



FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

Tablet + Bluetooth, DTS/UNII a/b/g/n/ac & ANT +

MODEL NUMBER: SM-T800

FCC ID: A3LSMT800

REPORT NUMBER: 14U16969-3, Revision A

ISSUE DATE: March 11, 2014

Prepared for

SAMSUNG ELECTRONICS CO., LTD.

416, MAETAN 3-DONG, YEONGTONG-GU

SUWON-CITY, GYEONGGI-DO 443-742, SOUTH KOREA

Prepared by

UL VERIFICATION SERVICES INC.

47173 BENICIA STREET

FREMONT, CA 94538, U.S.A.

TEL: (510) 771-1000

FAX: (510) 661-0888



NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	2/28/14	Initial Issue	P. Kim
A	3/11/14	Updated antenna info	P. Kim

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	6
2. TEST METHODOLOGY	7
3. FACILITIES AND ACCREDITATION.....	7
4. CALIBRATION AND UNCERTAINTY	7
4.1. MEASURING INSTRUMENT CALIBRATION	7
4.2. SAMPLE CALCULATION.....	7
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	10
5.4. List of test reduction and modes covering other modes:	11
5.5. WORST-CASE CONFIGURATION AND MODE.....	11
5.6. DESCRIPTION OF TEST SETUP.....	12
6. TEST AND MEASUREMENT EQUIPMENT	14
7. MEASUREMENT METHODS.....	15
8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS	15
8.1. ON TIME AND DUTY CYCLE RESULTS.....	15
9. SUMMARY TABLE	23
10. ANTENNA PORT TEST RESULTS.....	24
10.1. 6 dB BANDWIDTH.....	24
10.1.1. 802.11b CDD MODE IN THE 2.4 GHz BAND	25
10.1.2. 802.11g CDD MODE IN THE 2.4 GHz BAND	25
10.1.3. 802.11n CDD HT20 MODE IN THE 2.4 GHz BAND.....	25
10.1.4. 802.11a CDD MODE IN THE 5.8 GHz BAND	26
10.1.5. 802.11n CDD HT20 MODE IN THE 5.8 GHz BAND.....	26
10.1.6. 802.11n CDD HT40 MODE IN THE 5.8 GHz BAND.....	26
10.1.7. 802.11AC CDD HT80 MODE IN THE 5.8 GHz BAND.....	26
10.1.8. 2.4GHz Plots.....	27
10.1.9. 5.8GHz Plots.....	33
10.2. 99% BANDWIDTH	41
10.2.1. 802.11b CDD MODE IN THE 2.4 GHz BAND	41
10.2.2. 802.11g CDD MODE IN THE 2.4 GHz BAND	41
10.2.3. 802.11n HT20 CDD MODE IN THE 2.4 GHz BAND.....	41
10.2.4. 802.11a CDD MODE IN THE 5.8 GHz BAND	42
10.2.5. 802.11n HT20 CDD MODE IN THE 5.8 GHz BAND.....	42
10.2.6. 802.11n HT40 CDD MODE IN THE 5.8 GHz BAND.....	42

10.2.7.	802.11A HT80 CDD MODE IN THE 5.8 GHz BAND	42
10.2.8.	2.4GHz Plots.....	43
10.2.9.	5.8GHz Plots.....	49
10.3.	OUTPUT POWER.....	57
10.3.1.	802.11b MODE IN THE 2.4 GHz BAND	59
10.3.2.	802.11g MODE IN THE 2.4 GHz BAND	59
10.3.3.	802.11n HT20 MODE IN THE 2.4 GHz BAND	60
10.3.4.	802.11a MODE IN THE 5.8 GHz BAND	60
10.3.5.	802.11n HT20 MODE IN THE 5.8 GHz BAND	61
10.3.6.	802.11n HT40 MODE IN THE 5.8 GHz BAND	61
10.3.1.	802.11AC HT80 MODE IN THE 5.8 GHz BAND	62
10.3.2.	2.4GHz Plots.....	63
10.3.3.	5.8GHz Plots.....	69
10.4.	PSD.....	77
10.4.1.	802.11b MODE IN THE 2.4 GHz BAND	77
10.4.2.	802.11g MODE IN THE 2.4 GHz BAND	77
10.4.3.	802.11n HT20 MODE IN THE 2.4 GHz BAND	77
10.4.4.	802.11a MODE IN THE 5.8 GHz BAND	78
10.4.5.	802.11n HT20 MODE IN THE 5.8 GHz BAND	78
10.4.6.	802.11n HT40 MODE IN THE 5.8 GHz BAND	78
10.4.7.	802.11AC HT80 MODE IN THE 5.8 GHz BAND	78
10.4.8.	2.4 GHz Plots.....	79
10.4.9.	5.8 GHz Plots.....	85
10.5.	OUT-OF-BAND EMISSIONS.....	93
10.5.1.	802.11b MODE IN THE 2.4 GHz BAND CHAIN 0.....	94
10.5.2.	802.11b MODE IN THE 2.4 GHz BAND CHAIN 1.....	100
10.5.3.	802.11g MODE IN THE 2.4 GHz BAND CHAIN 0.....	106
10.5.4.	802.11g MODE IN THE 2.4 GHz BAND CHAIN 1.....	112
10.5.5.	802.11n MODE IN THE 2.4 GHz BAND CHAIN 0.....	118
10.5.6.	802.11n MODE IN THE 2.4 GHz BAND CHAIN 1.....	124
10.5.7.	802.11a MODE IN THE 5.8 GHz BAND CHAIN 0.....	130
10.5.8.	802.11a MODE IN THE 5.8 GHz BAND CHAIN 1.....	136
10.5.9.	802.11n MODE IN THE 5.8 GHz BAND CHAIN 0.....	142
10.5.10.	802.11n MODE IN THE 5.8 GHz BAND CHAIN 1.....	148
10.5.11.	802.11n HT40 MODE IN THE 5.8 GHz BAND CHAIN 0.....	154
10.5.12.	802.11n HT40 MODE IN THE 5.8 GHz BAND CHAIN 1.....	159
10.5.13.	802.11ac HT80 MODE IN THE 5.8 GHz BAND CHAIN 0.....	164
10.5.14.	802.11ac HT80 MODE IN THE 5.8 GHz BAND CHAIN 1.....	168
11.	RADIATED TEST RESULTS.....	172
11.1.	LIMITS AND PROCEDURE.....	172
11.2.	TRANSMITTER ABOVE 1 GHz.....	173
11.2.1.	TX ABOVE 1 GHz 802.11b CDD MODE IN THE 2.4 GHz BAND	173
11.2.2.	TX ABOVE 1 GHz 802.11g CDD MODE IN THE 2.4 GHz BAND	190
11.2.3.	TX ABOVE 1 GHz 802.11n HT20 CDD MODE IN THE 2.4 GHz BAND	207
11.2.4.	TX ABOVE 1 GHz 802.11a HT20 CDD MODE IN THE 5.8 GHz BAND	224
11.2.5.	TX ABOVE 1 GHz 802.11n HT20 CDD MODE IN THE 5.8 GHz BAND	233
11.2.6.	TX ABOVE 1 GHz 802.11n HT40 CDD MODE IN THE 5.8 GHz BAND	243
11.2.7.	TX ABOVE 1 GHz 802.11ac HT80 CDD MODE IN THE 5.8 GHz BAND.....	249
11.3.	WORST-CASE BELOW 1 GHz	252

12.	AC POWER LINE CONDUCTED EMISSIONS	255
13.	SETUP PHOTOS	259

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: SAMSUNG ELECTRONICS CO., LTD.
EUT DESCRIPTION: Tablet + Bluetooth, DTS/UNII a/b/g/n/ac & ANT+
MODEL: SM-T800
SERIAL NUMBER: R32F108LLQD (CONDUCTED); R32F108LL6H (RADIATED)
DATE TESTED: February 20-28, 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.

Approved & Released

For UL Verification Services Inc. By:

Tested By:



PHILIP KIM
WISE PROGRAM MANAGER
UL Verification Services Inc.



CHARLES VERGONIO
WISE LAB TECHNICIAN
UL Verification Services Inc.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63. 4-2009.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsemc.com>.

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:

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

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 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 Tablet + Bluetooth, DTS/UNII a/b/g/n/ac & ANT+.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum total conducted output power as follows:

Frequency Range (MHz)	Mode	Total Output Power (dBm)	Total Output Power (mW)
2412 - 2462	802.11b	19.3	85.11
2412 - 2462	802.11g	22.59	181.55
2412 - 2462	802.11n HT20	22.1	162.18
5745-5825	802.11a	21.77	150.31
5745-5825	802.11n HT20	21.85	153.11
5755-5795	802.11n HT40	22.3	169.82
5755-5795	802.11ac HT80	22.34	171.40

The transmitter has average conducted output power as follows:

Band (GHz)	No. of Transmitters	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)		
						Wi-Fi 1	Wi-Fi 2	
2.4	1 Tx	802.11b	1 Mbps	1	2412	13.8		
				6	2437	14.0		
				11	2462	13.7		
				1	2412		13.9	
				6	2437		14.0	
				11	2462		13.8	
	2 Tx			1	2412	14.0	14.0	
				6	2437	14.0	14.0	
				11	2462	13.8	13.9	
	1 Tx	802.11g	6 Mbps	1	2412	12.2		
				6	2437	12.3		
				11	2462	12.0		
				1	2412		12.1	
				6	2437		12.1	
				11	2462		11.9	
				2 Tx	1	2412	12.2	12.0
					6	2437	12.3	12.1
					11	2462	12.0	11.9
	1 Tx	802.11n (HT20)	MCS0	1	2412	11.3		
				6	2437	11.3		

				11	2462	11.1	
				1	2412		11.1
				6	2437		11.1
				11	2462		11.1
	2 Tx			1	2412	11.3	11.2
				6	2437	11.3	11.2
				11	2462	11.1	11.1

Band (GHz)	Mode	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)	
						Wi-Fi 1	Wi-Fi 2
5.8 (DTS)	1 Tx	802.11a	6 Mbps	149	5745	9.8	
				157	5785	9.7	
				165	5825	9.6	
				149	5745		10.0
				157	5785		9.8
				165	5825		9.8
				149	5745	9.8	10.0
				157	5785	9.7	9.9
				165	5825	9.6	9.8
	2 Tx	802.11n (HT20)	MCS0	149	5745	9.5	
				157	5785	9.4	
				165	5825	9.3	
				149	5745		9.9
				157	5785		9.8
				165	5825		9.7
				149	5745	9.5	9.9
				157	5785	9.4	9.8
				165	5825	9.3	9.7
	1 Tx	802.11n (HT40)	MCS0	151	5755	9.9	
				159	5795	9.8	
				151	5755		9.9
				159	5795		9.8
				151	5755	9.9	9.8
				159	5795	9.8	9.8
				149	5745	9.6	
				157	5785	9.6	
				165	5825	9.7	
	2 Tx	802.11ac (20 MHz)	MCS0	149	5745		9.9
				157	5785		9.9
				165	5825		9.8
				149	5745	9.7	10.0
				157	5785	9.6	10.0
				165	5825	9.7	9.8
				149	5745		
				157	5785		
				165	5825		
	1 Tx	802.11ac (40 MHz)	MCS0	151	5755	9.8	
				159	5795	9.8	
				151	5755		9.9

				159	5795		9.9
	2 Tx			151	5755	9.8	9.9
		802.11ac (80 MHz)	MCS0	159	5795	9.8	9.9
	1 Tx			155	5775	9.3	
				155	5775		9.5
	2 Tx			155	5775	9.4	9.5

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes two FPCB antennas, with a maximum gain of -4.6dBi and 1.14 dBi for 2.4GHz ; -3.18dBi and -0.4 dBi for 5.8GHz.

5.4. List of test reduction and modes covering other modes:

2400 - 2483.5 MHz Authorized Frequency Band (Antenna Port & Radiated Testing)		
Frequency Range (MHz)	Mode	Covered by
2412 - 2462	802.11b Legacy 1TX	802.11b CDD 2TX
2412 - 2462	802.11g Legacy 1TX	802.11g CDD 2TX
2412 - 2462	802.11n 1TX	802.11n HT20 CDD 2TX
2412 - 2462	802.11n STBC 2TX	802.11n HT20 CDD 2TX
2412 - 2462	802.11n HT40 1TX	802.11n HT40 CDD 2TX
2412 - 2462	802.11n HT40 STBC 2TX	802.11n HT40 CDD 2TX

5725 - 5850 MHz Authorized Frequency Band (Antenna Port & Radiated Testing)		
Frequency Range (MHz)	Mode	Covered by
5745 - 5825	802.11a Legacy 1TX	802.11a CDD 2TX
5745 - 5825	802.11n/ac HT20 1TX	802.11n HT20 CDD 2TX
5745 - 5825	802.11n/ac HT20 STBC 2TX	802.11n HT20 CDD 2TX
5755 - 5795	802.11n/ac HT40 1TX	802.11n HT40 CDD 2TX
5755 - 5795	802.11n/ac HT40 STBC 2TX	802.11n HT40 CDD 2TX
5775	802.11ac VHT80 1TX	802.11ac VHT80 CDD 2TX
5775	802.11ac VHT80 STBC 2TX	802.11ac VHT80 CDD 2TX

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.

Based on the baseline scan, the worst-case data rates were:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11a mode: 6 Mbps
802.11n HT20mode: MCS0
802.11n HT40mode: MCS0
802.11ac VHT80mode: MCS0

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

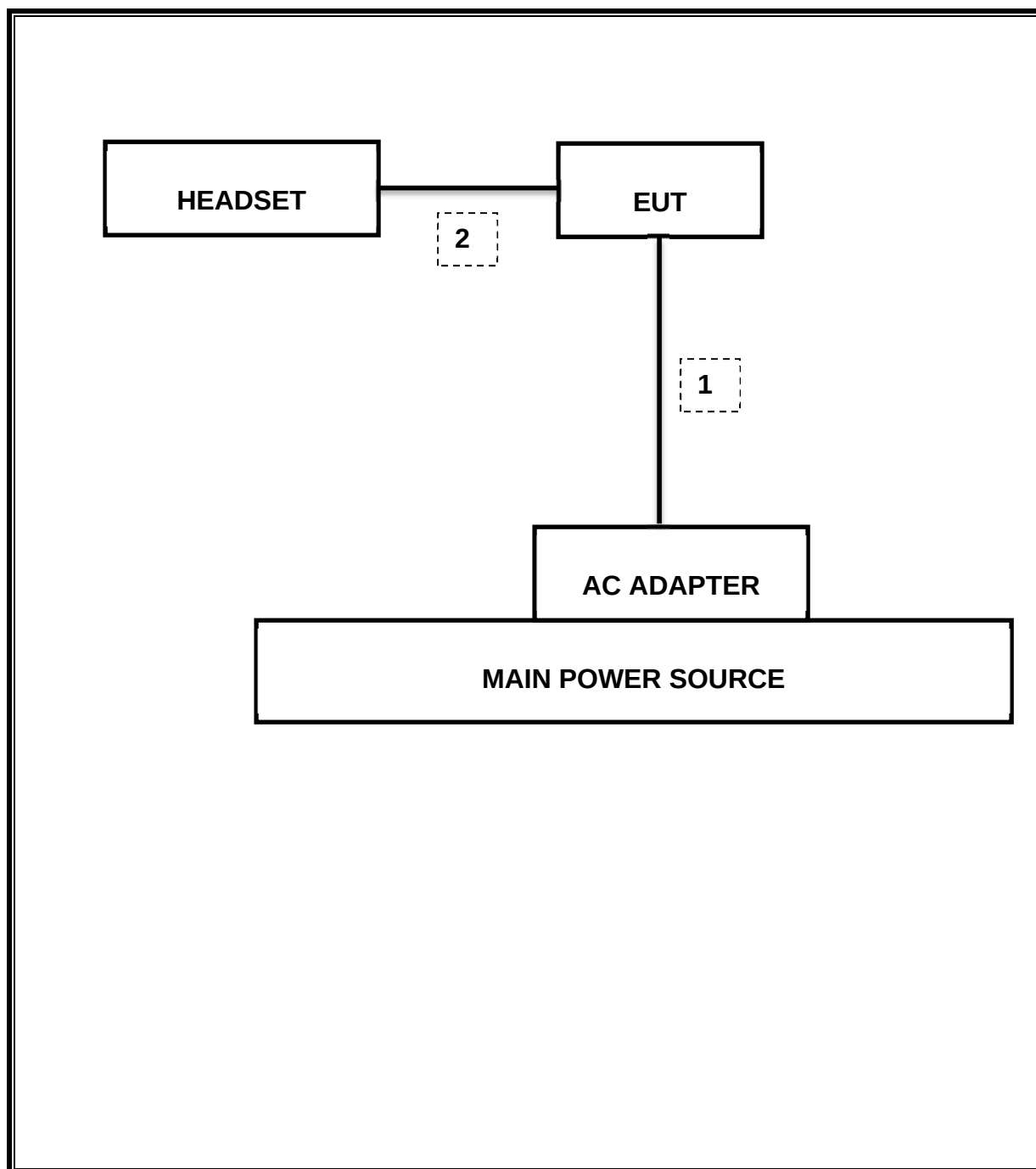
Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung	Samsung	N/A	N/A
Earphone	Samsung	Samsung	N/A	N/A

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 a stand-alone unit during the tests. Test software exercised the radio card.

SETUP DIAGRAM FOR TESTS

6. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List					
Description	Manufacturer	Model	Asset	Cal Date	Cal Due
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01069	12/20/13	12/20/14
Spectrum Analyzer, 9KHz-40GHz	HP	8564E	C00986	04/01/13	04/01/14
EMI Test Receiver, 9 kHz-7 GHz	R & S	ESCI 7	1000741	08/13/13	08/13/14
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/15/13	08/18/14
Peak Power Meter	Agilent / HP	E4416A	C00963	12/13/13	12/13/14
Peak / Average Power Sensor	Agilent / HP	E9327A	C00964	12/13/13	12/13/14
Antenna, Horn, 1-18 GHz	ETS	3117	C01022	02/21/13	02/21/14
Antenna, Horn, 18- 26 GHz	ARA	MWH-1826/B	C00946	11/12/13	11/12/14
Antenna, Horn, 26-40 GHz	ARA	MWH-2640	C00891	06/28/13	06/28/14
Antenna, Bilog, 30MHz-1 GHz	Sunol Sciences	JB1	T243	03/06/13	03/06/14
RF Preamplifier, 100KHz -> 1300MHz	HP	TBD	C00825	06/01/13	06/01/14
RF Preamplifier, 1GHz - 18GHz	Miteq	NSP4000-SP2	924343	03/23/13	03/23/14
RF Preamplifier, 1GHz - 26.5GHz	HP	8449B	F00351	06/27/13	06/27/14
AC Power Supply, 2,500VA 45-500Hz	Elgar-Ametek	CW2501M	F00013	CNR	CNR
RF Preamplifier, 1GHz - 40GHz	Miteq	NSP4000-SP2	C00990	08/20/13	08/20/14
Attenuator / Switch driver	HP	11713A	F00204	CNR	CNR
Low Pass Filter 3GHz	Micro-Tronics	LPS17541	F00219	05/23/13	05/23/14
High Pass Filter 5GHz	Micro-Tronics	HPS17542	F00222	05/22/13	05/22/14
High Pass Filter 6GHz	Micro-Tronics	HPM17543	F00224	05/22/13	05/22/14

7. MEASUREMENT METHODS

KDB 558074 D01 DTS Meas Guidance v03r01:Measurement Procedure PK2 is used for power and PKPSD is used for power spectral density.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

Band edge emissions within Restricted Bands are measured using RMS with duty cycle factor offset method.

8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

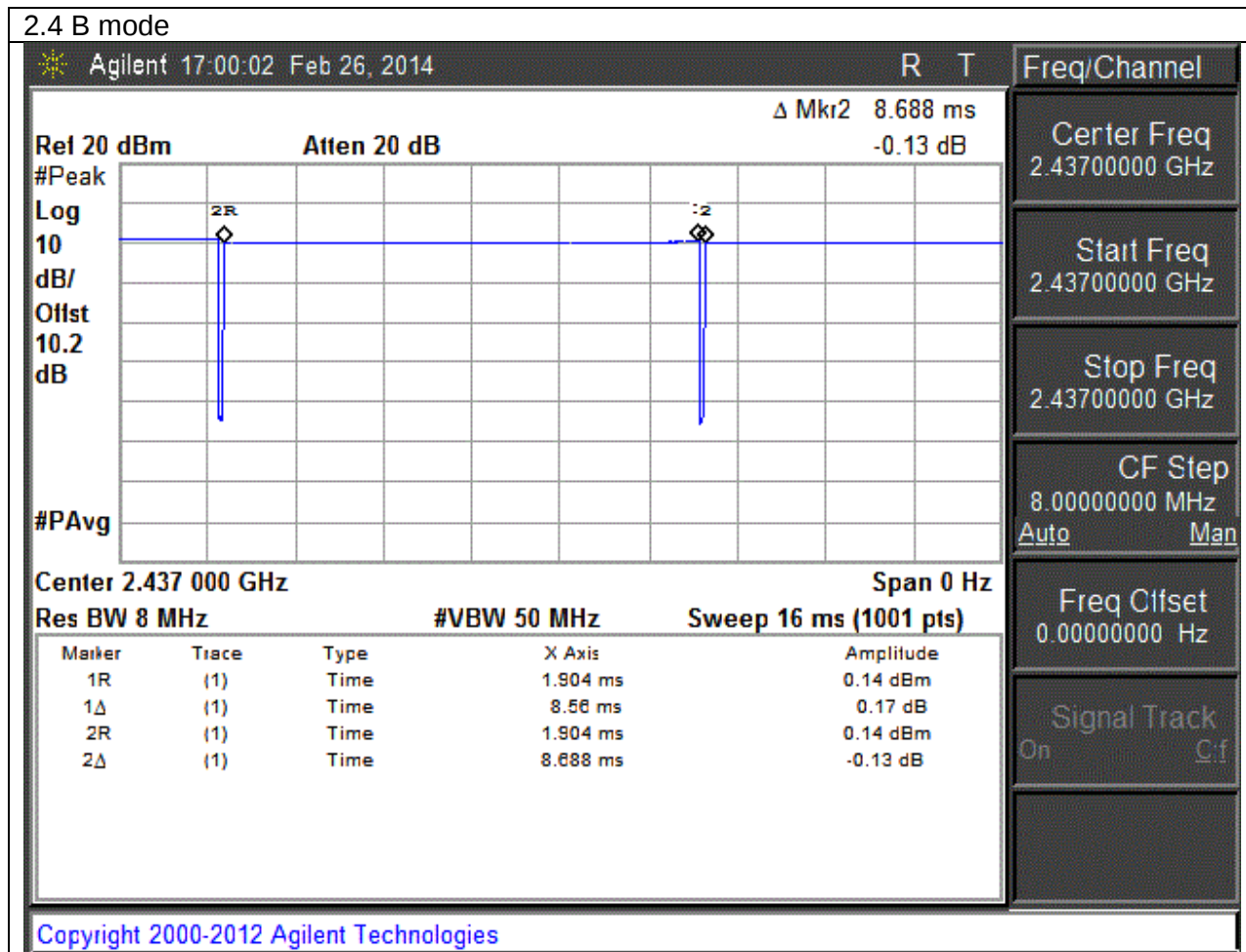
PROCEDURE

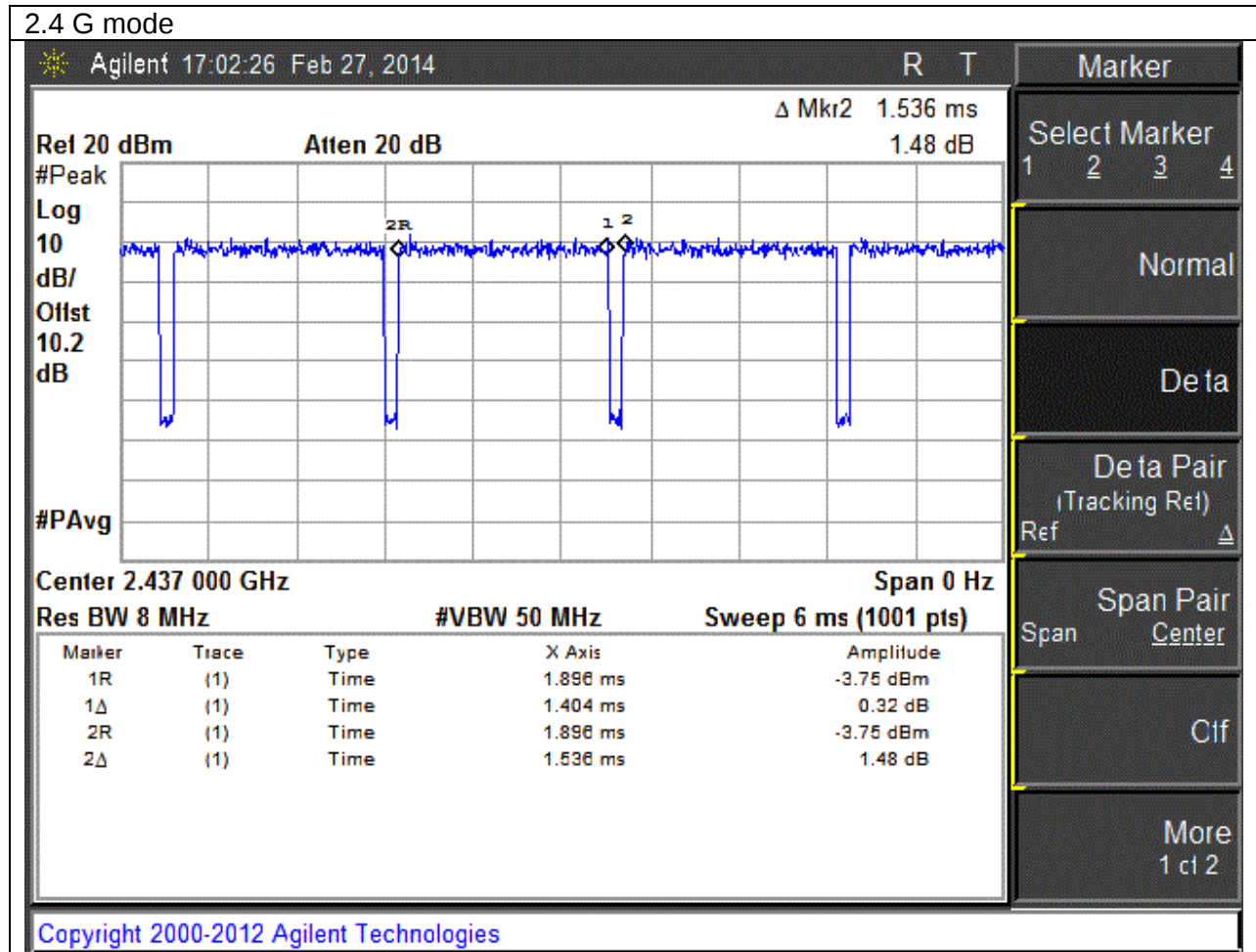
KDB 789033 Zero-Span Spectrum Analyzer Method.

8.1. ON TIME AND DUTY CYCLE RESULTS

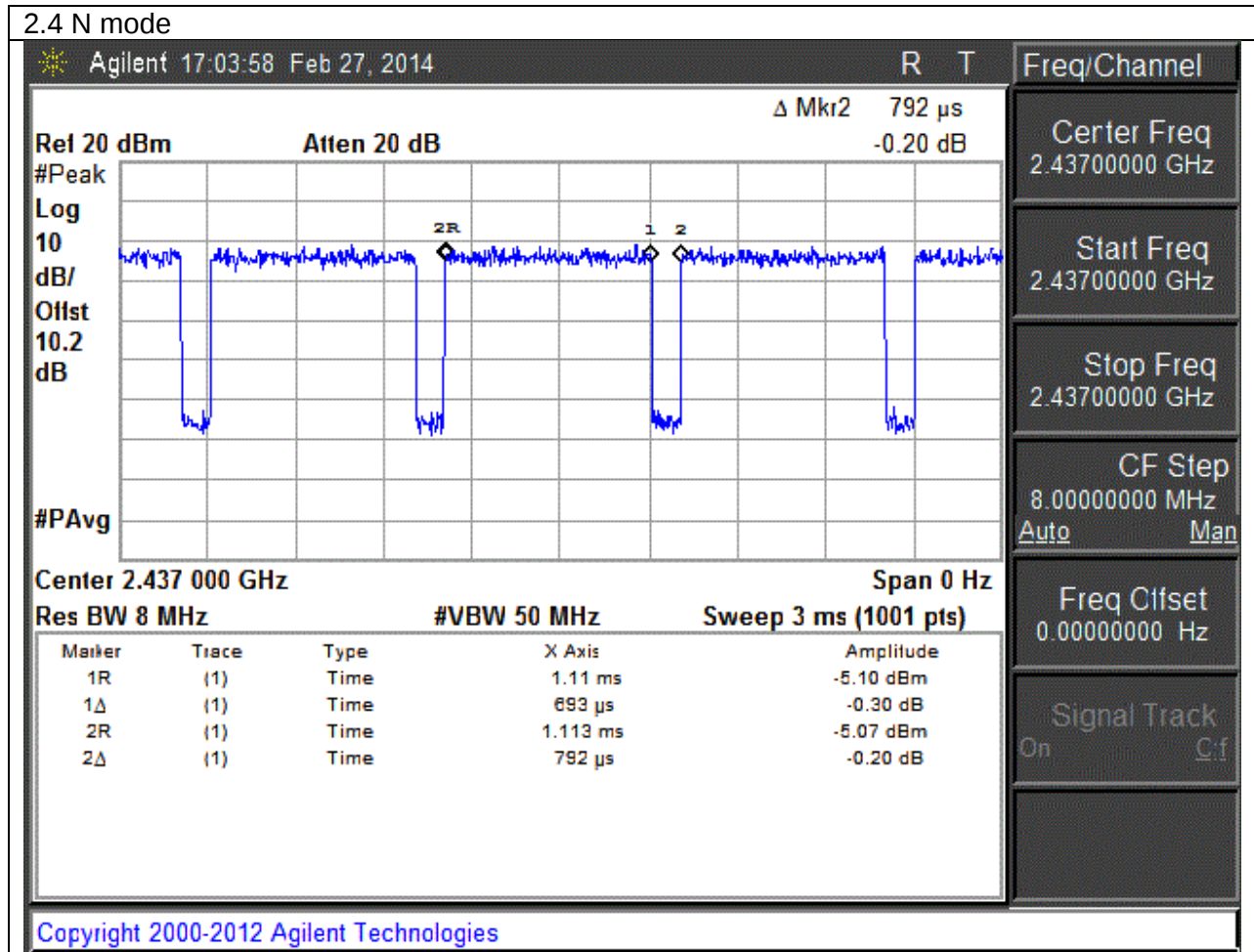
Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/B Minimum VBW (kHz)
2.4GHz Band						
802.11b CDD	8.560	8.688	0.985	98.53%	0.06	0.010
802.11g CDD	1.404	1.536	0.914	91.41%	0.39	0.010
802.11n HT20 CDD	0.693	0.792	0.875	87.50%	0.58	0.010
5GHz Band						
802.11a CDD	1.425	1.527	0.933	93.32%	0.30	0.010
802.11n HT20 CDD	0.692	0.794	0.872	87.15%	0.60	0.010
802.11n HT40 CDD	0.3590	0.4590	0.782	78.21%	1.07	2.179
802.11ac VHT80 CDD	0.1910	0.2920	0.654	65.41%	1.84	3.425

2.4 B mode





2.4 N mode

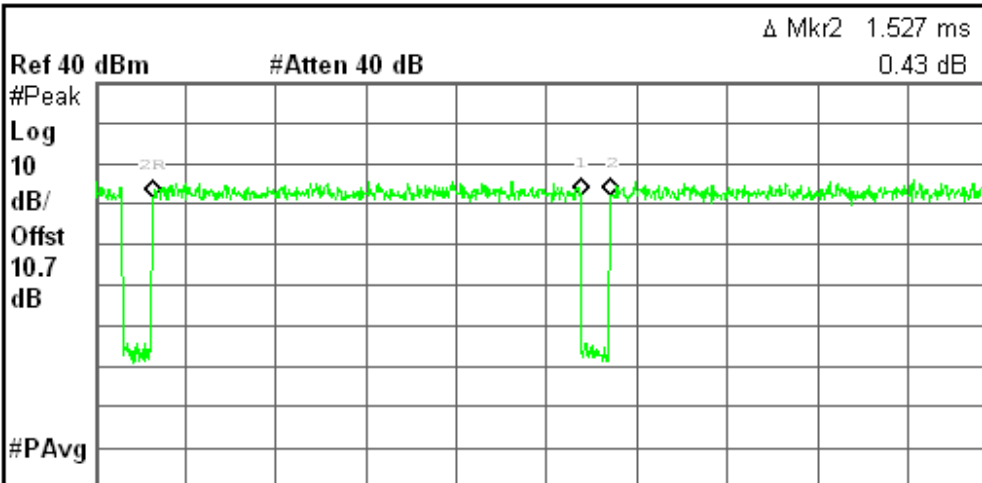


5.8 A mode

Agilent 10:12:01 Feb 20, 2014

R T

Freq/Channel



Center Freq
5.78500000 GHz

Start Freq
5.78500000 GHz

Stop Freq
5.78500000 GHz

CF Step
8.00000000 MHz
Auto Man

Center 5.785 000 GHz Span 0 Hz
Res BW 8 MHz #VBW 50 MHz Sweep 3 ms (1001 pts)

Freq Offset
0.00000000 Hz

Marker	Trace	Type	X Axis	Amplitude
1R	(1)	Time	189 μ s	11.84 dBm
1 Δ	(1)	Time	1.425 ms	0.17 dB
2R	(1)	Time	189 μ s	11.84 dBm
2 Δ	(1)	Time	1.527 ms	0.43 dB

Signal Track
On Off

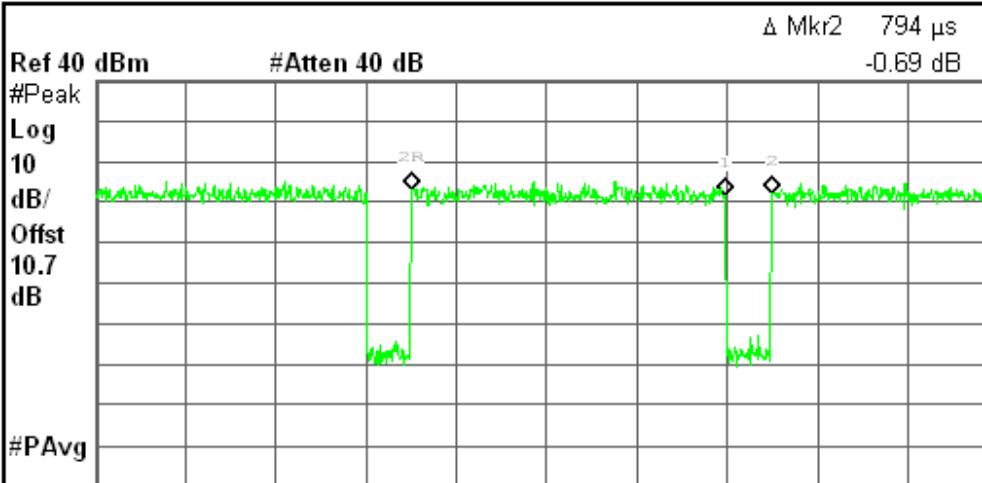
Copyright 2000-2010 Agilent Technologies

5.8 N HT20 mode

Agilent 10:15:13 Feb 20, 2014

R T

Freq/Channel



Center Freq
5.78500000 GHz

Start Freq
5.78500000 GHz

Stop Freq
5.78500000 GHz

CF Step
8.00000000 MHz
Auto Man

Center 5.785 000 GHz Res BW 8 MHz #VBW 50 MHz Sweep 2 ms (1001 pts) Span 0 Hz

Freq Offset
0.00000000 Hz

Marker	Trace	Type	X Axis	Amplitude
1R	(1)	Time	702 μ s	12.86 dBm
1 Δ	(1)	Time	692 μ s	-1.41 dB
2R	(1)	Time	702 μ s	12.86 dBm
2 Δ	(1)	Time	794 μ s	-0.69 dB

Signal Track
On Off

Copyright 2000-2010 Agilent Technologies

5.8 N HT40mode

Agilent 10:29:04 Feb 20, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Δ Mkr2 459 μs
-3.02 dB

Center Freq
5.79500000 GHz

#Peak

Log

10

dB/

Offst

10.7

dB

Start Freq
5.79500000 GHz

Stop Freq
5.79500000 GHz

CF Step
8.00000000 MHz
Auto Man

#PAvg

Center 5.795 000 GHz

Span 0 Hz

Res BW 8 MHz

#VBW 50 MHz

Sweep 1 ms (1001 pts)

Freq Offset
0.00000000 Hz

Marker	Trace	Type	X Axis	Amplitude
1R	(1)	Time	282 μs	4.76 dBm
1Δ	(1)	Time	359 μs	4.08 dB
2R	(1)	Time	282 μs	4.76 dBm
2Δ	(1)	Time	459 μs	-3.02 dB

Signal Track
On Off

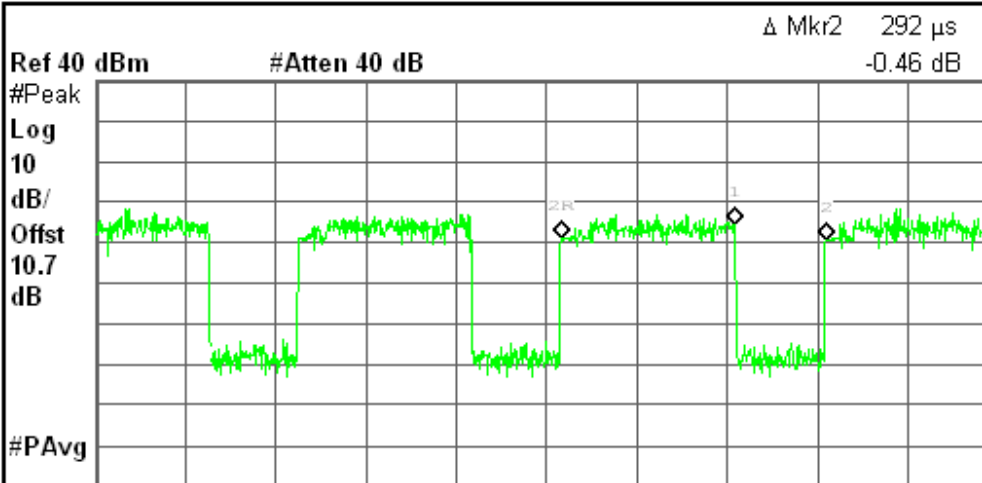
Copyright 2000-2010 Agilent Technologies

5.8 AC VHT80 mode

Agilent 10:37:09 Feb 20, 2014

R T

Freq/Channel



Center Freq
5.77500000 GHz

Start Freq
5.77500000 GHz

Stop Freq
5.77500000 GHz

CF Step
8.00000000 MHz
Auto Man

Center 5.775 000 GHz Span 0 Hz
Res BW 8 MHz #VBW 50 MHz Sweep 1 ms (1001 pts)

Freq Offset
0.00000000 Hz

Marker	Trace	Type	X Axis	Amplitude
1R	(1)	Time	517 μ s	1.04 dBm
1Δ	(1)	Time	191 μ s	3.47 dB
2R	(1)	Time	517 μ s	1.04 dBm
2Δ	(1)	Time	292 μ s	-0.46 dB

Signal Track
On Off

Copyright 2000-2010 Agilent Technologies

9. SUMMARY TABLE

FCC Part Section	RSS Section(s)	Test Description	Test Limit	Test Condition	Test Result	Worst Case
15.247 (a)(2)	RSS-210 A8.2(a)	Occupied Band width (6dB)	>500KHz	Conducted	Pass	8.63MHz
2.1051, 15.247 (d)	RSS-210 A8.5	Band Edge / Conducted Spurious Emission	-20dBc		Pass	-33.12dBm
15.247	RSS-210 A8.4	TX conducted output power	<30dBm		Pass	22.59dBm
15.247	RSS-210 A8.2	PSD	<8dBm		Pass	-6.55dBm
15.207 (a)	RSS-GEN 7.2.2	AC Power Line conducted emissions	Section 10	Radiated	Pass	53.94dBuV/m
15.205, 15.209	RSS-210 Clause 2.6, RSS-210 Clause 6	Radiated Spurious Emission	< 54dBuV/m		Pass	49.05dBuV/m

10. ANTENNA PORT TEST RESULTS

10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

Reference to KDB 558074 D01 DTS Meas Guidance v03r01: The transmitter output is connected to a spectrum analyzer with the RBW set to 100KHz, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

10.1.1. 802.11b CDD MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	2412	9.070	9.100	0.5
Mid	2437	9.000	9.100	0.5
High	2462	9.000	8.630	0.5

10.1.2. 802.11g CDD MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	2412	16.460	16.540	0.5
Mid	2437	16.500	16.540	0.5
High	2462	16.420	16.500	0.5

10.1.3. 802.11n CDD HT20 MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	2412	17.540	17.620	0.5
Mid	2437	17.670	17.620	0.5
High	2462	17.710	17.670	0.5

10.1.4. 802.11a CDD MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	16.450	16.500	0.5
Mid	5785	16.550	16.450	0.5
High	5825	16.500	16.450	0.5

10.1.5. 802.11n CDD HT20 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	17.700	17.800	0.5
Mid	5785	17.750	17.700	0.5
High	5825	17.750	17.700	0.5

10.1.6. 802.11n CDD HT40 MODE IN THE 5.8 GHz BAND

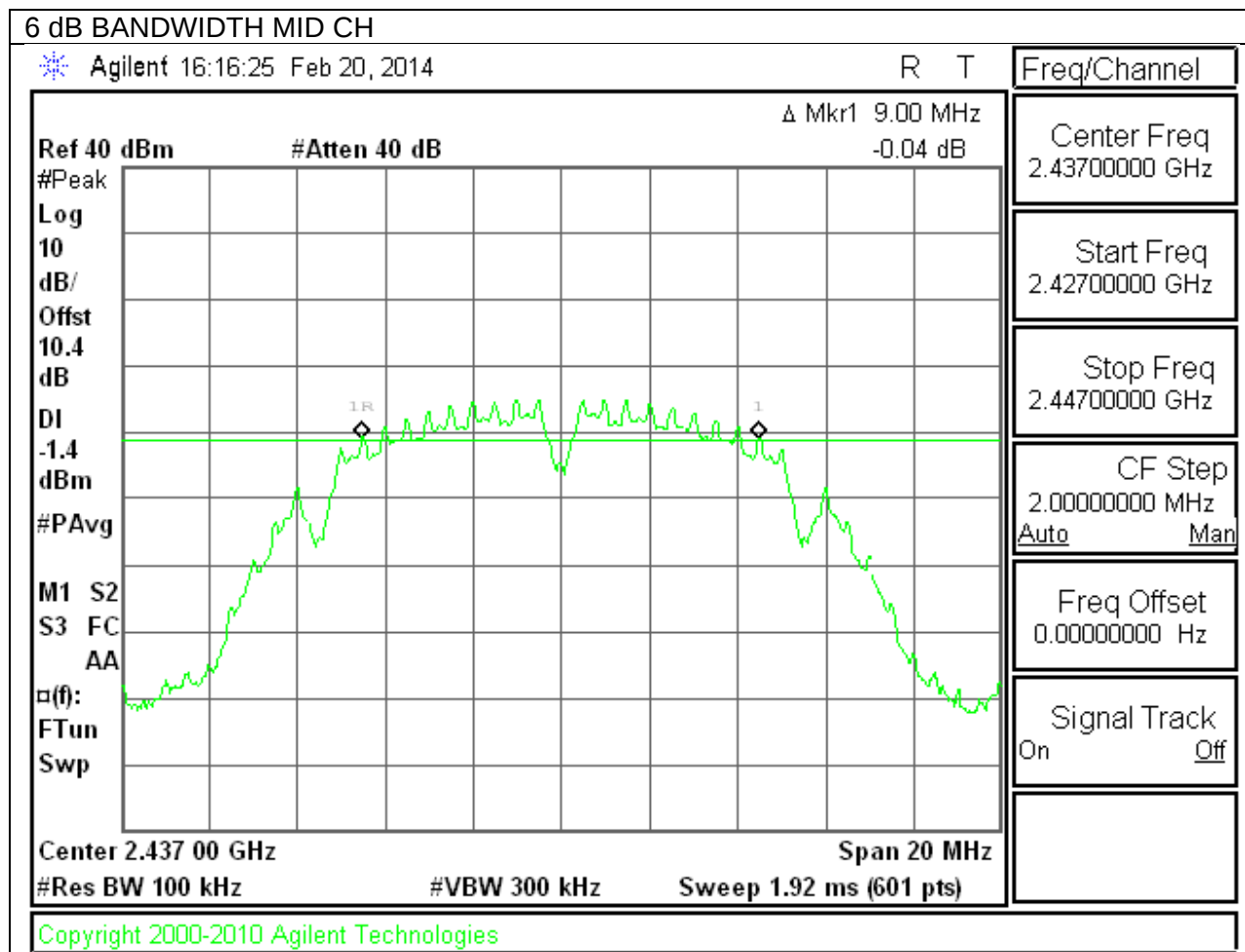
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5755	36.400	36.500	0.5
Mid	5795	36.500	36.400	0.5

10.1.7. 802.11AC CDD HT80 MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Mid	5775	76.400	76.400	0.5

10.1.8. 2.4GHz Plots

802.11b 6 dB BANDWIDTH CHAIN 0



802.11b 6 dB BANDWIDTH CHAIN 1

6 dB BANDWIDTH MID CH

Agilent 11:34:46 Feb 24, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Δ Mkr1 9.10 MHz

0.06 dB

Center Freq
2.43700000 GHz

#Peak

Log

10

dB/

Offst

11.1

dB

DI

-13.1

dBm

#PAvg

Start Freq
2.42700000 GHz

Stop Freq
2.44700000 GHz

CF Step
2.00000000 MHz
Auto Man

M1 S2

S3 FC

AA

Freq Offset
0.00000000 Hz

□(f):

FTun

Swp

Signal Track
On Off

Center 2.437 00 GHz

Span 20 MHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 1.92 ms (601 pts)

Copyright 2000-2011 Agilent Technologies

802.11g 6 dB BANDWIDTH CHAIN 0**6 dB BANDWIDTH MID CH**

Agilent 16:20:47 Feb 20, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Δ Mkr1 16.50 MHz

-0.21 dB

Center Freq
2.43700000 GHz

#Peak

Log

10

dB/

Offst

10.4

dB

DI

-5.2

dBm

#PAvg

Start Freq
2.42450000 GHzStop Freq
2.44950000 GHzCF Step
2.50000000 MHz
Auto ManFreq Offset
0.00000000 HzSignal Track
On Off

M1 S2

S3 FC

AA

□(f):

FTun

Swp

Center 2.437 00 GHz

Span 25 MHz

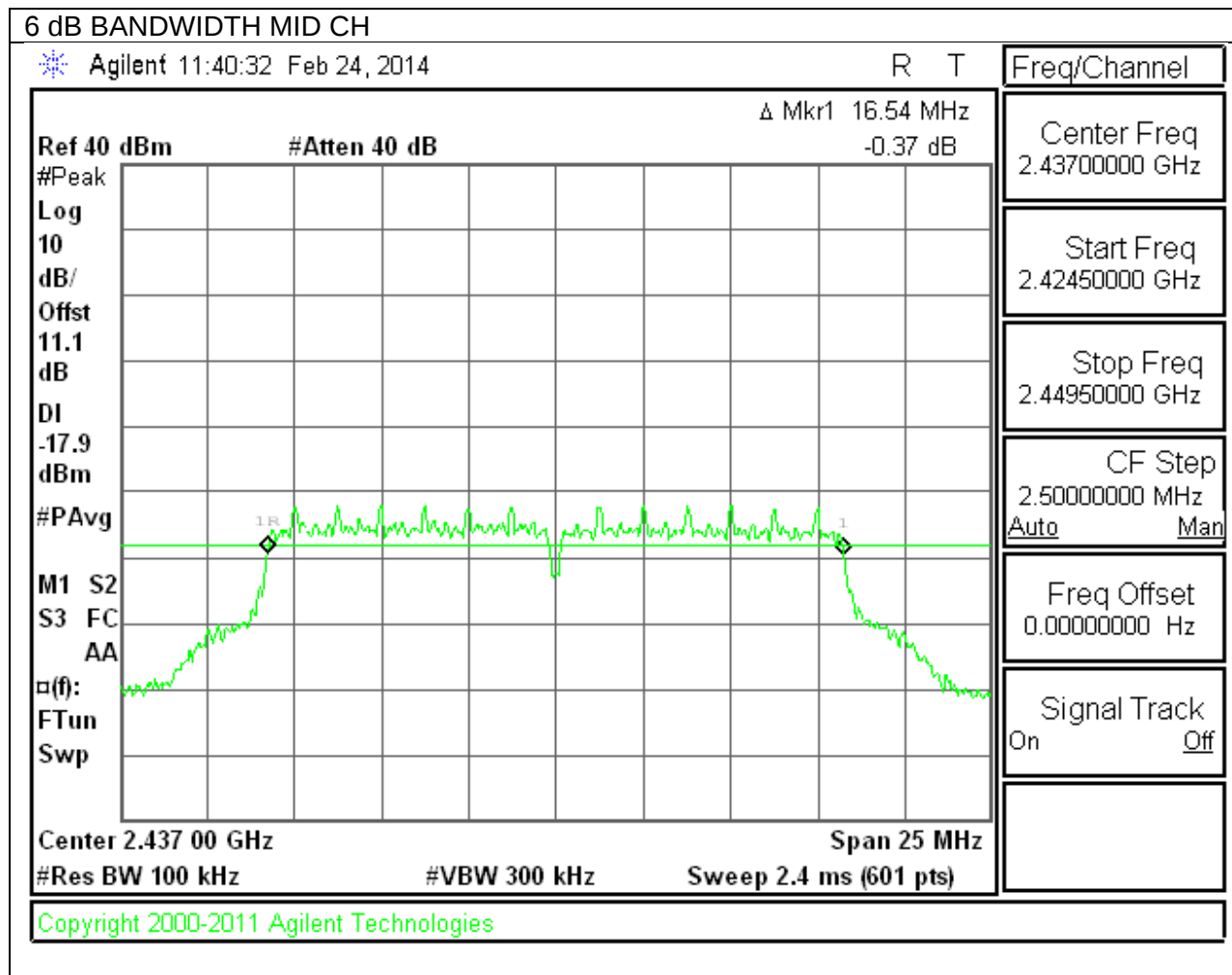
#Res BW 100 kHz

#VBW 300 kHz

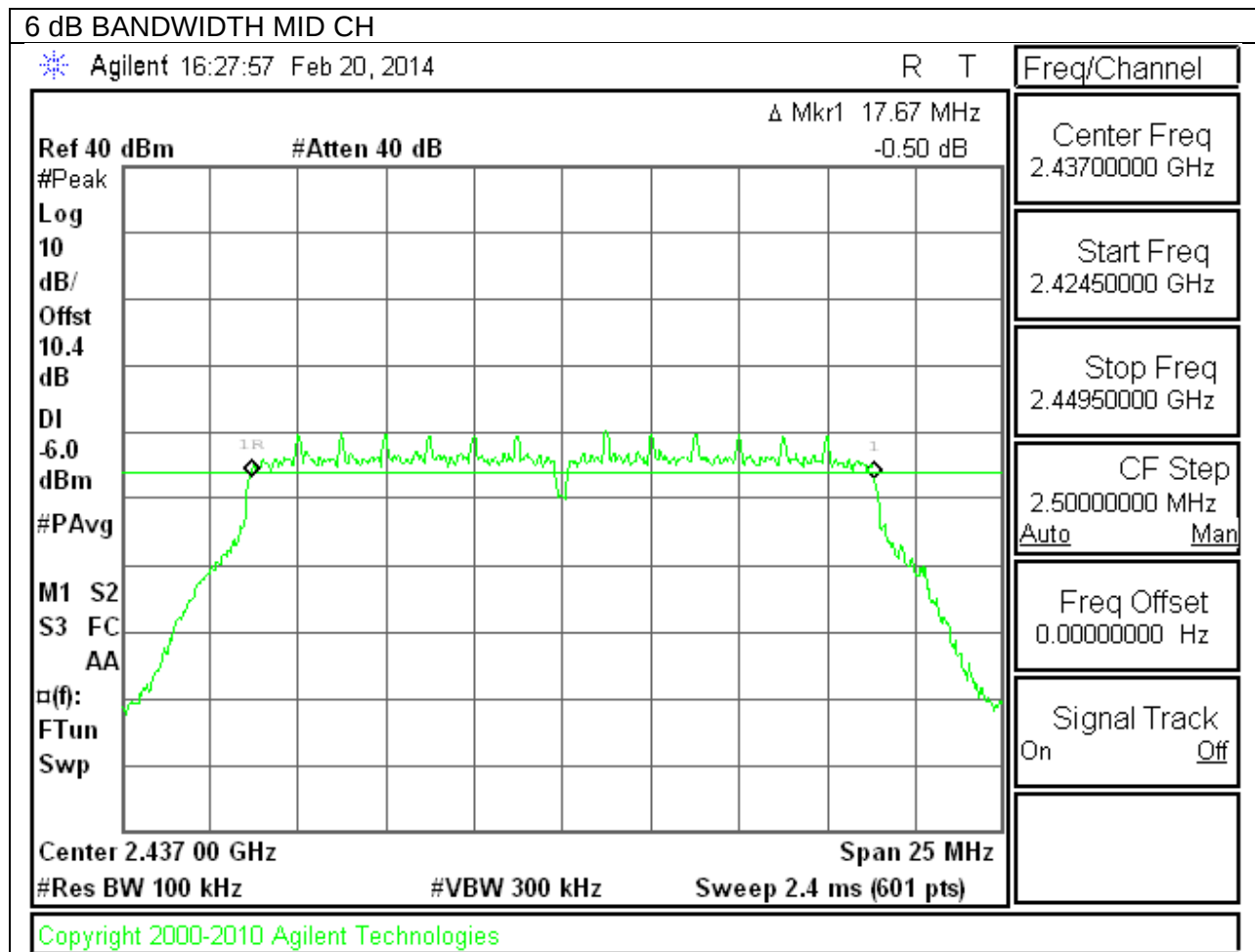
Sweep 2.4 ms (601 pts)

Copyright 2000-2010 Agilent Technologies

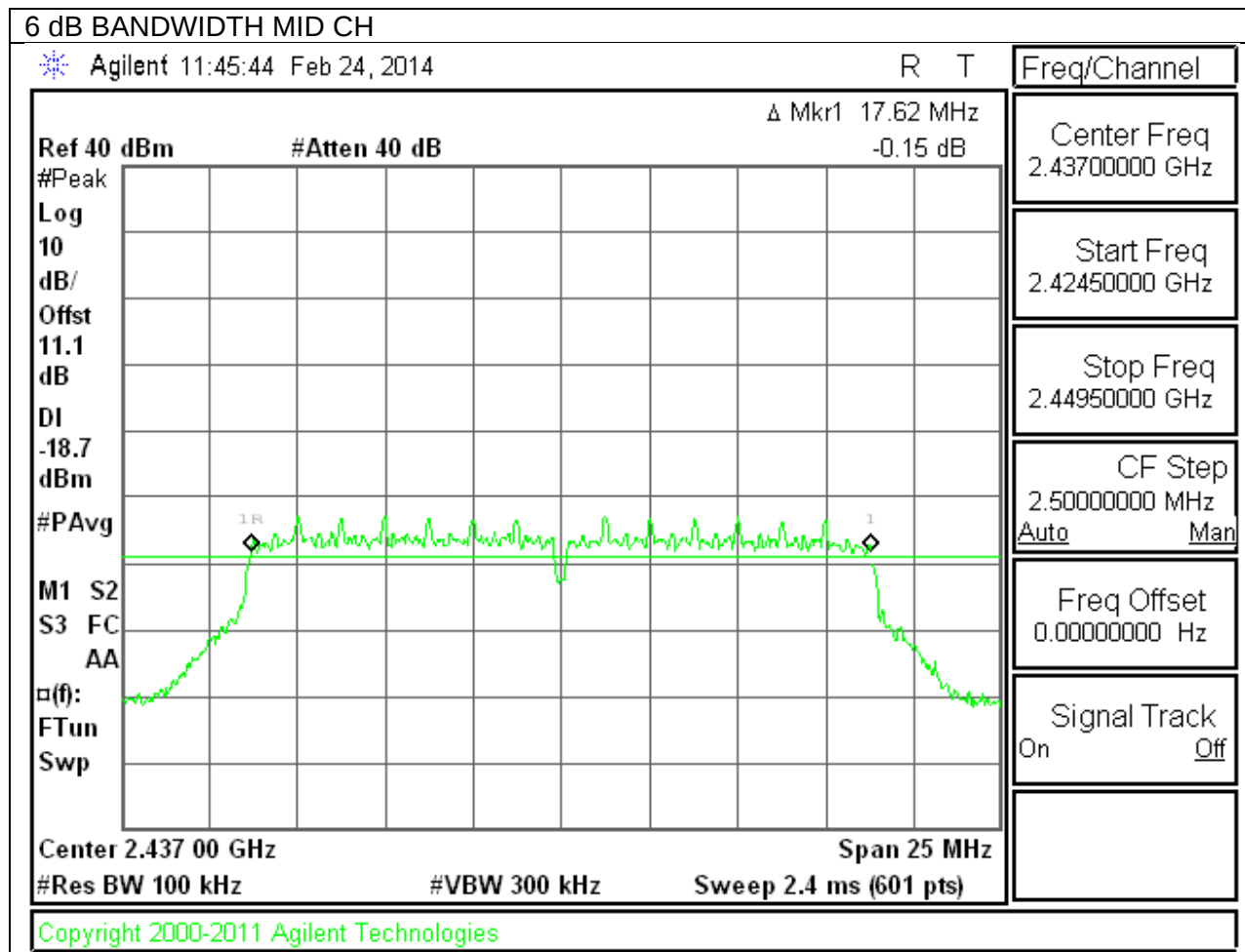
802.11g 6 dB BANDWIDTH CHAIN 1



802.11n 6 dB BANDWIDTH CHAIN 0

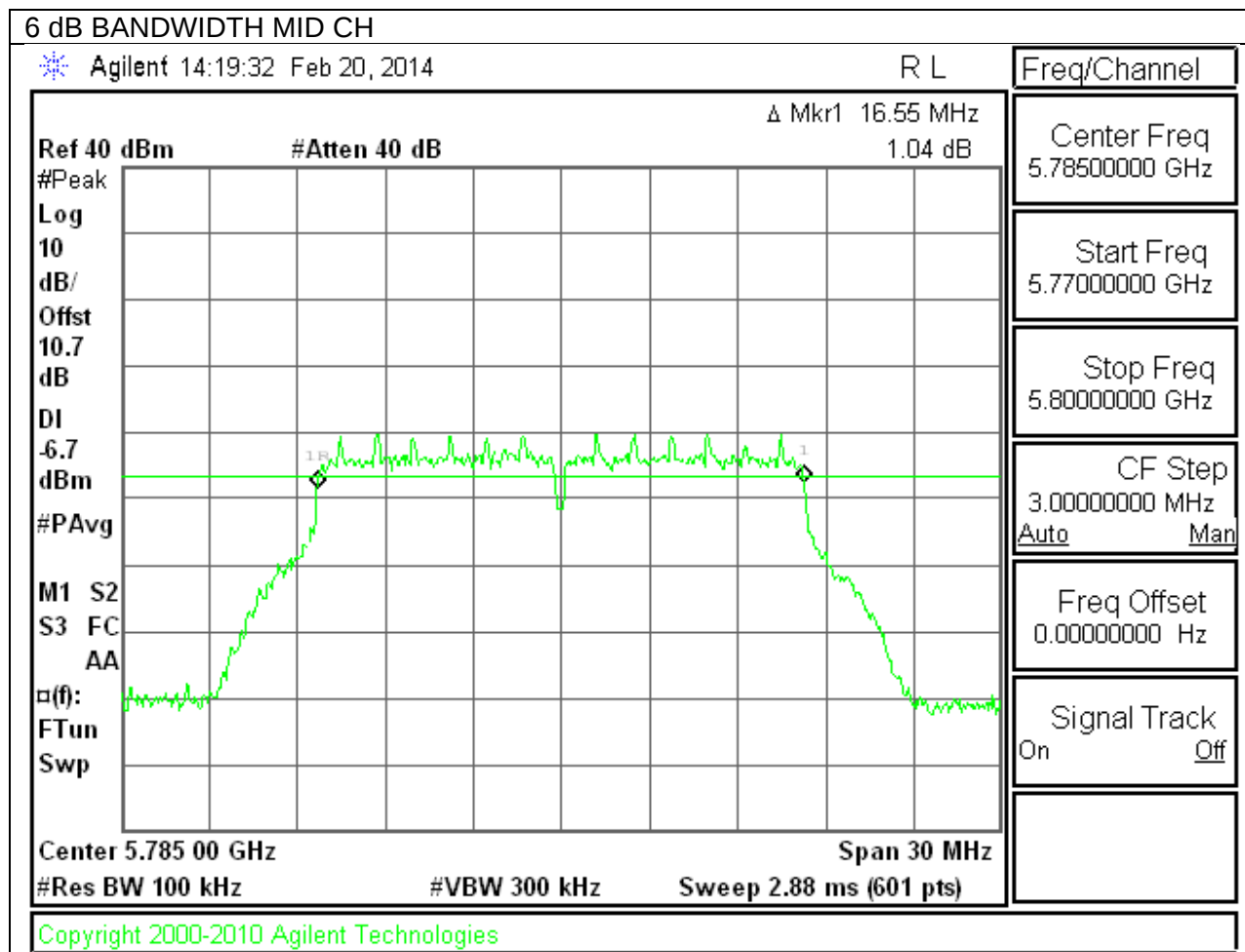


802.11n 6 dB BANDWIDTH CHAIN 1

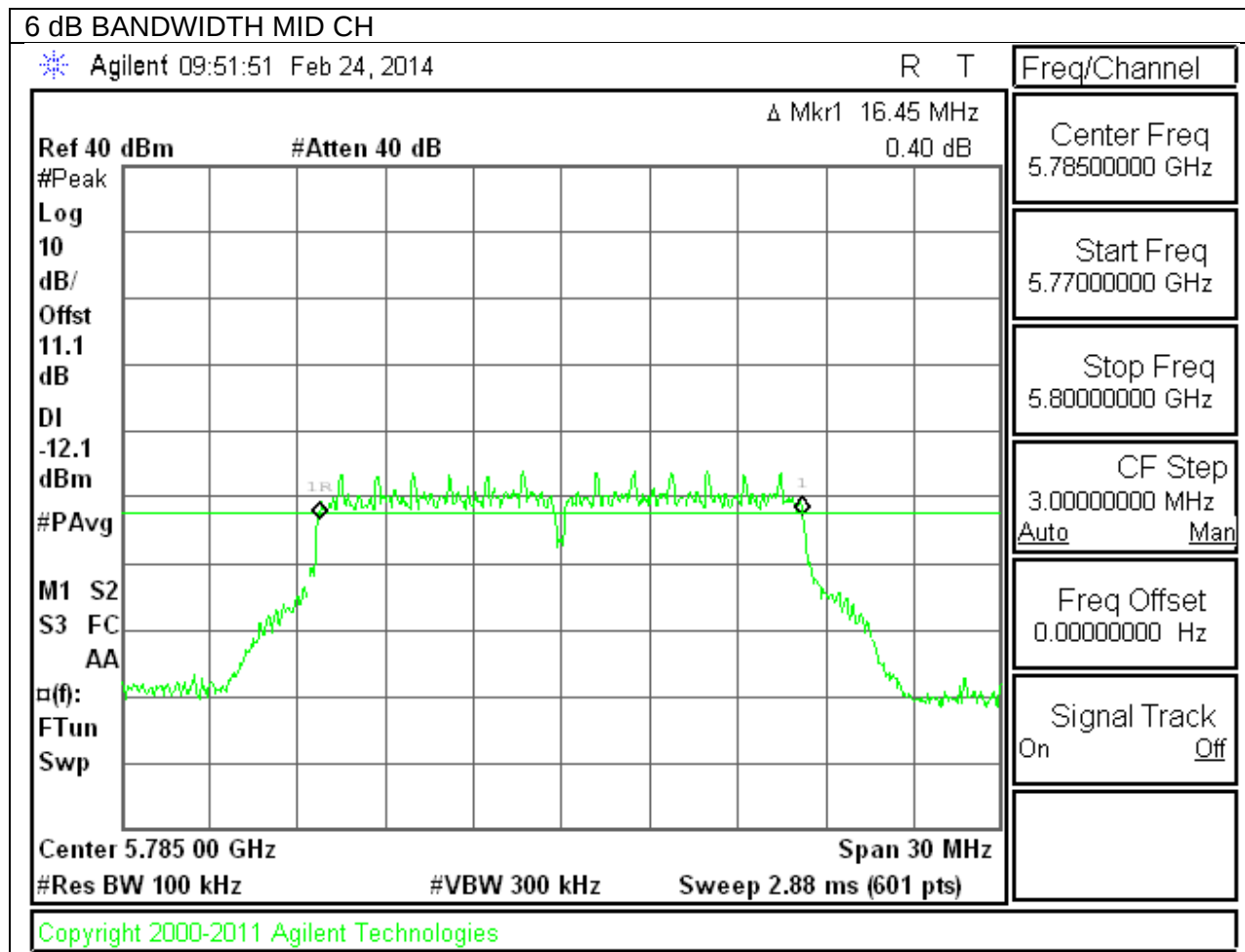


10.1.9. 5.8GHz Plots

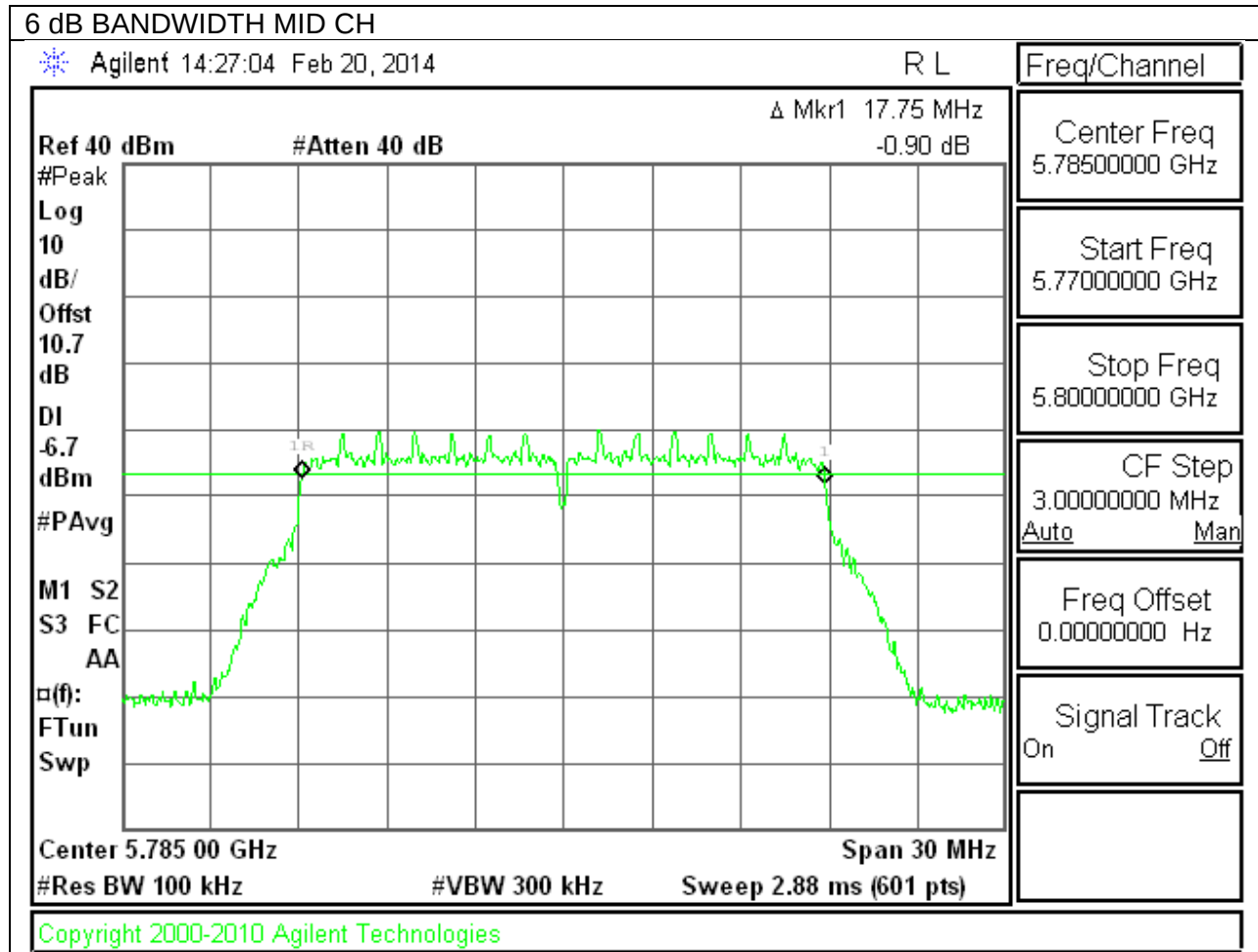
802.11a 6 dB BANDWIDTH CHAIN 0



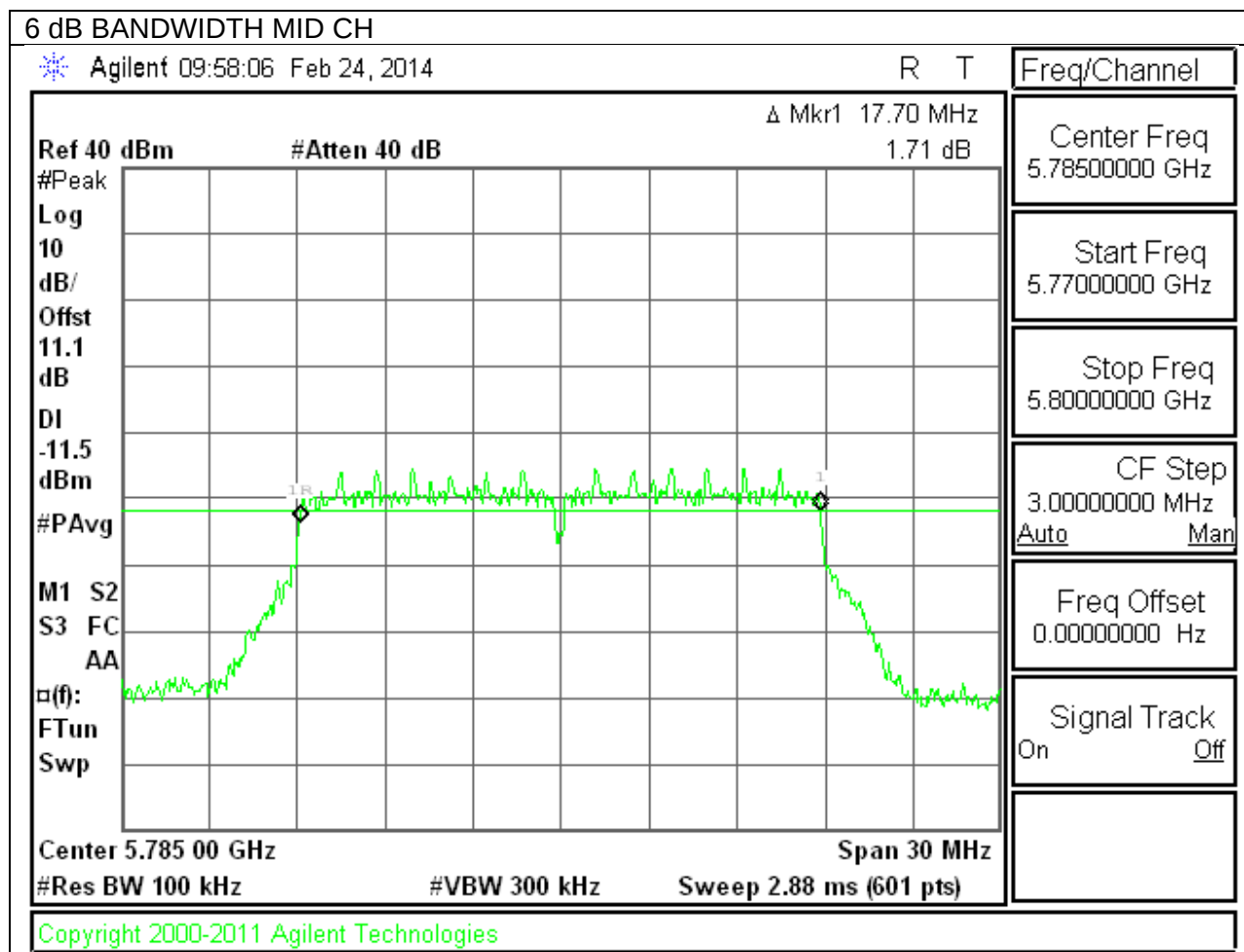
802.11a 6 dB BANDWIDTH CHAIN 1



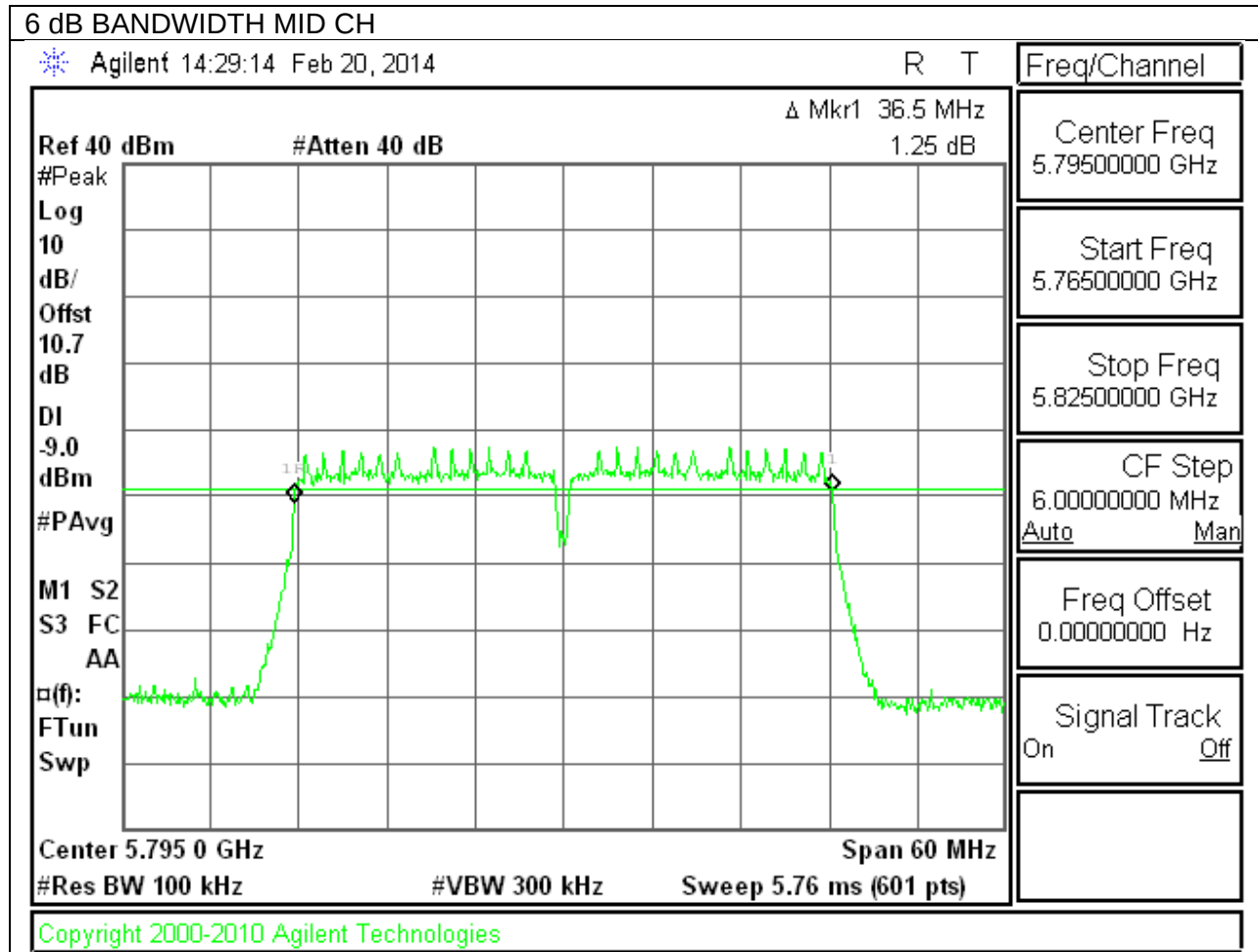
802.11n HT20 6 dB BANDWIDTH CHAIN 0



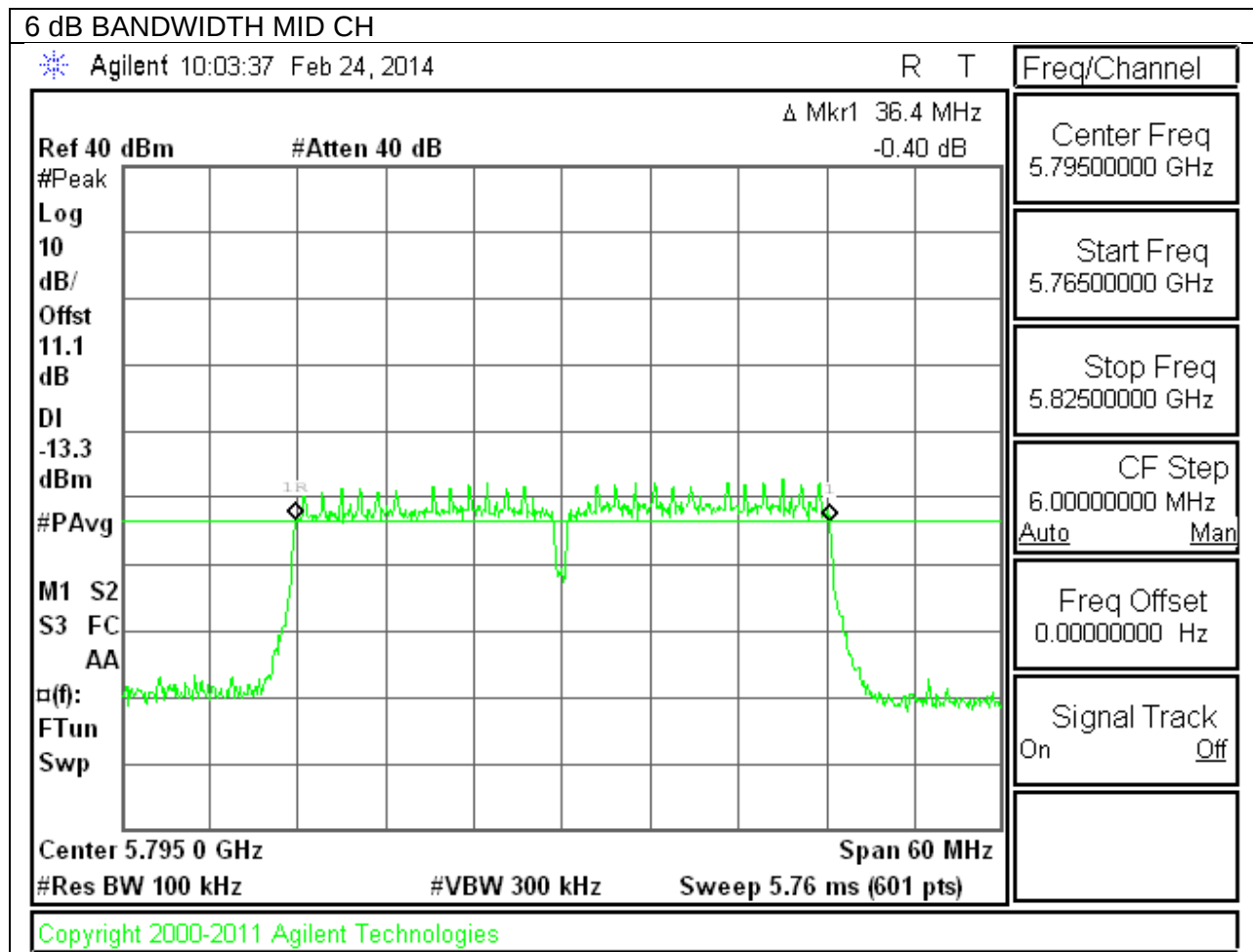
802.11n HT20 6 dB BANDWIDTH CHAIN 1



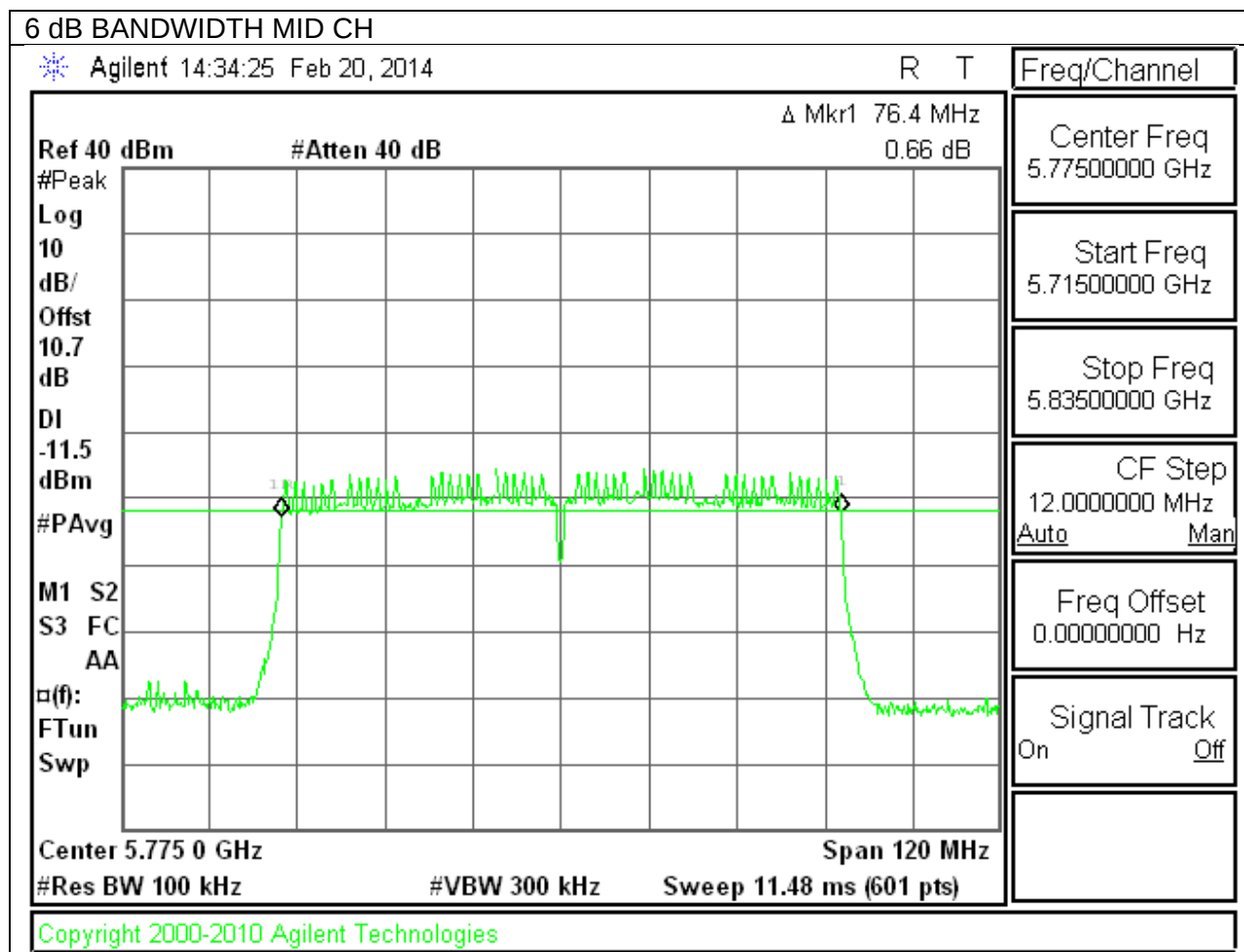
802.11n HT40 6 dB BANDWIDTH CHAIN 0



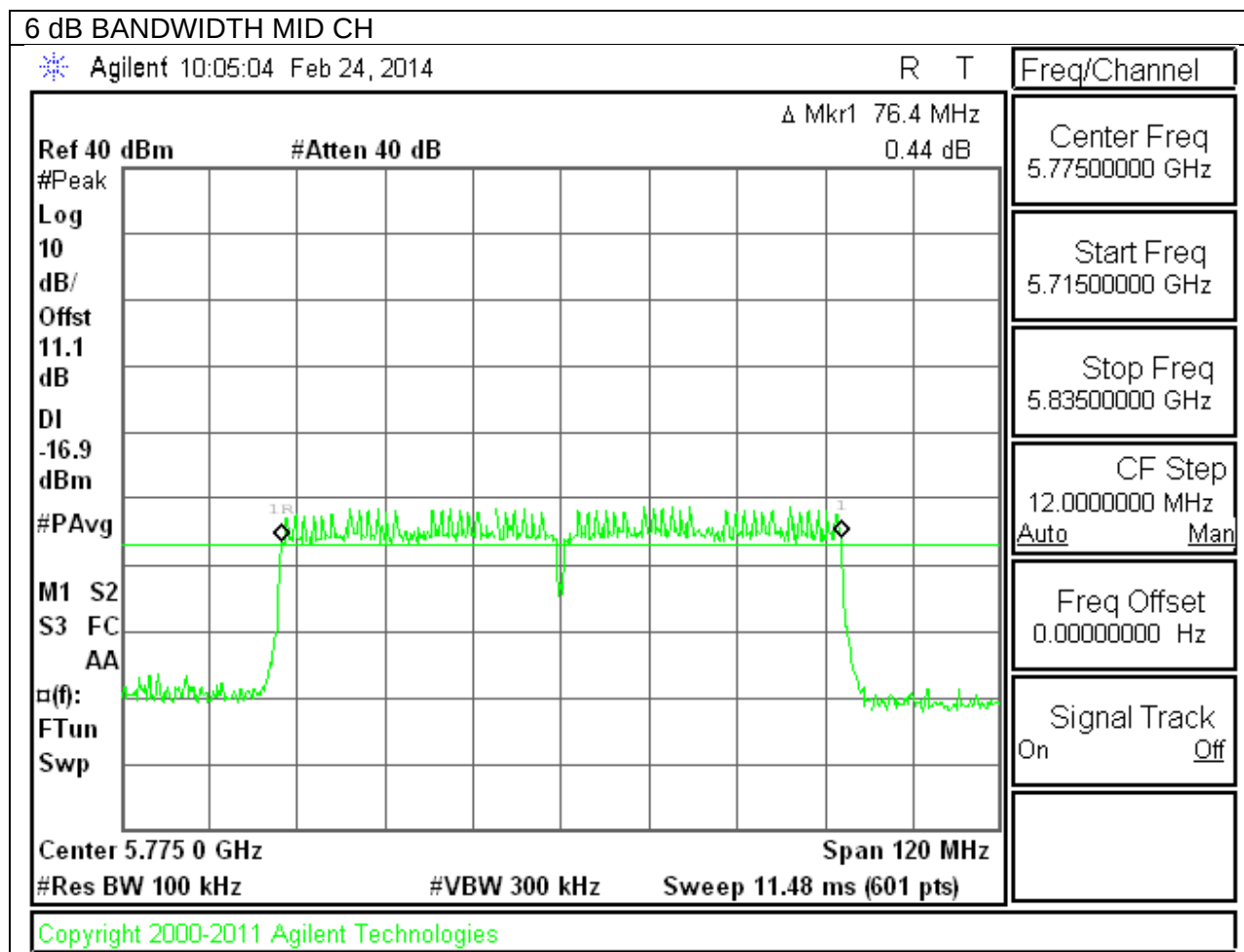
802.11n HT40 6 dB BANDWIDTH CHAIN 1



802.11ac HT80 6 dB BANDWIDTH CHAIN 0



802.11ac HT80 6 dB BANDWIDTH CHAIN 1



10.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

10.2.1. 802.11b CDD MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	2412	11.23	11.57
Mid	2437	11.29	11.54
High	2462	11.22	11.62

10.2.2. 802.11g CDD MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	2412	16.41	16.67
Mid	2437	16.52	16.65
High	2462	16.43	16.50

10.2.3. 802.11n HT20 CDD MODE IN THE 2.4 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	2412	17.48	17.51
Mid	2437	17.31	17.56
High	2462	17.42	17.52

10.2.4. 802.11a CDD MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	16.69	16.70
Mid	5785	16.67	16.71
High	5825	16.67	16.70

10.2.5. 802.11n HT20 CDD MODE IN THE 5.8 GHz BAND

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.85	17.87
Mid	5785	17.86	17.90
High	5825	17.87	17.88

