



FCC CFR47 PART 15 SUBPART C

**BLUETOOTH
CERTIFICATION TEST REPORT
FOR**

GSM/WCDMA/LTE Phone + Bluetooth and WLAN 2.4GHz b/g/n

MODEL NUMBER: SM-G150N0, SM-G155S

FCC ID: A3LSMG150

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.
EUT DESCRIPTION: GSM/WCDMA/LTE Phone + Bluetooth and WLAN 2.4GHz b/g/n
MODEL: SM-G150N0, SM-G155S
SERIAL NUMBER: R38G40TQMVX (Conducted), R38G40TQM9X (Radiated)
DATE TESTED: MAY 8 – JUN 16, 2015

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

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

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

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2. TEST METHODOLOGY

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

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:

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

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 18000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a GSM/WCDMA/LTE Phone + Bluetooth and WLAN 2.4GHz b/g/n.

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	8.93	7.82
2402 - 2480	Enhanced 8PSK	7.83	6.07

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 2.61 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 and also cover open and close, it was determined that X orientation with cover open was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation with cover open.

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	ETA0U83KWK	DK1FB05HS	N/A
Earphone	Samsung	N/A	N/A	N/A

I/O CABLES

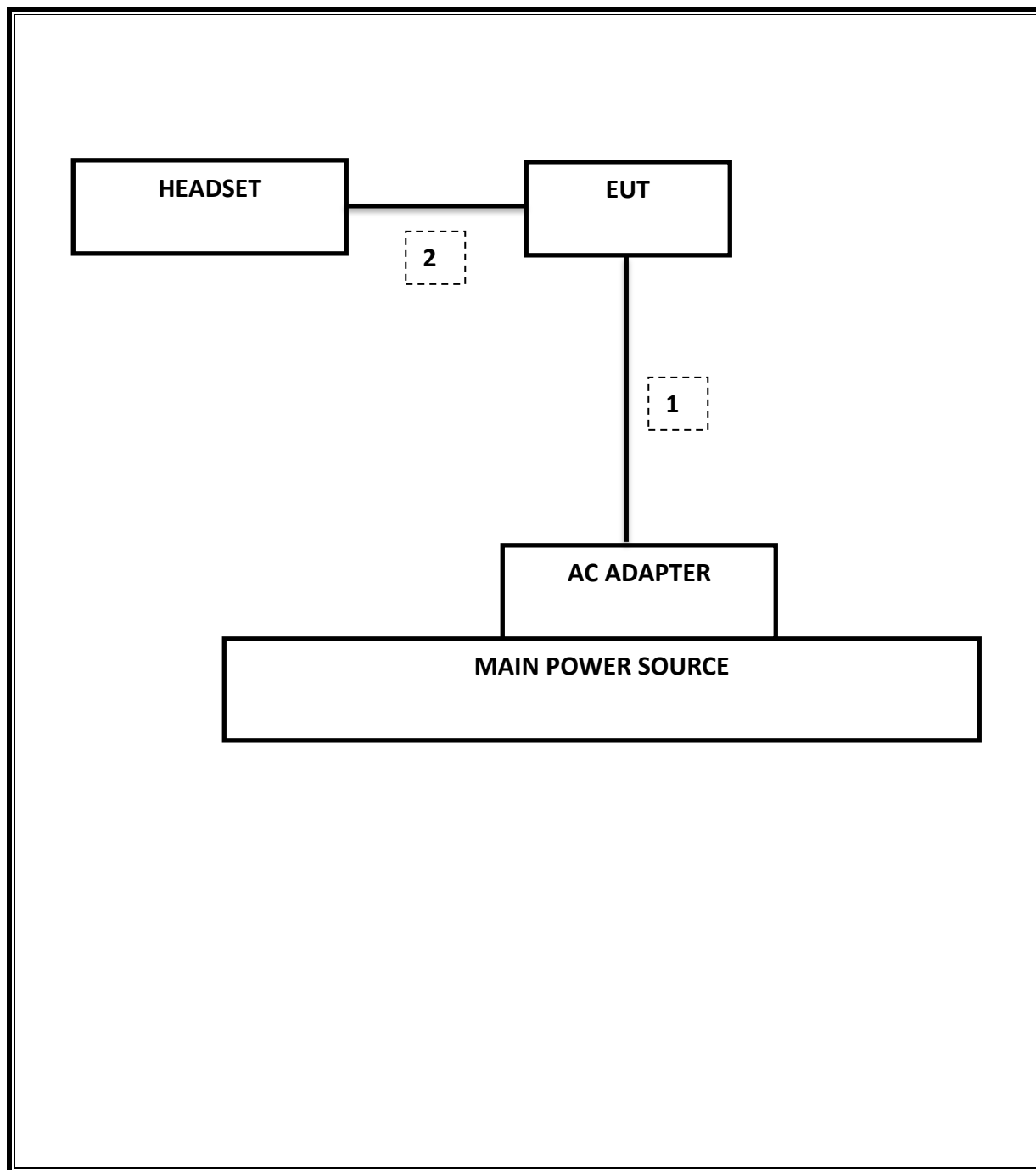
I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1m	N/A

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.

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
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/15
Spectrum Analyzer, 9KHz-40GHz	HP	8564E	C00986	04/01/16
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/13/15
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/18/15
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/15
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/15
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/16
Antenna, Horn, 18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/15
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/15
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/16
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/16
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/15
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR
RF Preamplifier, 1GHz - 40GHz	Miteq	NSP4000-SP2	C00990	08/20/15
Attenuator / Switch driver	HP	11713A	F00204	CNR
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	F00219	05/23/16
High Pass Filter 6GHz	Micro-Tronics	HPS17542	F00222	05/22/16
High Pass Filter 3GHz	Micro-Tronics	HPM17543	F00224	05/22/16

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	1.072 MHz
2.1051, 15.247 (d)	RSS-247 5.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-39.8 dBm
15.247 (b)(1)	RSS-247 5.4.2	TX conducted output power	<21dBm		Pass	8.93dBm
15.247 (a)(1)	RSS-247 5.1.2	Hopping frequency separation	> 25KHz		Pass	1.050 MHz
15.247 (a)(1)(iii)	RSS-247 5.1.4	Number of Hopping channels	More than 15 non-overlapping channels		Pass	79 channels
15.247 (a)(1)(iii)	RSS-247 5.1.4	Avg Time of Occupancy	< 0.4sec		Pass	0.346sec
15.207 (a)	RSS-GEN 8.8	AC Power Line conducted emissions	Section 10	Radiated	Pass	52.26dBuV(PK)
15.205, 15.209	RSS-GEN 8.9/7	Radiated Spurious Emission	< 54dBuV/m		Pass	39.44dBuV/m

8. ANTENNA PORT TEST RESULTS

8.1. 20 dB AND 99% BANDWIDTH

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

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

RESULTS

8.1.1. BASIC DATA RATE GFSK MODULATION

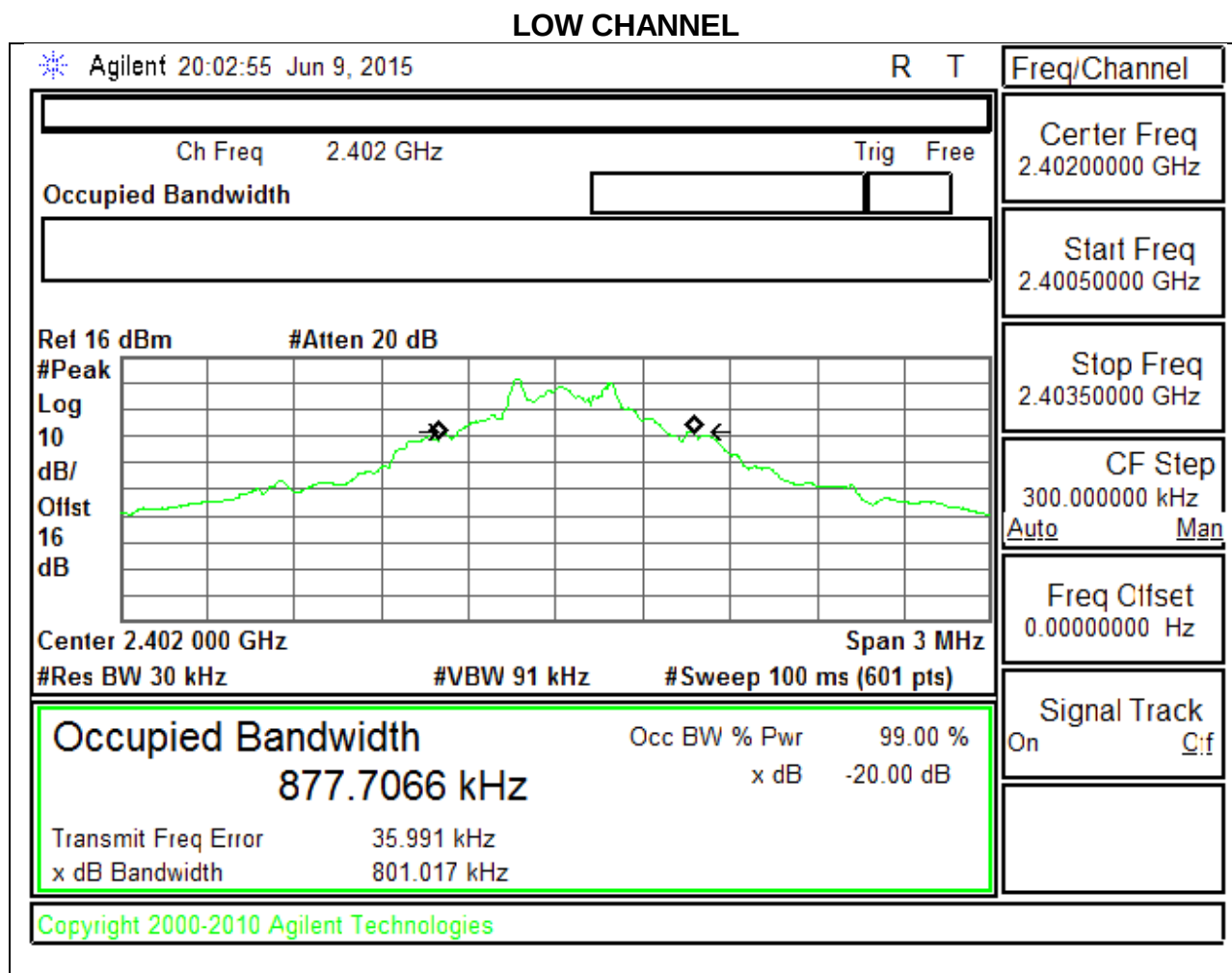
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	0.801	1.007
Middle	2441	0.798	1.007
High	2480	0.794	1.009
Worst		0.801	1.009

8.1.2. ENHANCED DATA RATE 8PSK MODULATION

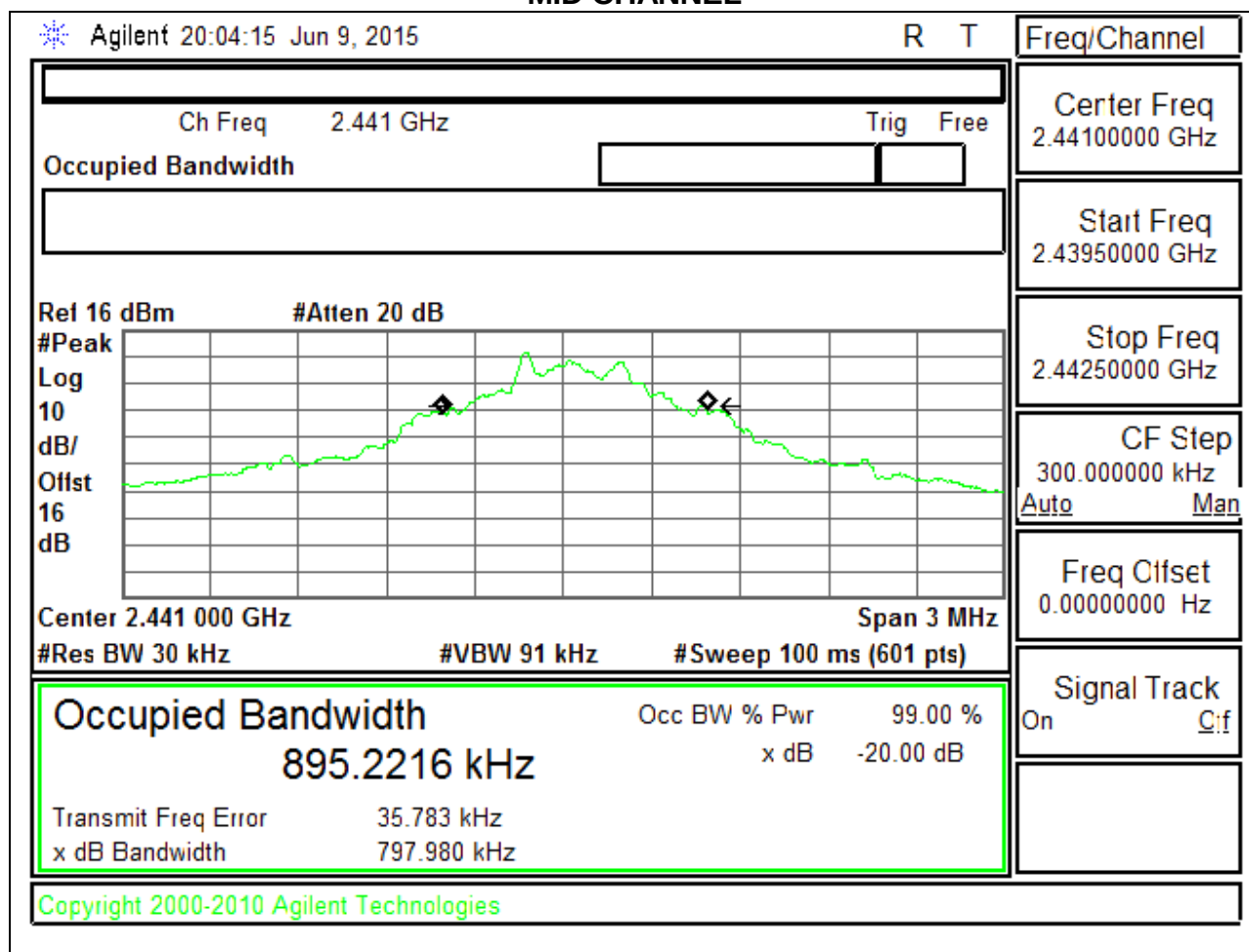
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	1.113	1.072
Middle	2441	1.119	1.039
High	2480	1.120	1.041
Worst		1.120	1.072

