6.30

8.6.3. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	4.7
Middle	2441	6.4
High	2480	5.2
Worst		6.4

8.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

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.

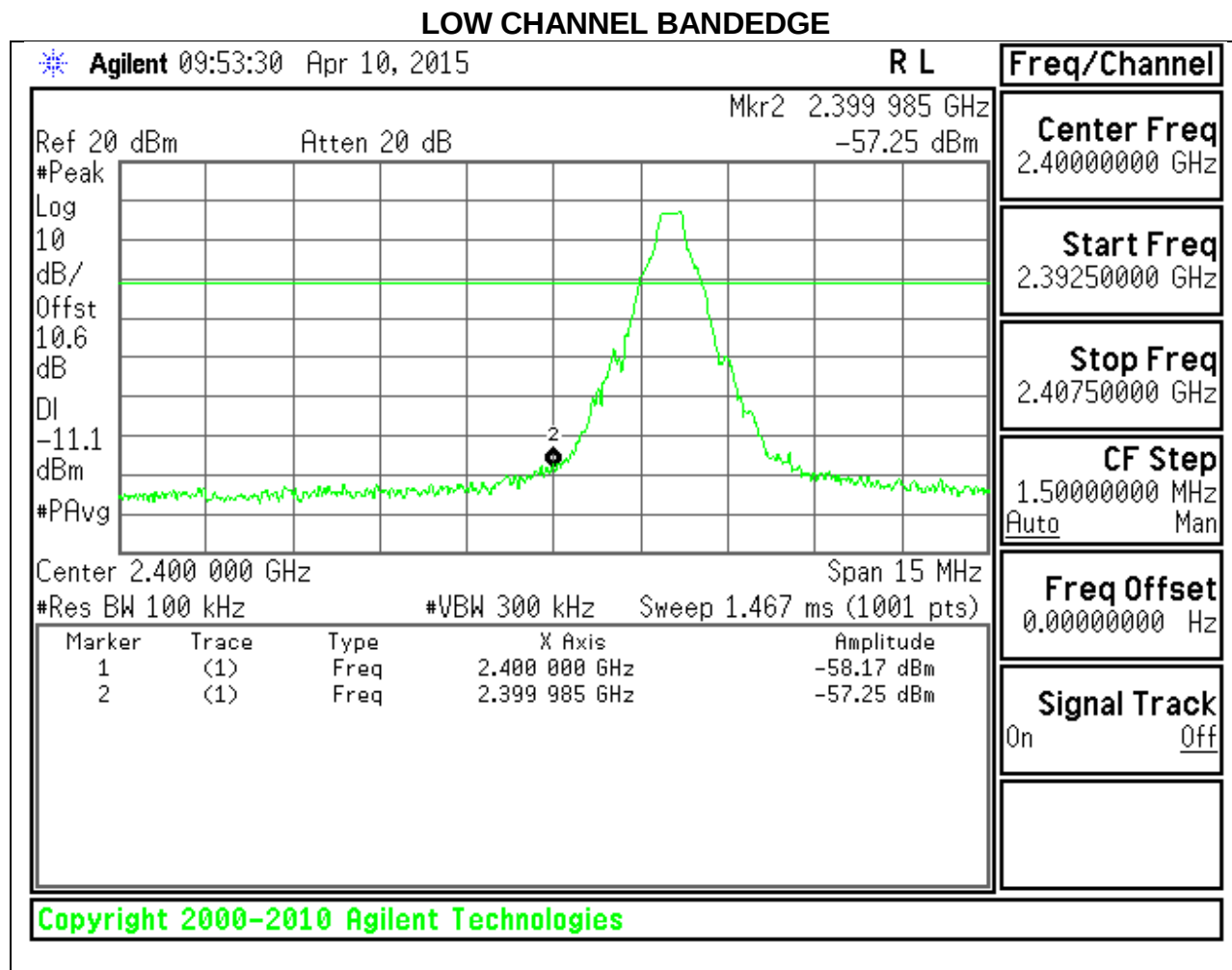
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