10.2.6. 802.11n HT40 CDD MODE IN THE 5.8 GHz BAND

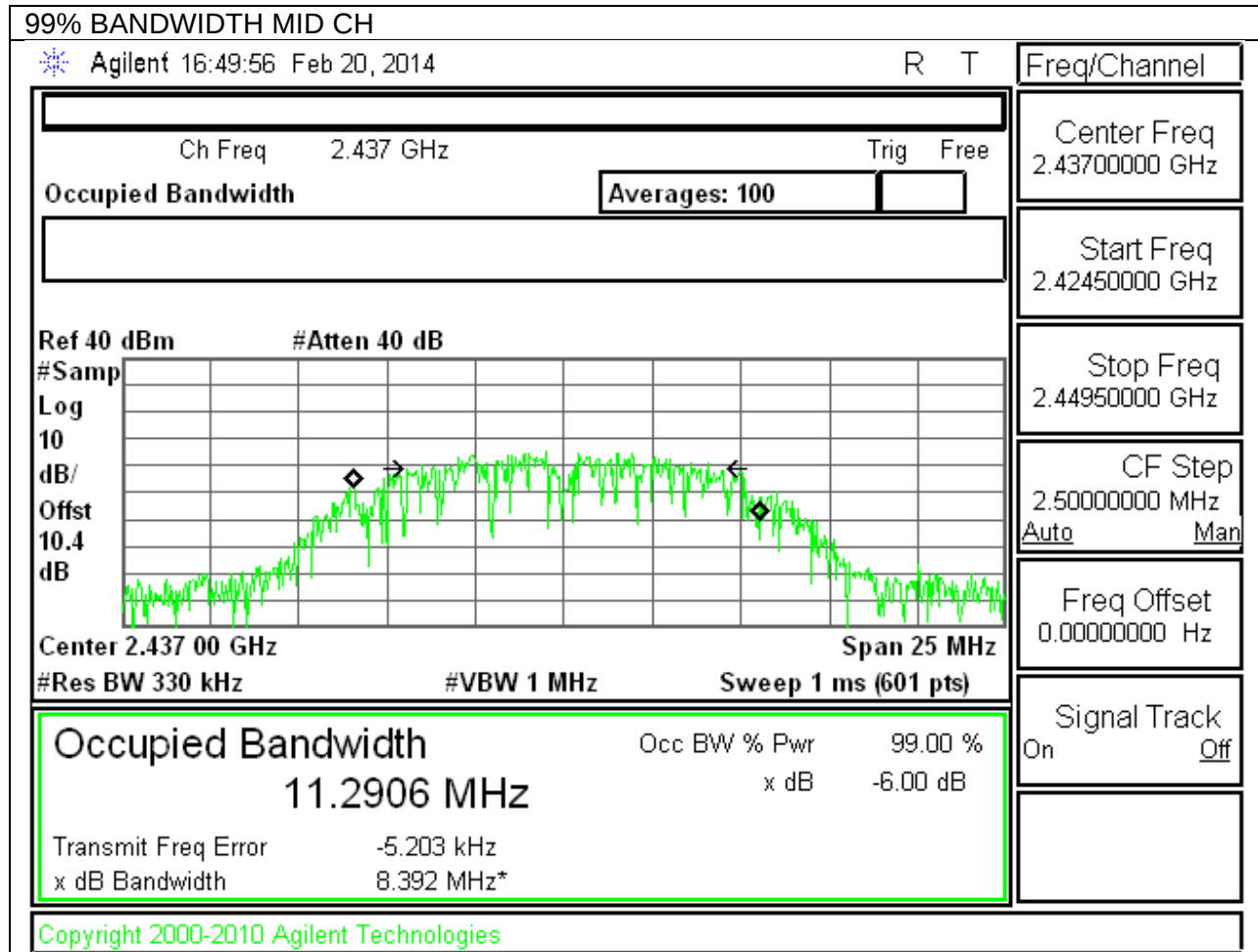
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5755	36.40	36.49
Mid	5795	36.44	36.47

10.2.7. 802.11A HT80 CDD MODE IN THE 5.8 GHz BAND

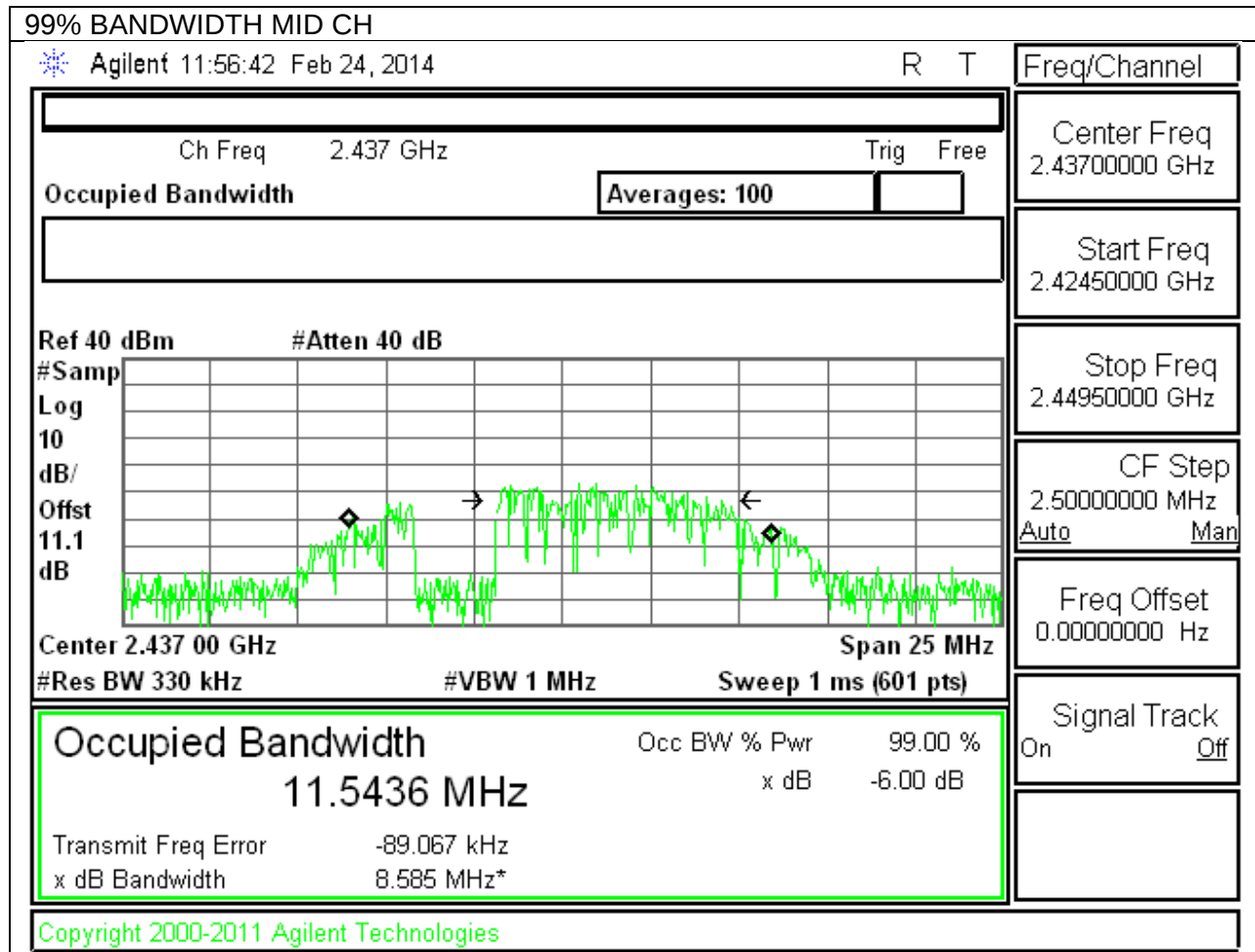
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5775	76.04	76.39

10.2.8. 2.4GHz Plots

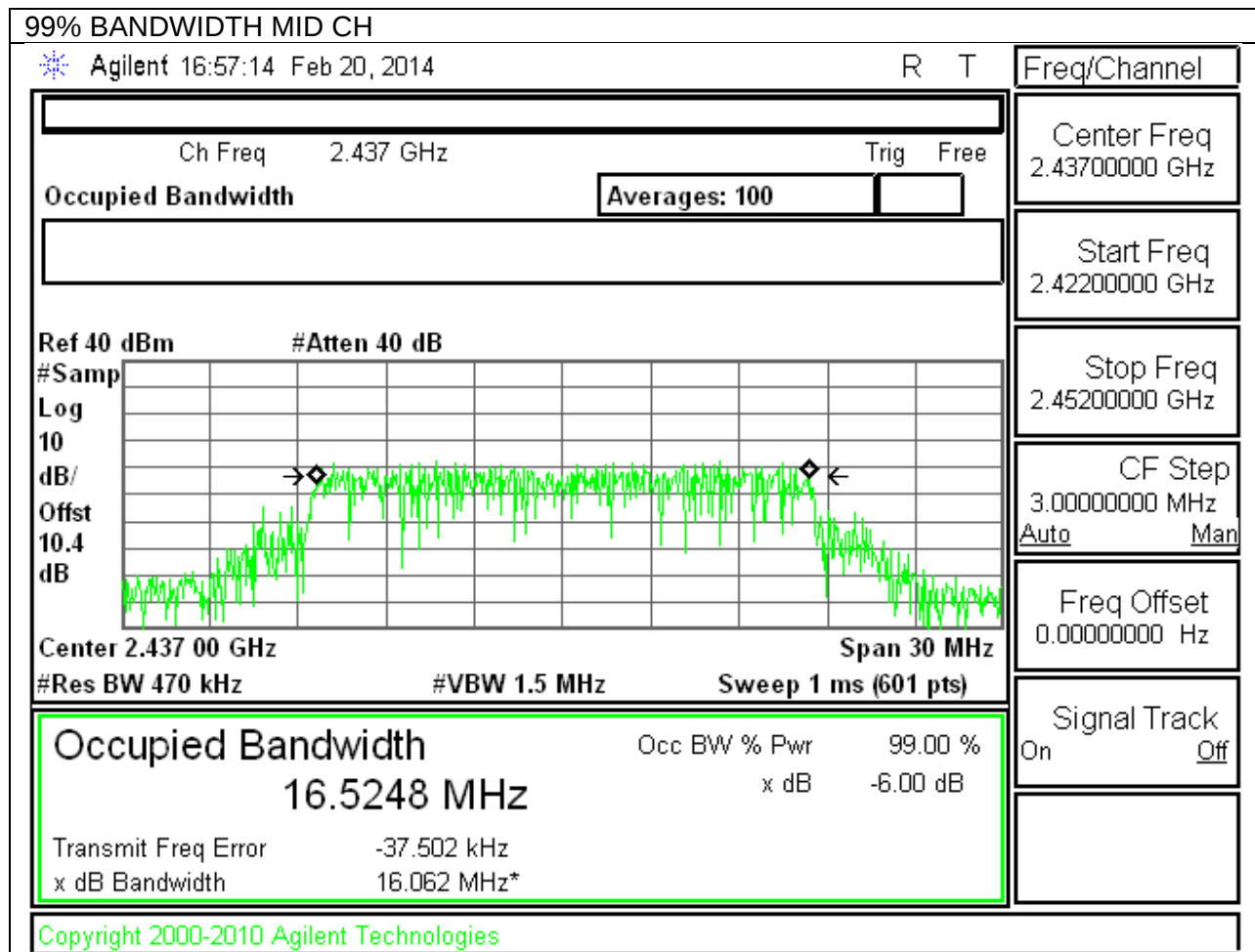
802.11b 99% BANDWIDTH CHAIN 0



802.11b 99% BANDWIDTH CHAIN 1



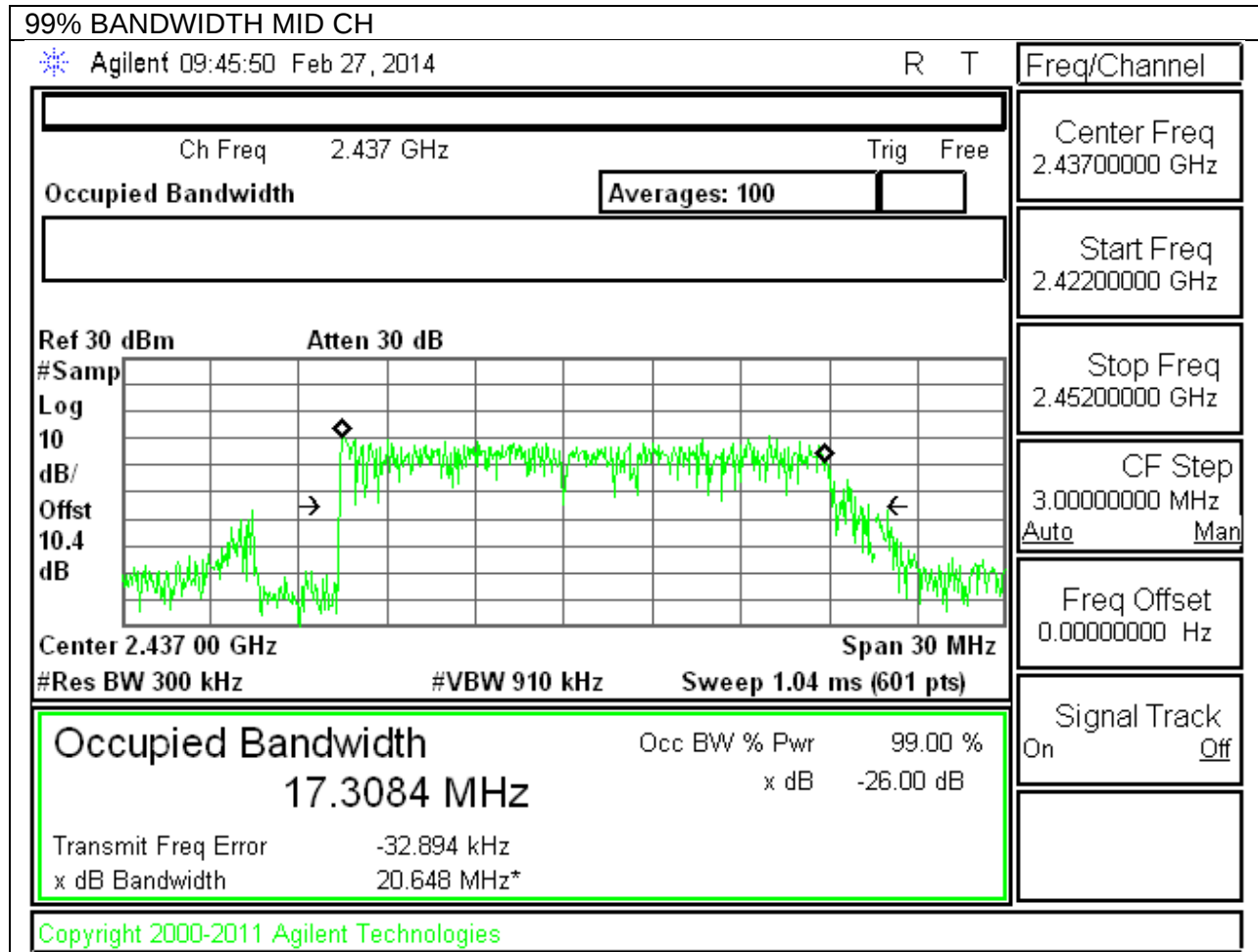
802.11g 99% BANDWIDTH CHAIN 0



802.11g 99% BANDWIDTH CHAIN 1

99% BANDWIDTH MID CH		R T		Freq/Channel	
* Agilent 11:53:46 Feb 24, 2014					
Ch Freq 2.437 GHz		Trig Free		Center Freq 2.43700000 GHz	
Occupied Bandwidth		Averages: 100		Start Freq 2.42200000 GHz	
				Stop Freq 2.45200000 GHz	
Ref 40 dBm #Atten 40 dB				Stop Freq 2.45200000 GHz	
#Samp Log 10 dB/ Offst 11.1 dB				CF Step 3.00000000 MHz Auto Man	
				Freq Offset 0.00000000 Hz	
Center 2.437 00 GHz		Span 30 MHz			
#Res BW 470 kHz		#VBW 1.5 MHz		Sweep 1 ms (601 pts)	
Occupied Bandwidth 16.6495 MHz		Occ BW % Pwr 99.00 %		Signal Track On Off	
Transmit Freq Error -43.541 kHz		x dB -6.00 dB			
x dB Bandwidth 16.023 MHz*					
Copyright 2000-2011 Agilent Technologies					

802.11n 99% BANDWIDTH CHAIN 0

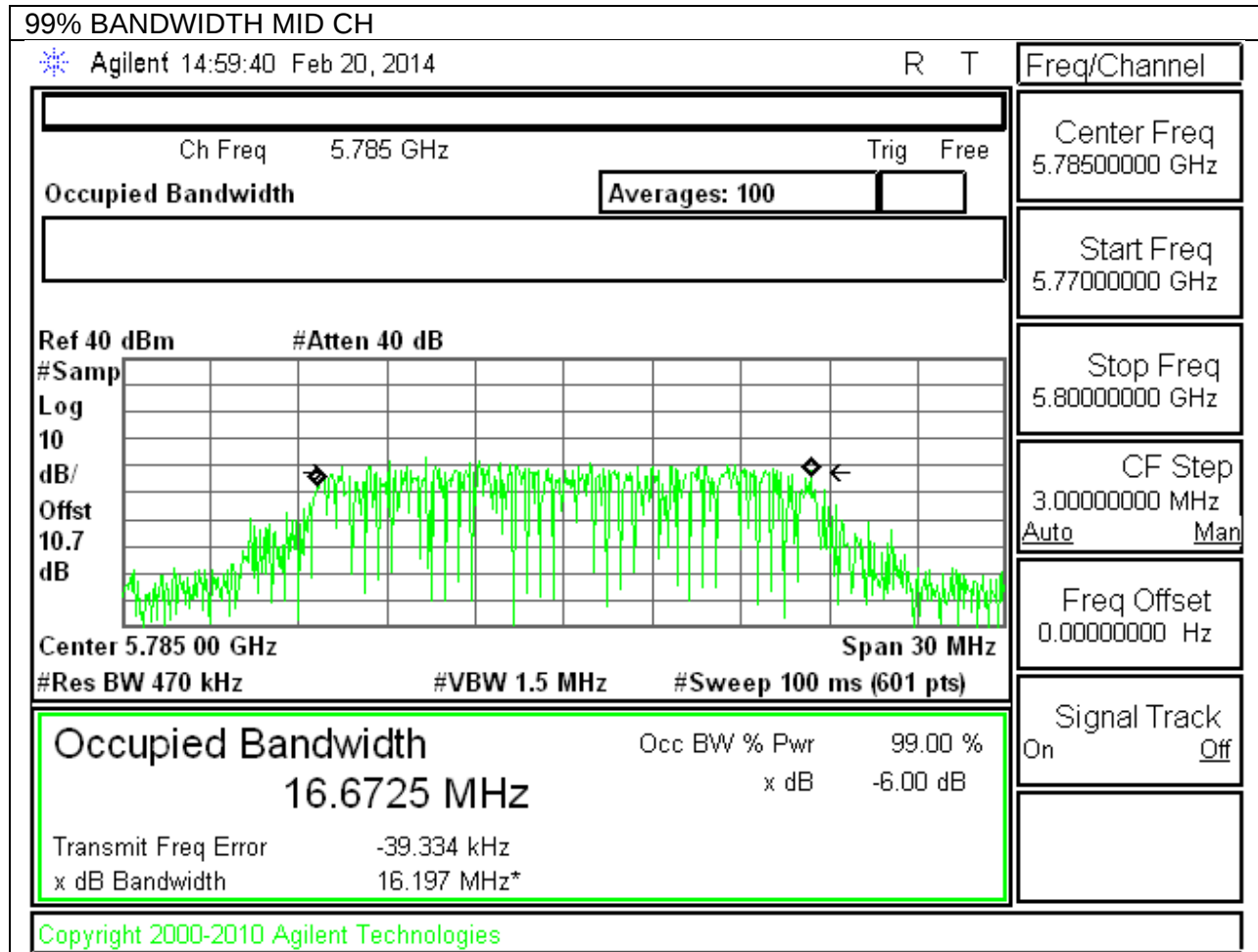


802.11n 99% BANDWIDTH CHAIN 1

99% BANDWIDTH MID CH		R T		Freq/Channel	
Ch Freq 2.437 GHz Trig Free				Center Freq 2.43700000 GHz	
Occupied Bandwidth Averages: 100				Start Freq 2.42450000 GHz	
Ref 40 dBm #Atten 40 dB				Stop Freq 2.44950000 GHz	
#Samp Log 10 dB/ Offst 11.1 dB				CF Step 2.50000000 MHz Auto Man	
				Freq Offset 0.00000000 Hz	
Center 2.437 00 GHz Span 25 MHz					
#Res BW 510 kHz #VBW 1.5 MHz Sweep 1 ms (601 pts)					
Occupied Bandwidth				Occ BW % Pwr 99.00 %	
17.5619 MHz				x dB -6.00 dB	
Transmit Freq Error -72.595 kHz					
x dB Bandwidth 16.883 MHz*					
Copyright 2000-2011 Agilent Technologies				Signal Track On Off	

10.2.9. 5.8GHz Plots

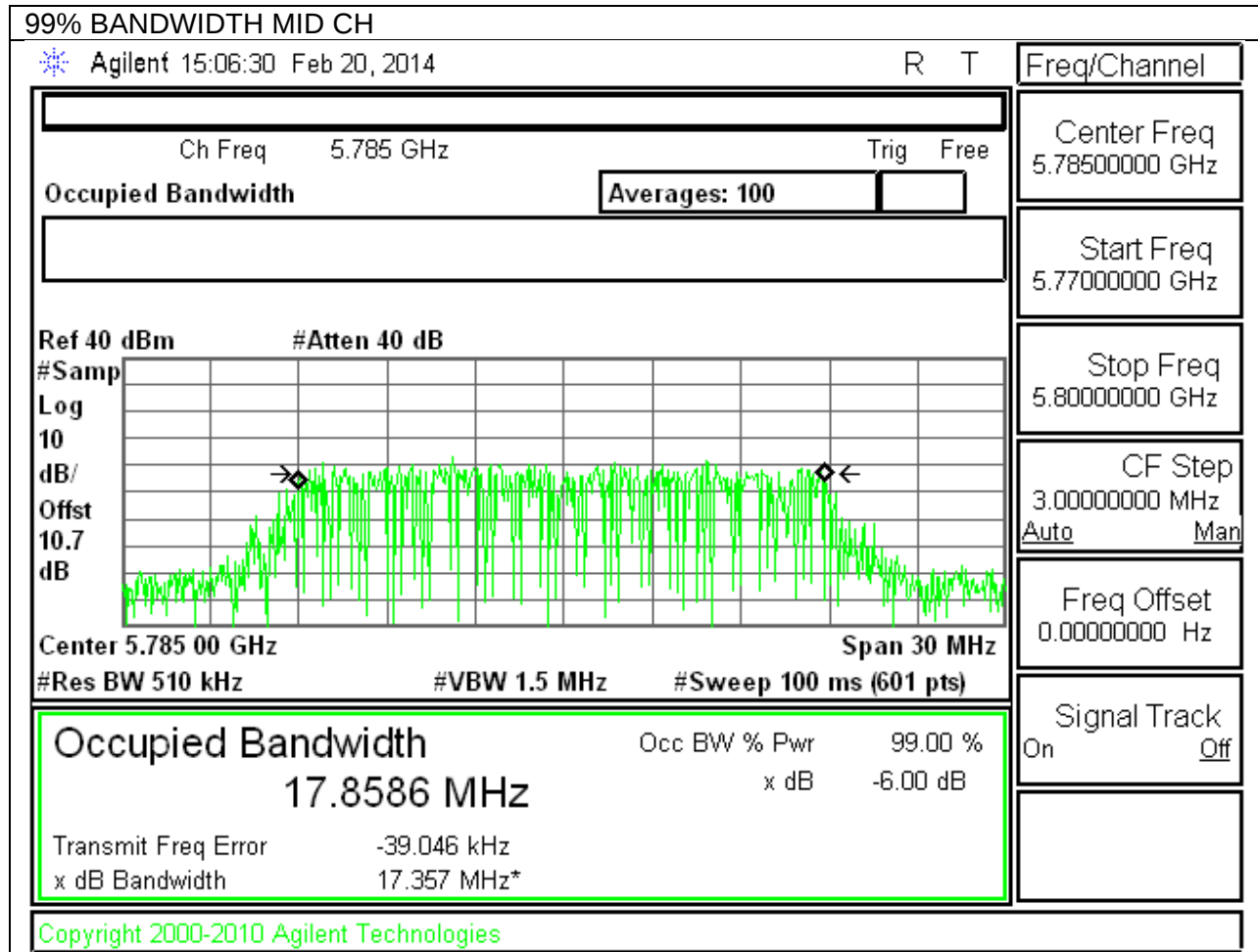
802.11a 99% BANDWIDTH CHAIN 0



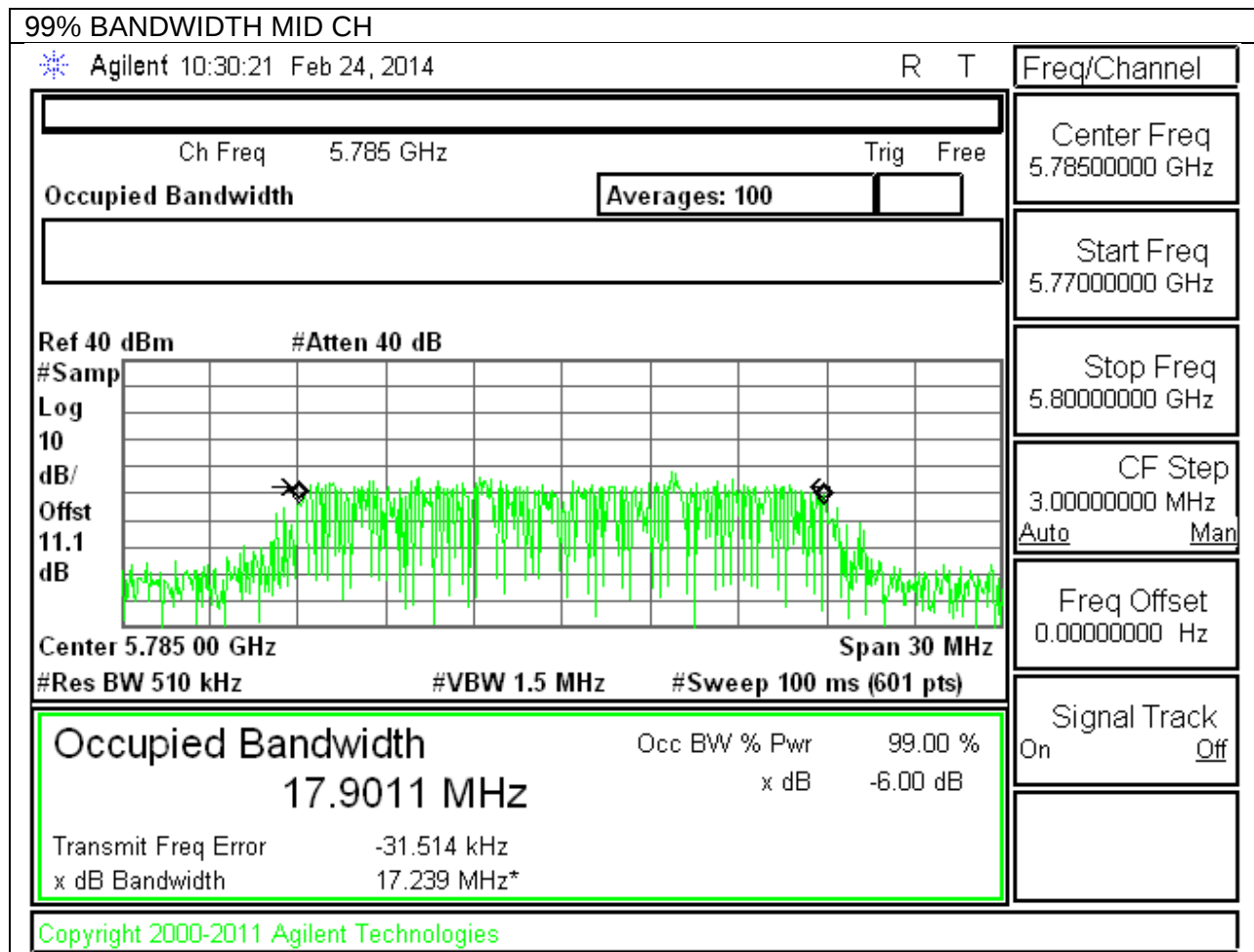
802.11a 99% BANDWIDTH CHAIN 1

99% BANDWIDTH MID CH		R T		Freq/Channel	
* Agilent 10:26:18 Feb 24, 2014					
Ch Freq 5.785 GHz		Trig Free		Center Freq 5.78500000 GHz	
Occupied Bandwidth		Averages: 100		Start Freq 5.77000000 GHz	
				Stop Freq 5.80000000 GHz	
Ref 40 dBm #Atten 40 dB				Stop Freq 5.80000000 GHz	
#Samp				CF Step 3.00000000 MHz	
Log 10				Auto Man	
dB/				Freq Offset 0.00000000 Hz	
Offst 11.1 dB				Signal Track On Off	
Center 5.785 00 GHz		Span 30 MHz			
#Res BW 470 kHz		#VBW 1.5 MHz		#Sweep 100 ms (601 pts)	
Occupied Bandwidth 16.7067 MHz		Occ BW % Pwr 99.00 % x dB -6.00 dB			
Transmit Freq Error -23.732 kHz					
x dB Bandwidth 16.038 MHz*					
Copyright 2000-2011 Agilent Technologies					

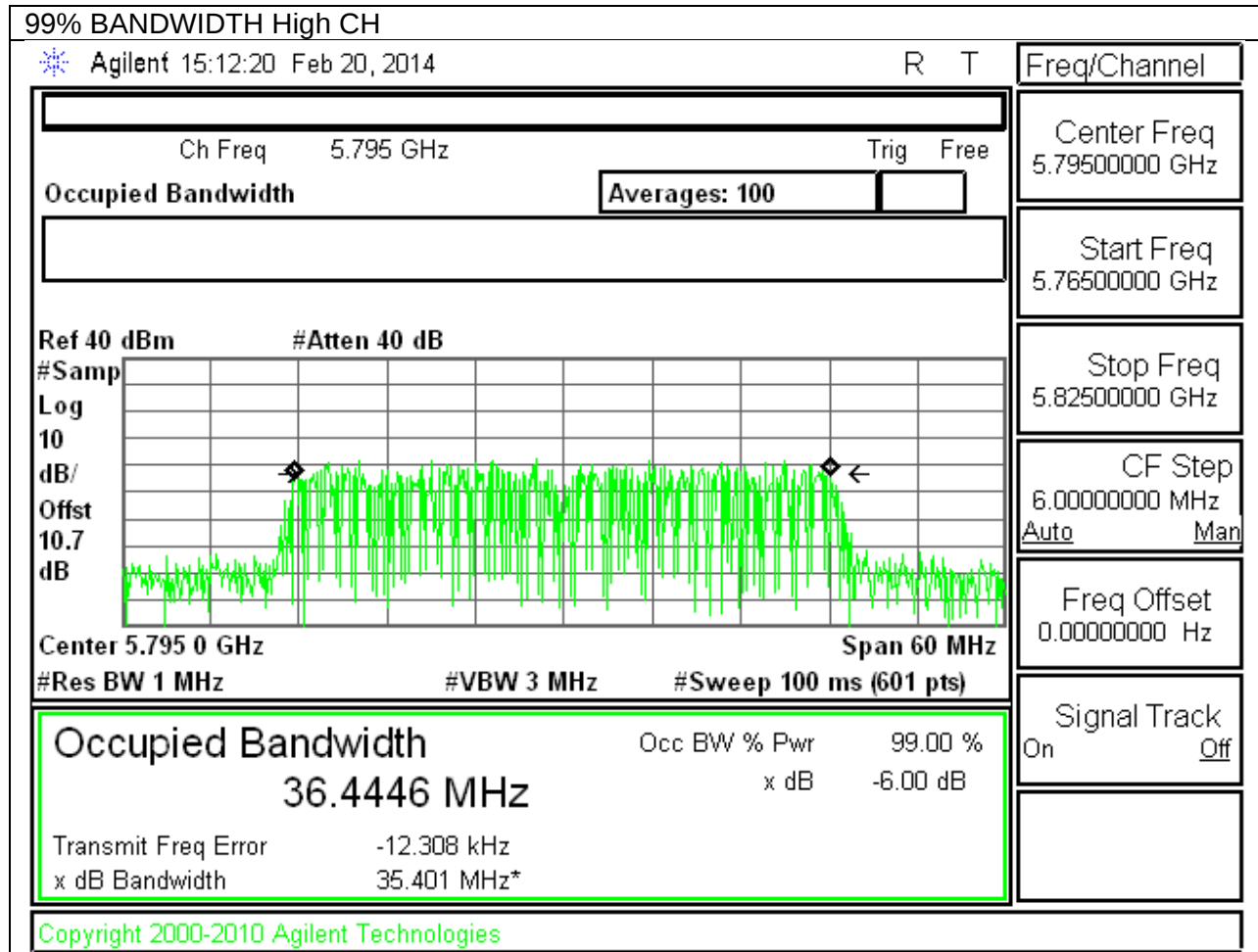
802.11n HT20 99% BANDWIDTH CHAIN 0



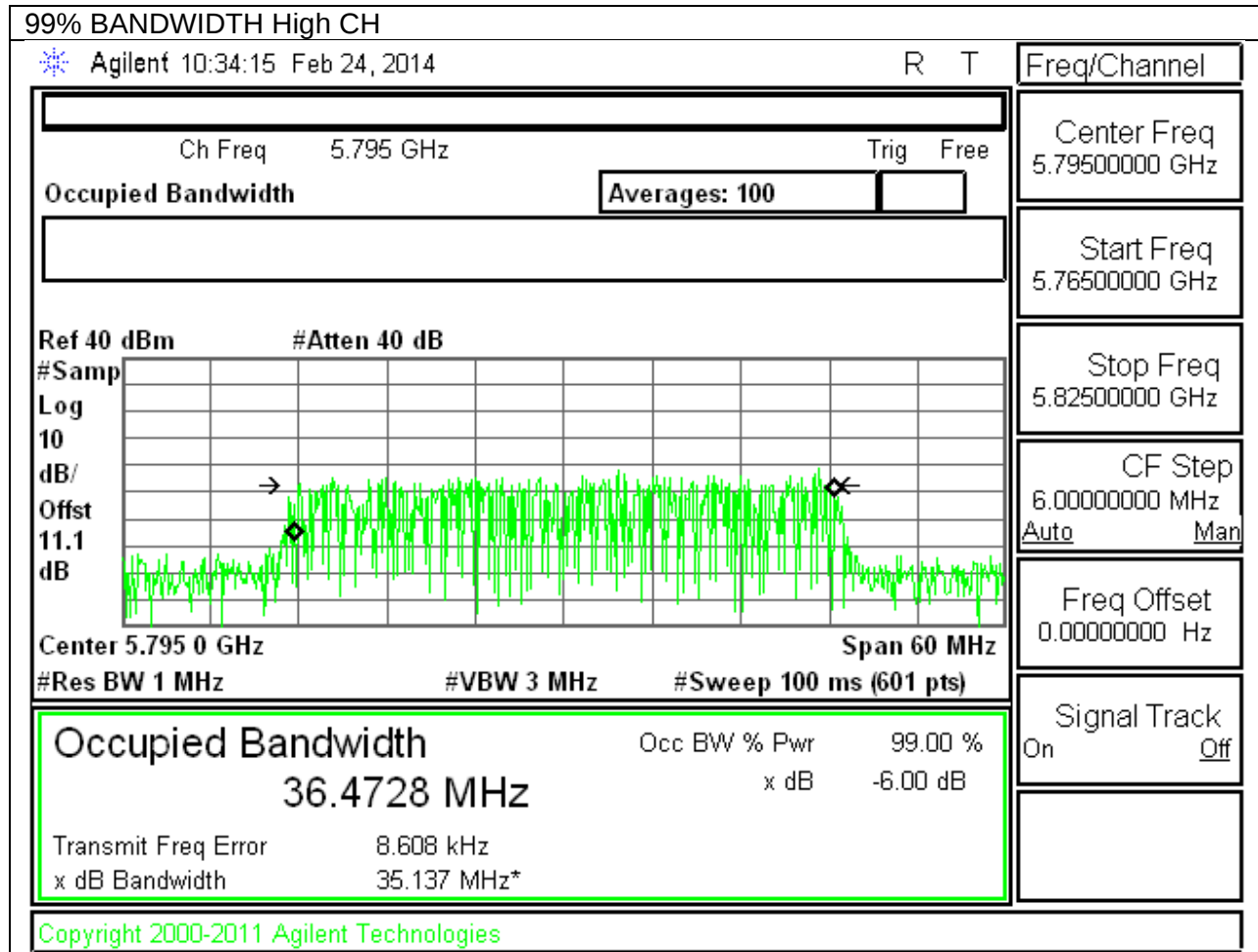
802.11n HT20 99% BANDWIDTH CHAIN 1



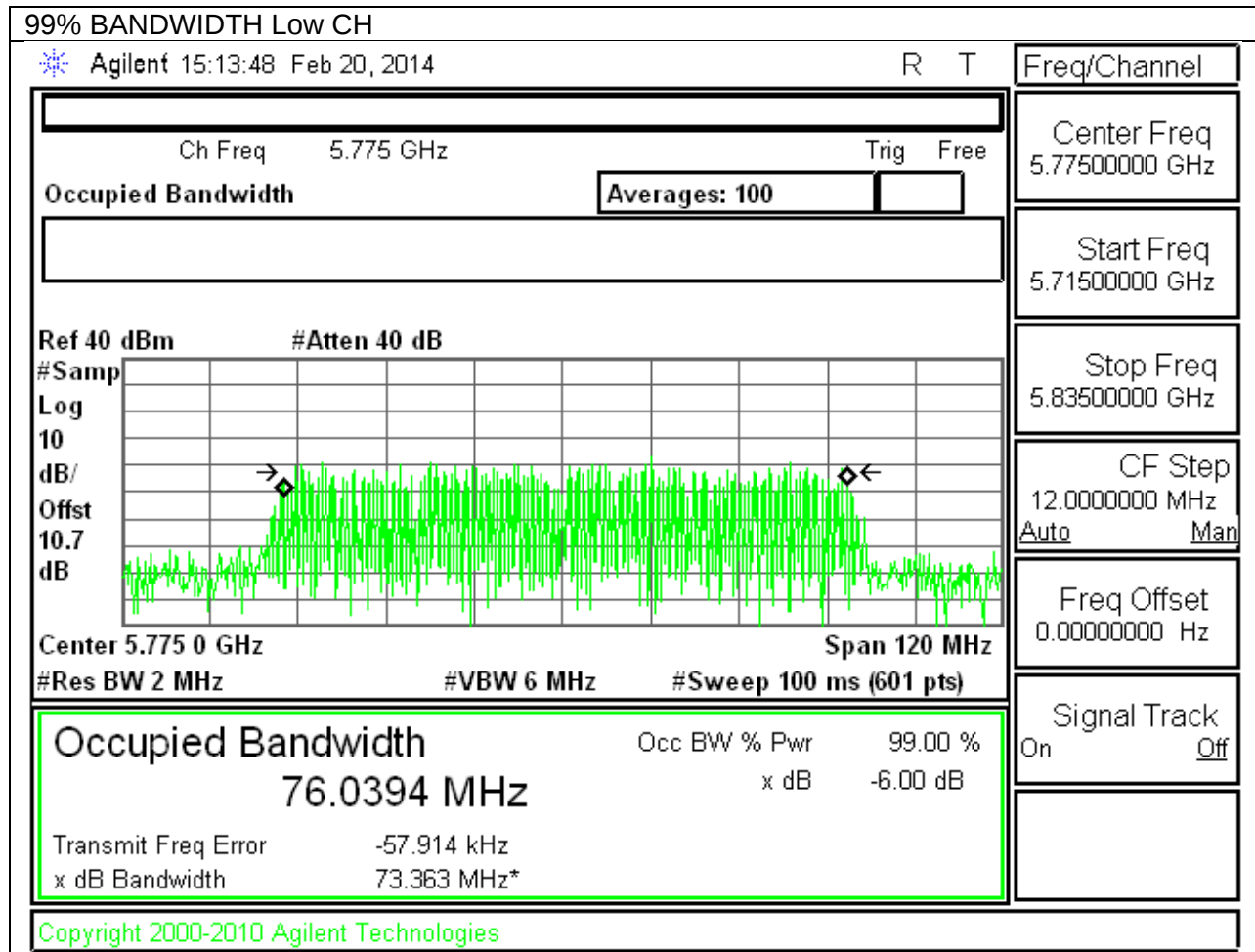
802.11n HT40 99% BANDWIDTH CHAIN 0



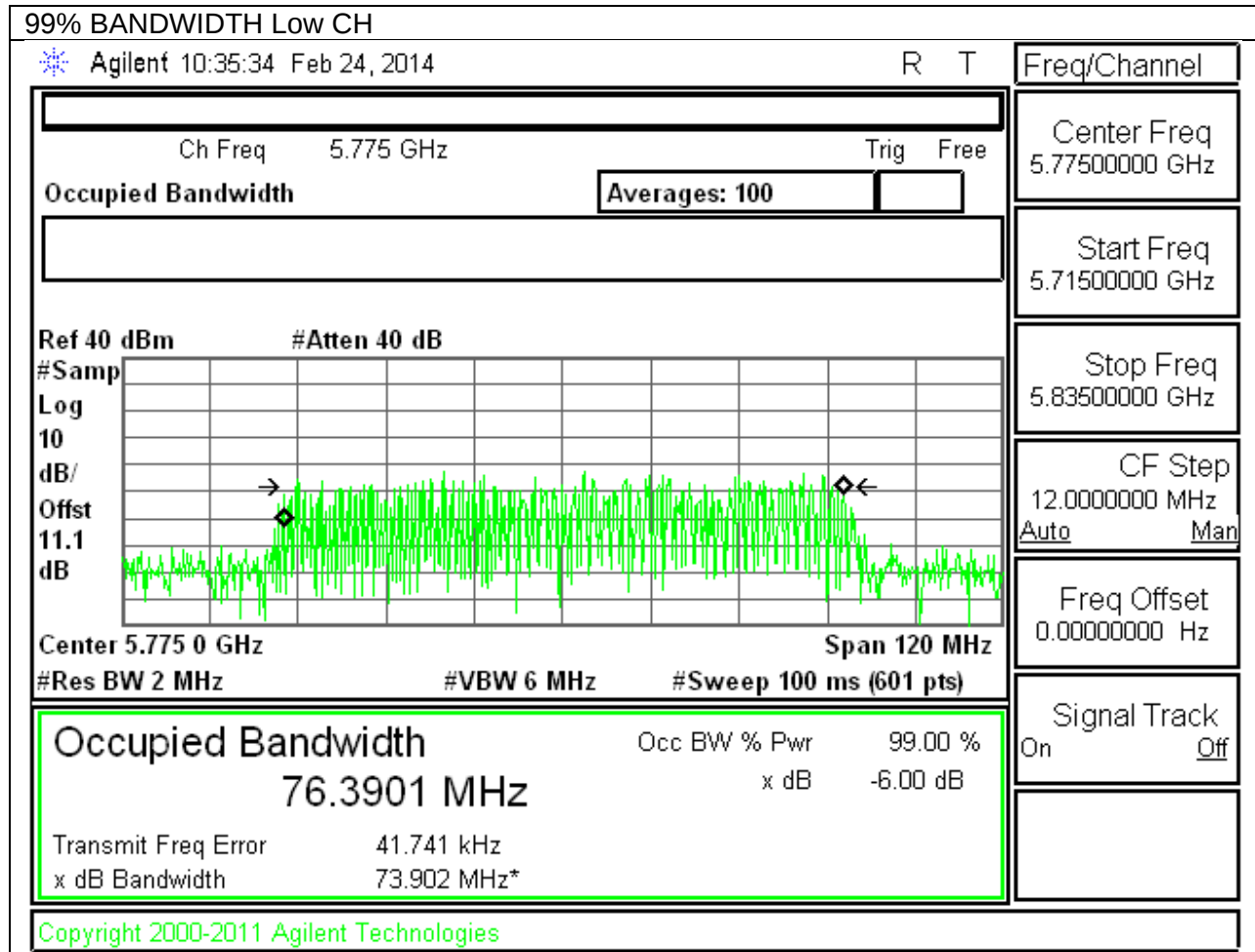
802.11n HT40 99% BANDWIDTH CHAIN 1



802.11ac HT80 99% BANDWIDTH CHAIN 0



802.11ac HT80 99% BANDWIDTH CHAIN 1



10.3. OUTPUT POWER

LIMITS

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

For Power: The TX chains are uncorrelated and the antenna gain is the same for each chain. The directional gain is equal to the antenna gain.

2.4GHz

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-4.60	1.14	-0.84

5.8GHz

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
-3.18	-0.40	-1.57

For PSD: The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

2.4GHz

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-4.60	1.14	1.75

5.8GHz

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
-3.18	-0.40	1.33

RESULTS

10.3.1. 802.11b MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	-0.22	30.00	30	36	30.00
Mid	2437	-0.22	30.00	30	36	30.00
High	2462	-0.22	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
Low	2412	15.92	16.29	19.12	30.00	-10.88
Mid	2437	15.95	16.60	19.30	30.00	-10.70
High	2462	15.89	16.16	19.04	30.00	-10.96

10.3.2. 802.11g MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	-0.22	30.00	30	36	30.00
Mid	2437	-0.22	30.00	30	36	30.00
High	2462	-0.22	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
Low	2412	19.38	19.59	22.50	30.00	-7.50
Mid	2437	19.52	19.64	22.59	30.00	-7.41
High	2462	19.42	19.51	22.48	30.00	-7.52

10.3.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	-0.22	30.00	30	36	30.00
Mid	2437	-0.22	30.00	30	36	30.00
High	2462	-0.22	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
Low	2412	19.12	19.05	22.10	30.00	-7.90
Mid	2437	18.72	18.91	21.83	30.00	-8.17
High	2462	18.73	18.92	21.84	30.00	-8.16

10.3.4. 802.11a MODE IN THE 5.8 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5745	-0.13	30.00	30	36	30.00
Mid	5785	-0.13	30.00	30	36	30.00
High	5825	-0.13	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
Low	5745	18.45	19.04	21.77	30.00	-8.23
Mid	5785	18.59	18.64	21.63	30.00	-8.37
High	5825	18.47	18.56	21.53	30.00	-8.47

10.3.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5745	-0.13	30.00	30	36	30.00
Mid	5785	-0.13	30.00	30	36	30.00
High	5825	-0.13	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margi (dB)
Low	5745	18.55	19.12	21.85	30.00	-8.15
Mid	5785	18.58	19.05	21.83	30.00	-8.17
High	5825	18.47	18.56	21.53	30.00	-8.47

10.3.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	5755	-0.13	30.00	30	36	30.00
Mid	5795	-0.13	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	5755	19.13	19.45	22.30	30.00	-7.70
Mid	5795	19.07	19.25	22.17	30.00	-7.83

10.3.1. 802.11AC HT80 MODE IN THE 5.8 GHz BAND

Limits

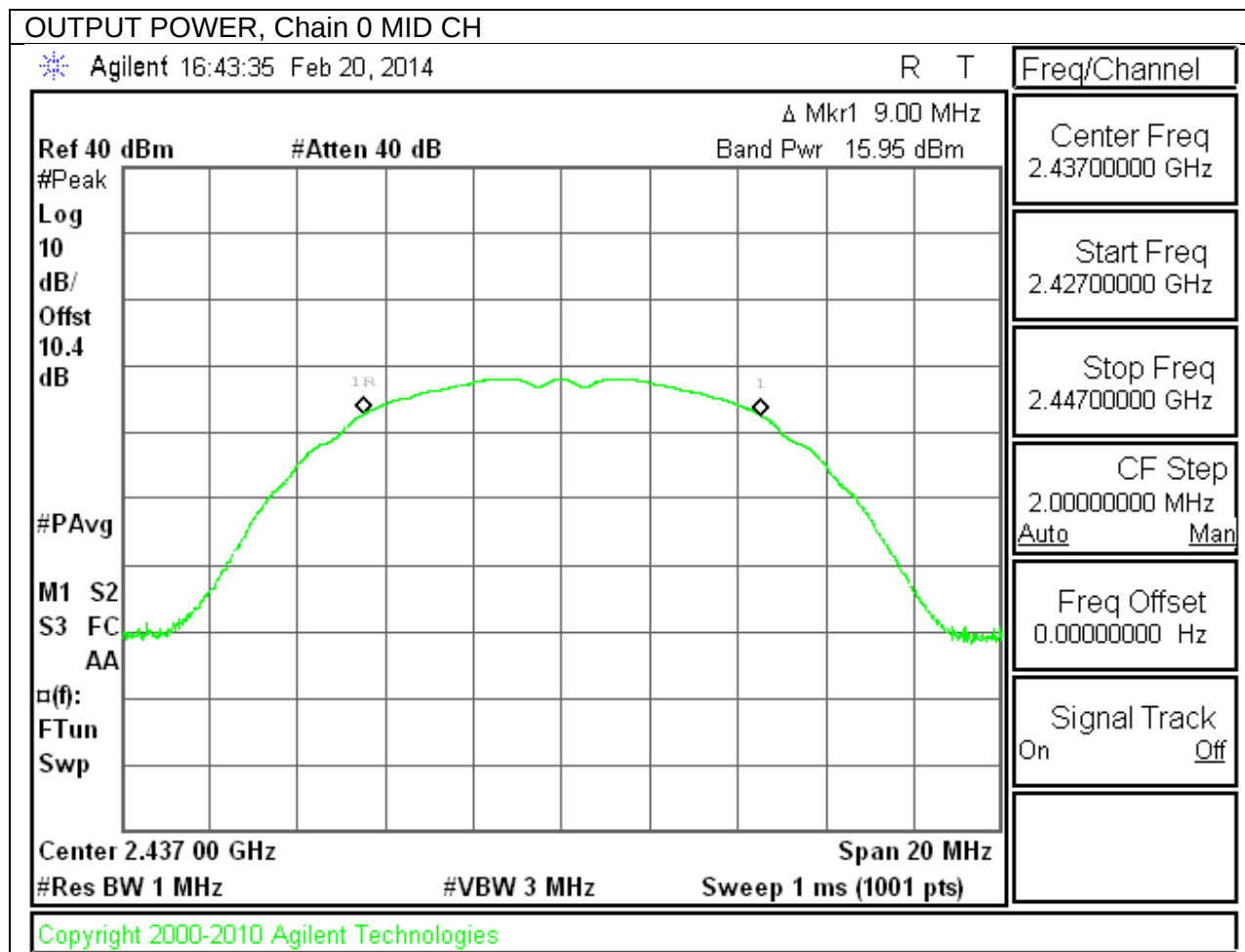
Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Mid	5775	-0.13	30.00	30	36	30.00

Results

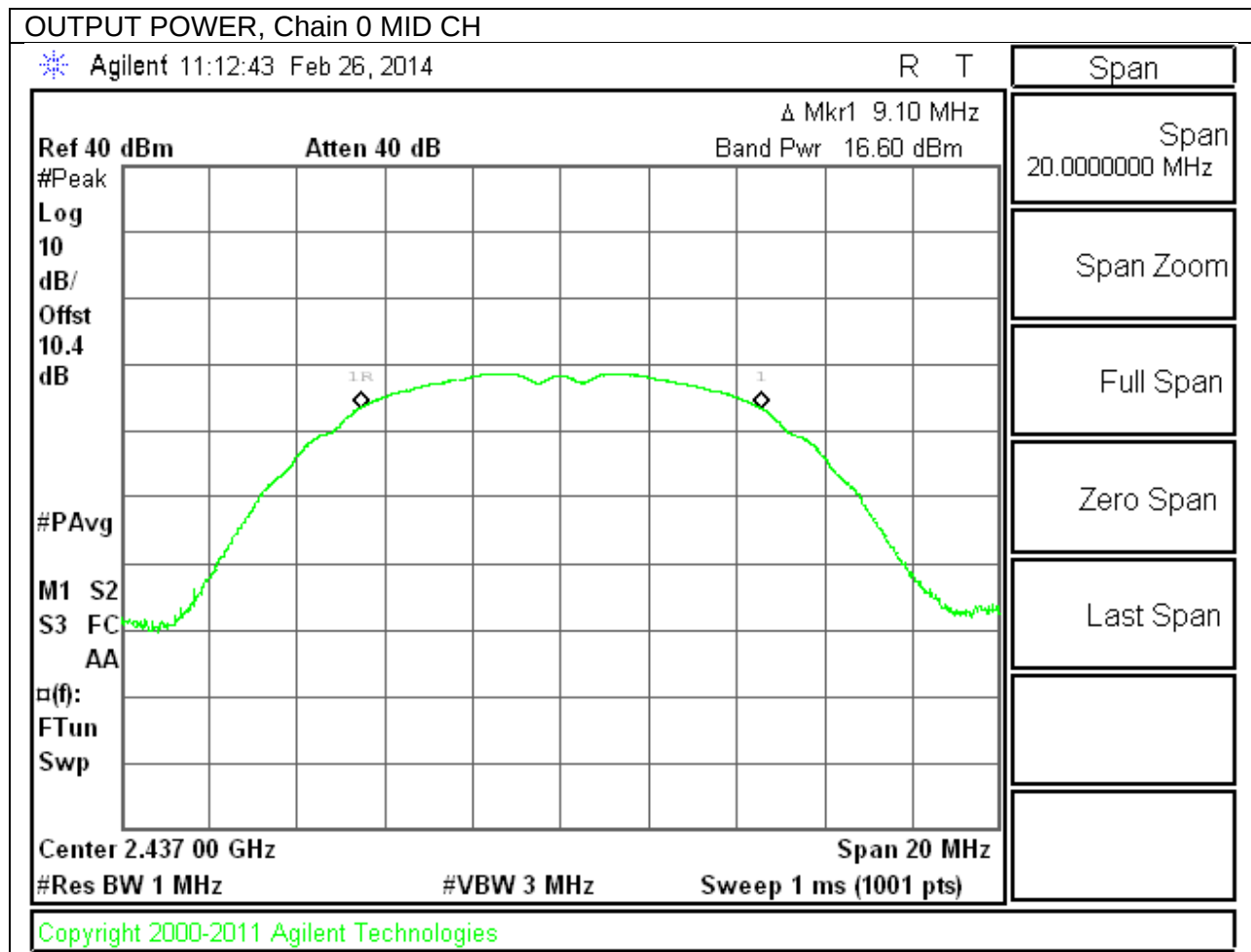
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Mid	5775	18.86	19.75	22.34	30.00	-7.66

10.3.2. 2.4GHz Plots

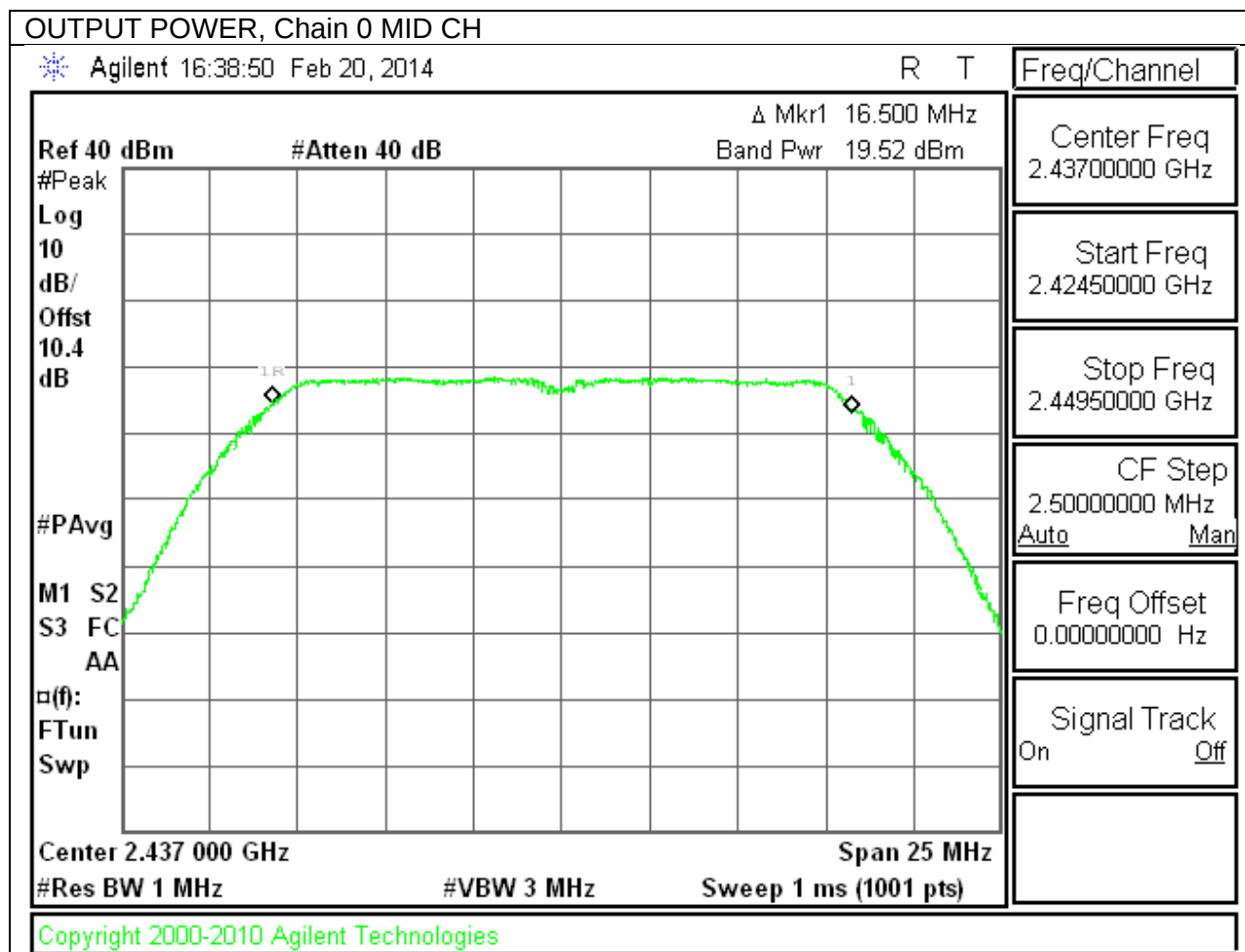
802.11b OUTPUT POWER, Chain 0



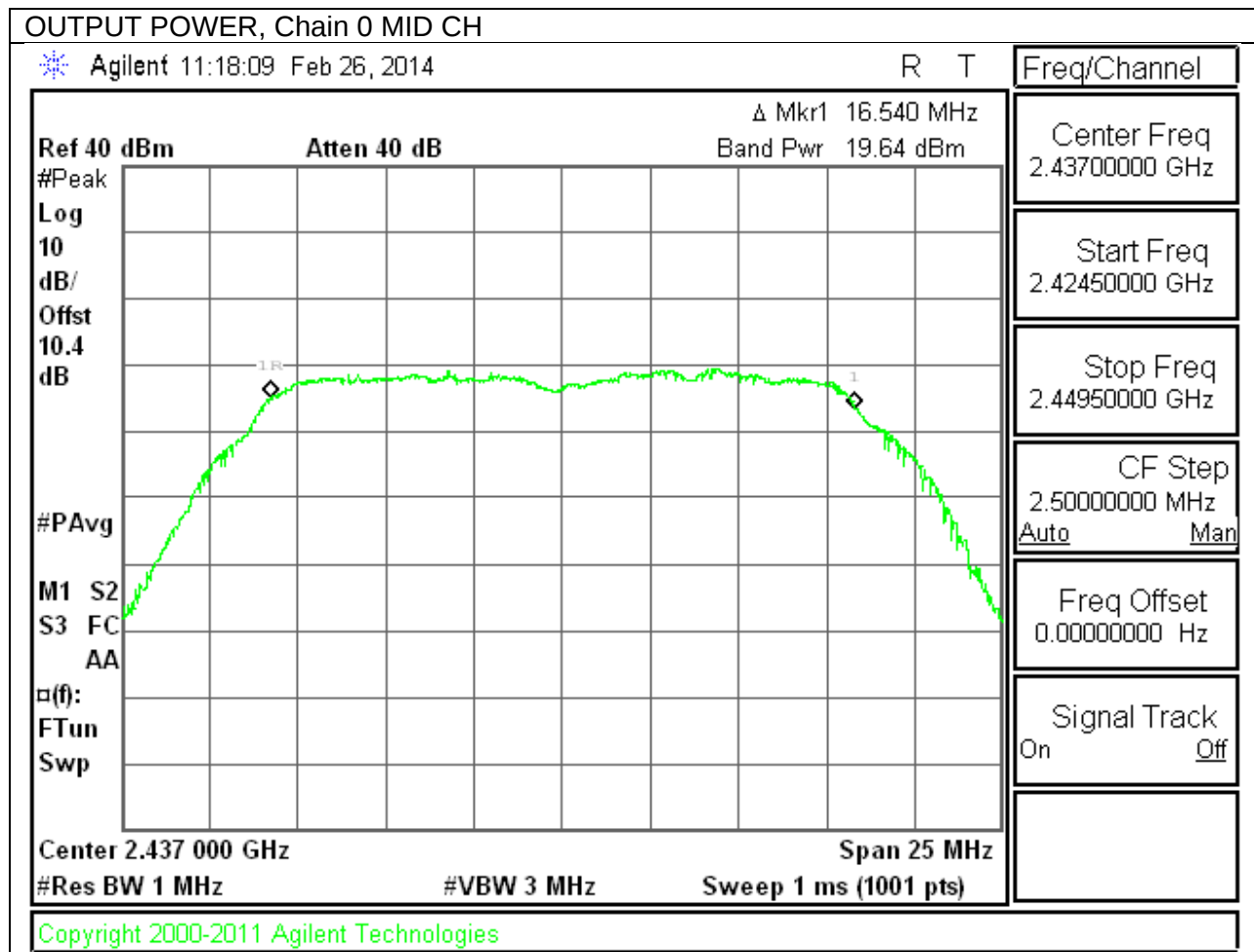
802.11b OUTPUT POWER, Chain 1



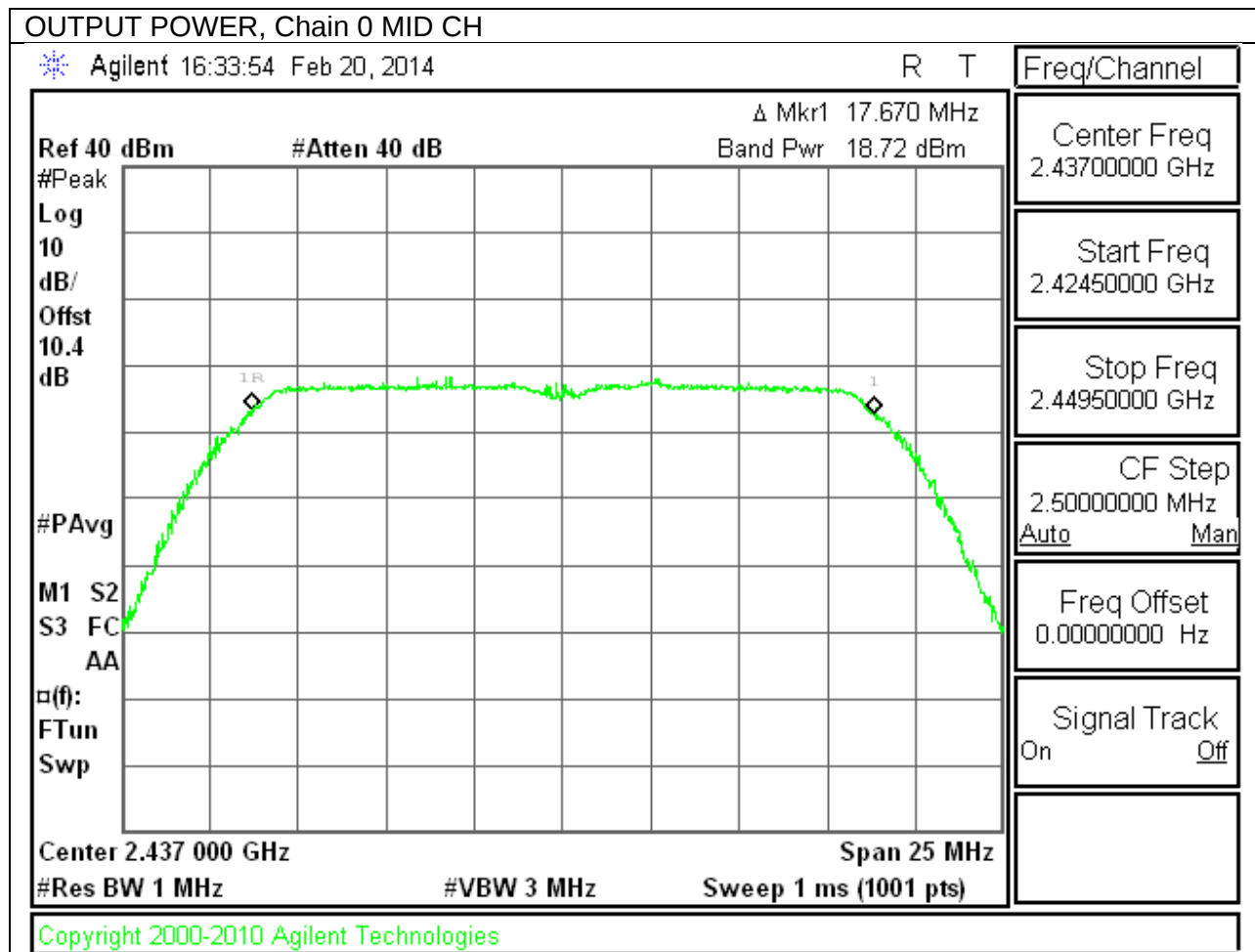
802.11g OUTPUT POWER, Chain 0



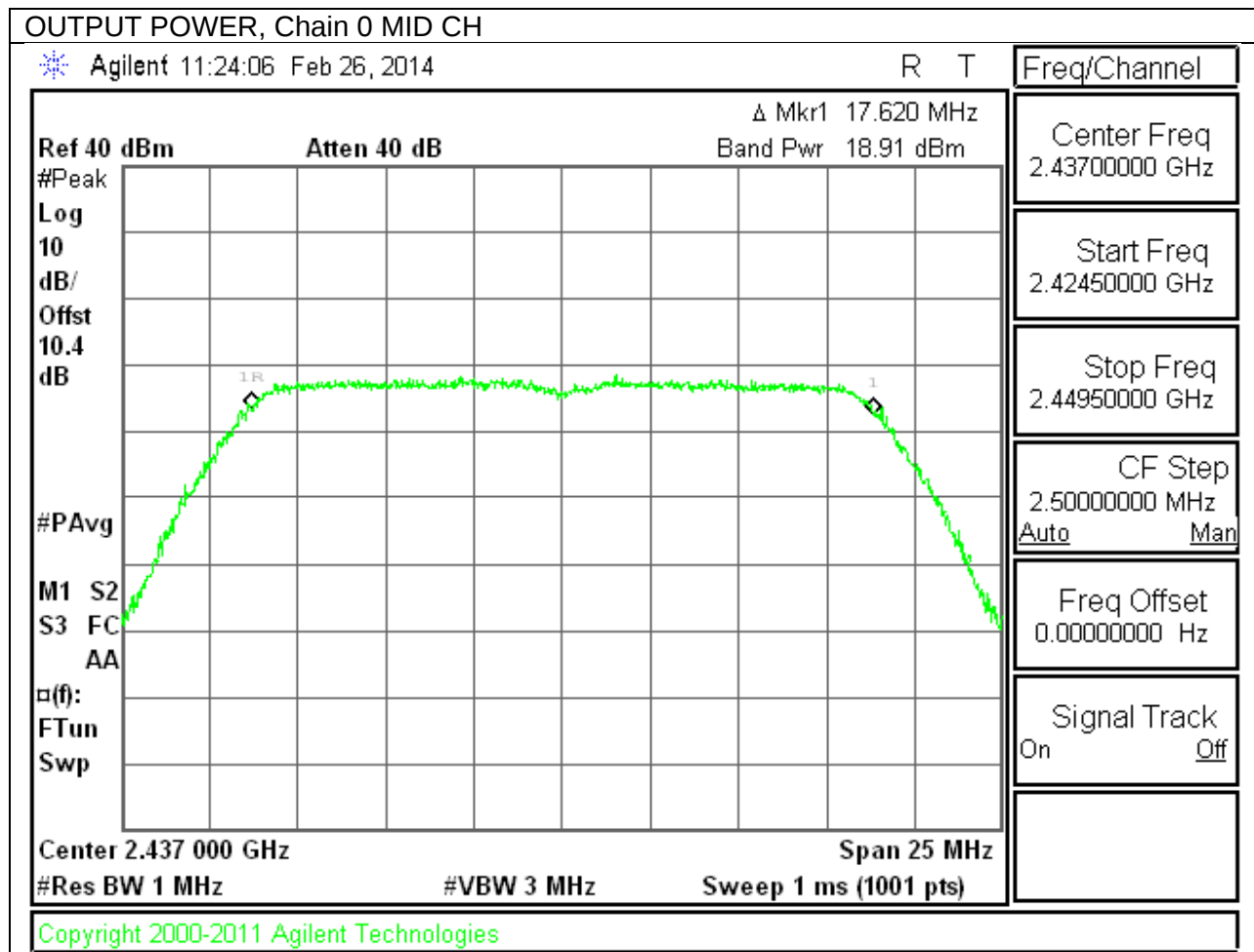
802.11g OUTPUT POWER, Chain 1



802.11n OUTPUT POWER, Chain 0

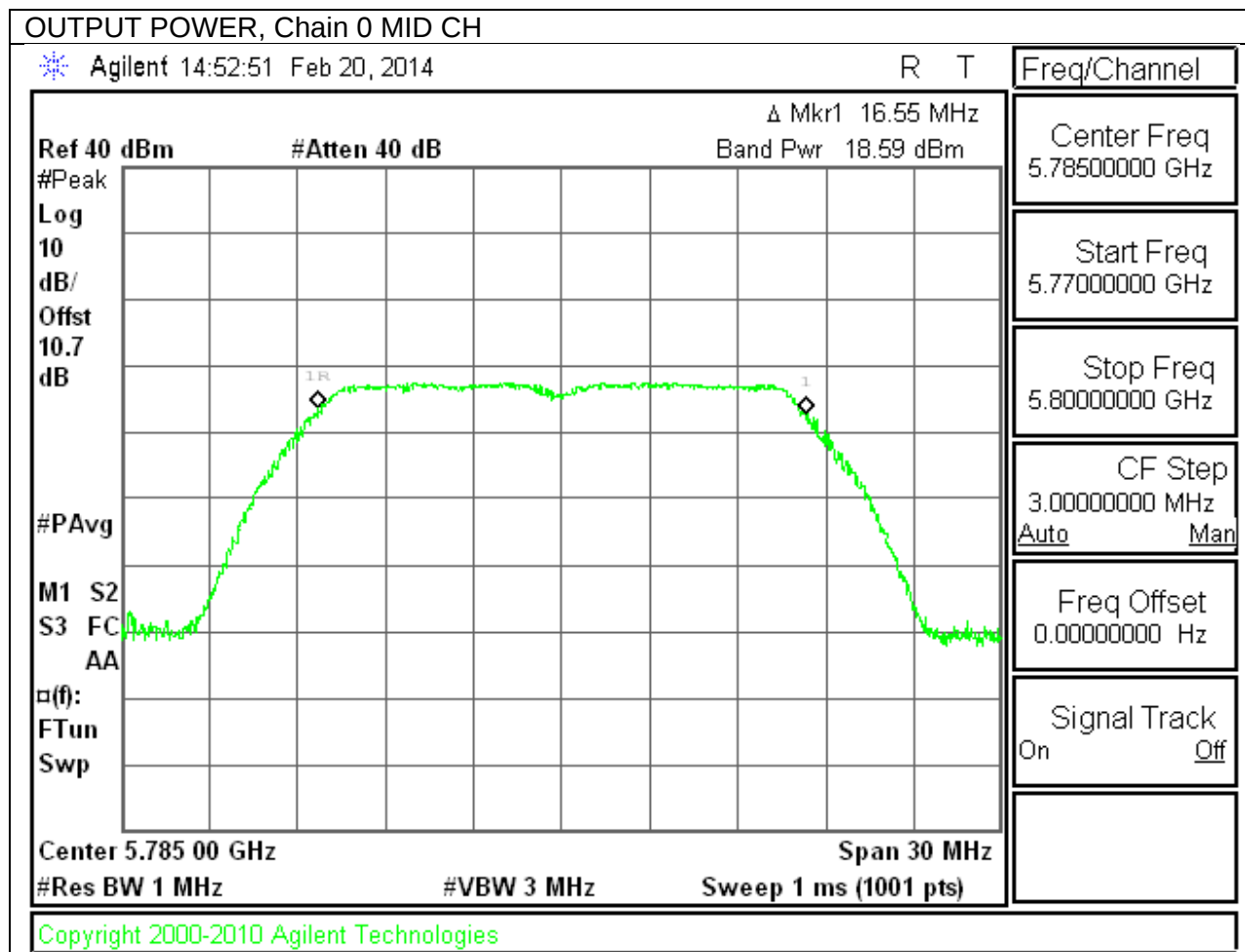


802.11n OUTPUT POWER, Chain 1

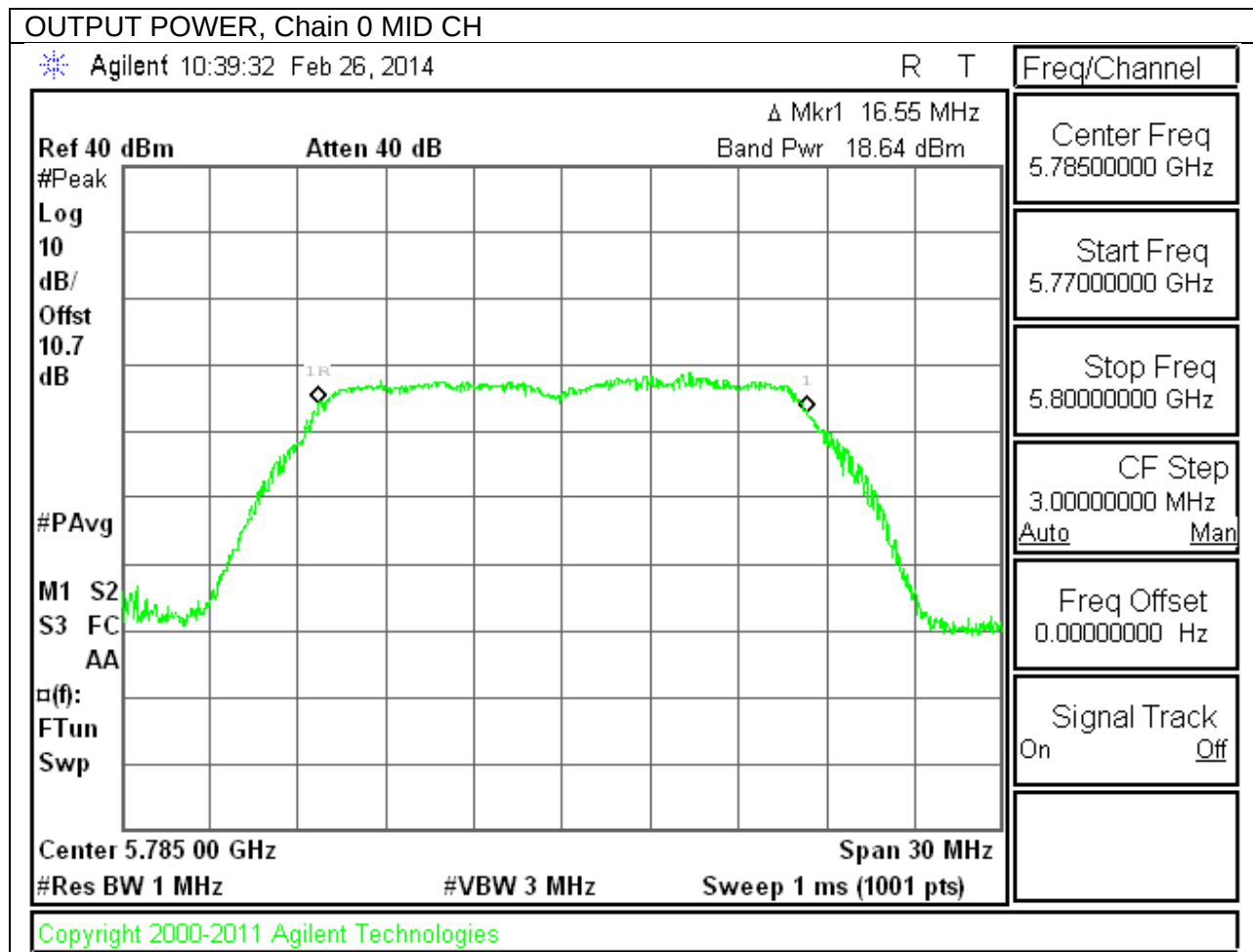


10.3.3. 5.8GHz Plots

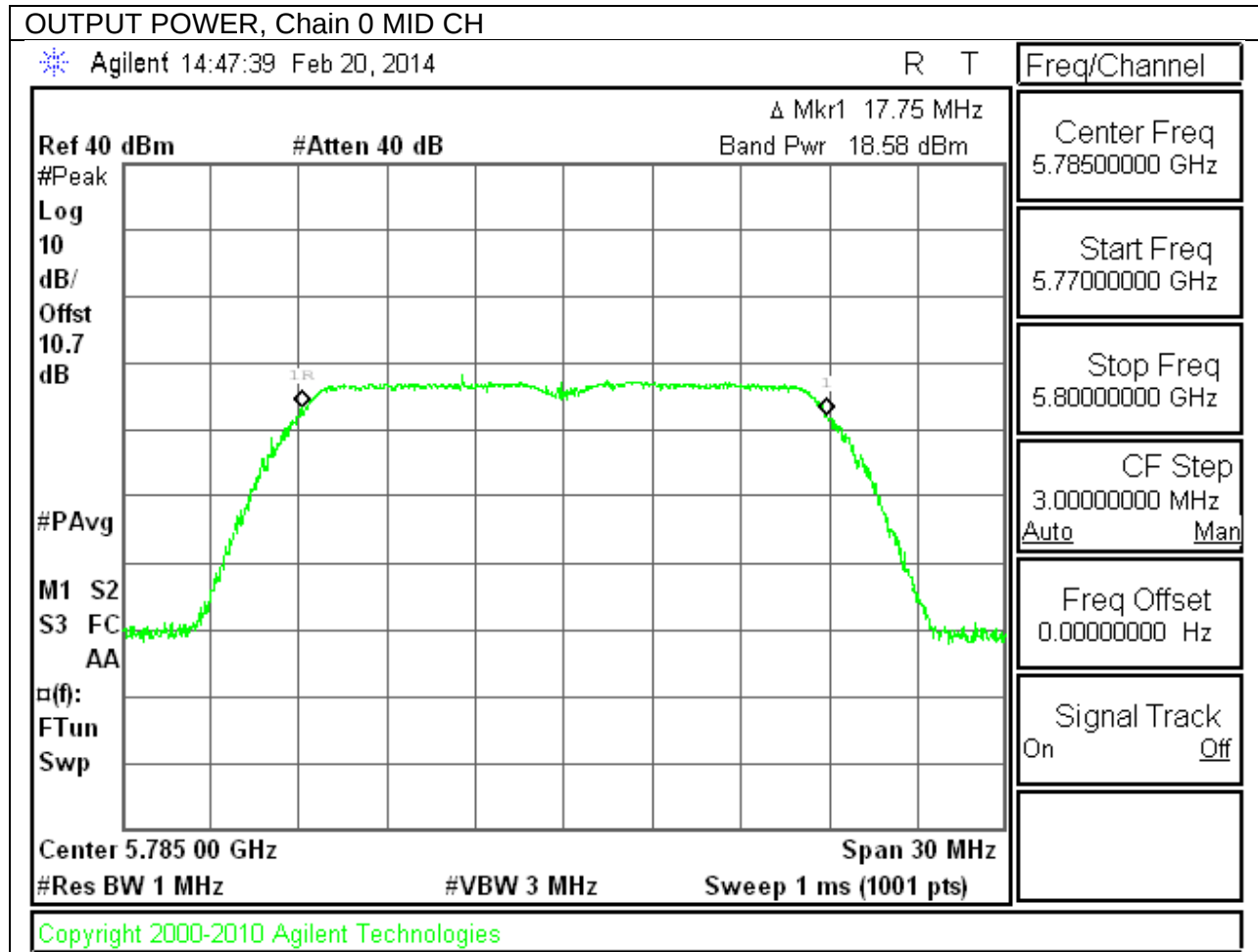
802.11a OUTPUT POWER, Chain 0



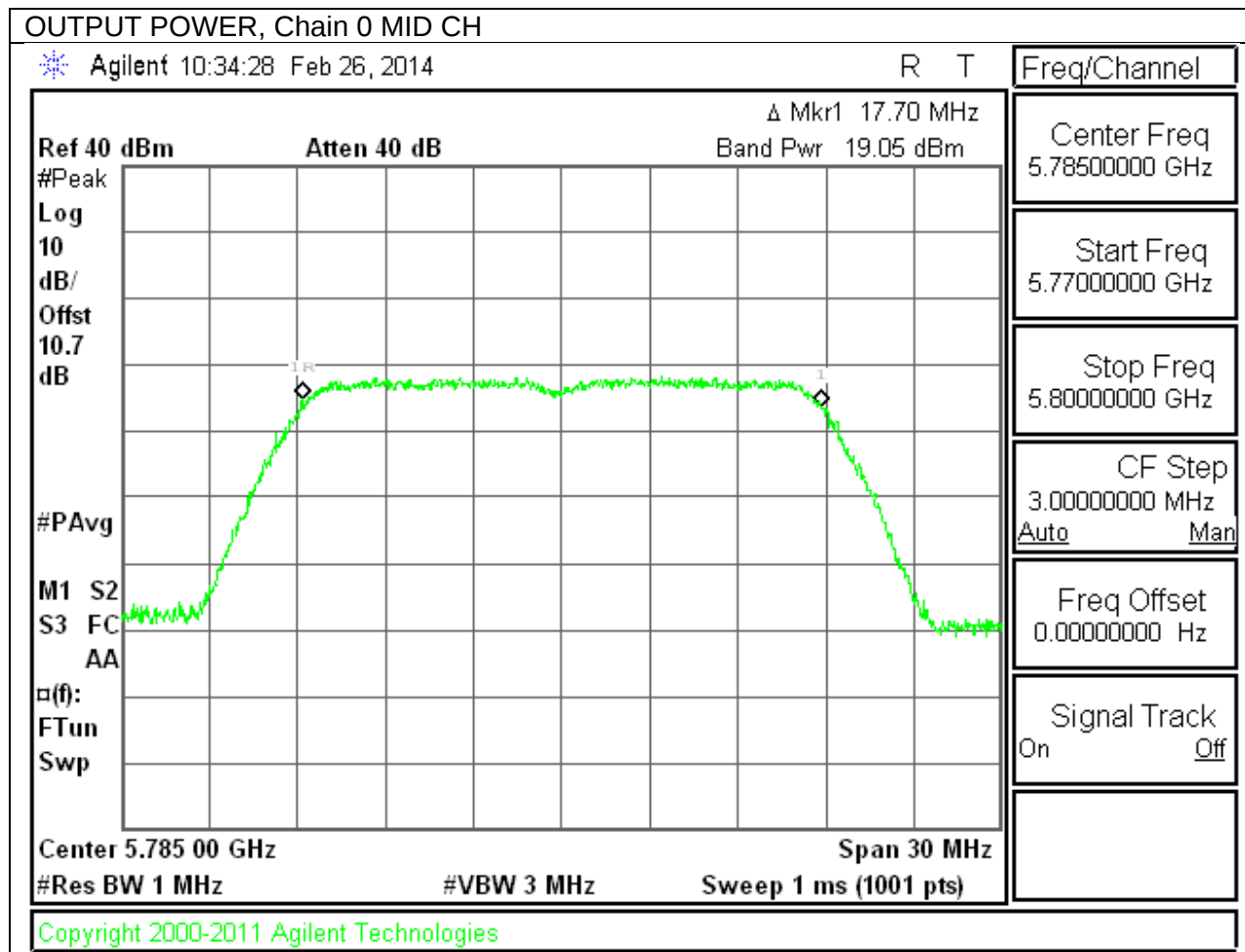
802.11a OUTPUT POWER, Chain 1



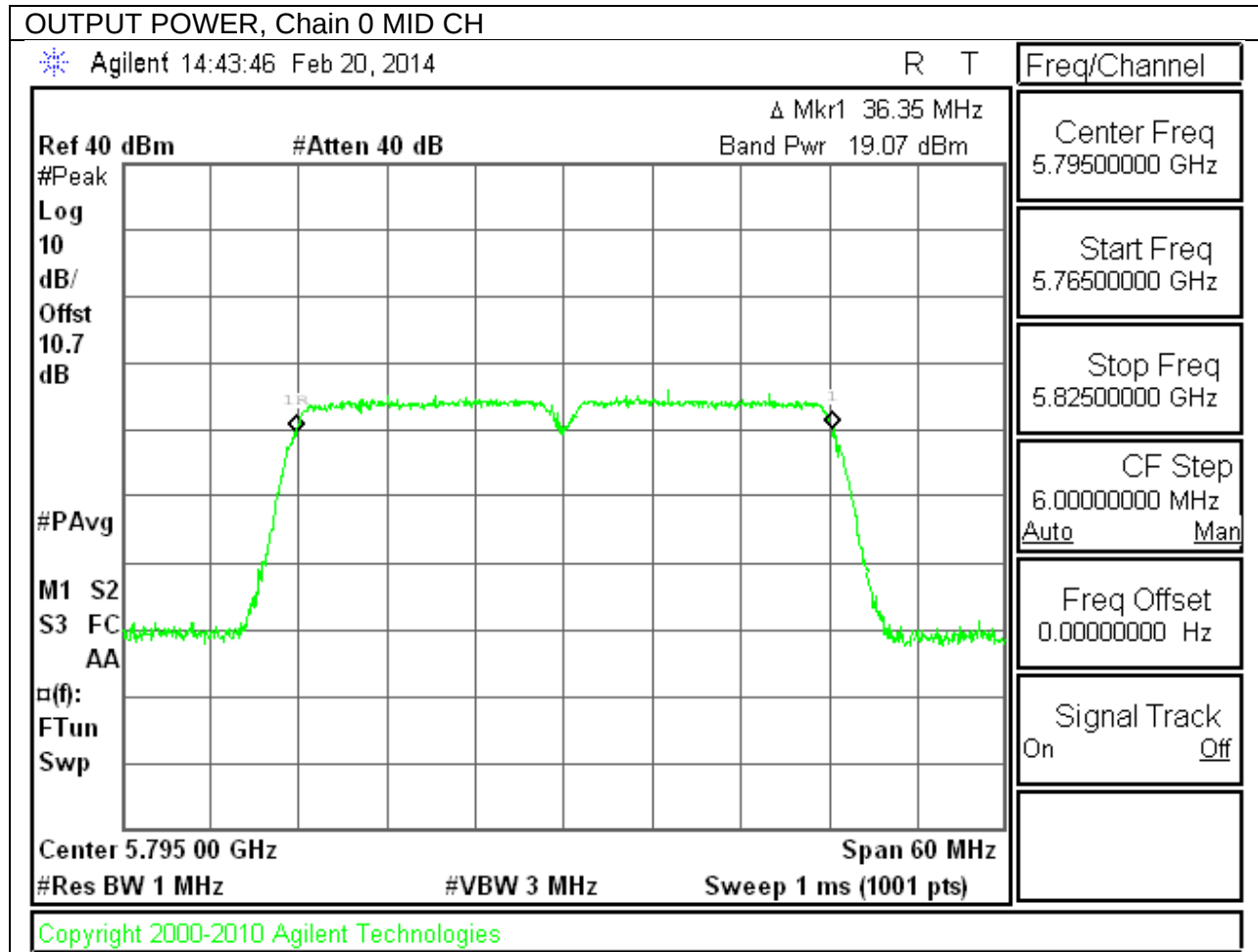
802.11n HT20 OUTPUT POWER, Chain 0



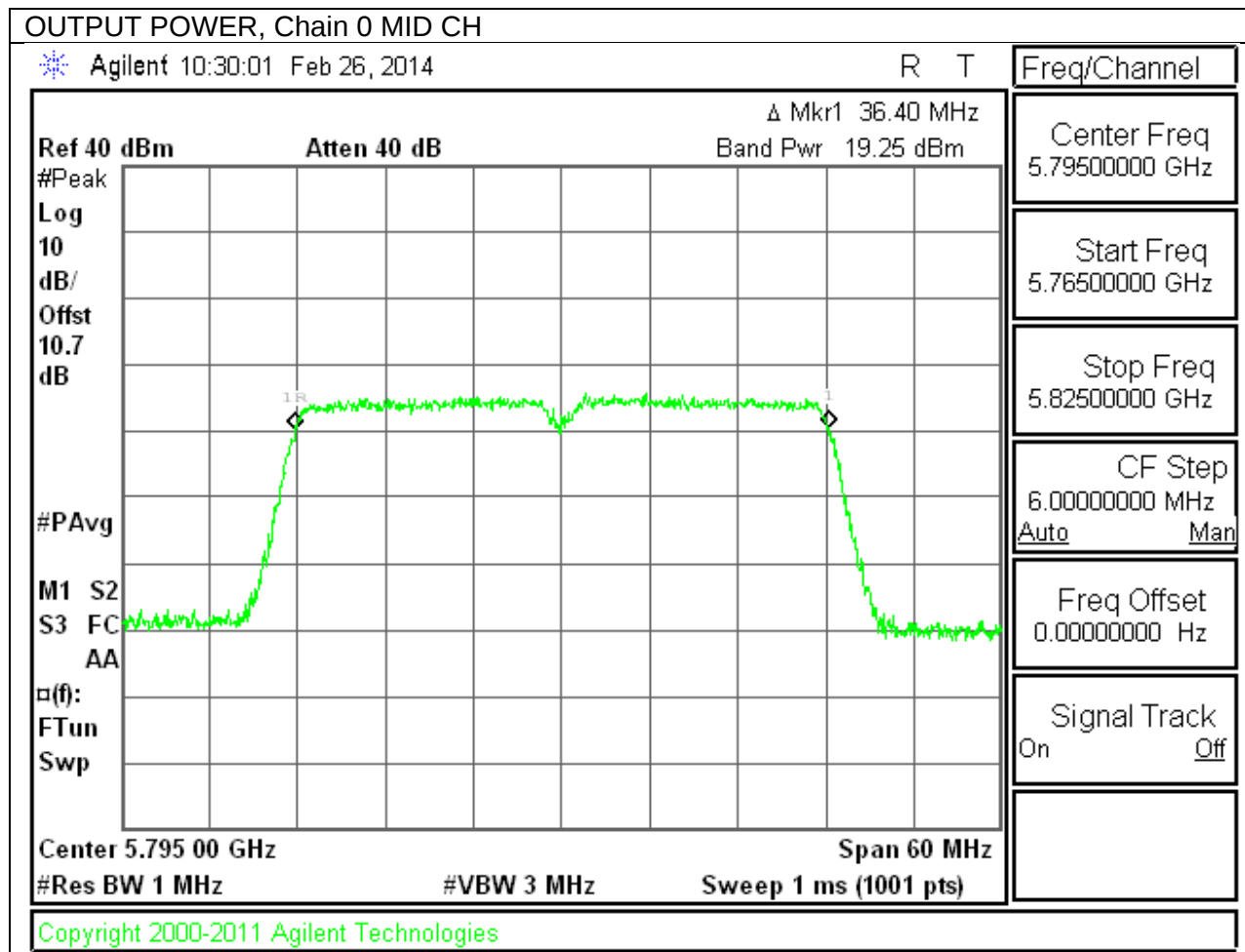
802.11n HT20 OUTPUT POWER, Chain 1



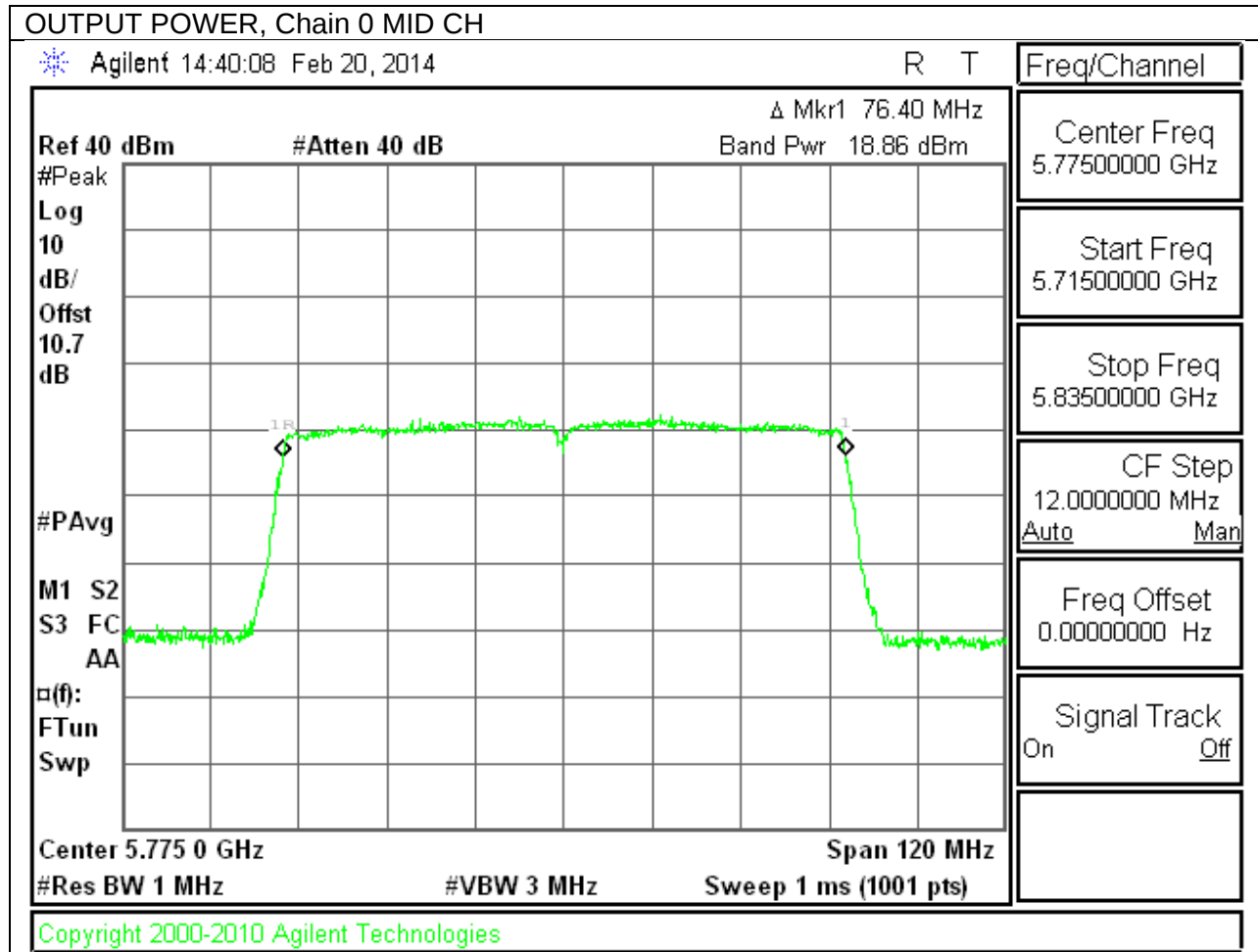
802.11n HT40 OUTPUT POWER, Chain 0



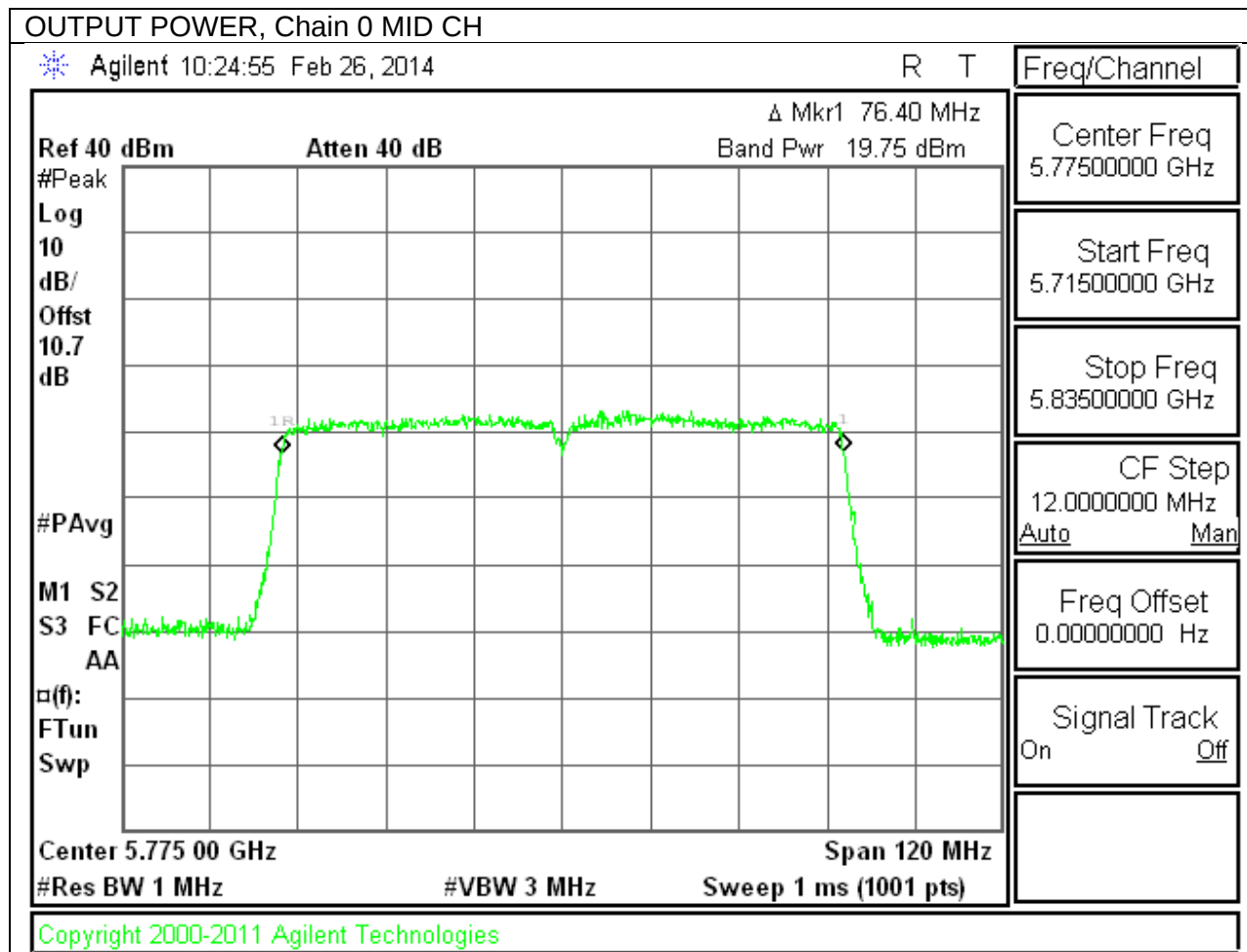
802.11n HT40 OUTPUT POWER, Chain 1



802.11ac HT80 OUTPUT POWER, Chain 0



802.11ac HT80 OUTPUT POWER, Chain 1



10.4. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

RESULTS

10.4.1. 802.11b MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-10.07	-9.57	-6.80	8.0	-14.8
Mid	2437	-9.81	-9.33	-6.55	8.0	-14.6
High	2462	-10.46	-9.43	-6.90	8.0	-14.9

