



FCC 47 CFR PART 15 SUBPART C

**BLUETOOTH
CERTIFICATION TEST REPORT**

FOR

GSM/WCDMA/LTE Tablet + Bluetooth, DTS/UNII a/b/g/n/ac and ANT+

MODEL NUMBER: SM-T805S; SM-T805K; SM-T805L

FCC ID: A3LSMT805KOR

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TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	5
2. TEST METHODOLOGY	6
3. FACILITIES AND ACCREDITATION	6
4. CALIBRATION AND UNCERTAINTY	6
4.1. MEASURING INSTRUMENT CALIBRATION	6
4.2. SAMPLE CALCULATION	6
4.3. MEASUREMENT UNCERTAINTY	7
5. EQUIPMENT UNDER TEST	8
5.1. DESCRIPTION OF EUT	8
5.2. MAXIMUM OUTPUT POWER.....	8
5.3. DESCRIPTION OF AVAILABLE ANTENNAS	8
5.4. SOFTWARE AND FIRMWARE.....	8
5.5. WORST-CASE CONFIGURATION AND MODE	9
5.6. DESCRIPTION OF TEST SETUP.....	10
6. TEST AND MEASUREMENT EQUIPMENT	12
7. SUMMARY TABLE	13
8. ANTENNA PORT TEST RESULTS	14
8.1. 20 dB AND 99% BANDWIDTH	14
8.1.1. BASIC DATA RATE GFSK MODULATION	14
8.1.2. ENHANCED DATA RATE 8PSK MODULATION	14
20 dB AND 99% BANDWIDTH PLOTS	15
8.2. HOPPING FREQUENCY SEPARATION	27
8.3. NUMBER OF HOPPING CHANNELS	29
8.4. AVERAGE TIME OF OCCUPANCY	34
8.5. OUTPUT POWER	42
8.5.1. BASIC DATA RATE GFSK MODULATION	42
8.5.2. ENHANCED DATA RATE 8PSK MODULATION	42
8.5.3. OUTPUT POWER PLOTS	43
8.6. AVERAGE POWER	49
8.6.1. BASIC DATA RATE GFSK MODULATION	50
8.6.2. ENHANCED DATA RATE 8PSK MODULATION	50
8.7. CONDUCTED SPURIOUS EMISSIONS	51
8.7.1. BASIC DATA RATE GFSK MODULATION	52
ENHANCED DATA RATE 8PSK MODULATION	60

9. RADIATED TEST RESULTS.....	68
9.1. LIMITS AND PROCEDURE	68
9.2. TRANSMITTER ABOVE 1 GHz	69
9.2.1. BASIC DATA RATE GFSK MODULATION	69
9.2.2. ENHANCED DATA RATE 8PSK MODULATION	82
9.3. WORST-CASE BELOW 1 GHz.....	95
10. AC POWER LINE CONDUCTED EMISSIONS	98
11. SETUP PHOTOS	102

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.
EUT DESCRIPTION: GSM/WCDMA/LTE Tablet + Bluetooth, DTS/UNII a/b/g/n/ac and ANT+
MODEL: SM-T805S; SM-T805K; SM-T805L
SERIAL NUMBER: Conducted: 1951580 Radiated: 1951579
DATE TESTED: Sep 5 – 16, 2014

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 C63.4-2009, 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:

$$\begin{aligned}\text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable} \\ &\text{Loss (dB)} - \text{Preamp Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m}\end{aligned}$$

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 26000 MHz	4.94 dB

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

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

GSM/WCDMA/LTE Tablet + Bluetooth, DTS/UNII a/b/g/n/ac and ANT+

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	11.97	15.74
2402 - 2480	Enhanced 8PSK	10.01	10.02

Note: GFSK, Pi/4-DQPSK, 8PSK average Power are all investigated, The GFSK & 8PSK Power are the worst case. Testing is based on this mode to showing compliance. For average power data please refer to section 8.6.

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of 0.19dBi.

5.4. SOFTWARE AND FIRMWARE

Software version was T805S.000

5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X, Y, Z it was determined that X orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in X orientation.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	SAMSUNG	EP-TA10EWE	N/A	N/A
Earphone	SAMSUNG	N/A	N/A	N/A

I/O CABLES

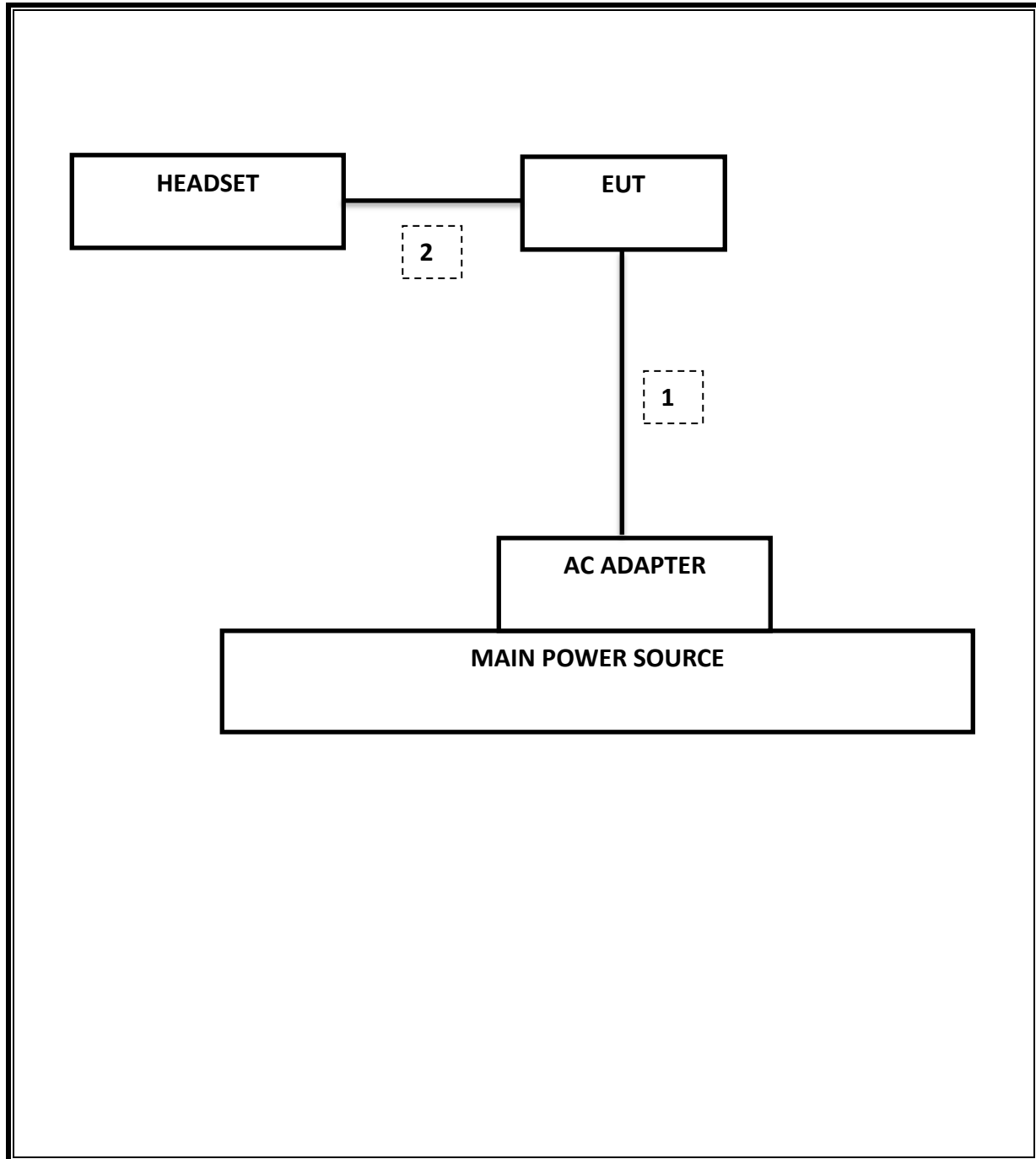
I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	DC Power	1	Mini-USB	Shielded	1.2m	N/A
2	Audio	1	Mini-Jack	Unshielded	1m	N/A

TEST SETUP

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

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

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	Manufacturer	Model	Asset	Cal Due
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	C01171	02/13/15
Antenna, Horn, 18GHz	EMCO	3115	C00783	10/25/14
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	11/14/14
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00580	01/28/15
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	10/22/14
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/14
CBT Bluetooth Tester	R & S	CBT	None	04/14/15
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/14
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/14
LISN, 30 MHz	FCC	50/250-25-2	C00626	01/14/15
Reject Filter, 2.4GHz	Micro-Tronics	BRM50702	N02684	CNR
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/14
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/14

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	1.222 MHz
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-42.49dBm
15.247 (b)(1)	RSS-210 A8.4	TX conducted output power	<21dBm		Pass	11.97dBm
15.247 (a)(1)	RSS-210 A8.1(b)	Hopping frequency separation	> 25KHz		Pass	1MHz
15.247 (a)(1)(iii)	RSS-210 A8.1(d)	Number of Hopping channels	More than 15 non-overlapping channels		Pass	79
15.247 (a)(1)(iii)	RSS-210 A8.1(d)	Avg Time of Occupancy	< 0.4sec		Pass	0.372sec
15.207 (a)	RSS-GEN 7.2.2	AC Power Line conducted emissions	Section 10	Radiated	Pass	46.03 dBuV
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m		Pass	37.84dBu V/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

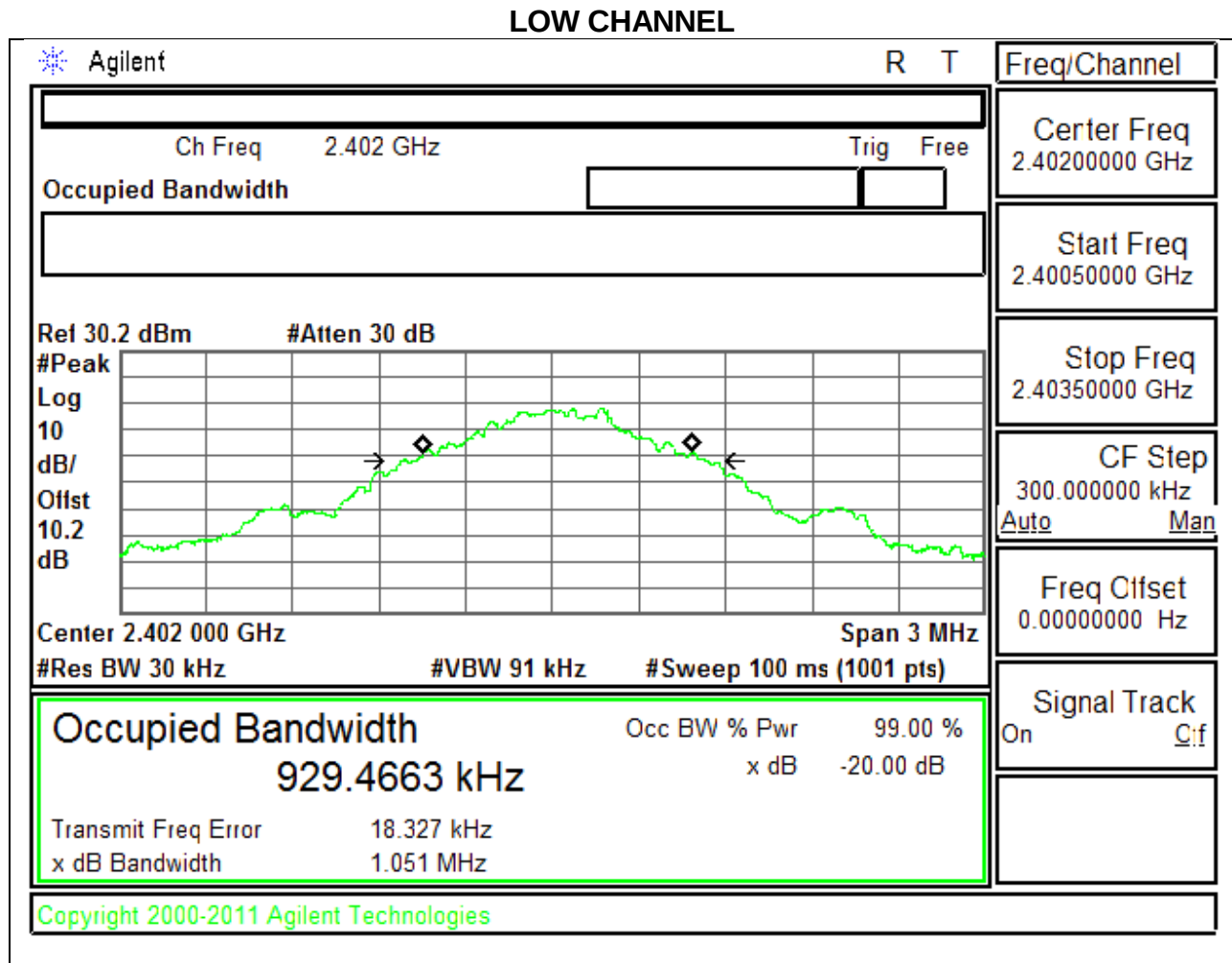
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (KHz)
Low	2402	1.051	890.546
Middle	2441	1.055	954.291
High	2480	1.052	965.483
Worst		1.055	965.483

8.1.2. ENHANCED DATA RATE 8PSK MODULATION

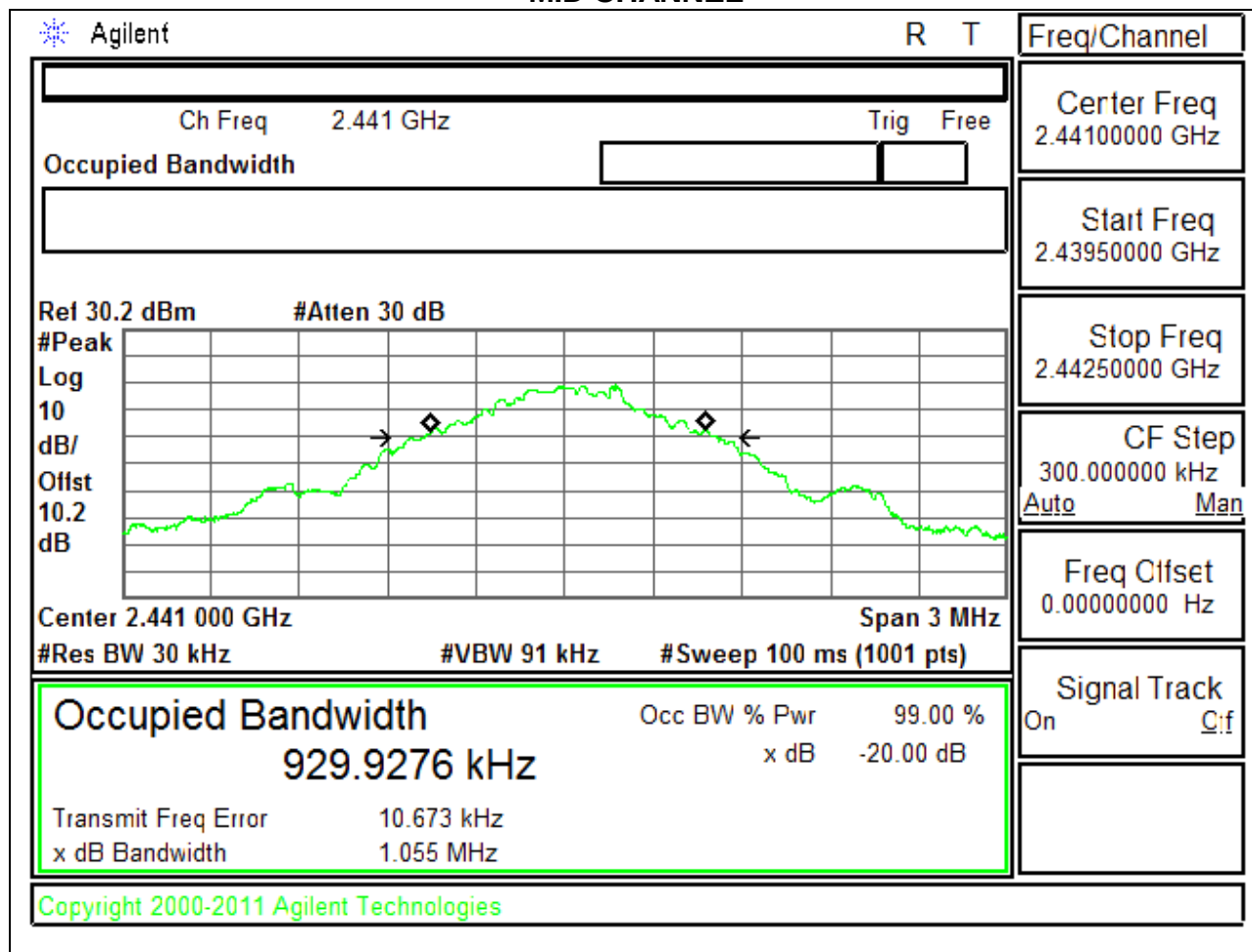
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low	2402	1.335	1.214
Middle	2441	1.337	1.208
High	2480	1.336	1.222
Worst		1.337	1.222