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

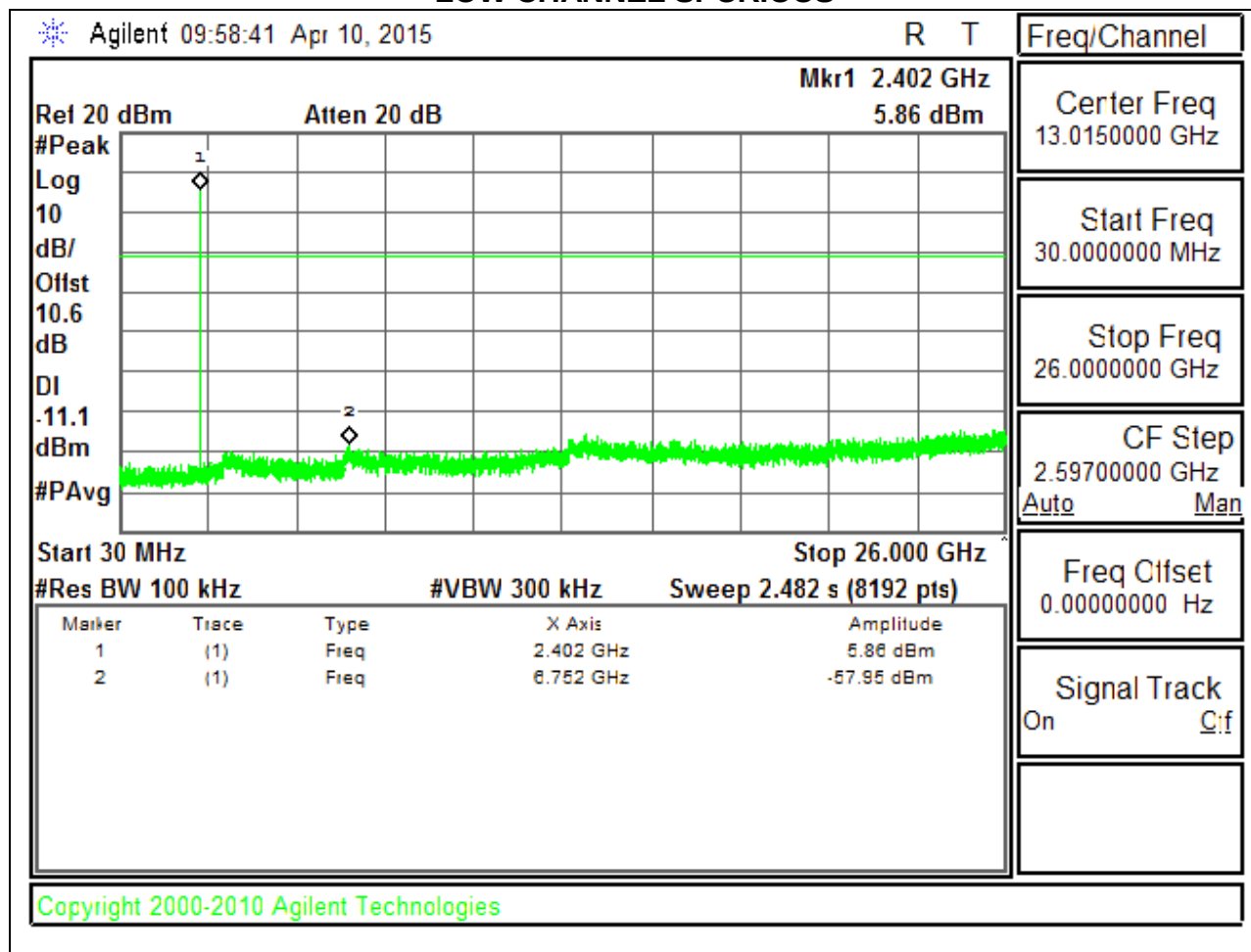
RESULTS

8.7.1. BASIC DATA RATE GFSK MODULATION

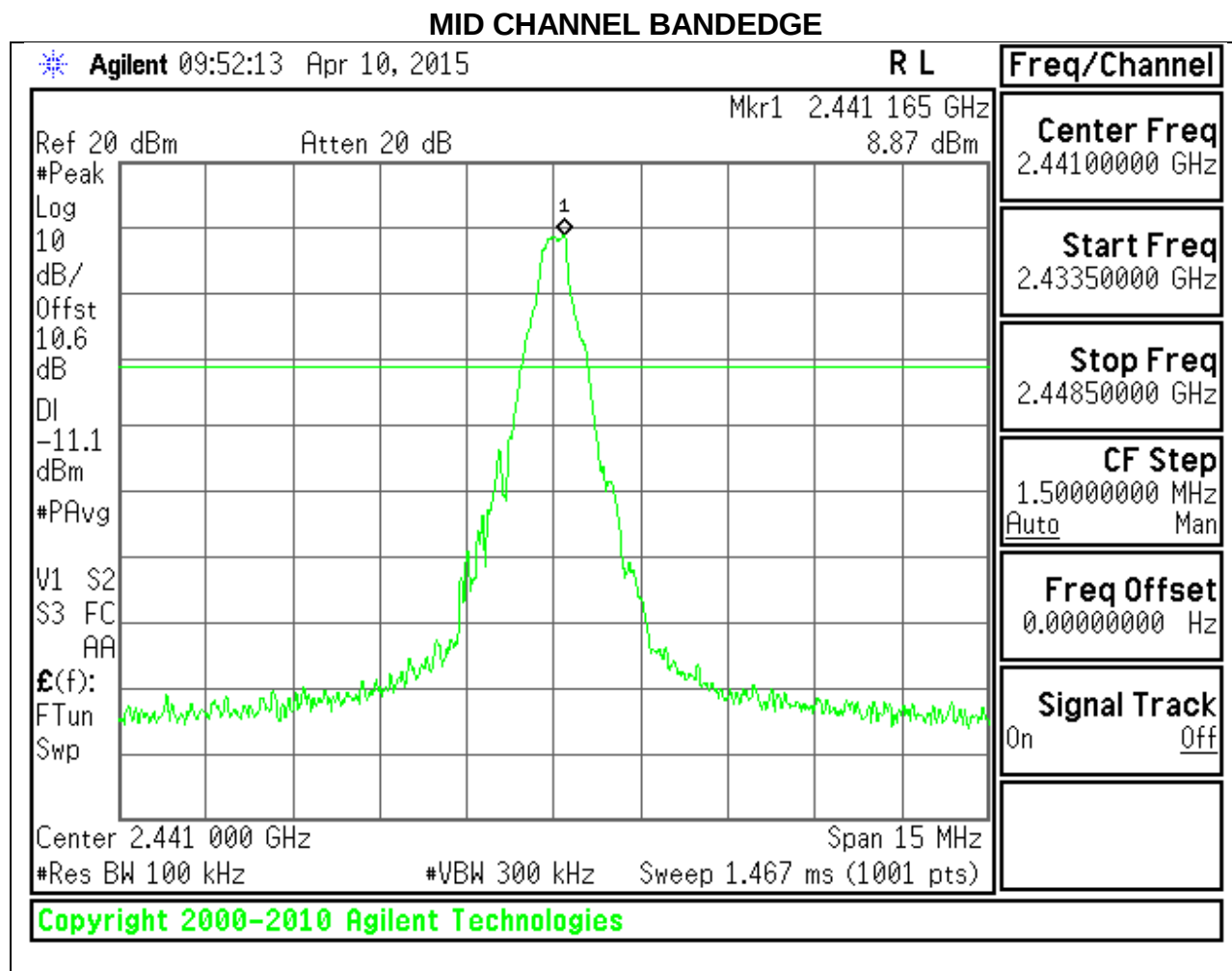
SPURIOUS EMISSIONS, LOW CHANNEL



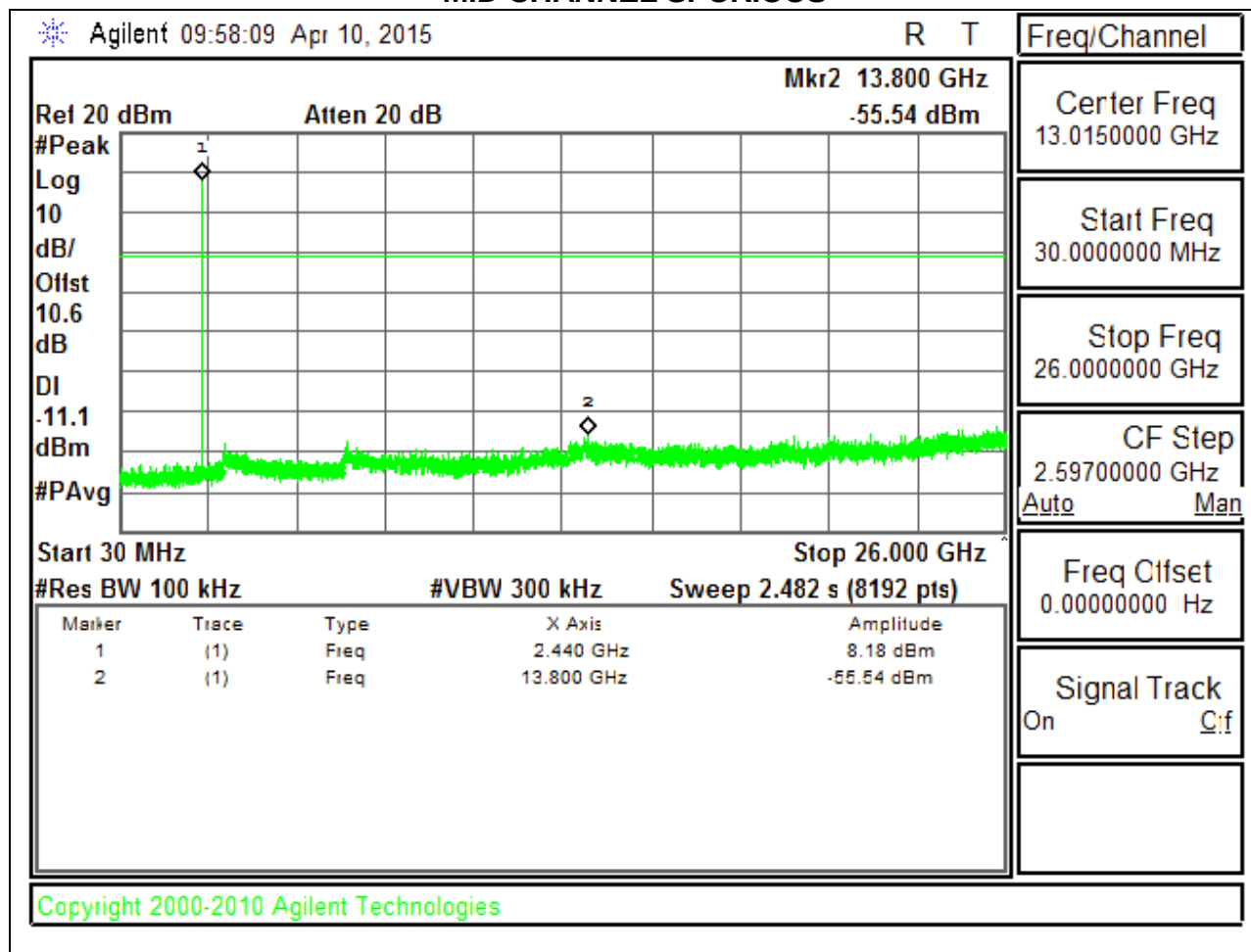
LOW CHANNEL SPURIOUS



SPURIOUS EMISSIONS, MID CHANNEL

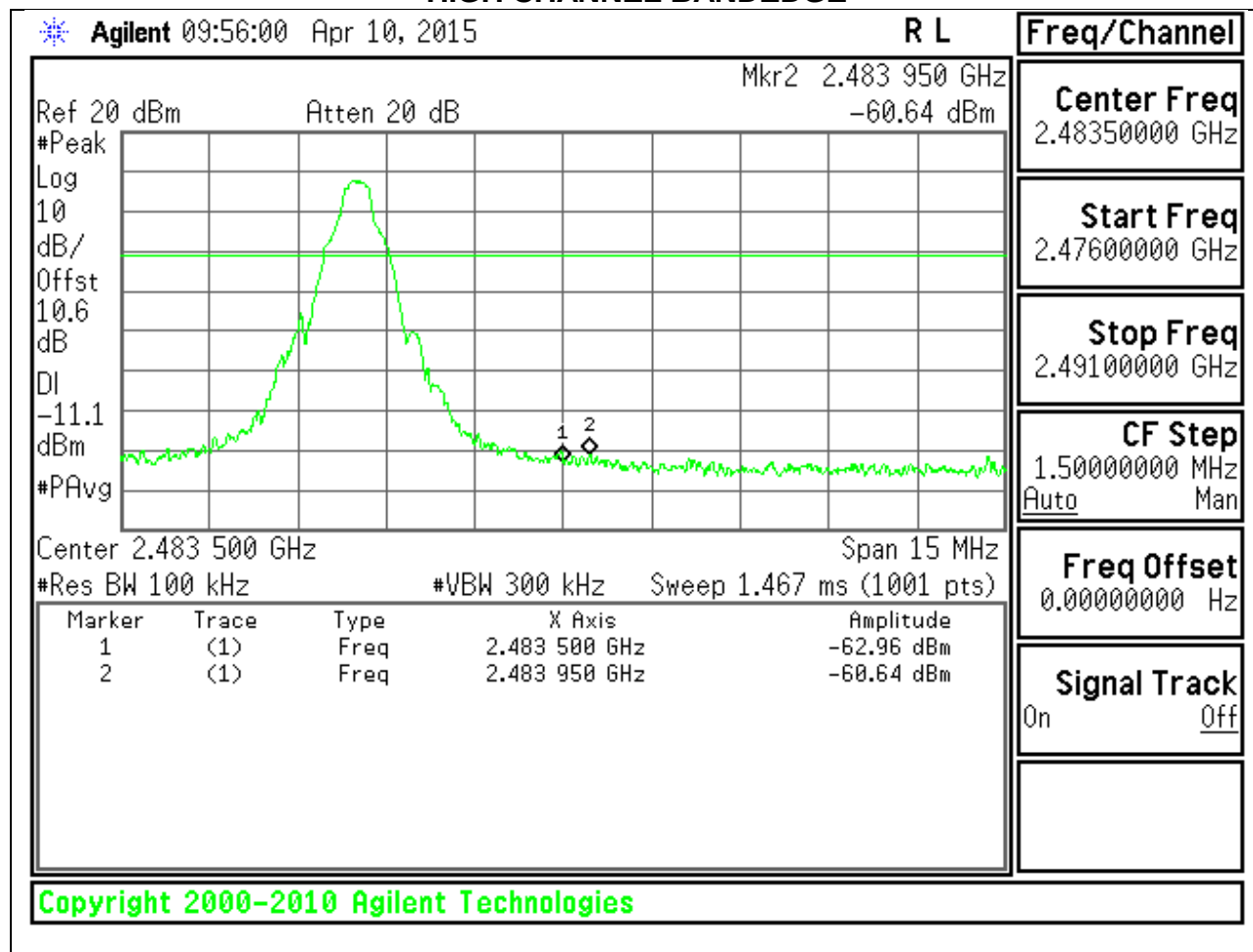


MID CHANNEL SPURIOUS

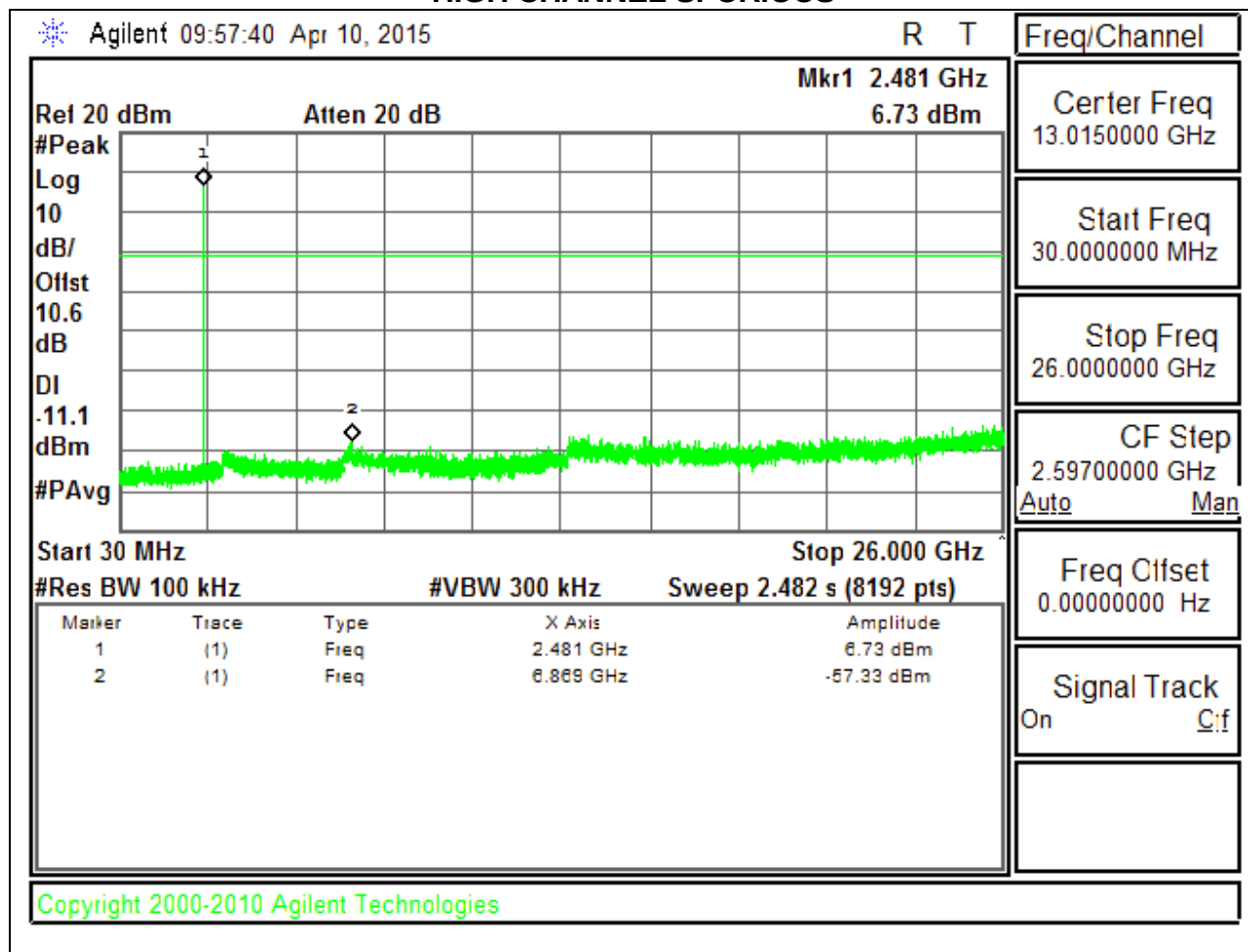


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

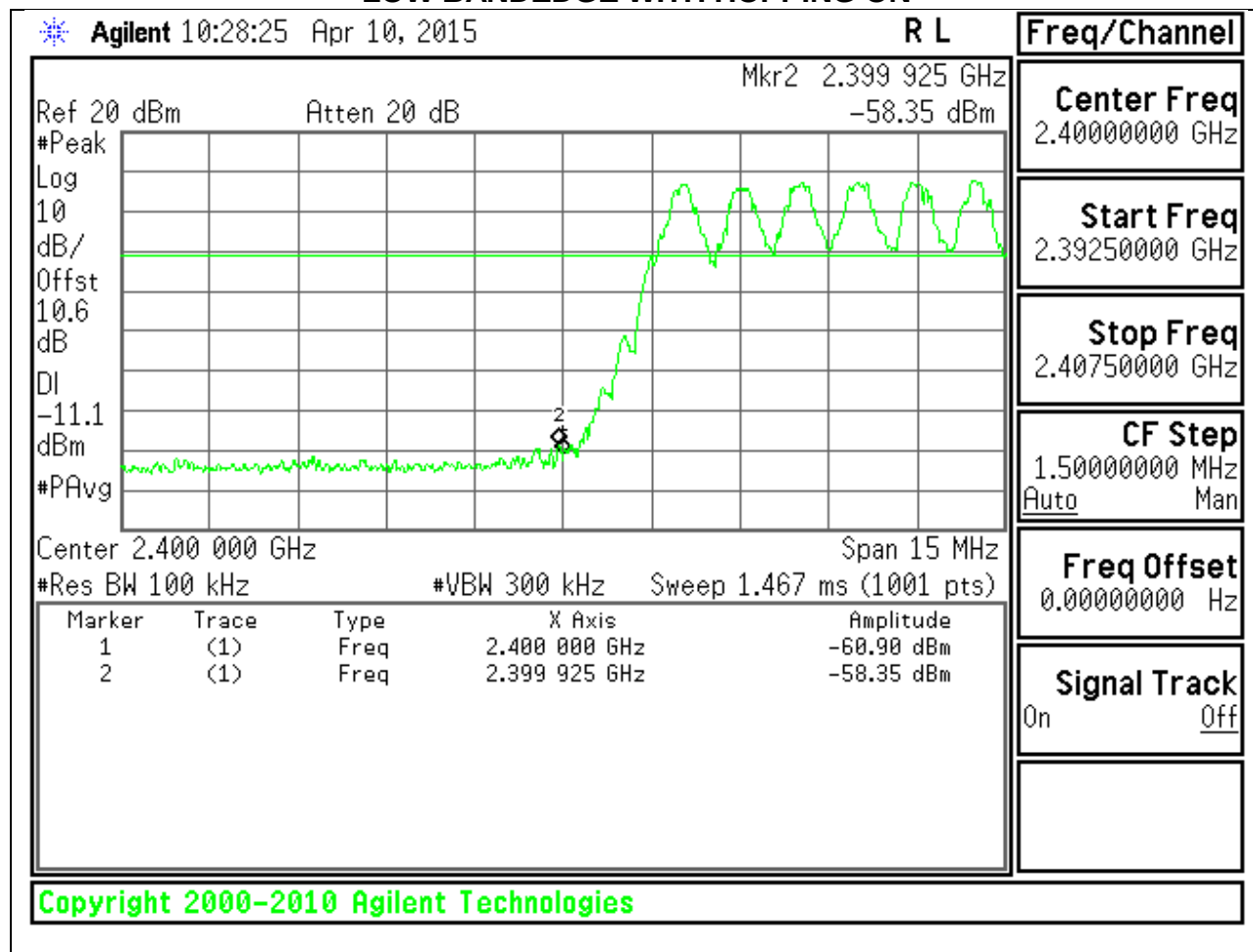


HIGH CHANNEL SPURIOUS

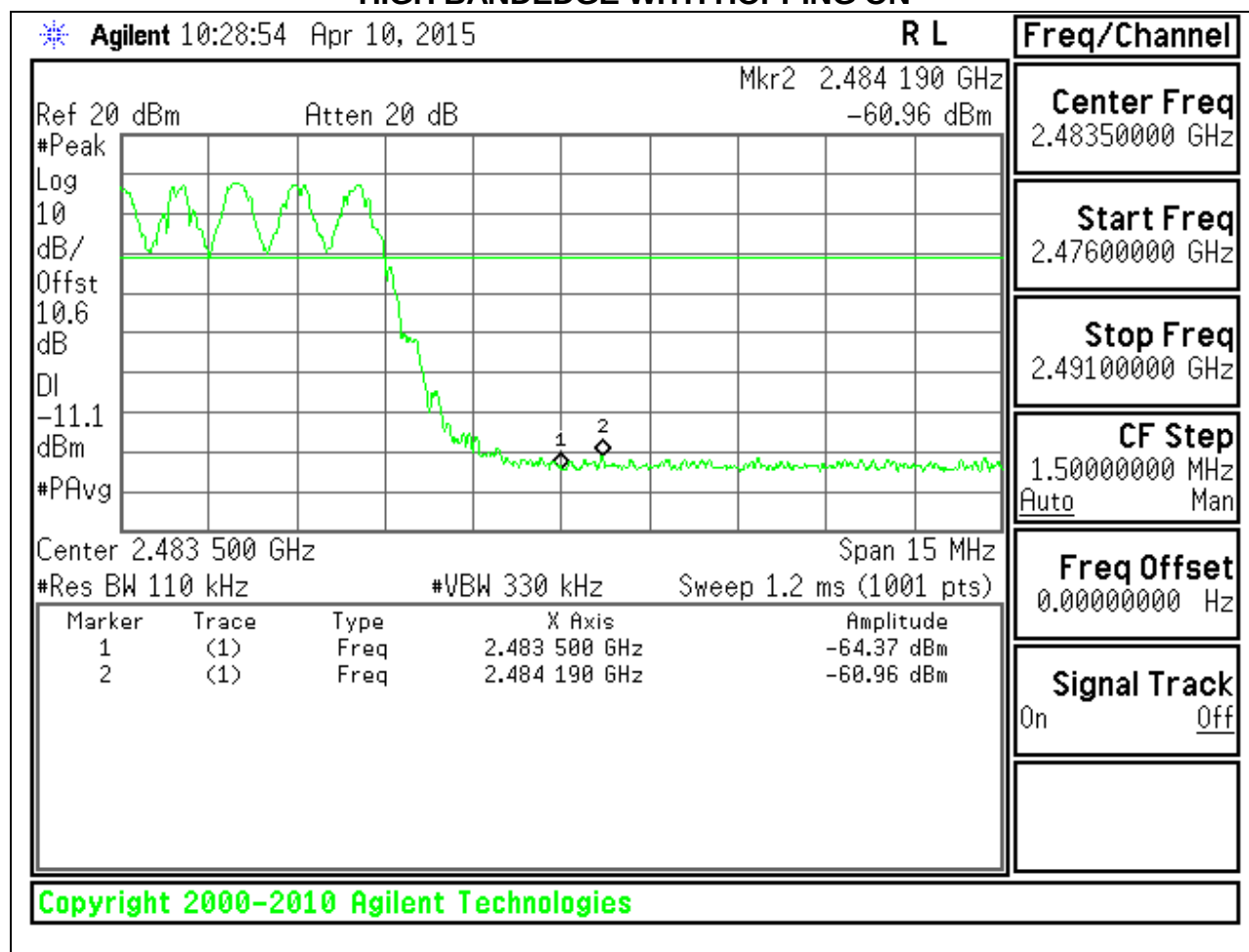


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



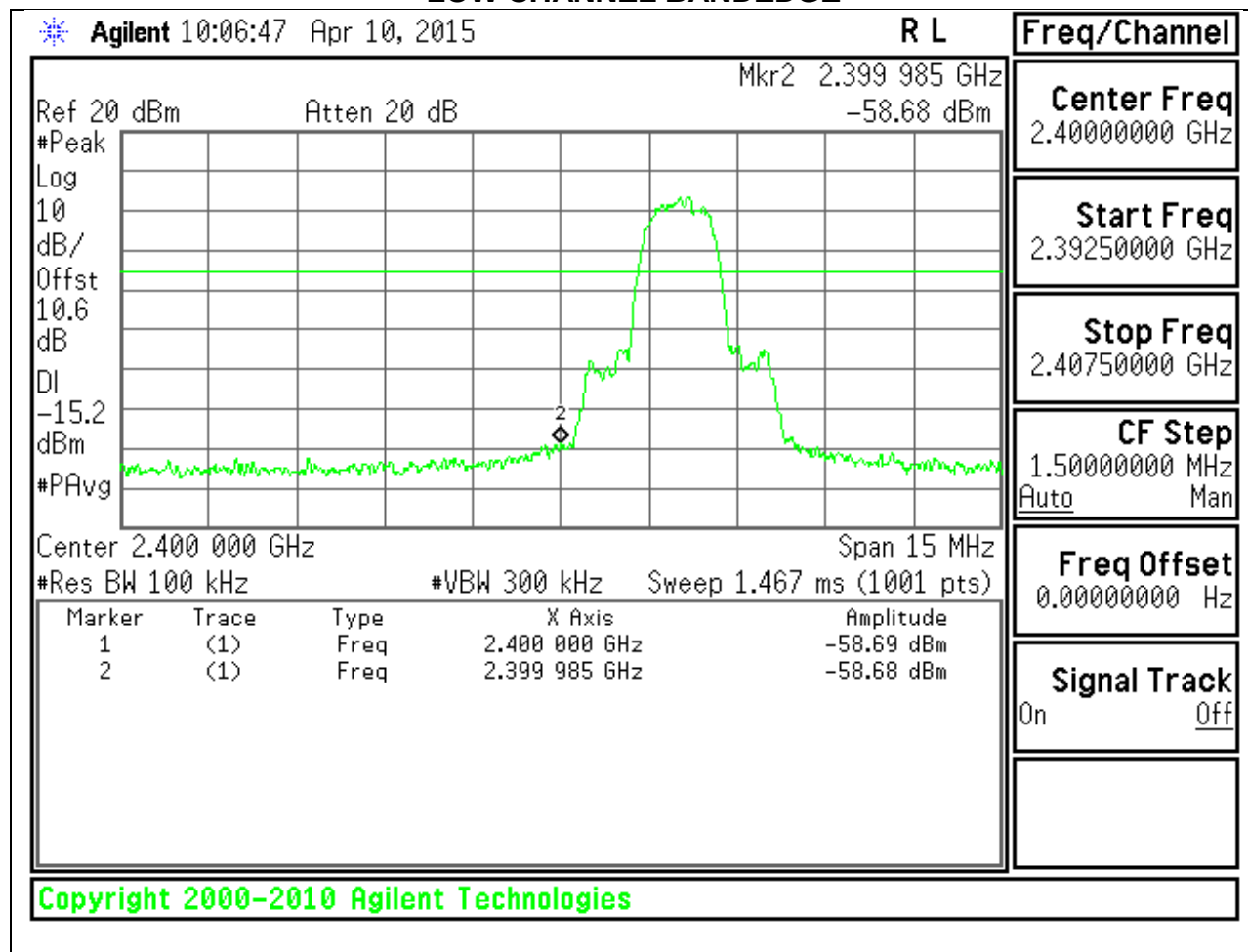
HIGH BANDEDGE WITH HOPPING ON



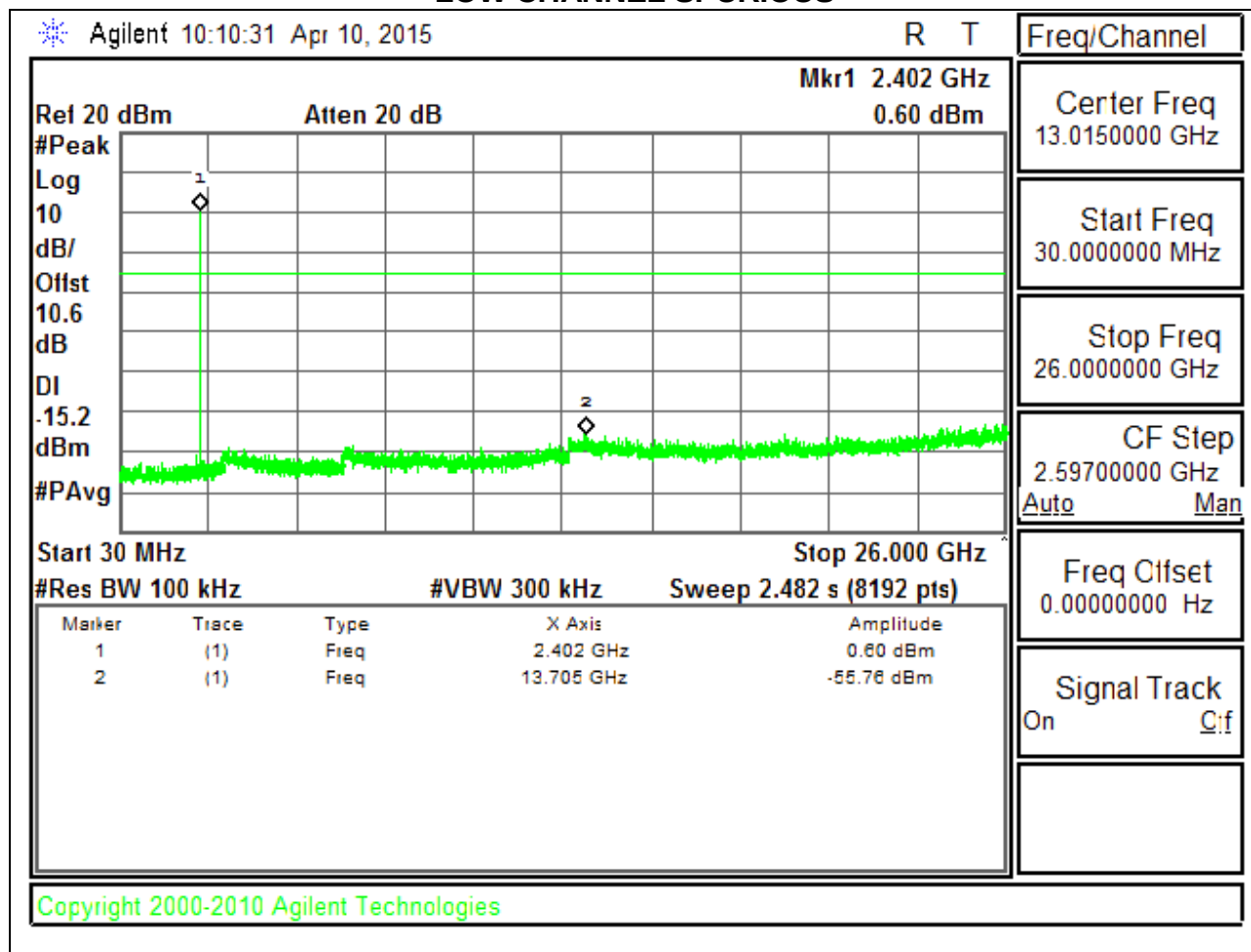
ENHANCED DATA RATE 8PSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

