Appendix for Test report

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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	8.69	pass
11B	M	2437	8.38	pass
11B	H	2462	8.10	pass
11G	L	2412	16.53	pass
11G	M	2437	16.54	pass
11G	H	2462	16.53	pass
11N20	L	2412	17.74	pass
11N20	M	2437	17.53	pass
11N20	H	2462	17.74	pass

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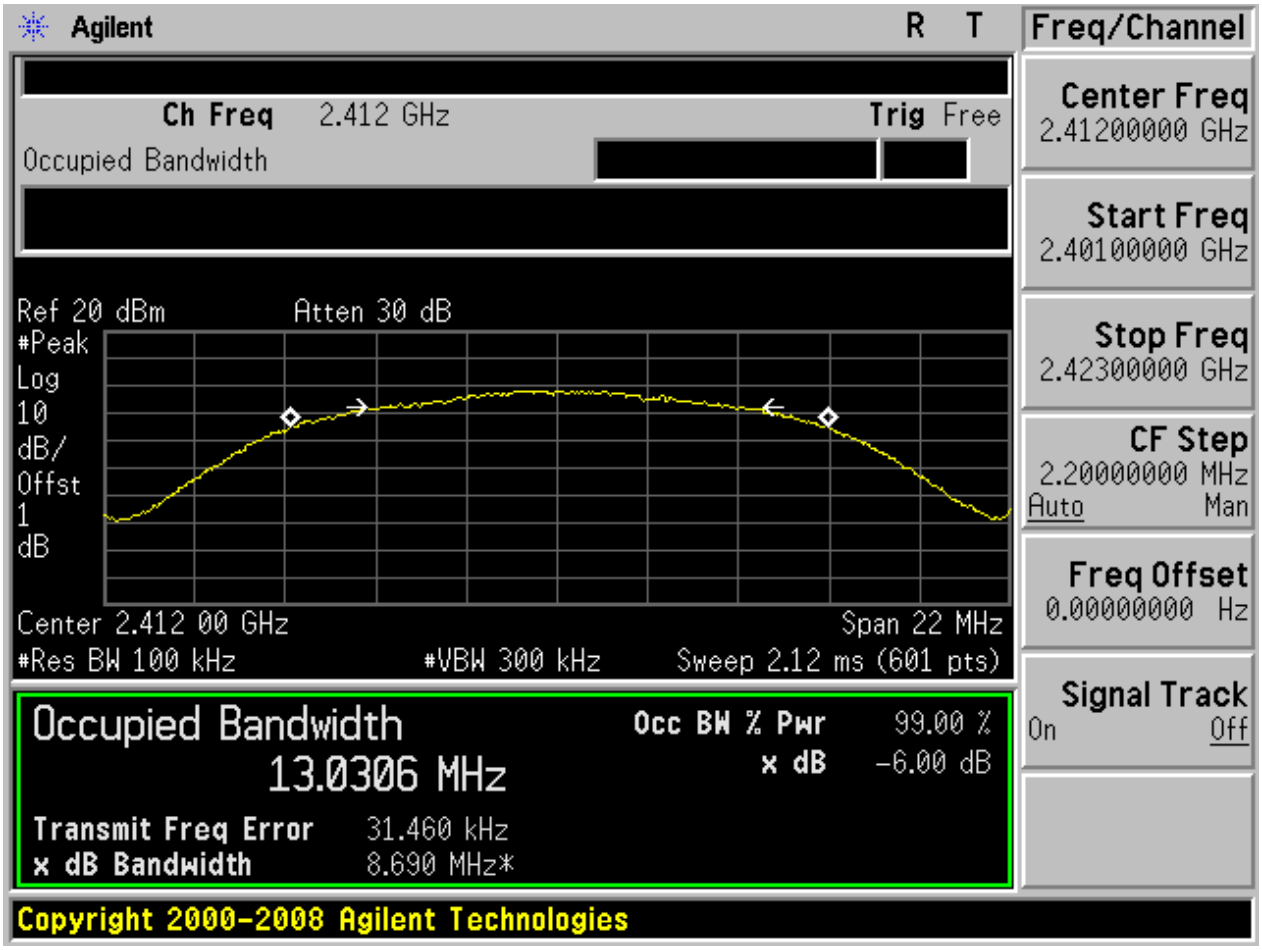
Part II - Test Plots

2.1 11B_L



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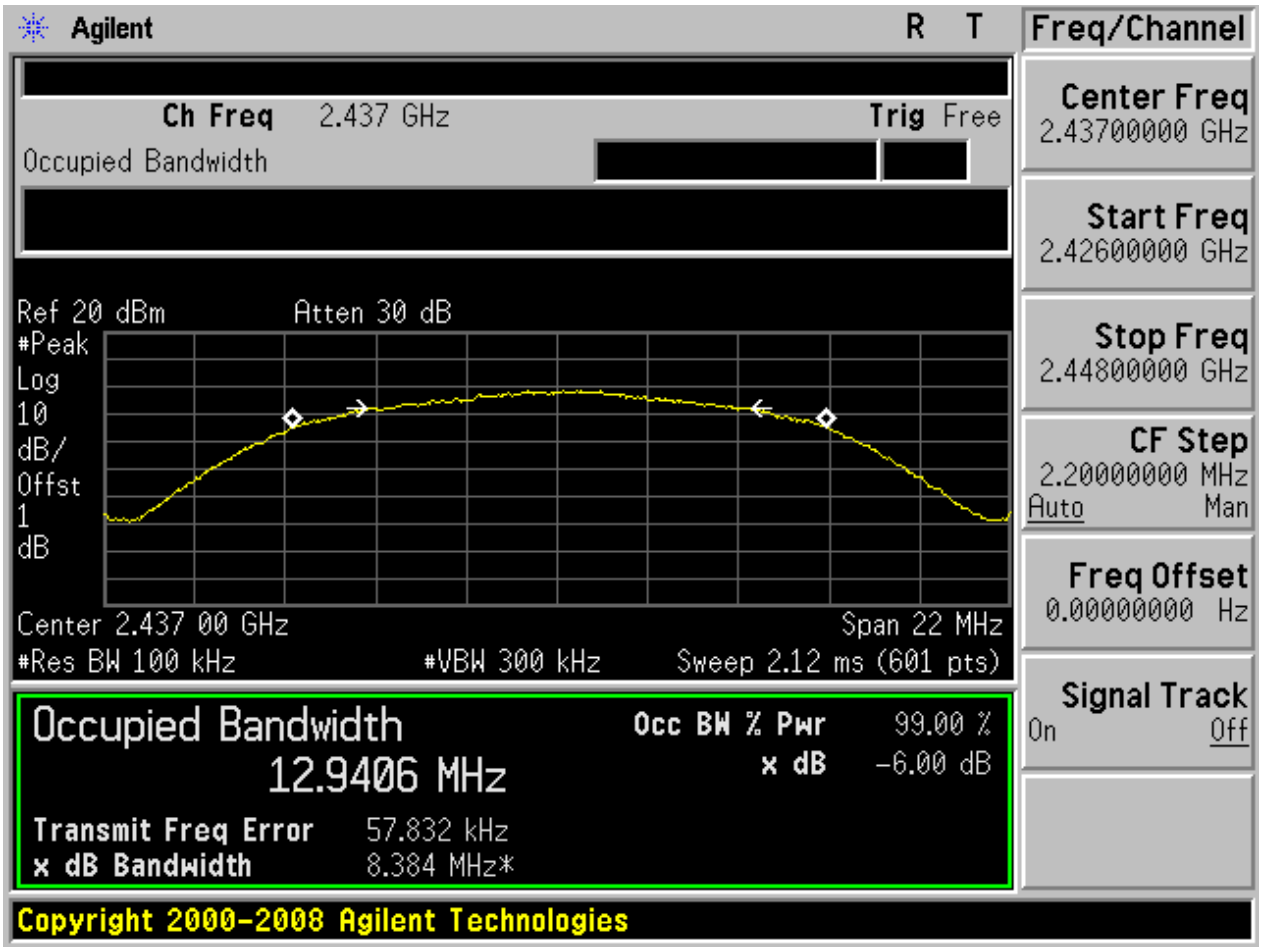
2.2 11B_M



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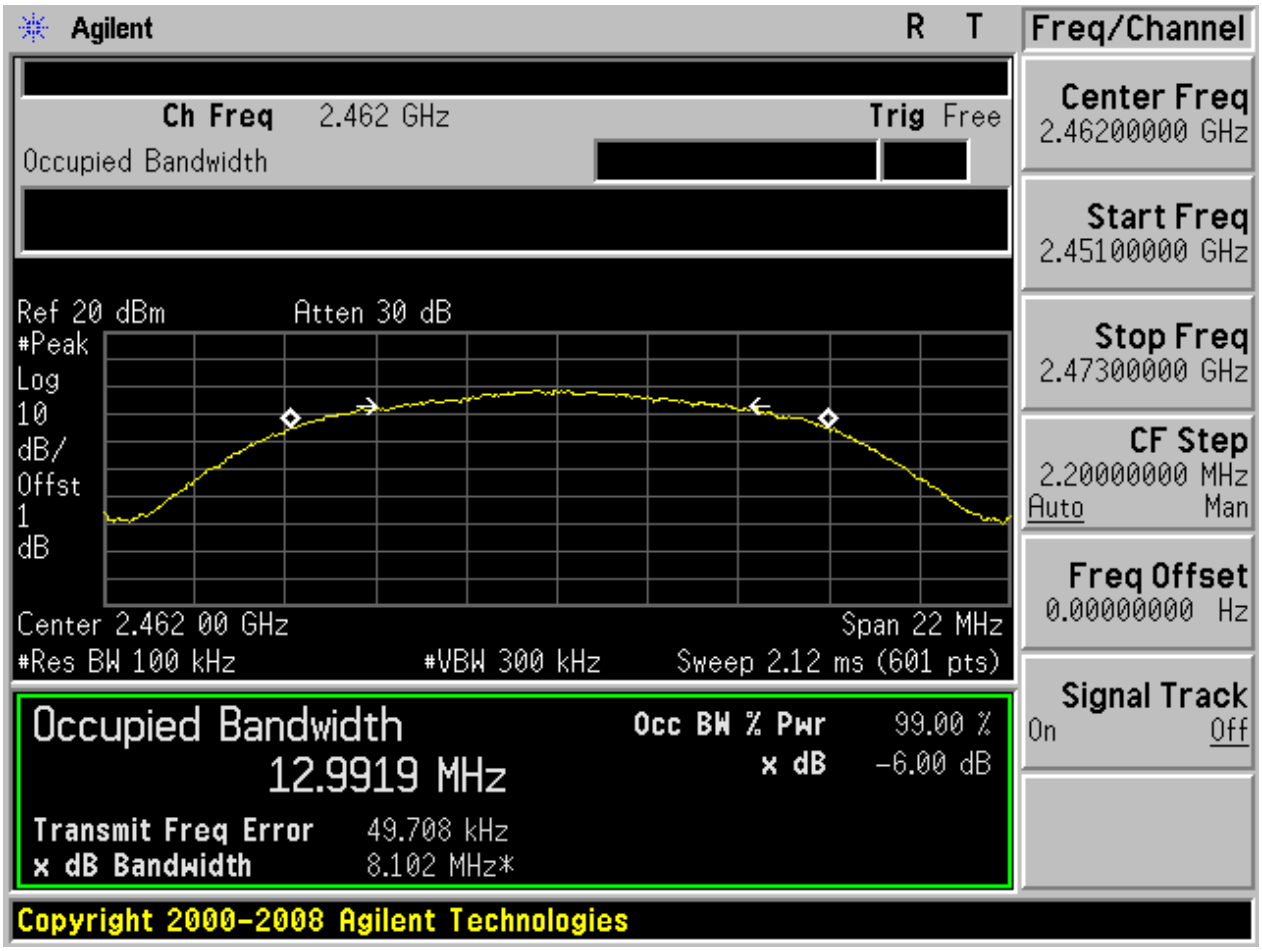
2.3 11B_H



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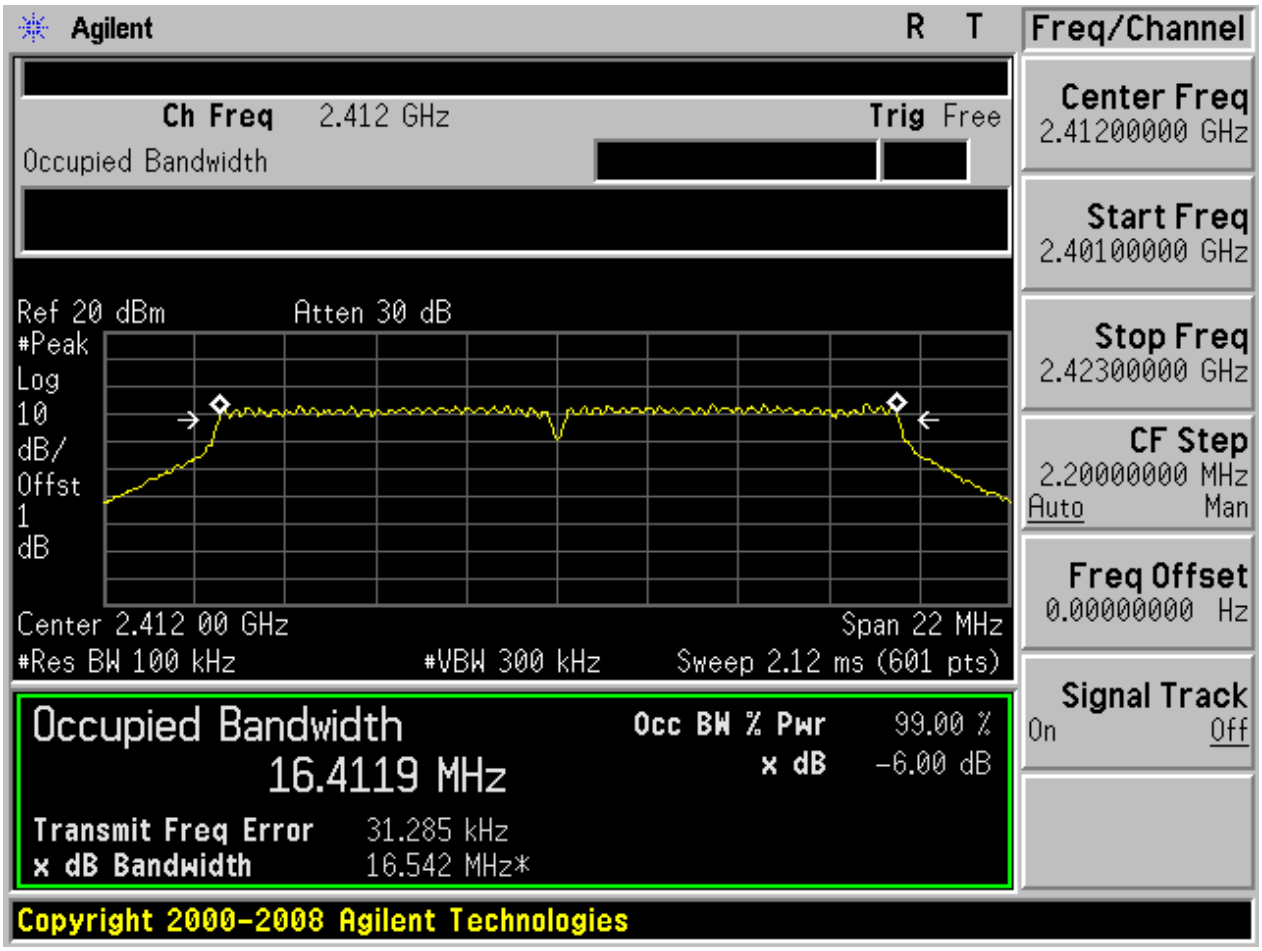
2.4 11G_L



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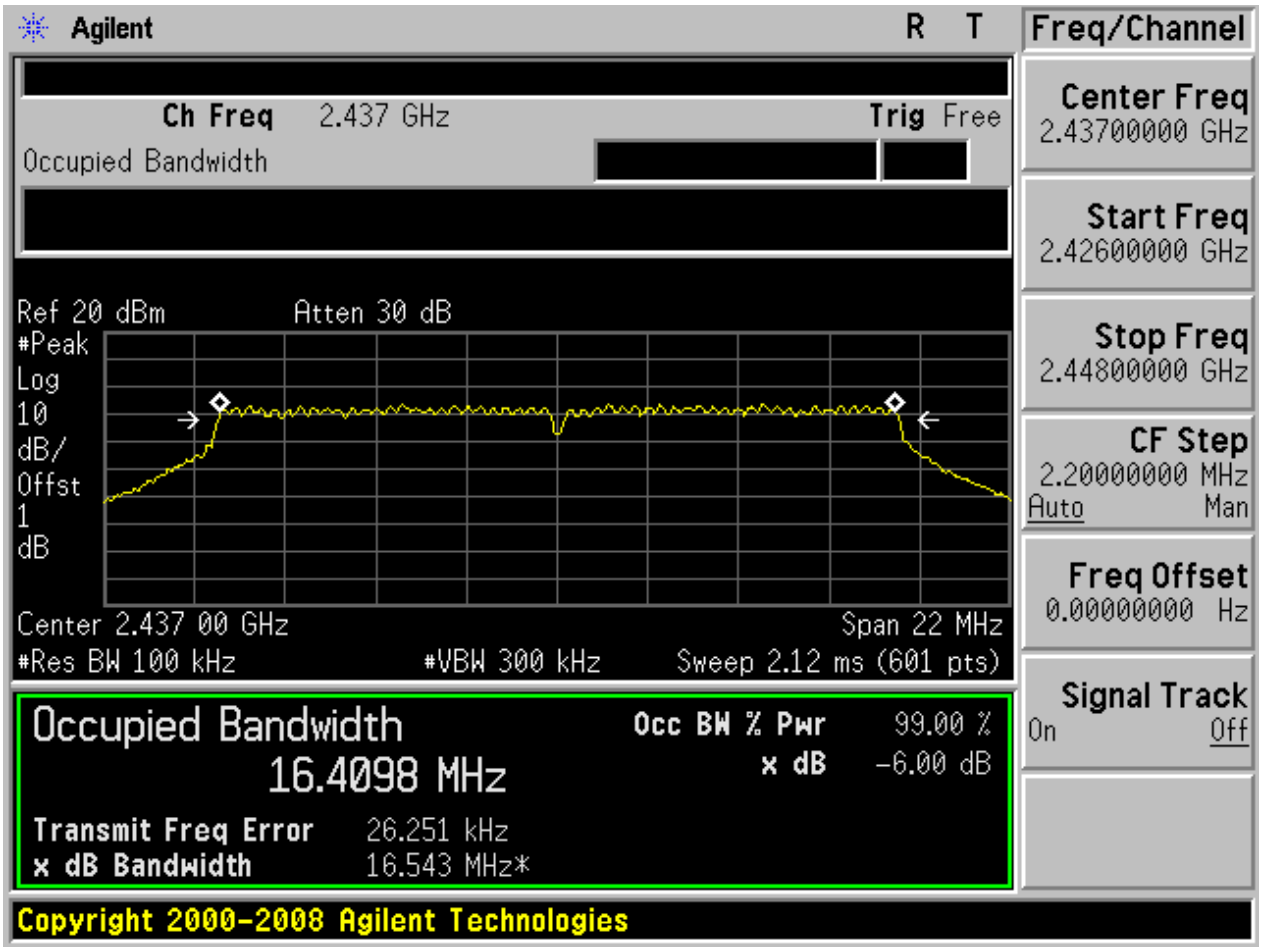
2.6 11G_M



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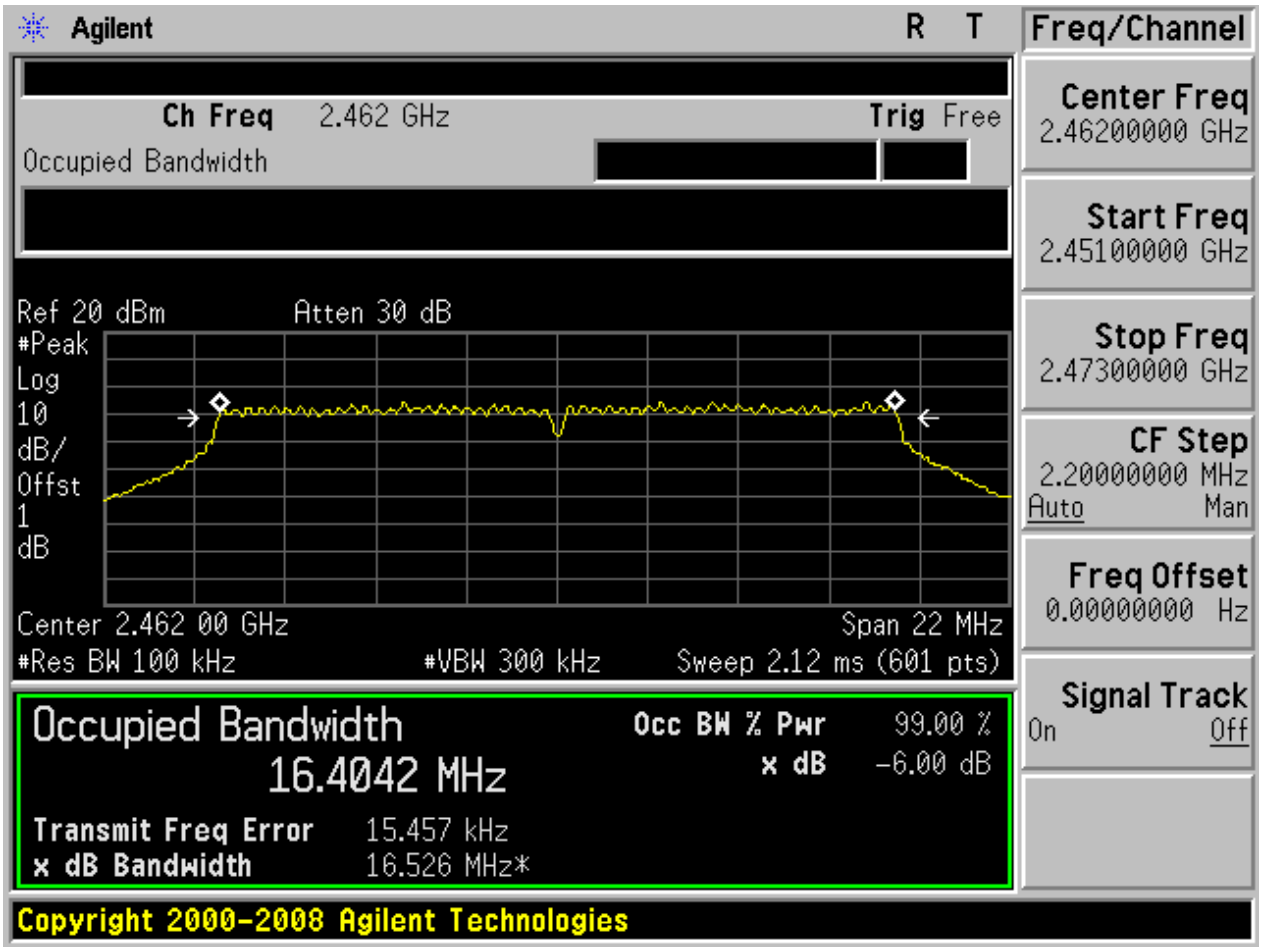
2.8 11G_H



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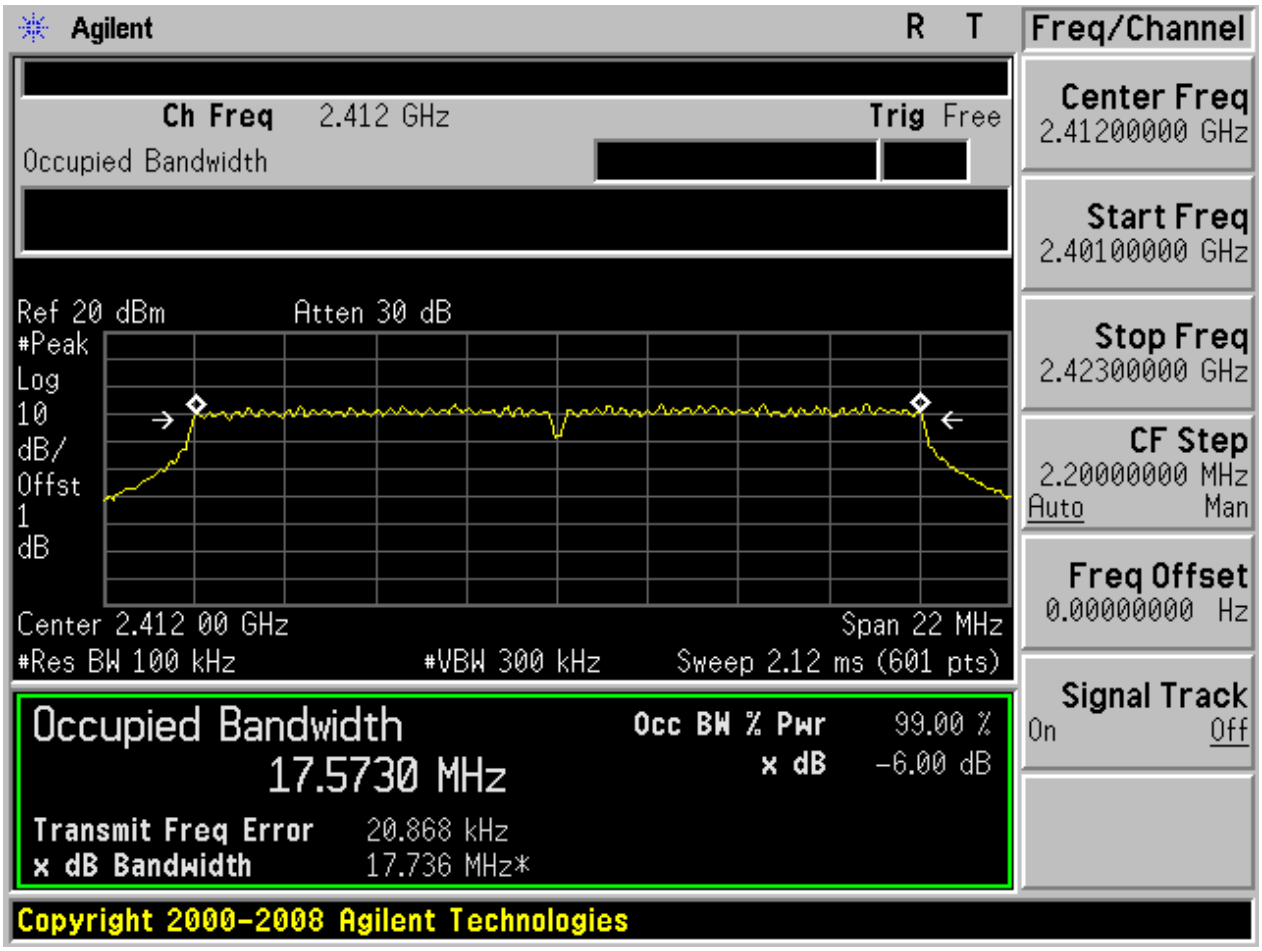
2.9 11N20_L



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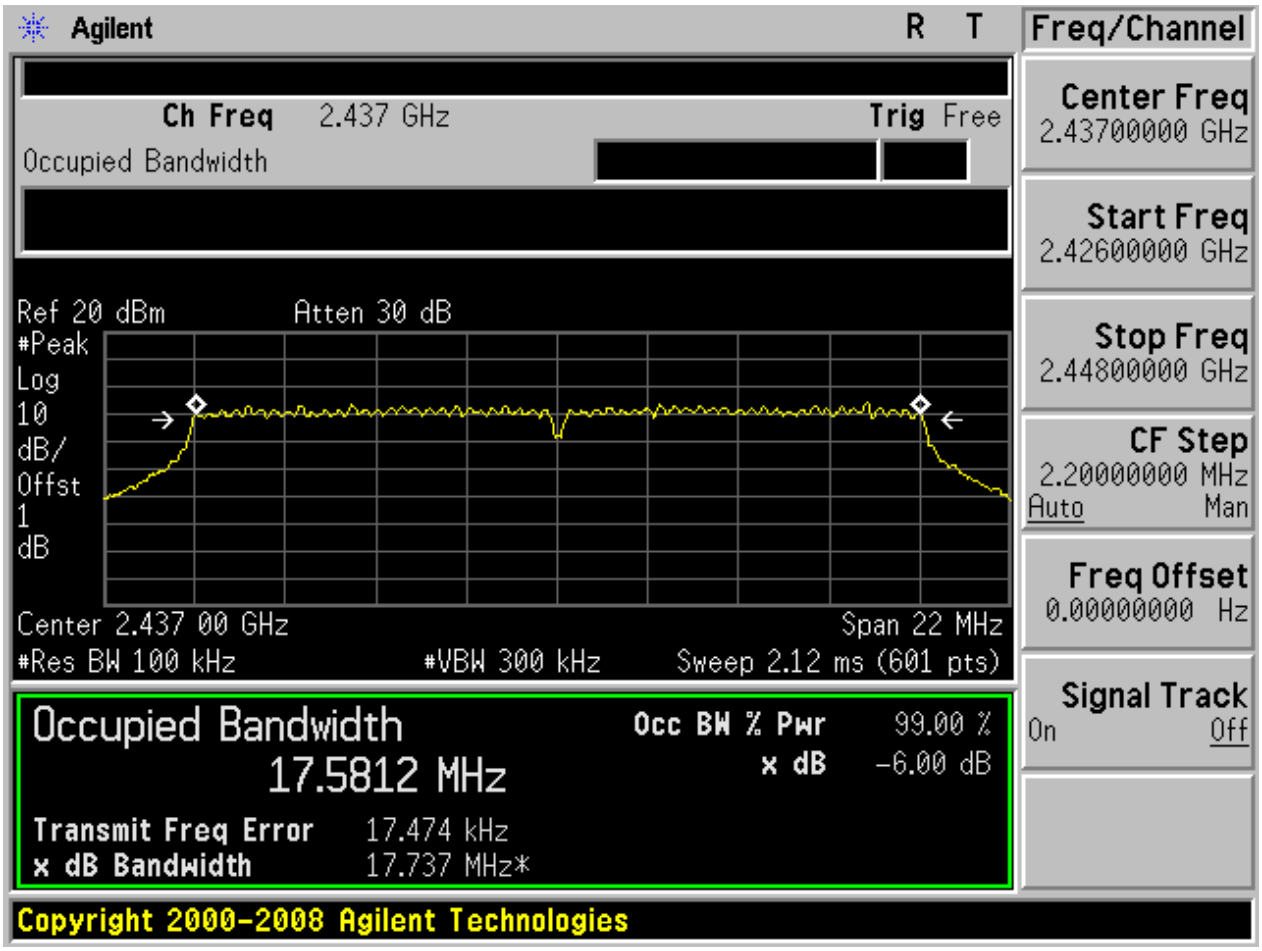

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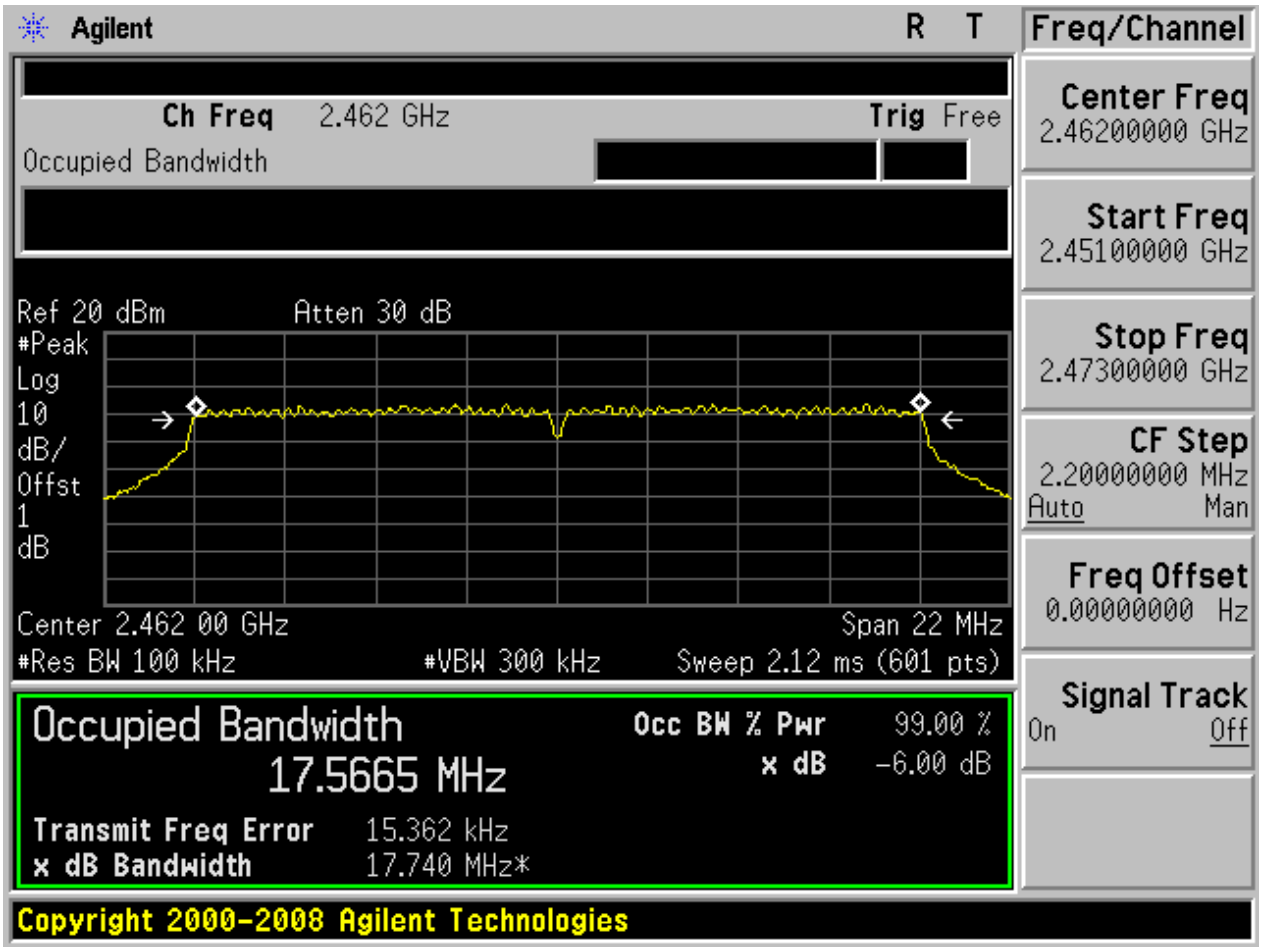
2.11 11N20_H



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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	20.46	pass
11B	M	2437	20.53	pass
11B	H	2462	20.71	pass
11G	L	2412	21.47	pass
11G	M	2437	21.56	pass
11G	H	2462	21.65	pass
11N20	L	2412	21.31	pass
11N20	M	2437	21.38	pass
11N20	H	2462	21.58	pass

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Appendix C: Maximum Power Spectral Density Level

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	PD[MHz]	Verdict
11B	L	2412	-2.57	pass
11B	M	2437	-3.09	pass
11B	H	2462	-2.57	pass
11G	L	2412	-6.37	pass
11G	M	2437	-6.42	pass
11G	H	2462	-6.12	pass
11N20	L	2412	-6.02	pass
11N20	M	2437	-6.33	pass
11N20	H	2462	-5.91	pass

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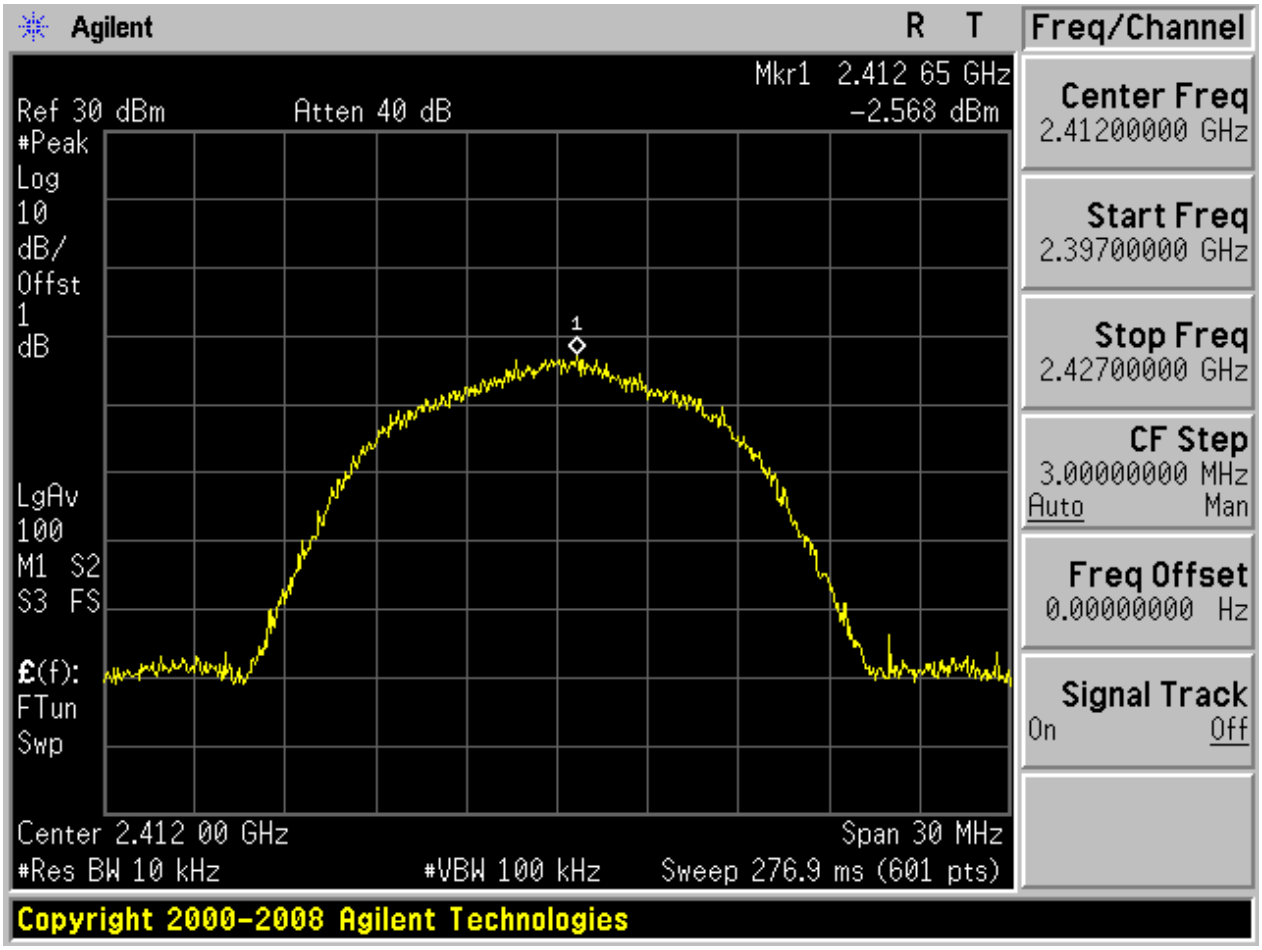
Part II - Test Plots

2.1 11B_L



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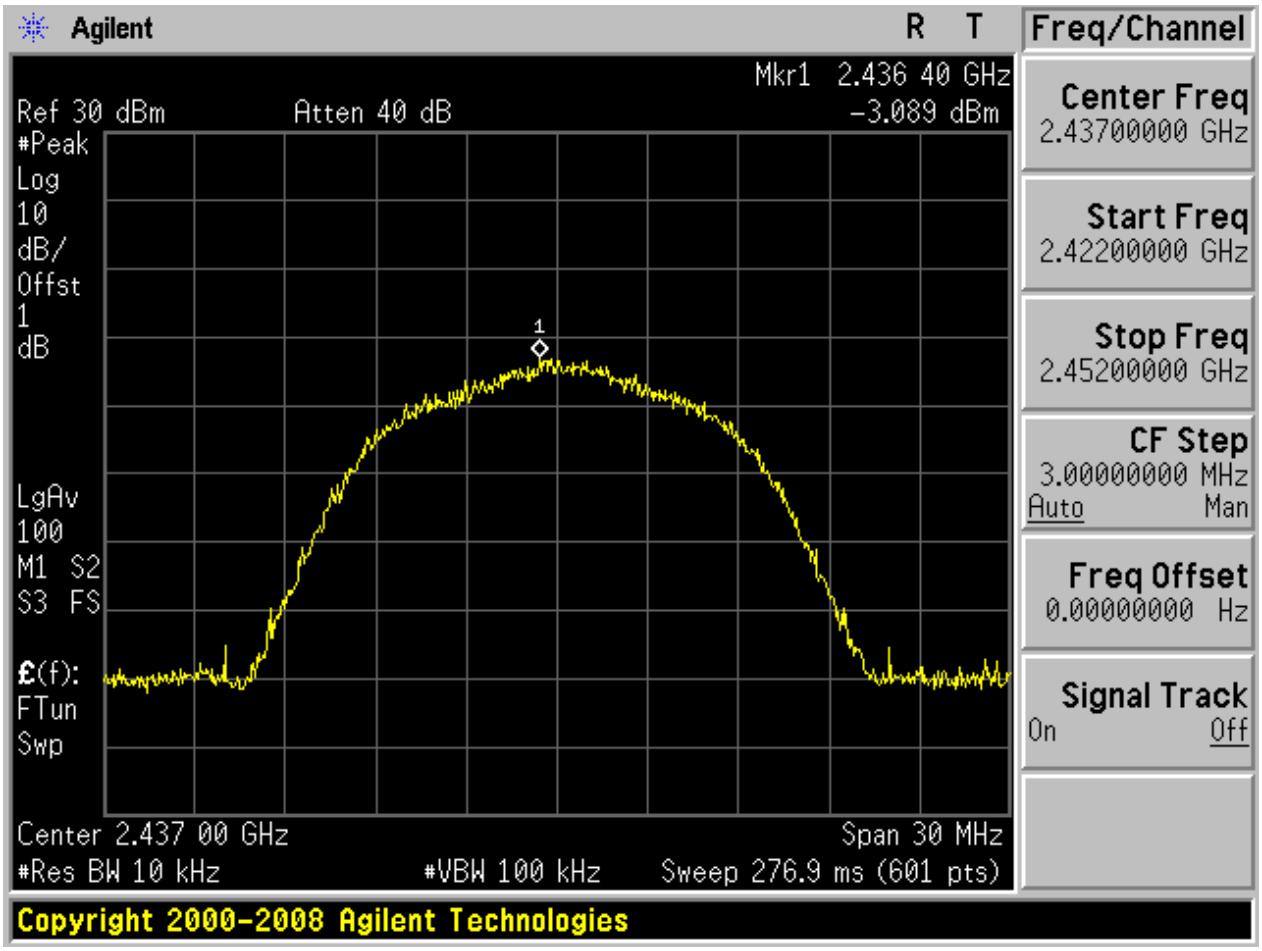
2.2 11B_M



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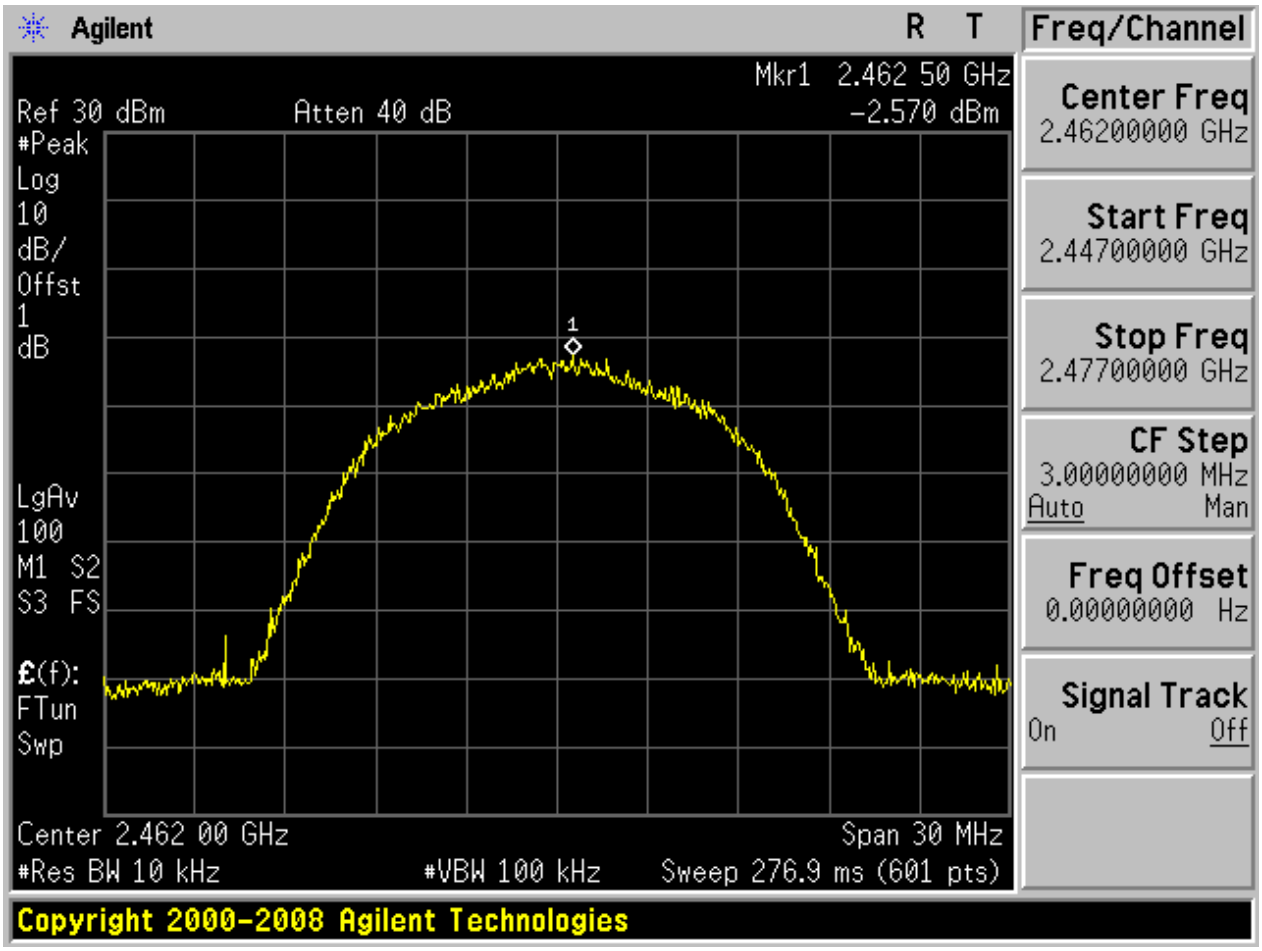
2.3 11B_H



