



Appendix for Test Report

Appendix A: DTS (6 dB) Bandwidth

In this document, the "DTS6dBBW" refers to the measured "DTS (6 dB) Bandwidth" value. In this Appendix, the "fc(DTS6dBBW)" refers to the centre of the measured "DTS6dBBW". The introduction of the "fc(DTS6dBBW)" is due to that other measurements use it as the spectrum analyzer setting.

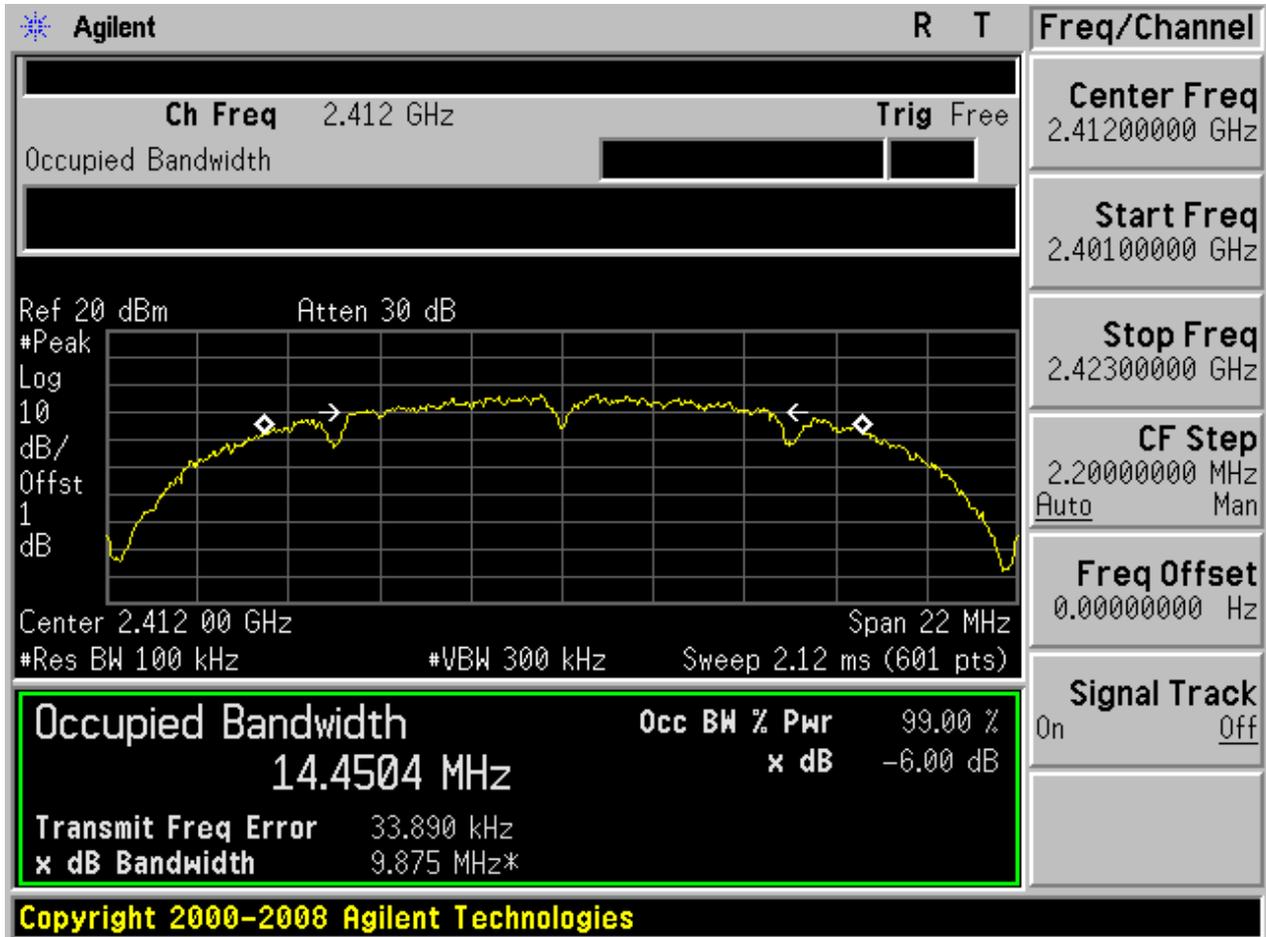
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11B	L	2412	Ant 1	9.87	pass
11B	M	2437	Ant 1	9.88	pass
11B	H	2462	Ant 1	9.92	pass
11G	L	2412	Ant 1	16.33	pass
11G	M	2437	Ant 1	16.39	pass
11G	H	2462	Ant 1	14.98	pass
11N20	L	2412	Ant 1	15.95	pass
11N20	M	2437	Ant 1	17.57	pass
11N20	H	2462	Ant 1	16.97	pass

Part II - Test Plots

1.1 11B_L

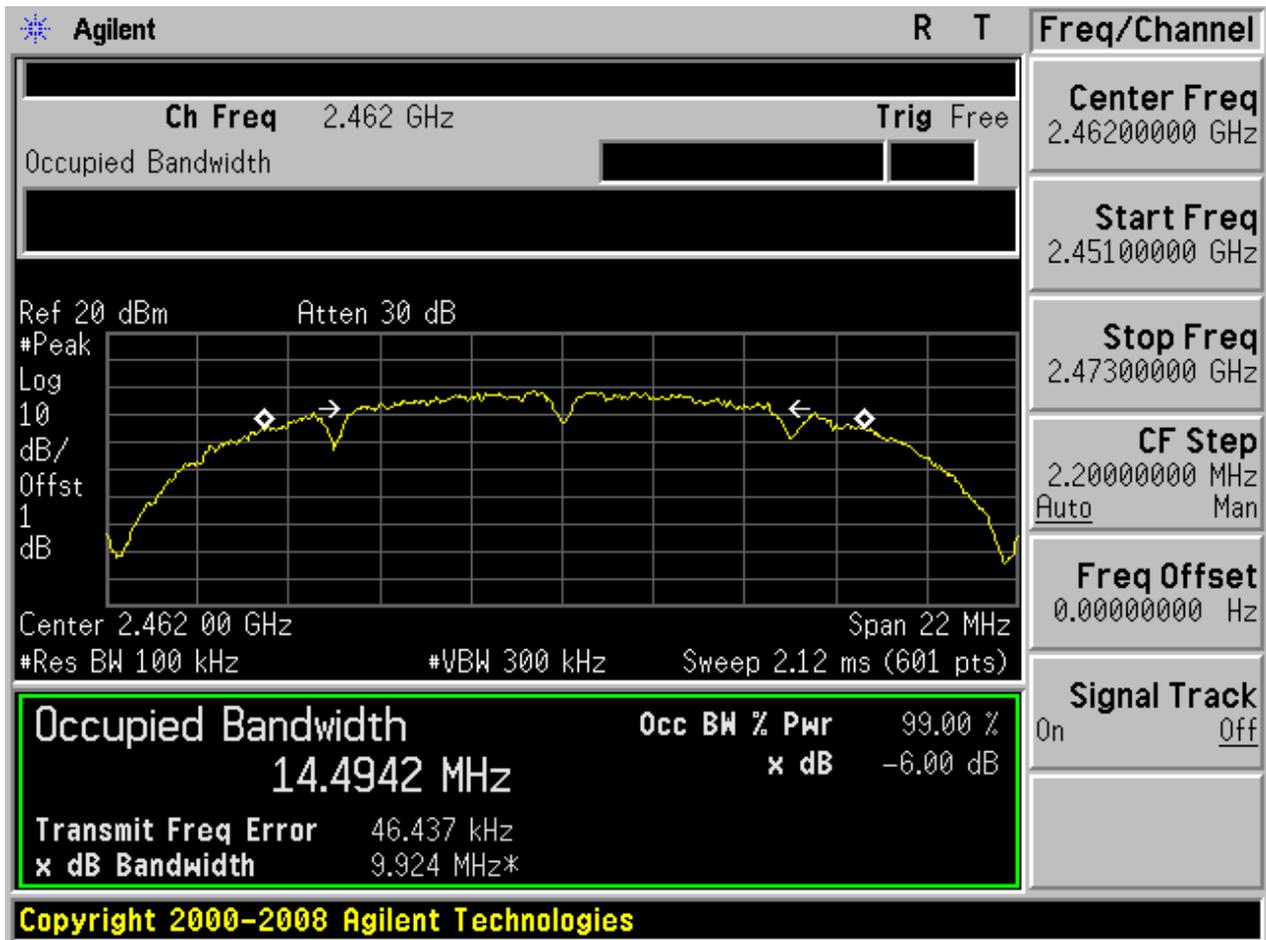




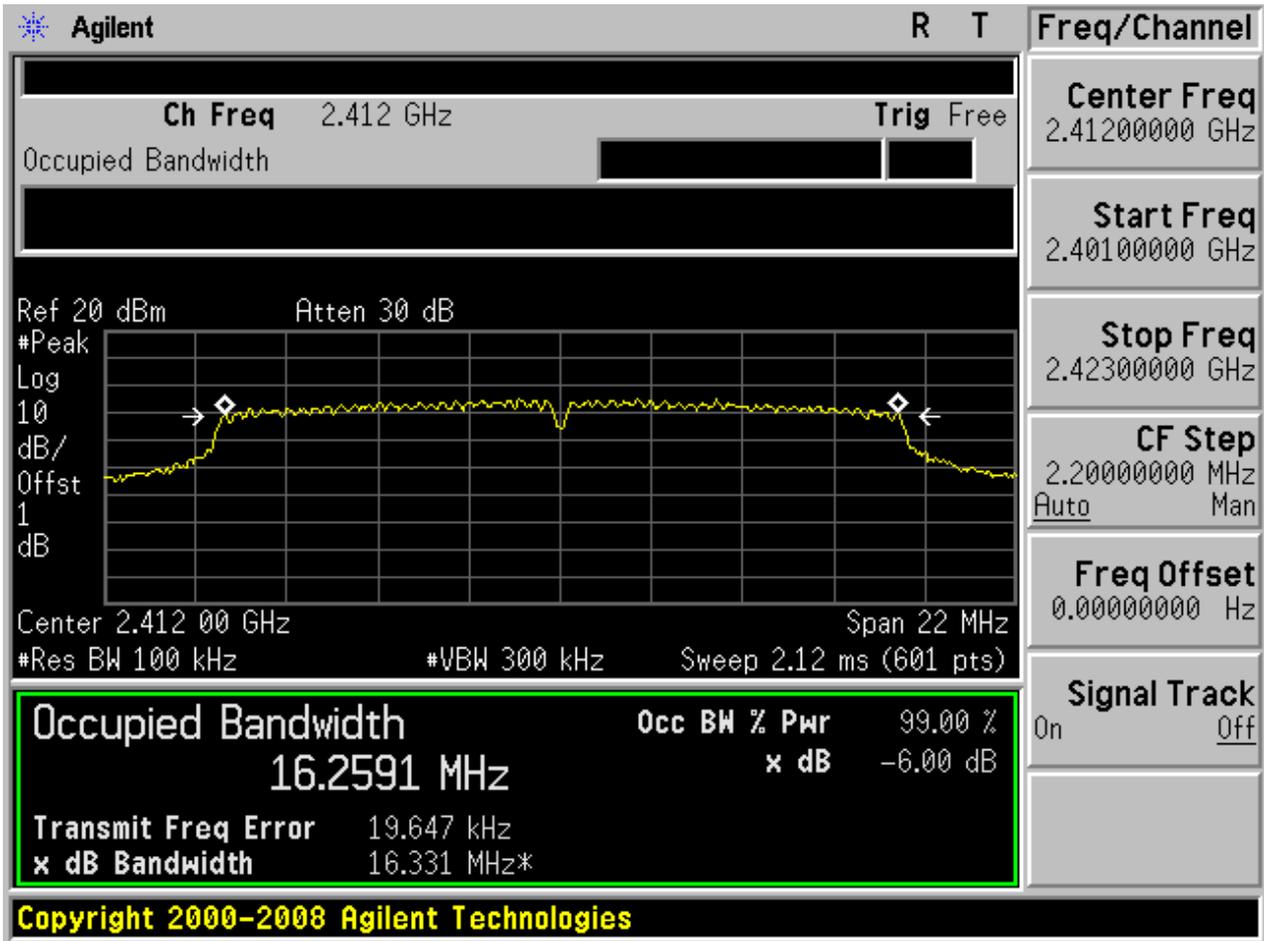
1.2 11B_M

Agilent		R	T	Freq/Channel	
Ch Freq 2.437 GHz		Trig Free		Center Freq 2.43700000 GHz	
Occupied Bandwidth				Start Freq 2.42600000 GHz	
Ref 20 dBm Atten 30 dB				Stop Freq 2.44800000 GHz	
				CF Step 2.20000000 MHz Auto Man	
Center 2.437 00 GHz Span 22 MHz				Freq Offset 0.00000000 Hz	
#Res BW 100 kHz #VBW 300 kHz Sweep 2.12 ms (601 pts)				Signal Track On Off	
Occupied Bandwidth		Occ BW % Pwr		99.00 %	
14.4515 MHz		x dB		-6.00 dB	
Transmit Freq Error		33.890 kHz			
x dB Bandwidth		9.883 MHz*			
Copyright 2000-2008 Agilent Technologies					

1.3 11B_H

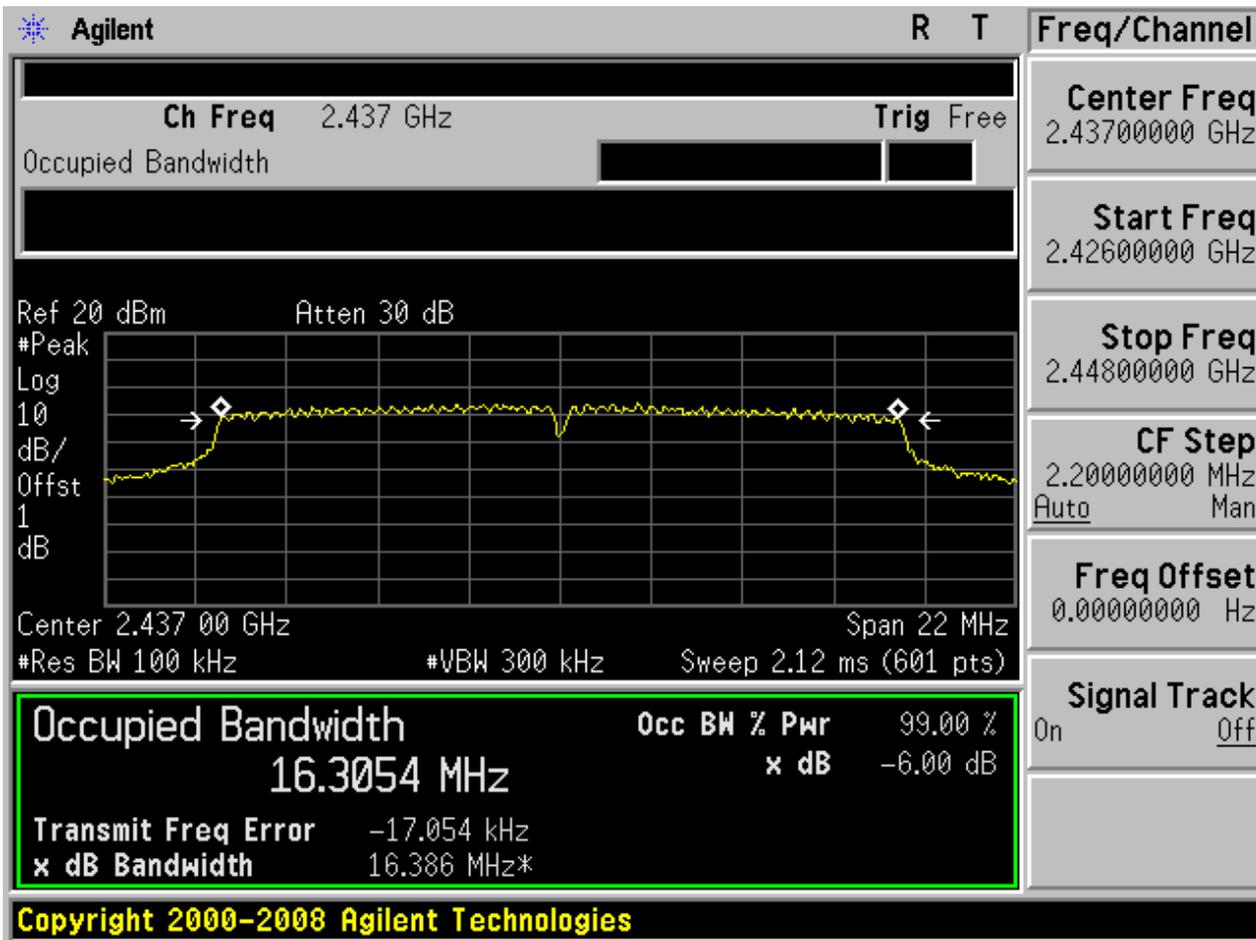


1.4 11G_L

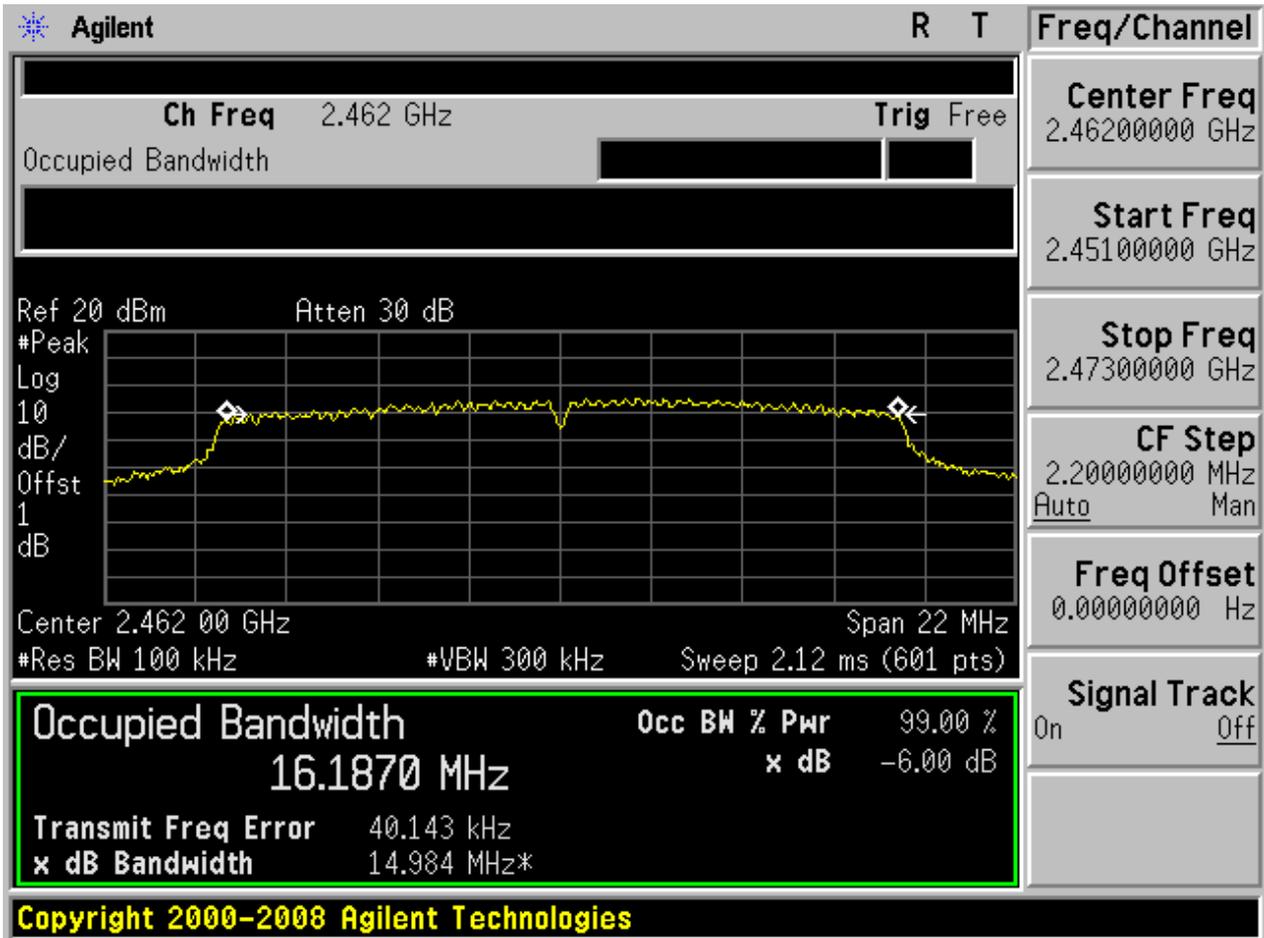




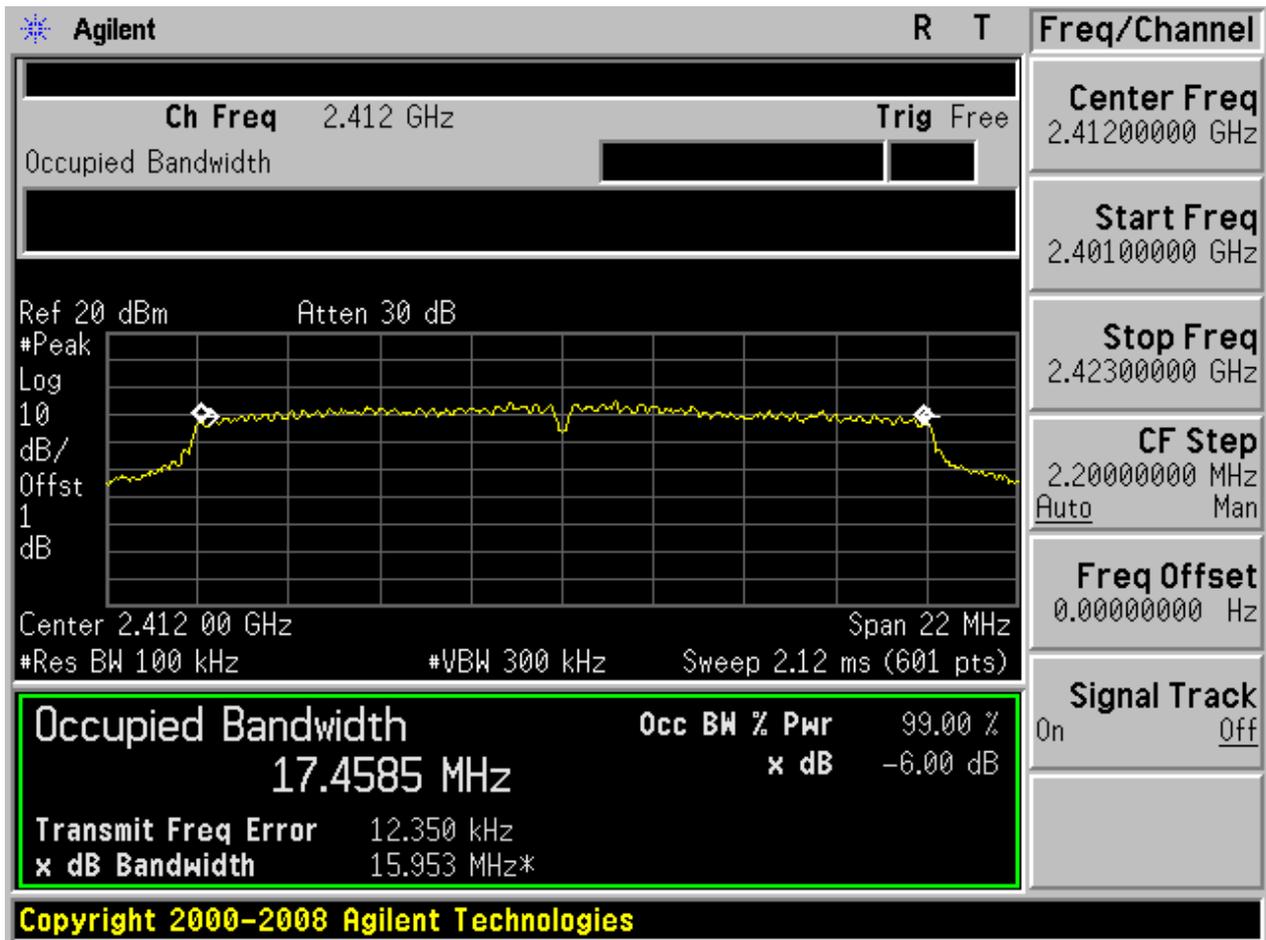
1.5 11G_M



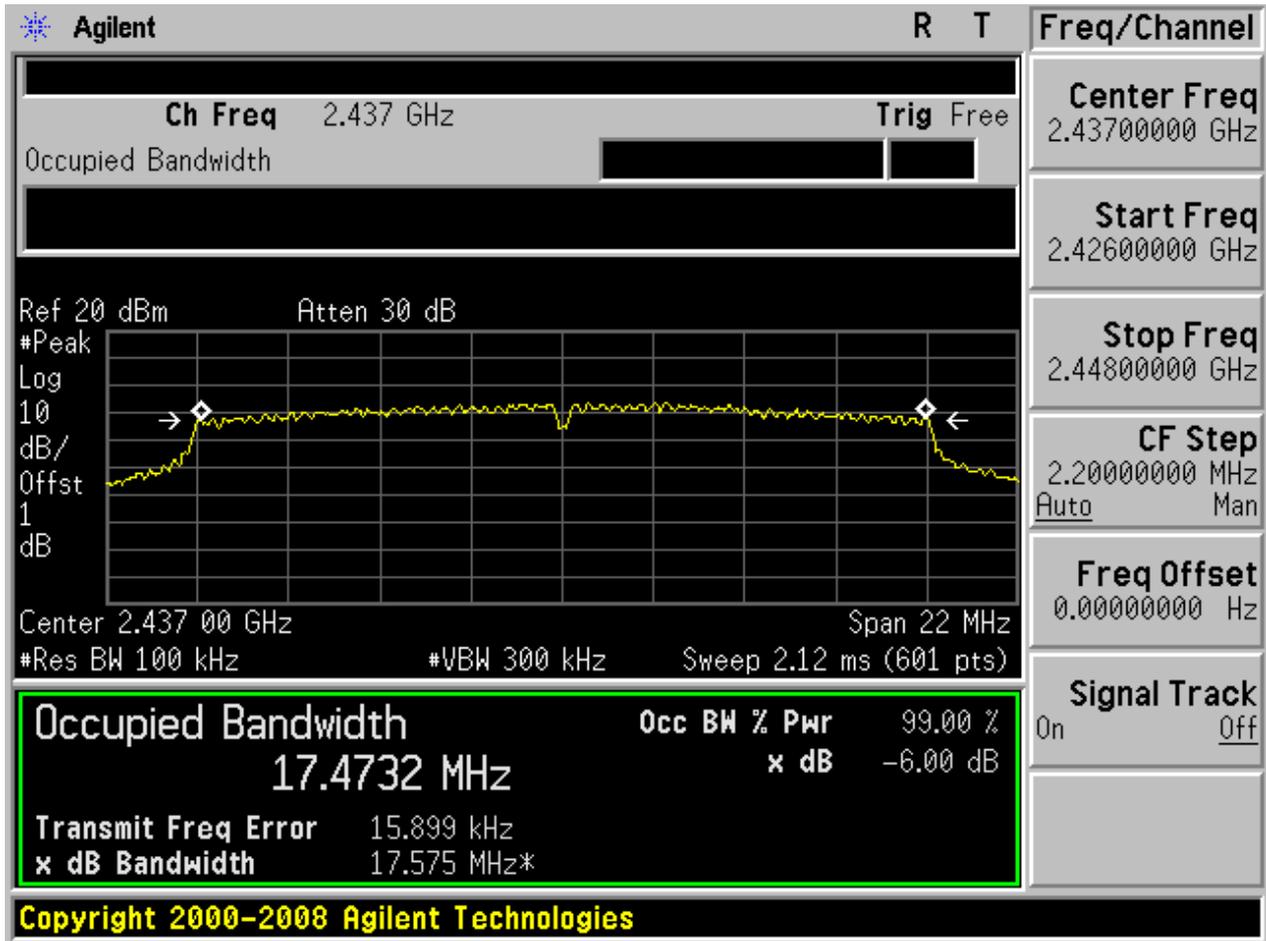
1.6 11G_H



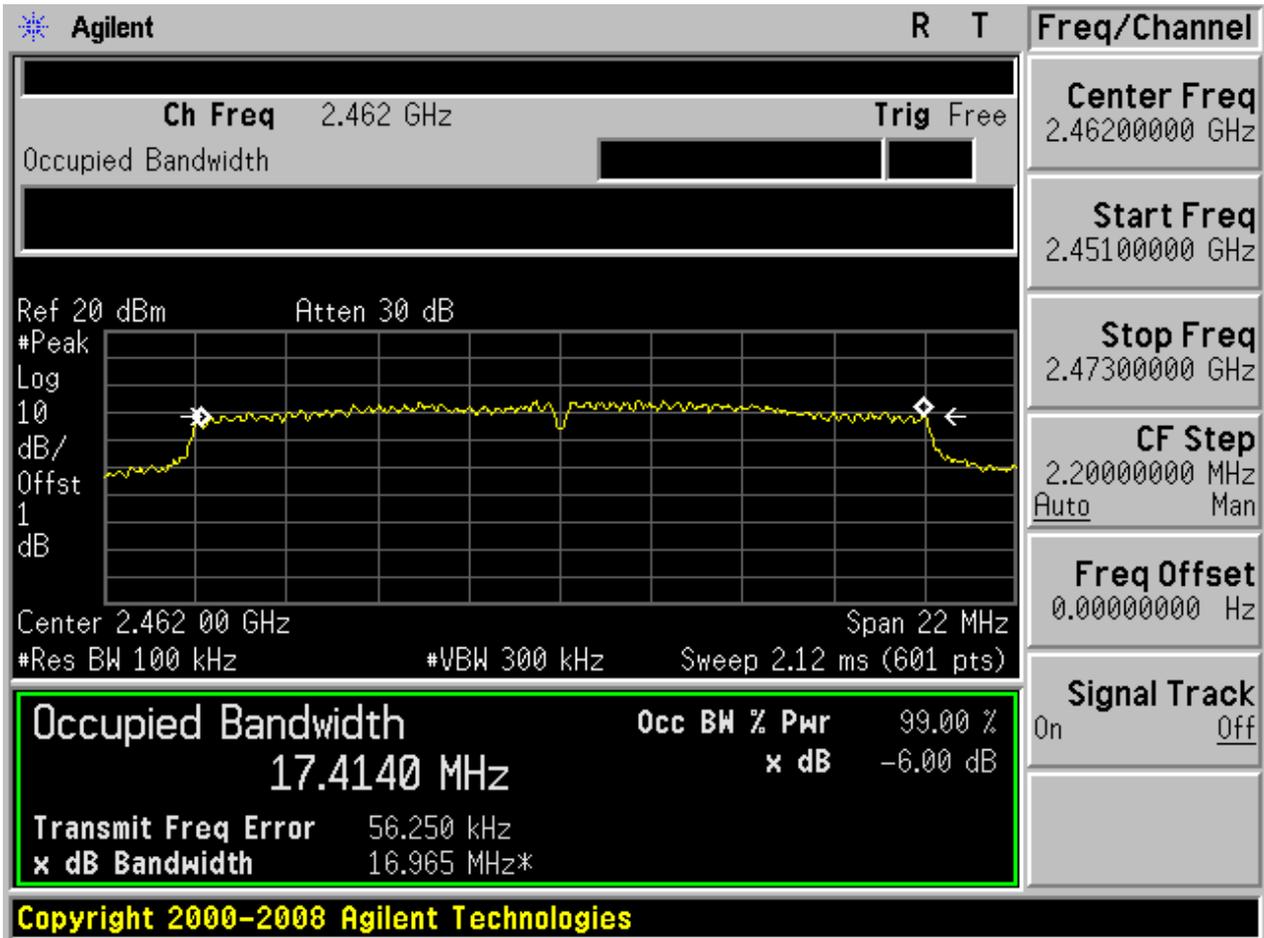
1.7 11N20_L



1.8 11N20_M



1.9 11N20_H



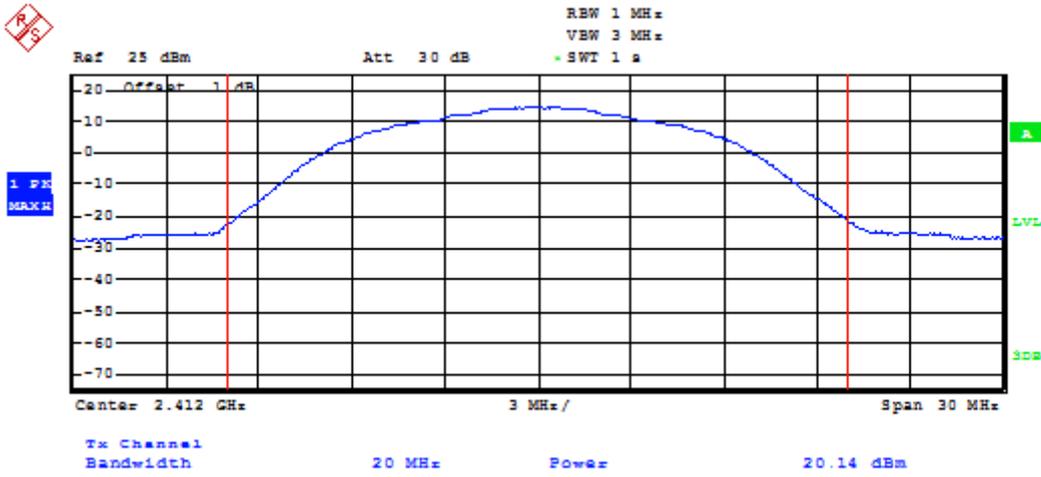


Appendix B: Maximum Peak Conducted Output Power

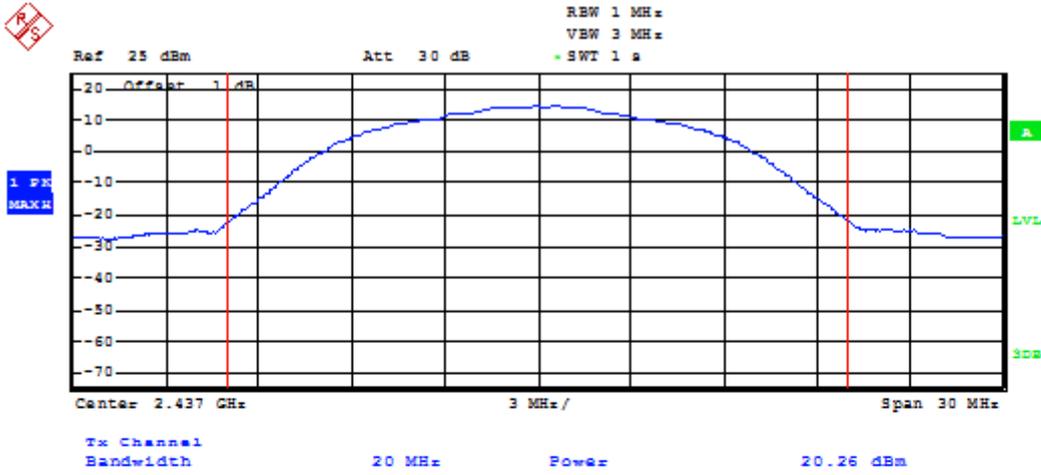
Test Results

Test Mode	Test Channel	Frequency[MHz]	Meas. Level (Cond.) [dBm]	Verdict
11B	L	2412	20.14	pass
11B	M	2437	20.26	pass
11B	H	2462	20.24	pass
11G	L	2412	23.15	pass
11G	M	2437	23.26	pass
11G	H	2462	23.36	pass
11N20	L	2412	22.96	pass
11N20	M	2437	23.06	pass
11N20	H	2462	23.18	pass

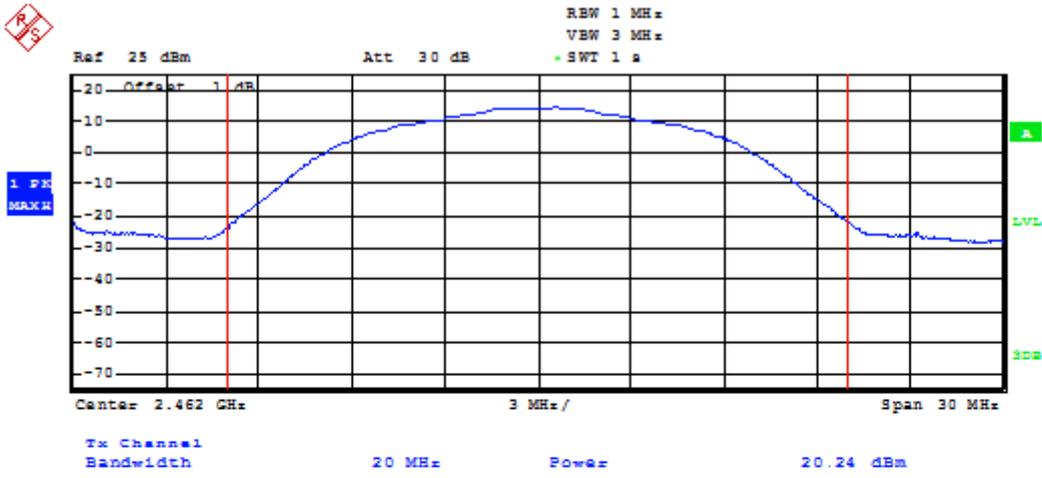
2.1 11B_L



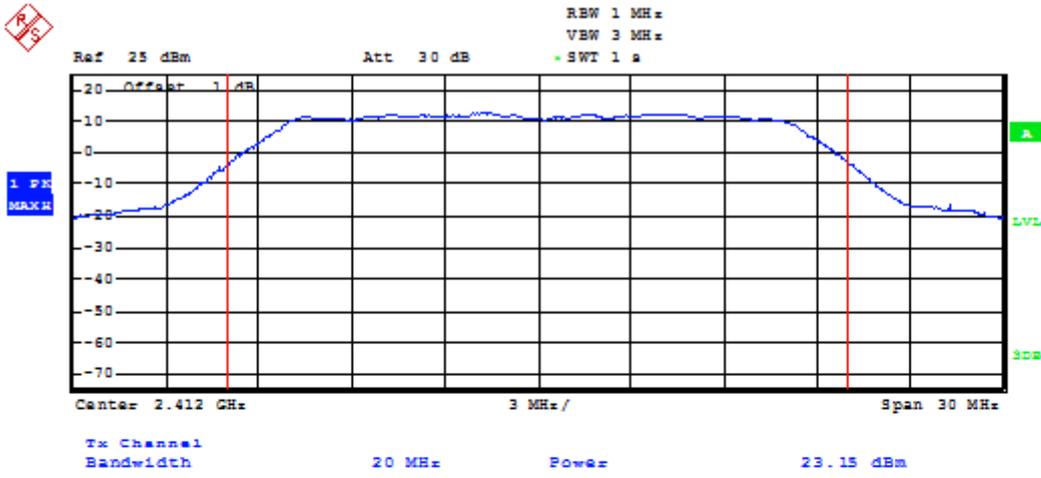
2.1 11B_M



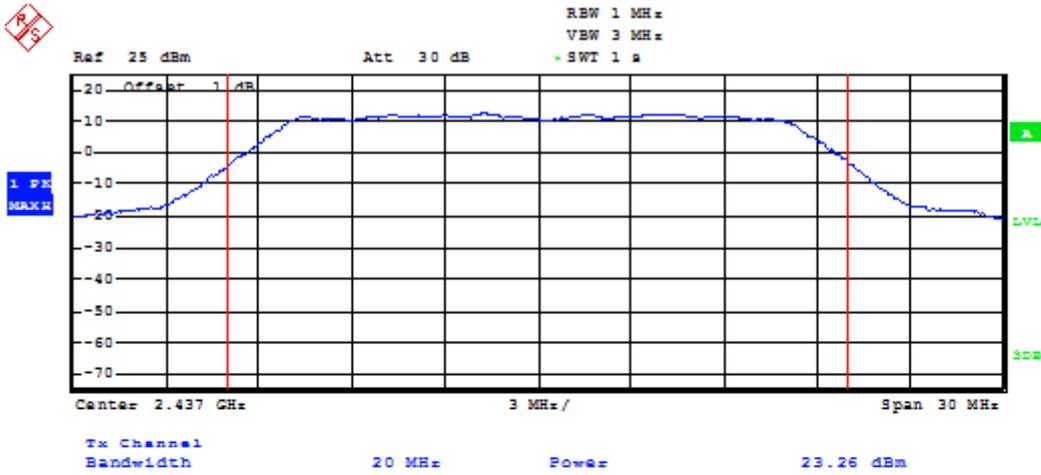
2.1 11B_H



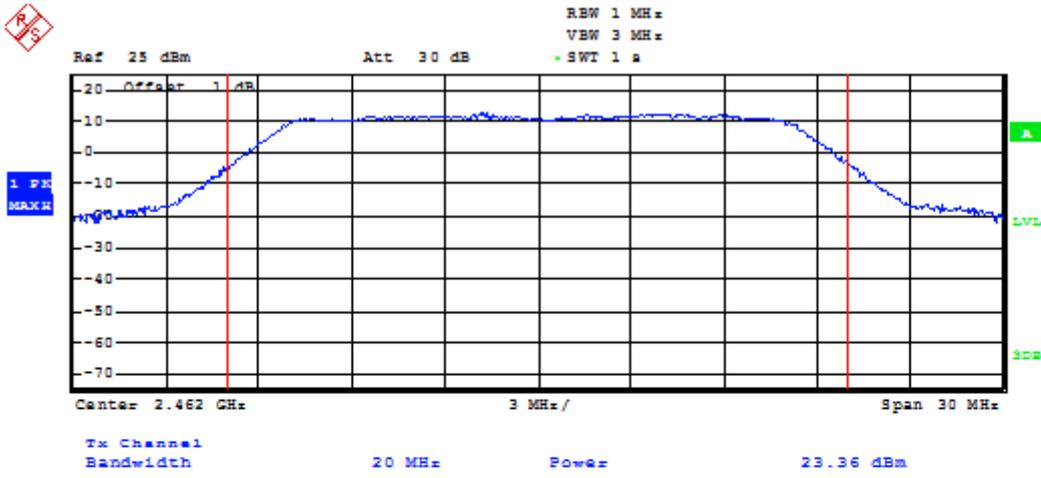
2.1 11G_L



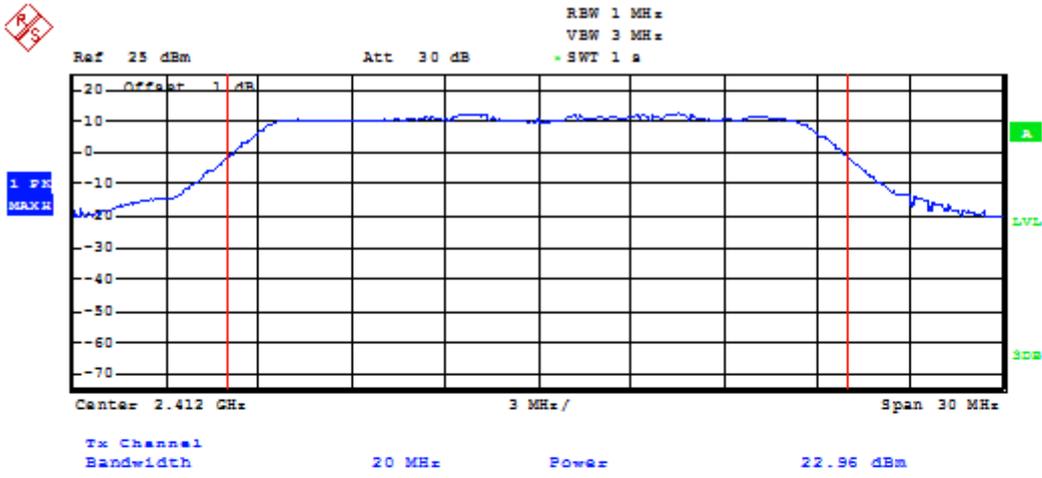
2.1 11G_M



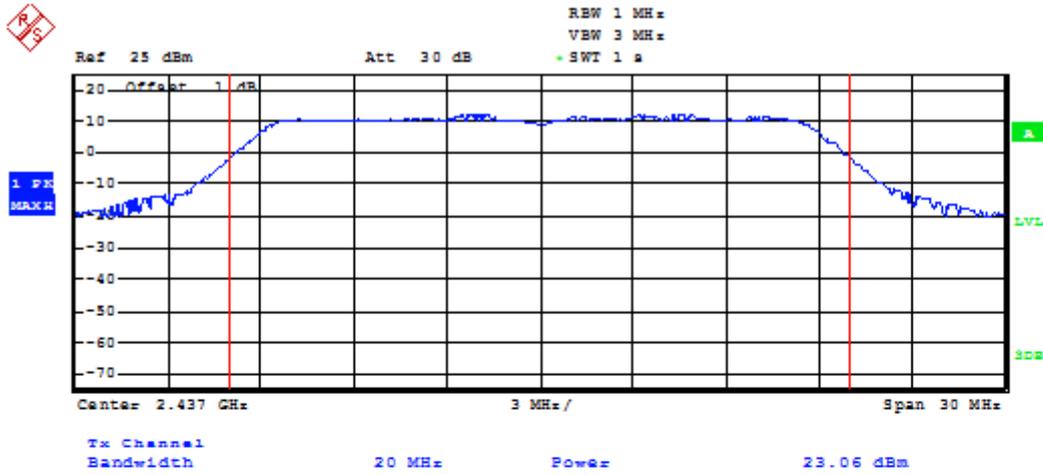
2.1 11G_H



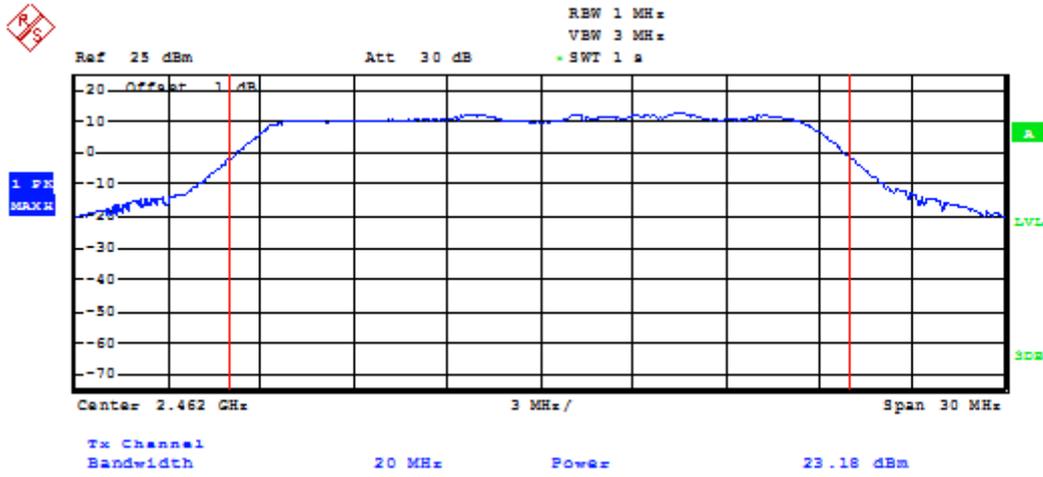
2.1 11N20_L



2.1 11N20_M



2.1 11N20_H



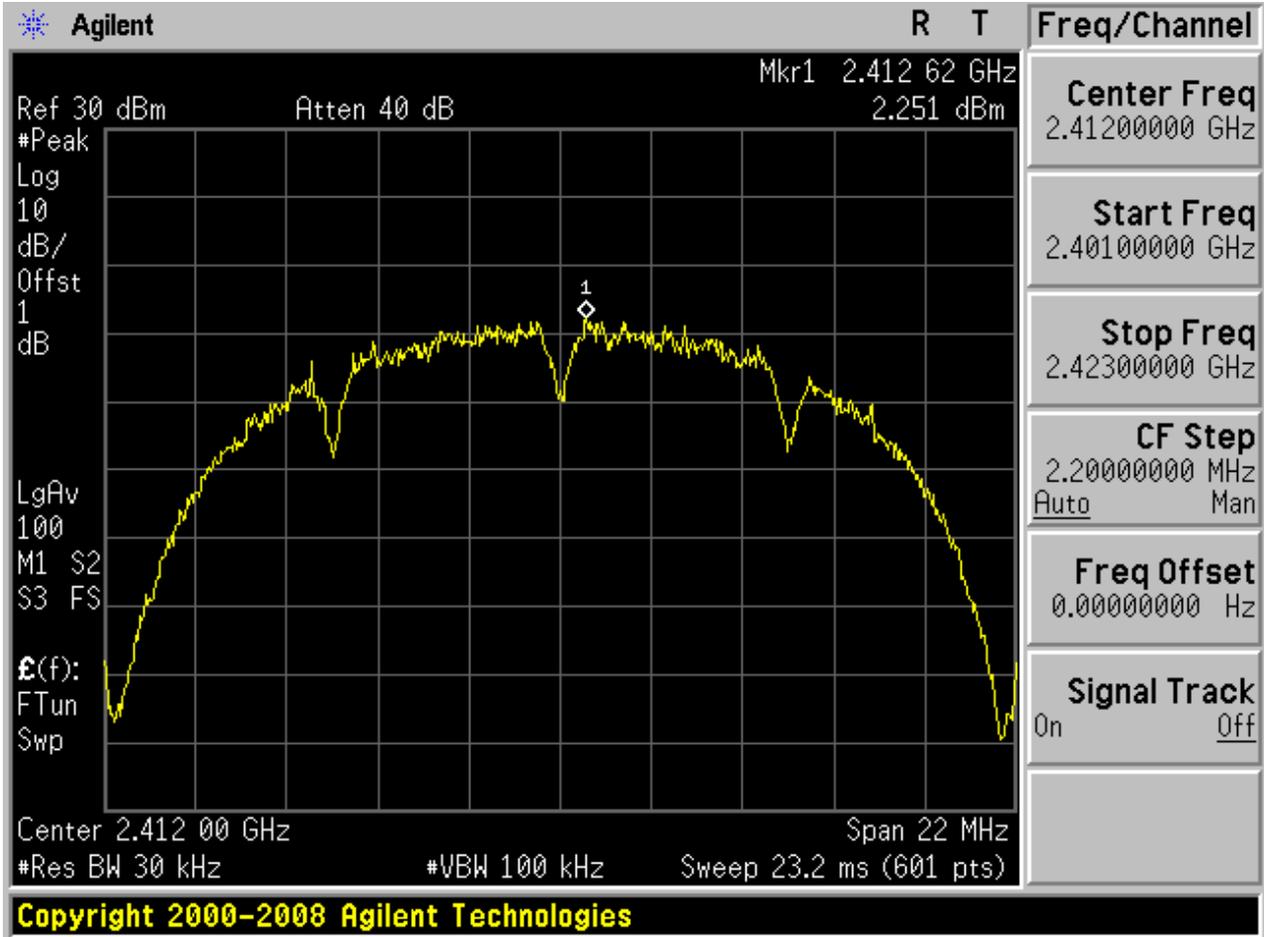
Appendix C: Maximum Power Spectral Density Level

