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

CERTIFICATION TEST REPORT

FOR

MODEL NUMBER: BACKBEAT GO 3

FCC ID: AL8-BBG3
IC: 457A-BBG3

REPORT NUMBER: 16U23024–E1V3

ISSUE DATE: MARCH 15, 2016

Prepared for
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	3/9/2016	Initial Issue	Huda Mustapha
V2	3/14/2016	Updated number of pulses for DH1 on page 35 Updated test procedure on page 67 Updated table under section 5.2	Huda Mustapha
V3	3/14/2016	Updated table under section 5.2	Huda Mustapha

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: PLANTRONICS INC.
EUT DESCRIPTION: WIRELESS STEREO BLUETOOTH HEADSET
MODEL: BACKBEAT GO 3
SERIAL NUMBER: 2307975 (RADIATED), E422A520F792 (CONDUCTED)
DATE TESTED: March 2-4, 2016

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-247 Issue 1	Pass
INDUSTRY CANADA RSS-GEN Issue 4	Pass

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

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

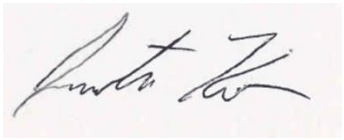
Approved & Released For

UL Verification Services Inc. By:

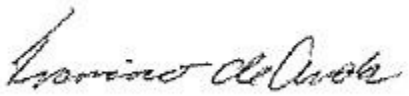
Huda Mustapha

HUDA MUSTAPHA
PROJECT LEAD
UL VERIFICATION SERVICES INC

Prepared By:



JUSTIN KO
LAB TECHNICIAN
UL VERIFICATION SERVICES INC



FRANCISCO DE ANDA
PROGRAM MANAGER
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, DA 00-75, ANSI C63.10-2013, RSS-GEN Issue 4, and RSS-247 Issue 1.

3. FACILITIES AND ACCREDITATION

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

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

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

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

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

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

4.3. MEASUREMENT UNCERTAINTY

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

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

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a wireless Bluetooth headset.

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	6.94	4.94
2402 - 2480	Enhanced 8PSK	4.88	3.08

Note: GFSK, Pi/4-DQPSK, 8PSK average power were all investigated. The GFSK and 8PSK power levels were the worst case. Therefore, testing was based on these two modes to show compliance. For average power measurement data, please refer to section 8.6.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an integrated folded dipole antenna, with a maximum gain of -1.4 dBi.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was SW_PLD007 version 0.24.448.

During the testing a R&S CBT Bluetooth Tester was used.

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission below 1 GHz and above 18 GHz, 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 and it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	**Manufacturer**	**Model**	**Serial Number**	**FCC ID**
AC Adapter	Plantronics	SSA-3W-05 050035F	77394-04	N/A

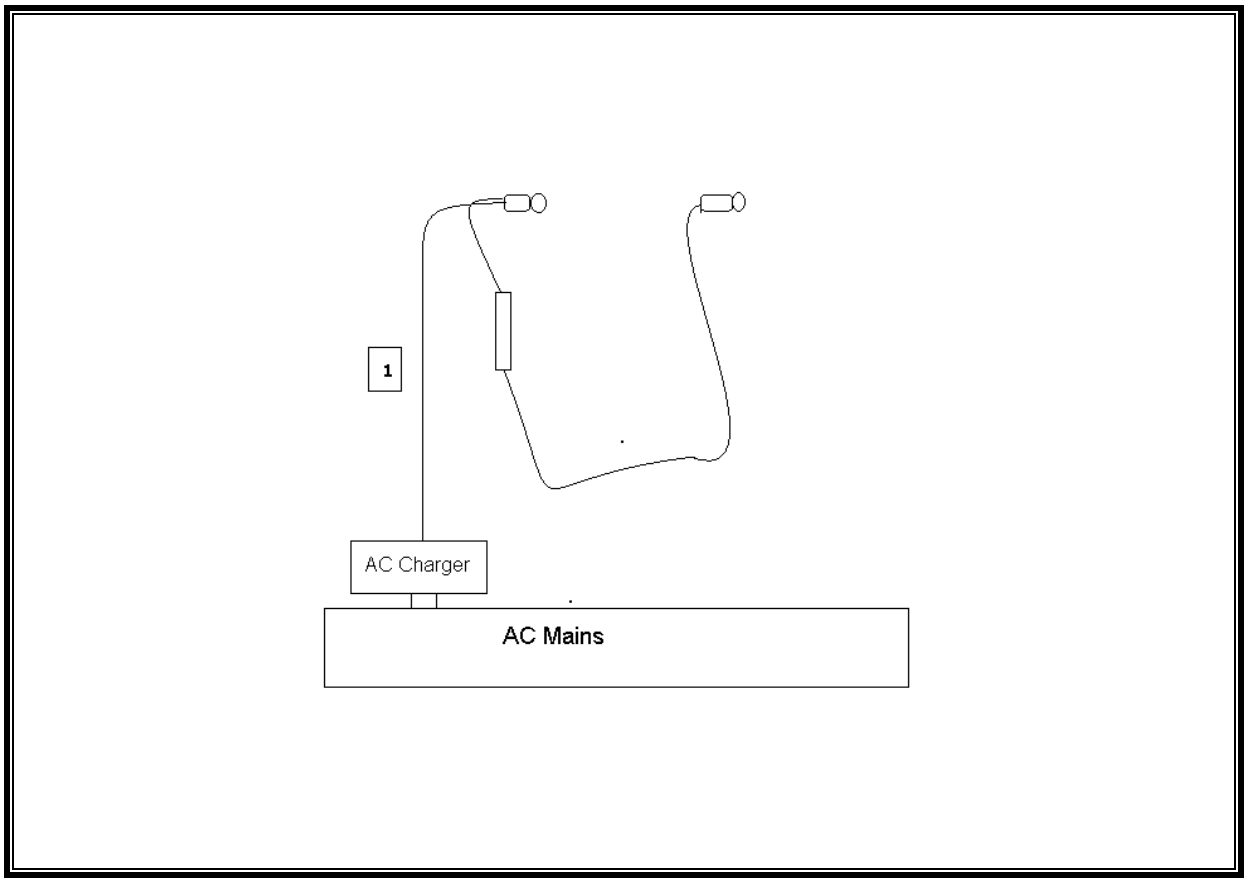
I/O CABLES

I/O CABLE LIST						
Cable No.	**Port**	**No. of identical ports**	**Connector Type**	**Cable Type**	**Cable Length**	**Remarks**
1	USB	1	USB	Shielded	1.2m	EUT Charger Cable

TEST SETUP

The EUT was set up in charging mode as shown in the following diagram. The Bluetooth tester exercised the radio card.

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	T130	09/01/16
Antenna, Horn, 18GHz	EMCO	3115	T344	02/22/17
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	T447	05/12/16
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	T907	01/06/17
CBT Bluetooth Tester	R & S	CBT	T258	06/30/16
Peak Power Meter	Agilent / HP	E4416A	T1264	07/01/17
Peak / Average Power Sensor	Agilent / HP	E9327A	T1223	02/28/17
LISN, 30 MHz	FCC	50/250-25-2	T1310	09/16/16
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. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

PROCEDURE

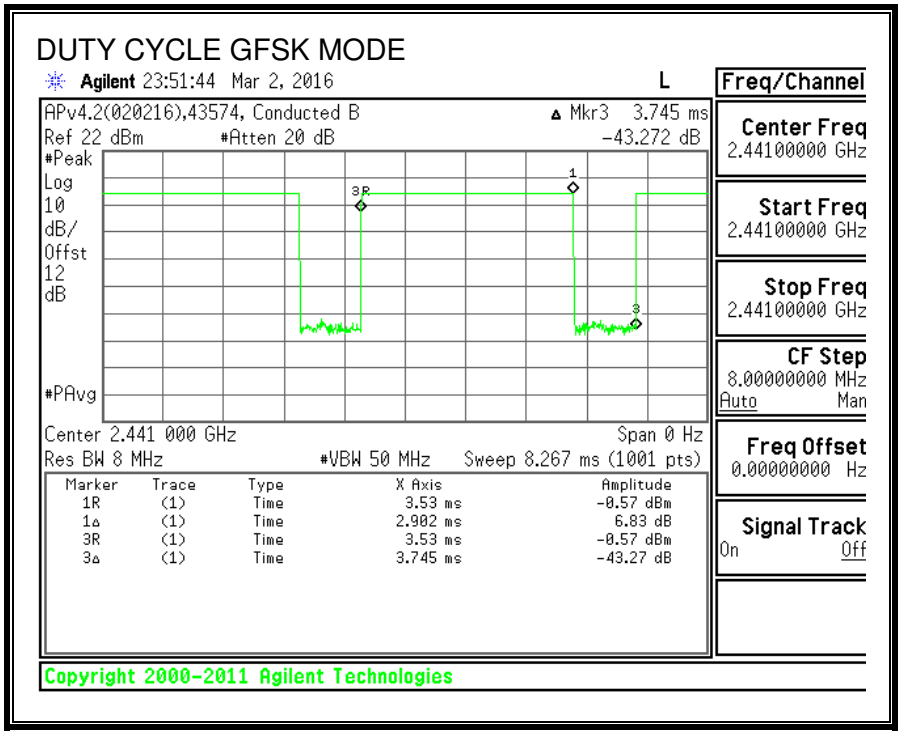
KDB 558074 Zero-Span Spectrum Analyzer Method.

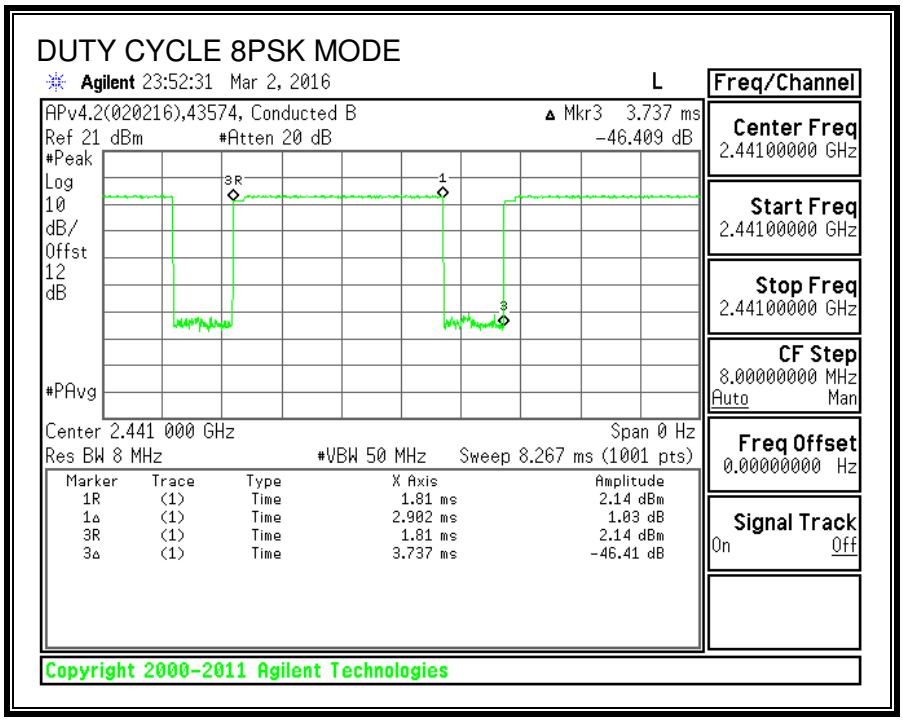
7.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4 GHz band (Hopping OFF)						
Bluetooth GFSK	2.902	3.745	0.775	77.49%	1.11	0.345
Bluetooth 8DPSK	2.902	3.737	0.777	77.66%	1.10	0.345

7.2. DUTY CYCLE PLOTS

HOPPING OFF





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	0.944	0.901
Middle	2441	0.948	0.904
High	2480	0.944	0.902
Worst		0.948	0.904

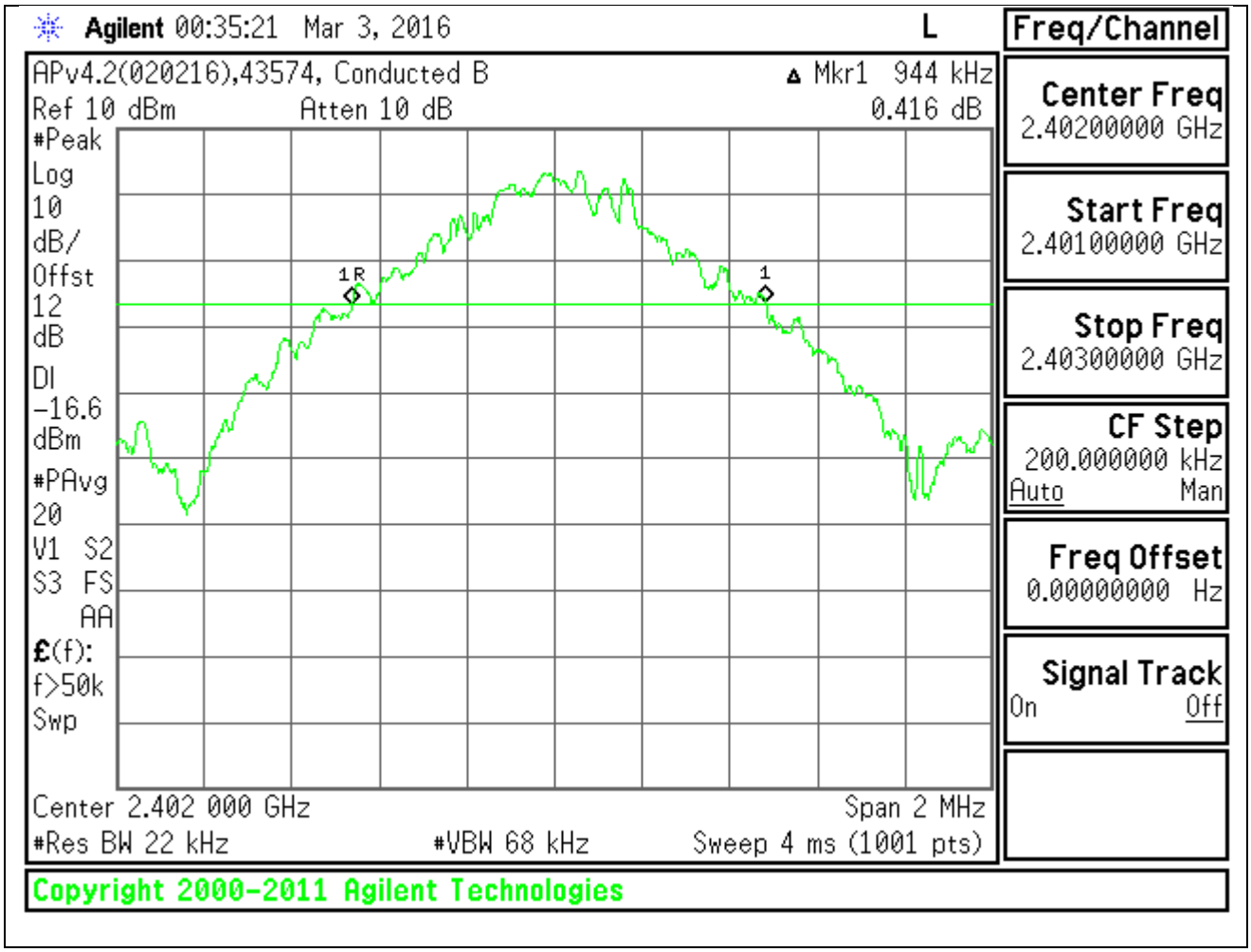
8.1.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	1.302	1.216
Middle	2441	1.311	1.207
High	2480	1.296	1.208
Worst		1.311	1.216