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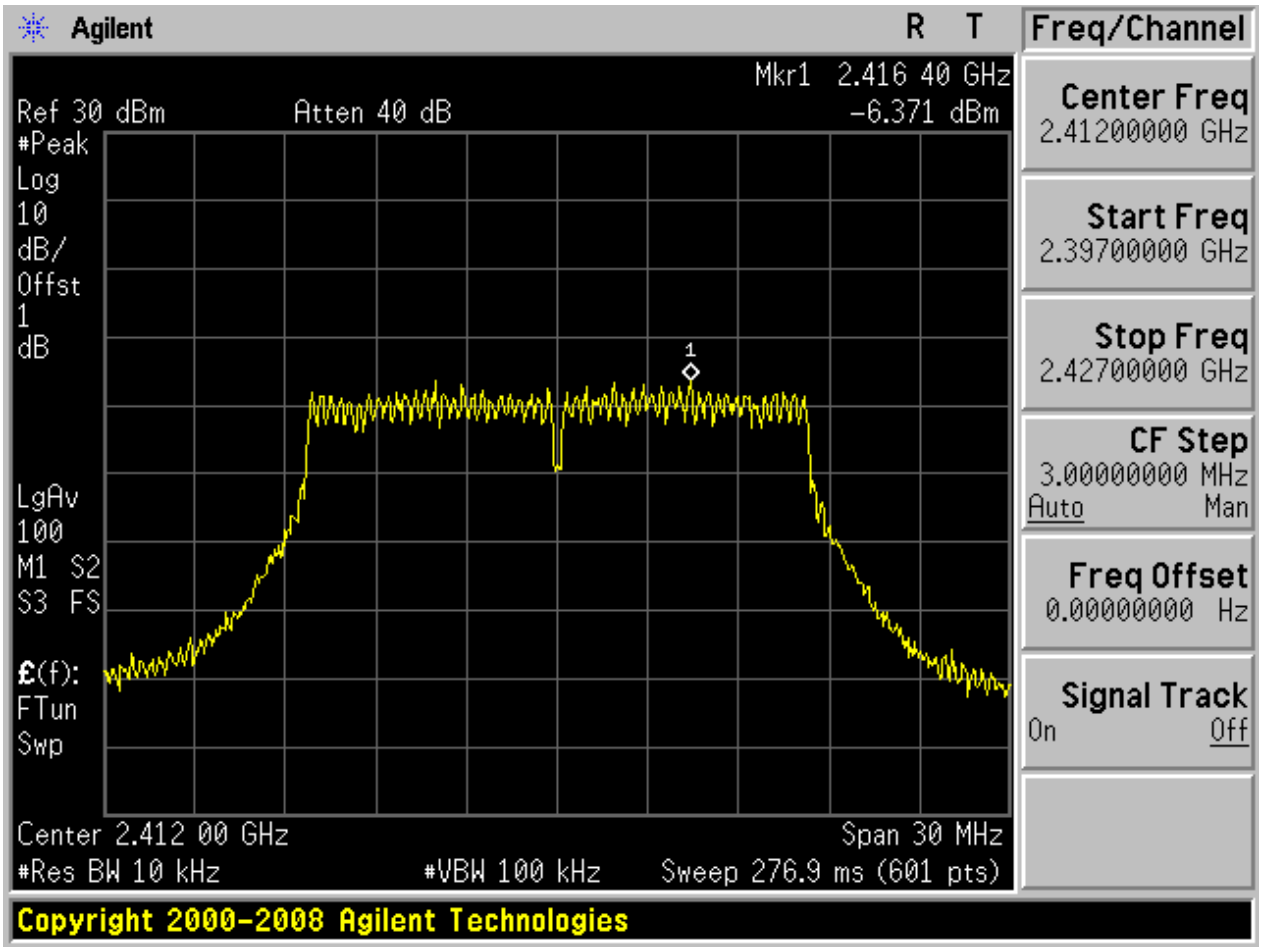
2.4 11G_L



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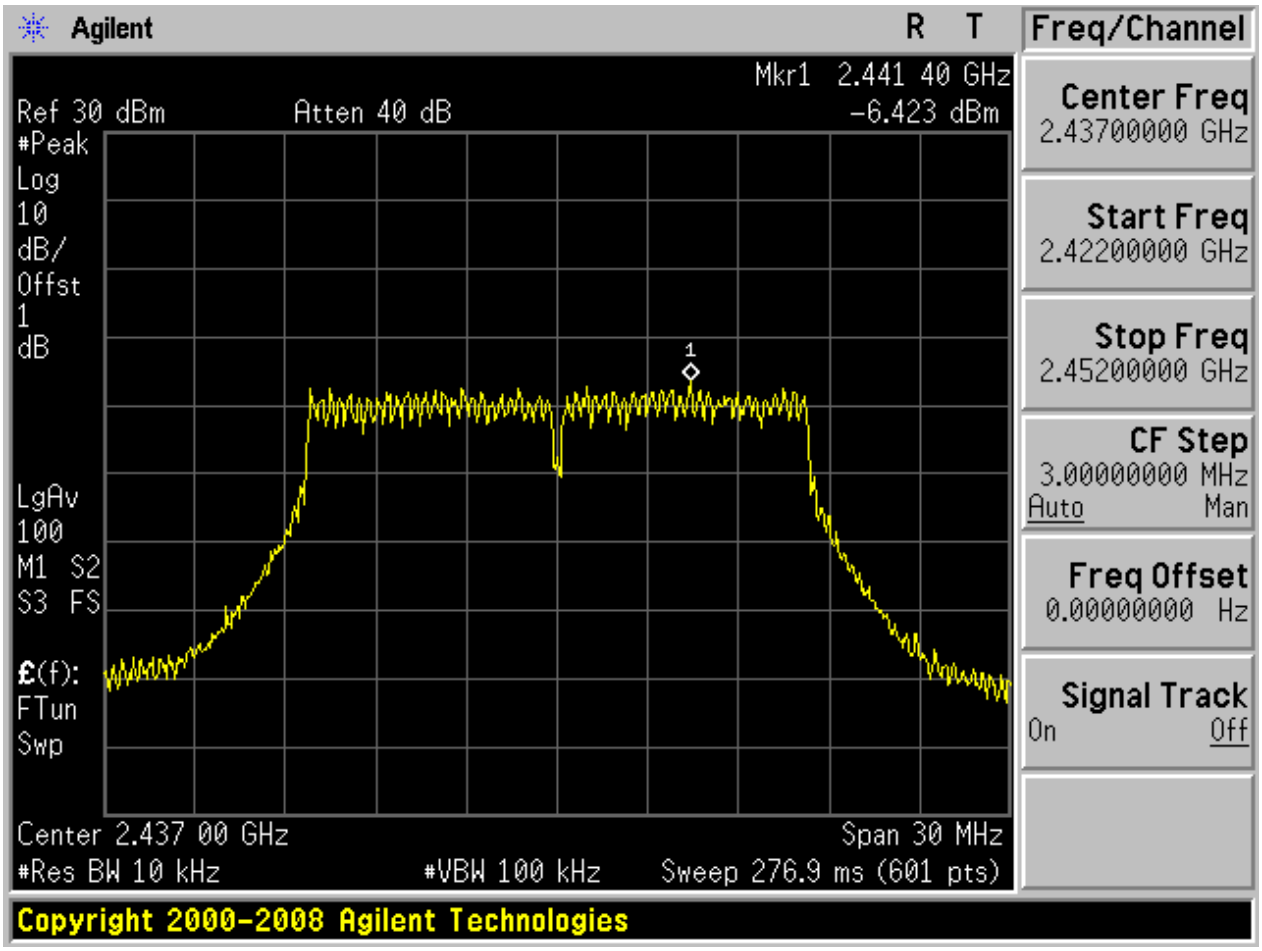
2.6 11G_M



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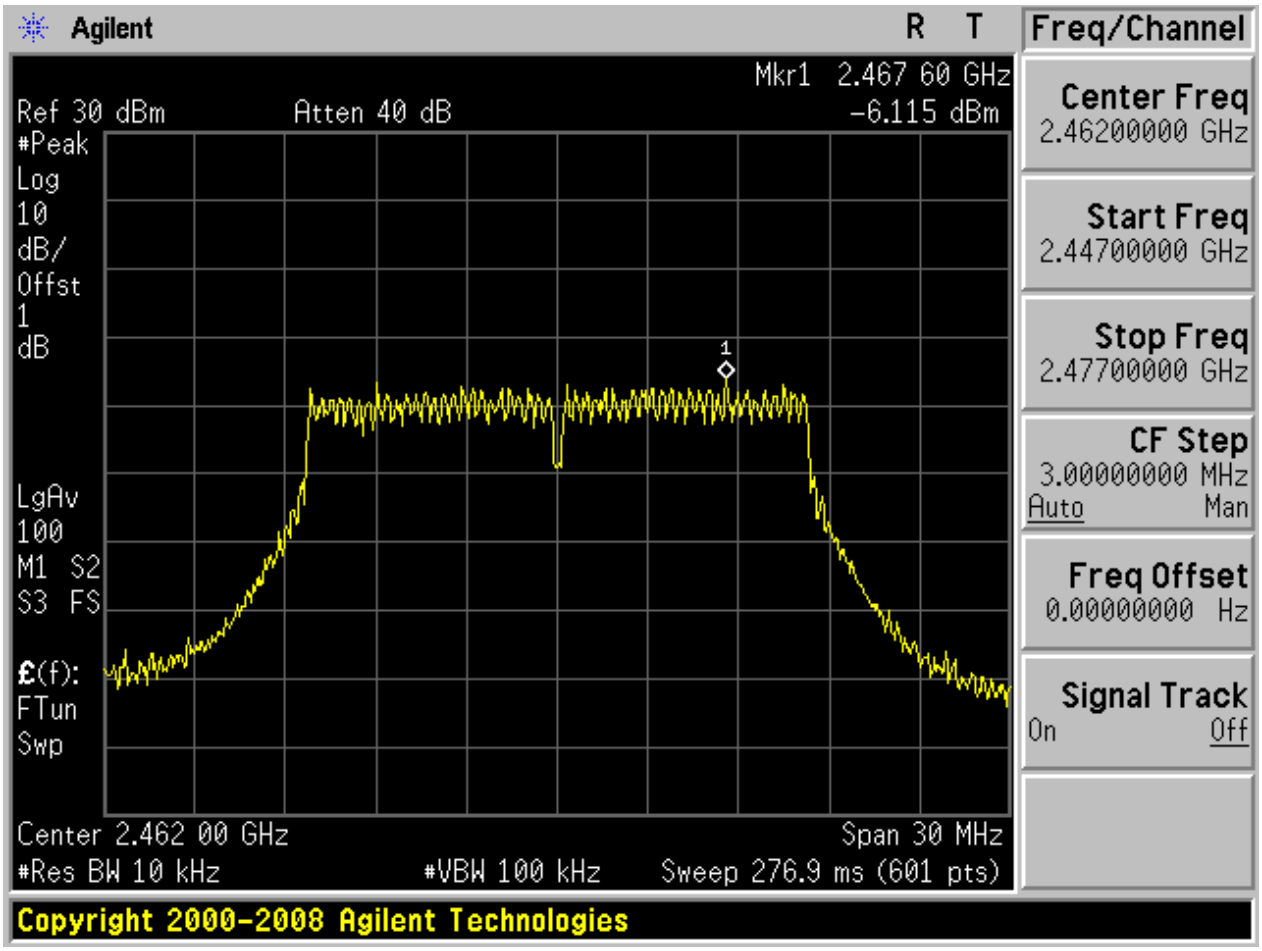

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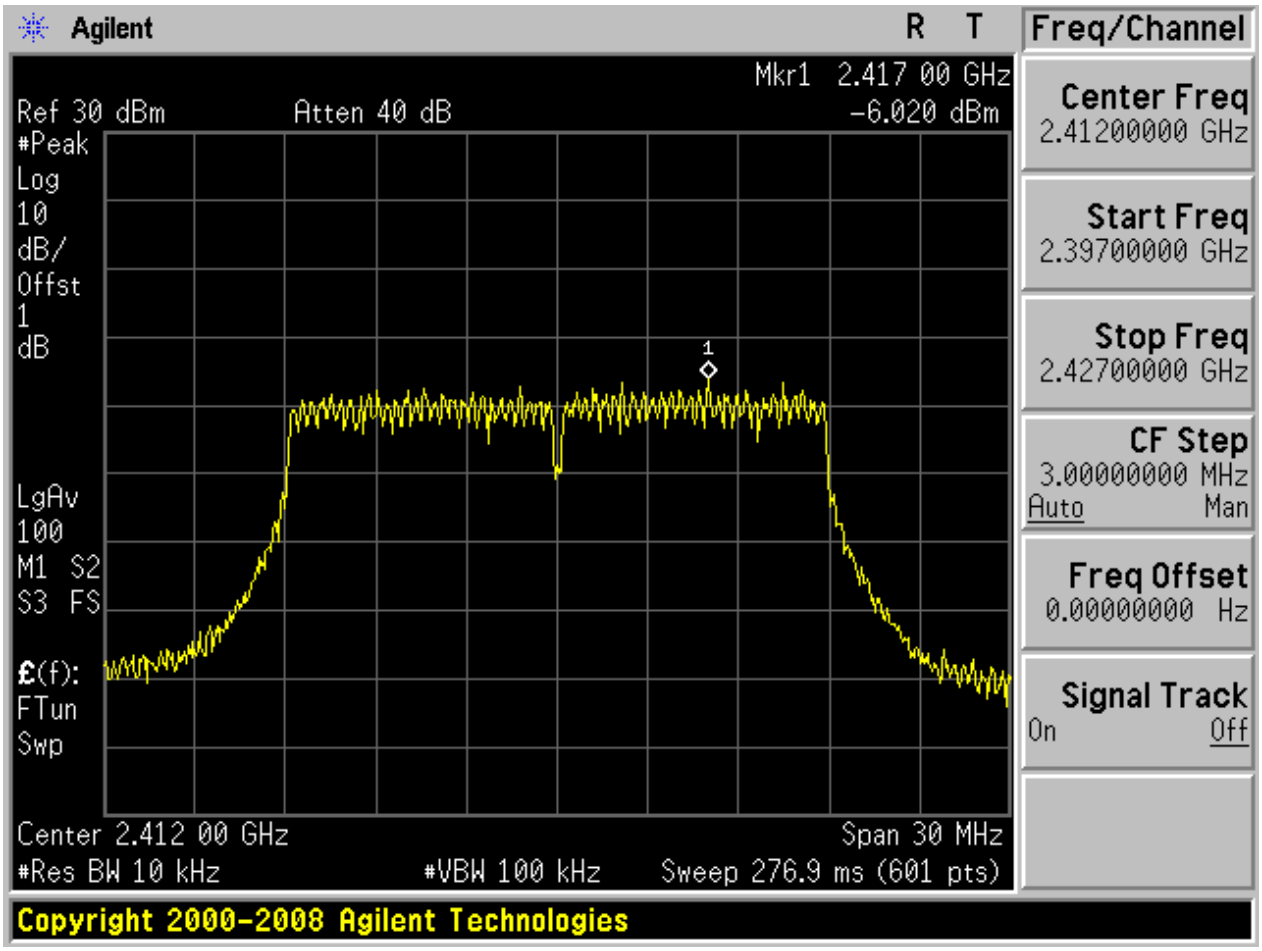
2.9 11N20_L



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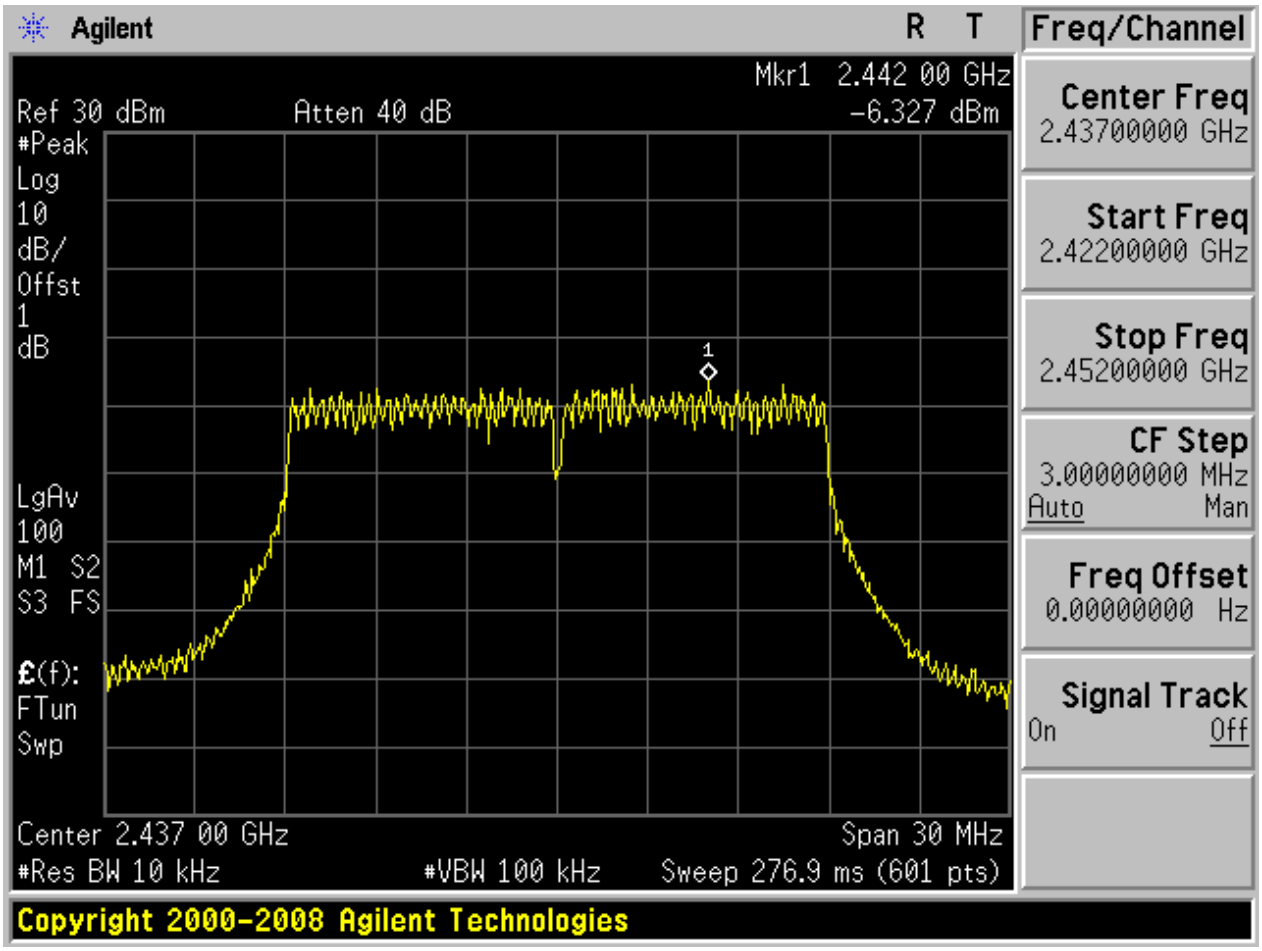

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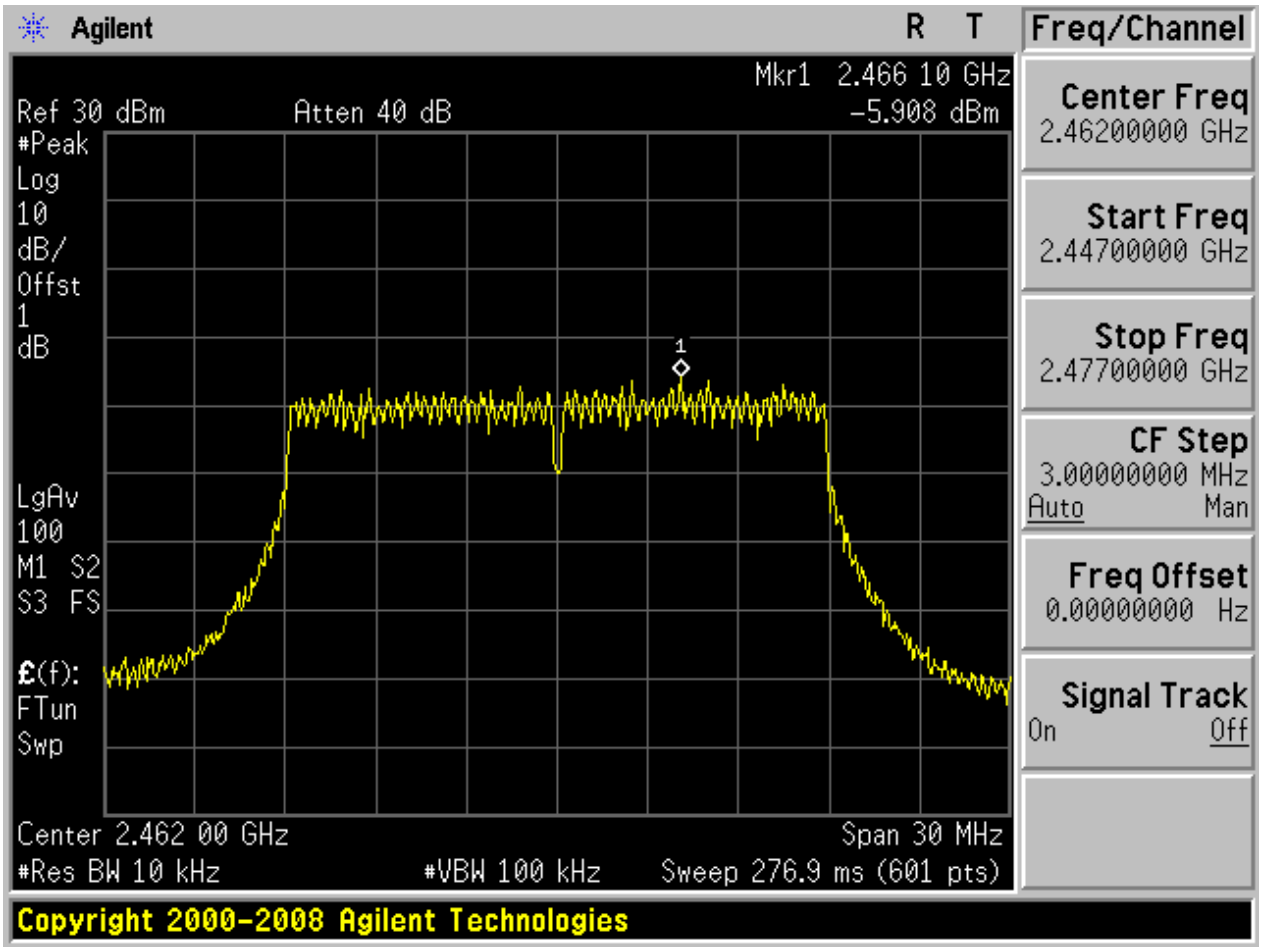

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Appendix D: Band Edges Compliance

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
11B	L	2412	5.02	-39.48	pass
11B	H	2462	5.42	-51.45	pass
11G	L	2412	1.31	-37.26	pass
11G	H	2462	1.59	-47.11	pass
11N20	L	2412	1.33	-37.35	pass
11N20	H	2462	1.71	-45.71	pass

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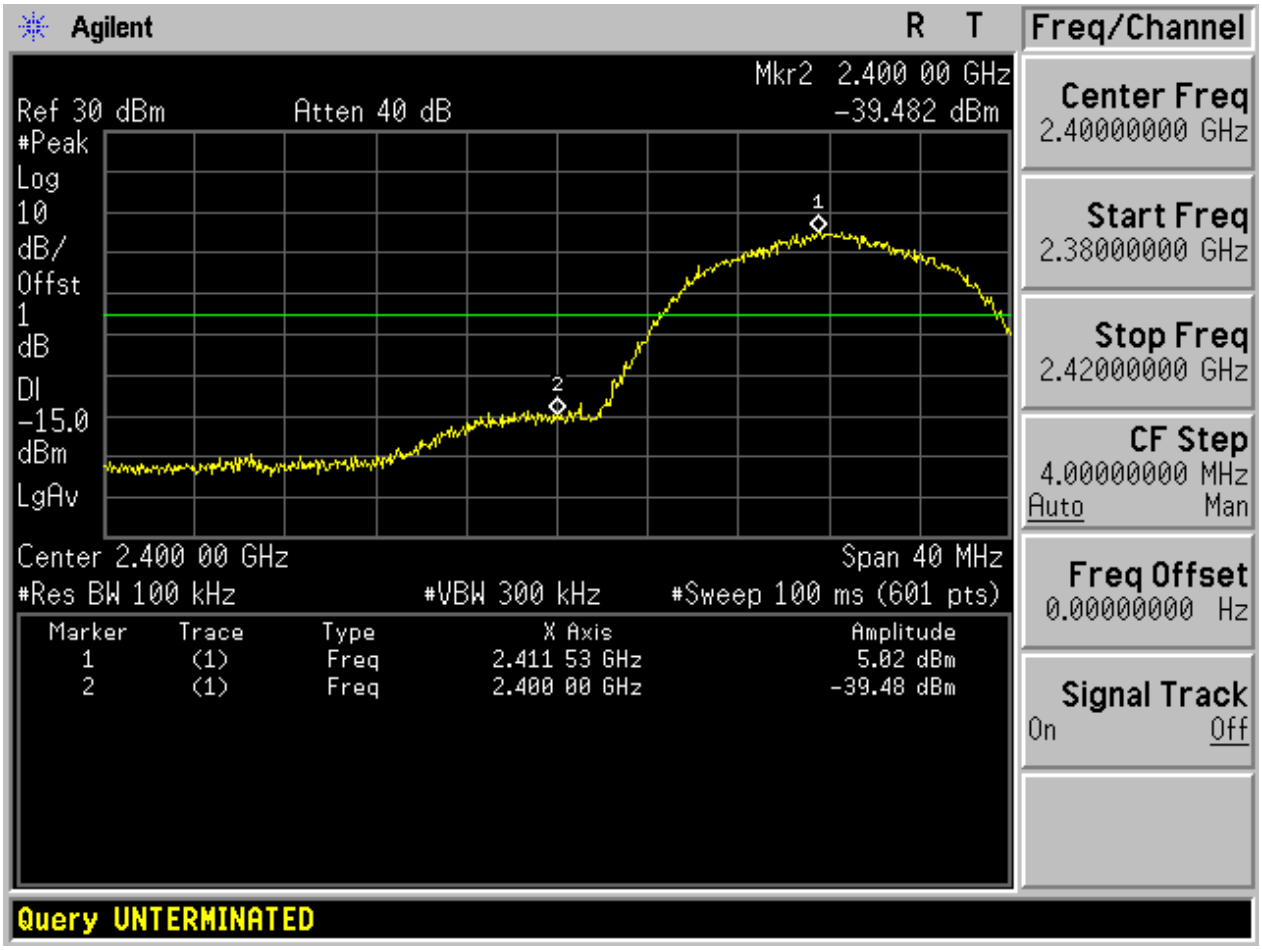
Part II - Test Plots

2.1 11B_L



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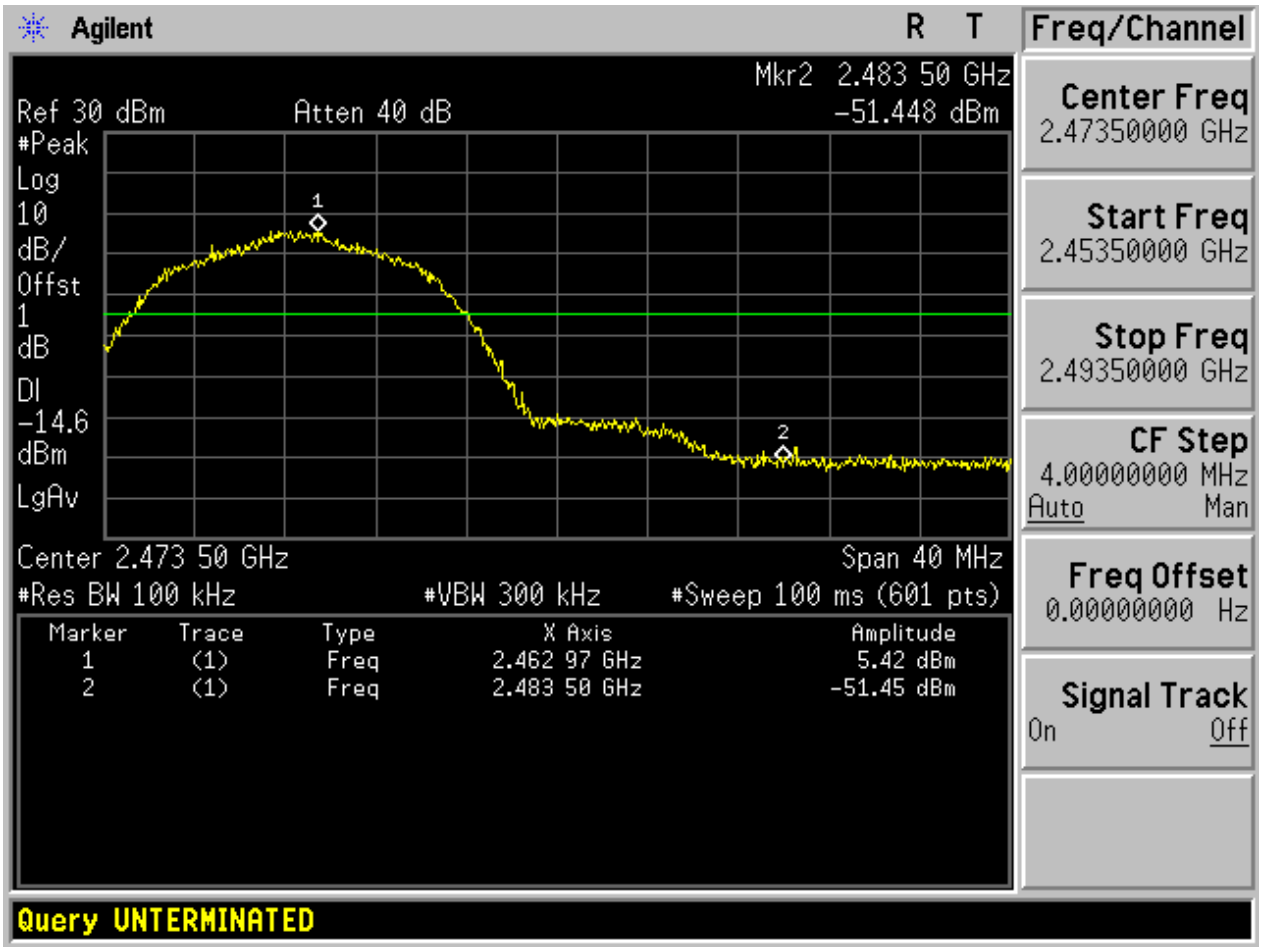
2.2 11B_H



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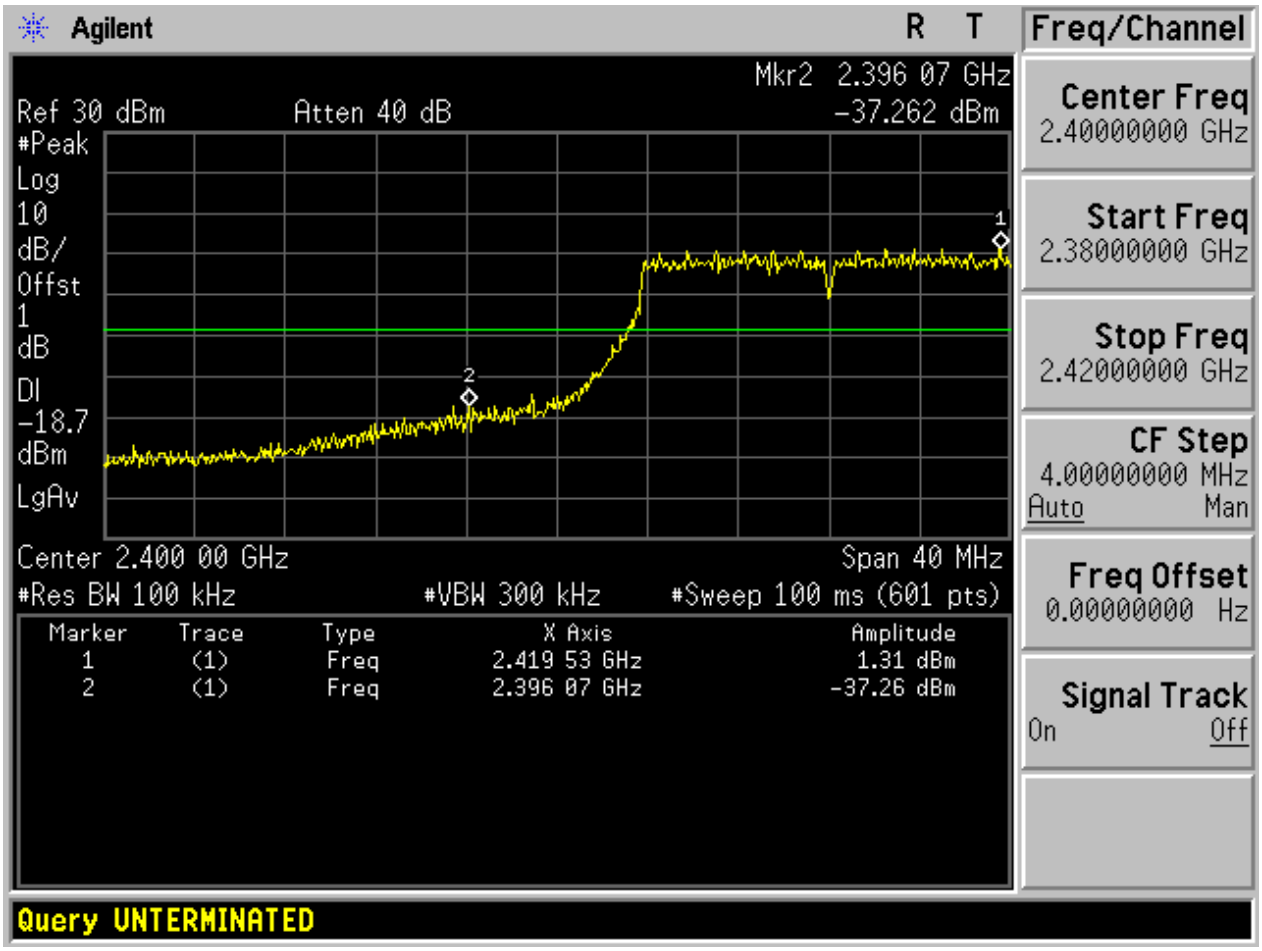
2.5 11G_L



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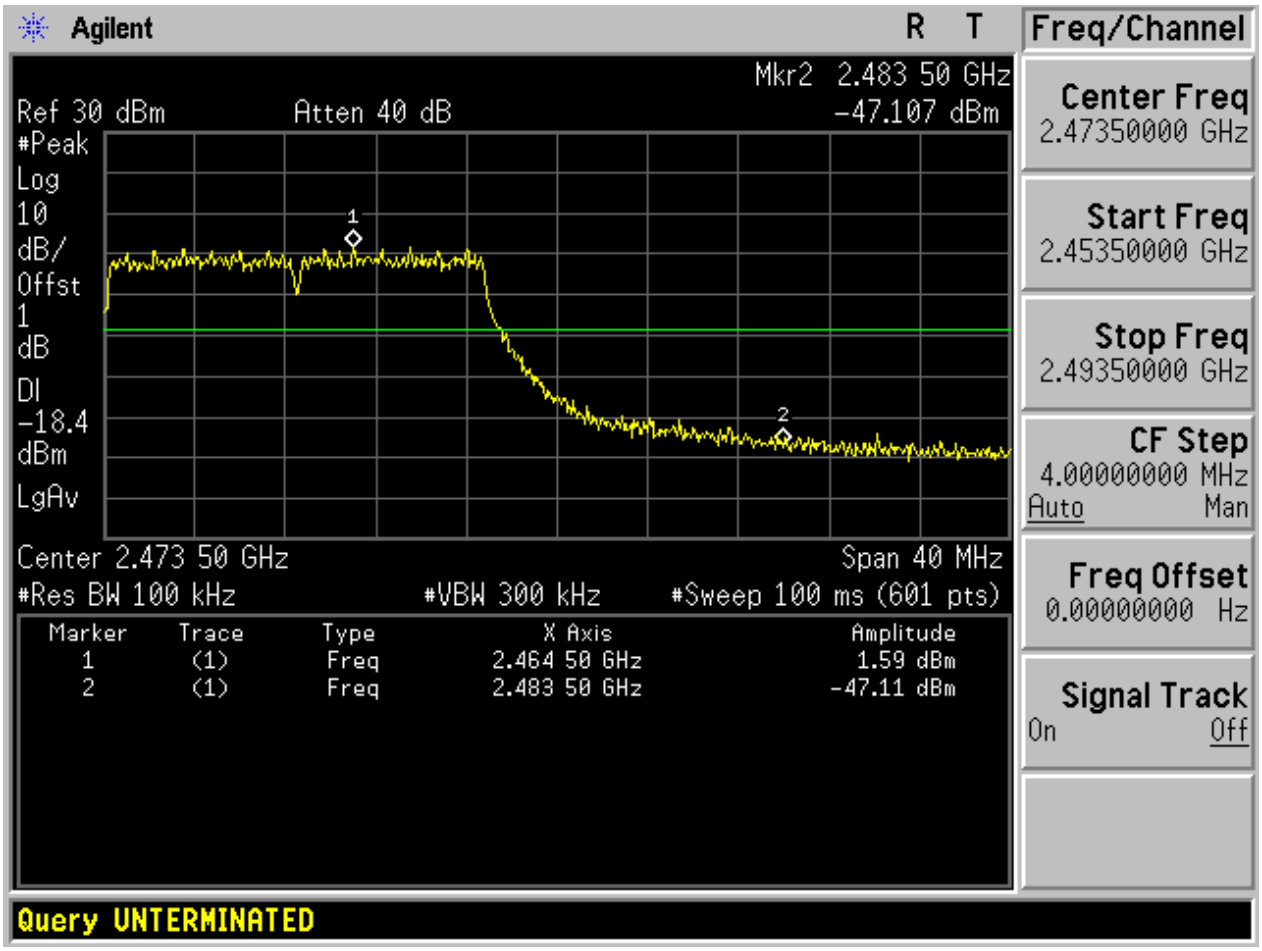
2.6 11G_H



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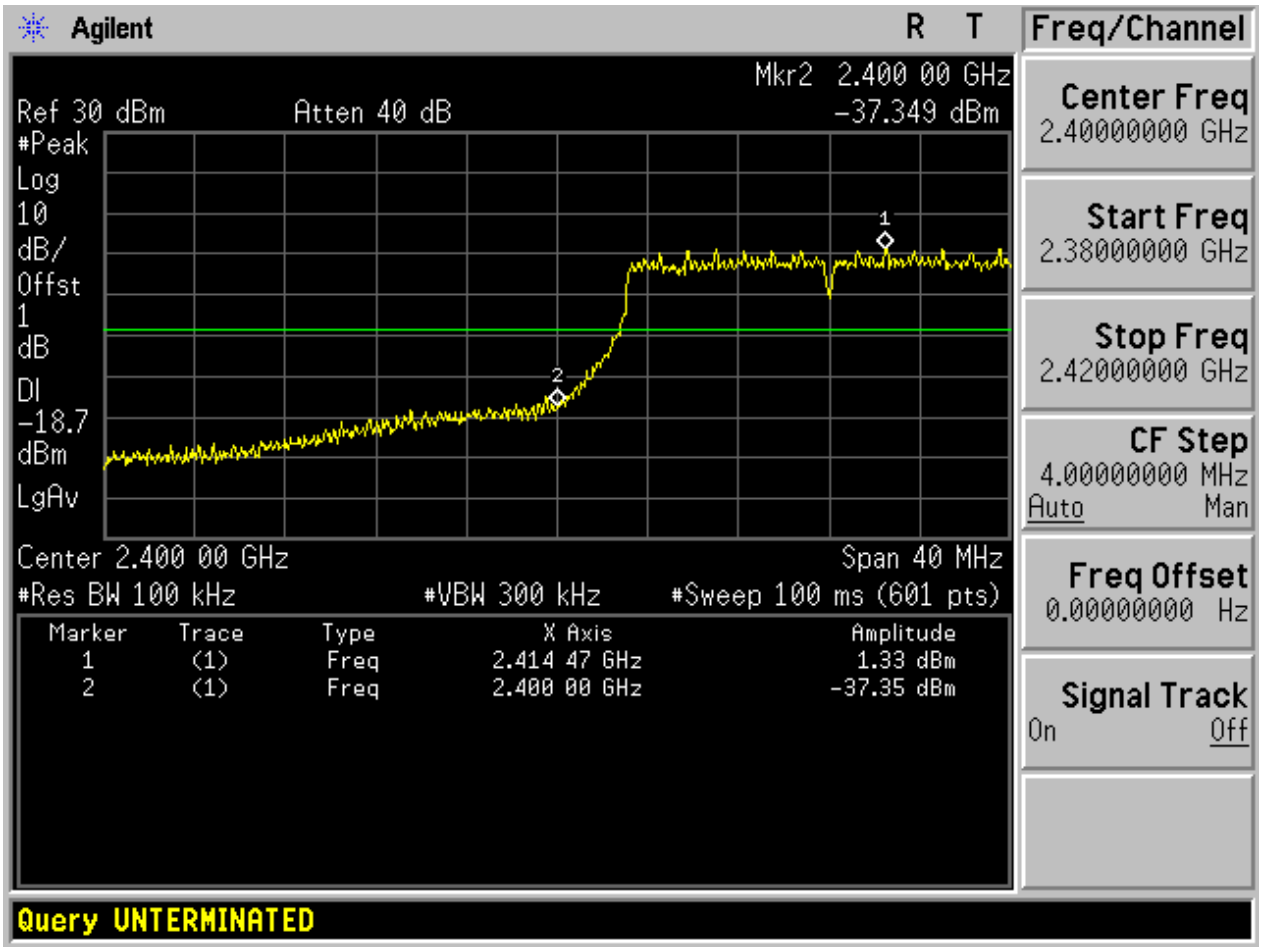
2.7 11N20_L