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	PD[MHz]	Verdict
11B	L	2412	Ant 1	2.25	pass
11B	M	2437	Ant 1	1.23	pass
11B	H	2462	Ant 1	3.27	pass
11G	L	2412	Ant 1	-1.13	pass
11G	M	2437	Ant 1	-1.62	pass
11G	H	2462	Ant 1	-0.72	pass
11N20	L	2412	Ant 1	-0.84	pass
11N20	M	2437	Ant 1	-2.22	pass
11N20	H	2462	Ant 1	-0.33	pass

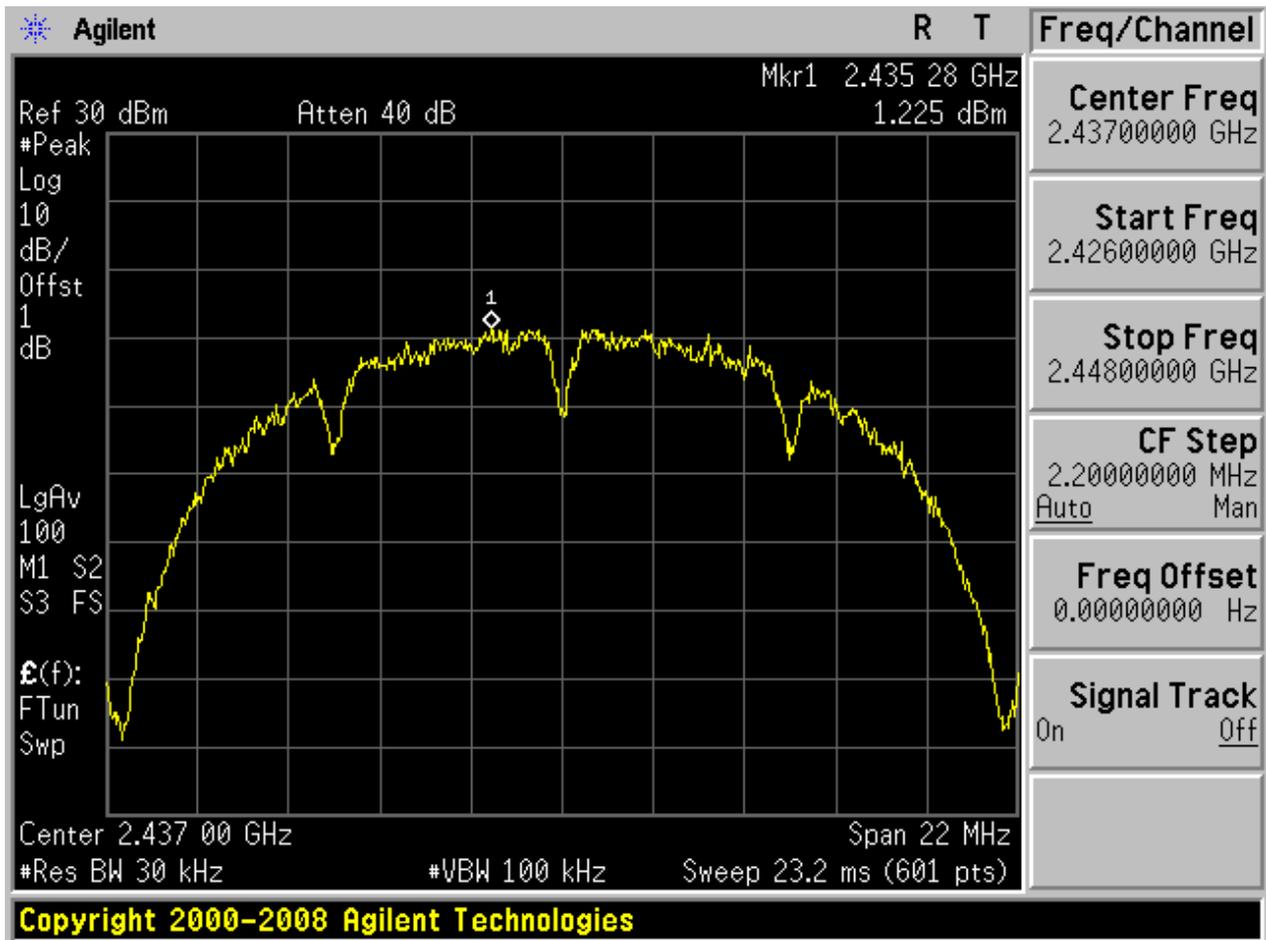
Part II - Test Plots

3.1 11B_L

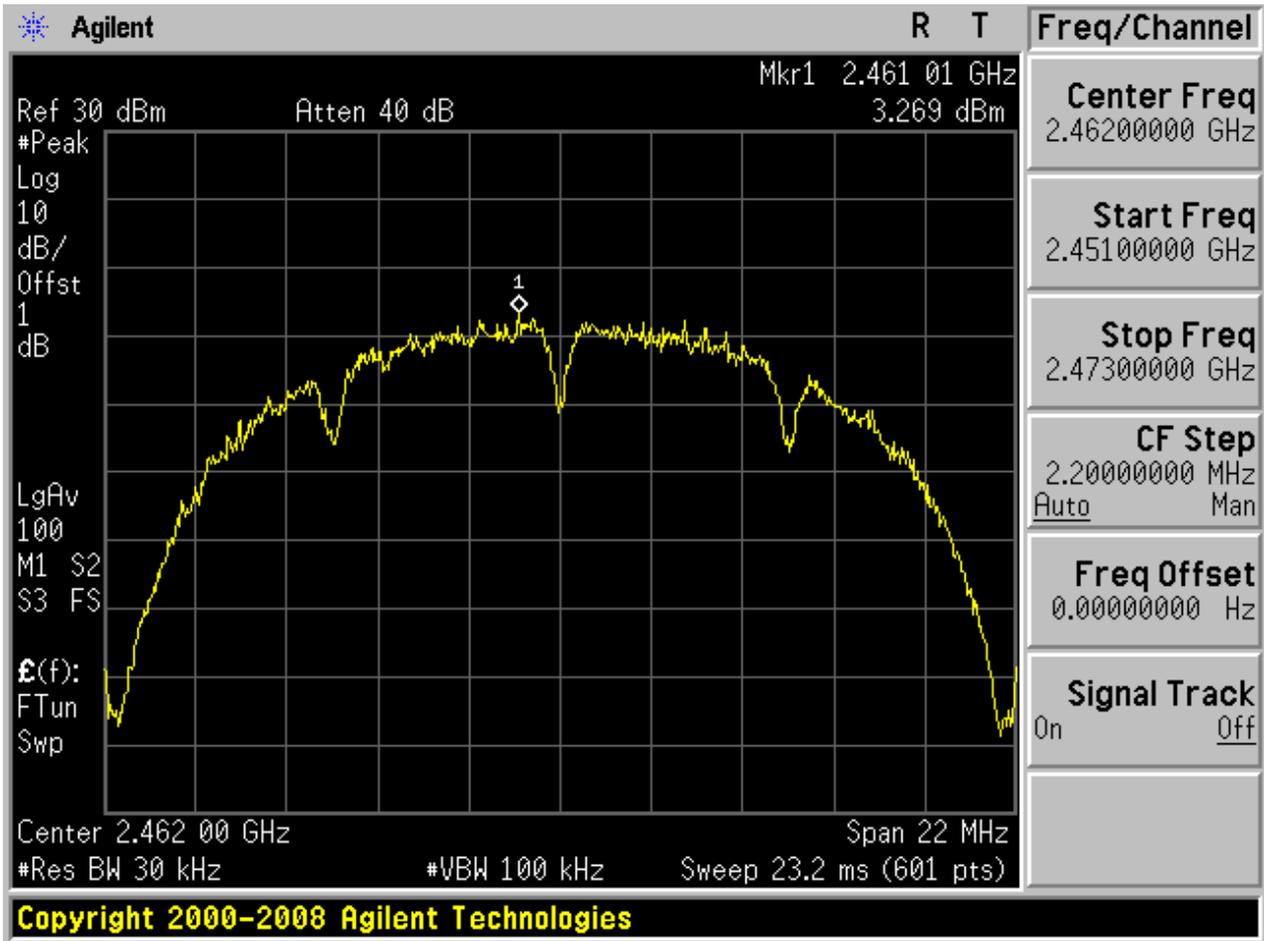




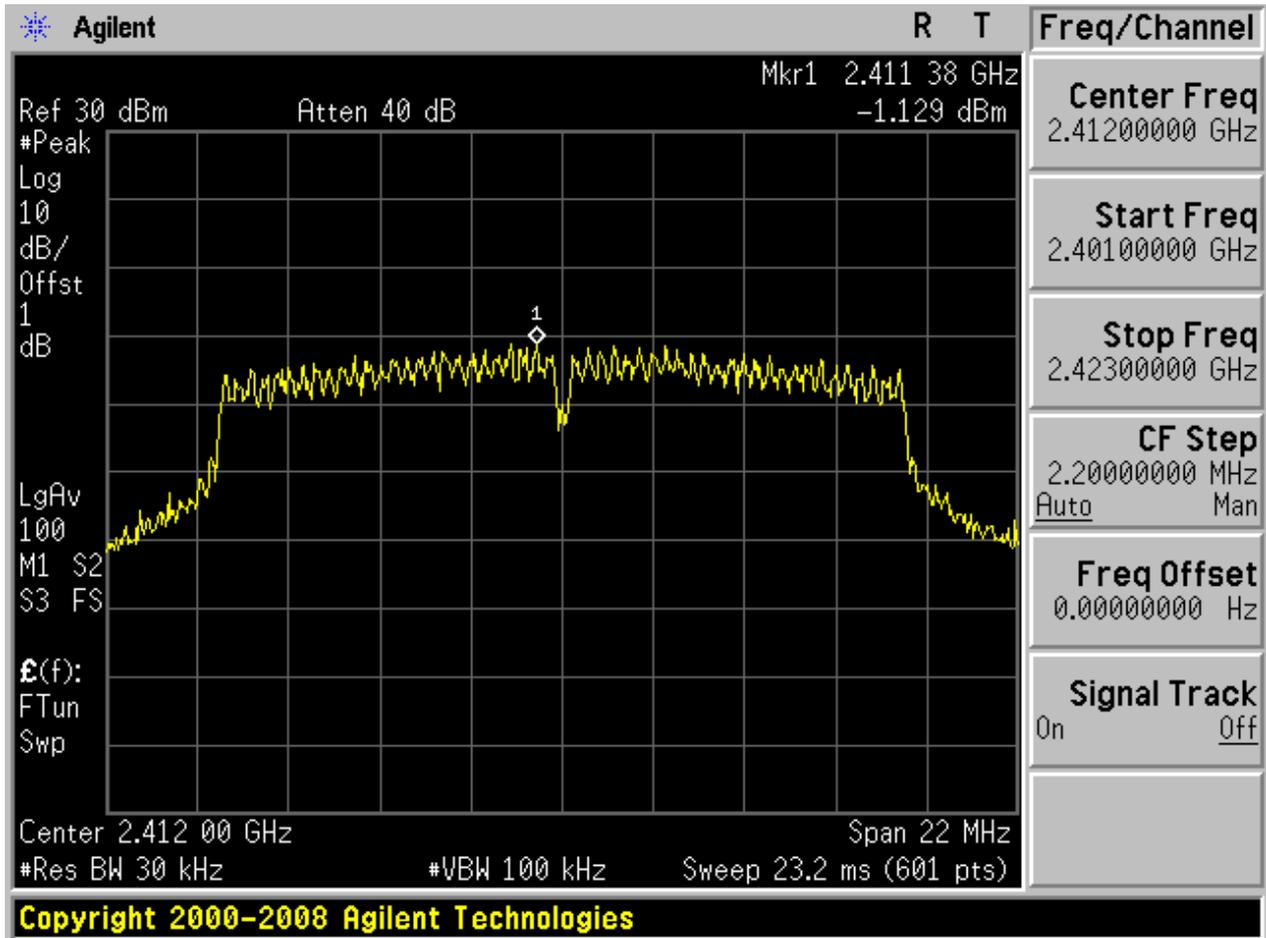
3.2 11B_M



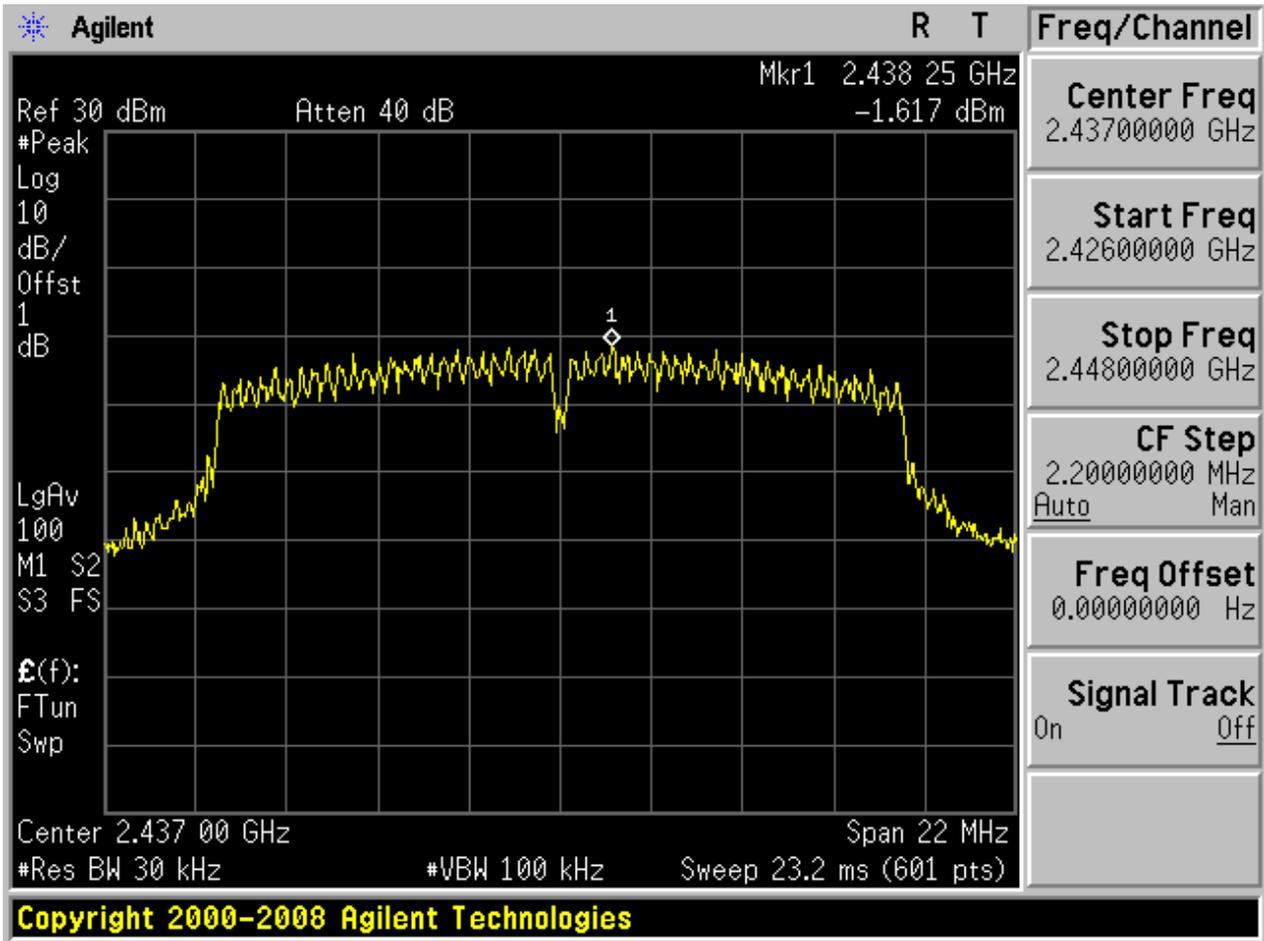
3.3 11B_H



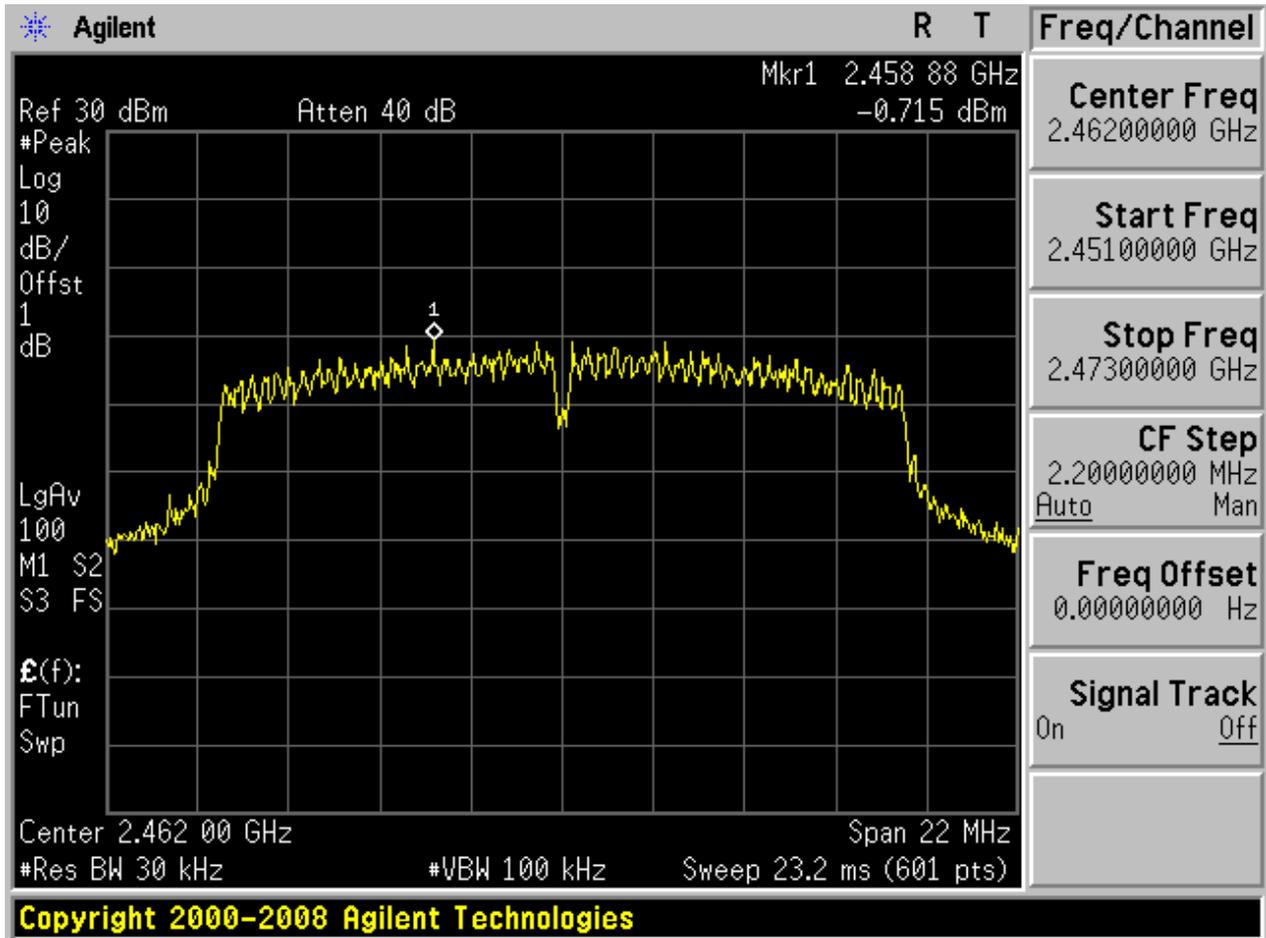
3.4 11G_L



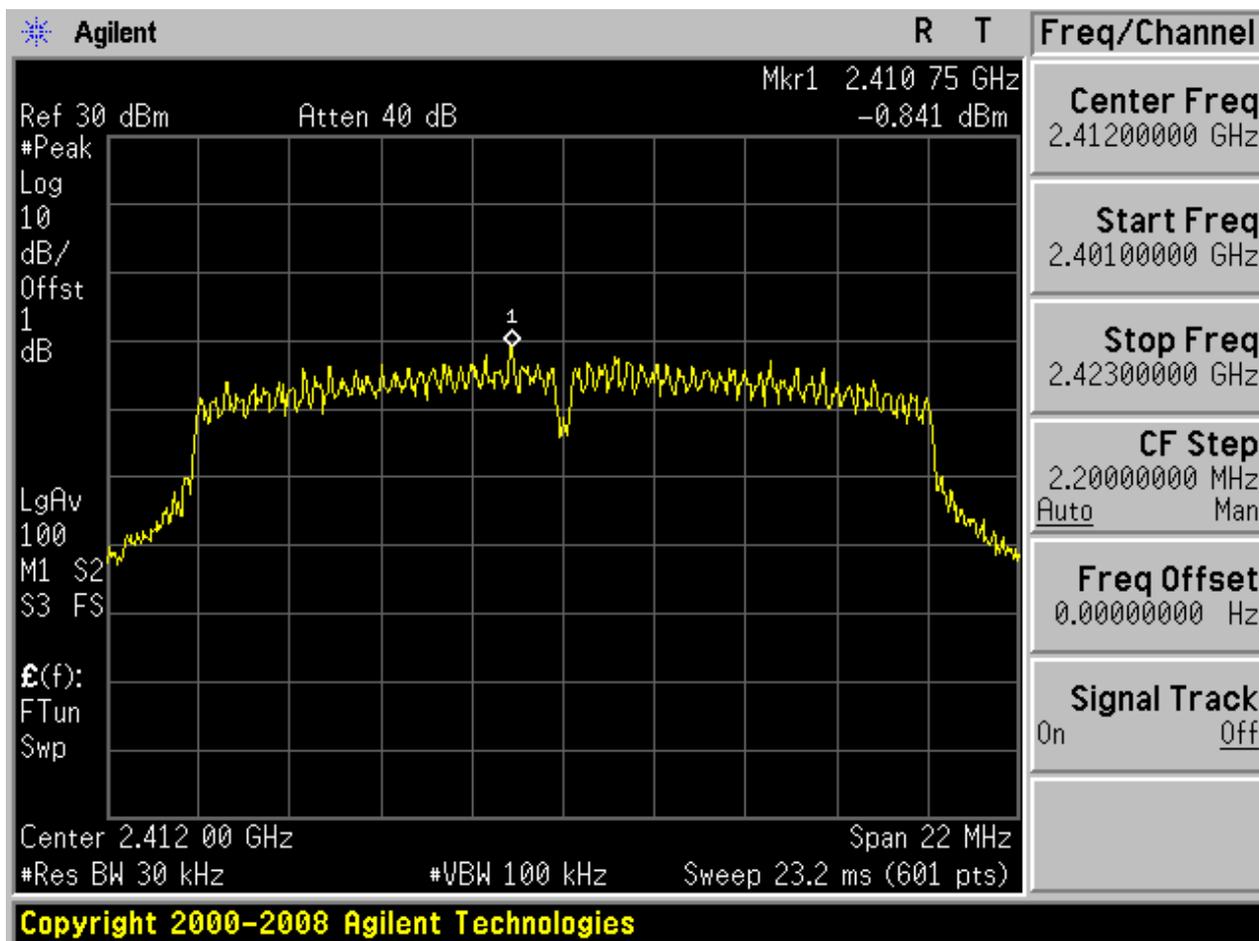
3.5 11G_M



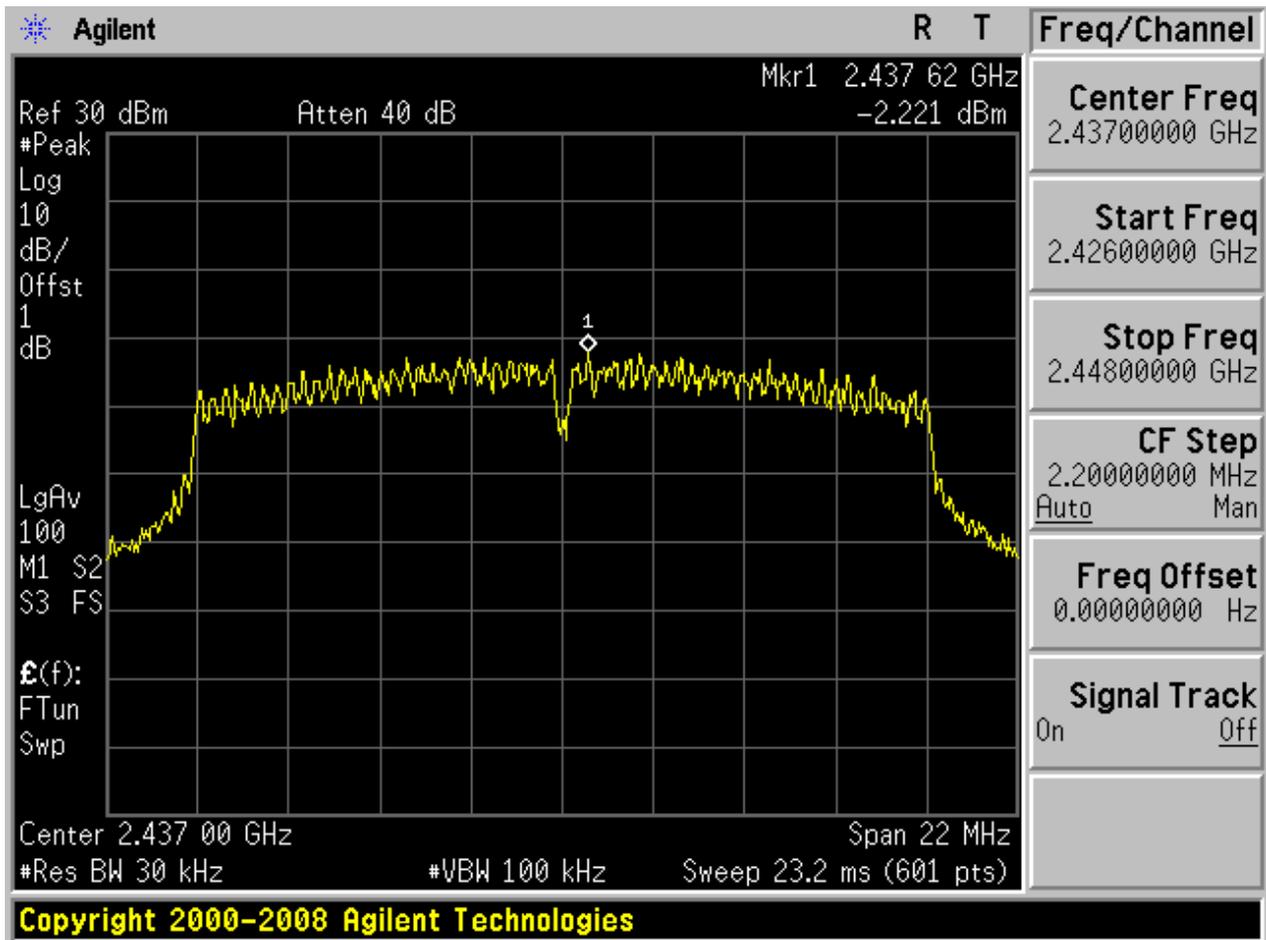
3.6 11G_H



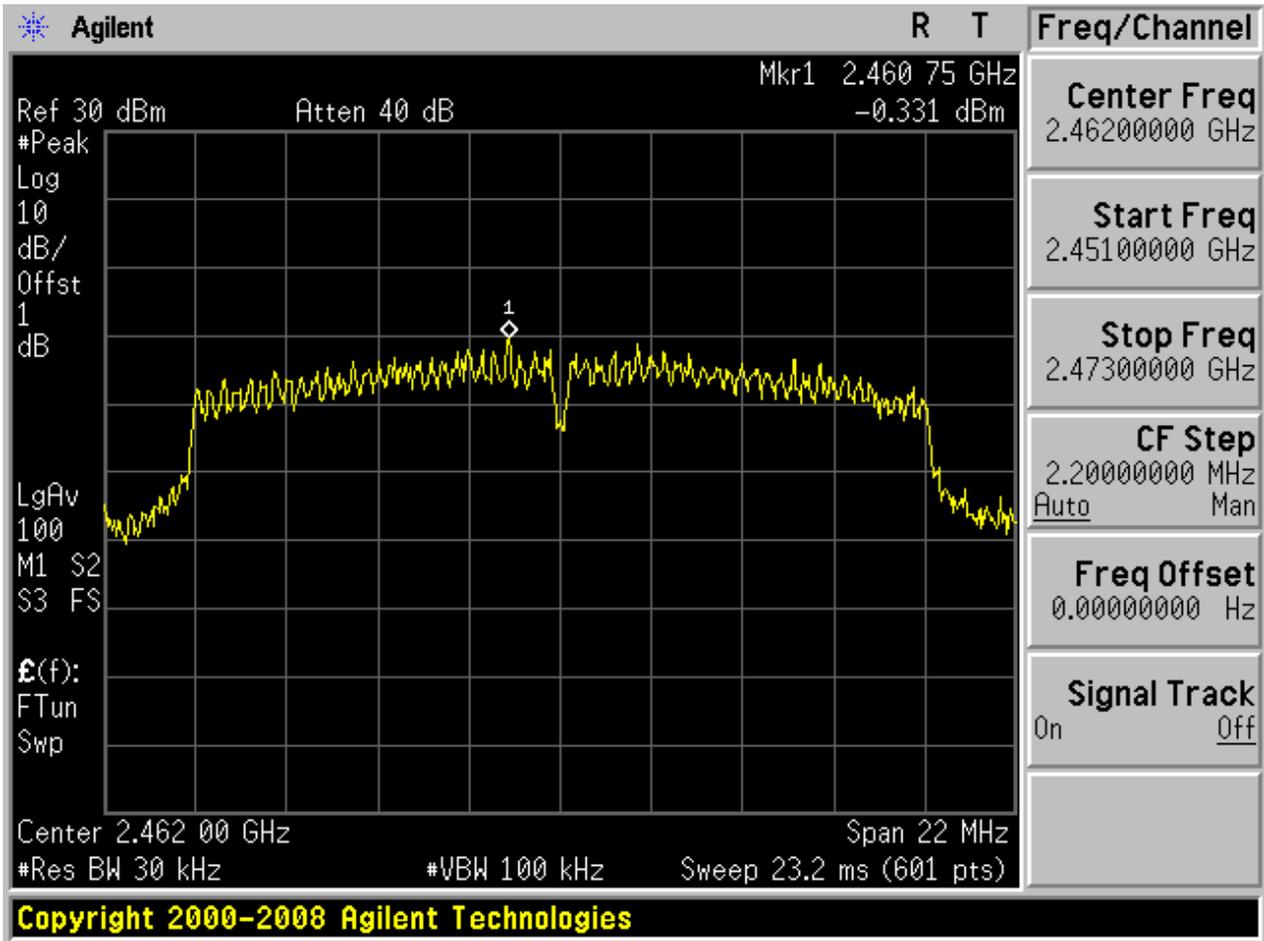
3.7 11N20_L



3.8 11N20_M



3.9 11N20_H





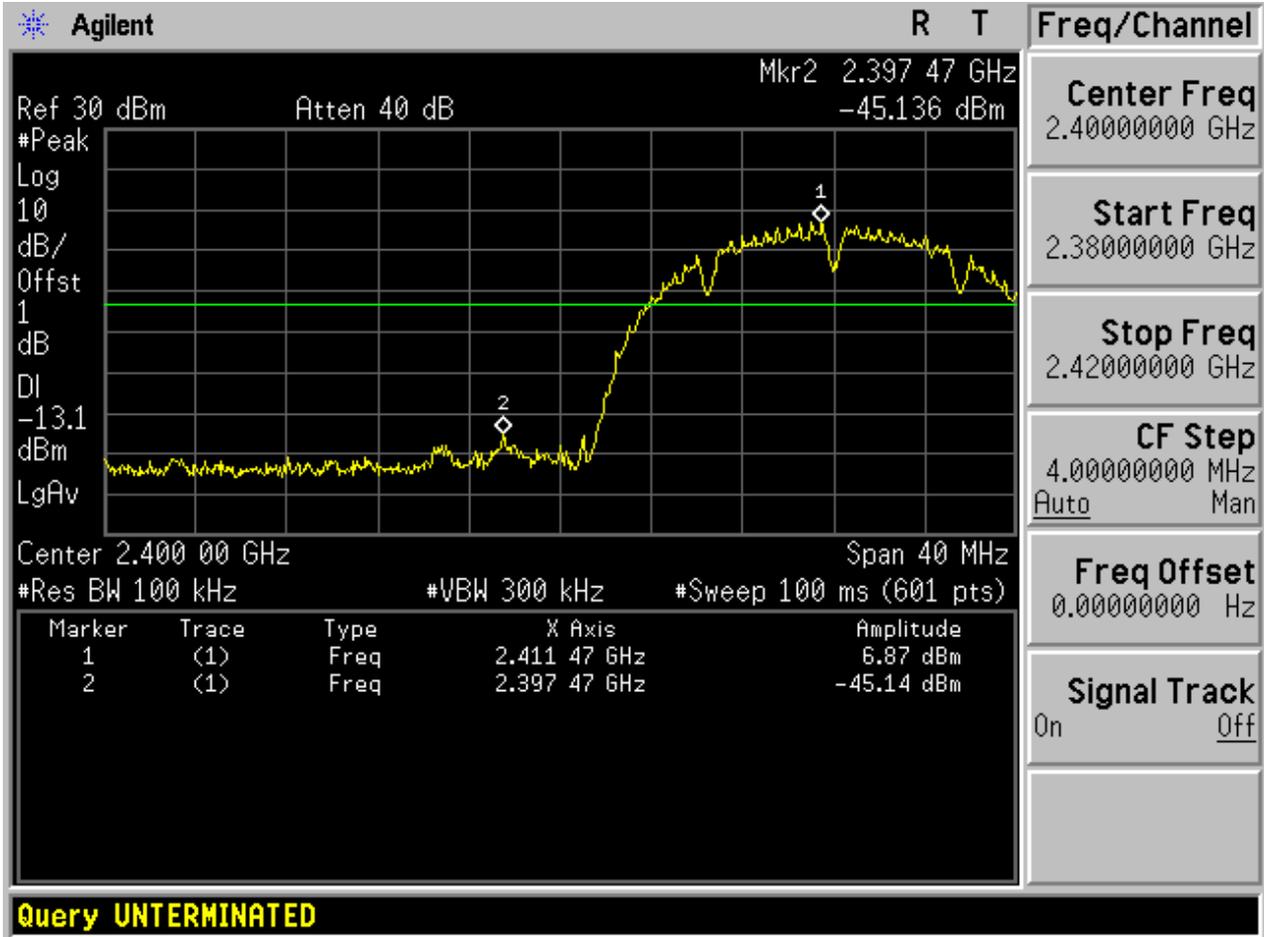
Appendix D: Band Edges Compliance

Part I - Test Results

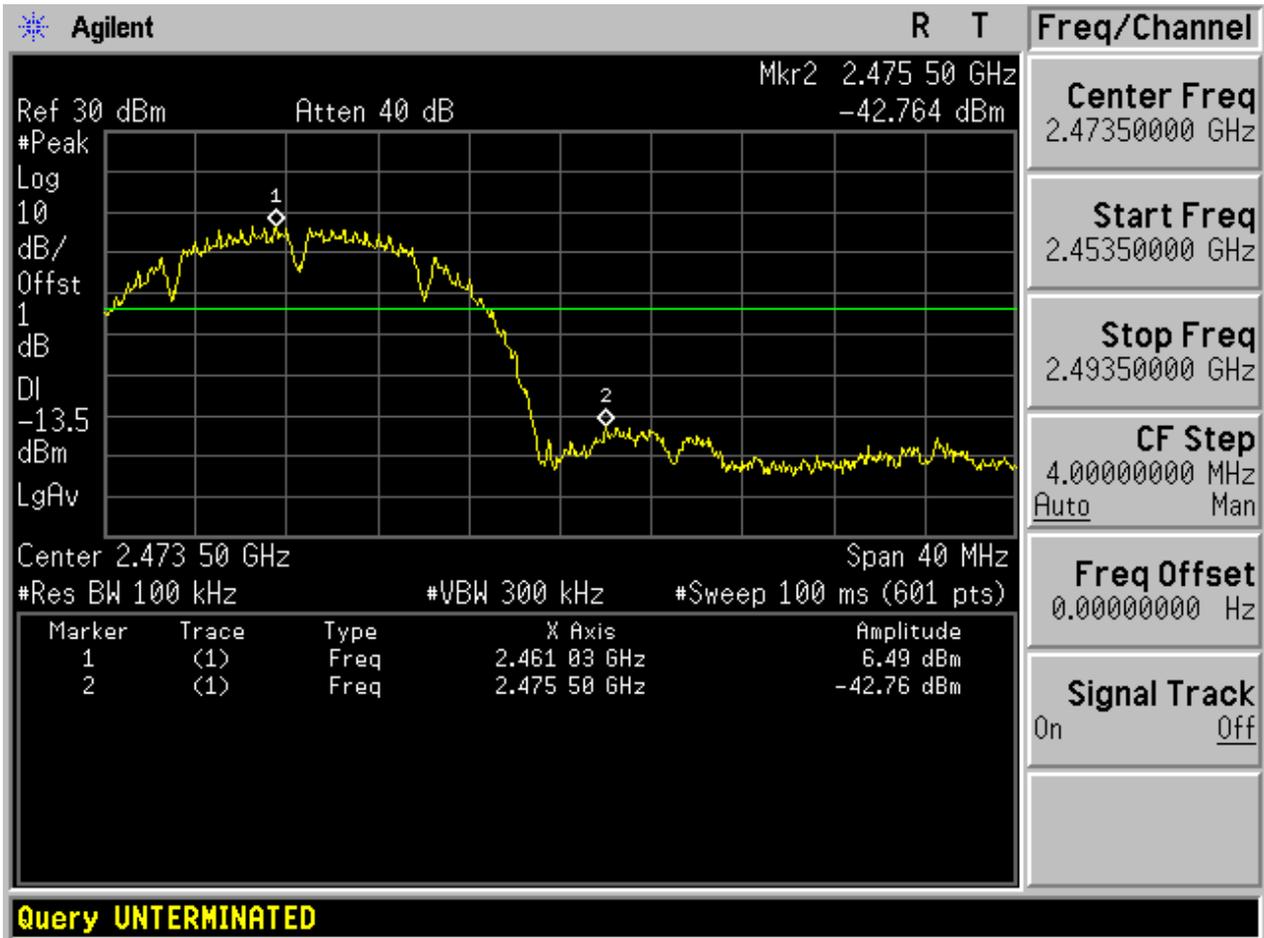
Test Mode	Test Channel	Frequency[MHz]	Ant	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
11B	L	2412	Ant 1	6.87	-45.14	pass
11B	H	2462	Ant 1	6.49	-42.76	pass
11G	L	2412	Ant 1	3.53	-29.38	pass
11G	H	2462	Ant 1	2.85	-26.86	pass
11N20	L	2412	Ant 1	1.70	-45.84	pass
11N20	H	2462	Ant 1	2.60	-40.89	pass