8.1.3. 20 dB AND 99% BANDWIDTH PLOTS

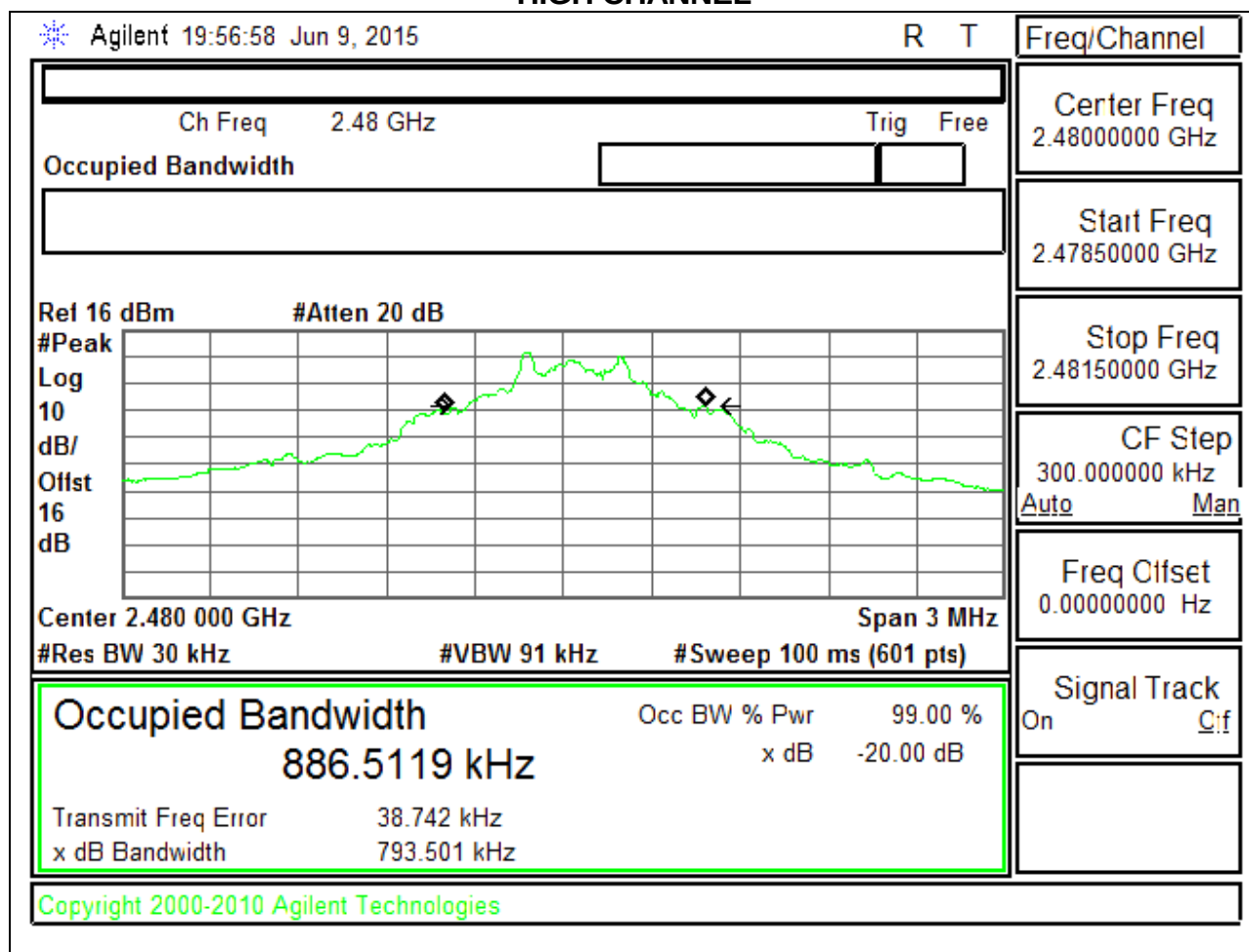
GFSK 20 dB BANDWIDTH



MID CHANNEL

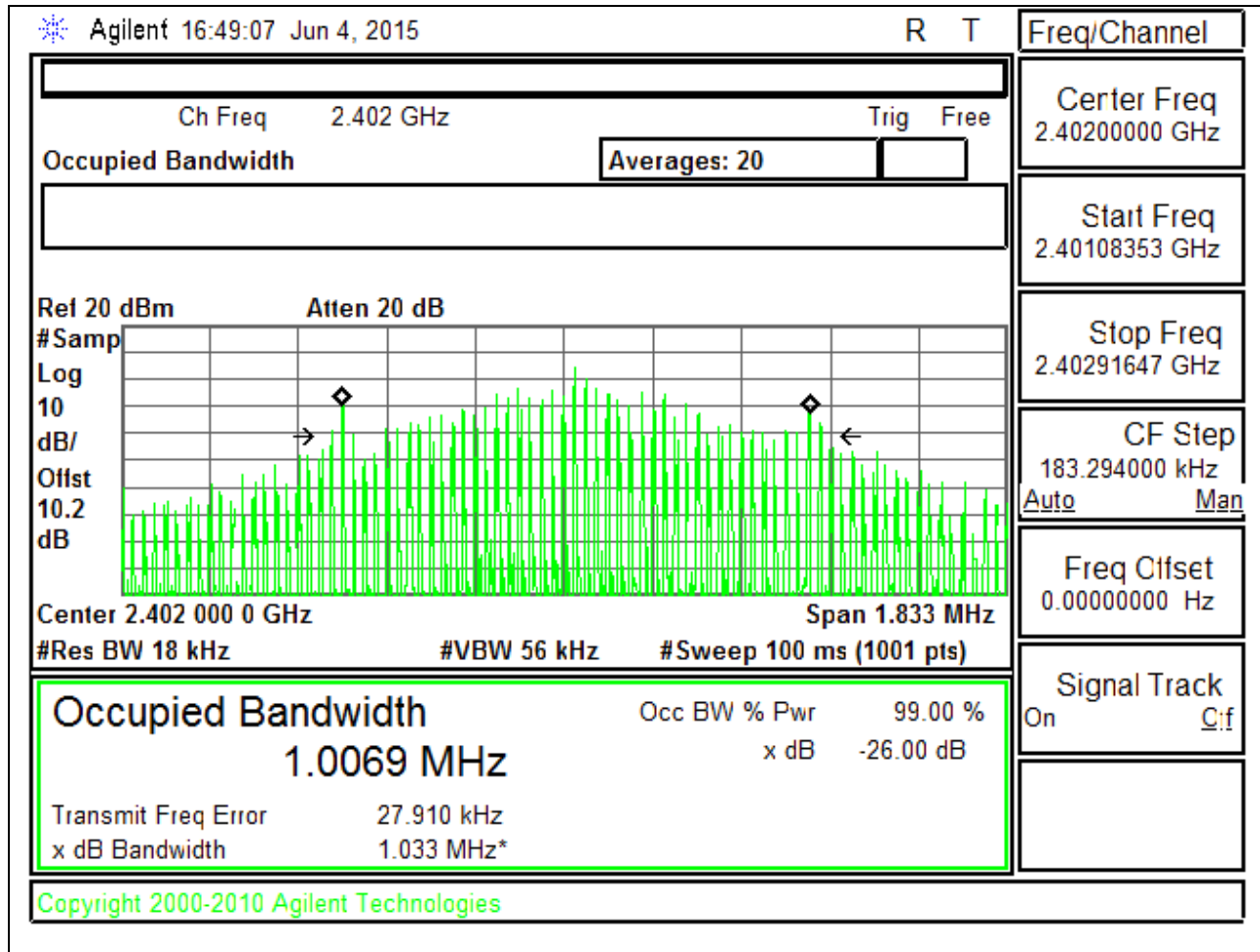


HIGH CHANNEL

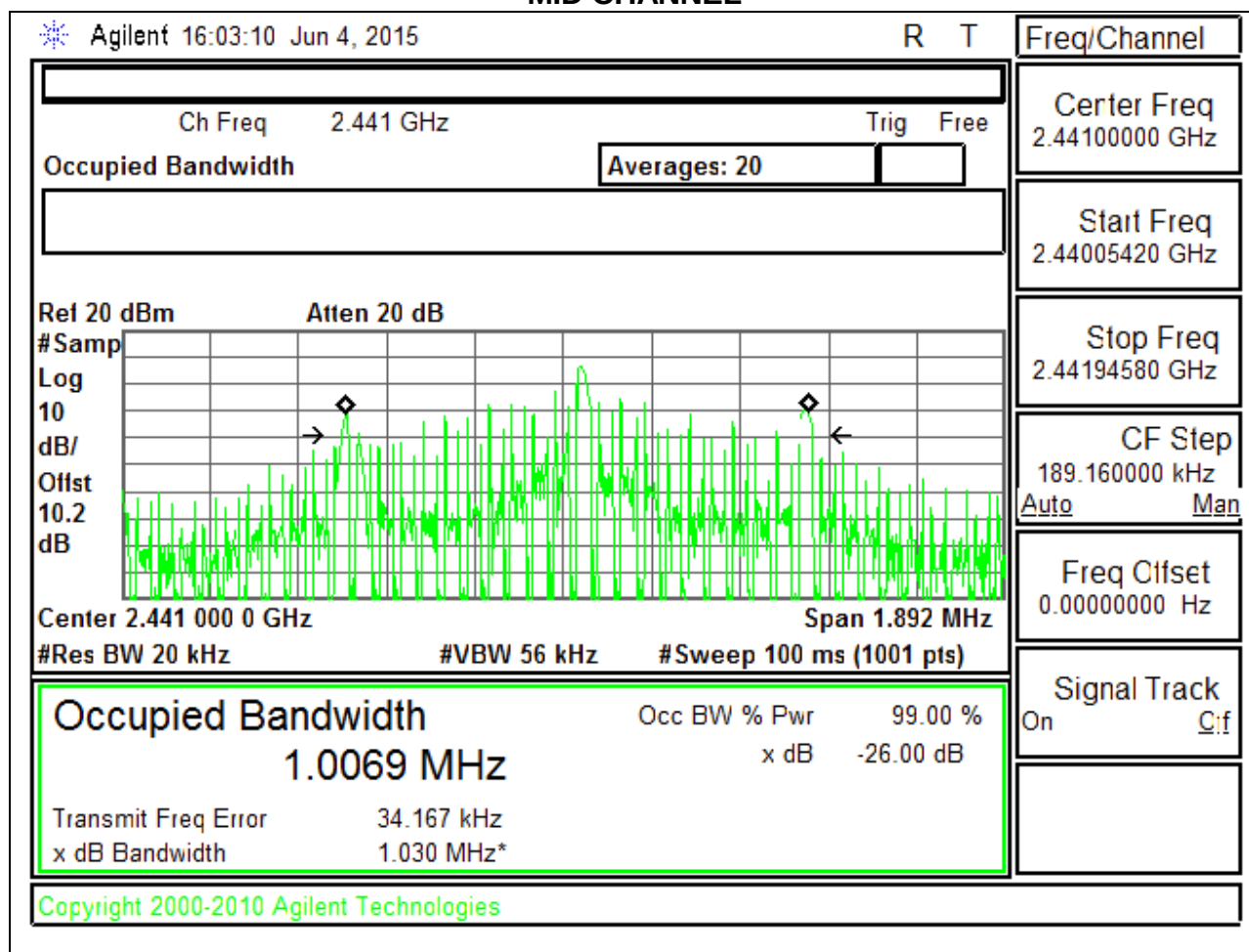


GFSK 99% BANDWIDTH

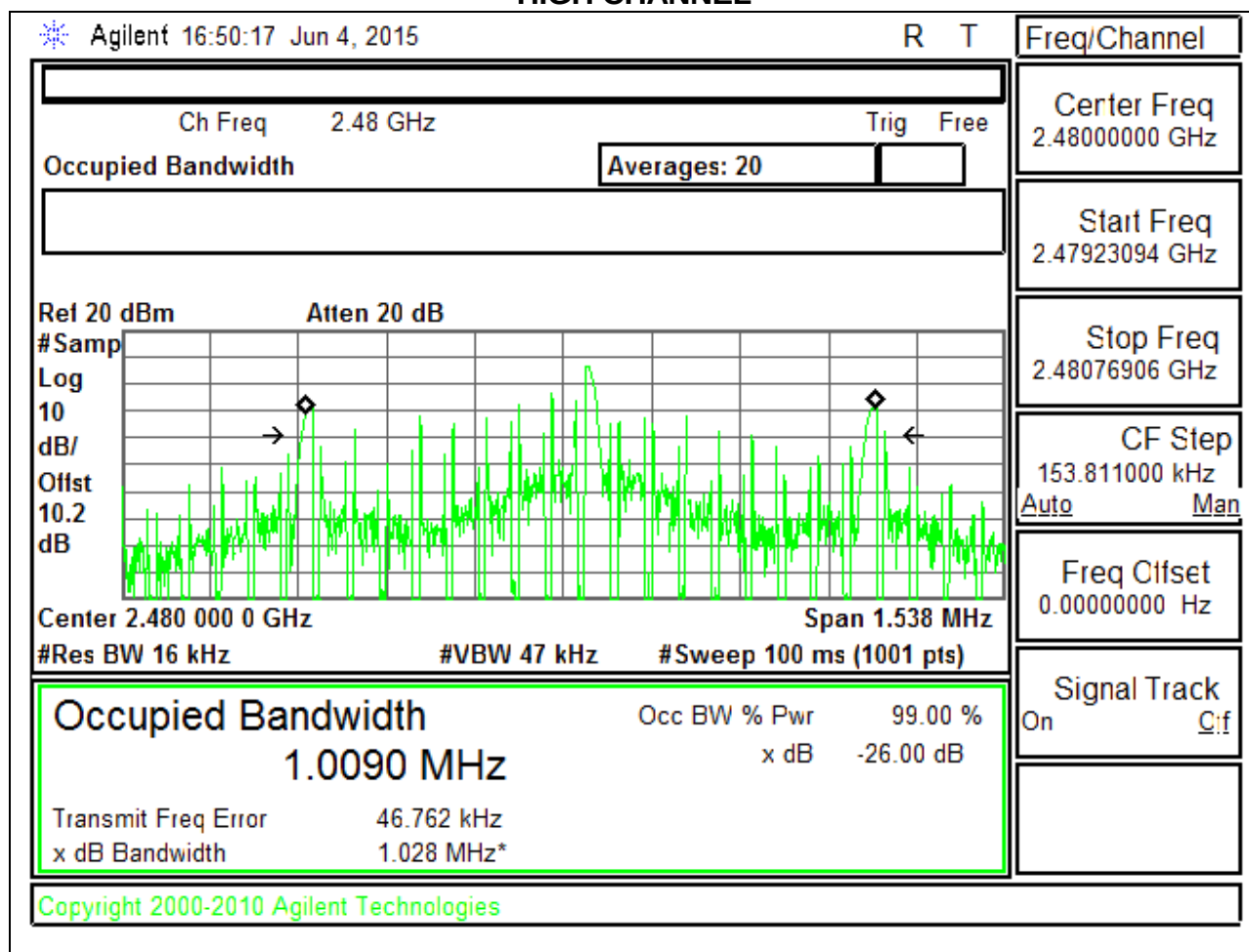
LOW CHANNEL



MID CHANNEL

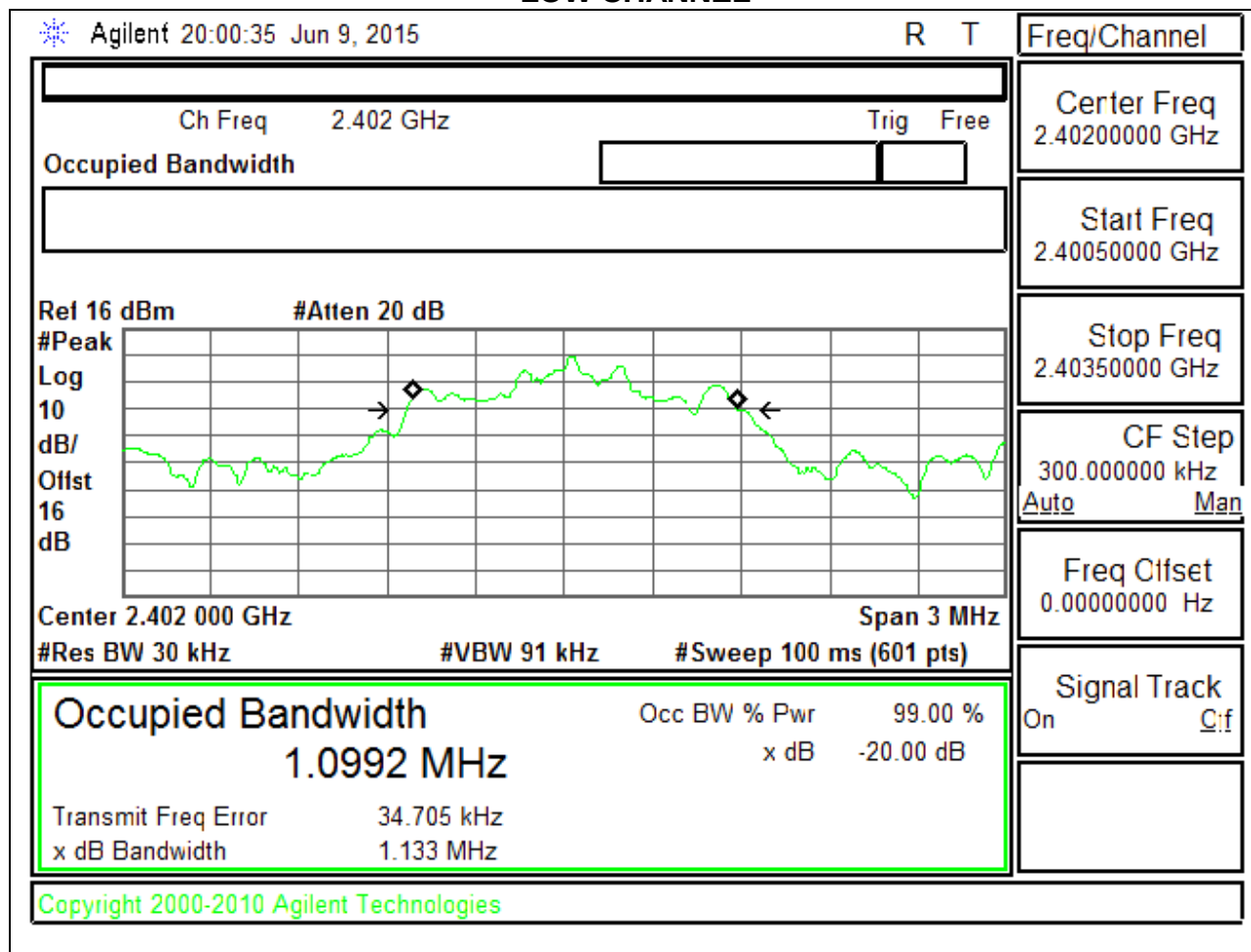


HIGH CHANNEL

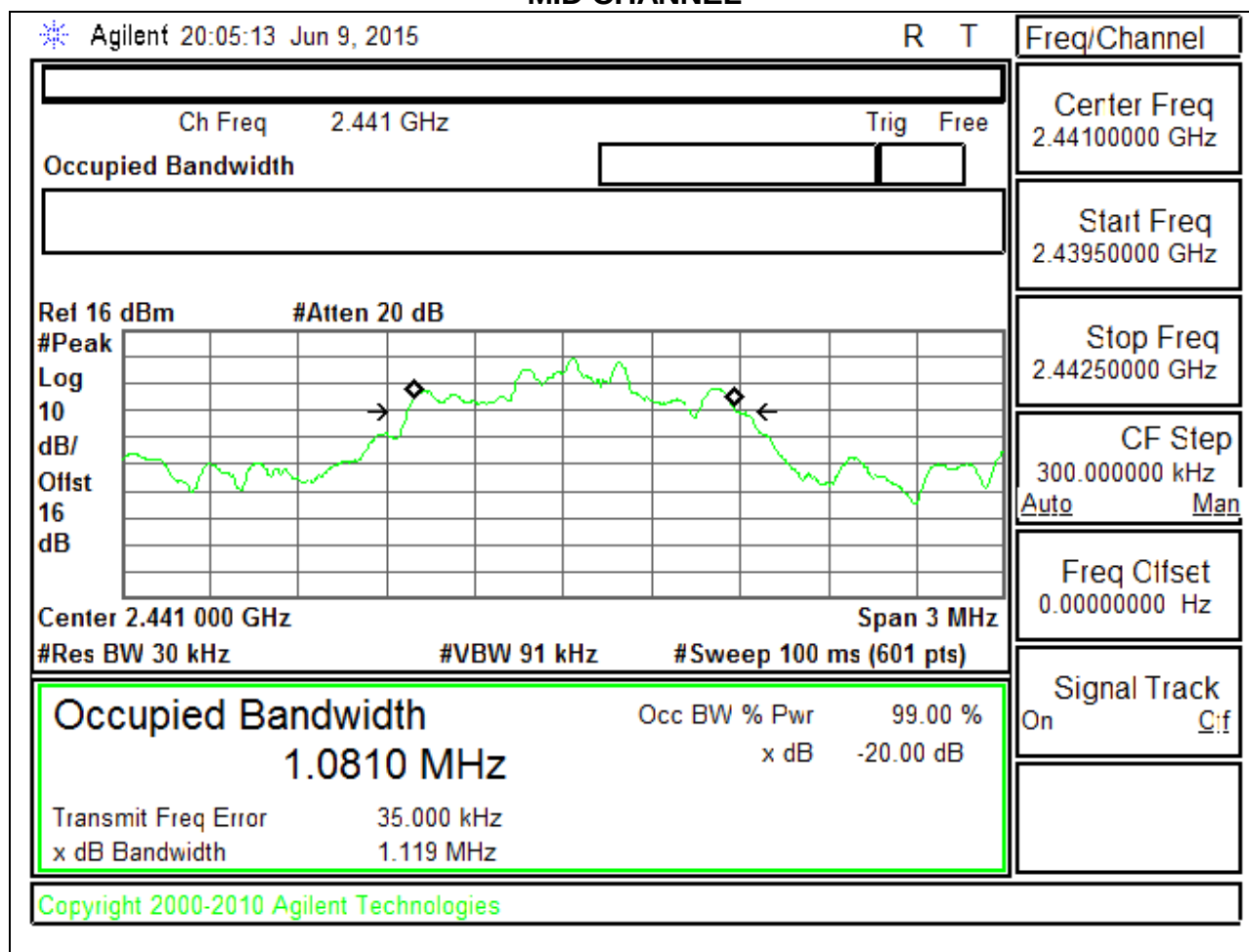


8PSK 20 dB BANDWIDTH

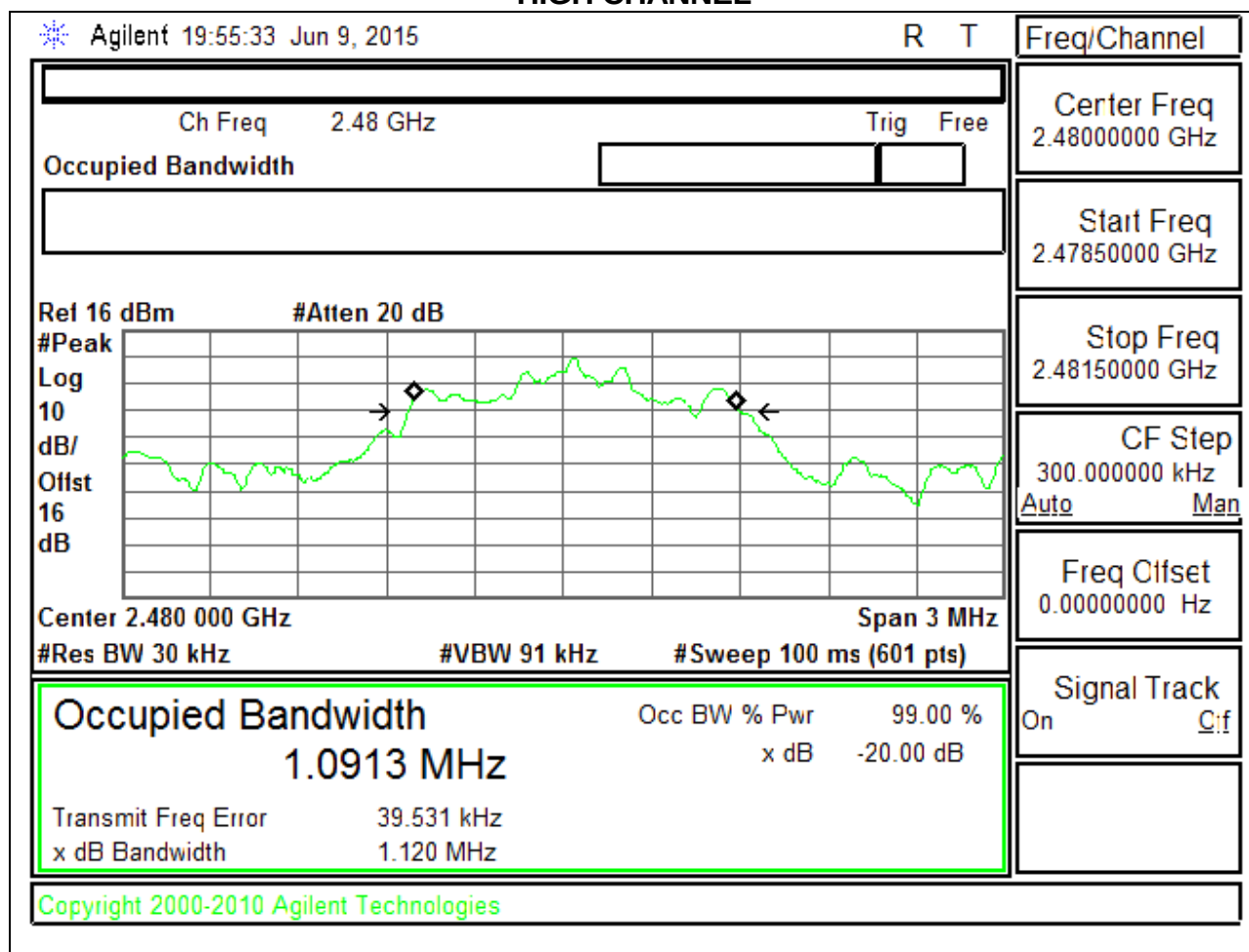
LOW CHANNEL



MID CHANNEL

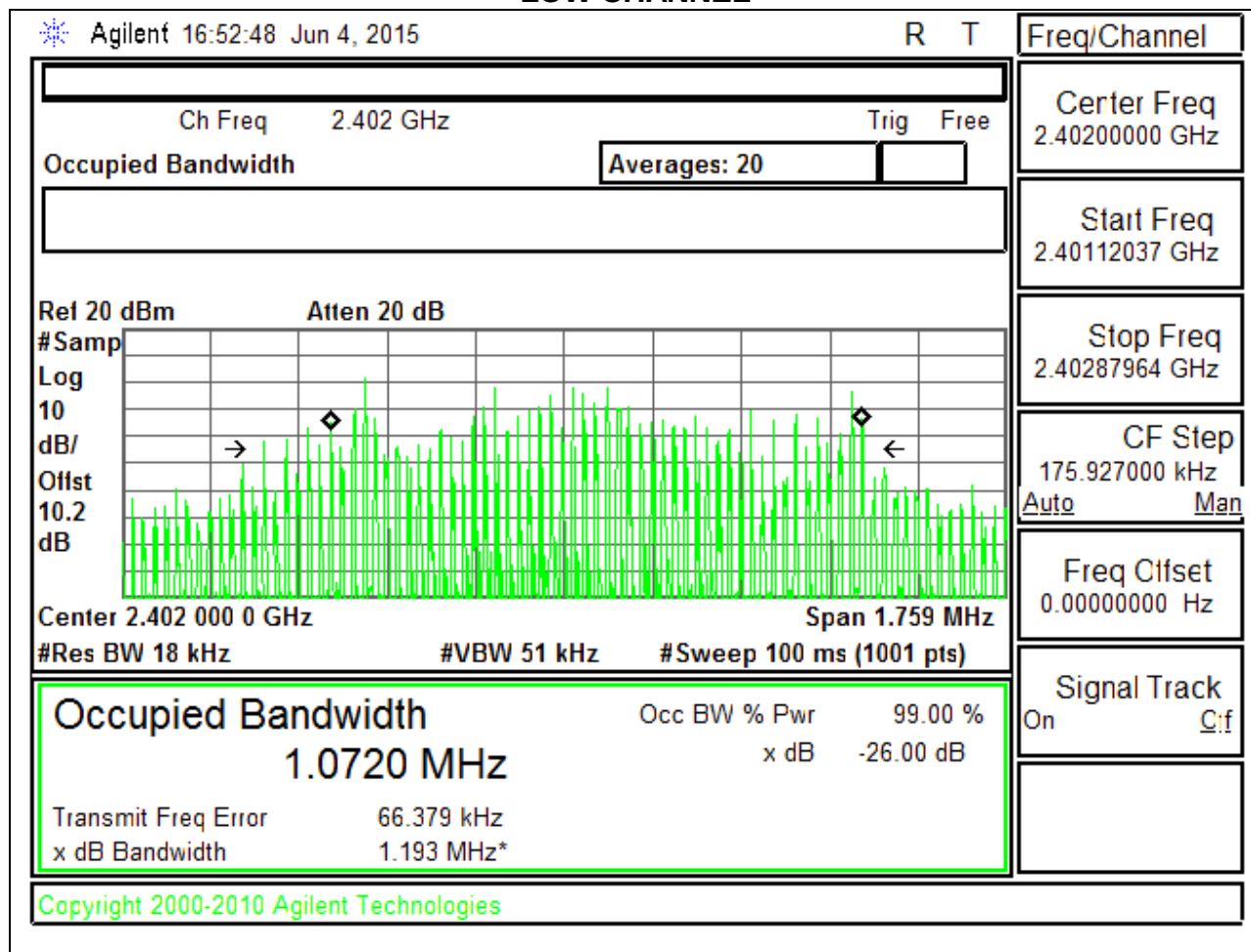


HIGH CHANNEL

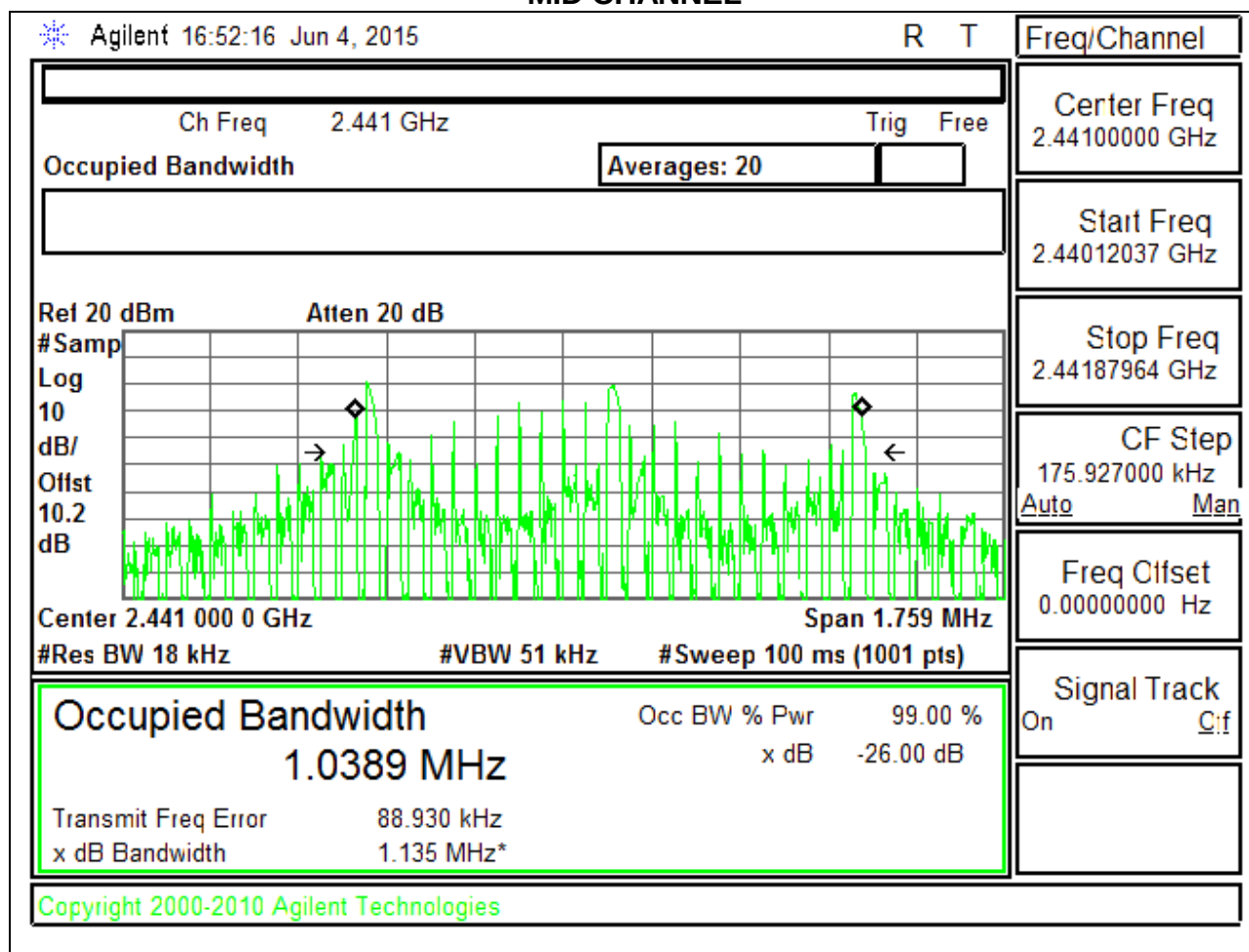


8PSK 99% BANDWIDTH

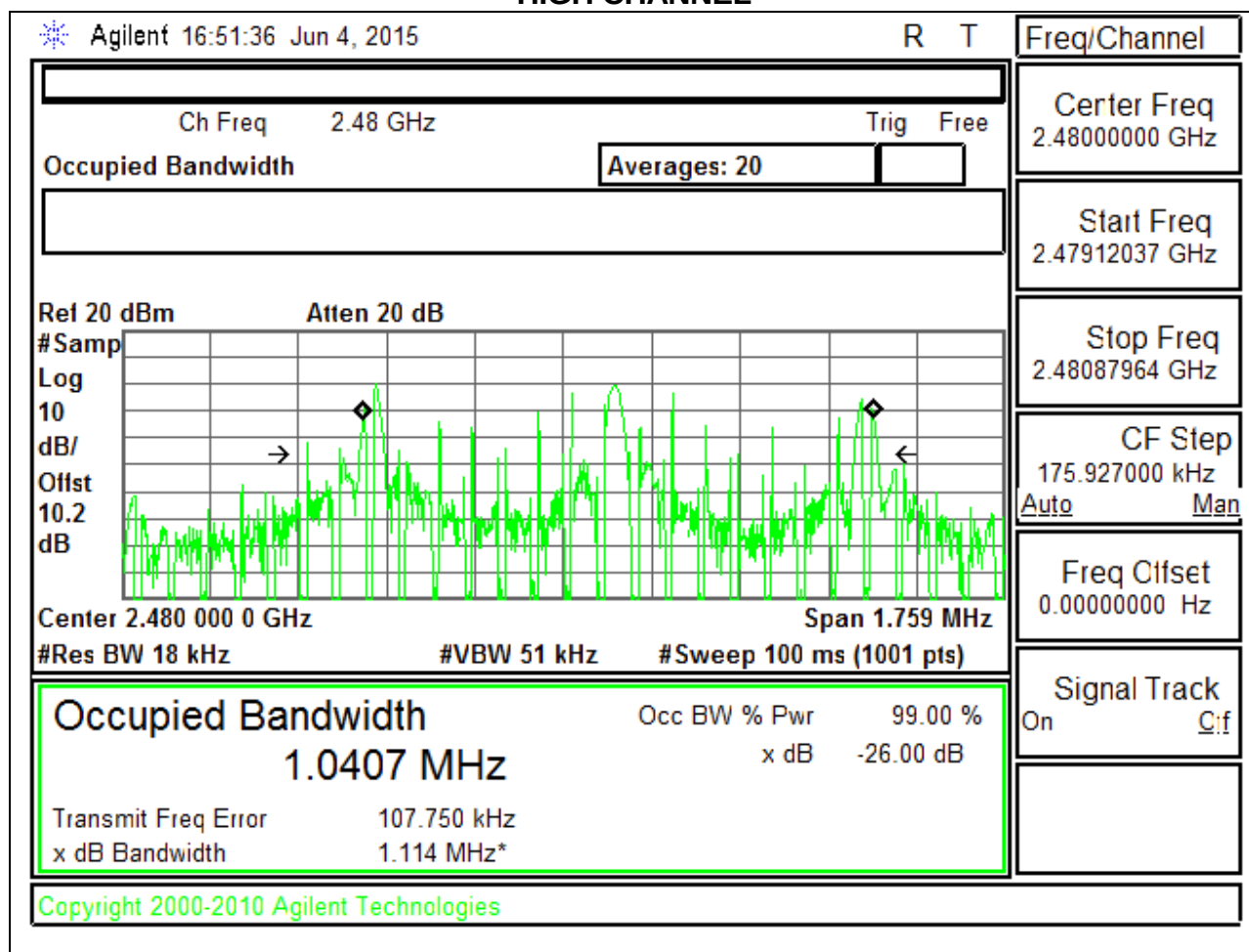
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.2. HOPPING FREQUENCY SEPARATION

LIMIT

FCC §15.247 (a) (1)

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

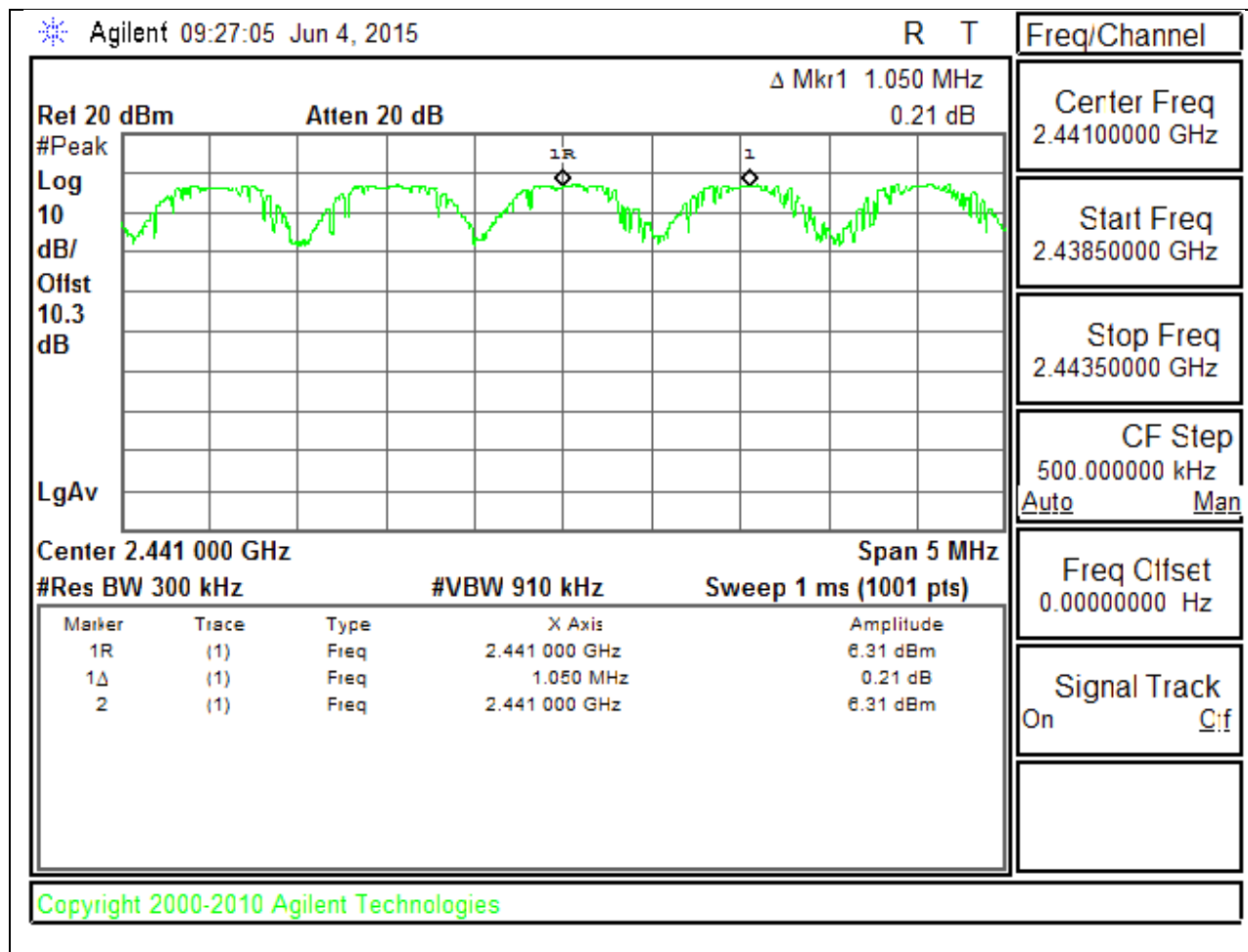
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than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

TEST PROCEDURE

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

RESULTS

HOPPING FREQUENCY SEPARATION PLOT



8.3. NUMBER OF HOPPING CHANNELS

LIMIT

FCC §15.247 (a) (1) (iii)

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

TEST PROCEDURE

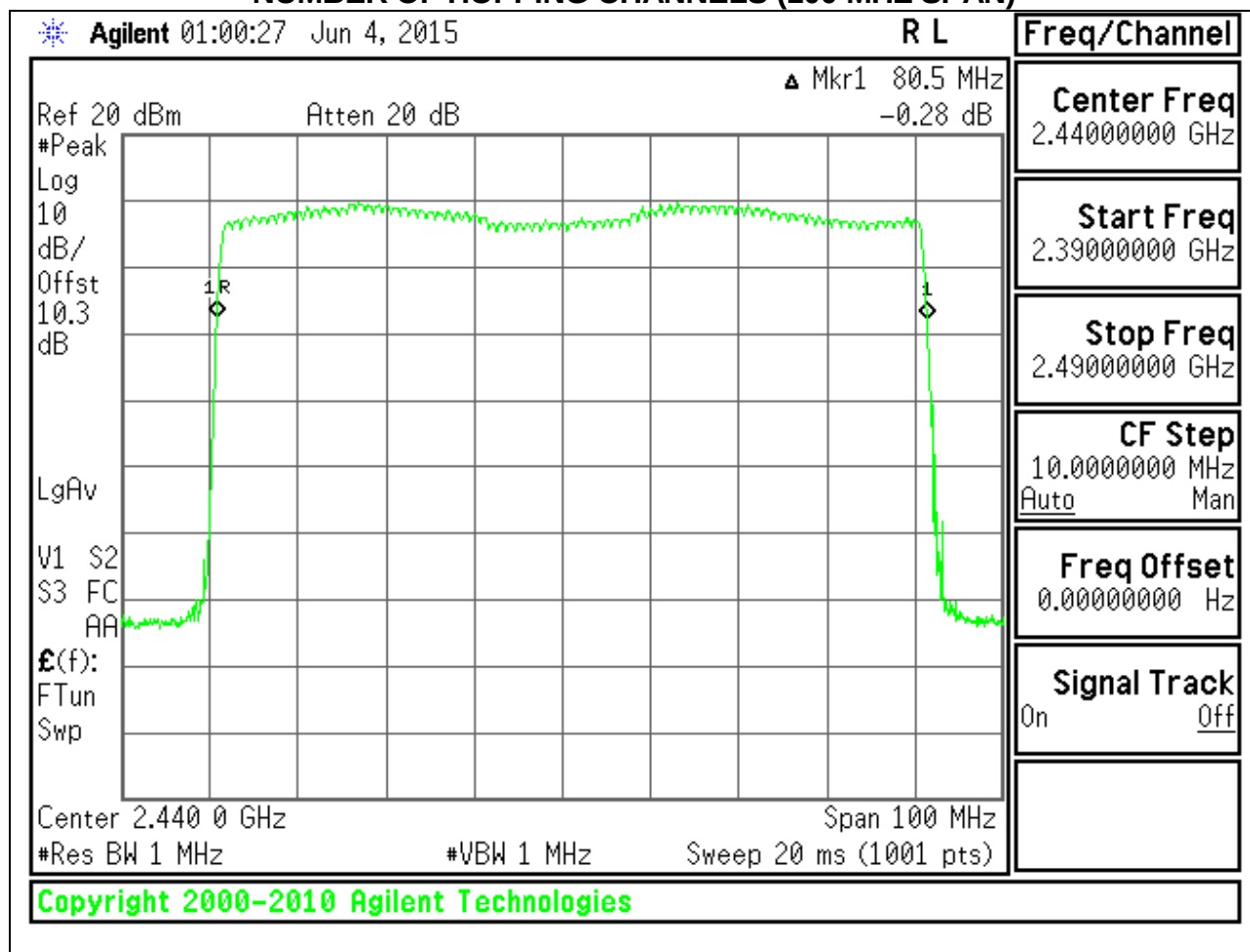
DA 00-705: The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

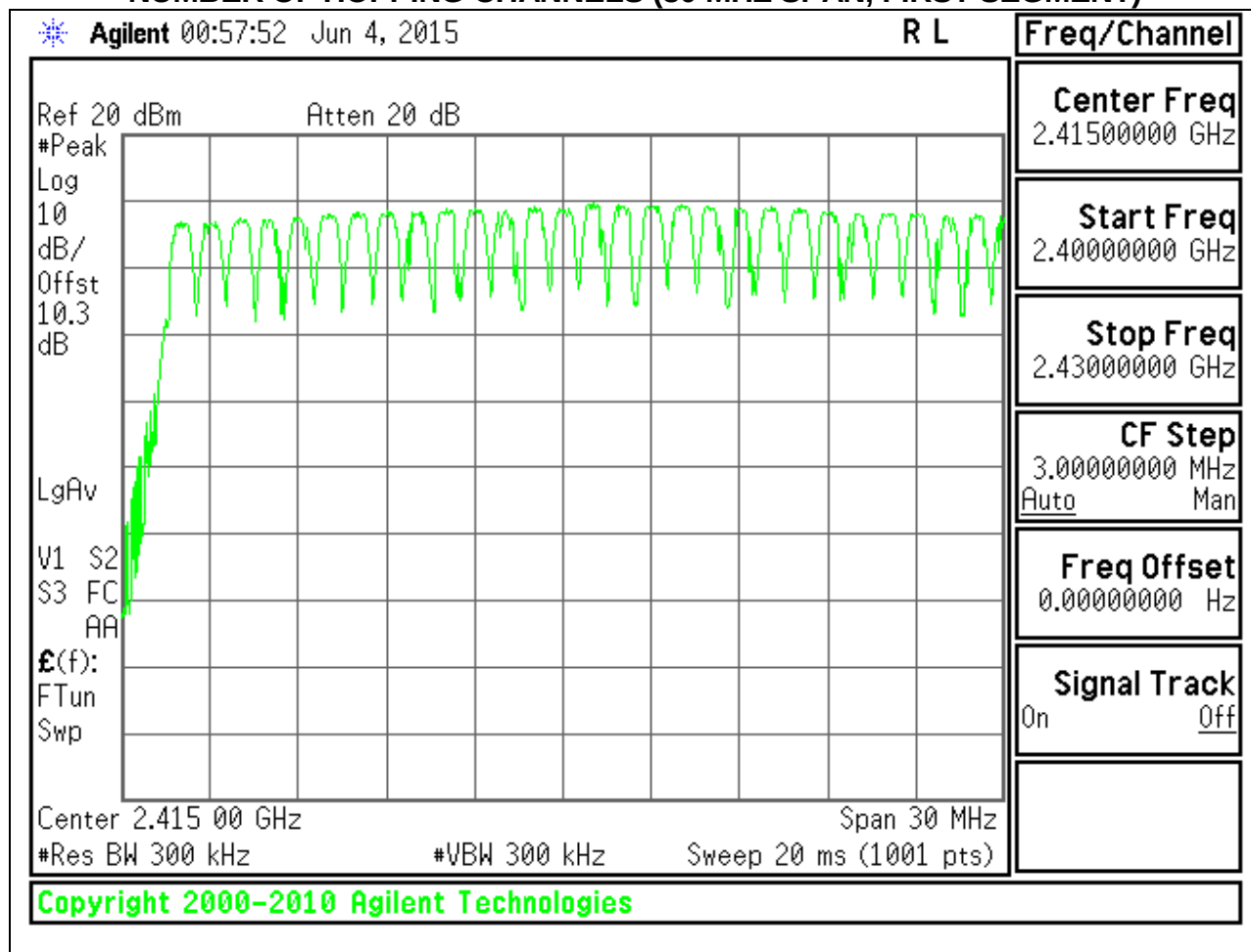
Normal Mode: 79 Channels observed.

