

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.

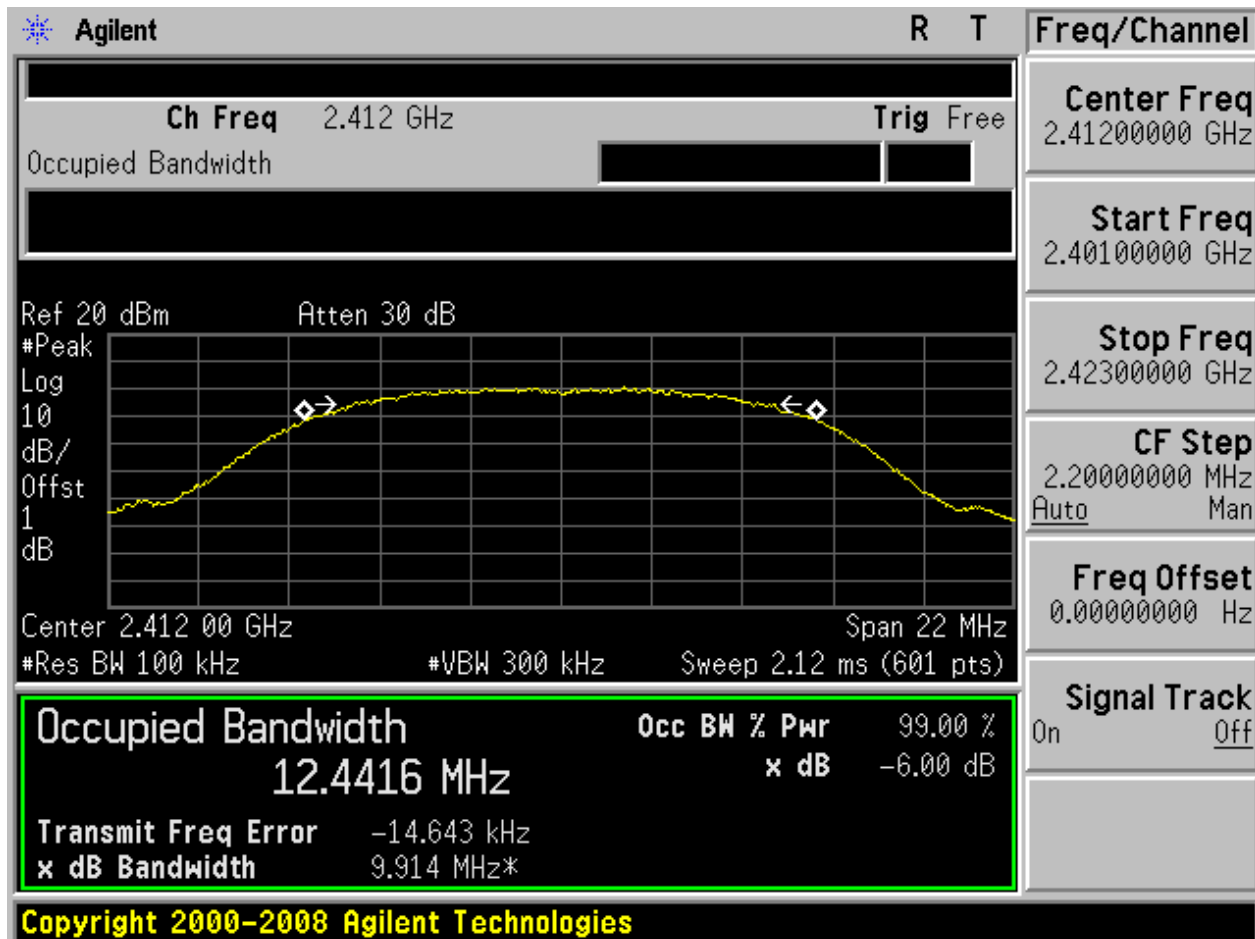
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11B	L	2412	Ant 1	9.91	pass
11B	M	2437	Ant 1	9.86	pass
11B	H	2462	Ant 1	9.98	pass
11G	L	2412	Ant 1	16.10	pass
11G	M	2437	Ant 1	16.41	pass
11G	H	2462	Ant 1	16.42	pass
11N20	L	2412	Ant 1	17.00	pass
11N20	M	2437	Ant 1	17.25	pass
11N20	H	2462	Ant 1	17.23	pass



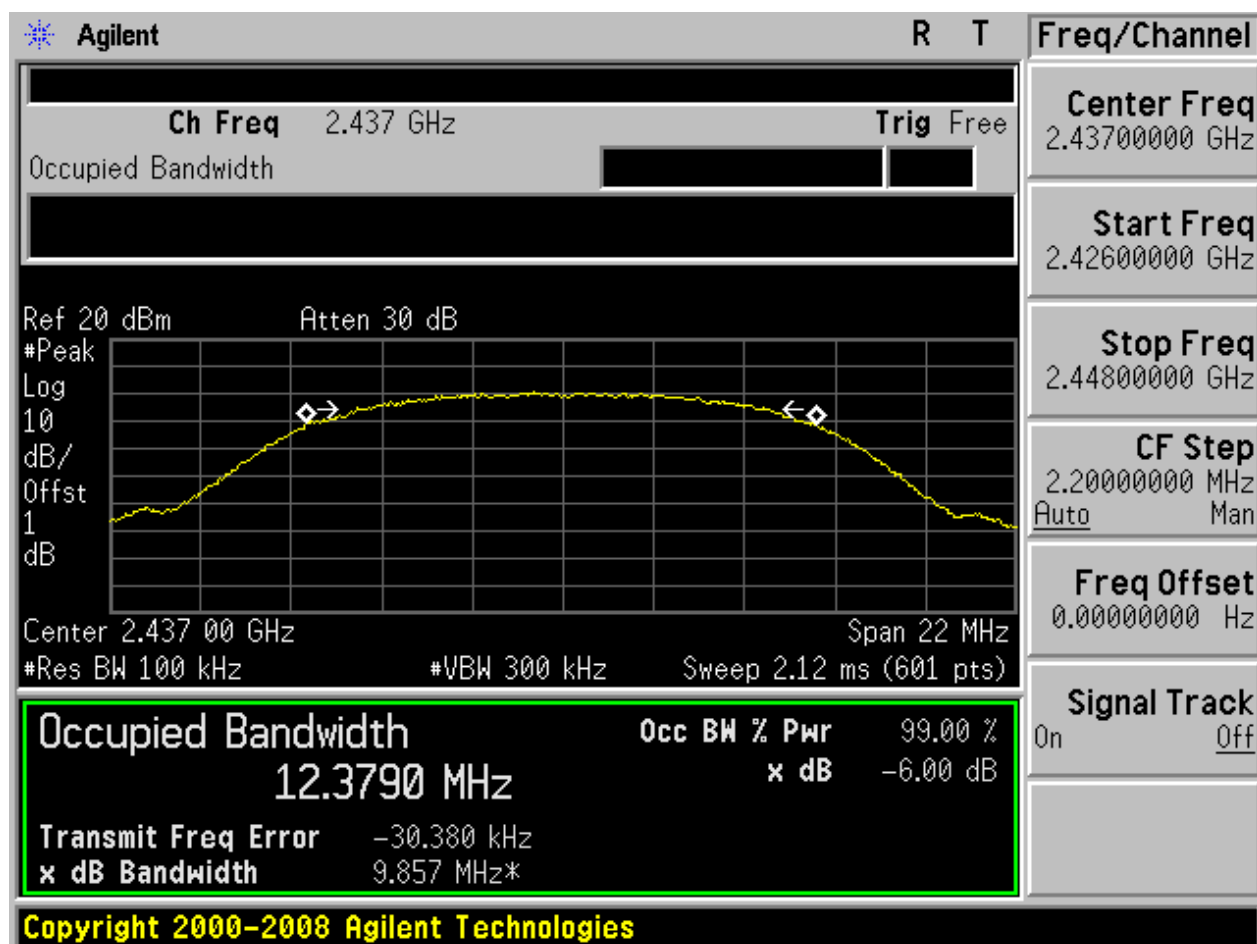
Part II - Test Plots

2.1 11B_L



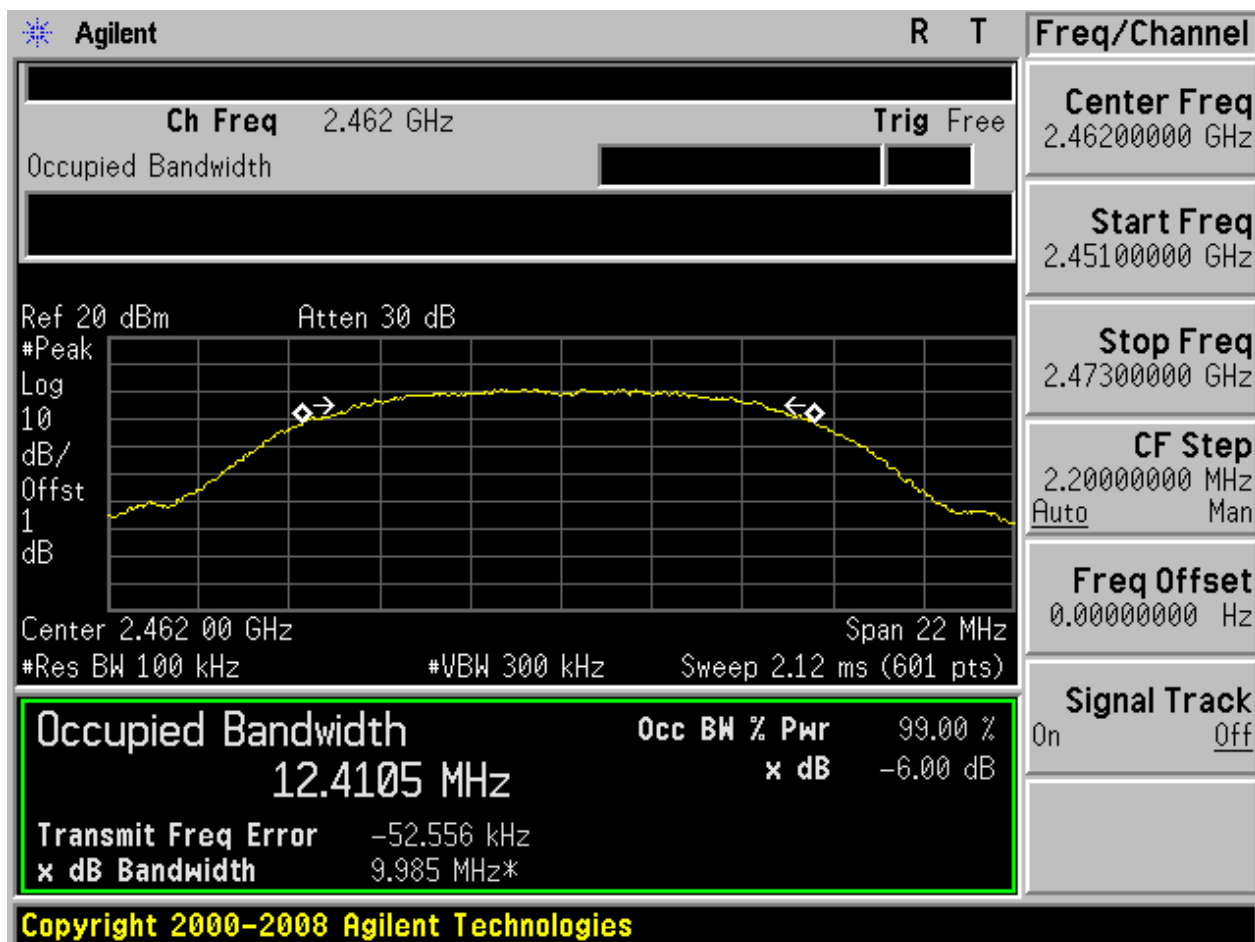


2.3 11B_M



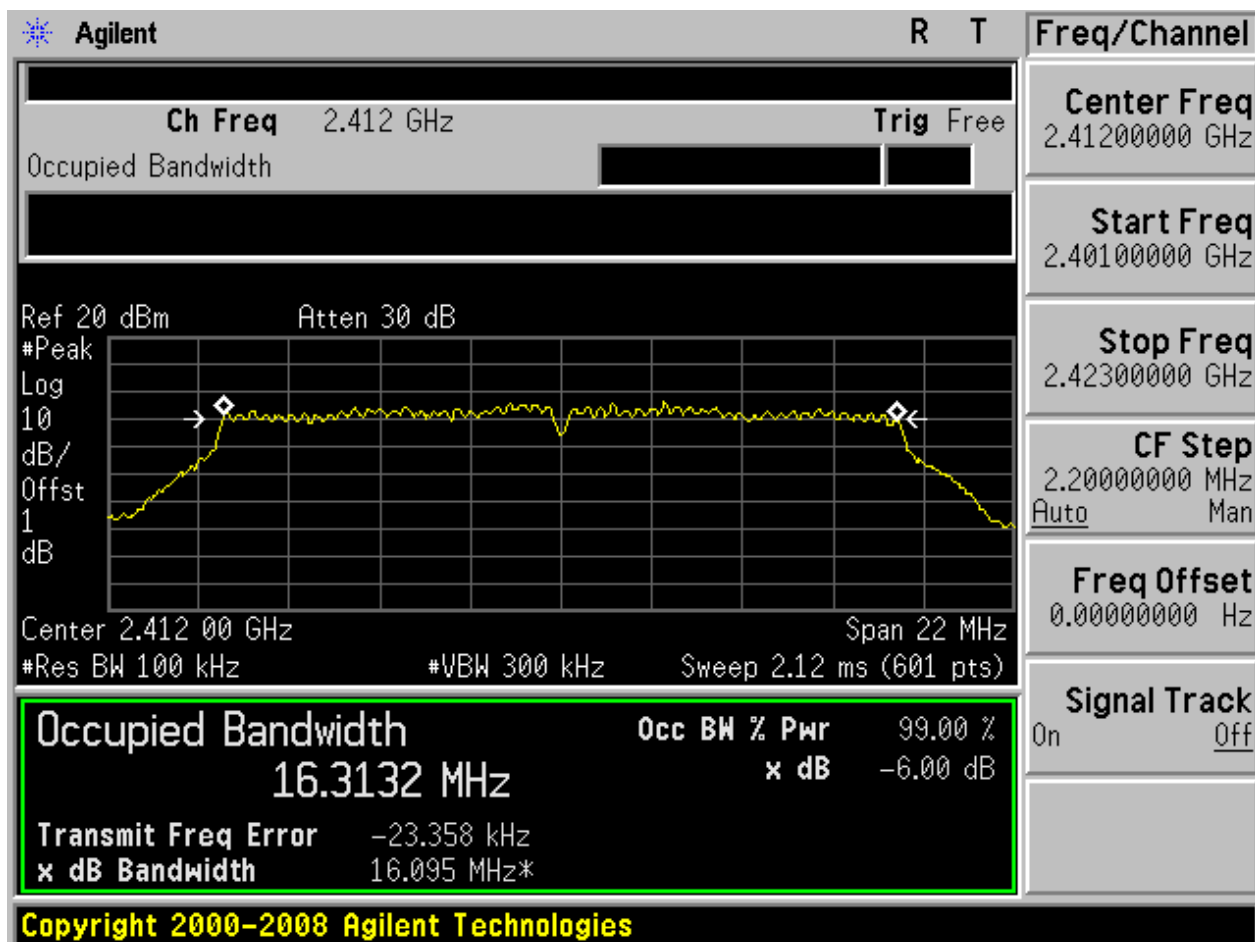


2.5 11B_H



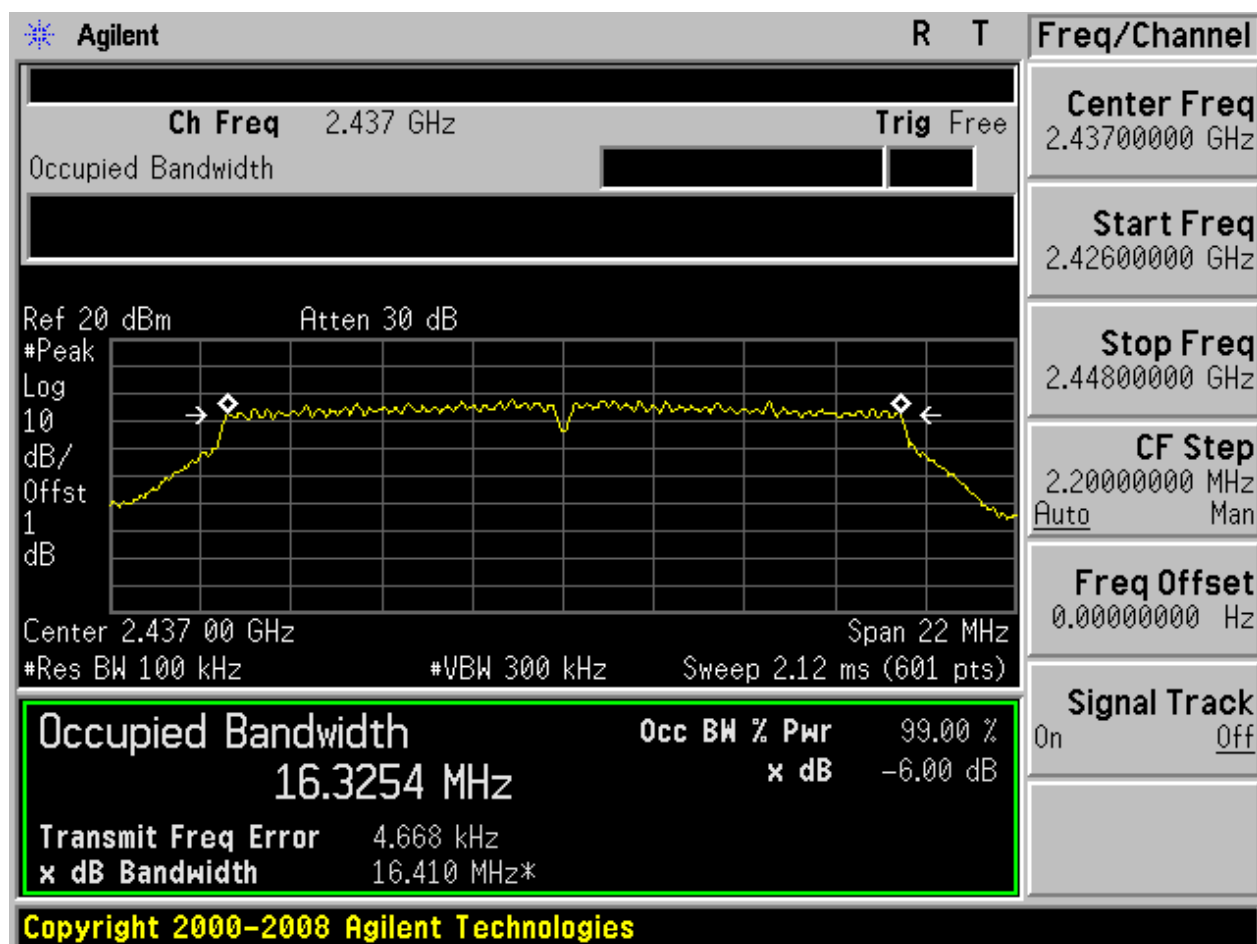


2.7 11G_L



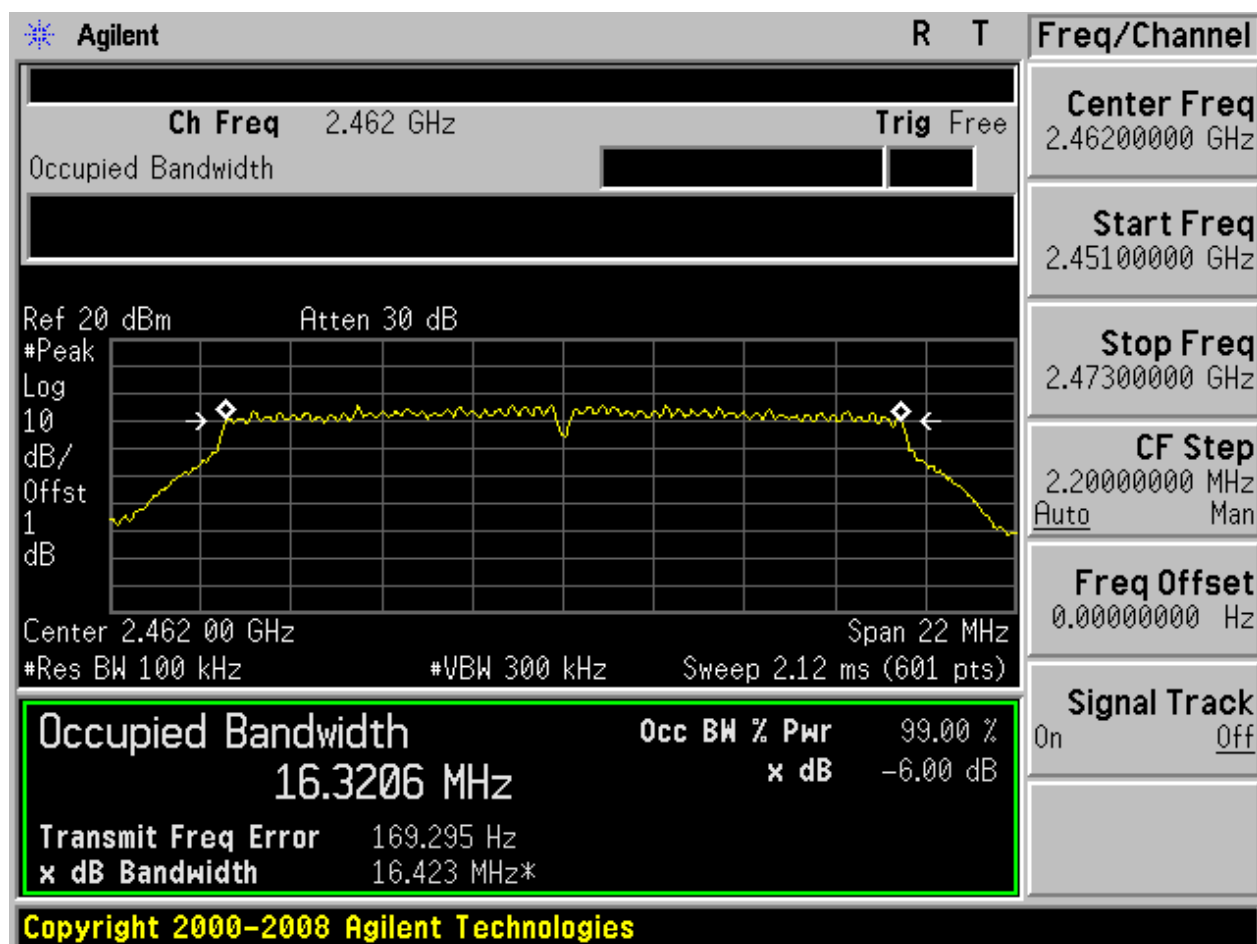


2.9 11G_M



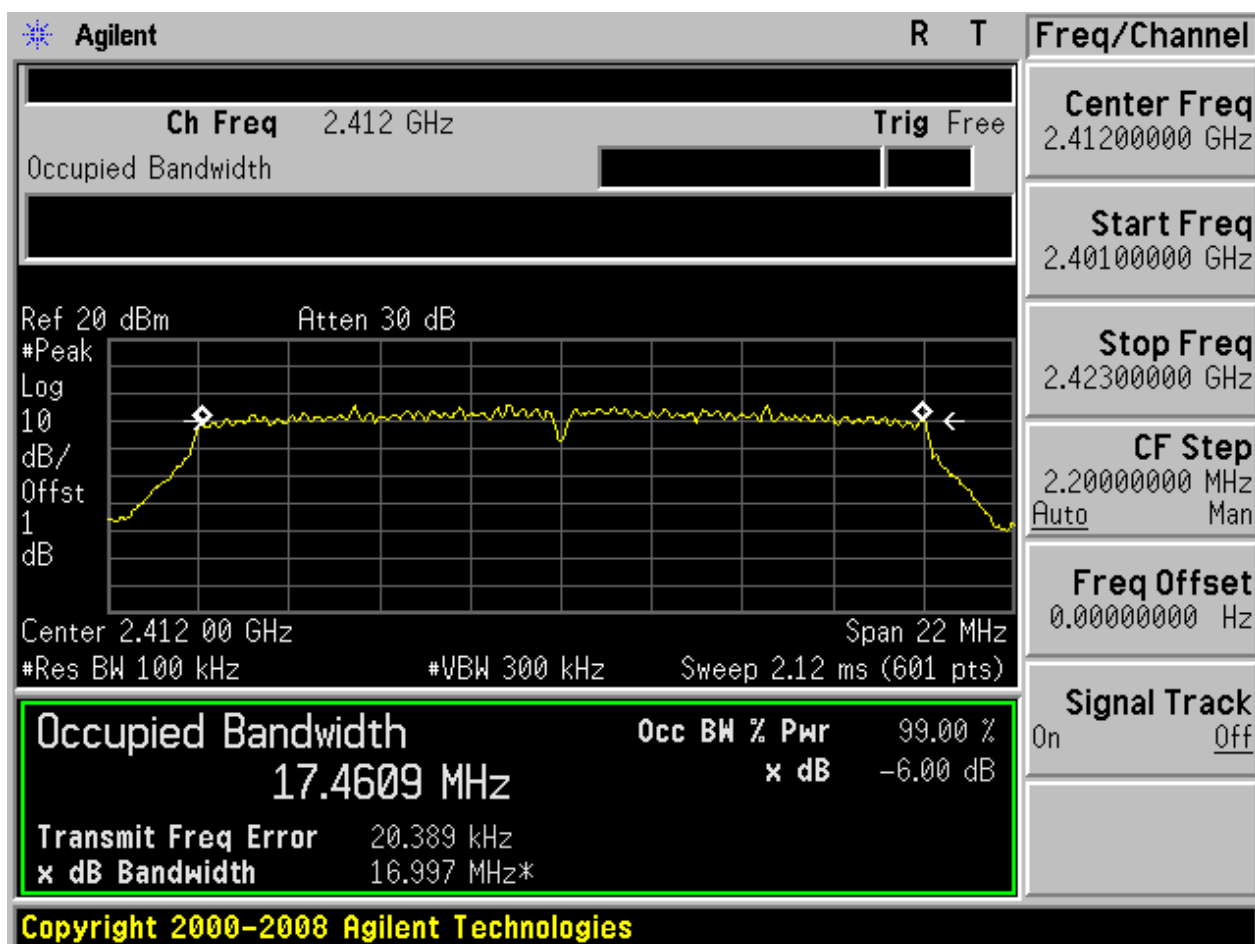


2.11 11G_H



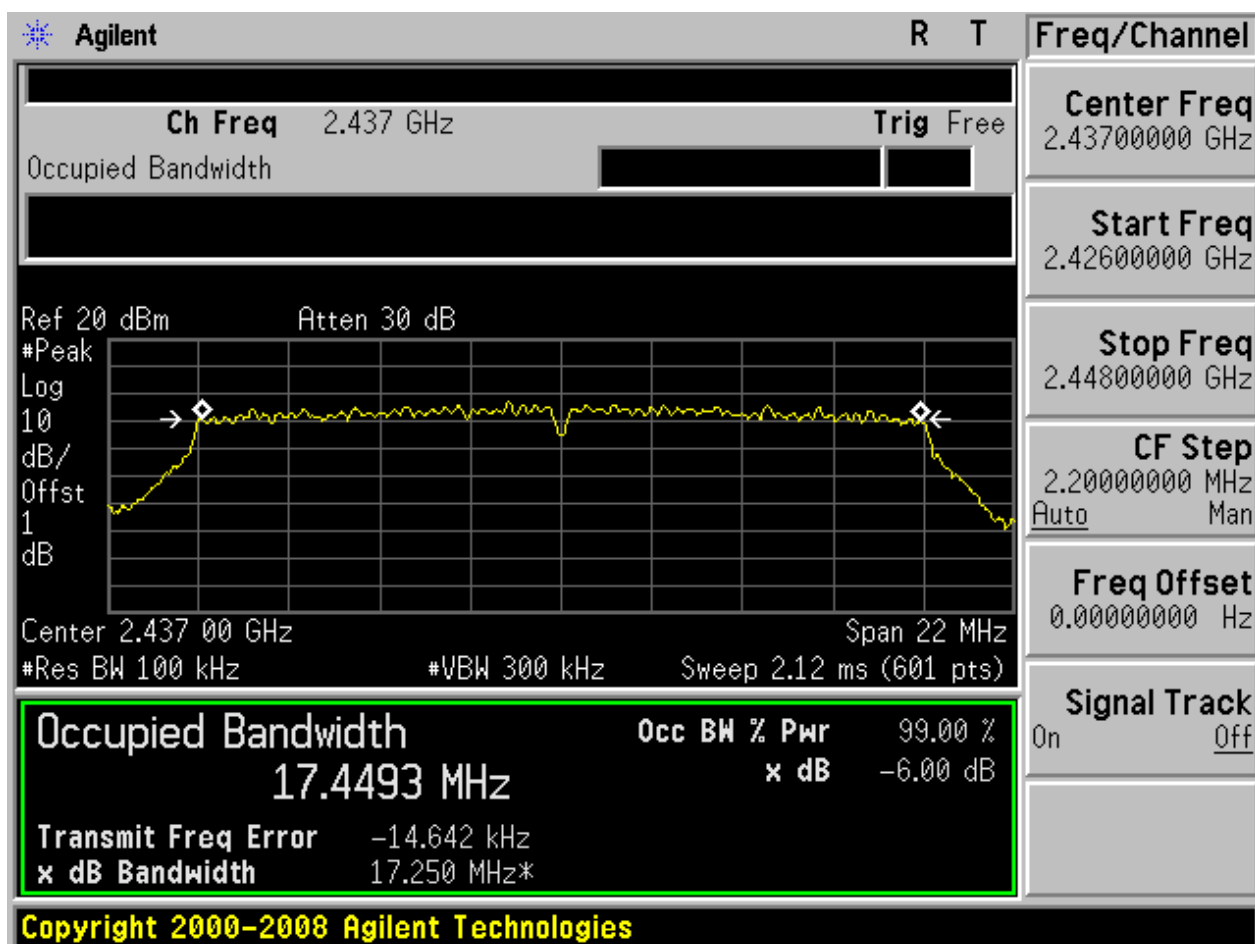


2.13 11N20_L



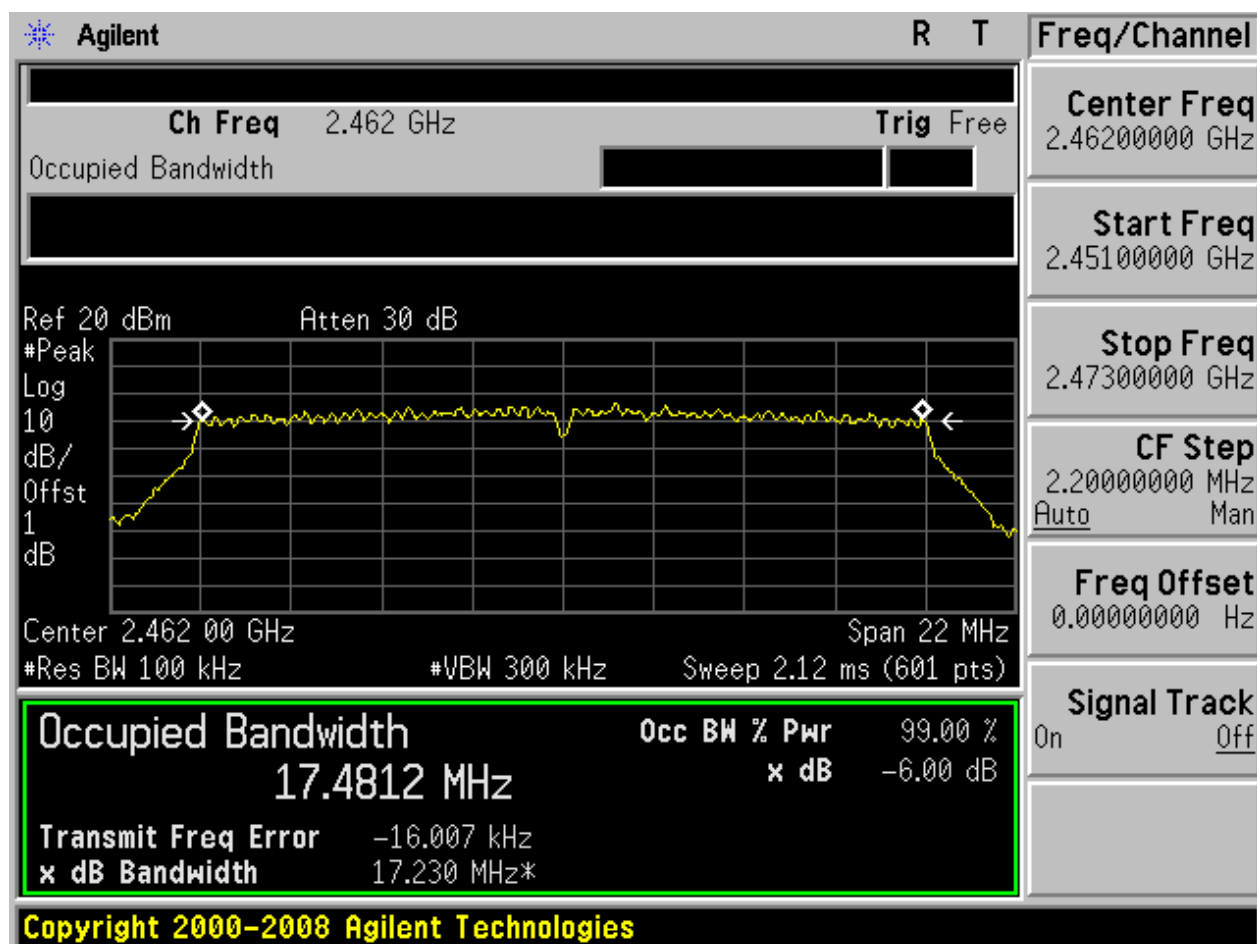


2.15 11N20_M





2.17 11N20_H



Appendix B: Maximum Peak Conducted Output Power

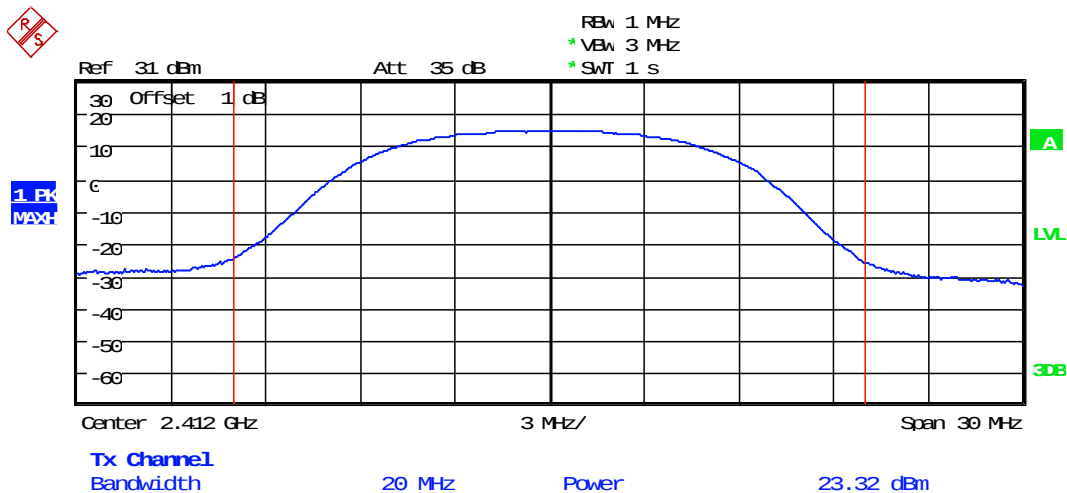
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Meas. Level (Cond.) [dBm]	Verdict
11B	L	2412	23.32	pass
11B	M	2437	23.44	pass
11B	H	2462	23.71	pass
11G	L	2412	24.52	pass
11G	M	2437	26.40	pass
11G	H	2462	24.74	pass
11N20	L	2412	24.21	pass
11N20	M	2437	25.55	pass
11N20	H	2462	24.54	pass