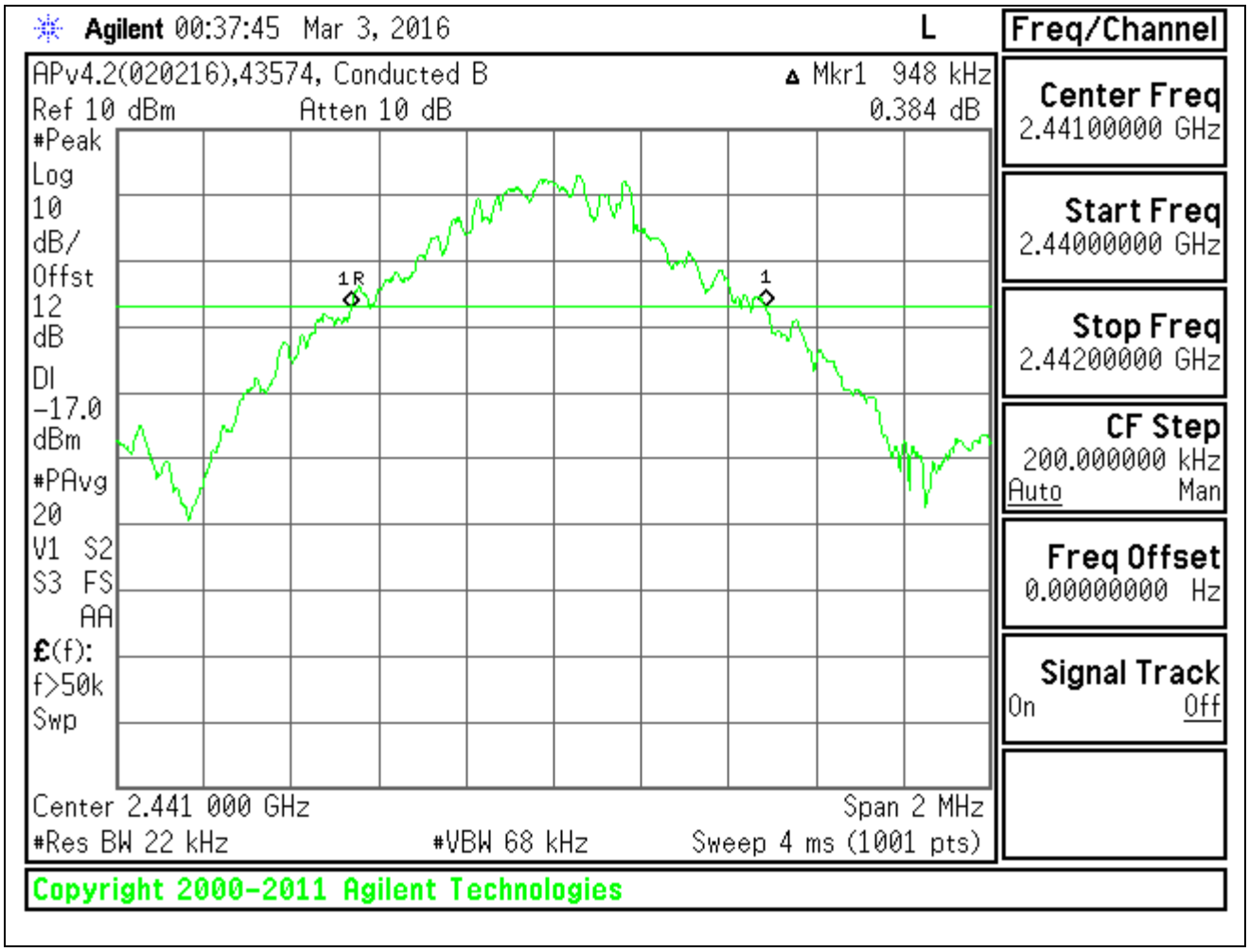
8.1.3. 20 dB AND 99% BANDWIDTH PLOTS

GFSK 20 dB BANDWIDTH

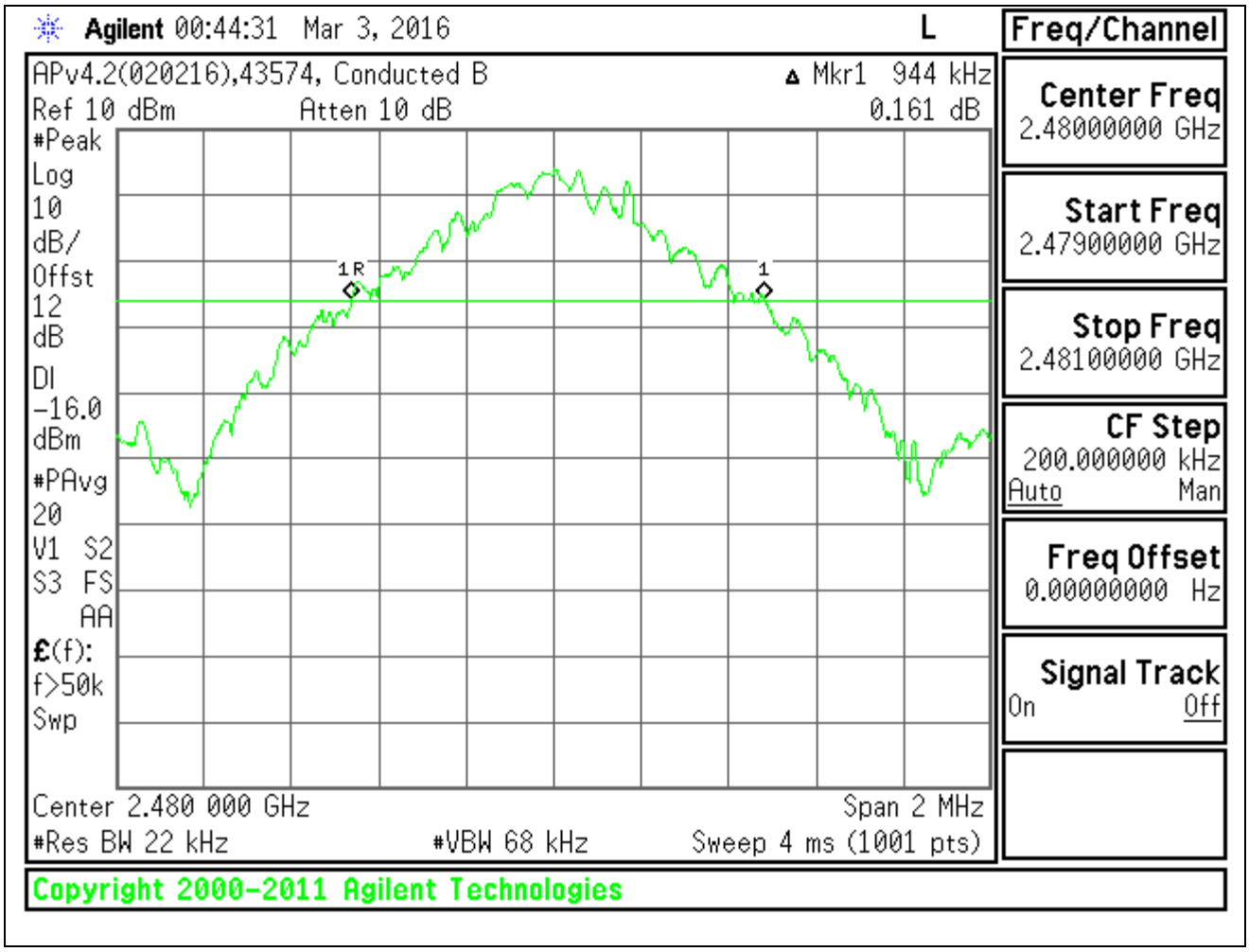
LOW CHANNEL



MID CHANNEL

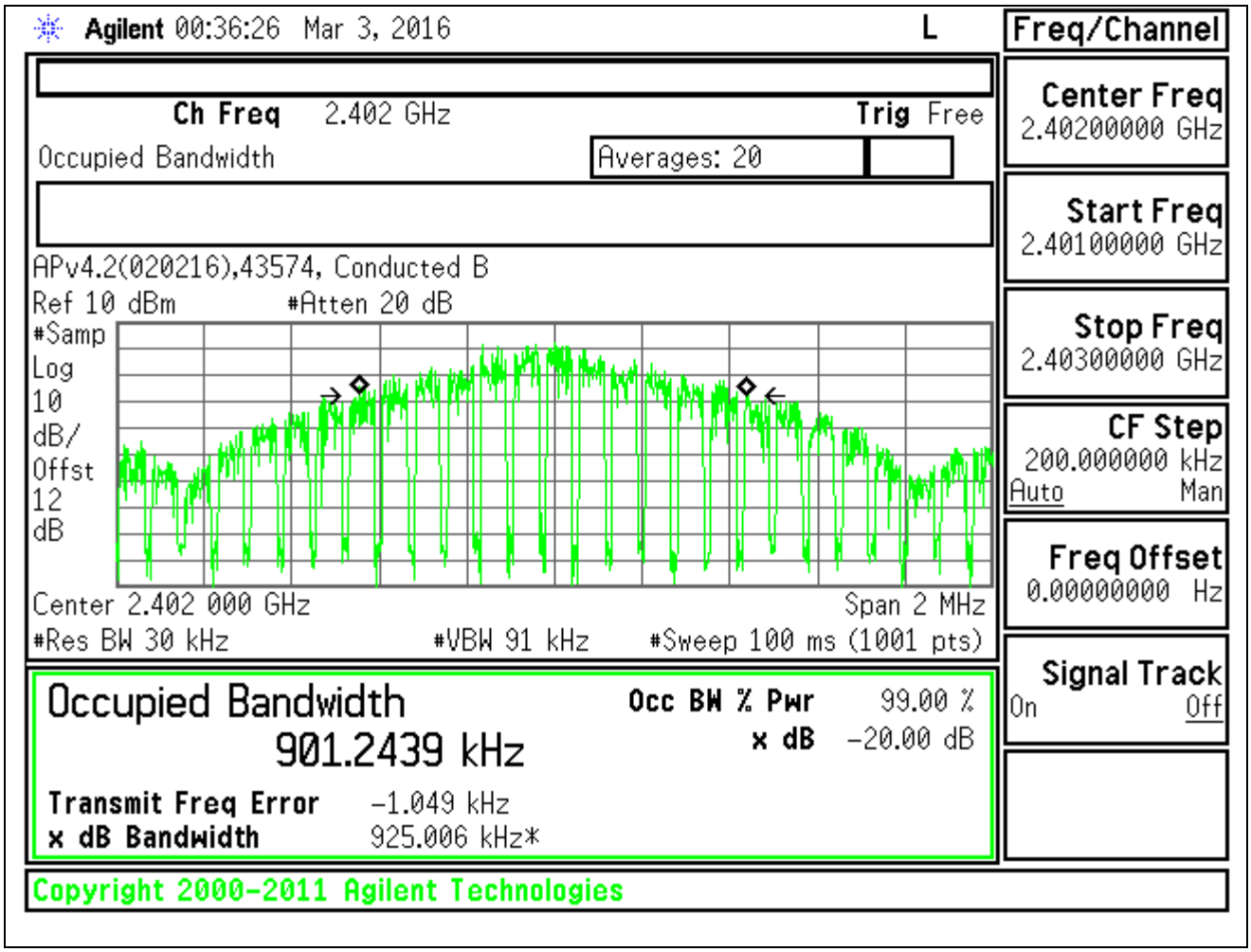


HIGH CHANNEL

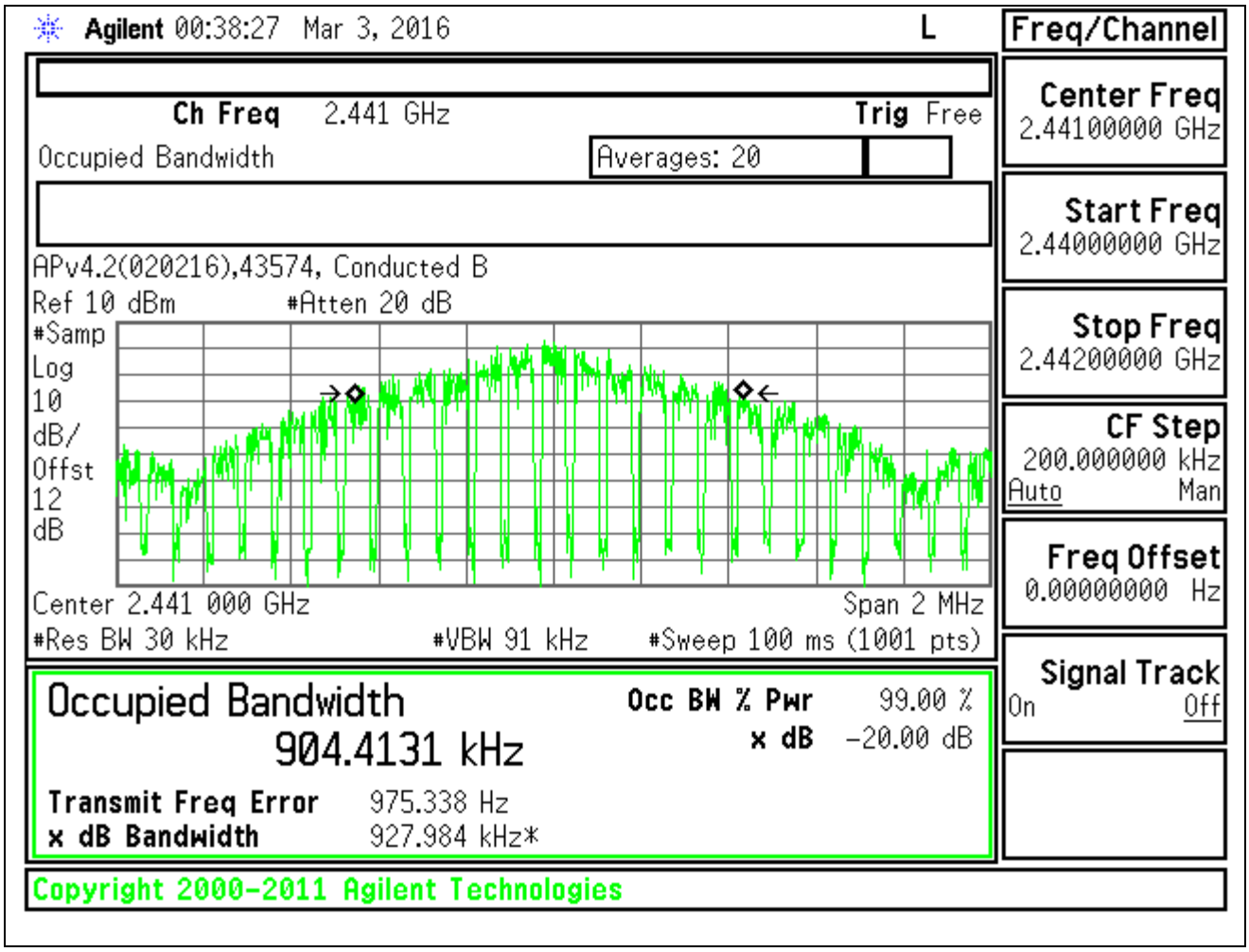


GFSK 99% BANDWIDTH

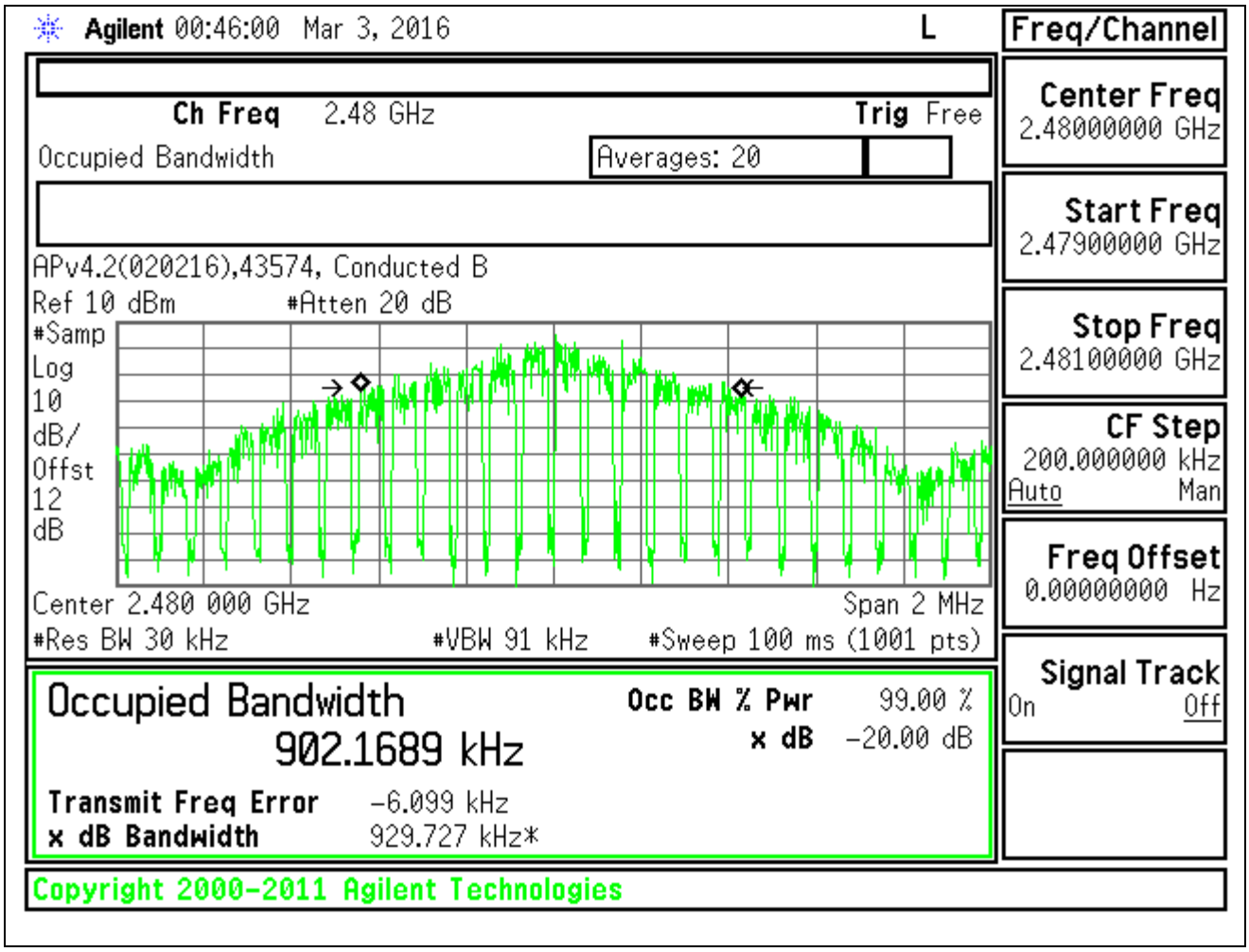
LOW CHANNEL



MID CHANNEL

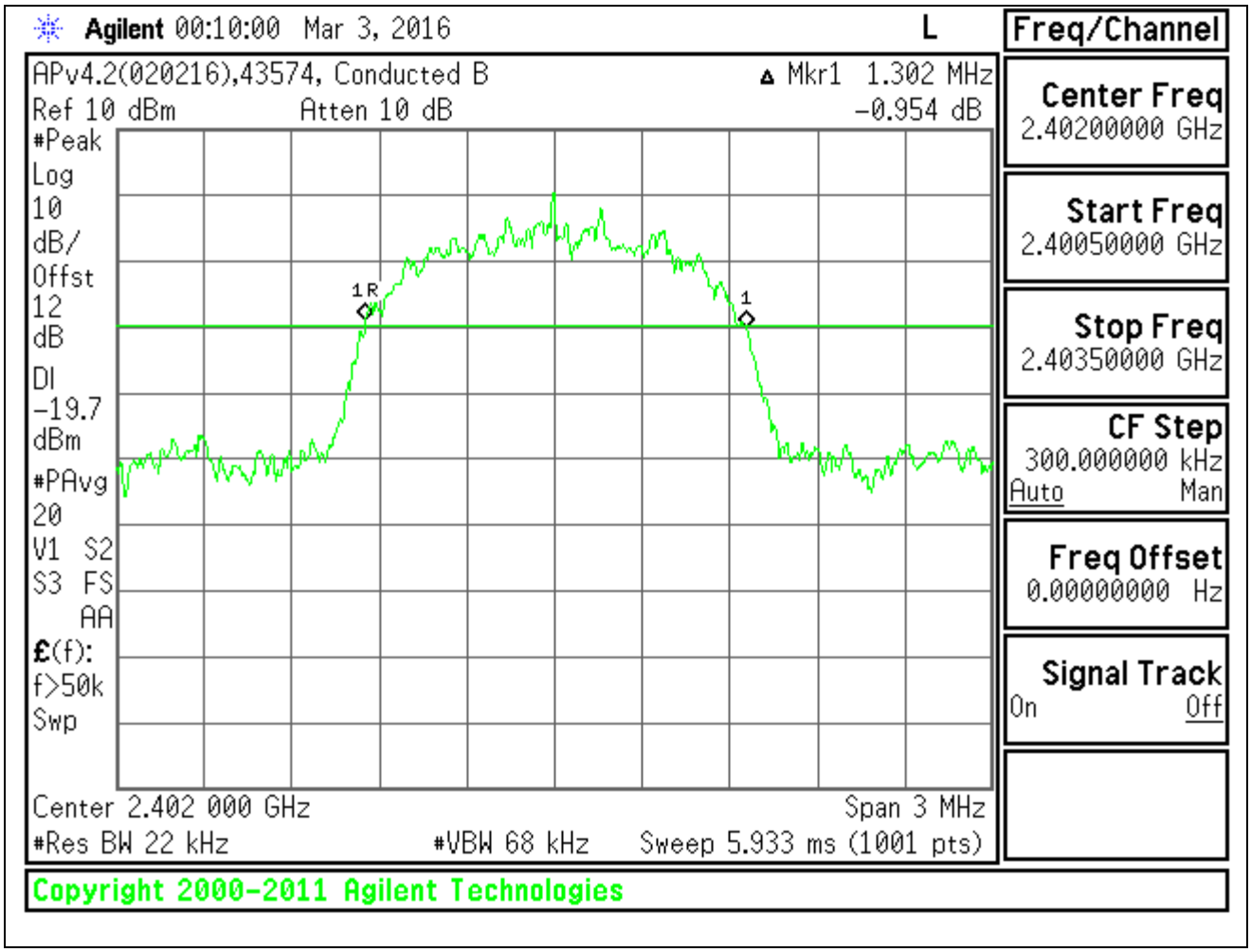


HIGH CHANNEL

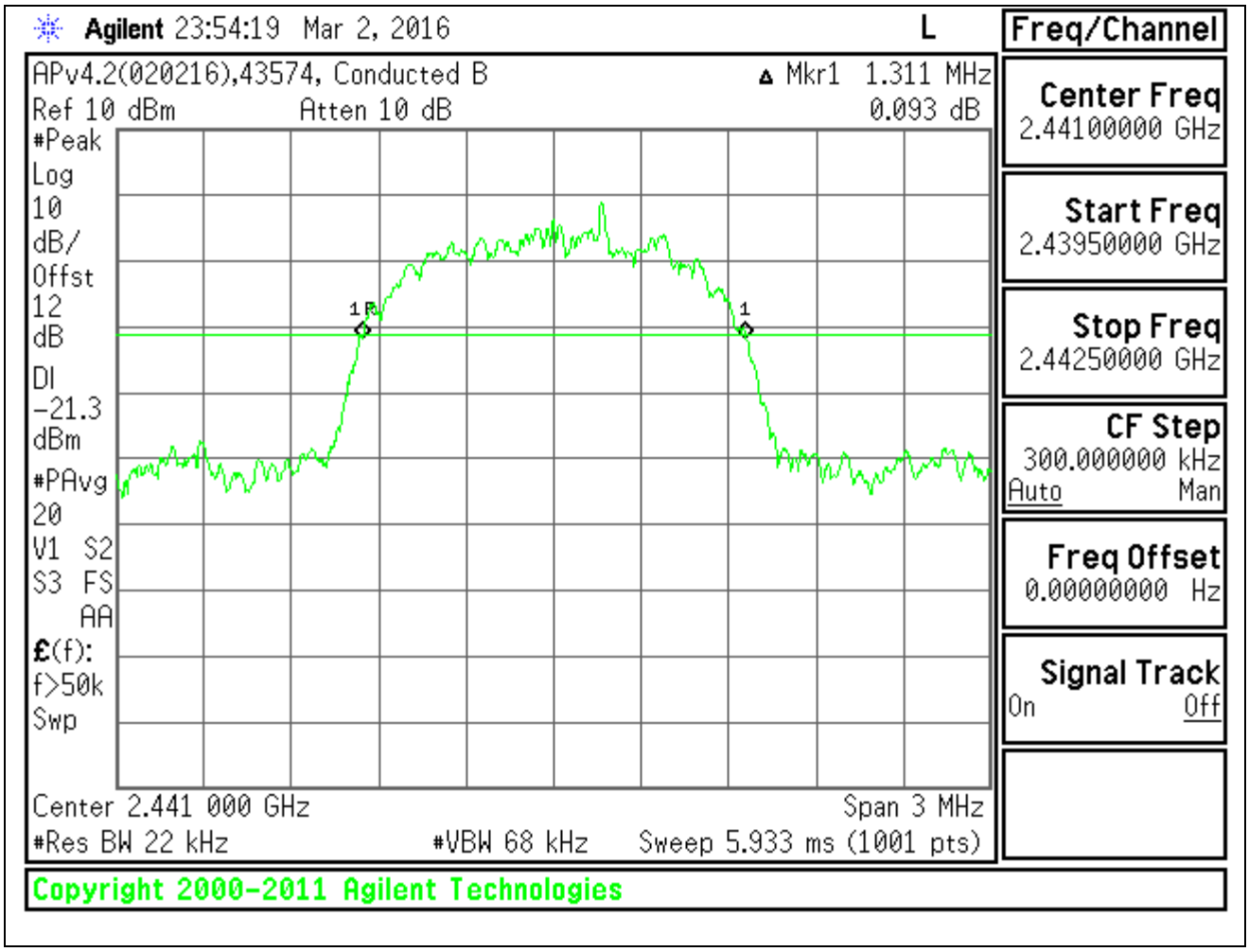


8PSK 20 dB BANDWIDTH

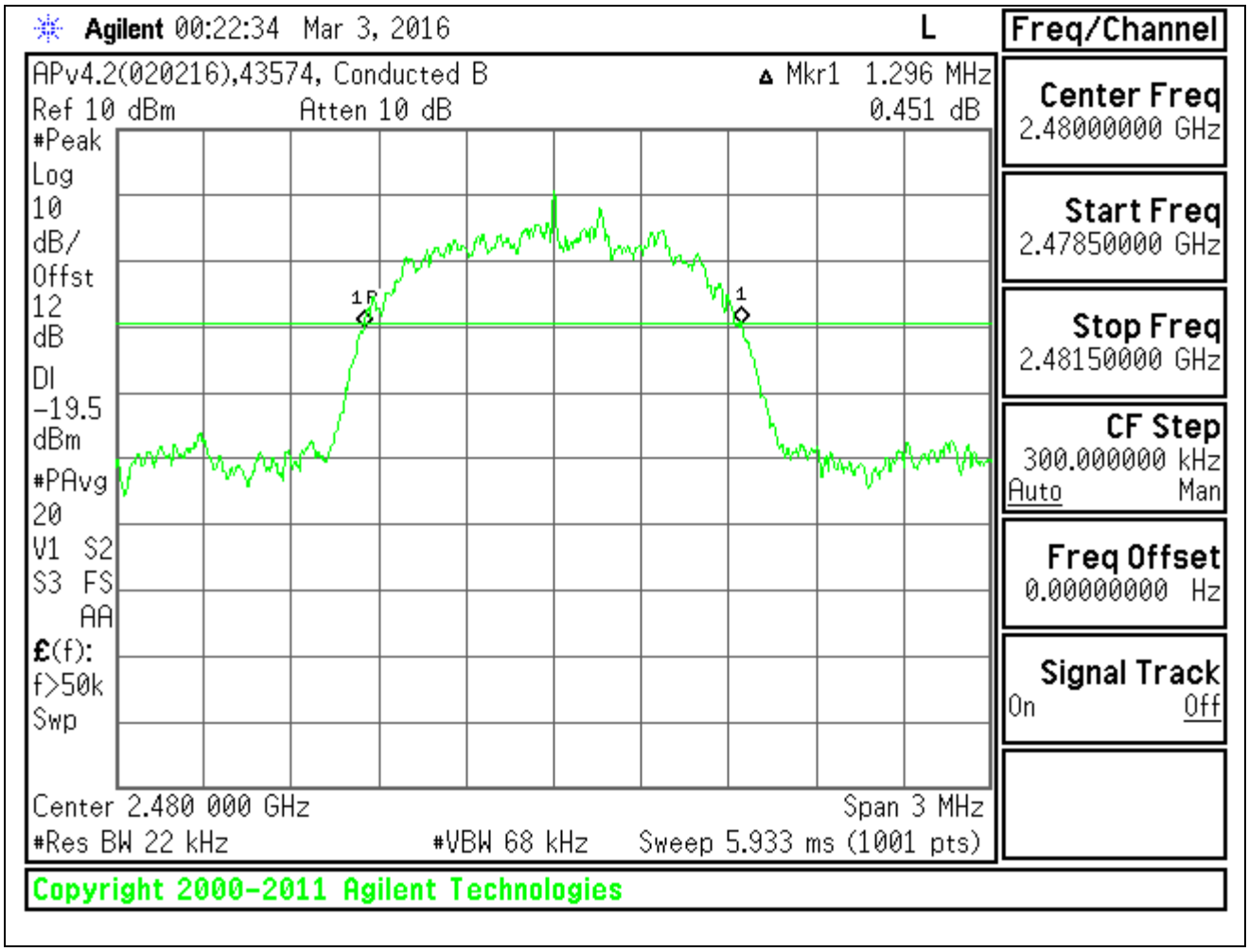
LOW CHANNEL



MID CHANNEL

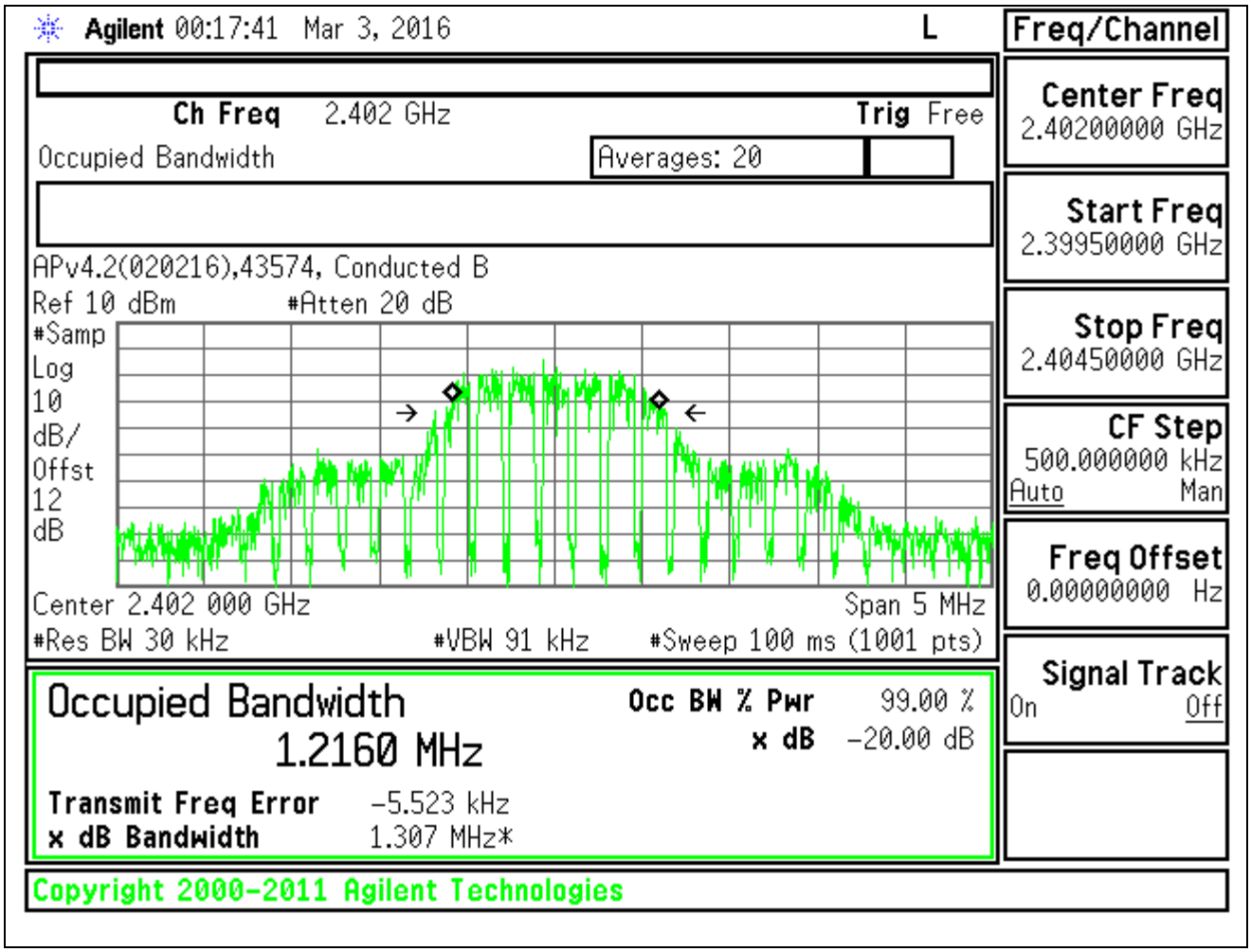


HIGH CHANNEL

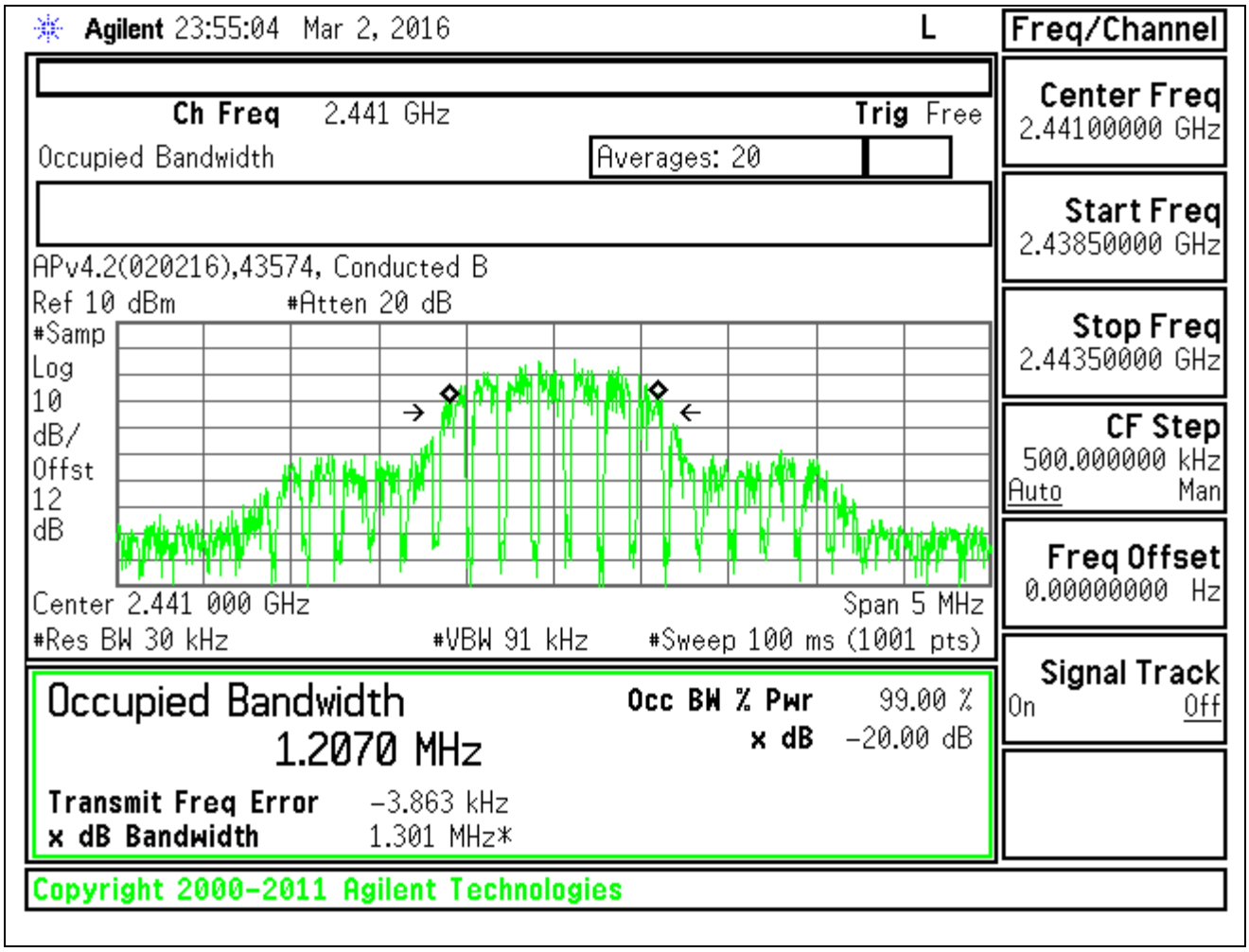


8PSK 99% BANDWIDTH

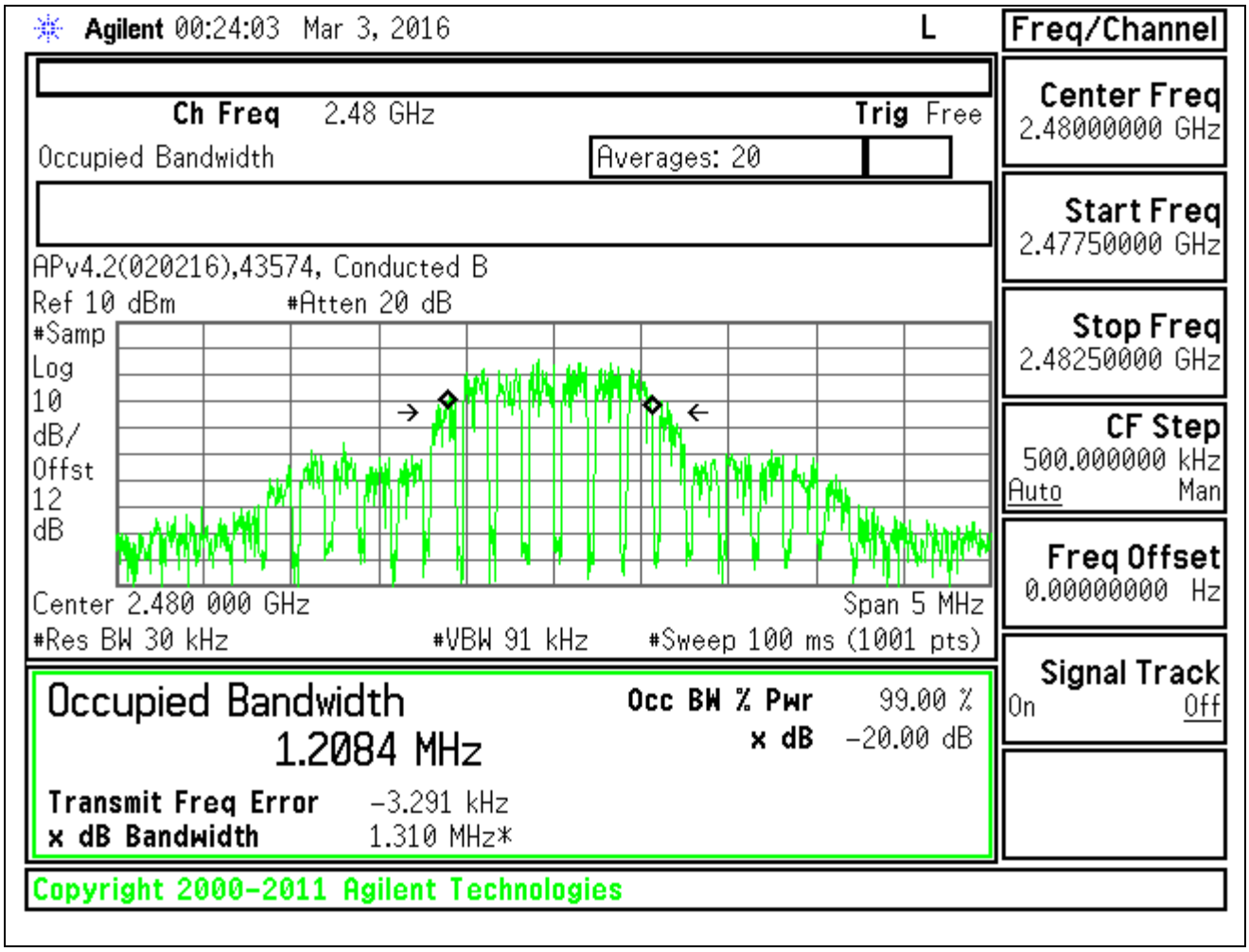
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.2. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)
IC RSS-247 5.1 (2)

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

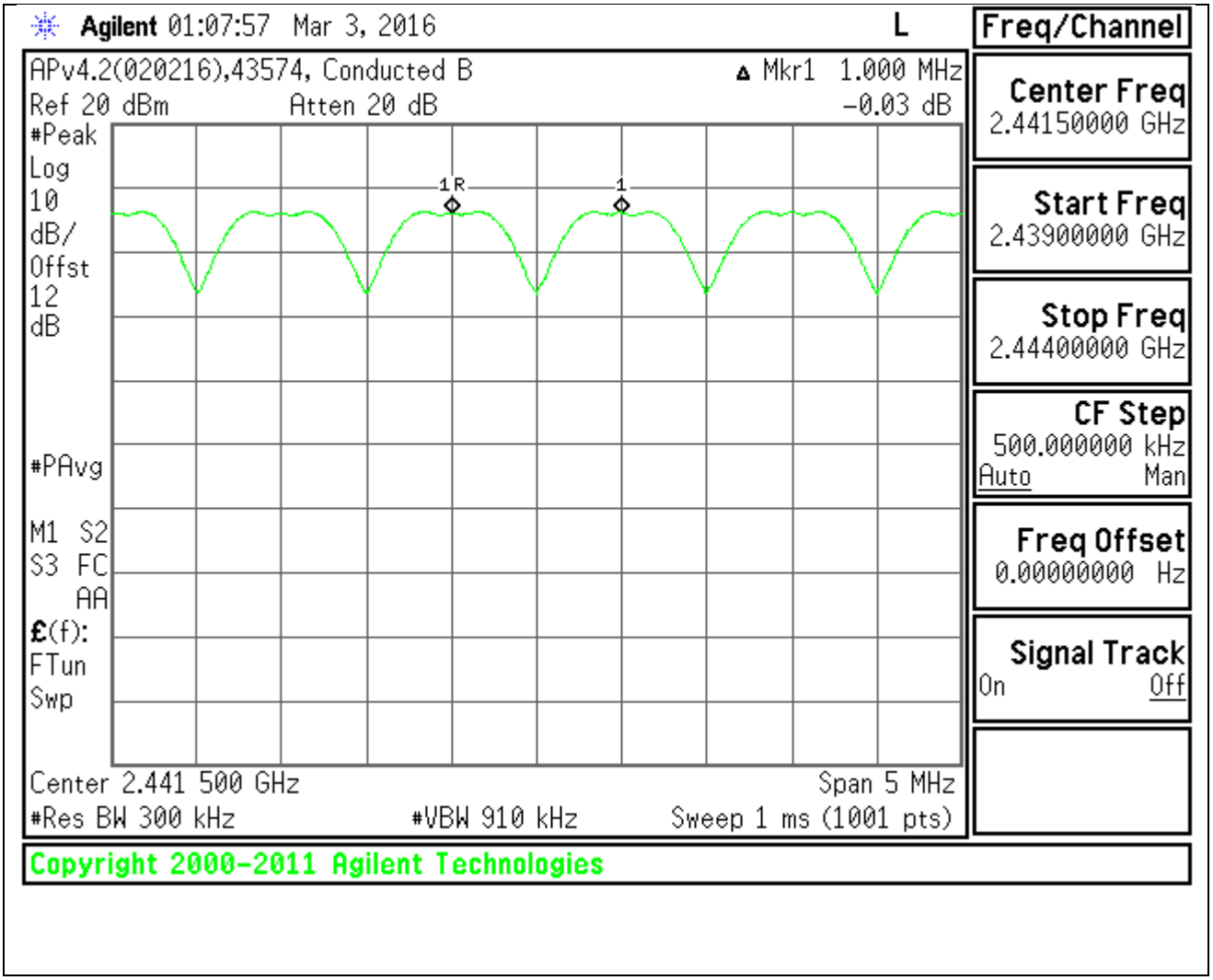
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than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

TEST PROCEDURE

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 900 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

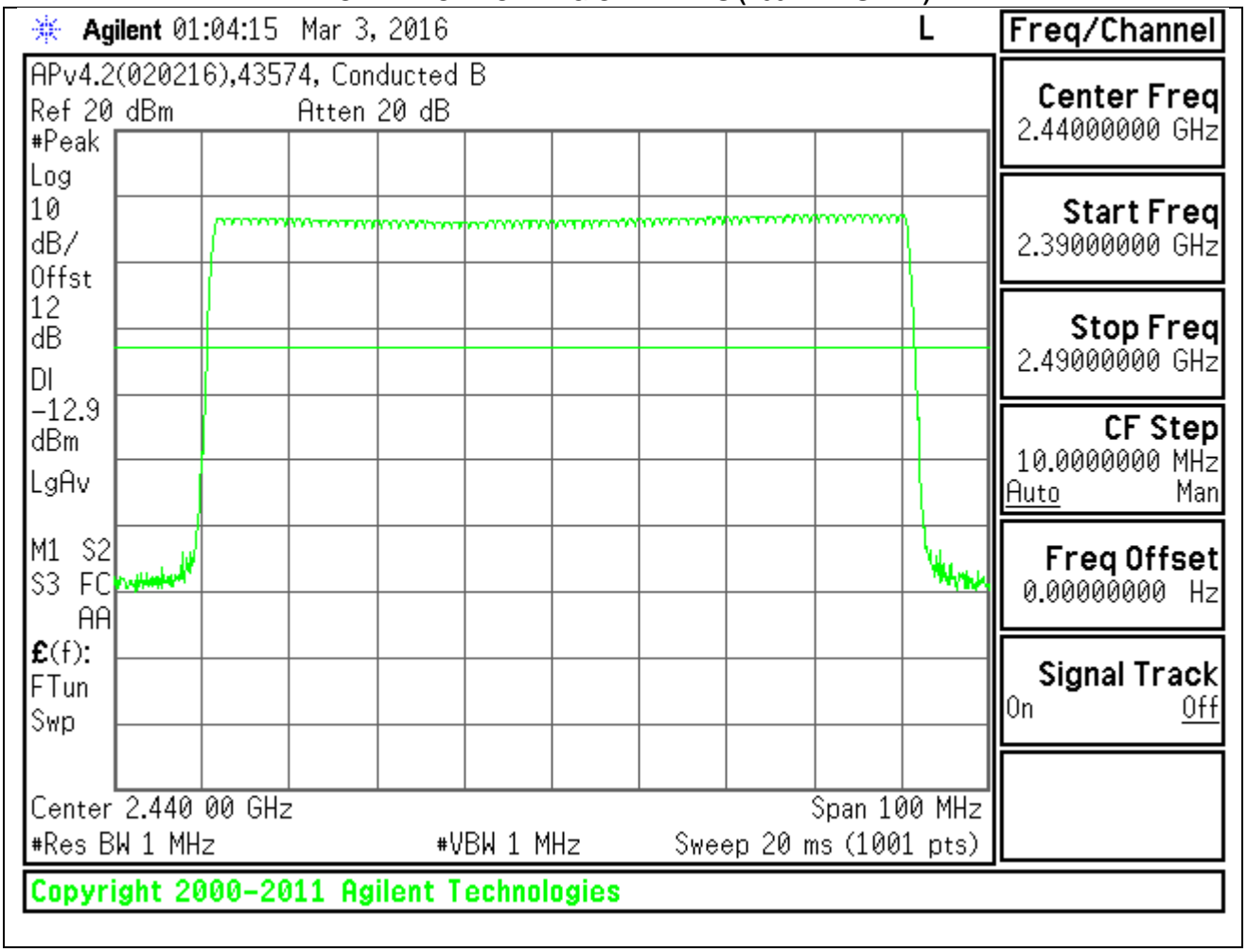
DA 00-705: The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

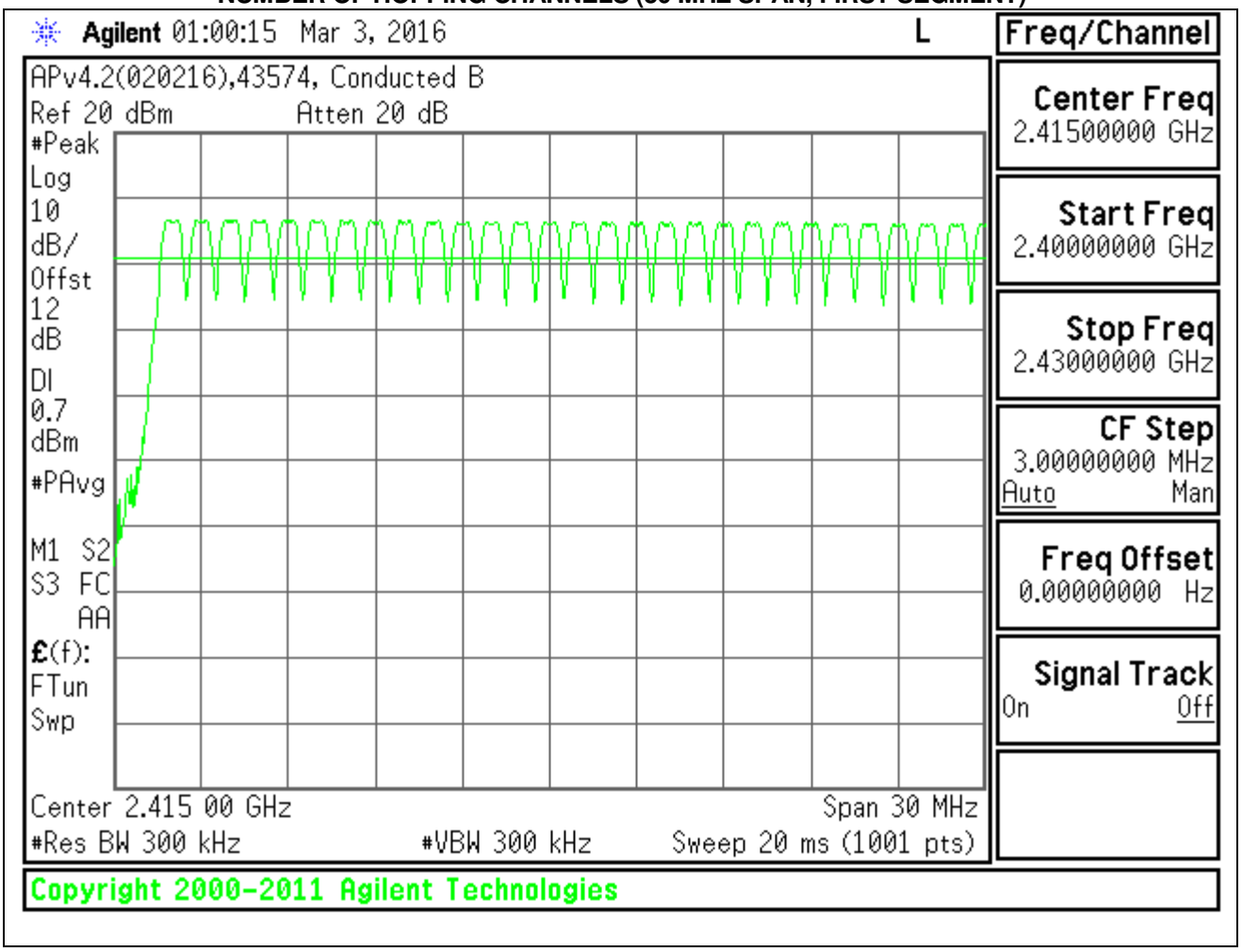
Normal Mode: 79 Channels observed.
AFH Mode: 20 Channels declared.

