



# 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.

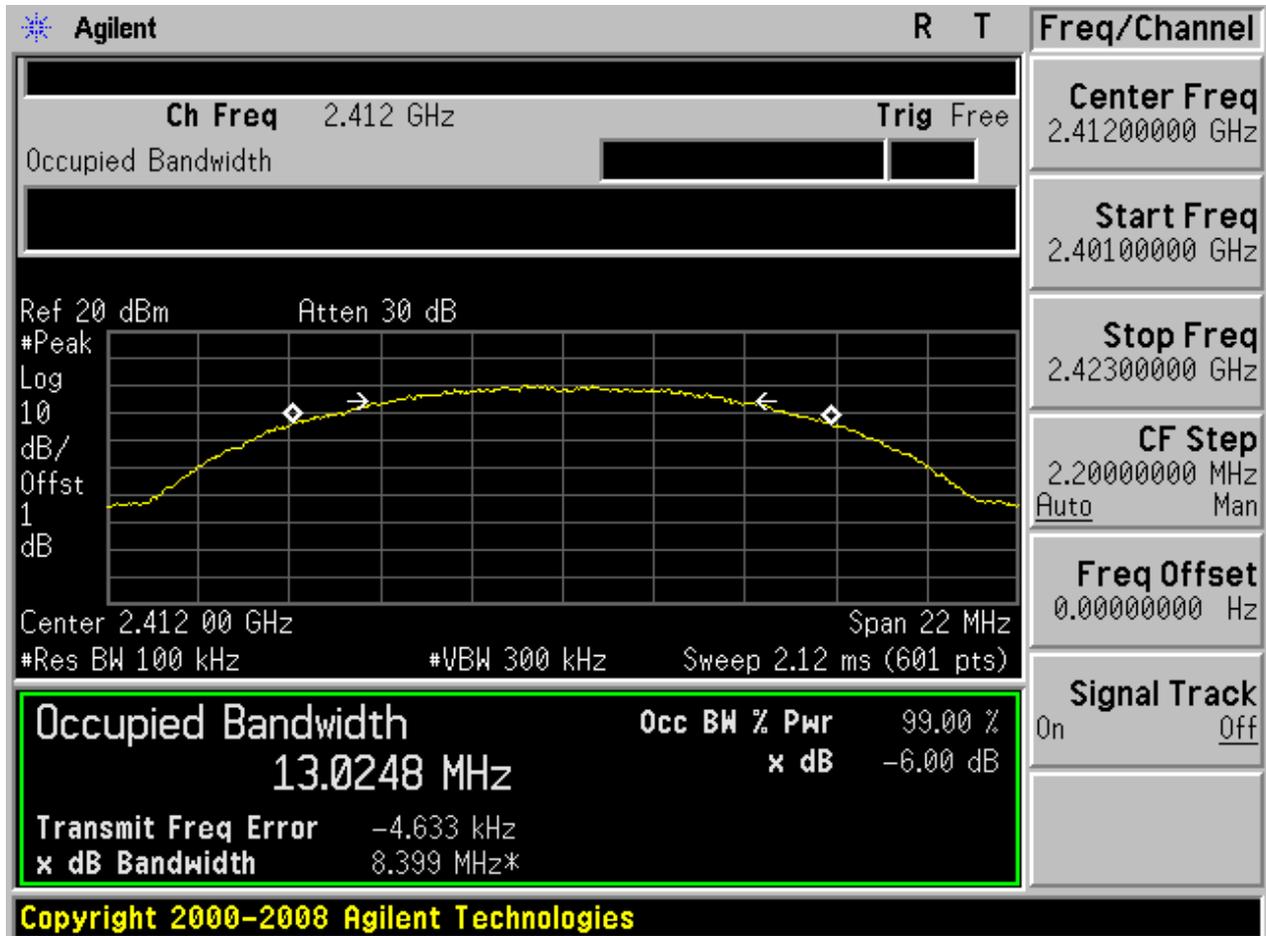
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
11B	L	2412	8.40	pass
11B	M	2437	8.85	pass
11B	H	2462	8.83	pass
11G	L	2412	16.50	pass
11G	M	2437	16.49	pass
11G	H	2462	16.51	pass
11N20	L	2412	17.73	pass
11N20	M	2437	17.72	pass
11N20	H	2462	17.73	pass

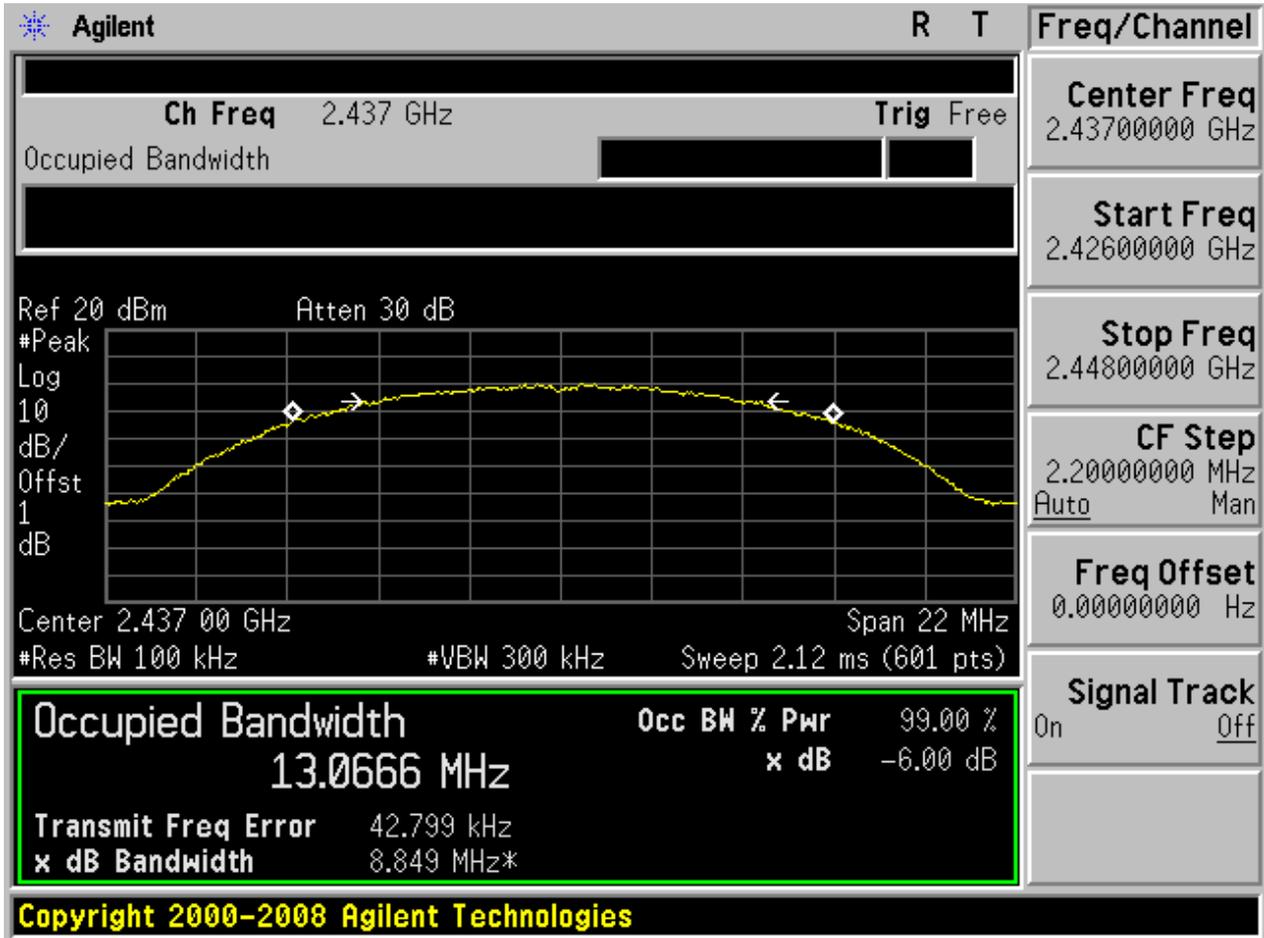
## Part II - Test Plots

### 2.1 11B\_L



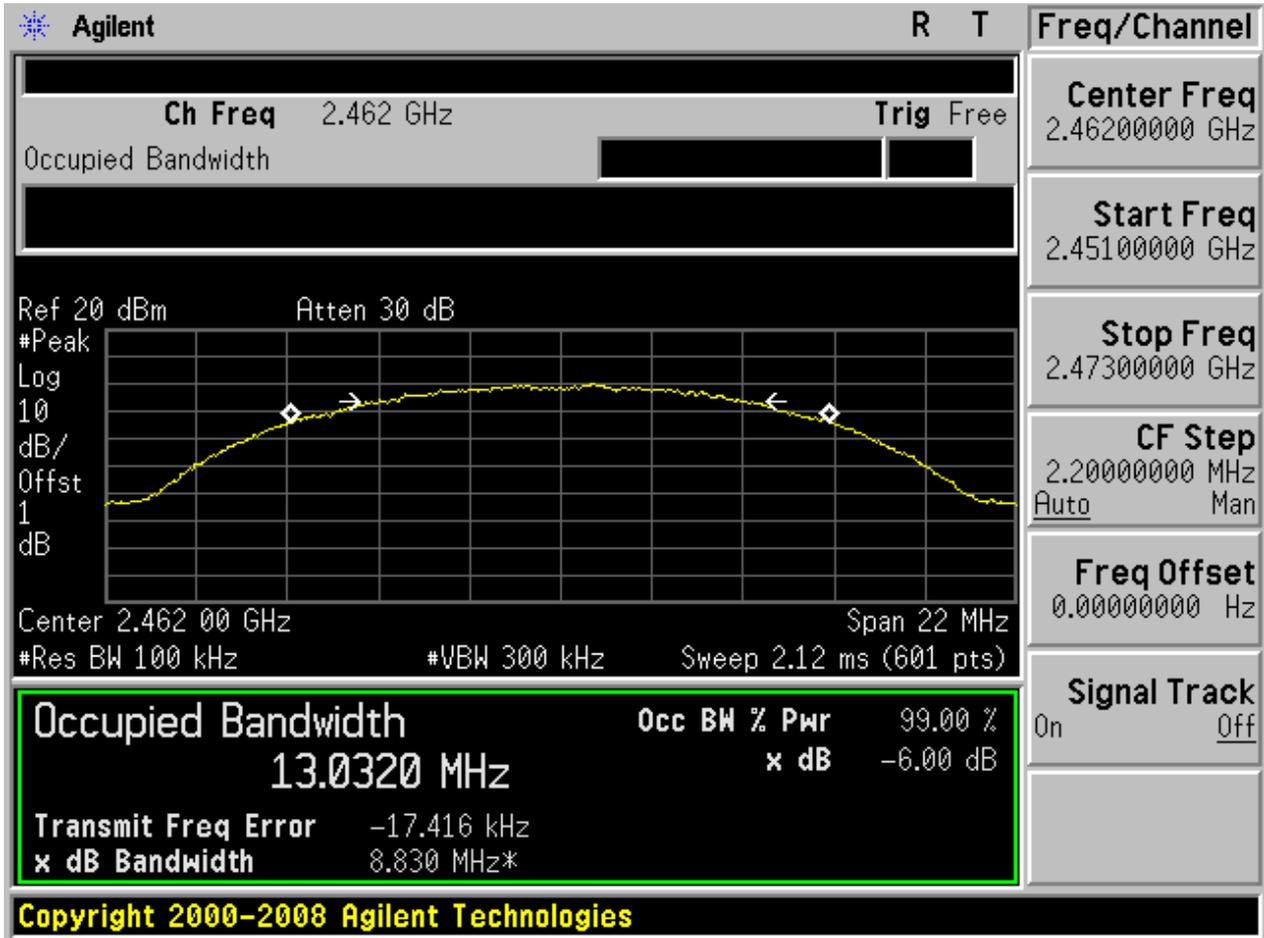


### 2.2 11B\_M



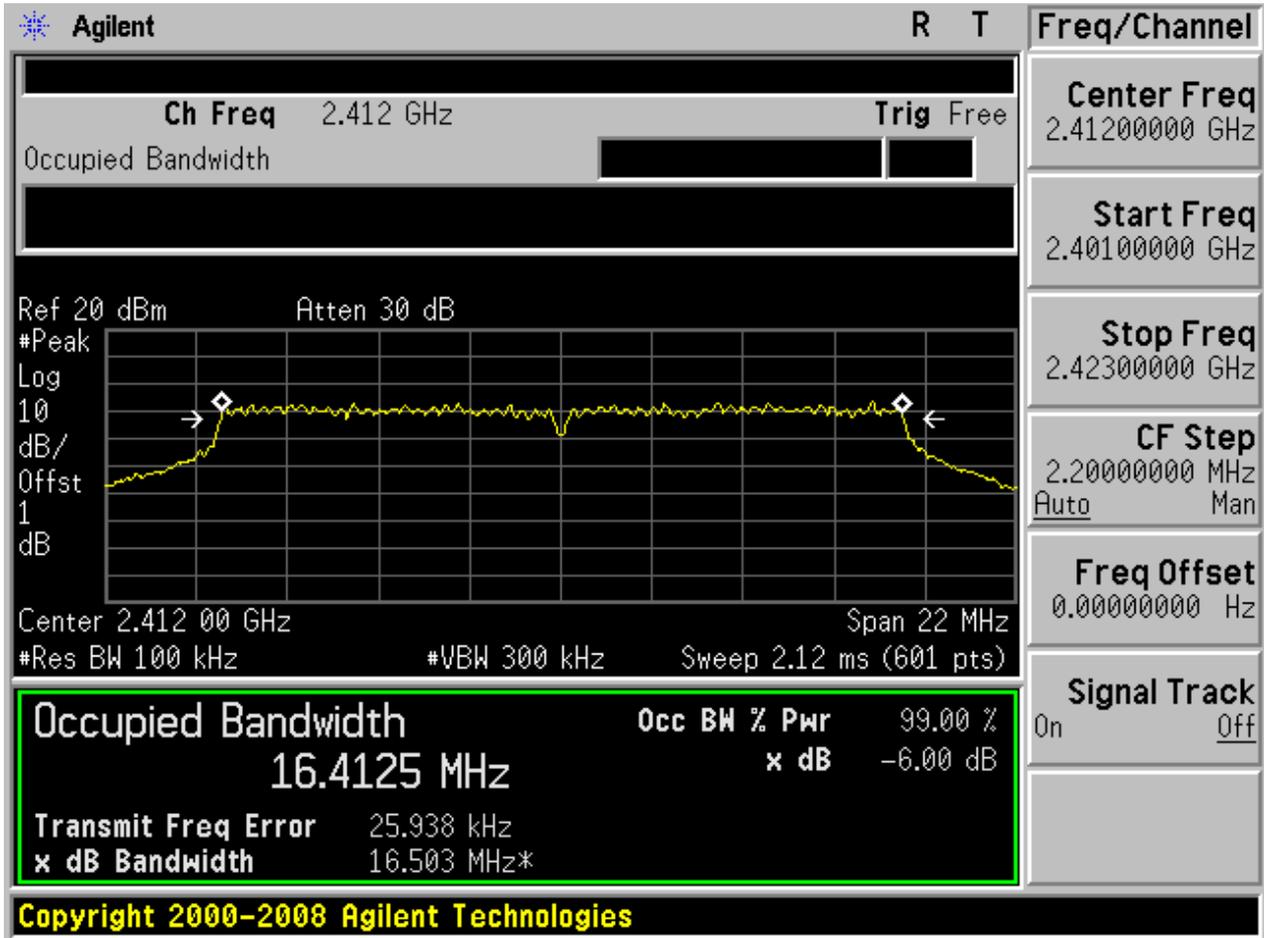


### 2.3 11B\_H





### 2.4 11G\_L



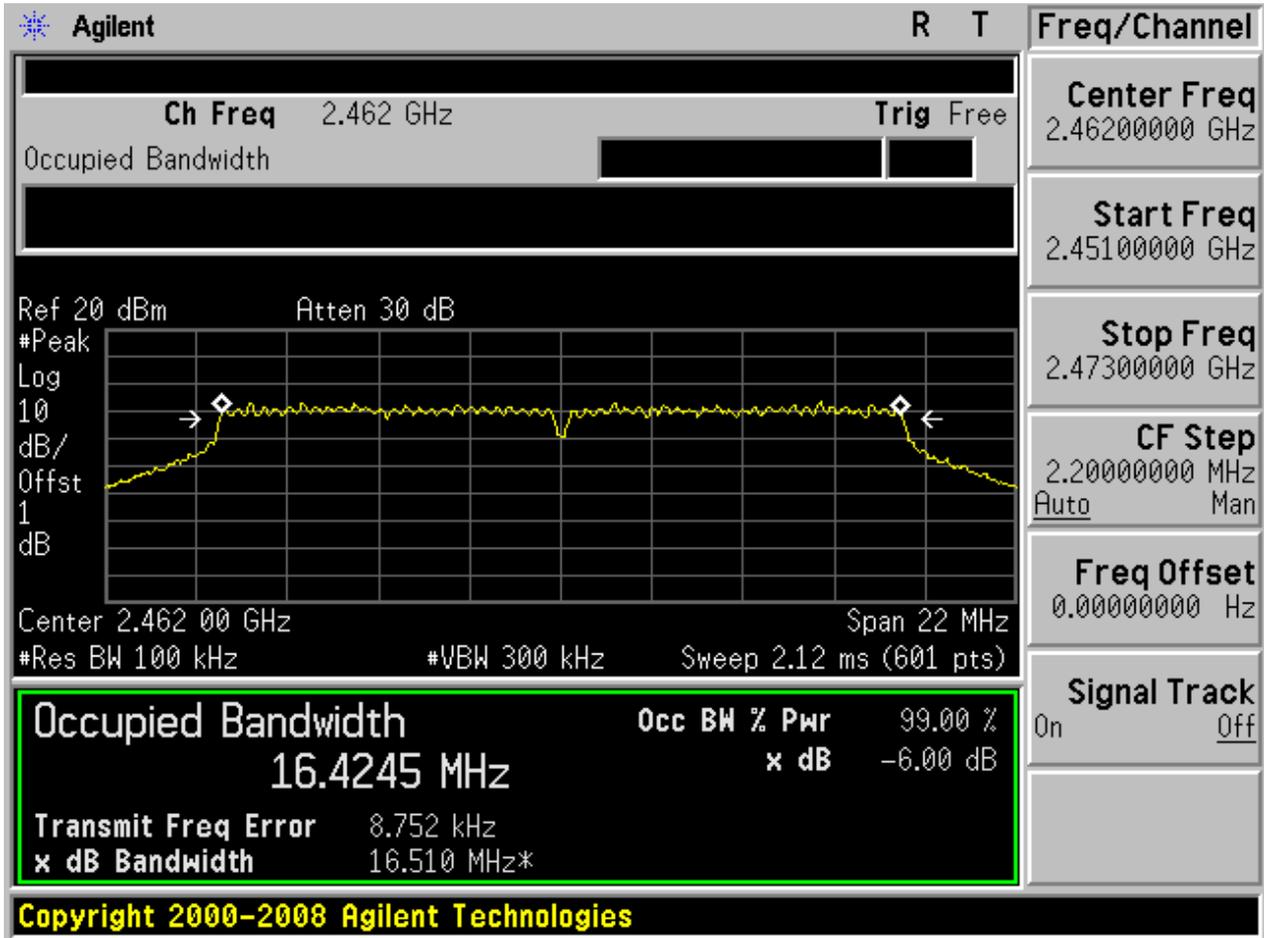


### 2.5 11G\_M

Agilent		R	T	Freq/Channel	
Ch Freq 2.437 GHz		Trig Free		Center Freq 2.43700000 GHz	
Occupied Bandwidth				Start Freq 2.42600000 GHz	
Ref 20 dBm		Atten 30 dB		Stop Freq 2.44800000 GHz	
				CF Step 2.20000000 MHz Auto Man	
Center 2.437 00 GHz		Span 22 MHz		Freq Offset 0.00000000 Hz	
#Res BW 100 kHz		#VBW 300 kHz		Sweep 2.12 ms (601 pts)	
<b>Occupied Bandwidth</b> <b>16.4274 MHz</b>		<b>Occ BW % Pwr</b> <b>99.00 %</b>		Signal Track On Off	
<b>x dB Bandwidth</b> <b>16.493 MHz*</b>		<b>x dB</b> <b>-6.00 dB</b>			
Transmit Freq Error 9.303 kHz					
Copyright 2000-2008 Agilent Technologies					

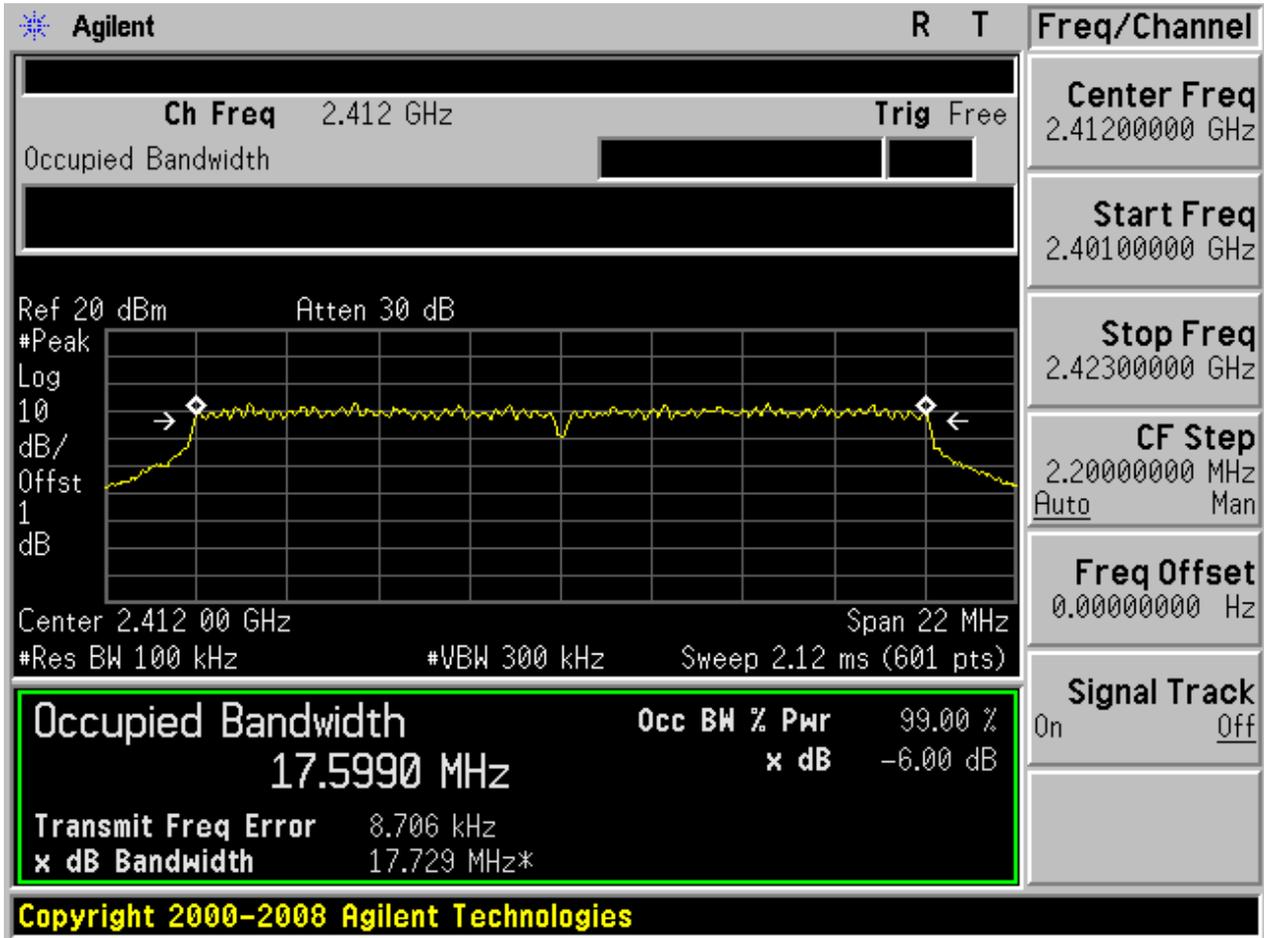


### 2.6 11G\_H



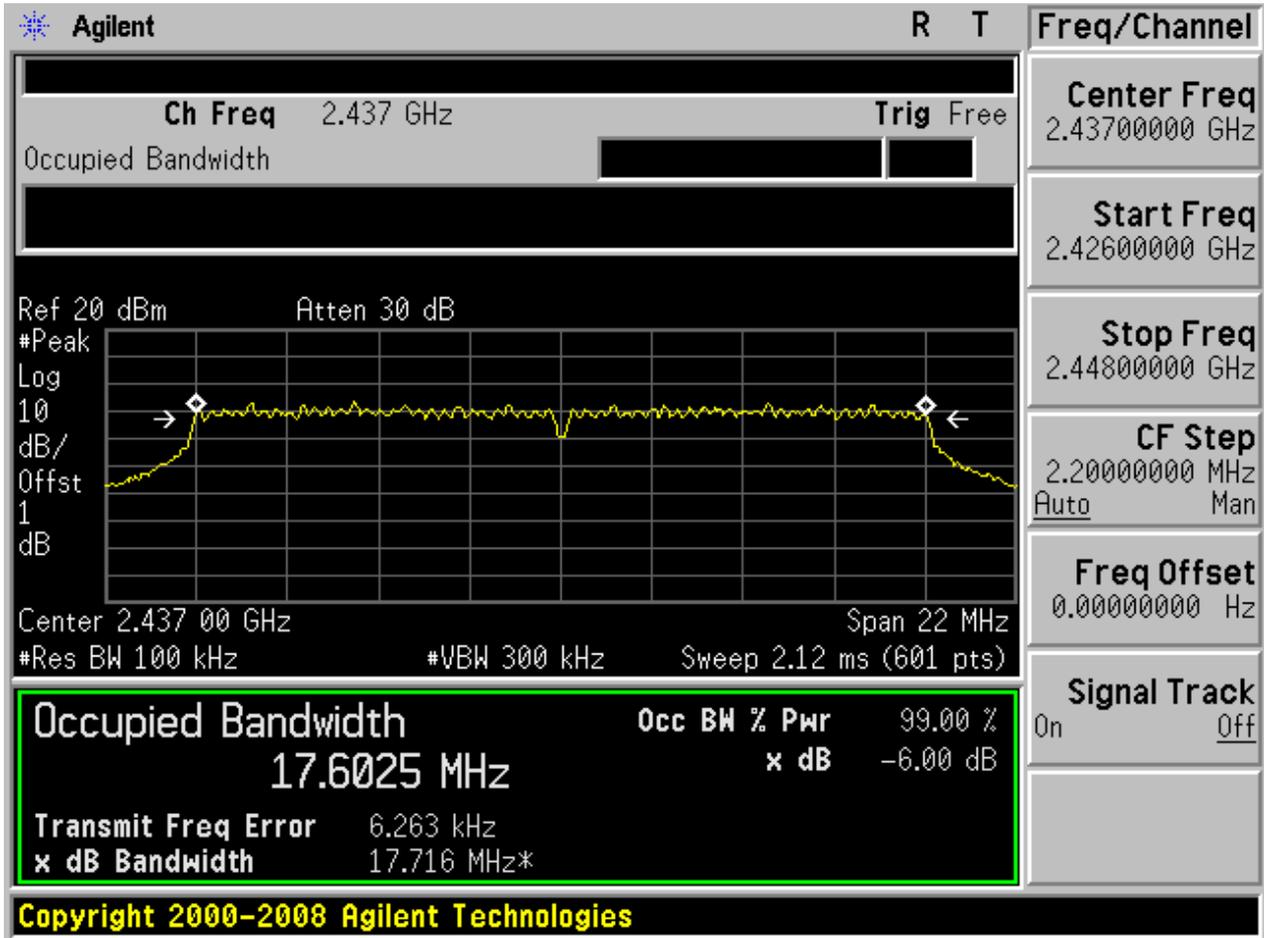


### 2.7 11N20\_L



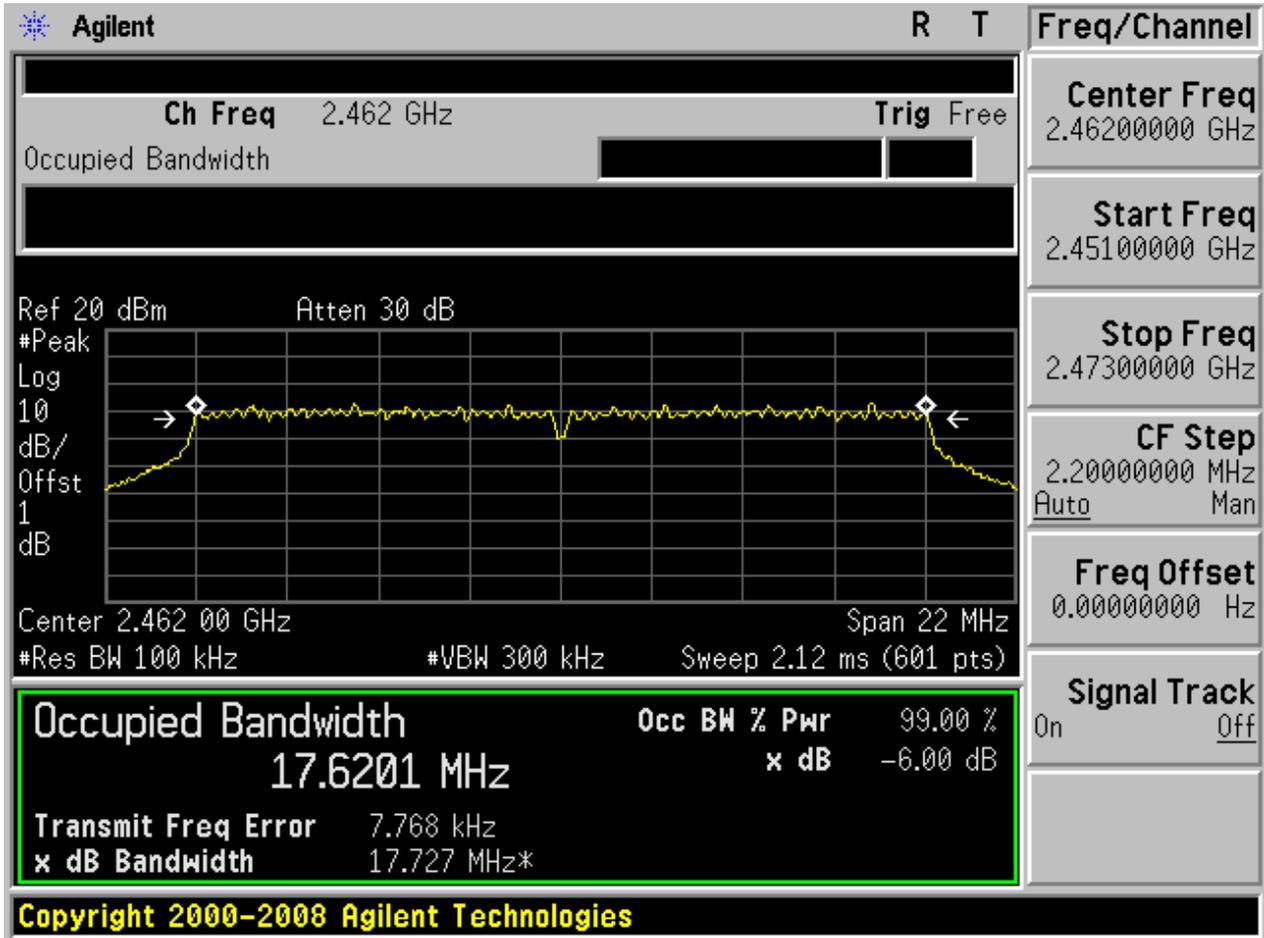


### 2.8 11N20\_M





### 2.9 11N20\_H



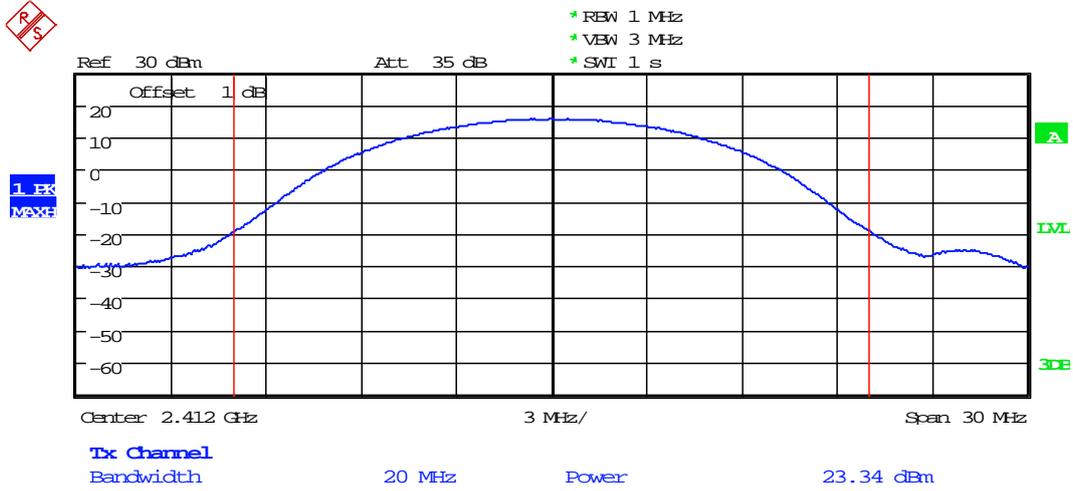
## Appendix B: Maximum Peak Conducted Output Power

### Part I - Test Results

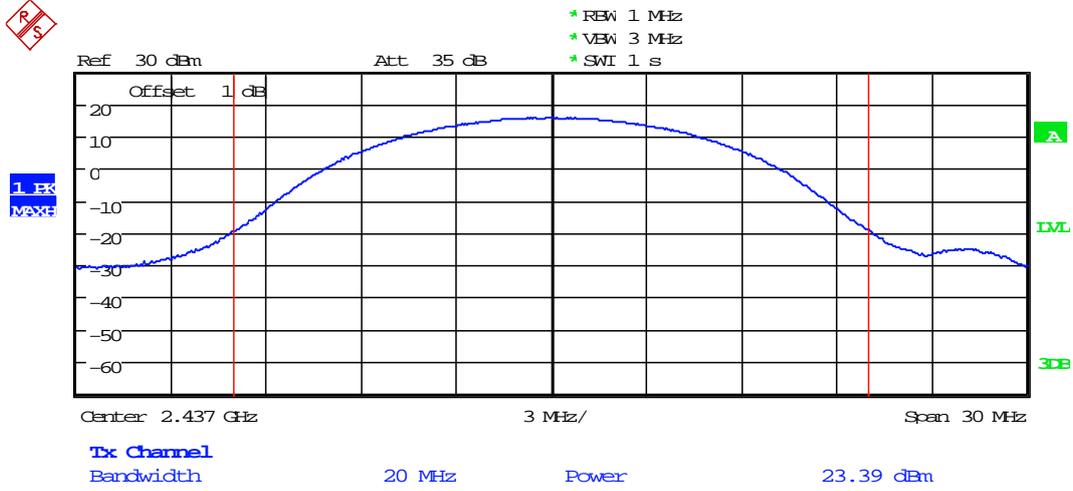
Test Mode	Test Channel	Frequency[MHz]	Meas. Level (Cond.) [dBm]	Verdict
11B	L	2412	23.34	pass
11B	M	2437	23.39	pass
11B	H	2462	23.21	pass
11G	L	2412	23.22	pass
11G	M	2437	23.84	pass
11G	H	2462	23.58	pass
11N20	L	2412	23.54	pass
11N20	M	2437	23.72	pass
11N20	H	2462	23.46	pass