20 dB AND 99% BANDWIDTH PLOTS

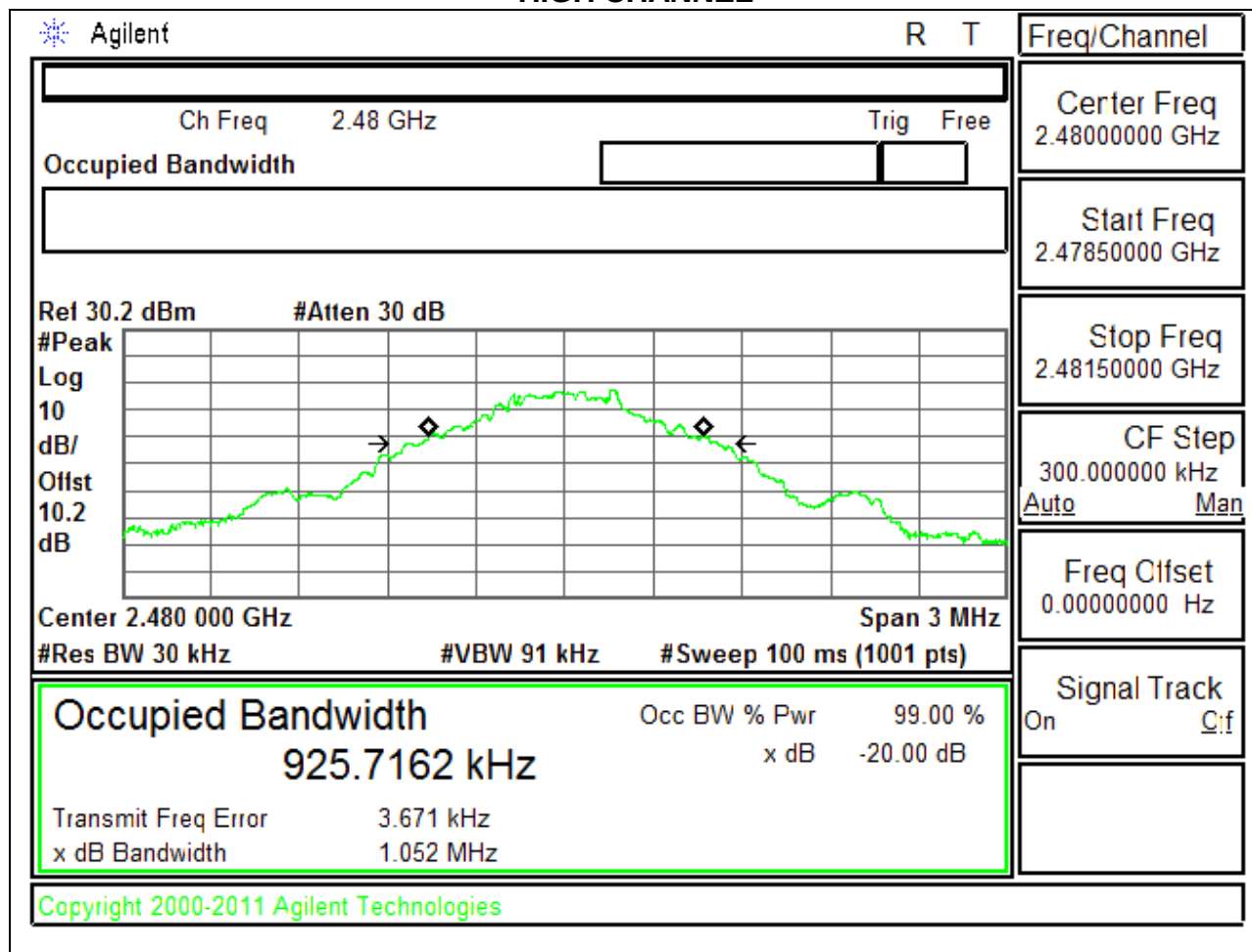
GFSK 20 dB BANDWIDTH



MID CHANNEL

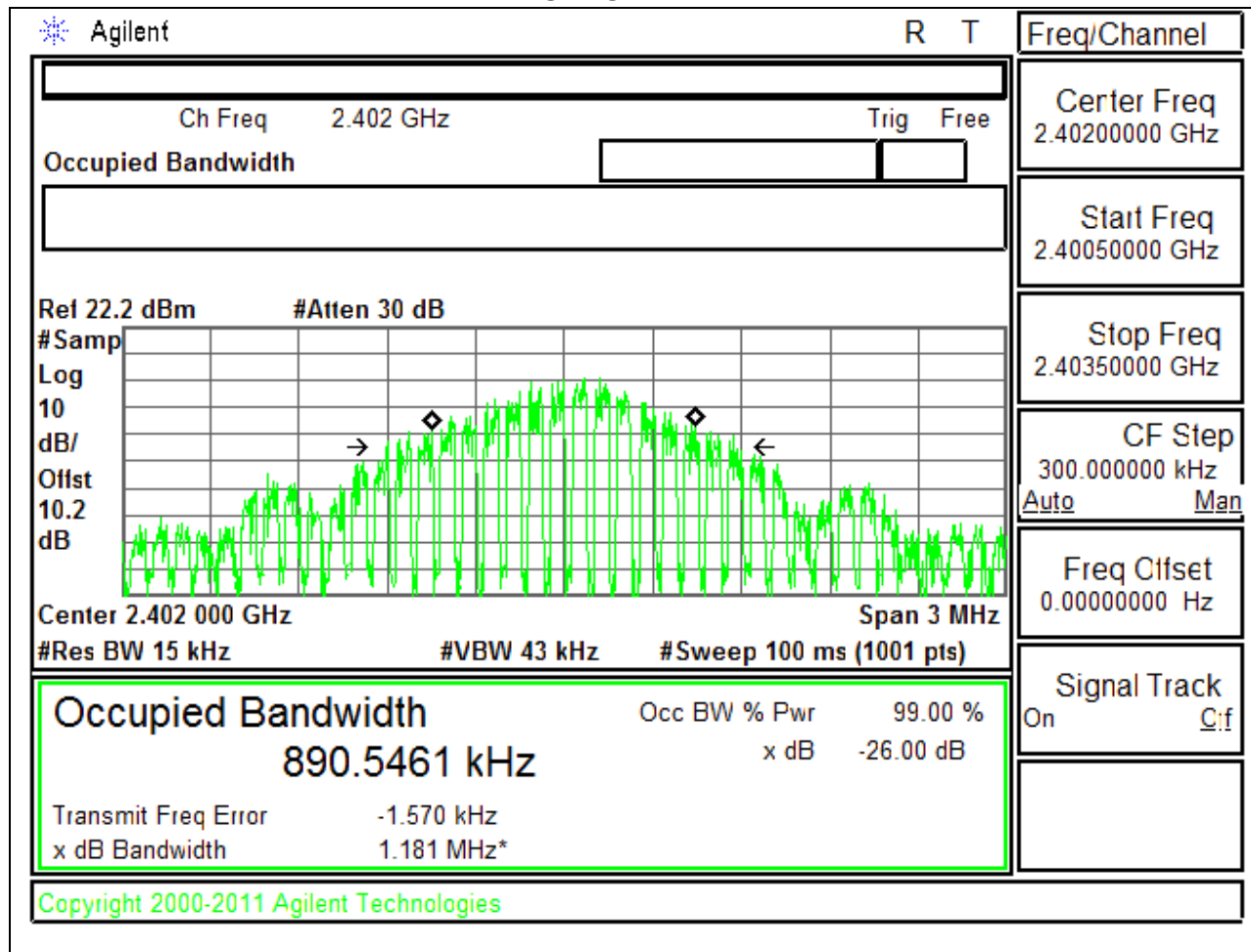


HIGH CHANNEL

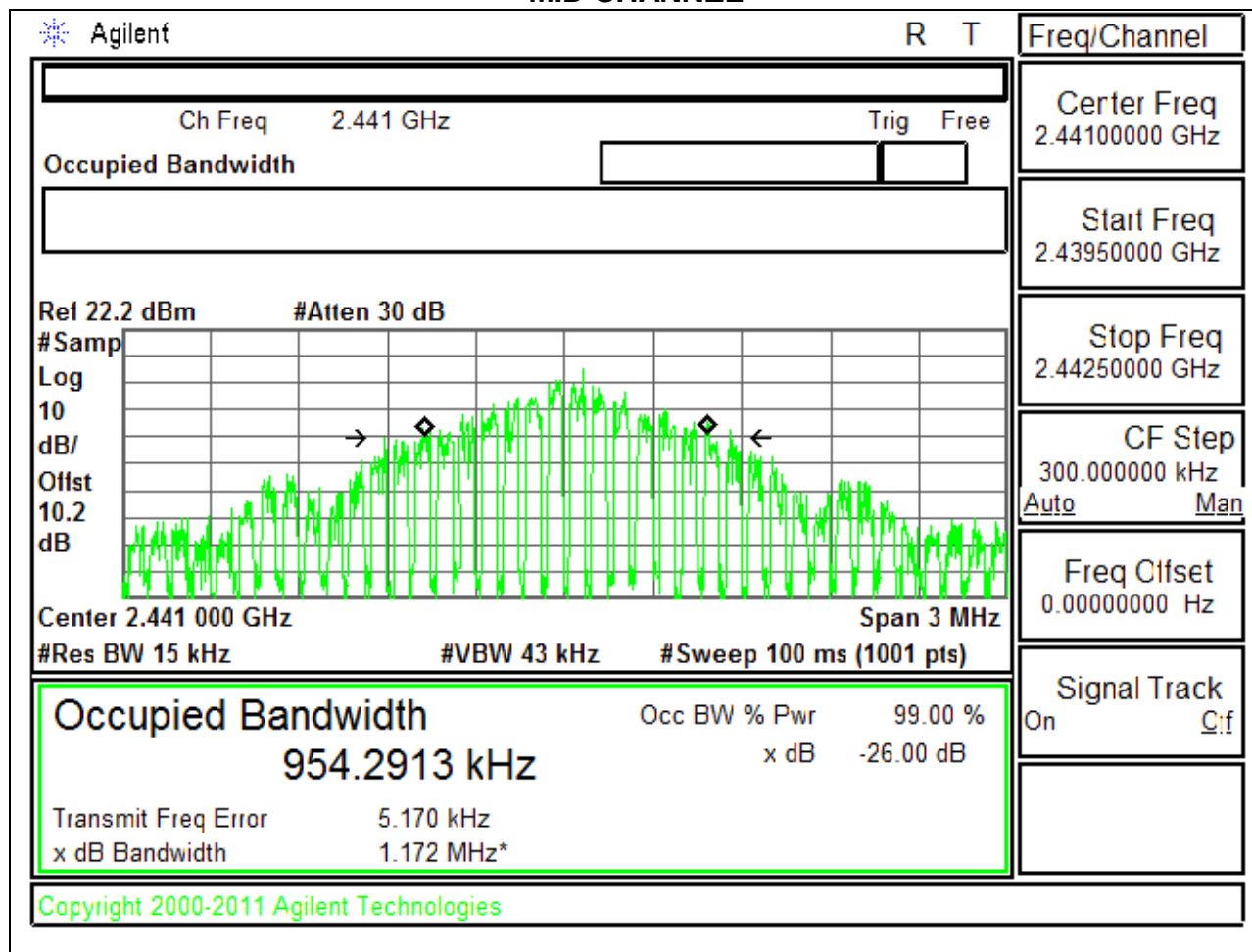


GFSK 99% BANDWIDTH

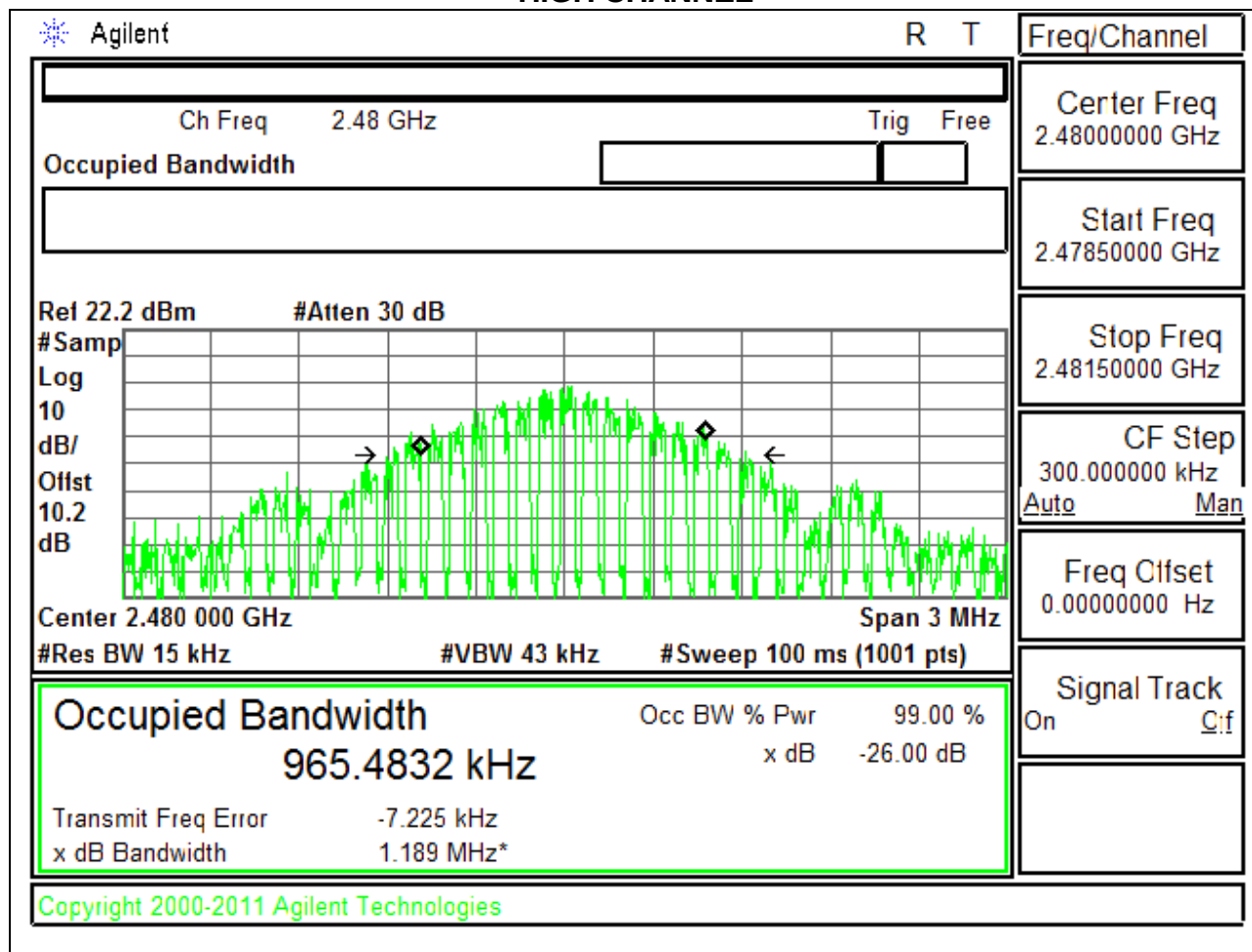
LOW CHANNEL



MID CHANNEL

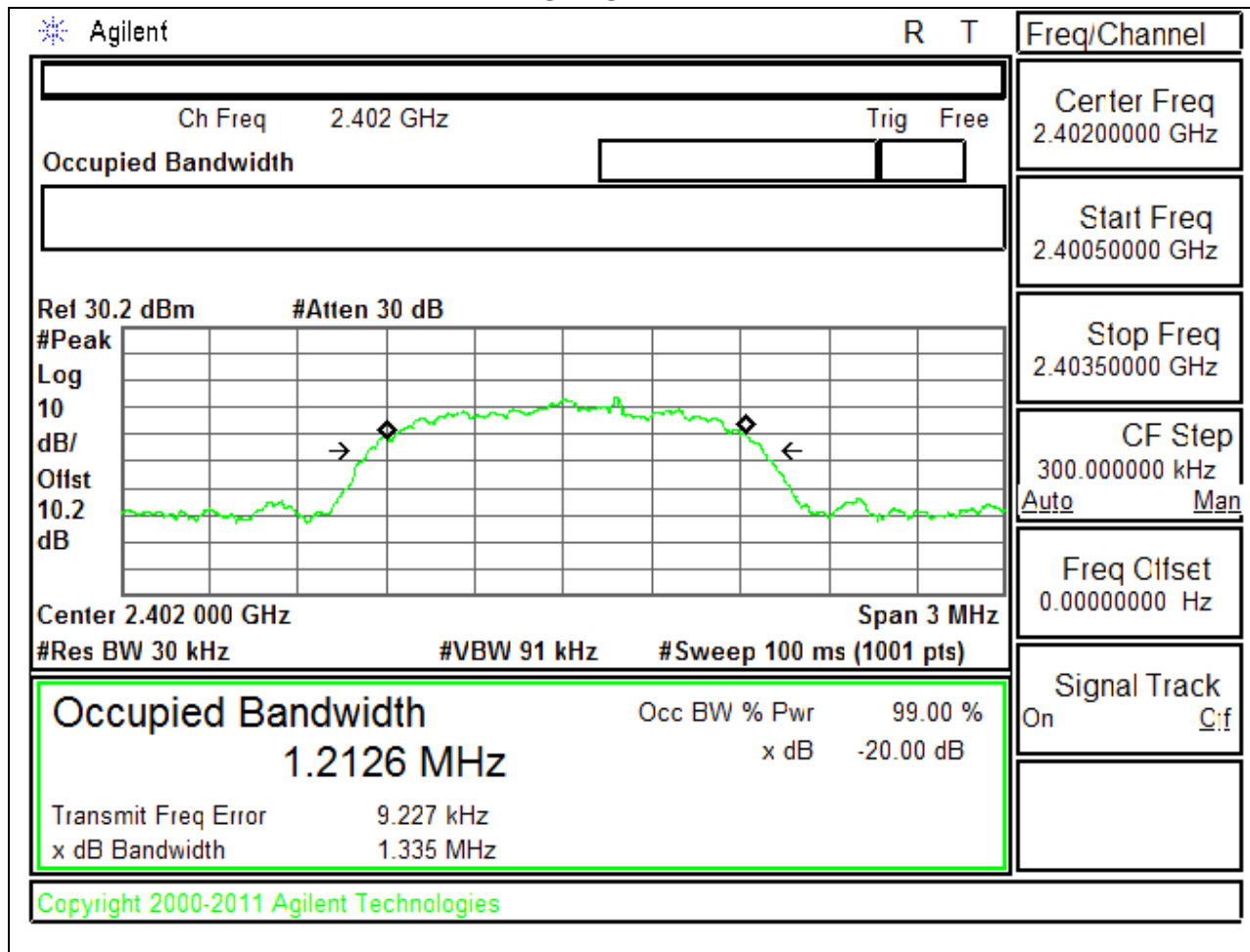


HIGH CHANNEL

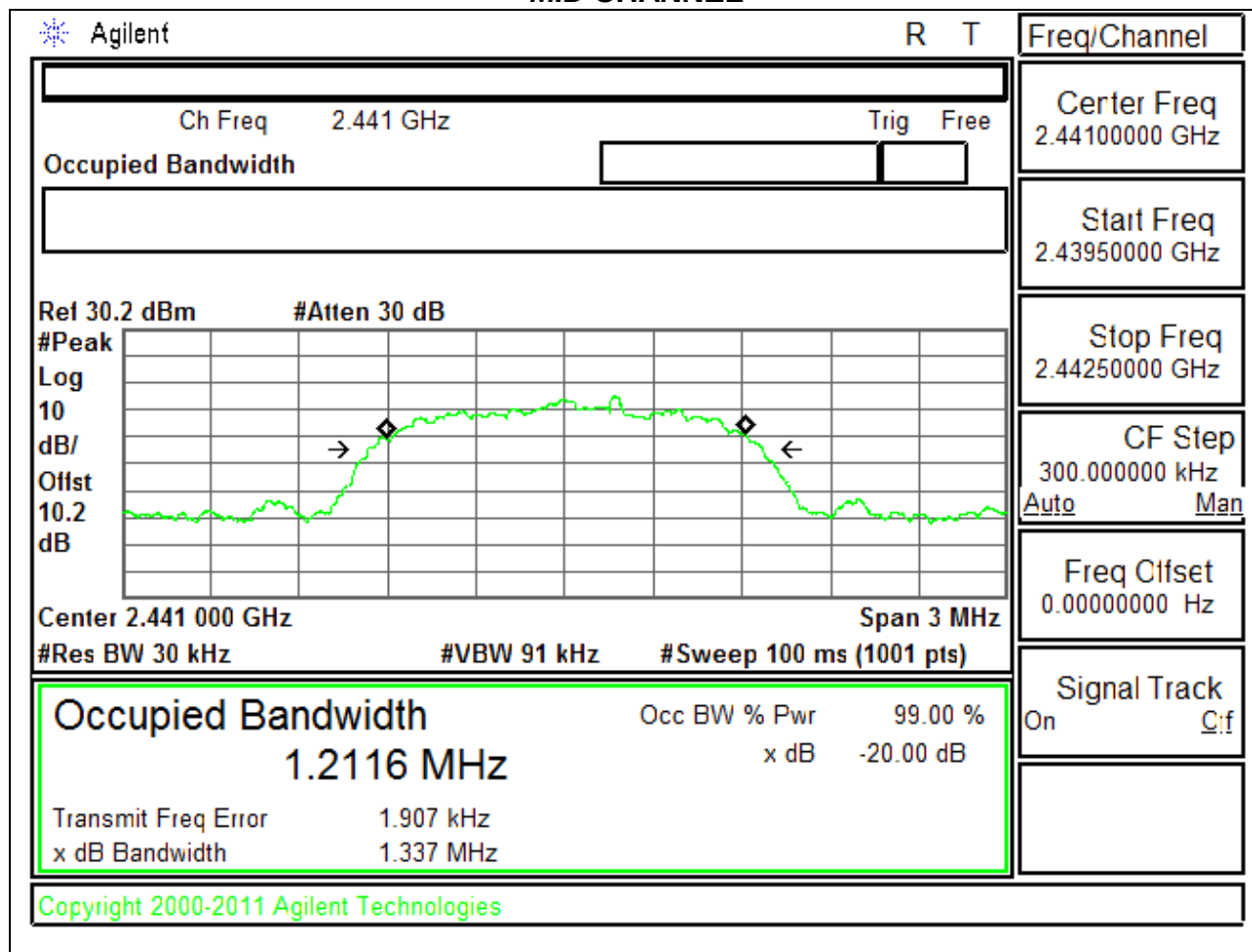


8PSK 20 dB BANDWIDTH

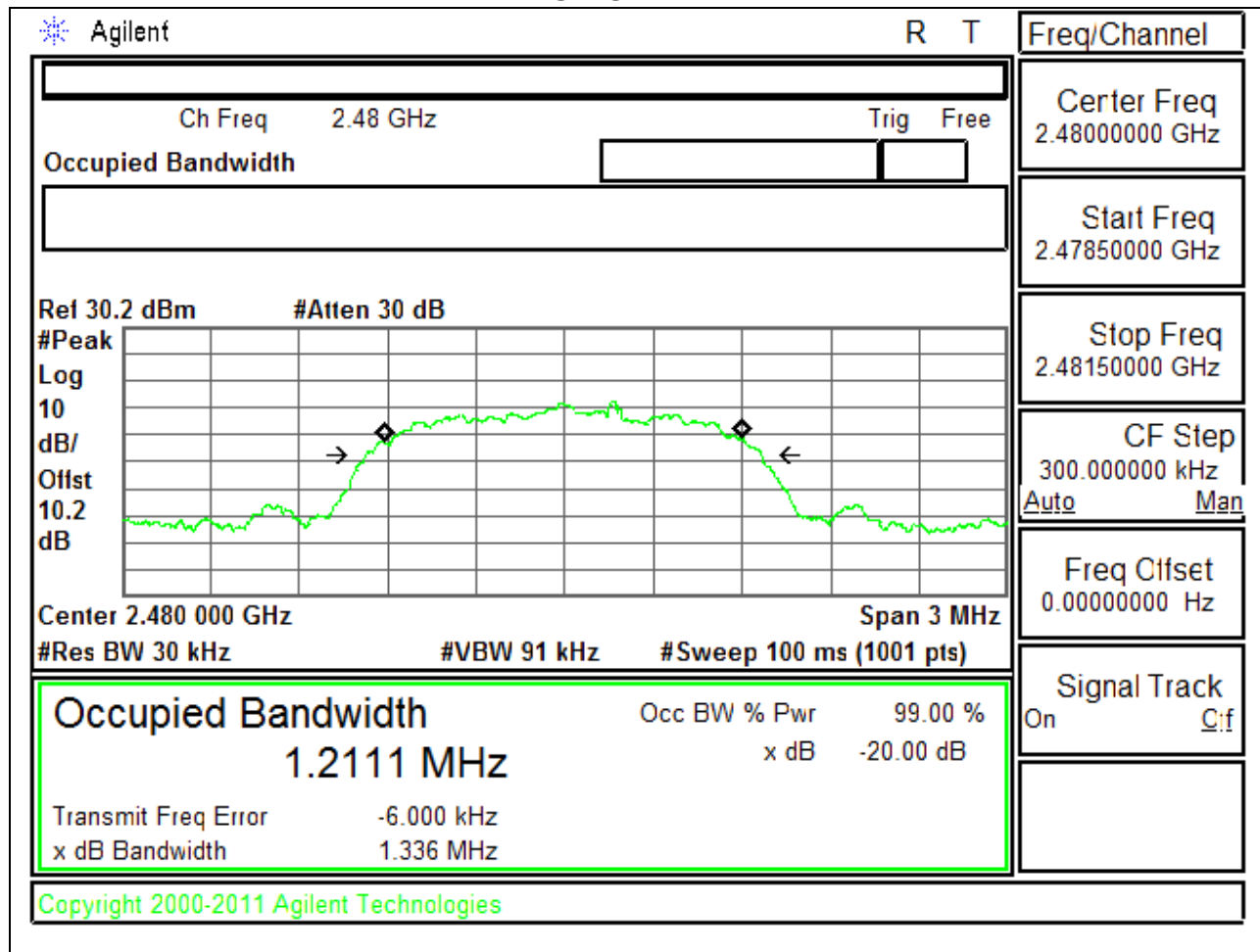
LOW CHANNEL



MID CHANNEL

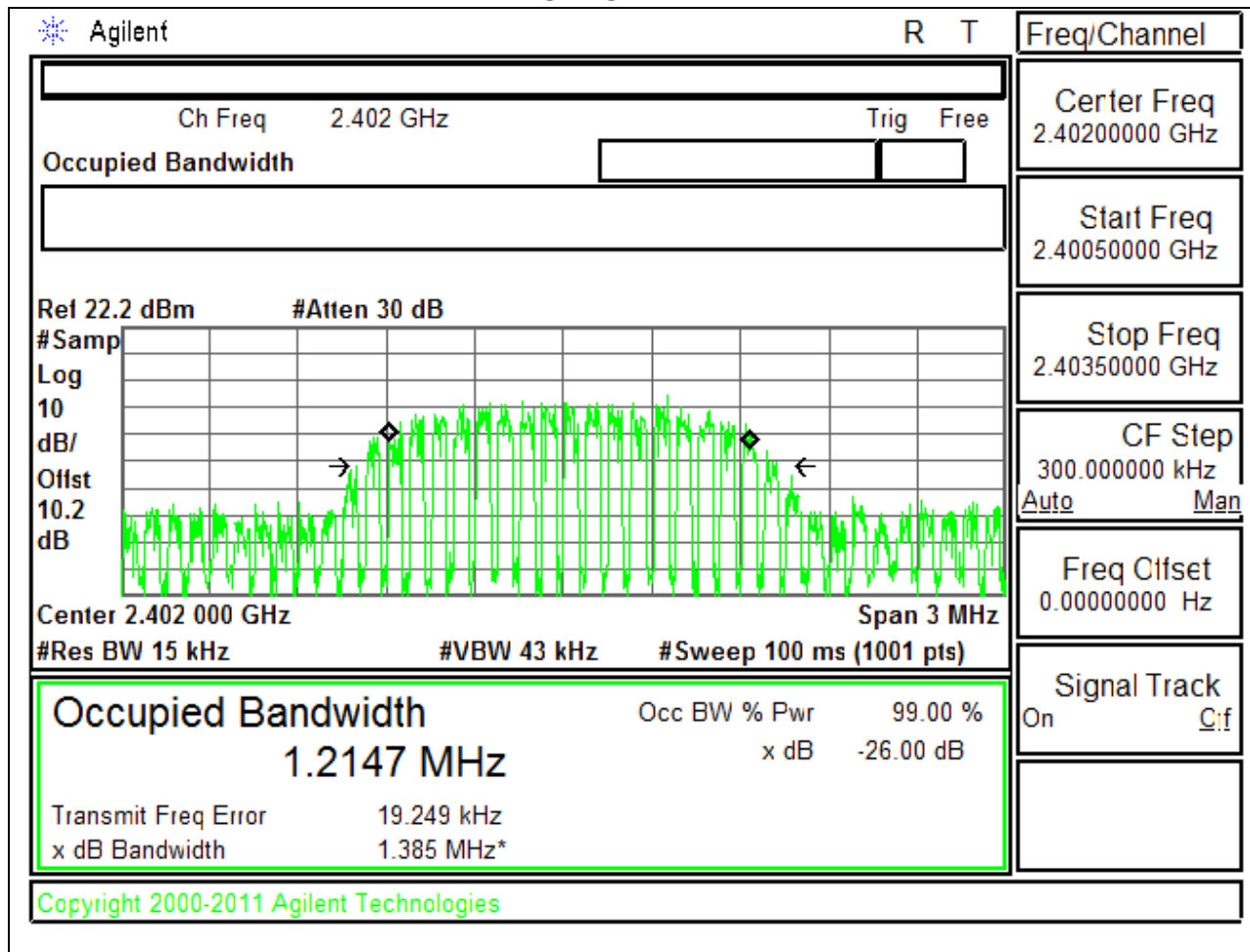


HIGH CHANNEL

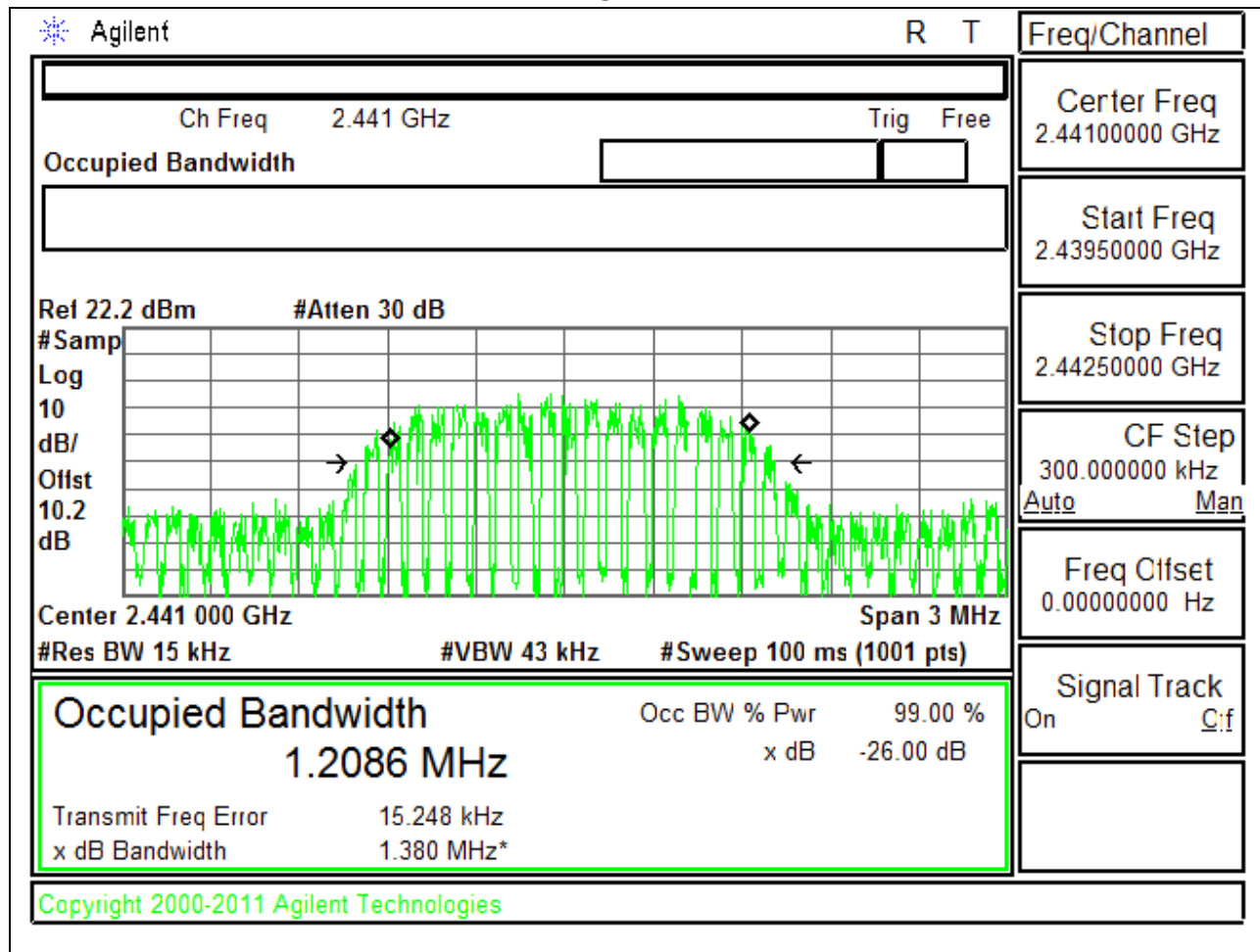


8PSK 99% BANDWIDTH

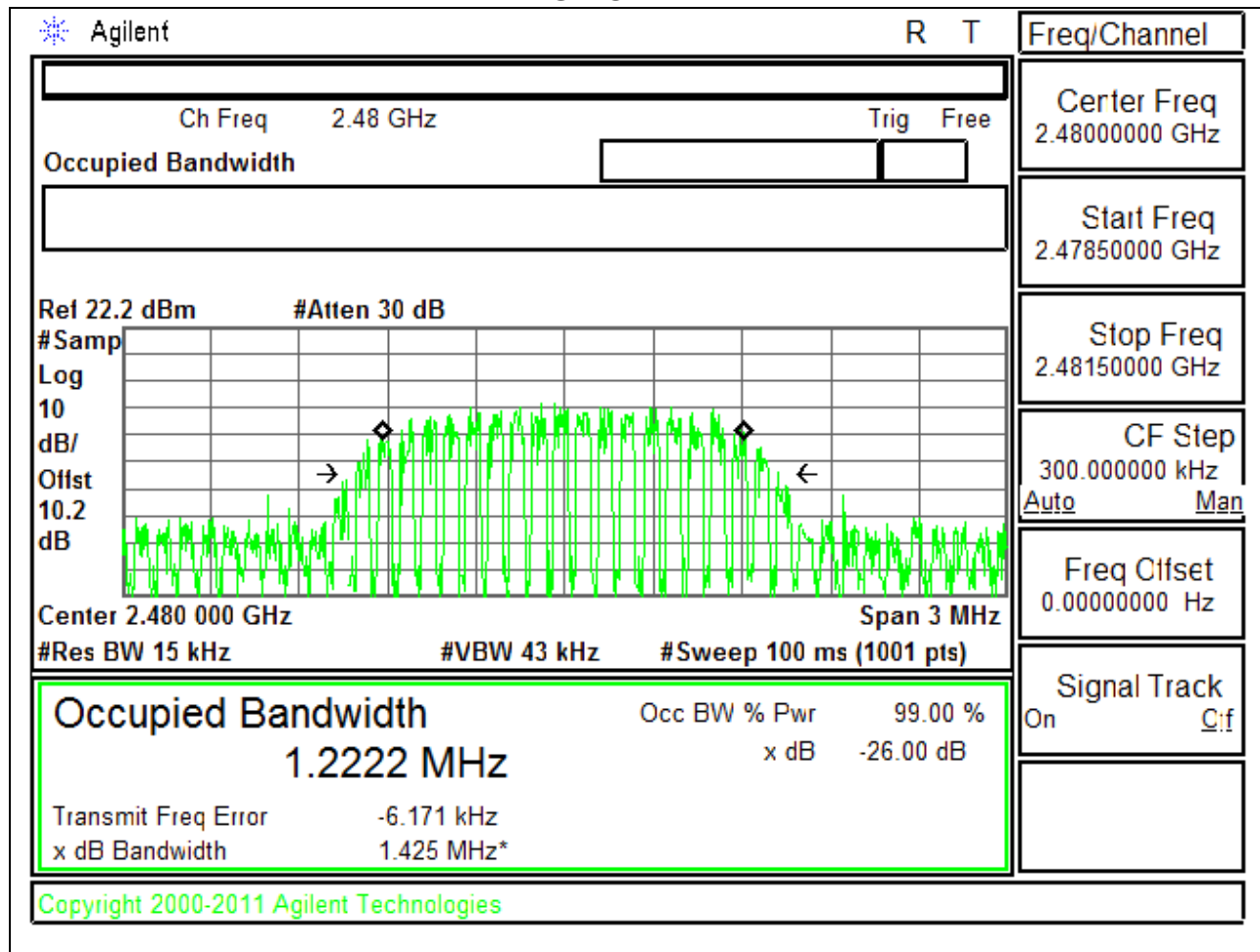
LOW CHANNEL



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.

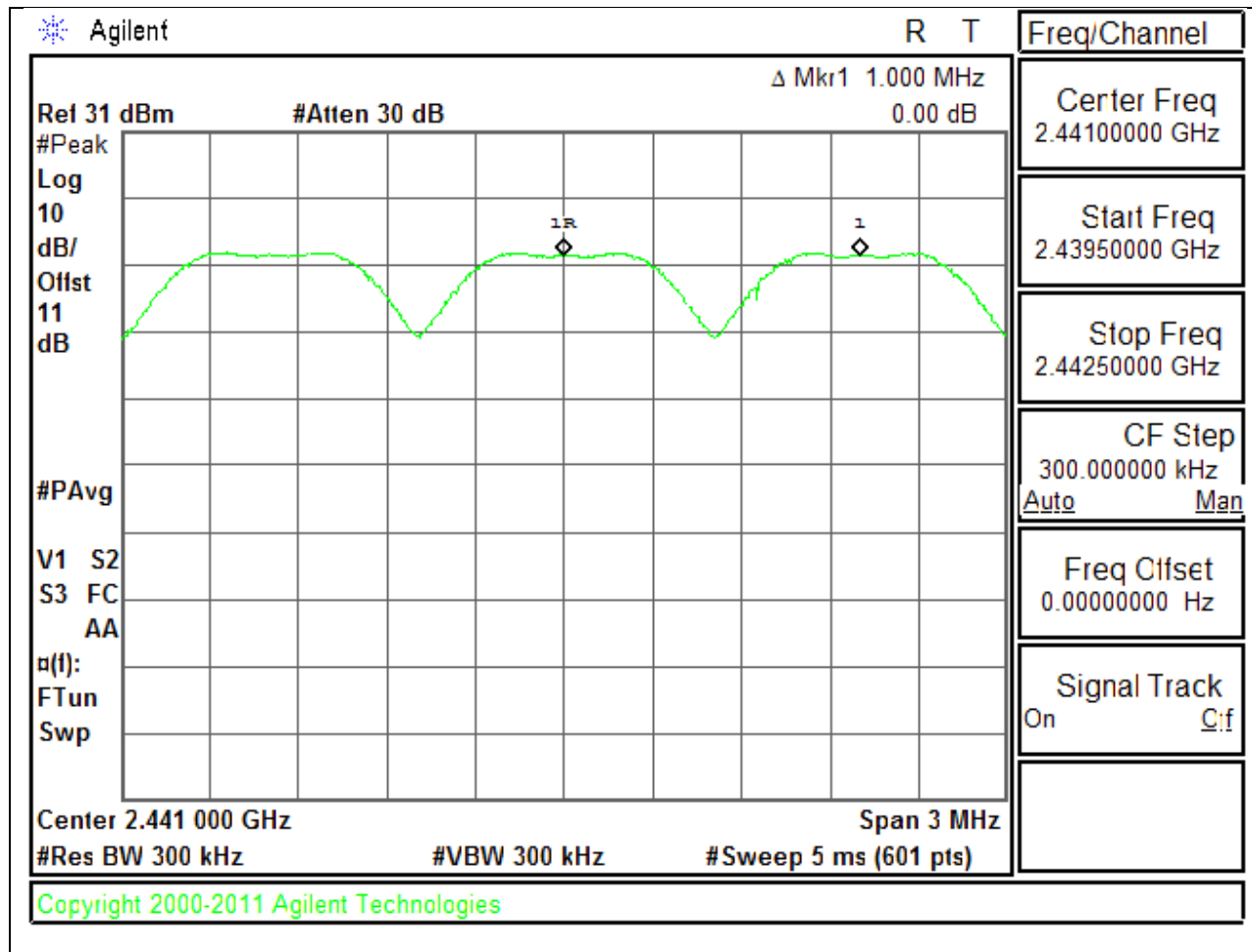
Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than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

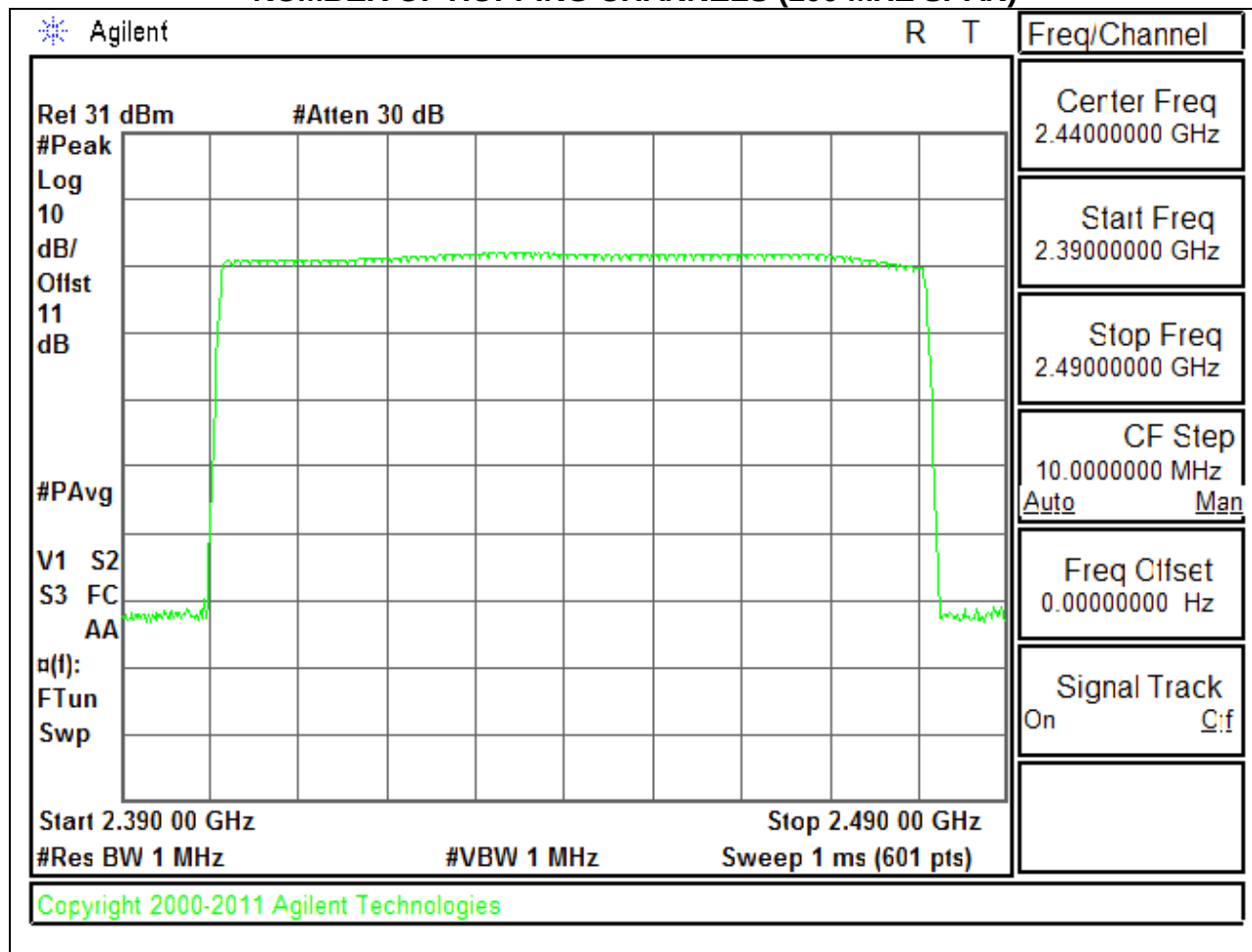
DA 00-705: The transmitter output is connected to a spectrum analyzer. The span is set to cover the entire authorized band, in either a single sweep or in multiple contiguous sweeps. The RBW is set to a maximum of 1 % of the span. The analyzer is set to Max Hold.

RESULTS

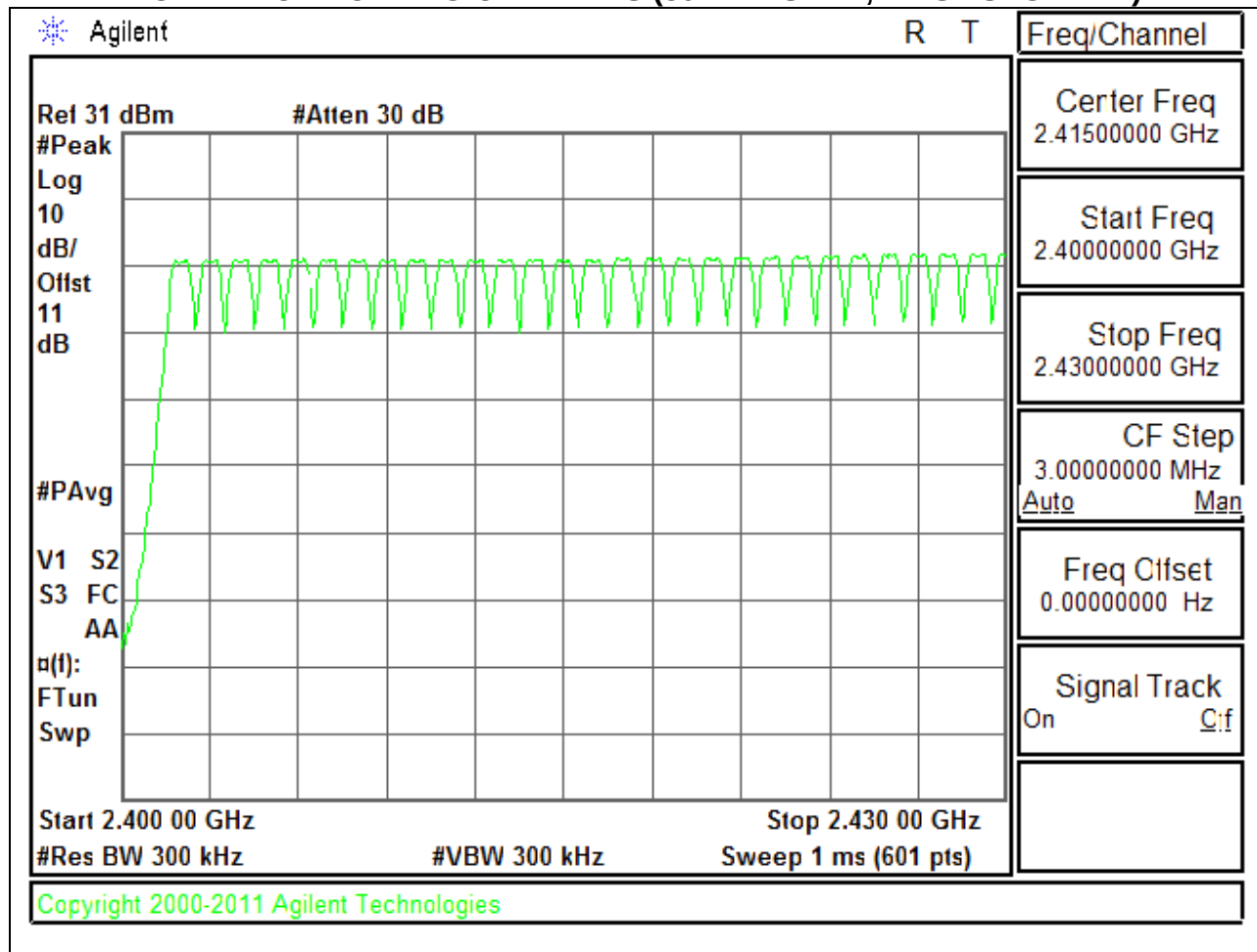
Normal Mode: 79 Channels observed.