NUMBER OF HOPPING CHANNELS PLOTS

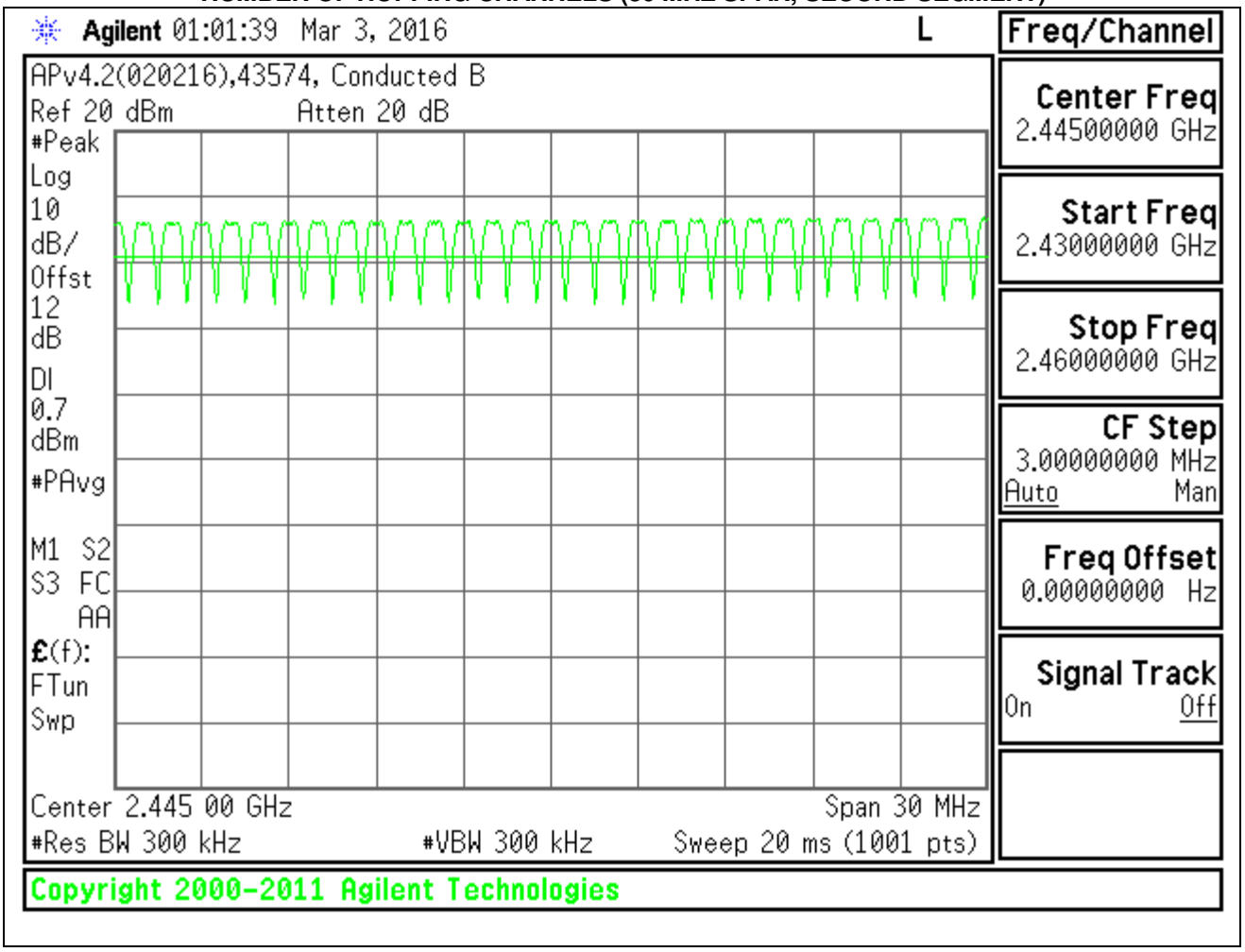
NUMBER OF HOPPING CHANNELS (100 MHZ SPAN)



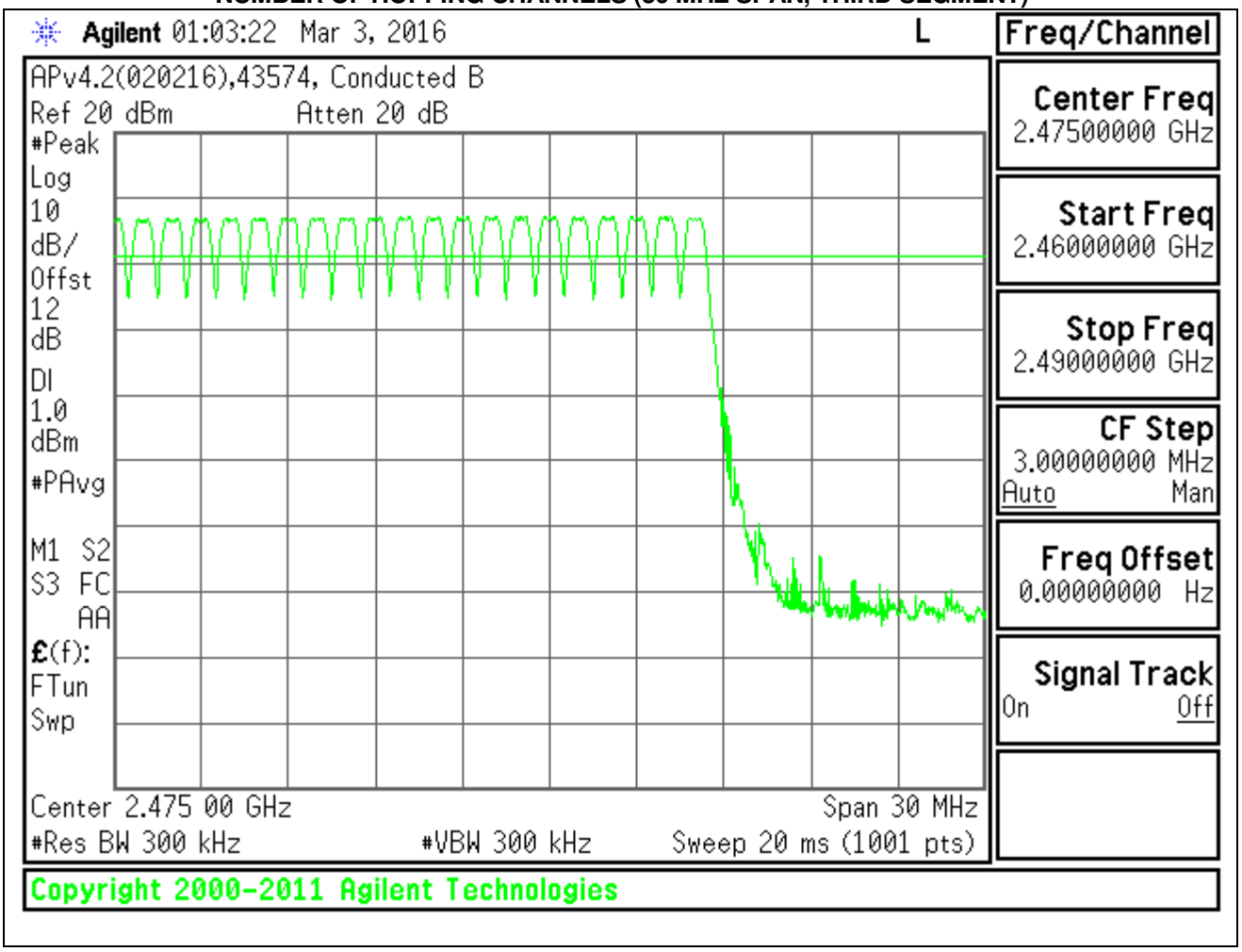
NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, FIRST SEGMENT)



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.

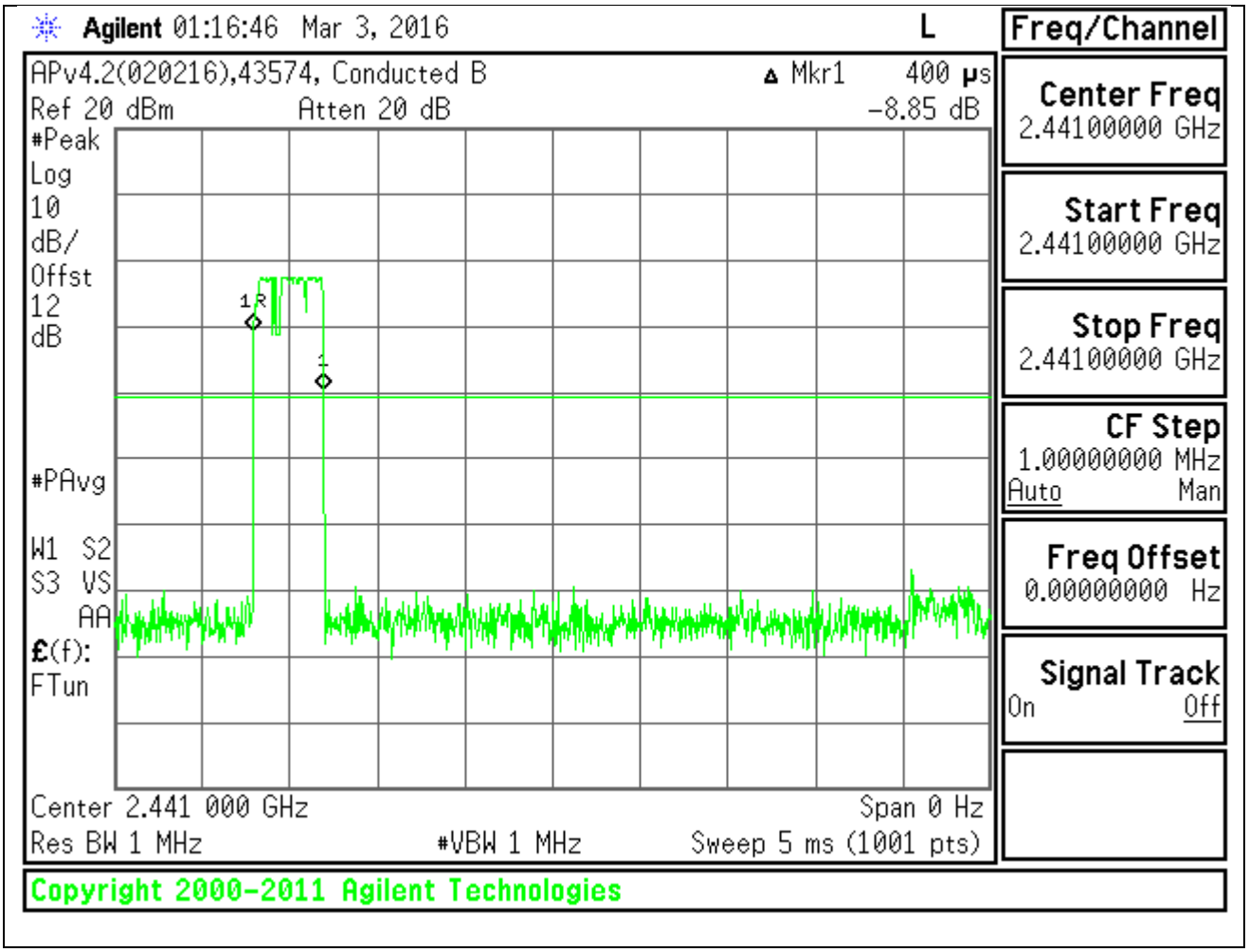
The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to 10 * (# of pulses in 3.16 s) * pulse width.

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.

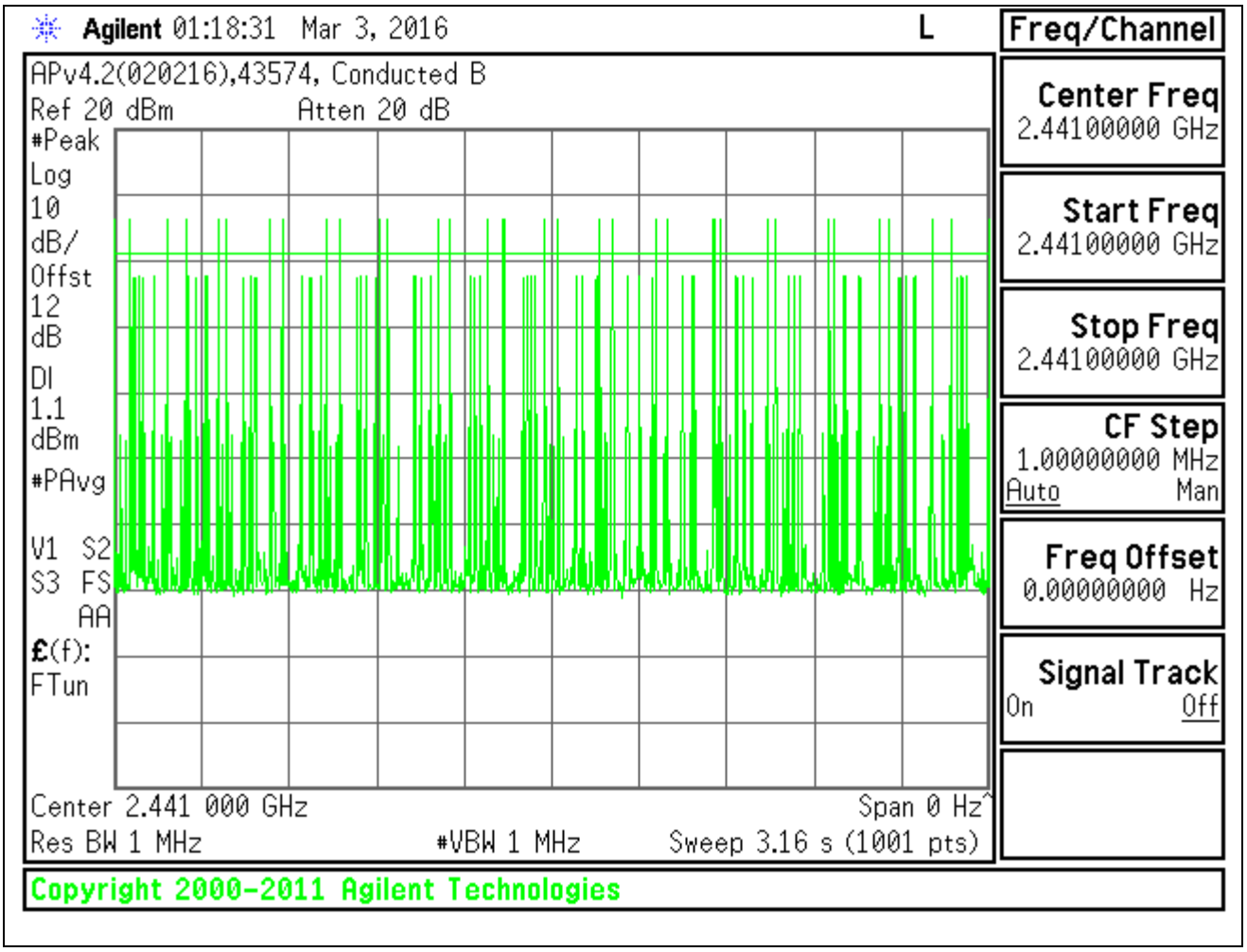
RESULTS

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	0.4	33	0.132	0.4	-0.268
DH3	1.66	15	0.249	0.4	-0.151
DH5	2.91	9	0.2619	0.4	-0.1381
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	0.4	8.25	0.033	0.4	-0.367
DH3	1.66	3.75	0.06225	0.4	-0.33775
DH5	2.91	2.25	0.065475	0.4	-0.33453

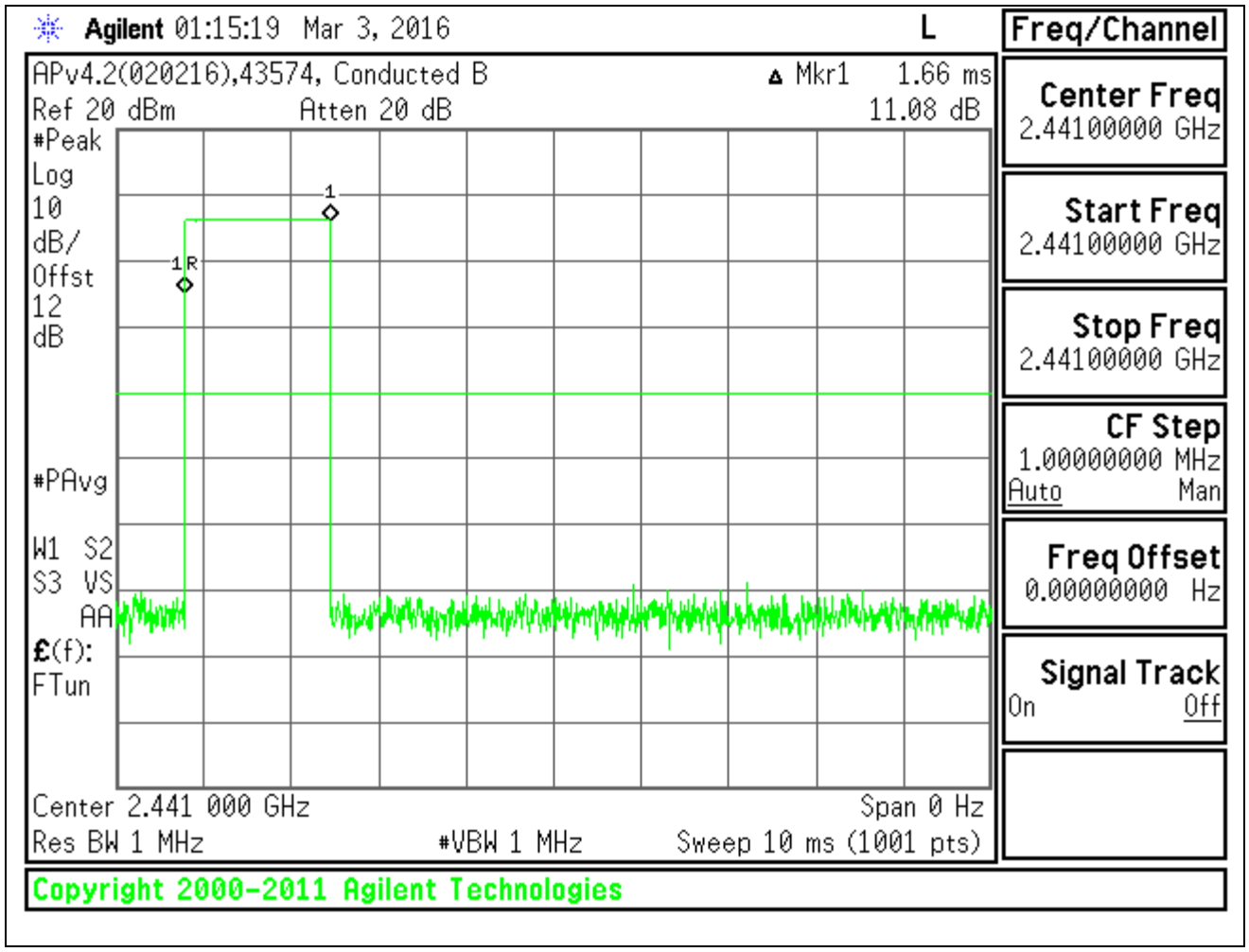
PULSE WIDTH - DH1



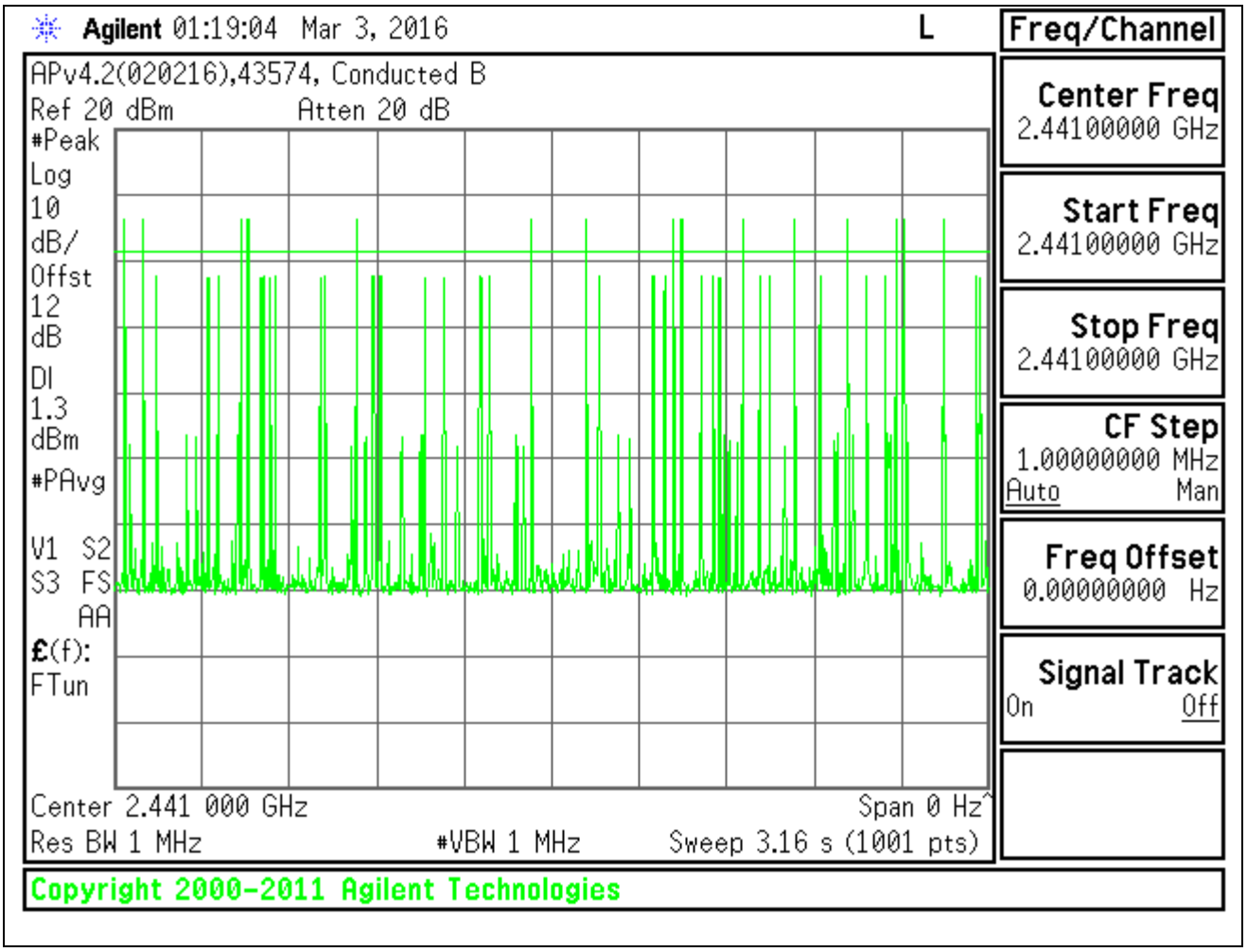
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH1



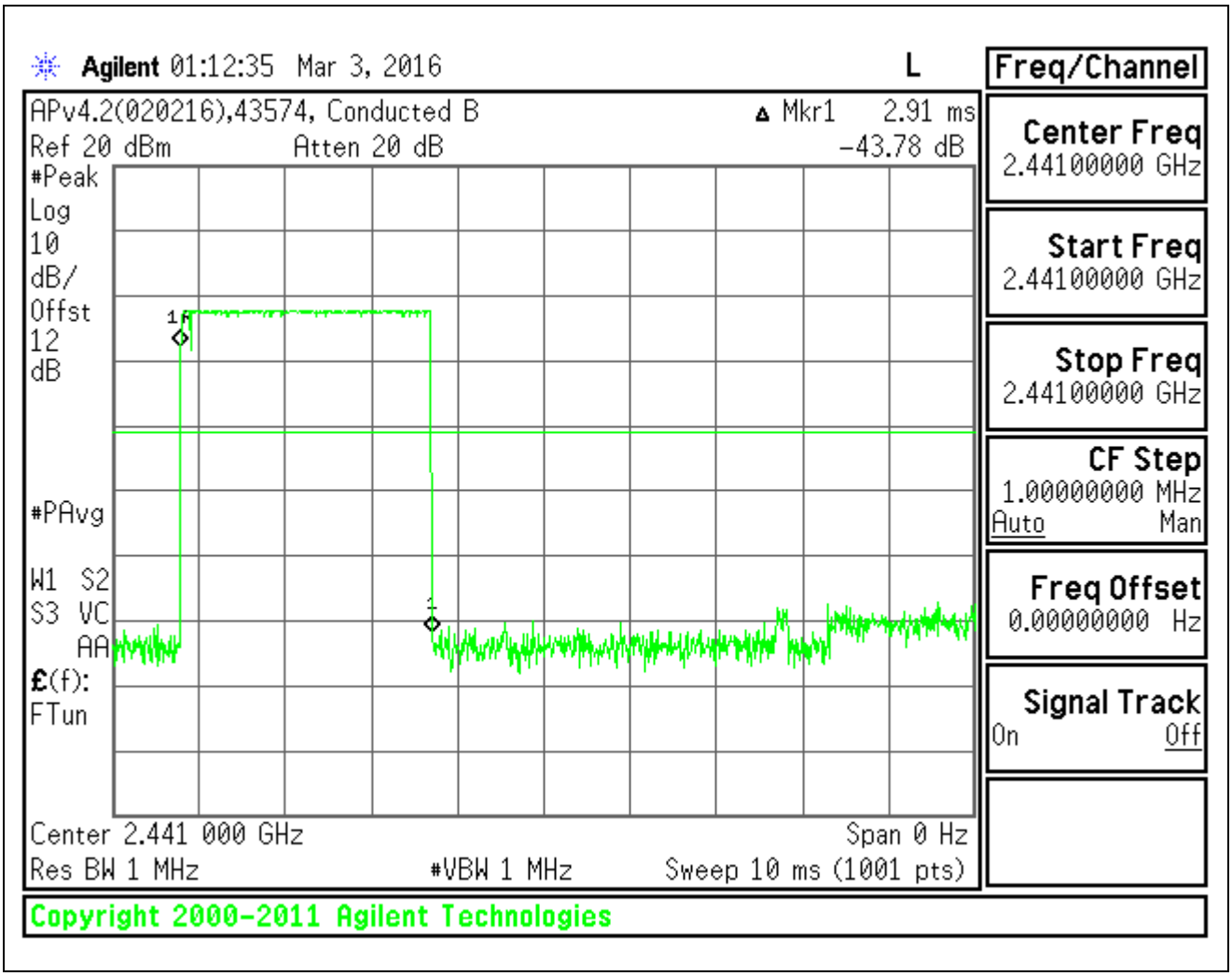
PULSE WIDTH - DH3



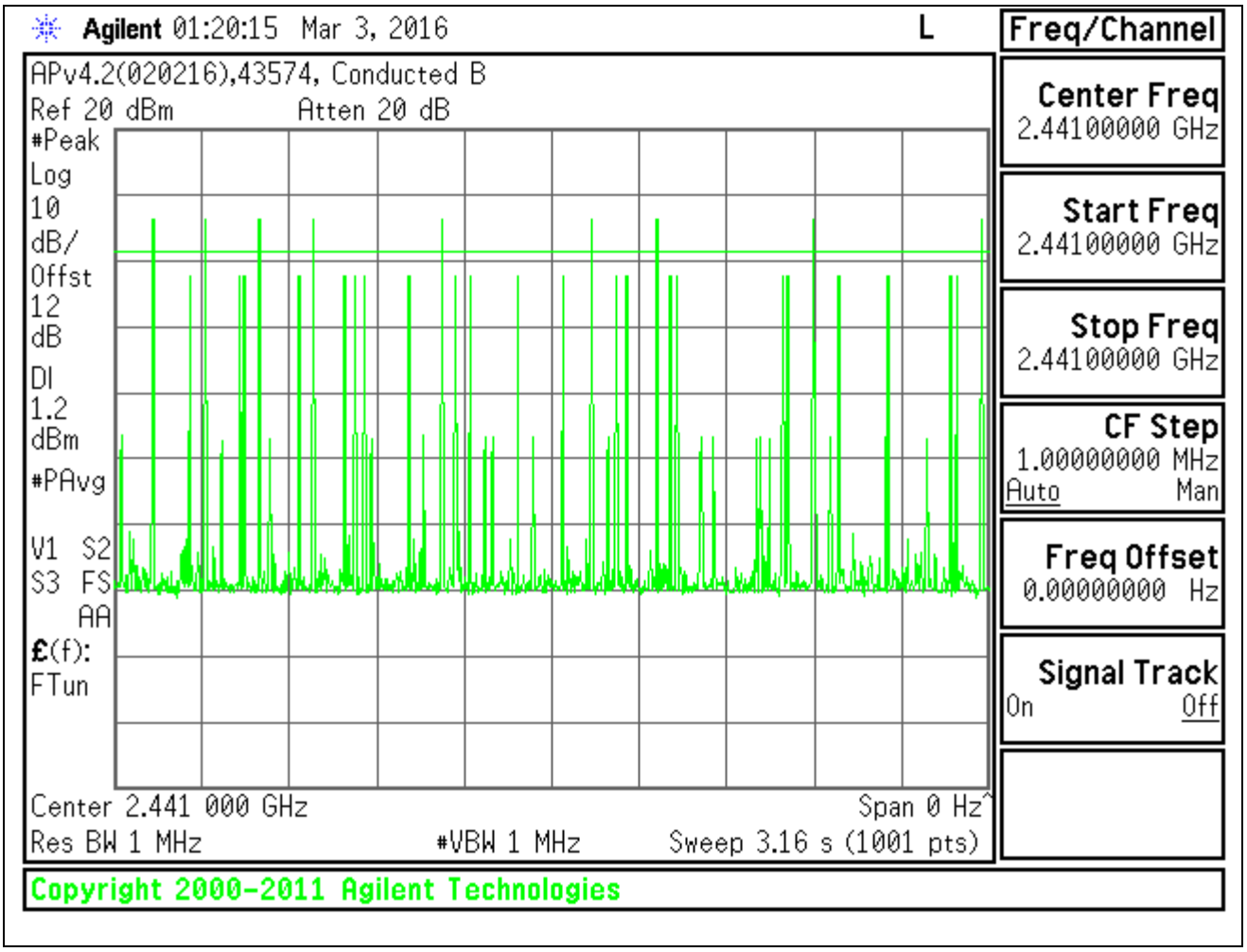
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH3



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 (2)

The maximum antenna gain is less than 6 dBi, therefore the limit is 30 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	6.58	30	-23.42
Middle	2441	6.92	30	-23.08
High	2480	6.94	30	-23.06
Worst		6.94		-23.06

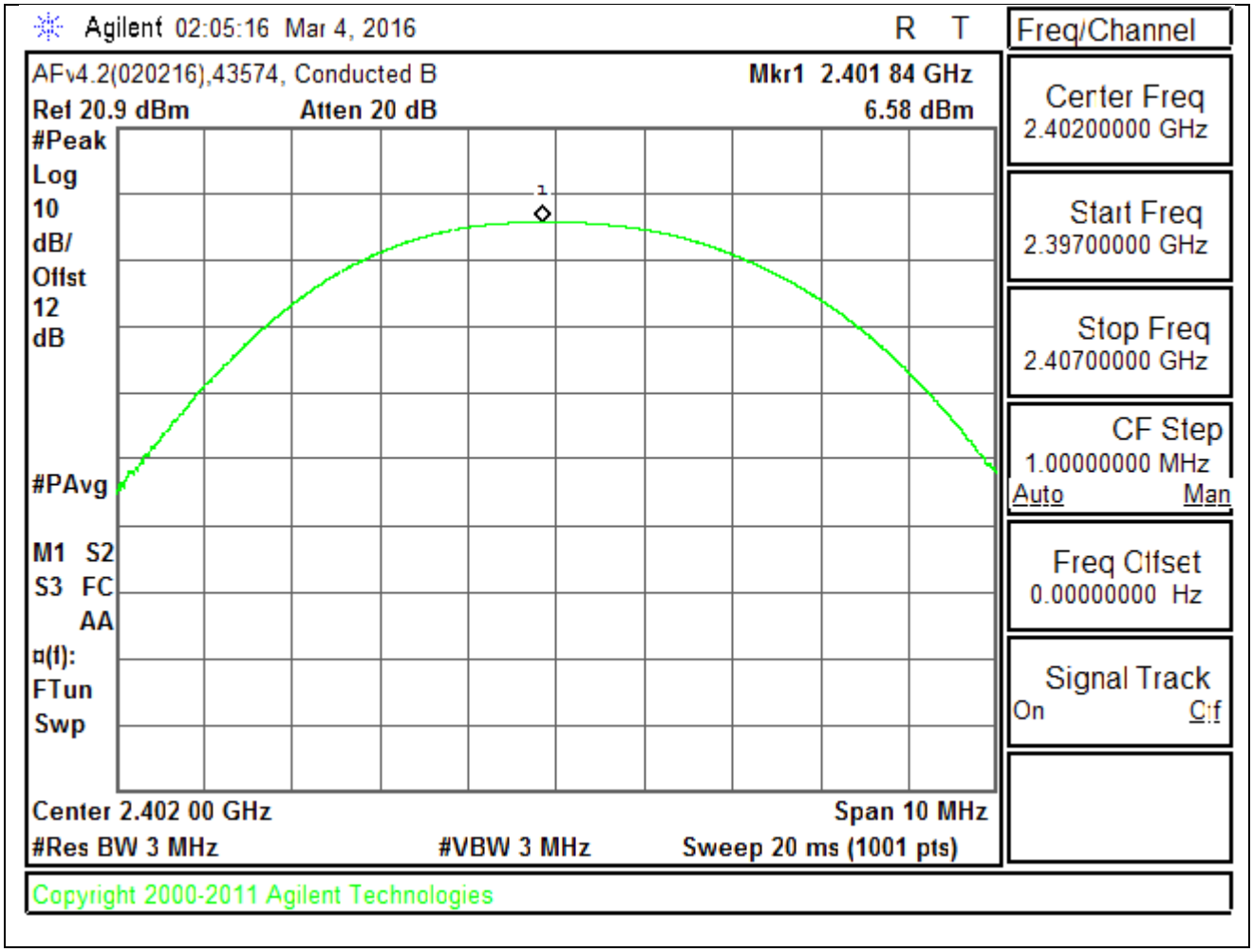
8.5.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	4.53	30	-25.47
Middle	2441	4.88	30	-25.12
High	2480	4.70	30	-25.3
Worst		4.88		-25.12