Part II - Test Plots

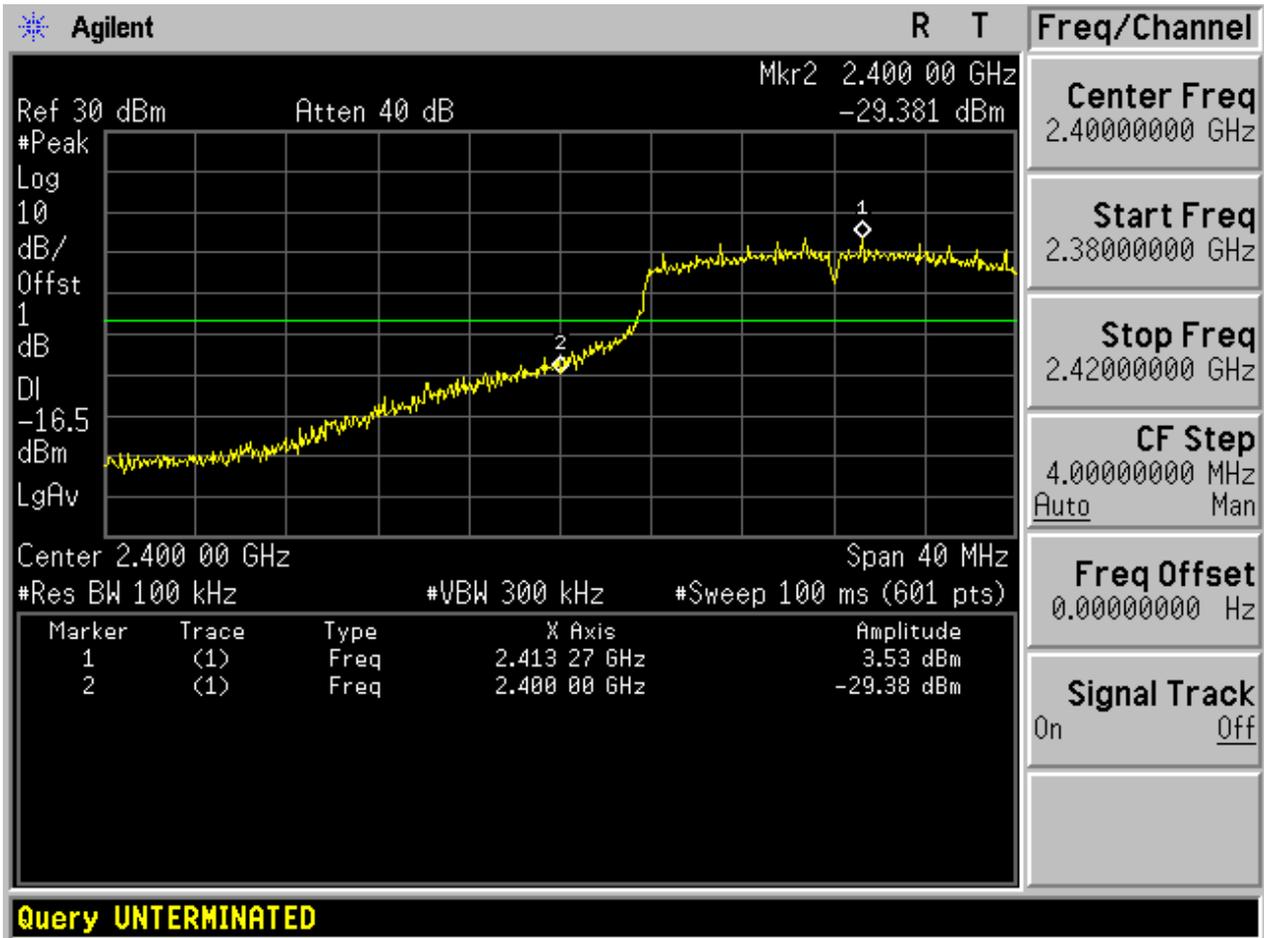
4.1 11B_L



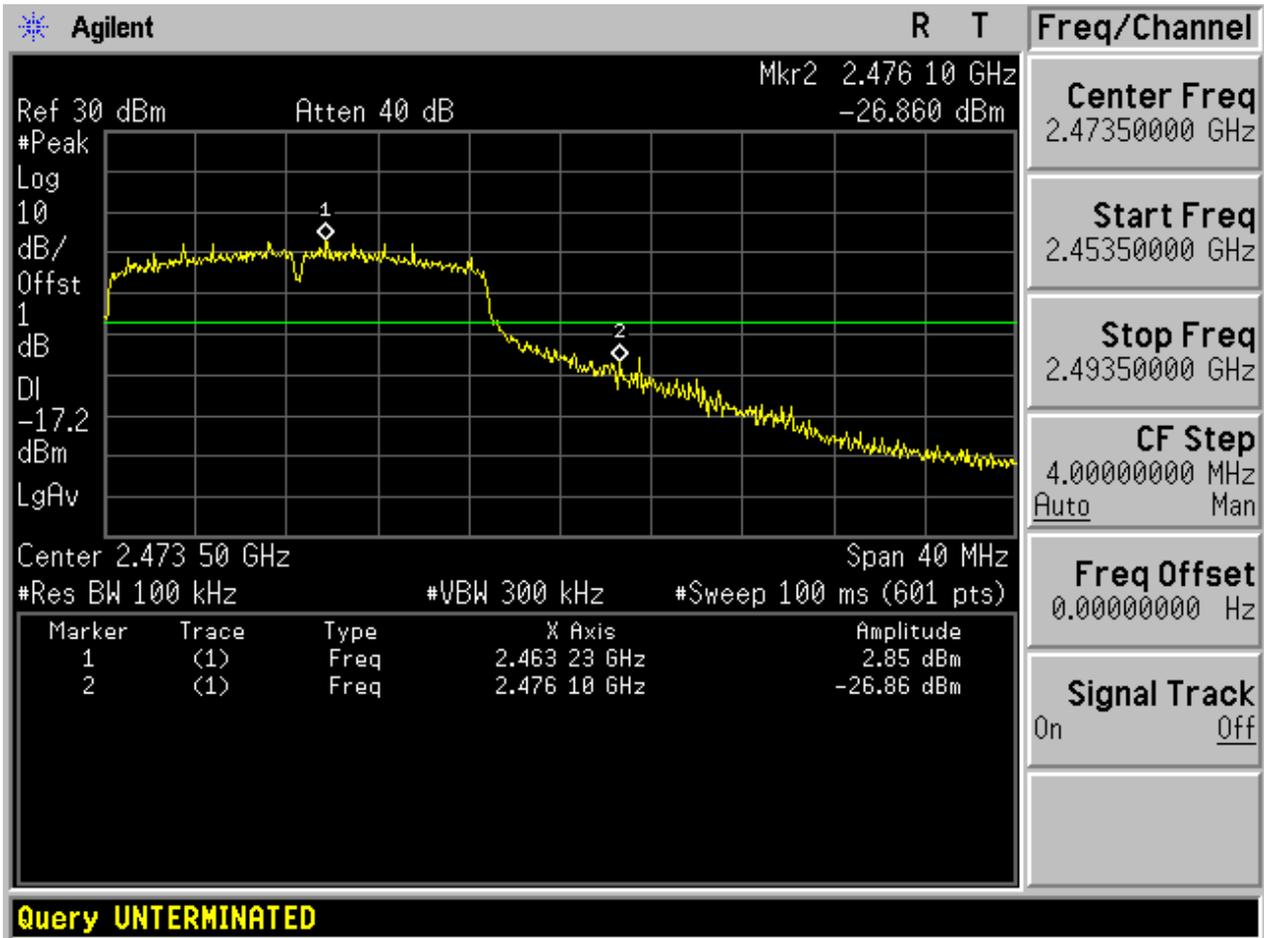
4.2 11B_H



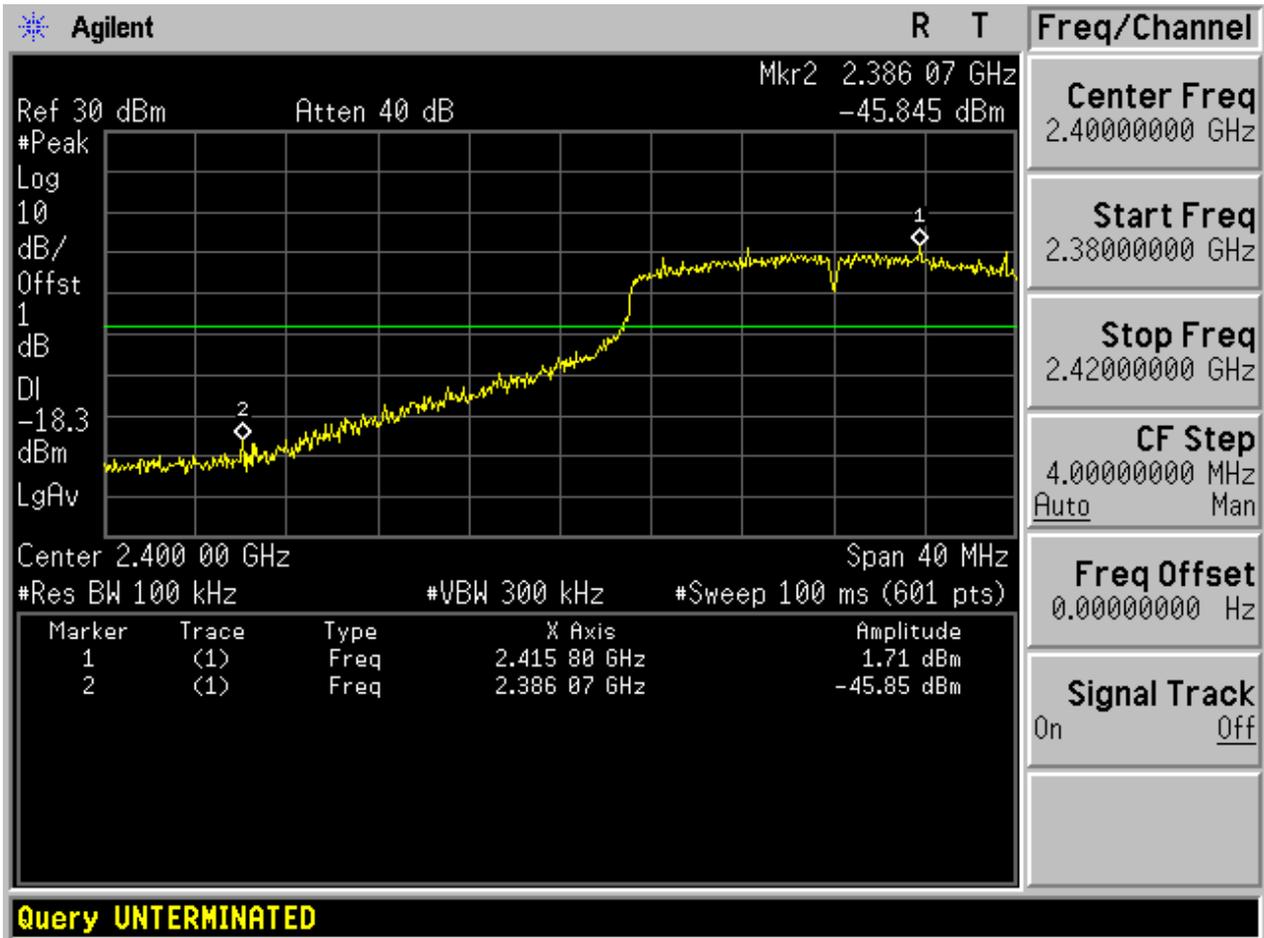
4.3 11G_L



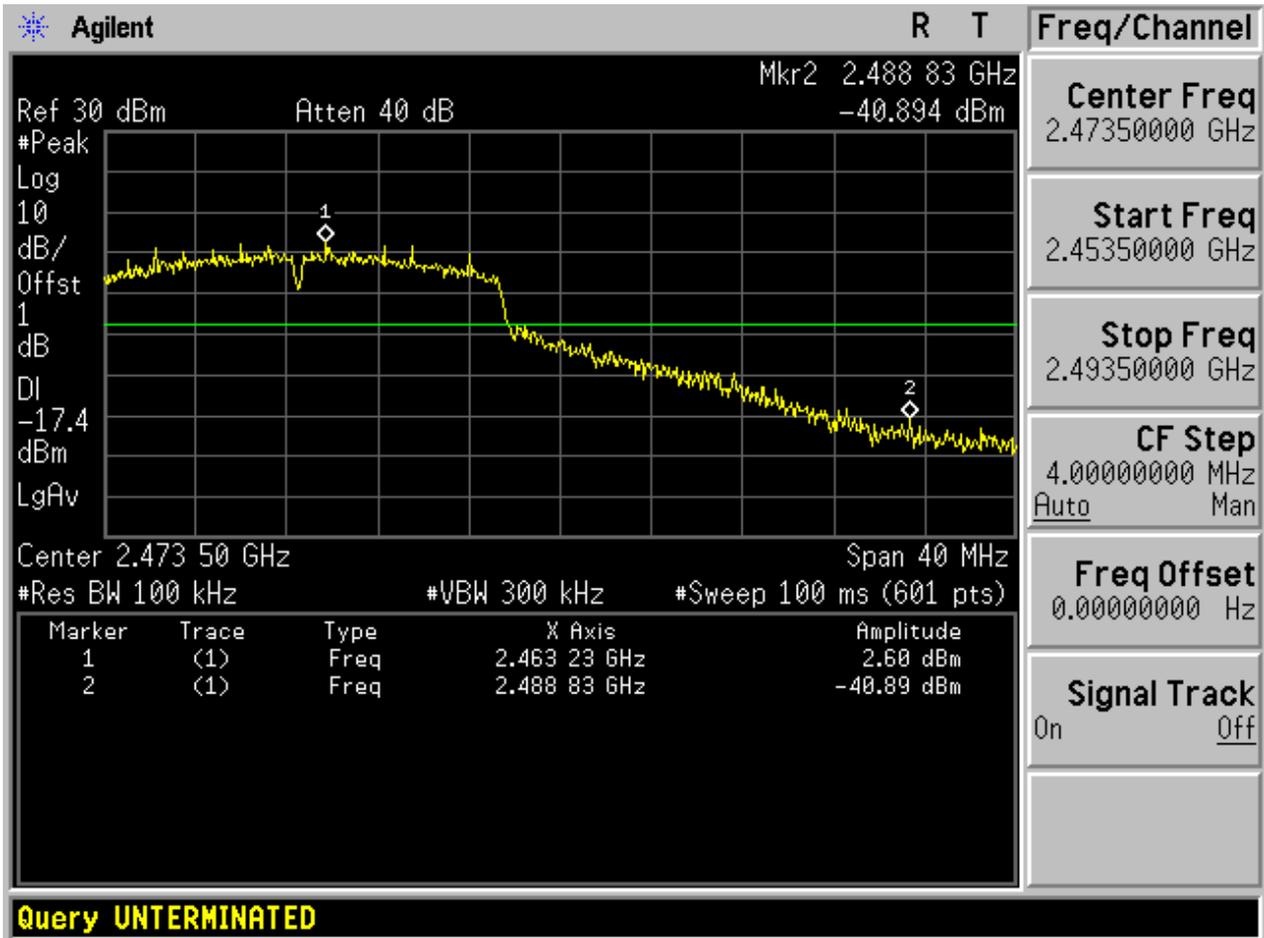
4.4 11G_H



4.5 11N20_L



4.6 11N20_H



Appendix E: Unwanted Emissions into Non-Restricted Frequency

Bands

In this Appendix, the "Pref", which is used as the reference level, refers to the peak power level in any 100 kHz bandwidth within the fundamental emission, the "Puw" refers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated, a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where $RBWCF [dB] = 10 \times \lg(100 [kHz]/\text{narrower RBW [kHz]})$. As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

In the result table, the "< Limit" denotes that "The Puw [dBm] is less than Pref[dBm]-20[dBm], see test plots for detailed".

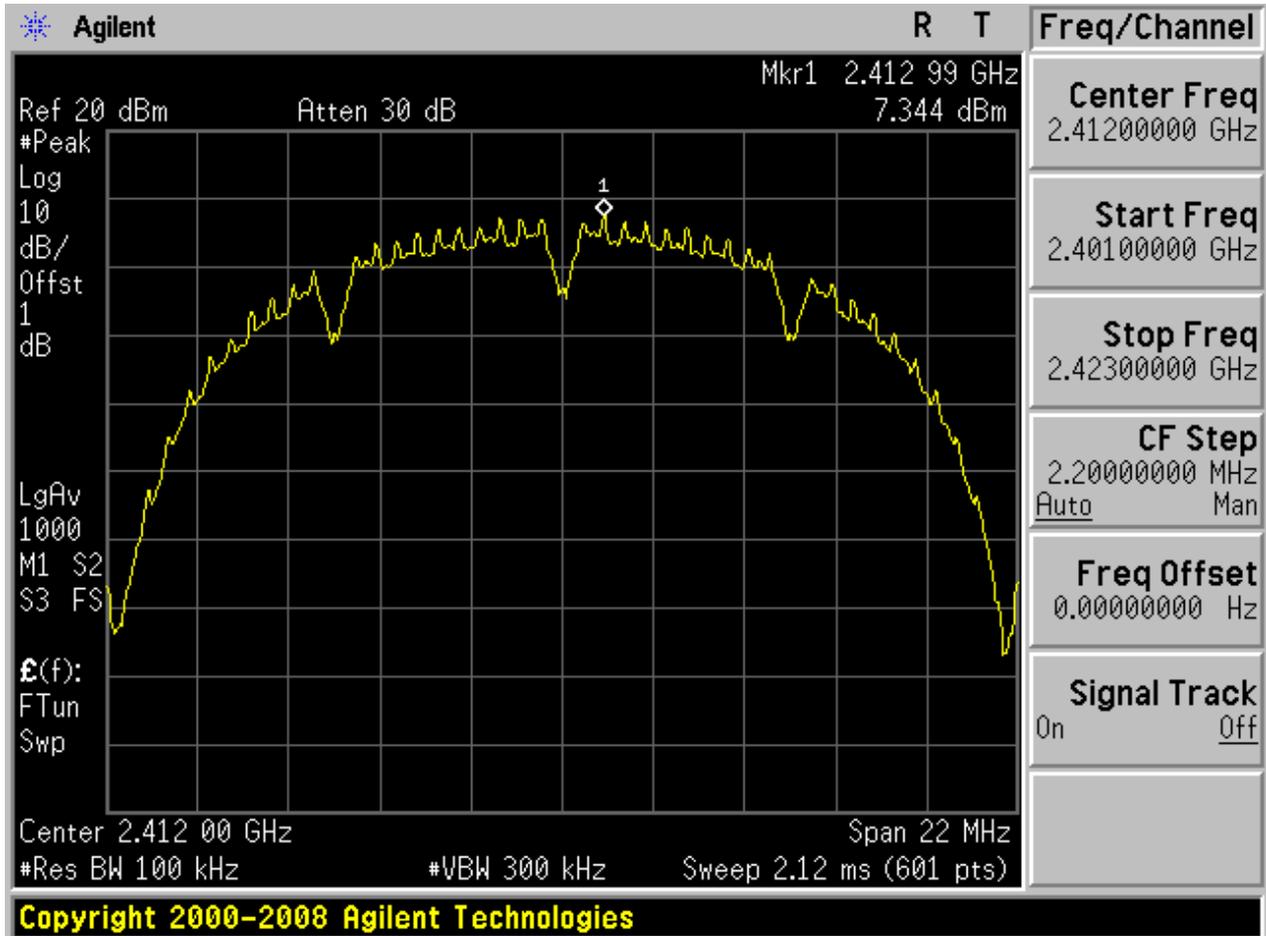
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Pref[dBm]	Puw[dBm]	Verdict
11B	L	2412	Ant 1	7.34	<limit	pass
11B	M	2437	Ant 1	6.77	<limit	pass
11B	H	2462	Ant 1	7.54	<limit	pass
11G	L	2412	Ant 1	4.07	<limit	pass
11G	M	2437	Ant 1	4.15	<limit	pass
11G	H	2462	Ant 1	4.40	<limit	pass
11N20	L	2412	Ant 1	3.62	<limit	pass
11N20	M	2437	Ant 1	3.60	<limit	pass
11N20	H	2462	Ant 1	4.07	<limit	pass

Part II - Test Plots

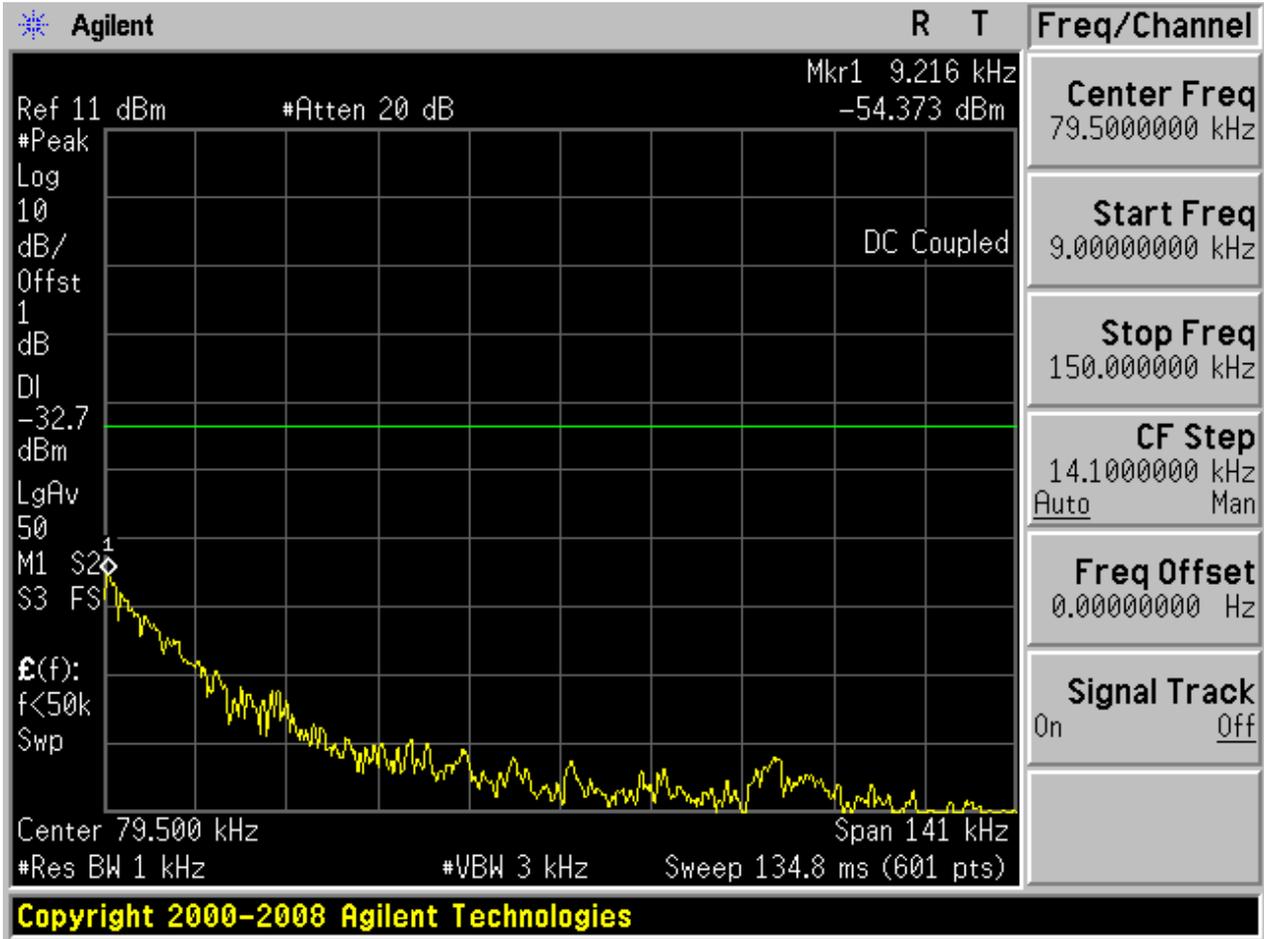
5.1 11B_L

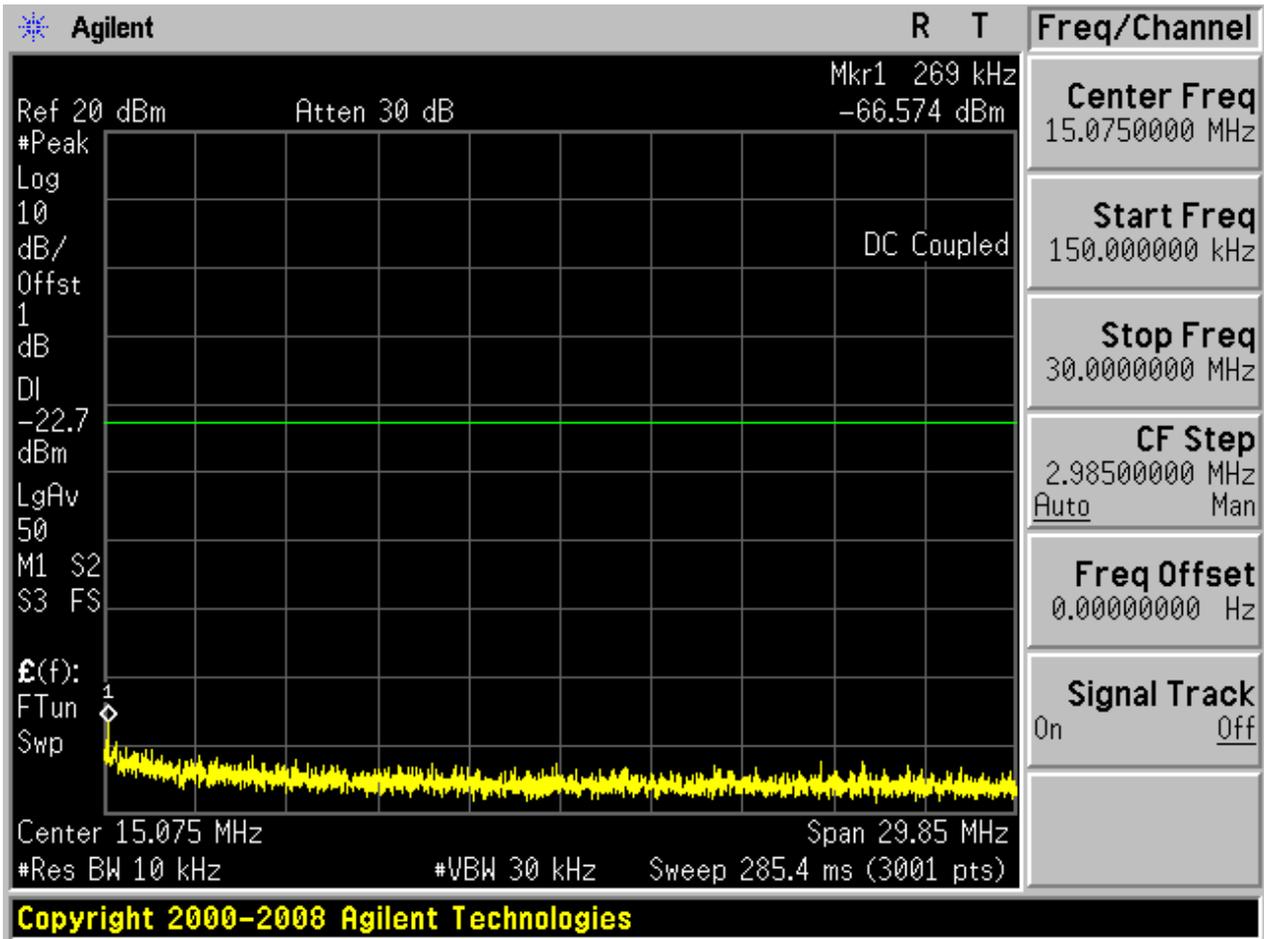
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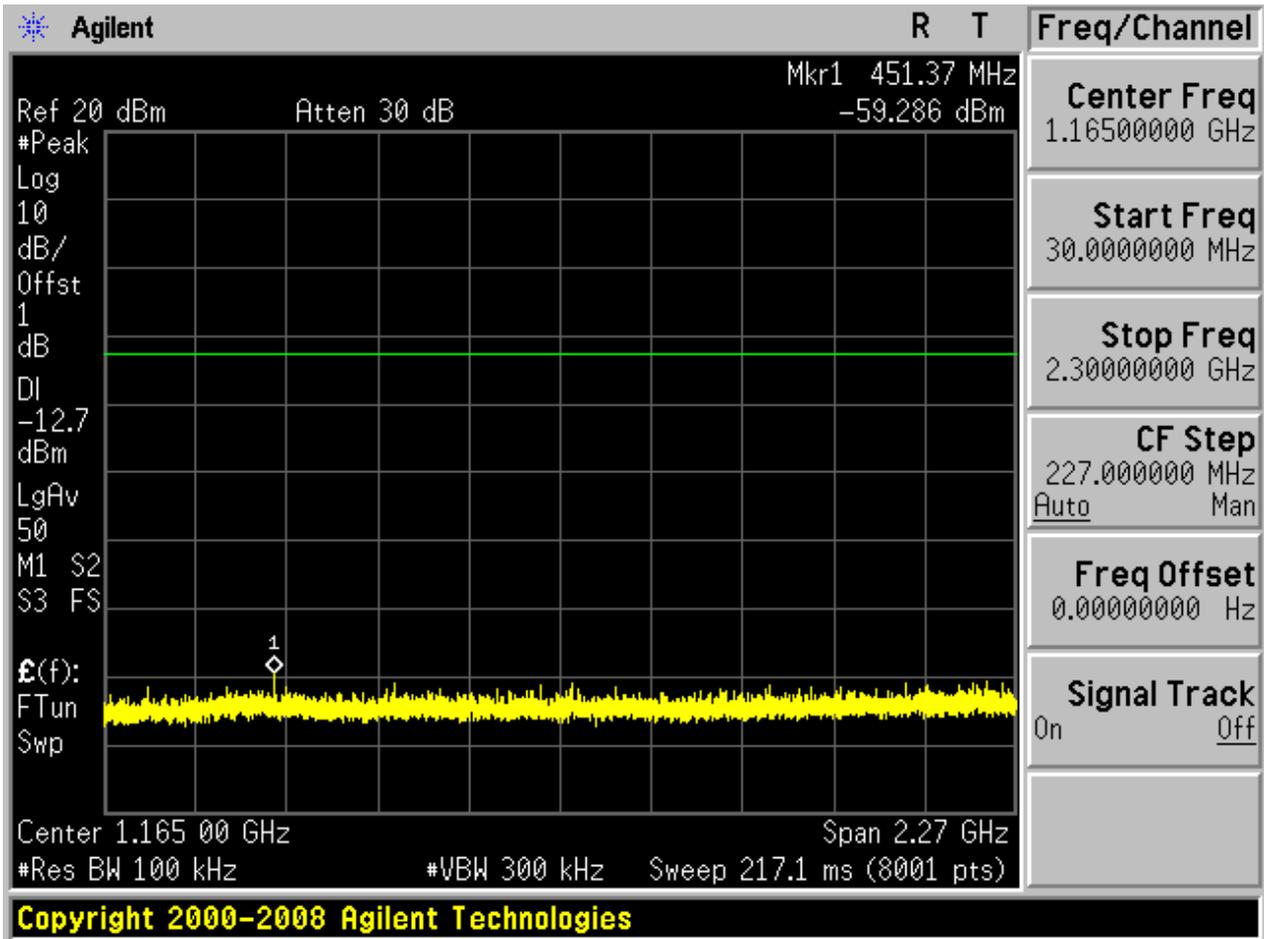


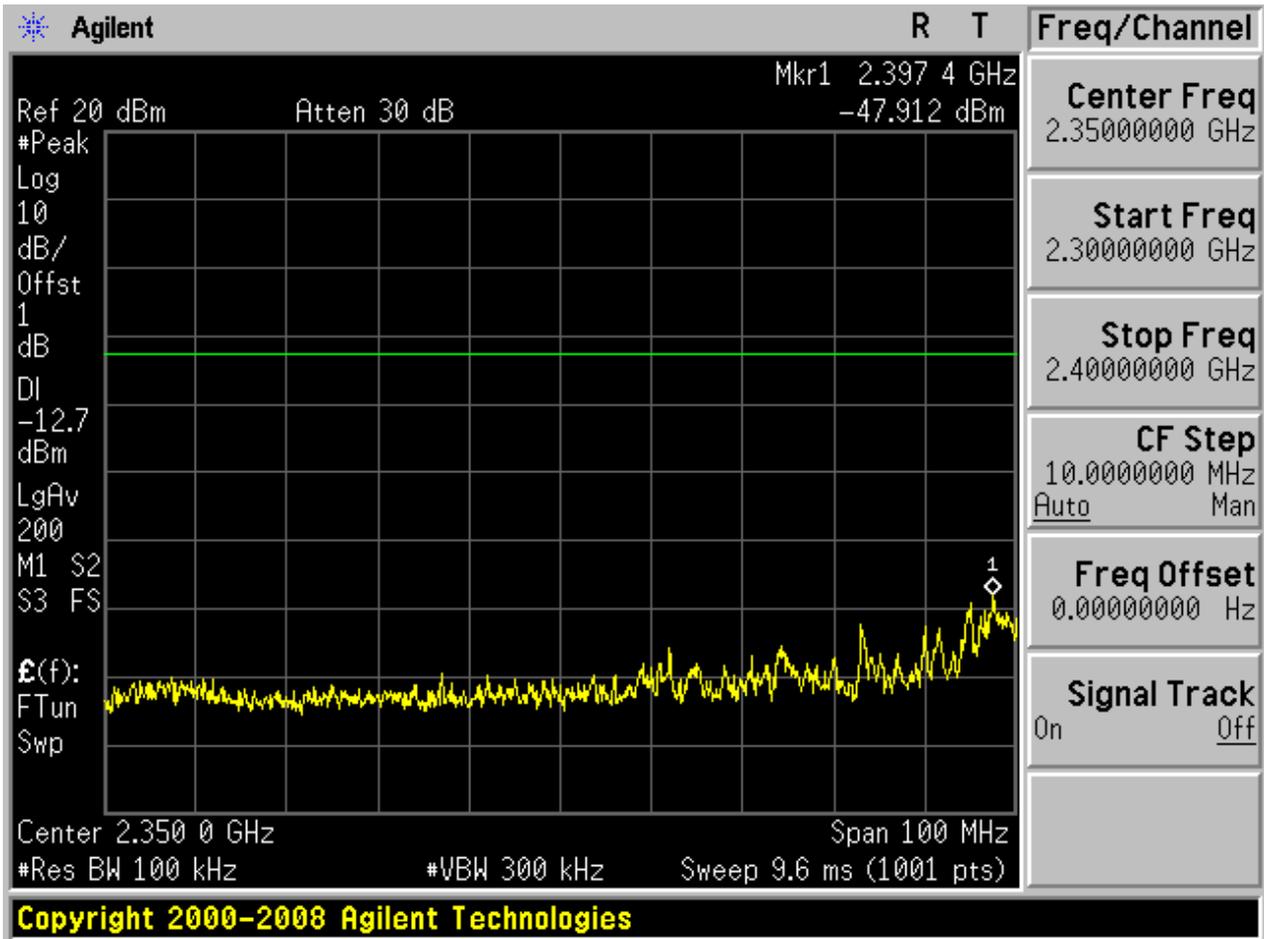


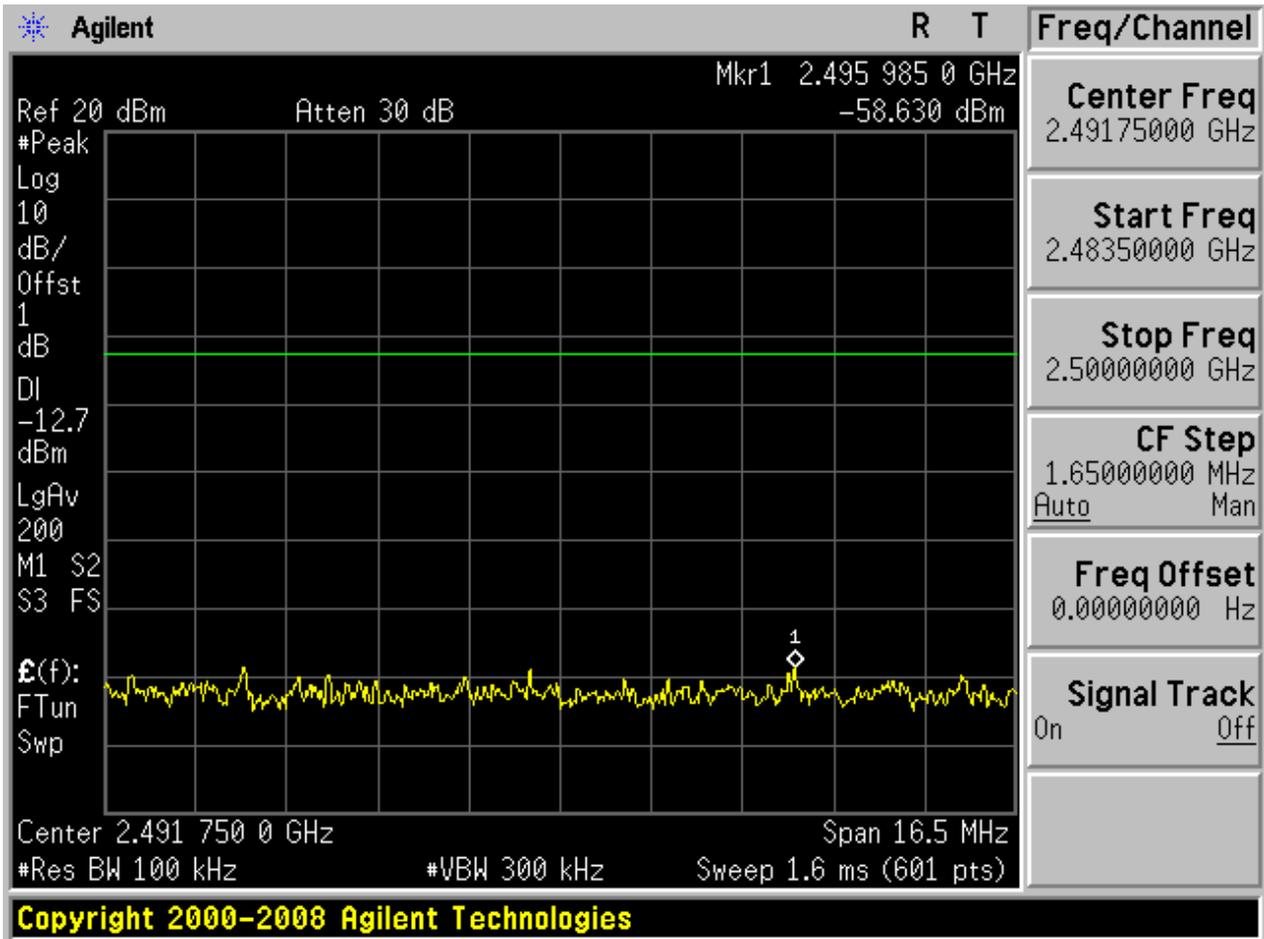
Puw:

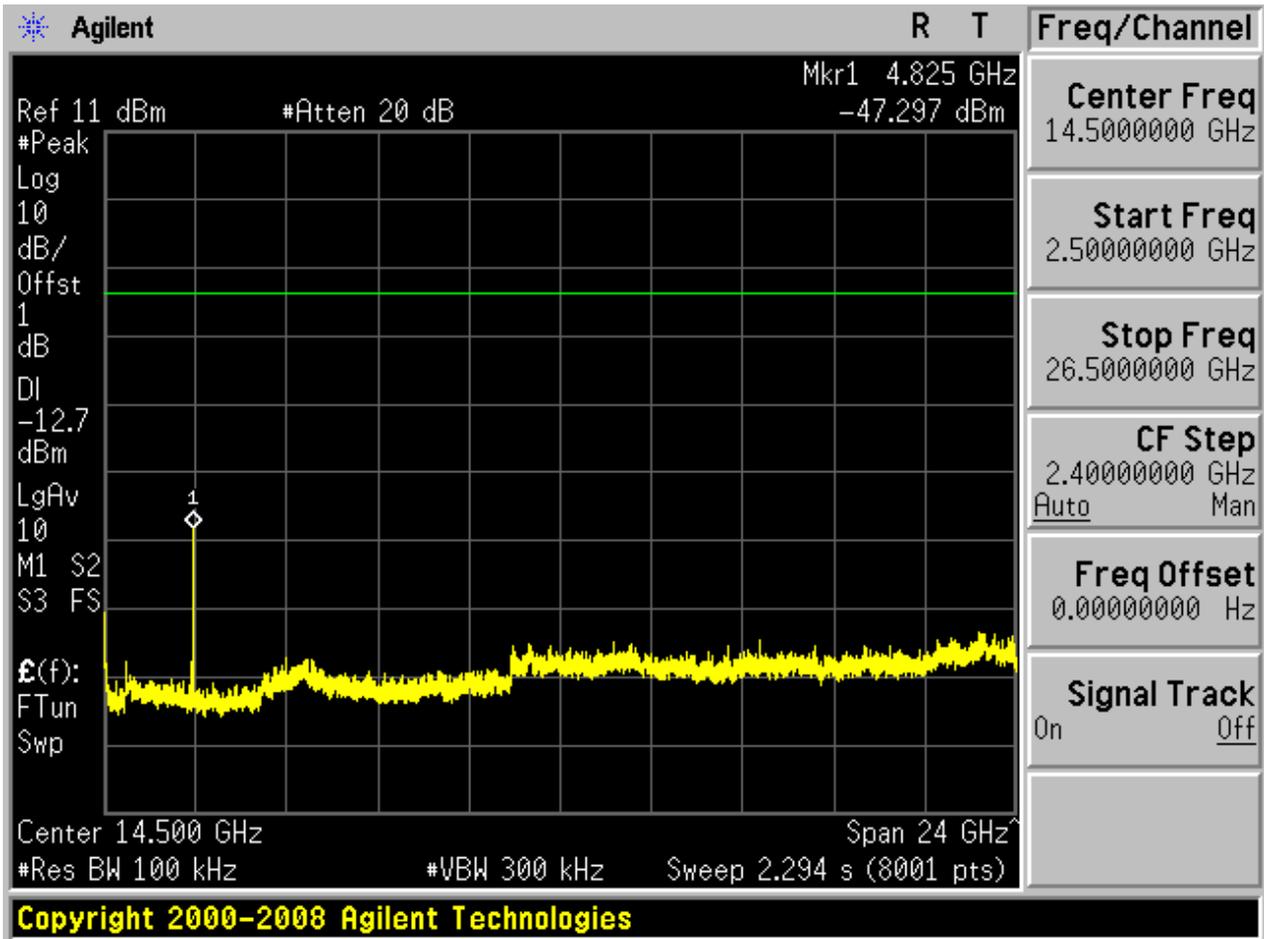






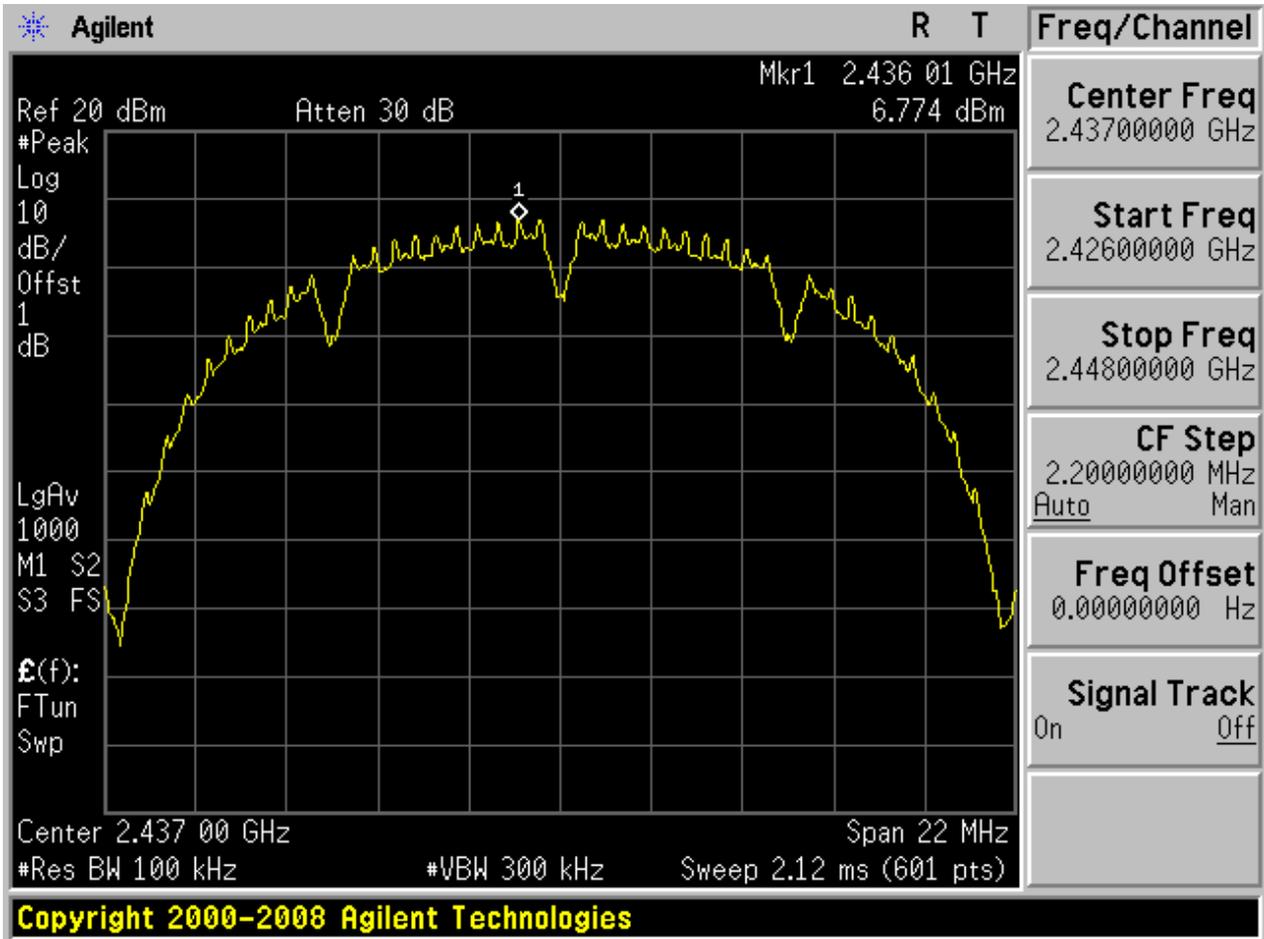




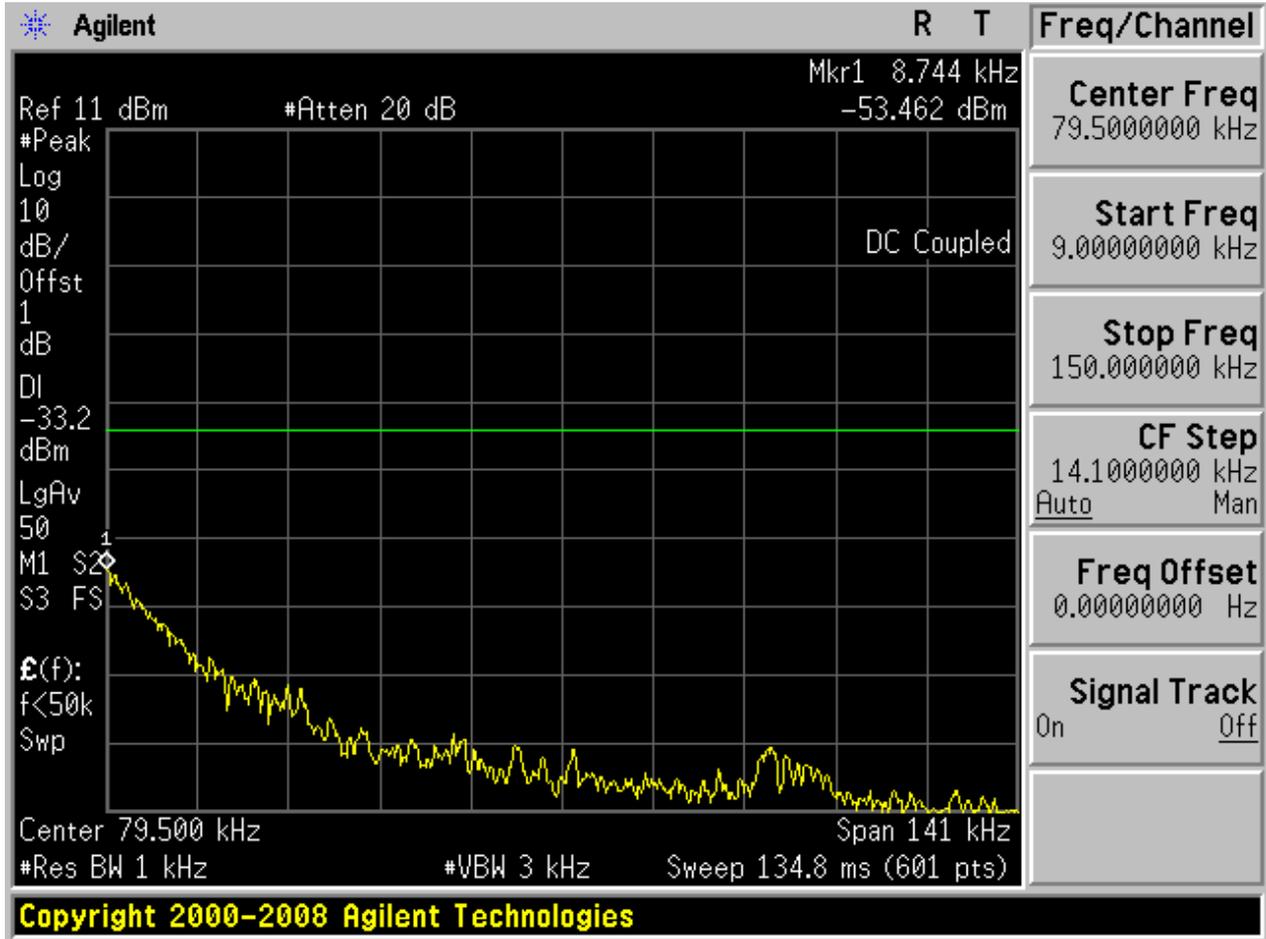


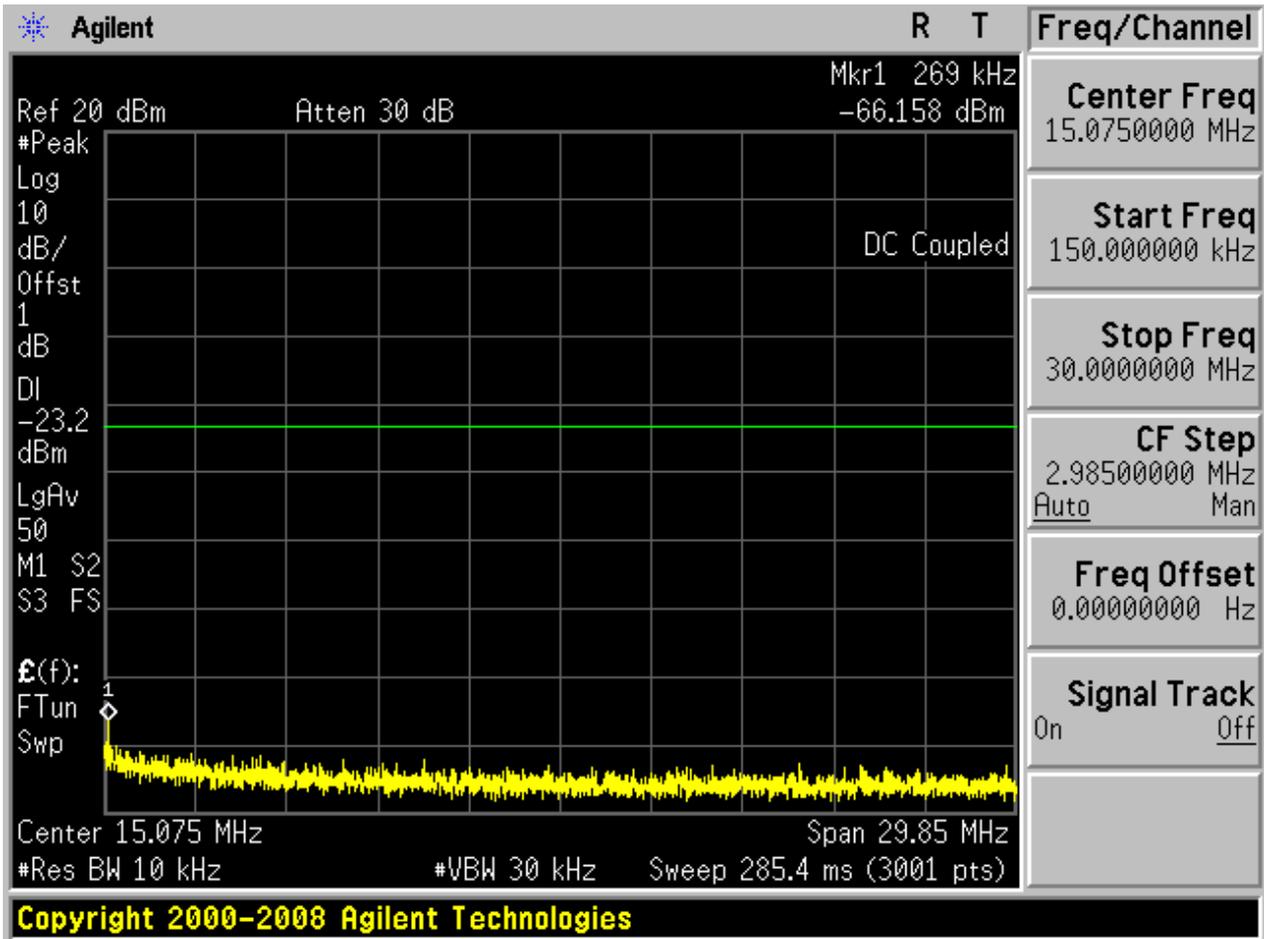
5.2 11B_M

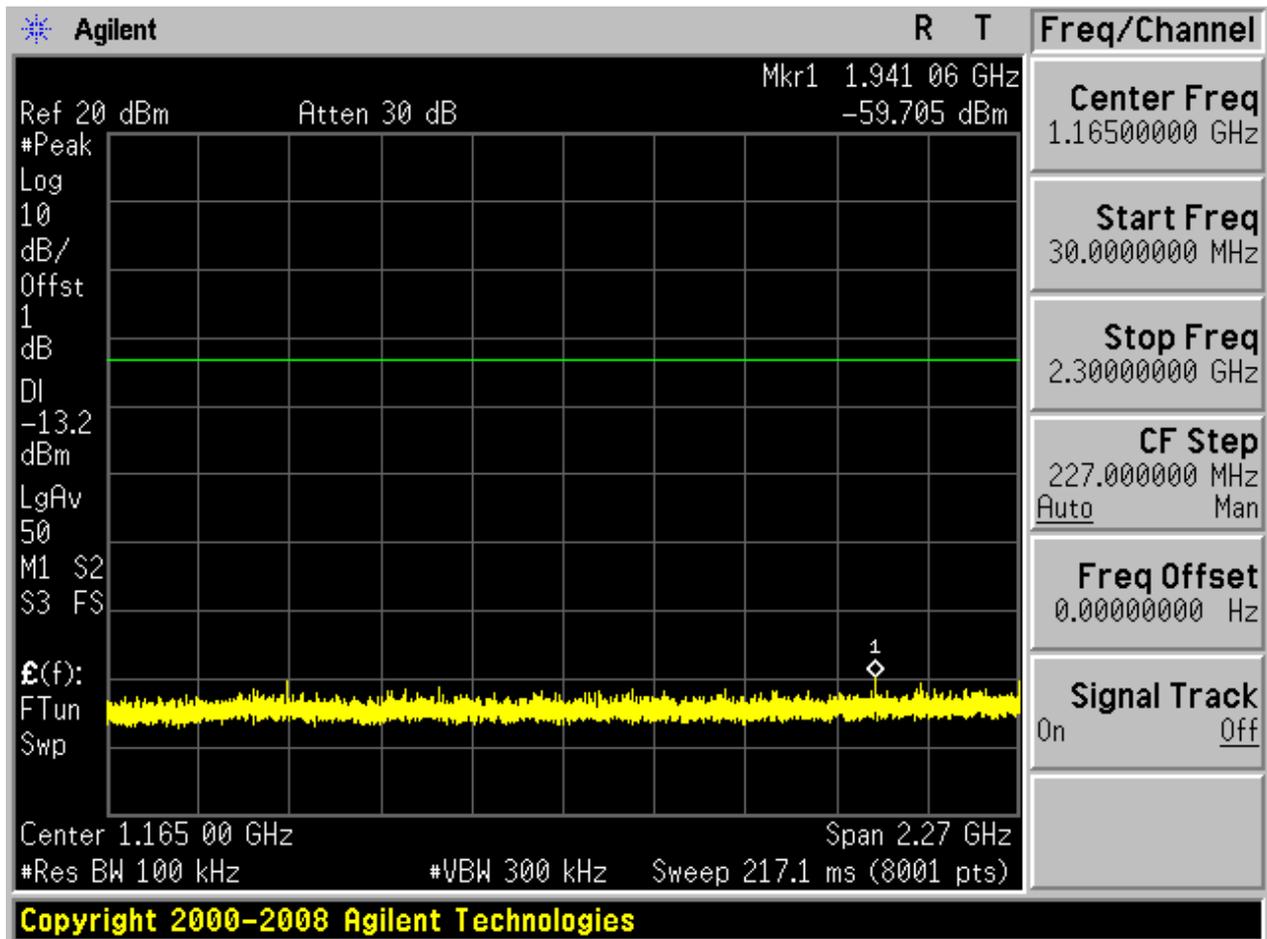
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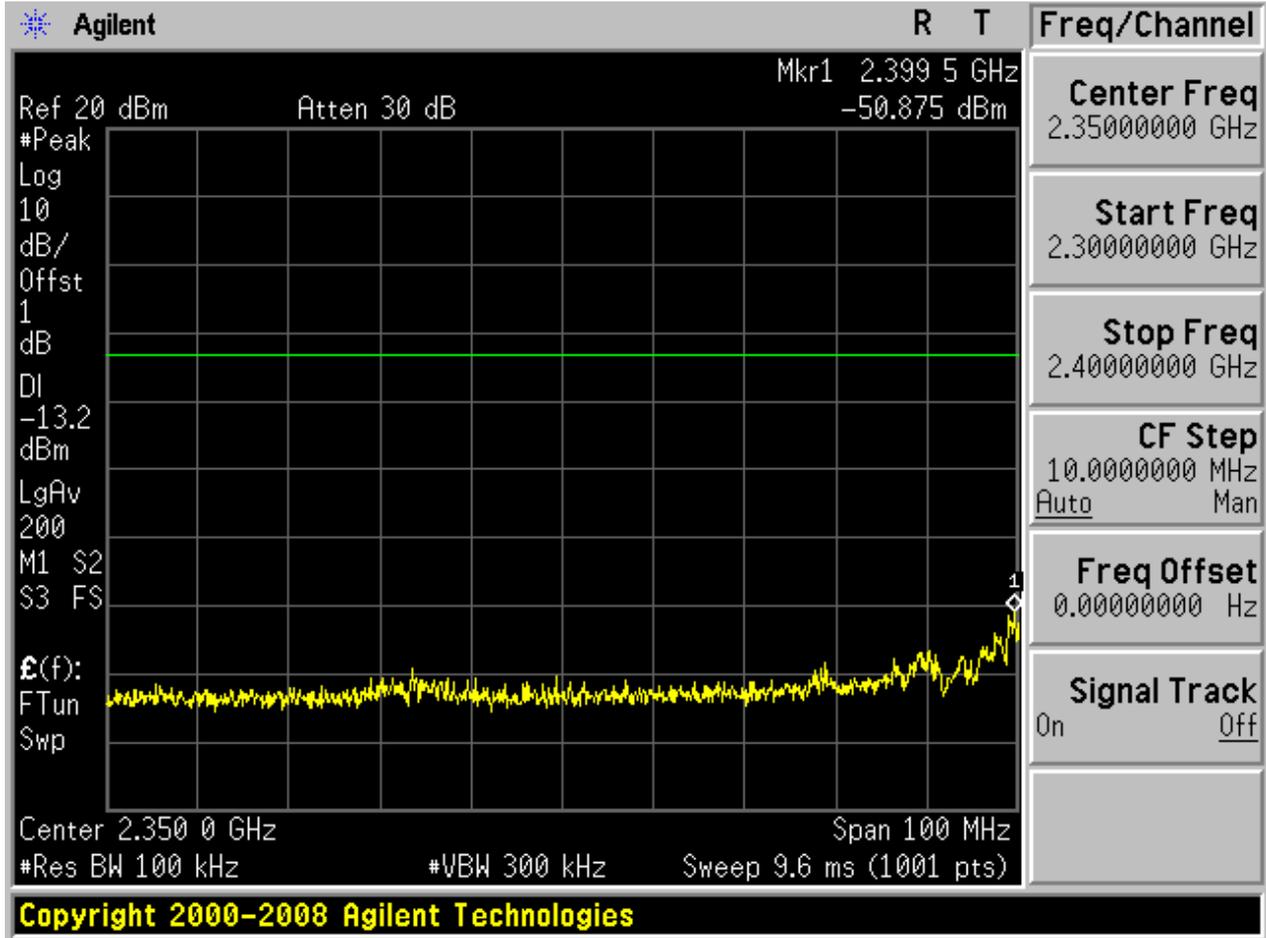


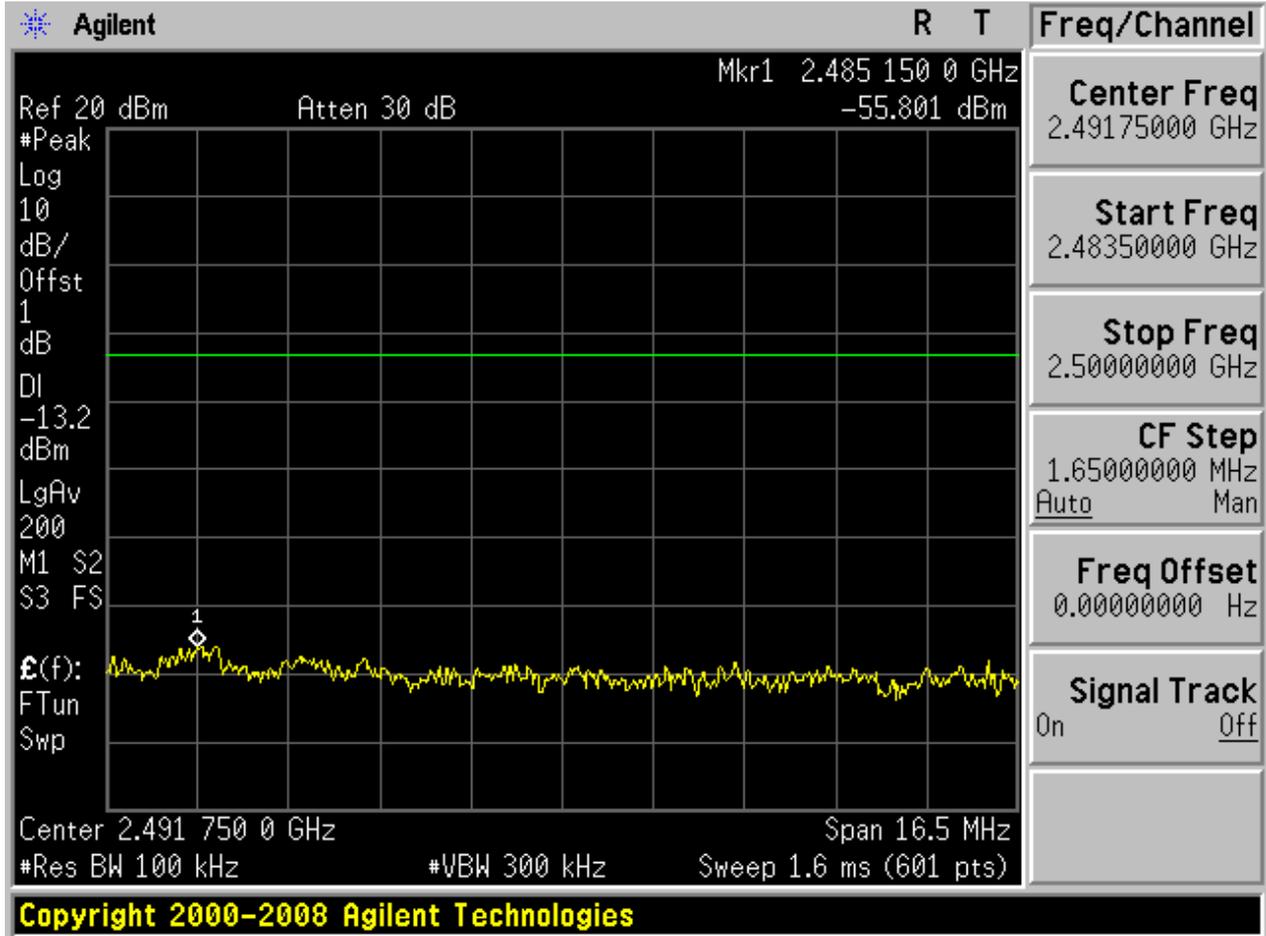
Puw:

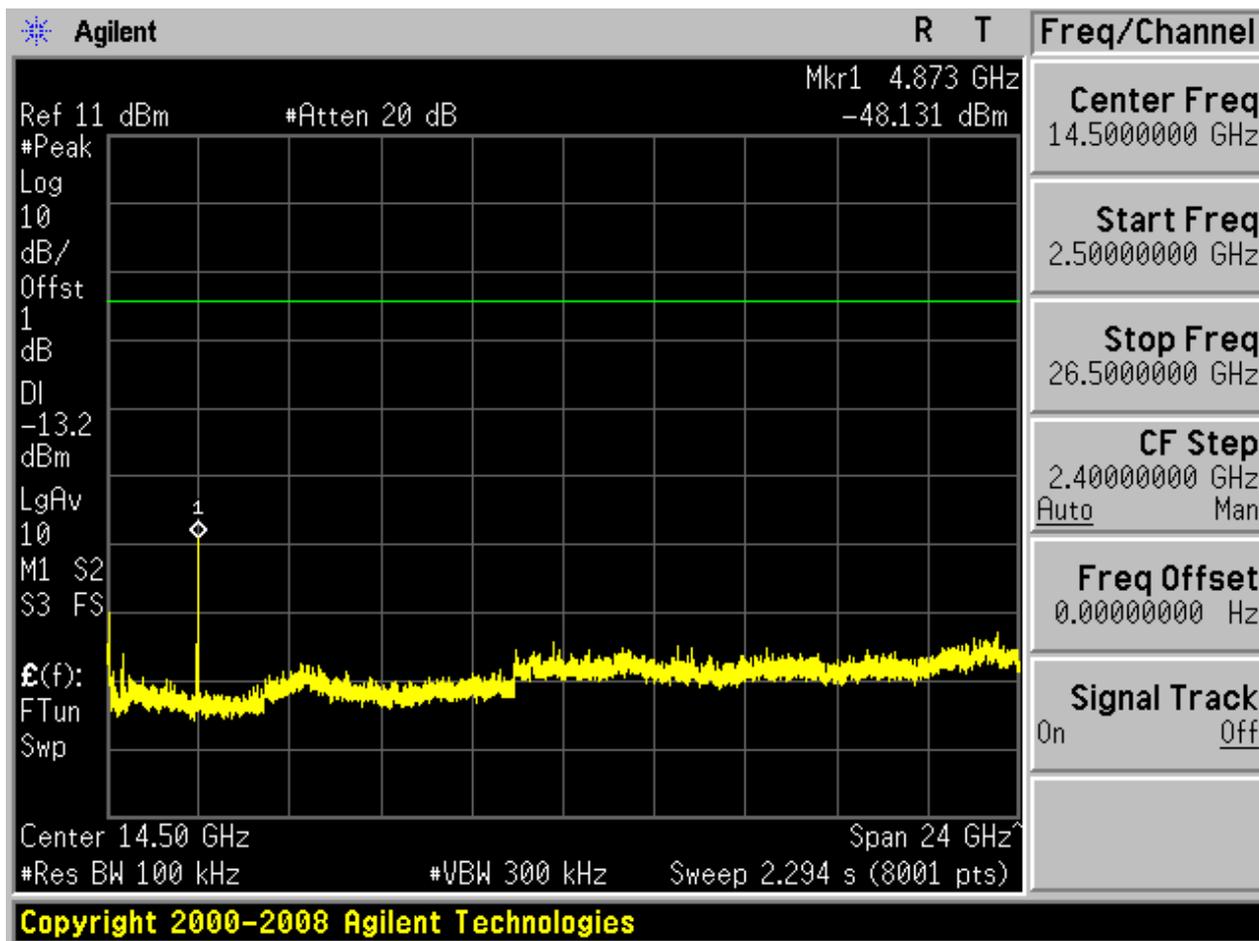






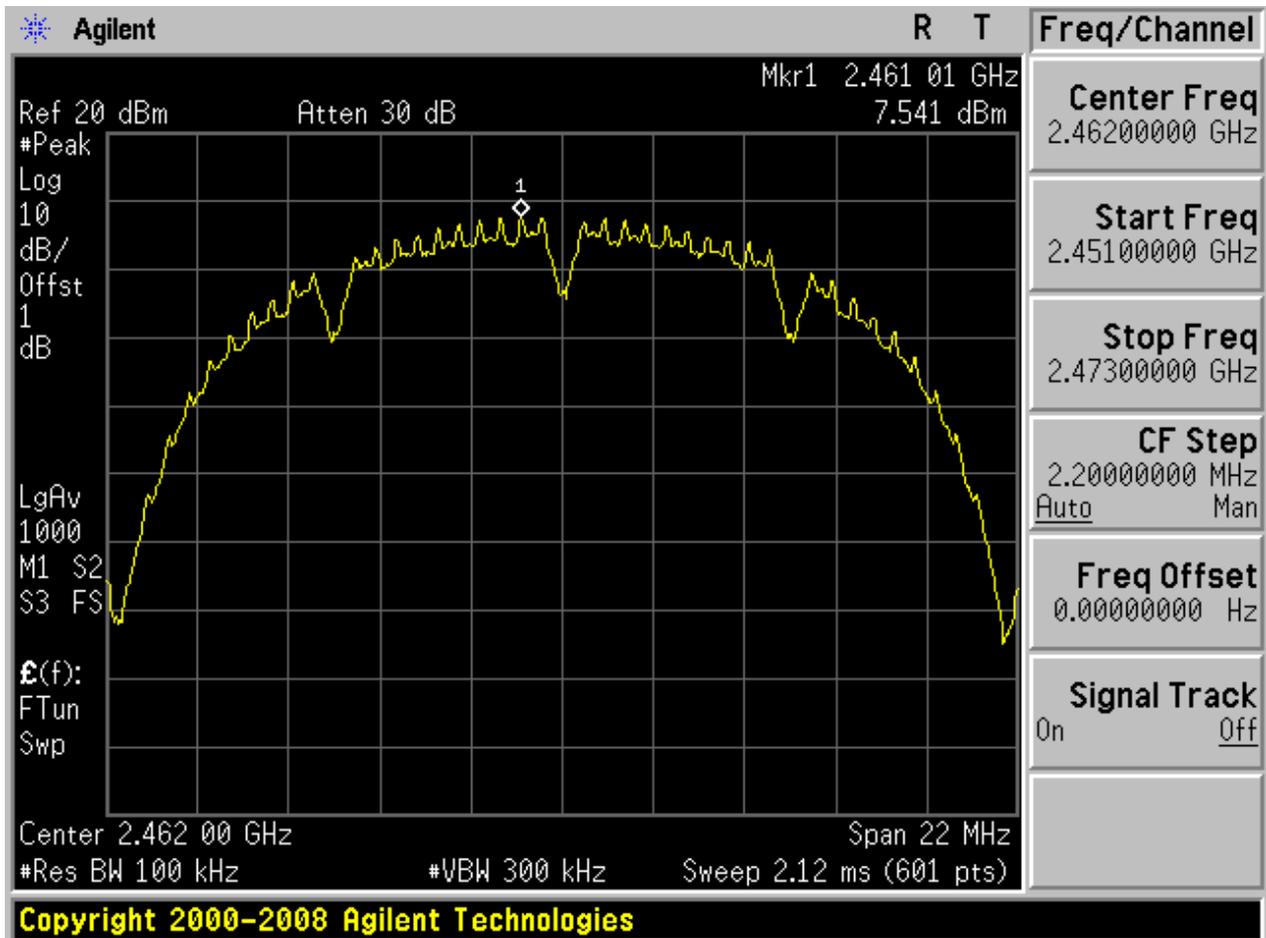




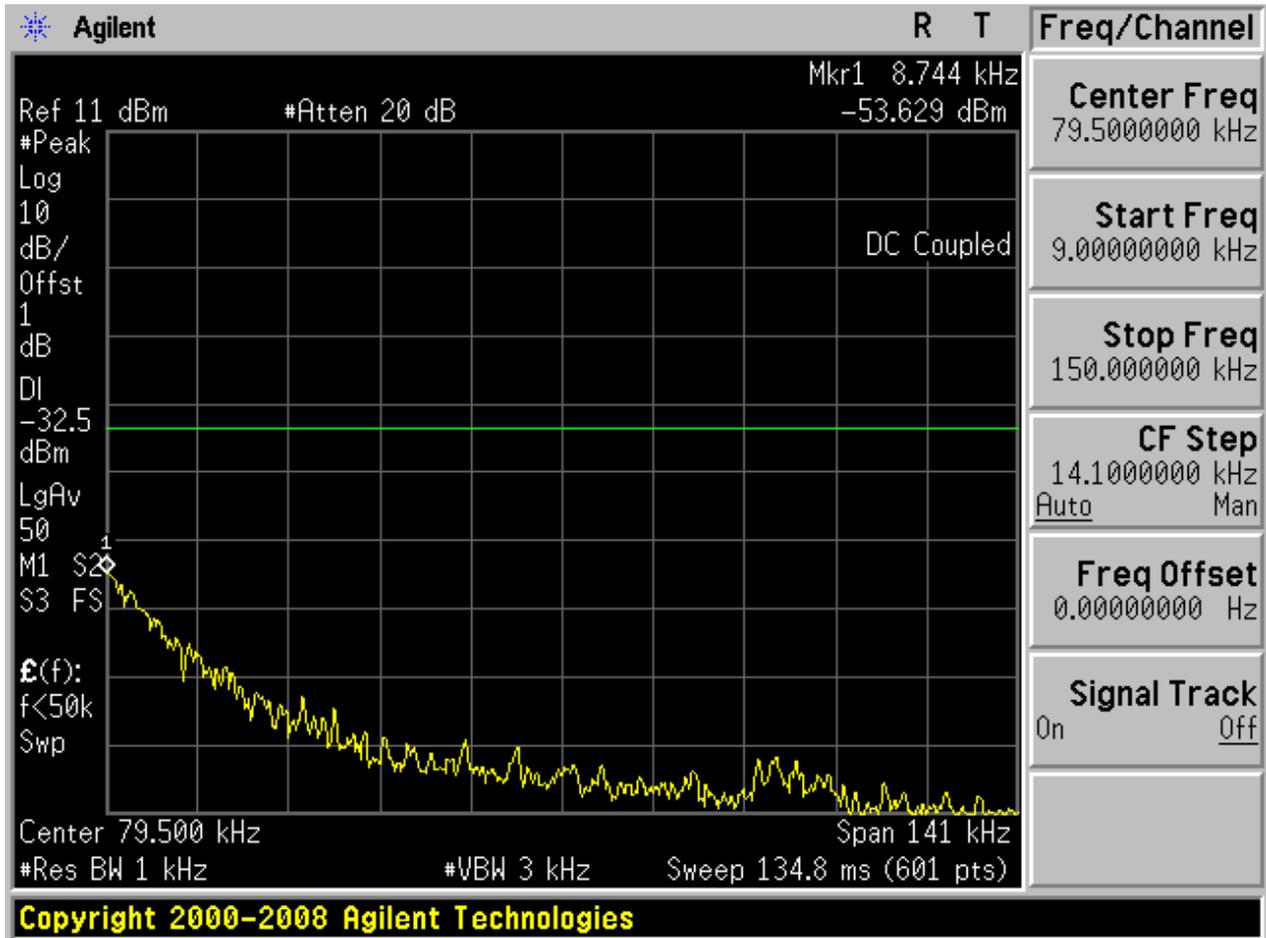


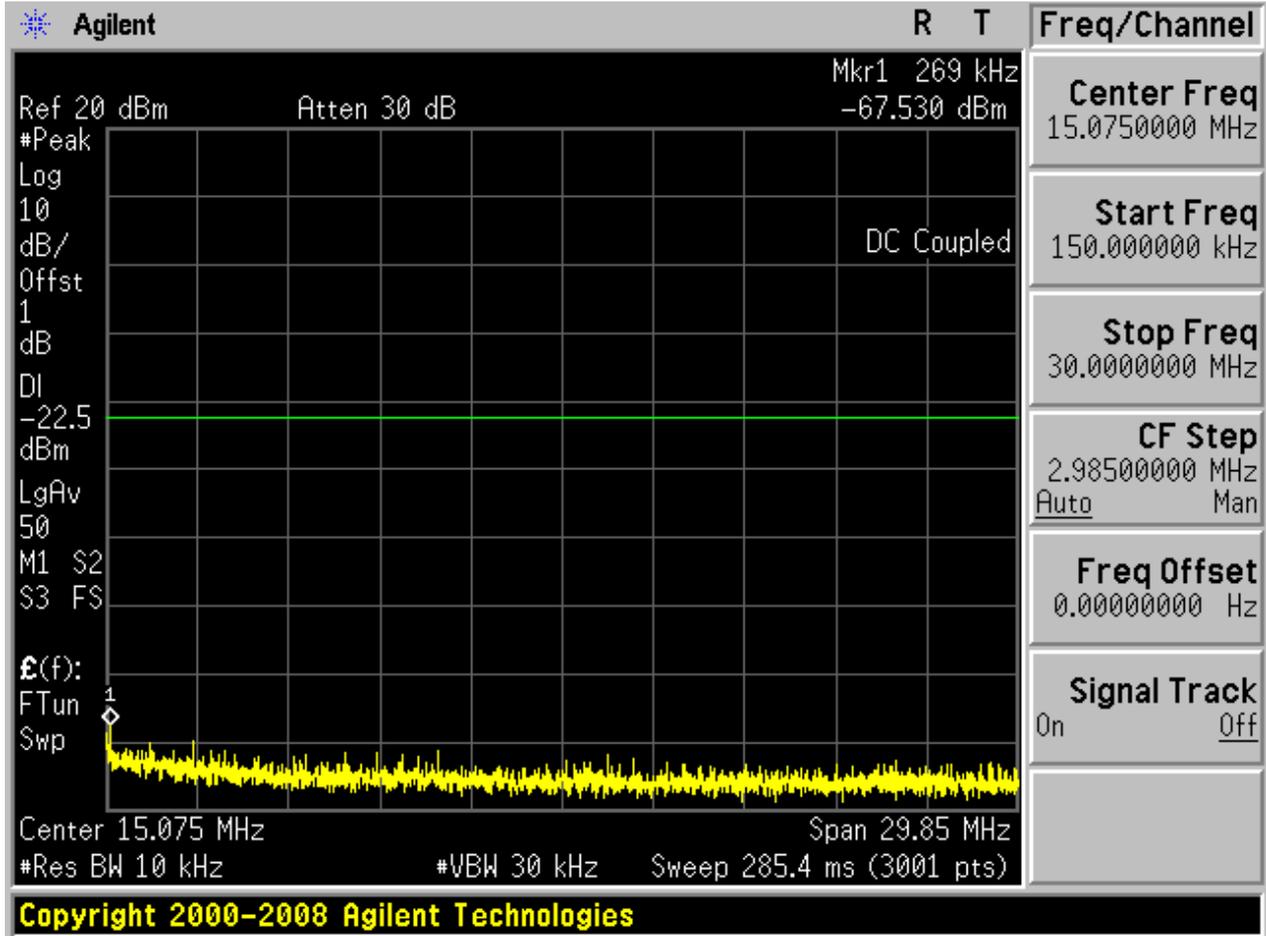
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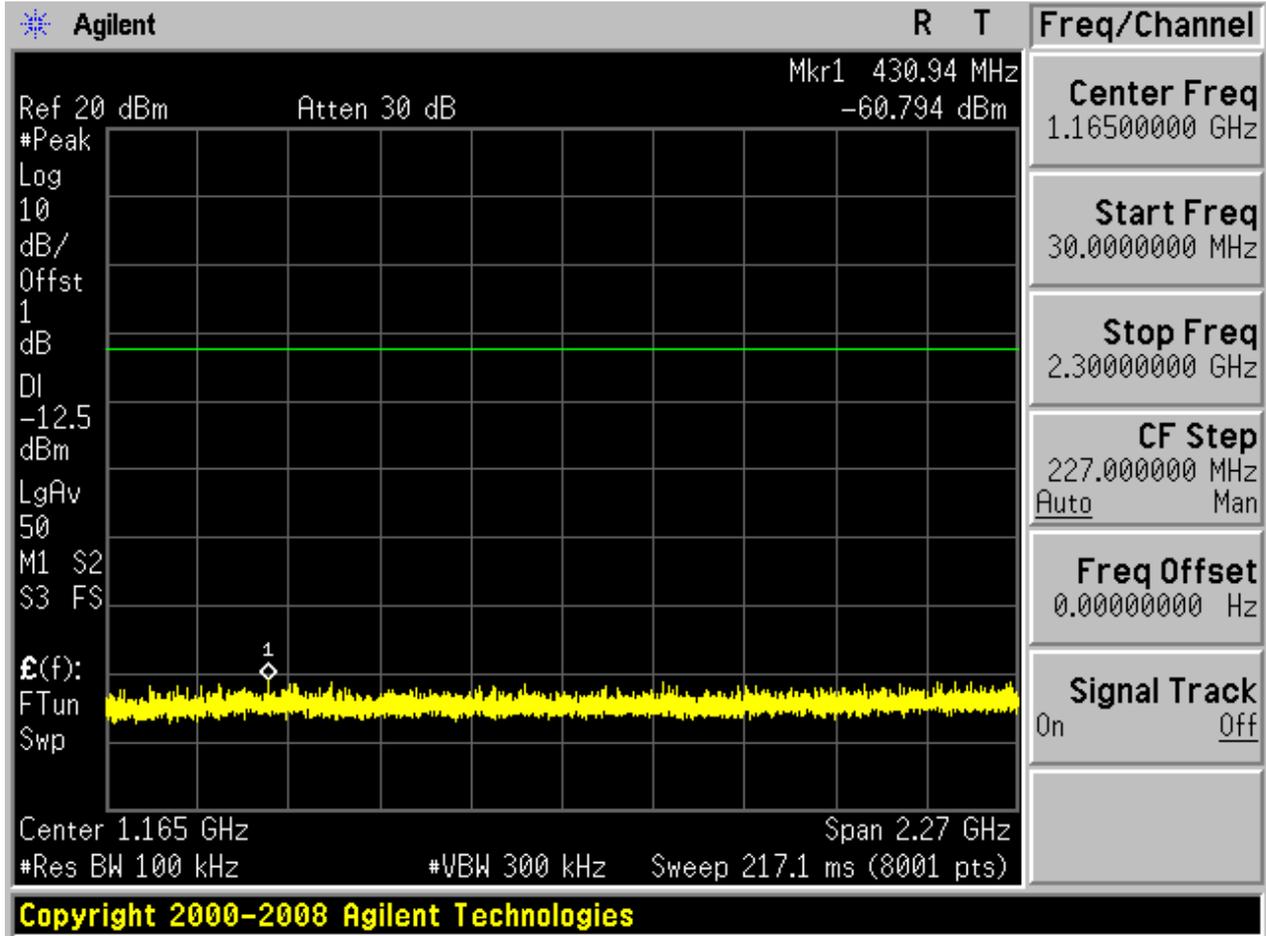
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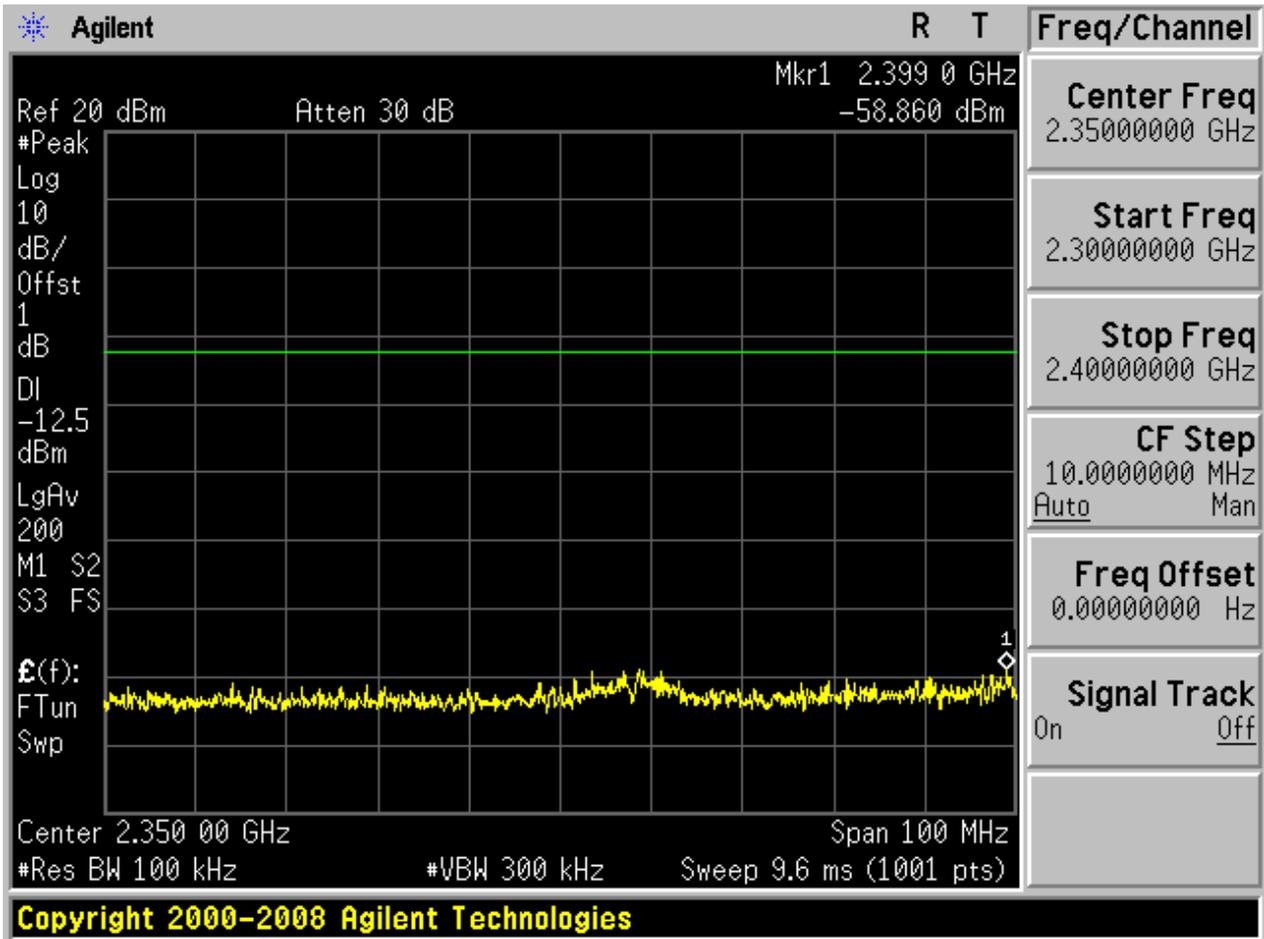


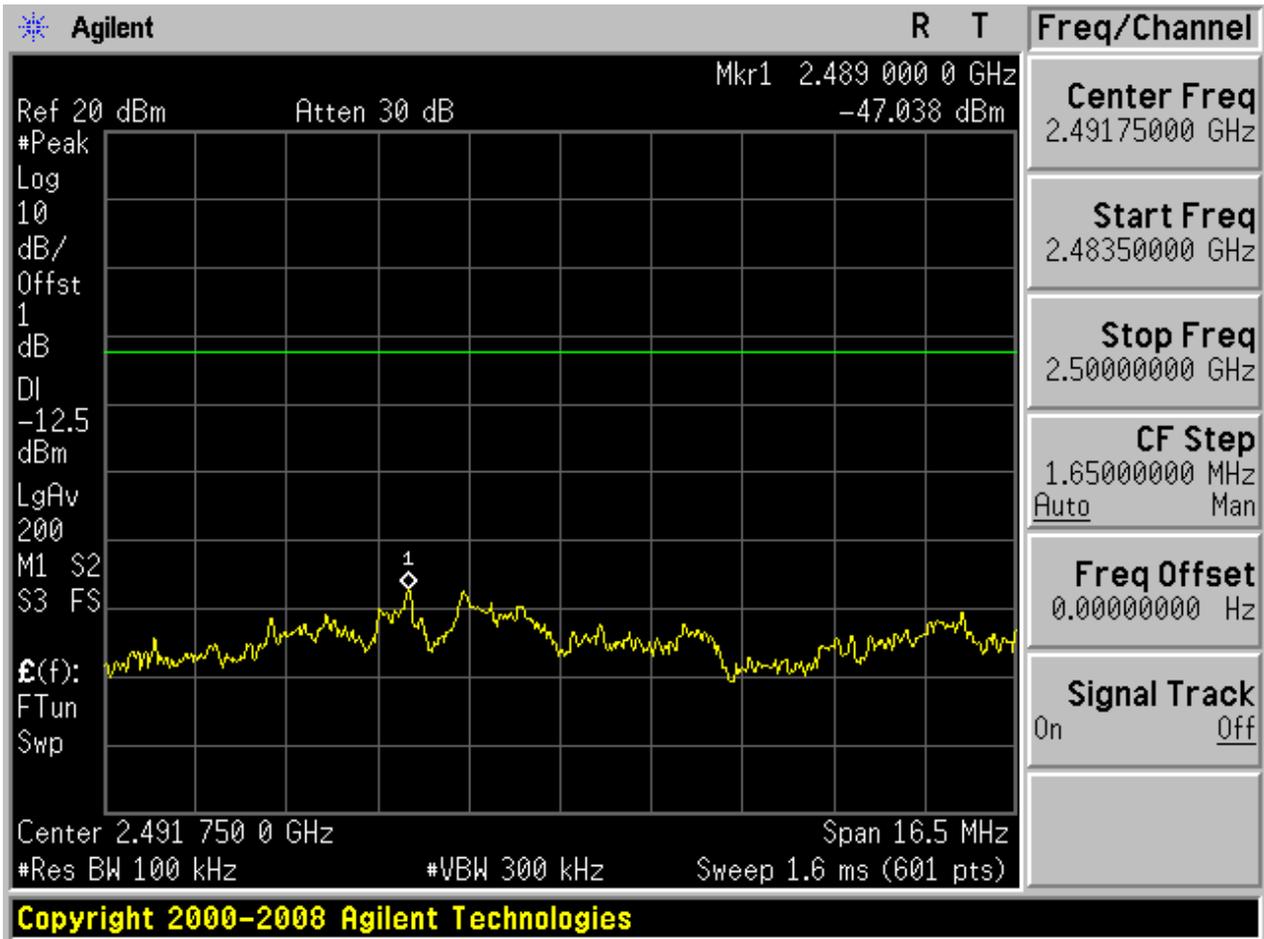
Puw:

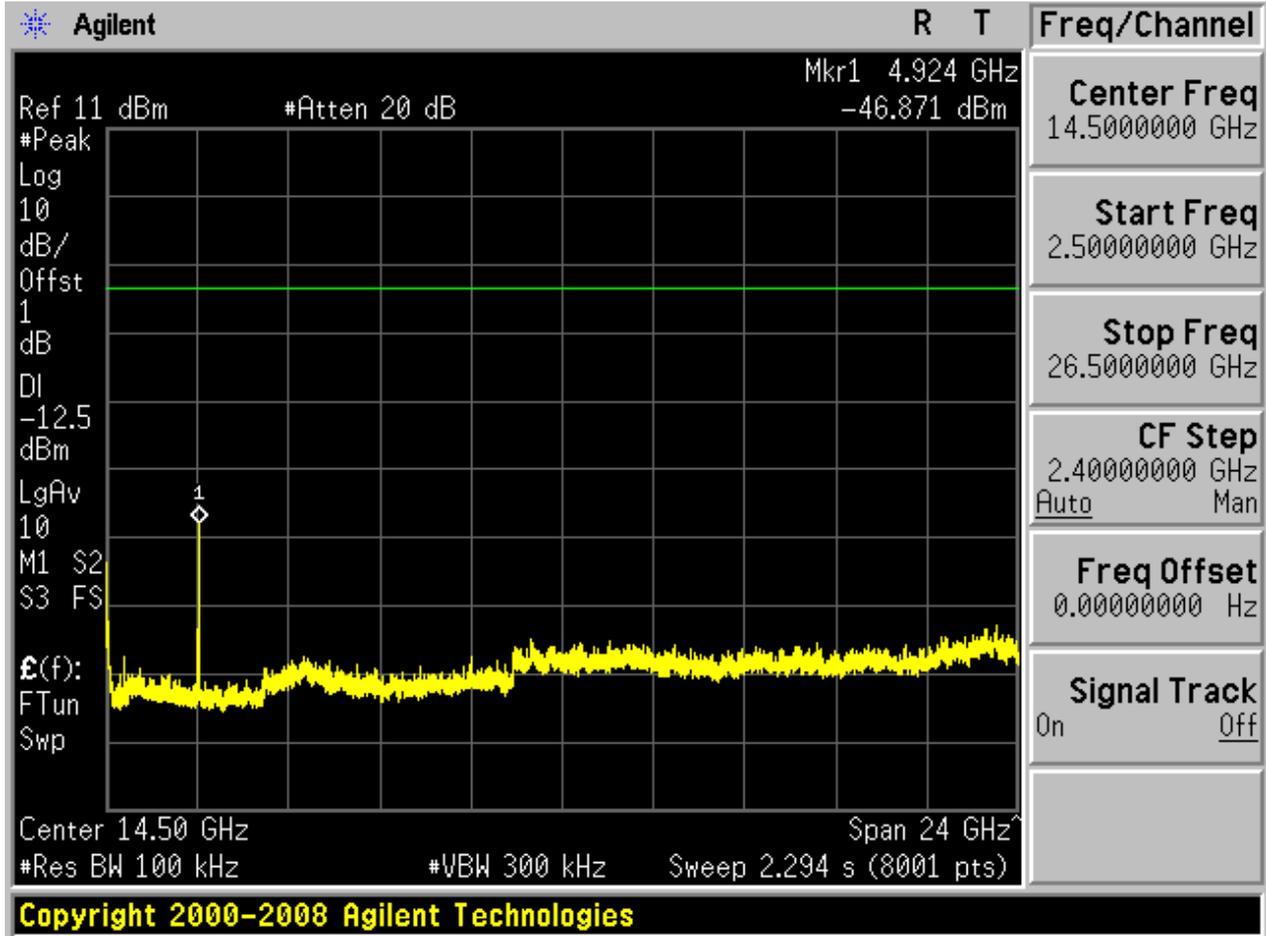






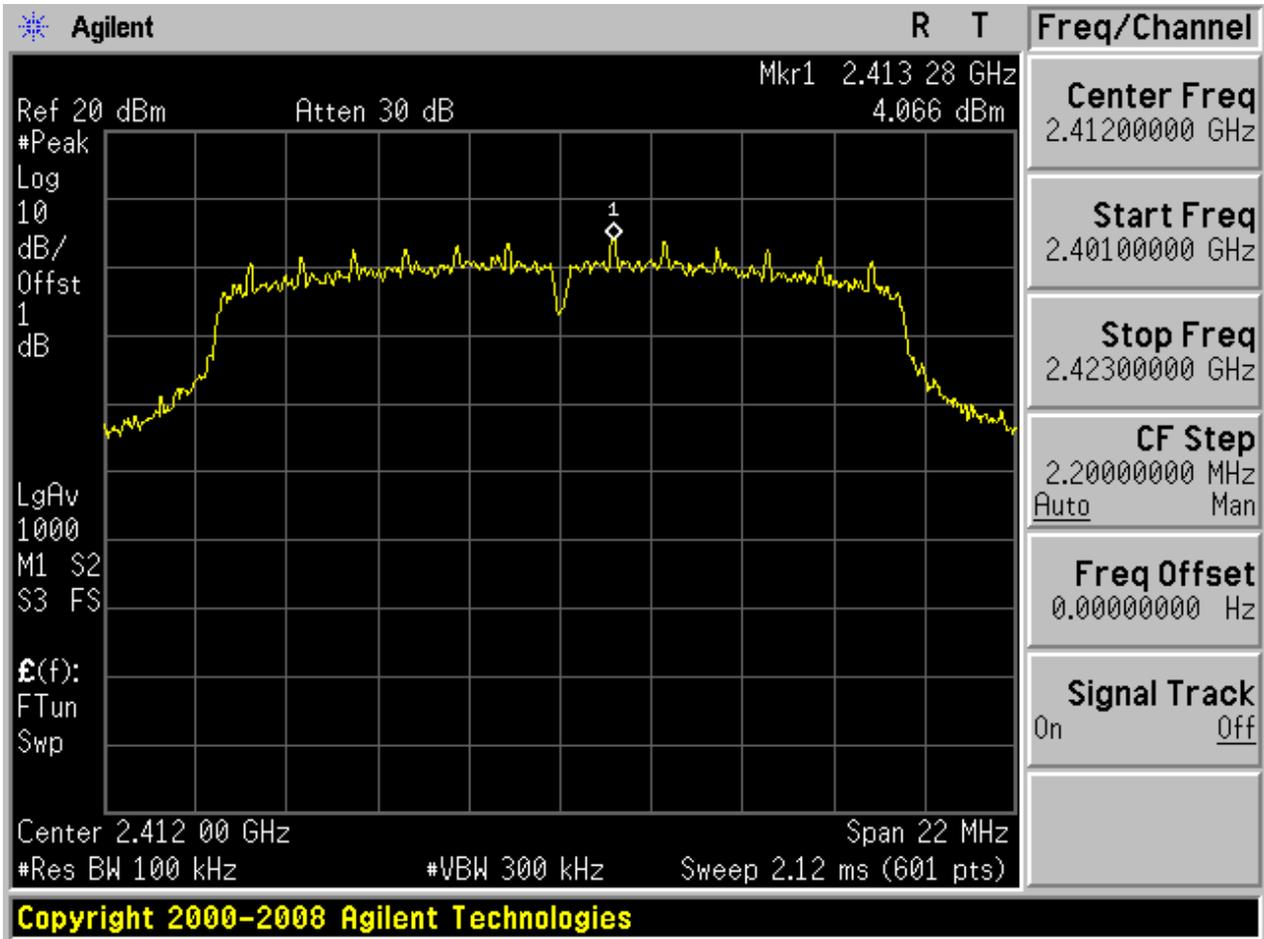




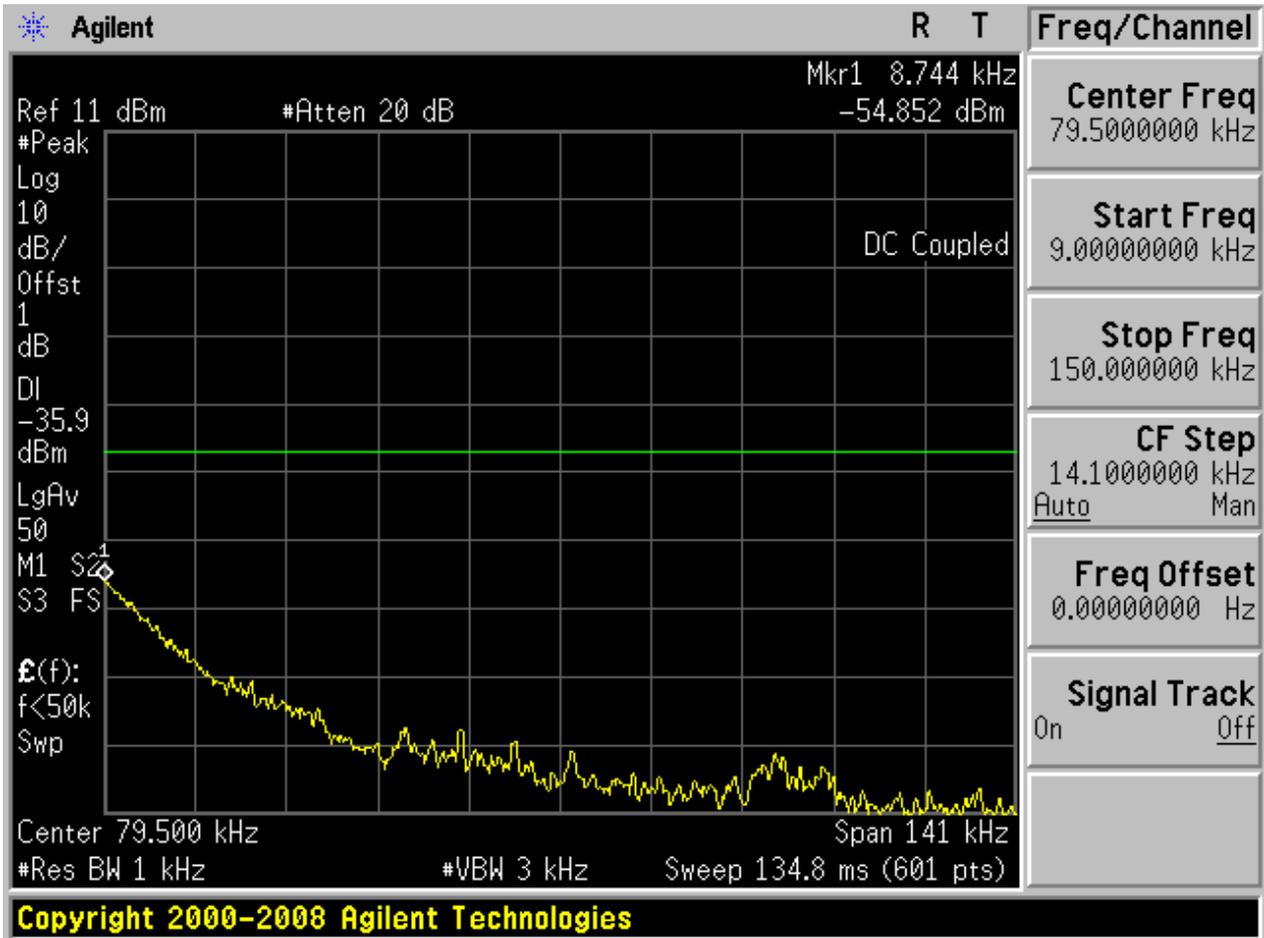


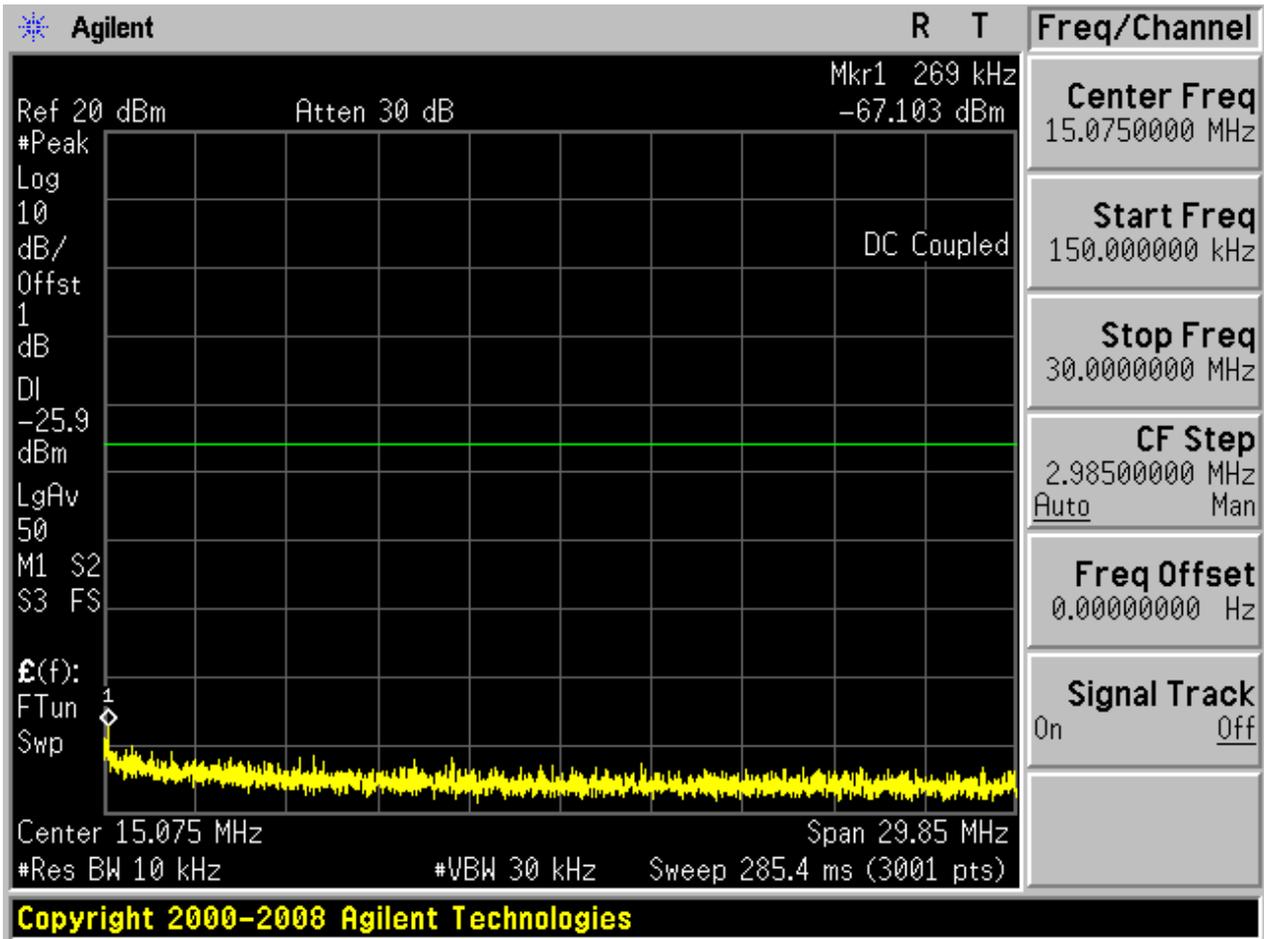
5.4 11G_L

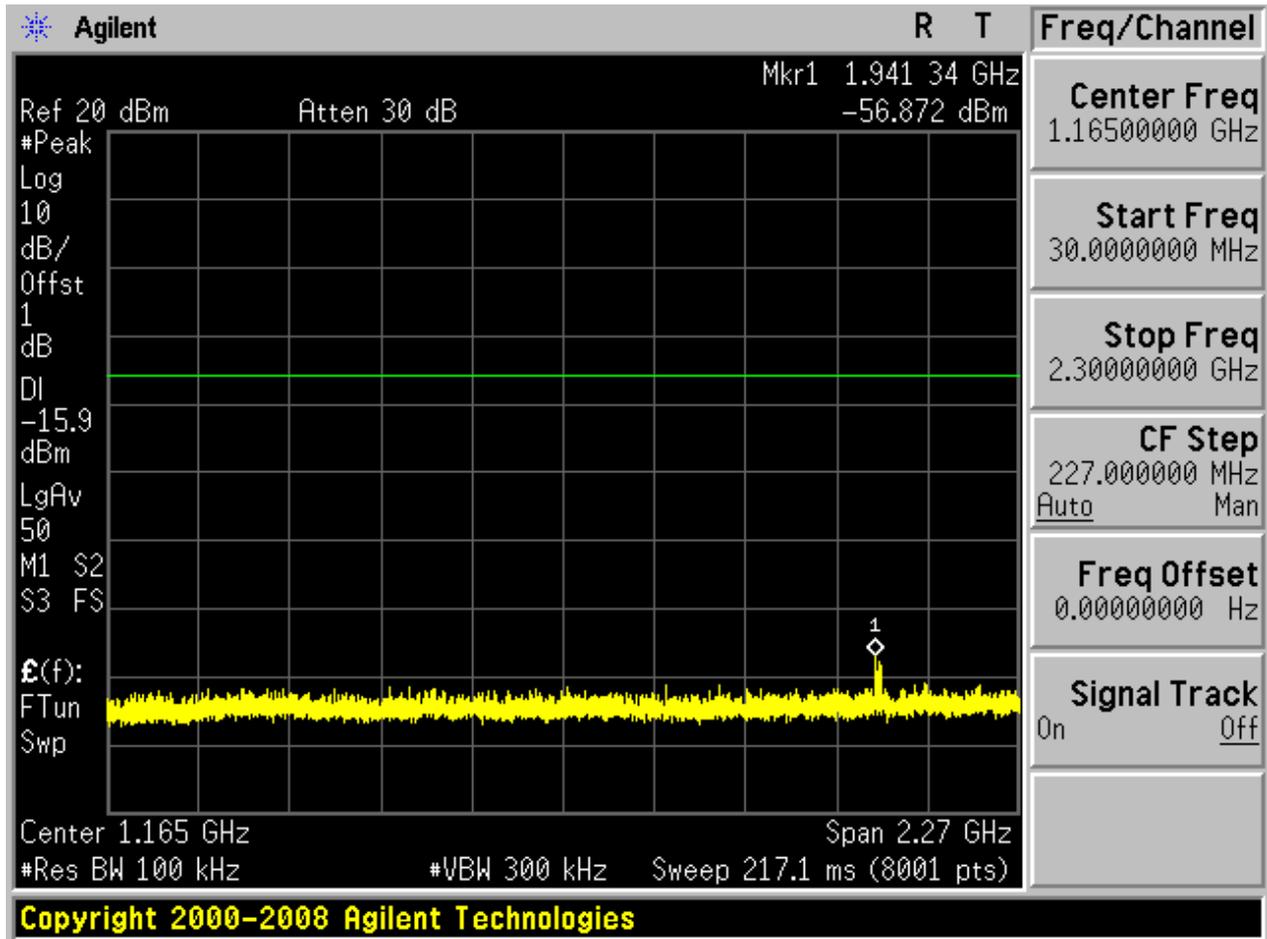
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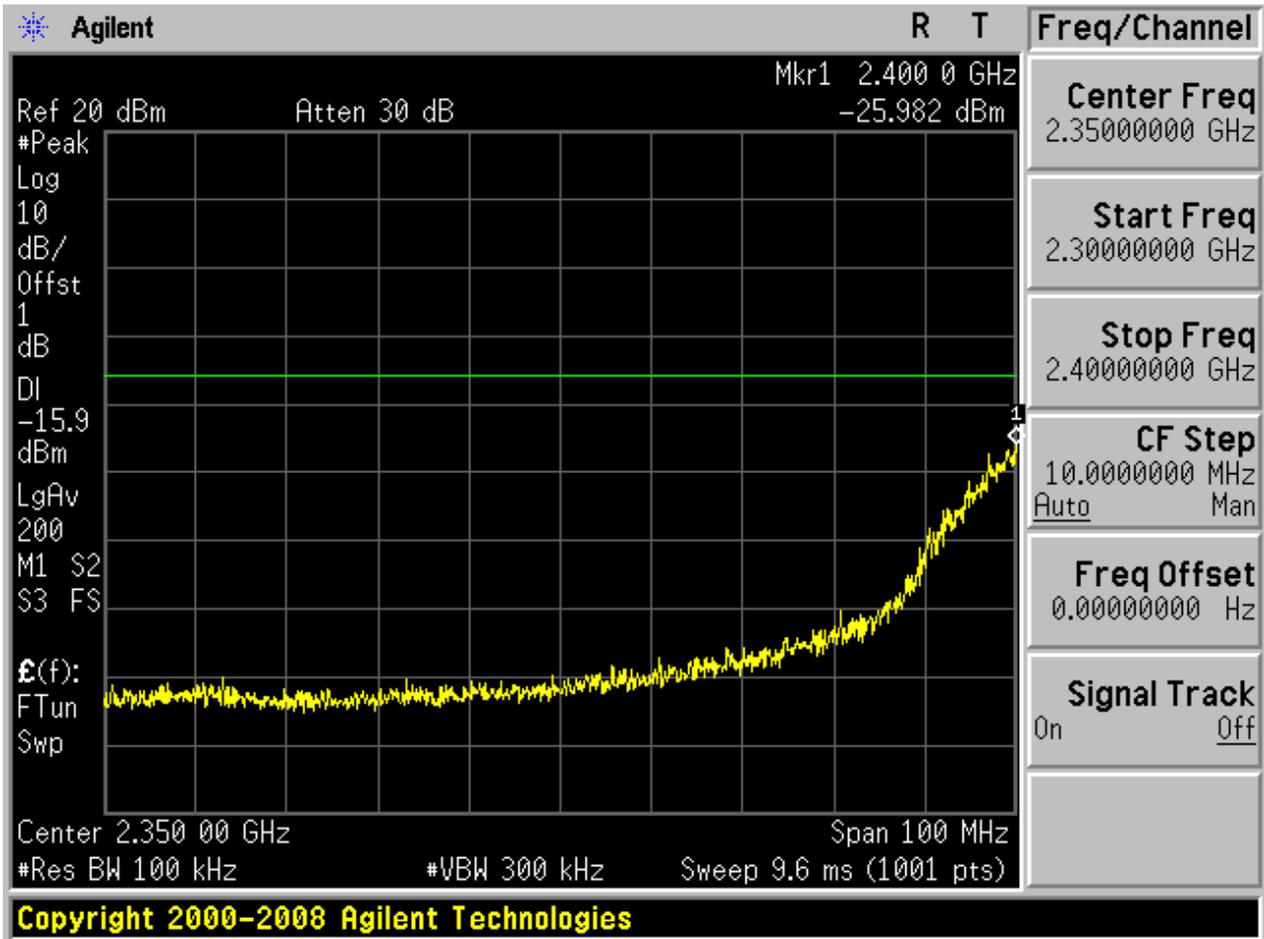


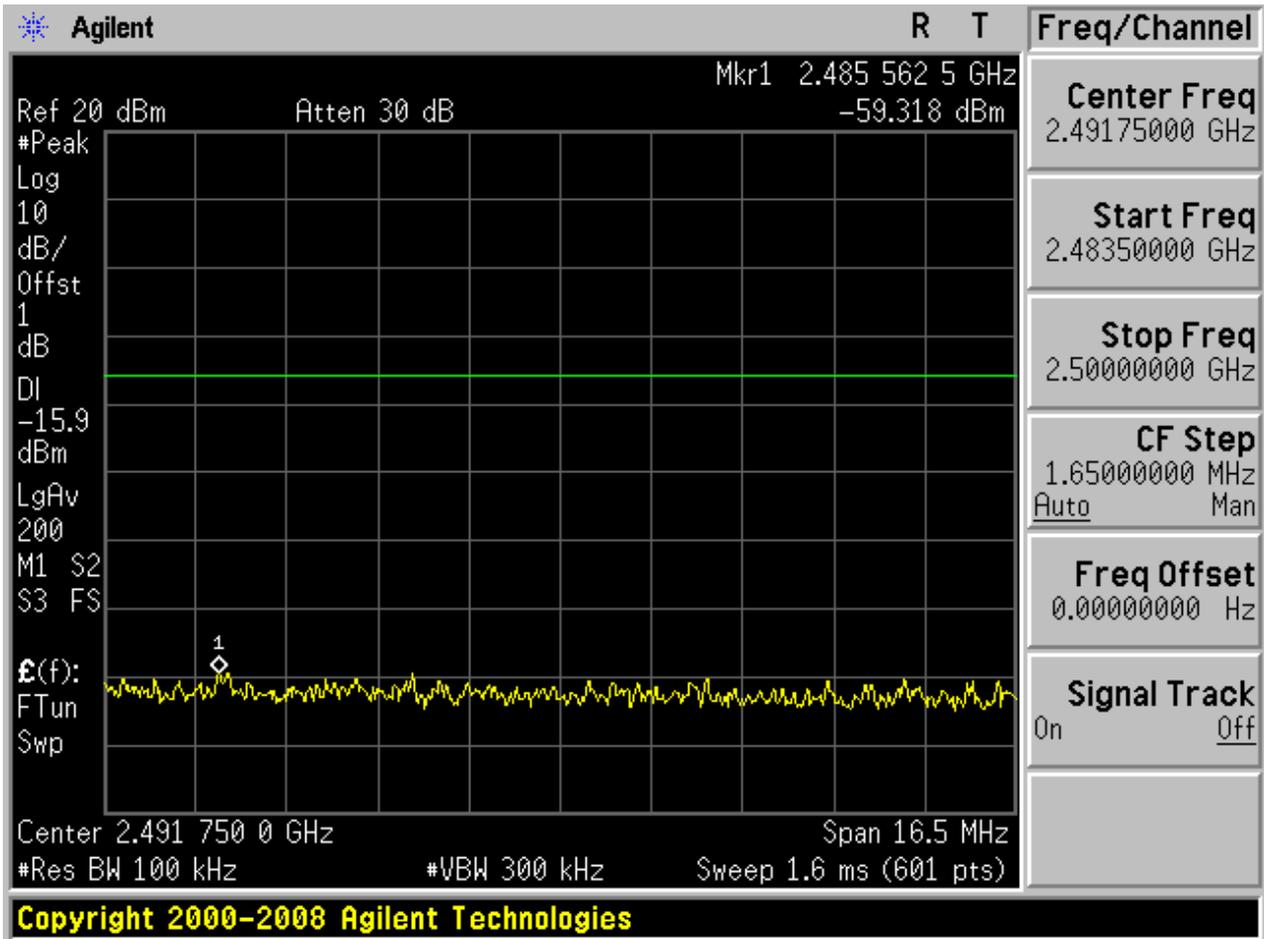
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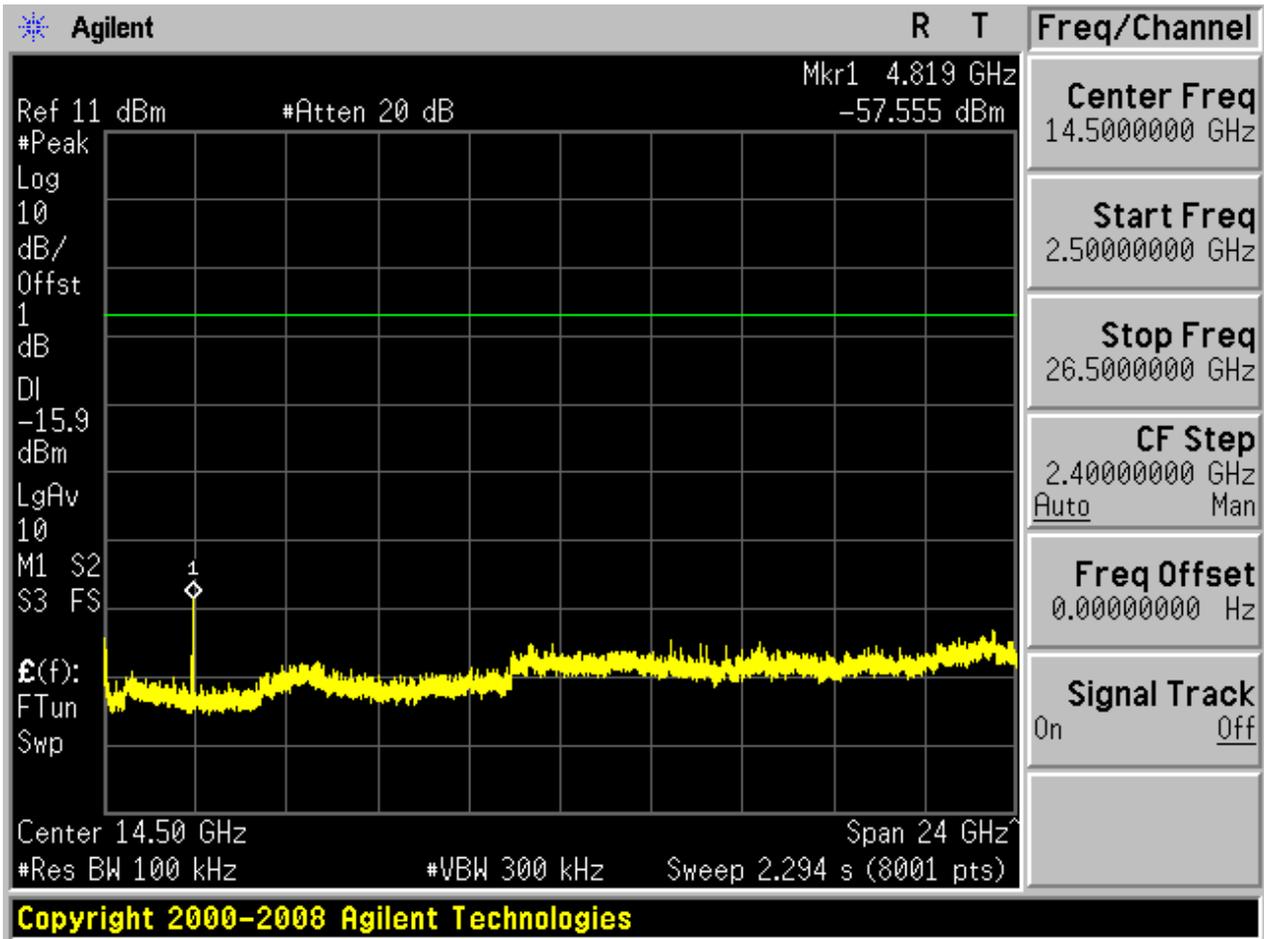






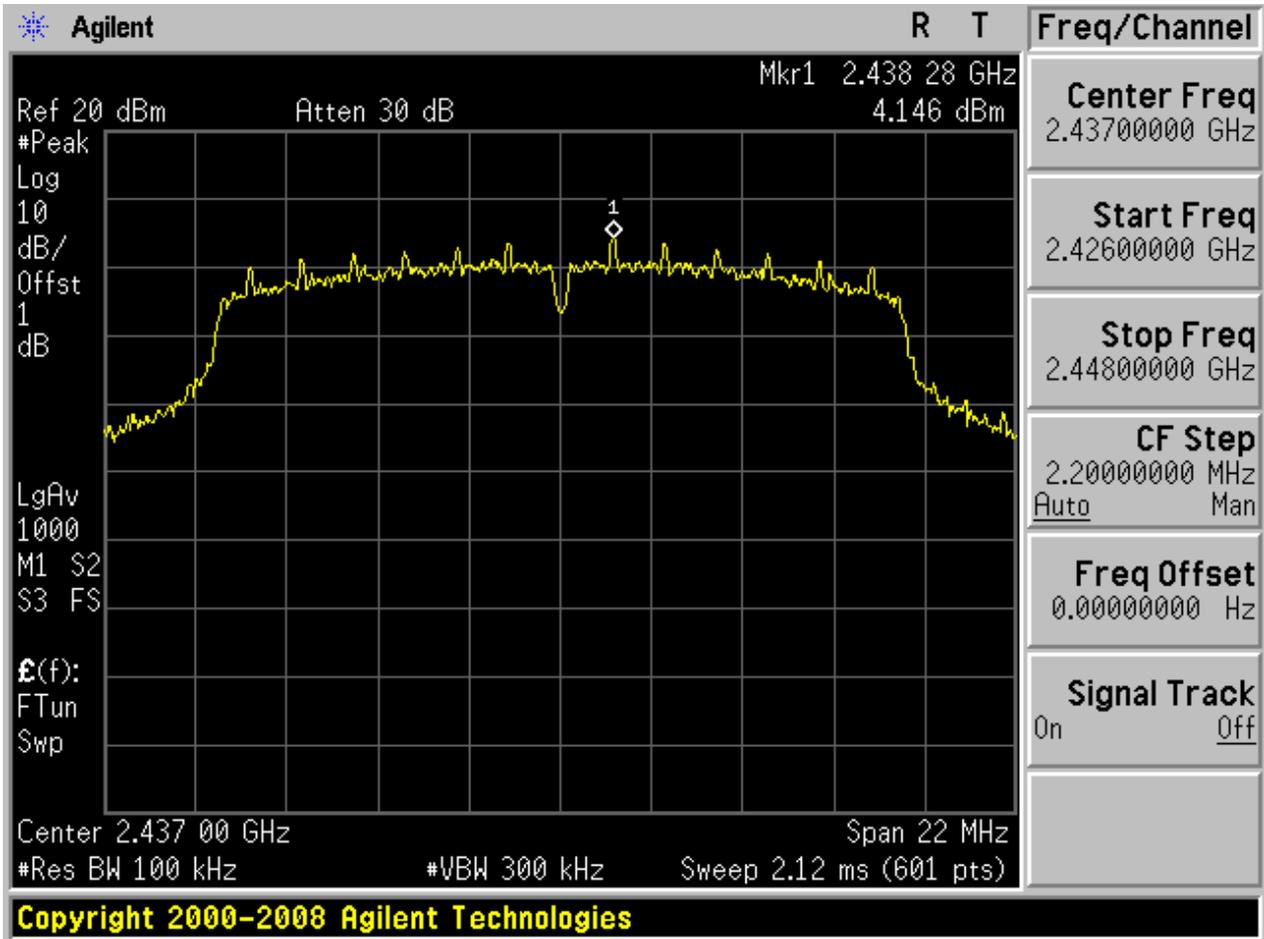






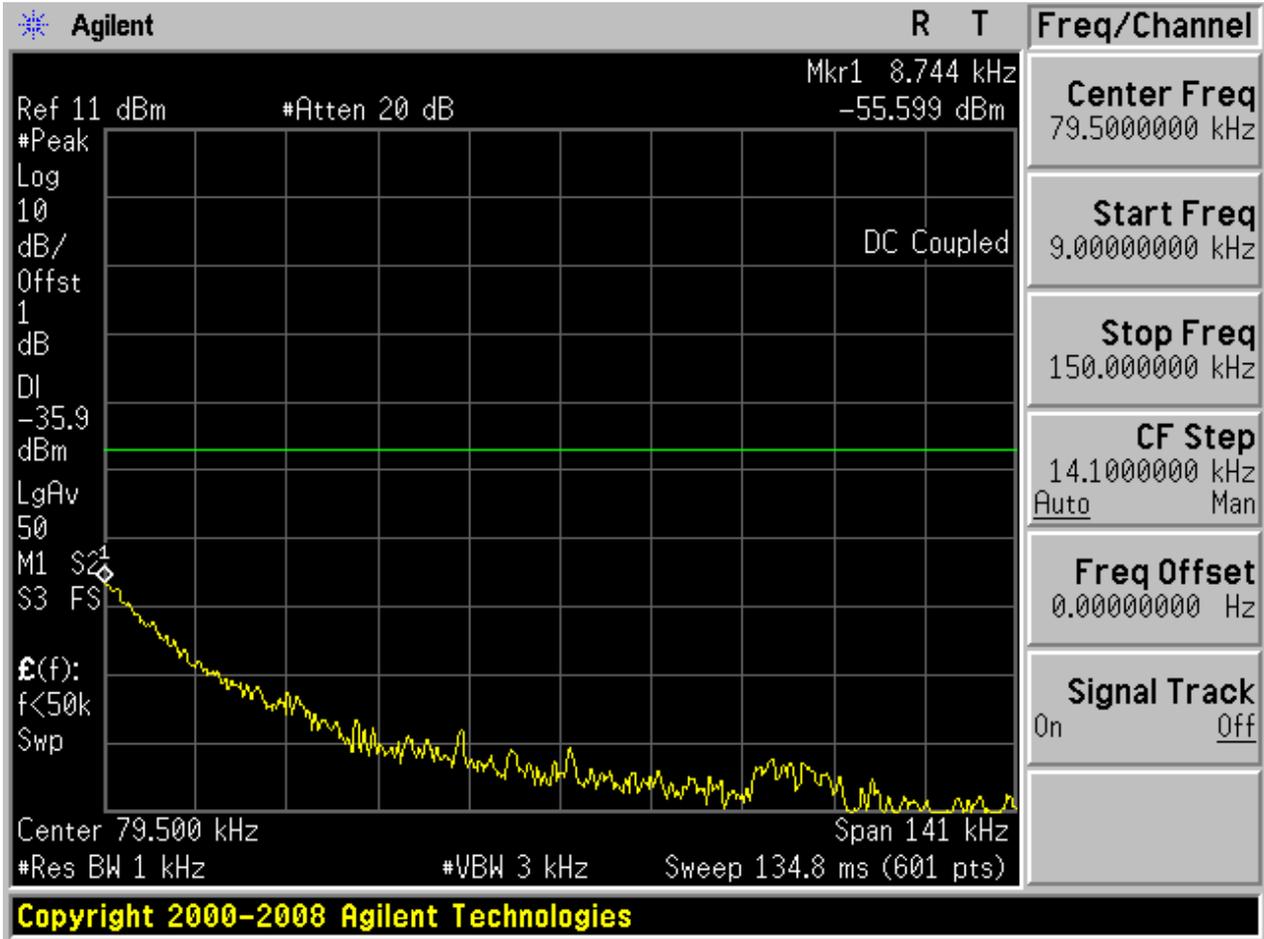
5.5 11G_M

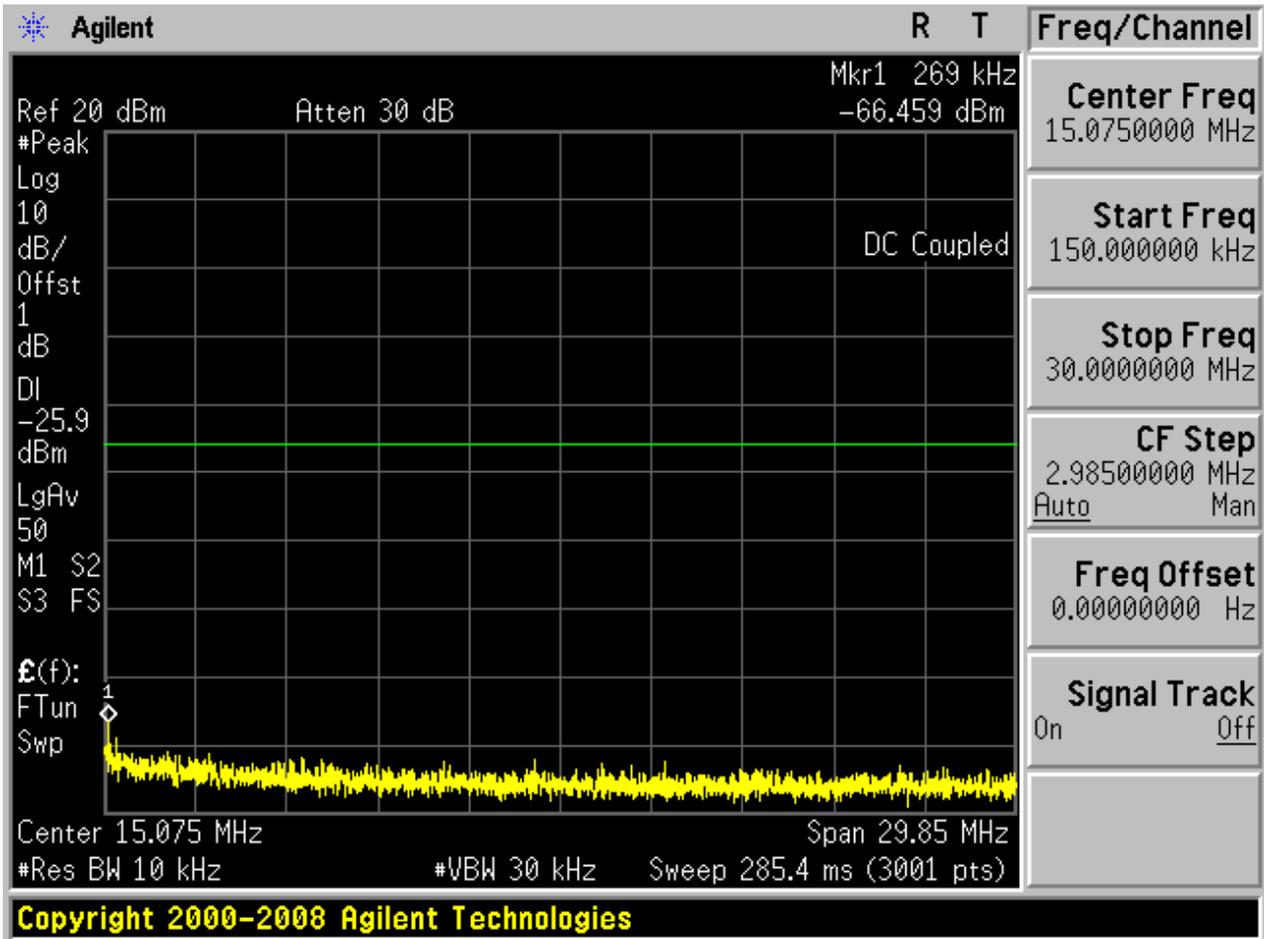
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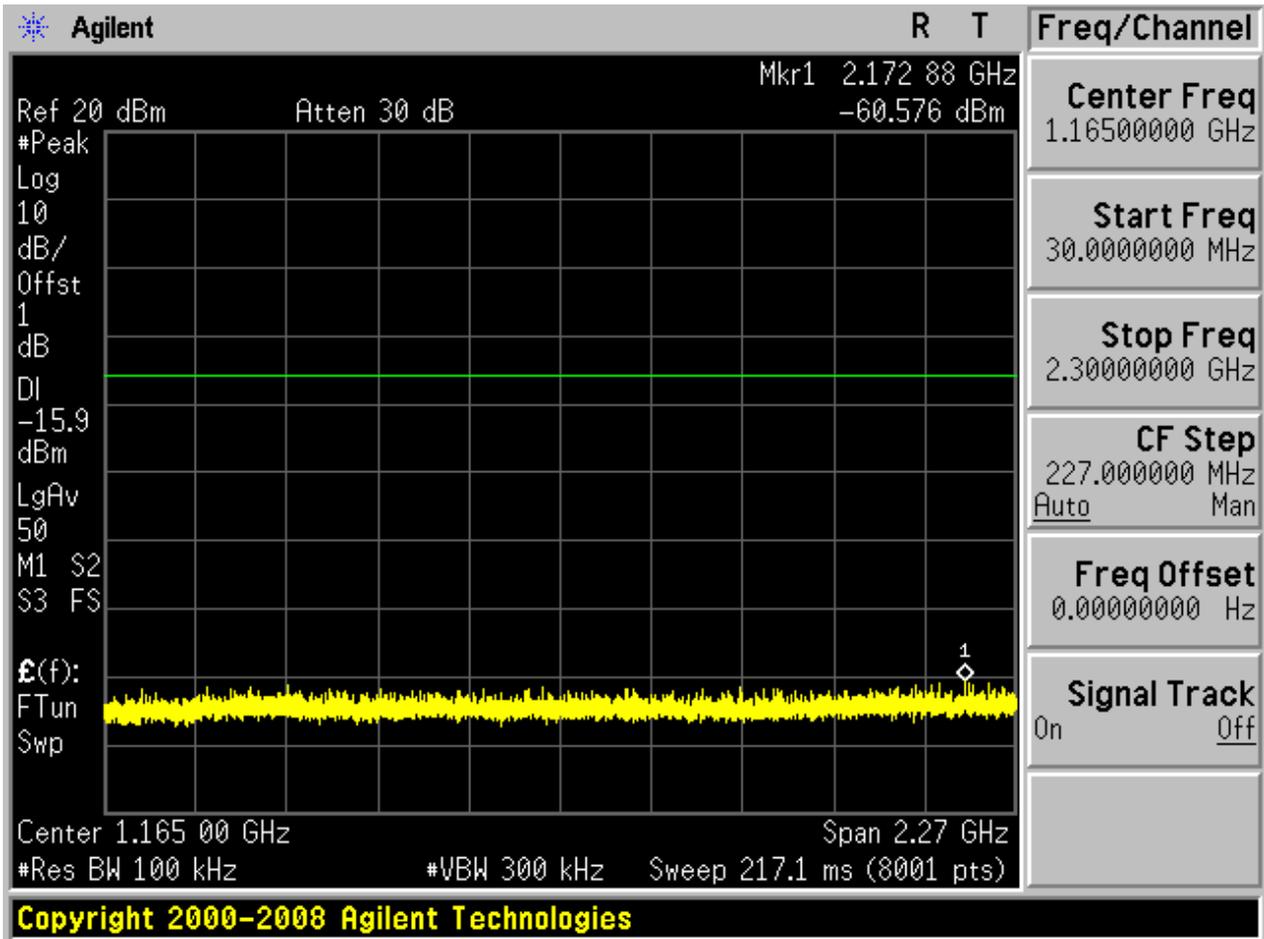