10.4.2. 802.11g MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-12.77	-14.41	-10.50	8.0	-18.5
Mid	2437	-14.34	-15.23	-11.75	8.0	-19.8
High	2462	-13.16	-14.54	-10.79	8.0	-18.8

10.4.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-14.91	-15.73	-12.29	8.0	-20.3
Mid	2437	-15.16	-15.33	-12.23	8.0	-20.2
High	2462	-14.50	-13.89	-11.17	8.0	-19.2

10.4.4. 802.11a MODE IN THE 5.8 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-15.24	-14.96	-12.09	8.0	-20.1
Mid	5785	-15.33	-15.02	-12.16	8.0	-20.2
High	5825	-14.90	-15.88	-12.35	8.0	-20.4

10.4.5. 802.11n HT20 MODE IN THE 5.8 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	5745	-15.55	-14.84	-12.17	8.0	-20.2
Mid	5785	-15.05	-16.28	-12.61	8.0	-20.6
High	5825	-15.79	-15.80	-12.78	8.0	-20.8

10.4.6. 802.11n HT40 MODE IN THE 5.8 GHz BAND

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	5755	-17.96	-17.58	-14.76	8.0	-22.8
High	5795	-18.37	-19.26	-15.78	8.0	-23.8

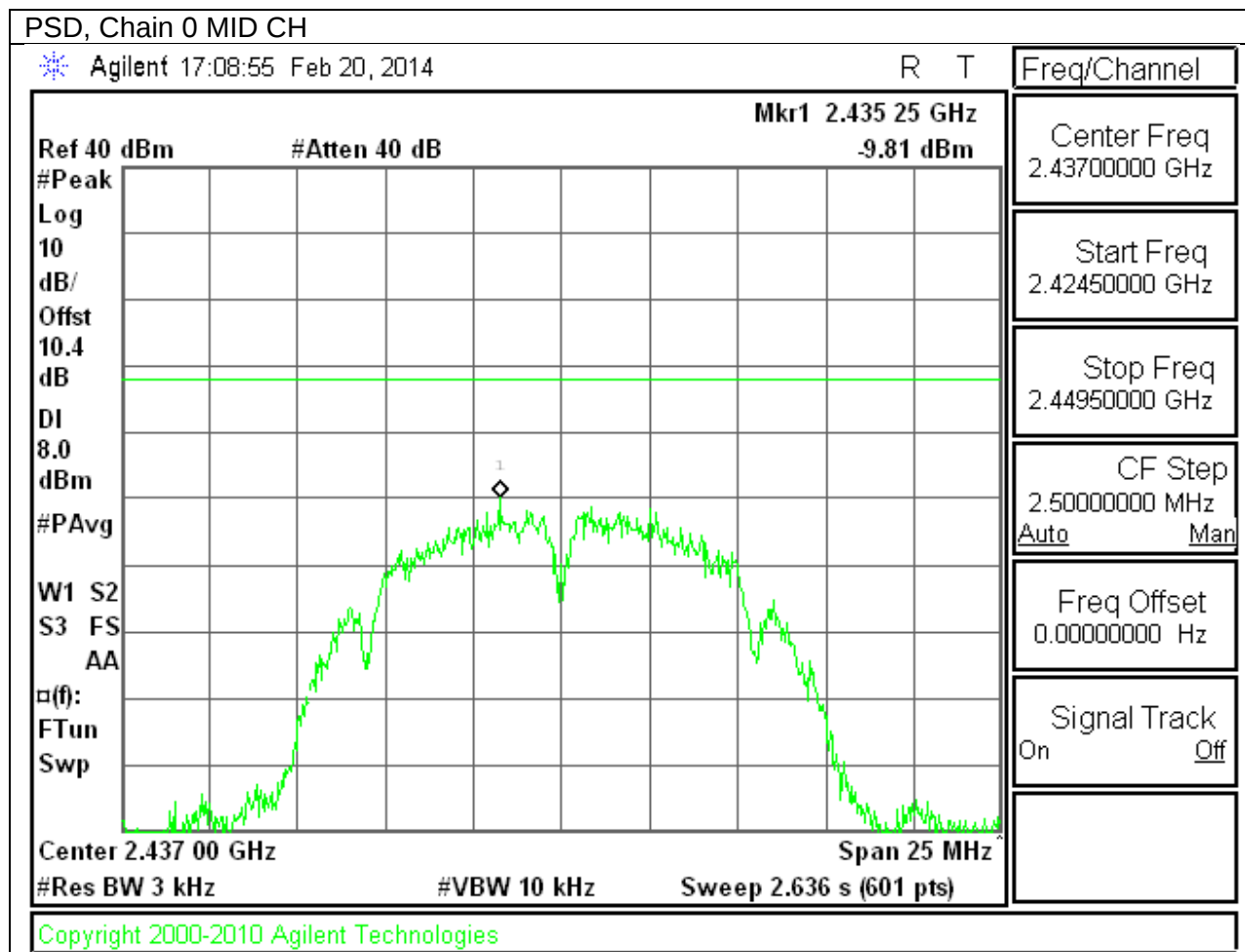
10.4.7. 802.11AC HT80 MODE IN THE 5.8 GHz BAND

PSD Results

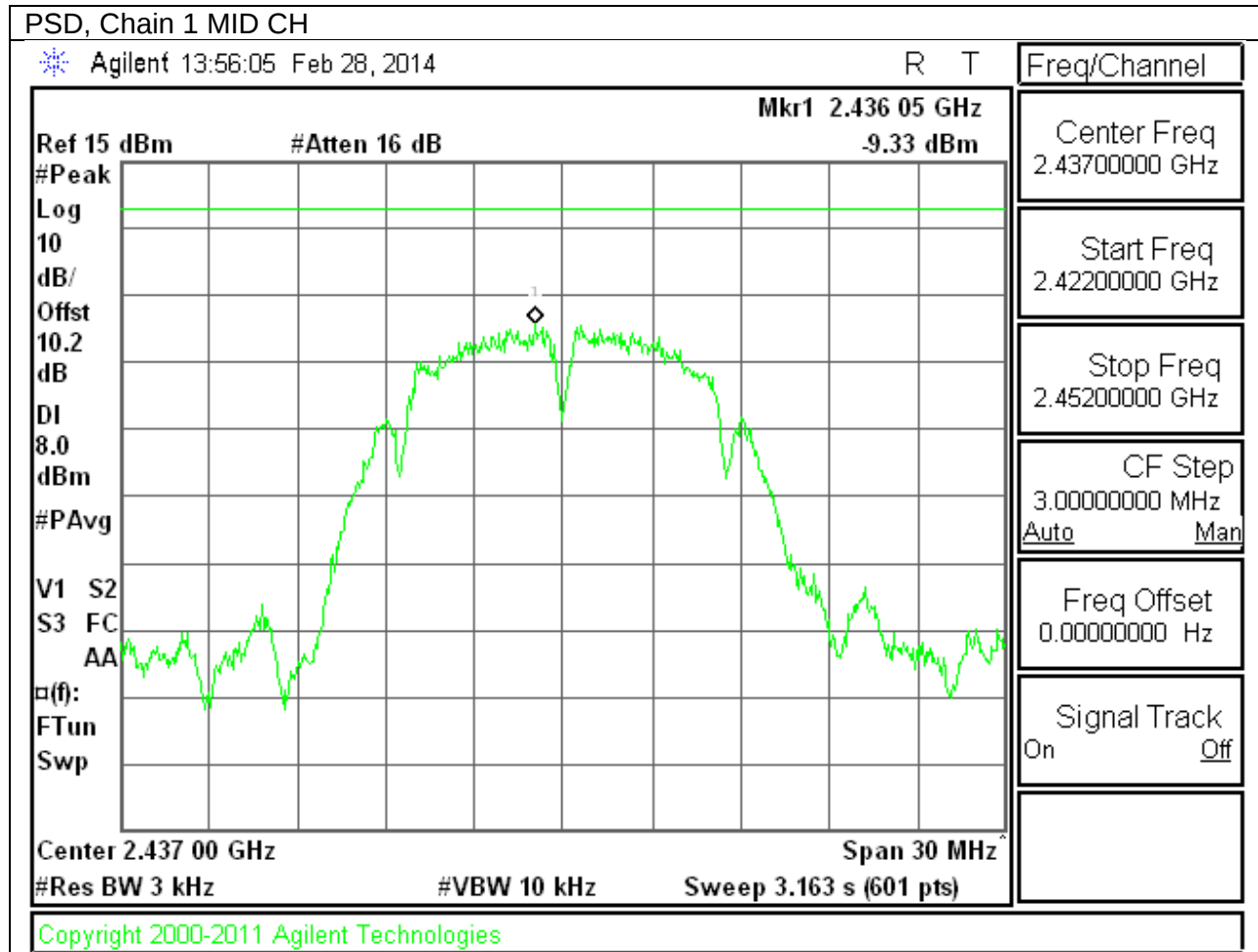
Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Chain 1 Meas (dBm)	Total PSD (dBm)	Limit (dBm)	Margin (dB)
Low	5775	-21.78	-21.85	-18.80	8.0	-26.8

10.4.8. 2.4 GHz Plots

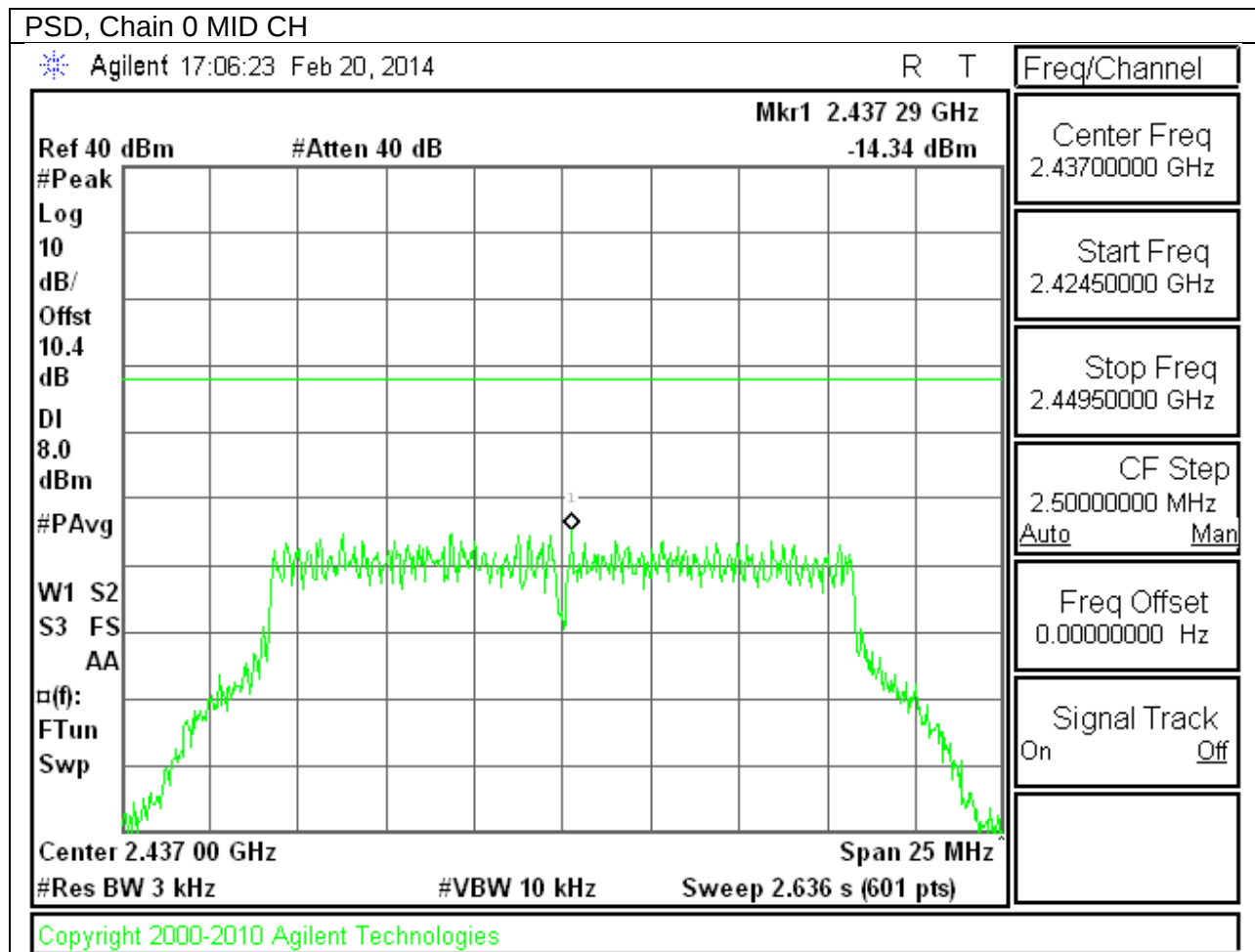
802.11b PSD, Chain 0



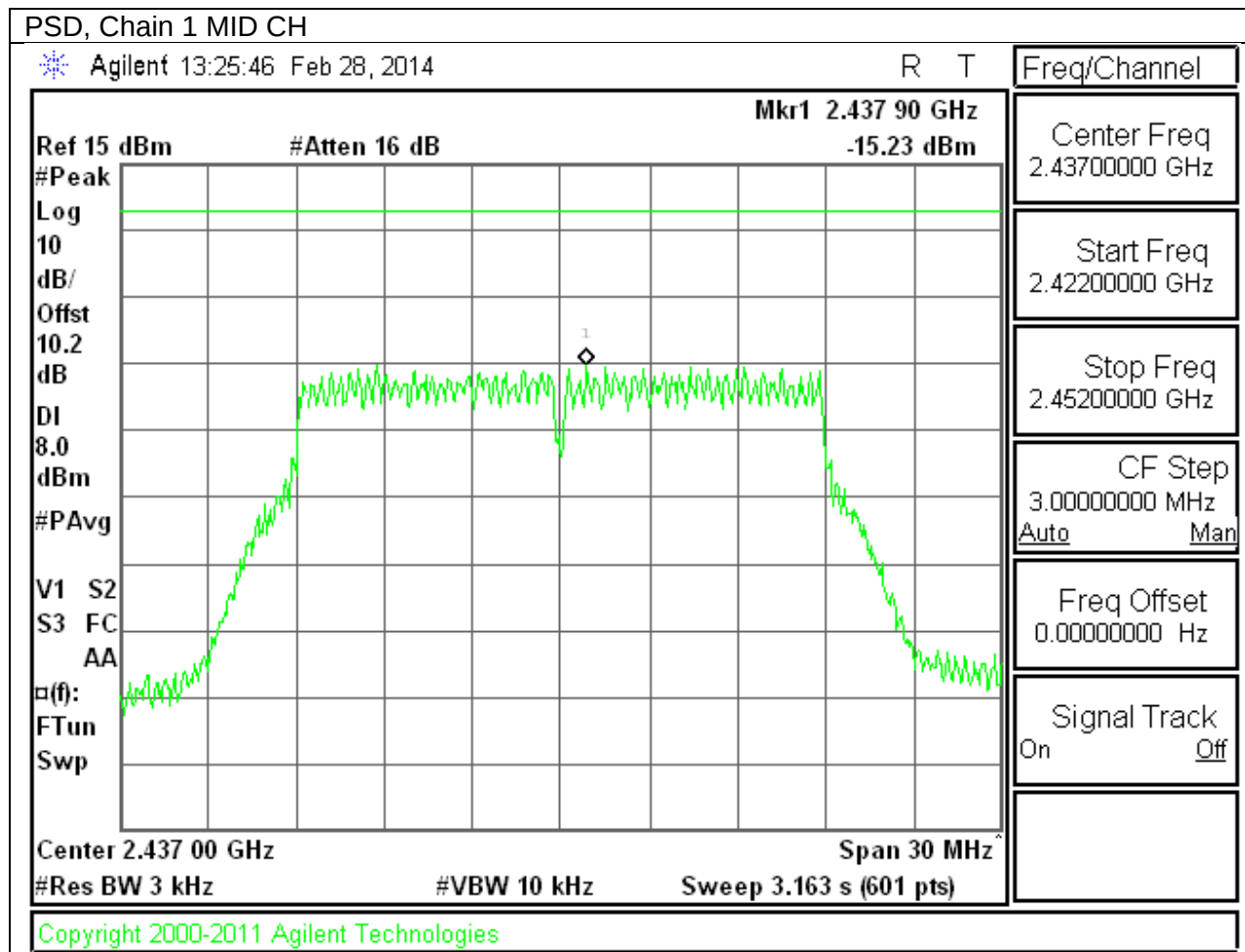
802.11b PSD, Chain 1



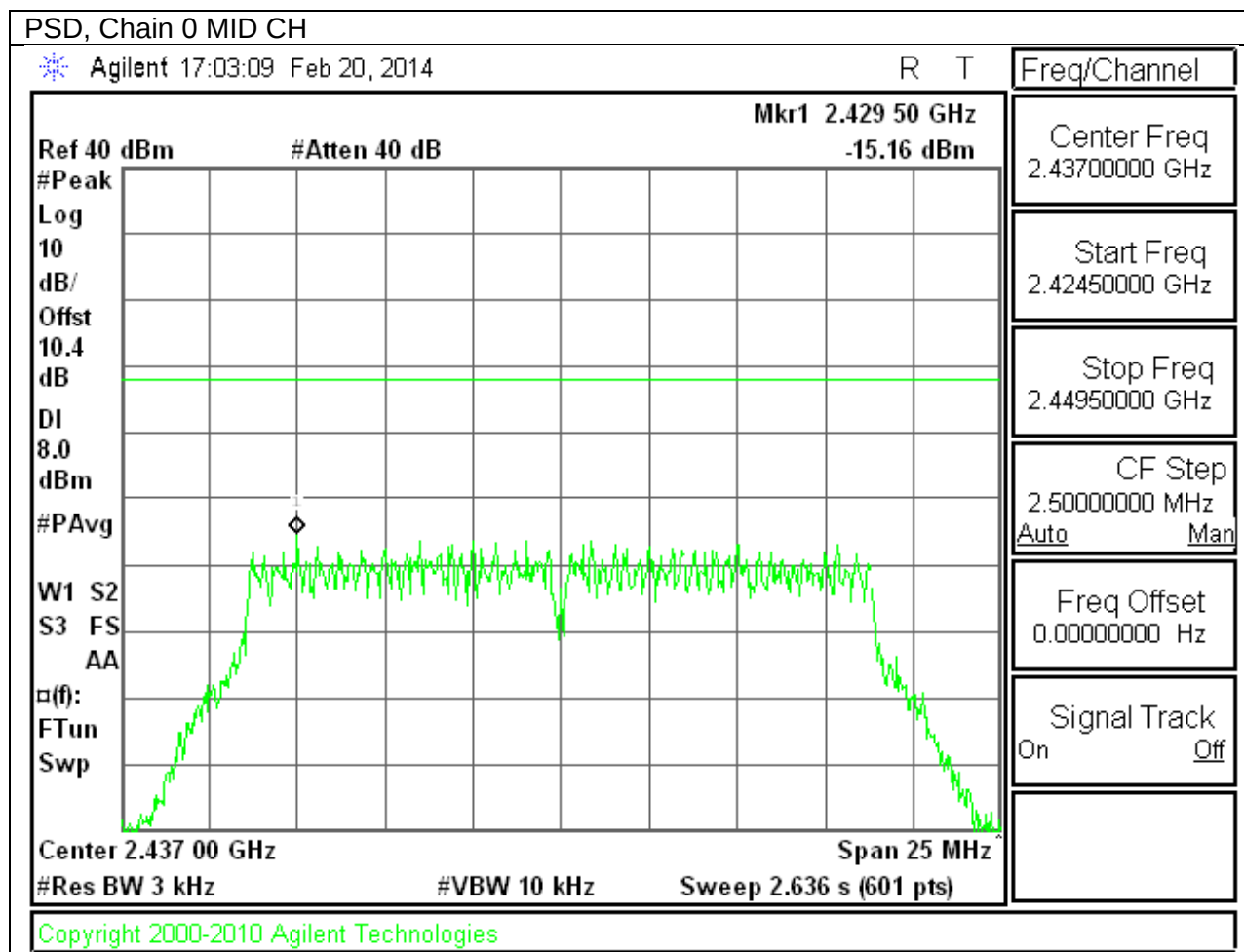
802.11g PSD, Chain 0



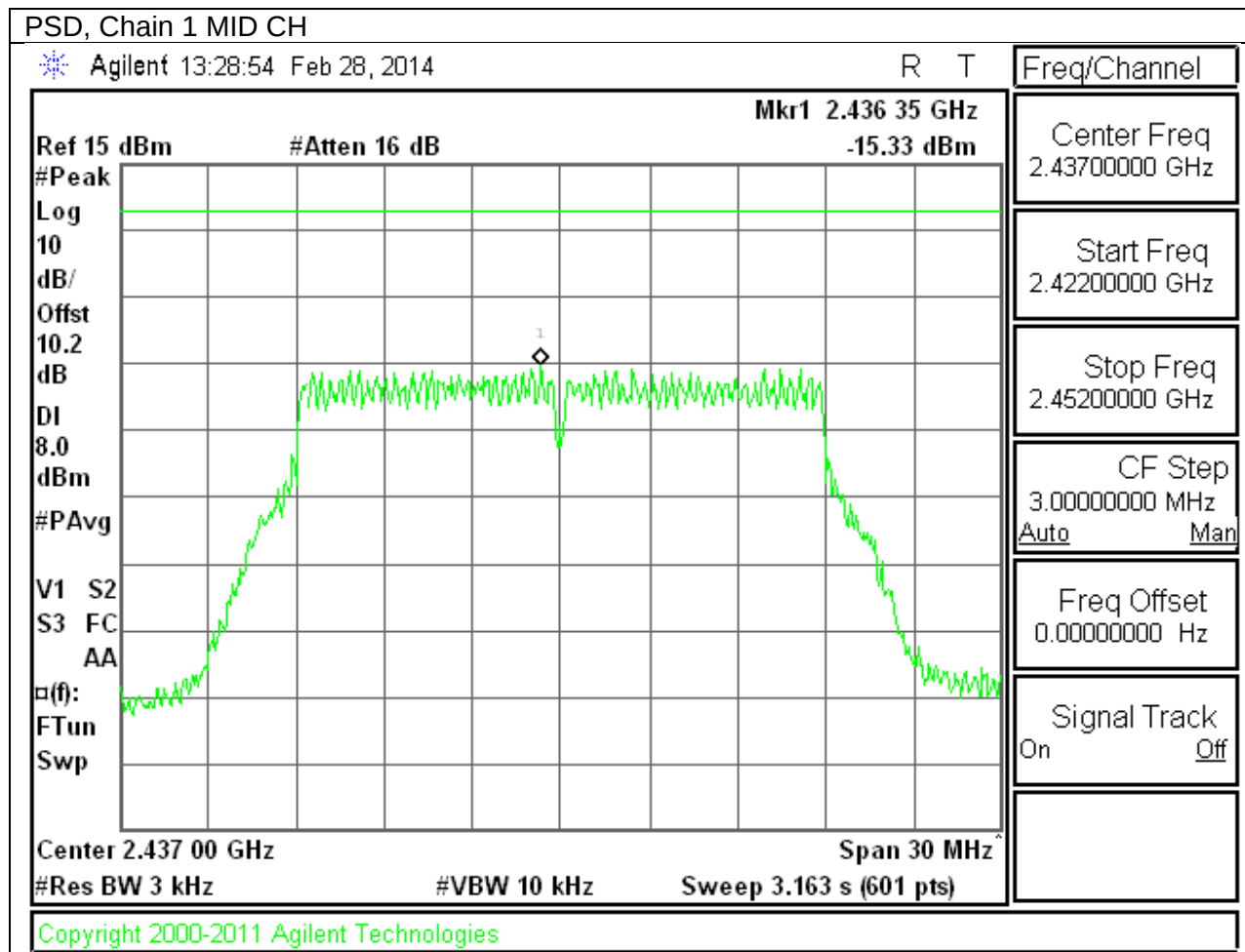
802.11g PSD, Chain 1



802.11n PSD, Chain 0

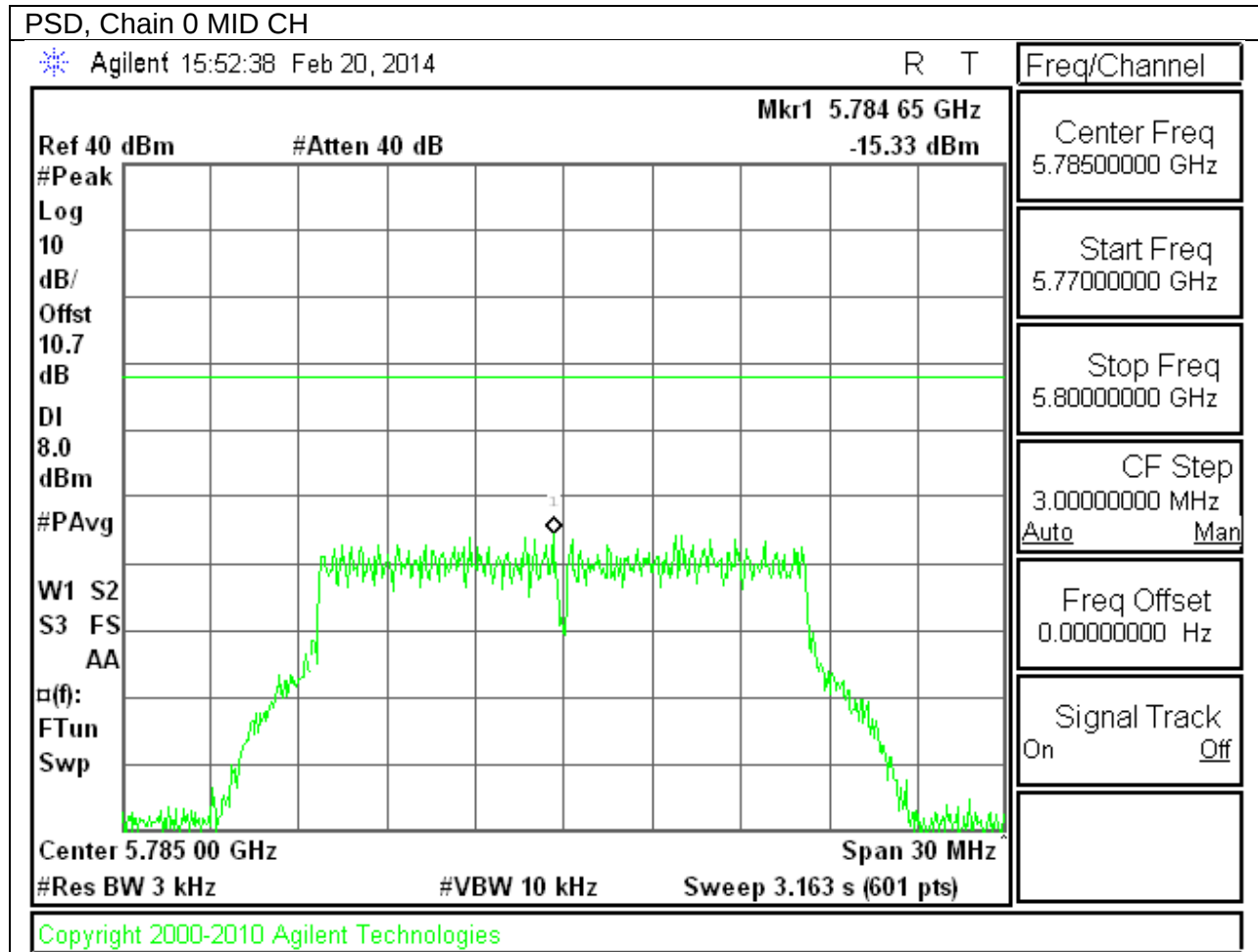


802.11n PSD, Chain 1

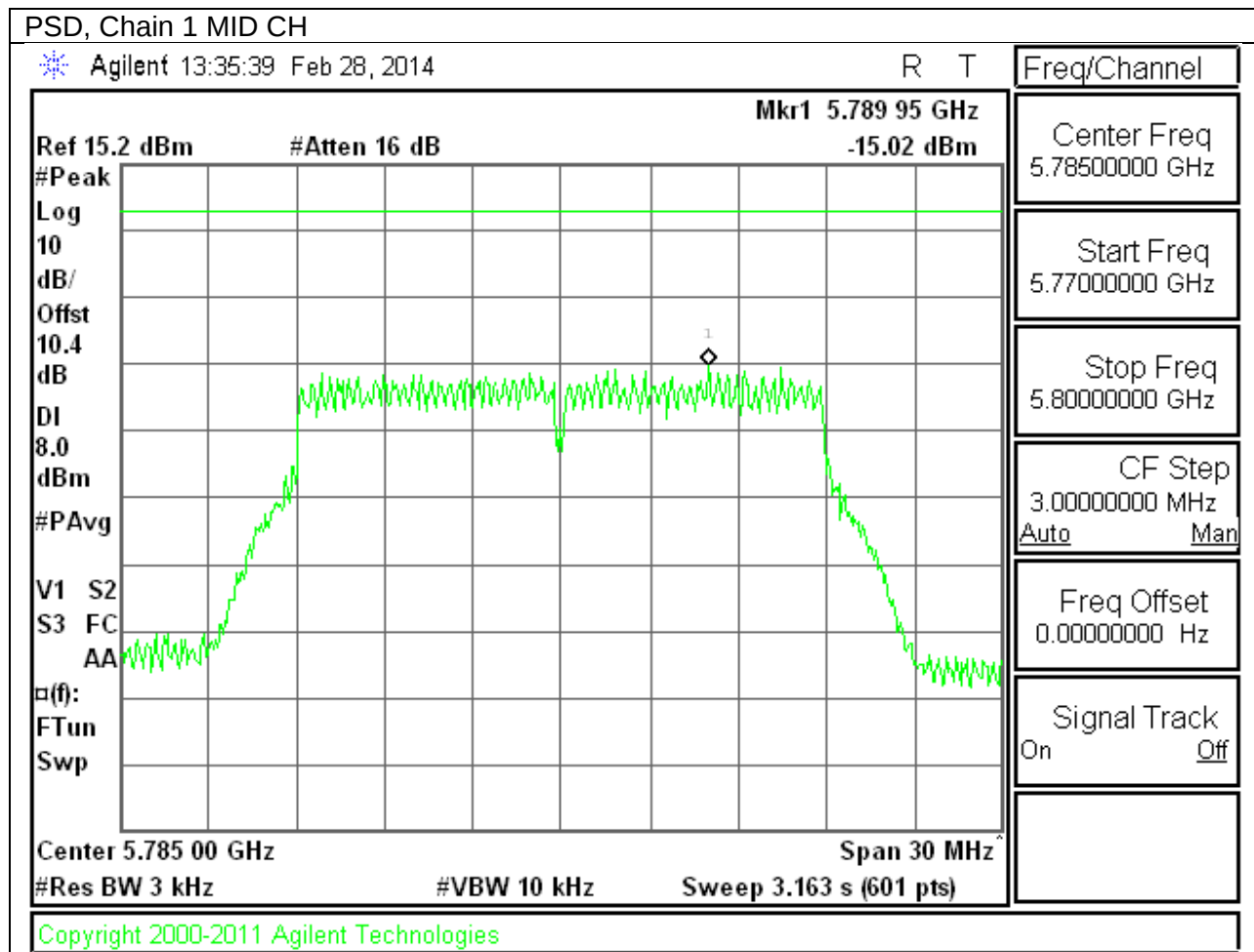


10.4.9. 5.8 GHz Plots

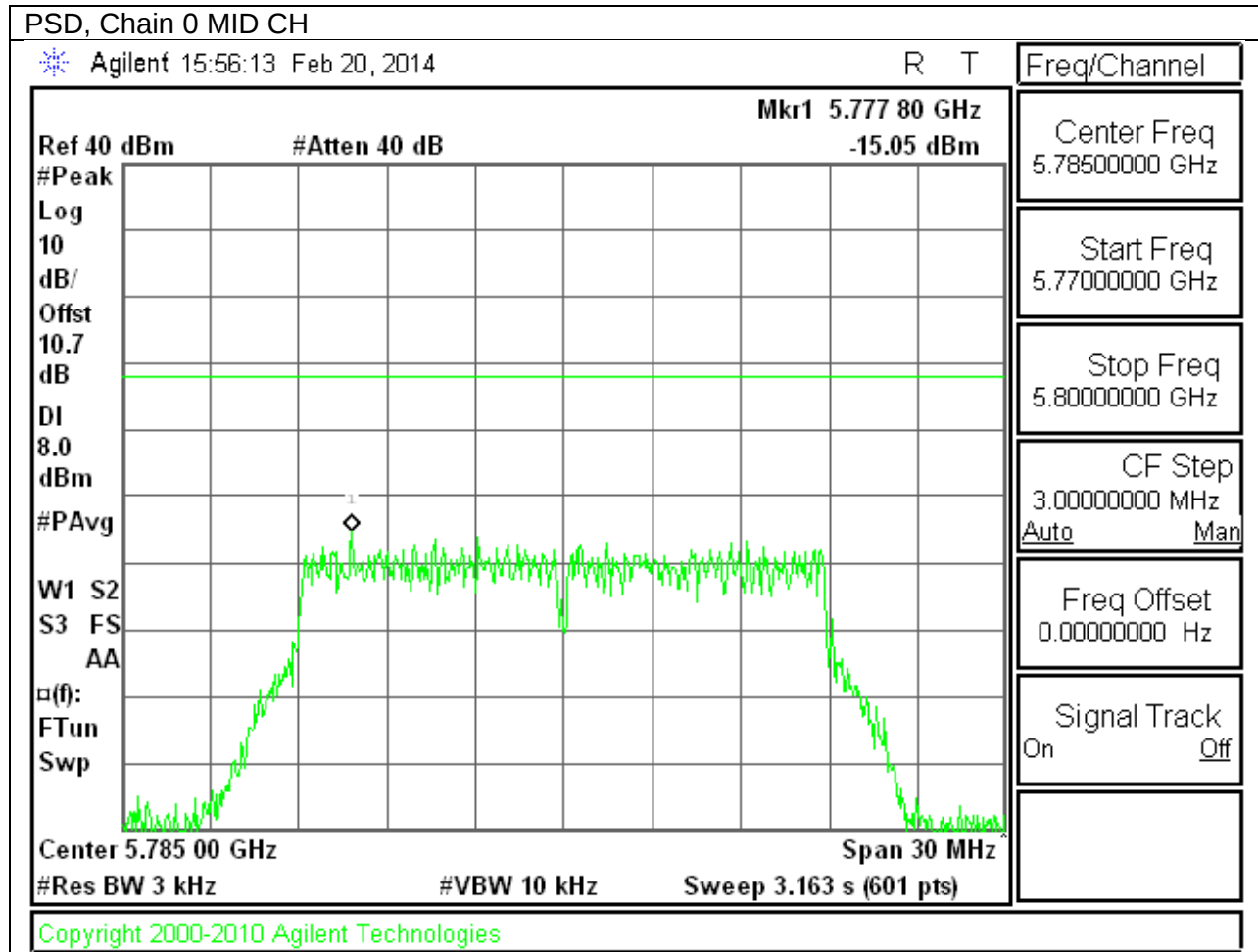
802.11a PSD, Chain 0



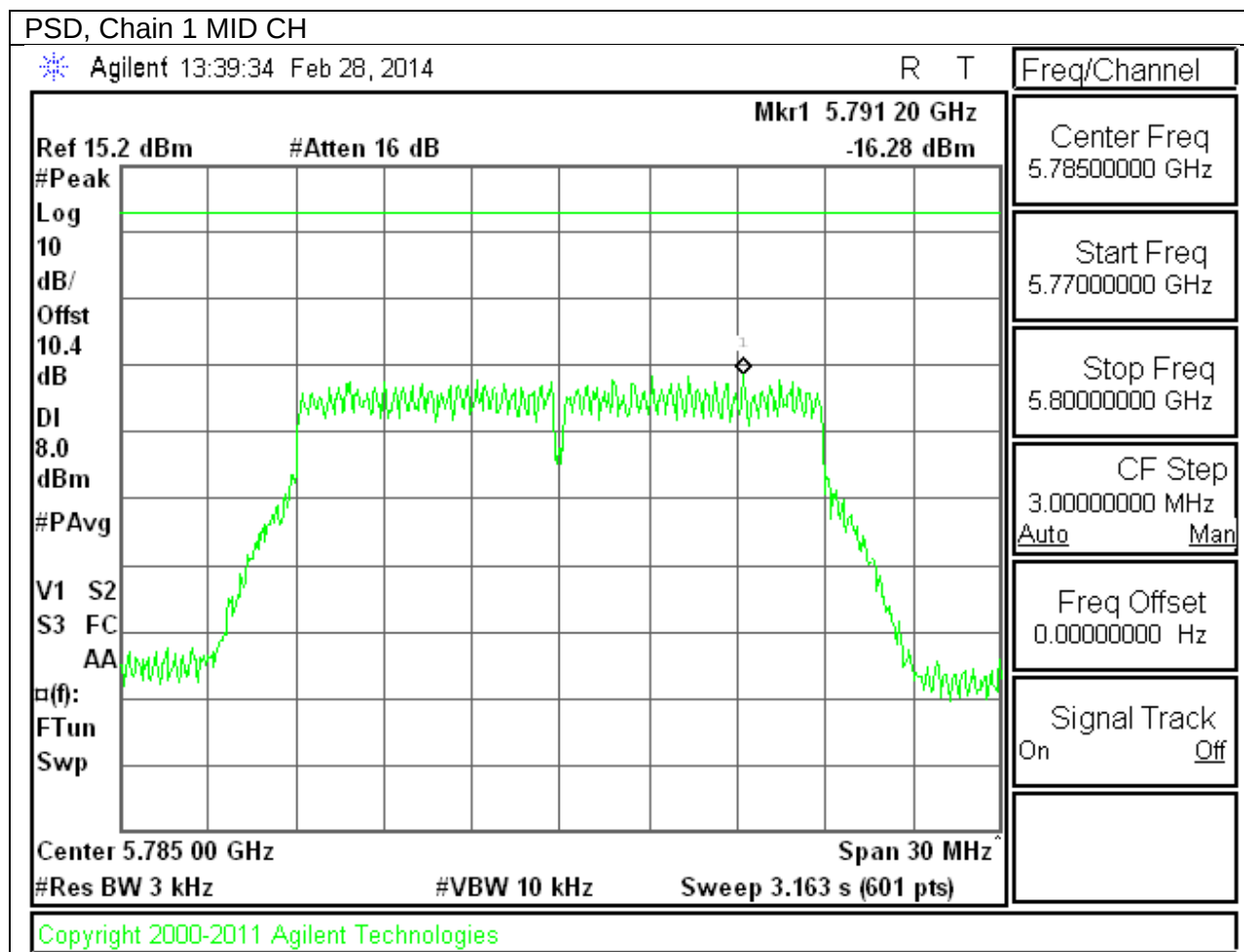
802.11a PSD, Chain 1



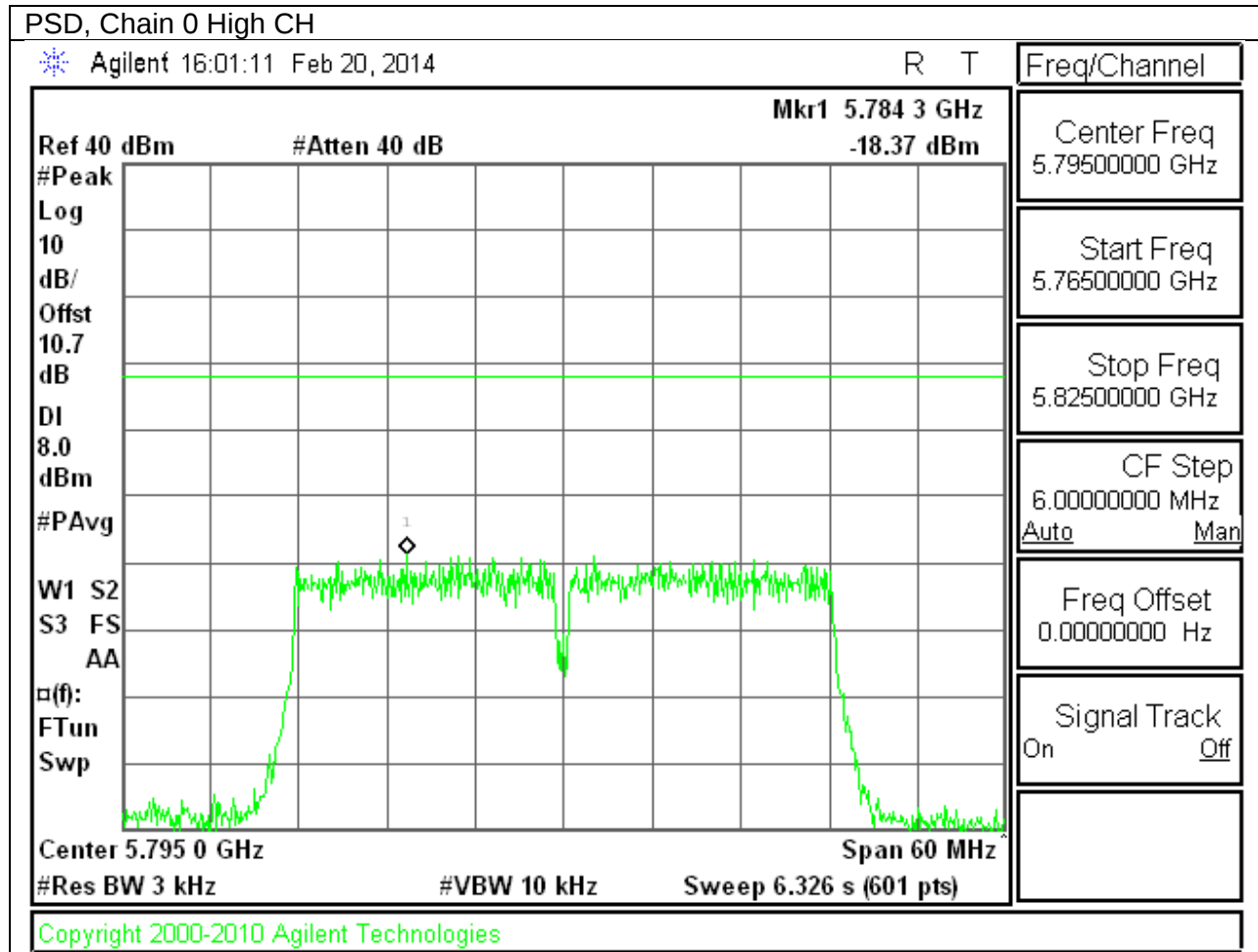
802.11n HT20 PSD, Chain 0



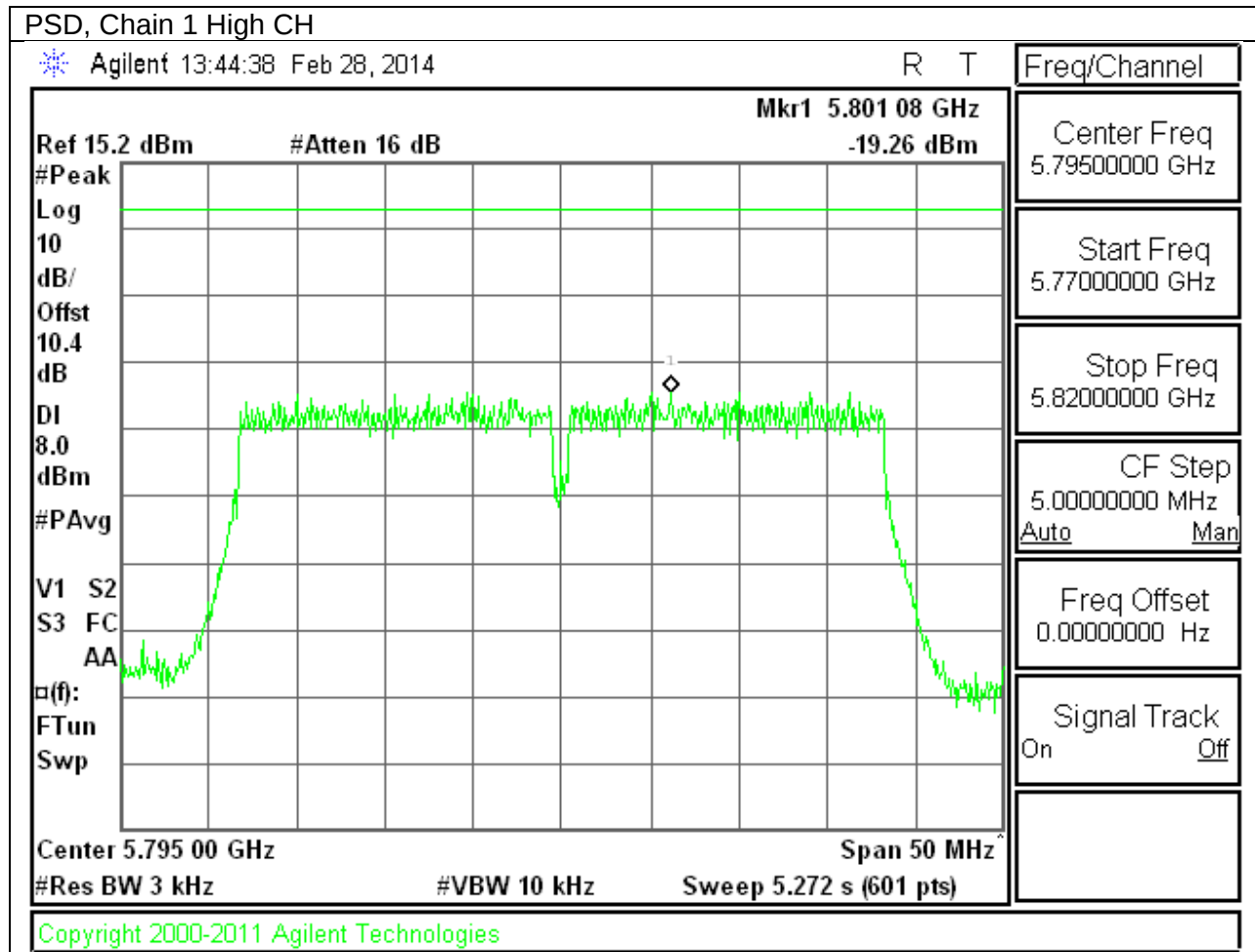
802.11n HT20 PSD, Chain 1



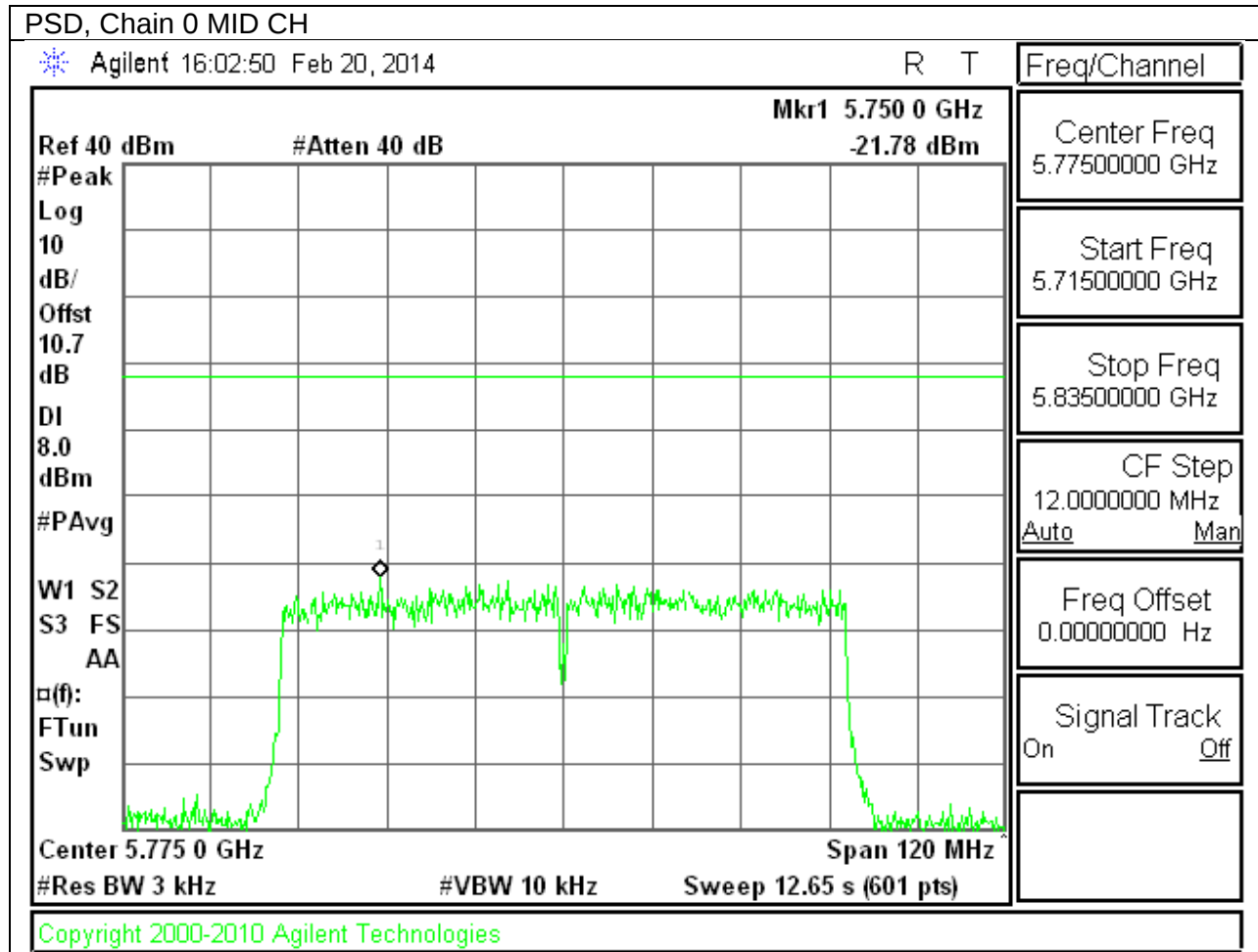
802.11n HT40 PSD, Chain 0



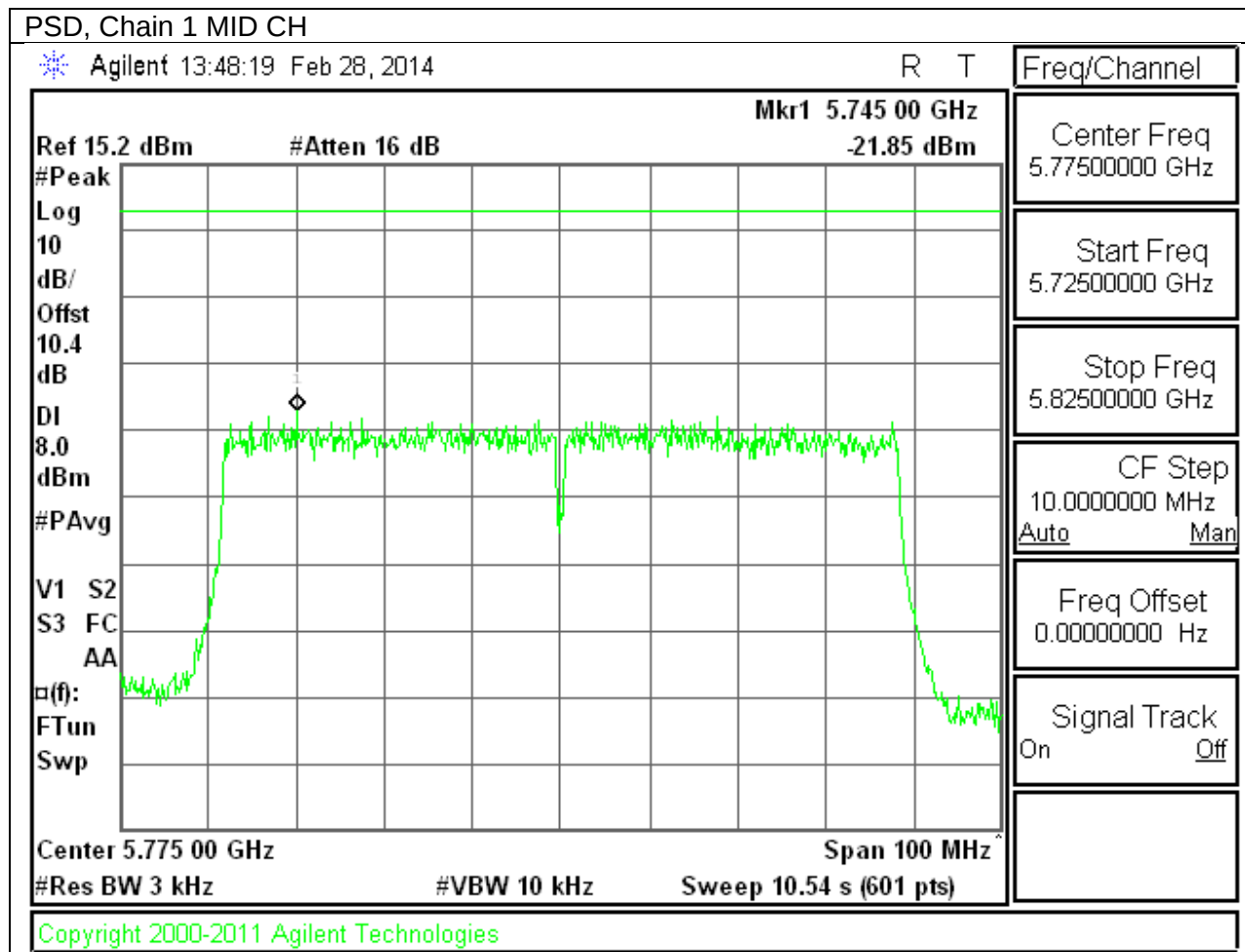
802.11n HT40 PSD, Chain 1



802.11ac HT80 PSD, Chain 0



802.11ac HT80 PSD, Chain 1



10.5. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

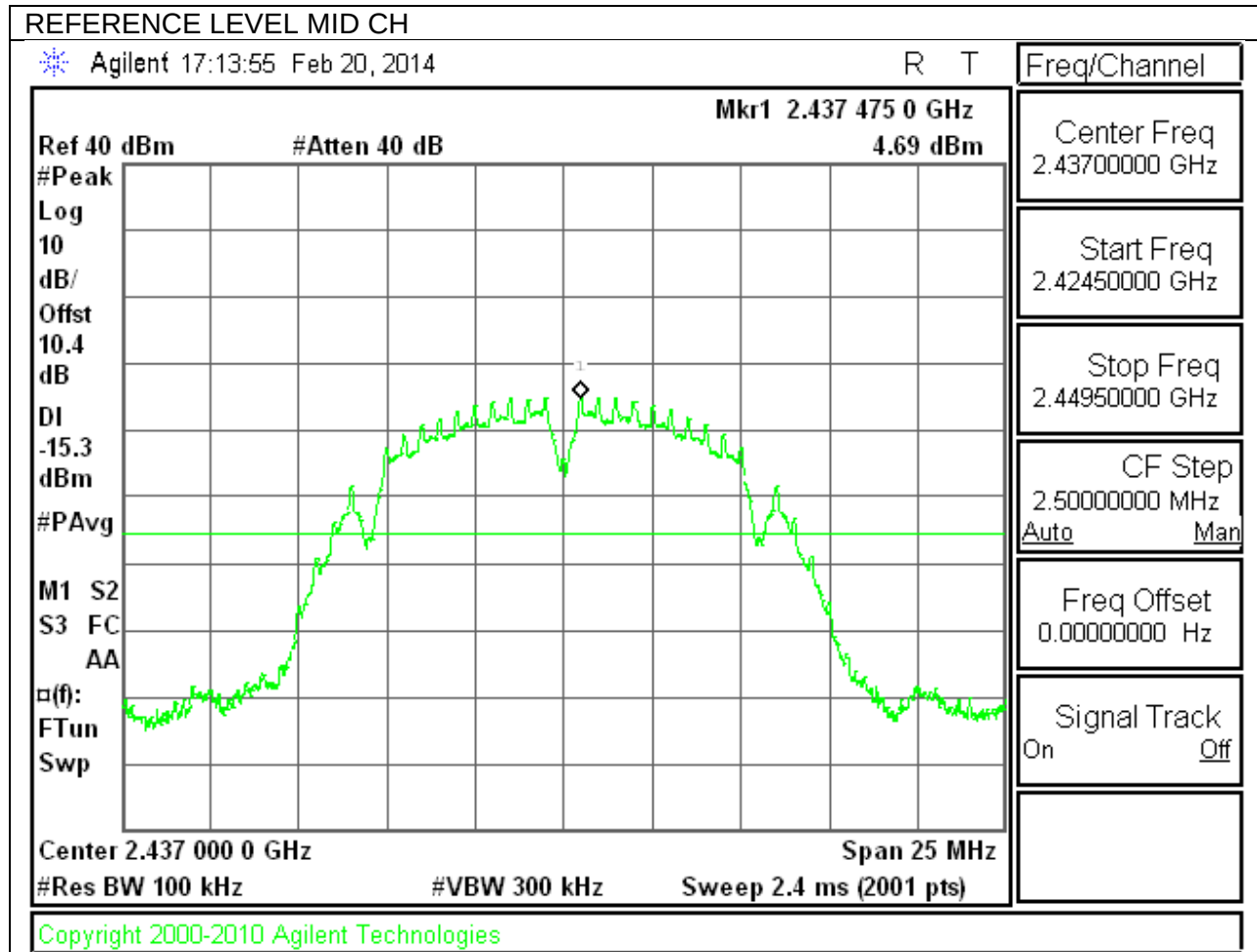
TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

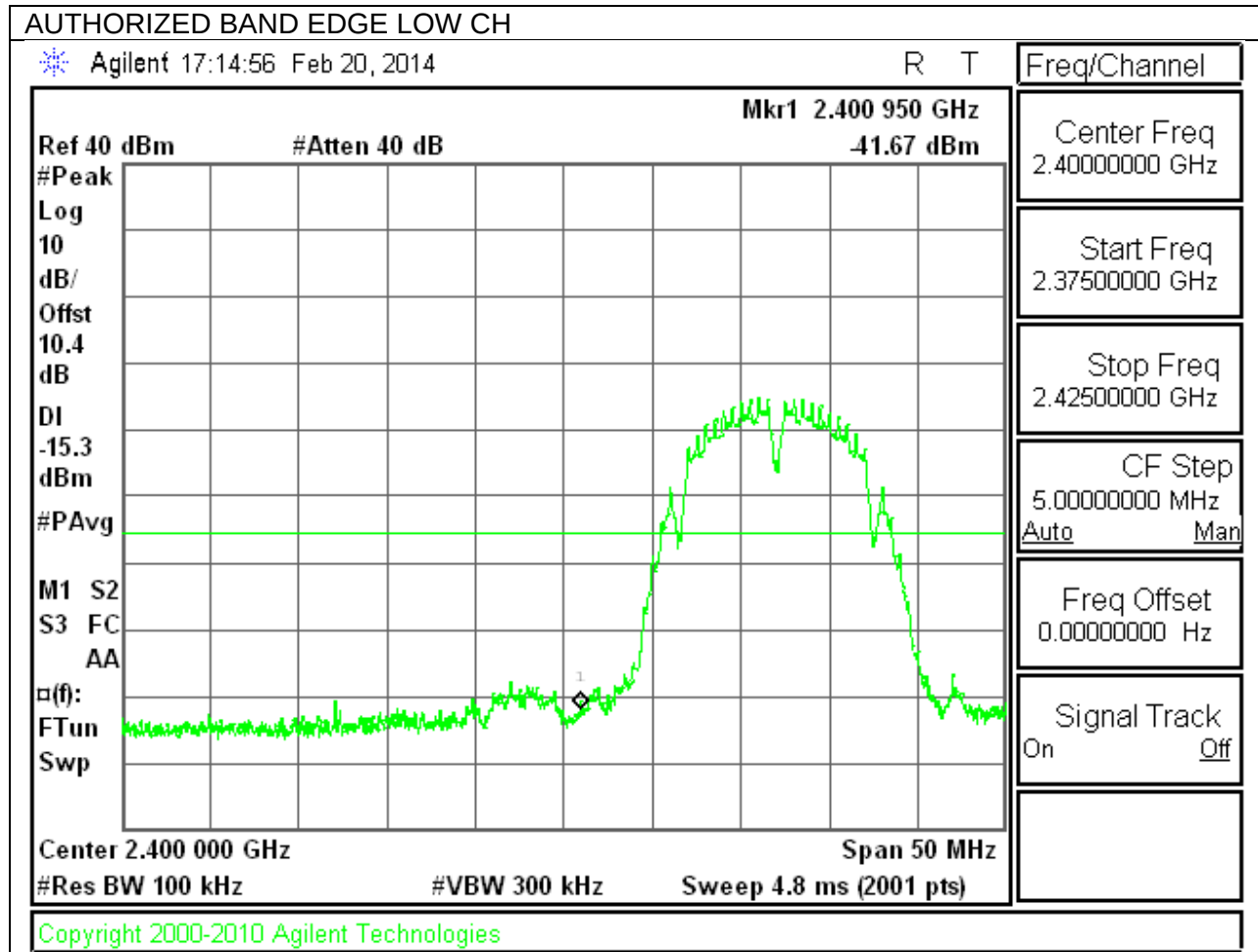
RESULTS

10.5.1. 802.11b MODE IN THE 2.4 GHZ BAND CHAIN 0

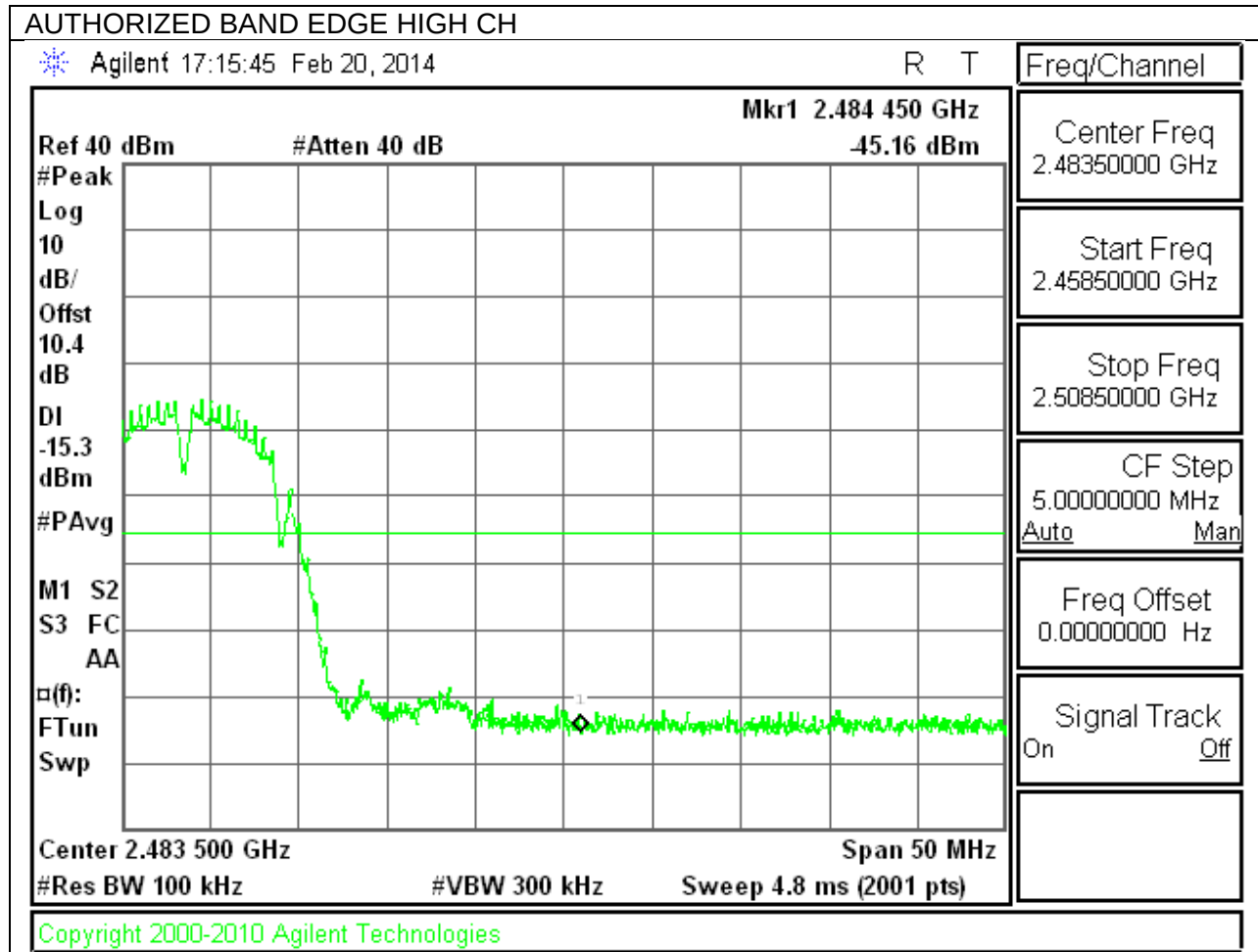
IN-BAND REFERENCE LEVEL



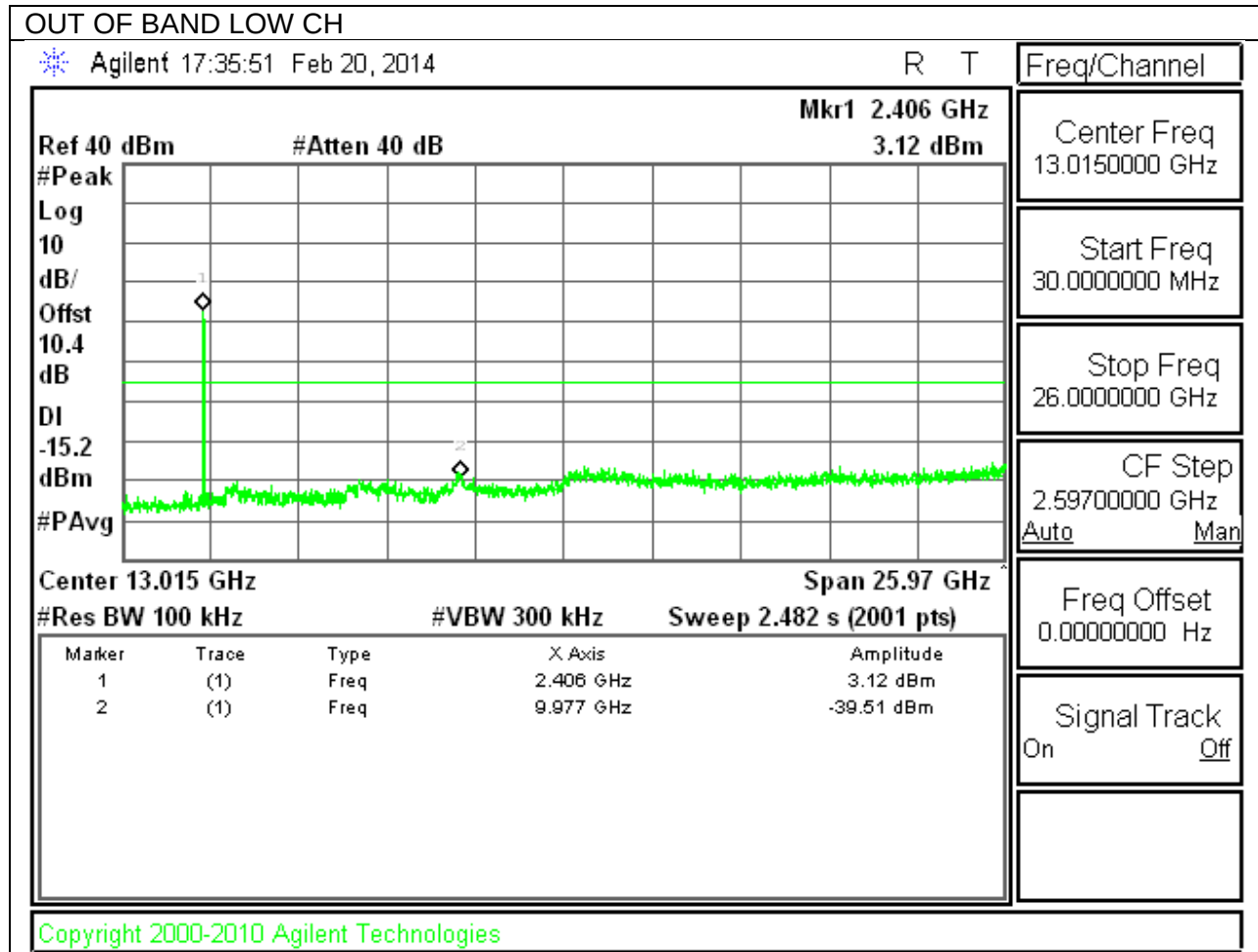
LOW CHANNEL BANDEDGE

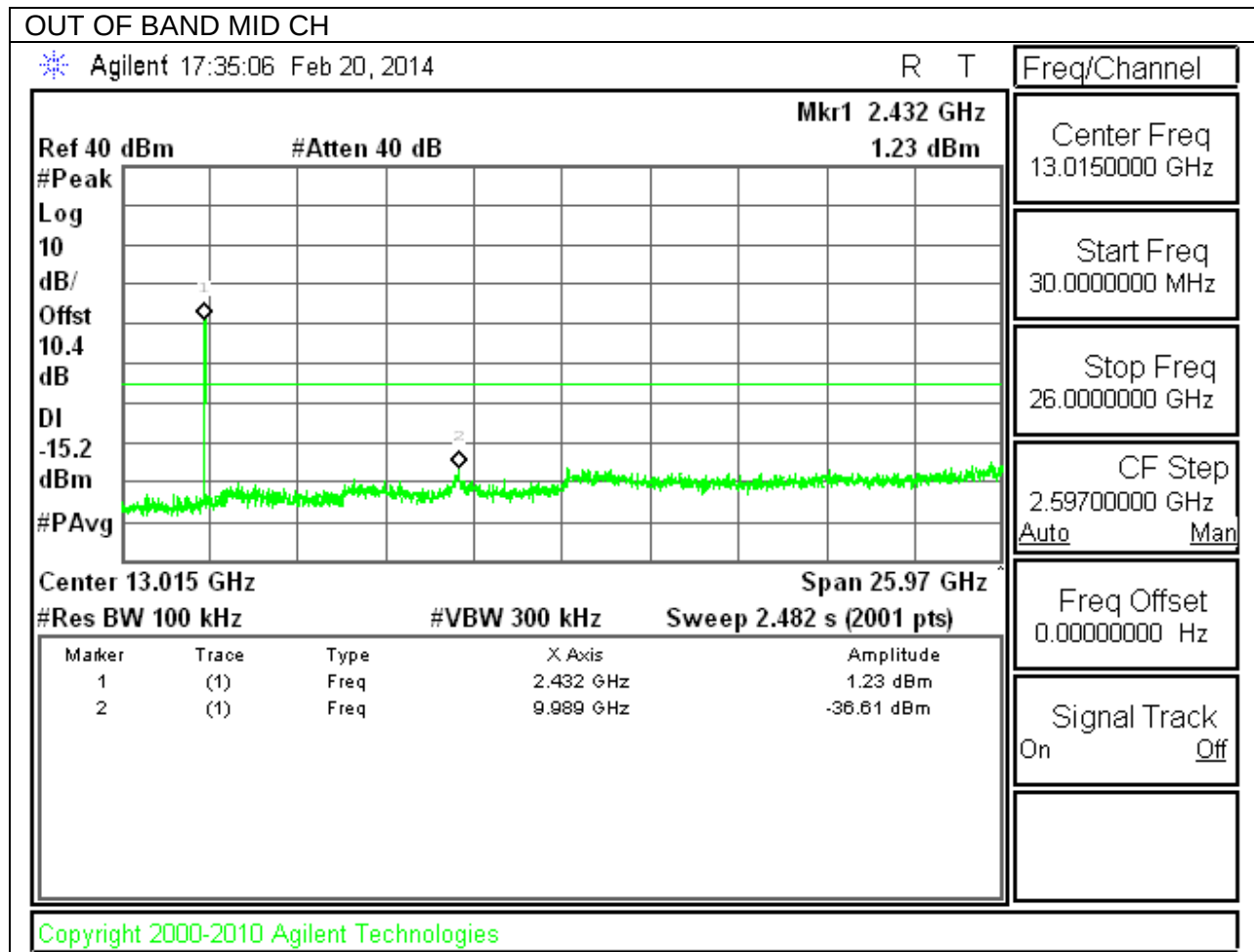


HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS





OUT OF BAND HIGH CH

Agilent 17:34:18 Feb 20, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Mkr1 2.458 GHz
2.59 dBm

#Peak

Log

10

dB/

Offst

10.4

dB

DI

-15.2

dBm

#PAvg

Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.458 GHz	2.59 dBm
2	(1)	Freq	9.989 GHz	-38.47 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

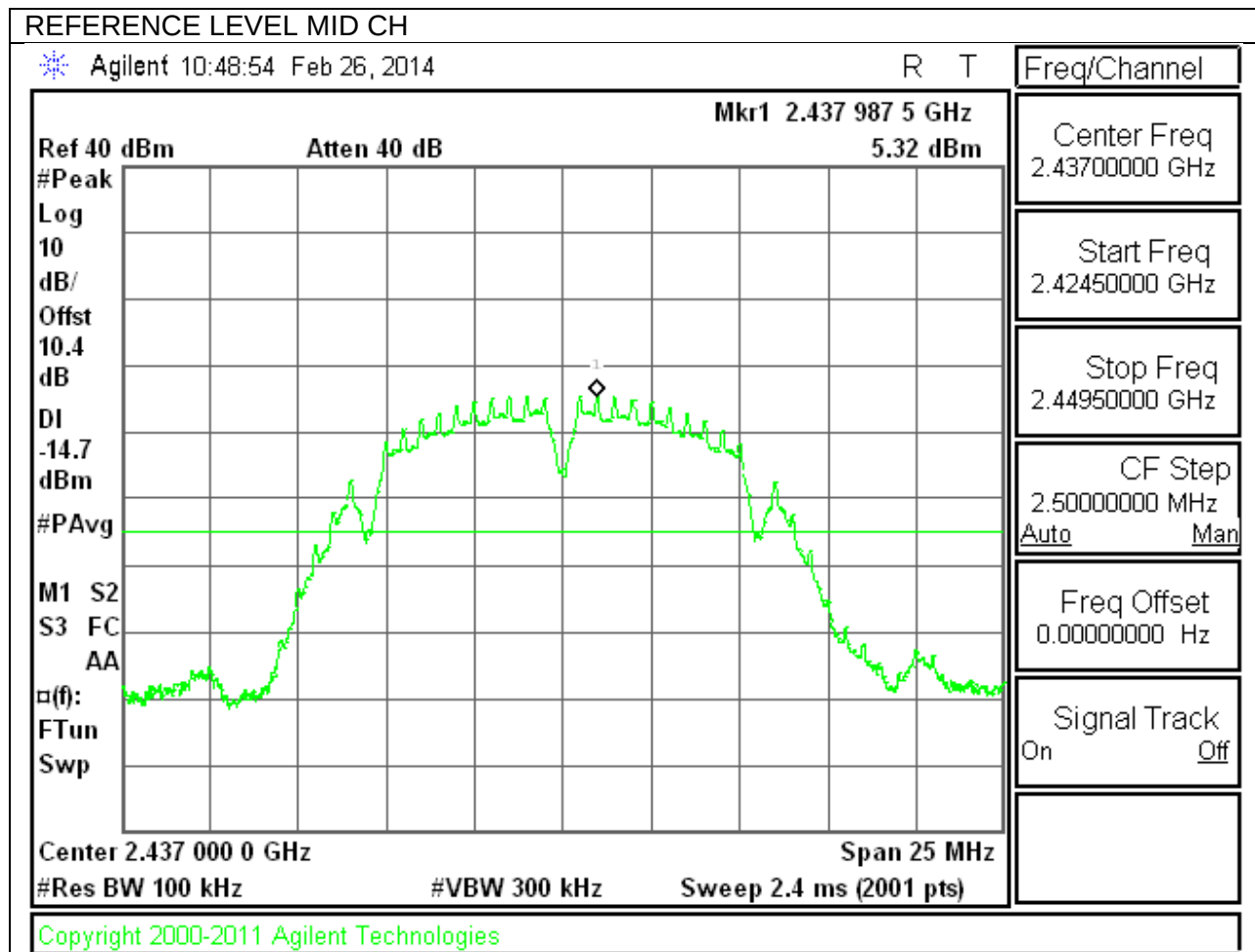
Freq Offset
0.00000000 Hz

Signal Track
On Off

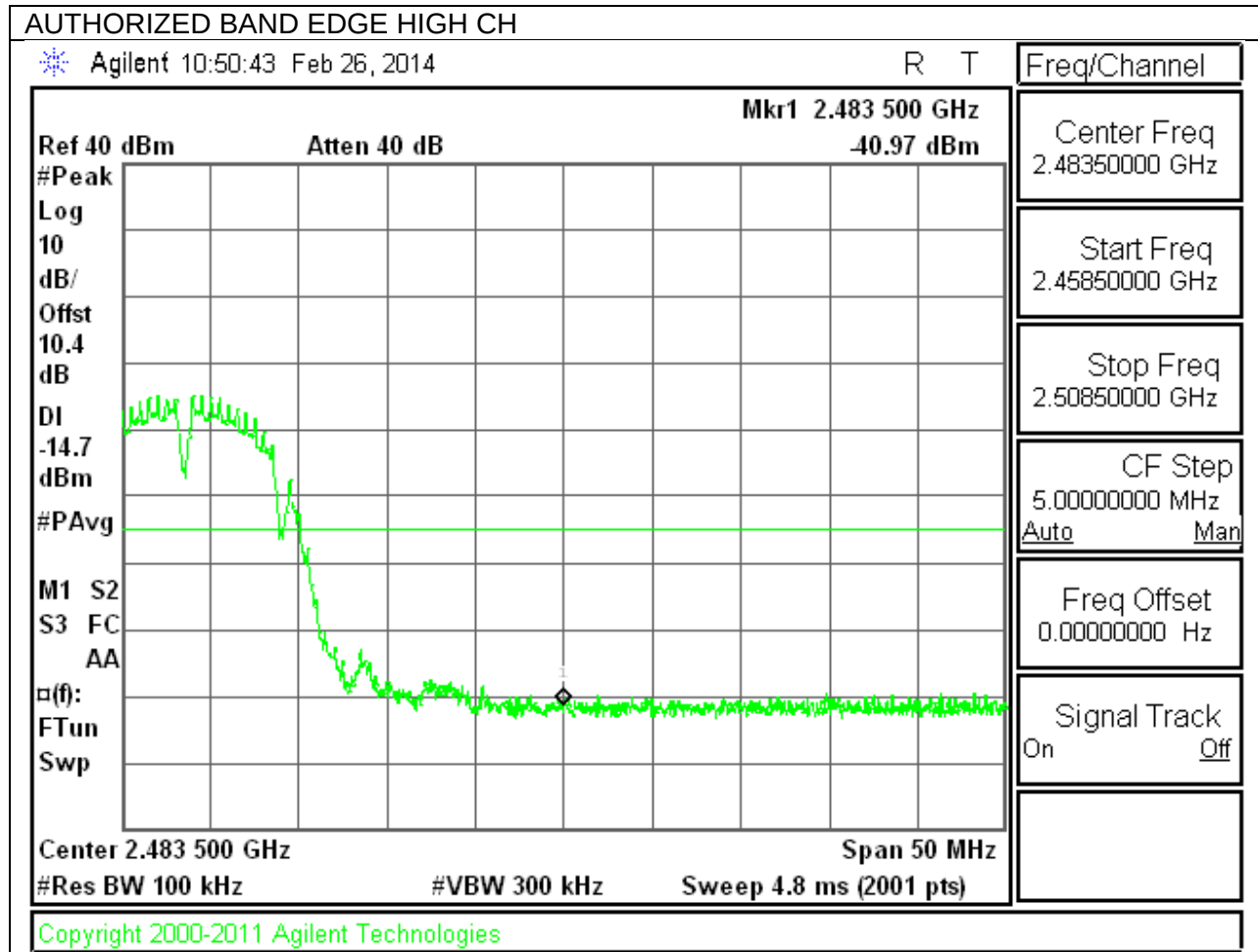
Copyright 2000-2010 Agilent Technologies