NUMBER OF HOPPING CHANNELS PLOTS

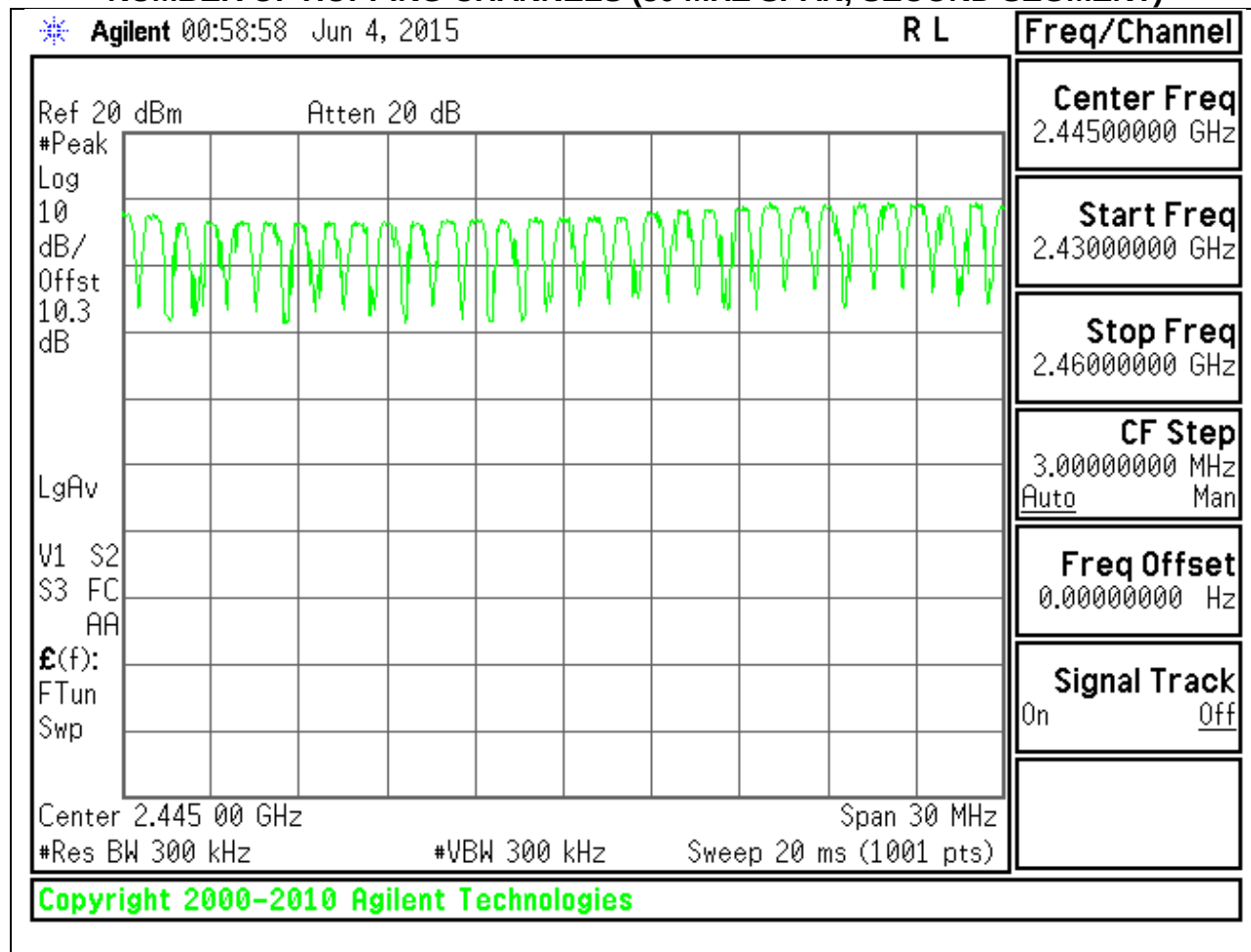
NUMBER OF HOPPING CHANNELS (100 MHz SPAN)



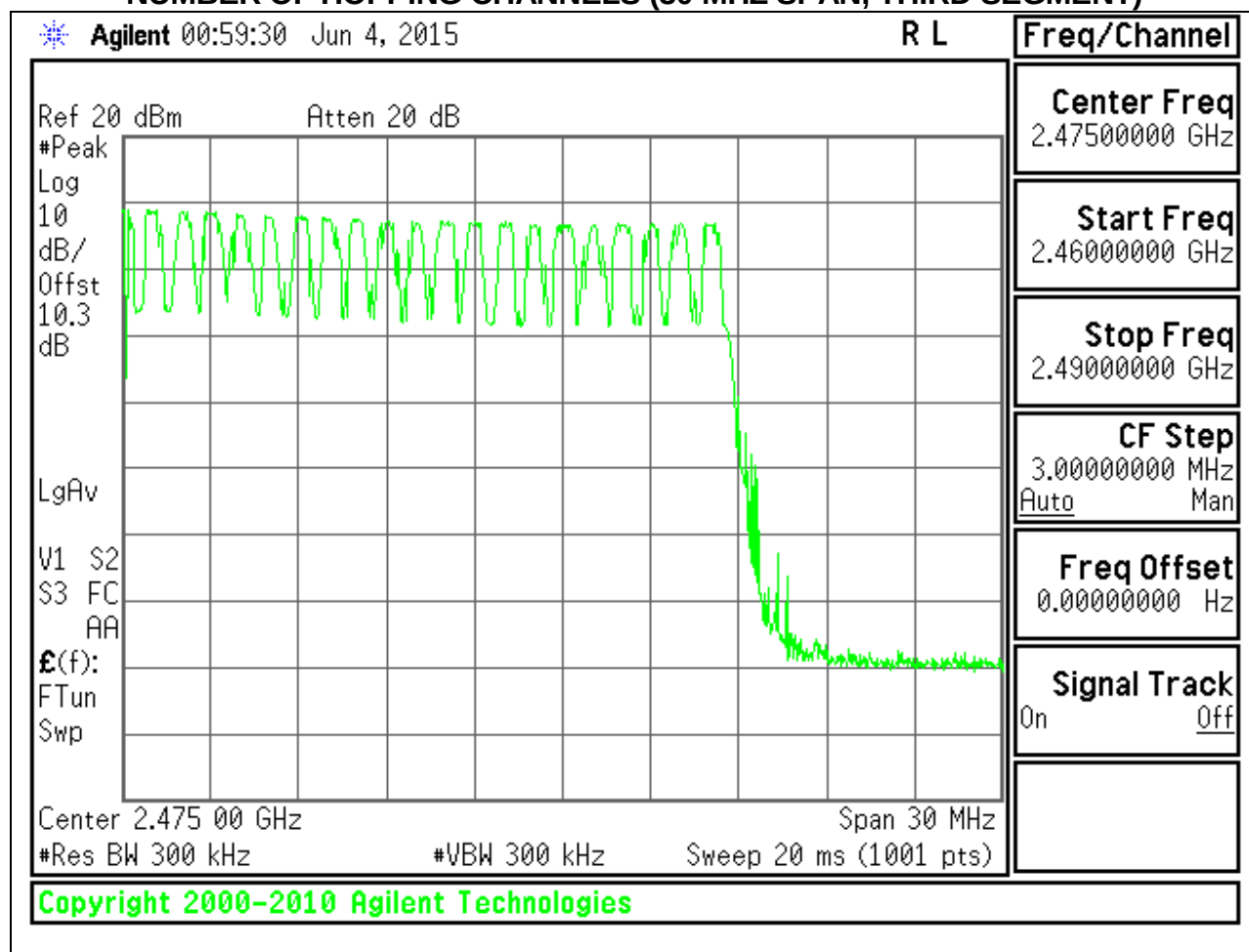
NUMBER OF HOPPING CHANNELS (30 MHZ SPAN, FIRST SEGMENT)



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



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



8.4. AVERAGE TIME OF OCCUPANCY

LIMIT

FCC §15.247 (a) (1) (iii)

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

TEST PROCEDURE

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

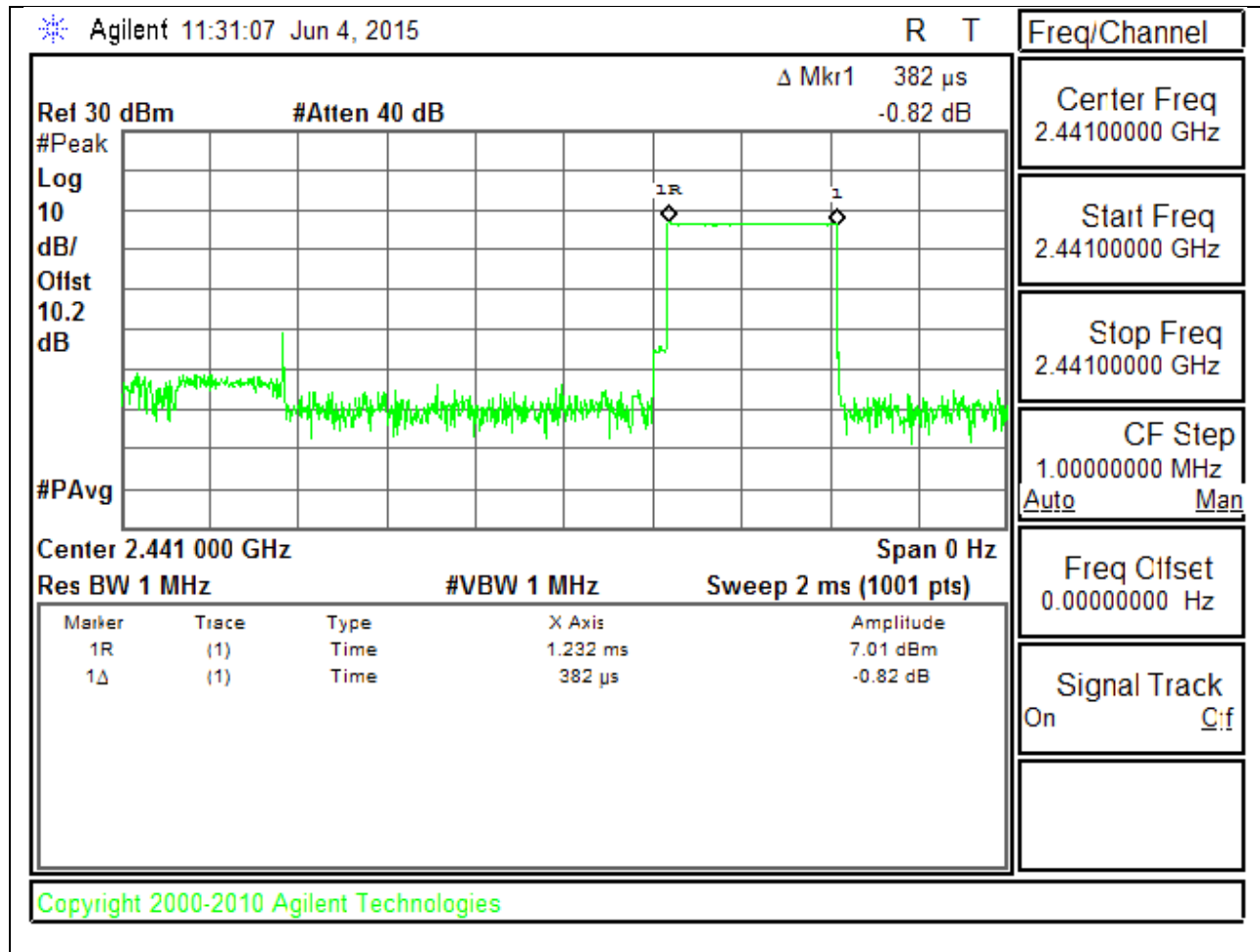
The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{ pulse width}$.

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

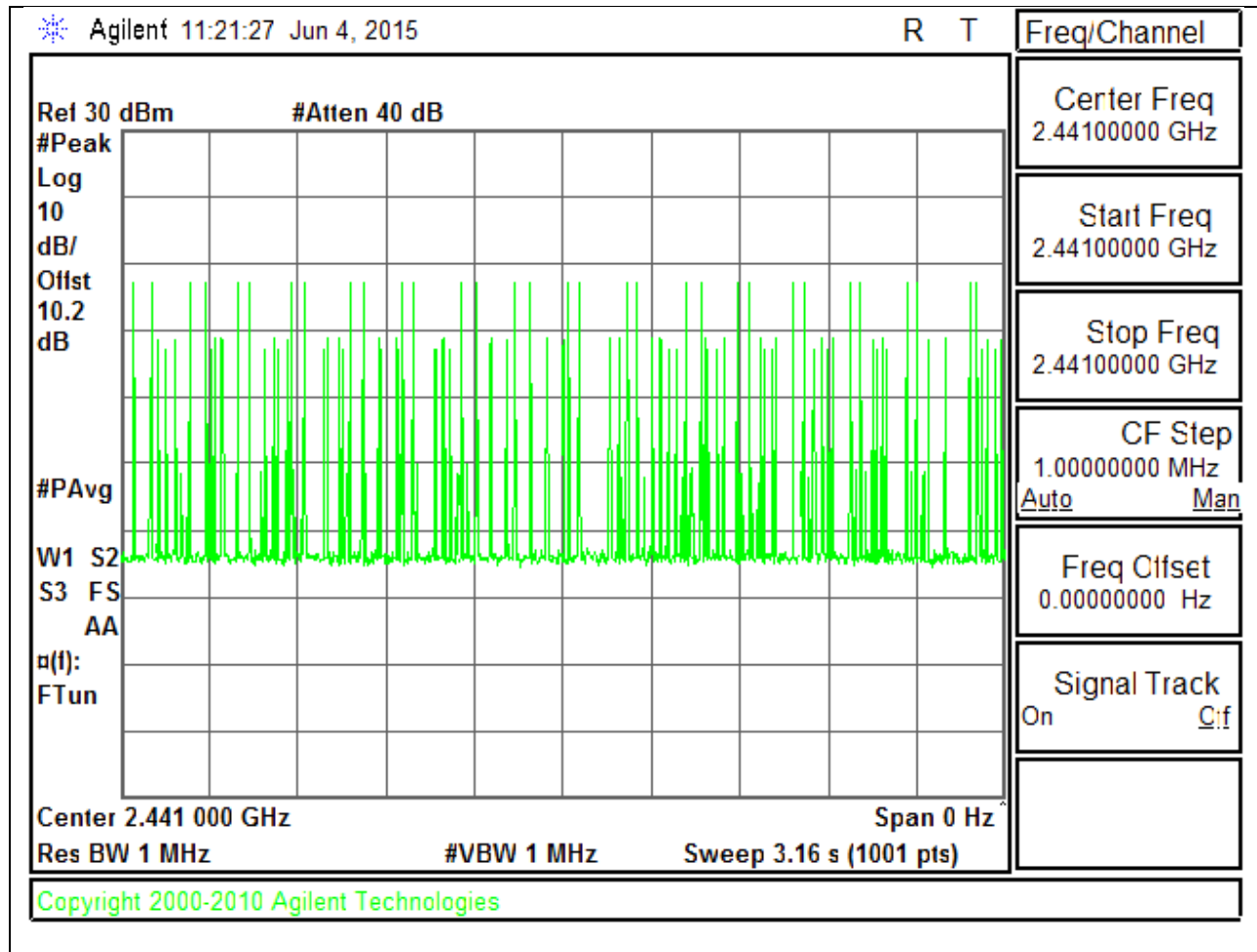
RESULTS

DH Packet	Pulse Width (msec)	Number of Pulses in 3.16 seconds	Average Time of Occupancy (sec)	Limit (sec)	Margin (sec)
GFSK Normal Mode					
DH1	0.382	32	0.1222	0.4	-0.27776
DH3	1.629	19	0.3095	0.4	-0.09049
DH5	2.885	12	0.3462	0.4	-0.0538
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	0.382	8	0.0306	0.4	-0.36944
DH3	1.629	4.75	0.0774	0.4	-0.32262
DH5	2.885	3	0.0866	0.4	-0.31345

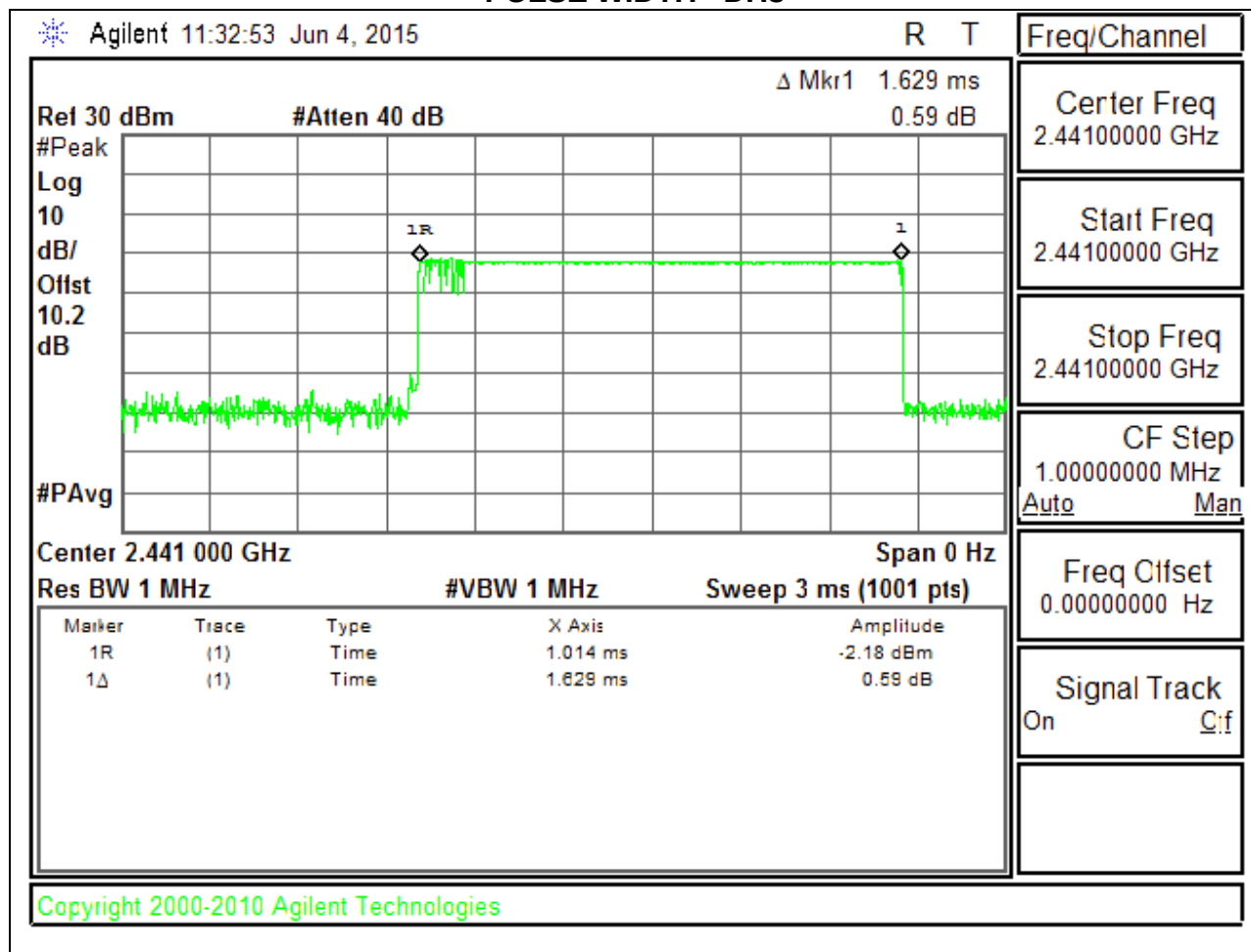
PULSE WIDTH - DH1



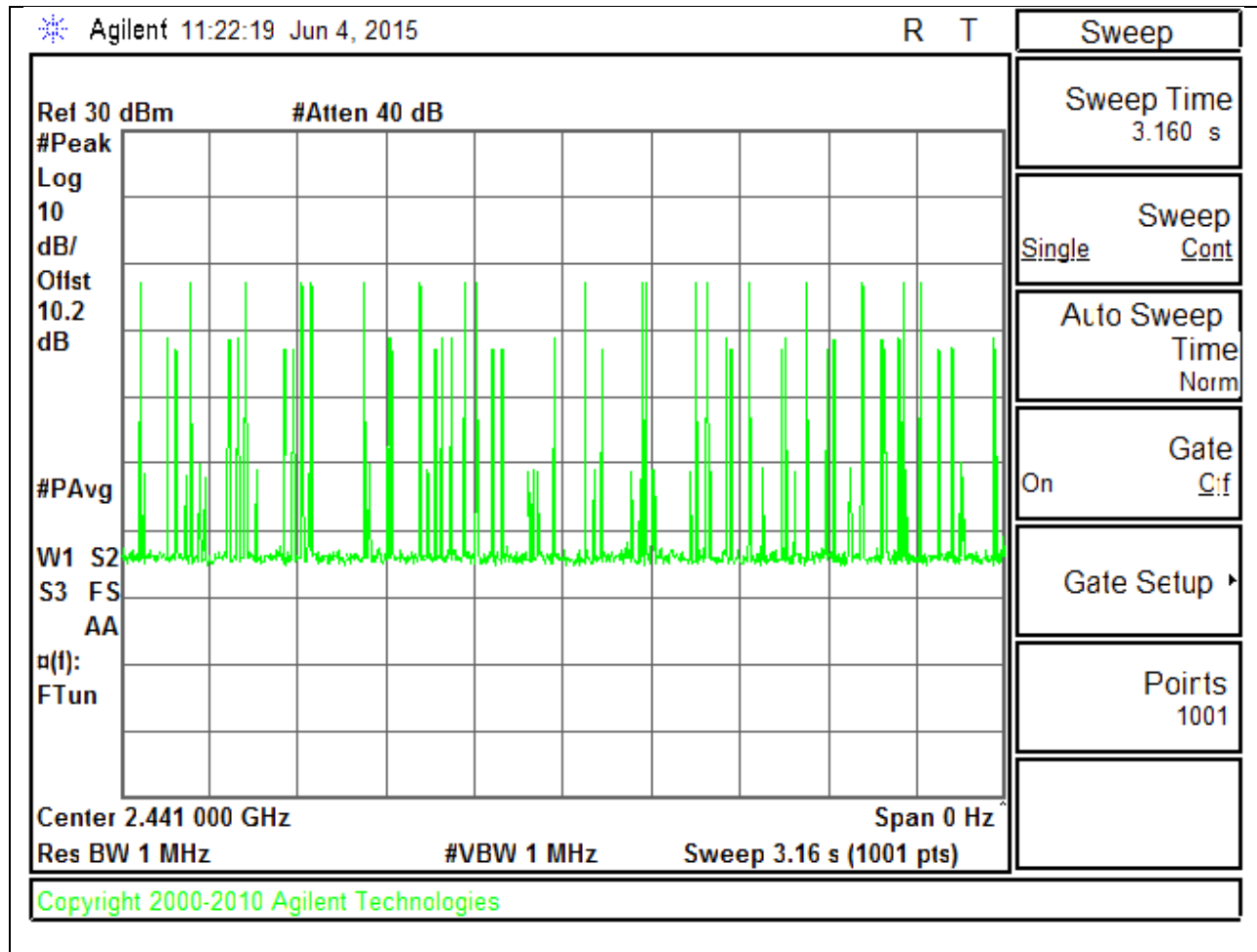
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH1



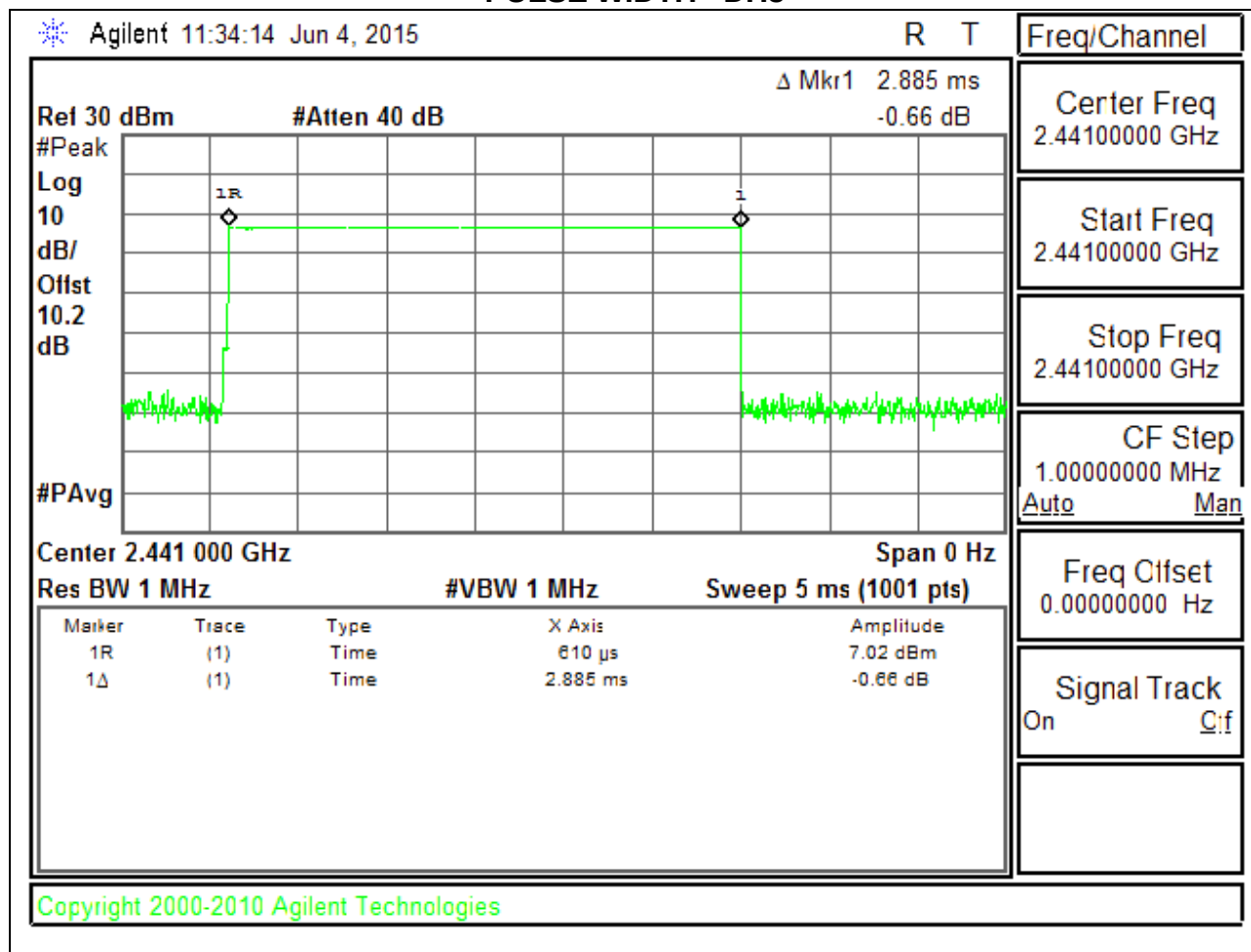
PULSE WIDTH - DH3



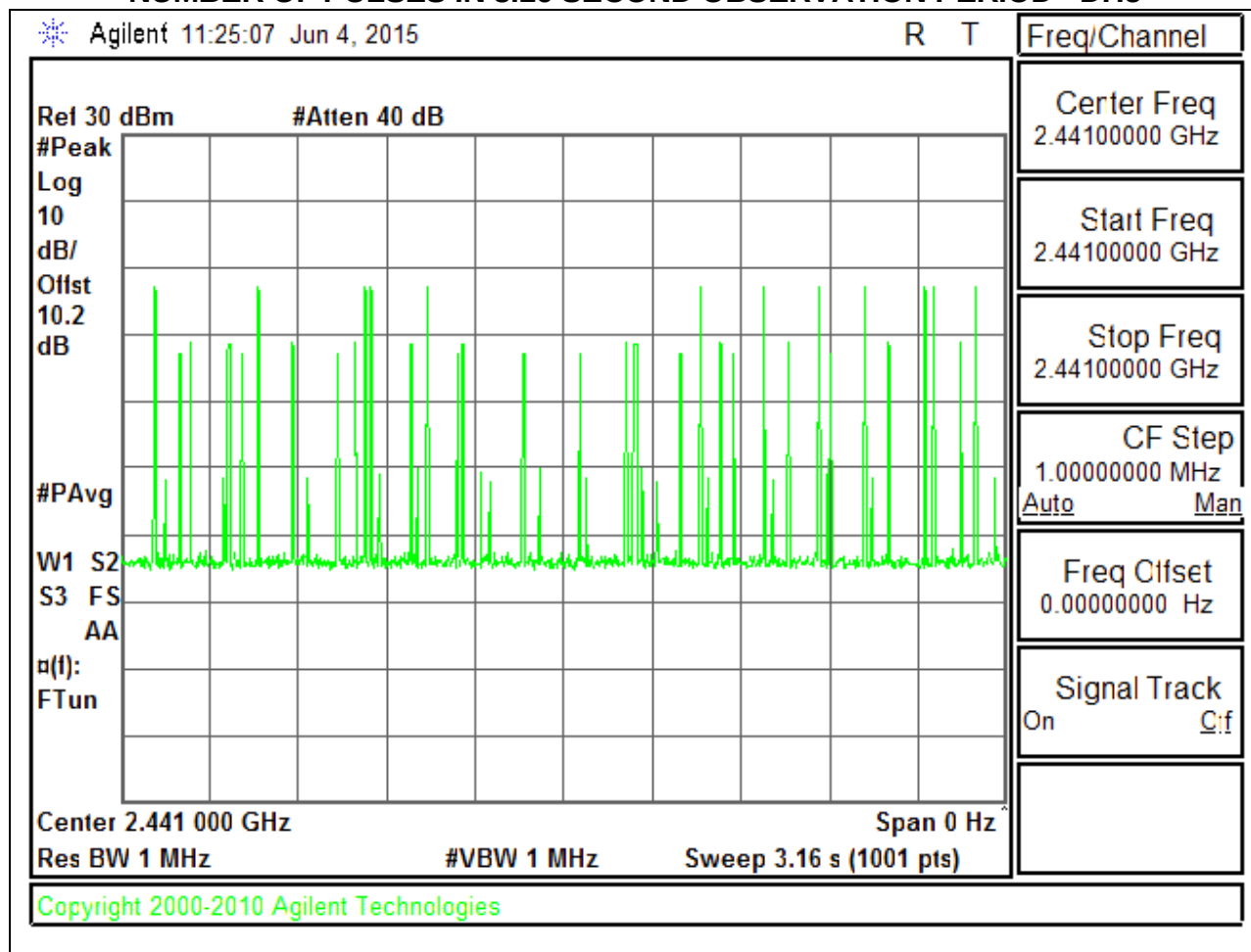
NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH3



PULSE WIDTH - DH5



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH5



8.5. OUTPUT POWER

LIMIT

§15.247 (b) (1)

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

TEST PROCEDURE

DA 00-705: The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

RESULTS

8.5.1. BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	8.93	21	-12.07
Middle	2441	8.06	21	-12.94
High	2480	8.72	21	-12.28
Worst		8.93		-12.07

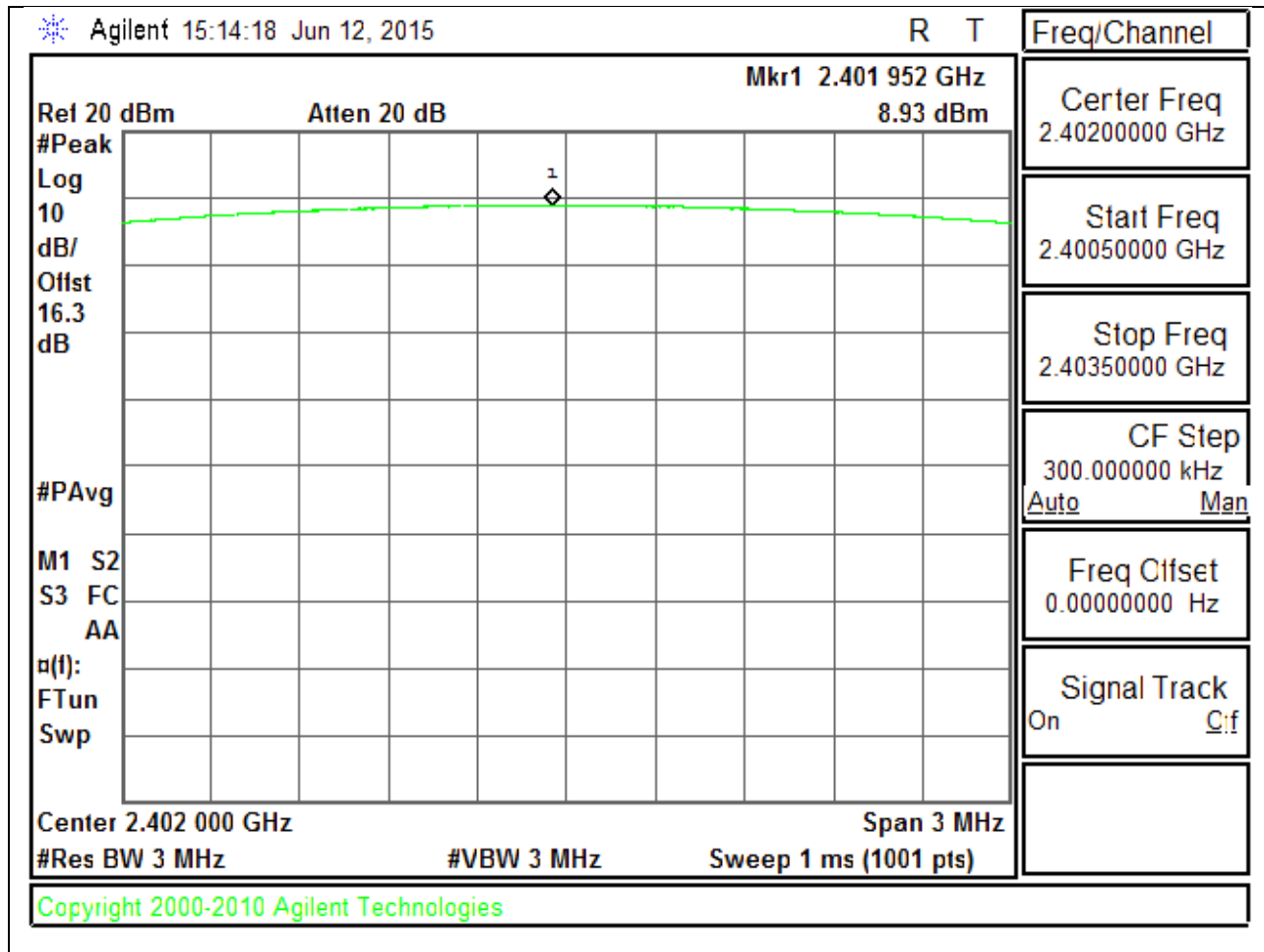
8.5.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	7.83	21	-13.17
Middle	2441	6.59	21	-14.41
High	2480	7.46	21	-13.54
Worst		7.83		-13.17

