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.

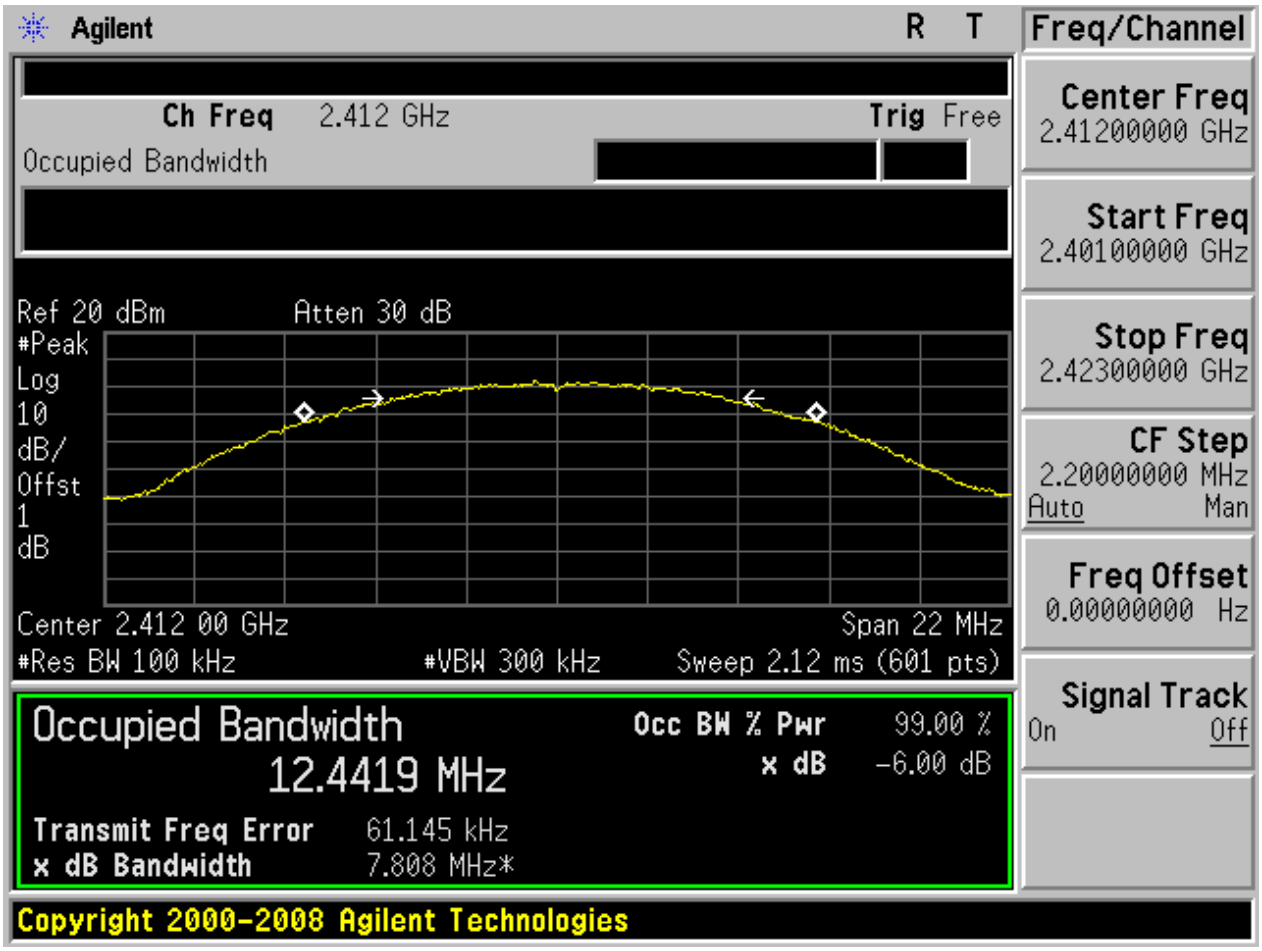
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

Part I - Test Results

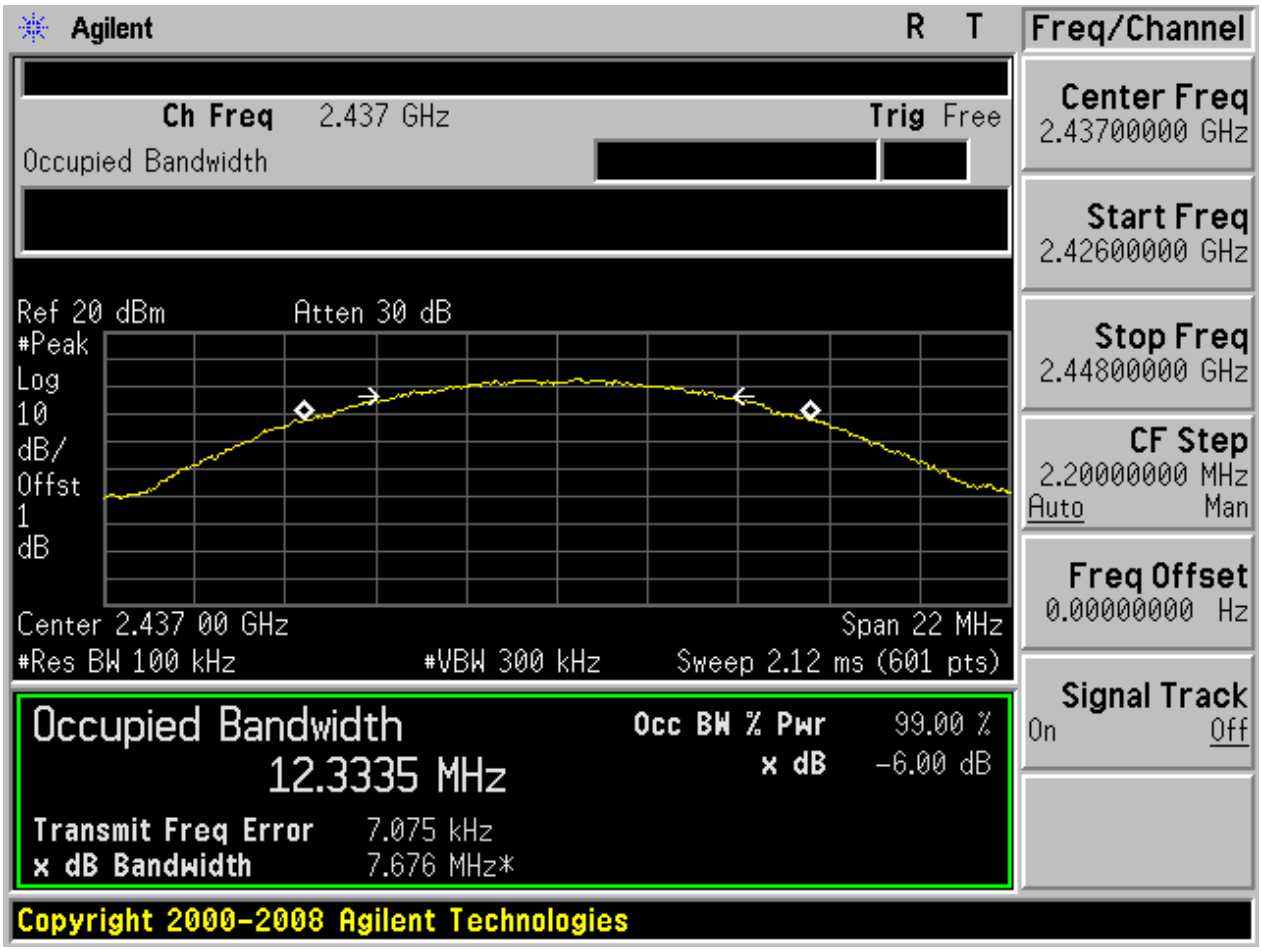
Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
11B	L	2412	7.81	pass
11B	M	2437	7.68	pass
11B	H	2462	7.68	pass
11G	L	2412	16.52	pass
11G	M	2437	16.53	pass
11G	H	2462	16.54	pass
11N20	L	2412	17.73	pass
11N20	M	2437	17.69	pass
11N20	H	2462	17.71	pass

Part II - Test Plots

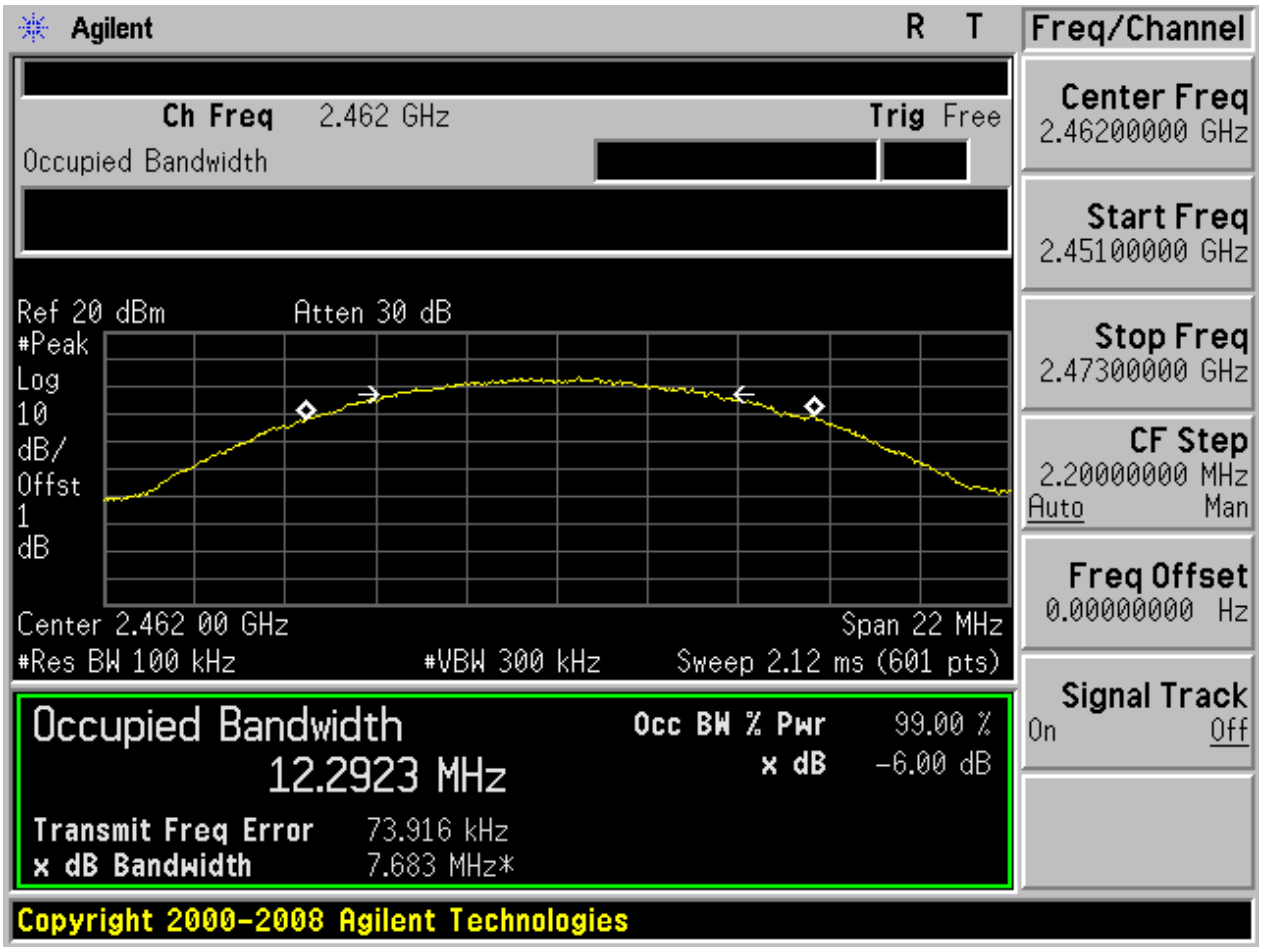
2.1 11B_L



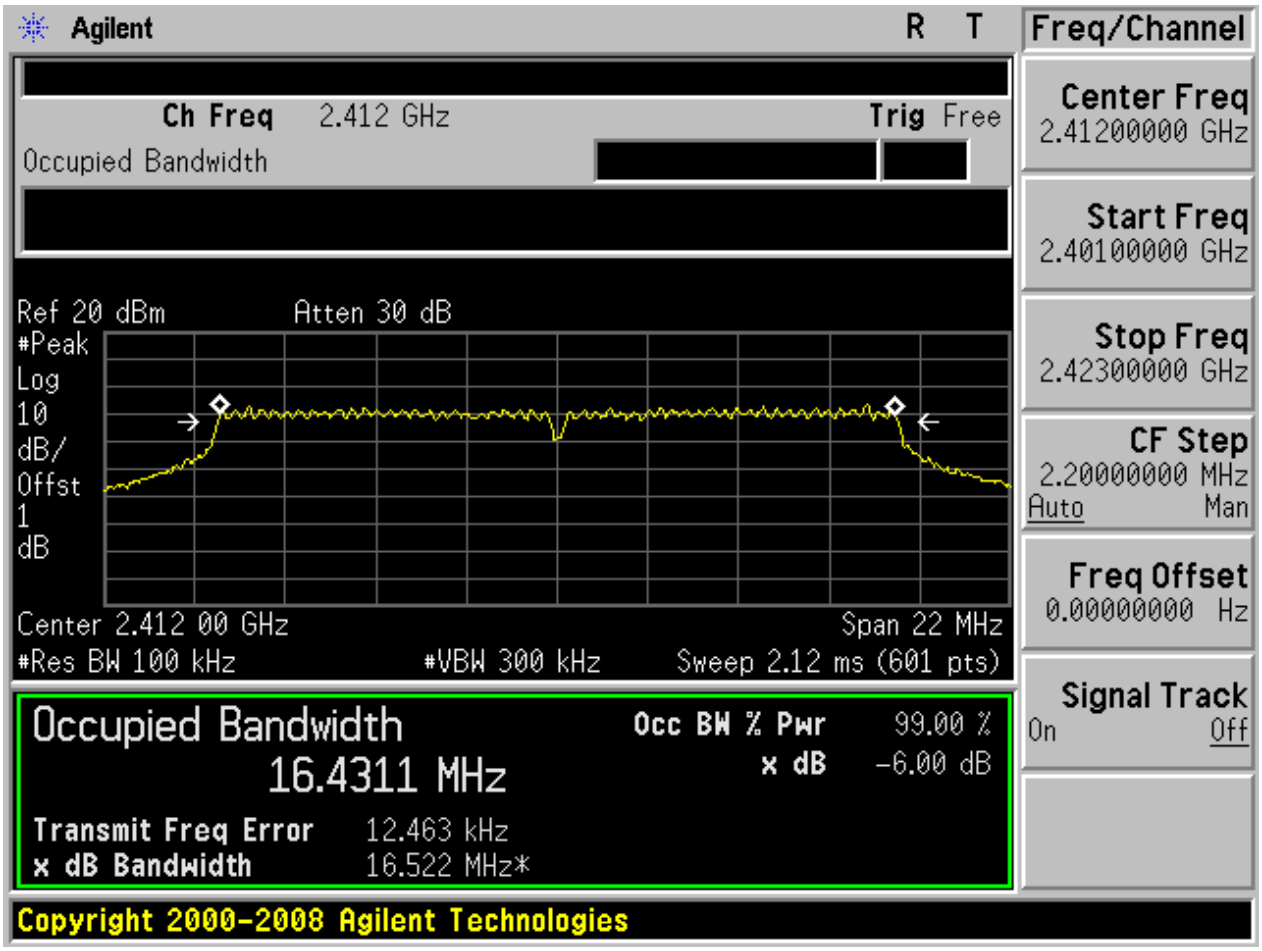
2.2 11B_M



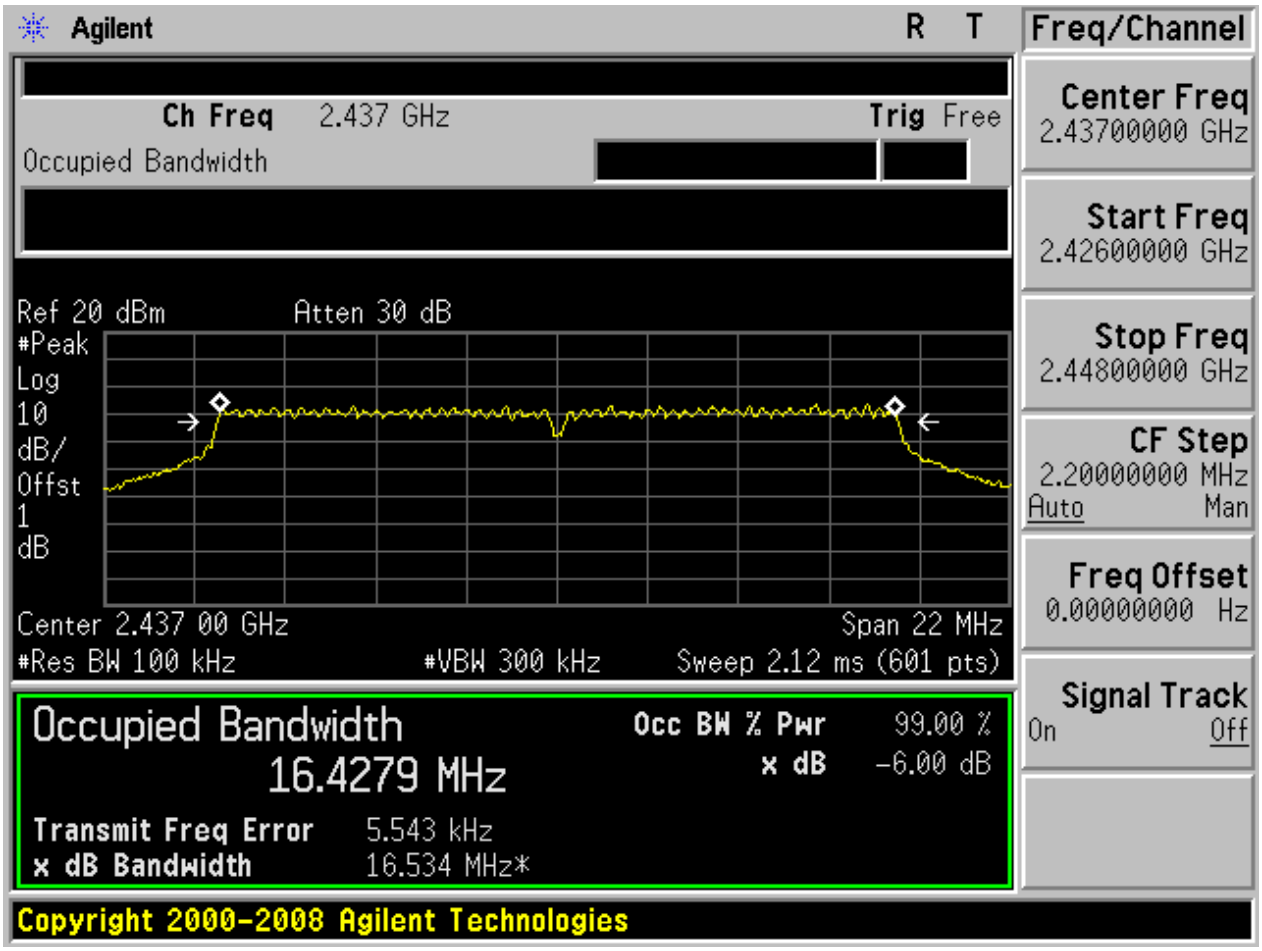
2.3 11B_H



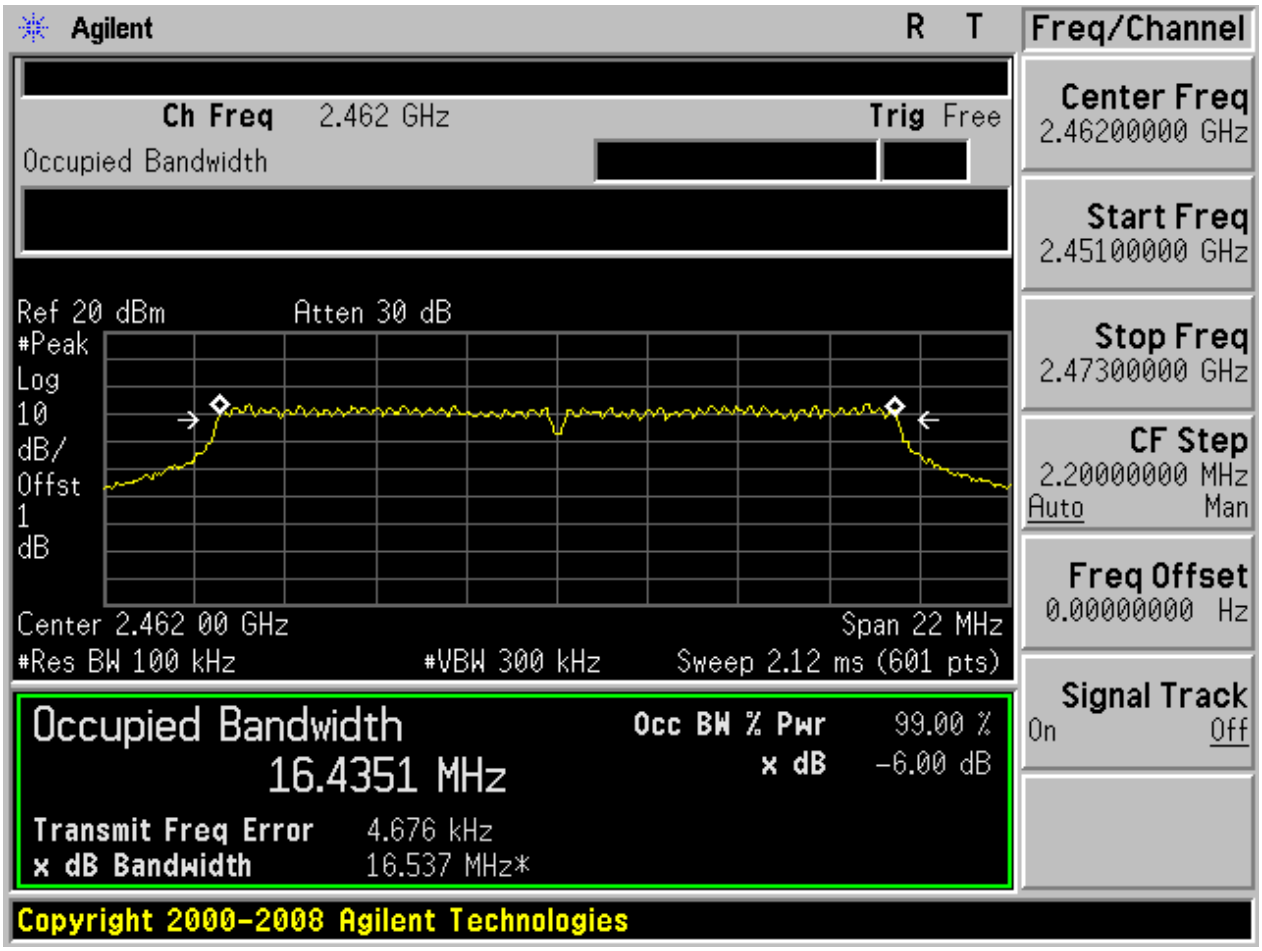
2.4 11G_L



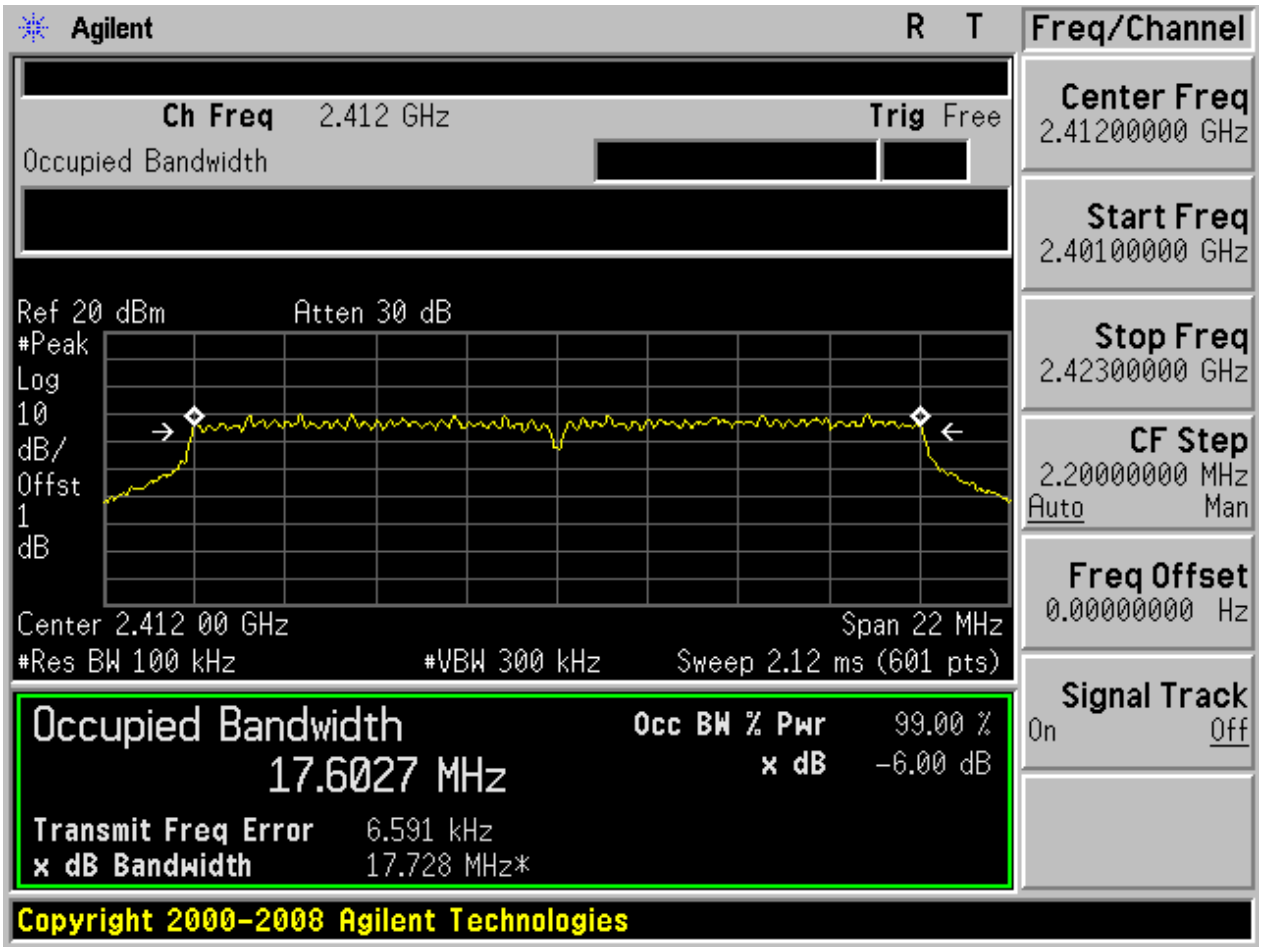
2.5 11G_M



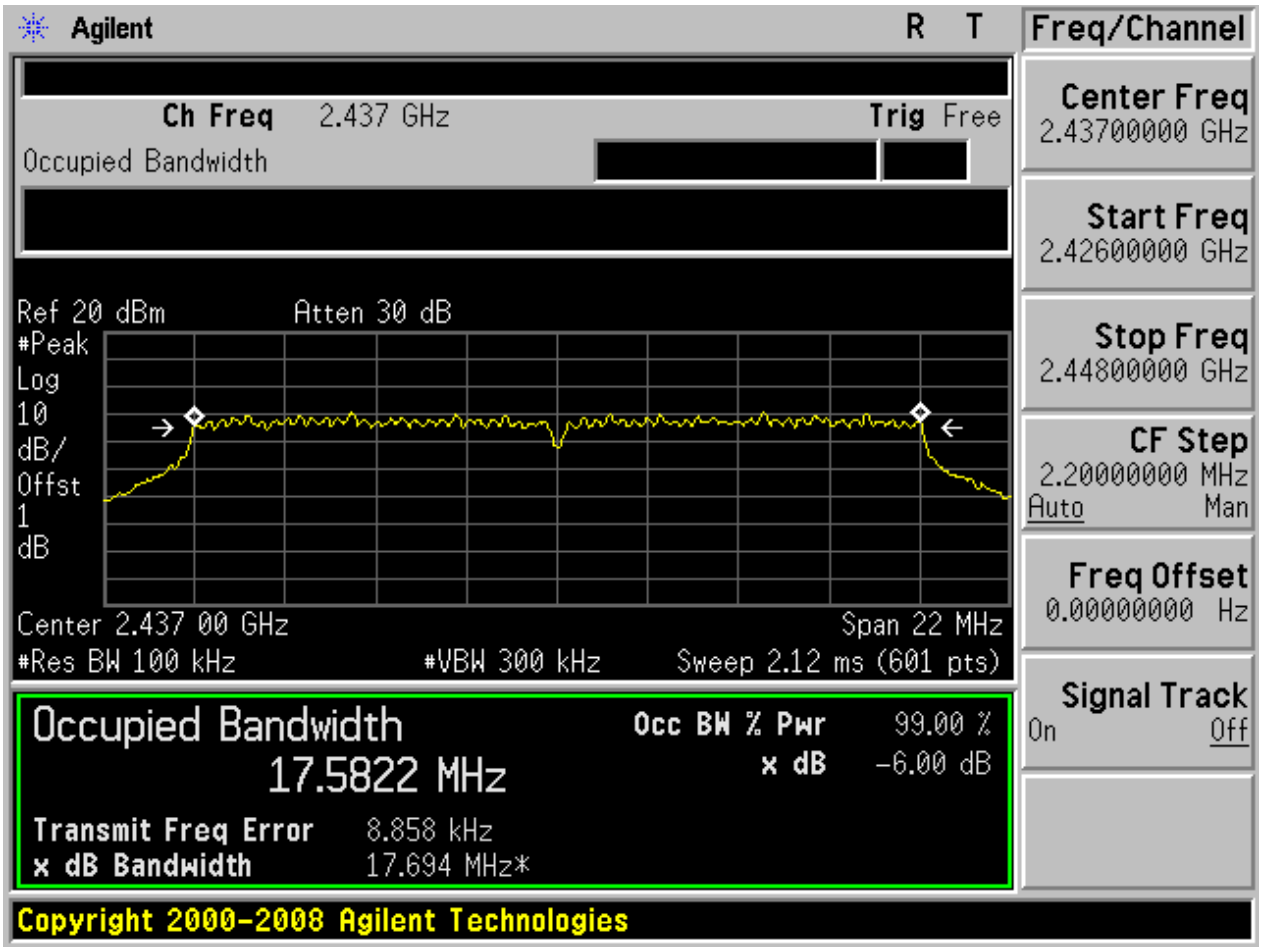
2.6 11G_H



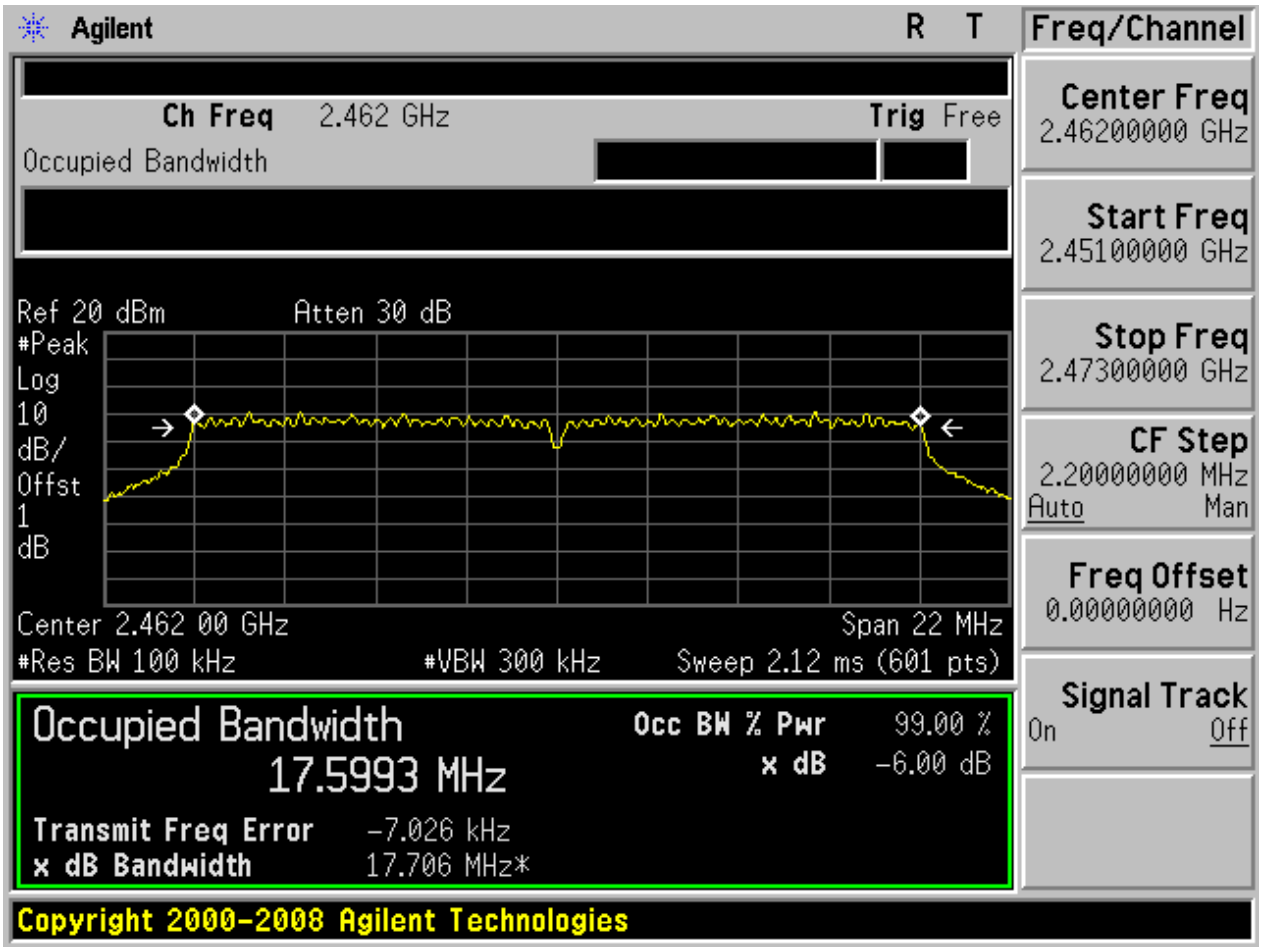
2.7 11N20_L



2.8 11N20_M


Agilent
R T
Freq/Channel
Ch Freq 2.437 GHz
Trig Free
Occupied Bandwidth
Center Freq
2.43700000 GHz
Start Freq
2.42600000 GHz
Stop Freq
2.44800000 GHz
CF Step
2.20000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Ref 20 dBm
Atten 30 dB
#Peak
Log
10
dB/
Offst
1
dB
Center 2.437 00 GHz
Span 22 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.12 ms (601 pts)
Occupied Bandwidth
17.5822 MHz
Occ BW % Pwr 99.00 %
x dB -6.00 dB
Transmit Freq Error 8.858 kHz
x dB Bandwidth 17.694 MHz*
Copyright 2000-2008 Agilent Technologies

2.9 11N20_H



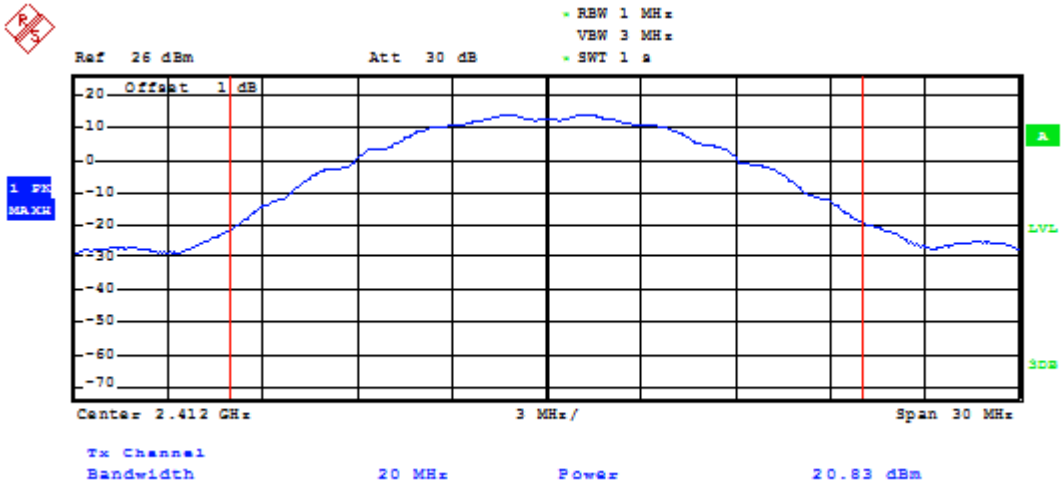
Appendix B: Maximum Peak Conducted Output Power

Part I - Test Results

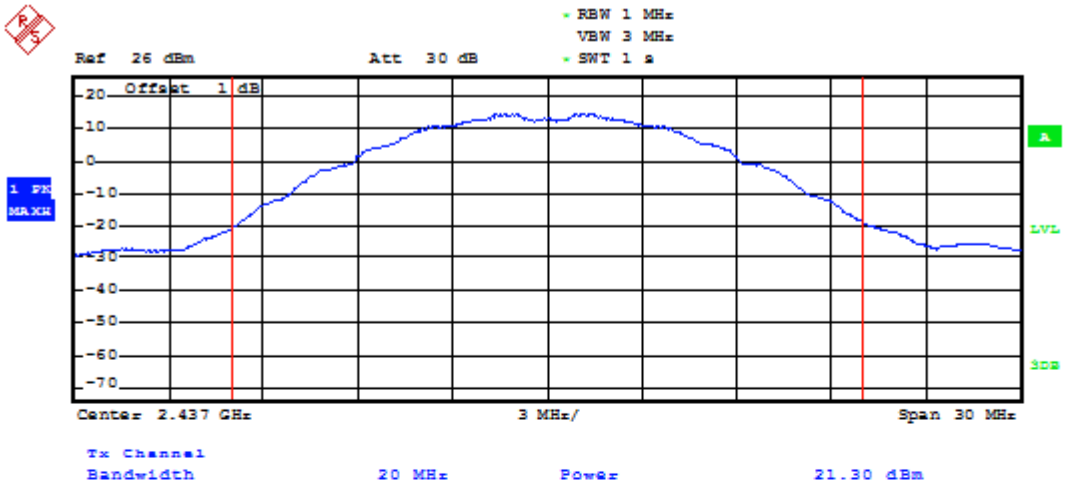
Test Mode	Test Channel	Frequency[MHz]	Meas. Level (Cond.) [dBm]	Verdict
11B	L	2412	20.83	pass
11B	M	2437	21.30	pass
11B	H	2462	21.53	pass
11G	L	2412	21.23	pass
11G	M	2437	21.80	pass
11G	H	2462	22.06	pass
11N20	L	2412	18.20	pass
11N20	M	2437	18.89	pass
11N20	H	2462	18.93	pass

Part II - Test Plots

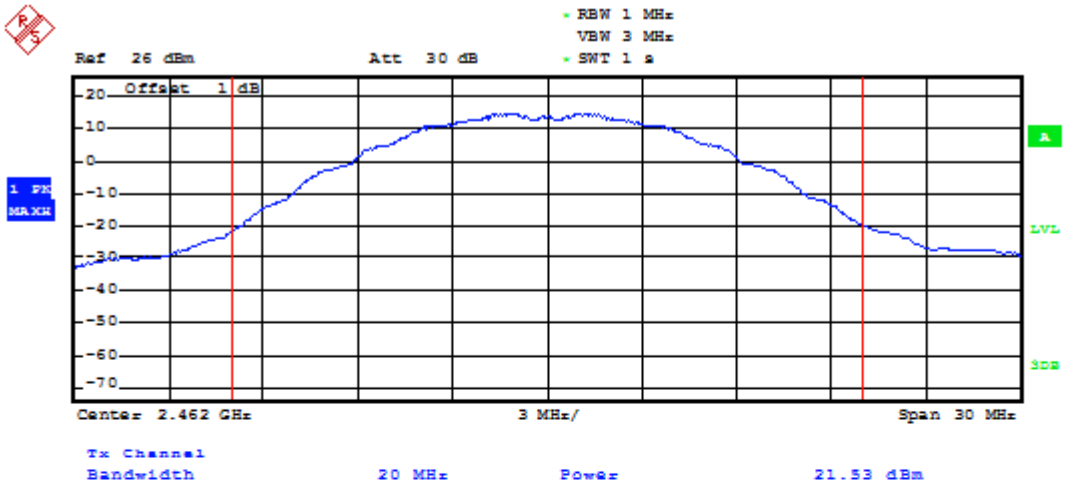
2.1 11B_L



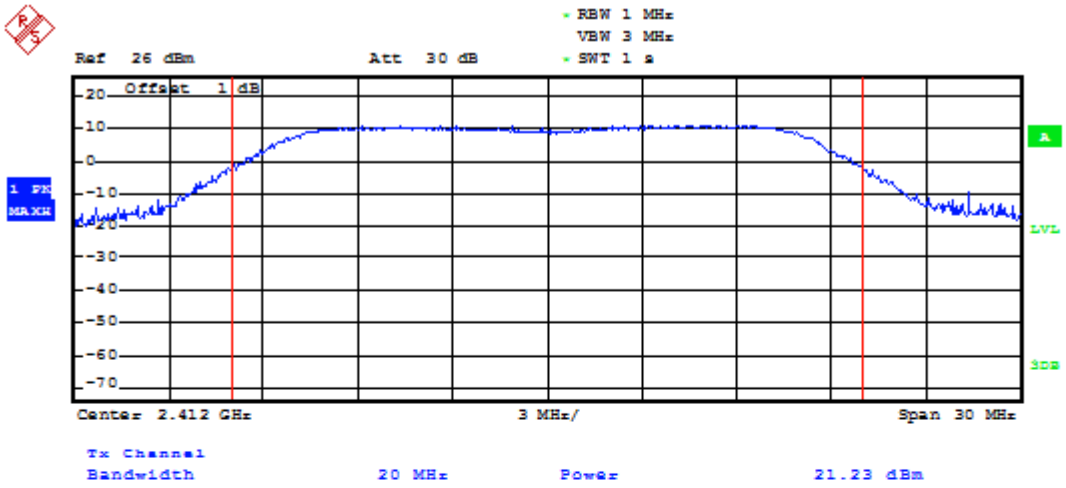
2.2 11B_M



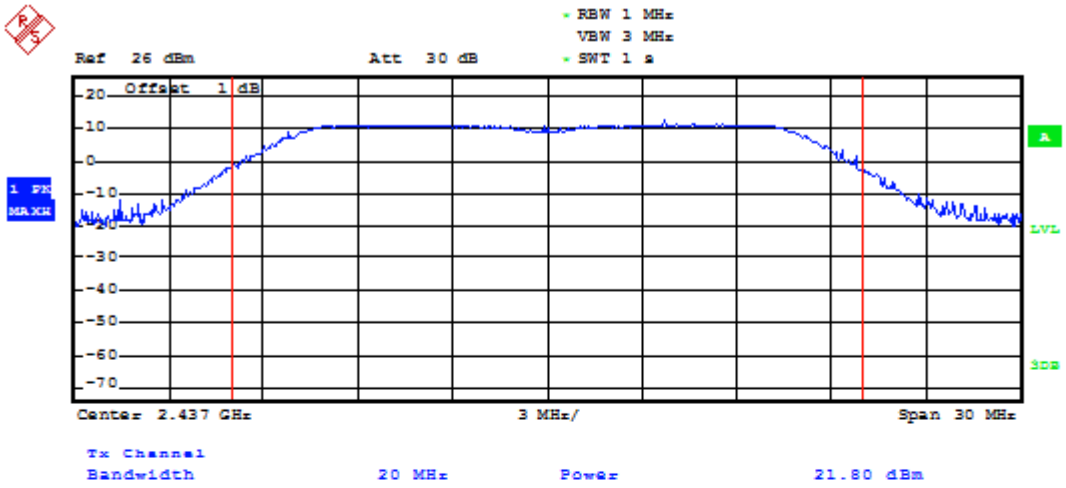
2.3 11B_H



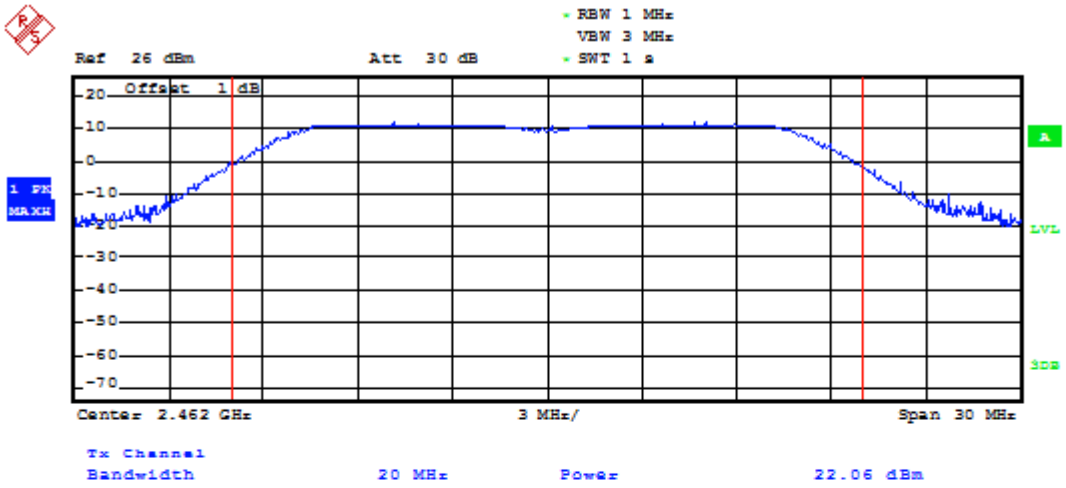
2.4 11G_L



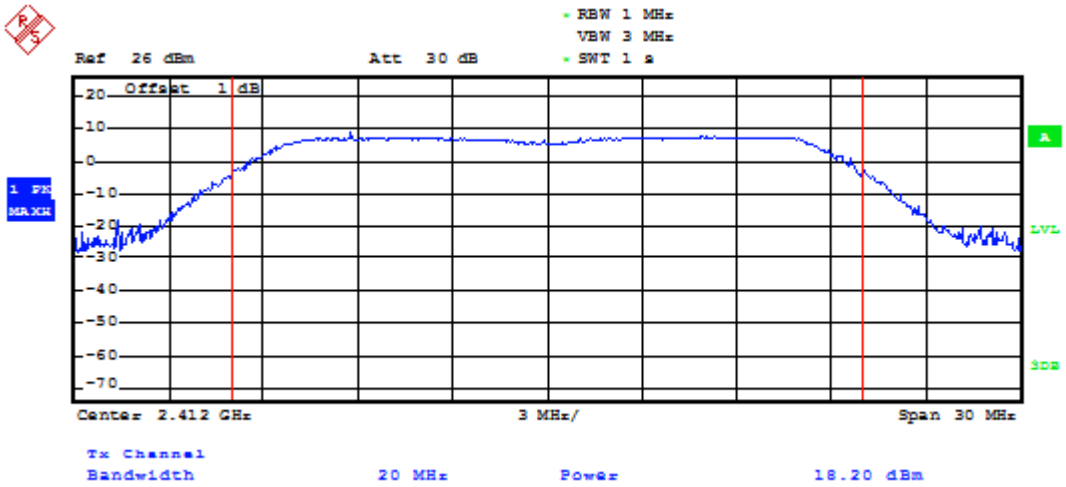
2.5 11G_M



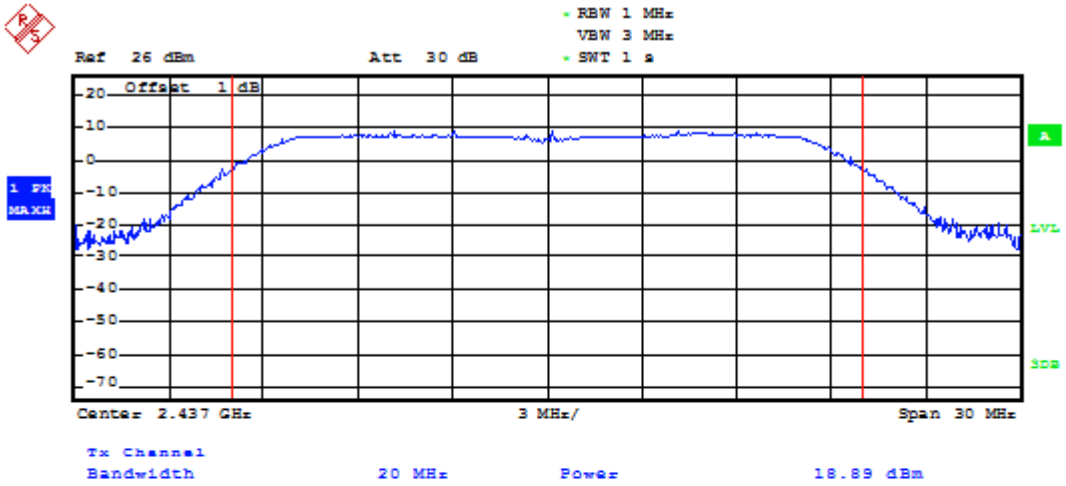
2.6 11G_H



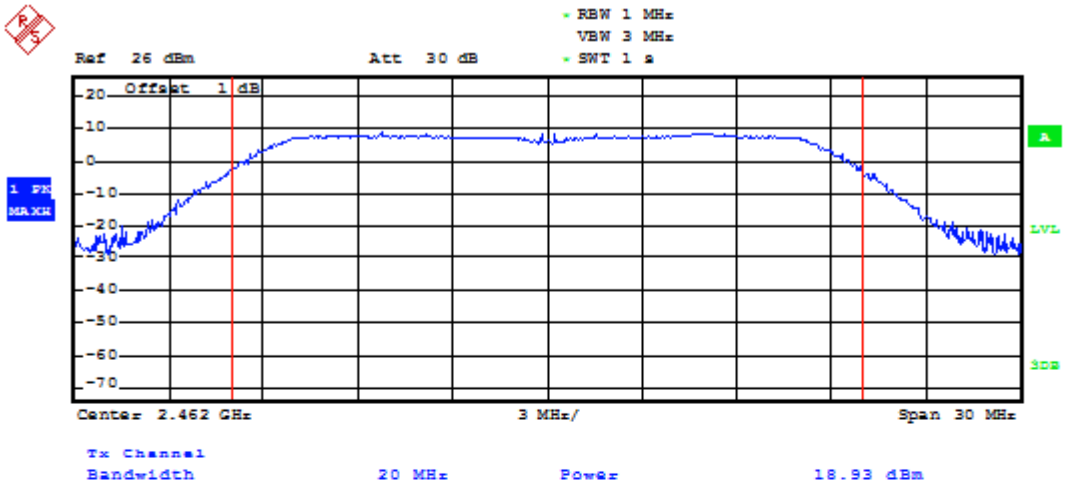
2.711N20_L



2.8 11N20_M



2.9 11N20_H



Appendix C: Maximum Power Spectral Density Level

In this Appendix, the "PD" refers to the measured "Maximum Power Spectral Density" value with 100 kHz RBW. The final result "PD" within 3 kHz bandwidth, which is used to compare with the limit requirements, should be adjusted according to: PD[dBm/3 kHz]=PD*[dBm/100kHz]-15.2[dB].