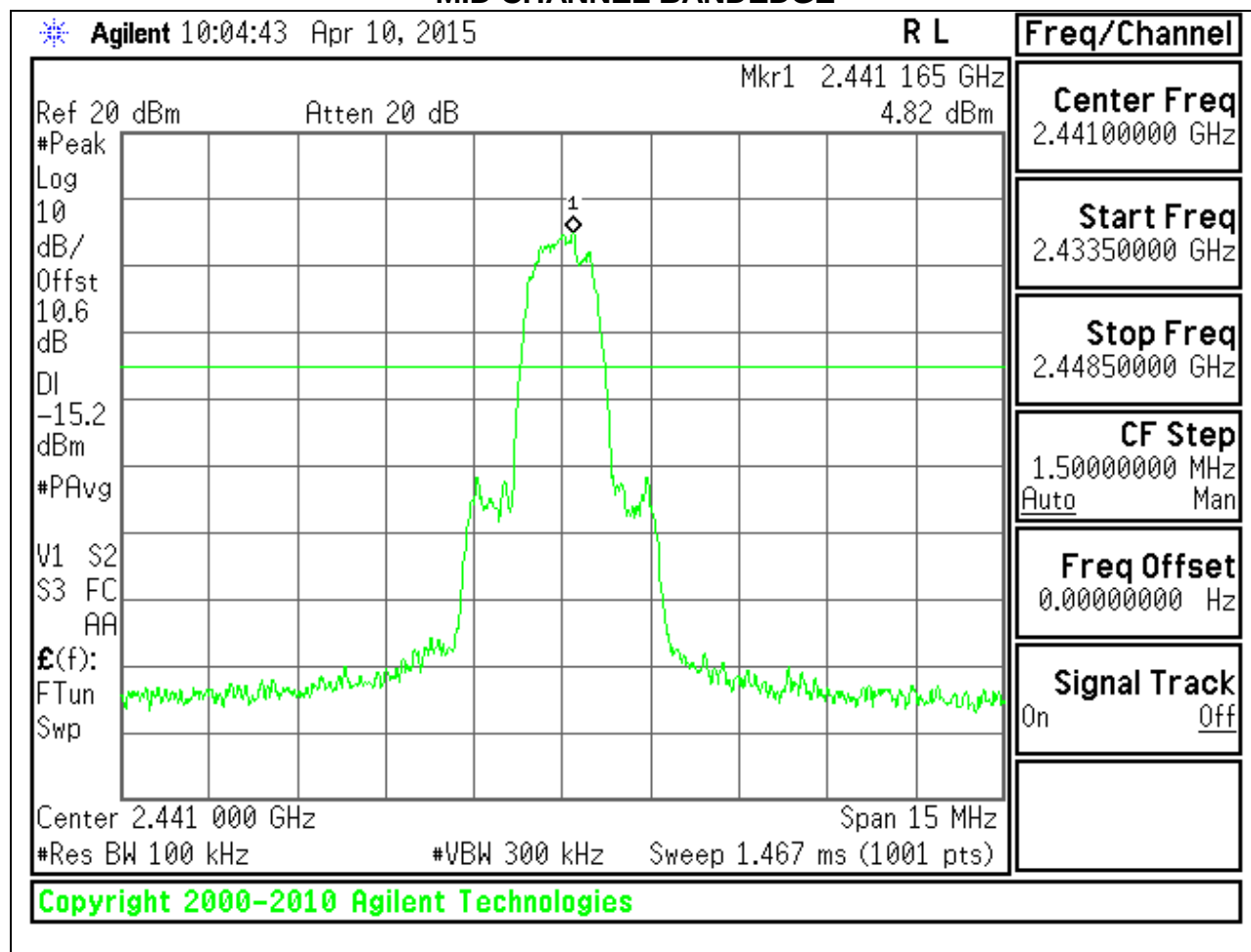


LOW CHANNEL SPURIOUS

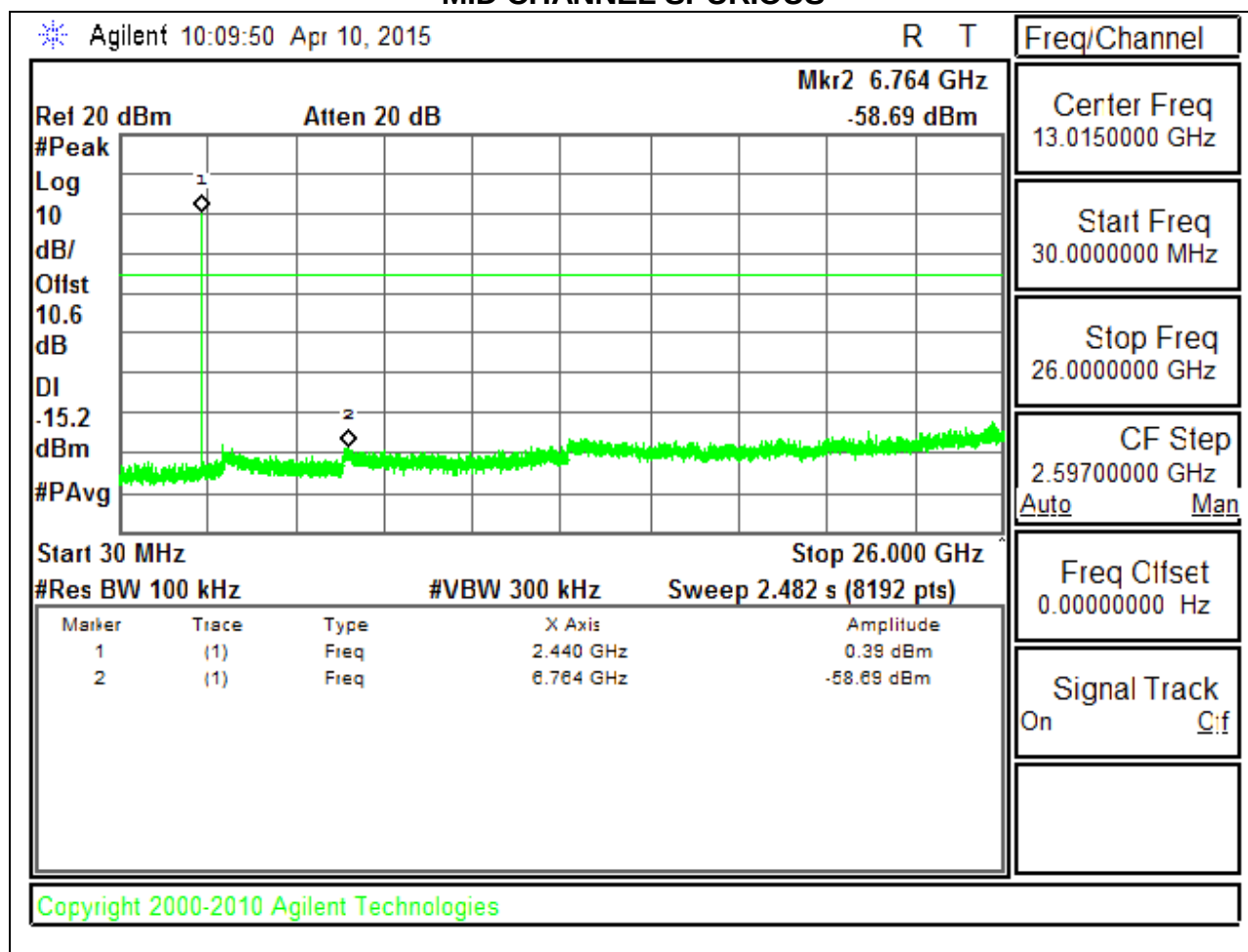


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

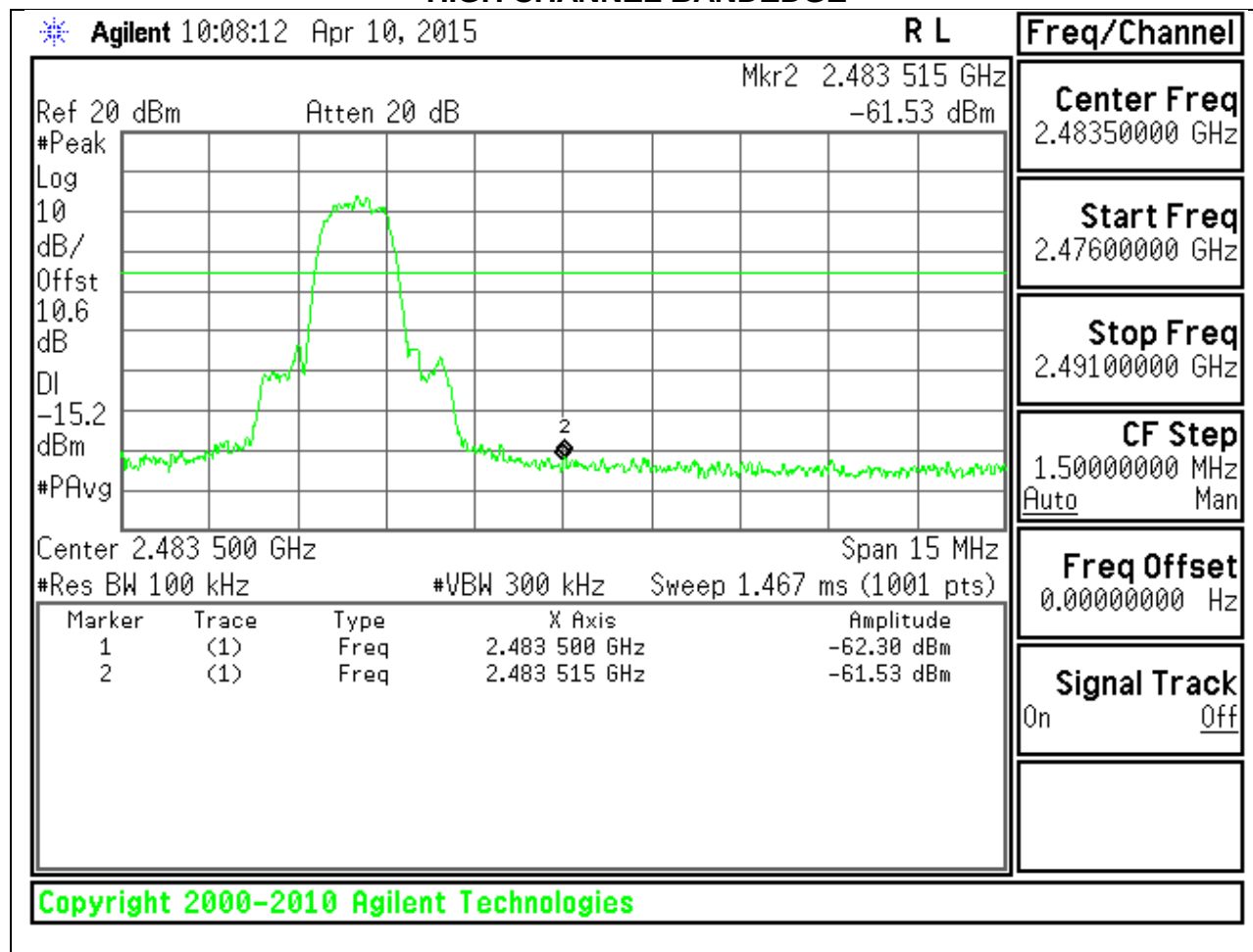


MID CHANNEL SPURIOUS

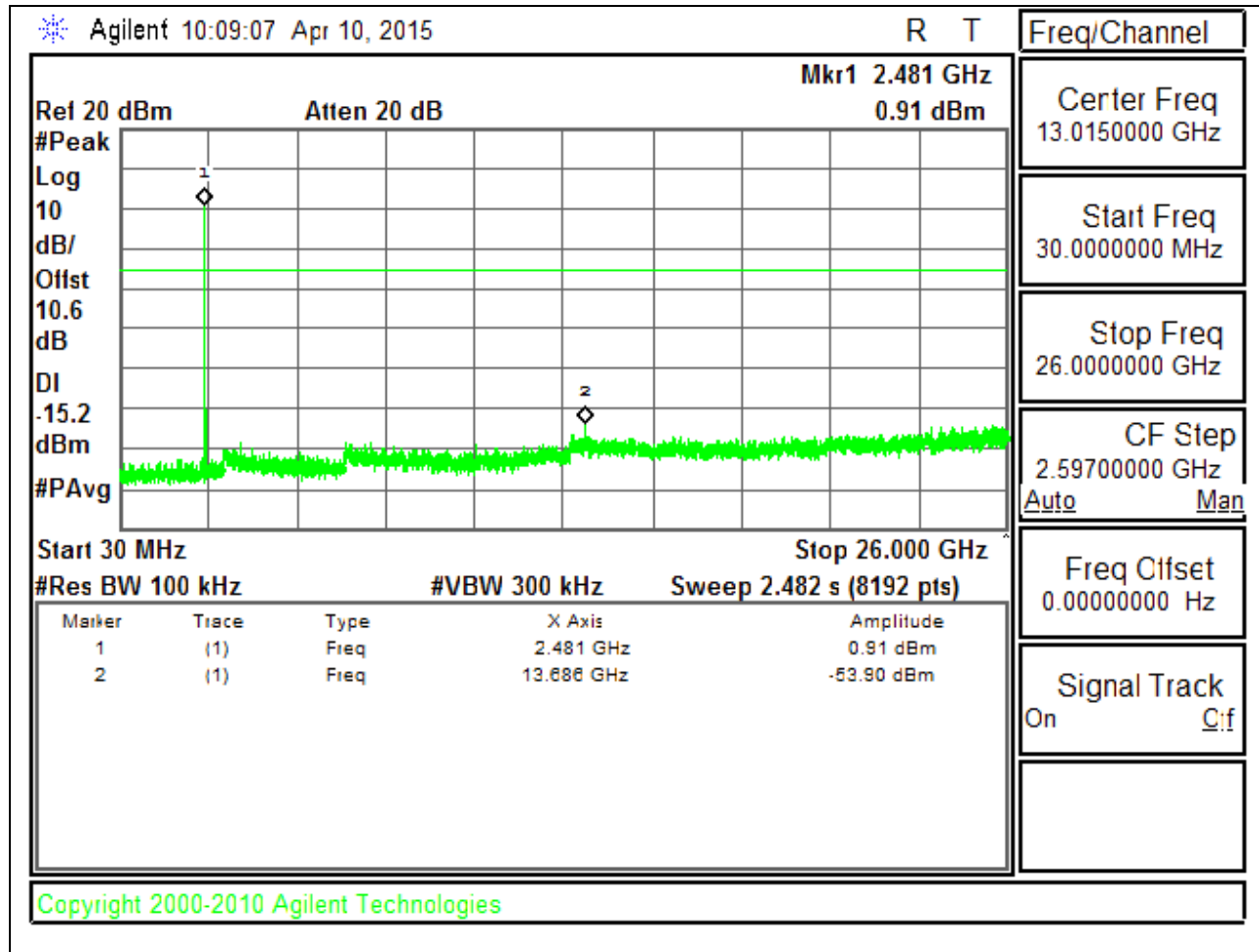


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

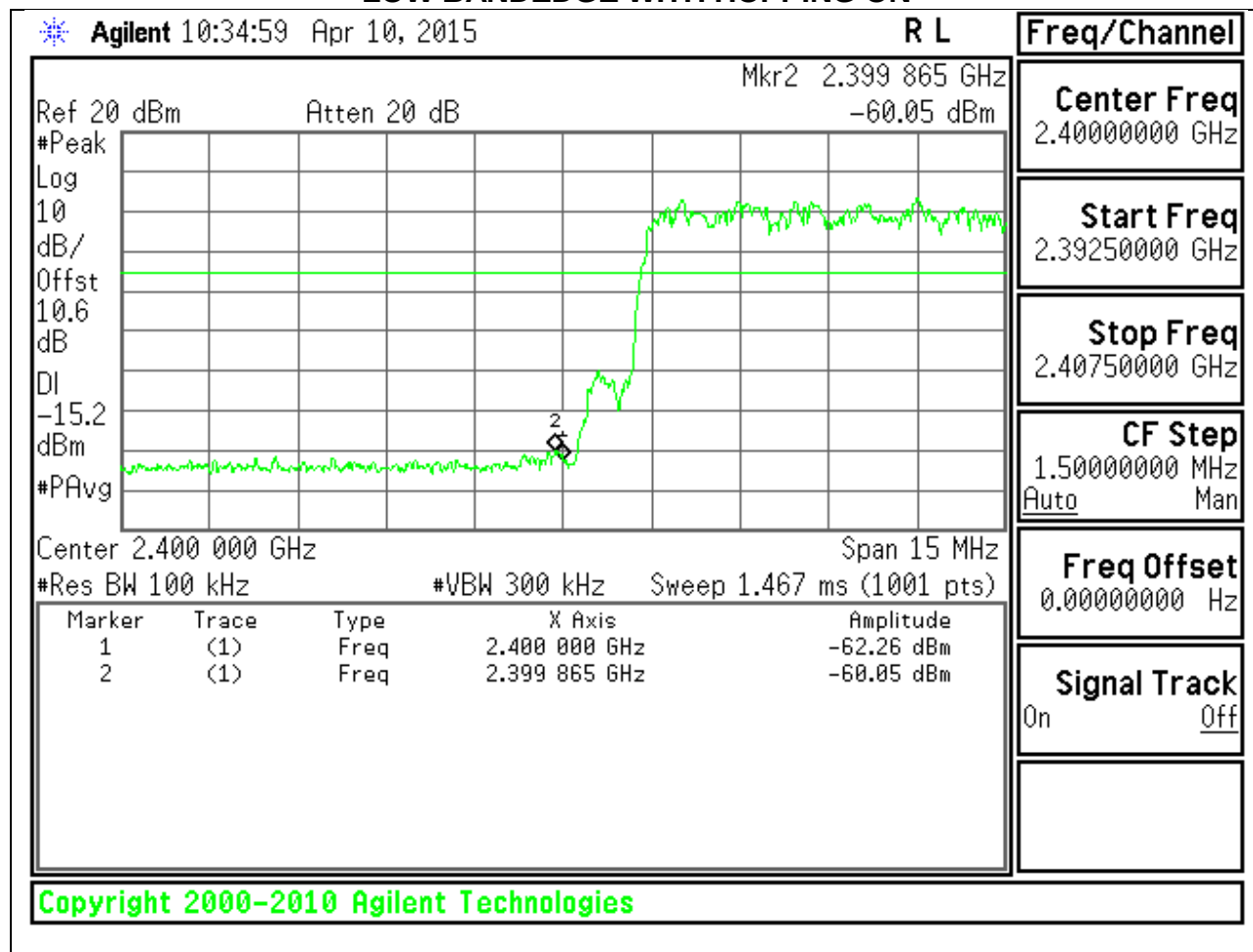


HIGH CHANNEL SPURIOUS

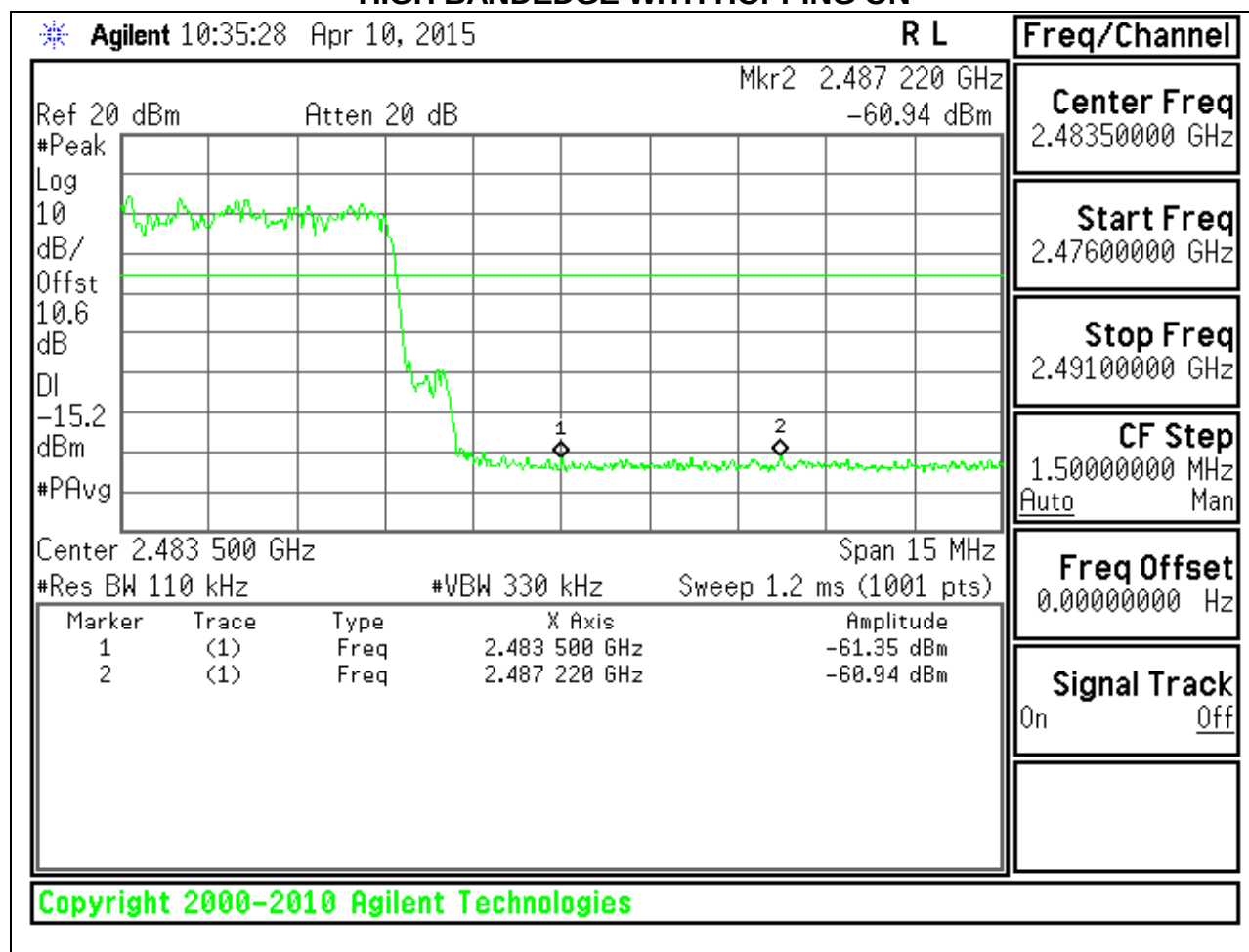


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

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 ($\mu\text{V/m}$) at 3 m	Field Strength Limit (dB $\mu\text{V/m}$) 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.

$$\text{GFSK} = 1/T = 1 / 0.00287\text{S} = 350\text{Hz}.$$

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.