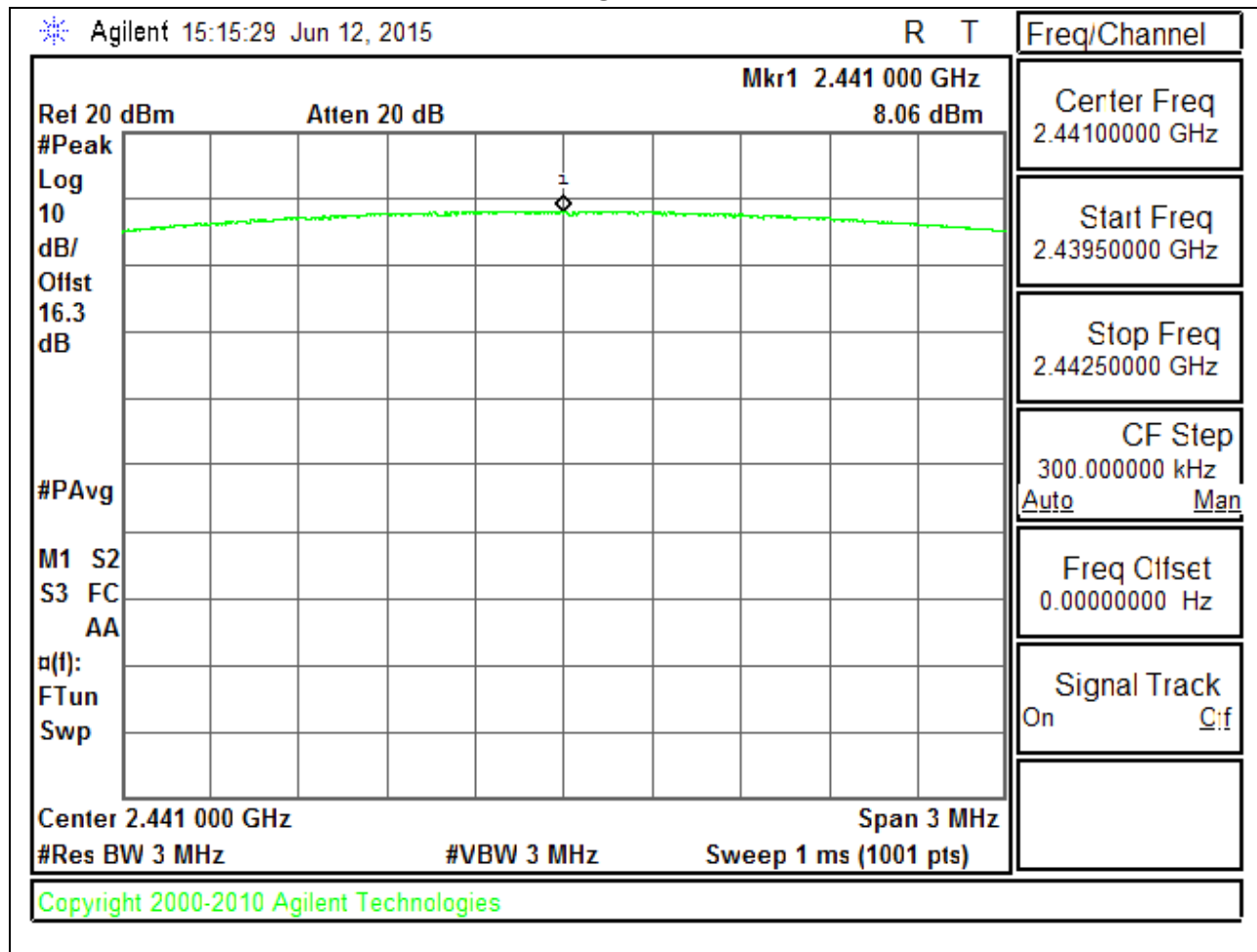
8.5.3. OUTPUT POWER PLOTS

GFSK OUTPUT POWER

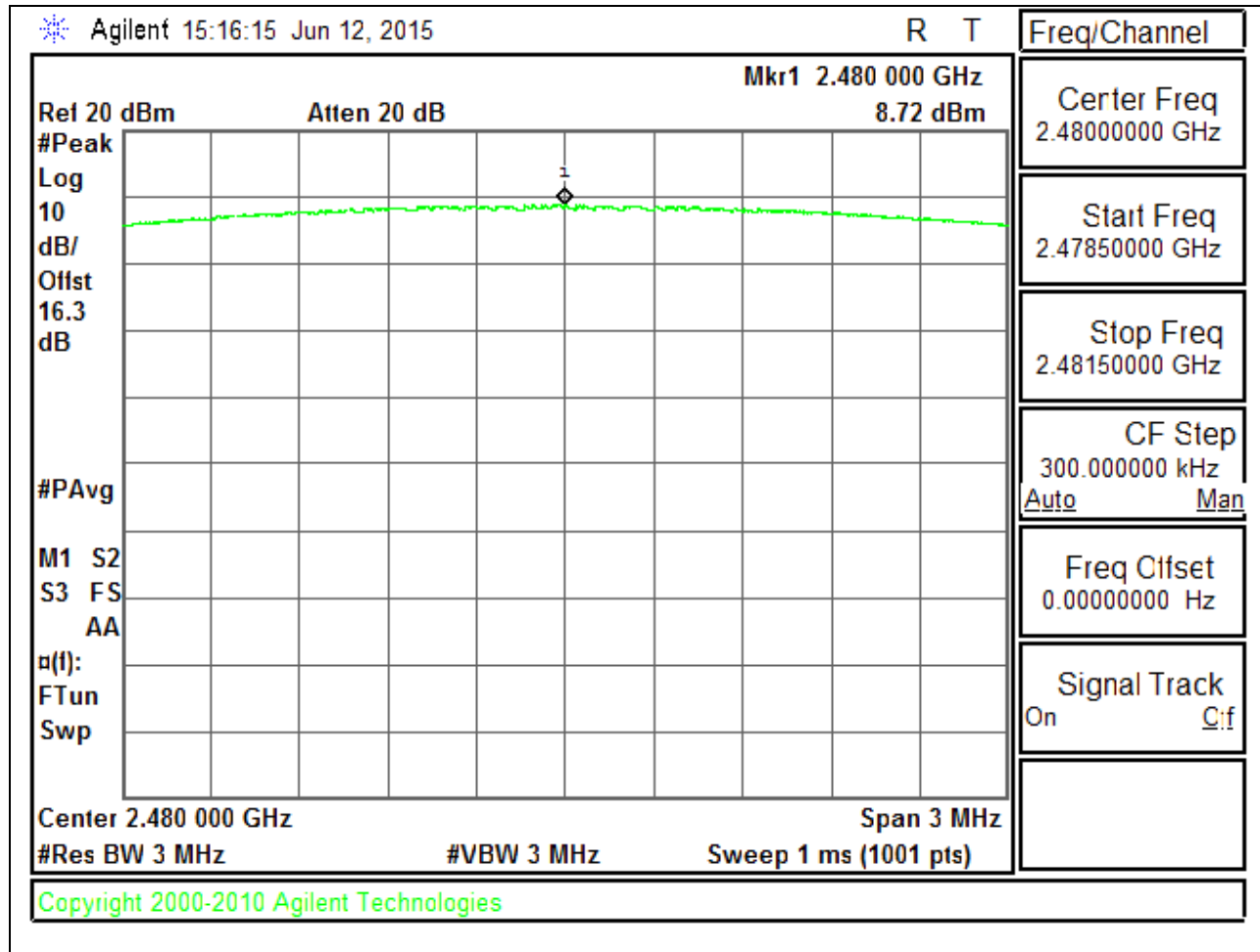
LOW CHANNEL



MID CHANNEL

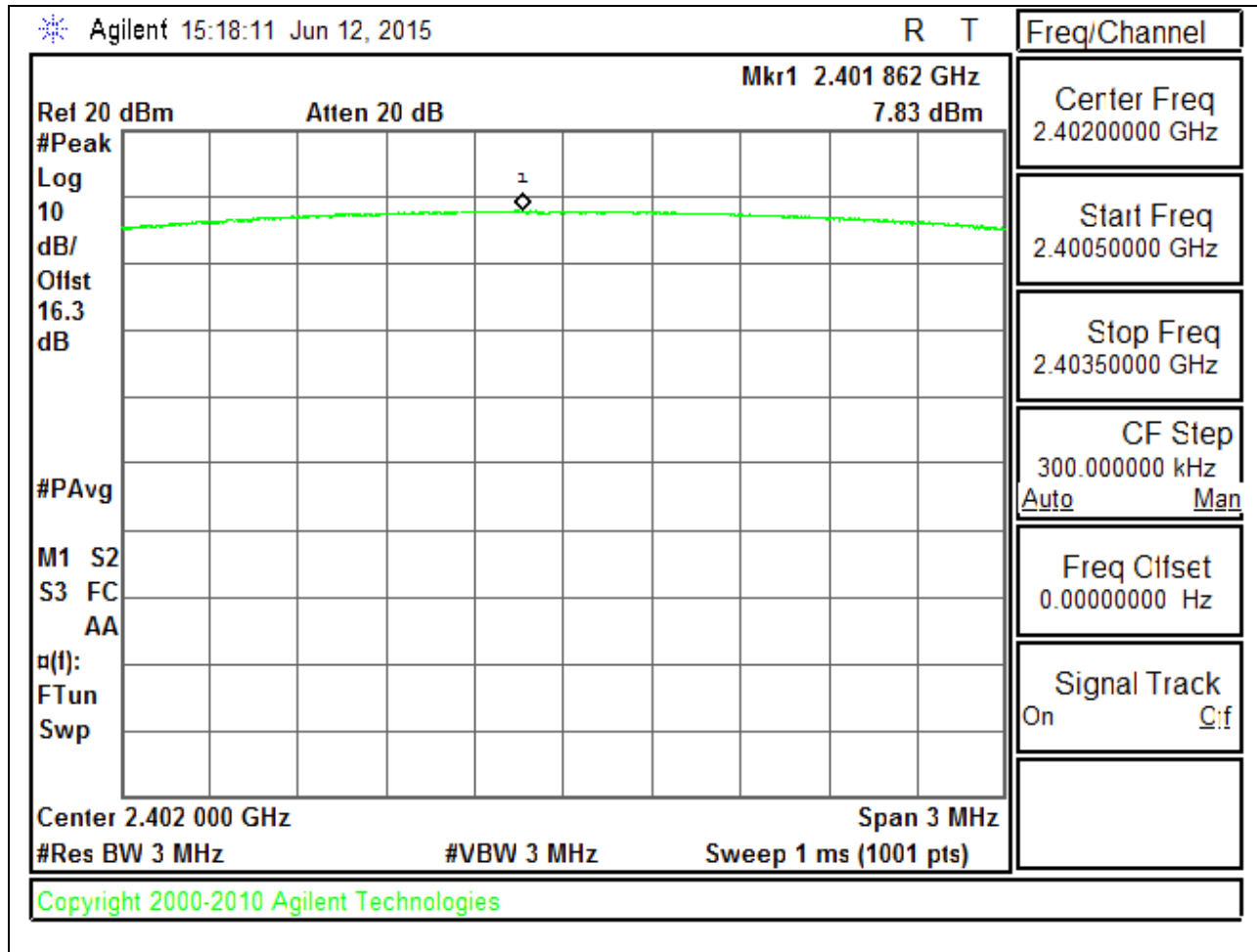


HIGH CHANNEL

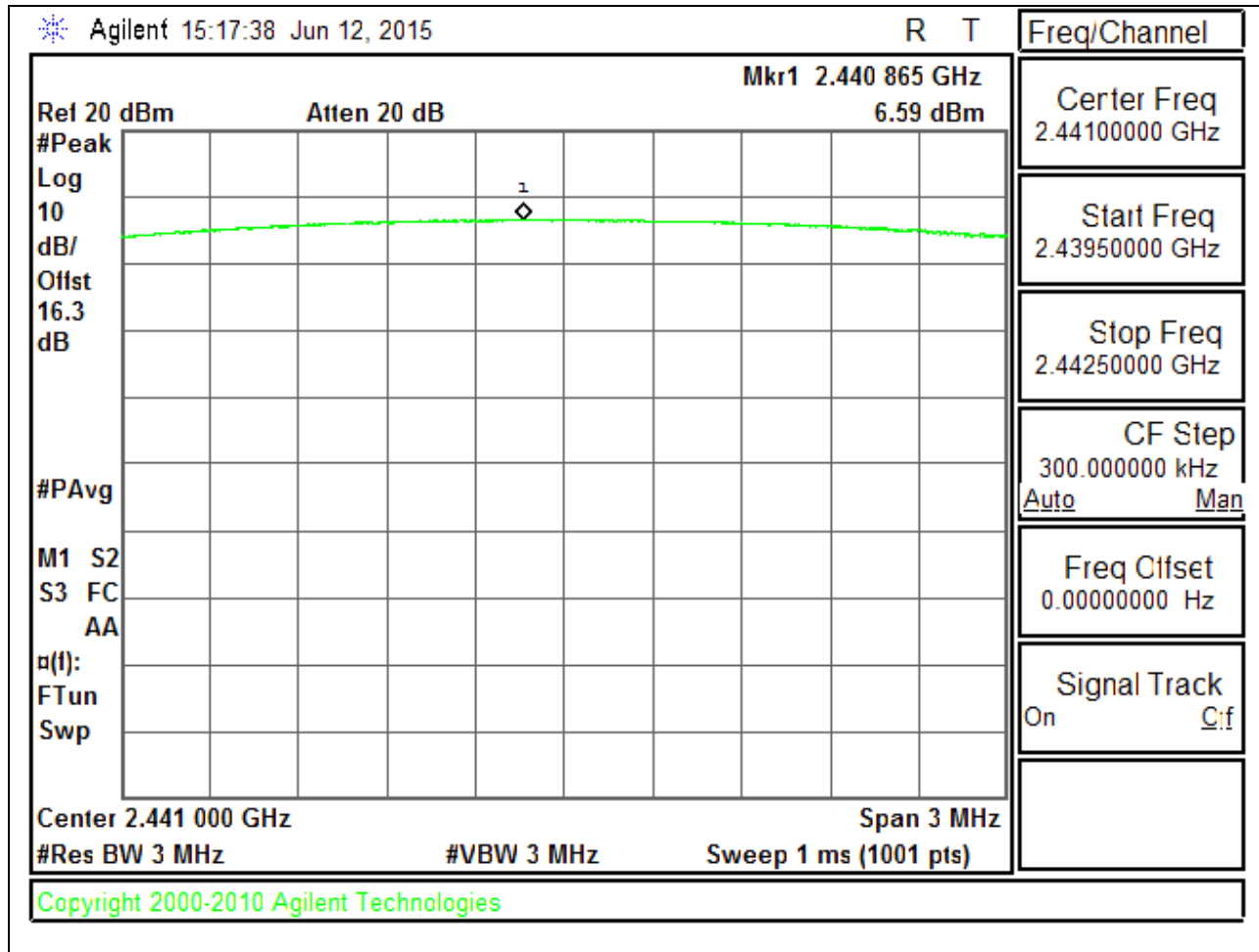


8PSK OUTPUT POWER

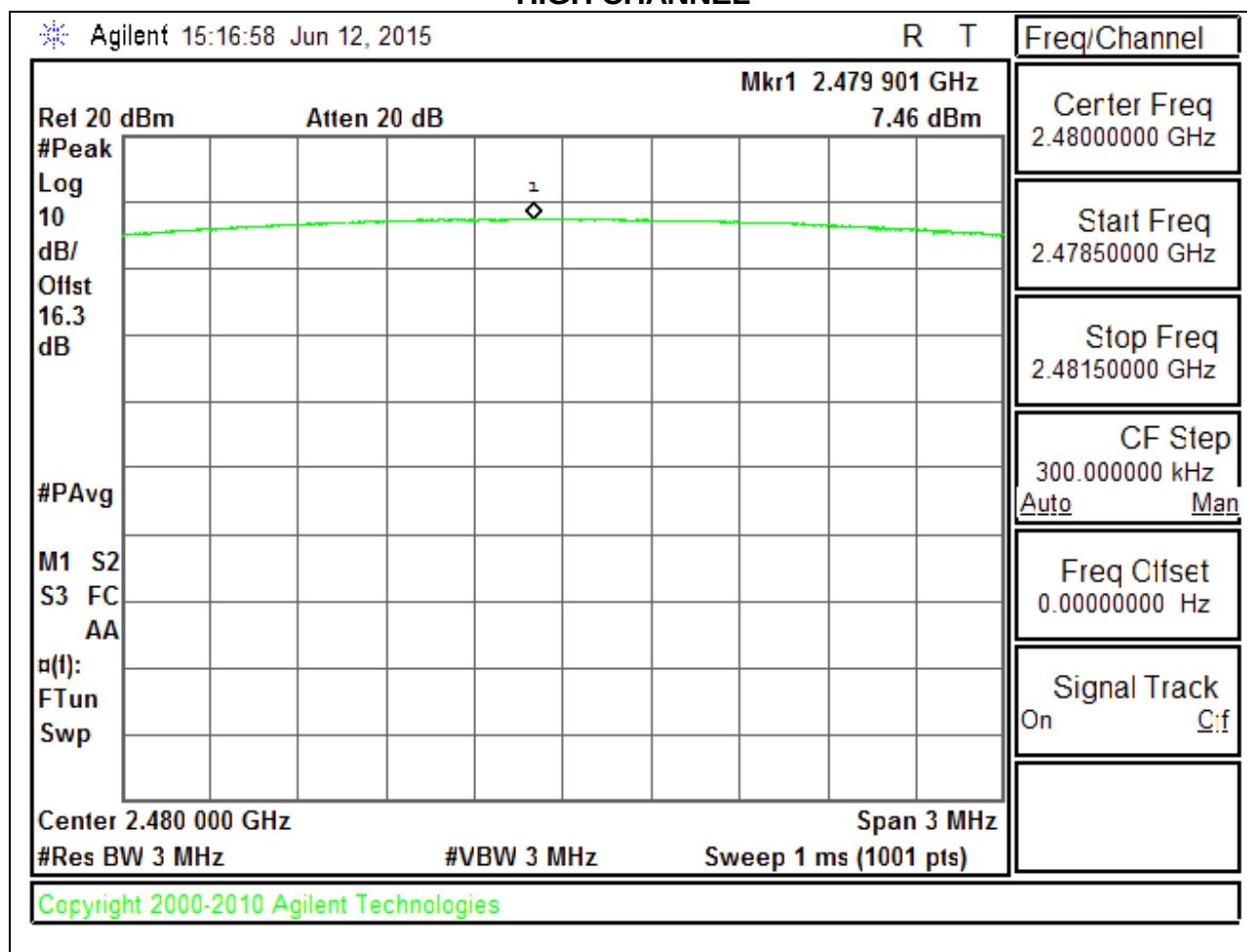
LOW CHANNEL



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

8.6.1. BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	8
Middle	2441	7.5
High	2480	8.2
Worst		8.2

8.6.2. DATA RATE PI/4-DQPSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	5.5
Middle	2441	5.1
High	2480	5.7
Worst		5.7

8.6.3. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	5.4
Middle	2441	5
High	2480	5.8
Worst		5.8

8.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

Limit = -20 dBc

TEST PROCEDURE

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

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

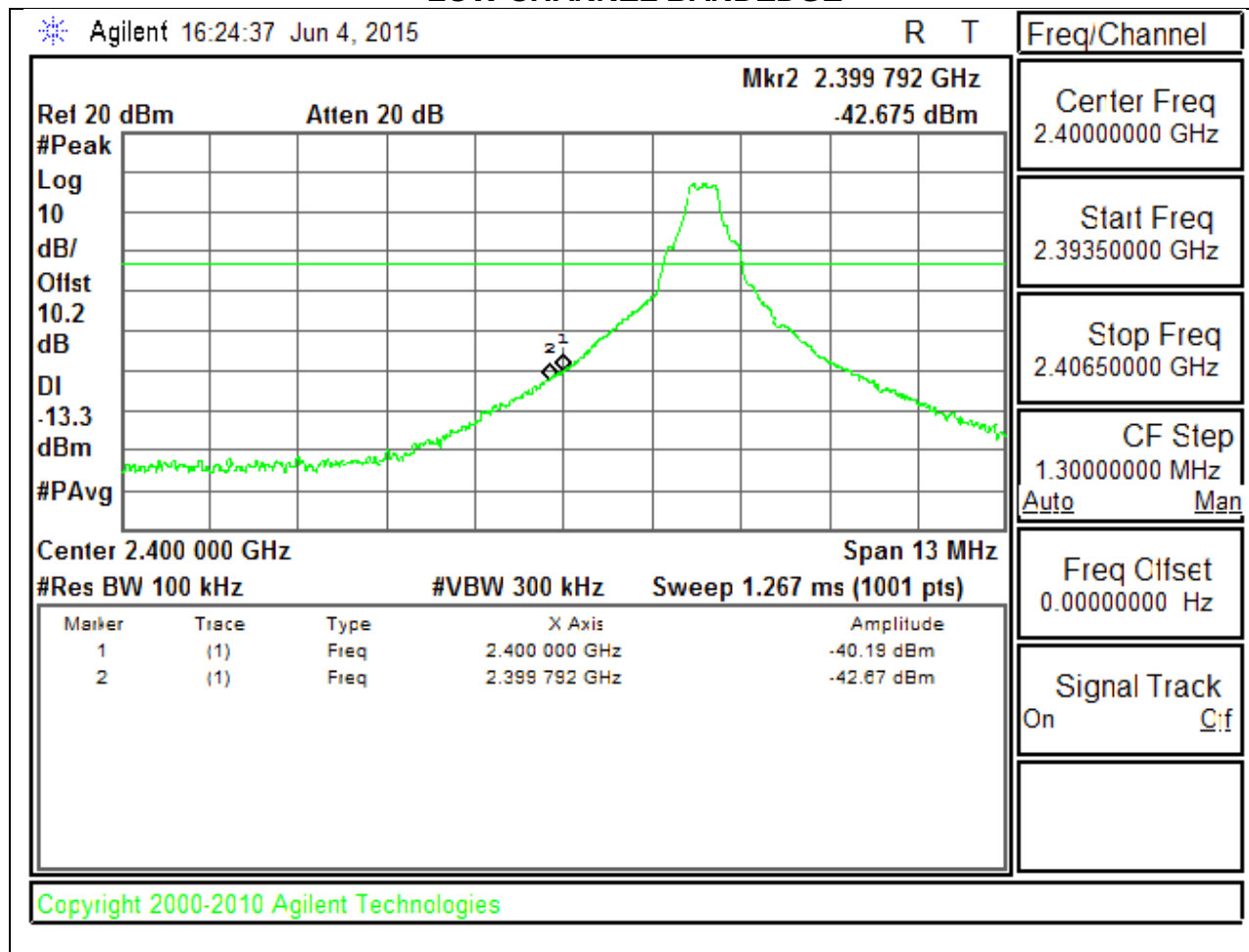
The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

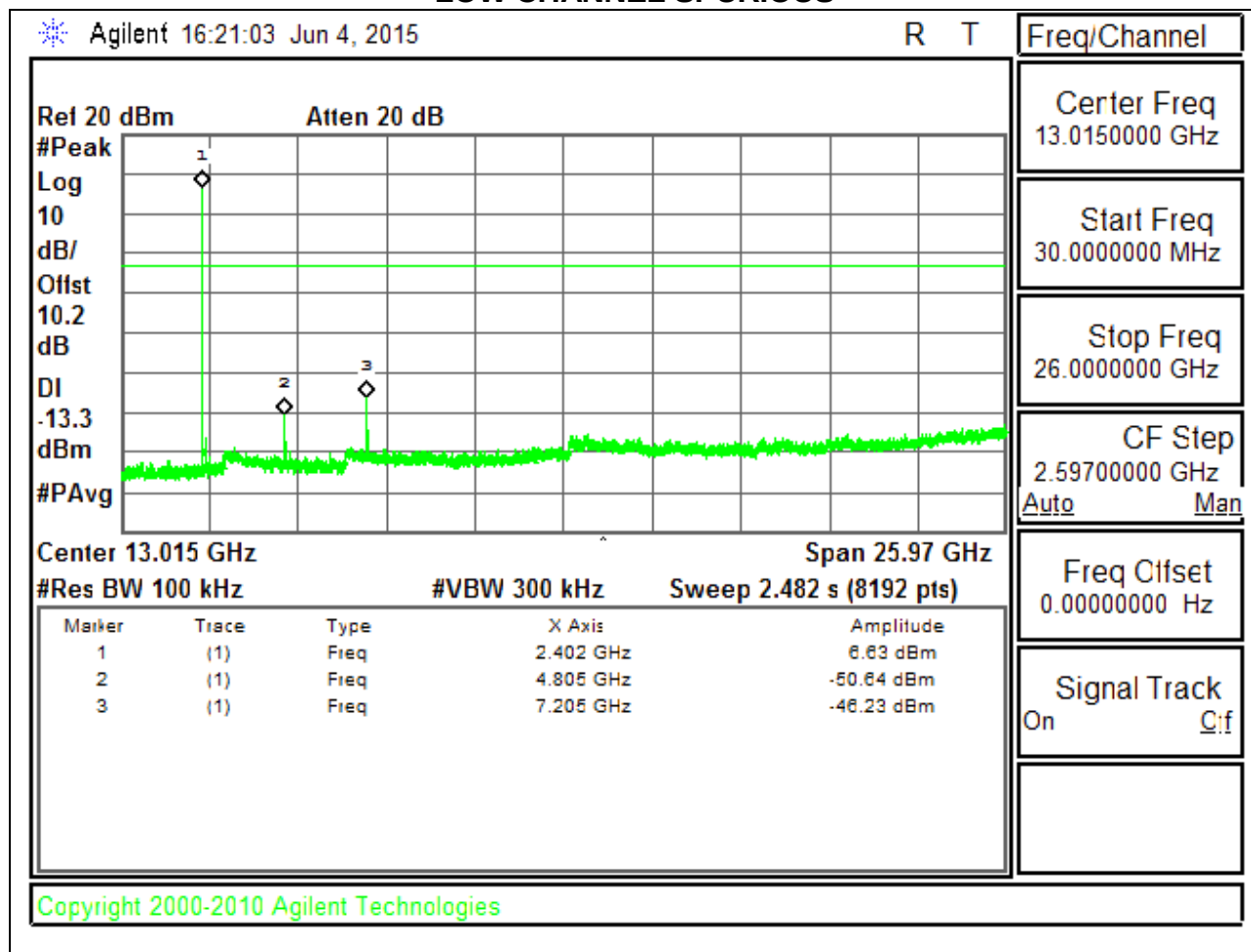
8.7.1. BASIC DATA RATE GFSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