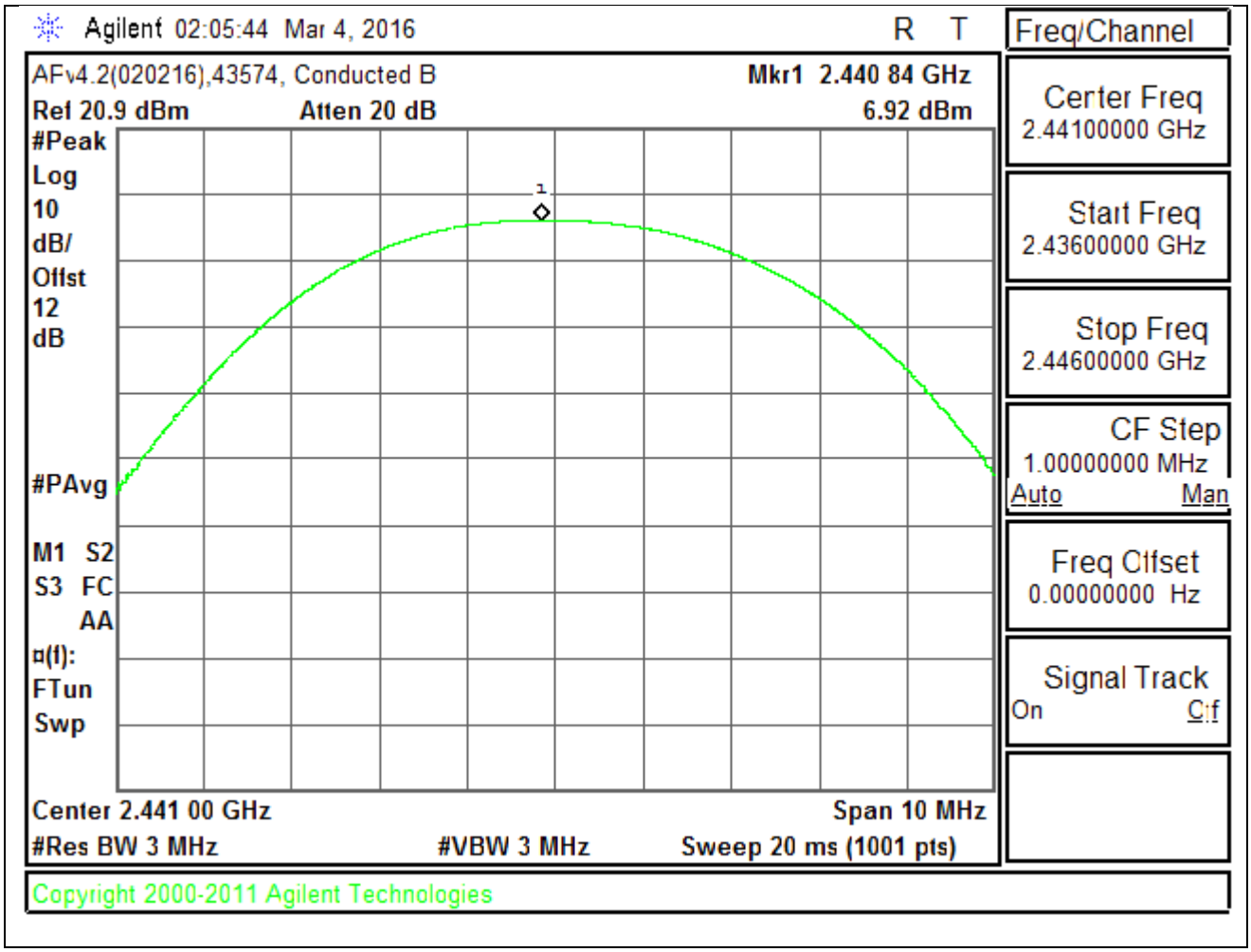
8.5.3. OUTPUT POWER PLOTS

GFSK OUTPUT POWER

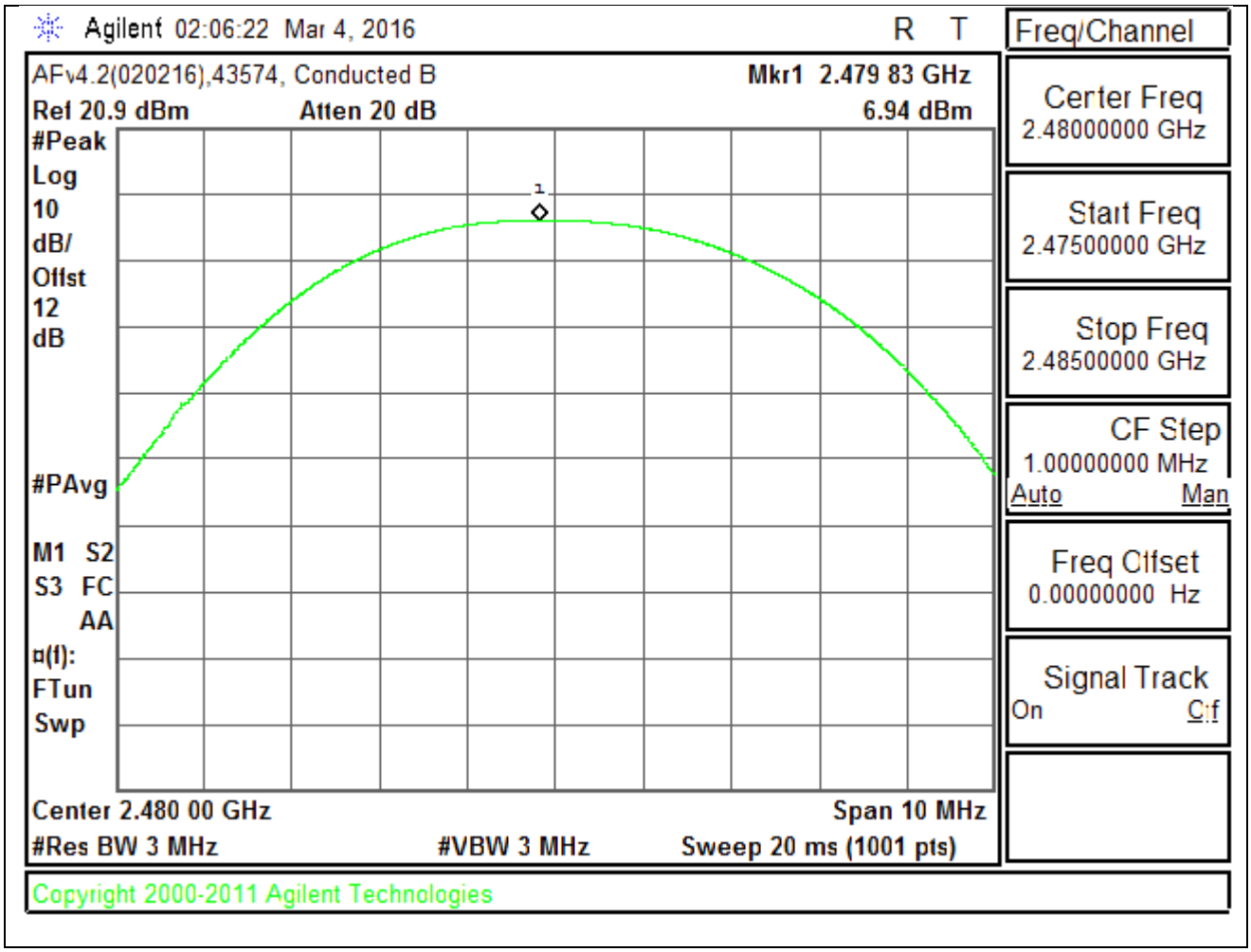
LOW CHANNEL



MID CHANNEL

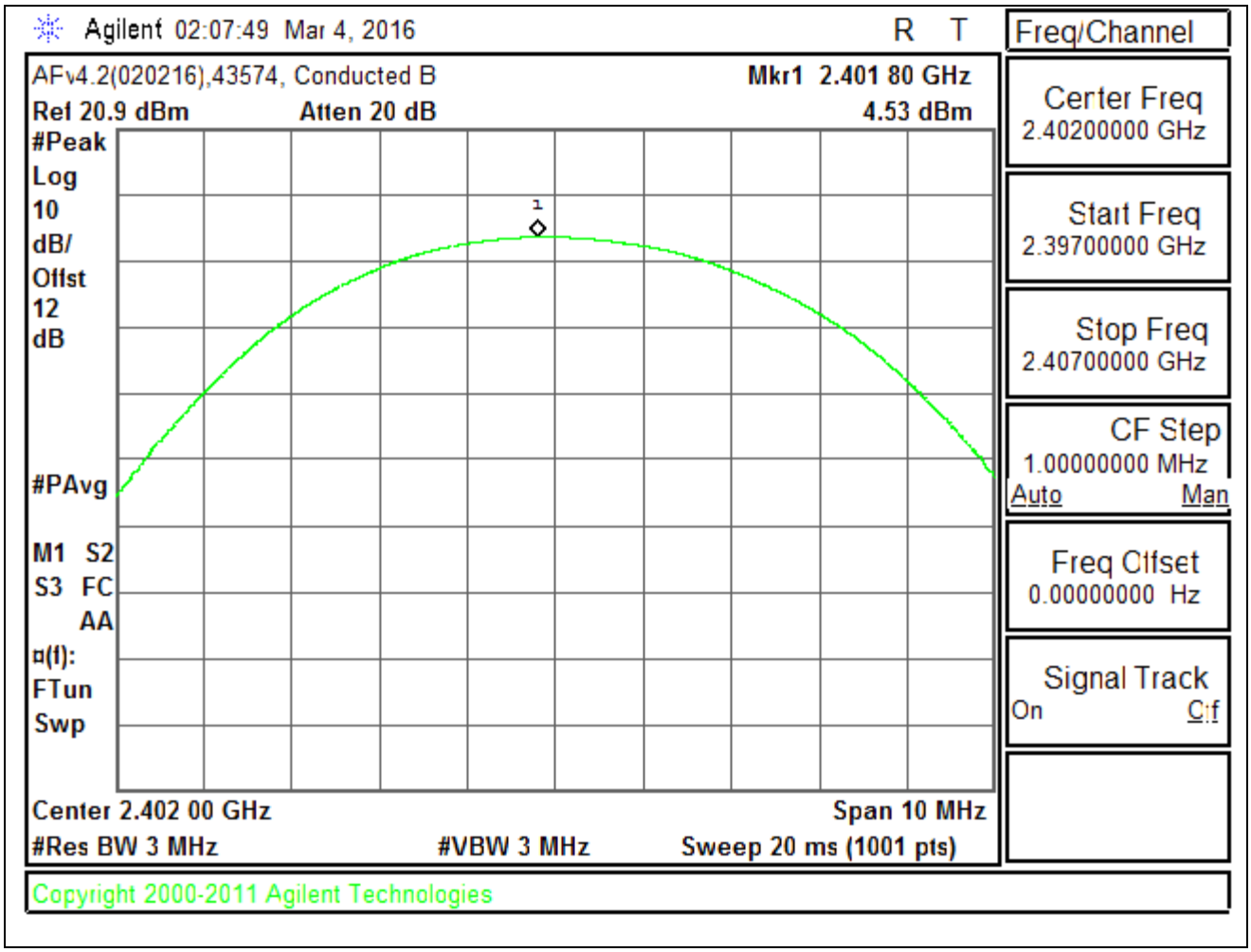


HIGH CHANNEL

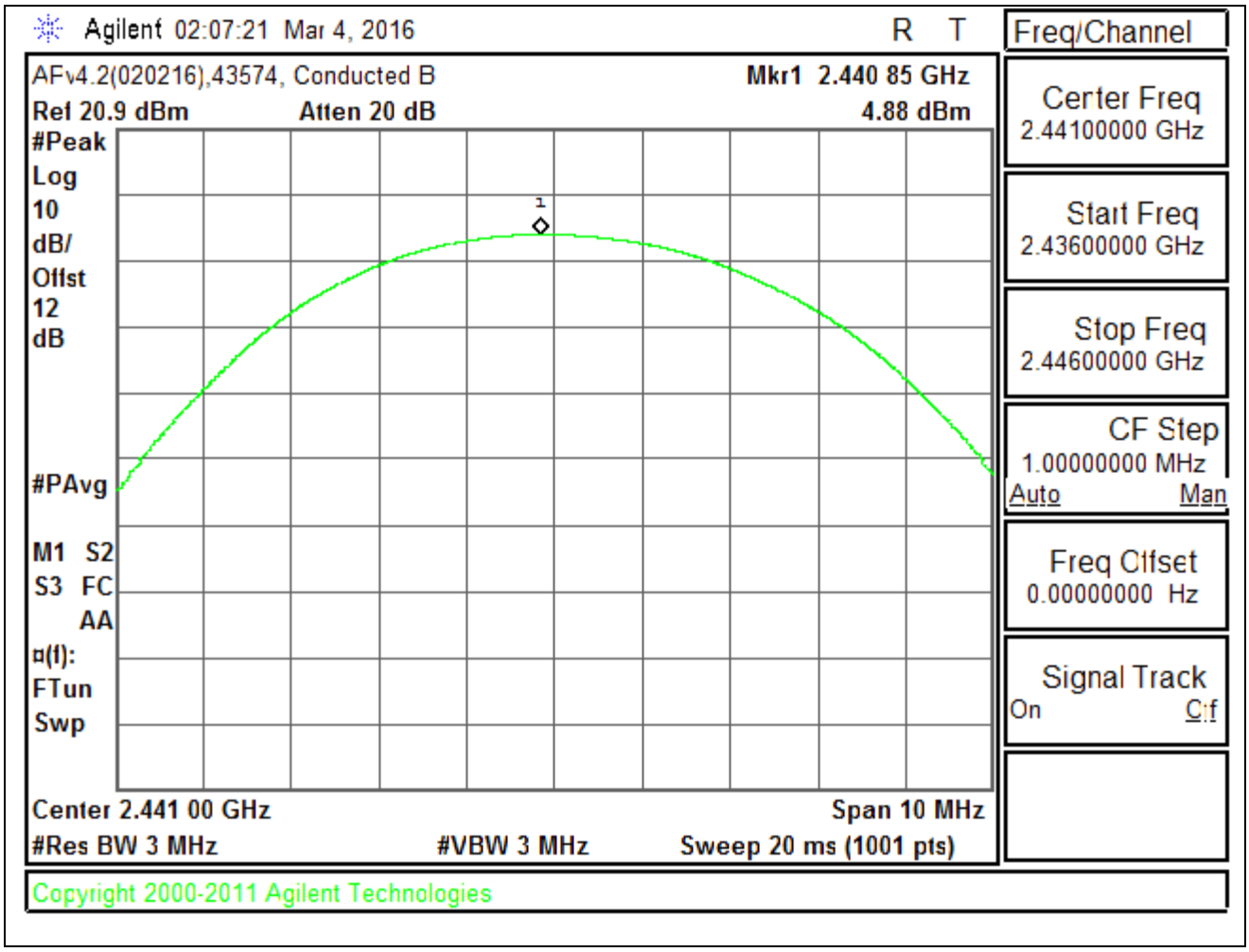


8PSK OUTPUT POWER

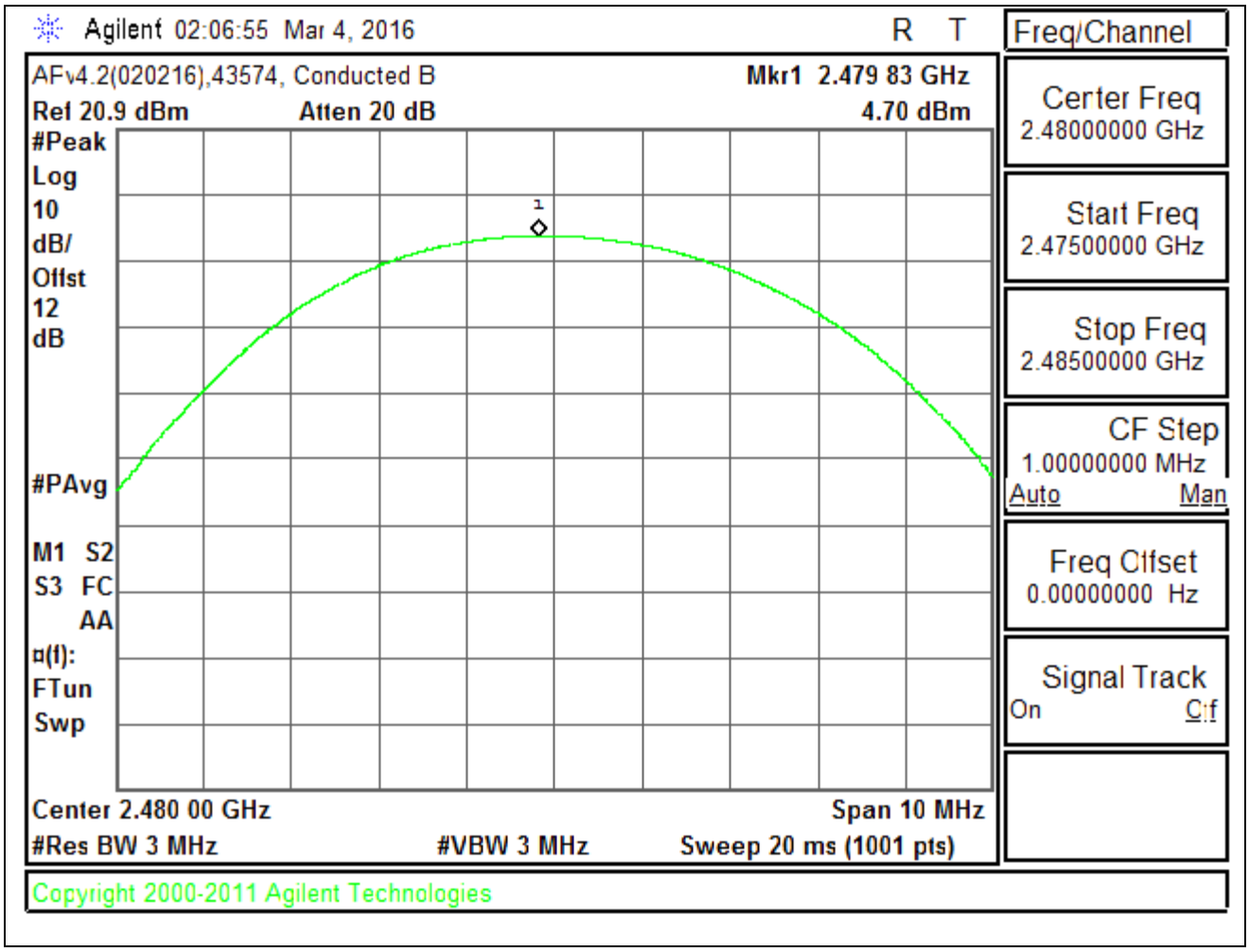
LOW CHANNEL



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 10.56 dB (including 10 dB pad and 0.56 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	6.1
Middle	2441	6.4
High	2480	6.7
Worst		6.7

8.6.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	1.8
Middle	2441	2.2
High	2480	2.6
Worst		2.6

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.

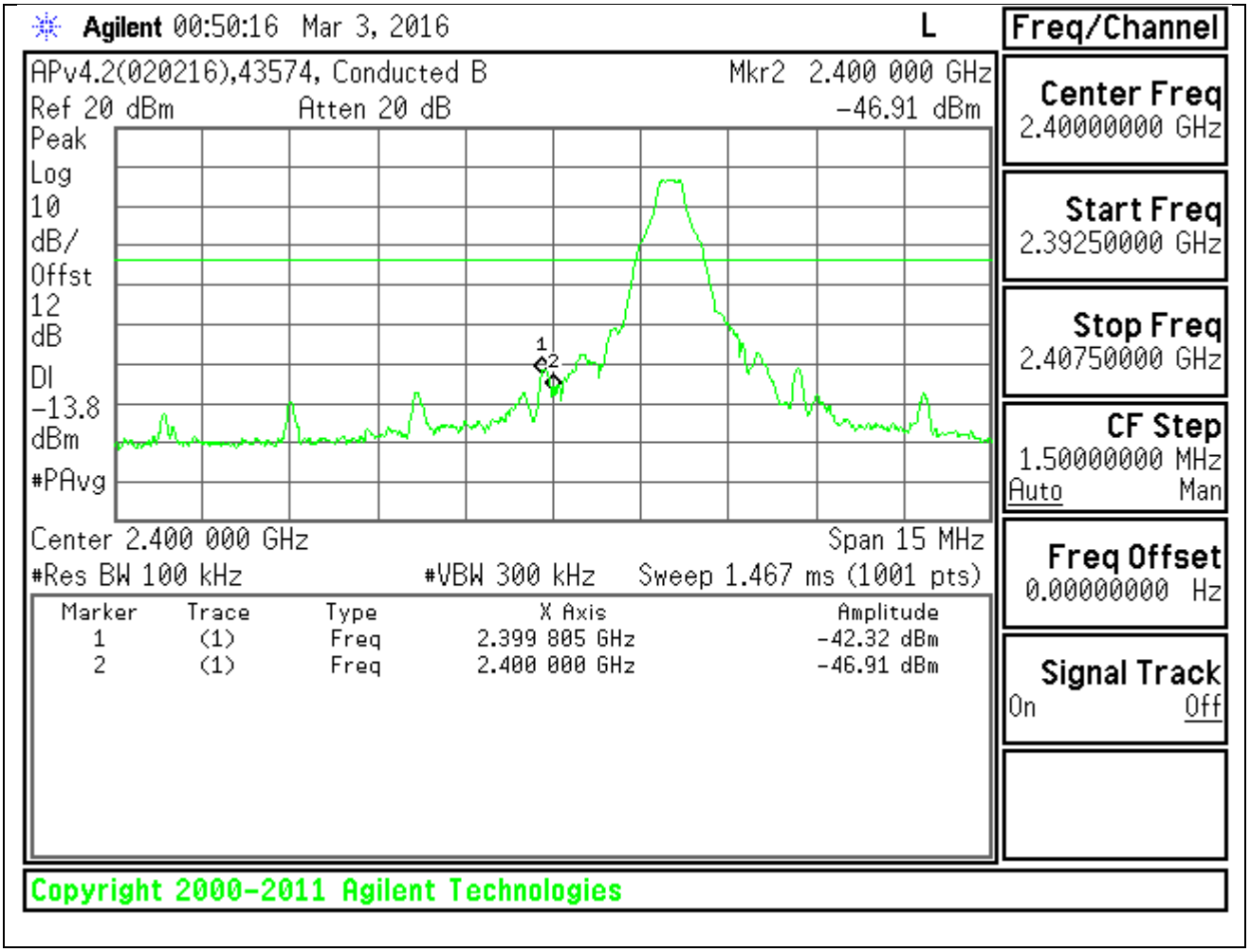
The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

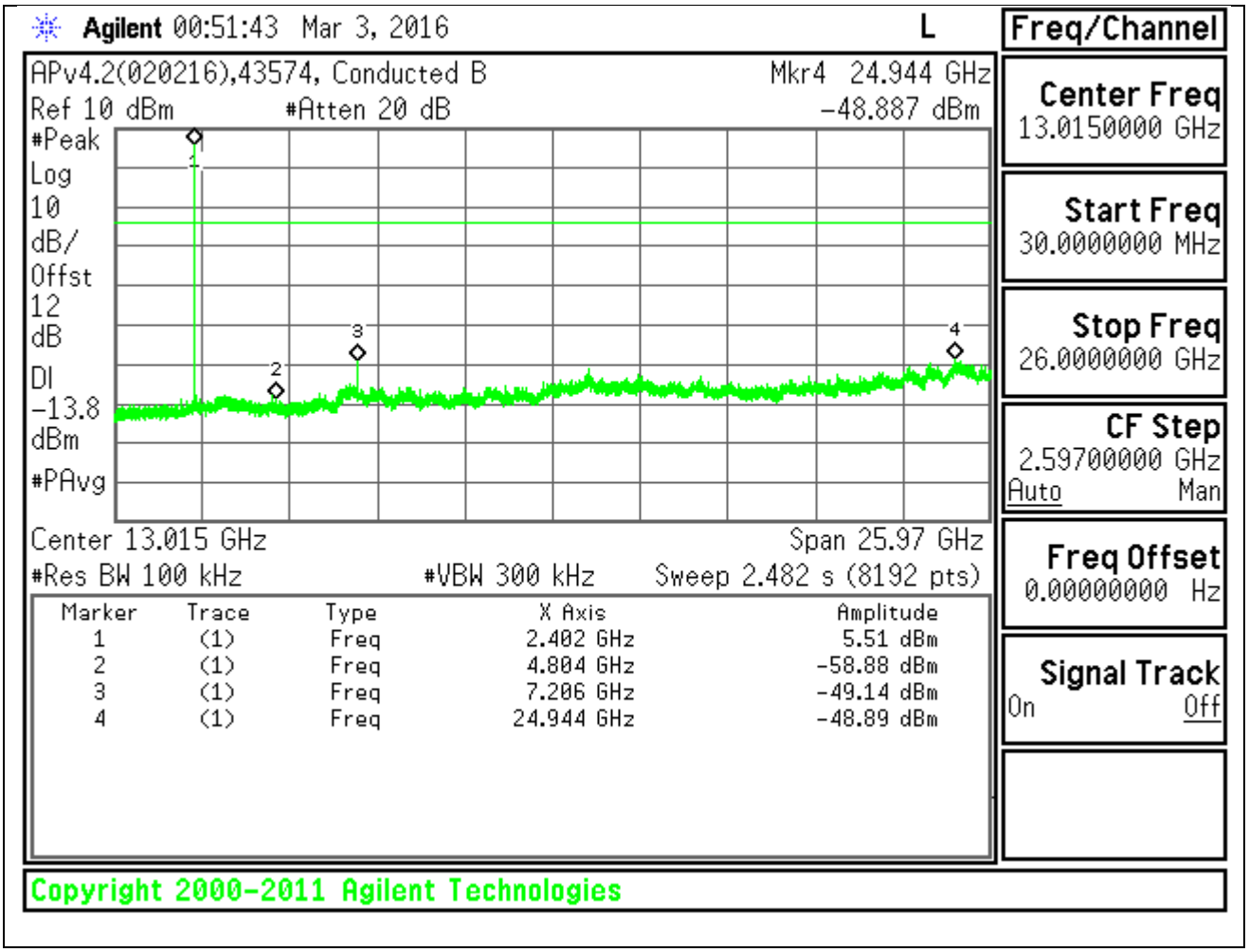
8.7.1. BASIC DATA RATE GFSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