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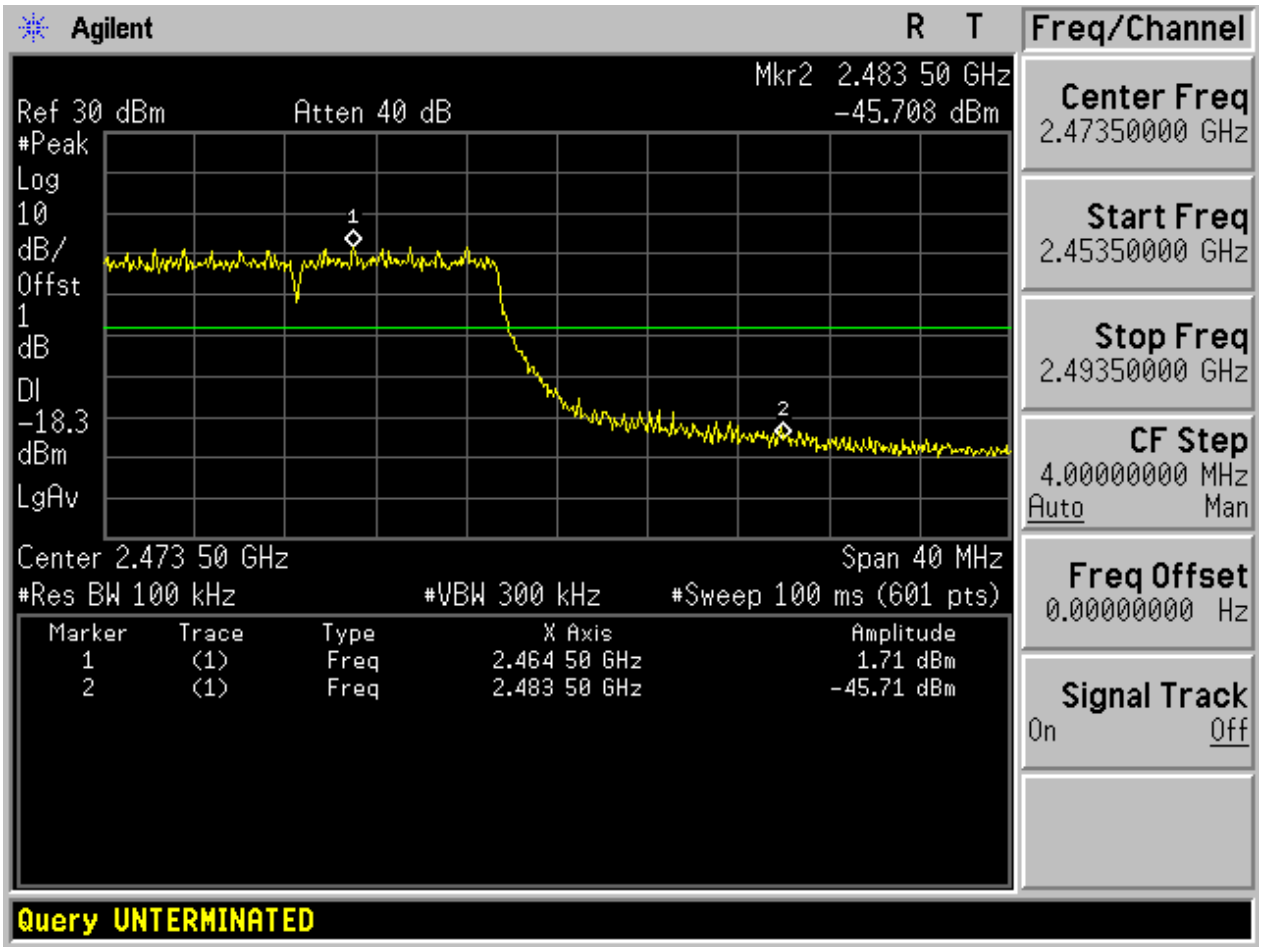
2.8 11N20_H



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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	6.89	<limit	pass
11B	M	2437	7.22	<limit	pass
11B	H	2462	7.07	<limit	pass
11G	L	2412	1.63	<limit	pass
11G	M	2437	1.66	<limit	pass
11G	H	2462	1.82	<limit	pass
11N20	L	2412	1.74	<limit	pass
11N20	M	2437	1.68	<limit	pass
11N20	H	2462	1.93	<limit	pass

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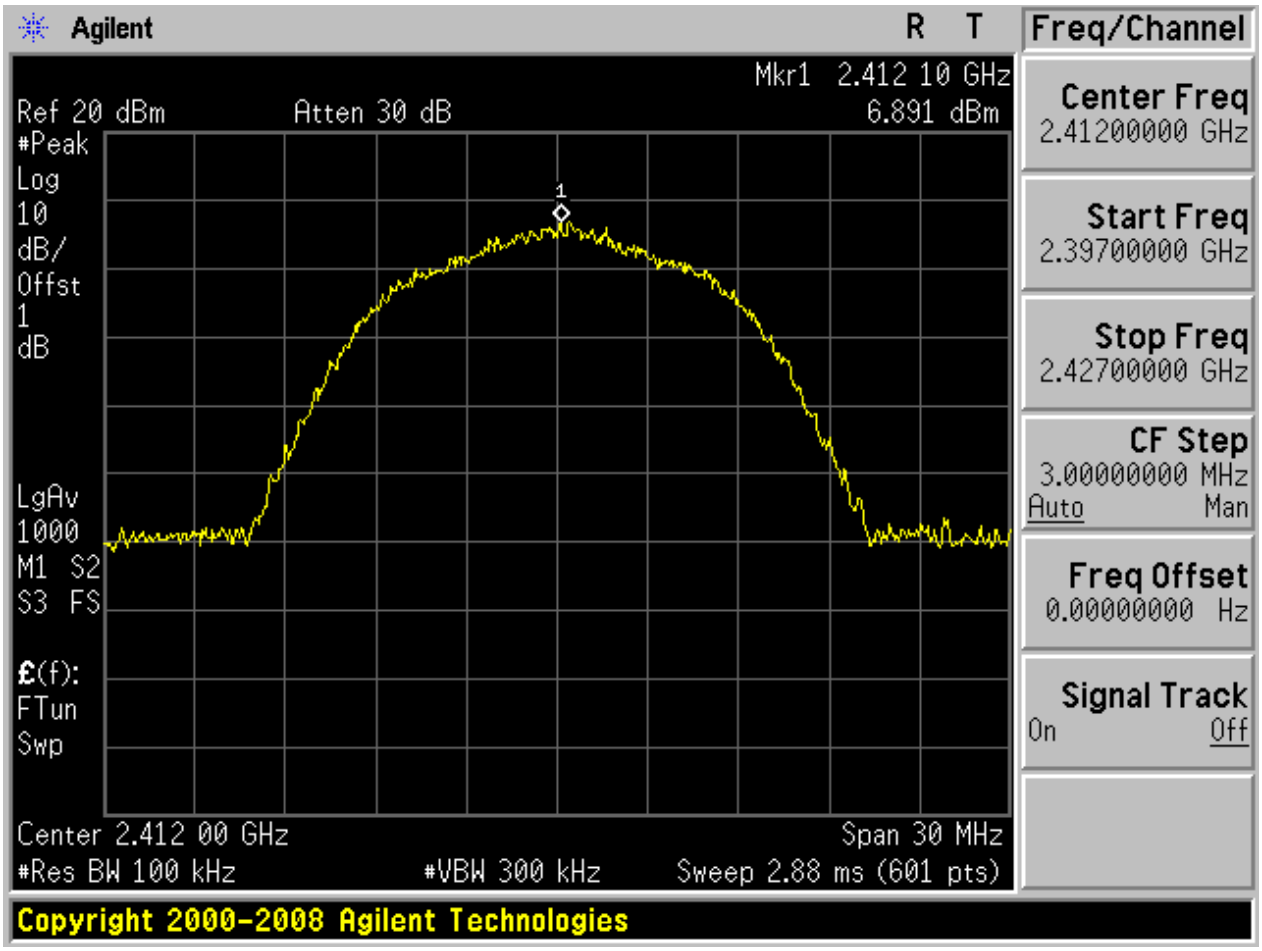
Part II - Test Plots

2.1 11B_L

Pref:



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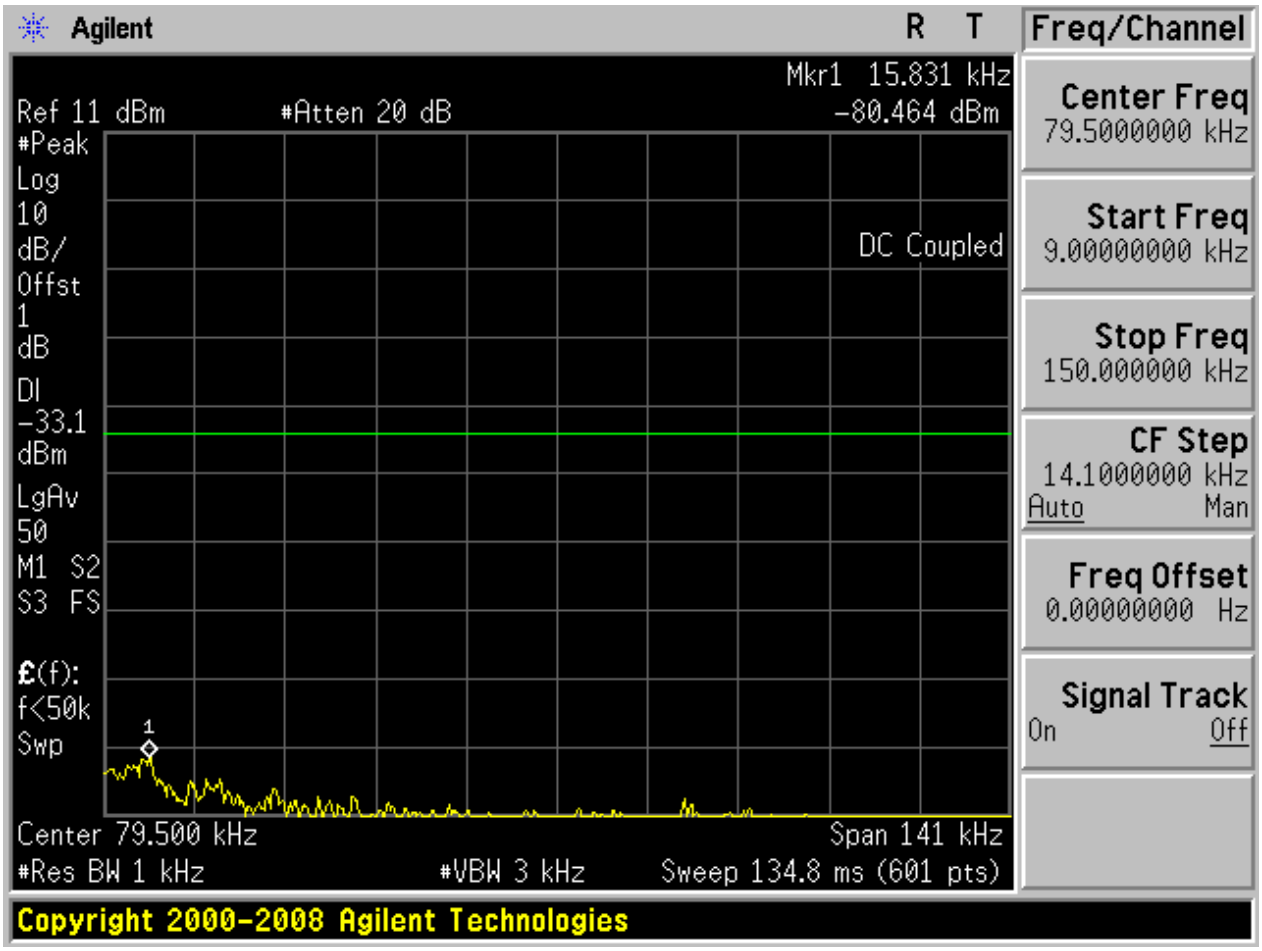
Puw:



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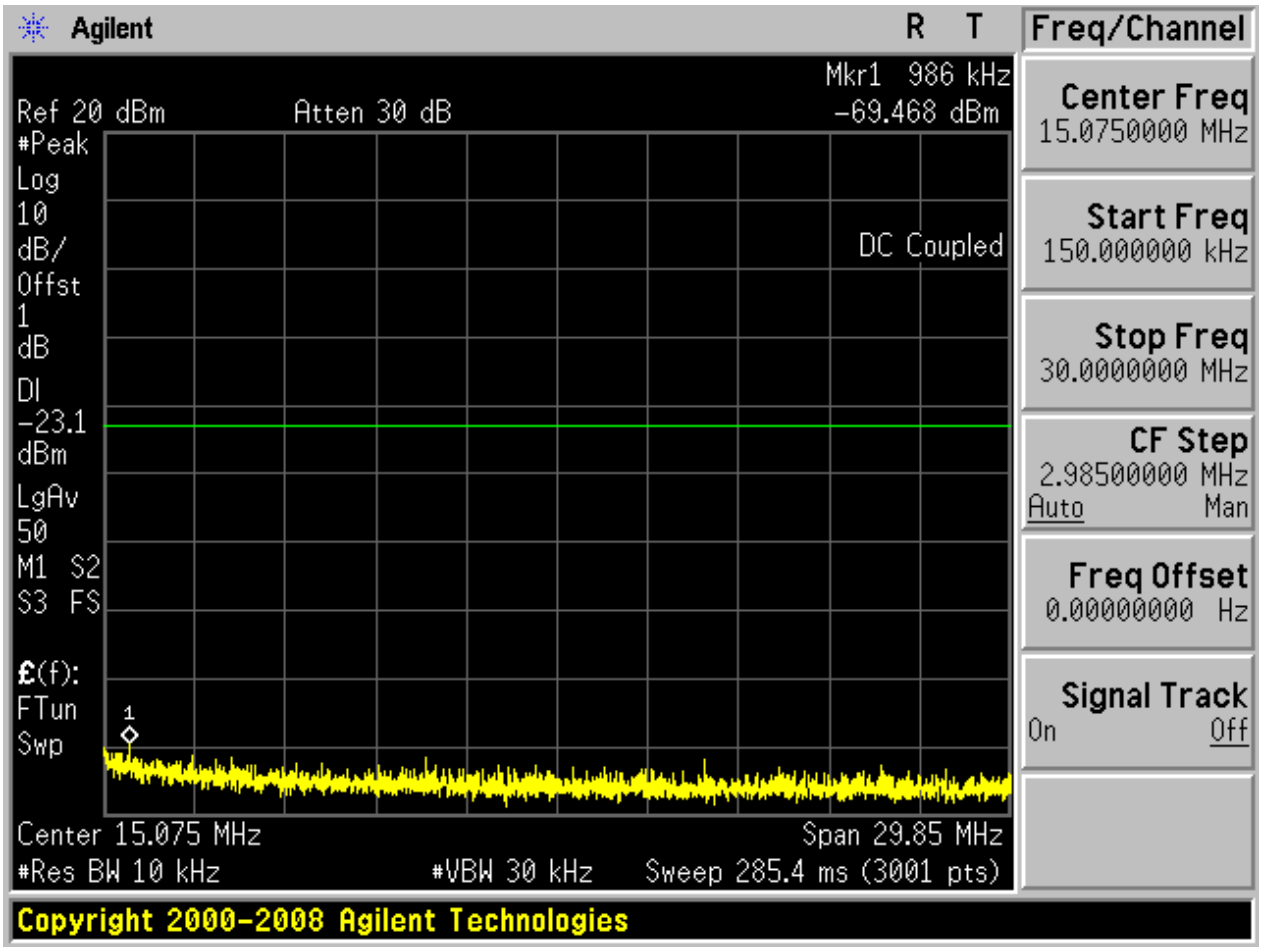

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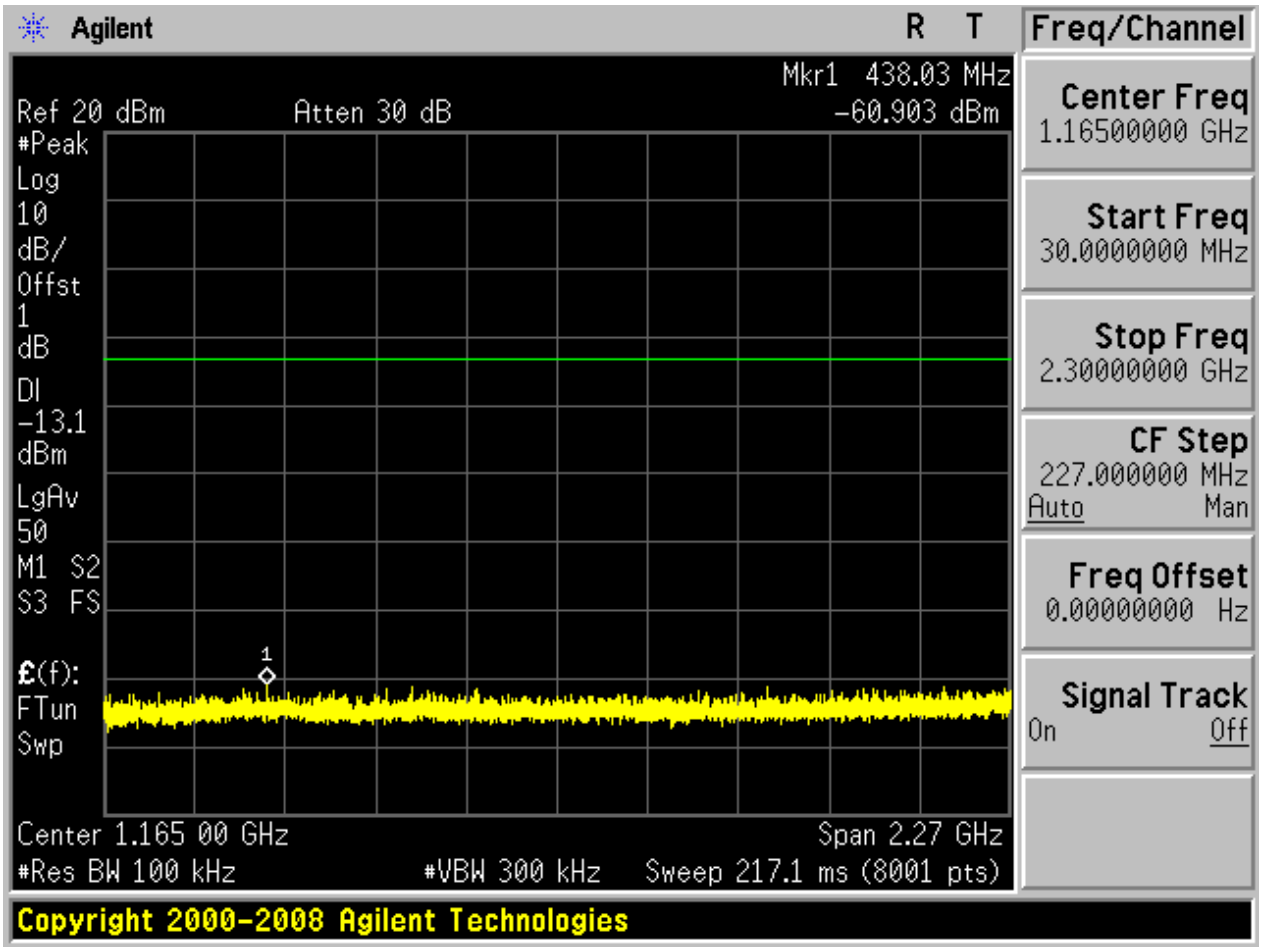

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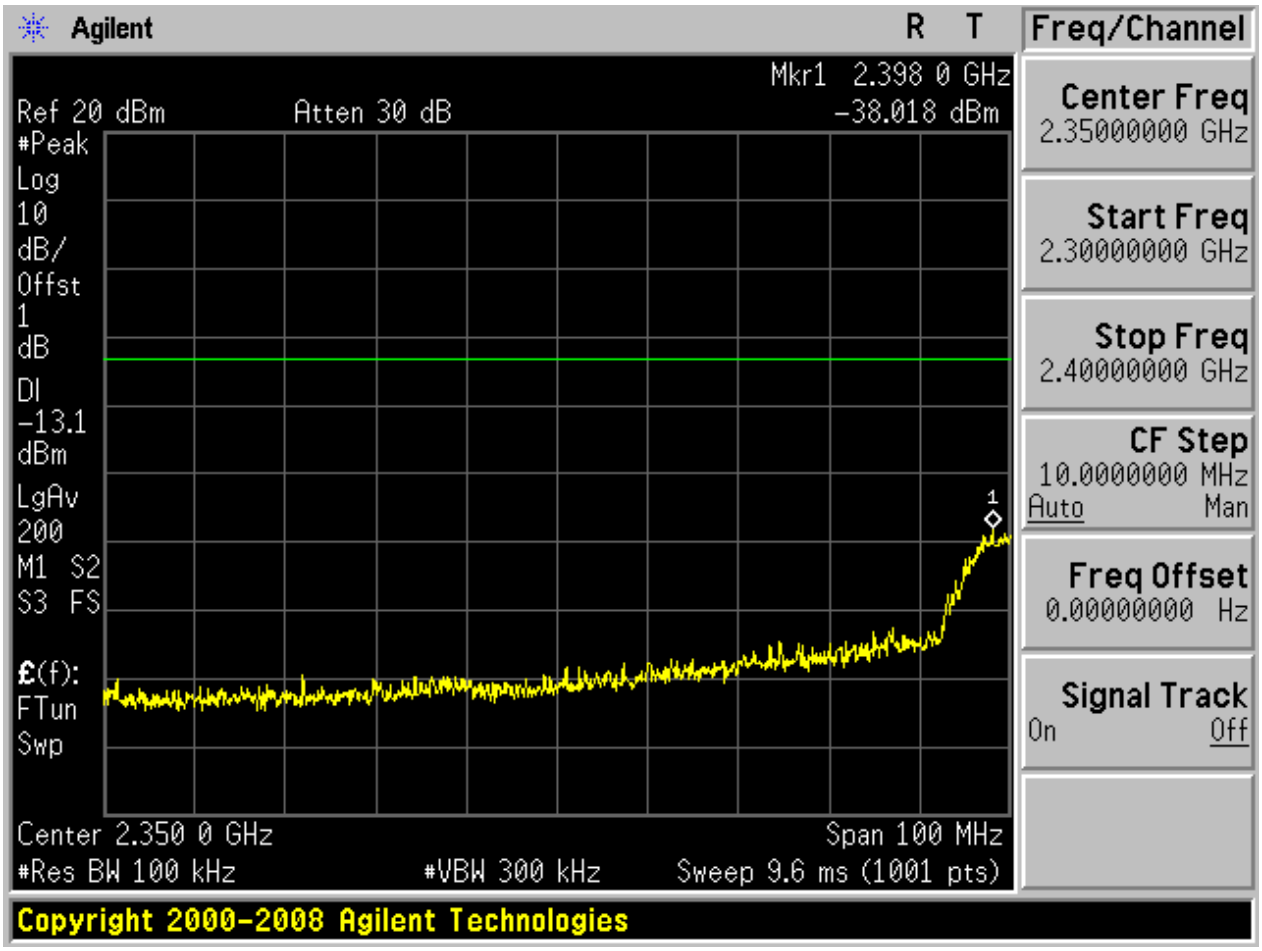

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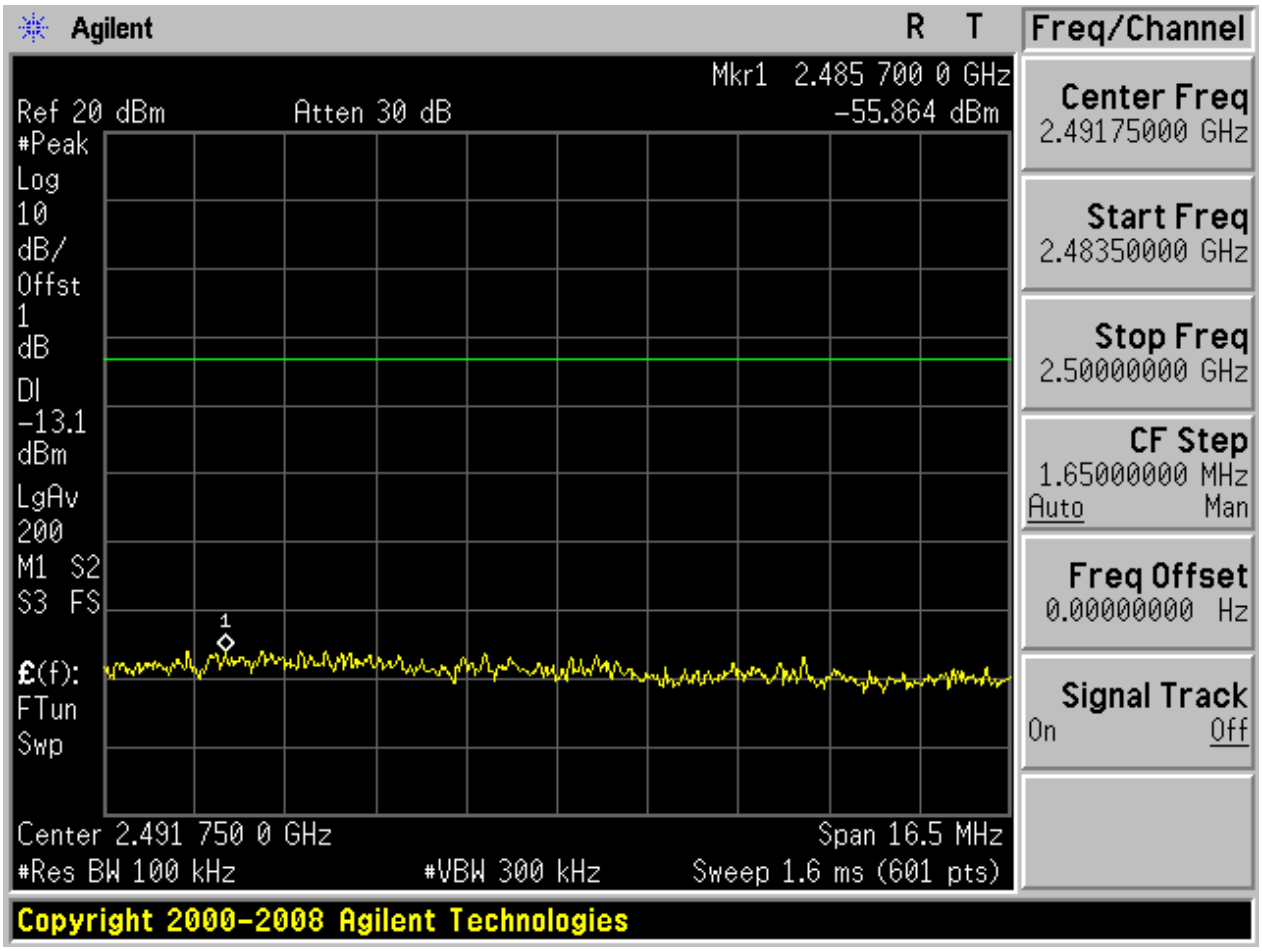

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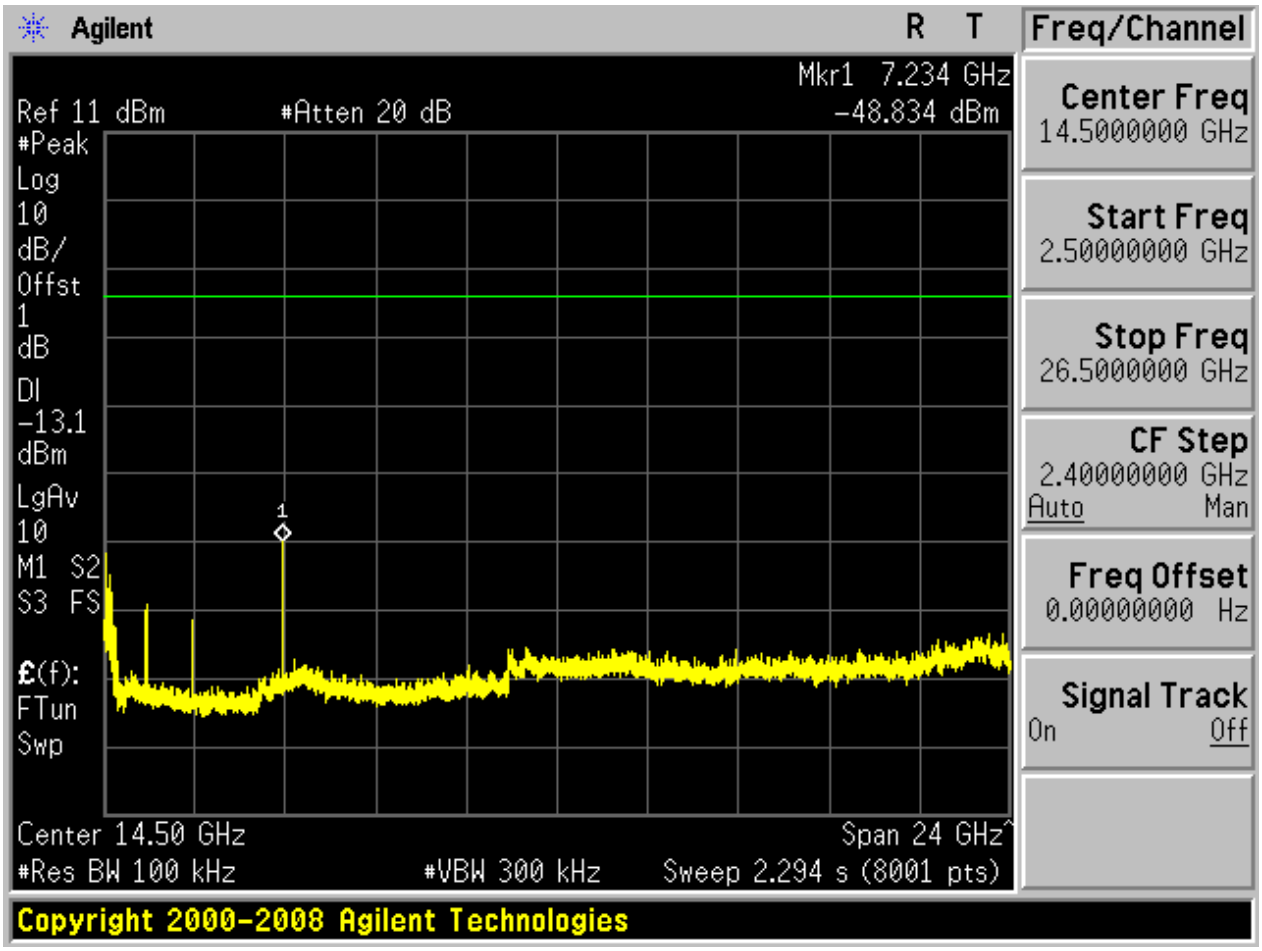

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2.2 11B_M

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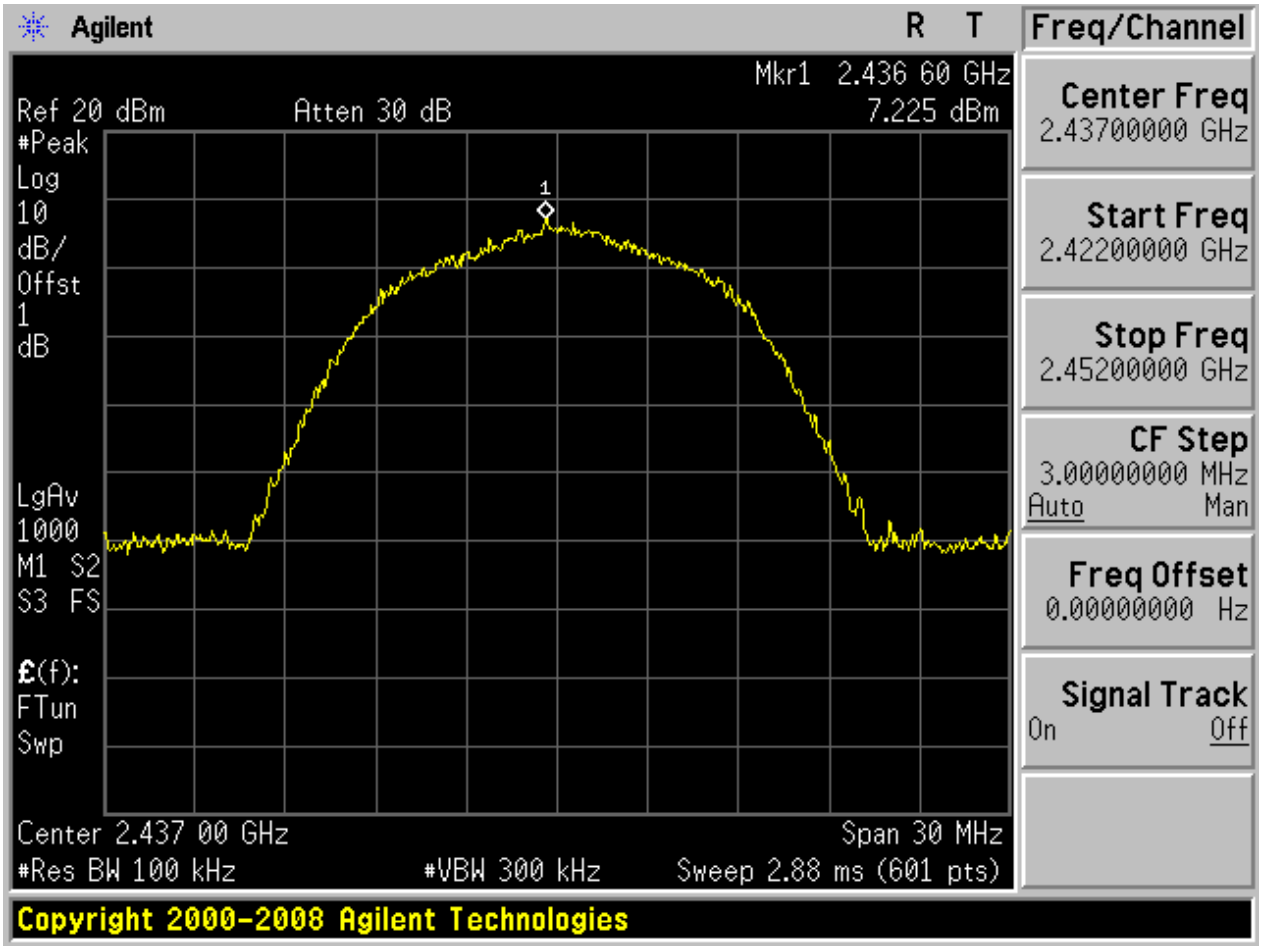

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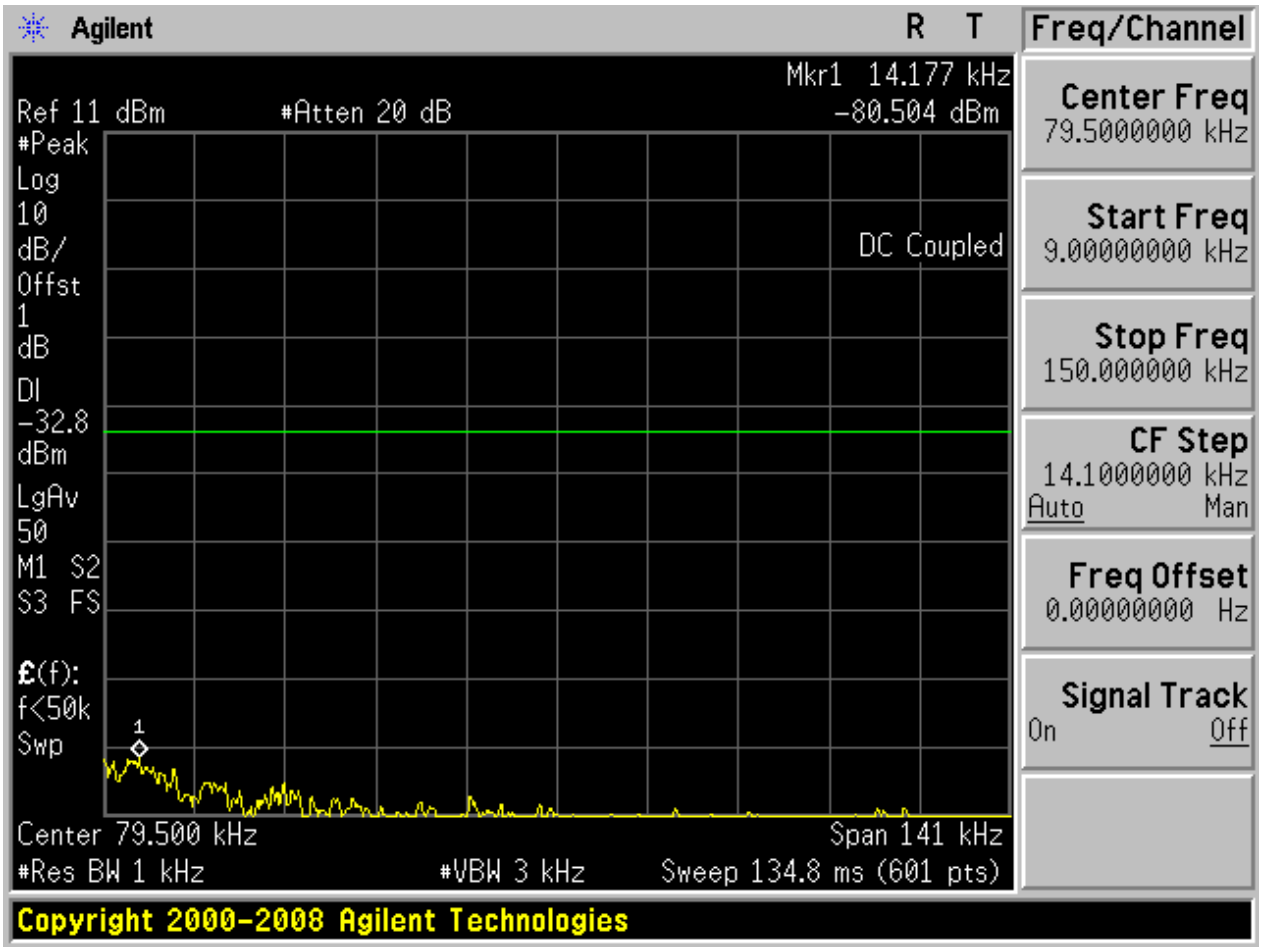
Puw:



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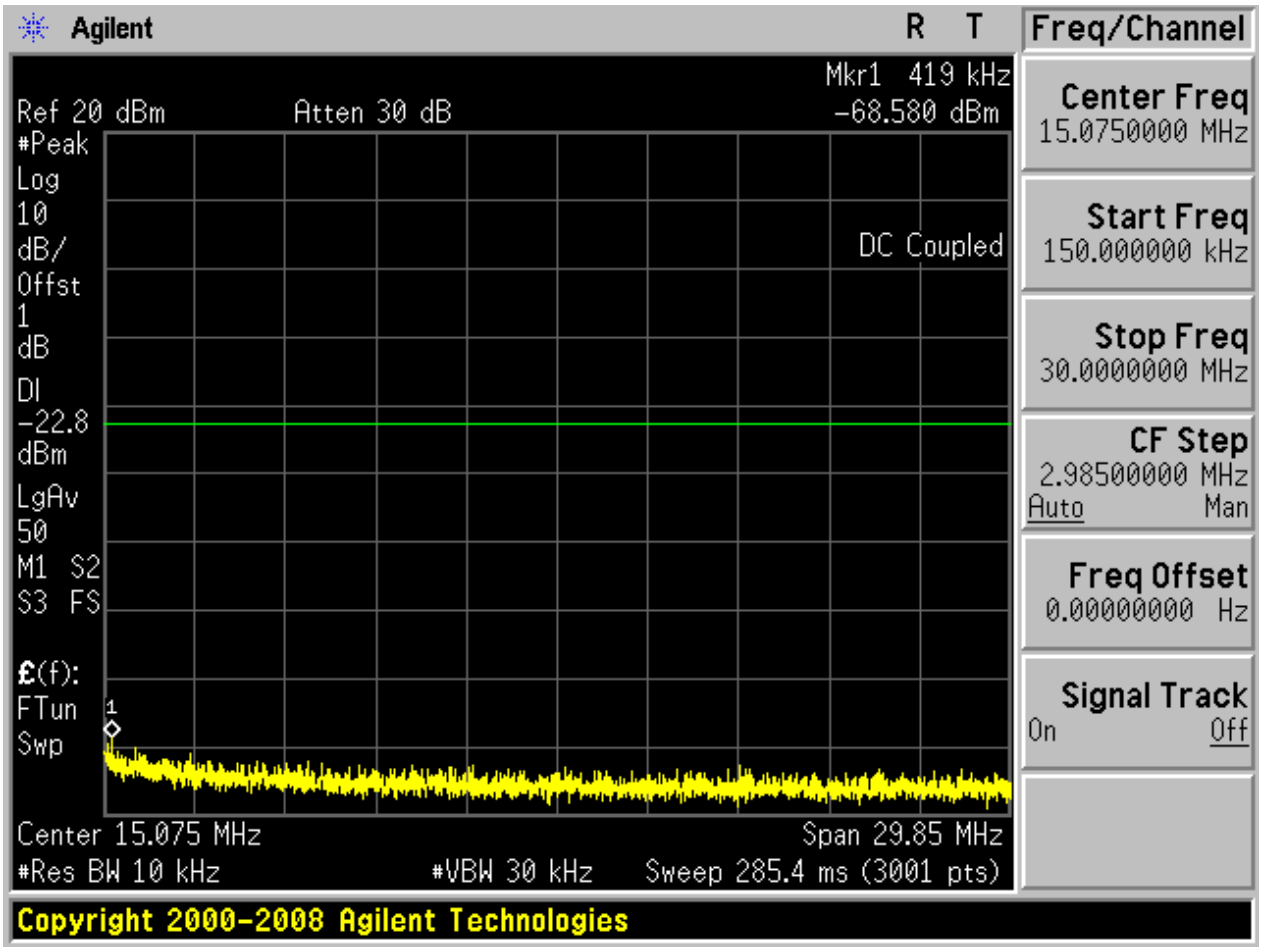

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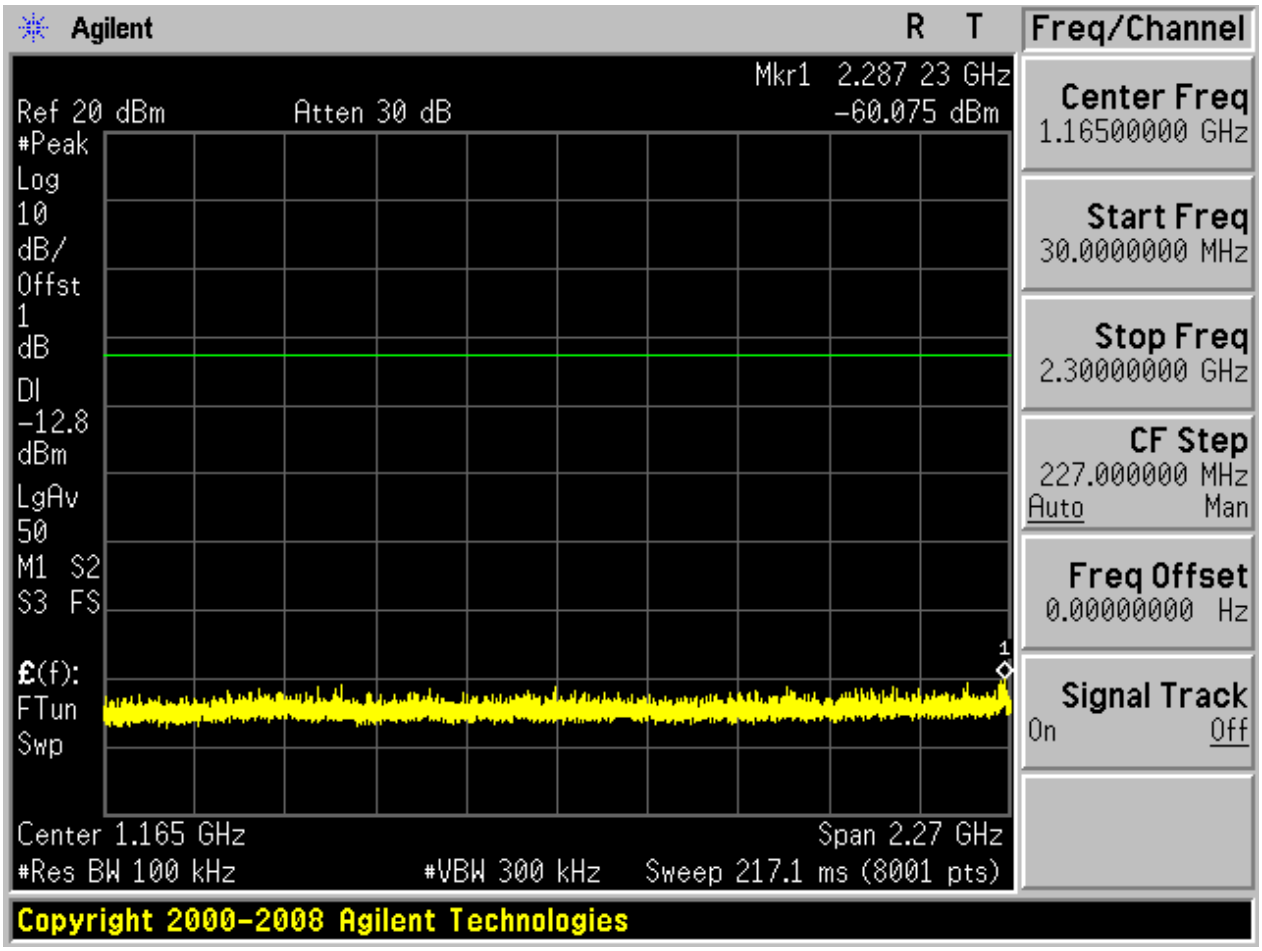