## Part II - Test Plots

### 2.1 11B\_L

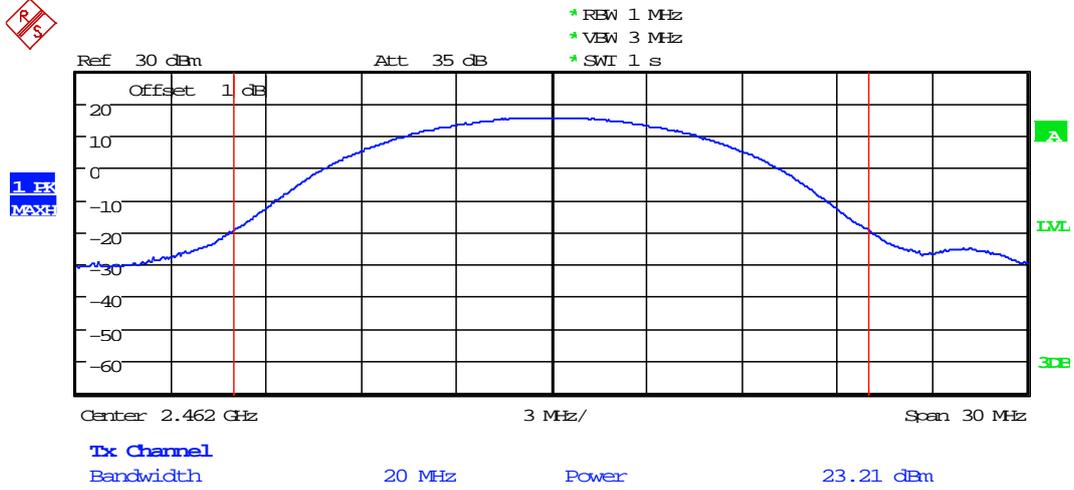


## 2.2 11B\_M

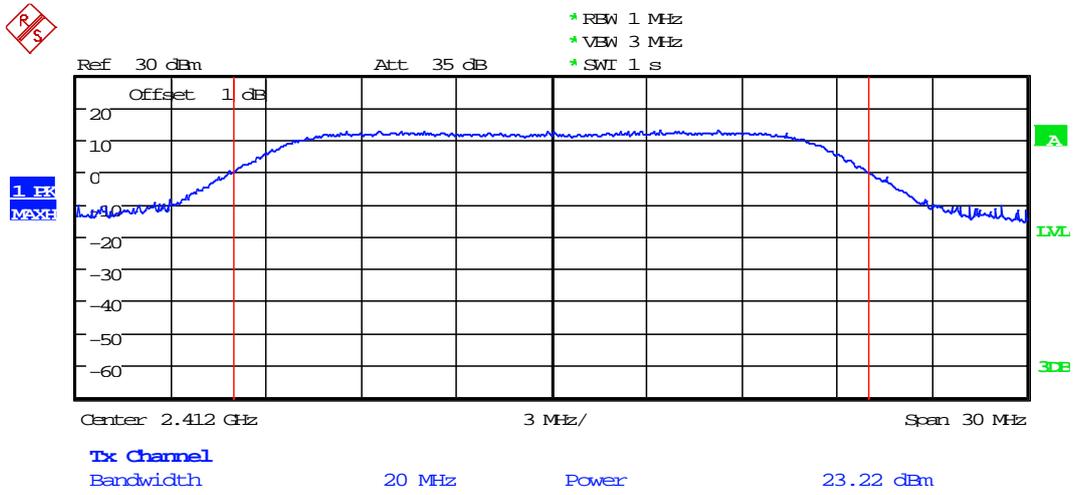




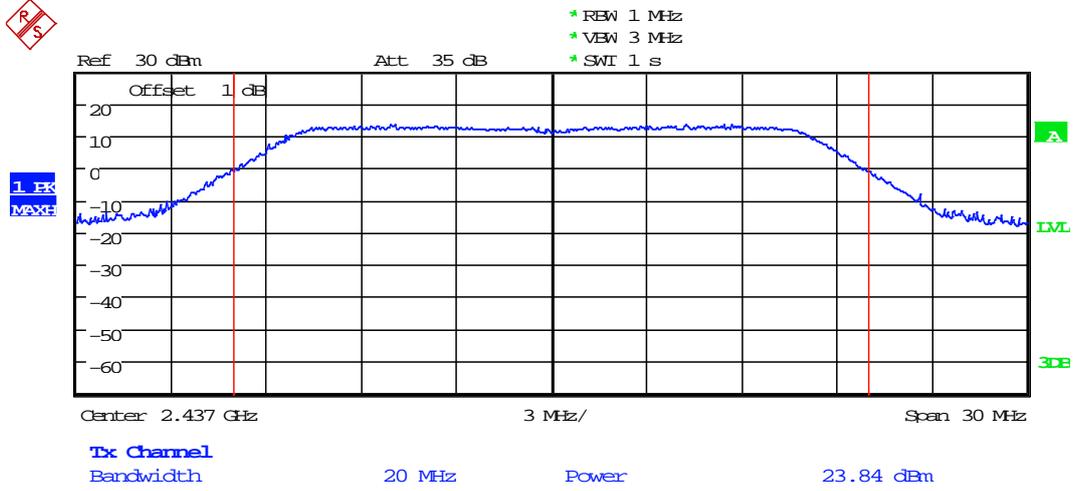
### 2.3 11B\_H



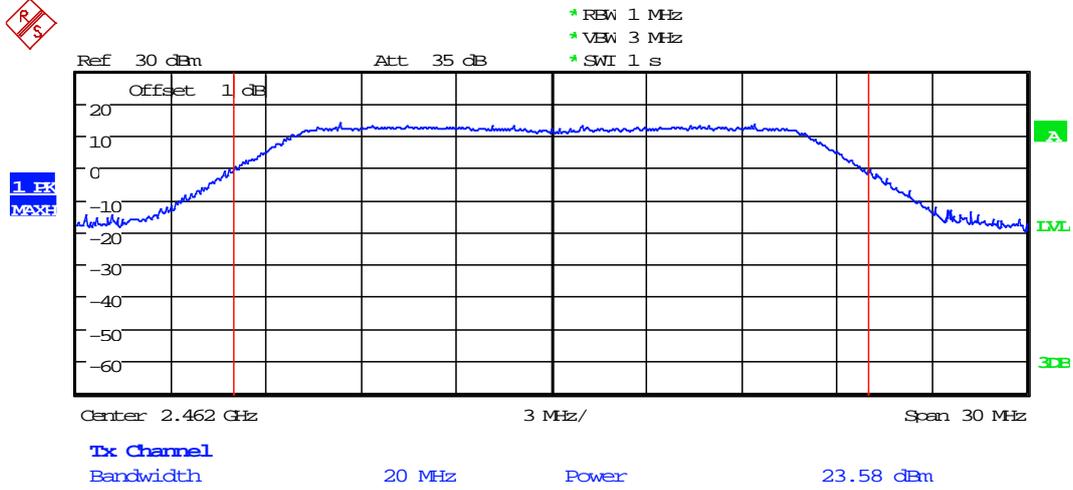
### 2.4 11G\_L



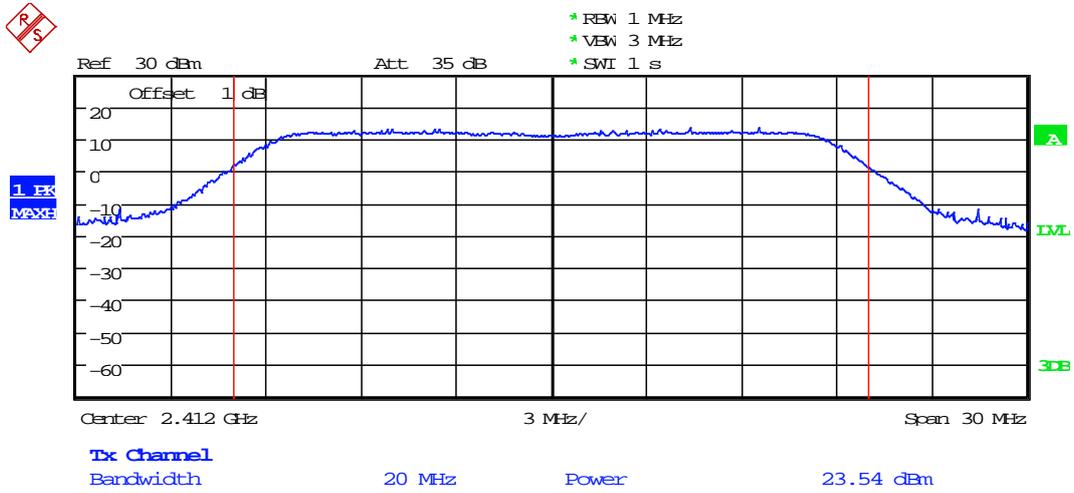
## 2.5 11G\_M



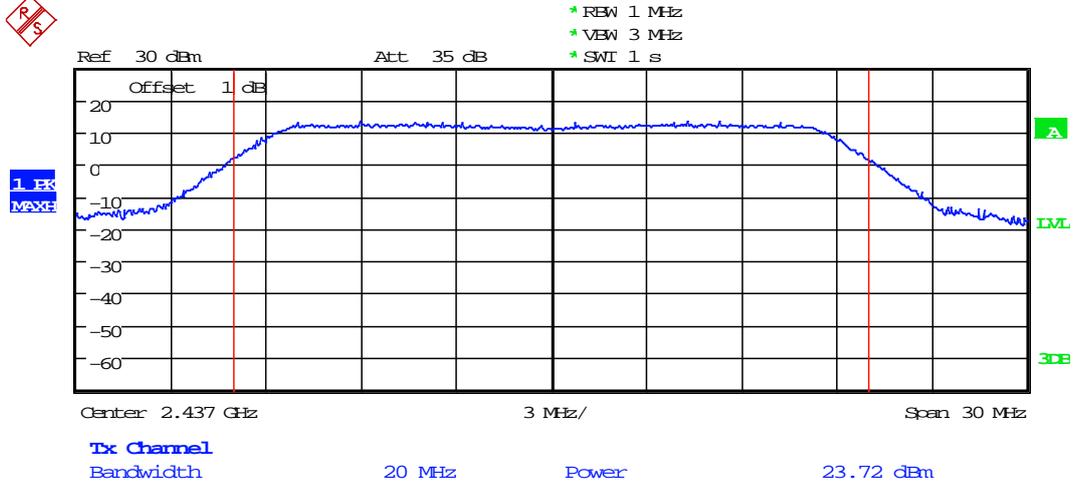
## 2.6 11G\_H



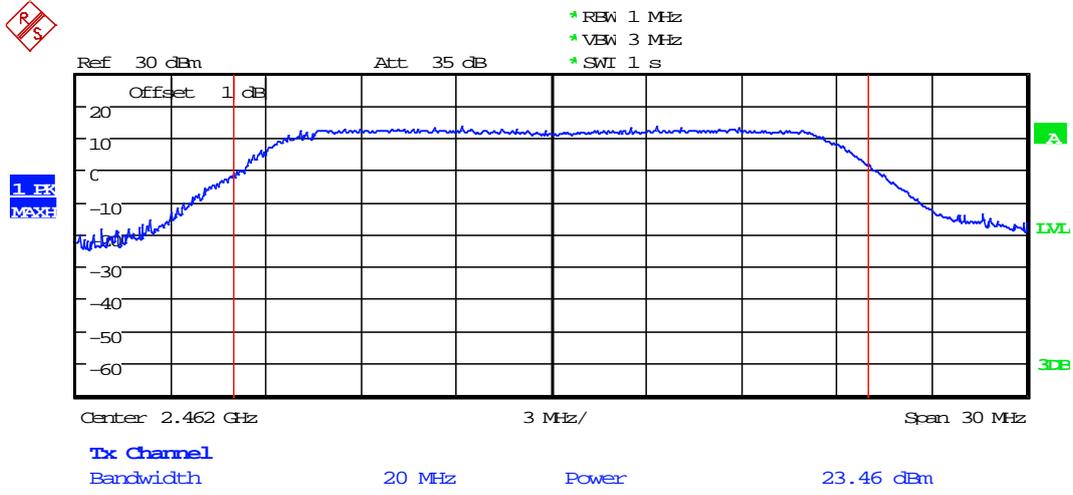
### 2.7 11N20\_L



## 2.8 11N20\_M



### 2.9 11N20\_H





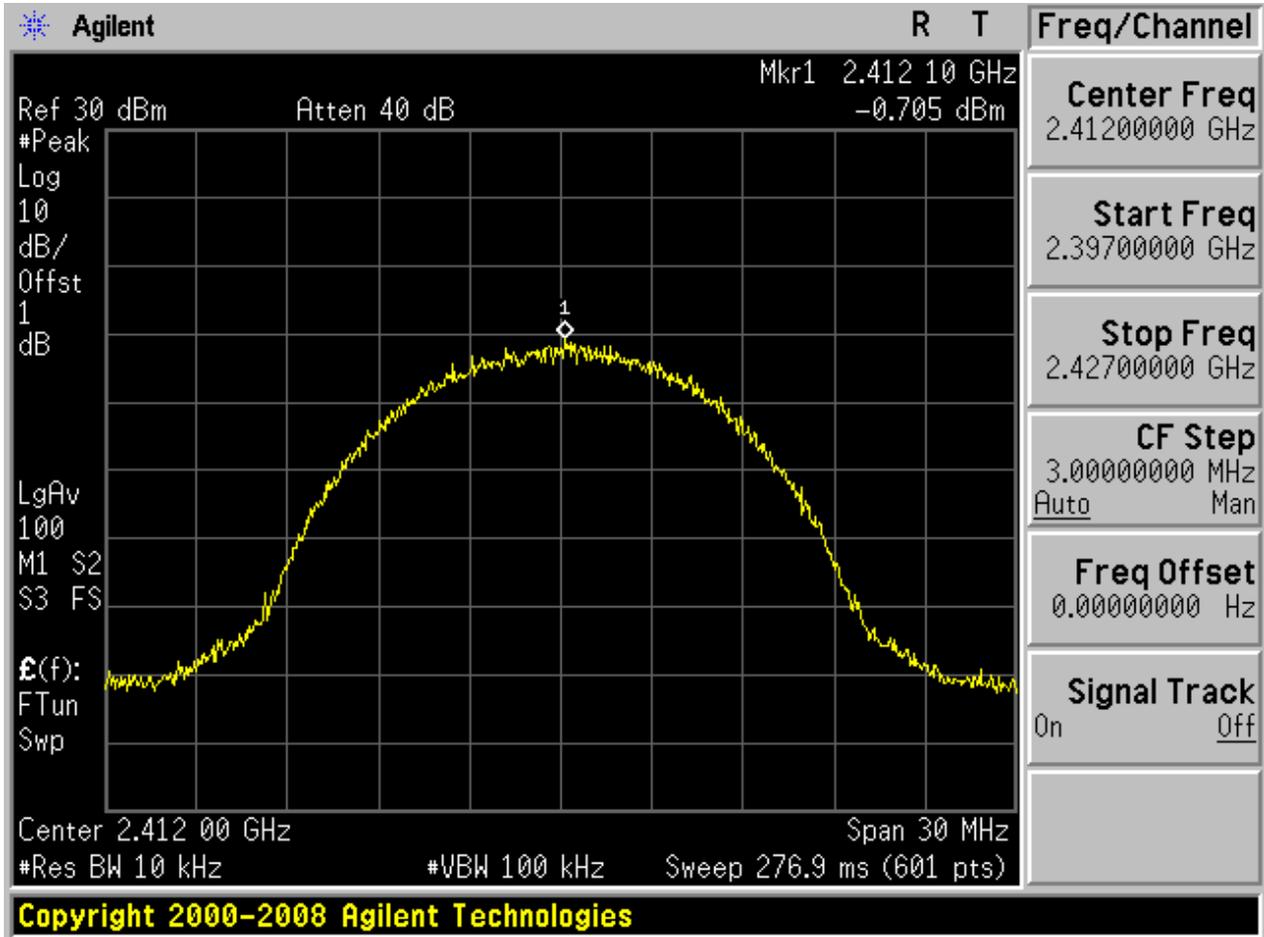
## Appendix C: Maximum Power Spectral Density Level

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	PD[MHz]	Verdict
11B	L	2412	-0.71	pass
11B	M	2437	-0.72	pass
11B	H	2462	-1.43	pass
11G	L	2412	-5.97	pass
11G	M	2437	-5.55	pass
11G	H	2462	-6.11	pass
11N20	L	2412	-5.57	pass
11N20	M	2437	-5.14	pass
11N20	H	2462	-5.99	pass

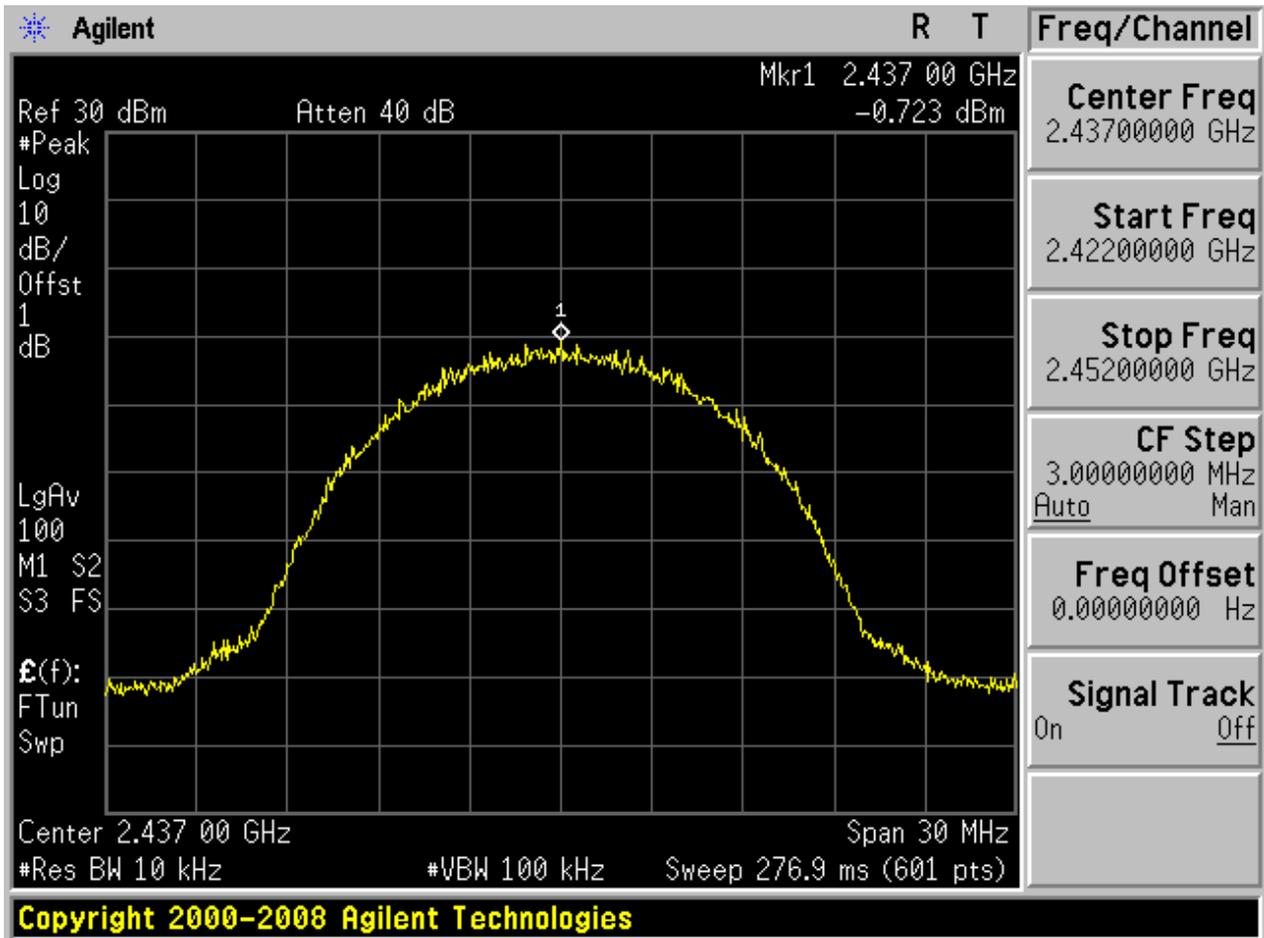
## Part II - Test Plots

### 2.1 11B\_L



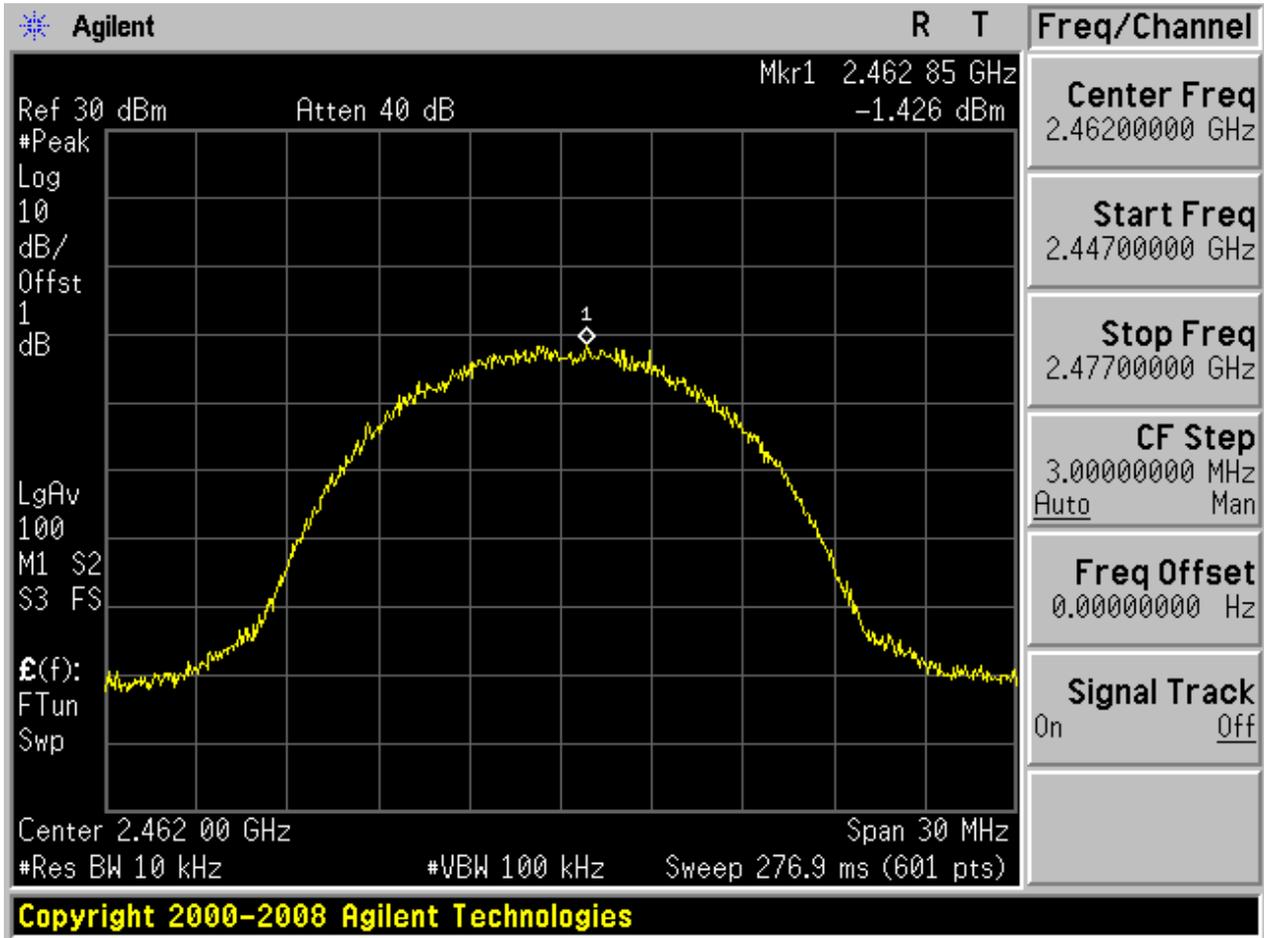


## 2.2 11B\_M



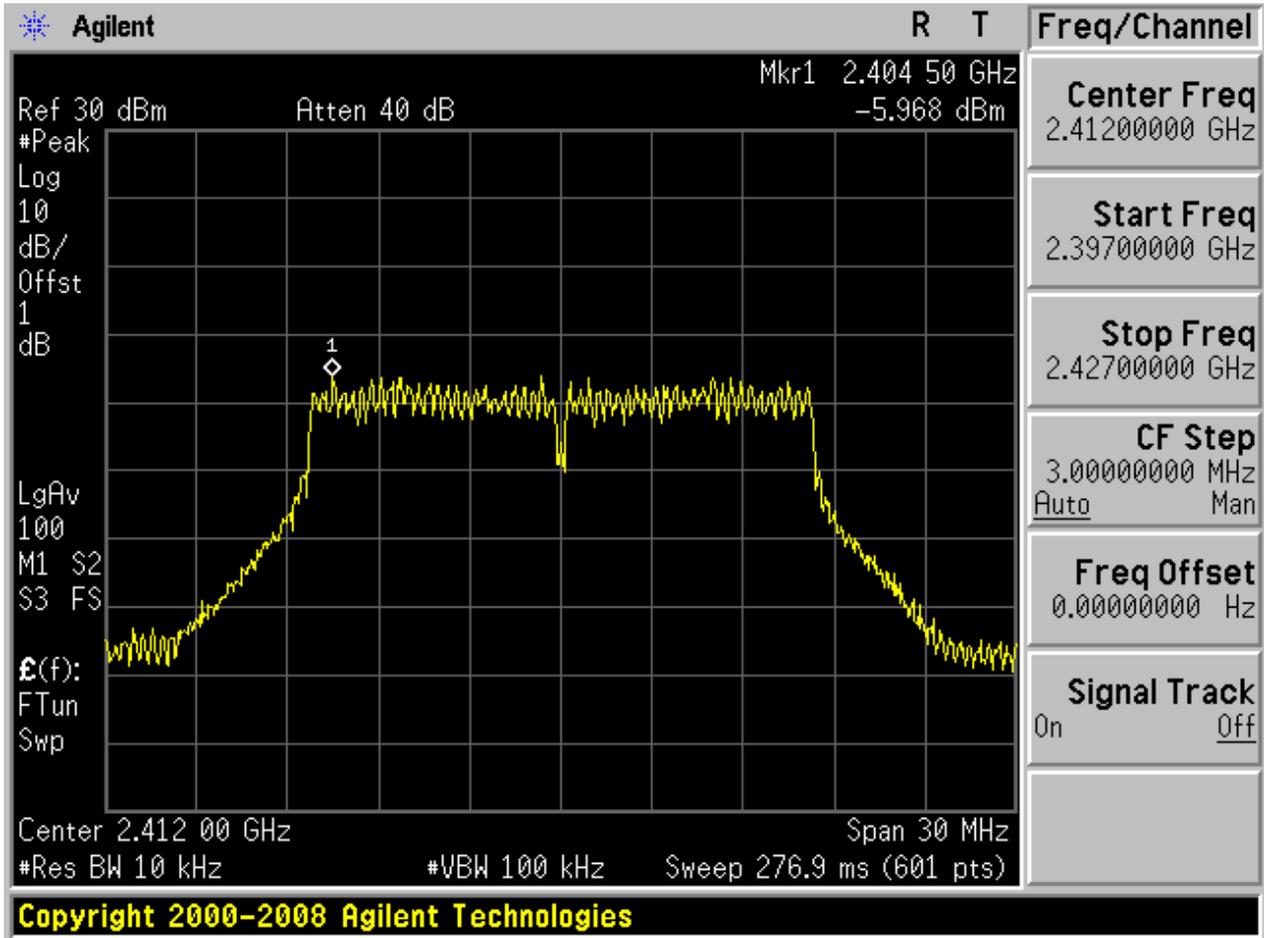


### 2.3 11B\_H



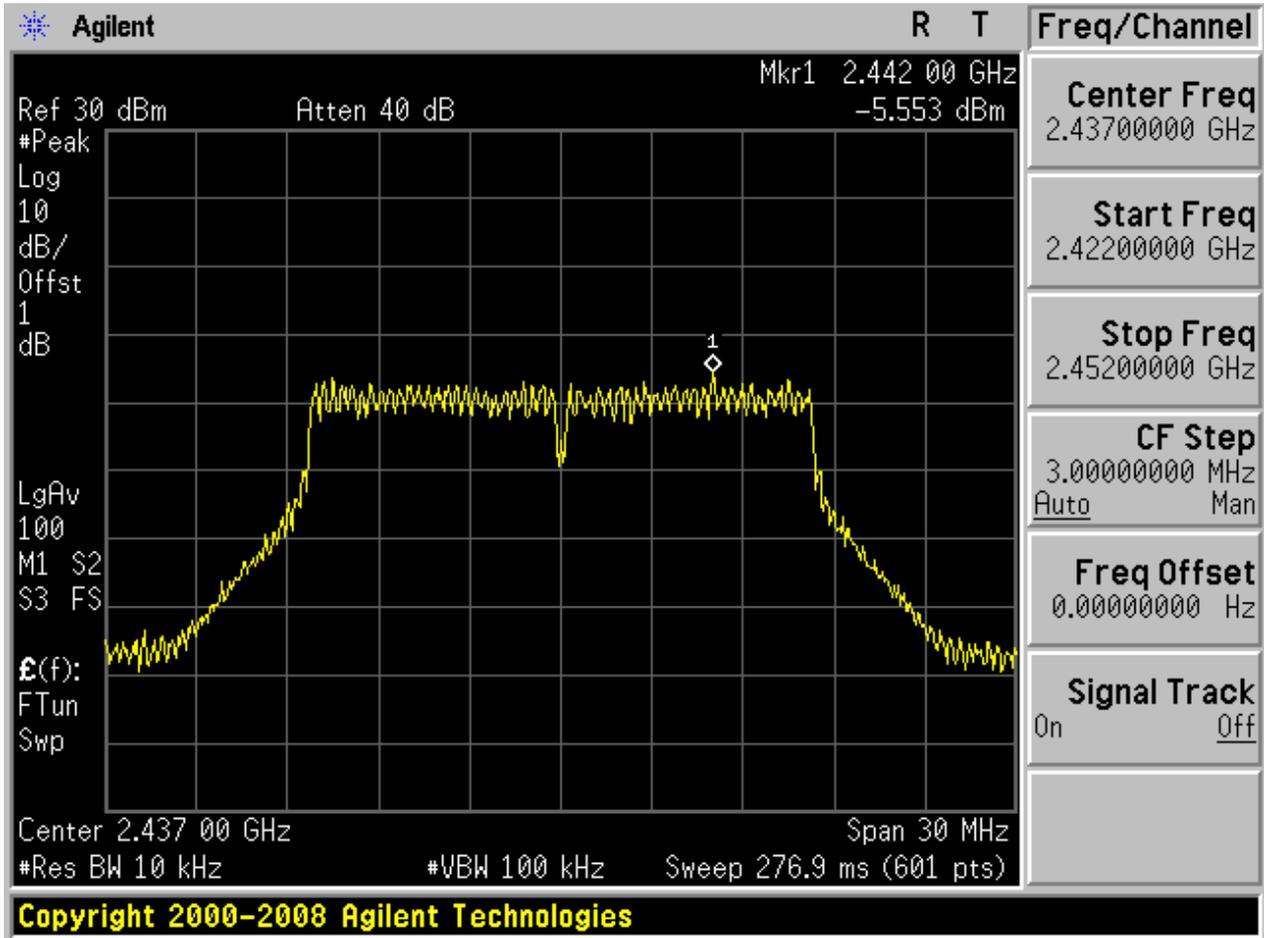


### 2.4 11G\_L



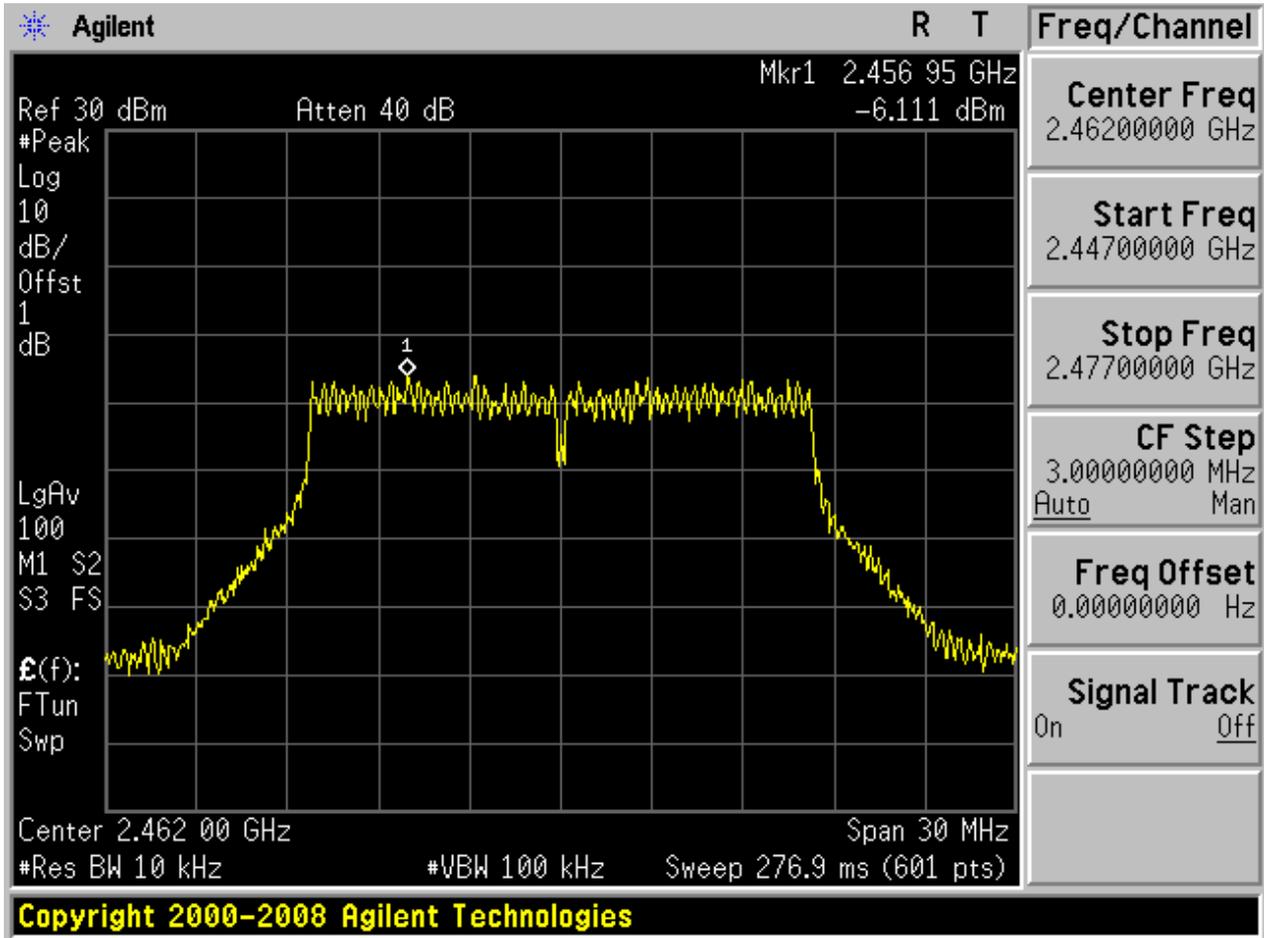


### 2.5 11G\_M



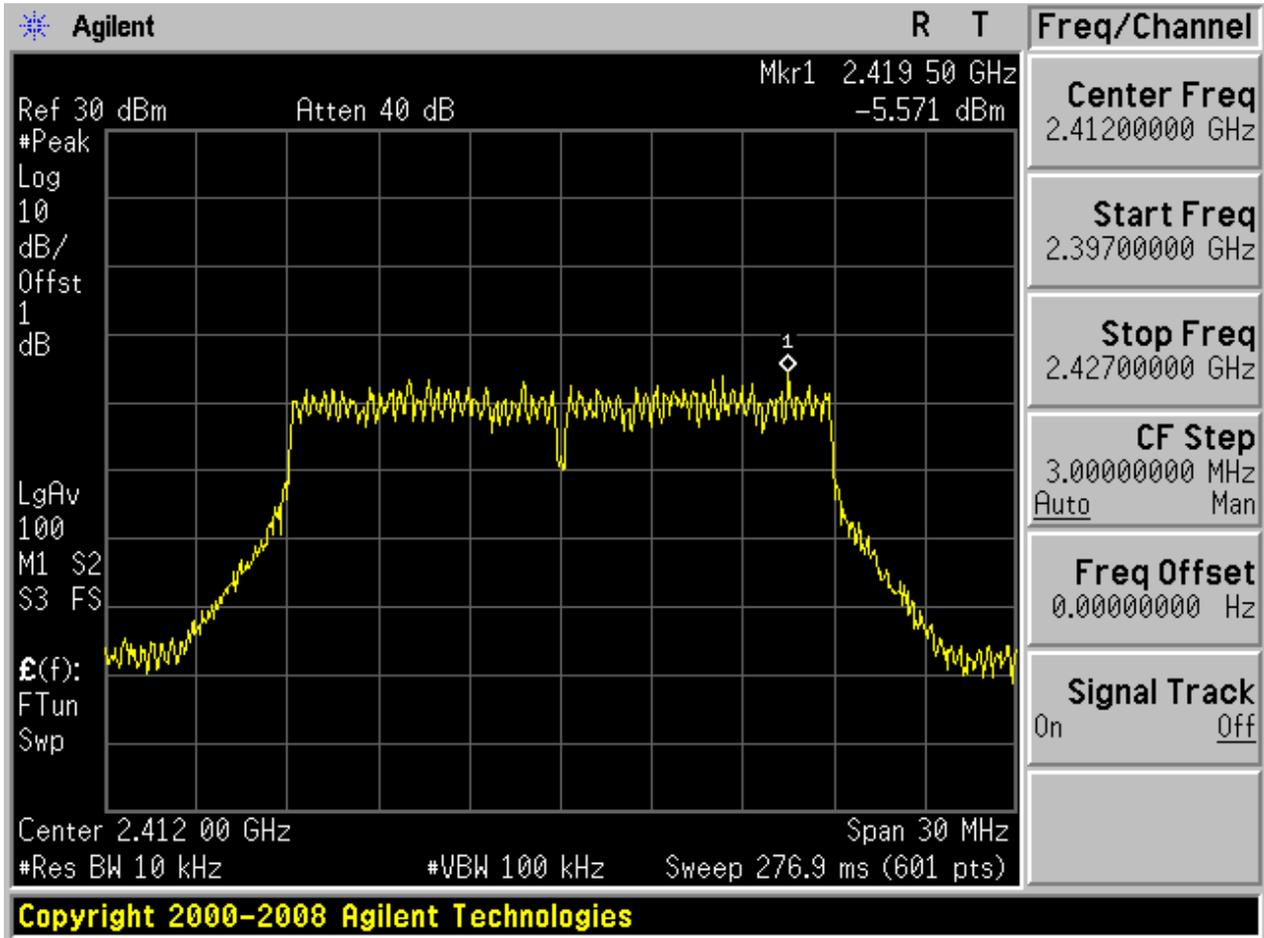


### 2.6 11G\_H



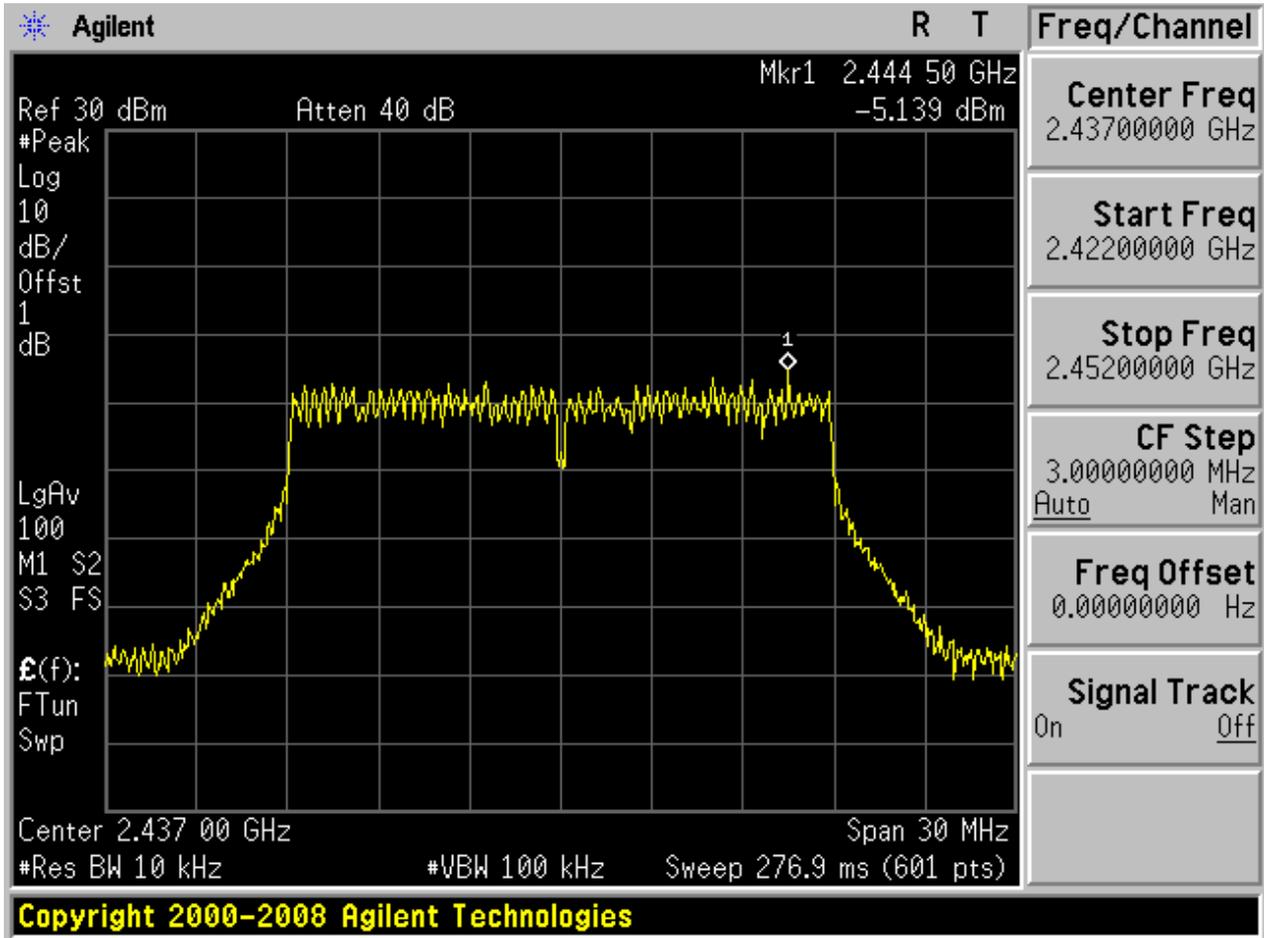


### 2.7 11N20\_L

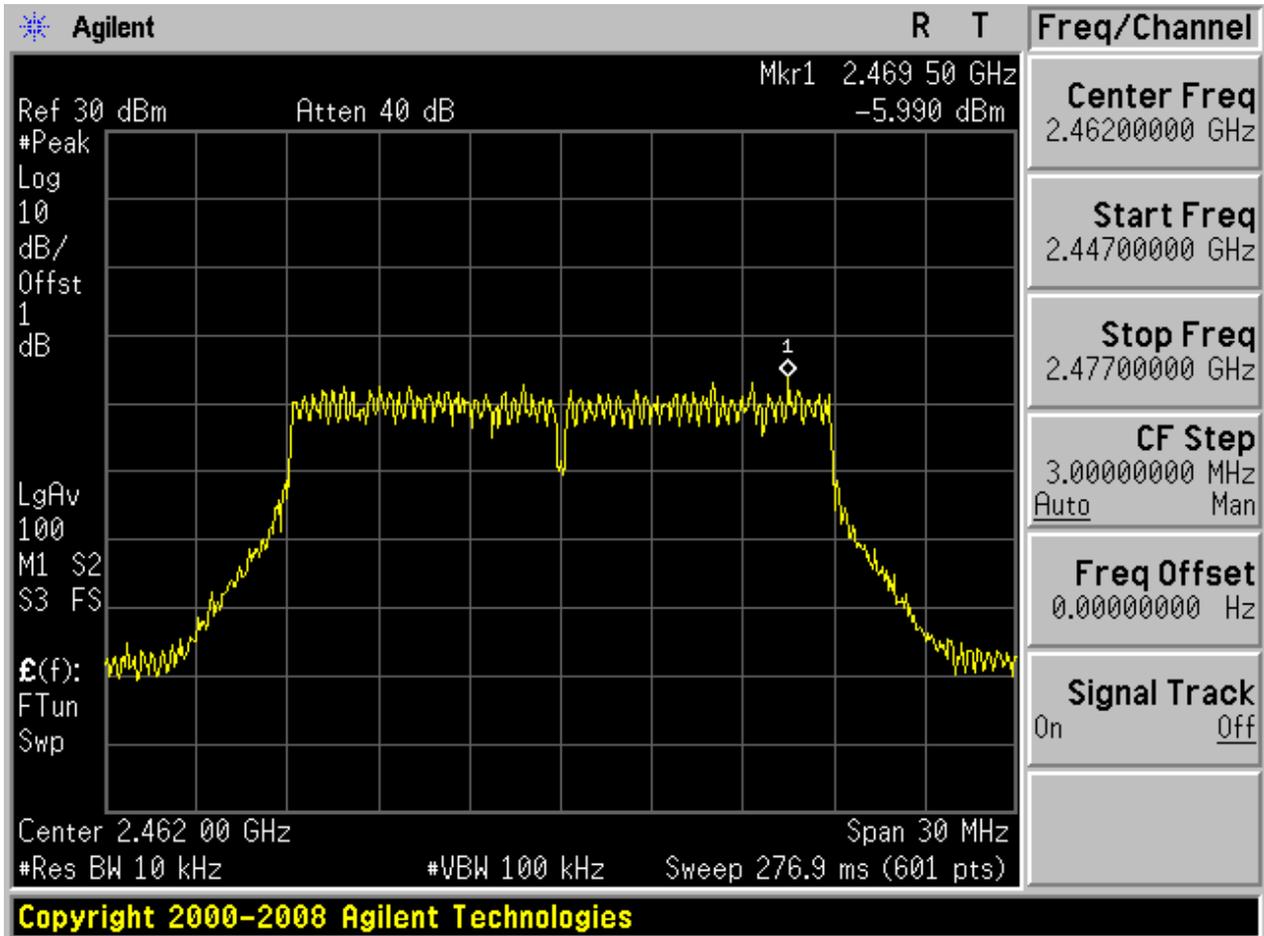




### 2.8 11N20\_M



2.9 11N20\_H



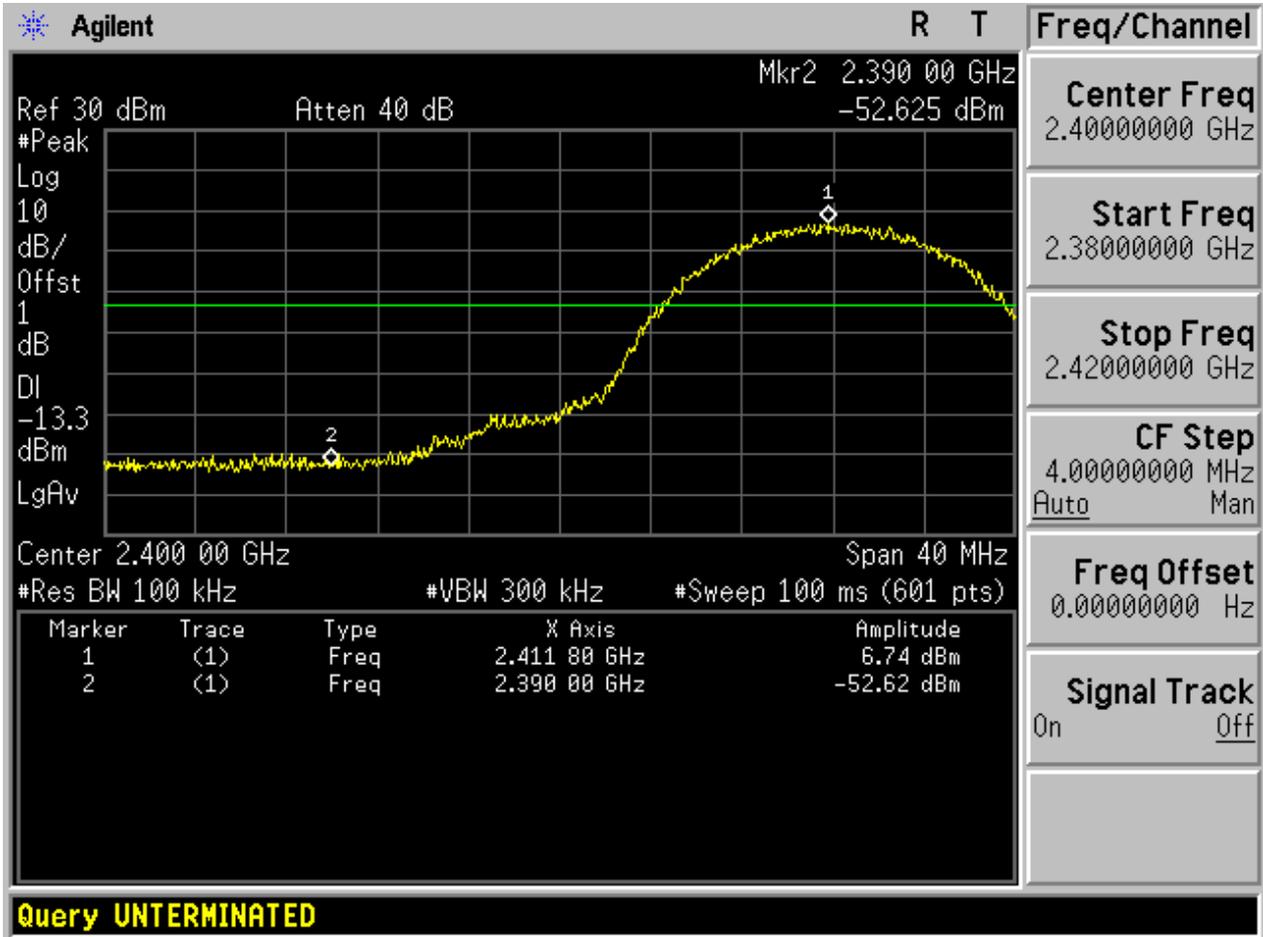
## Appendix D: Band Edges Compliance

### Part I - Test Results

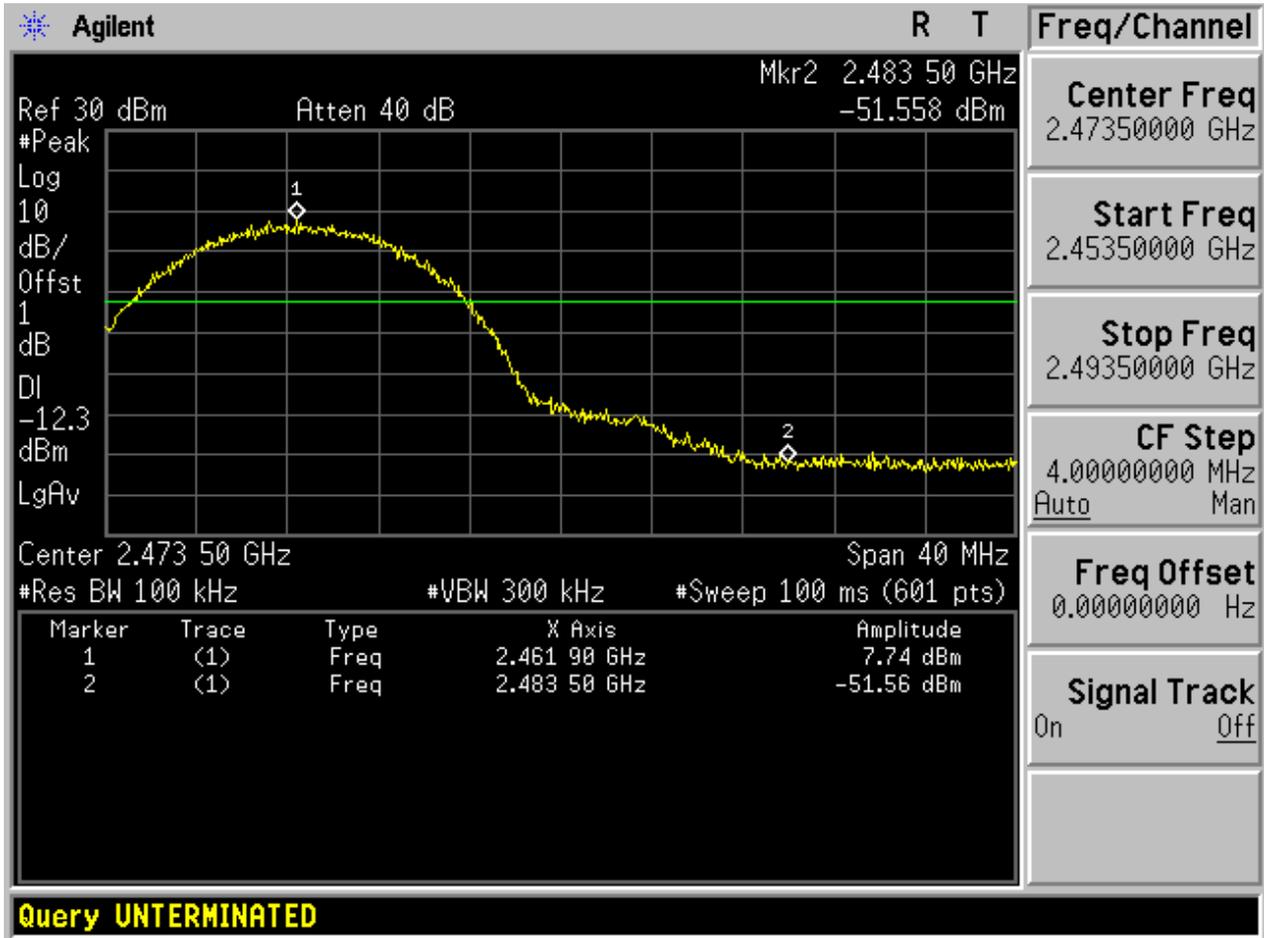
Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
11B	L	2412	6.74	-52.62	pass
11B	H	2462	7.74	-51.56	pass
11G	L	2412	2.50	-48.43	pass
11G	H	2462	2.57	-45.75	pass
11N20	L	2412	2.12	-45.59	pass
11N20	H	2462	2.11	-44.35	pass