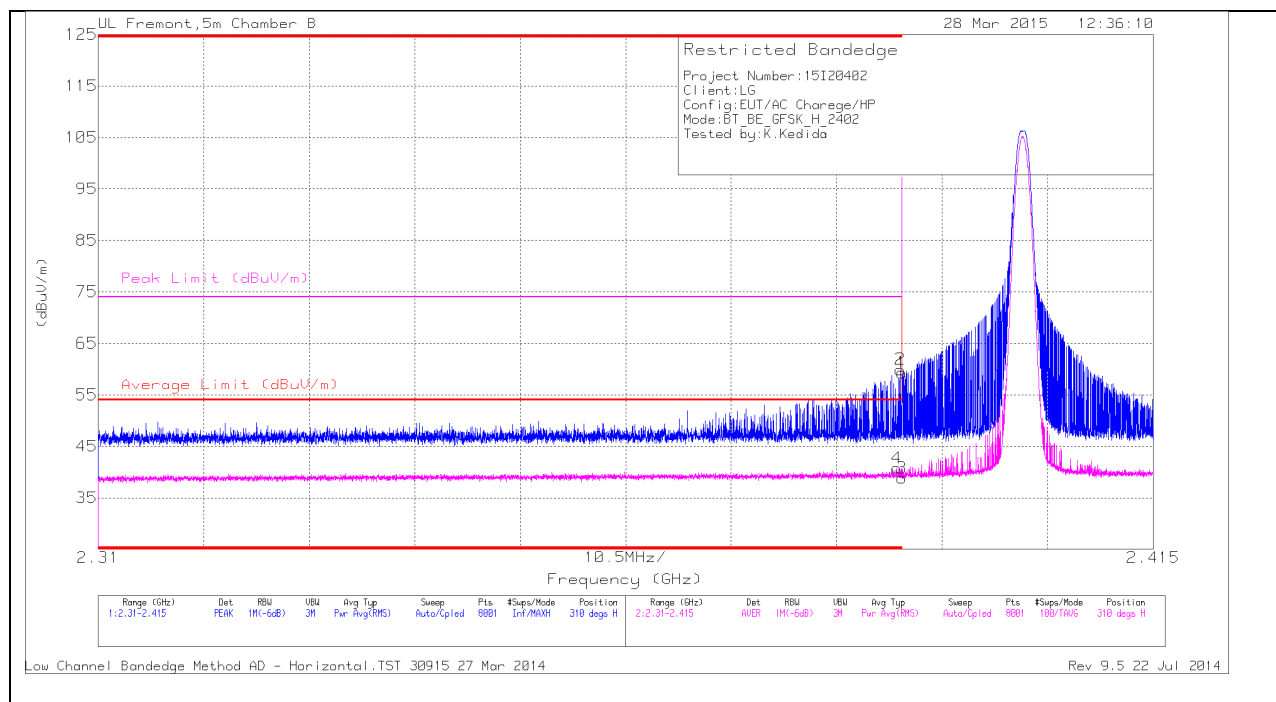
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

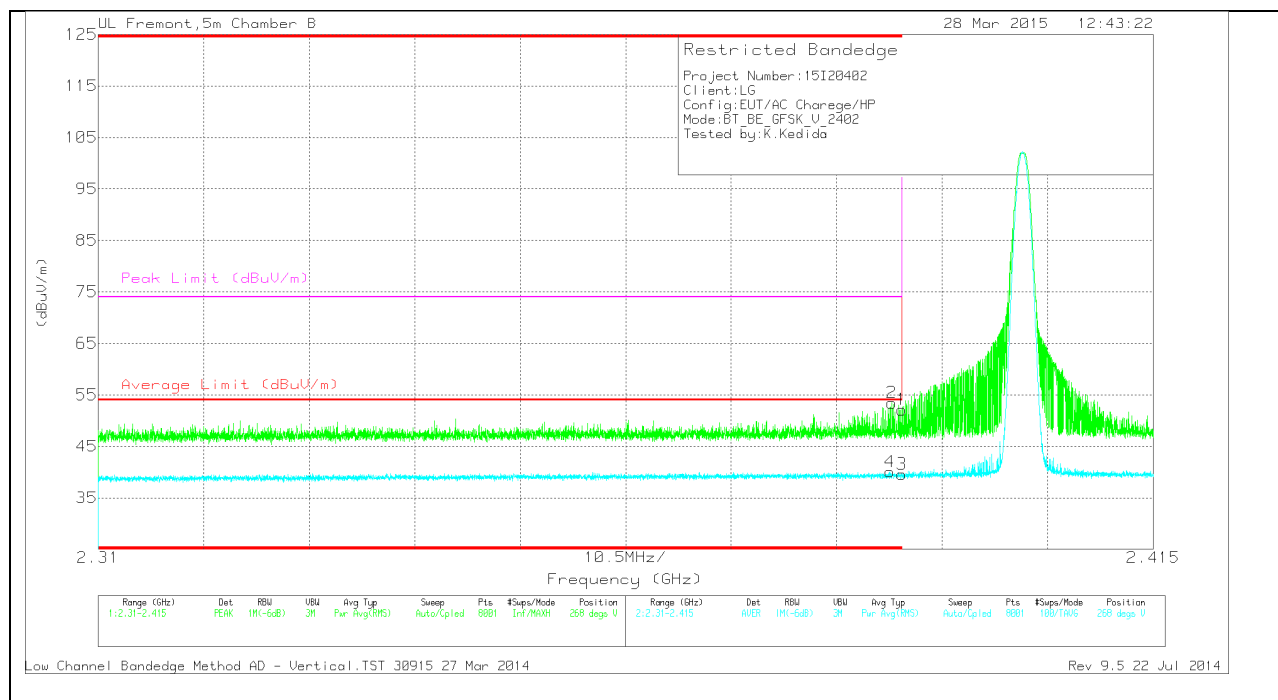
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filt r/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	* 2.39	49.92	PK	32	-22.6	59.32	-	-	74	-14.68	310	239	H
2	* 2.39	50.51	PK	32	-22.6	59.91	-	-	74	-14.09	310	239	H
3	* 2.39	28.26	VB1T	32	-22.6	38.85	54	-15.15	-	-	310	239	H
4	* 2.389	30.19	VB1T	32	-22.6	40.78	54	-13.22	-	-	310	239	H

VERTICAL PEAK AND AVERAGE PLOT

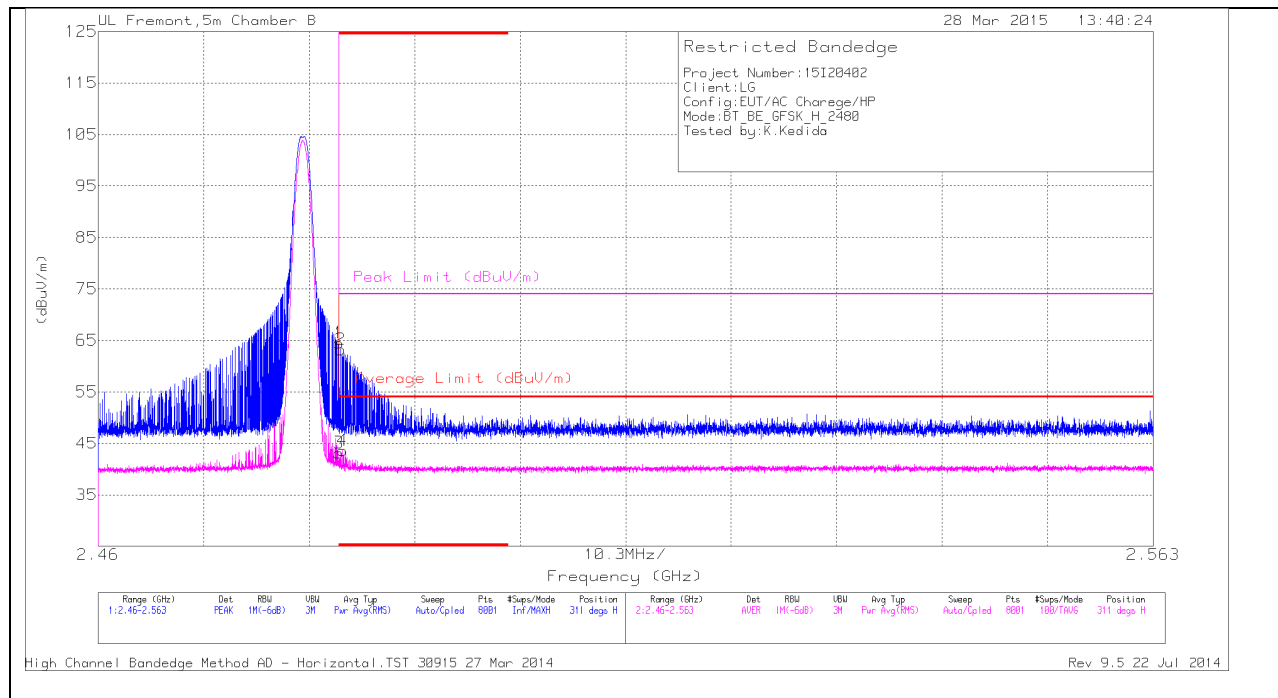


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filter/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	* 2.389	44.06	PK	32	-22.6	53.46	-	-	74	-20.54	268	299	V
4	* 2.389	29.47	VB1T	32	-22.6	40.06	54	-13.94	-	-	268	299	V
1	* 2.39	42.72	PK	32	-22.6	52.12	-	-	74	-21.88	268	299	V
3	* 2.39	29.01	VB1T	32	-22.6	39.6	54	-14.4	-	-	268	299	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

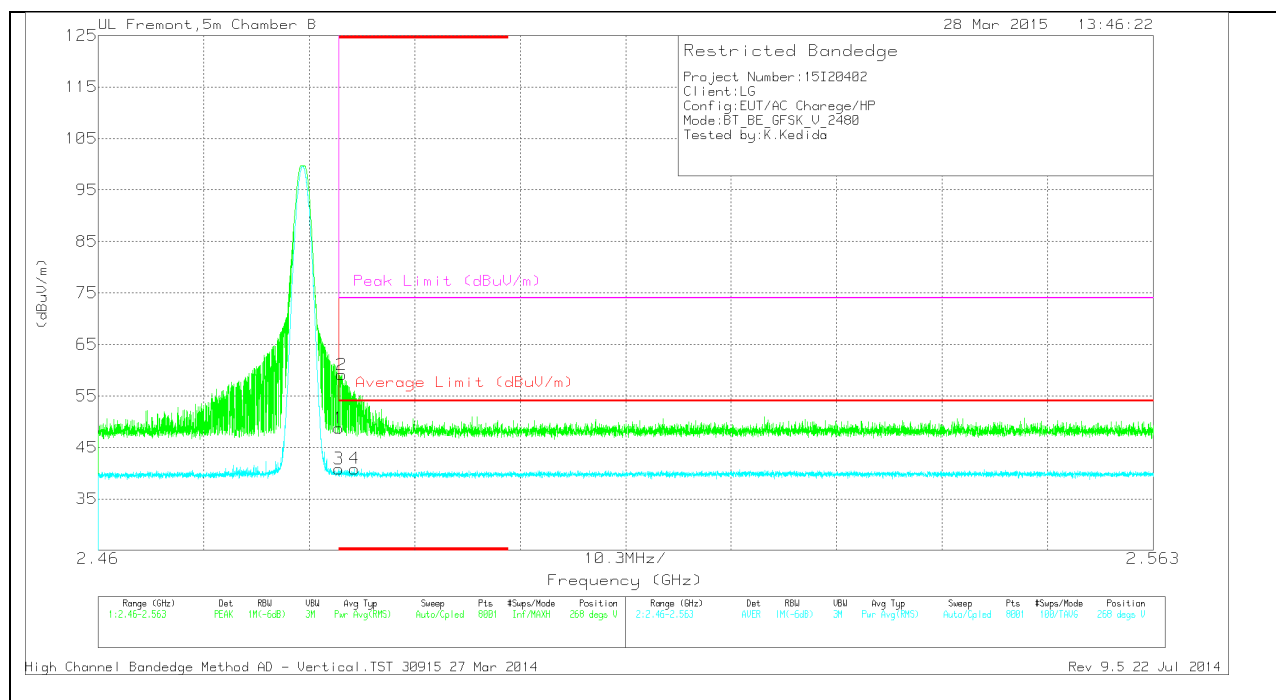
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T345 (dB/m)	Amp/Cb/Flt r/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	54.42	PK	32.5	-22.4	64.52	-	-	74	-9.48	311	274	H
2	* 2.484	53.14	PK	32.5	-22.4	63.24	-	-	74	-10.76	311	274	H
3	* 2.484	31.85	VB1T	32.5	-22.4	43.14	54	-10.86	-	-	311	274	H
4	* 2.484	32.3	VB1T	32.5	-22.4	43.59	54	-10.41	-	-	311	274	H

VERTICAL PEAK AND AVERAGE PLOT

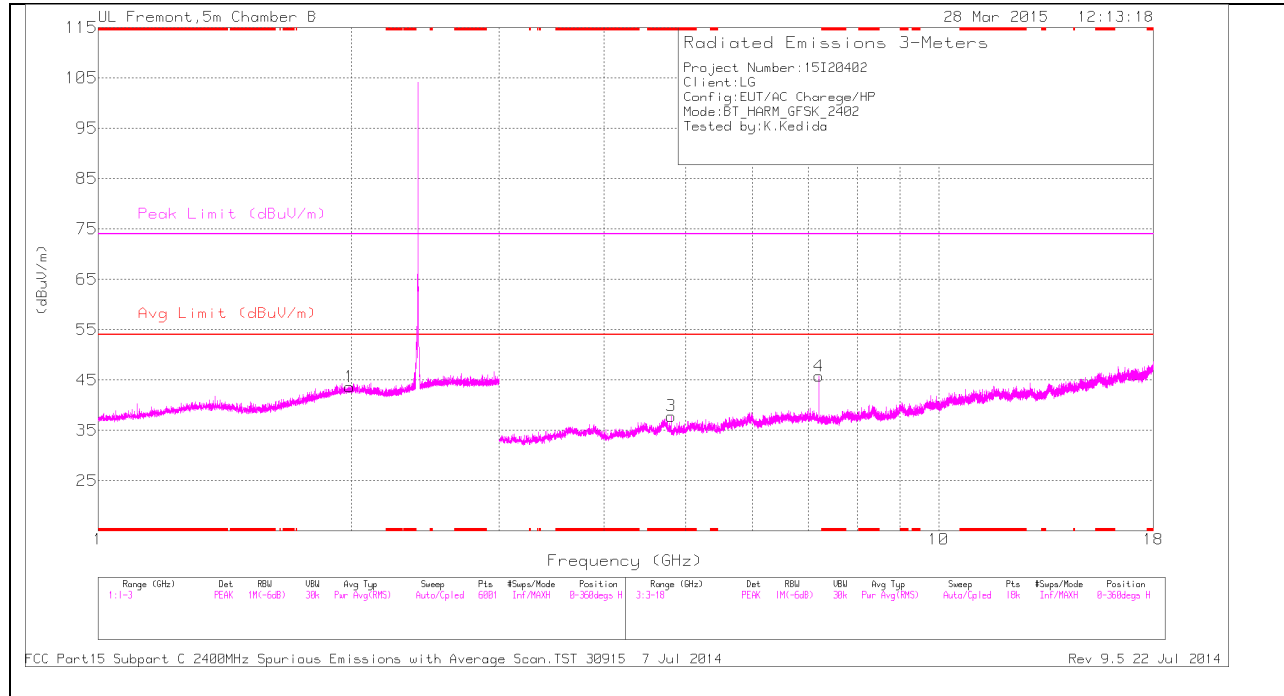


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Fit r/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	38.63	PK	32.5	-22.4	48.73	-	-	74	-25.27	268	282	V
2	* 2.484	49	PK	32.5	-22.4	59.1	-	-	74	-14.9	268	282	V
3	* 2.484	29.54	VB1T	32.5	-22.4	40.83	54	-13.17	-	-	268	282	V
4	* 2.485	29.56	VB1T	32.5	-22.4	40.85	54	-13.15	-	-	268	282	V

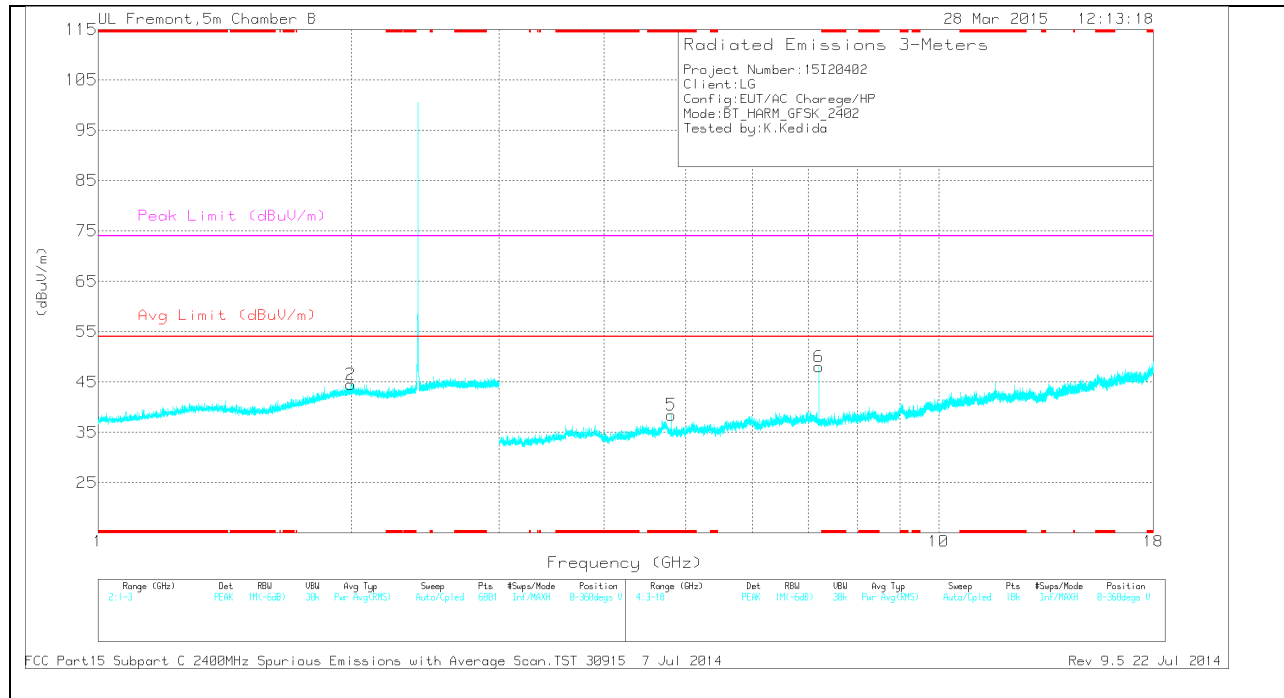
HARMONICS AND SPURIOUS EMISSIONS

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 T345 (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
3	* 4.804	32.94	PK	34.3	-29.4	0	37.84	-	-	74	-36.16	0-360	101	H
5	* 4.804	33.56	PK	34.3	-29.4	0	38.46	-	-	74	-35.54	0-360	199	V
1	1.993	34.52	PK	32.3	-23.2	0	43.62	-	-	-	-	0-360	200	H
2	1.999	35.42	PK	32.3	-23.2	0	44.52	-	-	-	-	0-360	200	V
4	7.206	37.66	PK	35.3	-27.2	0	45.76	-	-	-	-	0-360	101	H
6	7.206	39.91	PK	35.3	-27.2	0	48.01	-	-	-	-	0-360	199	V