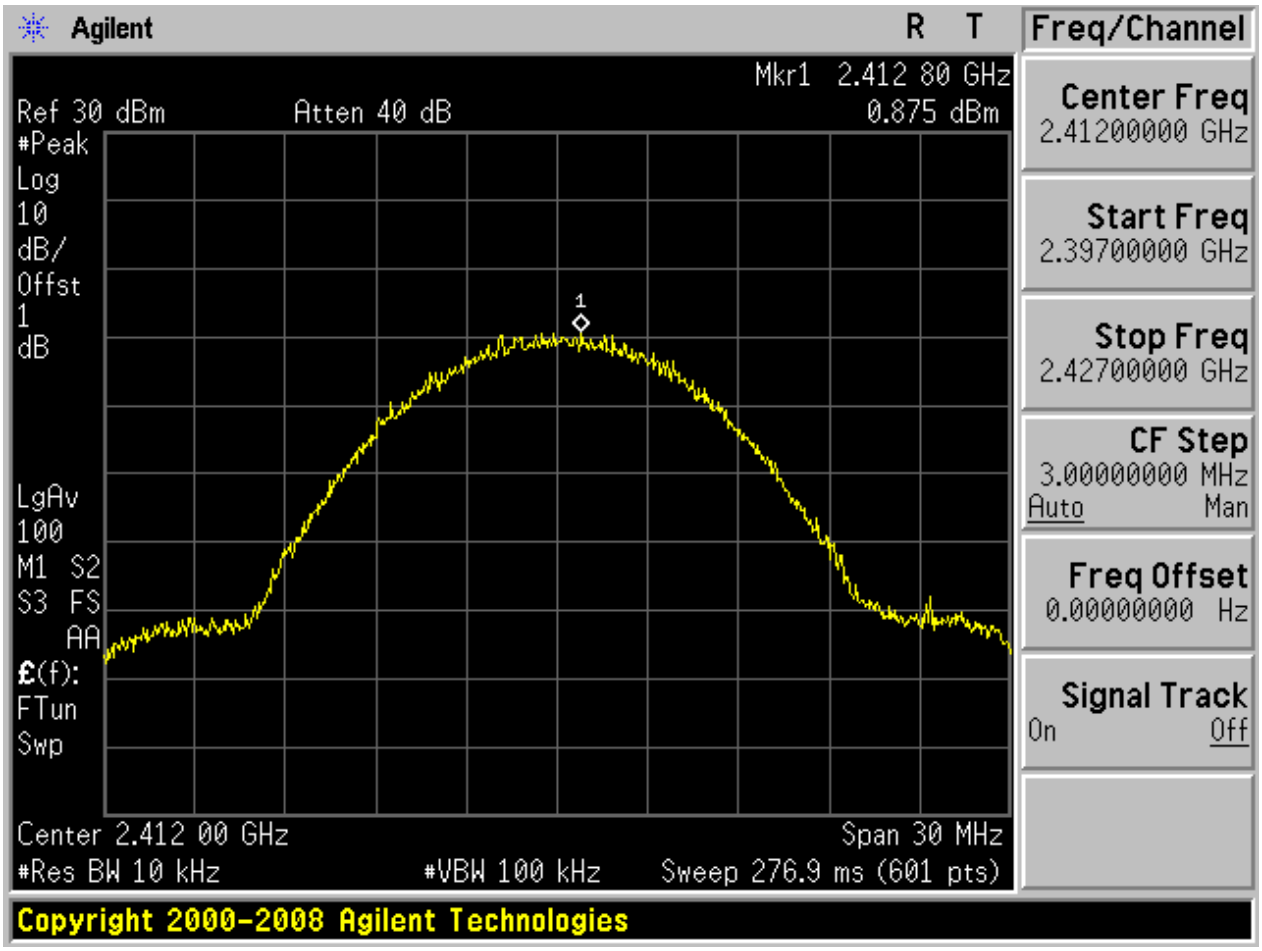
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain as "PD@i [dBm]", and then combined into the final result "PD [dBm]" to compare with the limit according to: PD [dBm]=10 x lg(10 ^ (PD@1 [dBm] / 10) + ... + 10 ^ (PD@N [dBm] / 10)) (the N denotes the antenna chains used by smart antenna systems). NOTE that the method is a stringent but convenient consideration, because each "PD@i [dBm]" may be located at different frequency occurrence. For the final judgment, the combination of the final result "PD [dBm]" (Trace#sum) should be performed frequency-by-frequency on the measured spectrum trace for each antenna chain (Trace#i). Unless otherwise specified, the method for final judgment will not be used.

Part I - Test Results

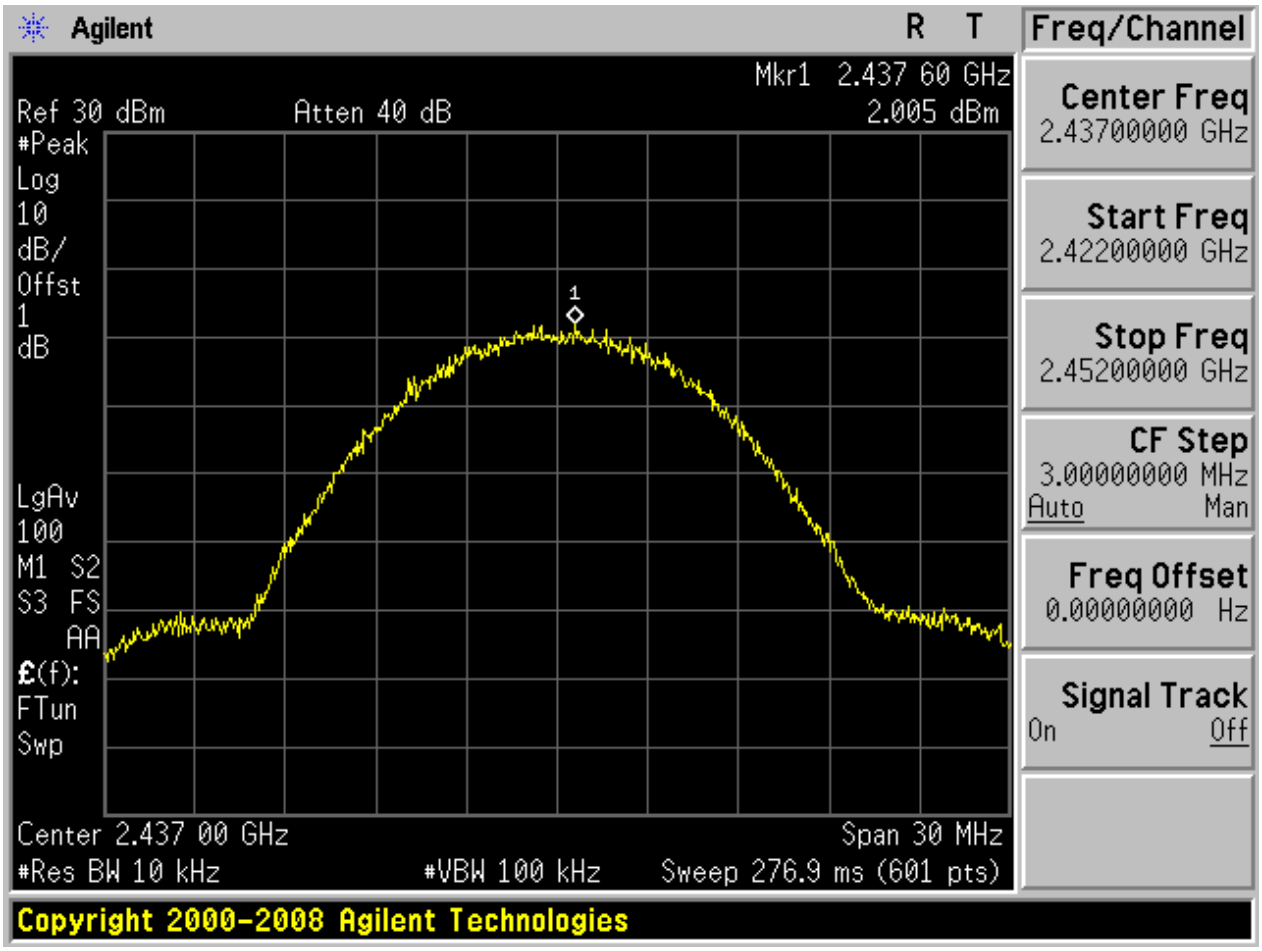
Test Mode	Test Channel	Frequency[MHz]	PD[MHz]	Verdict
11B	L	2412	0.88	pass
11B	M	2437	2.01	pass
11B	H	2462	2.29	pass
11G	L	2412	-5.59	pass
11G	M	2437	-6.19	pass
11G	H	2462	-5.03	pass
11N20	L	2412	-8.77	pass
11N20	M	2437	-7.76	pass
11N20	H	2462	-8.2	pass

Part II - Test Plots

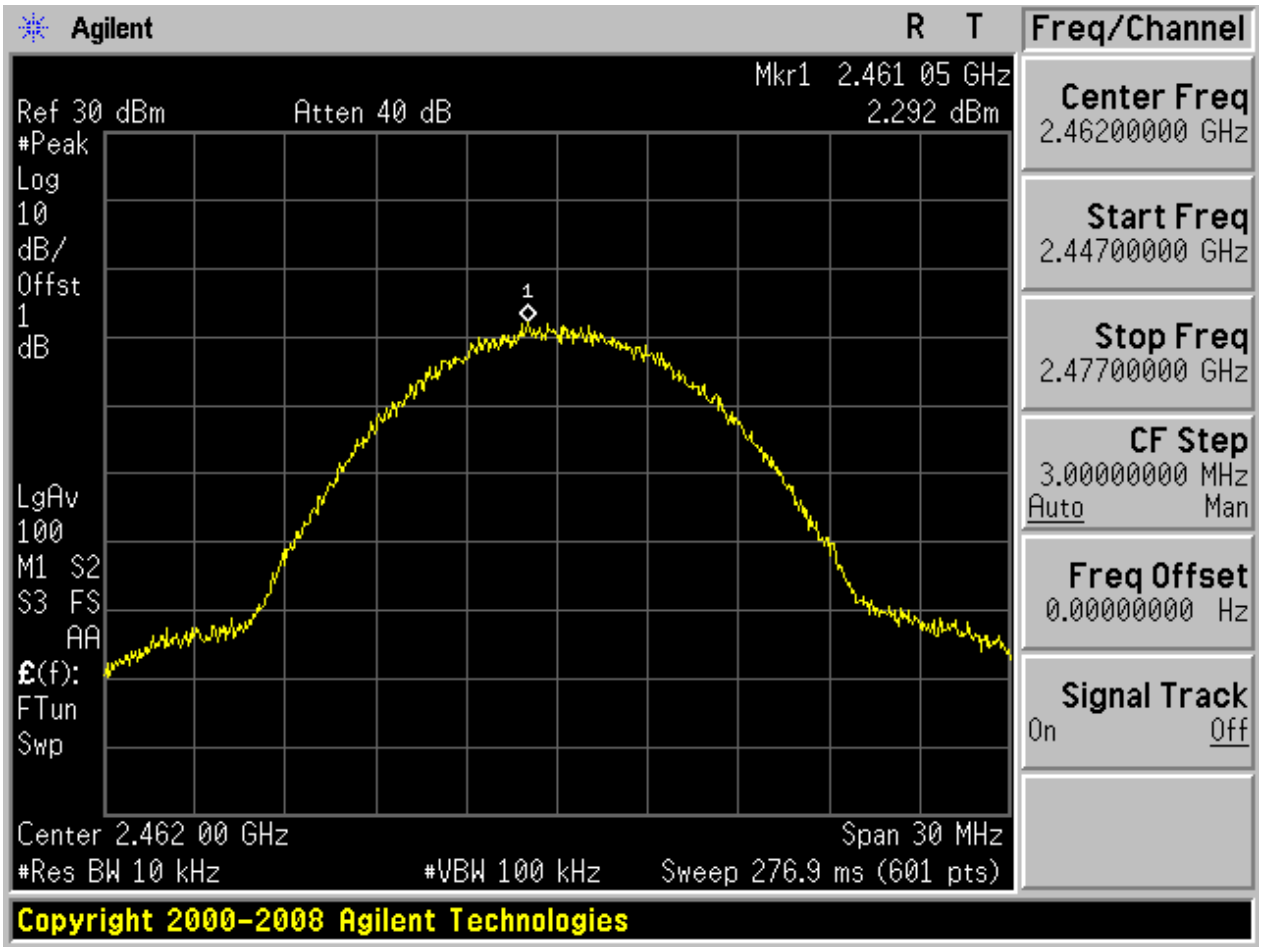
2.1 11B_L



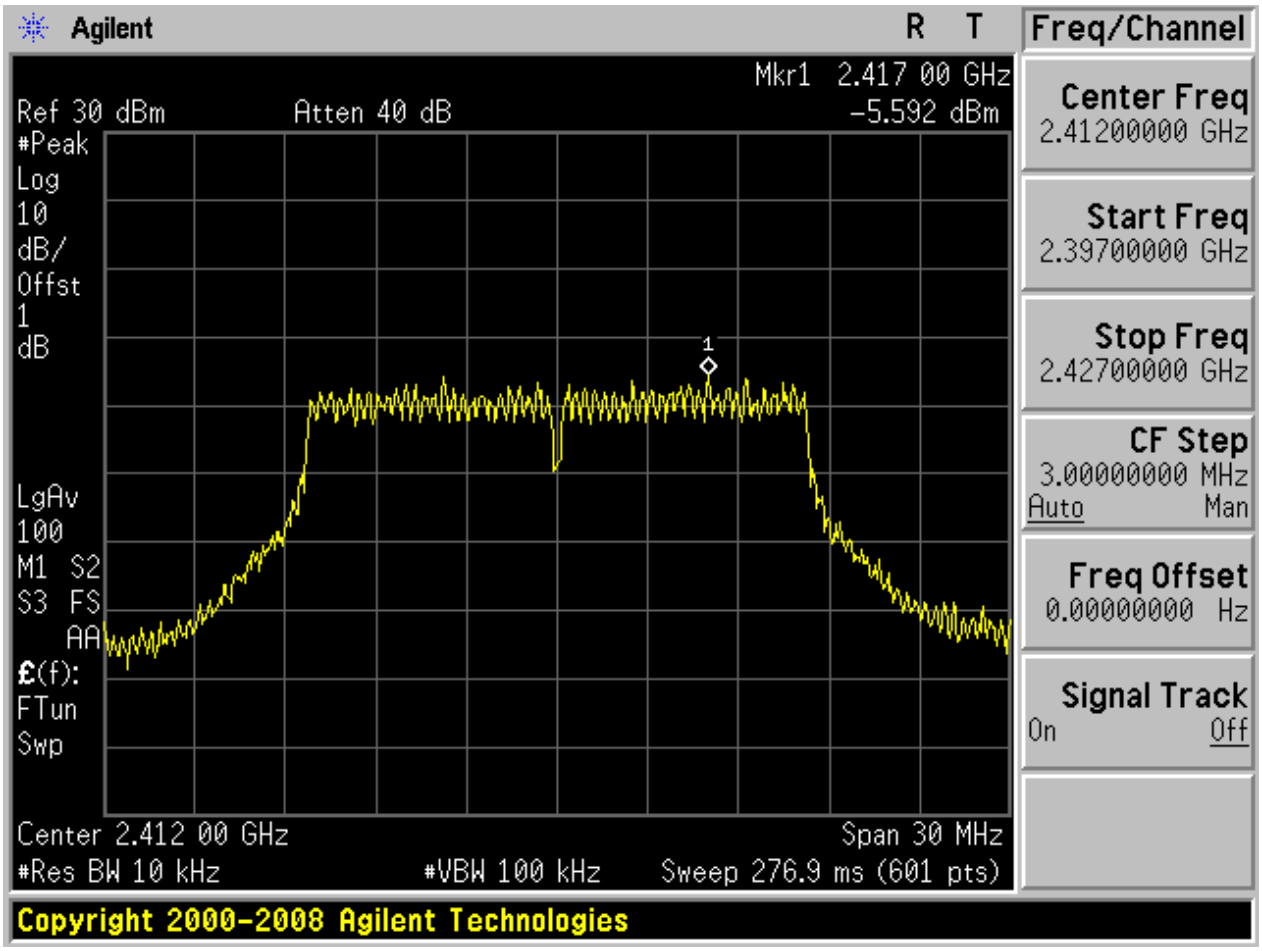
2.2 11B_M



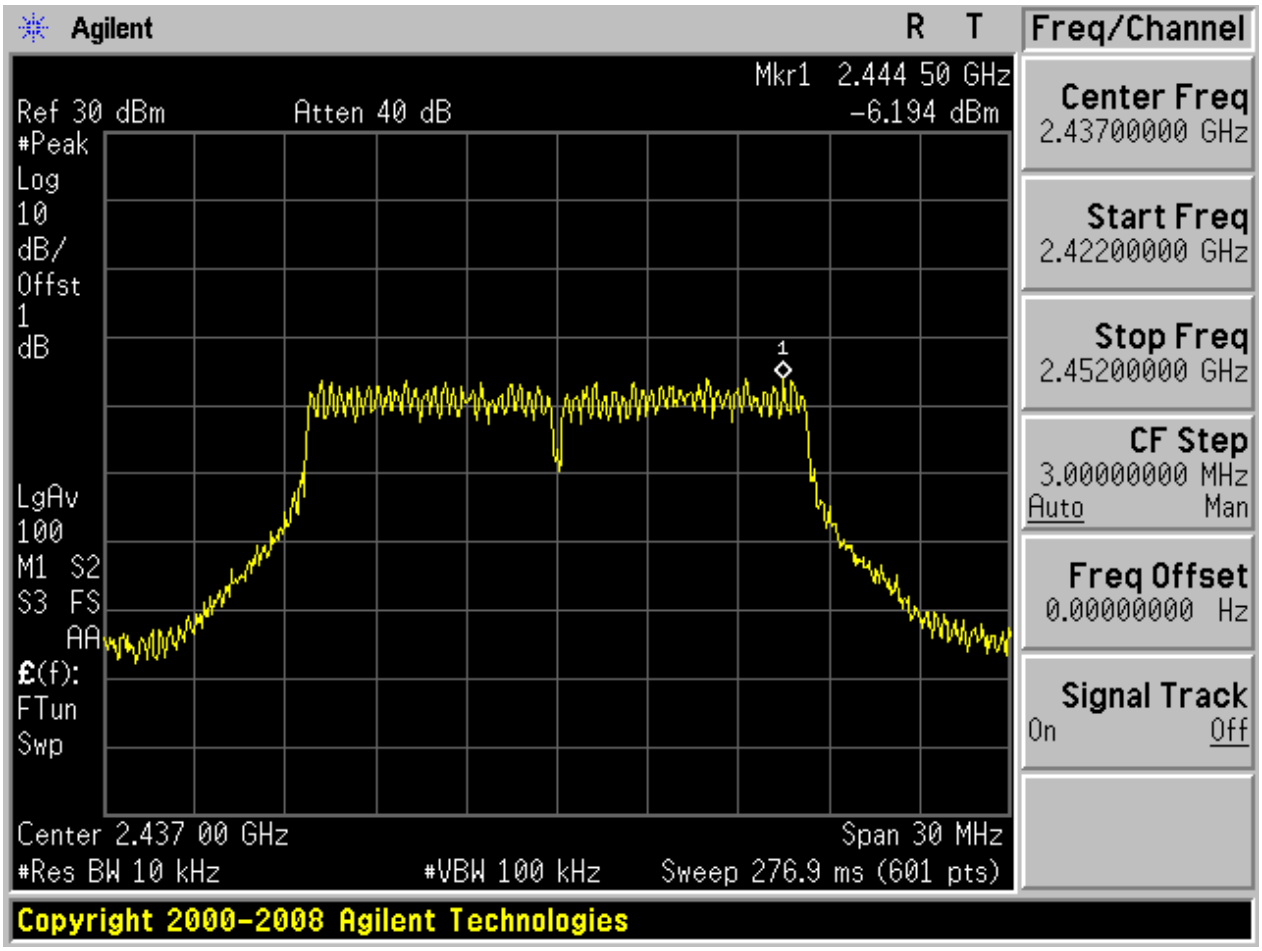
2.3 11B_H



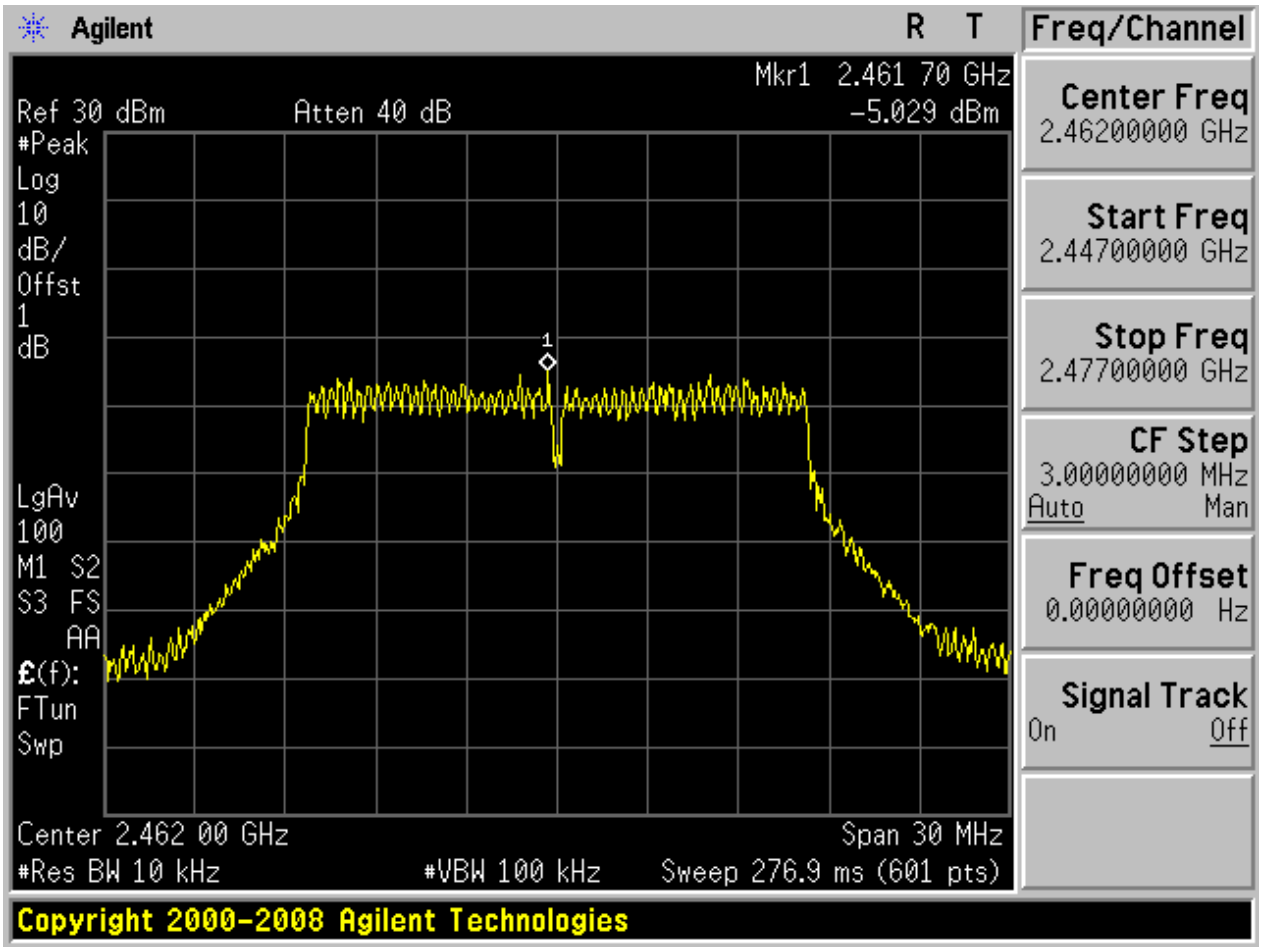
2.4 11G_L



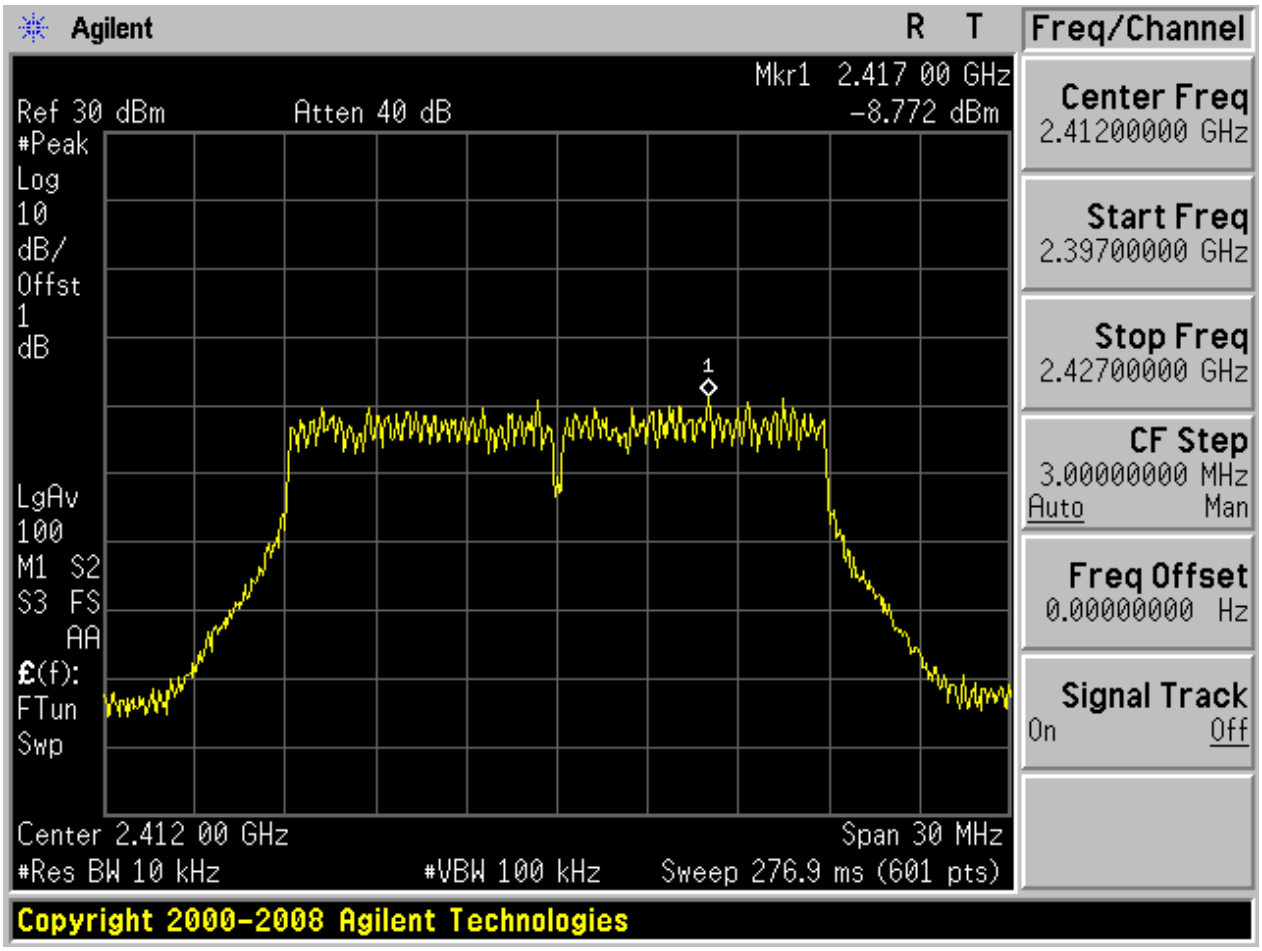
2.5 11G_M



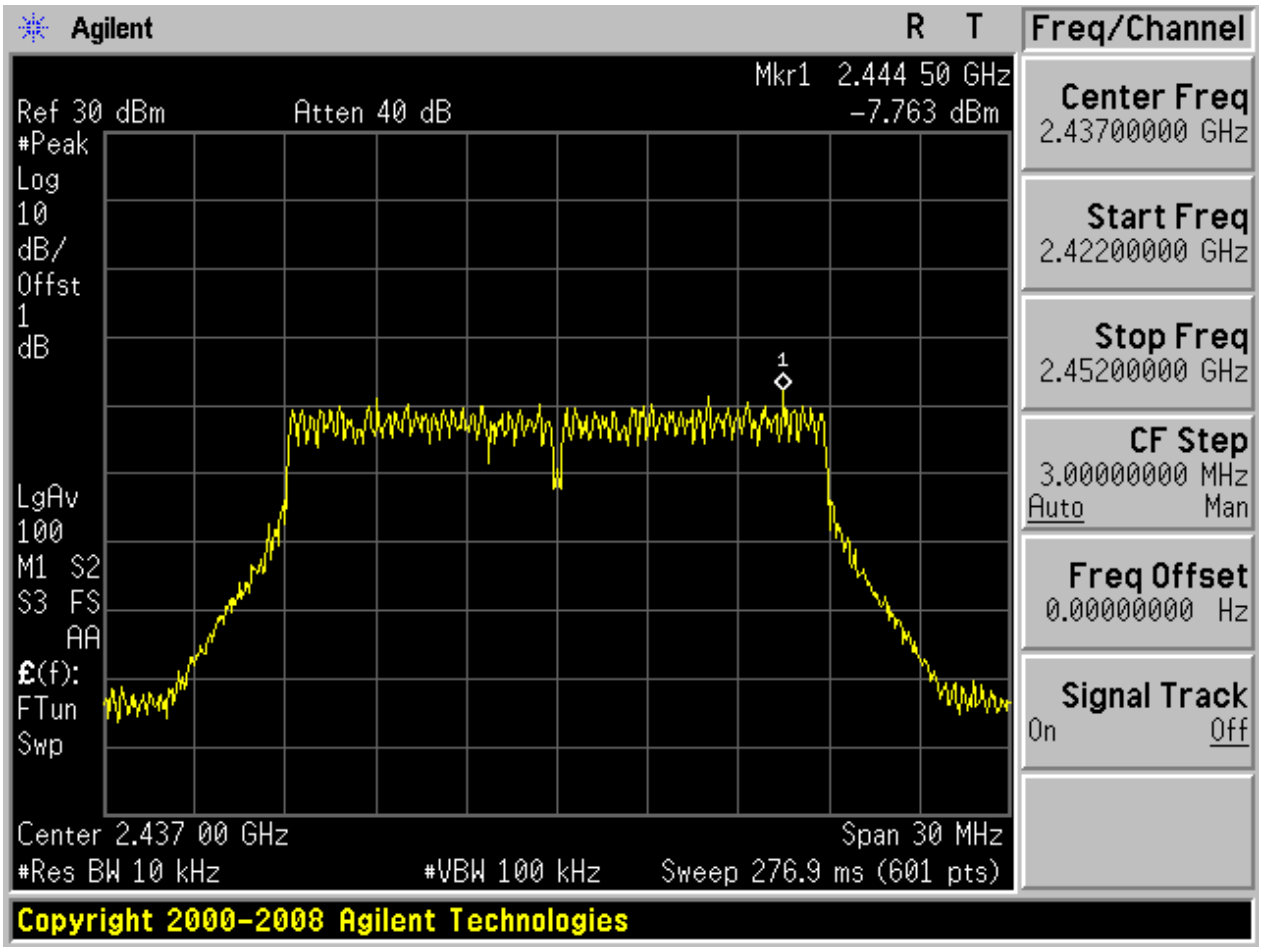
2.6 11G_H



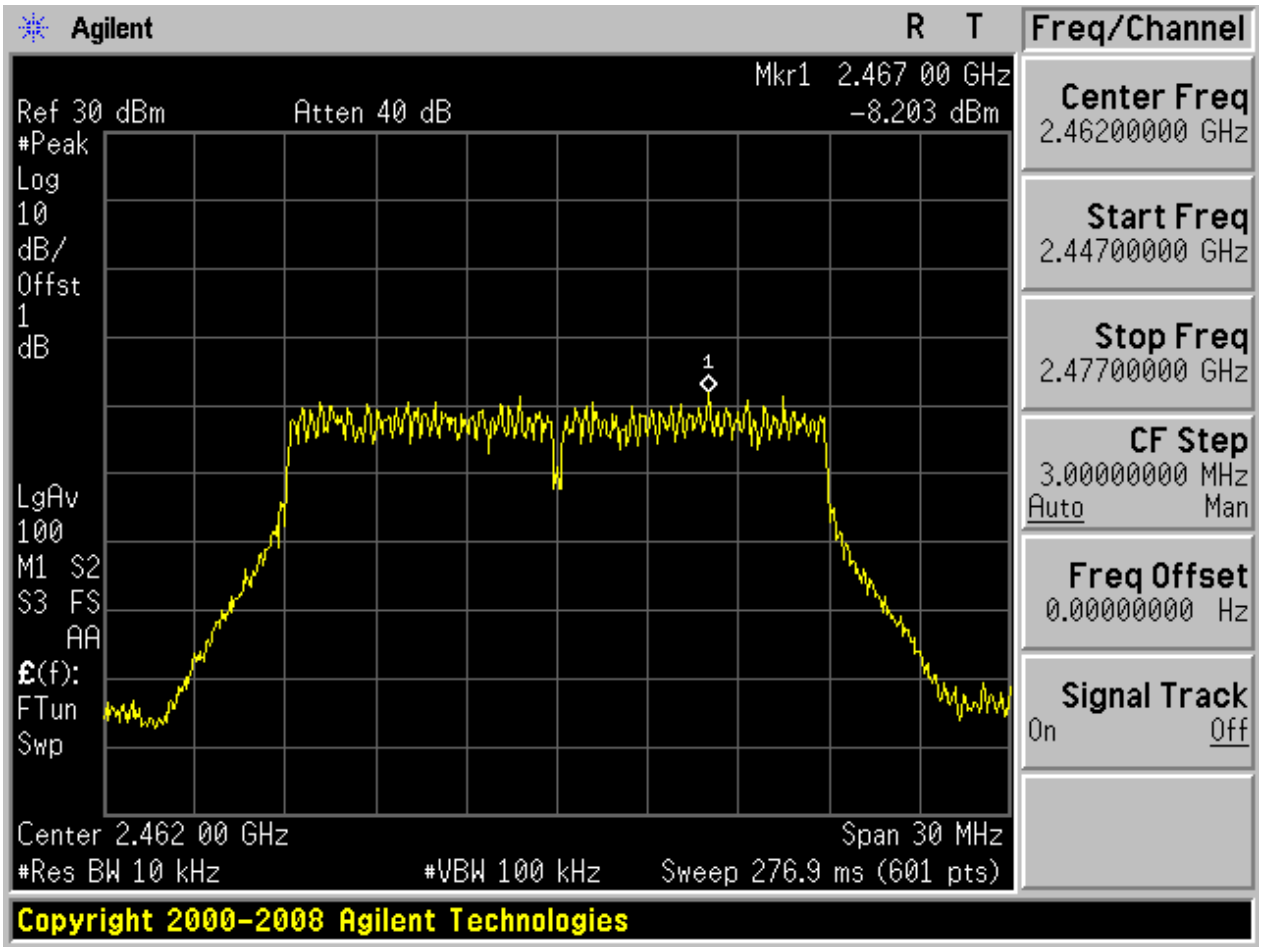
2.7 11N20_L



2.8 11N20_M



2.9 11N20_H



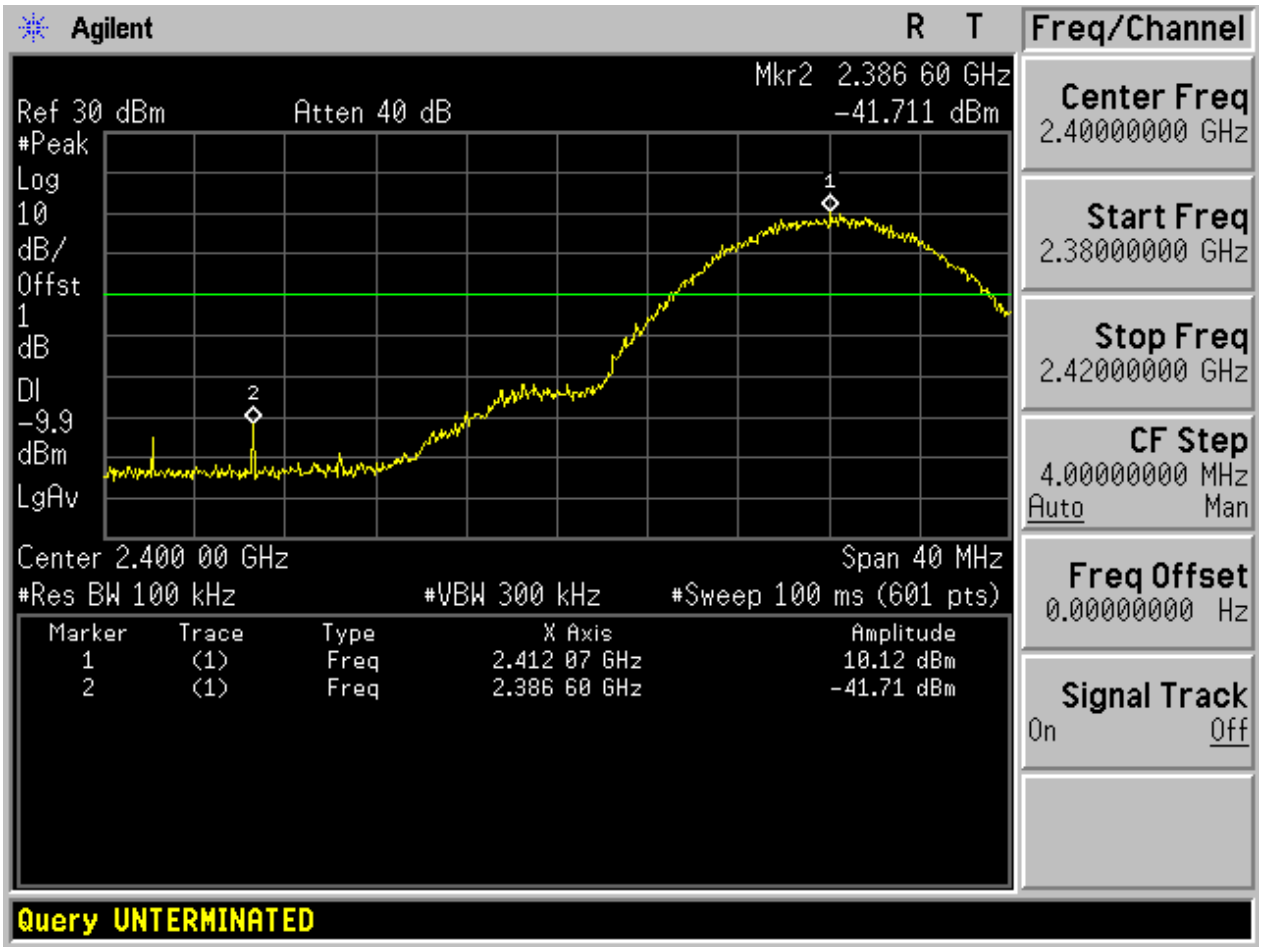
Appendix D: Band Edges Compliance

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
11B	L	2412	10.12	-41.71	pass
11B	H	2462	10.14	-49.47	pass
11G	L	2412	2.62	-32.28	pass
11G	H	2462	3.01	-44.89	pass
11N20	L	2412	-0.72	-40.11	pass
11N20	H	2462	-0.17	-48.89	pass