Part II - Test Plots

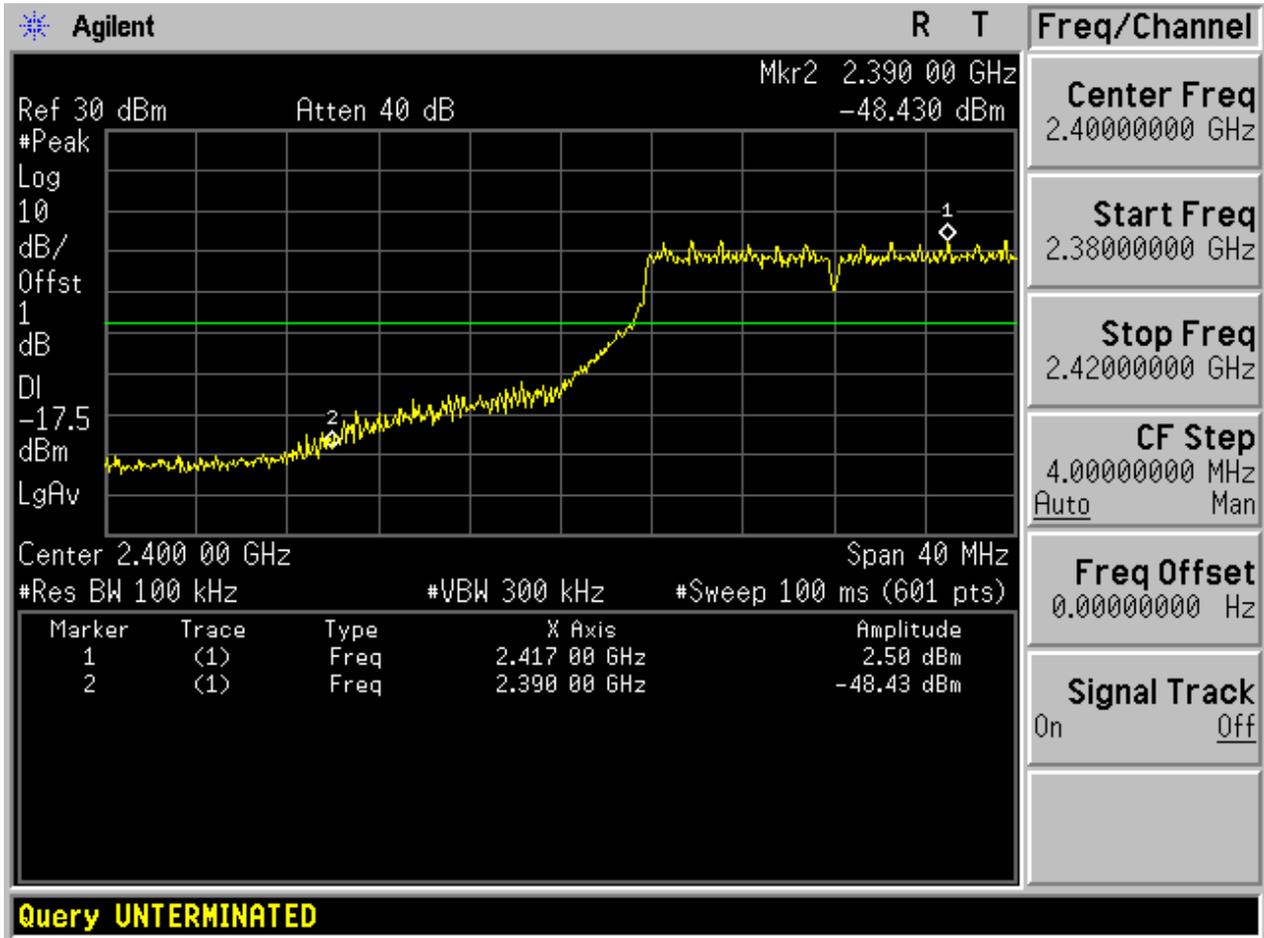
2.1 11B\_L



2.2 11B\_H

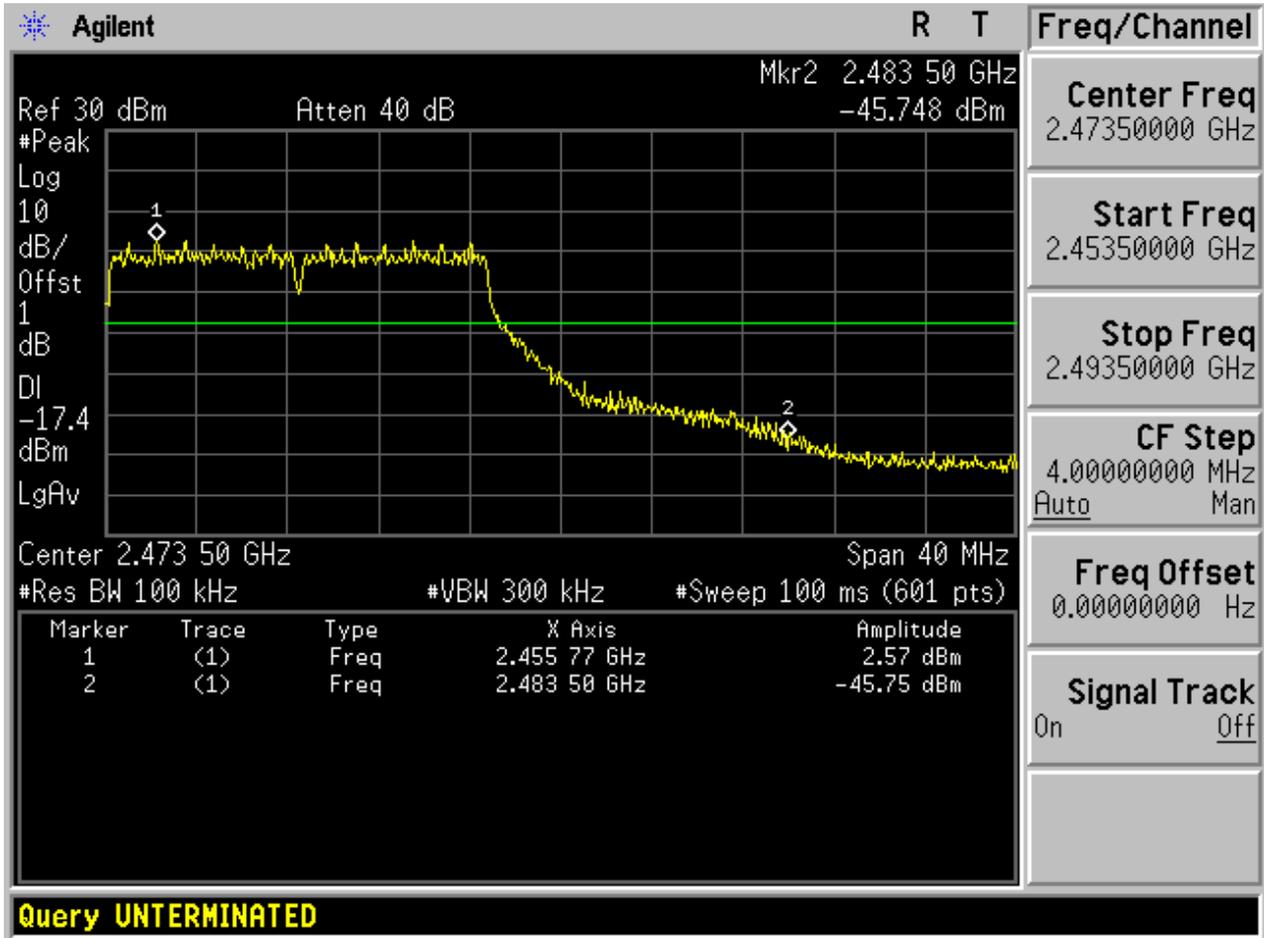


### 2.3 11G\_L



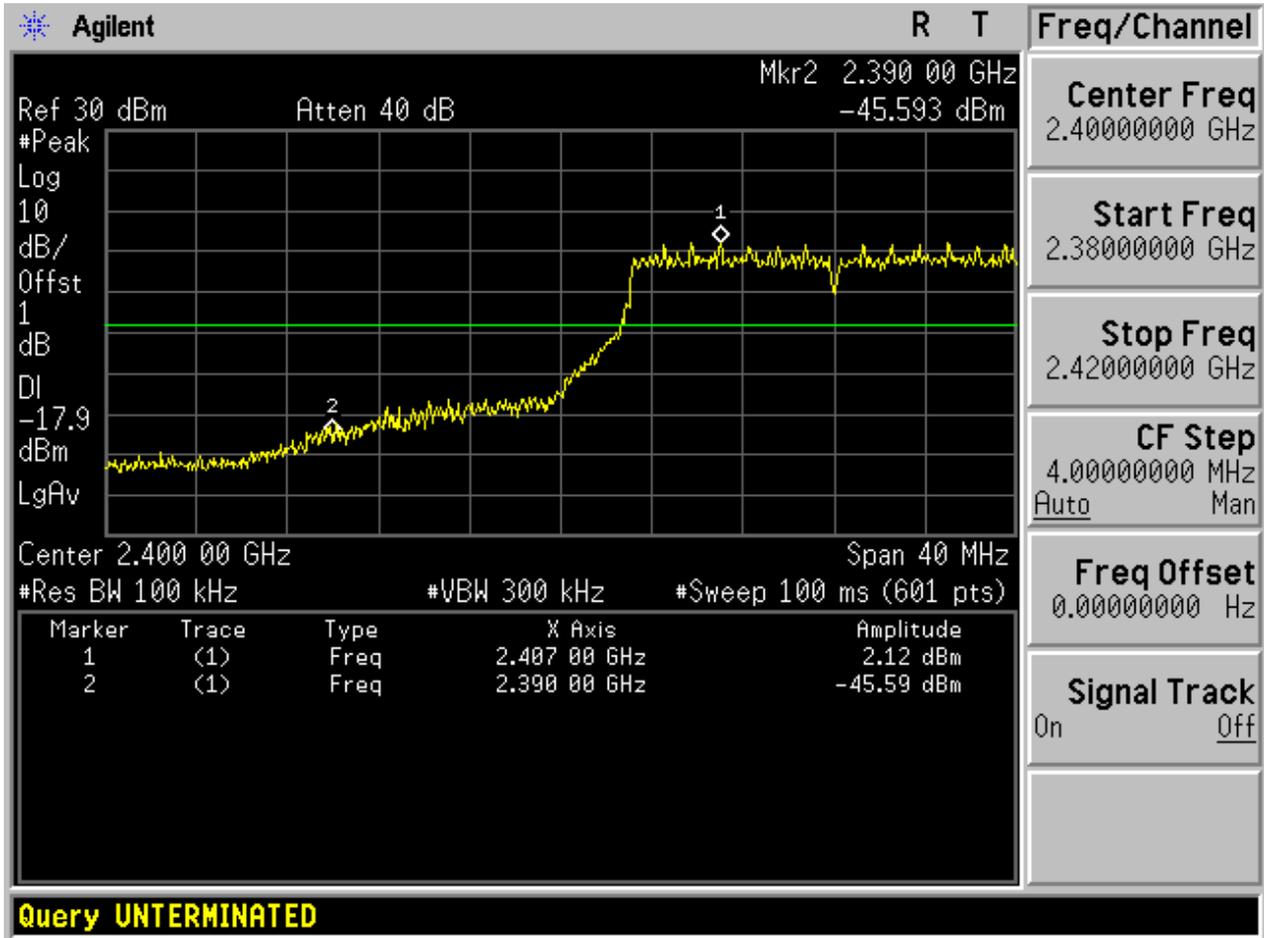


### 2.4 11G\_H



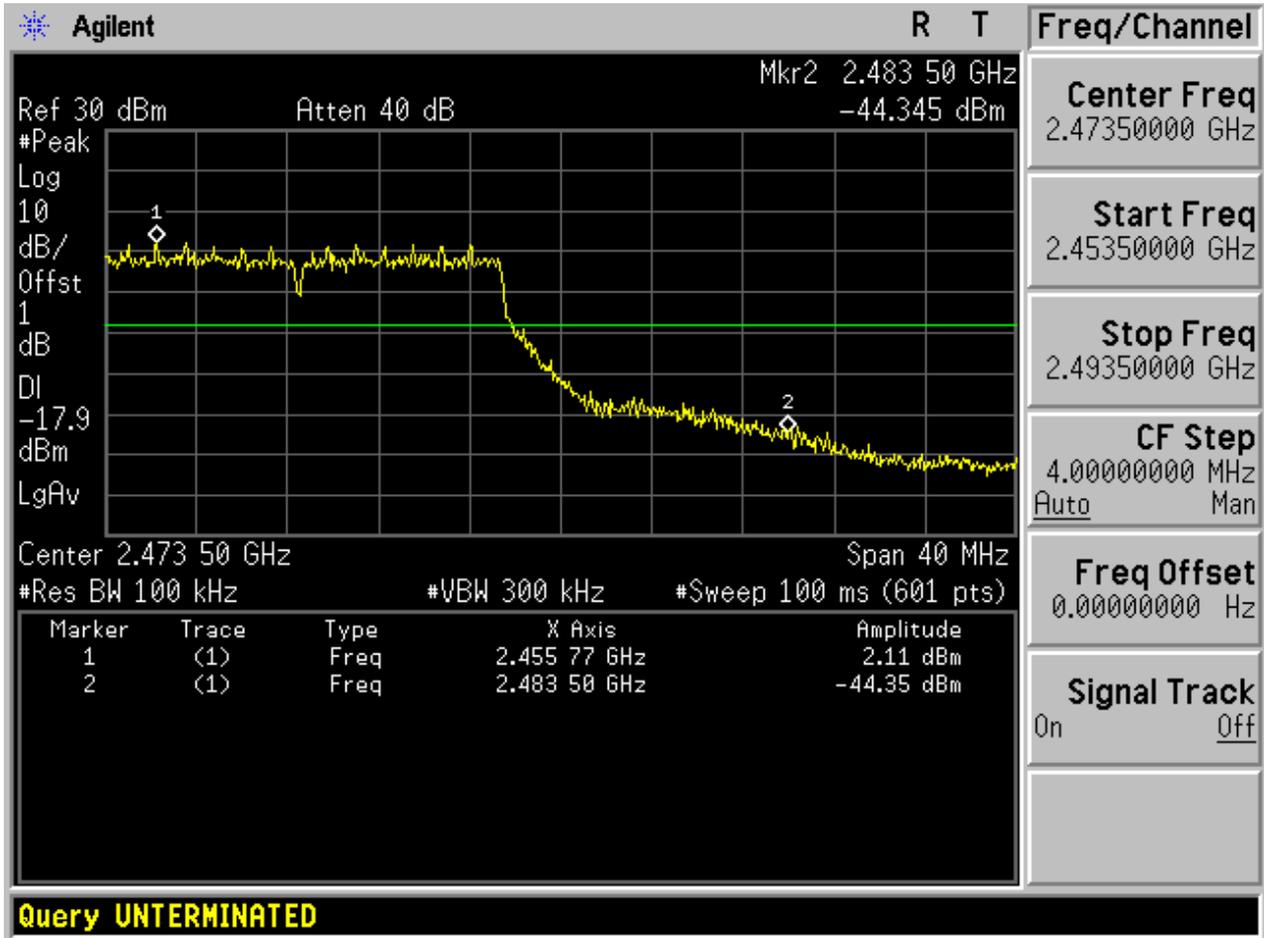


### 2.5 11N20\_L





### 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" 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

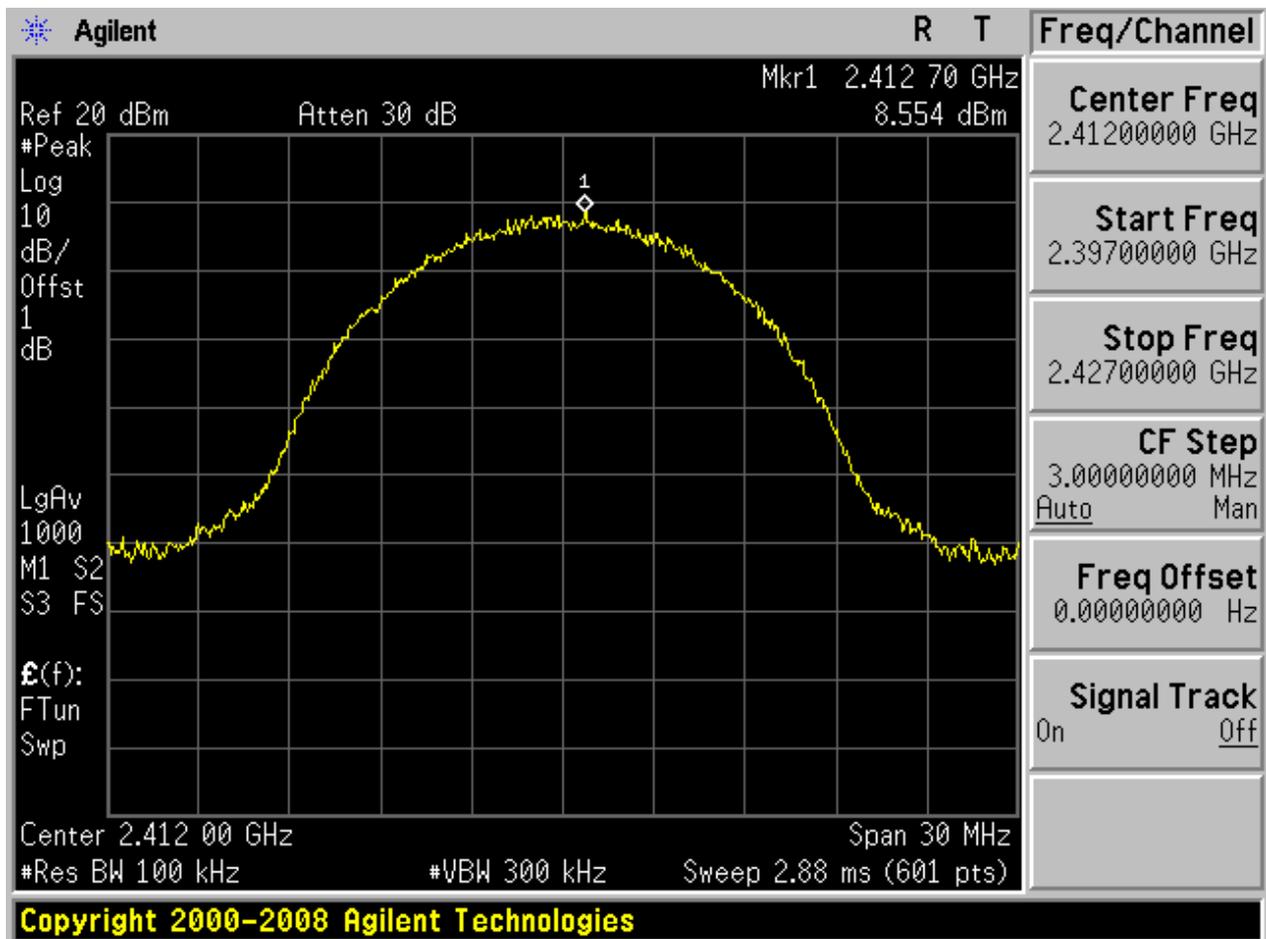
Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
11B	L	2412	8.55	<limit	pass
11B	M	2437	8.35	<limit	pass
11B	H	2462	8.57	<limit	pass
11G	L	2412	2.71	<limit	pass
11G	M	2437	2.81	<limit	pass
11G	H	2462	2.84	<limit	pass
11N20	L	2412	2.37	<limit	pass
11N20	M	2437	2.41	<limit	pass
11N20	H	2462	2.28	<limit	pass



## Part II - Test Plots

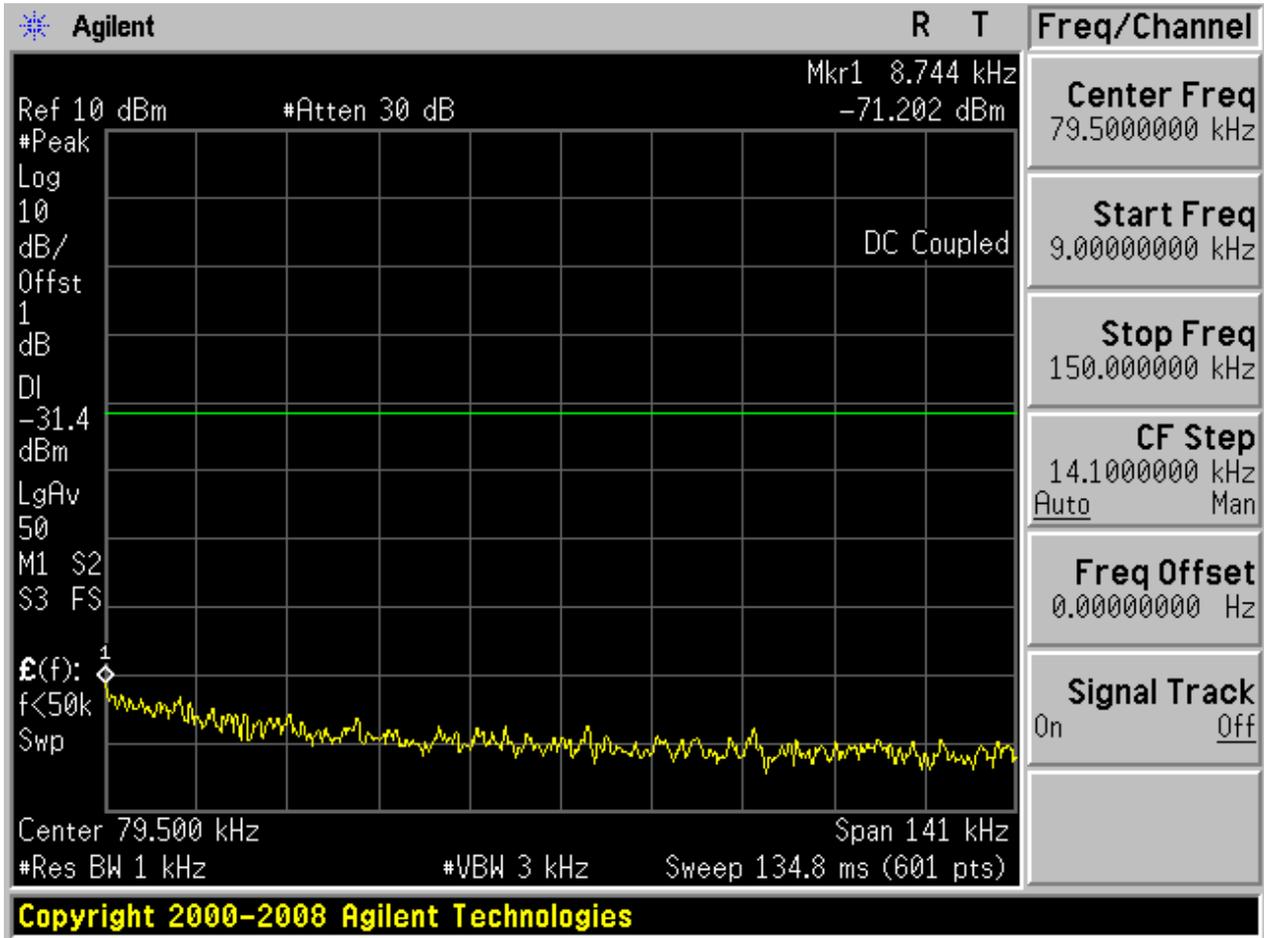
### 2.1 11B\_L

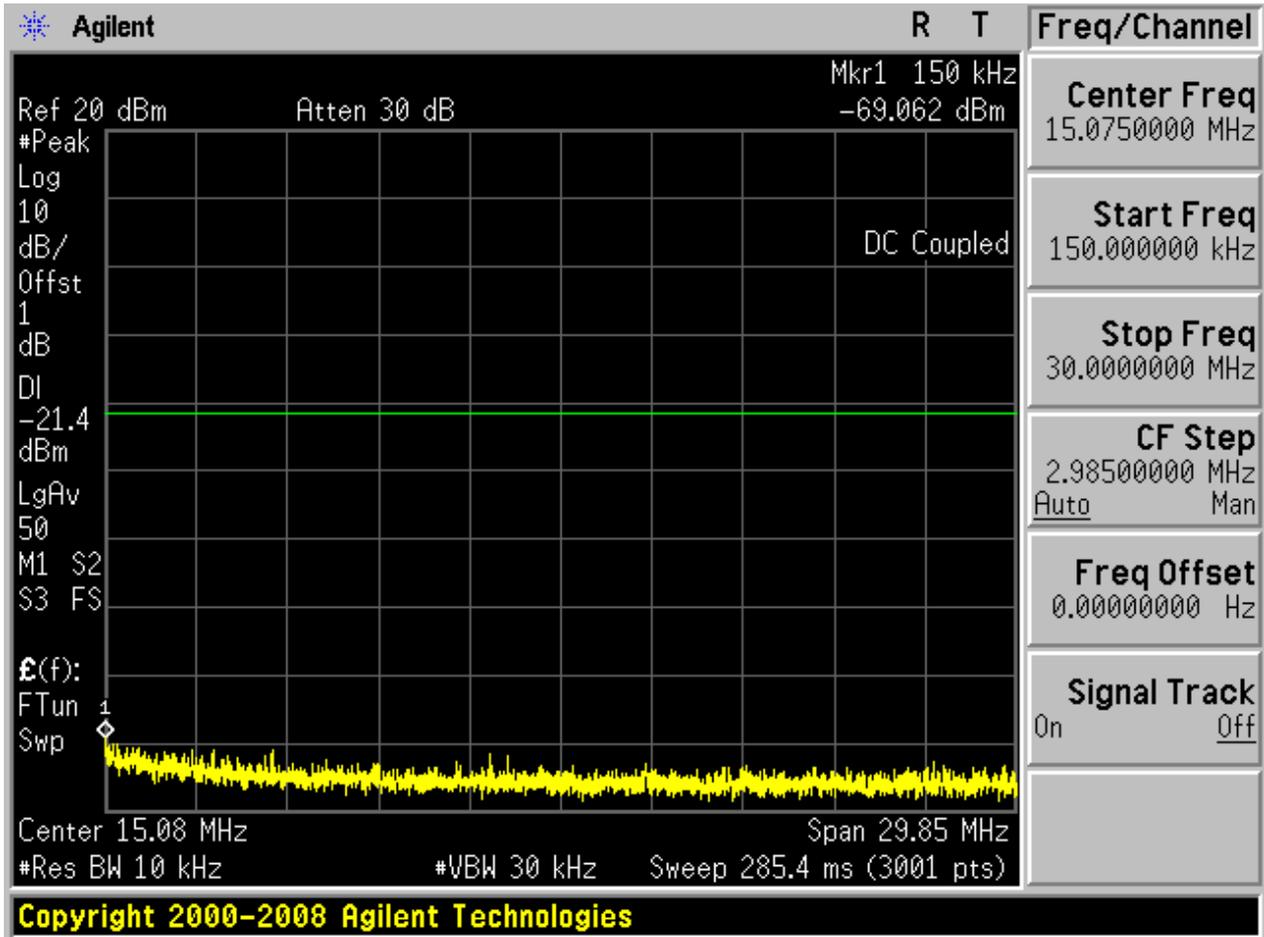
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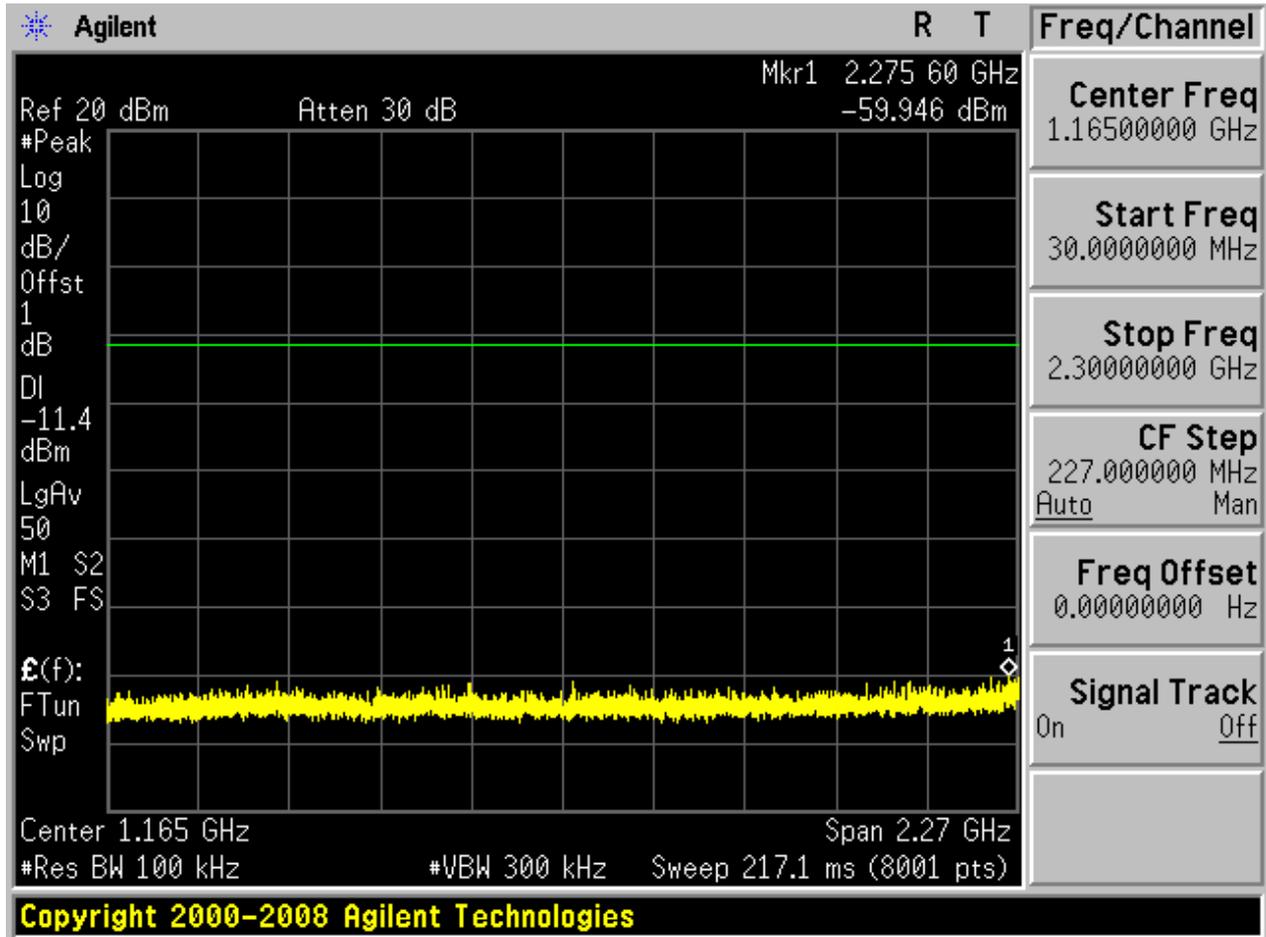


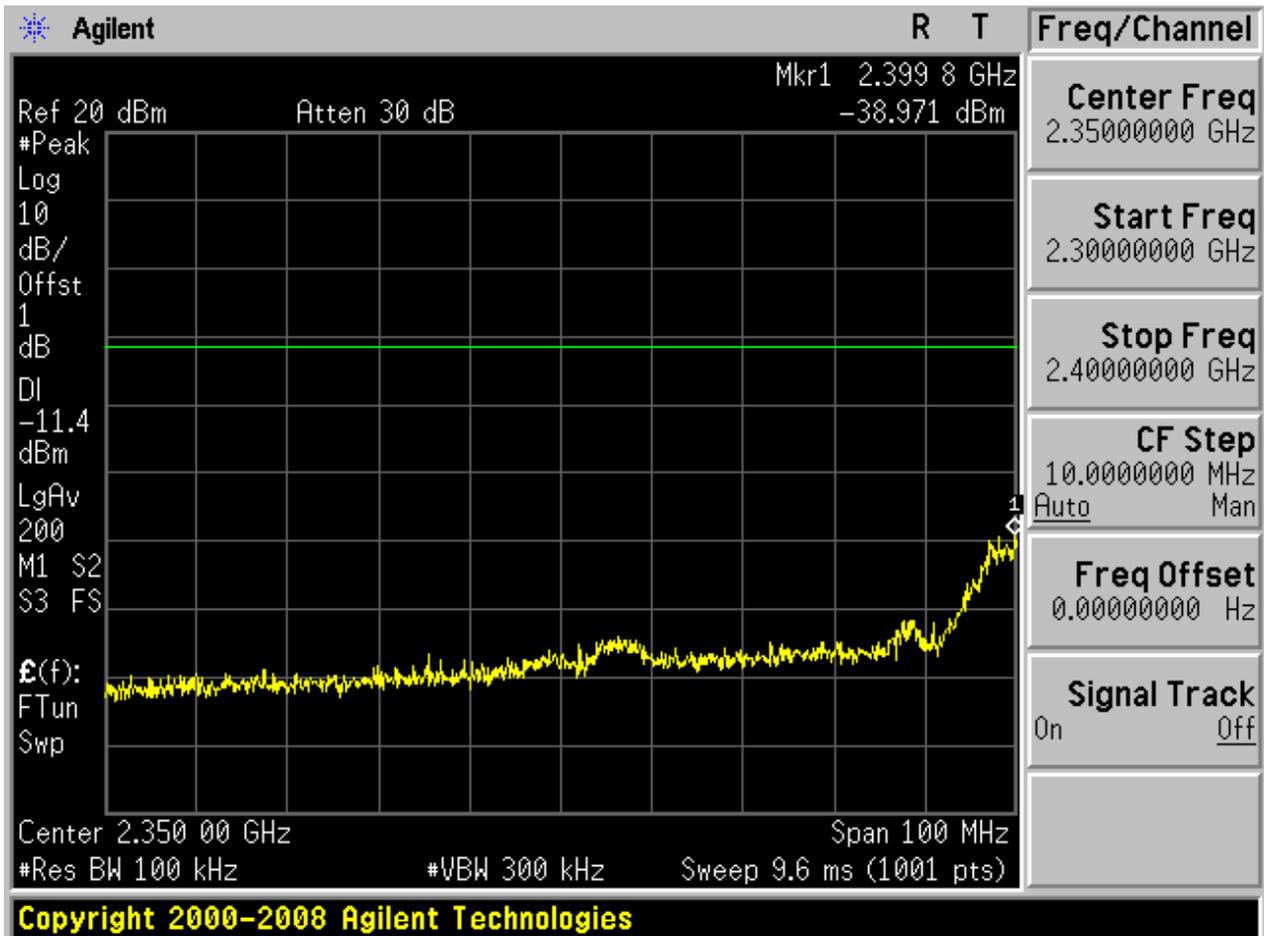


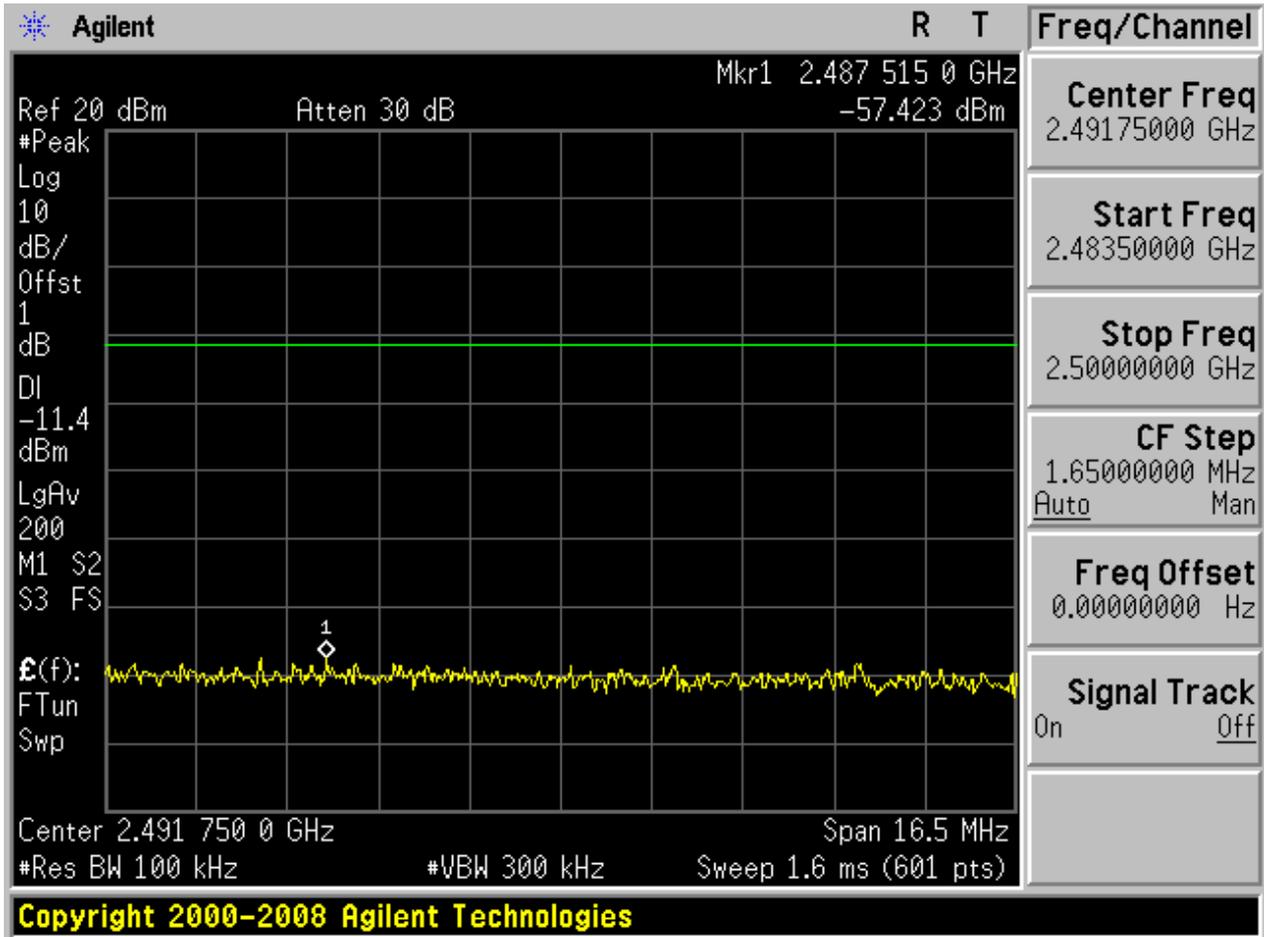
Puw:

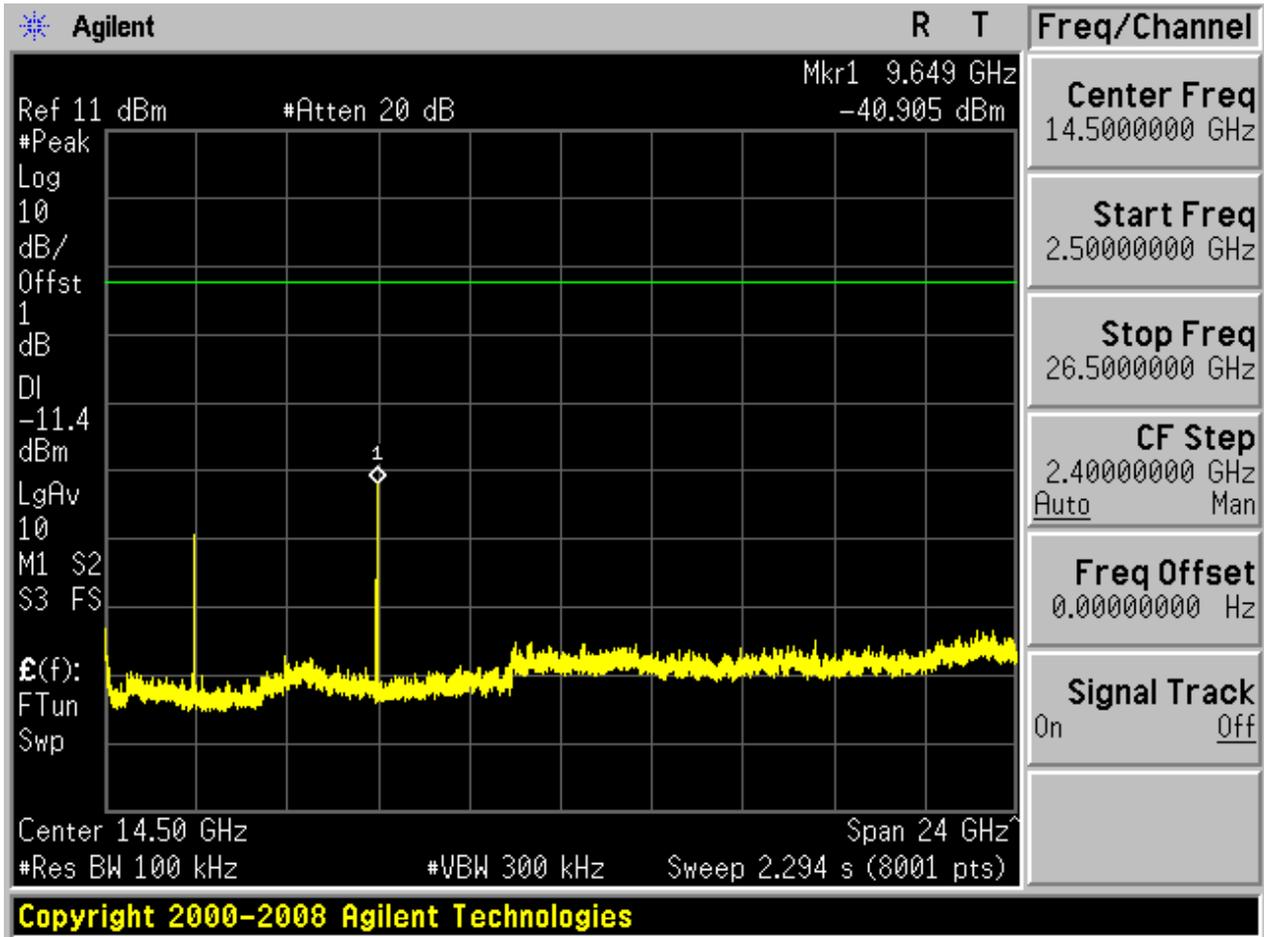








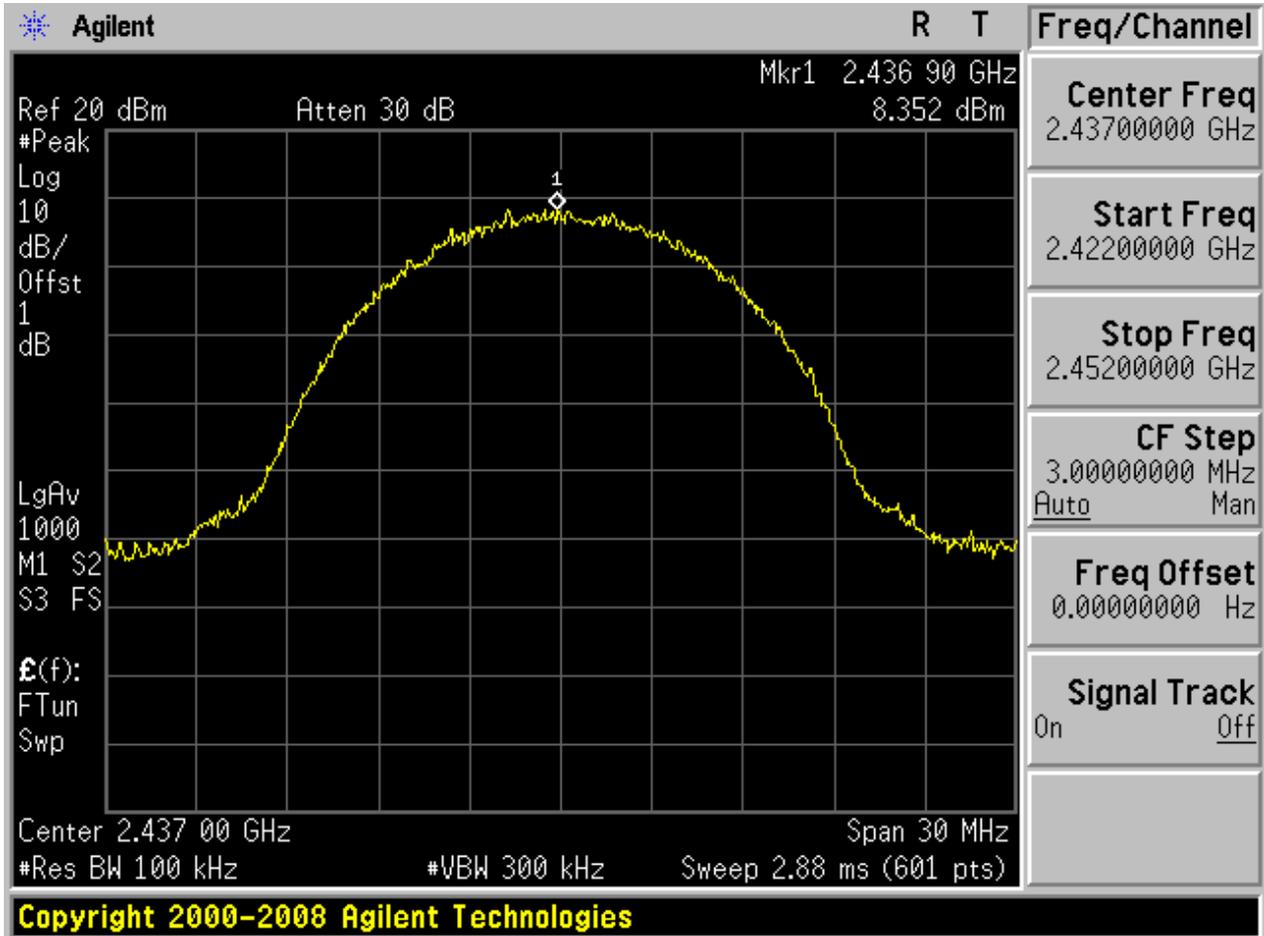






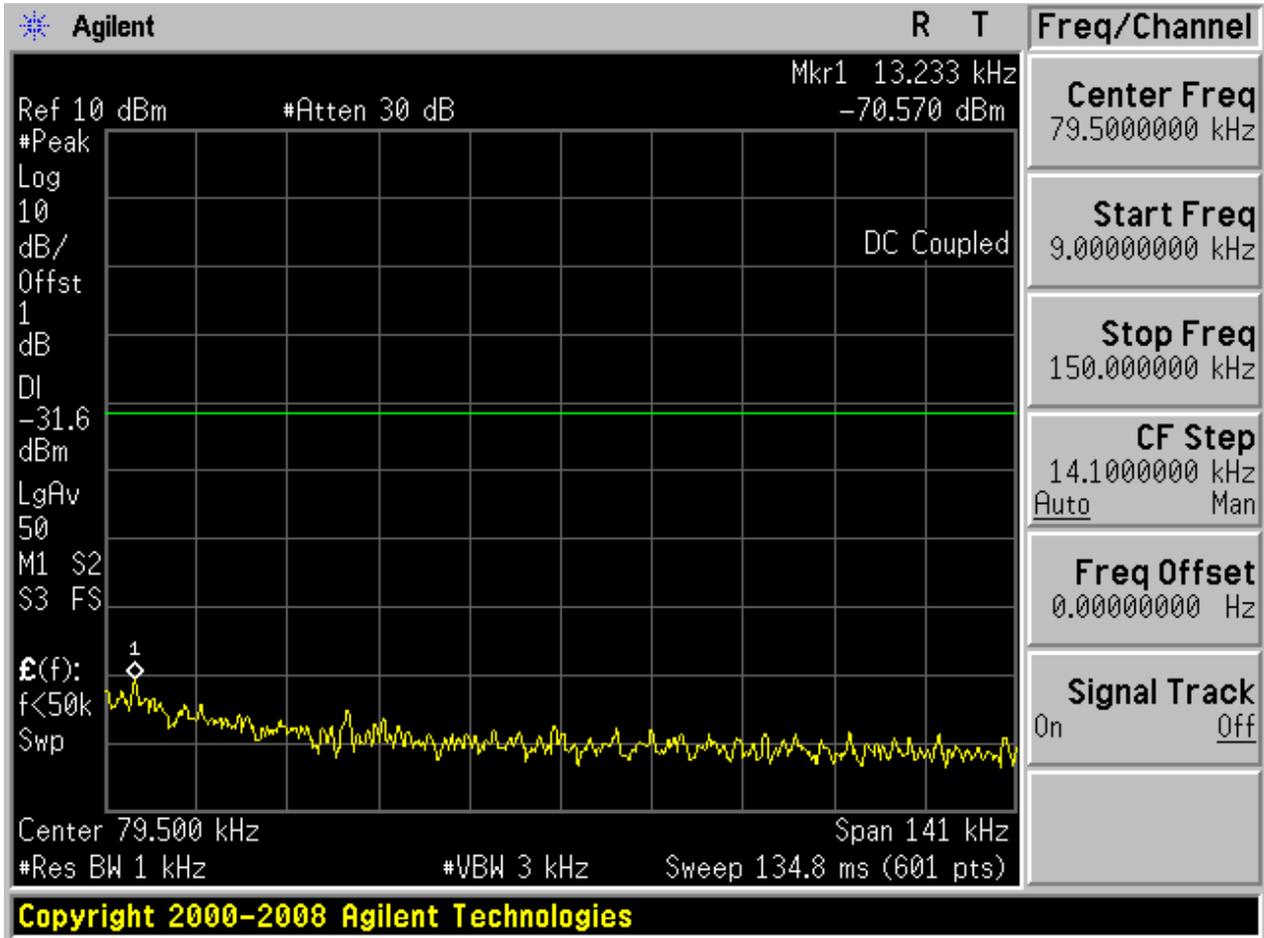
## 2.2 11B\_M

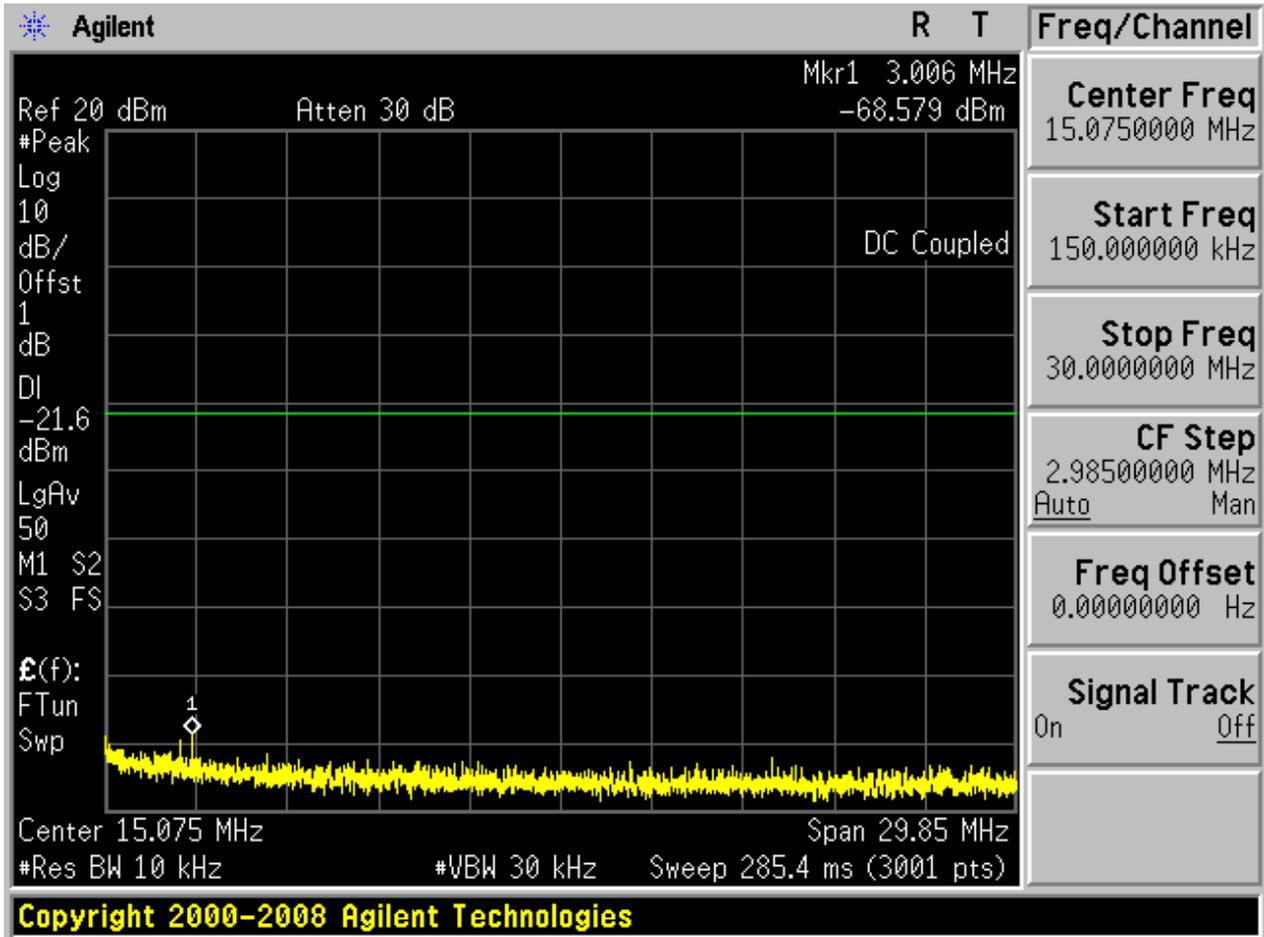
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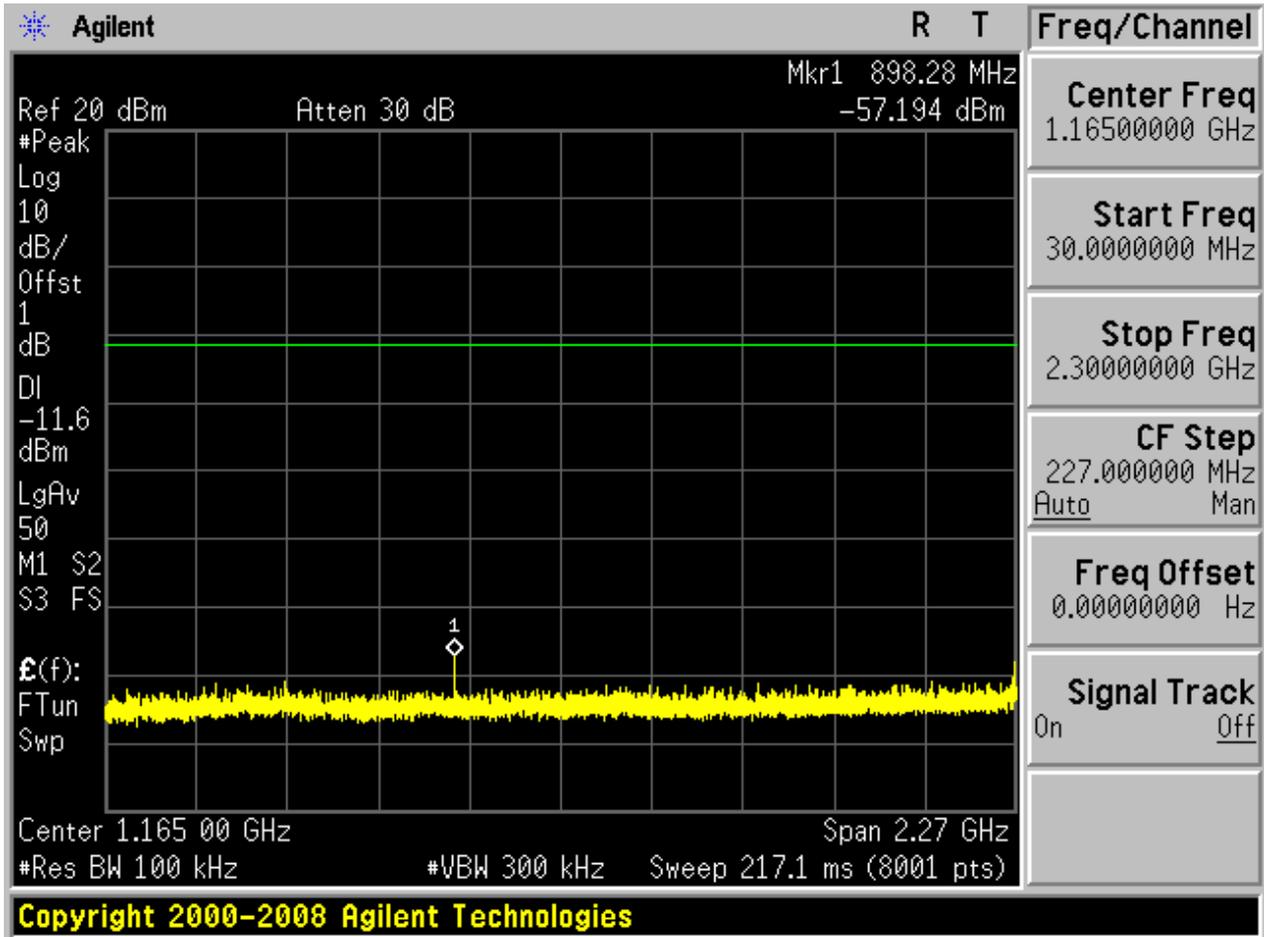


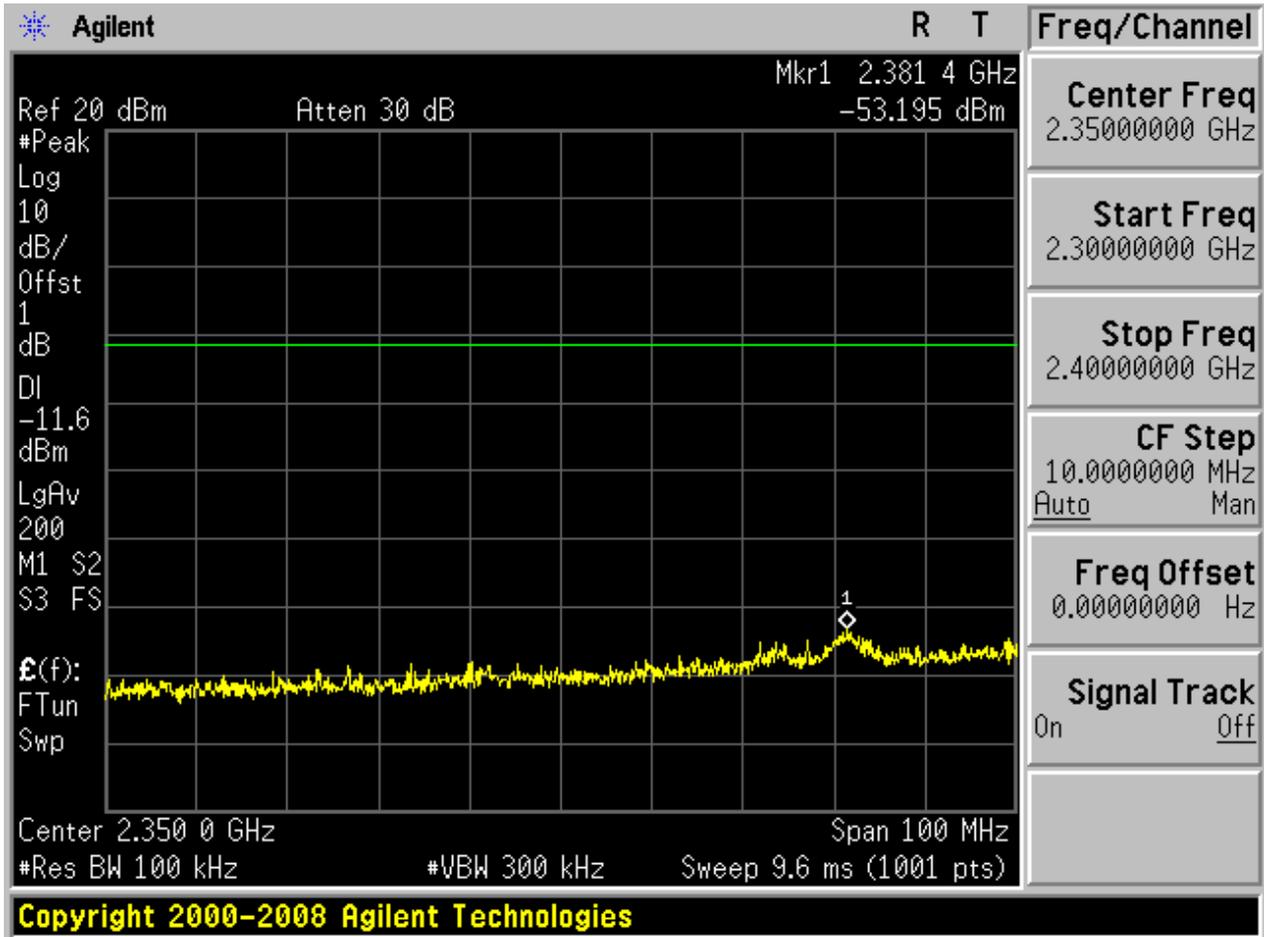


Puw:

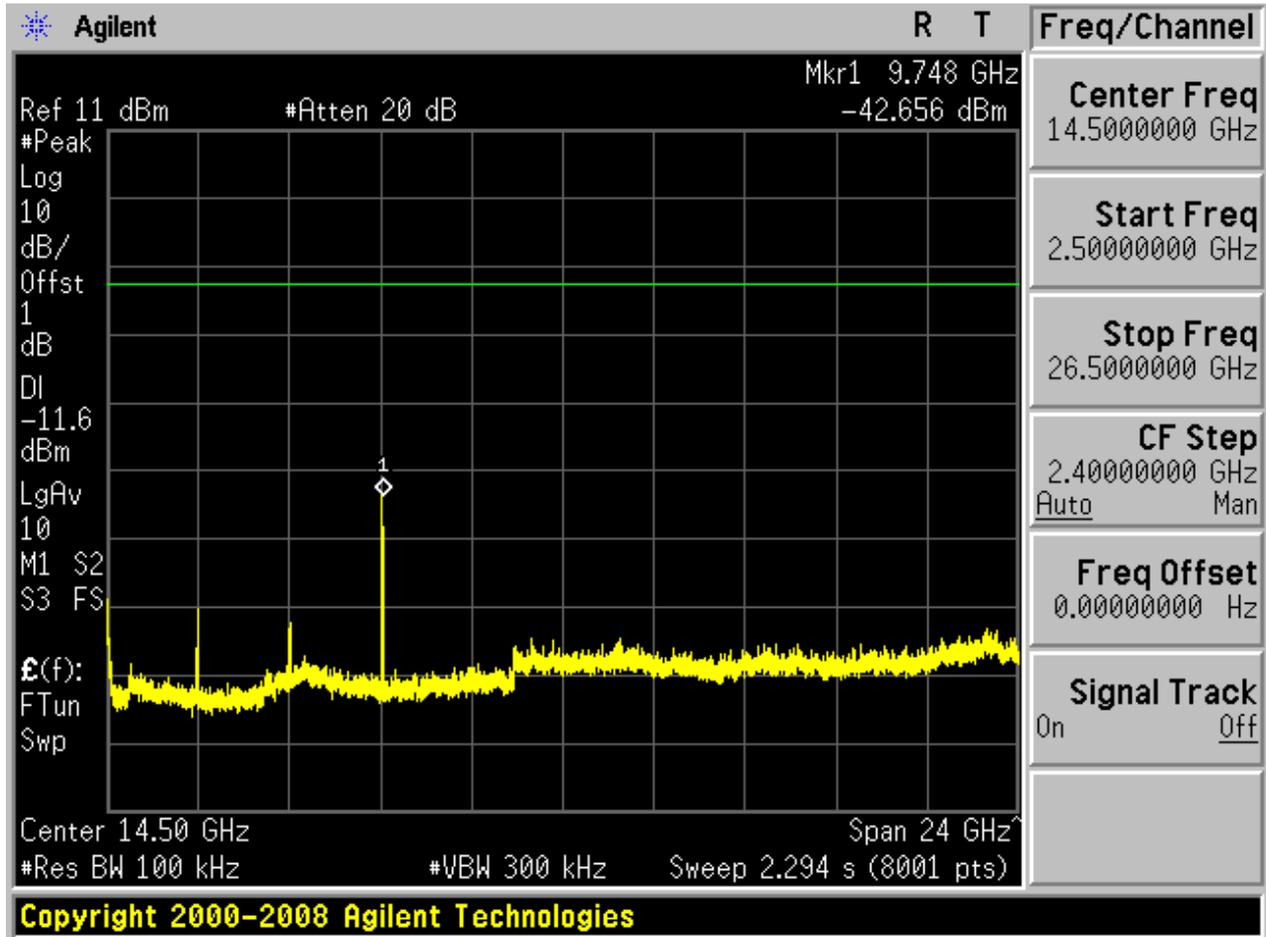








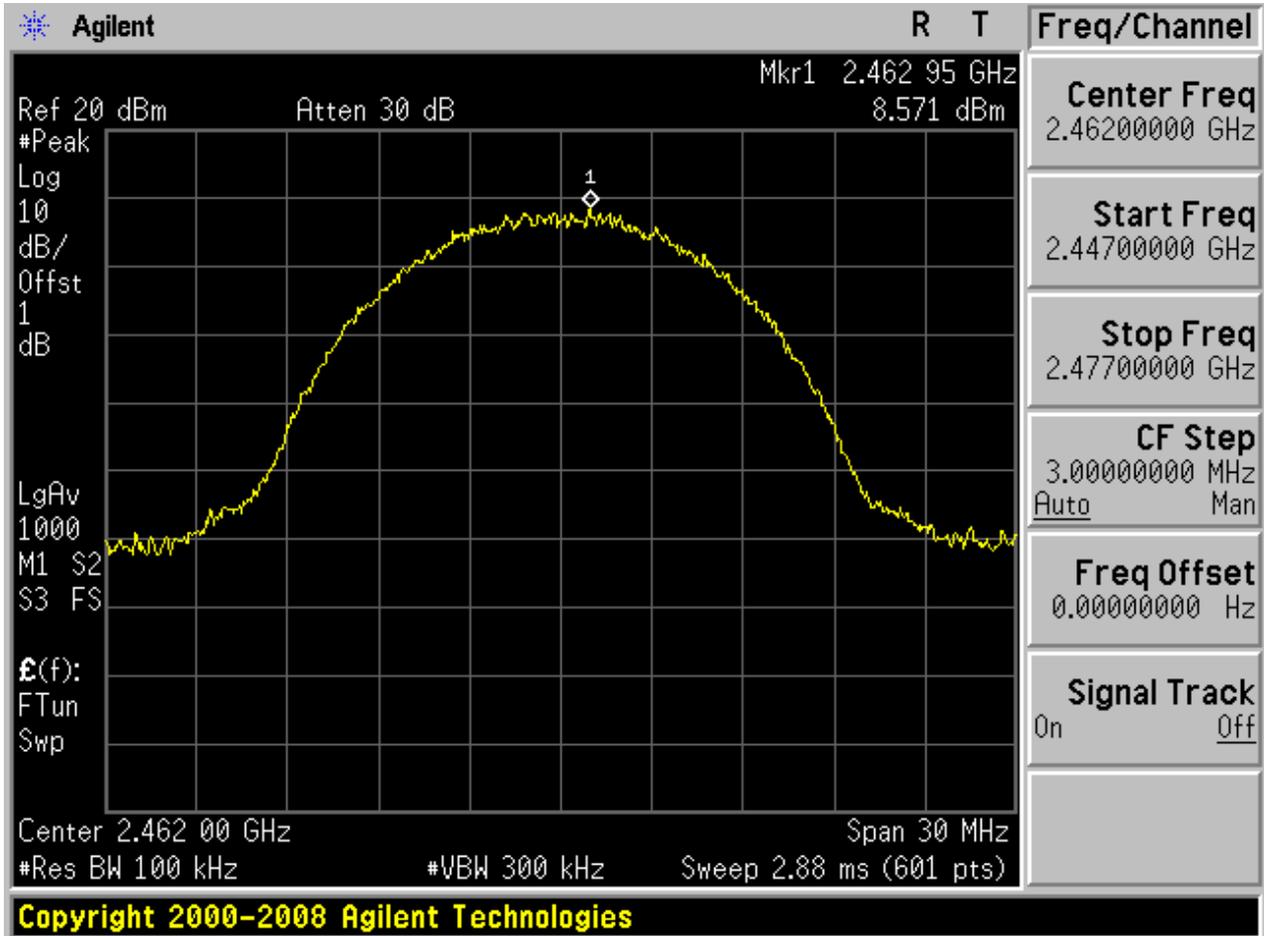






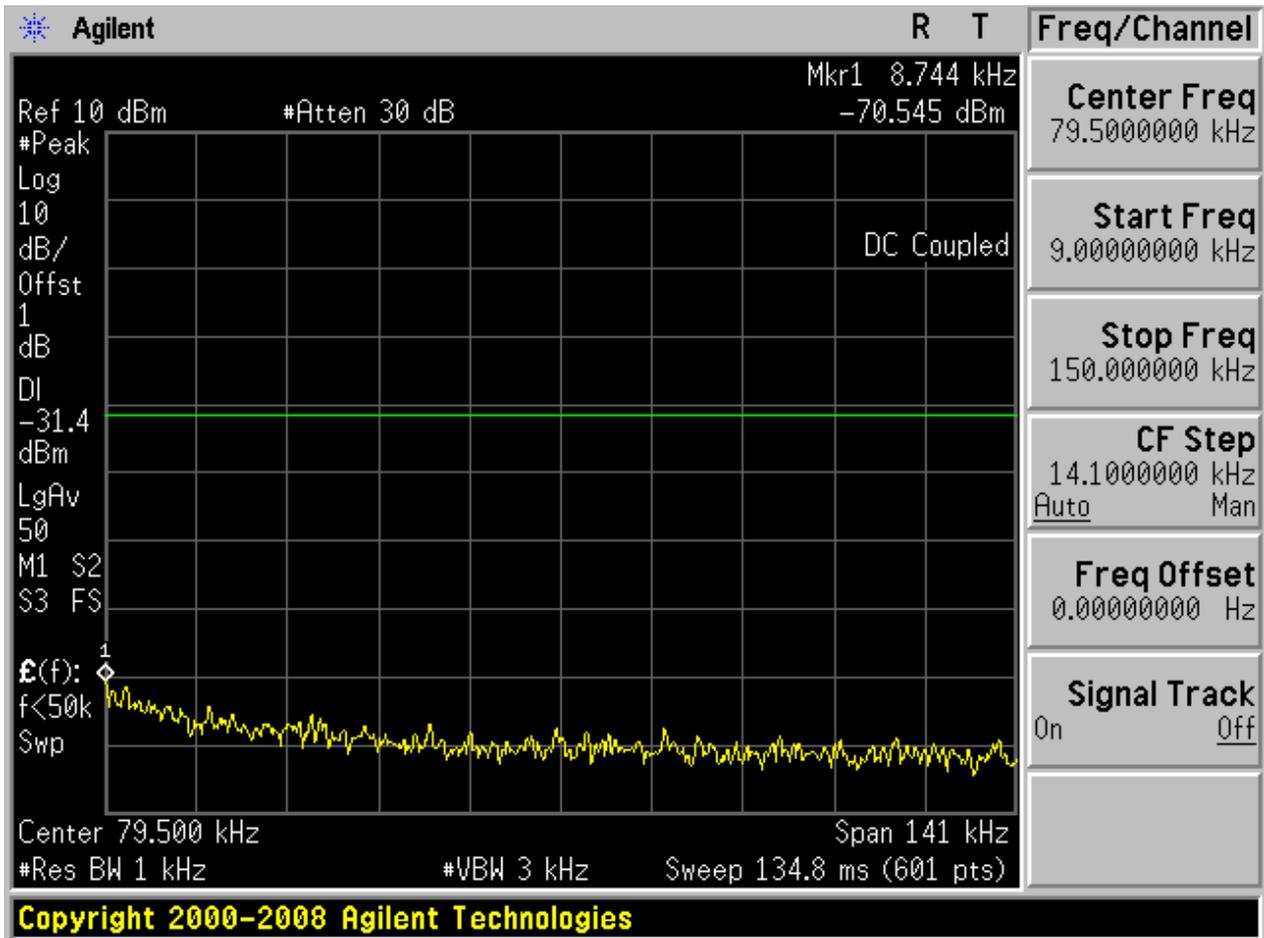
### 2.3 11B\_H

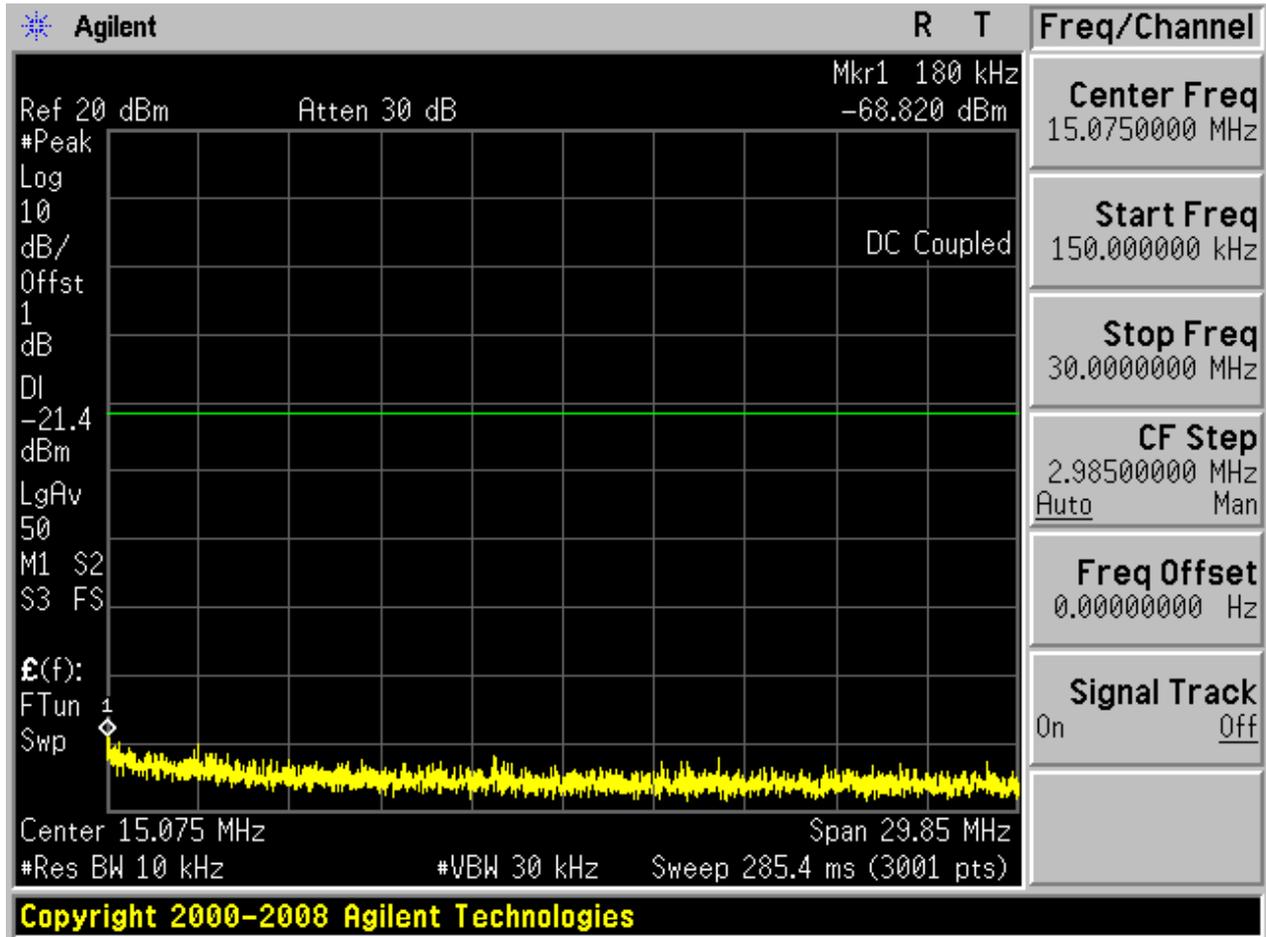
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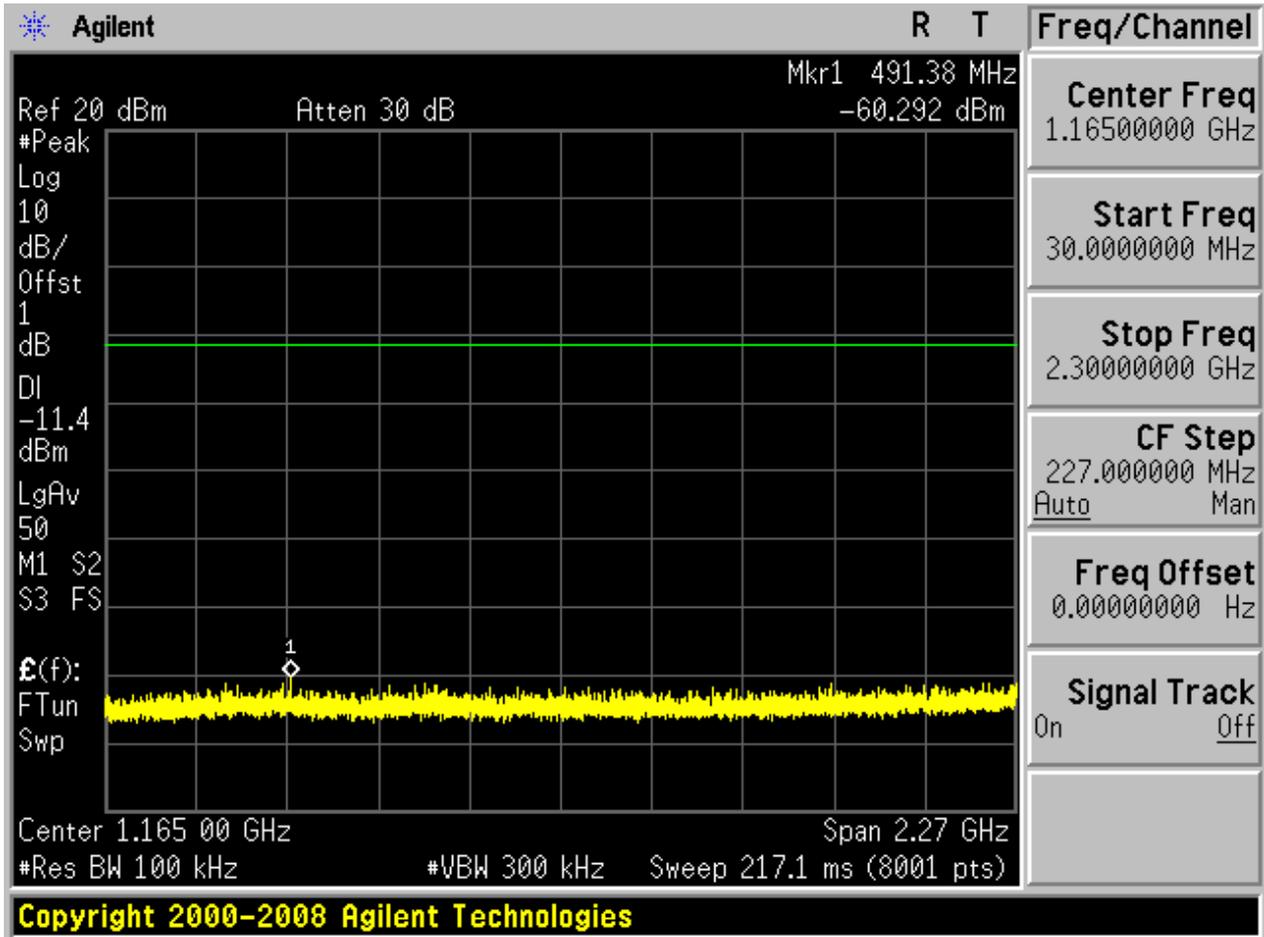