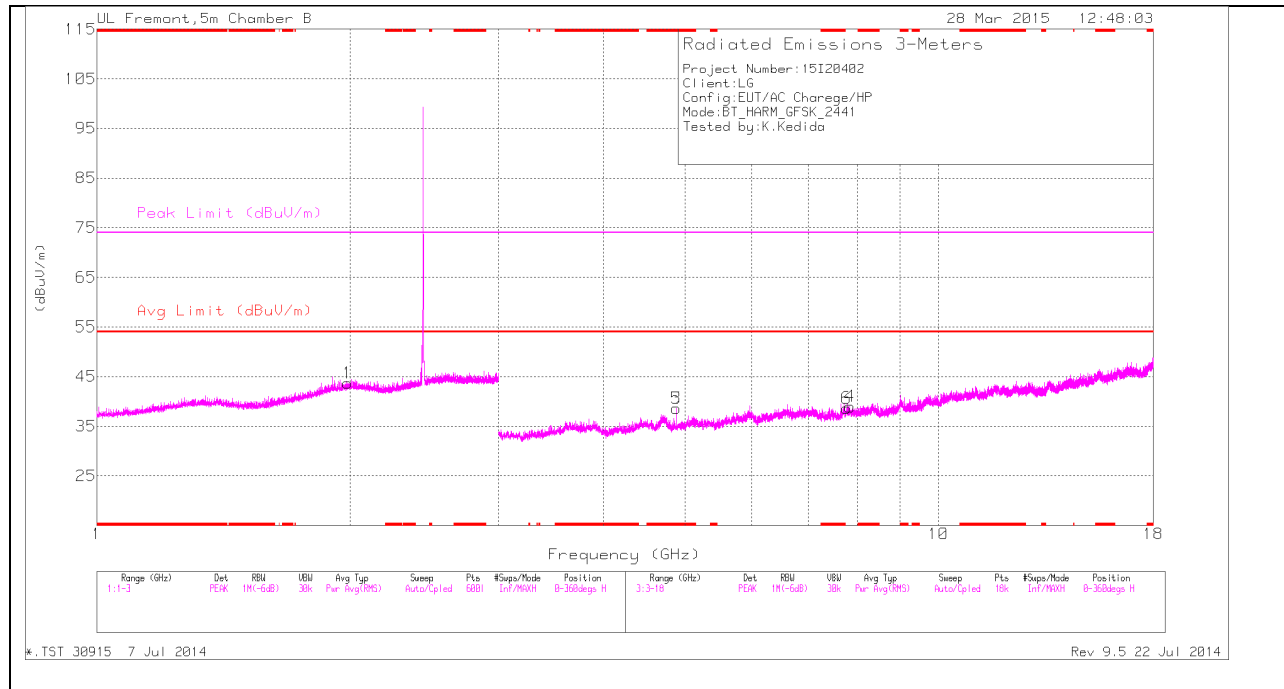
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
7.206	44.53	PK3	35.3	-27.2	0	52.63	-	-	-	-	88	284	V
7.206	37.29	VB1T	35.3	-27.2	0	45.39	-	-	-	-	88	284	V

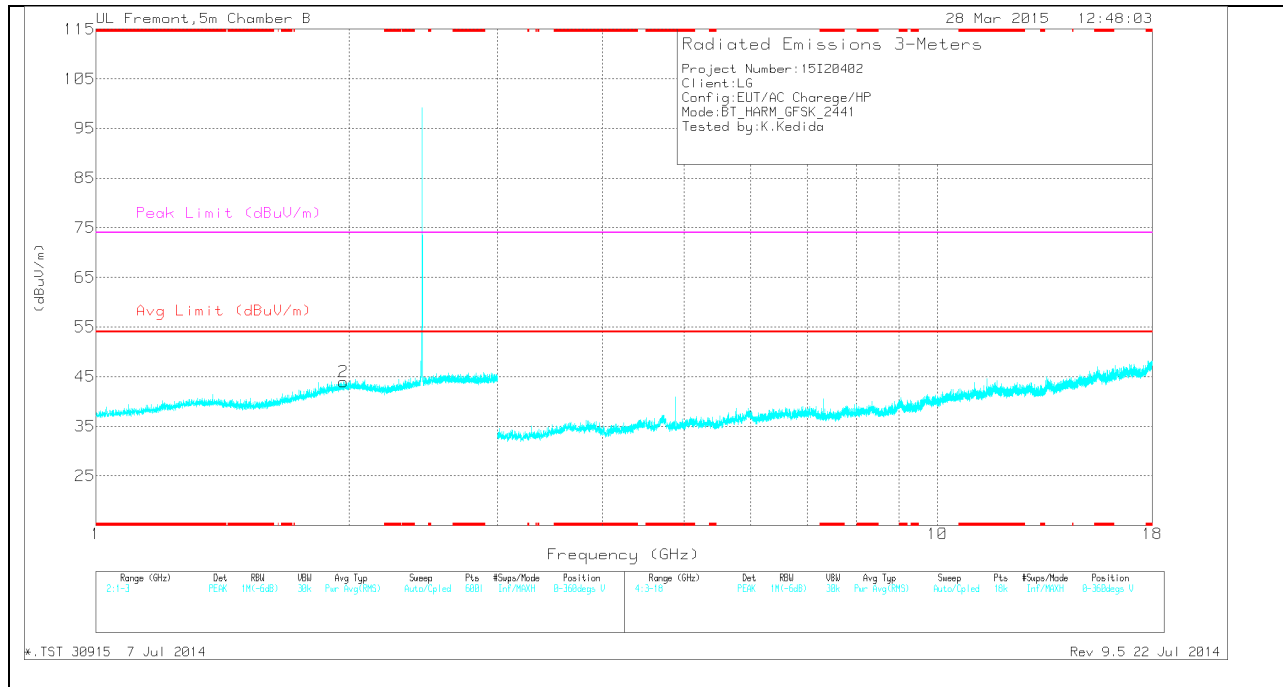
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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.

REPORT NO: 15I20402 – E2
 MODEL NUMBER: LG-VS986, VS986, LGVS986,
 LG-AS986, AS986, LGAS986

DATE: APRIL 20, 2015

FCC ID: ZNFVS986

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	* 4.882	34.87	PK	34.2	-30.4	0	38.67	-	-	74	-35.33	0-360	101	H
5	* 4.882	34.87	PK	34.2	-30.4	0	38.67	-	-	74	-35.33	0-360	101	H
2	1.969	35	PK	32.2	-23.2	0	44	-	-	-	-	0-360	101	V
1	1.986	34.55	PK	32.3	-23.2	0	43.65	-	-	-	-	0-360	101	H
6	7.775	29.08	PK	35.5	-25.9	0	38.68	-	-	-	-	0-360	200	H
4	7.85	29.64	PK	35.6	-26.3	0	38.94	-	-	-	-	0-360	101	H

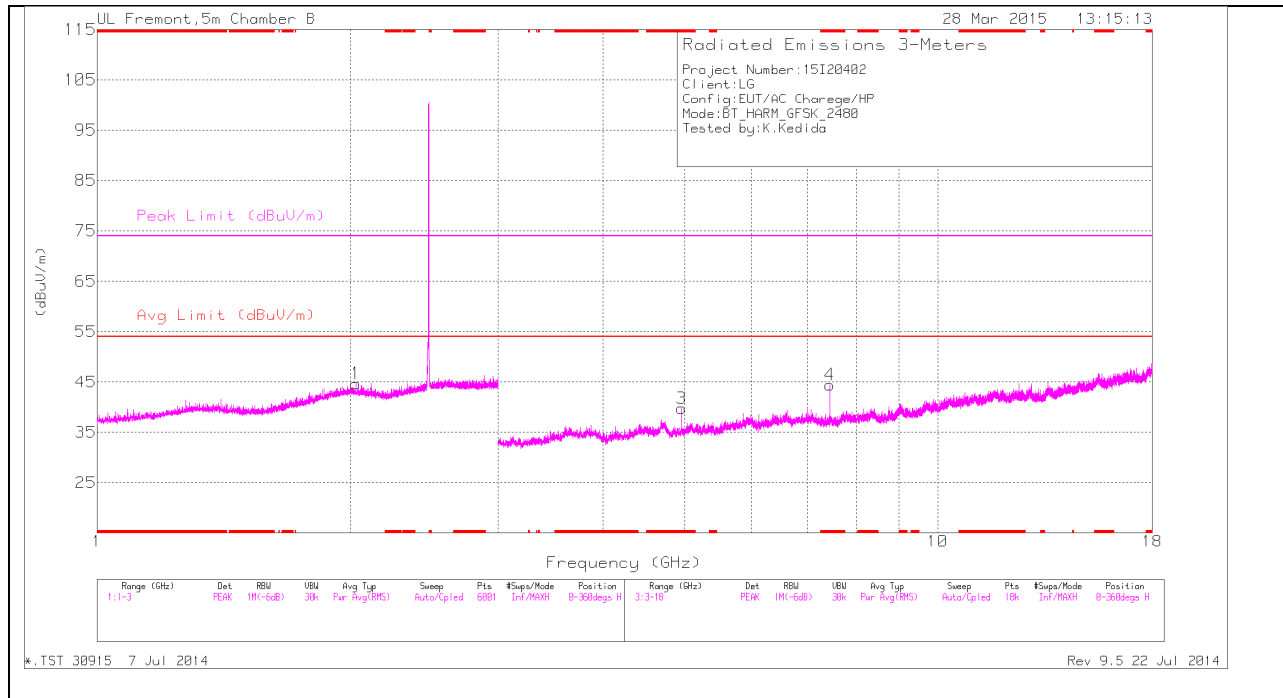
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
* 4.882	43.3	PK3	34.2	-30.4	0	47.1	-	-	74	-26.9	143	258	H
* 4.882	33.75	VB1T	34.2	-30.4	0	37.55	54	-16.45	-	-	143	258	H

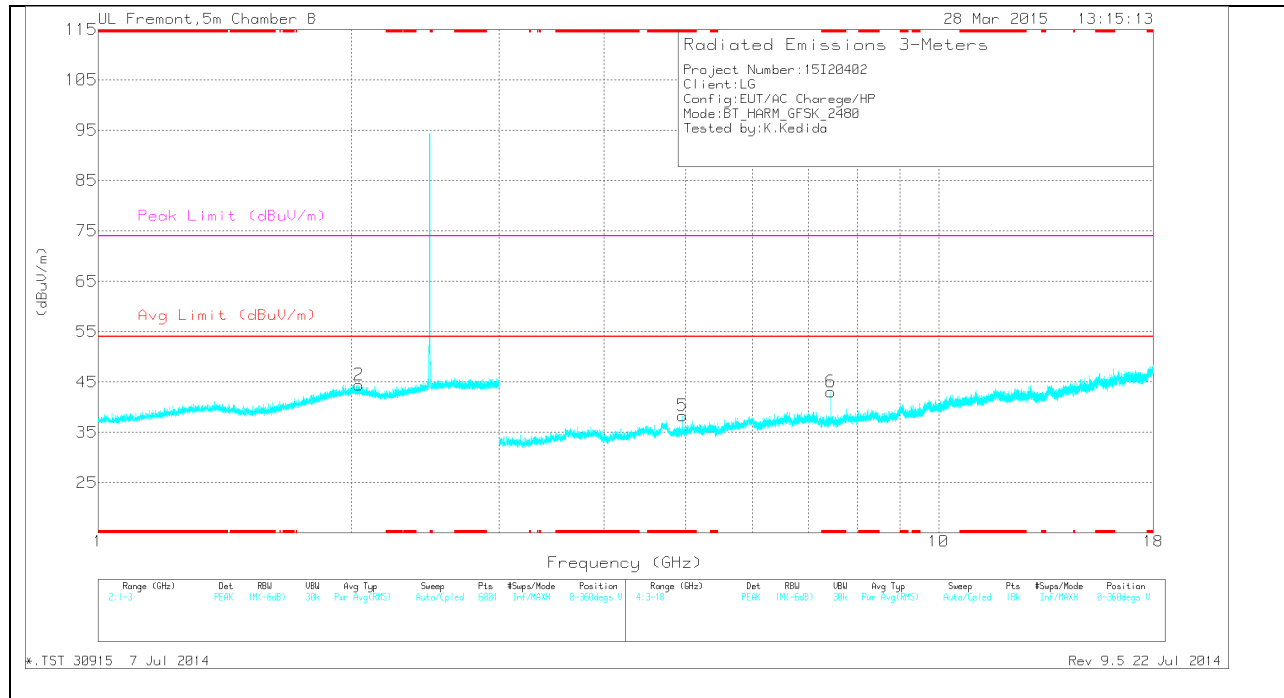
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T345 (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
3	* 4.96	35.86	PK	34.1	-30.2	0	39.76	-	-	74	-34.24	0-360	200	H
4	* 7.441	35.82	PK	35.3	-26.7	0	44.42	-	-	74	-29.58	0-360	200	H
5	* 4.96	34.43	PK	34.1	-30.2	0	38.33	-	-	74	-35.67	0-360	200	V
6	* 7.441	34.48	PK	35.3	-26.7	0	43.08	-	-	74	-30.92	0-360	200	V
1	2.031	35.69	PK	32.2	-23.2	0	44.69	-	-	-	-	0-360	101	H
2	2.043	35.53	PK	32.1	-23.2	0	44.43	-	-	-	-	0-360	199	V

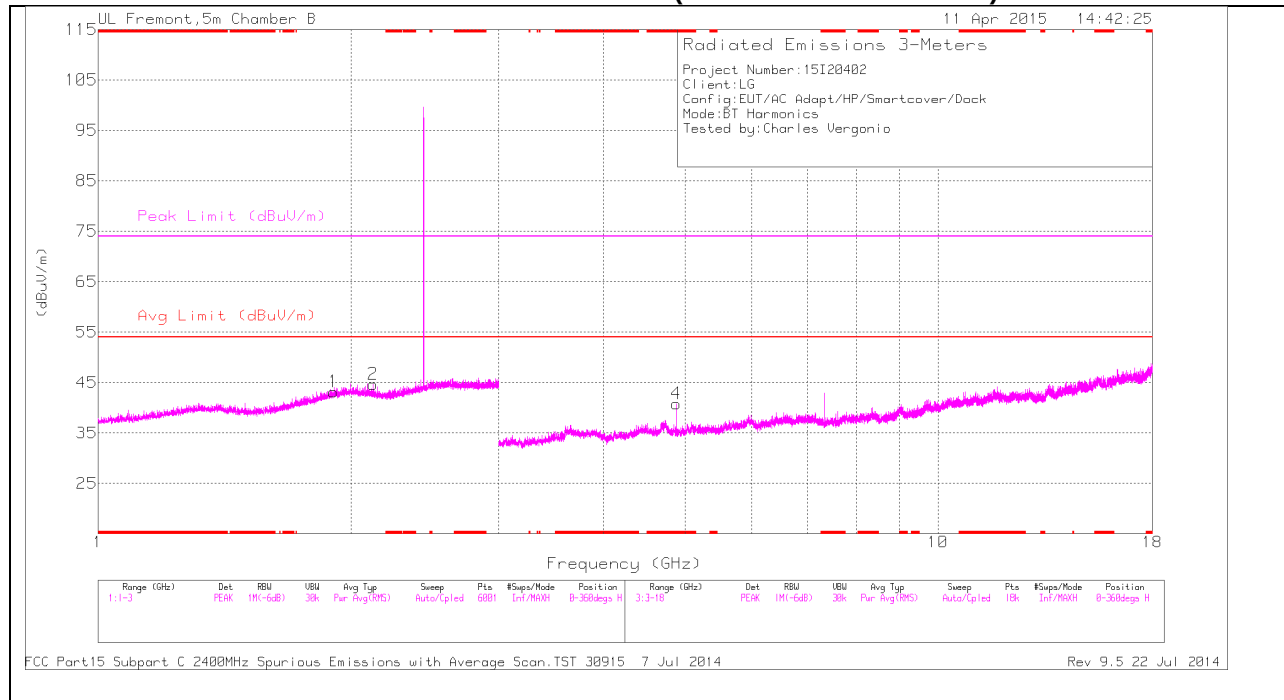
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
* 4.96	42.98	PK3	34.1	-30.2	0	46.88	-	-	74	-27.12	141	226	H
* 4.96	33.82	VB1T	34.1	-30.2	0	37.72	54	-16.28	-	-	141	226	H

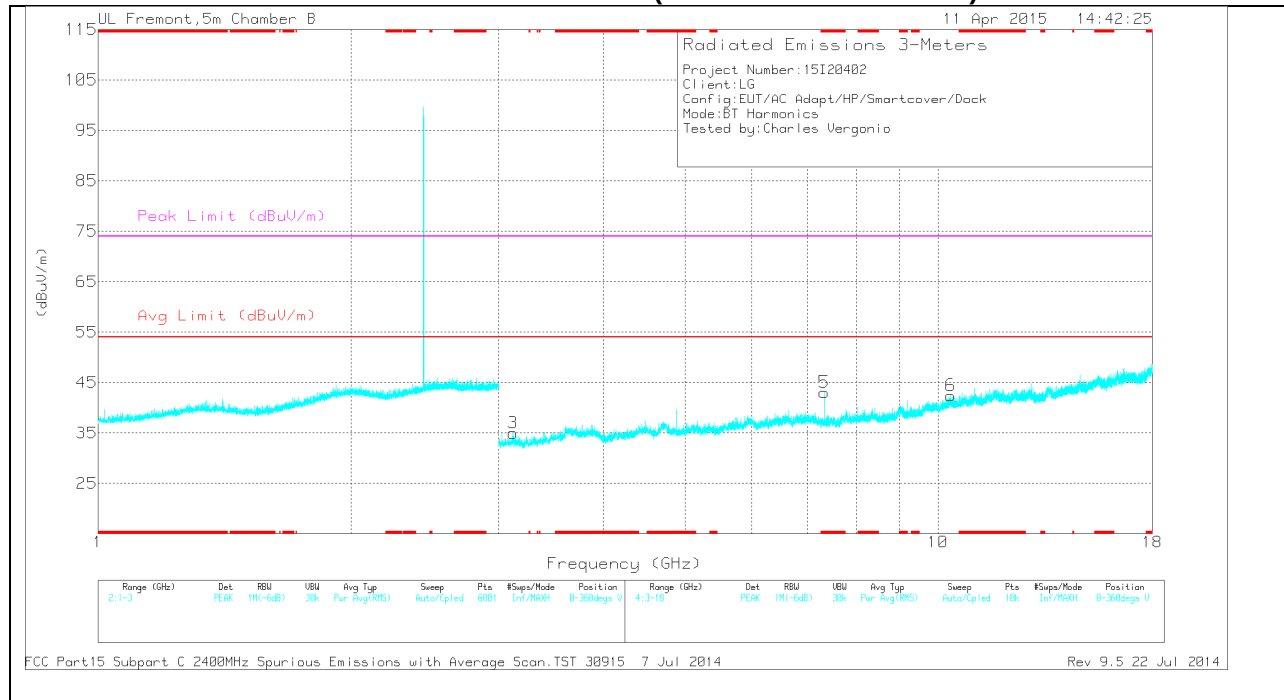
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