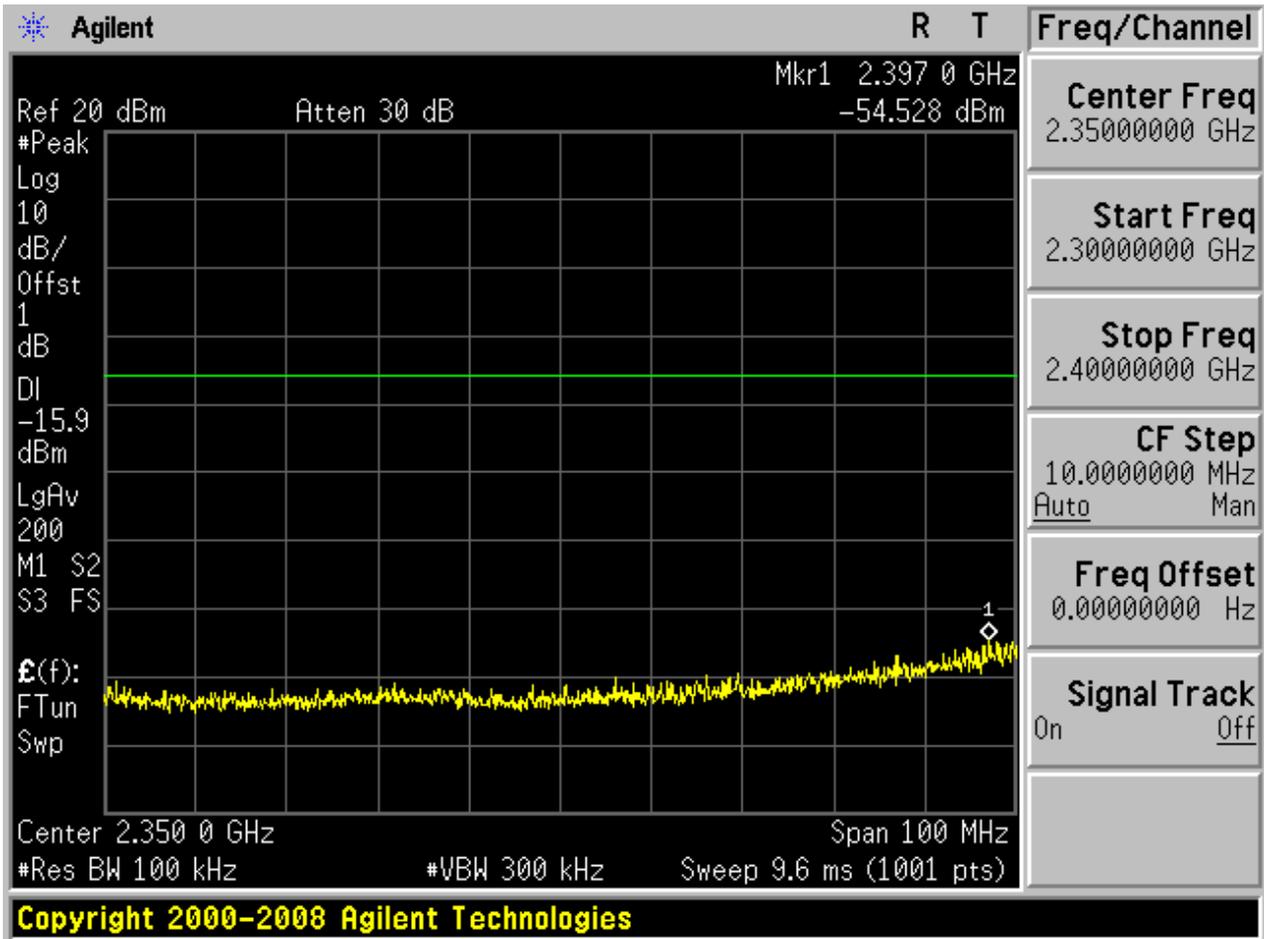


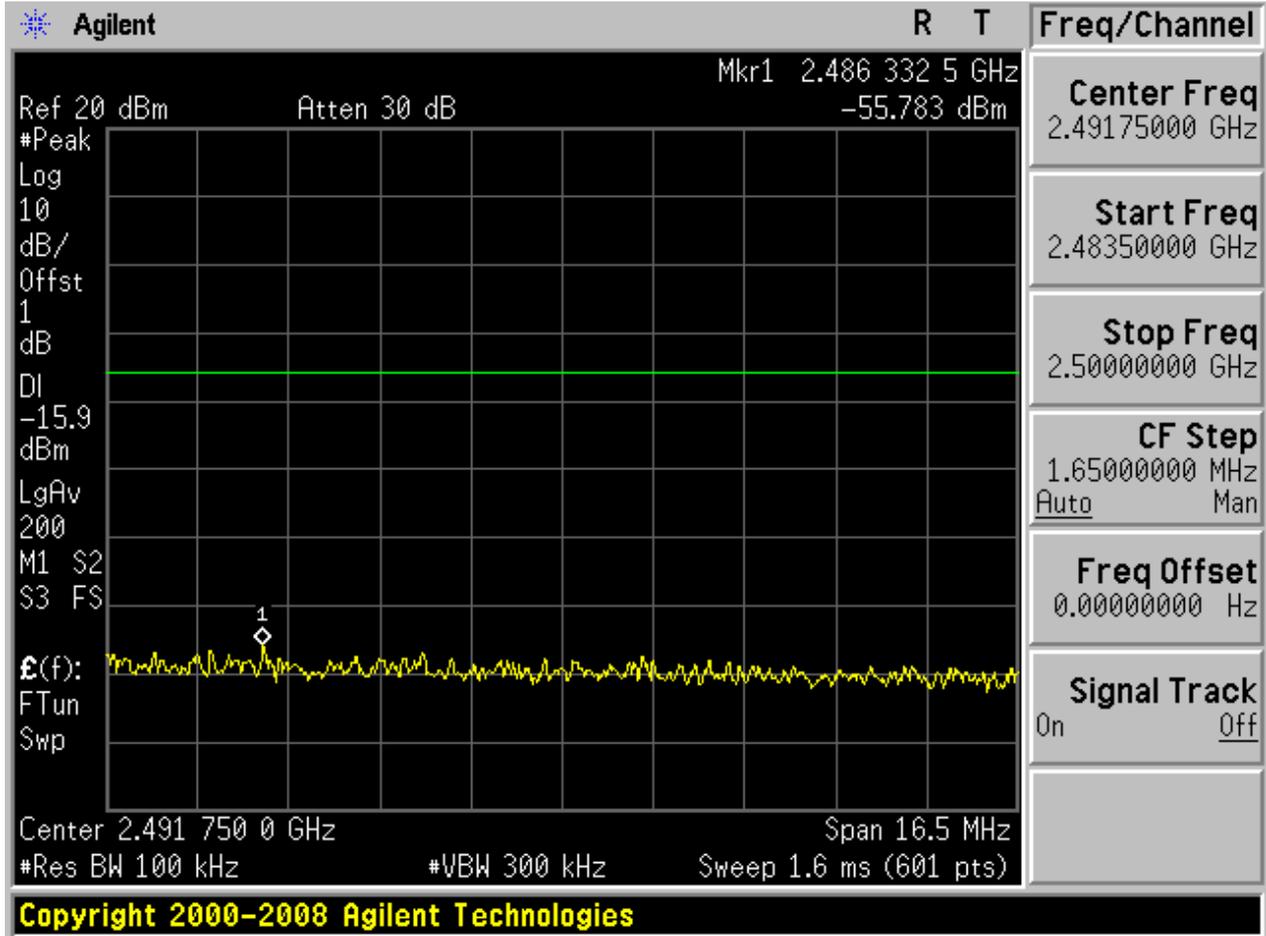
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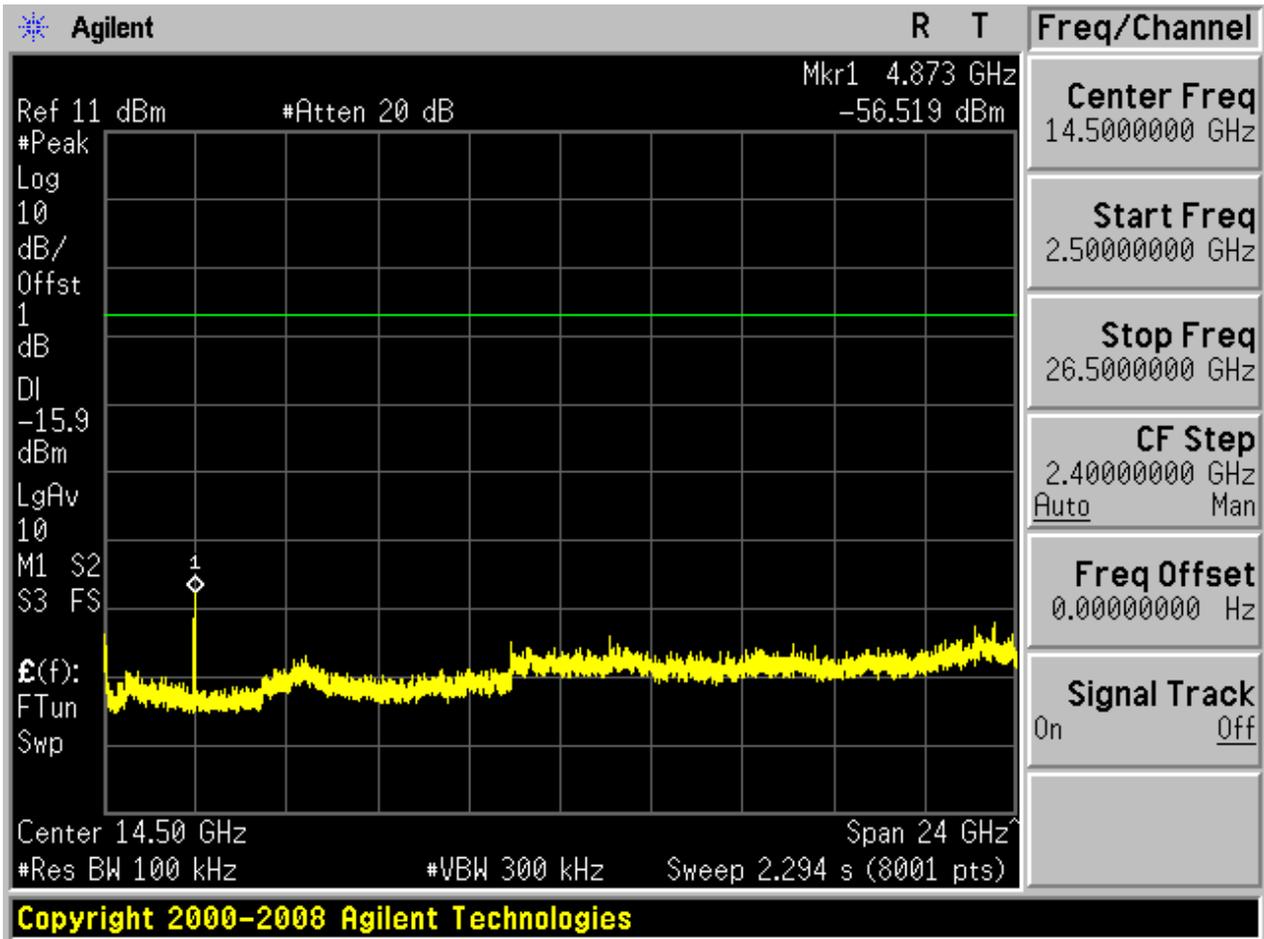






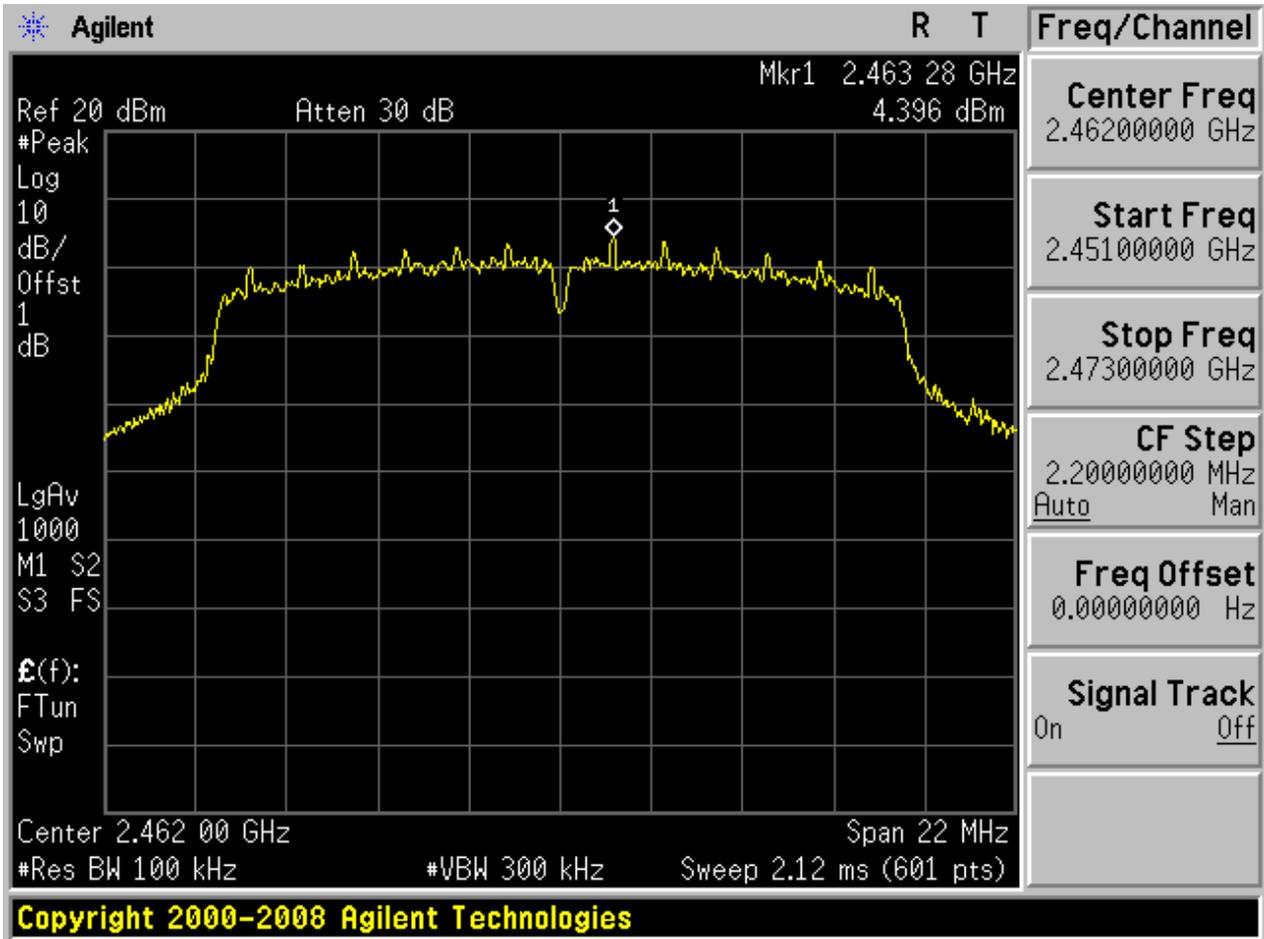




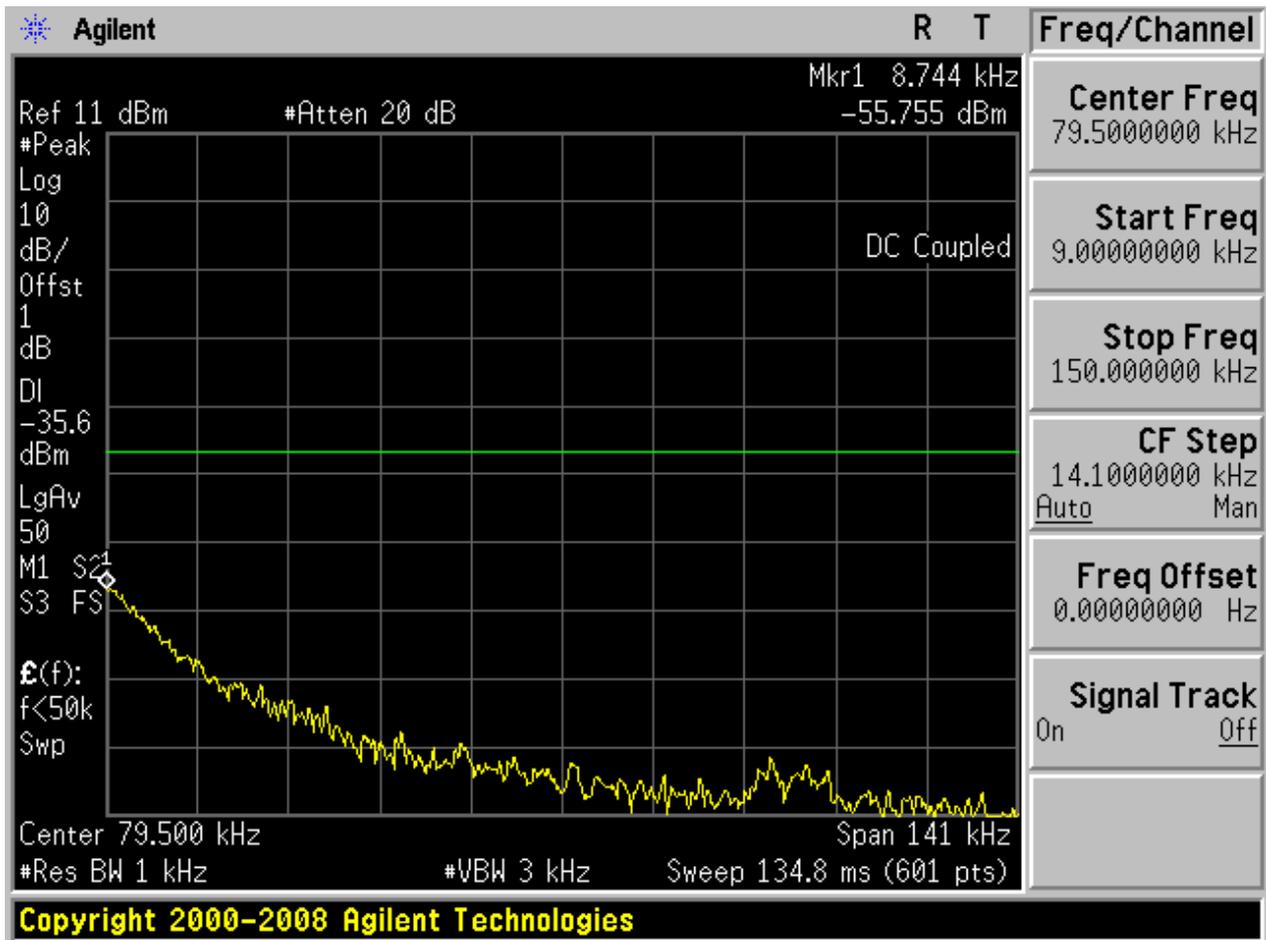


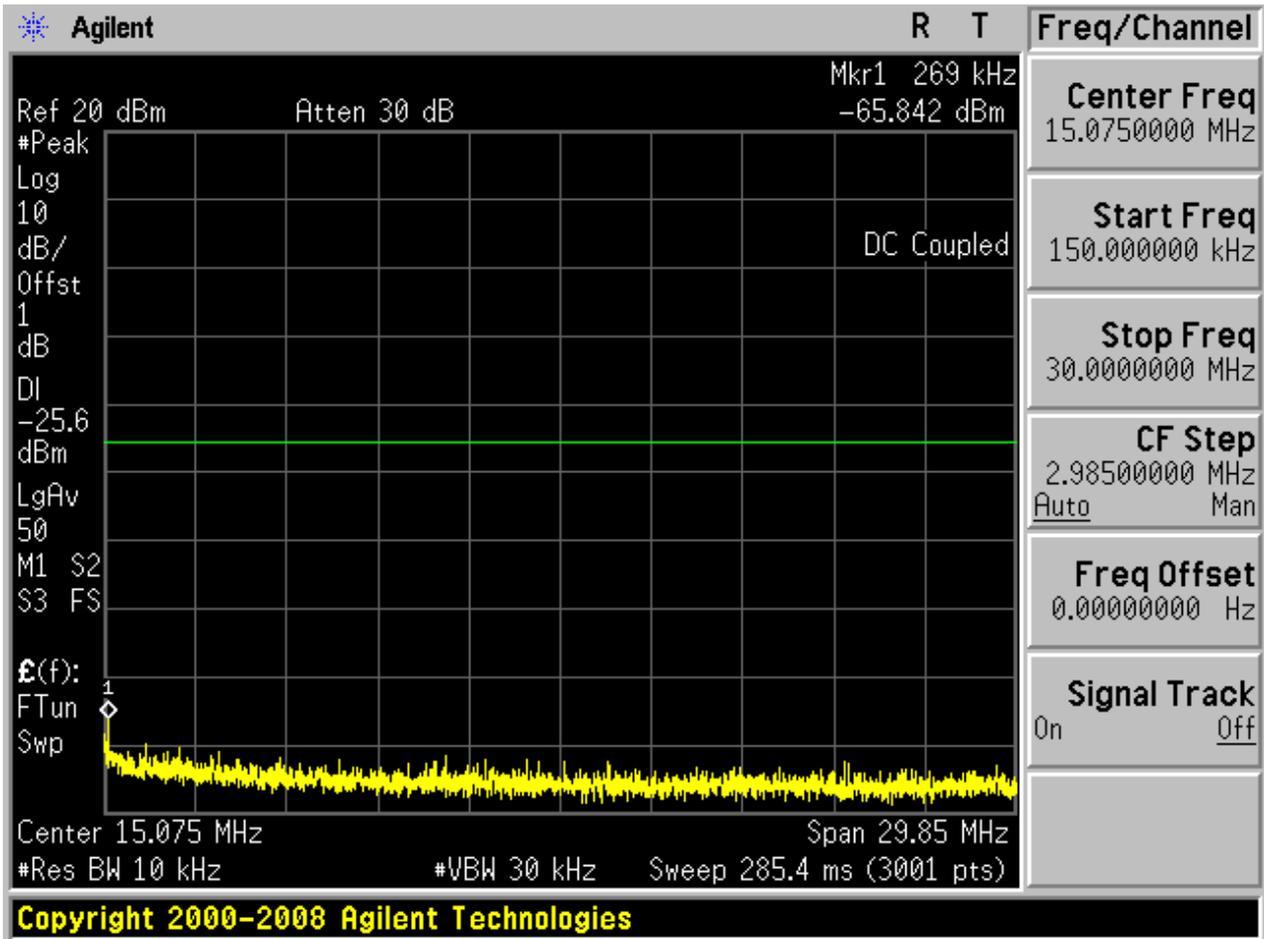
5.6 11G_H

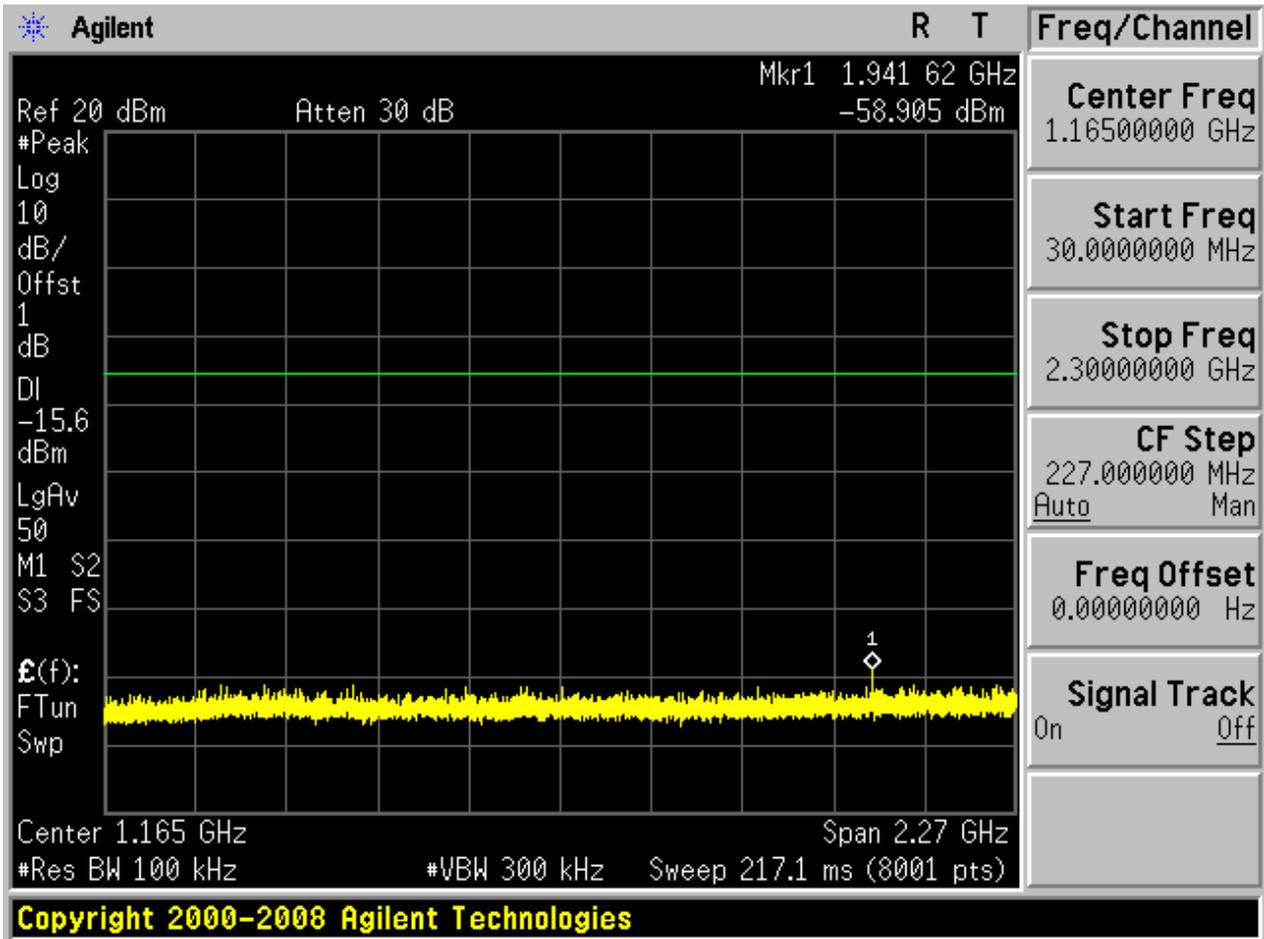
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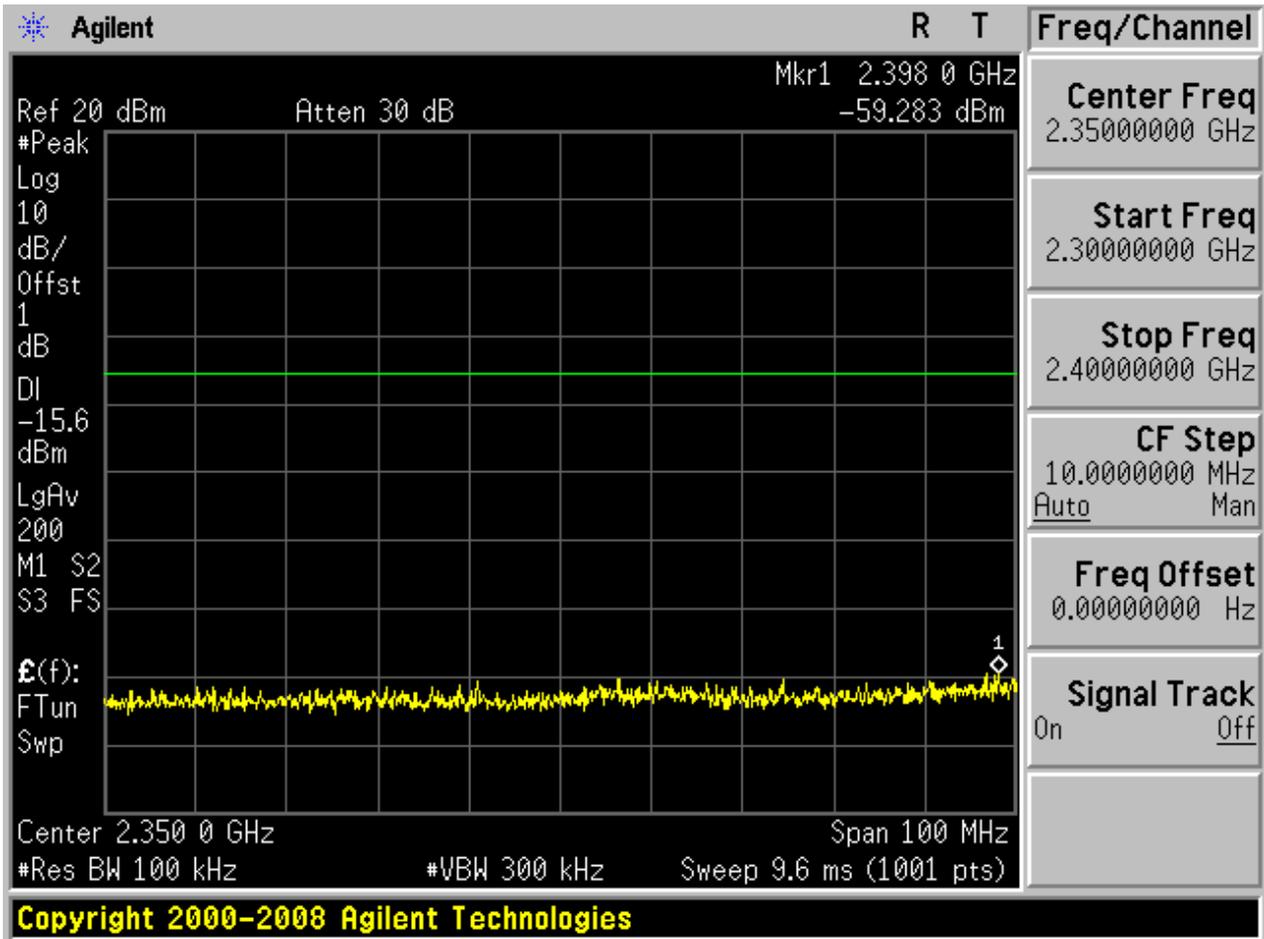


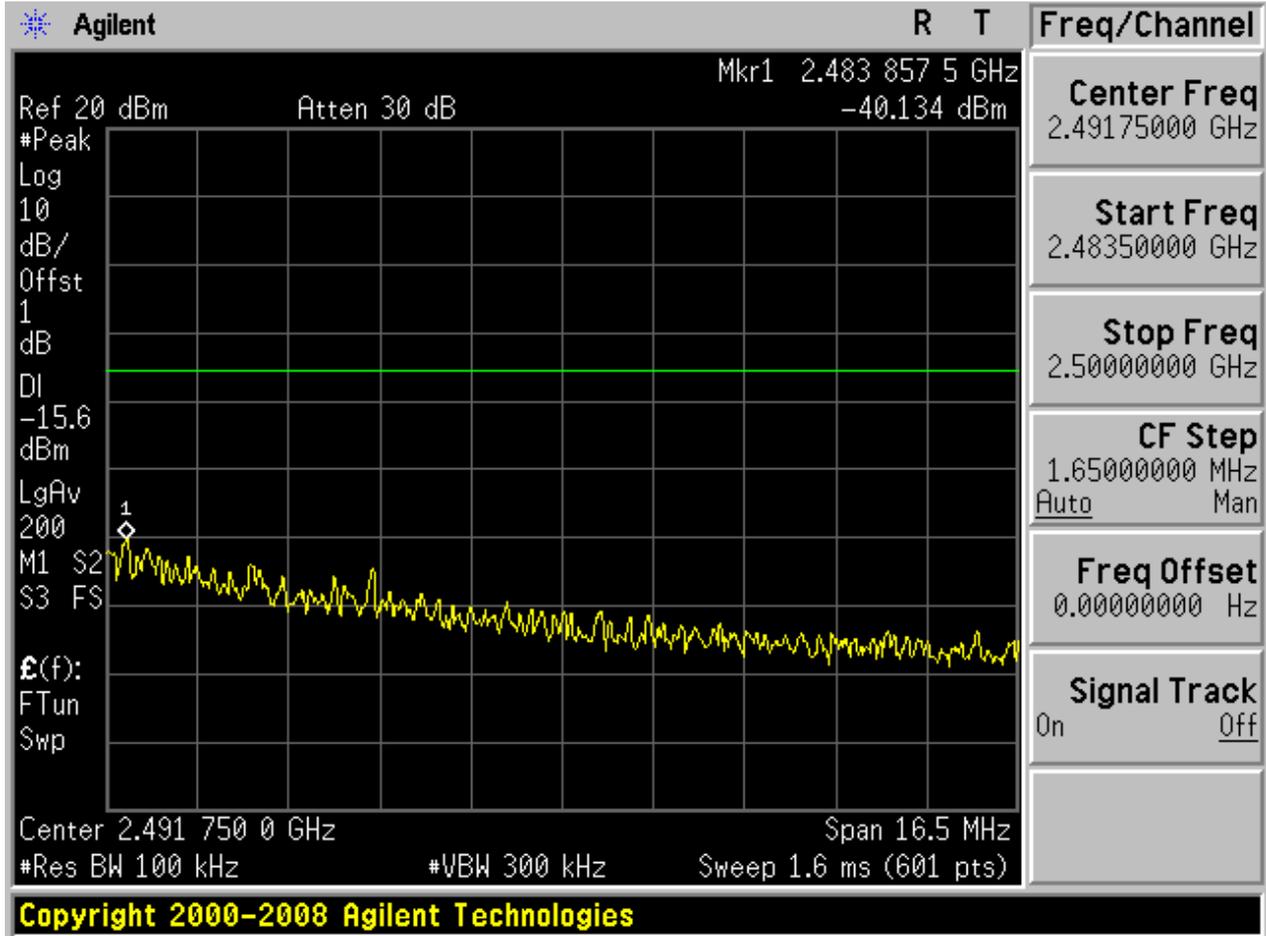
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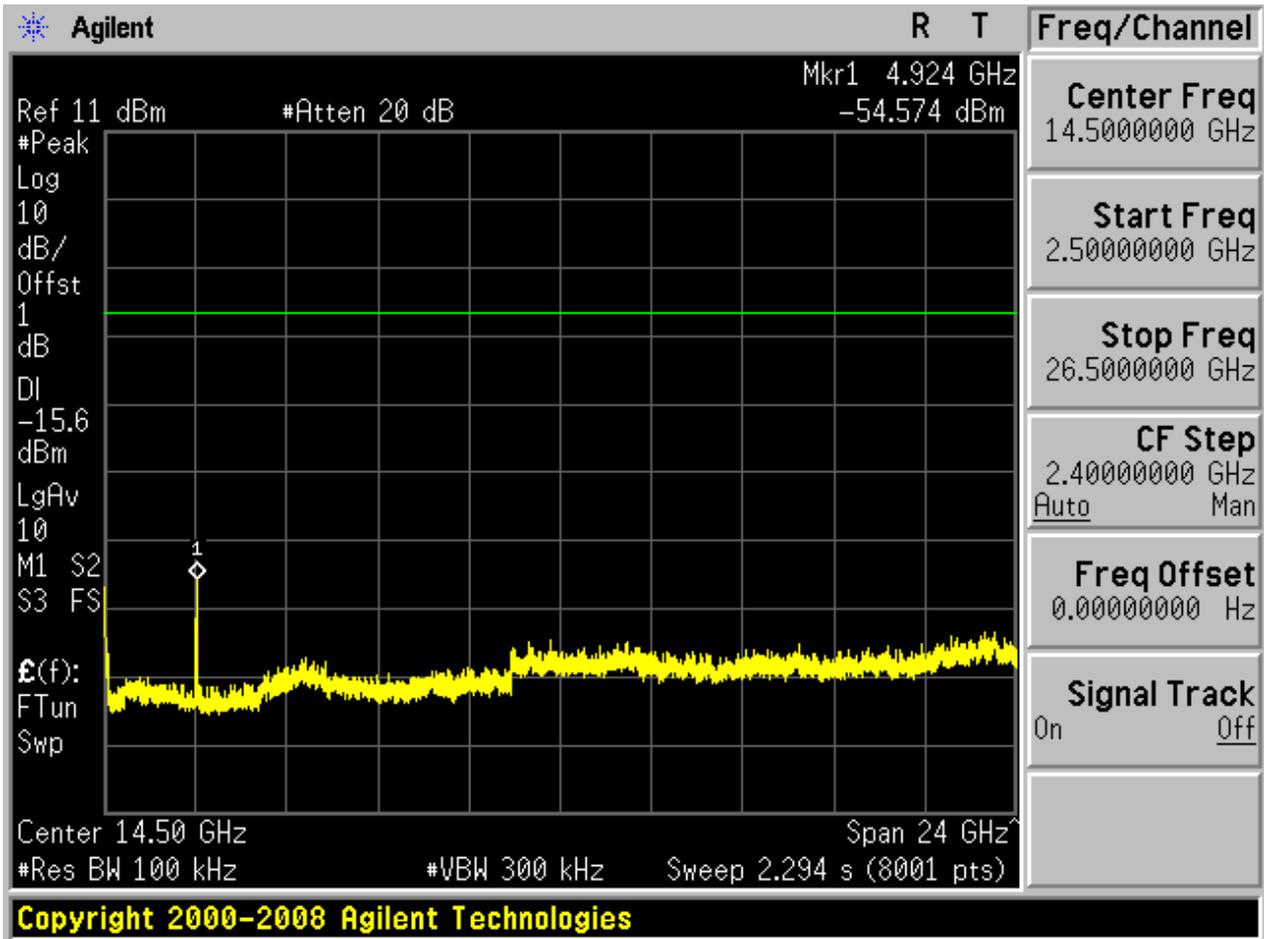