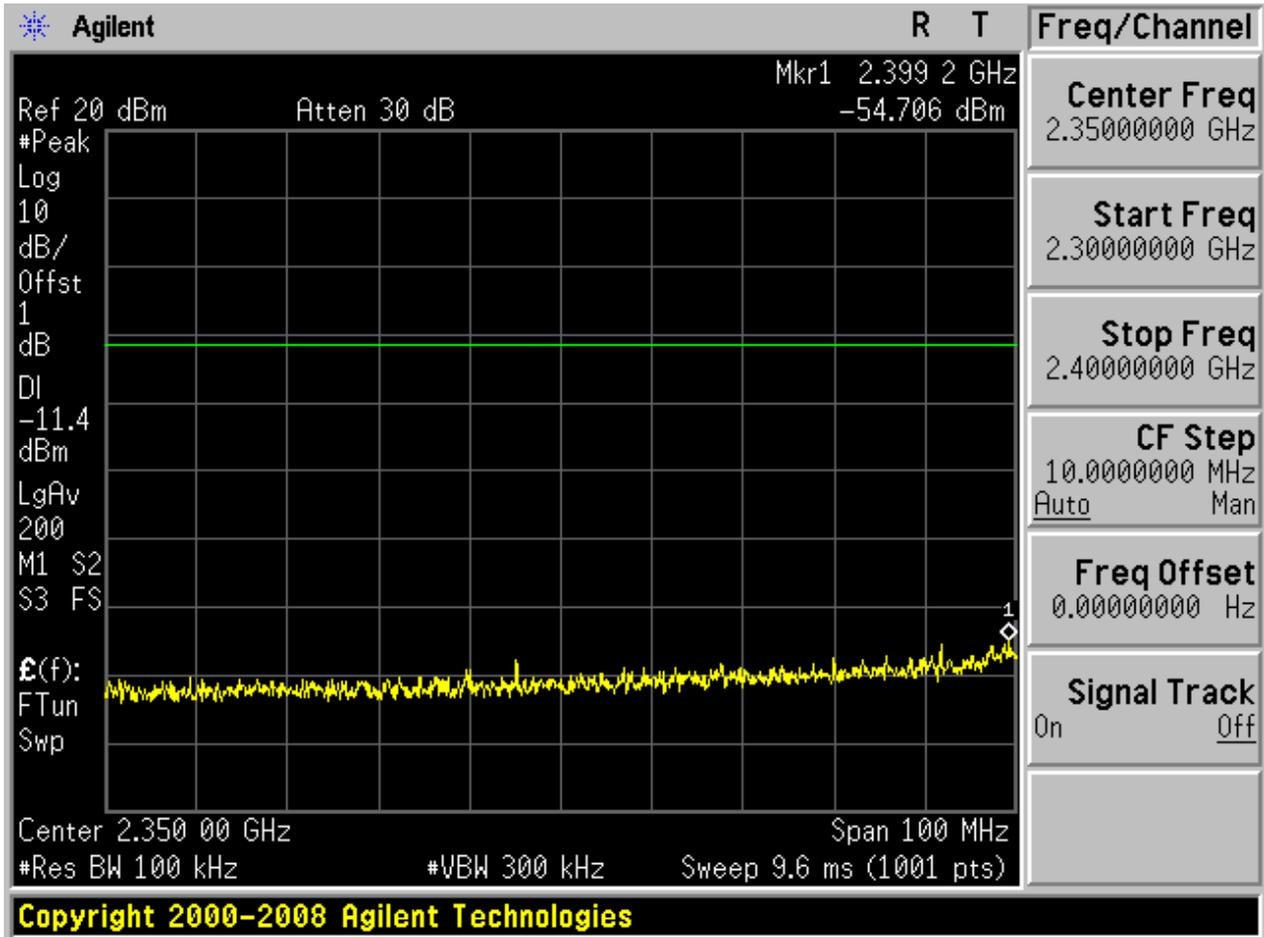


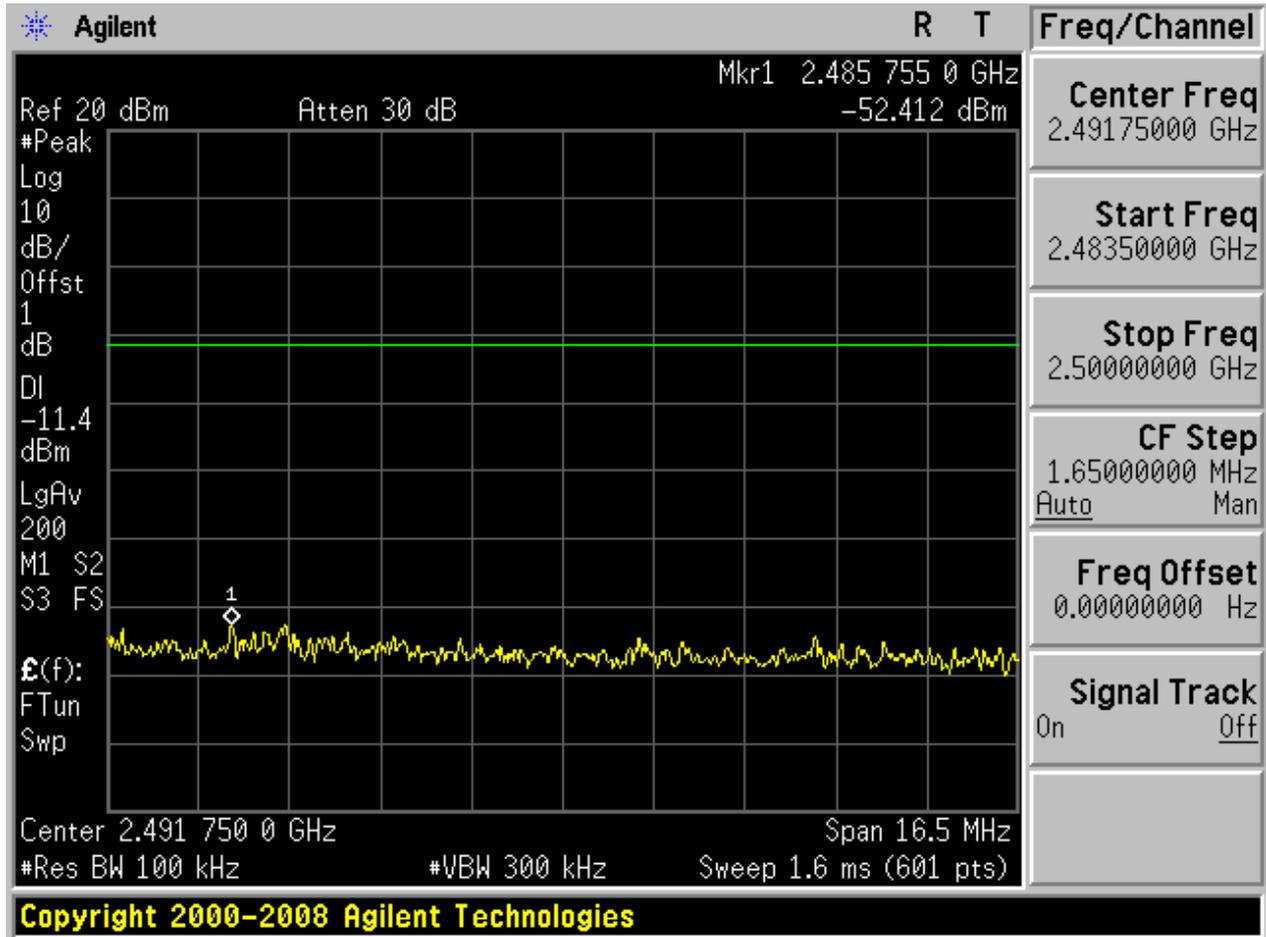
Puw:

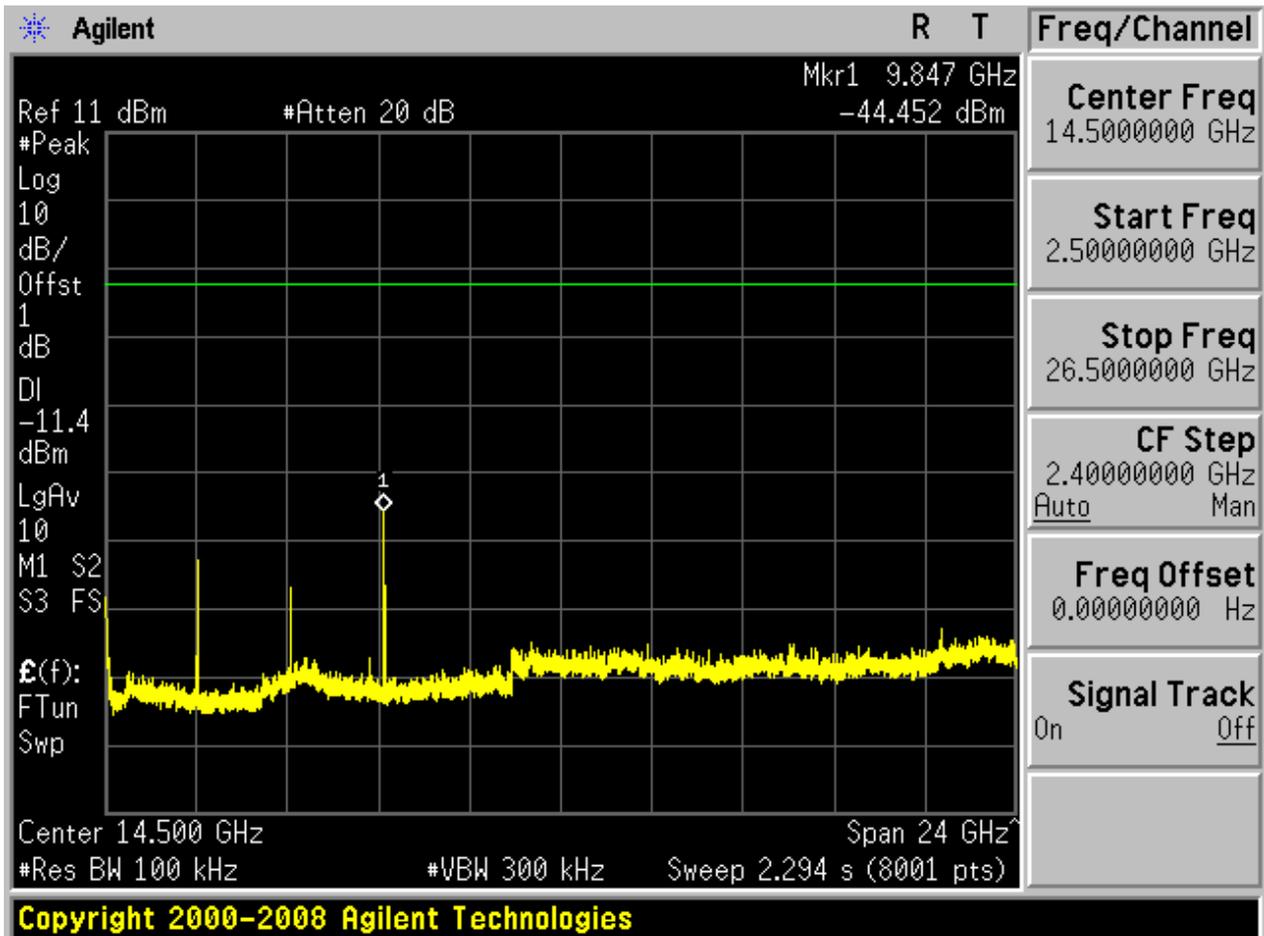








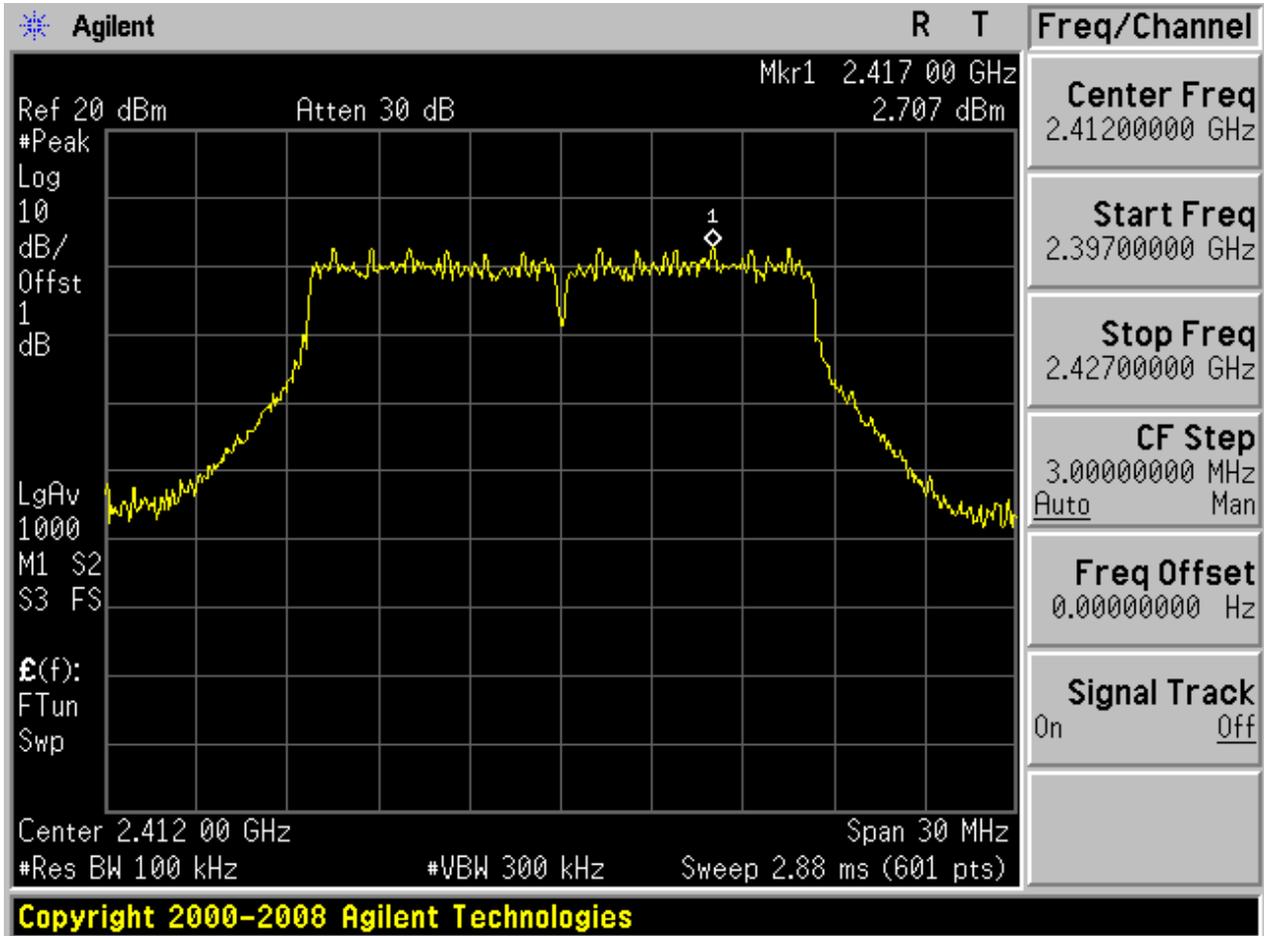






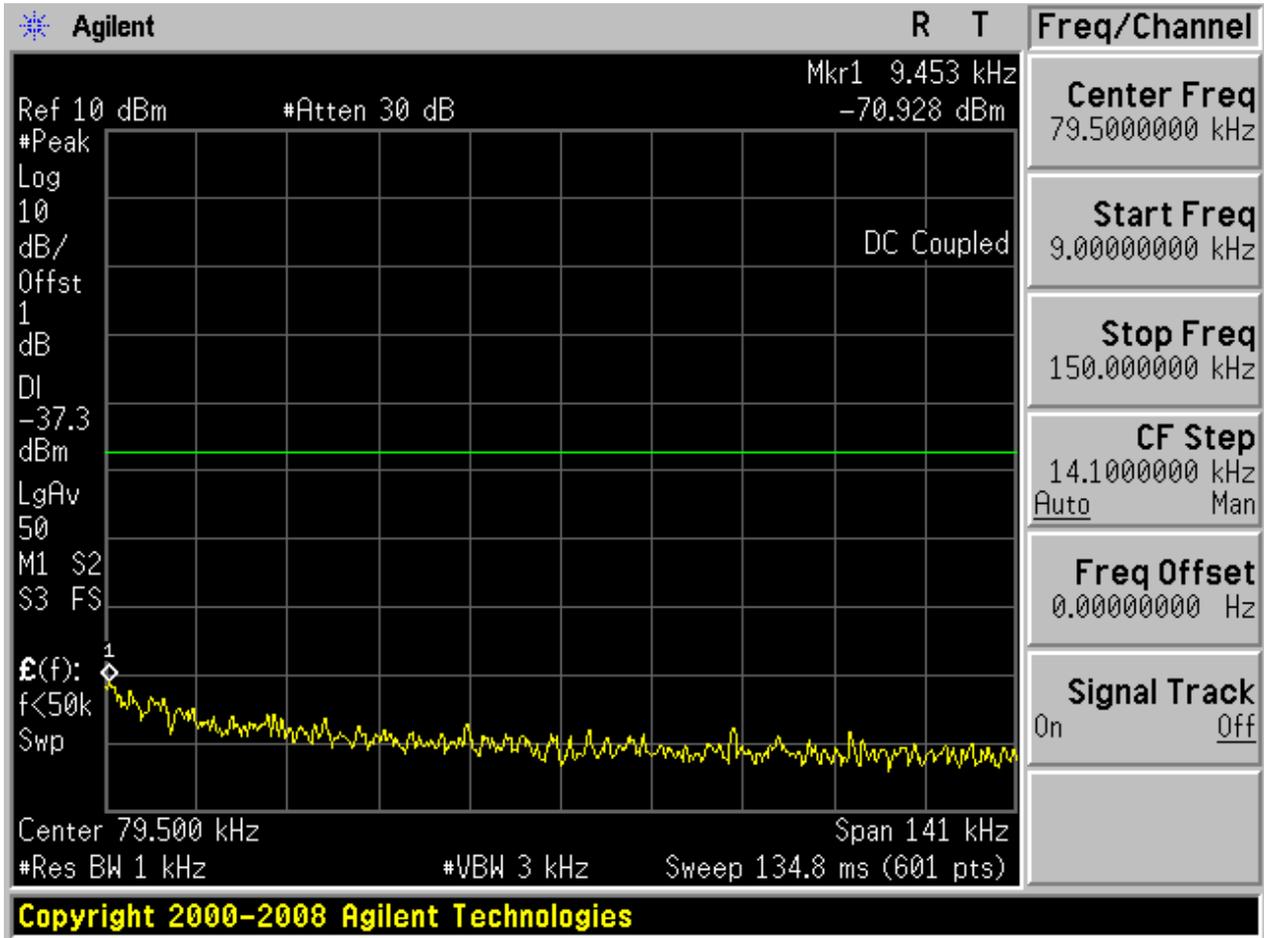
### 2.4 11G\_L

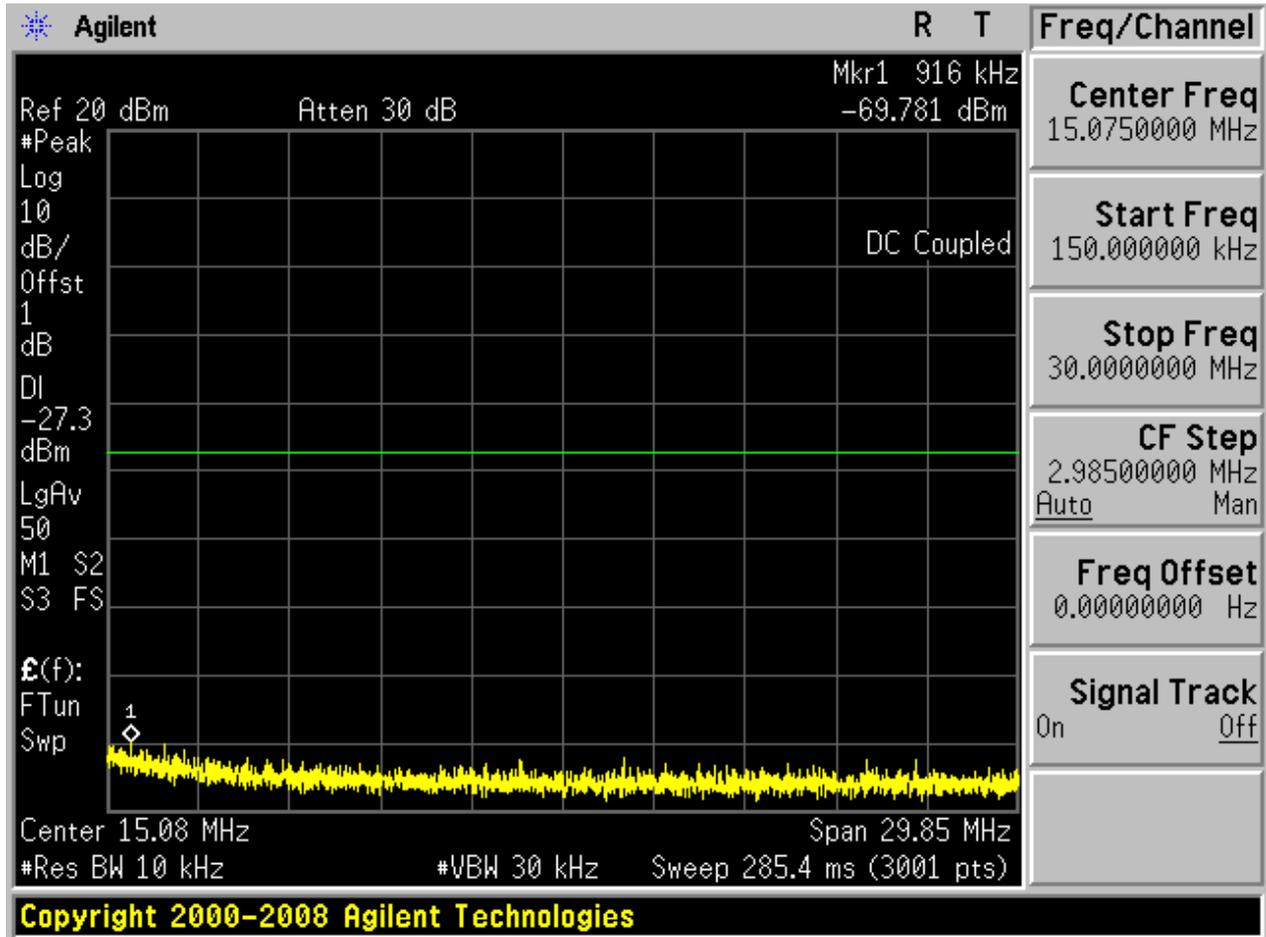
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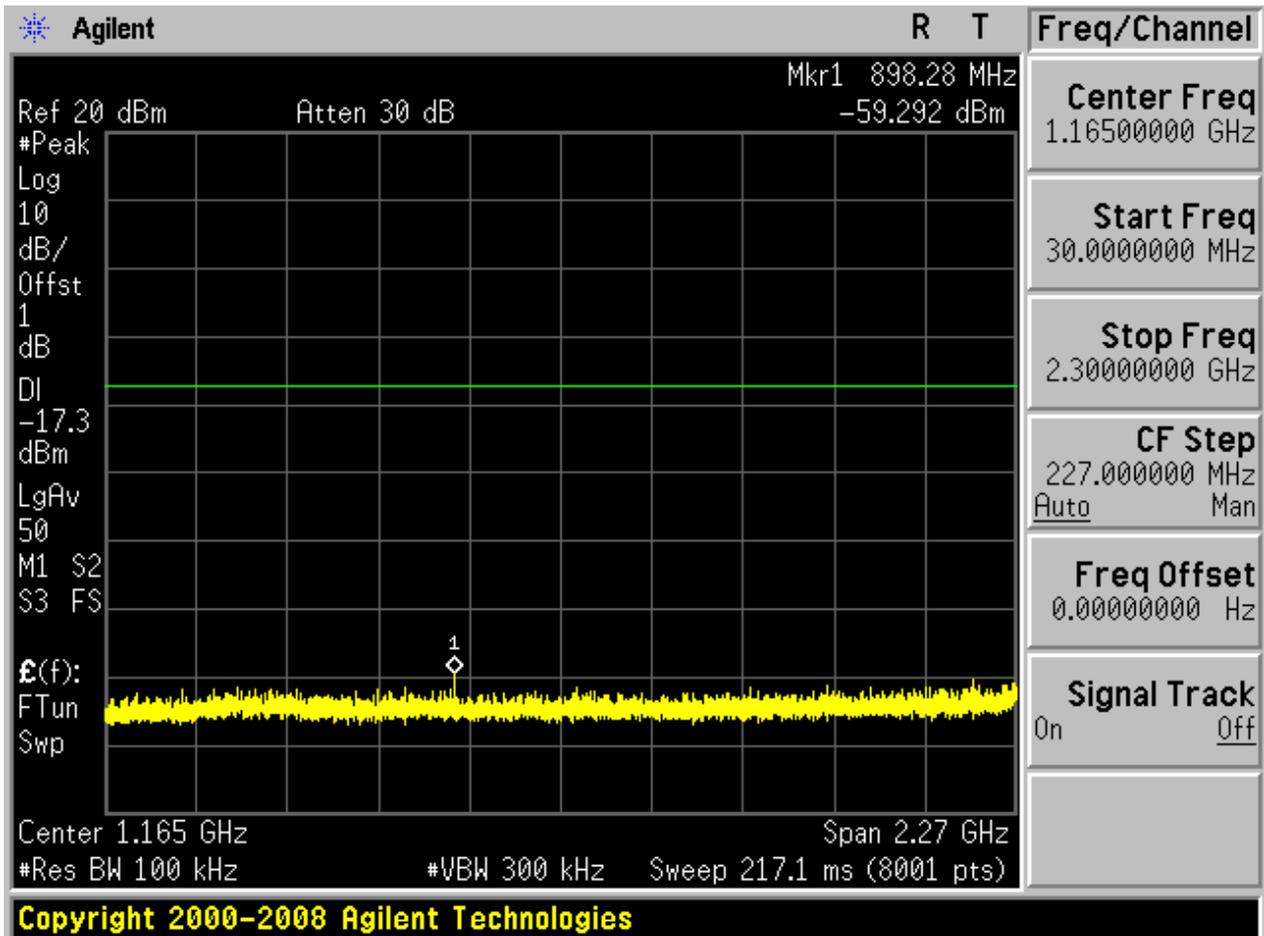


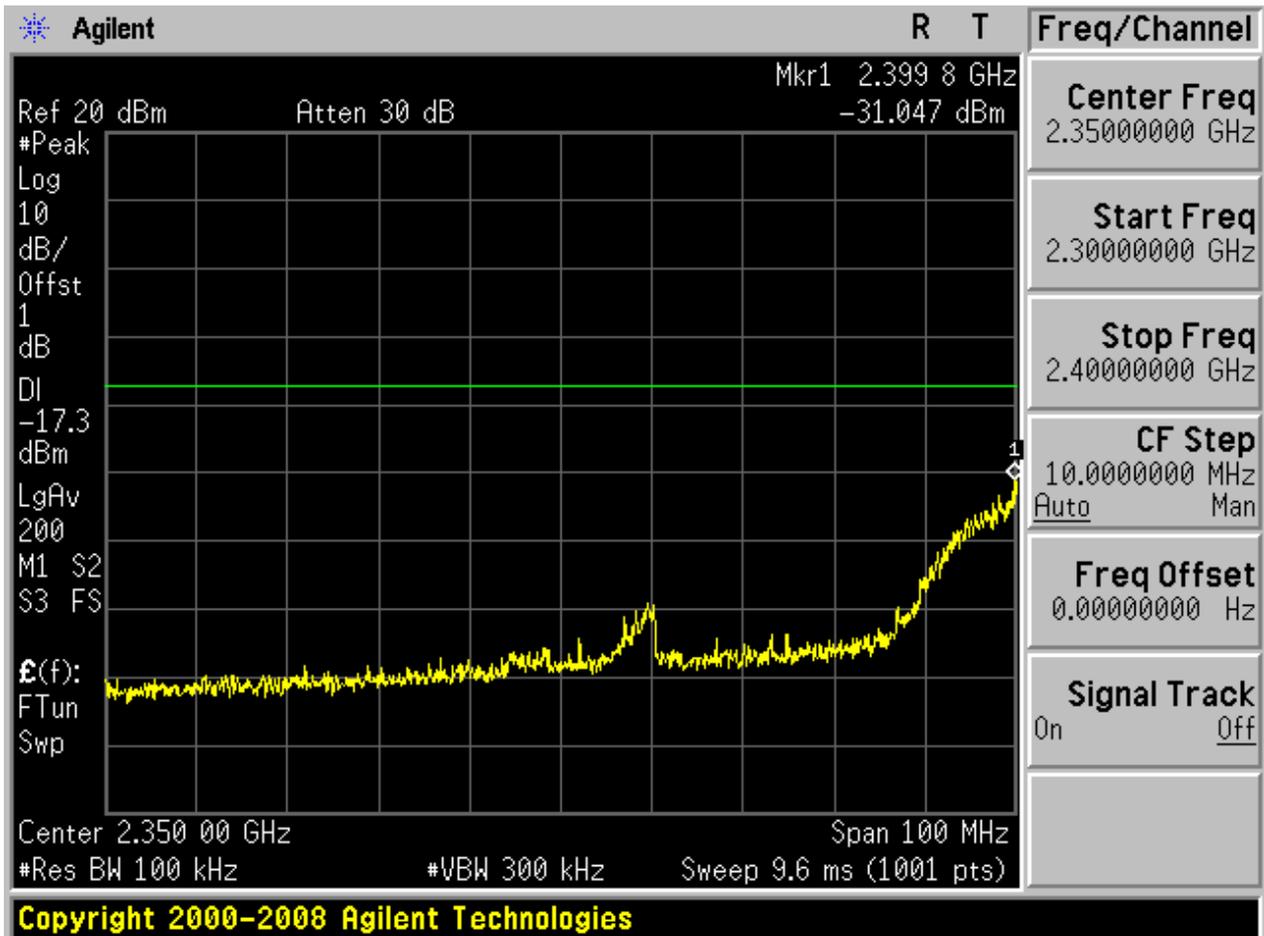


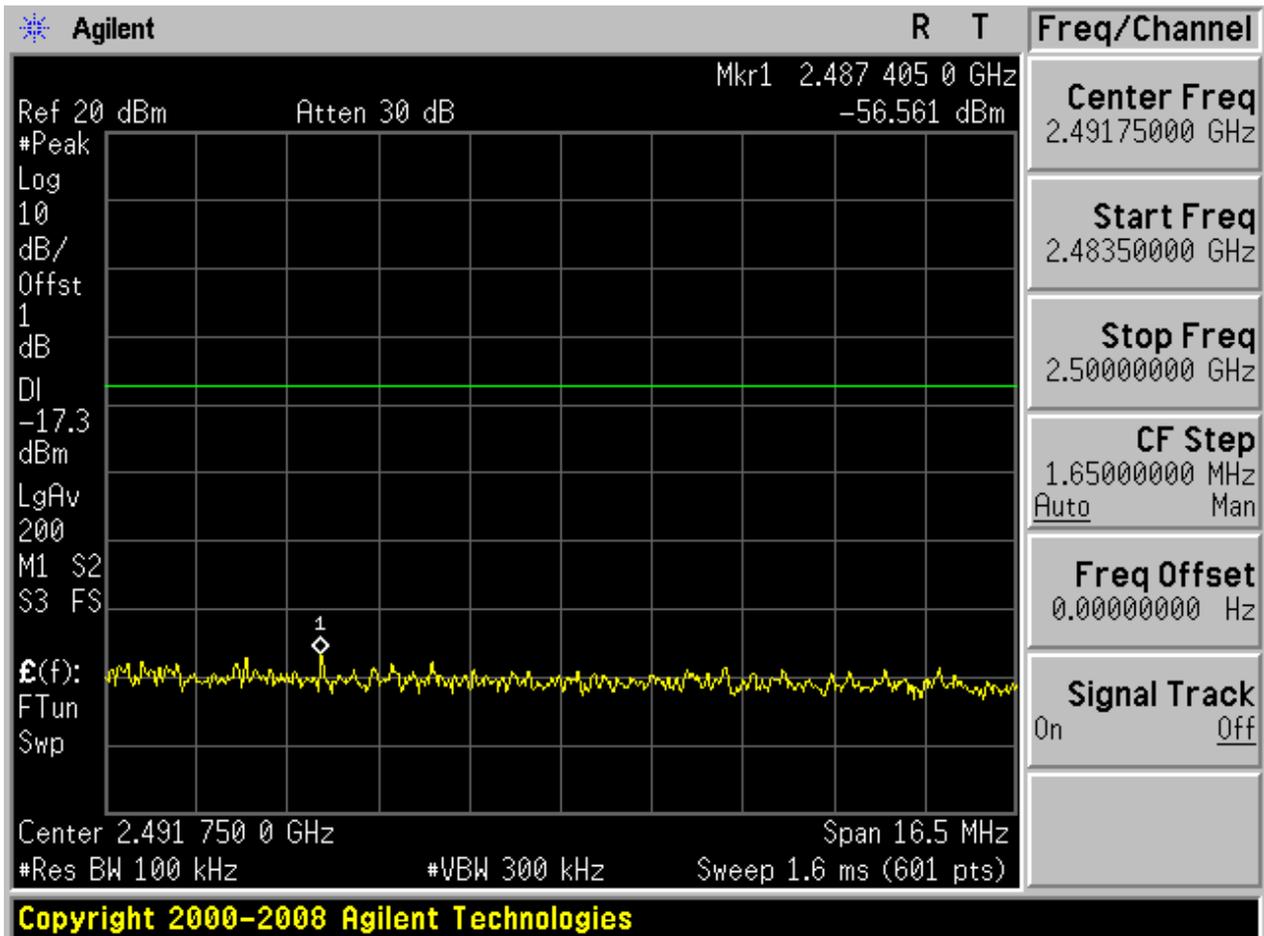
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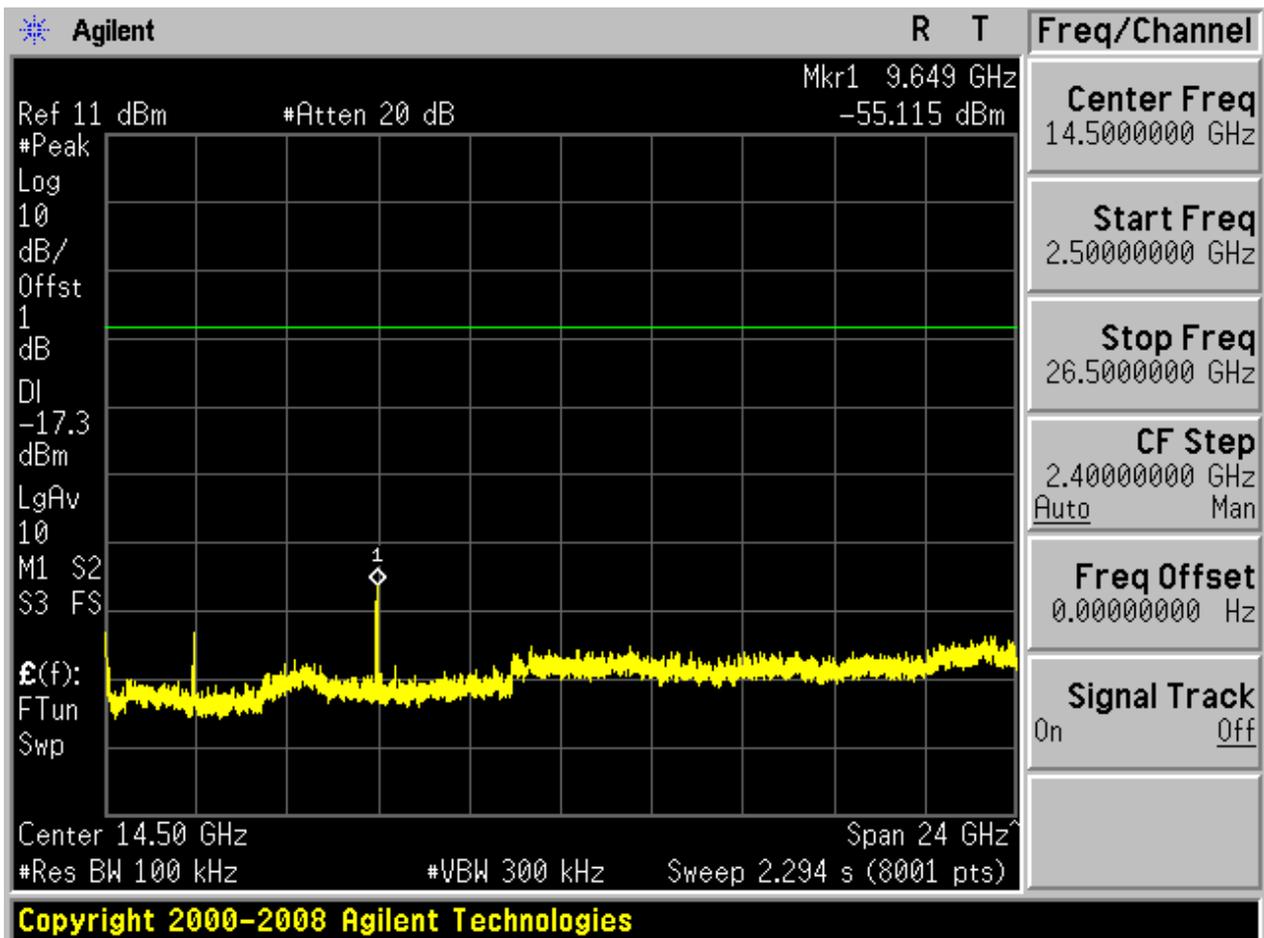








