



Appendix A: 20dB Emission Bandwidth (EBW)



1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.947	Pass
TM1_DH5_Ch39	0.948	Pass
TM1_DH5_Ch78	0.947	Pass
TM2_2DH5_Ch0	1.285	Pass
TM2_2DH5_Ch39	1.285	Pass
TM2_2DH5_Ch78	1.284	Pass
TM3_3DH5_Ch0	1.279	Pass
TM3_3DH5_Ch39	1.279	Pass
TM3_3DH5_Ch78	1.278	Pass



2 Test Plot

2.1 TM1_DH5_Ch0





2.2 TM1_DH5_Ch39



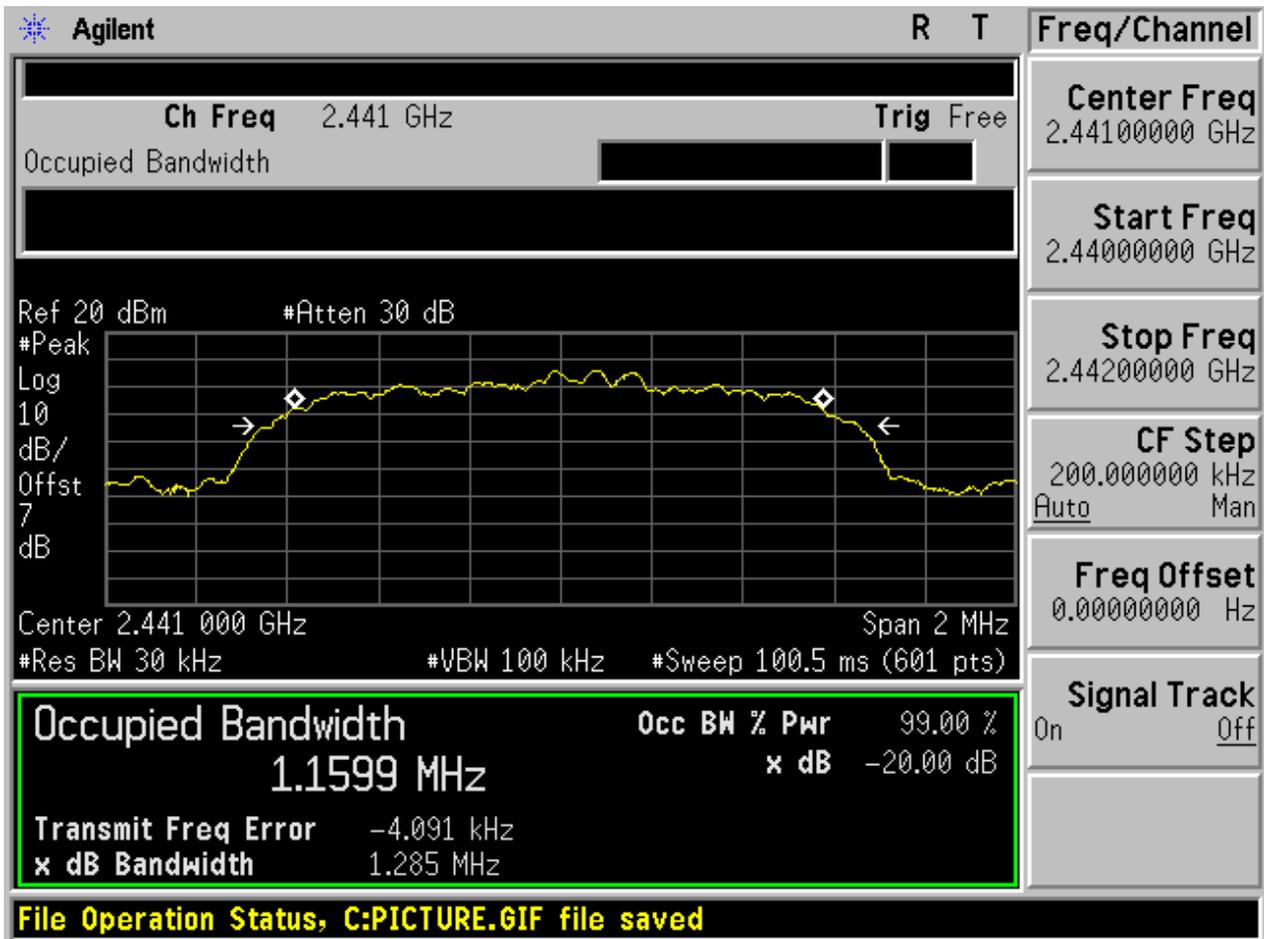
2.3 TM1_DH5_Ch78



2.4 TM2_2DH5_Ch0



2.5 TM2_2DH5_Ch39



2.6 TM2_2DH5_Ch78





2.7 TM3_3DH5_Ch0





2.8 TM3_3DH5_Ch39





2.9 TM3_3DH5_Ch78

Agilent R T **Freq/Channel**

Ch Freq 2.48 GHz **Trig** Free

Occupied Bandwidth

Center Freq 2.48000000 GHz

Start Freq 2.47900000 GHz

Stop Freq 2.48100000 GHz

CF Step 200.000000 kHz
Auto Man

Freq Offset 0.00000000 Hz

Signal Track On Off

Ref 20 dBm #Atten 30 dB

#Peak Log 10 dB/Offst 7 dB

Center 2.480 000 GHz Span 2 MHz

#Res BW 30 kHz #VBW 100 kHz #Sweep 100.5 ms (601 pts)