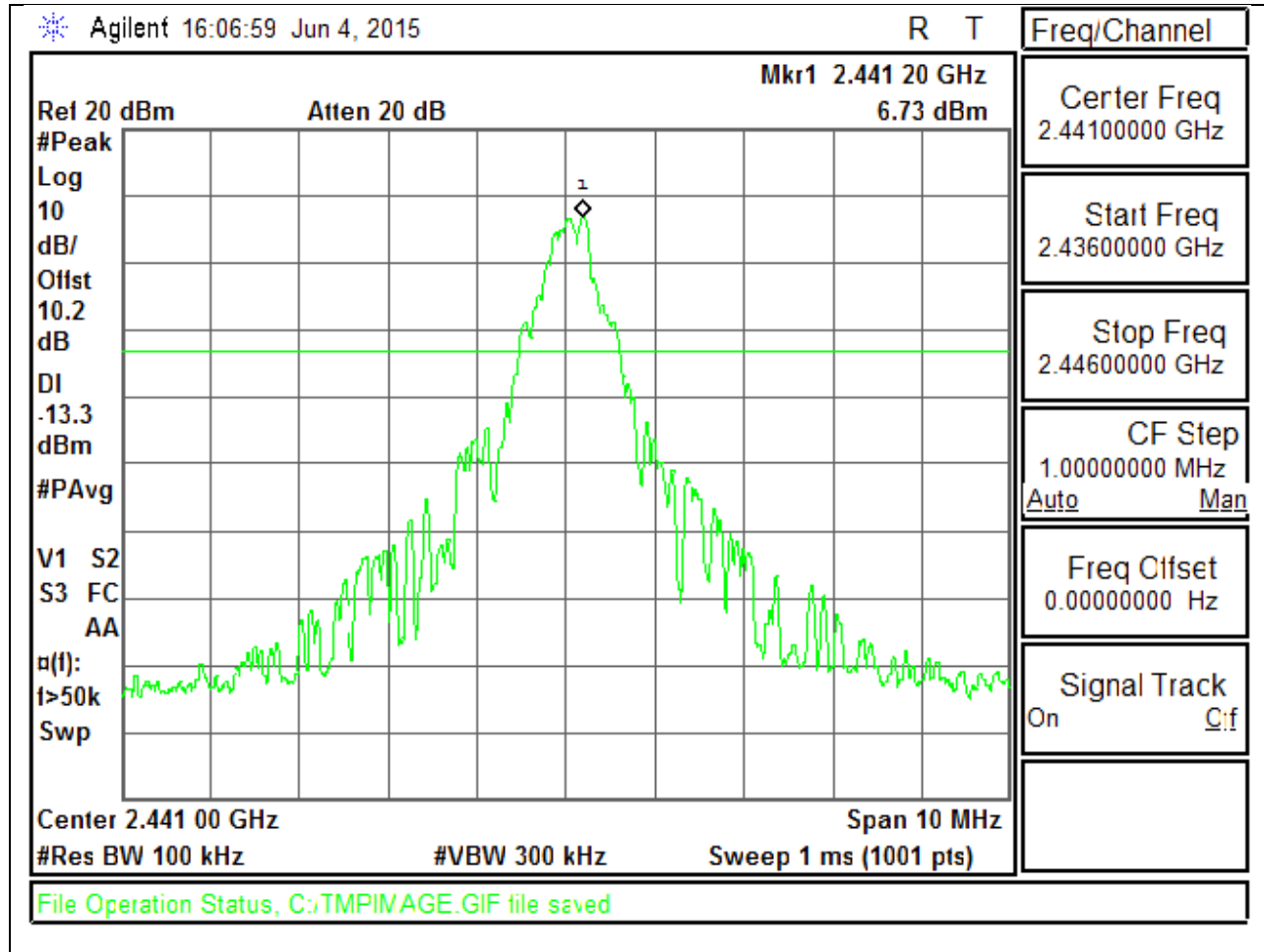


LOW CHANNEL SPURIOUS

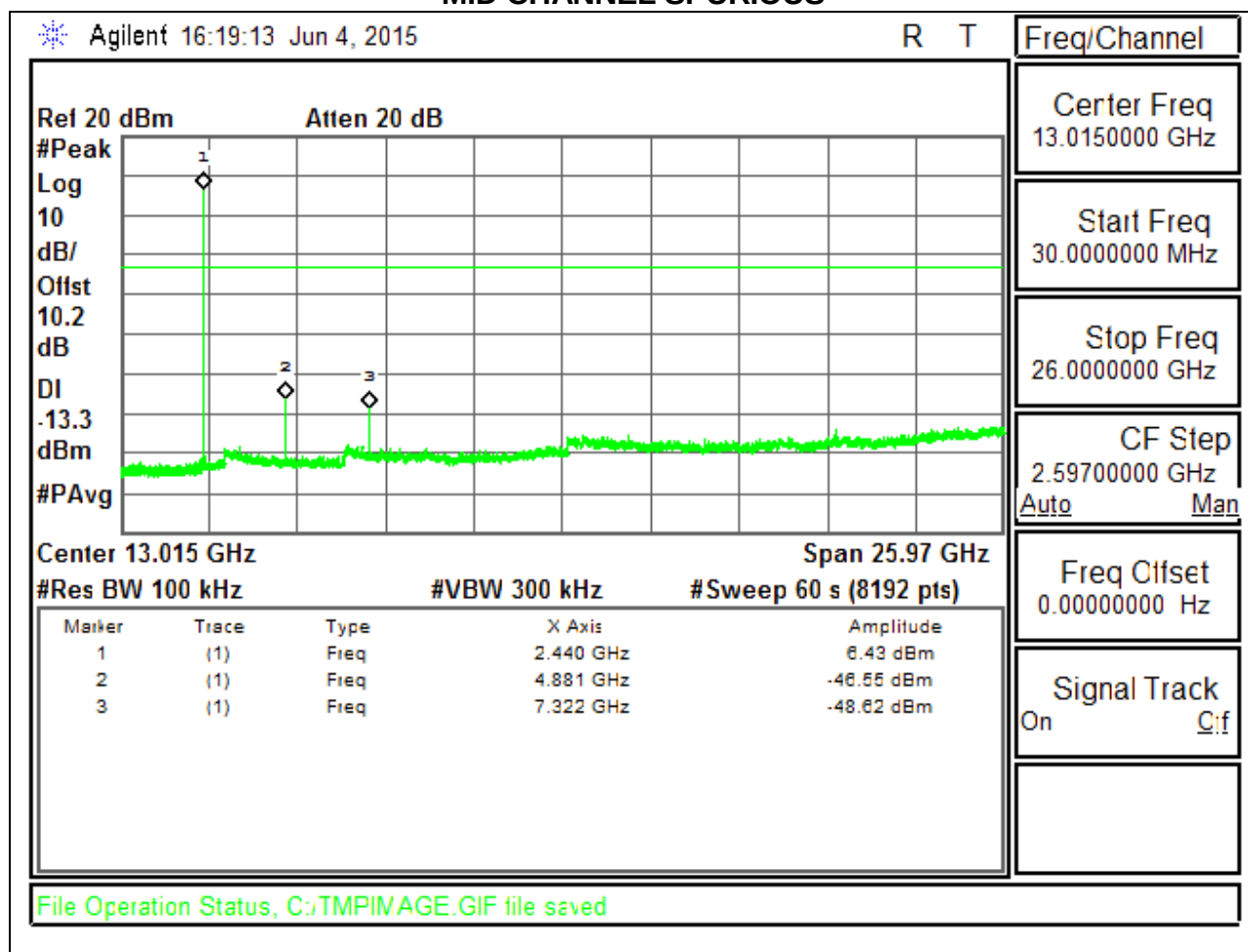


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

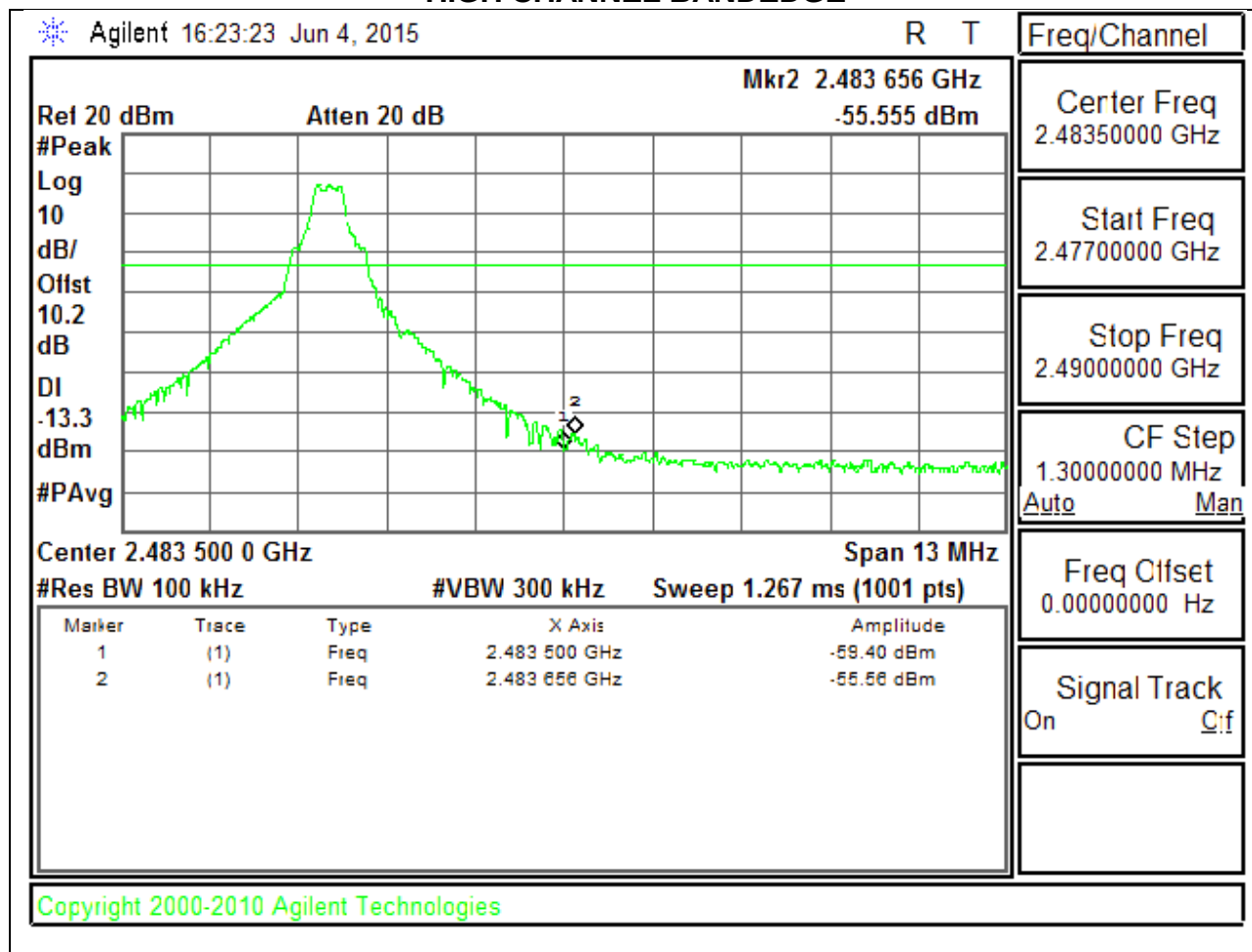


MID CHANNEL SPURIOUS

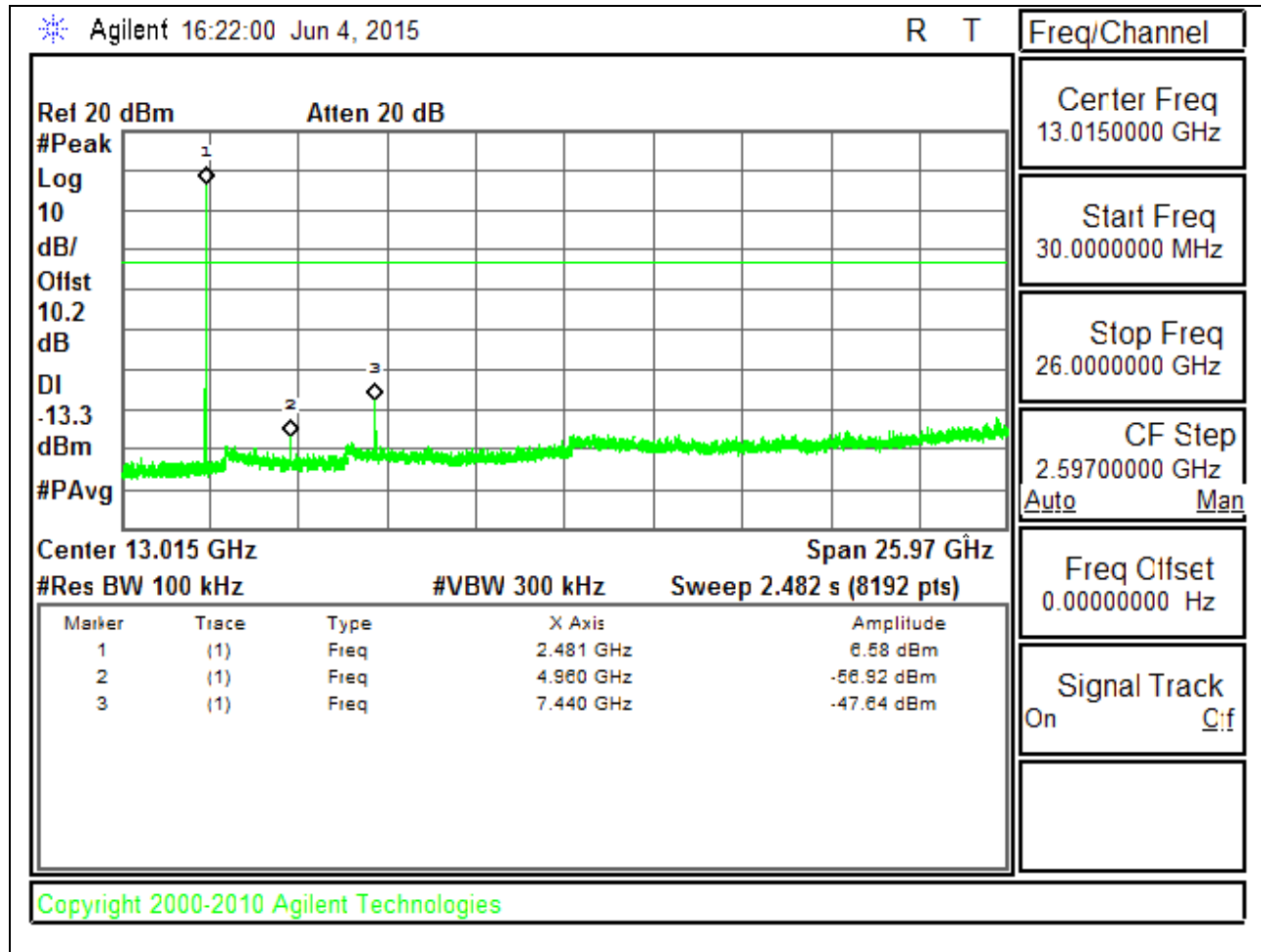


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

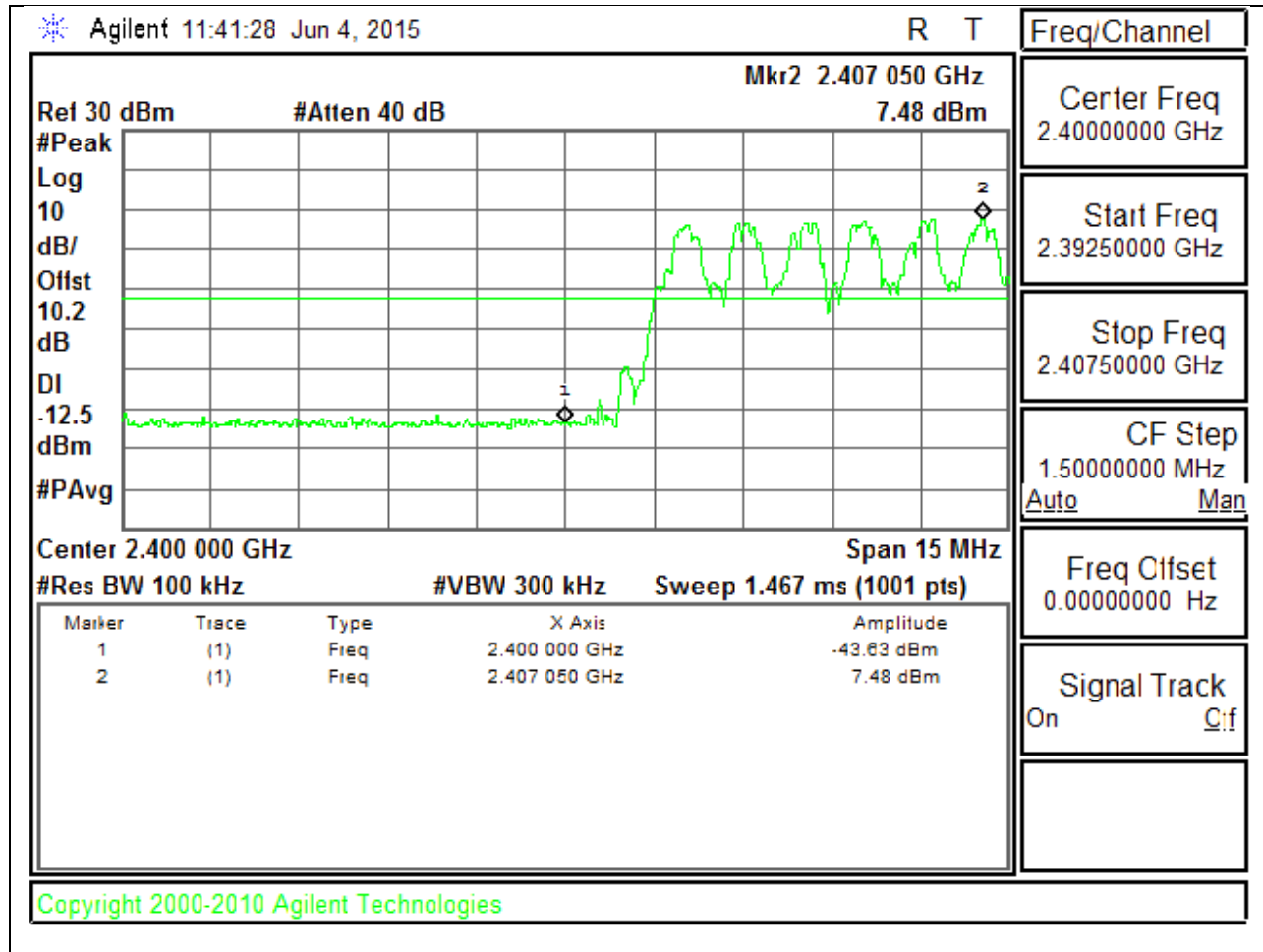


HIGH CHANNEL SPURIOUS

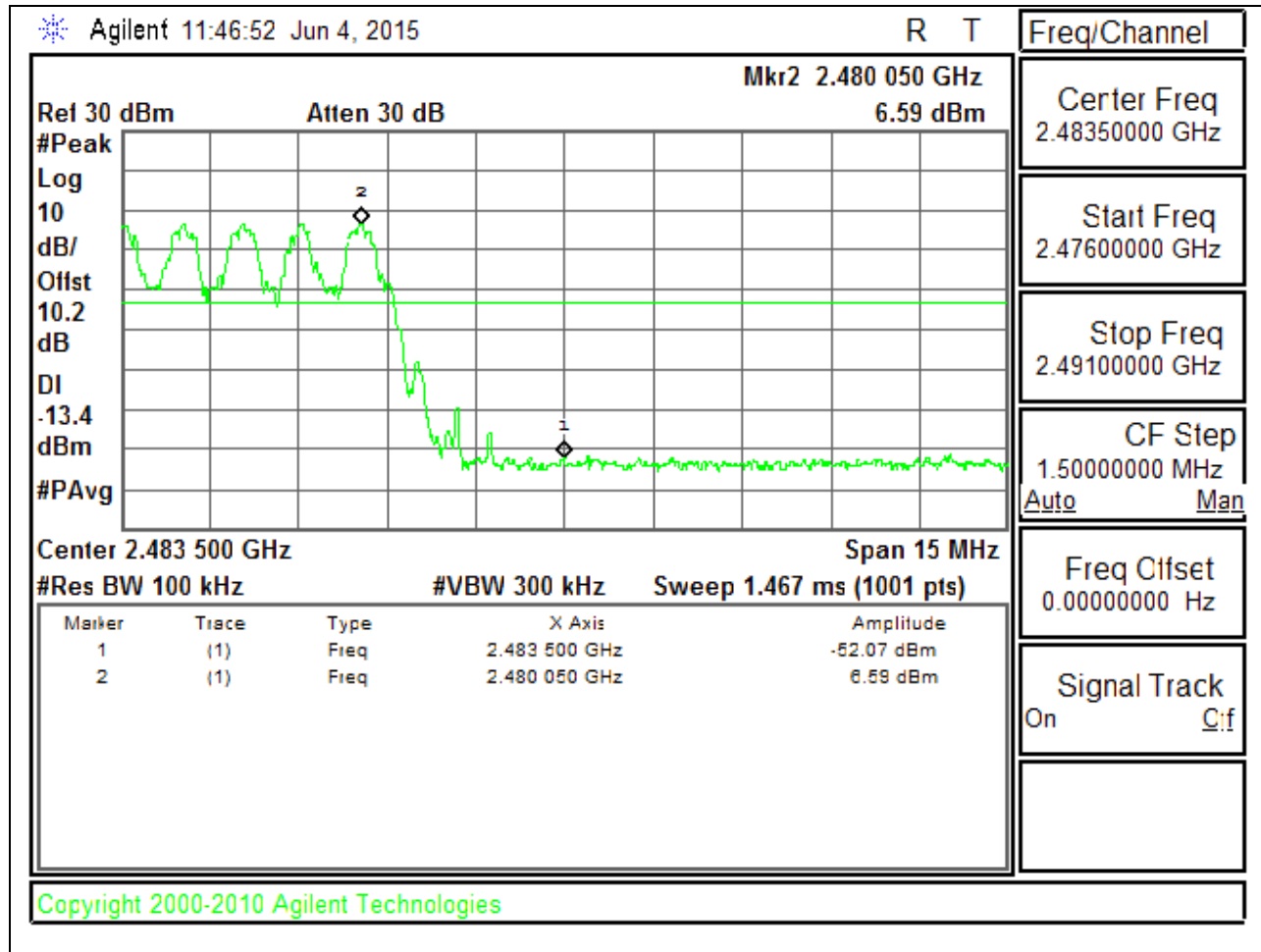


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON

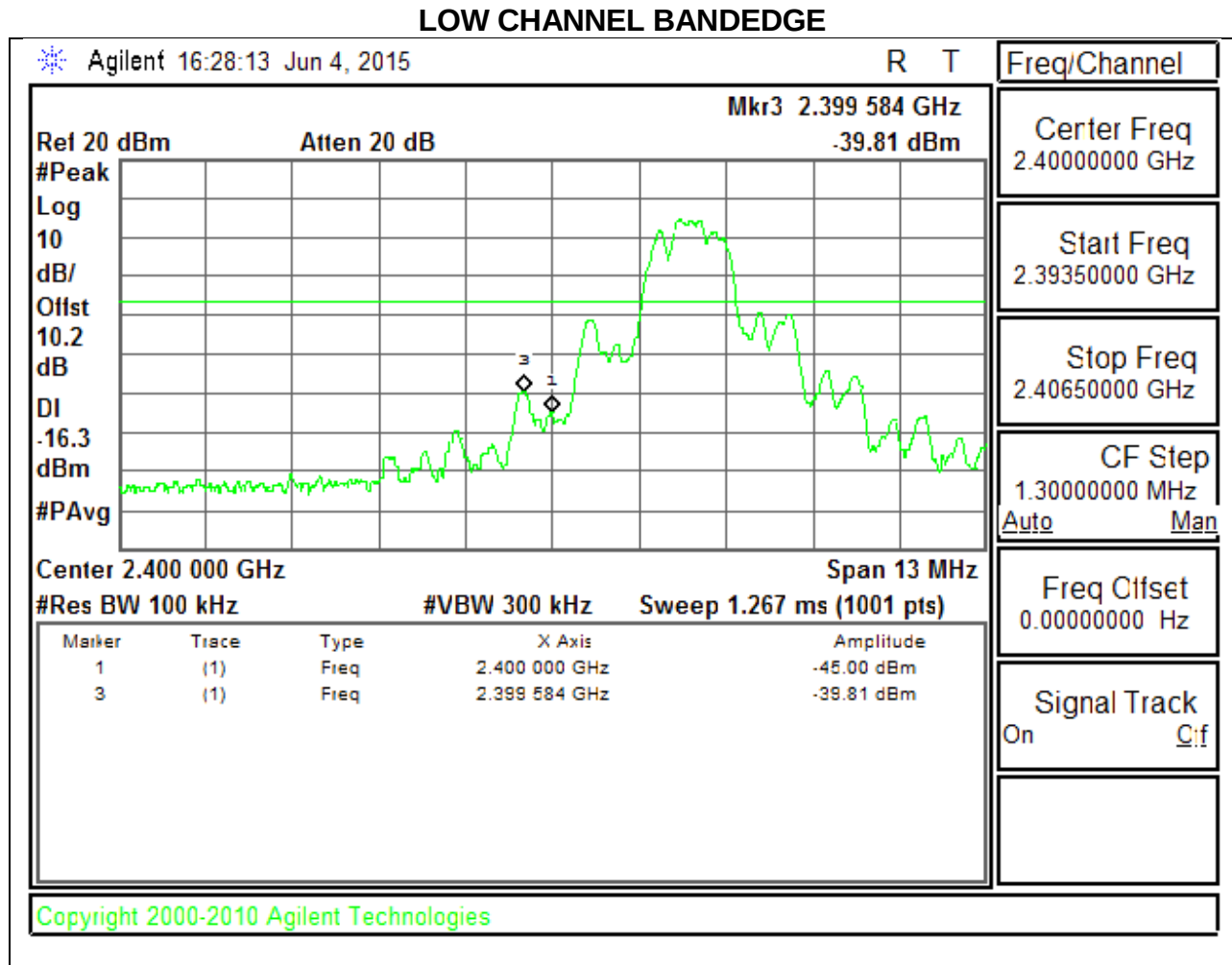


HIGH BANDEDGE WITH HOPPING ON

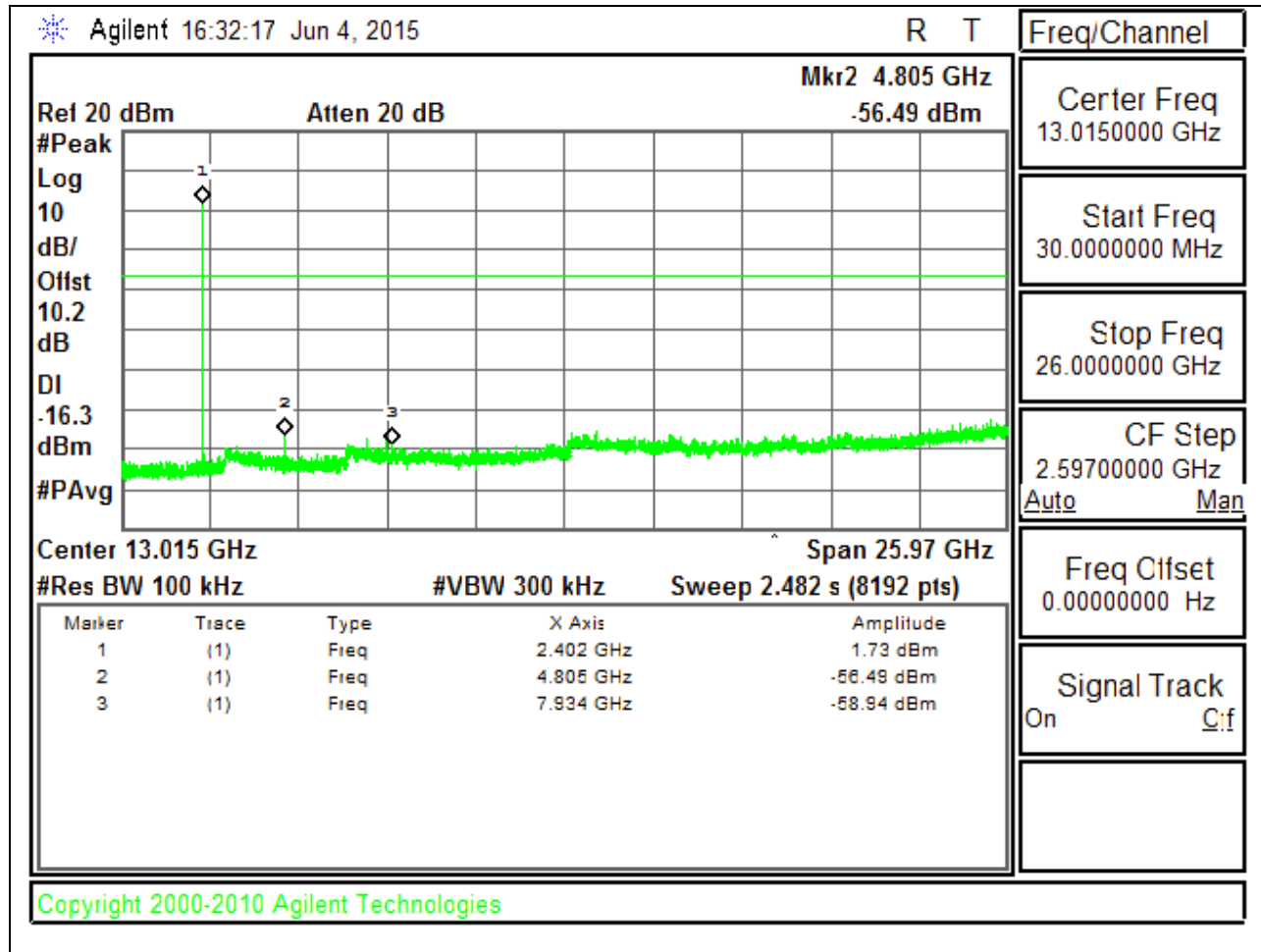


8.7.2. ENHANCED DATA RATE 8PSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

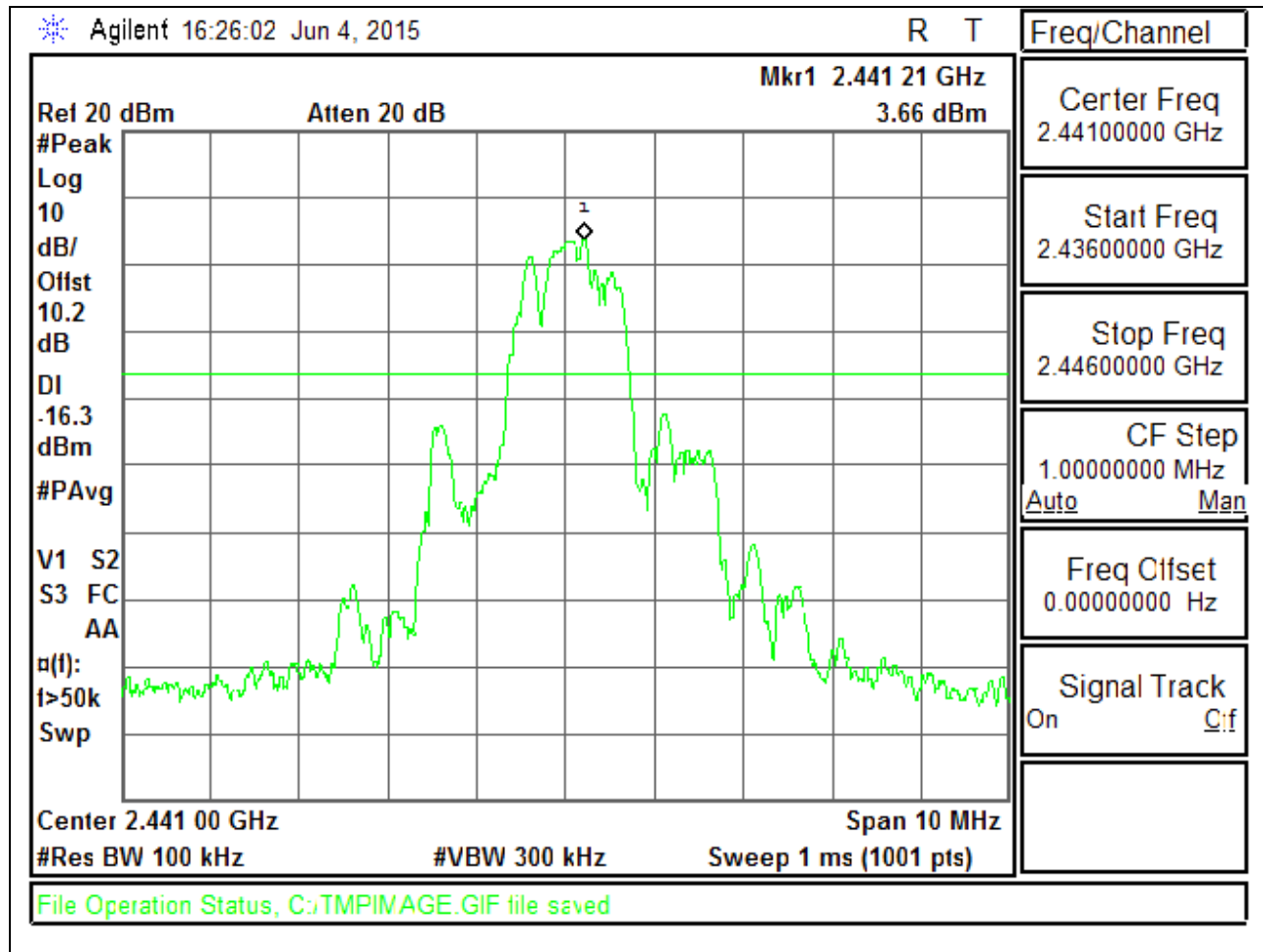


LOW CHANNEL SPURIOUS

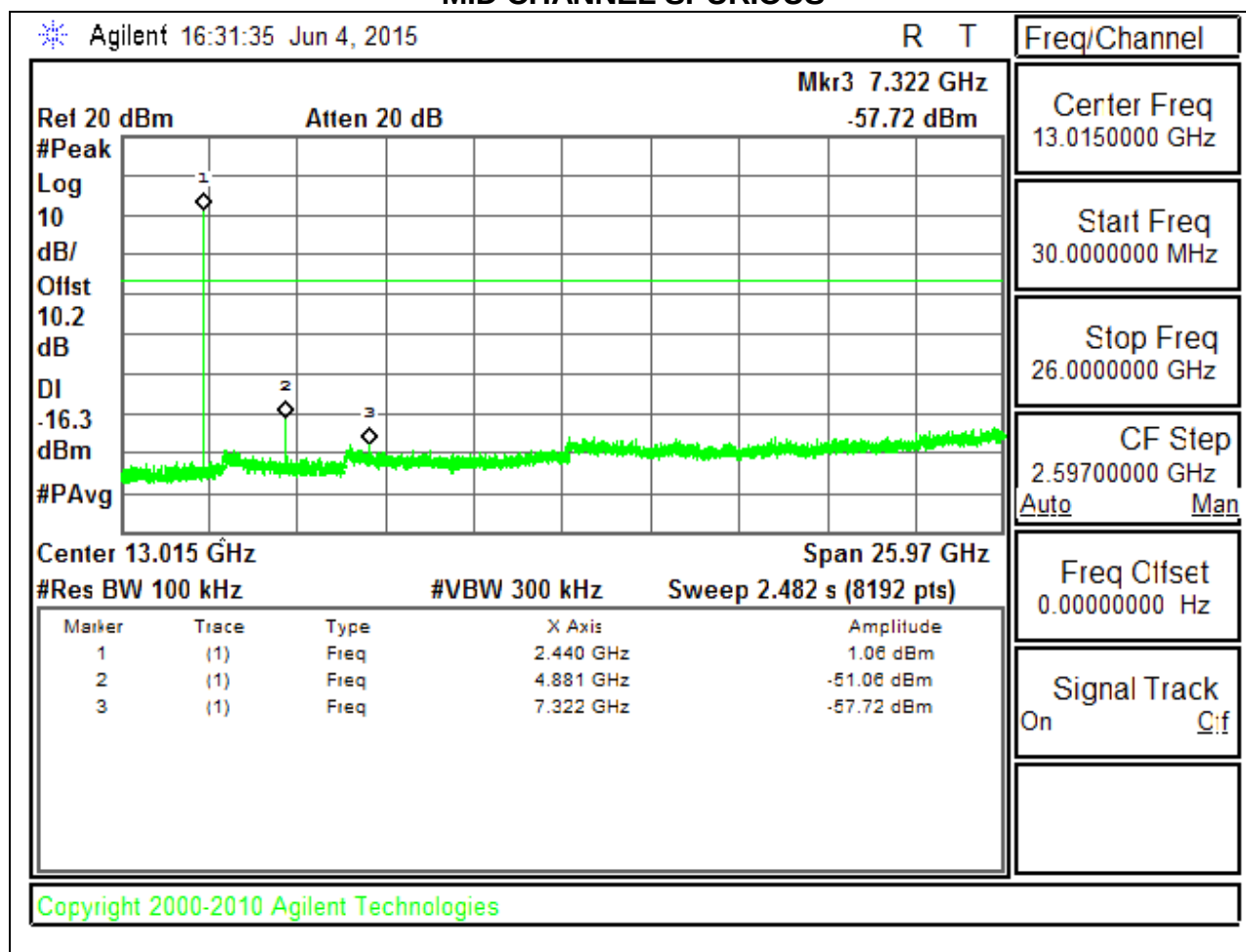


SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL BANDEDGE

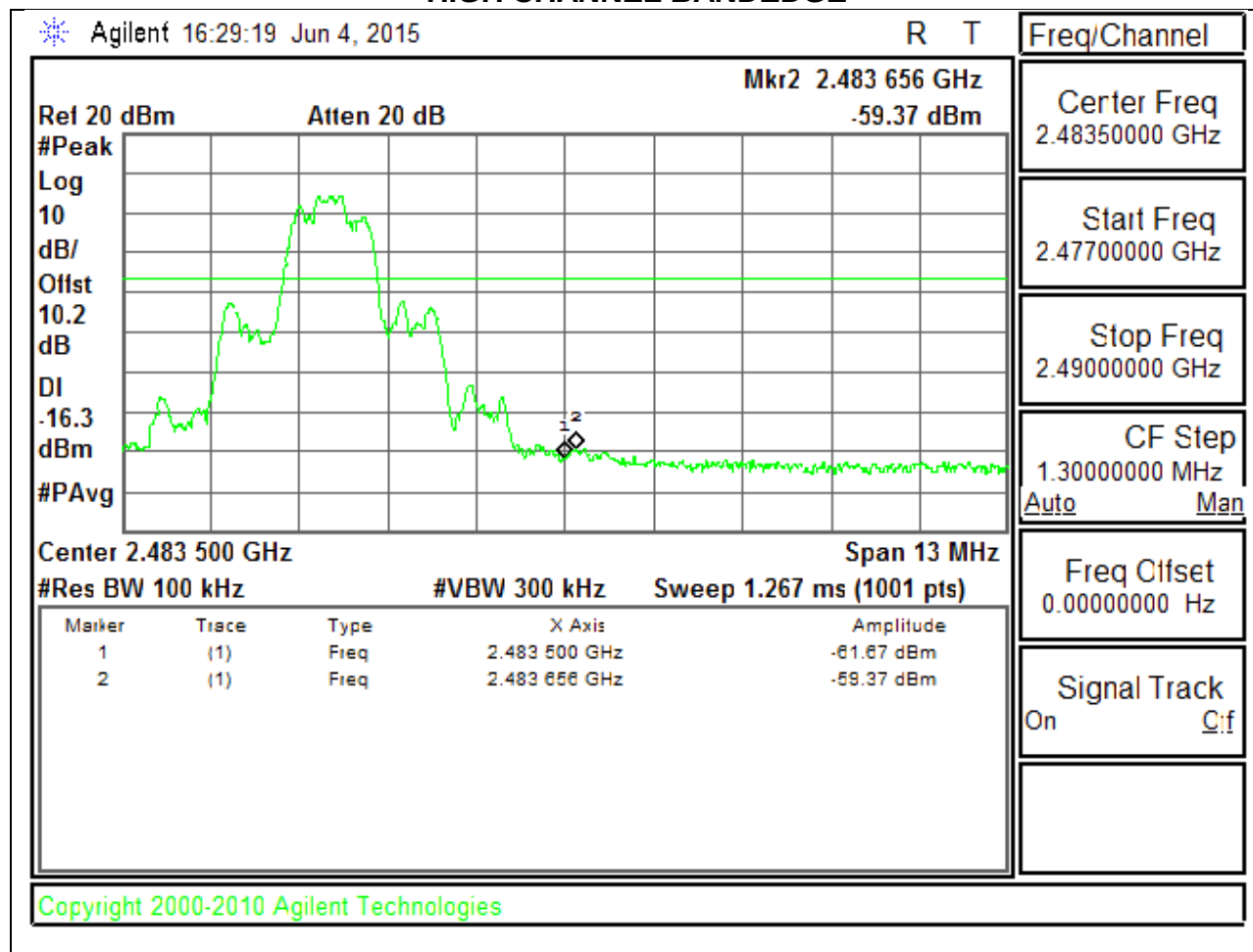


MID CHANNEL SPURIOUS

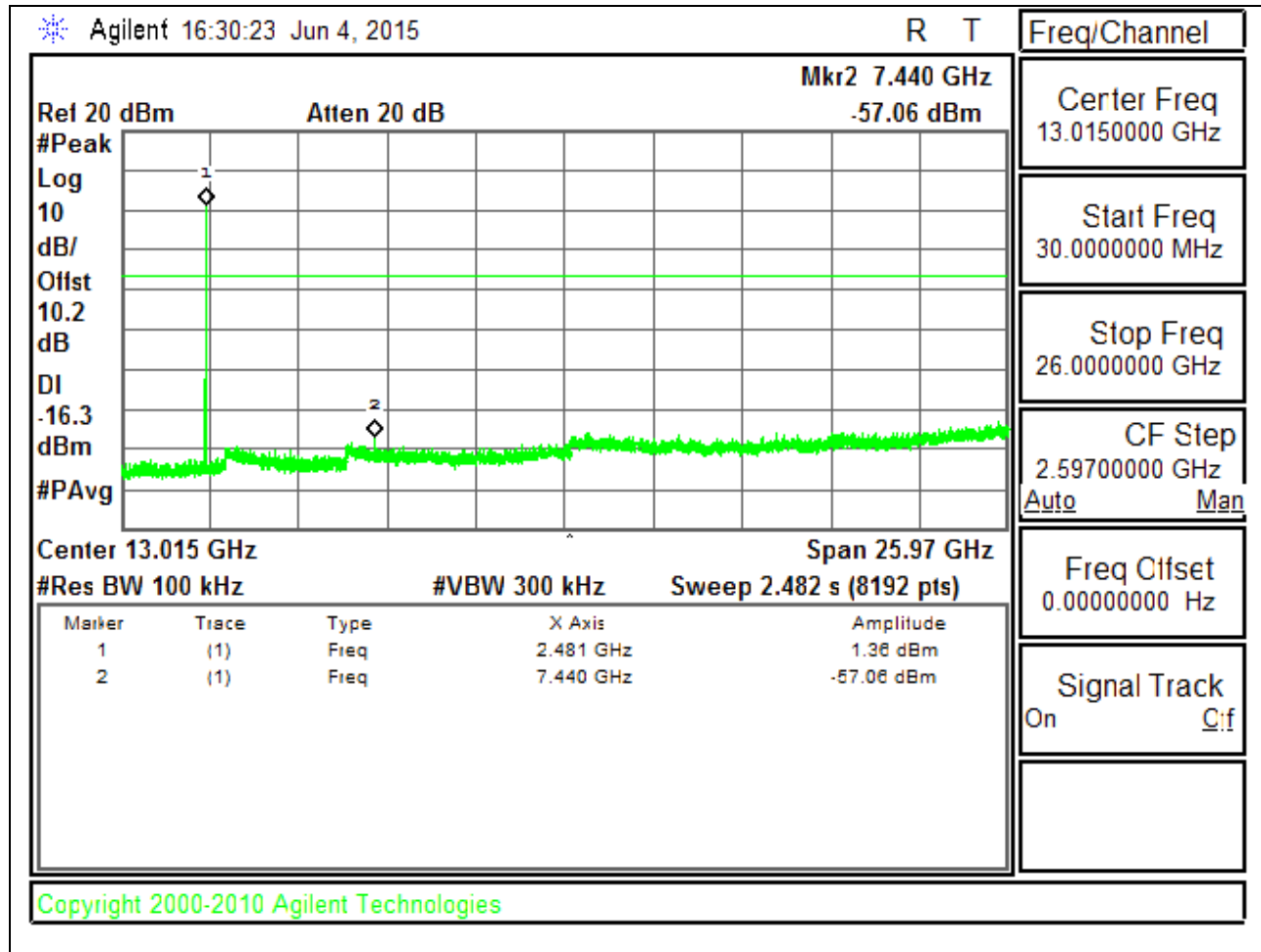


SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL BANDEDGE

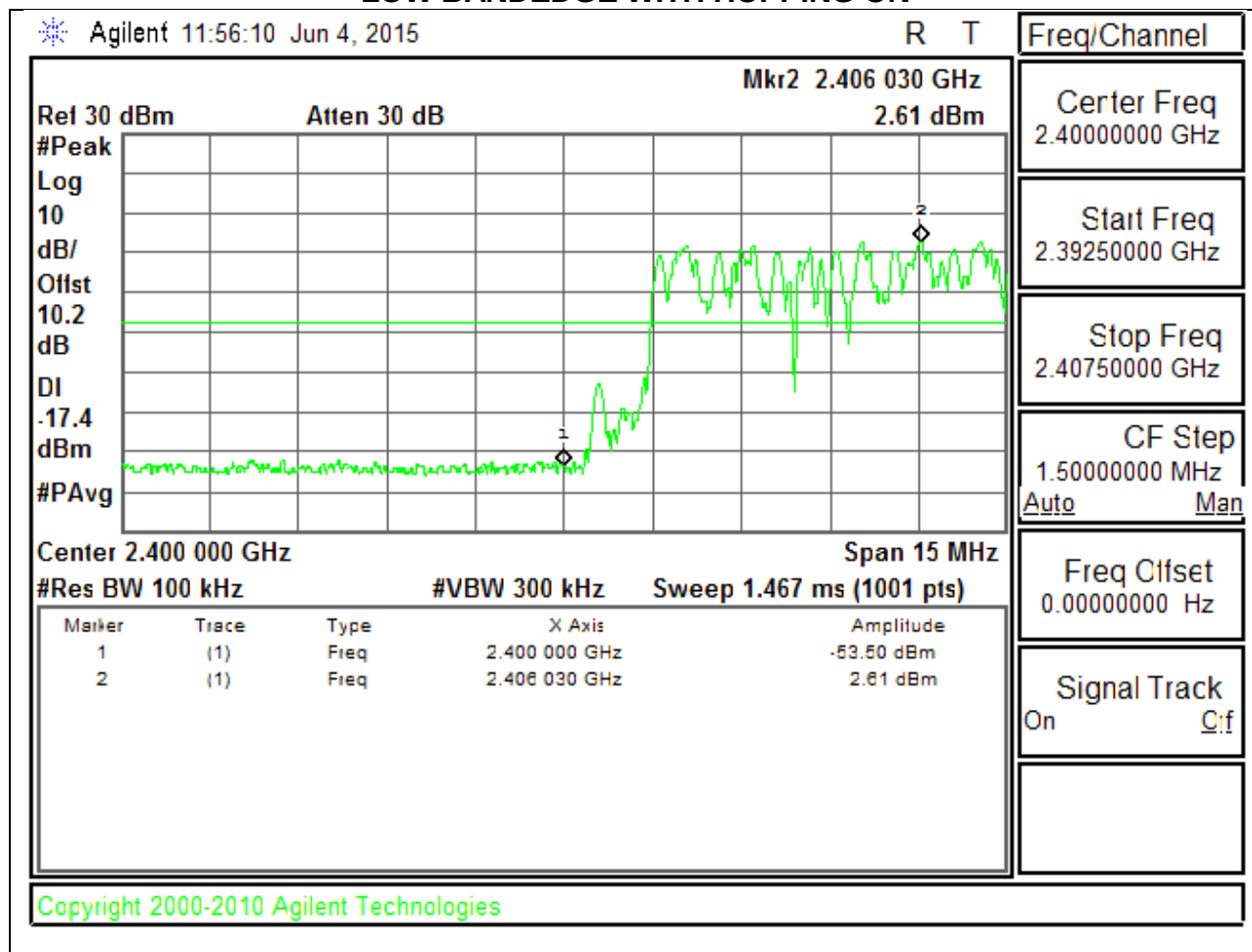


HIGH CHANNEL SPURIOUS

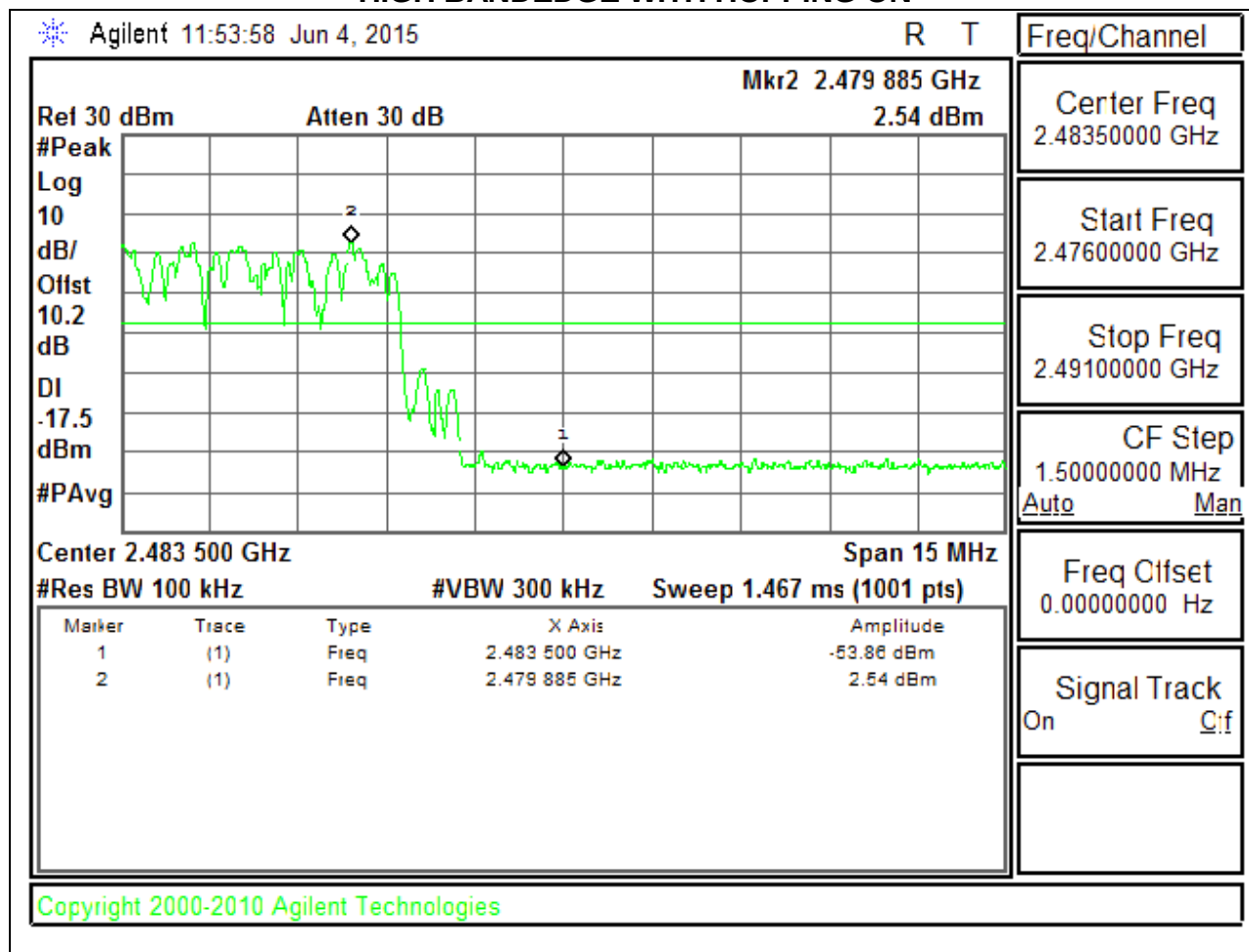


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



HIGH BANDEDGE WITH HOPPING ON



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (μ V/m) at 3 m	Field Strength Limit (dB μ 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.
 $GFSK = 1/T = 1 / 0.00162S = 620Hz$.

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.

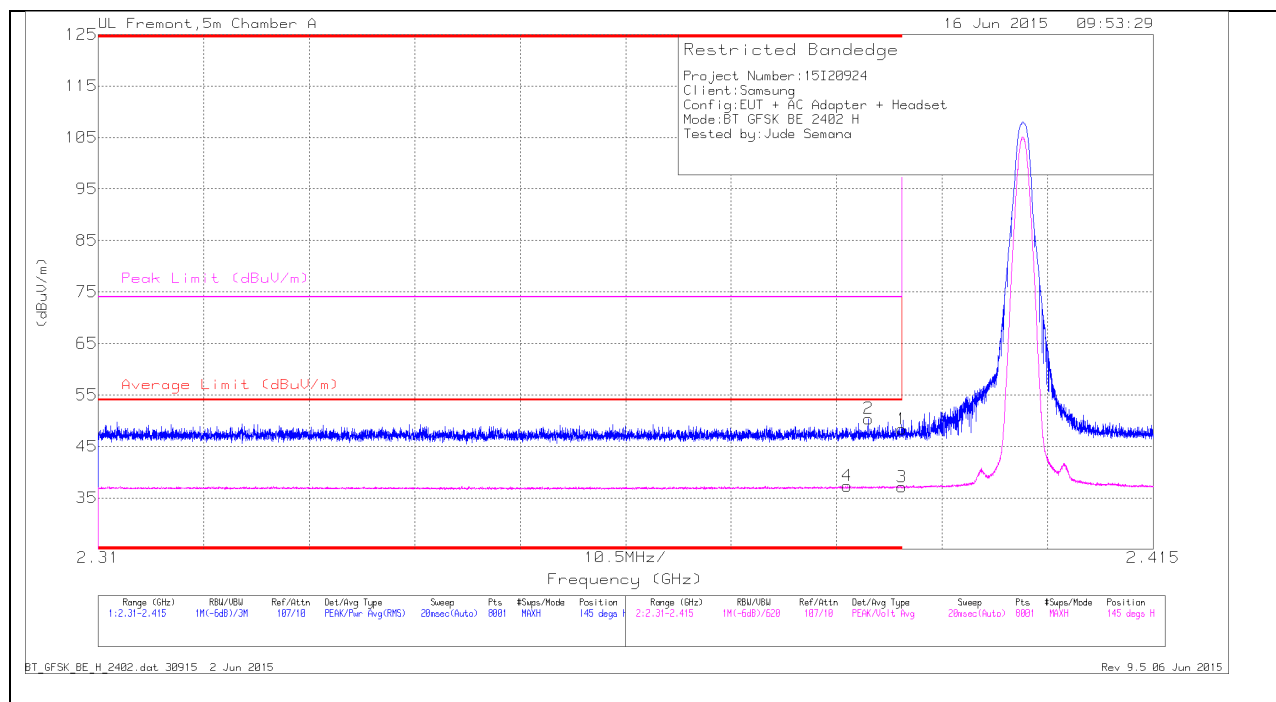
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

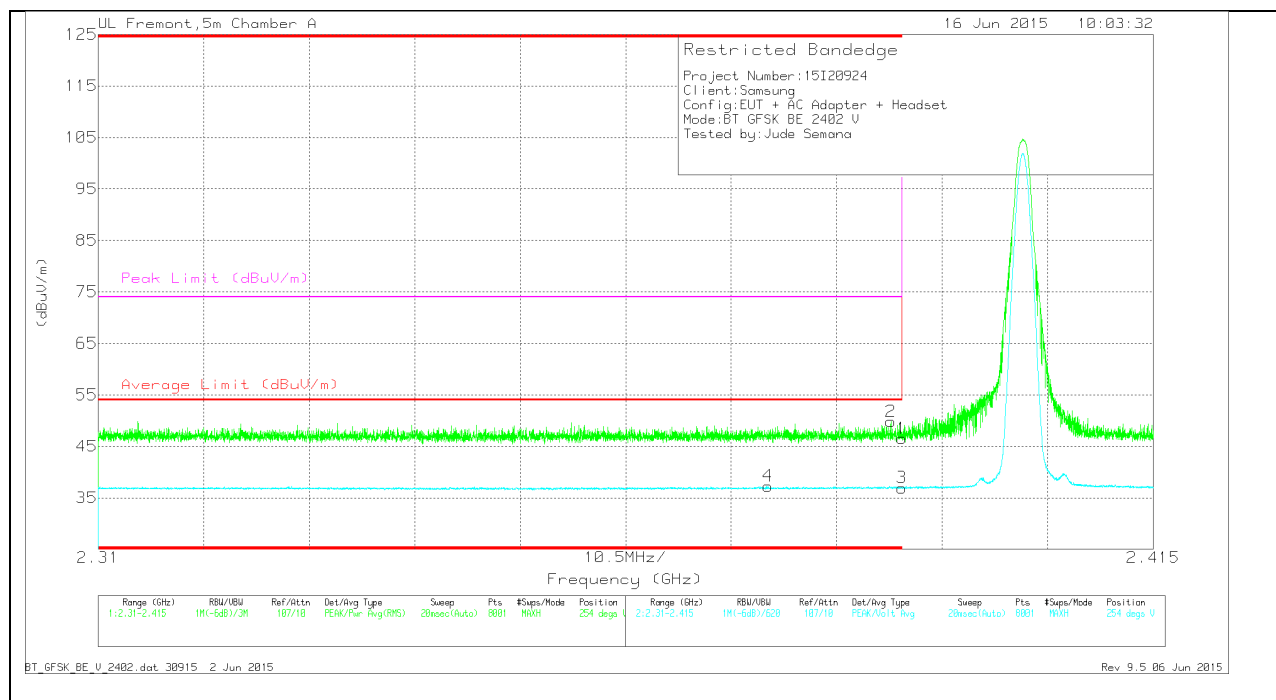
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AFT136 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	41.24	Pk	32	-24.9	48.34	-	-	74	-25.66	145	295	H
2	* 2.387	43.28	Pk	32	-24.9	50.38	-	-	74	-23.62	145	295	H