10.5.2. 802.11b MODE IN THE 2.4 GHZ BAND CHAIN 1

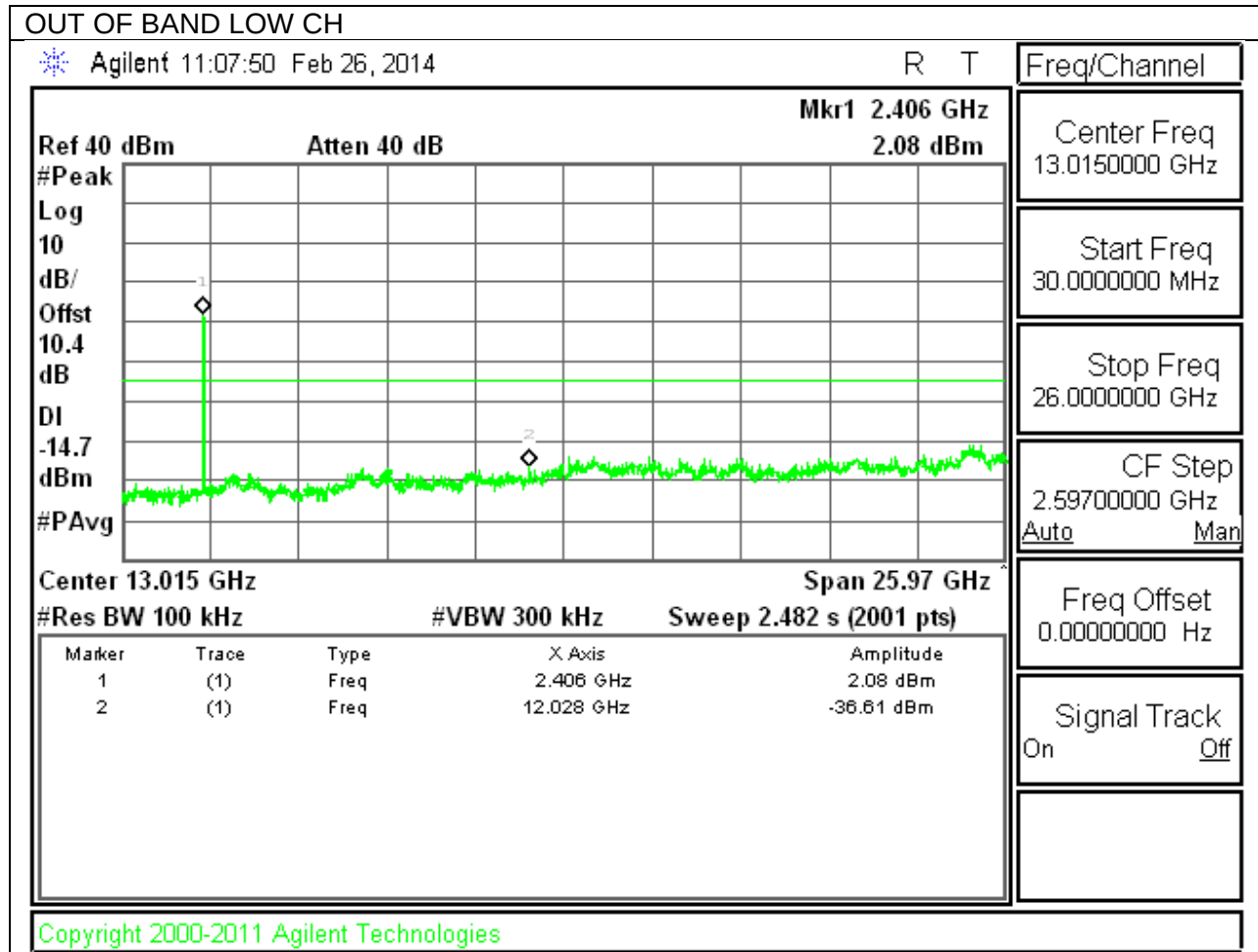
IN-BAND REFERENCE LEVEL

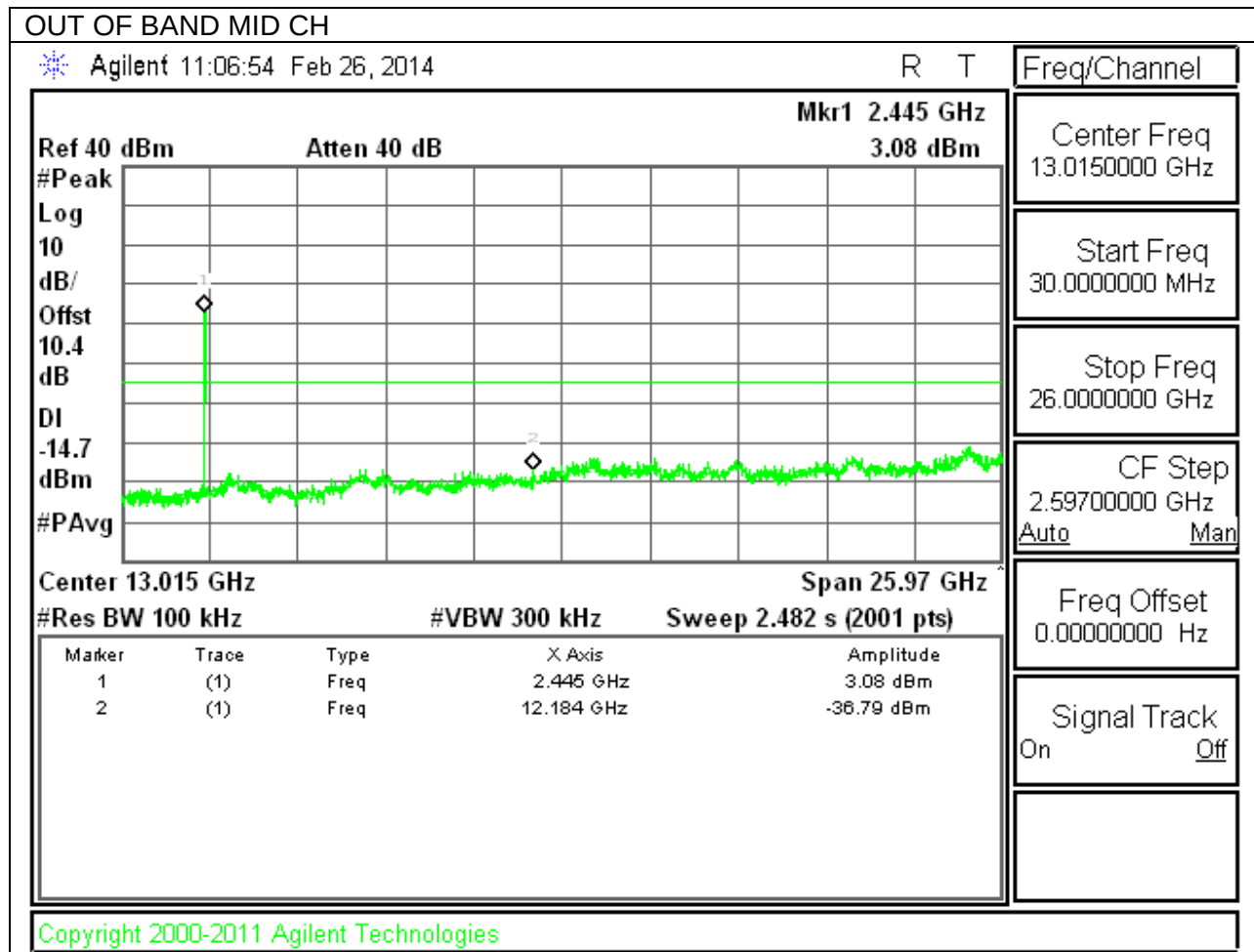


HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS





OUT OF BAND HIGH CH

Agilent 11:06:09 Feb 26, 2014

R T

Freq/Channel

Ref 40 dBm

Atten 40 dB

Mkr1 2.471 GHz
3.61 dBm

#Peak

Log

10

dB/

Offst

10.4

dB

DI

-14.7

dBm

#PAvg

Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.471 GHz	3.61 dBm
2	(1)	Freq	13.236 GHz	-33.77 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

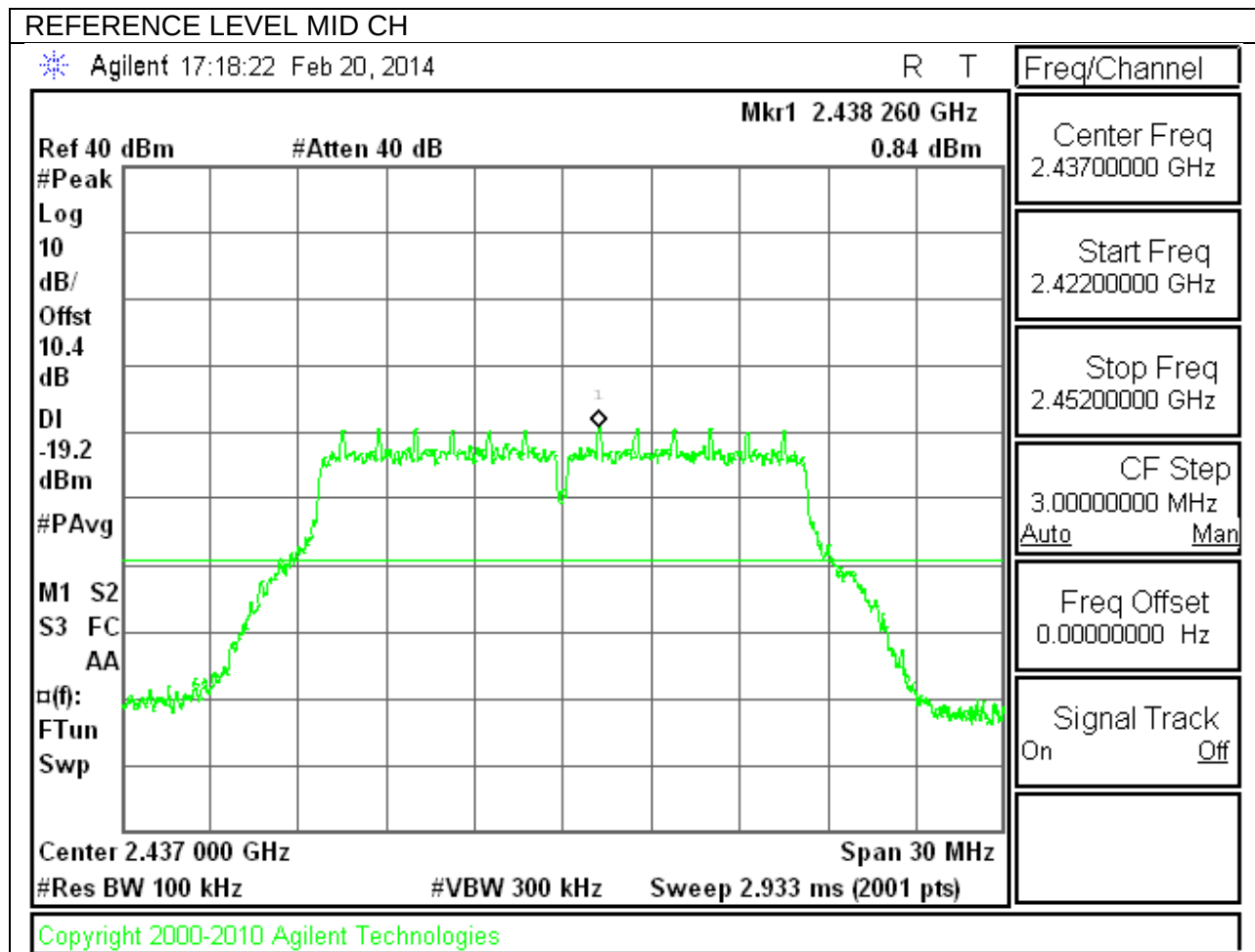
Freq Offset
0.00000000 Hz

Signal Track
On Off

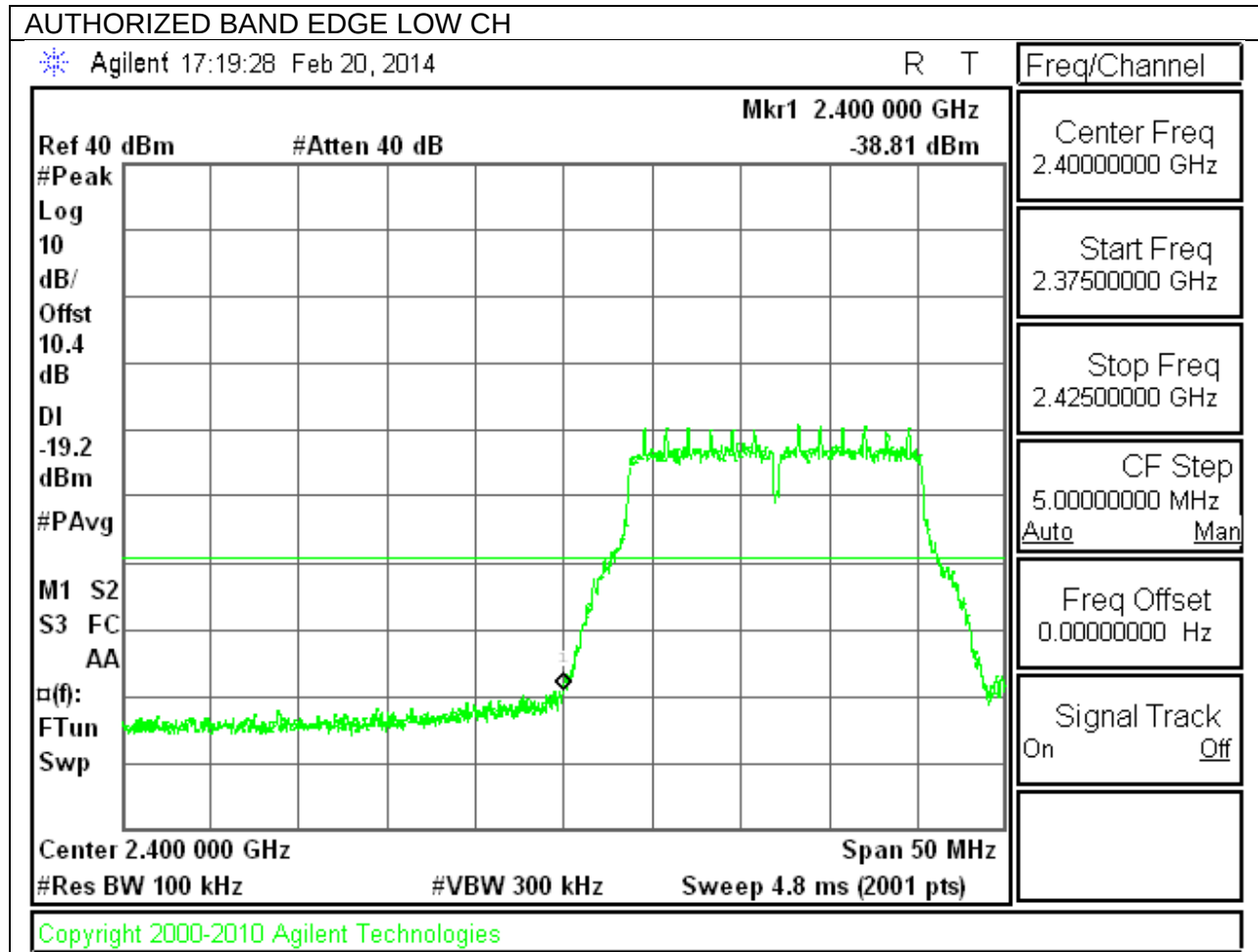
Copyright 2000-2011 Agilent Technologies

10.5.3. 802.11g MODE IN THE 2.4 GHZ BAND CHAIN 0

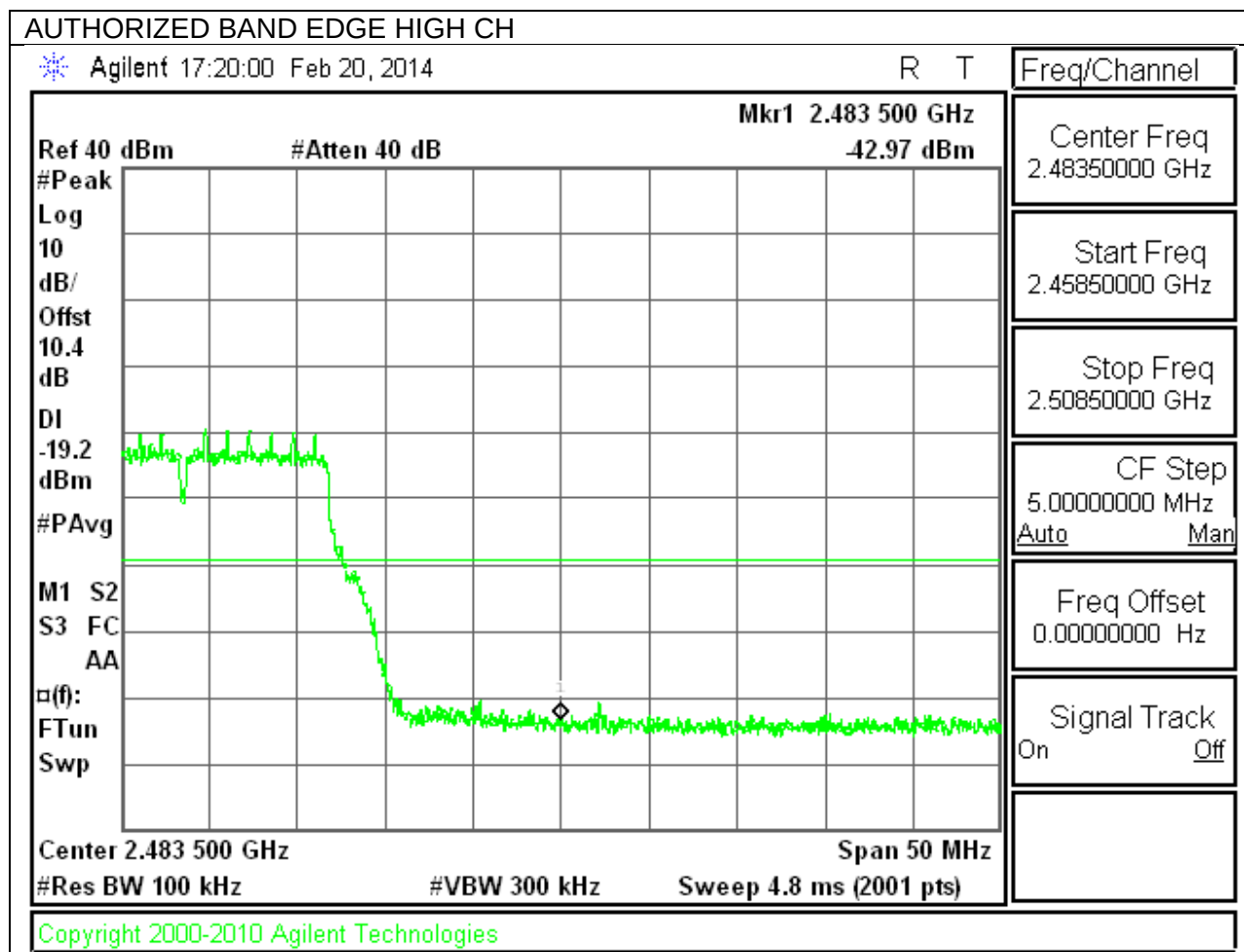
IN-BAND REFERENCE LEVEL



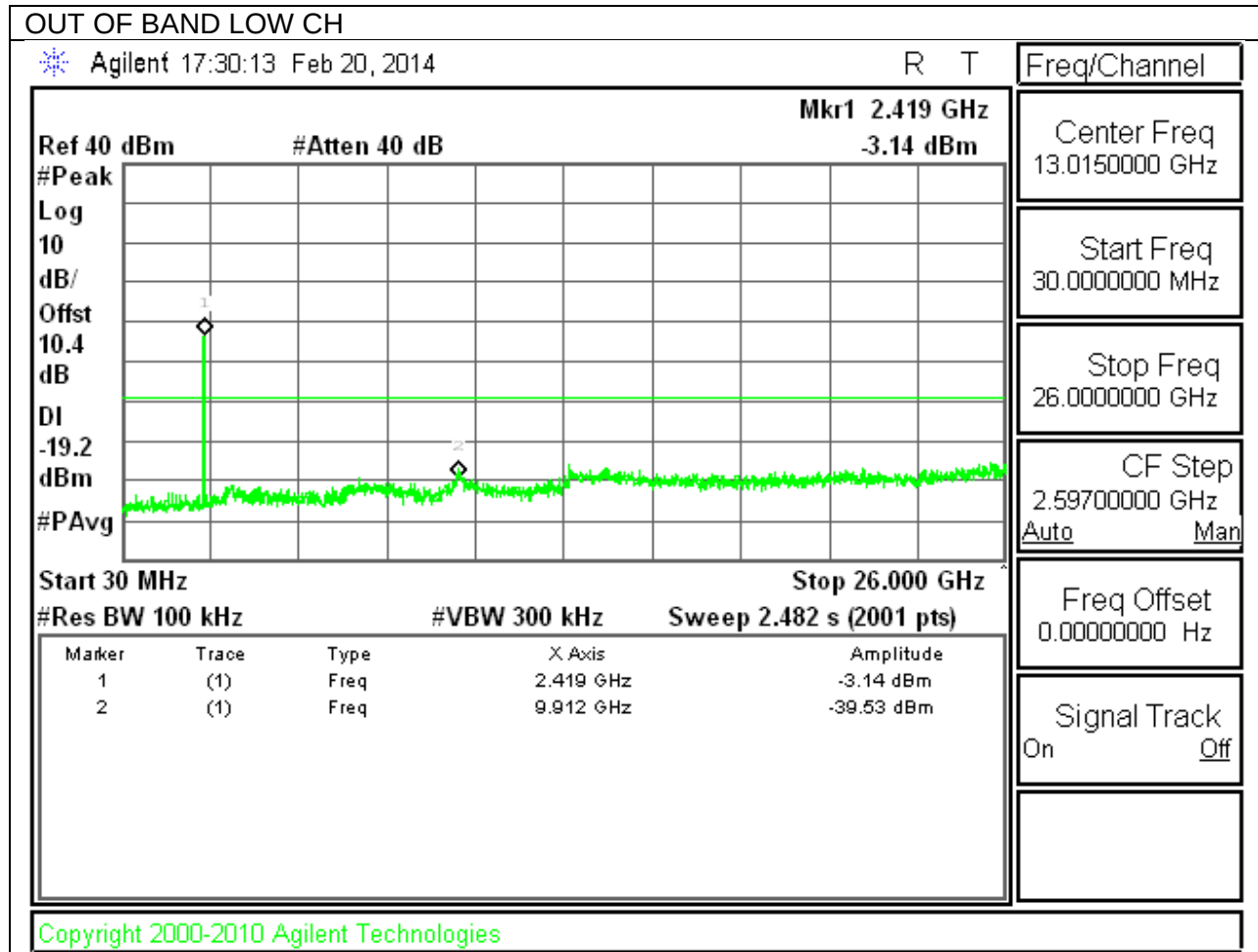
LOW CHANNEL BANDEDGE

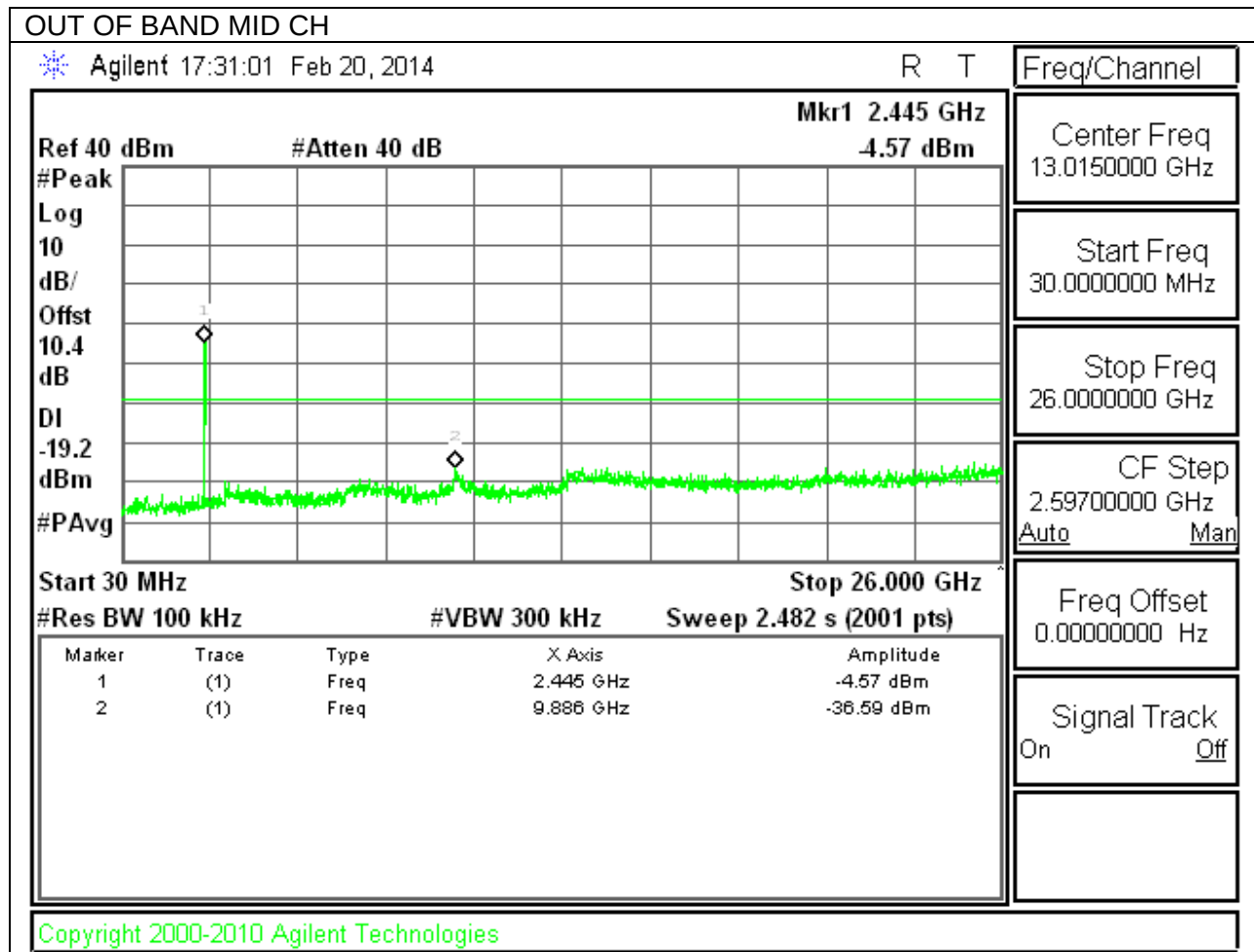


HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS





OUT OF BAND HIGH CH

Agilent 17:31:53 Feb 20, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Mkr1 2.458 GHz

-3.99 dBm

Center Freq
13.0150000 GHz

#Peak

Log

10

dB/

Offst

10.4

dB

DI

-19.2

dBm

#PAvg

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Start 30 MHz

Stop 26.000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (2001 pts)

Freq Offset
0.00000000 Hz

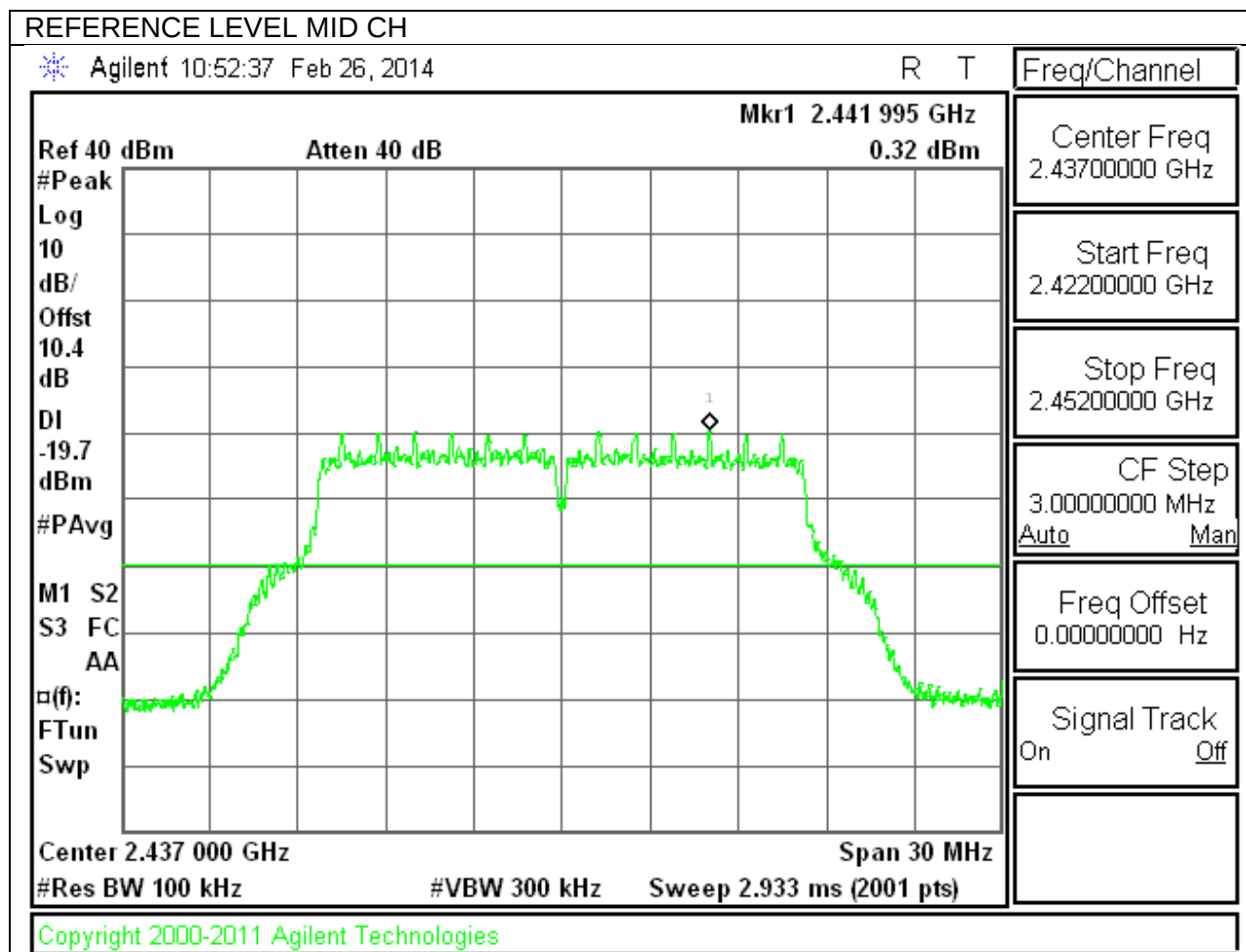
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.458 GHz	-3.99 dBm
2	(1)	Freq	10.002 GHz	-37.87 dBm

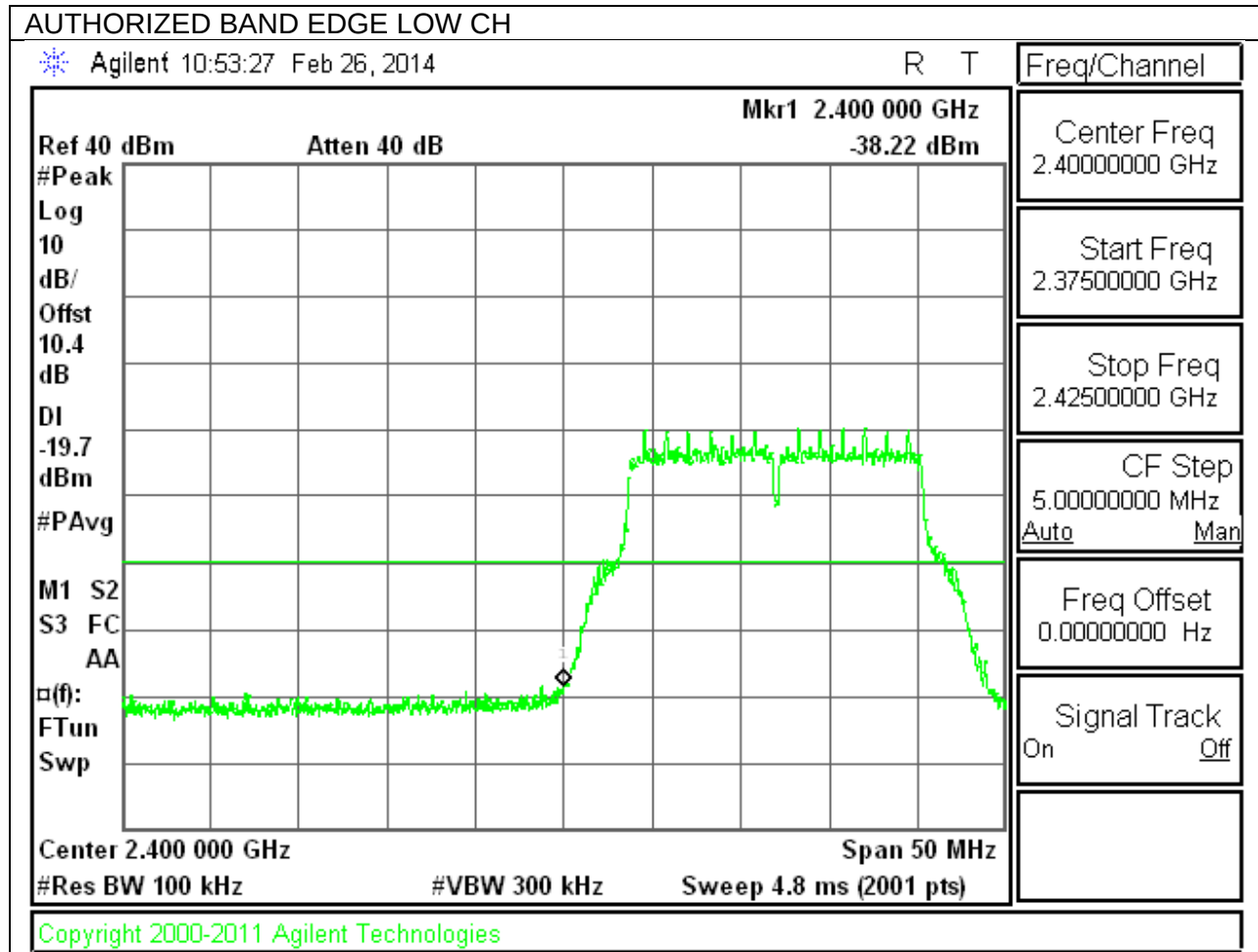
Signal Track
On Off

Copyright 2000-2010 Agilent Technologies

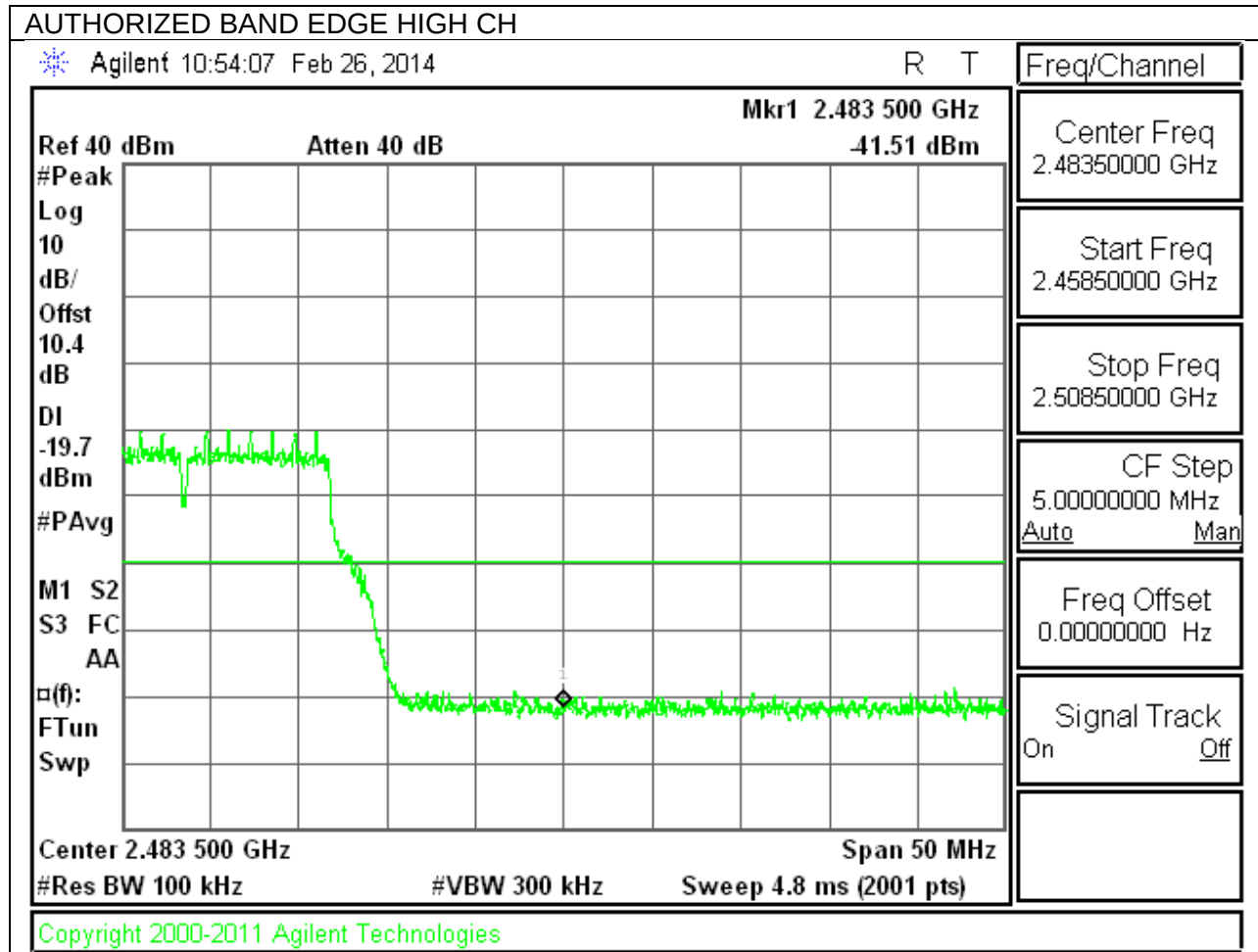
10.5.4. 802.11g MODE IN THE 2.4 GHZ BAND CHAIN 1

IN-BAND REFERENCE LEVEL

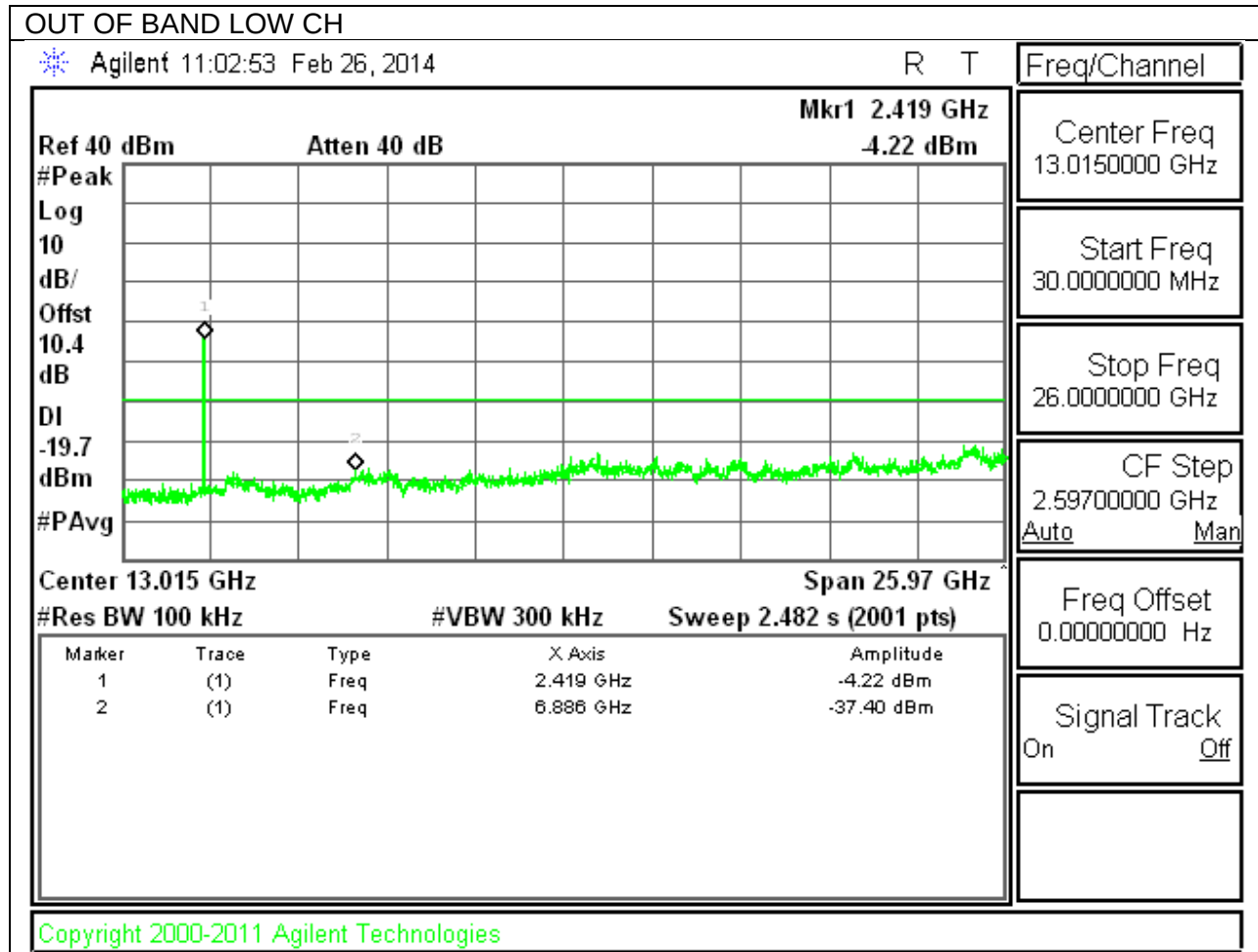


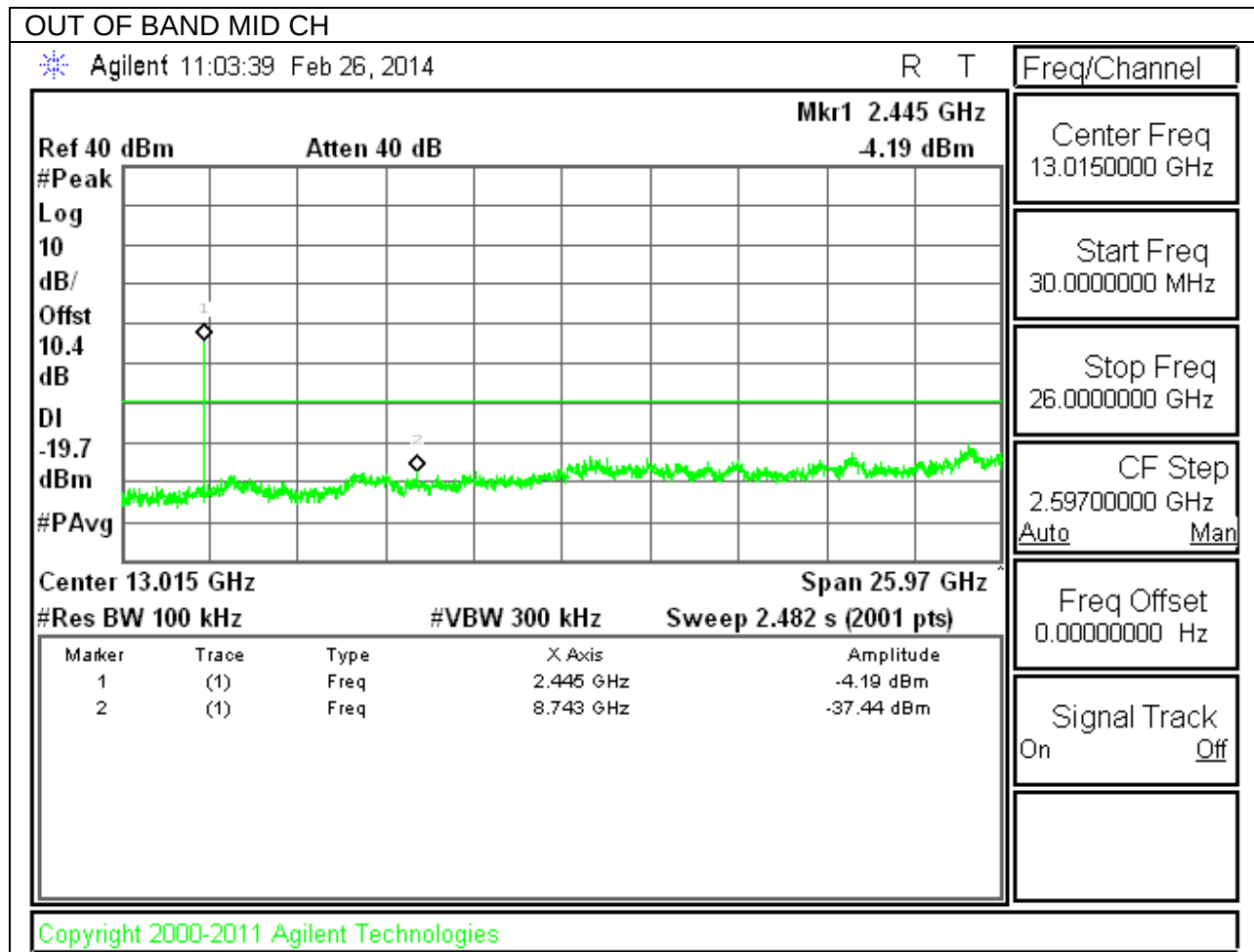


HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS





OUT OF BAND HIGH CH

Agilent 11:04:33 Feb 26, 2014

R T

Freq/Channel

Ref 40 dBm

Atten 40 dB

Mkr1 2.471 GHz

-4.20 dBm

#Peak

Log

10

dB/

Offst

10.4

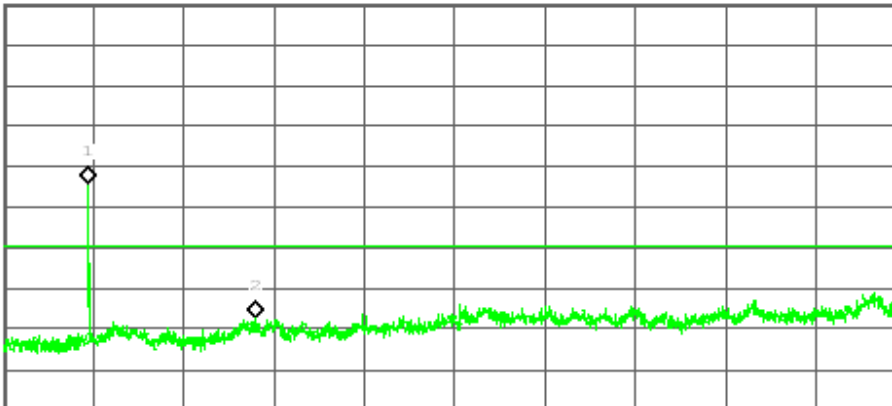
dB

DI

-19.7

dBm

#PAvg



Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.471 GHz	-4.20 dBm
2	(1)	Freq	7.263 GHz	-37.47 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

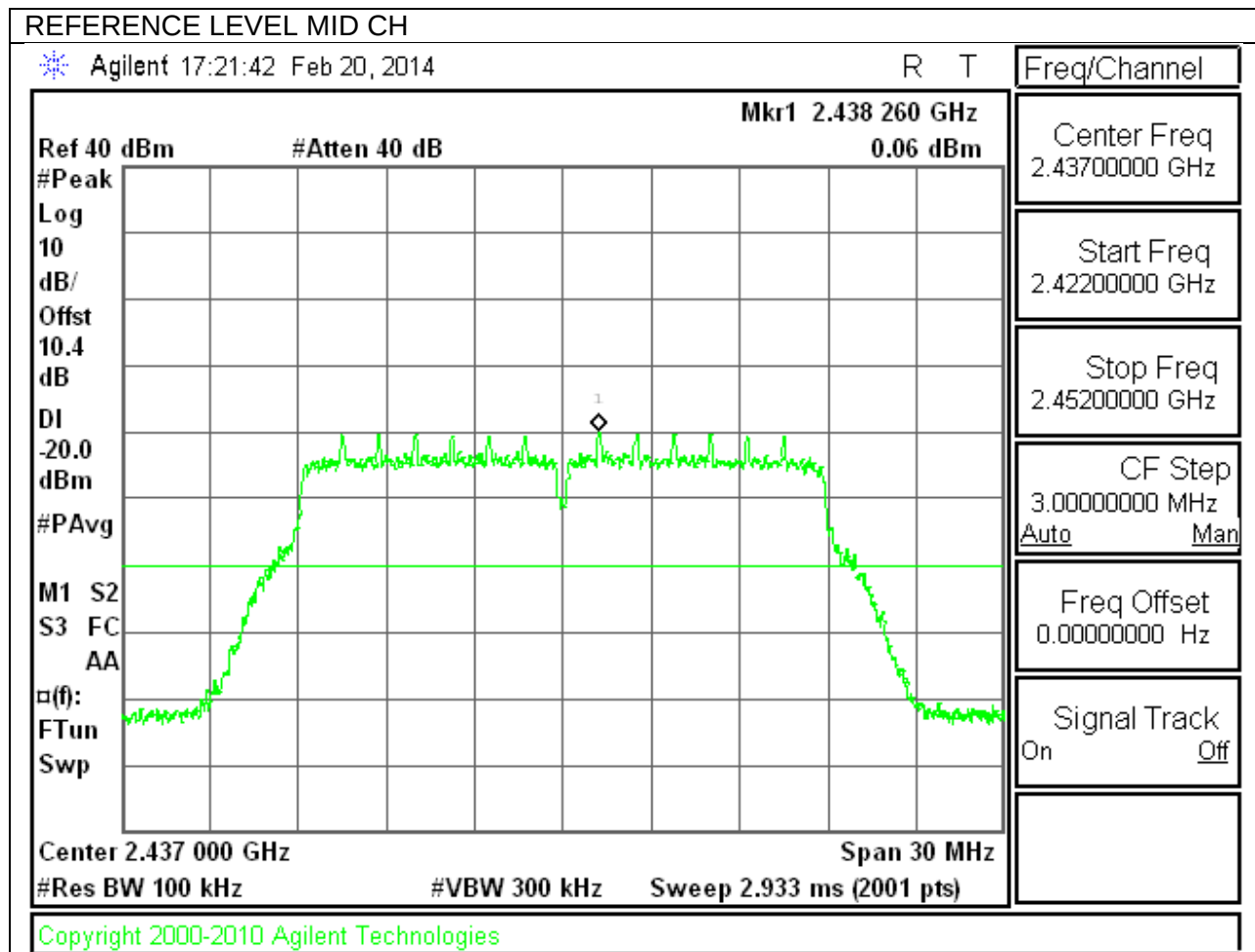
Freq Offset
0.00000000 Hz

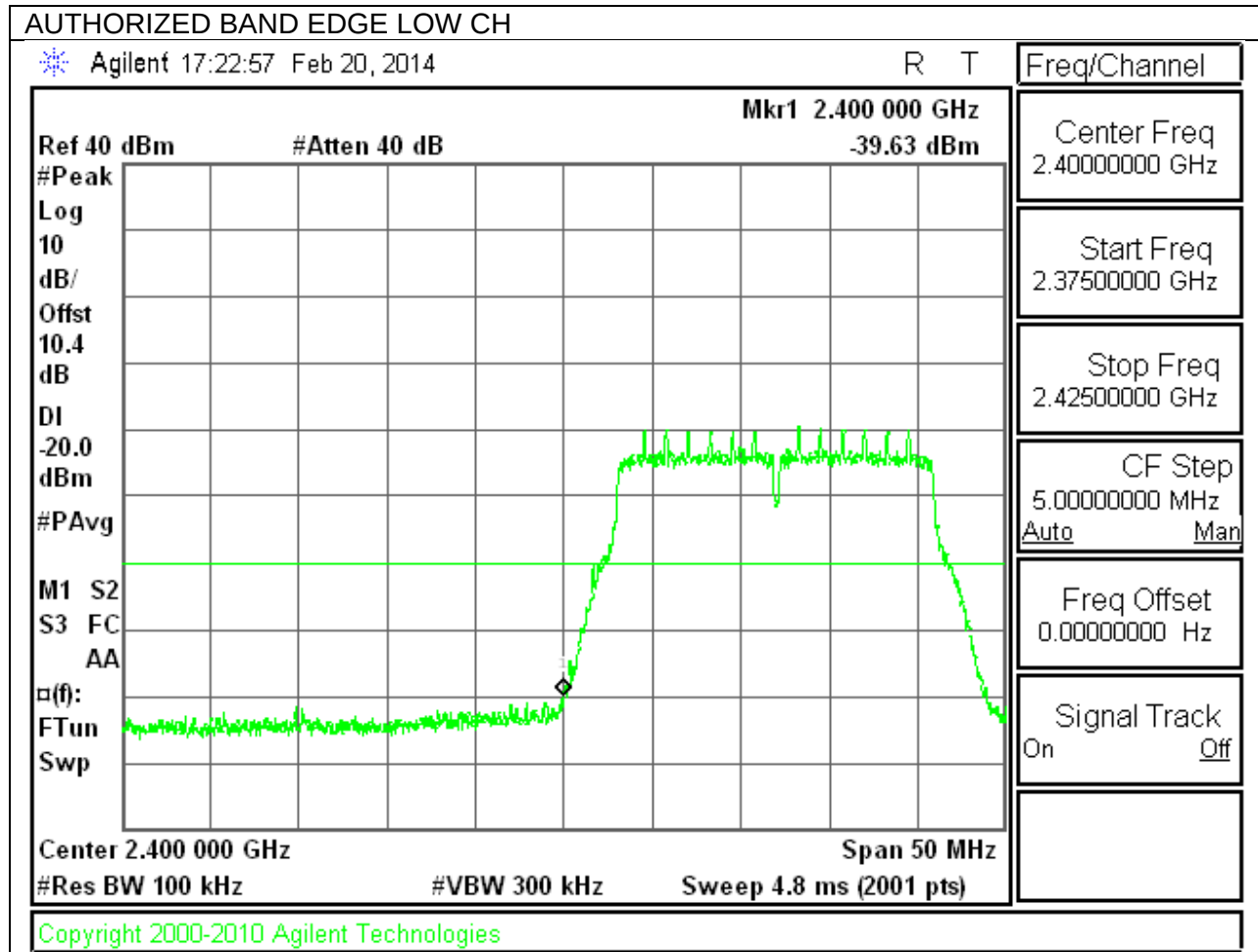
Signal Track
On Off

Copyright 2000-2011 Agilent Technologies

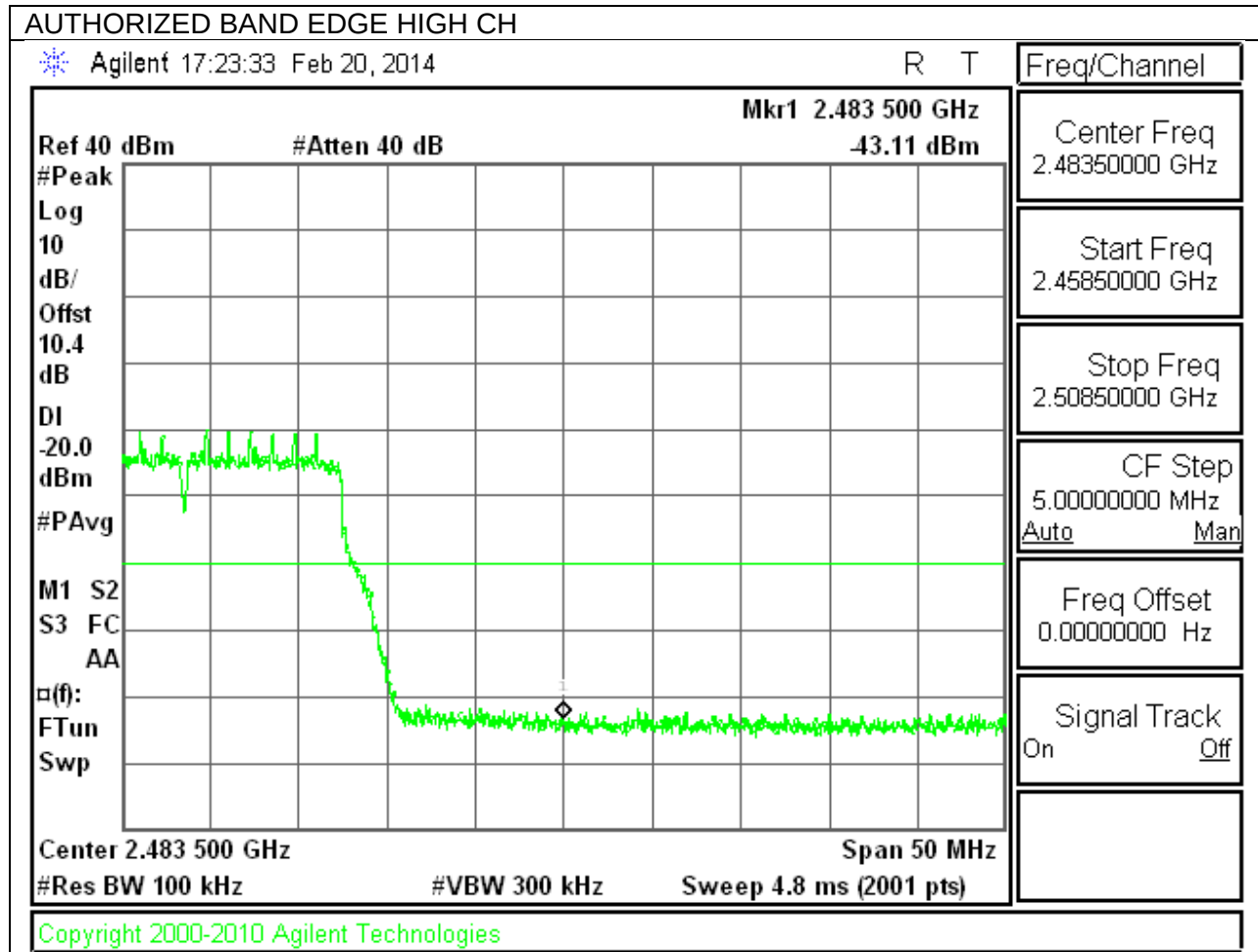
10.5.5. 802.11n MODE IN THE 2.4 GHZ BAND CHAIN 0

IN-BAND REFERENCE LEVEL

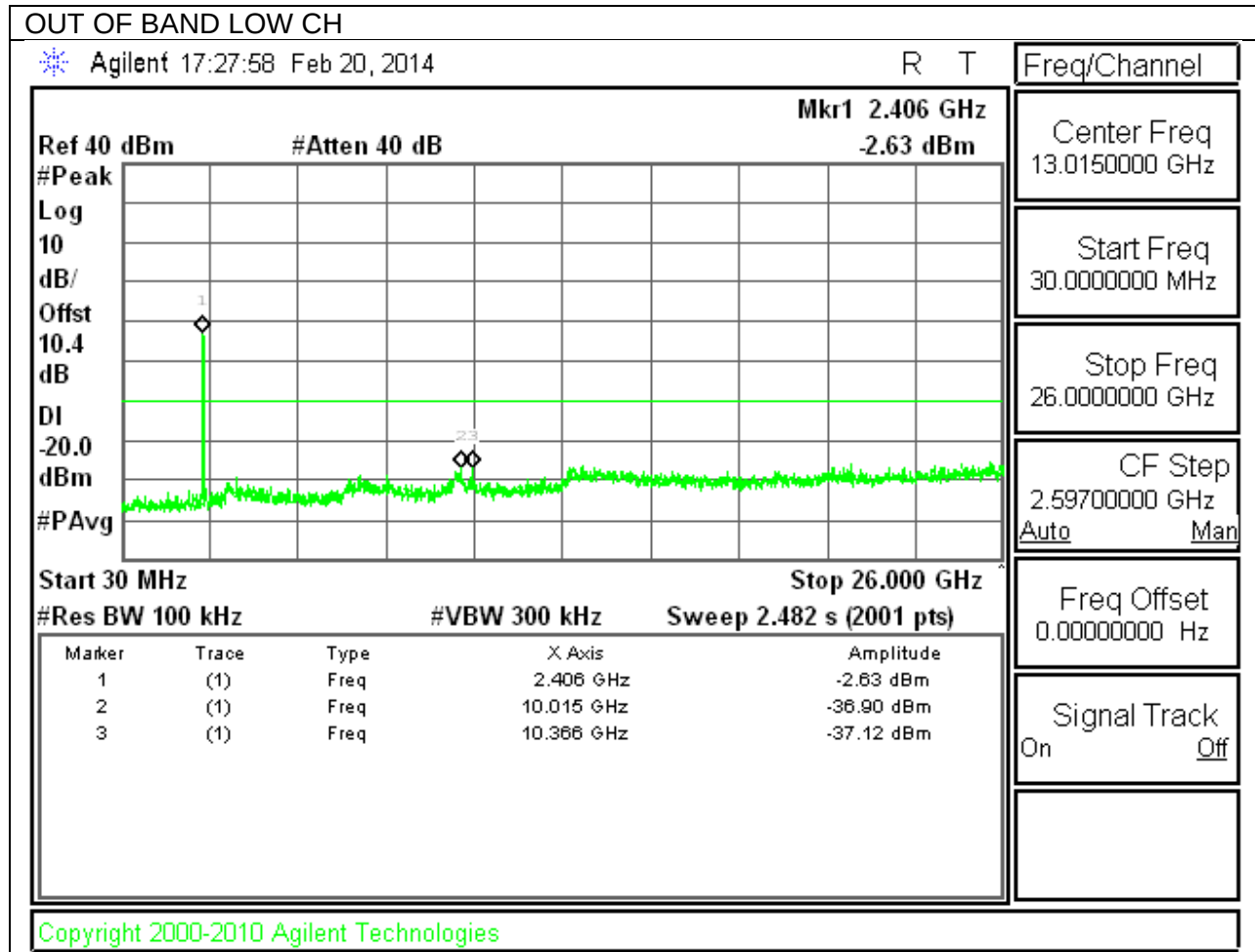




HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS

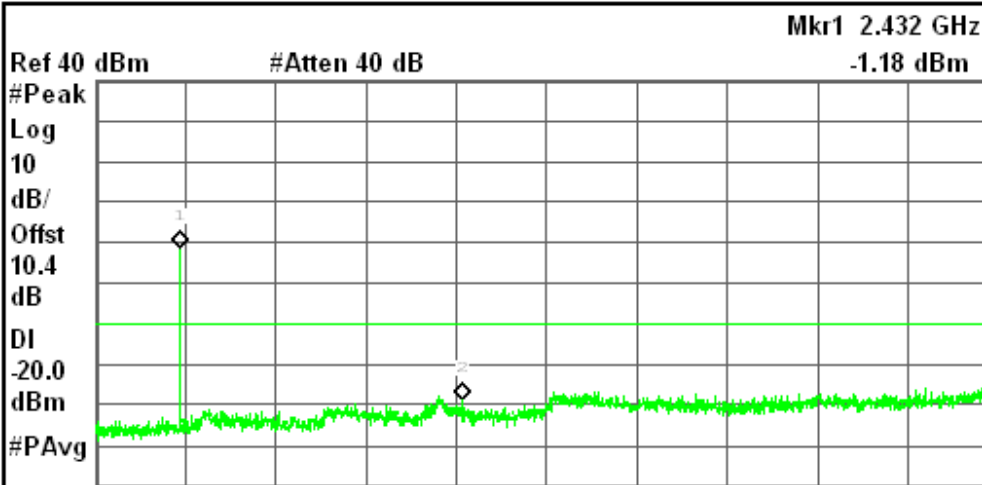


OUT OF BAND MID CH

Agilent 17:26:50 Feb 20, 2014

R T

Freq/Channel



Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Start 30 MHz Stop 26.000 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (2001 pts)

Freq Offset
0.00000000 Hz

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.432 GHz	-1.18 dBm
2	(1)	Freq	10.600 GHz	-38.65 dBm

Signal Track
On Off

Copyright 2000-2010 Agilent Technologies

OUT OF BAND HIGH CH

Agilent 17:24:58 Feb 20, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Mkr1 2.458 GHz

-3.16 dBm

Center Freq
13.0150000 GHz

#Peak

Log

10

dB/

Offst

10.4

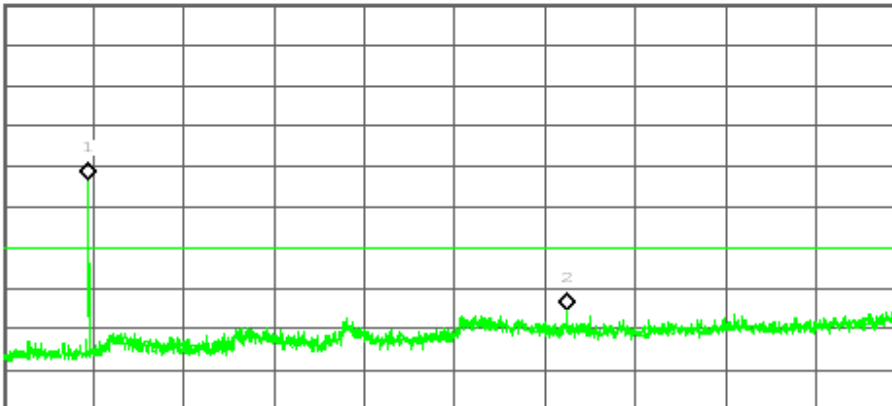
dB

DI

-20.0

dBm

#PAvg



Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Start 30 MHz

Stop 26.000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (2001 pts)

Freq Offset
0.00000000 Hz

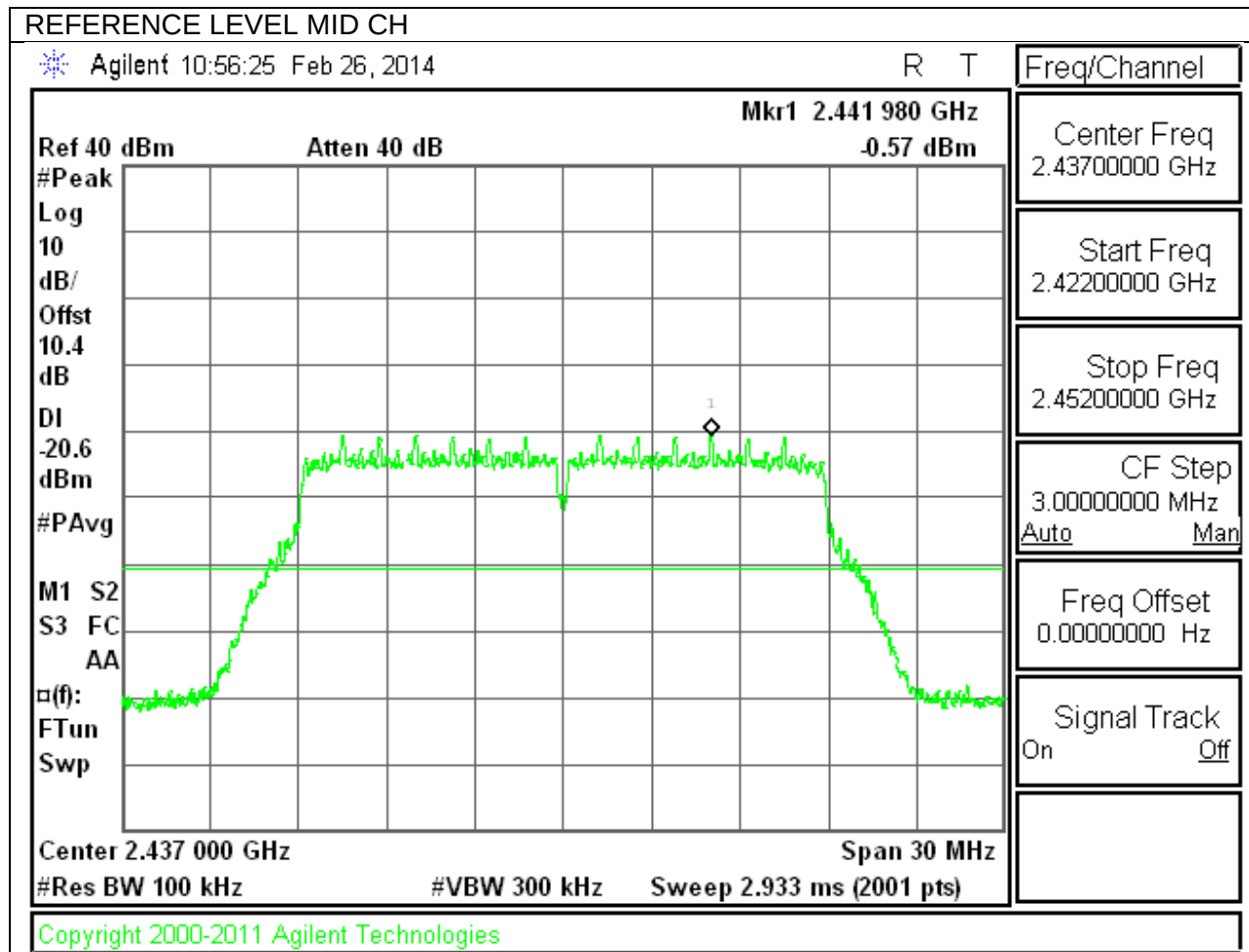
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.458 GHz	-3.16 dBm
2	(1)	Freq	16.209 GHz	-35.30 dBm

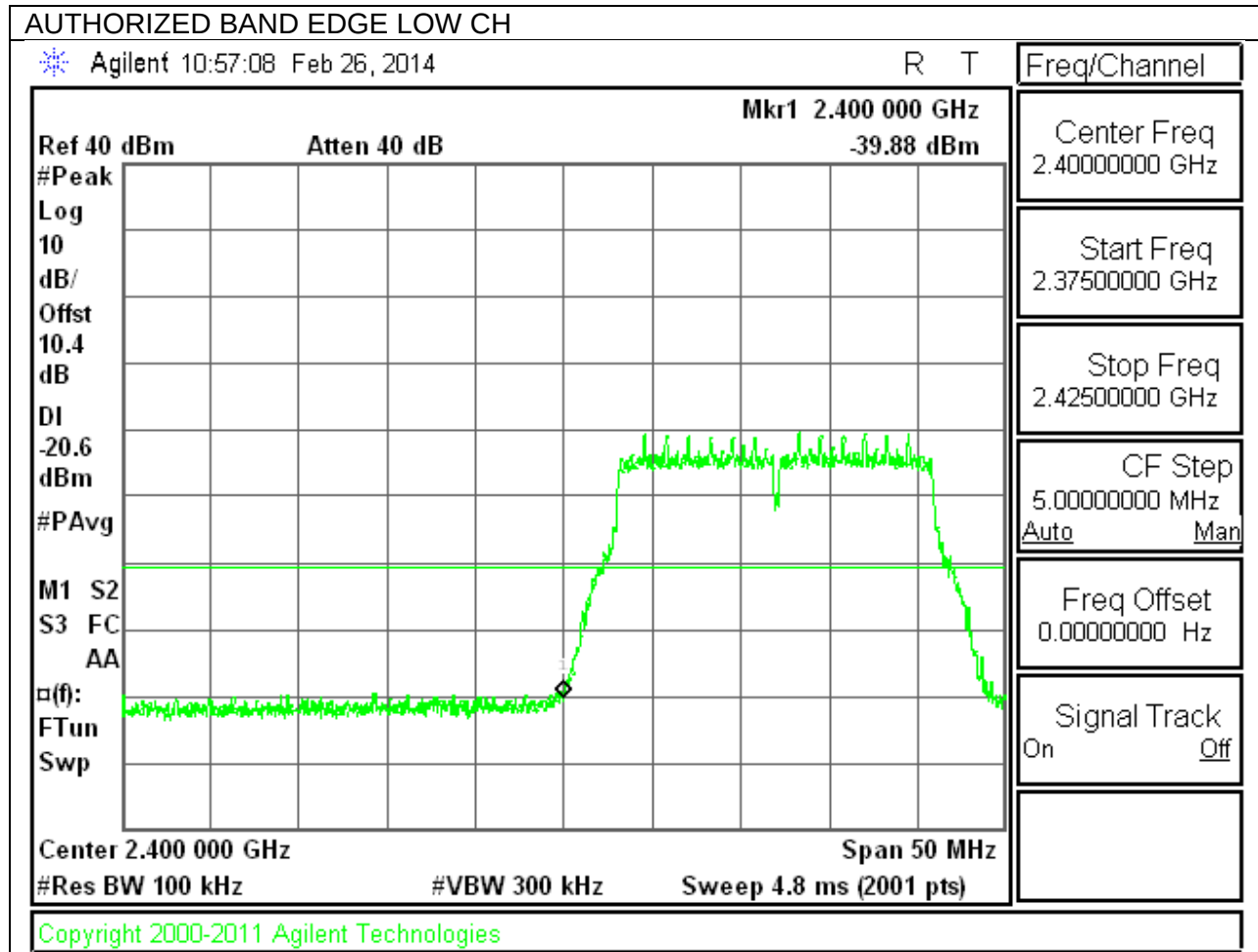
Signal Track
On Off

Copyright 2000-2010 Agilent Technologies

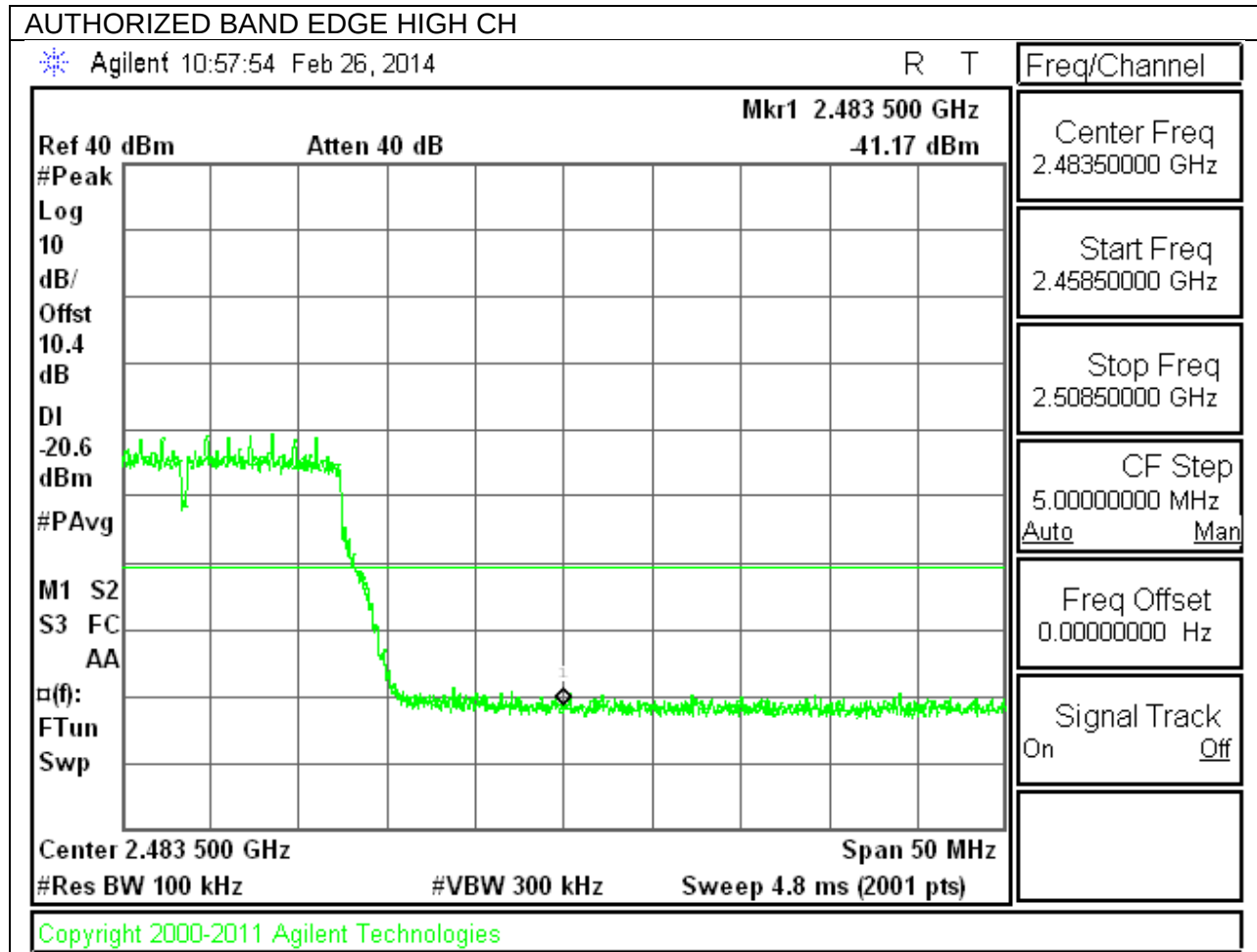
10.5.6. 802.11n MODE IN THE 2.4 GHz BAND CHAIN 1

IN-BAND REFERENCE LEVEL

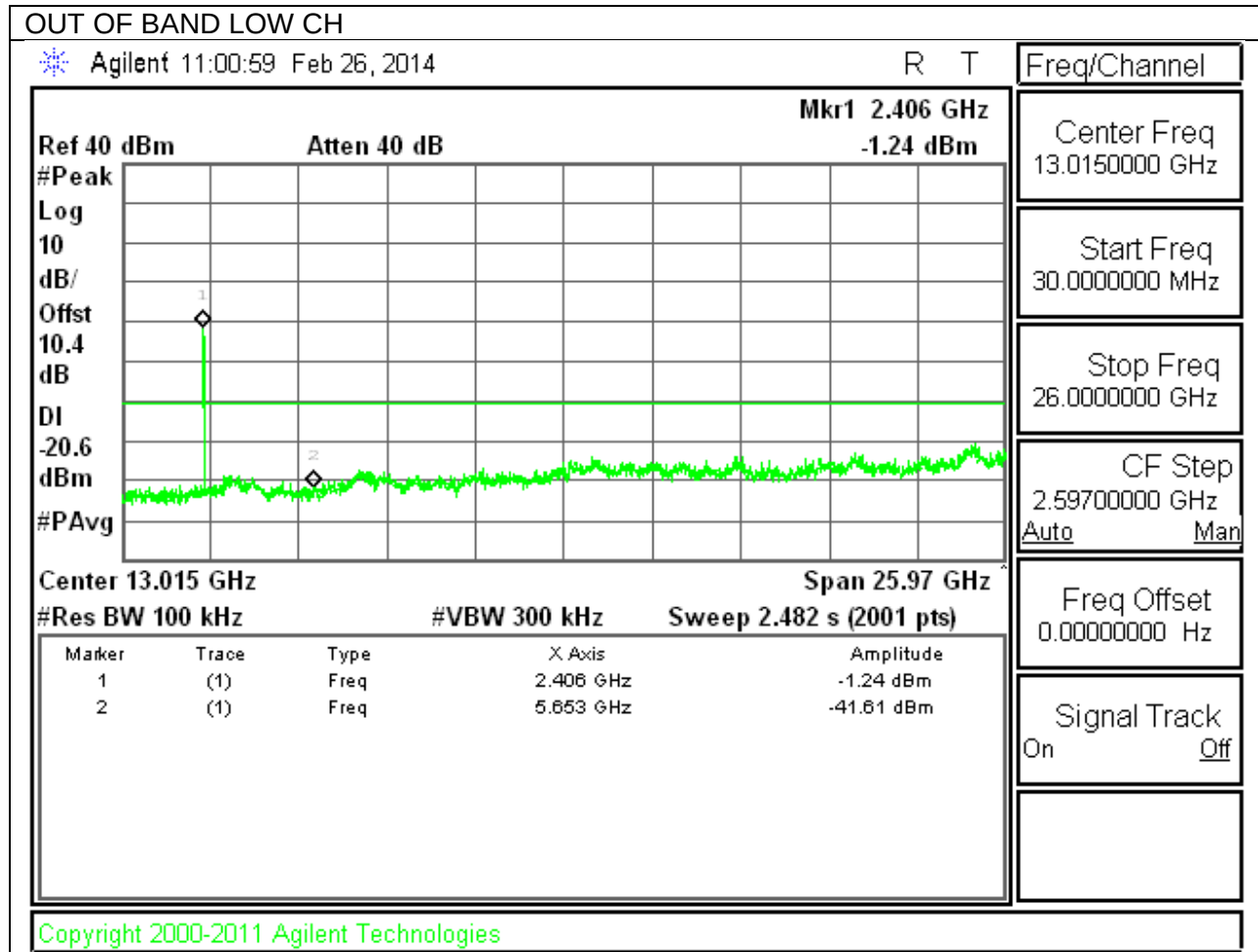




AUTHORIZED BAND EDGE HIGH CH



OUT-OF-BAND EMISSIONS

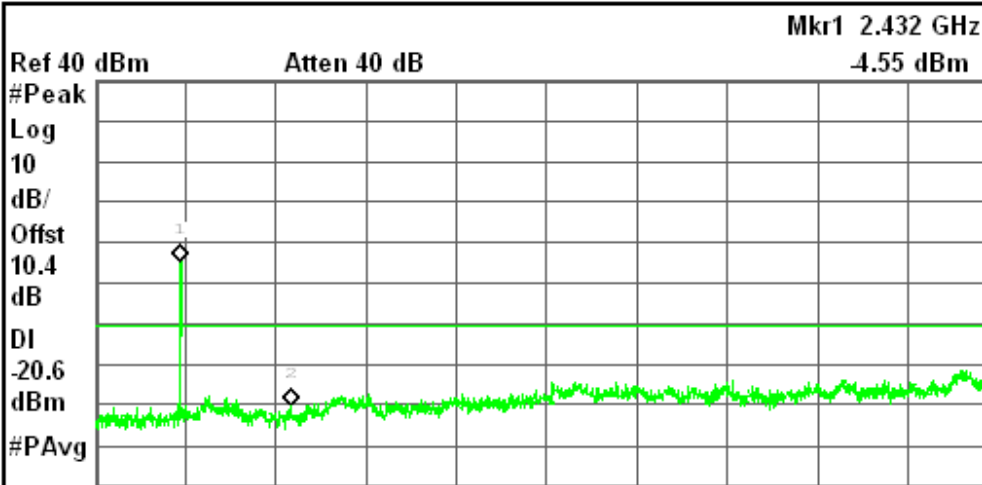


OUT OF BAND MID CH

Agilent 11:00:19 Feb 26, 2014

R T

Freq/Channel



Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Center 13.015 GHz Span 25.97 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 2.482 s (2001 pts)

Freq Offset
0.00000000 Hz

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.432 GHz	-4.55 dBm
2	(1)	Freq	5.653 GHz	-40.34 dBm

Signal Track
On Off

Copyright 2000-2011 Agilent Technologies

OUT OF BAND HIGH CH

Agilent 10:59:39 Feb 26, 2014

R T

Freq/Channel

Ref 40 dBm

Atten 40 dB

Mkr1 2.458 GHz

-3.98 dBm

#Peak

Log

10

dB/

Offst

10.4

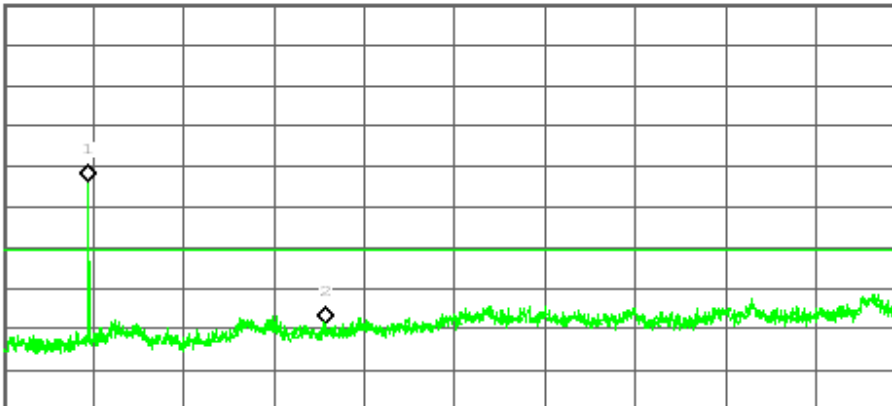
dB

DI

-20.6

dBm

#PAvg



Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.458 GHz	-3.98 dBm
2	(1)	Freq	9.314 GHz	-39.05 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