NUMBER OF HOPPING CHANNELS PLOTS

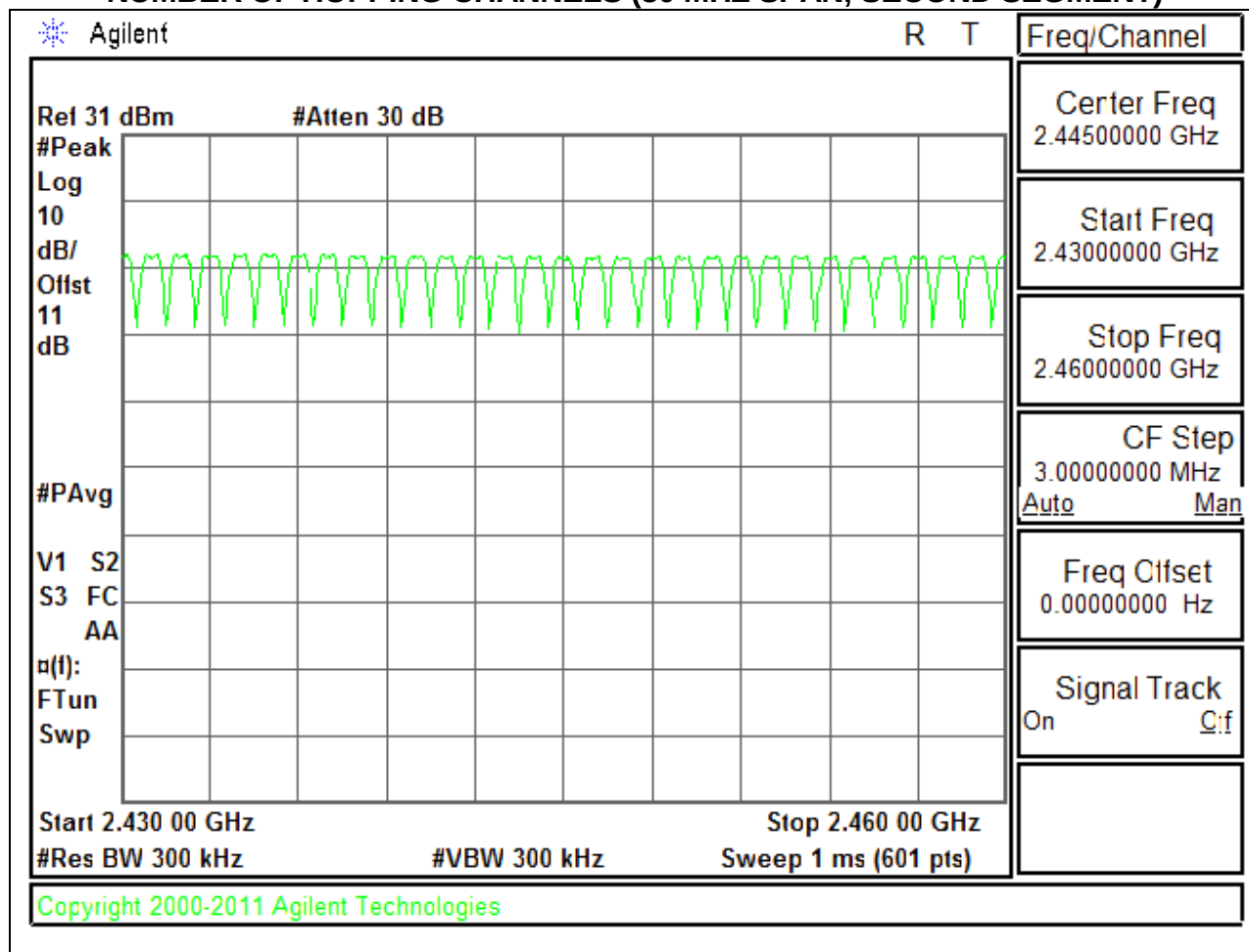
NUMBER OF HOPPING CHANNELS (100 MHZ SPAN)



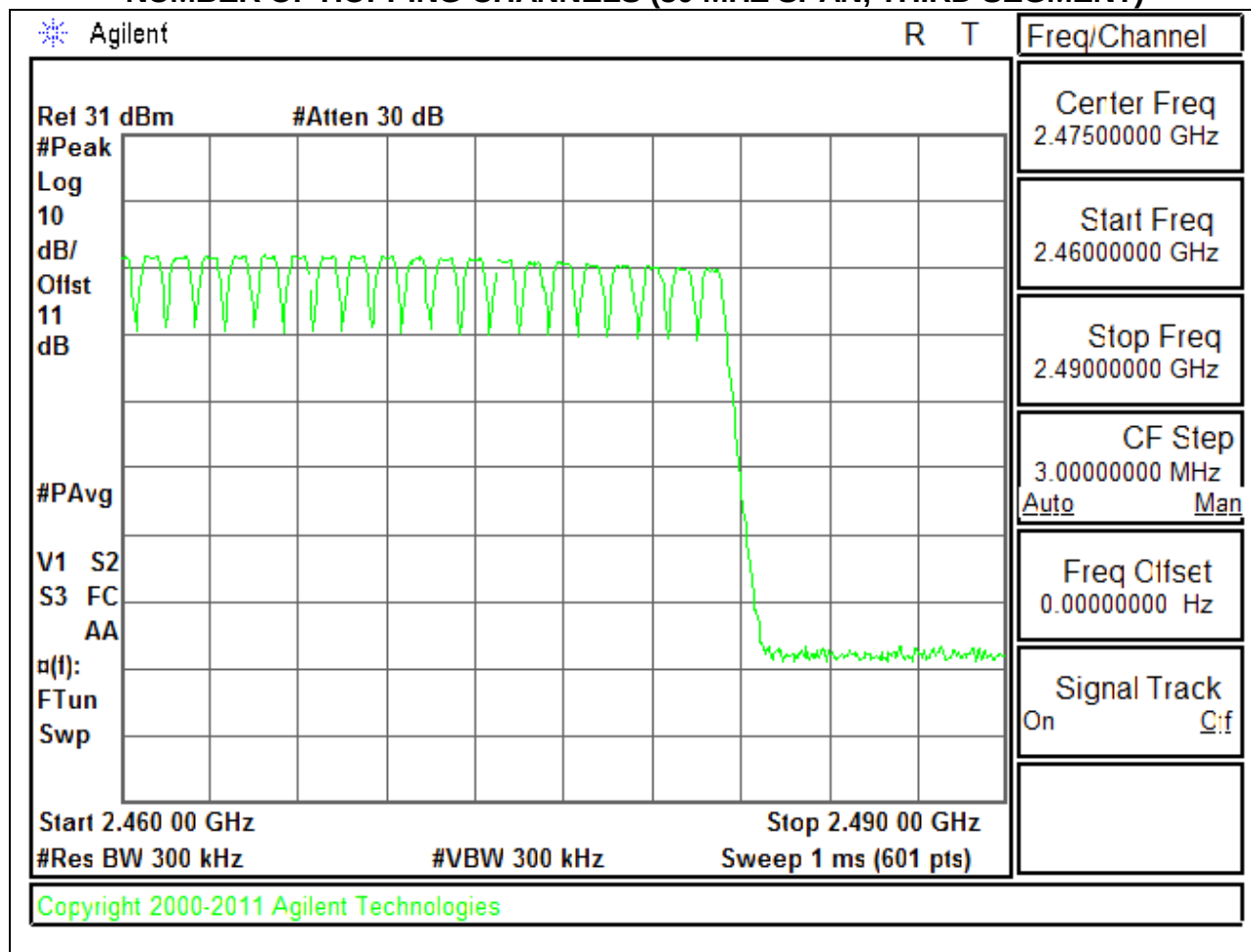
NUMBER OF HOPPING CHANNELS (30 MHz SPAN, FIRST SEGMENT)



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.

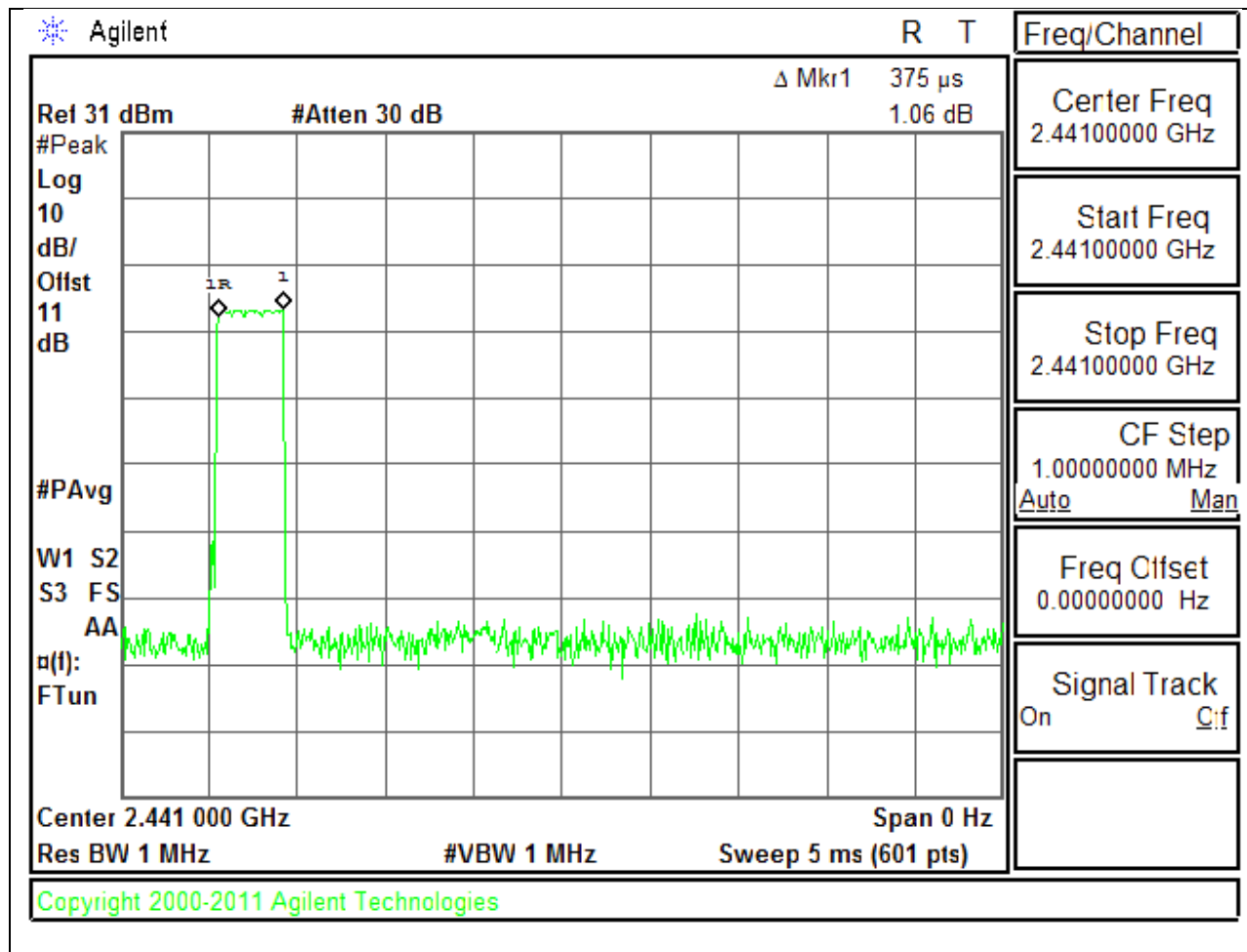
The average time of occupancy in the specified 31.6 second period (79 channels * 0.4 s) is equal to $10 * (\# \text{ of pulses in } 3.16 \text{ s}) * \text{ pulse width}$.

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

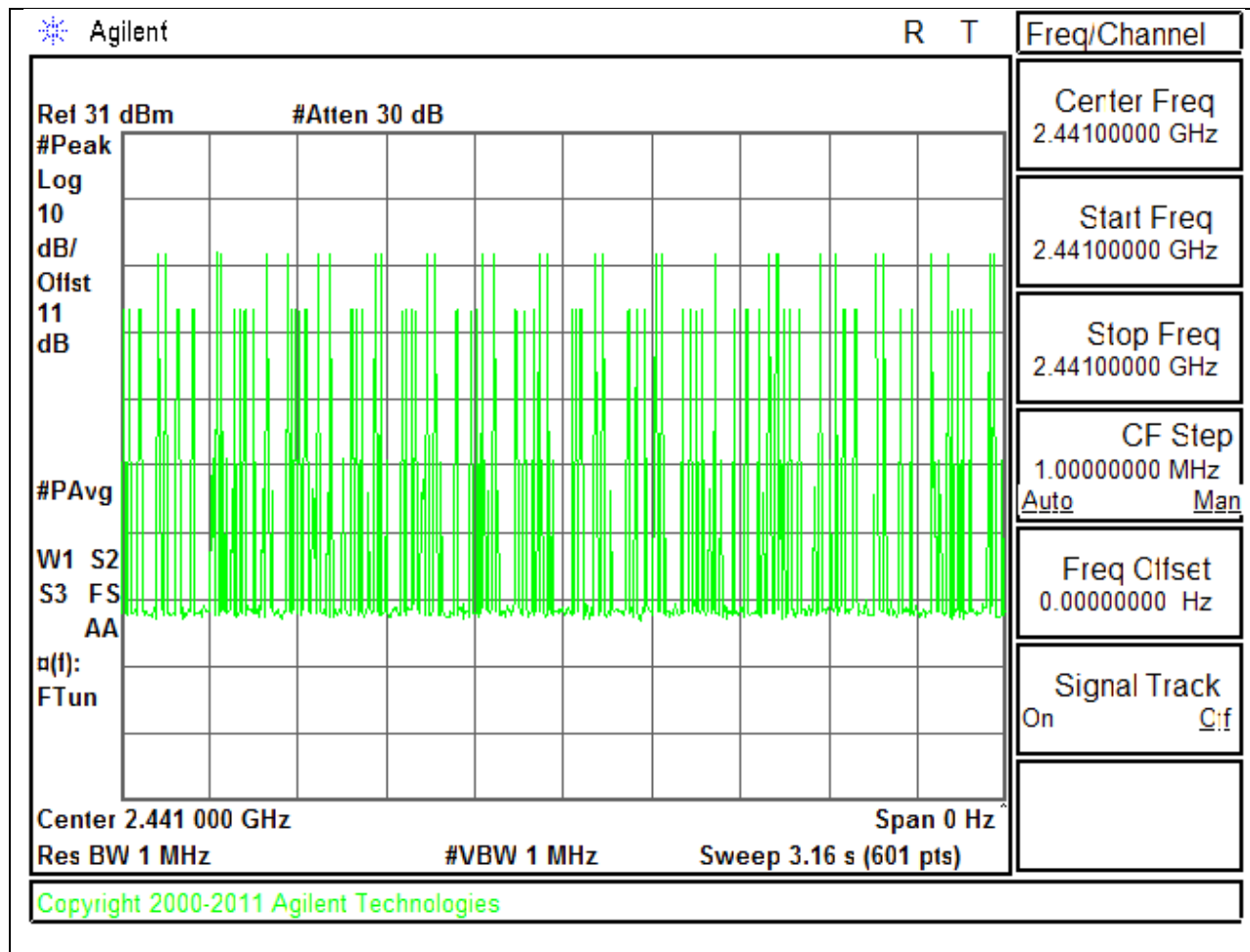
RESULTS

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	0.375	30	0.113	0.4	-0.288
DH3	1.608	15	0.241	0.4	-0.159
DH5	2.858	13	0.372	0.4	-0.028
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	0.375	8	0.030	0.4	-0.370
DH3	1.608	4	0.064	0.4	-0.336
DH5	2.858	4	0.114	0.4	-0.286

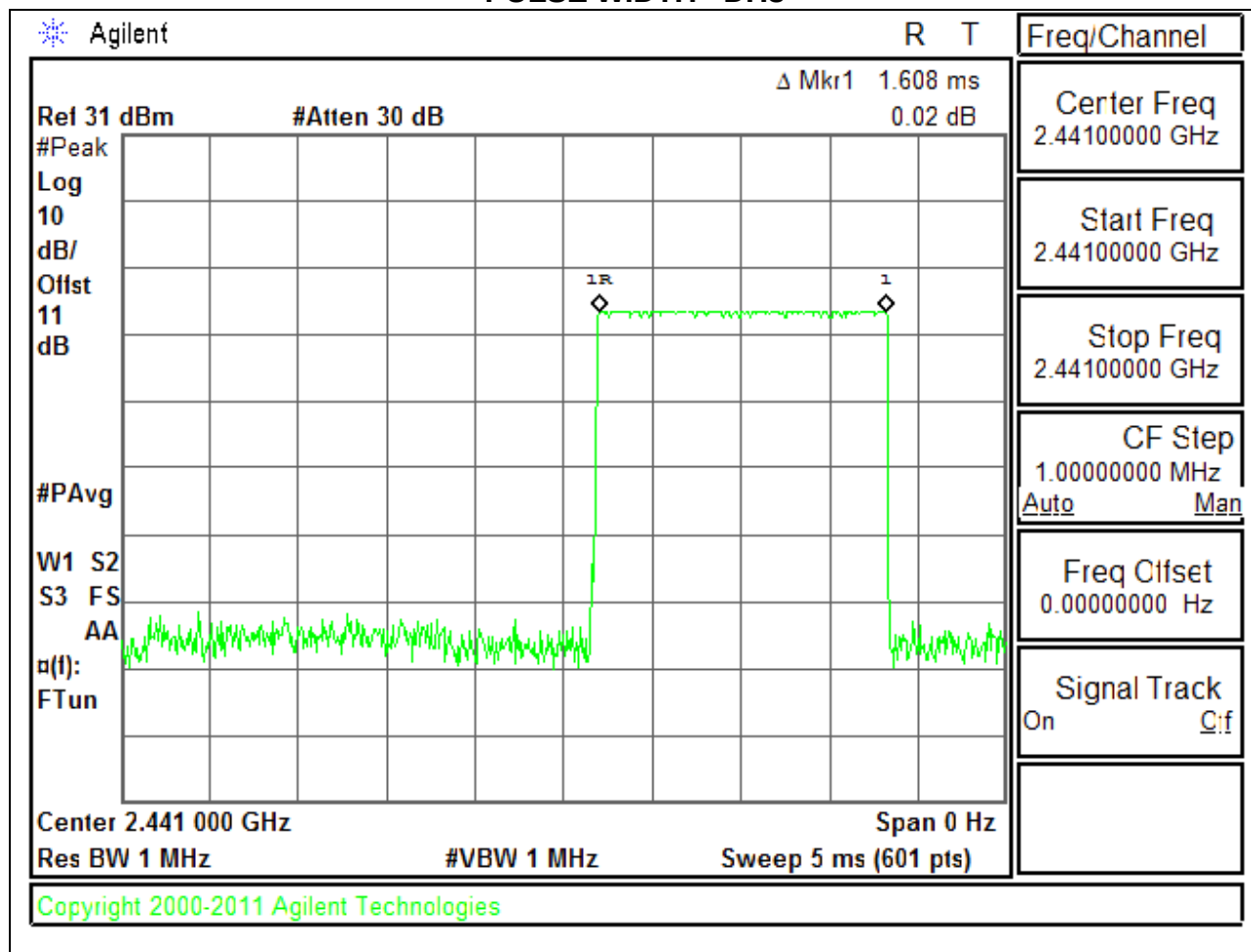
PULSE WIDTH - DH1



NUMBER OF PULSES IN 3.16 SECOND OBSERVATION PERIOD - DH1



PULSE WIDTH - DH3



Agilent R T

Ref 31 dBm #Atten 30 dB

#Peak Log 10 dB/Offst 11 dB

#PAvg

W1 S2 S3 FS AA

μ(f): FTun

Center 2.441 000 GHz Span 0 Hz

Res BW 1 MHz #VBW 1 MHz Sweep 3.16 s (601 pts)

Center Freq 2.44100000 GHz

Start Freq 2.44100000 GHz

Stop Freq 2.44100000 GHz

CF Step 1.00000000 MHz

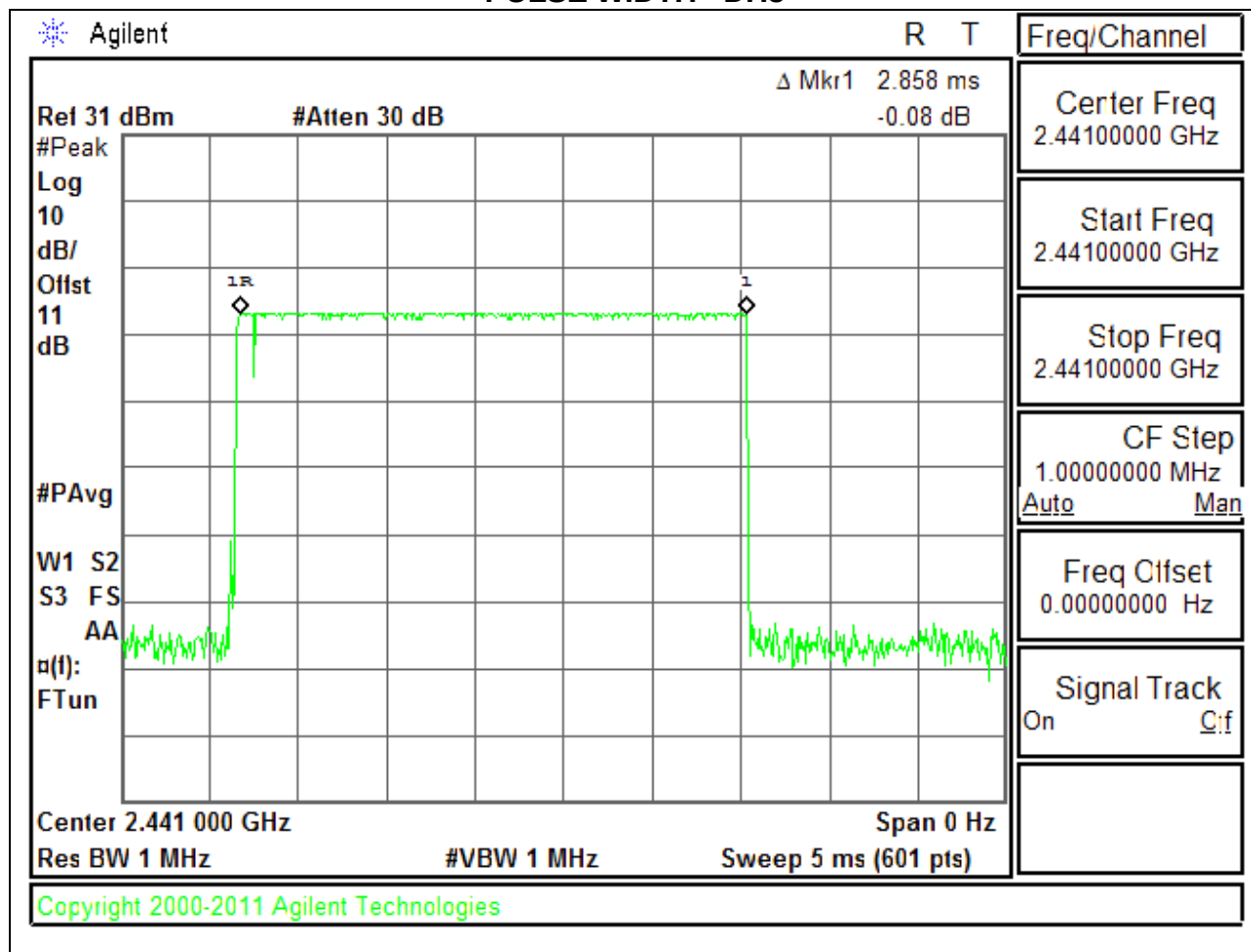
Auto Man

Freq Offset 0.00000000 Hz

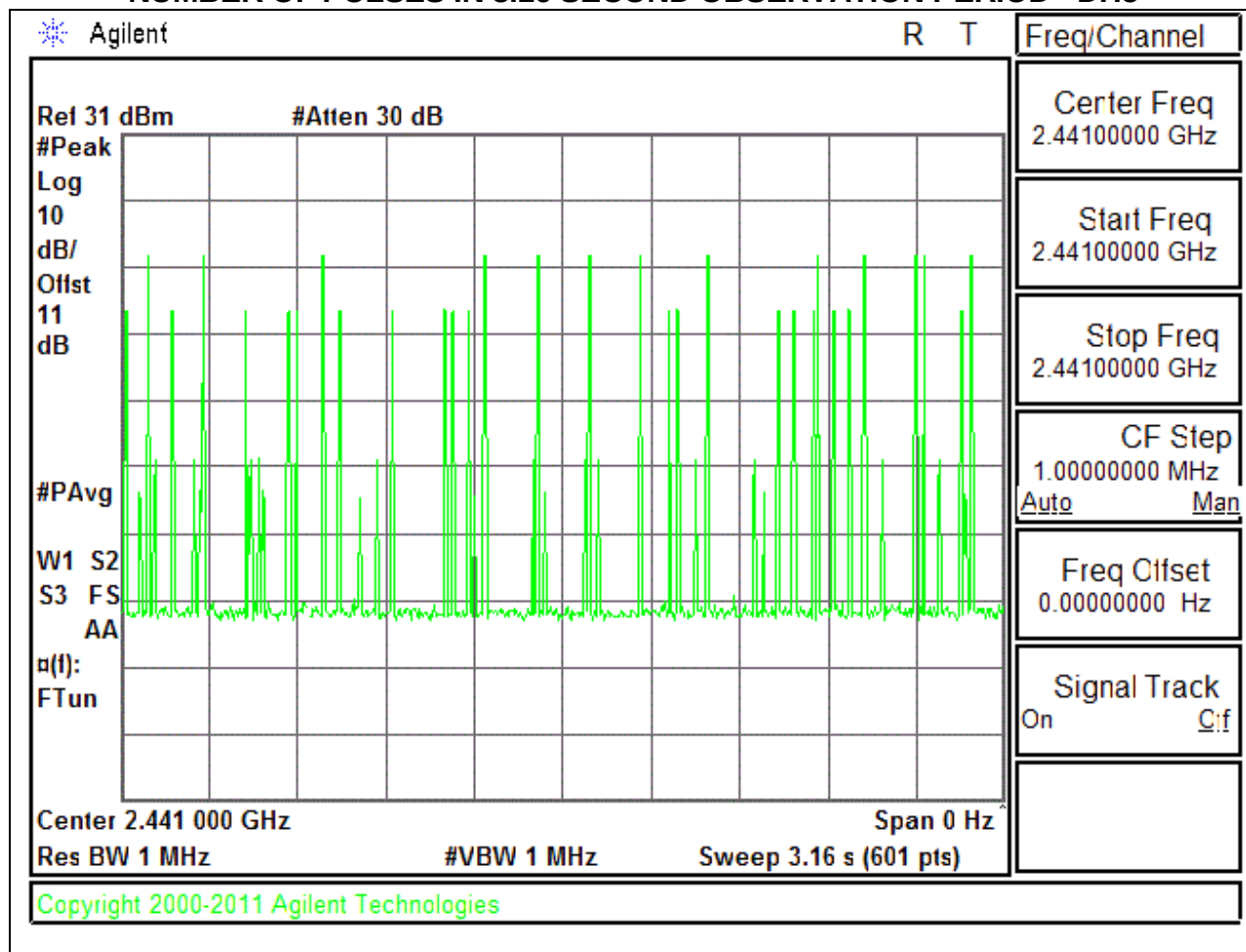
Signal Track On Off

Copyright 2000-2011 Agilent Technologies

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	10.95	21	-10.05
Middle	2441	11.97	21	-9.03
High	2480	10.08	21	-10.92
Worst		11.97		-9.03

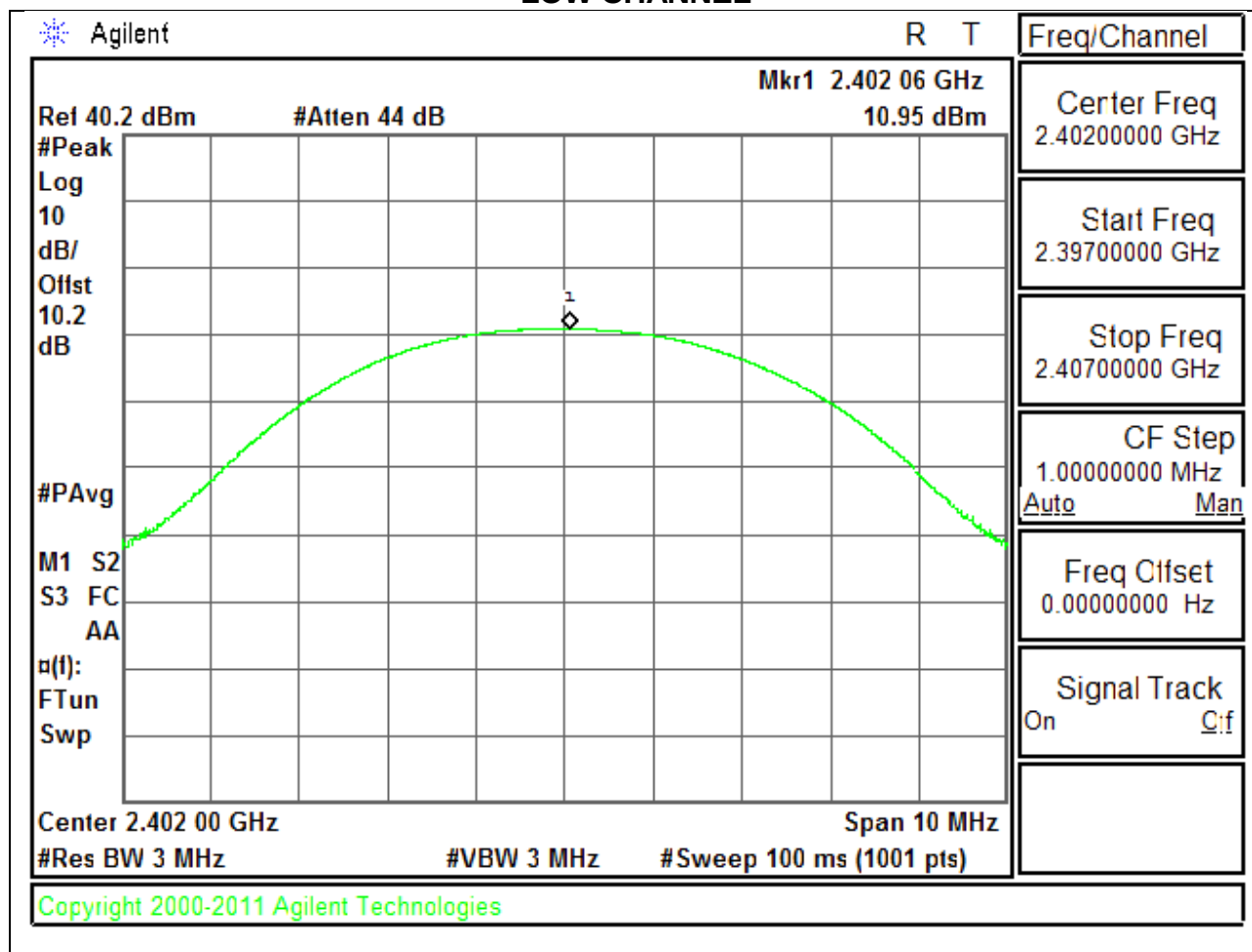
8.5.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	9.11	21	-11.89
Middle	2441	10.01	21	-10.99
High	2480	7.93	21	-13.07
Worst		10.01		-10.99