3	* 2.39	30.01	VB1T	32	-24.9	37.11	-	-	-	-	145	295	H
4	* 2.385	30.34	VB1T	31.9	-24.9	37.34	-	-	-	-	145	295	H

VERTICAL PEAK AND AVERAGE PLOT

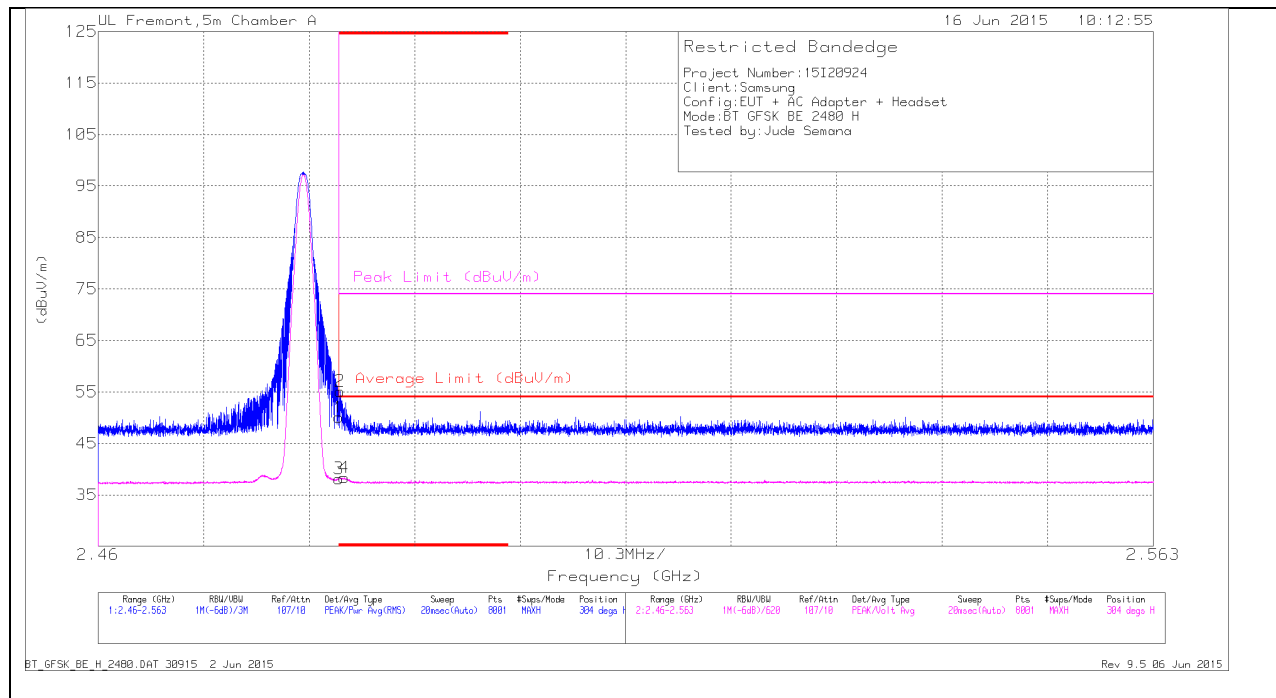


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/ Filt/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	39.43	Pk	32	-24.9	46.53	-	-	74	-27.47	254	375	V
2	* 2.389	42.73	Pk	32	-24.9	49.83	-	-	74	-24.17	254	375	V
3	* 2.39	29.85	VB1T	32	-24.9	36.95	-	-	-	-	254	375	V
4	* 2.377	30.3	VB1T	31.9	-24.9	37.3	-	-	-	-	254	375	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

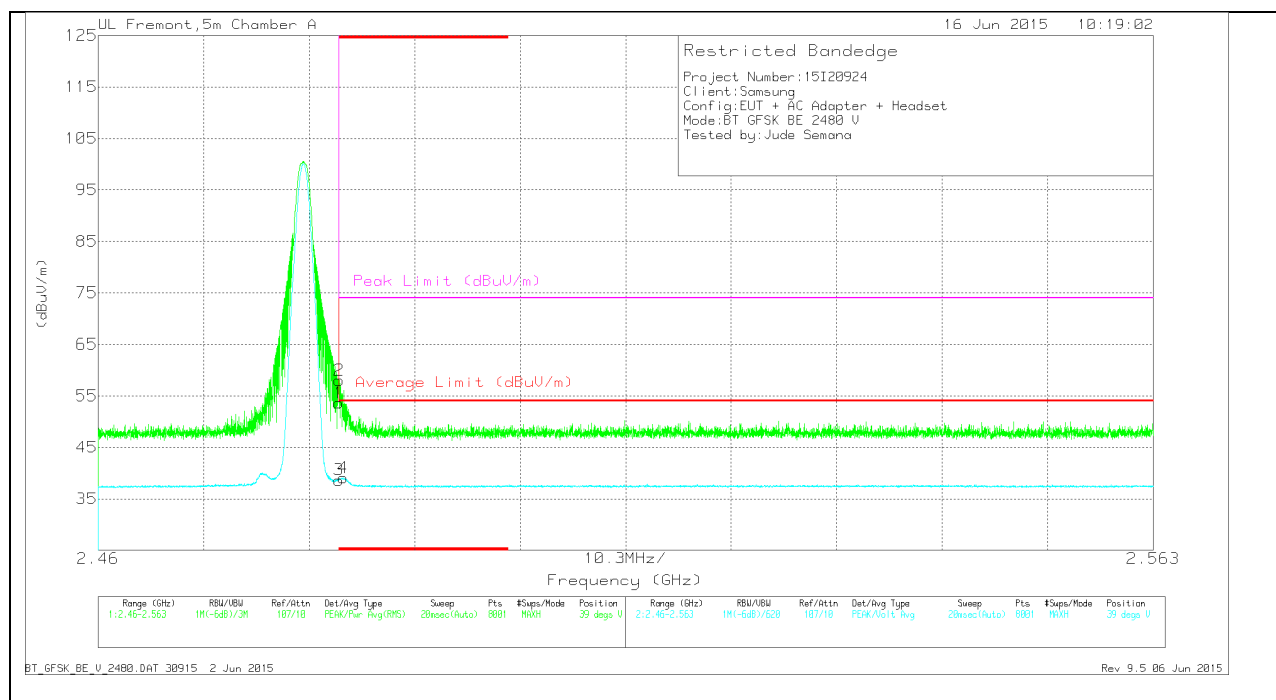
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.78	Pk	32.1	-24.8	50.08	-	-	74	-23.92	304	374	H
2	* 2.484	47.82	Pk	32.1	-24.8	55.12	-	-	74	-18.88	304	374	H
3	* 2.484	30.84	VB1T	32.1	-24.8	38.14	-	-	-	-	304	374	H
4	* 2.484	31.06	VB1T	32.1	-24.8	38.36	-	-	-	-	304	374	H

VERTICAL PEAK AND AVERAGE PLOT

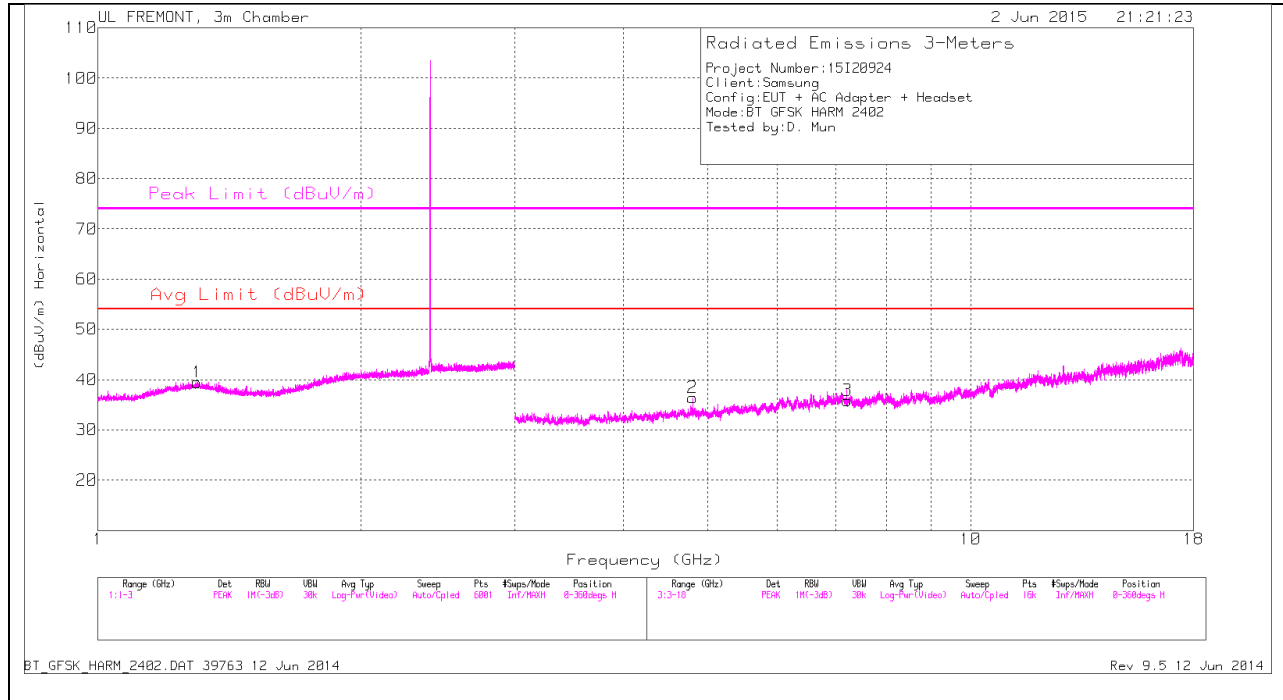


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	46.3	Pk	32.1	-24.8	53.6	-	-	74	-20.4	39	344	V
2	* 2.484	50.71	Pk	32.1	-24.8	58.01	-	-	74	-15.99	39	344	V
3	* 2.484	31.36	VB1T	32.1	-24.8	38.66	-	-	-	-	39	344	V
4	* 2.484	31.79	VB1T	32.1	-24.8	39.09	-	-	-	-	39	344	V

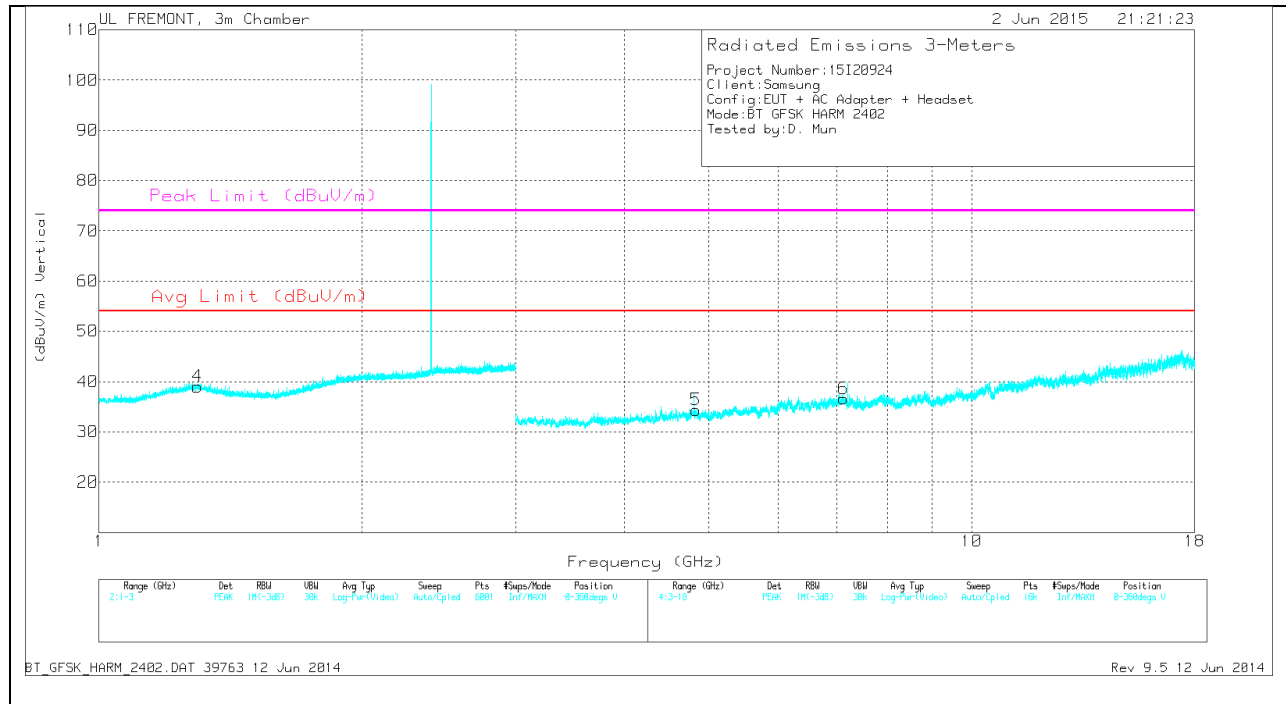
HARMONICS AND SPURIOUS EMISSIONS

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 T119 (dB/m)	Amp/Cbl/ Fitr/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	1.297	32.9	Avg	29.9	-23.8	39	54	-15	-	-	0-360	100	V
1	1.299	33.35	Avg	29.9	-23.8	39.45	54	-14.55	-	-	0-360	200	H
2	4.804	32.72	Avg	34	-30.3	36.42	54	-17.58	-	-	0-360	100	H
5	4.829	30.33	Avg	34	-30	34.33	54	-19.67	-	-	0-360	100	V
6	7.128	29.14	Avg	35.6	-28.1	36.64	54	-17.36	-	-	0-360	200	V
3	7.218	29.86	Avg	35.6	-29.6	35.86	54	-18.14	-	-	0-360	200	H