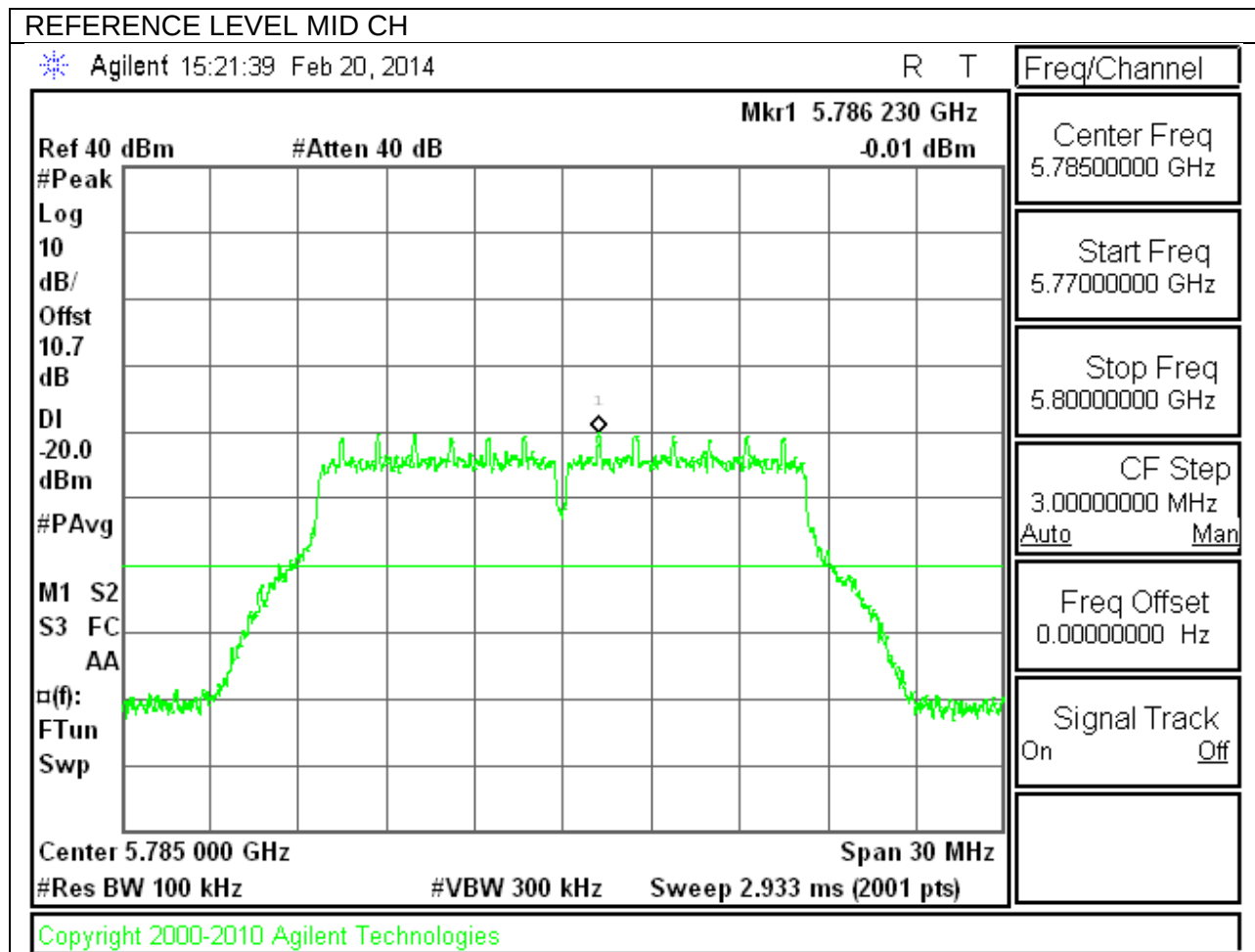
Freq Offset
0.00000000 Hz

Signal Track
On Off

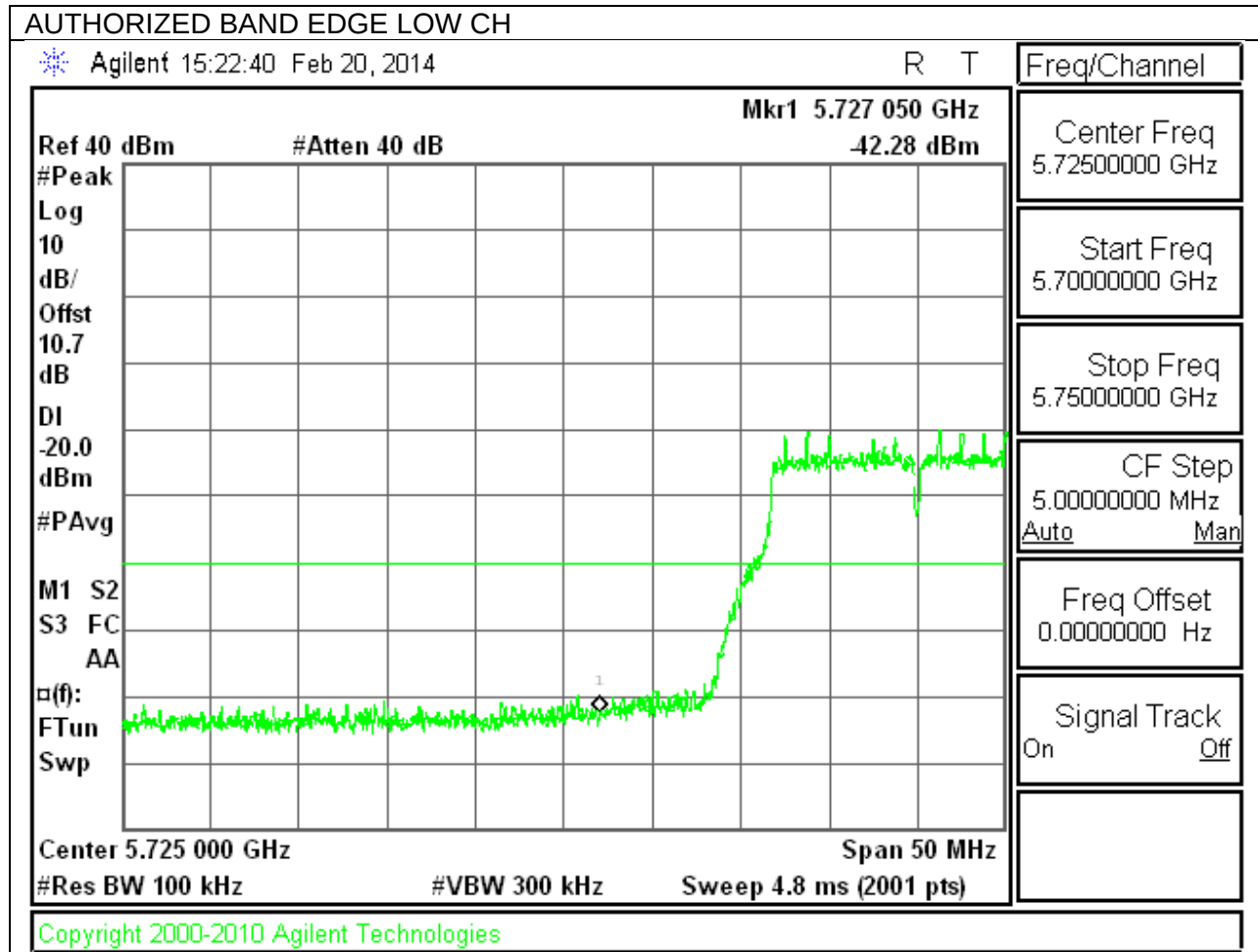
Copyright 2000-2011 Agilent Technologies

10.5.7. 802.11a MODE IN THE 5.8 GHz BAND CHAIN 0

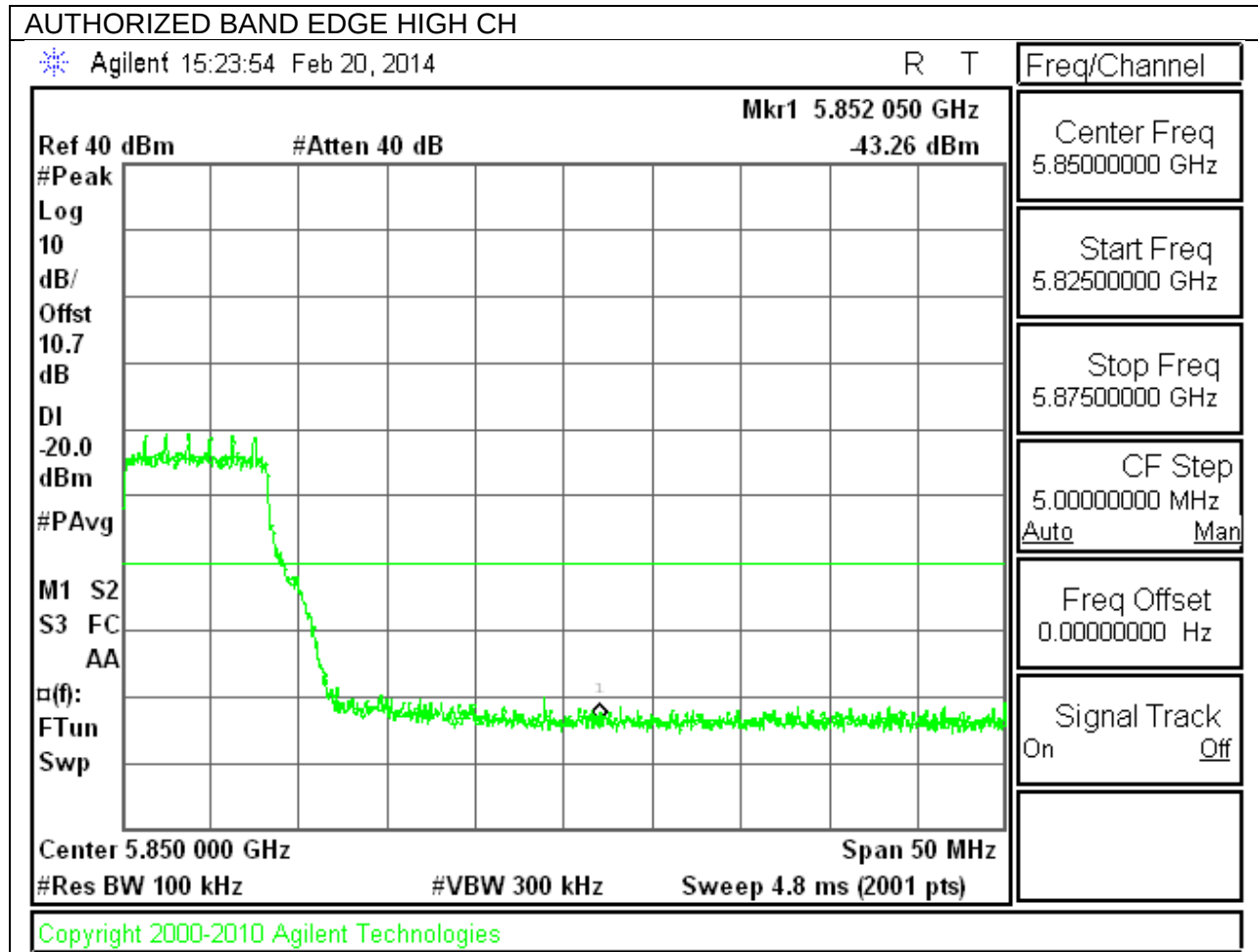
IN-BAND REFERENCE LEVEL



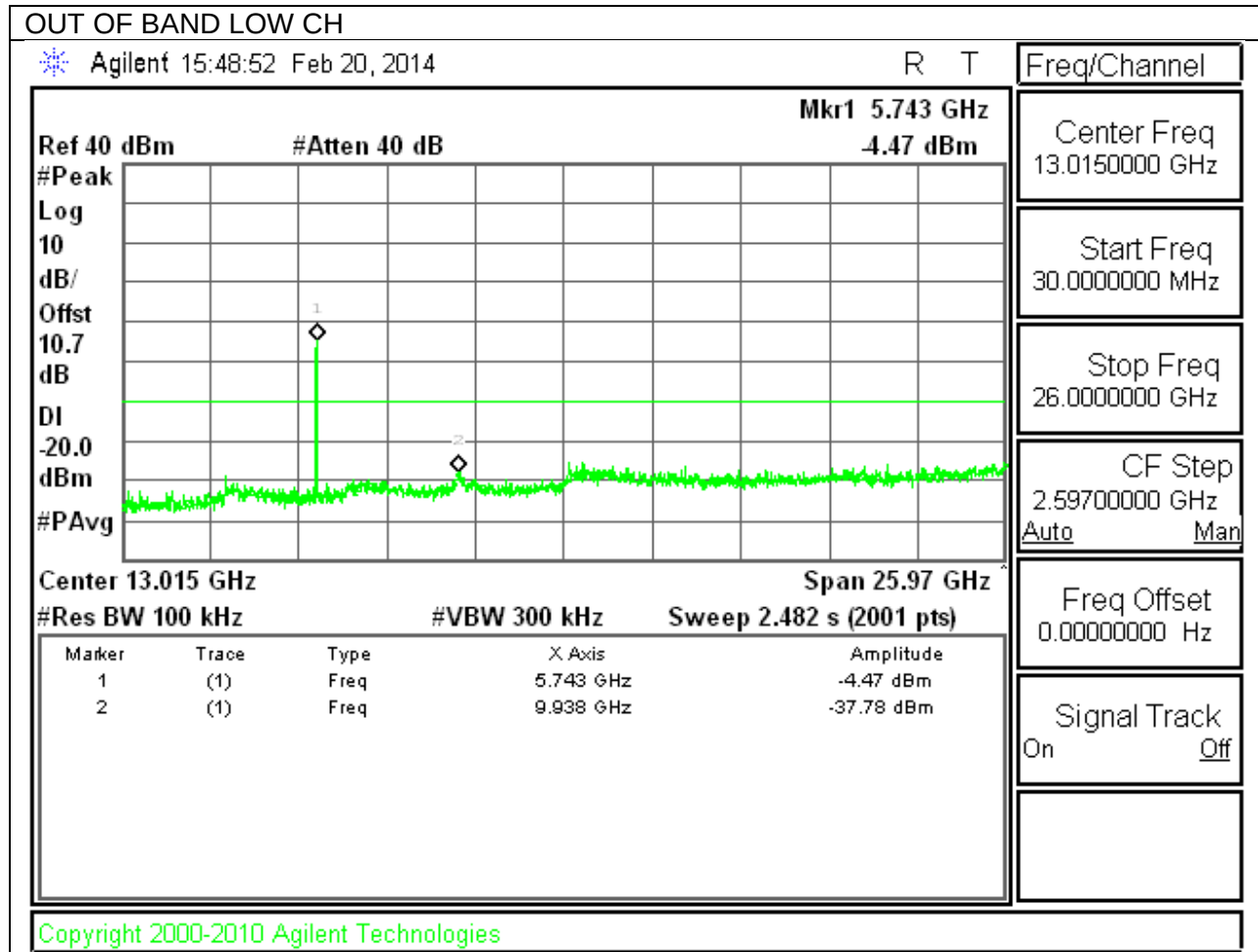
LOW CHANNEL BANDEDGE



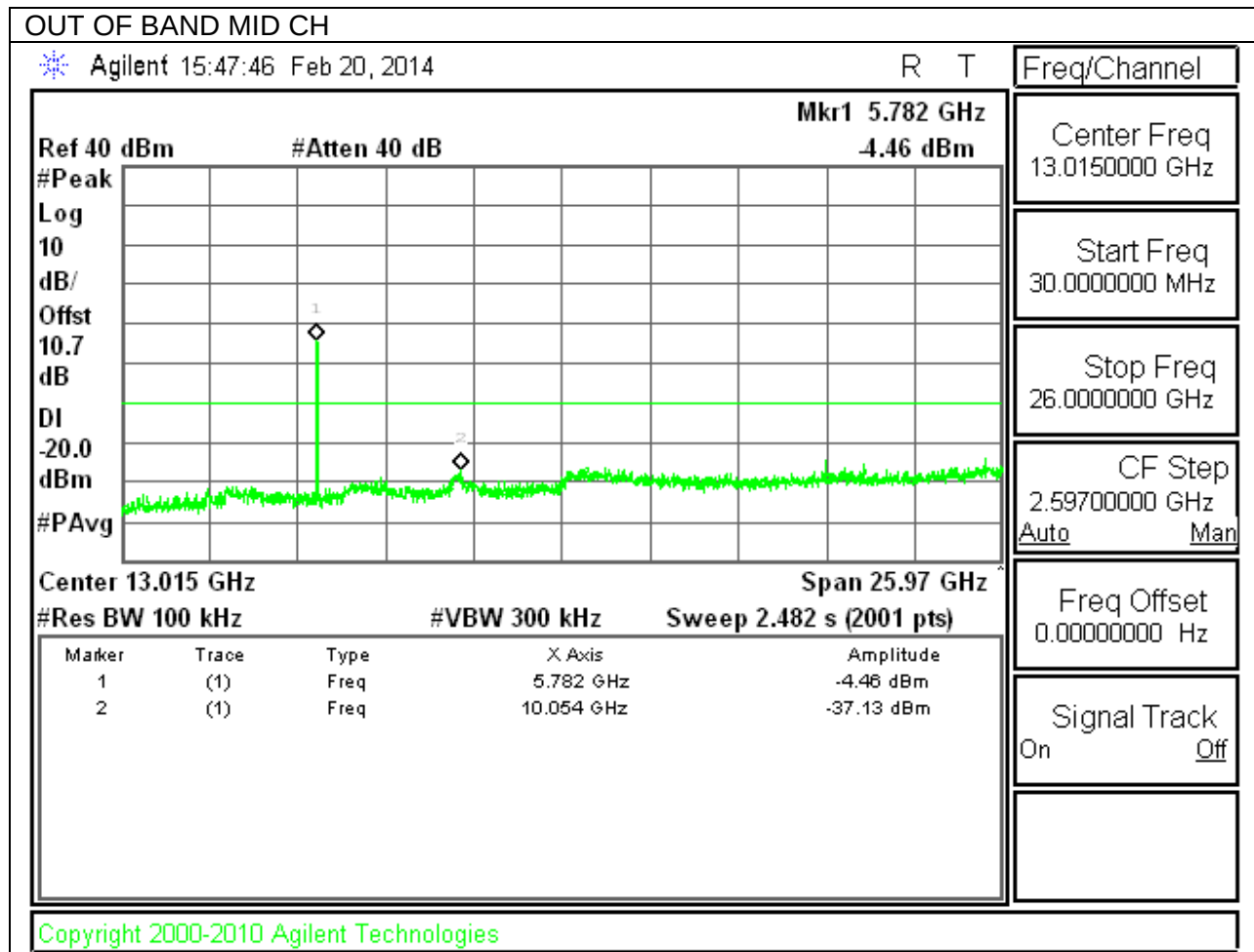
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



Note: There is no harmonic up to 40GHz and only noise floor detected.



Note: There is no harmonic up to 40GHz and only noise floor detected.

OUT OF BAND HIGH CH

Agilent 15:46:40 Feb 20, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Mkr1 5.821 GHz

-5.10 dBm

#Peak

Log

10

dB/

Offst

10.7

dB

DI

-20.0

dBm

#PAvg

Center 13.015 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 25.97 GHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.821 GHz	-5.10 dBm
2	(1)	Freq	13.729 GHz	-37.14 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Freq Offset
0.00000000 Hz

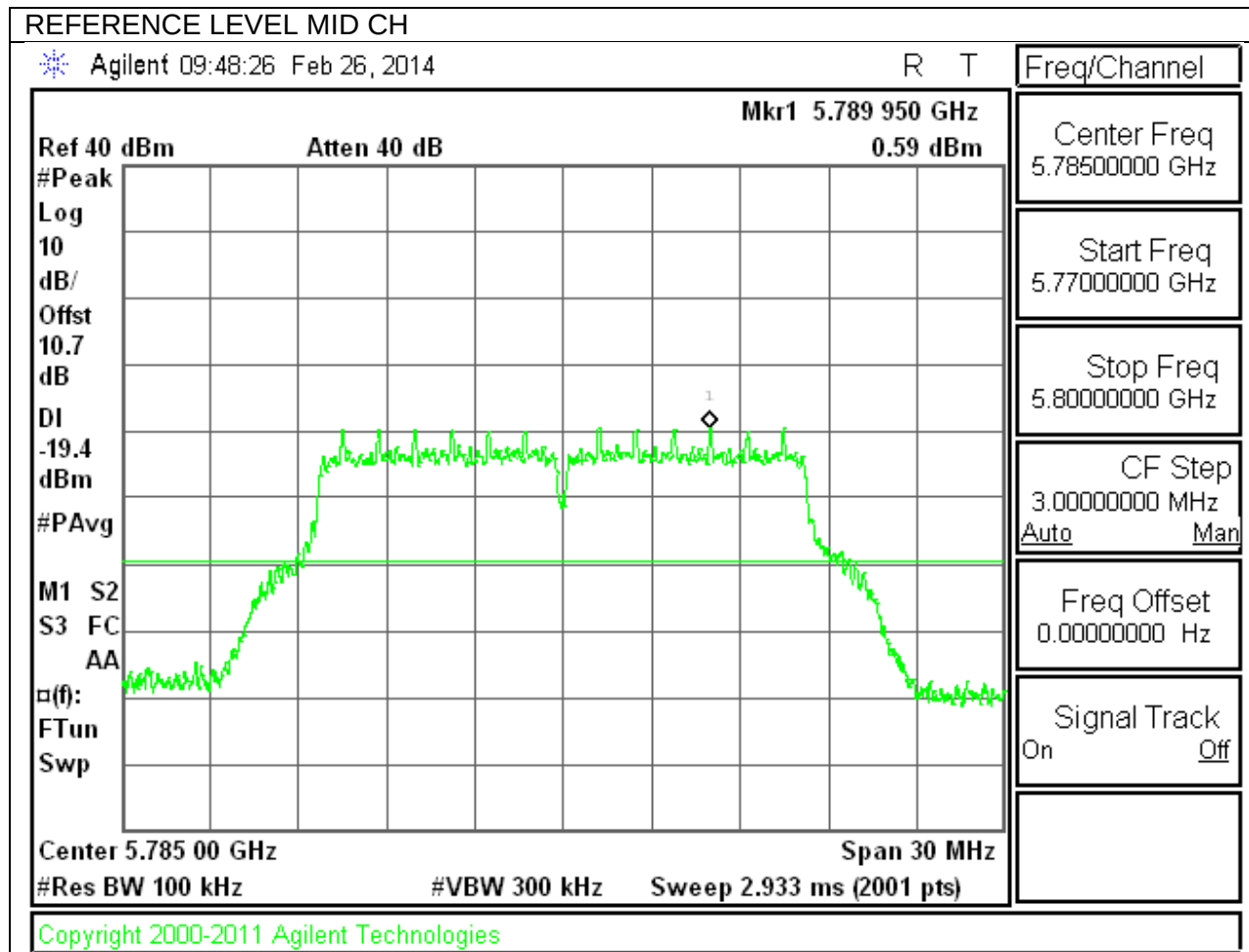
Signal Track
On Off

Copyright 2000-2010 Agilent Technologies

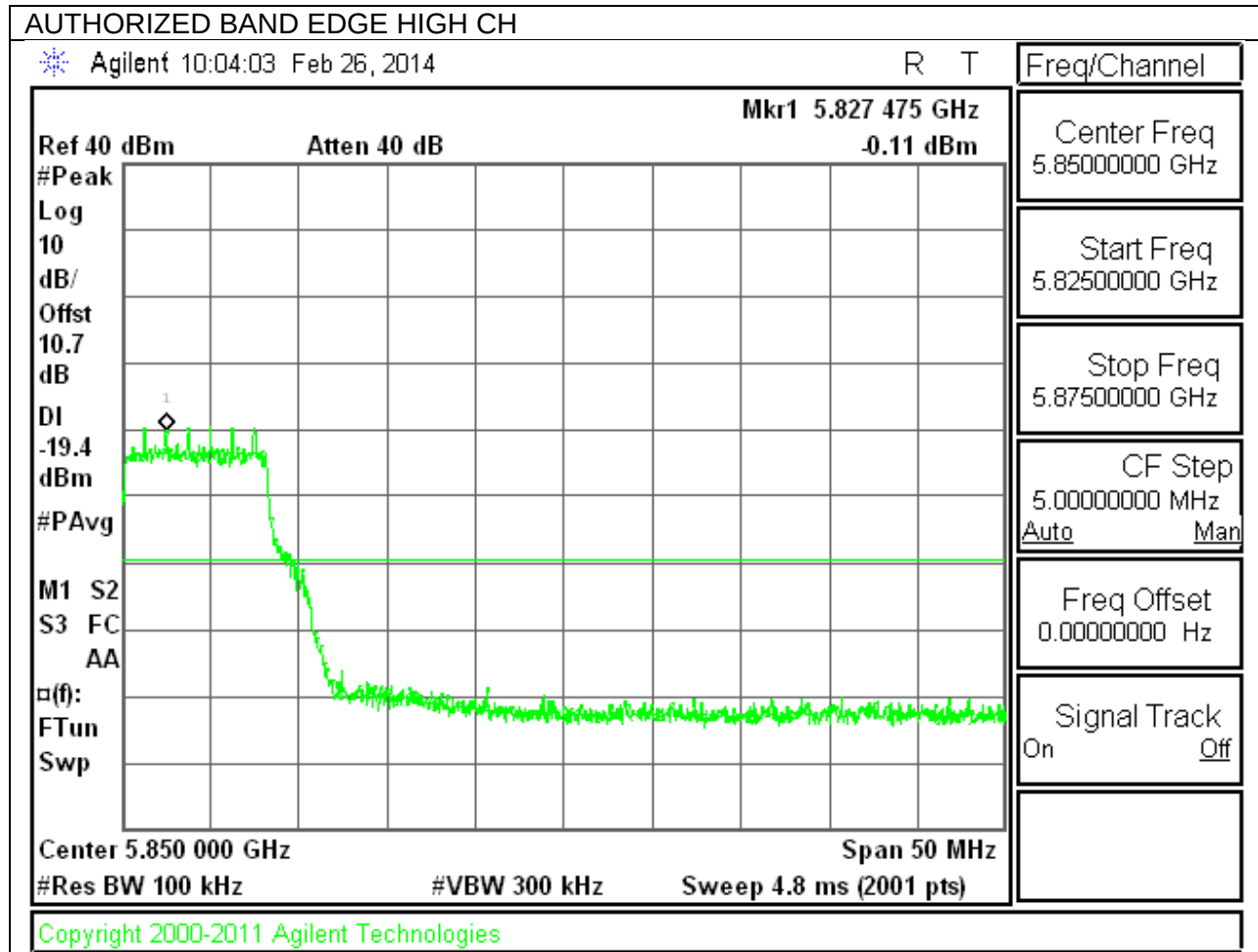
Note: There is no harmonic up to 40GHz and only noise floor detected.

10.5.8. 802.11a MODE IN THE 5.8 GHz BAND CHAIN 1

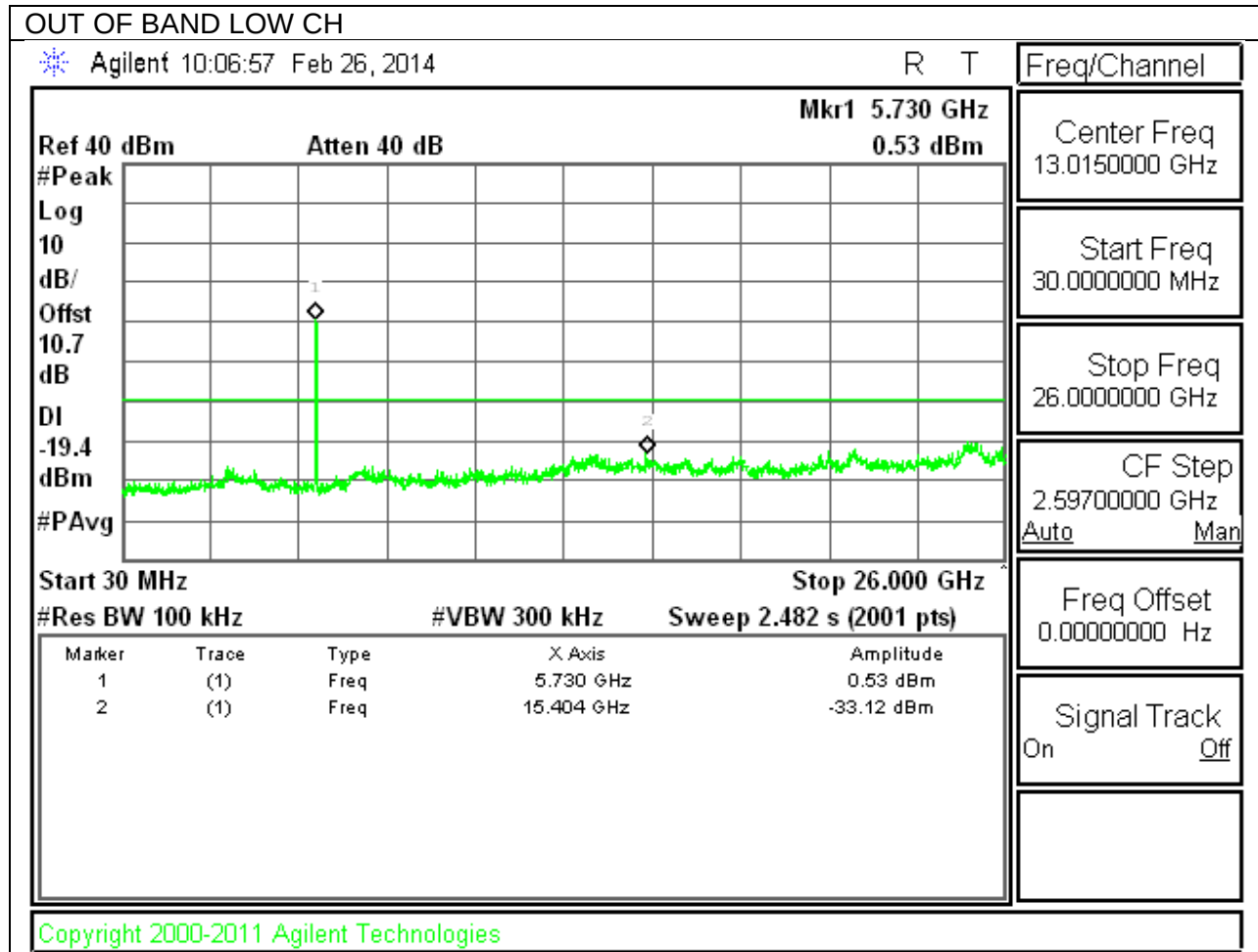
IN-BAND REFERENCE LEVEL



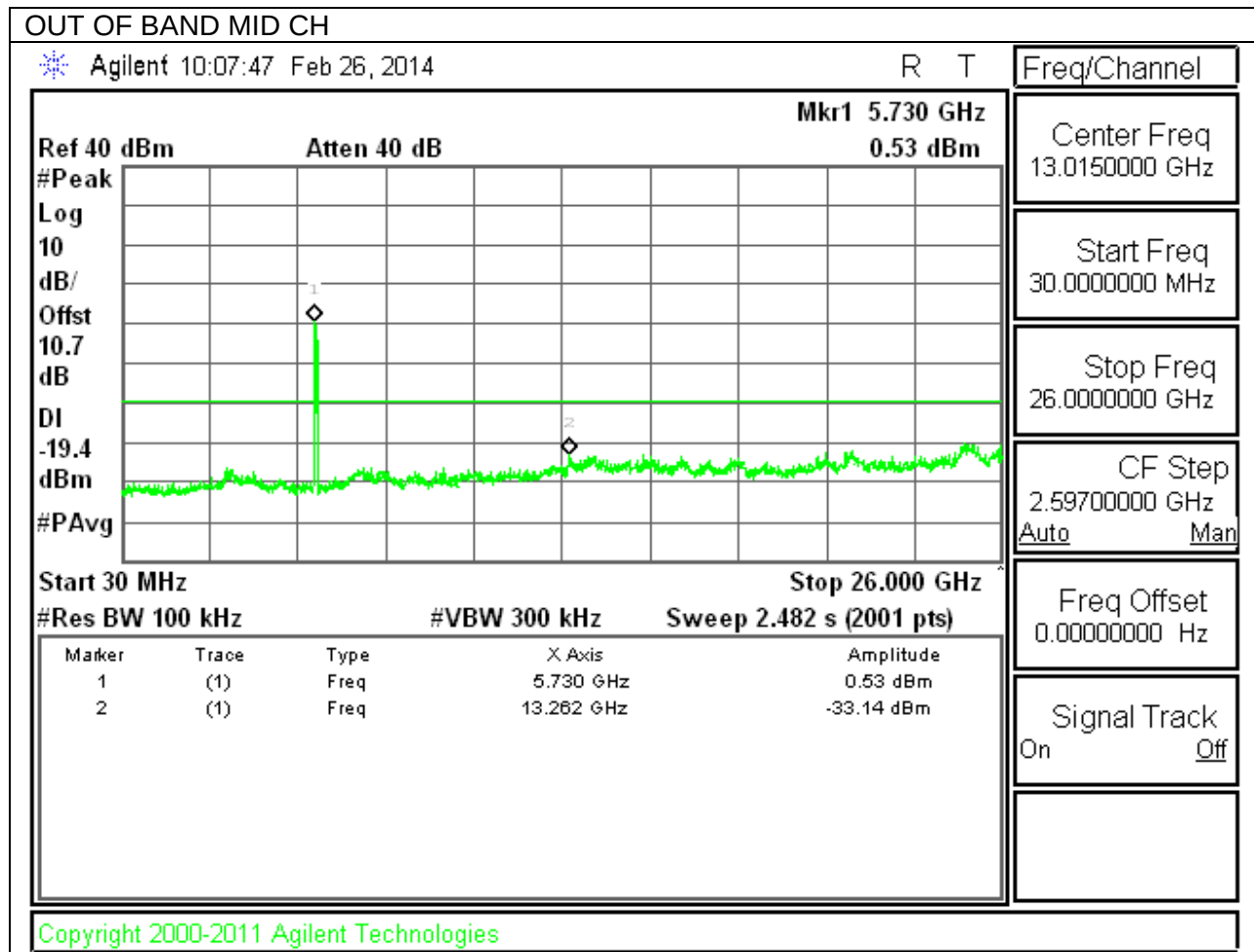
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



Note: There is no harmonic up to 40GHz and only noise floor detected.



Note: There is no harmonic up to 40GHz and only noise floor detected.

OUT OF BAND HIGH CH

Agilent 10:08:25 Feb 26, 2014

R T

Freq/Channel

Ref 40 dBm

Atten 40 dB

Mkr1 5.730 GHz
0.53 dBm

#Peak

Log

10

dB/

Offst

10.7

dB

DI

-19.4

dBm

#PAvg

Start 30 MHz

#Res BW 100 kHz

#VBW 300 kHz

Stop 26.000 GHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.730 GHz	0.53 dBm
2	(1)	Freq	7.380 GHz	-36.32 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Freq Offset
0.00000000 Hz

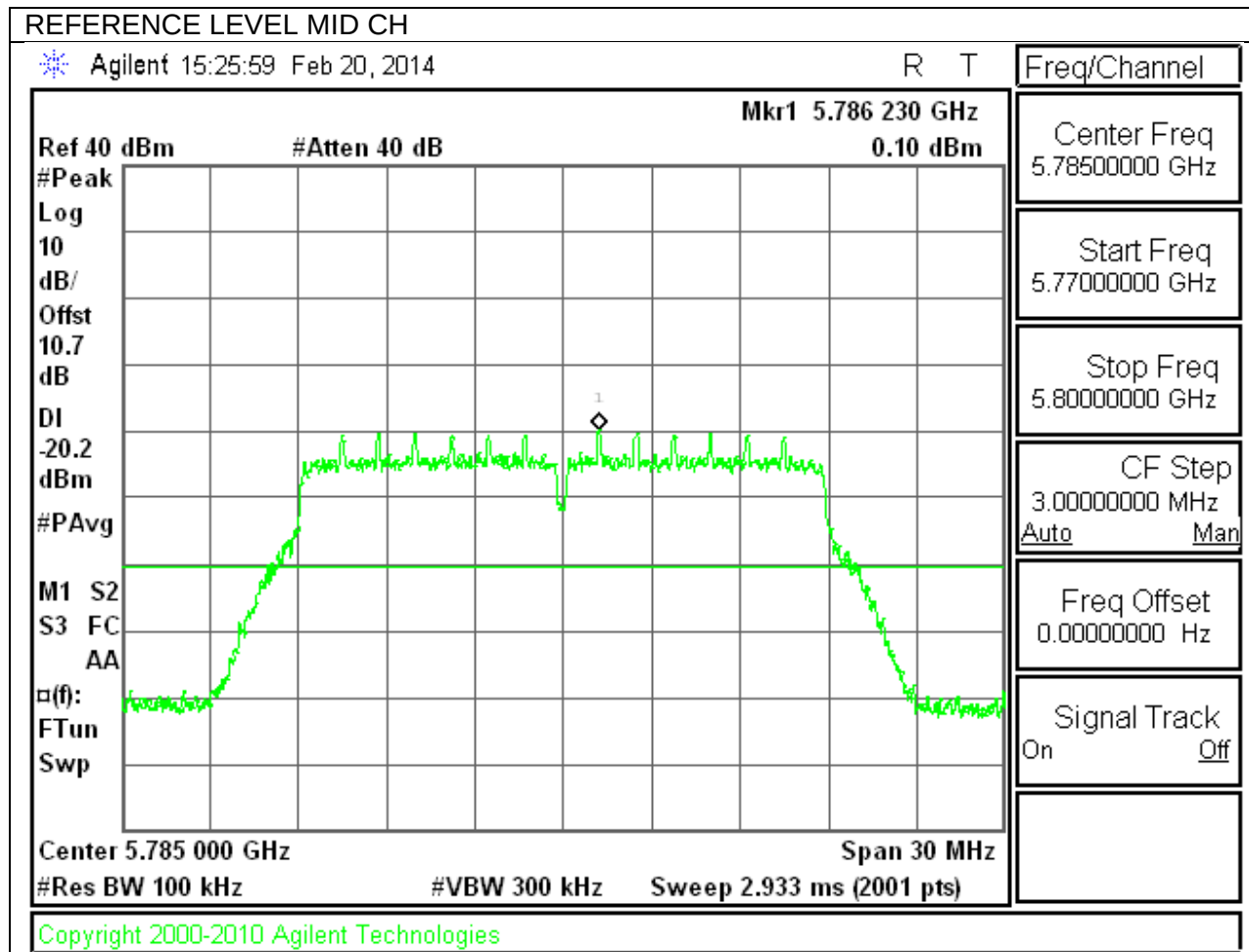
Signal Track
On Off

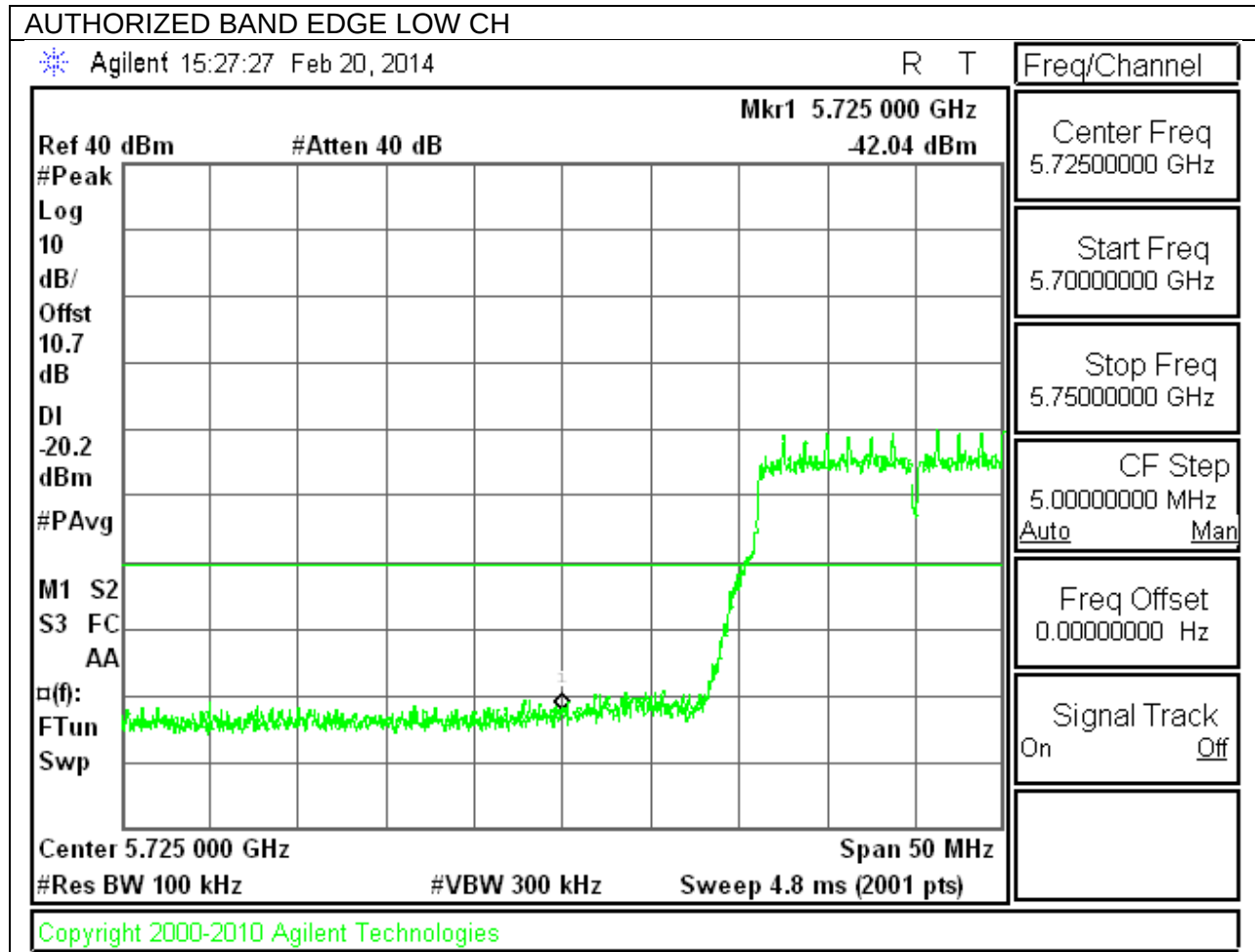
Copyright 2000-2011 Agilent Technologies

Note: There is no harmonic up to 40GHz and only noise floor detected.

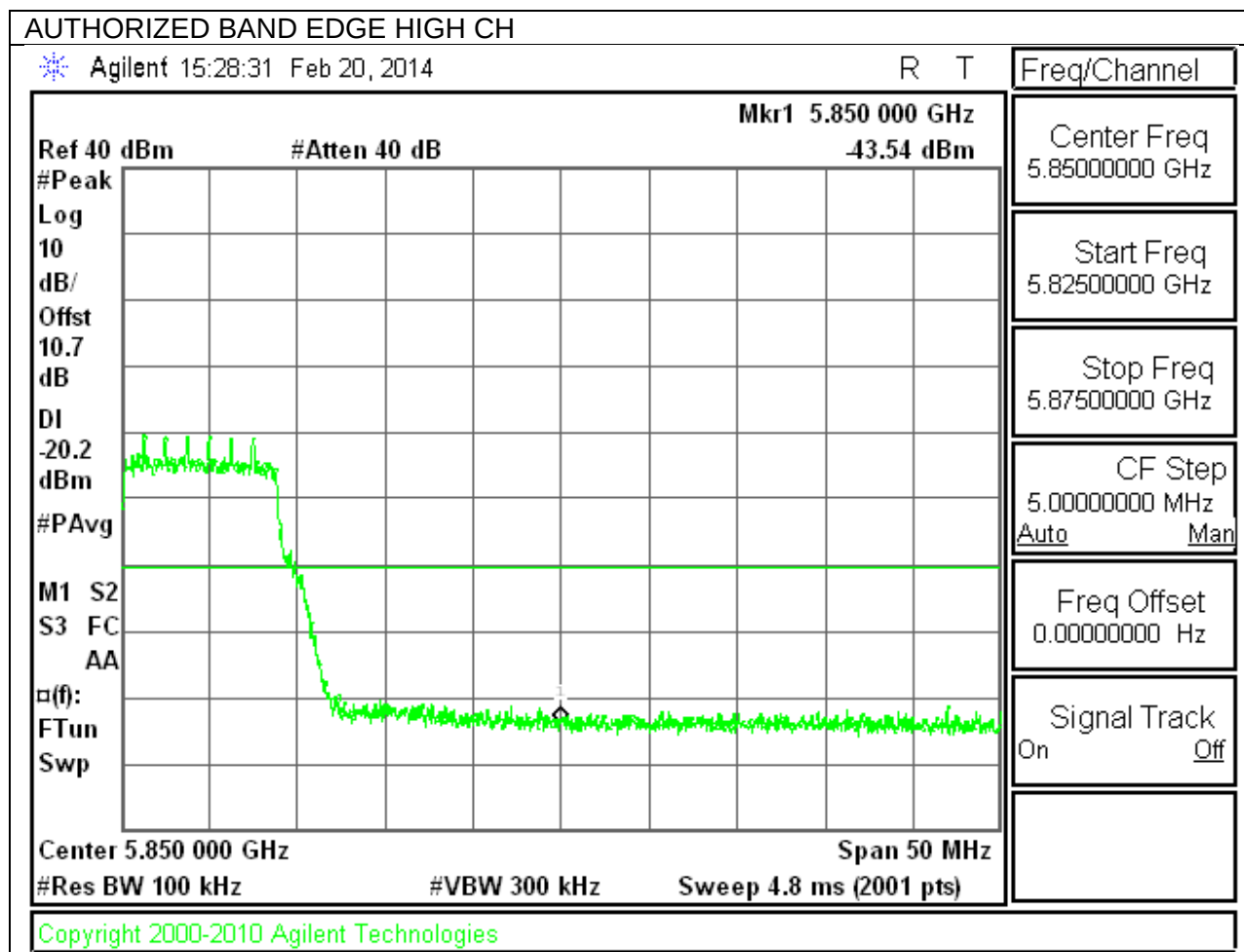
10.5.9. 802.11n MODE IN THE 5.8 GHz BAND CHAIN 0

IN-BAND REFERENCE LEVEL

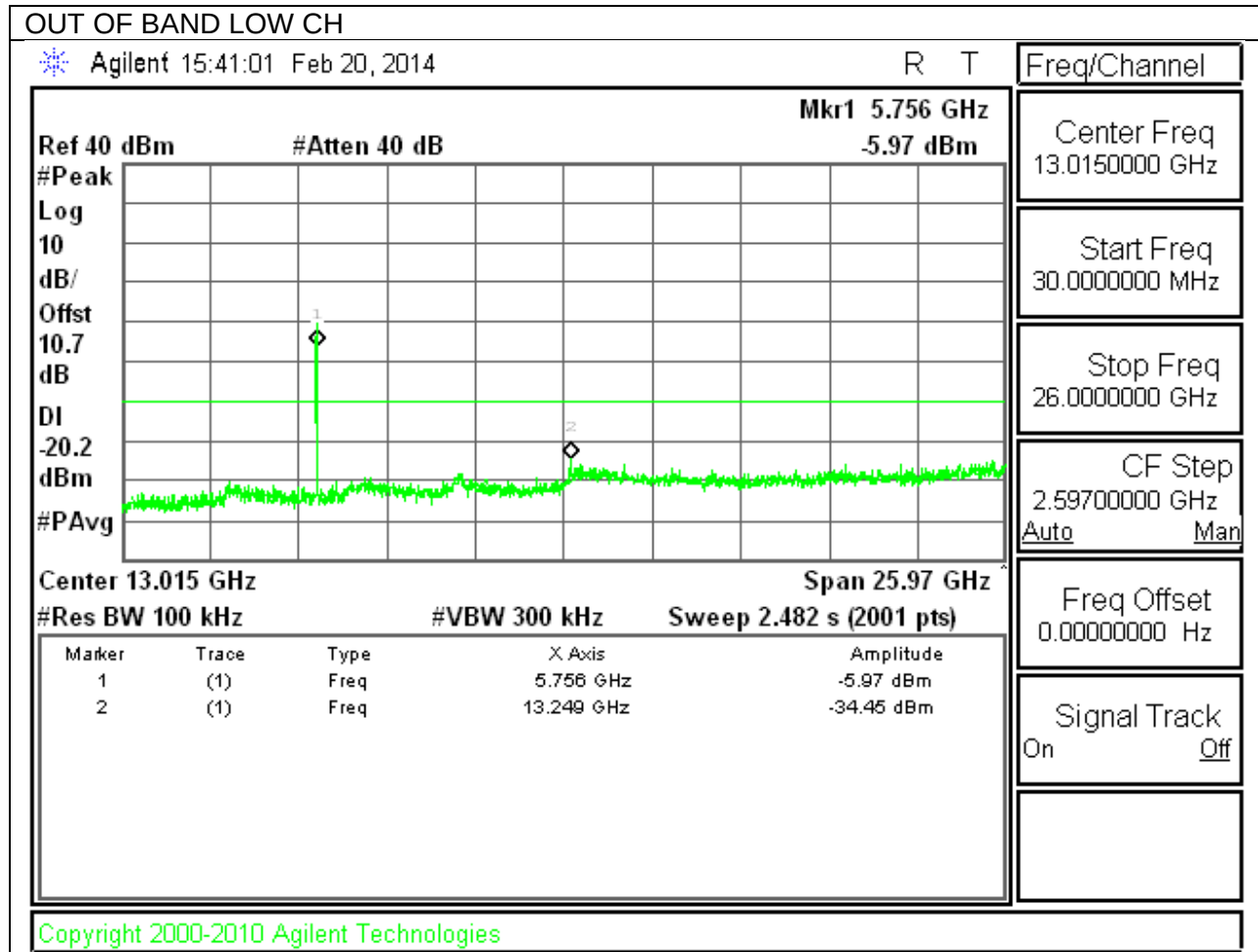


LOW CHANNEL BANDEDGE

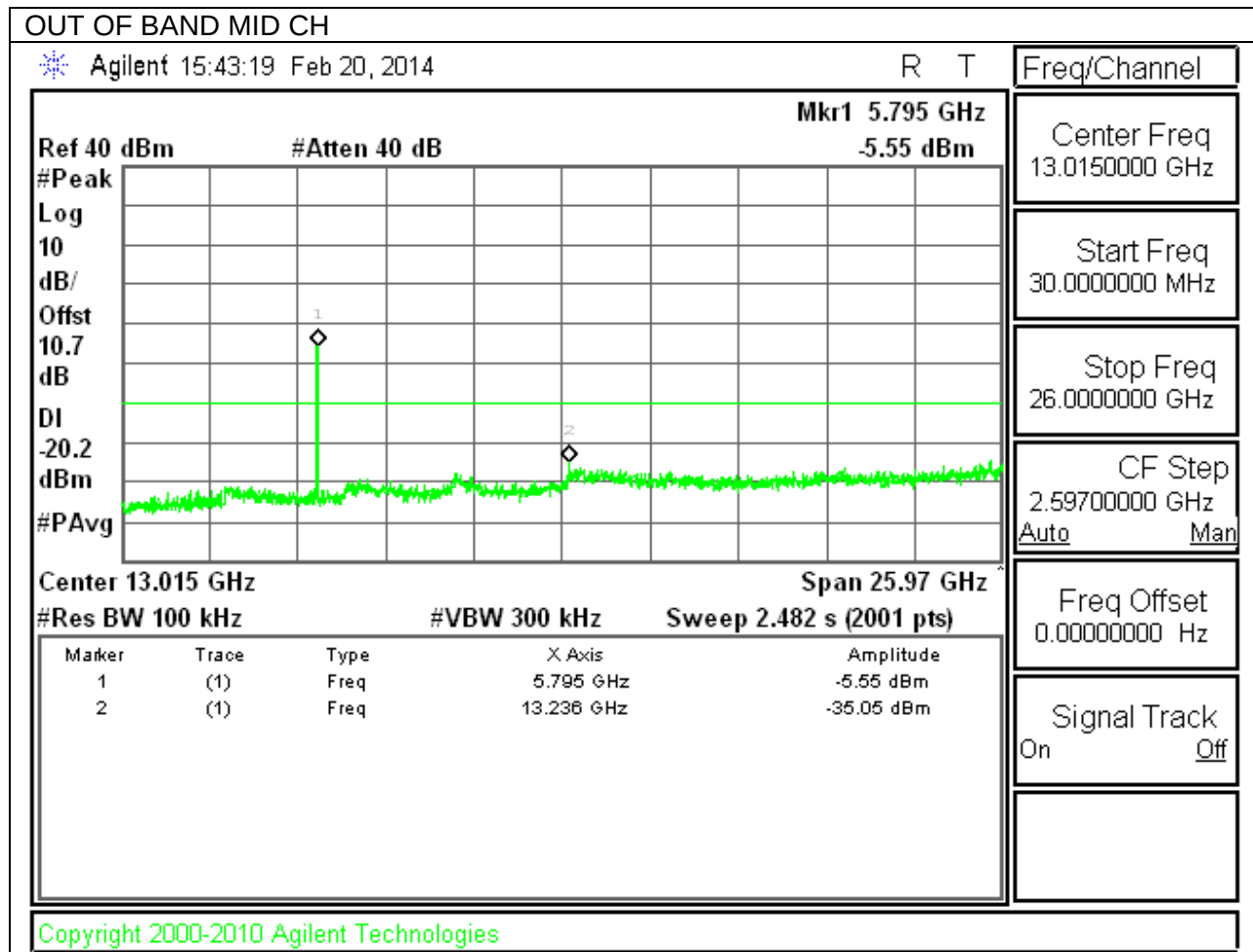
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



Note: There is no harmonic up to 40GHz and only noise floor detected.



Note: There is no harmonic up to 40GHz and only noise floor detected.

OUT OF BAND HIGH CH

Agilent 15:44:23 Feb 20, 2014

R T

Freq/Channel

Ref 40 dBm

#Atten 40 dB

Mkr1 5.821 GHz

-4.28 dBm

#Peak

Log

10

dB/

Offst

10.7

dB

DI

-20.2

dBm

#PAvg

Center 13.015 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 25.97 GHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.821 GHz	-4.28 dBm
2	(1)	Freq	13.820 GHz	-36.36 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Freq Offset
0.00000000 Hz

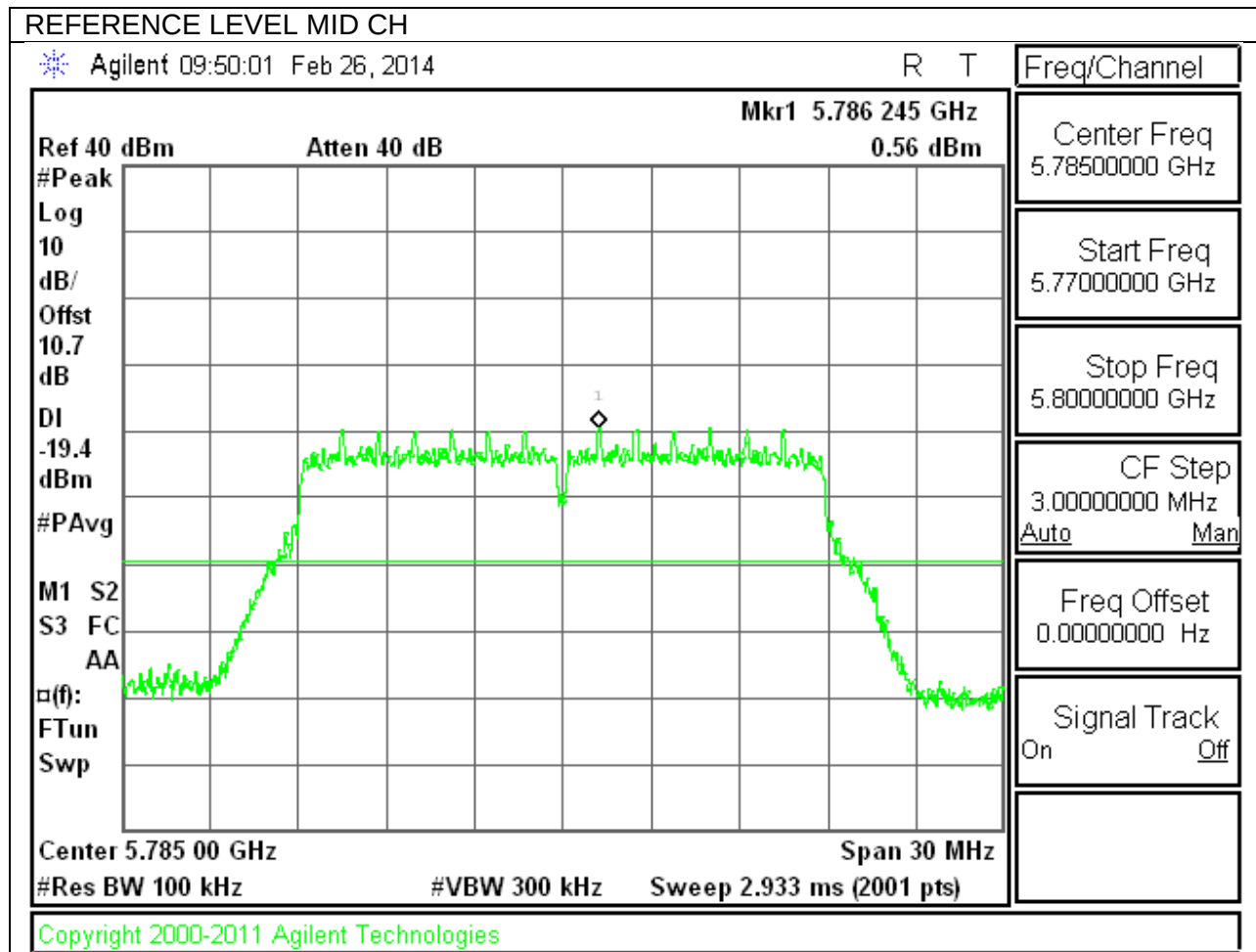
Signal Track
On Off

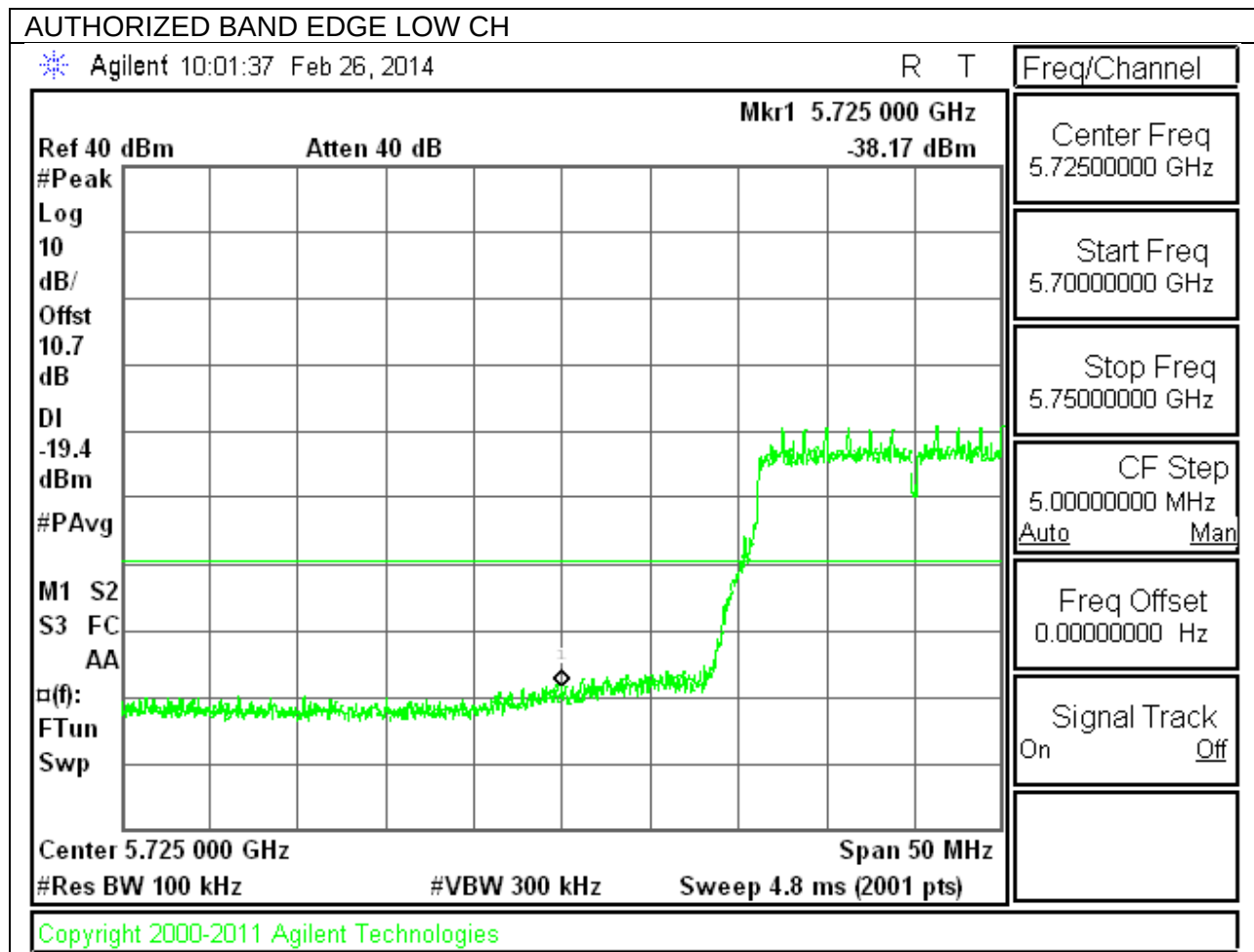
Copyright 2000-2010 Agilent Technologies

Note: There is no harmonic up to 40GHz and only noise floor detected.

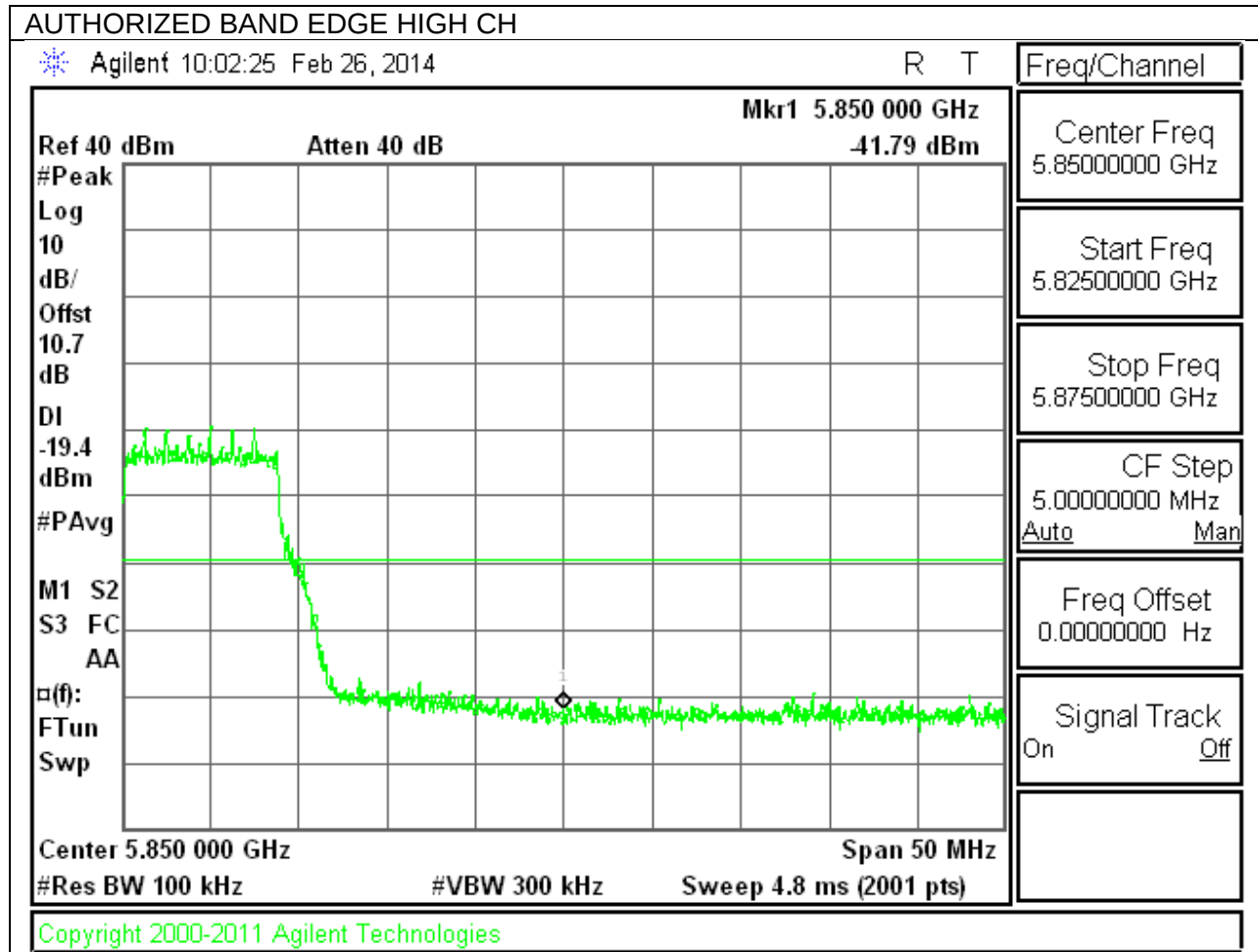
10.5.10. 802.11n MODE IN THE 5.8 GHz BAND CHAIN 1

IN-BAND REFERENCE LEVEL

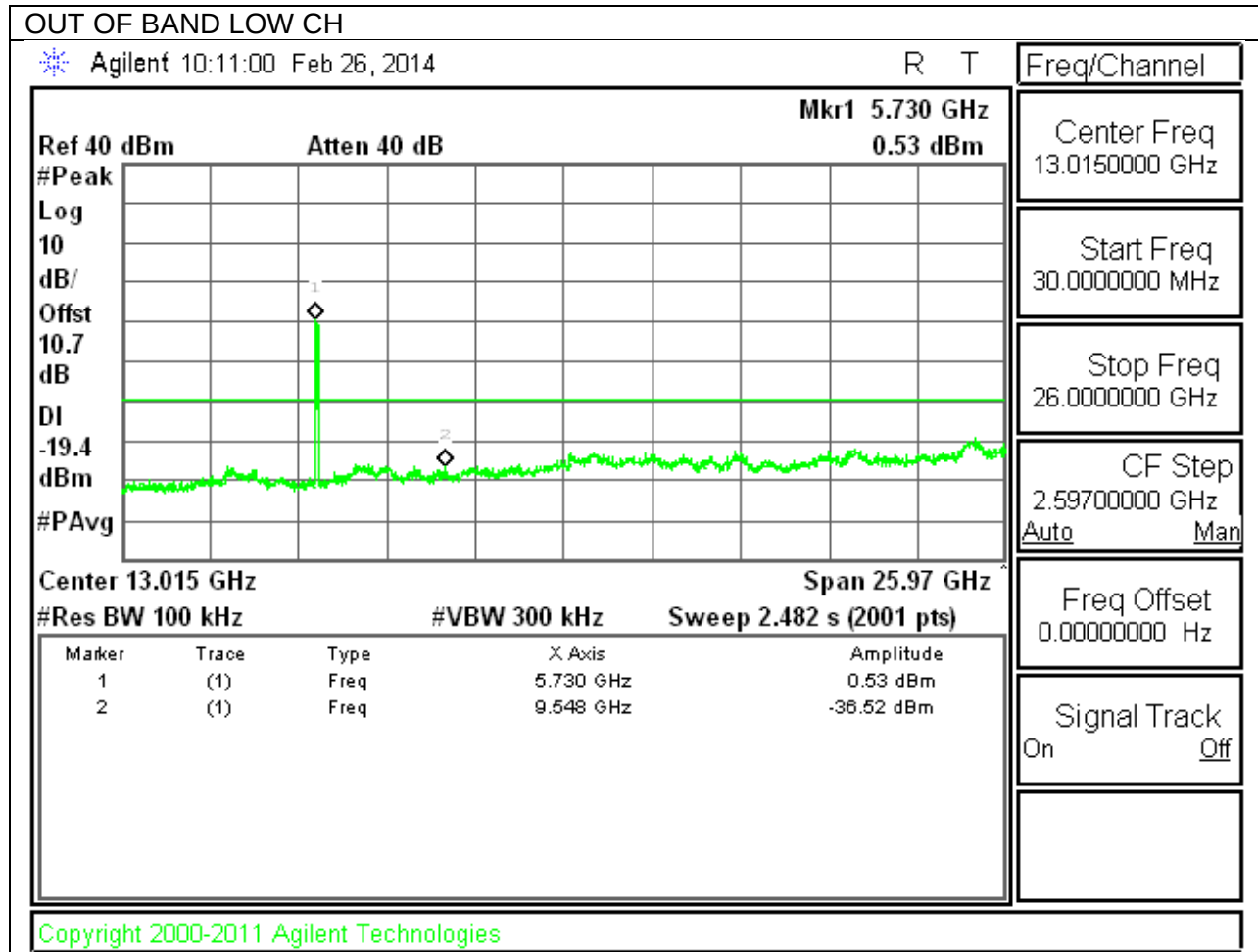




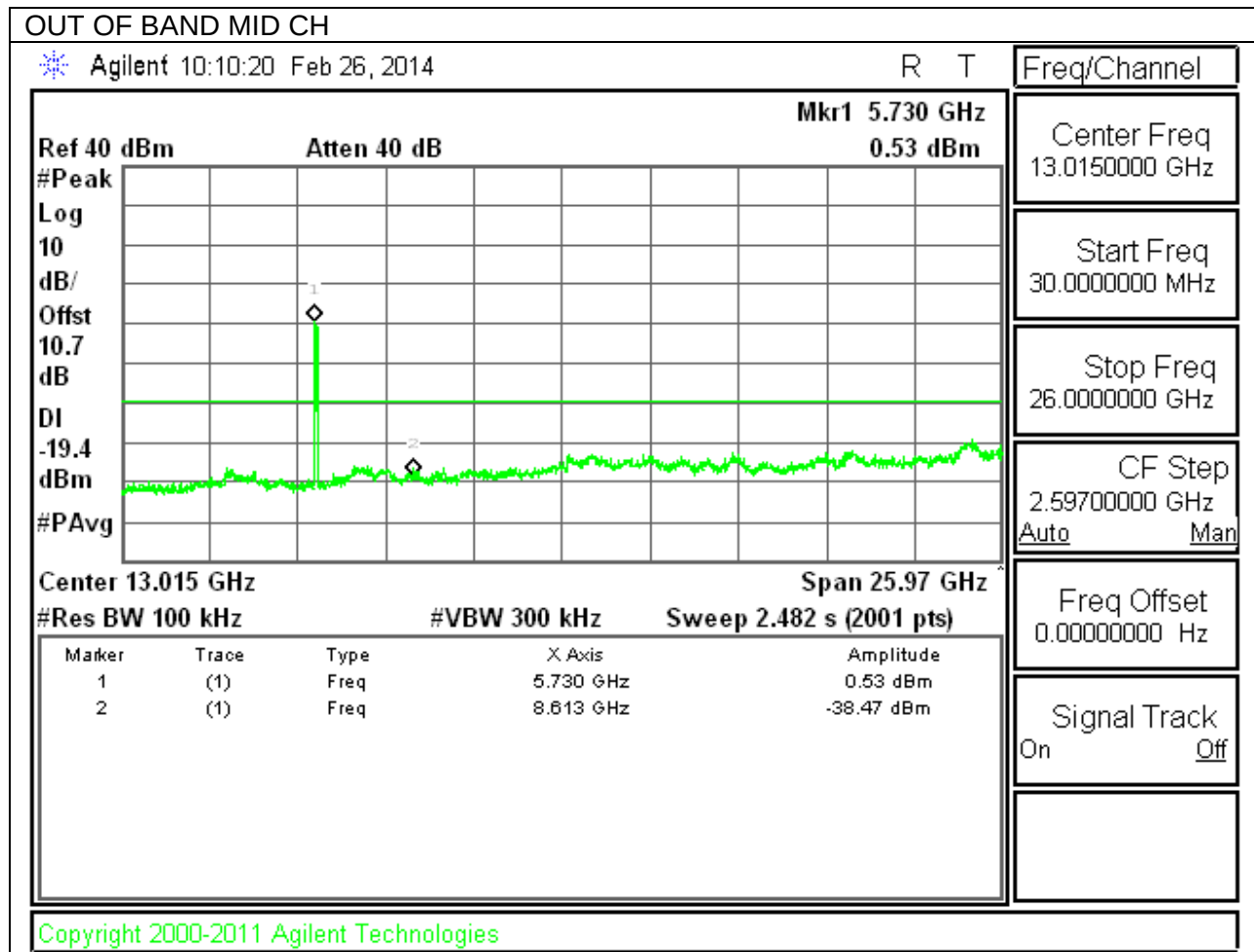
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



Note: There is no harmonic up to 40GHz and only noise floor detected.



Note: There is no harmonic up to 40GHz and only noise floor detected.

OUT OF BAND HIGH CH

Agilent 10:09:28 Feb 26, 2014

R T

Freq/Channel

Ref 40 dBm

Atten 40 dB

Mkr1 5.730 GHz
0.53 dBm

#Peak

Log

10

dB/

Offst

10.7

dB

DI

-19.4

dBm

#PAvg

Center 13.015 GHz

Span 25.97 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 2.482 s (2001 pts)

Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	5.730 GHz	0.53 dBm
2	(1)	Freq	8.626 GHz	-36.26 dBm

Center Freq
13.0150000 GHz

Start Freq
30.0000000 MHz

Stop Freq
26.0000000 GHz

CF Step
2.59700000 GHz
Auto Man

Freq Offset
0.00000000 Hz

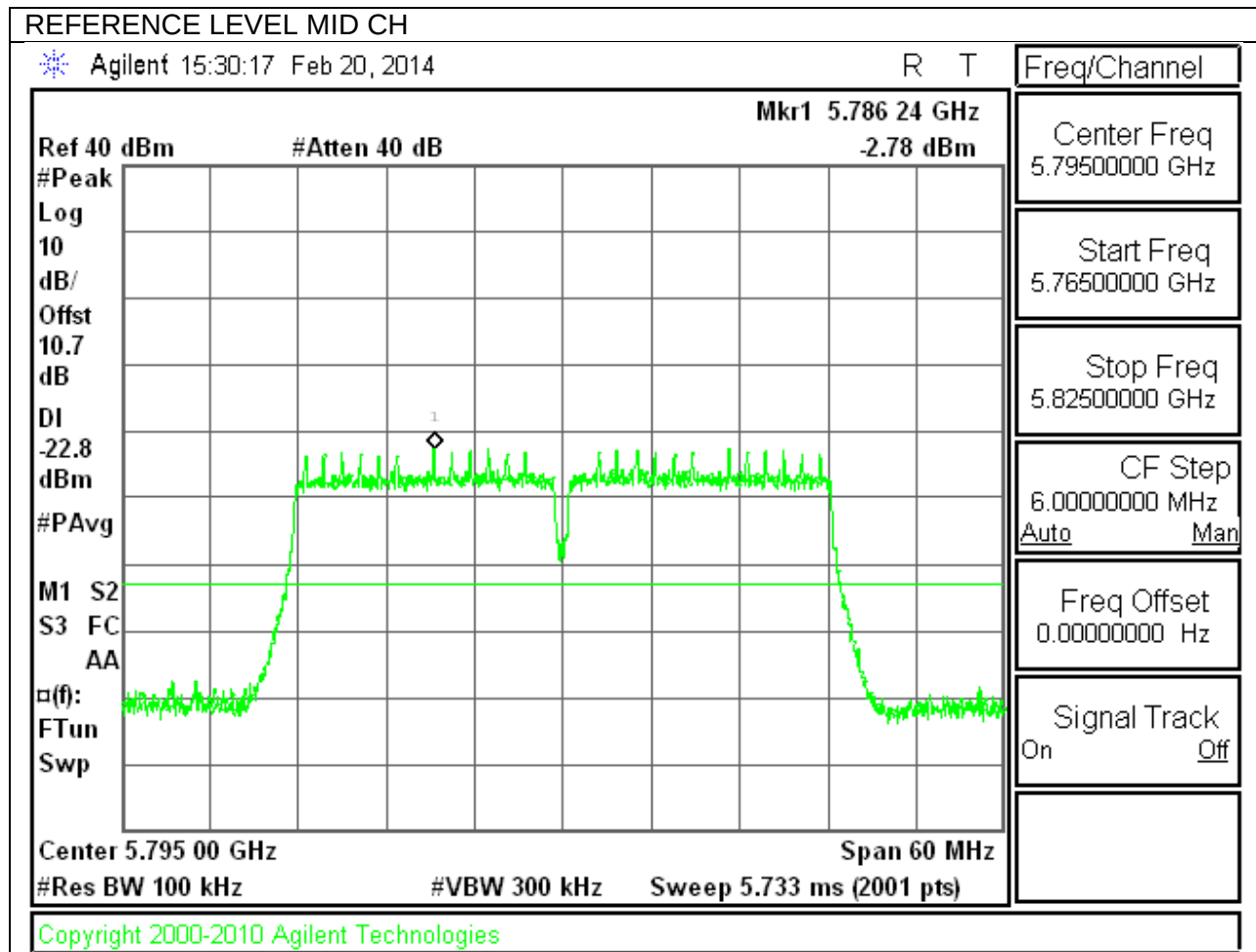
Signal Track
On Off

Copyright 2000-2011 Agilent Technologies

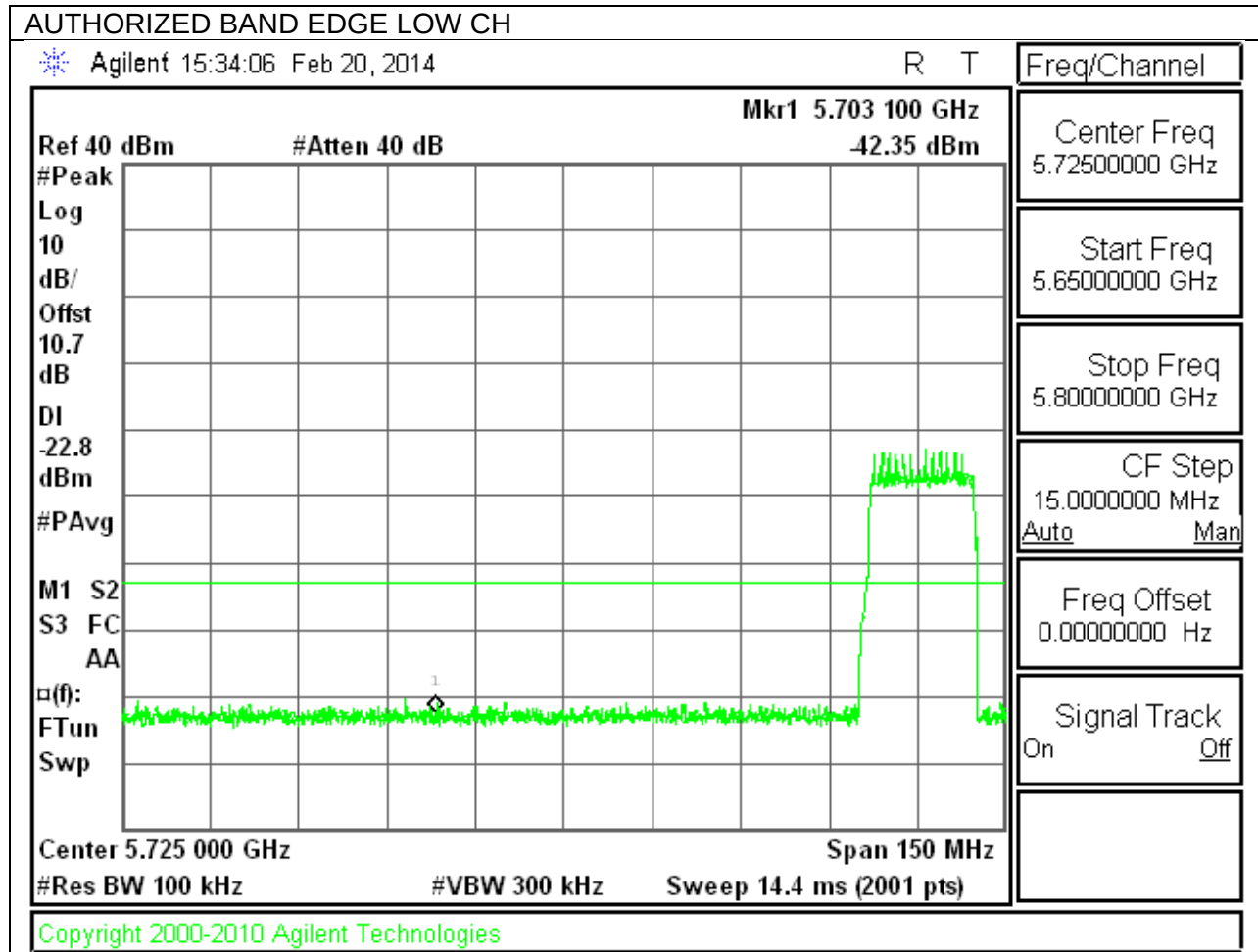
Note: There is no harmonic up to 40GHz and only noise floor detected.

10.5.11. 802.11n HT40 MODE IN THE 5.8 GHz BAND CHAIN 0

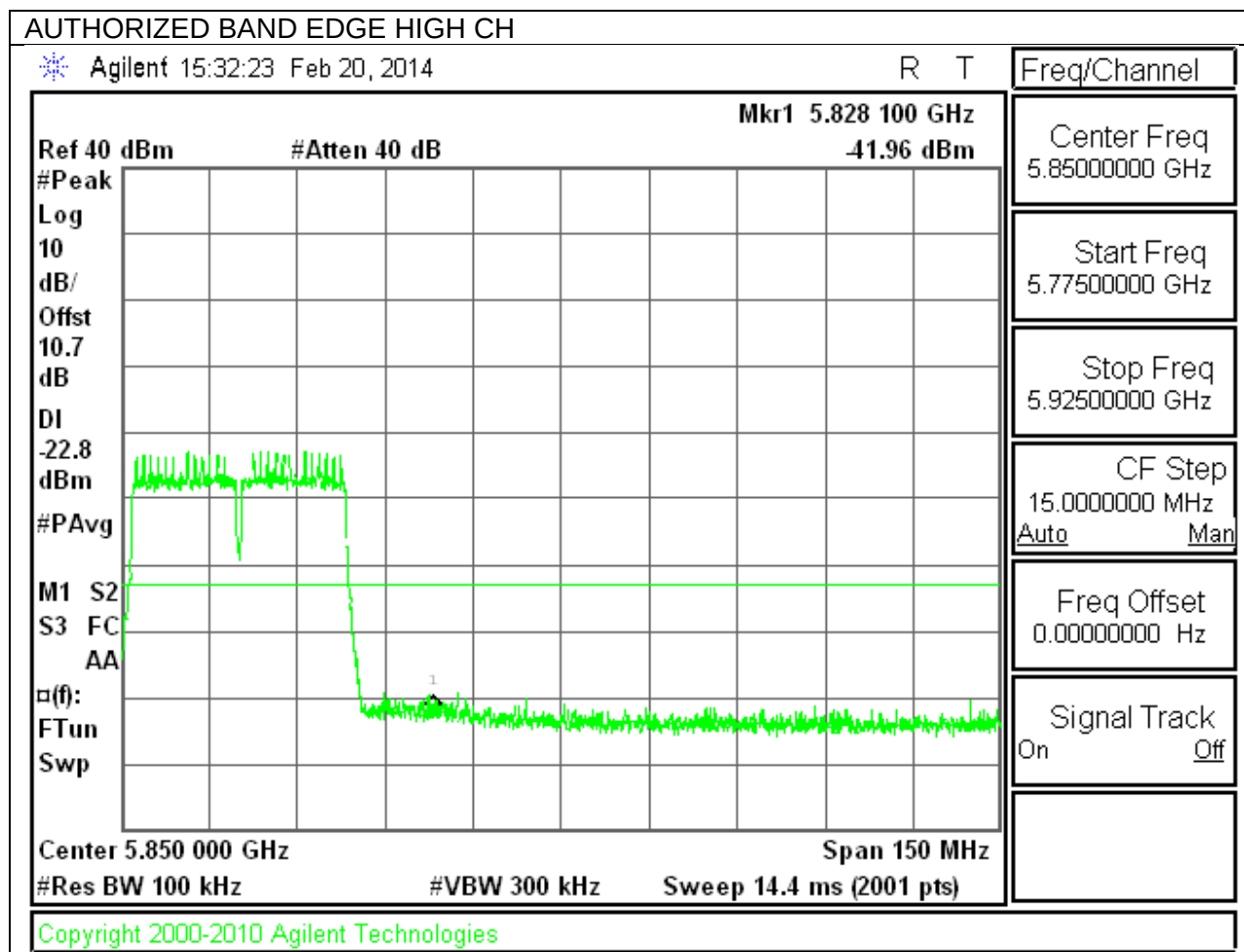
IN-BAND REFERENCE LEVEL



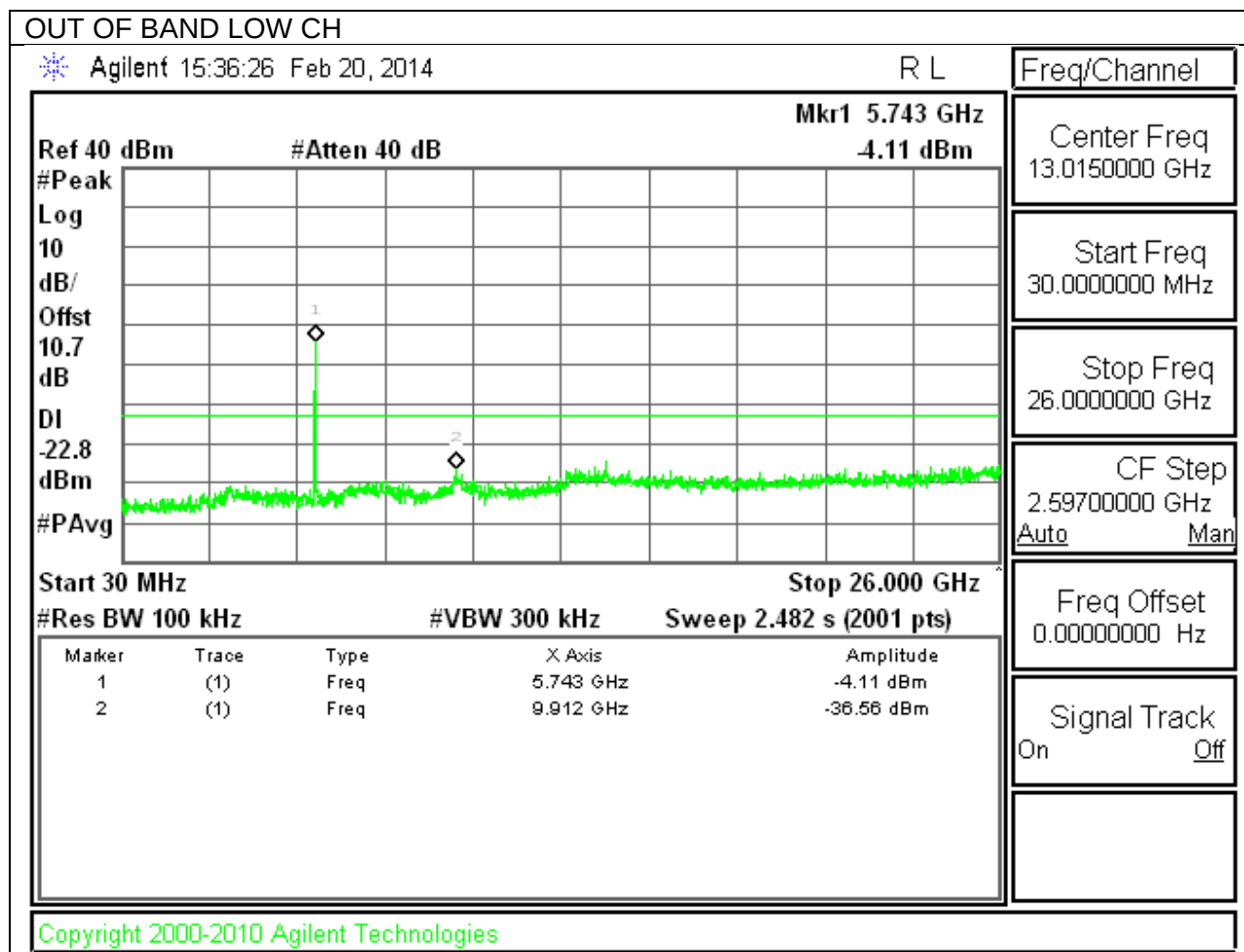
LOW CHANNEL BANDEDGE



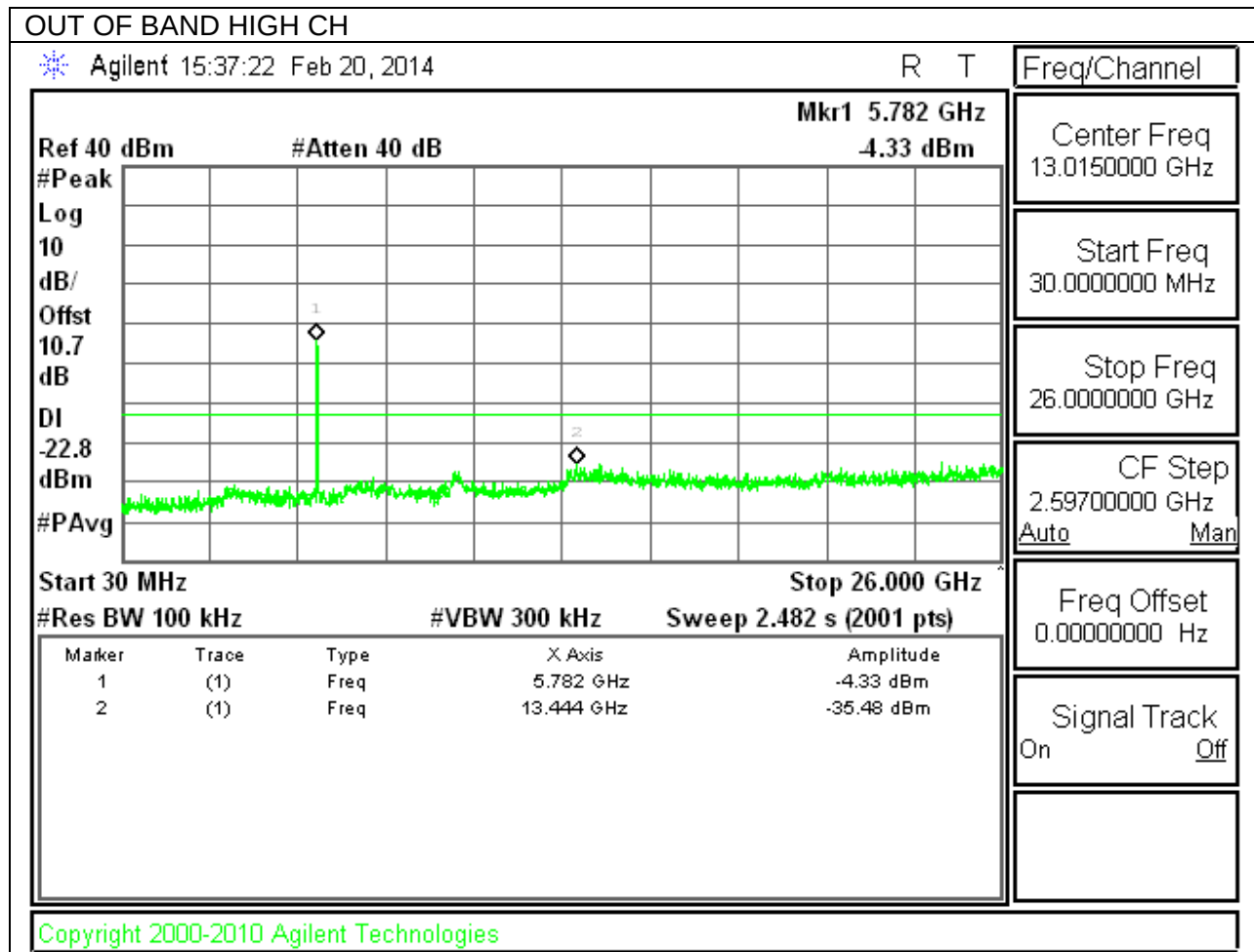
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



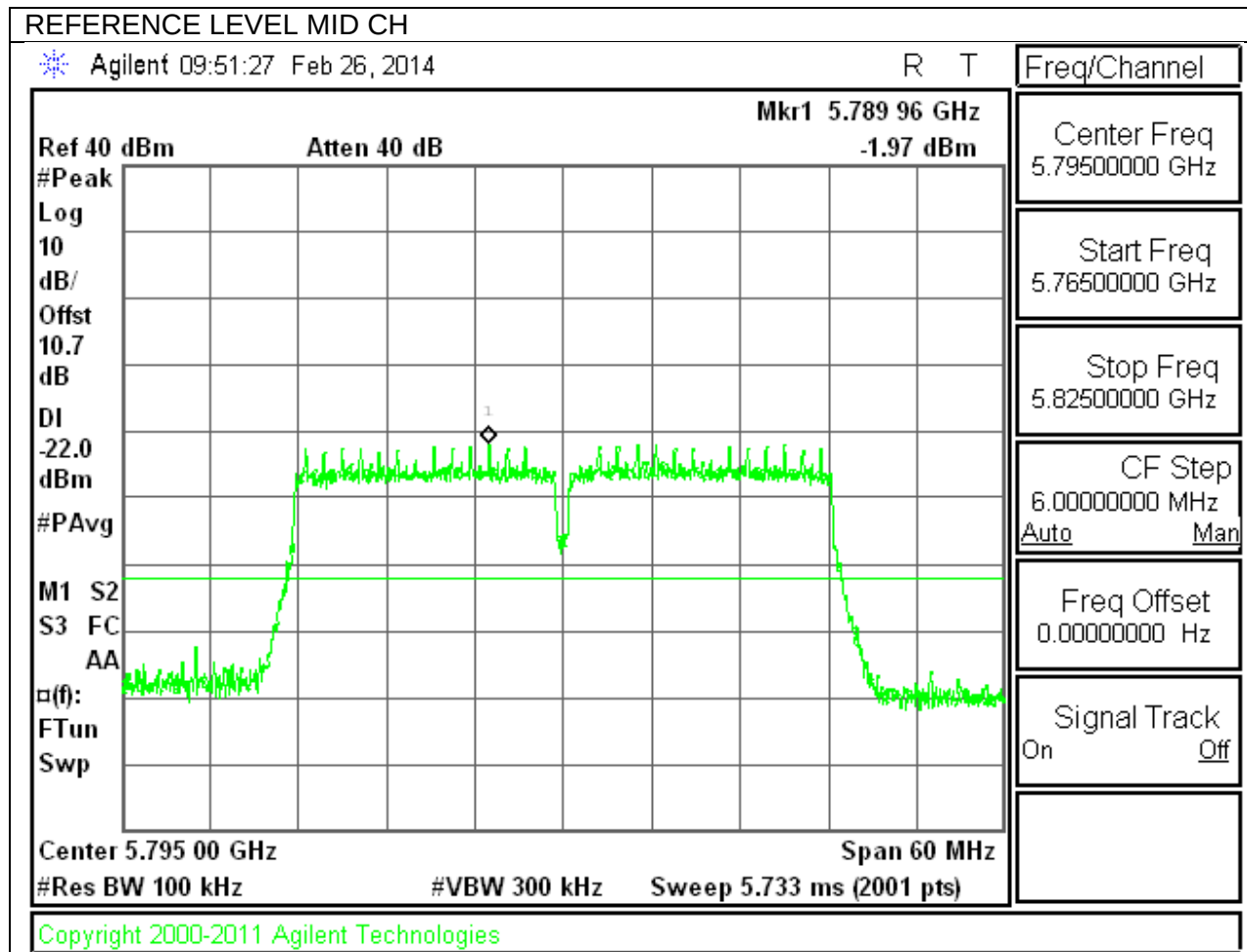
Note: There is no harmonic up to 40GHz and only noise floor detected.