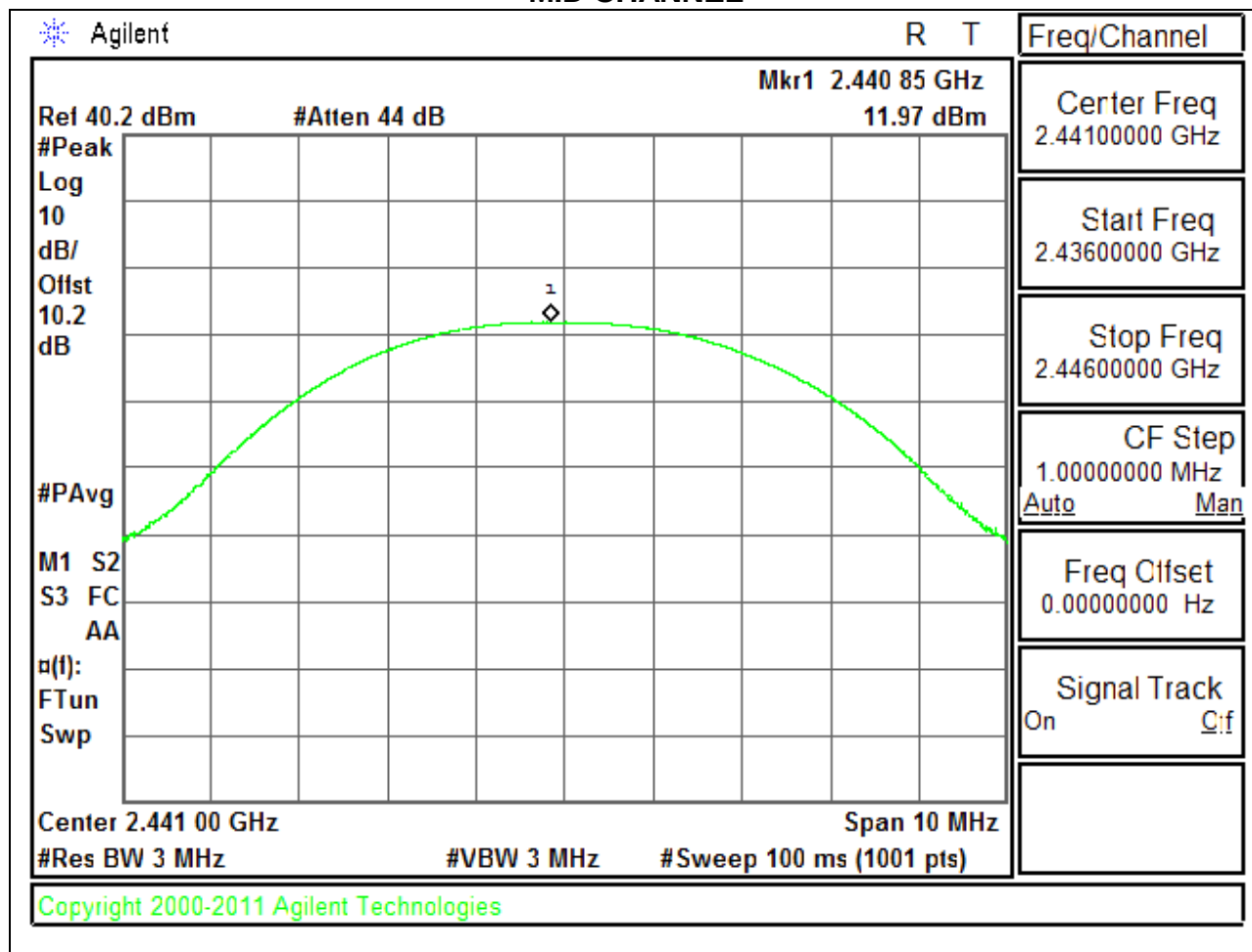
8.5.3. OUTPUT POWER PLOTS

GFSK OUTPUT POWER

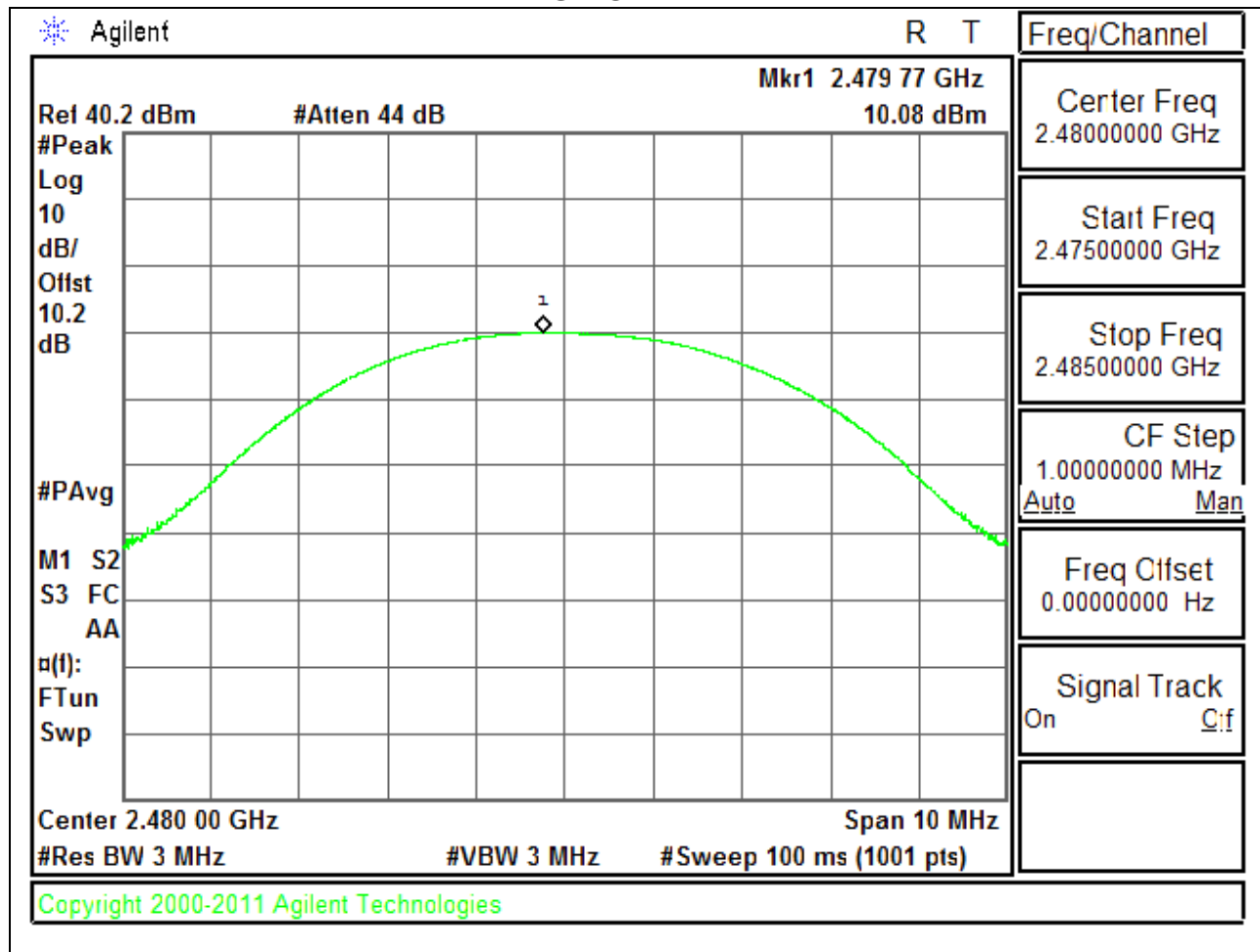
LOW CHANNEL



MID CHANNEL

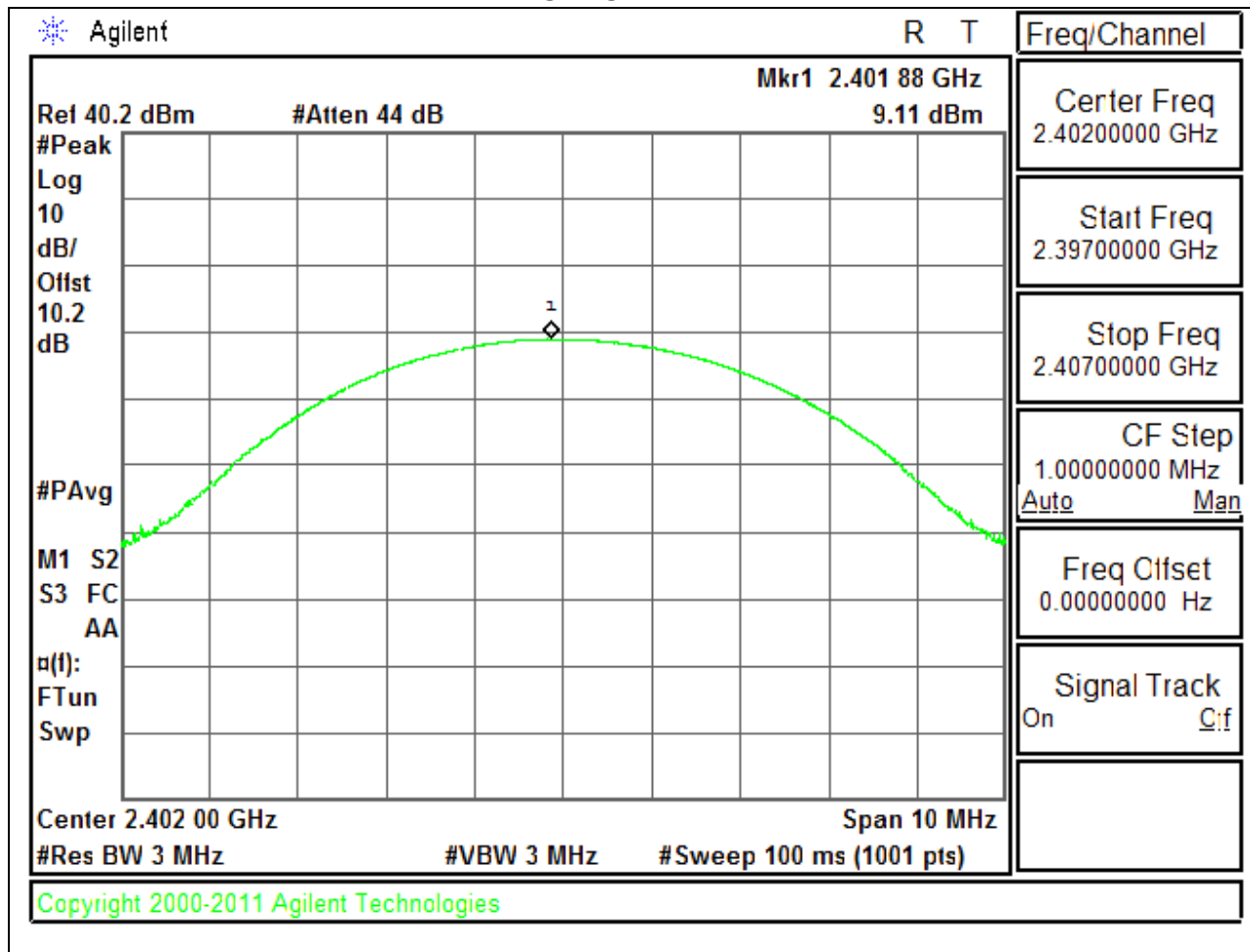


HIGH CHANNEL

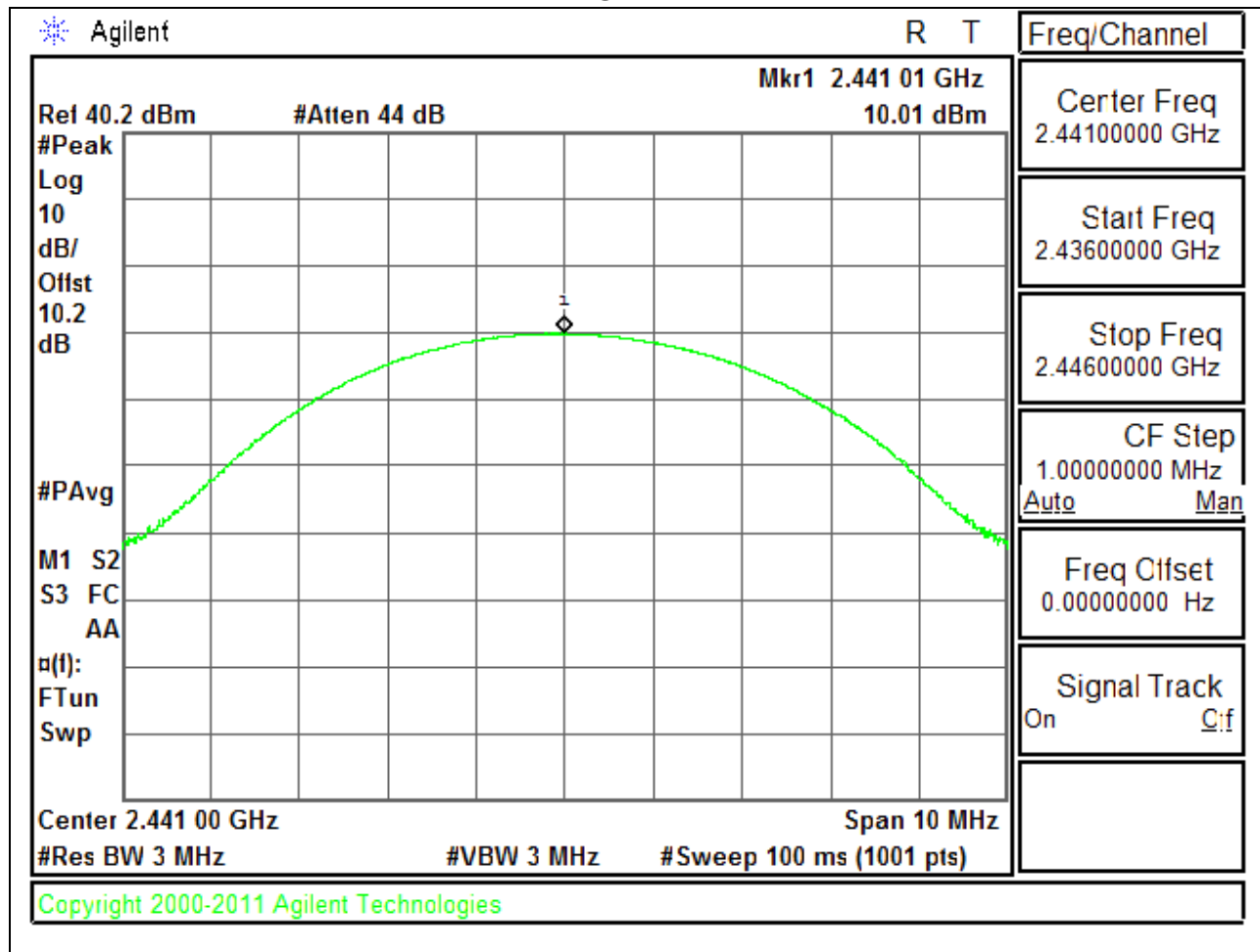


8PSK OUTPUT POWER

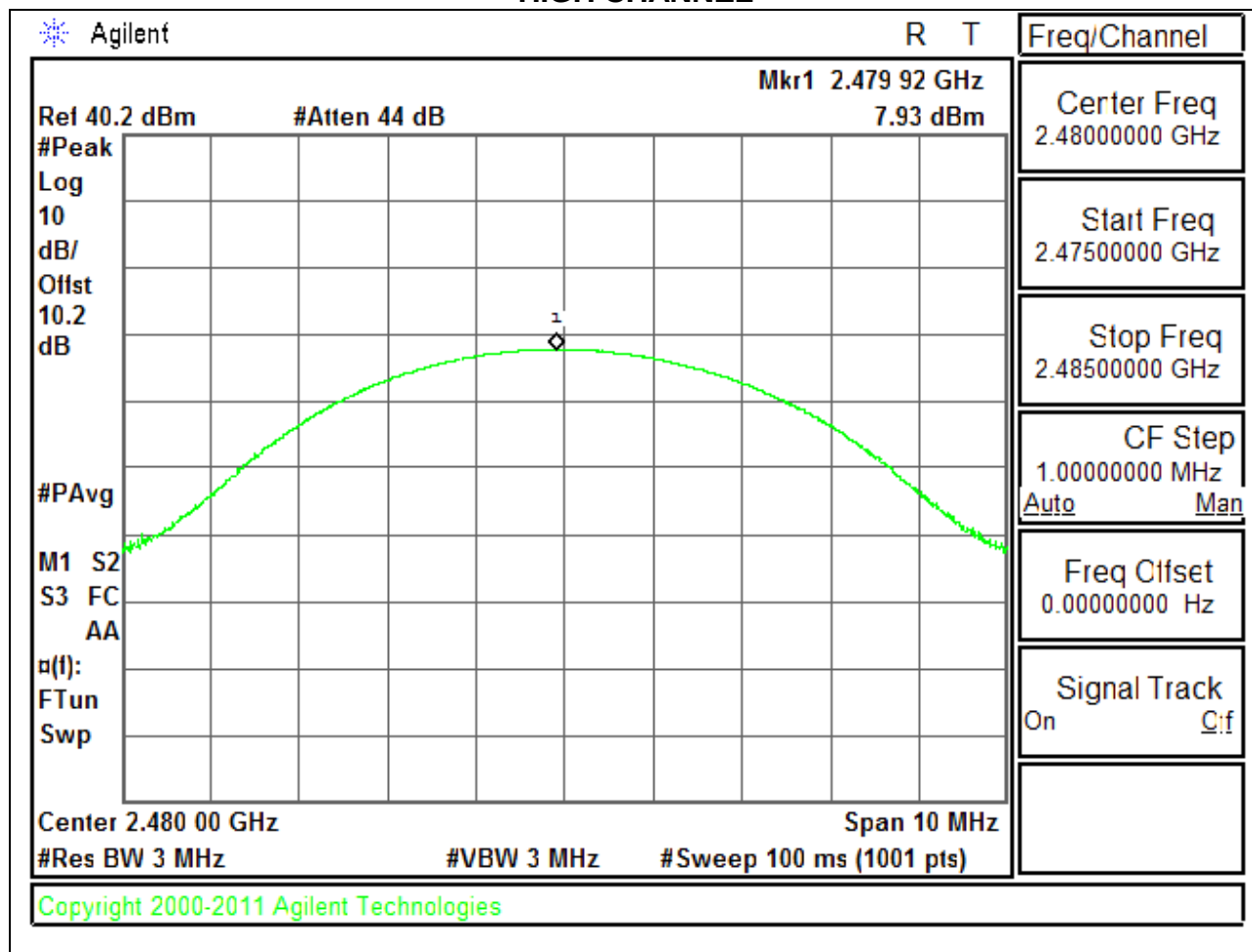
LOW CHANNEL



MID CHANNEL



HIGH CHANNEL



8.6. AVERAGE POWER

LIMIT

None; for reporting purposes only.

TEST PROCEDURE

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

RESULTS

The cable assembly insertion loss of 10.7 dB (including 10 dB pad and 0.7 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

8.6.1. BASIC DATA RATE GFSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	10.2
Middle	2441	11.5
High	2480	9.7
Worst		11.5

8.6.2. ENHANCED DATA RATE 8PSK MODULATION

Channel	Frequency (MHz)	Average Power (dBm)
Low	2402	6.0
Middle	2441	7.4
High	2480	5.2
Worst		7.4

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.

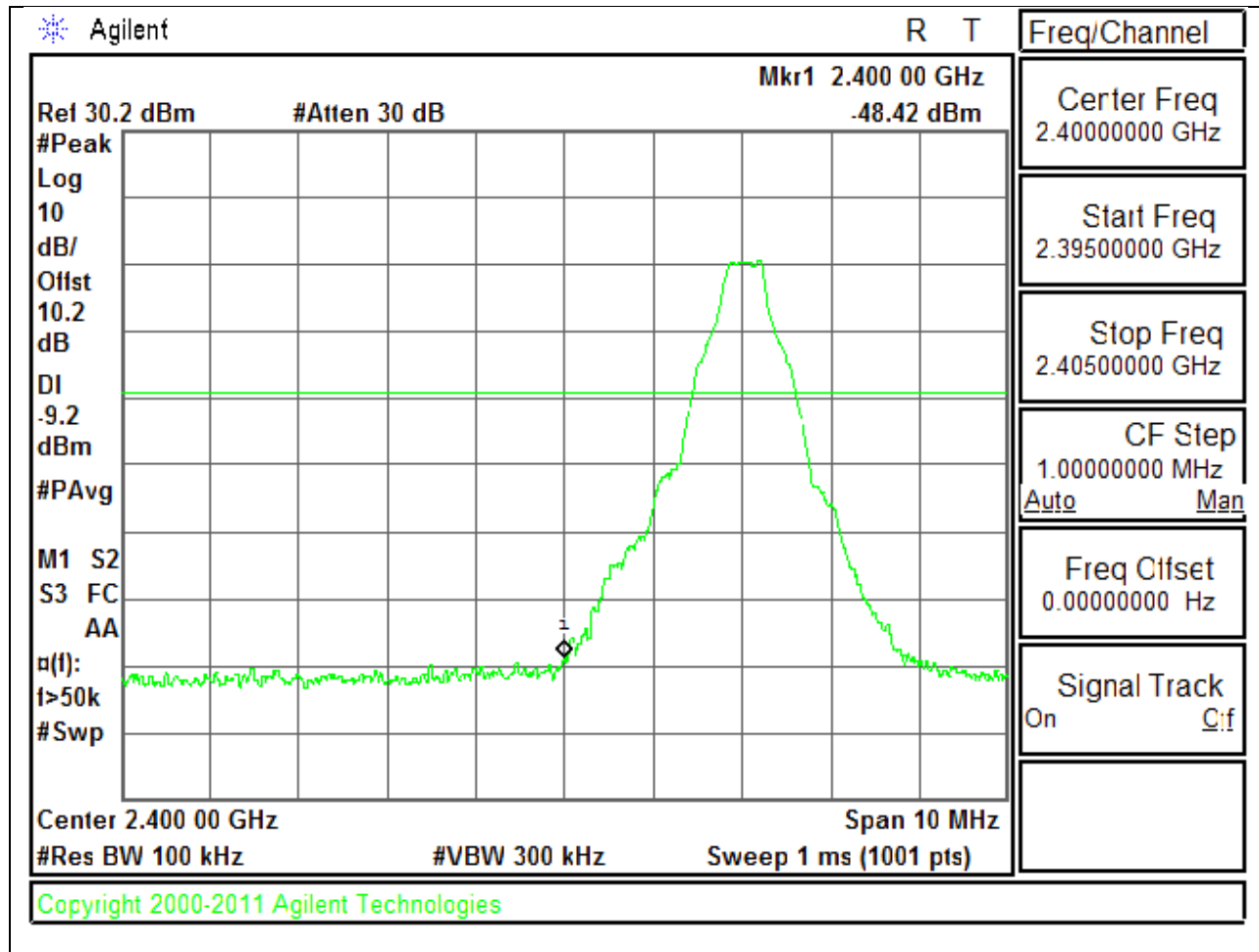
The bandedges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

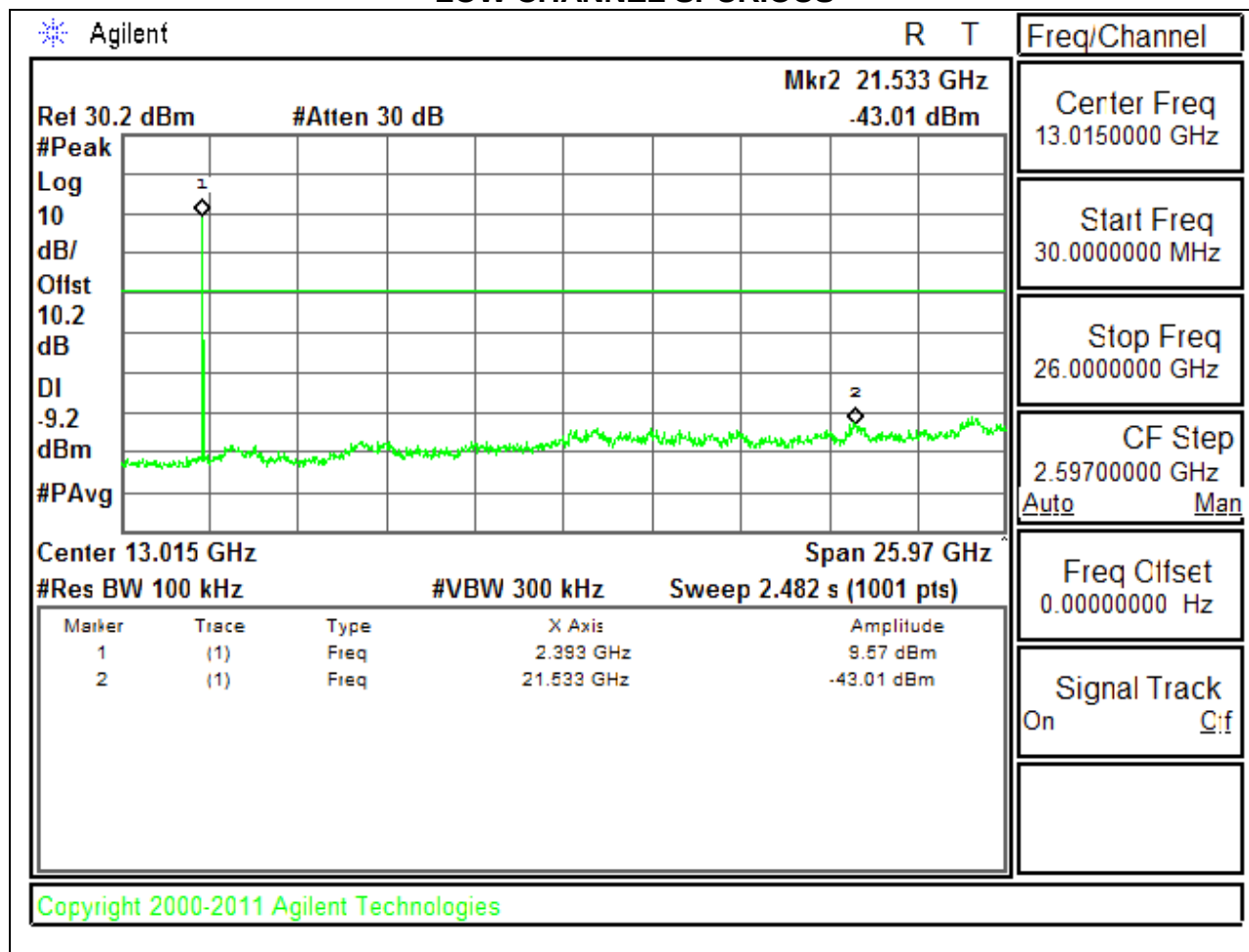
8.7.1. BASIC DATA RATE GFSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