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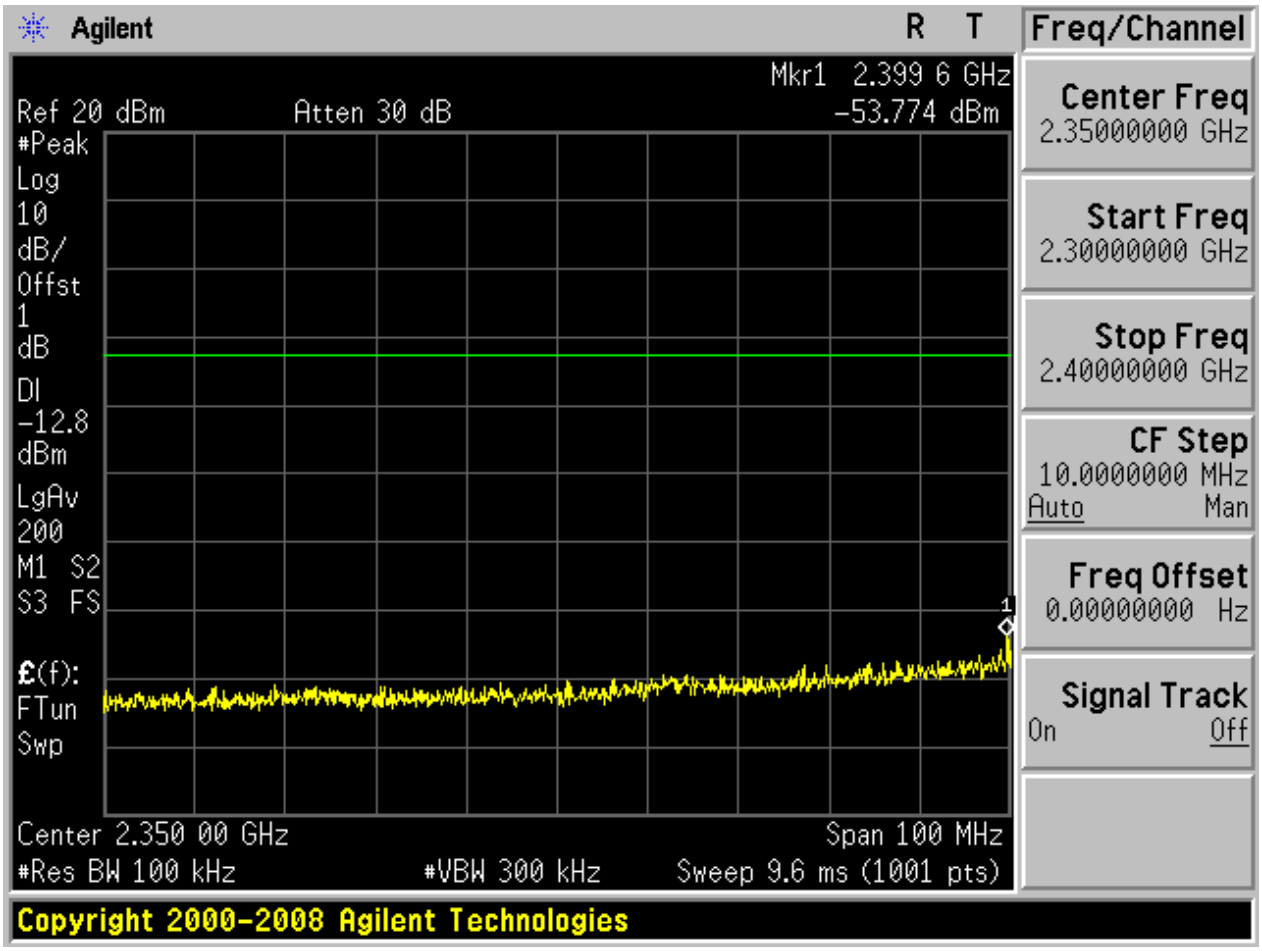

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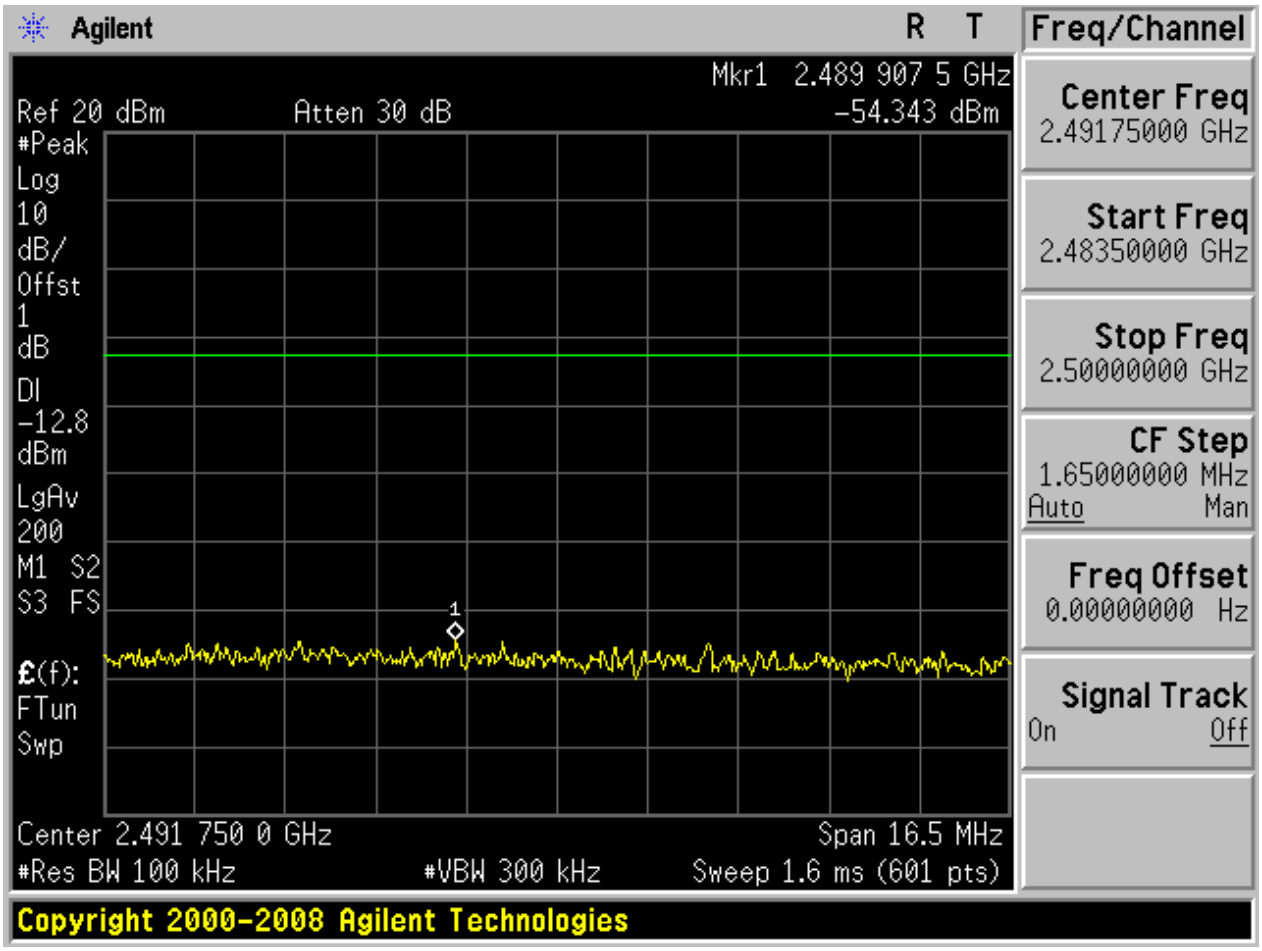

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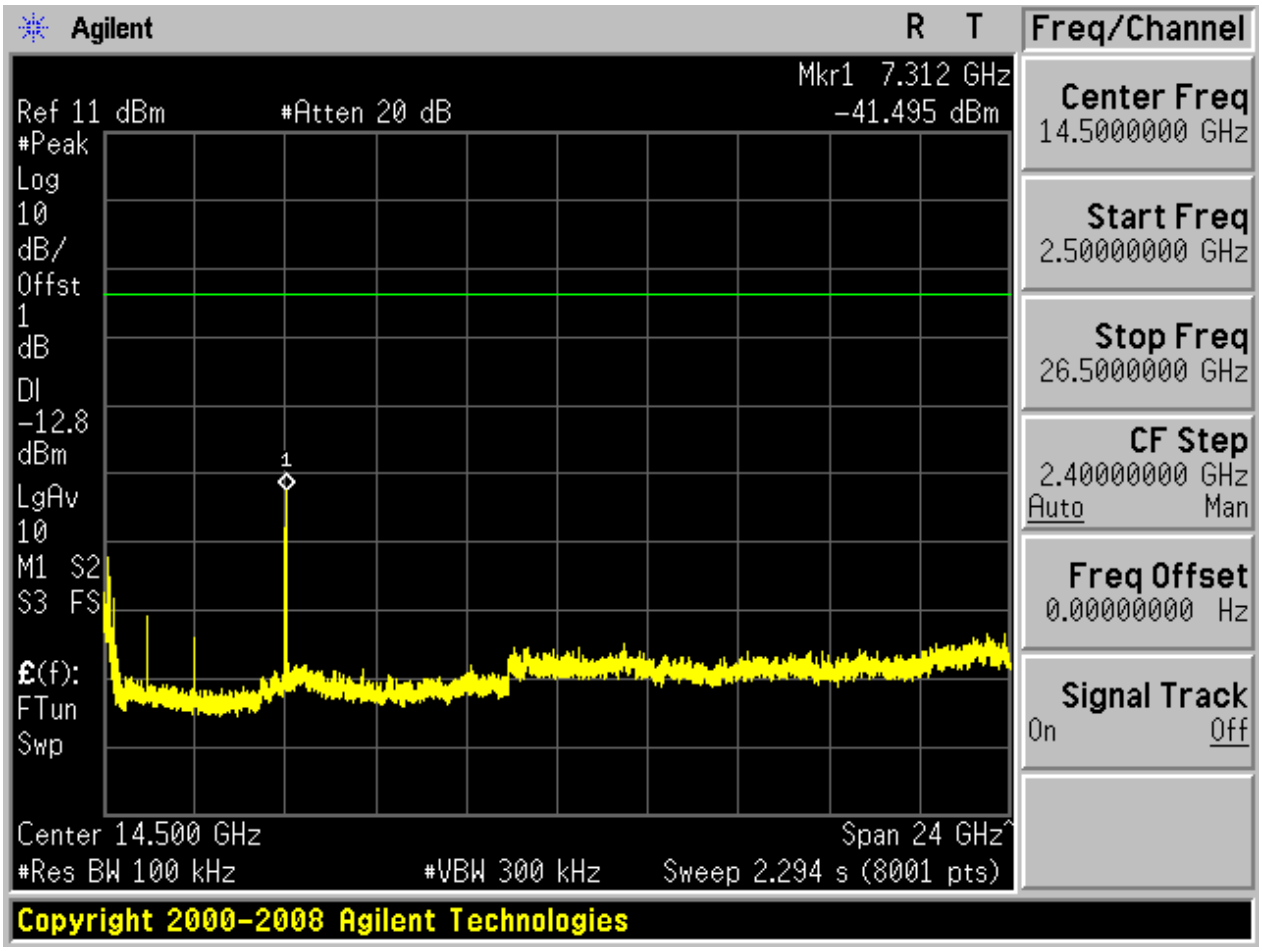

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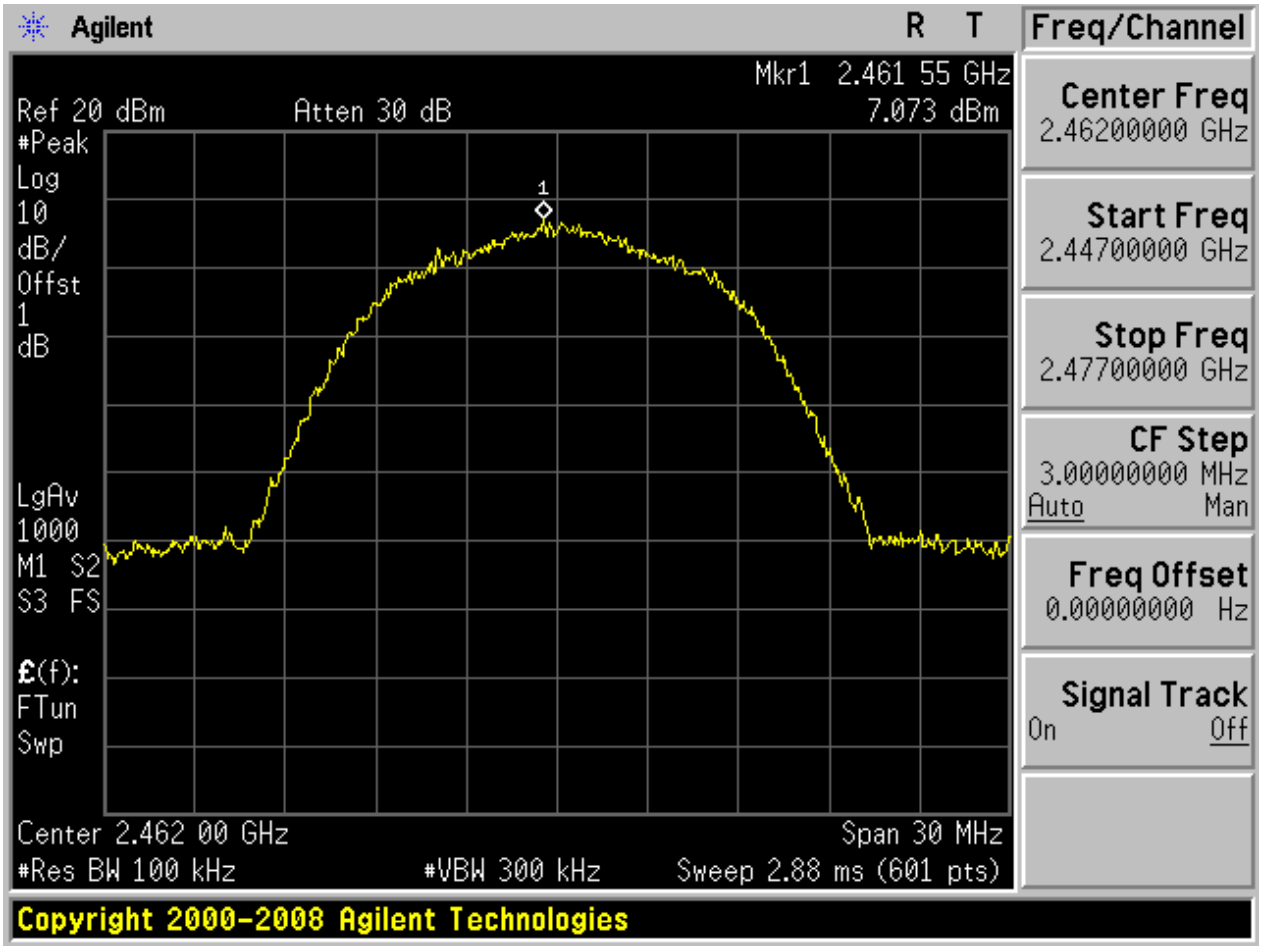
2.3 11B_H

Pref:



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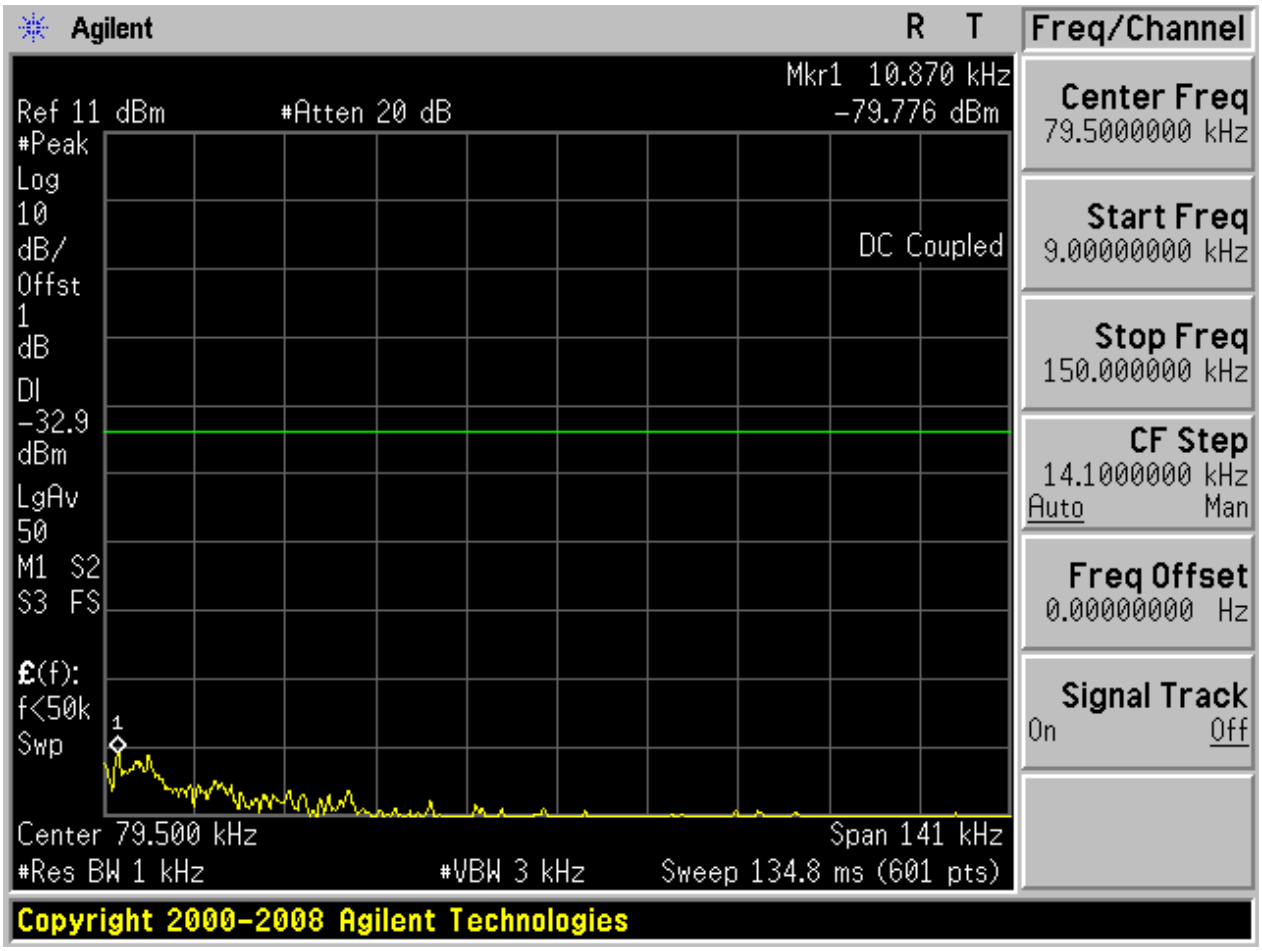

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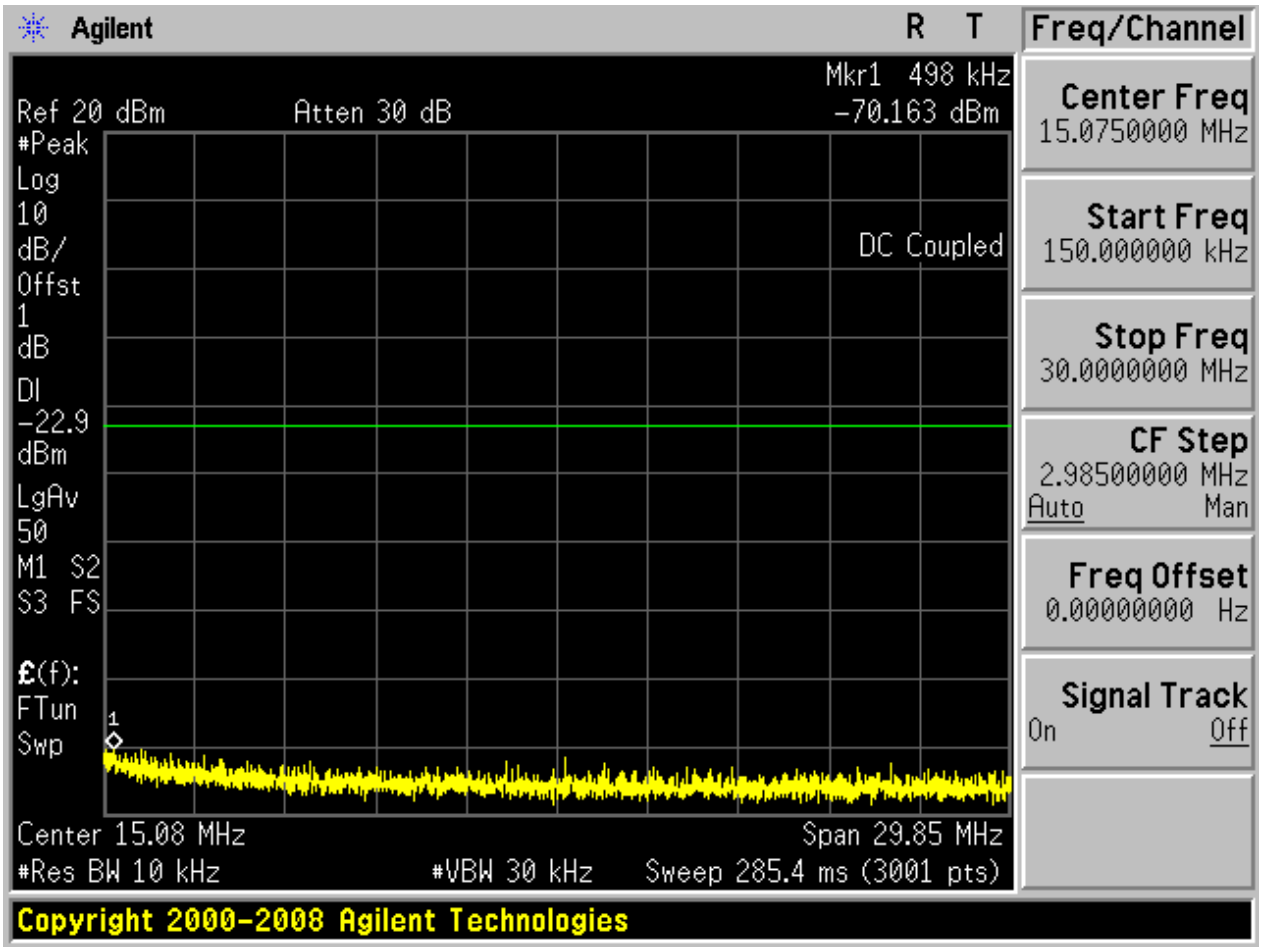

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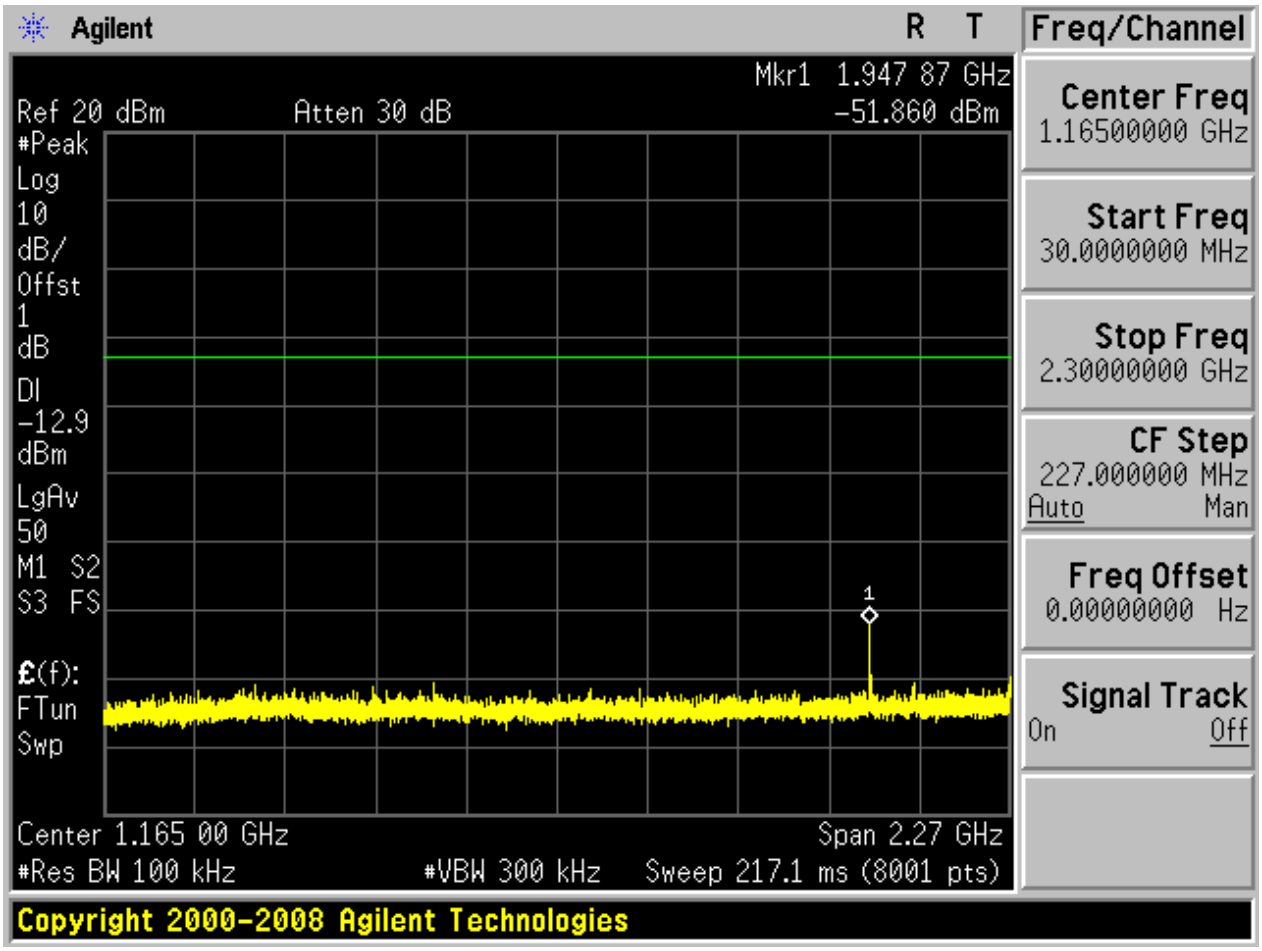

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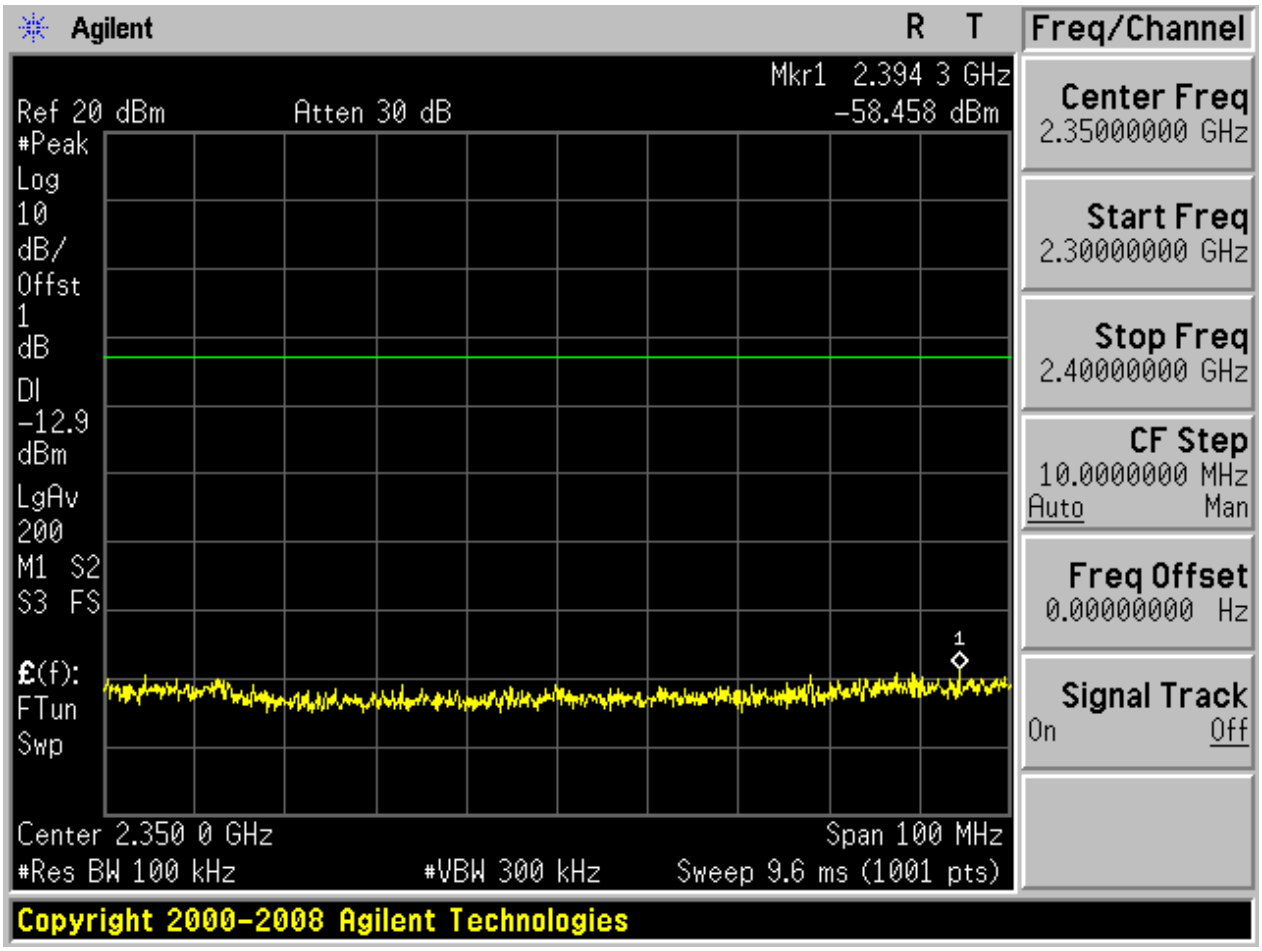

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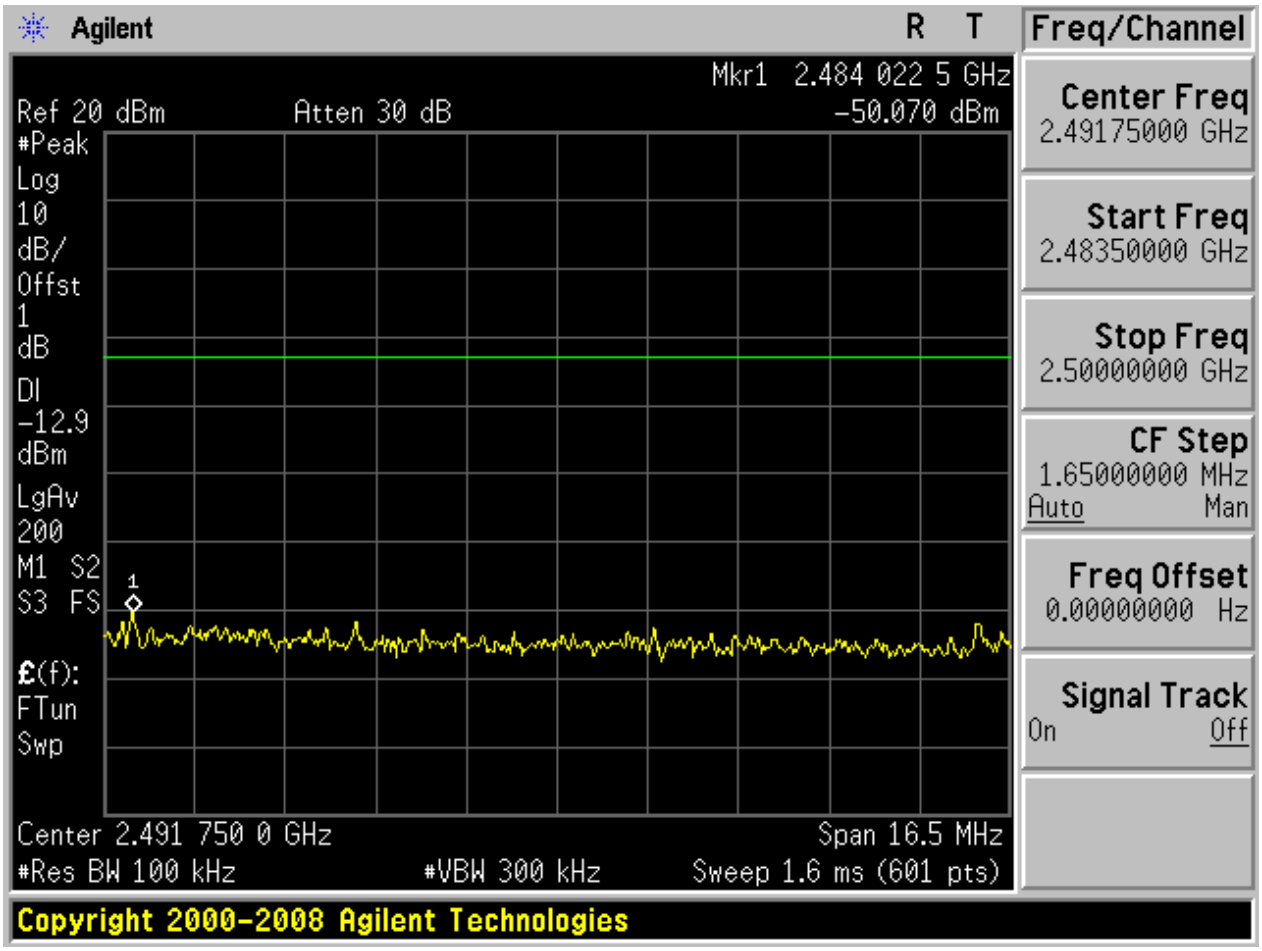

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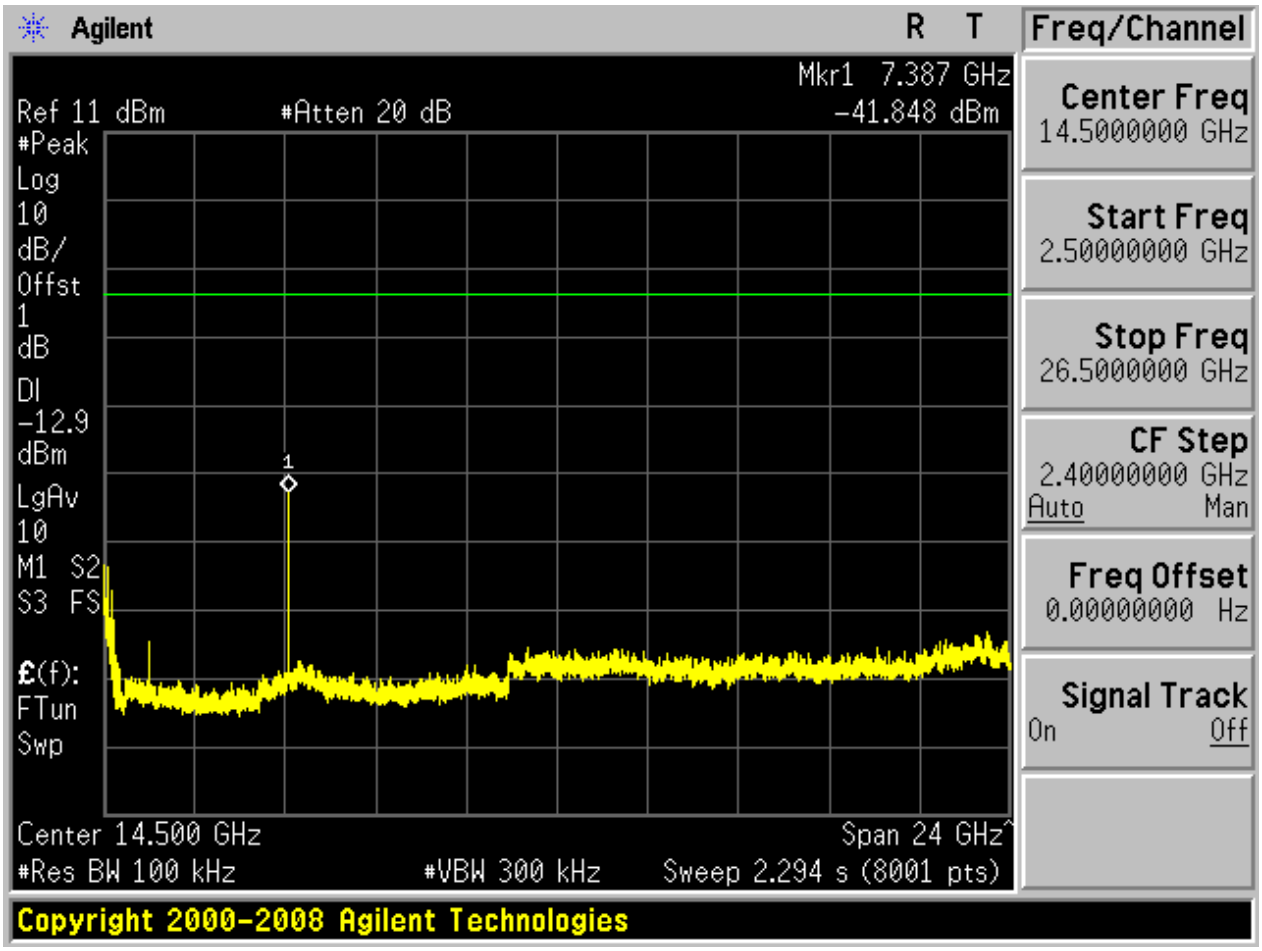

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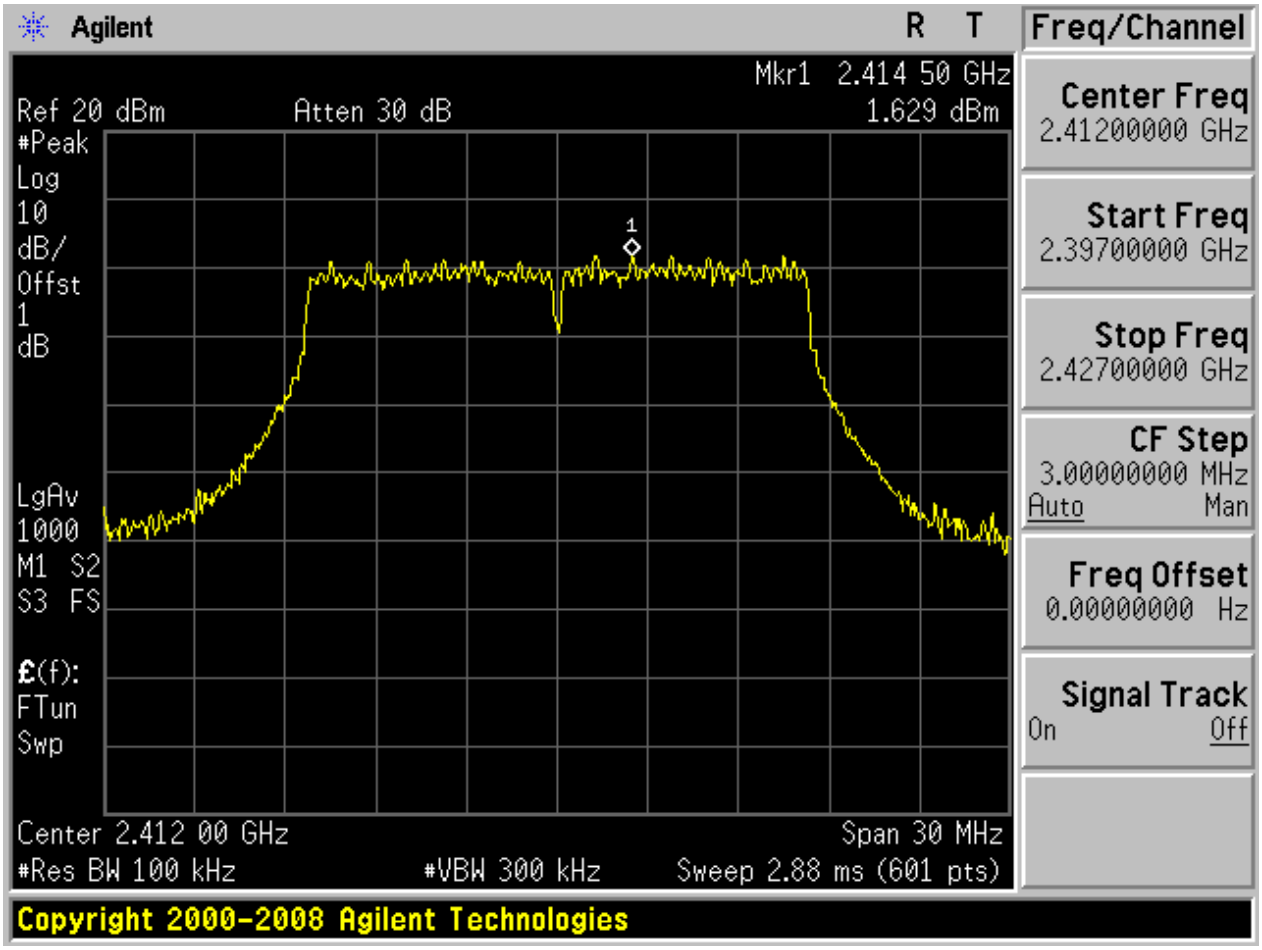
2.5 11G_L

Pref:



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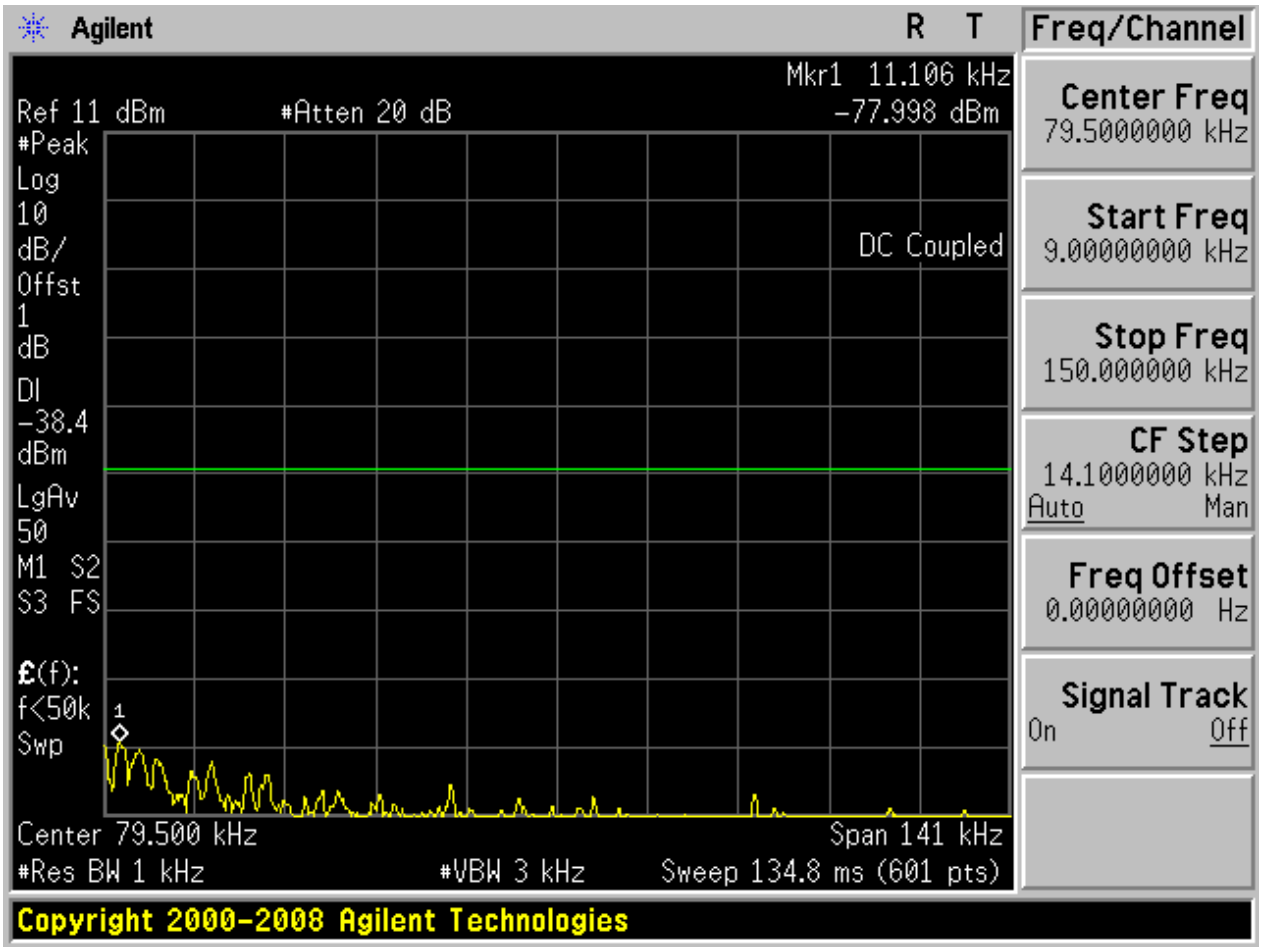