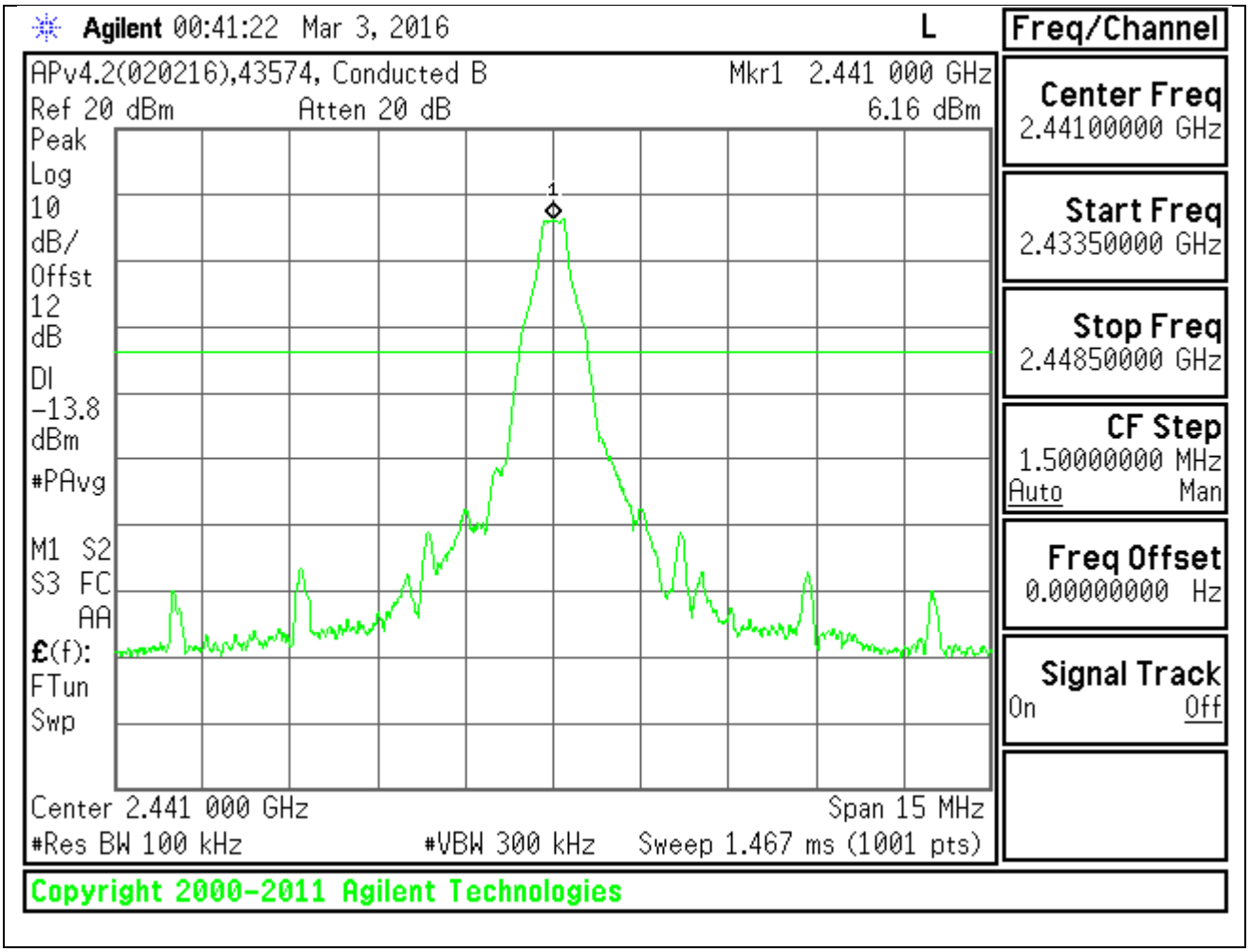


LOW CHANNEL SPURIOUS

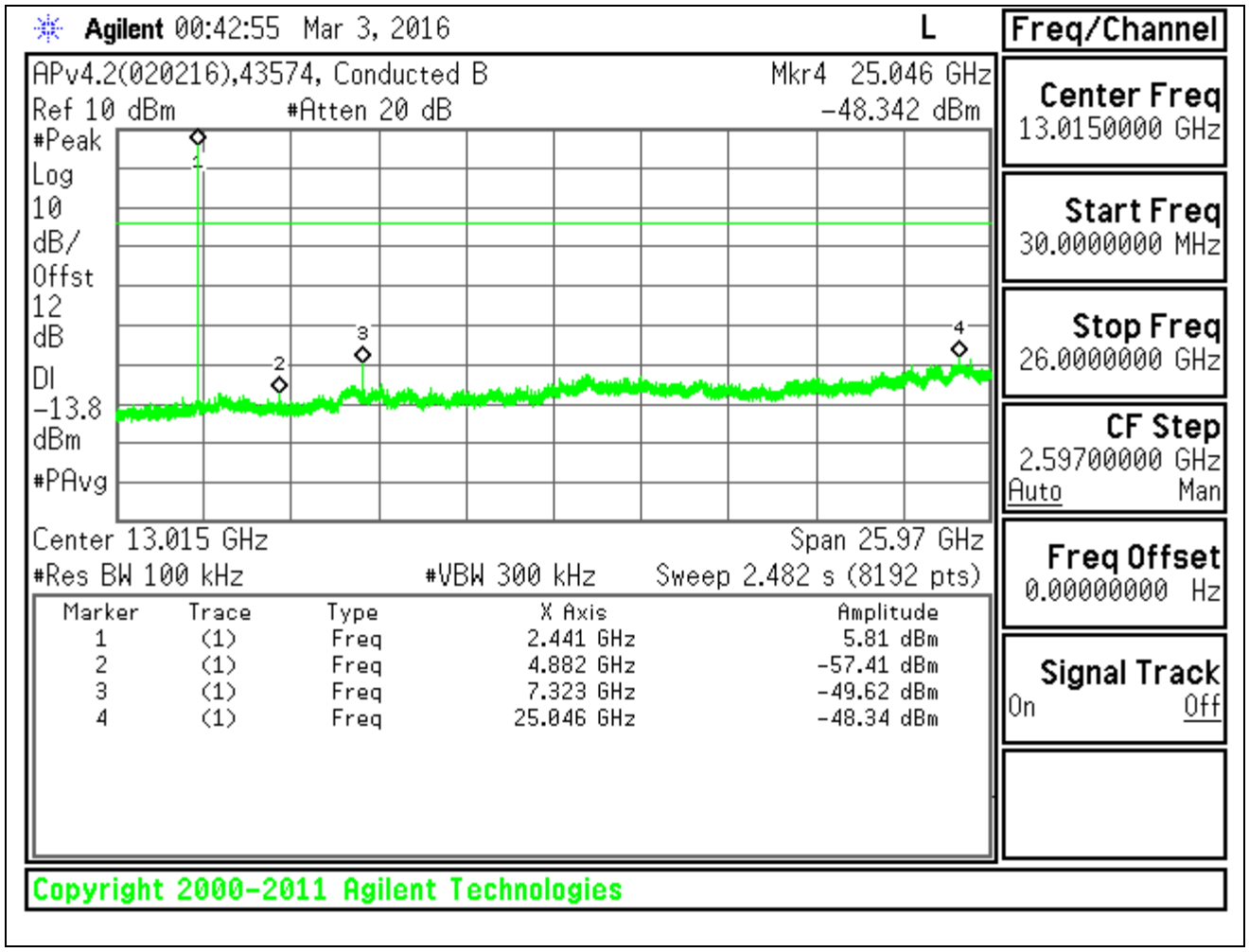


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

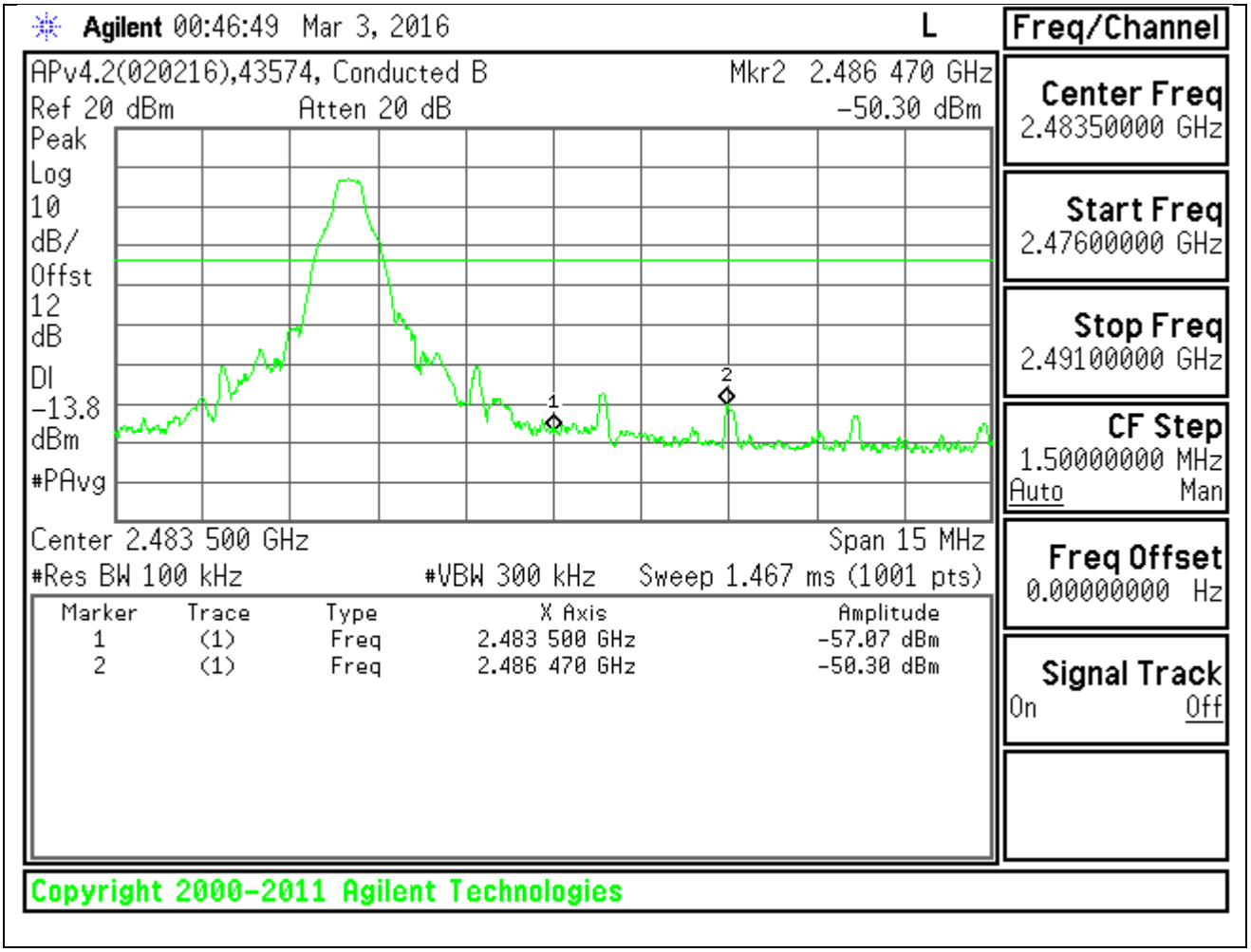


MID CHANNEL SPURIOUS

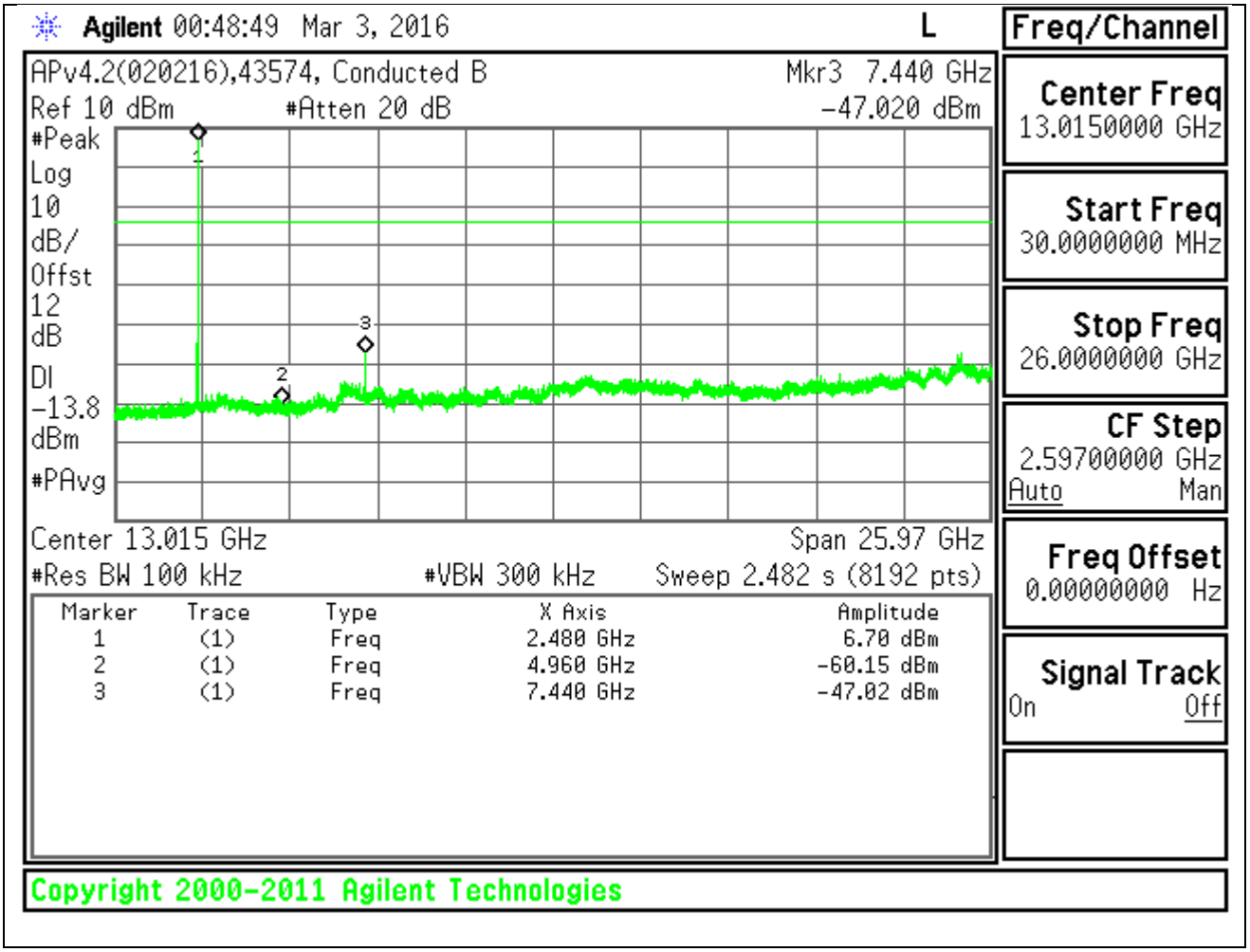


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

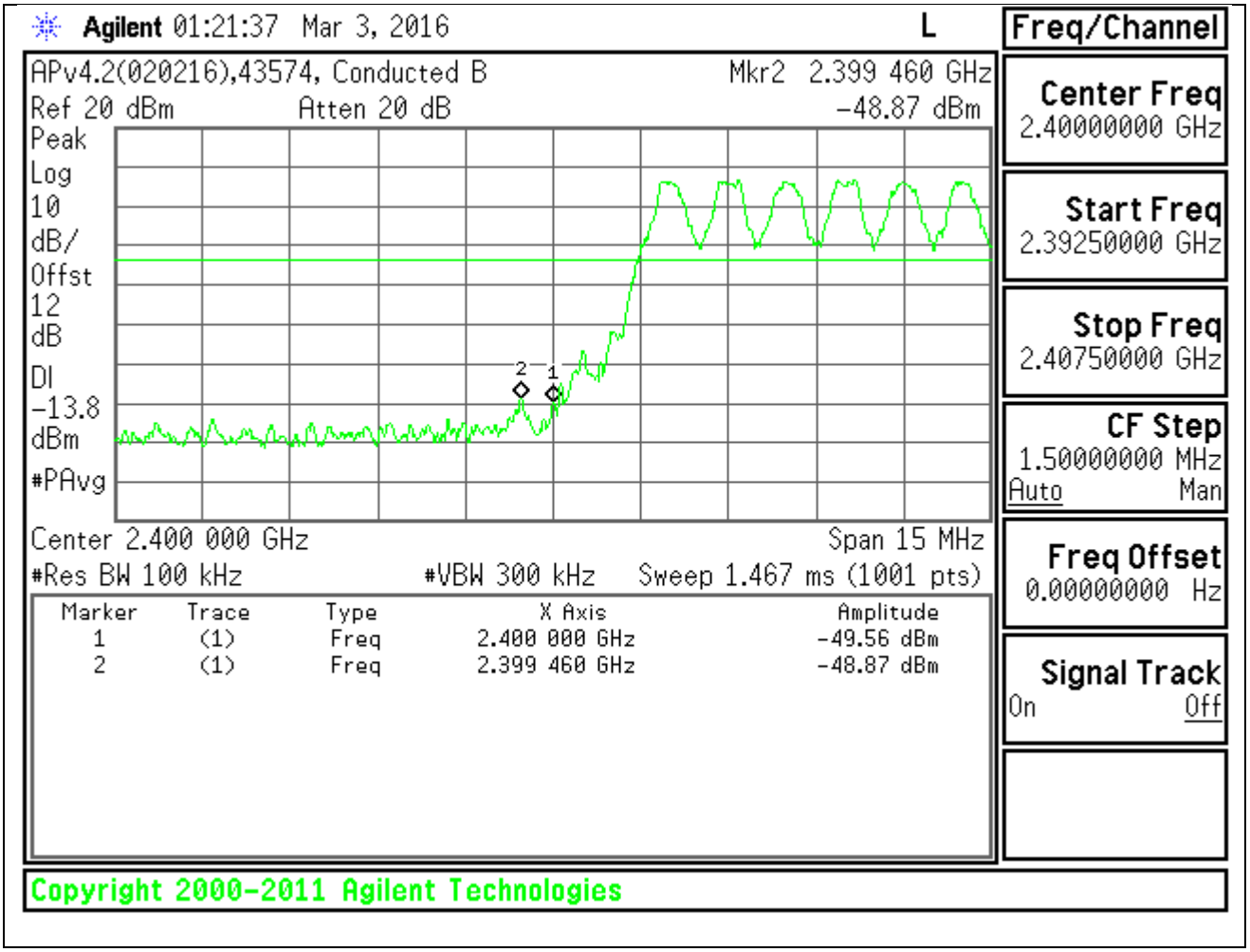


HIGH CHANNEL SPURIOUS

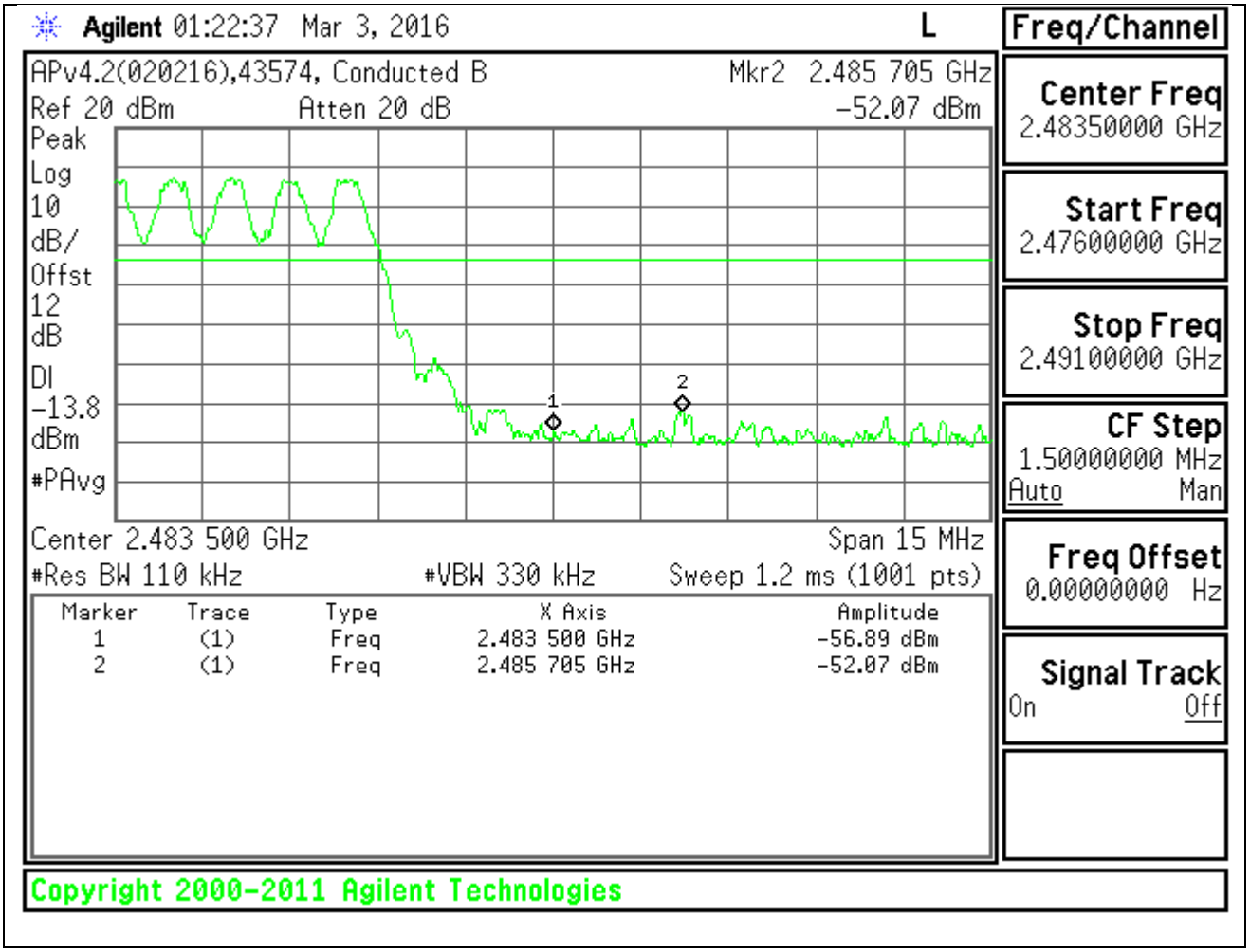


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



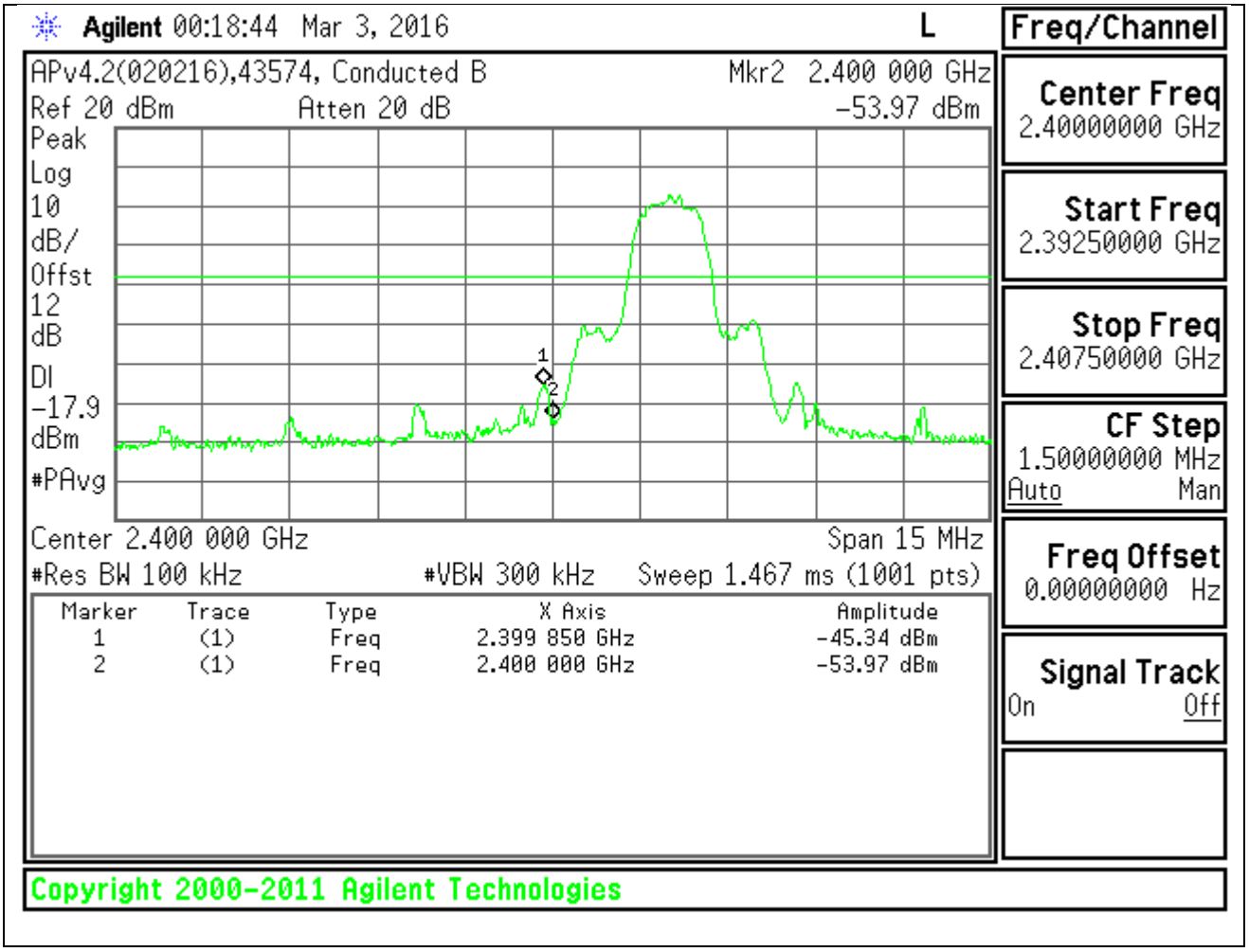
HIGH BANDEDGE WITH HOPPING ON



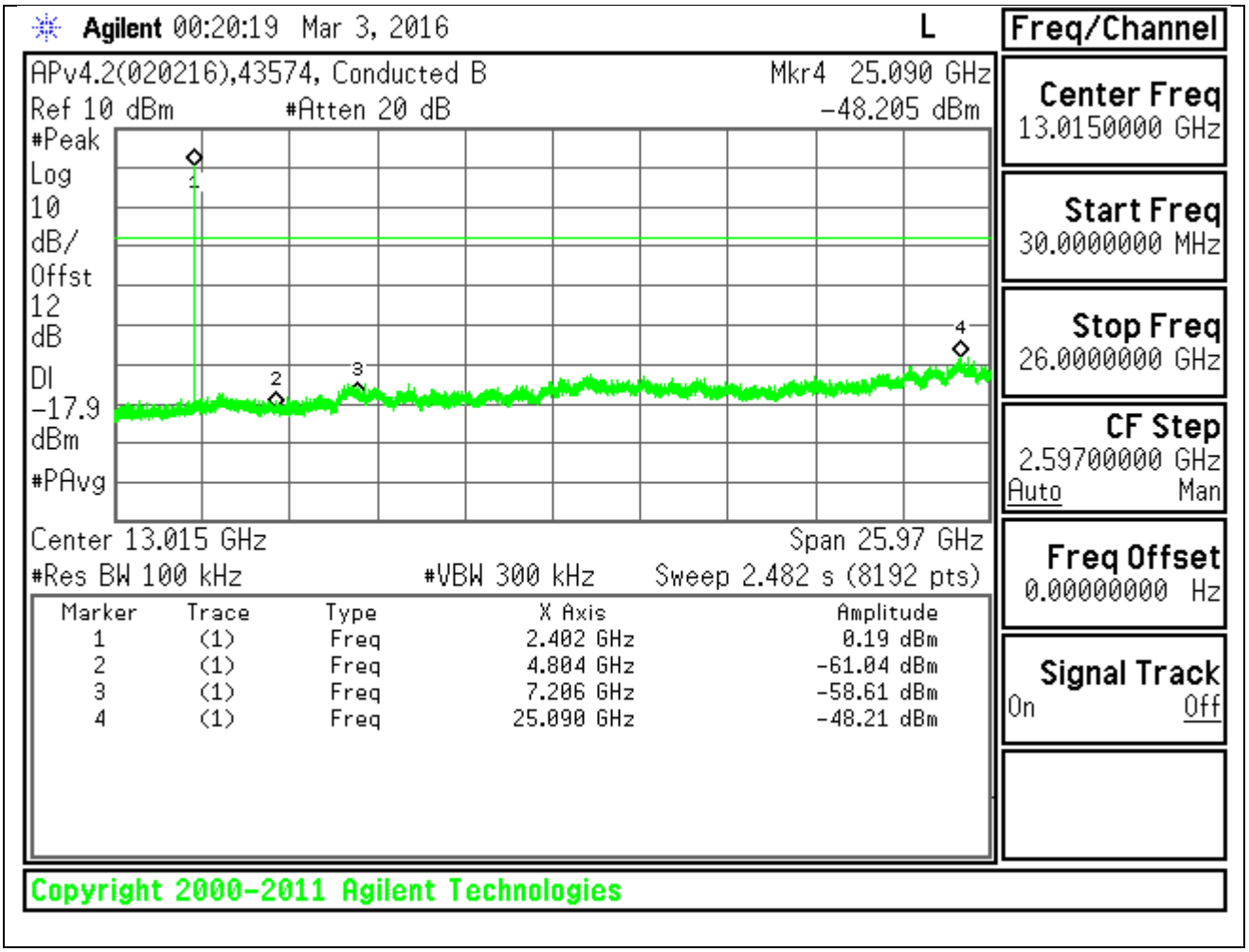
8.7.2. ENHANCED DATA RATE 8PSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