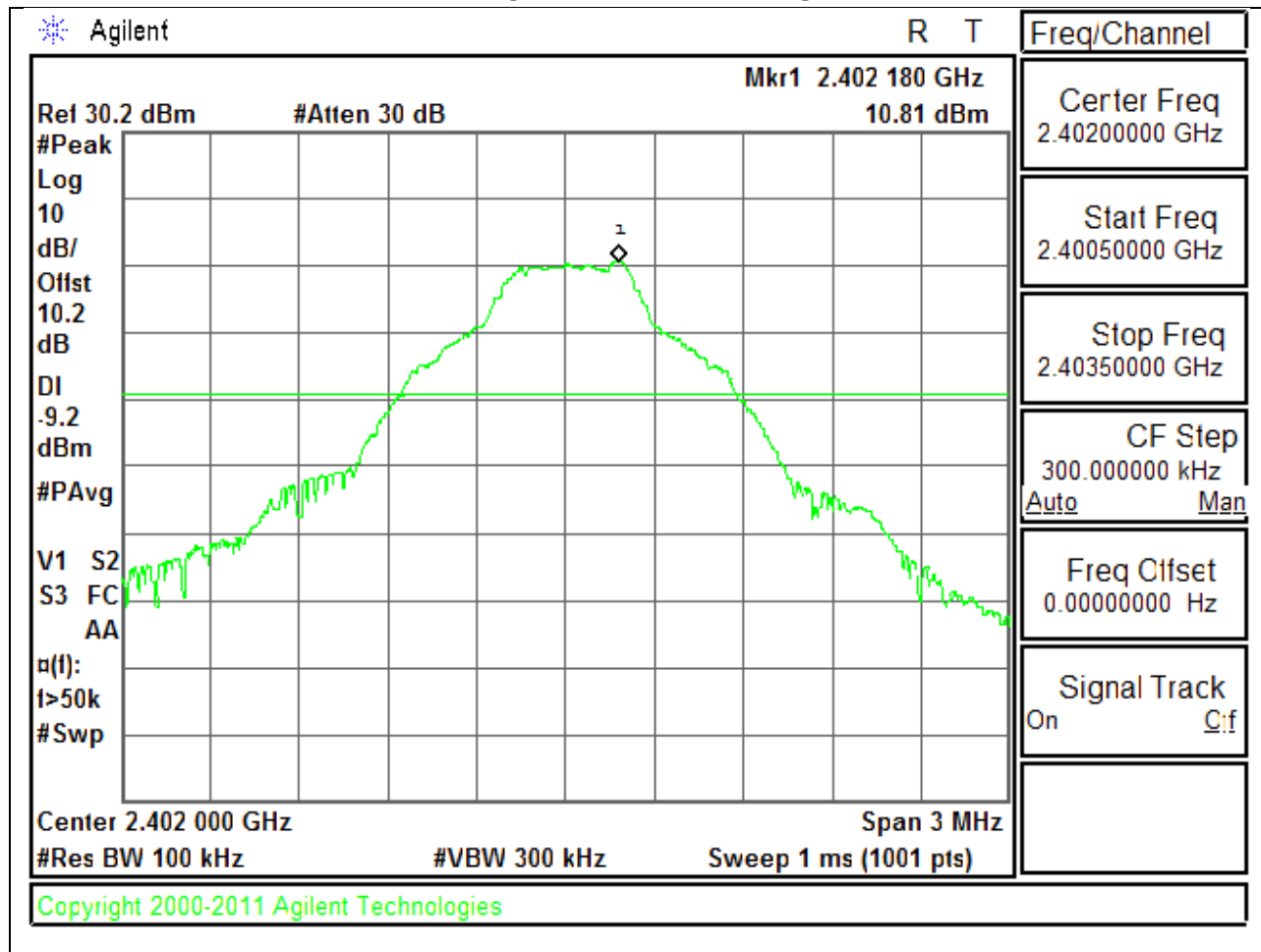


LOW CHANNEL SPURIOUS

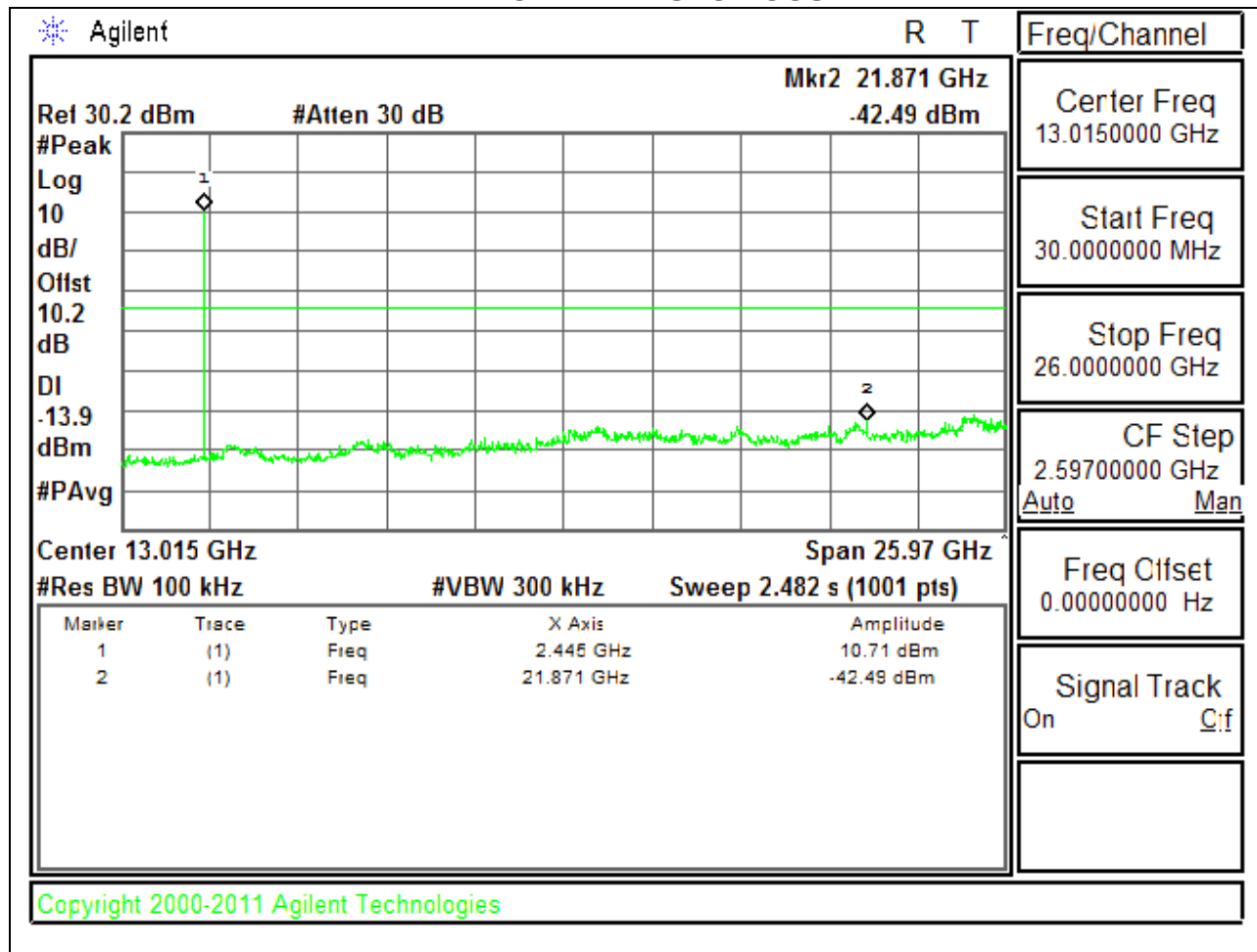


SPURIOUS EMISSIONS, MID CHANNEL

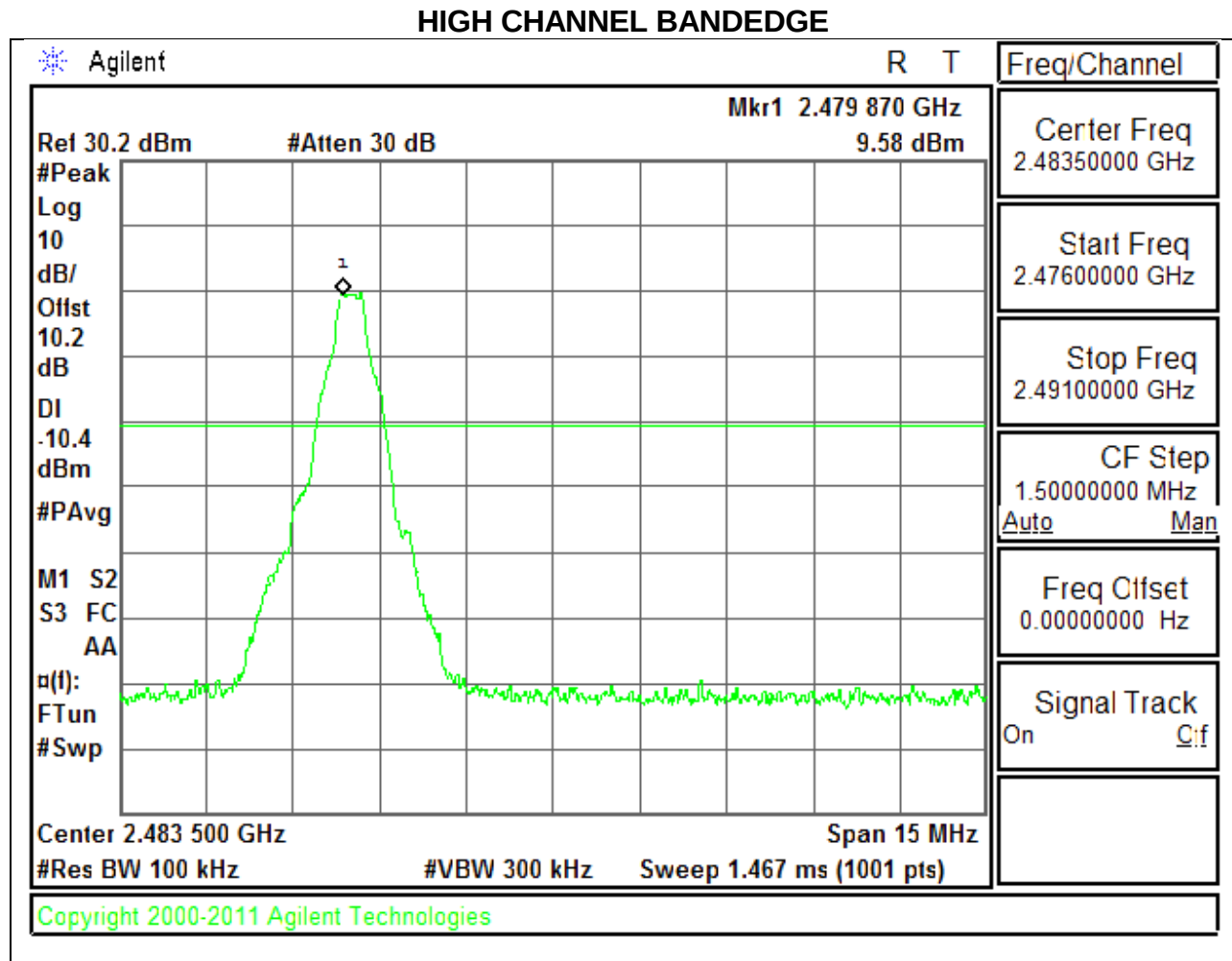
MID CHANNEL BANDEDGE



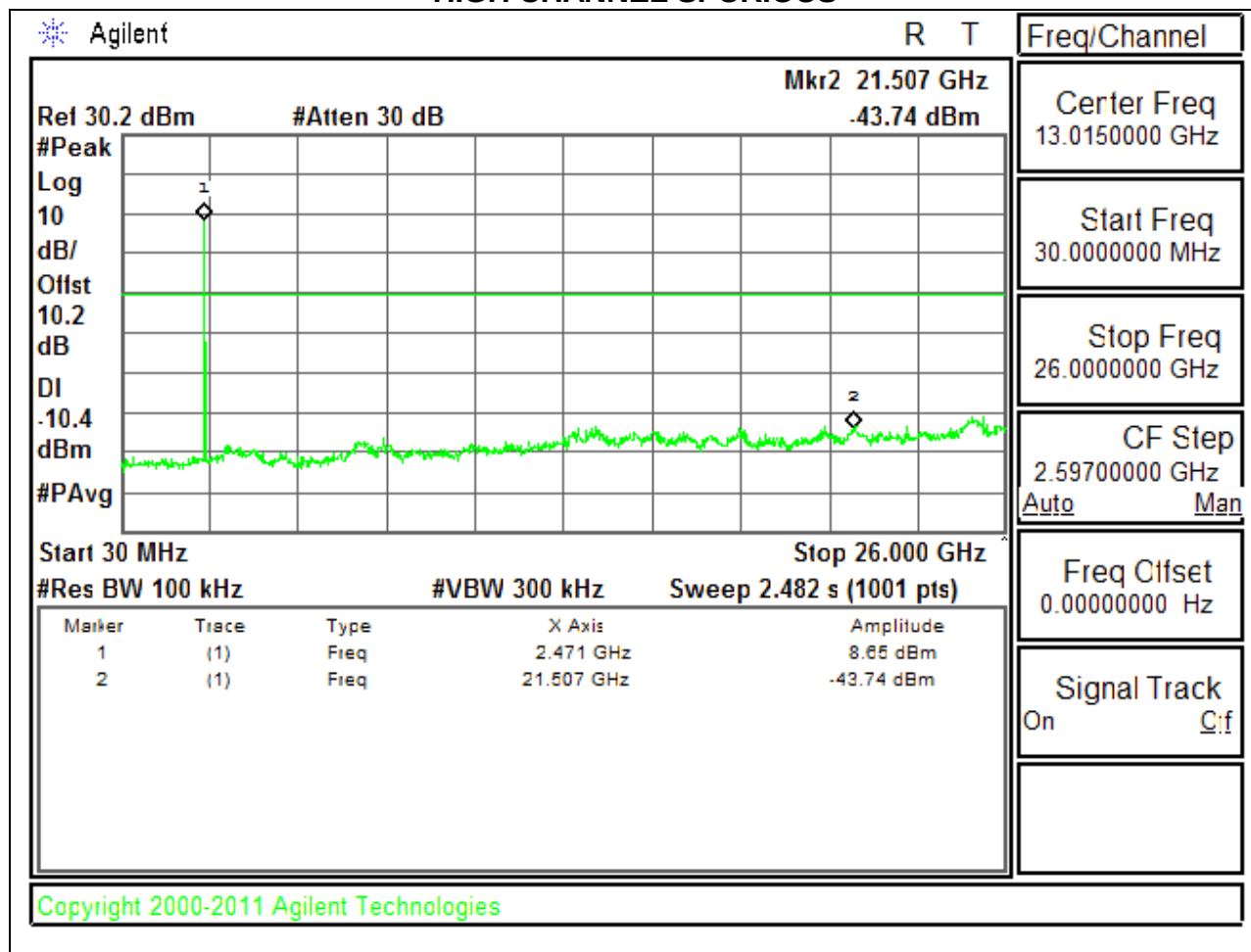
MID CHANNEL SPURIOUS



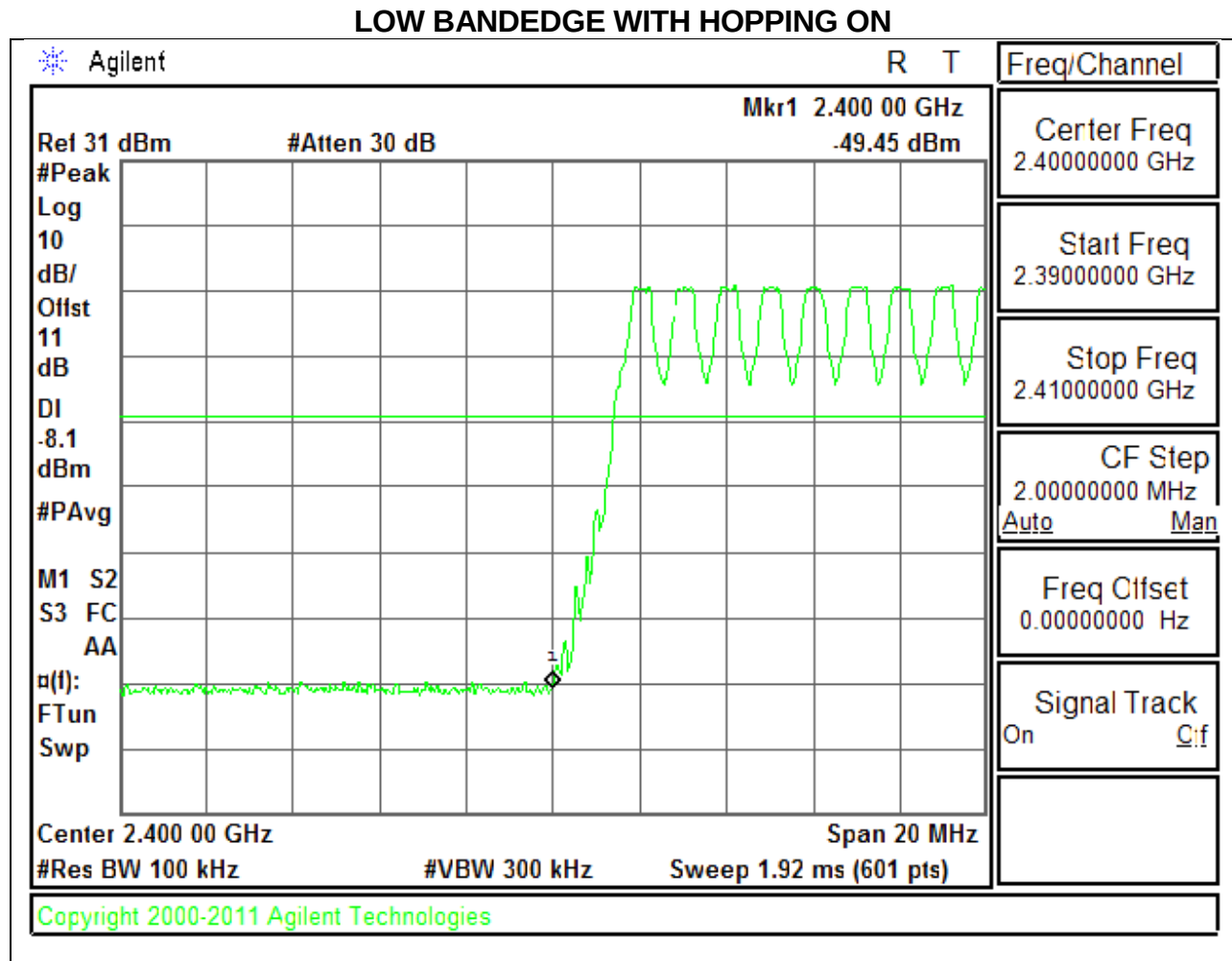
SPURIOUS EMISSIONS, HIGH CHANNEL



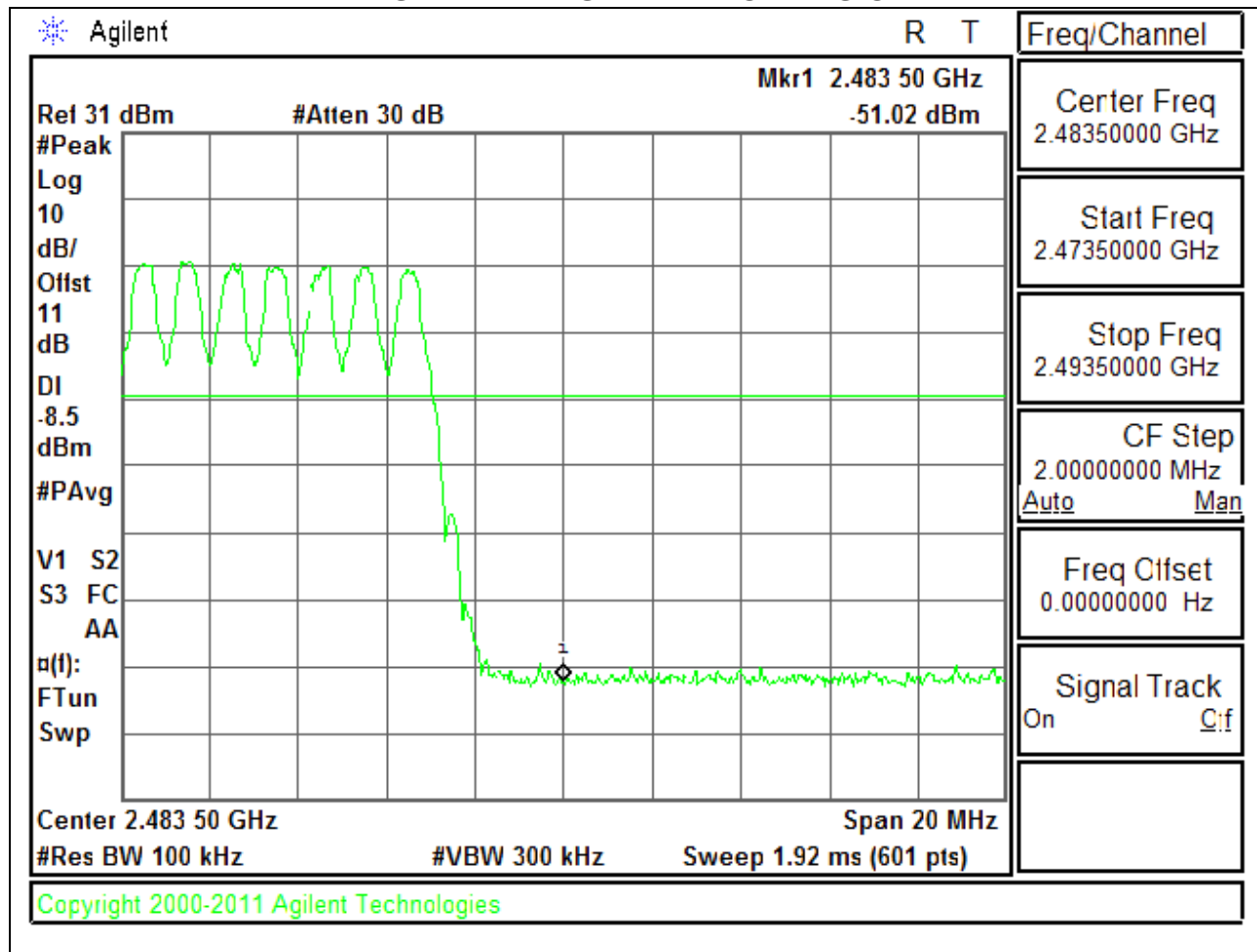
HIGH CHANNEL SPURIOUS



SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON



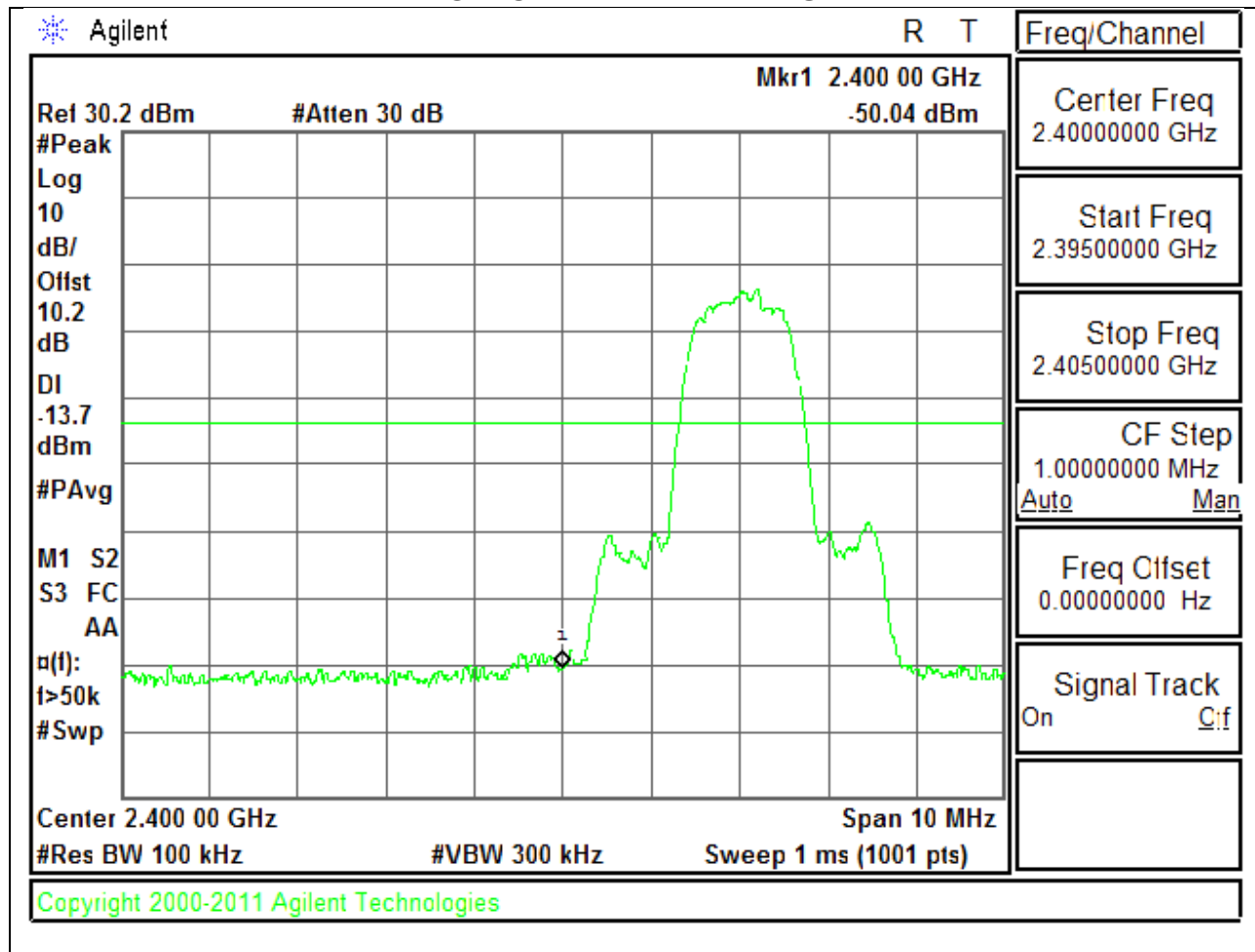
HIGH BANDEDGE WITH HOPPING ON



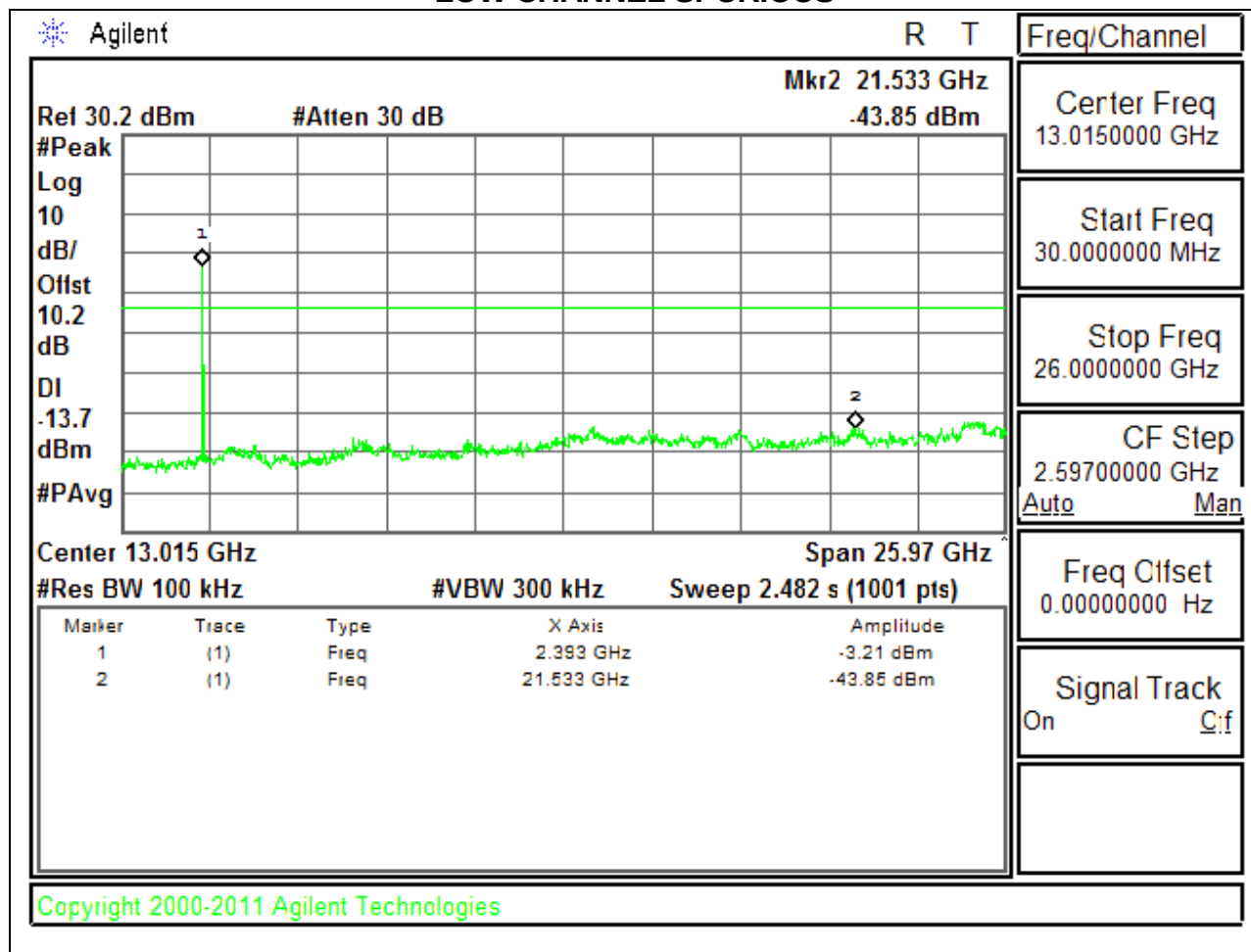
ENHANCED DATA RATE 8PSK MODULATION

SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL BANDEDGE

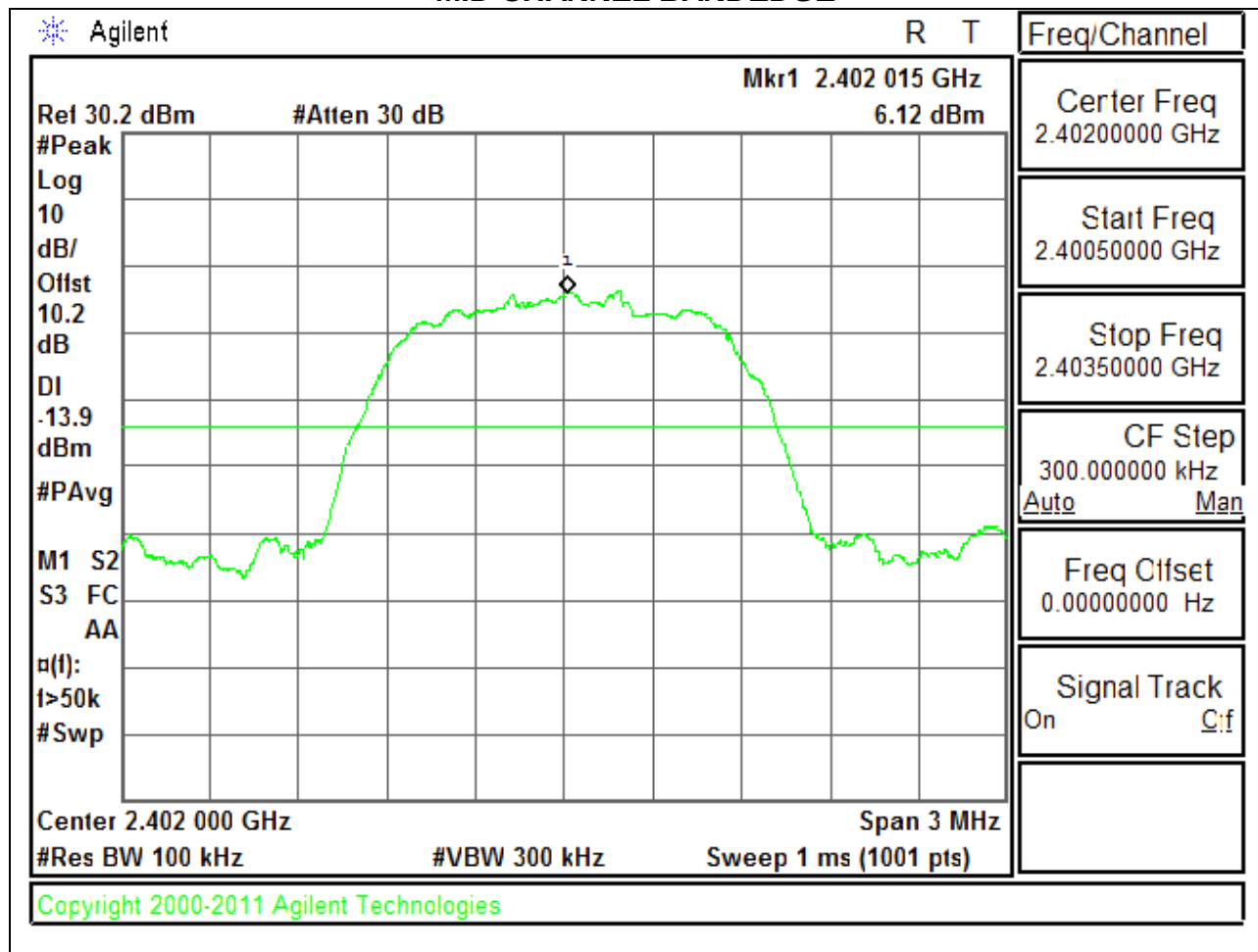


LOW CHANNEL SPURIOUS

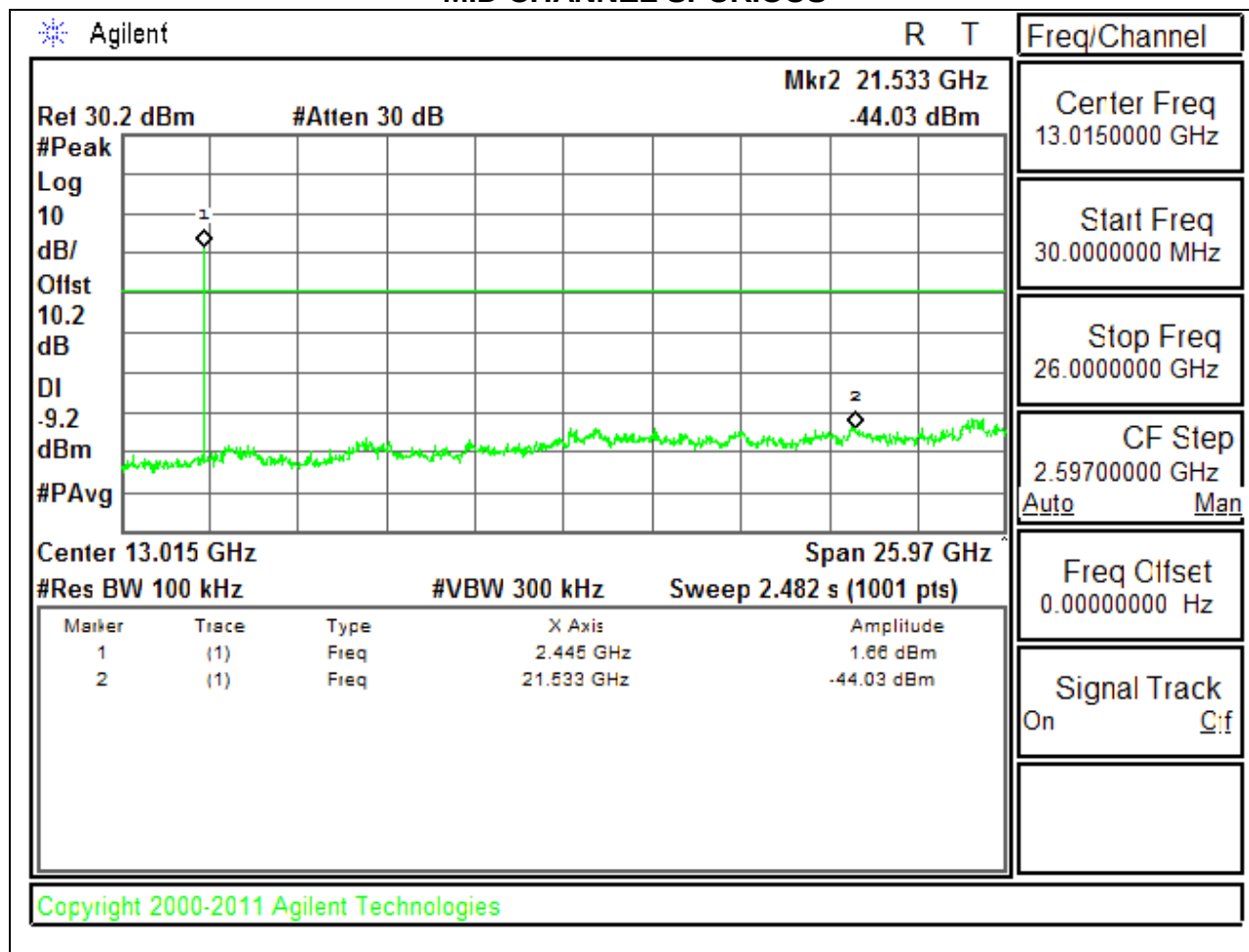


SPURIOUS EMISSIONS, MID CHANNEL

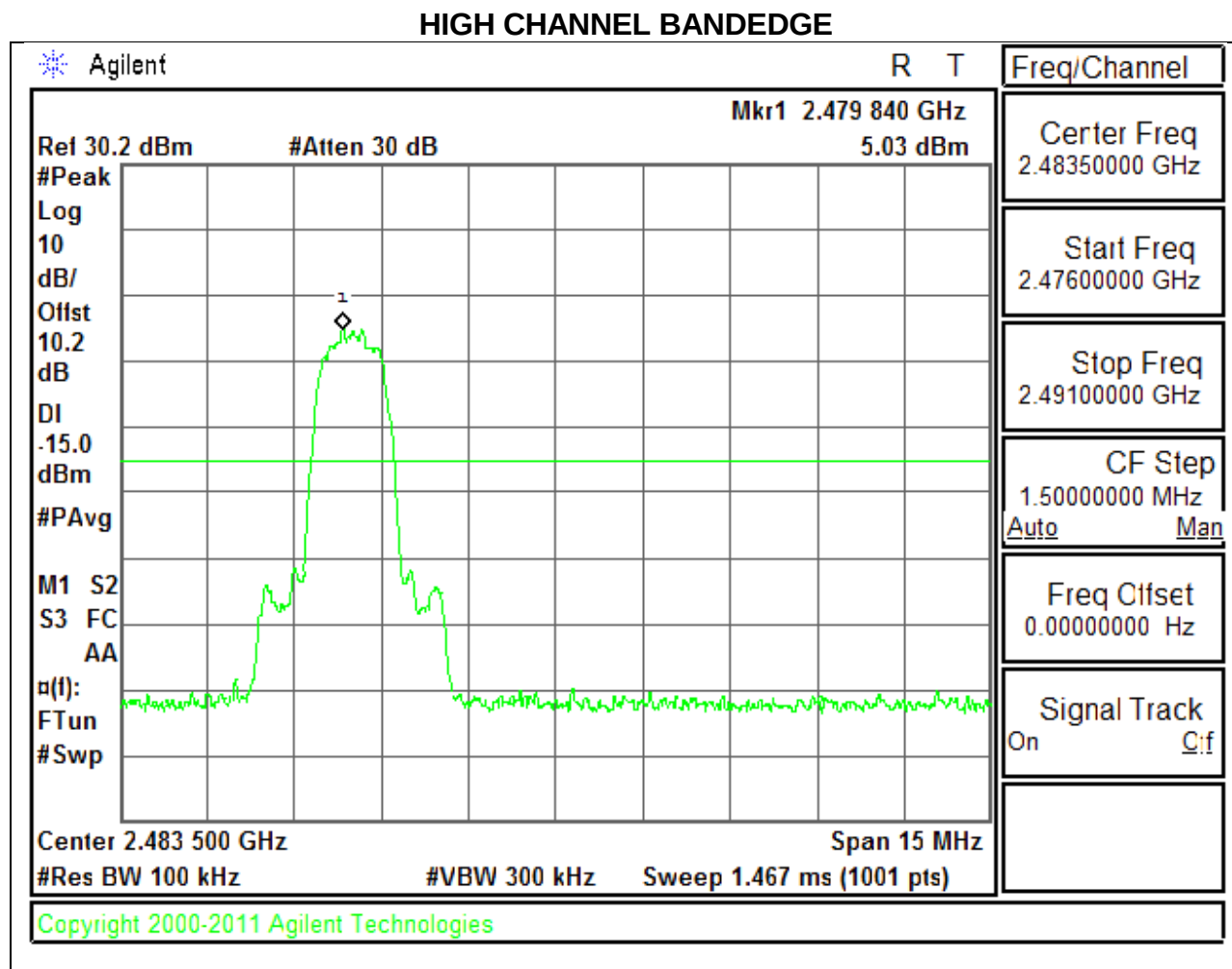
MID CHANNEL BANDEDGE



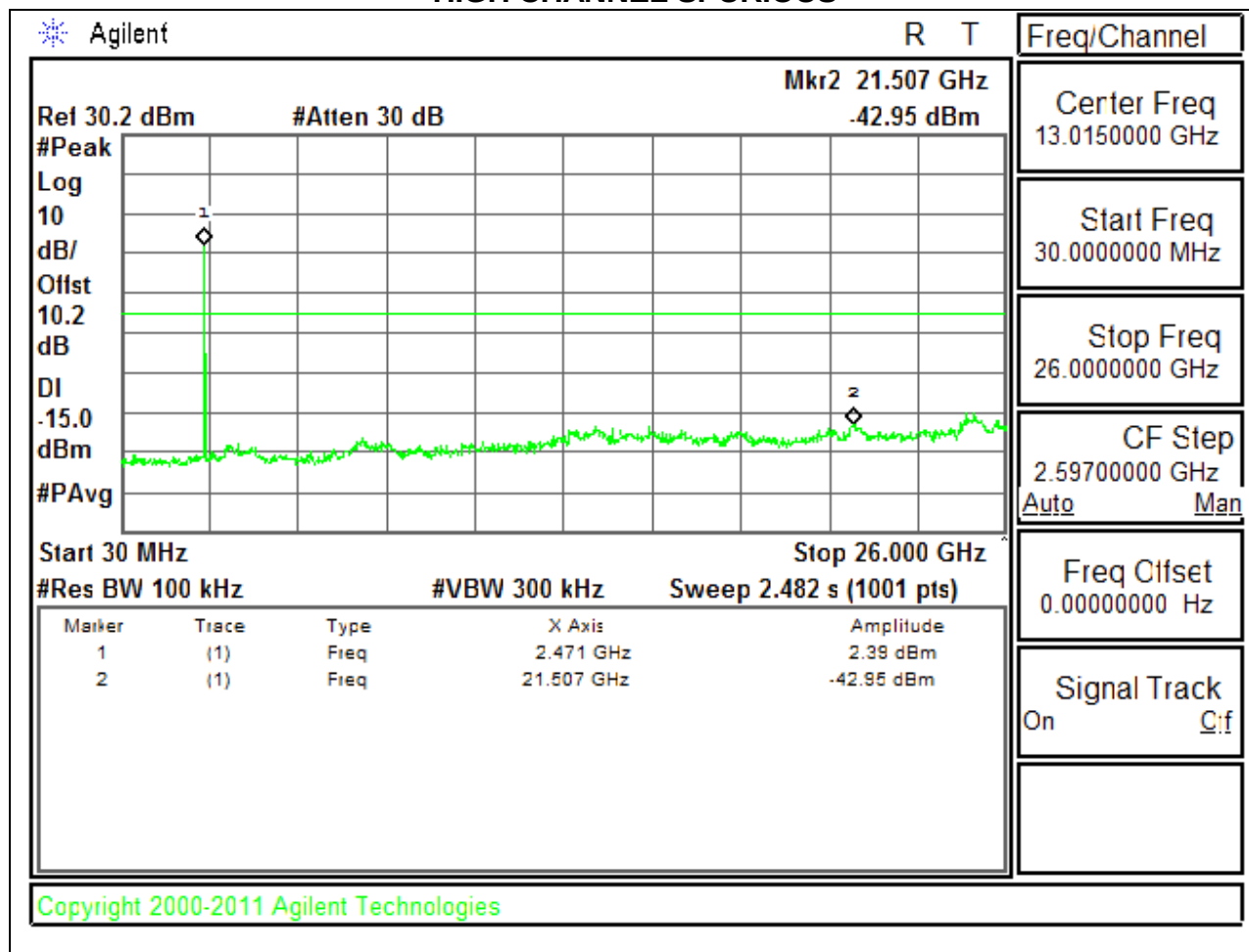
MID CHANNEL SPURIOUS



SPURIOUS EMISSIONS, HIGH CHANNEL

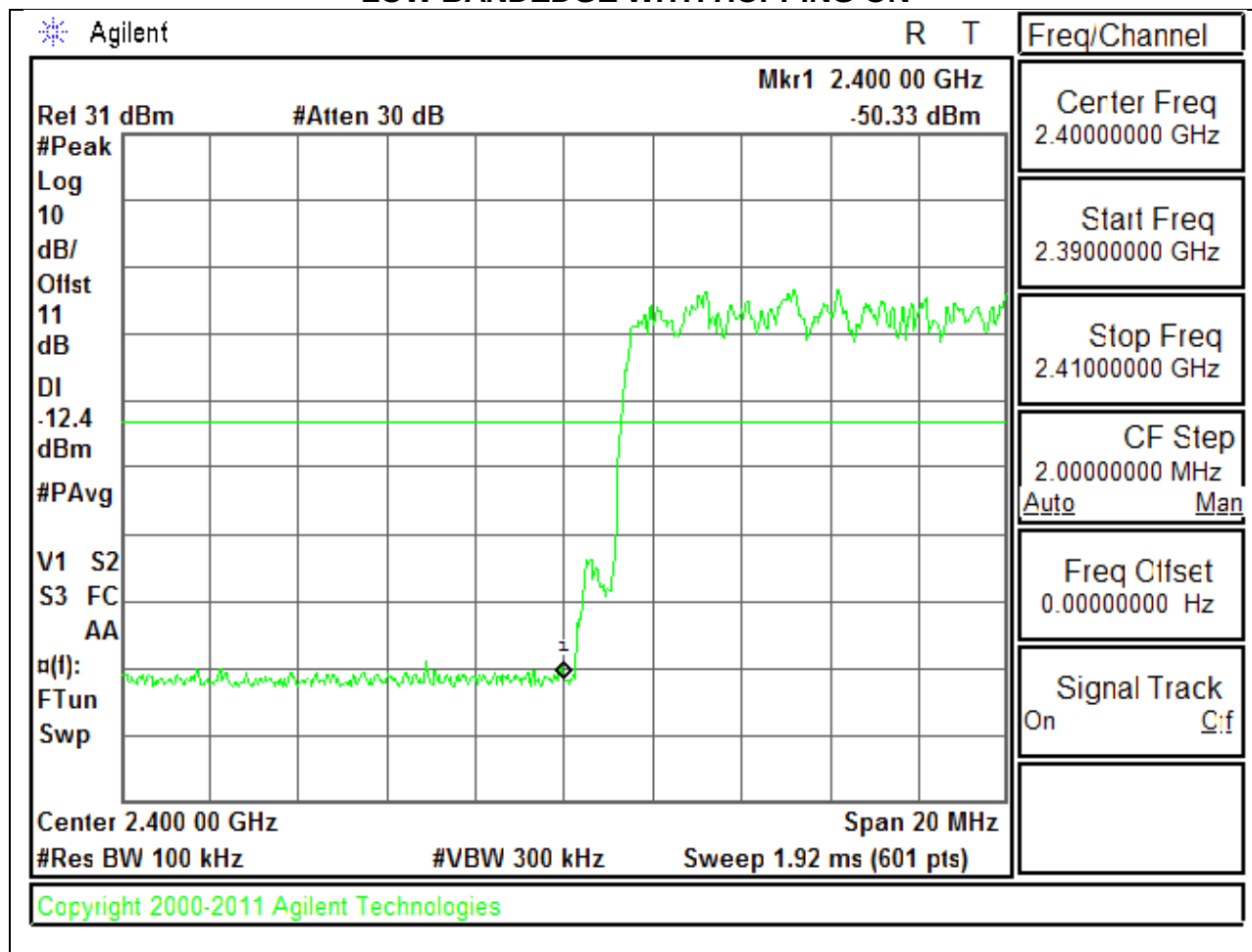


HIGH CHANNEL SPURIOUS

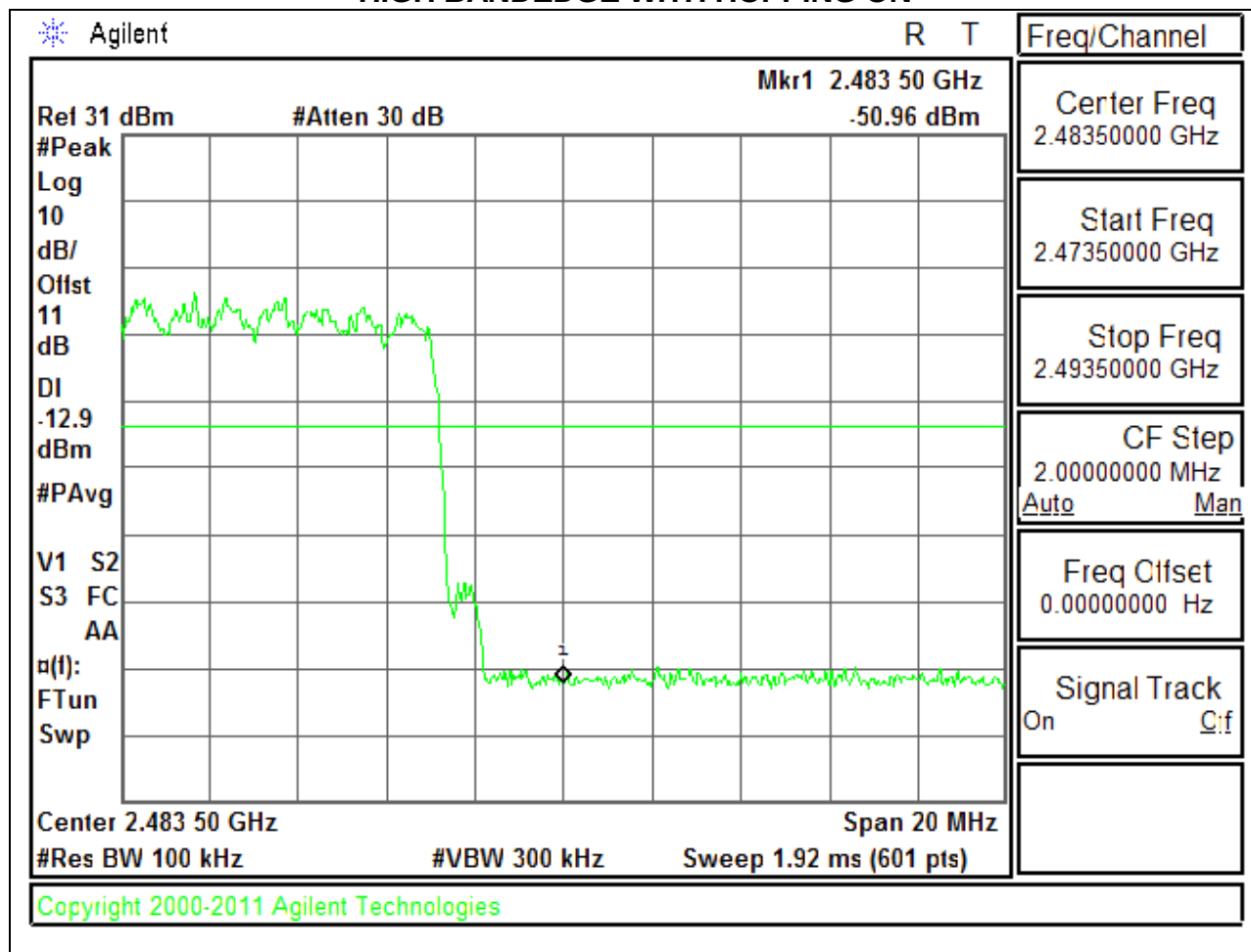


SPURIOUS BANDEDGE EMISSIONS WITH HOPPING ON

LOW BANDEDGE WITH HOPPING ON



HIGH BANDEDGE WITH HOPPING ON



9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For band edge measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 1/T (on time) for average measurement.

$$GFSK = 1/T = 1 / 0.00280S = 360KHz.$$

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

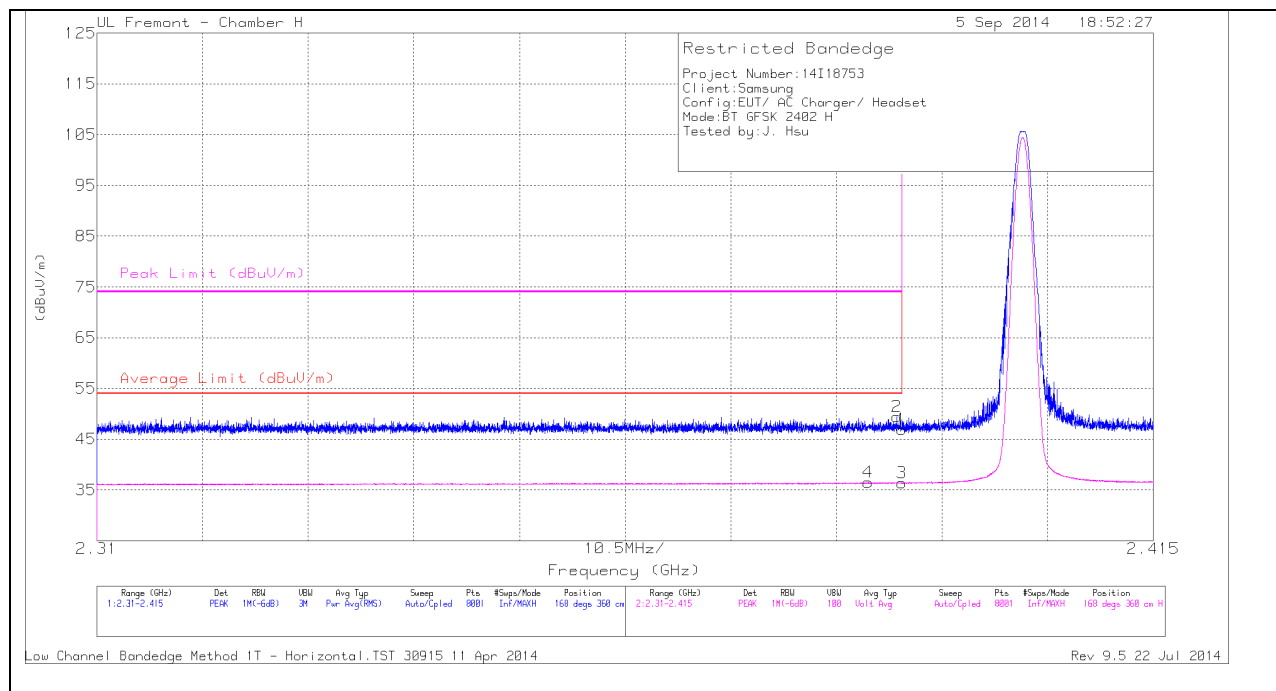
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

9.2. TRANSMITTER ABOVE 1 GHz

9.2.1. BASIC DATA RATE GFSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

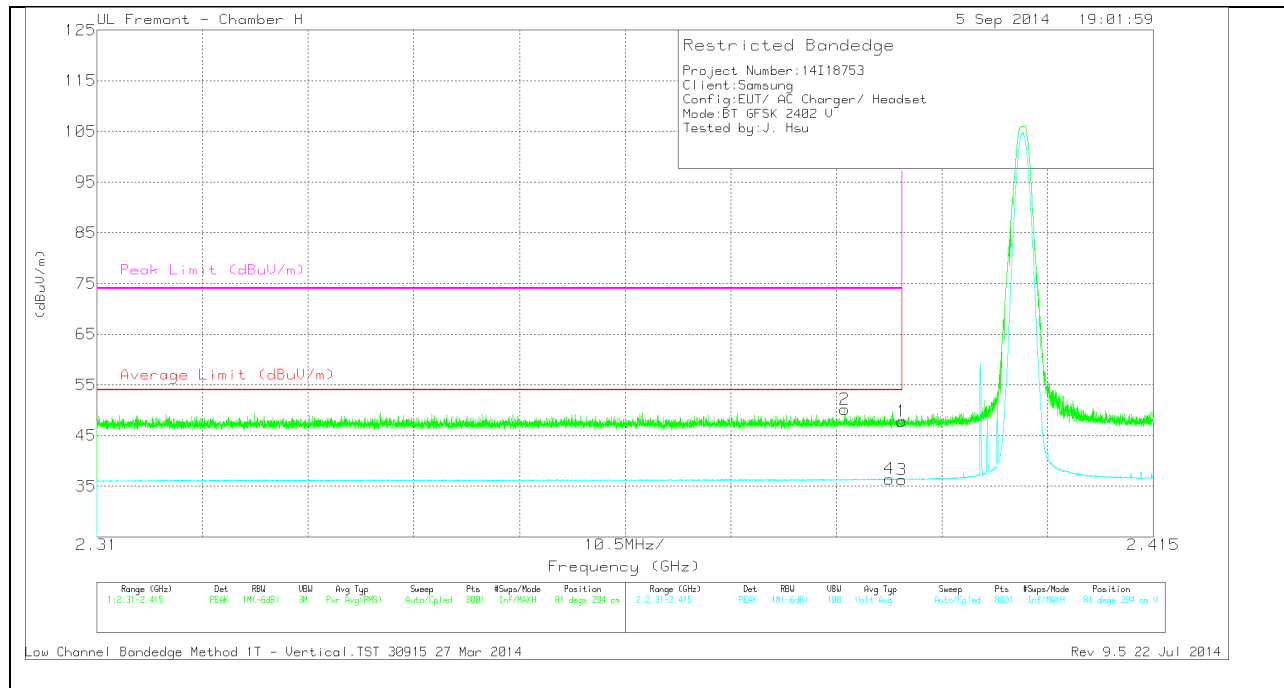