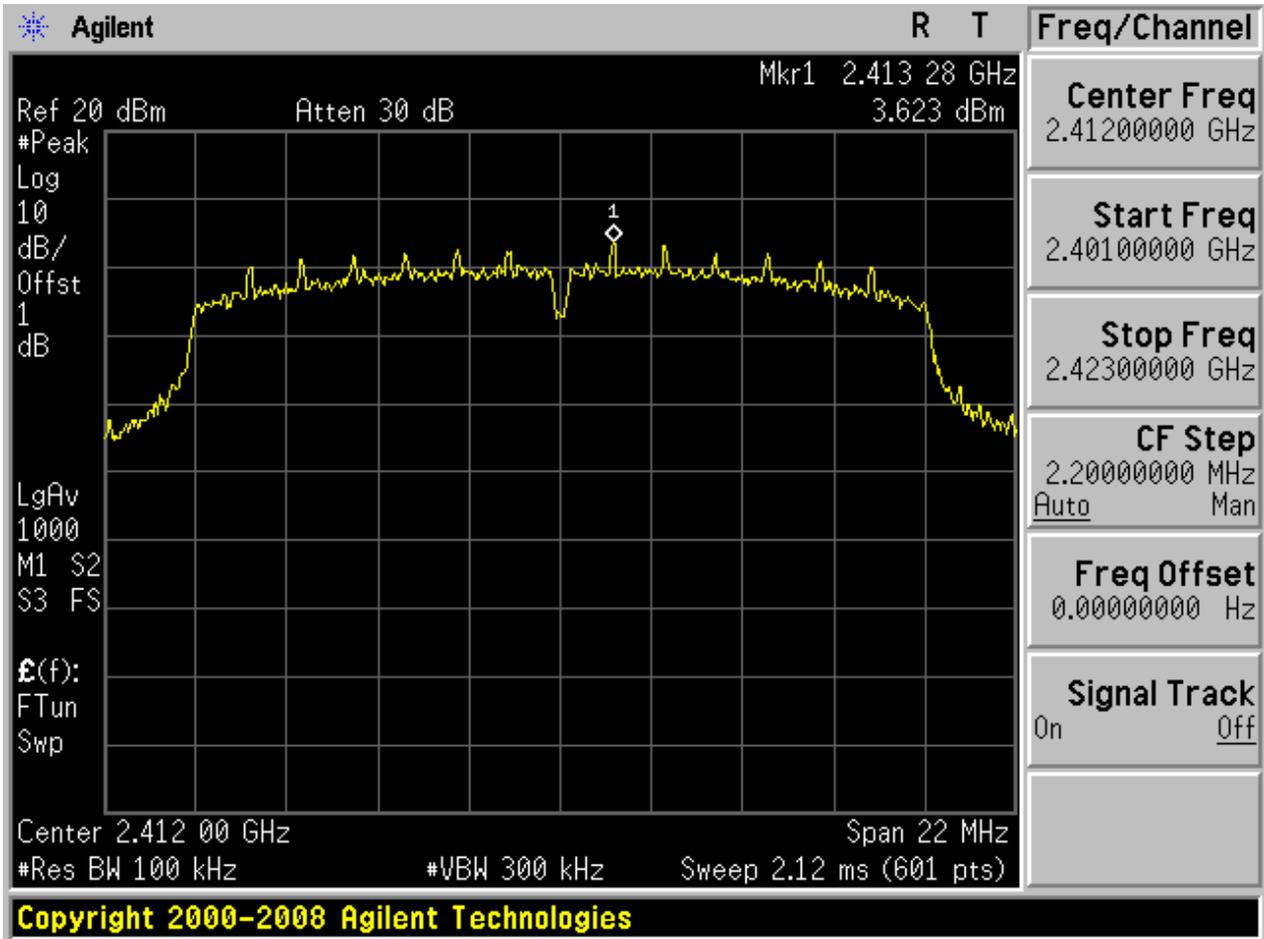




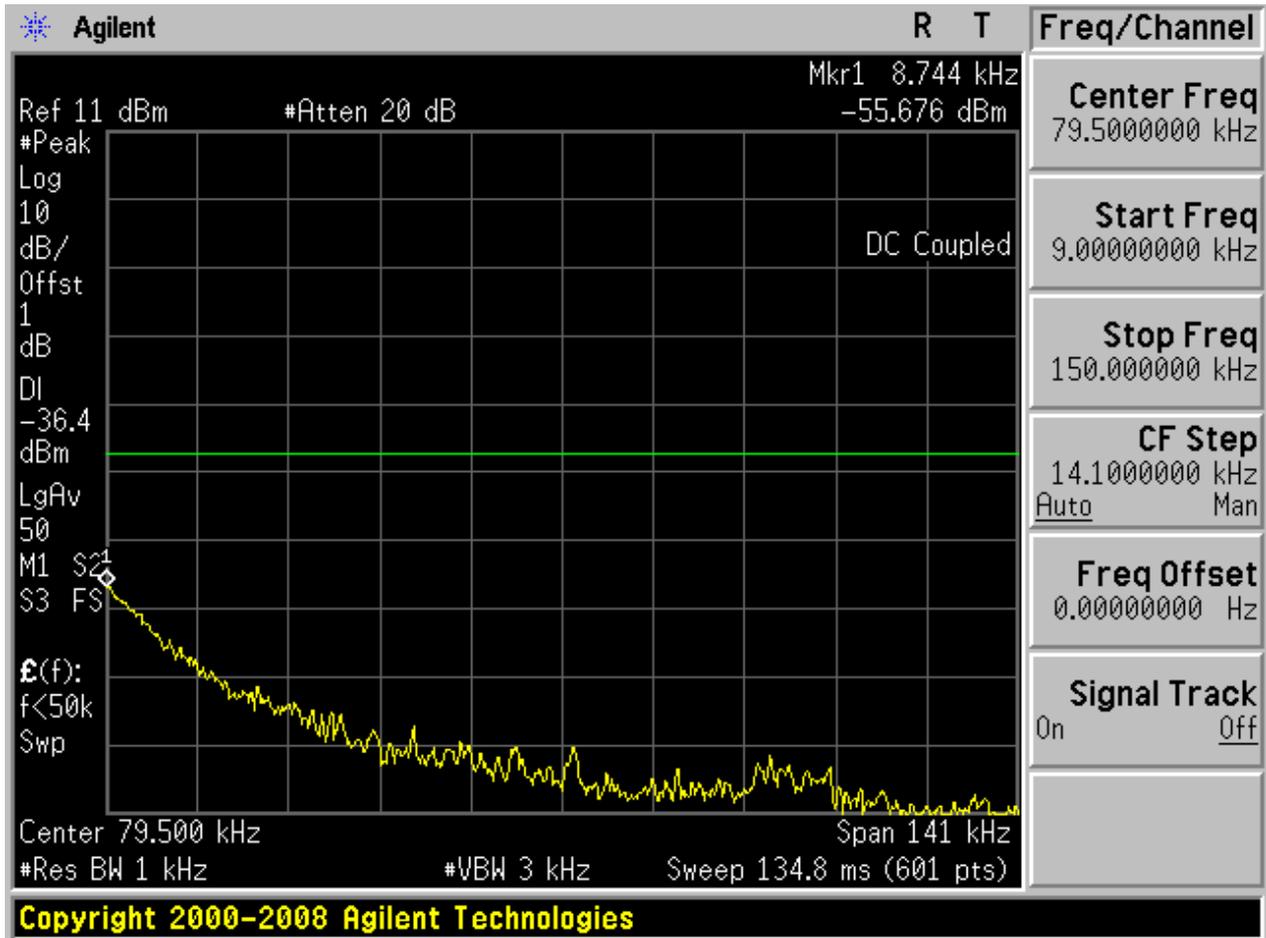


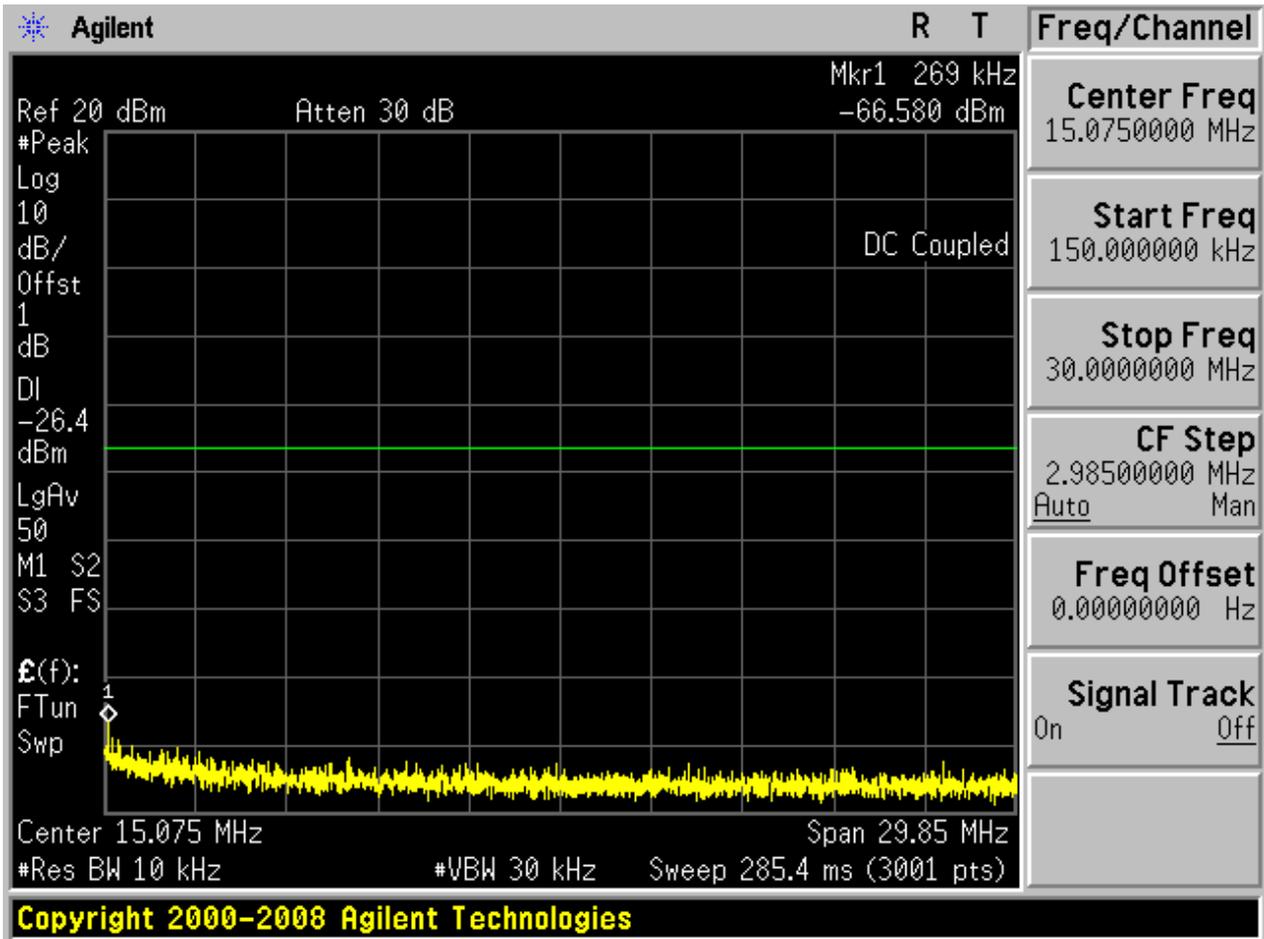
5.7 11N20_L

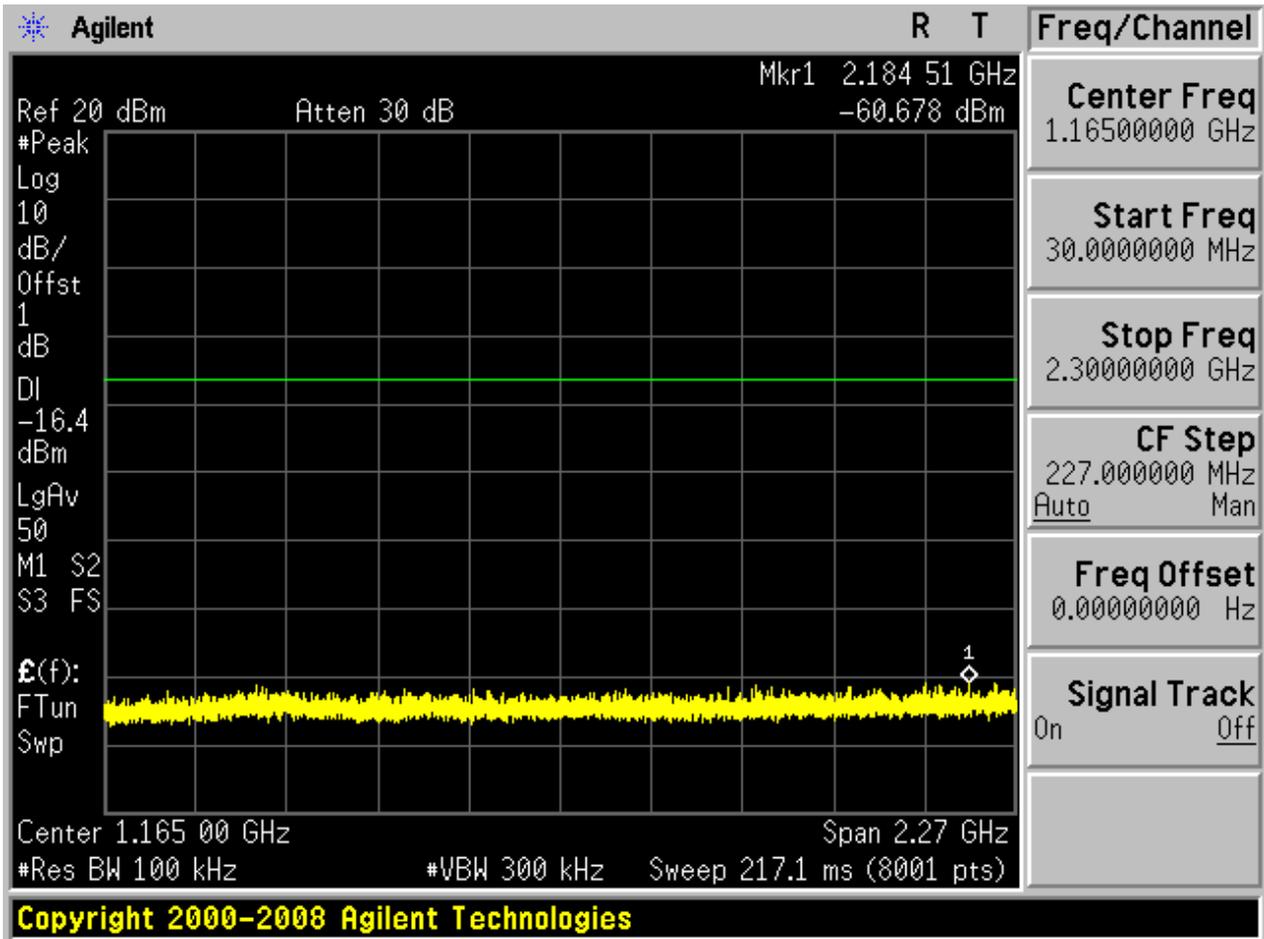
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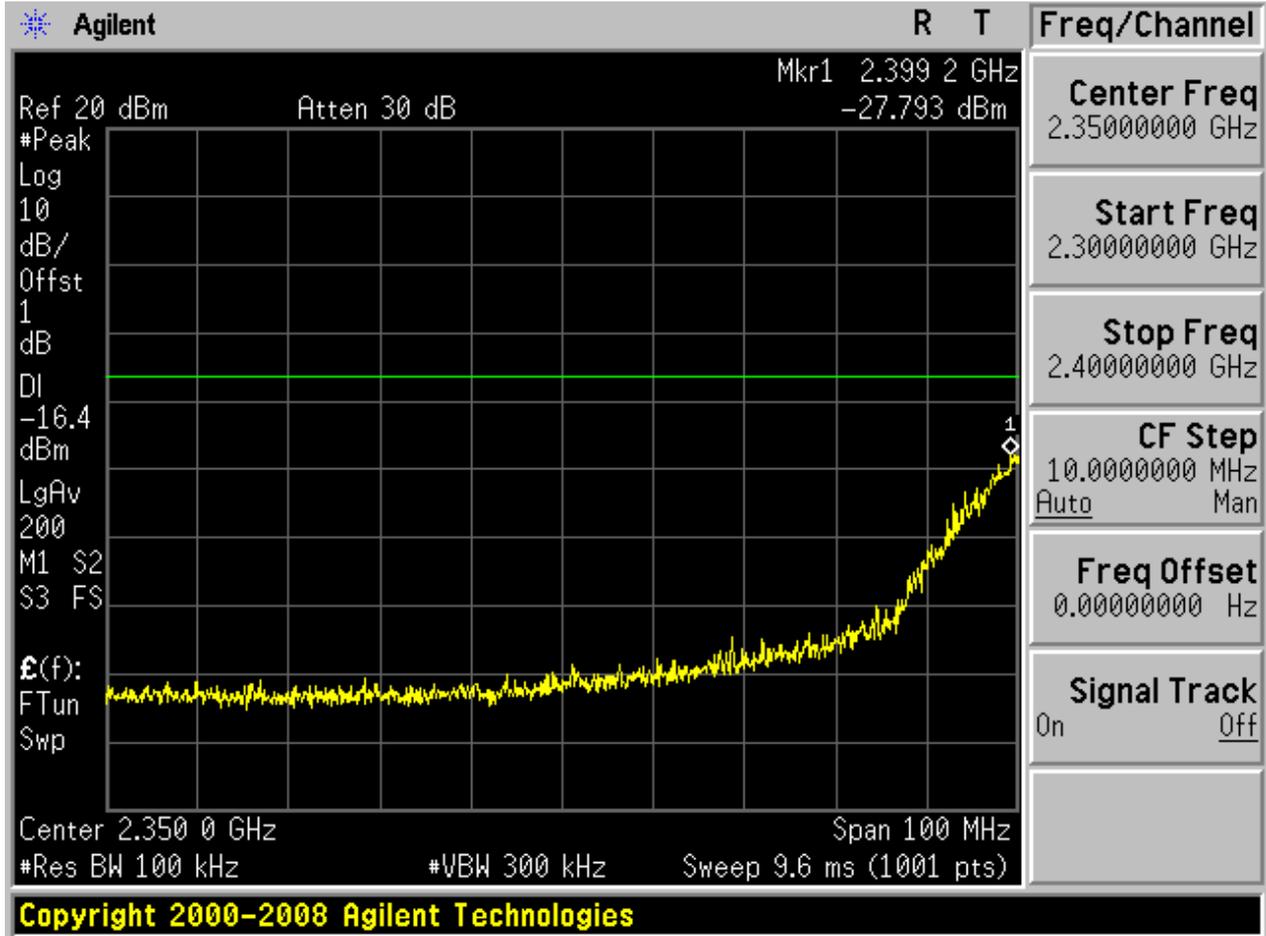


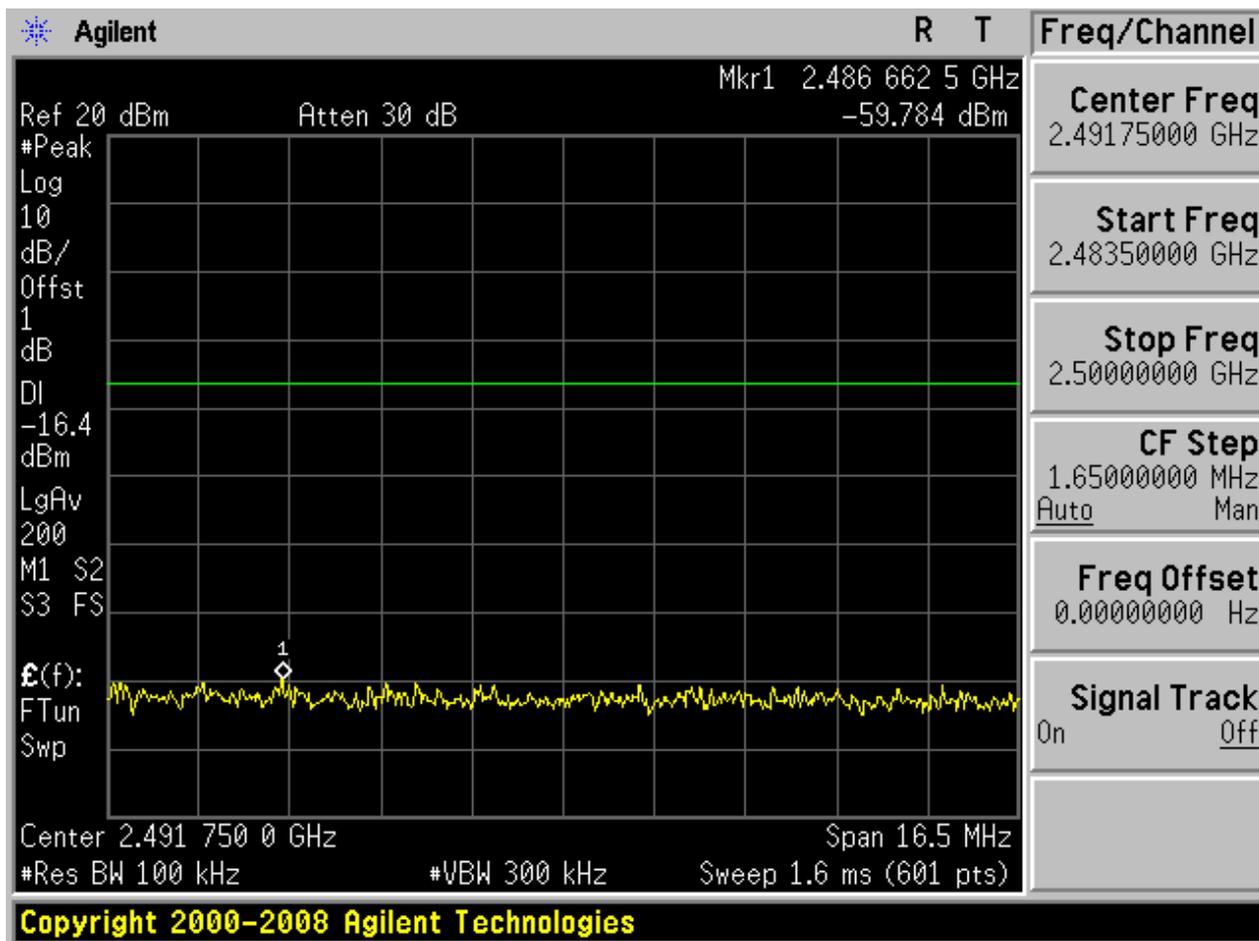
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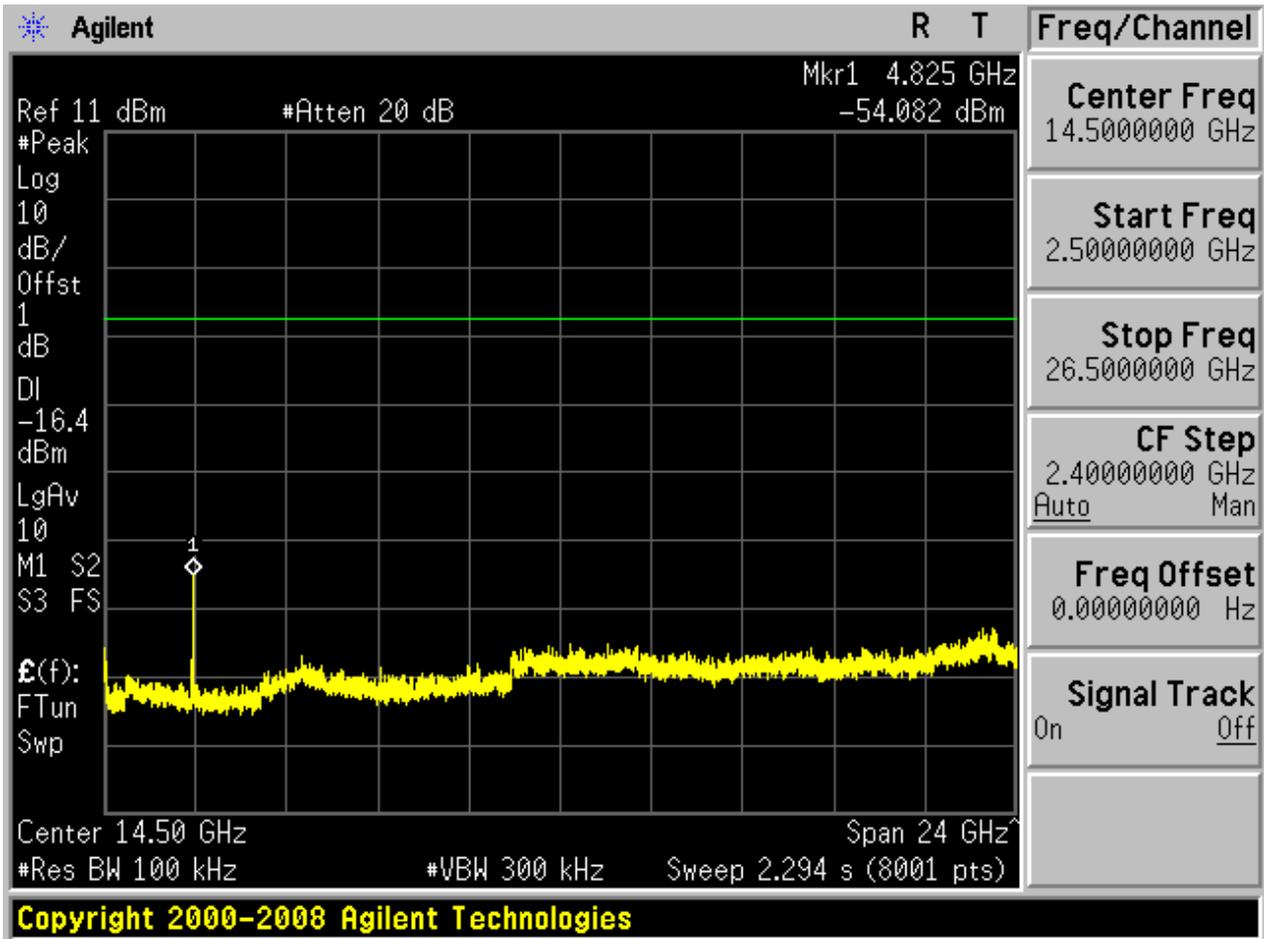






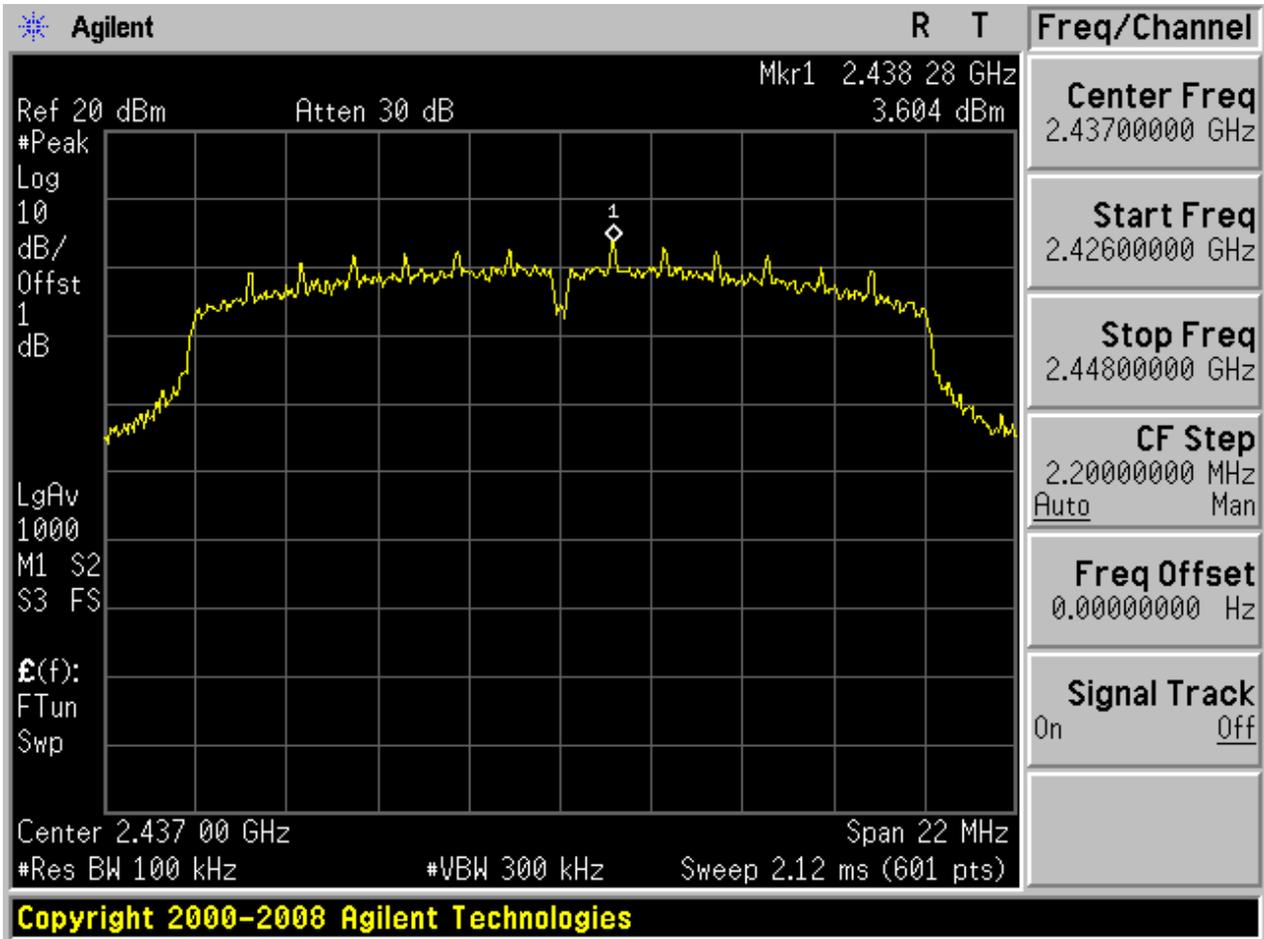




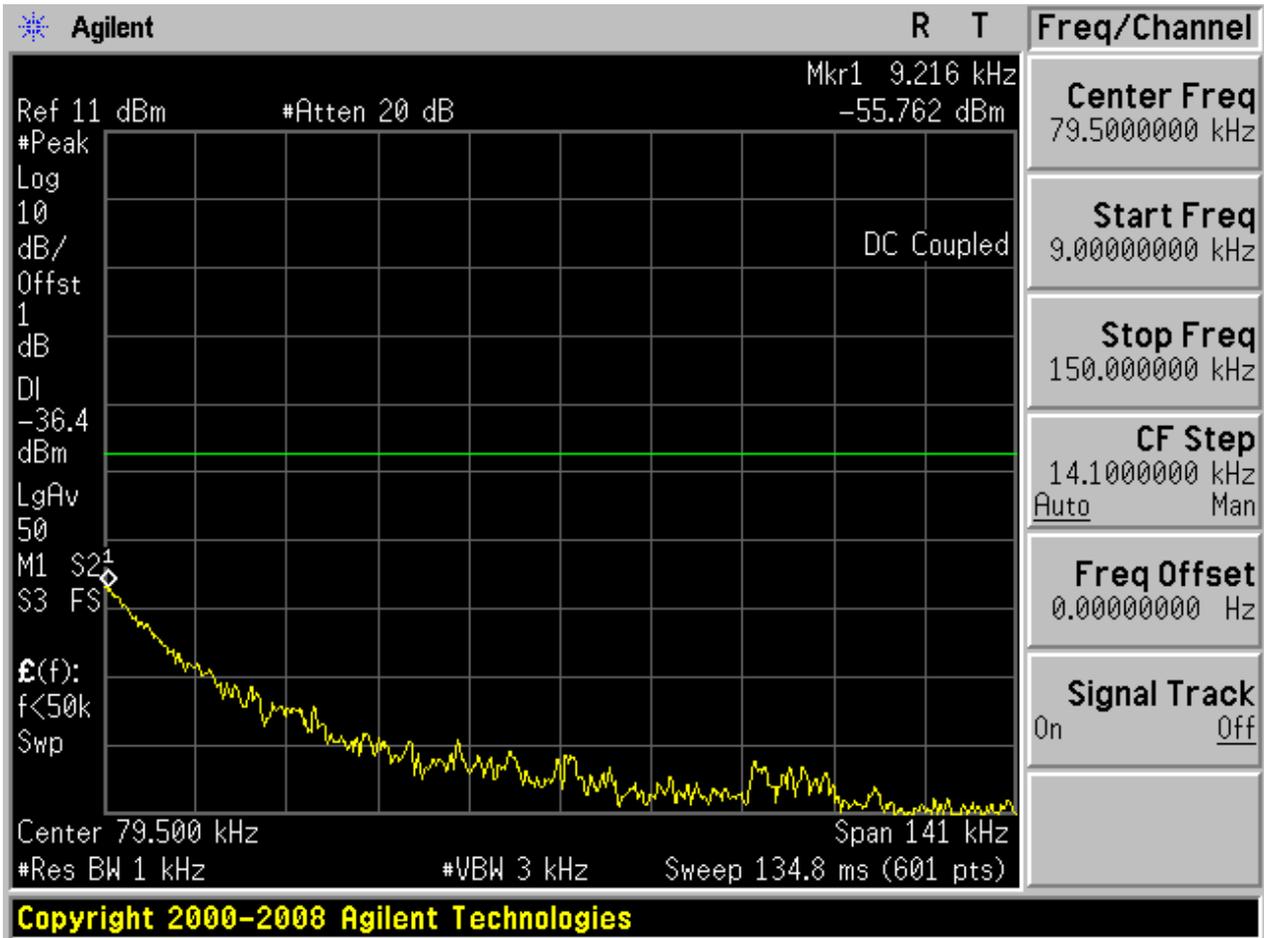


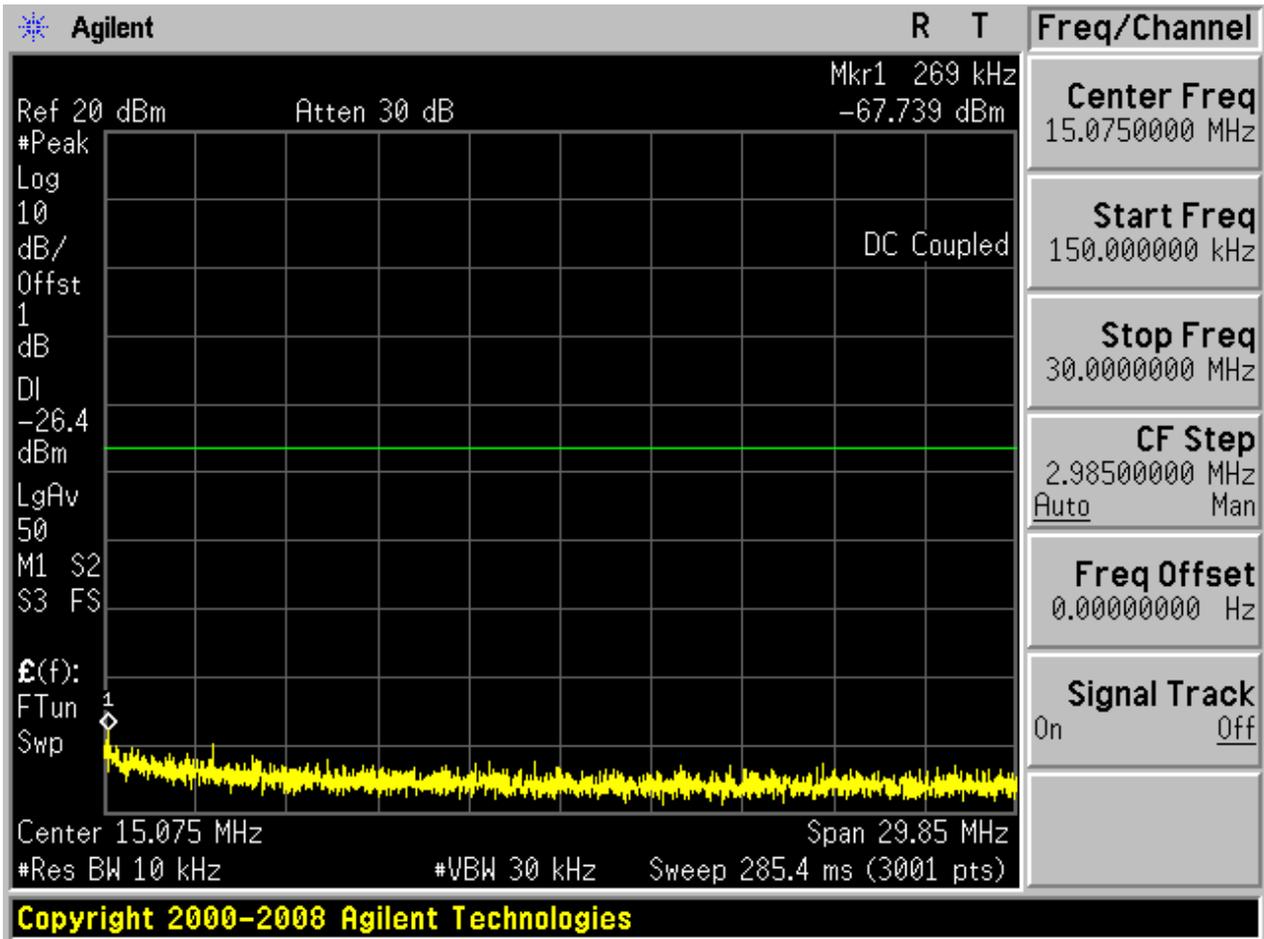
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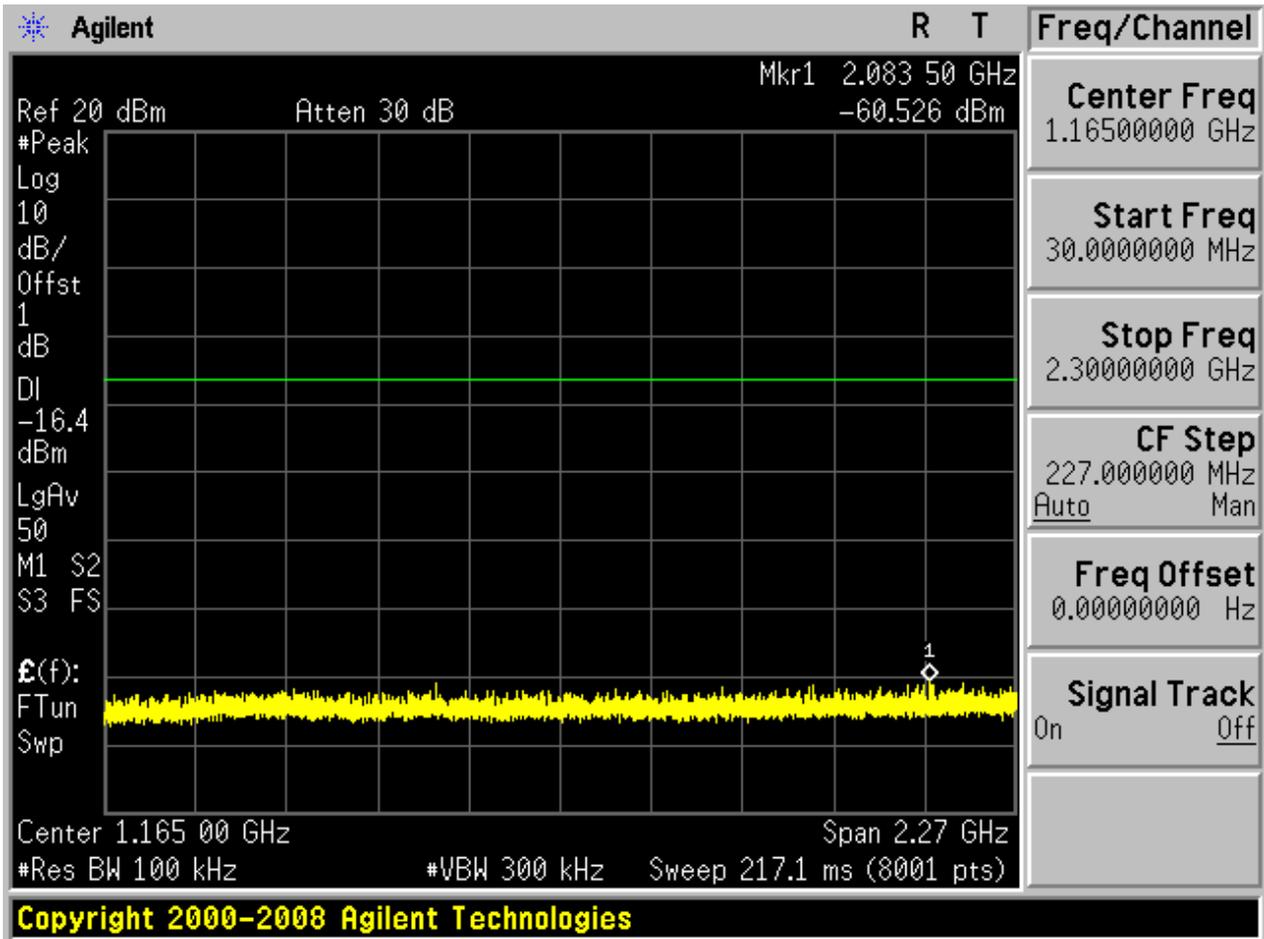
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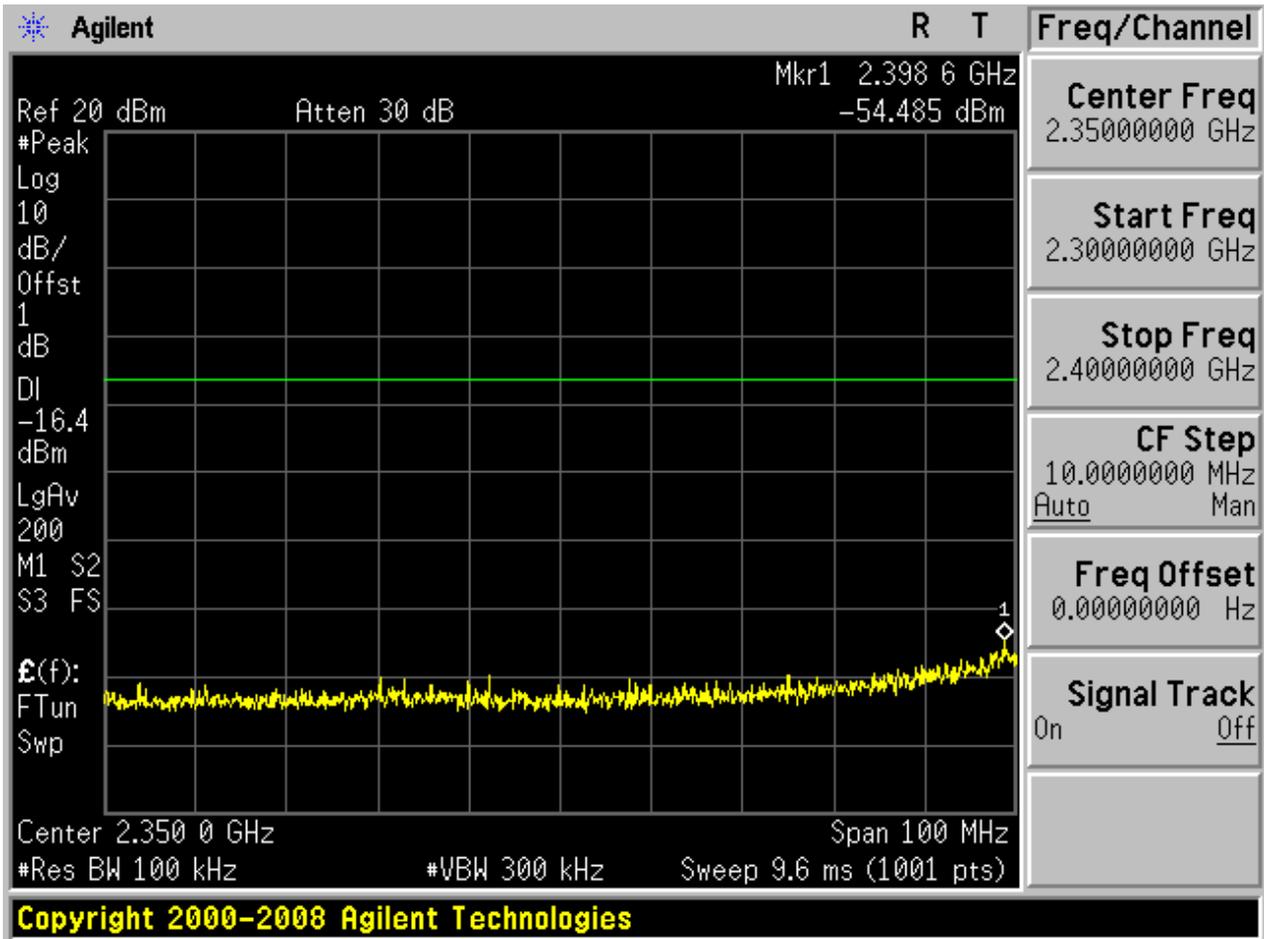


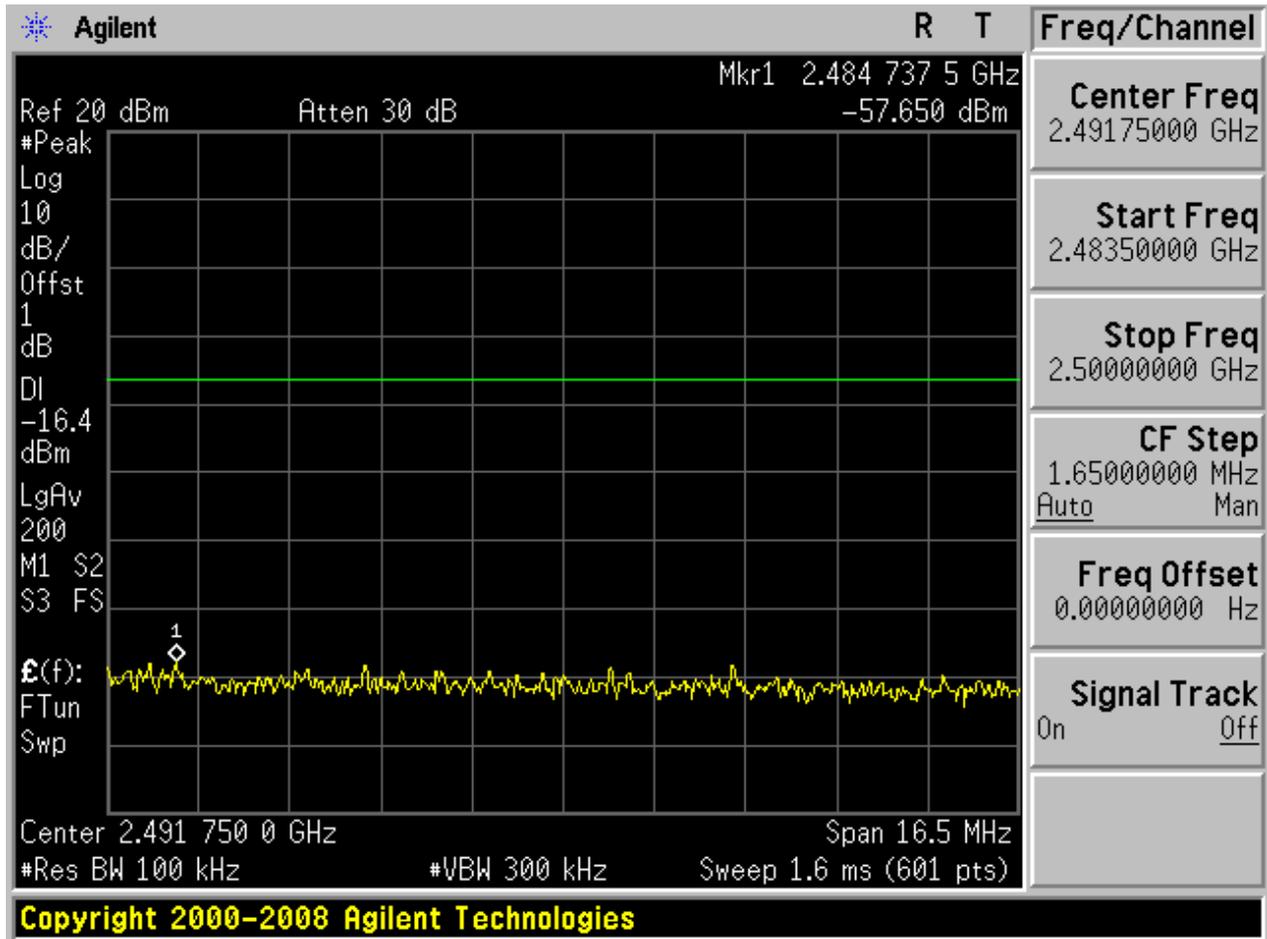
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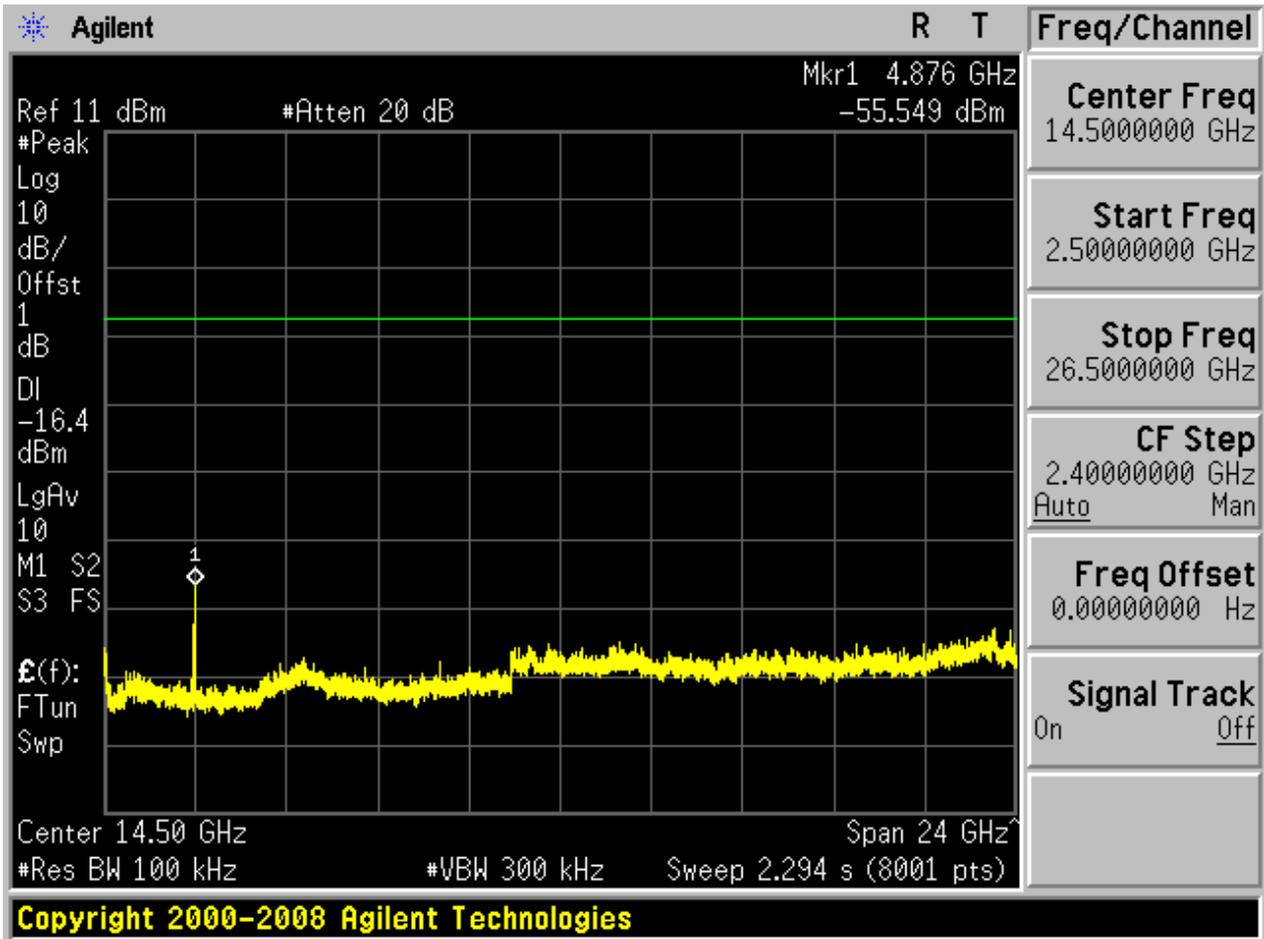