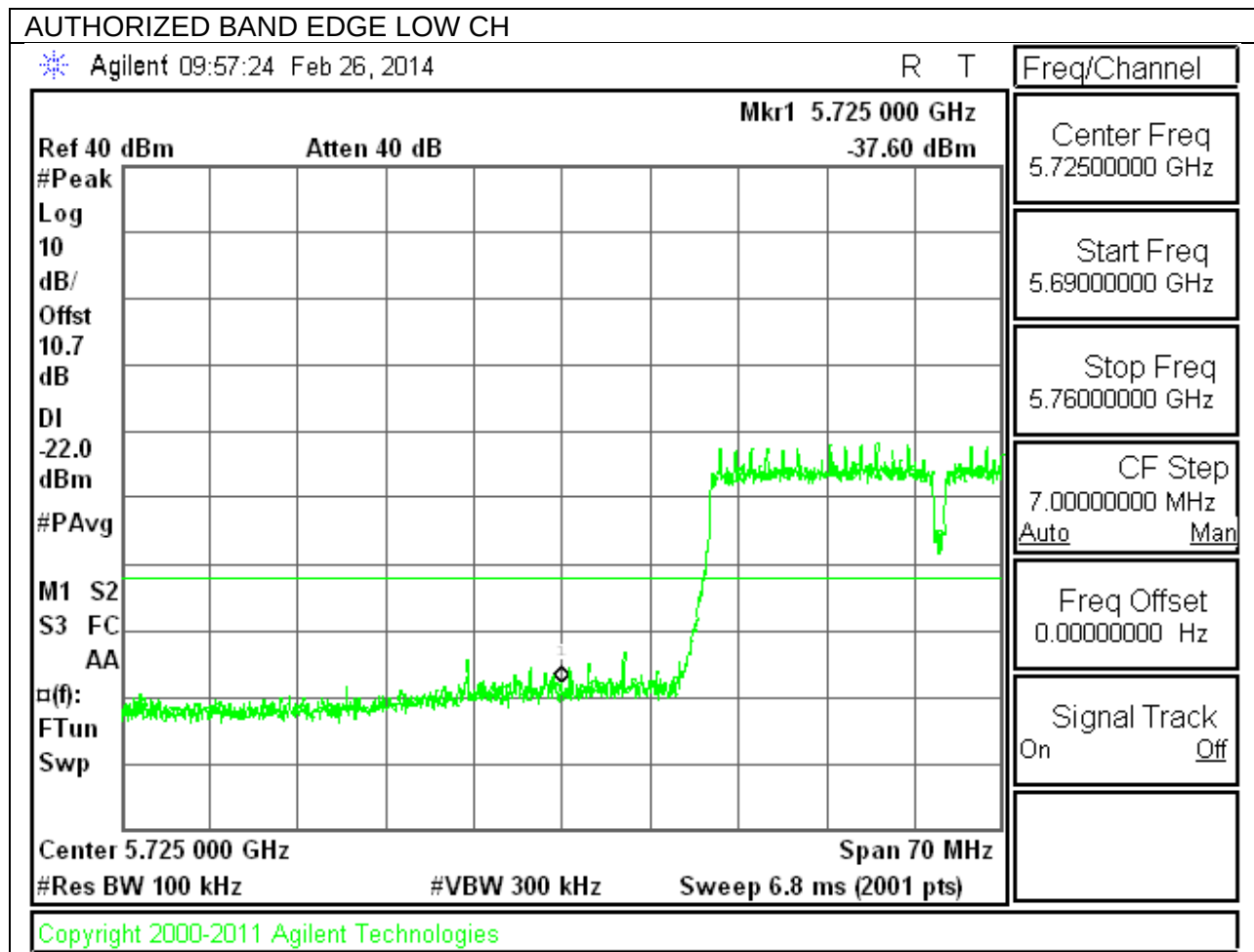


Note: There is no harmonic up to 40GHz and only noise floor detected.

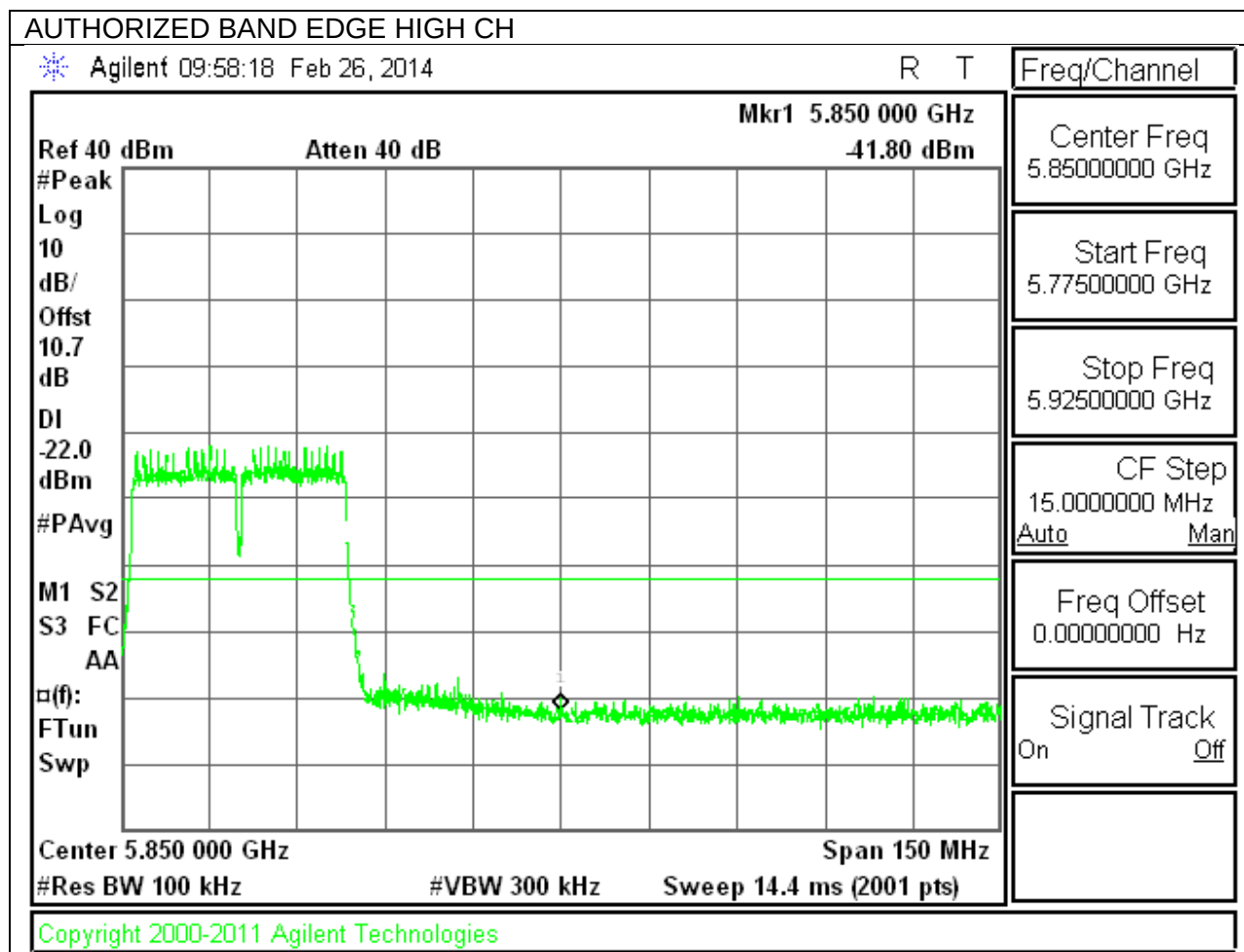
10.5.12. 802.11n HT40 MODE IN THE 5.8 GHz BAND CHAIN 1

IN-BAND REFERENCE LEVEL

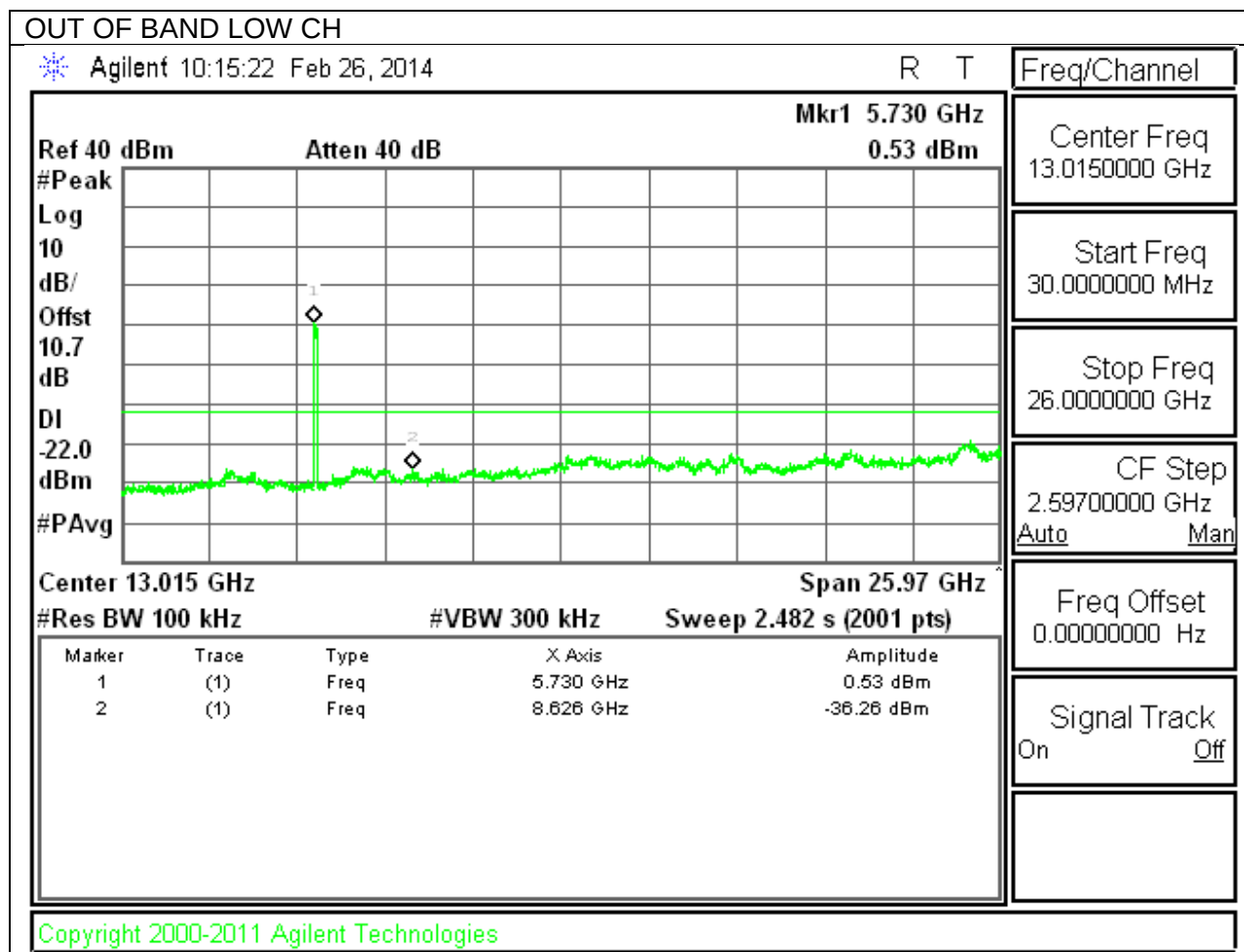




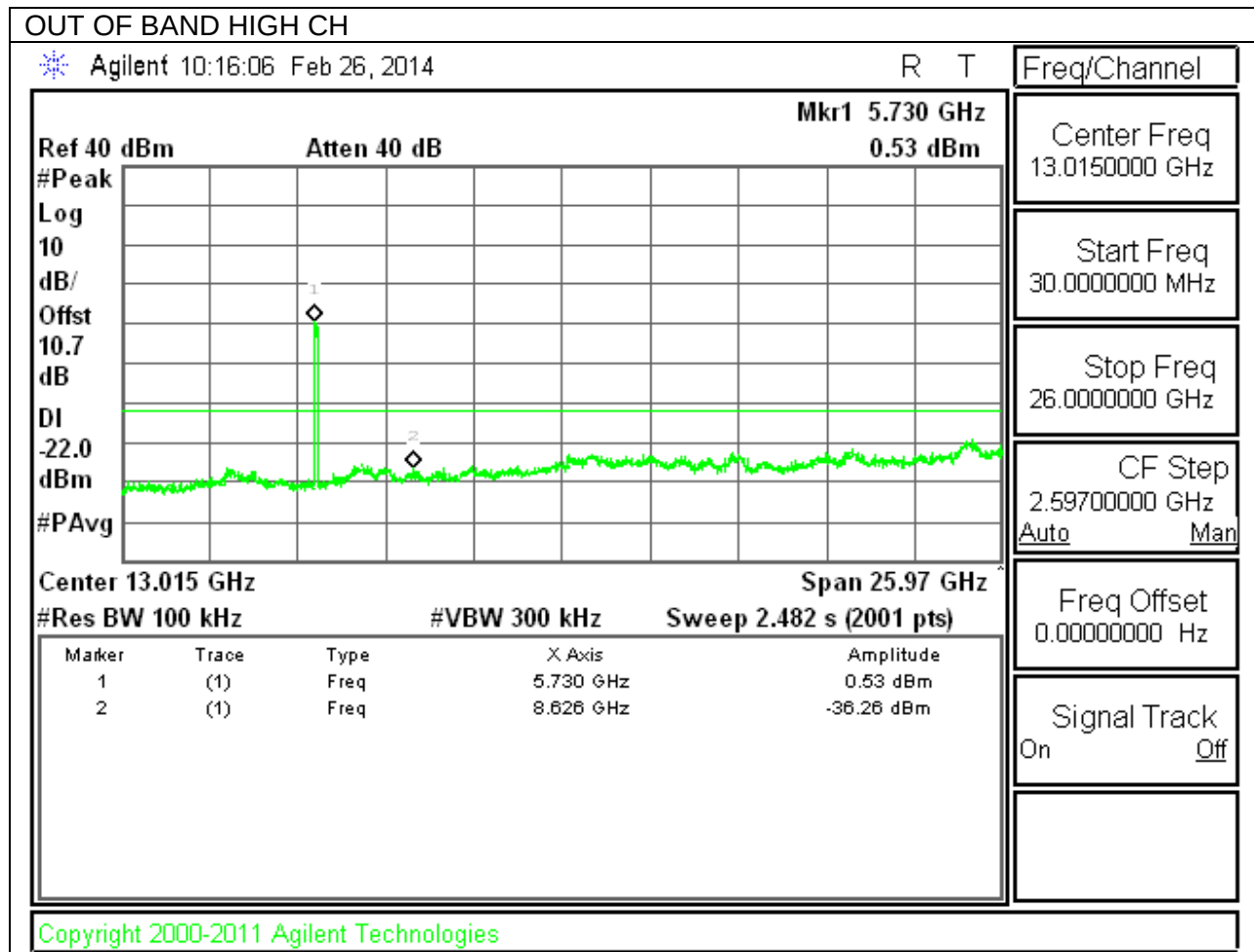
HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



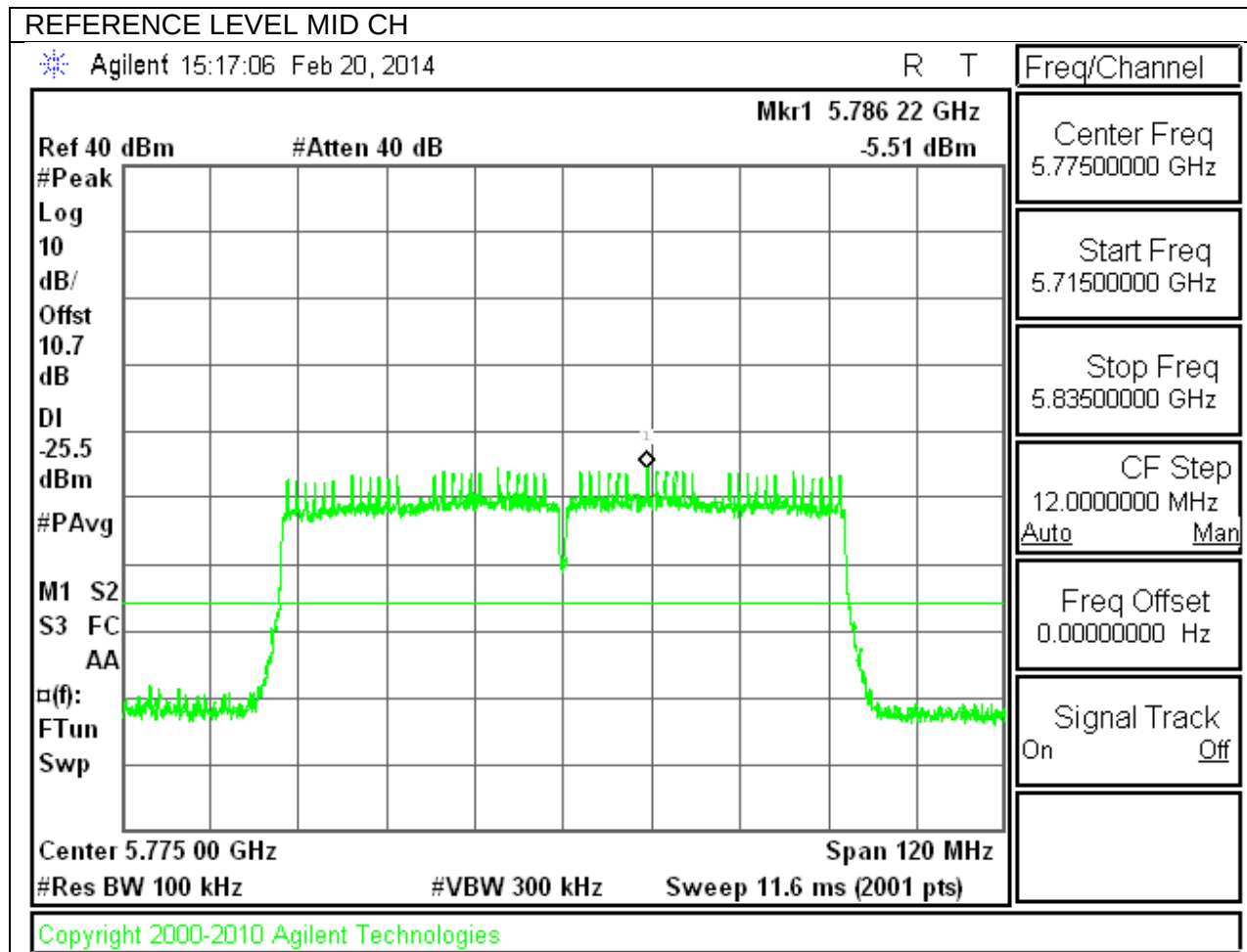
Note: There is no harmonic up to 40GHz and only noise floor detected.



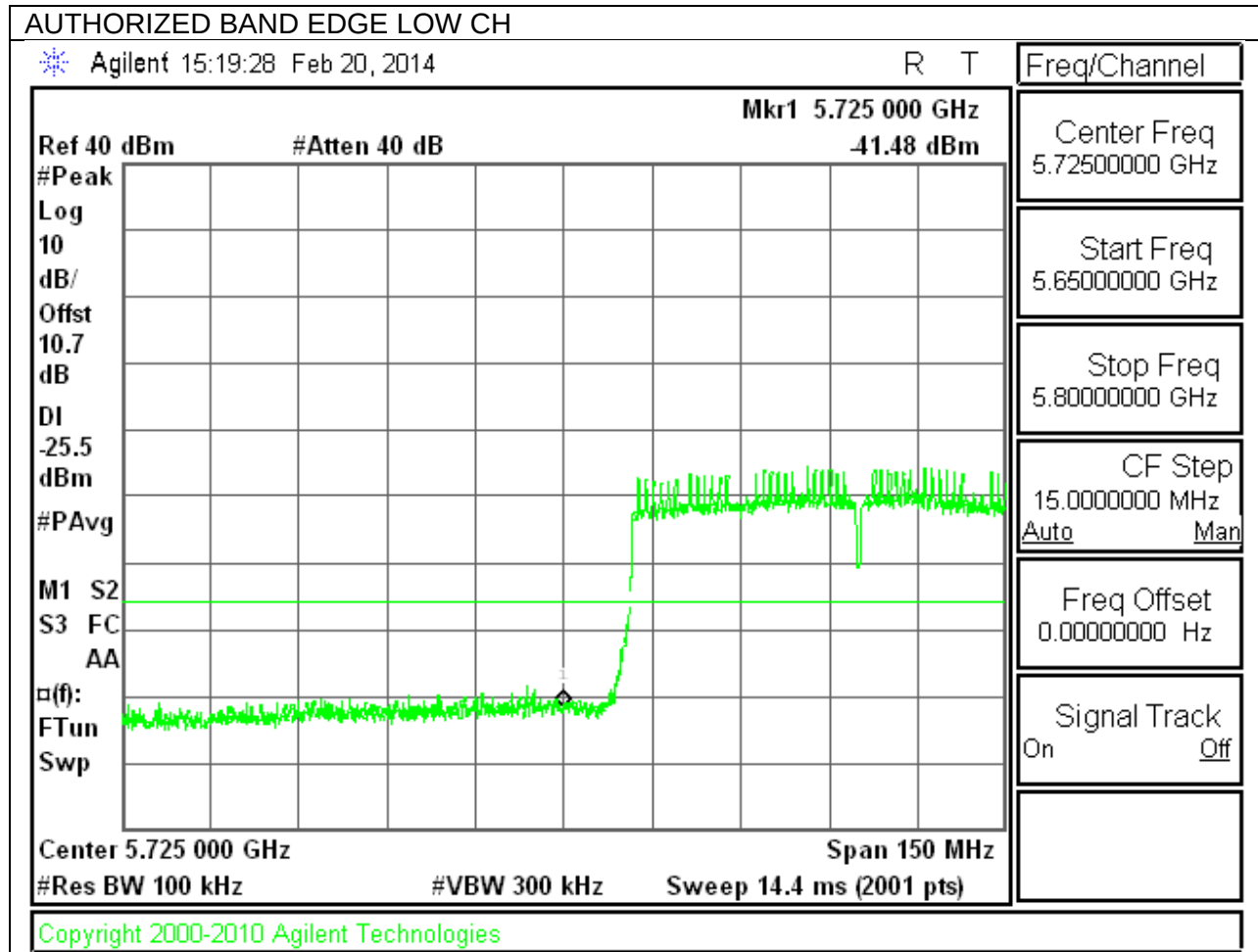
Note: There is no harmonic up to 40GHz and only noise floor detected.

10.5.13. 802.11ac HT80 MODE IN THE 5.8 GHz BAND CHAIN 0

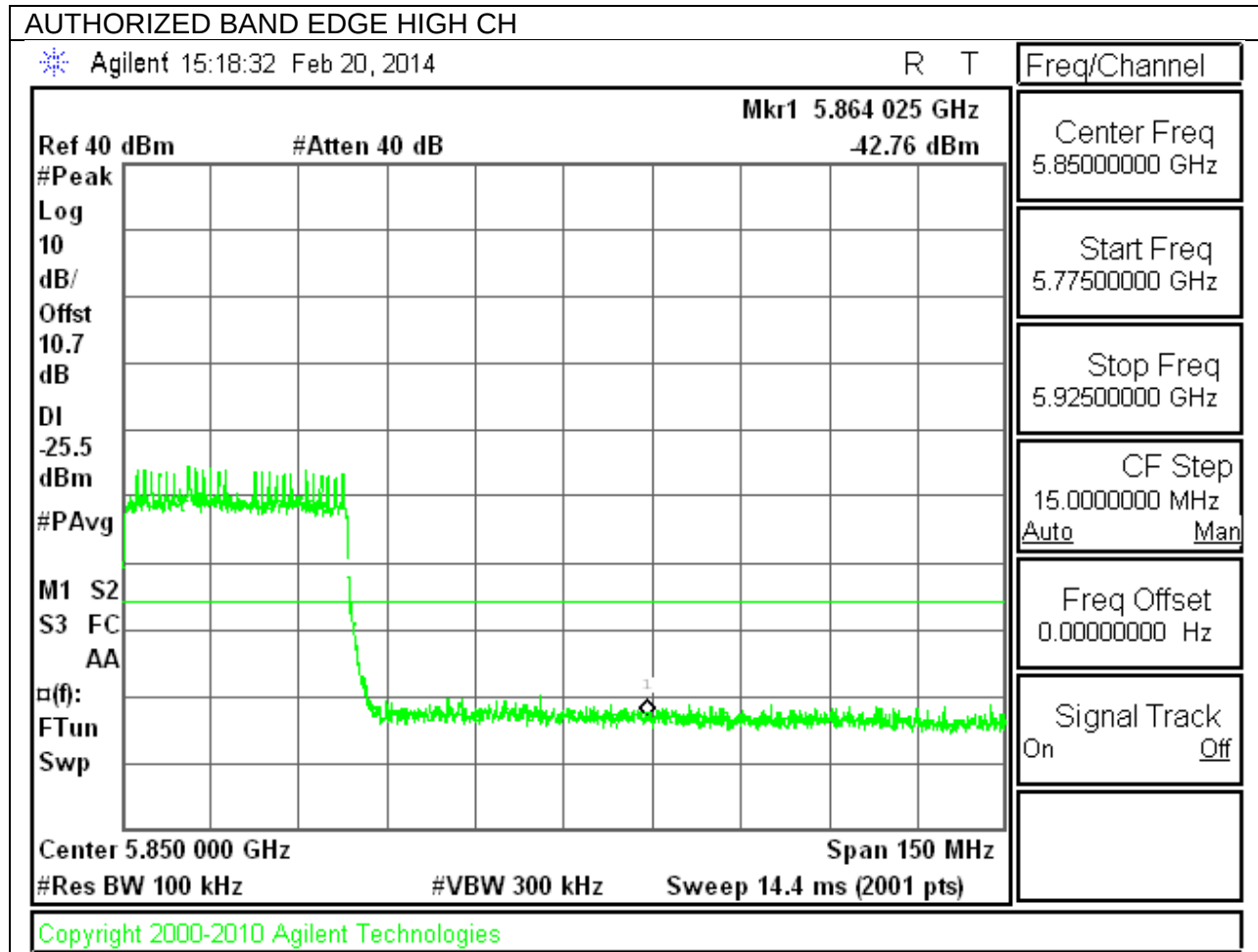
IN-BAND REFERENCE LEVEL



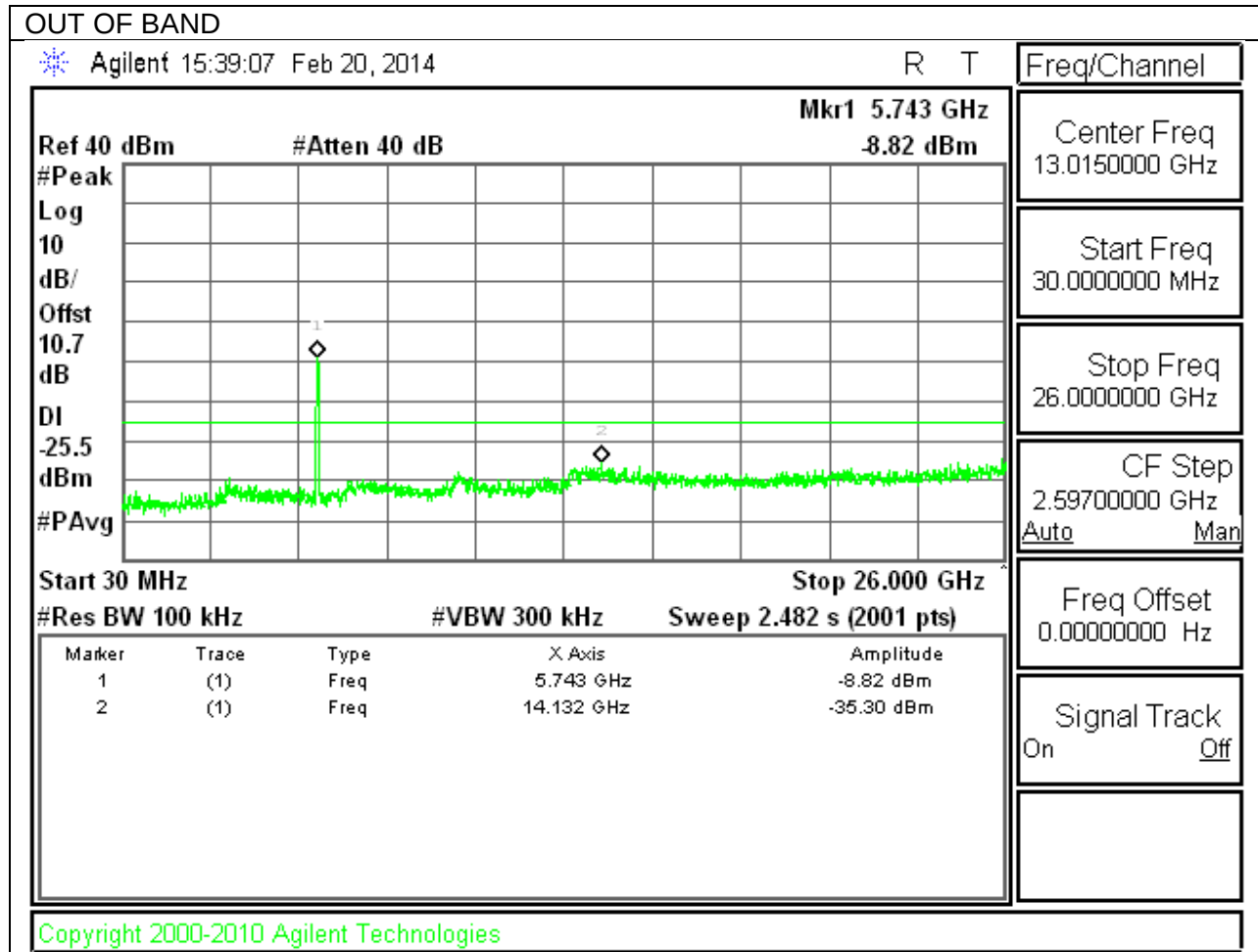
LOW CHANNEL BANDEDGE



HIGH CHANNEL BANDEDGE



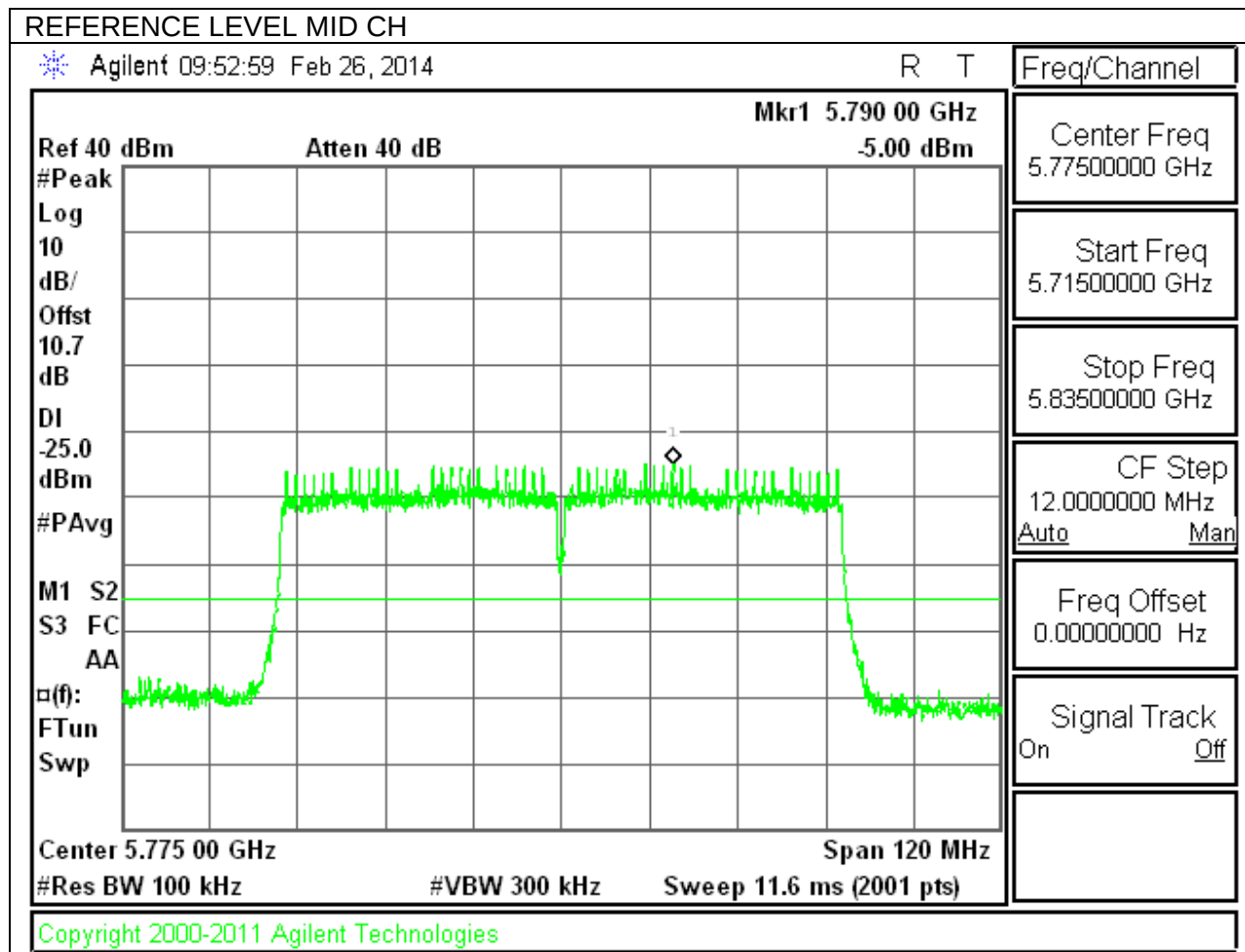
OUT-OF-BAND EMISSIONS



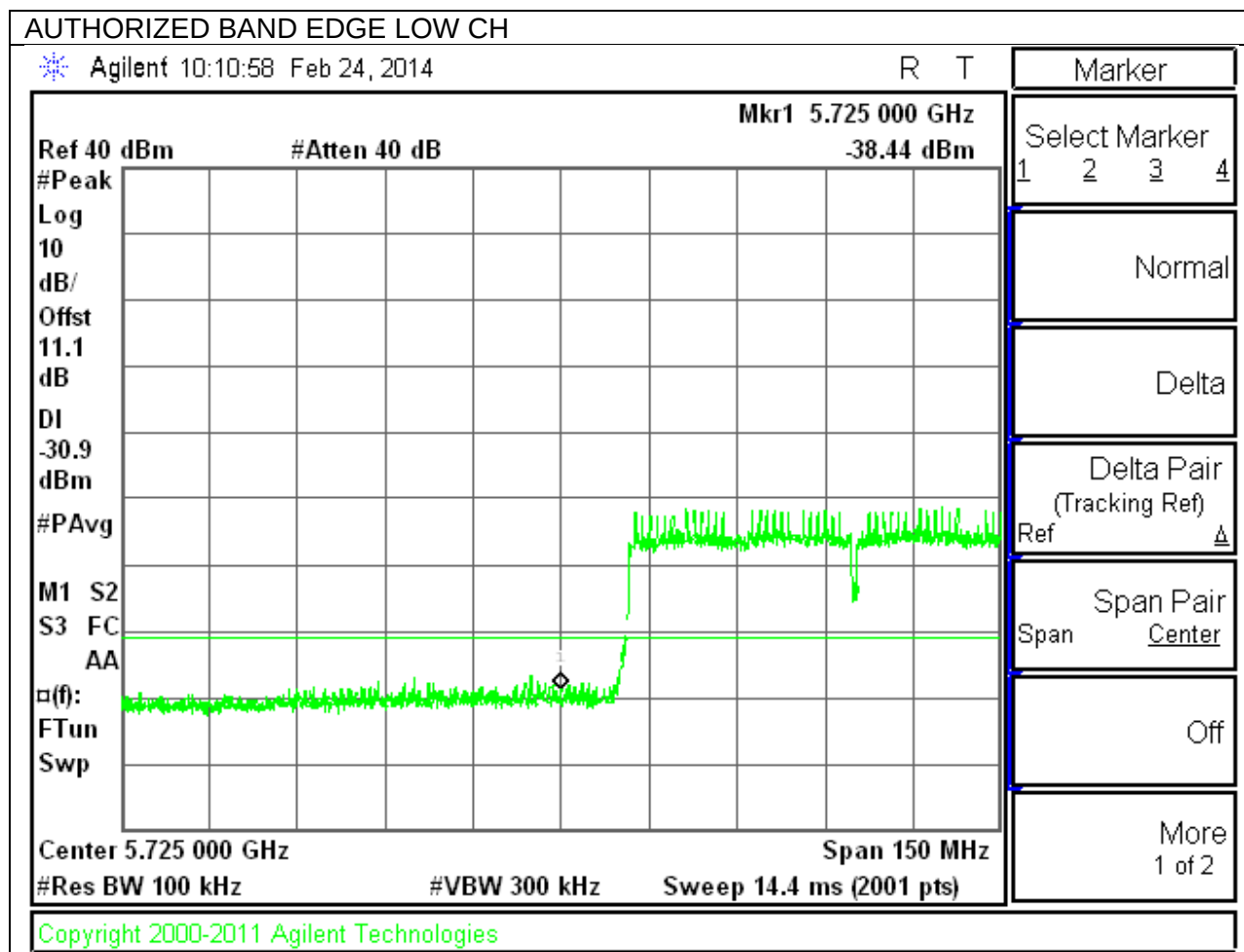
Note: There is no harmonic up to 40GHz and only noise floor detected.

10.5.14. 802.11ac HT80 MODE IN THE 5.8 GHz BAND CHAIN 1

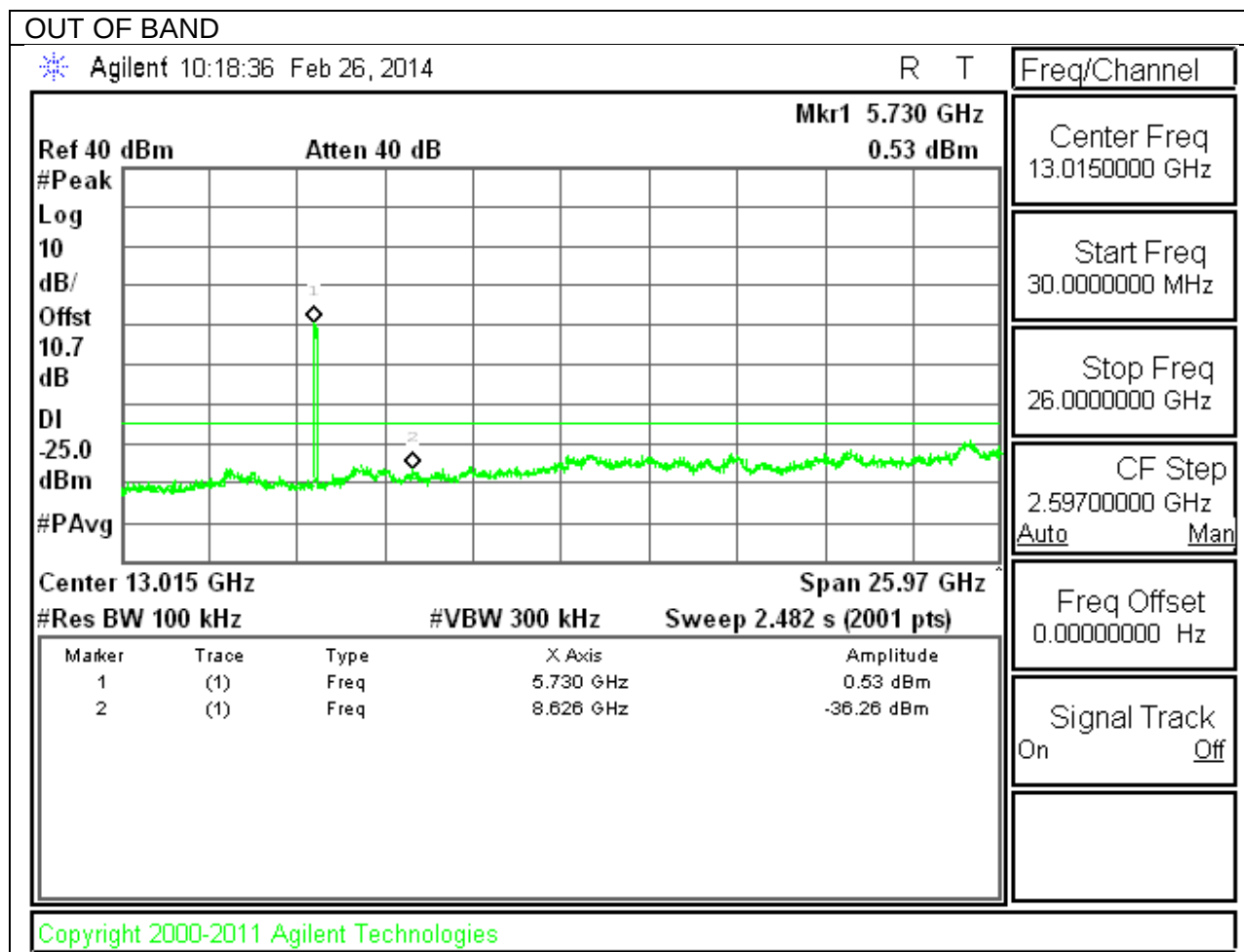
IN-BAND REFERENCE LEVEL



LOW CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS



Note: There is no harmonic up to 40GHz and only noise floor detected.

11. RADIATED TEST RESULTS

11.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

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

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

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 measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor for average measurements. Duty cycle factor= $10\log(1/x)$

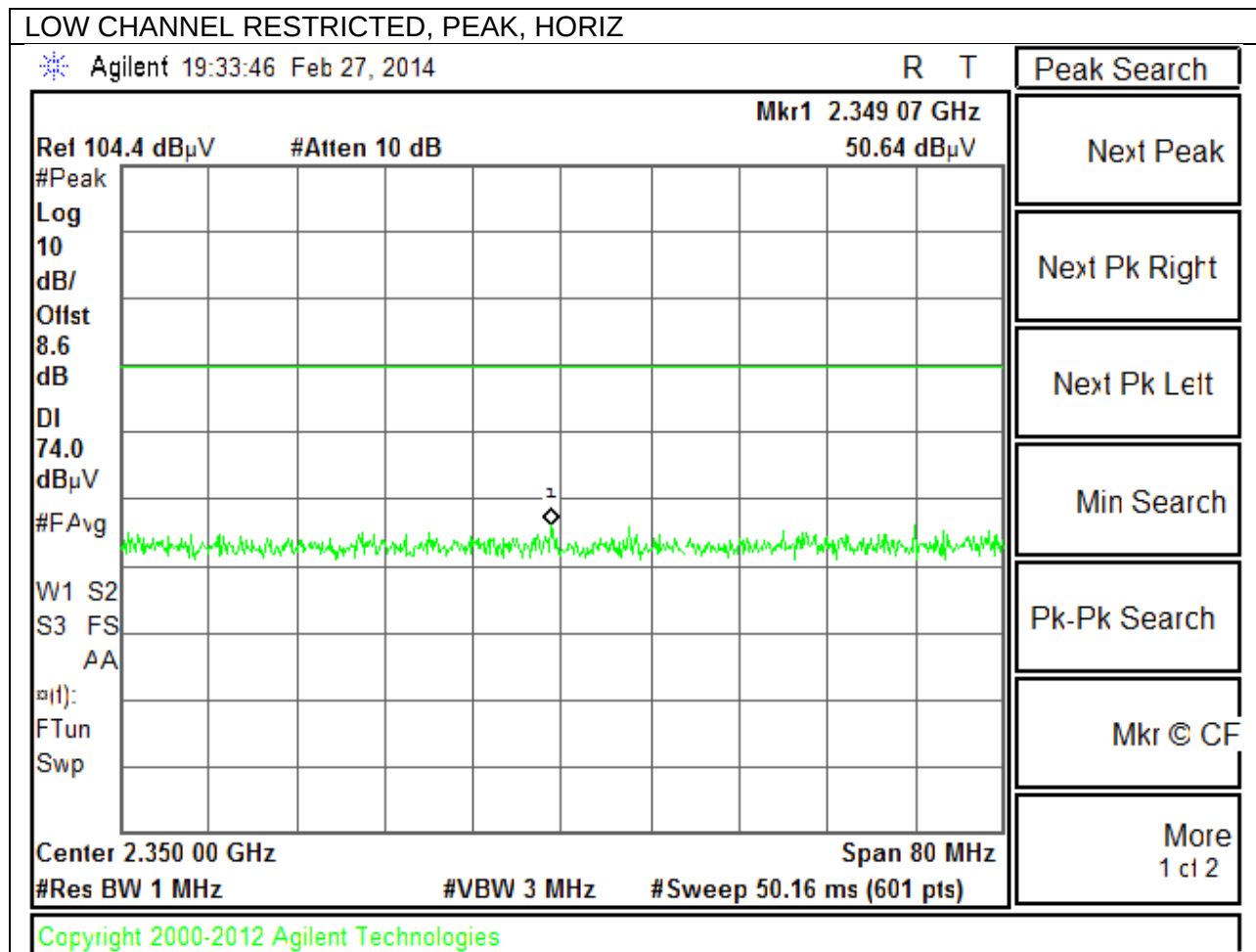
For spurious emission measurement refer to MAV1 - KDB558074 Option 1 Maximum RMS Average

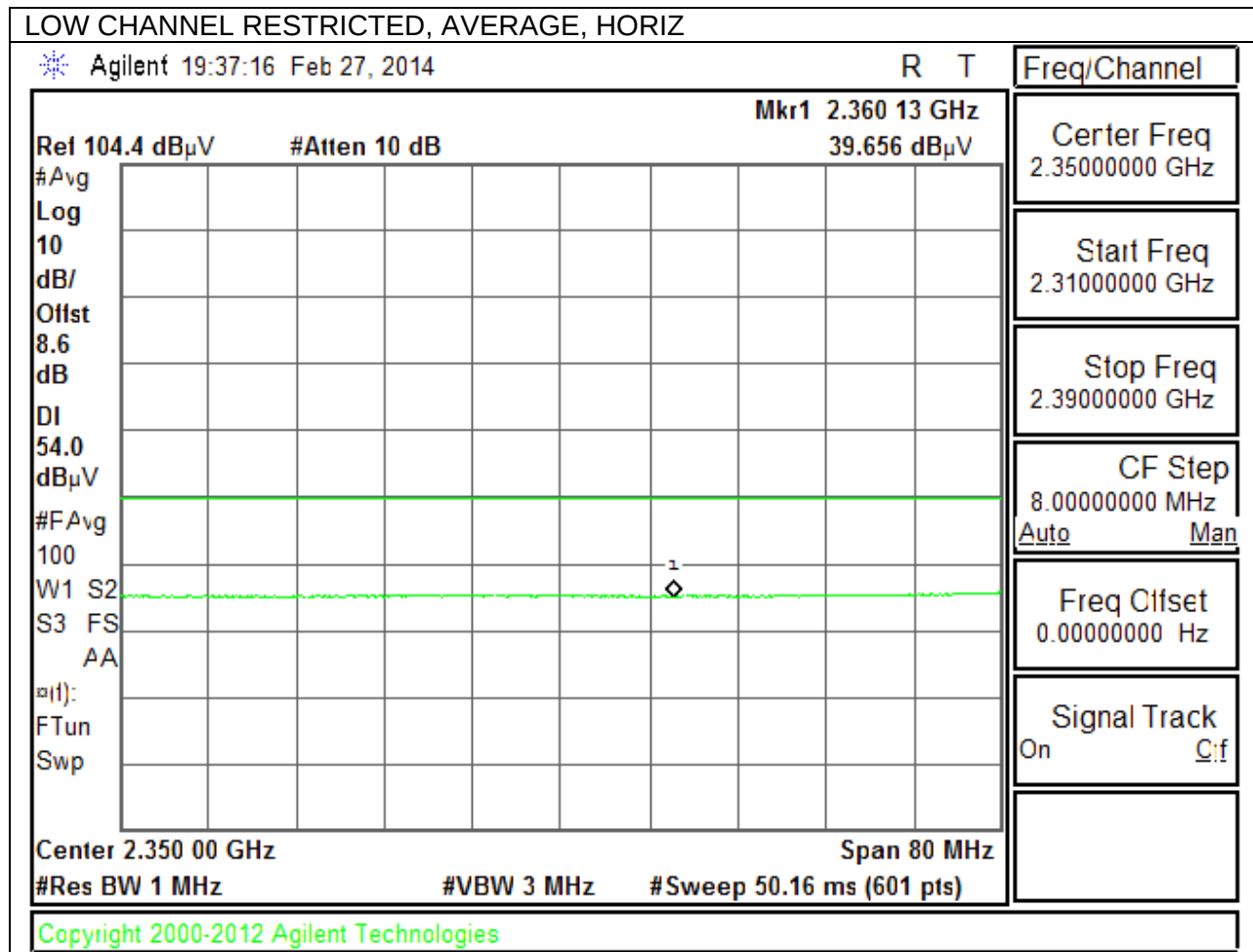
The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

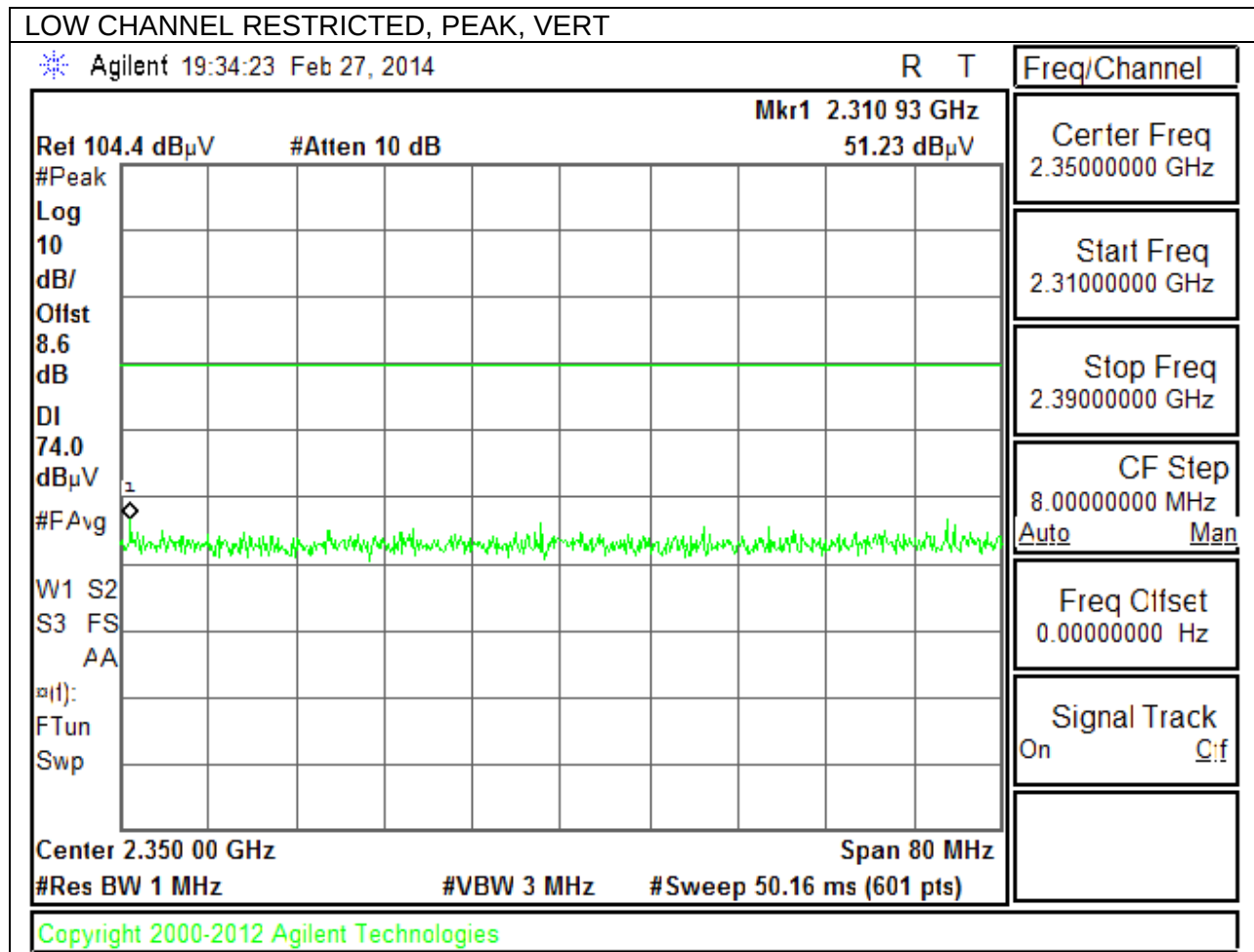
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized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

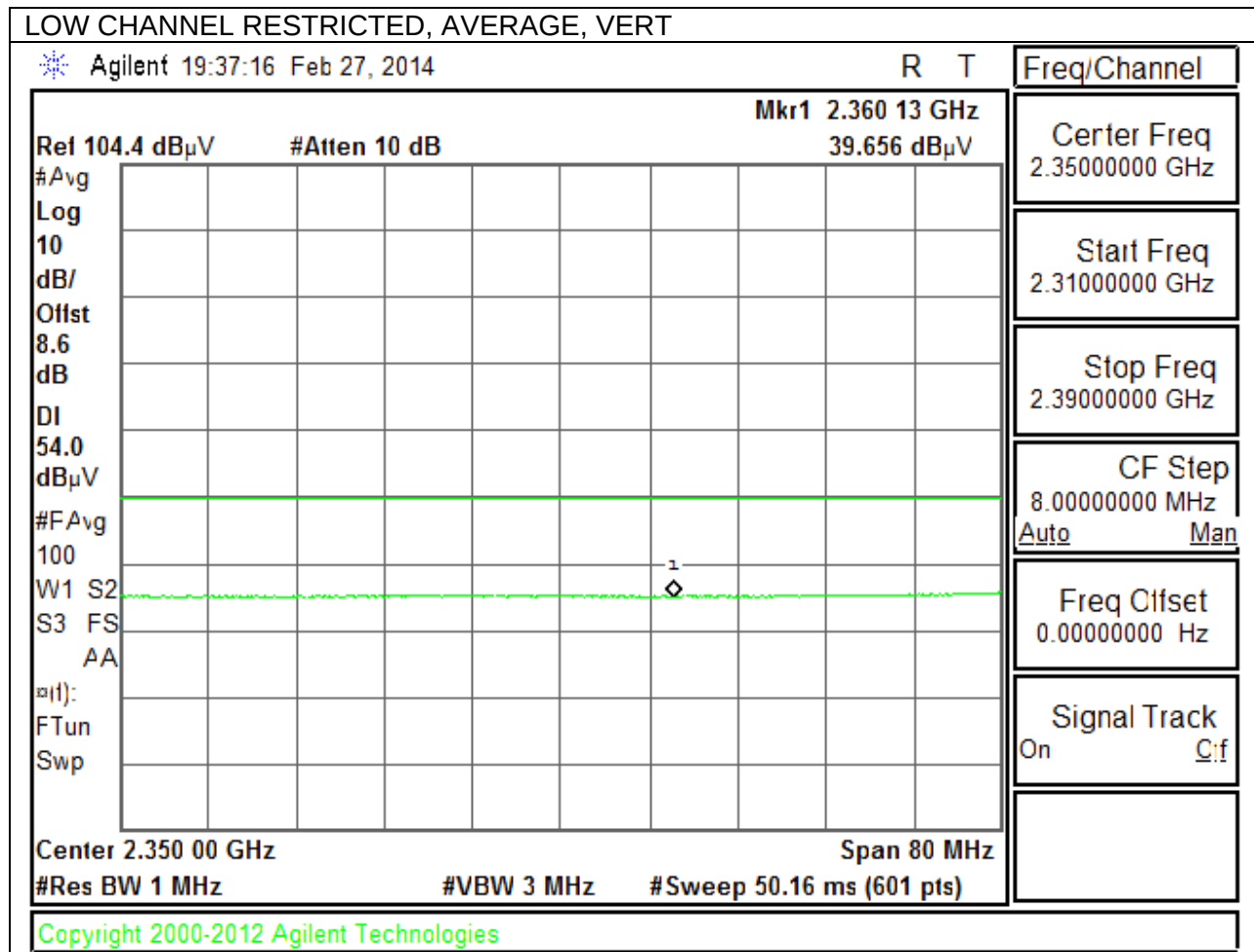
11.2. TRANSMITTER ABOVE 1 GHz

11.2.1. TX ABOVE 1 GHz 802.11b CDD MODE IN THE 2.4 GHz BAND RESTRICTED BANDEDGE (LOW CHANNEL)

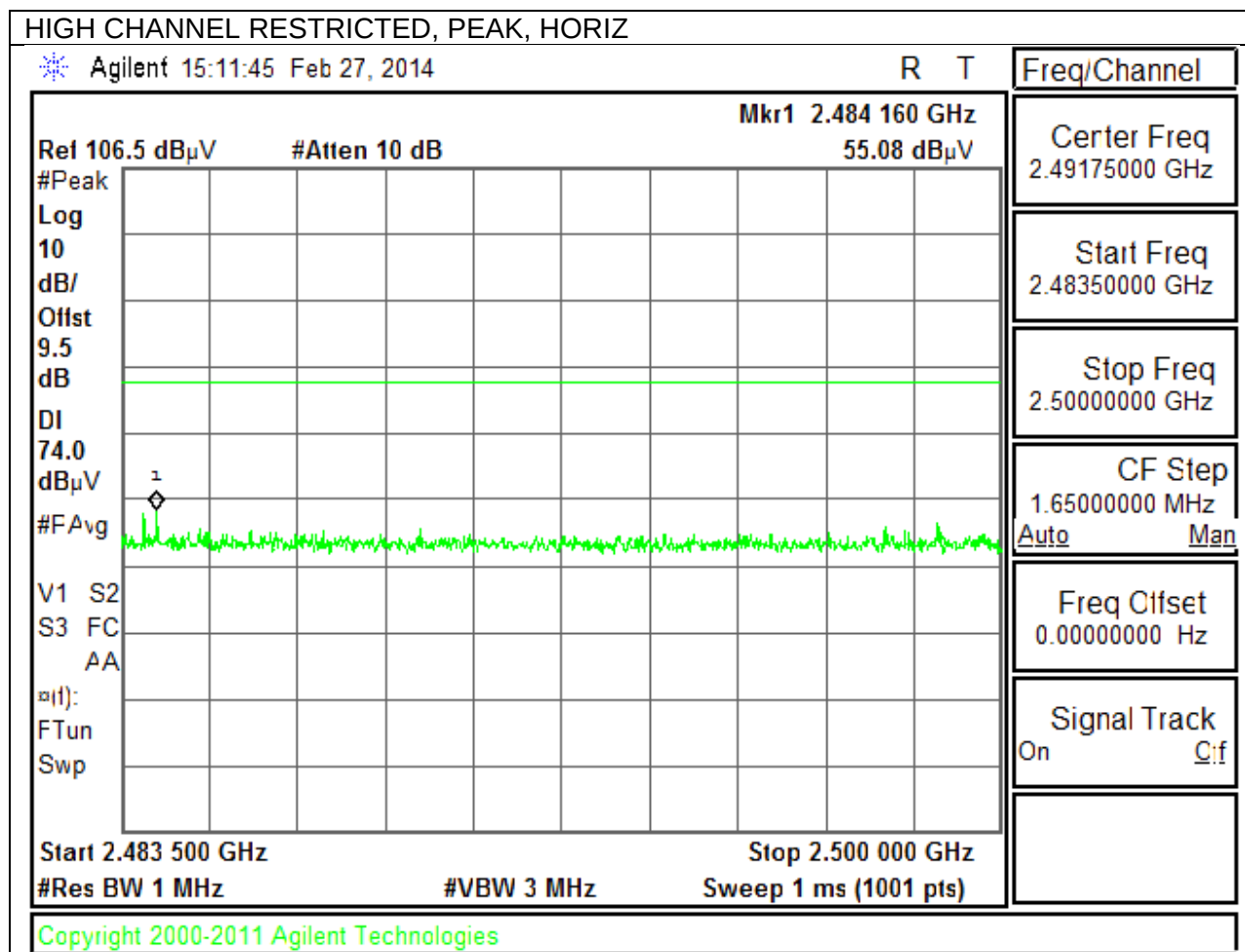


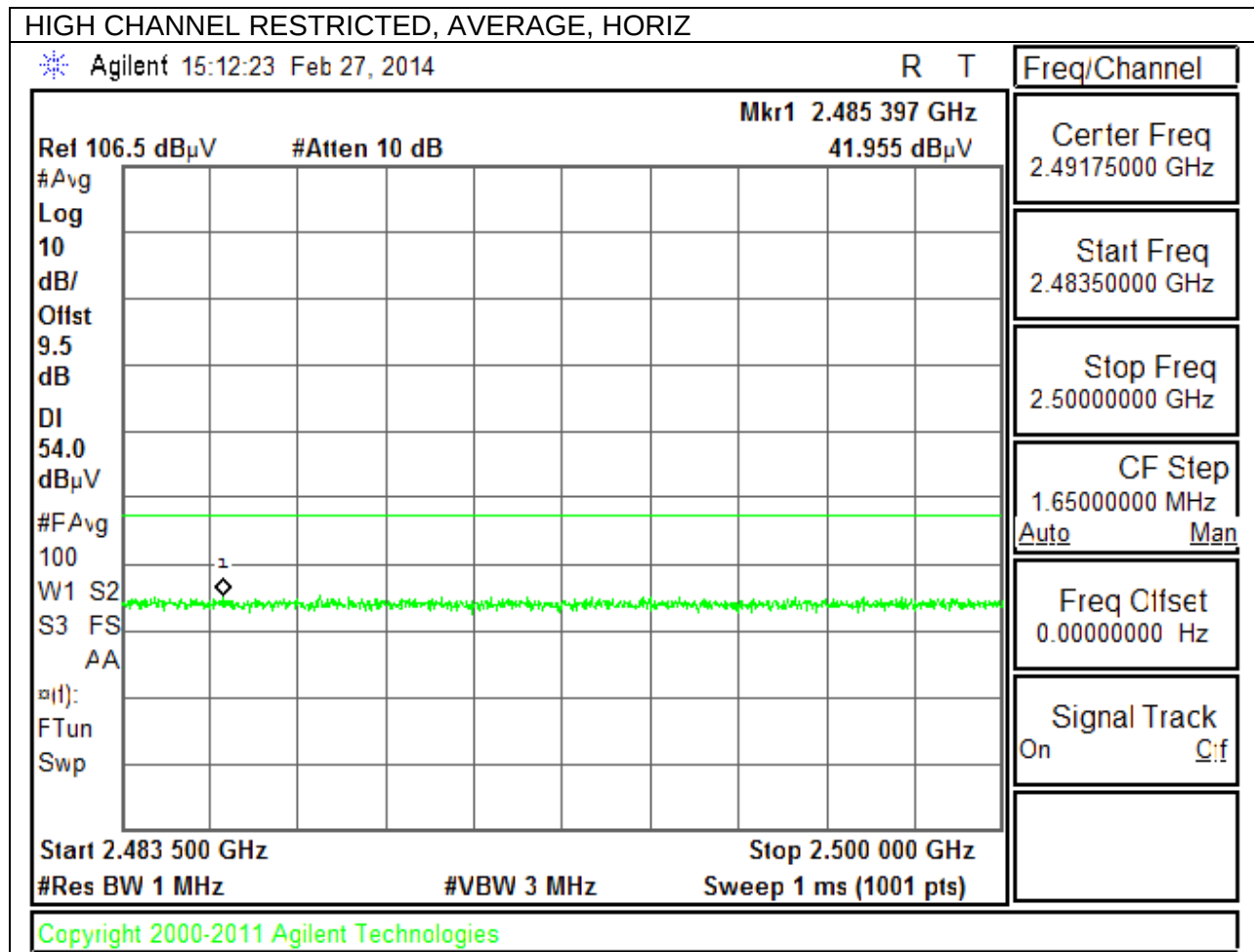


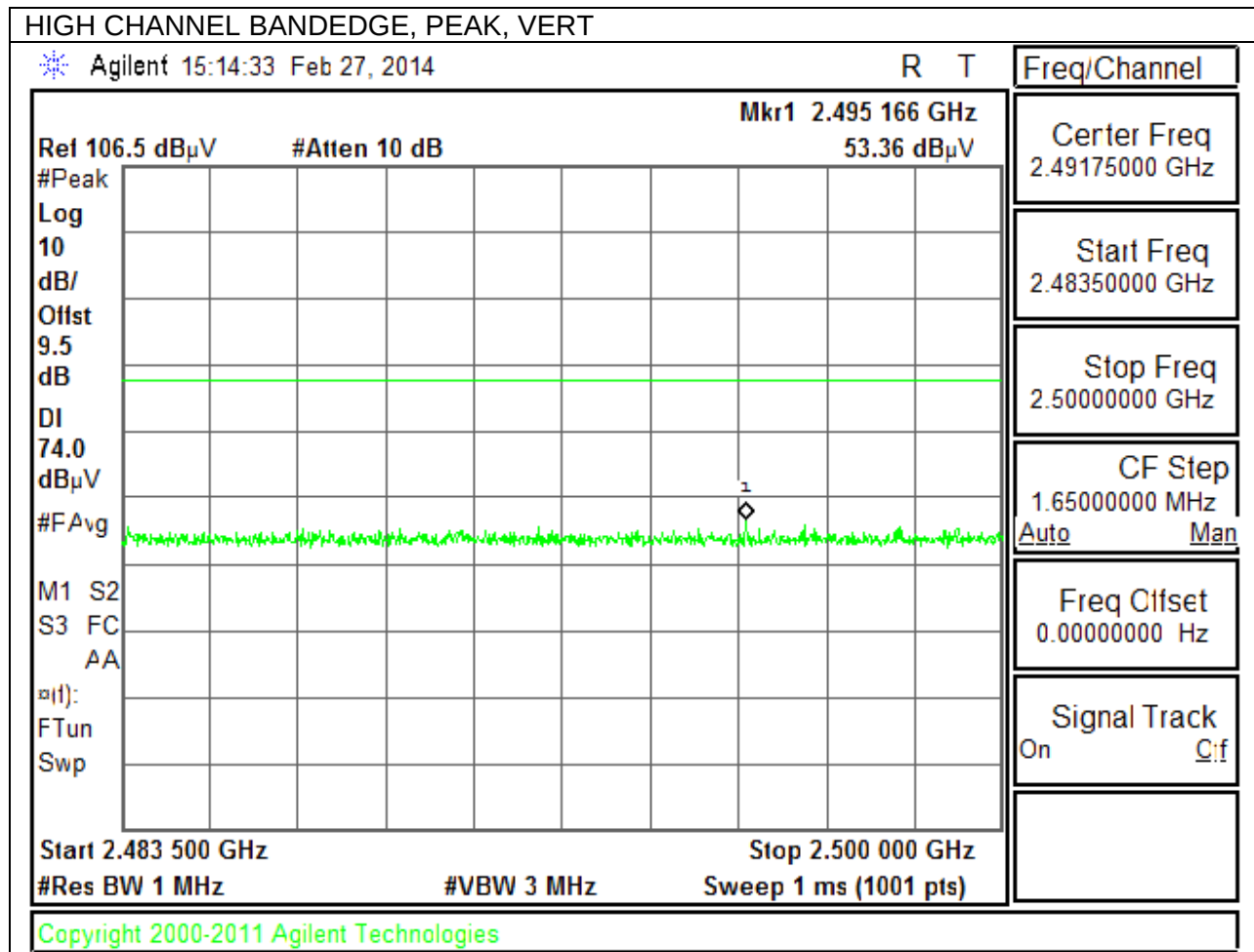




AUTHORIZED BANDEDGE (HIGH CHANNEL)







HIGH CHANNEL BANDEDGE, AVERAGE, VERT

Agilent 15:13:07 Feb 27, 2014

R T

Freq/Channel

Rel 106.5 dB μ V

#Atten 10 dB

Mkr1 2.490 017 GHz

42.014 dB μ V

Center Freq
2.49175000 GHz

#Avg

Log

10

dB/

Offst

9.5

dB

DI

54.0

dB μ V

#FAvg

100

W1 S2

S3 FS

AA

W(f):

FTun

Swp

Start Freq
2.48350000 GHz

Stop Freq
2.50000000 GHz

CF Step
1.65000000 MHz
Auto Man

Freq Offset
0.00000000 Hz

Signal Track
On Off

Start 2.483 500 GHz

Stop 2.500 000 GHz

#Res BW 1 MHz

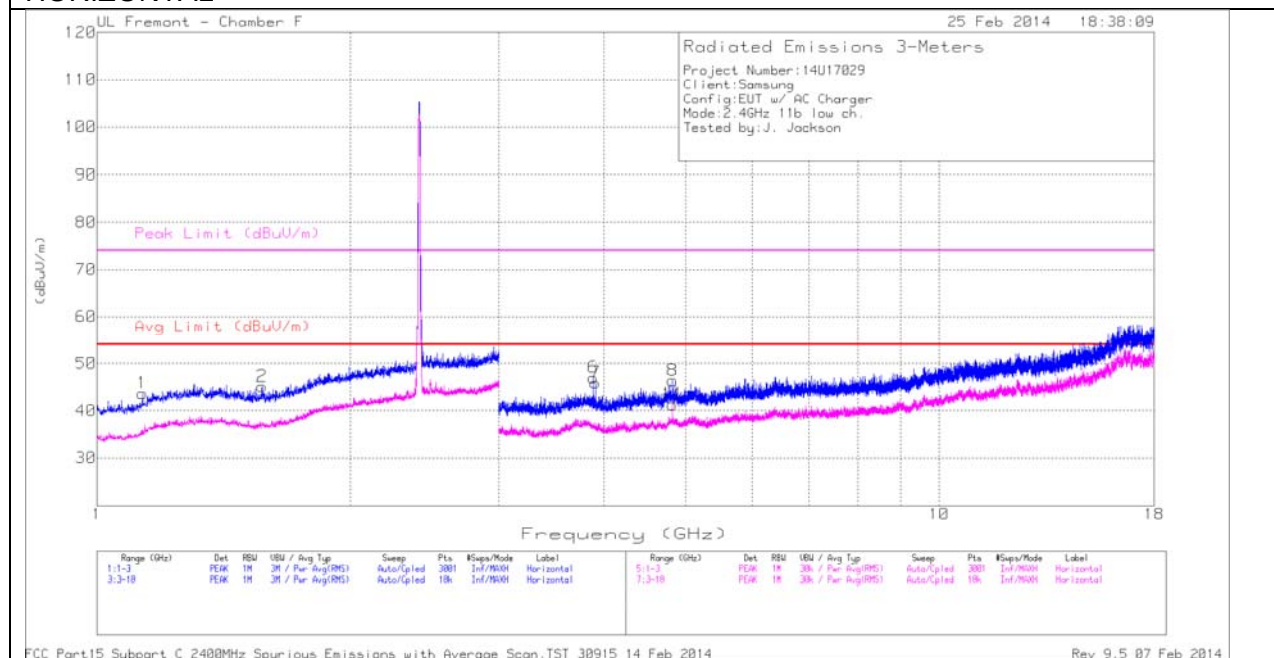
#VBW 3 MHz

Sweep 1 ms (1001 pts)

Copyright 2000-2011 Agilent Technologies

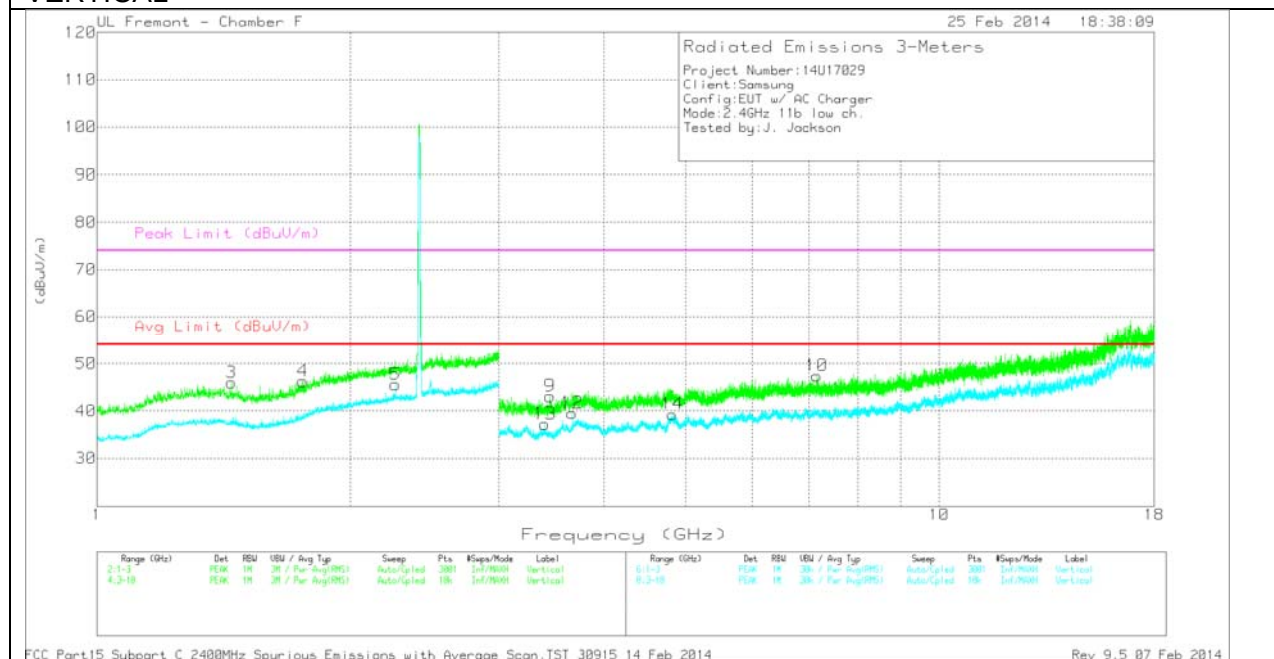
HARMONICS AND SPURIOUS EMISSIONS

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.

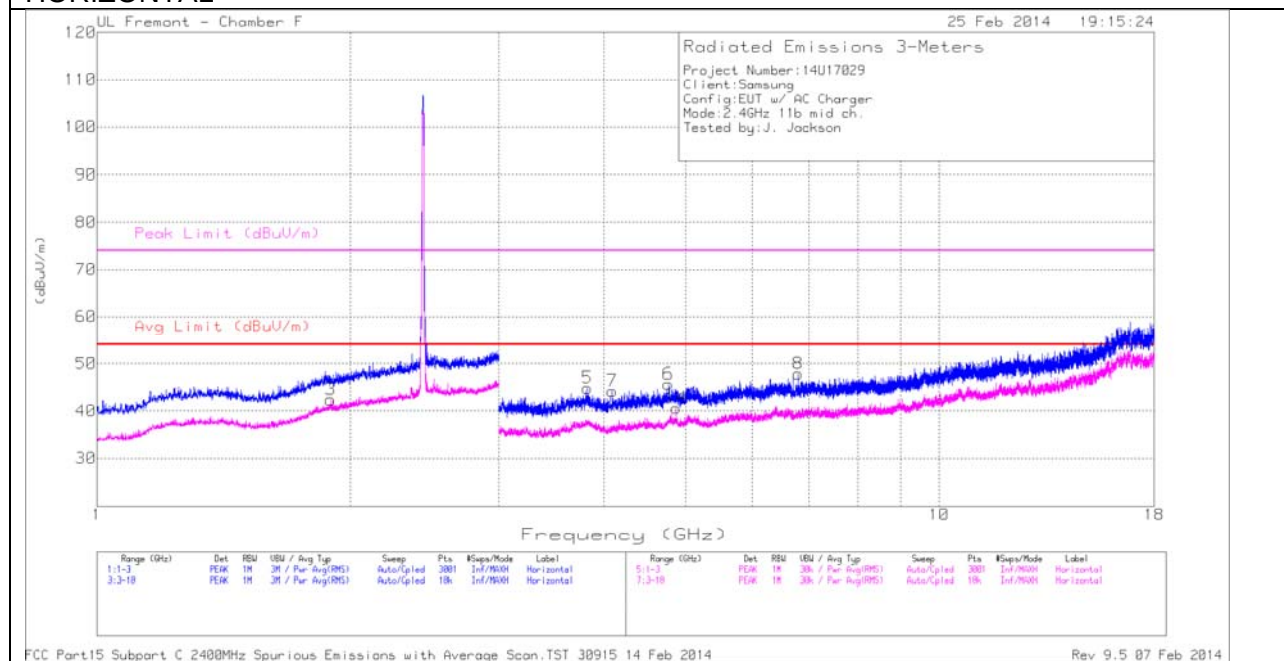
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 1.133	42.97	PK	28.1	-27.4	43.67	54	-10.33	74	-30.33	0-360	200	H
2	* 1.571	42.6	PK	28.2	-25.7	45.1	54	-8.9	74	-28.9	0-360	200	H
3	* 1.445	42.56	PK	29	-25.6	45.96	54	-8.04	74	-28.04	0-360	101	V
6	* 3.883	42.9	PK	33.5	-29.4	47	54	-7	74	-27	0-360	101	H
7	* 3.907	41.92	PK	33.5	-29.5	45.92	54	-8.08	74	-28.08	0-360	101	H
8	* 4.825	39.66	PK	34	-27.3	46.36	54	-7.64	74	-27.64	0-360	200	H
5	* 2.261	37.16	Avg	31.9	-23.5	45.56	54	-8.44	-	-	0-360	201	V
11	* 4.824	34.63	Avg	34	-27.3	41.33	54	-12.67	-	-	0-360	200	H
12	* 3.667	35.52	Avg	33.6	-29.6	39.52	54	-14.48	-	-	0-360	201	V
14	* 4.822	32.6	Avg	34	-27.3	39.3	54	-14.7	-	-	0-360	201	V

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

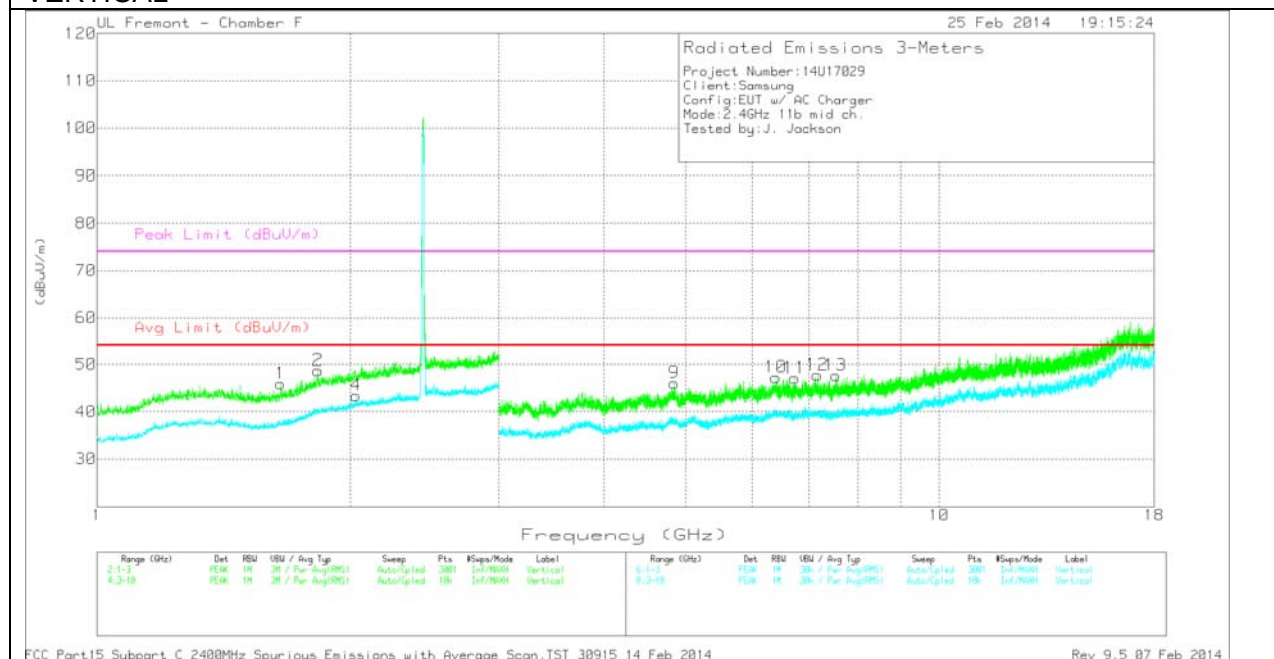
PK - Peak detector

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.

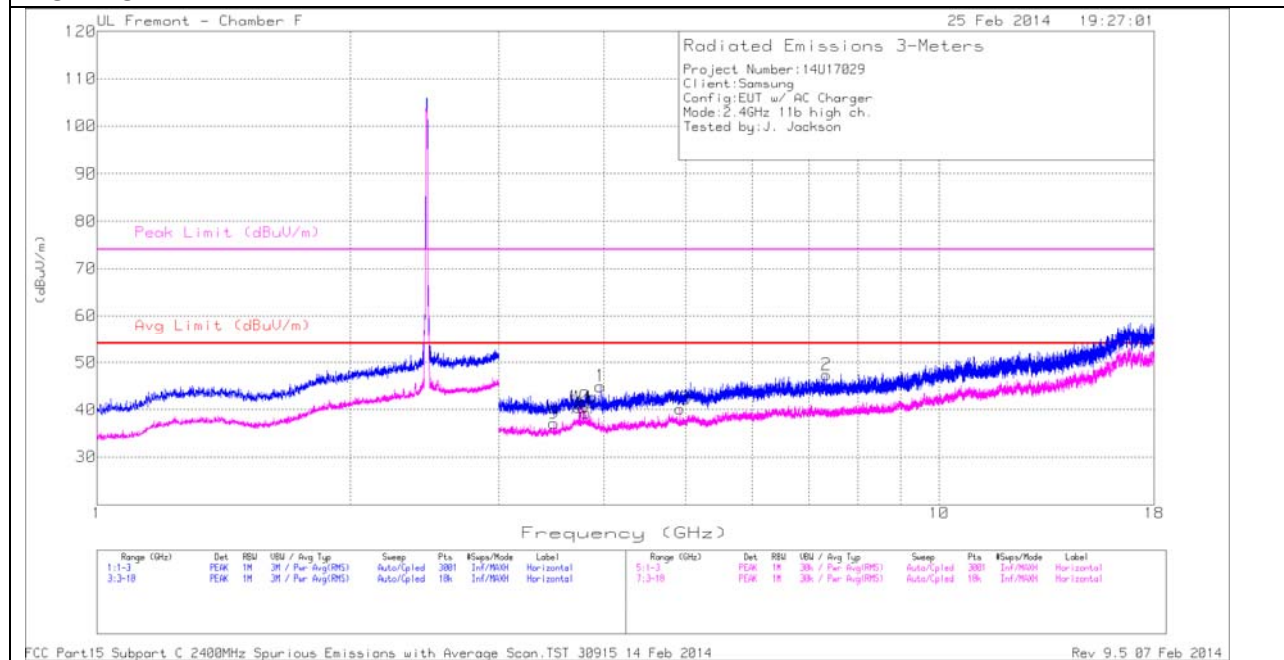
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/F lter/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	* 3.822	39.97	PK	33.6	-28.8	44.77	54	-9.23	74	-29.23	0-360	200	H
6	* 4.769	39.71	PK	34.1	-28.2	45.61	54	-8.39	74	-28.39	0-360	101	H
7	* 4.091	39.18	PK	33.4	-28.4	44.18	54	-9.82	74	-29.82	0-360	101	H
9	* 4.847	39.37	PK	34	-27.3	46.07	54	-7.93	74	-27.93	0-360	101	V
13	* 7.536	37.67	PK	35.8	-25.8	47.67	54	-6.33	74	-26.33	0-360	101	V
14	* 4.874	34.29	Avg	34	-27.7	40.59	54	-13.41	-	-	0-360	200	H

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

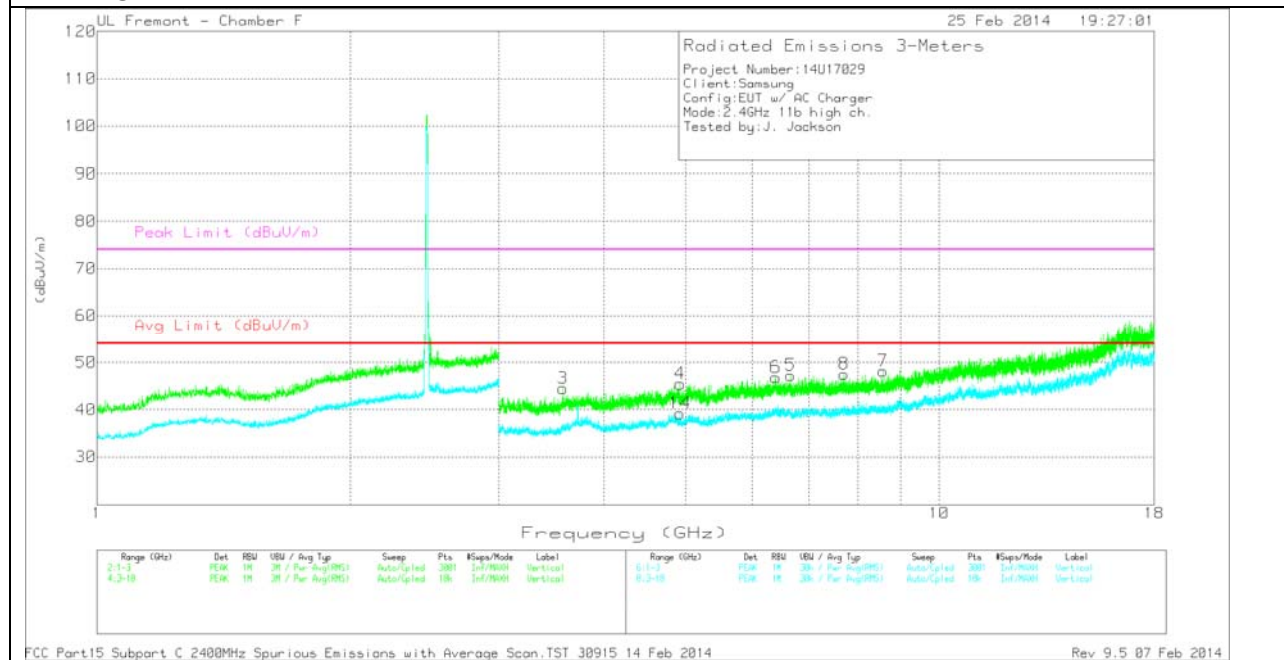
PK - Peak detector

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.