MID CHANNEL HORIZONTAL (With Smartcover + Dock)



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 (With Smartcover + Dock)



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 (With Smartcover + Dock)

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/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	* 4.882	37.03	PK	34.2	-30.4	40.83	-	-	74	-33.17	0-360	101	H
5	* 7.323	35.95	PK	35.3	-28.2	43.05	-	-	74	-30.95	0-360	101	V
1	1.907	34.59	PK	31.8	-23.2	43.19	-	-	-	-	0-360	100	H
2	2.125	36.09	PK	31.6	-23	44.69	-	-	-	-	0-360	100	H
3	3.121	33.49	PK	32.6	-31.1	34.99	-	-	-	-	0-360	101	V
6	10.354	27.73	PK	37.4	-22.7	42.43	-	-	-	-	0-360	199	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	43.33	PK3	34.2	-30.4	47.13	-	-	74	-26.87	232	131	H
* 4.882	36.71	VB1T	34.2	-30.4	40.51	54	-13.49	-	-	232	131	H
* 7.323	42.2	PK3	35.3	-28.2	49.3	-	-	74	-24.7	270	113	V
* 7.323	34.16	VB1T	35.3	-28.2	41.26	54	-12.74	-	-	270	113	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK3 - FHSS Method: Maximum Peak

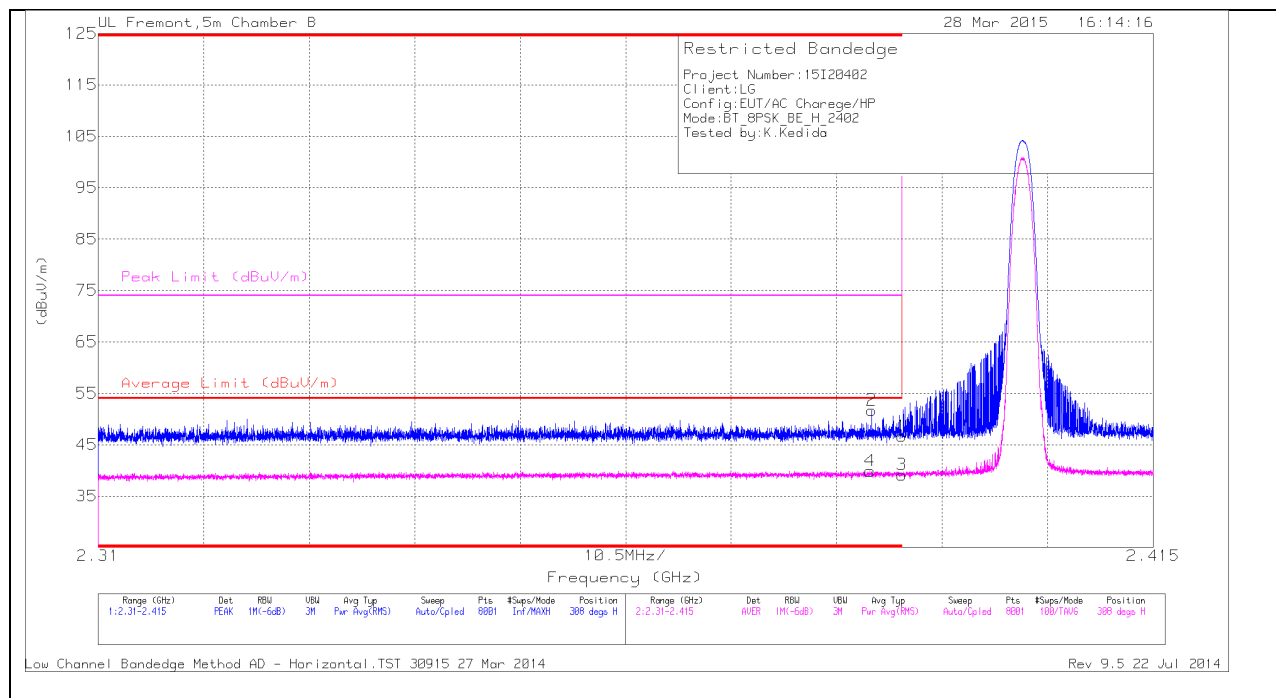
VB1T - FHSS Method: VB=1/Ton, Voltage Averaging Max Hold where: Ton is the duration of the packet

FCC Part15 Subpart C 2400MHz Spurious Emissions with Average Scan.TST 30915 7 Jul 2014

Rev 9.5 22 Jul 2014

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

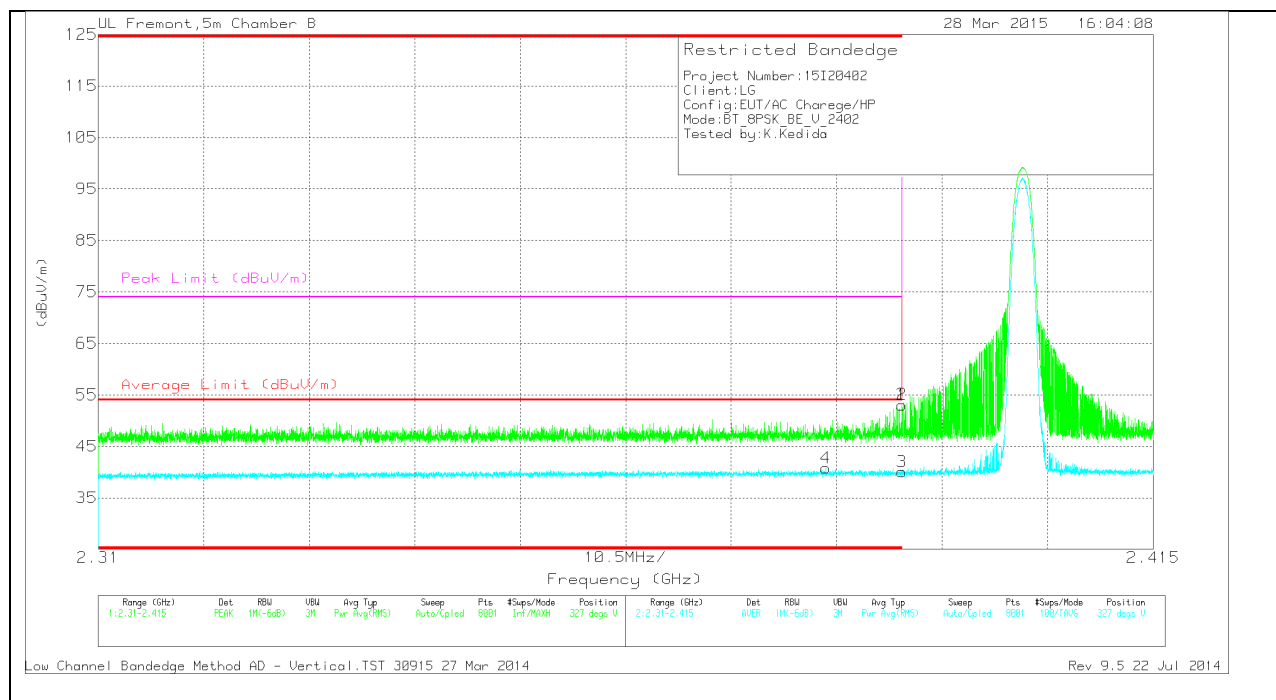
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Flt r/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	* 2.39	37.27	PK	32	-22.6	46.67	-	-	74	-27.33	308	237	H
2	* 2.387	42.32	PK	32	-22.6	51.72	-	-	74	-22.28	308	237	H
3	* 2.39	28.56	VB1T	32	-22.6	39.15	54	-14.85	-	-	308	237	H
4	* 2.387	29.3	VB1T	32	-22.6	39.89	54	-14.11	-	-	308	237	H

VERTICAL PEAK AND AVERAGE PLOT

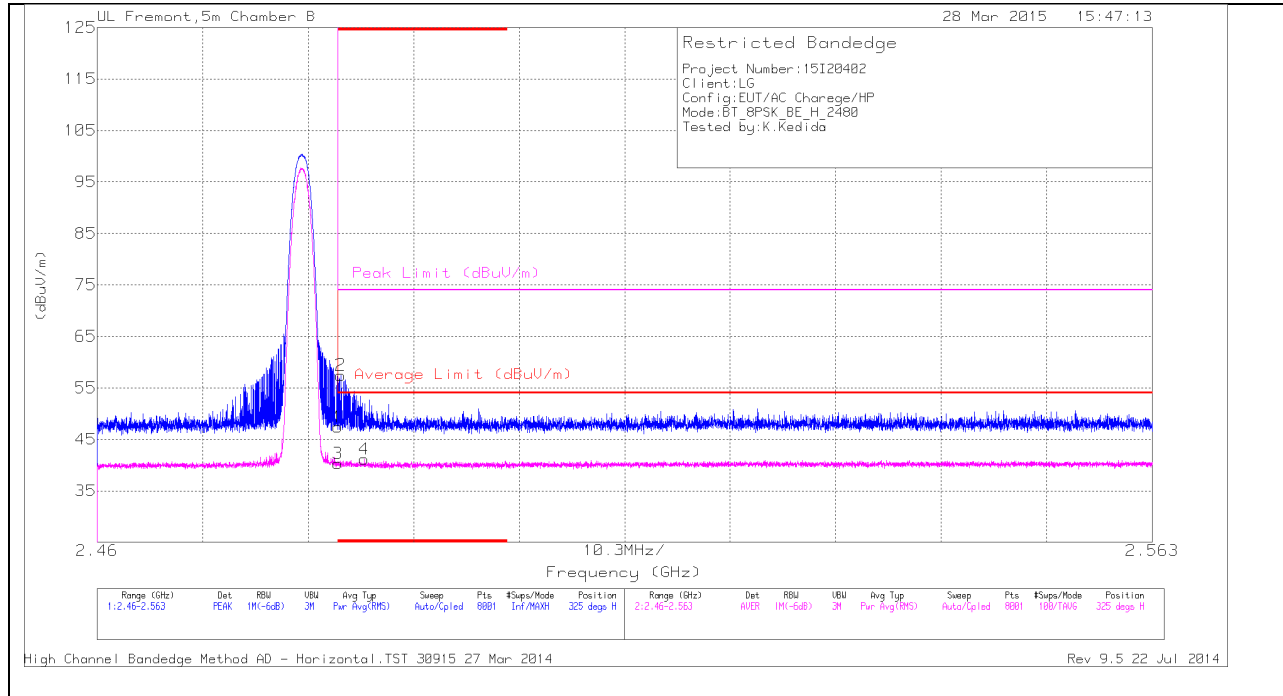


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filter/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	* 2.39	43.61	PK	32	-22.6	53.01	-	-	74	-20.99	327	287	V
2	* 2.39	43.67	PK	32	-22.6	53.07	-	-	74	-20.93	327	287	V
3	* 2.39	28.93	VB1T	32	-22.6	40.07	54	-13.93	-	-	327	287	V
4	* 2.382	29.63	VB1T	32	-22.6	40.77	54	-13.23	-	-	327	287	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

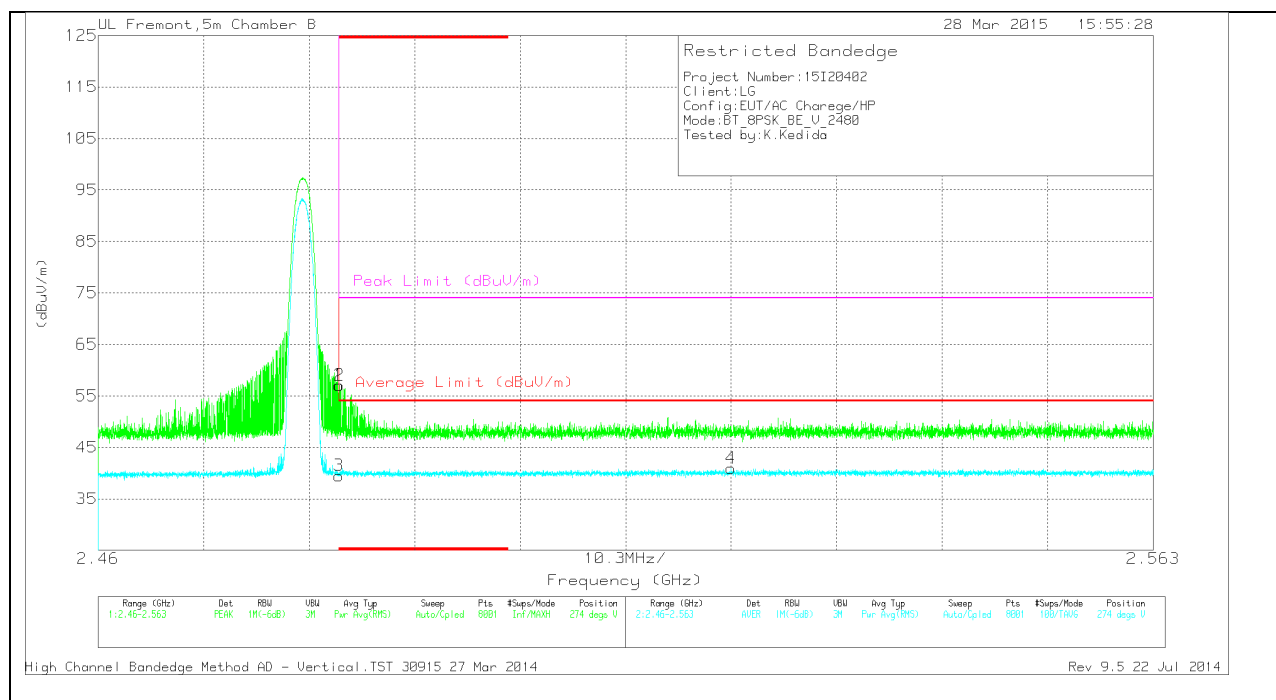
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Flt r/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	37.29	PK	32.5	-22.4	47.39	-	-	74	-26.61	325	231	H
2	* 2.484	47.35	PK	32.5	-22.4	57.45	-	-	74	-16.55	325	231	H
3	* 2.484	29	VB1T	32.5	-22.4	40.29	54	-13.71	-	-	325	231	H
4	* 2.486	29.87	VB1T	32.5	-22.4	41.16	54	-12.84	-	-	325	231	H

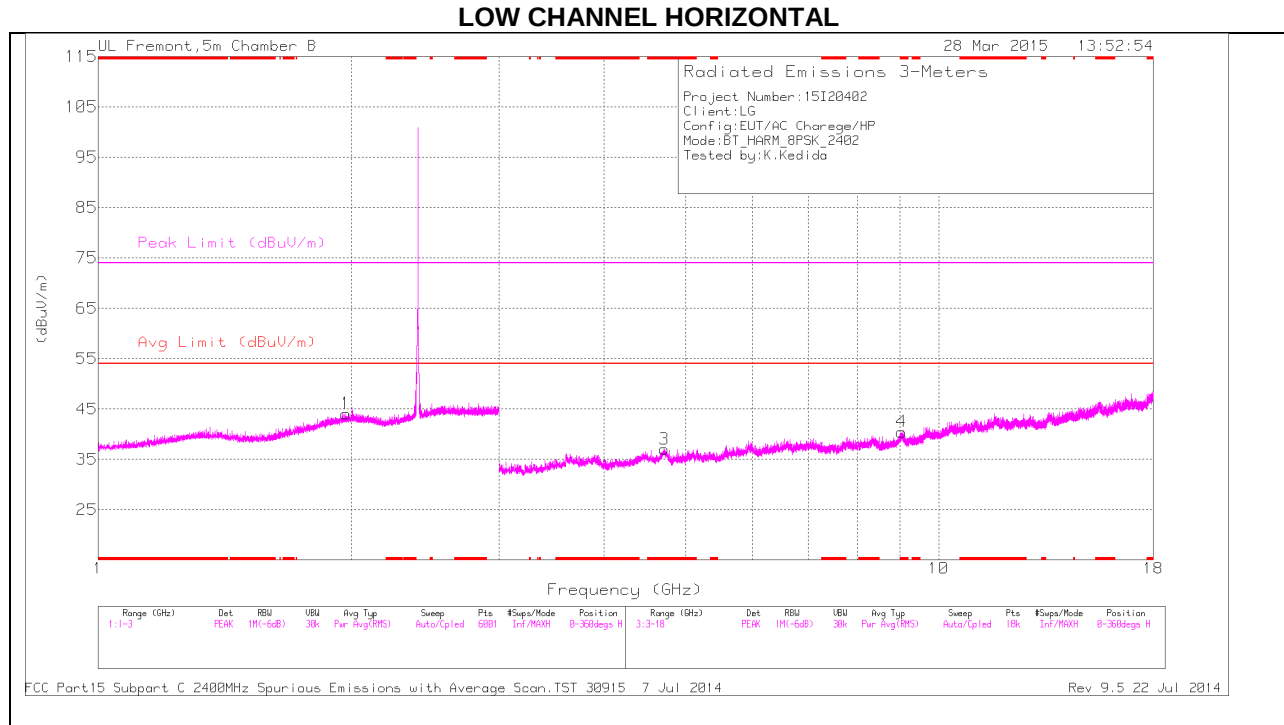
VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