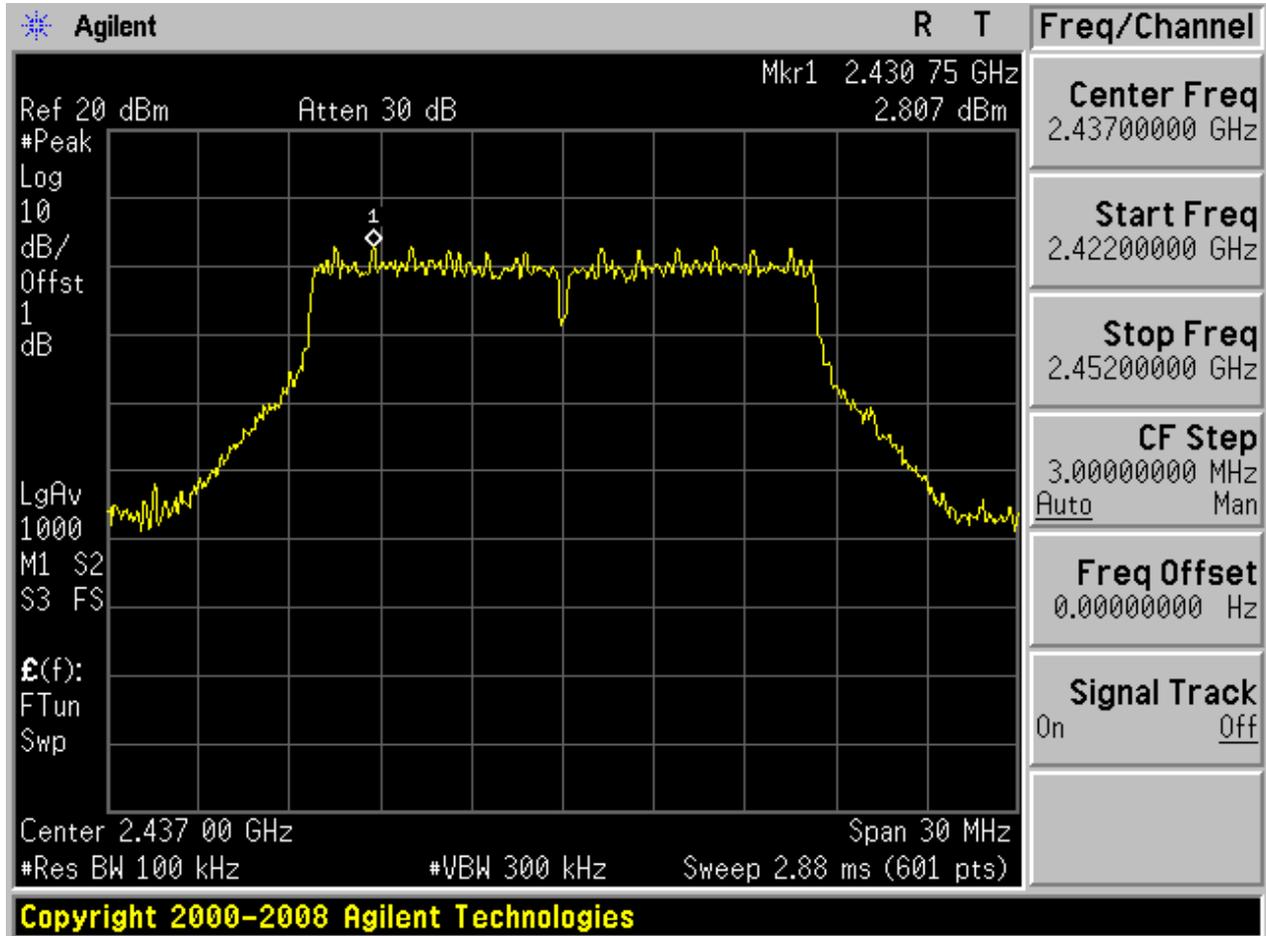






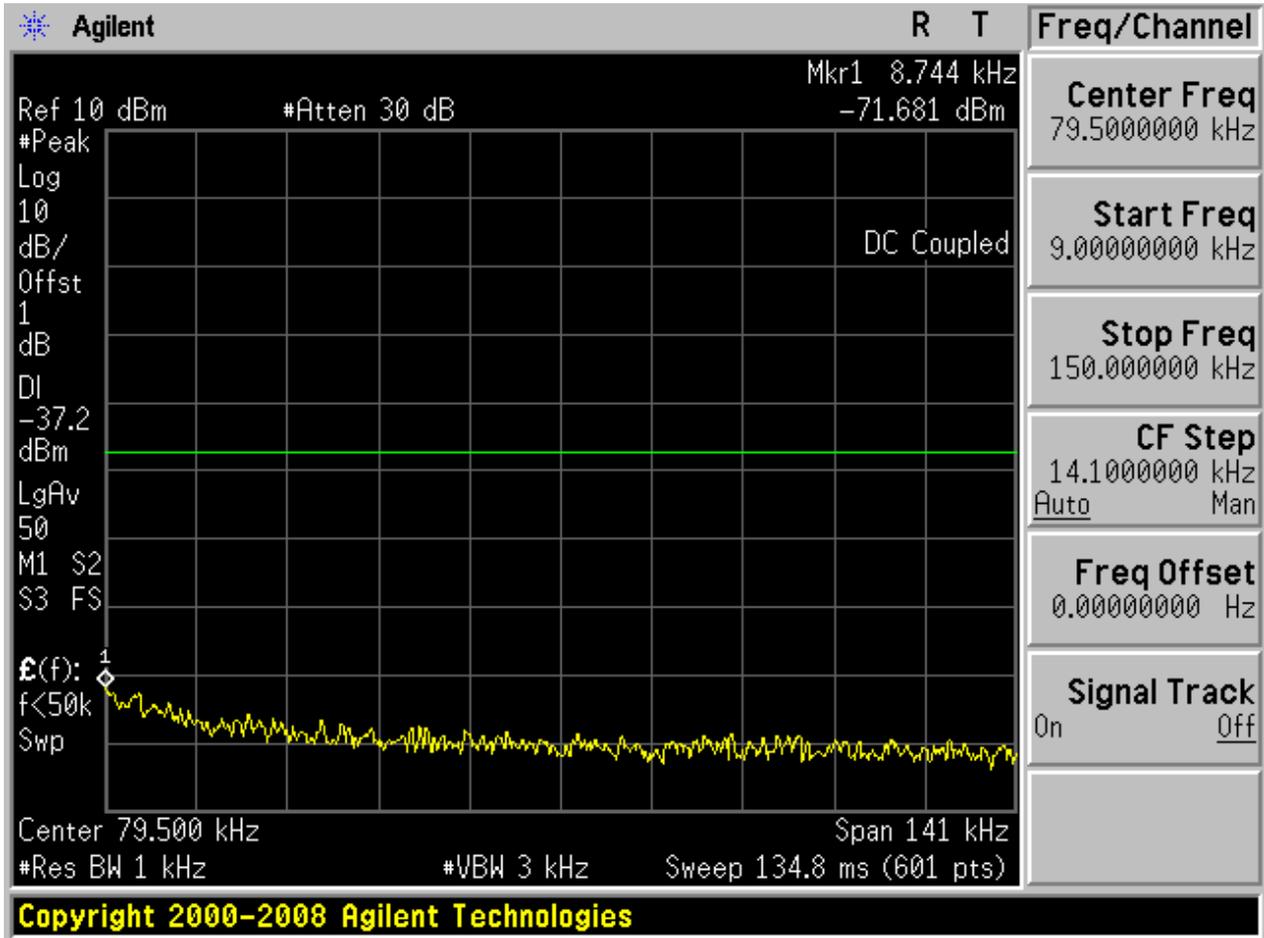
## 2.5 11G\_M

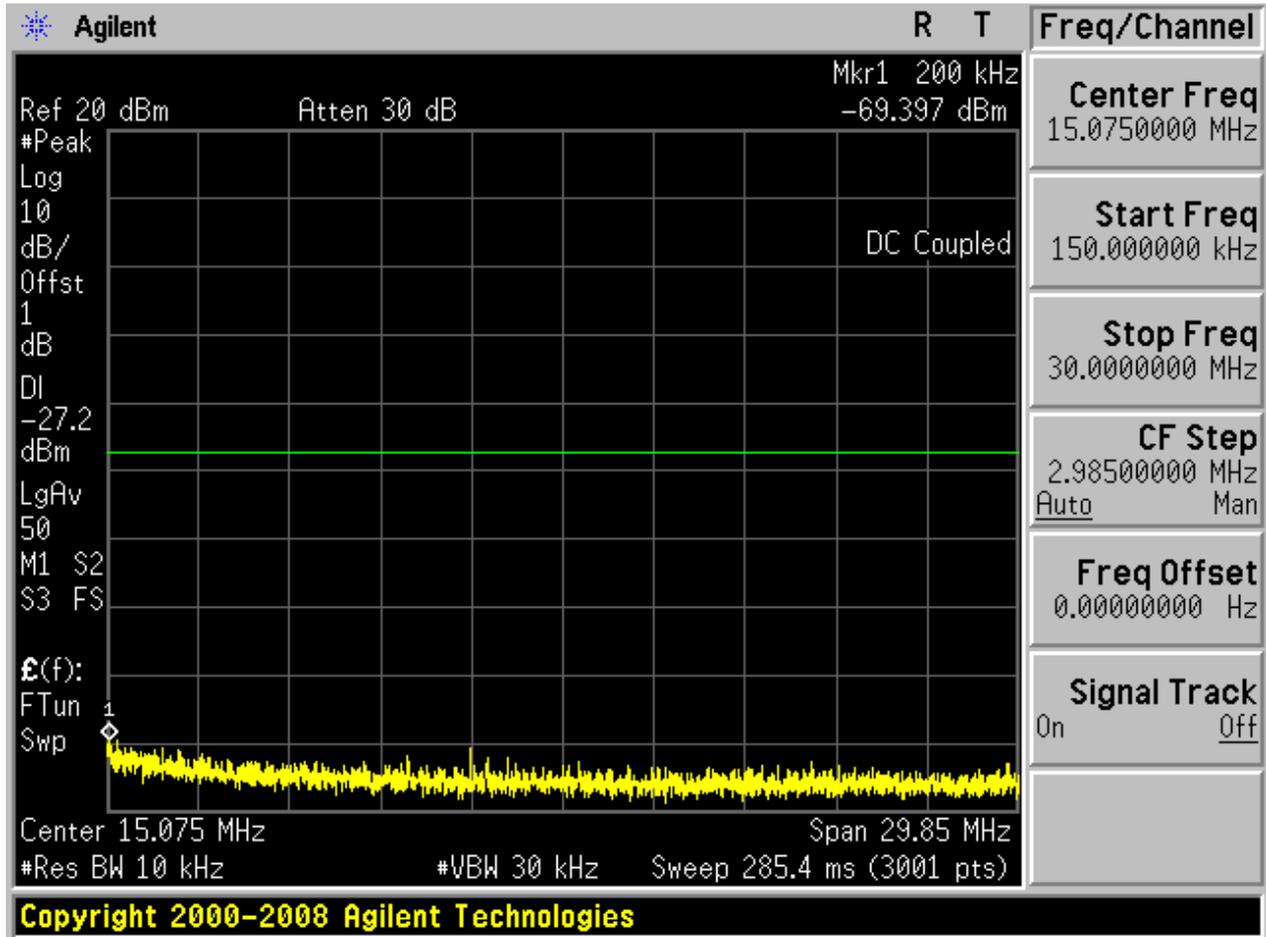
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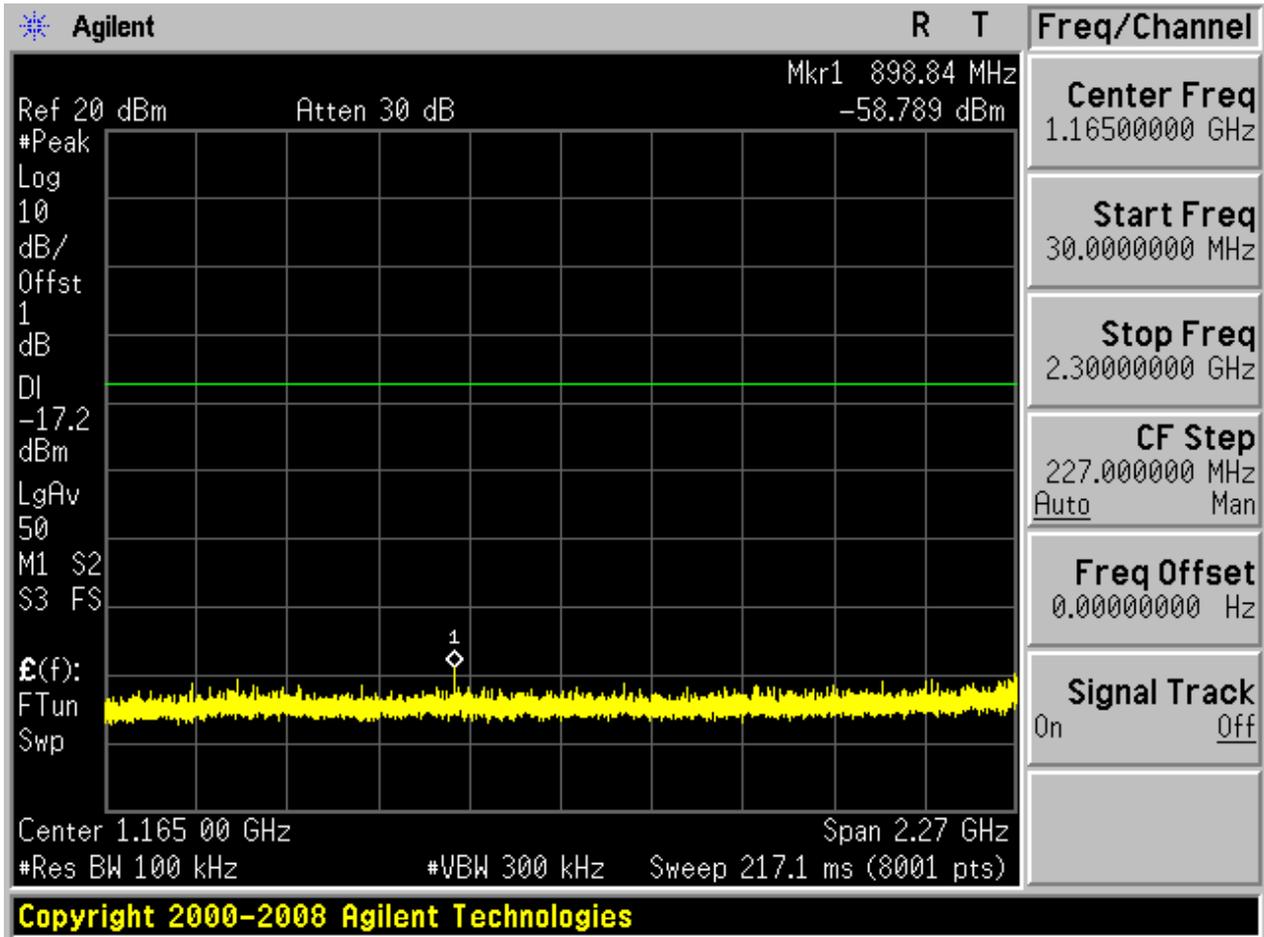


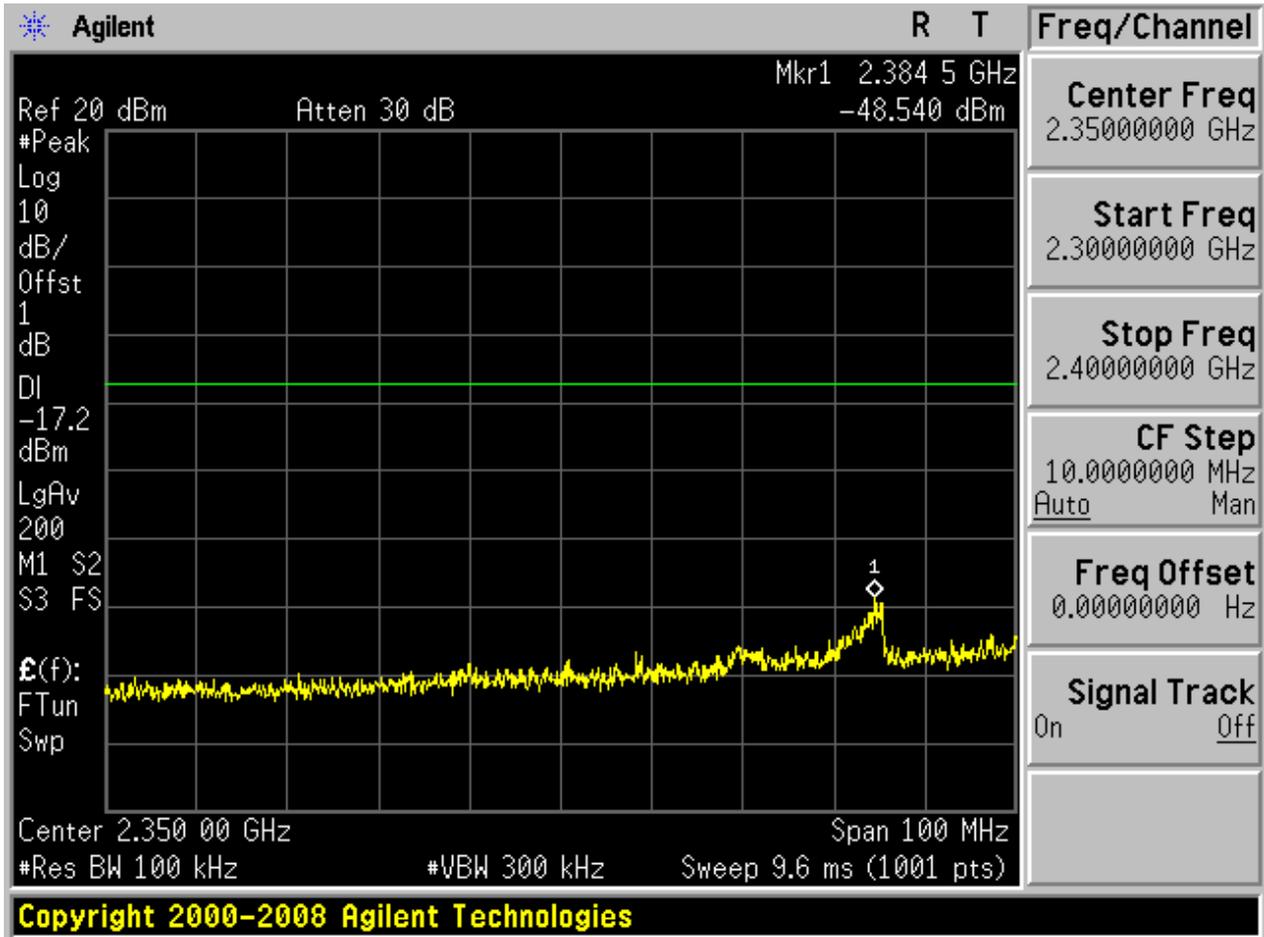


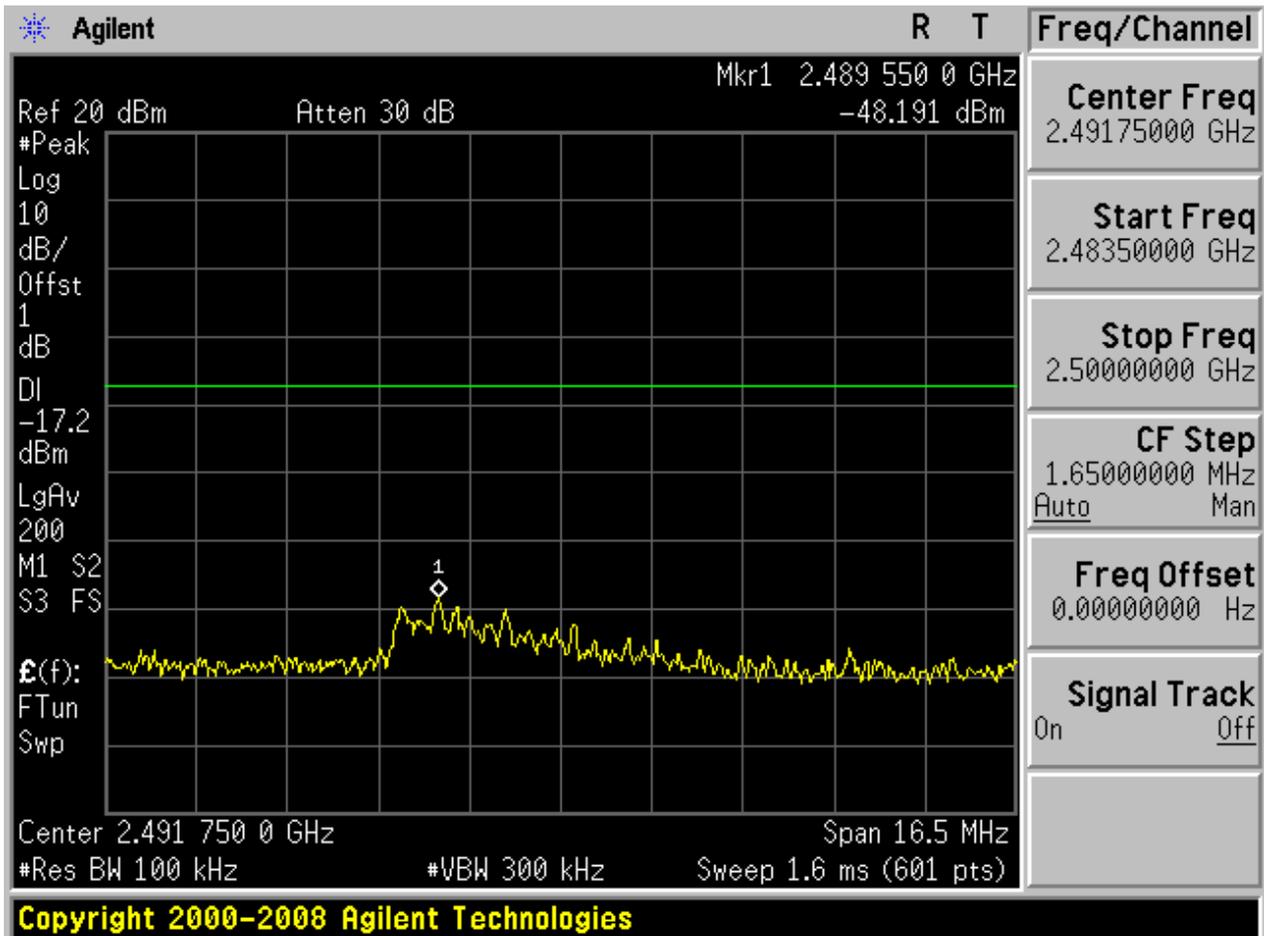
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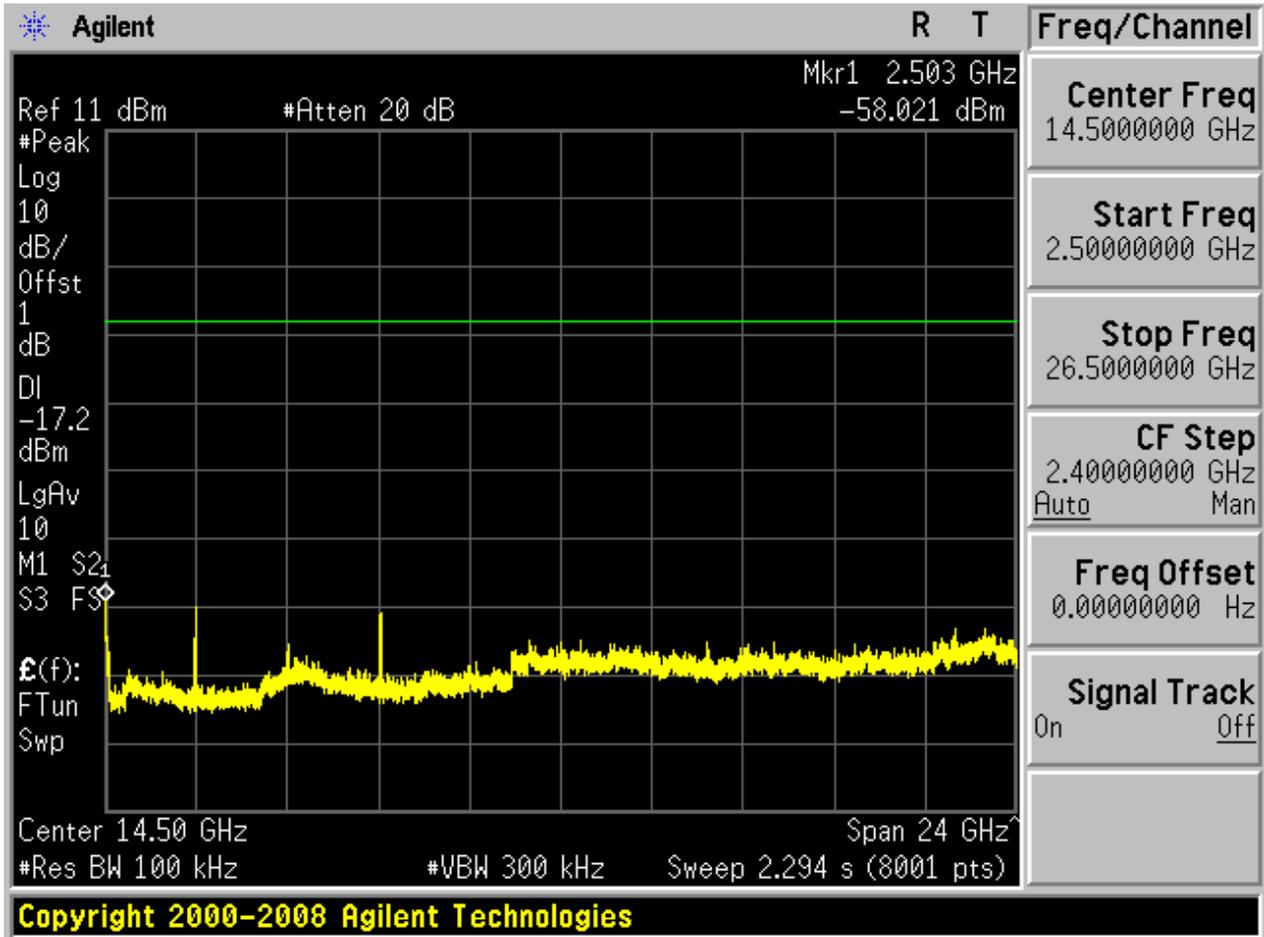








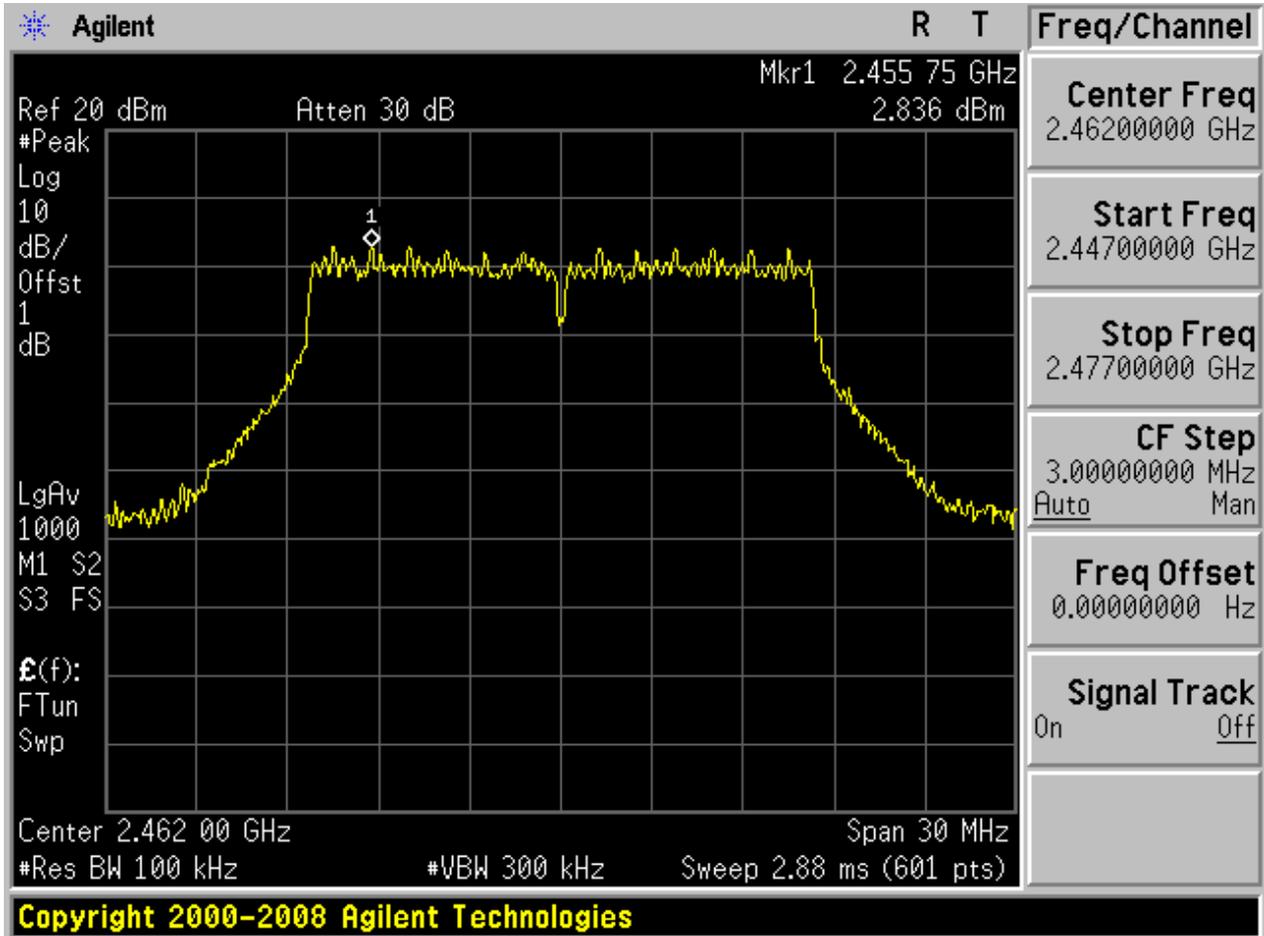






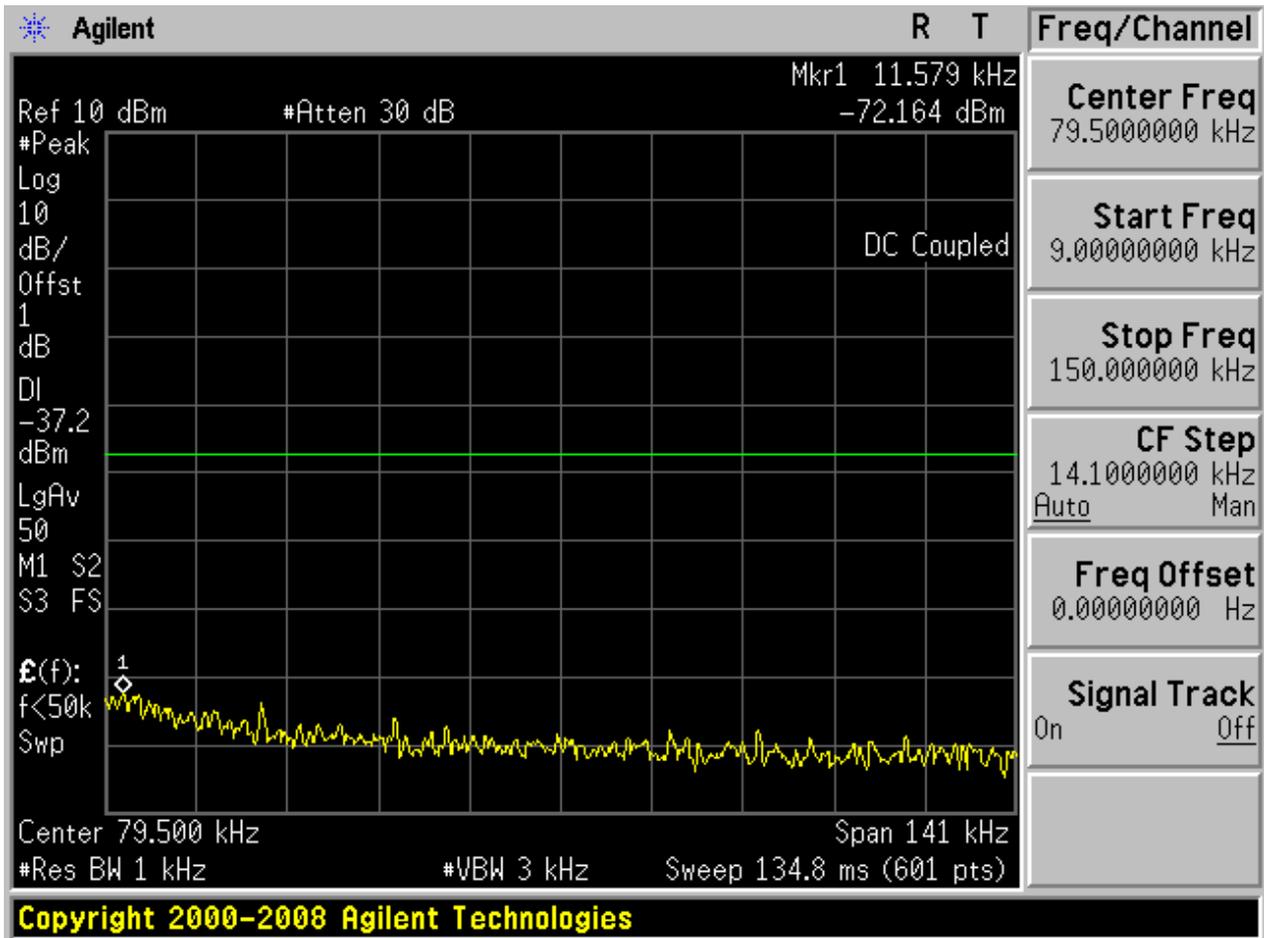
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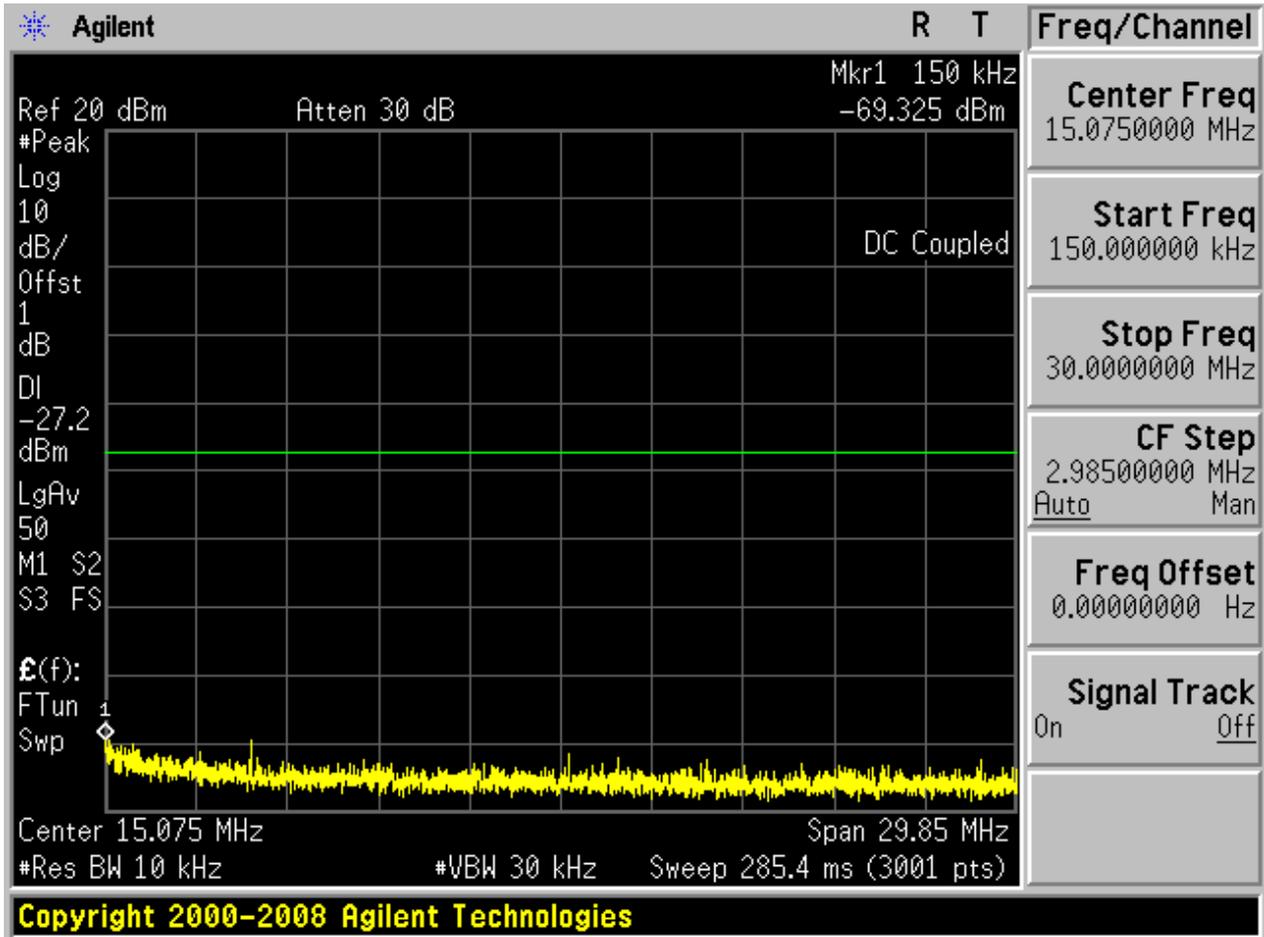
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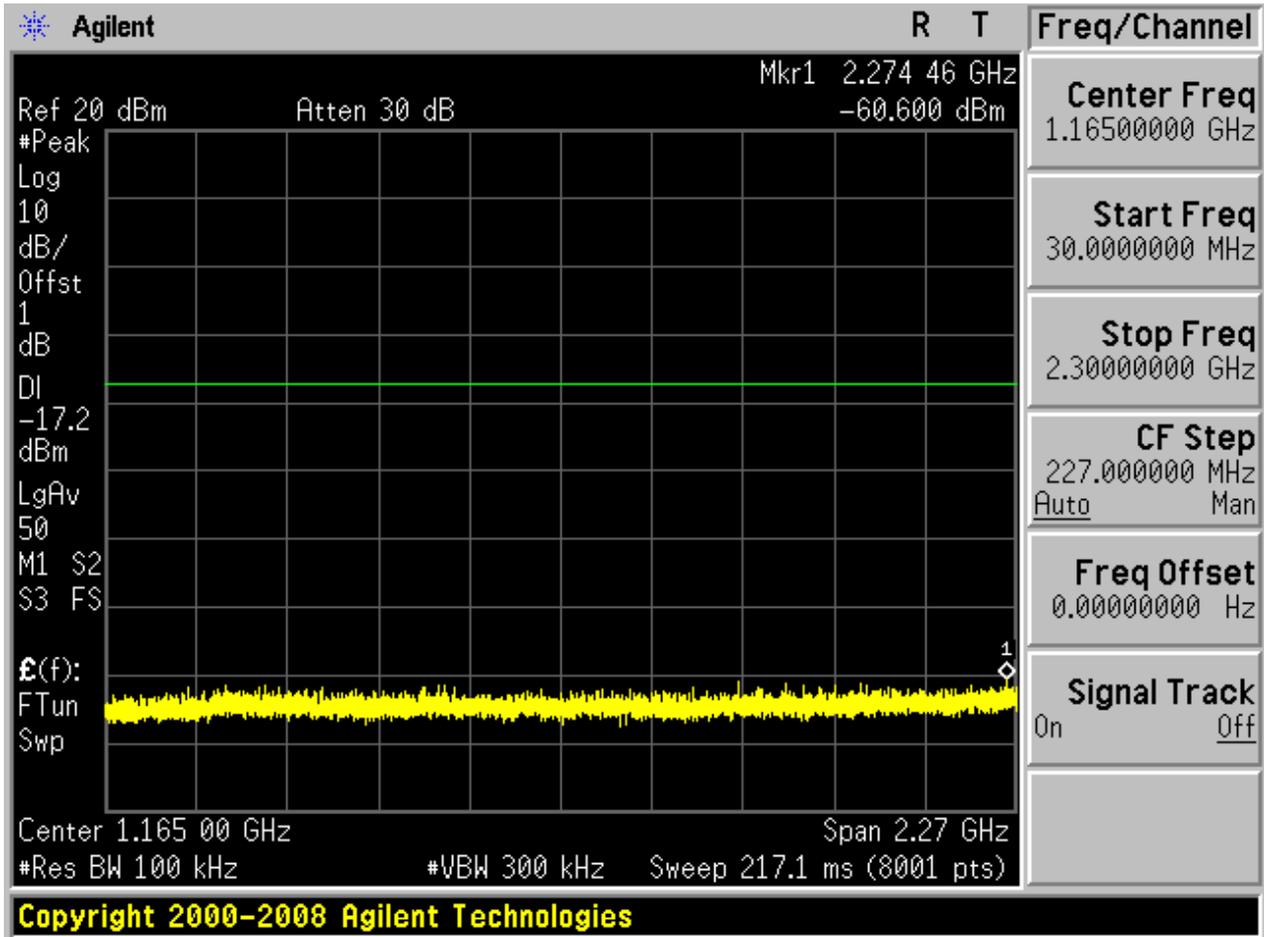


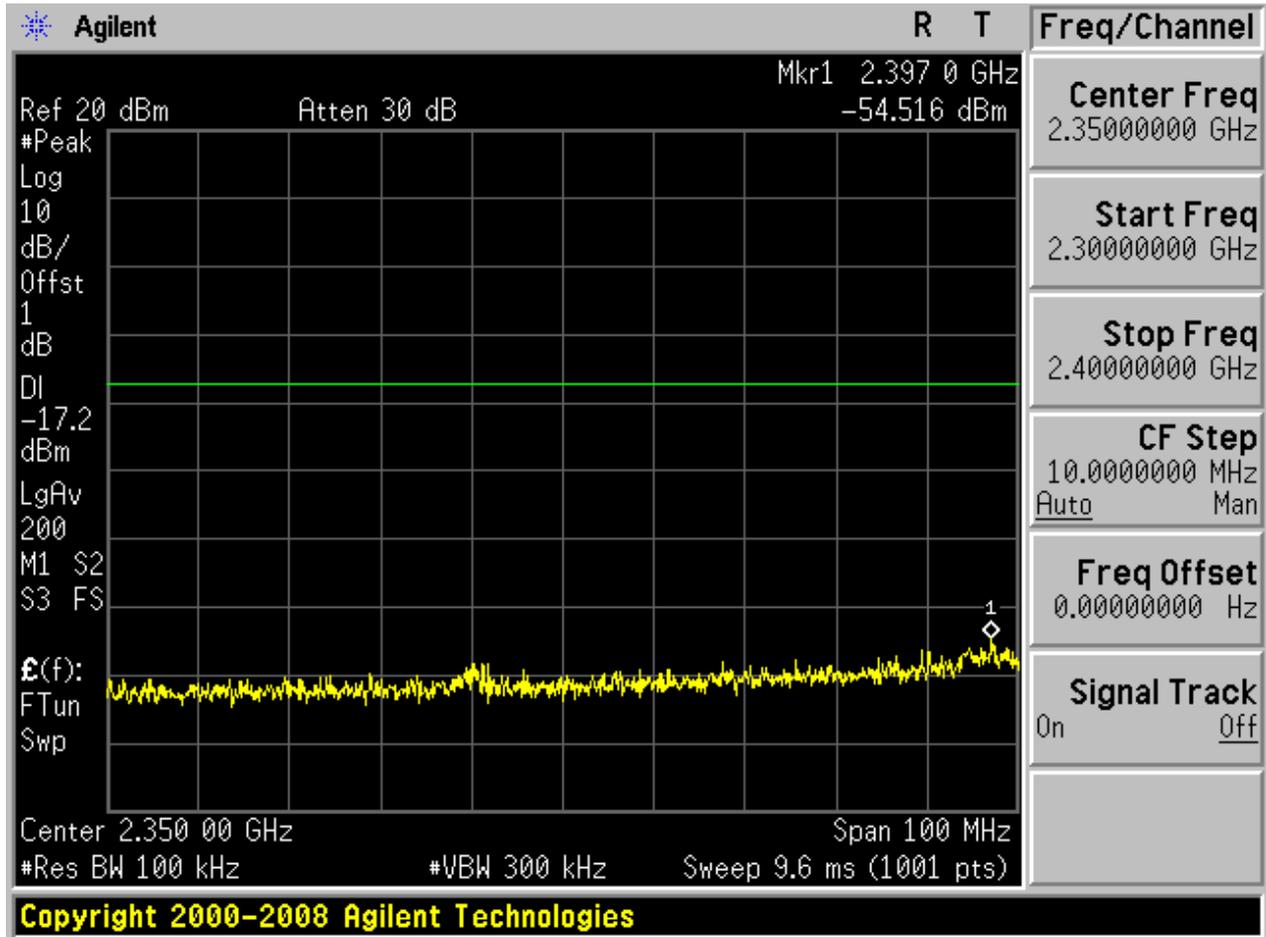


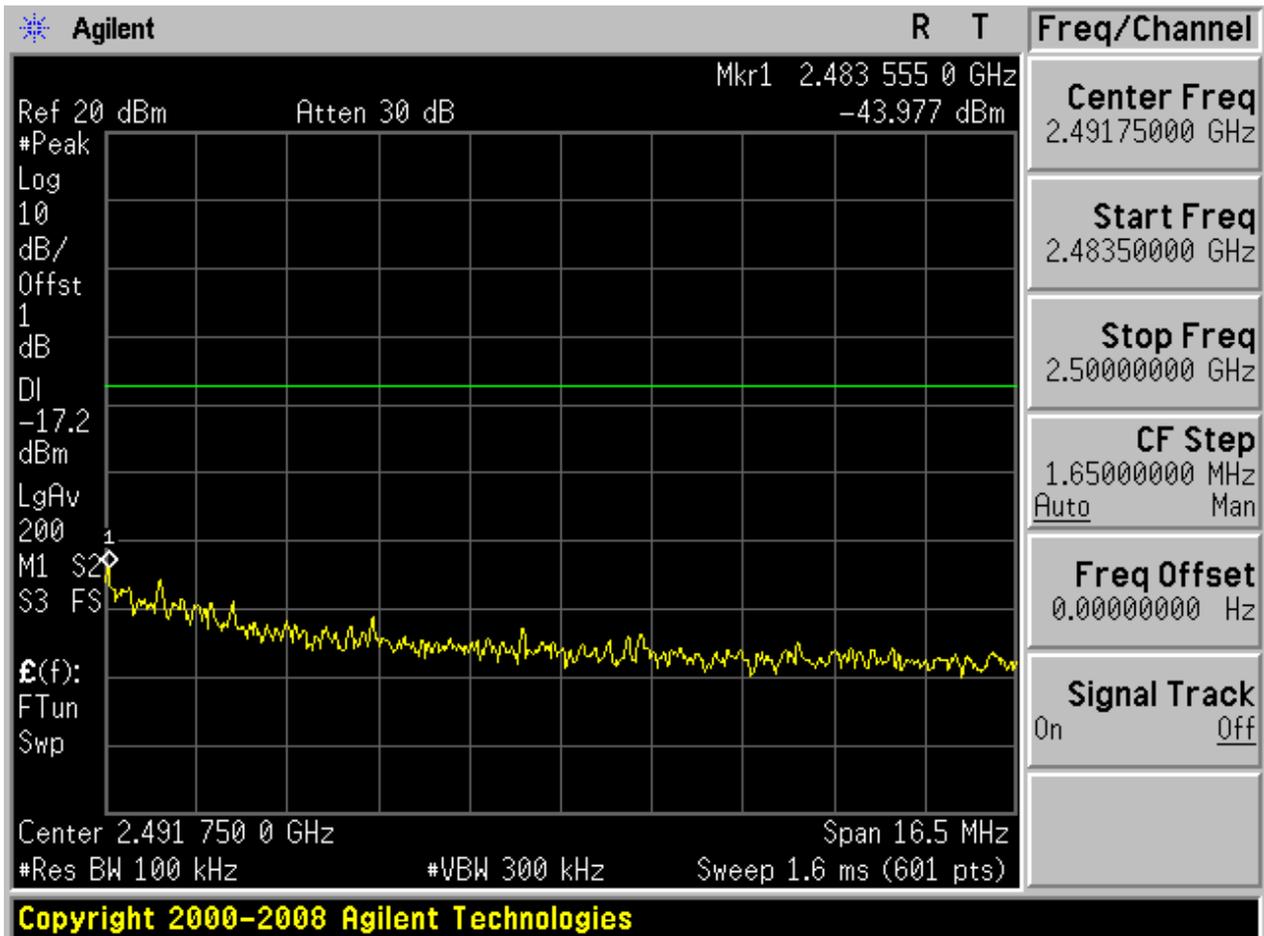
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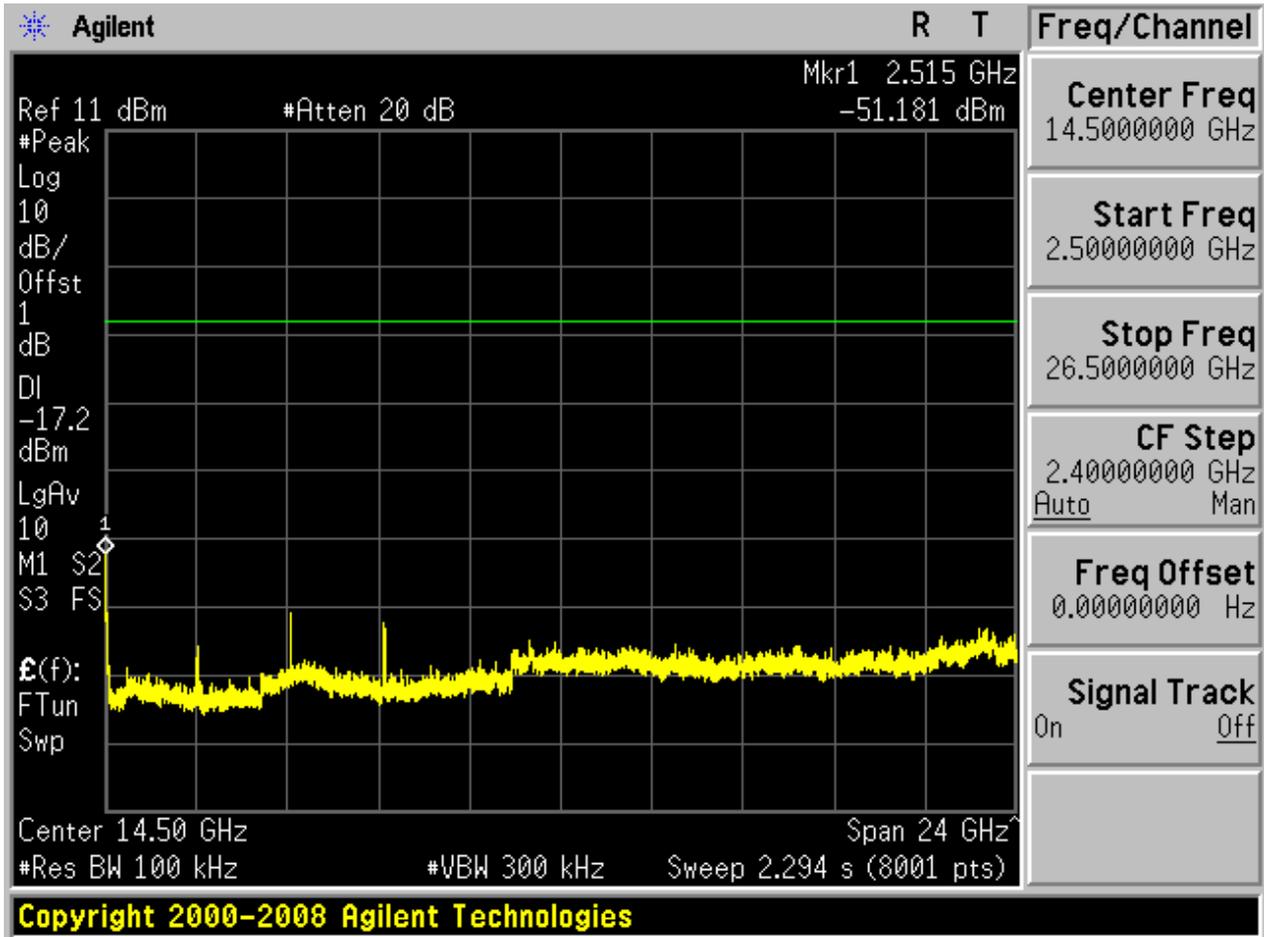