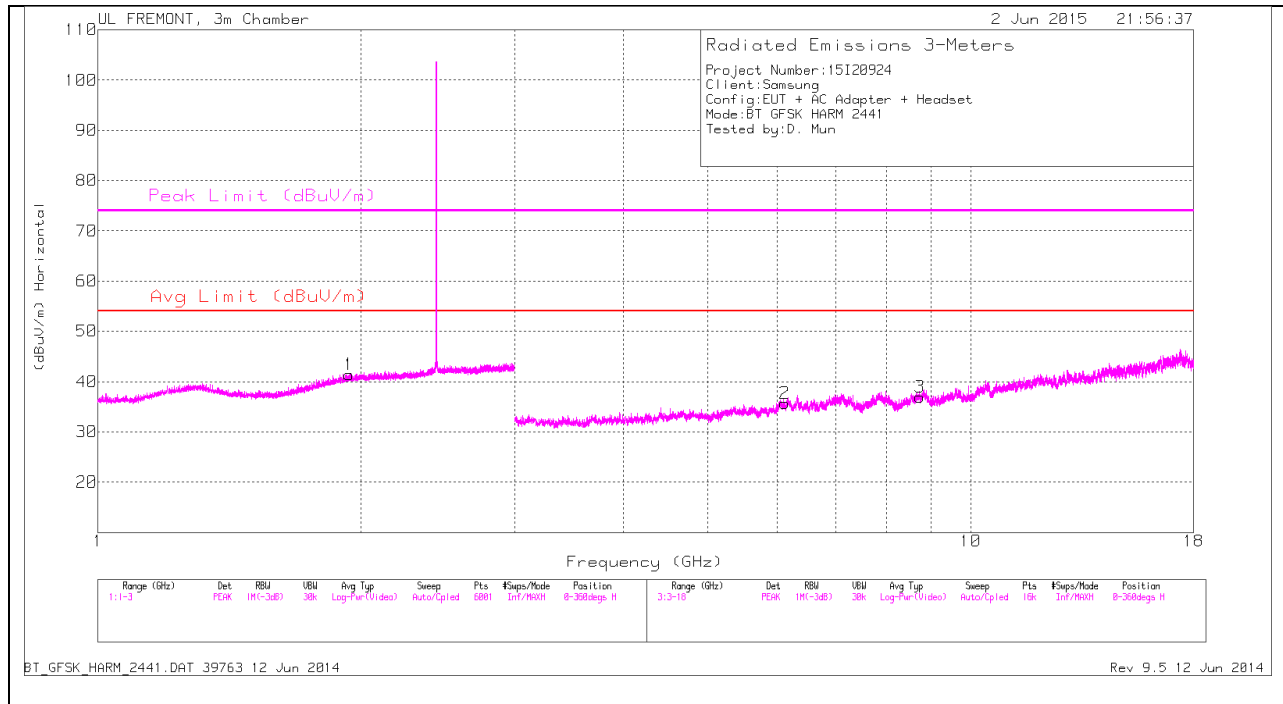
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.296	42.92	PK3	29.8	-23.8	48.92	-	-	74	-25.08	0	100	V
1.297	42.48	PK3	29.9	-23.8	48.58	-	-	74	-25.42	0	200	H
1.299	29.68	VB1T	29.9	-23.8	35.78	54	-18.22	-	-	0	100	V
1.3	29.62	VB1T	29.9	-23.8	35.72	54	-18.28	-	-	0	200	H
4.804	27.52	VB1T	34	-30.3	31.22	54	-22.78	-	-	0	100	H
4.805	39.78	PK3	34	-30.3	43.48	-	-	74	-30.52	0	100	H
4.827	39.47	PK3	34	-30.1	43.37	-	-	74	-30.63	0	100	V
4.827	27	VB1T	34	-30.1	30.9	54	-23.1	-	-	0	100	V
7.126	26.15	VB1T	35.6	-28.1	33.65	54	-20.35	-	-	0	200	V
7.128	38.62	PK3	35.6	-28.1	46.12	-	-	74	-27.88	0	200	V
7.219	38.89	PK3	35.6	-29.6	44.89	-	-	74	-29.11	0	200	H
7.22	26.64	VB1T	35.6	-29.6	32.64	54	-21.36	-	-	0	200	H

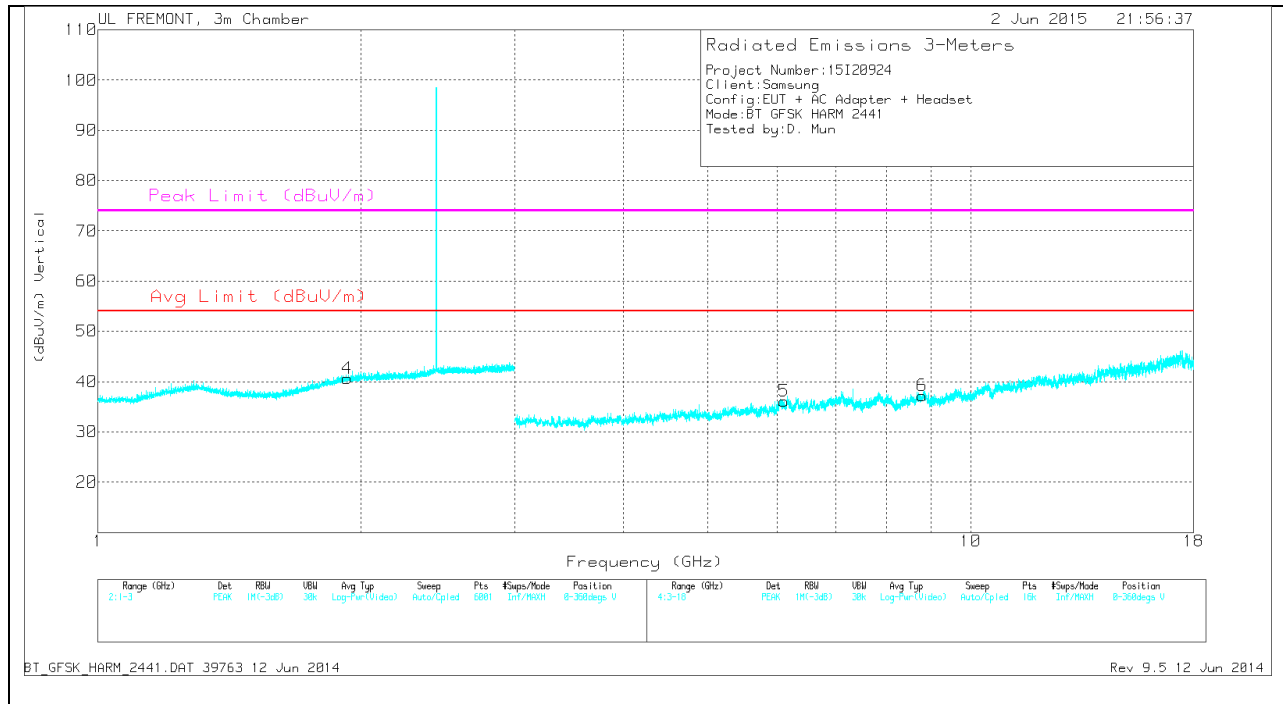
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MID CHANNEL HORIZONTAL



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

MID CHANNEL VERTICAL



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

MID CHANNEL DATA

TRACE MARKERS

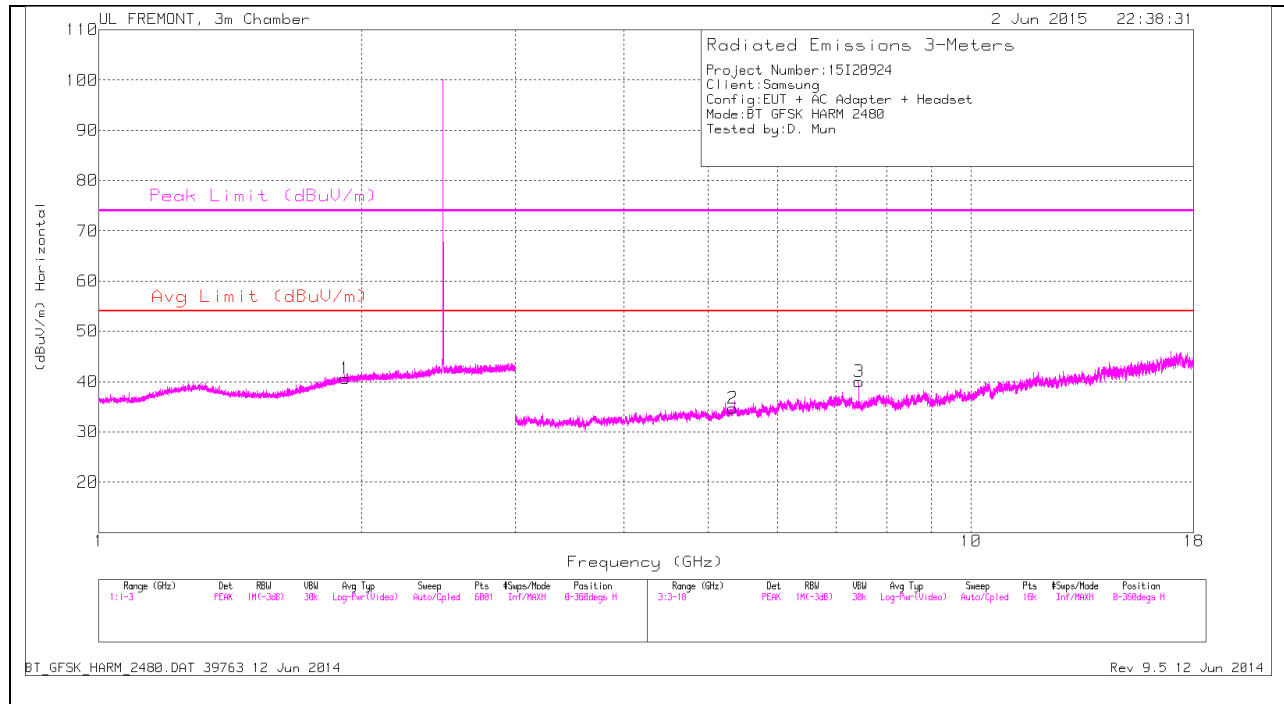
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	1.93	32.73	Avg	31.2	-23.3	40.63	54	-13.37	-	-	0-360	100	V
1	1.94	33.25	Avg	31.3	-23.2	41.35	54	-12.65	-	-	0-360	100	H
5	6.109	29.71	Avg	35.2	-28.8	36.11	54	-17.89	-	-	0-360	200	V
2	6.119	29.6	Avg	35.2	-29.1	35.7	54	-18.3	-	-	0-360	200	H
3	8.745	28.75	Avg	35.9	-27.7	36.95	54	-17.05	-	-	0-360	100	H
6	8.798	28.4	Avg	35.9	-27.1	37.2	54	-16.8	-	-	0-360	200	V

PK - Peak detector

RADIATED EMISSIONS

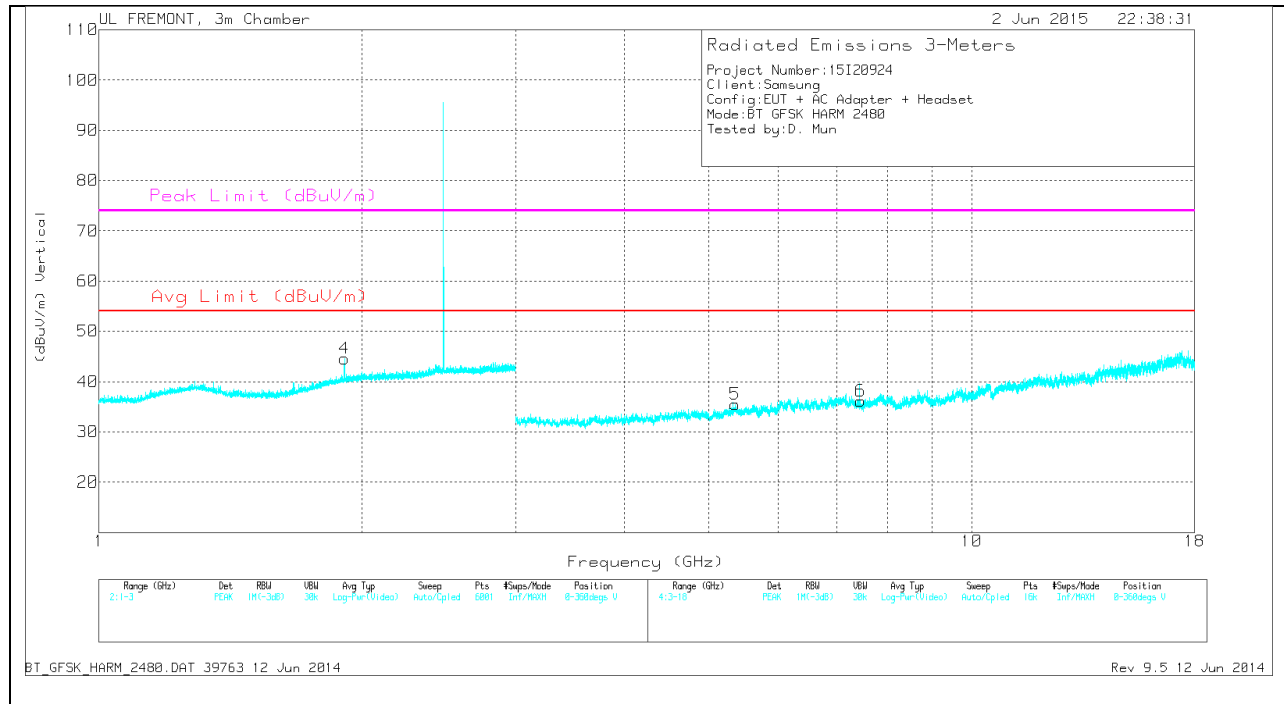
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.929	29.38	VB1T	31.2	-23.3	37.28	54	-16.72	-	-	0	100	V
1.93	43.34	PK3	31.2	-23.3	51.24	-	-	74	-22.76	0	100	V
1.94	29.29	VB1T	31.3	-23.2	37.39	54	-16.61	-	-	0	100	H
1.941	42.1	PK3	31.3	-23.2	50.2	-	-	74	-23.8	0	100	H
6.108	39.07	PK3	35.2	-28.8	45.47	-	-	74	-28.53	0	200	V
6.109	26.32	VB1T	35.2	-28.8	32.72	54	-21.28	-	-	0	200	V
6.118	39.12	PK3	35.2	-29.1	45.22	-	-	74	-28.78	0	200	H
6.118	26.32	VB1T	35.2	-29.1	32.42	54	-21.58	-	-	0	200	H
8.743	24.92	VB1T	35.9	-27.7	33.12	54	-20.88	-	-	0	100	H
8.744	37.39	PK3	35.9	-27.7	45.59	-	-	74	-28.41	0	100	H
8.798	37.26	PK3	35.9	-27.1	46.06	-	-	74	-27.94	0	200	V
8.798	24.23	VB1T	35.9	-27.1	33.03	54	-20.97	-	-	0	200	V

HIGH CHANNEL HORIZONTAL



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

HIGH CHANNEL VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/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	* 7.44	33.18	Avg	35.7	-28.9	39.98	54	-14.02	-	-	0-360	200	H
5	* 5.358	30.99	Avg	34.5	-30	35.49	54	-18.51	-	-	0-360	100	V
6	* 7.453	29.46	Avg	35.7	-29	36.16	54	-17.84	-	-	0-360	100	V
4	1.911	36.68	Avg	31.1	-23.2	44.58	54	-9.42	-	-	0-360	100	V
1	1.916	32.74	Avg	31.2	-23.3	40.64	54	-13.36	-	-	0-360	200	H
2	5.335	30.3	Avg	34.5	-30.1	34.7	54	-19.3	-	-	0-360	200	H

PK - Peak detector

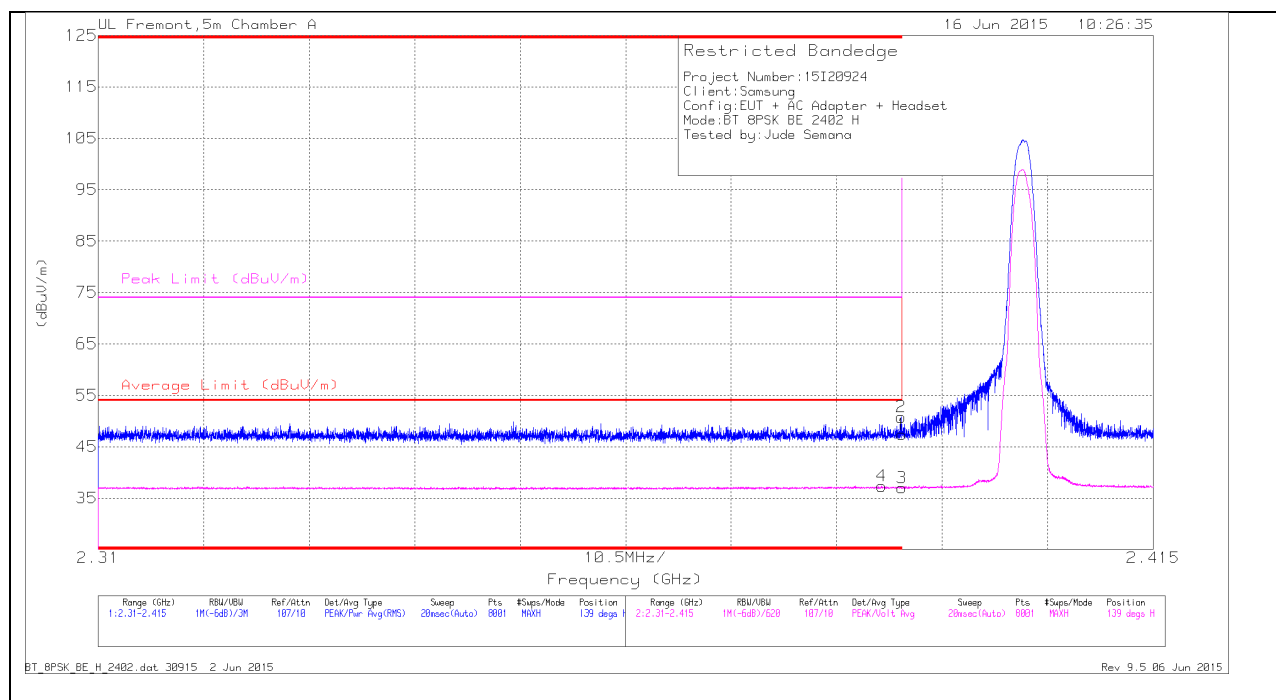
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.44	38.44	PK3	35.7	-28.9	45.24	-	-	74	-28.76	0	200	H
* 7.44	25.99	VB1T	35.7	-28.9	32.79	54	-21.21	-	-	0	200	H
* 5.357	39.76	PK3	34.5	-30	44.26	-	-	74	-29.74	0	100	V
* 5.356	26.85	VB1T	34.5	-30	31.35	54	-22.65	-	-	0	100	V
* 7.453	38.79	PK3	35.7	-29.1	45.39	-	-	74	-28.61	0	100	V
* 7.451	25.97	VB1T	35.7	-29	32.67	54	-21.33	-	-	0	100	V
1.909	41.94	PK3	31.1	-23.1	49.94	-	-	74	-24.06	0	100	V
1.912	29.37	VB1T	31.2	-23.3	37.27	54	-16.73	-	-	0	100	V
1.915	42.38	PK3	31.2	-23.3	50.28	-	-	74	-23.72	0	200	H
1.915	29.31	VB1T	31.2	-23.3	37.21	54	-16.79	-	-	0	200	H
5.334	40.62	PK3	34.5	-30.1	45.02	-	-	74	-28.98	0	200	H
5.335	27.18	VB1T	34.5	-30.1	31.58	54	-22.42	-	-	0	200	H

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

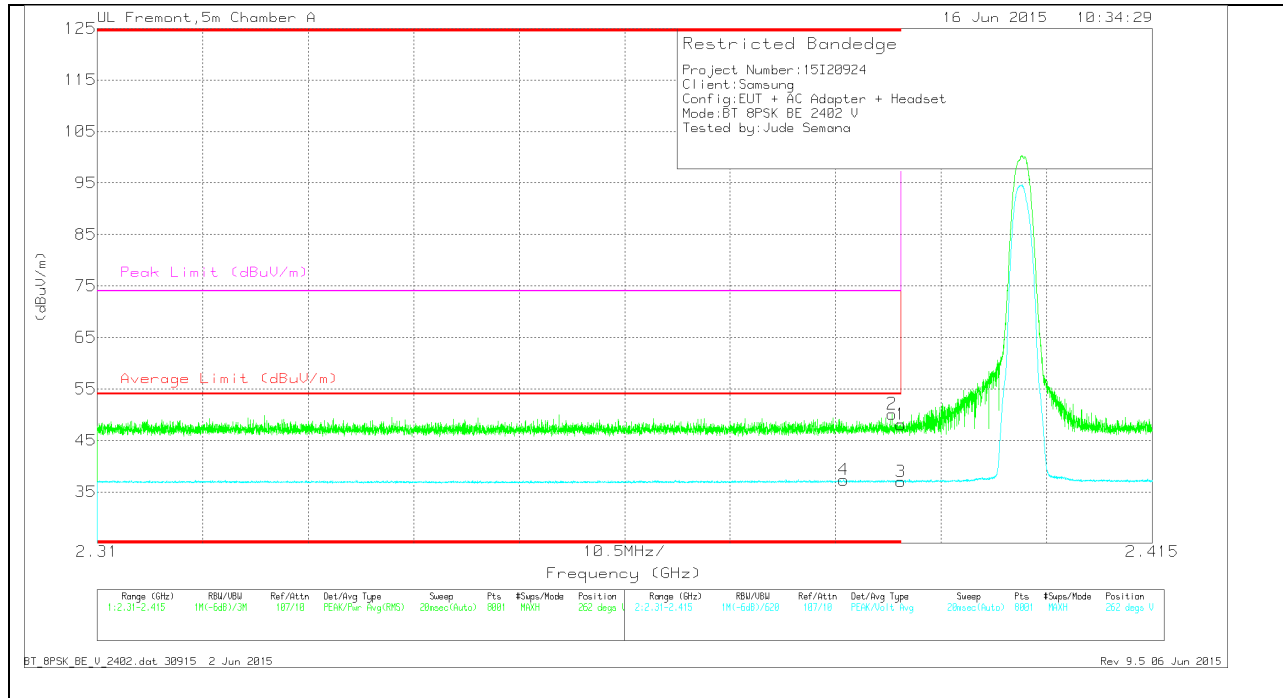
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.27	Pk	32	-24.9	47.37	-	-	74	-26.63	139	361	H
2	* 2.39	43.68	Pk	32	-24.9	50.78	-	-	74	-23.22	139	361	H
3	* 2.39	29.89	VB1T	32	-24.9	36.99	-	-	-	-	139	361	H
4	* 2.388	30.24	VB1T	32	-24.9	37.34	-	-	-	-	139	361	H

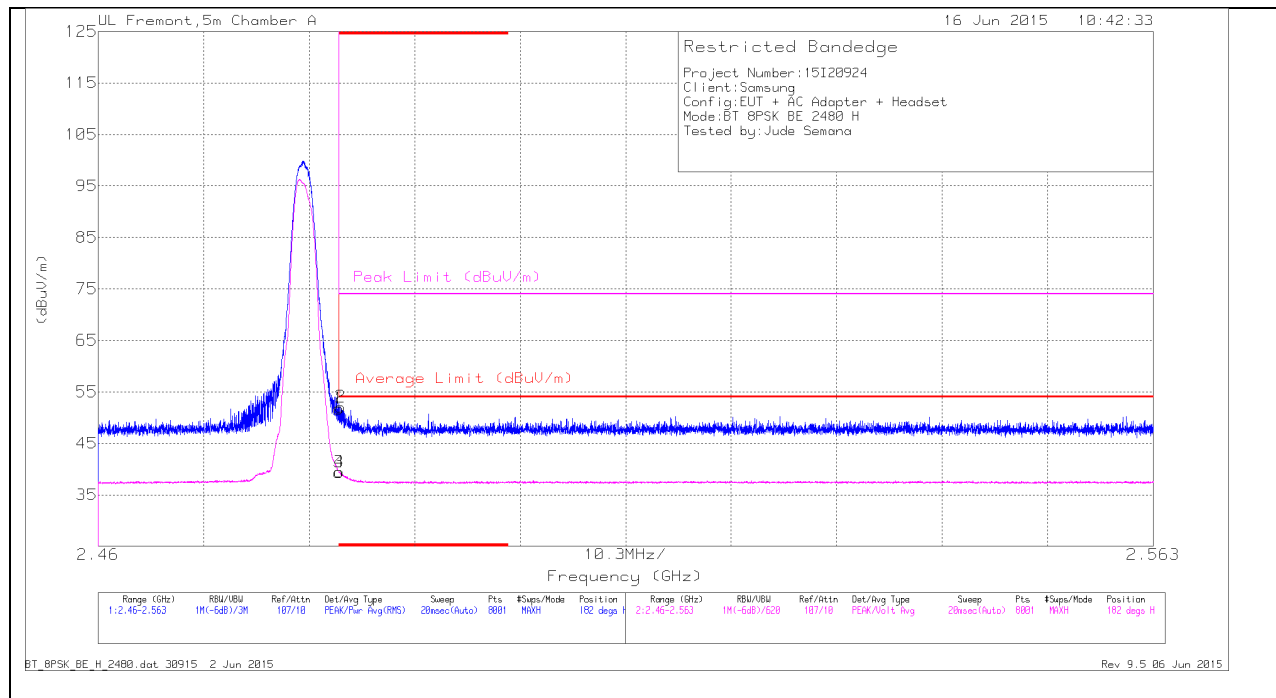
VERTICAL PEAK AND AVERAGE PLOT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/ Filt/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	40.98	Pk	32	-24.9	48.08	-	-	74	-25.92	262	368	V
2	* 2.389	43.02	Pk	32	-24.9	50.12	-	-	74	-23.88	262	368	V
3	* 2.39	29.92	VB1T	32	-24.9	37.02	-	-	-	-	262	368	V
4	* 2.384	30.33	VB1T	31.9	-24.9	37.33	-	-	-	-	262	368	V

AUTHORIZED BANDEDGE (HIGH CHANNEL)

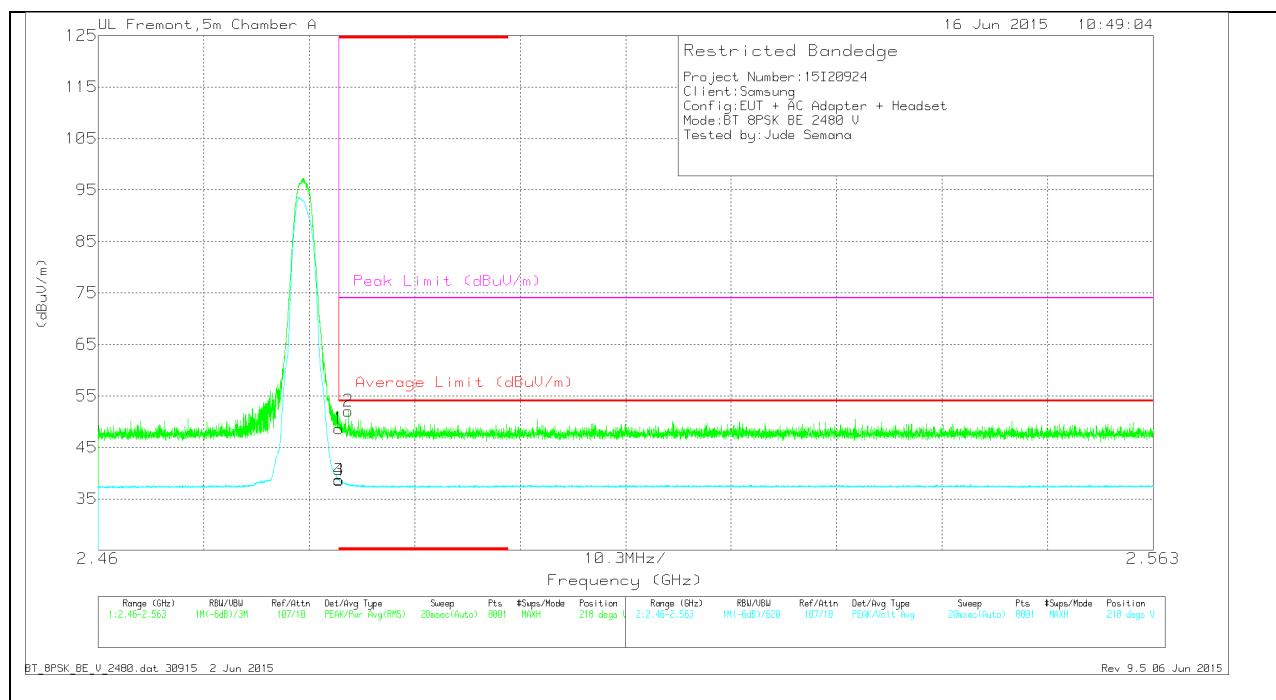
HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T136 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	44.45	Pk	32.1	-24.8	51.75	-	-	74	-22.25	182	278	H
2	* 2.484	44.78	Pk	32.1	-24.8	52.08	-	-	74	-21.92	182	278	H
3	* 2.484	32.1	VB1T	32.1	-24.8	39.4	-	-	-	-	182	278	H
4	* 2.484	32.14	VB1T	32.1	-24.8	39.44	-	-	-	-	182	278	H

VERTICAL PEAK AND AVERAGE PLOT

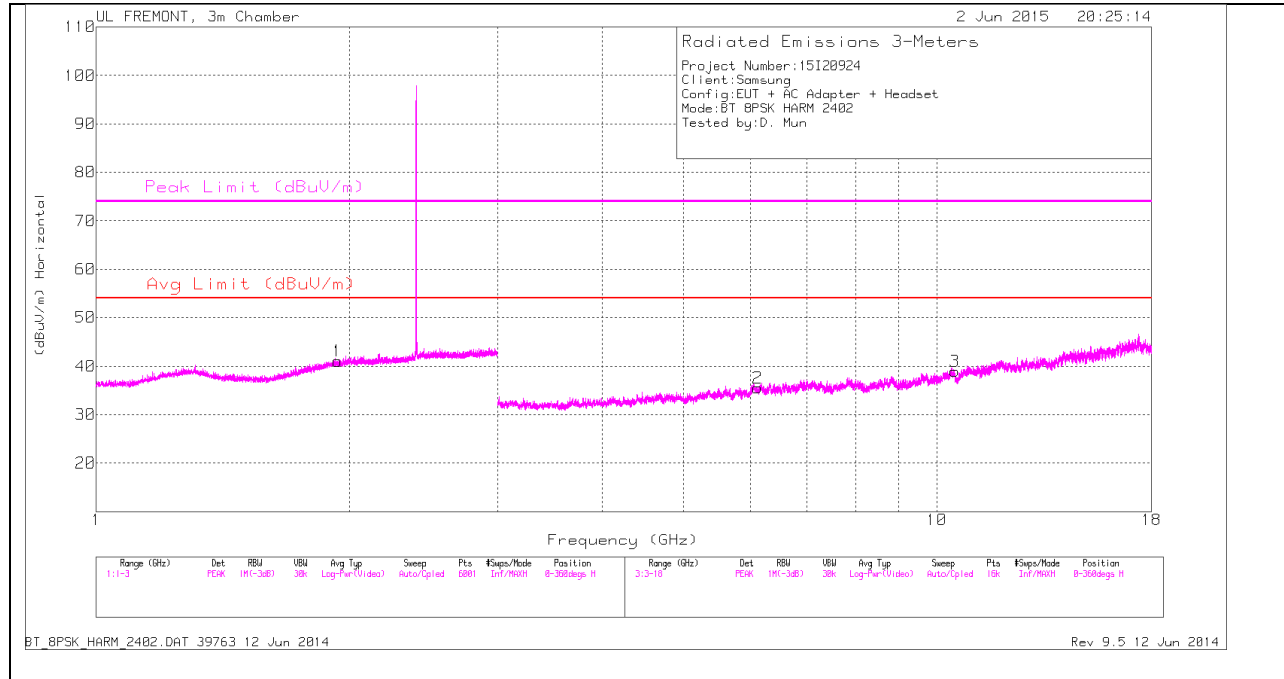


VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	AF T136 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.35	Pk	32.1	-24.8	48.65	-	-	74	-25.35	218	282	V
2	* 2.484	44.75	Pk	32.1	-24.8	52.05	-	-	74	-21.95	218	282	V
3	* 2.484	31.39	VB1T	32.1	-24.8	38.69	-	-	-	-	218	282	V
4	* 2.484	31.33	VB1T	32.1	-24.8	38.63	-	-	-	-	218	282	V

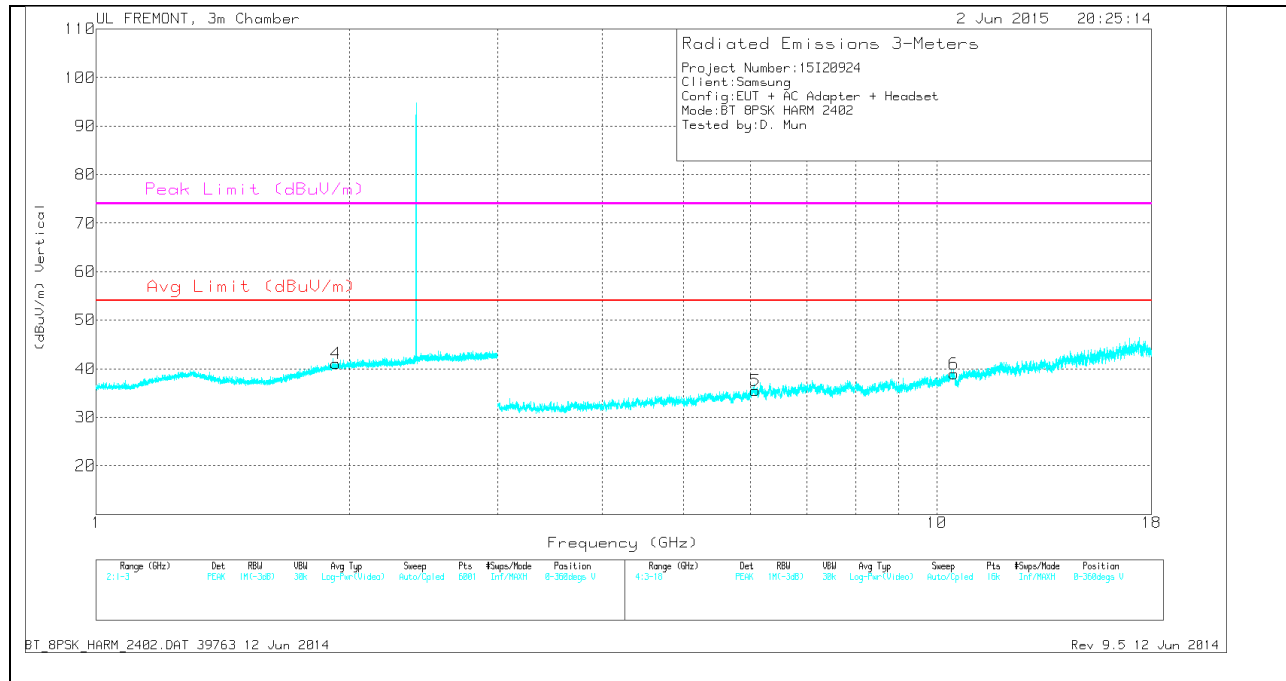
HARMONICS AND SPURIOUS EMISSIONS

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 T119 (dB/m)	Amp/Cbl/ Fitr/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	1.928	33.15	Avg	31.2	-23.3	41.05	54	-12.95	-	-	0-360	100	V
1	1.937	32.93	Avg	31.3	-23.2	41.03	54	-12.97	-	-	0-360	100	H
5	6.078	29.33	Avg	35.2	-29	35.53	54	-18.47	-	-	0-360	200	V
2	6.116	29.45	Avg	35.2	-29.1	35.55	54	-18.45	-	-	0-360	100	H
6	10.483	26.86	Avg	37.4	-25.3	38.96	54	-15.04	-	-	0-360	200	V
3	10.498	27.07	Avg	37.5	-25.6	38.97	54	-15.03	-	-	0-360	100	H