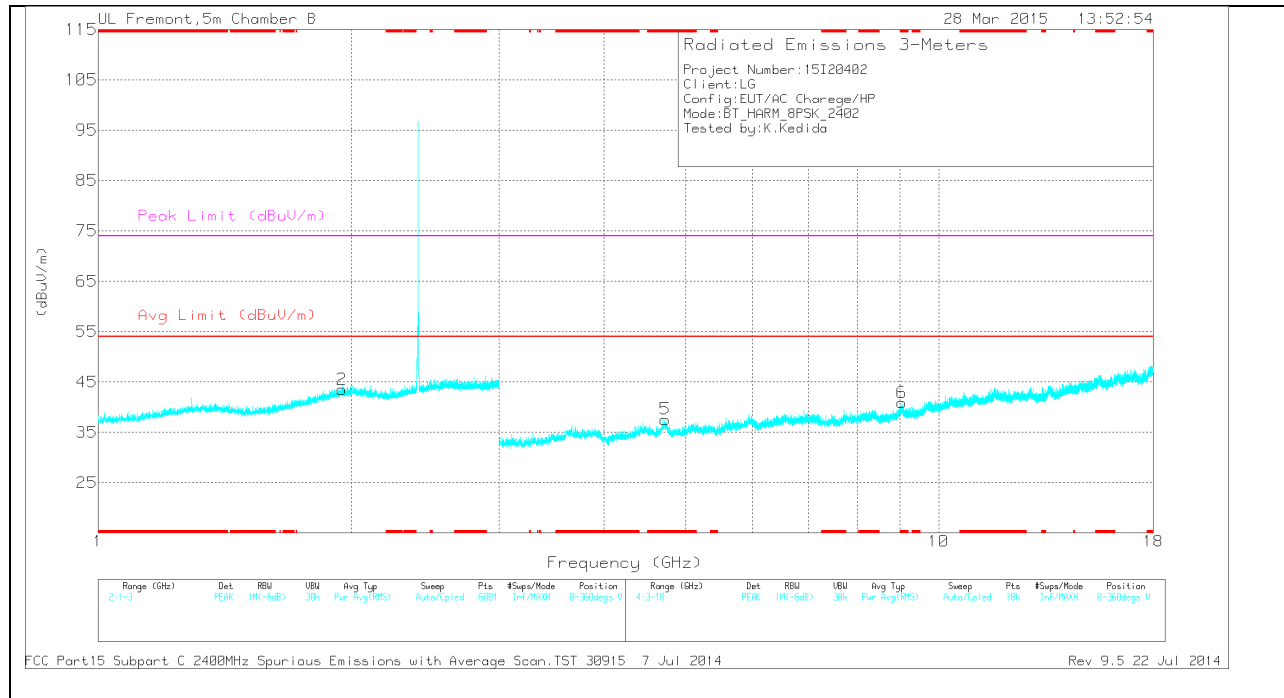
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Filter/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	46.98	PK	32.5	-22.4	57.08	-	-	74	-16.92	274	280	V
2	* 2.484	46.96	PK	32.5	-22.4	57.06	-	-	74	-16.94	274	280	V
3	* 2.484	28.22	VB1T	32.5	-22.4	39.51	54	-14.49	-	-	274	280	V
4	2.522	29.45	VB1T	32.6	-22.3	40.94	54	-13.06	-	-	274	280	V

HARMONICS AND SPURIOUS EMISSIONS



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 T345 (dB/m)	Amp/Cbl/F ltr/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	* 4.714	31.91	PK	34.2	-29.1	37.01	-	-	74	-36.99	0-360	101	H
4	* 9.032	28.36	PK	36.1	-24	40.46	-	-	74	-33.54	0-360	199	H
5	* 4.728	32.39	PK	34.3	-29.1	37.59	-	-	74	-36.41	0-360	199	V
6	* 9.043	28.69	PK	36.1	-23.9	40.89	-	-	74	-33.11	0-360	101	V
2	1.95	34.62	PK	32.1	-23.2	43.52	-	-	-	-	0-360	200	V
1	1.972	35.07	PK	32.2	-23.2	44.07	-	-	-	-	0-360	200	H

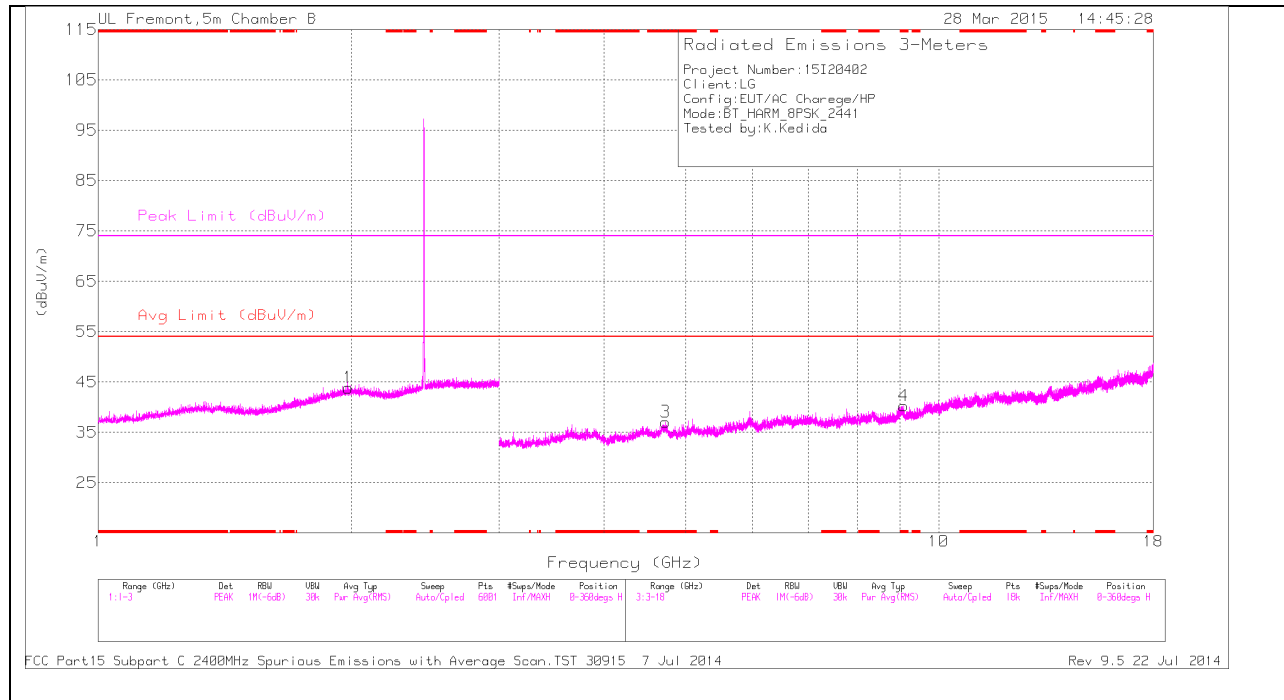
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
* 4.715	39.93	PK3	34.2	-29.1	45.03	-	-	74	-28.97	1	102	H
* 4.716	27.6	VB1T	34.2	-29.1	32.7	54	-21.3	-	-	1	102	H

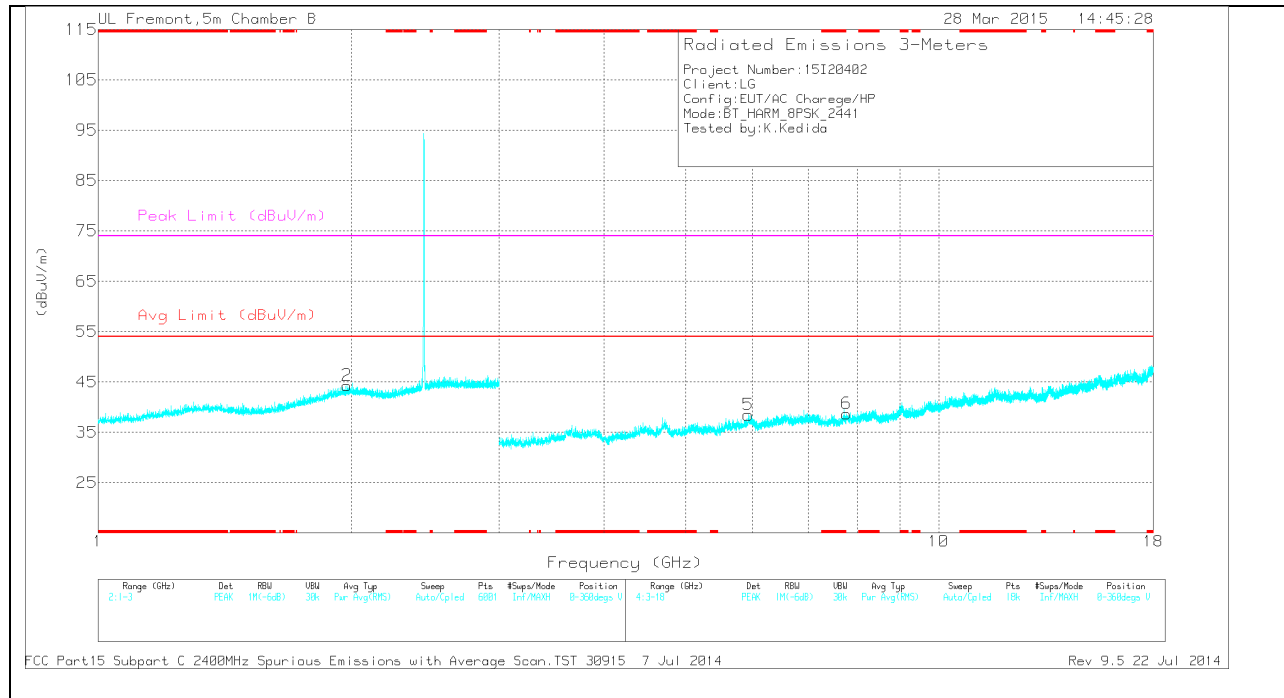
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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.

REPORT NO: 15I20402 – E2
 MODEL NUMBER: LG-VS986, VS986, LGVS986,
 LG-AS986, AS986, LGAS986

DATE: APRIL 20, 2015

FCC ID: ZNFVS986

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
3	* 4.73	31.86	PK	34.3	-29.1	0	37.06	-	-	74	-36.94	0-360	101	H
4	* 9.088	28.76	PK	36.1	-24.6	0	40.26	-	-	74	-33.74	0-360	101	H
2	1.976	35.3	PK	32.2	-23.2	0	44.3	-	-	-	-	0-360	101	V
1	1.986	34.76	PK	32.3	-23.2	0	43.86	-	-	-	-	0-360	199	H
5	5.935	31.19	PK	35.6	-28.3	0	38.49	-	-	-	-	0-360	199	V
6	7.766	29.32	PK	35.5	-26.1	0	38.72	-	-	-	-	0-360	101	V

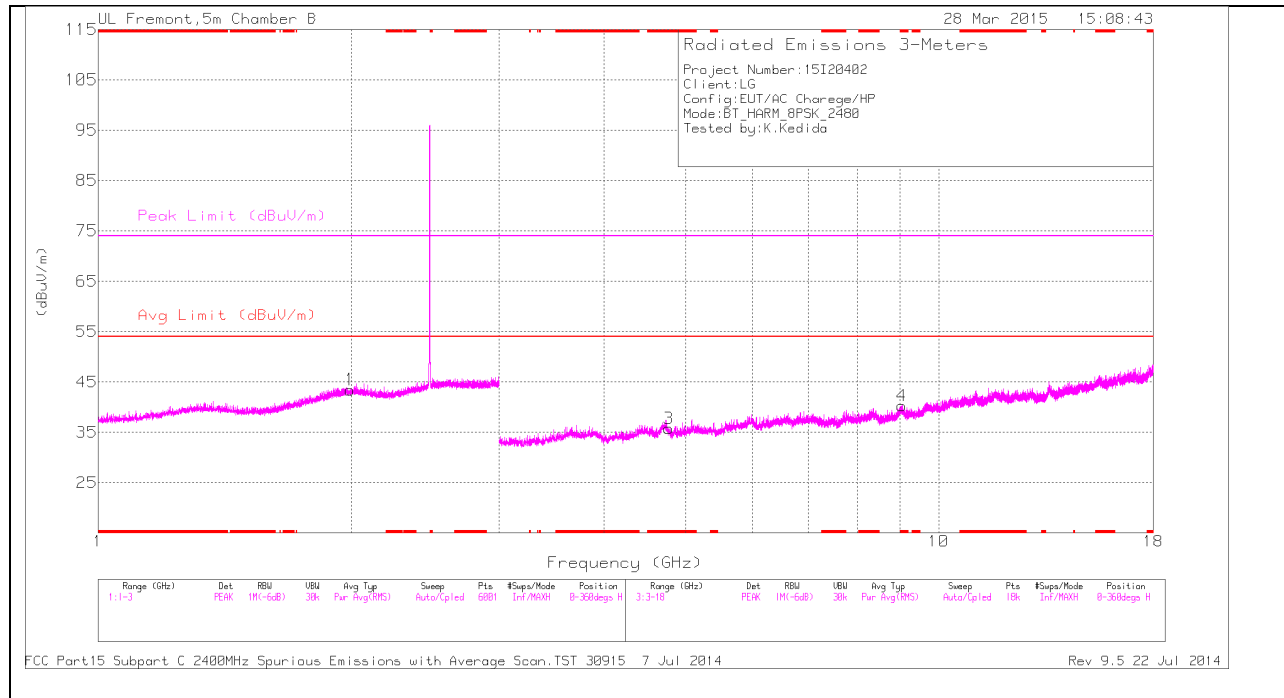
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
* 4.729	40.34	PK3	34.3	-29.1	0	45.54	-	-	74	-28.46	1	102	H
* 4.73	27.61	VB1T	34.3	-29.1	0	32.81	54	-21.19	-	-	1	102	H

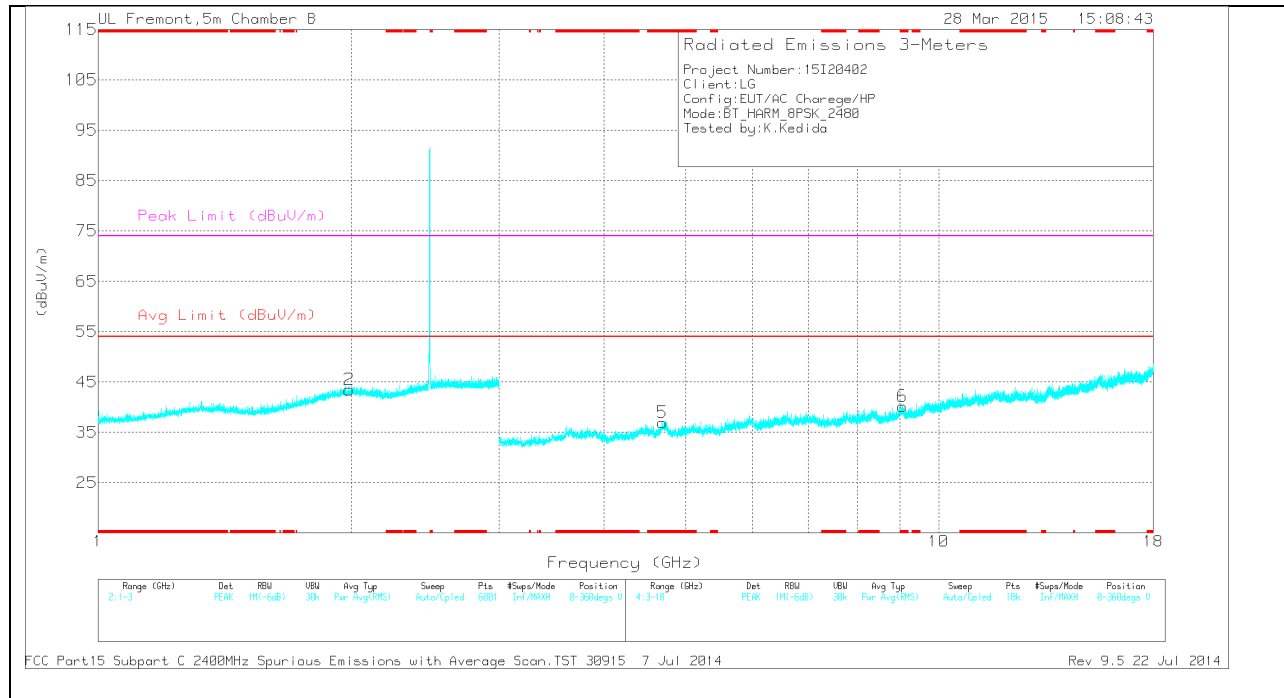
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

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 T345 (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
3	* 4.772	30.47	PK	34.3	-29	0	35.77	-	-	74	-38.23	0-360	101	H
4	* 9.035	28.17	PK	36.1	-24	0	40.27	-	-	74	-33.73	0-360	199	H
5	* 4.693	32.33	PK	34.2	-29.6	0	36.93	-	-	74	-37.07	0-360	199	V
6	* 9.055	28.07	PK	36.1	-24	0	40.17	-	-	74	-33.83	0-360	199	V
2	1.989	34.38	PK	32.3	-23.2	0	43.48	-	-	-	-	0-360	199	V
1	1.995	34.34	PK	32.3	-23.2	0	43.44	-	-	-	-	0-360	102	H

PK - Peak detector

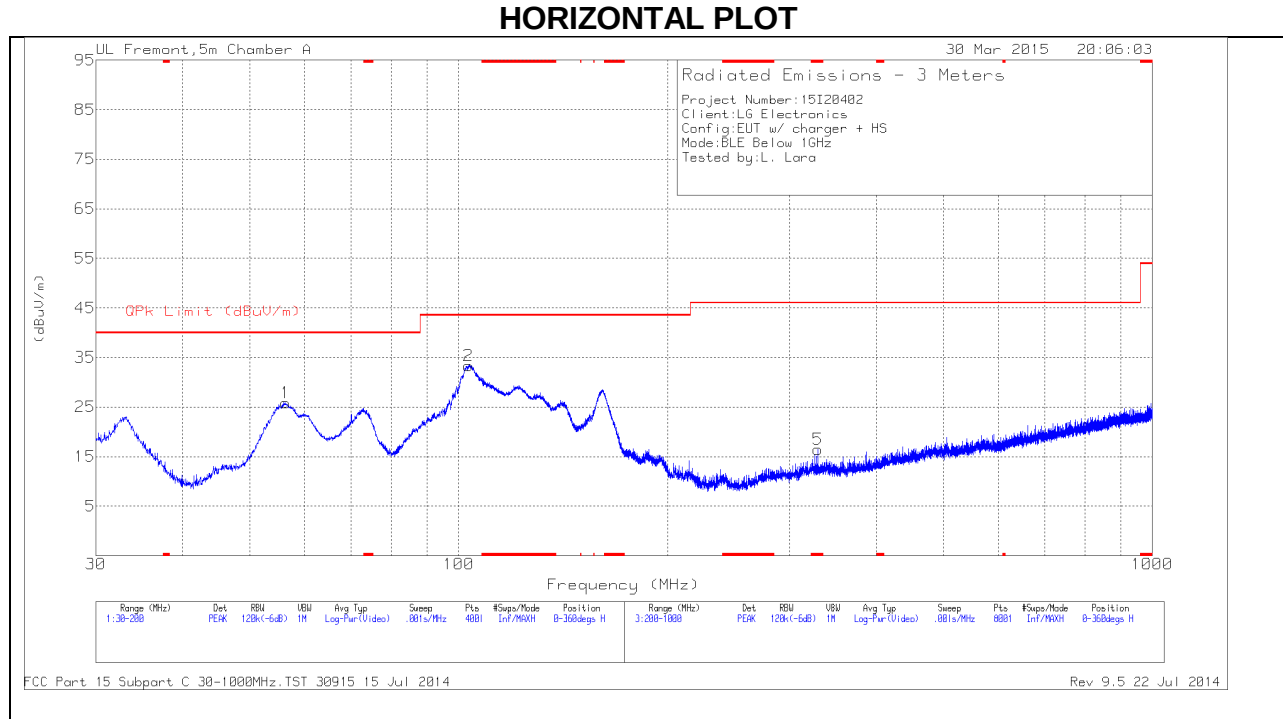
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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
* 4.774	38.32	PK3	34.3	-29	0	43.62	-	-	74	-30.38	1	102	H
* 4.774	26.18	VB1T	34.3	-29	0	31.48	54	-22.52	-	-	1	102	H