Part II - Test Plots

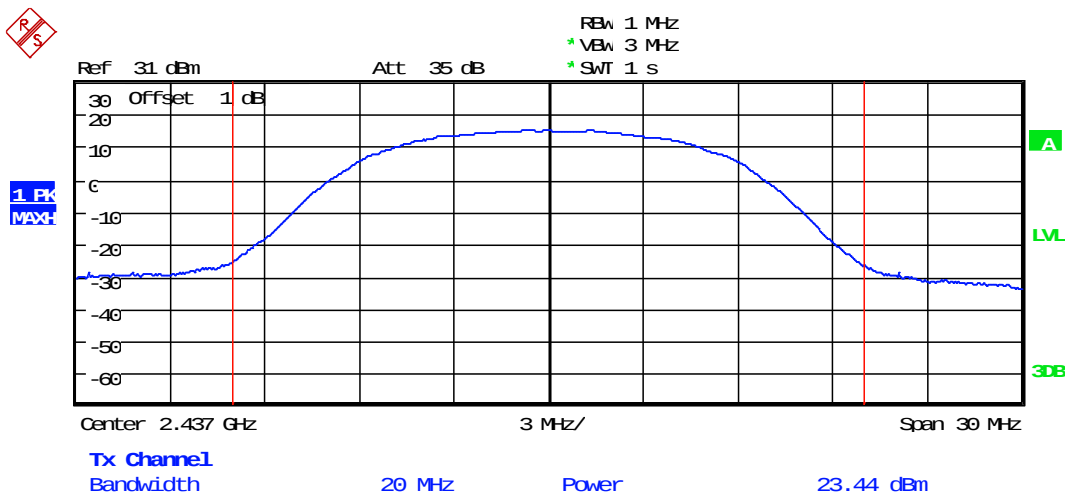
2.1 11B_L



Date: 17.APR.2014 14:36:26



2.1 11B_M



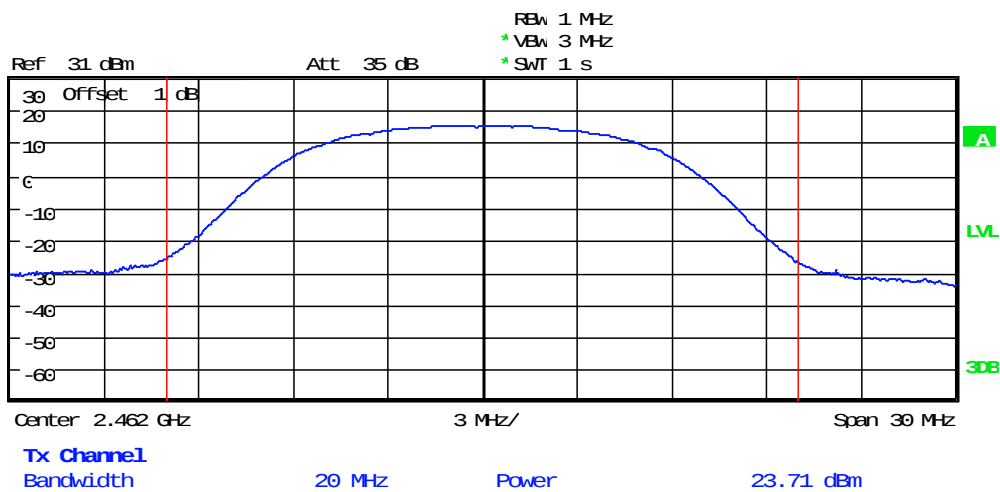
Date: 17.APR.2014 14:37:07



2.1 11B_H



1 Pk
MAX



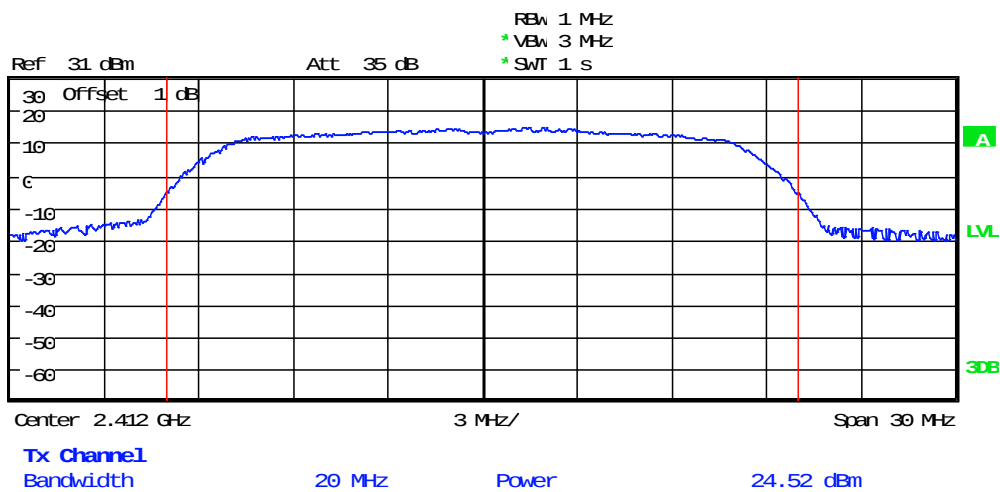
Date: 17.APR.2014 14:37:40



2.1 11G_L



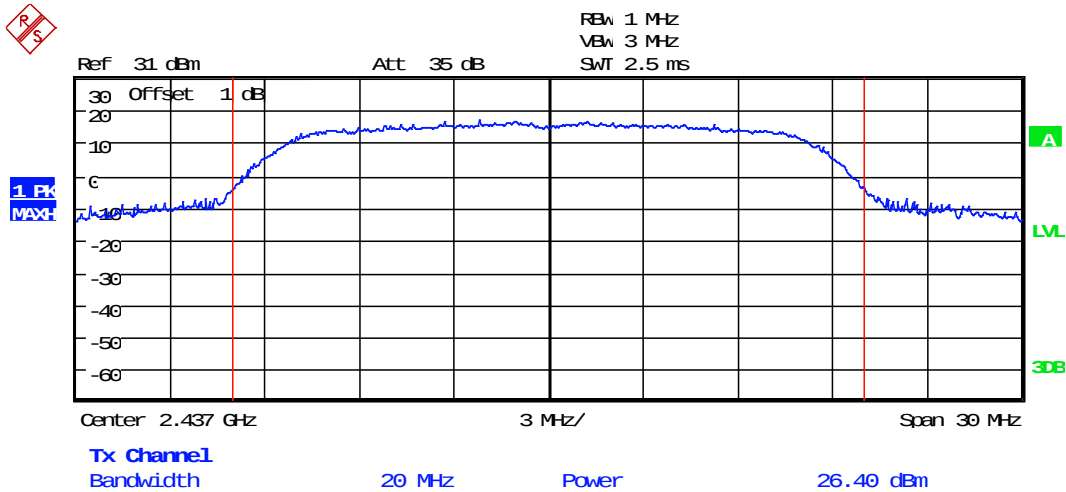
1 Pk
MAX



Date: 17.APR.2014 14:38:48



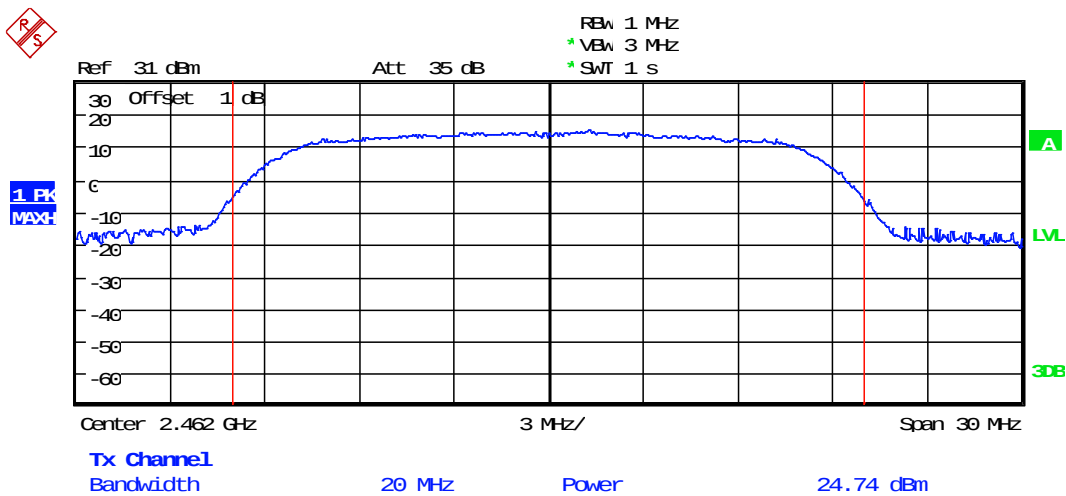
2.1 11G_M



Date: 23.APR.2014 11:49:37



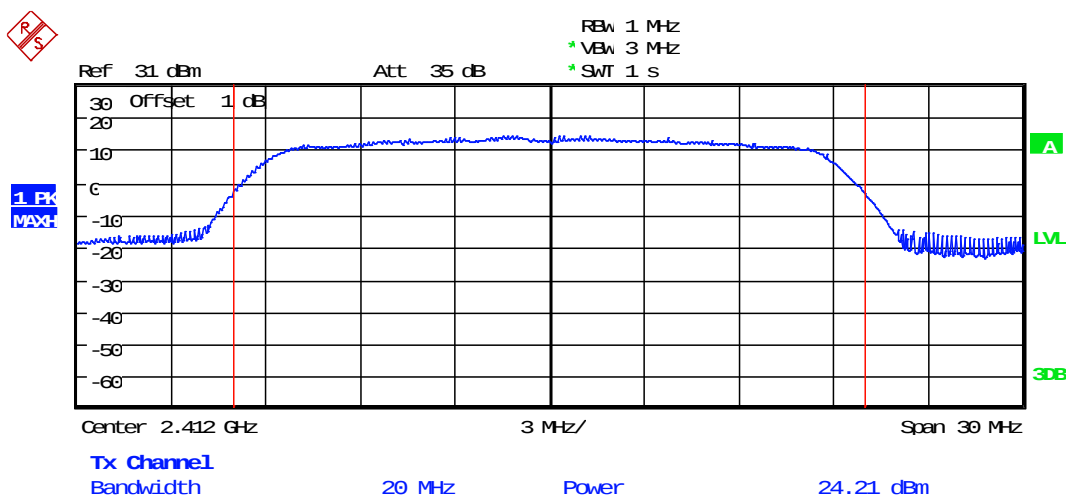
2.1 11G_H



Date: 17.APR.2014 14:41:40



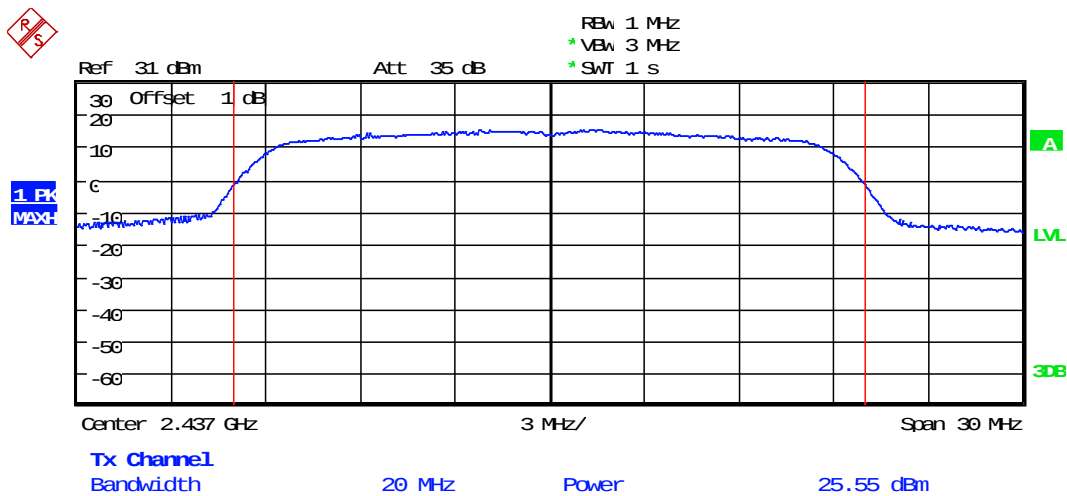
2.1 11N20_L



Date: 17.APR.2014 14:42:34



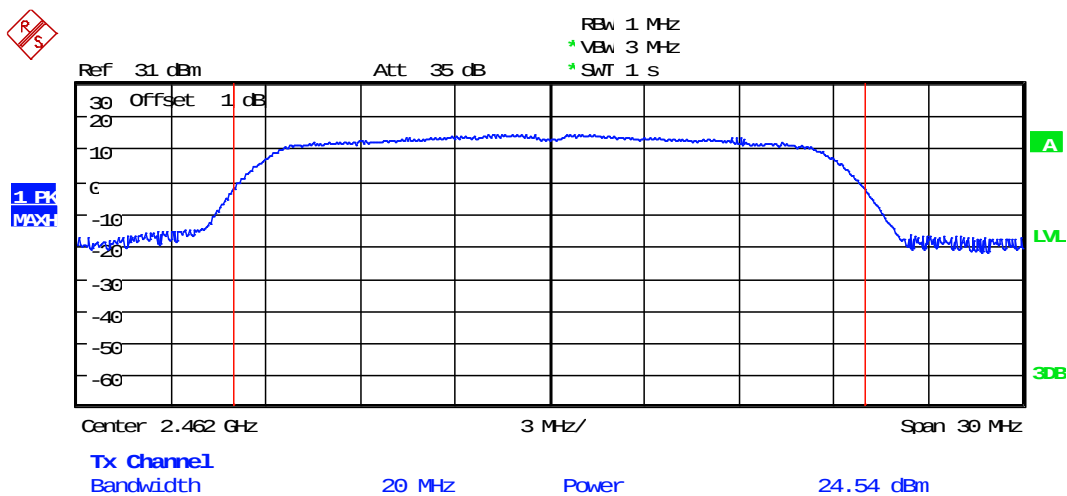
2.1 11N20_M



Date: 17.APR.2014 14:43:36



2.1 1120_H



Date: 17.APR.2014 14:44:23

Appendix C: Maximum Power Spectral Density Level

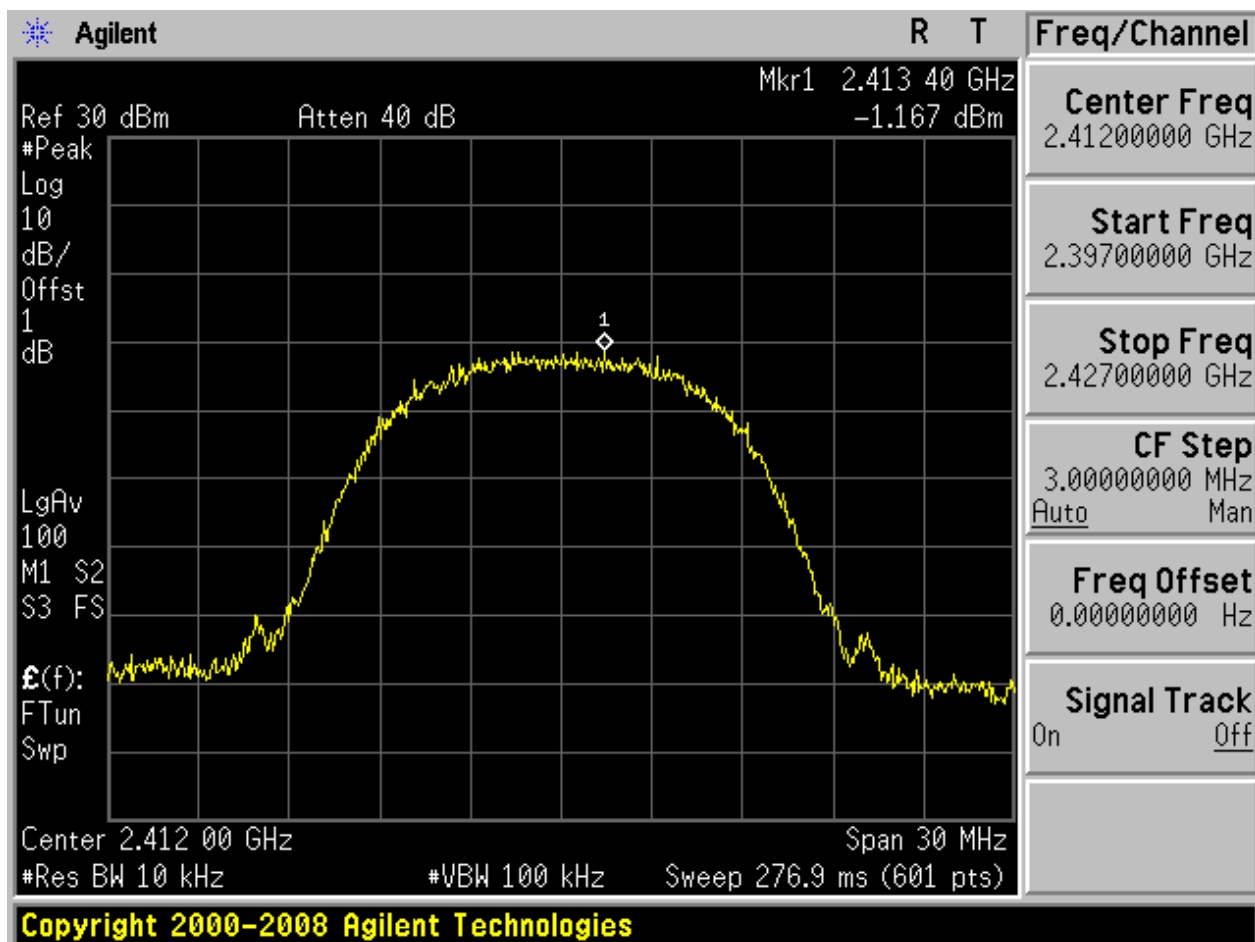
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	PD[MHz]	Verdict
11B	L	2412	Ant 1	-1.17	pass
11B	M	2437	Ant 1	-0.96	pass
11B	H	2462	Ant 1	0.55	pass
11G	L	2412	Ant 1	-4.23	pass
11G	M	2437	Ant 1	-2.04	pass
11G	H	2462	Ant 1	-4.07	pass
11N20	L	2412	Ant 1	-2.86	pass
11N20	M	2437	Ant 1	-1.97	pass
11N20	H	2462	Ant 1	-3.34	pass

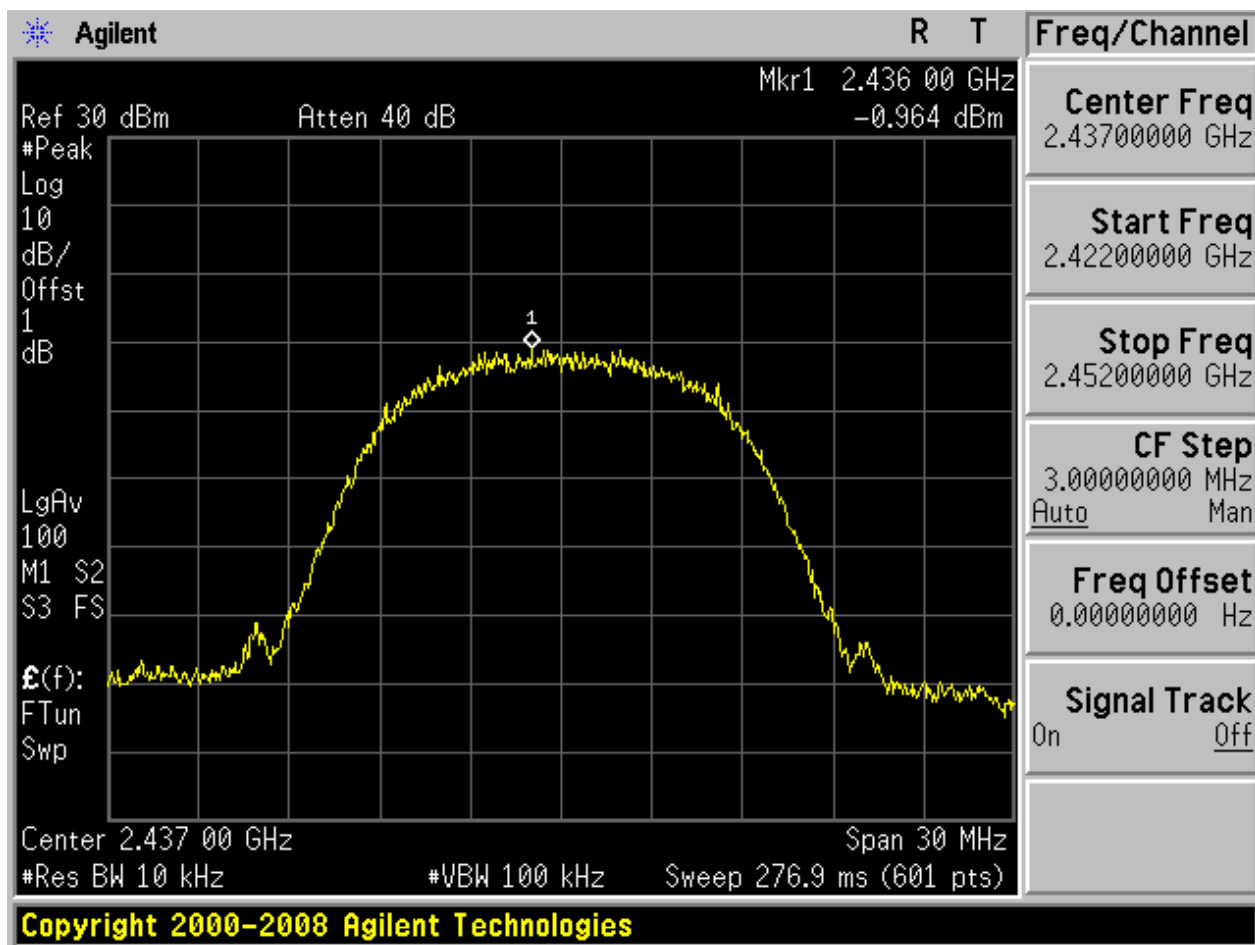


Part II - Test Plots

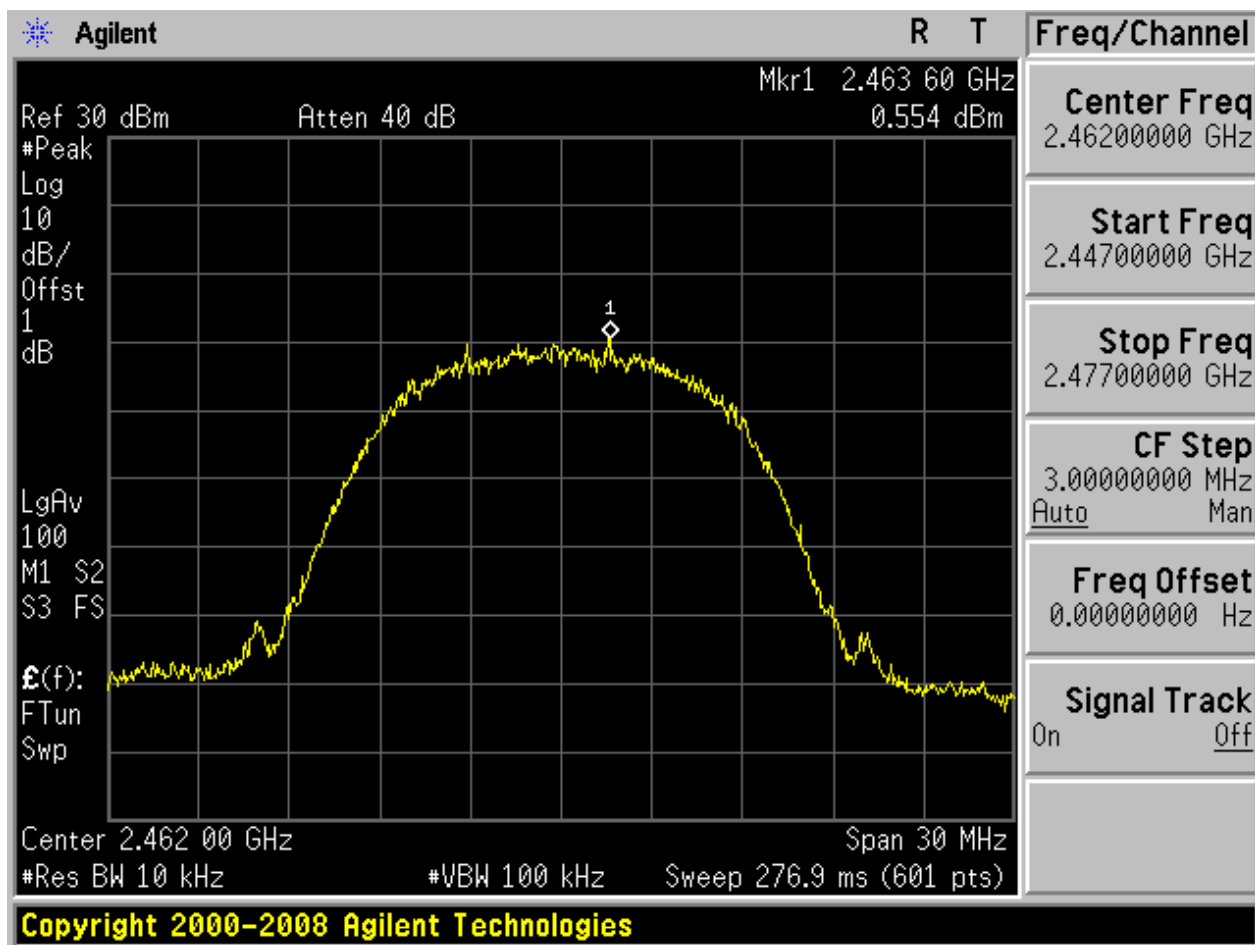
2.1 11B_L

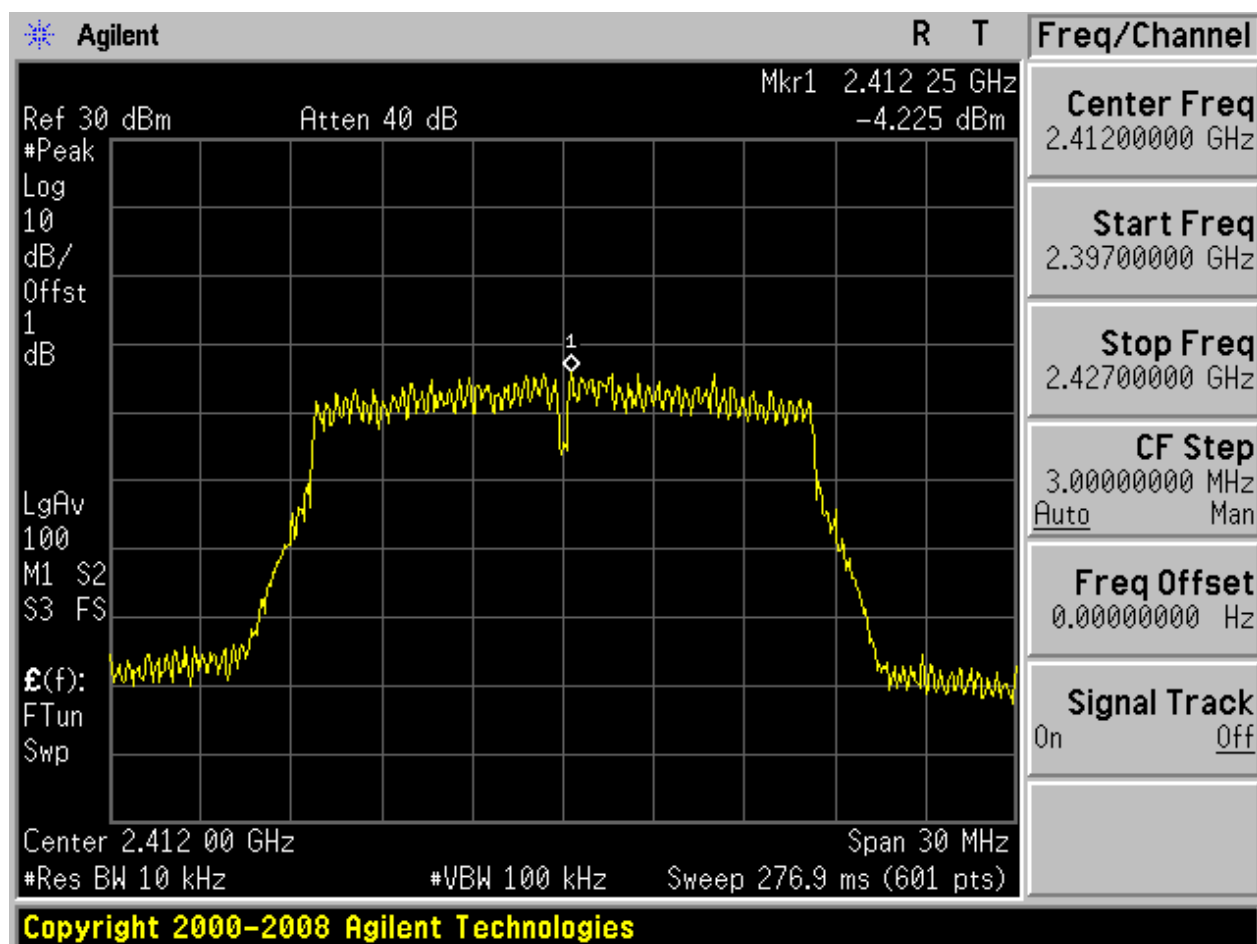
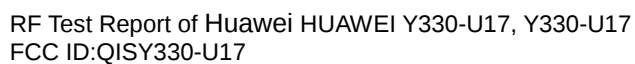


2.3 11B_M

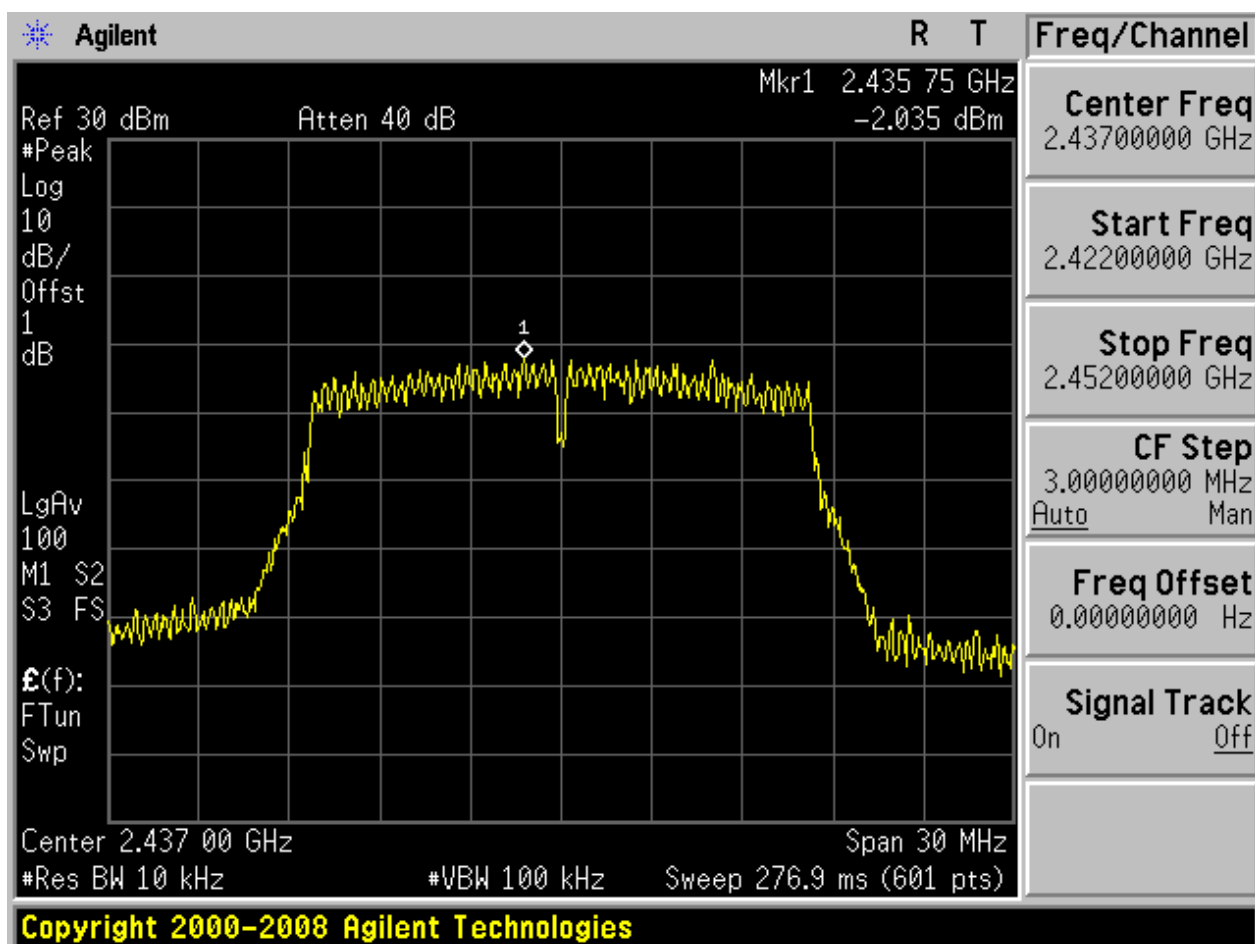


2.5 11B_H

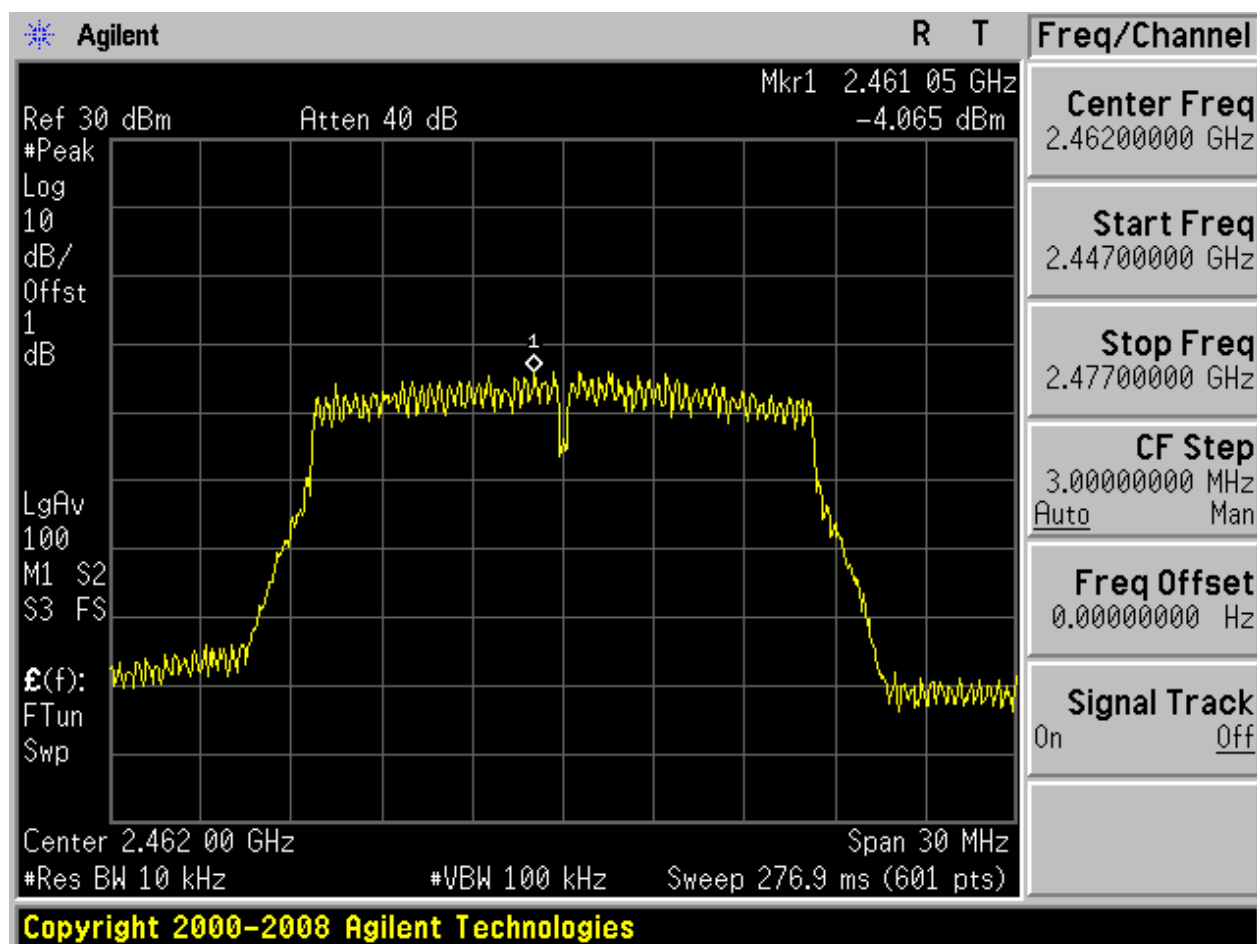




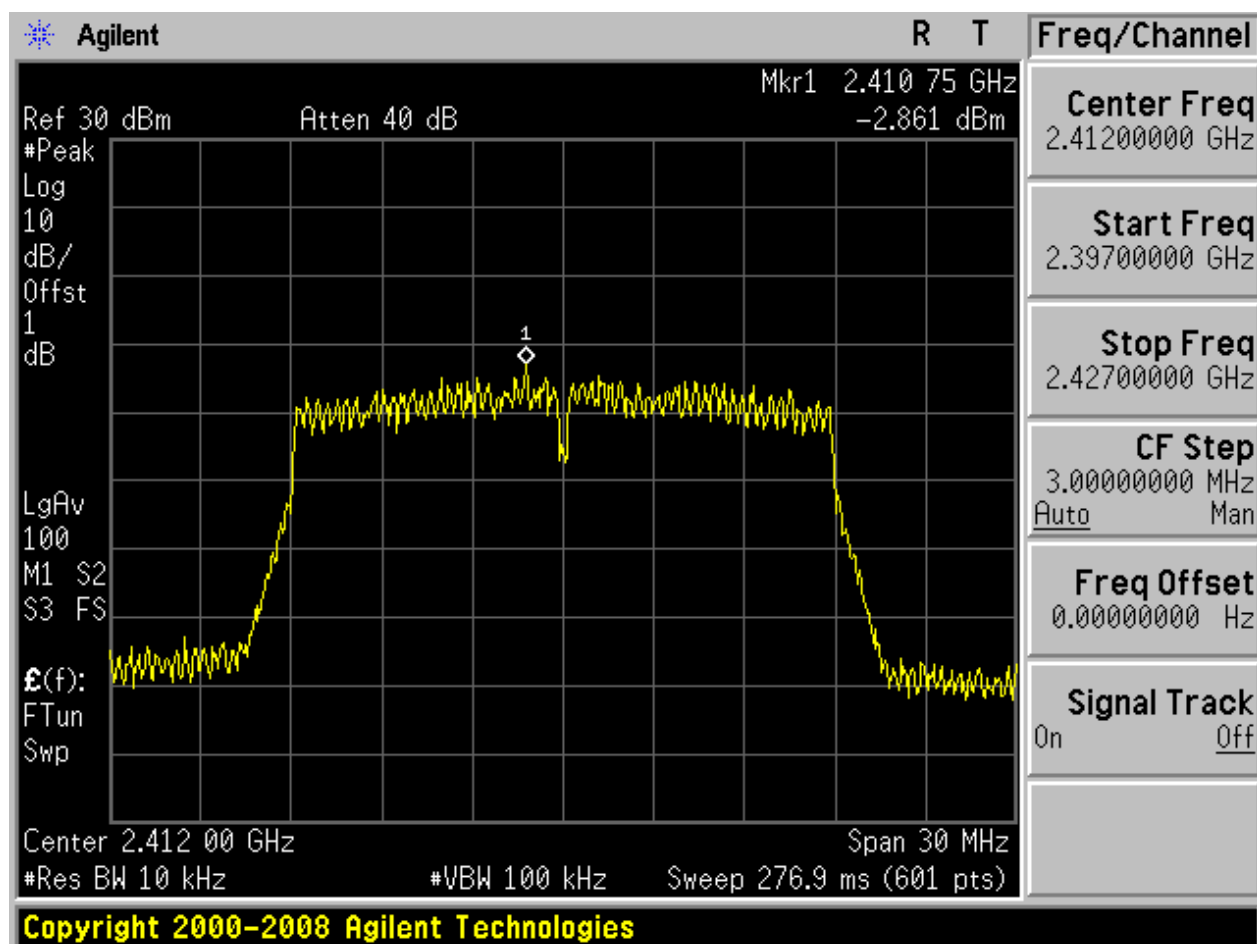
2.9 11G_M



2.11 11G_H

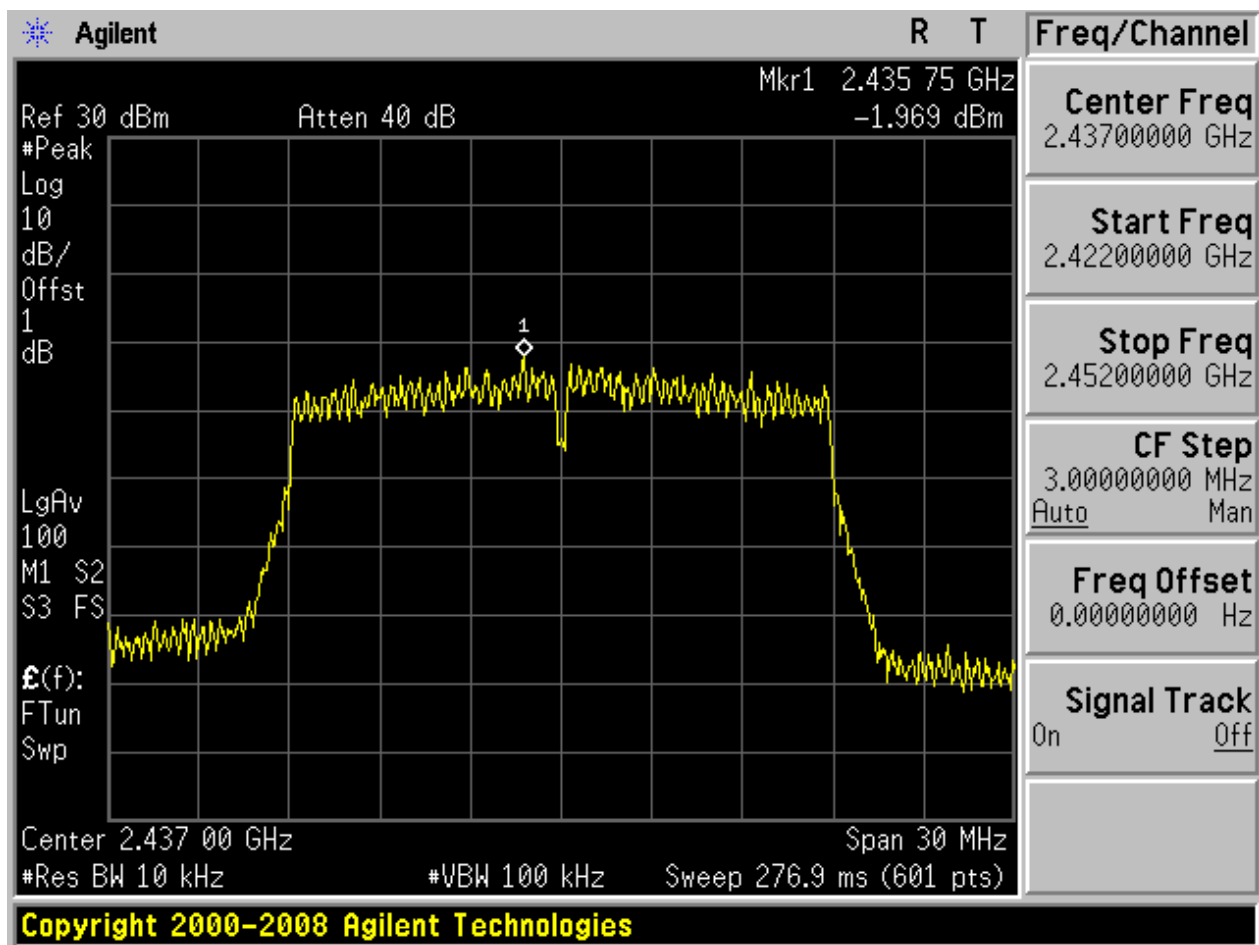


2.13 11N20_L



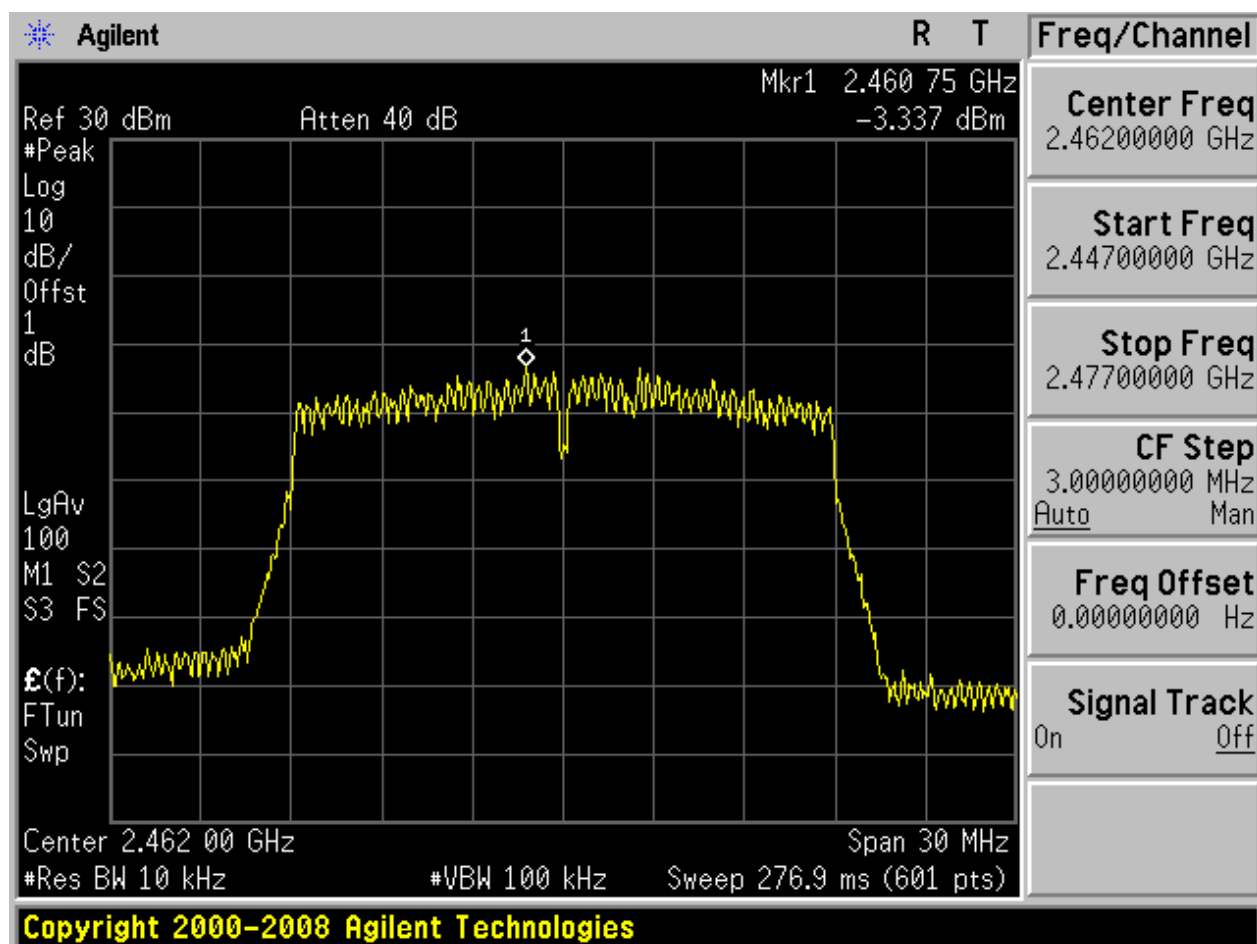


2.15 11N20_M





2.17 11N20_H



Appendix D: Band Edges Compliance

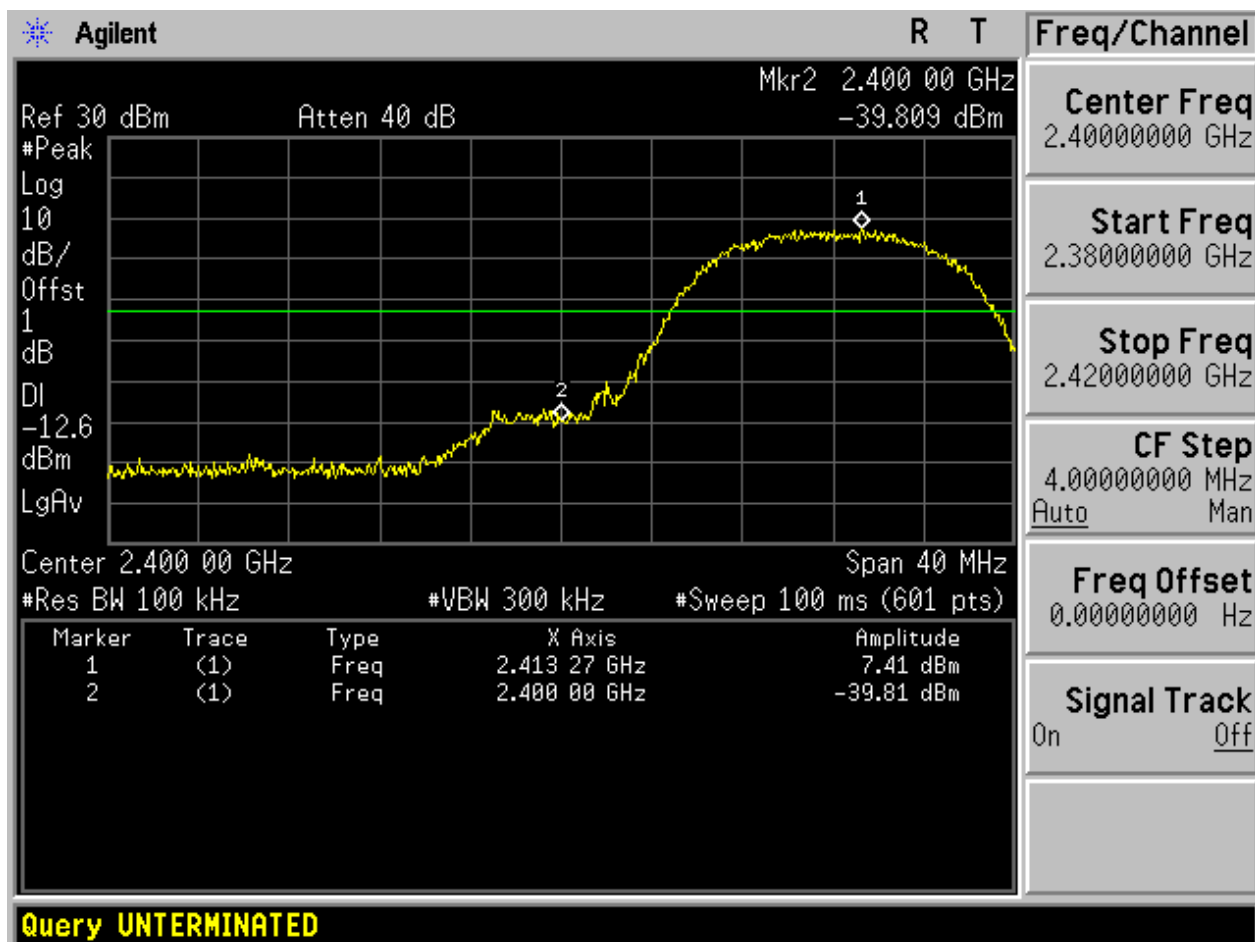
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
11B	L	2412	Ant 1	7.40	-39.81	pass
11B	H	2462	Ant 1	8.81	-52.19	pass
11G	L	2412	Ant 1	4.68	-37.24	pass
11G	H	2462	Ant 1	5.09	-44.75	pass
11N20	L	2412	Ant 1	4.67	-33.79	pass
11N20	H	2462	Ant 1	5.19	-43.84	pass