Part II - Test Plots

2.1 11B_L



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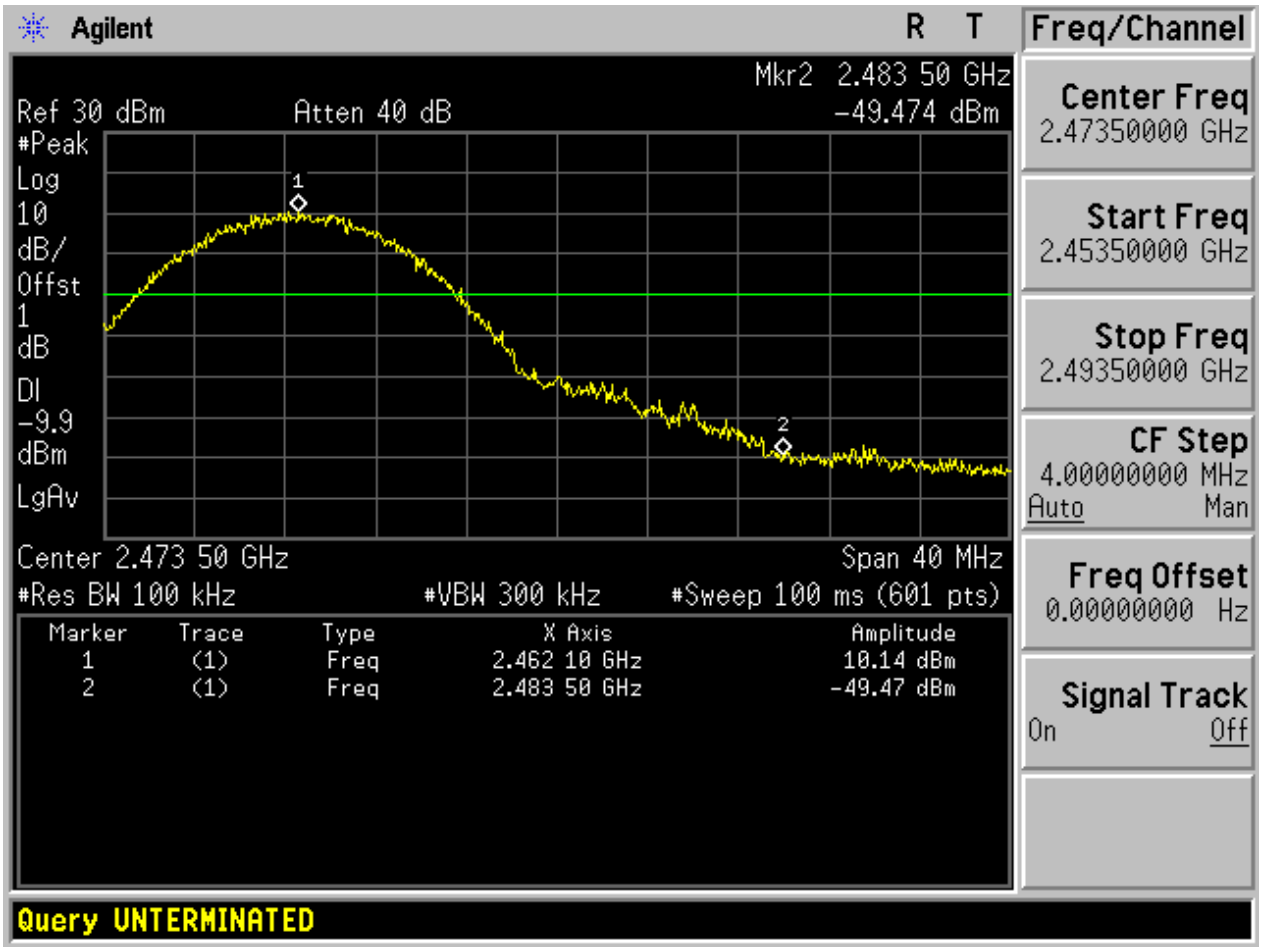
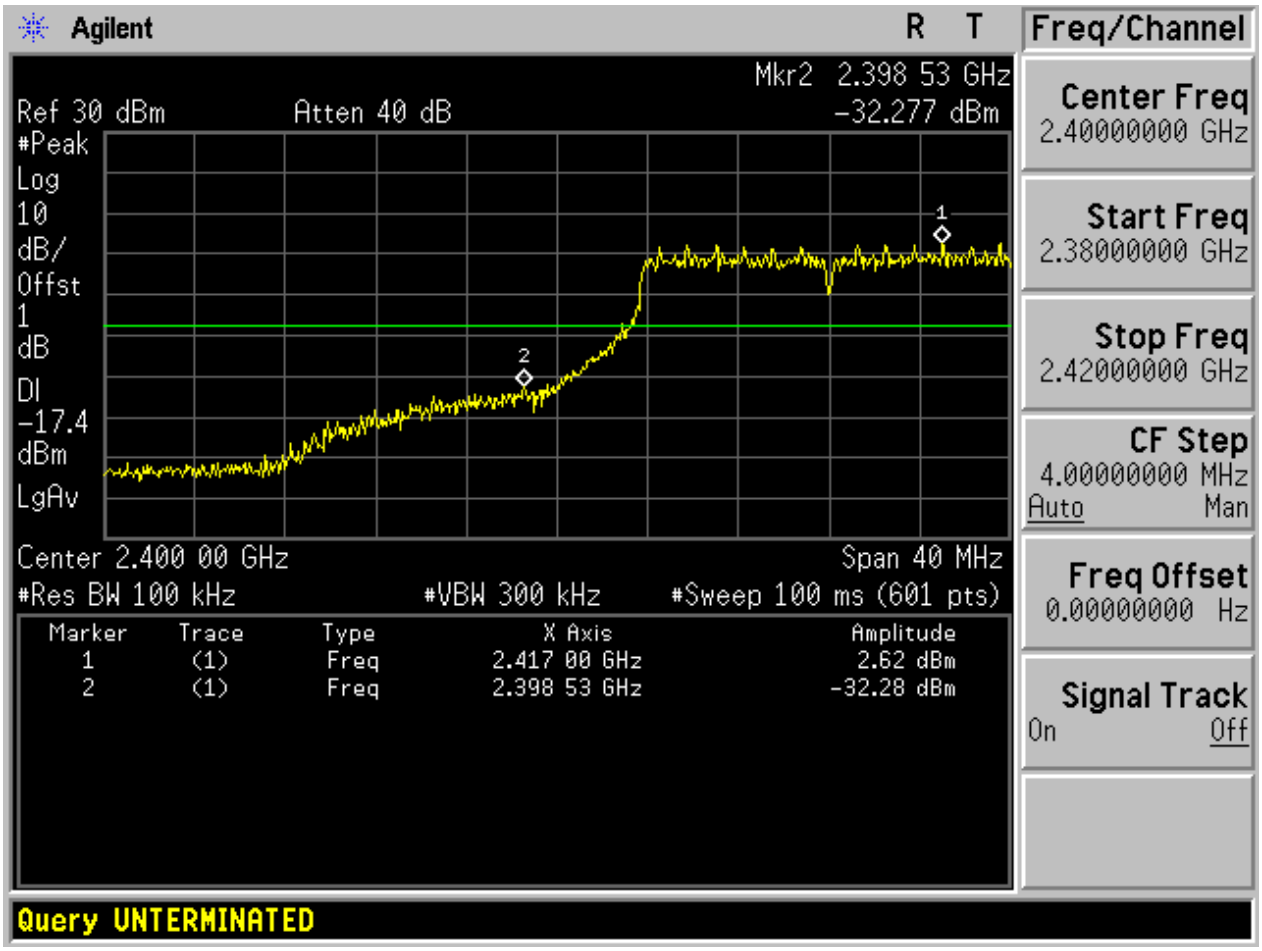
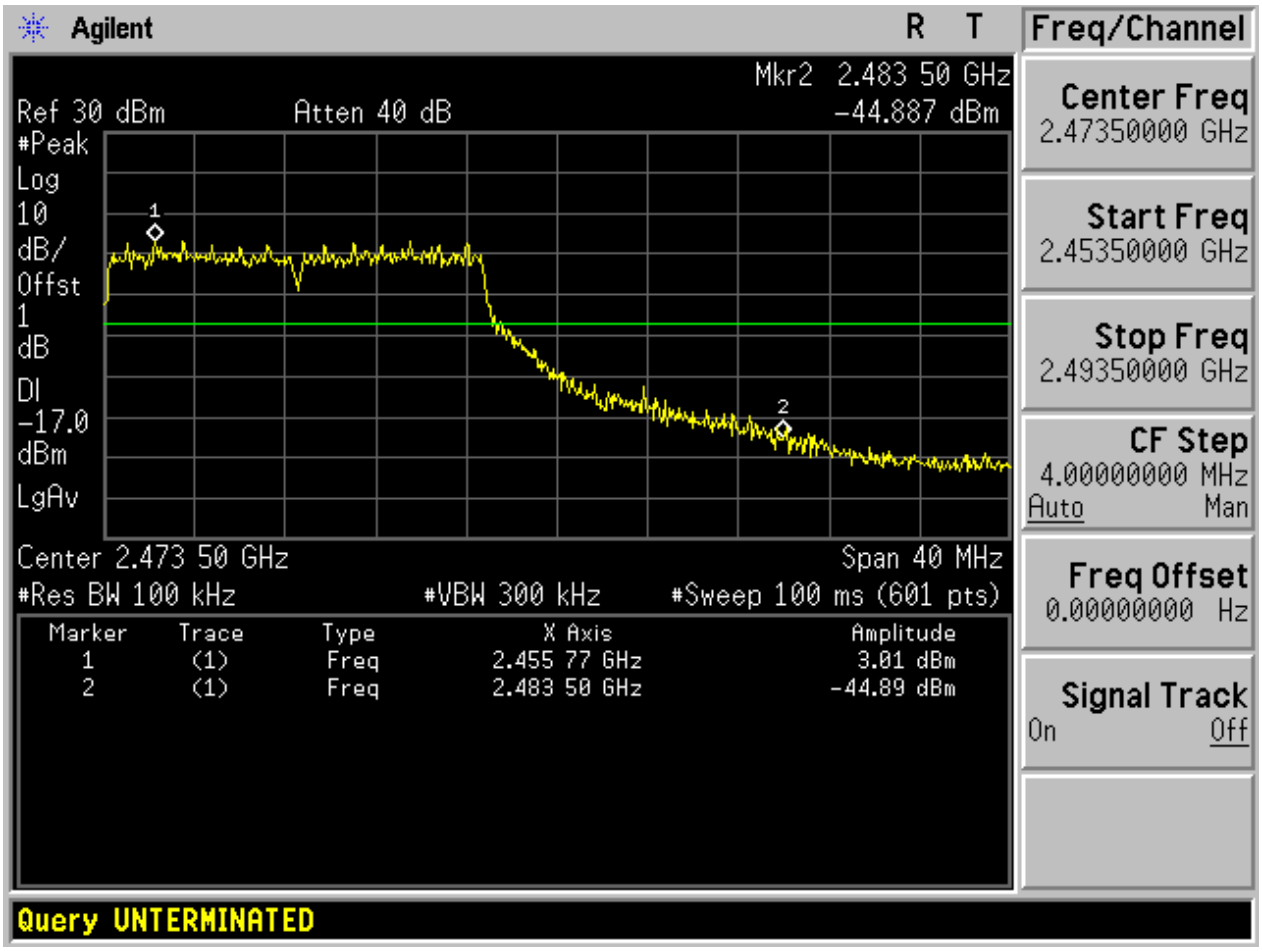


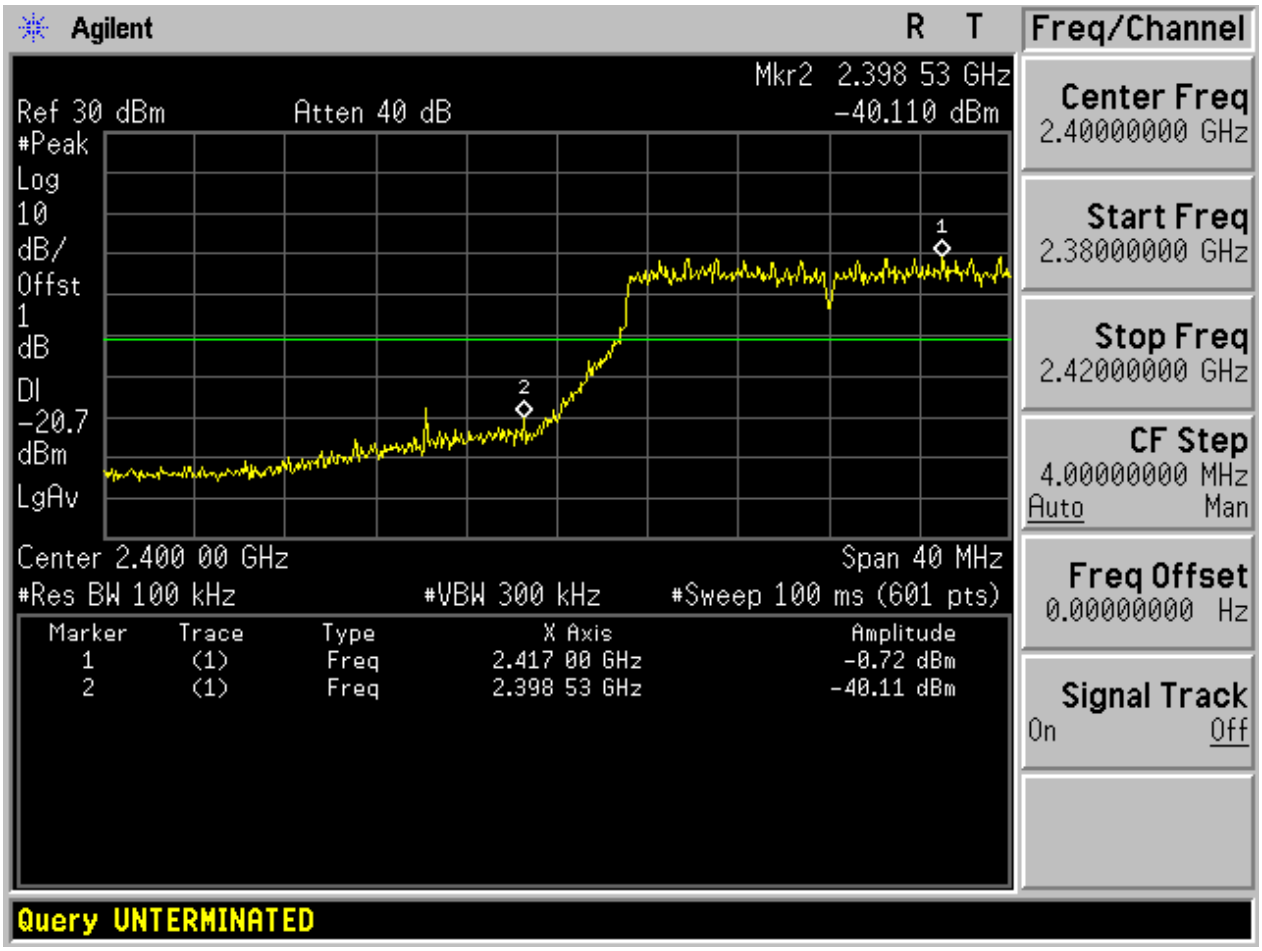
2.3 11G_L



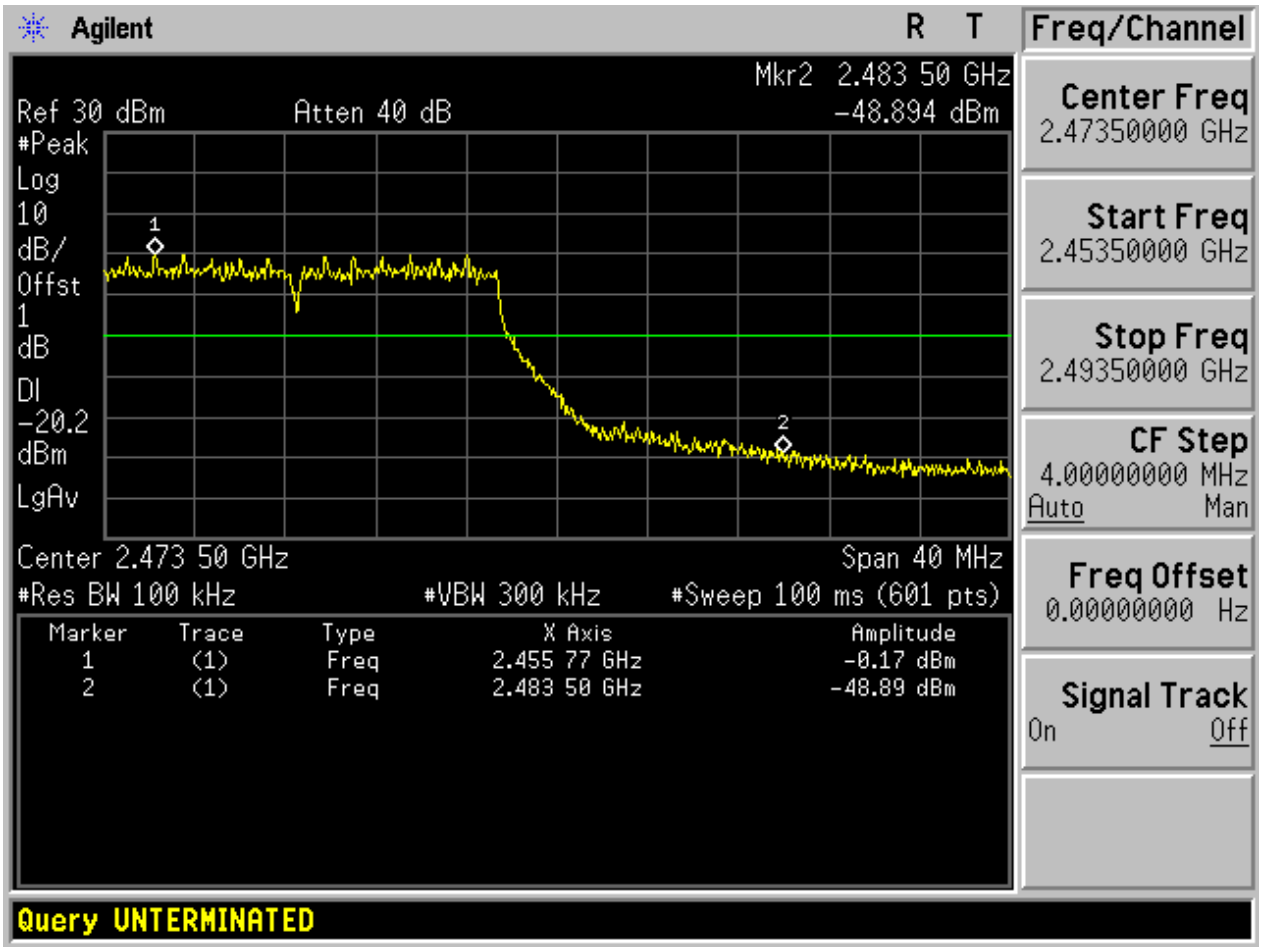
2.4 11G_H



2.5 11N20_L



2.6 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" referrers 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 x lg(100 [kHz]/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".

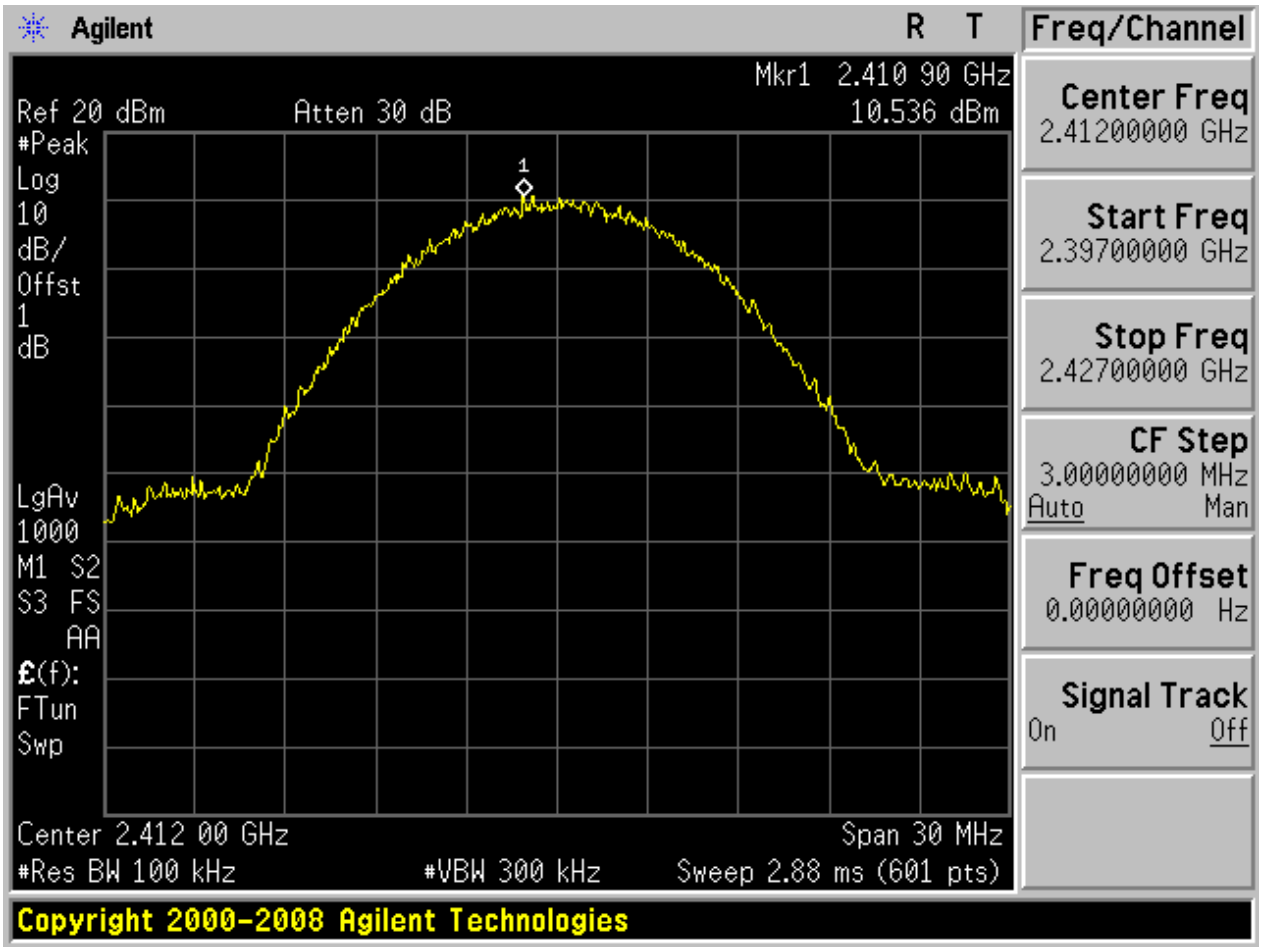
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
11B	L	2412	10.54	<limit	pass
11B	M	2437	11.48	<limit	pass
11B	H	2462	11.29	<limit	pass
11G	L	2412	2.78	<limit	pass
11G	M	2437	3.14	<limit	pass
11G	H	2462	3.21	<limit	pass
11N20	L	2412	-0.55	<limit	pass
11N20	M	2437	-0.03	<limit	pass
11N20	H	2462	0.07	<limit	pass

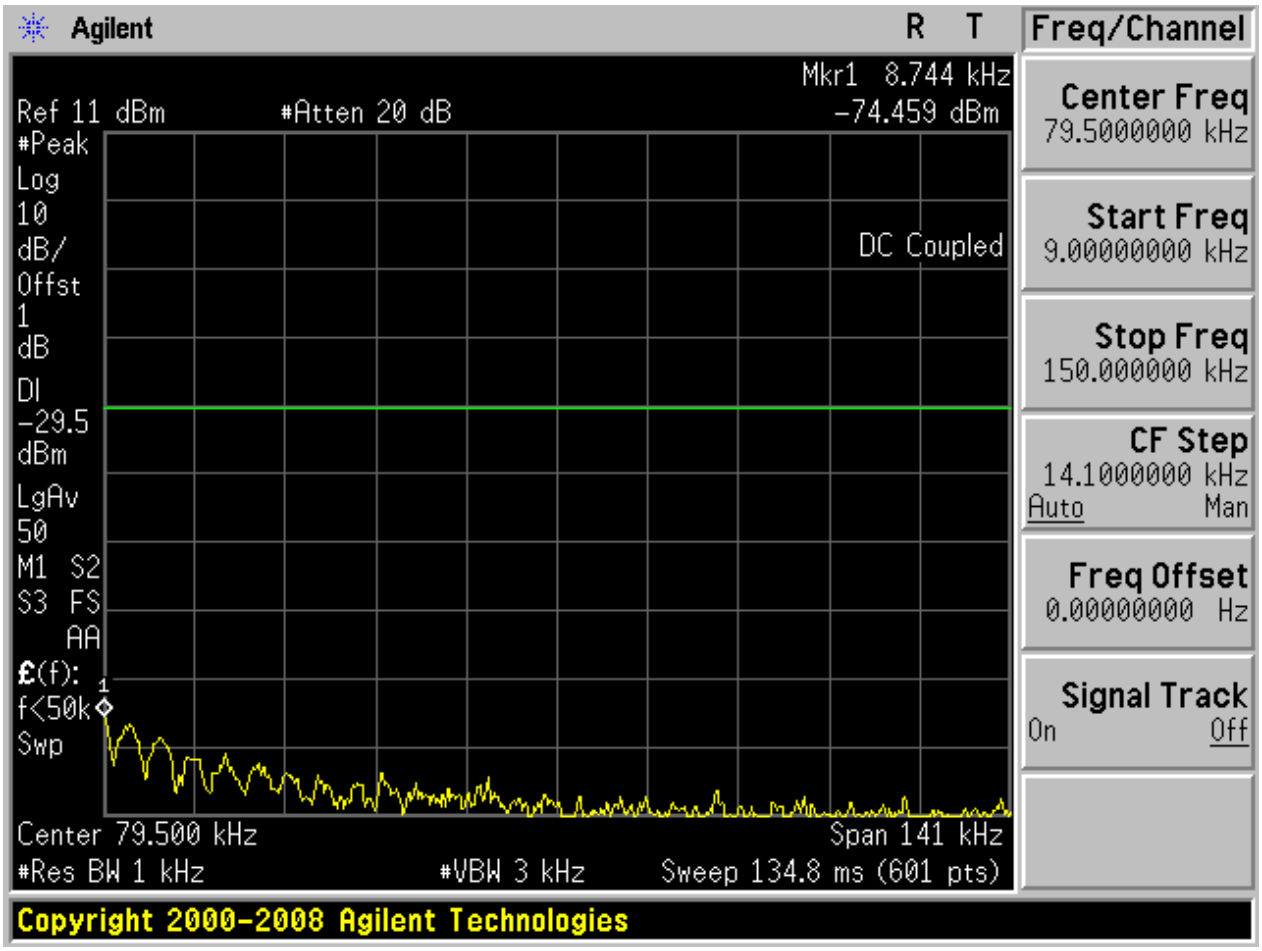
Part II - Test Plots

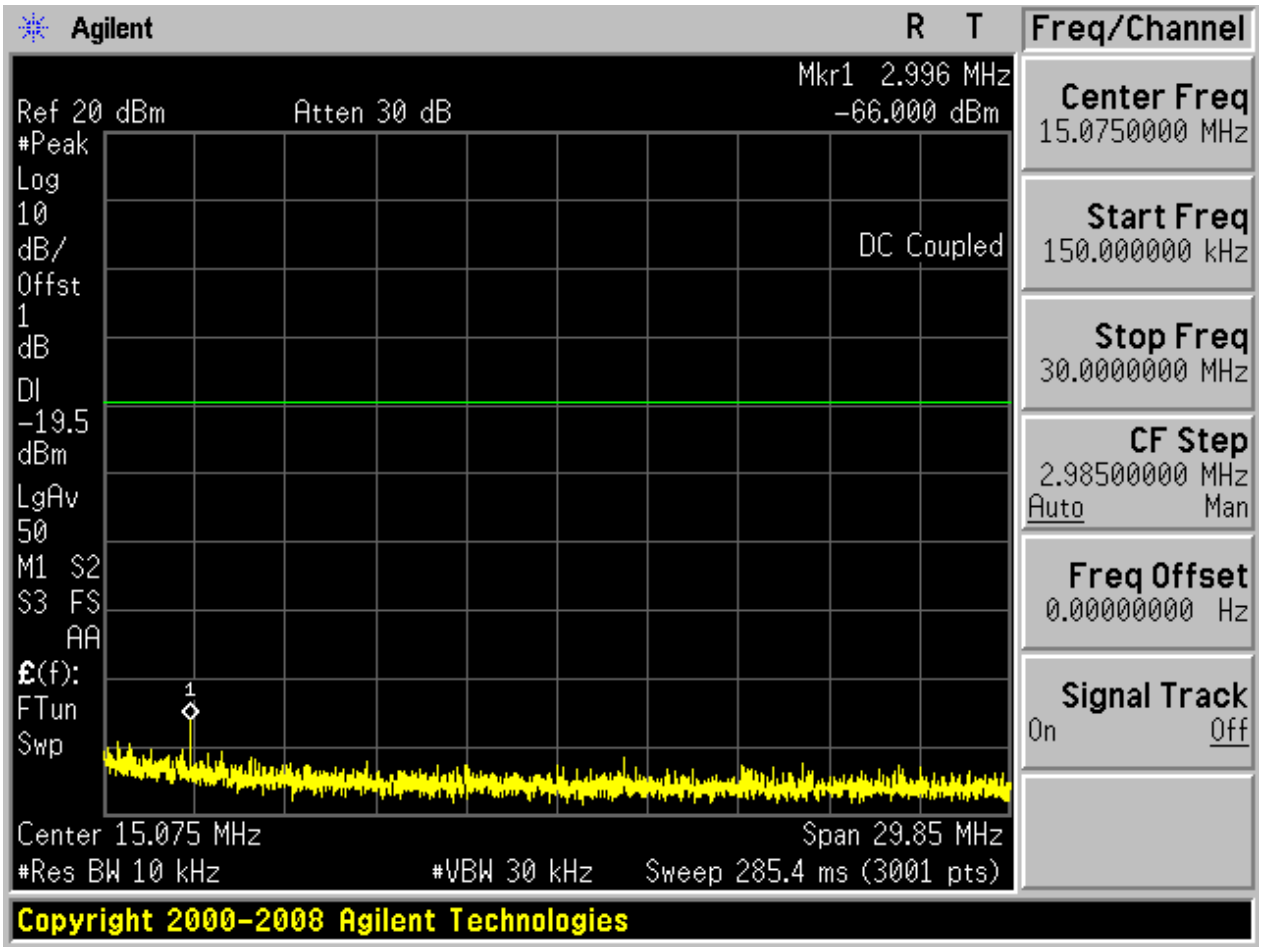
2.1 11B_L

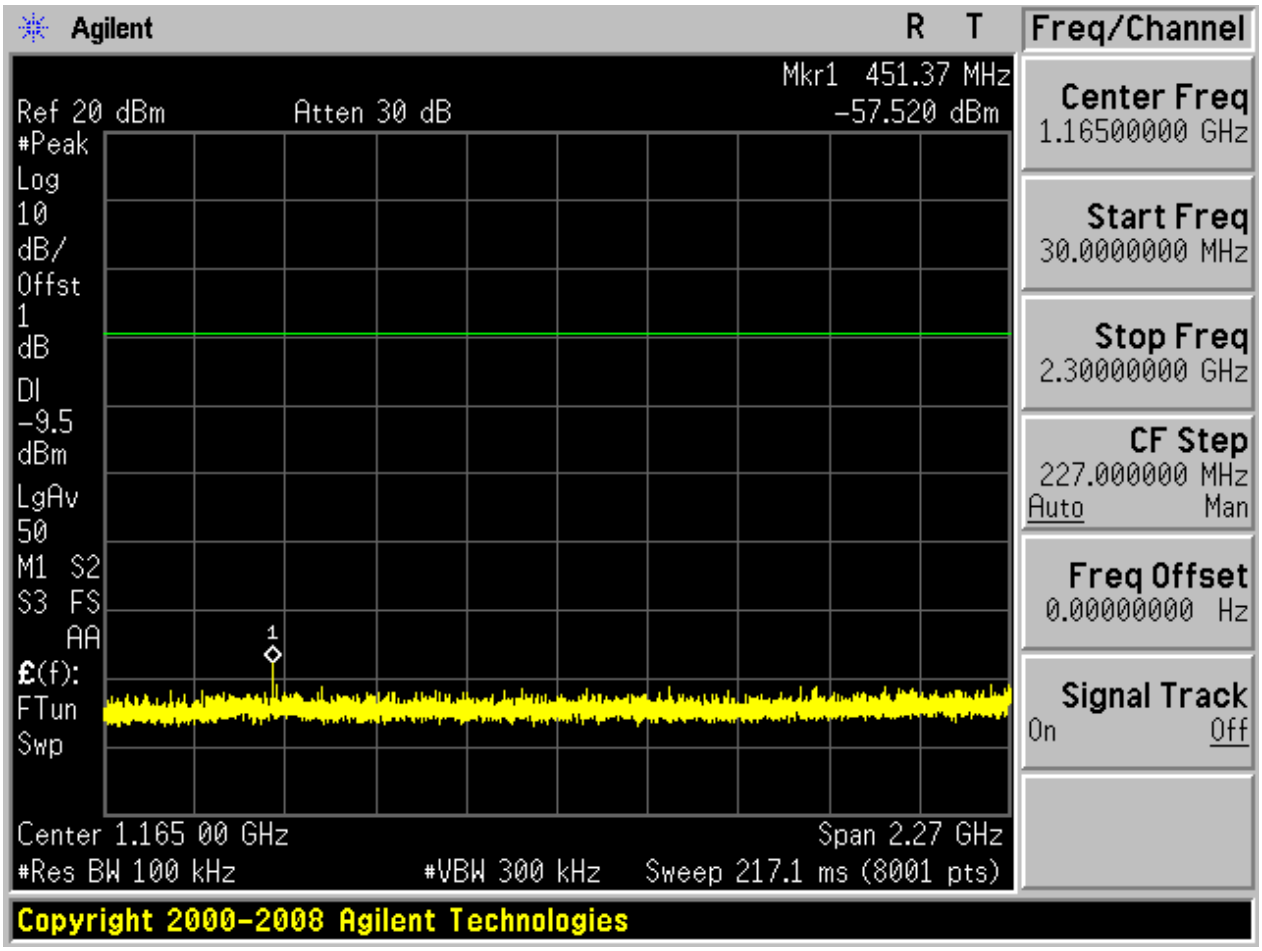
Pref:

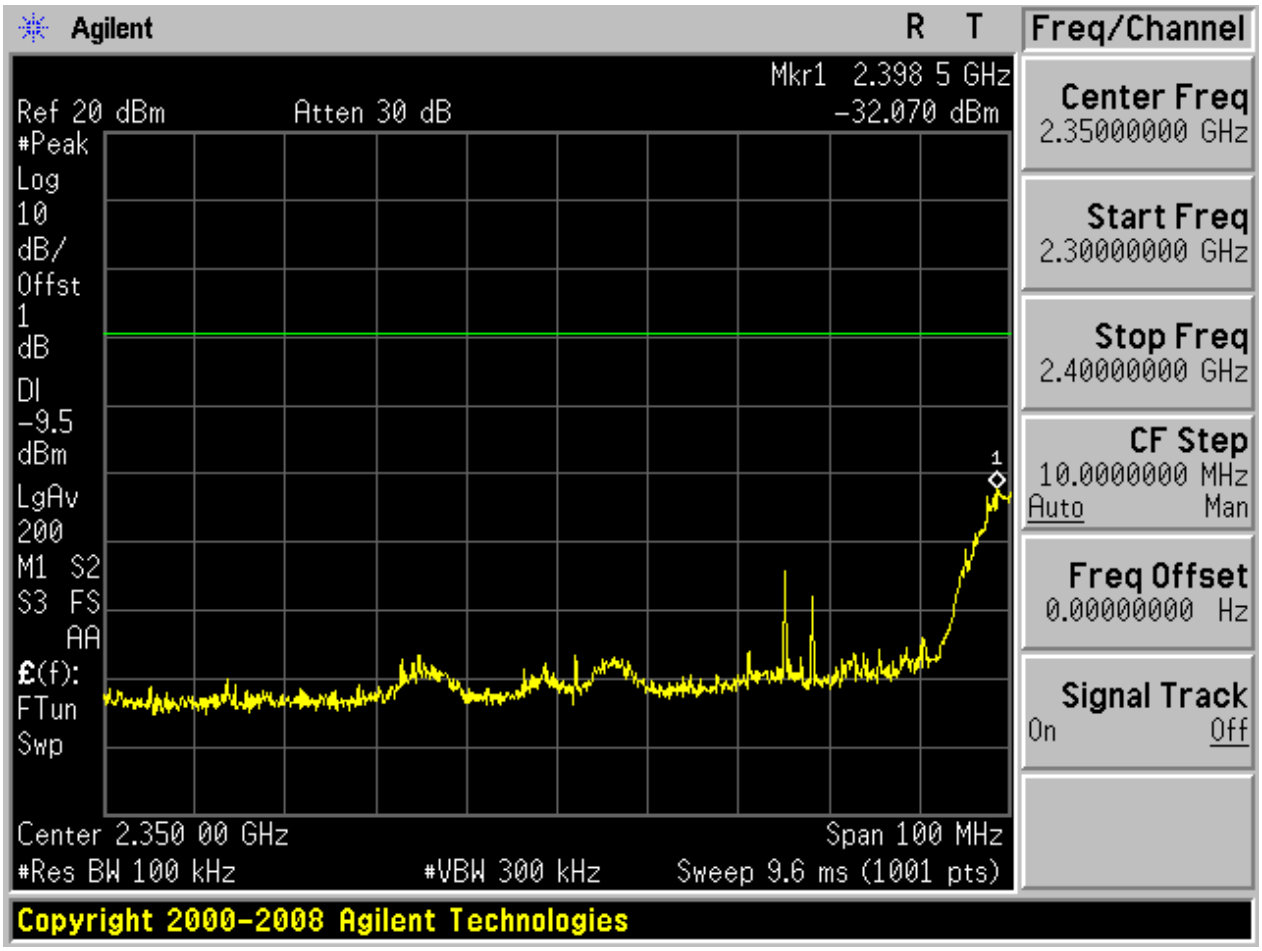


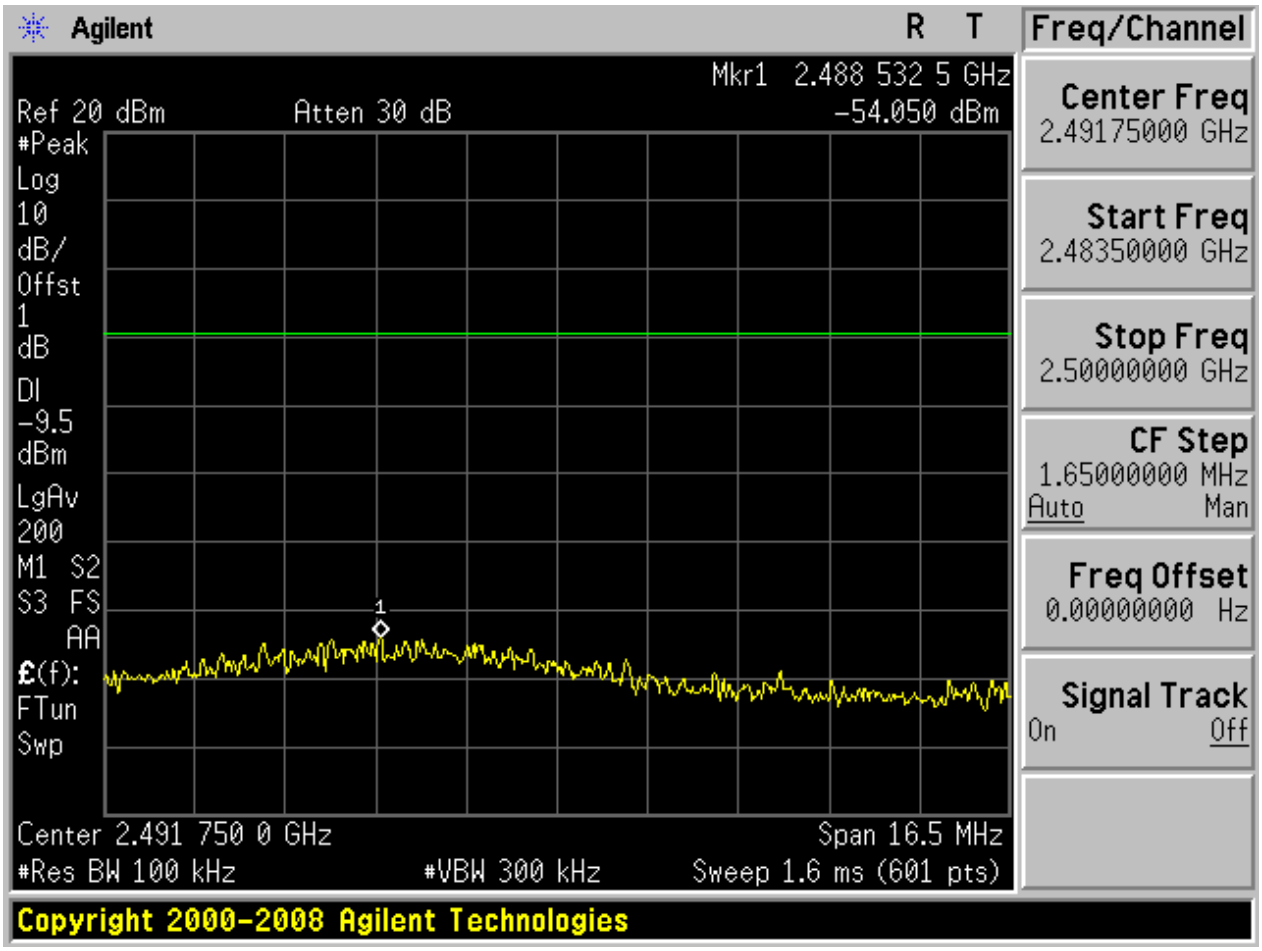
Puw:

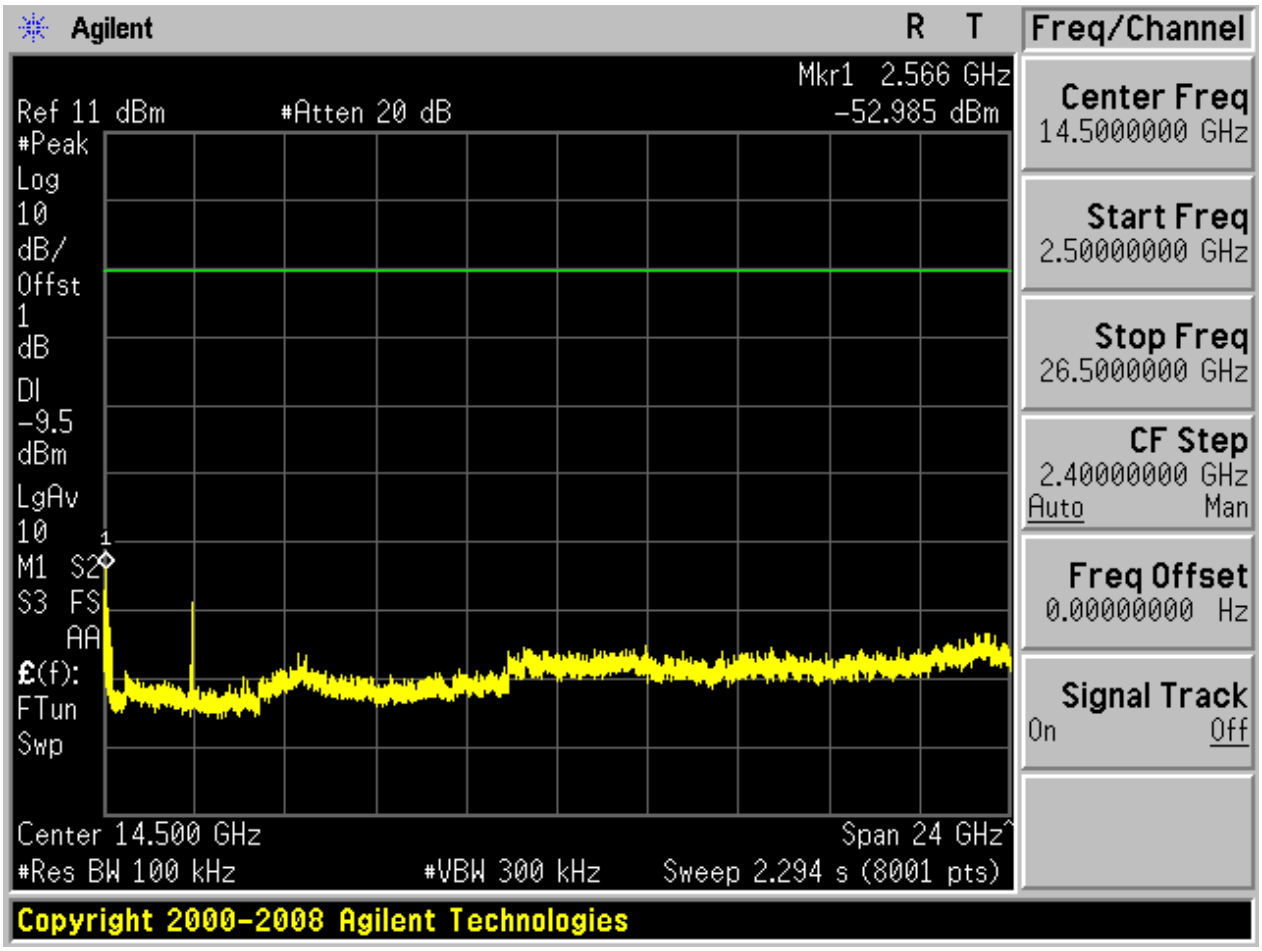






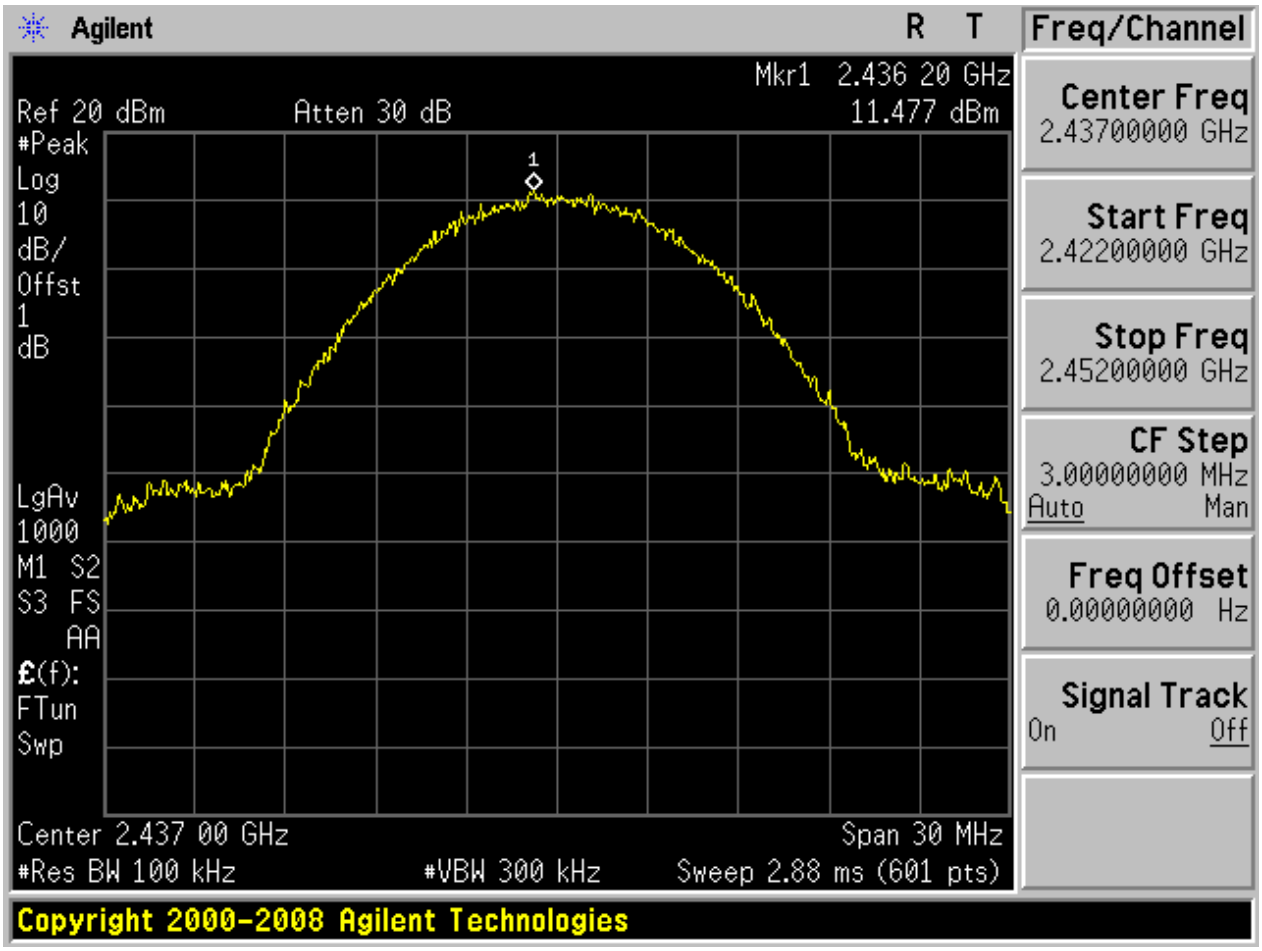




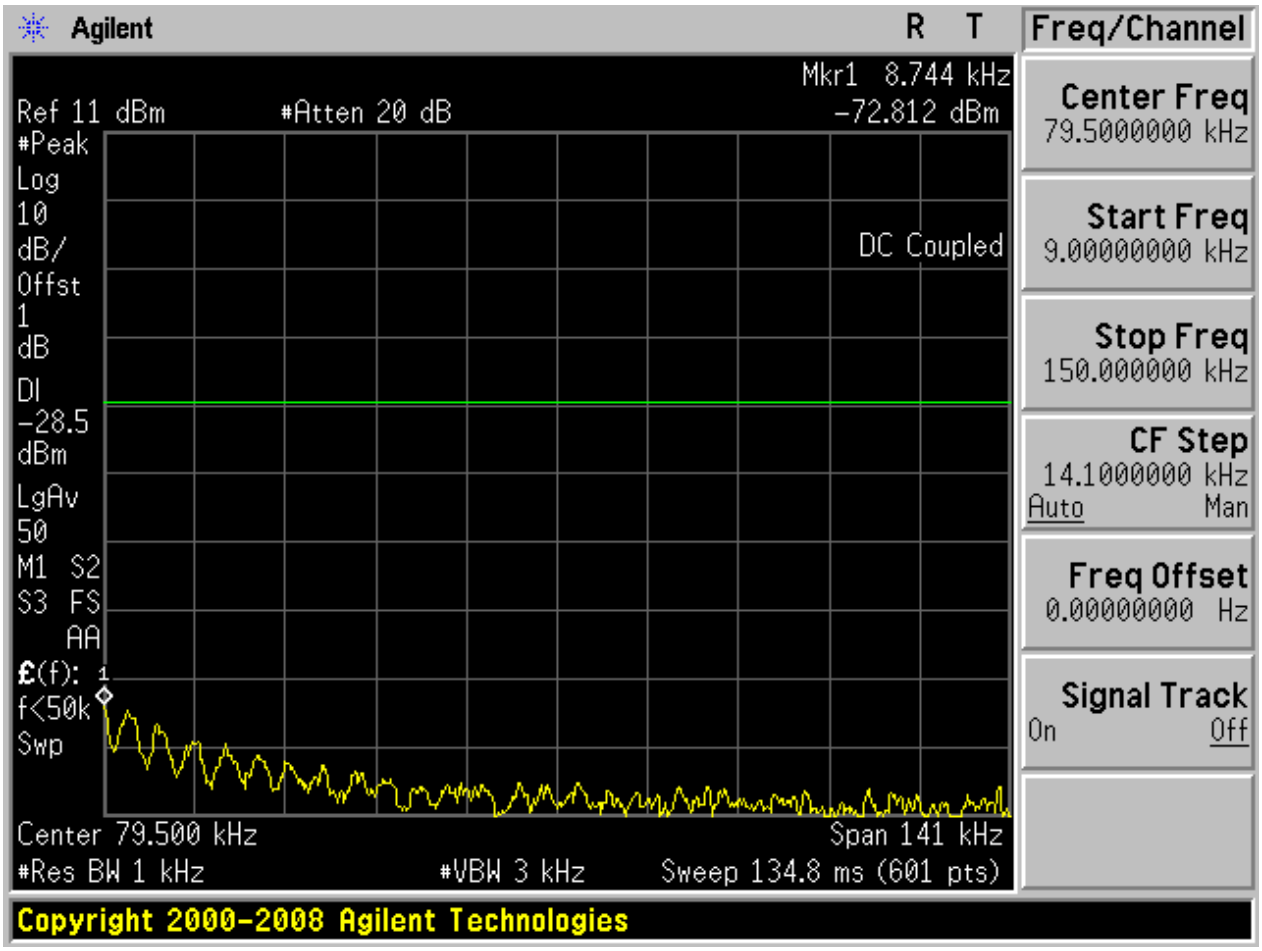


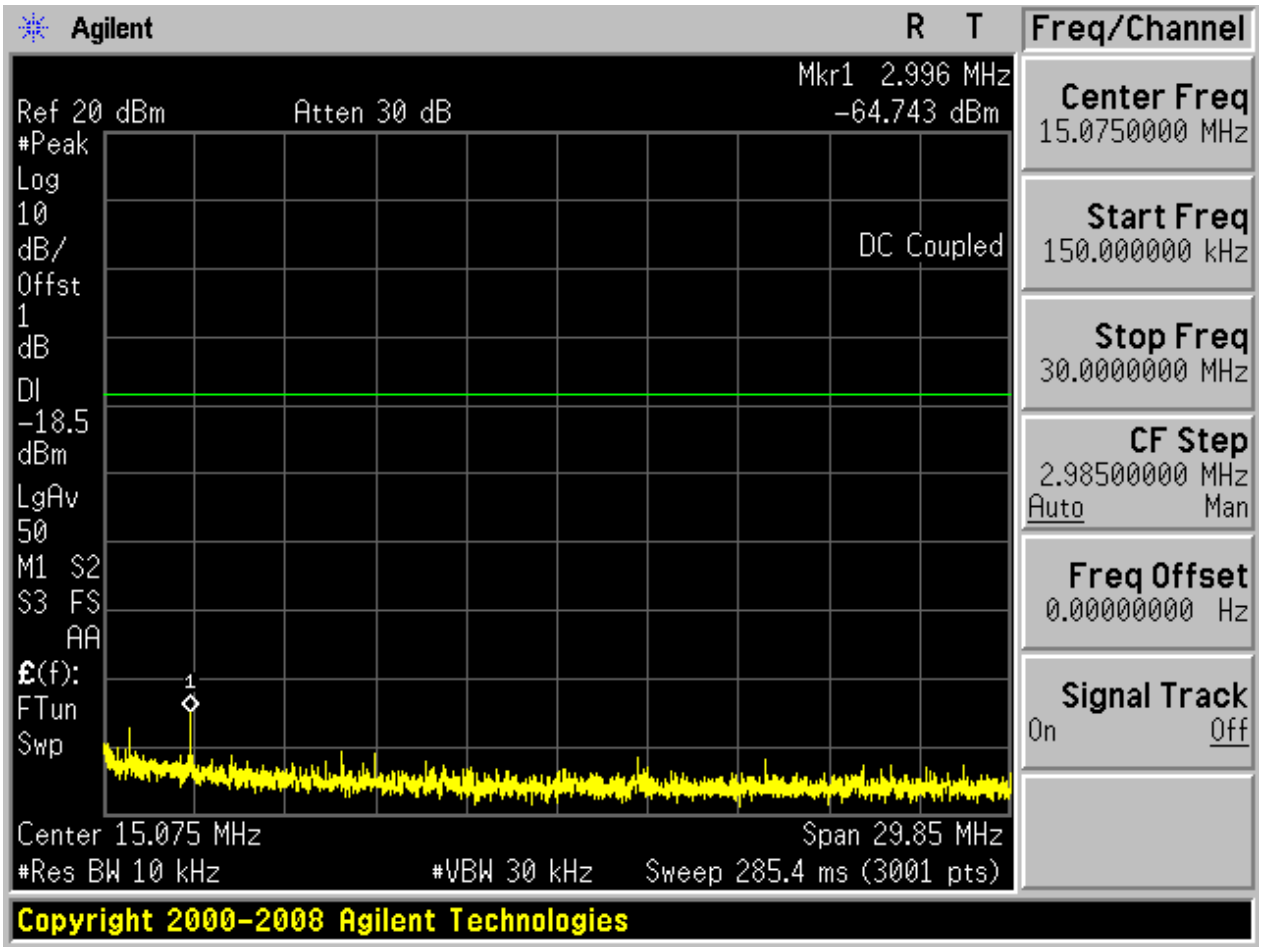
2.2 11B_M

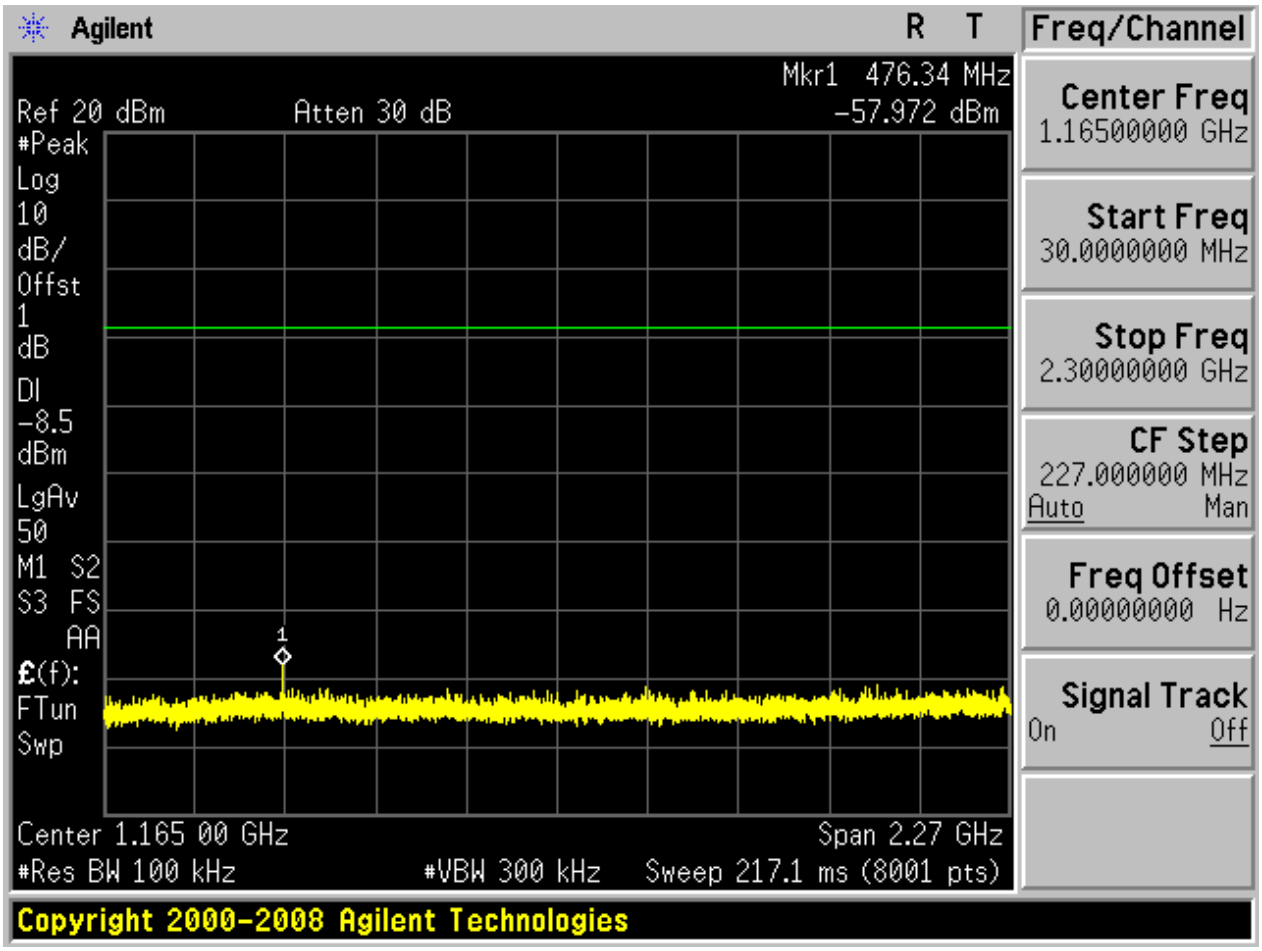
Pref:

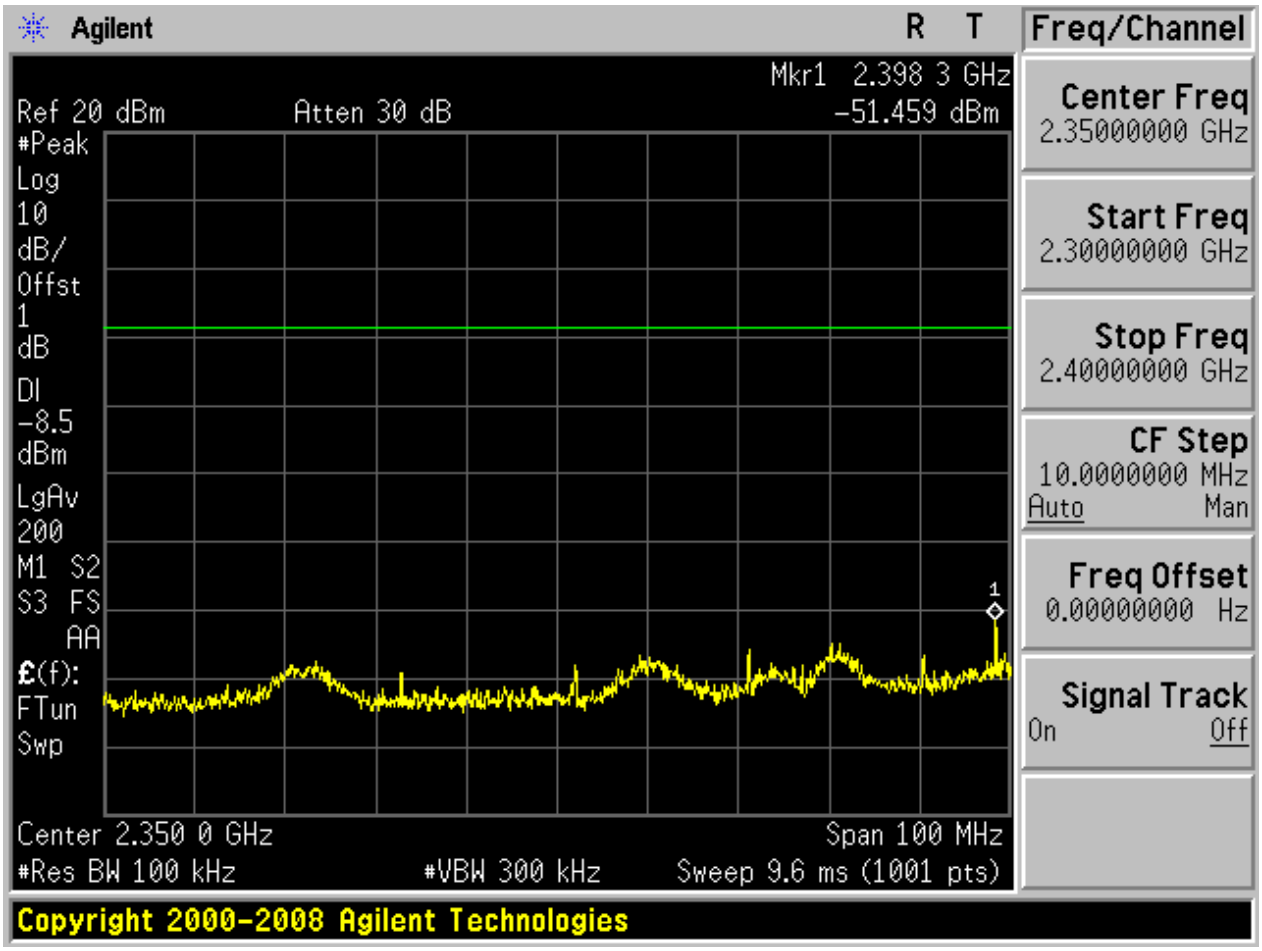


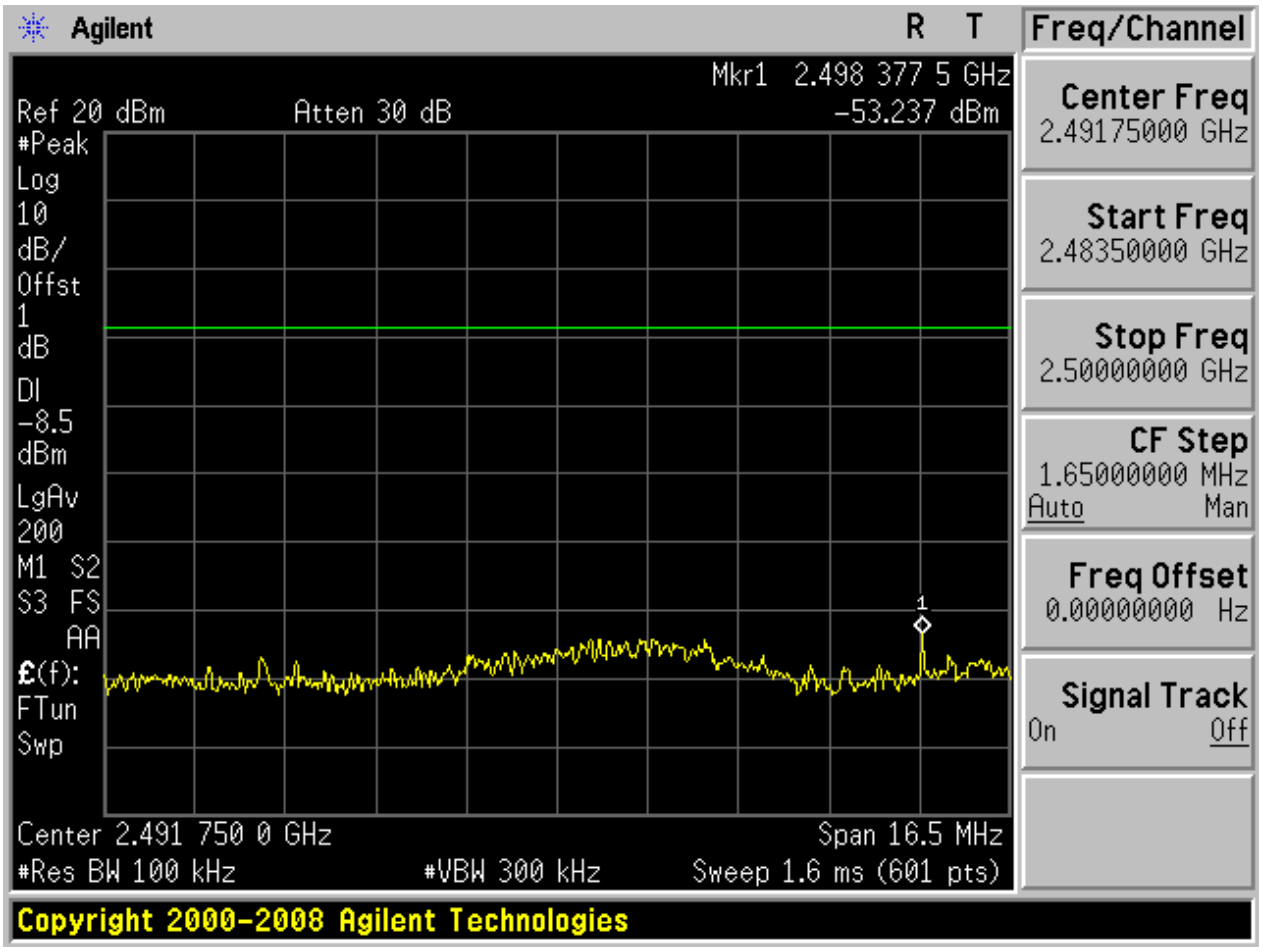
Puw:

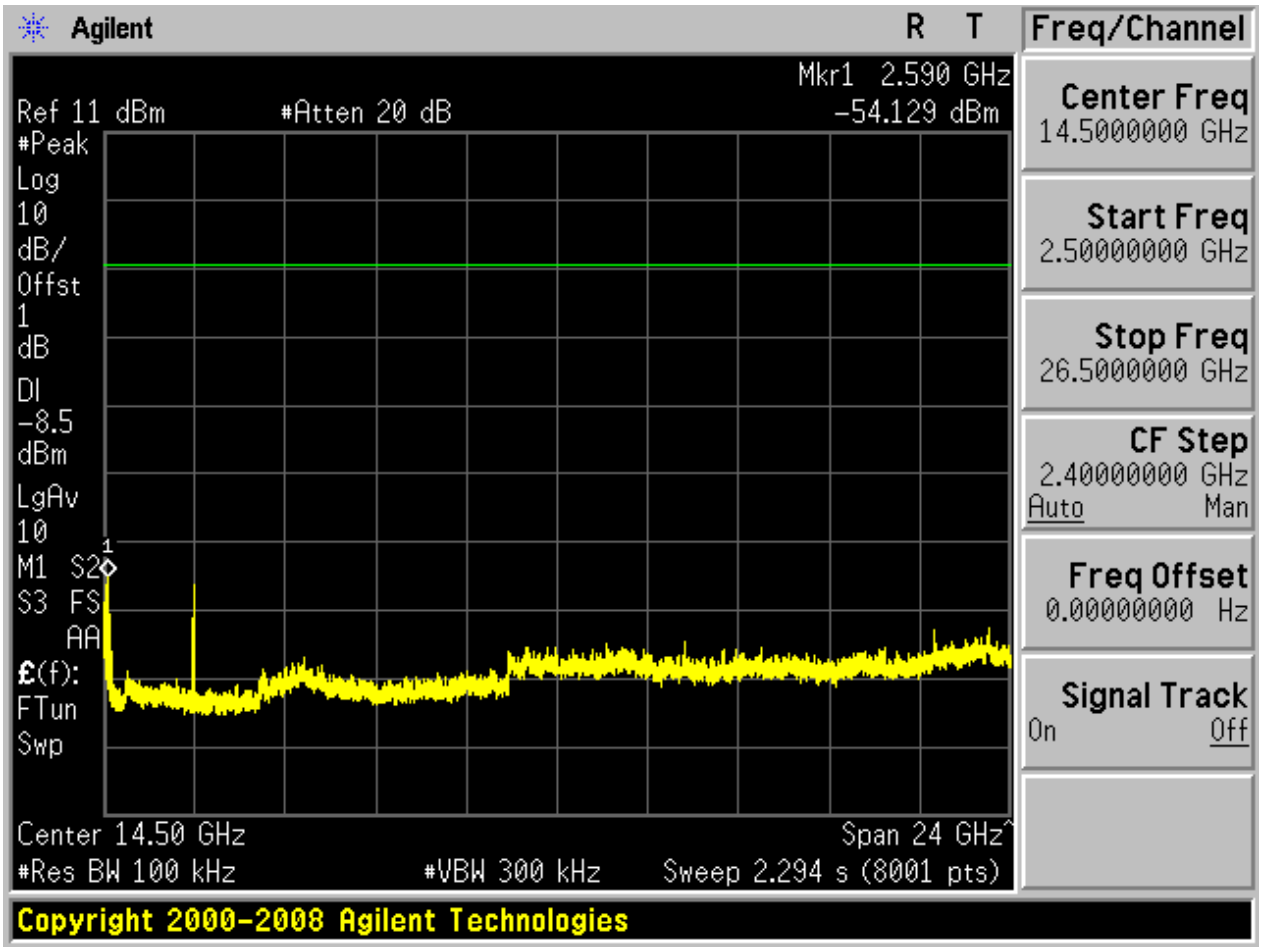






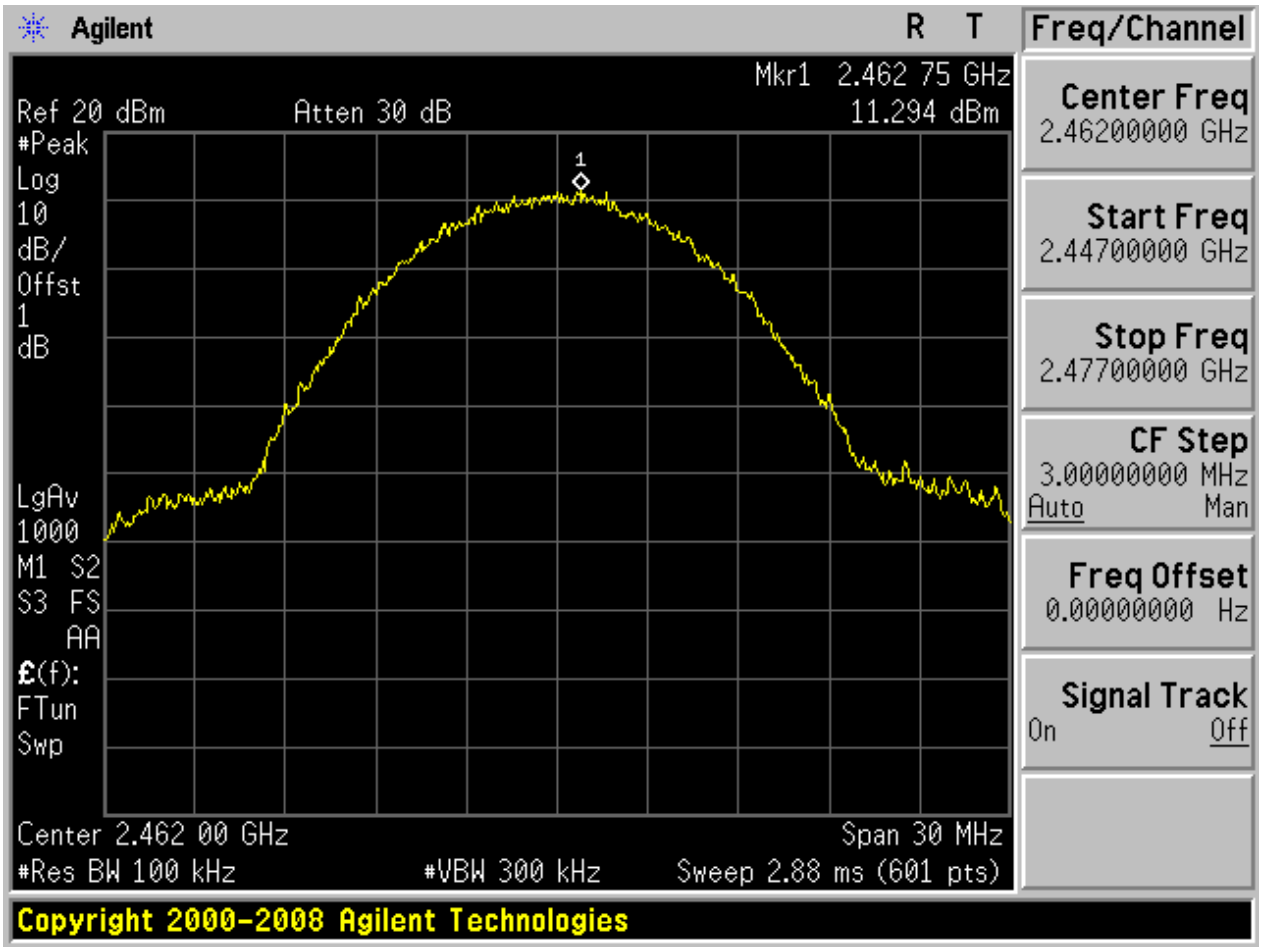




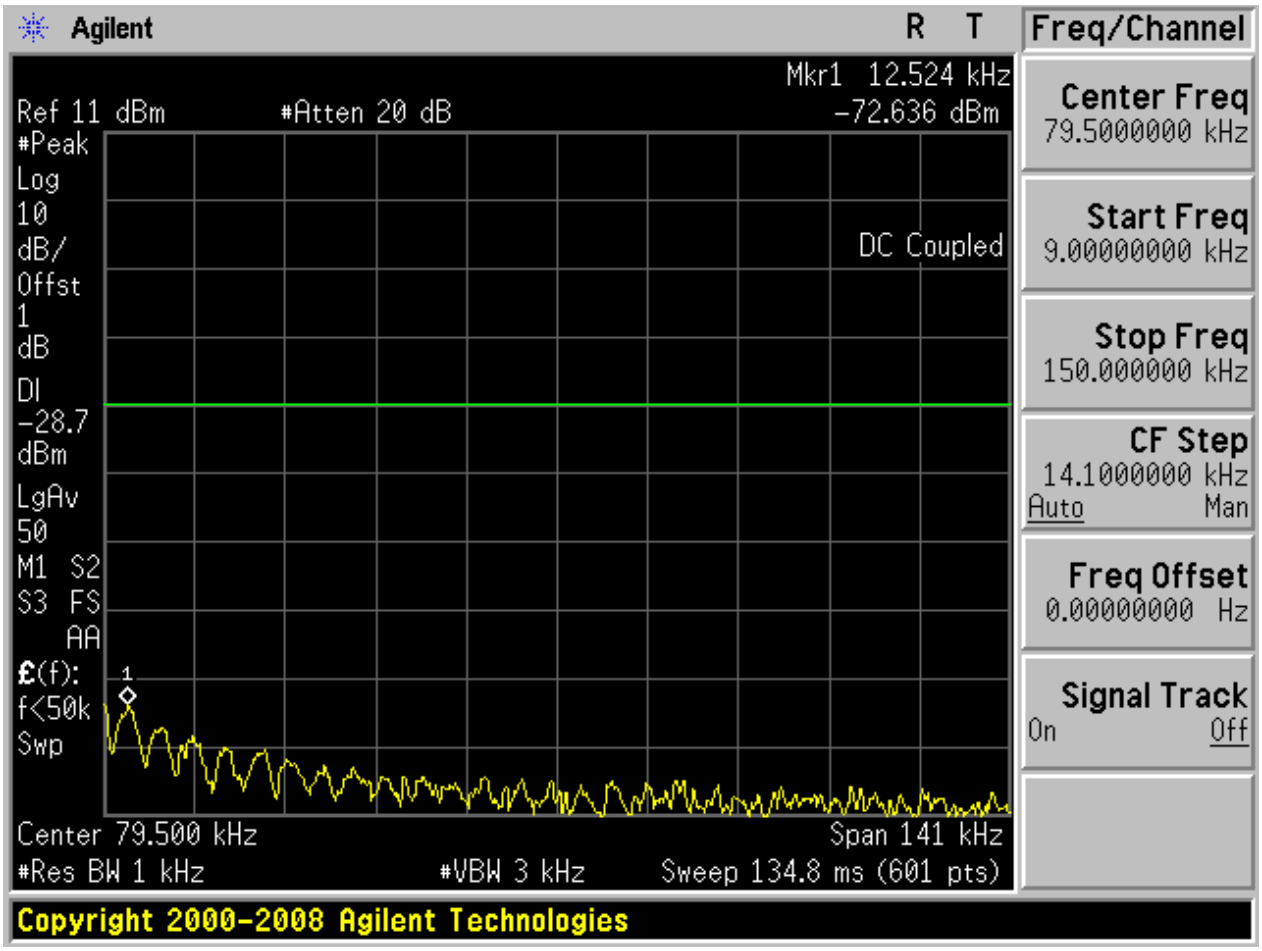

Agilent
R T
Freq/Channel
Mkr1 2.590 GHz
Ref 11 dBm
#Atten 20 dB
-54.129 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-8.5
dBm
LgAv
10
M1 S2
S3 FS
AA
£(f):
FTun
Swp
Center 14.50 GHz
Span 24 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.294 s (8001 pts)
Center Freq
14.5000000 GHz
Start Freq
2.50000000 GHz
Stop Freq
26.5000000 GHz
CF Step
2.40000000 GHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2008 Agilent Technologies

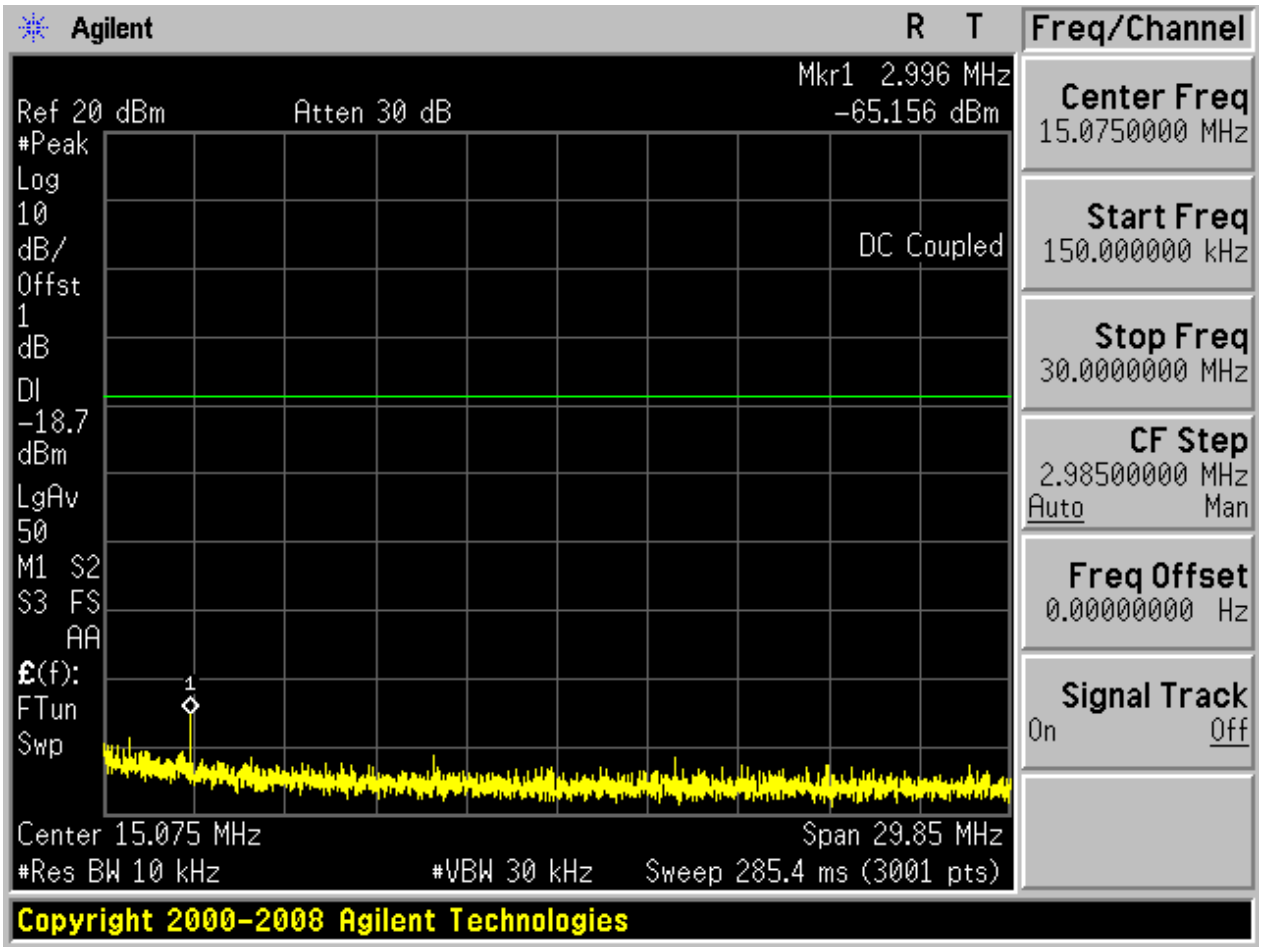
2.3 11B_H

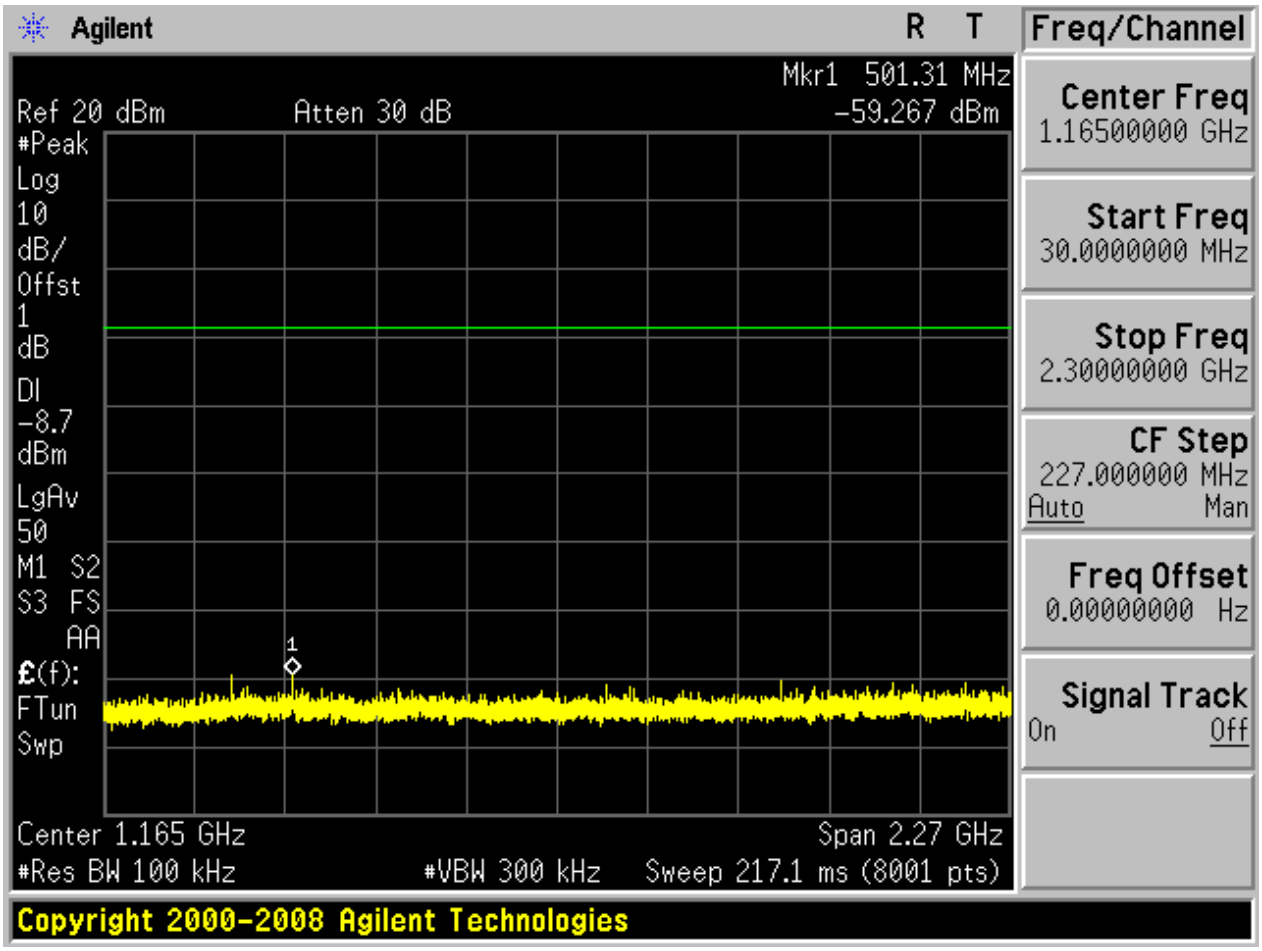
Pref:

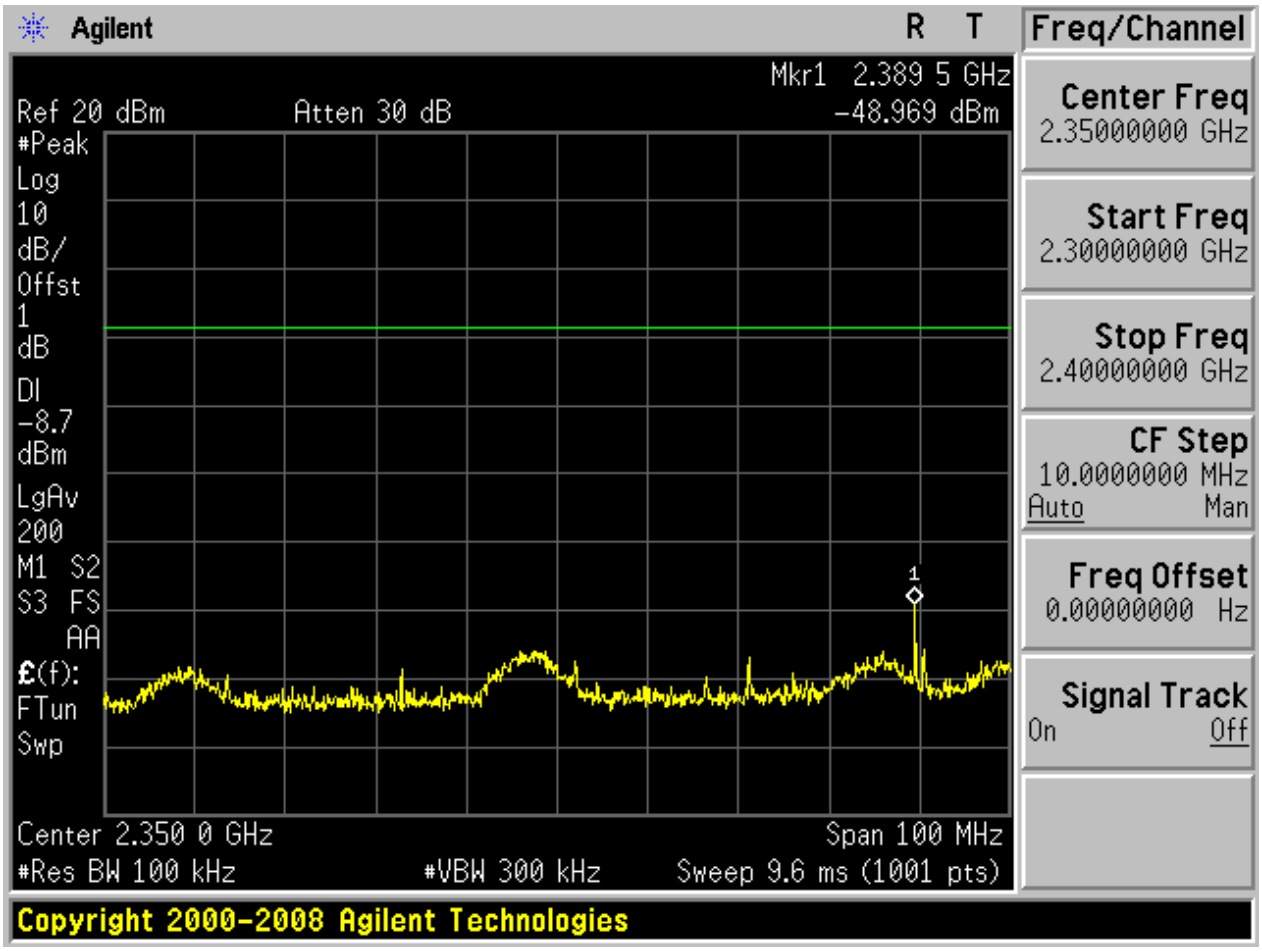


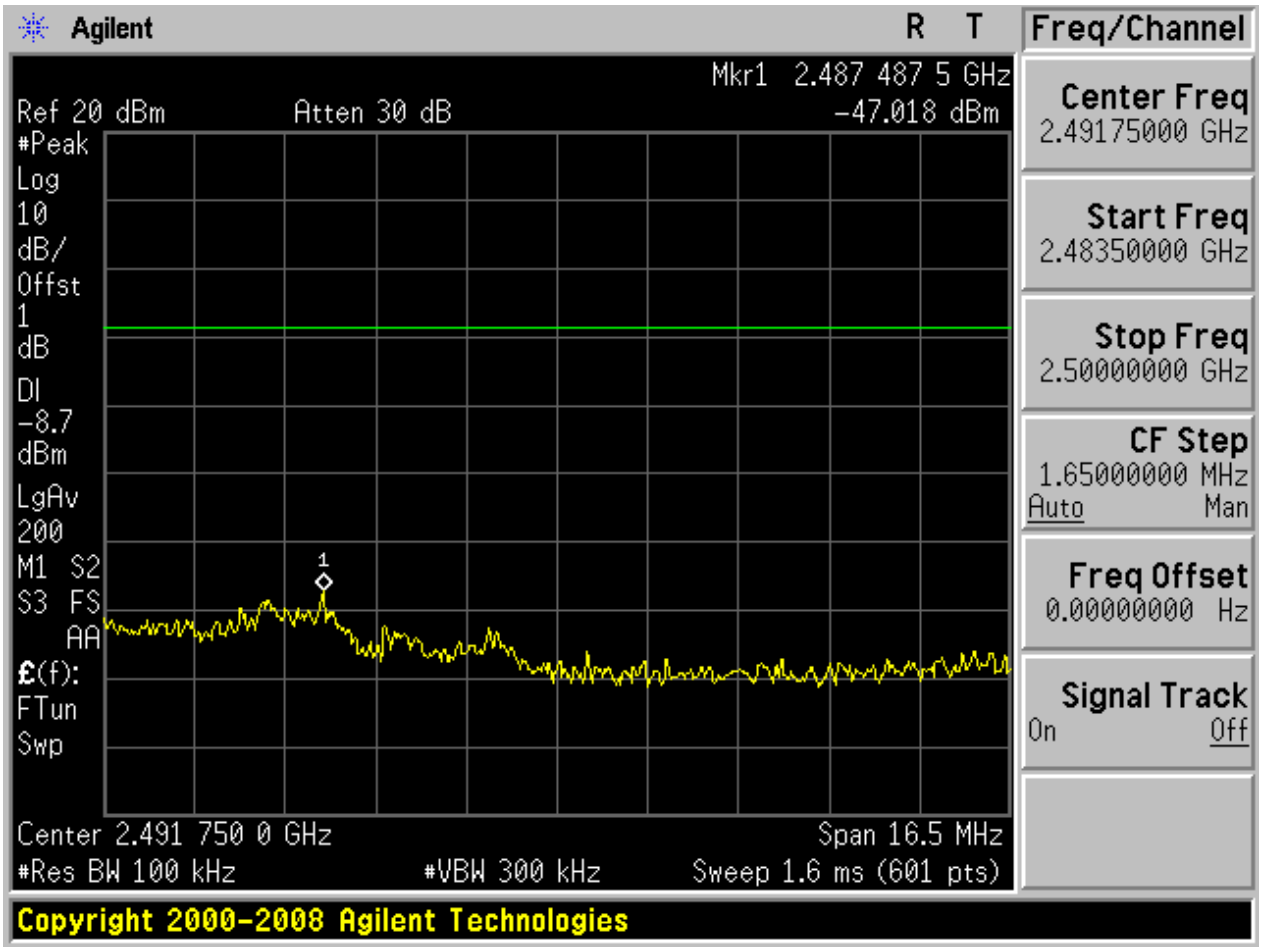
Puw:

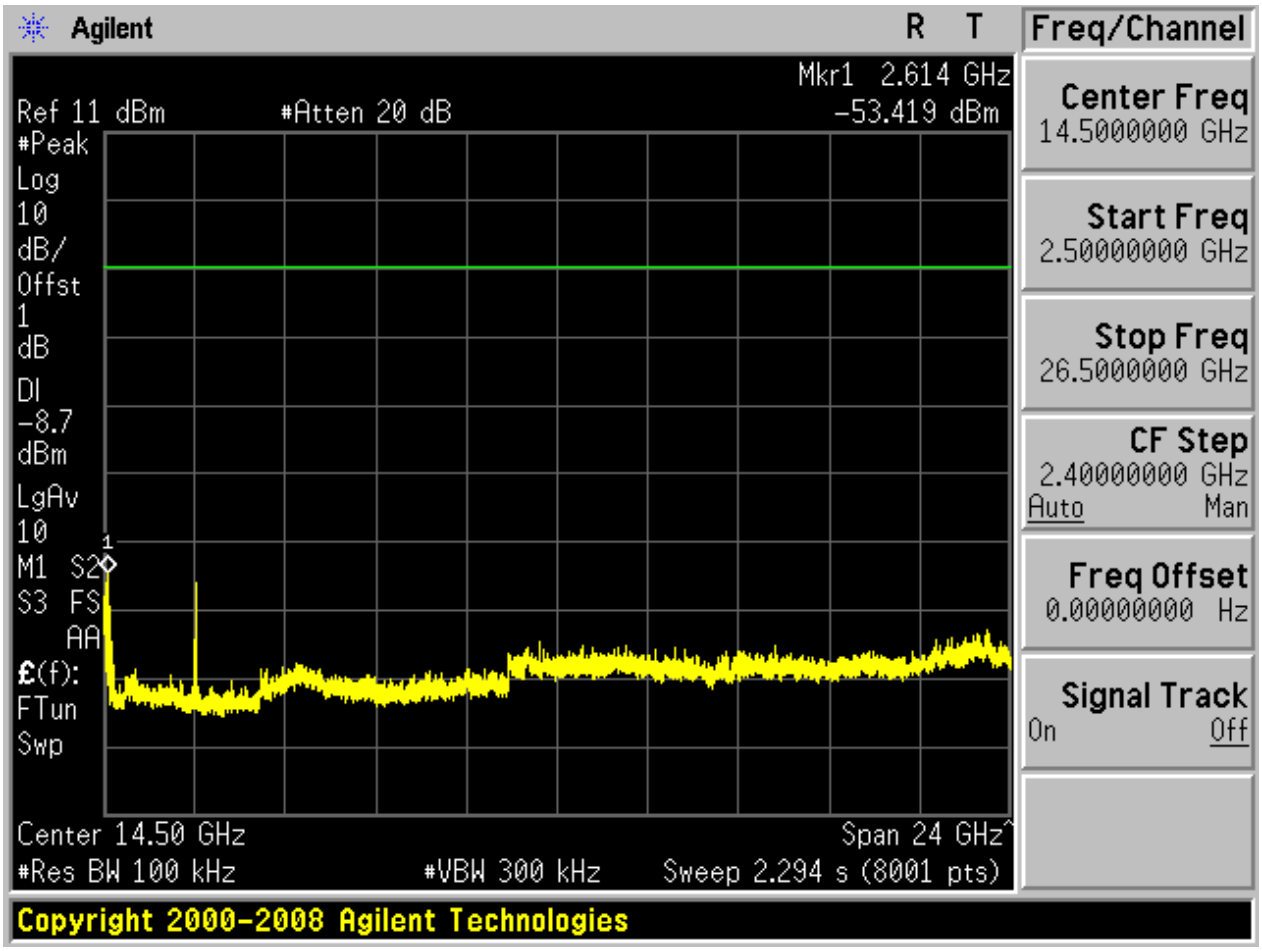






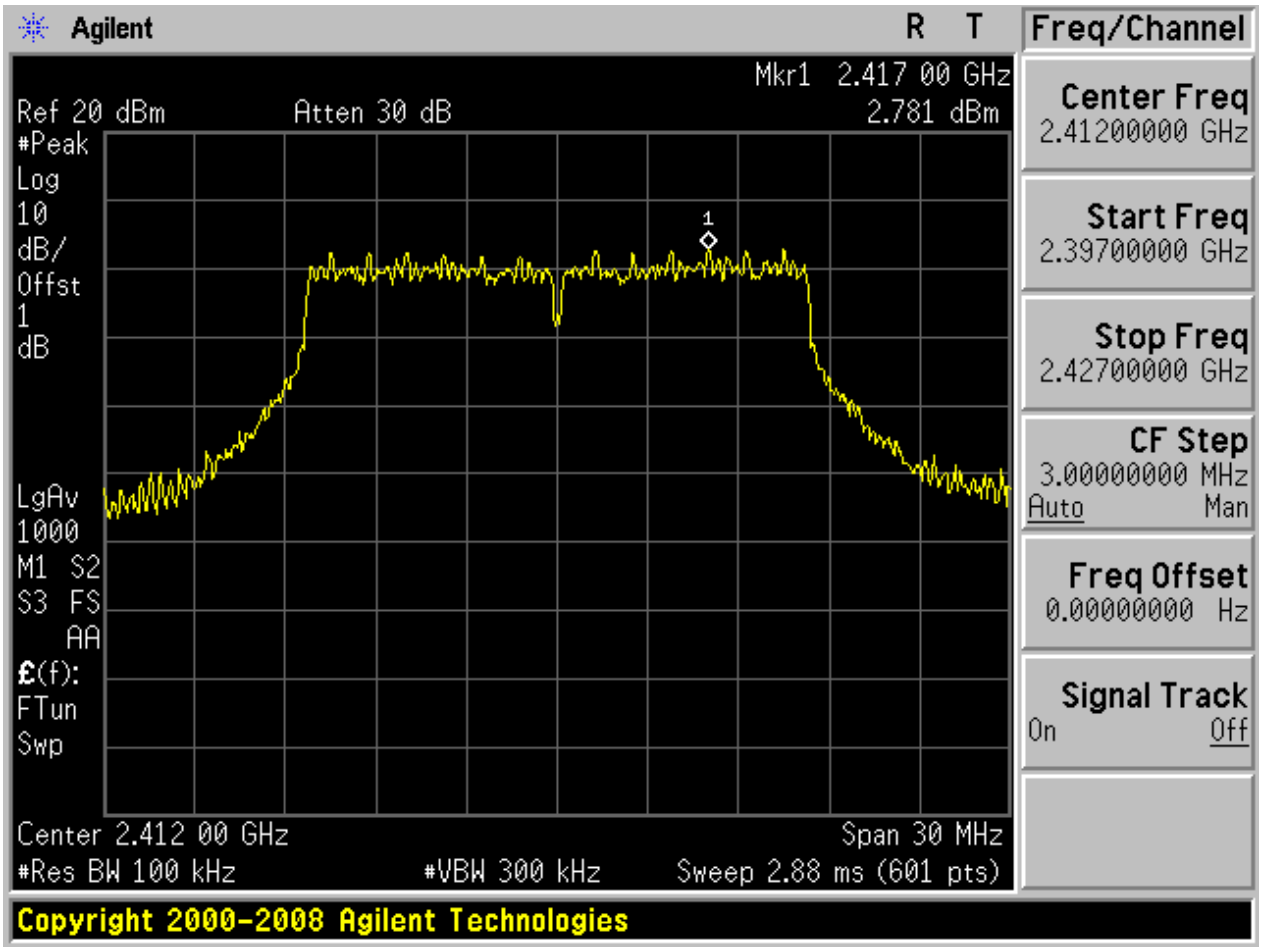




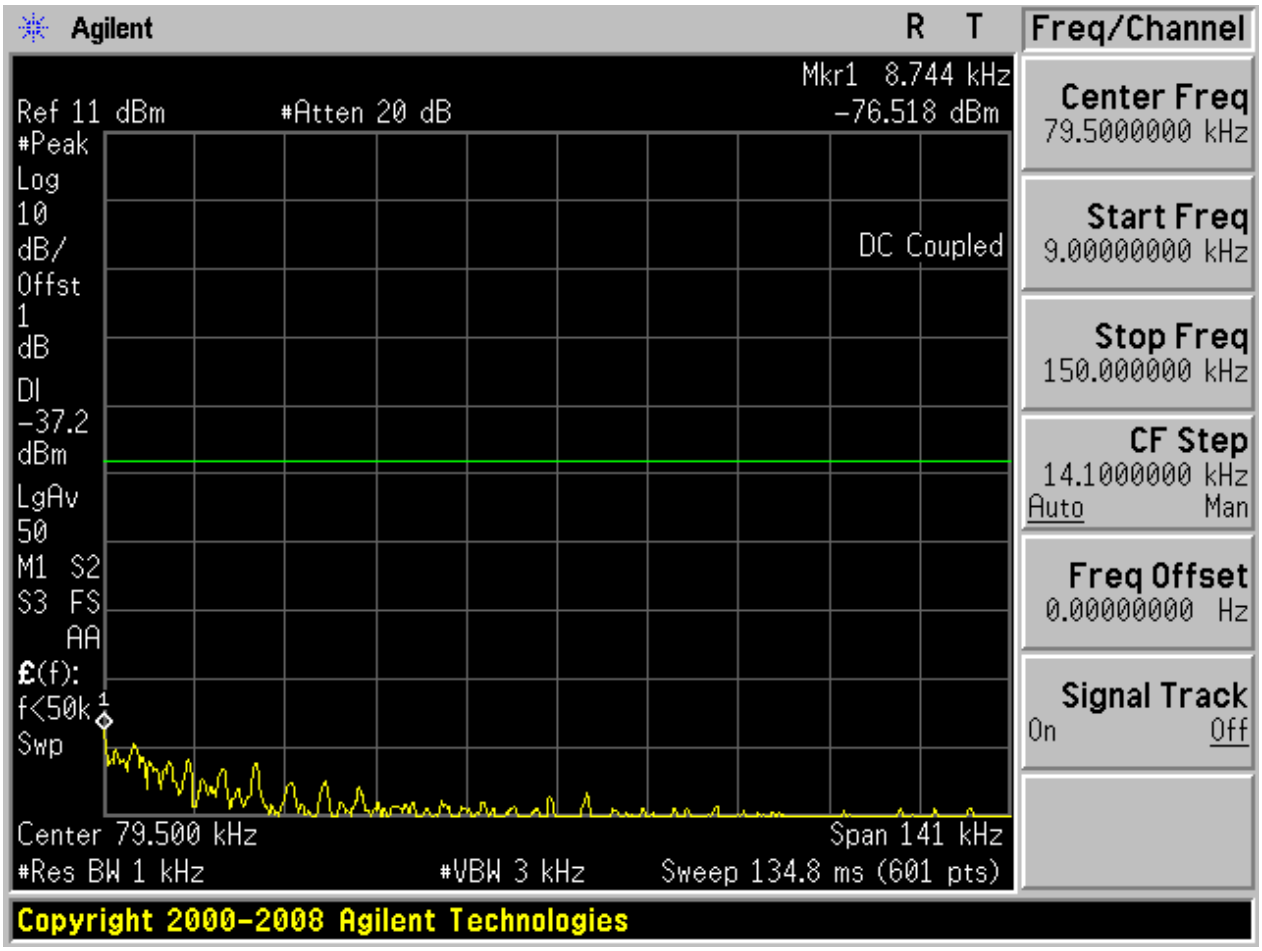


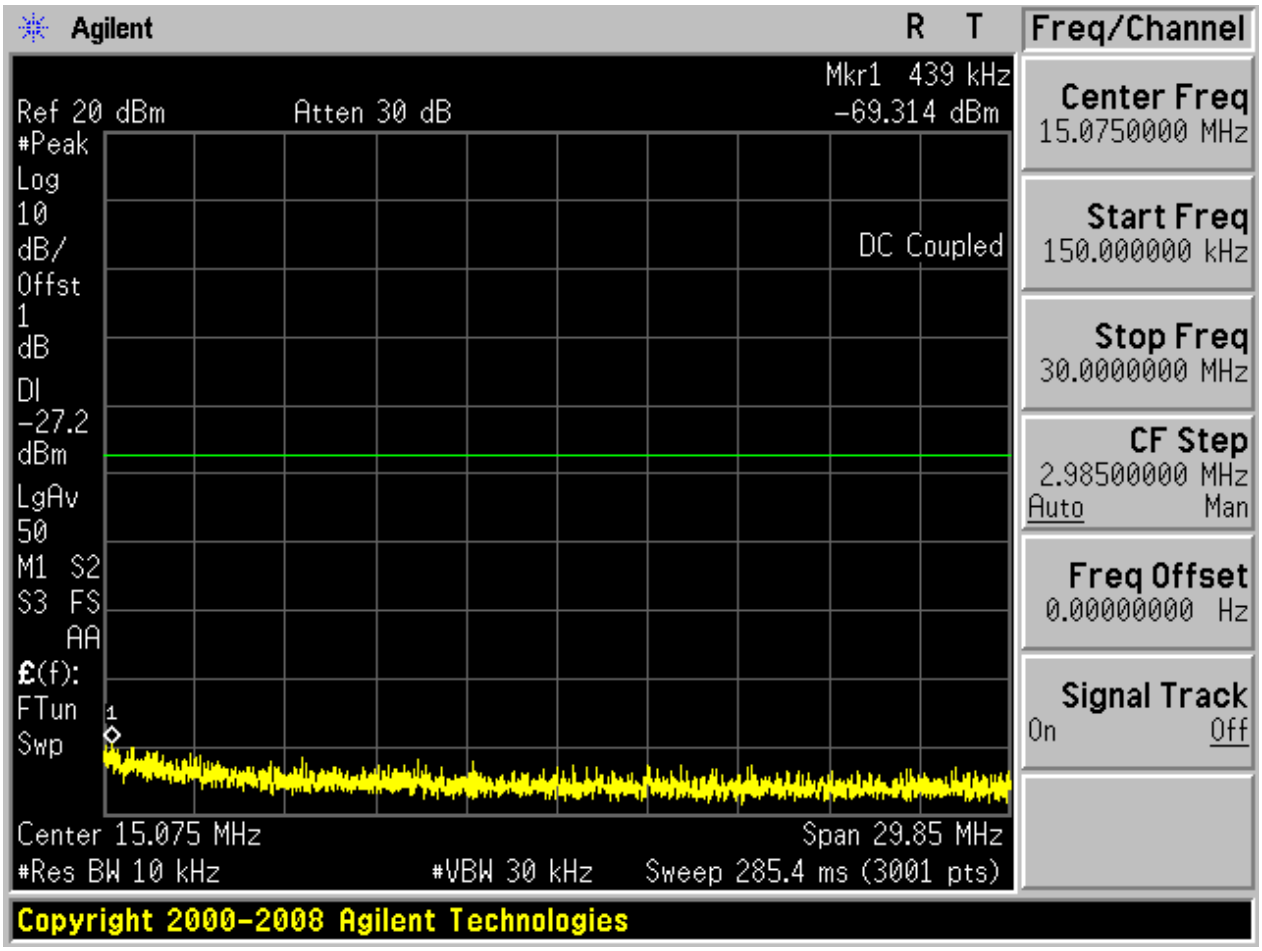
2.4 11G_L

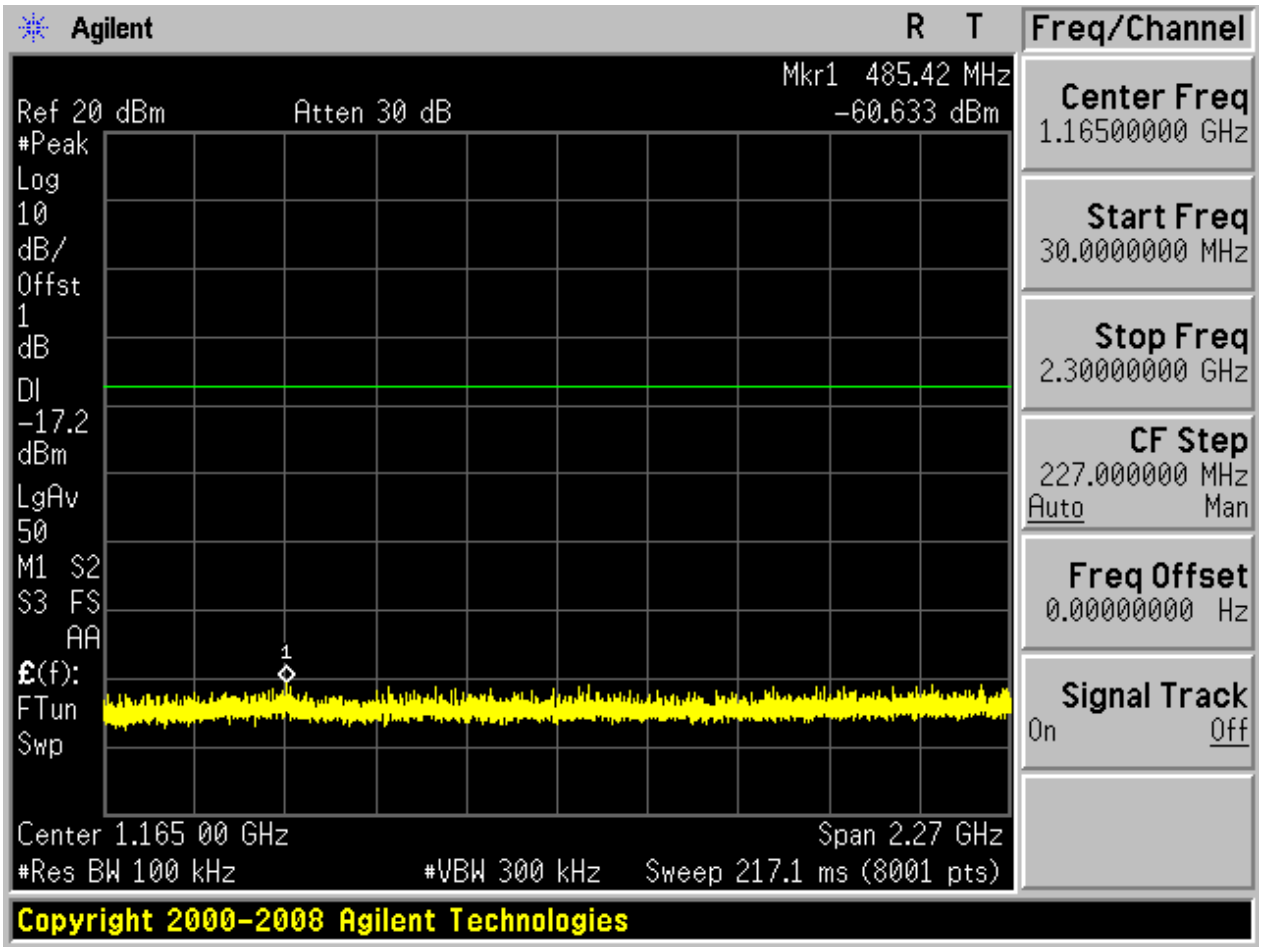
Pref:

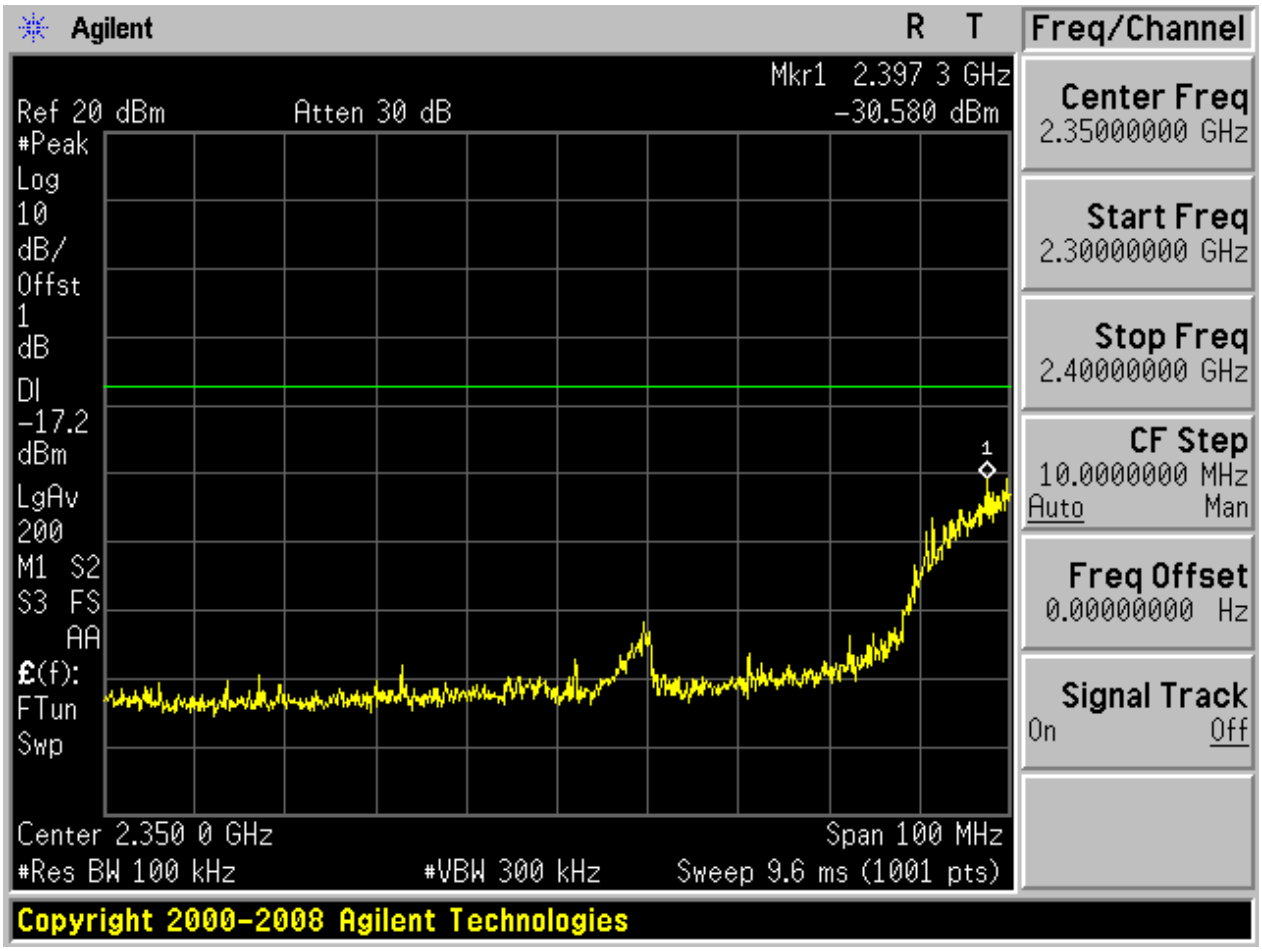


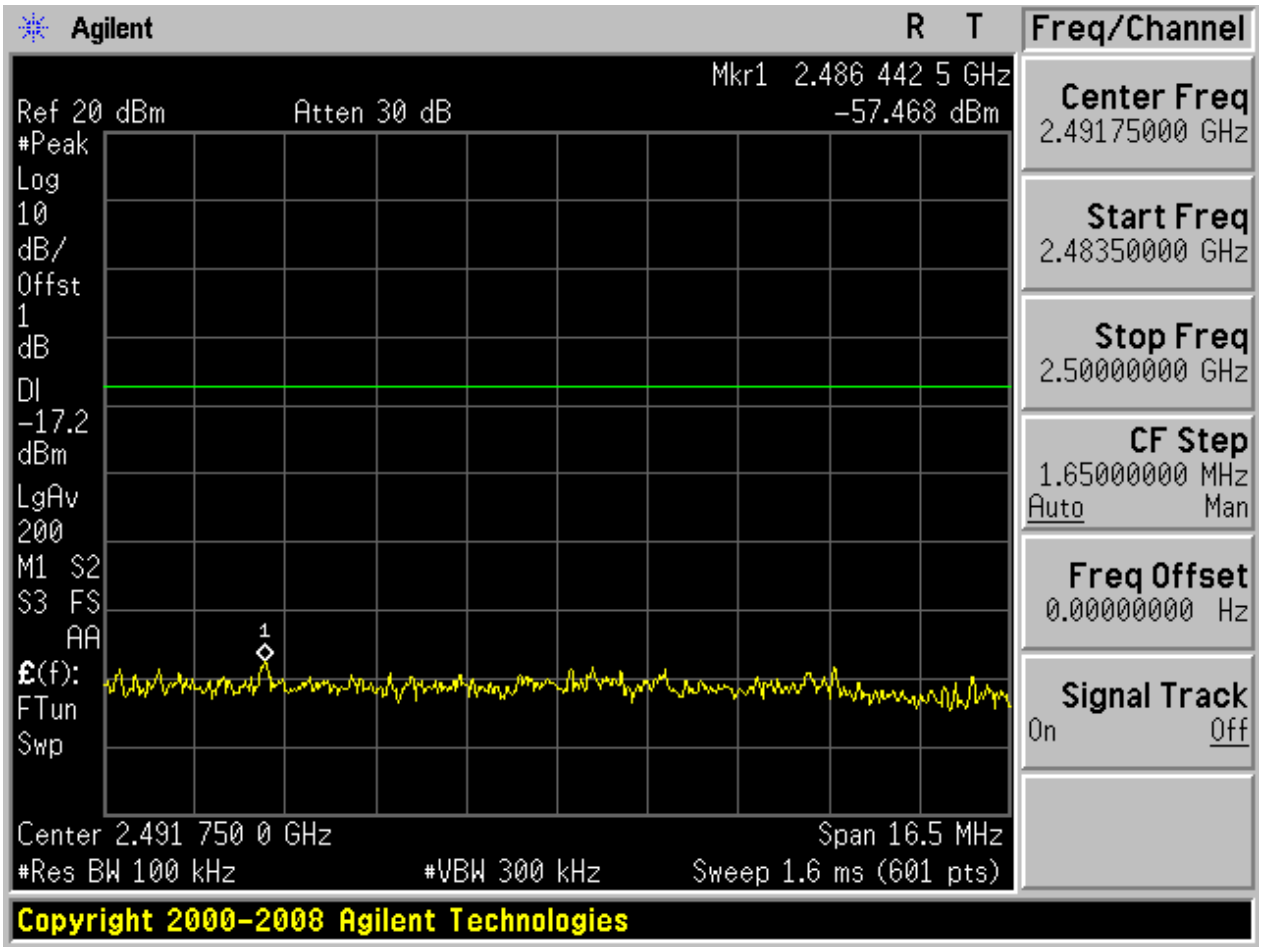
Puw:

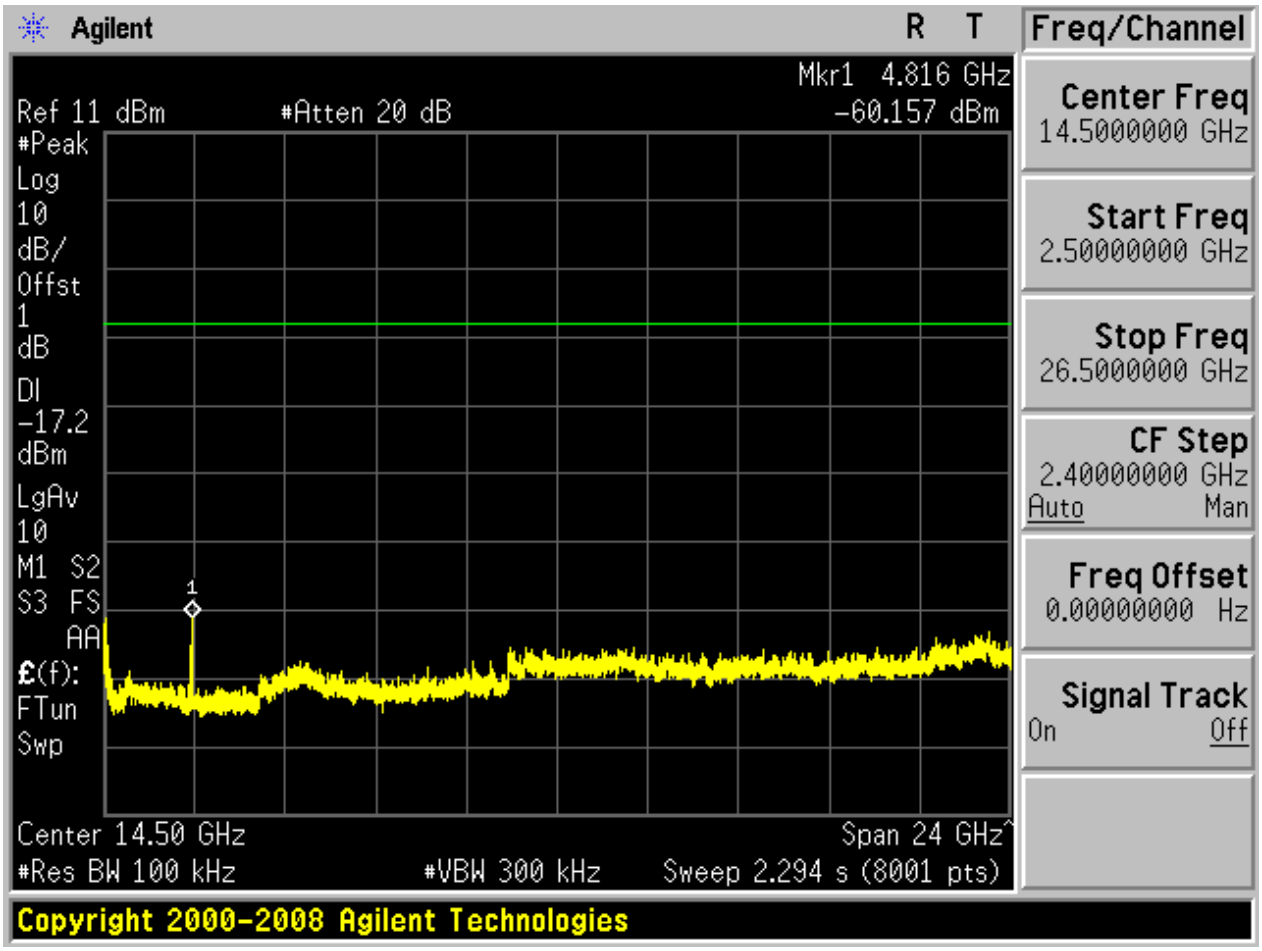






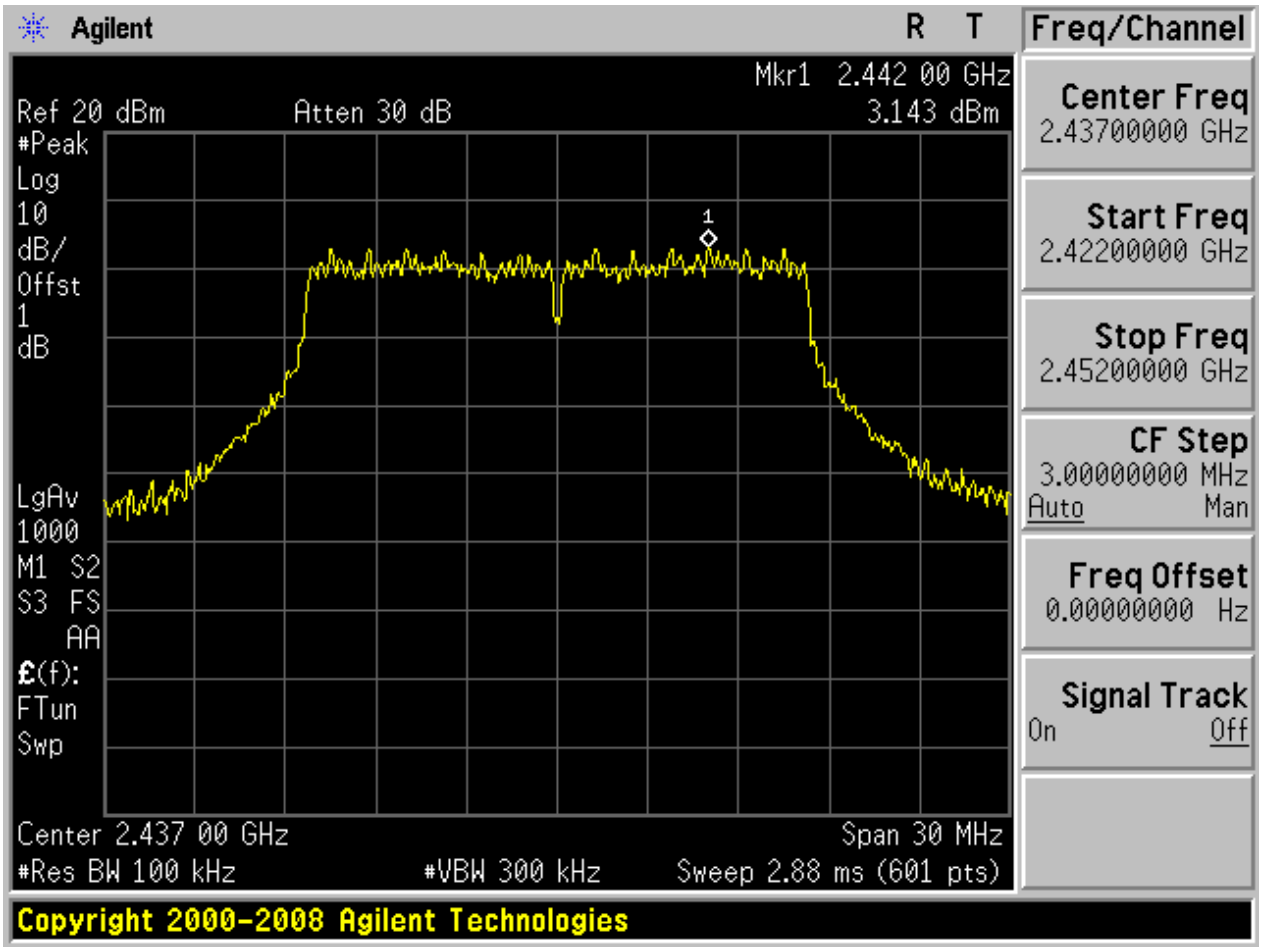

Agilent
R T
Freq/Channel
Mkr1 2.397 3 GHz
Ref 20 dBm
Atten 30 dB
-30.580 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-17.2
dBm
LgAv
200
M1 S2
S3 FS
AA
£(f):
FTun
Swp
1
Center Freq
2.35000000 GHz
Start Freq
2.30000000 GHz
Stop Freq
2.40000000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 2.350 0 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 9.6 ms (1001 pts)
Copyright 2000-2008 Agilent Technologies



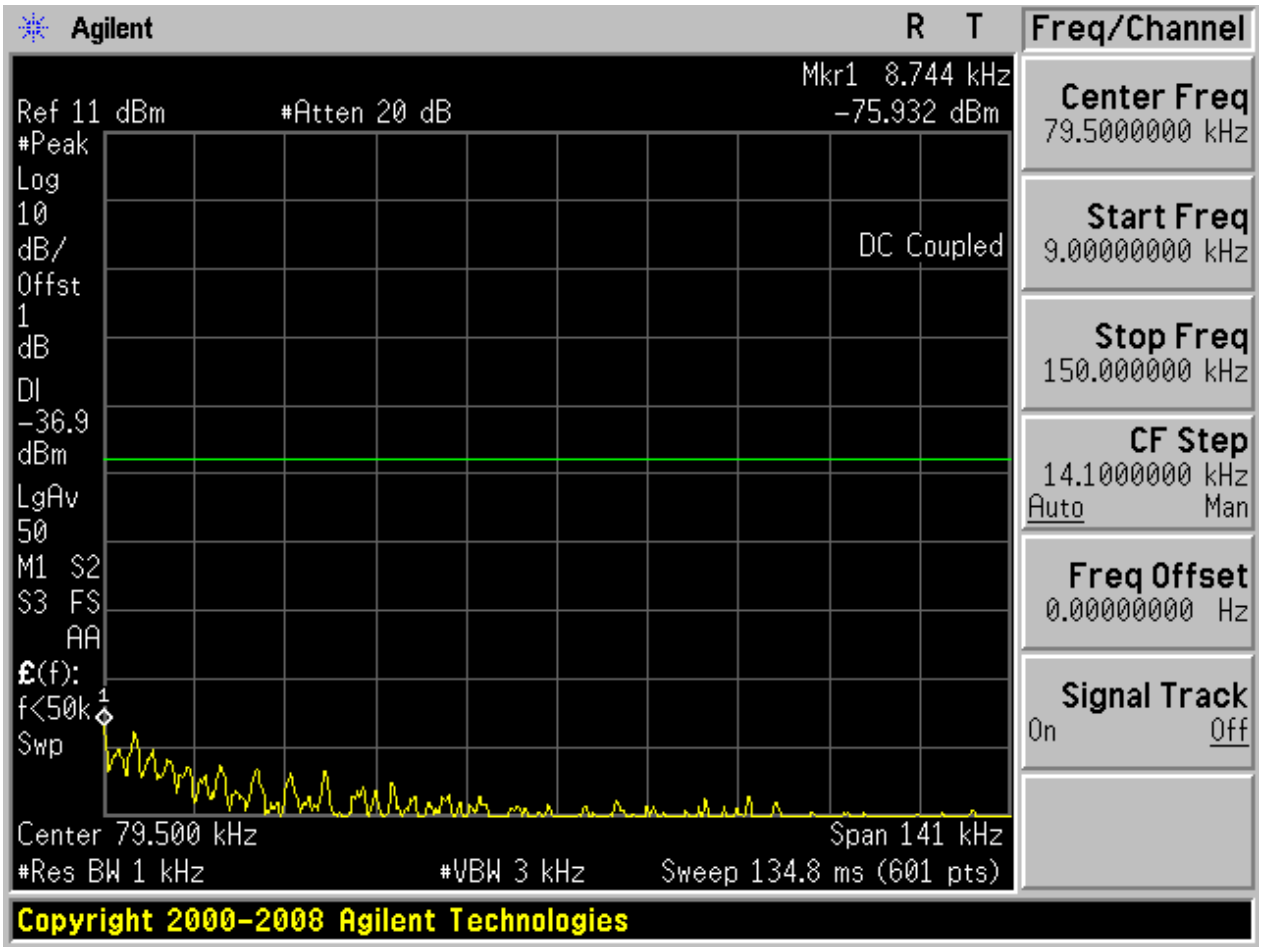

Agilent
R T
Freq/Channel
Mkr1 4.816 GHz
Ref 11 dBm
#Atten 20 dB
-60.157 dBm
#Peak
Log
10
dB/
Offst
1
dB
Dl
-17.2
dBm
LgAv
10
M1 S2
S3 FS
AA
£(f):
FTun
Swp
Center 14.50 GHz
Span 24 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.294 s (8001 pts)
Center Freq
14.5000000 GHz
Start Freq
2.50000000 GHz
Stop Freq
26.5000000 GHz
CF Step
2.40000000 GHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Copyright 2000-2008 Agilent Technologies

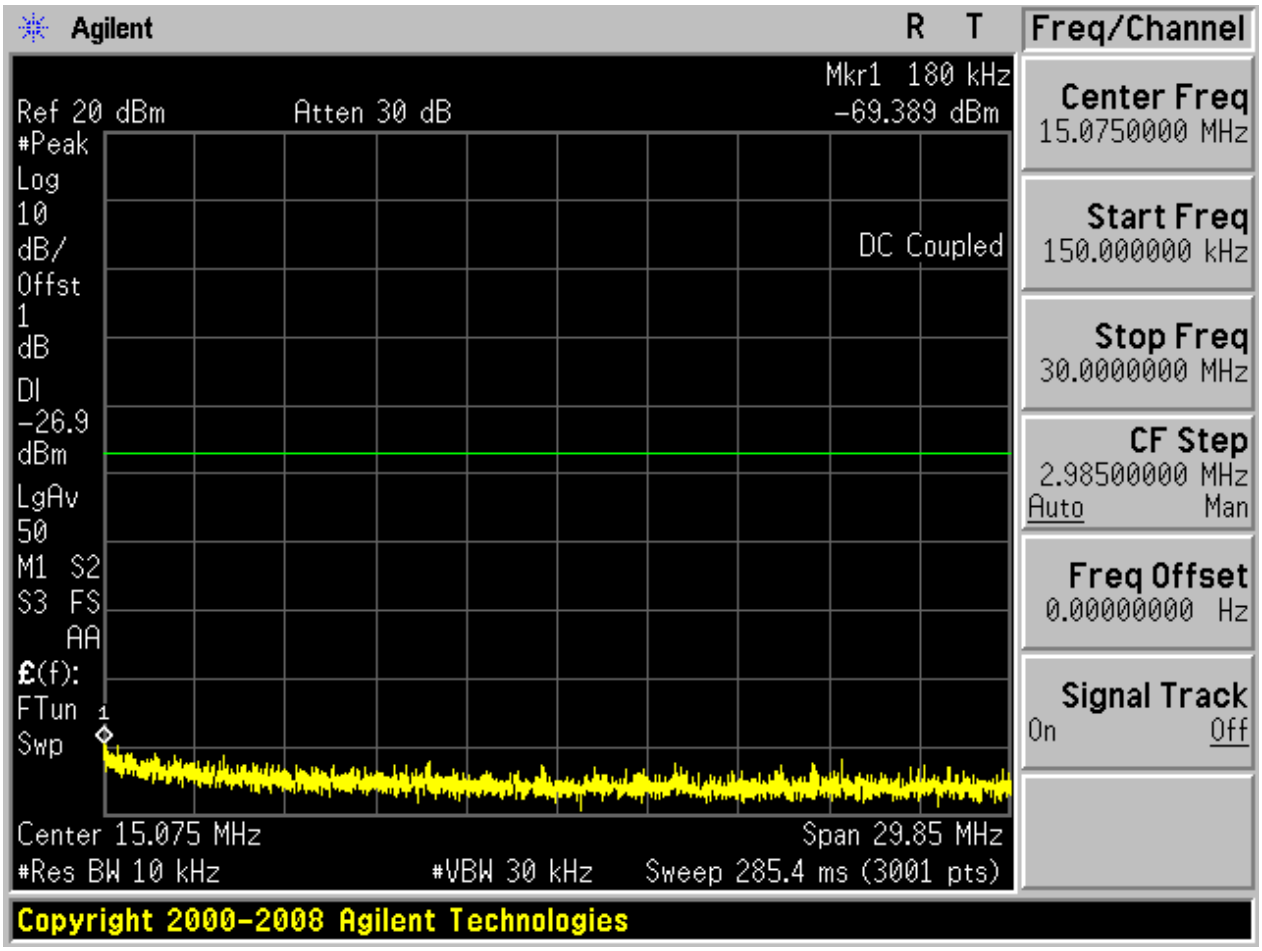
2.5 11G_M

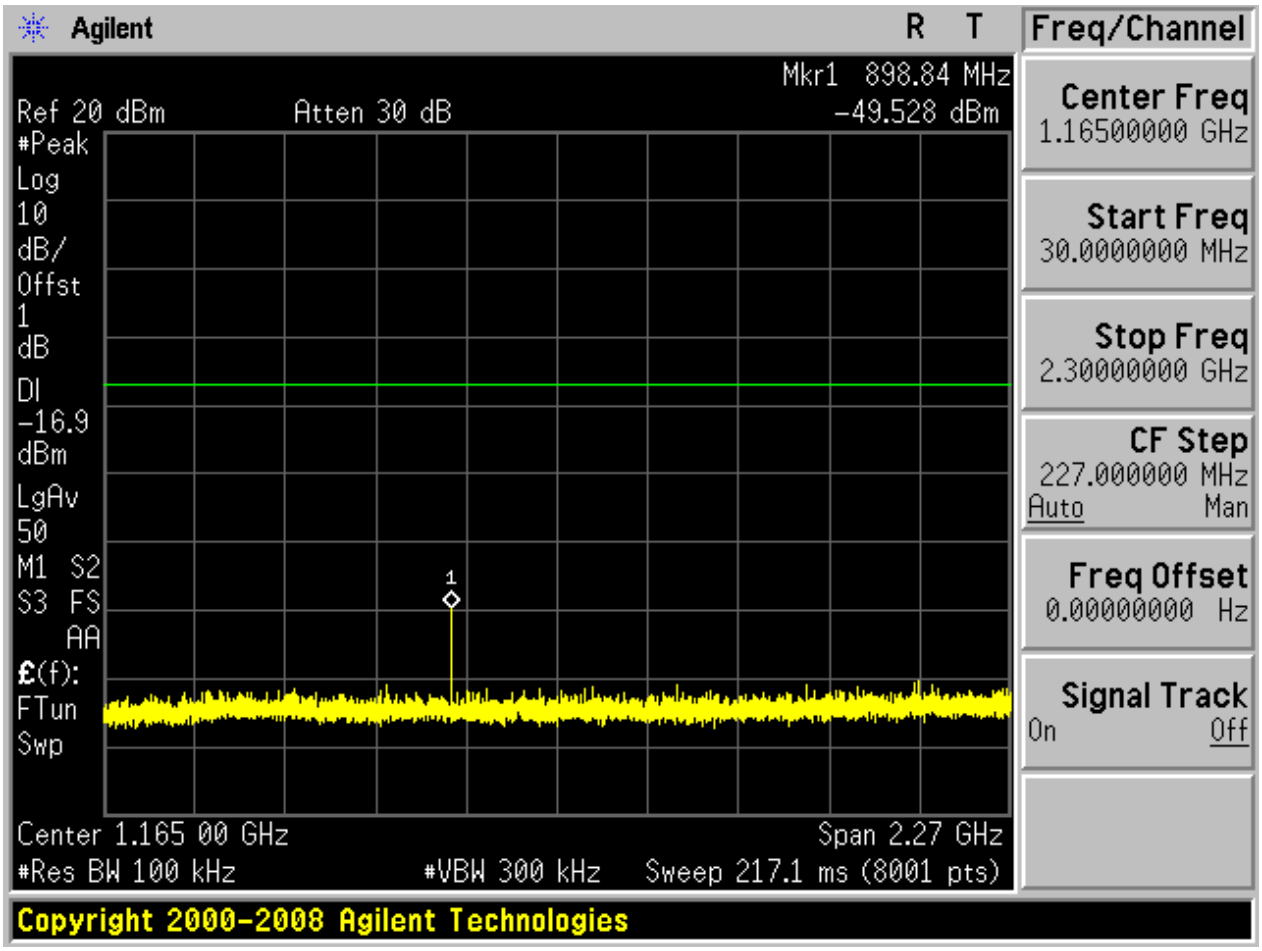
Pref:

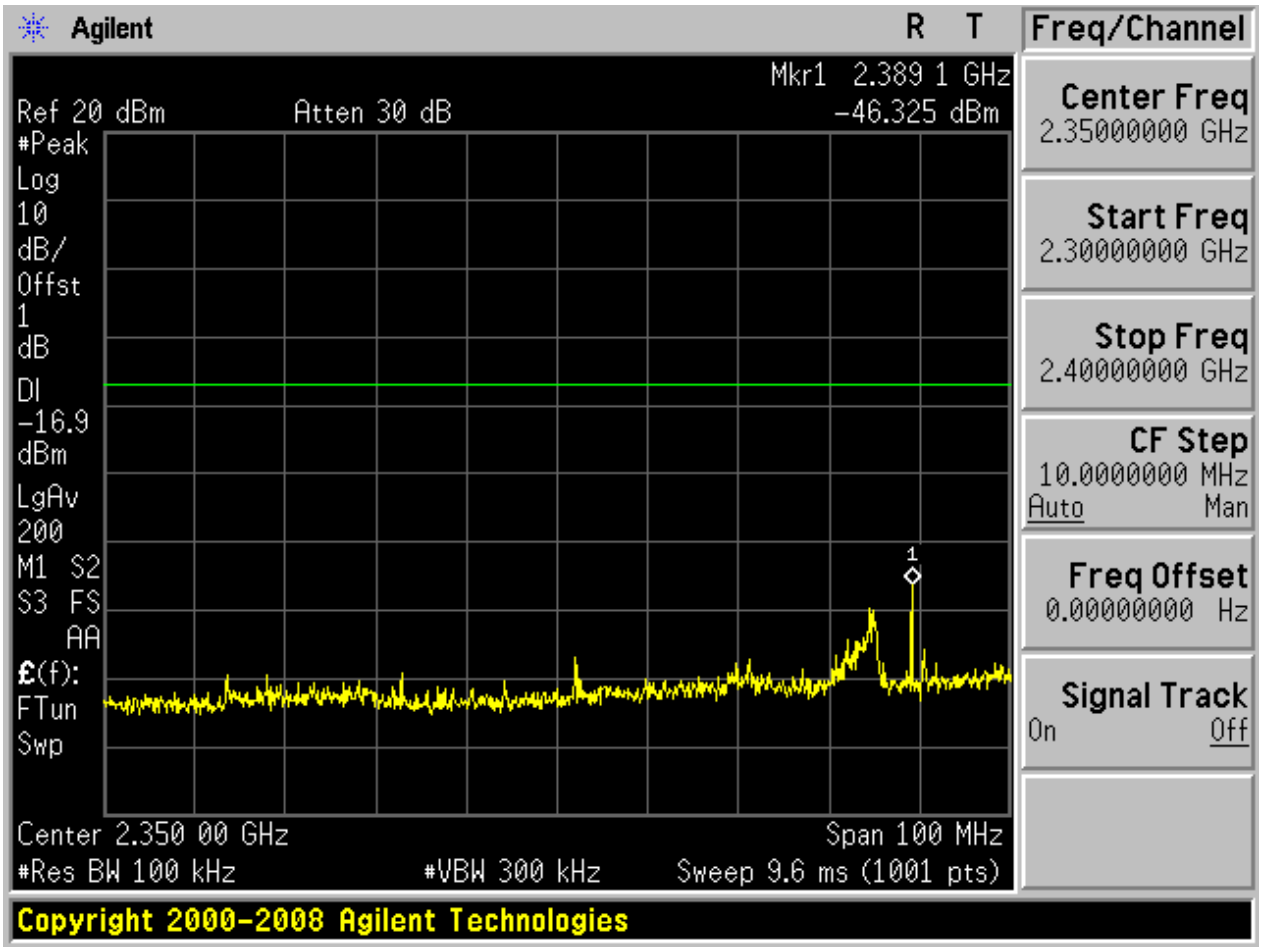


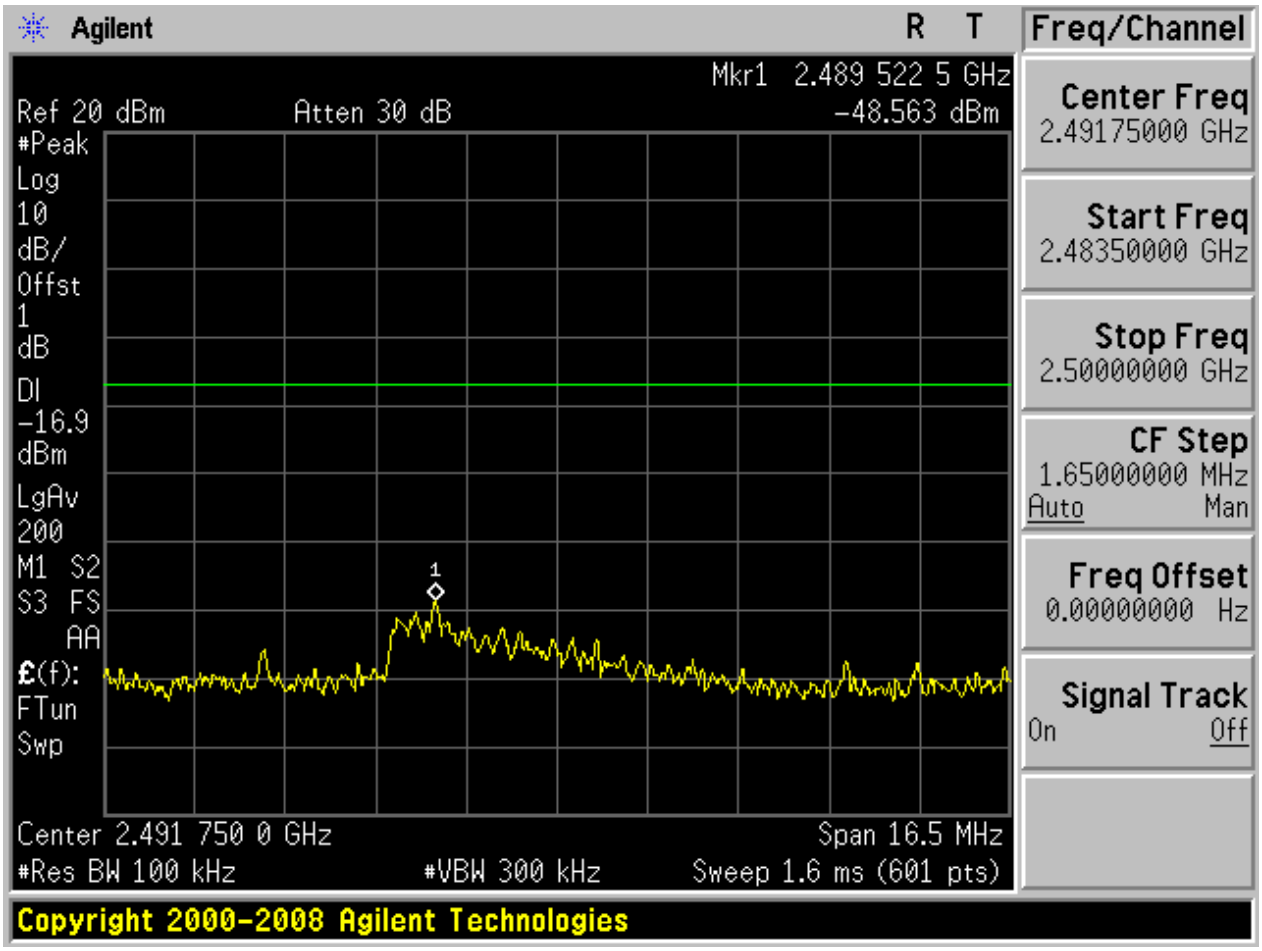
Puw:

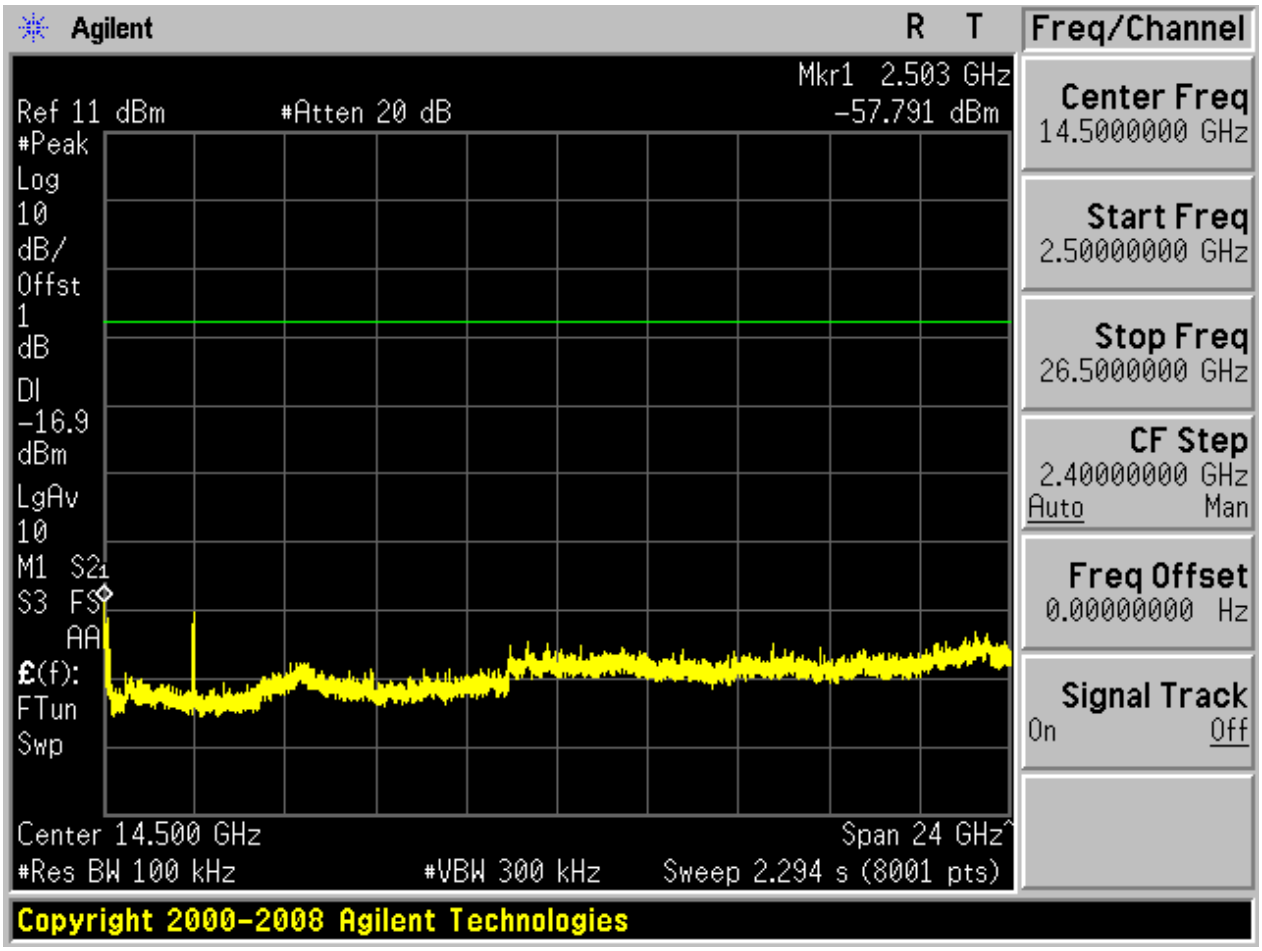






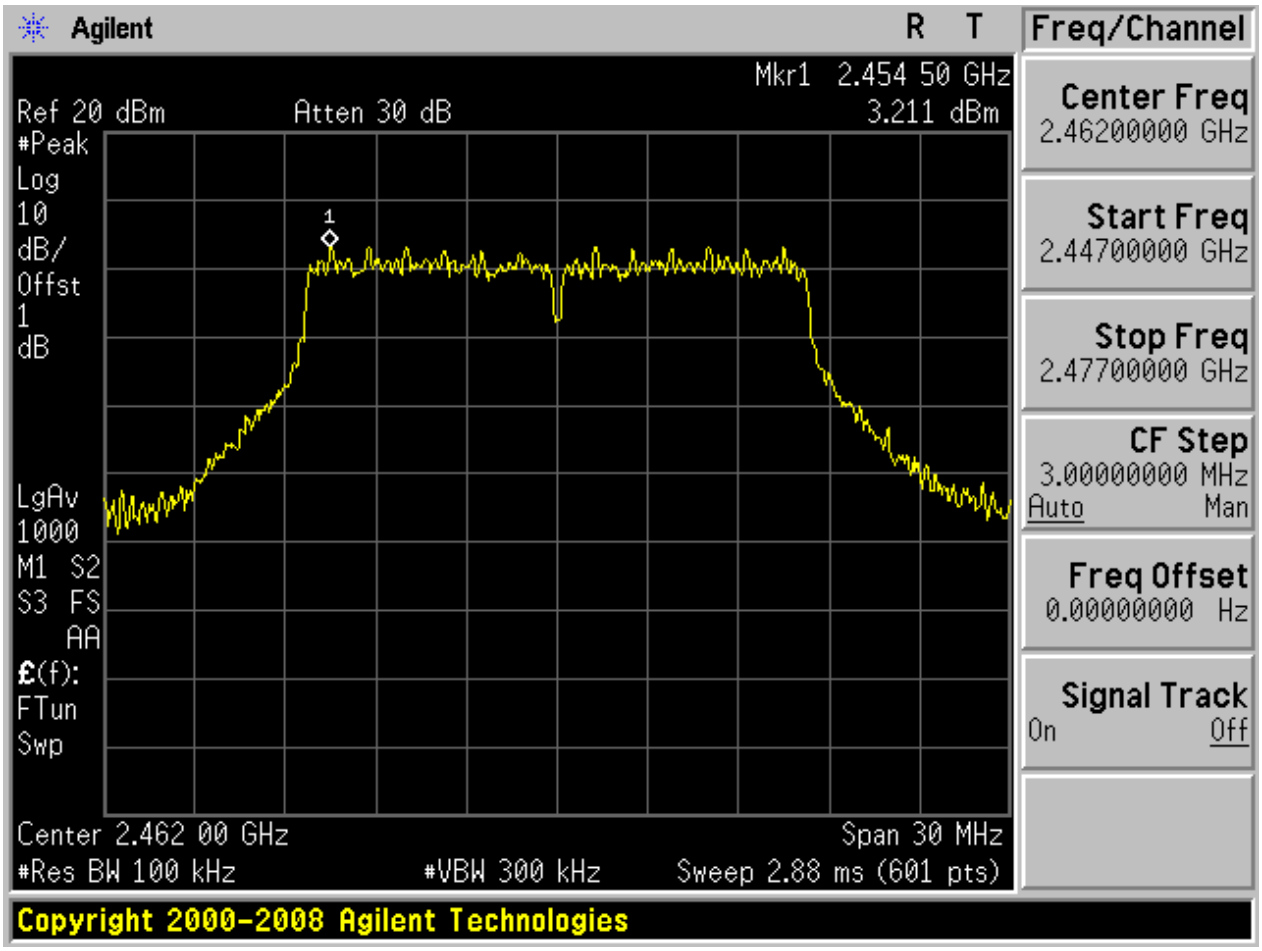




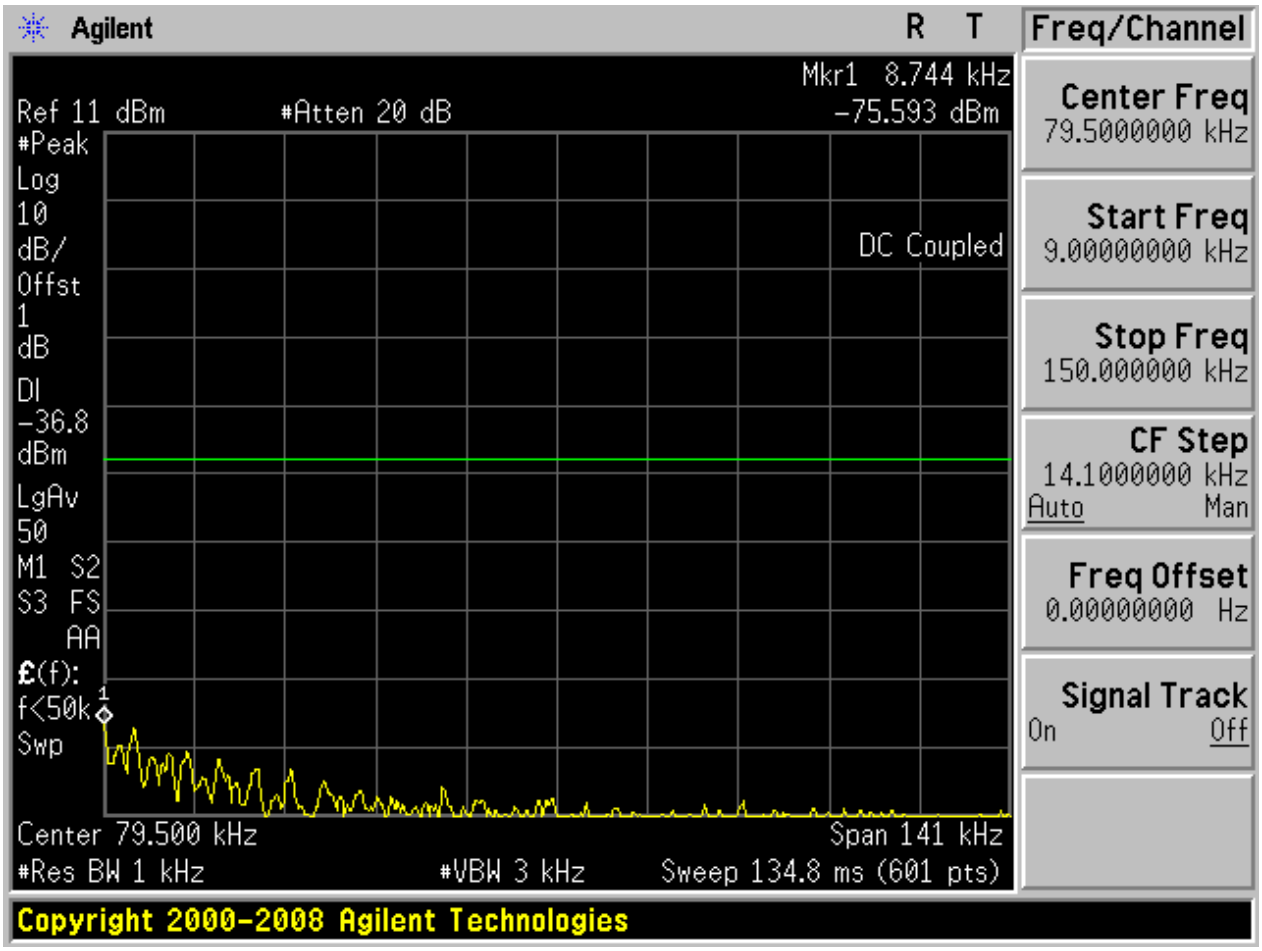


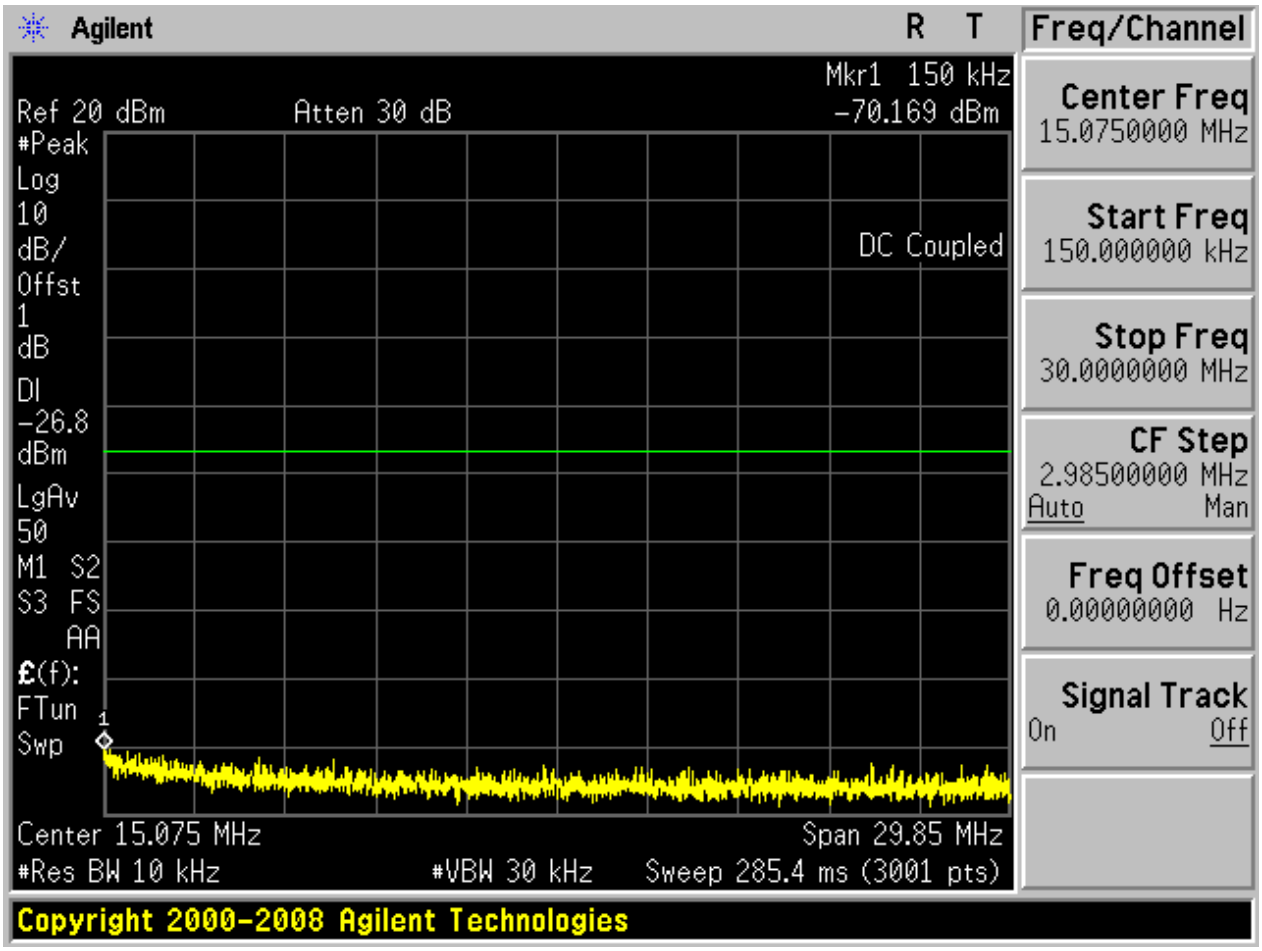
2.6 11G_H

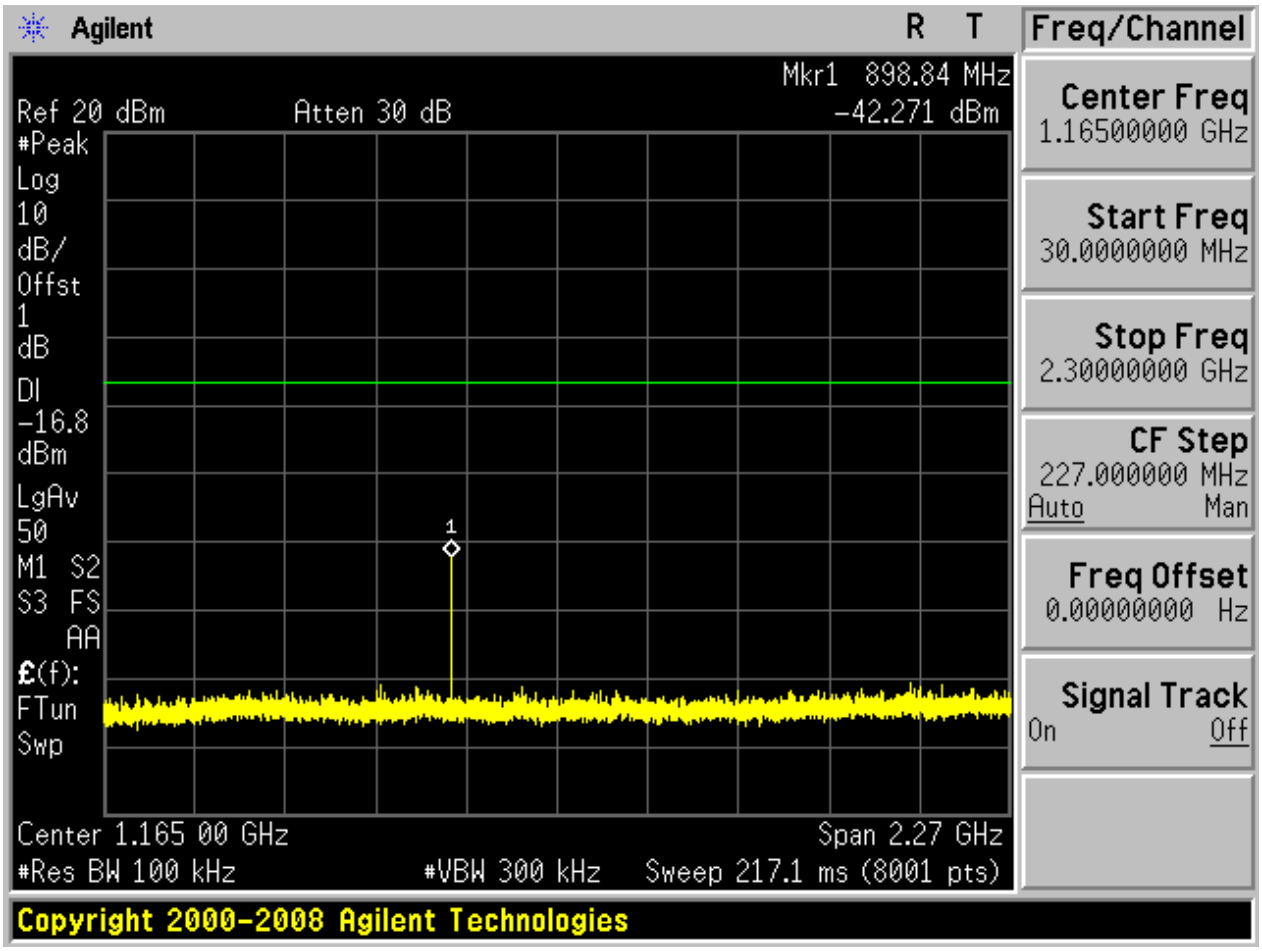
Pref:

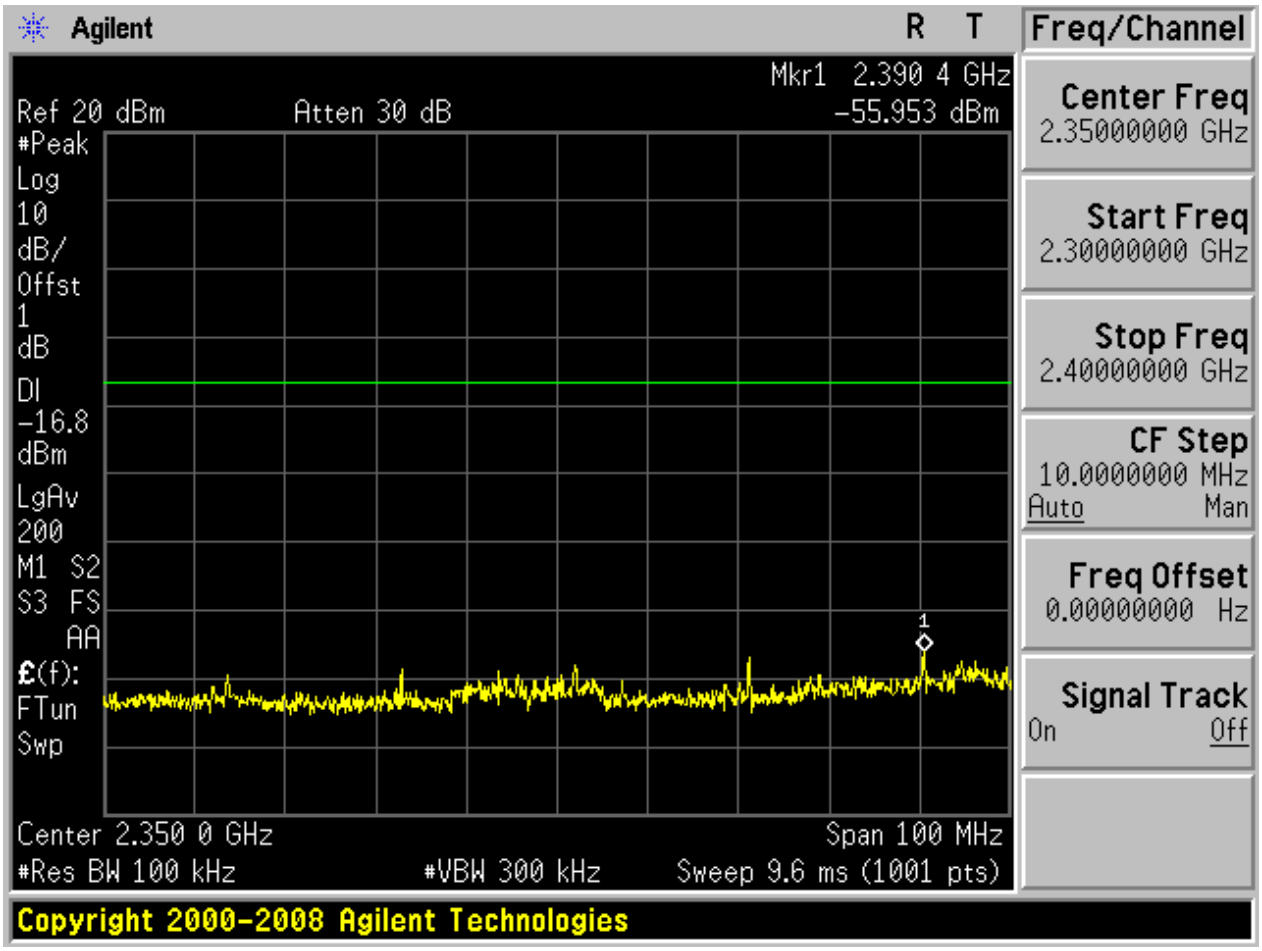


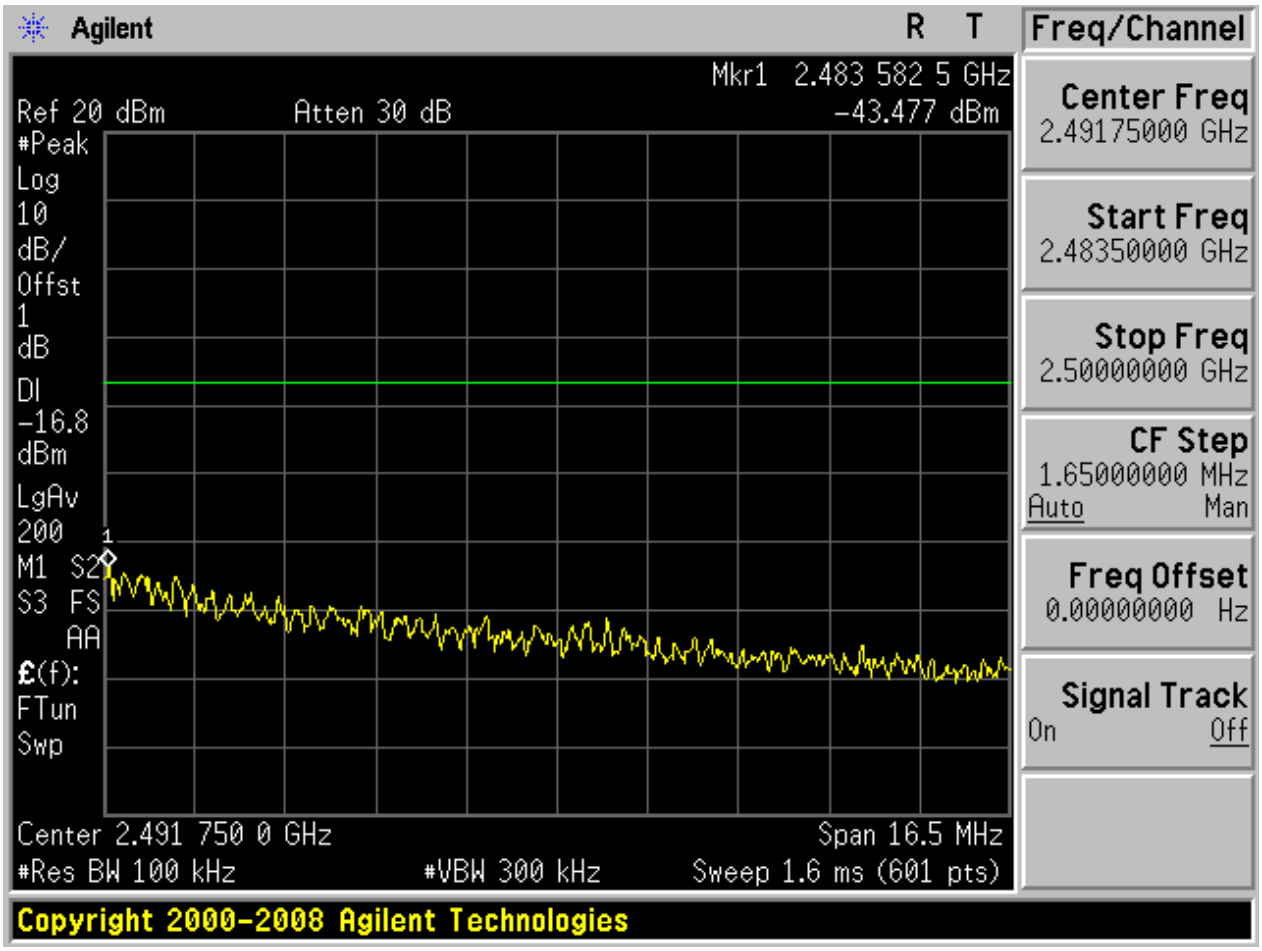
Puw:

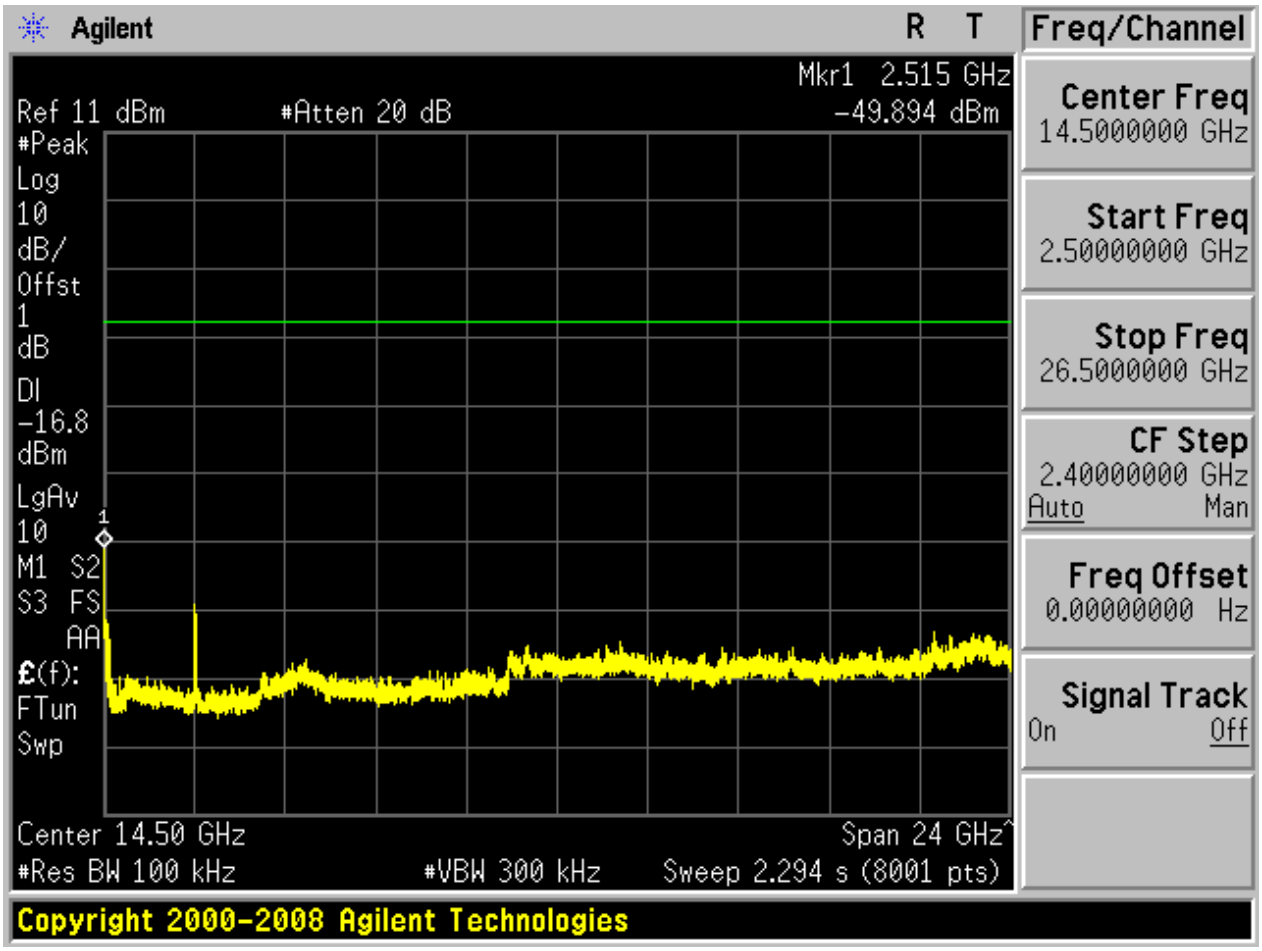






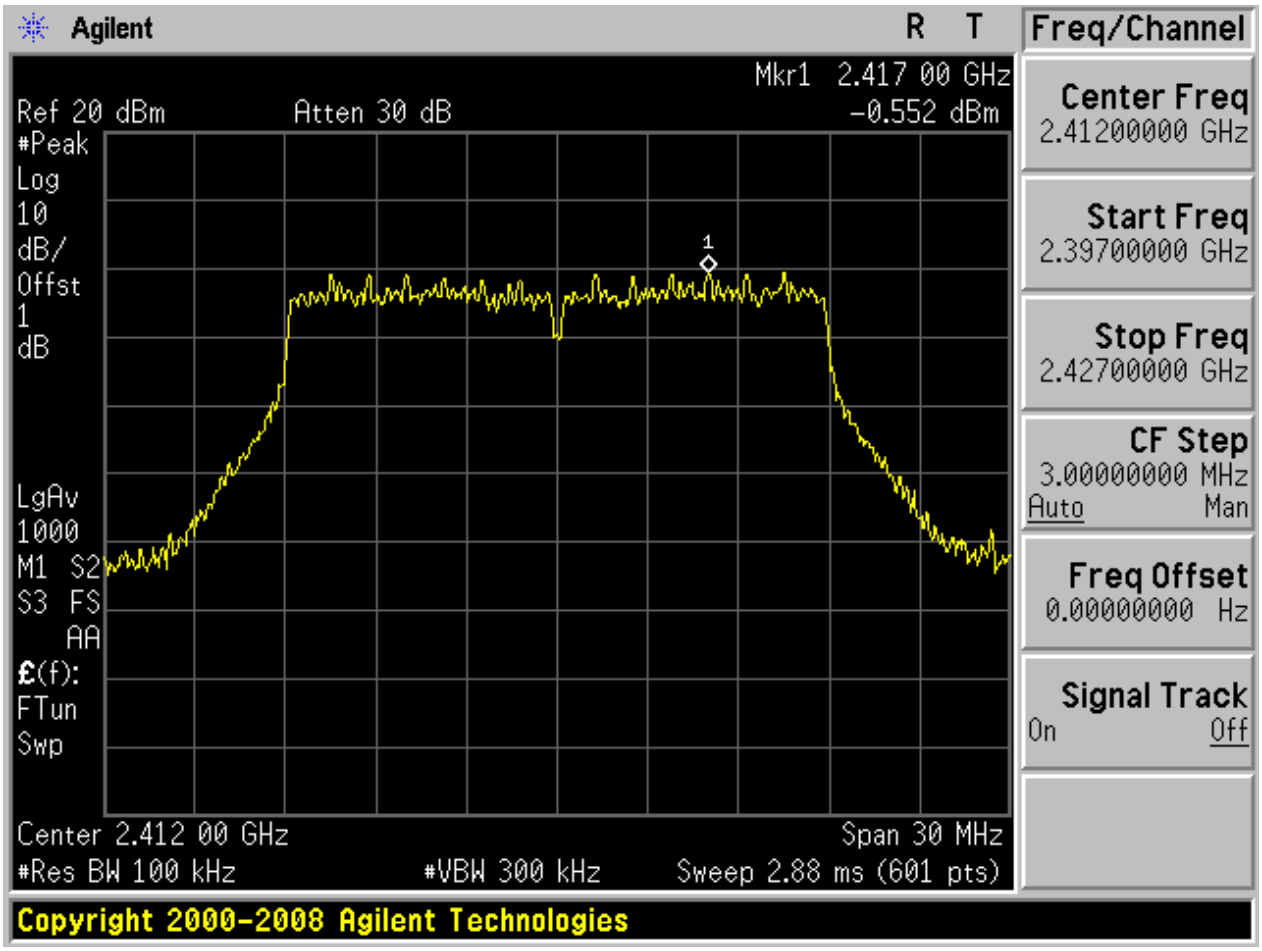




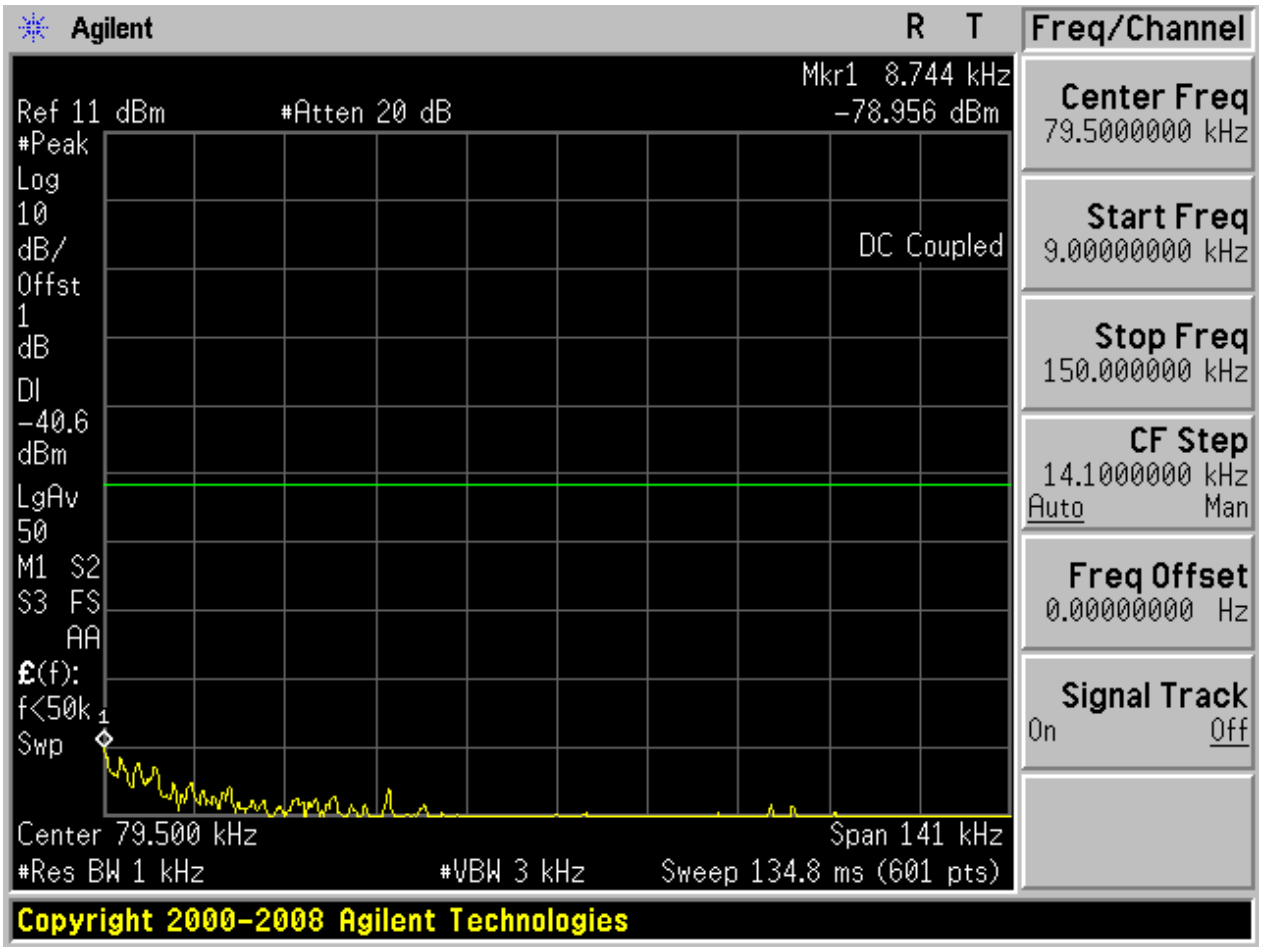


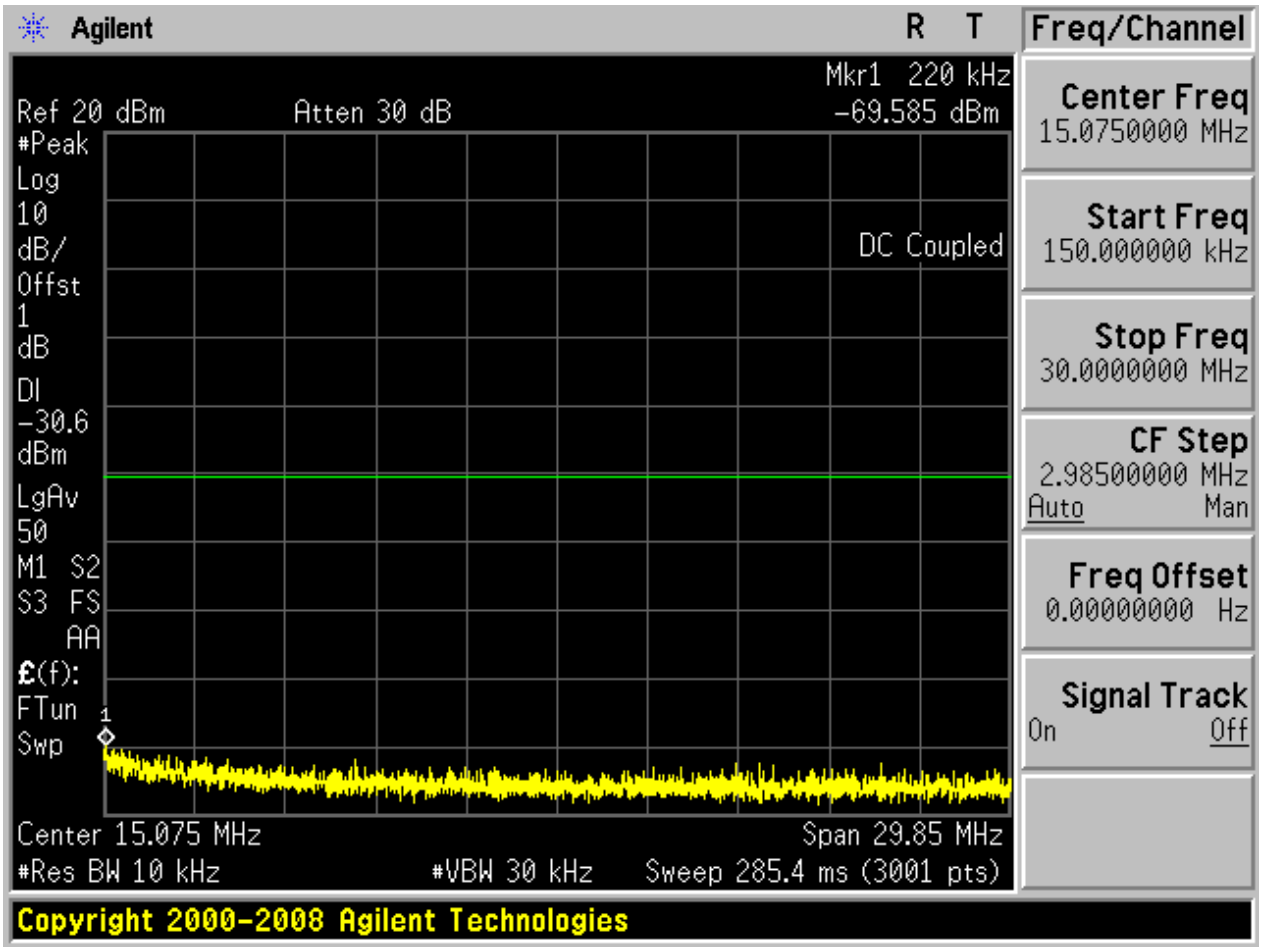
2.7 11N20_L

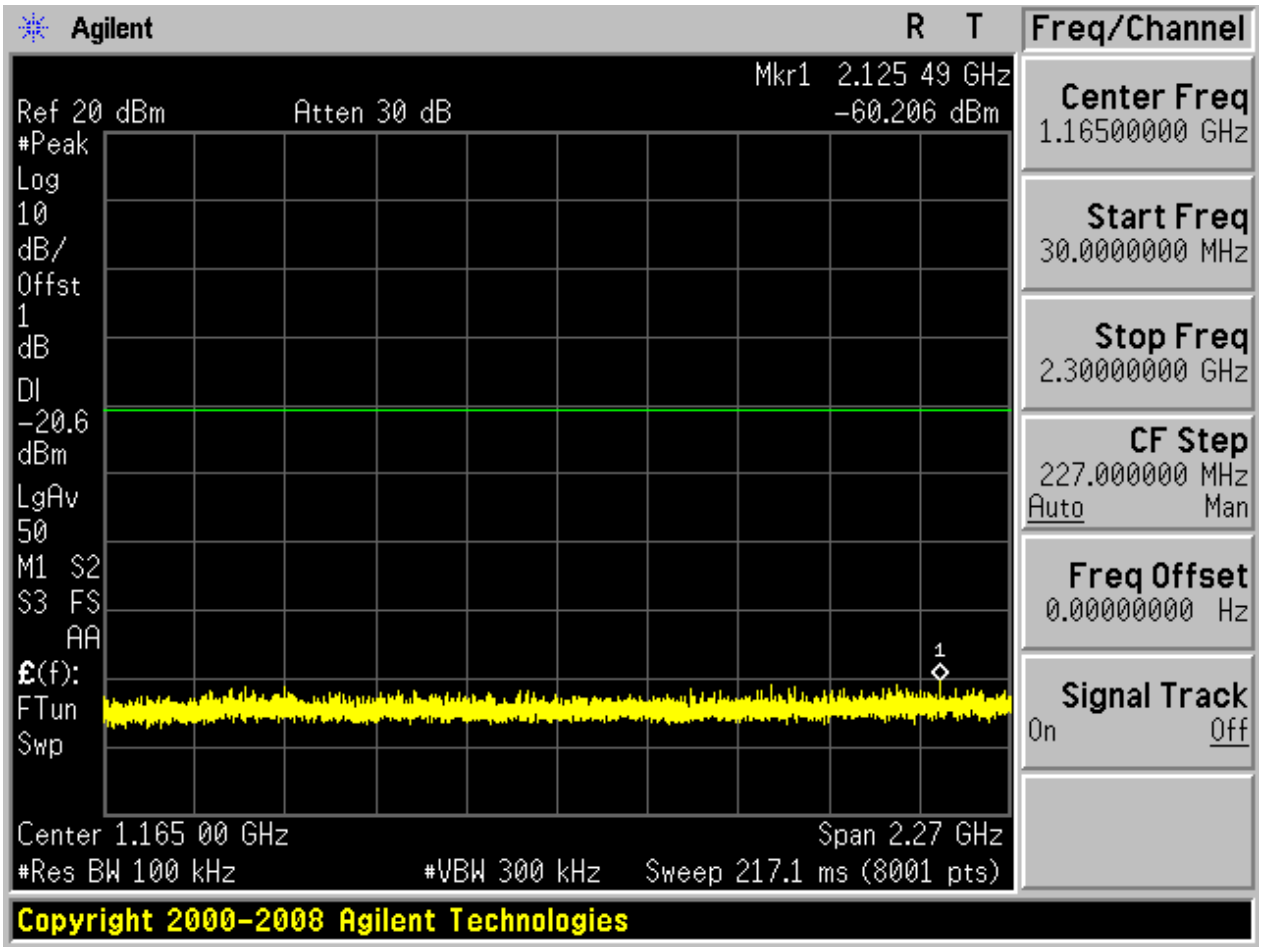
Pref:

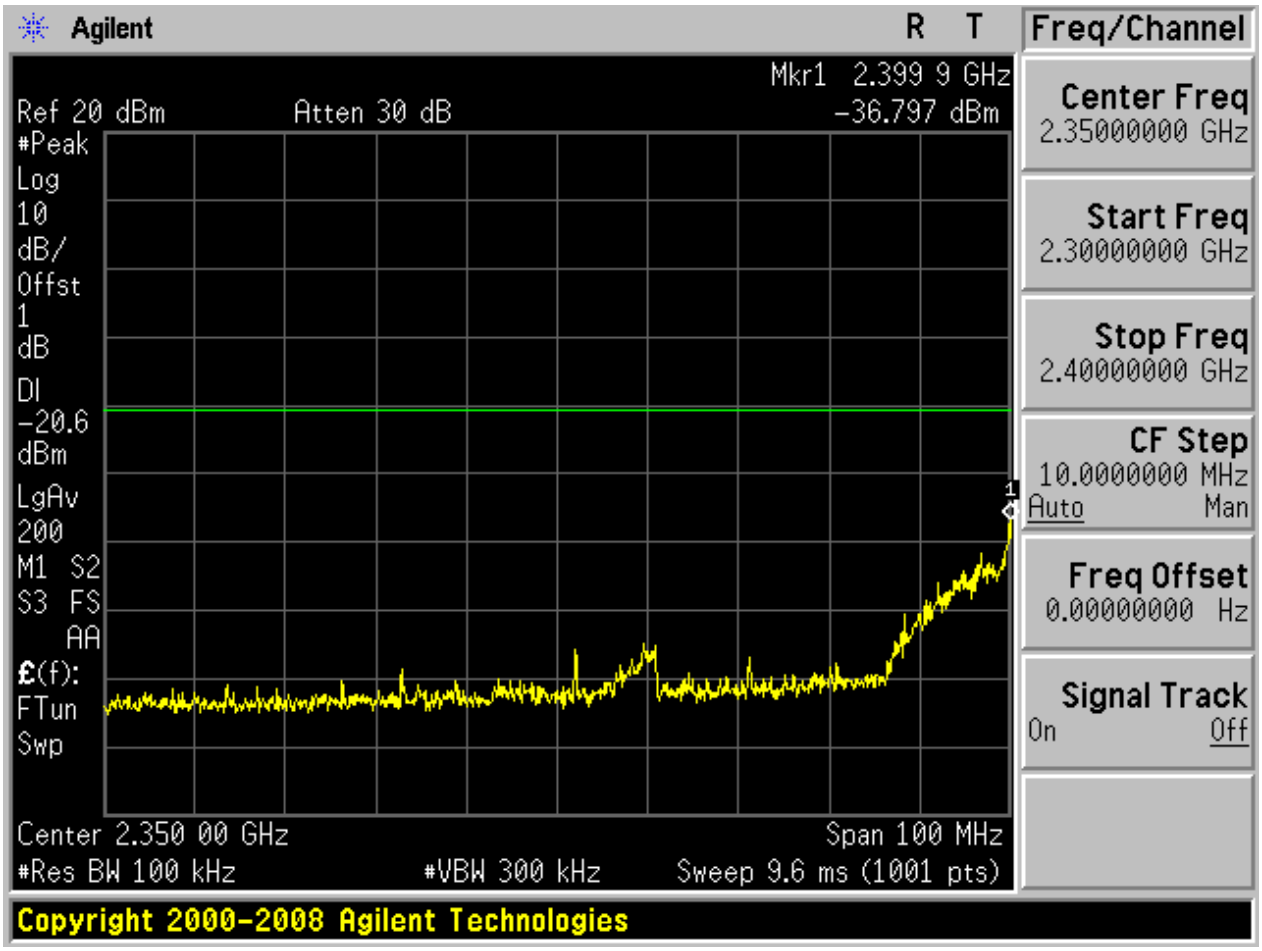


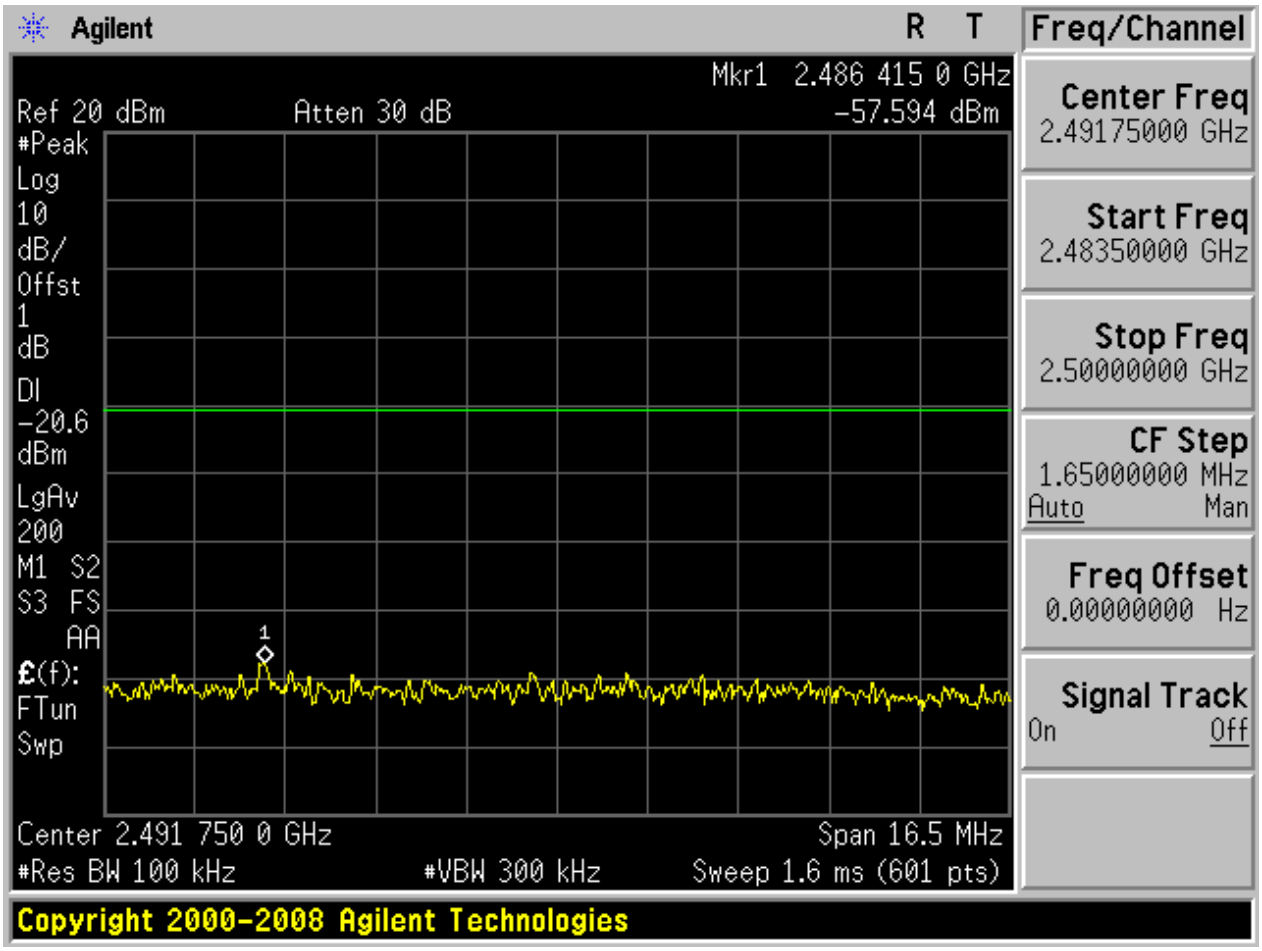
Puw:

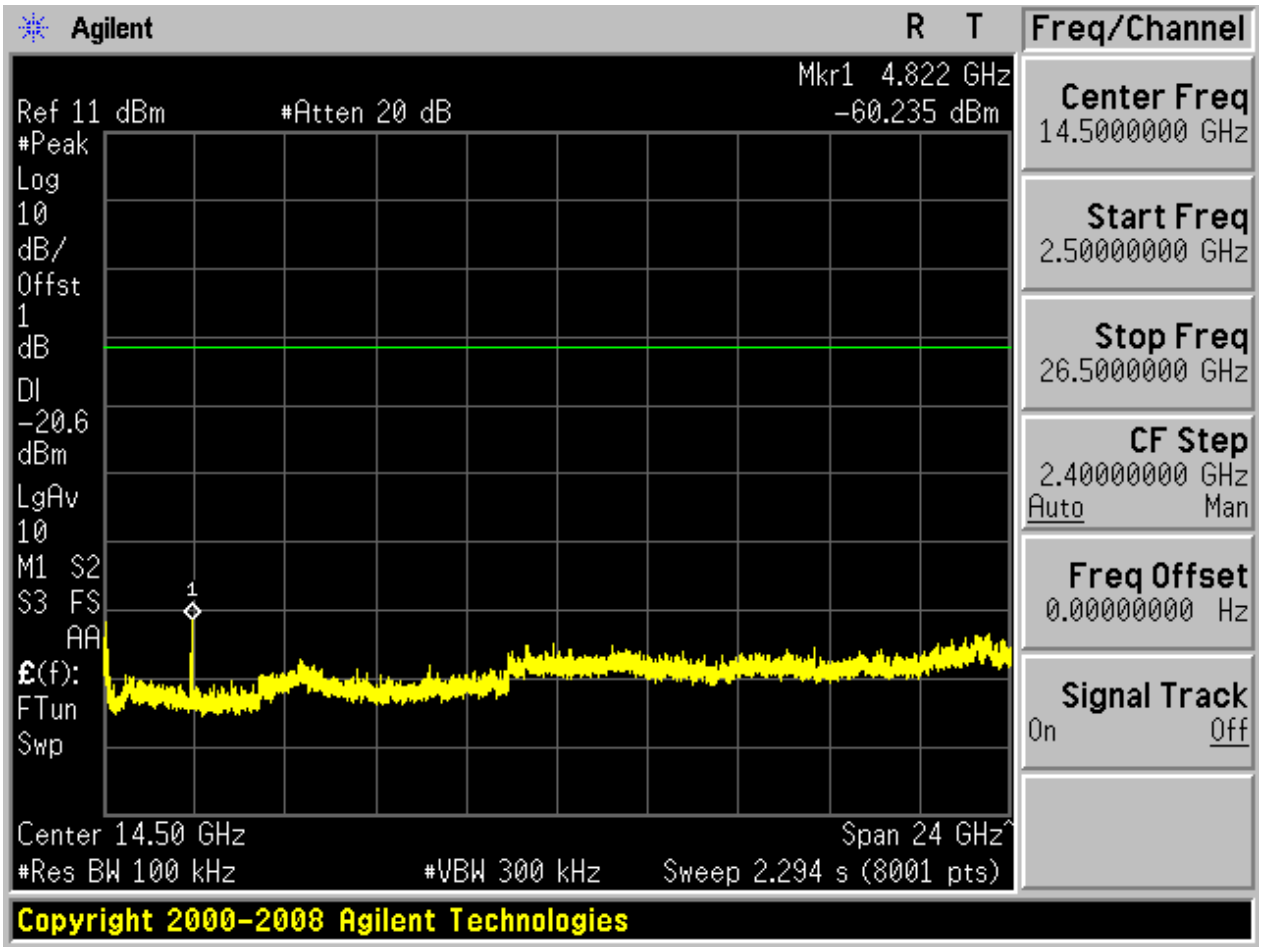






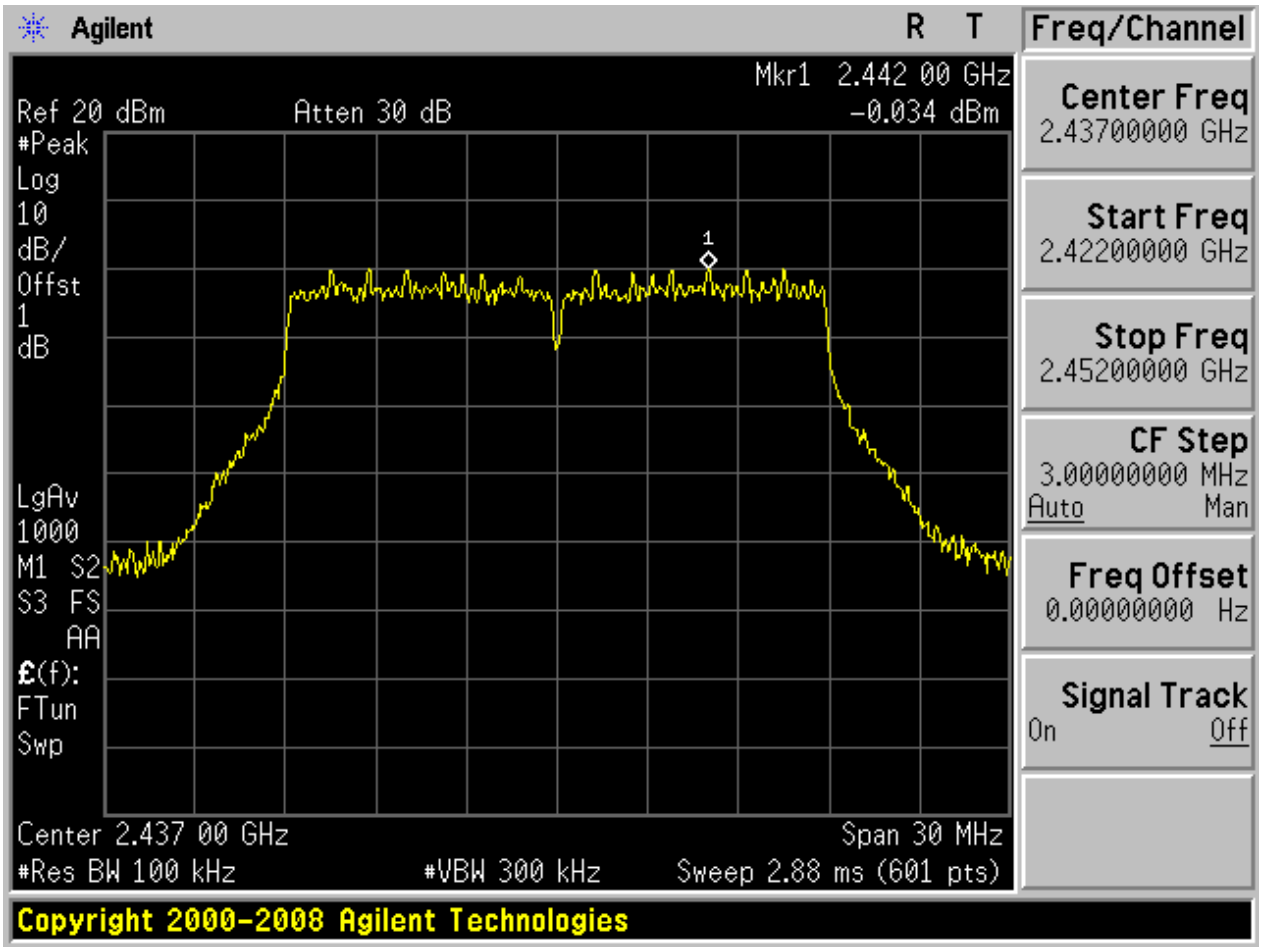




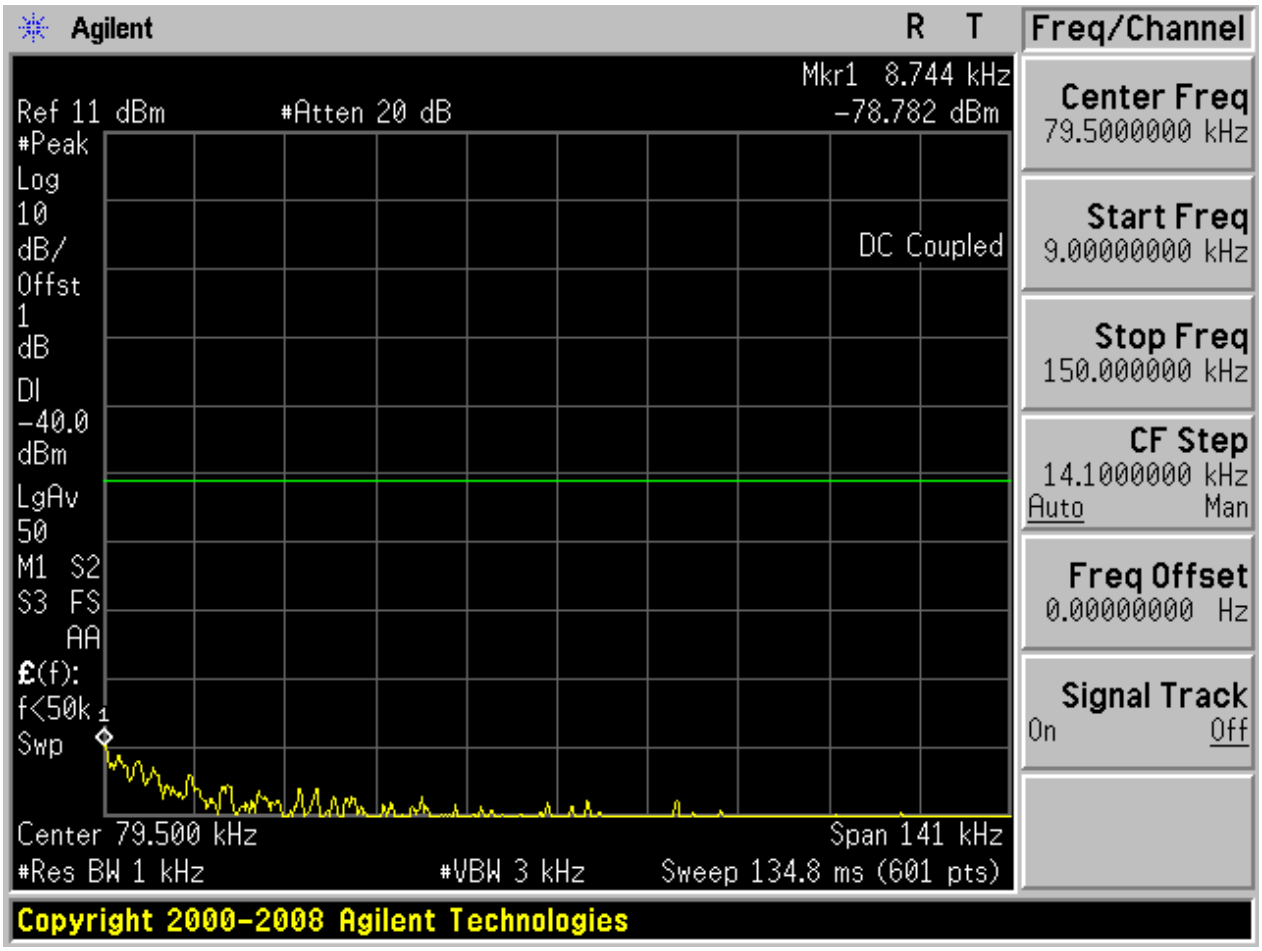


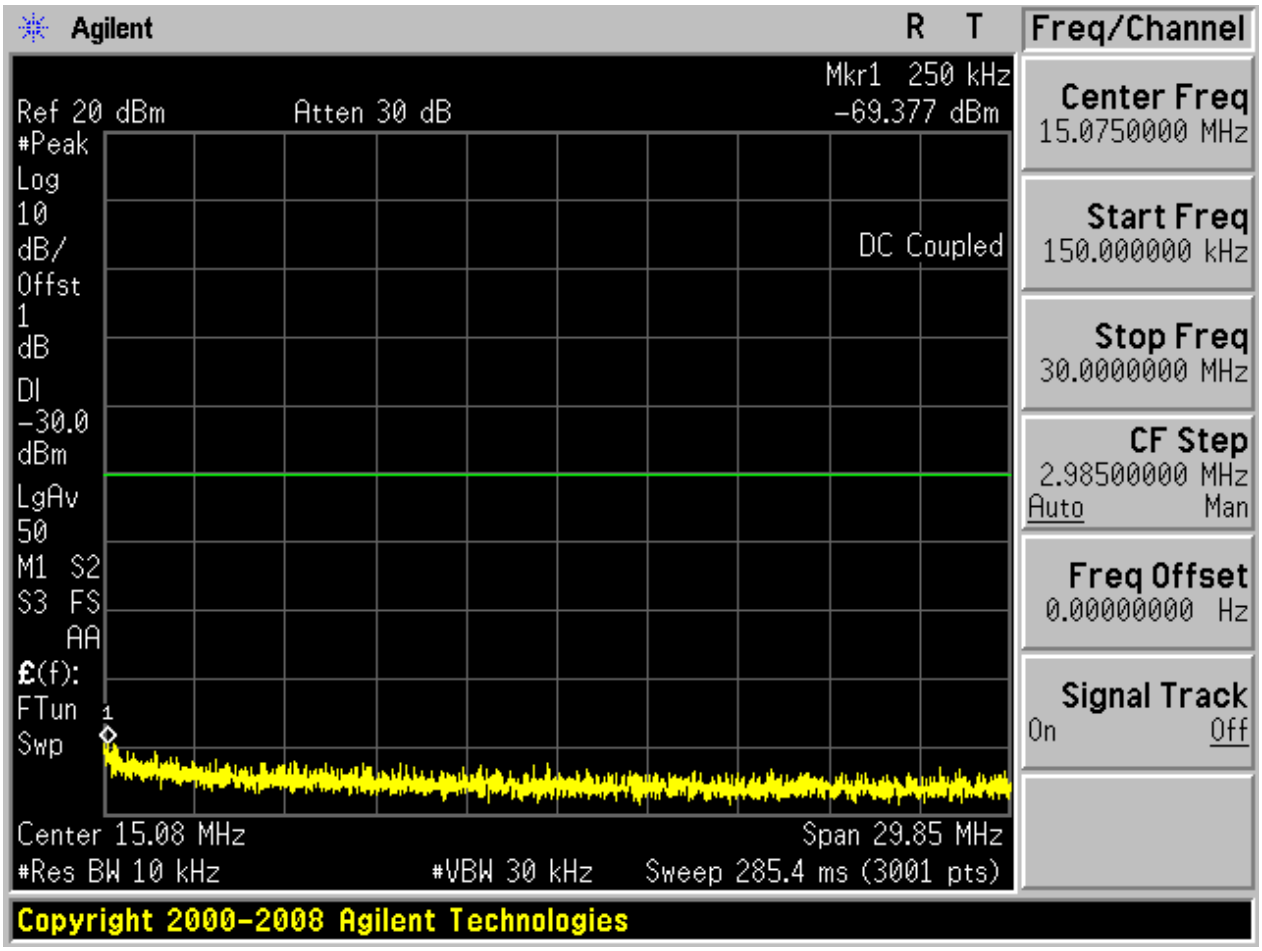
2.8 11N20_M

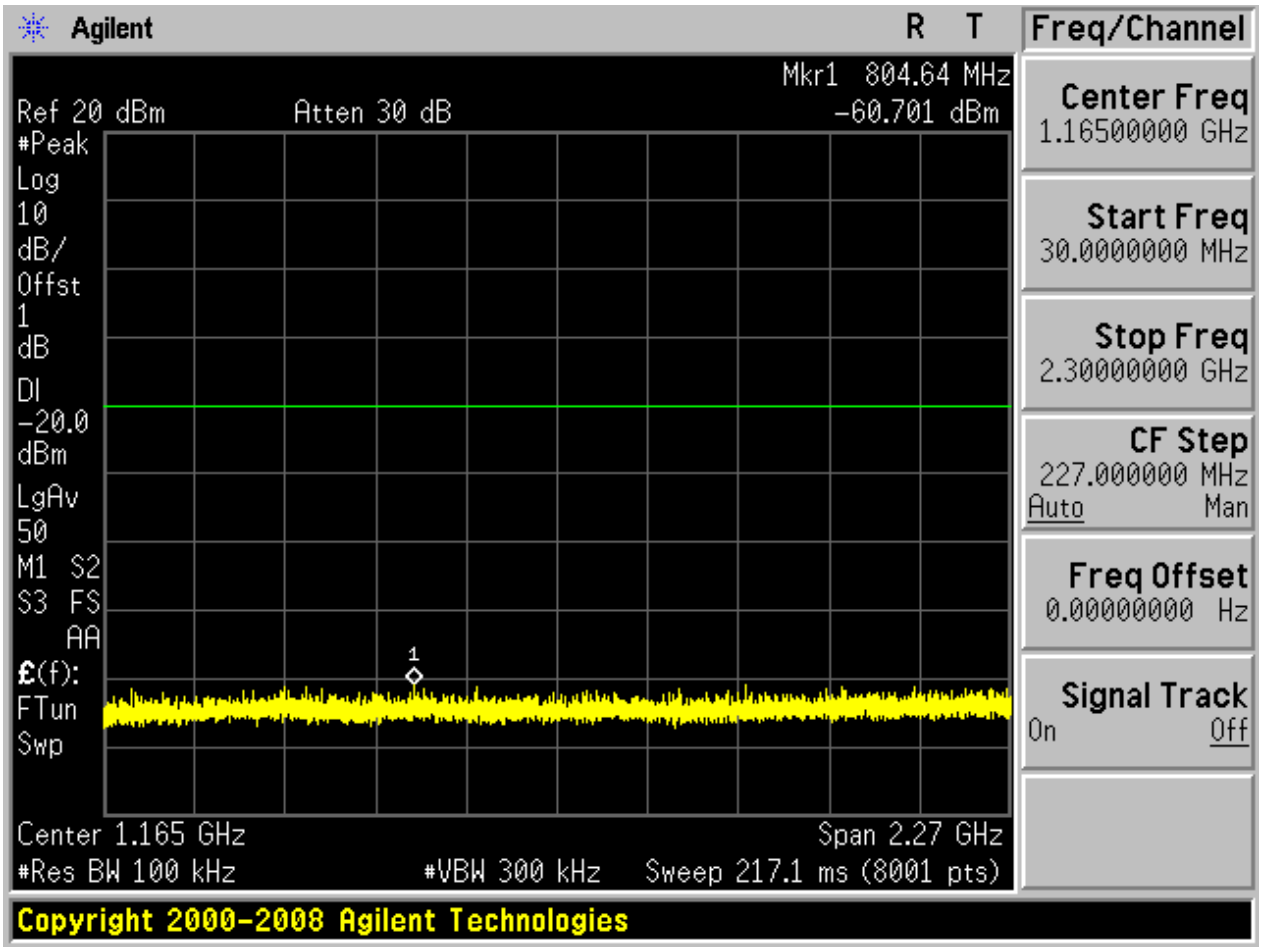
Pref:

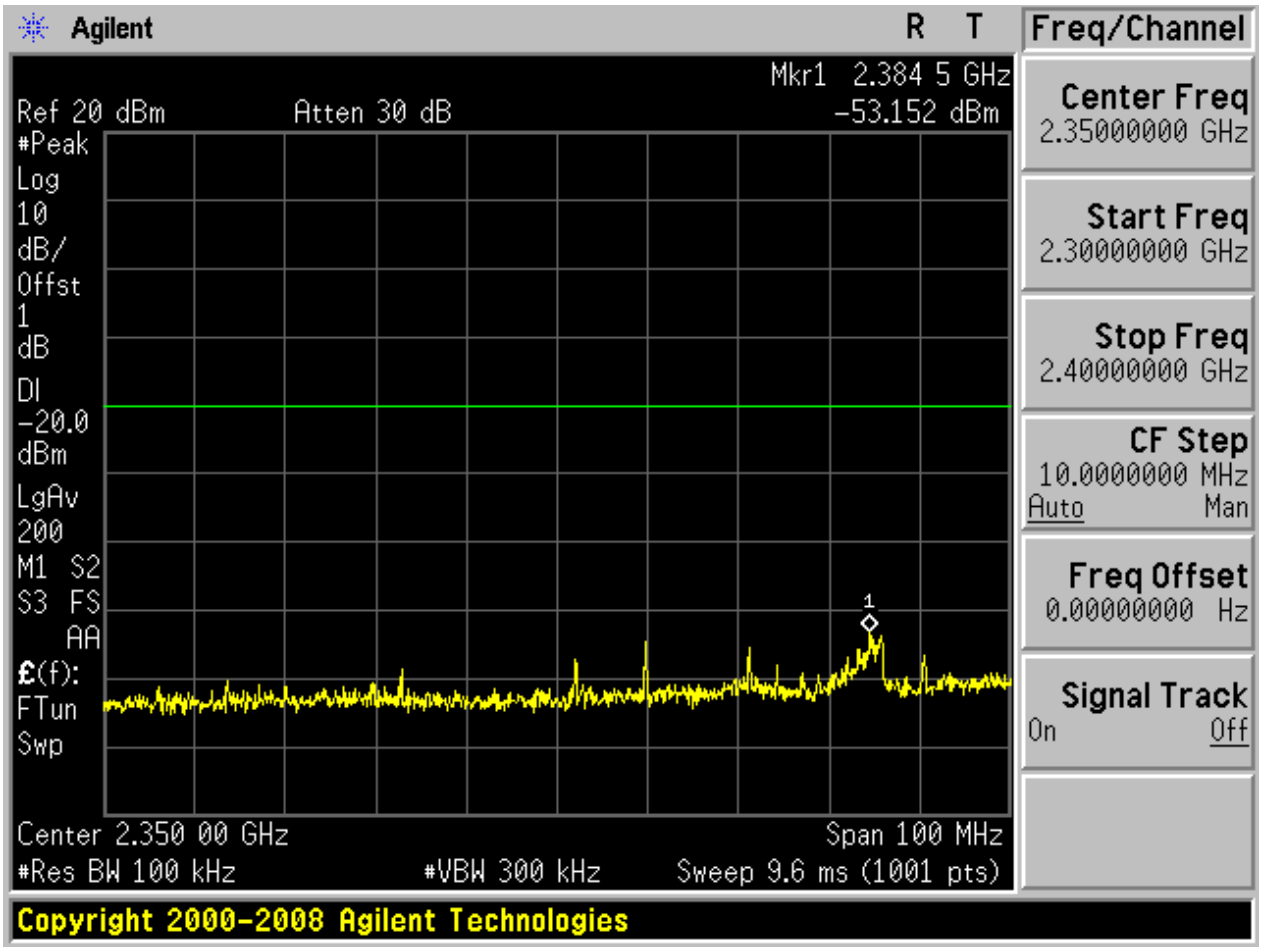


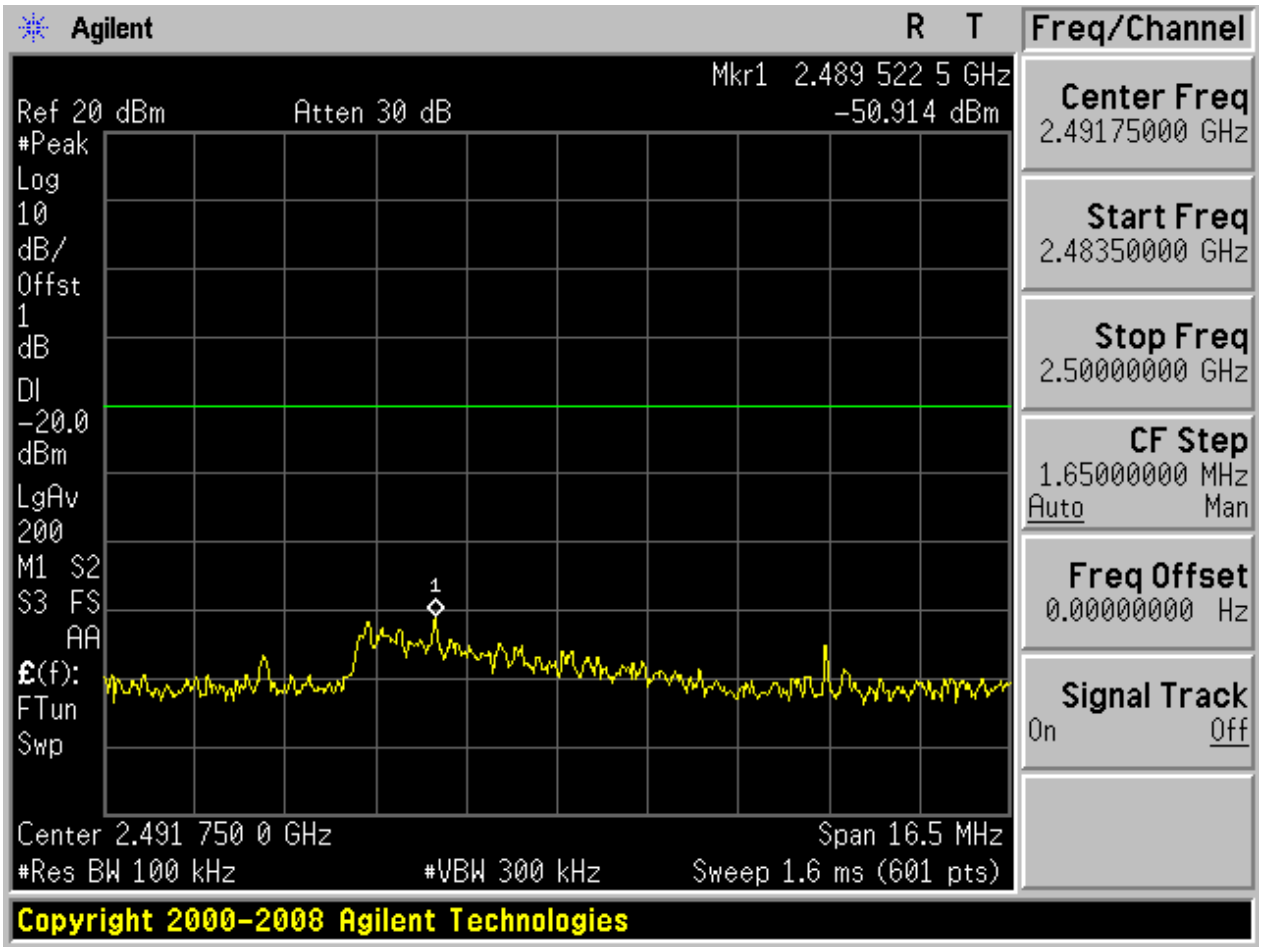
Puw:

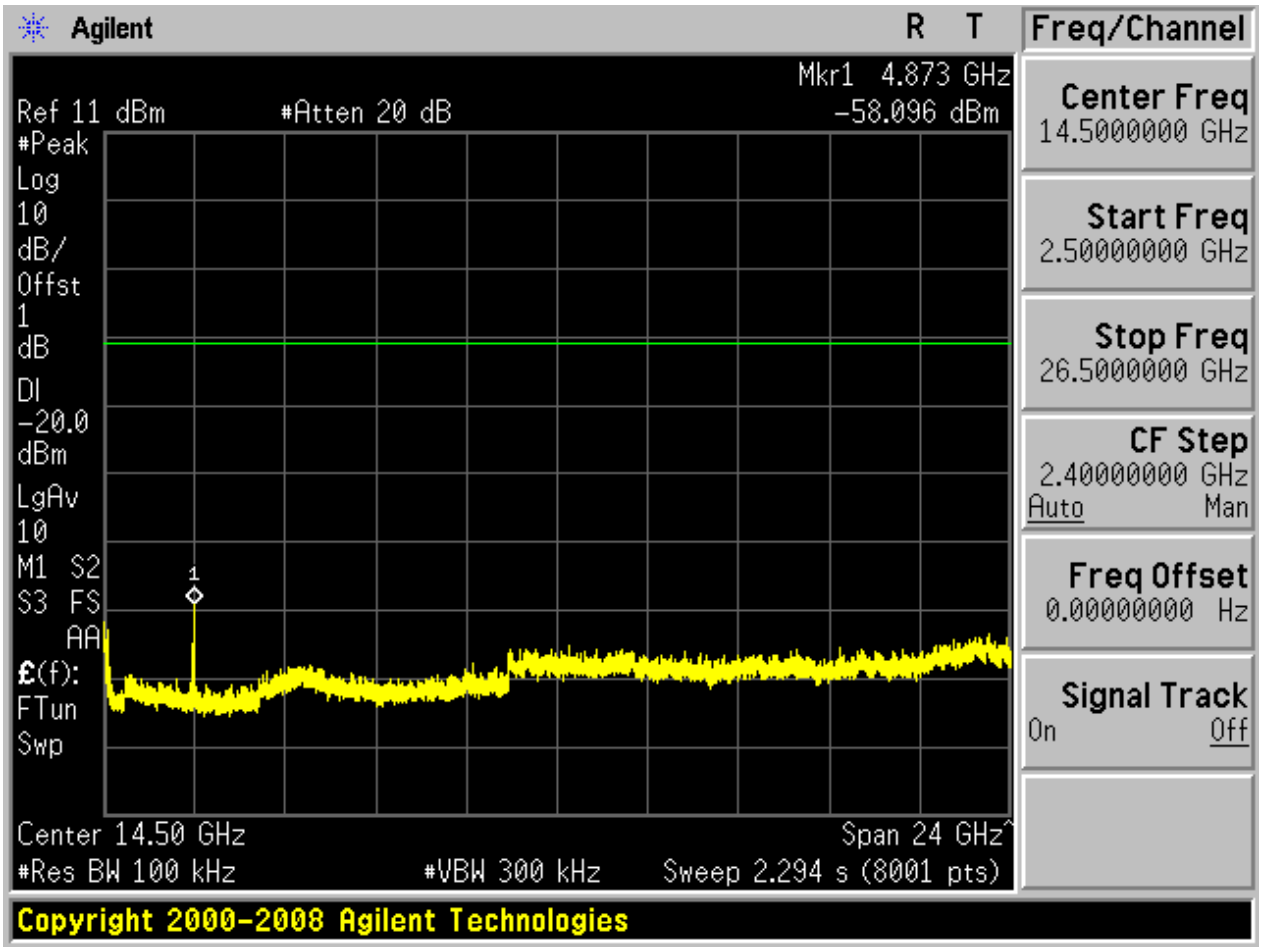






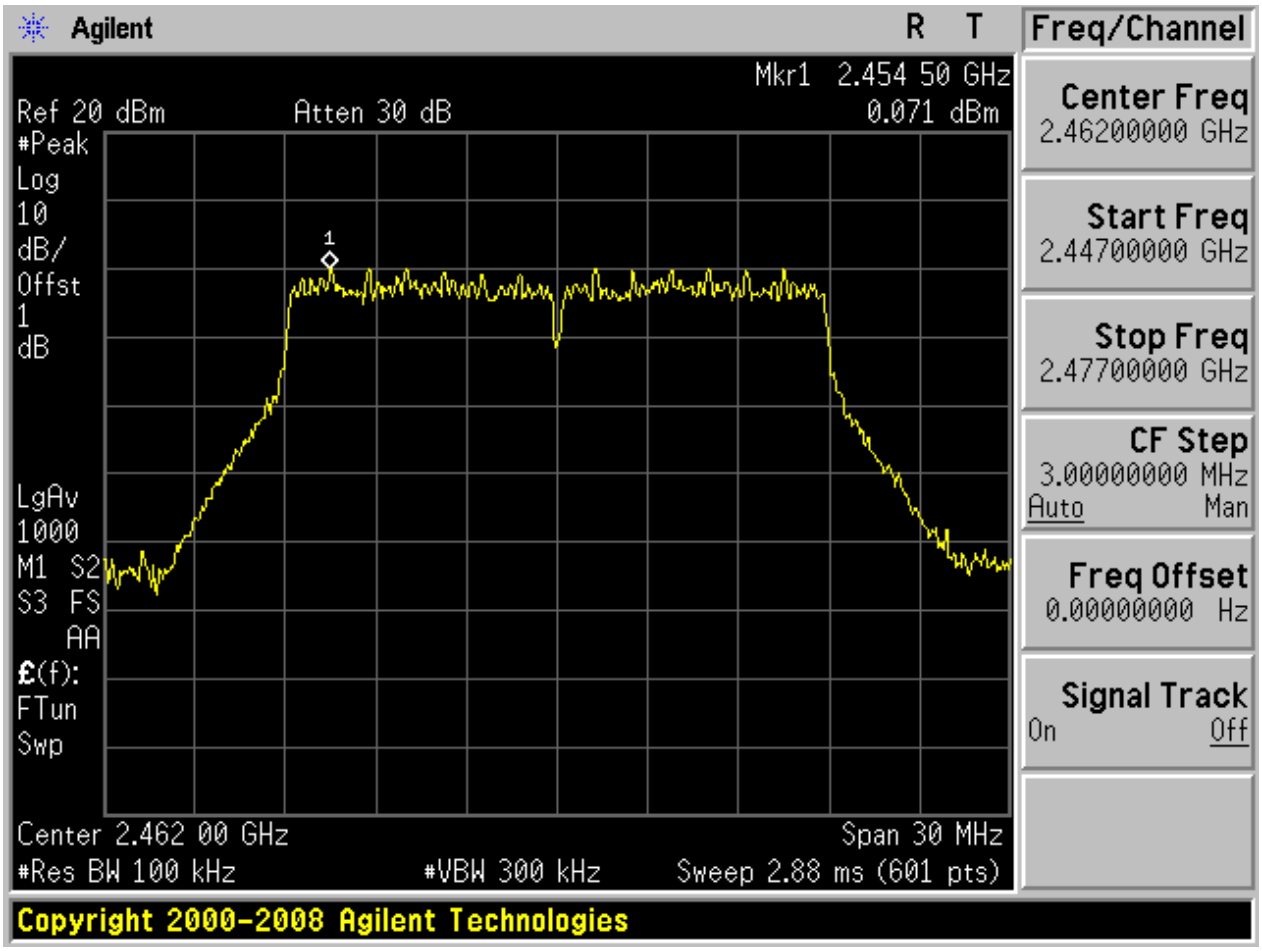




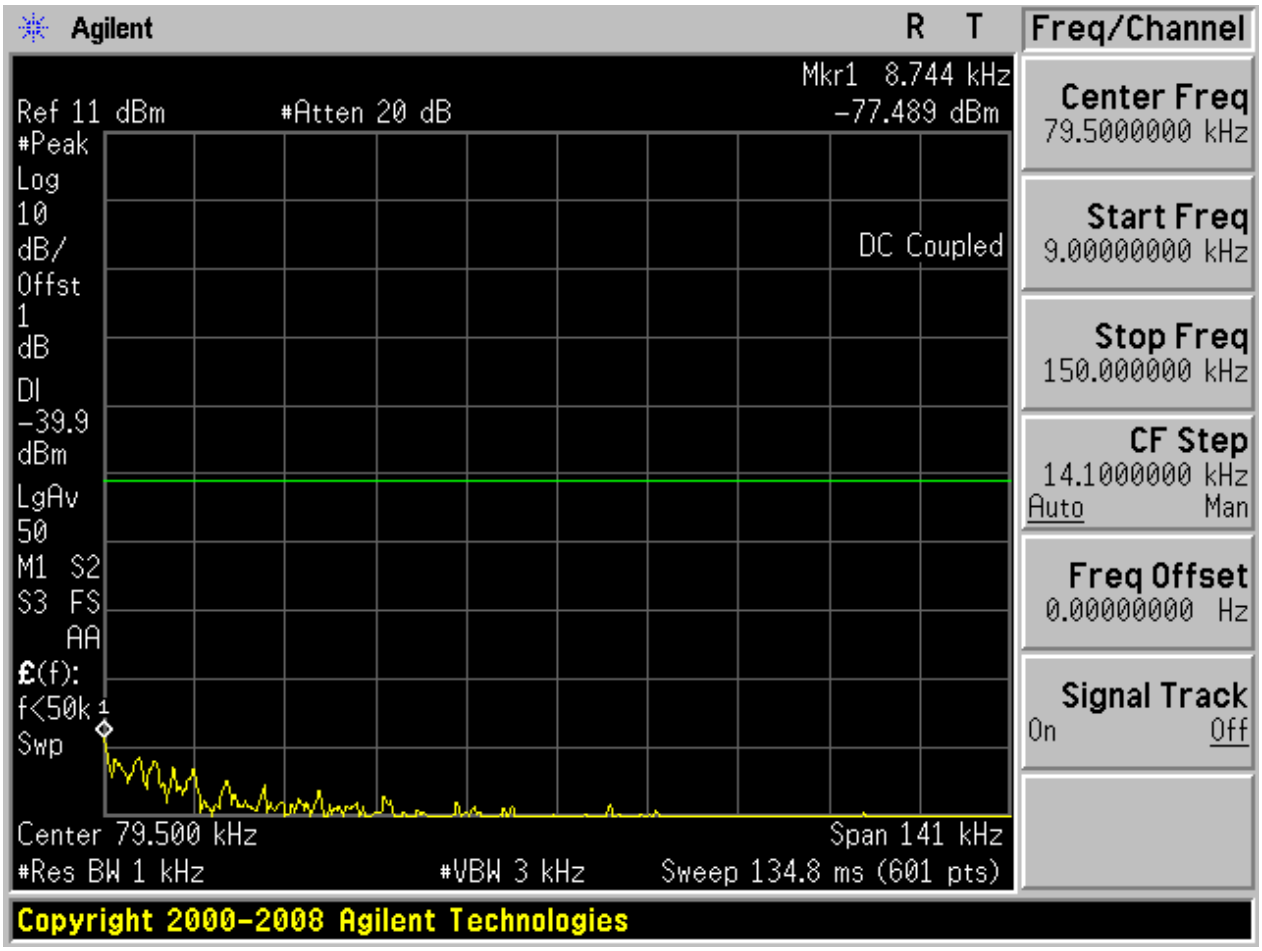


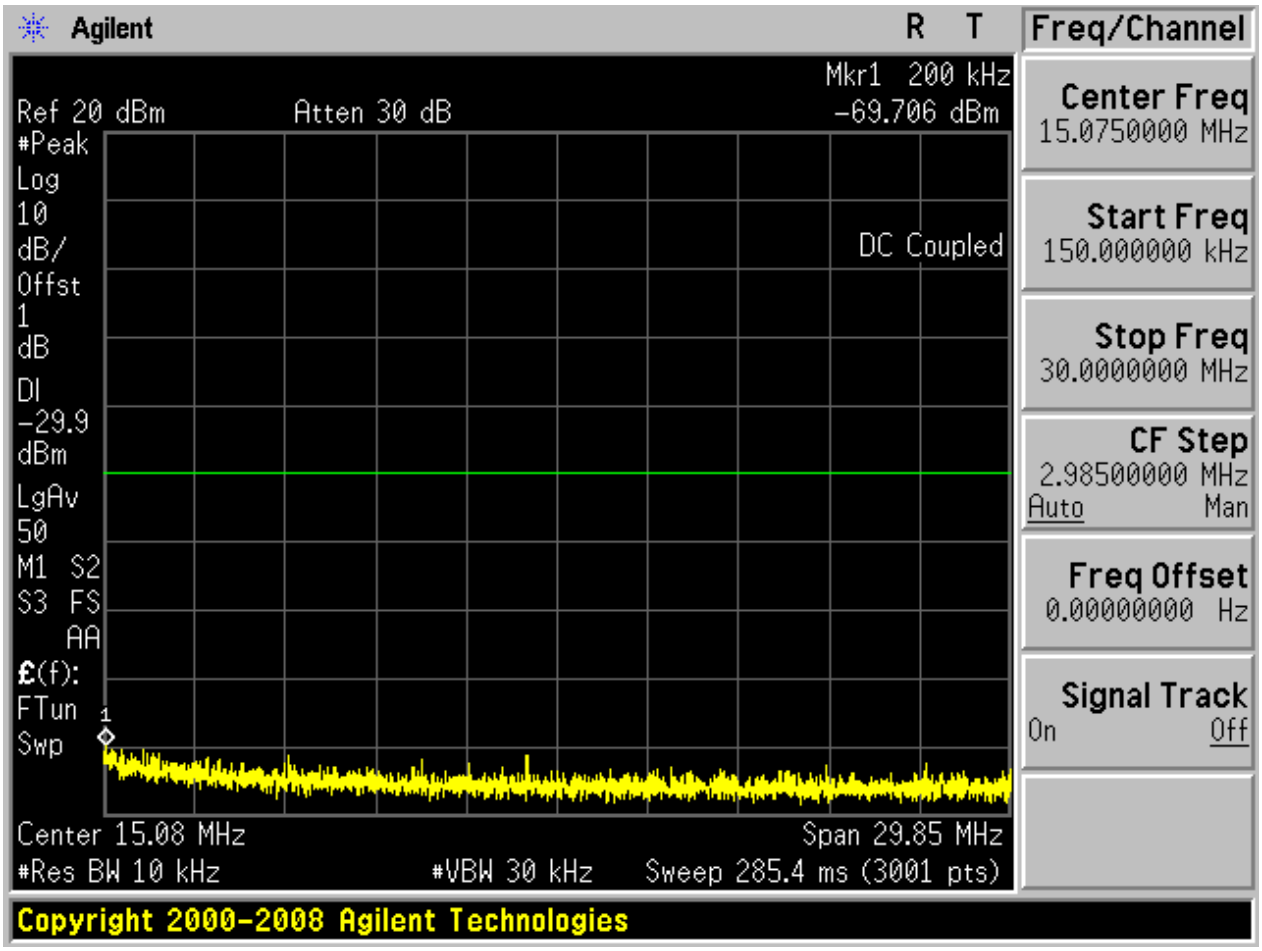
2.9 11N20_H

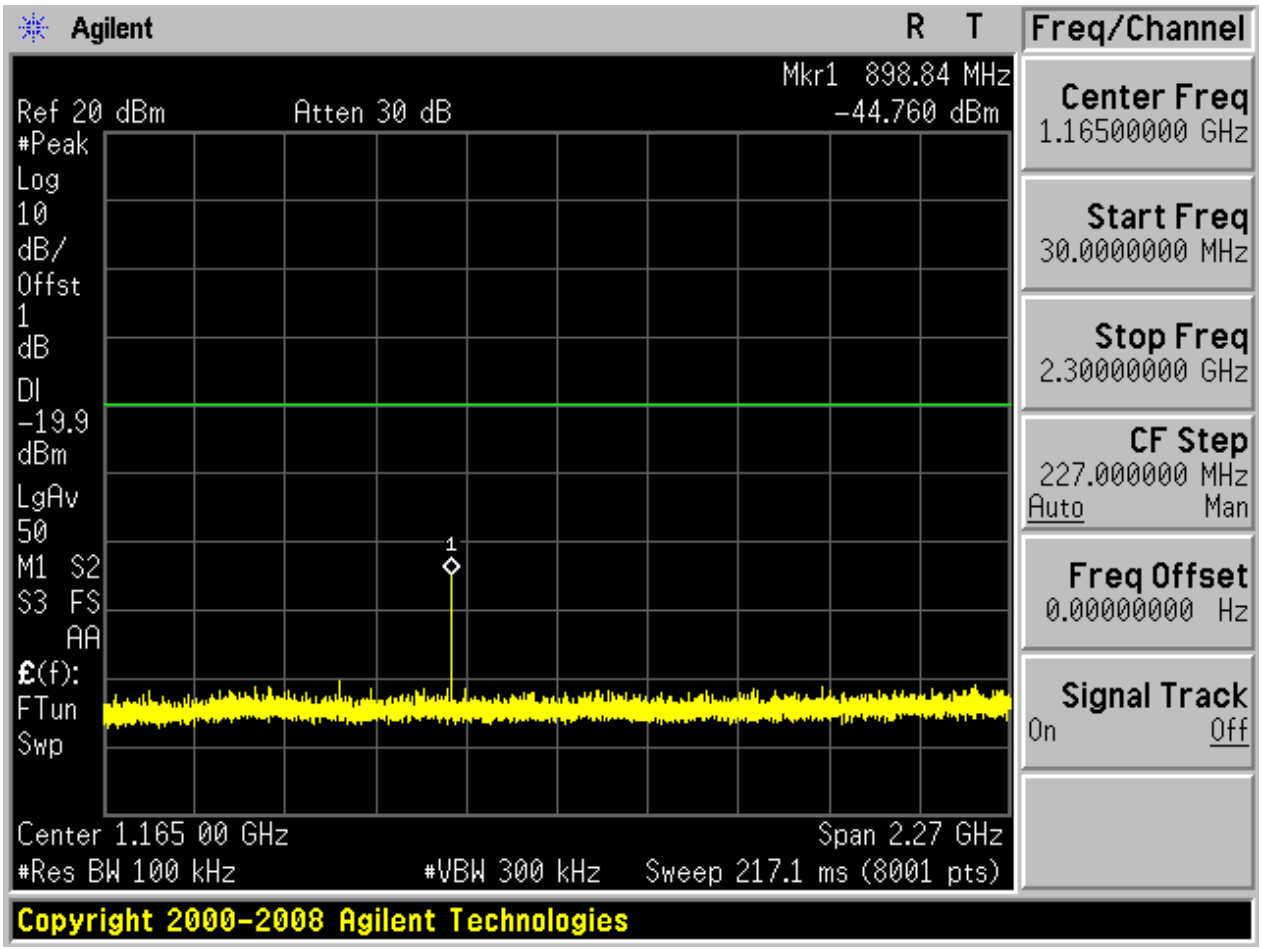
Pref:

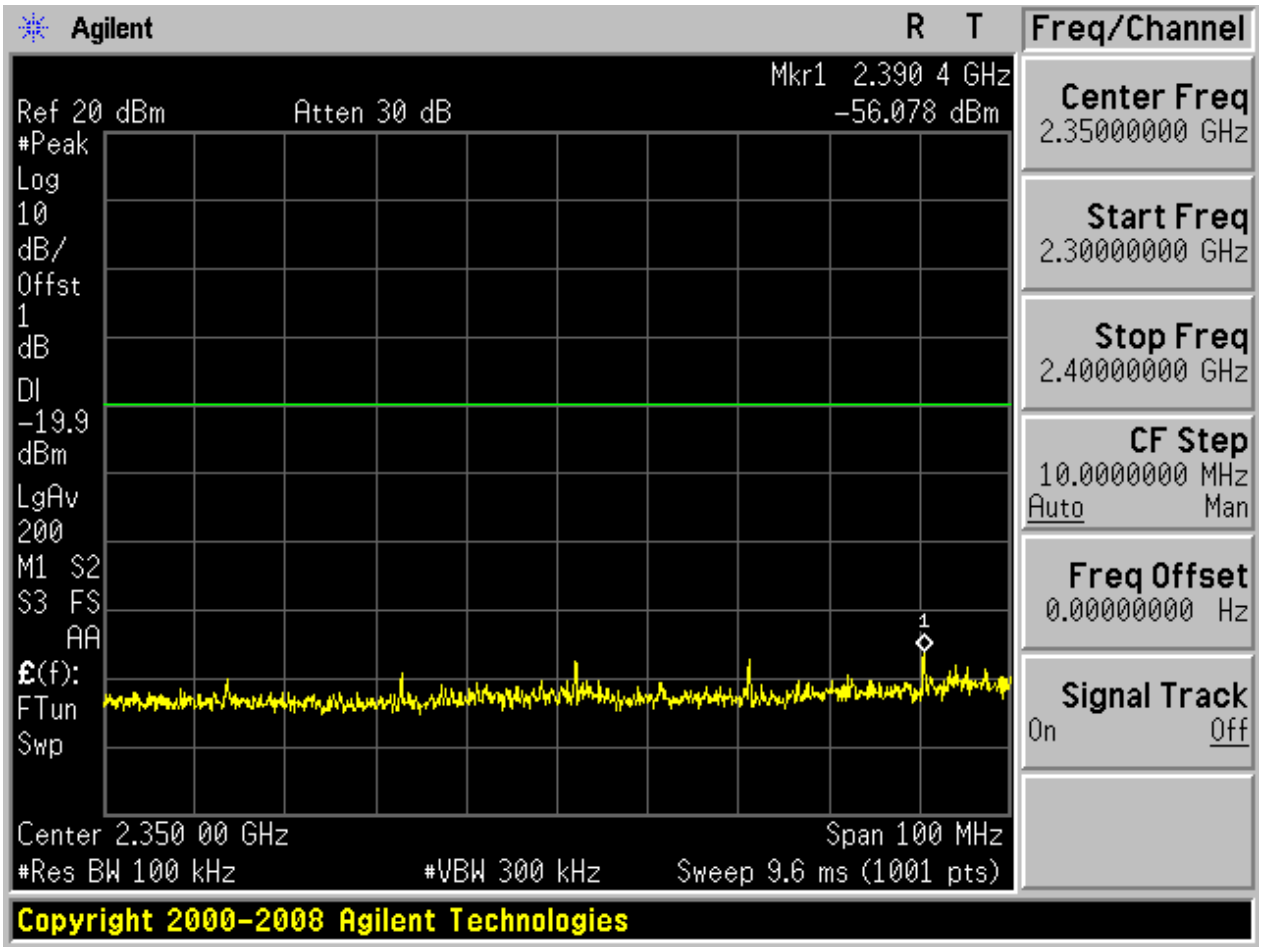


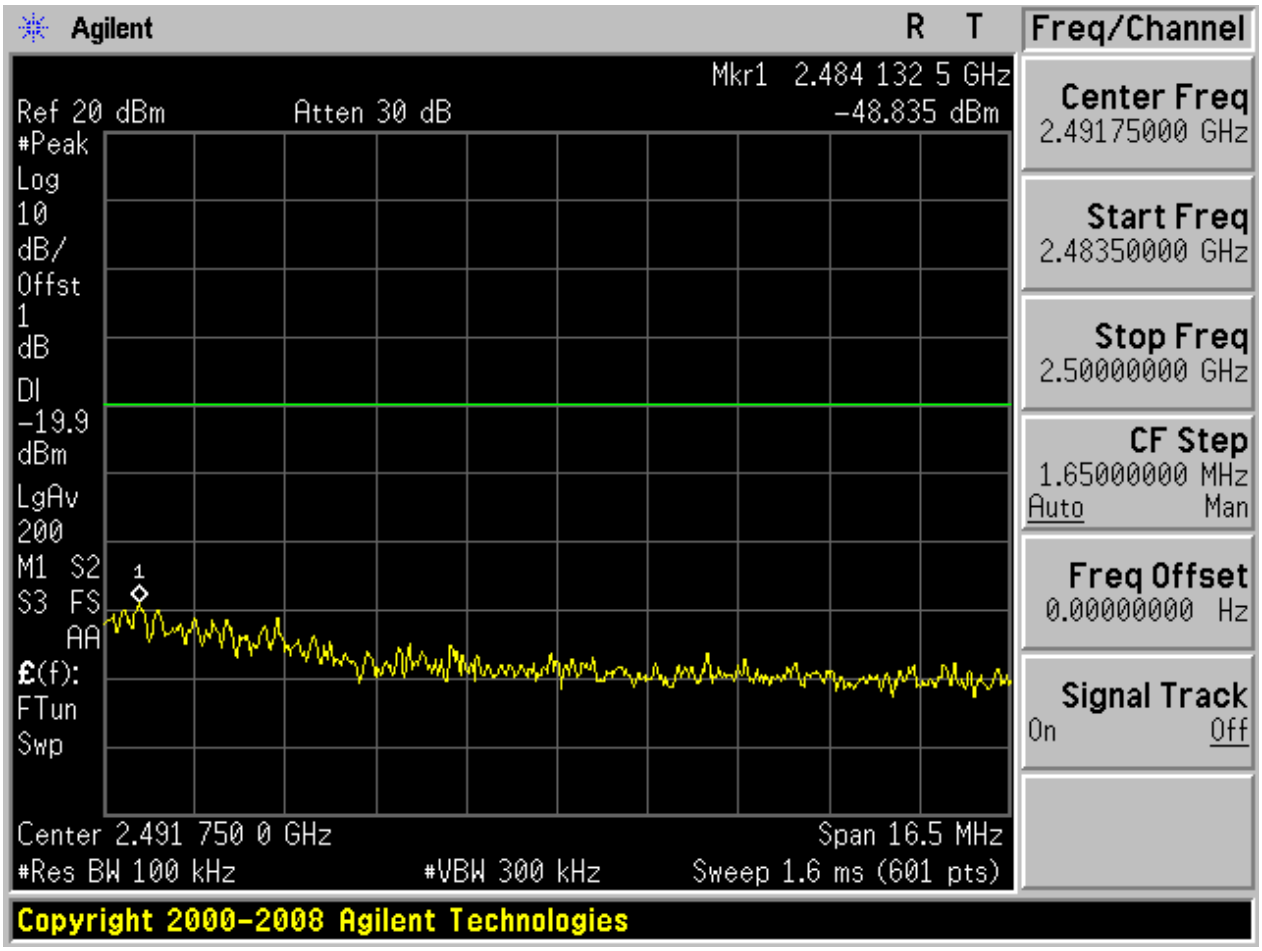
Puw:

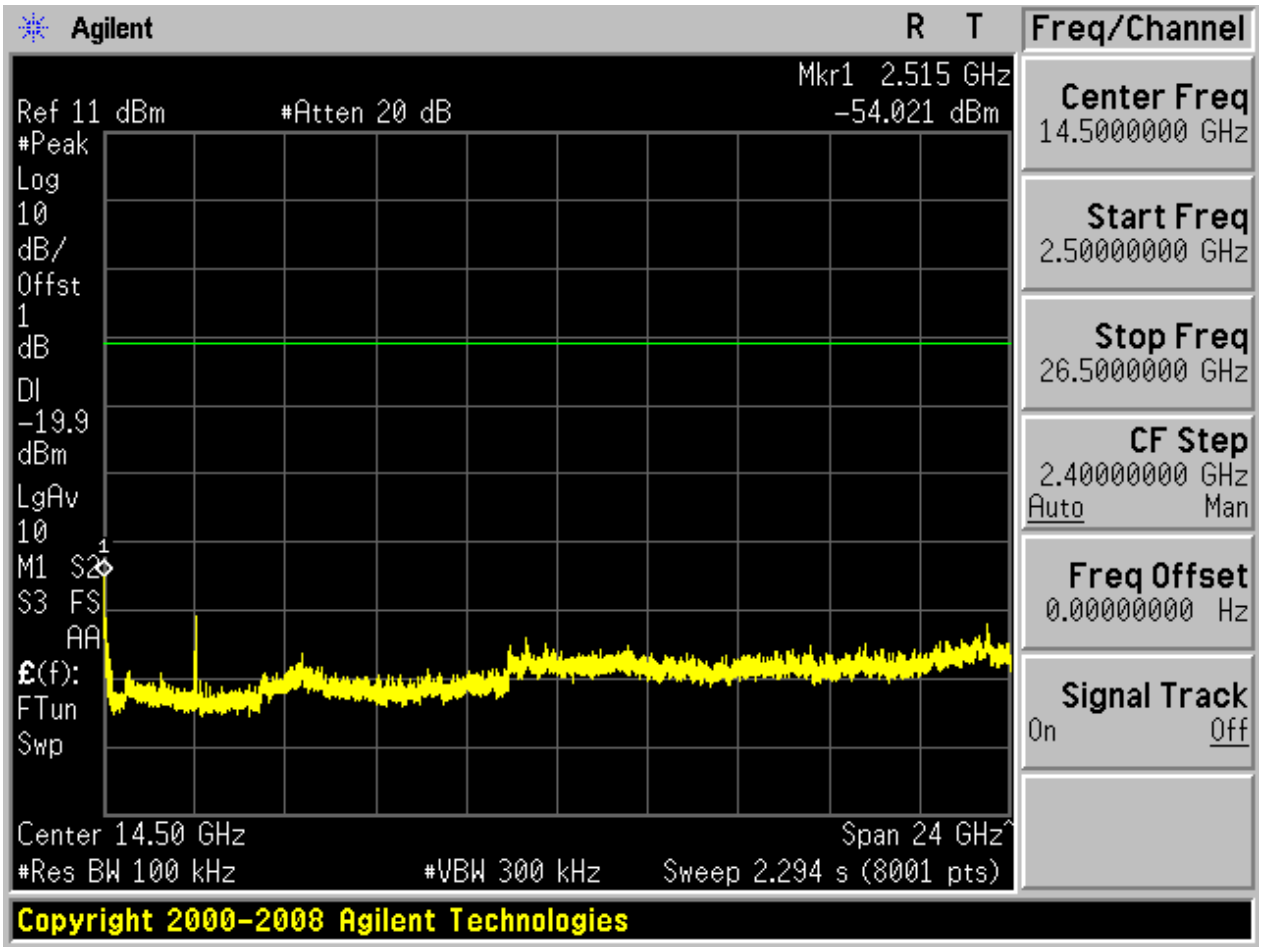












Appendix F: Radiated Spurious Emission & Spurious in Restricted Band

Note: Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

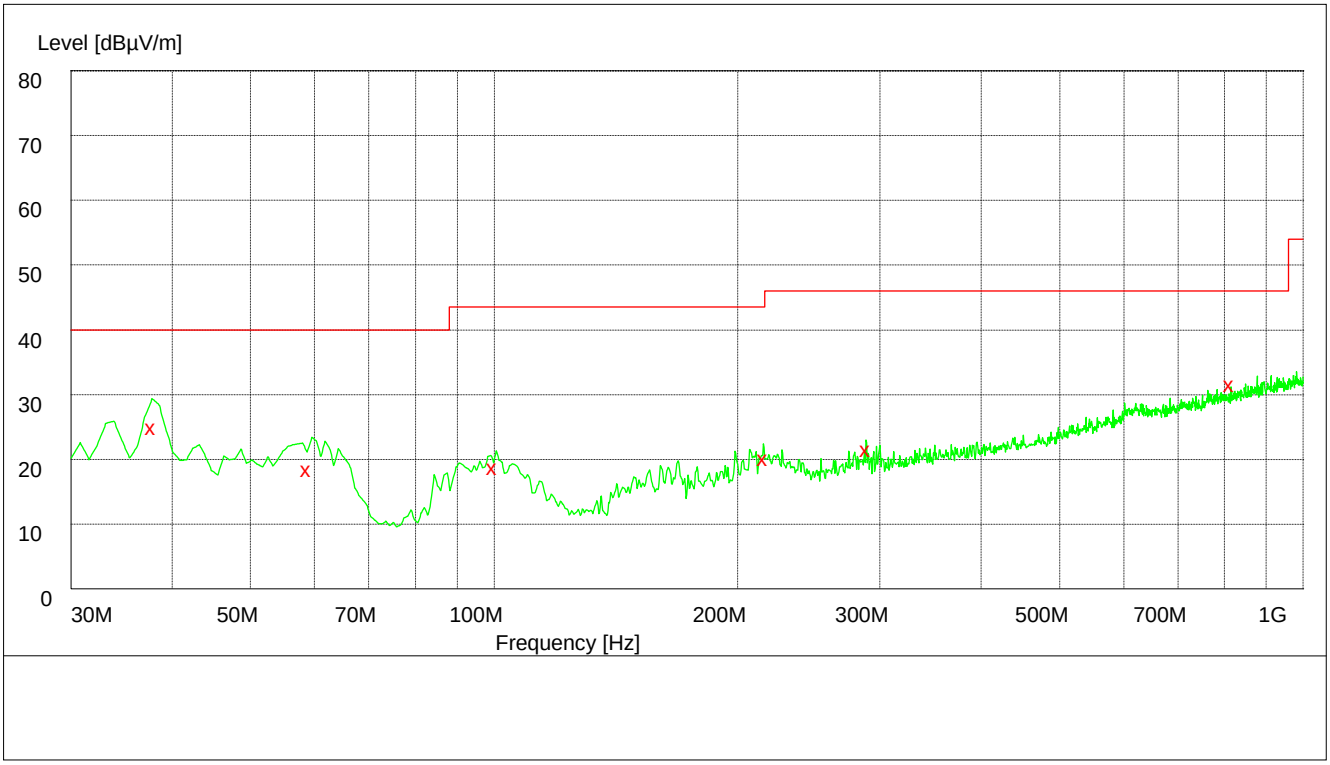
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.

The simultaneous transmission has been considered

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).**

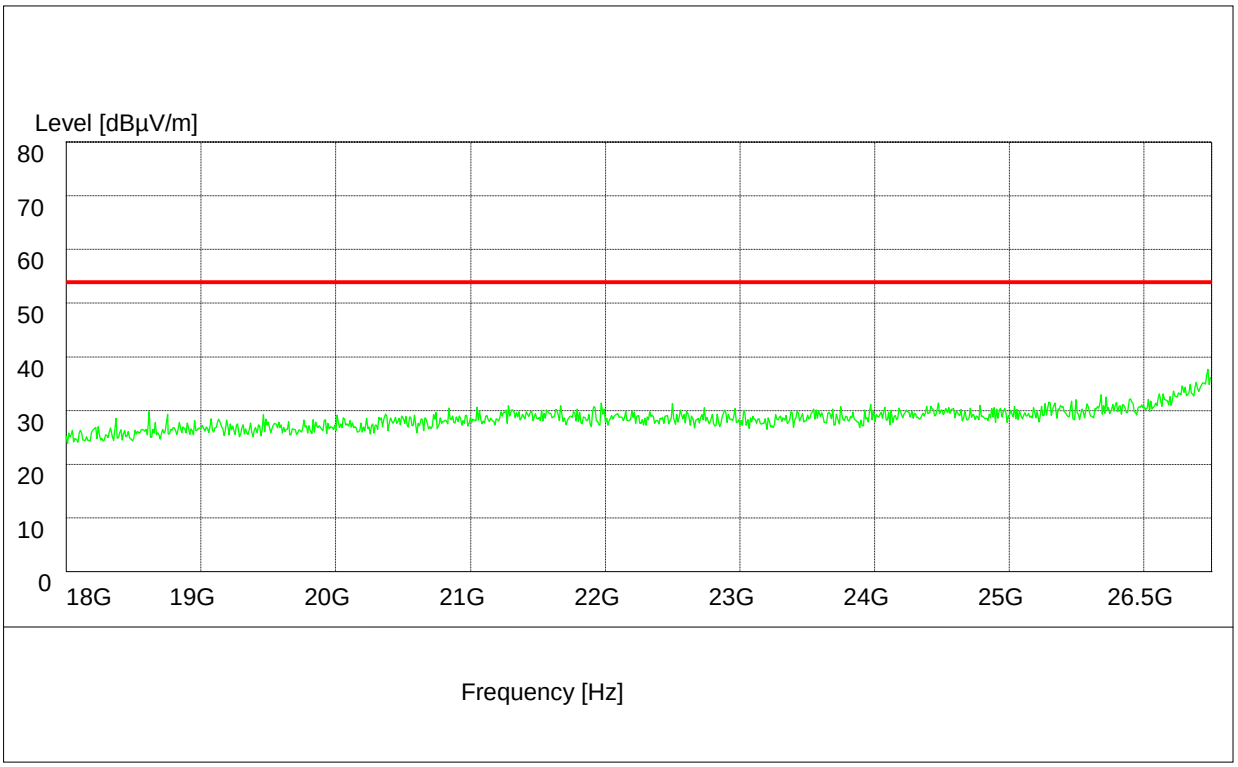


Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
37.860000	26.40	12.6	40.0	13.6	123.0	43.00	VERTICAL
58.920000	19.90	12.5	40.0	20.1	300.0	153.00	VERTICAL

100.140000	20.20	13.1	43.5	23.3	184.0	152.00	VERTICAL
216.240000	21.60	12.9	46.0	24.4	164.0	306.00	HORIZONTAL
289.140000	23.00	15.3	46.0	23.0	102.0	108.00	HORIZONTAL
814.380000	33.00	25.1	46.0	13.0	231.0	336.00	VERTICAL

Part 2: Testing Range of "18 GHz to 26.5 GHz"

Note: No peak found in pre- test.



Part 3: Testing Range of "2.3GHz to 2.5GHz"

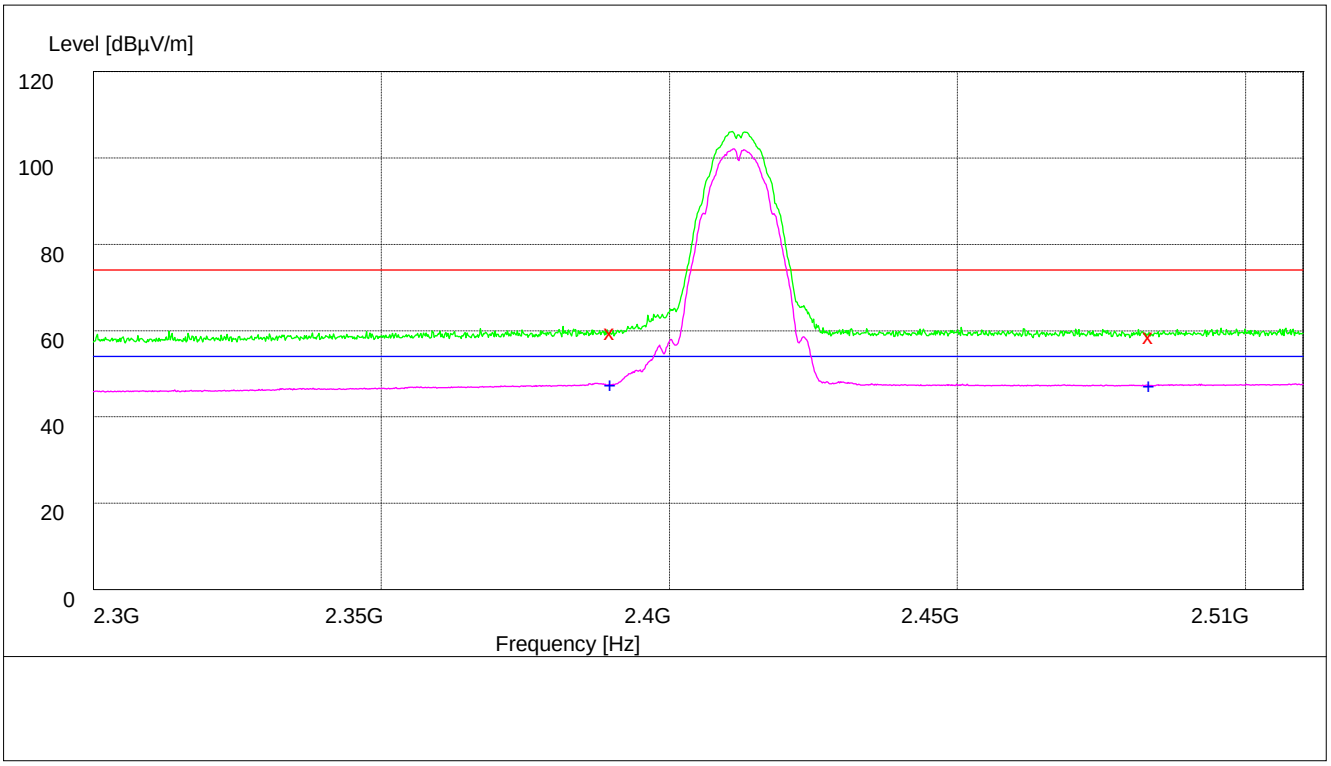
Note 1: The testing range of "2.3 GHz to 2.5 GHz" is for checking radiated emissions located in restricted bands near the EUT operating bands.

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

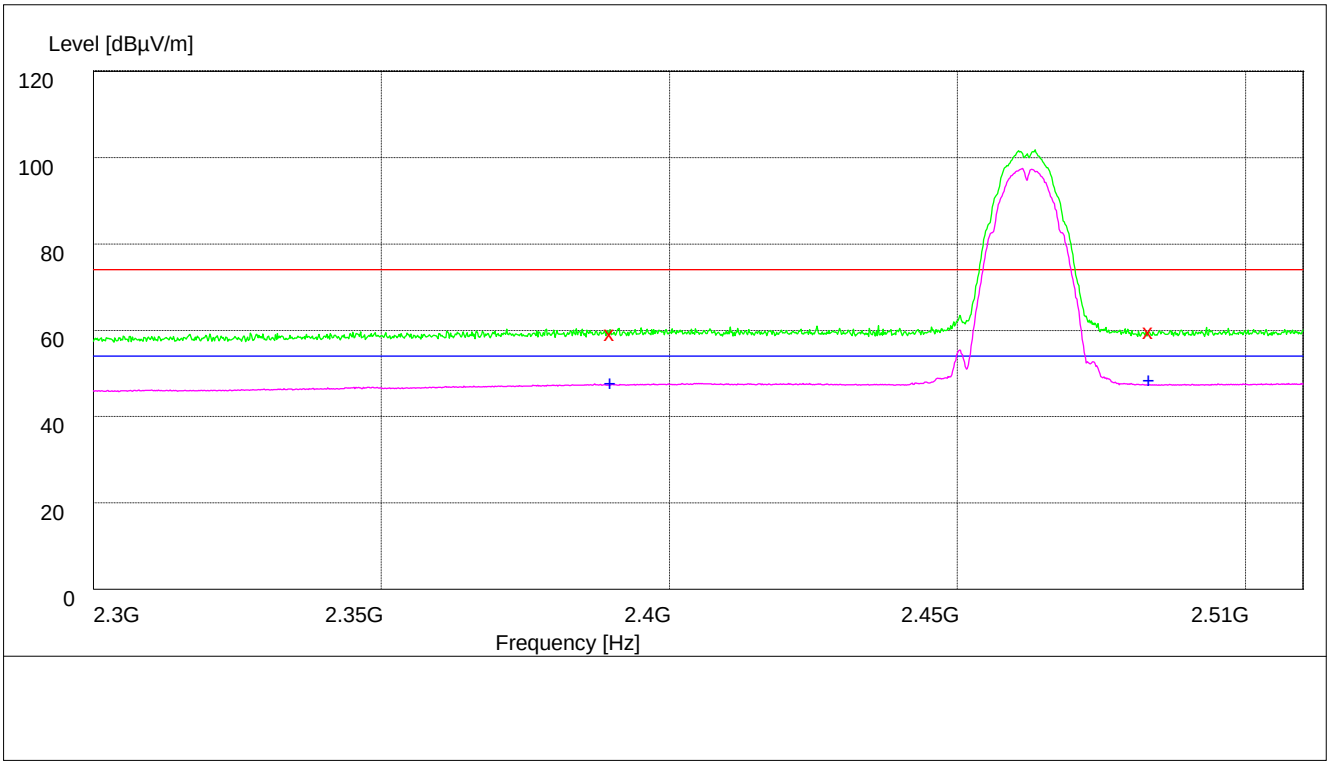
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.60	34.8	74.0	14.4	100.0	32.00	VERTICAL
2483.500000	58.70	35.1	74.0	15.3	124.0	12.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.50	34.8	54.0	6.5	122.0	81.00	HORIZONTAL
2483.500000	47.20	35.1	54.0	6.8	100.0	5.00	VERTICAL

Channel 11



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

MEASUREMENT RESULT: PK Detector

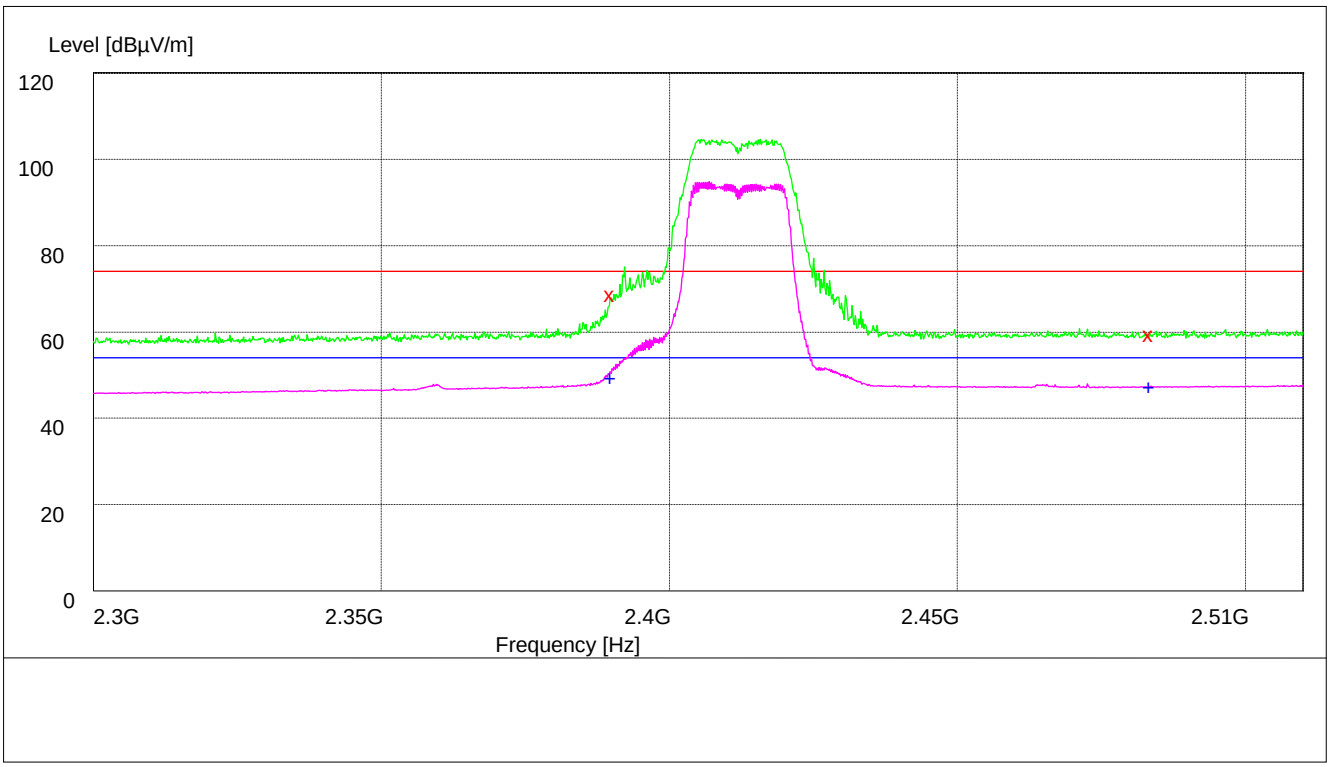
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.90	34.8	74.0	15.1	133.0	115.00	VERTICAL
2483.500000	59.40	35.1	74.0	14.6	197.0	359.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.40	34.8	54.0	6.6	186.0	168.00	HORIZONTAL
2483.500000	47.90	35.1	54.0	6.1	134.0	276.00	VERTICAL

Test Mode: 11g

Channel 01



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

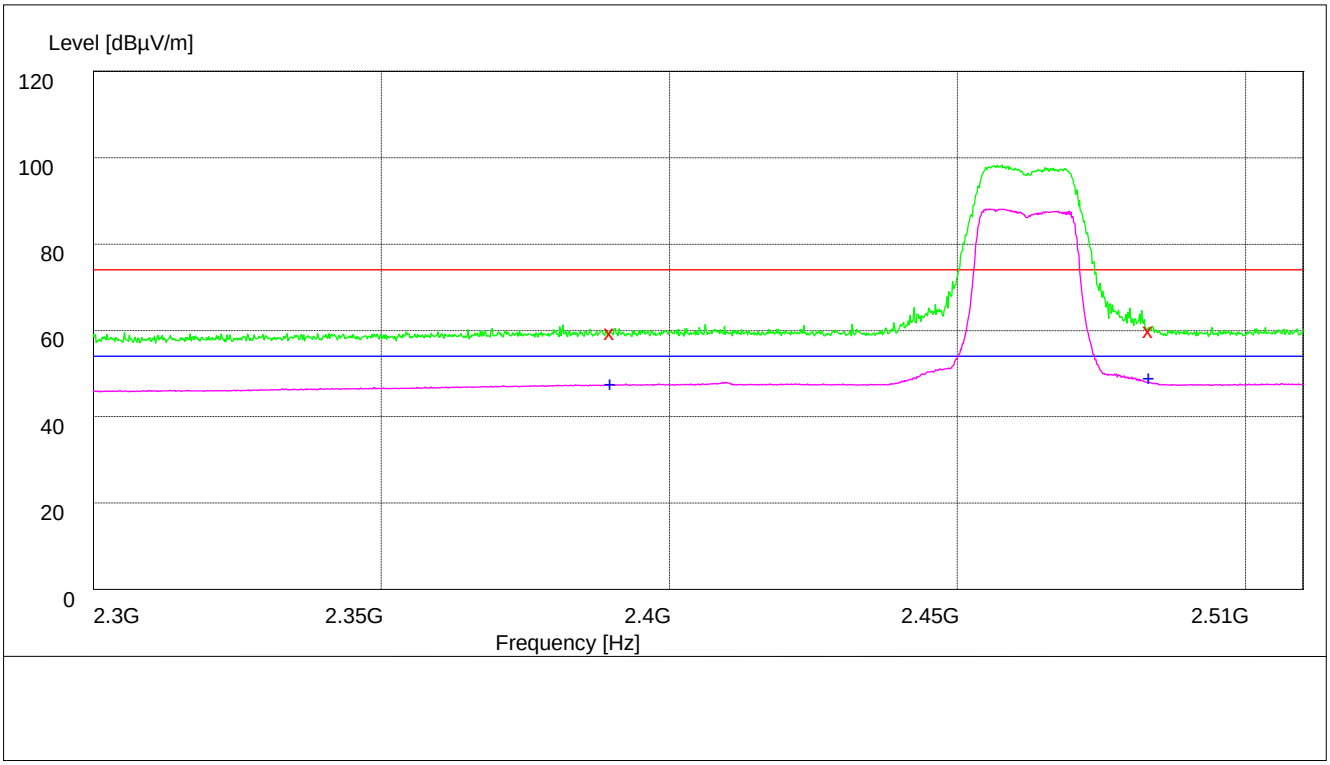
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	68.80	34.8	74.0	5.2	100.0	25.00	HORIZONTAL
2483.500000	59.40	35.1	74.0	14.6	100.0	148.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	49.30	34.8	54.0	4.7	100.0	19.00	HORIZONTAL
2483.500000	47.30	35.1	54.0	6.7	104.0	214.00	HORIZONTAL

Channel 11



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

MEASUREMENT RESULT: PK Detector

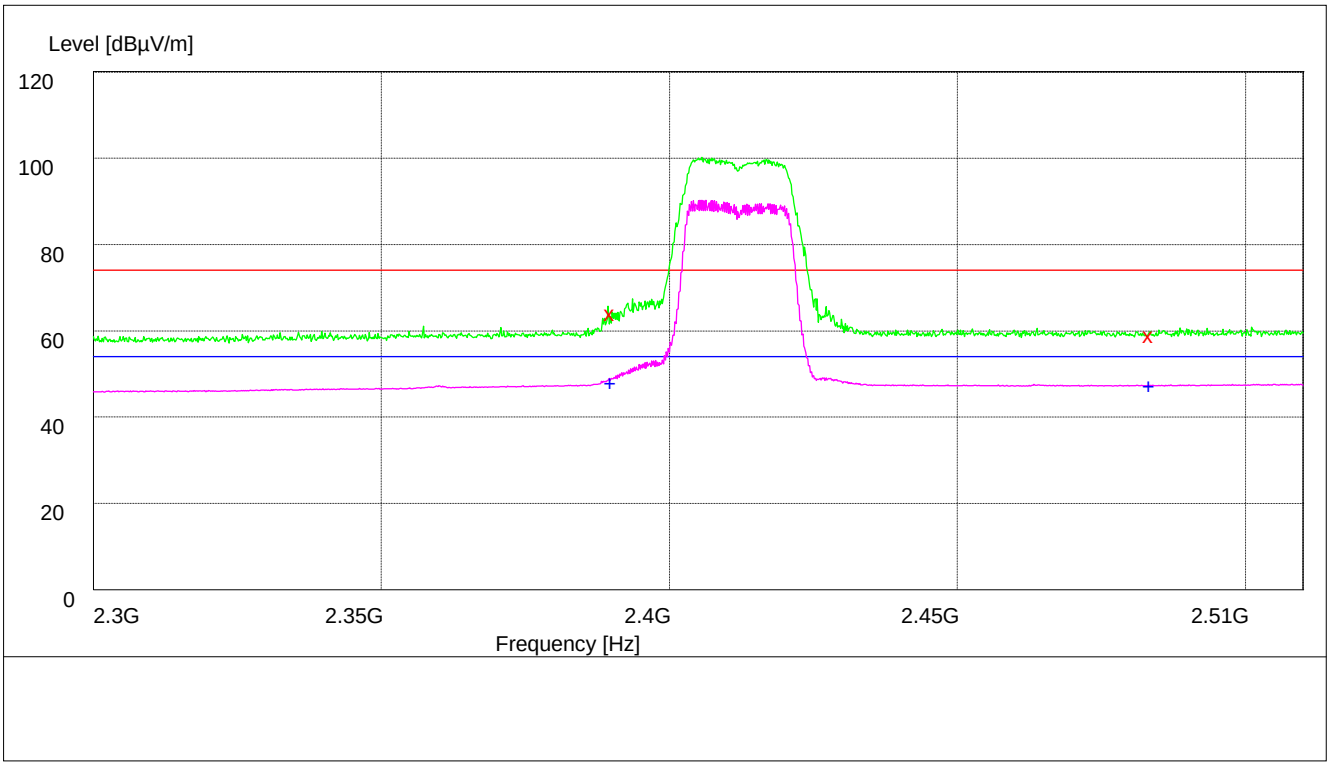
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.00	34.8	74.0	15.0	175.0	39.00	VERTICAL
2483.500000	59.60	35.1	74.0	14.4	188.0	136.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.00	34.8	54.0	7.0	150.0	114.00	HORIZONTAL
2483.500000	48.50	35.1	54.0	5.5	100.0	360.00	VERTICAL

Test Mode: 11n

Channel 01



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

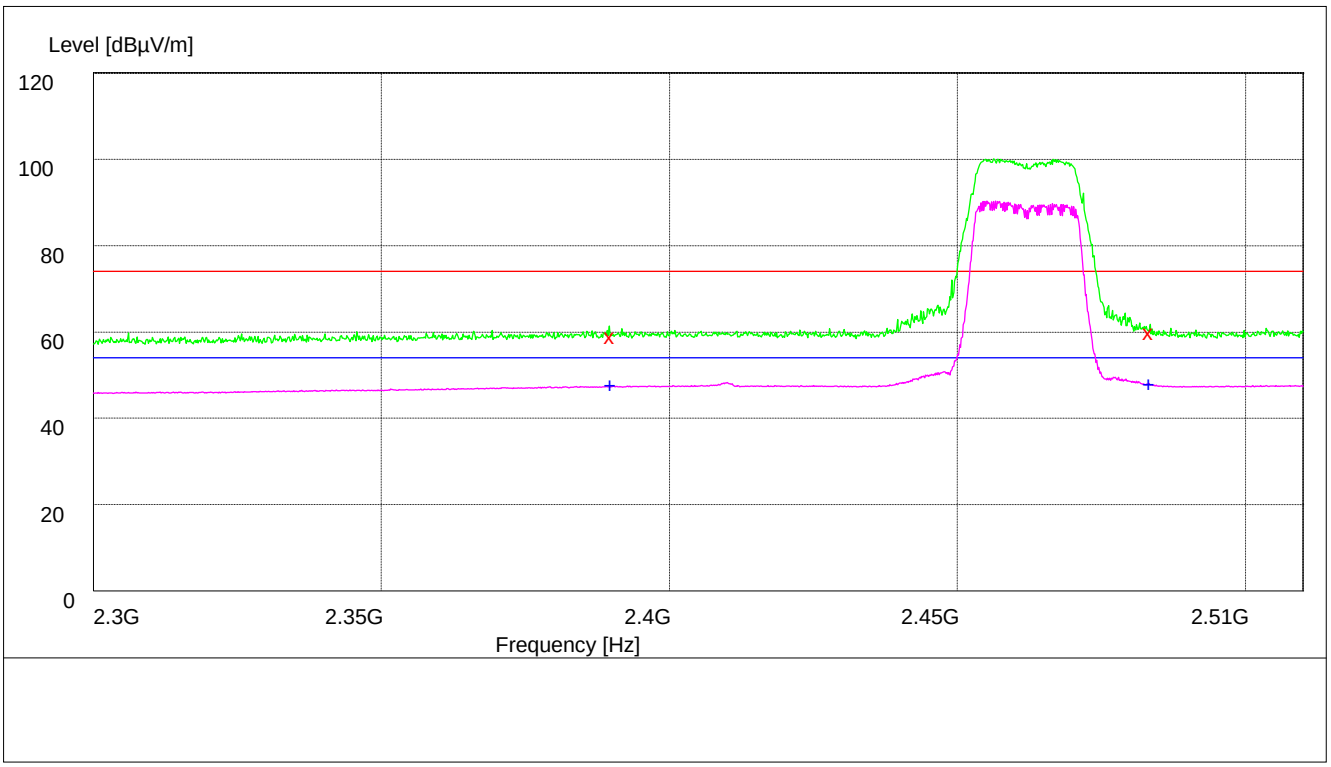
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	64.40	34.8	74.0	9.6	100.0	270.00	HORIZONTAL
2483.500000	59.30	35.1	74.0	14.7	193.0	148.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	48.30	34.8	54.0	5.7	100.0	272.00	HORIZONTAL
2483.500000	47.70	35.1	54.0	6.3	120.0	179.00	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	58.60	34.8	74.0	15.4	200.0	238.00	HORIZONTAL
2483.500000	59.50	35.1	74.0	14.5	104.0	151.00	VERTICAL

MEASUREMENT RESULT: AV Detector

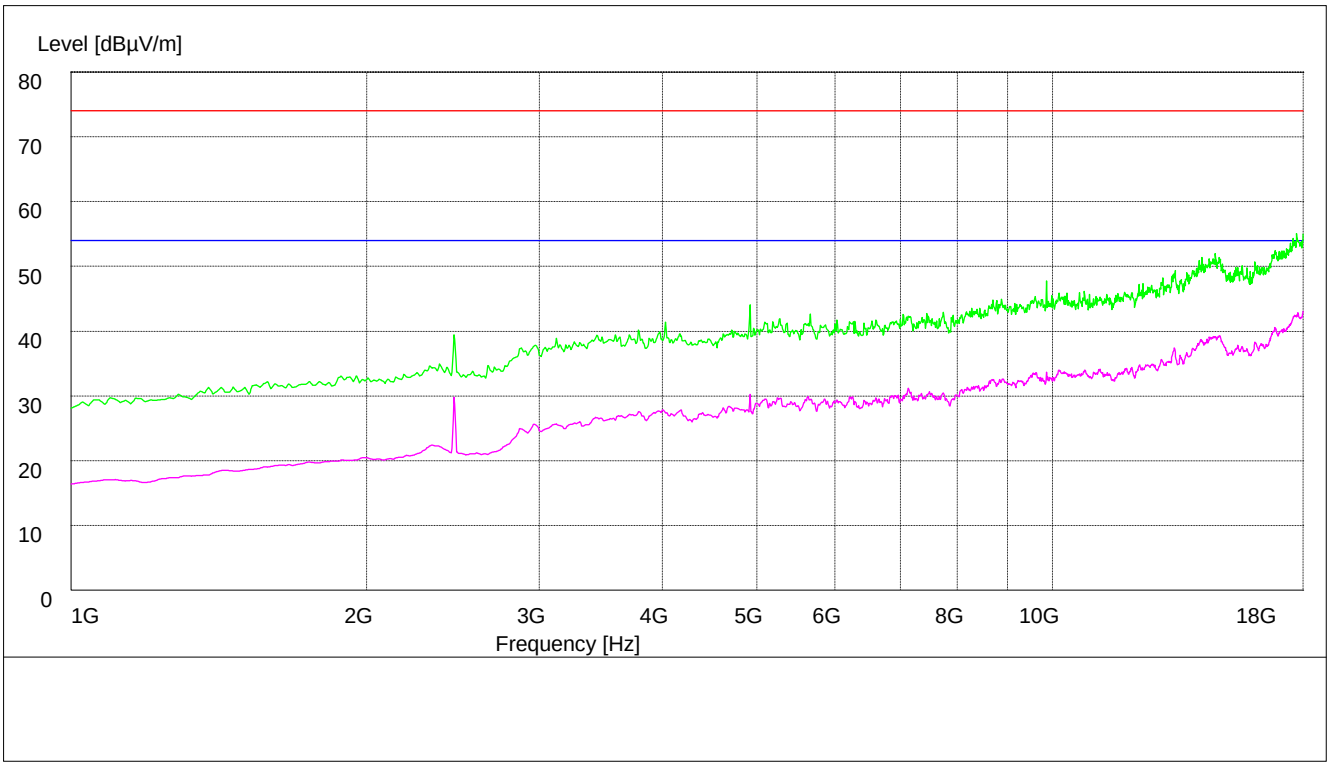
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.20	34.8	54.0	6.8	158.0	28.00	HORIZONTAL
2483.500000	47.40	35.1	54.0	6.6	100.0	168.00	HORIZONTAL

Part 4: Testing Range of "1 GHz to 18 GHz"

Note 1: The test results and plot for testing range of "1 GHz 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 "1 GHz to 18 GHz" is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.

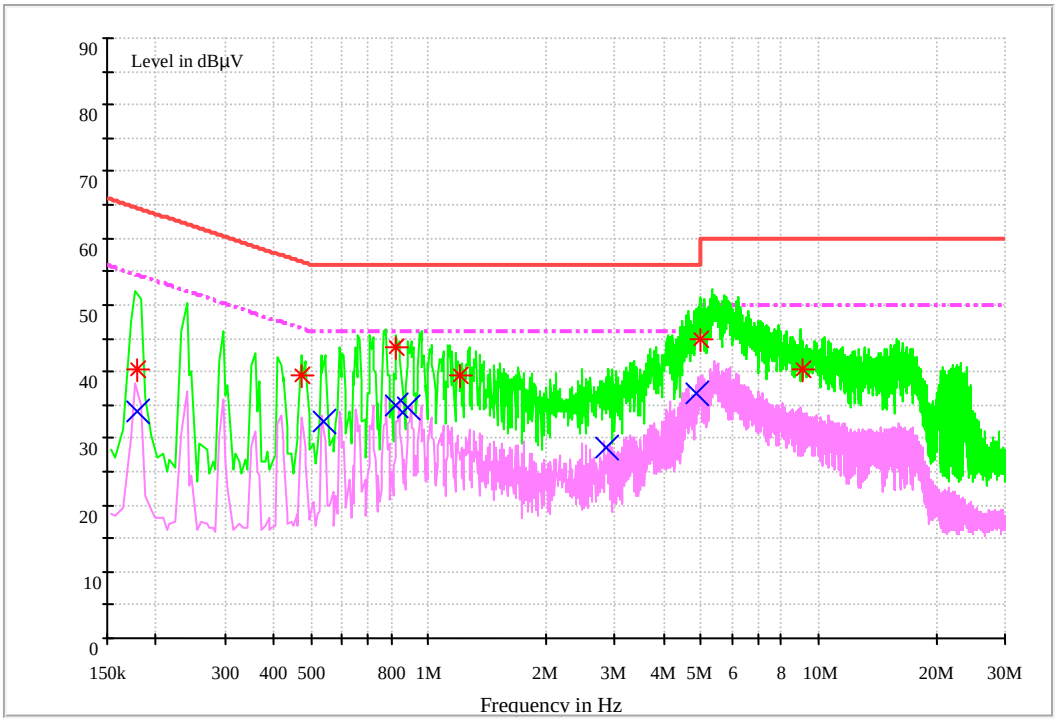
Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).



Appendix G: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 6



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.178459	40.3	9.7	64.6	24.3	L1	FLO
0.471293	39.5	9.7	56.5	17.0	N	FLO
0.826954	43.6	9.7	56.0	12.4	N	FLO
1.203608	39.6	9.7	56.0	16.4	N	FLO
4.949446	44.9	9.8	56.0	11.1	N	FLO
9.034114	40.4	9.9	60.0	19.6	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.179424	34.0	9.7	54.5	20.5	L1	FLO
0.538320	32.4	9.7	46.0	13.6	N	FLO
0.827651	34.8	9.7	46.0	11.2	N	FLO
0.887658	34.6	9.7	46.0	11.4	N	FLO

2.836312	28.6	9.7	46.0	17.4	N	FLO
4.835148	36.6	9.8	46.0	9.4	N	FLO

END