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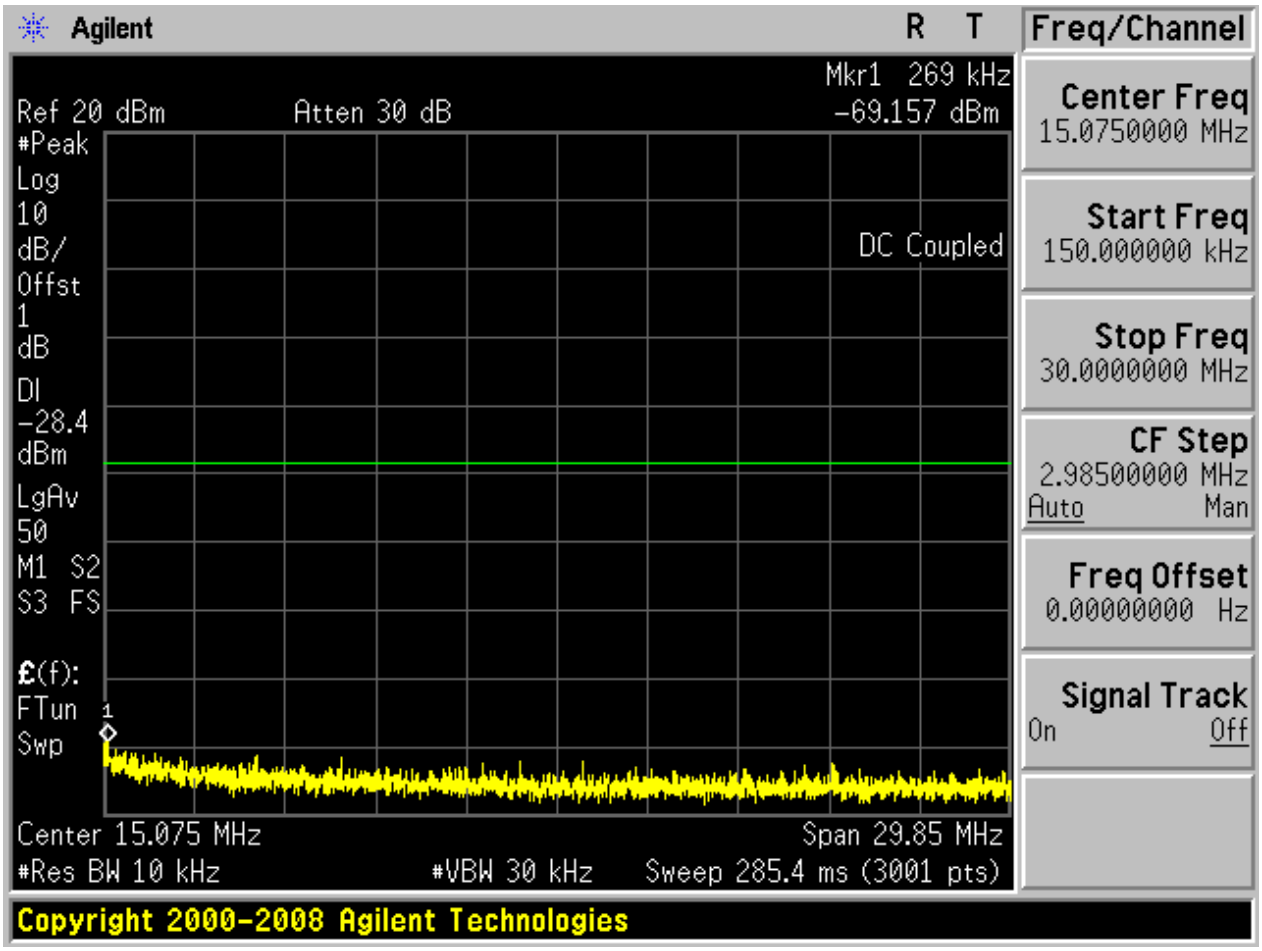

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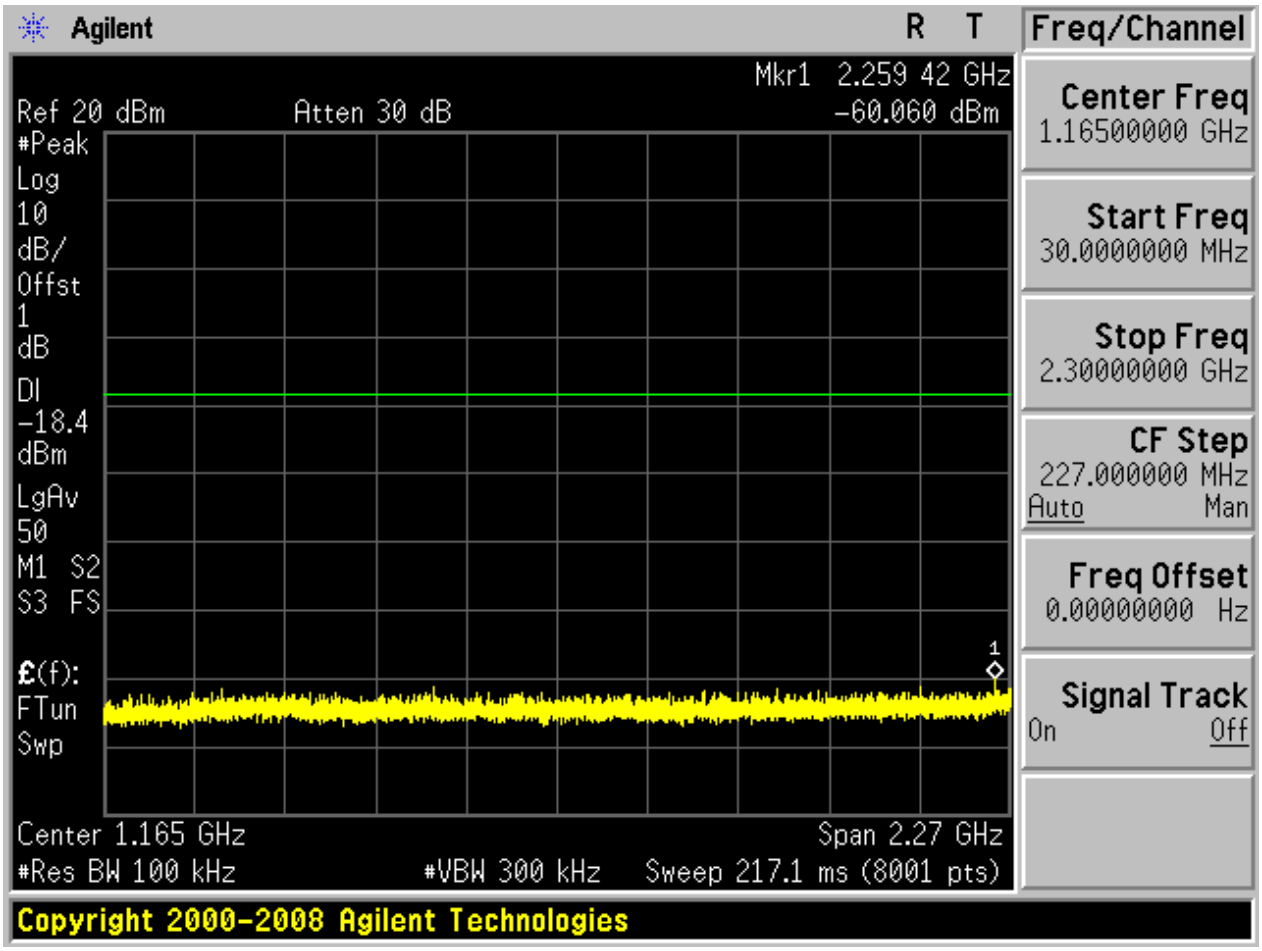

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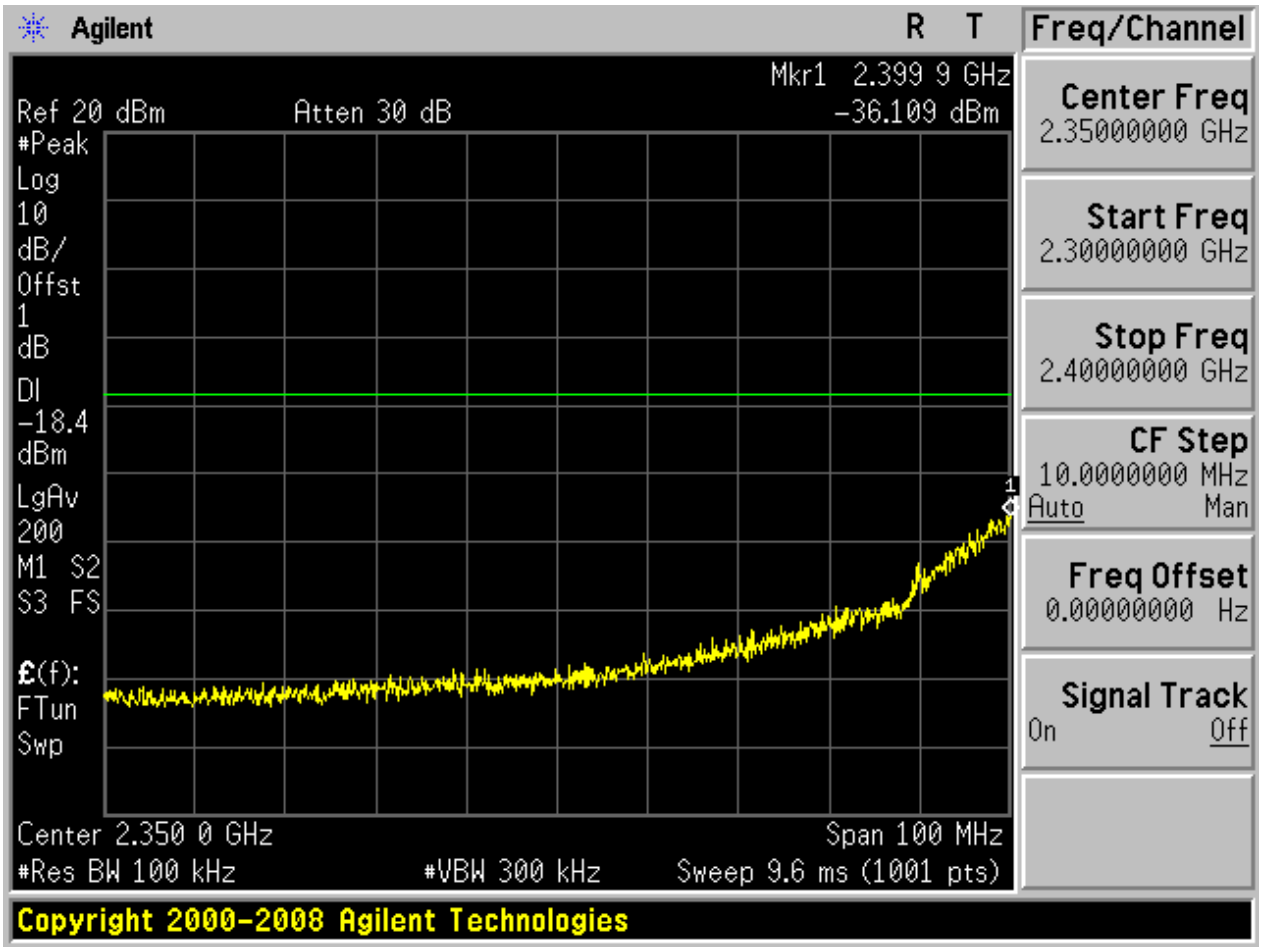

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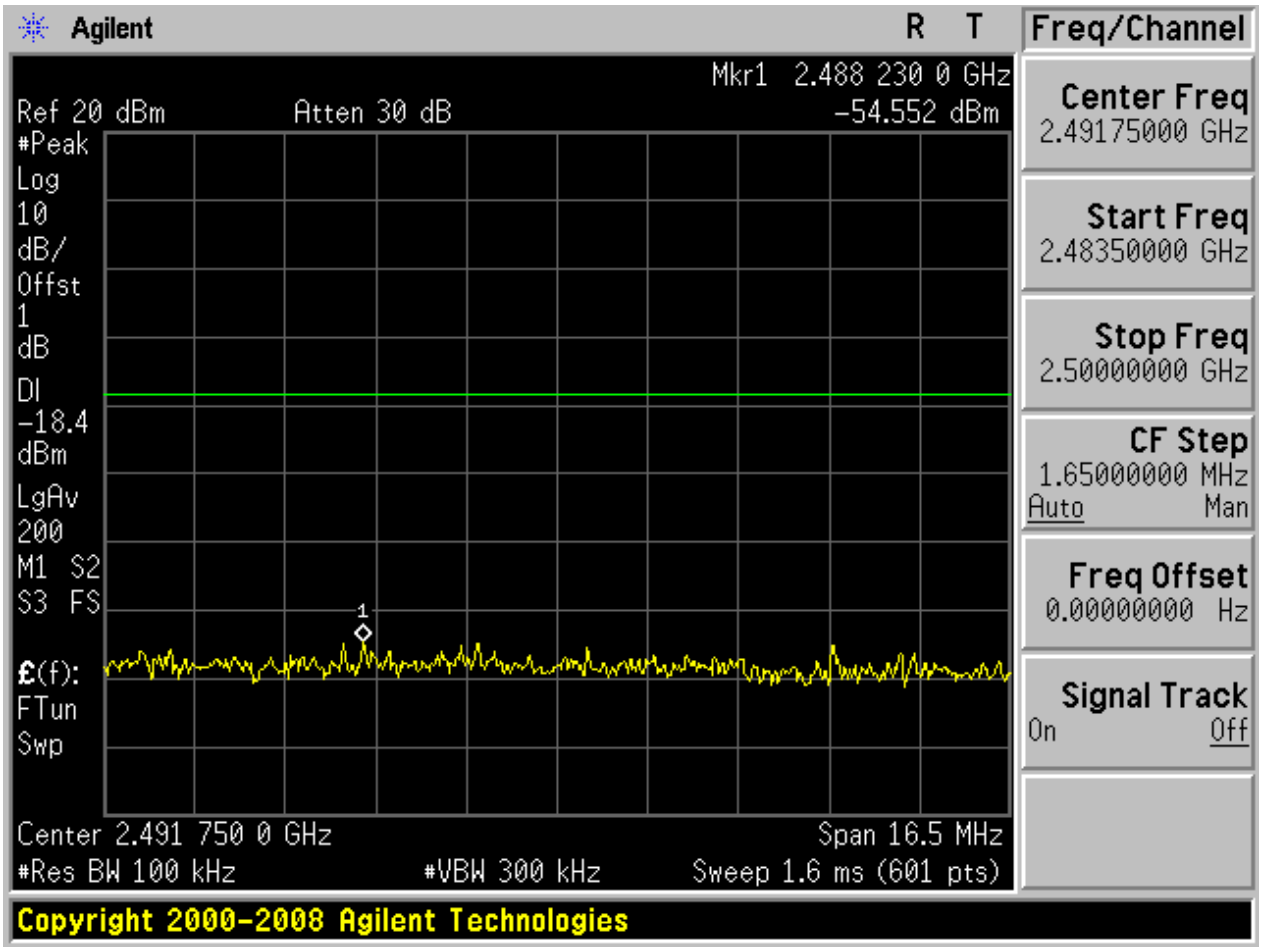

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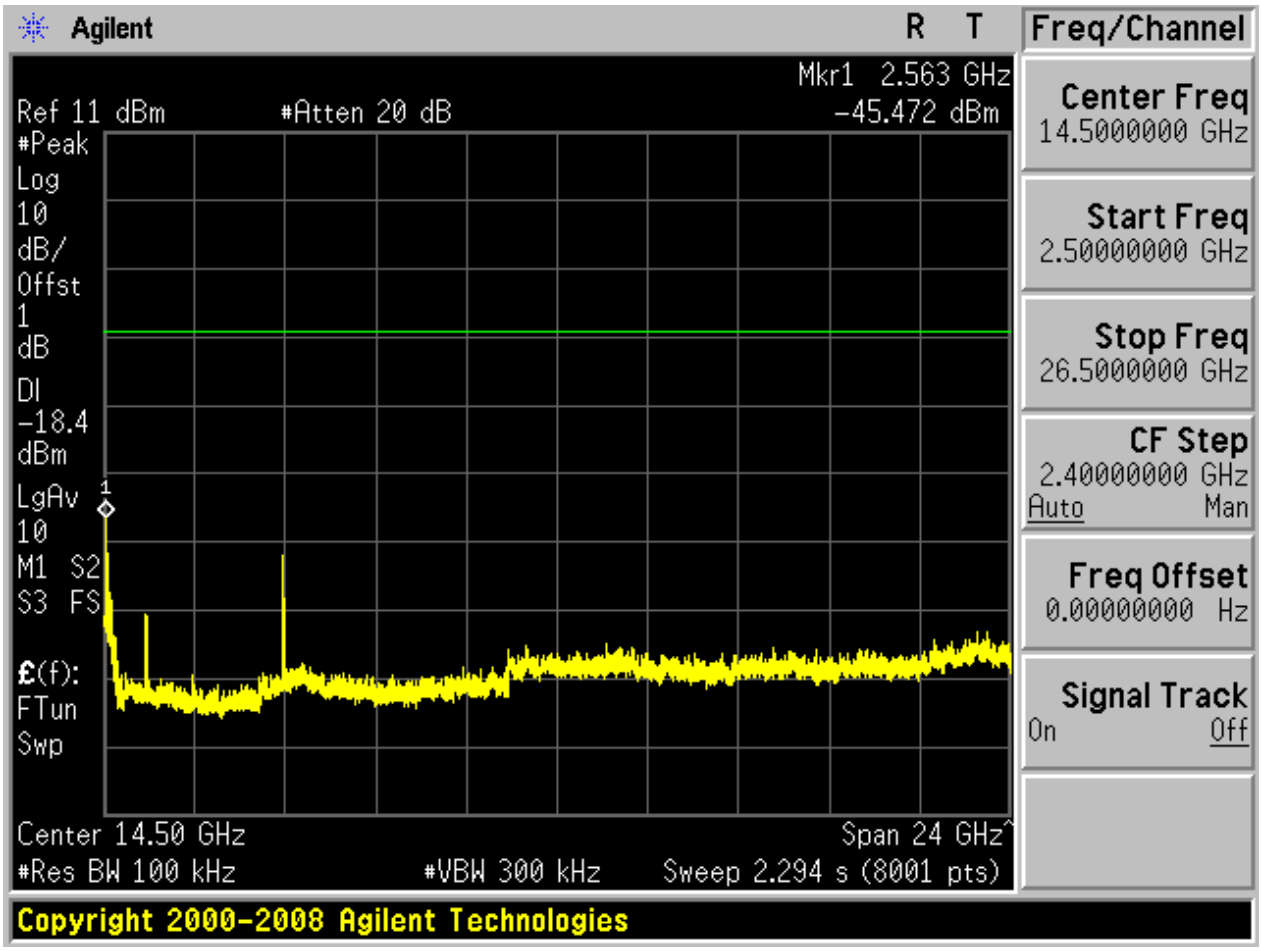

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2.6 11G_M

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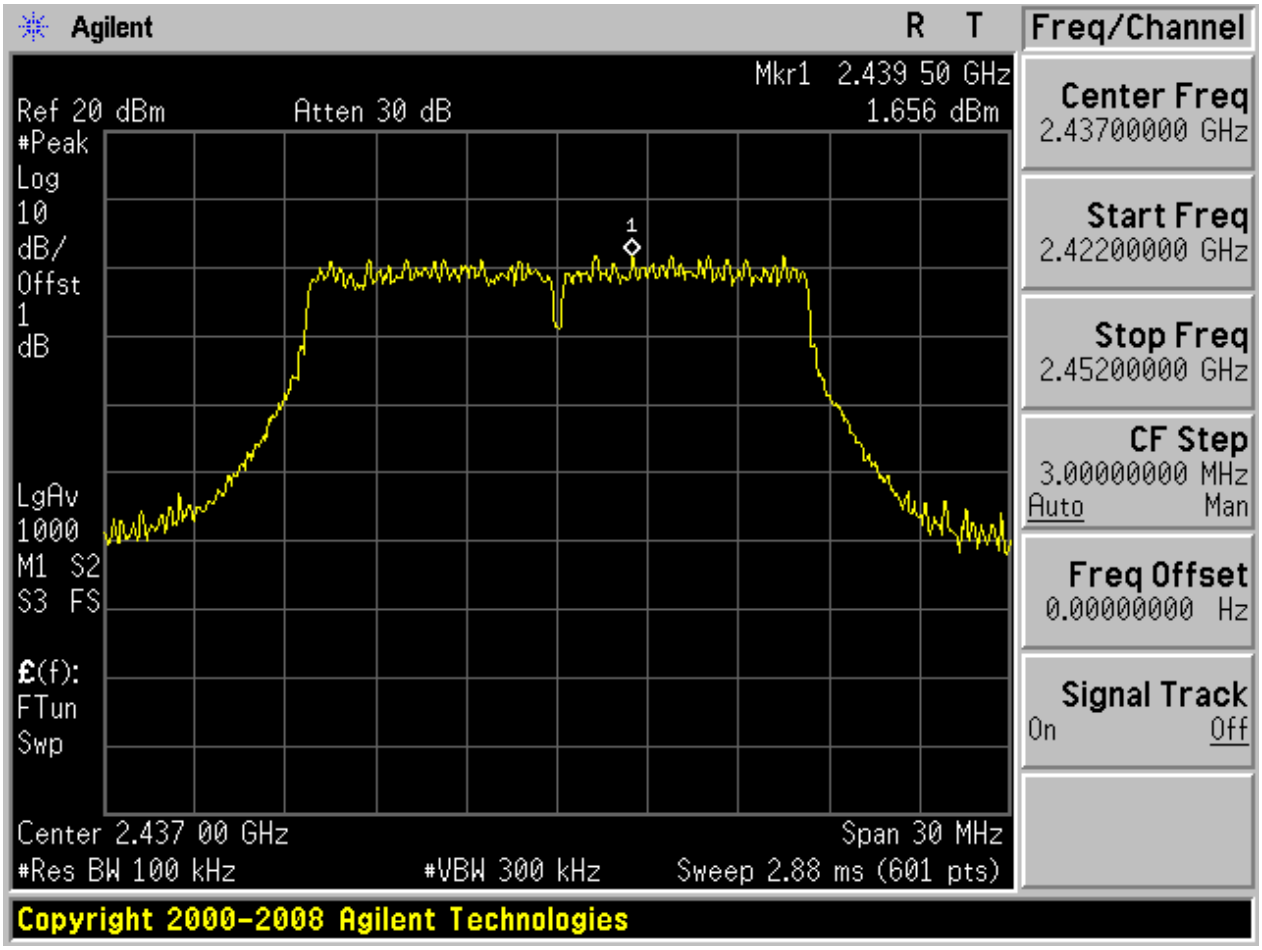

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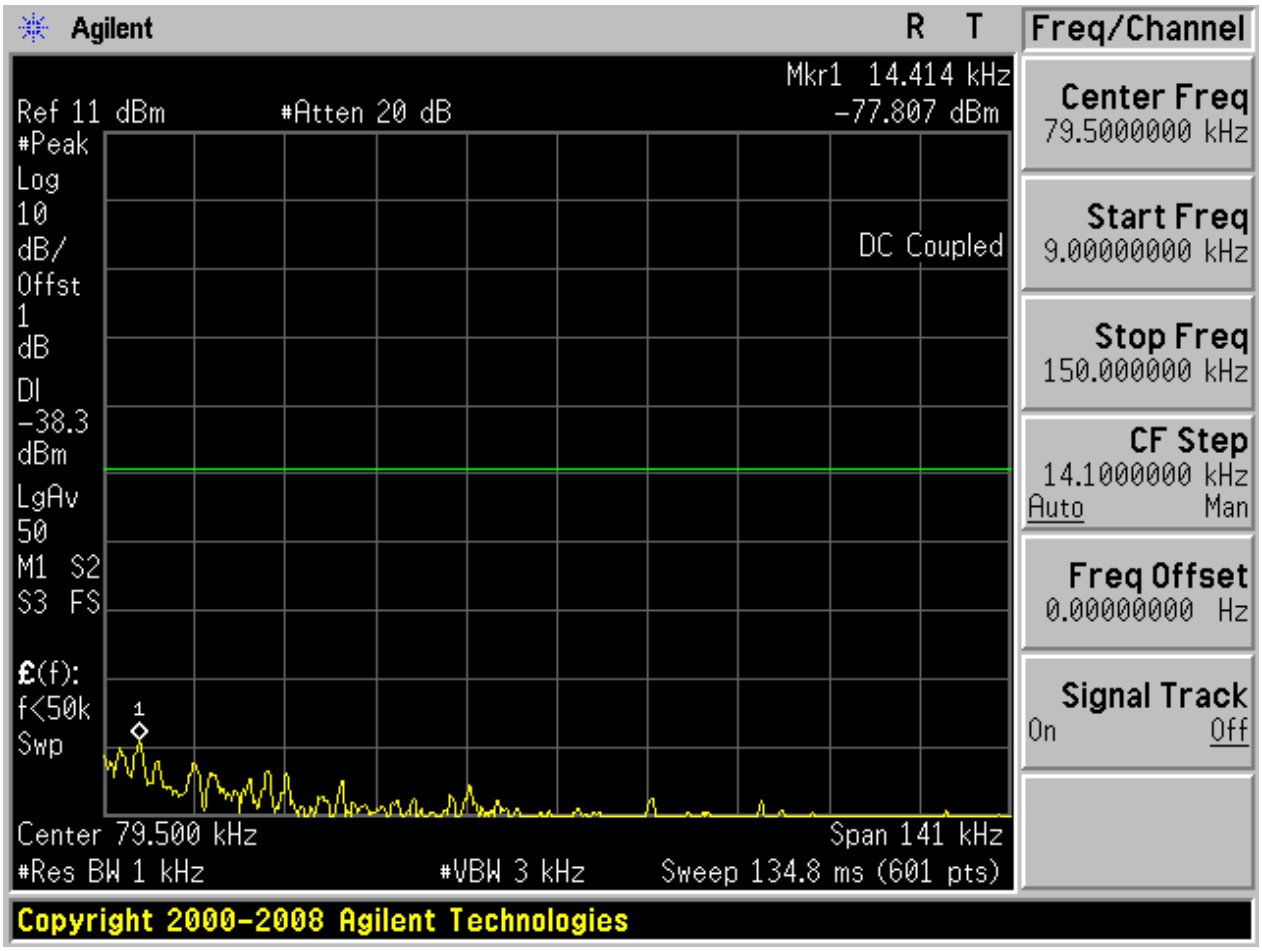

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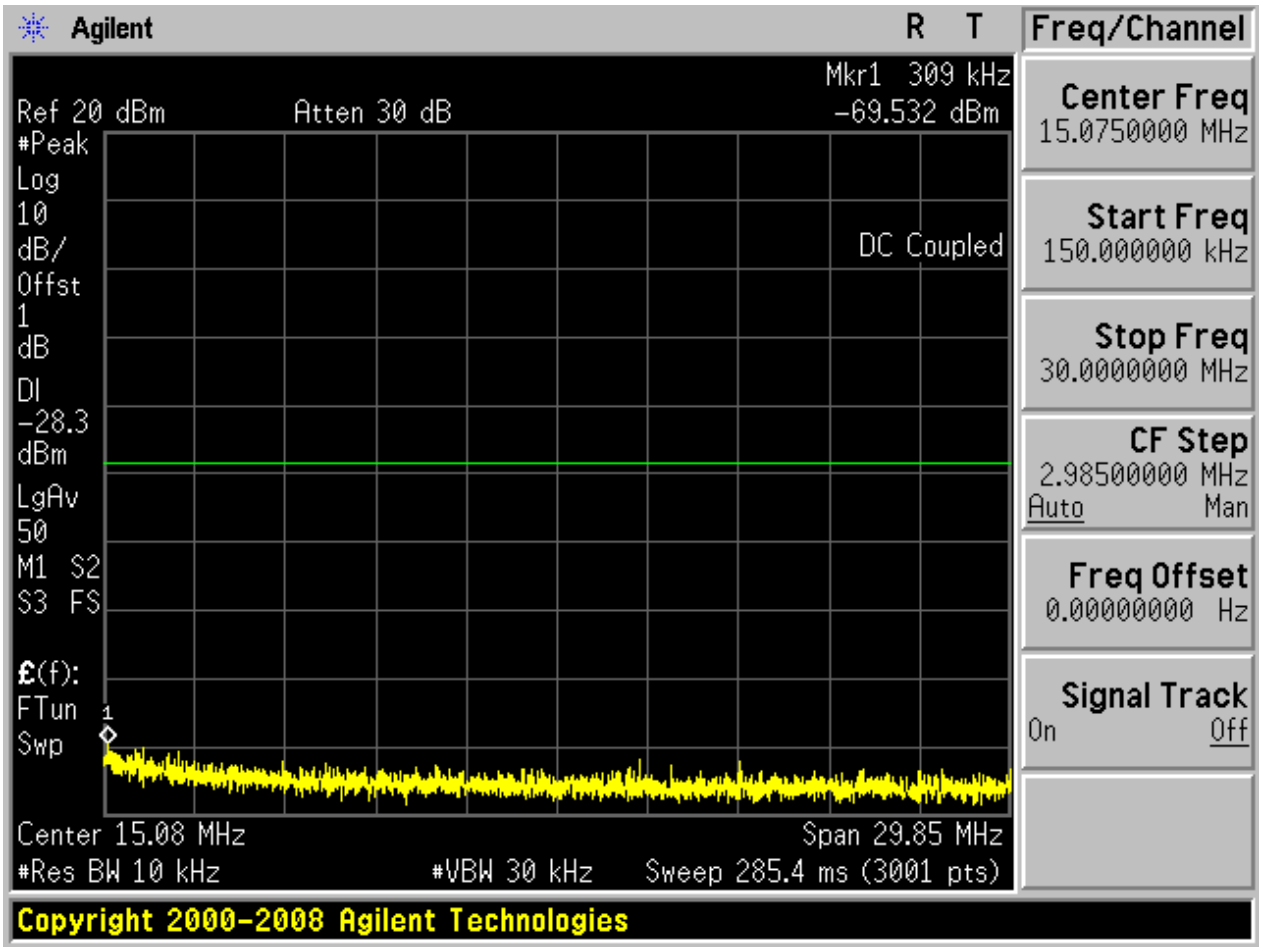

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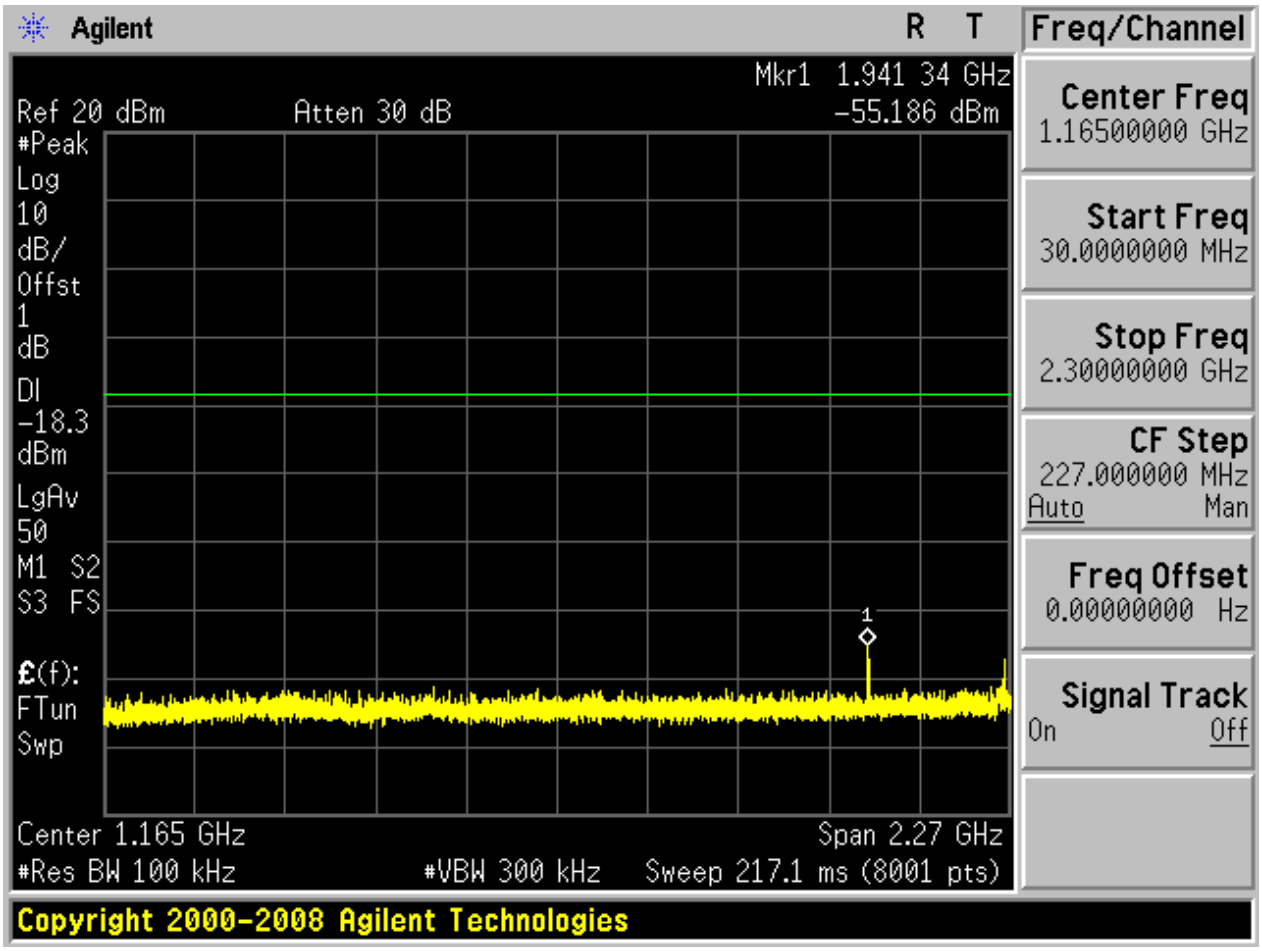

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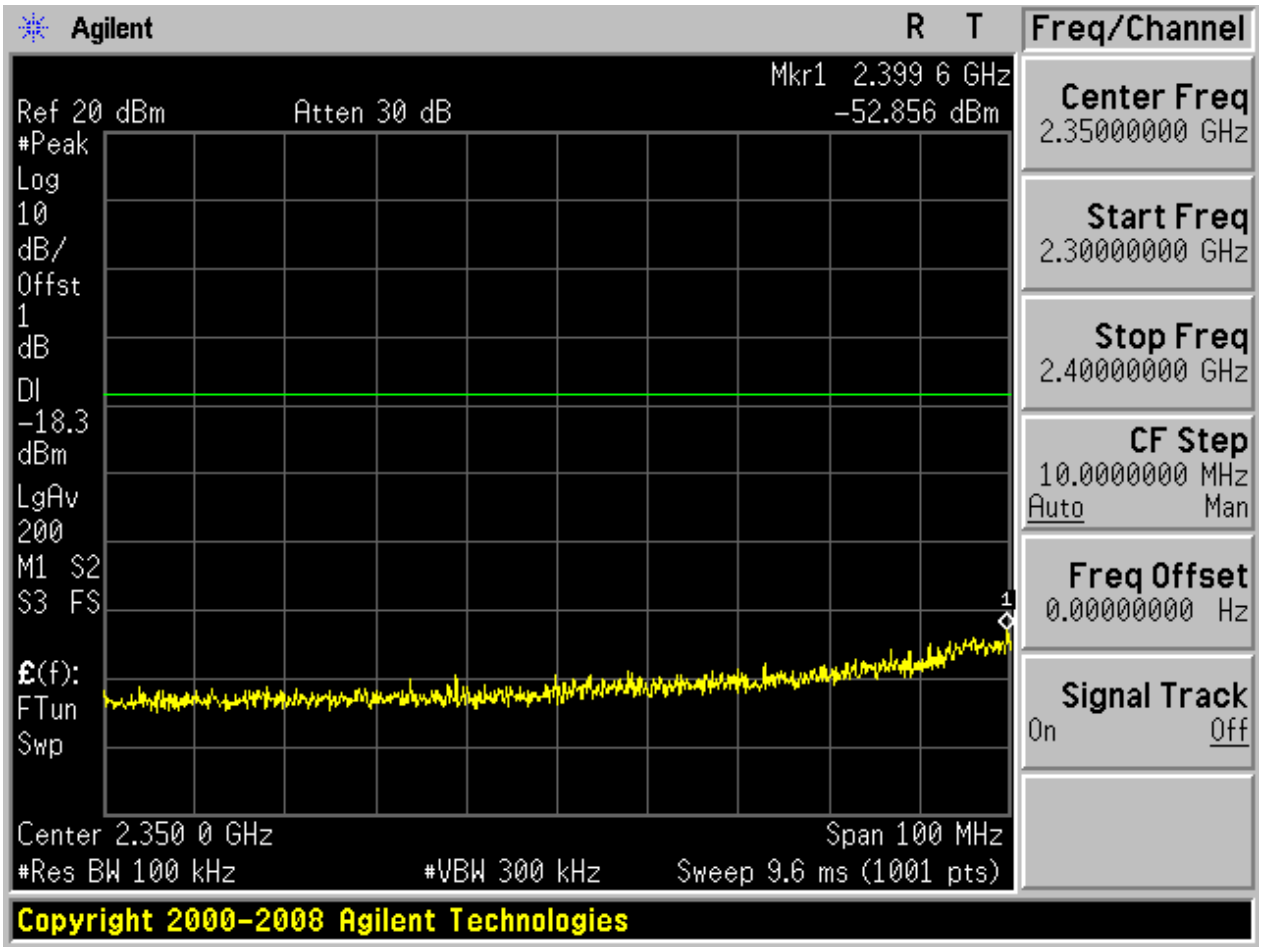

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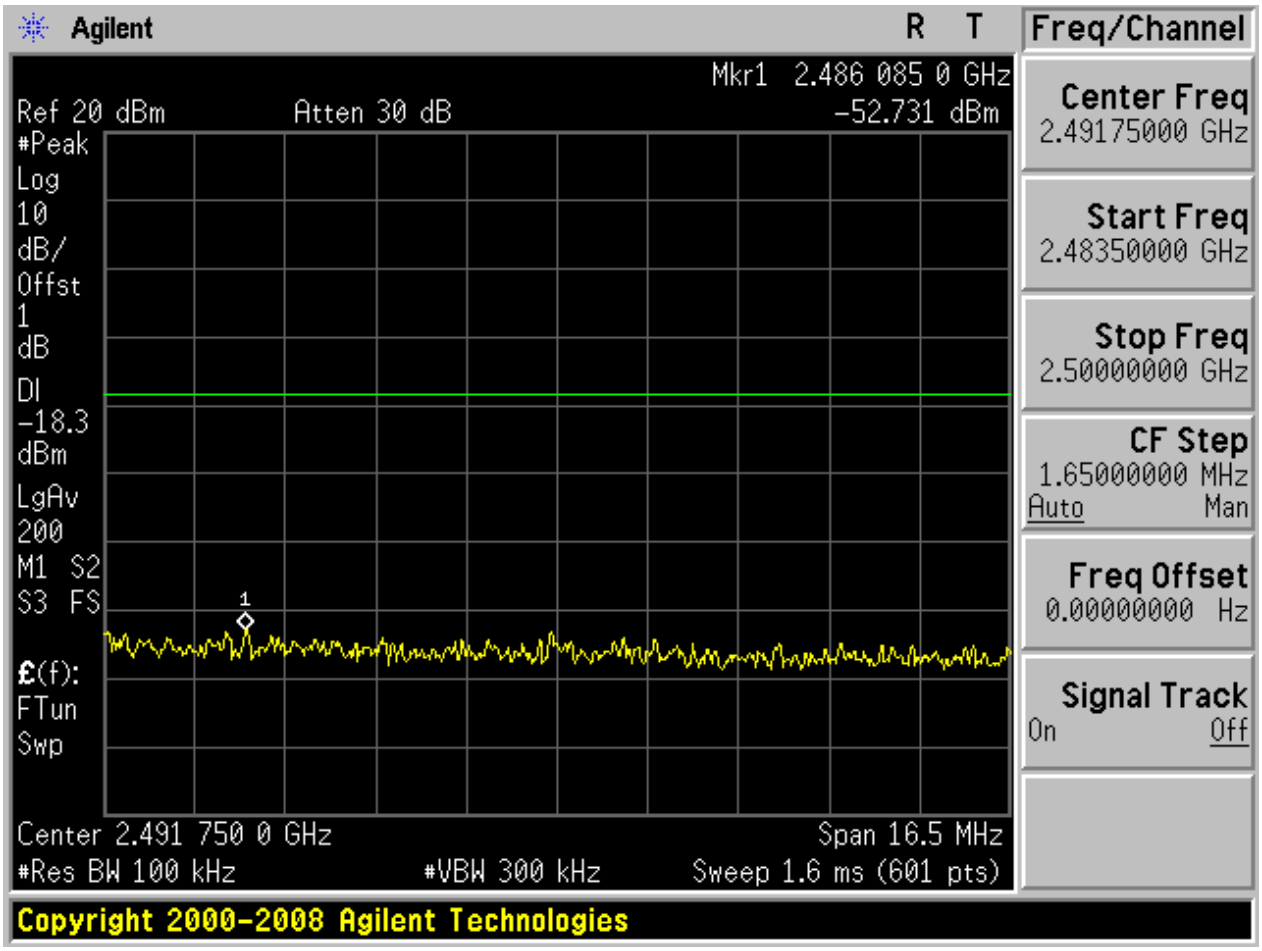

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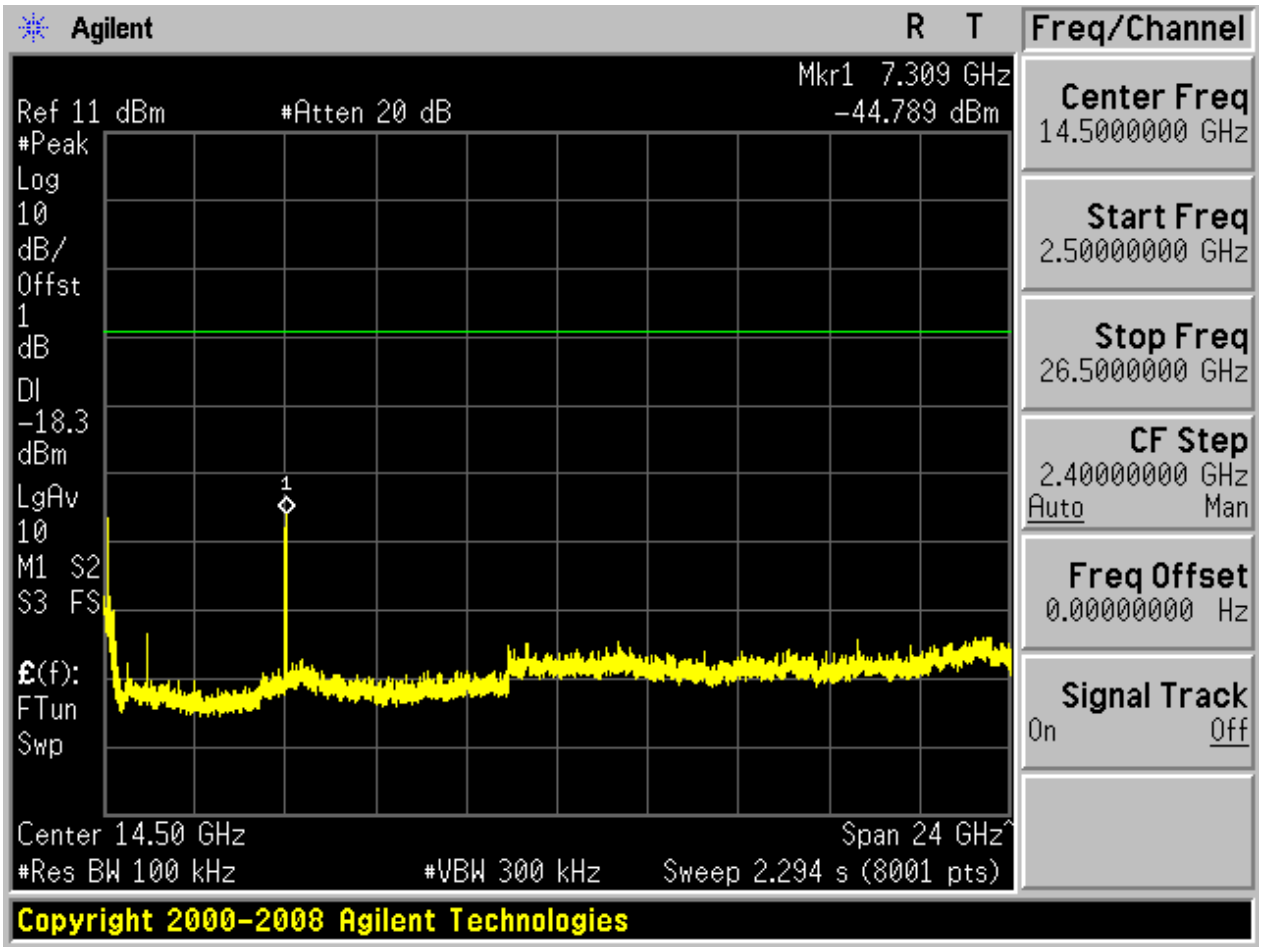