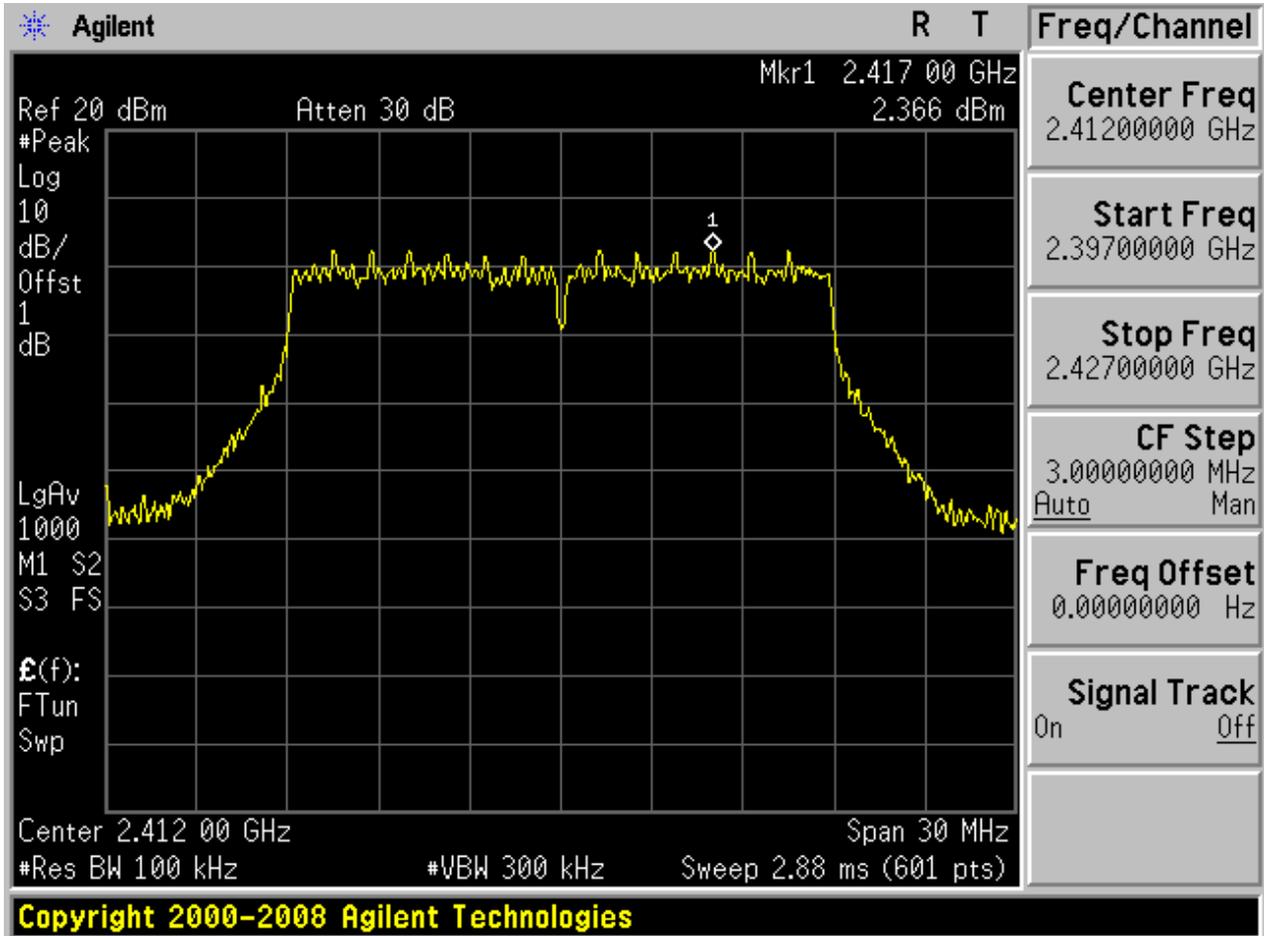






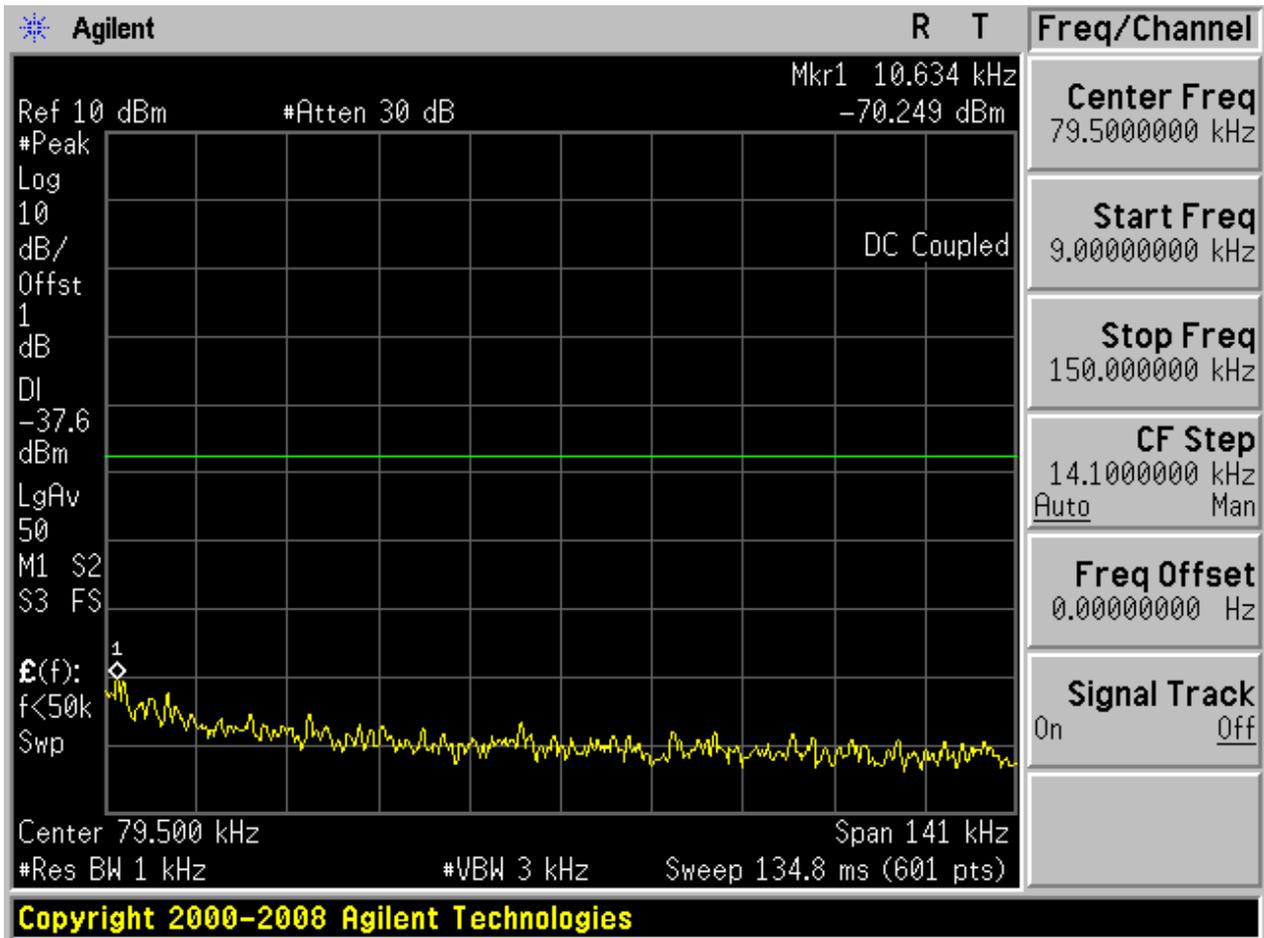
## 2.7 11N20\_L

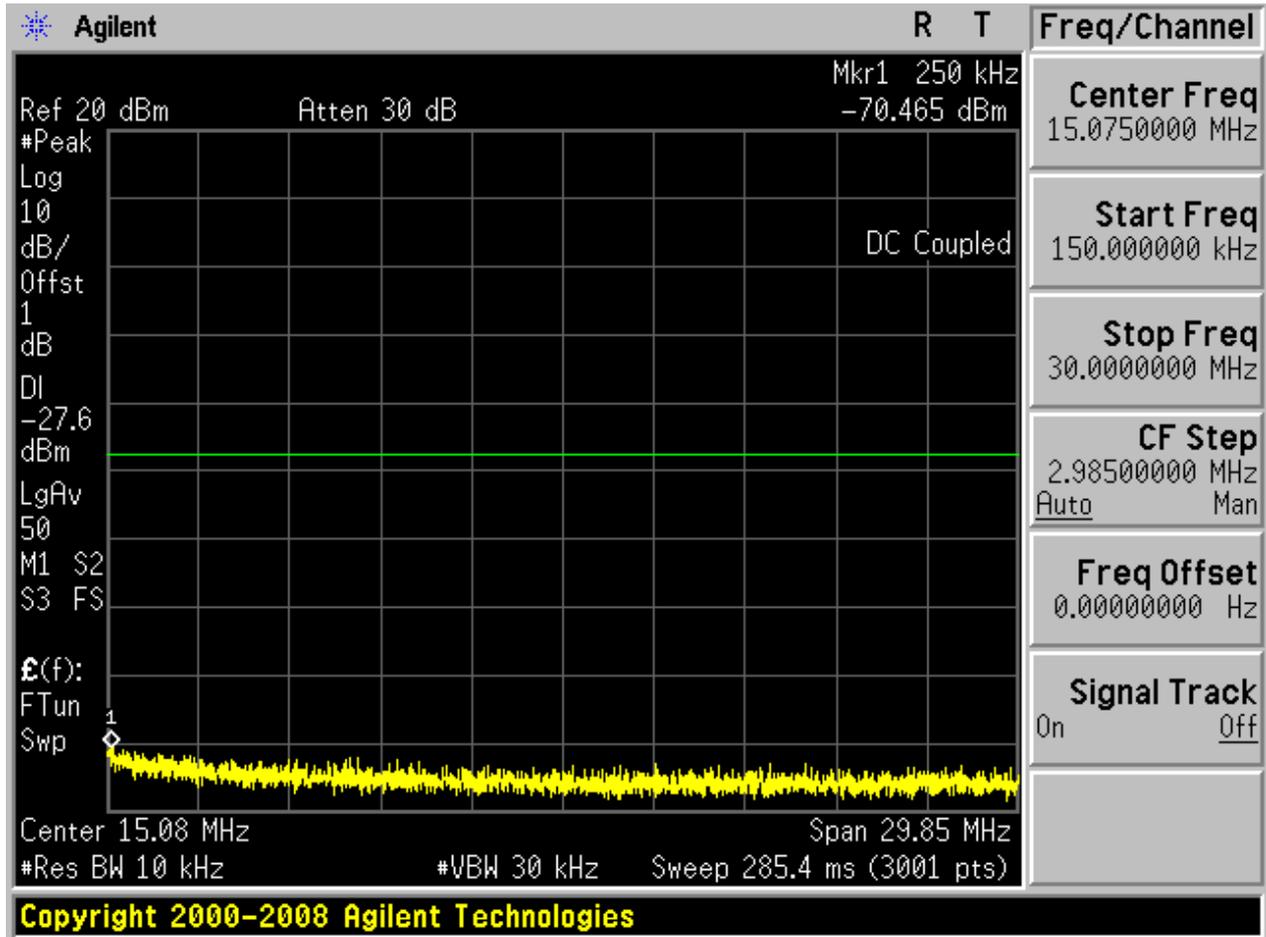
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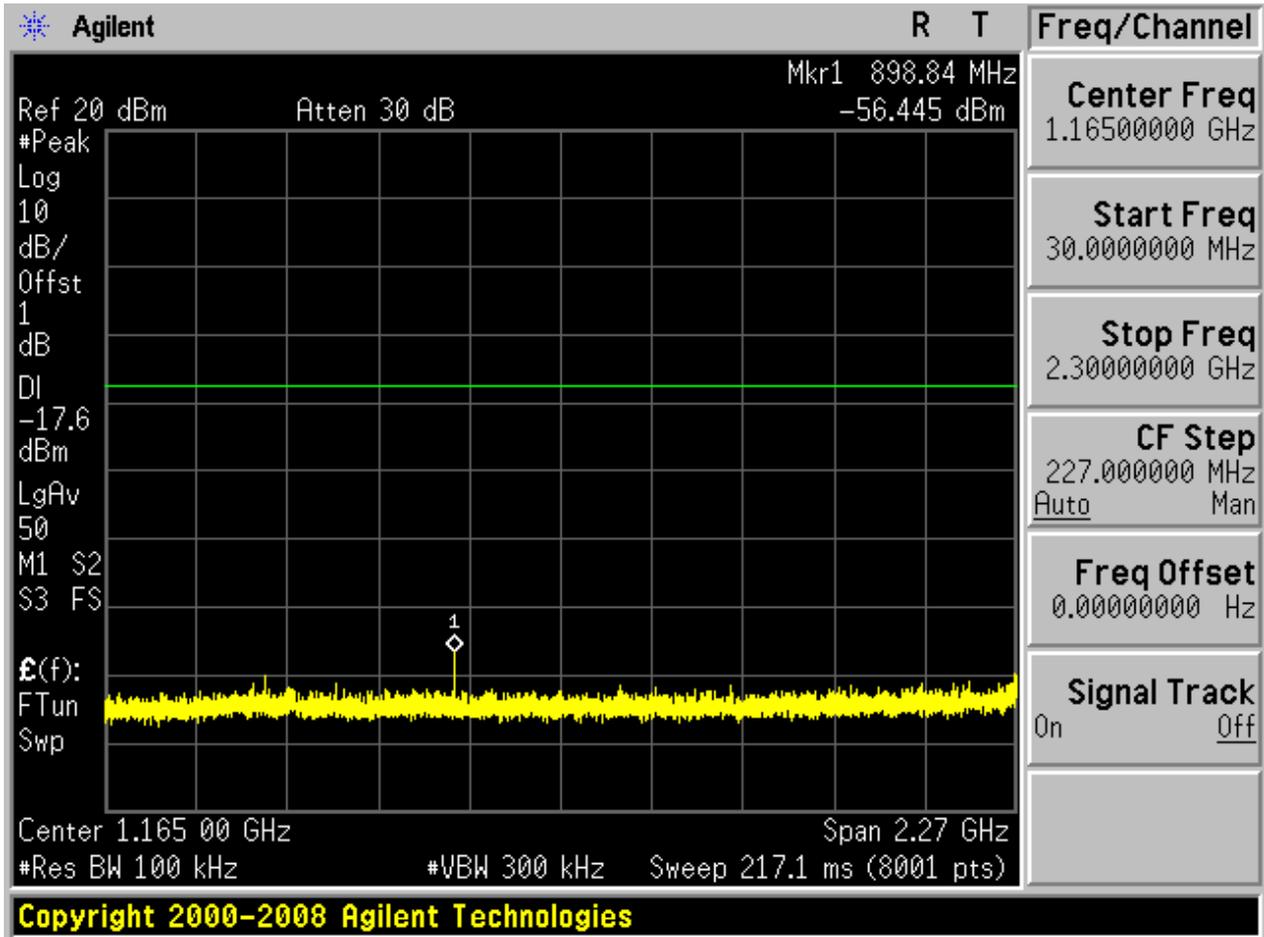


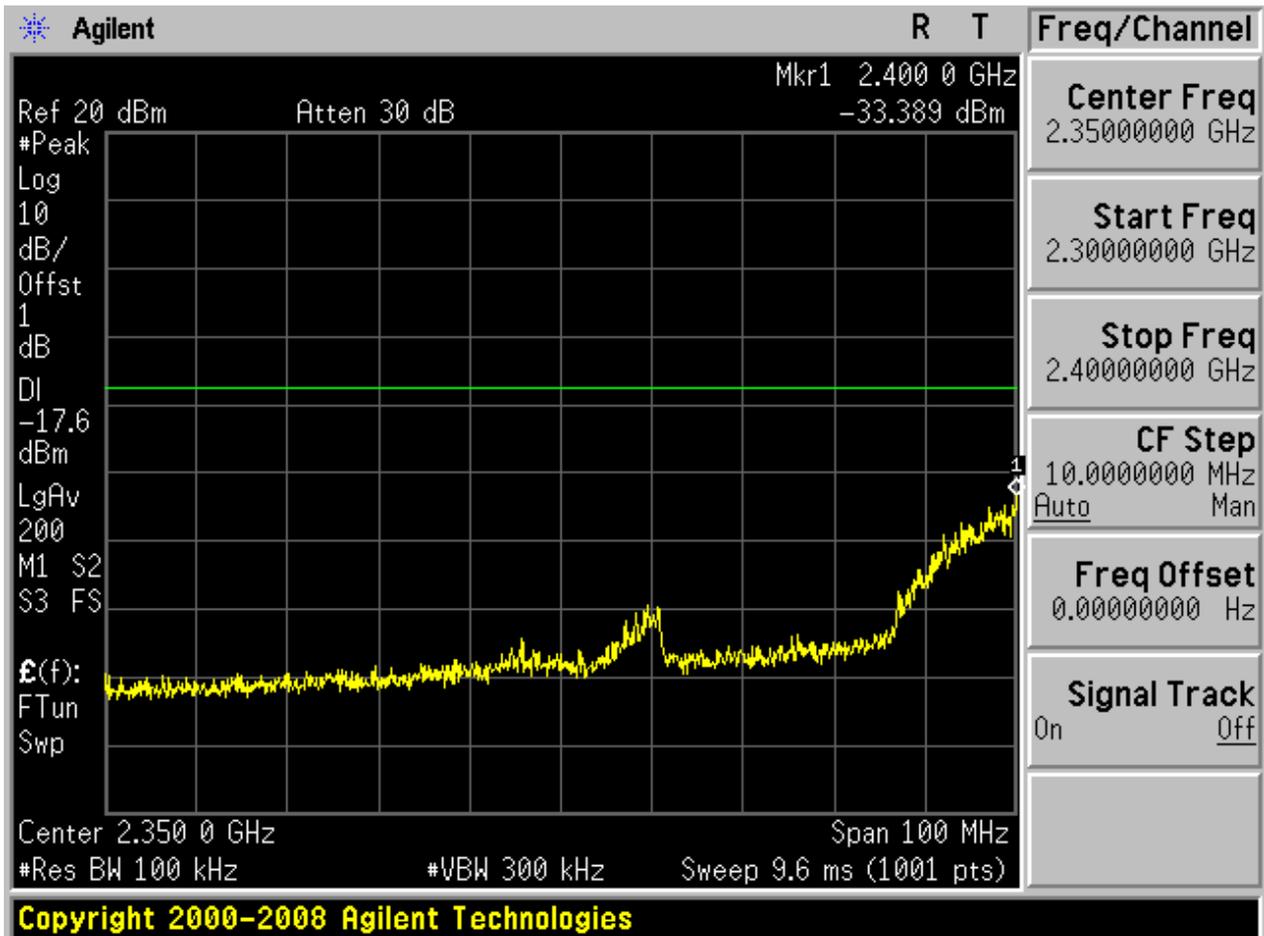


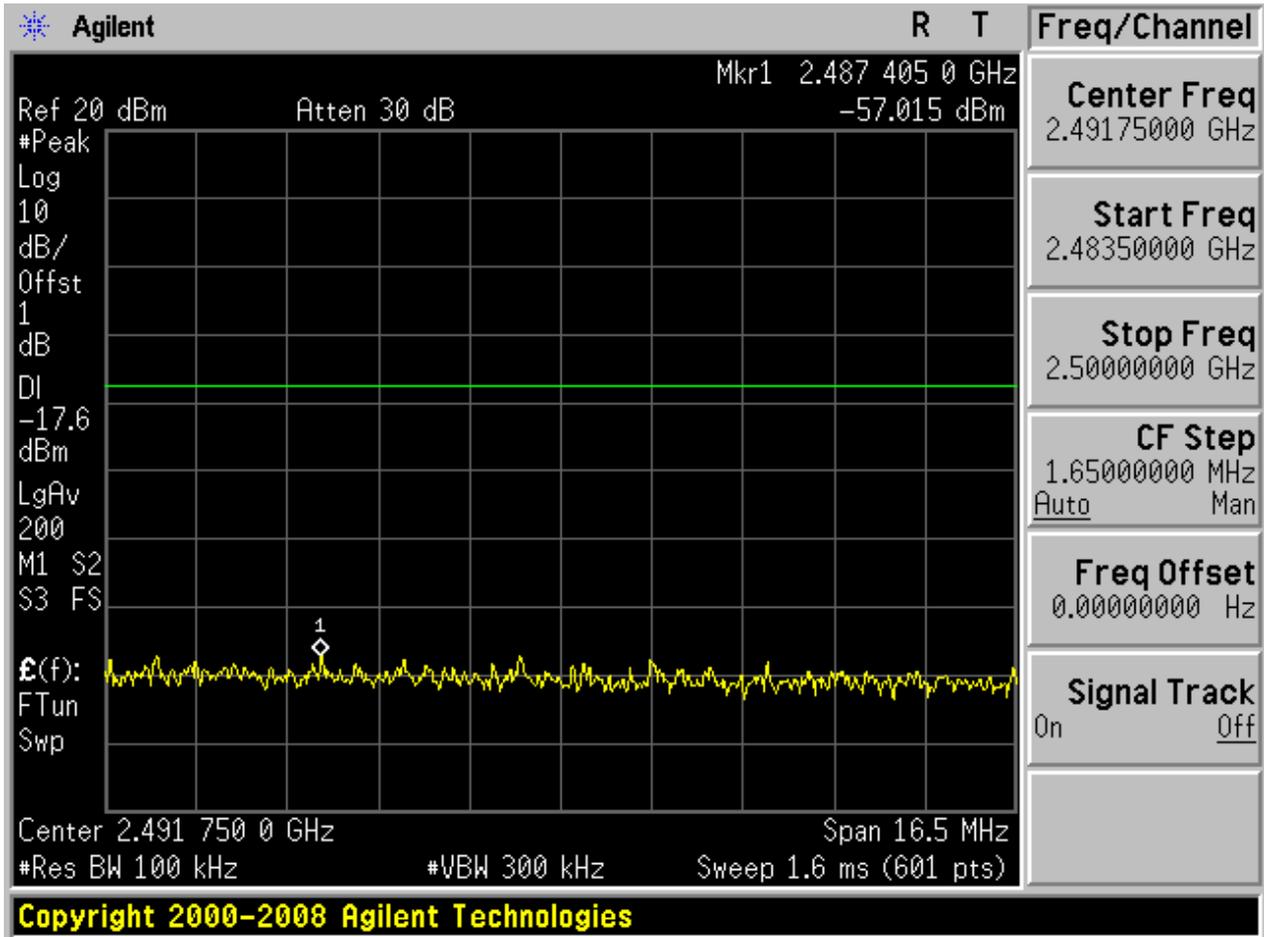
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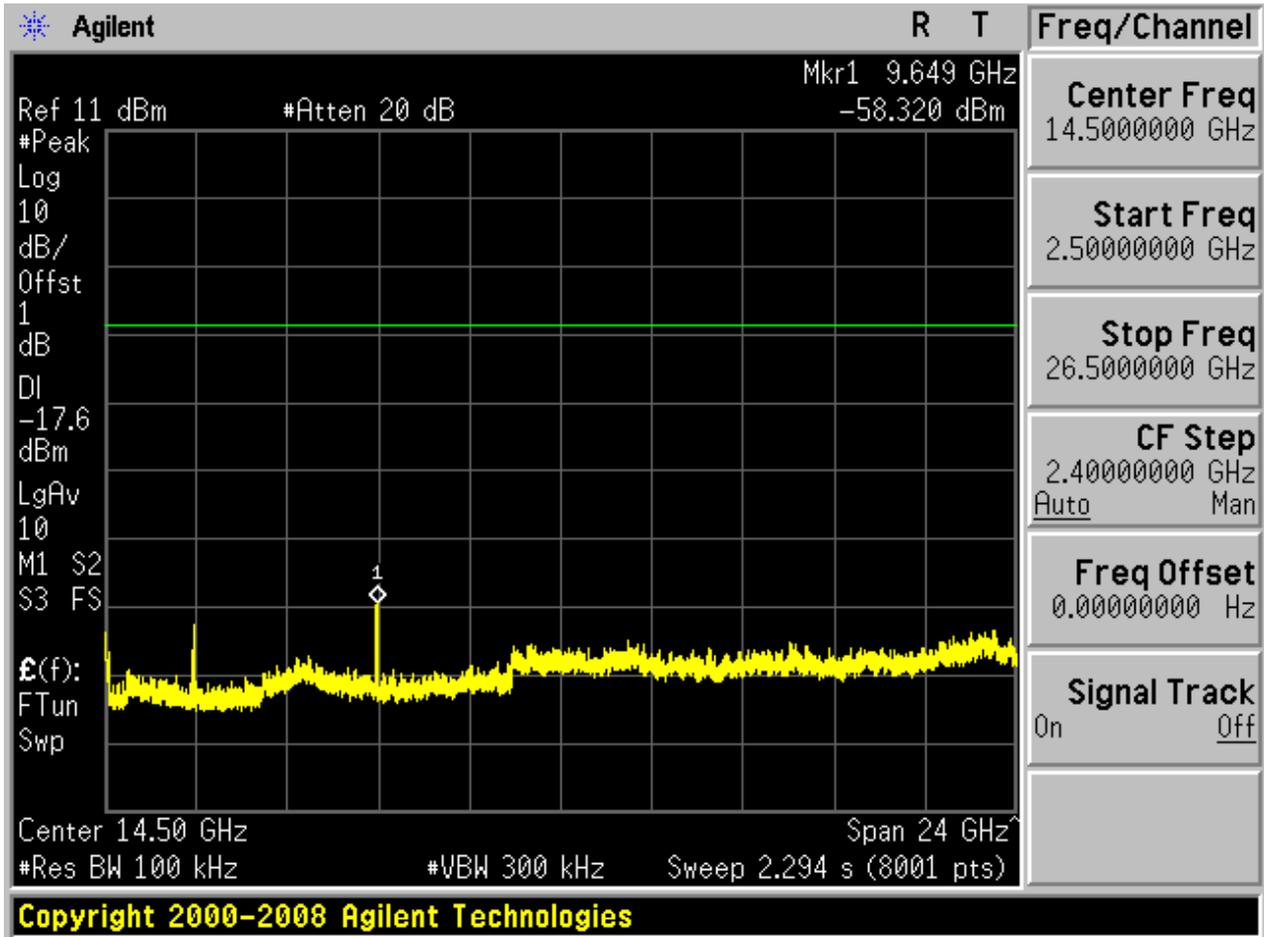








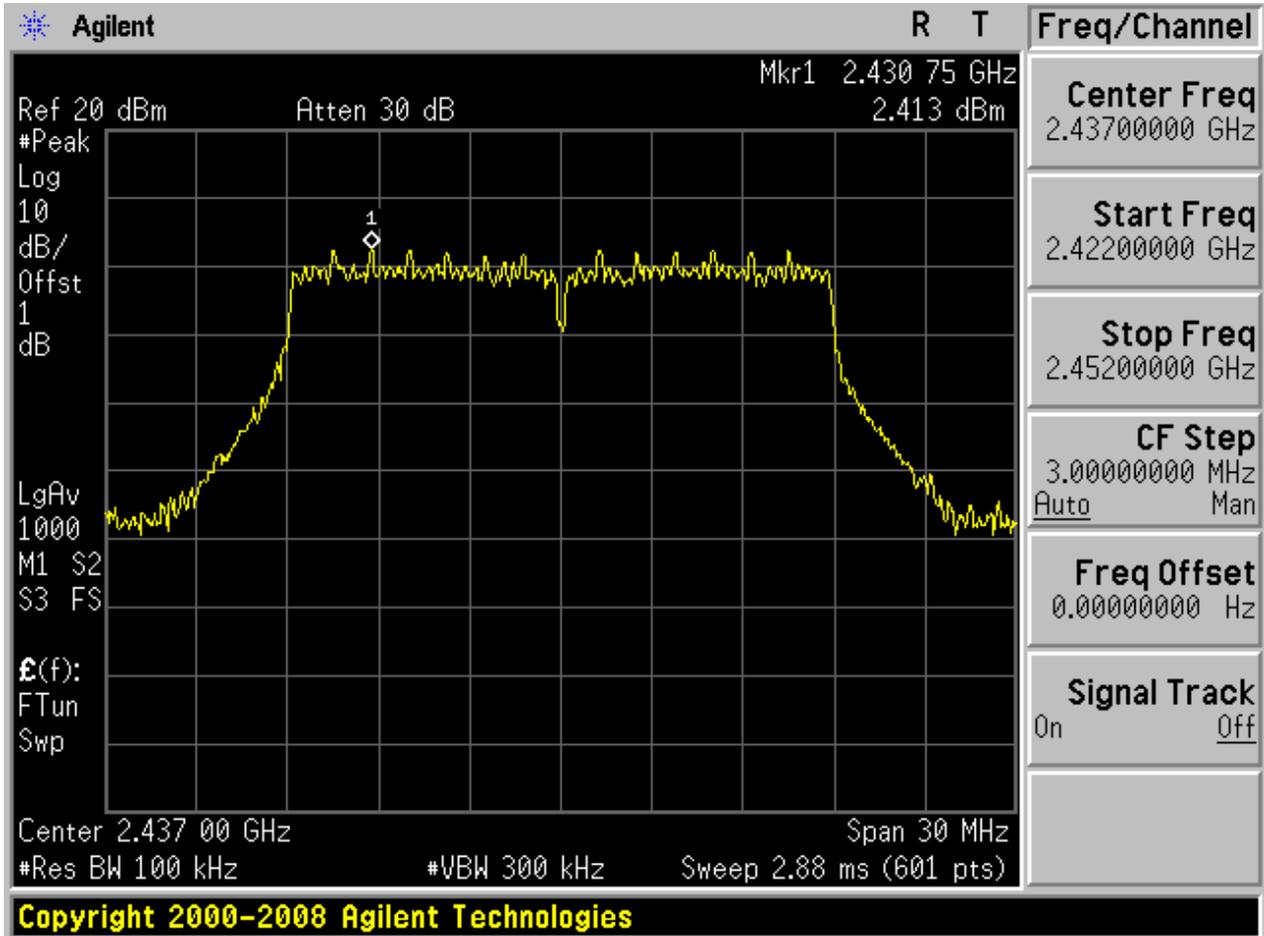






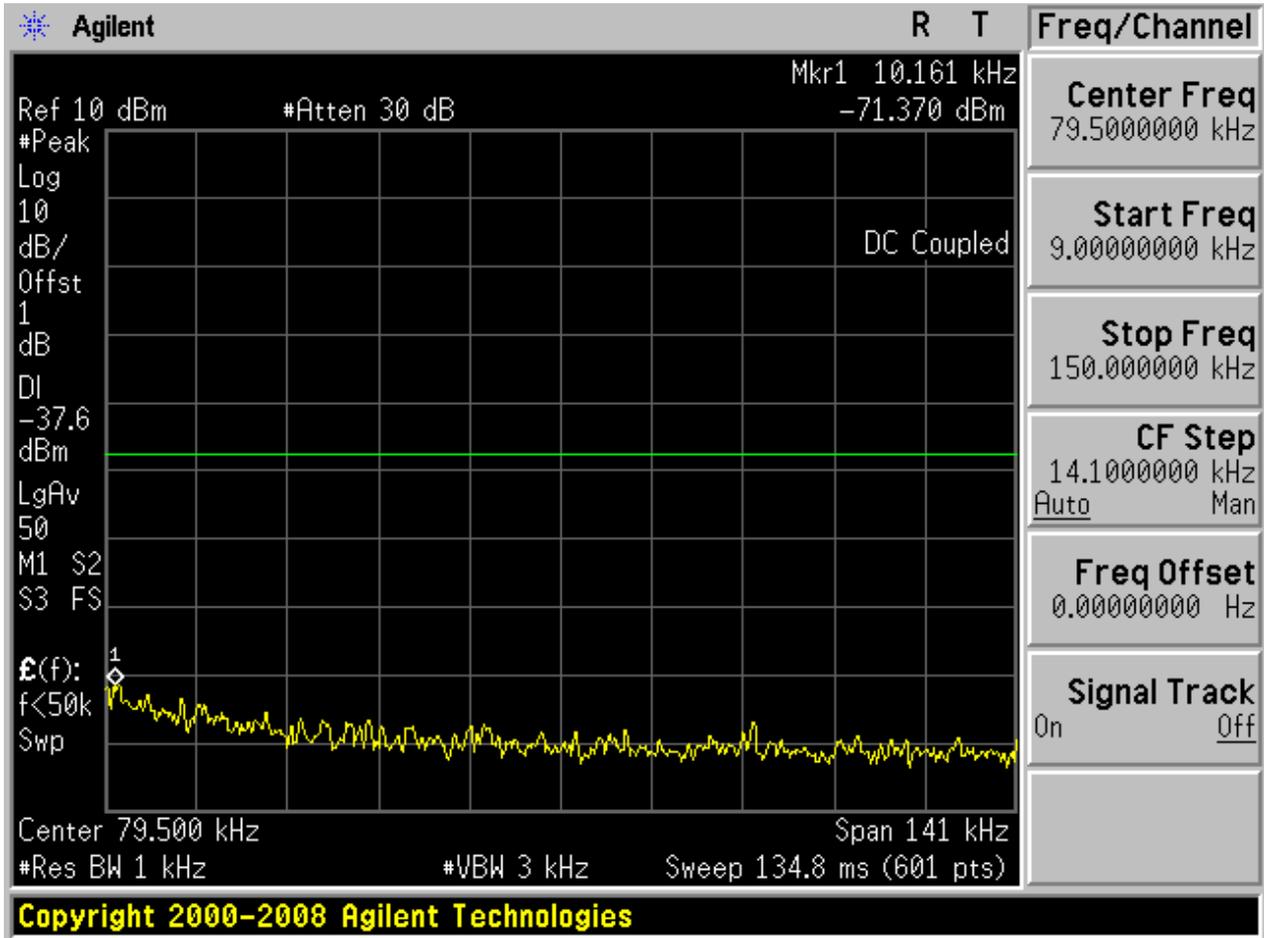
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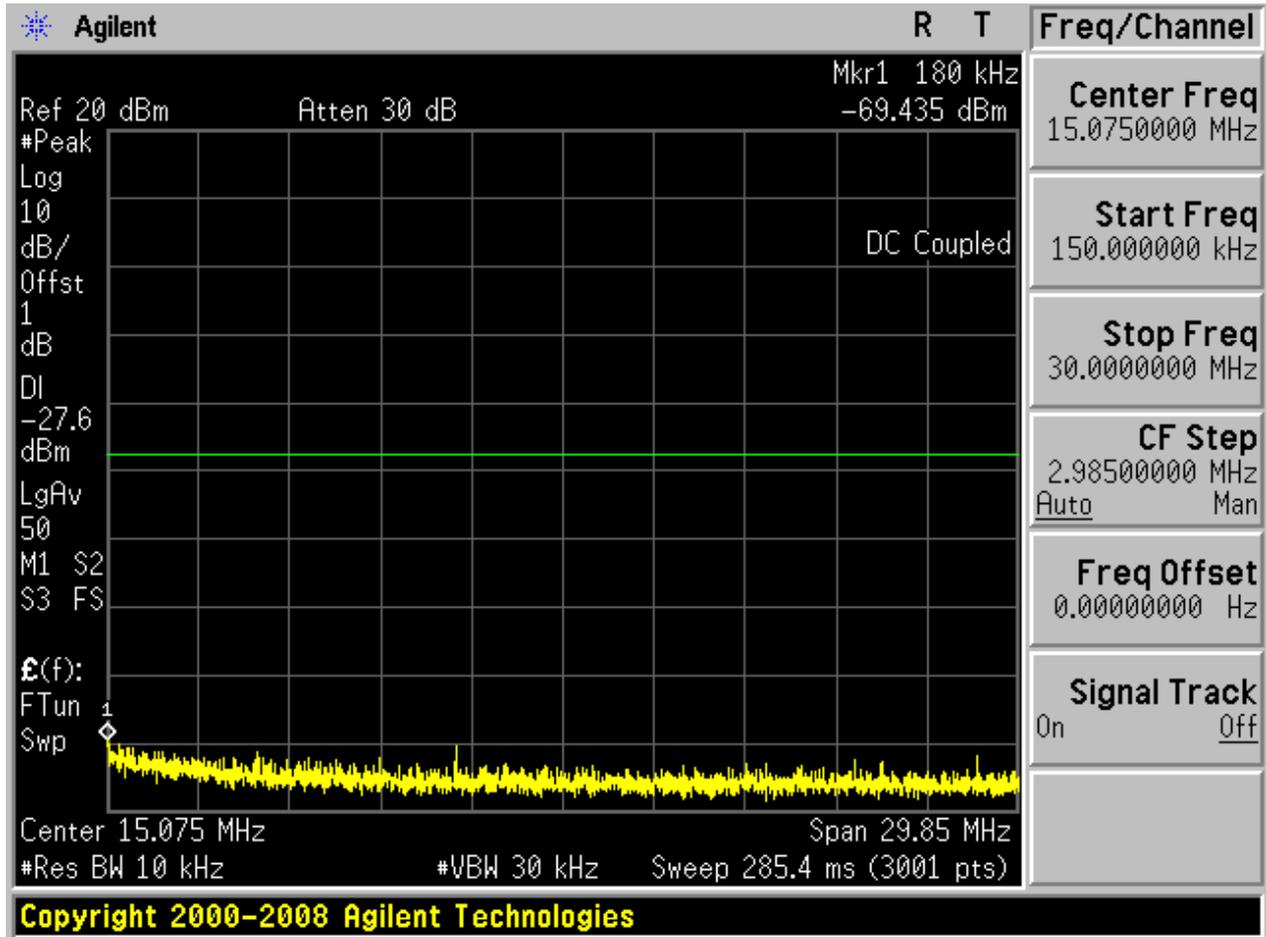
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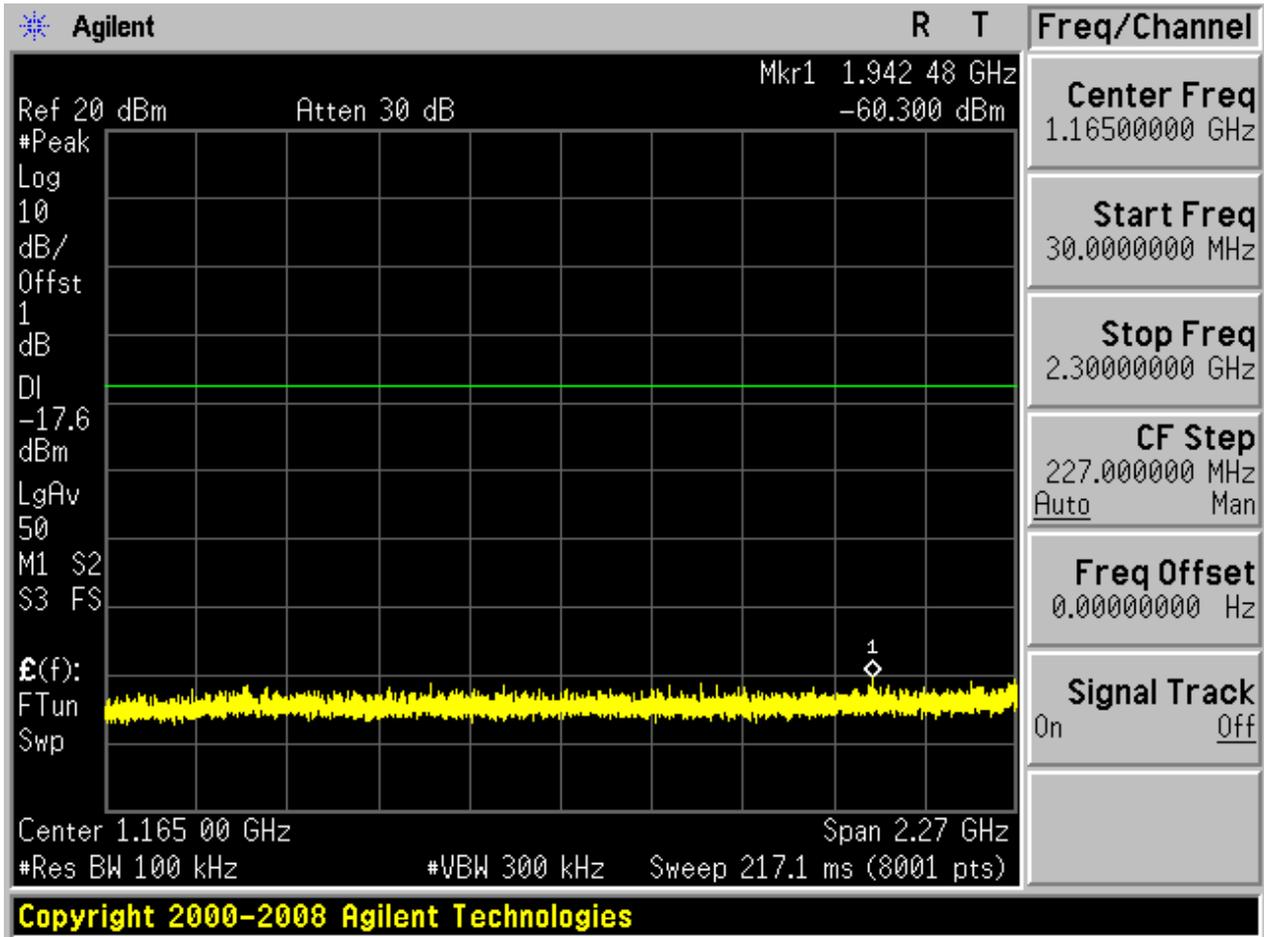