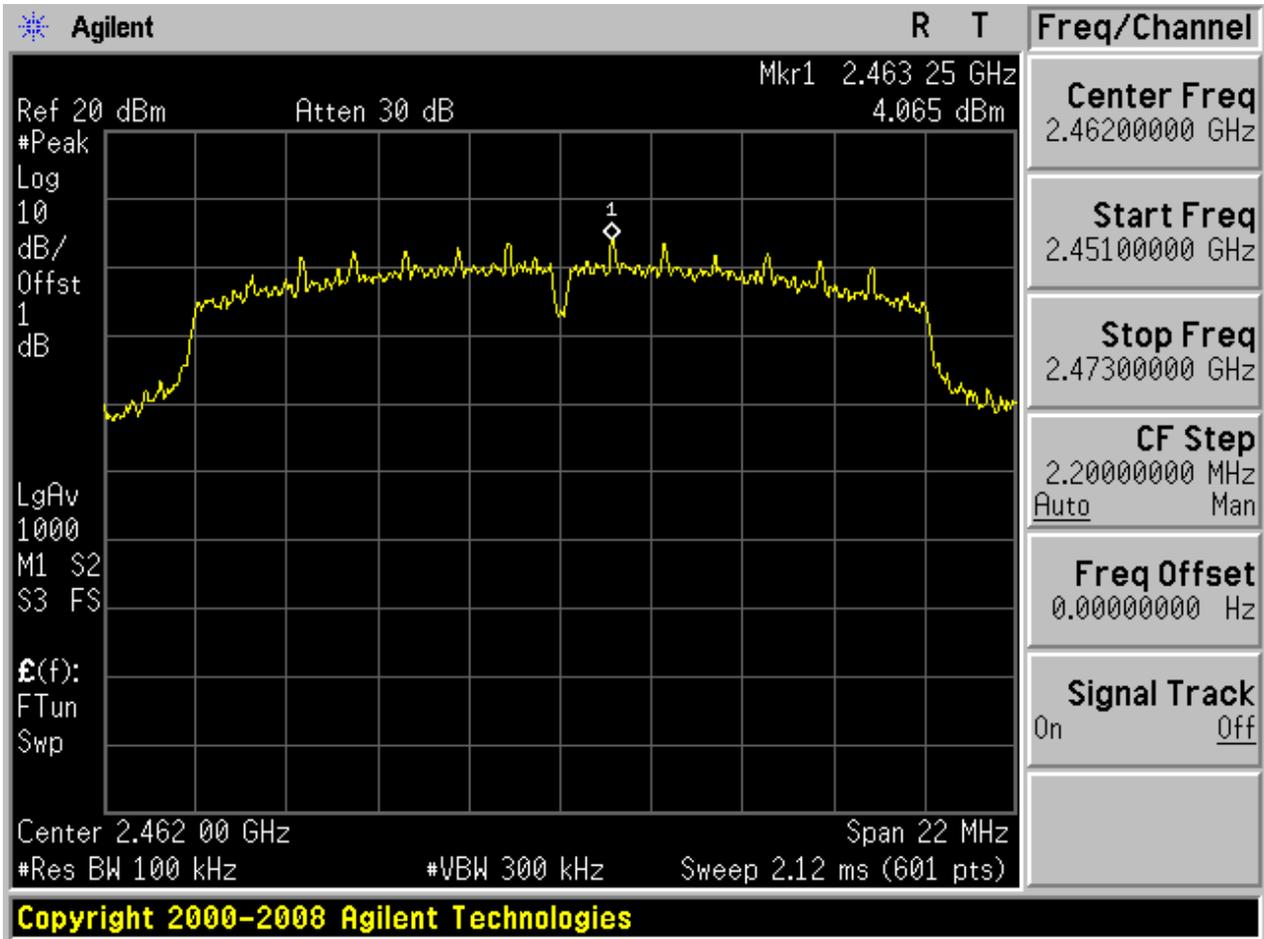






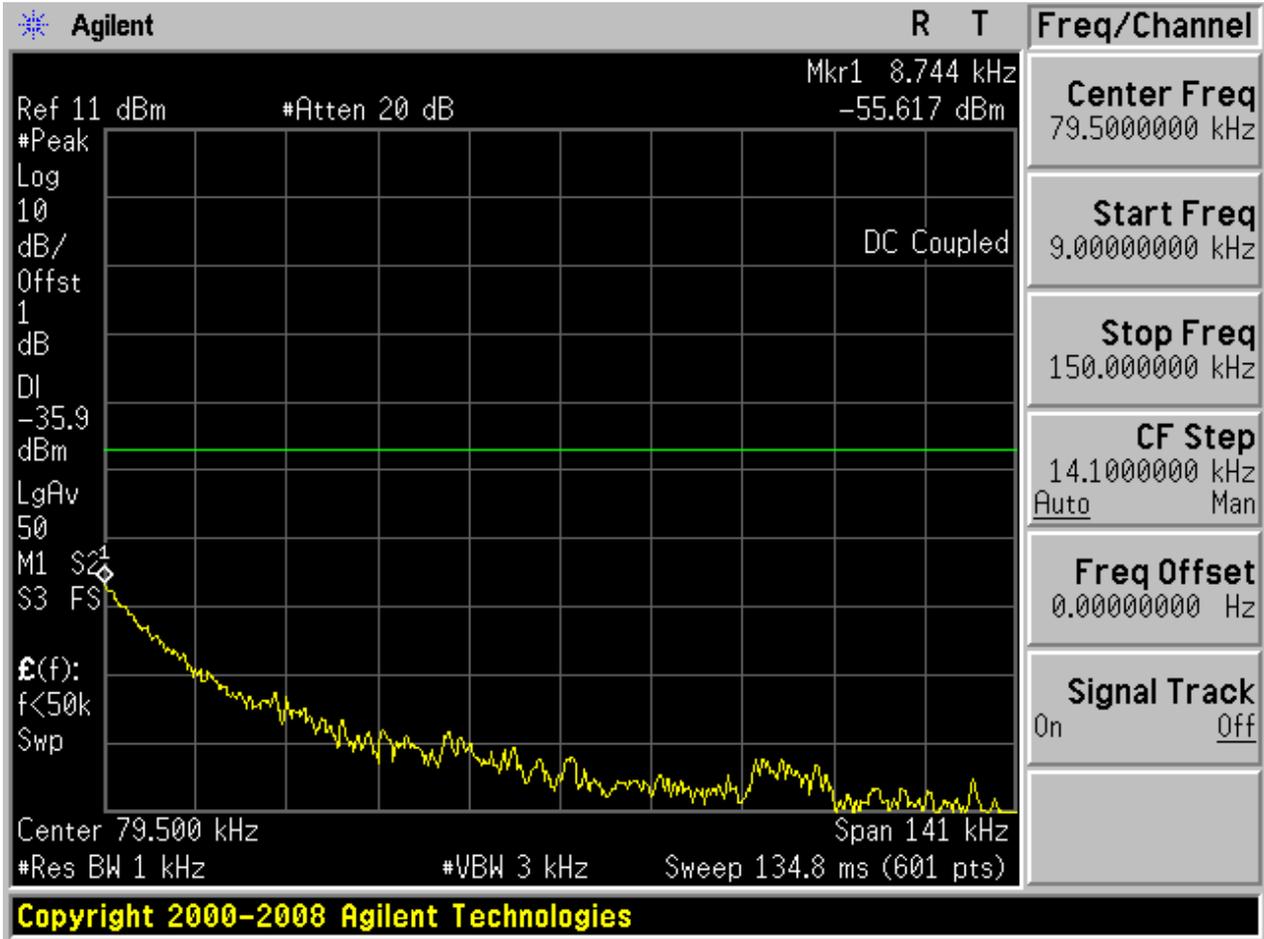
5.9 11N20_H

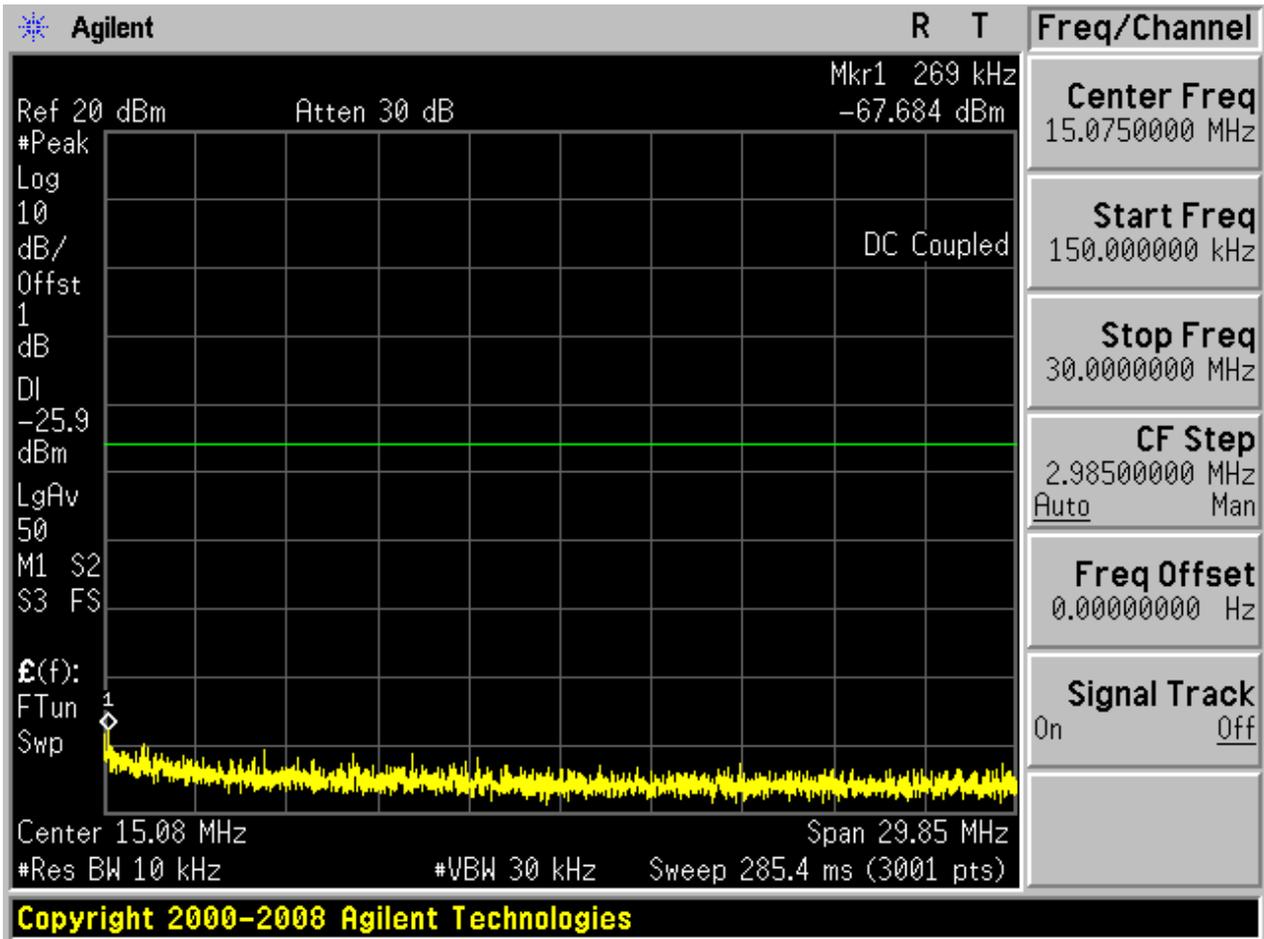
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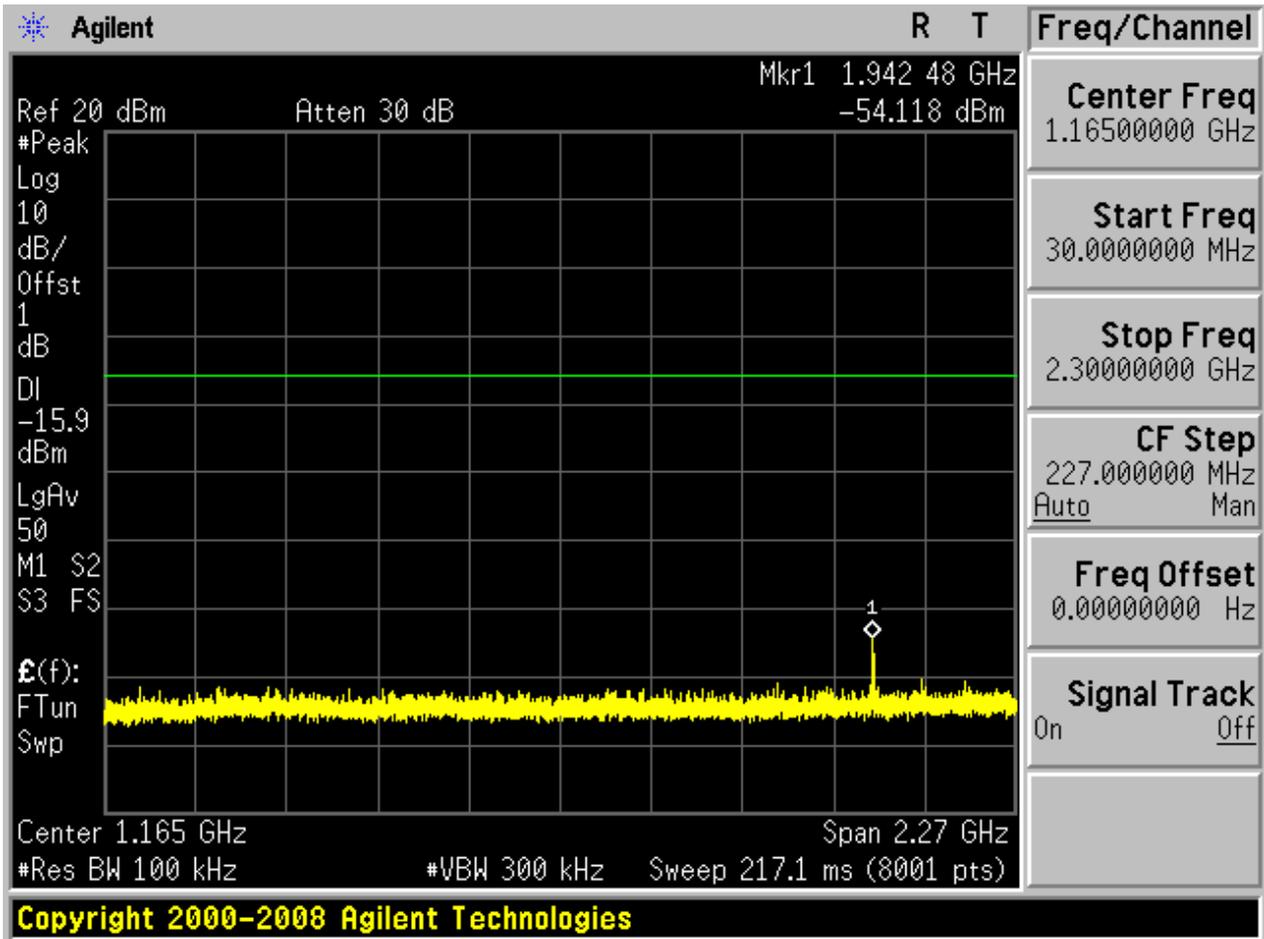


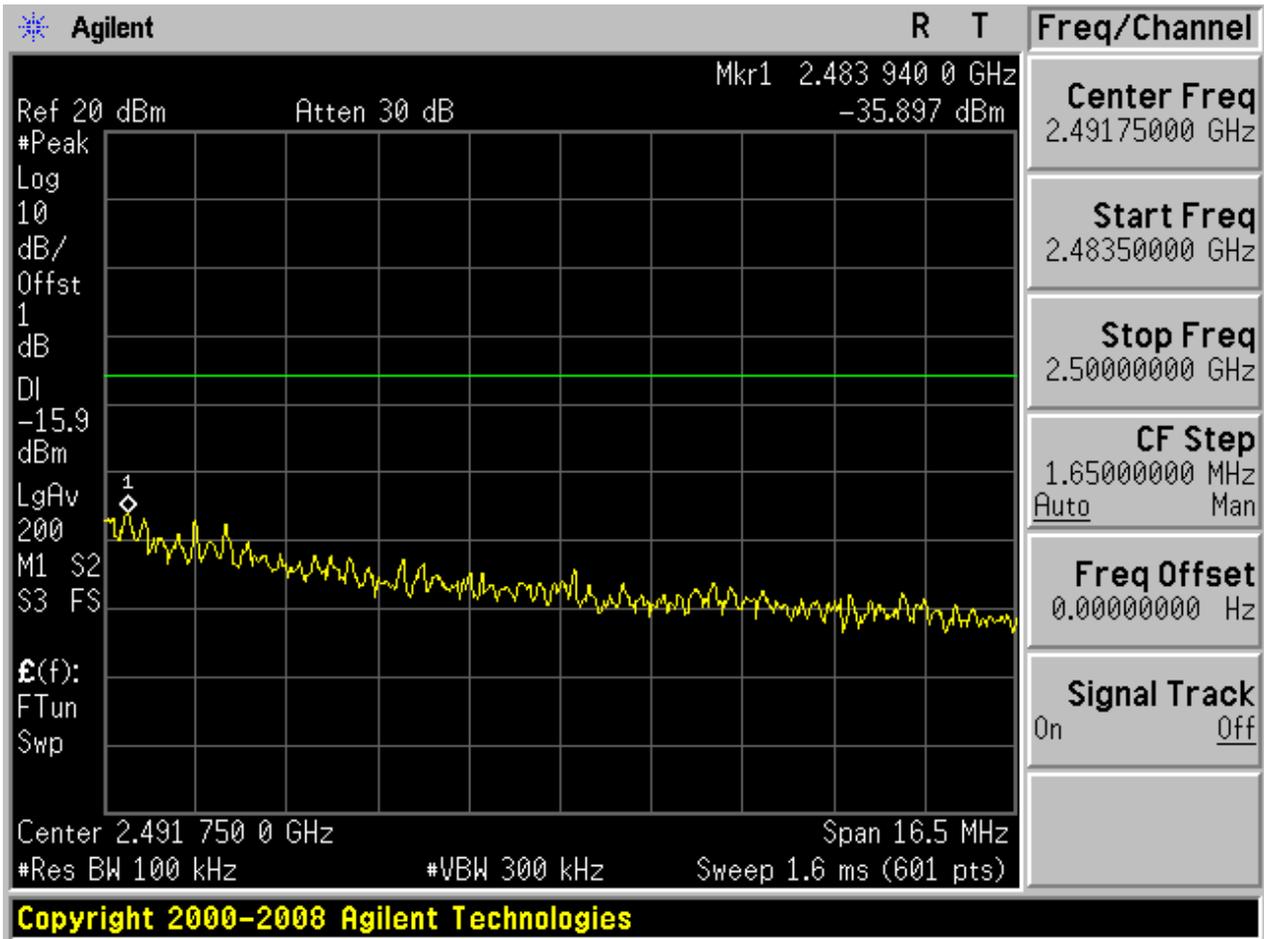


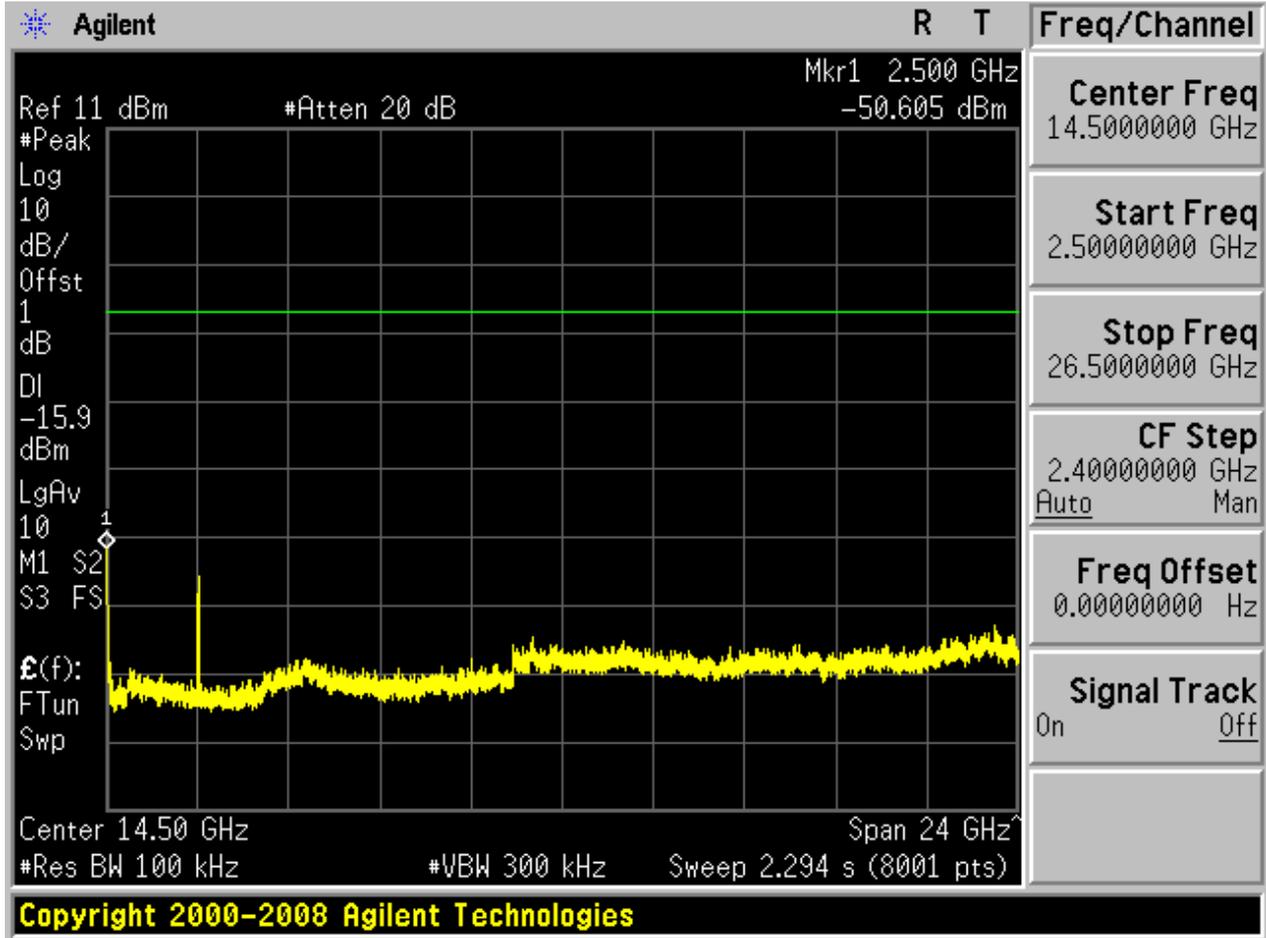
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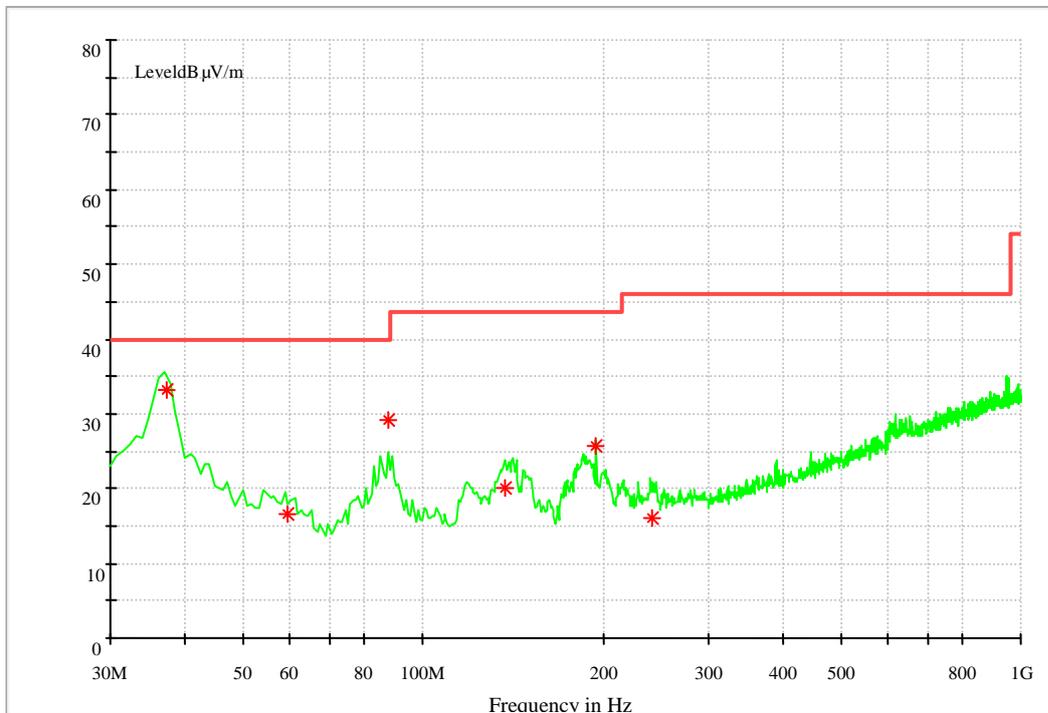


Appendix F: Unwanted Emissions into Restricted Frequency Bands (Radiated)

Part 1: Testing Range of “30 MHz to 1 GHz”

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is **the WORST case for all Test Modes and Channels**. This range will not be presented for each Test Mode and each Channel.

Note 2: **The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).**



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
37.166400	33.1	12.6	40.0	6.9	100.0	180.0	VERTICAL
59.228480	16.7	12.6	40.0	23.3	100.0	186.0	VERTICAL
87.800320	29.2	11.3	40.0	10.8	212.0	104.0	HORIZONTAL
137.441280	20.2	9.3	43.5	23.3	100.0	91.0	VERTICAL
195.001920	25.8	12.1	43.5	17.7	154.0	136.0	HORIZONTAL
242.193920	16.1	14.3	46.0	29.9	138.0	314.0	HORIZONTAL



Part 2: Testing Range of “18 GHz to 26.5 GHz”

Note: No peak found in pre- test.

Part 3: Testing Range of “1GHz to 3GHz”

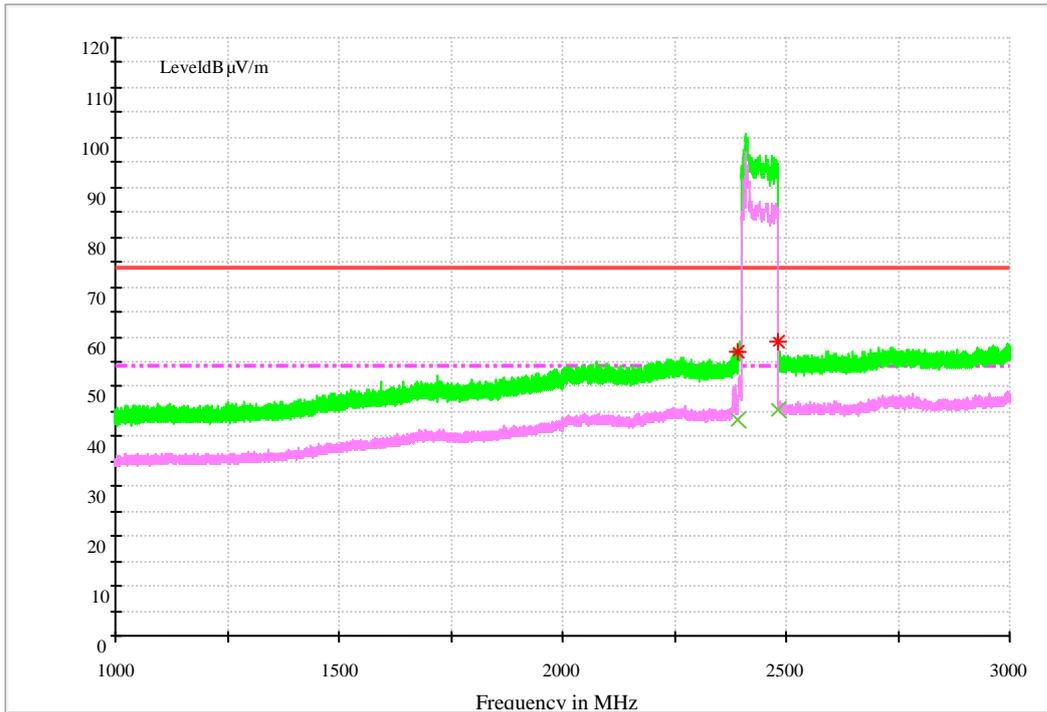
Note 1: The testing range of “1GHz to 3 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.

Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).

Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

Test Mode: 11b

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

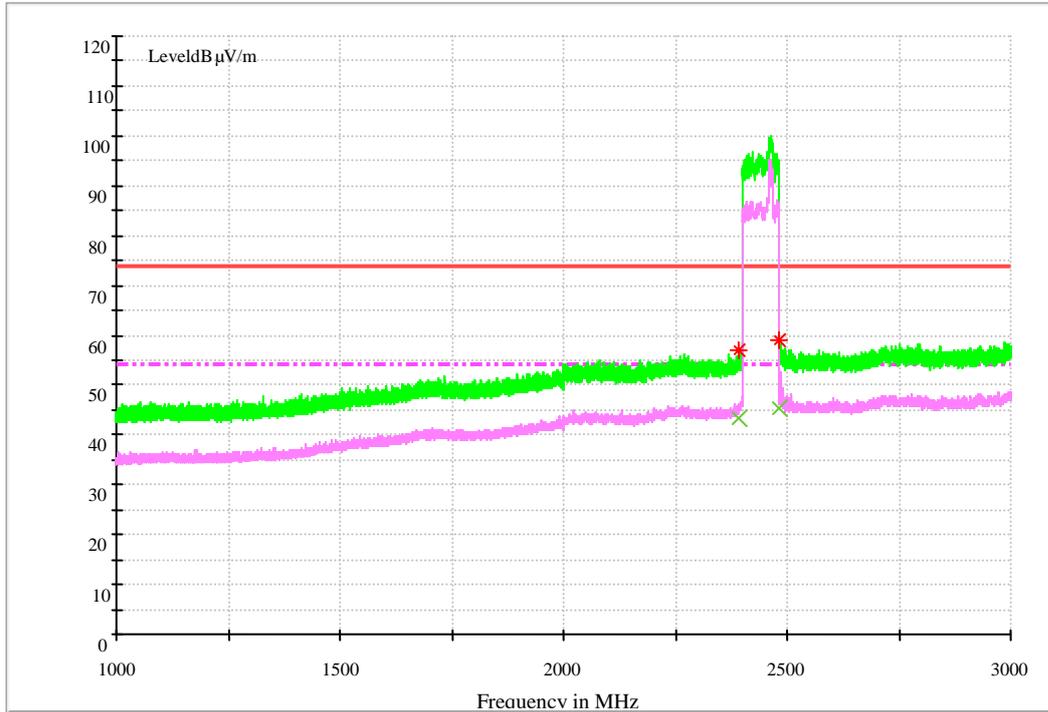
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	57.0	38.3	74.0	17.0	100.0	255.0	HORIZONTAL
2483.500000	59.0	40.7	74.0	15.0	100.0	14.0	VERTICAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	43.3	38.3	54.0	10.7	100.0	216.0	HORIZONTAL
2483.500000	45.3	40.7	54.0	8.7	100.0	0.0	HORIZONTAL

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

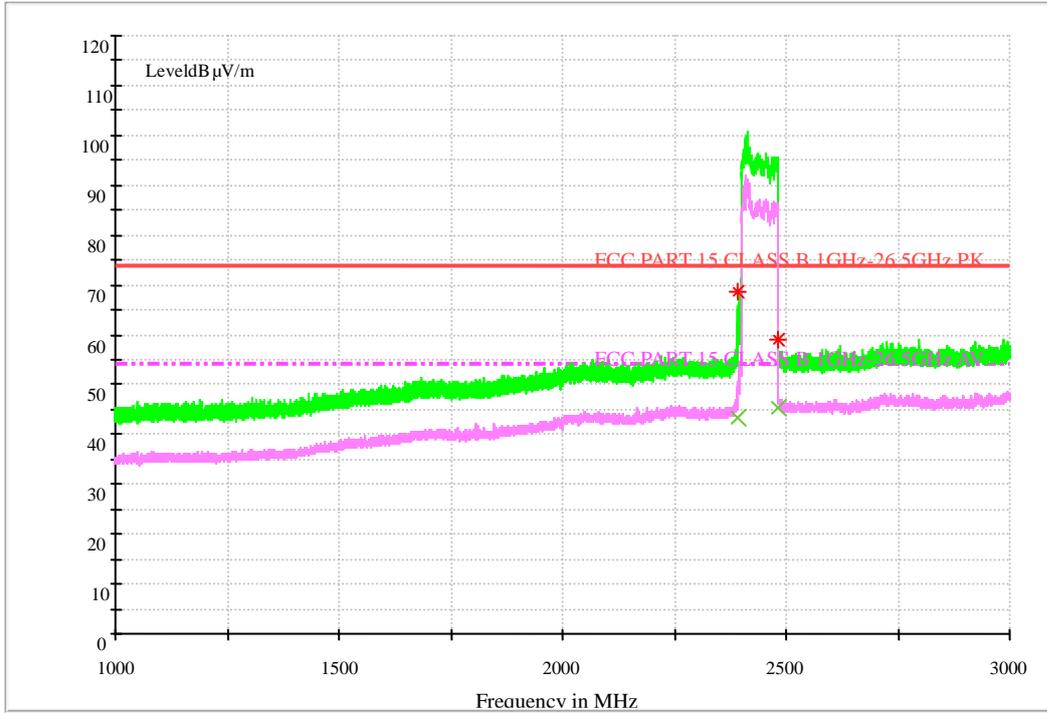
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	56.9	38.3	74.0	17.1	100.0	-45.0	HORIZONTAL
2483.500000	59.1	40.7	74.0	14.9	100.0	-45.0	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	43.2	38.3	54.0	10.8	100.0	0.0	HORIZONTAL
2483.500000	45.2	40.7	54.0	8.8	100.0	125.0	VERTICAL

Test Mode: 11g
Channel 01

FCC CLASS B WIFI 1GHz-3GHz



Note: The peak exceeds the limit line is carrier frequency.

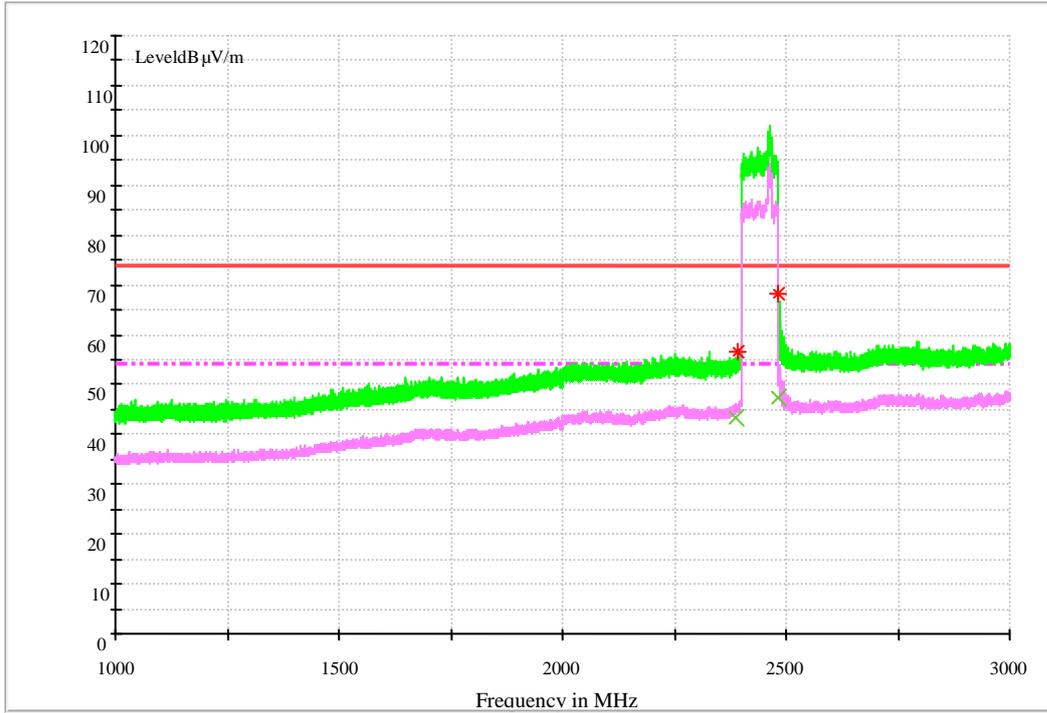
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	70.3	38.3	74.0	5.6	100.0	185.0	HORIZONTAL
2483.500000	59.2	40.7	74.0	15.2	100.0	63.0	VERTICAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.0	38.3	54.0	10.5	7.0	185.0	HORIZONTAL
2483.500000	44.9	40.7	54.0	8.7	9.1	73.0	HORIZONTAL

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

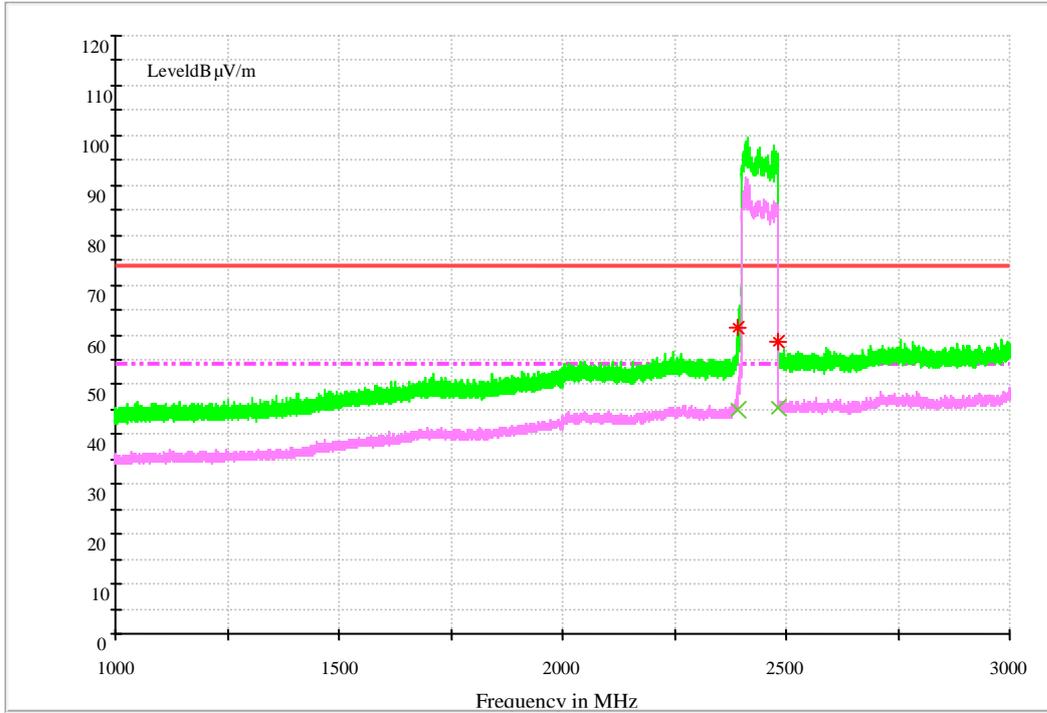
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	56.7	38.3	74.0	17.3	114.0	-45.0	HORIZONTAL
2483.500000	68.4	40.7	74.0	5.6	100.0	-45.0	HORIZONTAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	43.2	38.3	54.0	10.8	100.0	0.0	VERTICAL
2483.500000	47.2	40.7	54.0	6.8	100.0	0.0	HORIZONTAL

Test Mode: 11n

Channel 01



Note: The peak exceeds the limit line is carrier frequency.

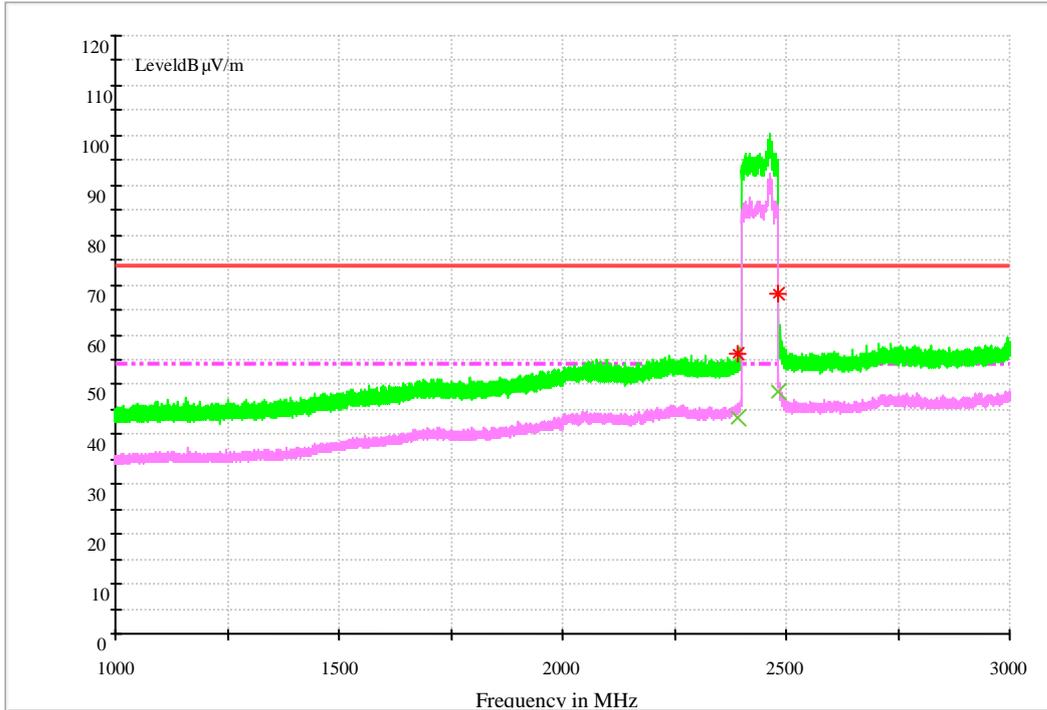
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	61.3	38.3	74.0	12.7	145.0	351.0	VERTICAL
2483.500000	58.5	40.7	74.0	15.5	100.0	-6.0	HORIZONTAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	44.9	38.3	54.0	9.1	100.0	269.0	HORIZONTAL
2483.500000	45.3	40.7	54.0	8.7	100.0	225.0	VERTICAL

Channel 11



Note: The peak exceeds the limit line is carrier frequency.

MEASUREMENT RESULT: PK Detector

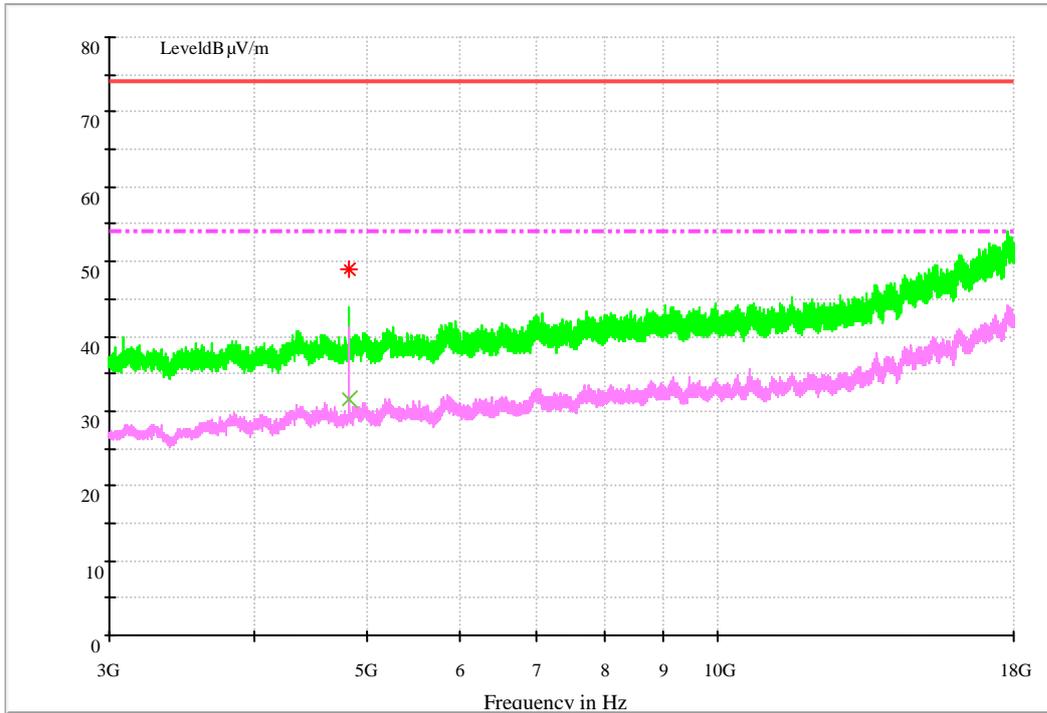
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	56.3	38.3	74.0	17.7	100.0	-6.0	HORIZONTAL
2483.500000	68.3	40.7	74.0	5.7	100.0	183.0	HORIZONTAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	43.2	38.3	54.0	10.8	100.0	39.0	HORIZONTAL
2483.500000	48.4	40.7	54.0	5.6	100.0	183.0	HORIZONTAL

Part 4: Testing Range of “3GHz to 18 GHz”

- Note 1: The test results and plot for testing range of “3GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “3GHz to 18 GHz” is for checking radiated emissions located in restricted bands far away from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).



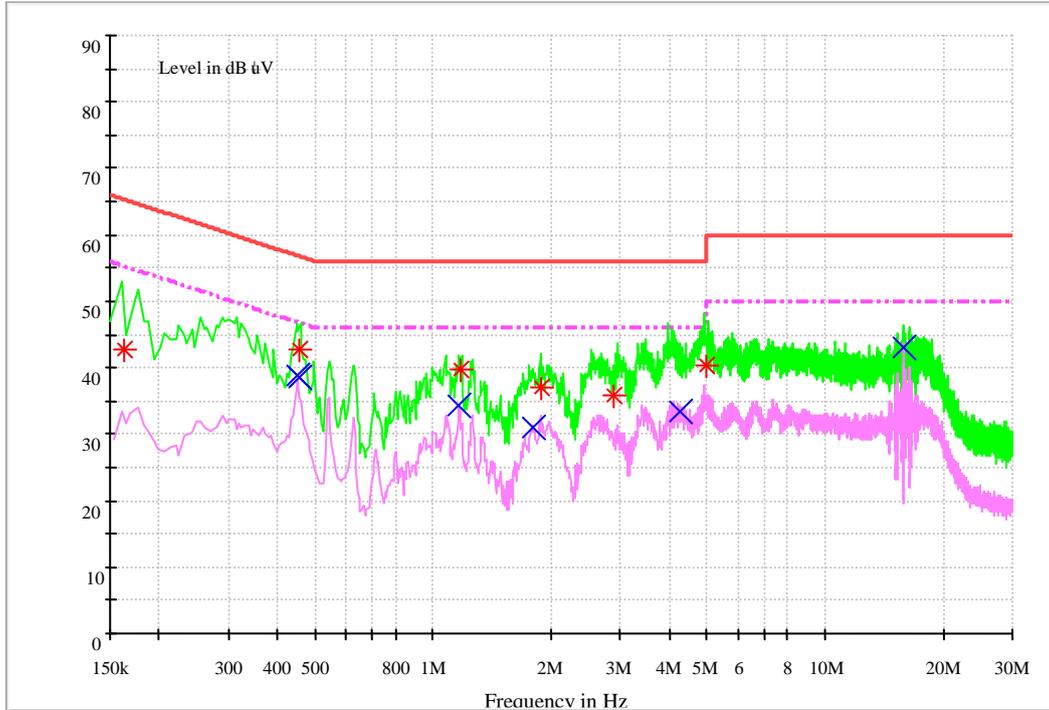
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
4823.840000	49.1	0.9	74.0	24.9	161.0	335.0	VERTICAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
4823.955333	31.5	0.9	54.0	22.5	100.0	290.0	VERTICAL

Appendix G: AC Power Line Conducted Emissions



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.163702	42.6	9.7	65.3	22.7	L1	FLO
0.458512	42.7	9.7	56.7	14.0	N	FLO
1.167942	39.6	9.7	56.0	16.4	L1	FLO
1.889854	37.0	9.7	56.0	19.0	L1	FLO
2.889942	35.8	9.7	56.0	20.2	N	FLO
4.964142	40.2	9.8	56.0	15.8	L1	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.450750	38.8	9.7	46.9	8.1	L1	FLO
0.453806	38.5	9.7	46.8	8.3	L1	FLO
1.166880	34.3	9.7	46.0	11.7	L1	FLO
1.802194	31.1	9.7	46.0	14.9	L1	FLO
4.260708	33.6	9.8	46.0	12.4	L1	FLO
15.860865	43.1	10.0	50.0	6.9	L1	FLO

END