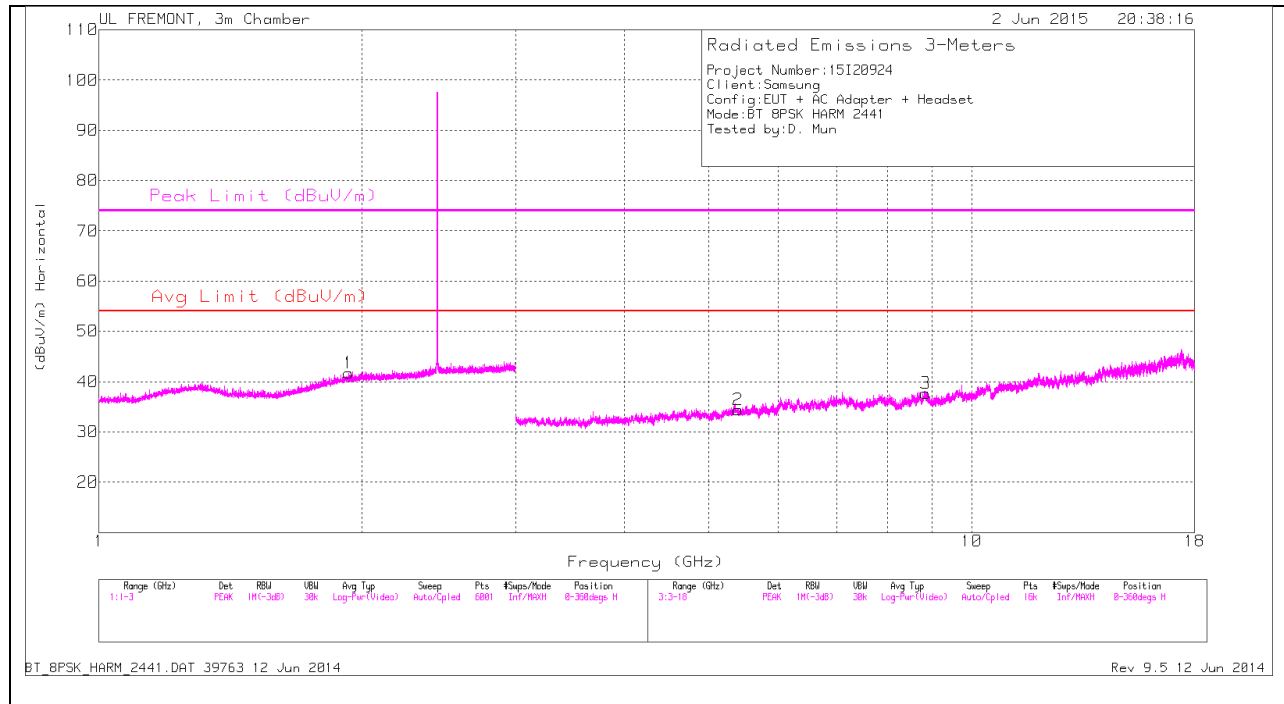
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.93	42.22	PK3	31.2	-23.3	50.12	-	-	74	-23.88	0	100	V
1.93	29.43	VB1T	31.2	-23.3	37.33	54	-16.67	-	-	0	100	V
1.935	29.36	VB1T	31.2	-23.2	37.36	54	-16.64	-	-	0	100	H
1.936	42.08	PK3	31.2	-23.2	50.08	-	-	74	-23.92	0	100	H
6.079	38.98	PK3	35.2	-29	45.18	-	-	74	-28.82	0	200	V
6.079	25.96	VB1T	35.2	-29	32.16	54	-21.84	-	-	0	200	V
6.114	39.08	PK3	35.2	-29	45.28	-	-	74	-28.72	0	100	H
6.115	26.32	VB1T	35.2	-29	32.52	54	-21.48	-	-	0	100	H
10.481	22.99	VB1T	37.4	-25.2	35.19	54	-18.81	-	-	0	200	V
10.483	35.75	PK3	37.4	-25.3	47.85	-	-	74	-26.15	0	200	V
10.496	23.22	VB1T	37.5	-25.6	35.12	54	-18.88	-	-	0	100	H
10.497	35.79	PK3	37.5	-25.6	47.69	-	-	74	-26.31	0	100	H

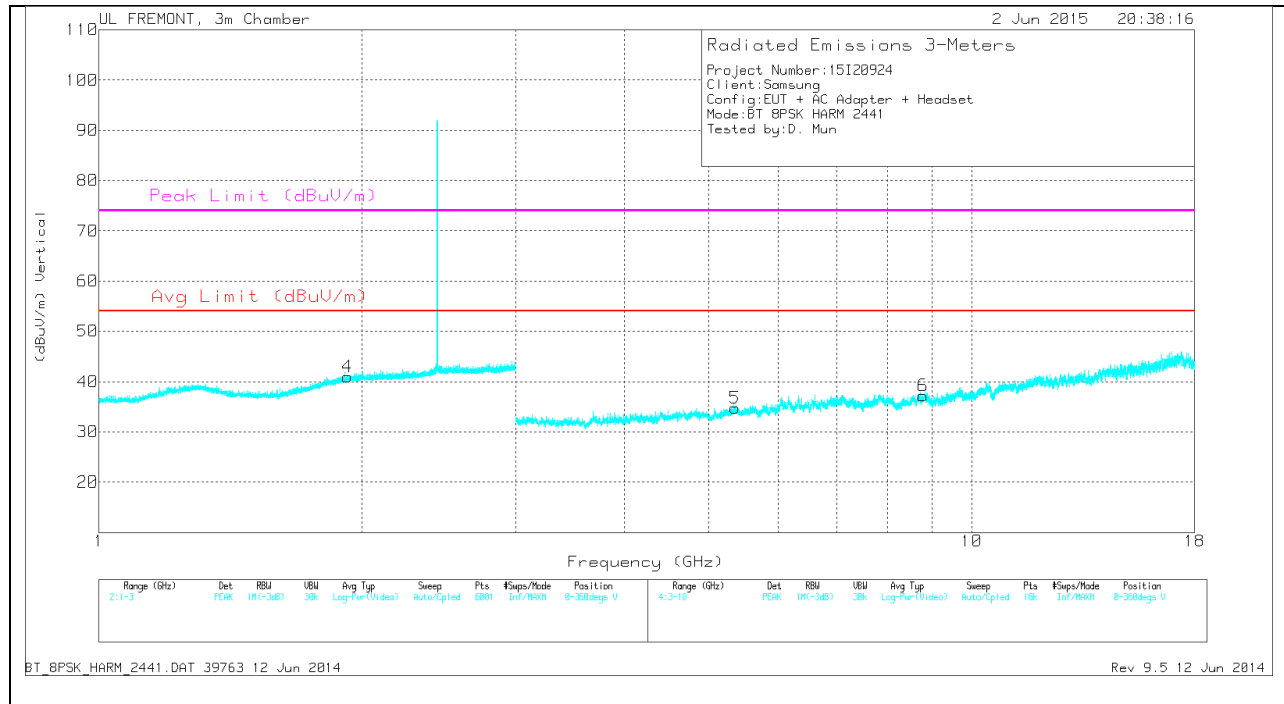
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MID CHANNEL HORIZONTAL



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

MID CHANNEL VERTICAL



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

MID CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/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	* 5.393	30.52	Avg	34.6	-30.7	34.42	54	-19.58	-	-	0-360	200	H
5	* 5.354	30.24	Avg	34.5	-30	34.74	54	-19.26	-	-	0-360	200	V
4	1.925	32.94	Avg	31.2	-23.2	40.94	54	-13.06	-	-	0-360	200	V
1	1.933	33.66	Avg	31.2	-23.2	41.66	54	-12.34	-	-	0-360	100	H
6	8.791	28.46	Avg	35.9	-27.2	37.16	54	-16.84	-	-	0-360	200	V
3	8.856	28.33	Avg	35.9	-26.6	37.63	54	-16.37	-	-	0-360	200	H

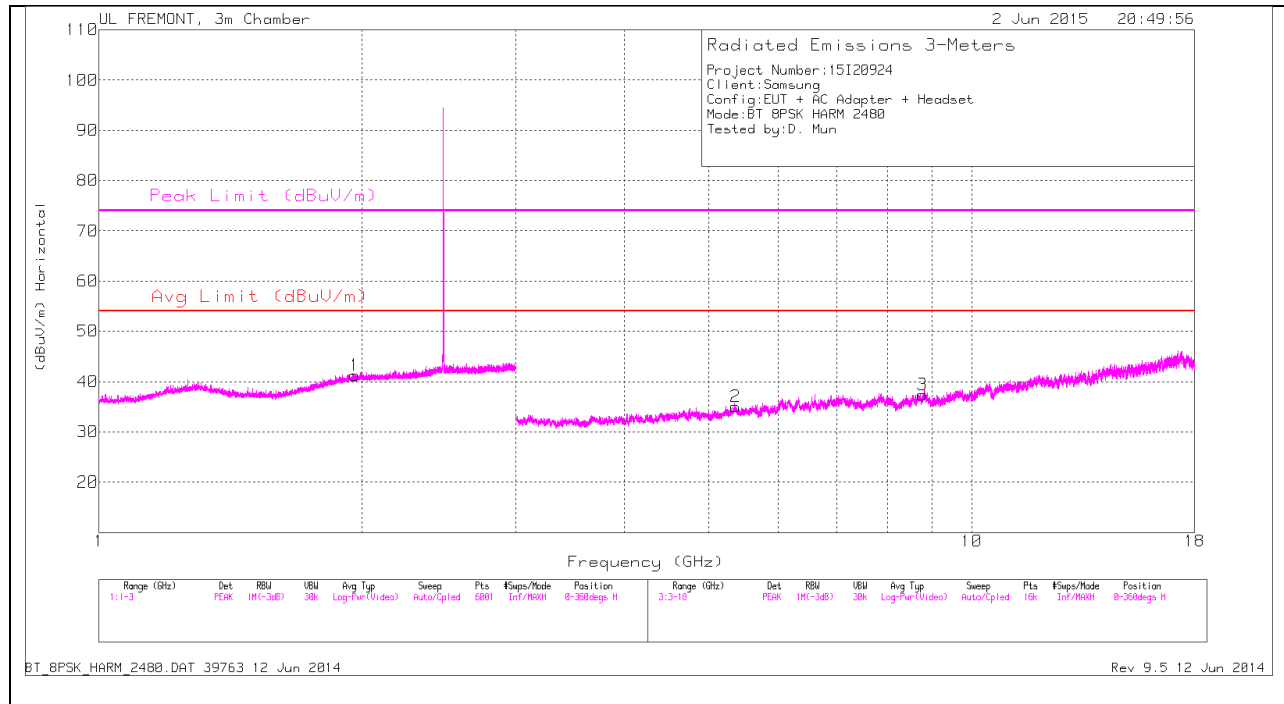
PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.395	39.74	PK3	34.6	-30.7	43.64	-	-	74	-30.36	0	200	H
* 5.395	27.2	VB1T	34.6	-30.7	31.1	54	-22.9	-	-	0	200	H
* 5.356	39.42	PK3	34.5	-30	43.92	-	-	74	-30.08	0	200	V
* 5.354	26.83	VB1T	34.5	-30	31.33	54	-22.67	-	-	0	200	V
1.924	29.25	VB1T	31.2	-23.2	37.25	54	-16.75	-	-	0	200	V
1.926	42.45	PK3	31.2	-23.2	50.45	-	-	74	-23.55	0	200	V
1.932	29.38	VB1T	31.2	-23.3	37.28	54	-16.72	-	-	0	100	H
1.933	42.87	PK3	31.2	-23.2	50.87	-	-	74	-23.13	0	100	H
8.79	37.02	PK3	35.9	-27.2	45.72	-	-	74	-28.28	0	200	V
8.791	24.33	VB1T	35.9	-27.2	33.03	54	-20.97	-	-	0	200	V
8.855	24.02	VB1T	35.9	-26.7	33.22	54	-20.78	-	-	0	200	H
8.856	37.57	PK3	35.9	-26.6	46.87	-	-	74	-27.13	0	200	H

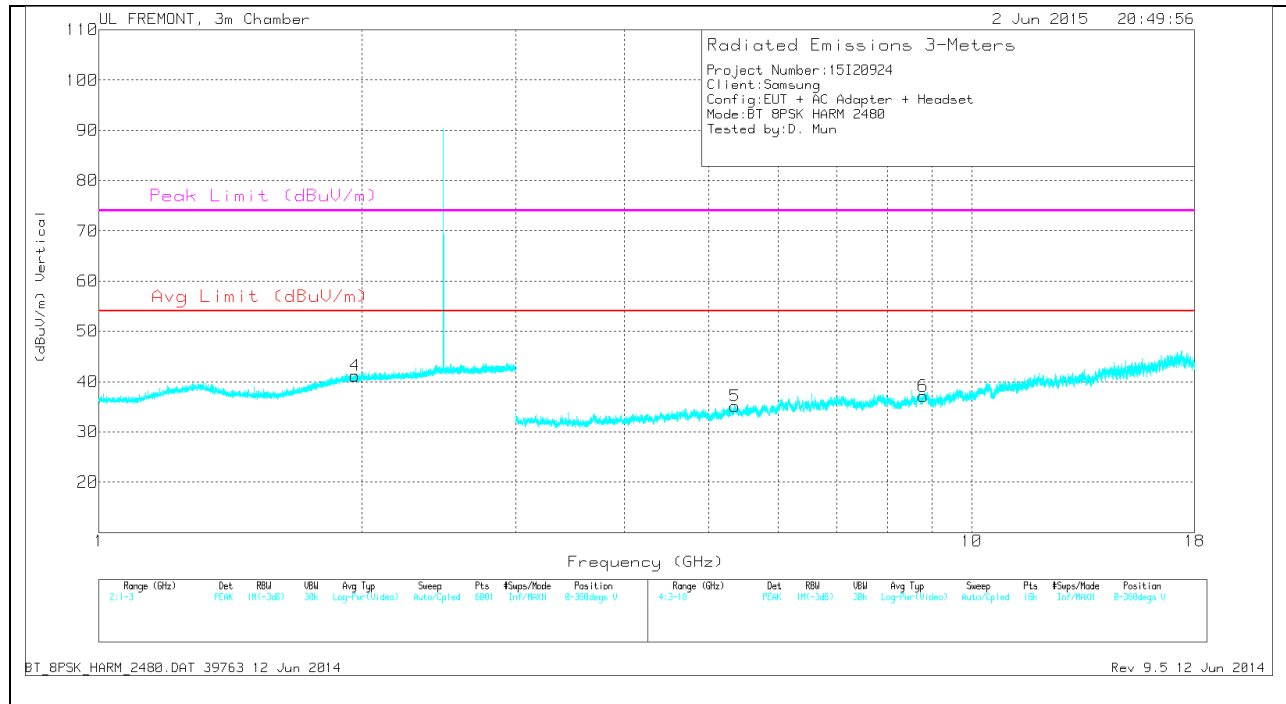
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HIGH CHANNEL HORIZONTAL



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

HIGH CHANNEL VERTICAL



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/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	* 5.361	30.48	Avg	34.5	-30	34.98	54	-19.02	-	-	0-360	200	H
5	* 5.352	30.5	Avg	34.5	-29.9	35.1	54	-18.9	-	-	0-360	100	V
1	1.964	33.08	Avg	31.4	-23.2	41.28	54	-12.72	-	-	0-360	100	H
4	1.965	32.96	Avg	31.4	-23.2	41.16	54	-12.84	-	-	0-360	100	V
3	8.783	28.54	Avg	35.9	-27.1	37.34	54	-16.66	-	-	0-360	200	H
6	8.796	28.31	Avg	35.9	-27.1	37.11	54	-16.89	-	-	0-360	200	V

PK - Peak detector

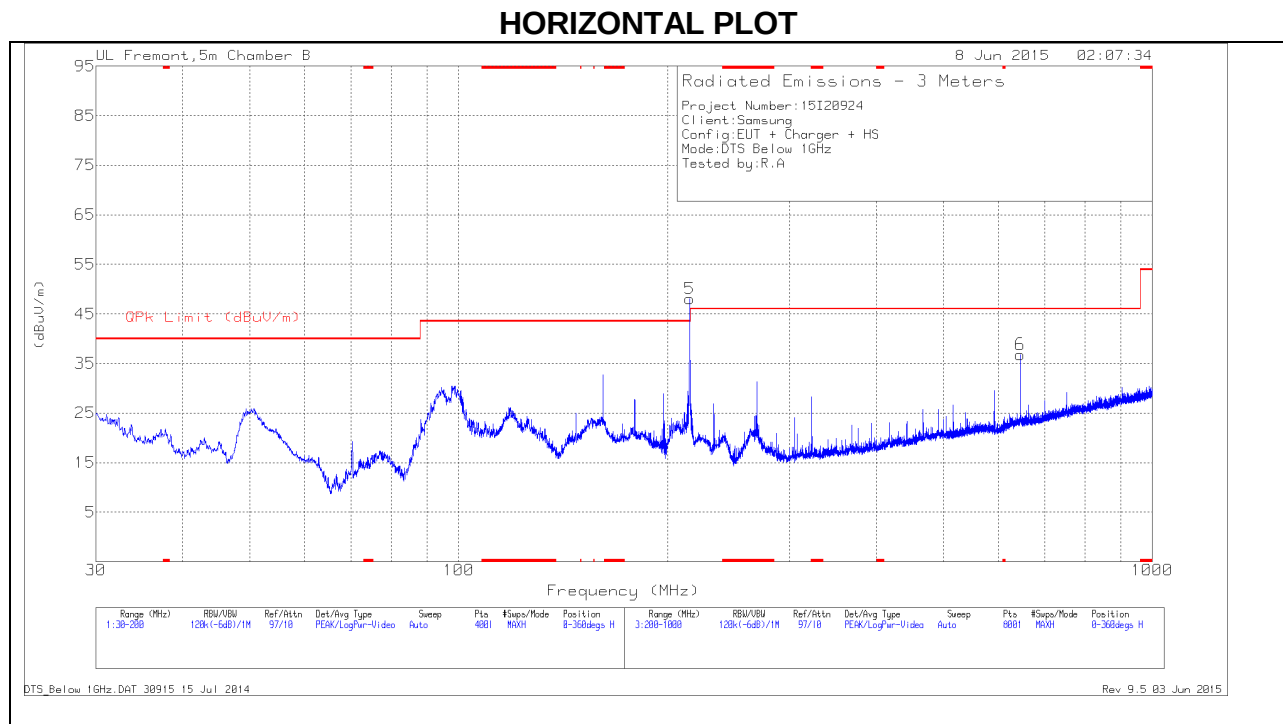
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T119 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 5.362	39.61	PK3	34.5	-30	44.11	-	-	74	-29.89	0	200	H
* 5.361	26.59	VB1T	34.5	-30	31.09	54	-22.91	-	-	0	200	H
* 5.351	39.8	PK3	34.5	-29.9	44.4	-	-	74	-29.6	0	100	V
* 5.354	26.93	VB1T	34.5	-30	31.43	54	-22.57	-	-	0	100	V
1.962	29.28	VB1T	31.4	-23.3	37.38	54	-16.62	-	-	0	100	H
1.963	42.12	PK3	31.4	-23.2	50.32	-	-	74	-23.68	0	100	V
1.964	29.23	VB1T	31.4	-23.2	37.43	54	-16.57	-	-	0	100	V
1.965	42.64	PK3	31.4	-23.2	50.84	-	-	74	-23.16	0	100	H
8.782	24.52	VB1T	35.9	-27.2	33.22	54	-20.78	-	-	0	200	H
8.783	37.22	PK3	35.9	-27.1	46.02	-	-	74	-27.98	0	200	H
8.795	24.26	VB1T	35.9	-27.2	32.96	54	-21.04	-	-	0	200	V
8.797	37.64	PK3	35.9	-27.1	46.44	-	-	74	-27.56	0	200	V

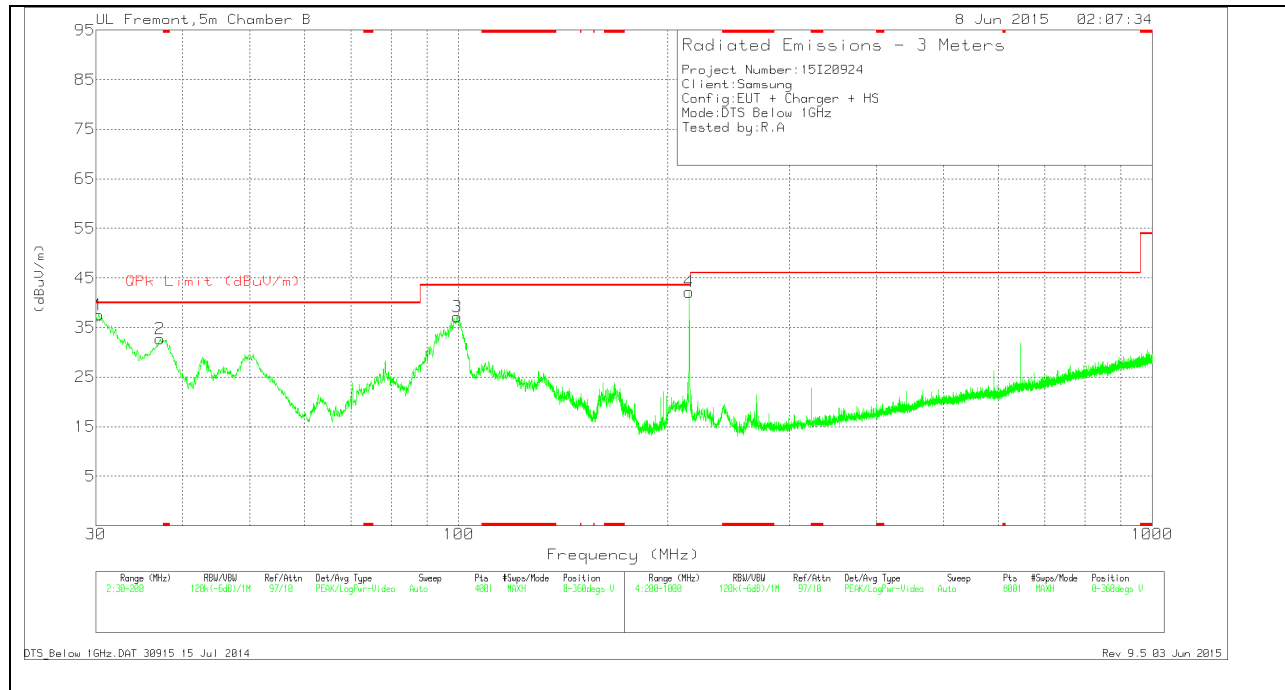
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9.3. WORST-CASE BELOW 1 GHz

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 T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	30.2975	45.92	Pk	20.5	-28.9	37.52	40	-2.48	0-360	101	V
2	37.14	45.53	Pk	16	-28.8	32.73	40	-7.27	0-360	101	V
3	99.53	55.19	Pk	10.1	-28.1	37.19	43.52	-6.33	0-360	101	V
4	215	58.37	Pk	10.6	-26.8	42.17	43.52	-1.35	0-360	101	V
5	215.4	64.24	Pk	10.6	-26.8	48.04			0-360	101	H
6	645.4	41.93	Pk	19.9	-25	36.83	46.02	-9.19	0-360	299	H

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	AF T243 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
215.4	48.96	Qp	10.6	-26.8	32.76	43.52	-10.76	270	146	H

Qp - Quasi-Peak detector

10. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

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.

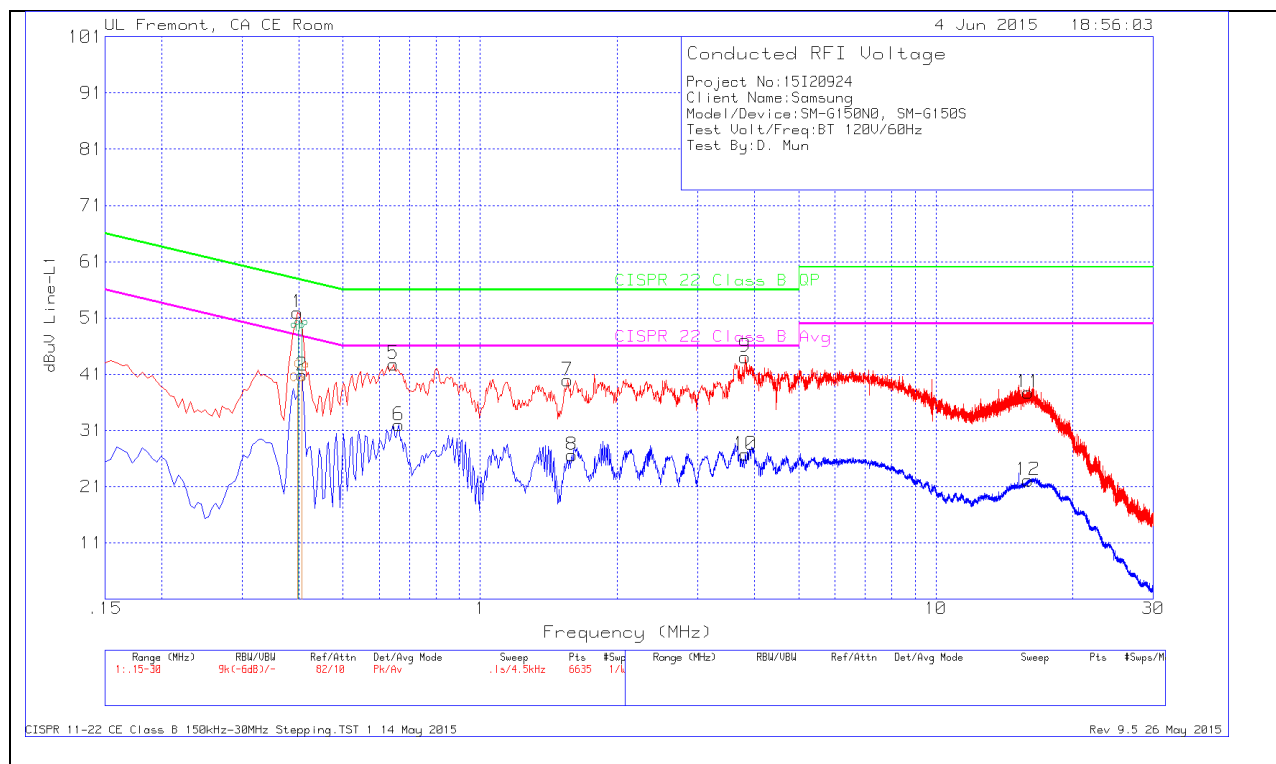
The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

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

RESULTS

6 WORST EMISSIONS

LINE 1 PLOT



LINE 1 RESULTS

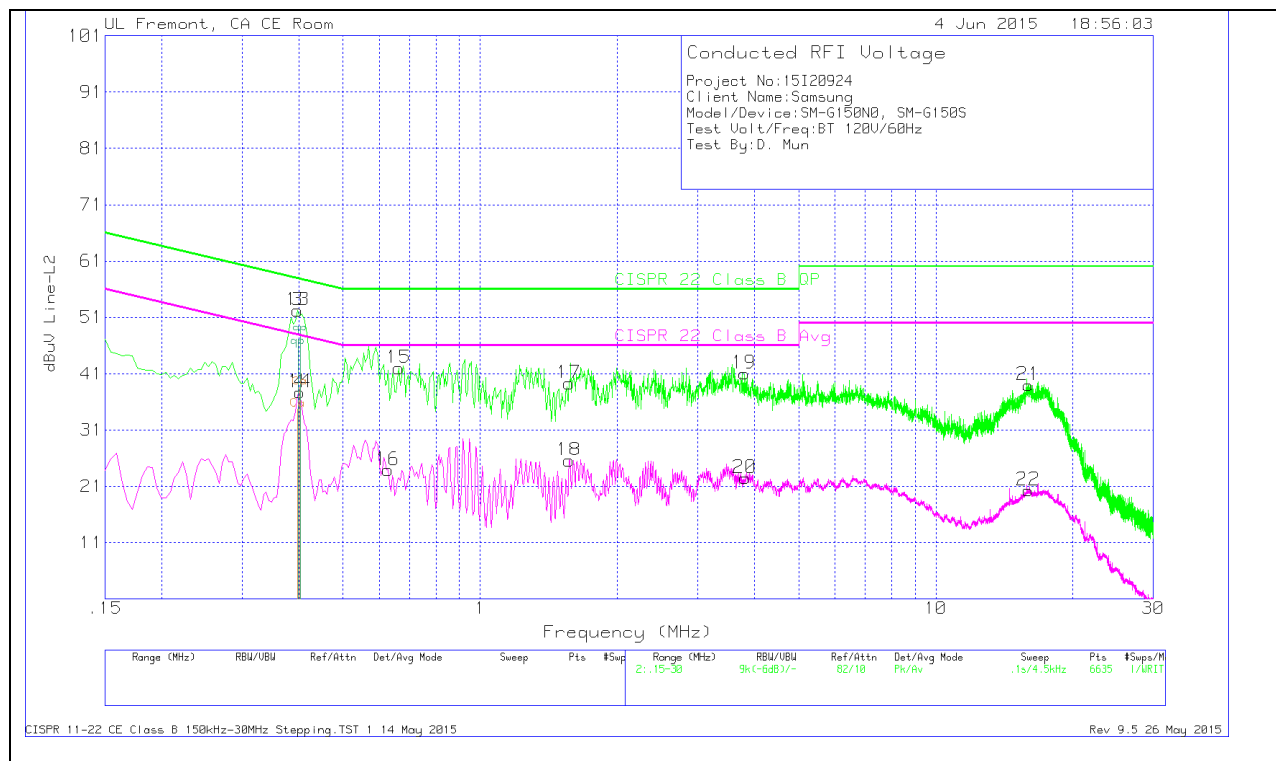
Trace Markers

Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1	LC Cables 1&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
1	.3975	51.56	Pk	.4	0	51.96	57.91	-5.95		
2	.4065	40.4	Av	.4	0	40.8	-	-	47.72	-6.92
5	.645	42.5	Pk	.3	0	42.8	56	-13.2		
6	.663	31.66	Av	.3	0	31.96	-	-	46	-14.04
7	1.554	39.61	Pk	.2	.1	39.91	56	-16.09		
8	1.59	26.3	Av	.2	.1	26.6	-	-	46	-19.4
9	3.813	43.77	Pk	.2	.1	44.07	56	-11.93		
10	3.8175	26.42	Av	.2	.1	26.72	-	-	46	-19.28
11	15.9585	37.24	Pk	.3	.2	37.74	60	-22.26		
12	15.945	21.67	Av	.3	.2	22.17	-	-	50	-27.83

Pk - Peak detector

LINE 2 PLOT



LINE 2 RESULTS

Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2	LC Cables 2&3	Corrected Reading dBuV	CISPR 22 Class B QP	Margin (dB)	CISPR 22 Class B Avg	Margin (dB)
3	.3975	51.86	Pk	.4	0	52.26	57.91	-5.65		
4	.402	37.29	Av	.4	0	37.69	-	-	47.81	-10.12
13	.3975	51.86	Pk	.4	0	52.26	57.91	-5.65		
14	.402	37.29	Av	.4	0	37.69	-	-	47.81	-10.12
15	.663	41.7	Pk	.3	0	42	56	-14	46	-22.1
16	.627	23.6	Av	.3	0	23.9	-	-		
17	1.5675	39.01	Pk	.2	.1	39.31	56	-16.69	46	-20.4
18	1.5675	25.3	Av	.2	.1	25.6	-	-		
19	3.795	40.72	Pk	.2	.1	41.02	56	-14.98	46	-23.53
20	3.8085	22.17	Av	.2	.1	22.47	-	-		
21	15.9675	38.46	Pk	.3	.2	38.96	60	-21.04	50	-29.72
22	15.963	19.78	Av	.3	.2	20.28	-	-		

Pk - Peak detector

Av - Average detection