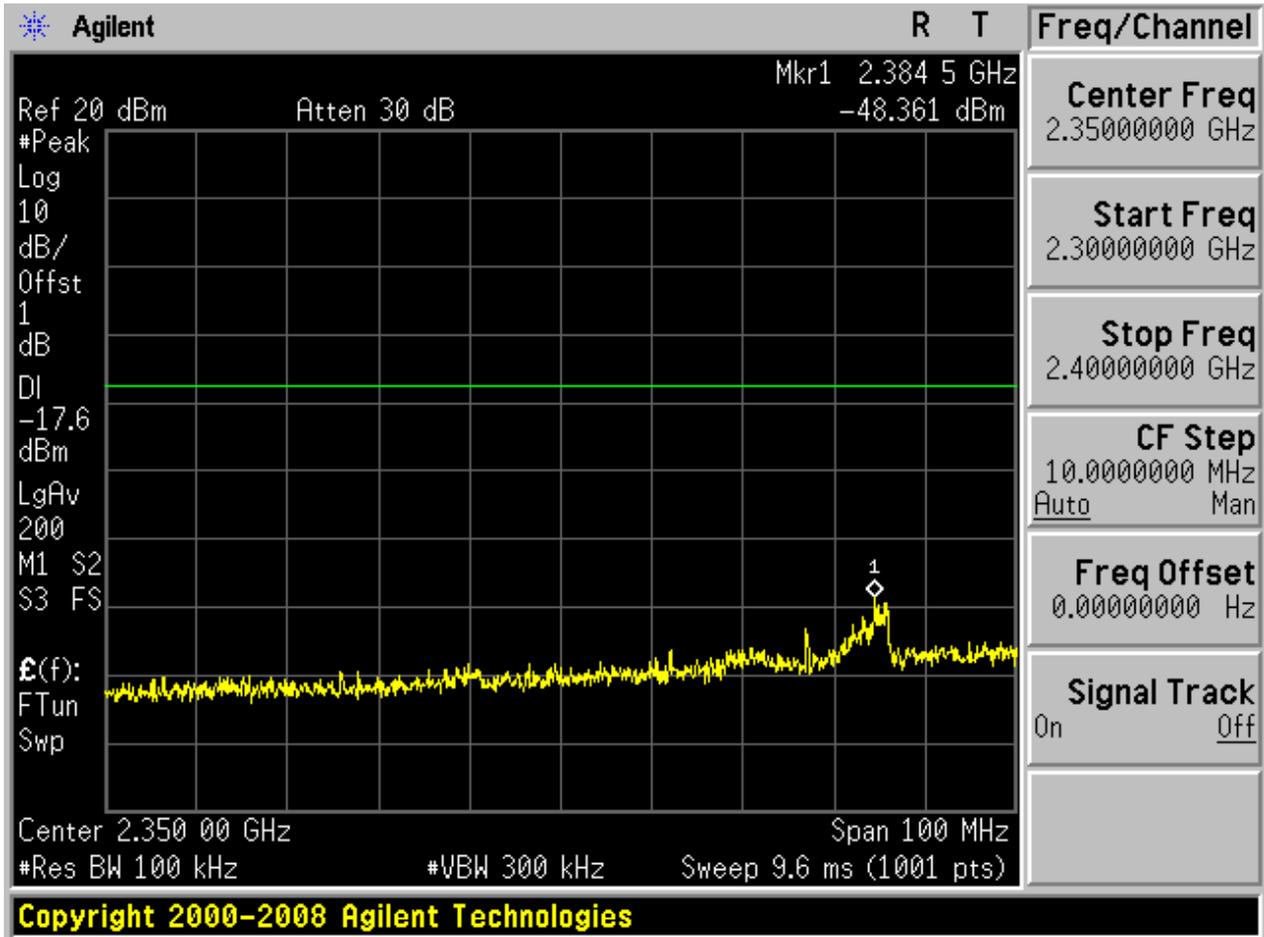


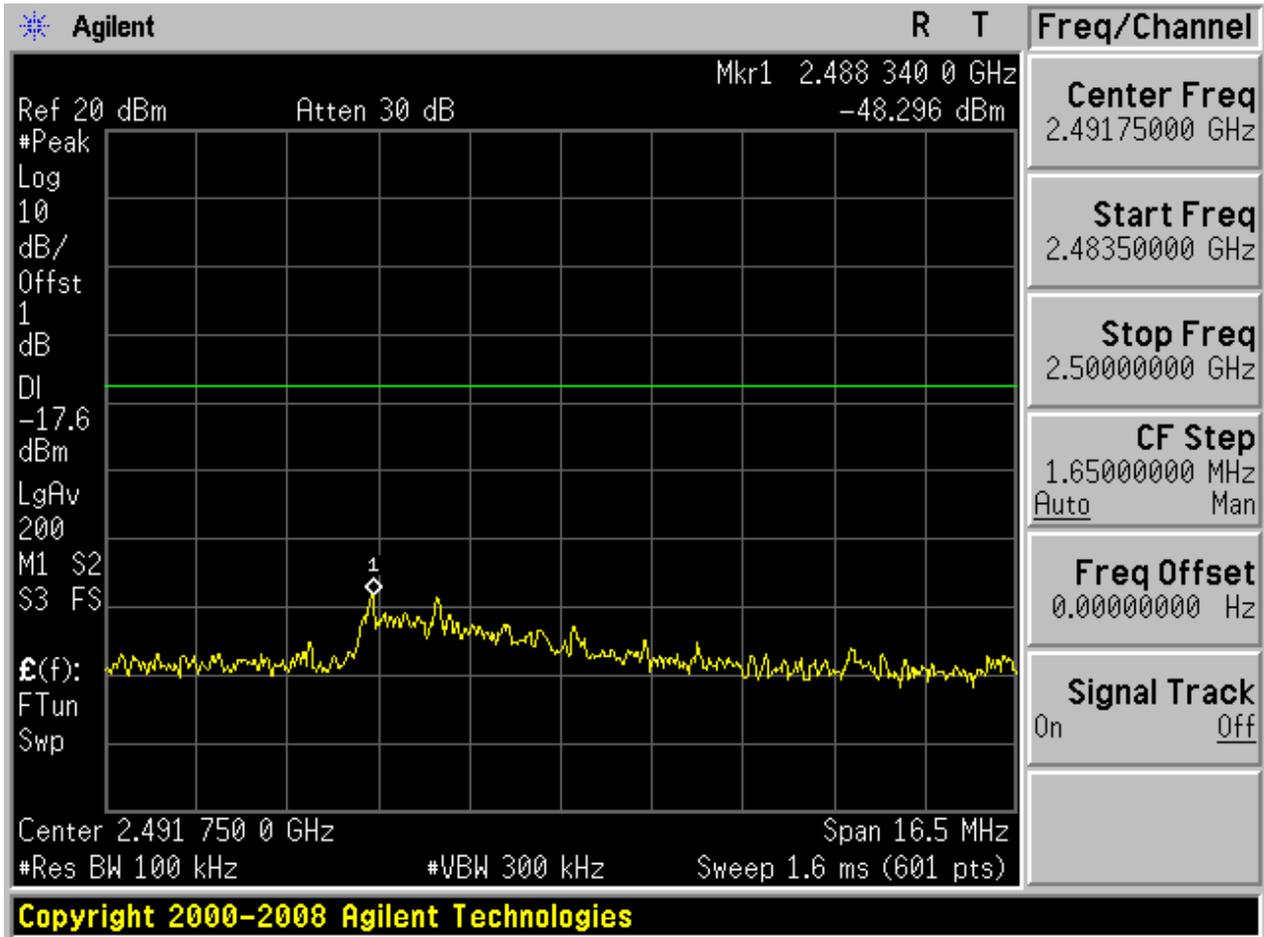
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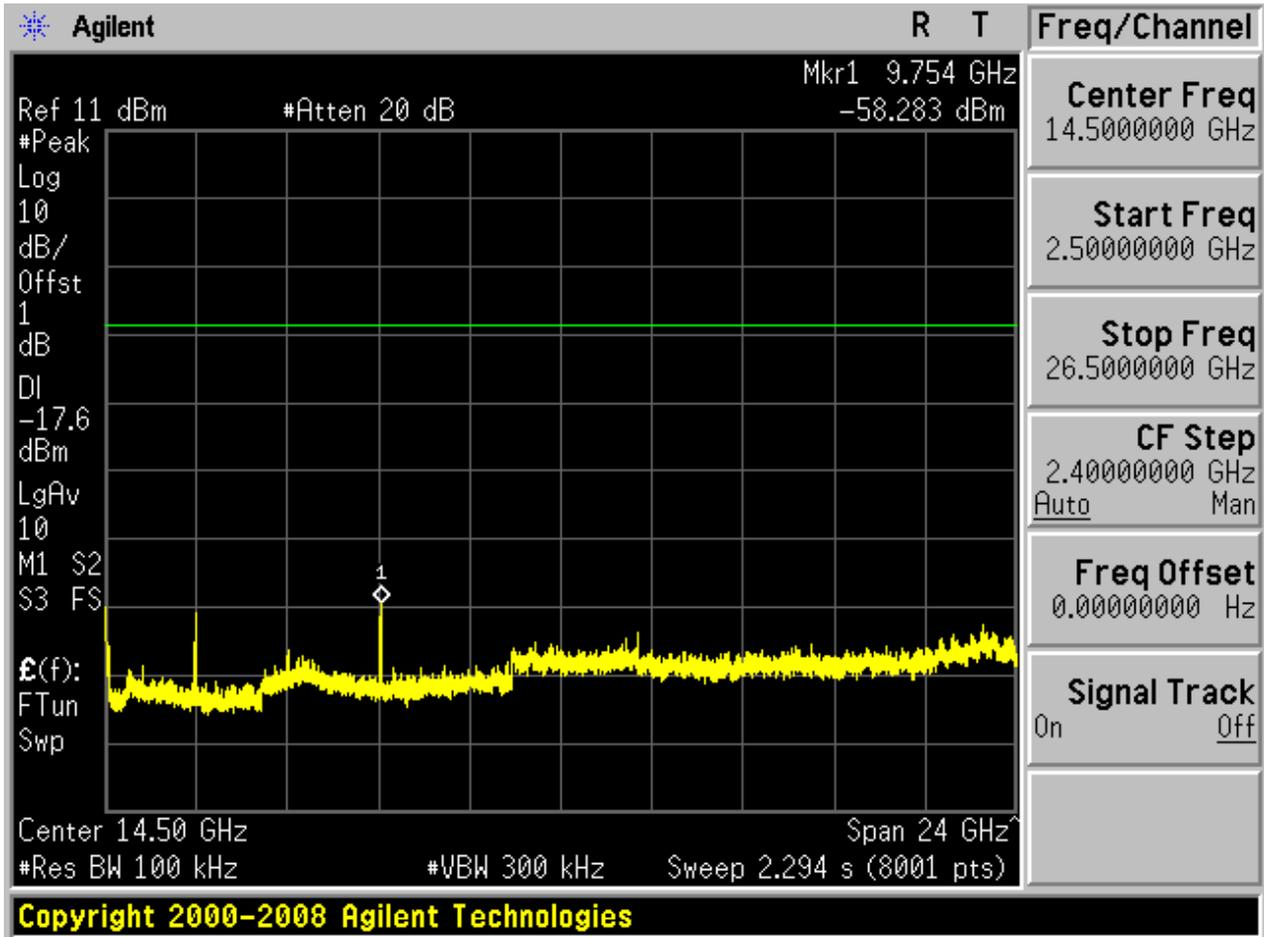








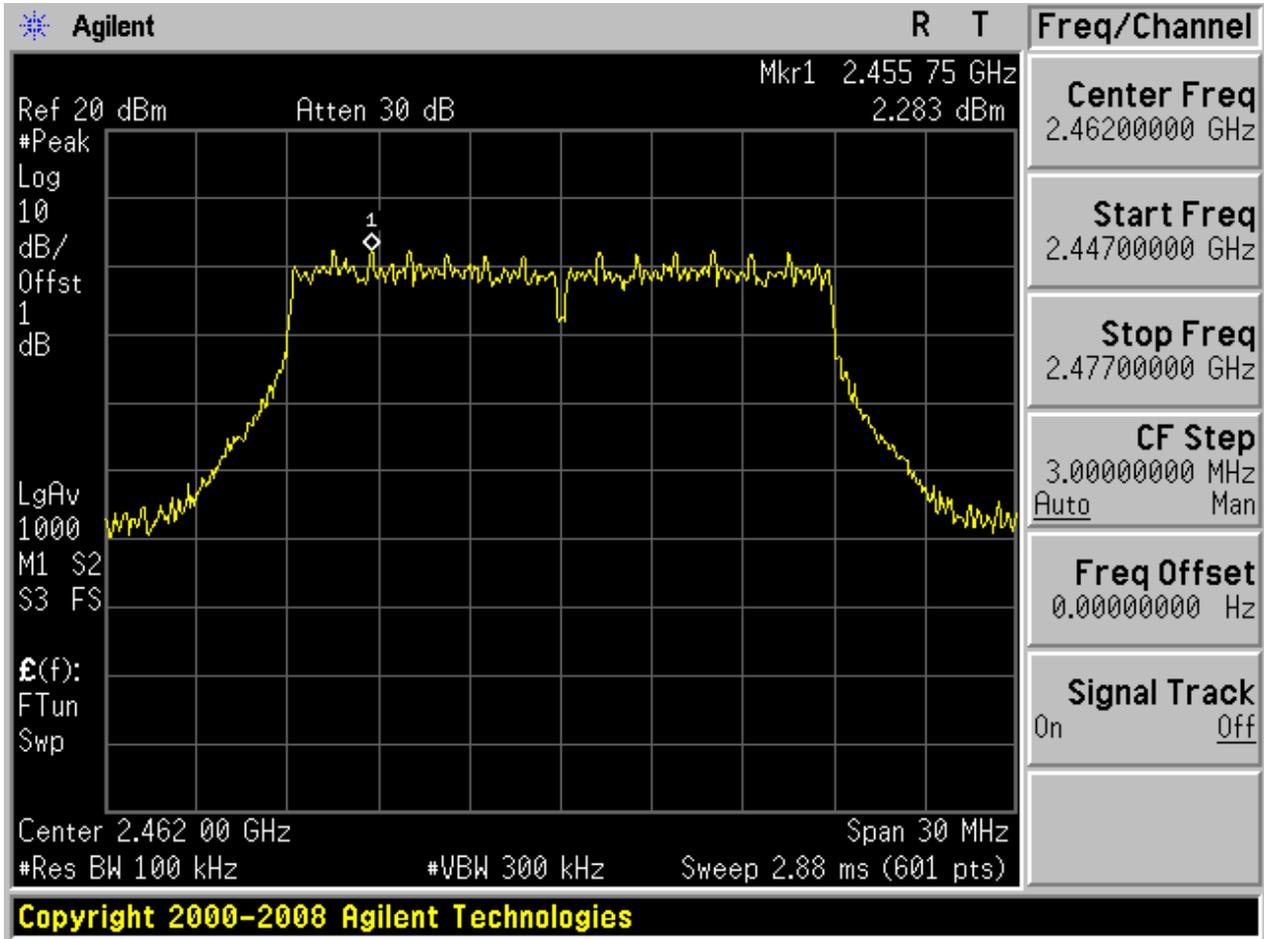






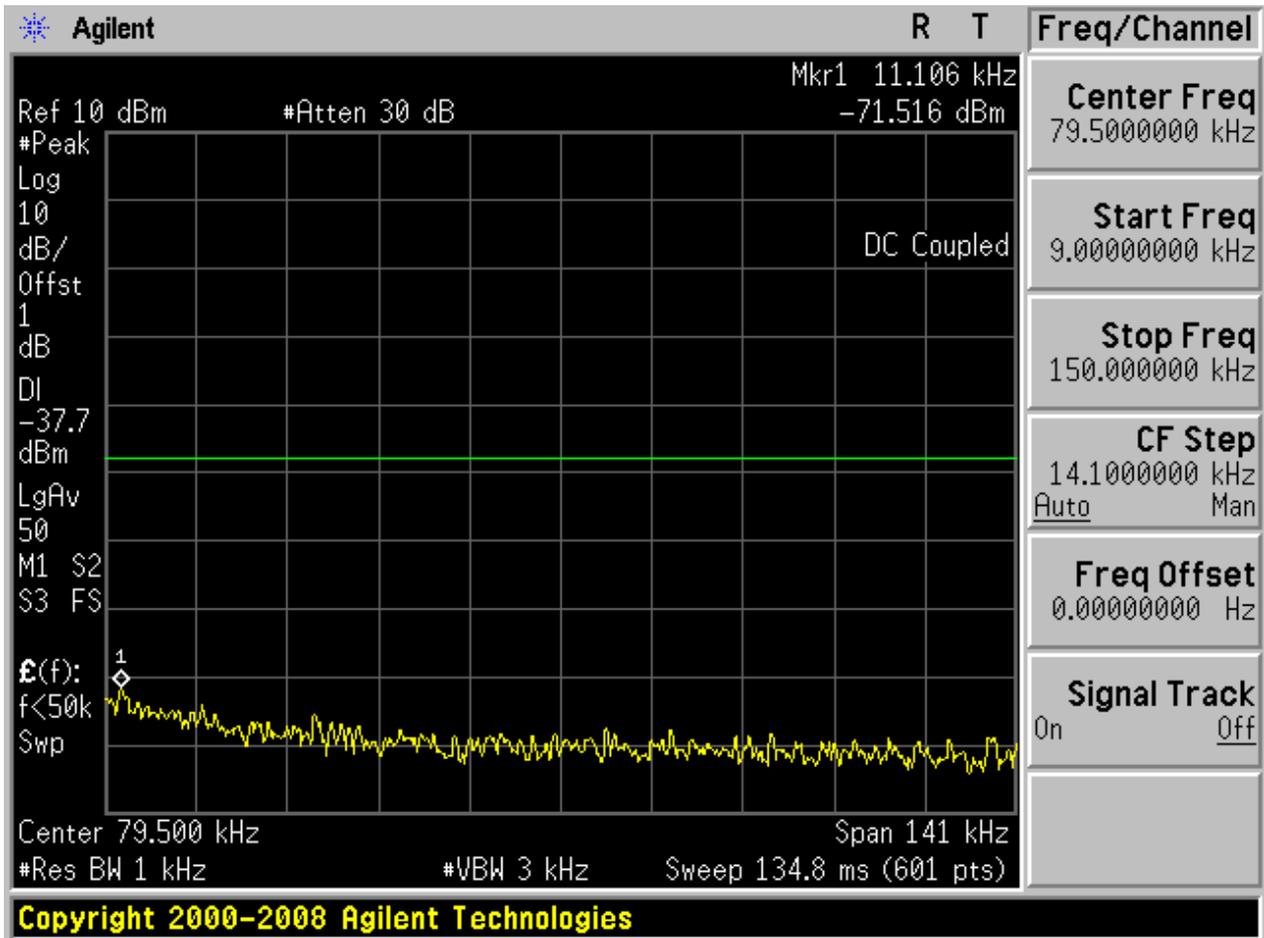
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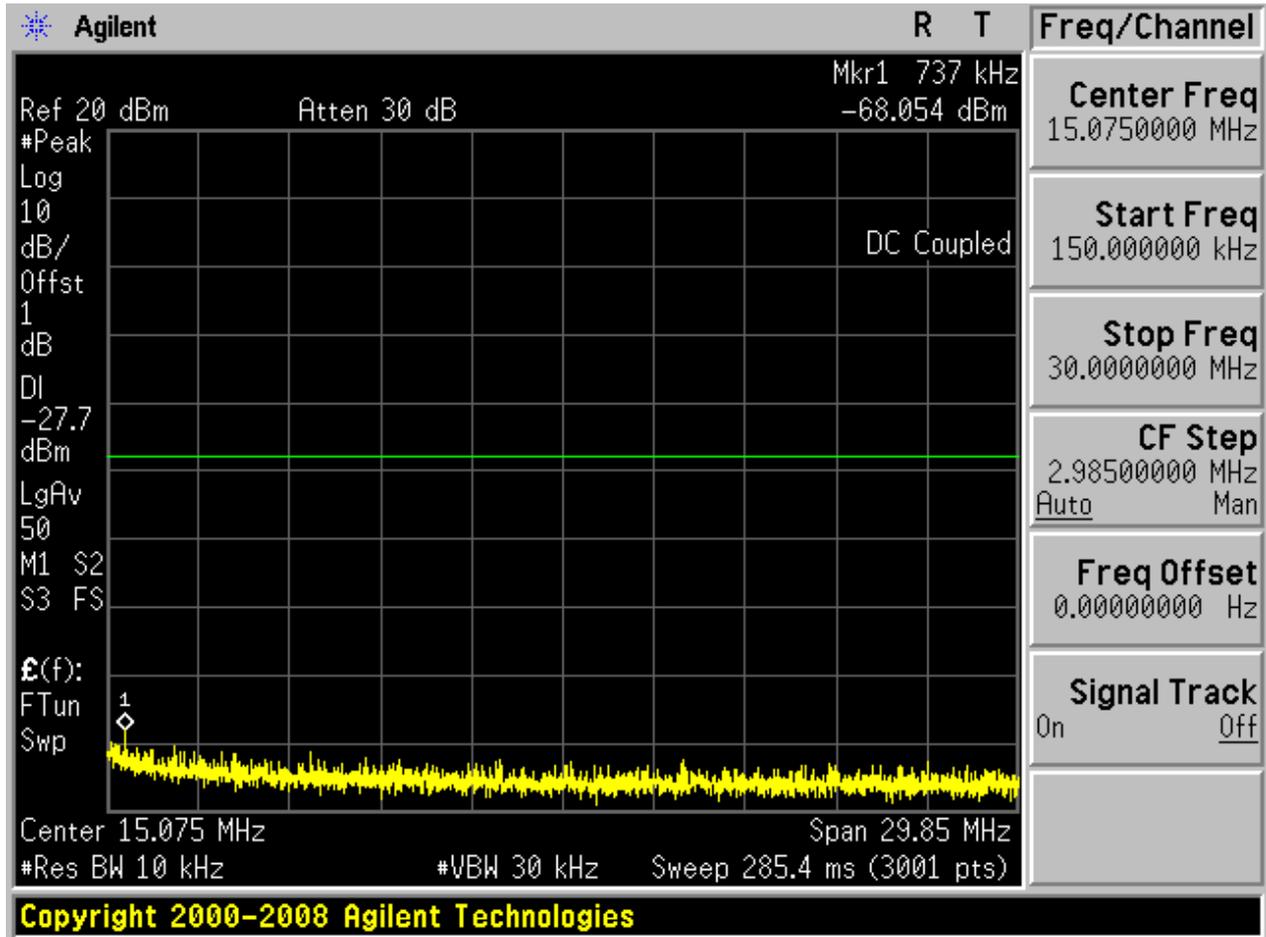
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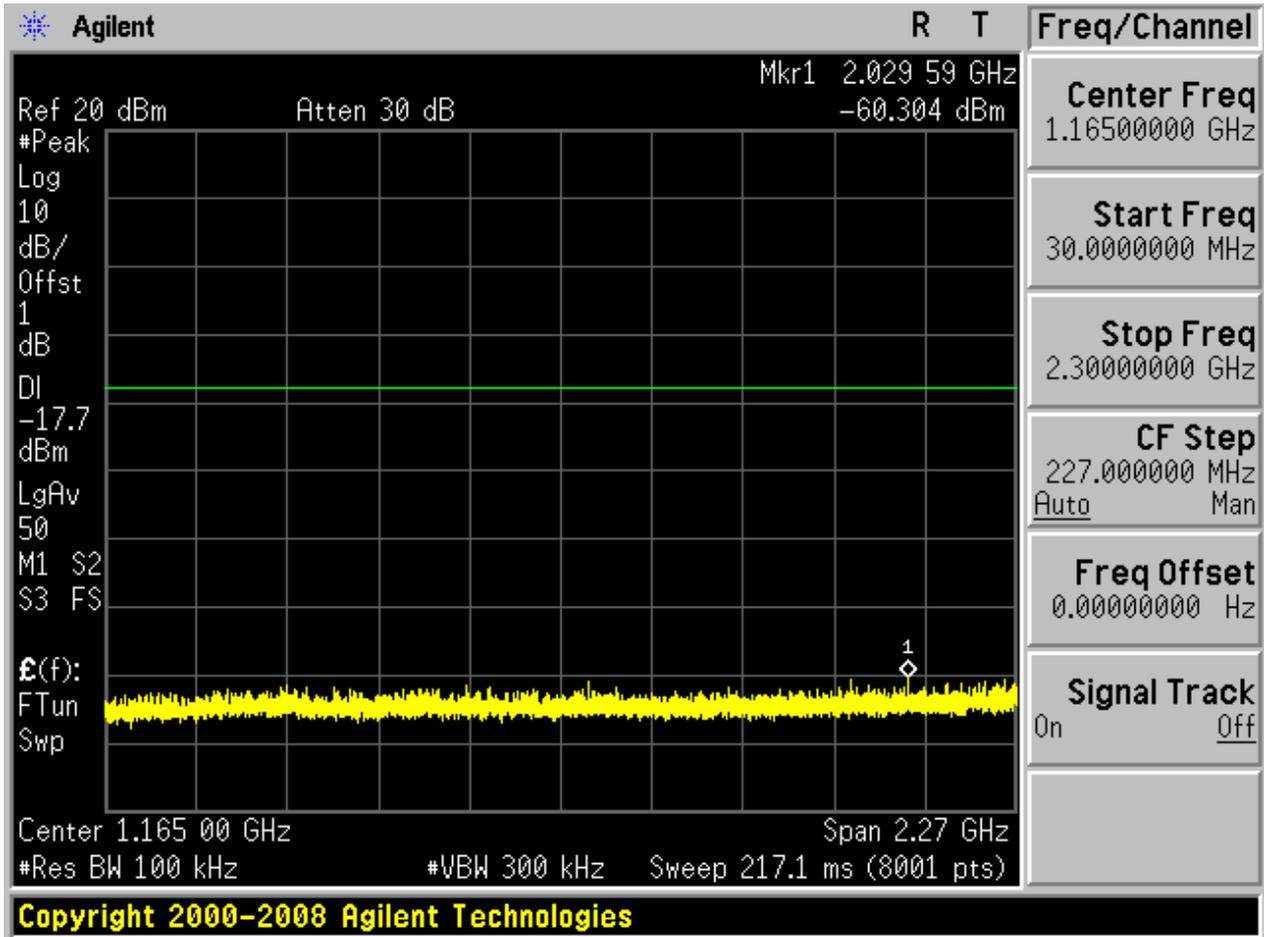


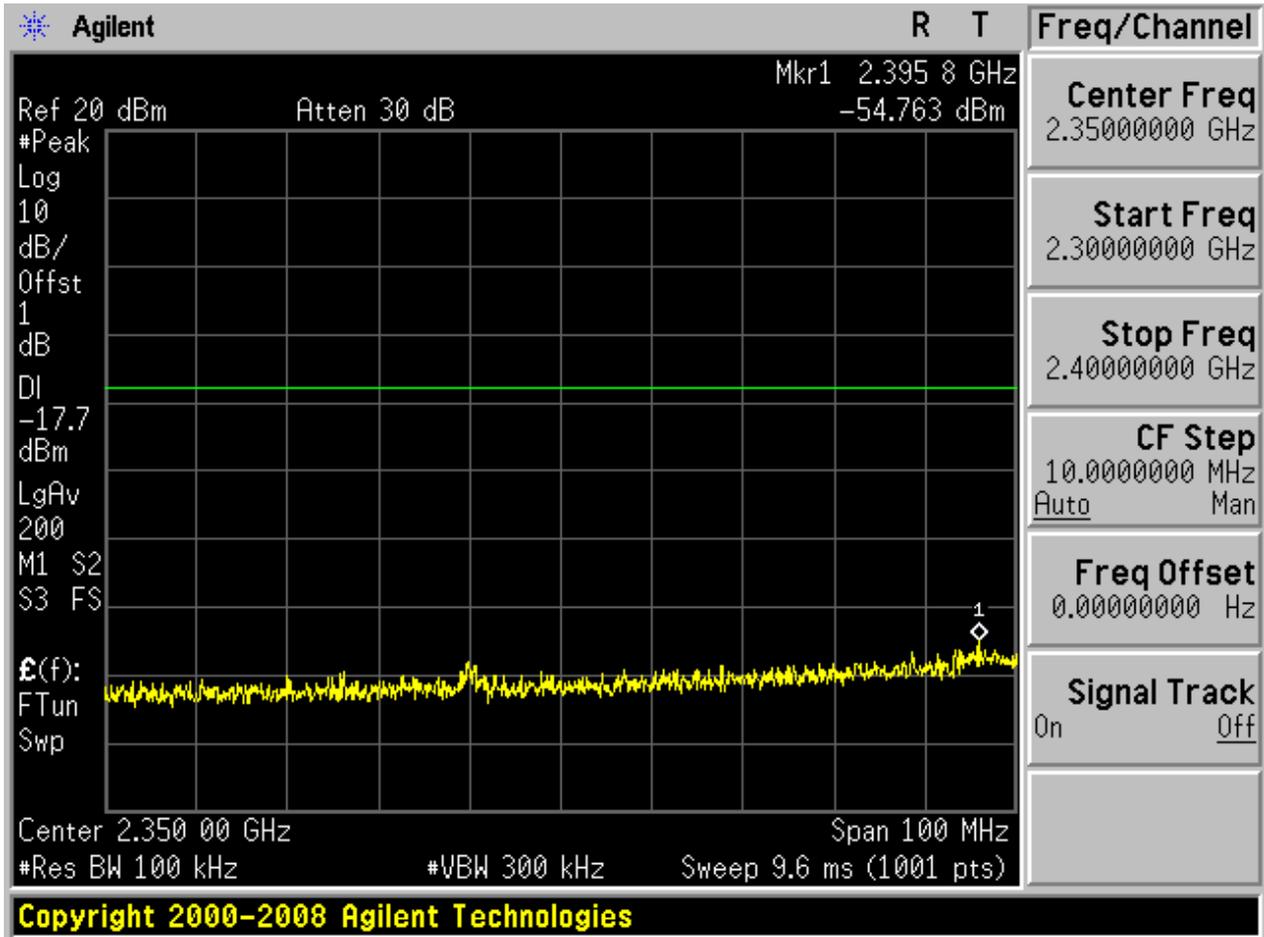


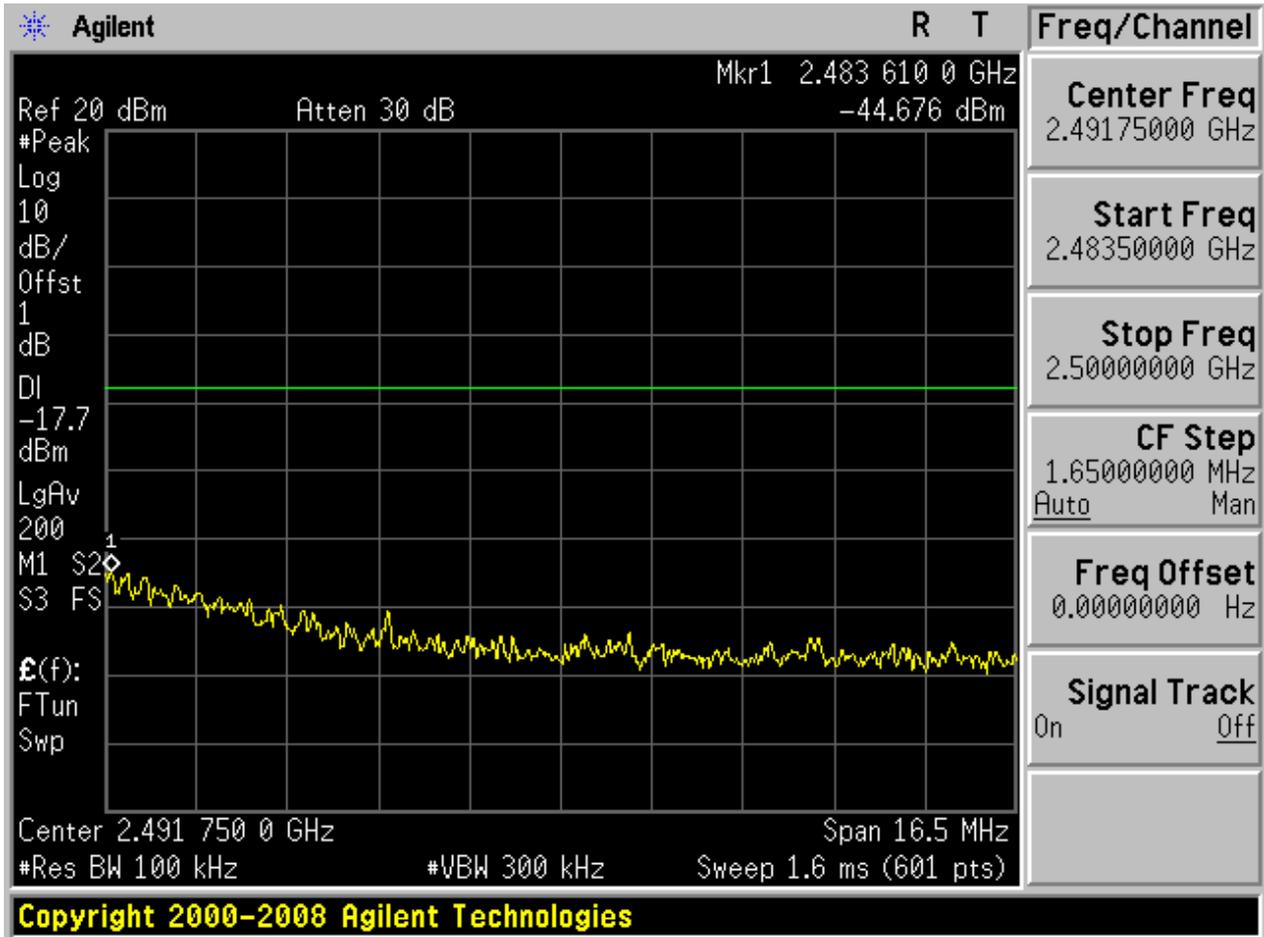
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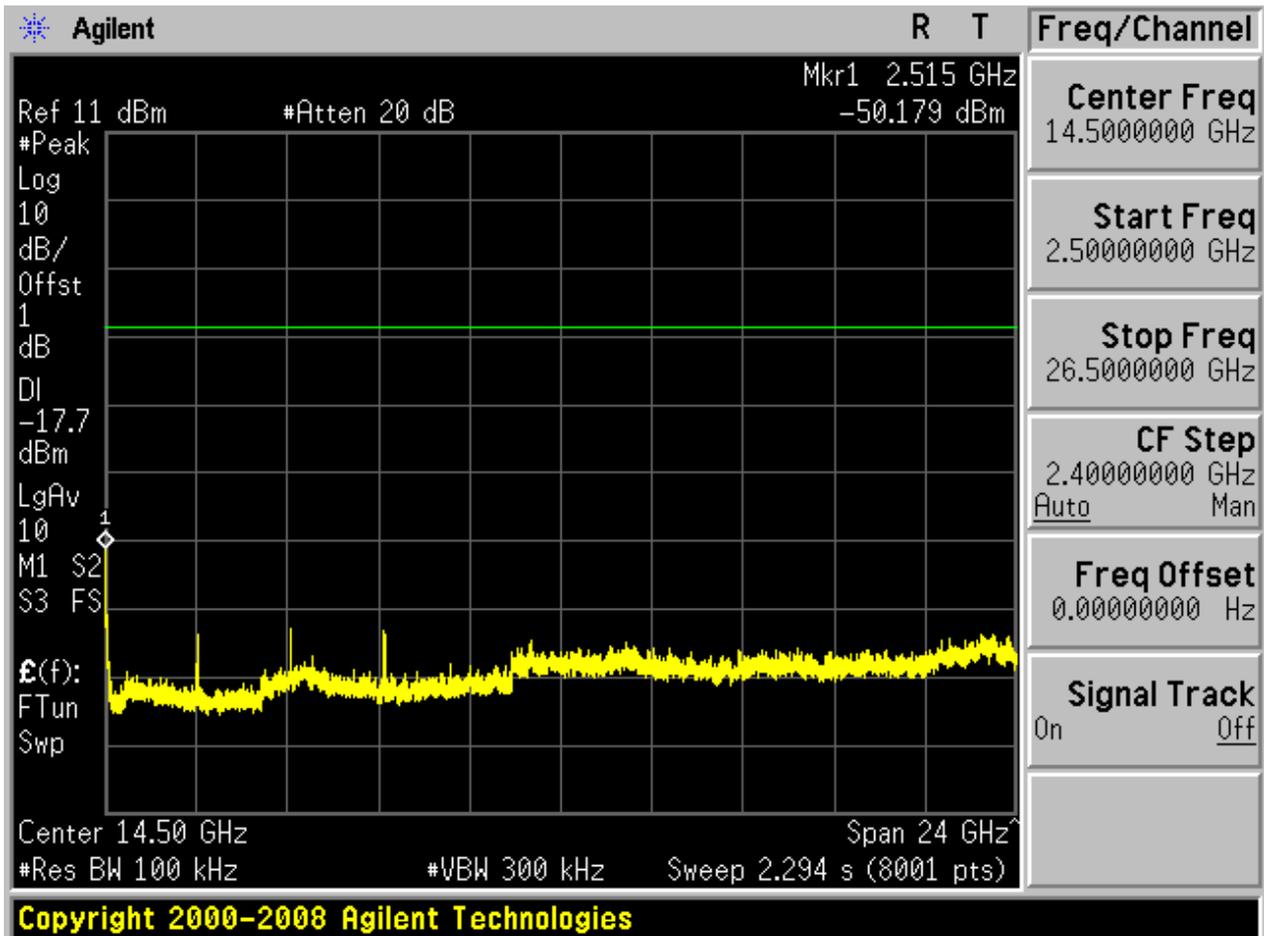










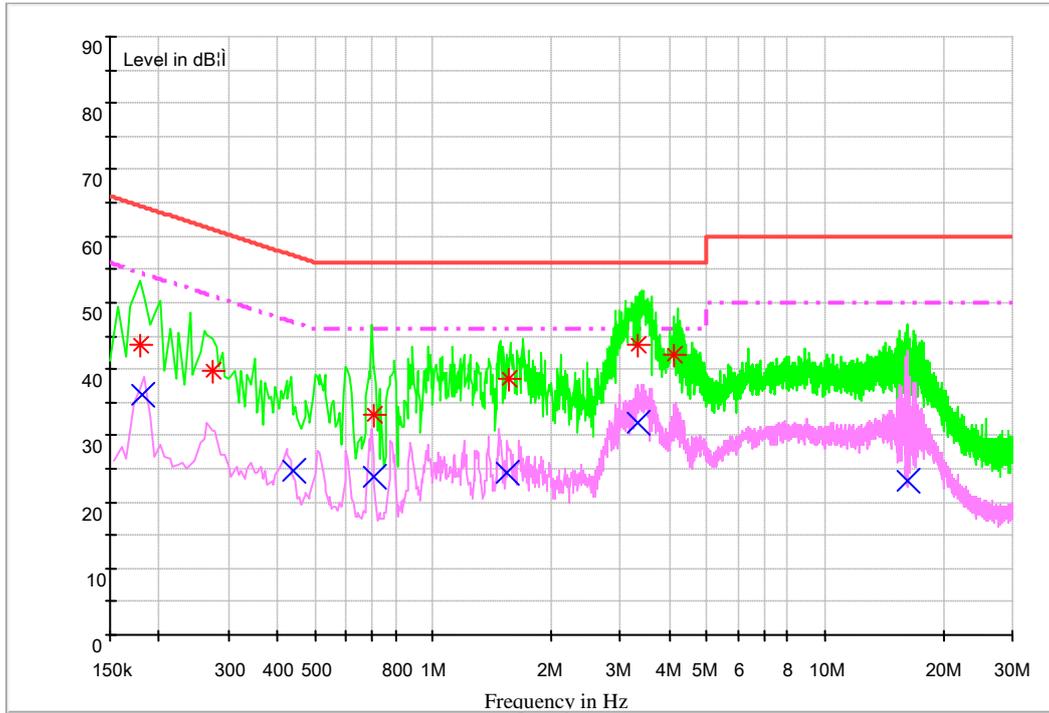




## Appendix F: Conducted Emission at Power Port

Note: RBW = 9 kHz, VBW = 30 kHz

# Channel 6



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBμV	Line	Transd dB	Margin dB	Limit dBμV	PE
0.178750	43.6	L1	9.7	20.9	64.5	FLO
0.275753	39.7	N	9.7	21.2	60.9	FLO
0.709747	33.1	N	9.7	22.9	56.0	FLO
1.557248	38.4	N	9.7	17.6	56.0	FLO
3.343080	43.5	N	9.7	12.5	56.0	FLO
4.134686	42.1	L1	9.8	13.9	56.0	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV	Line	Transd dB	Margin dB	Limit dBμV	PE
0.181235	36.1	L1	9.7	18.3	54.4	FLO
0.439800	24.8	N	9.7	22.3	47.1	FLO
0.704077	23.9	L1	9.7	22.1	46.0	FLO
1.542900	24.2	N	9.7	21.8	46.0	FLO
3.327859	31.9	N	9.7	14.1	46.0	FLO
16.161829	23.1	N	10.1	26.9	50.0	FLO

END