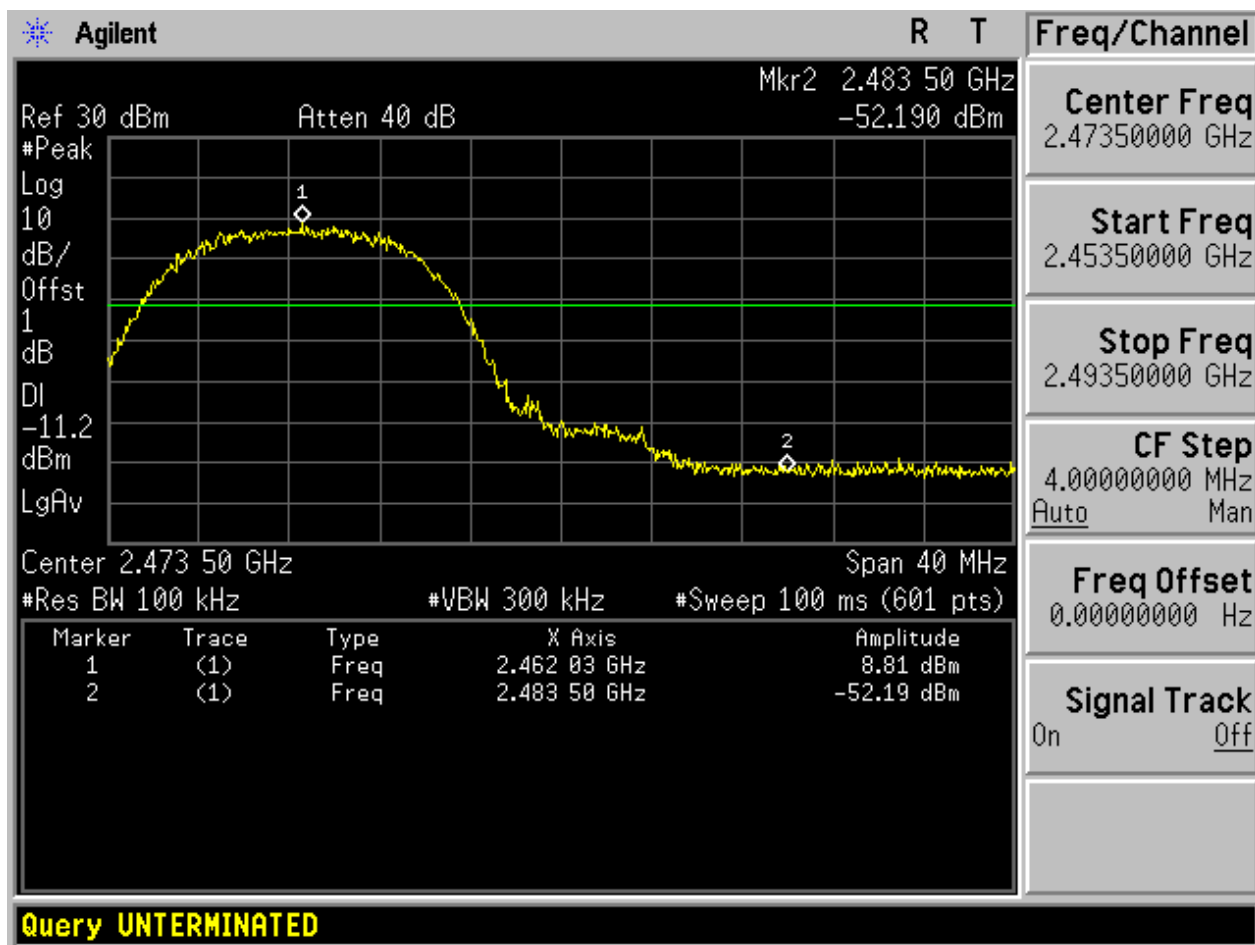


Part II - Test Plots

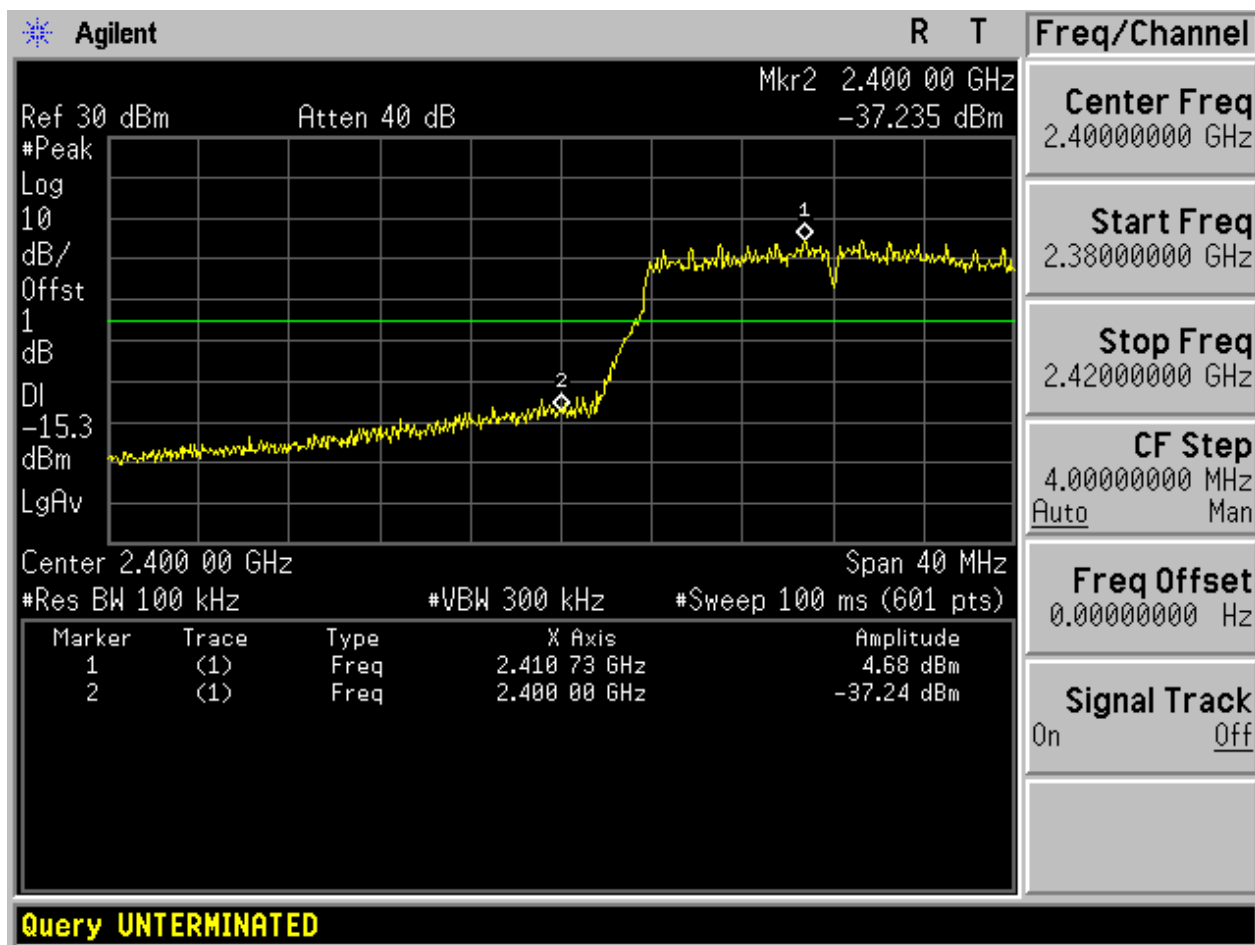
2.1 11B_L



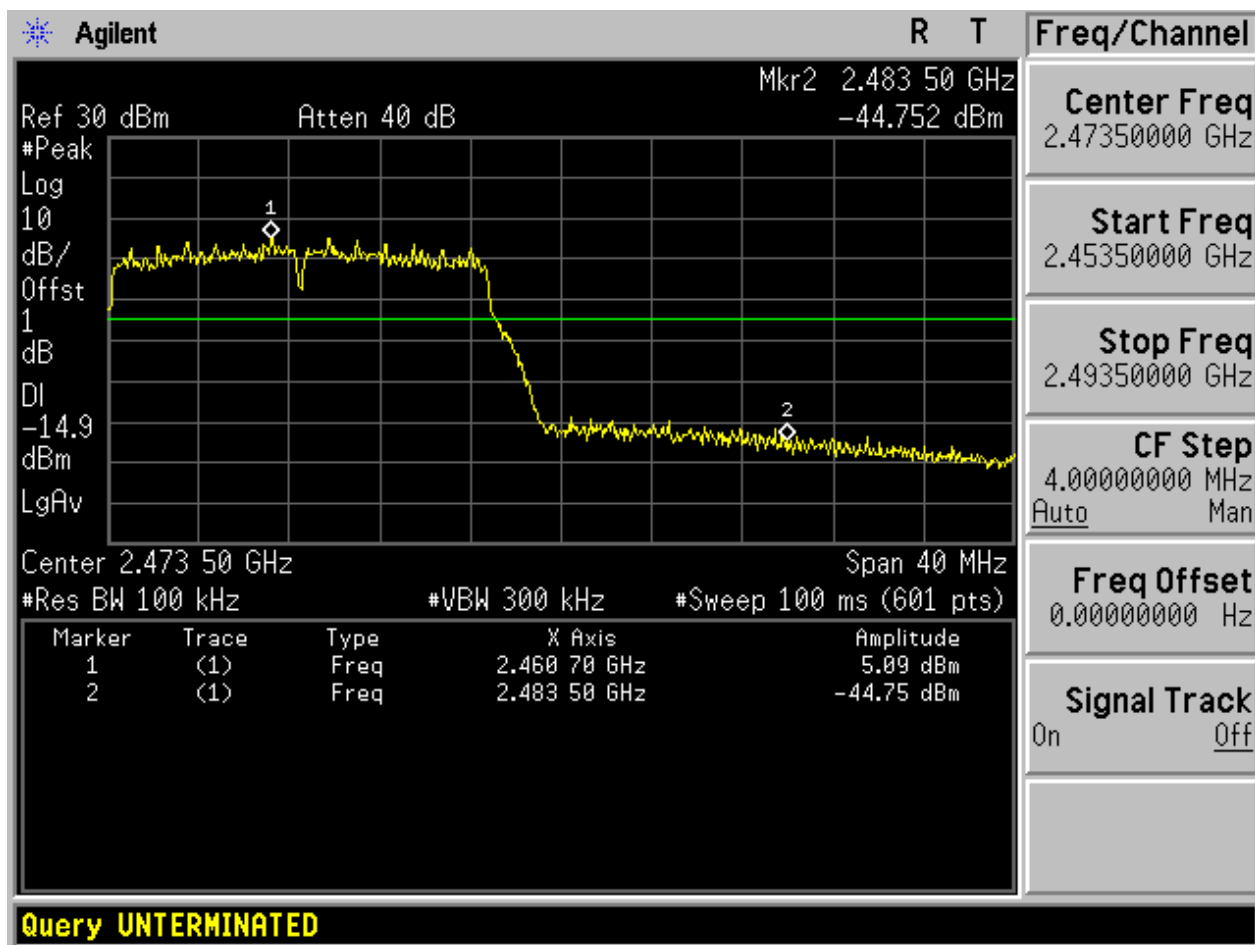
2.3 11B_H



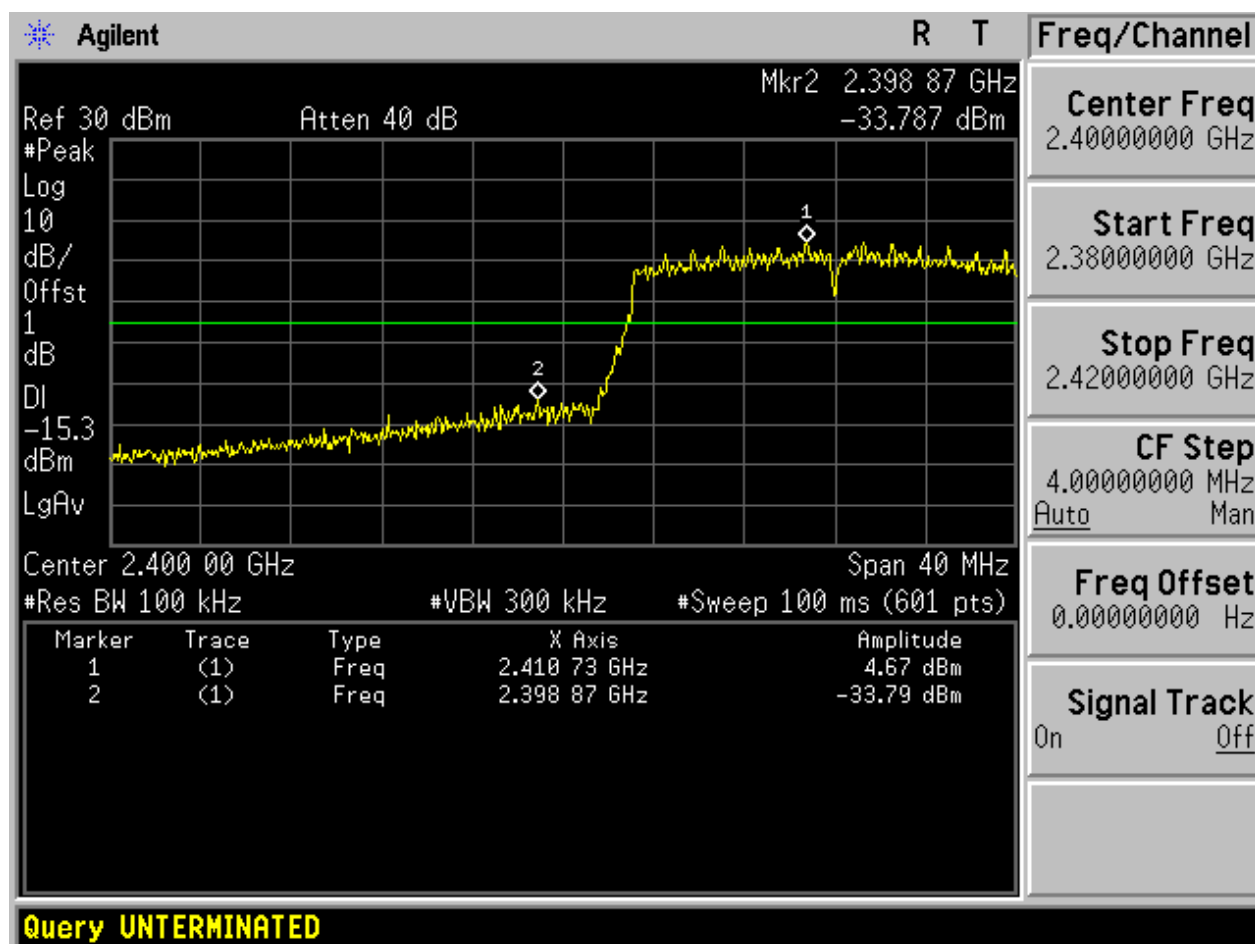
2.5 11G_L



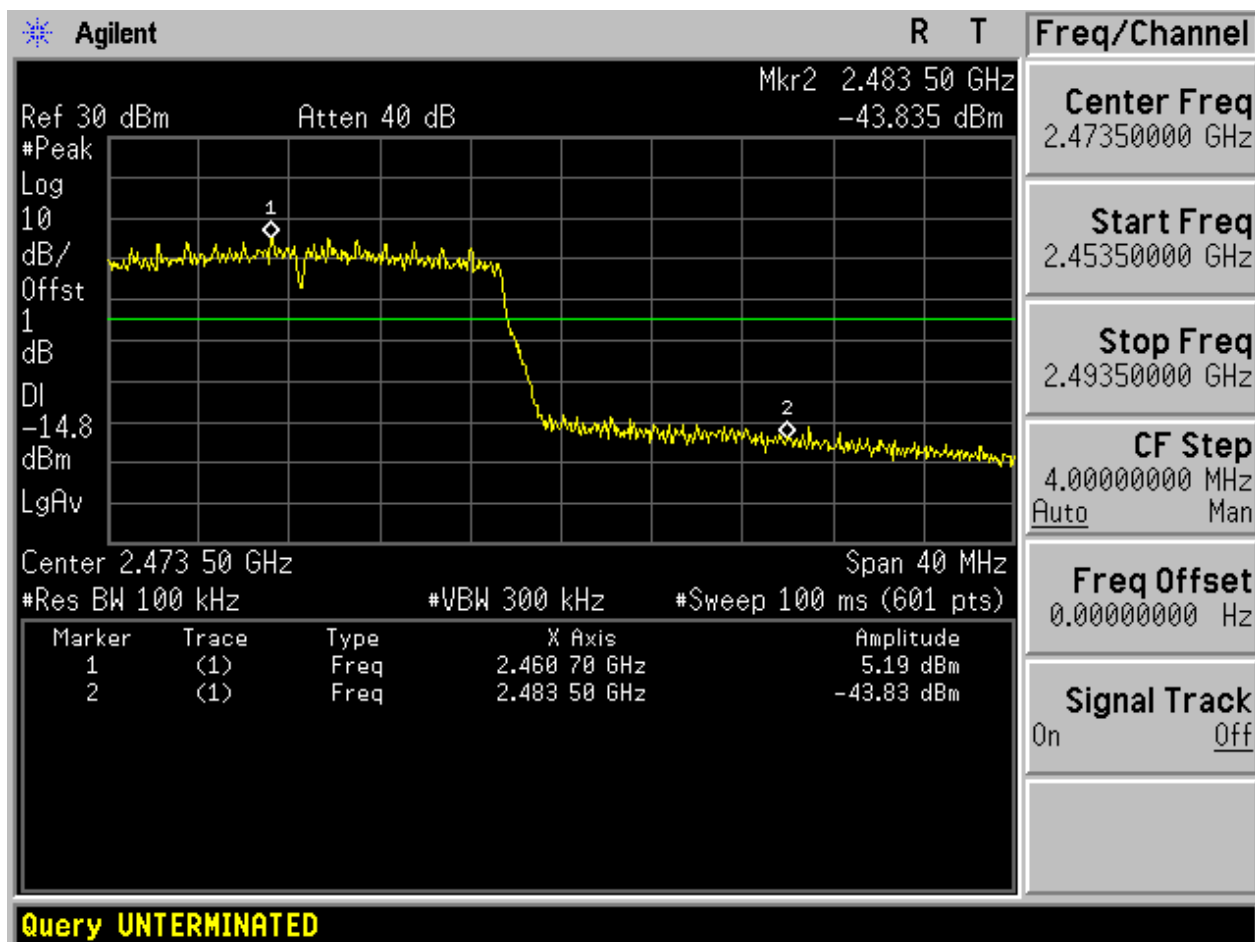
2.7 11G_H



2.9 11N20_L



2.11 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".

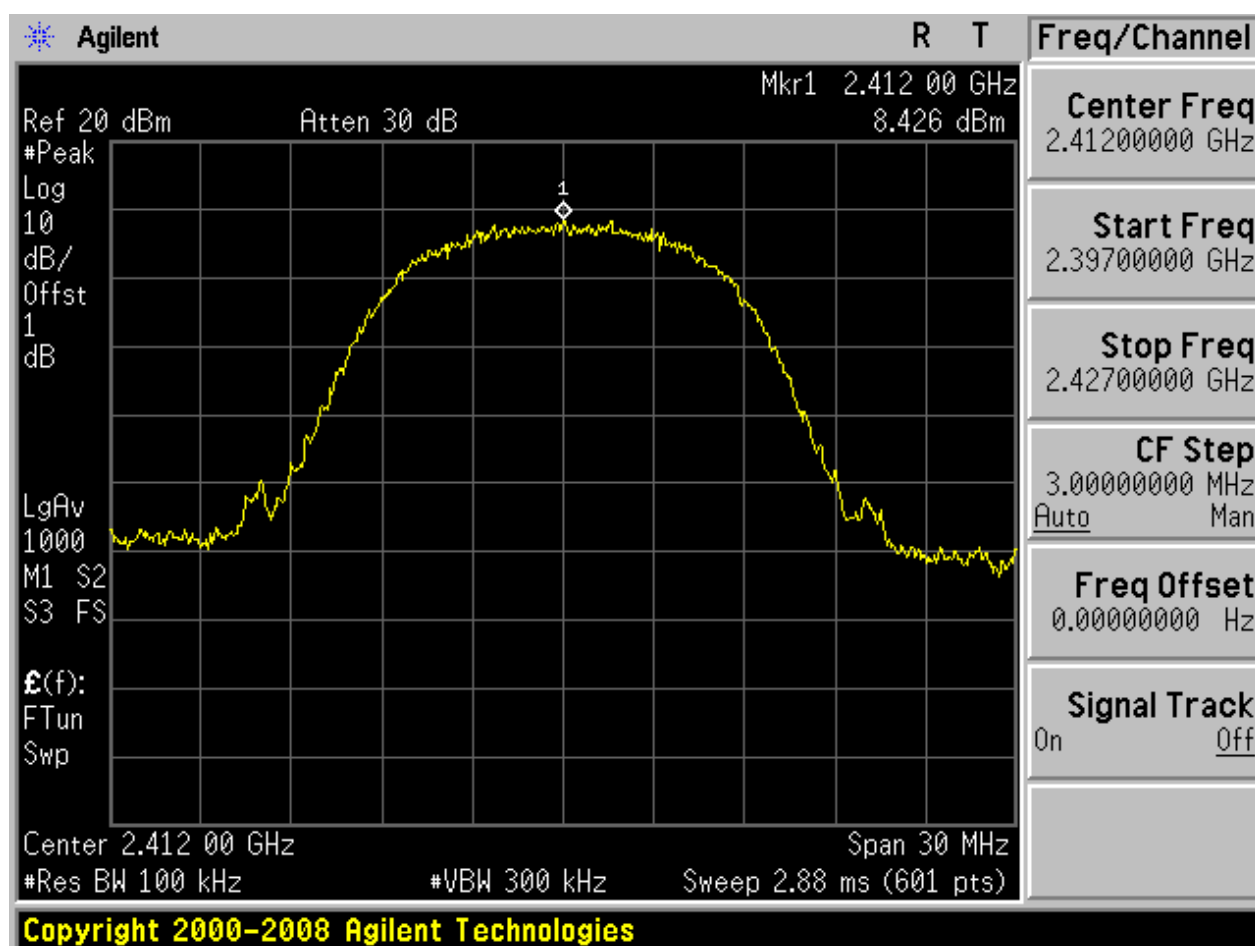
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Pref[dBm]	Puw[dBm]	Verdict
11B	L	2412	Ant 1	8.43	<limit	pass
11B	M	2437	Ant 1	8.72	<limit	pass
11B	H	2462	Ant 1	8.72	<limit	pass
11G	L	2412	Ant 1	5.41	<limit	pass
11G	M	2437	Ant 1	7.43	<limit	pass
11G	H	2462	Ant 1	5.56	<limit	pass
11N20	L	2412	Ant 1	5.43	<limit	pass
11N20	M	2437	Ant 1	6.48	<limit	pass
11N20	H	2462	Ant 1	5.67	<limit	pass

Part II - Test Plots

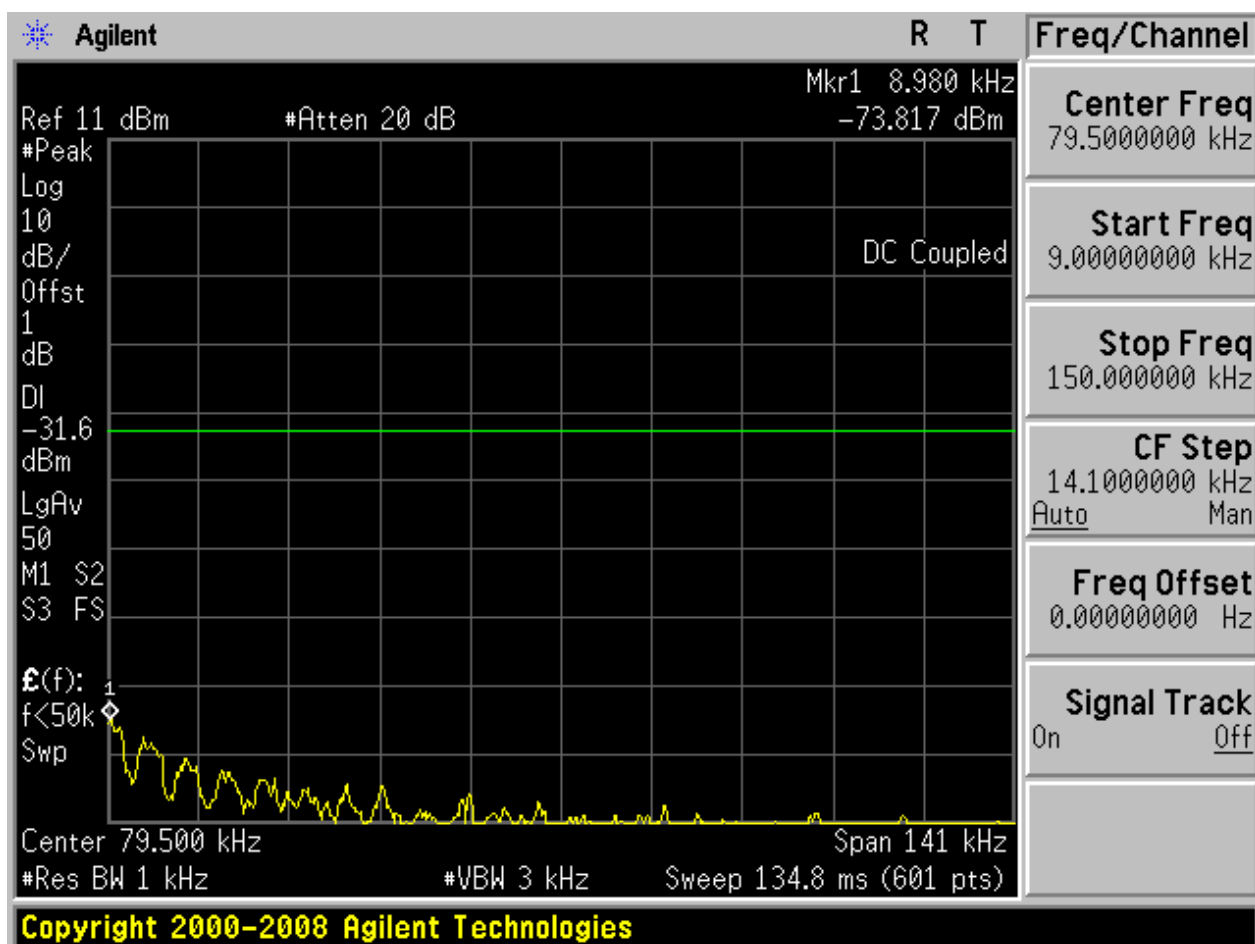
2.1 11B_L

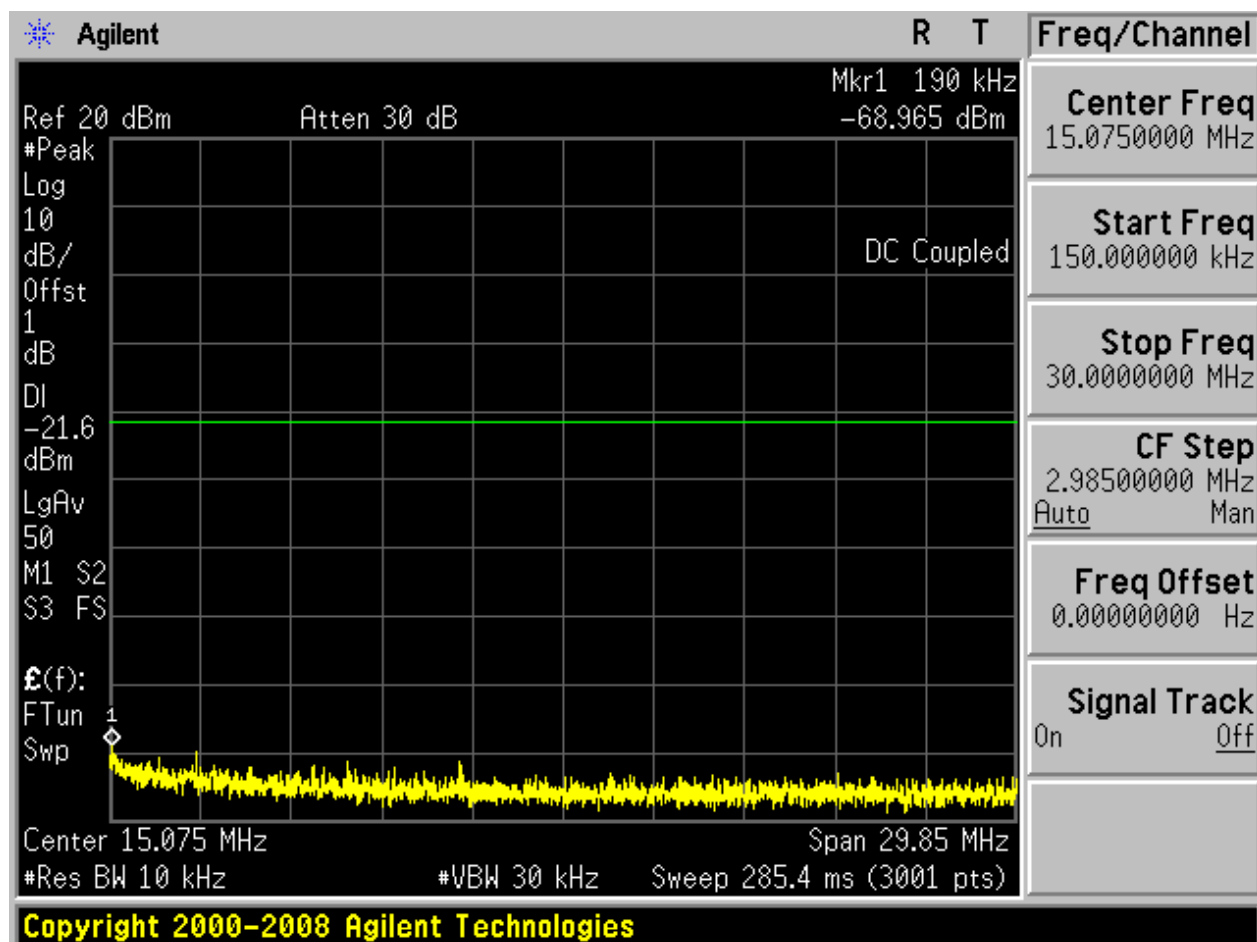
Pref:

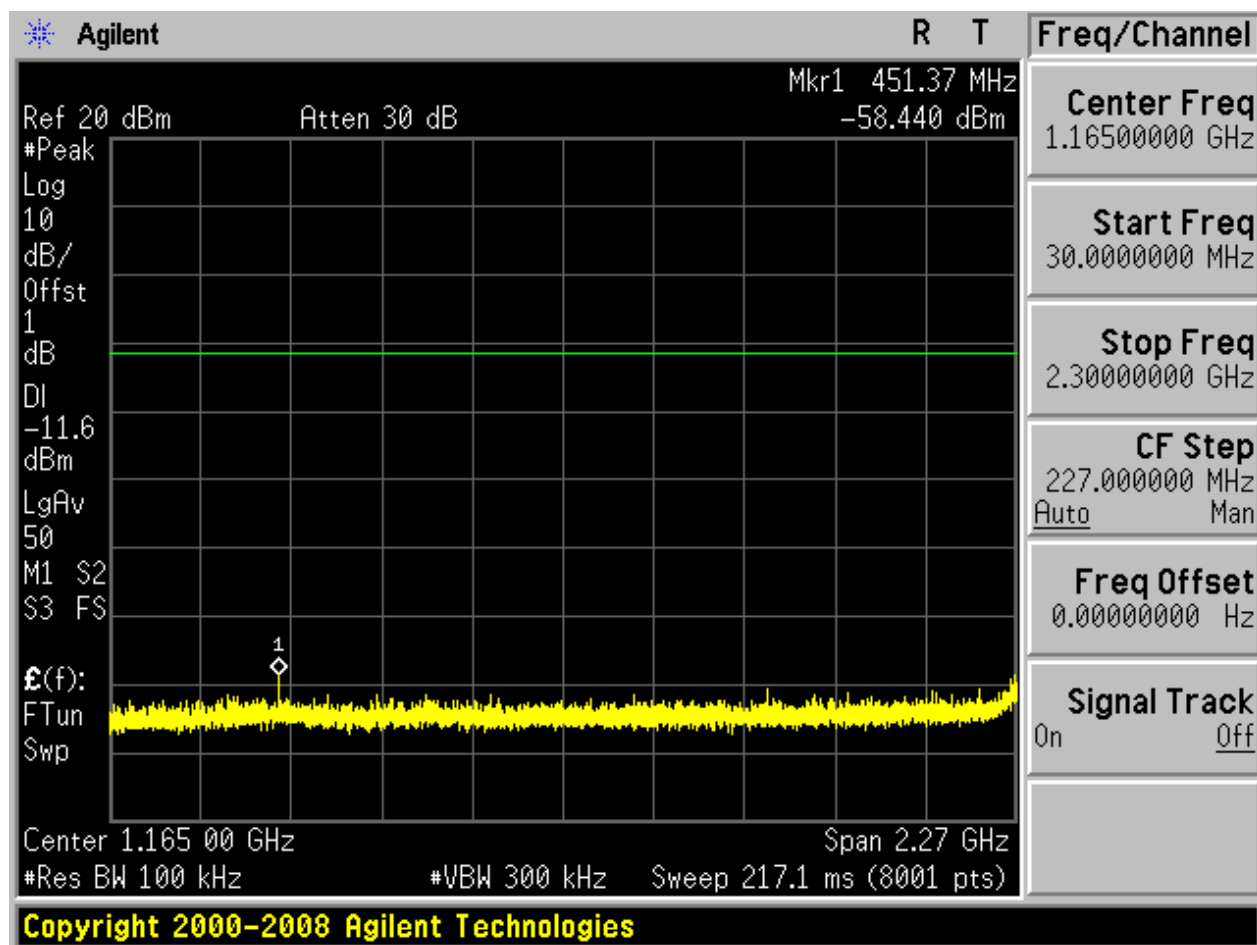


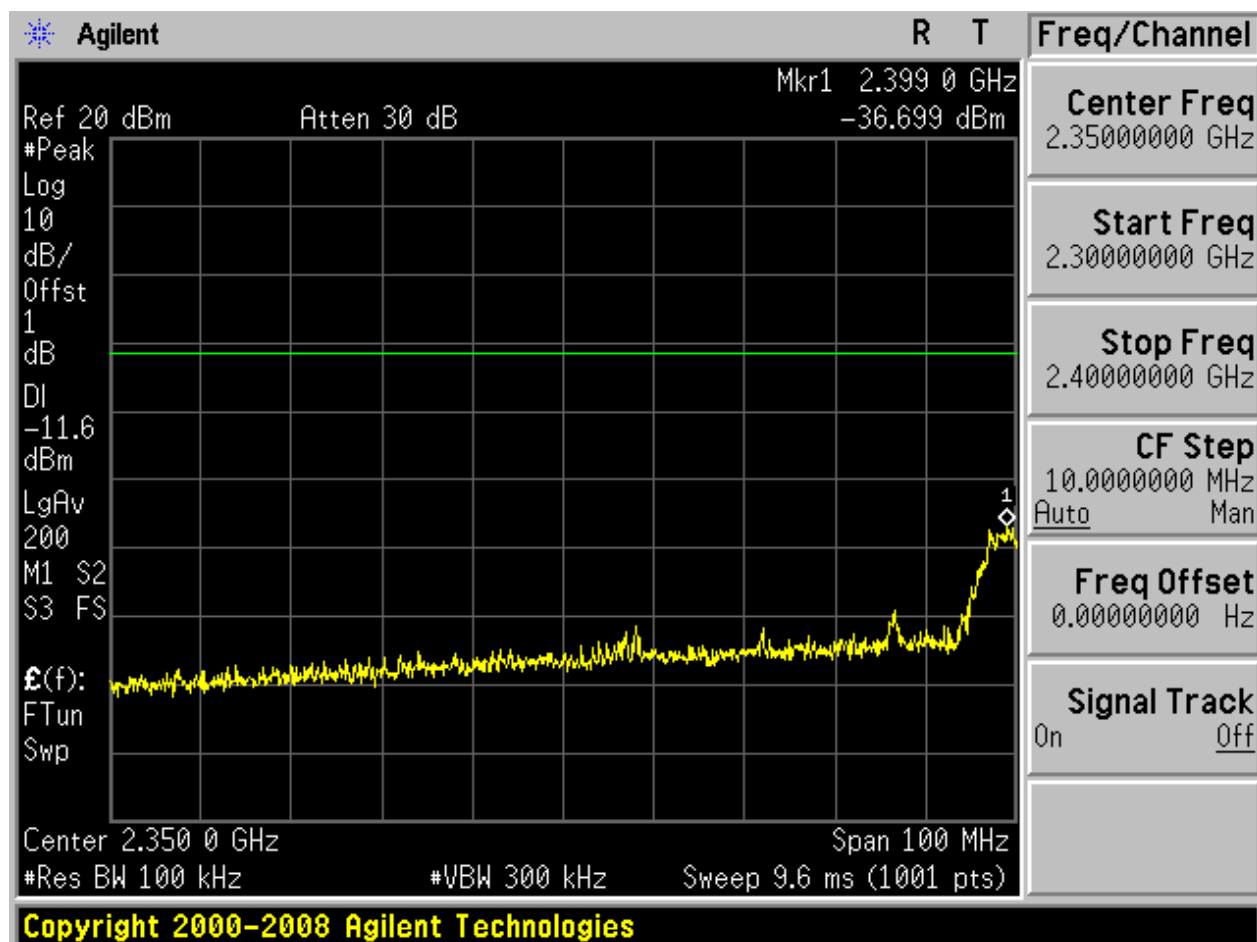


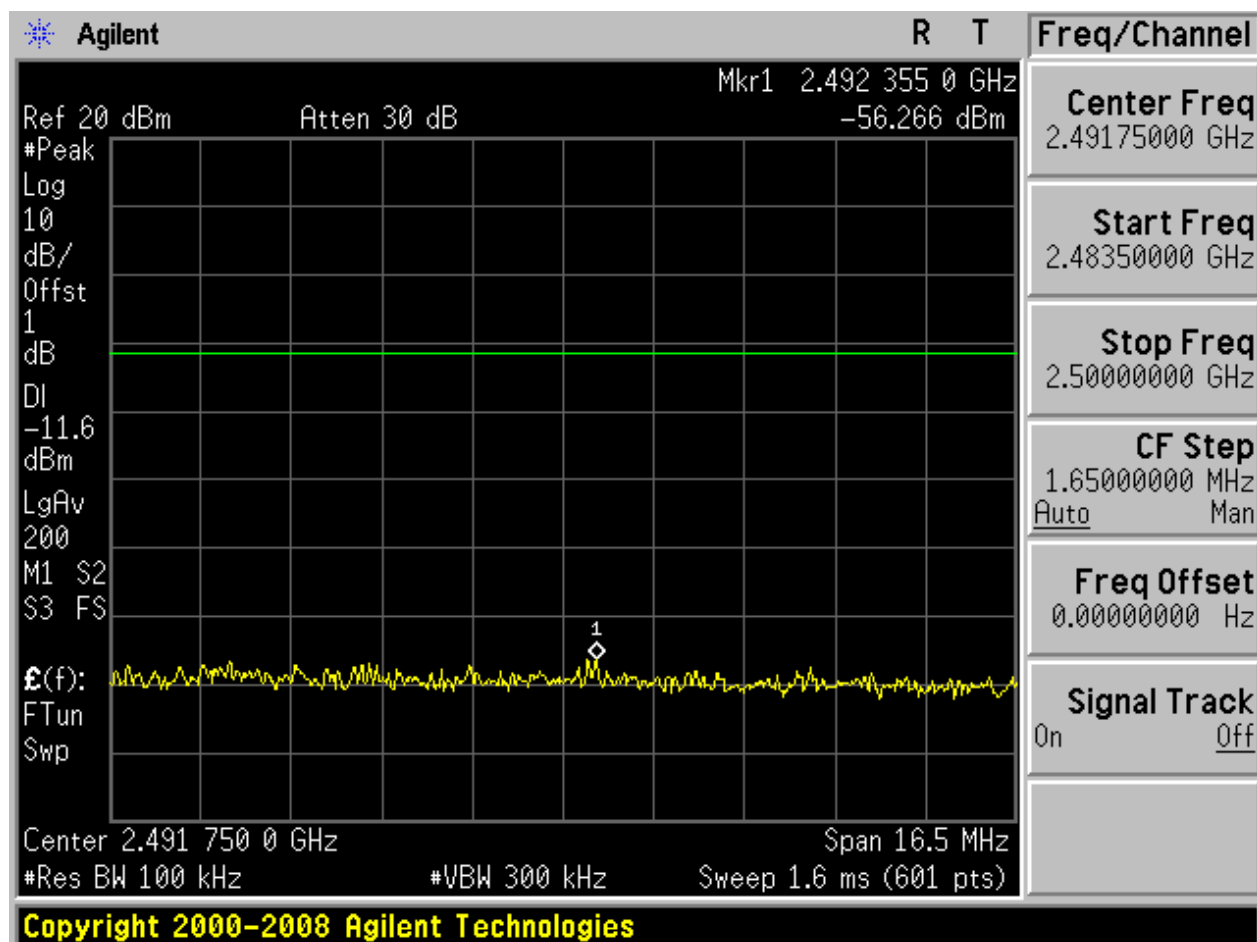
Puw:

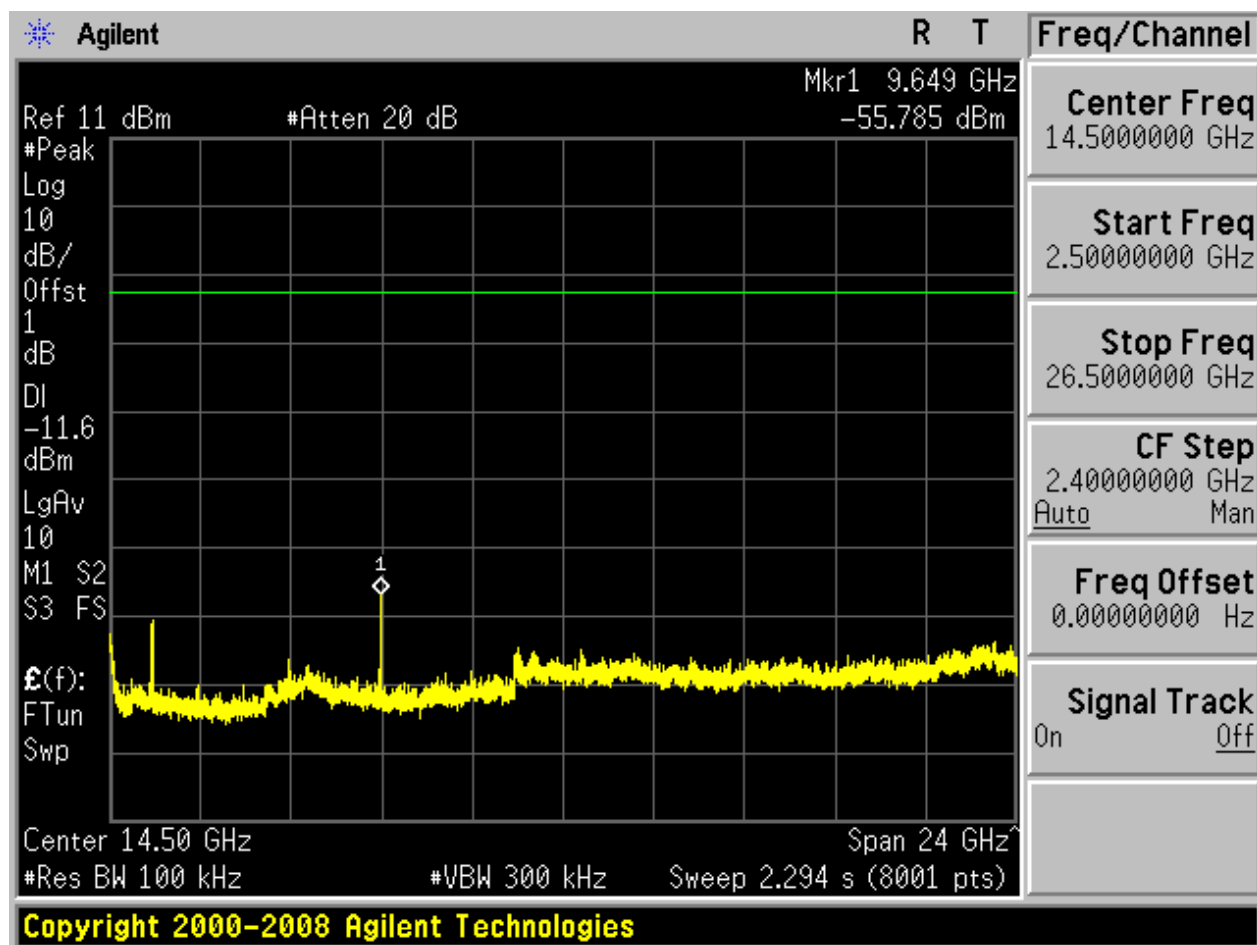








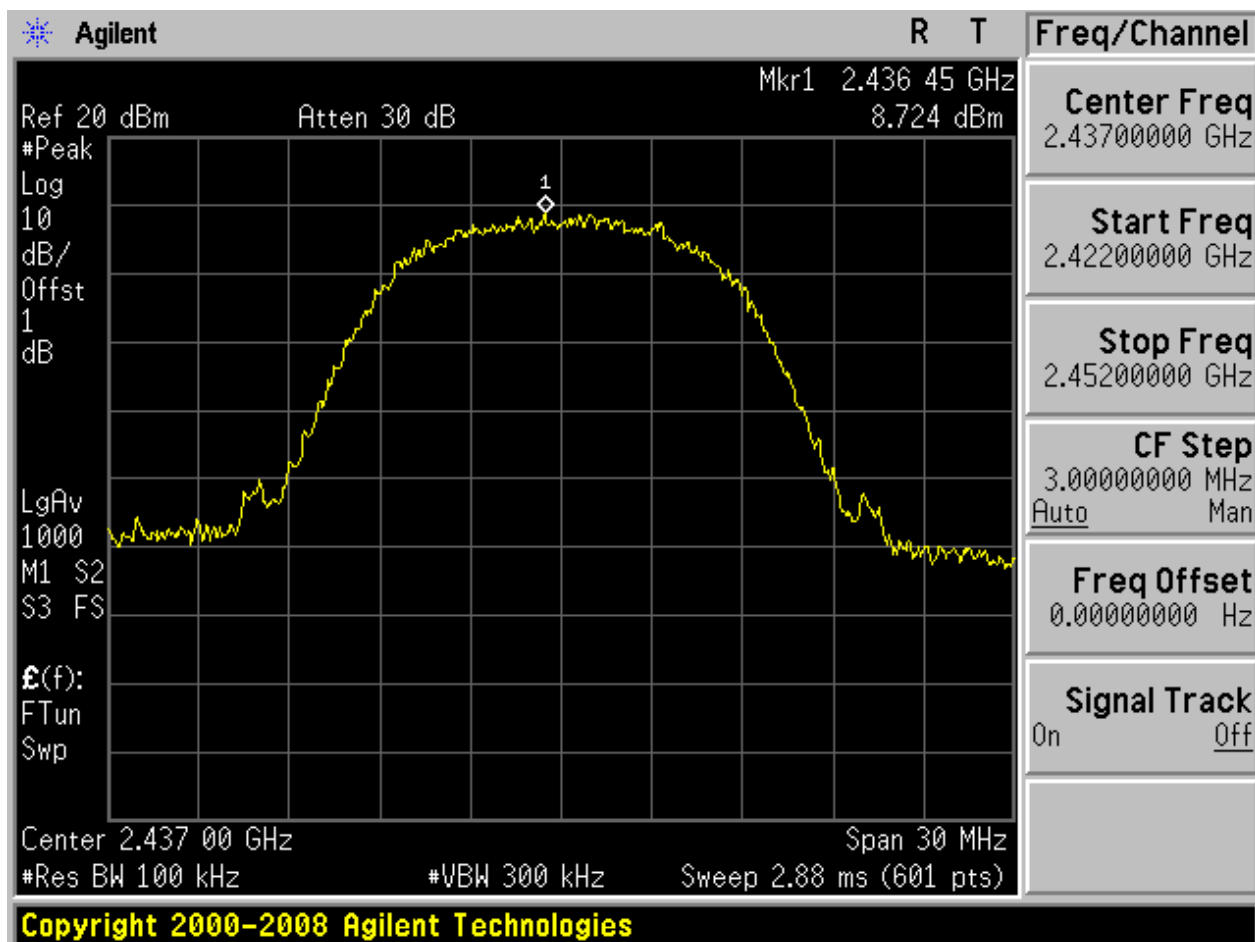






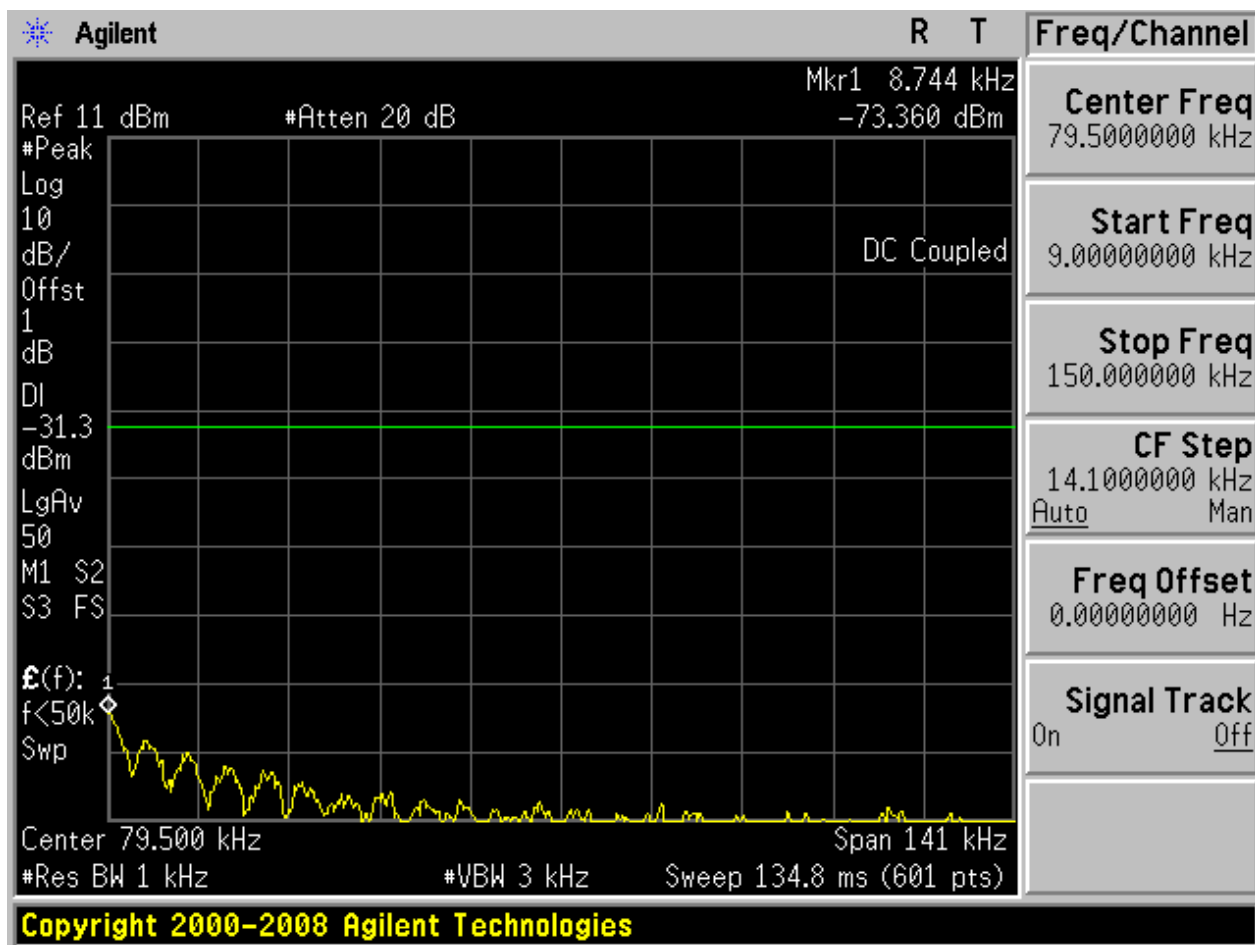
2.3 11B_M

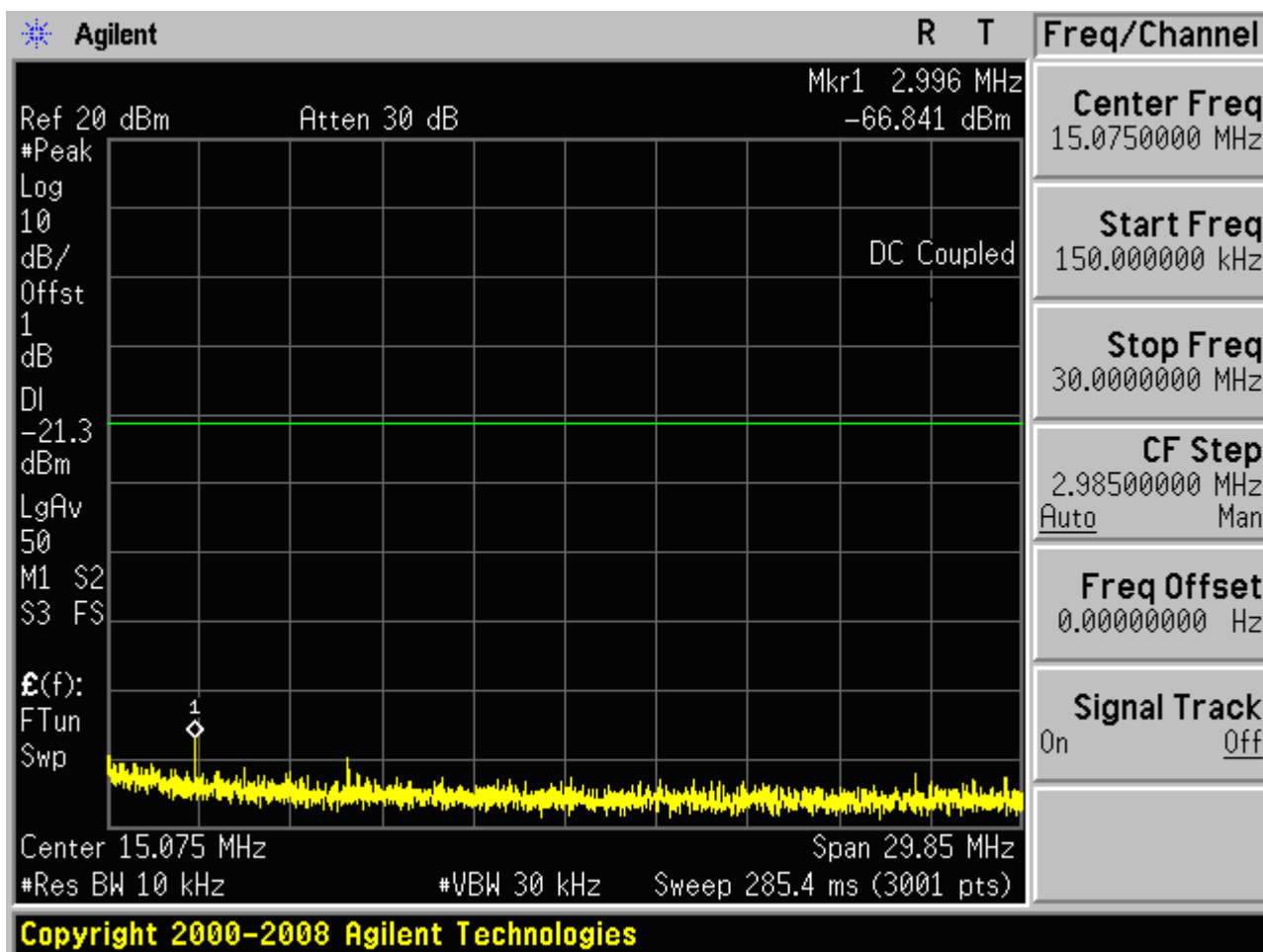
Pref:

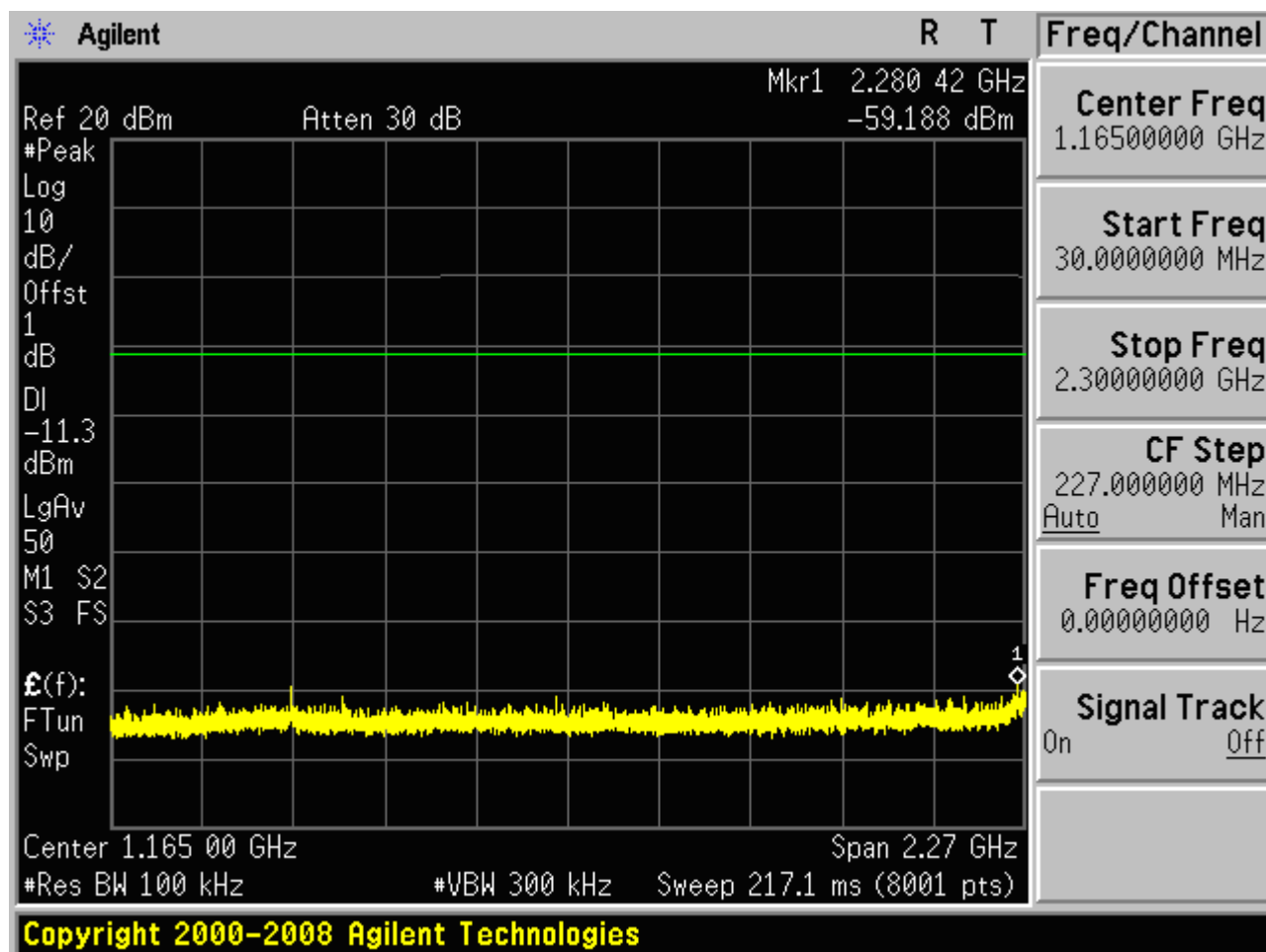


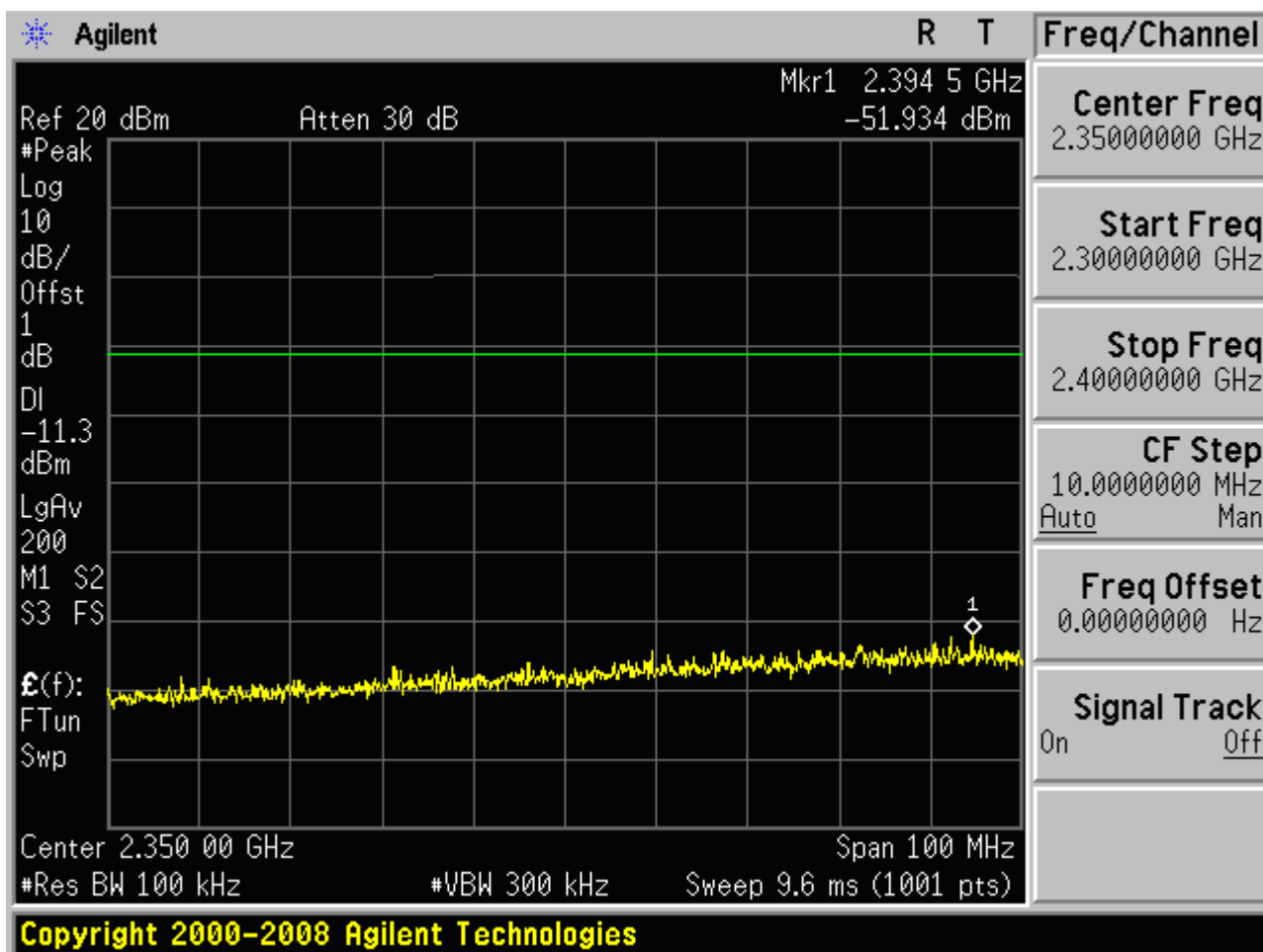


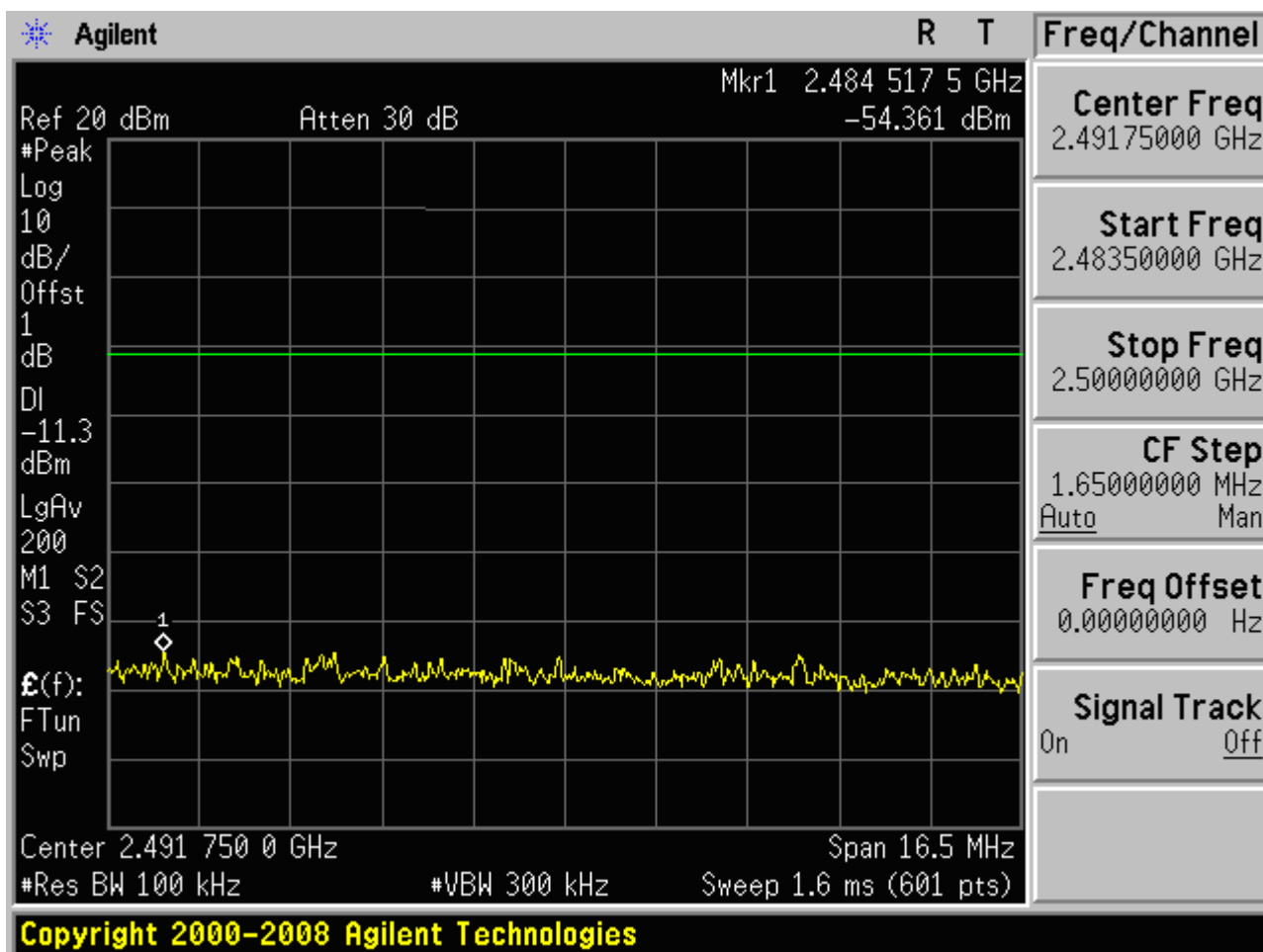
Puw:

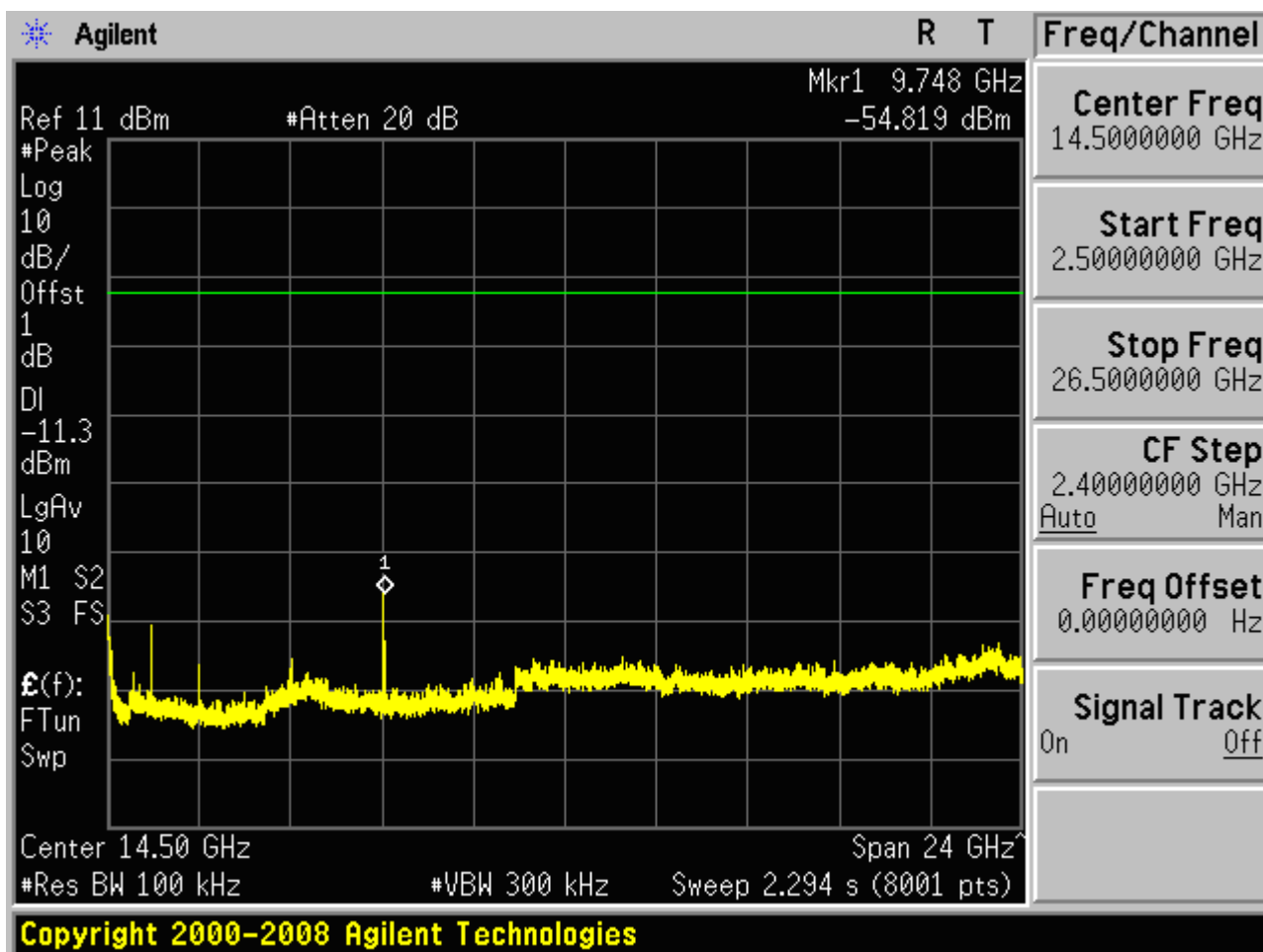








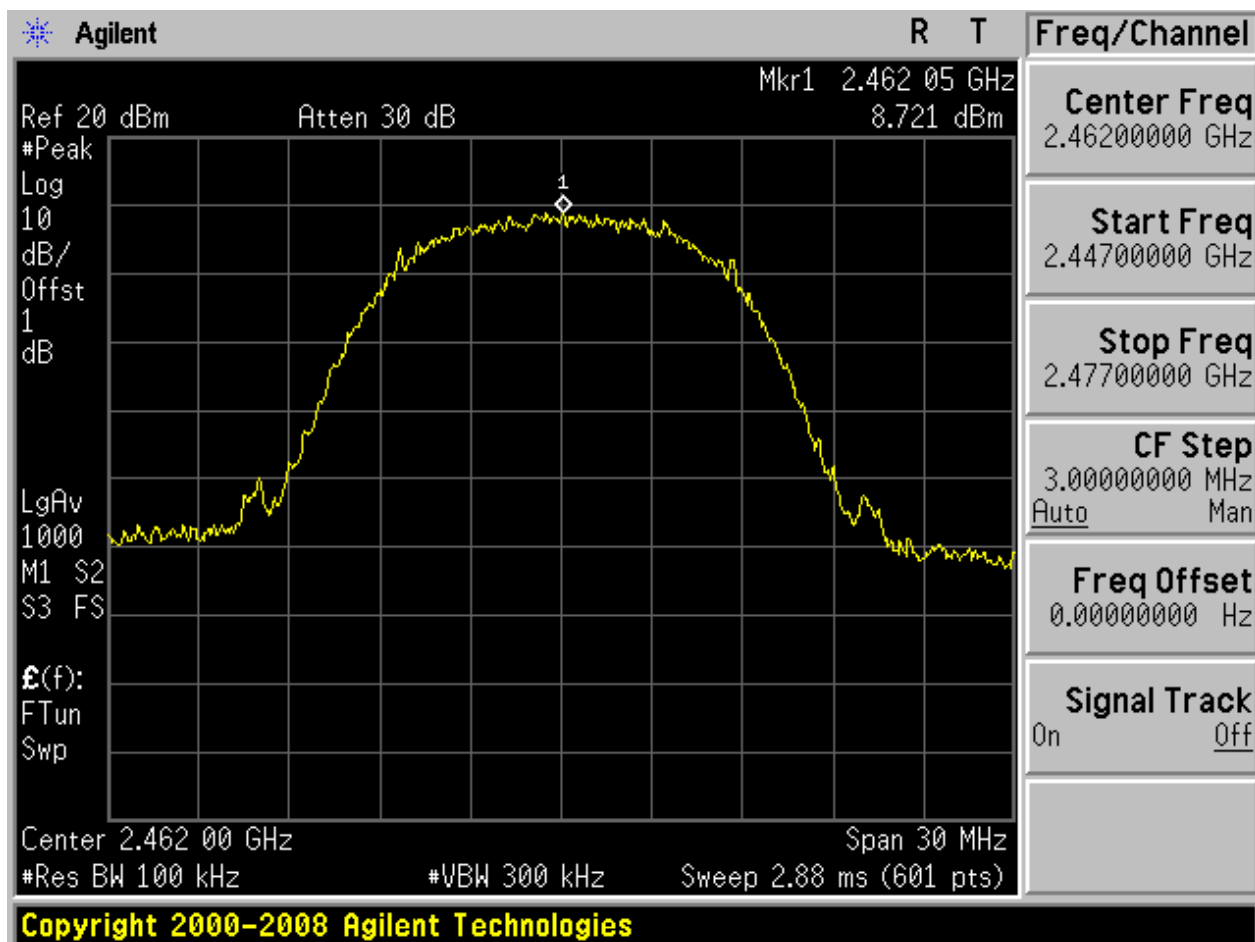






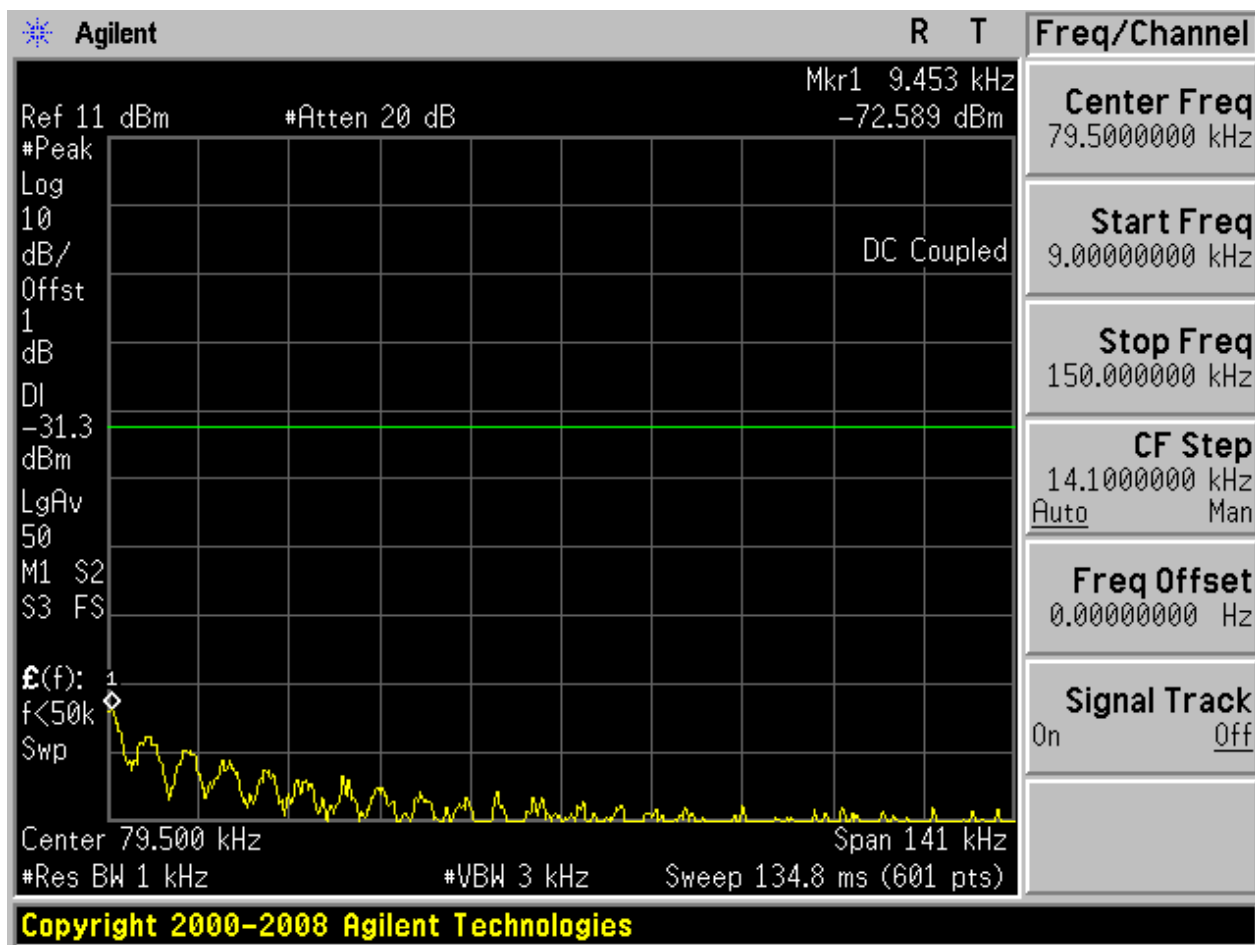
2.5 11B_H

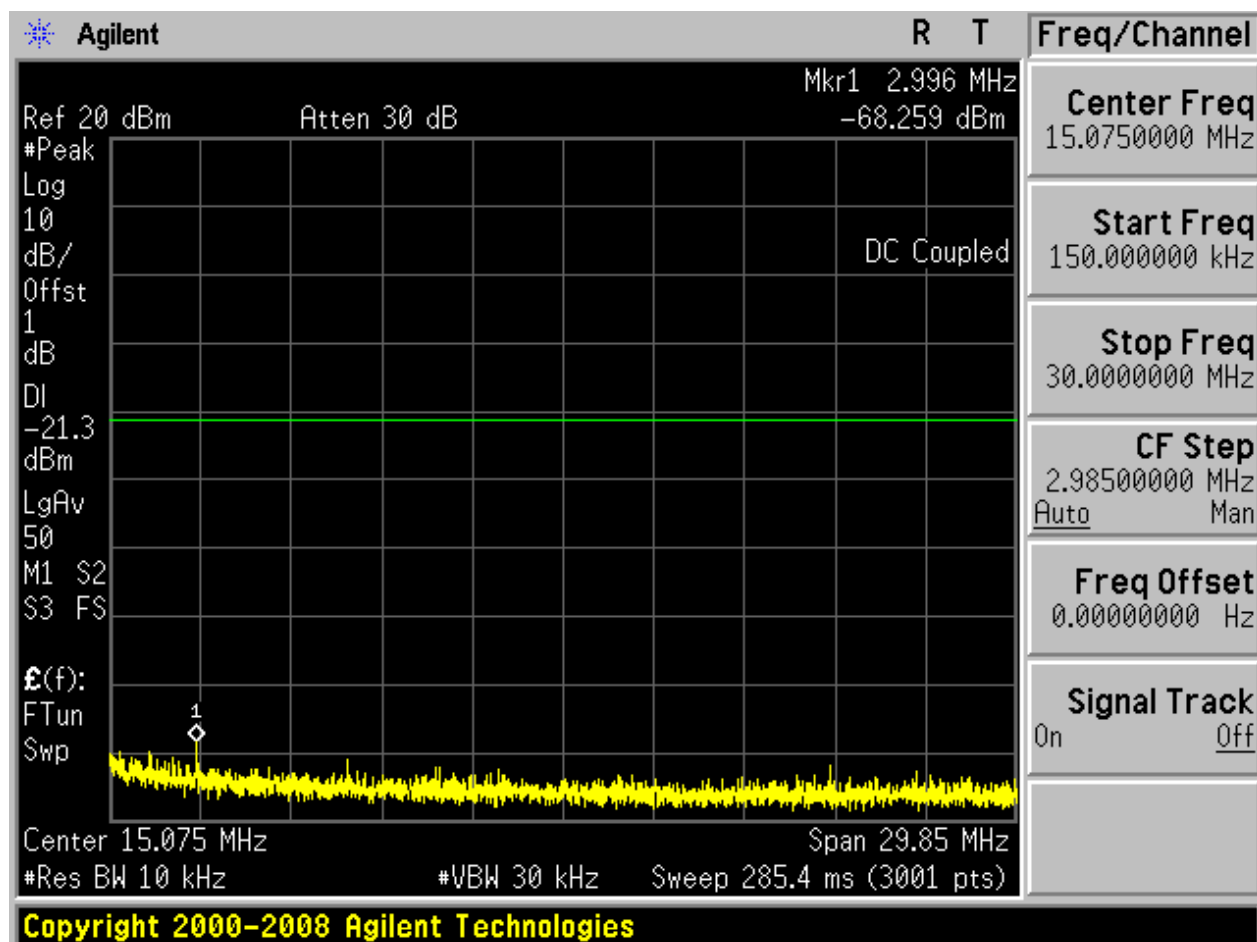
Pref:

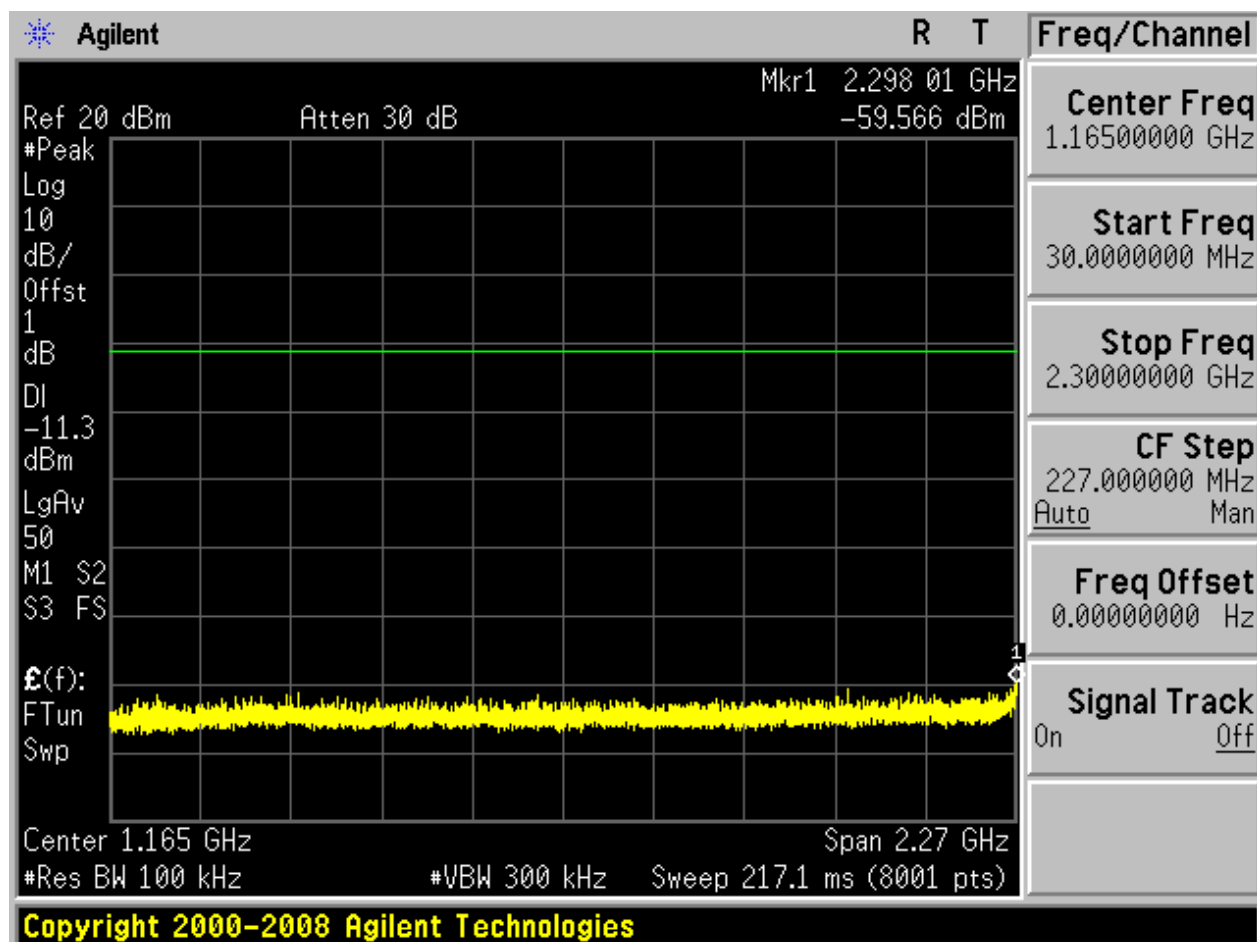


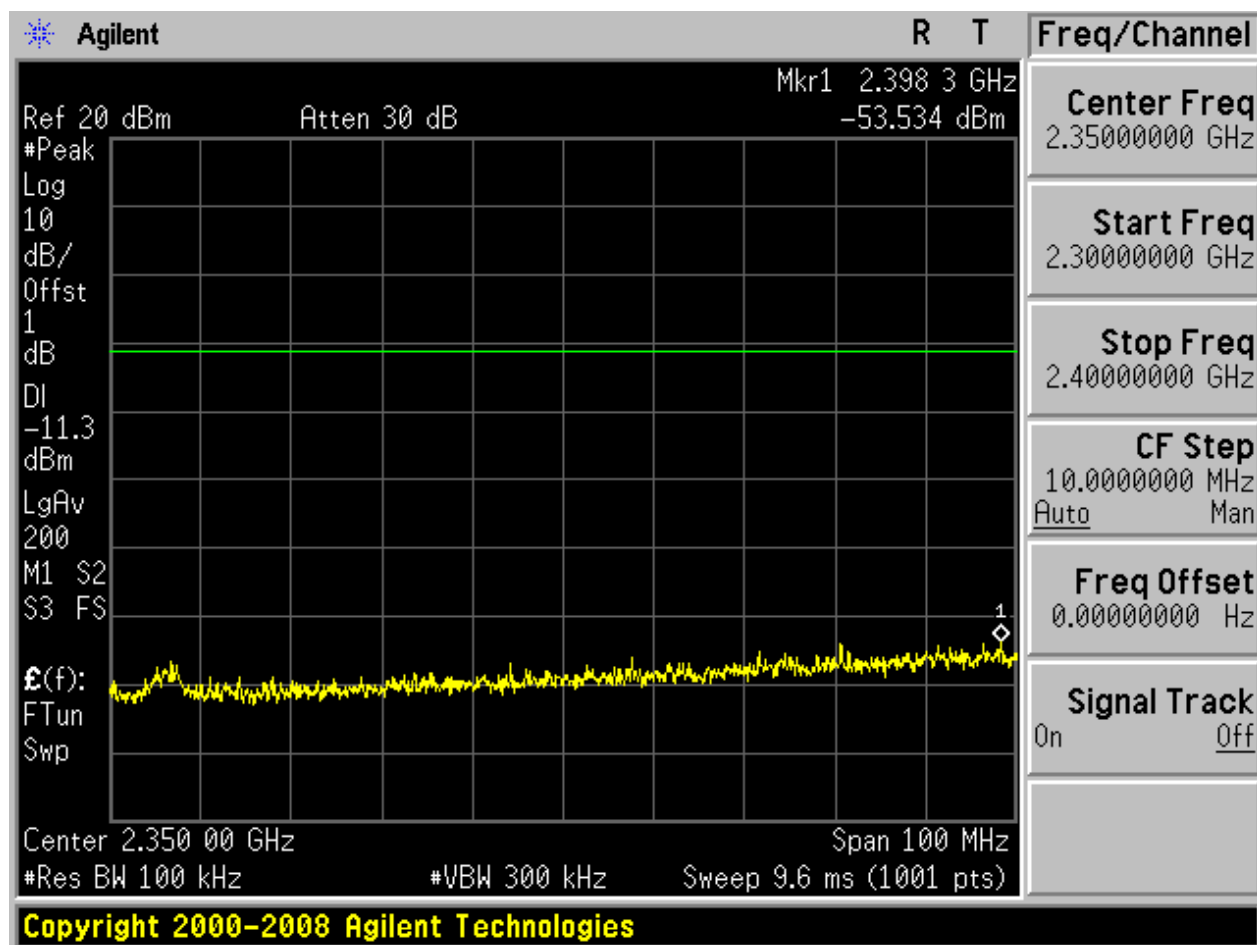


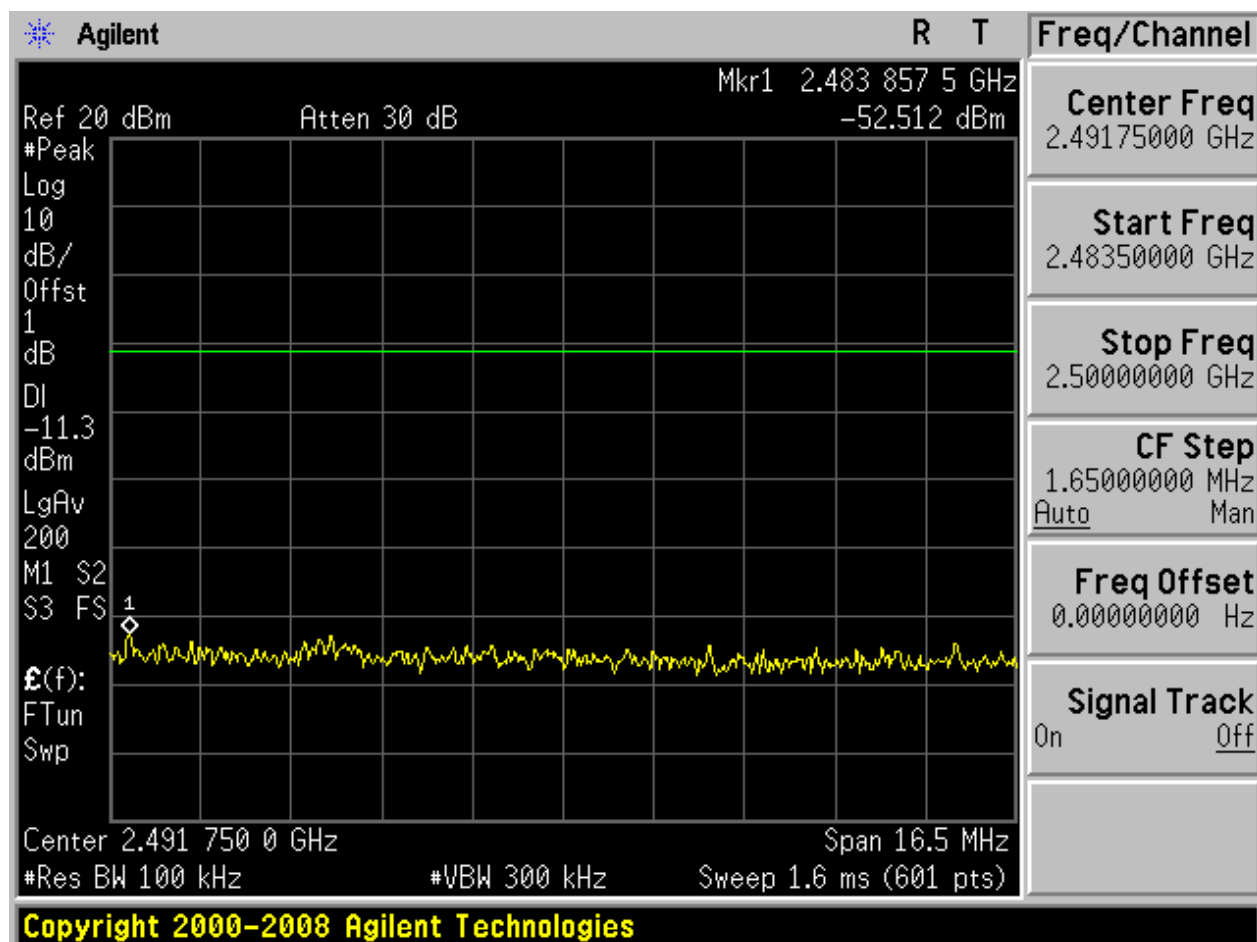
Puw:

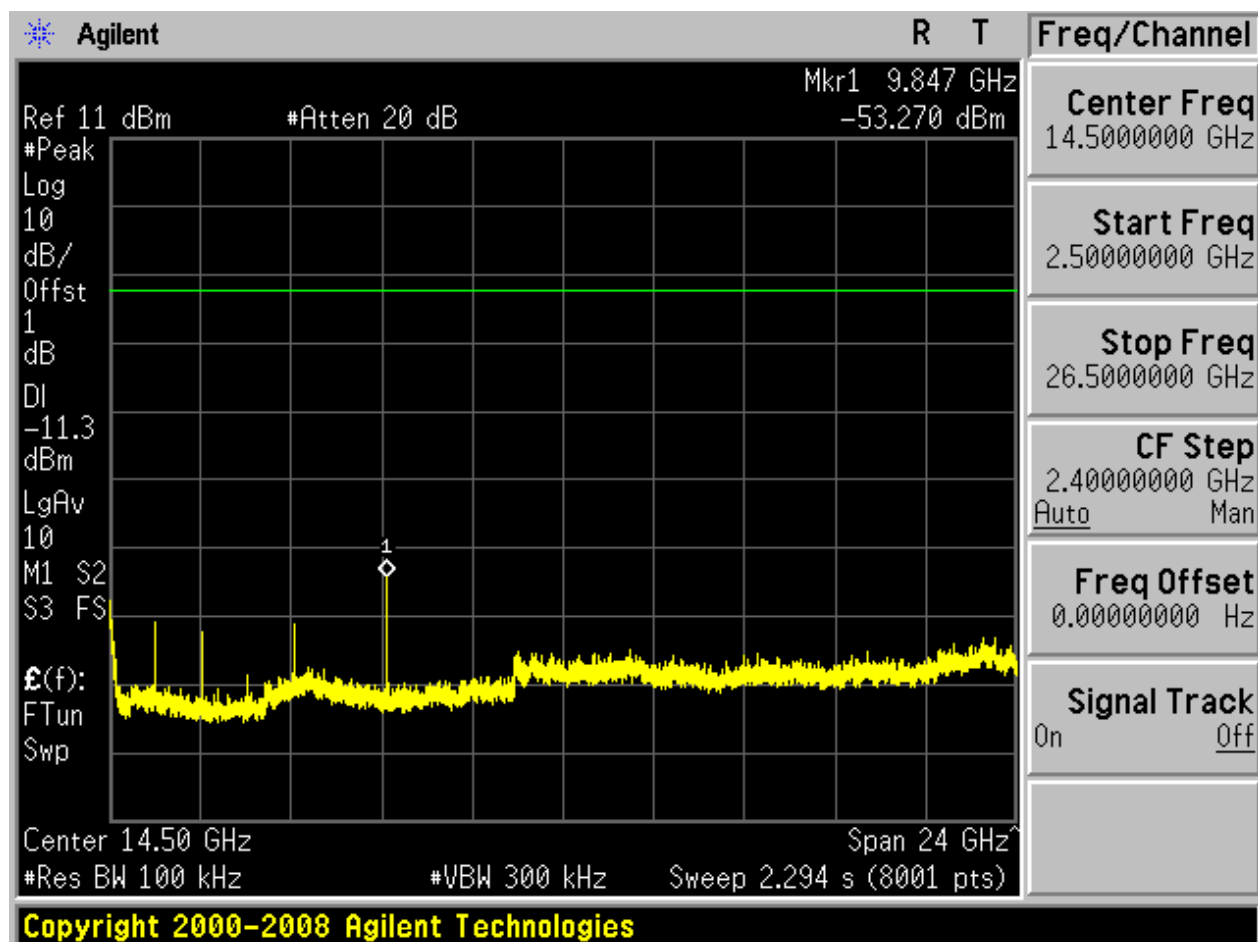








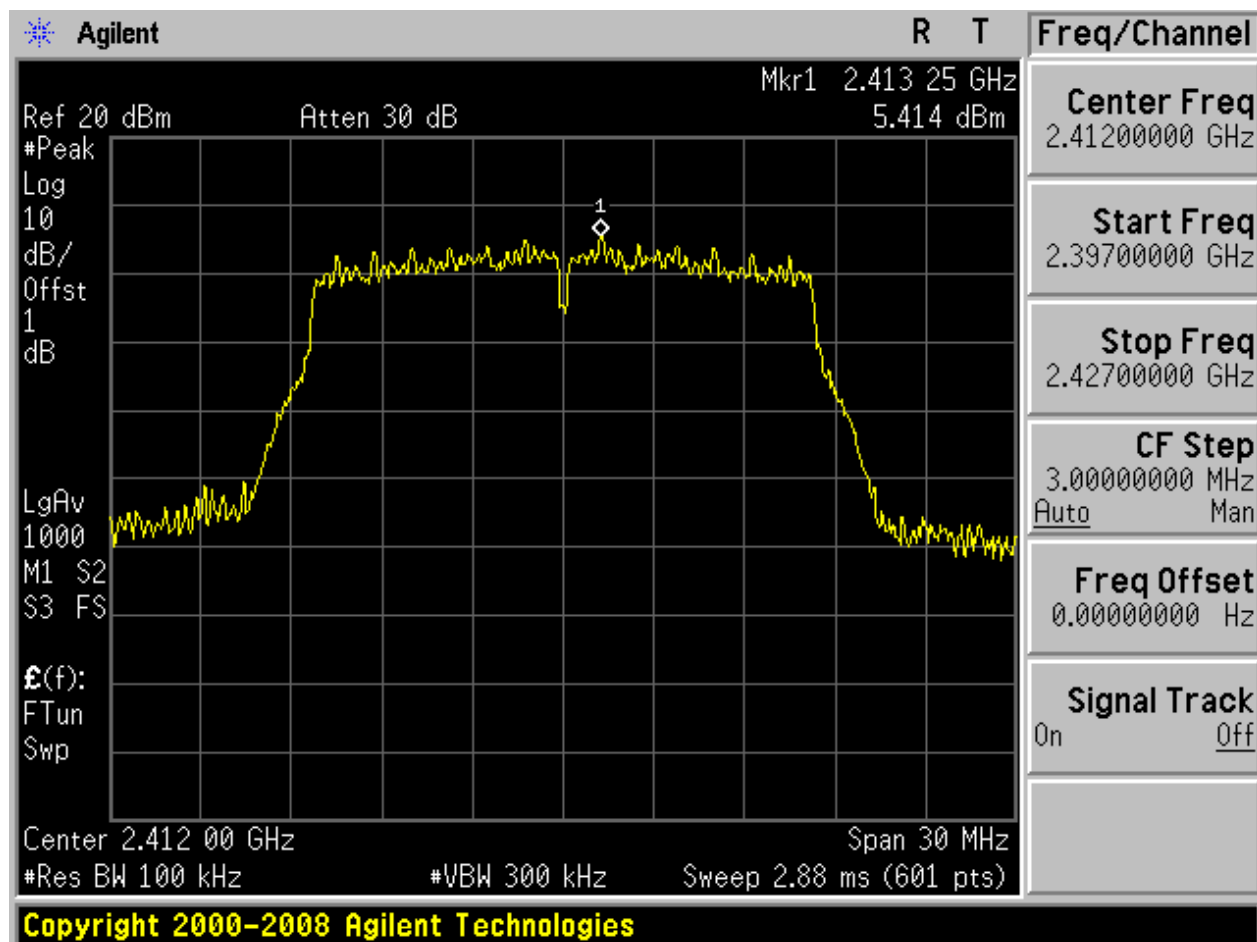


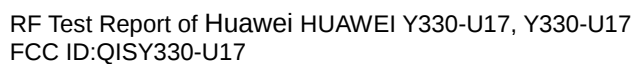




2.7 11G_L

Pref:





Agilent

Ref 11 dBm #Atten 20 dB Mkr1 8.744 kHz -71.175 dBm

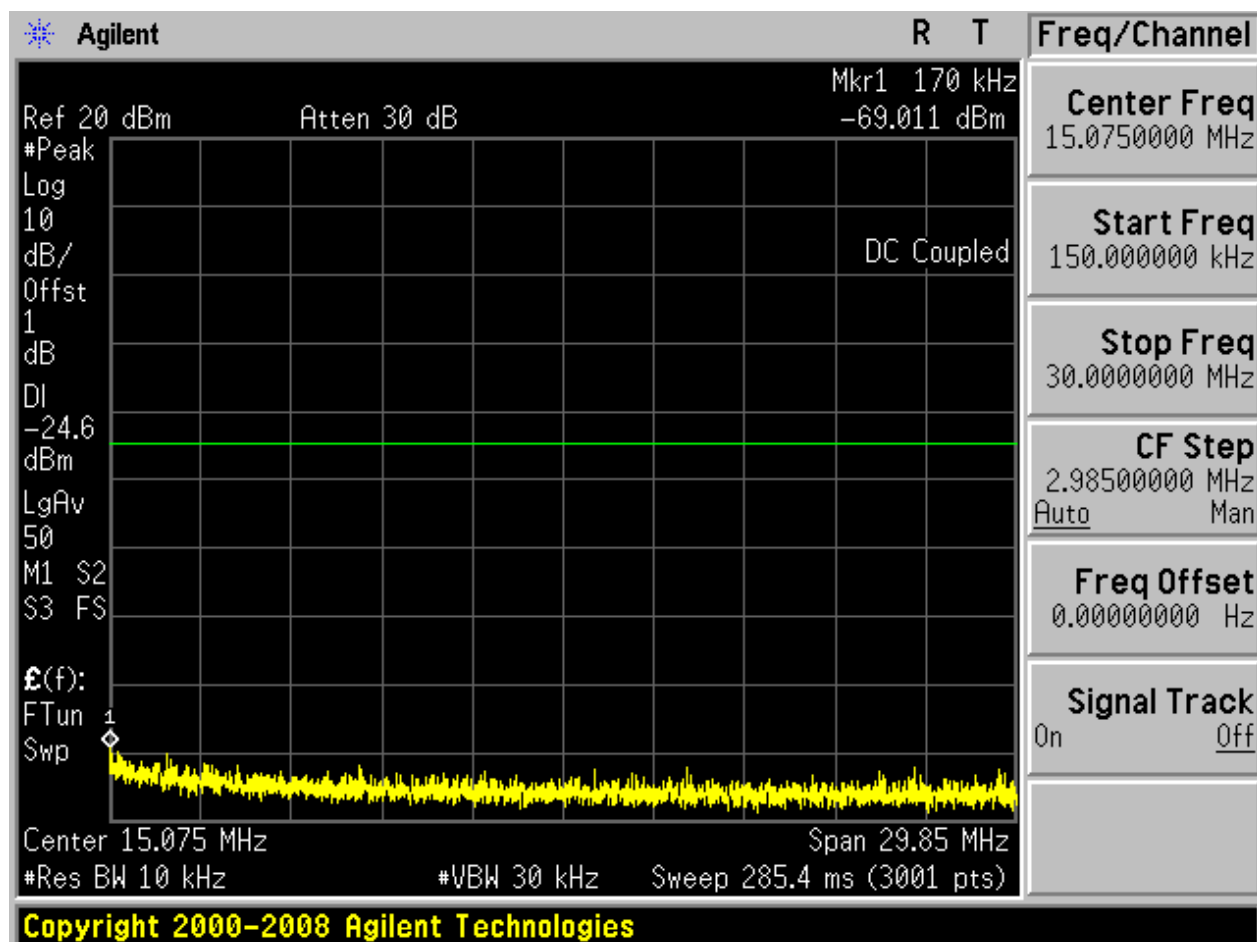
#Peak Log 10 dB/ Offst 1 dB DI -34.6 dBm LgAv 50 M1 S2 S3 FS

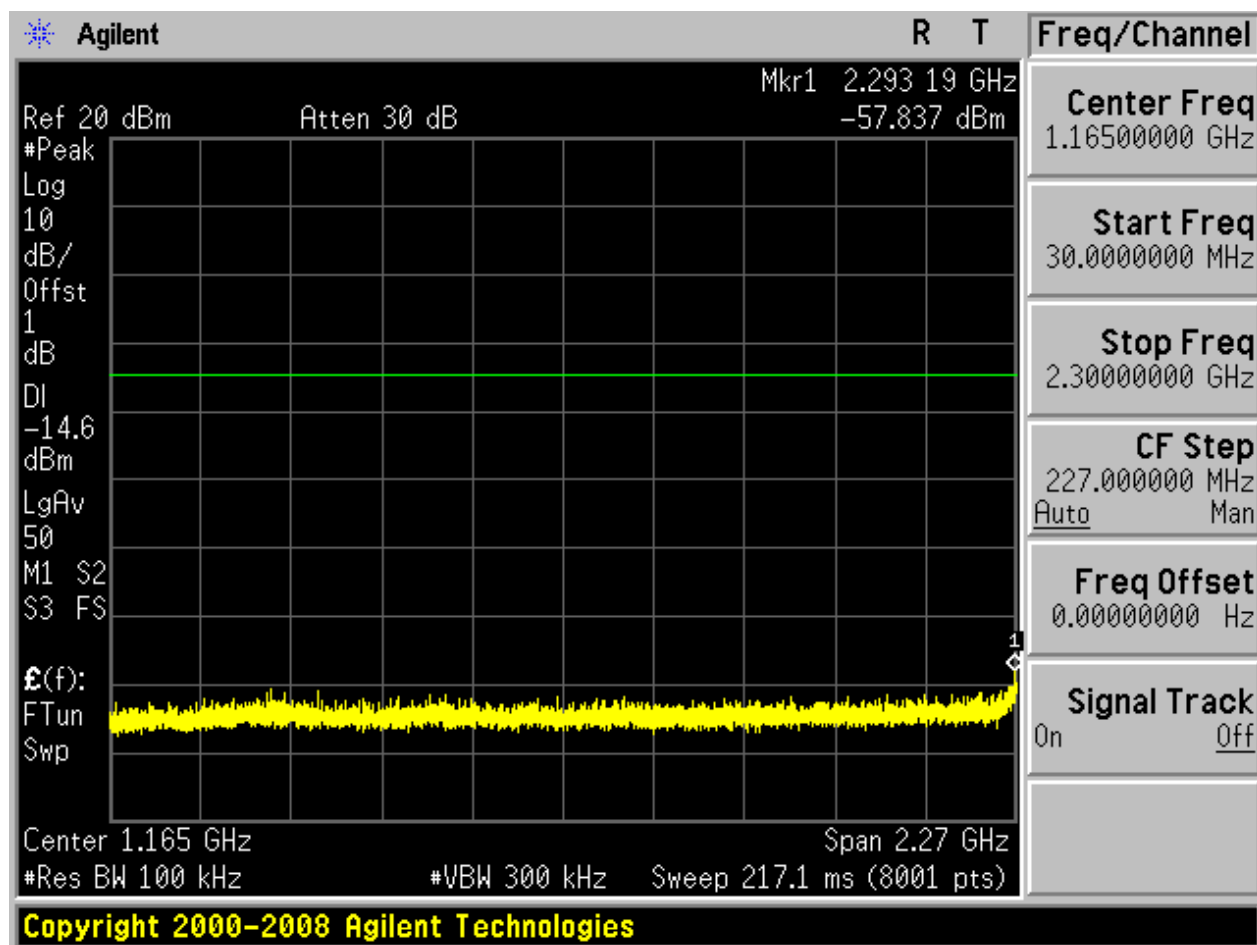
DC Coupled

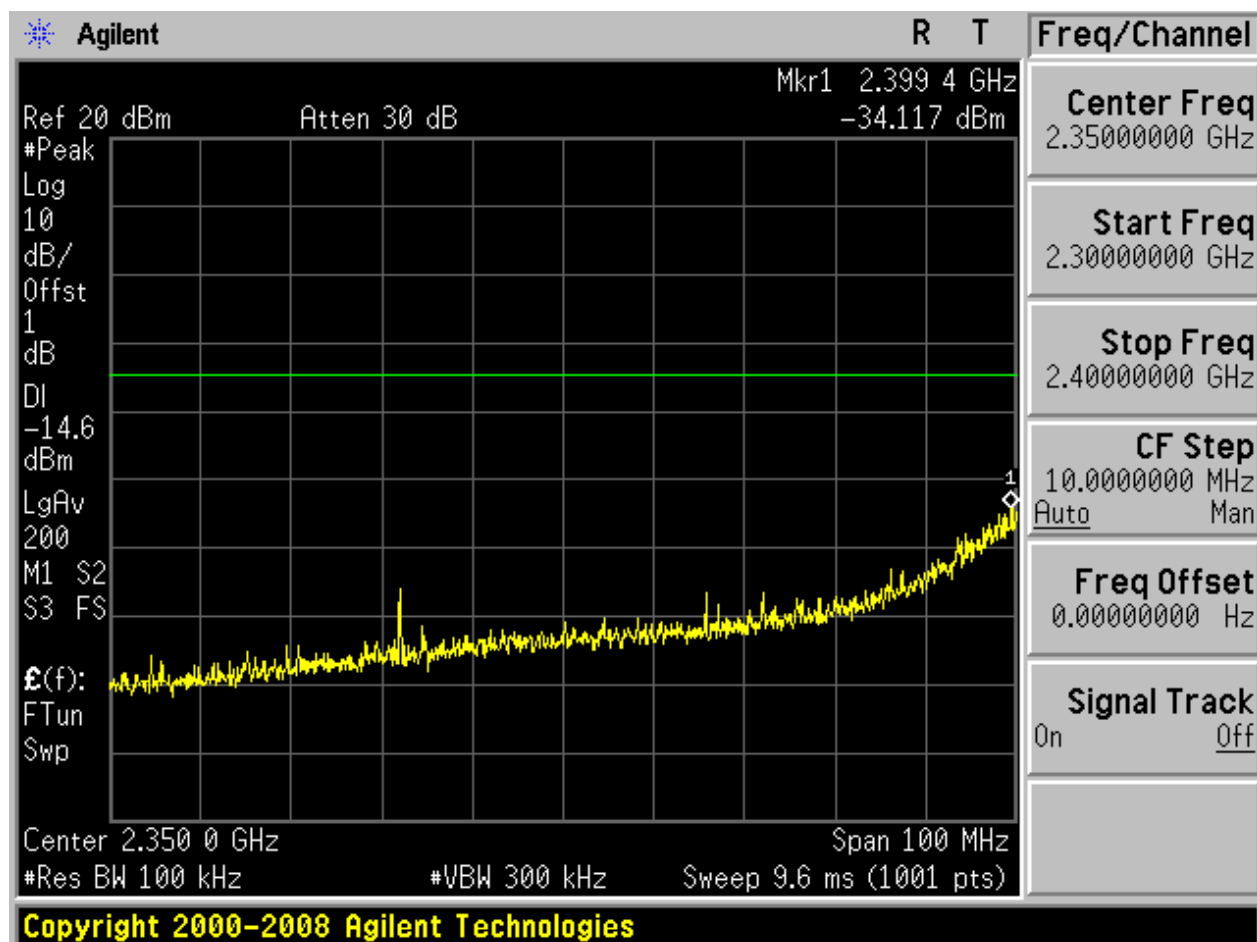
Center 79.500 kHz Span 141 kHz

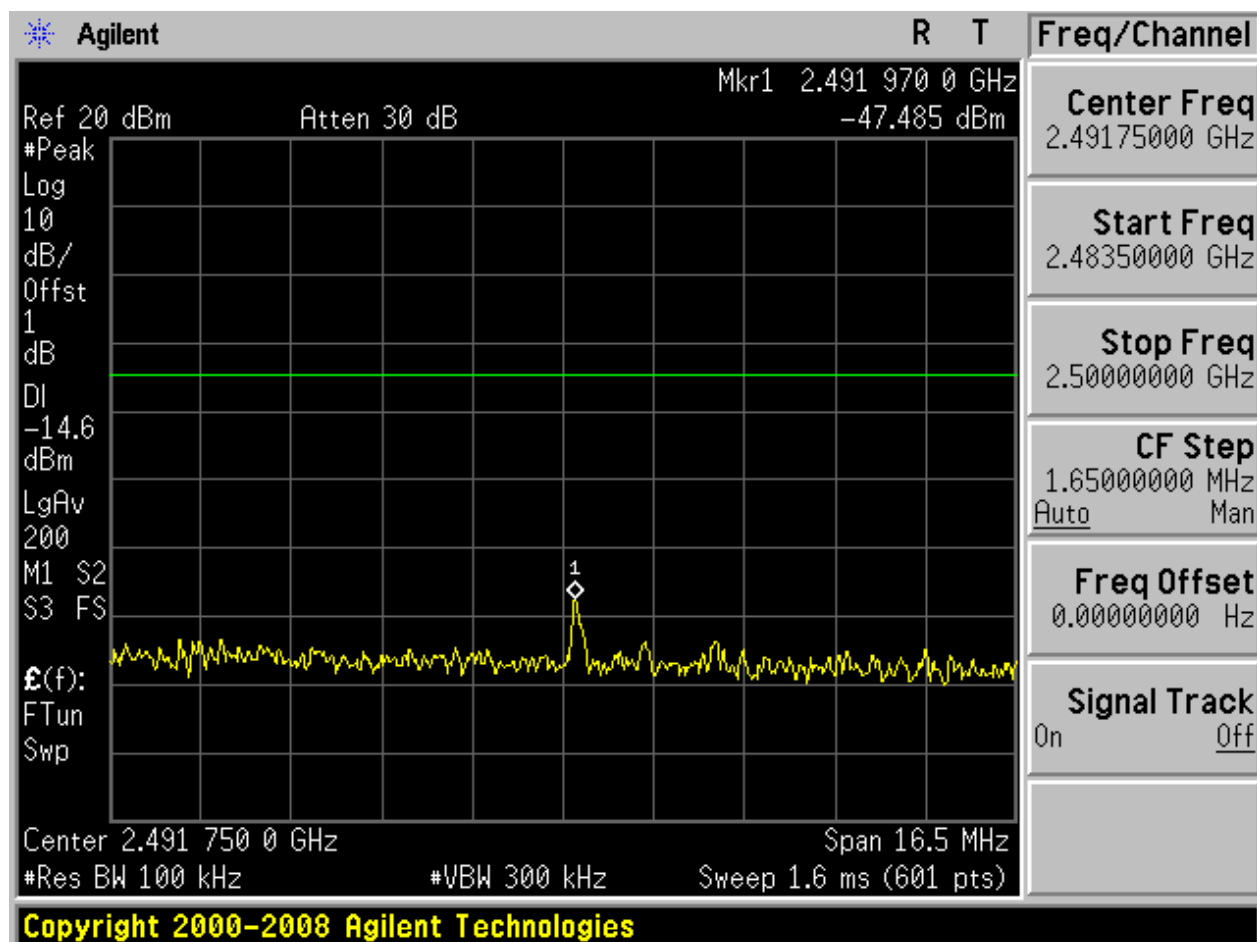
#Res BW 1 kHz #VBW 3 kHz Sweep 134.8 ms (601 pts)

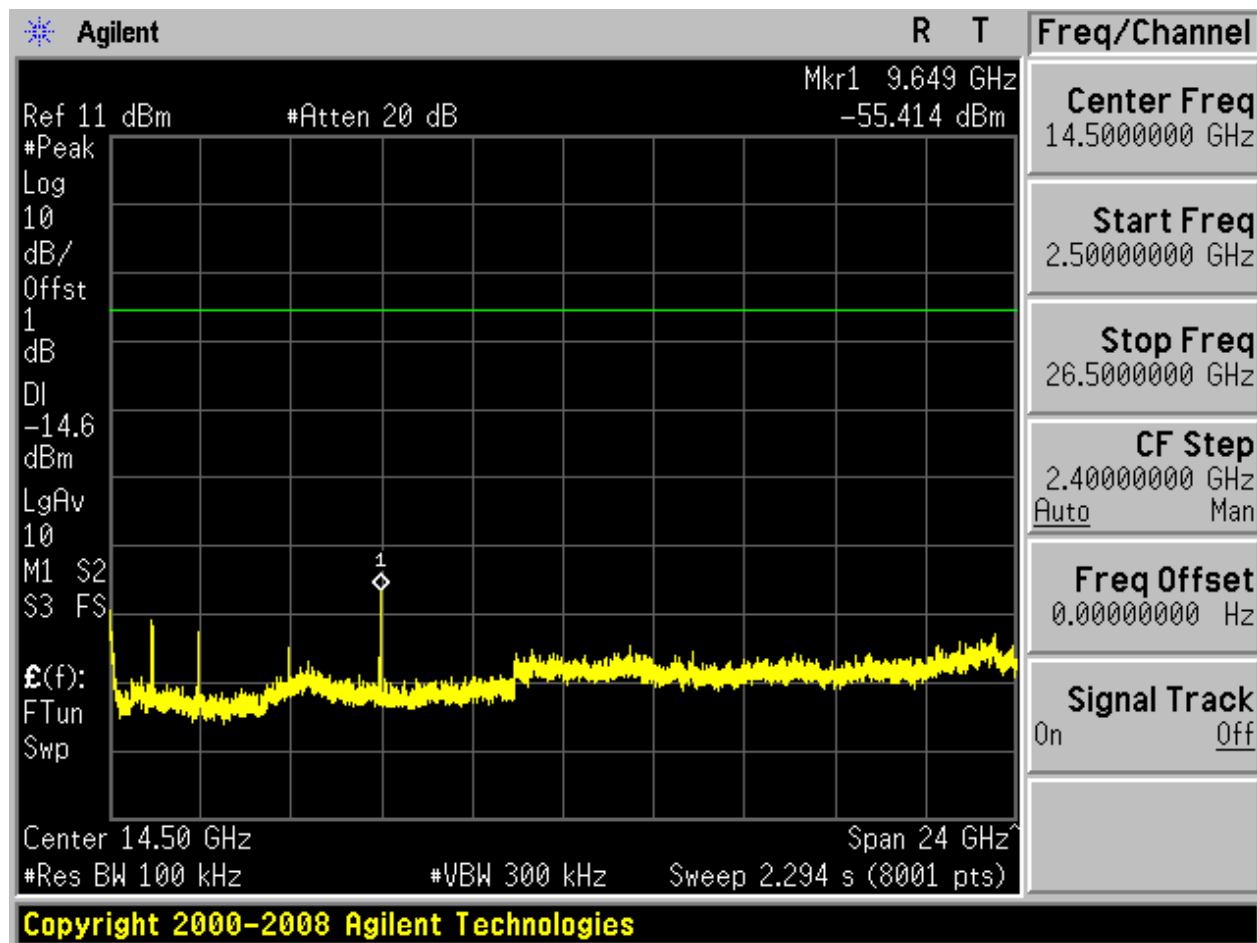
Copyright 2000-2008 Agilent Technologies







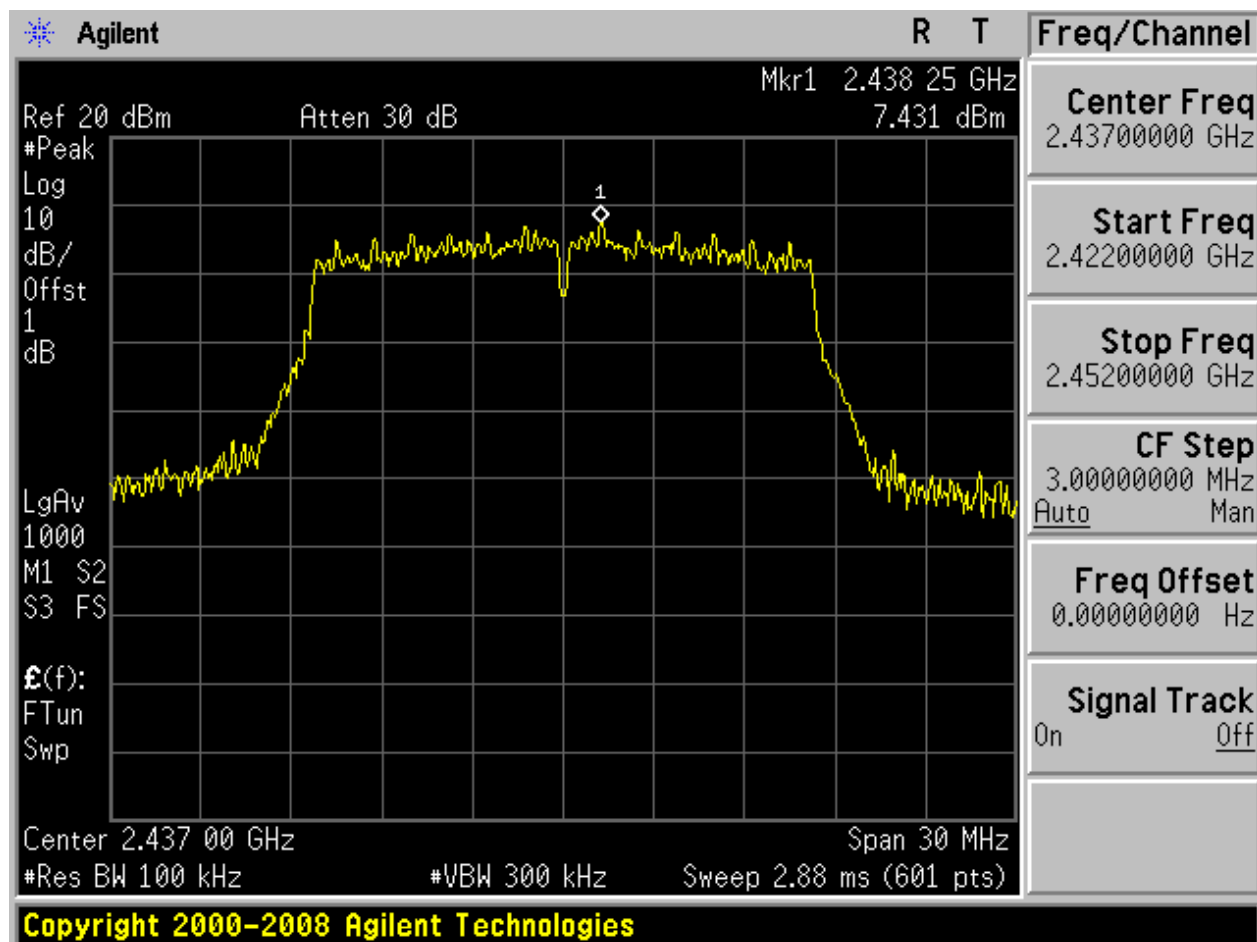






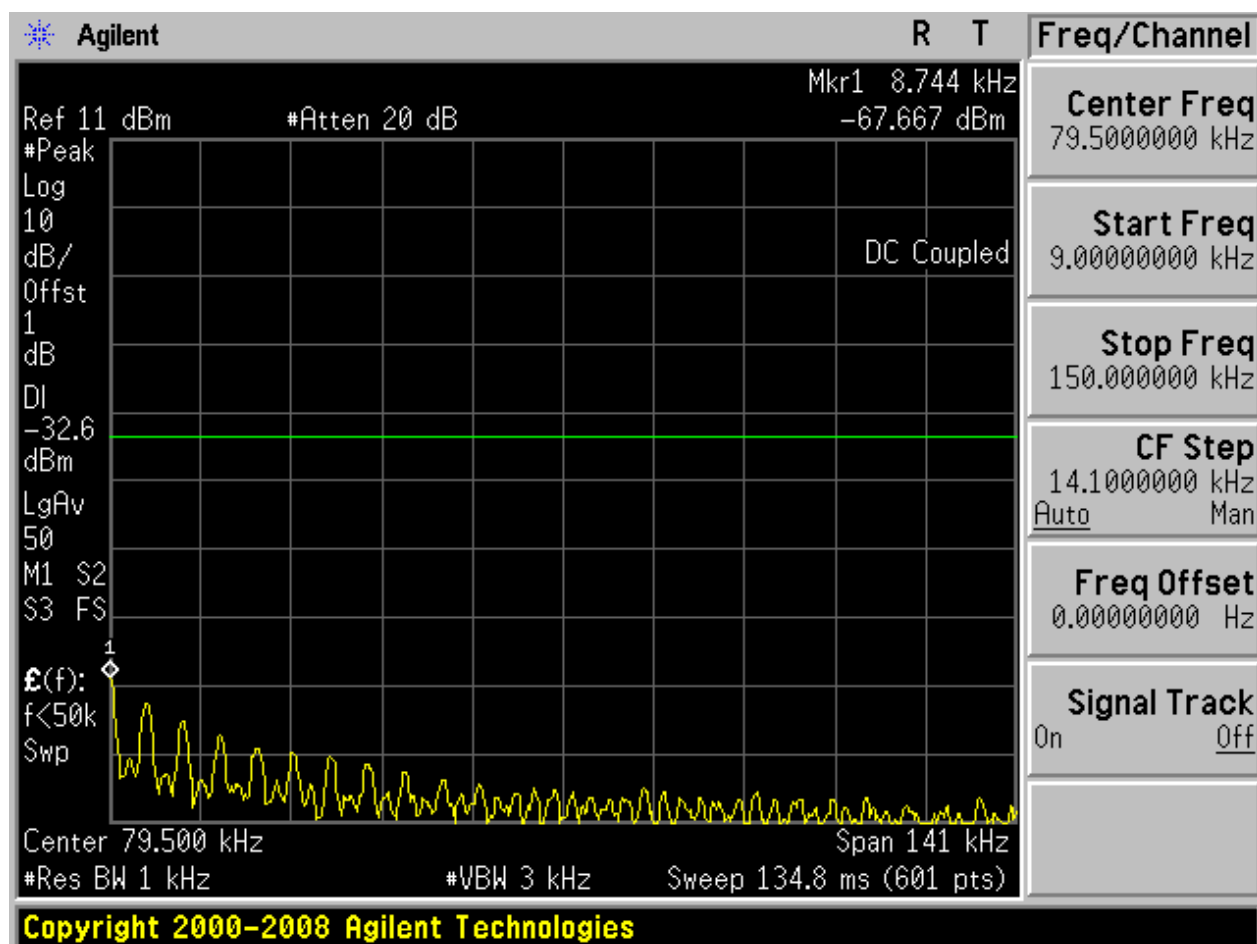
2.9 11G_M

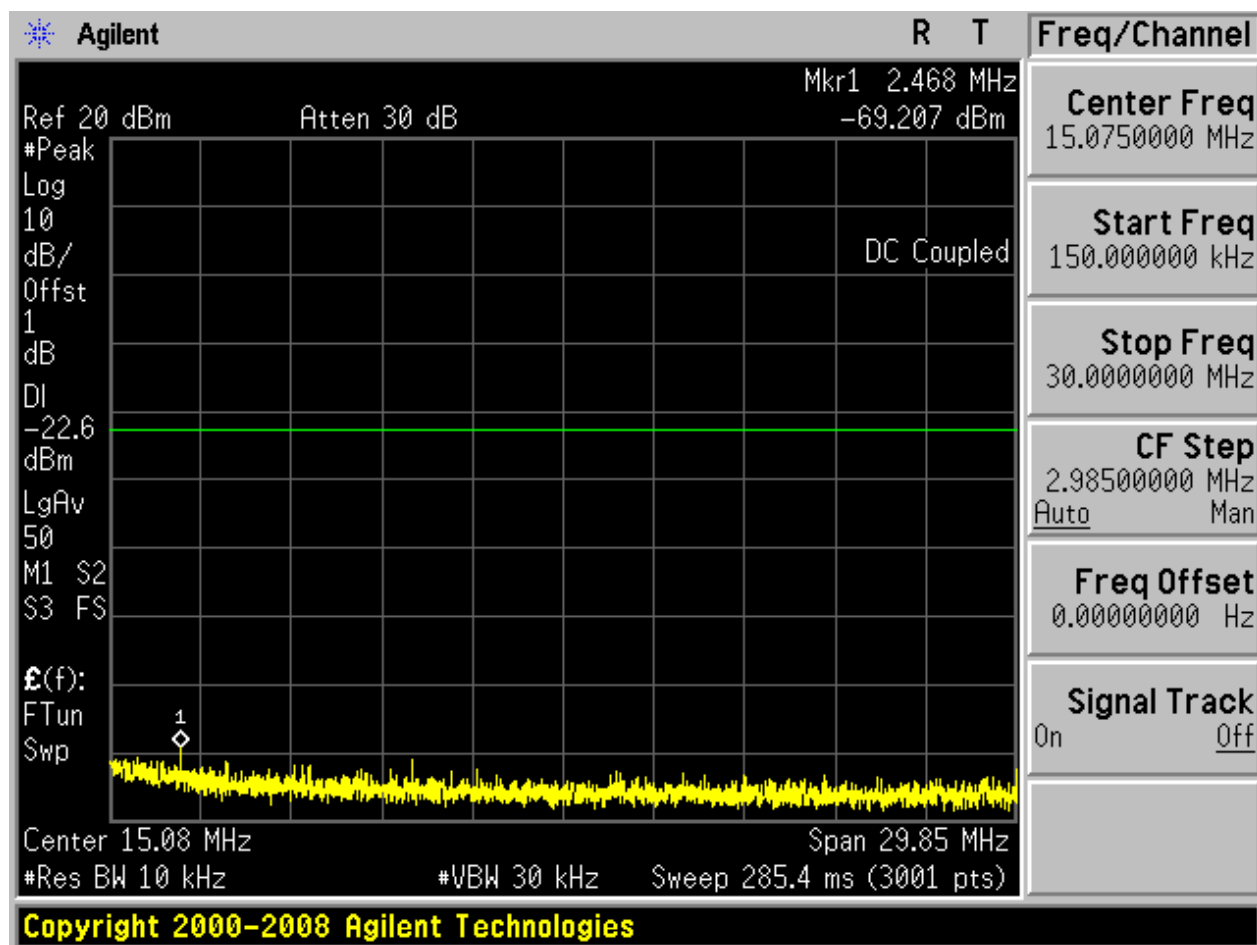
Pref:

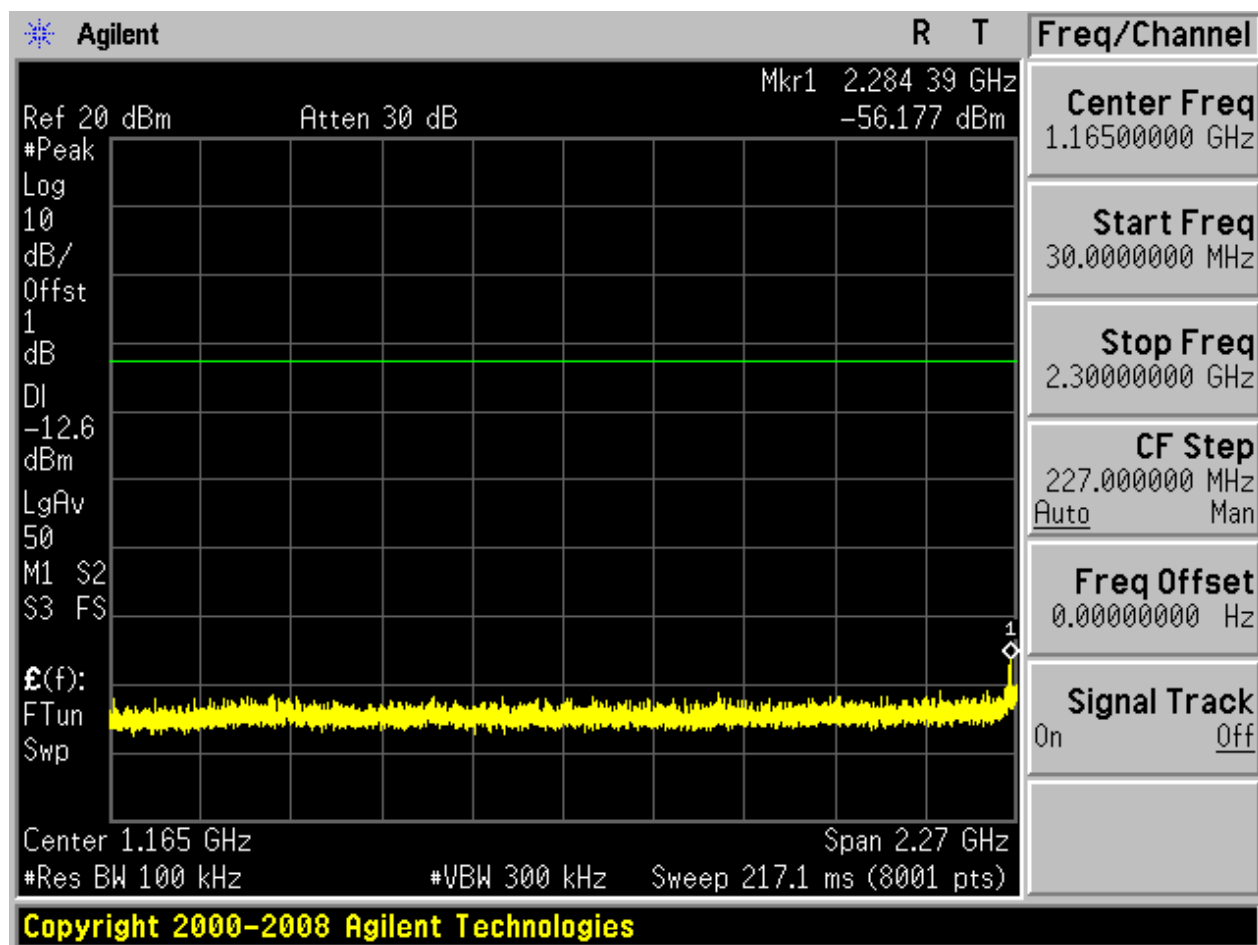


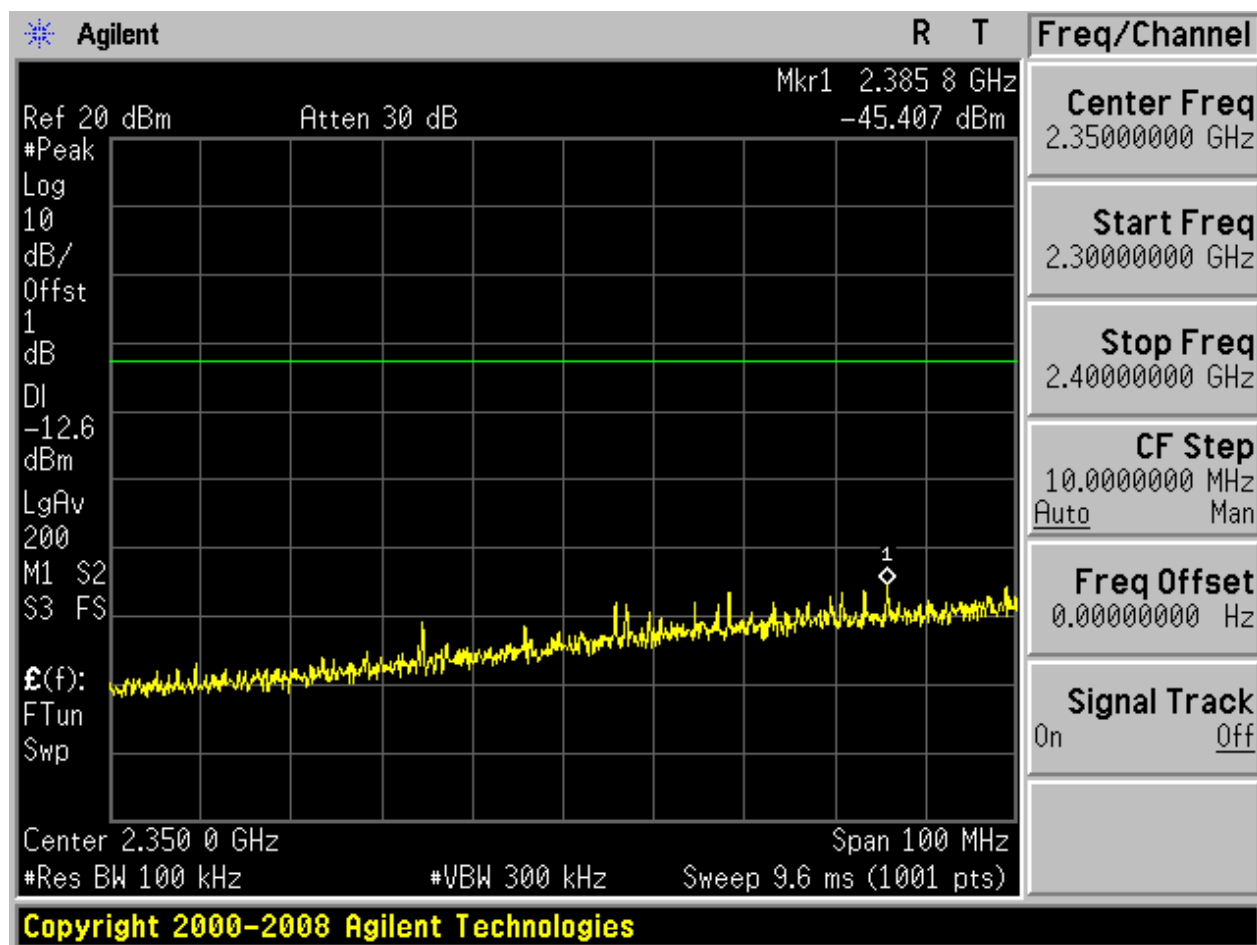


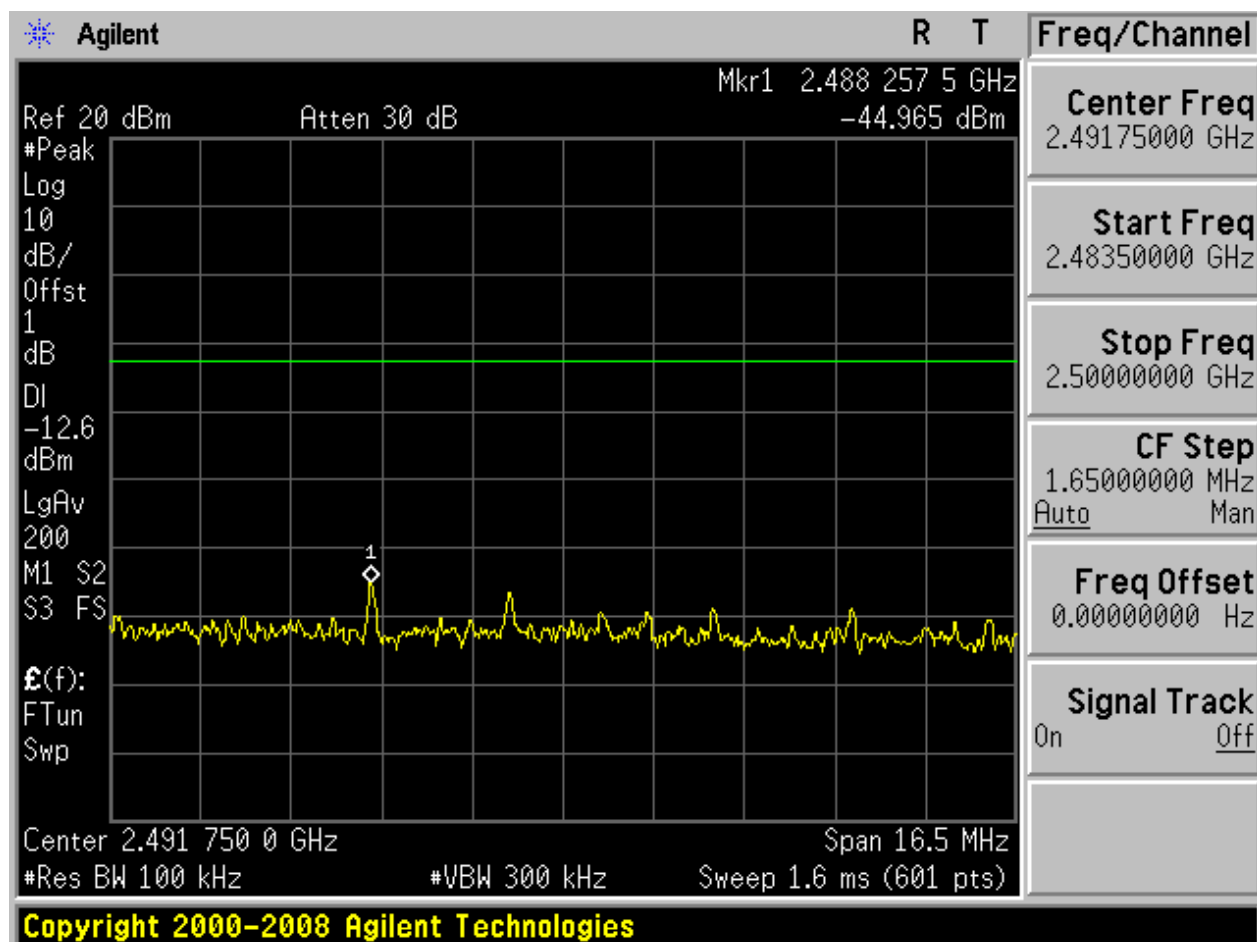
Puw:

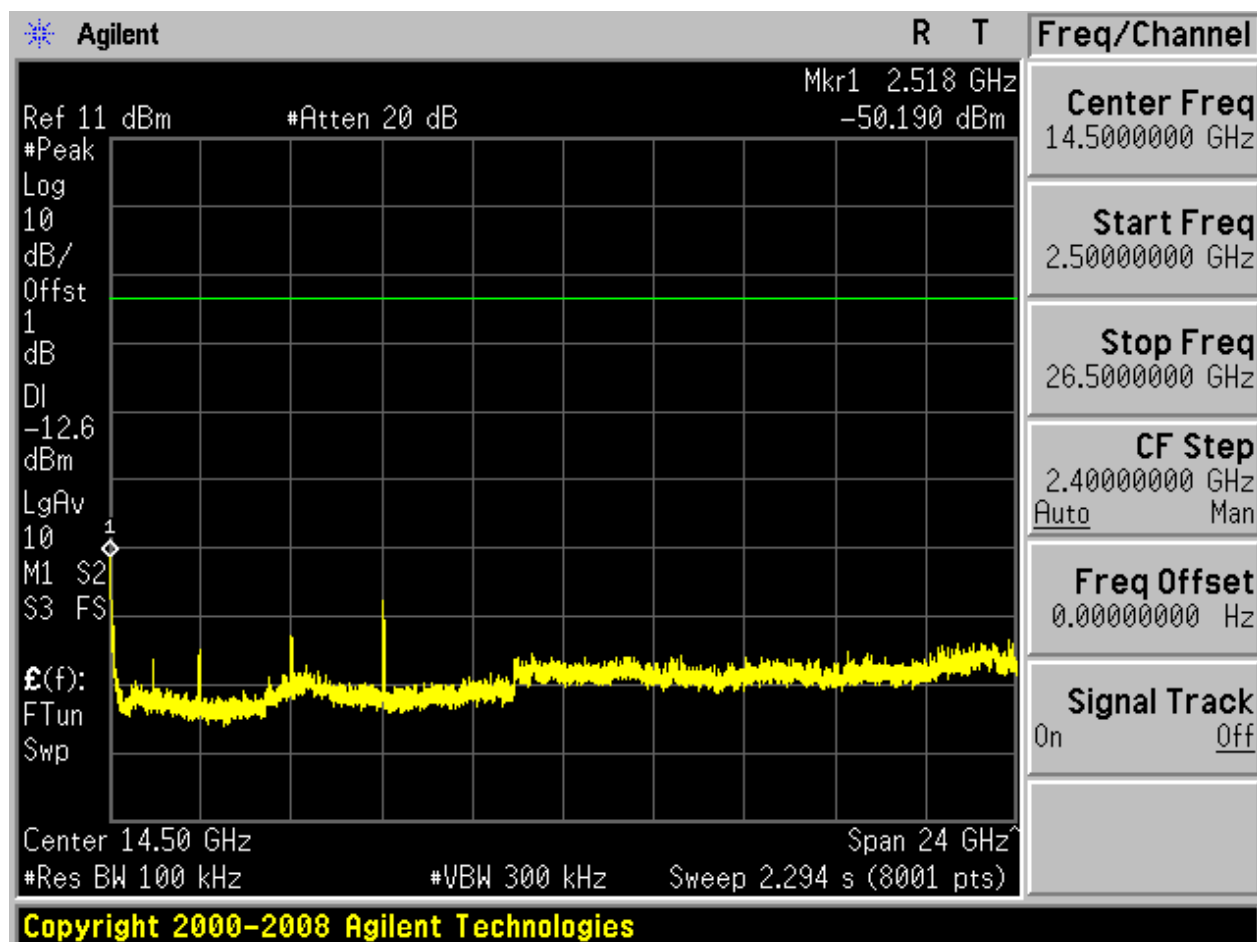








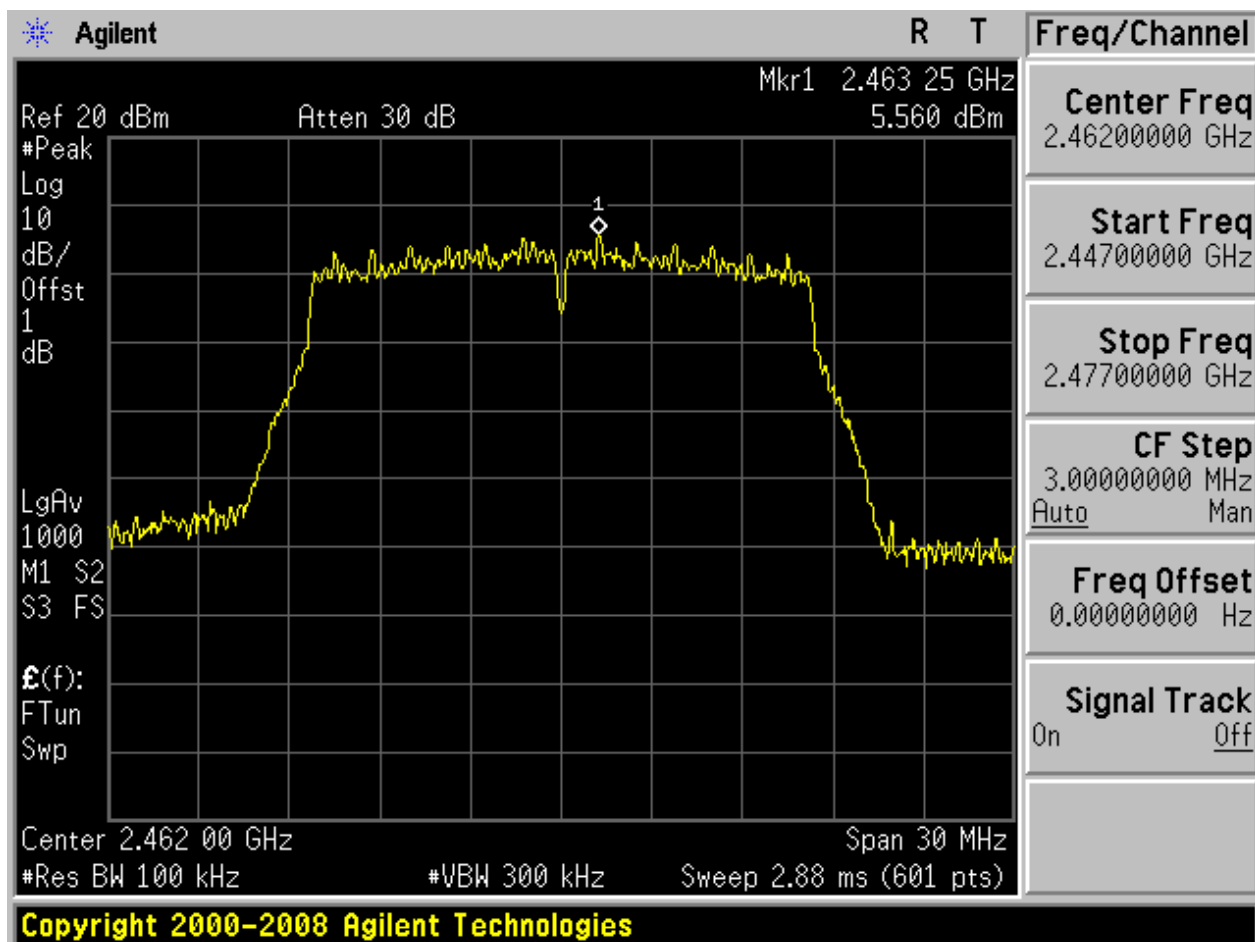






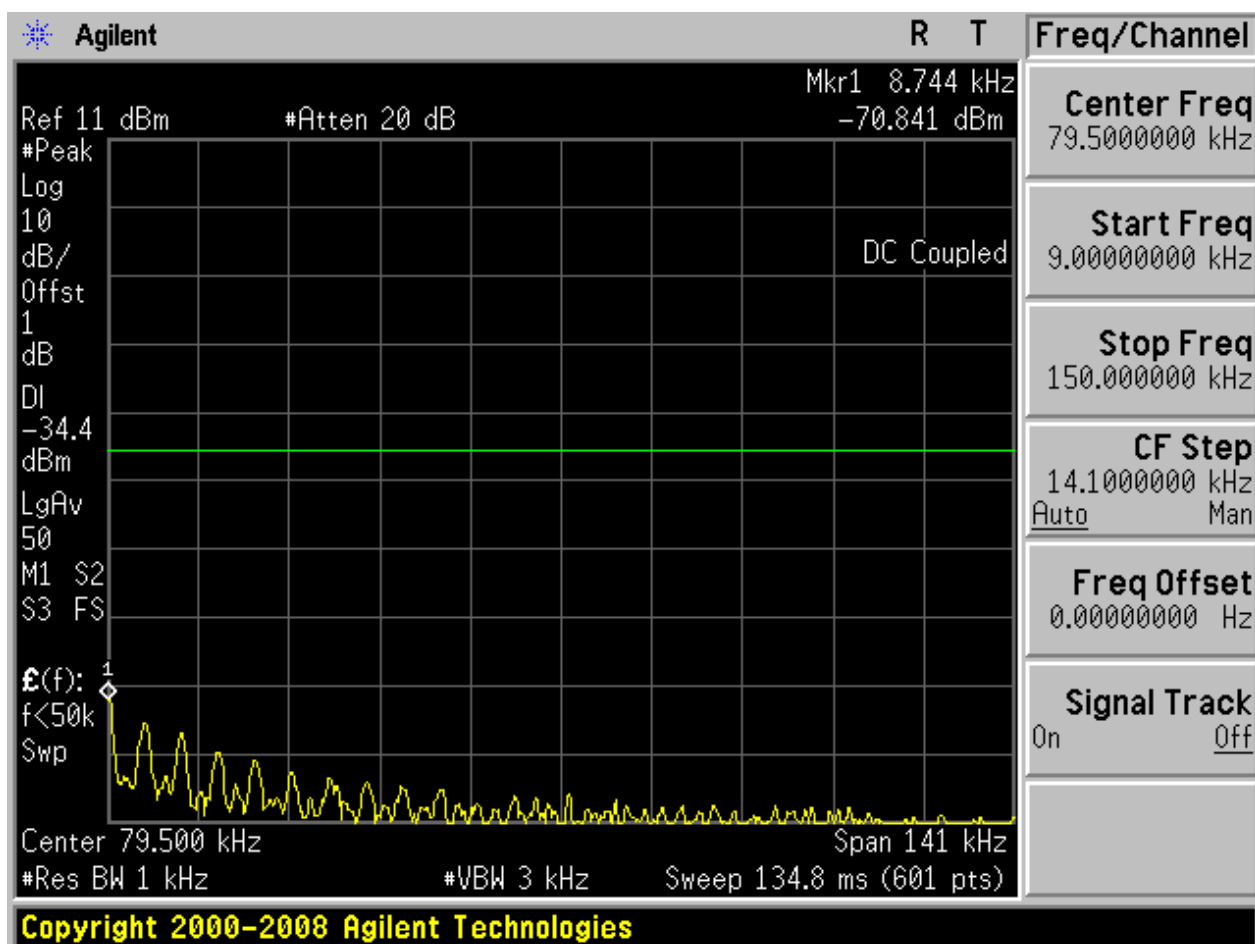
2.11 11G_H

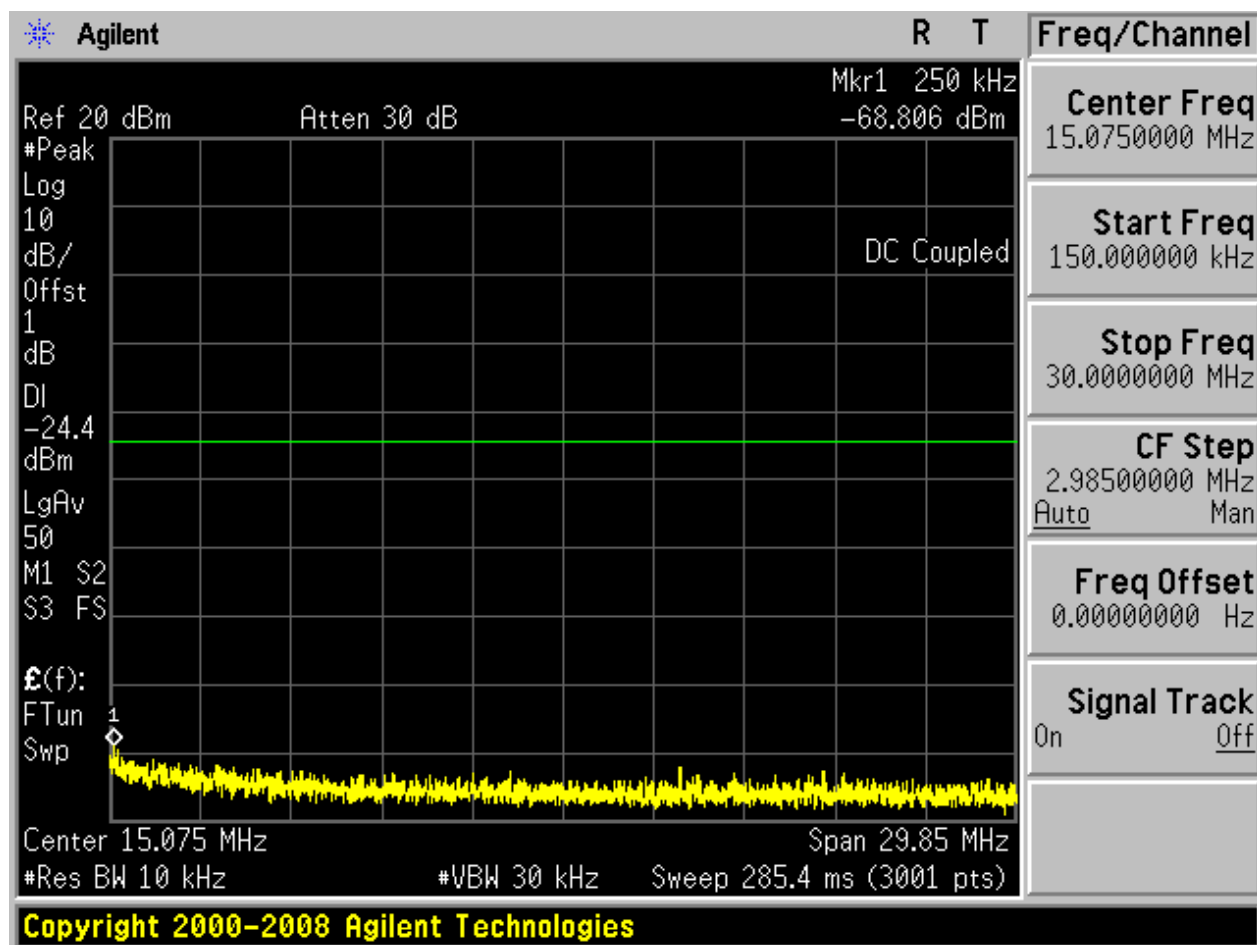
Pref:

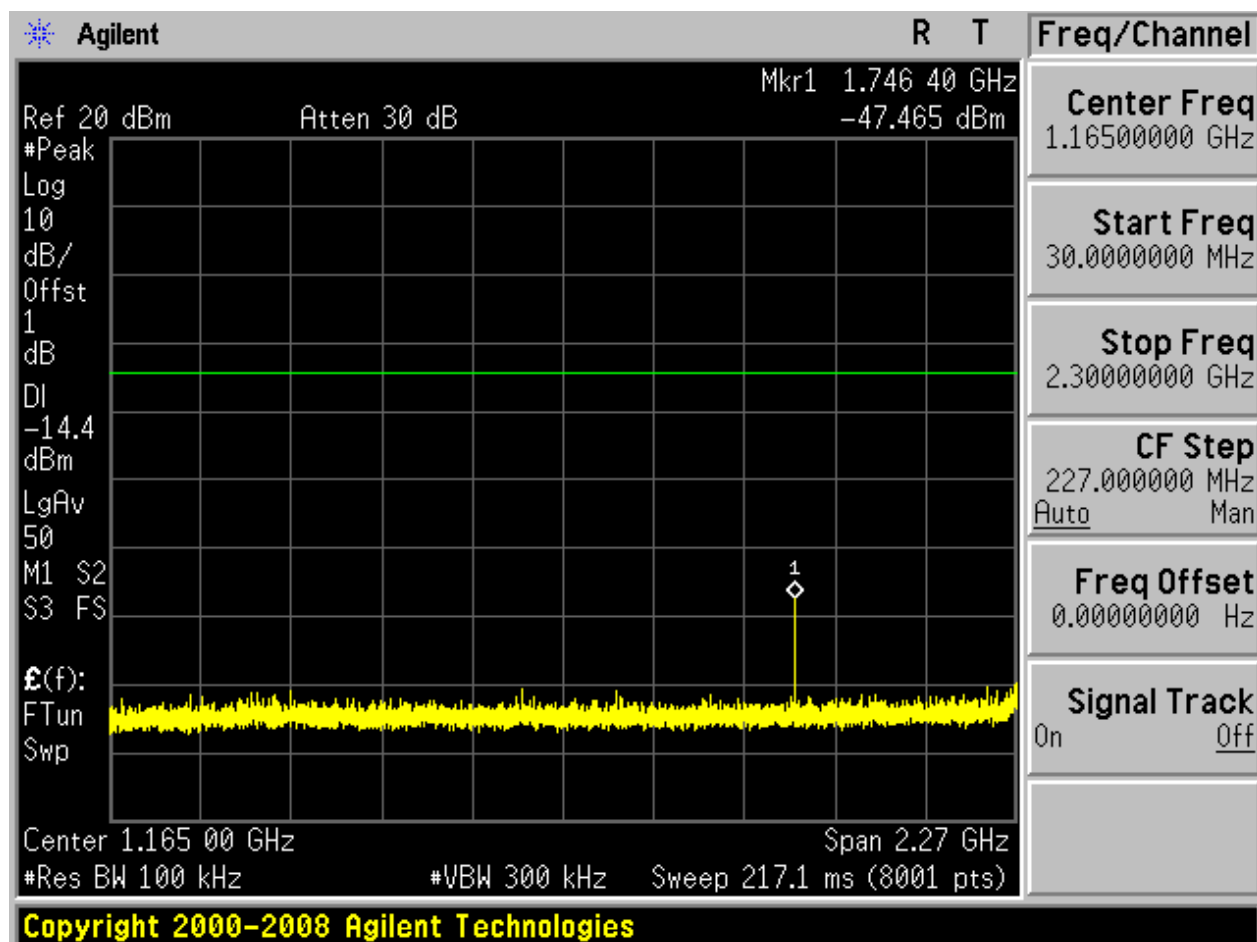


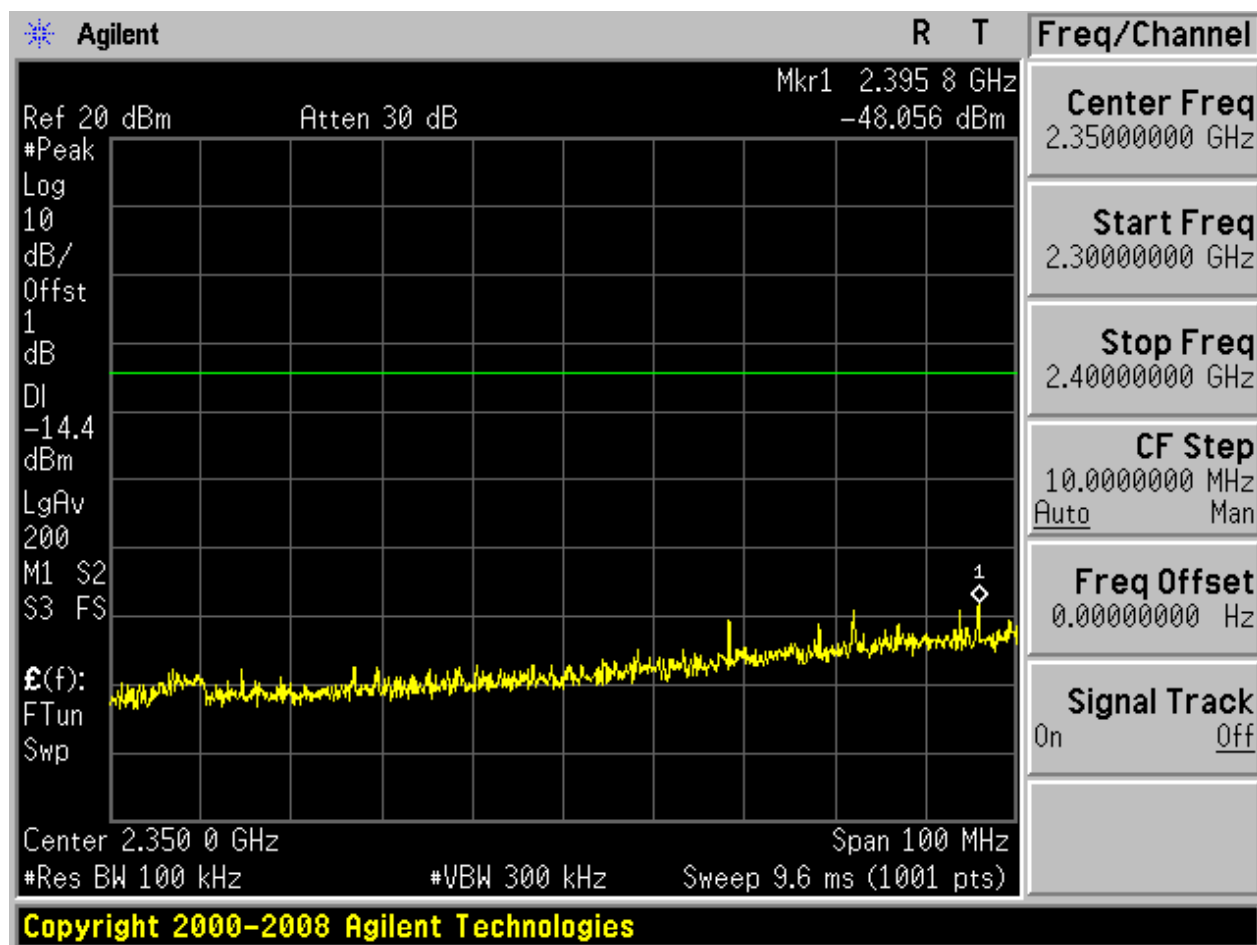


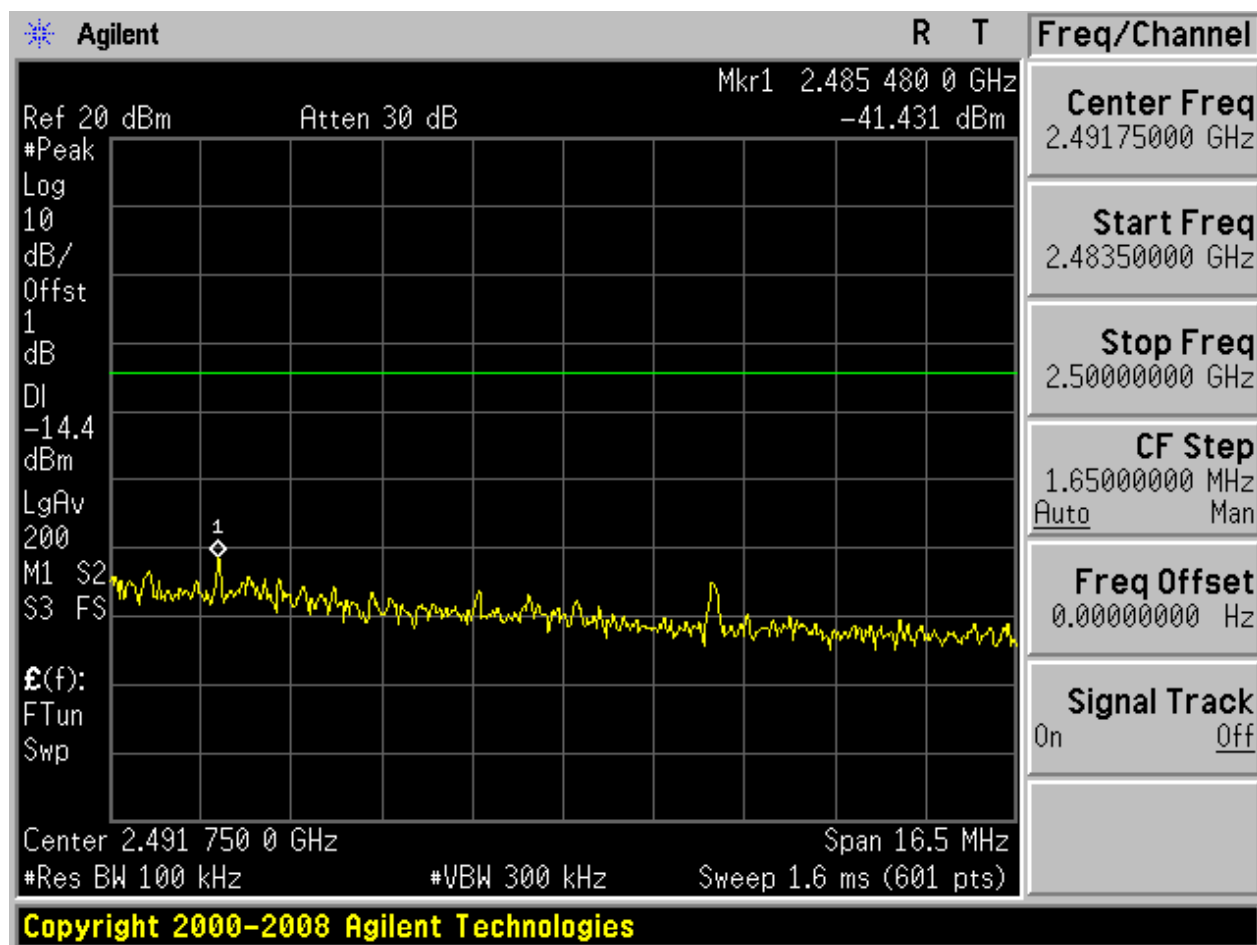
Puw:

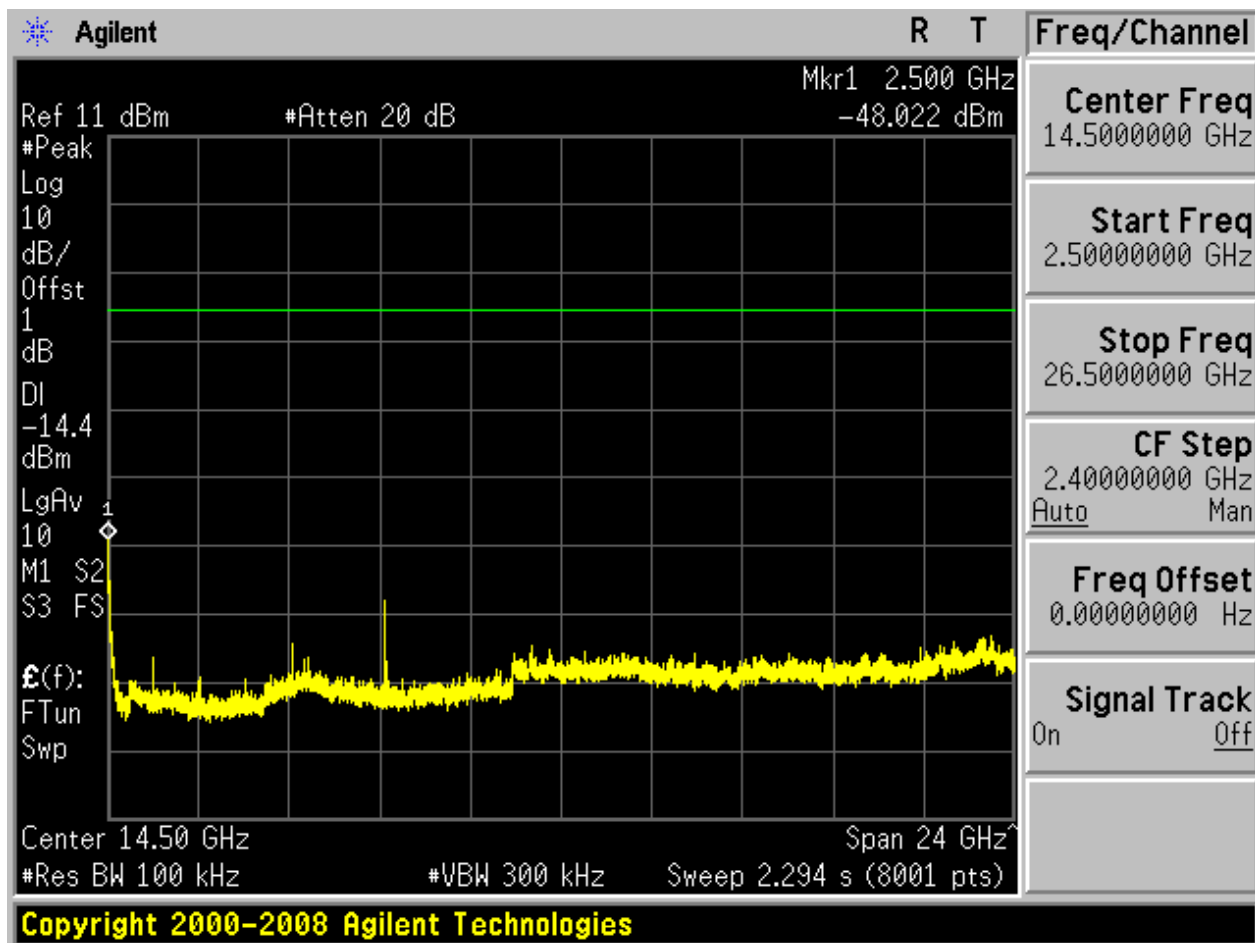








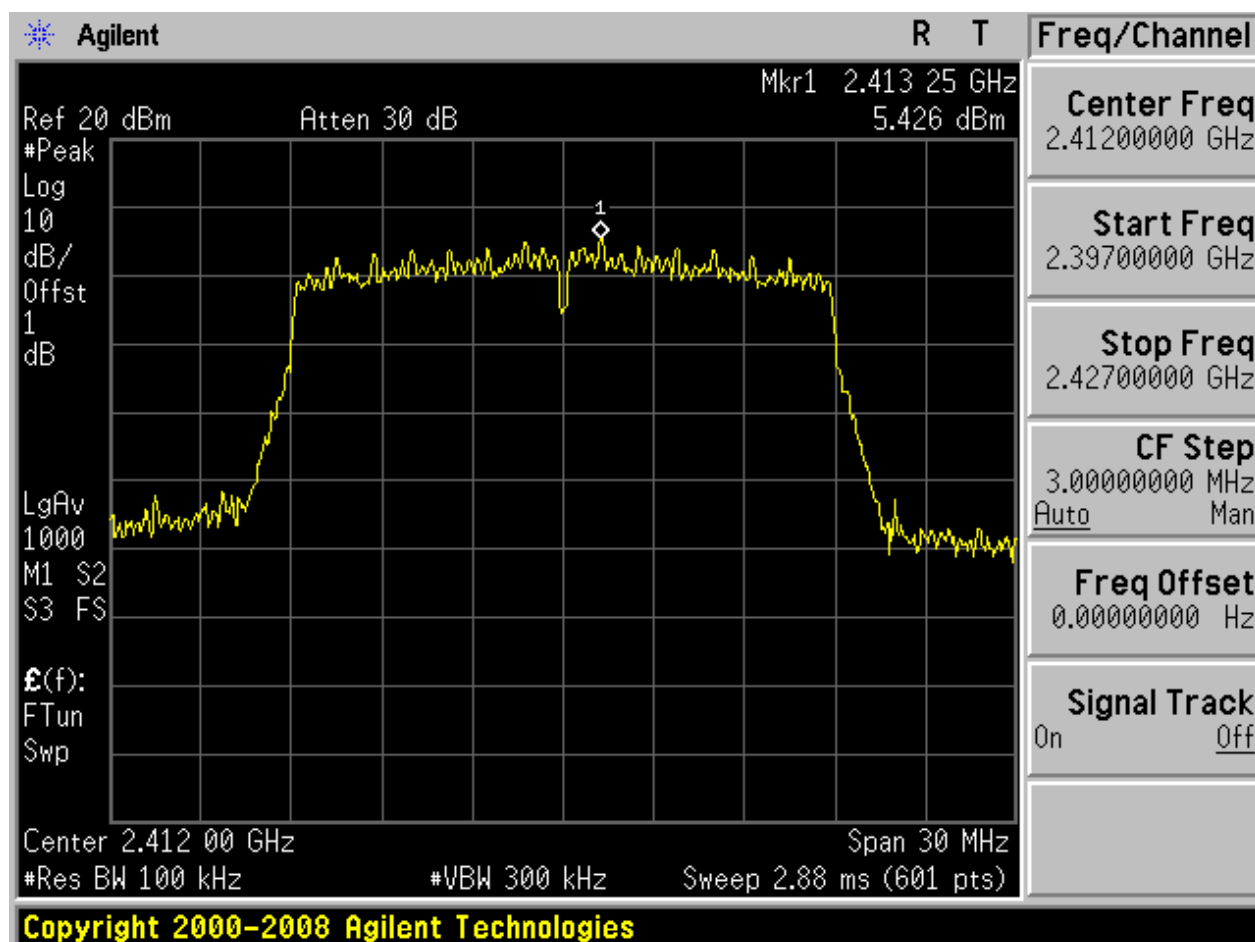






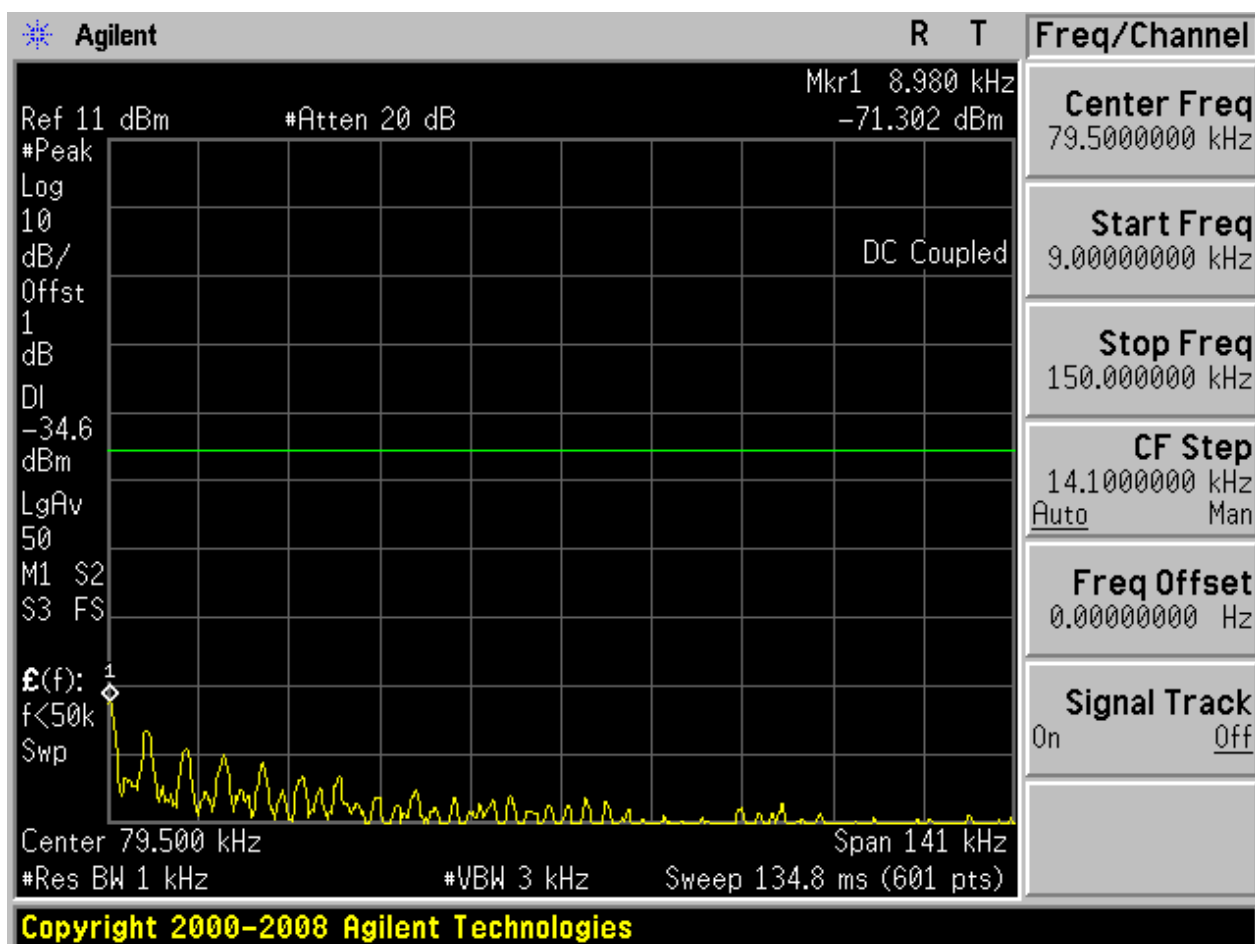
2.13 11N20_L

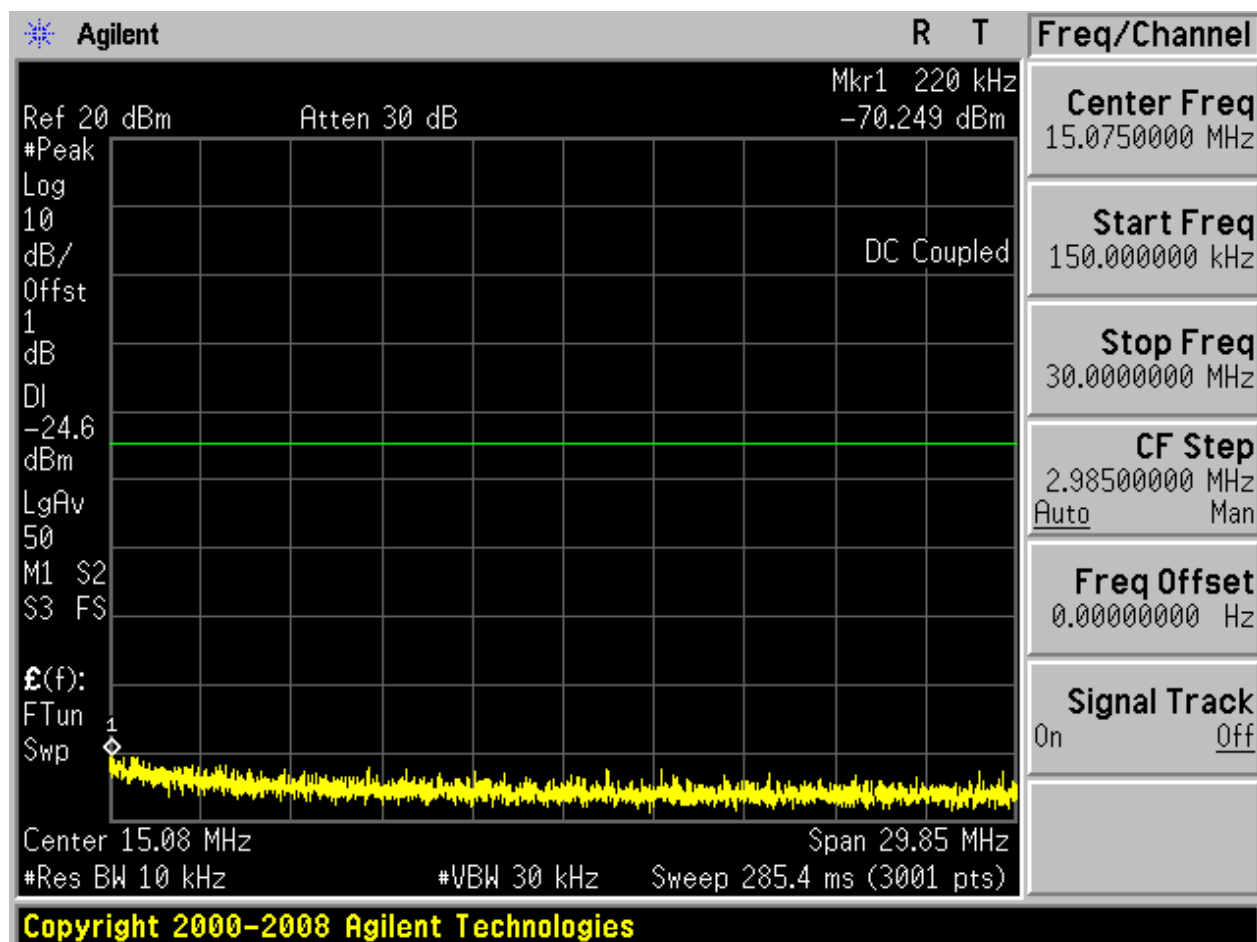
Pref:

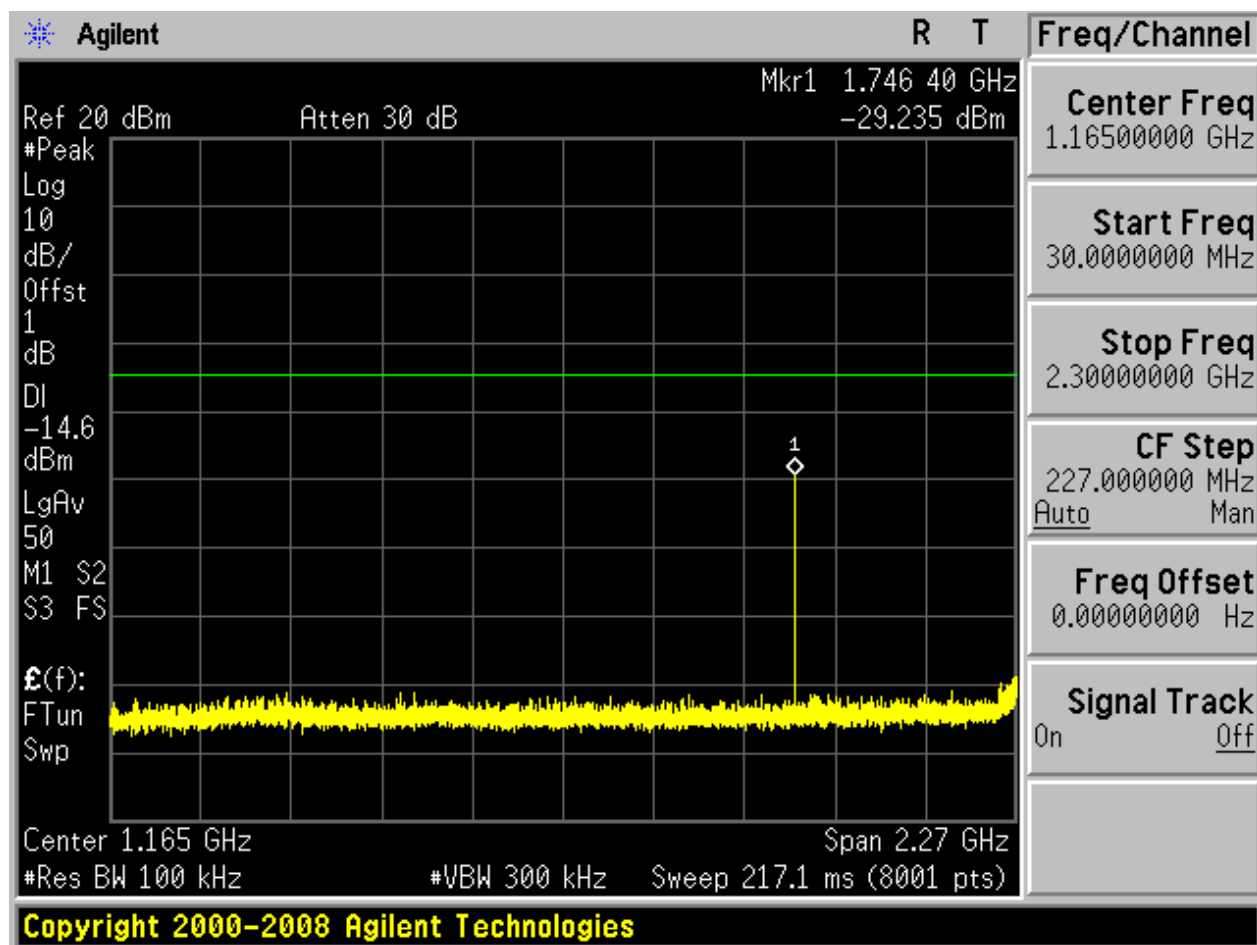


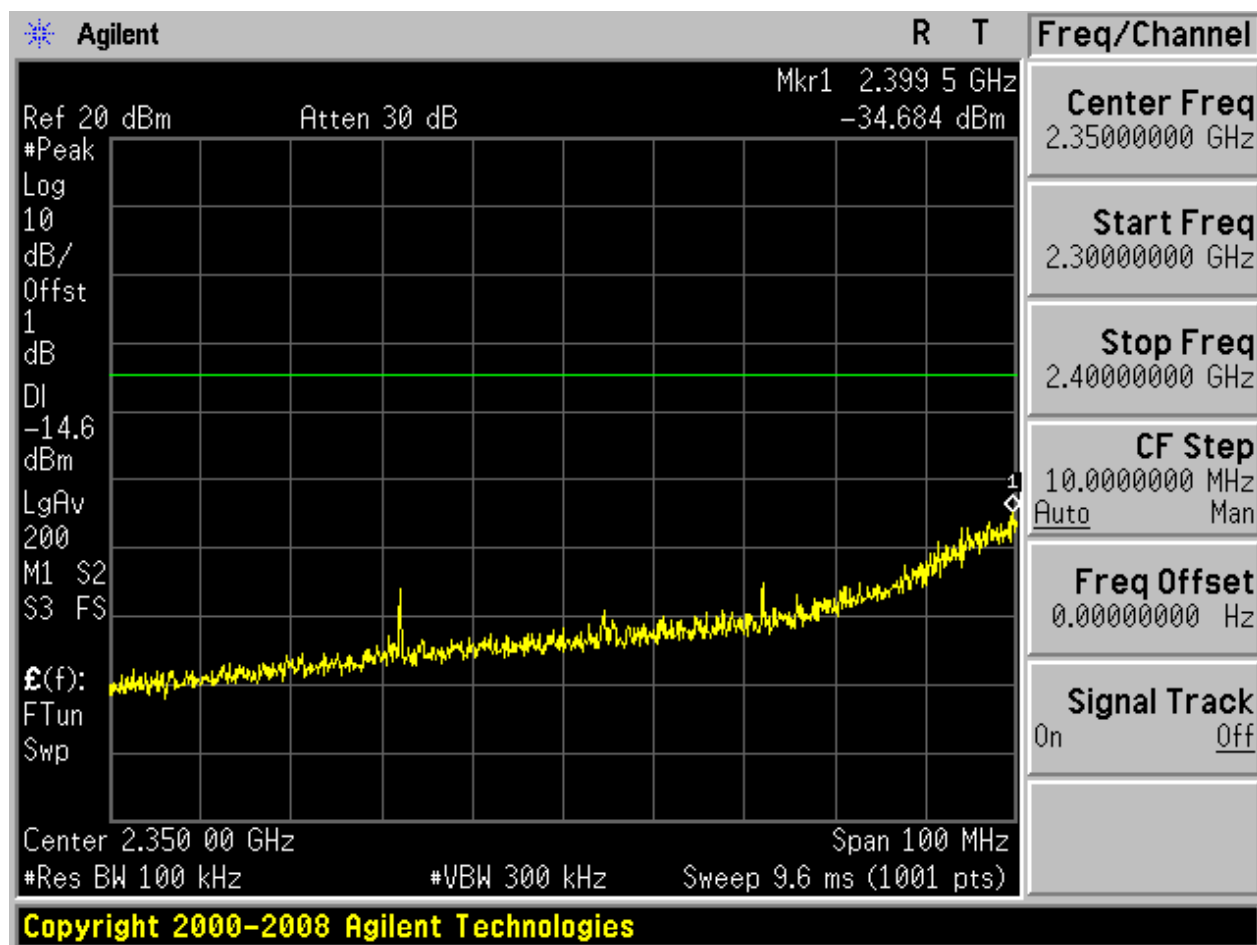


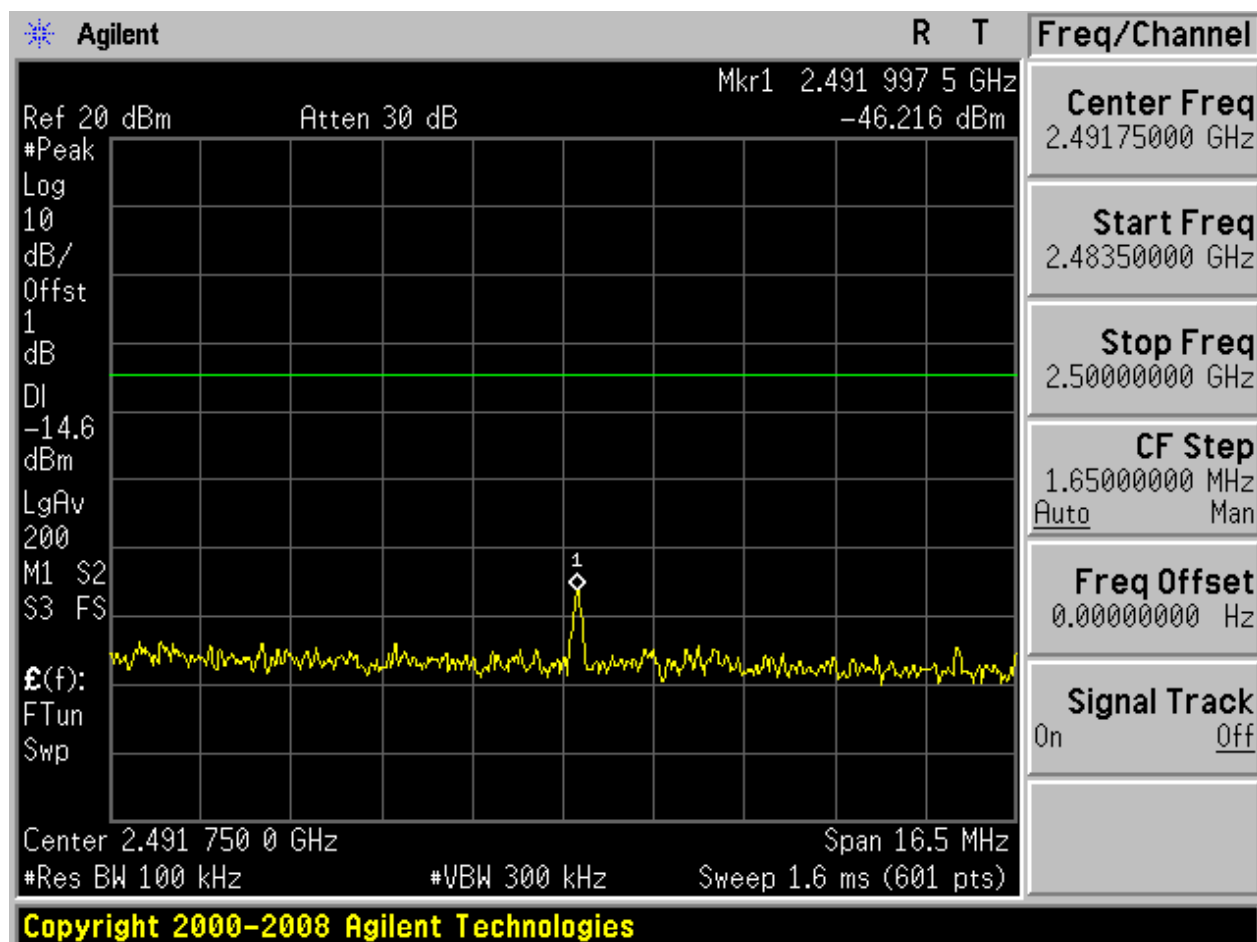
Puw:

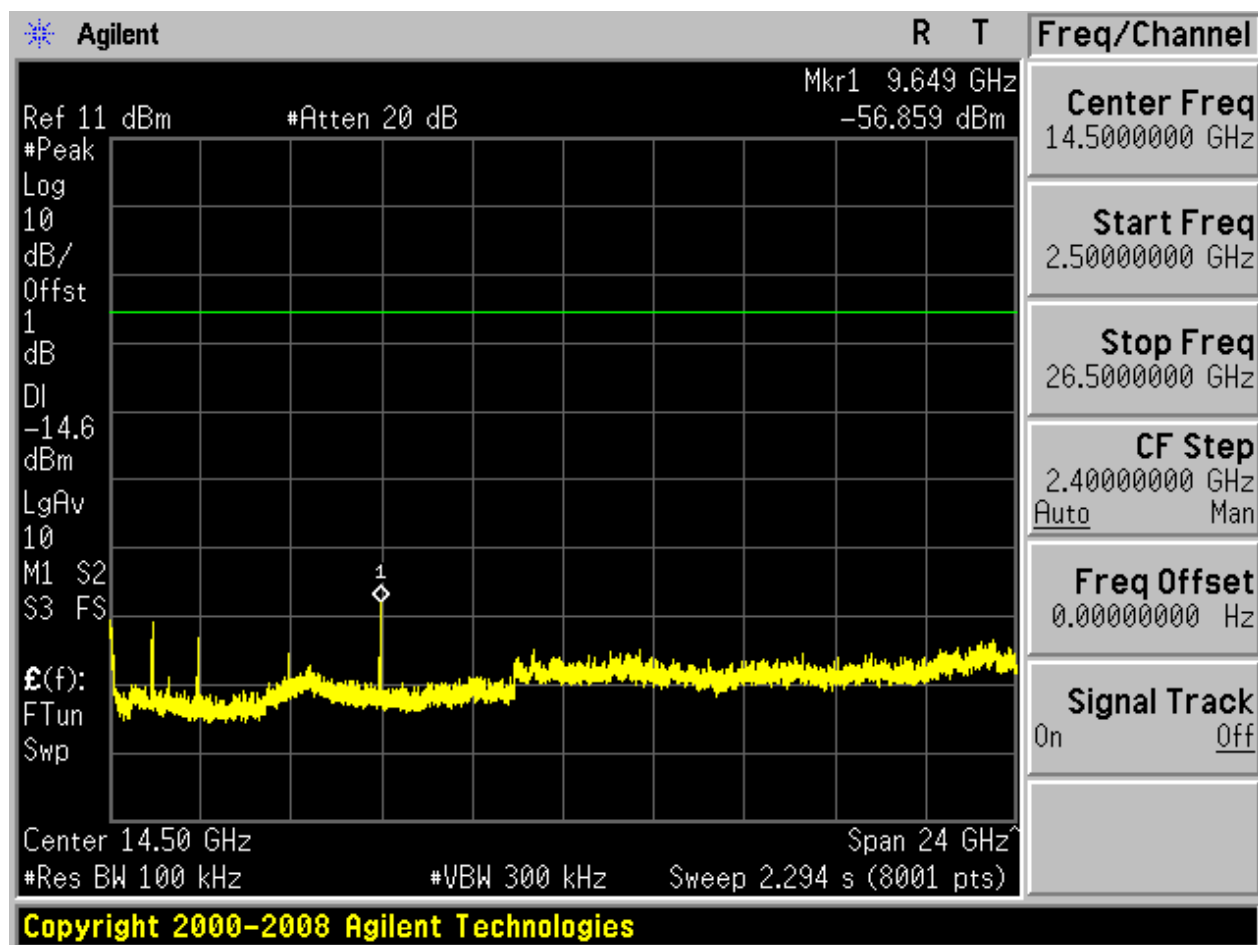








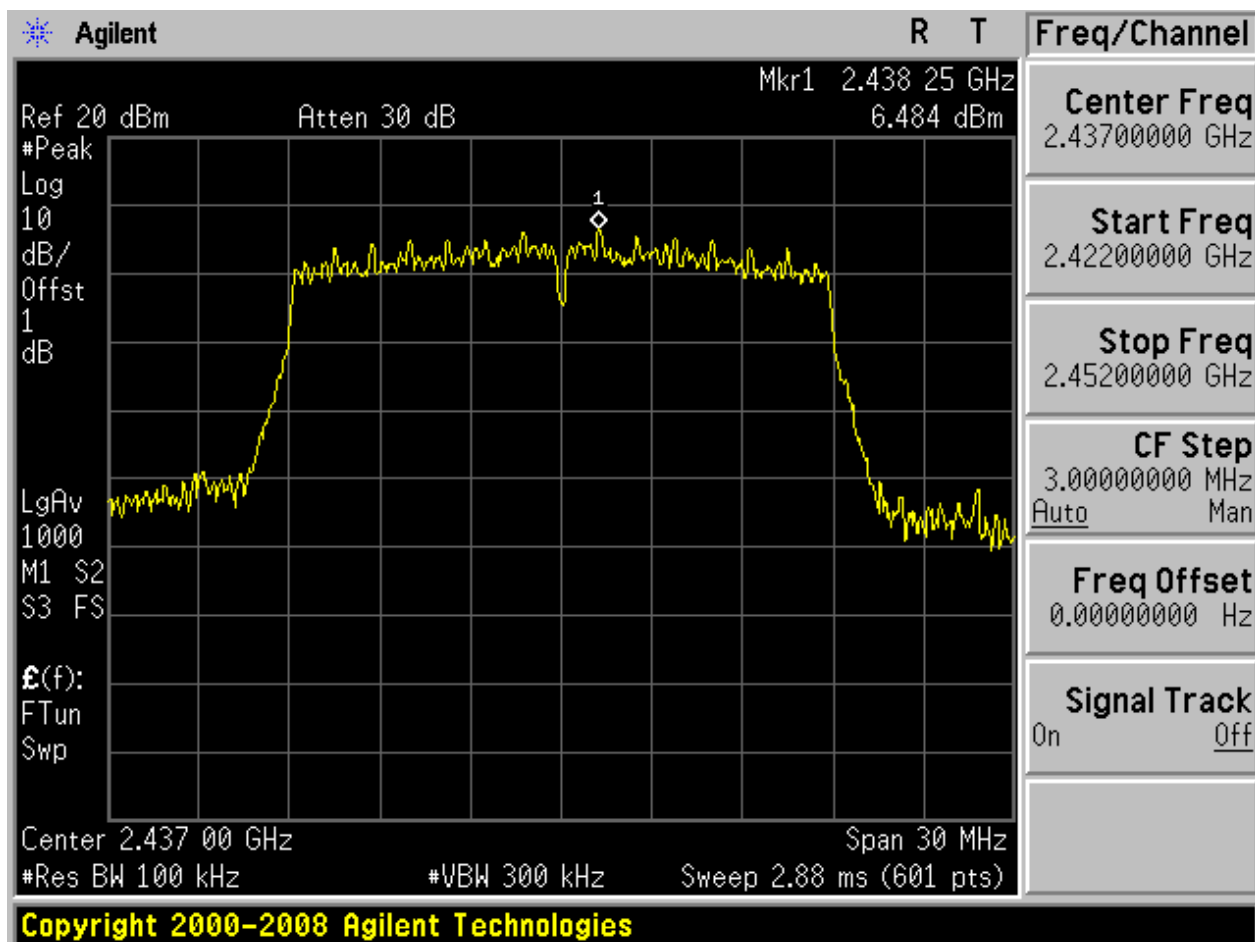






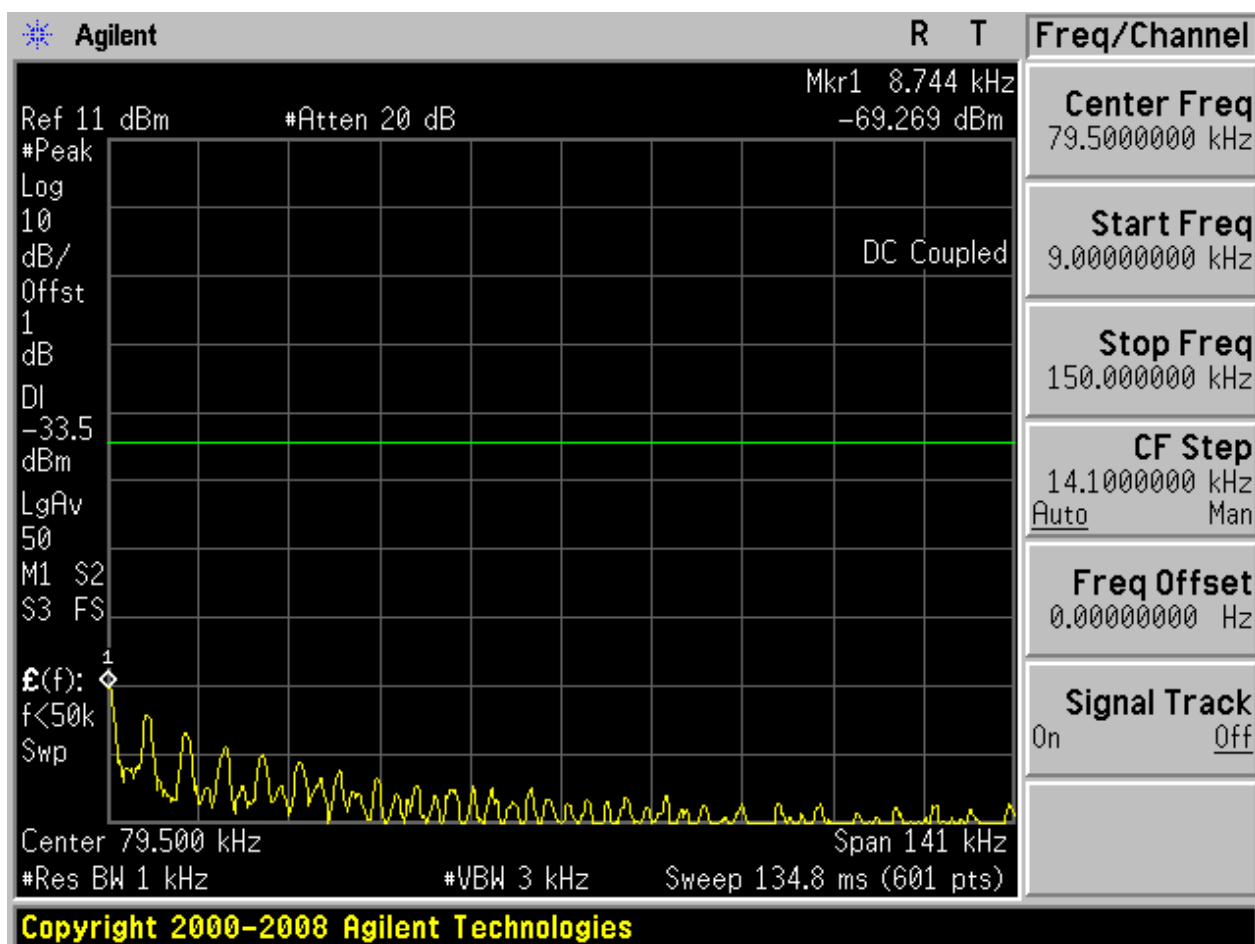
2.15 11N20_M

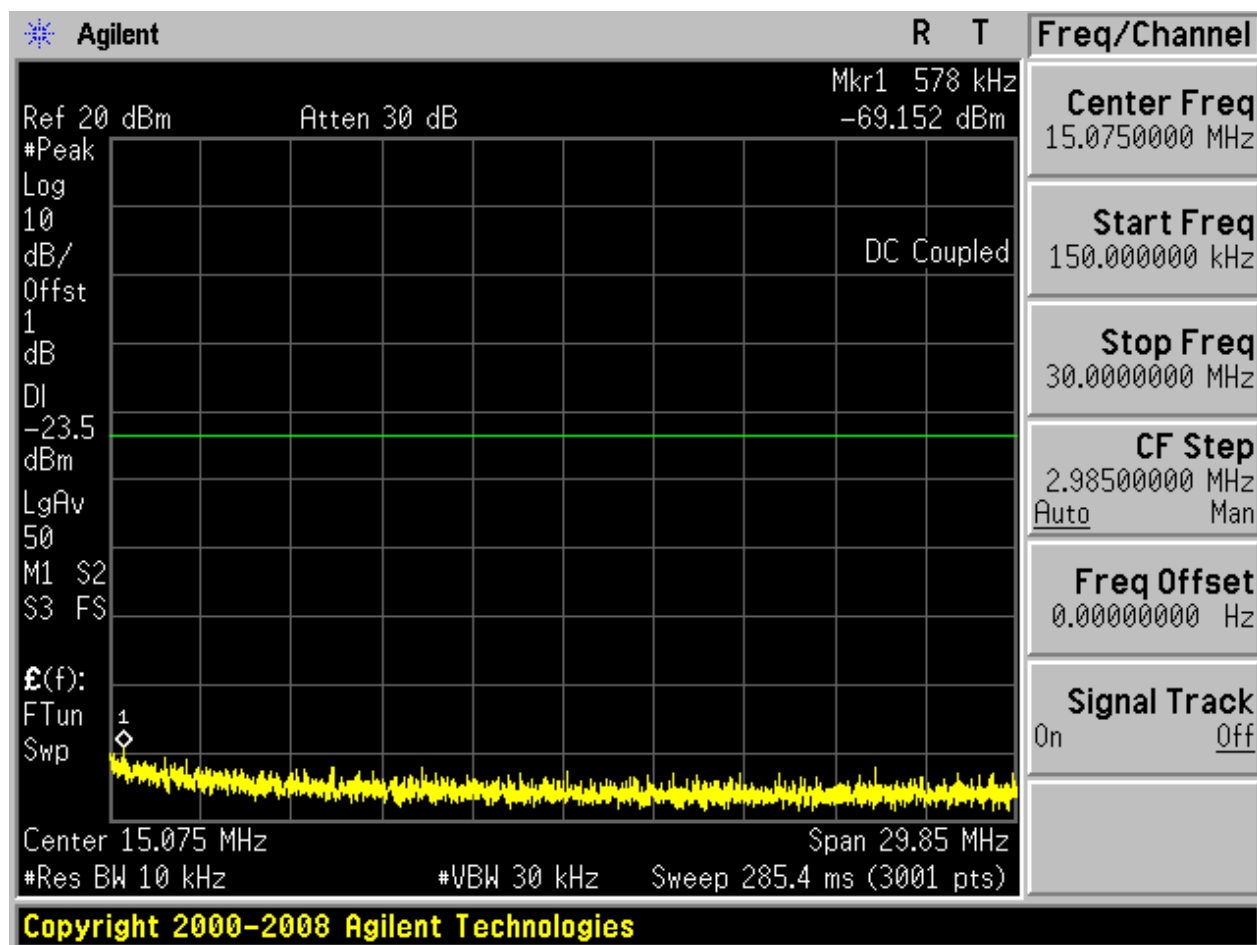
Pref:

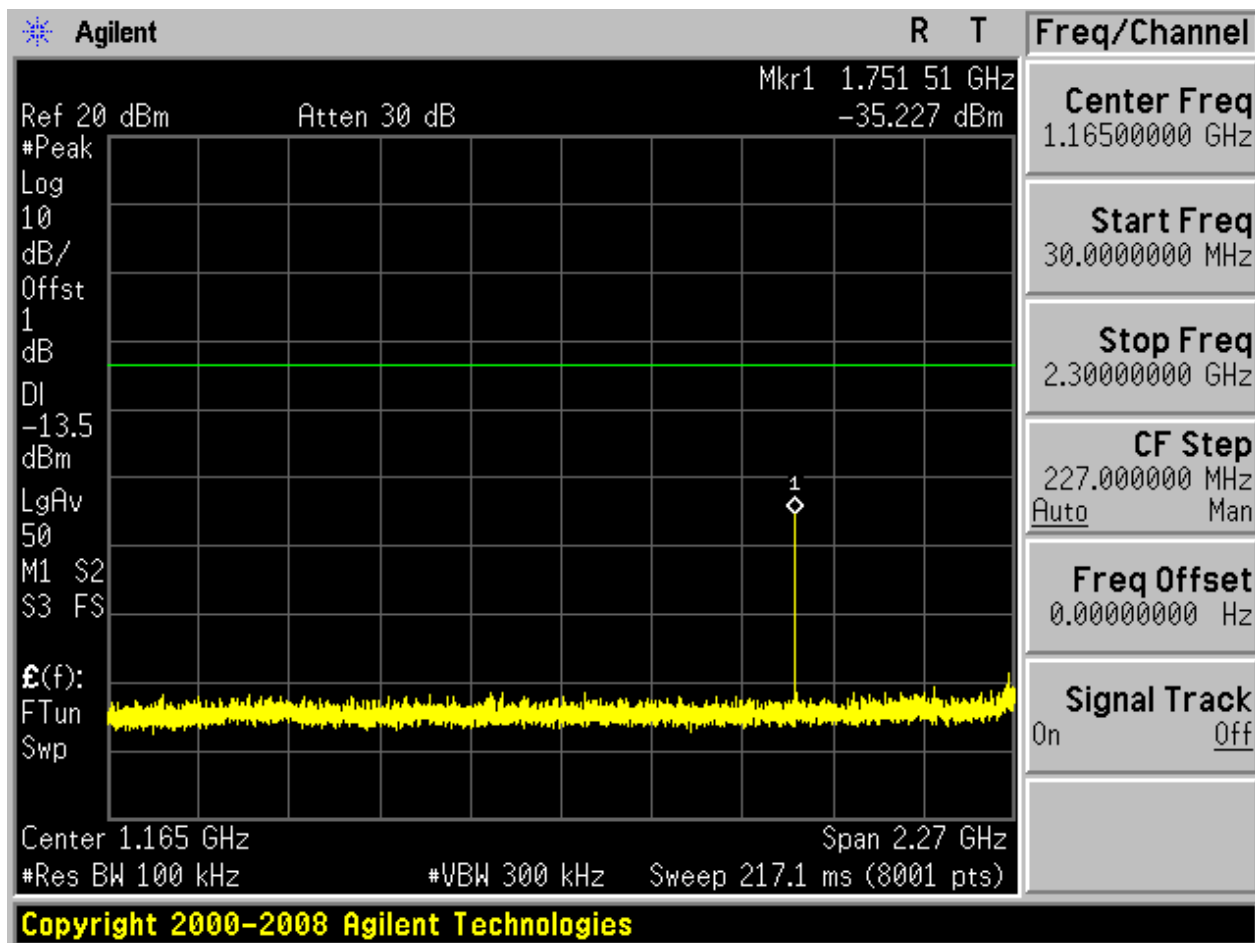


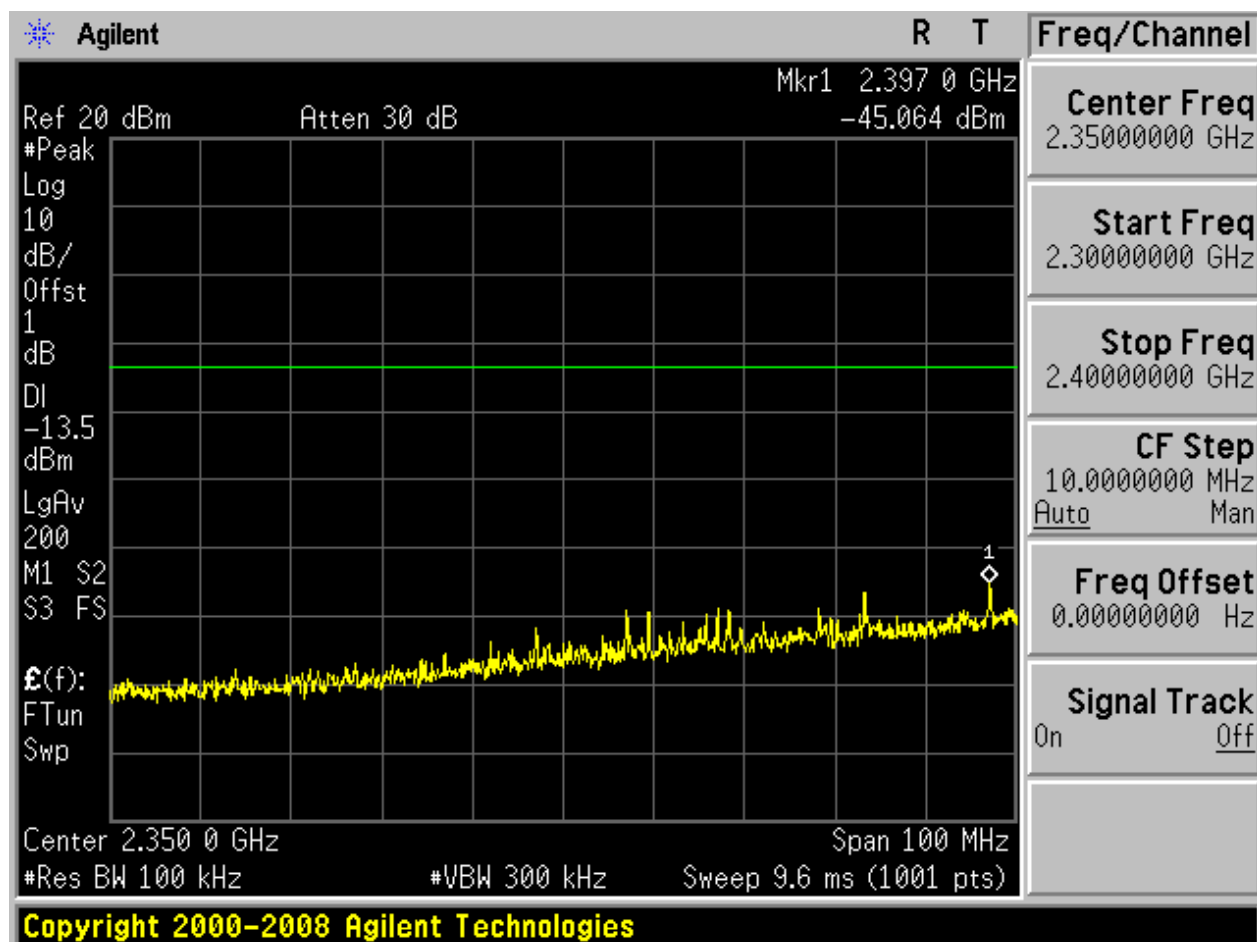


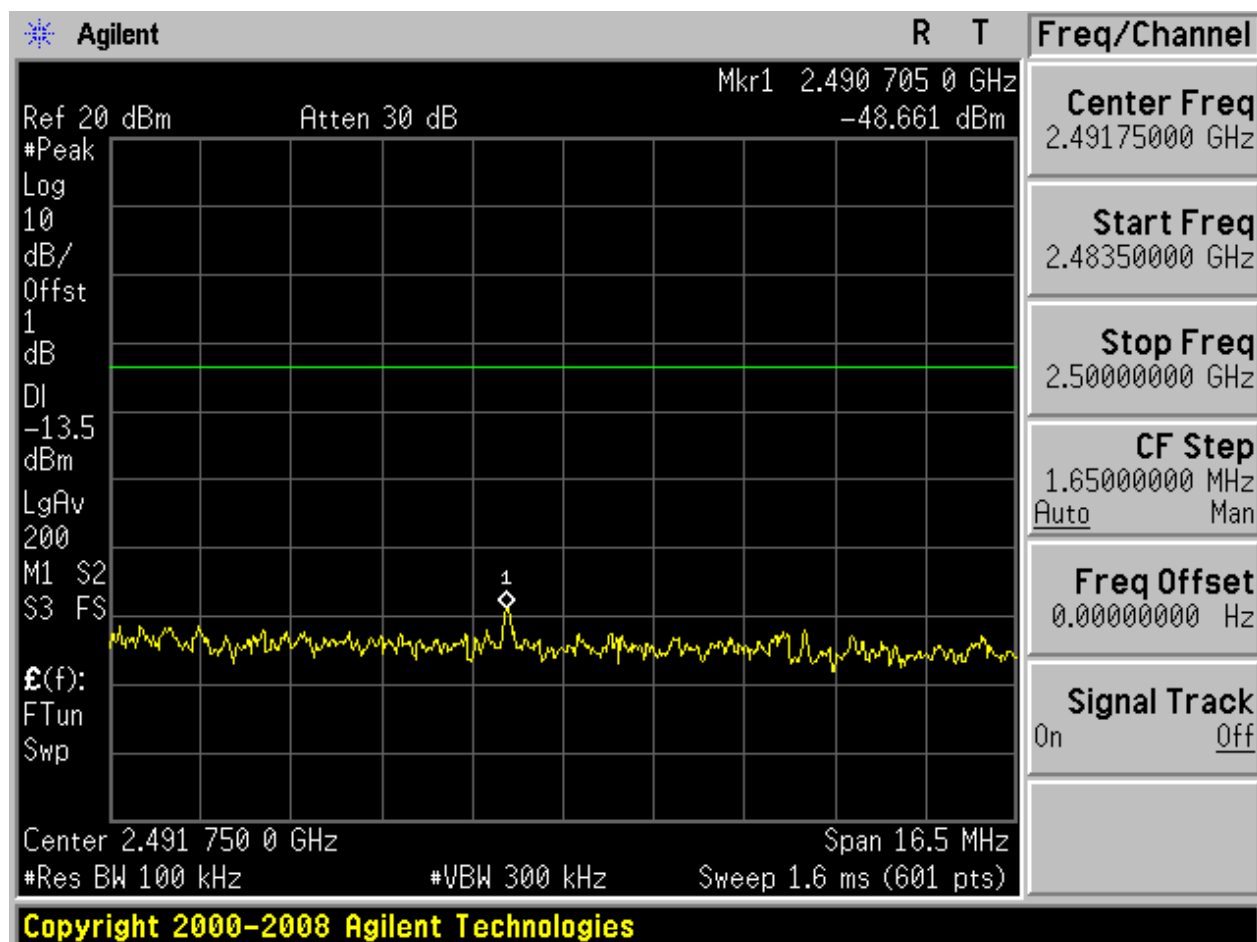
Puw:

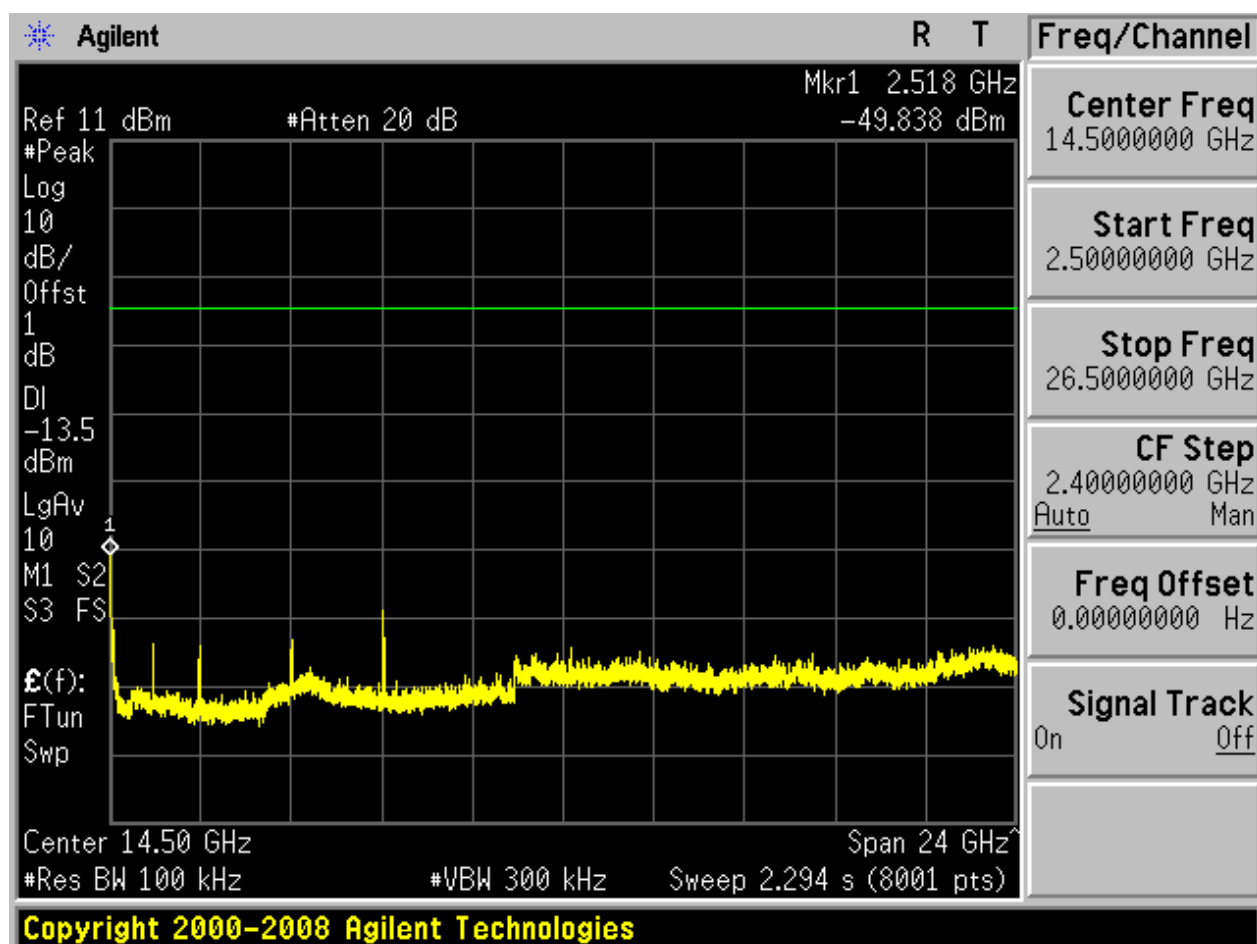








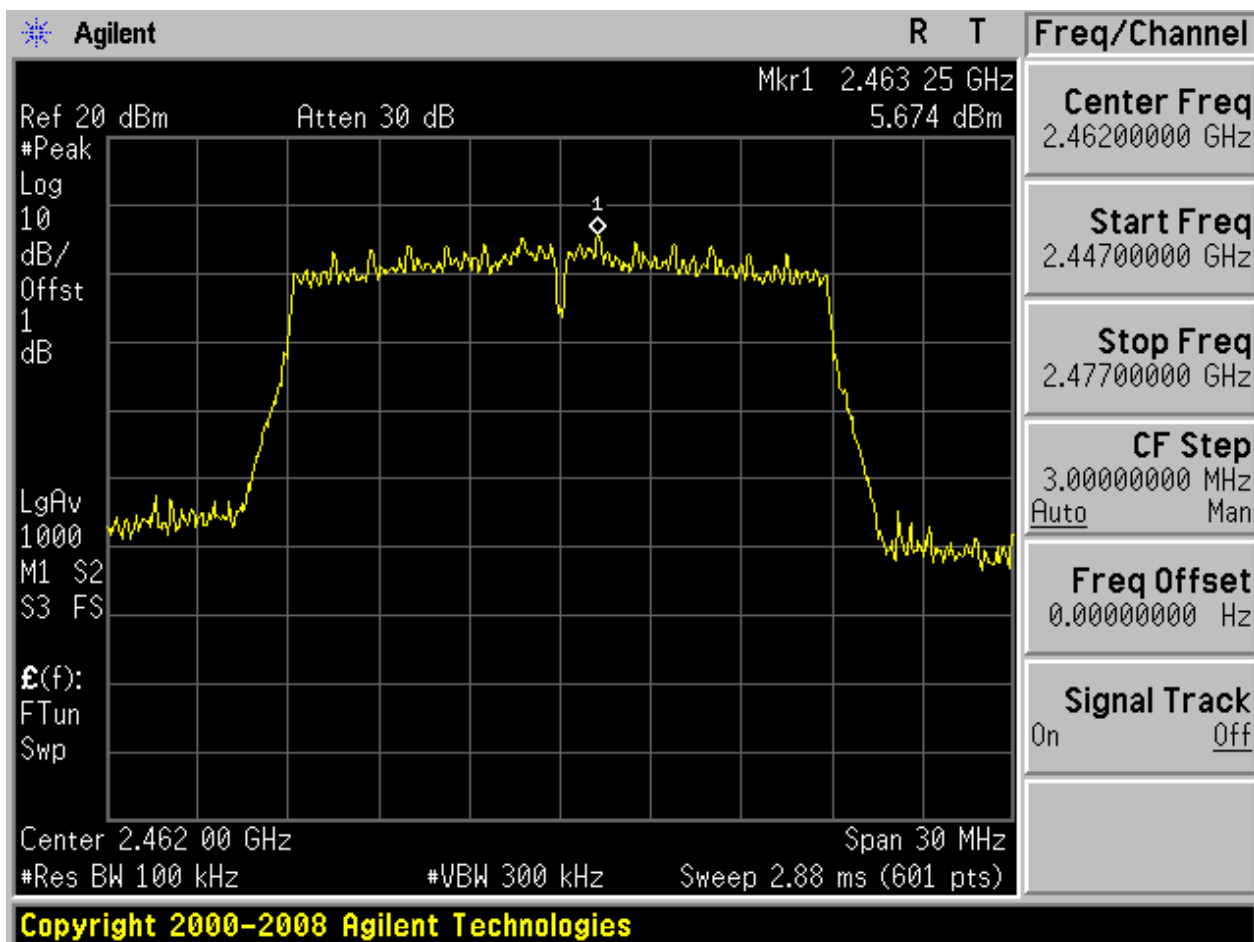






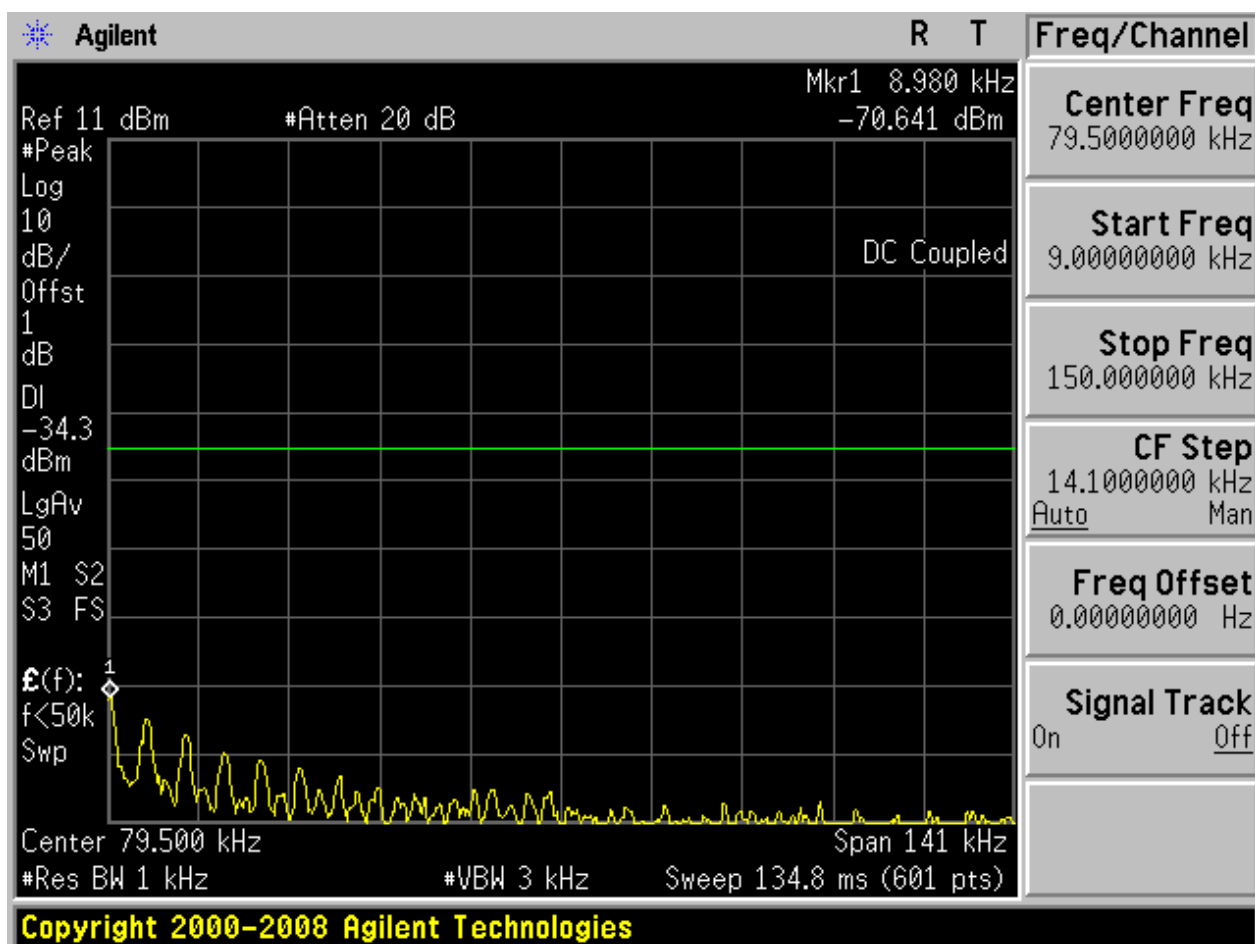
2.17 11N20_H

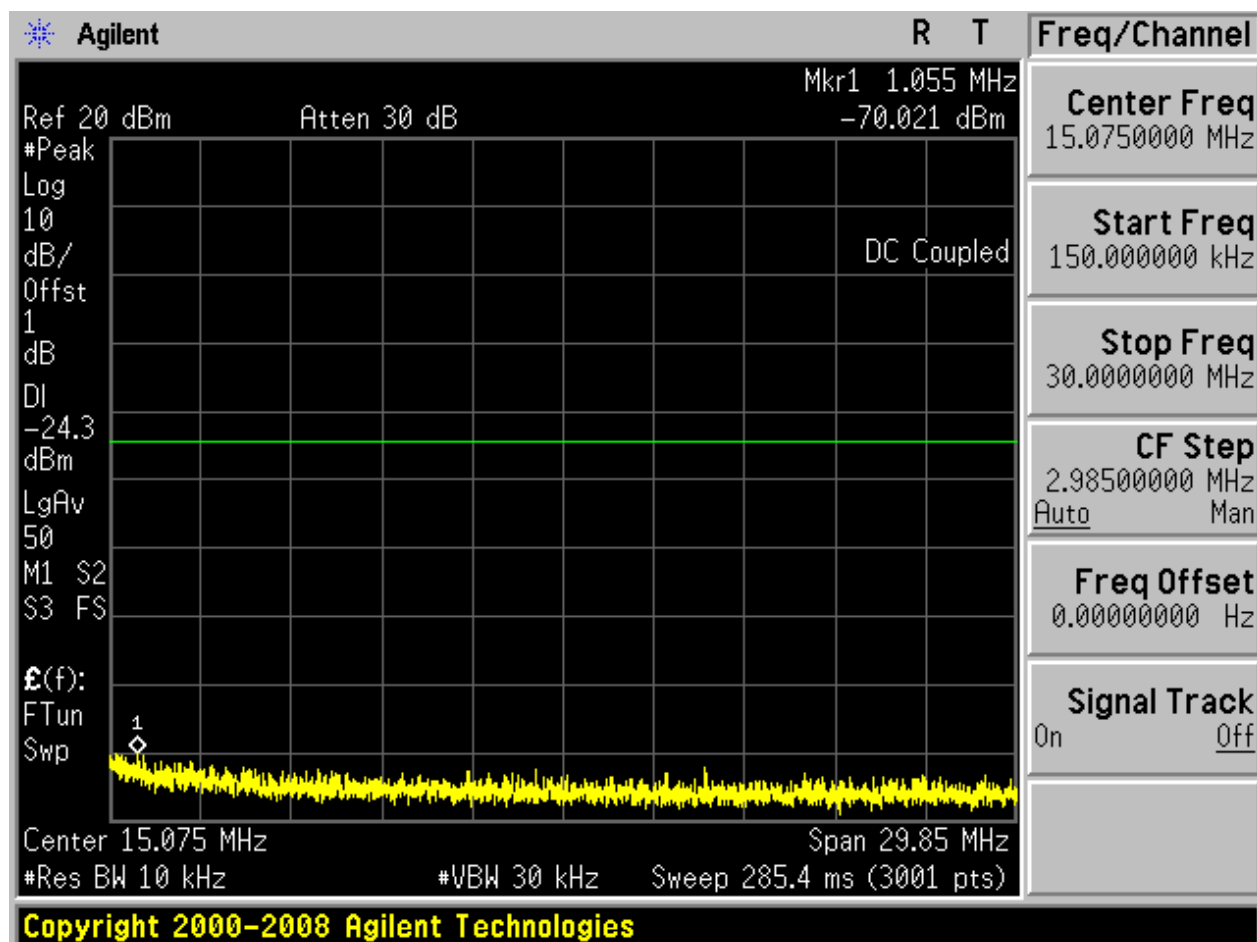
Pref:

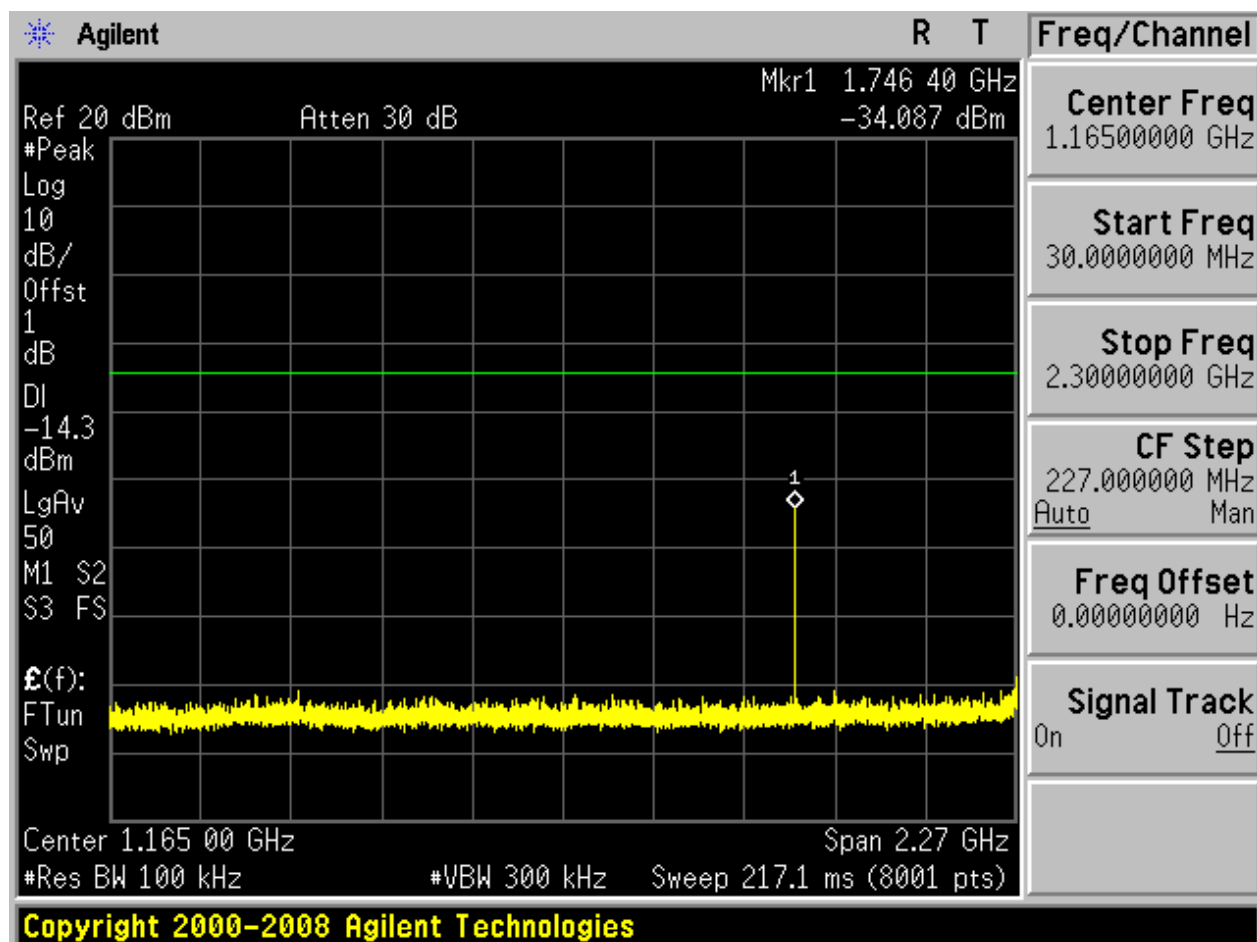


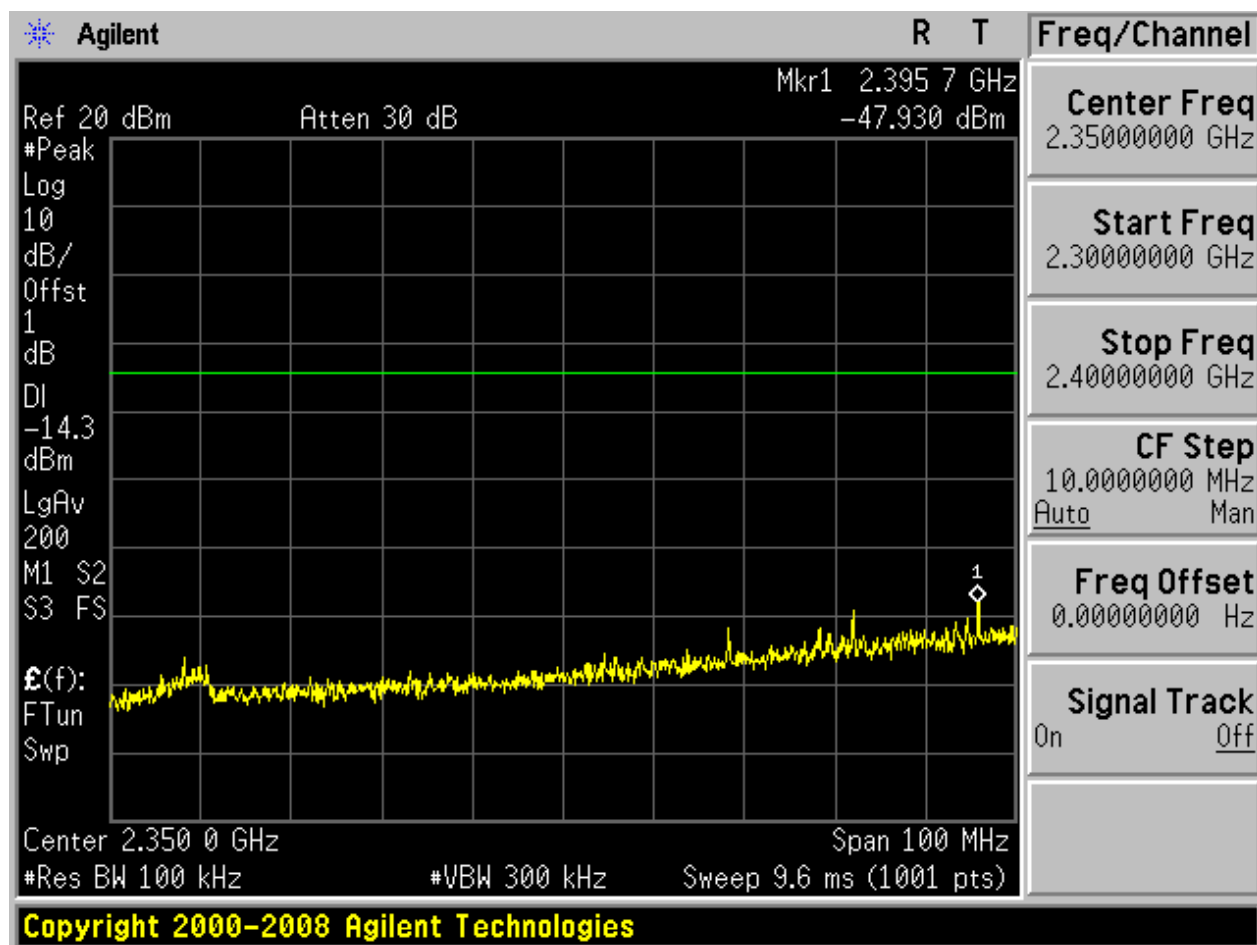


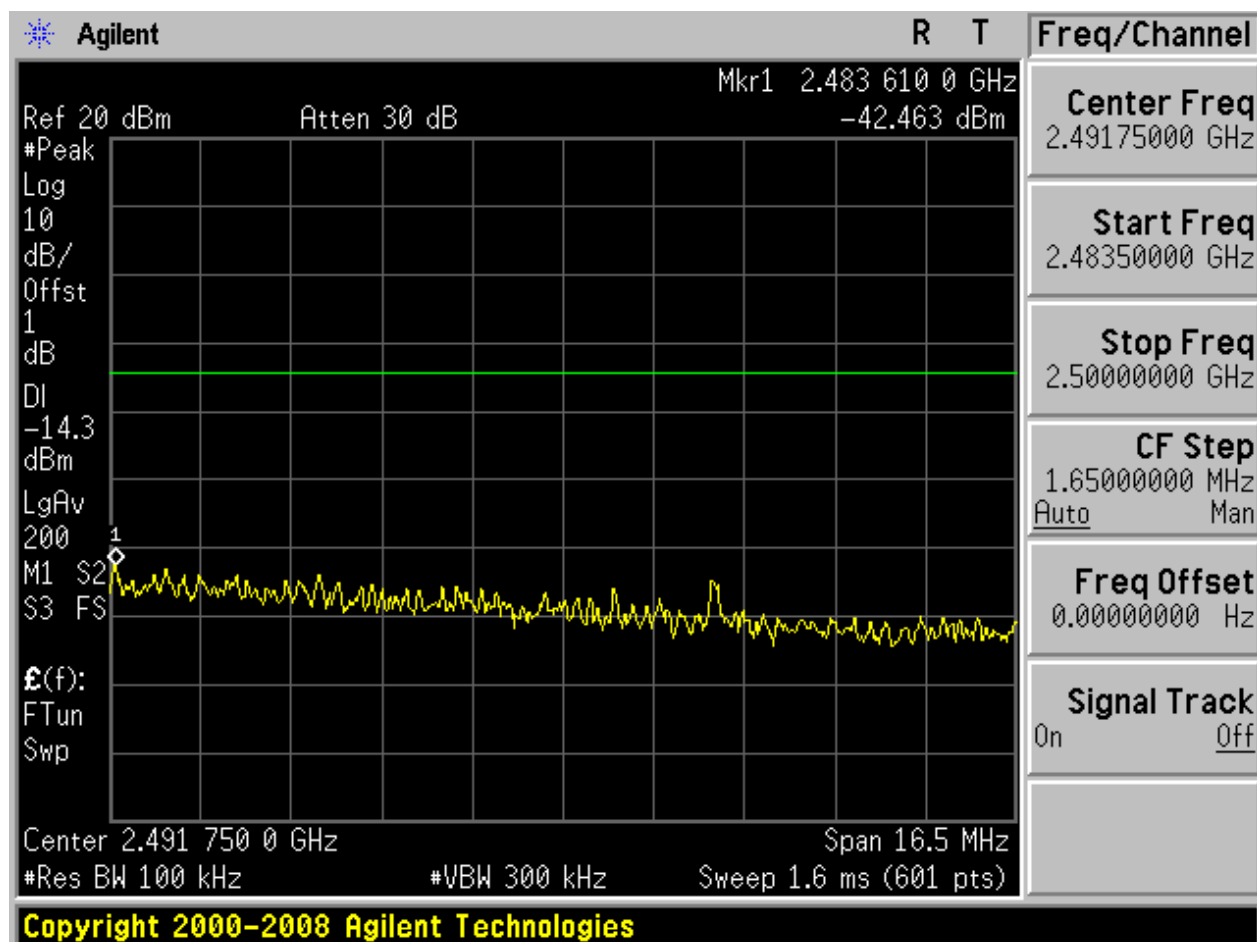
Puw:

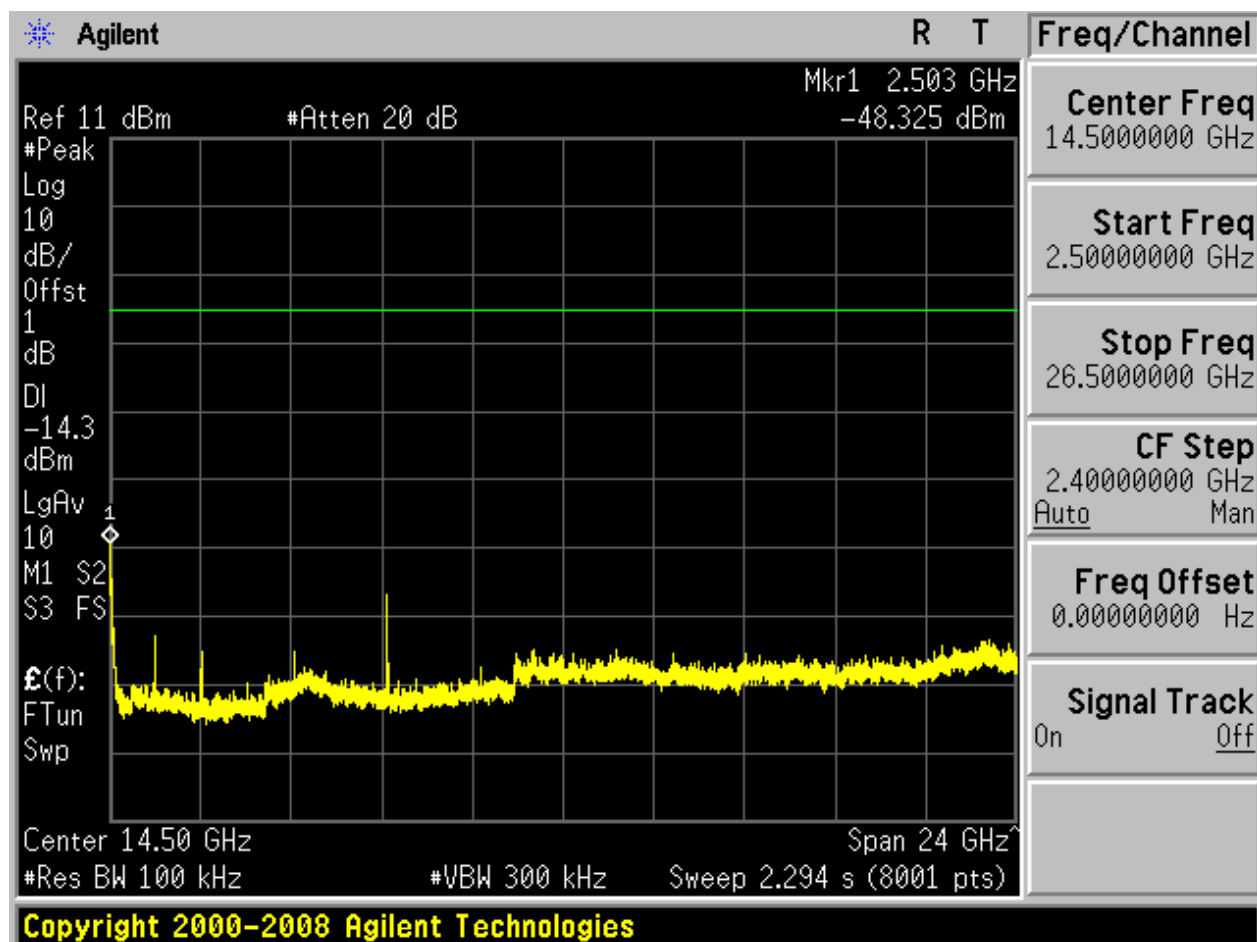










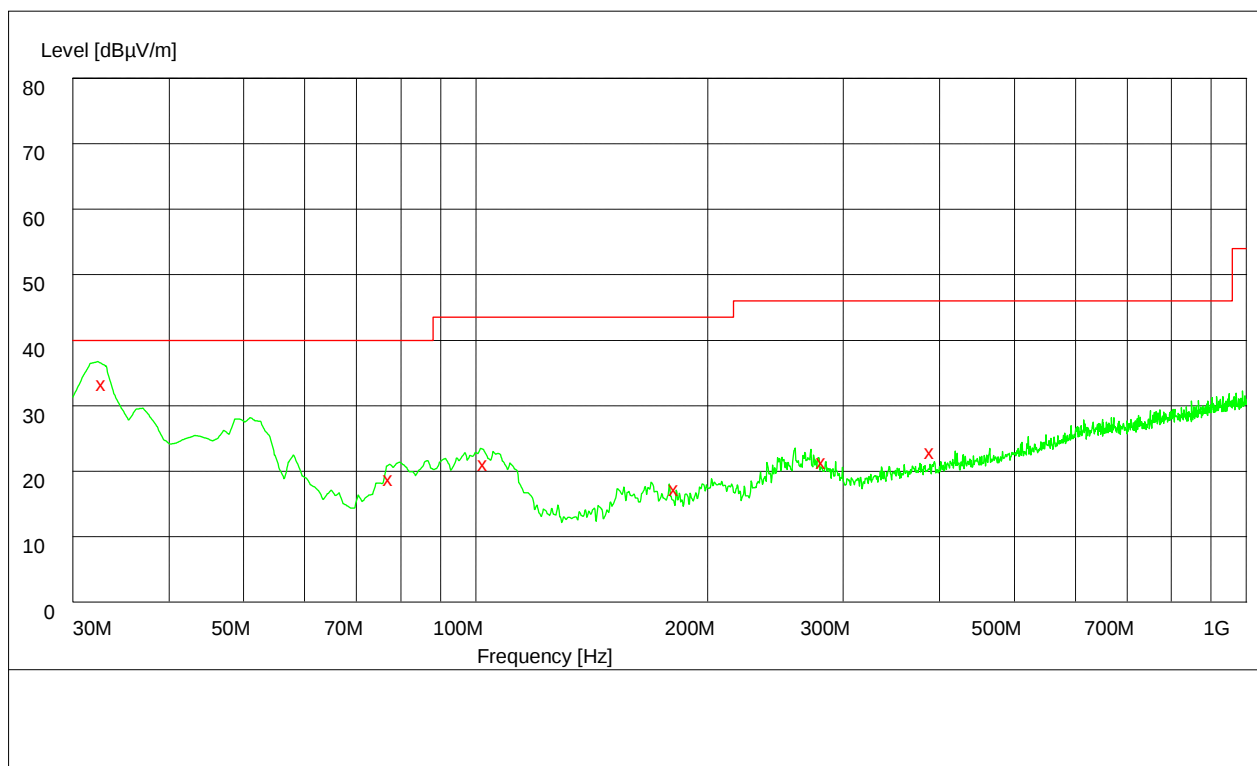


Appendix F: Radiated Spurious Emission & Spurious in Restricted Band

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.

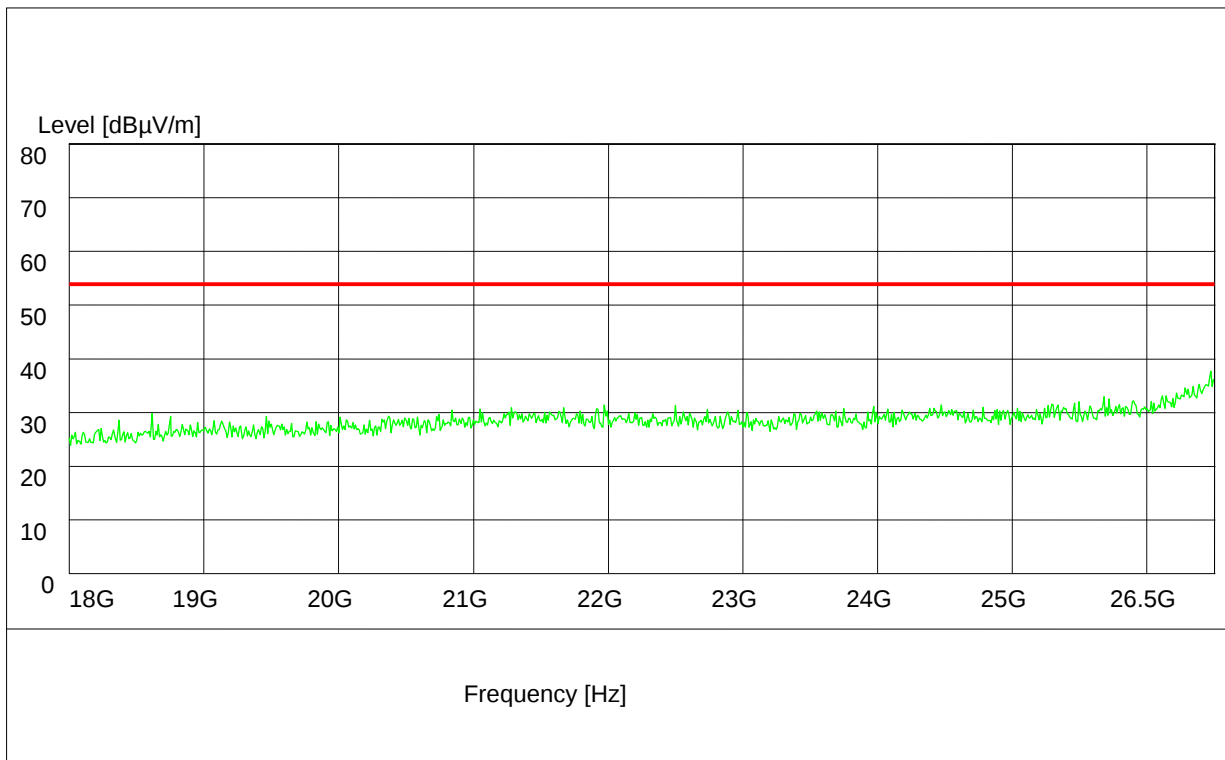
Note 2: **The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).**



Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Plarization
32.880000	34.80	14.1	40.0	5.2	100.0	122.00	VERTICAL
77.640000	20.30	10.3	40.0	19.7	100.0	103.00	VERTICAL
102.840000	22.60	13.2	43.5	20.9	121.0	150.00	VERTICAL
181.980000	18.80	11.5	43.5	24.7	173.0	2.00	HORIZONTAL
282.900000	22.80	14.8	46.0	23.2	107.0	225.00	HORIZONTAL
390.660000	24.40	17.3	46.0	21.6	100.0	277.00	HORIZONTAL

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

Note: No peak found in pre- test.

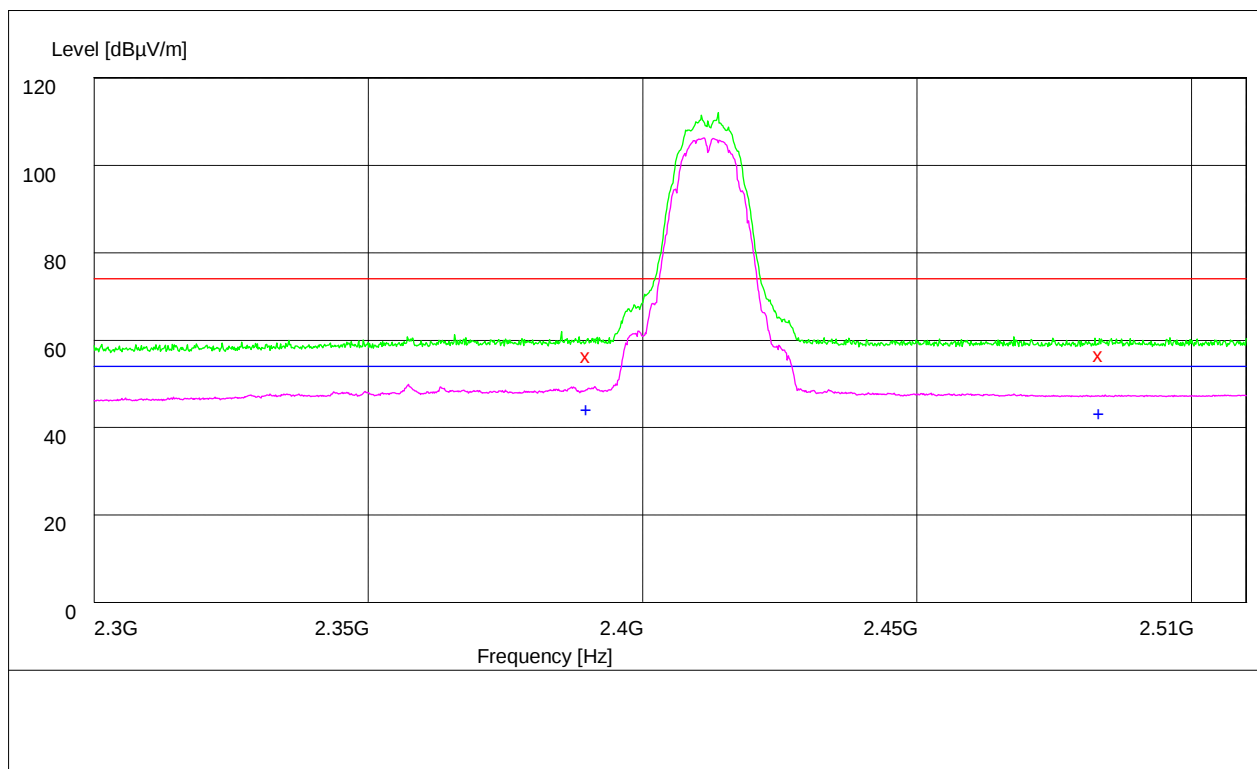


Part 3: Testing Range of “2.3GHz to 2.5GHz”

- 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

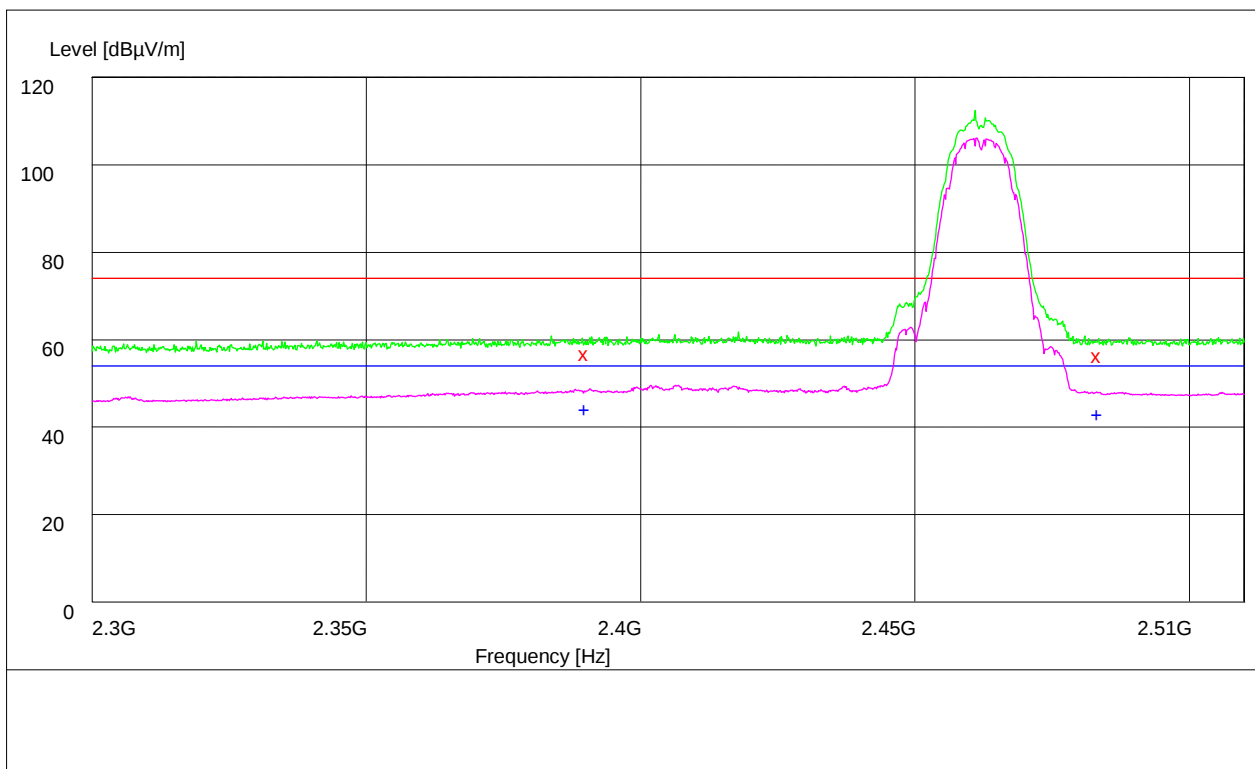
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.40	34.7	74.0	15.6	113.0	258.00	HORIZONTAL
2483.500000	58.80	35.0	74.0	15.2	100.0	261.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
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2390.000000	46.30	34.7	54.0	7.7	103.0	240.00	HORIZONTAL
2483.500000	45.40	35.0	54.0	8.6	118.0	110.00	HORIZONTAL

Channel 11



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

MEASUREMENT RESULT: PK Detector

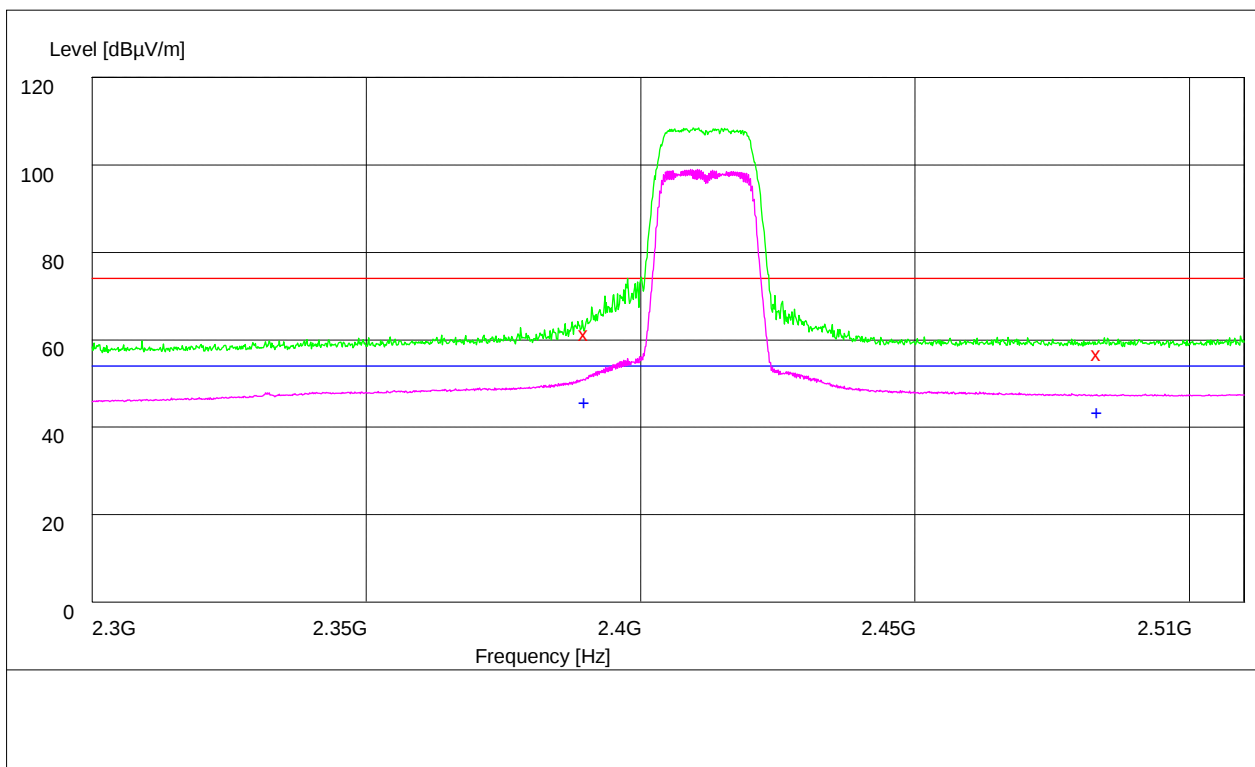
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.80	34.7	74.0	15.2	100.0	257.00	HORIZONTAL
2483.500000	58.50	35.0	74.0	15.5	152.0	208.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	46.20	34.7	54.0	7.8	100.0	266.00	HORIZONTAL
2483.500000	45.10	35.0	54.0	8.9	100.0	284.00	VERTICAL

Test Mode: 11g

Channel 01



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

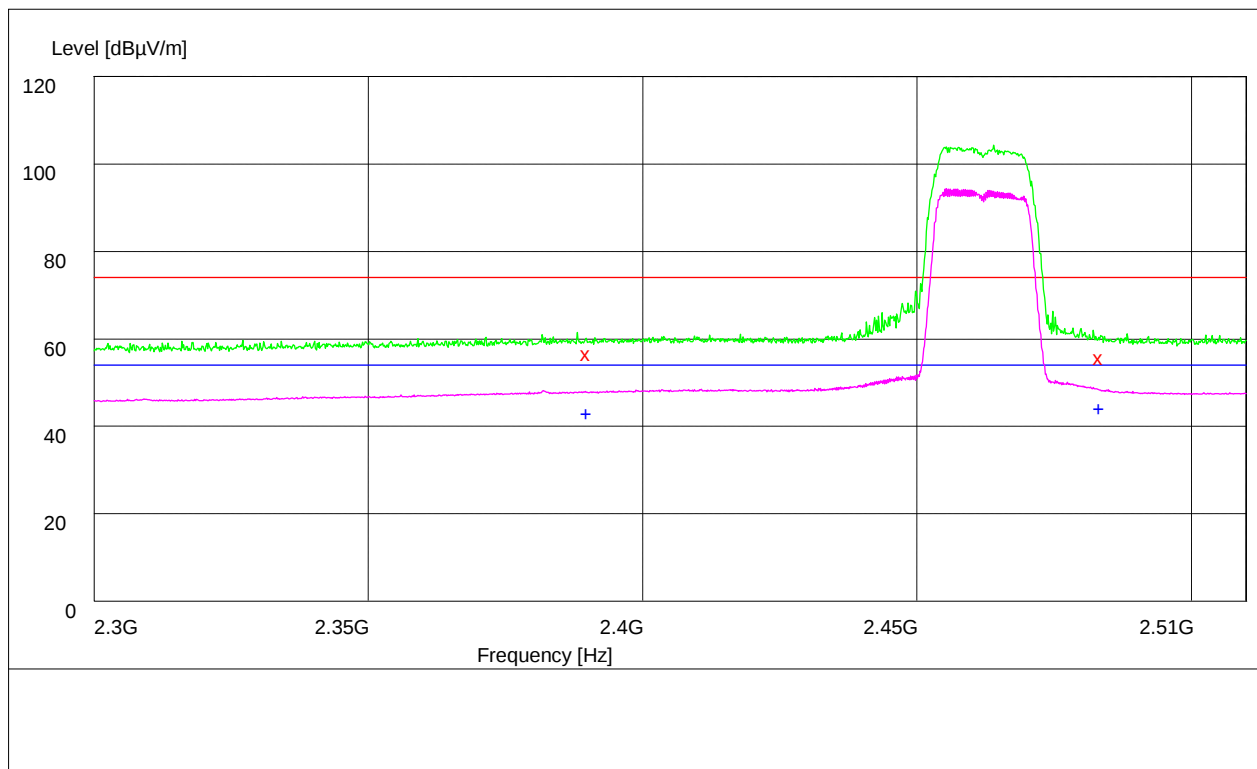
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	63.50	34.7	74.0	10.5	100.0	258.00	HORIZONTAL
2483.500000	58.80	35.0	74.0	15.2	100.0	345.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.70	34.7	54.0	6.3	100.0	259.00	HORIZONTAL
2483.500000	45.40	35.0	54.0	8.6	100.0	251.00	HORIZONTAL

Channel 11



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

MEASUREMENT RESULT: PK Detector

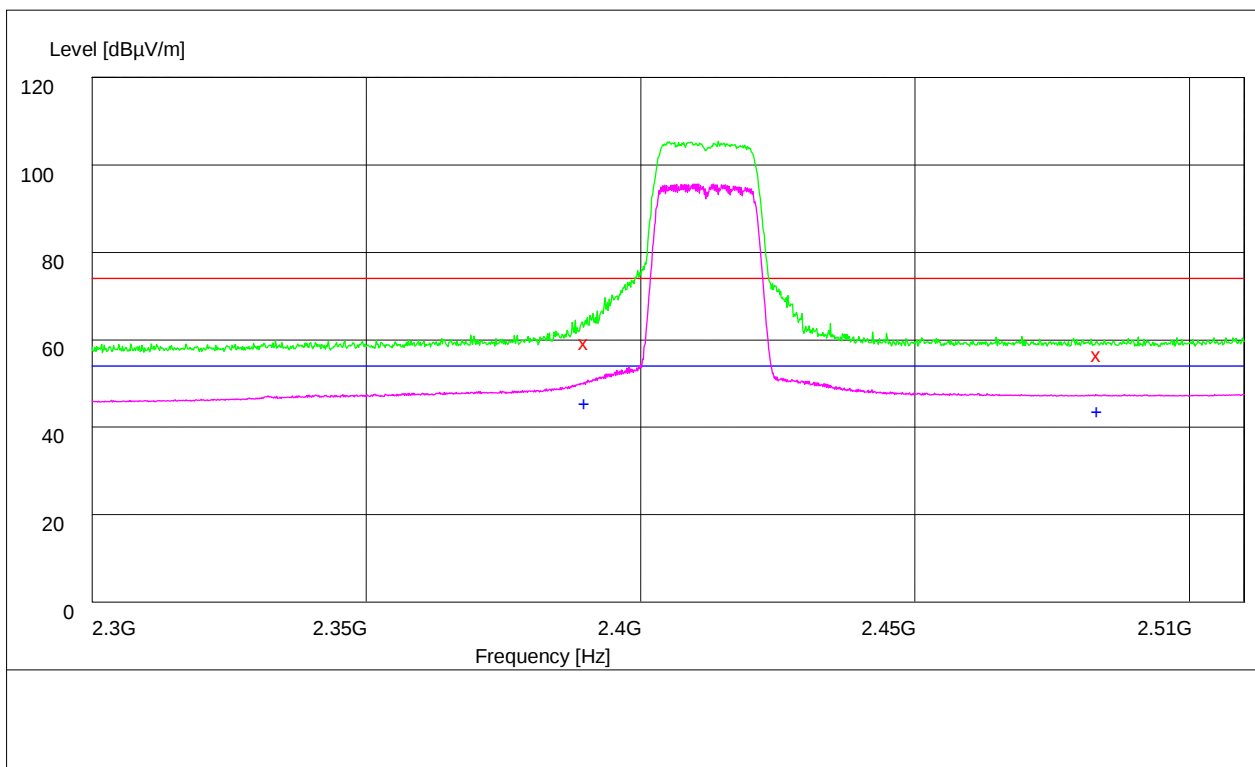
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.70	34.7	74.0	15.3	106.0	208.00	HORIZONTAL
2483.500000	57.70	35.0	74.0	16.3	100.0	270.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	45.00	34.7	54.0	9.0	100.0	257.00	HORIZONTAL
2483.500000	46.10	35.0	54.0	7.9	100.0	264.00	HORIZONTAL

Test Mode: 11n

Channel 01



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

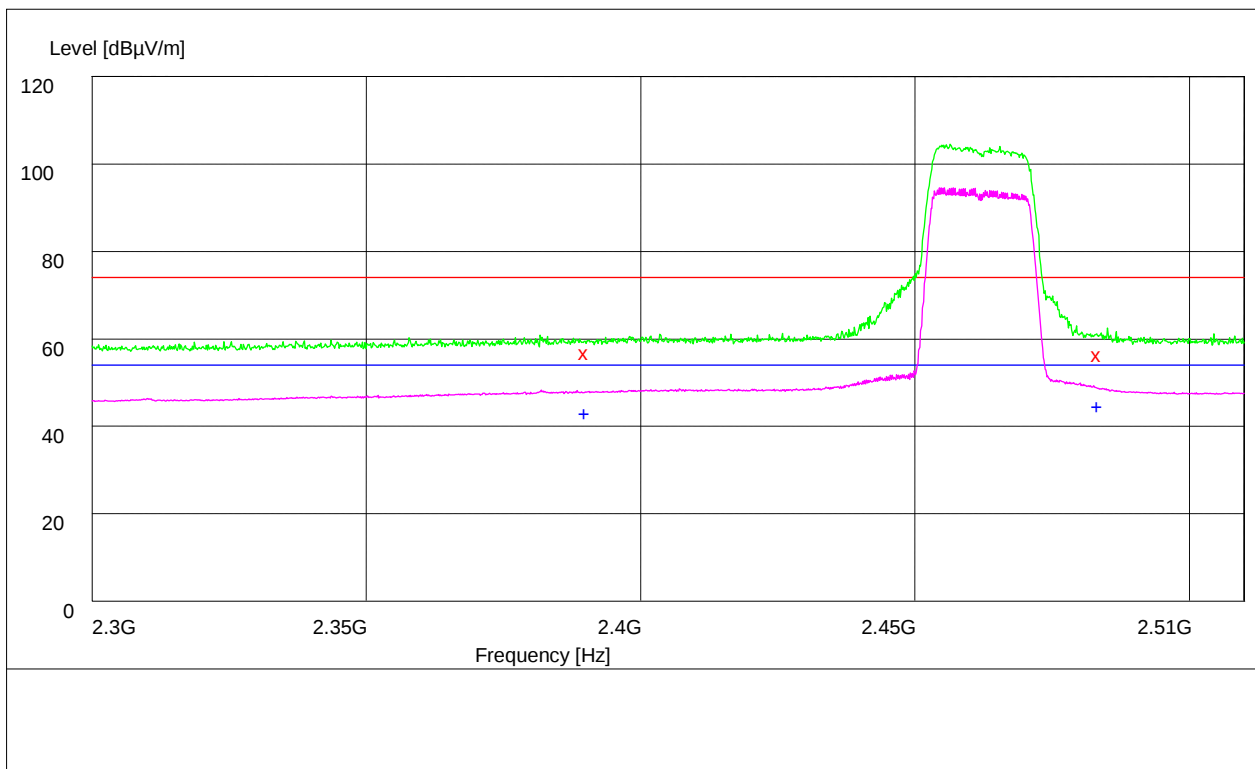
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	61.40	34.7	74.0	12.6	100.0	226.00	HORIZONTAL
2483.500000	58.60	35.0	74.0	15.4	100.0	329.00	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	34.7	54.0	6.5	100.0	260.00	HORIZONTAL
2483.500000	45.60	35.0	54.0	8.4	196.0	285.00	VERTICAL

Channel 11



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

MEASUREMENT RESULT: PK Detector

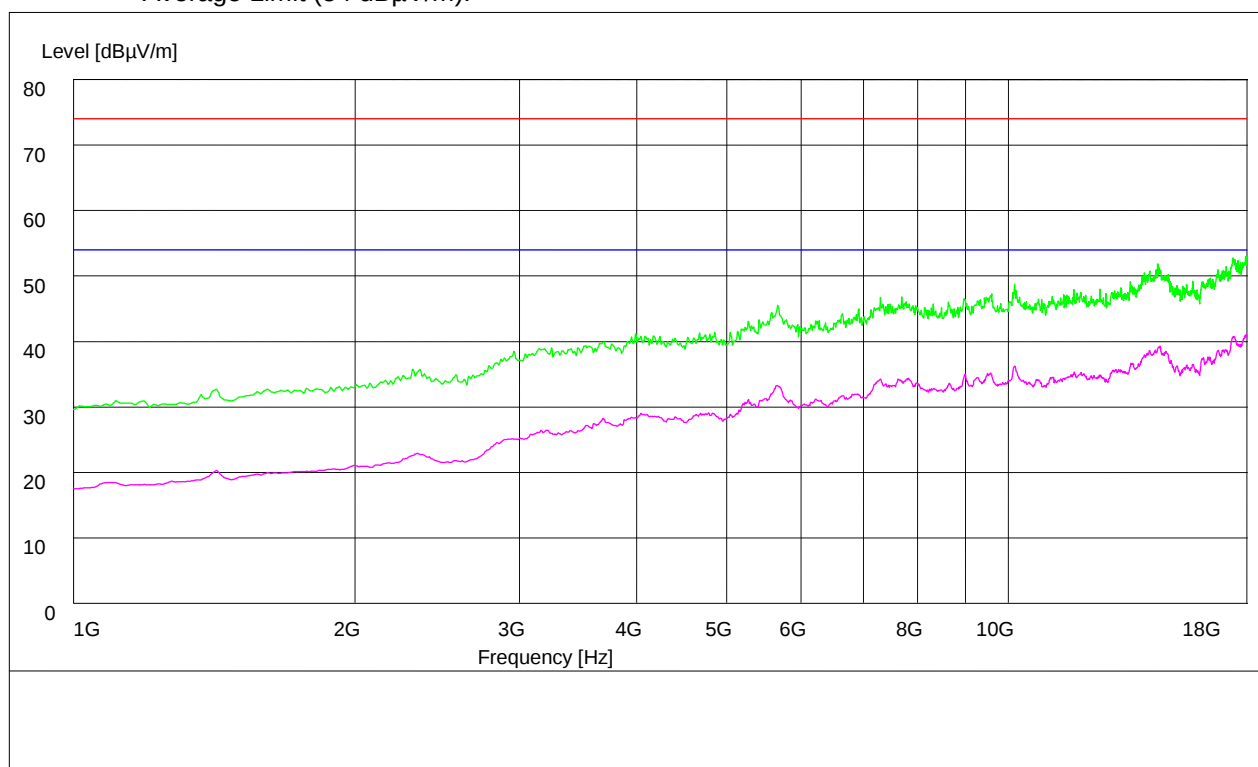
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.90	34.7	74.0	15.1	100.0	258.00	HORIZONTAL
2483.500000	58.50	35.0	74.0	15.5	121.0	261.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	45.00	34.7	54.0	9.0	102.0	262.00	HORIZONTAL
2483.500000	46.70	35.0	54.0	7.3	100.0	317.00	VERTICAL

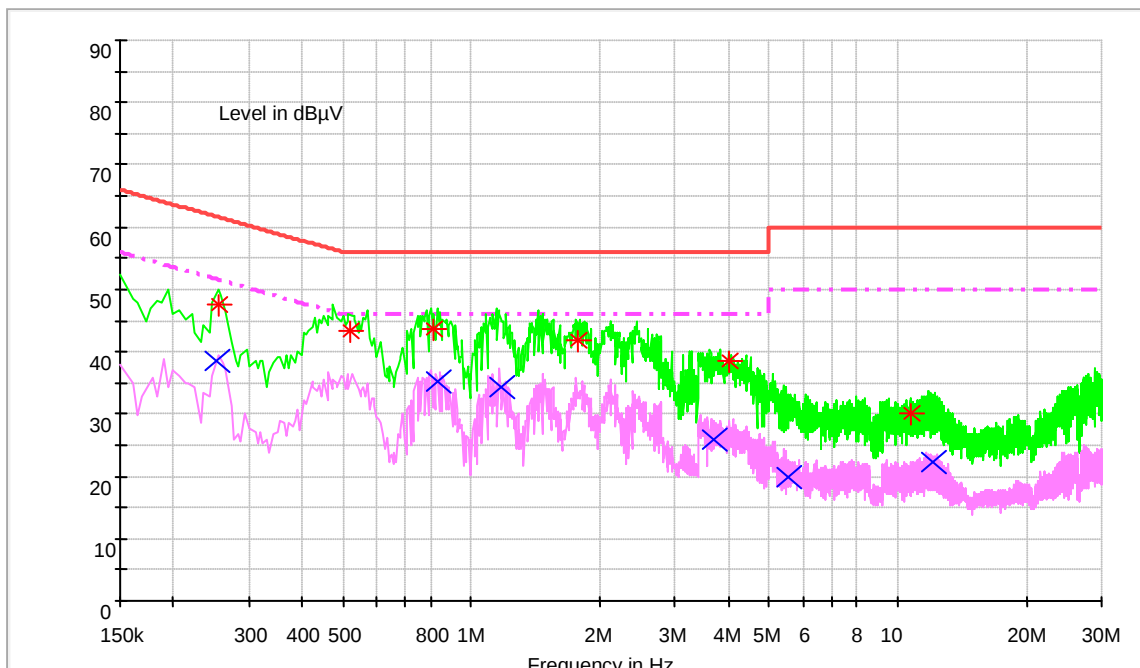
Part 4: Testing Range of “1 GHz to 18 GHz”

- 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 dB μ V/m) and Average Limit (54 dB μ V/m).



Appendix G: Conducted Emission at Power Port

Channel 6



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.256725	47.6	9.7	61.5	13.9	N	FLO
0.517166	43.4	9.7	56	12.6	N	FLO
0.815655	43.7	9.7	56	12.3	N	FLO
1.773012	41.9	9.7	56	14.1	N	FLO
4.039286	38.6	9.8	56	17.4	N	FLO
10.68236	30.2	9.9	60	29.8	N	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.25362	38.6	9.7	51.6	13	N	FLO
0.834308	35.2	9.7	46	10.8	N	FLO
1.170142	34.2	9.7	46	11.8	N	FLO
3.709016	26	9.7	46	20	N	FLO



5.516468	19.9	9.8	50	30.1	N	FLO
12.00689	22.3	10	50	27.7	N	FLO

END