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.49	PK	32	-24.6	46.89	-	-	74	-27.11	168	360	H
2	* 2.389	42	PK	32	-24.6	49.4	-	-	74	-24.6	168	360	H
3	* 2.39	28.95	VB1T	32	-24.6	36.35	54	-17.65	-	-	168	360	H
4	* 2.387	29.05	VB1T	32	-24.5	36.55	54	-17.45	-	-	168	360	H

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

PK - Peak detector

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

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (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	40.43	PK	32	-24.6	47.83	-	-	74	-26.17	81	294	V
2	* 2.384	42.72	PK	32	-24.6	50.12	-	-	74	-23.88	81	294	V
3	* 2.39	28.9	VB1T	32	-24.6	36.3	54	-17.7	-	-	81	294	V
4	* 2.389	29.05	VB1T	32	-24.6	36.45	54	-17.55	-	-	81	294	V

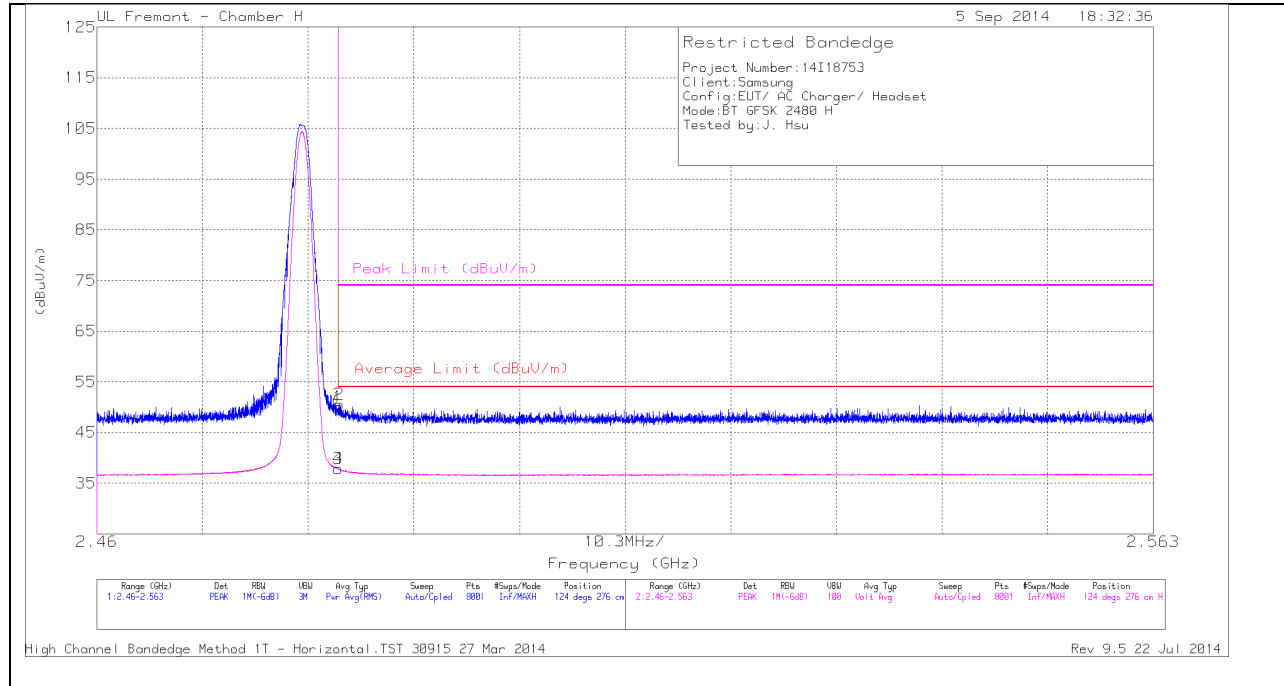
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

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

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE PLOT



HORIZONTAL DATA

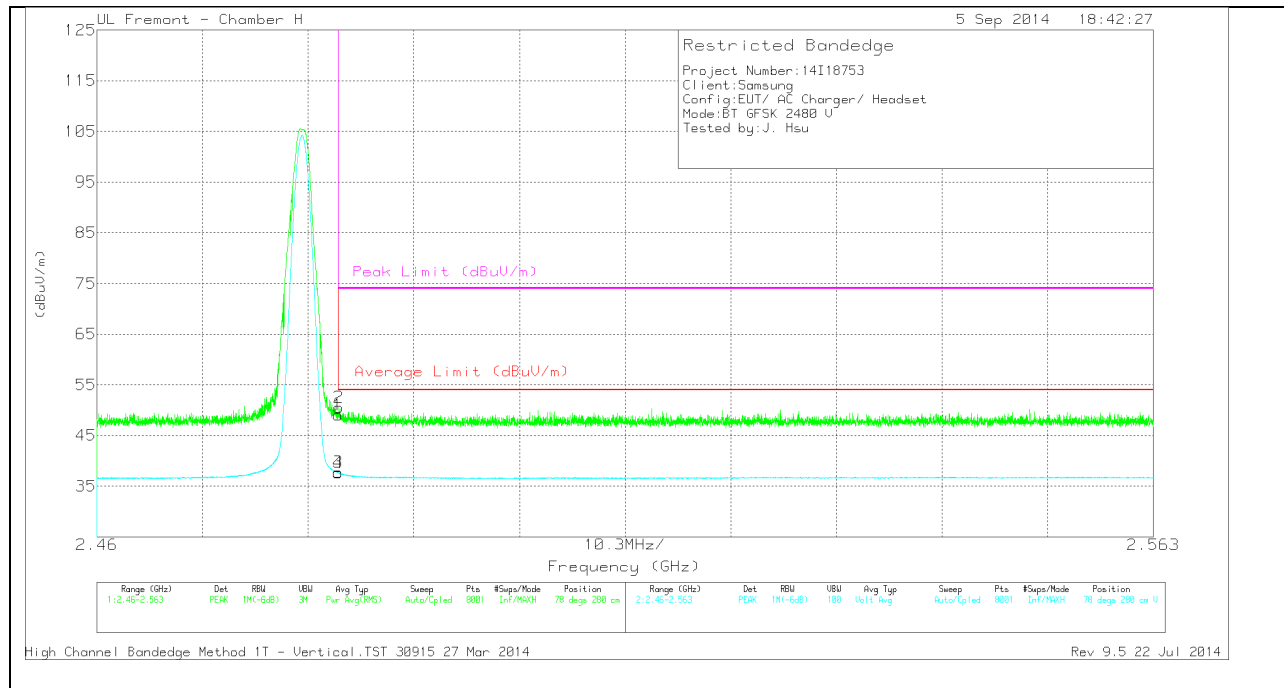
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	42.34	PK	32.2	-24.5	50.04	-	-	74	-23.96	124	276	H
2	* 2.484	42.83	PK	32.2	-24.5	50.53	-	-	74	-23.47	124	276	H
3	* 2.484	30.14	VB1T	32.2	-24.5	37.84	54	-16.16	-	-	124	276	H
4	* 2.484	30.13	VB1T	32.2	-24.5	37.83	54	-16.17	-	-	124	276	H

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

PK - Peak detector

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

VERTICAL PEAK AND AVERAGE PLOT



VERTICAL DATA

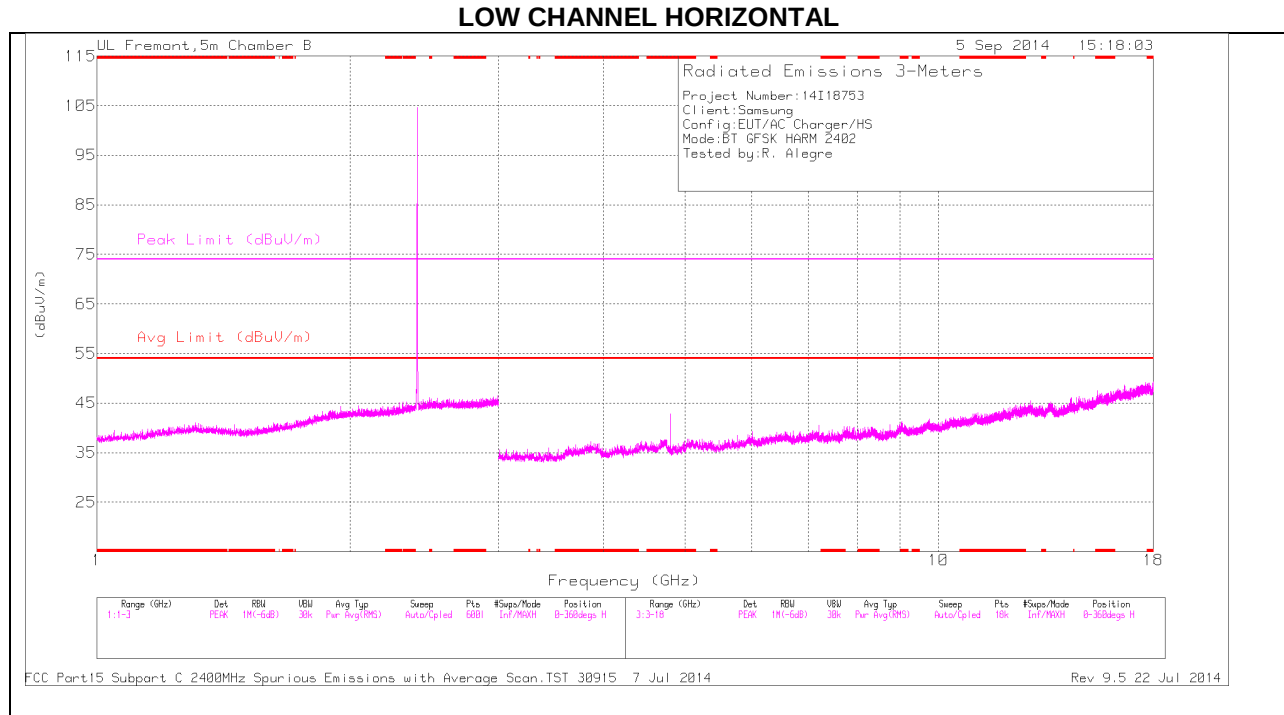
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	41.39	PK	32.2	-24.5	49.09	-	-	74	-24.91	78	280	V
2	* 2.484	42.79	PK	32.2	-24.5	50.49	-	-	74	-23.51	78	280	V
3	* 2.484	30.07	VB1T	32.2	-24.5	37.77	54	-16.23	-	-	78	280	V
4	* 2.484	29.98	VB1T	32.2	-24.5	37.68	54	-16.32	-	-	78	280	V