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2.8 11G_H

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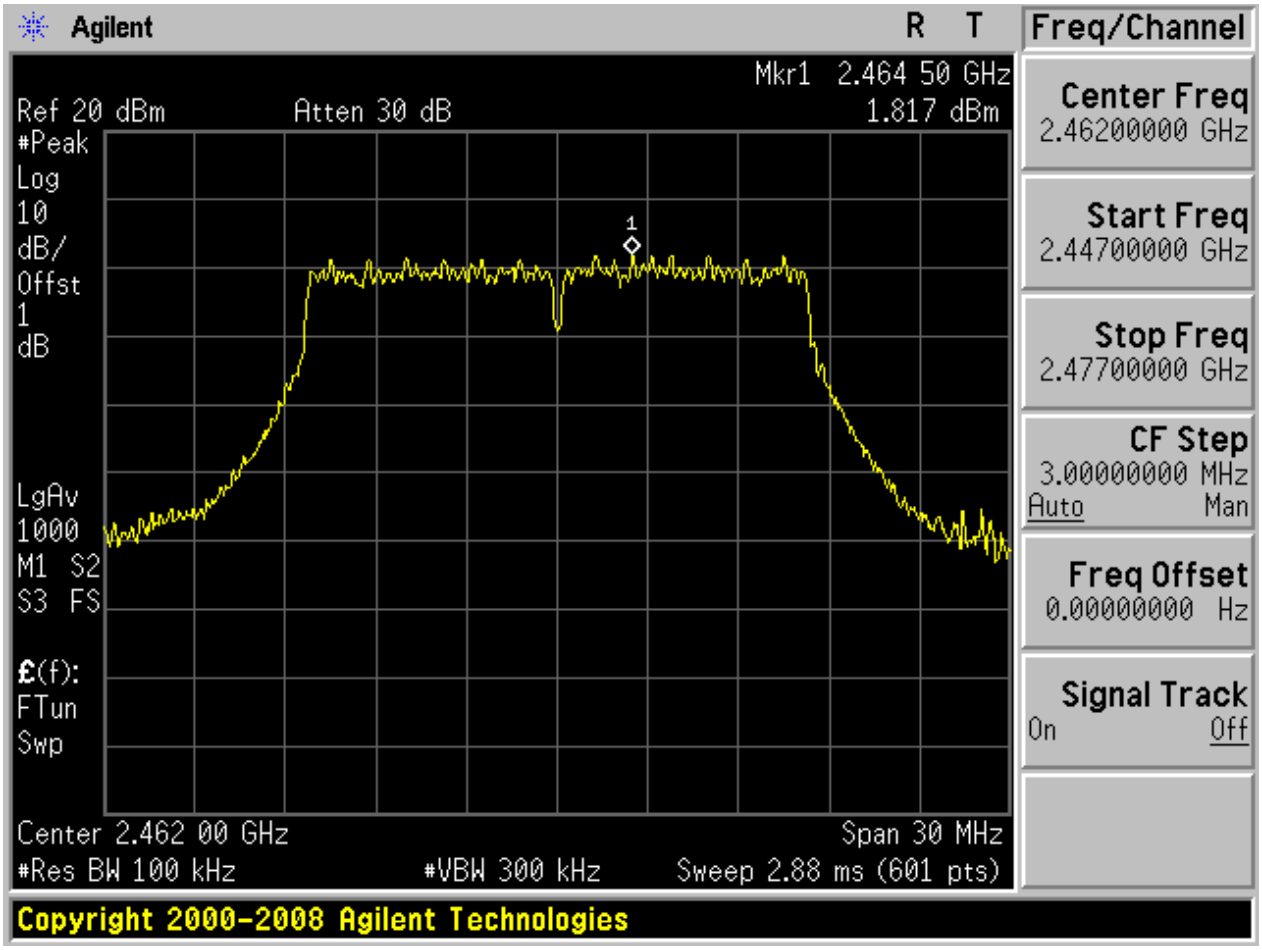

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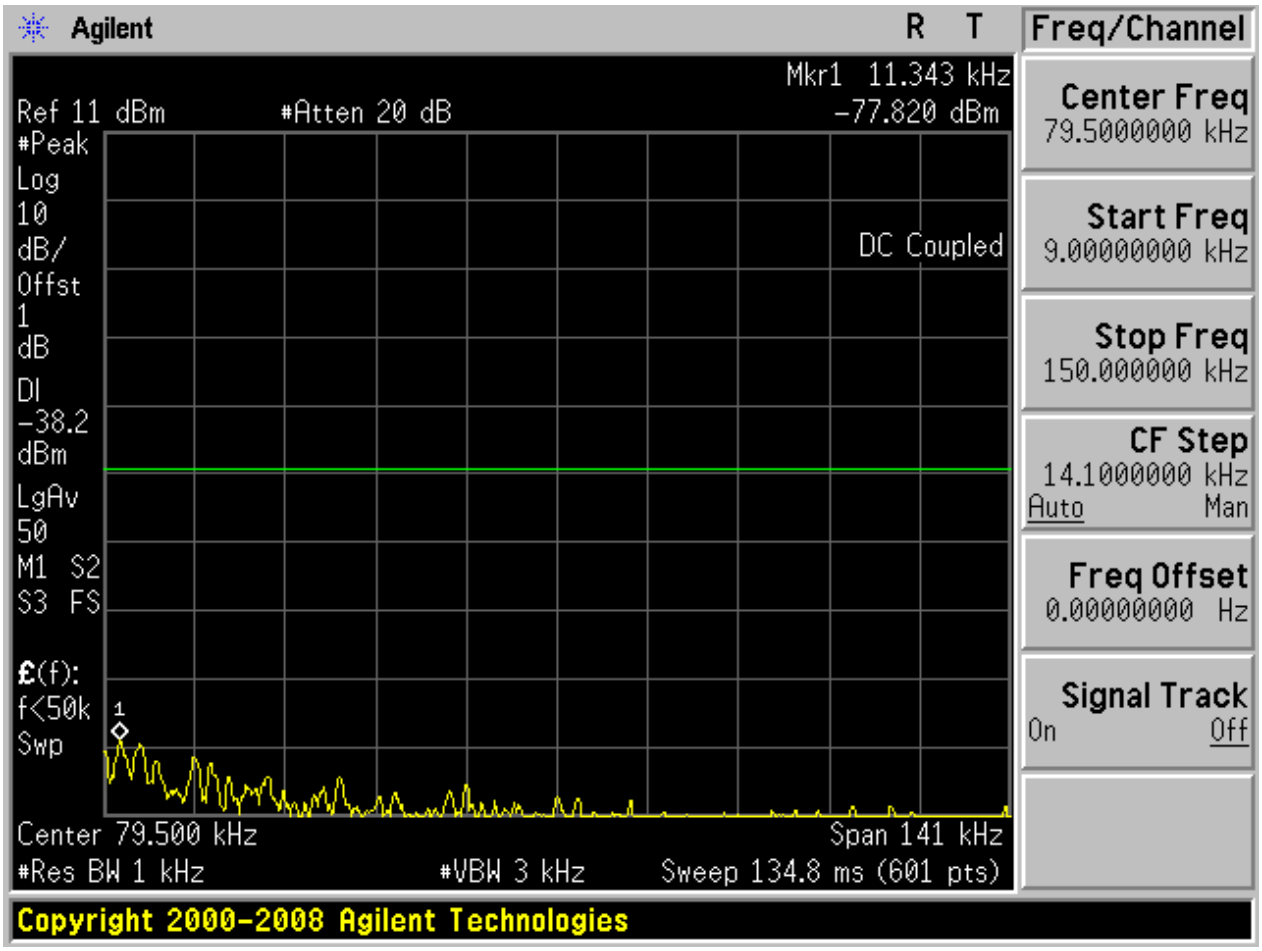

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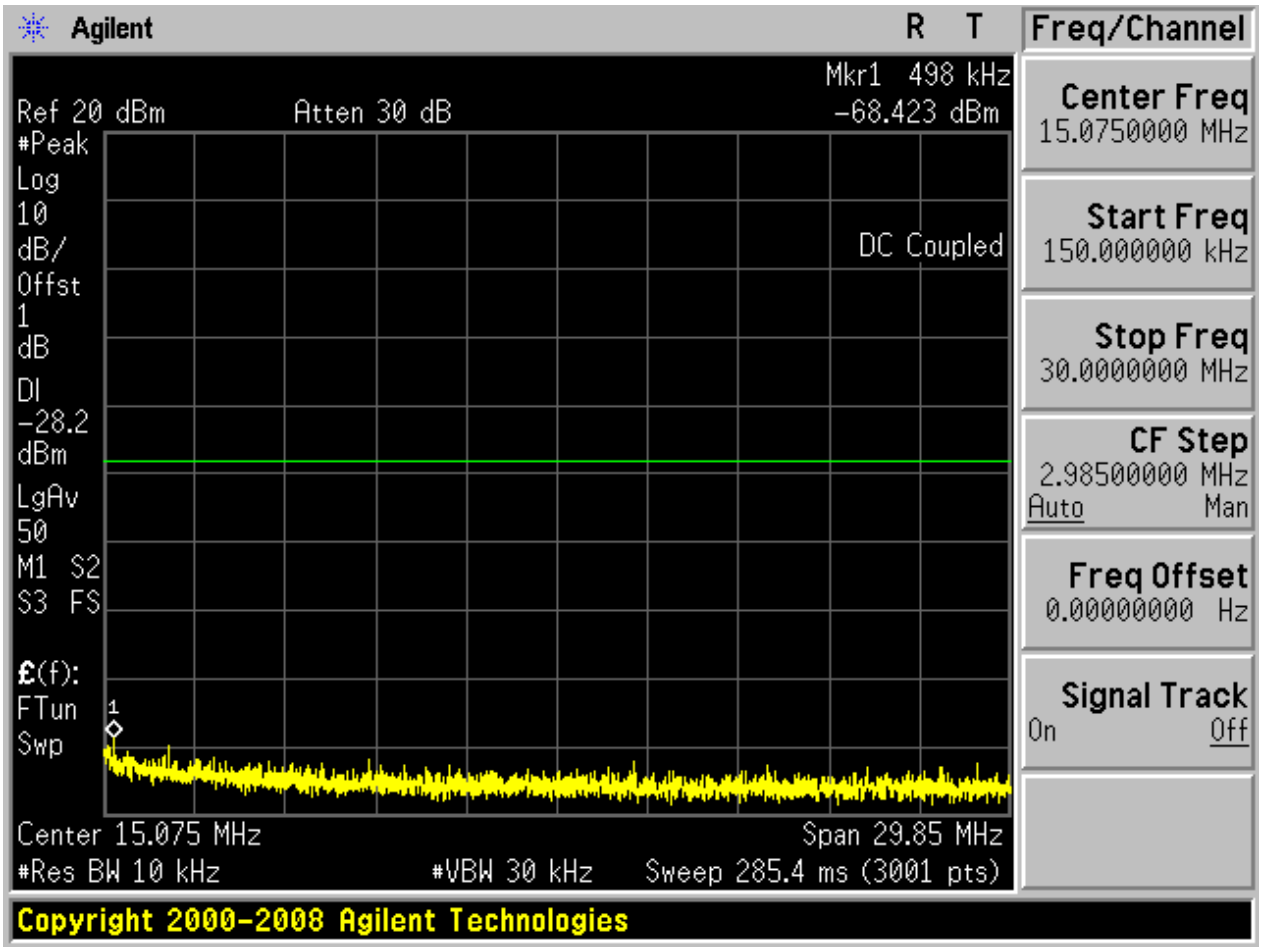

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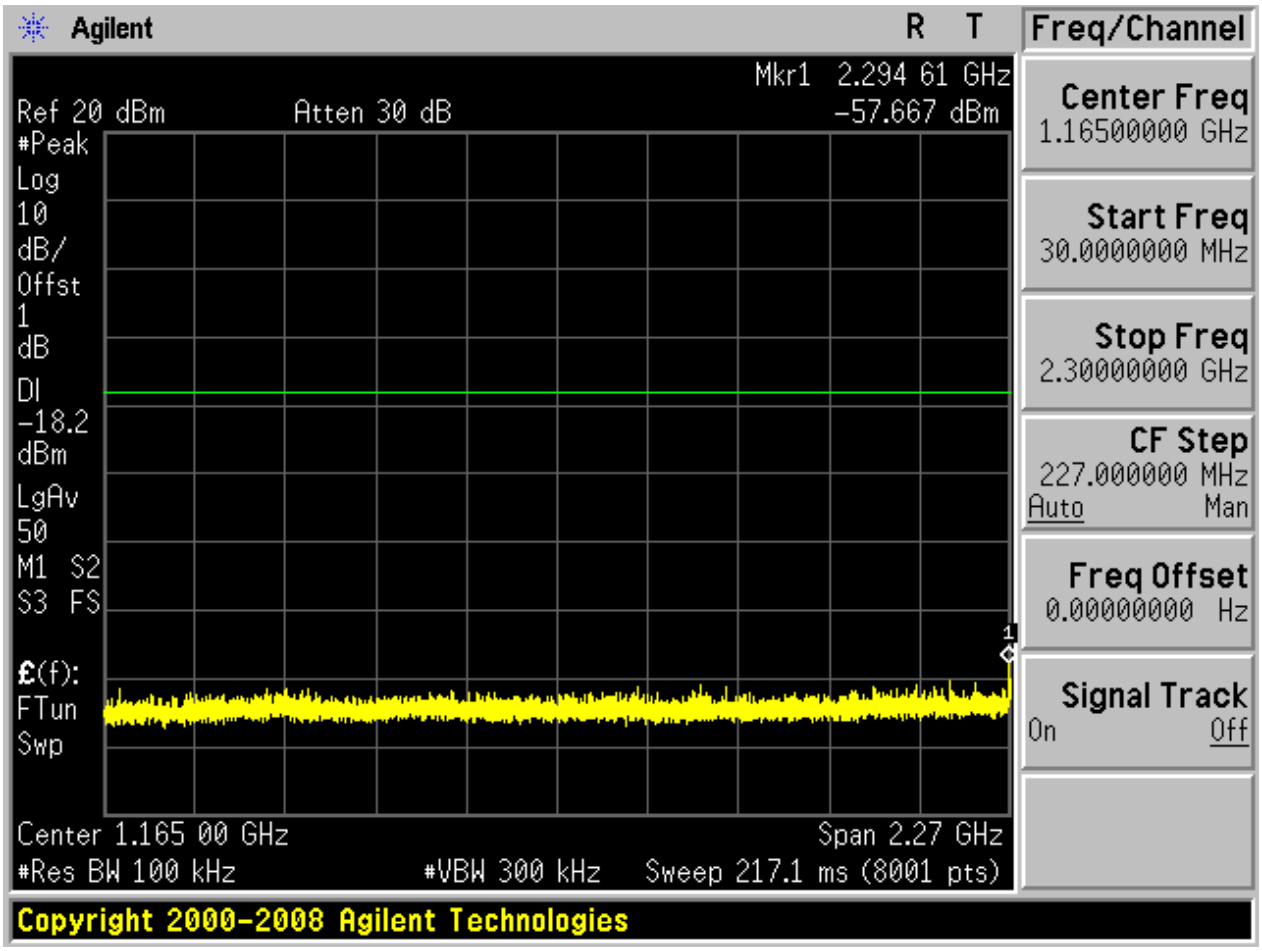

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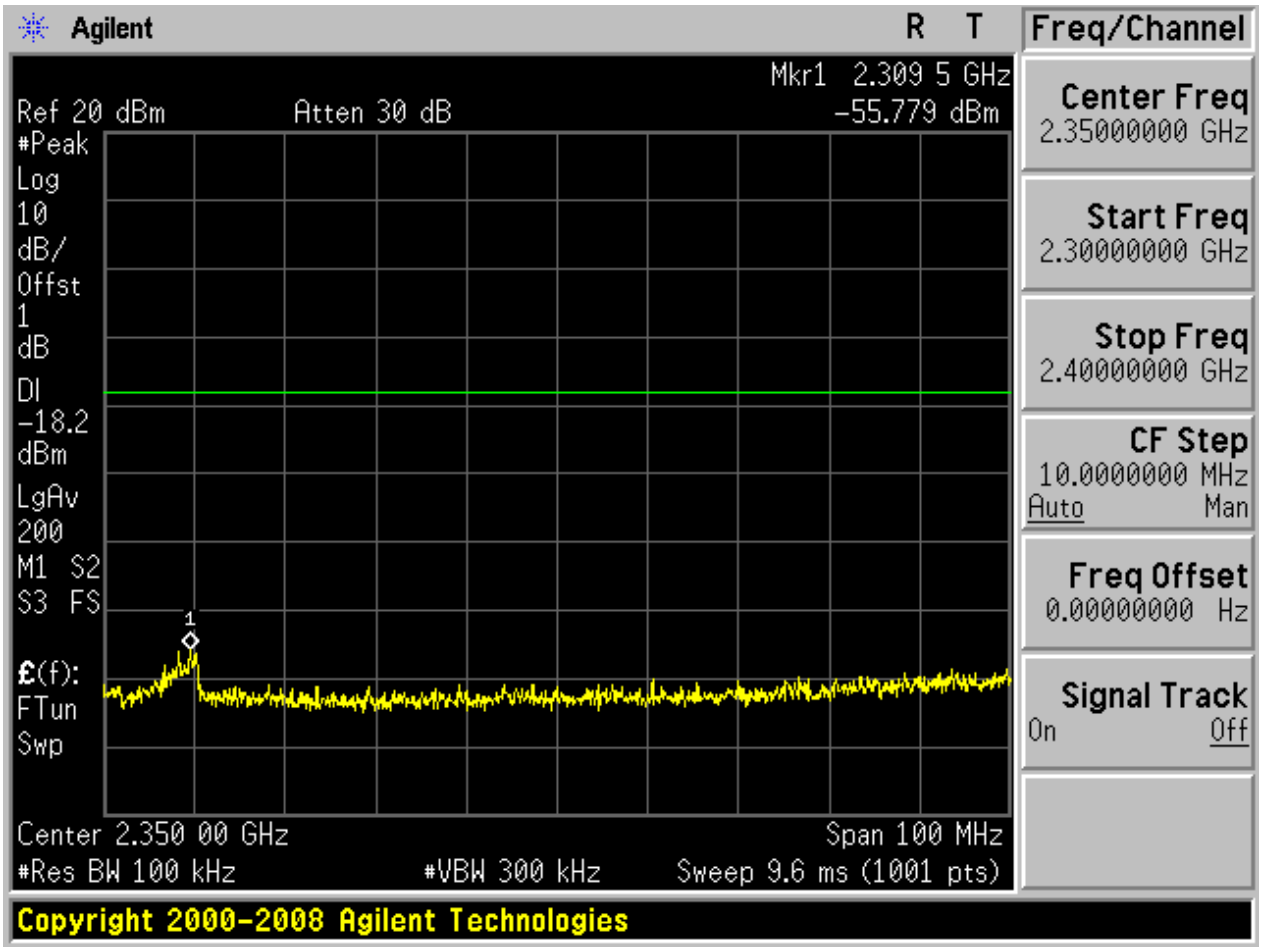

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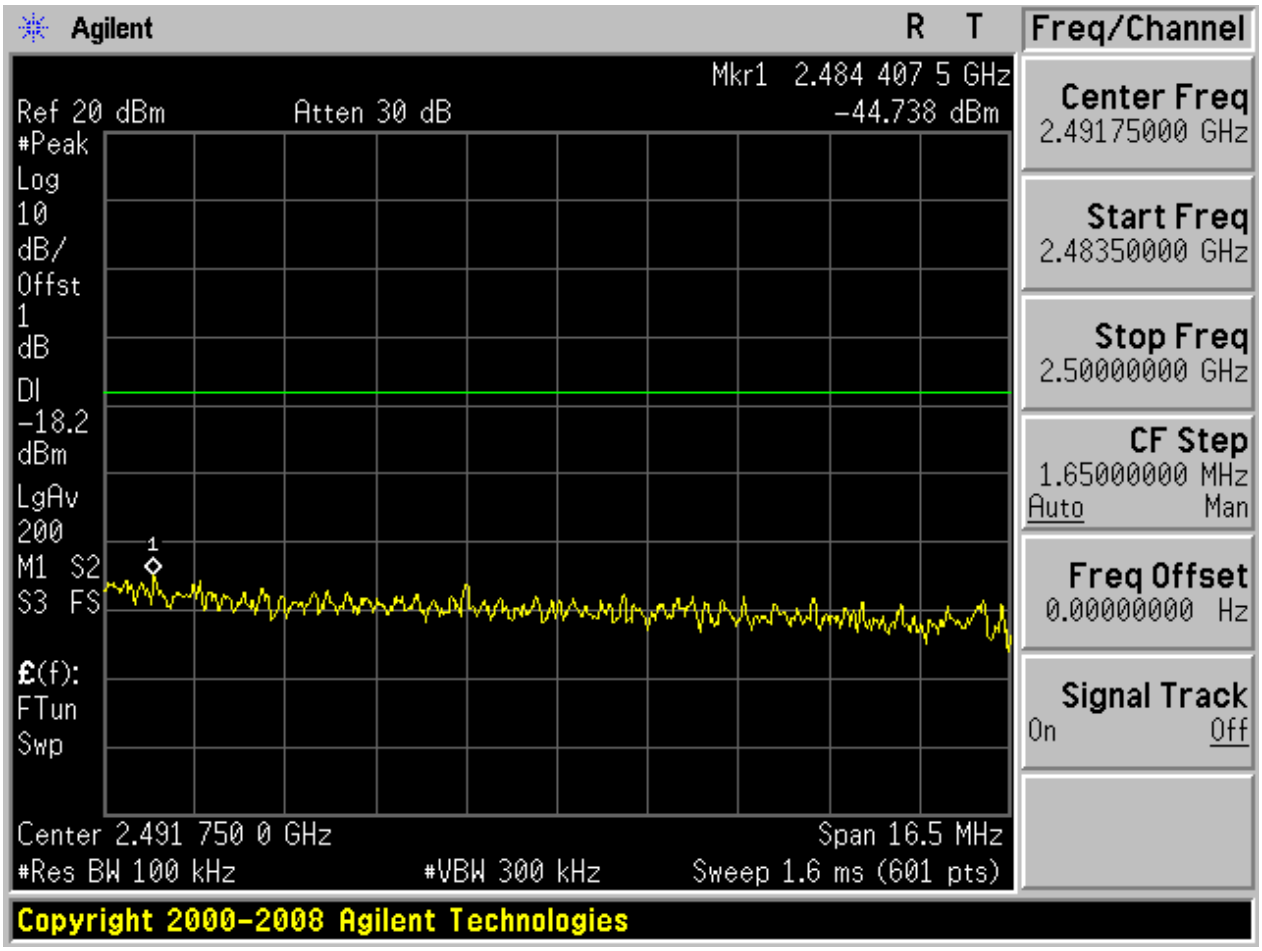

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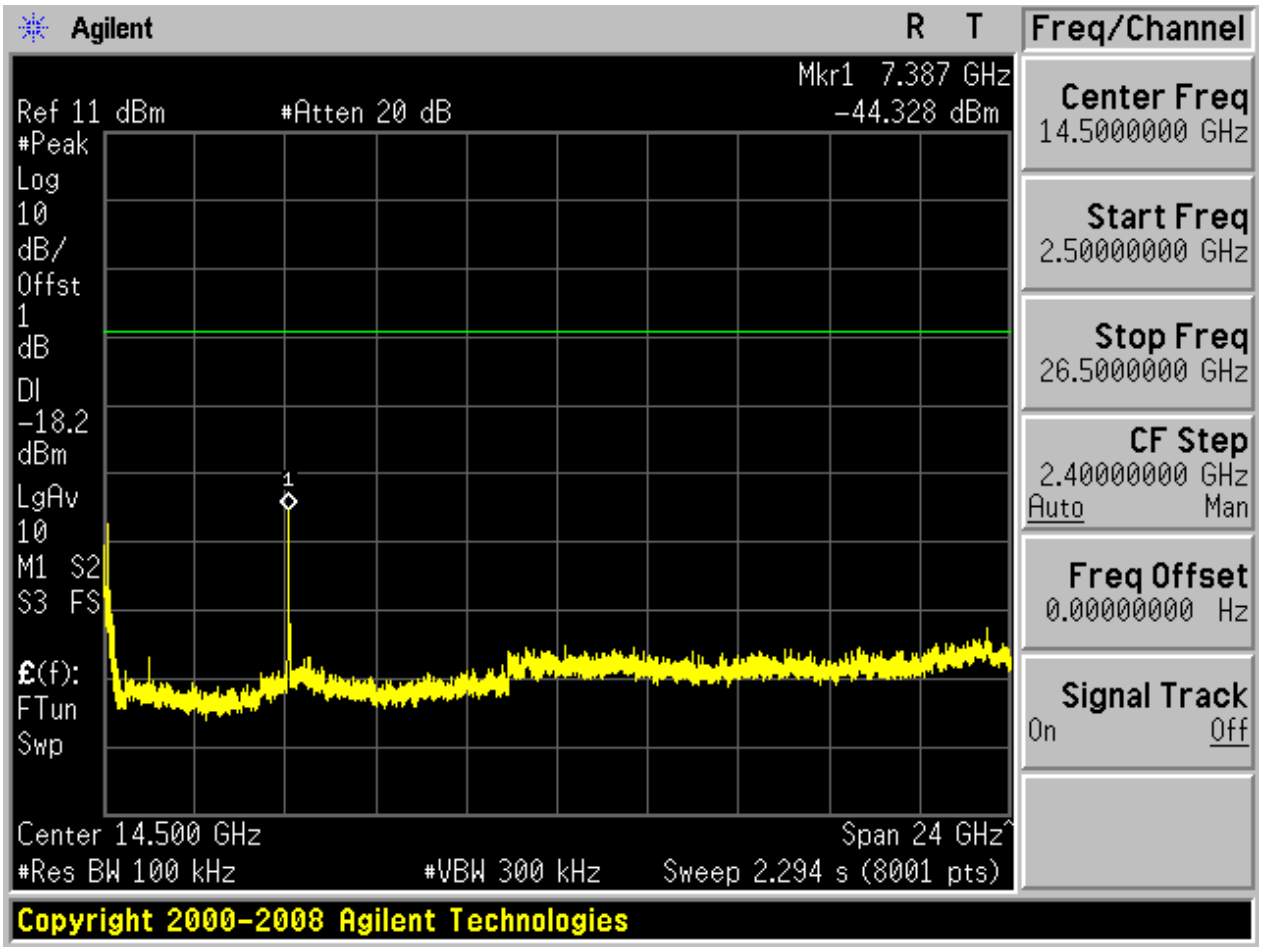

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2.9 11N20_L

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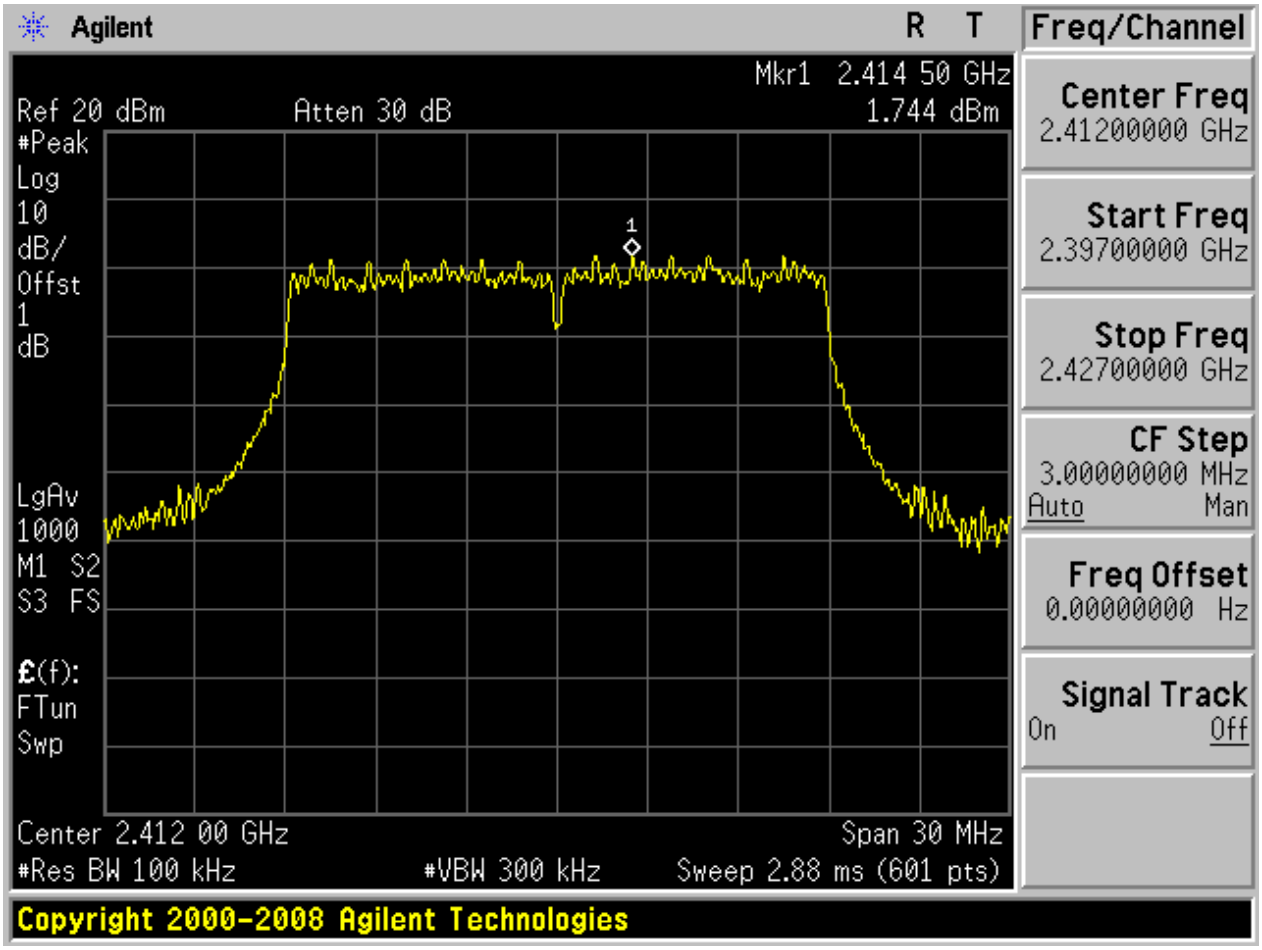

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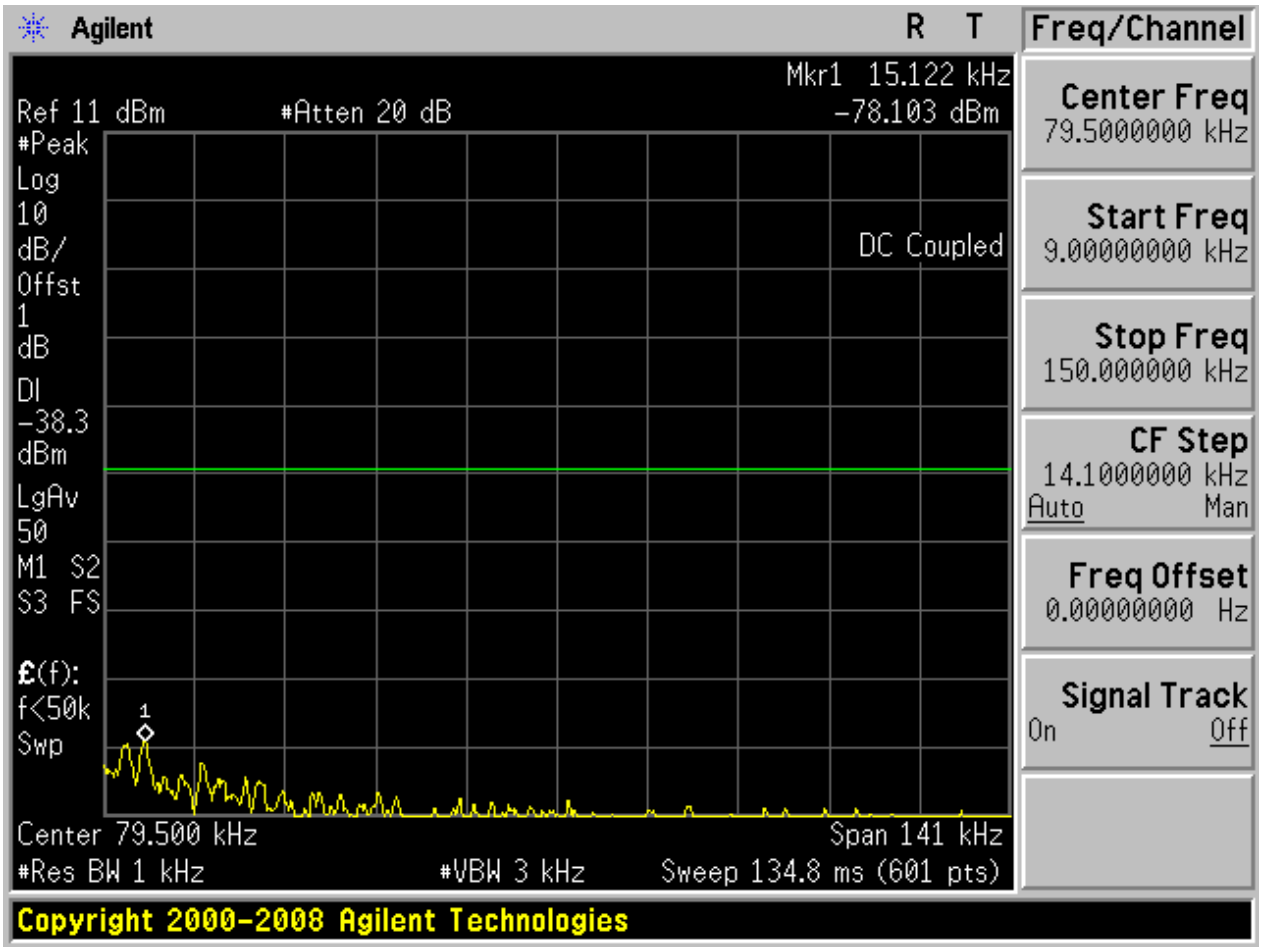

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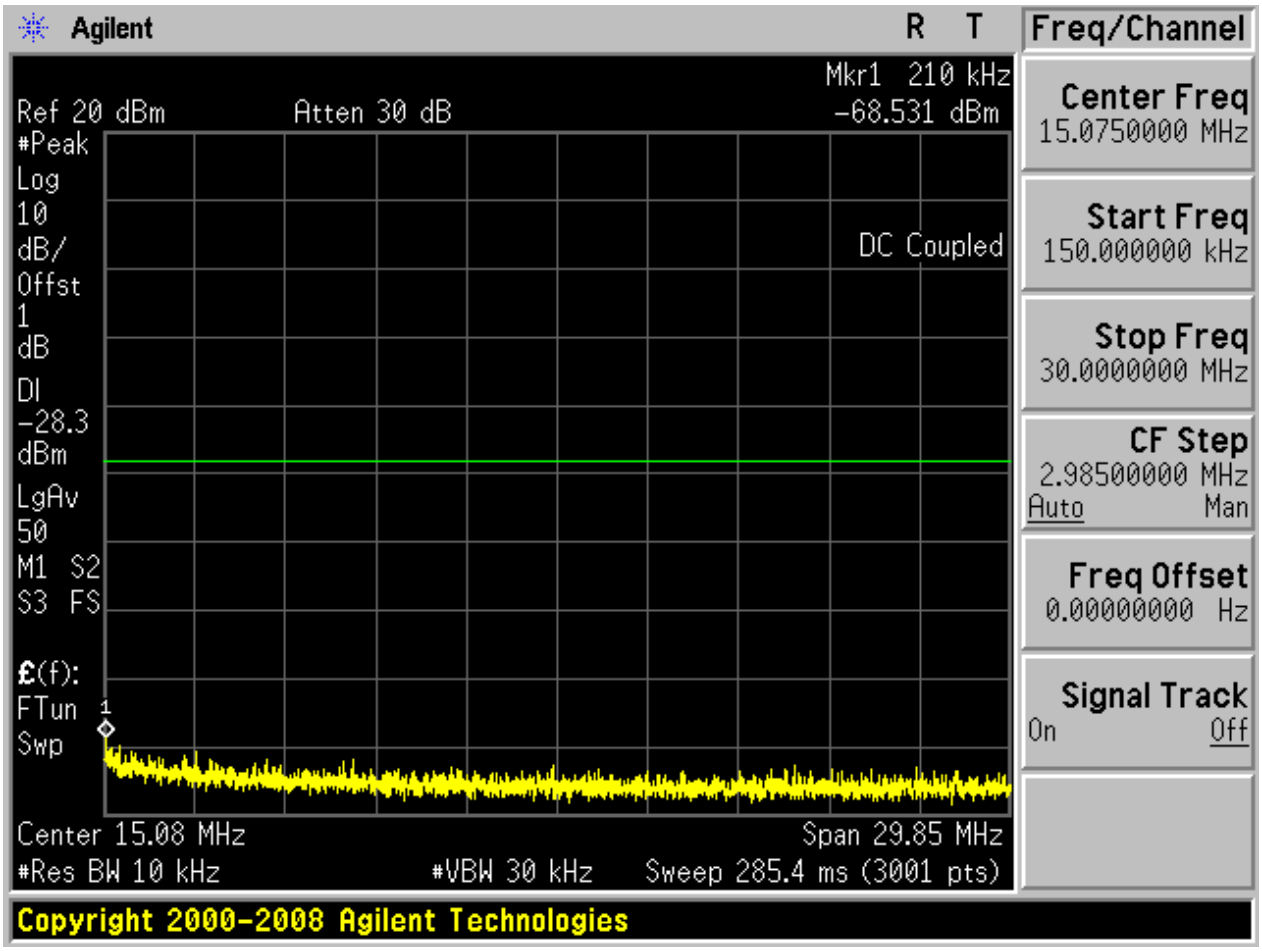

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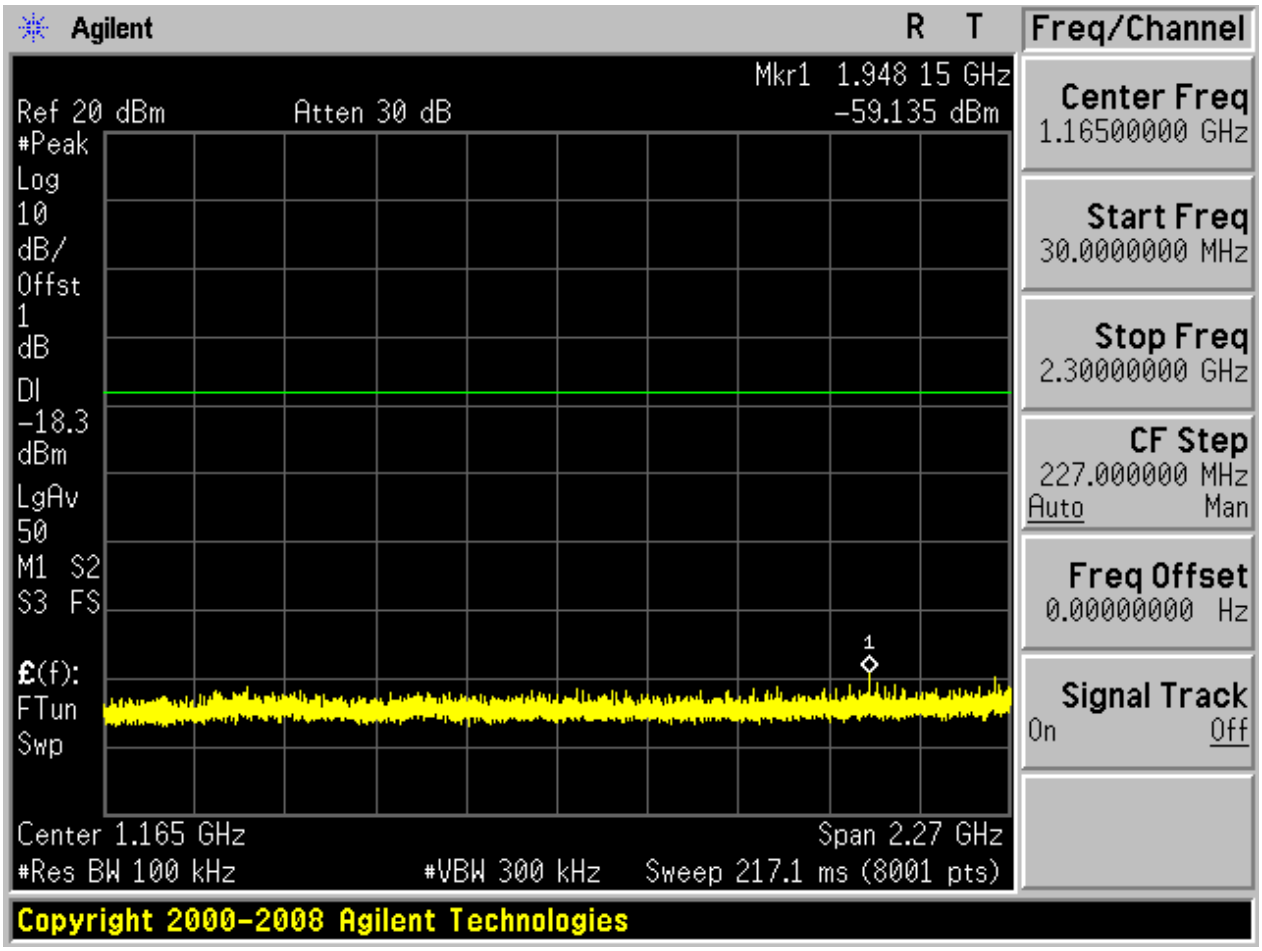

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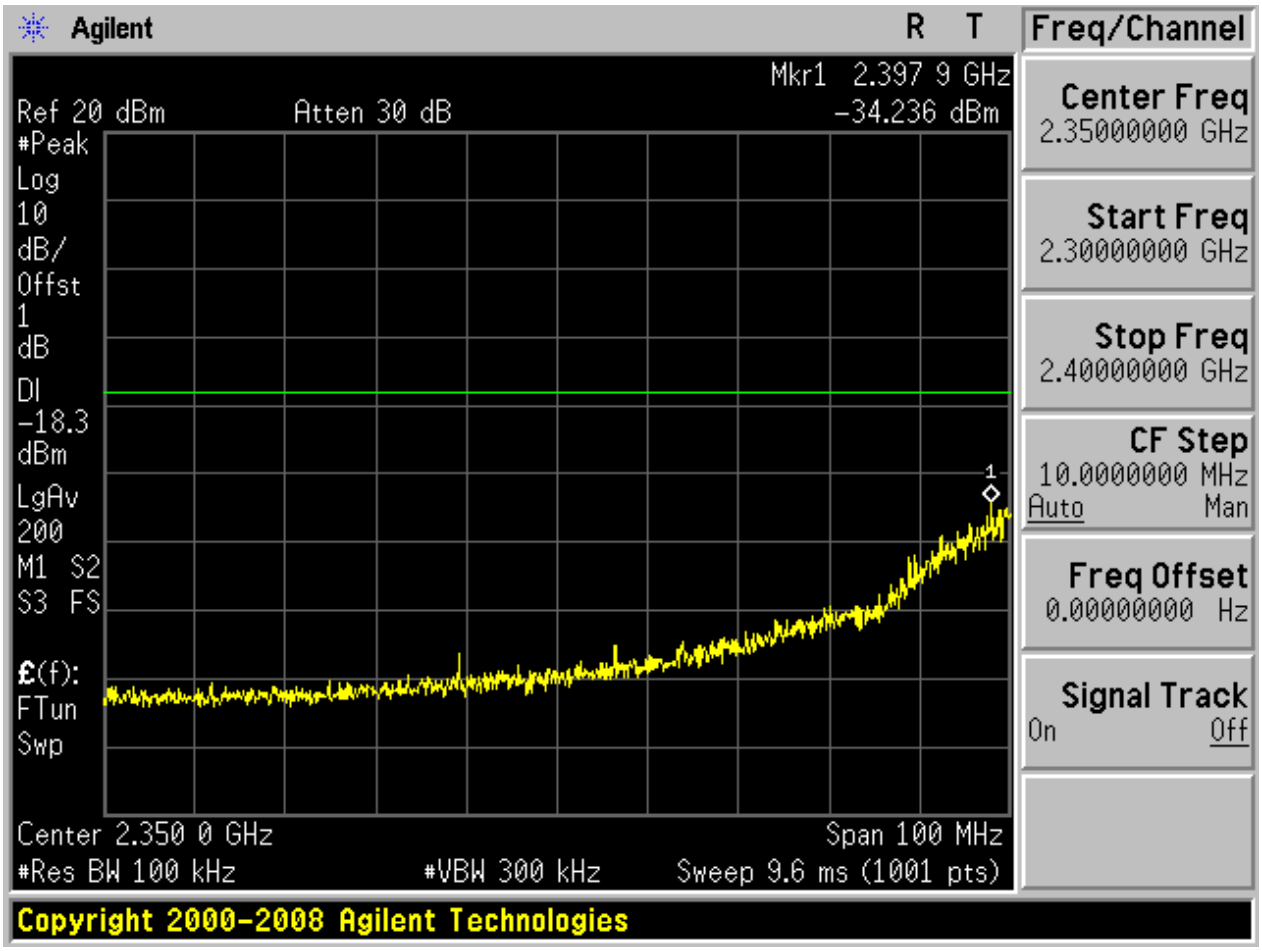