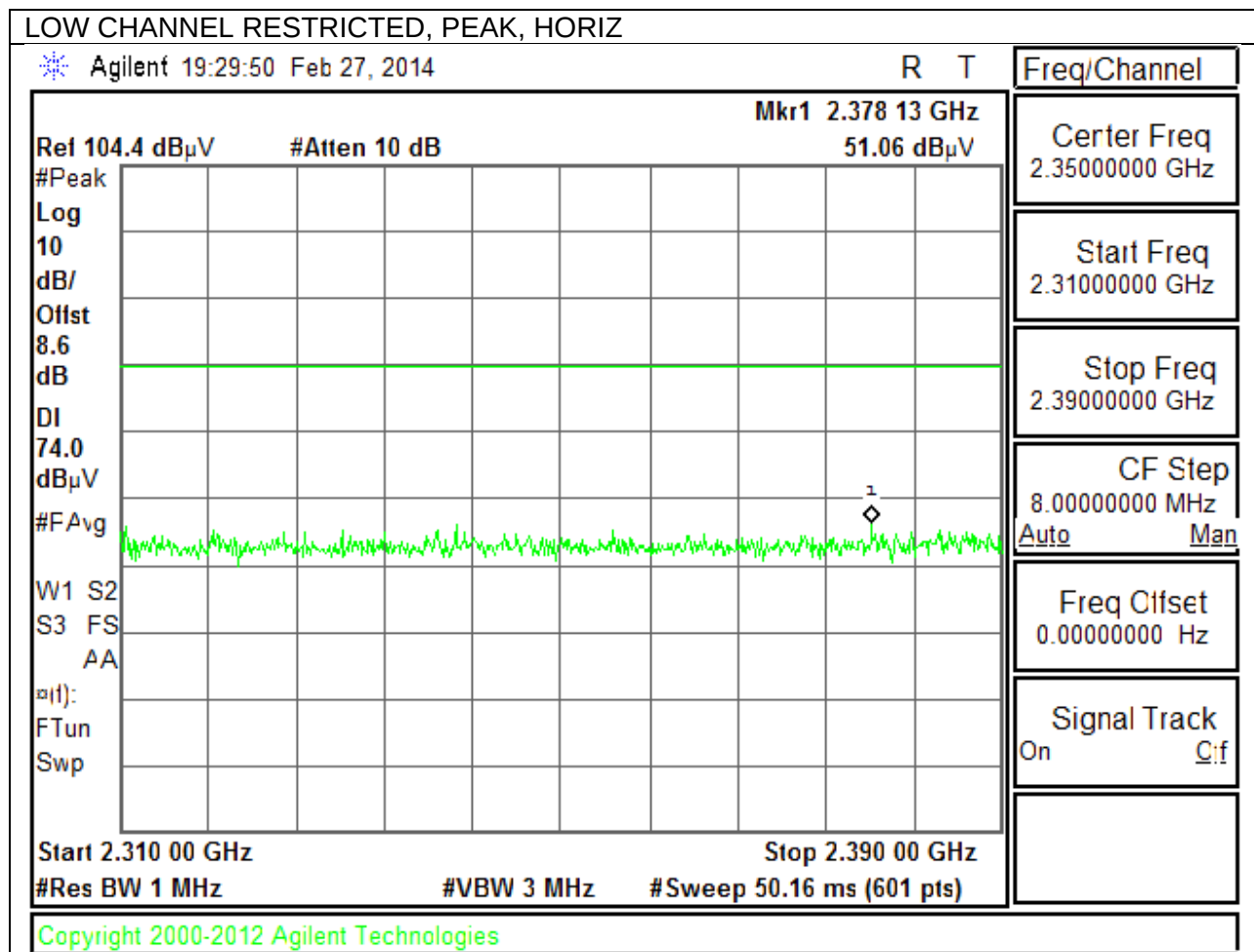
HIGH CHANNEL DATA

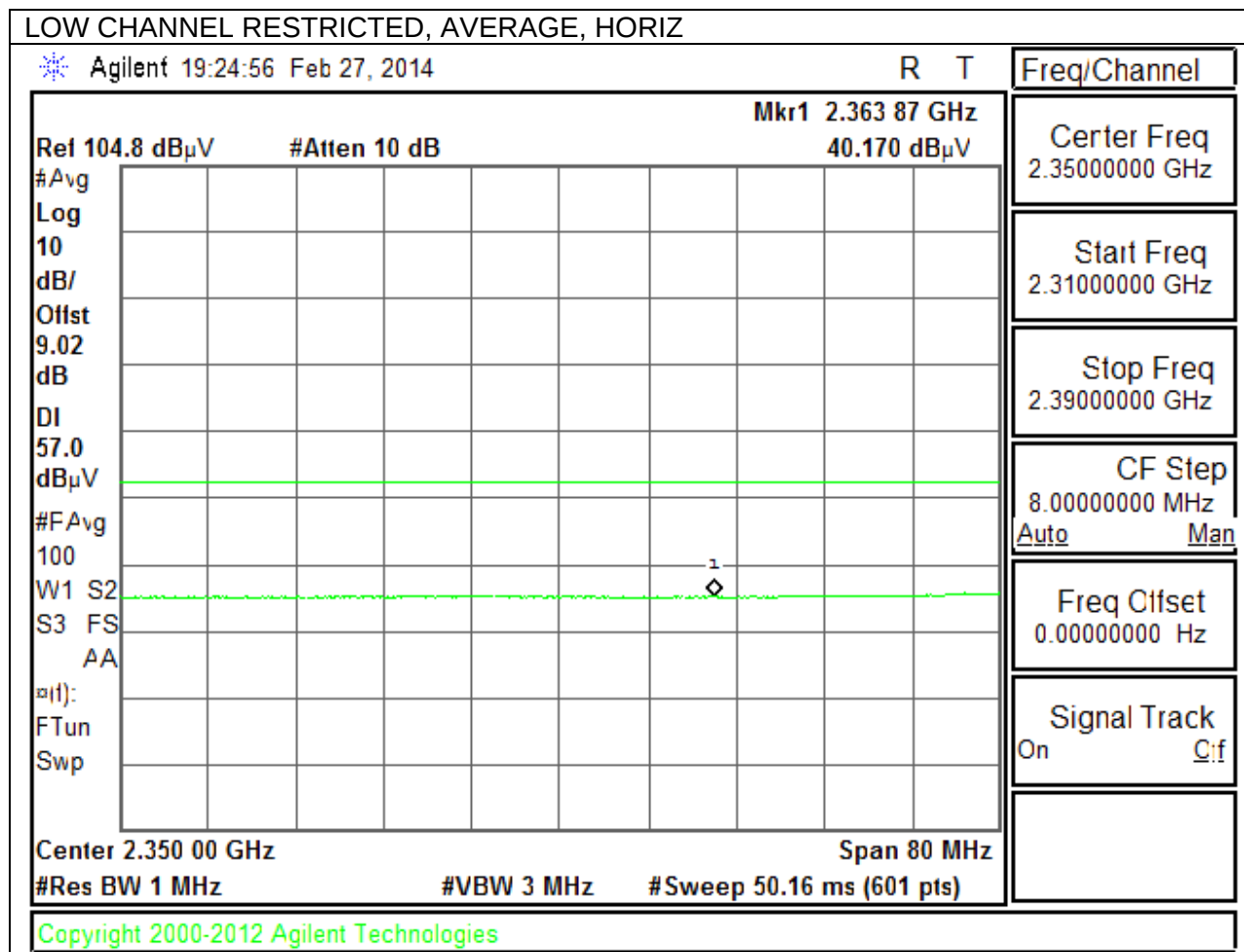
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/F lter/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.962	40.72	PK	33.5	-29.3	44.92	54	-9.08	74	-29.08	0-360	101	H
2	* 7.345	38.16	PK	35.7	-26.5	47.36	54	-6.64	74	-26.64	0-360	101	H
3	* 3.576	39.4	PK	33.6	-28.5	44.5	54	-9.5	74	-29.5	0-360	201	V
4	* 4.925	40.54	PK	34	-29.1	45.44	54	-8.56	74	-28.56	0-360	201	V
8	* 7.711	37.21	PK	35.9	-25.6	47.51	54	-6.49	74	-26.49	0-360	201	V
10	* 3.737	36.42	Avg	33.5	-29.4	40.52	54	-13.48	-	-	0-360	101	H
11	* 3.78	36.04	Avg	33.6	-29.2	40.44	54	-13.56	-	-	0-360	101	H
12	* 3.807	34.32	Avg	33.6	-28.6	39.32	54	-14.68	-	-	0-360	101	H
13	* 4.924	35.28	Avg	34	-29.1	40.18	54	-13.82	-	-	0-360	200	H
14	* 4.924	34.3	Avg	34	-29.1	39.2	54	-14.8	-	-	0-360	201	V

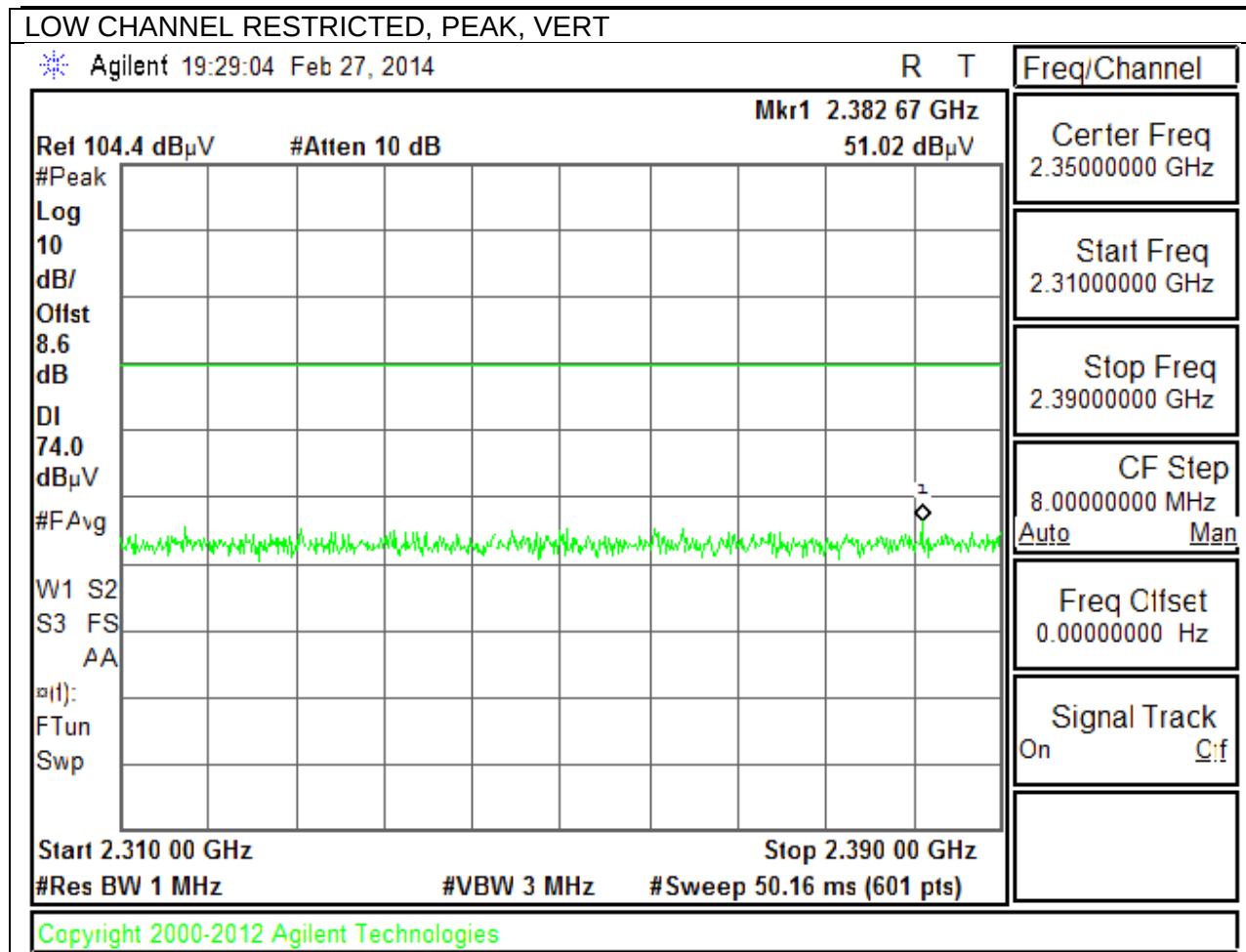
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK - Peak detector

**11.2.2. TX ABOVE 1 GHz 802.11g CDD MODE IN THE 2.4 GHz BAND
RESTRICTED BANDEDGE (LOW CHANNEL)**

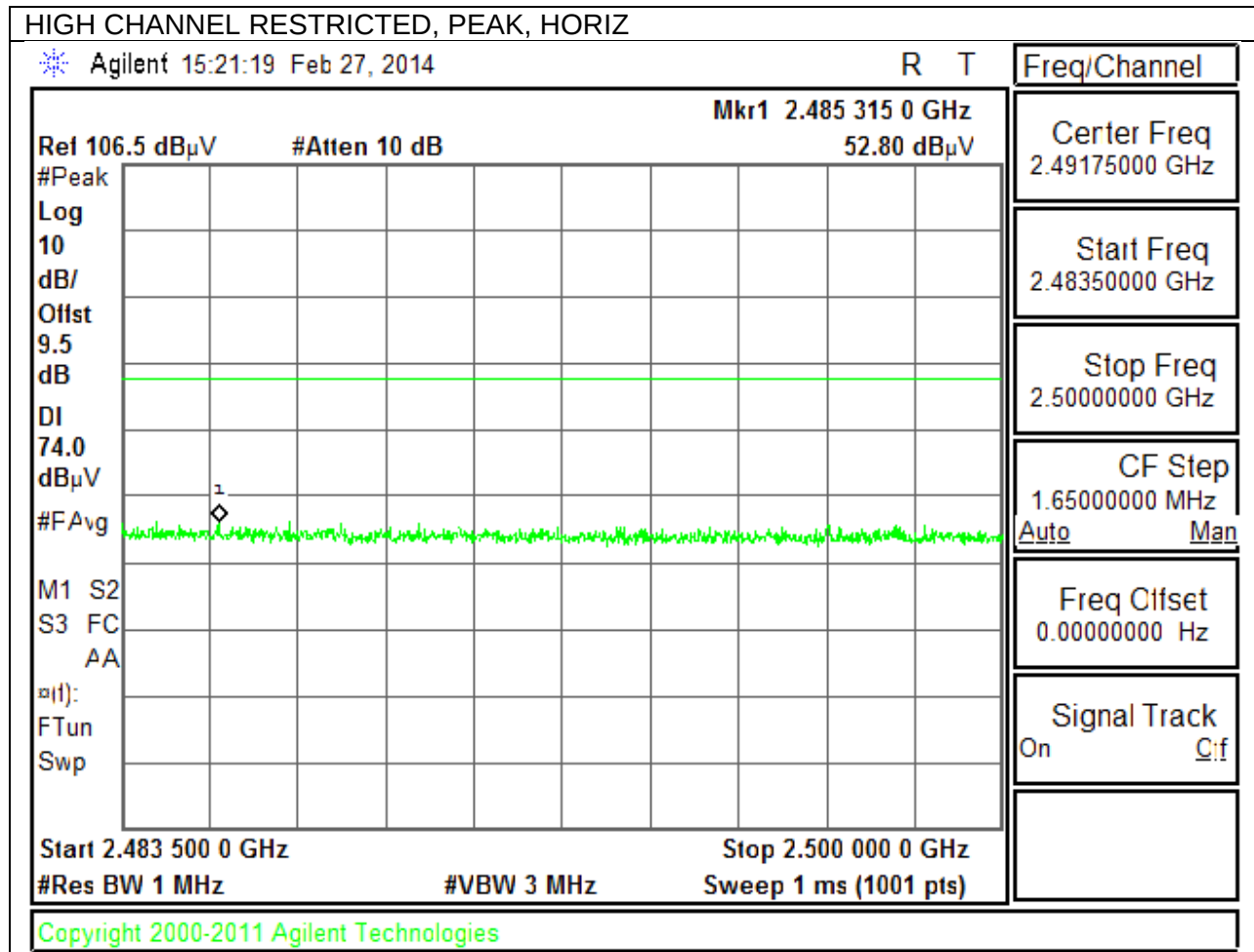


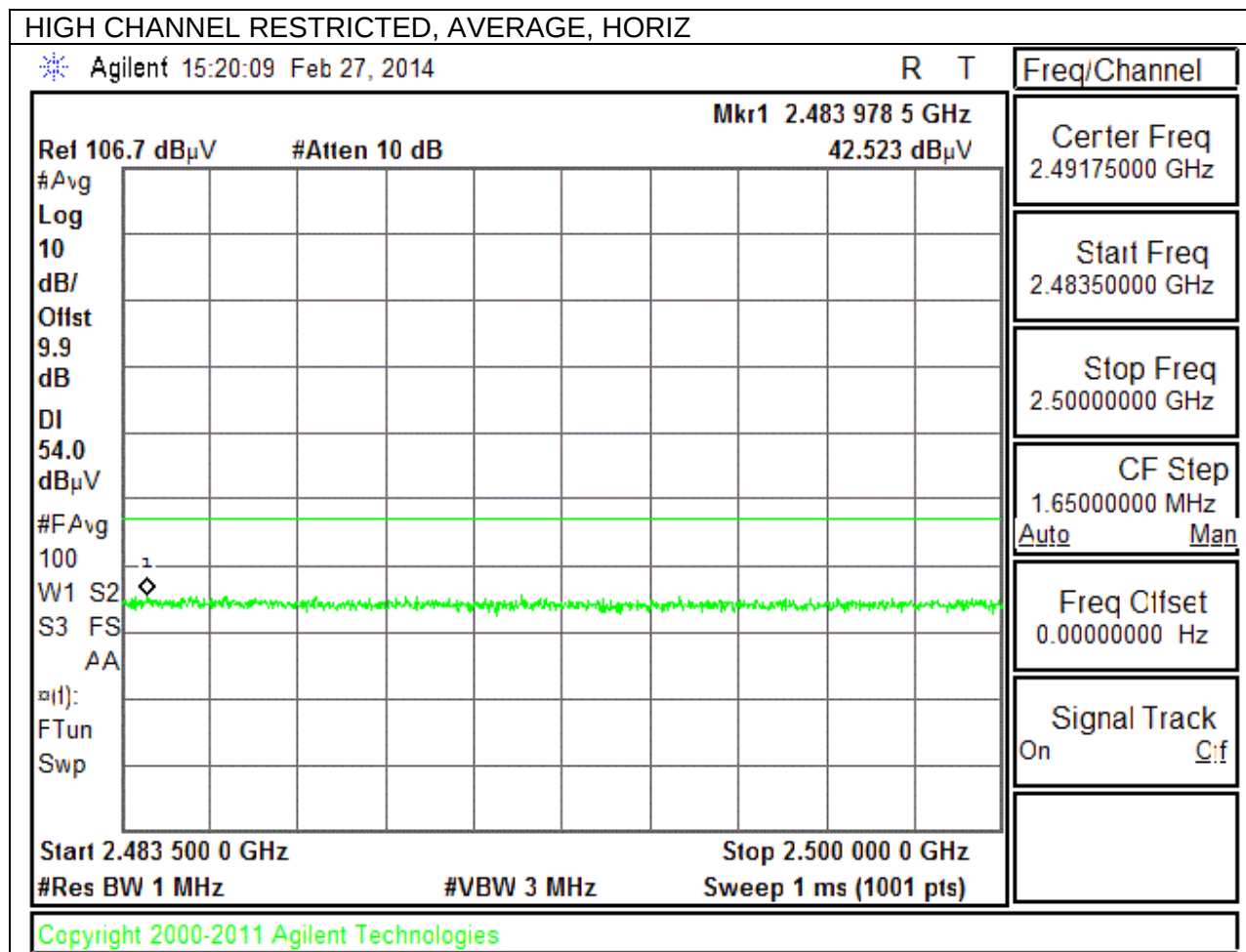


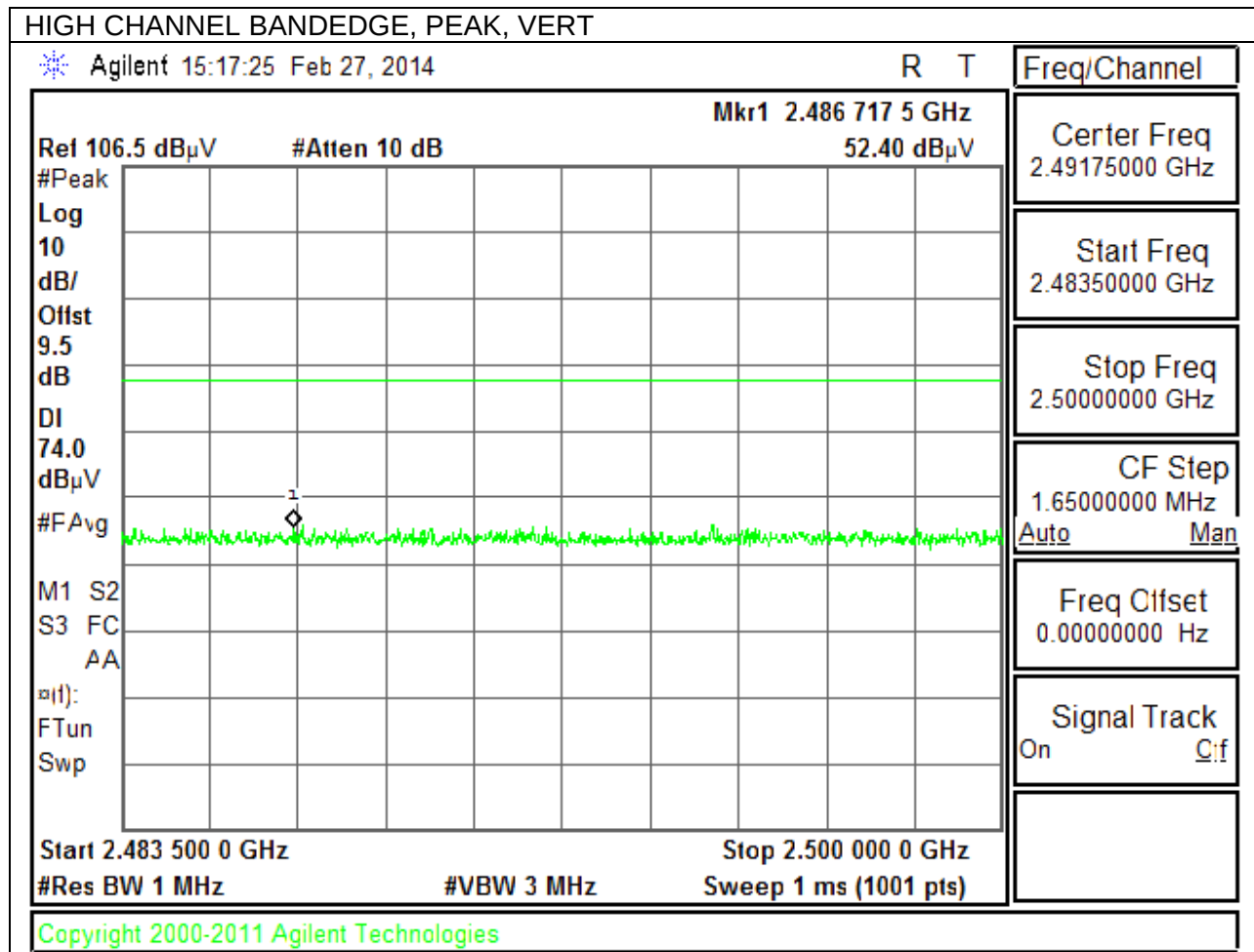


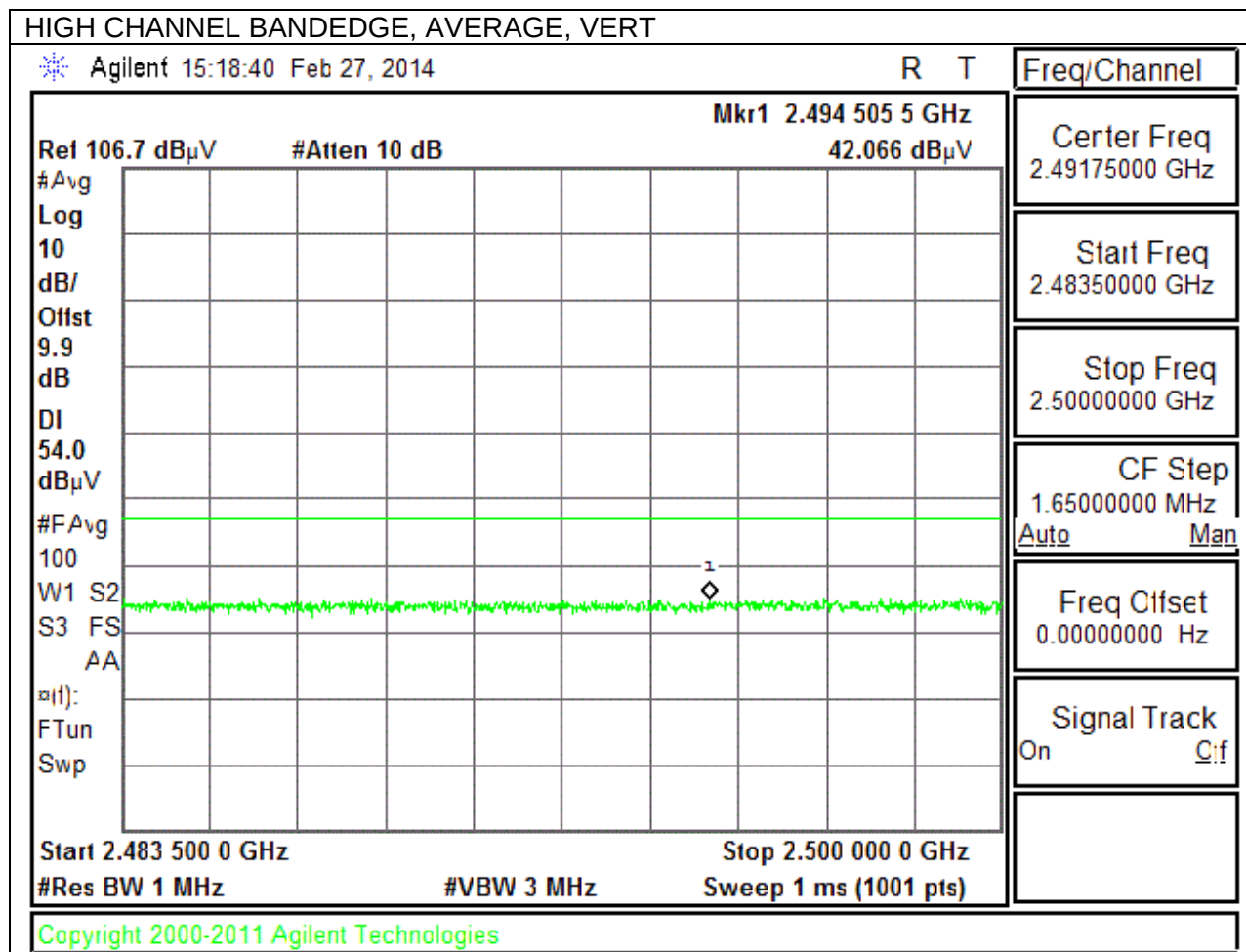
LOW CHANNEL RESTRICTED, AVERAGE, VERT									
* Agilent 19:24:20 Feb 27, 2014						R T		Freq/Channel	
Rel 104.8 dB μ V #Atten 10 dB						Mkr1 2.389 87 GHz 40.773 dB μ V		Center Freq 2.35000000 GHz	
#Avg								Start Freq 2.31000000 GHz	
Log								Stop Freq 2.39000000 GHz	
10								CF Step 8.00000000 MHz	
dB/								Auto Man	
Offst								Freq Offset 0.00000000 Hz	
9.02								Signal Track	
dB								On Off	
DI									
57.0									
dB μ V									
#FAvg									
100									
W1 S2									
S3 FC									
AA									
W1):									
FTun									
Swp									
Center 2.350 00 GHz						Span 80 MHz			
#Res BW 1 MHz						#VBW 3 MHz		#Sweep 50.16 ms (601 pts)	
Copyright 2000-2012 Agilent Technologies									

AUTHORIZED BANDEDGE (HIGH CHANNEL)



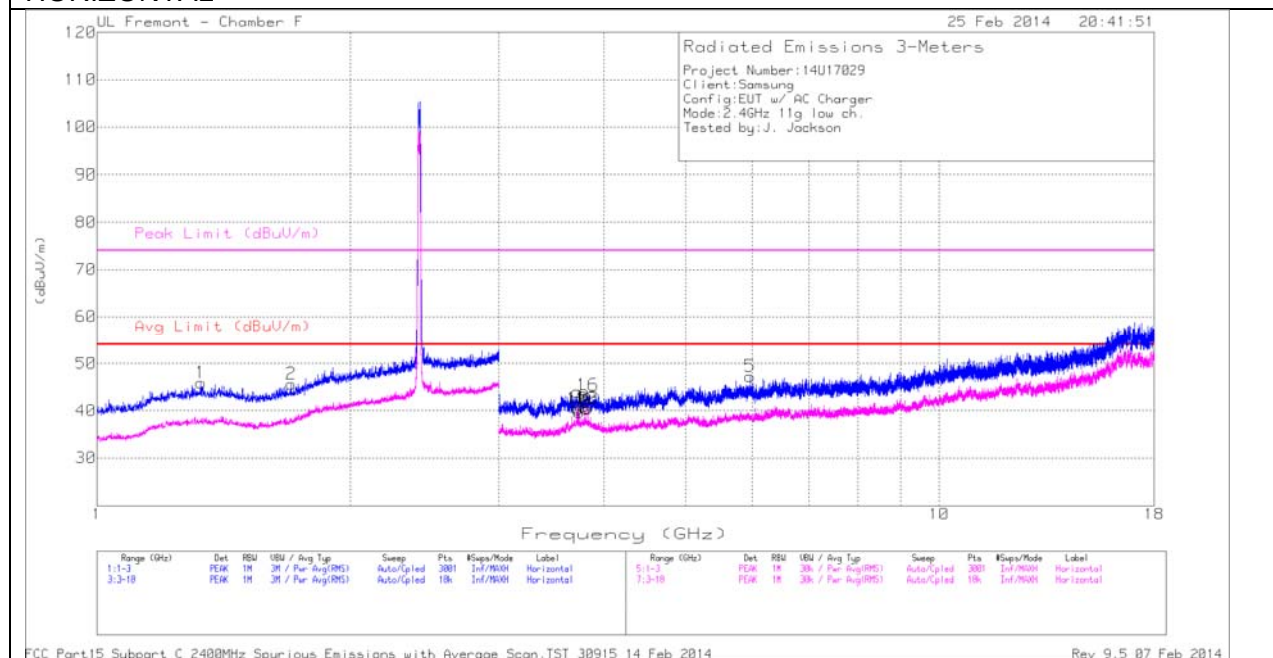






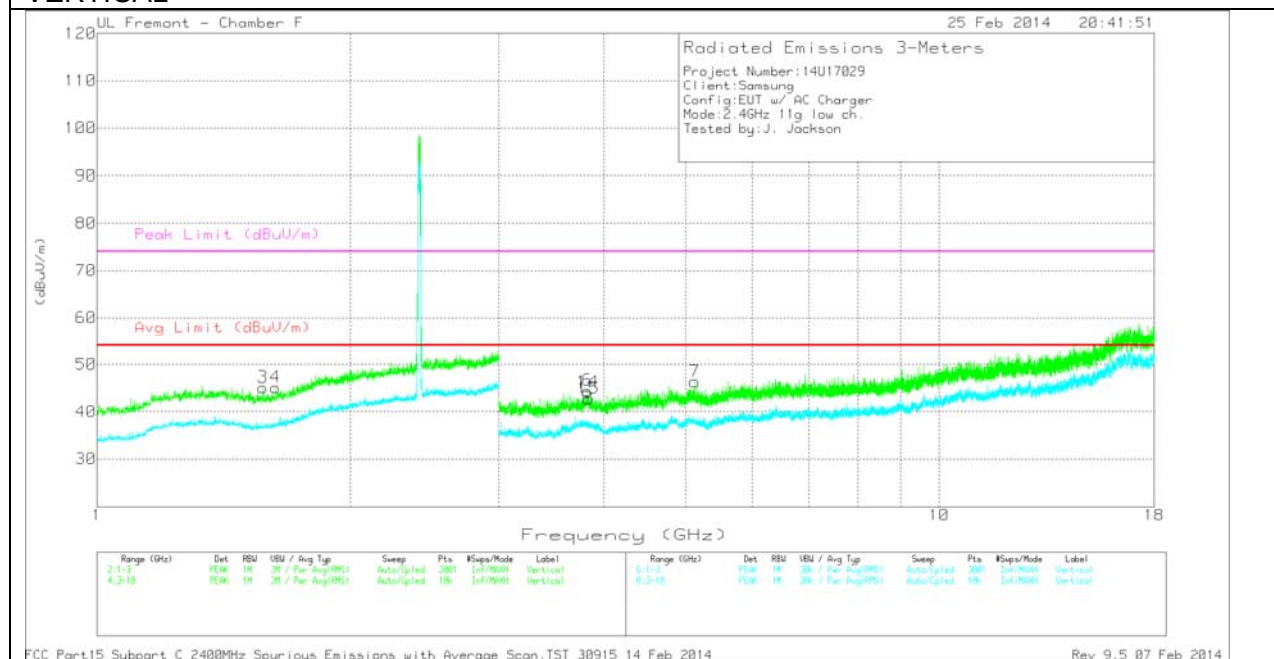
HARMONICS AND SPURIOUS EMISSIONS

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.

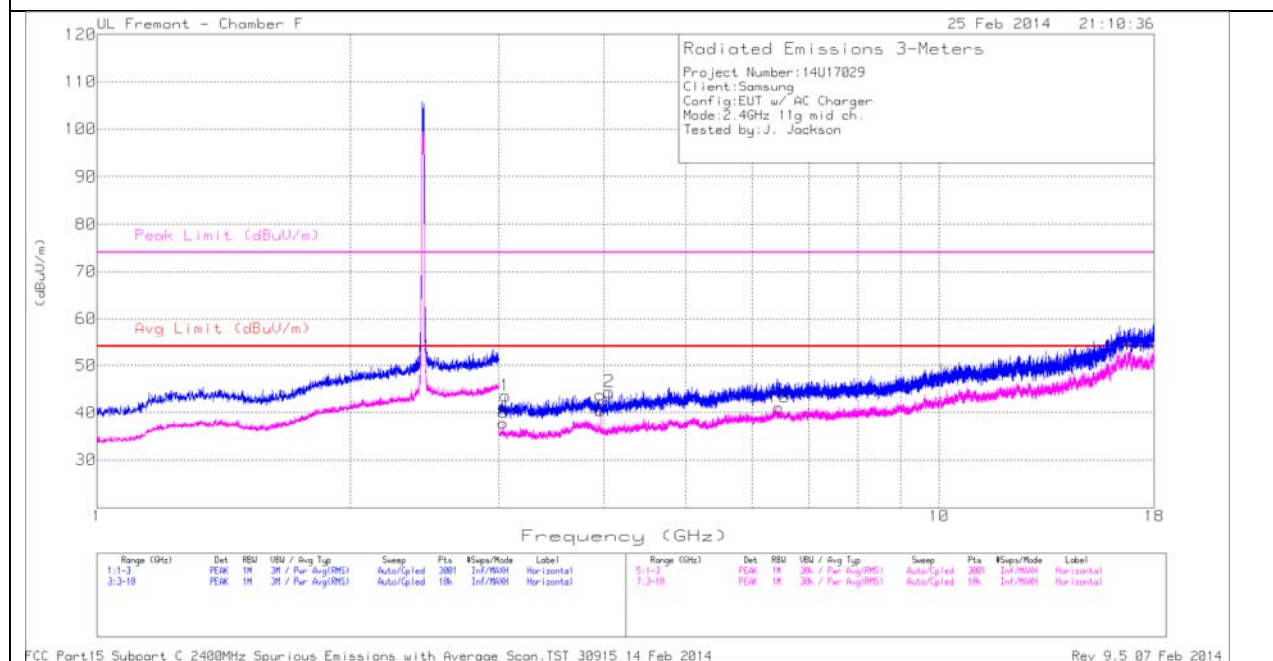
LOW CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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	* 1.329	42.59	PK	29.8	-26.5	45.89	54	-8.11	74	-28.11	0-360	200	H
2	* 1.701	41.94	PK	29	-25.3	45.64	54	-8.36	74	-28.36	0-360	101	H
3	* 1.575	42.62	PK	28.2	-25.7	45.12	54	-8.88	74	-28.88	0-360	201	V
16	* 3.823	38.44	PK	33.6	-28.8	43.24	54	-10.76	74	-30.76	0-360	199	H
6	* 3.822	39.66	PK	33.6	-28.8	44.46	54	-9.54	74	-29.54	0-360	101	V
7	* 5.127	39.26	PK	34.2	-27.1	46.36	54	-7.64	74	-27.64	0-360	101	V
14	* 3.825	39.24	PK	33.6	-28.8	44.04	54	-9.96	74	-29.96	0-360	201	V
15	* 3.834	38.17	PK	33.5	-28.9	42.77	54	-11.23	74	-31.23	0-360	101	V
8	* 3.788	36.37	Avg	33.6	-29.1	40.87	54	-13.13	-	-	0-360	101	H
9	* 3.717	36.66	Avg	33.5	-29.5	40.66	54	-13.34	-	-	0-360	101	H
10	* 3.724	36.27	Avg	33.5	-29.5	40.27	54	-13.73	-	-	0-360	101	H
11	* 3.737	35.61	Avg	33.5	-29.4	39.71	54	-14.29	-	-	0-360	101	H
12	* 3.809	35.48	Avg	33.6	-28.7	40.38	54	-13.62	-	-	0-360	101	H
13	* 3.828	35.67	Avg	33.6	-28.8	40.47	54	-13.53	-	-	0-360	101	H

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

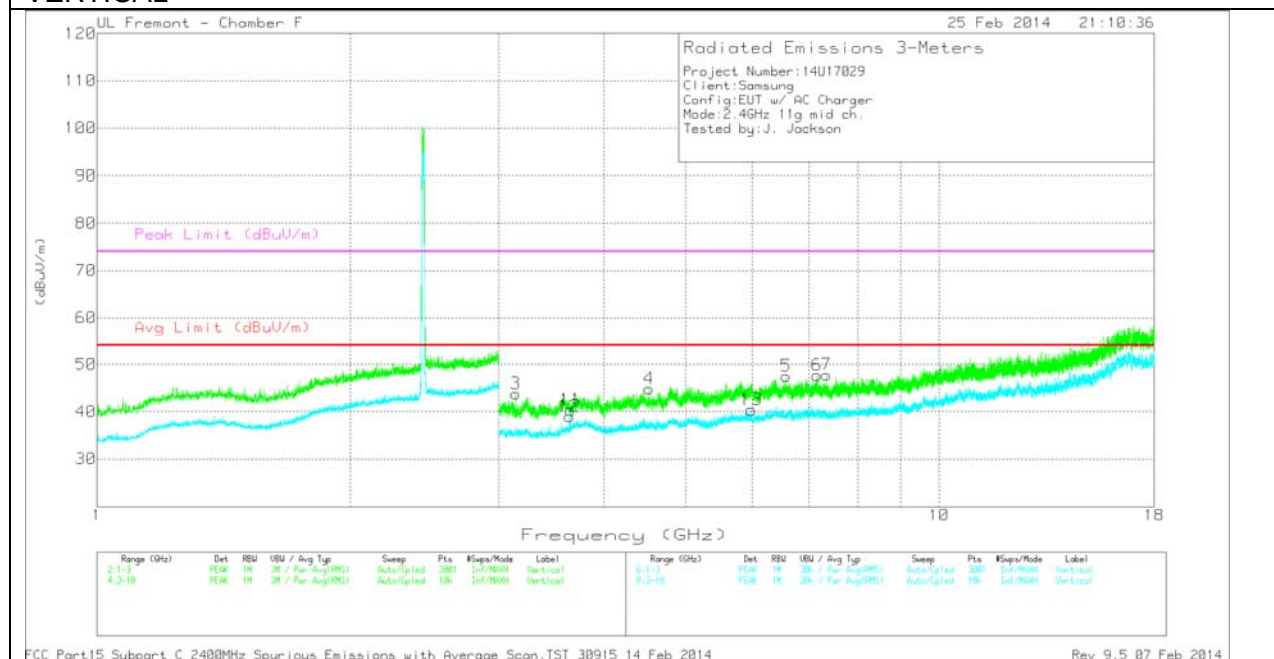
PK - Peak detector

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.

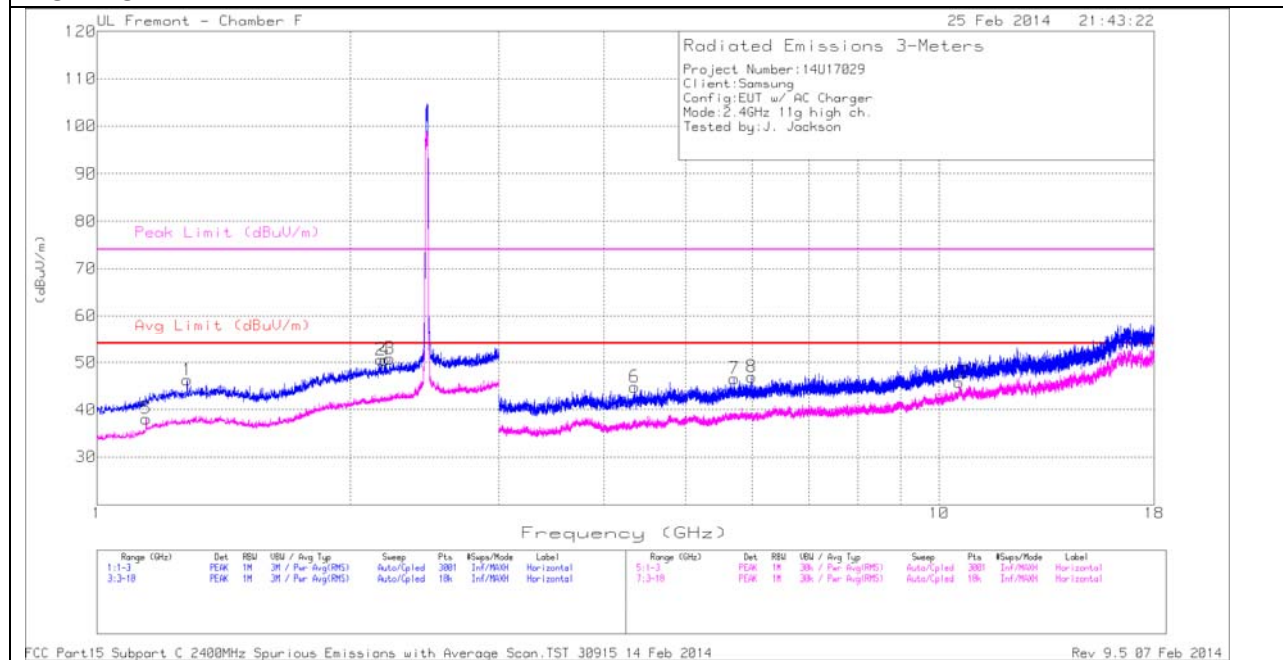
MID CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (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
2	* 4.056	39.8	PK	33.4	-28.8	44.4	54	-9.6	74	-29.6	0-360	199	H
4	* 4.526	39.32	PK	34	-28.5	44.82	54	-9.18	74	-29.18	0-360	101	V
7	* 7.35	38.58	PK	35.7	-26.5	47.78	54	-6.22	74	-26.22	0-360	201	V
9	* 3.961	36.3	Avg	33.5	-29.3	40.5	54	-13.5	-	-	0-360	199	H
11	* 3.65	36.37	Avg	33.6	-29.6	40.37	54	-13.63	-	-	0-360	201	V
12	* 3.639	34.86	Avg	33.7	-29.6	38.96	54	-15.04	-	-	0-360	201	V

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

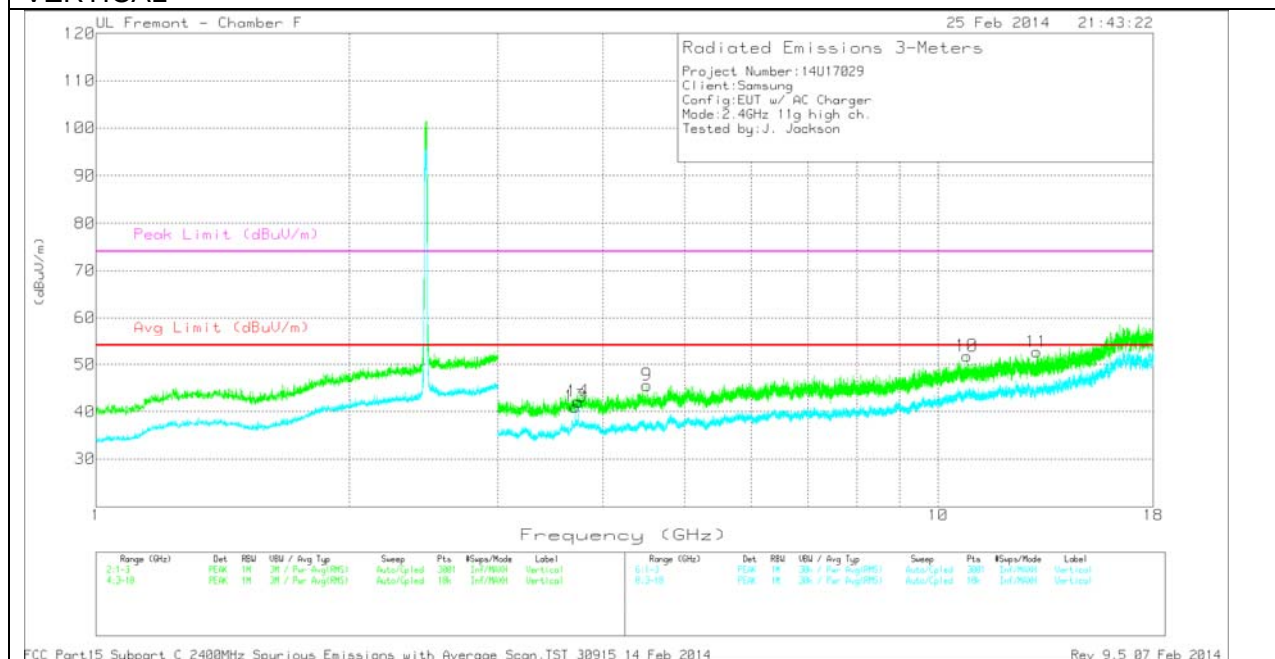
PK - Peak detector

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/F lter/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	* 1.28	43.48	PK	29.9	-27.1	46.28	54	-7.72	74	-27.72	0-360	101	H
3	* 2.226	42.55	PK	31.9	-23.7	50.75	54	-3.25	74	-23.25	0-360	101	H
6	* 4.349	40.27	PK	33.6	-29.1	44.77	54	-9.23	74	-29.23	0-360	101	H
9	* 4.51	40.07	PK	33.9	-28.4	45.57	54	-8.43	74	-28.43	0-360	201	V
10	* 10.814	35.03	PK	38.7	-22	51.73	54	-2.27	74	-22.27	0-360	101	V
5	* 1.144	36.89	Avg	28.3	-27.1	38.09	54	-15.91	-	-	0-360	101	H
13	* 3.707	36.96	Avg	33.5	-29.4	41.06	54	-12.94	-	-	0-360	201	V
14	* 3.737	38.12	Avg	33.5	-29.5	42.12	54	-11.88	-	-	0-360	201	V

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

PK - Peak detector

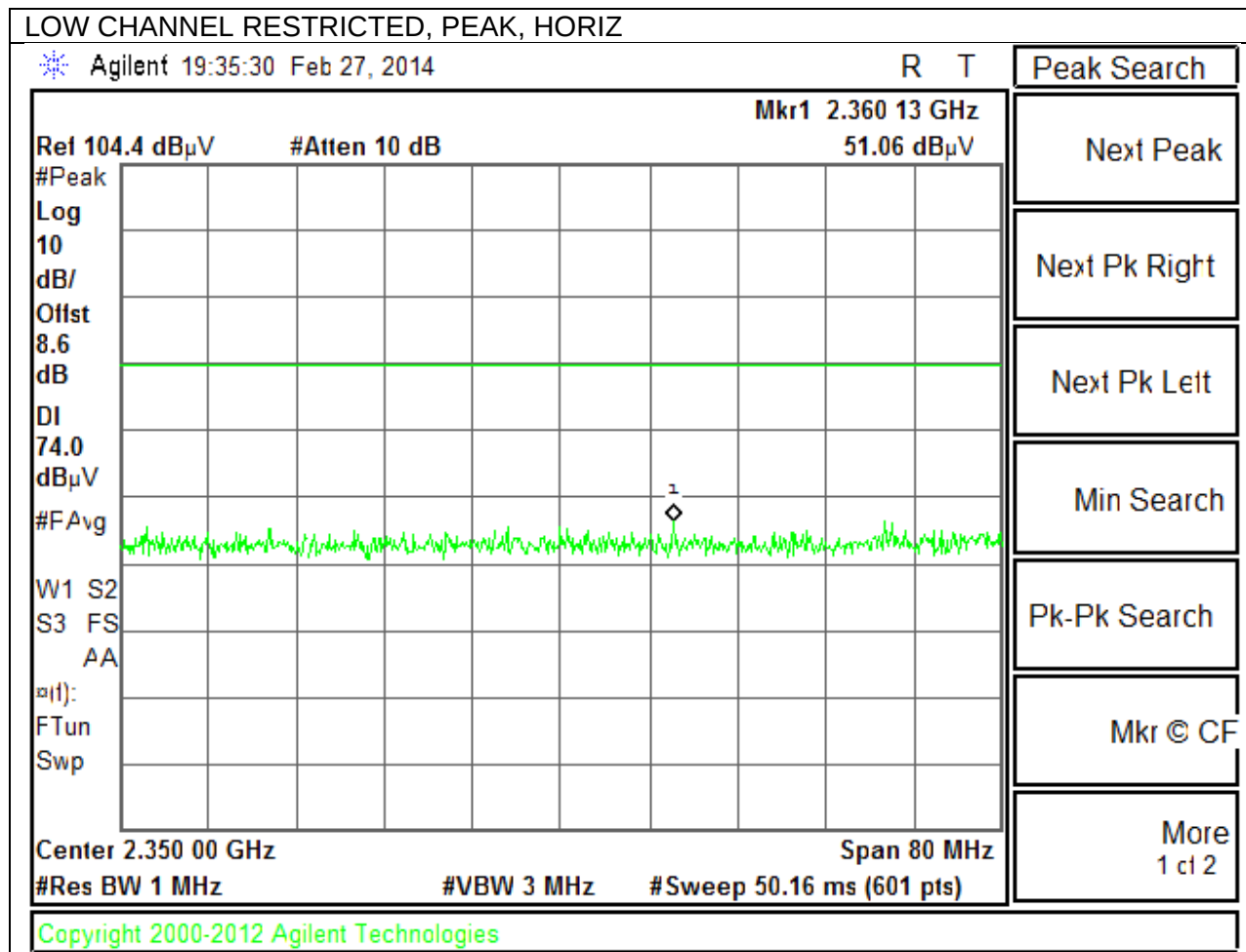
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 2.229	41	PK2	31.9	-23.7	49.2	54	-4.8	74	-24.8	55	325	H
* 2.227	30.18	MAv1	31.9	-23.7	38.38	54	-15.62	-	-	55	325	H
* 10.809	33.06	PK2	38.7	-22	49.76	54	-4.24	74	-24.24	120	170	V
* 10.808	23.18	MAv1	38.7	-22	39.88	54	-14.12	-	-	120	170	V

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

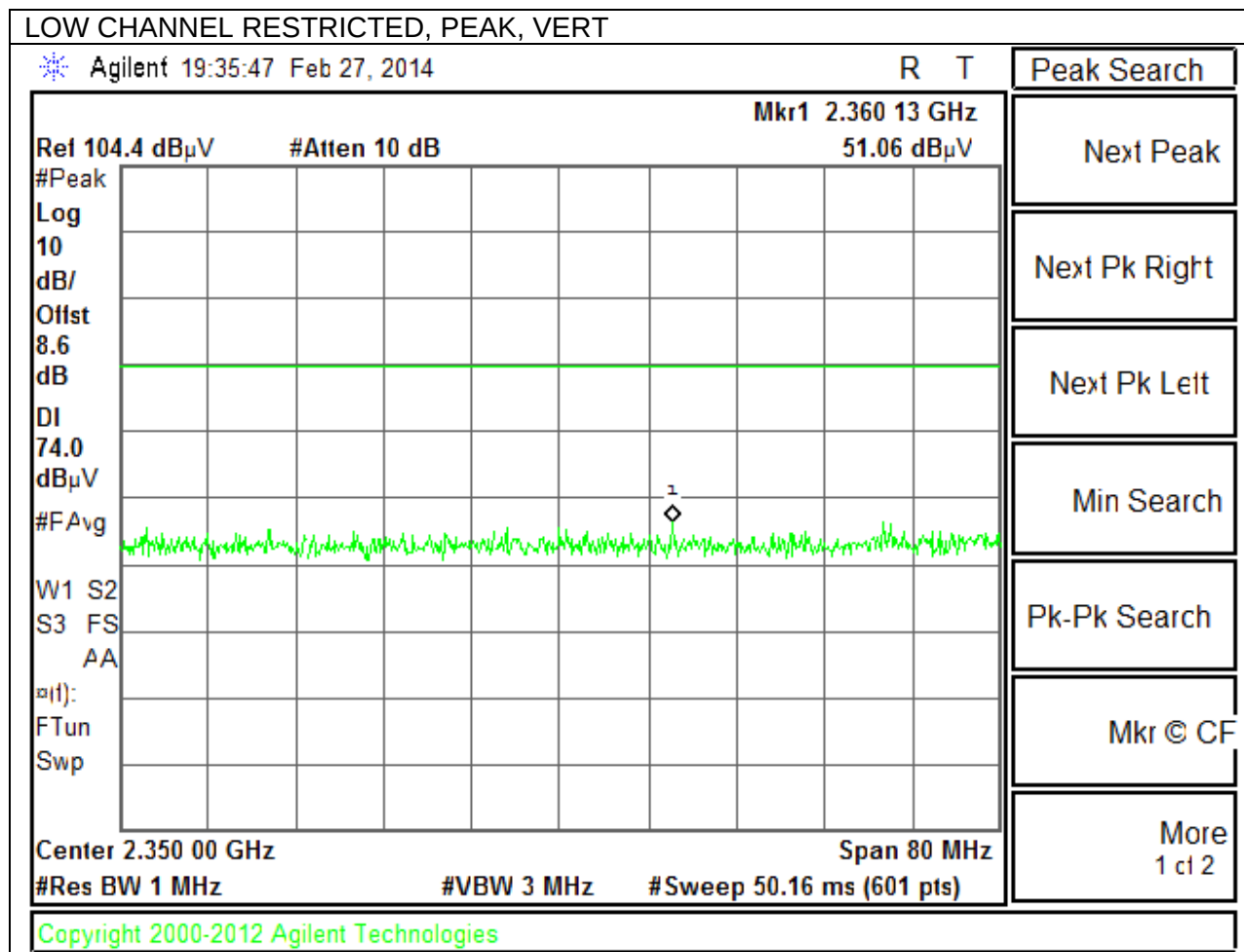
PK2 - KDB558074 Method: Maximum Peak

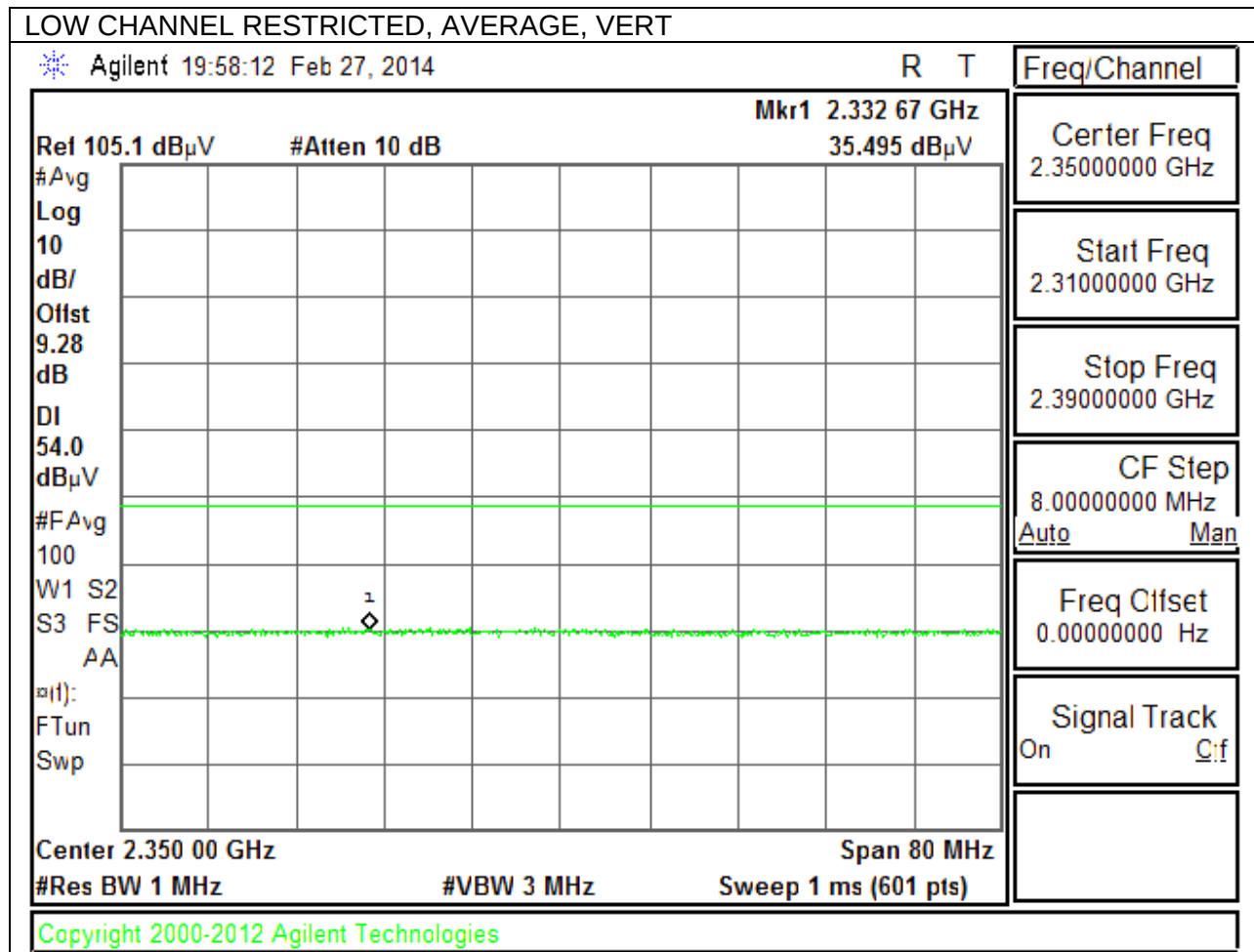
MAv1 - KDB558074 Option 1 Maximum RMS Average

11.2.3. TX ABOVE 1 GHz 802.11n HT20 CDD MODE IN THE 2.4 GHz BAND
RESTRICTED BANDEDGE (LOW CHANNEL)

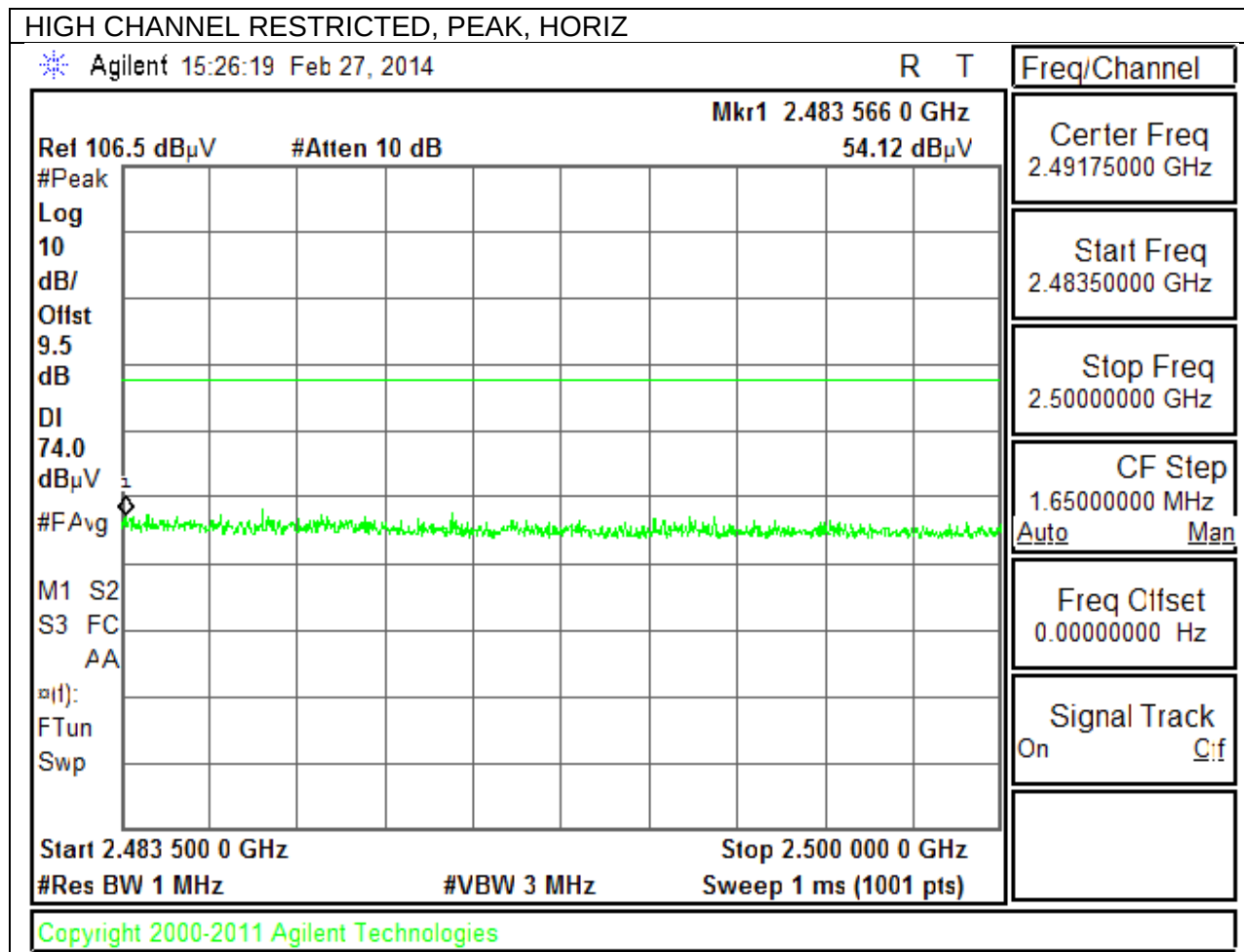


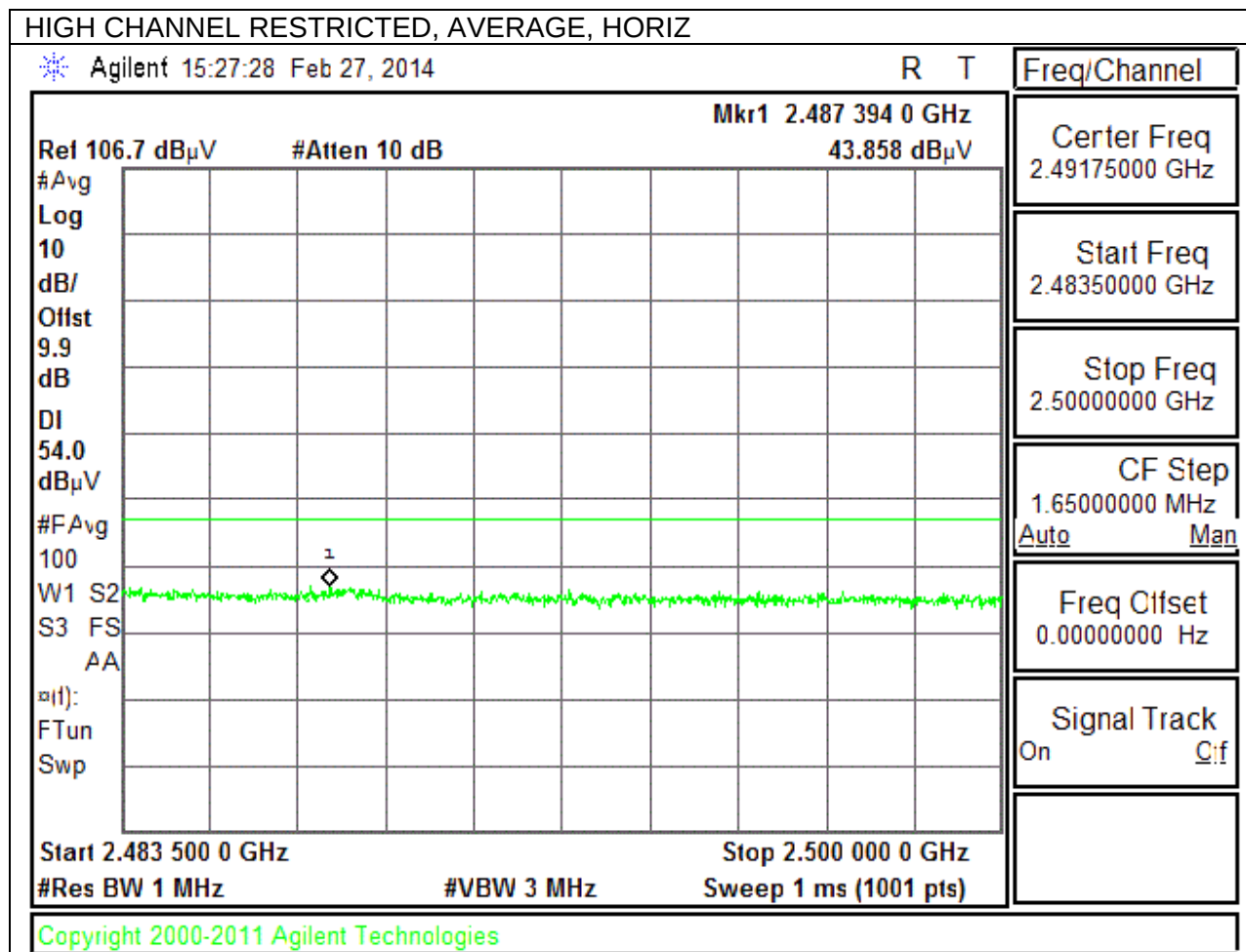
Page 208 of 271

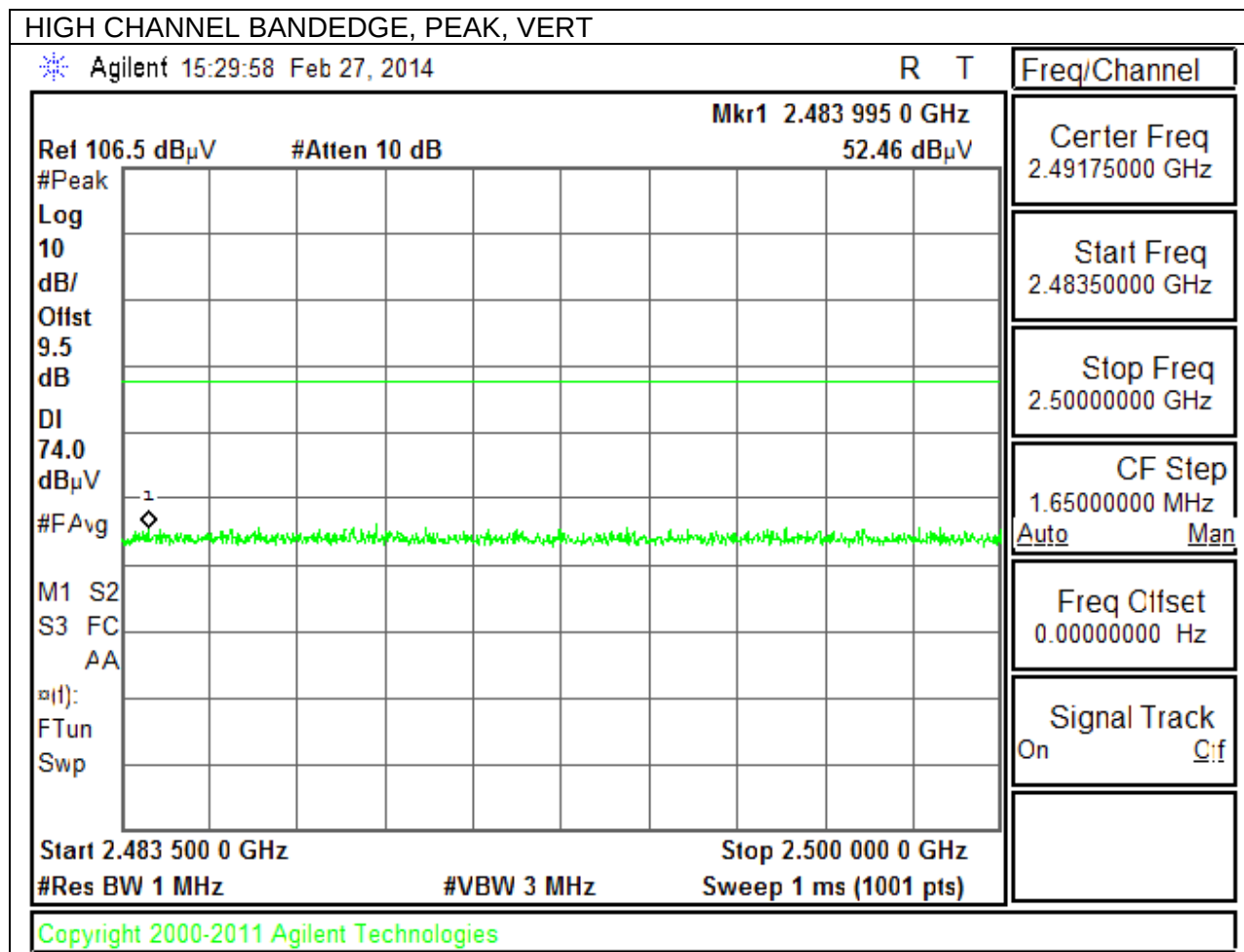


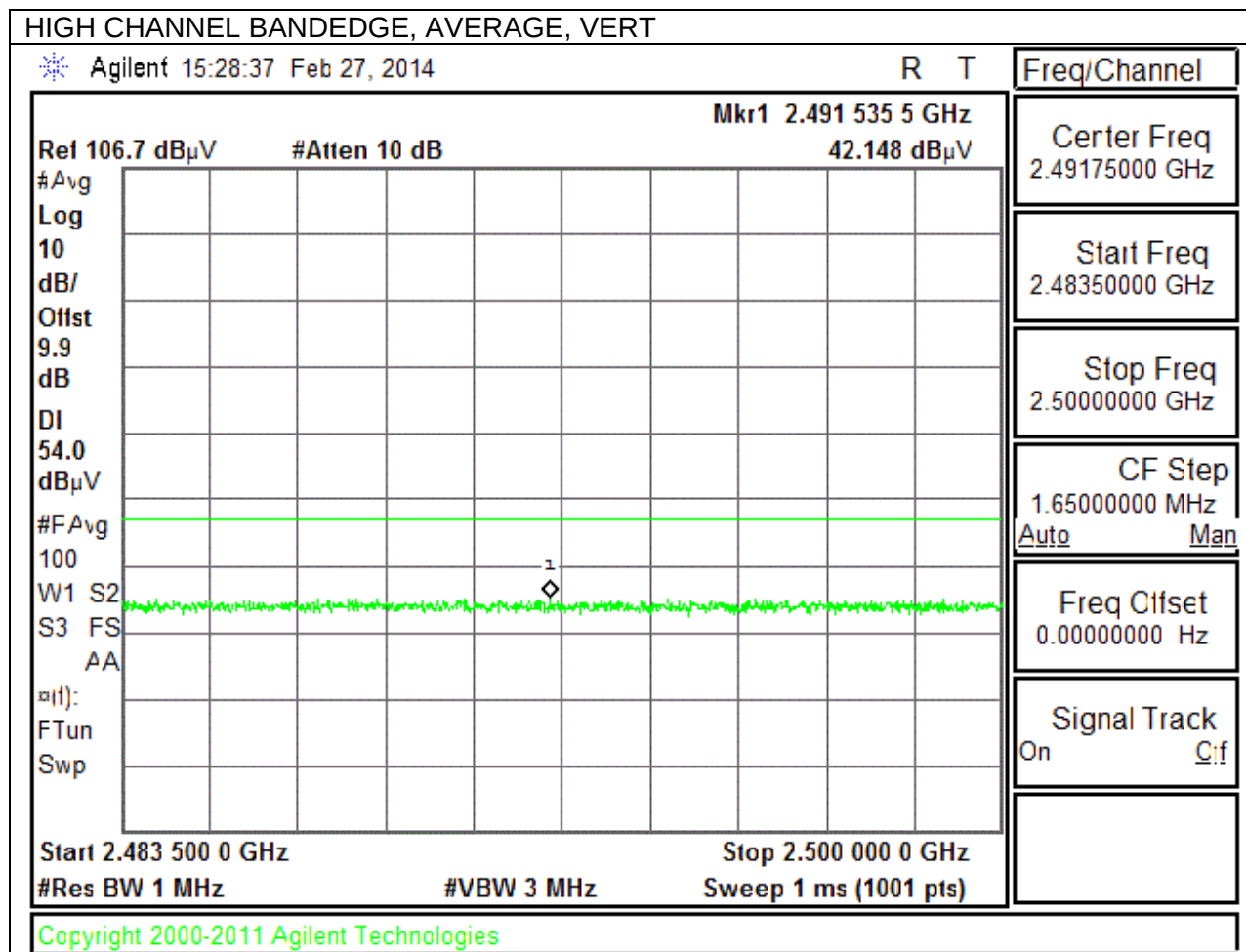


AUTHORIZED BANDEDGE (HIGH CHANNEL)



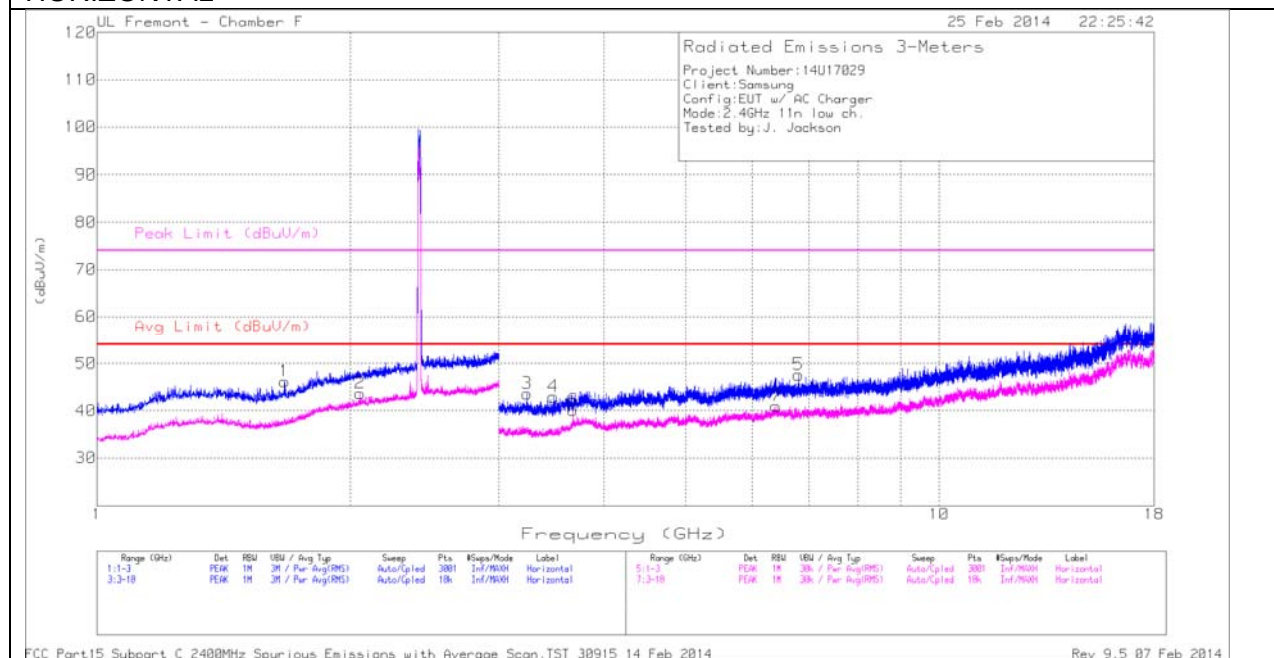






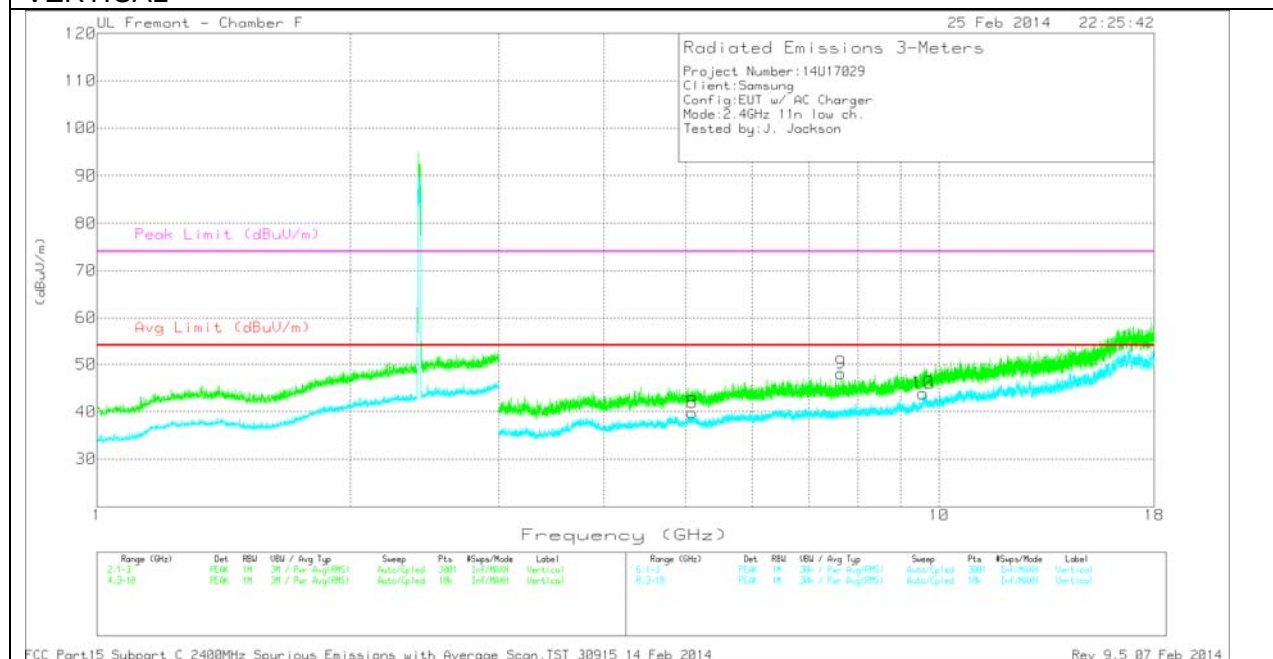
HARMONICS AND SPURIOUS EMISSIONS

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/F lter/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	* 1.67	42.49	PK	28.7	-25	46.19	54	-7.81	74	-27.81	0-360	101	H
9	* 7.641	37.92	PK	35.9	-25.7	48.12	54	-5.88	74	-25.88	0-360	101	V
2	2.053	36.16	Avg	31.6	-24.1	43.66	54	-10.34	-	-	0-360	199	H
6	* 3.673	35.89	Avg	33.6	-29.4	40.09	54	-13.91	-	-	0-360	199	H
7	6.4	32.61	Avg	35.7	-27.3	41.01	54	-12.99	-	-	0-360	101	H
8	* 5.09	32.97	Avg	34.1	-27.3	39.77	54	-14.23	-	-	0-360	201	V
10	9.566	29.04	Avg	37.2	-22.4	43.84	54	-10.16	-	-	0-360	101	V

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

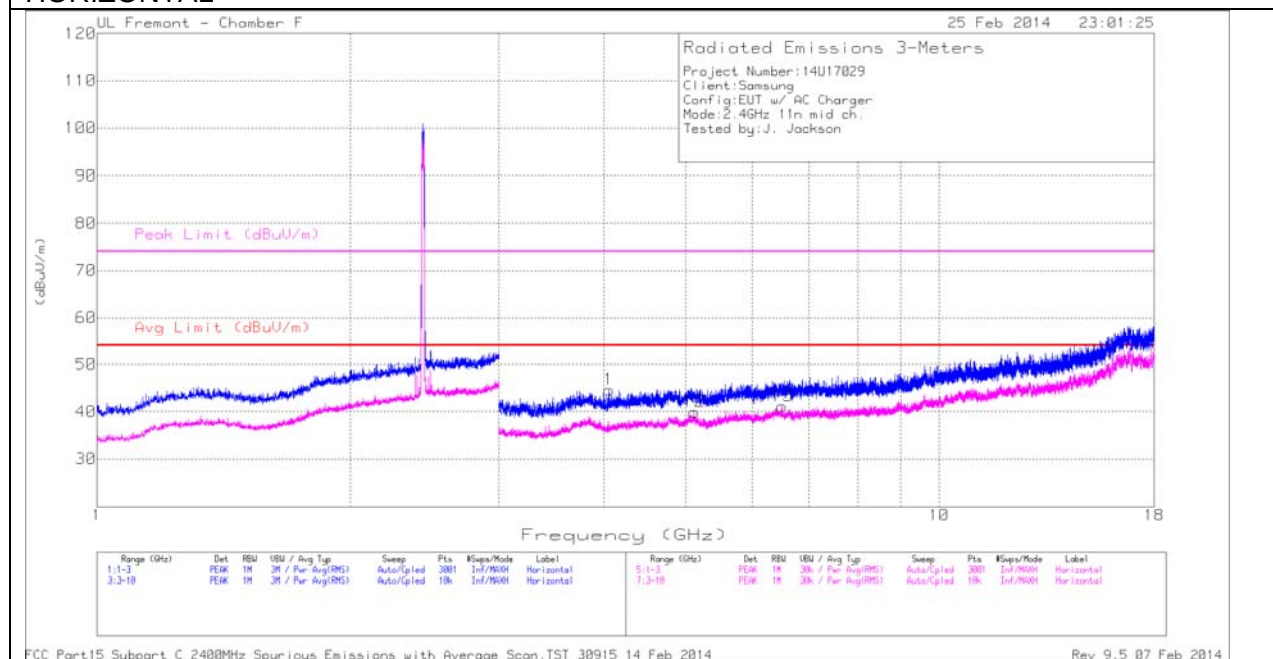
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 7.646	36.57	PK2	35.9	-25.6	46.87	54	-7.13	74	-27.13	204	114	V
* 7.644	25.53	MAV1	35.9	-25.7	35.73	54	-18.27	-	-	204	114	V

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

PK2 - KDB558074 Method: Maximum Peak

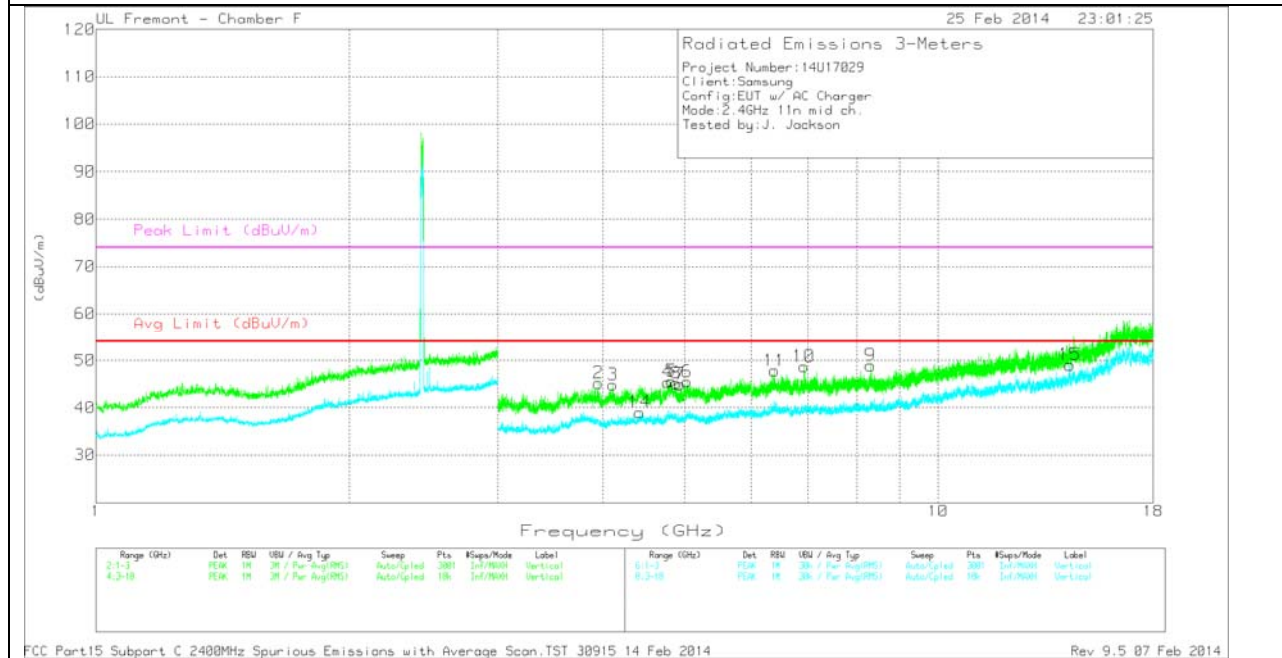
MAV1 - KDB558074 Option 1 Maximum RMS Average