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

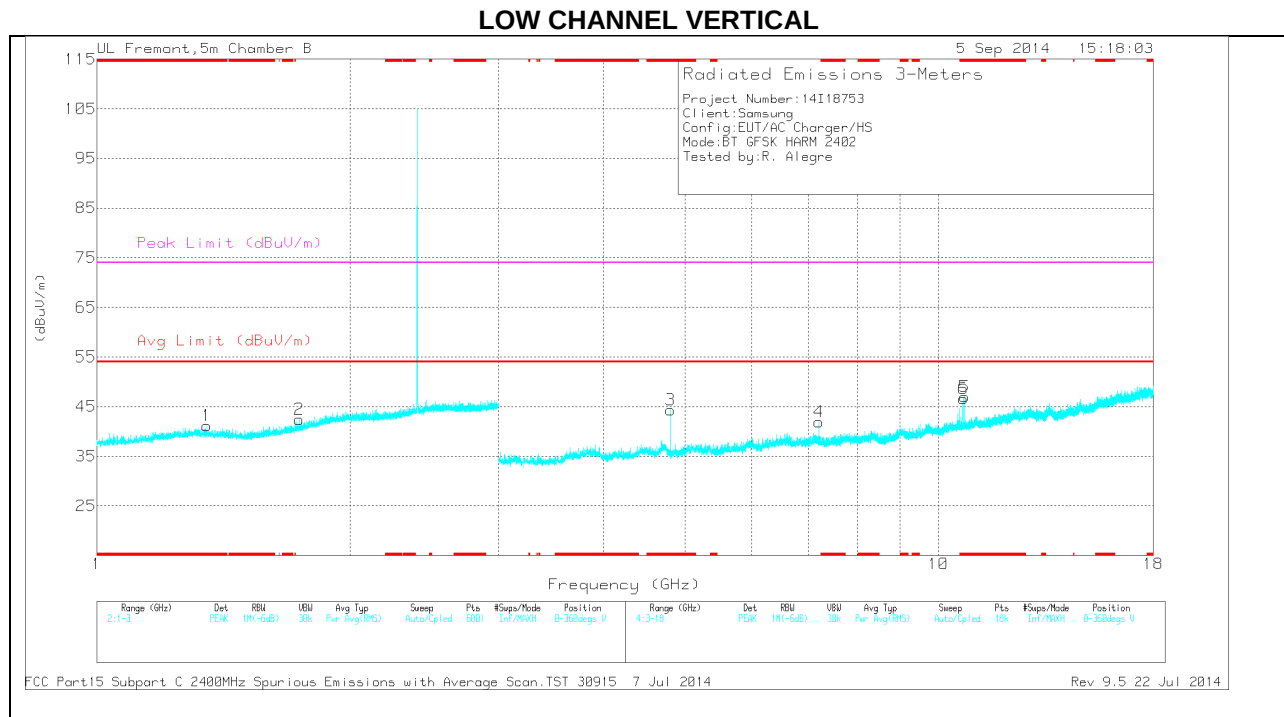
PK - Peak detector

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

HARMONICS AND SPURIOUS EMISSIONS



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



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

LOW CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/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	* 1.351	36.81	PK	28.7	-24.3	41.21	-	-	74	-32.79	0-360	101	V
3	* 4.804	39.77	PK	34.2	-29.6	44.37	-	-	74	-29.63	0-360	101	V
5	* 10.742	32.18	PK	37.8	-23	46.98	-	-	74	-27.02	0-360	101	V
6	* 10.705	31.76	PK	37.8	-23	46.56	-	-	74	-27.44	0-360	101	V
2	1.739	36.43	PK	29.5	-23.5	42.43	-	-	-	-	0-360	101	V
4	7.206	33.71	PK	35.5	-27.3	41.91	-	-	-	-	0-360	101	V

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

PK - Peak detector

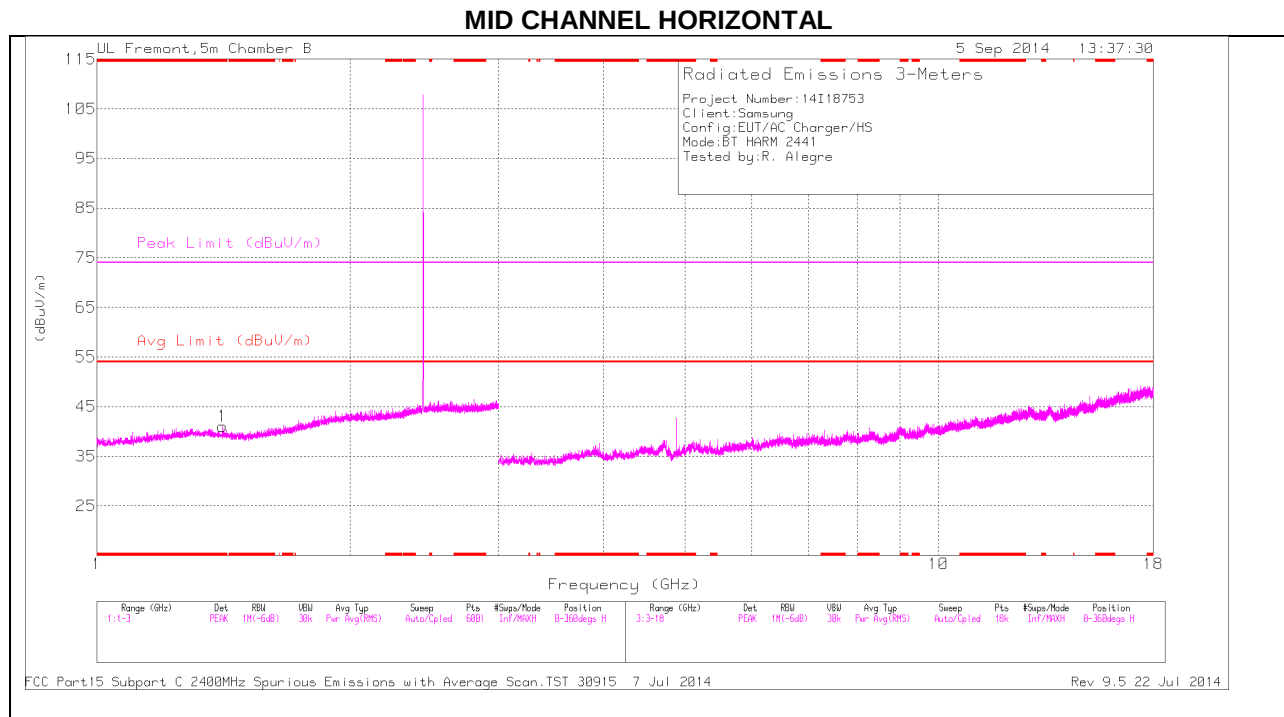
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/ 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
* 1.35	44.42	PK3	28.7	-24.3	48.82	-	-	74	-25.18	359	101	V
* 4.804	40.69	PK3	34.2	-29.6	45.29	-	-	74	-28.71	359	101	V
* 4.804	30.57	VB1T	34.2	-29.6	35.17	54	-18.83	-	-	359	101	V
* 10.743	34.99	PK3	37.8	-23	49.79	-	-	74	-24.21	359	101	V
* 10.742	22.55	VB1T	37.8	-23	37.35	54	-16.65	-	-	359	101	V
* 10.704	35.75	PK3	37.8	-23	50.55	-	-	74	-23.45	359	101	V
* 10.703	22.42	VB1T	37.8	-23	37.22	54	-16.78	-	-	359	101	V
7.205	38.75	PK3	35.5	-27.3	46.95	-	-	-	-	359	101	V
7.206	26.46	VB1T	35.5	-27.3	34.66	54	-19.34	-	-	359	101	V

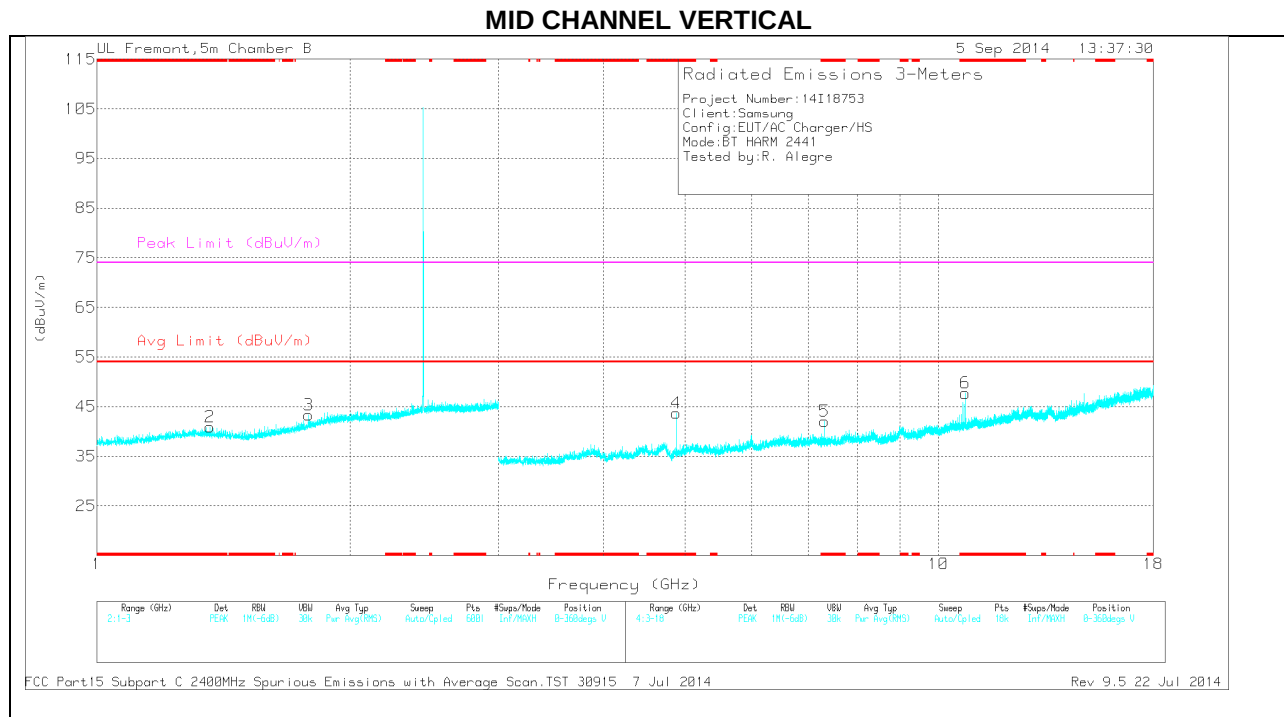
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

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



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



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 T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.41	36.76	PK	28.5	-24.2	41.06	-	-	74	-32.94	0-360	199	H
2	* 1.362	36.62	PK	28.6	-24.3	40.92	-	-	74	-33.08	0-360	101	V
4	* 4.882	40.19	PK	34.2	-30.7	43.69	-	-	74	-30.31	0-360	101	V
5	* 7.323	34.88	PK	35.6	-28.4	42.08	-	-	74	-31.92	0-360	101	V
6	* 10.759	33	PK	37.8	-23.1	47.7	-	-	74	-26.3	0-360	200	V
3	1.784	36.84	PK	30	-23.5	43.34	-	-	-	-	0-360	199	V

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

PK - Peak detector

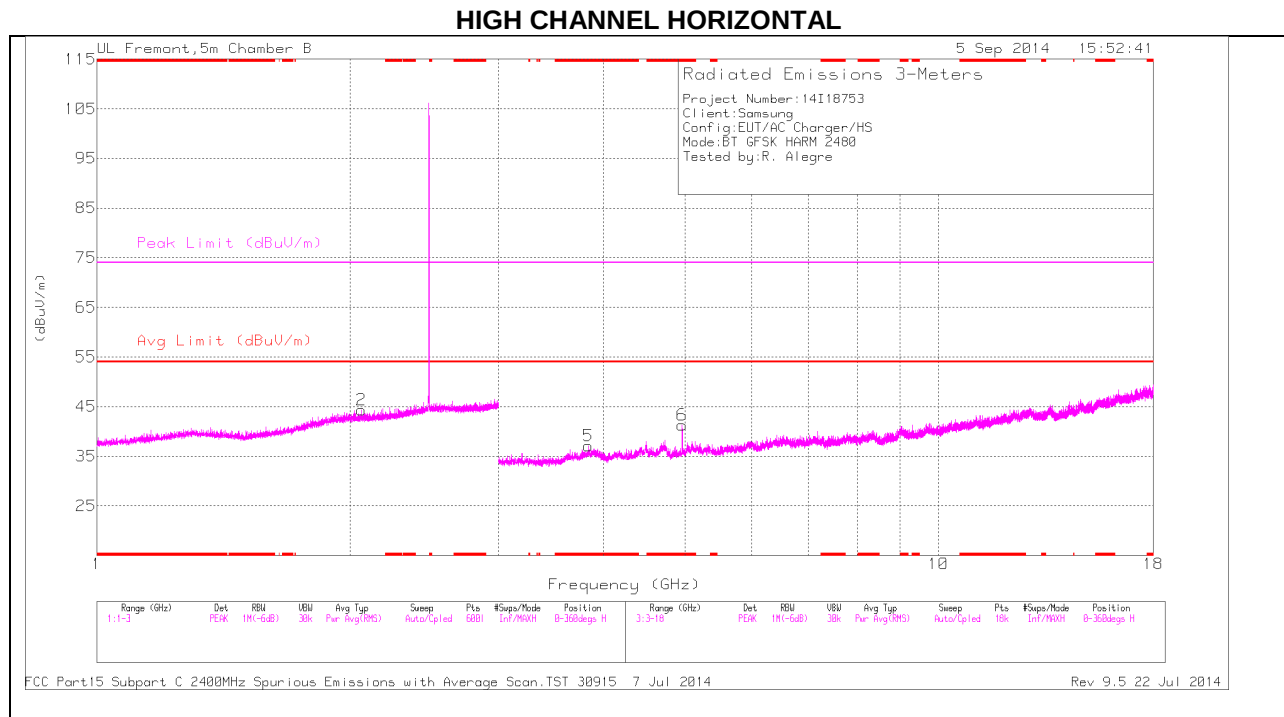
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/F ltr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.408	43.5	PK3	28.5	-24.2	47.8	-	-	74	-26.2	2	200	H
* 1.361	43.63	PK3	28.6	-24.3	47.93	-	-	74	-26.07	2	102	V
* 4.882	42.83	PK3	34.2	-30.7	46.33	-	-	74	-27.67	2	101	V
* 4.882	31.41	VB1T	34.2	-30.7	34.91	54	-19.09	-	-	2	101	V
* 7.324	39.65	PK3	35.6	-28.4	46.85	-	-	74	-27.15	2	101	V
* 7.323	26.89	VB1T	35.6	-28.4	34.09	54	-19.91	-	-	2	101	V
* 10.76	34.75	PK3	37.8	-23.1	49.45	-	-	74	-24.55	2	200	V
* 10.76	22.57	VB1T	37.8	-23.1	37.27	54	-16.73	-	-	2	200	V
1.784	43.52	PK3	30	-23.5	50.02	-	-	-	-	2	199	V

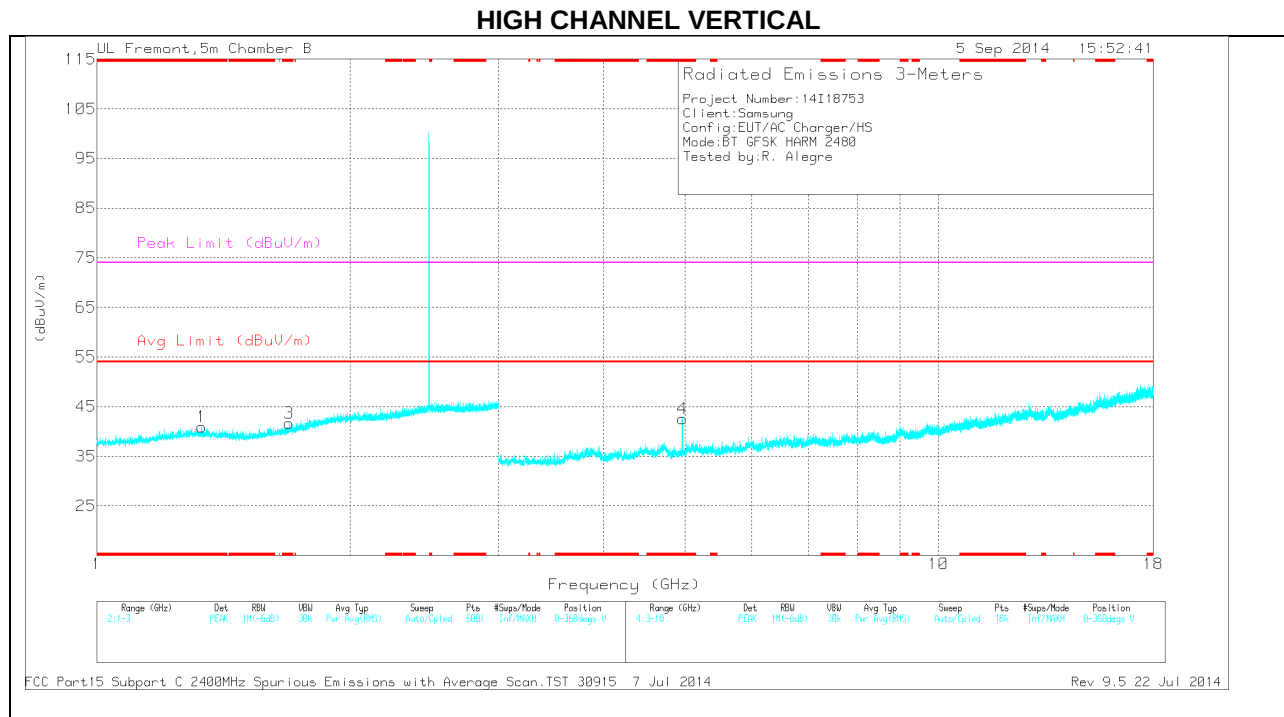
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

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



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



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

HIGH CHANNEL DATA

TRACE MARKERS

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Ftr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.333	36.55	PK	28.7	-24.3	40.95	-	-	74	-33.05	0-360	101	V
3	* 1.693	36.27	PK	29	-23.6	41.67	-	-	74	-32.33	0-360	200	V
5	* 3.837	33.91	PK	33.7	-30.5	37.11	-	-	74	-36.89	0-360	200	H
6	* 4.96	37.67	PK	34.2	-30.6	41.27	-	-	74	-32.73	0-360	101	H
4	* 4.961	38.98	PK	34.2	-30.6	42.58	-	-	74	-31.42	0-360	200	V
2	2.063	36.26	PK	31.3	-23.2	44.36	-	-	-	-	0-360	200	H

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

PK - Peak detector

RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.333	43.87	PK3	28.7	-24.3	48.27	-	-	74	-25.73	359	102	V
* 1.695	43.54	PK3	29	-23.6	48.94	-	-	74	-25.06	359	199	V
* 3.837	41.56	PK3	33.7	-30.5	44.76	-	-	74	-29.24	359	199	H
* 3.839	28.75	VB1T	33.7	-30.5	31.95	54	-22.05	-	-	359	199	H
* 4.96	42.01	PK3	34.2	-30.6	45.61	-	-	74	-28.39	359	102	H
* 4.96	30.13	VB1T	34.2	-30.6	33.73	54	-20.27	-	-	359	102	H
* 4.96	43.31	PK3	34.2	-30.6	46.91	-	-	74	-27.09	359	200	V
* 4.96	33.93	VB1T	34.2	-30.6	37.53	54	-16.47	-	-	359	200	V

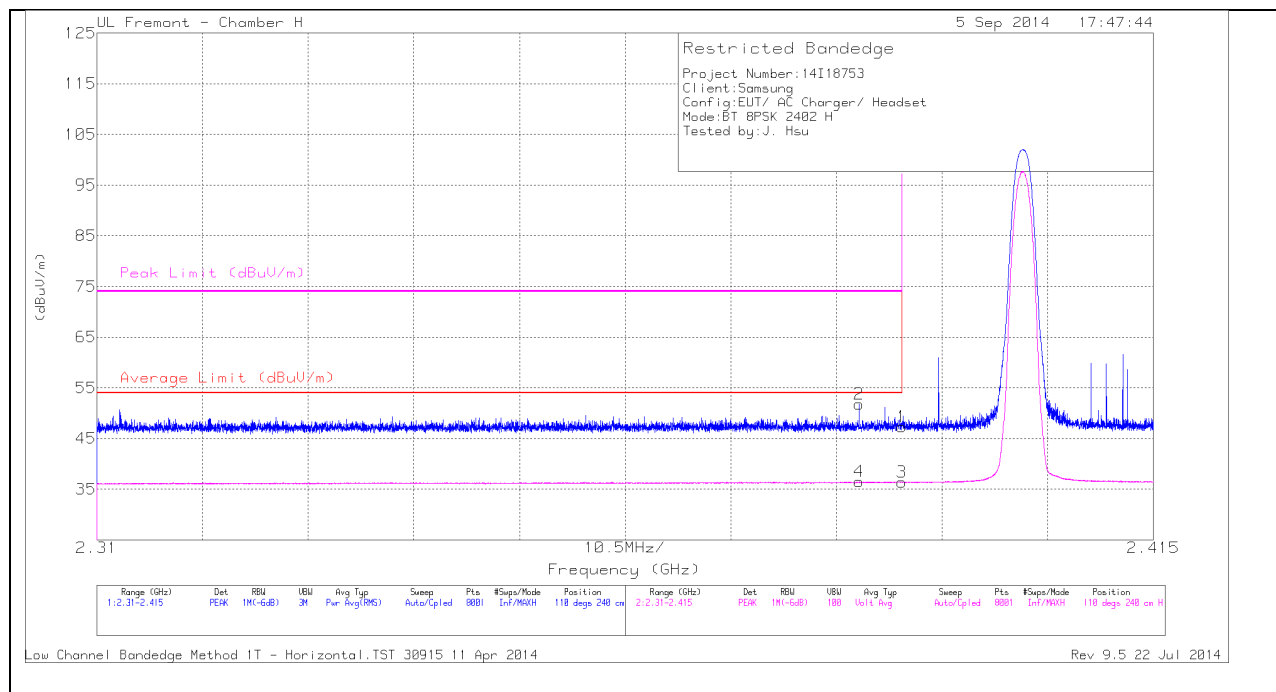
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

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

9.2.2. ENHANCED DATA RATE 8PSK MODULATION

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



HORIZONTAL DATA

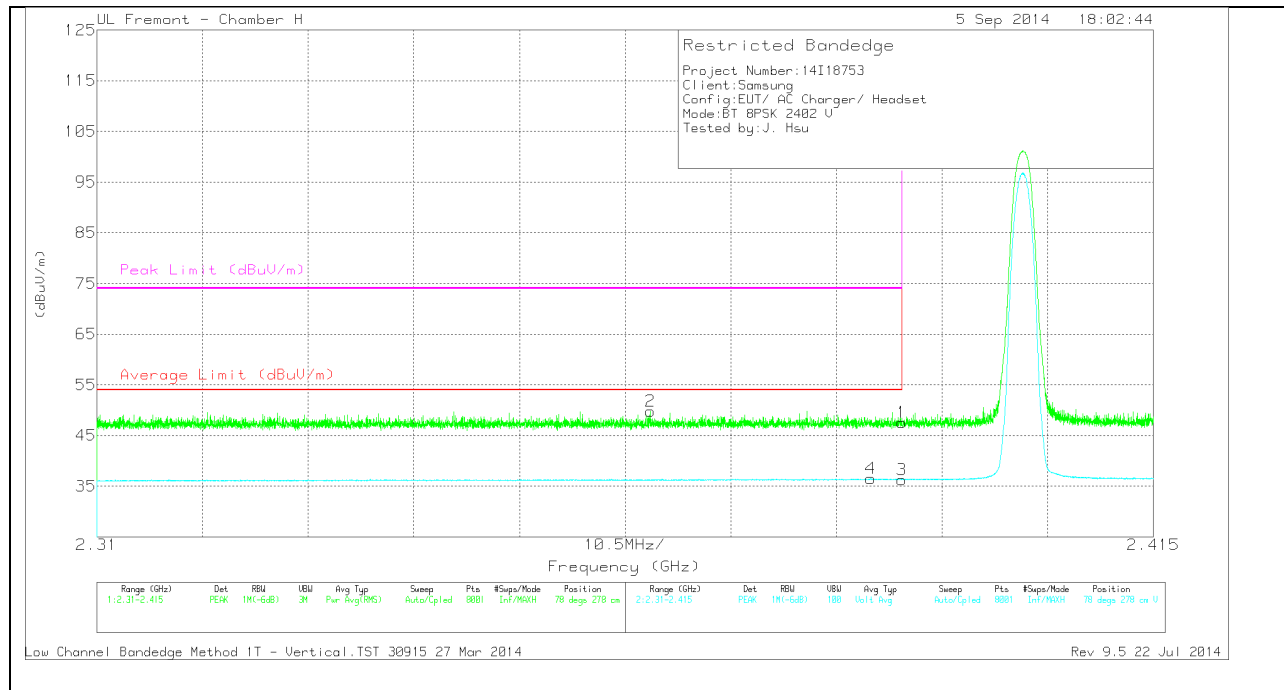
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cb/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	39.86	PK	32	-24.6	47.26	-	-	74	-26.74	110	240	H
2	* 2.386	44.27	PK	32	-24.5	51.77	-	-	74	-22.23	110	240	H
3	* 2.39	28.99	VB1T	32	-24.6	36.39	54	-17.61	-	-	110	240	H
4	* 2.386	28.96	VB1T	32	-24.5	36.46	54	-17.54	-	-	110	240	H

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

PK - Peak detector

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

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



VERTICAL DATA

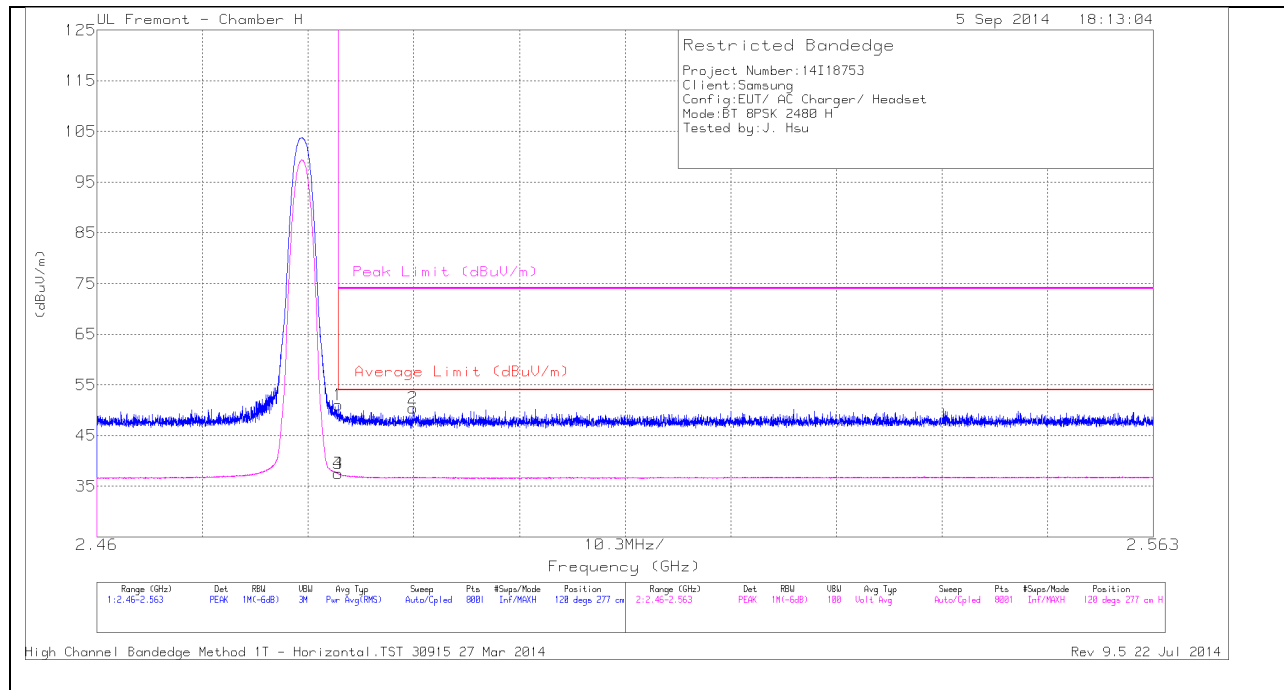
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.39	40.2	PK	32	-24.6	47.6	-	-	74	-26.4	78	278	V
2	* 2.365	42.55	PK	31.9	-24.6	49.85	-	-	74	-24.15	78	278	V
3	* 2.39	28.88	VB1T	32	-24.6	36.28	54	-17.72	-	-	78	278	V
4	* 2.387	28.98	VB1T	32	-24.5	36.48	54	-17.52	-	-	78	278	V

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

PK - Peak detector

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

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



HORIZONTAL DATA

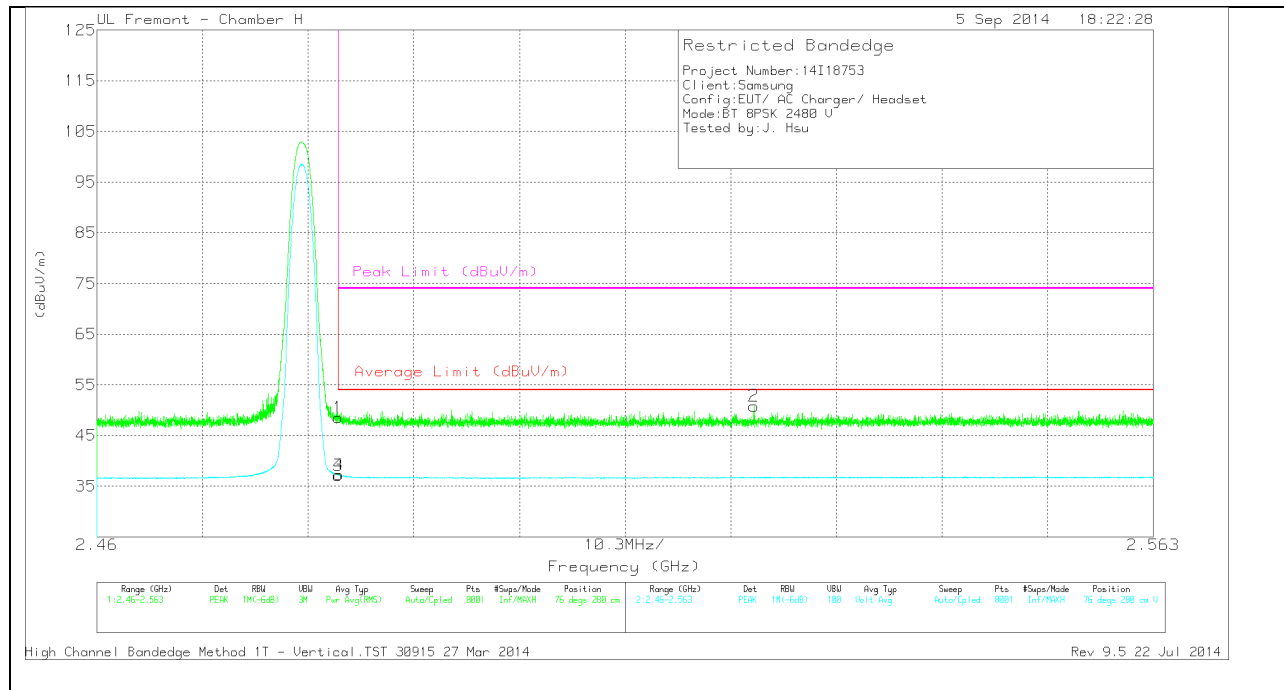
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	43.38	PK	32.2	-24.5	51.08	-	-	74	-22.92	120	277	H
2	* 2.491	42.68	PK	32.2	-24.5	50.38	-	-	74	-23.62	120	277	H
3	* 2.484	29.76	VB1T	32.2	-24.5	37.46	54	-16.54	-	-	120	277	H
4	* 2.484	29.78	VB1T	32.2	-24.5	37.48	54	-16.52	-	-	120	277	H

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

PK - Peak detector

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

RESTRICTED BANDEGE (HIGH CHANNEL, VERTICAL)