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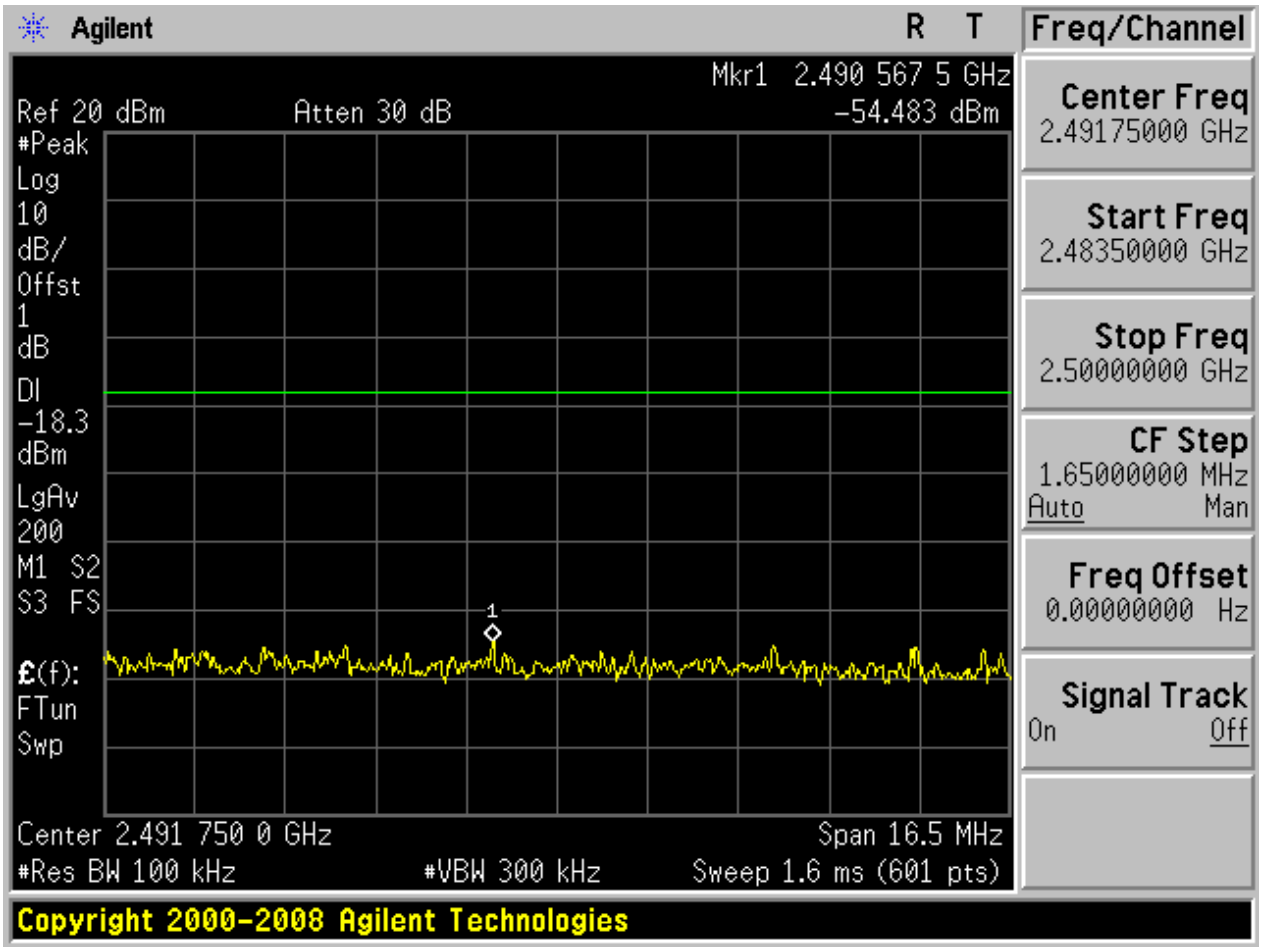

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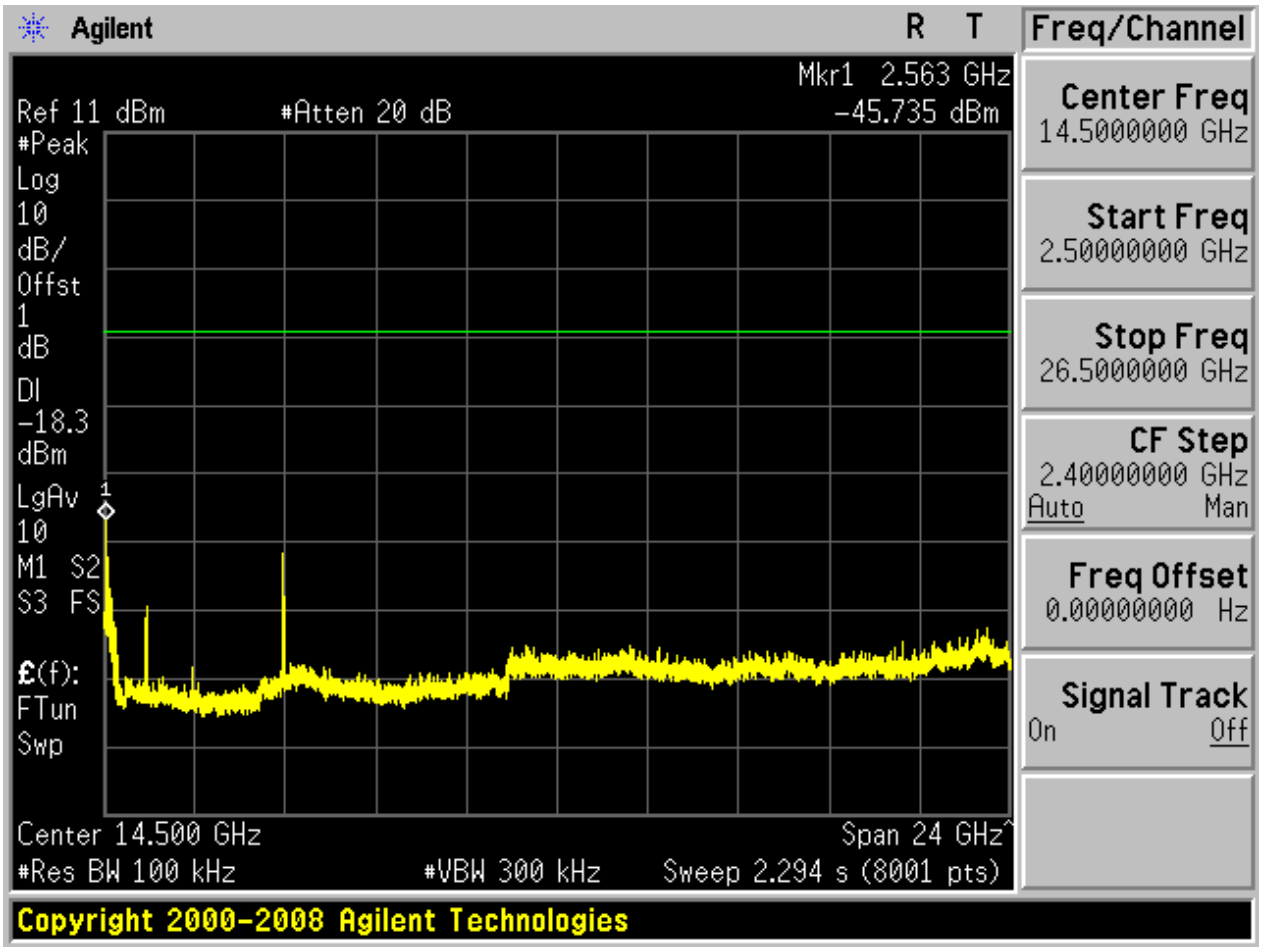

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2.10 11N20_M

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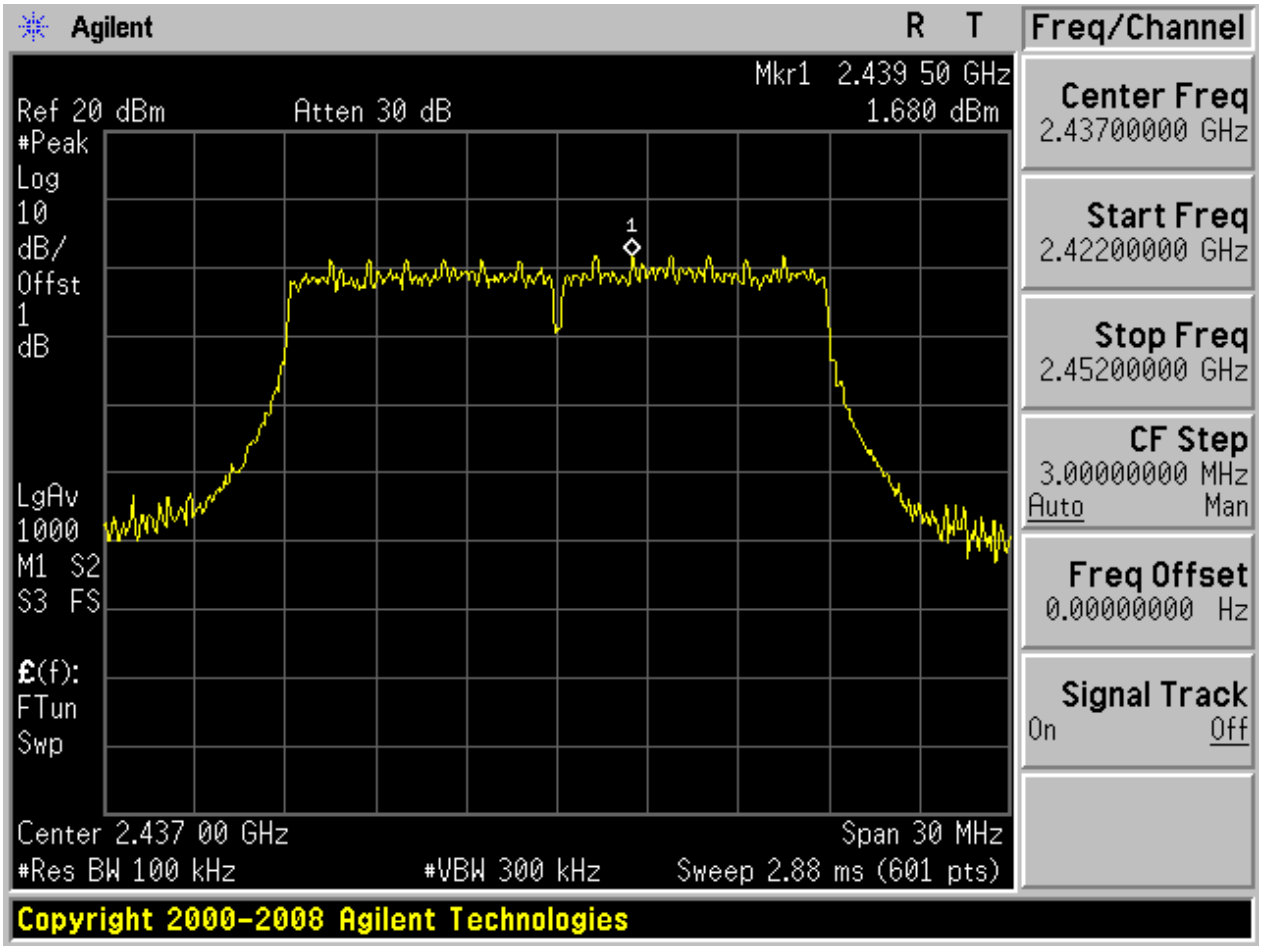

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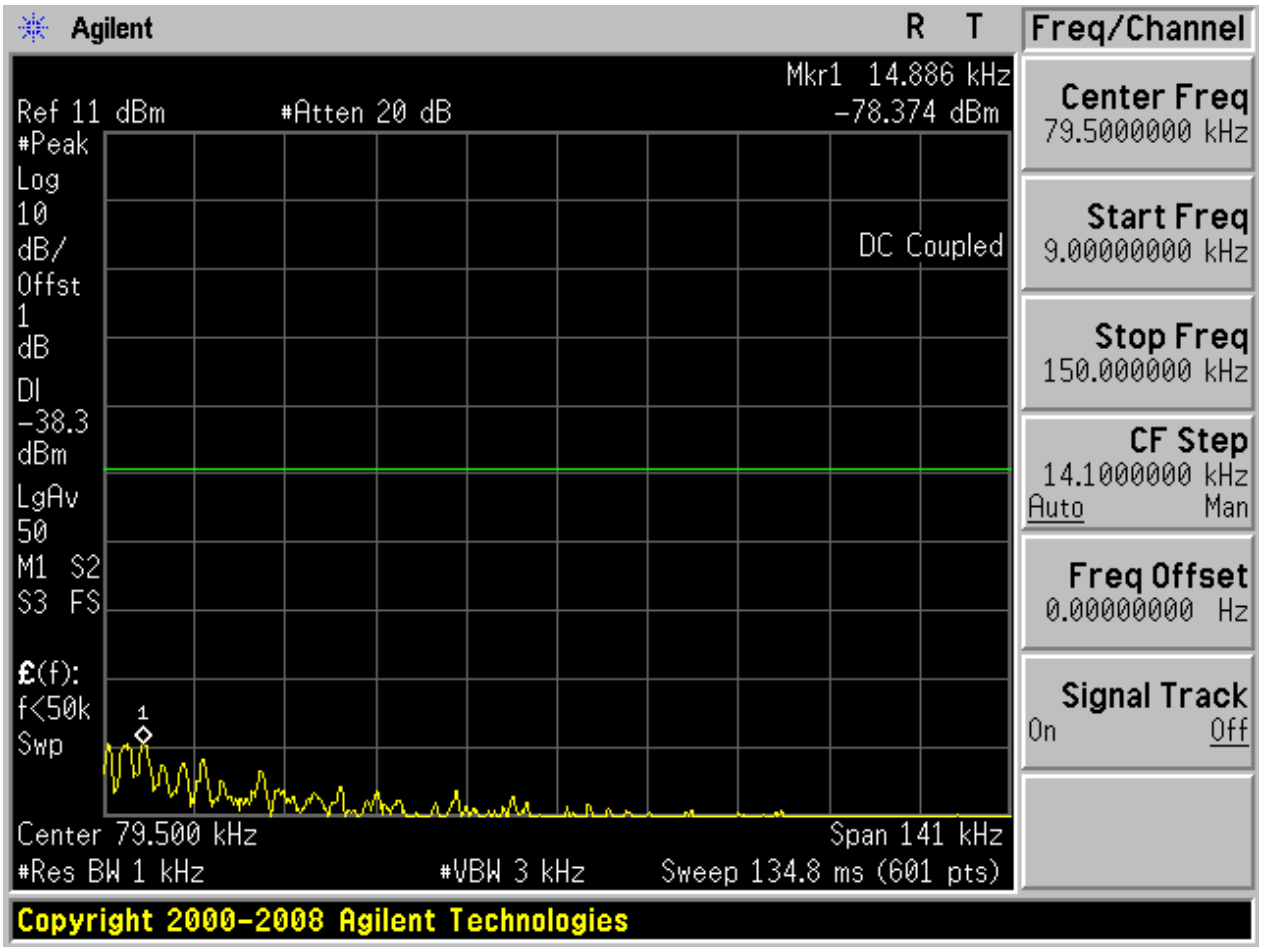

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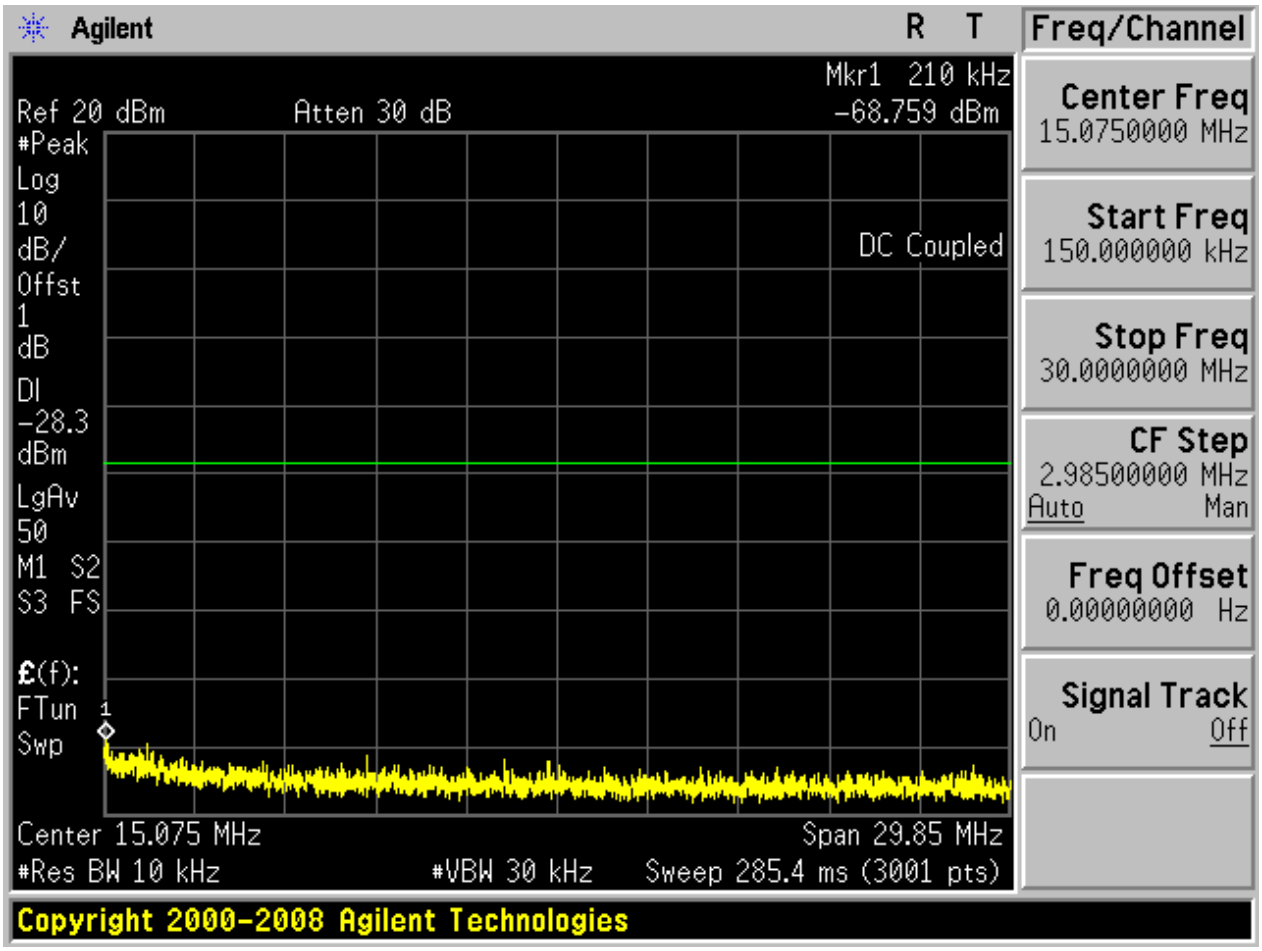

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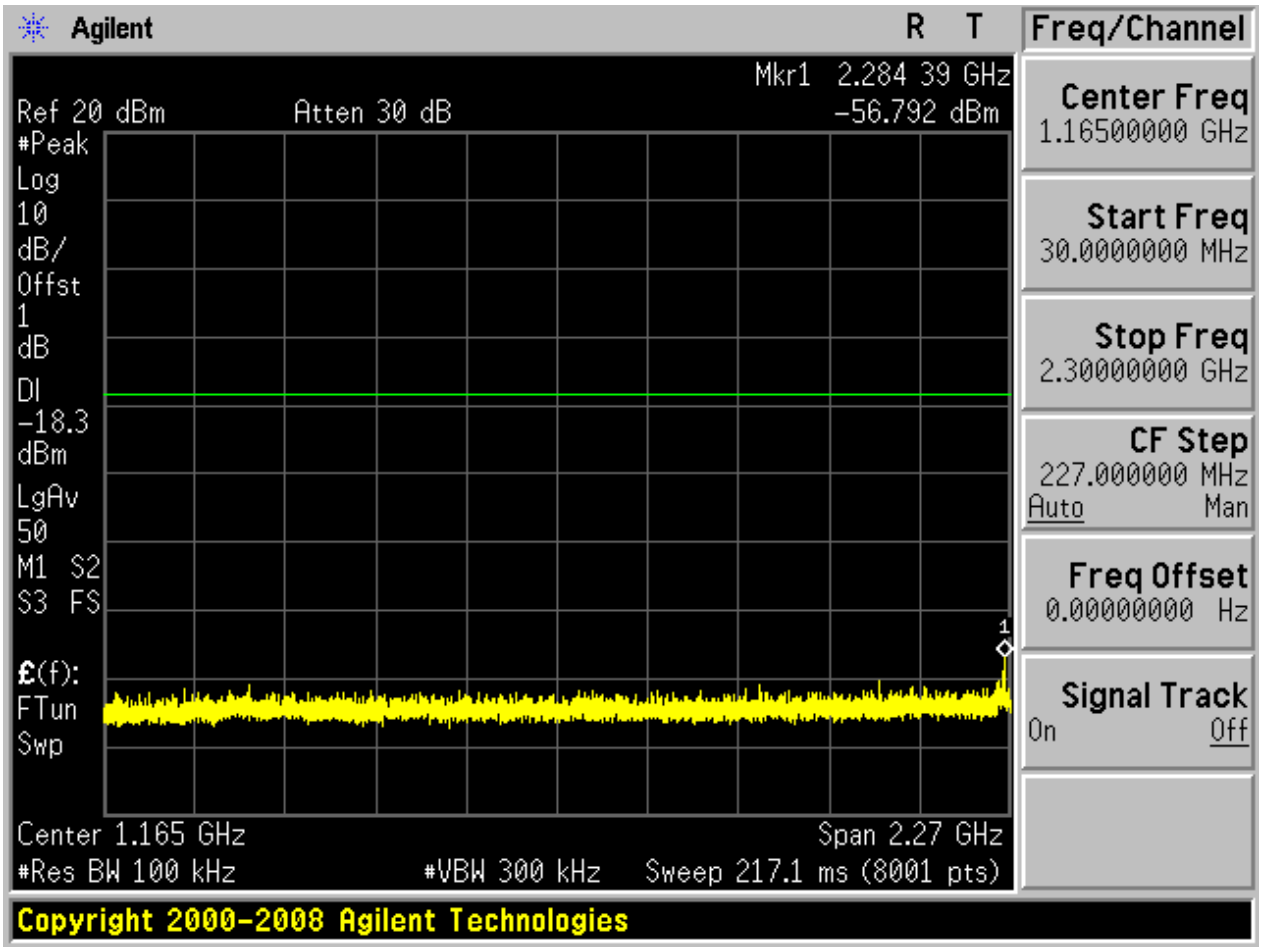

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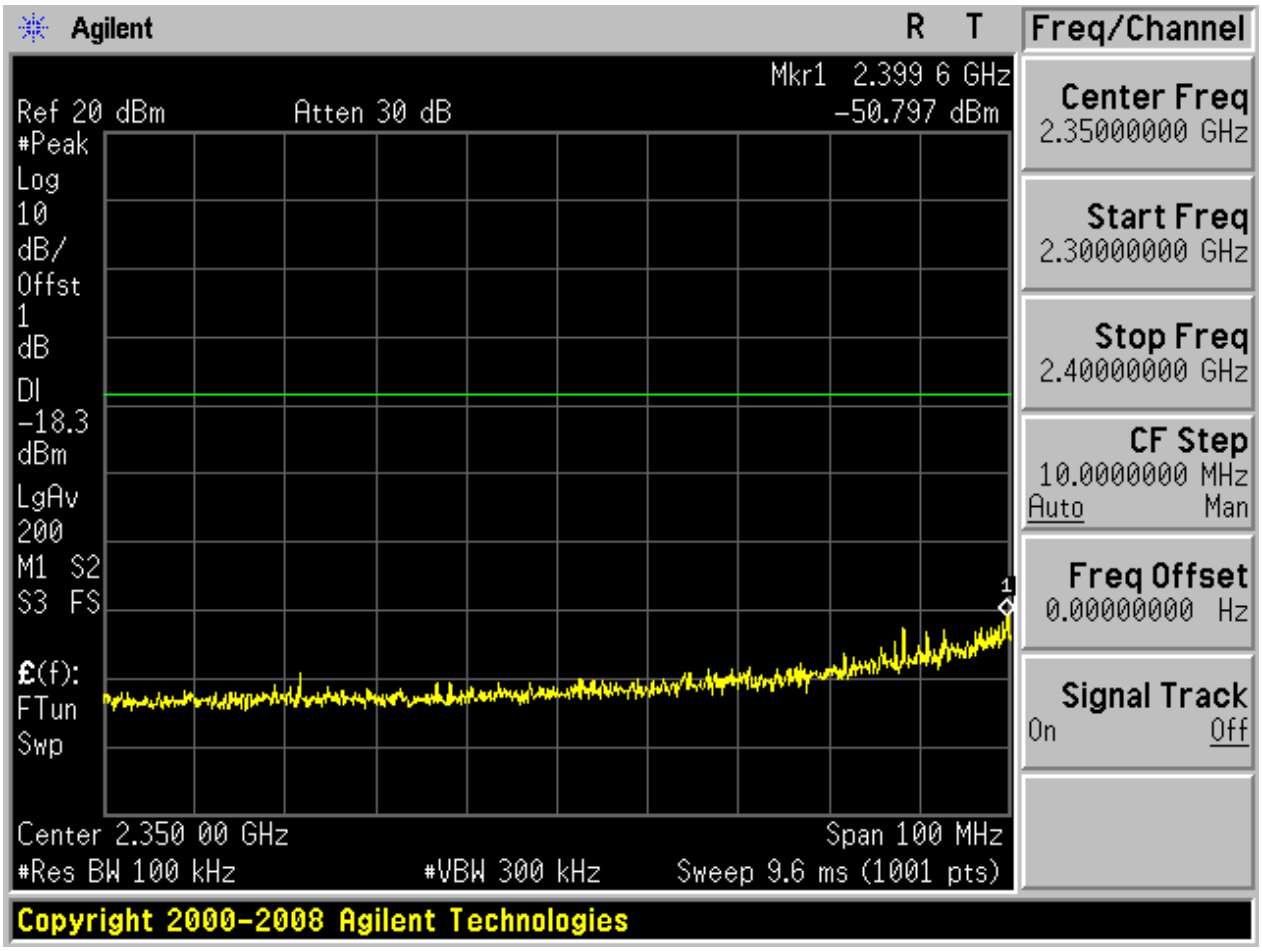

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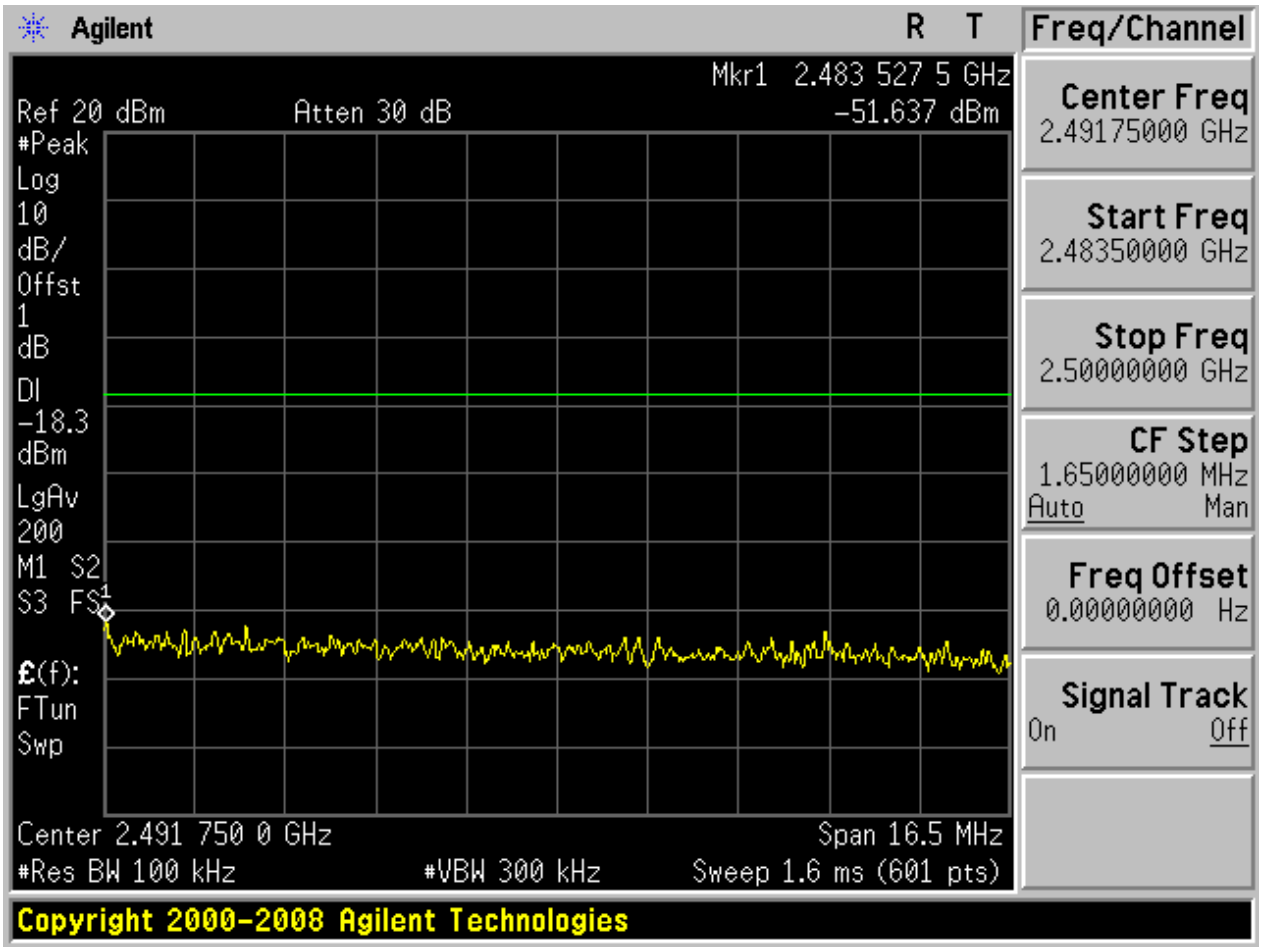

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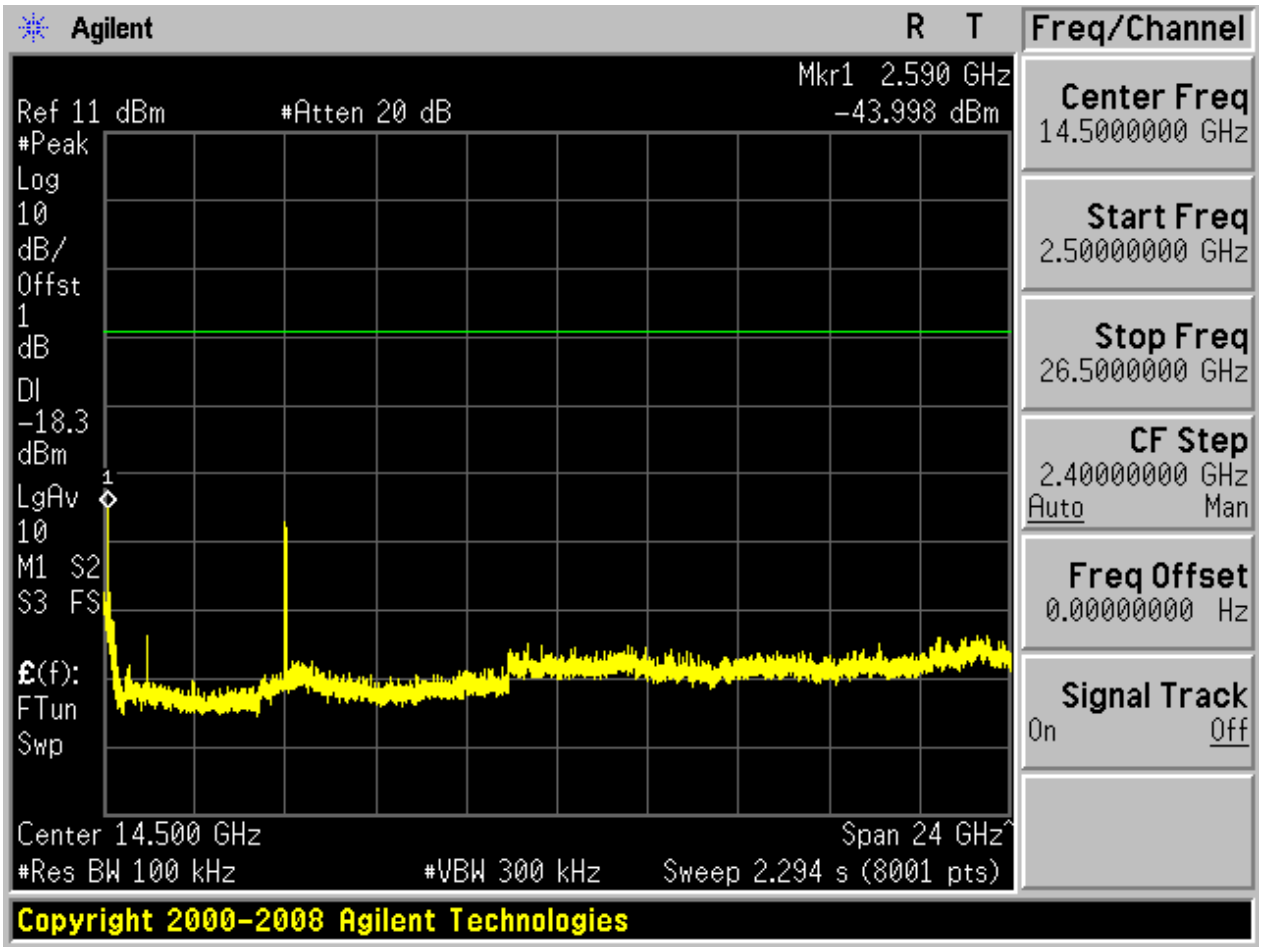

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2.11 11N20_H

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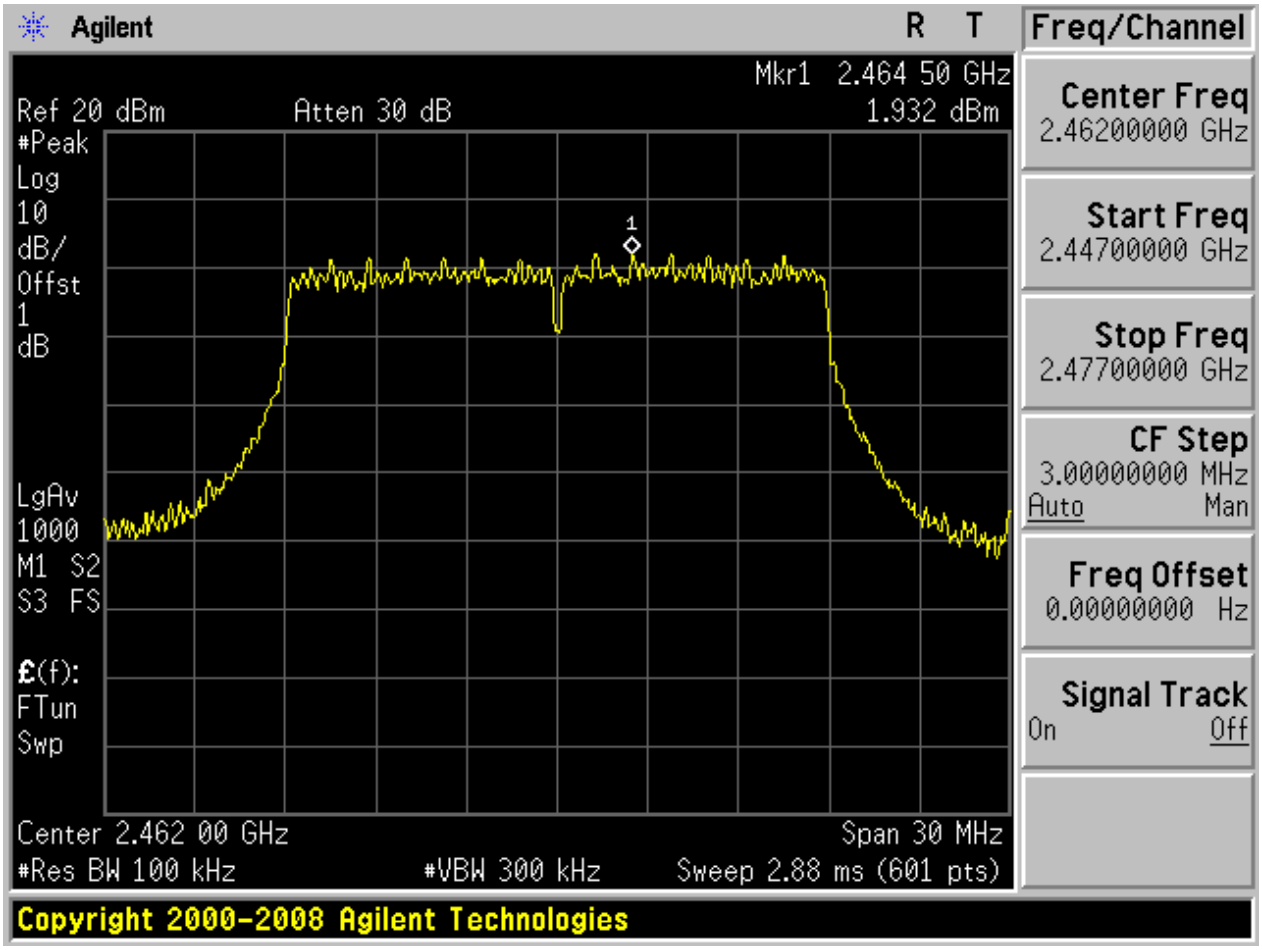

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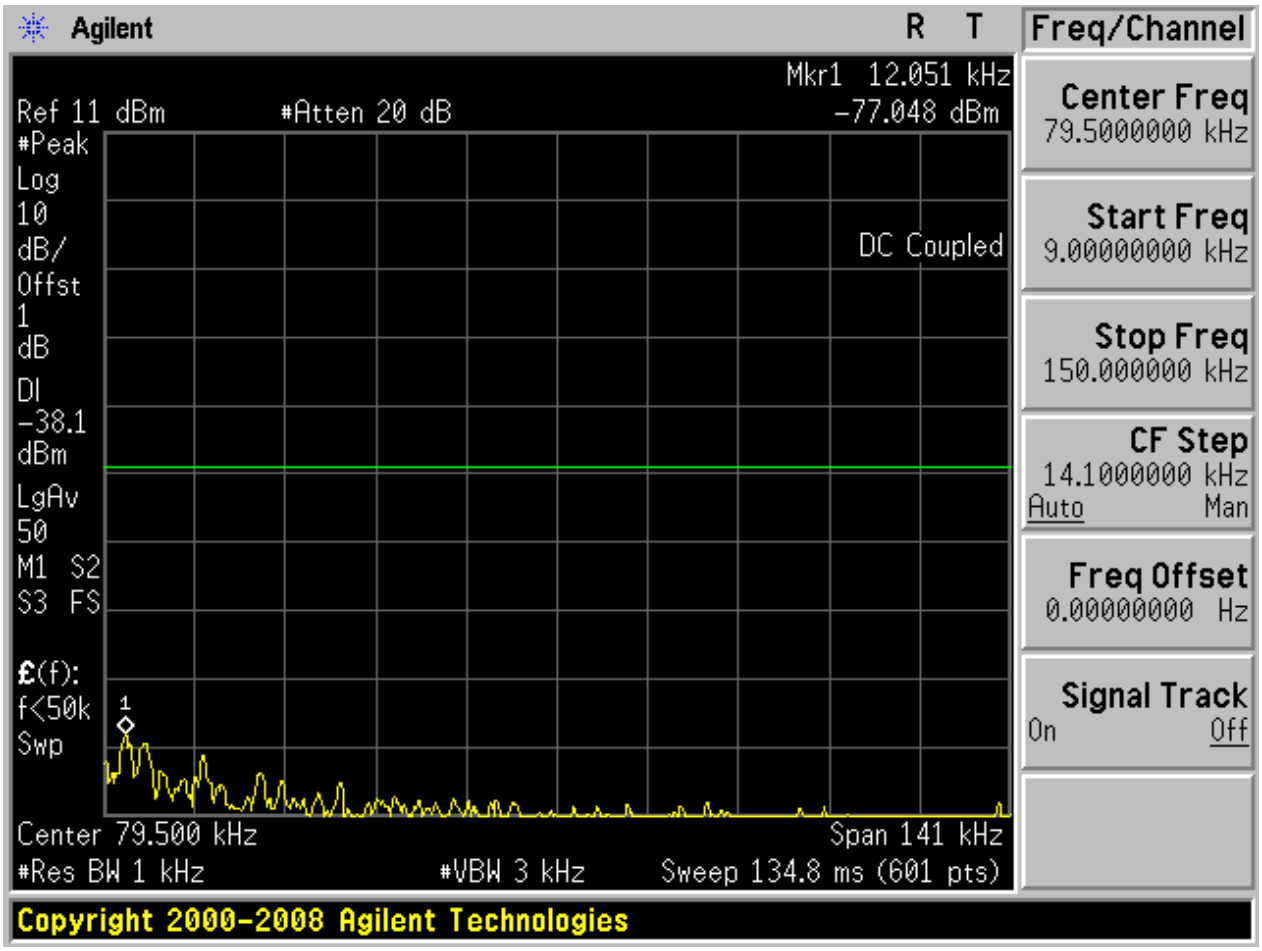

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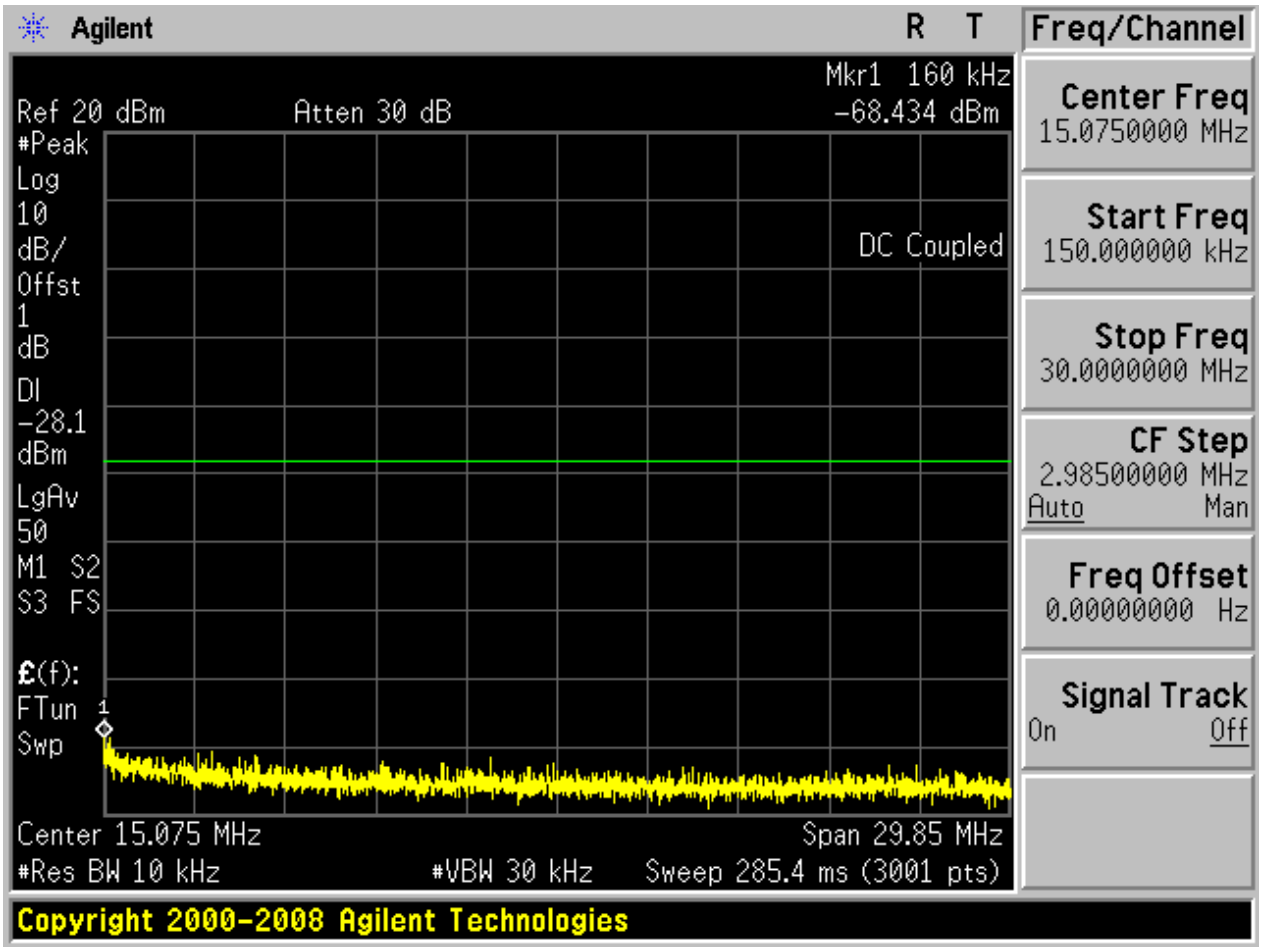