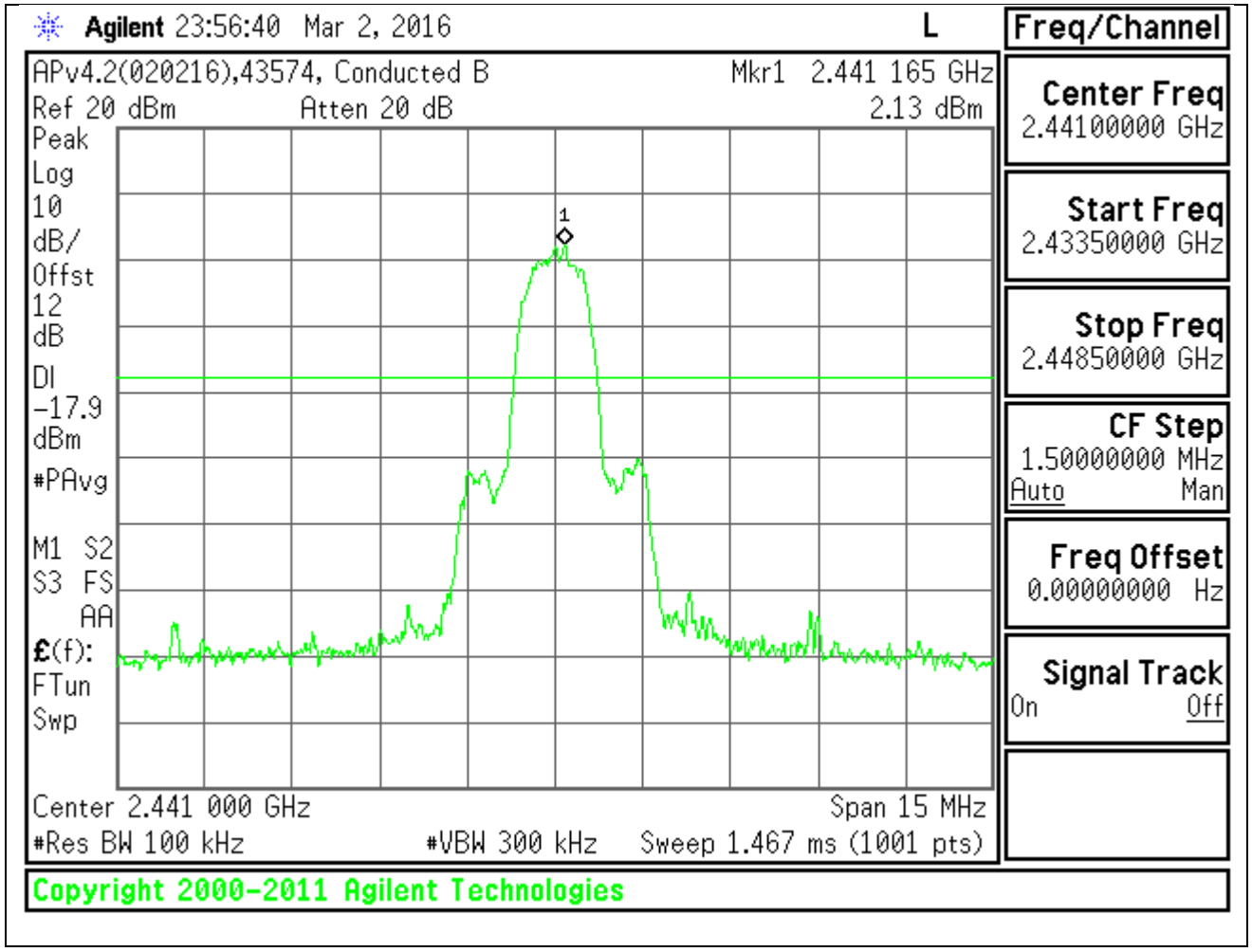


LOW CHANNEL SPURIOUS

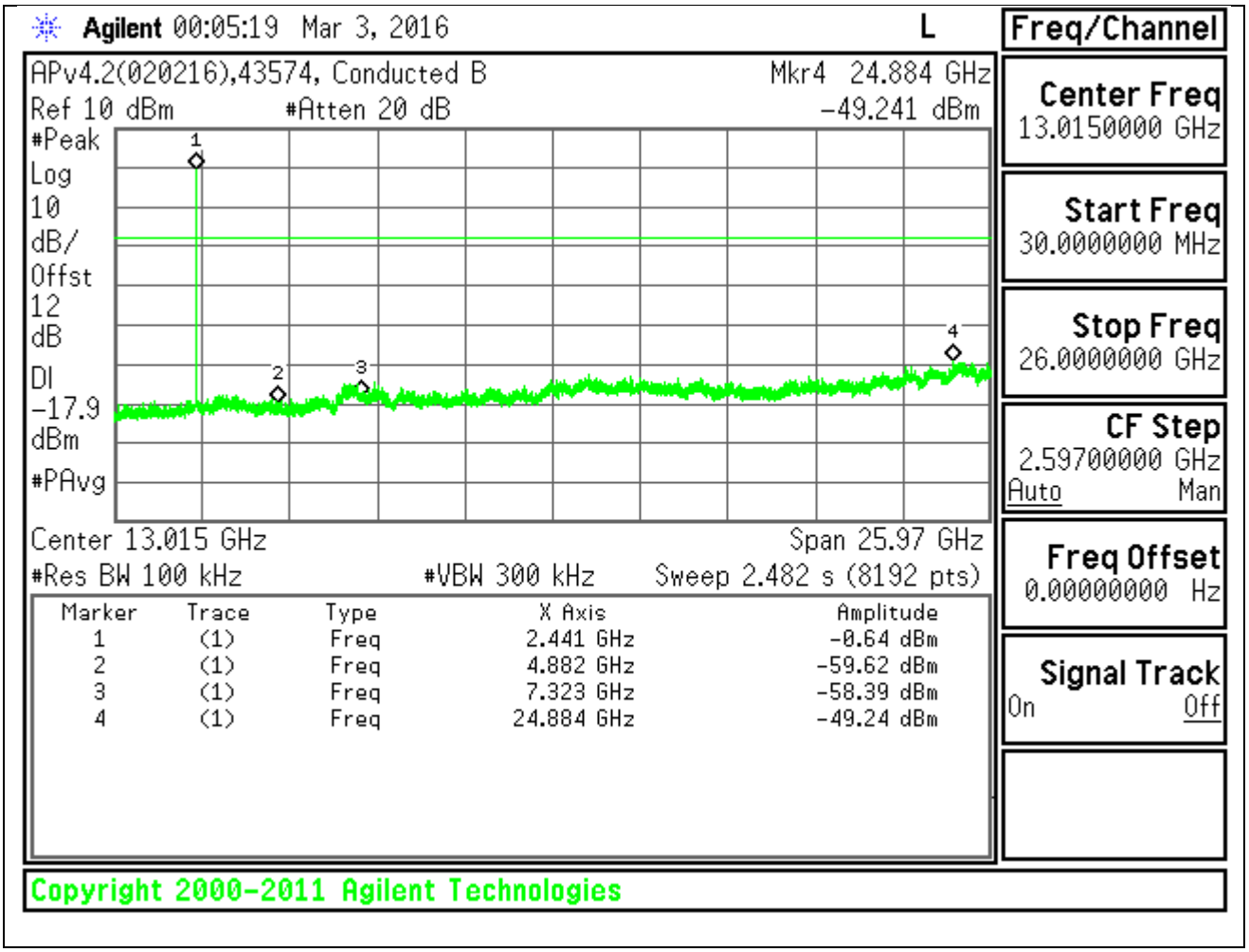


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

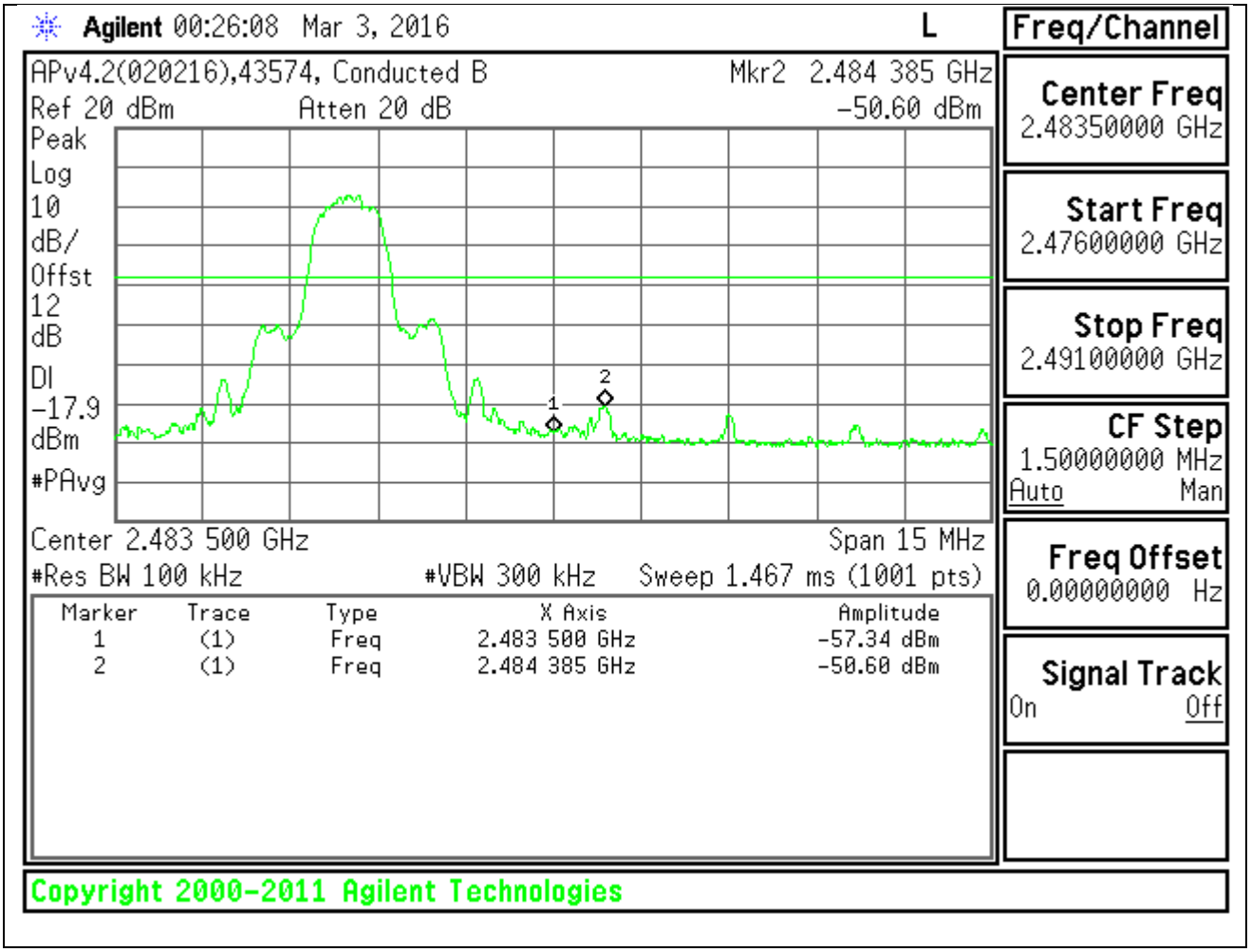


MID CHANNEL SPURIOUS

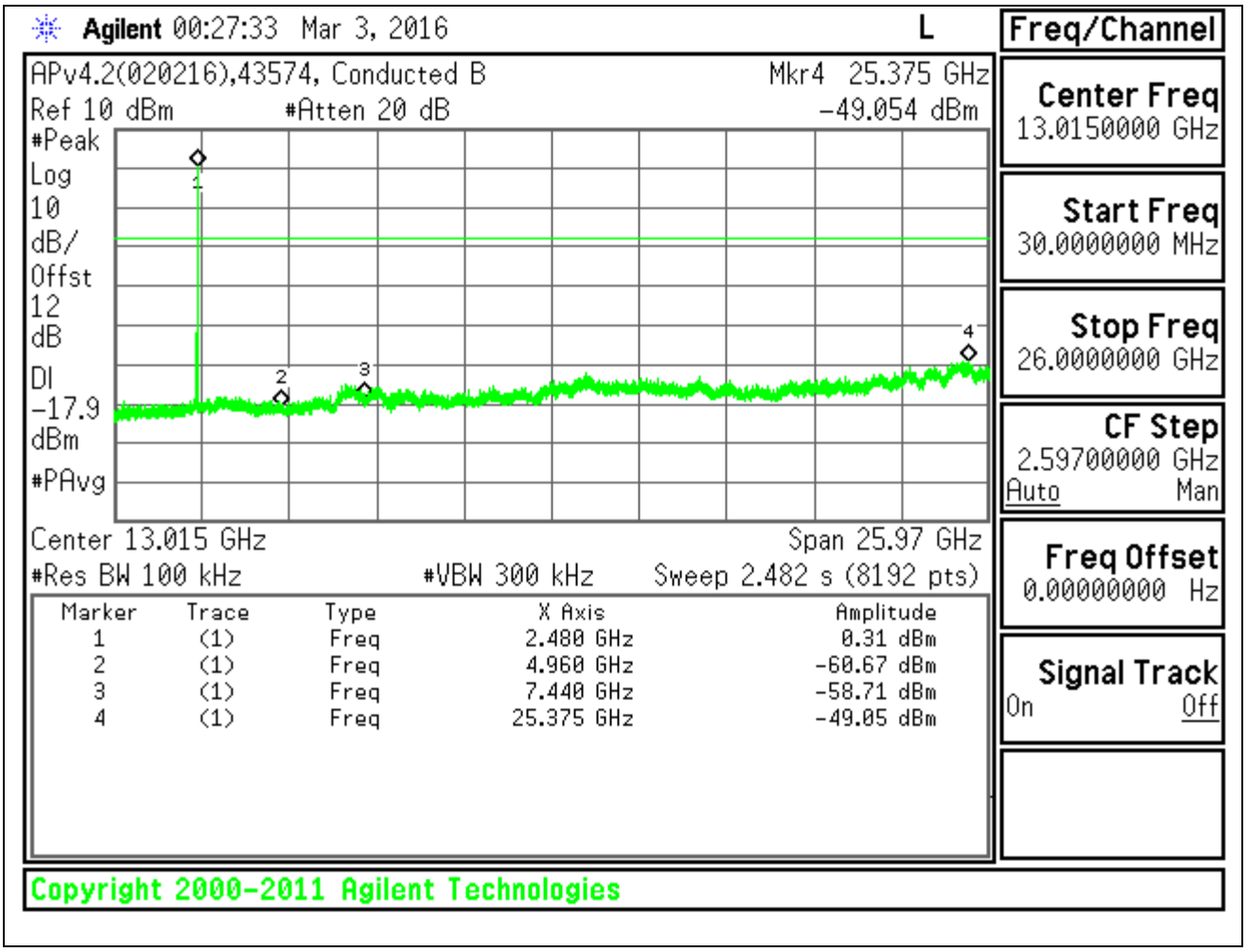


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

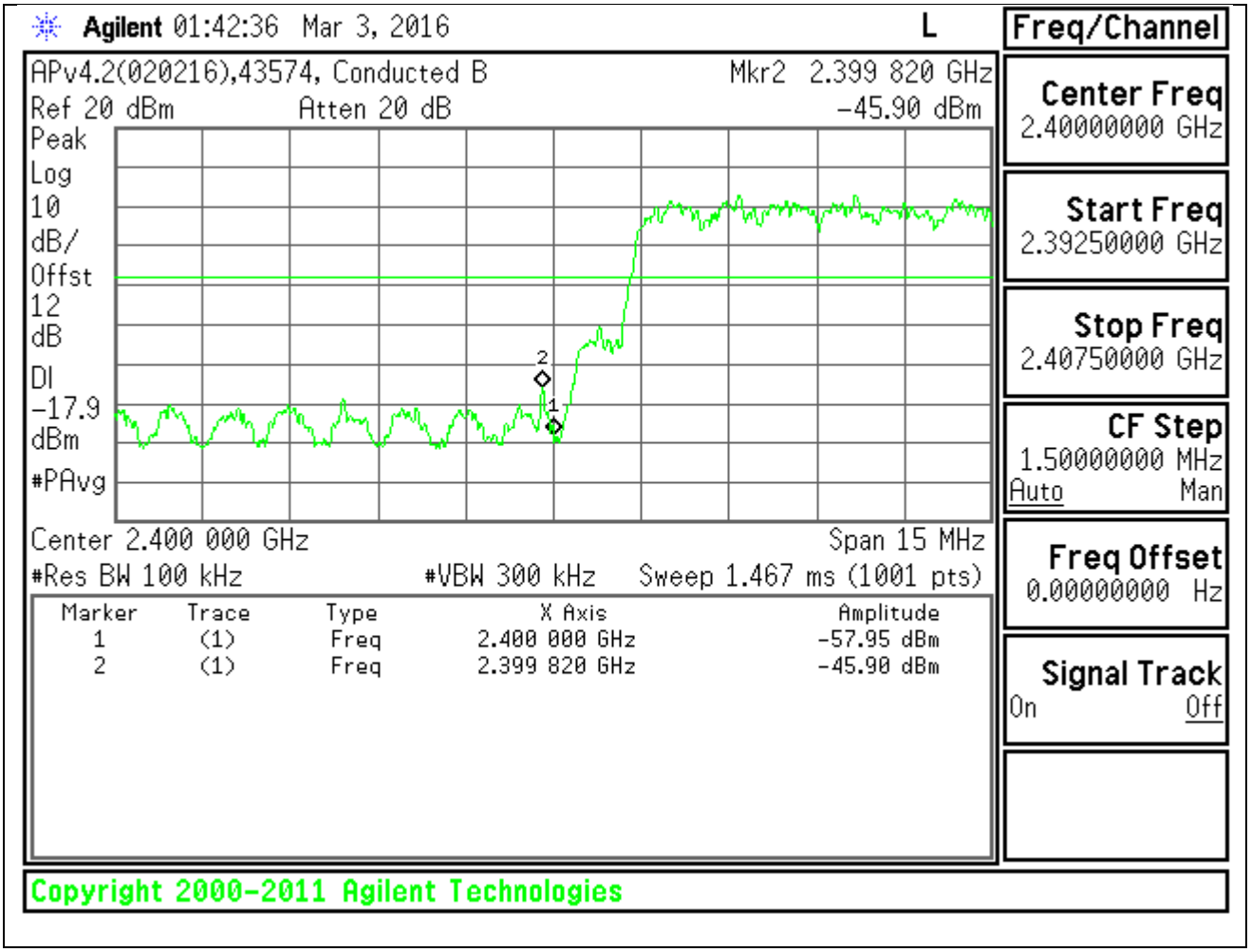


HIGH CHANNEL SPURIOUS

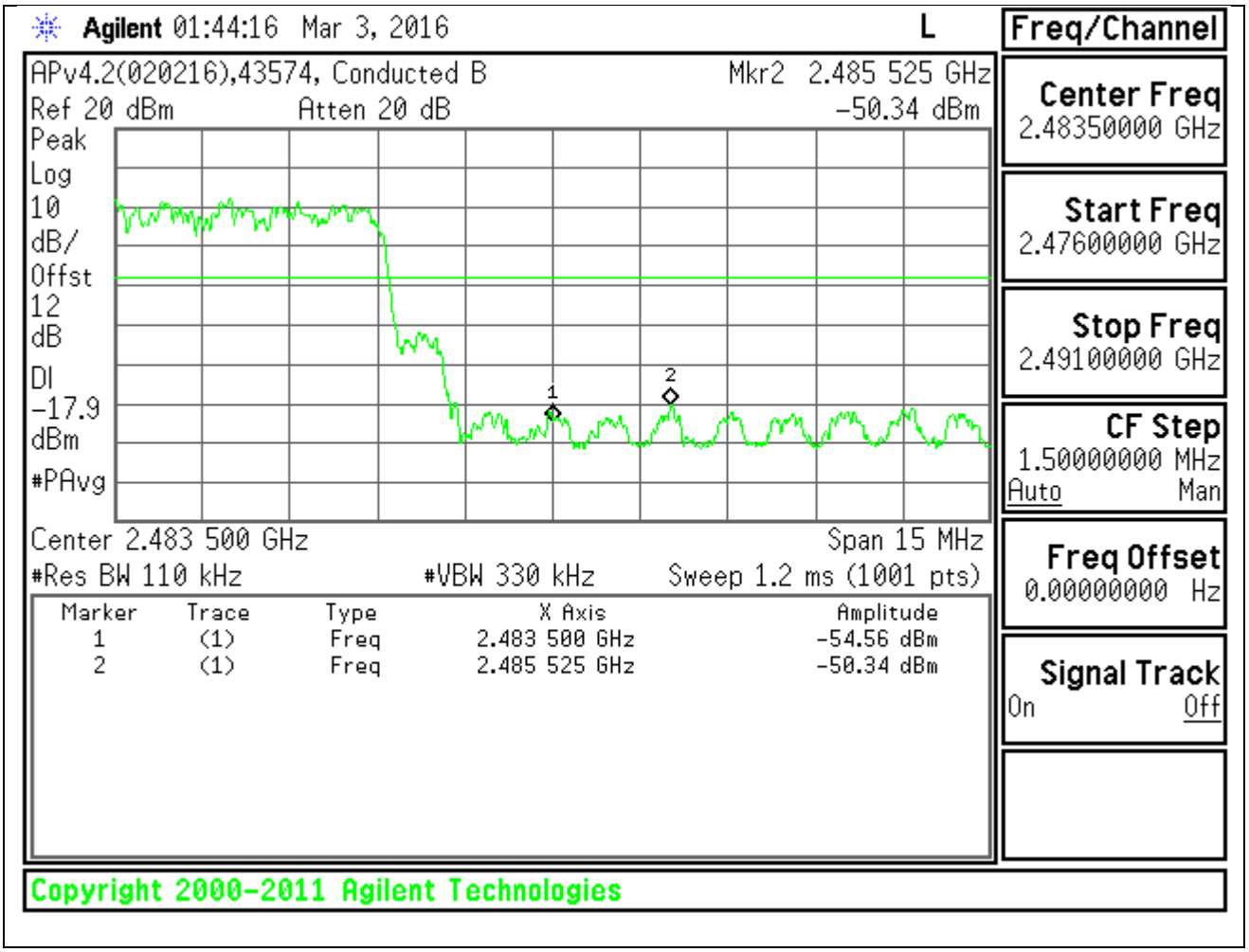


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

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)

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10.

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 3 MHz for peak measurements and 1/T (on time) for average measurement.
Refer to duty cycle results on page 13.

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.

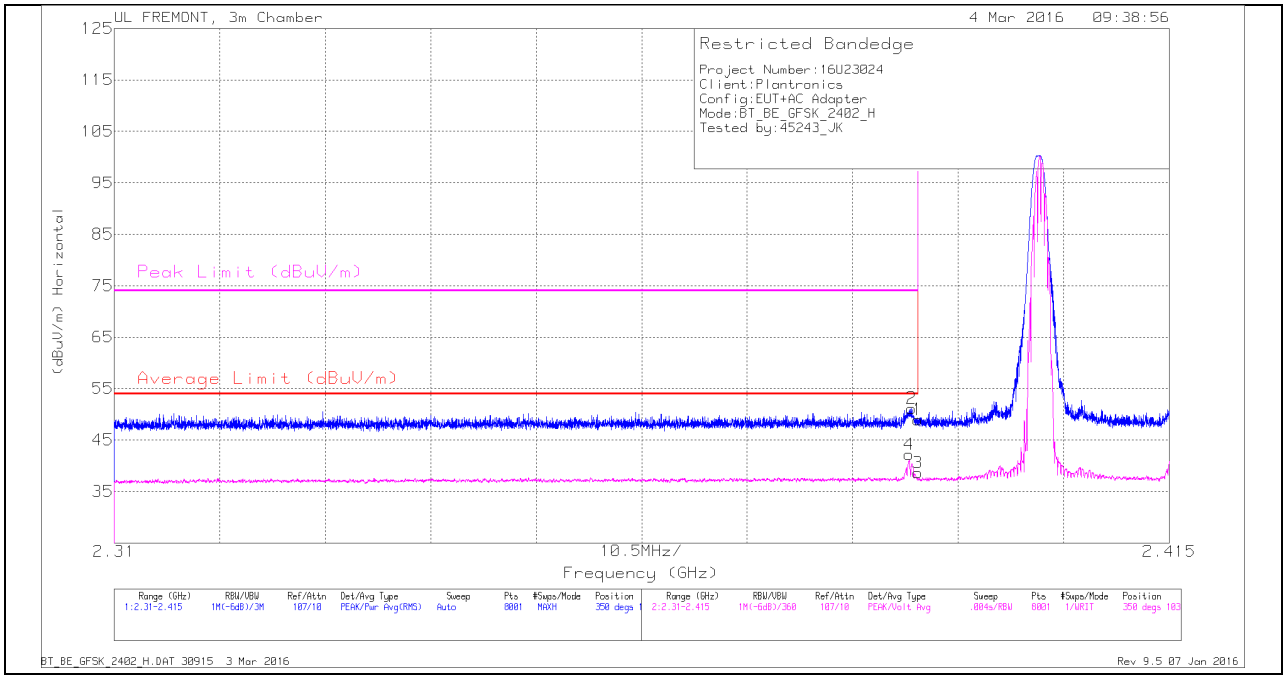
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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



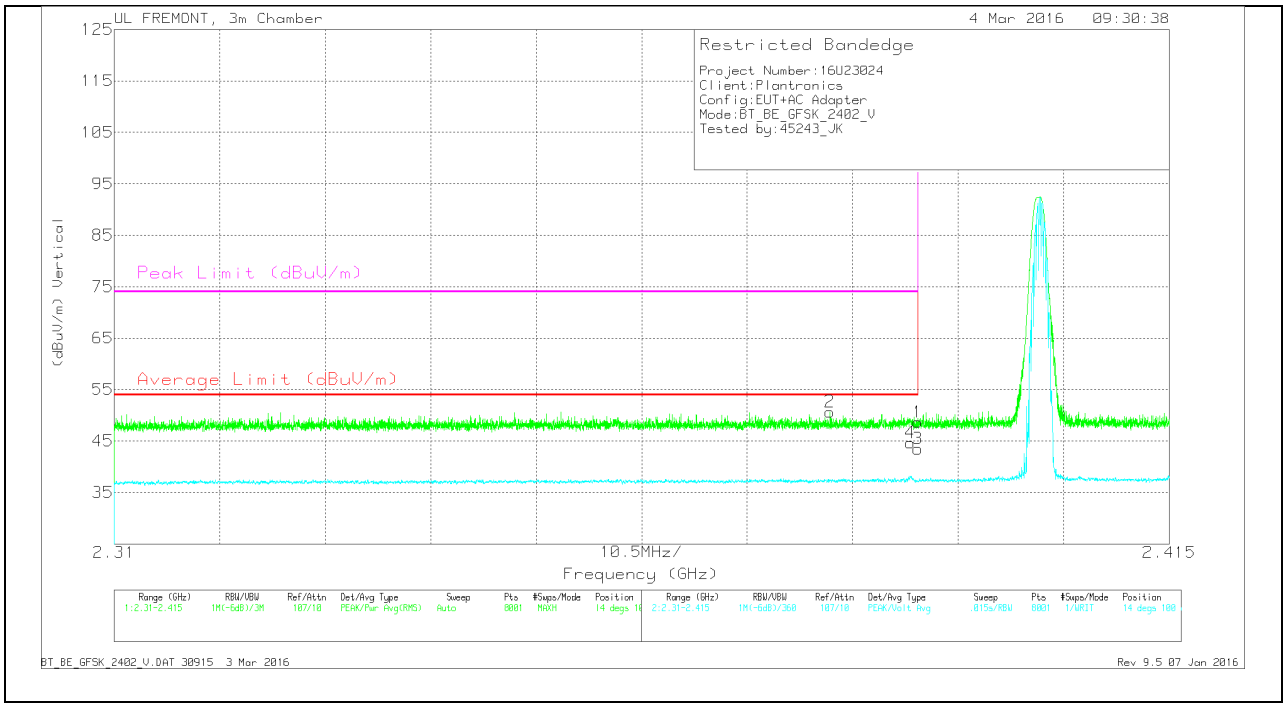
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.389	41.34	Pk	32	-22.2	51.14	-	-	74	-22.86	350	103	H
4	2.389	31.27	VA1T	32	-22.2	41.07	54	-12.93	-	-	350	103	H
1	2.39	39.16	Pk	32	-22.2	48.96	-	-	74	-25.04	350	103	H
3	2.39	27.72	VA1T	32	-22.2	37.52	54	-16.48	-	-	350	103	H

Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

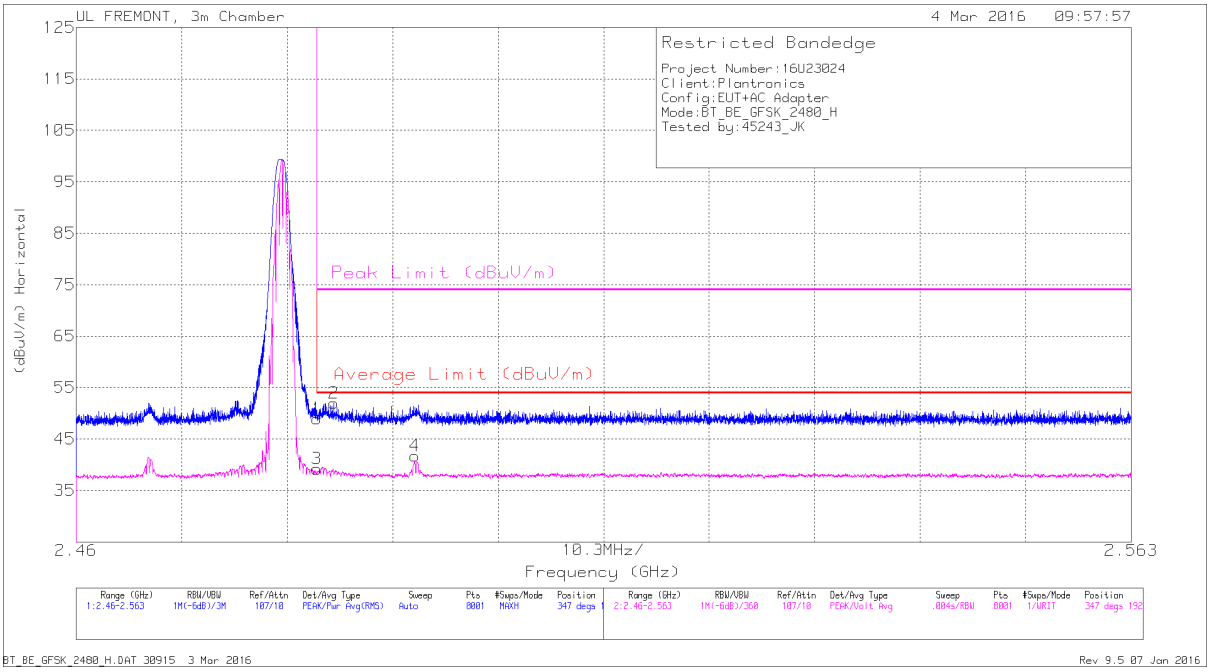
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.381	40.97	Pk	31.9	-22.2	50.67	-	-	74	-23.33	14	100	V
4	2.389	28.39	VA1T	32	-22.2	38.19	54	-15.81	-	-	14	100	V
1	2.39	38.88	Pk	32	-22.2	48.68	-	-	74	-25.32	14	100	V
3	2.39	27.22	VA1T	32	-22.2	37.02	54	-16.98	-	-	14	100	V

Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



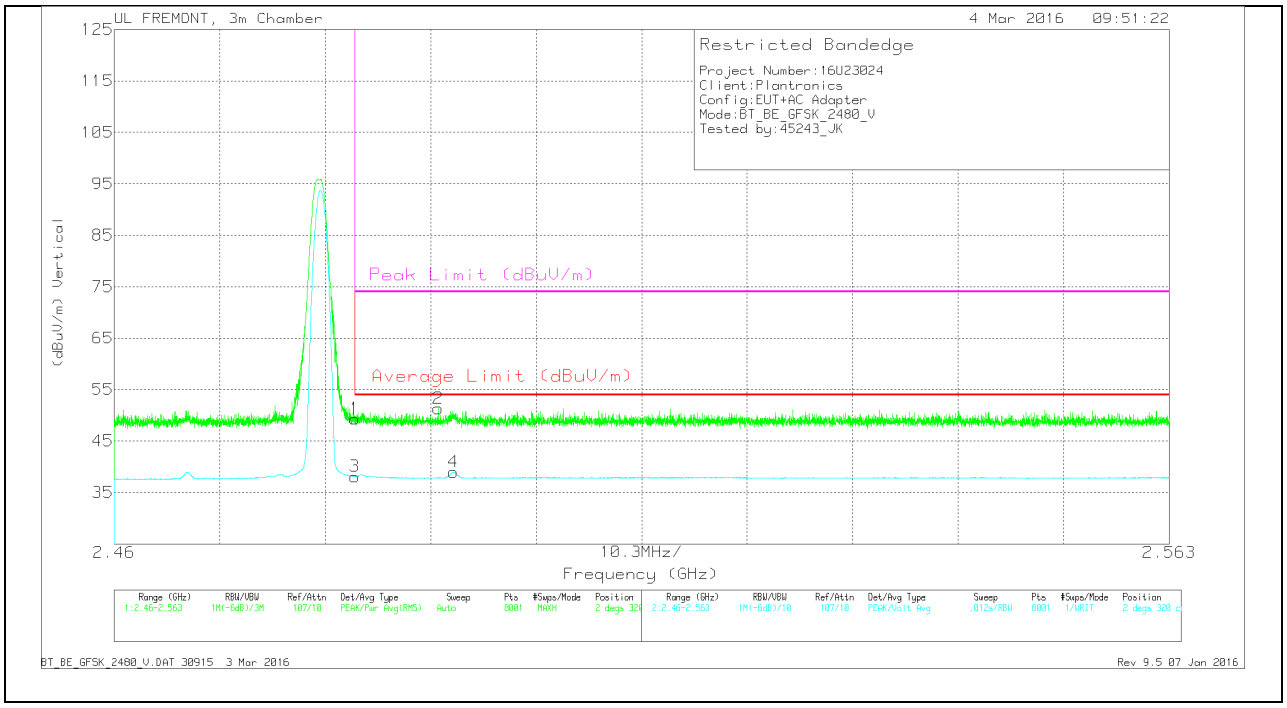
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	38.64	Pk	32.3	-22	48.94	-	-	74	-25.06	347	192	H
3	2.484	27.8	VA1T	32.3	-22	38.1	54	-15.9	-	-	347	192	H
2	2.485	41.66	Pk	32.3	-22	51.96	-	-	74	-22.04	347	192	H
4	2.493	30.23	VA1T	32.3	-21.9	40.63	54	-13.37	-	-	347	192	H

Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

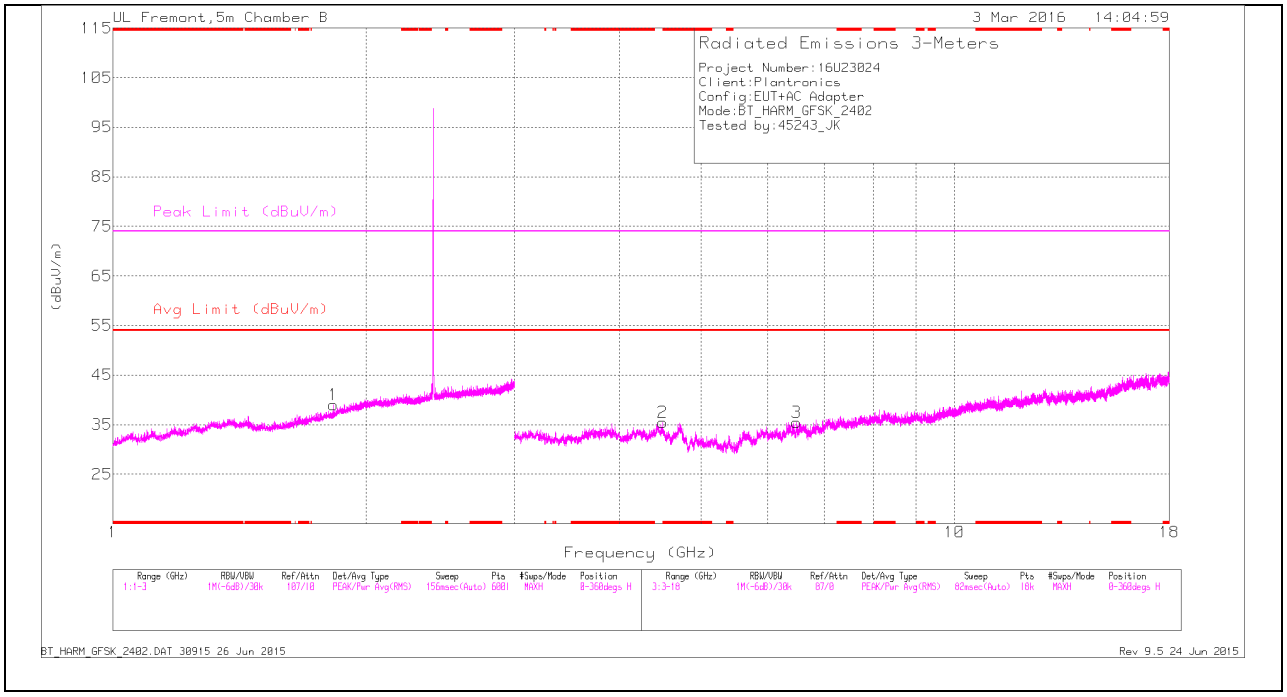
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	39.04	Pk	32.3	-22	49.34	-	-	74	-24.66	2	320	V
3	2.484	27.8	VA1T	32.3	-22	38.1	54	-15.9	-	-	2	320	V
2	2.492	40.93	Pk	32.3	-21.9	51.33	-	-	74	-22.67	2	320	V
4	2.493	28.57	VA1T	32.3	-21.9	38.97	54	-15.03	-	-	2	320	V

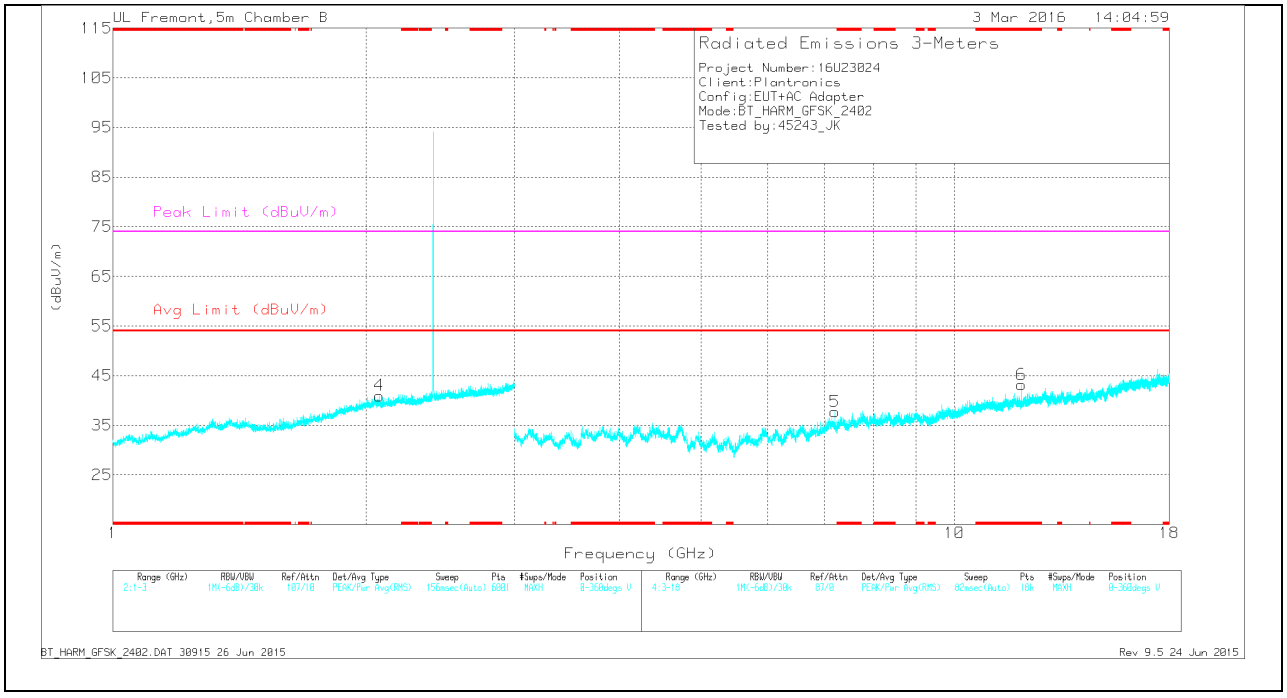
Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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
2	* 4.503	32.53	Pk	34	-31.1	35.43	-	-	74	-38.57	0-360	200	H
6	* 12.009	29.7	Pk	38.7	-25.2	43.2	-	-	74	-30.8	0-360	101	V
1	1.828	30.49	Pk	30.3	-21.8	38.99	-	-	-	-	0-360	200	H
4	2.071	31.17	Pk	31.5	-21.7	40.97	-	-	-	-	0-360	101	V
3	6.487	30.58	Pk	35.4	-30.5	35.48	-	-	-	-	0-360	101	H
5	7.206	31.7	Pk	35.6	-29.6	37.7	-	-	-	-	0-360	101	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

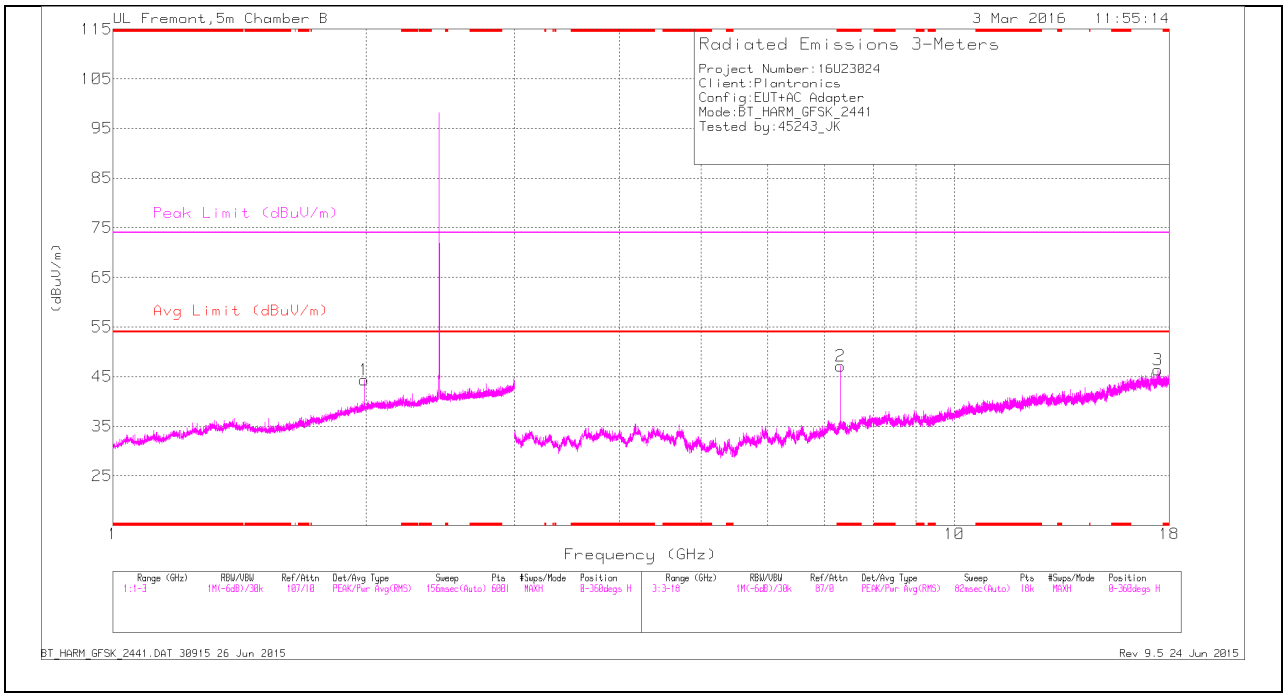
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.503	39.41	PK2	34	-31.1	42.31	-	-	74	-31.69	343	326	H
* 4.503	26.3	VA1T	34	-31.1	29.2	54	-24.8	-	-	343	326	H
* 12.01	37.56	PK2	38.7	-25.2	51.06	-	-	74	-22.94	95	105	V
* 12.009	26.25	VA1T	38.7	-25.2	39.75	54	-14.25	-	-	95	105	V
1.827	23.61	VA1T	30.3	-21.9	32.01	-	-	-	-	95	106	H
1.828	36.95	PK2	30.3	-21.8	45.45	-	-	-	-	95	106	H
2.07	37.77	PK2	31.5	-21.7	47.57	-	-	-	-	146	163	V
2.072	24.42	VA1T	31.5	-21.7	34.22	-	-	-	-	146	163	V
6.487	37.11	PK2	35.4	-30.5	42.01	-	-	-	-	87	149	H
6.489	24.35	VA1T	35.4	-30.4	29.35	-	-	-	-	87	149	H
7.206	38.35	PK2	35.6	-29.6	44.35	-	-	-	-	83	271	V
7.206	26.6	VA1T	35.6	-29.6	32.6	-	-	-	-	83	271	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