VERTICAL DATA

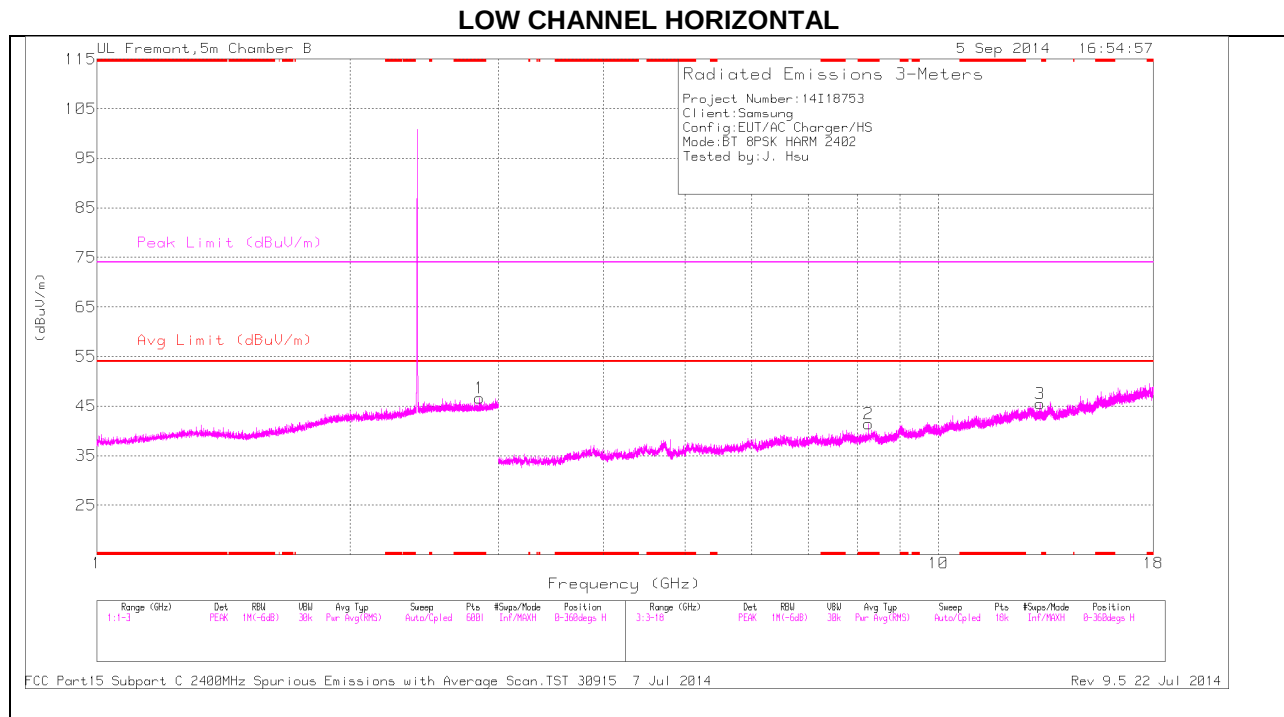
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T863 (dB/m)	Amp/Cbl/ Filt/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.484	40.88	PK	32.2	-24.5	48.58	-	-	74	-25.42	76	280	V
3	* 2.484	29.44	VB1T	32.2	-24.5	37.14	54	-16.86	-	-	76	280	V
4	* 2.484	29.59	VB1T	32.2	-24.5	37.29	54	-16.71	-	-	76	280	V
2	2.524	43.05	PK	32.2	-24.4	50.85	-	-	74	-23.15	76	280	V

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

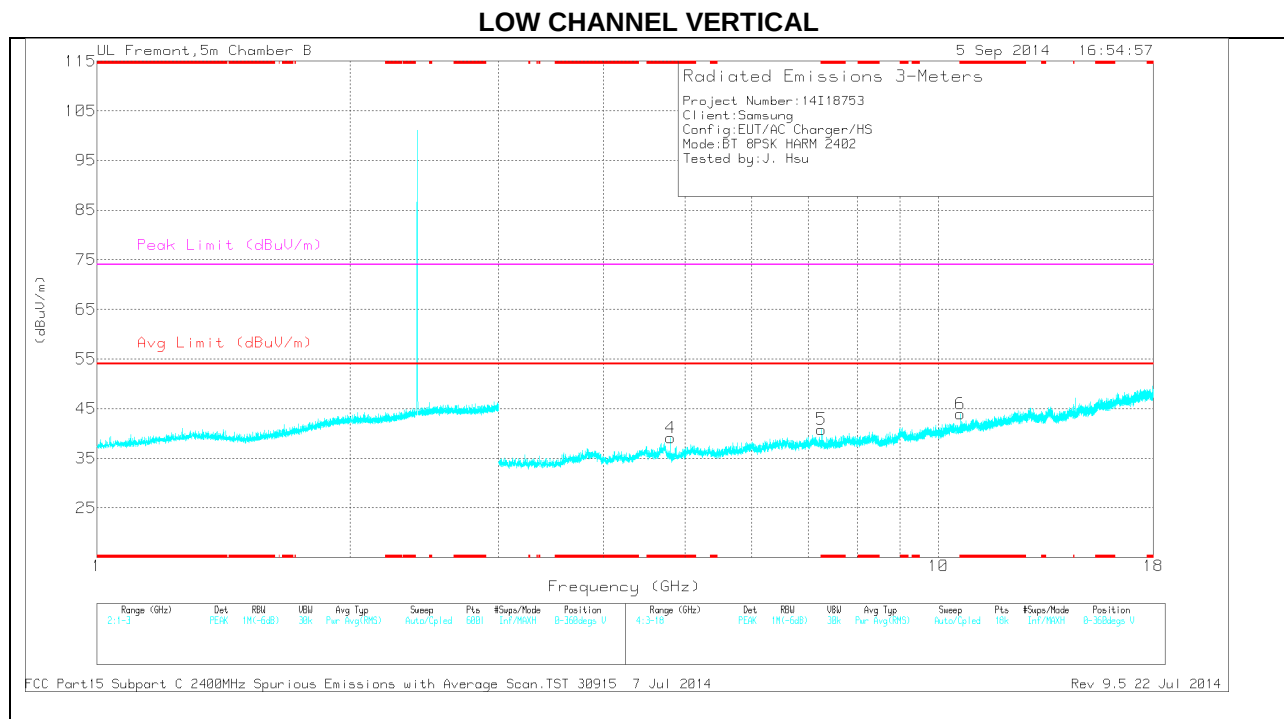
PK - Peak detector

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

HARMONICS AND SPURIOUS EMISSIONS



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



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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.847	36.31	PK	32.5	-22.2	46.61	-	-	74	-27.39	0-360	200	H
2	* 8.264	32.45	PK	35.7	-26.7	41.45	-	-	74	-32.55	0-360	199	H
4	* 4.804	34.53	PK	34.2	-29.6	39.13	-	-	74	-34.87	0-360	101	V
5	* 7.264	33.24	PK	35.6	-28	40.84	-	-	74	-33.16	0-360	199	V
6	* 10.62	29.62	PK	37.7	-23.4	43.92	-	-	74	-30.08	0-360	101	V
3	13.199	28.47	PK	39.2	-22.2	45.47	-	-	-	-	0-360	199	H

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

PK - Peak detector

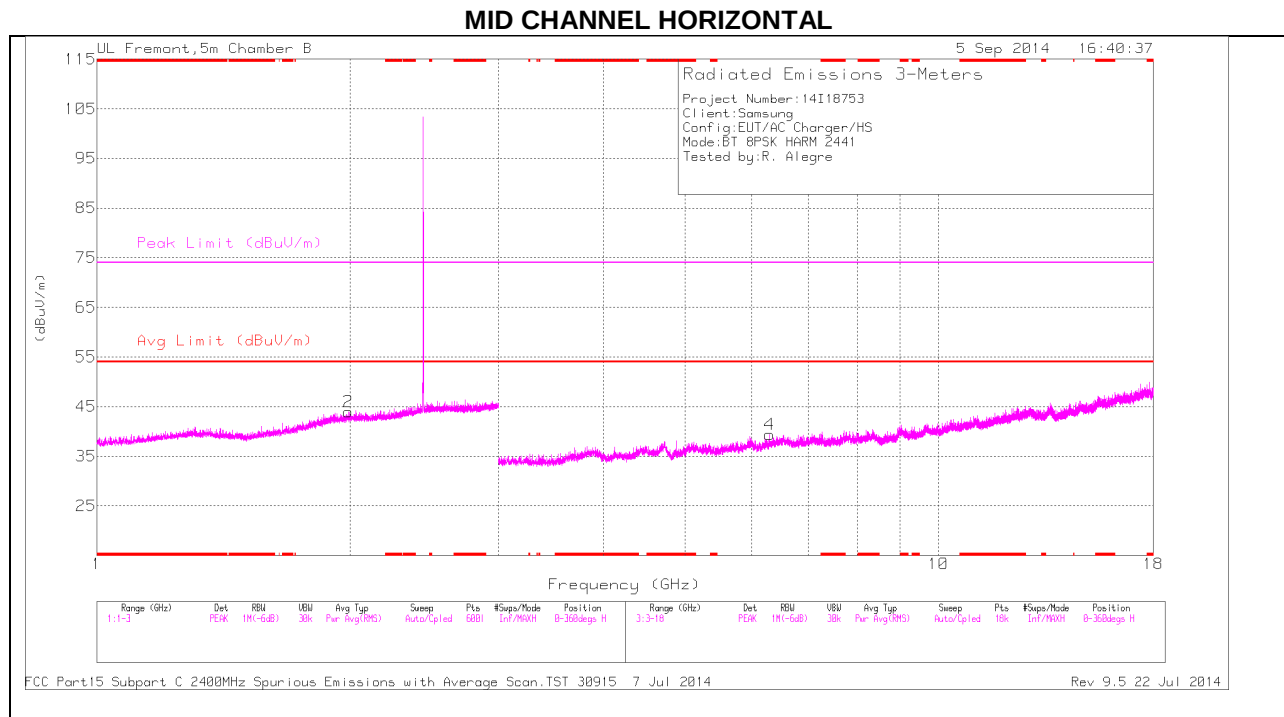
RADIATED EMISSIONS

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Ftr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 4.804	39.18	PK3	34.2	-29.6	43.78	-	-	74	-30.22	359	101	V
* 4.804	27.81	VB1T	34.2	-29.6	32.41	54	-21.59	-	-	359	101	V
* 10.62	35.27	PK3	37.7	-23.4	49.57	-	-	74	-24.43	359	101	V
* 10.621	22.55	VB1T	37.7	-23.4	36.85	54	-17.15	-	-	359	101	V

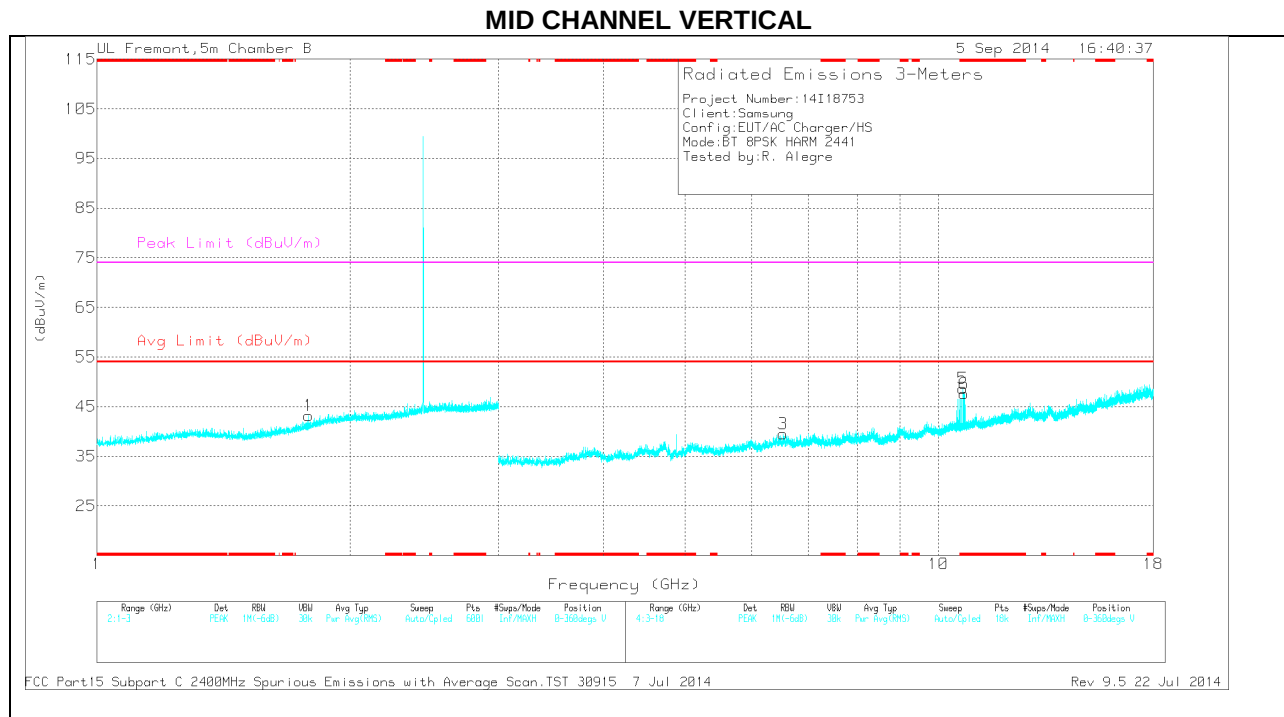
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK3 - FHSS Method: Maximum Peak

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



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



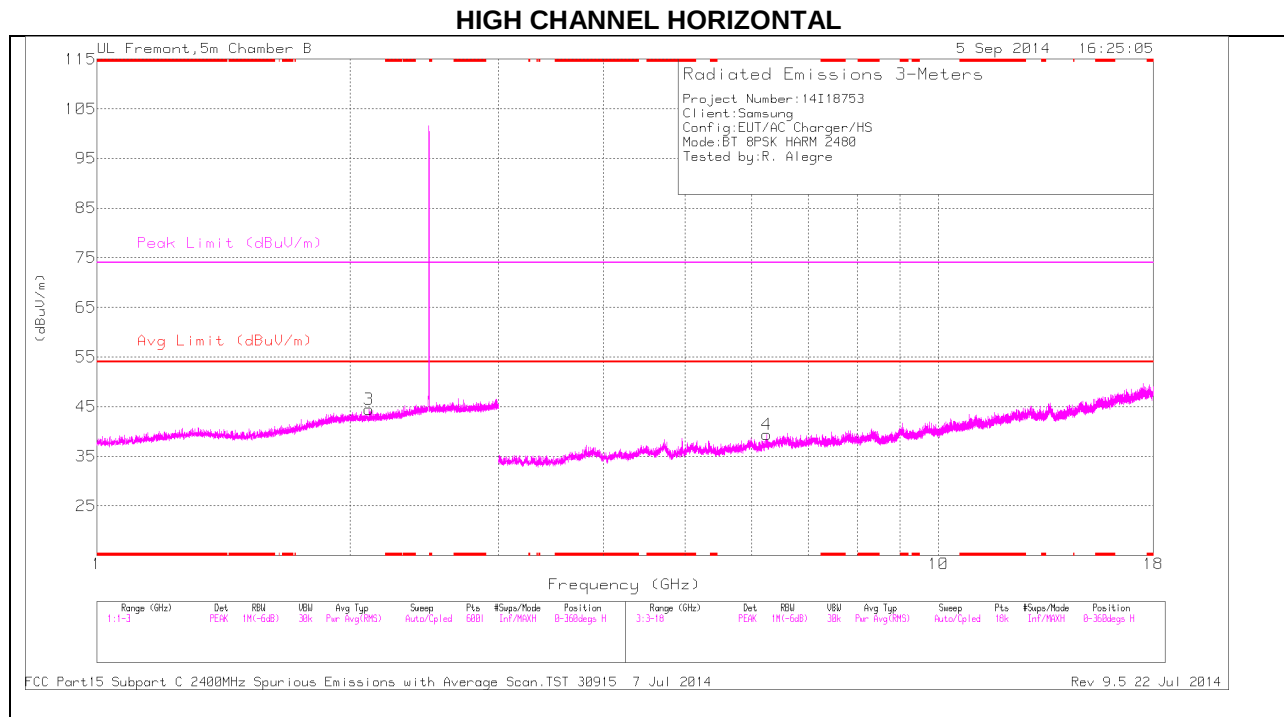
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

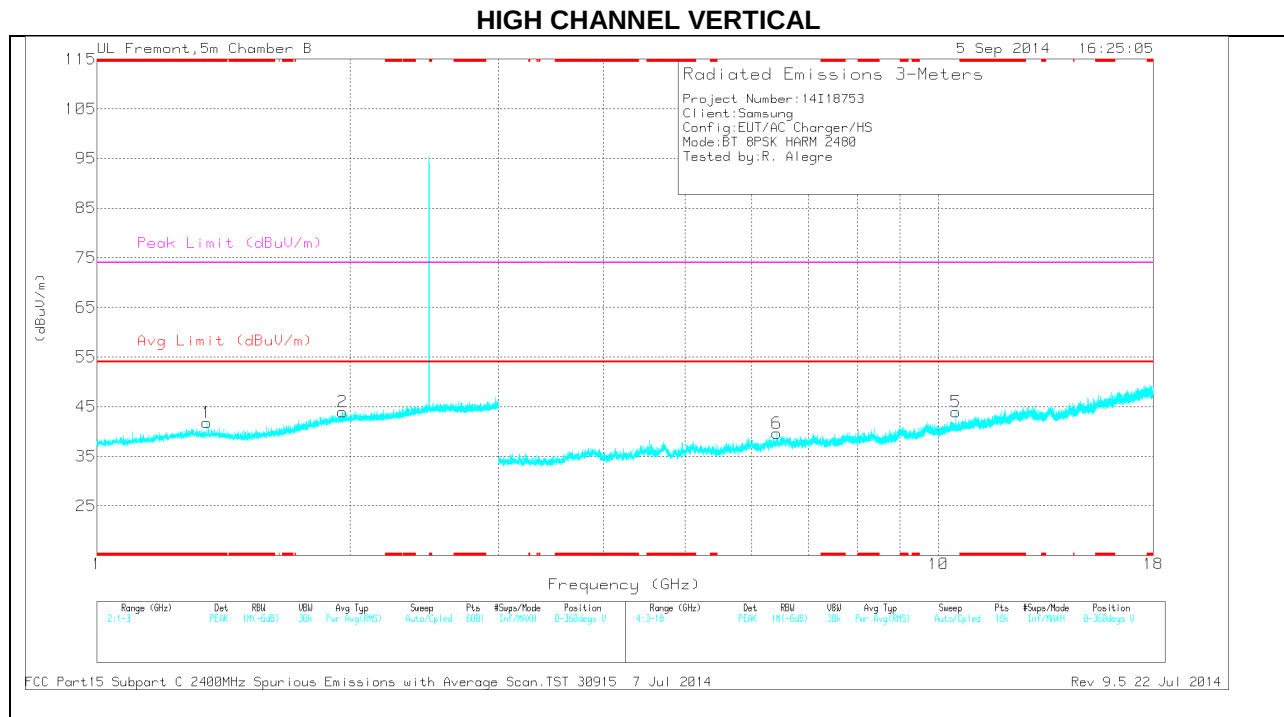
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cb/Fitr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
5	* 10.696	33.79	PK	37.8	-23	48.59	-	-	74	-25.41	0-360	101	V
6	* 10.72	32.97	PK	37.8	-23.1	47.67	-	-	74	-26.33	0-360	101	V
1	1.786	36.7	PK	30	-23.5	43.2	-	-	-	-	0-360	101	V
2	1.99	35.93	PK	31.3	-23.3	43.93	-	-	-	-	0-360	199	H
4	6.299	32.65	PK	35.5	-28.8	39.35	-	-	-	-	0-360	200	H
3	6.541	32.24	PK	35.7	-28.4	39.54	-	-	-	-	0-360	200	V

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

PK - Peak detector



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



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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (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	* 1.351	37.42	PK	28.7	-24.3	41.82	-	-	74	-32.18	0-360	101	V
2	1.959	36.18	PK	31.2	-23.4	43.98	-	-	-	-	0-360	101	V
3	2.105	36.38	PK	31.2	-23.1	44.48	-	-	-	-	0-360	200	H
4	6.246	32.54	PK	35.4	-28.6	39.34	-	-	-	-	0-360	101	H
6	6.429	33.19	PK	35.6	-29.2	39.59	-	-	-	-	0-360	200	V
5	10.494	30.05	PK	37.5	-23.6	43.95	-	-	-	-	0-360	101	V

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

PK - Peak detector

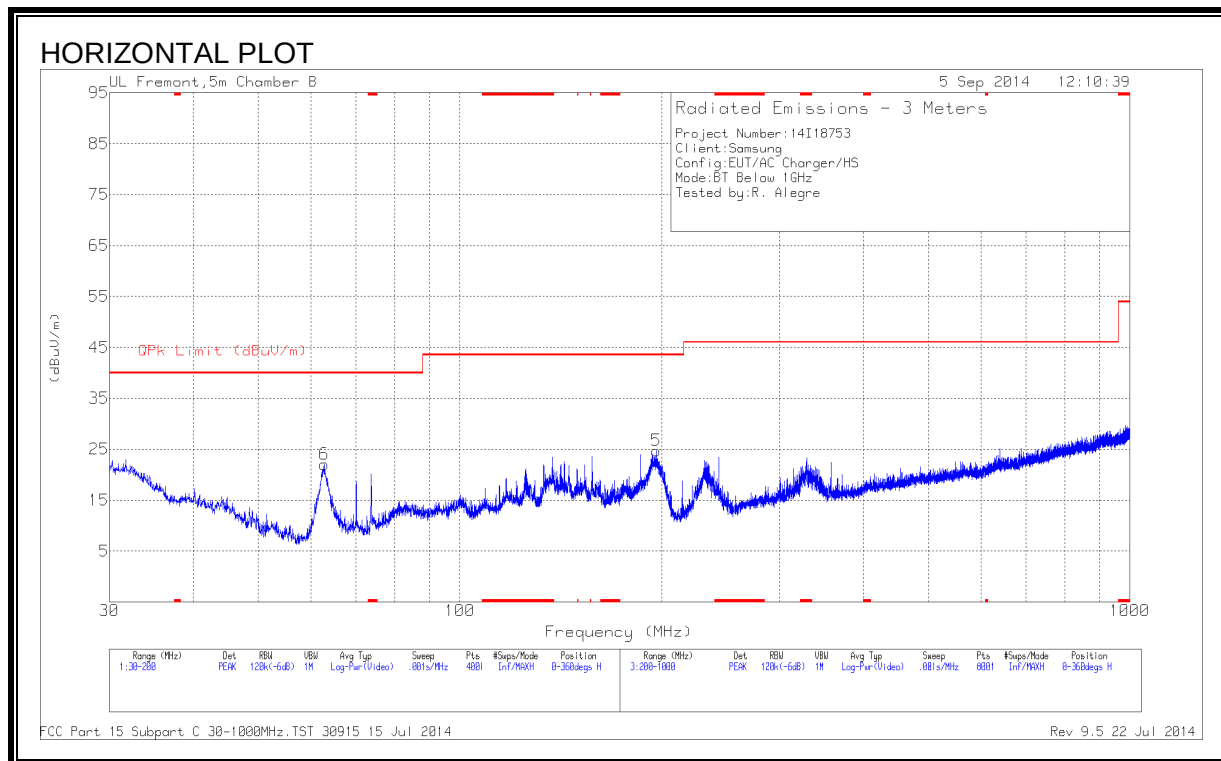
RADIATED EMISSIONS

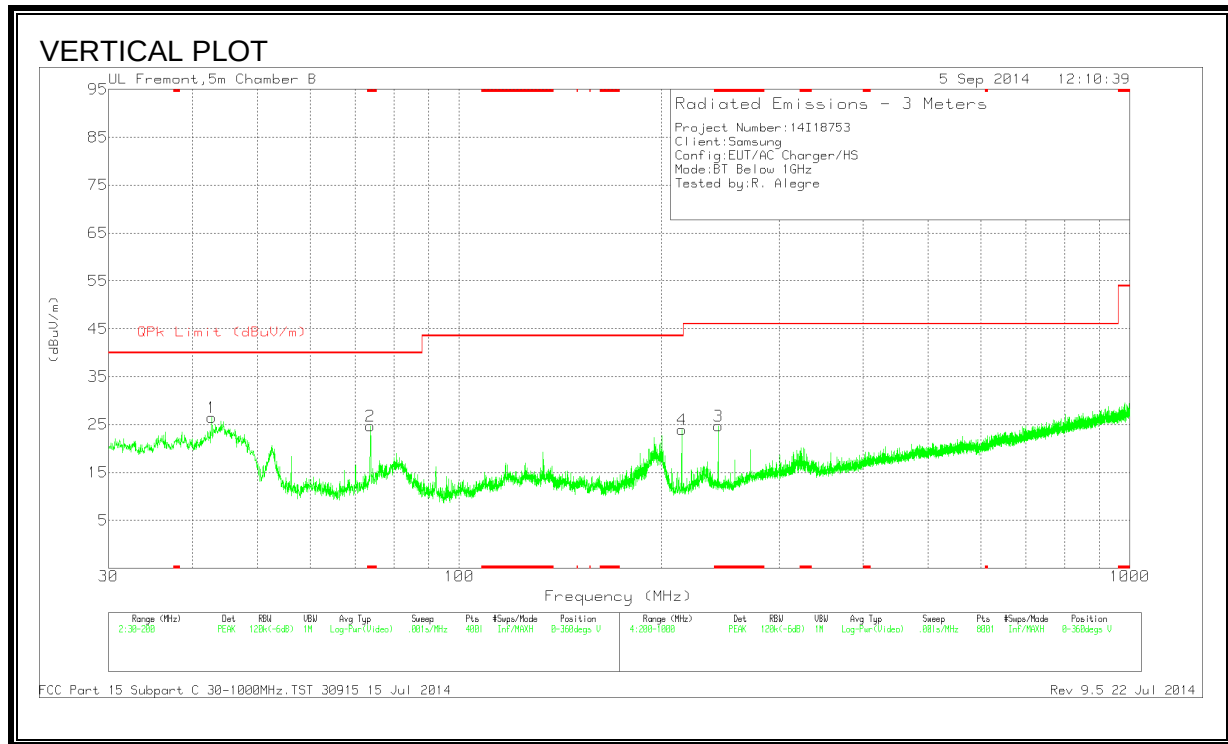
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T345 (dB/m)	Amp/Cbl/Fitr /Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 1.349	43.49	PK3	28.7	-24.3	47.89	-	-	74	-26.11	360	100	V
* 1.352	30.89	VB1T	28.7	-24.3	35.29	54	-18.71	-	-	360	100	V

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

9.3. WORST-CASE BELOW 1 GHz

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





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
2	* 73.7325	44.89	PK	8.1	-28.3	24.69	40	-15.31	0-360	101	V
3	* 243.4	39.38	PK	11.7	-26.4	24.68	46.02	-21.34	0-360	200	V
1	42.7925	43.24	PK	11.9	-28.6	26.54	40	-13.46	0-360	101	V
6	62.725	42.79	PK	7.6	-28.4	21.99	40	-18.01	0-360	400	H
5	196.6425	39.73	PK	11.9	-26.9	24.73	43.52	-18.79	0-360	200	H
4	214.8	40.13	PK	10.6	-26.8	23.93	43.52	-19.59	0-360	200	V

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

PK - 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 C63.4.

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-L1 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dBUV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
1	.168	49.35	PK	1.2	0	50.55	65.1	-14.55	-	-
2	.168	27.43	Av	1.2	0	28.63	-	-	55.1	-26.47
3	.5775	45.73	PK	.3	0	46.03	56	-9.97	-	-
4	.5775	32.75	Av	.3	0	33.05	-	-	46	-12.95
5	6.3555	31.32	PK	.2	.1	31.62	60	-28.38	-	-
6	6.3555	13.38	Av	.2	.1	13.68	-	-	50	-36.32

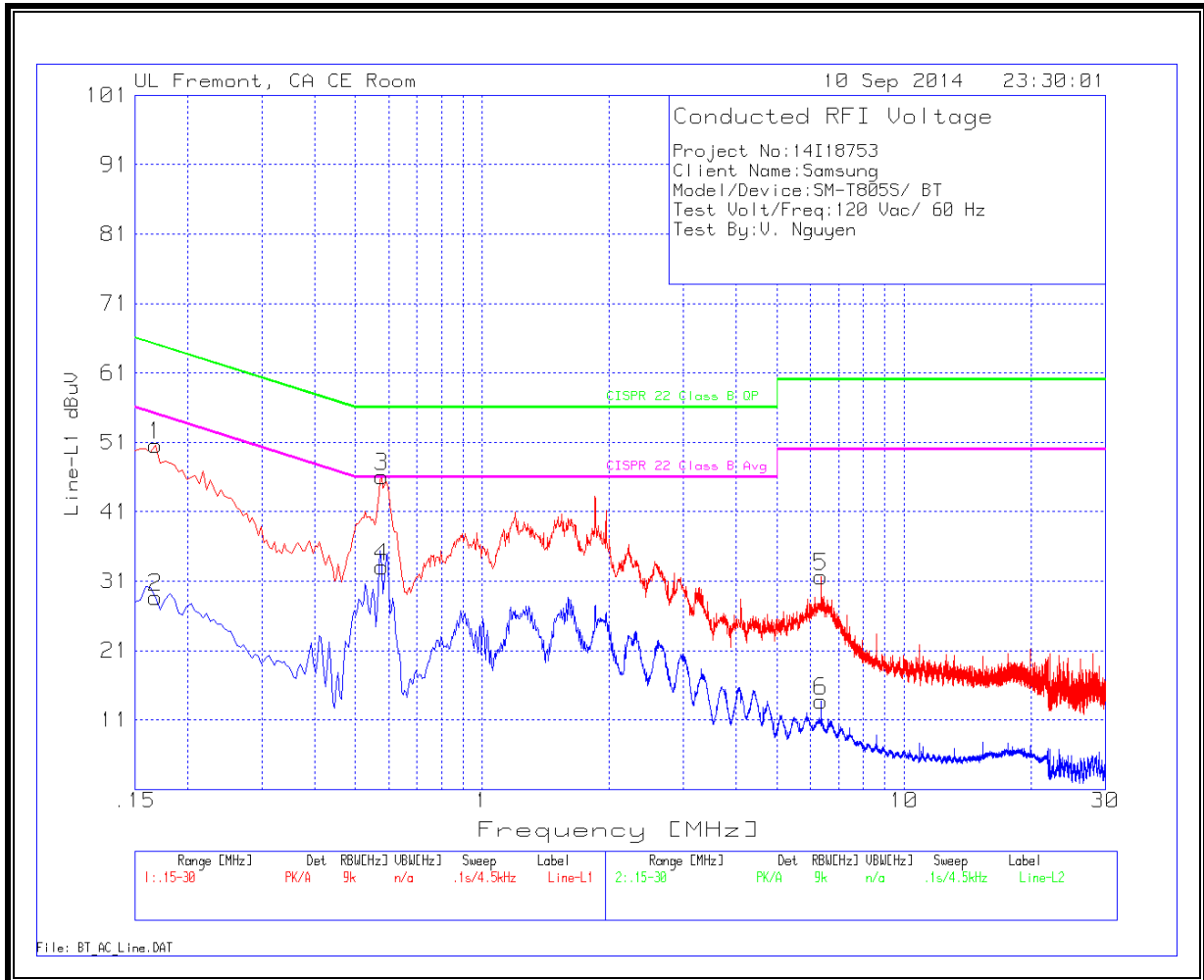
Line-L2 .15 - 30MHz

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBUV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dBUV	CISPR 22 Class B QP	Margin to Limit (dB)	CISPR 22 Class B Avg	Margin to Limit (dB)
7	.4335	43.16	PK	.4	0	43.56	57.2	-13.64	-	-
8	.4335	21.33	Av	.4	0	21.73	-	-	47.2	-25.47
9	.573	44.72	PK	.3	0	45.02	56	-10.98	-	-
10	.573	32.78	Av	.3	0	33.08	-	-	46	-12.92
11	25.773	26.93	PK	.3	.3	27.53	60	-32.47	-	-
12	25.773	11.83	Av	.3	.3	12.43	-	-	50	-37.57

PK - Peak detector
Av - average detection

LINE 1 RESULTS



LINE 2 RESULTS