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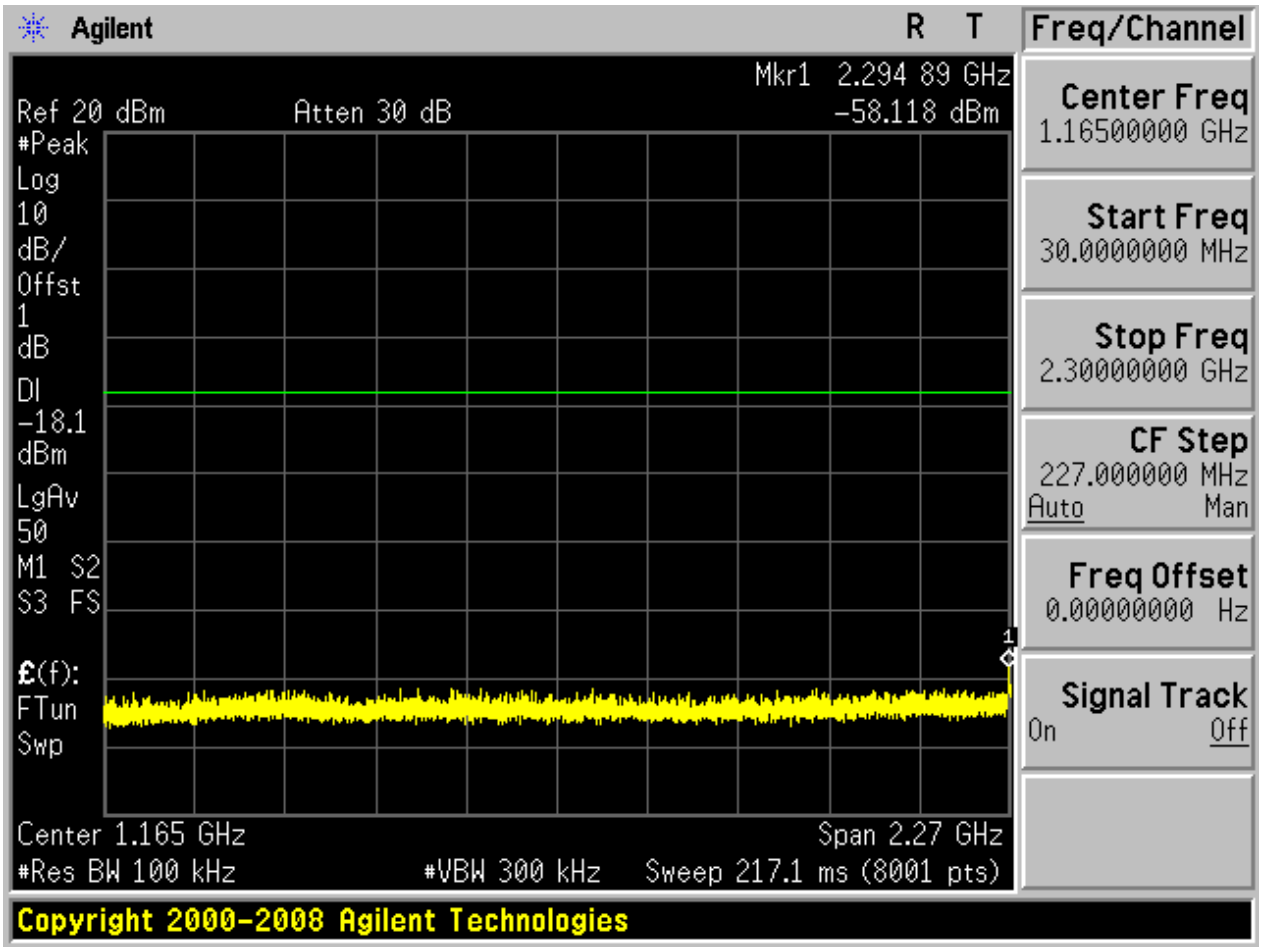

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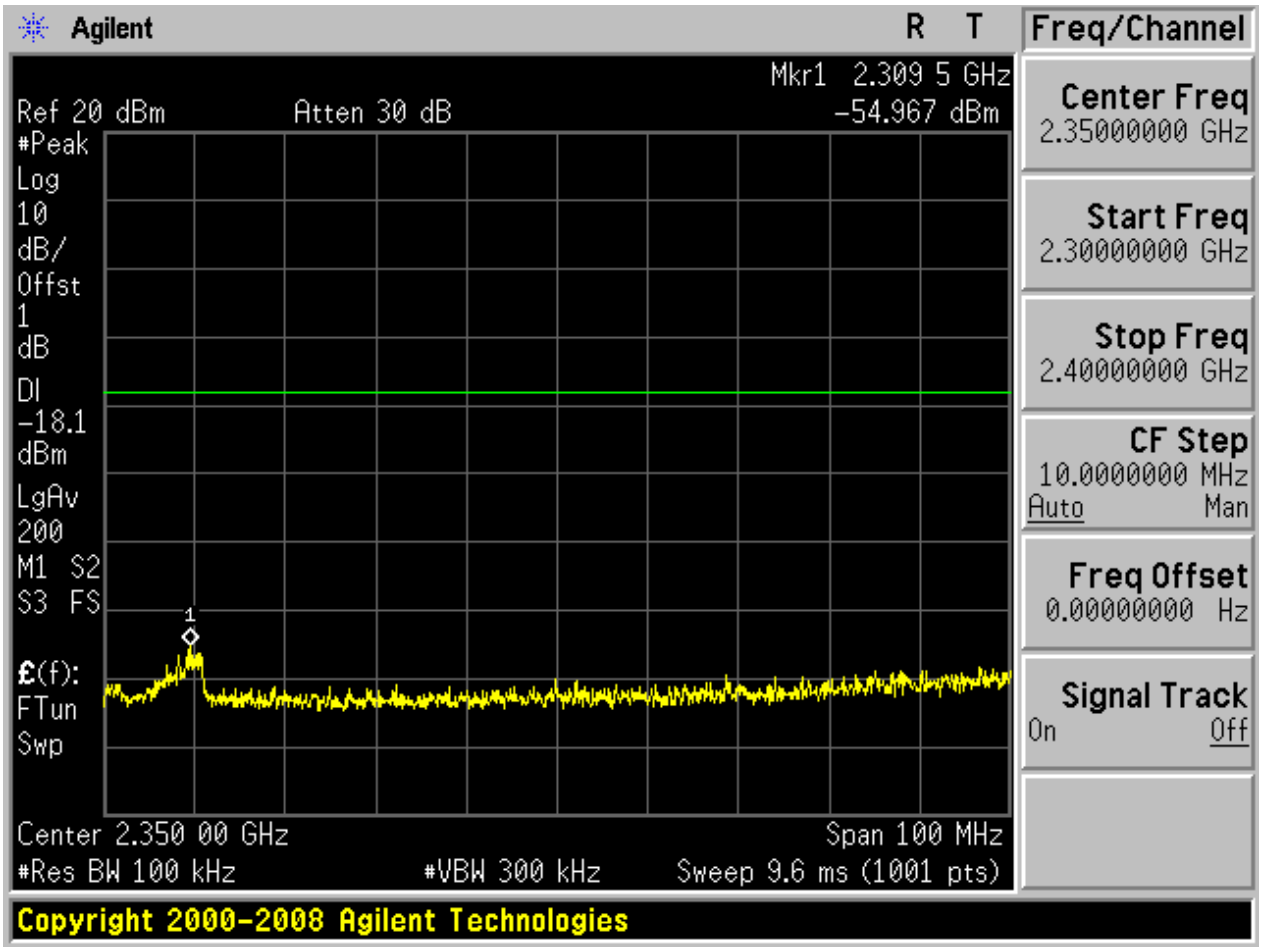

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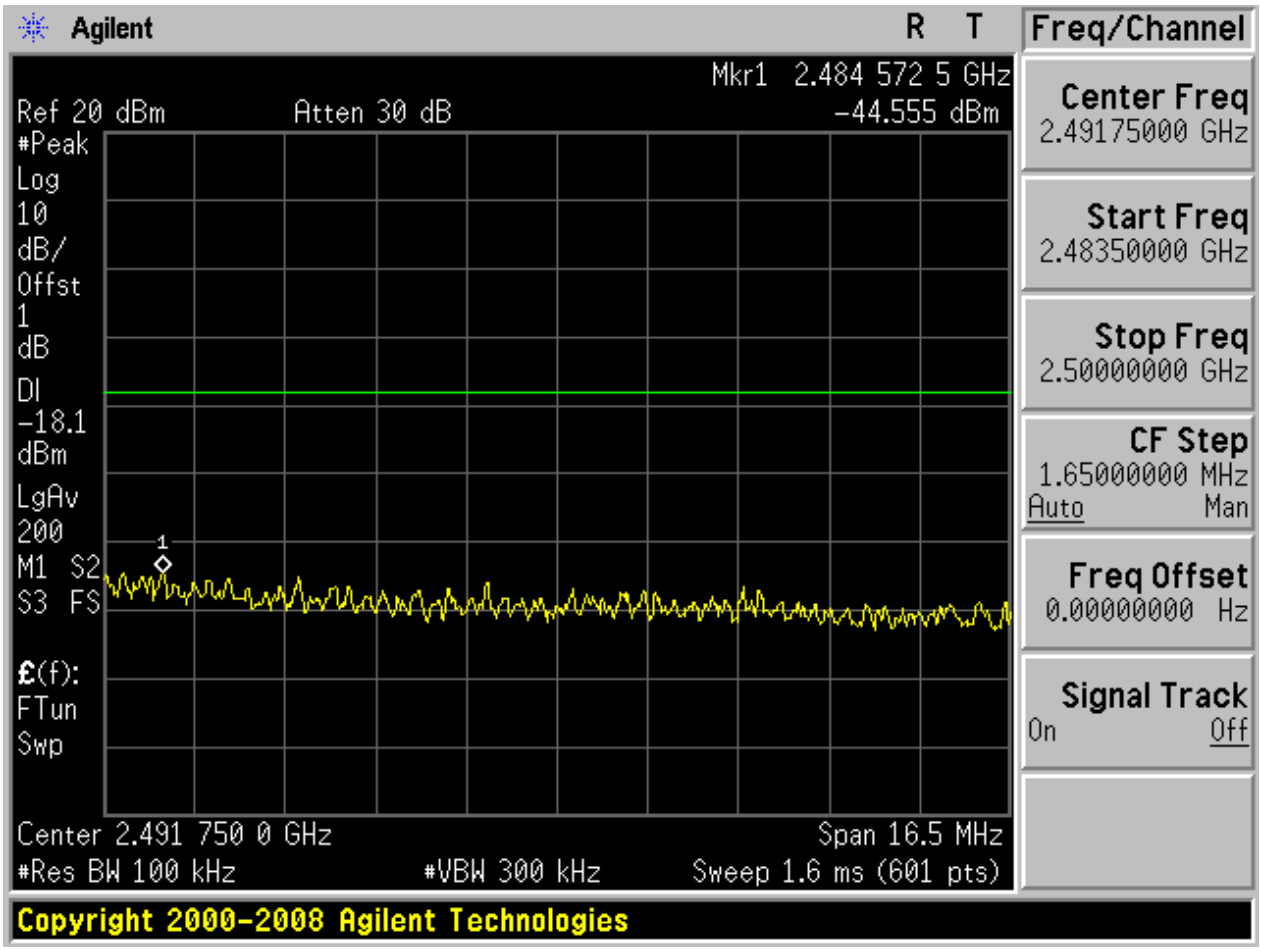

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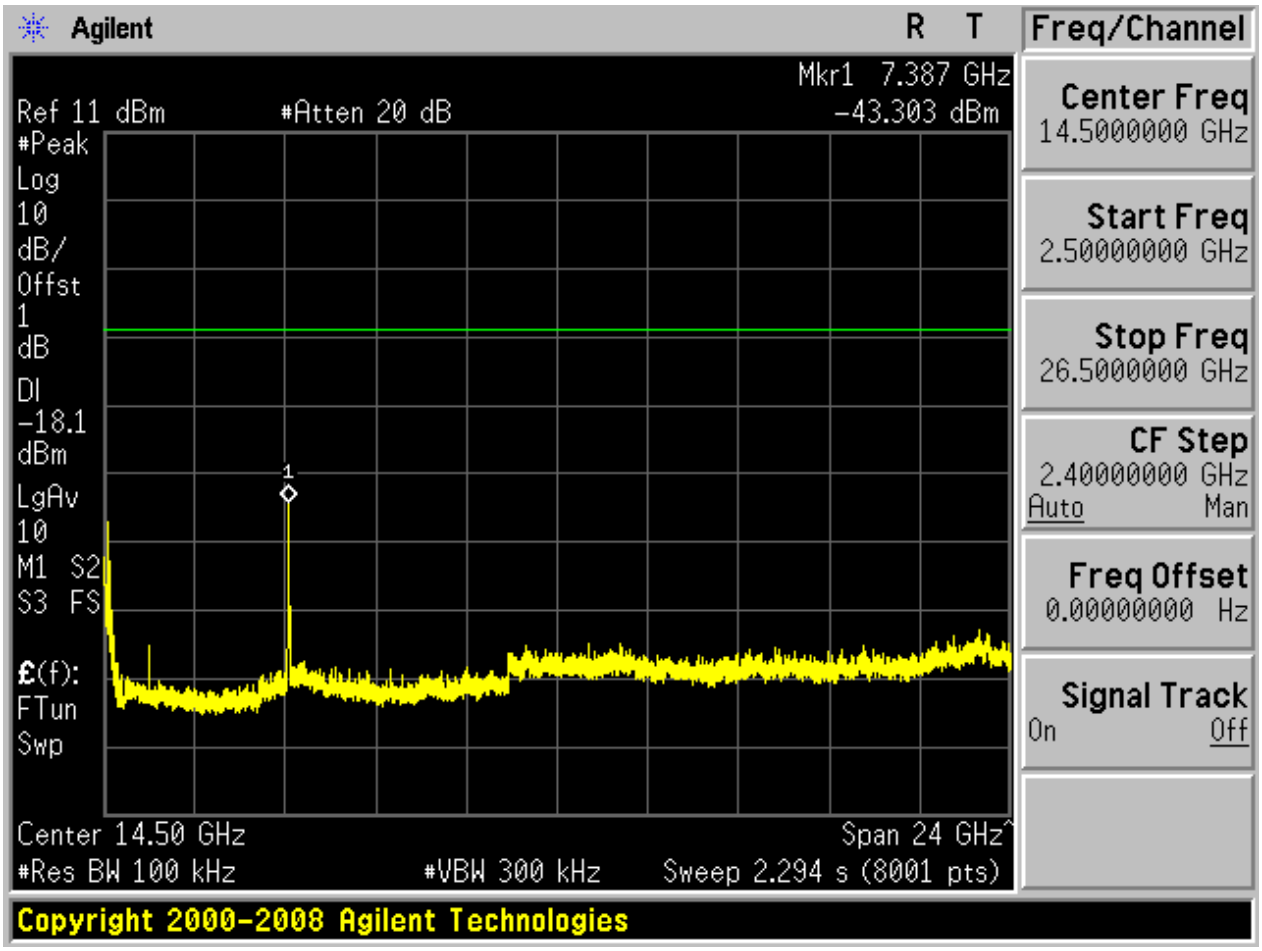

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Appendix F: Radiated Spurious Emission & Spurious in Restricted Band

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).**

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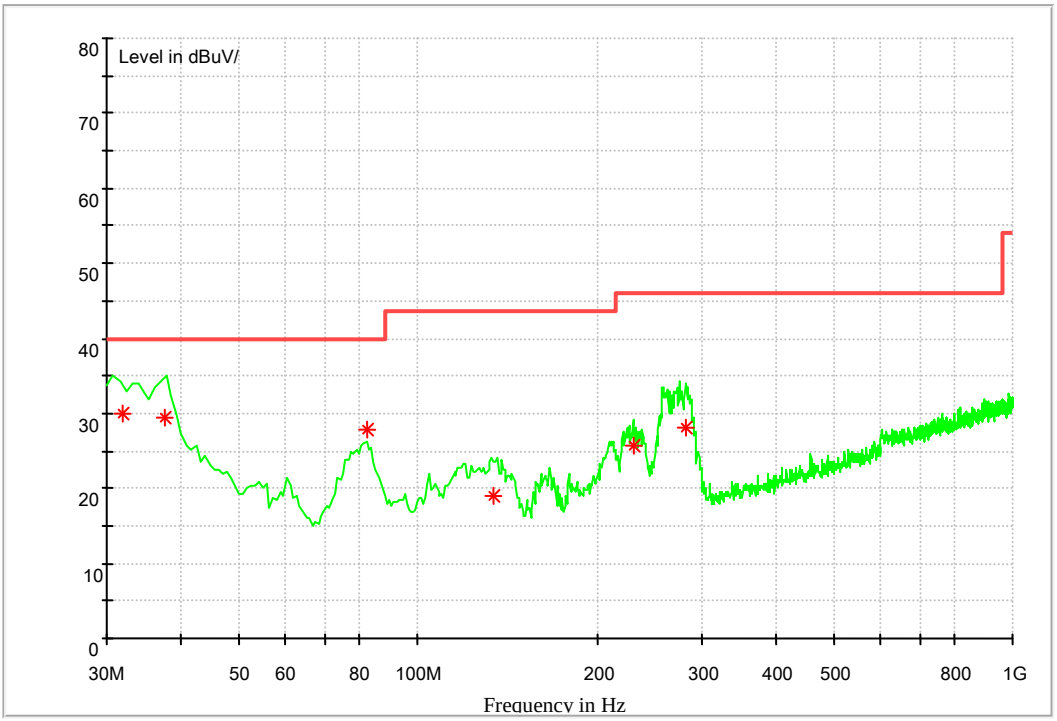

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
31.926995	29.9	13.0	40.0	10.2	100.0	182.0	VERTICAL
37.591040	29.4	13.7	40.0	10.6	100.0	190.0	VERTICAL
82.262720	27.9	10.2	40.0	12.1	400.0	274.0	HORIZONTAL
134.508800	19.0	10.5	43.5	24.5	100.0	36.0	VERTICAL
231.279360	25.6	13.8	46.0	20.4	138.0	70.0	HORIZONTAL
283.010240	28.2	15.2	46.0	17.8	100.0	266.0	HORIZONTAL

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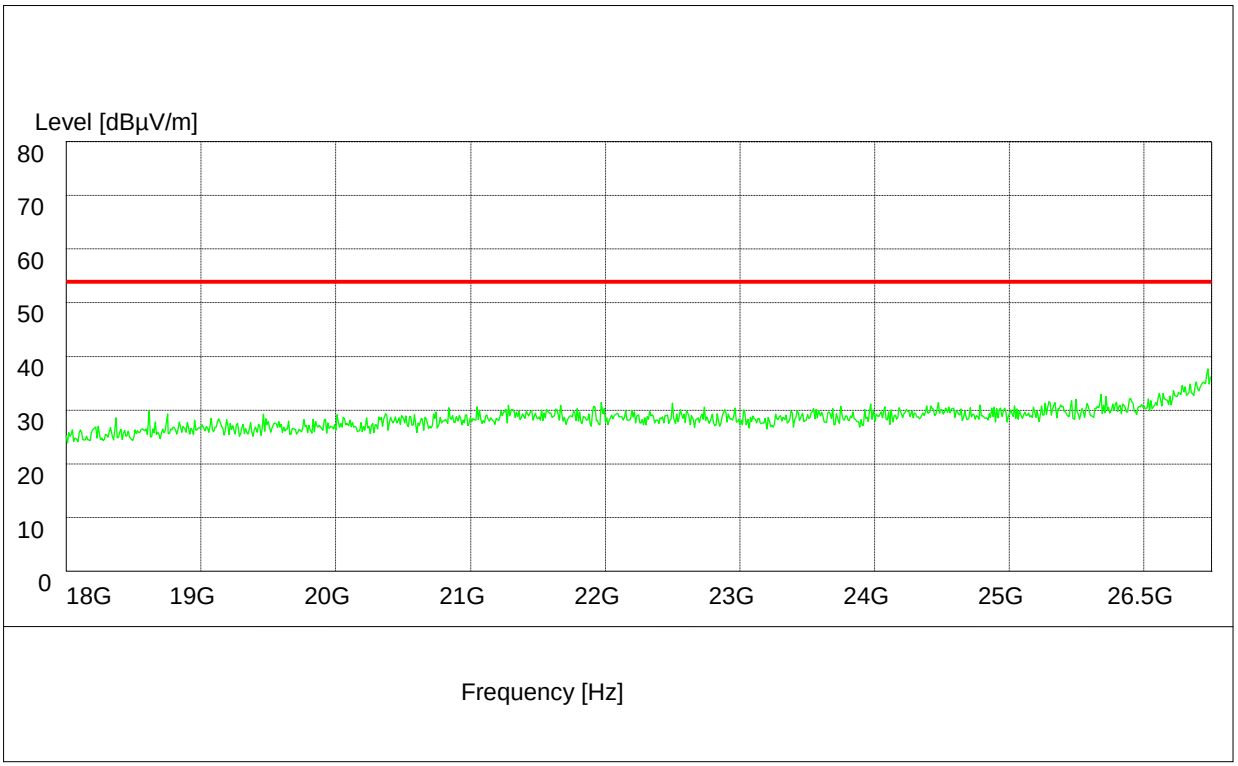
Part 2: Testing Range of “18 GHz to 26.5 GHz”

Note: No peak found in pre- test.



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

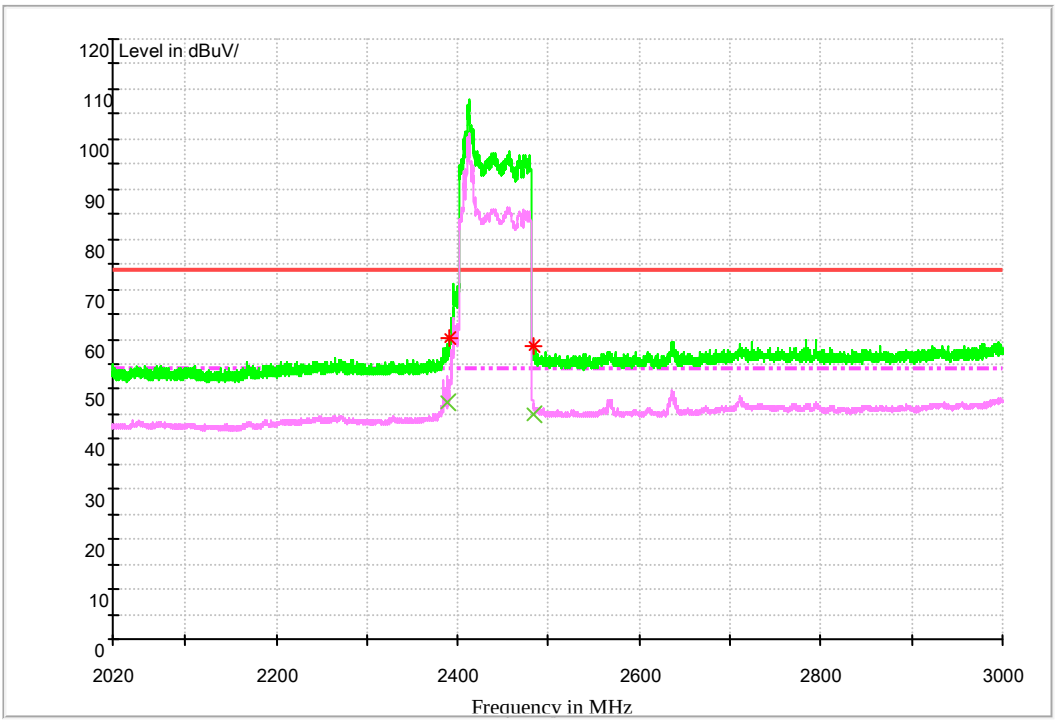
Note 1: The testing range of “2.3 GHz to 2.5 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.

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

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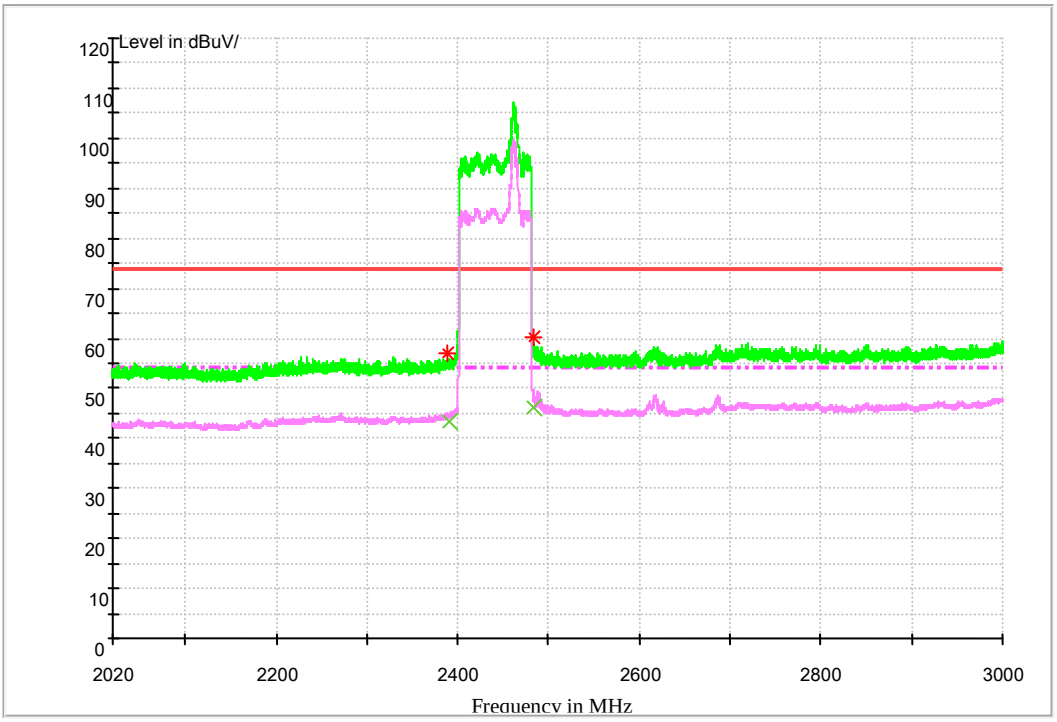
2390.000000	60.0	38.3	74.0	14.0	100.0	261.0	HORIZONTAL
2483.500000	58.5	40.3	74.0	15.5	100.0	268.0	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.3	38.3	54.0	6.7	100.0	254.0	HORIZONTAL
2483.500000	45.1	40.6	54.0	8.9	100.0	88.0	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	57.1	38.3	74.0	16.9	121.0	57.0	HORIZONTAL
2483.500000	60.3	40.5	74.0	13.7	152.0	90.0	VERTICAL

MEASUREMENT RESULT: AV Detector

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Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	43.3	38.3	54.0	10.7	100.0	19.0	HORIZONTAL
2483.500000	46.3	40.7	54.0	7.7	100.0	123.0	VERTICAL

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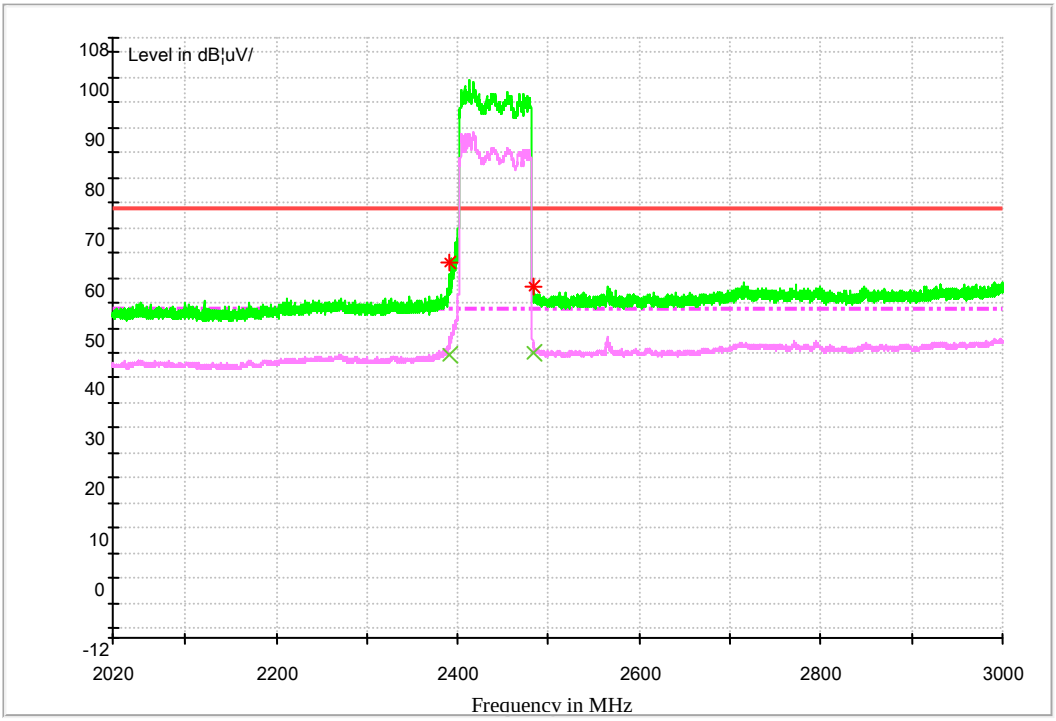
Test Mode: 11g

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	64.4	38.3	74.0	9.6	100.0	259.0	HORIZONTAL
2483.500000	59.2	40.6	74.0	14.8	113.0	16.0	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.3	38.3	54.0	6.7	100.0	261.0	HORIZONTAL
2483.500000	45.0	40.5	54.0	9.0	100.0	61.0	HORIZONTAL

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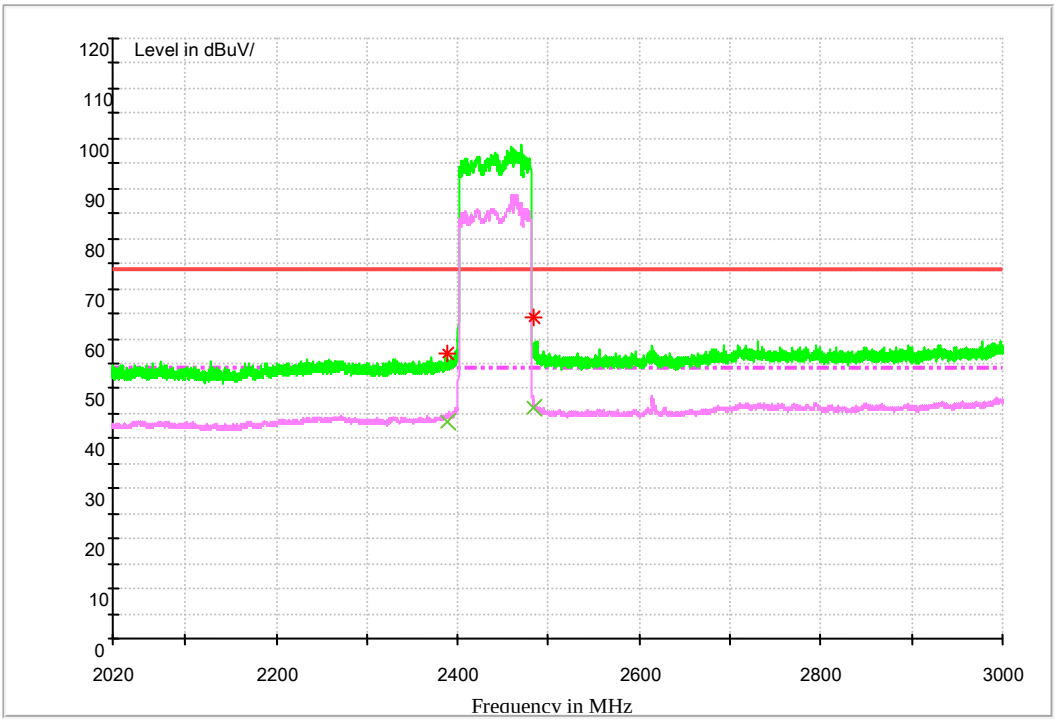
Channel 11

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	56.8	38.3	74.0	17.2	100.0	290.0	VERTICAL
2483.500000	64.1	40.2	74.0	9.9	100.0	245.0	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	147.0	HORIZONTAL
2483.500000	46.1	40.4	54.0	7.9	100.0	245.0	HORIZONTAL

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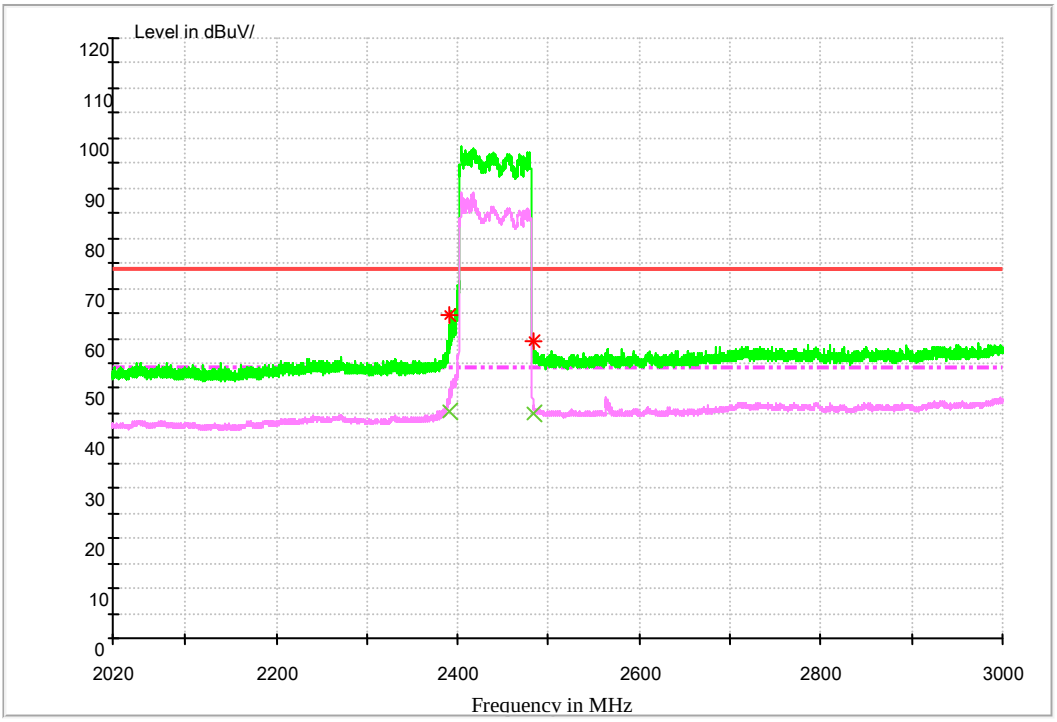
Test Mode: 11n

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	64.5	38.3	74.0	9.5	100.0	258.0	HORIZONTAL
2483.500000	59.3	40.7	74.0	14.7	100.0	171.0	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	45.5	38.3	54.0	8.5	100.0	221.0	HORIZONTAL
2483.500000	45.1	40.6	54.0	8.9	100.0	216.0	VERTICAL

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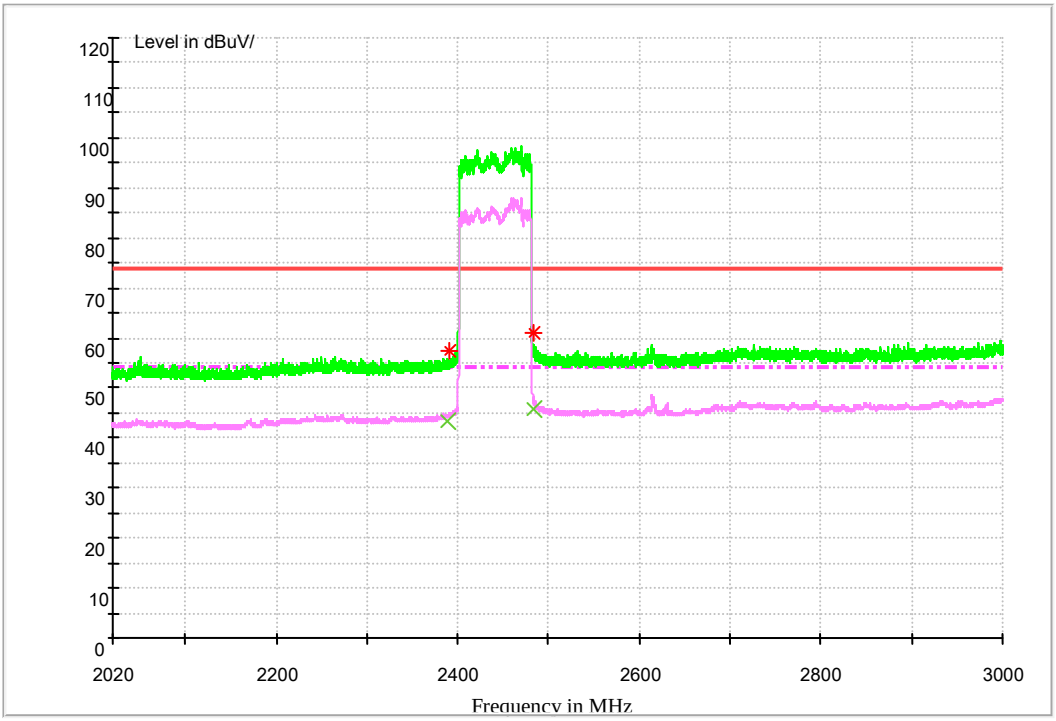
Channel 11



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	57.3	38.3	74.0	16.7	100.0	0.0	VERTICAL
2483.500000	61.0	40.7	74.0	13.0	100.0	133.0	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	VERTICAL
2483.500000	45.8	40.7	54.0	8.2	100.0	133.0	HORIZONTAL

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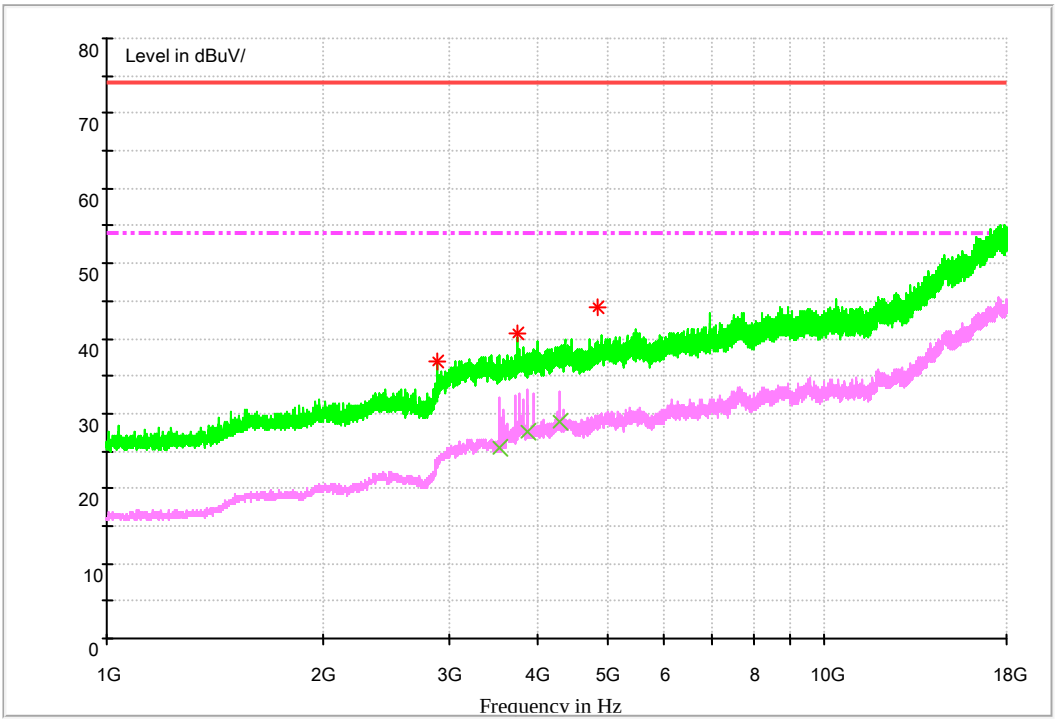
Part 4: Testing Range of “1 GHz to 18 GHz”

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).



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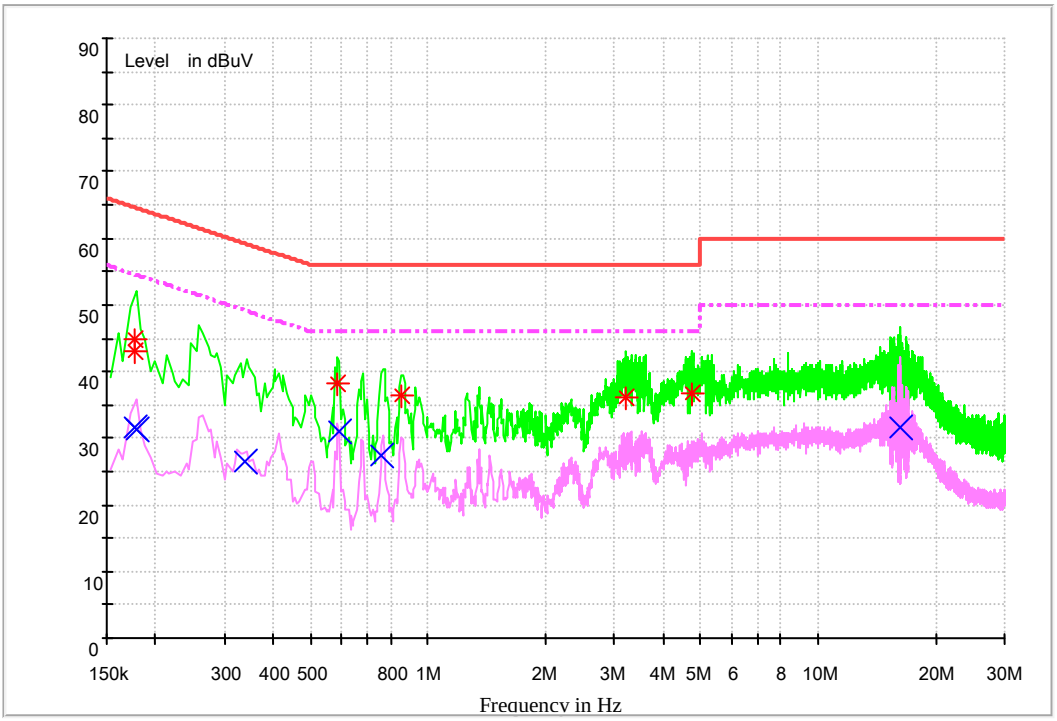
Appendix G: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 6



MEASUREMENT RESULT: QP Detector

Frequency	Level	Transducer	Limit	Margin	Line	PE
MHz	dBµV	dB	dBµV	dB		
0.176186	43.1	9.7	64.7	21.6	N	FLO
0.176936	44.8	9.7	64.6	19.8	L1	FLO
0.583219	38.1	9.7	56.0	17.9	N	FLO
0.856122	36.4	9.7	56.0	19.6	N	FLO
3.213732	36.0	9.7	56.0	20.0	N	FLO
4.728233	36.7	9.8	56.0	19.3	L1	FLO

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MEASUREMENT RESULT: AV Detector

Frequency	Level	Transducer	Limit	Margin	Line	PE
MHz	dBµV	dB	dBµV	dB		
0.177318	31.7	9.7	54.6	22.9	N	FLO
0.178509	31.3	9.7	54.6	23.3	L1	FLO
0.340174	26.5	9.7	49.2	22.7	N	FLO
0.590201	31.0	9.7	46.0	15.0	N	FLO
0.761768	27.5	9.7	46.0	18.5	N	FLO
16.139718	31.7	10.1	50.0	18.3	N	FLO

END

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