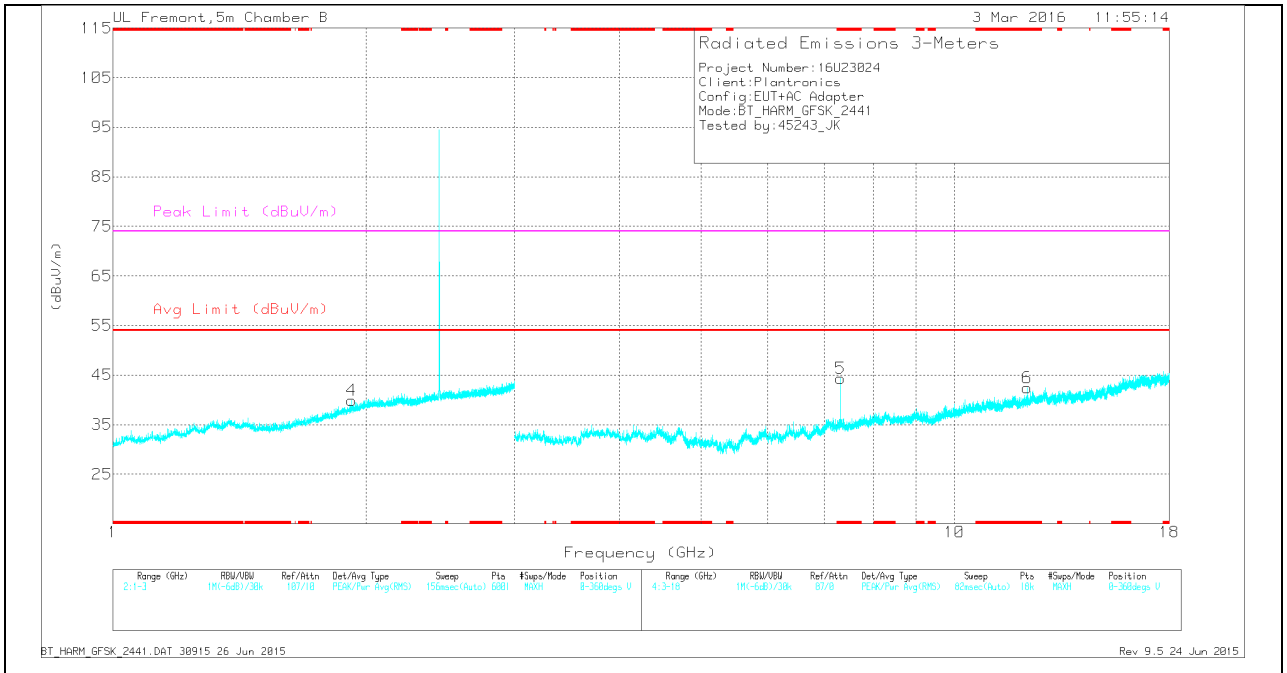
PK2 - FHSS Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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
2	* 7.322	41.49	Pk	35.6	-30	47.09	-	-	74	-26.91	0-360	101	H
5	* 7.322	38.68	Pk	35.6	-30	44.28	-	-	74	-29.72	0-360	101	V
6	* 12.206	28.38	Pk	38.9	-24.8	42.48	-	-	74	-31.52	0-360	101	V
4	1.922	30.5	Pk	31.1	-21.7	39.9	-	-	-	-	0-360	101	V
1	1.989	34.55	Pk	31.5	-21.7	44.35	-	-	-	-	0-360	200	H
3	17.453	25.59	Pk	41.1	-20.3	46.39	-	-	-	-	0-360	101	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

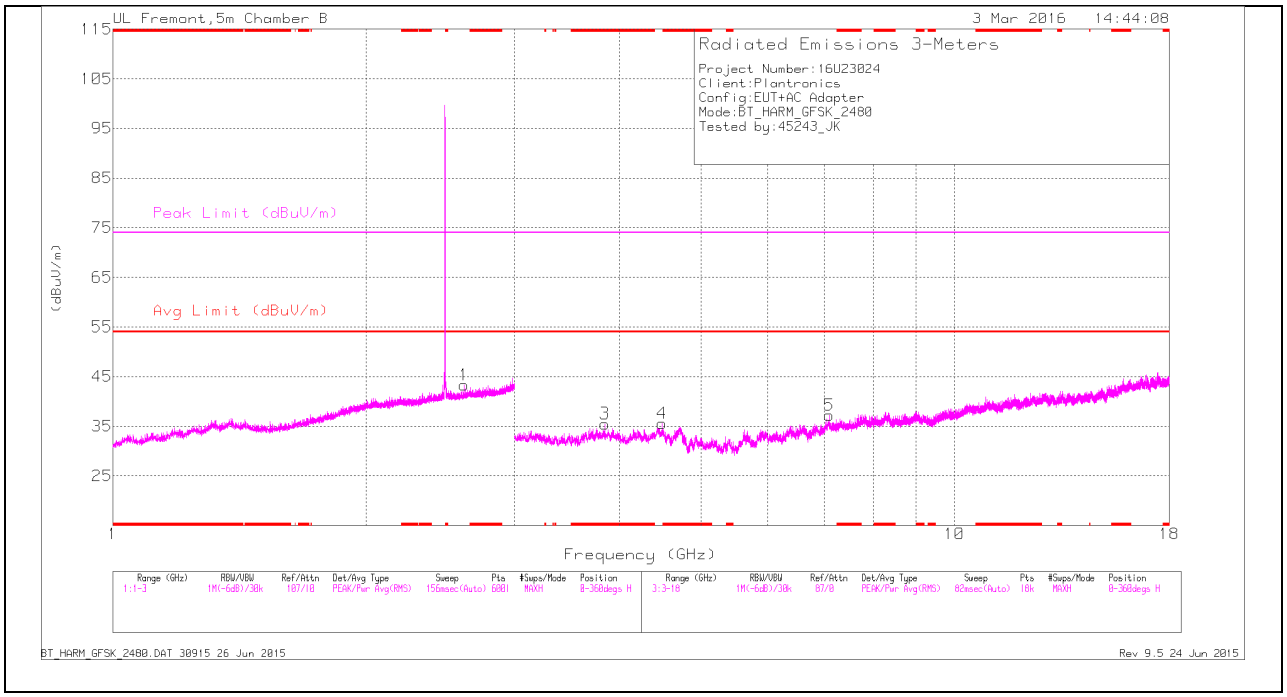
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.323	39.24	PK2	35.6	-30	44.84	-	-	74	-29.16	180	124	H
* 7.323	27.31	VA1T	35.6	-30	32.91	54	-21.09	-	-	180	124	H
* 7.322	39.86	PK2	35.6	-30	45.46	-	-	74	-28.54	91	127	V
* 7.323	28.22	VA1T	35.6	-30	33.82	54	-20.18	-	-	91	127	V
* 12.206	36.02	PK2	38.9	-24.8	50.12	-	-	74	-23.88	84	134	V
* 12.206	24.52	VA1T	38.9	-24.8	38.62	54	-15.38	-	-	84	134	V
1.92	37.74	PK2	31.1	-21.7	47.14	-	-	-	-	135	349	V
1.922	24.26	VA1T	31.1	-21.7	33.66	-	-	-	-	135	349	V
1.987	24.16	VA1T	31.4	-21.7	33.86	-	-	-	-	213	156	H
1.988	47.16	PK2	31.4	-21.7	56.86	-	-	-	-	213	156	H
17.453	32.4	PK2	41.1	-20.3	53.2	-	-	-	-	6	317	H
17.454	19.55	VA1T	41.1	-20.3	40.35	-	-	-	-	6	317	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

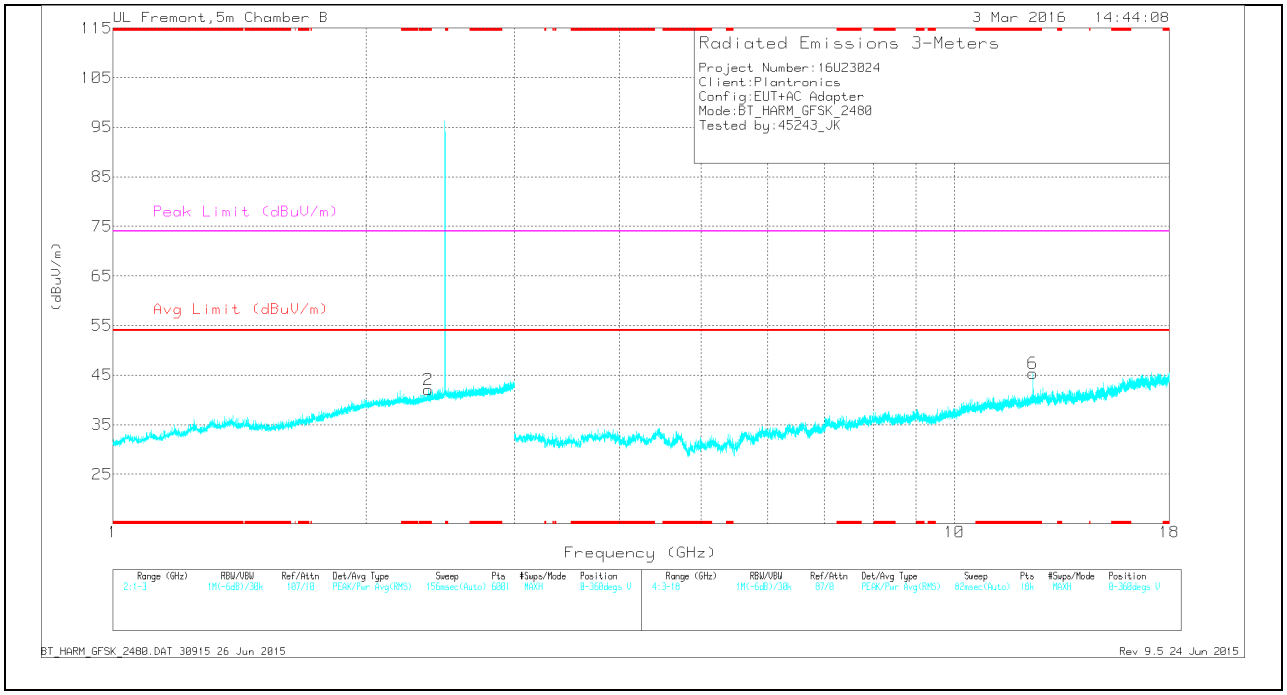
PK2 - FHSS Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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
2	* 2.372	31.73	Pk	32.1	-21.8	42.03	-	-	74	-31.97	0-360	199	V
3	* 3.841	34.21	Pk	33.4	-32.1	35.51	-	-	74	-38.49	0-360	199	H
6	* 12.399	30.99	Pk	38.9	-24.5	45.39	-	-	74	-28.61	0-360	101	V
1	2.615	32.94	Pk	32.2	-21.8	43.34	-	-	-	-	0-360	199	H
4	4.491	32.6	Pk	34	-31	35.6	-	-	-	-	0-360	199	H
5	7.096	30.98	Pk	35.6	-29.4	37.18	-	-	-	-	0-360	101	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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
* 2.372	38.5	PK2	32.1	-21.8	48.8	-	-	74	-25.2	55	358	H
* 2.371	24.87	VA1T	32	-21.8	35.07	54	-18.93	-	-	55	358	H
* 3.84	40.3	PK2	33.4	-32.1	41.6	-	-	74	-32.4	323	293	H
* 3.843	27.4	VA1T	33.4	-32.1	28.7	54	-25.3	-	-	323	293	H
* 12.206	36.02	PK2	38.9	-24.8	50.12	-	-	74	-23.88	84	134	V
* 12.206	24.52	VA1T	38.9	-24.8	38.62	54	-15.38	-	-	84	134	V
2.614	25.29	VA1T	32.2	-21.8	35.69	-	-	-	-	333	201	H
2.615	38.78	PK2	32.2	-21.8	49.18	-	-	-	-	333	201	H
4.492	37.55	PK2	34	-31	40.55	-	-	-	-	312	350	H
4.493	24.95	VA1T	34	-31	27.95	-	-	-	-	312	350	H
7.096	38.28	PK2	35.6	-29.4	44.48	-	-	-	-	312	102	H
7.096	25.13	VA1T	35.6	-29.4	31.33	-	-	-	-	312	102	H

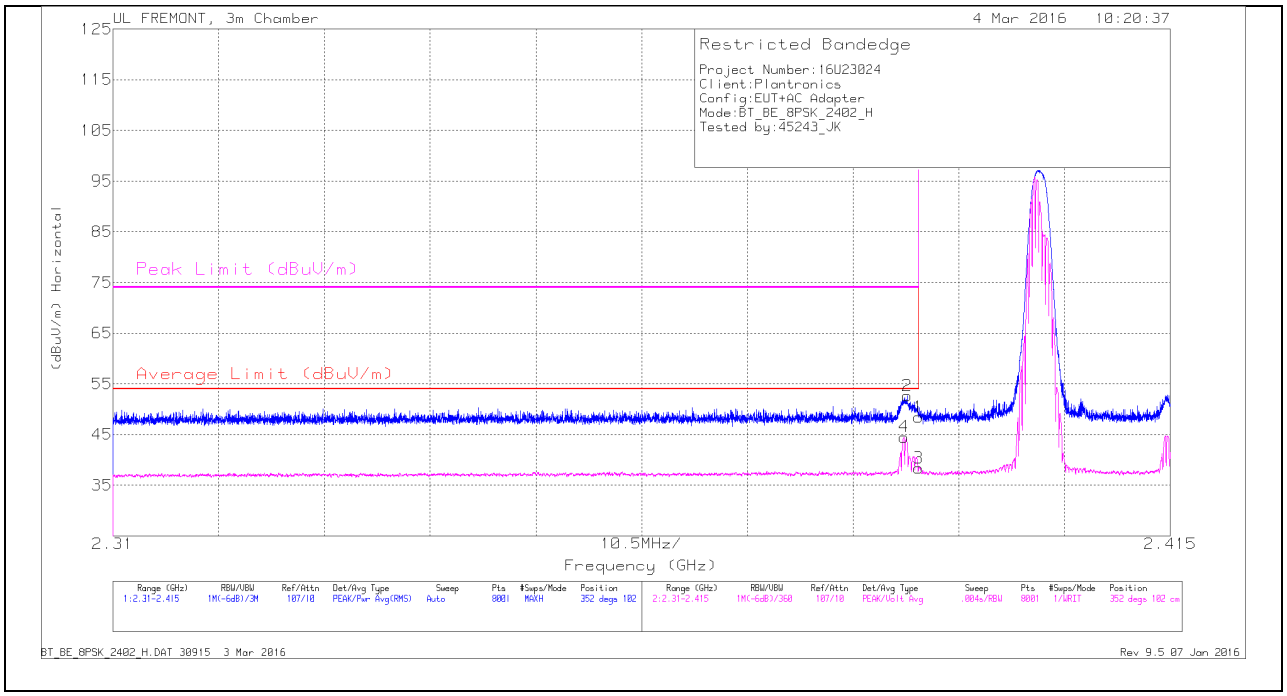
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK2 - FHSS Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

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

HORIZONTAL PEAK AND AVERAGE PLOT



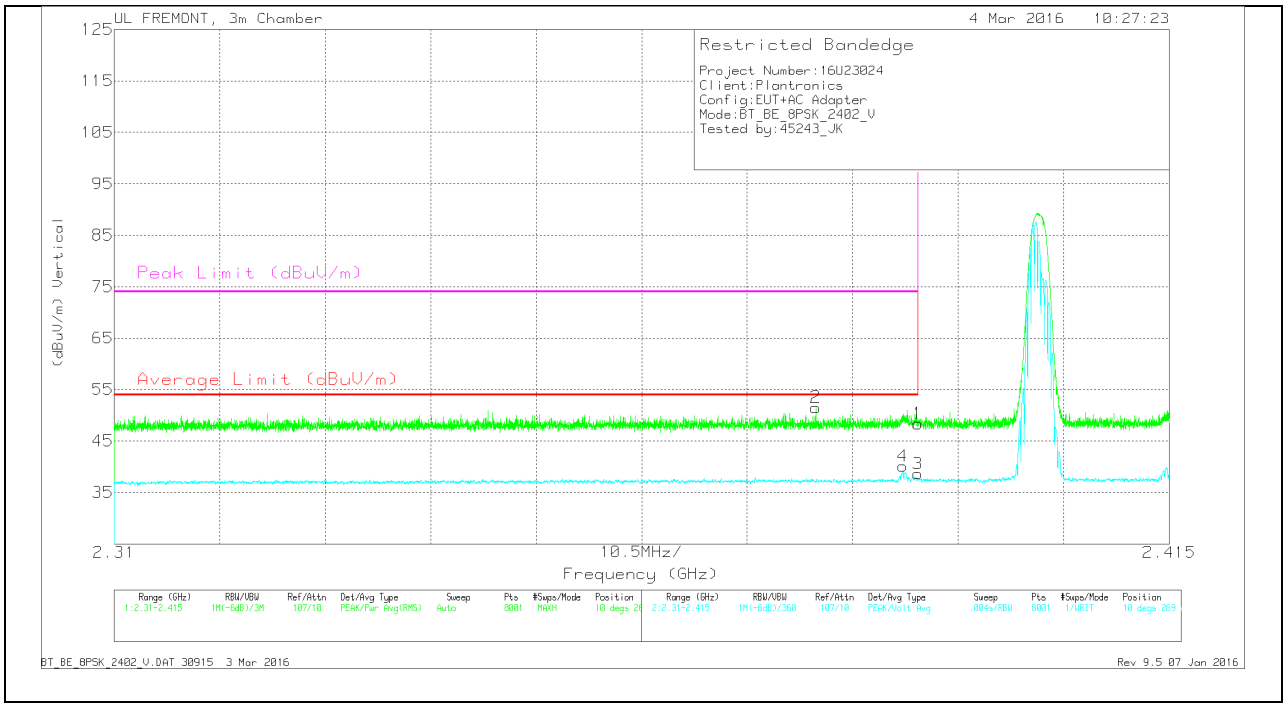
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.389	42.8	Pk	32	-22.2	52.6	-	-	74	-21.4	352	102	H
4	2.389	34.72	VA1T	32	-22.2	44.52	54	-9.48	-	-	352	102	H
1	2.39	38.61	Pk	32	-22.2	48.41	-	-	74	-25.59	352	102	H
3	2.39	28.56	VA1T	32	-22.2	38.36	54	-15.64	-	-	352	102	H

Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

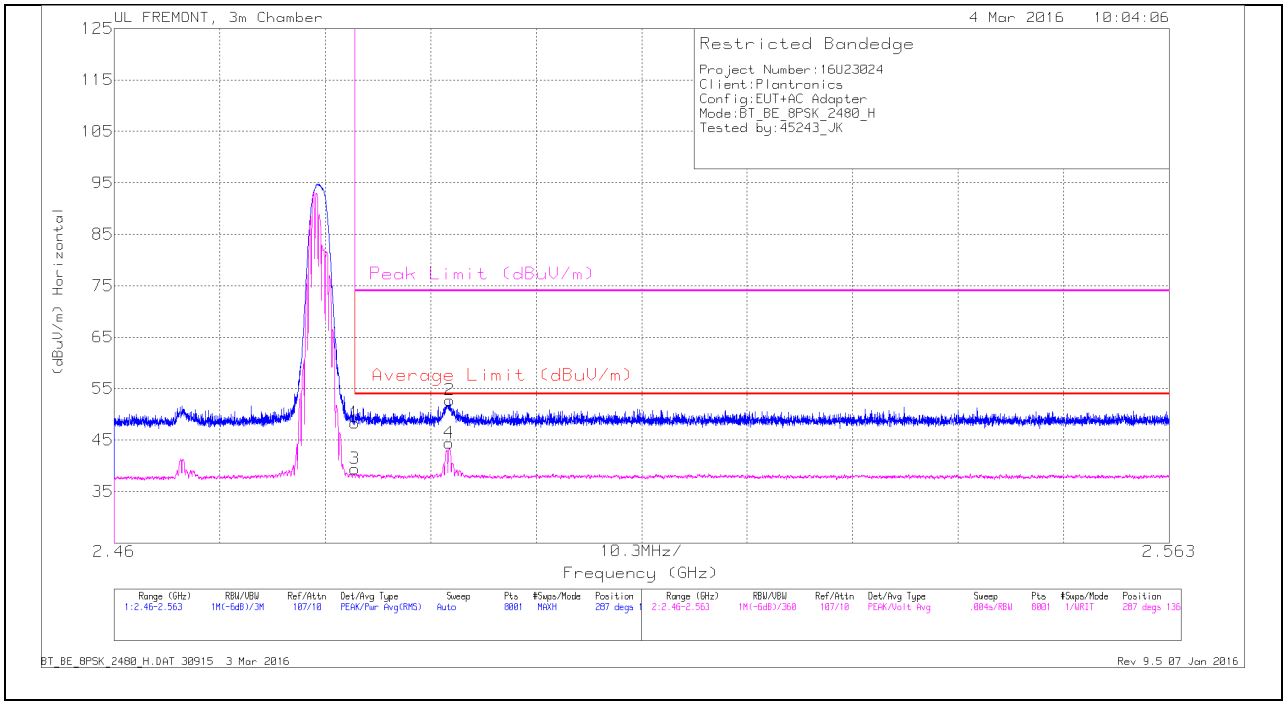
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	2.38	41.83	Pk	31.9	-22.2	51.53	-	-	74	-22.47	10	269	V
4	2.389	29.19	VA1T	32	-22.2	38.99	54	-15.01	-	-	10	269	V
1	2.39	38.59	Pk	32	-22.2	48.39	-	-	74	-25.61	10	269	V
3	2.39	27.75	VA1T	32	-22.2	37.55	54	-16.45	-	-	10	269	V

Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



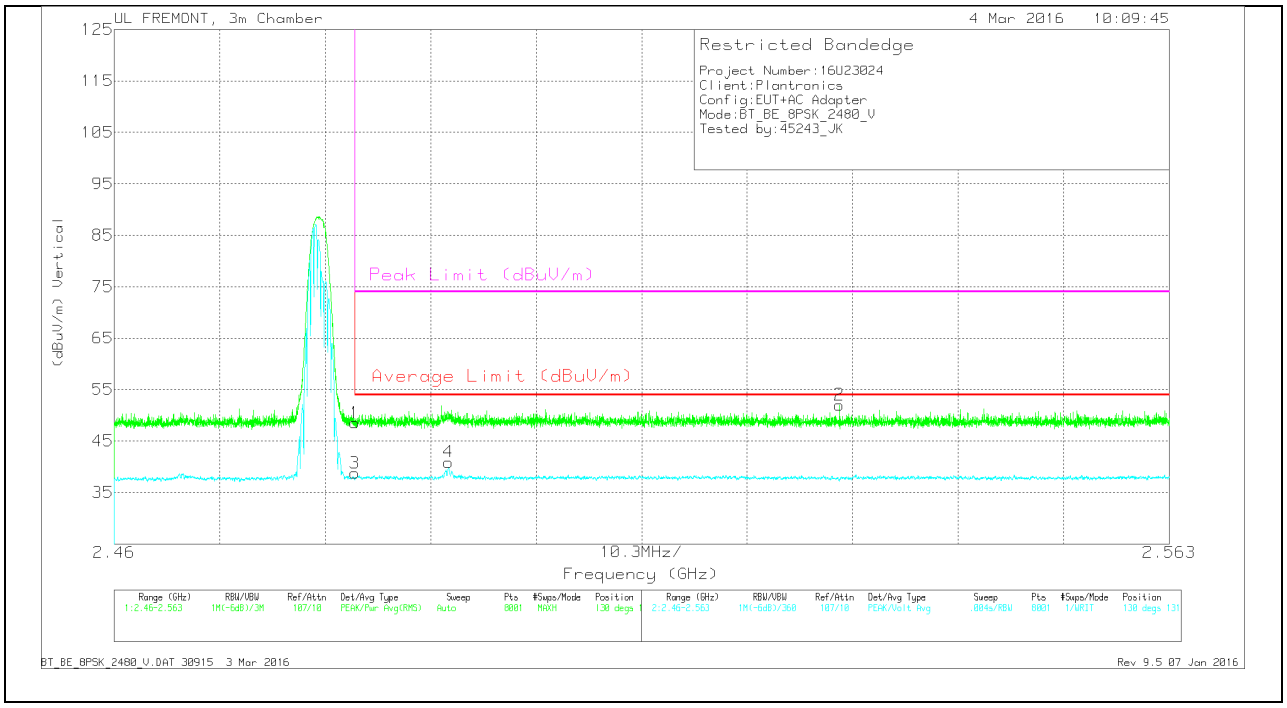
HORIZONTAL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	38.04	Pk	32.3	-22	48.34	-	-	74	-25.66	287	136	H
3	2.484	28.04	VA1T	32.3	-22	38.34	54	-15.66	-	-	287	136	H
2	2.493	42.37	Pk	32.3	-21.9	52.77	-	-	74	-21.23	287	136	H
4	2.493	32.94	VA1T	32.3	-21.9	43.34	54	-10.66	-	-	287	136	H

Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

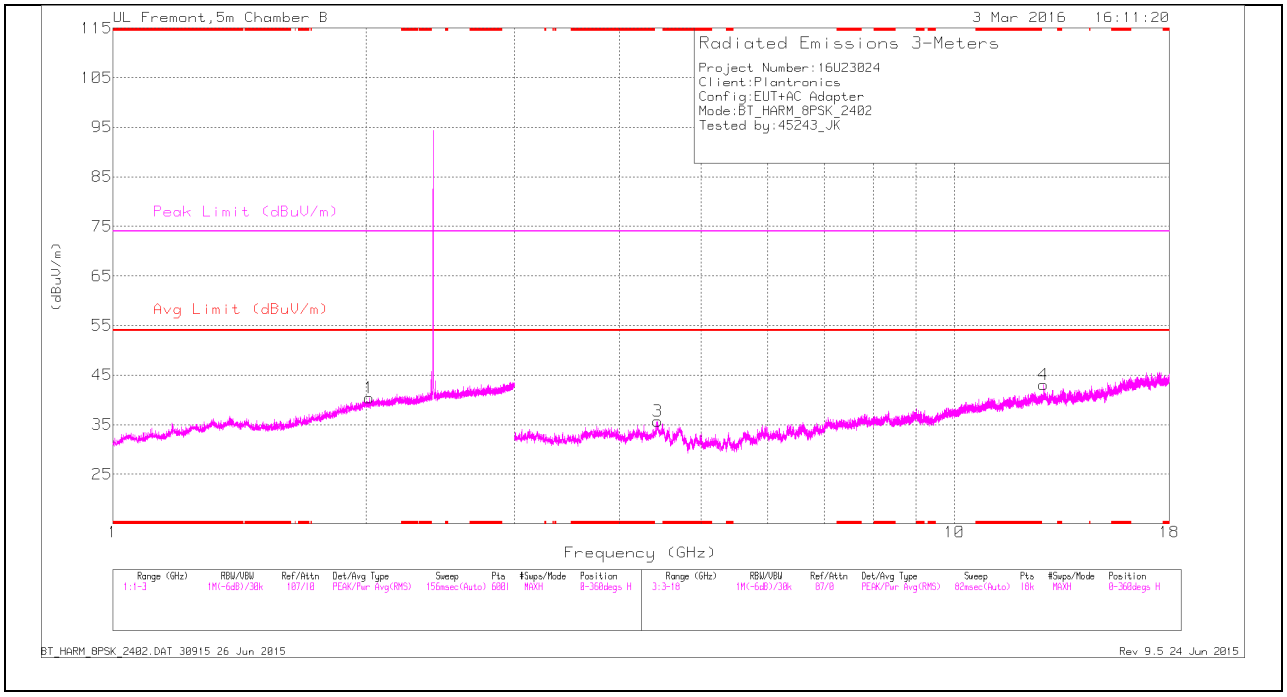
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	2.484	38.25	Pk	32.3	-22	48.55	-	-	74	-25.45	130	131	V
3	2.484	27.35	VA1T	32.3	-22	37.65	54	-16.35	-	-	130	131	V
4	2.493	29.41	VA1T	32.3	-21.9	39.81	54	-14.19	-	-	130	131	V
2	2.531	41.62	Pk	32.4	-22	52.02	-	-	74	-21.98	130	131	V

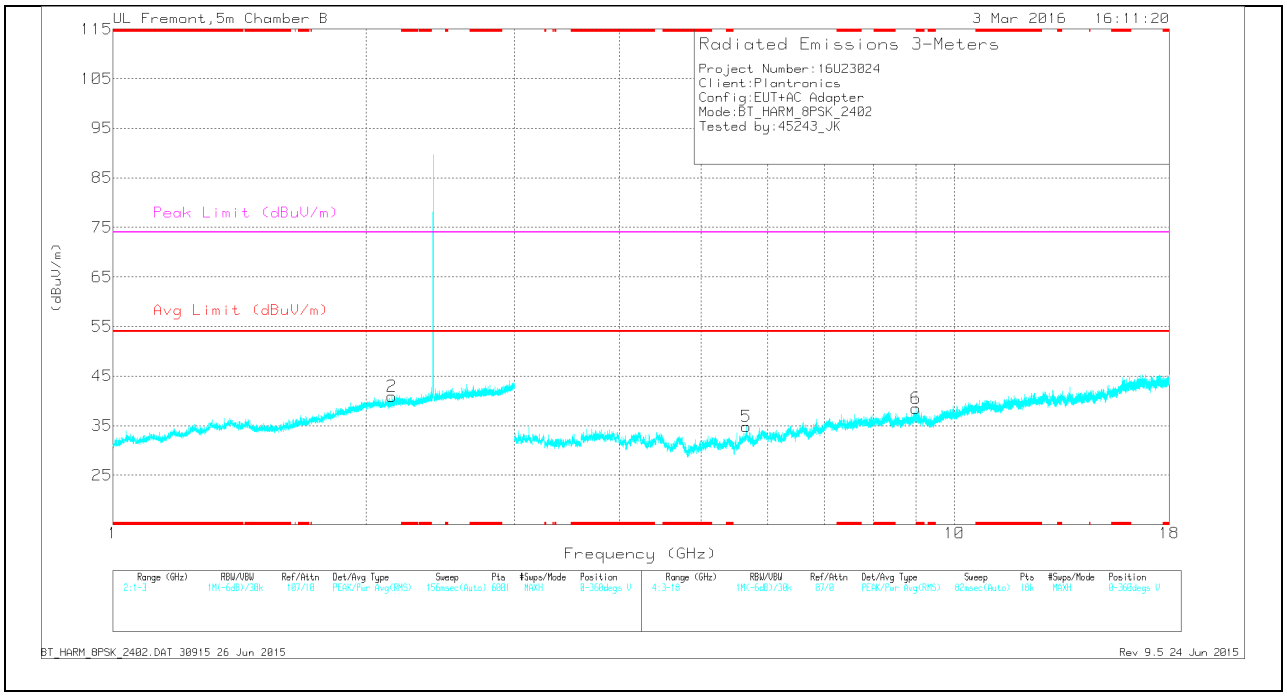
Pk - Peak detector
VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



LOW CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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
6	* 9.005	29.51	Pk	35.9	-26.9	38.51	-	-	74	-35.49	0-360	200	V
1	2.016	30.48	Pk	31.5	-21.6	40.38	-	-	-	-	0-360	101	H
2	2.144	31.15	Pk	31.6	-21.8	40.95	-	-	-	-	0-360	200	V
3	4.437	32.53	Pk	34	-30.8	35.73	-	-	-	-	0-360	200	H
5	5.661	31	Pk	34.7	-30.9	34.8	-	-	-	-	0-360	101	V
4	12.764	27.84	Pk	39.3	-24.1	43.04	-	-	-	-	0-360	200	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

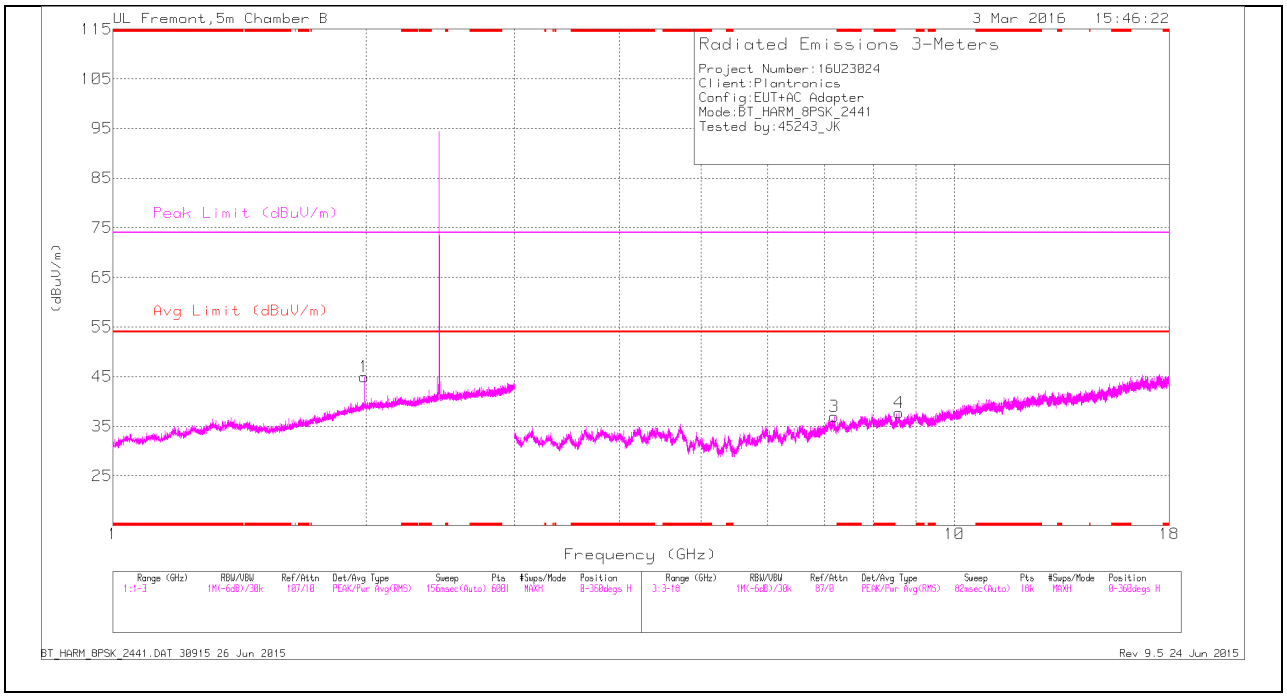
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 9.005	37.33	PK2	35.9	-26.9	46.33	-	-	74	-27.67	155	211	V
* 9.006	23.73	VA1T	35.9	-26.9	32.73	54	-21.27	-	-	155	211	V
2.014	38.32	PK2	31.5	-21.6	48.22	-	-	-	-	360	101	H
2.016	24.12	VA1T	31.5	-21.6	34.02	-	-	-	-	360	101	H
2.143	24.55	VA1T	31.6	-21.8	34.35	-	-	-	-	360	199	V
2.145	38.08	PK2	31.6	-21.9	47.78	-	-	-	-	360	199	V
4.437	26.19	VA1T	34	-30.8	29.39	-	-	-	-	360	199	H
4.438	38.98	PK2	34	-30.8	42.18	-	-	-	-	360	199	H
5.661	38.77	PK2	34.7	-30.9	42.57	-	-	-	-	360	102	V
5.661	25.59	VA1T	34.7	-30.9	29.39	-	-	-	-	360	102	V
12.763	34.46	PK2	39.3	-24.1	49.66	-	-	-	-	360	199	H
12.766	21.4	VA1T	39.3	-24.1	36.6	-	-	-	-	360	199	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