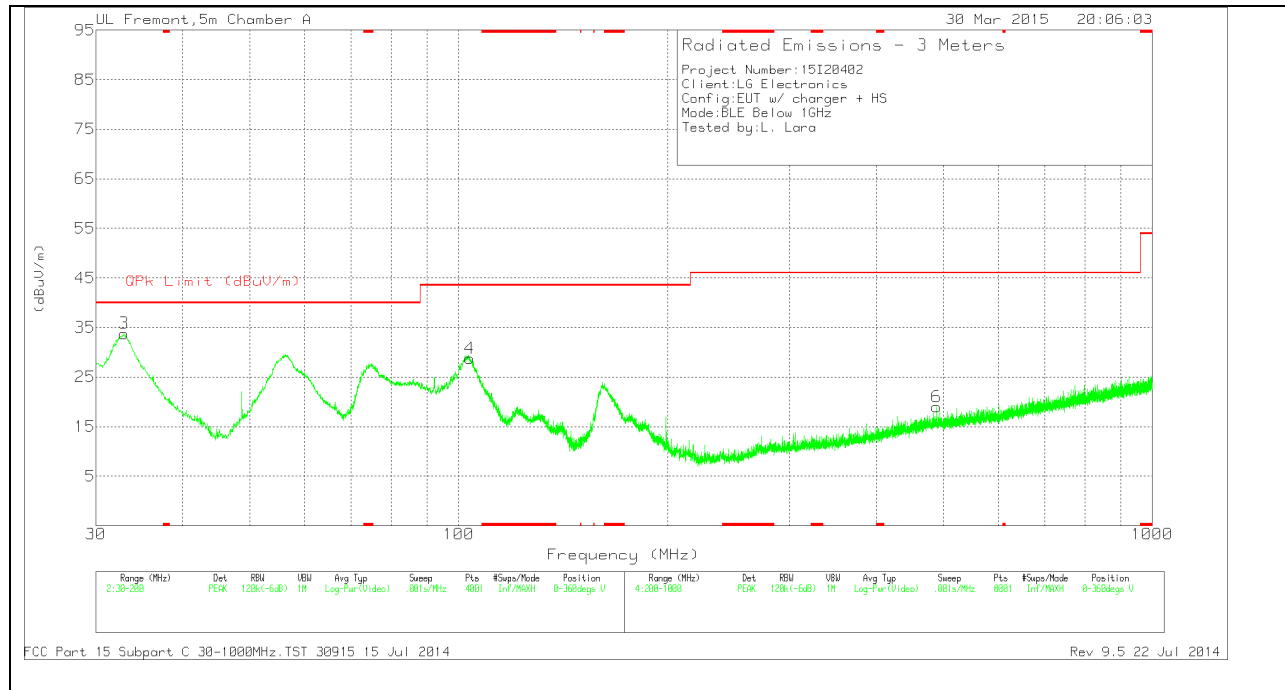
FCC Part15 Subpart C T186 2400MHz Spurious Emissions.TST 12746Rev 9.5 12 Jun 2013

9.3. WORST-CASE BELOW 1 GHz

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



VERTICAL PLOT



BELOW 1 GHz TABLE

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T130 (dB/m)	Amp/Cbl (dB/m)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 329.3	31.86	PK	13.9	-29.3	16.46	46.02	-29.56	0-360	200	H
3	32.9325	45.89	PK	19.1	-31.2	33.79	40	-6.21	0-360	101	V
1	56.3075	49.54	PK	7.2	-30.9	25.84	40	-14.16	0-360	400	H
2	103.2275	53.01	PK	10.8	-30.5	33.31	43.52	-10.21	0-360	300	H
4	103.78	48.23	PK	11	-30.5	28.73	43.52	-14.79	0-360	101	V
6	489.1	30.03	PK	17.7	-28.7	19.03	46.02	-26.99	0-360	200	V

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

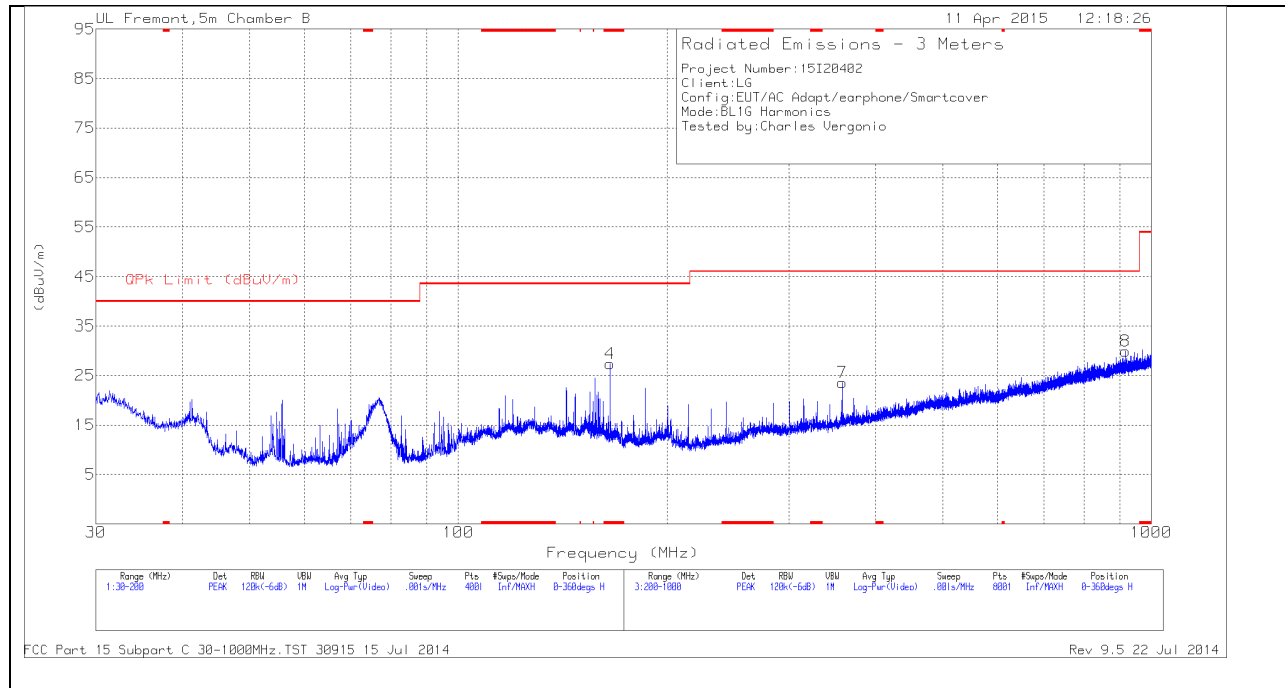
PK - Peak detector

FCC Part 15 Subpart C 30-1000MHz.TST 30915 15 Jul 2014

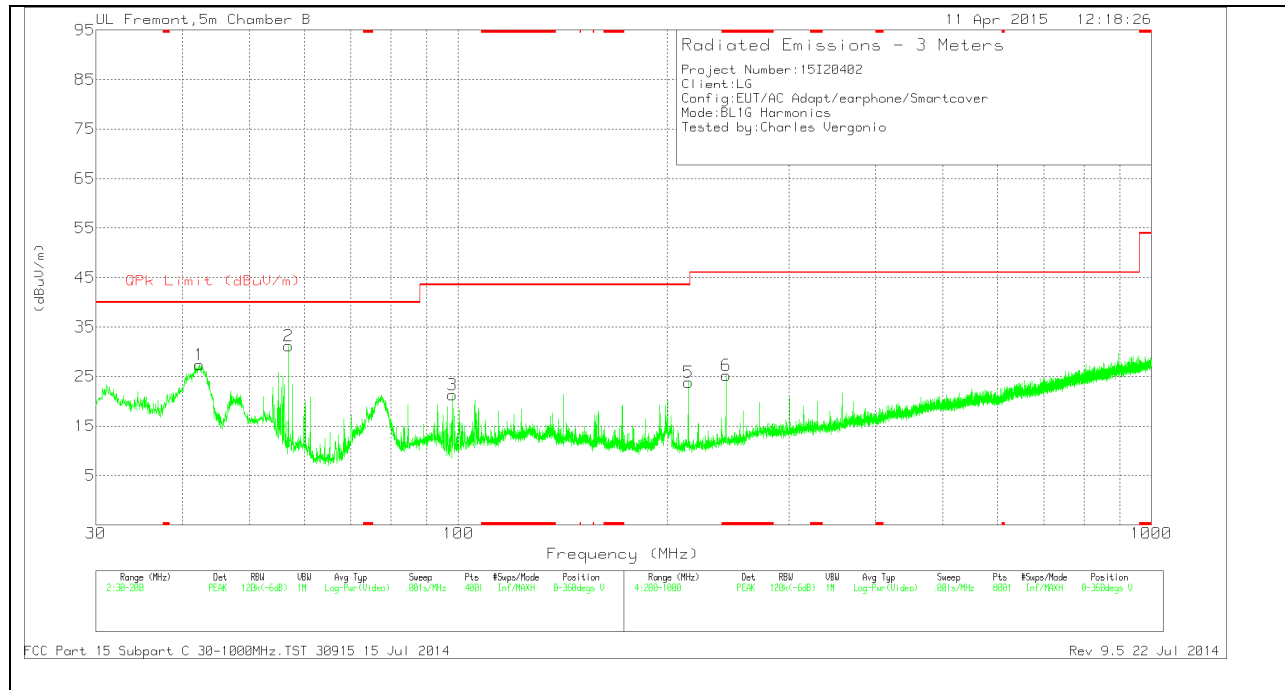
Rev 9.5 22 Jul 2014

GFSK SPURIOUS EMISSIONS 30 TO 1000 MHz (WITH SMARTCOVER)

HORIZONTAL PLOT



VERTICAL PLOT



BELOW 1 GHz TABLE

Trace Markers

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
4	* 165.6175	42.82	PK	11.9	-27.3	27.42	43.52	-16.1	0-360	200	H
6	* 243.4	40.16	PK	11.6	-26.5	25.26	46.02	-20.76	0-360	300	V
1	42.2825	43.62	PK	12.4	-28.7	27.32	40	-12.68	0-360	101	V
2	56.9025	52.23	PK	7.4	-28.5	31.13	40	-8.87	0-360	101	V
3	98.085	39.68	PK	9.7	-28.1	21.28	43.52	-22.24	0-360	101	V
5	214.8	40	PK	10.6	-26.8	23.8	43.52	-19.72	0-360	200	V
7	357.9	34.72	PK	14.8	-25.9	23.62	46.02	-22.4	0-360	200	H
8	918.5	30.13	PK	22.6	-22.8	29.93	46.02	-16.09	0-360	300	H

* - indicates frequency in CFR 47, Part 15 and Industry Canada RSS-Restricted Band.

PK - Peak detector

FCC Part 15 Subpart C 30-1000MHz.TST 30915 15 Jul 2014

Rev 9.5 22 Jul 2014

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.

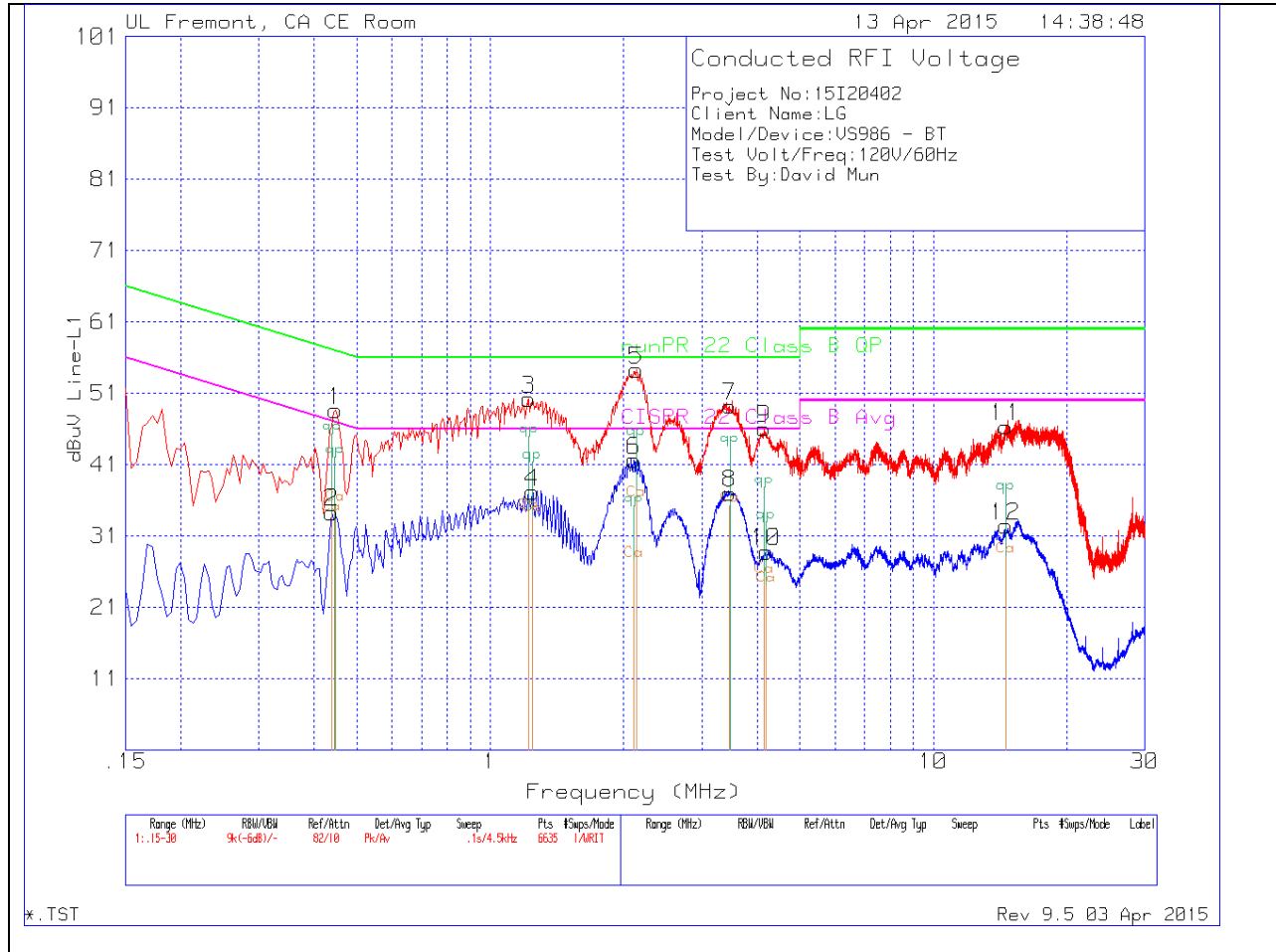
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

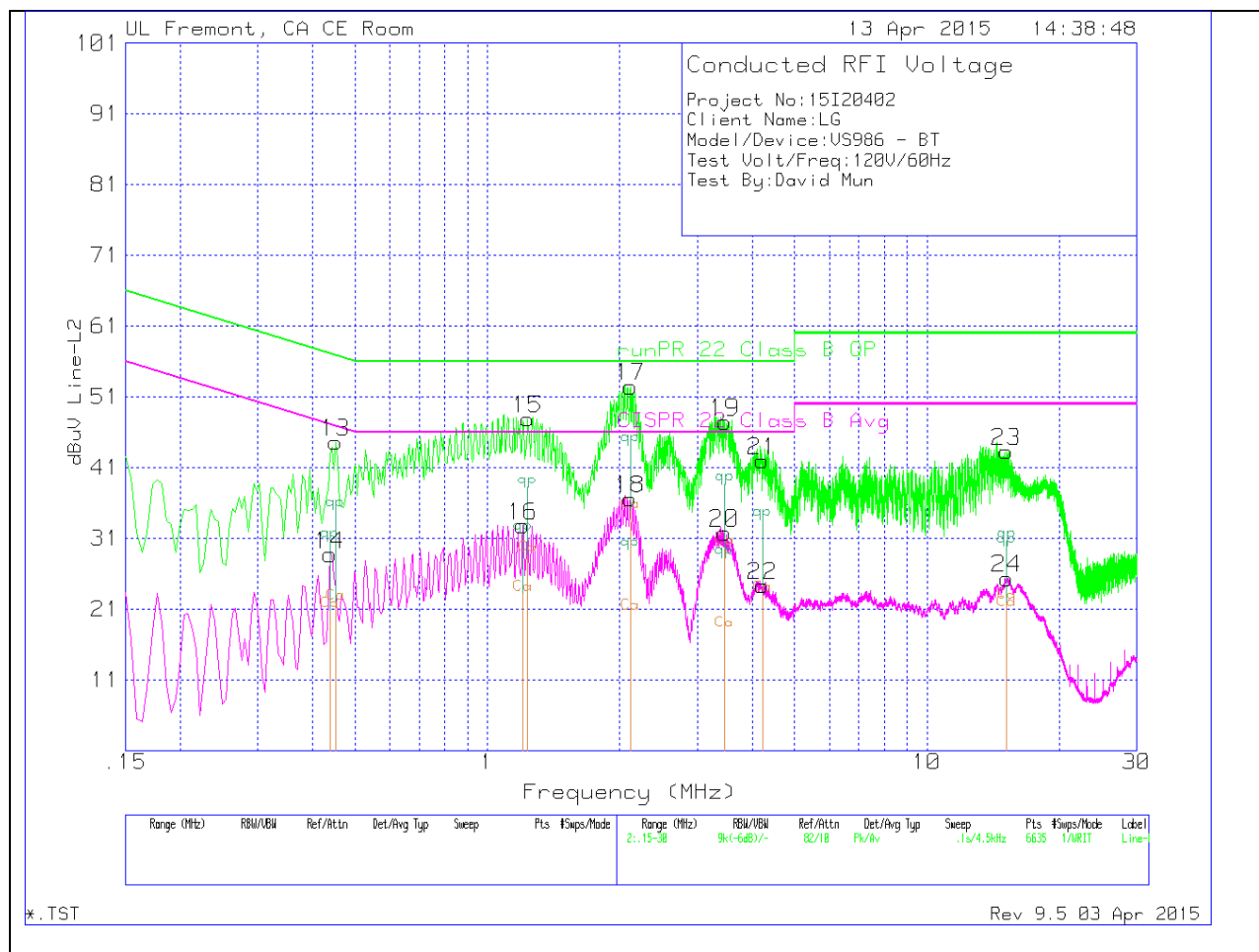
Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	runPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.447	48.22	Pk	.4	0	48.62	56.93	-8.31	-	-
2	.438	33.91	Av	.4	0	34.31	-	-	47.1	-12.79
3	1.221	49.89	Pk	.2	.1	50.19	56	-5.81	-	-
4	1.2435	36.96	Av	.2	0	37.16	-	-	46	-8.84
5	2.1345	53.96	Pk	.2	.1	54.26	56	-1.74	-	-
6	2.1075	41.34	Av	.2	.1	41.64	-	-	46	-4.36
7	3.471	48.93	Pk	.2	.1	49.23	56	-6.77	-	-
8	3.471	36.71	Av	.2	.1	37.01	-	-	46	-8.99
9	4.1505	45.75	Pk	.2	.1	46.05	56	-9.95	-	-
10	4.191	28.48	Av	.2	.1	28.78	-	-	46	-17.22
11	14.577	45.9	Pk	.2	.2	46.3	60	-13.7	-	-
12	14.577	32.01	Av	.2	.2	32.41	-	-	50	-17.59

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	runPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
13	.4515	44.21	Pk	.4	0	44.61	56.85	-12.24	-	-
14	.438	28.34	Av	.4	0	28.74	-	-	47.1	-18.36
15	1.2345	47.58	Pk	.2	.1	47.88	56	-8.12	-	-
16	1.203	32.51	Av	.2	.1	32.81	-	-	46	-13.19
17	2.1165	52.16	Pk	.2	.1	52.46	56	-3.54	-	-
18	2.112	36.31	Av	.2	.1	36.61	-	-	46	-9.39
19	3.4665	47.15	Pk	.2	.1	47.45	56	-8.55	-	-
20	3.462	31.48	Av	.2	.1	31.78	-	-	46	-14.22
21	4.2225	41.71	Pk	.2	.1	42.01	56	-13.99	-	-
22	4.2225	24.03	Av	.2	.1	24.33	-	-	46	-21.67
23	15.171	42.79	Pk	.3	.2	43.29	60	-16.71	-	-
24	15.1845	24.85	Av	.3	.2	25.35	-	-	50	-24.65

Pk - Peak detector

Av - Average detection