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/F lter/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.056	39.99	PK	33.4	-28.8	44.59	54	-9.41	74	-29.41	0-360	101	H
2	* 3.952	40.88	PK	33.5	-29.2	45.18	54	-8.82	74	-28.82	0-360	101	V
3	* 4.111	40.34	PK	33.4	-28.9	44.84	54	-9.16	74	-29.16	0-360	101	V
4	* 4.772	39.41	PK	34.1	-28.1	45.41	54	-8.59	74	-28.59	0-360	201	V
5	* 4.82	38.84	PK	34.1	-27.3	45.64	54	-8.36	74	-28.36	0-360	101	V
6	* 5.035	39.67	PK	34.1	-28.3	45.47	54	-8.53	74	-28.53	0-360	101	V
7	* 4.937	40.02	PK	34	-29.1	44.92	54	-9.08	74	-29.08	0-360	101	V
8	* 4.884	39.16	PK	34	-28	45.16	54	-8.84	74	-28.84	0-360	201	V
9	* 8.312	37.82	PK	36	-24.9	48.92	54	-5.08	74	-25.08	0-360	201	V
12	* 5.116	32.75	Avg	34.2	-27	39.95	54	-14.05	-	-	0-360	200	H
13	6.511	32.74	Avg	35.8	-27.4	41.14	54	-12.86	-	-	0-360	200	H
14	4.422	34.08	Avg	33.7	-28.8	38.98	54	-15.02	-	-	0-360	201	V
15	14.328	32.05	Avg	39.7	-22.7	49.05	54	-4.95	-	-	0-360	201	V

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

PK - Peak detector

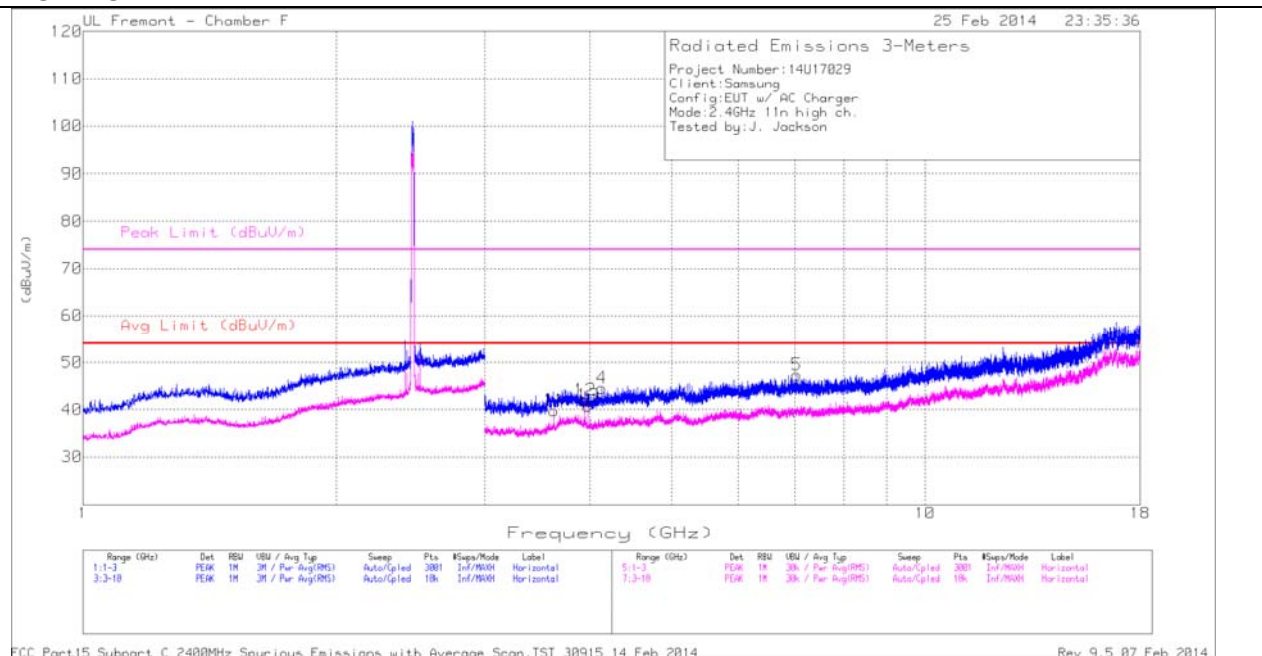
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 8.307	35.76	PK2	36	-25	46.76	54	-7.24	74	-27.24	206	104	V
* 8.309	25.33	MAv1	36	-25	36.33	54	-17.67	-	-	206	104	V

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

PK2 - KDB558074 Method: Maximum Peak

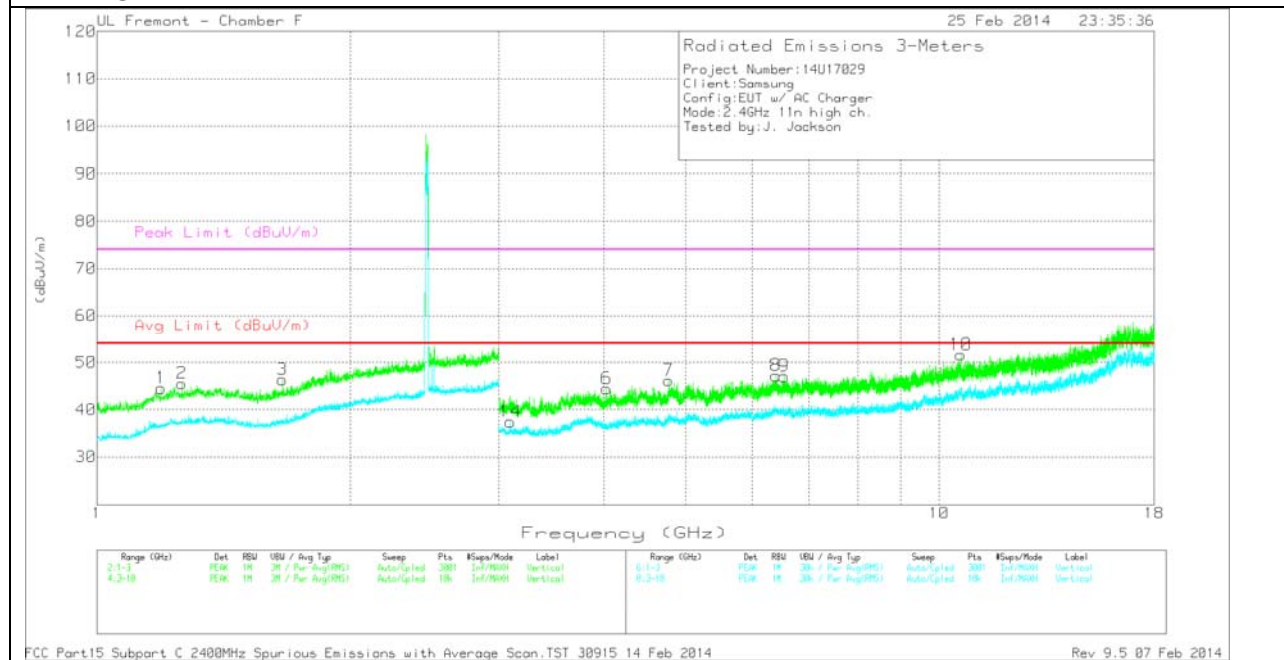
MAv1 - KDB558074 Option 1 Maximum RMS Average

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

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/F lter/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	* 1.191	41.73	PK	29.1	-26.3	44.53	54	-9.47	74	-29.47	0-360	101	V
2	* 1.261	42.64	PK	29.7	-26.8	45.54	54	-8.46	74	-28.46	0-360	101	V
3	* 1.66	42.85	PK	28.6	-25.1	46.35	54	-7.65	74	-27.65	0-360	201	V
4	* 4.13	40.03	PK	33.4	-28.9	44.53	54	-9.47	74	-29.47	0-360	101	H
6	* 4.028	39.94	PK	33.4	-28.9	44.44	54	-9.56	74	-29.56	0-360	201	V
7	* 4.774	40.13	PK	34.1	-28.1	46.13	54	-7.87	74	-27.87	0-360	201	V
10	* 10.608	34.58	PK	38.6	-21.6	51.58	54	-2.42	74	-22.42	0-360	101	V
11	* 3.625	35.46	Avg	33.7	-29.4	39.76	54	-14.24	-	-	0-360	199	H
12	* 3.945	37.48	Avg	33.5	-29	41.98	54	-12.02	-	-	0-360	199	H
13	* 3.978	36.51	Avg	33.5	-29.2	40.81	54	-13.19	-	-	0-360	199	H

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

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/ Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 10.609	33.68	PK2	38.6	-21.6	50.68	54	-3.32	74	-23.32	322	128	V
* 10.61	22.83	MAv1	38.6	-21.7	39.73	54	-14.27	-	-	322	128	V

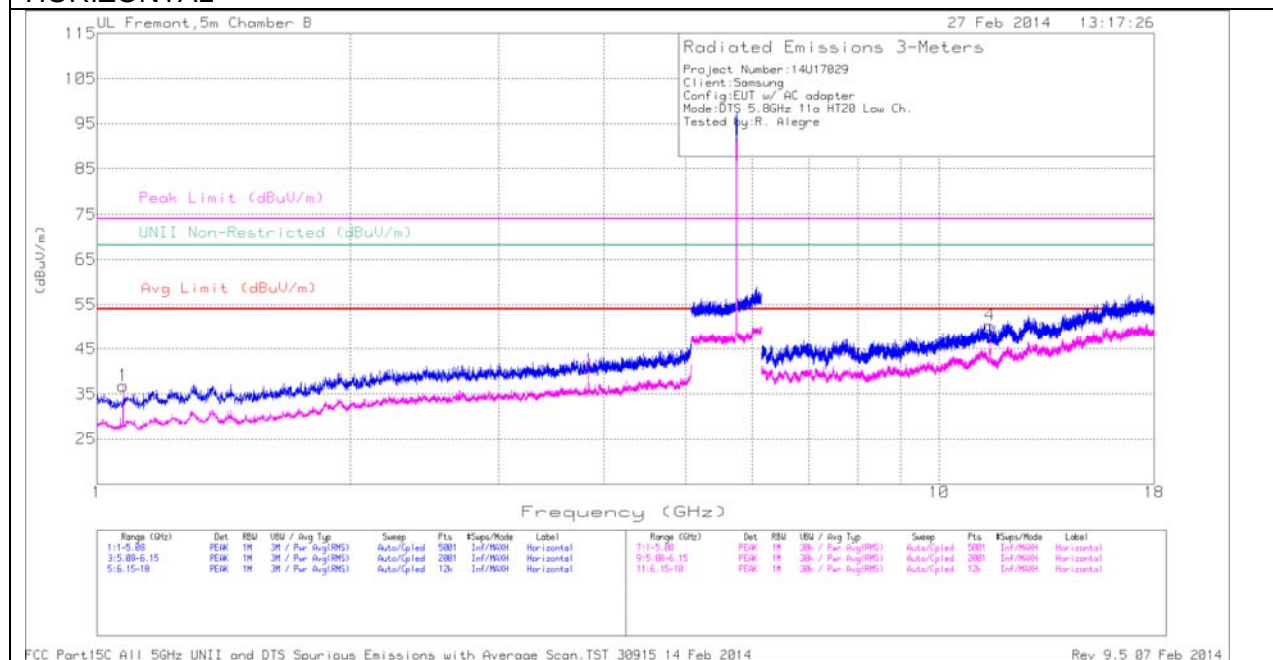
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

MAv1 - KDB558074 Option 1 Maximum RMS Average

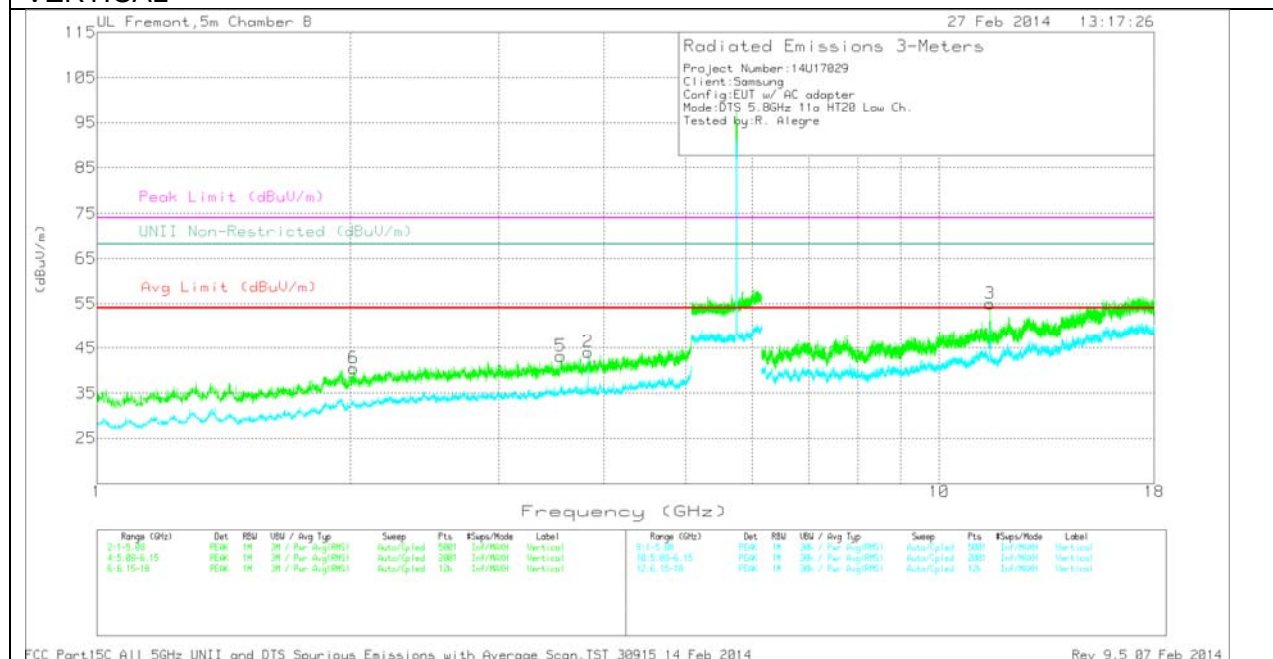
11.2.4. TX ABOVE 1 GHz 802.11a HT20 CDD MODE IN THE 5.8 GHz BAND
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.83	41.73	PK	33.4	-31	44.13	54	-9.87	74	-29.87	68.2	-24.07	0-360	202	V
5	* 3.554	41.6	PK	33.3	-31.7	43.2	54	-10.8	74	-30.8	68.2	-25	0-360	202	V
4	* 11.492	35.21	PK	38.2	-23	50.41	54	-3.59	74	-23.59	68.2	-17.79	0-360	202	H
3	* 11.492	39.81	PK	38.2	-23	55.01			74	-18.99	68.2	-13.19	0-360	202	V
1	* 1.074	44.28	Avg	27	-34.5	36.78	54	-17.22	74	-37.22	68.2	-31.42	0-360	202	H
6	2.018	42.89	PK	31.1	-33.5	40.49	54	-13.51	74	-33.51	68.2	-27.71	0-360	202	V

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

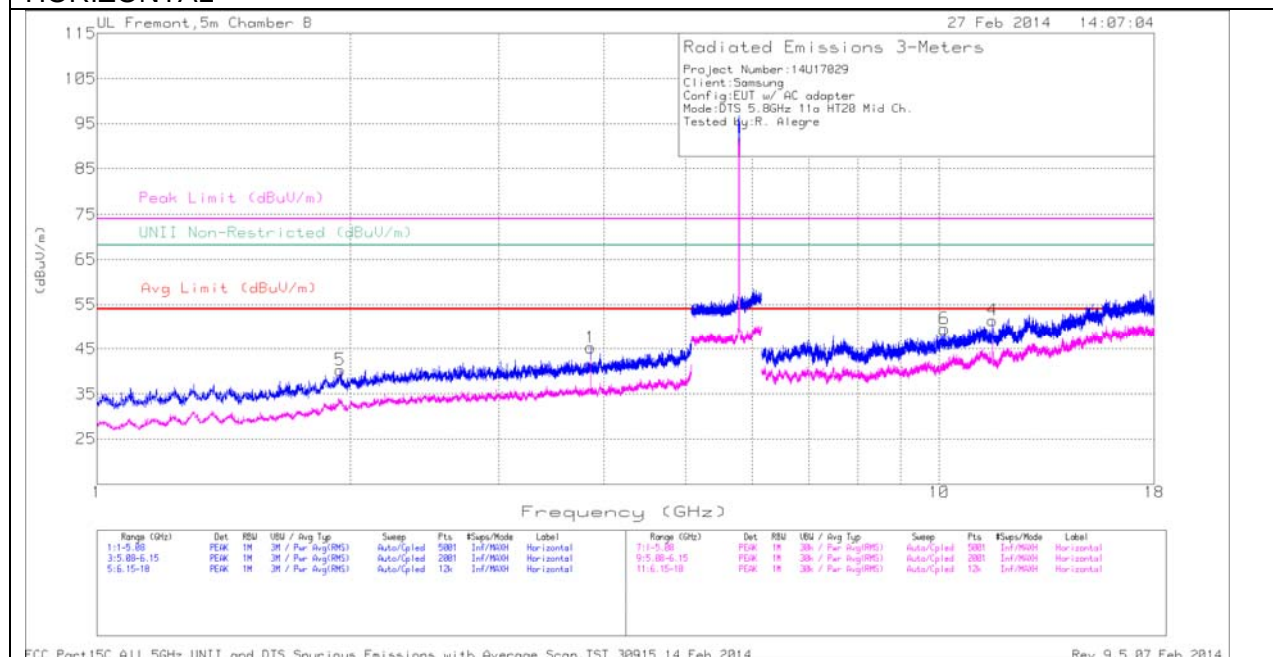
PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.488	31.25	MAv1	38.2	-23	46.45	54	-7.55	74	-27.55	-68.2	-21.75	11	321	V

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

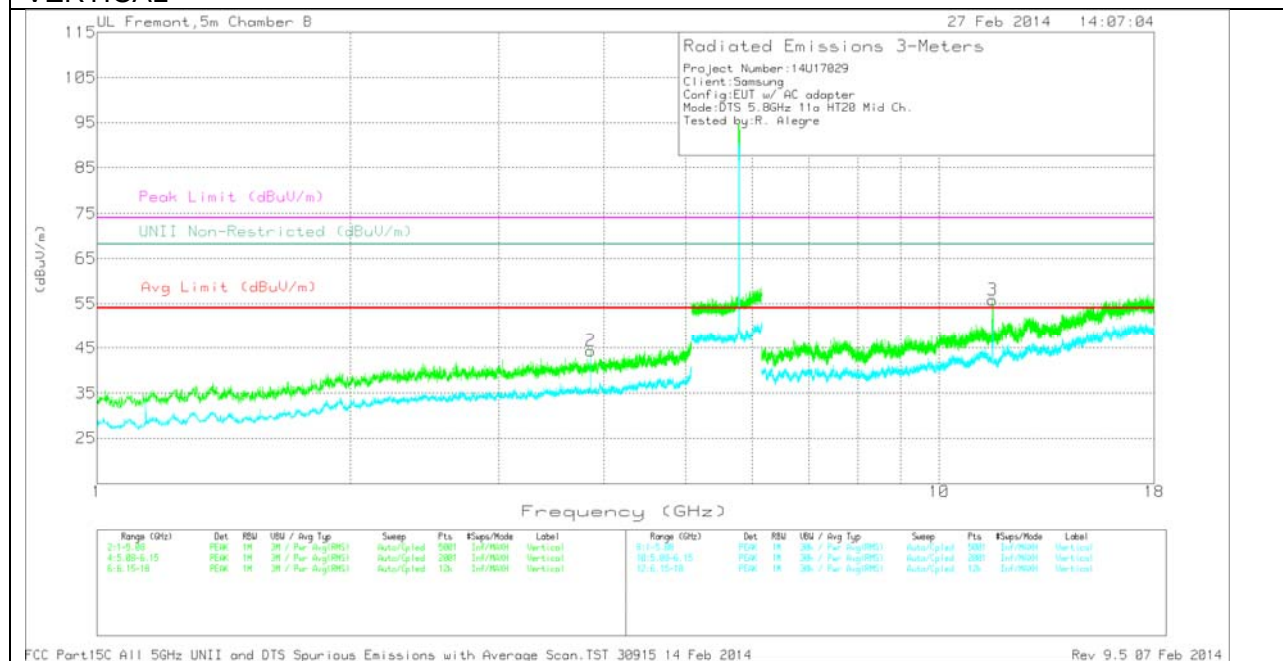
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL
HORIZONTAL



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.857	43.2	PK	33.5	-31.4	45.3	54	-8.7	74	-28.7	68.2	-22.9	0-360	99	H
2	* 3.857	42.27	PK	33.5	-31.4	44.37	54	-9.63	74	-29.63	68.2	-23.83	0-360	202	V
4	* 11.569	36.1	PK	38.2	-22.8	51.5			74	-22.5	68.2	-16.7	0-360	202	H
3	* 11.572	40.3	PK	38.2	-22.7	55.8			74	-18.2	68.2	-12.4	0-360	202	V
5	1.945	41.86	PK	30.9	-32.5	40.26	54	-13.74	74	-33.74	68.2	-27.94	0-360	99	H
6	10.142	36.51	PK	37.2	-24.1	49.61	54	-4.39	74	-24.39	68.2	-18.59	0-360	99	H

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

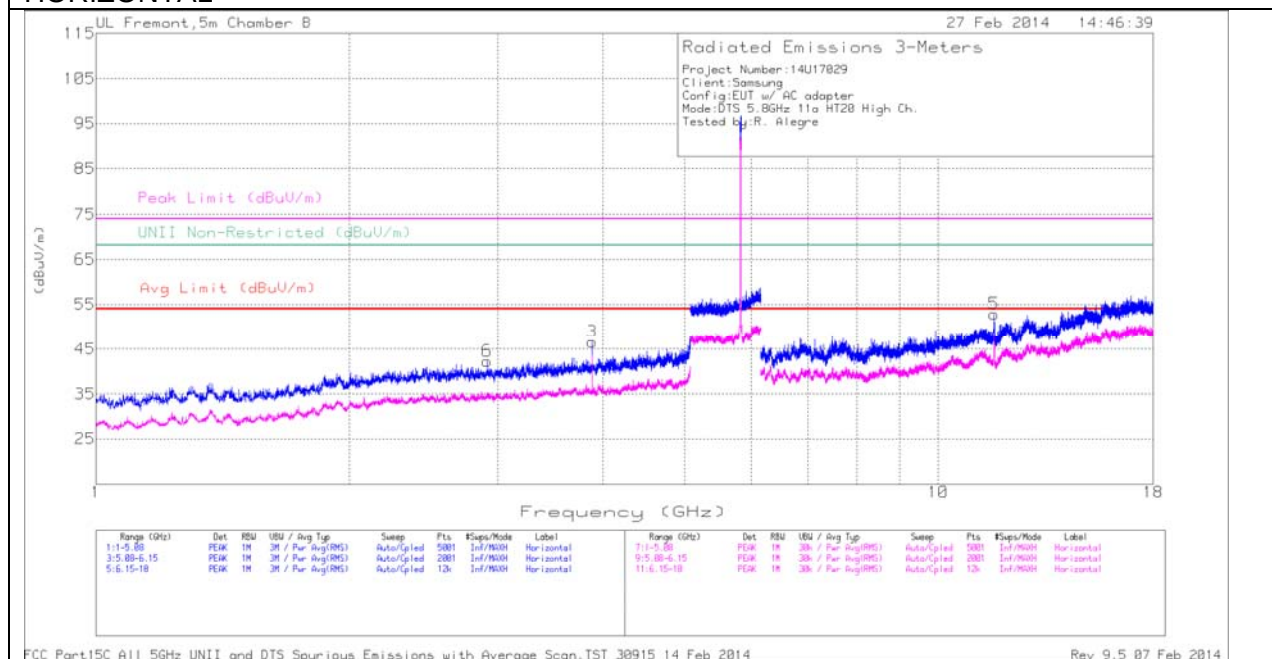
PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.569	29.8	MAv1	38.2	-22.8	45.2	54	-8.8	74	-28.8	-	-	99	338	V

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

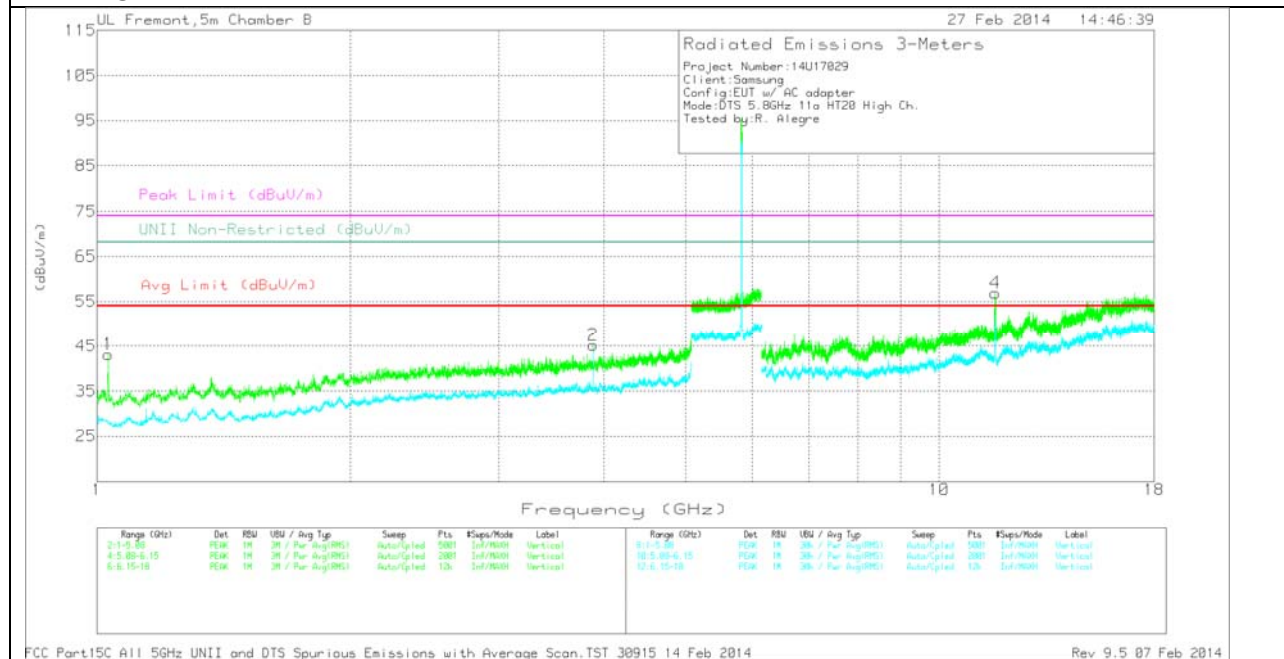
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Filt r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
3	* 3.883	44.84	PK	33.5	-31.7	46.64	54	-7.36	74	-27.36	68.2	-21.56	0-360	99	H
1	* 1.031	50.8	PK	27	-34.7	43.1	54	-10.9	74	-30.9	68.2	-25.1	0-360	99	V
2	* 3.884	43.42	PK	33.5	-31.7	45.22	54	-8.78	74	-28.78	68.2	-22.98	0-360	202	V
5	* 11.653	37.72	PK	38.3	-23.1	52.92			74	-21.08	68.2	-15.28	0-360	202	H
4	* 11.657	41.78	PK	38.3	-23.2	56.88			74	-17.12	68.2	-11.32	0-360	99	V
6	2.914	41.68	PK	32.6	-32	42.28	54	-11.72	74	-31.72	68.2	-25.92	0-360	99	H

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

PK - Peak detector

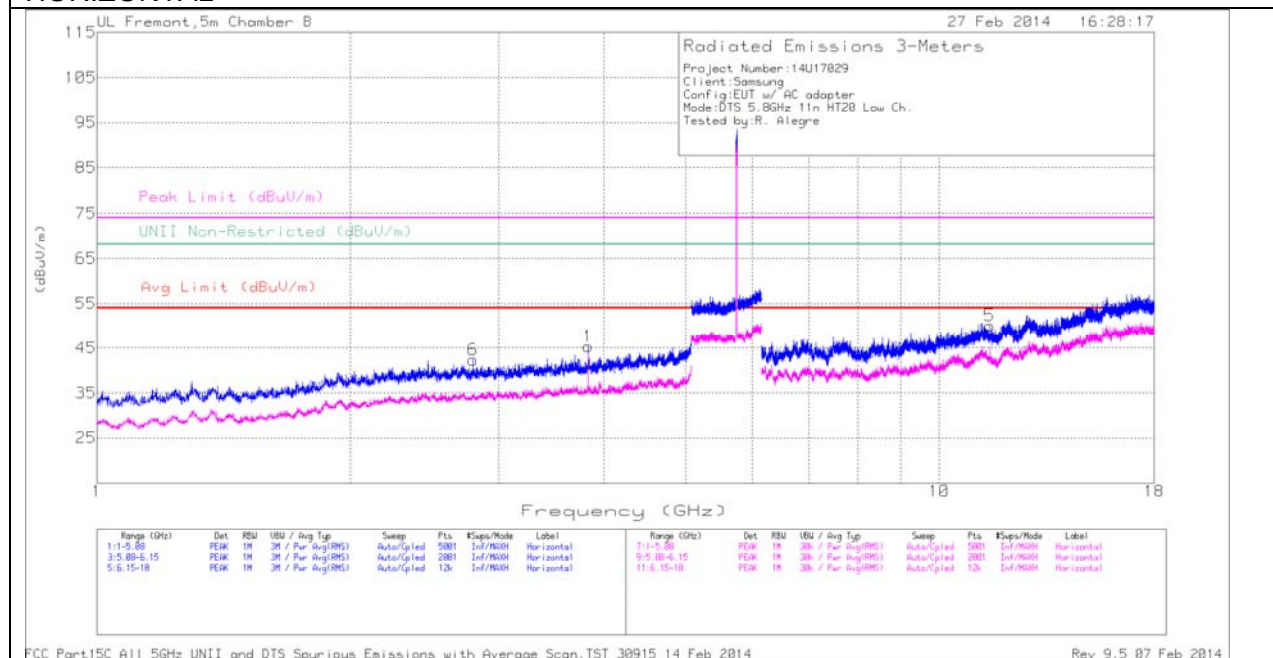
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filt r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 3.883	41.71	MAv1	33.5	-31.7	43.51	54	-10.49	74	-30.49	-	-	339	323	H
* 11.57	23.62	MAv1	38.2	-22.8	39.02	54	-14.98	74	-34.98	-	-	287	274	V

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

MAv1 - KDB558074 Option 1 Maximum RMS Average

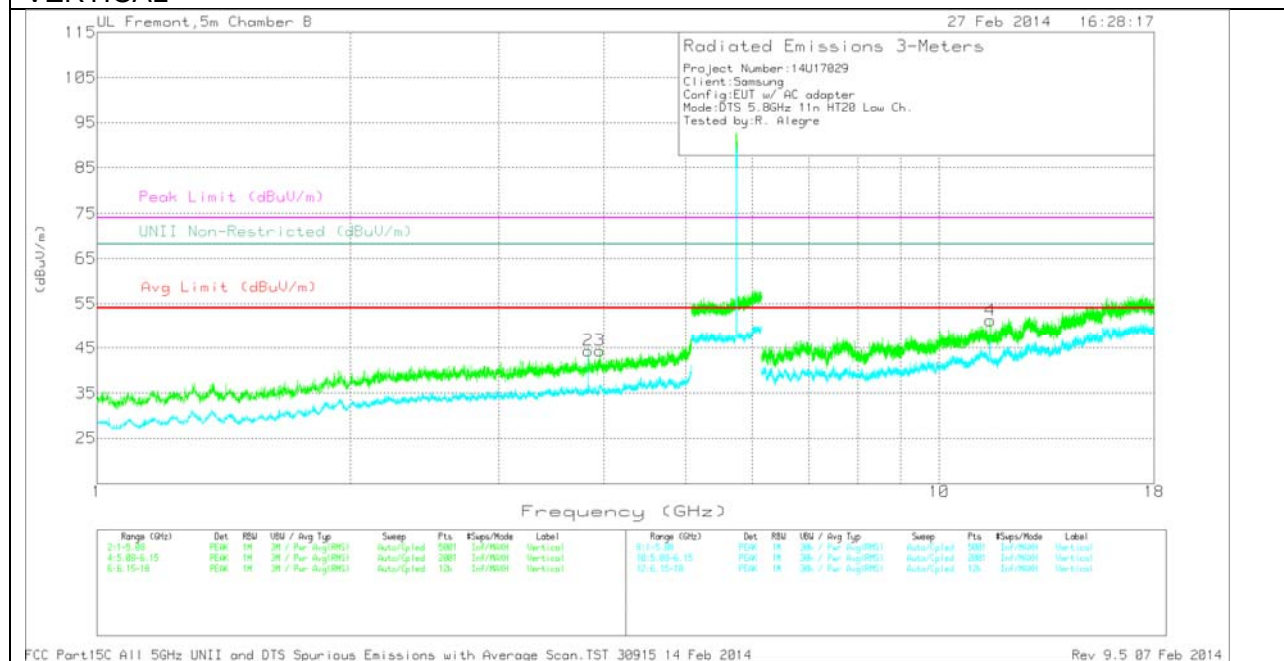
11.2.5. TX ABOVE 1 GHz 802.11n HT20 CDD MODE IN THE 5.8 GHz BAND
HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.83	42.92	PK	33.4	-31	45.32	54	-8.68	74	-28.68	68.2	-22.88	0-360	99	H
6	* 2.797	42.24	PK	32.5	-32.4	42.34	54	-11.66	74	-31.66	68.2	-25.86	0-360	99	H
2	* 3.83	42	PK	33.4	-31	44.4	54	-9.6	74	-29.6	68.2	-23.8	0-360	202	V
3	* 3.954	40.9	PK	33.5	-30	44.4	54	-9.6	74	-29.6	68.2	-23.8	0-360	202	V
5	* 11.484	34.83	PK	38.2	-23	50.03	54	-3.97	74	-23.97	68.2	-18.17	0-360	202	H
4	* 11.497	36.06	PK	38.2	-23	51.26			74	-22.74	68.2	-16.94	0-360	202	V

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

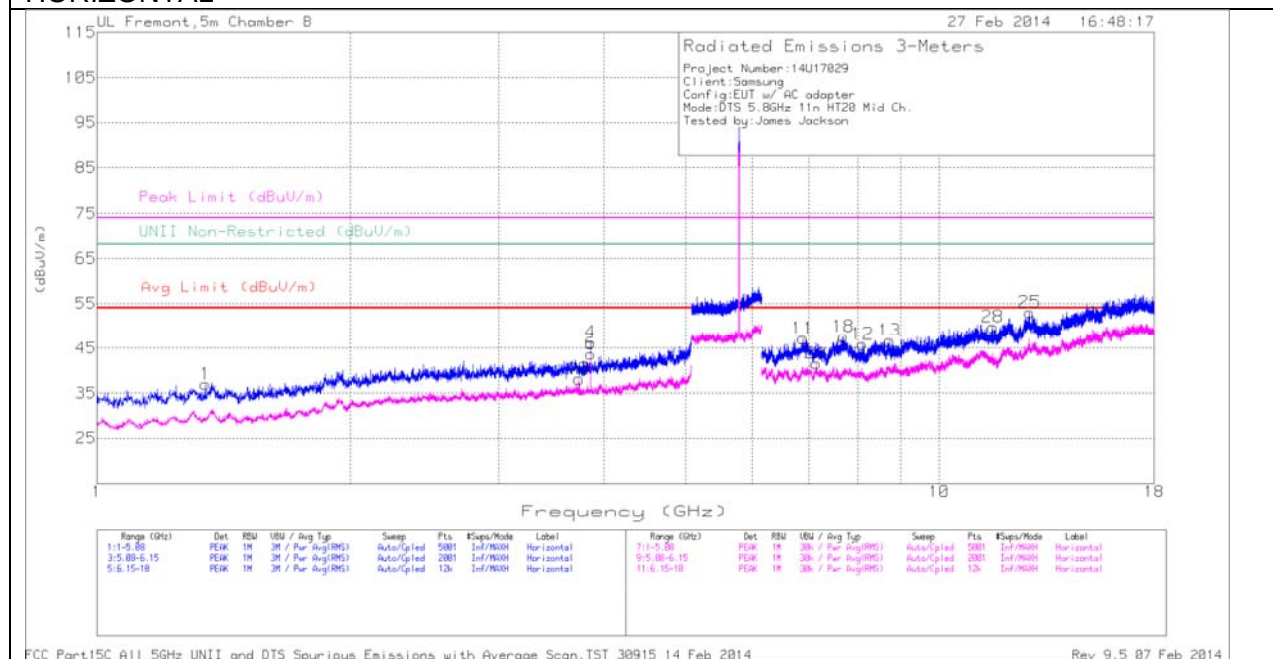
PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.492	26.43	MAv1	38.2	-23	41.63	54	-12.37	74	-32.37	-	-	2	271	V

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

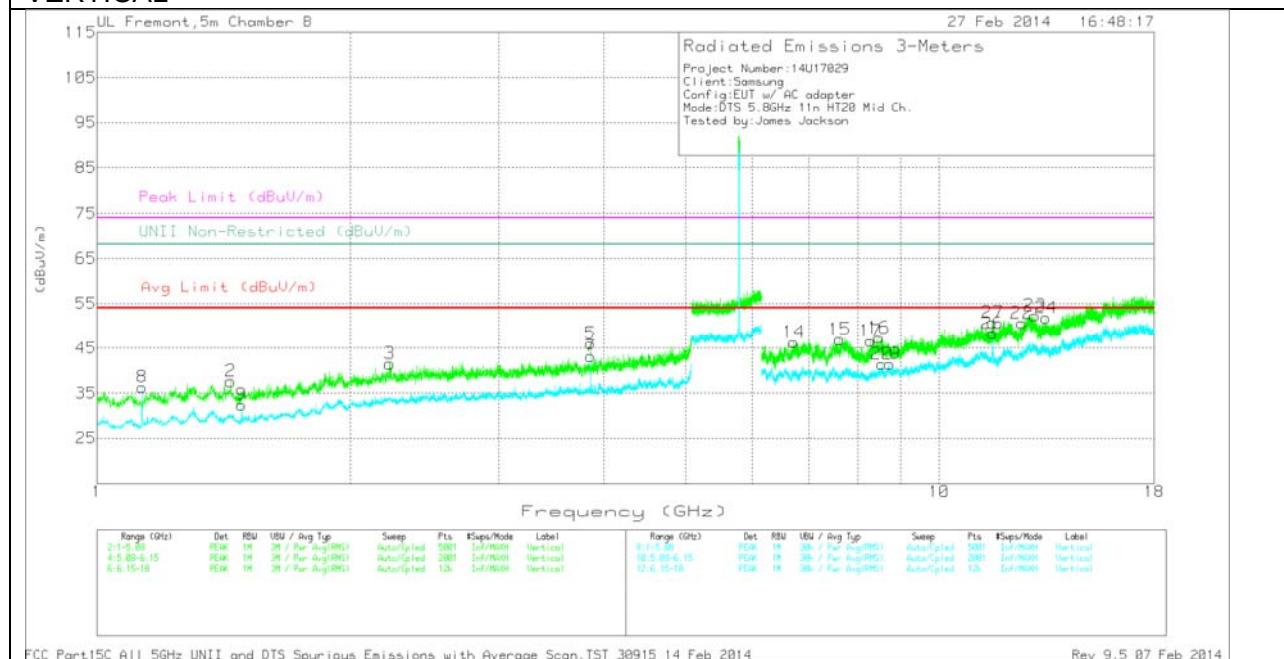
MAv1 - KDB558074 Option 1 Maximum RMS Average

MID CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.345	42.15	PK	28.7	-33.9	36.95	54	-17.05	74	-37.05	68.2	-31.25	0-360	201	H
4	* 3.857	44.16	PK	33.5	-31.4	46.26	54	-7.74	74	-27.74	68.2	-21.94	0-360	99	H
2	* 1.441	43.31	PK	28.4	-34.1	37.61	54	-16.39	74	-36.39	68.2	-30.59	0-360	99	V
3	* 2.226	42.13	PK	31.7	-32.3	41.53	54	-12.47	74	-32.47	68.2	-26.67	0-360	202	V
5	* 3.857	43.94	PK	33.5	-31.4	46.04	54	-7.96	74	-27.96	68.2	-22.16	0-360	202	V
12	* 8.105	36.86	PK	35.7	-26.7	45.86	54	-8.14	74	-28.14	68.2	-22.34	0-360	202	H
18	* 7.695	39.47	PK	35.8	-27.7	47.57	54	-6.43	74	-26.43	68.2	-20.63	0-360	202	H
28	* 11.575	34.25	PK	38.2	-22.7	49.75	54	-4.25	74	-24.25	68.2	-18.45	0-360	202	H
15	* 7.621	38.76	PK	35.7	-27.5	46.96	54	-7.04	74	-27.04	68.2	-21.24	0-360	202	V
16	* 8.479	37.87	PK	35.8	-26.4	47.27	54	-6.73	74	-26.73	68.2	-20.93	0-360	99	V
17	* 8.29	37.47	PK	35.8	-26.7	46.57	54	-7.43	74	-27.43	68.2	-21.63	0-360	202	V
22	* 12.534	34.25	PK	39.2	-22.8	50.65	54	-3.35	74	-23.35	68.2	-17.55	0-360	99	V
24	* 13.395	35.21	PK	39.3	-22.7	51.81	54	-2.19	74	-22.19	68.2	-16.39	0-360	99	V
27	* 11.574	35.24	PK	38.2	-22.7	50.74	54	-3.26	74	-23.26	68.2	-17.46	0-360	99	V
26	* 11.564	32.93	Avg	38.2	-22.8	48.33	54	-5.67	-	-	-	-	0-360	202	V
14	6.721	39.33	PK	35.6	-28.6	46.33	54	-7.67	74	-27.67	68.2	-21.87	0-360	99	V
11	6.891	39.81	PK	35.5	-28.1	47.21	54	-6.79	74	-26.79	68.2	-20.99	0-360	99	H
13	8.733	36.47	PK	36	-25.8	46.67	54	-7.33	74	-27.33	68.2	-21.53	0-360	202	H
25	12.806	35.59	PK	39.3	-21.9	52.99	54	-1.01	74	-21.01	68.2	-15.21	0-360	202	H
23	12.995	35.23	PK	39.3	-22.2	52.33	54	-1.67	74	-21.67	68.2	-15.87	0-360	202	V

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

PK - Peak detector

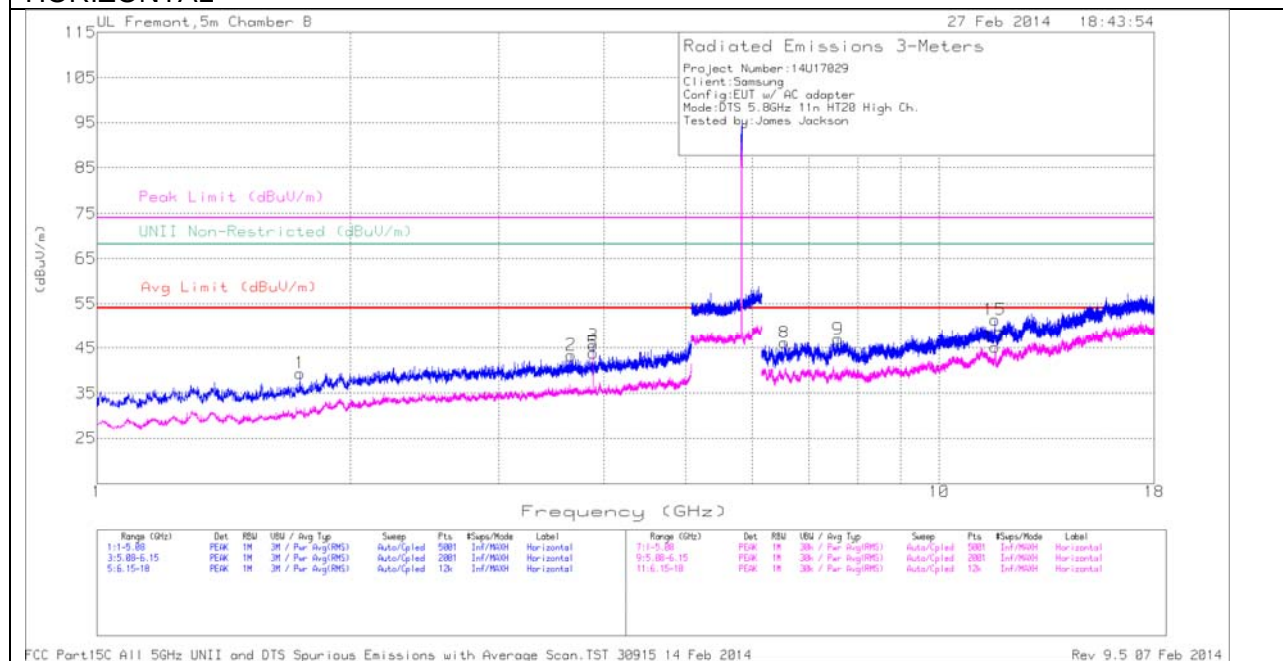
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fit r/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.567	35.63	PK2	38.2	-22.8	51.03			74	-22.97	68.2	-17.17	49	278	H
* 11.569	24.98	MAv1	38.2	-22.8	40.38	54	-13.62	74	-33.62	-	-	49	278	H
* 12.524	33.94	PK2	39.2	-22.7	50.44			74	-23.56	68.2	-17.76	136	136	V
* 12.524	23.58	MAv1	39.2	-22.7	40.08	54	-13.92	74	-33.92	-	-	136	136	V
* 13.387	34.4	PK2	39.3	-22.7	51			74	-23	68.2	-17.2	212	389	V
* 13.39	24.68	MAv1	39.3	-22.7	41.28	54	-12.72	74	-32.72	-	-	212	389	V
* 11.569	38.39	PK2	38.2	-22.8	53.79	54	-.21	74	-20.21	68.2	-14.41	17	236	V
* 11.569	26.65	MAv1	38.2	-22.8	42.05	54	-11.95	74	-31.95	-	-	17	236	V
12.797	24.74	MAv1	39.3	-21.9	42.14	54	-11.86	74	-31.86	-	-	182	375	H
12.8	34.83	PK2	39.3	-21.9	52.23			74	-21.77	68.2	-15.97	182	375	H
12.953	34.78	PK2	39.3	-22.6	51.48			74	-22.52	68.2	-16.72	295	117	V
12.958	25.14	MAv1	39.3	-22.6	41.84	54	-12.16	74	-32.16	-	-	295	117	V

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

PK2 - KDB558074 Method: Maximum Peak

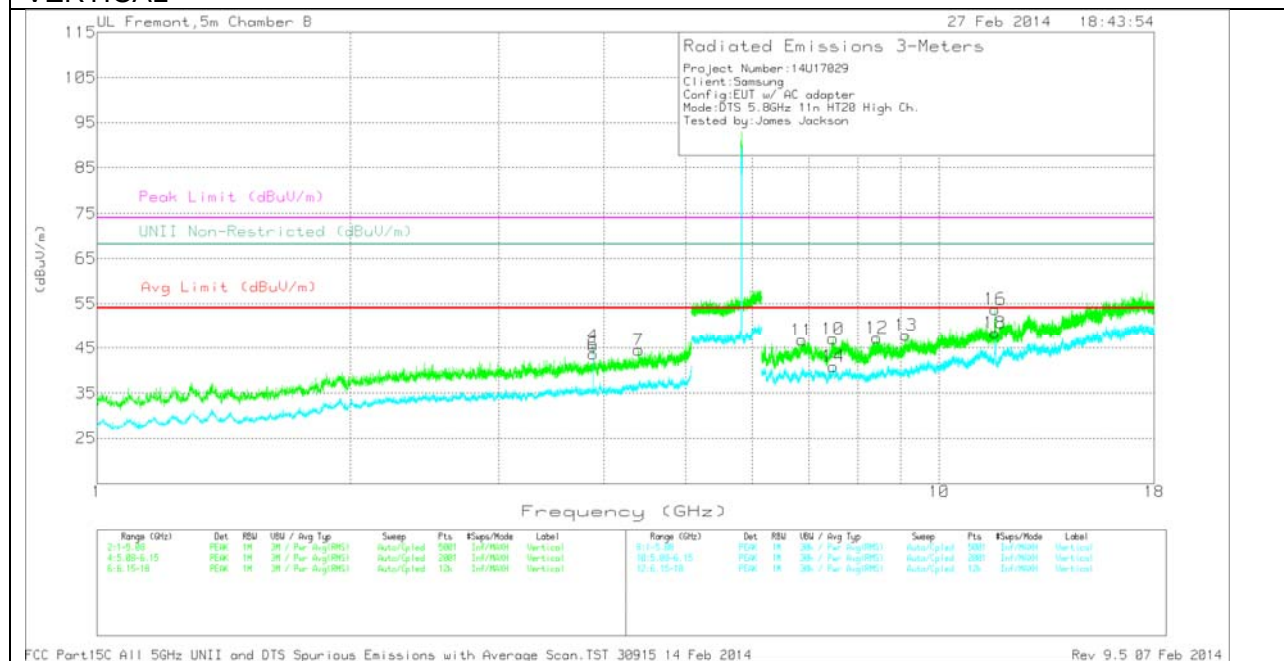
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.657	41.15	PK	33.3	-31.1	43.35	54	-10.65	74	-30.65	68.2	-24.85	0-360	201	H
3	* 3.884	43.79	PK	33.5	-31.7	45.59	54	-8.41	74	-28.41	68.2	-22.61	0-360	99	H
4	* 3.884	43.69	PK	33.5	-31.7	45.49	54	-8.51	74	-28.51	68.2	-22.71	0-360	202	V
7	* 4.397	41.17	PK	33.9	-30.5	44.57	54	-9.43	74	-29.43	68.2	-23.63	0-360	202	V
9	* 7.584	38.58	PK	35.7	-27.3	46.98	54	-7.02	74	-27.02	68.2	-21.22	0-360	99	H
15	* 11.645	36.09	PK	38.3	-23	51.39	54	-2.61	74	-22.61	68.2	-16.81	0-360	99	H
10	* 7.481	37.47	PK	35.6	-26	47.07	54	-6.93	74	-26.93	68.2	-21.13	0-360	99	V
12	* 8.432	37.56	PK	35.8	-26.1	47.26	54	-6.74	74	-26.74	68.2	-20.94	0-360	99	V
13	* 9.128	36.61	PK	36.3	-25	47.91	54	-6.09	74	-26.09	68.2	-20.29	0-360	99	V
16	* 11.651	38.51	PK	38.3	-23.1	53.71	54	-2.9	74	-20.29	68.2	-14.49	0-360	99	V
5	* 3.883	42.11	Avg	33.5	-31.7	43.91	54	-10.09	-	-	-	-	0-360	99	H
6	* 3.883	41.91	Avg	33.5	-31.7	43.71	54	-10.29	-	-	-	-	0-360	202	V
17	* 11.651	29.98	Avg	38.3	-23.1	45.18	54	-8.82	-	-	-	-	0-360	202	H
14	* 7.491	30.96	Avg	35.6	-25.7	40.86	54	-13.14	-	-	-	-	0-360	99	V
18	* 11.644	33.11	Avg	38.3	-23	48.41	54	-5.59	-	-	-	-	0-360	99	V
1	1.742	43.79	PK	29.3	-33.7	39.39	54	-14.61	74	-34.61	68.2	-28.81	0-360	99	H
8	6.551	37.9	PK	35.6	-27.3	46.2	54	-7.8	74	-27.8	68.2	-22	0-360	99	H
11	6.87	39.39	PK	35.5	-28.1	46.79	54	-7.21	74	-27.21	68.2	-21.41	0-360	202	V

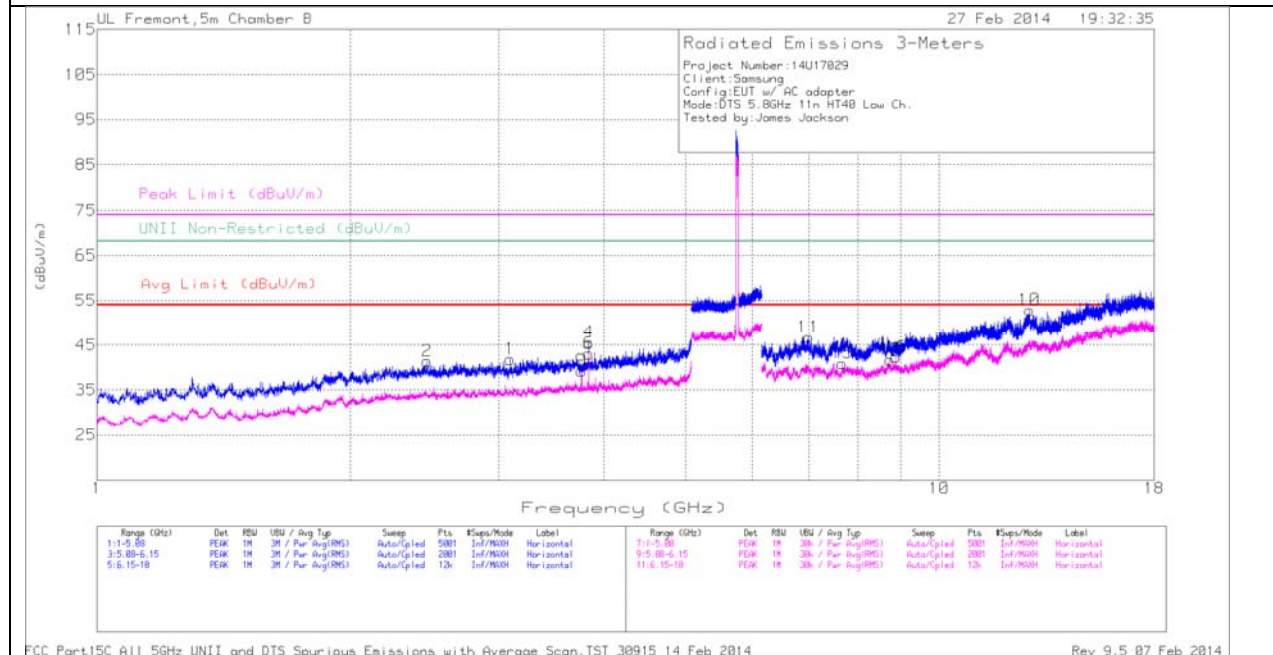
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Ftr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.648	37.51	PK2	38.3	-23.1	52.71			74	-21.29	68.2	-15.49	45	351	H
* 11.651	26.52	MAv1	38.3	-23.1	41.72	54	-12.28	74	-32.28	-	-	45	351	H
* 11.645	42.66	PK2	38.3	-23.1	57.86			74	-16.14	68.2	-10.34	28	340	V
* 11.649	31.66	MAv1	38.3	-23.1	46.86	54	-7.14	74	-27.14	-	-	28	340	V

* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band
PK2 - KDB558074 Method: Maximum Peak

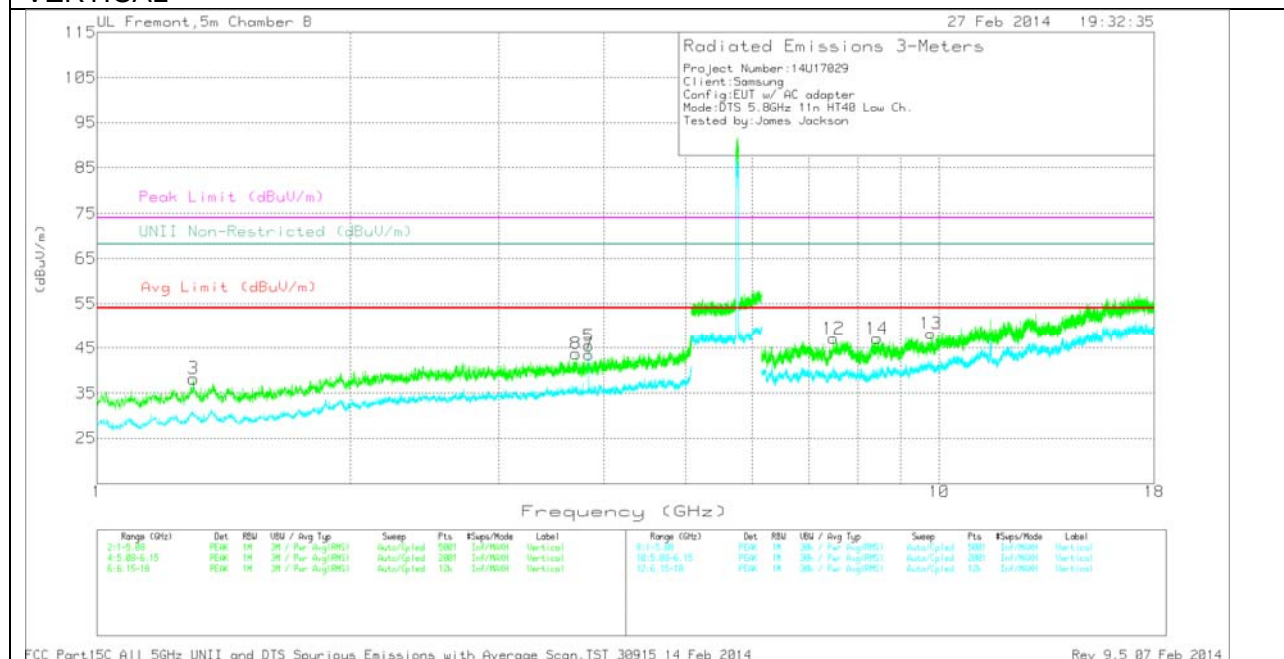
11.2.6. TX ABOVE 1 GHz 802.11n HT40 CDD MODE IN THE 5.8 GHz BAND
HARMONICS AND SPURIOUS EMISSIONS

**MID CHANNEL
HORIZONTAL**



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Ftr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
4	* 3.836	43.36	PK	33.4	-31.1	45.66	54	-8.34	74	-28.34	68.2	-22.54	0-360	99	H
3	* 1.302	43.58	PK	28.8	-34.2	38.18	54	-15.82	74	-35.82	68.2	-30.02	0-360	99	V
5	* 3.836	43.24	PK	33.4	-31.1	45.54	54	-8.46	74	-28.46	68.2	-22.66	0-360	202	V
8	* 3.704	41.63	PK	33.2	-31.1	43.73	54	-10.27	74	-30.27	68.2	-24.47	0-360	99	V
12	* 7.488	37.36	PK	35.6	-25.8	47.16	54	-6.84	74	-26.84	68.2	-21.04	0-360	202	V
14	* 8.441	37.43	PK	35.8	-26.1	47.13	54	-6.87	74	-26.87	68.2	-21.07	0-360	99	V
6	* 3.836	40.75	Avg	33.4	-31.1	43.05	54	-10.95	-	-	-	-	0-360	202	H
9	* 3.761	37.25	Avg	33.3	-31.3	39.25	54	-14.75	-	-	-	-	0-360	99	H
7	* 3.836	41.21	Avg	33.4	-31.1	43.51	54	-10.49	-	-	-	-	0-360	202	V
15	* 7.674	32.72	Avg	35.7	-27.5	40.92	54	-13.08	-	-	-	-	0-360	202	H
2	2.467	41.26	PK	32.3	-32.2	41.36	54	-12.64	74	-32.64	68.2	-26.84	0-360	99	H
1	3.095	40.91	PK	32.8	-31.9	41.81	54	-12.19	74	-32.19	68.2	-26.39	0-360	99	H
11	6.998	38.87	PK	35.6	-27.7	46.77	54	-7.23	74	-27.23	68.2	-21.43	0-360	202	H
17	8.738	31.36	Avg	36	-25.7	41.66	54	-12.34	-	-	-	-	0-360	99	H
16	8.882	31.99	Avg	36.1	-25.8	42.29	54	-11.71	-	-	-	-	0-360	99	H
13	9.773	34.91	PK	37	-23.6	48.31	54	-5.69	74	-25.69	68.2	-19.89	0-360	202	V
10	12.799	35.48	PK	39.3	-21.9	52.88	54	-1.12	74	-21.12	68.2	-15.32	0-360	99	H

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

PK - Peak detector

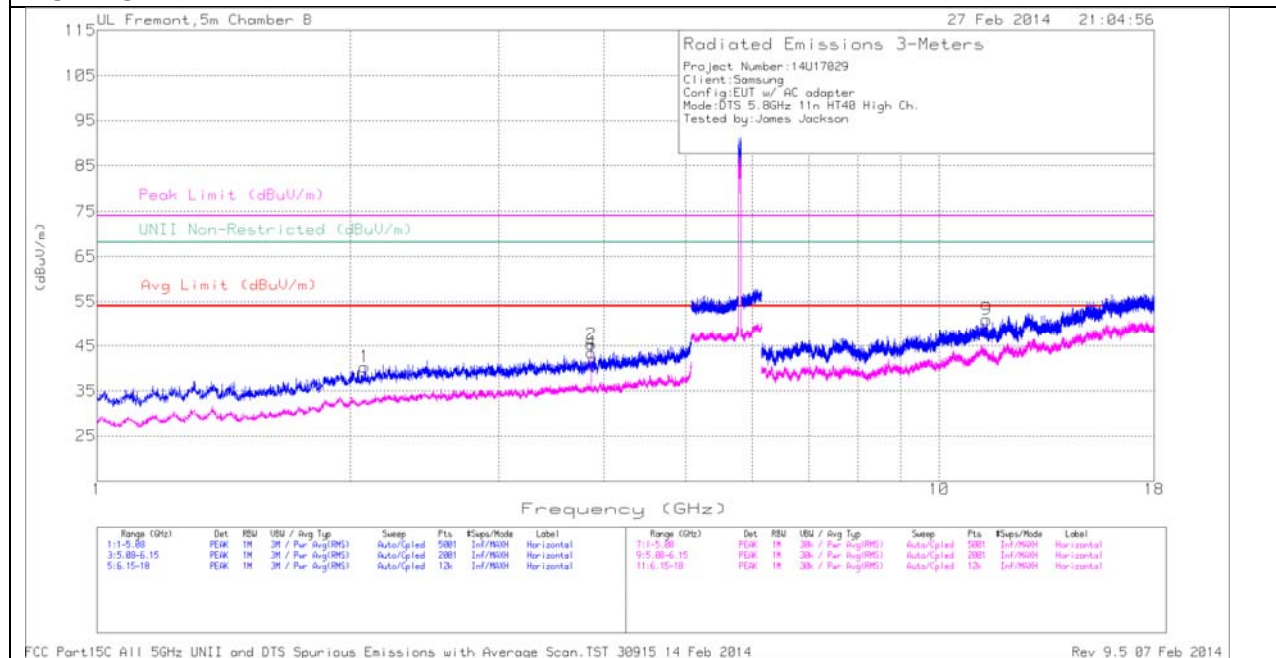
Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Ftr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
9.773	33.95	PK2	37	-23.6	47.35			74	-26.65	68.2	-20.85	40	129	V
9.773	23.99	MAv1	37	-23.6	37.39	54	-16.61	74	-36.61	-	-	40	129	V
12.786	34.7	PK2	39.3	-22.1	51.9			74	-22.1	68.2	-16.3	42	141	H
12.788	24.89	MAv1	39.3	-22.1	42.09	54	-11.91	74	-31.91	-	-	42	141	H

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

PK2 - KDB558074 Method: Maximum Peak

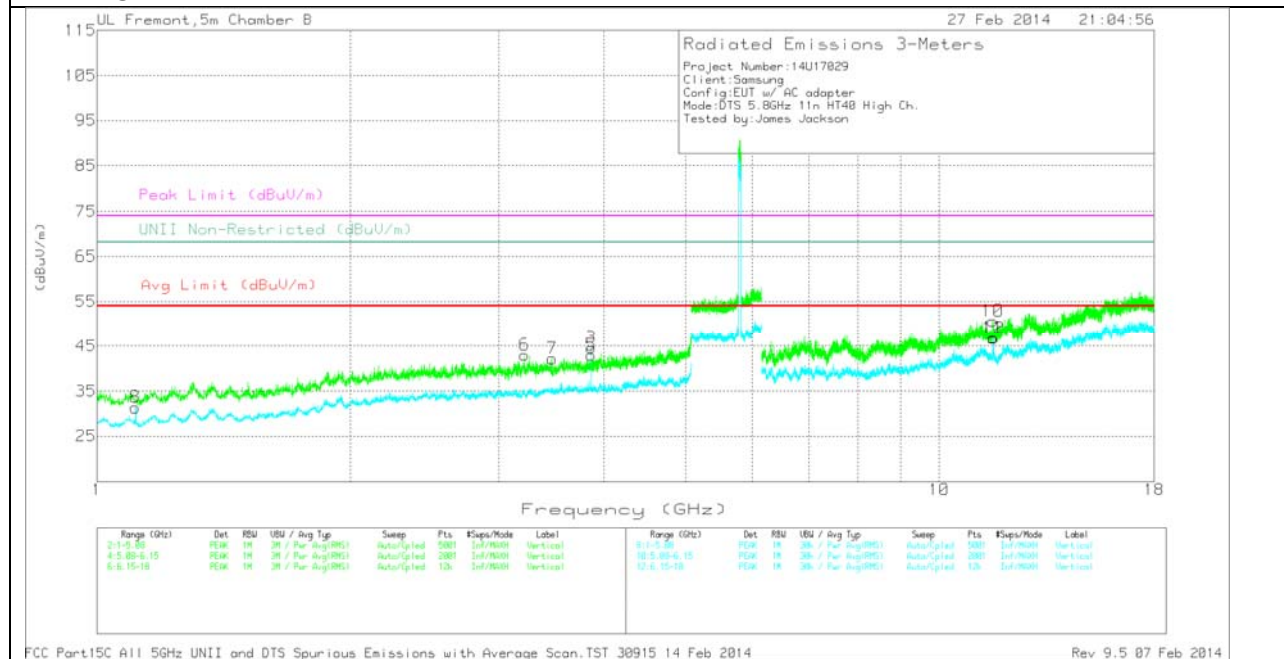
MAv1 - KDB558074 Option 1 Maximum RMS Average

HIGH CHANNEL HORIZONTAL



Note: Emission was scanned up to 40GHz; 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 40GHz; 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 T344 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
2	* 3.863	43.37	PK	33.5	-31.5	45.37	54	-8.63	74	-28.63	68.2	-22.83	0-360	99	H
3	* 3.863	42.69	PK	33.5	-31.5	44.69	54	-9.31	74	-29.31	68.2	-23.51	0-360	202	V
9	* 11.382	36.19	PK	38.1	-23.3	50.99	54	-3.01	74	-23.01	68.2	-17.21	0-360	99	H
10	* 11.577	35.24	PK	38.2	-22.8	50.64	54	-3.36	74	-23.36	68.2	-17.56	0-360	202	V
4	* 3.863	41.51	Avg	33.5	-31.5	43.51	54	-10.49	-	-	-	-	0-360	99	H
5	* 3.863	40.99	Avg	33.5	-31.5	42.99	54	-11.01	-	-	-	-	0-360	202	V
8	* 1.111	38.76	Avg	27.1	-34.5	31.36	54	-22.64	-	-	-	-	0-360	202	V
11	* 11.588	31.47	Avg	38.2	-22.8	46.87	54	-7.13	-	-	-	-	0-360	202	V
12	* 11.603	31.54	Avg	38.2	-23	46.74	54	-7.26	-	-	-	-	0-360	202	V
1	2.079	42.54	PK	31.4	-33.6	40.34	54	-13.66	74	-33.66	68.2	-27.86	0-360	99	H
6	3.219	42.09	PK	32.7	-31.8	42.99	54	-11.01	74	-31.01	68.2	-25.21	0-360	202	V
7	3.471	40.8	PK	32.9	-31.5	42.2	54	-11.8	74	-31.8	68.2	-26	0-360	202	V

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

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Fitr/ Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.386	34.86	PK2	38.1	-23.3	49.66	54	-4.34	74	-24.34	68.2	-18.54	227	186	H
* 11.385	24.34	MAV1	38.1	-23.3	39.14	54	-14.86	74	-34.86	-	-	227	186	H
* 11.577	30.23	PK	38.2	-22.8	45.63	54	-8.37	74	-28.37	68.2	-22.57	201	374	V
* 11.577	31.02	PK	38.2	-22.8	46.42	54	-7.58	74	-27.58	68.2	-21.78	201	374	V

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

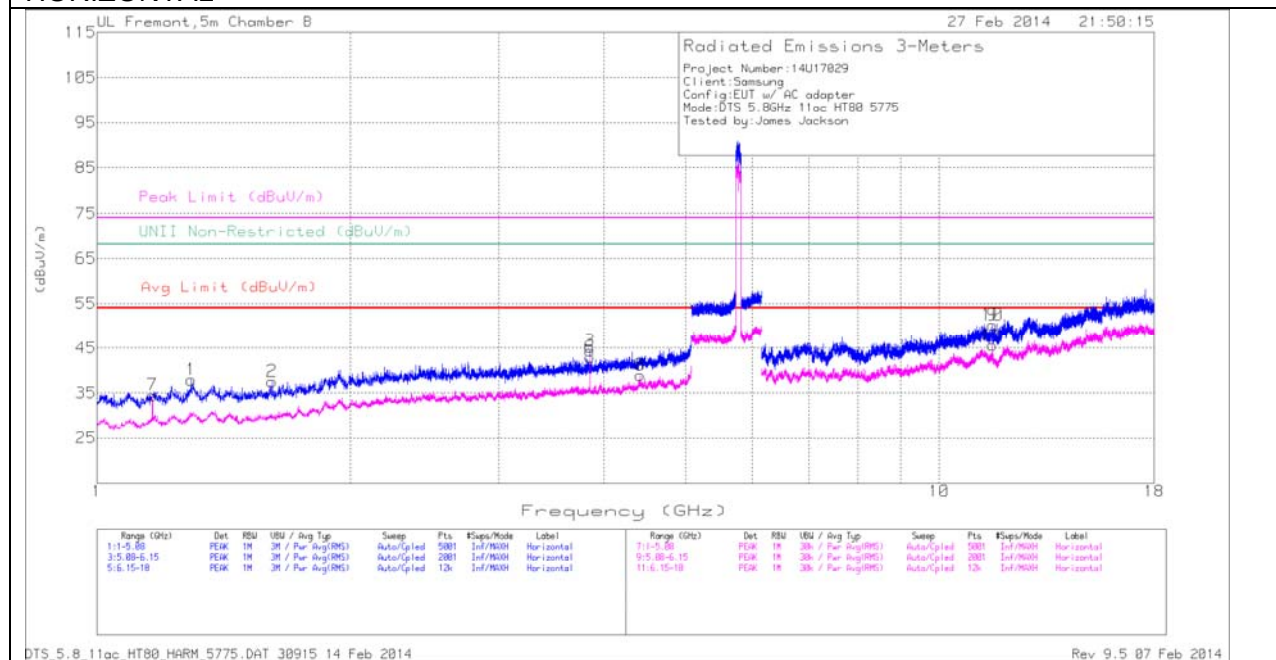
PK - Peak detector

PK2 - KDB558074 Method: Maximum Peak

MAV1 - KDB558074 Option 1 Maximum RMS Average

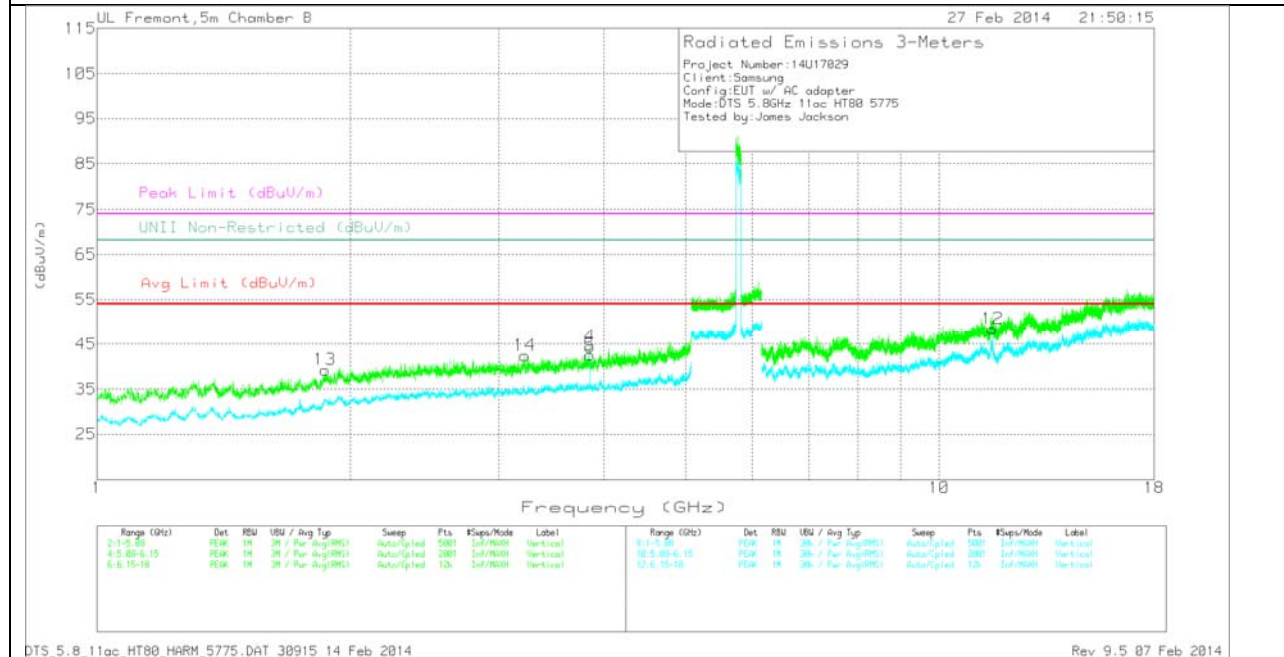
11.2.7. TX ABOVE 1 GHz 802.11ac HT80 CDD MODE IN THE 5.8 GHz BAND
HARMONICS AND SPURIOUS EMISSIONS

HORIZONTAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

CHANNEL DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 1.294	43.4	PK	28.8	-34.3	37.9	54	-16.1	74	-36.1	68.2	-30.3	0-360	202	H
2	* 1.614	42.35	PK	28.3	-33.1	37.55	54	-16.45	74	-36.45	68.2	-30.65	0-360	99	H
3	* 3.85	42.18	PK	33.5	-31.3	44.38	54	-9.62	74	-29.62	68.2	-23.82	0-360	99	H
4	* 3.85	42.25	PK	33.5	-31.3	44.45	54	-9.55	74	-29.55	68.2	-23.75	0-360	202	V
9	* 11.567	34.82	PK	38.2	-22.8	50.22	54	-3.78	74	-23.78	68.2	-17.98	0-360	99	H
10	* 11.567	34.82	PK	38.2	-22.8	50.22	54	-3.78	74	-23.78	68.2	-17.98	0-360	99	H
6	* 3.85	40.78	Avg	33.5	-31.3	42.98	54	-11.02	-	-	-	-	0-360	99	H
7	* 1.164	41.39	Avg	27.8	-34.7	34.49	54	-19.51	-	-	-	-	0-360	202	H
5	* 3.85	40.32	Avg	33.5	-31.3	42.52	54	-11.48	-	-	-	-	0-360	202	V
11	* 11.564	30.26	Avg	38.2	-22.8	45.66	54	-8.34	-	-	-	-	0-360	202	H
12	* 11.569	33.03	Avg	38.2	-22.8	48.43	54	-5.57	-	-	-	-	0-360	202	V
13	1.866	41.83	PK	30.5	-33.1	39.23	54	-14.77	74	-34.77	68.2	-28.97	0-360	202	V
14	3.221	41.53	PK	32.7	-31.8	42.43	54	-11.57	74	-31.57	68.2	-25.77	0-360	99	V
8	4.417	35.03	Avg	33.9	-30	38.93	54	-15.07	-	-	-	-	0-360	99	H

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

PK - Peak detector

Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/ Fitr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non- Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
* 11.562	34.88	PK2	38.2	-22.8	50.28			74	-23.72	68.2	-17.92	347	277	H
* 11.564	24.56	MAv1	38.2	-22.8	39.96	54	-14.04	74	-34.04	-	-	347	277	H
* 11.566	40.13	PK2	38.2	-22.8	55.53			74	-18.47	68.2	-12.67	5	268	V
* 11.569	27.06	MAv1	38.2	-22.8	42.46	54	-11.54	74	-31.54	-	-	5	268	V

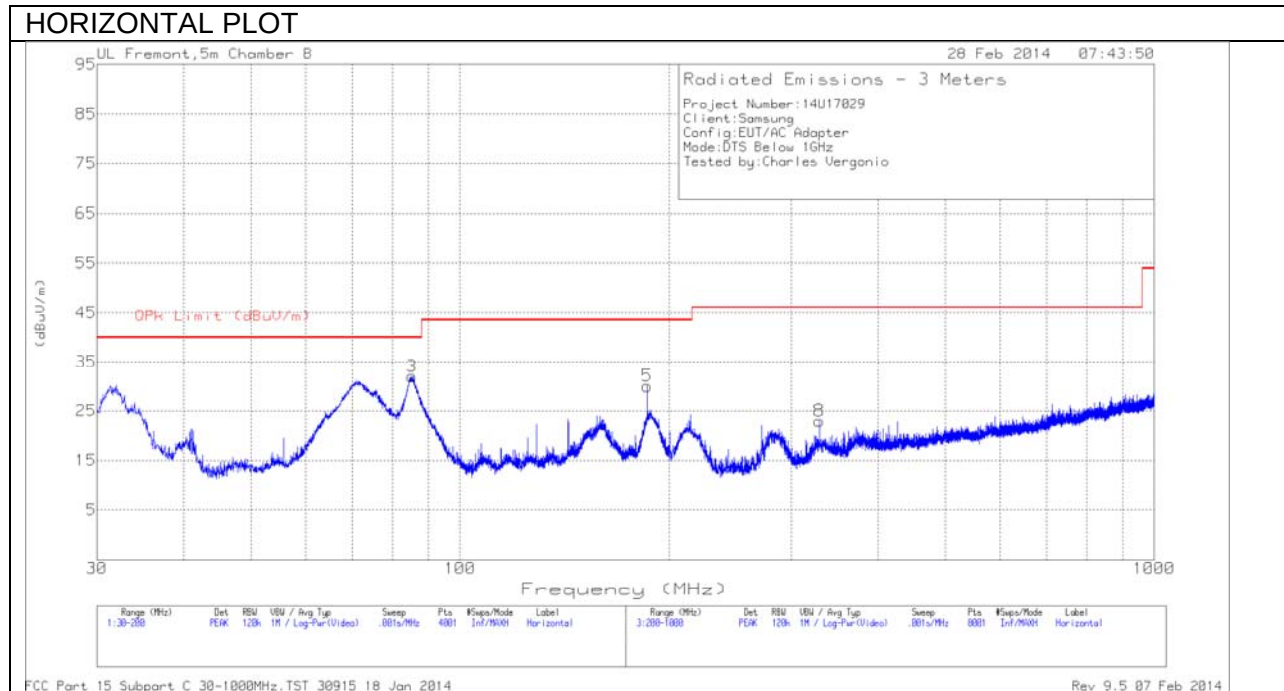
* - indicates frequency in CFR15.205/IC7.2.2 Restricted Band

PK2 - KDB558074 Method: Maximum Peak

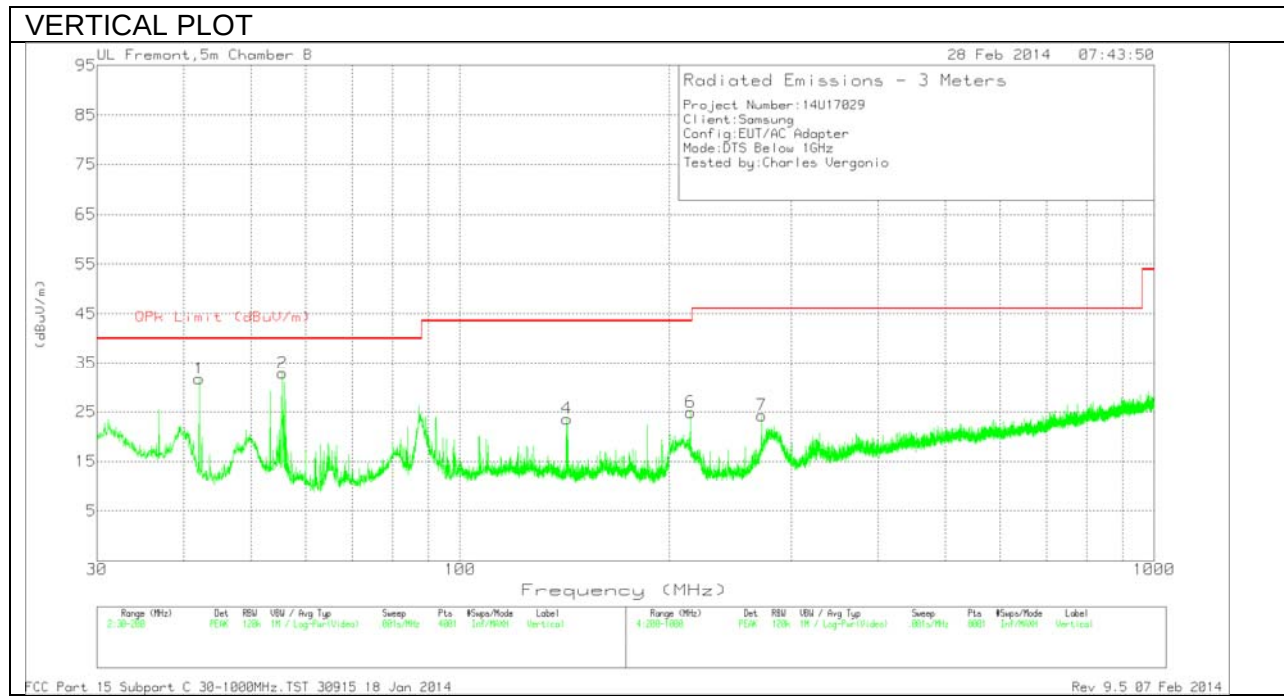
MAv1 - KDB558074 Option 1 Maximum RMS Average

11.3. WORST-CASE BELOW 1 GHz

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



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



Below 1G Data

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	AF T477 (dB/m)	Amp/Cbl (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
8	* 329.3	35.05	PK	13.8	-25.9	22.95	-	-	0-360	101	H
7	* 272	37.57	PK	13	-26.3	24.27	-	-	0-360	200	V
1	42.1125	48.34	PK	12.1	-28.7	31.74	-	-	0-360	100	V
2	55.5	54.46	PK	7	-28.6	32.86	-	-	0-360	100	V
3	85.25	52.81	PK	7.4	-28.2	32.01	-	-	0-360	200	H
4	142.5825	38.6	PK	12.6	-27.6	23.6	-	-	0-360	100	V
5	186.1025	45.82	PK	11.3	-27.1	30.02	-	-	0-360	100	H
6	214.8	41.31	PK	10.4	-26.8	24.91	-	-	0-360	200	V

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

PK - Peak detector

12. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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 2009.

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 .15 – 30MHz

Trace Markers										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L1 (dB)	LC Cables 1&3 (dB)	Corrected Reading dB(uVolts)	CFR 47 Part 15 Class B QP	Margin to Limit (dB)	CFR 47 Part 15 Class B Avg	Margin to Limit (dB)
1	.276	53.34	PK	.6	0	53.94	60.9	-6.96	-	-
2	.276	35.85	Av	.6	0	36.45	-	-	50.9	-14.45
3	.42	45.47	PK	.4	0	45.87	57.4	-11.53	-	-
4	.42	26.43	Av	.4	0	26.83	-	-	47.4	-20.57
5	.681	38.35	PK	.3	0	38.65	56	-17.35	-	-
6	.681	12.43	Av	.3	0	12.73	-	-	46	-33.27
7	1.2795	34.64	PK	.2	.1	34.94	56	-21.06	-	-
8	1.2795	15.74	Av	.2	.1	16.04	-	-	46	-29.96
9	5.613	41.19	PK	.2	.1	41.49	60	-18.51	-	-
10	5.613	18.9	Av	.2	.1	19.2	-	-	50	-30.8
11	18.6765	28.24	PK	.3	.2	28.74	60	-31.26	-	-
12	18.6765	14.38	Av	.3	.2	14.88	-	-	50	-35.12

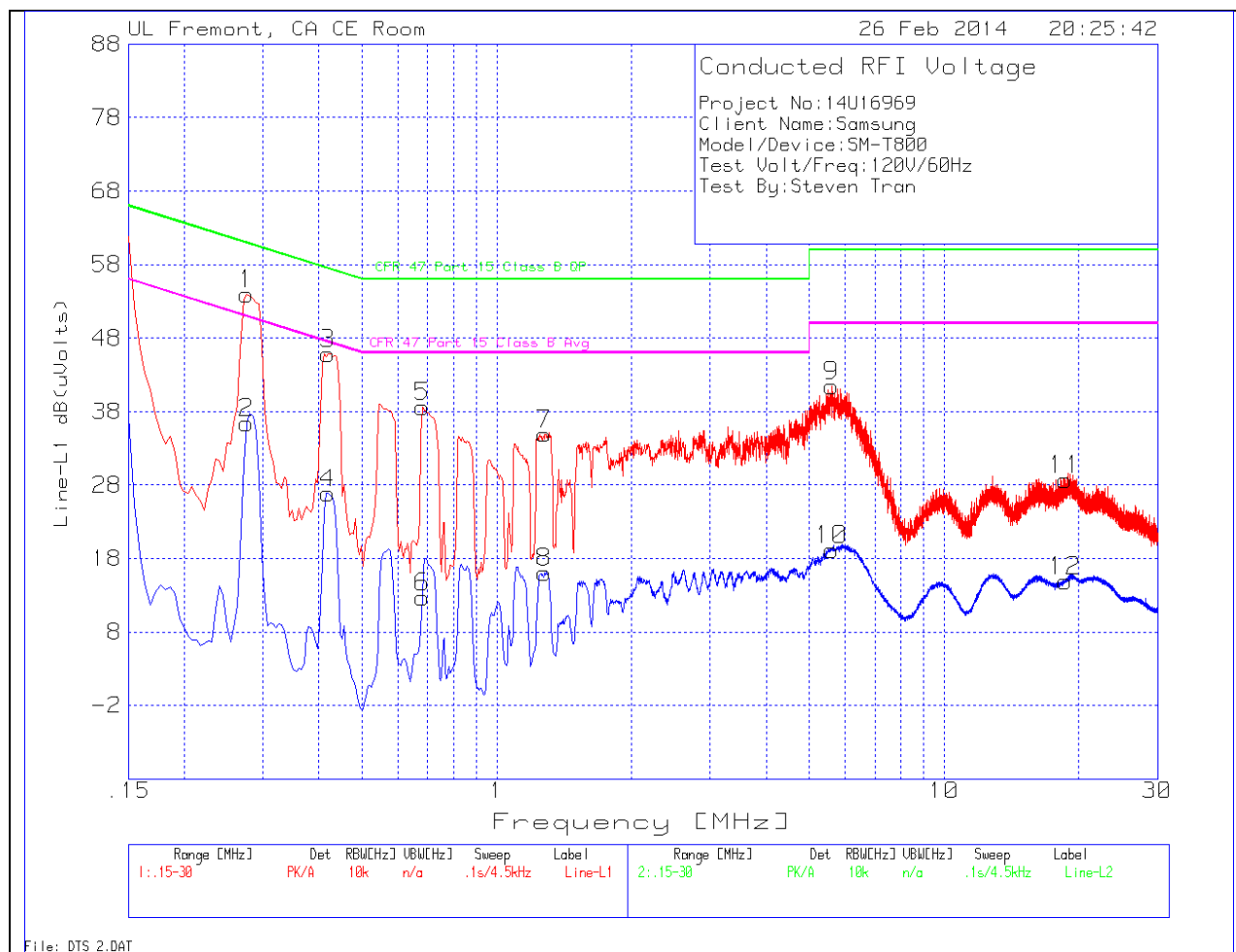
Line 2 .15 – 30MHz

Trace Markers										
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	T24 IL L2 (dB)	LC Cables 2&3 (dB)	Corrected Reading dB(uVolts)	CFR 47 Part 15 Class B QP	Margin to Limit (dB)	CFR 47 Part 15 Class B Avg	Margin to Limit (dB)
13	.285	45.49	PK	.6	0	46.09	60.7	-14.61	-	-
14	.285	27.7	Av	.6	0	28.3	-	-	50.7	-22.4
15	.4065	39.56	PK	.4	0	39.96	57.7	-17.74	-	-
16	.4065	17.6	Av	.4	0	18	-	-	47.7	-29.7
17	.6765	35.19	PK	.3	0	35.49	56	-20.51	-	-
18	.6765	12.03	Av	.3	0	12.33	-	-	46	-33.67
19	1.2705	32.02	PK	.2	.1	32.32	56	-23.68	-	-
20	1.2705	9.3	Av	.2	.1	9.6	-	-	46	-36.4
21	5.487	41.5	PK	.2	.1	41.8	60	-18.2	-	-
22	5.487	17.3	Av	.2	.1	17.6	-	-	50	-32.4
23	18.3975	29.35	PK	.3	.2	29.85	60	-30.15	-	-
24	18.3975	15.09	Av	.3	.2	15.59	-	-	50	-34.41

PK - Peak detector

Av - average detection

LINE 1 RESULTS



LINE 2 RESULTS