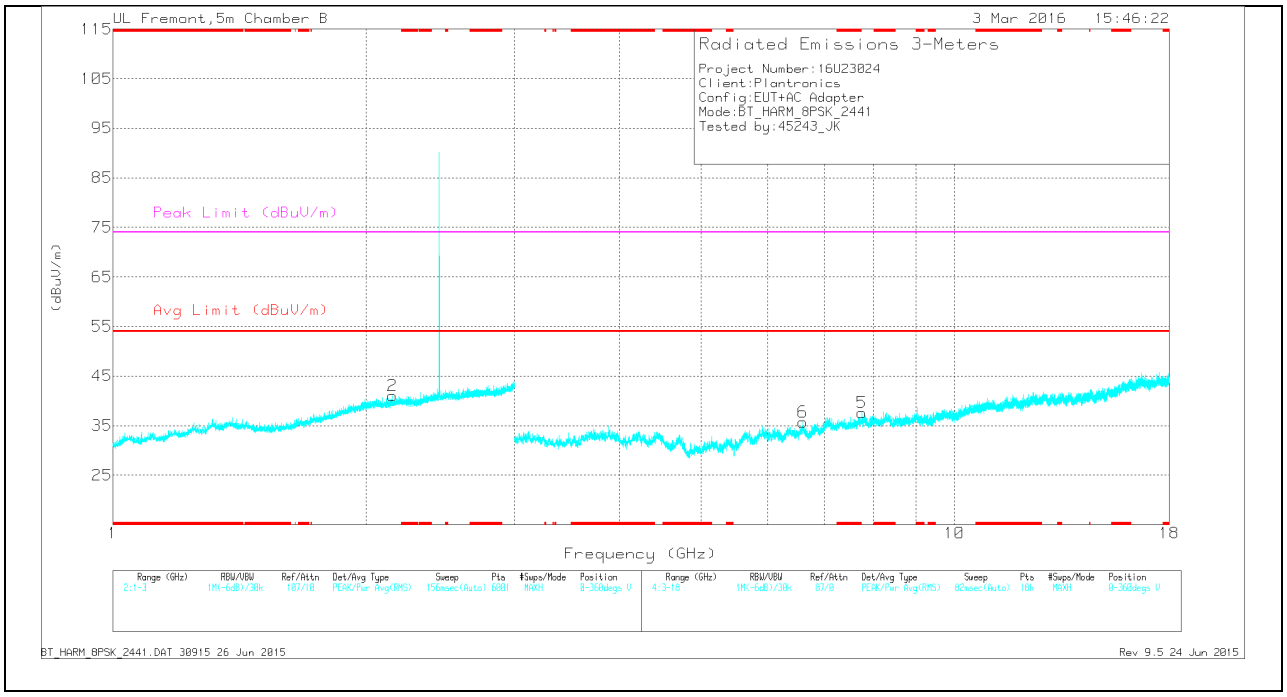
PK2 - FHSS Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



MID CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.988	35.25	Pk	31.4	-21.7	44.95	-	-	-	-	0-360	101	H
2	2.149	31.18	Pk	31.7	-21.8	41.08	-	-	-	-	0-360	199	V
6	6.607	31.04	Pk	35.4	-30.7	35.74	-	-	-	-	0-360	200	V
3	7.193	30.72	Pk	35.6	-29.4	36.92	-	-	-	-	0-360	101	H
5	7.758	30.26	Pk	35.7	-28.3	37.66	-	-	-	-	0-360	200	V
4	8.587	29.68	Pk	35.7	-27.6	37.78	-	-	-	-	0-360	101	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

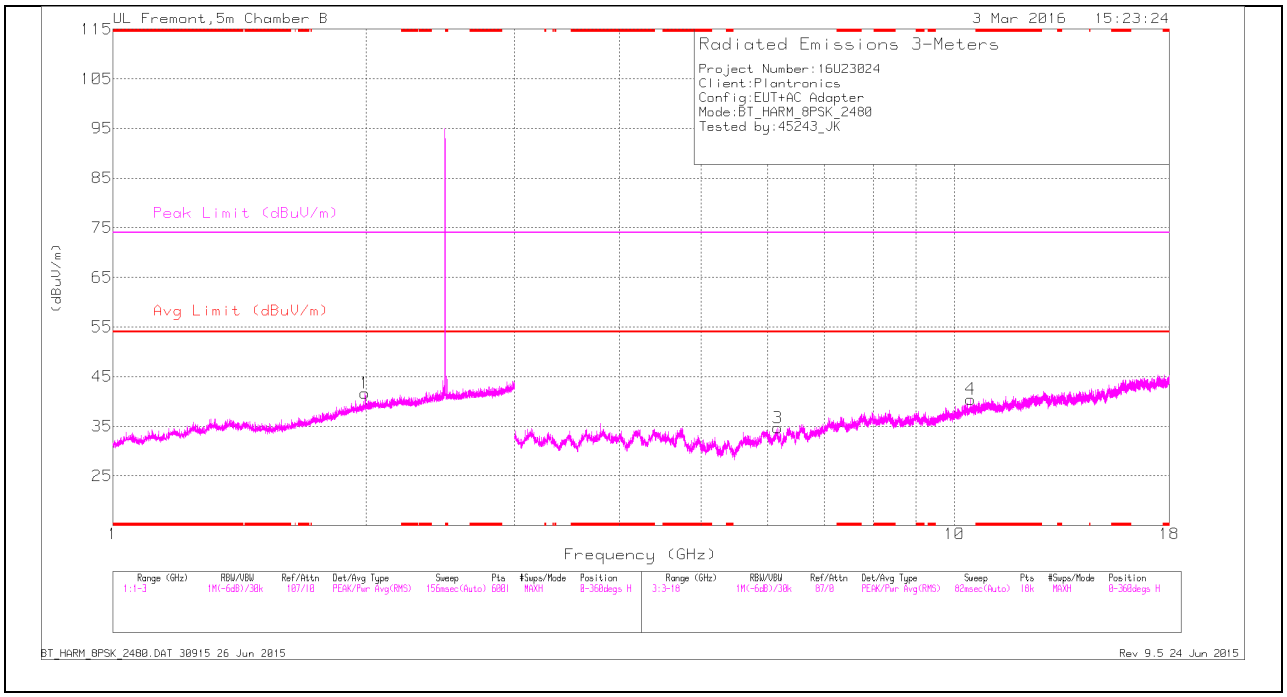
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.987	39.26	PK2	31.4	-21.8	48.86	-	-	-	-	214	104	H
1.988	24.13	VA1T	31.4	-21.7	33.83	-	-	-	-	214	104	H
2.148	37.98	PK2	31.7	-21.8	47.88	-	-	-	-	214	199	V
2.149	24.57	VA1T	31.7	-21.8	34.47	-	-	-	-	214	199	V
6.608	38.18	PK2	35.4	-30.7	42.88	-	-	-	-	214	199	V
6.609	24.96	VA1T	35.4	-30.7	29.66	-	-	-	-	214	199	V
7.195	37.23	PK2	35.6	-29.4	43.43	-	-	-	-	214	102	H
7.195	24.14	VA1T	35.6	-29.4	30.34	-	-	-	-	214	102	H
7.757	37.59	PK2	35.7	-28.3	44.99	-	-	-	-	214	199	V
7.76	24.08	VA1T	35.7	-28.4	31.38	-	-	-	-	214	199	V
8.585	23.83	VA1T	35.7	-27.6	31.93	-	-	-	-	214	102	H
8.587	36.48	PK2	35.7	-27.6	44.58	-	-	-	-	214	102	H

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

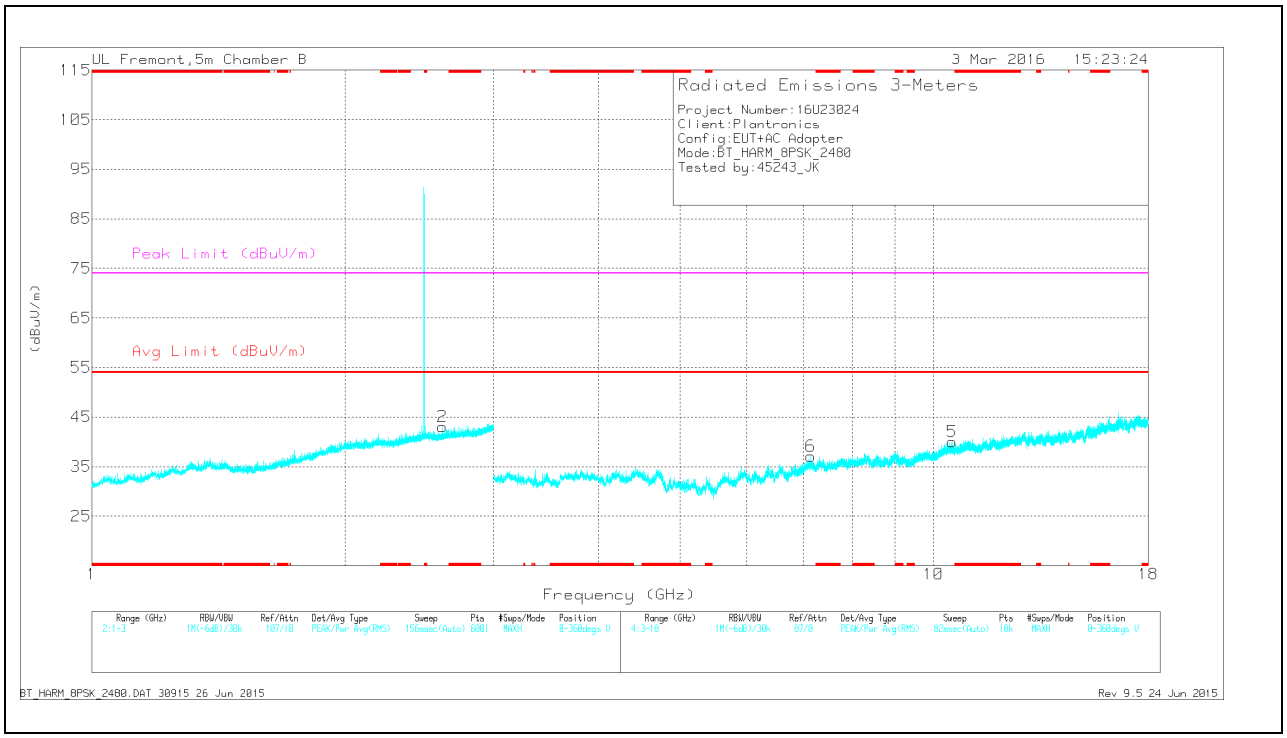
PK2 - FHSS Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



HIGH CHANNEL DATA

Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	1.994	31.9	Pk	31.5	-21.7	41.7	-	-	-	-	0-360	101	H
2	2.611	32.62	Pk	32.2	-21.8	43.02	-	-	-	-	0-360	101	V
3	6.163	30.64	Pk	35.4	-31.4	34.64	-	-	-	-	0-360	101	H
6	7.151	30.53	Pk	35.6	-29	37.13	-	-	-	-	0-360	199	V
4	10.453	28.36	Pk	37.4	-25.3	40.46	-	-	-	-	0-360	101	H
5	10.525	27.98	Pk	37.5	-25.5	39.98	-	-	-	-	0-360	101	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (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
1.993	37.59	PK2	31.5	-21.7	47.39	-	-	-	-	1	101	H
1.995	24.14	VA1T	31.5	-21.7	33.94	-	-	-	-	1	101	H
2.611	38.67	PK2	32.2	-21.8	49.07	-	-	-	-	1	101	V
2.613	25.35	VA1T	32.2	-21.8	35.75	-	-	-	-	1	101	V
6.163	36.71	PK2	35.4	-31.4	40.71	-	-	-	-	1	101	H
6.165	24.24	VA1T	35.4	-31.4	28.24	-	-	-	-	1	101	H
7.15	24.58	VA1T	35.6	-29.1	31.08	-	-	-	-	1	199	V
7.153	37.54	PK2	35.6	-29	44.14	-	-	-	-	1	199	V
10.451	22.32	VA1T	37.4	-25.3	34.42	-	-	-	-	1	101	H
10.452	35.18	PK2	37.4	-25.3	47.28	-	-	-	-	1	101	H
10.526	22.25	VA1T	37.5	-25.6	34.15	-	-	-	-	1	101	V
10.527	35.04	PK2	37.5	-25.6	46.94	-	-	-	-	1	101	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

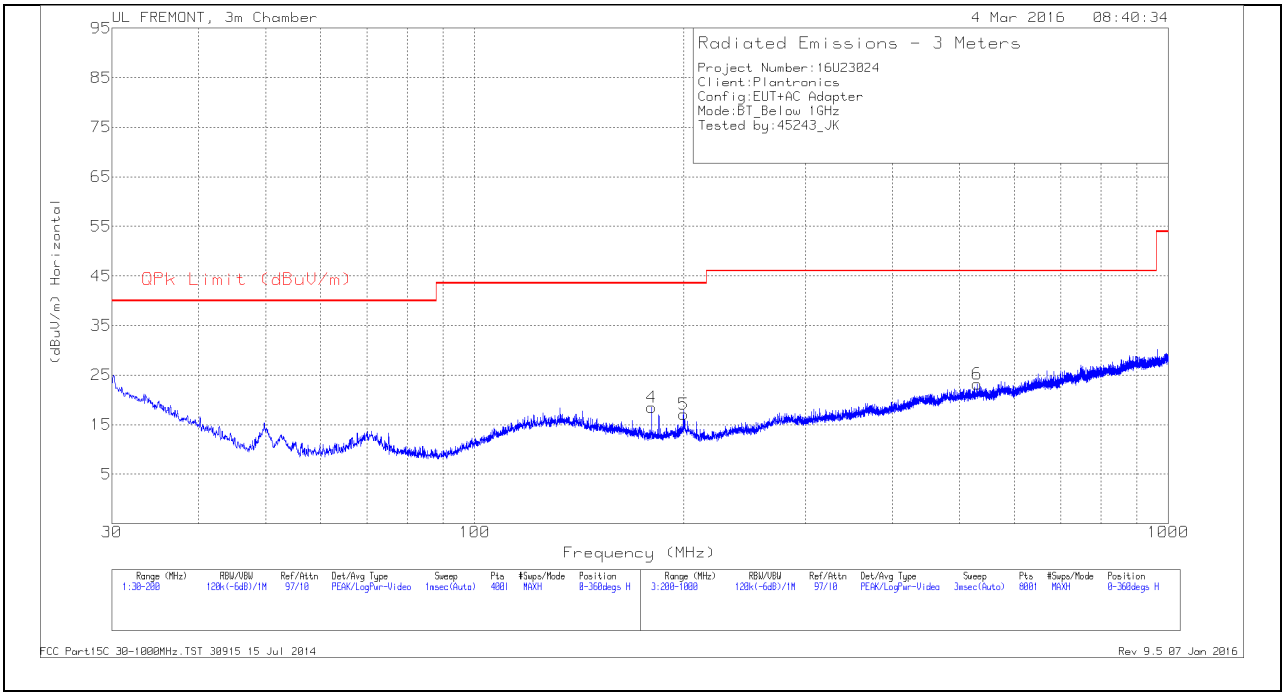
PK2 - FHSS Method: Maximum Peak

VA1T - FHSS: Linear Voltage Average VB=1/Ton where: Ton is transmit duration

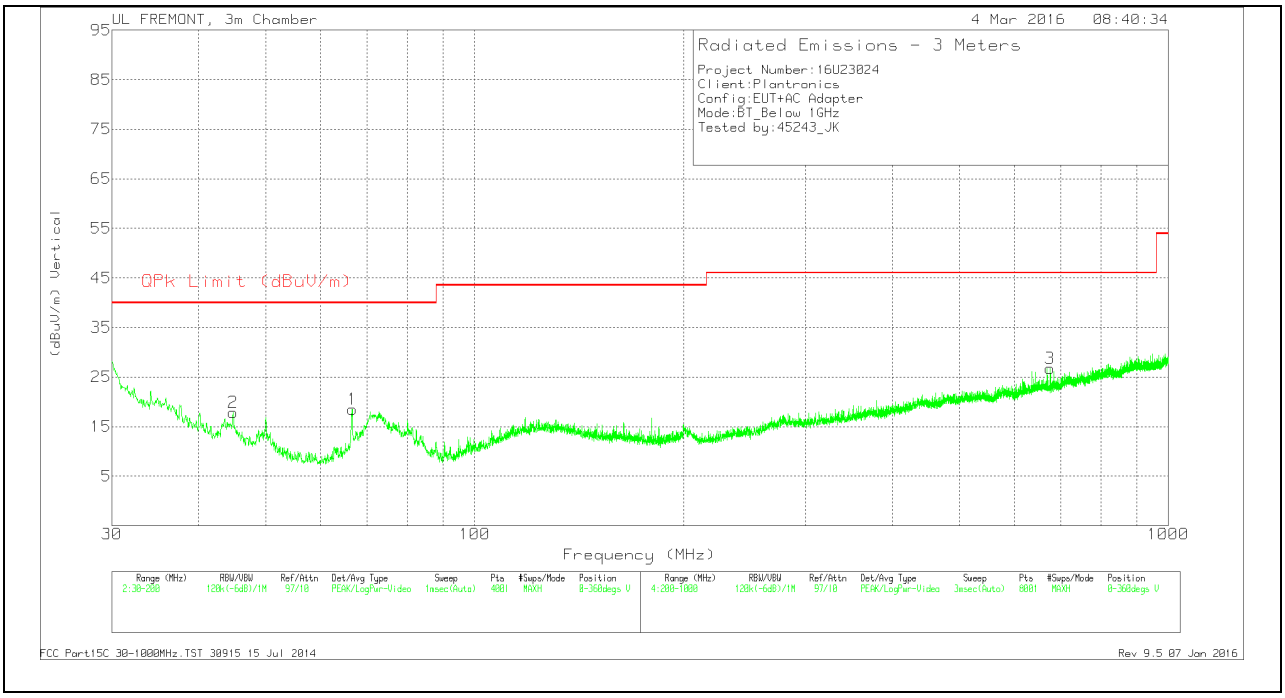
9.3. WORST-CASE BELOW 1 GHz

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

HORIZONTAL PLOT



VERTICAL PLOT



BELOW 1 GHz TABLE

Trace Markers

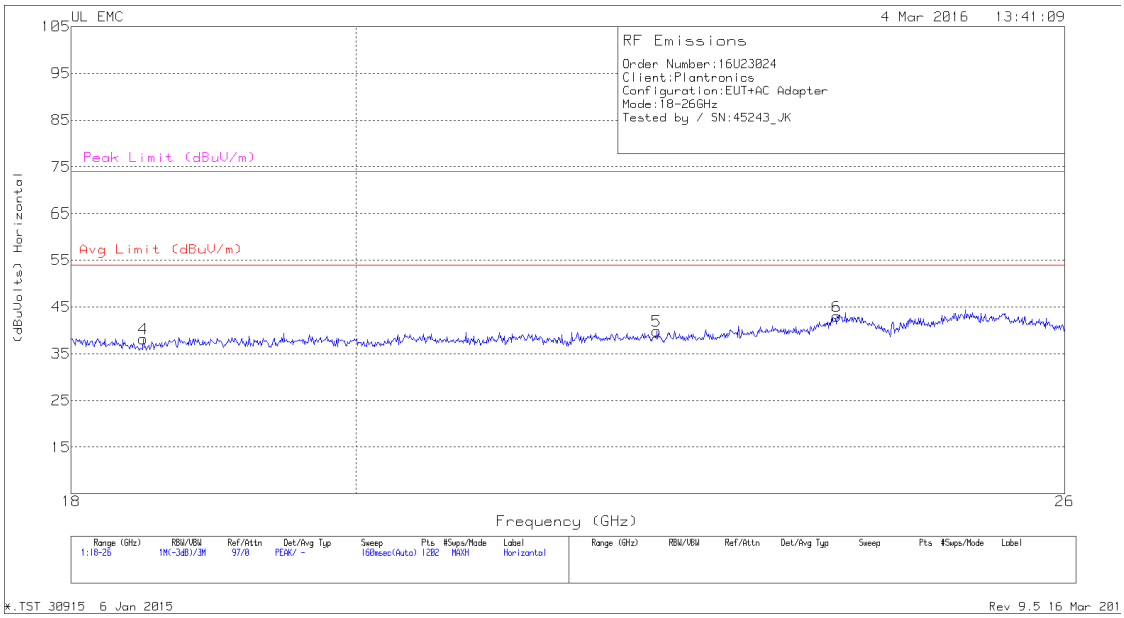
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T185 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	44.8325	34.01	Pk	10.8	-27	17.81	40	-22.19	0-360	100	V
1	66.635	37.14	Pk	8.1	-26.7	18.54	40	-21.46	0-360	100	V
4	179.9825	32.9	Pk	11	-25.4	18.5	43.52	-25.02	0-360	200	H
5	200	30.23	Pk	12.1	-25.2	17.13	43.52	-26.39	0-360	100	H
6	530.2	30.03	Pk	18.1	-24.9	23.23	46.02	-22.79	0-360	100	H
3	676	31.74	Pk	19.3	-24.3	26.74	46.02	-19.28	0-360	100	V

Pk - Peak detector

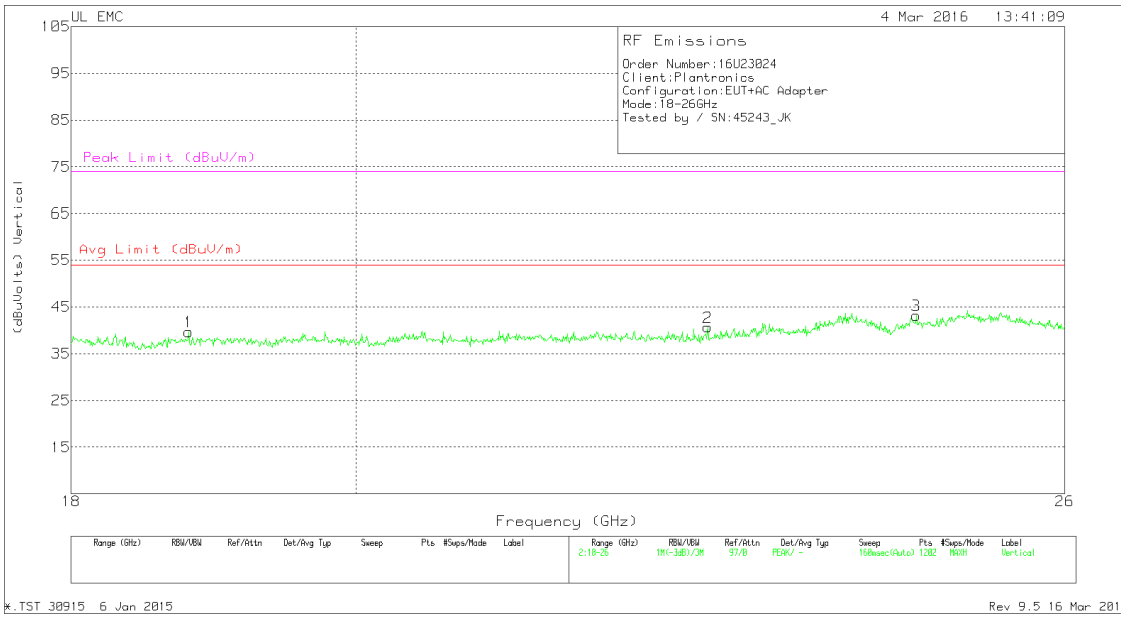
9.4. WORST-CASE ABOVE 18 GHz

SPURIOUS EMISSIONS 18 TO 26 GHz (WORST-CASE CONFIGURATION)

HORIZONTAL



VERTICAL



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	T477 AF (dB/m)	Amp/Cbl (dB)	Dist Corr (dB)	Corrected Reading (dBuVolts)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)
4	18.486	40.97	Pk	32.3	-25.6	-9.5	38.17	54	-15.83	74	-35.83
5	22.356	40.73	Pk	33.3	-24.7	-9.5	39.83	54	-14.17	74	-34.17
6	23.895	42.6	Pk	33.7	-23.8	-9.5	43	54	-11	74	-31
1	18.799	41.67	Pk	32.3	-24.8	-9.5	39.67	54	-14.33	74	-34.33
2	22.783	41.67	Pk	33.4	-24.9	-9.5	40.67	54	-13.33	74	-33.33
3	24.608	43.07	Pk	33.9	-24.3	-9.5	43.167	54	-10.83	74	-30.83

Pk - 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.

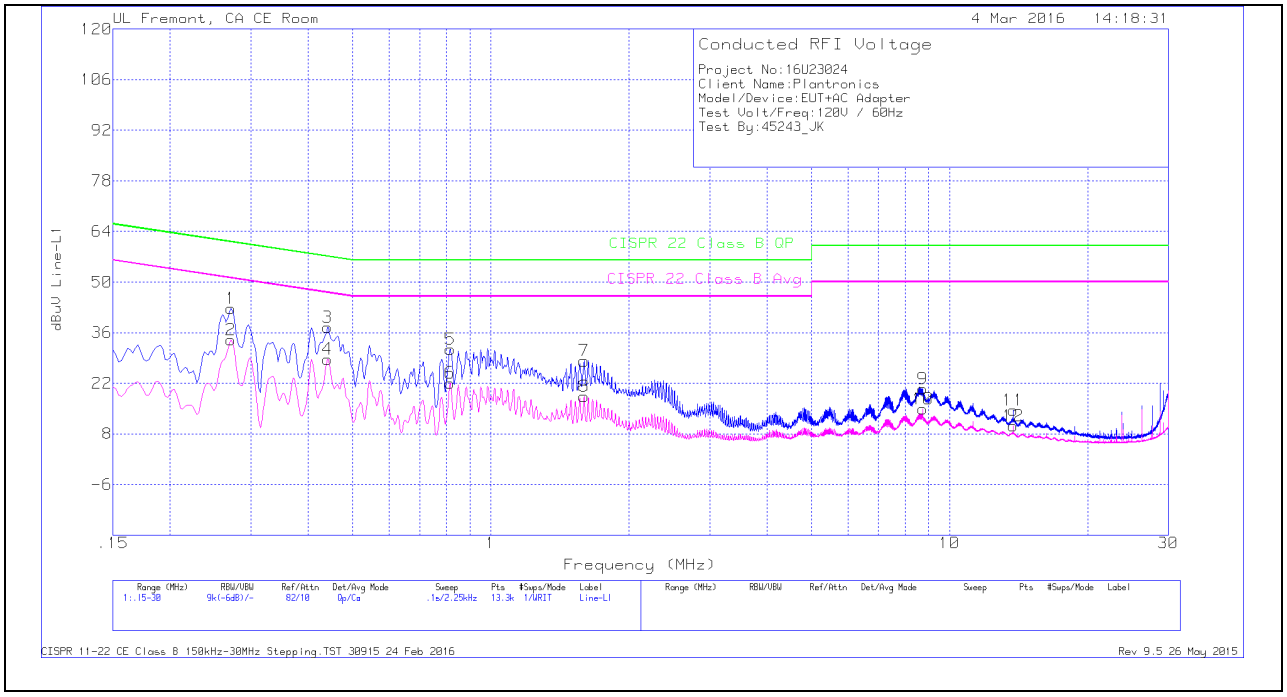
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

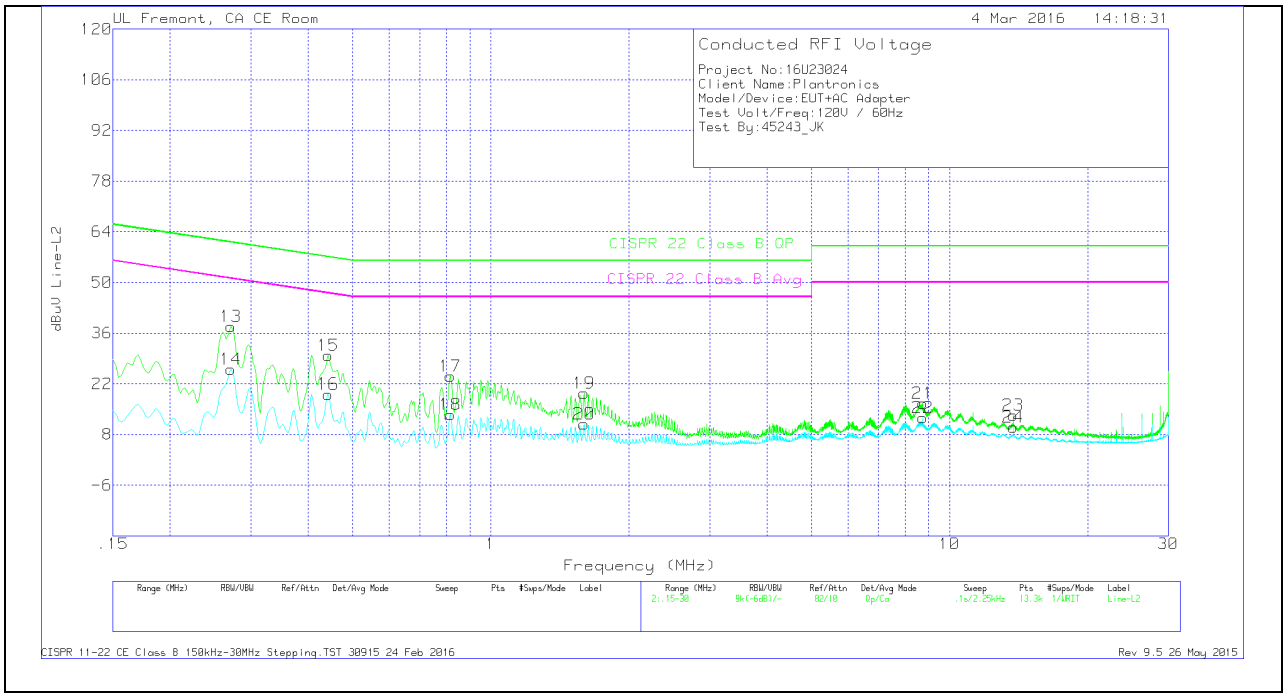
Trace Markers

Range 1: Line-L1 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L1	LC Cables 1&3	Limiter (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.2715	32.61	Qp	0	0	10.1	42.71	61.07	-18.36	-	-
2	.2715	23.88	Ca	0	0	10.1	33.98	-	-	51.07	-17.09
3	.44025	27.37	Qp	0	0	10.1	37.47	57.06	-19.59	-	-
4	.44025	18.6	Ca	0	0	10.1	28.7	-	-	47.06	-18.36
5	.816	21.37	Qp	0	0	10.1	31.47	56	-24.53	-	-
6	.81487	12	Ca	0	0	10.1	22.1	-	-	46	-23.9
7	1.59675	17.99	Qp	0	.1	10.1	28.19	56	-27.81	-	-
8	1.59675	8.11	Ca	0	.1	10.1	18.31	-	-	46	-27.69
9	8.7495	10.1	Qp	0	.1	10.2	20.4	60	-39.6	-	-
10	8.7495	4.65	Ca	0	.1	10.2	14.95	-	-	50	-35.05
11	13.749	4.06	Qp	.1	.2	10.2	14.56	60	-45.44	-	-
12	13.749	-.27	Ca	.1	.2	10.2	10.23	-	-	50	-39.77

Qp - Quasi-Peak detector

Ca - CISPR average detection

LINE 2 PLOT



LINE 2 RESULTS

Range 2: Line-L2 .15 - 30MHz											
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T1310 IL L2	LC Cables 2&3	Limiter (dB)	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
13	.2715	27.75	Qp	0	0	10.1	37.85	61.07	-23.22	-	-
14	.2715	15.95	Ca	0	0	10.1	26.05	-	-	51.07	-25.02
15	.4425	19.76	Qp	0	0	10.1	29.86	57.01	-27.15	-	-
16	.4425	9.04	Ca	0	0	10.1	19.14	-	-	47.01	-27.87
17	.816	14.07	Qp	0	0	10.1	24.17	56	-31.83	-	-
18	.816	3.42	Ca	0	0	10.1	13.52	-	-	46	-32.48
19	1.59675	9.23	Qp	0	.1	10.1	19.43	56	-36.57	-	-
20	1.59675	.65	Ca	0	.1	10.1	10.85	-	-	46	-35.15
21	8.7495	6.38	Qp	0	.1	10.2	16.68	60	-43.32	-	-
22	8.7495	2.25	Ca	0	.1	10.2	12.55	-	-	50	-37.45
23	13.749	2.79	Qp	.1	.2	10.2	13.29	60	-46.71	-	-
24	13.749	-.53	Ca	.1	.2	10.2	9.97	-	-	50	-40.03

Qp - Quasi-Peak detector

Ca - CISPR average detection