Occupied Bandwidth	Occ BW % Pwr	99.00 %
1.1625 MHz	x dB	-20.00 dB
Transmit Freq Error		1.025 kHz
x dB Bandwidth		1.278 MHz

File Operation Status, C:PICTURE.GIF file saved



Appendix B: Carrier Frequency Separation

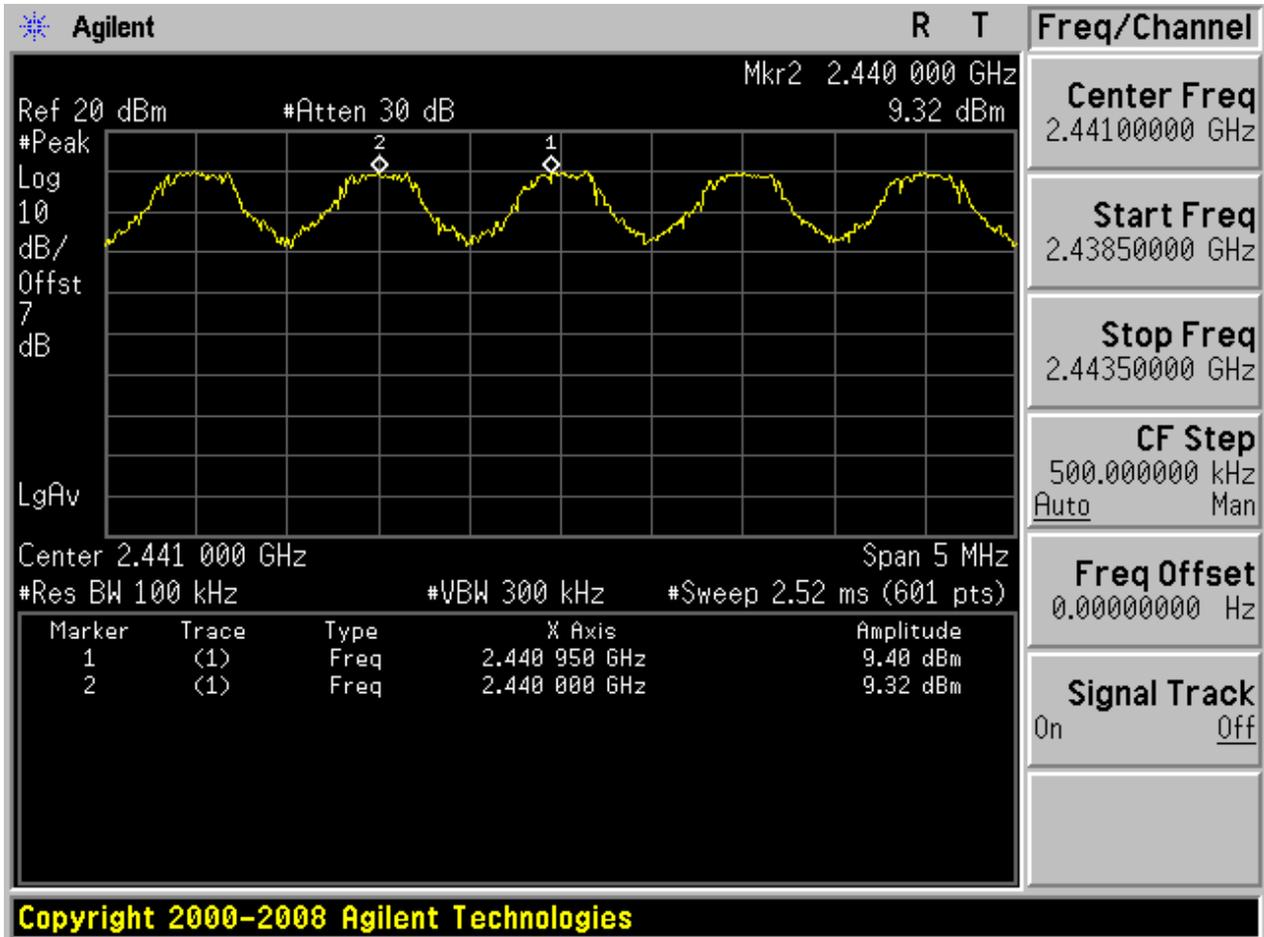


1 Result Table

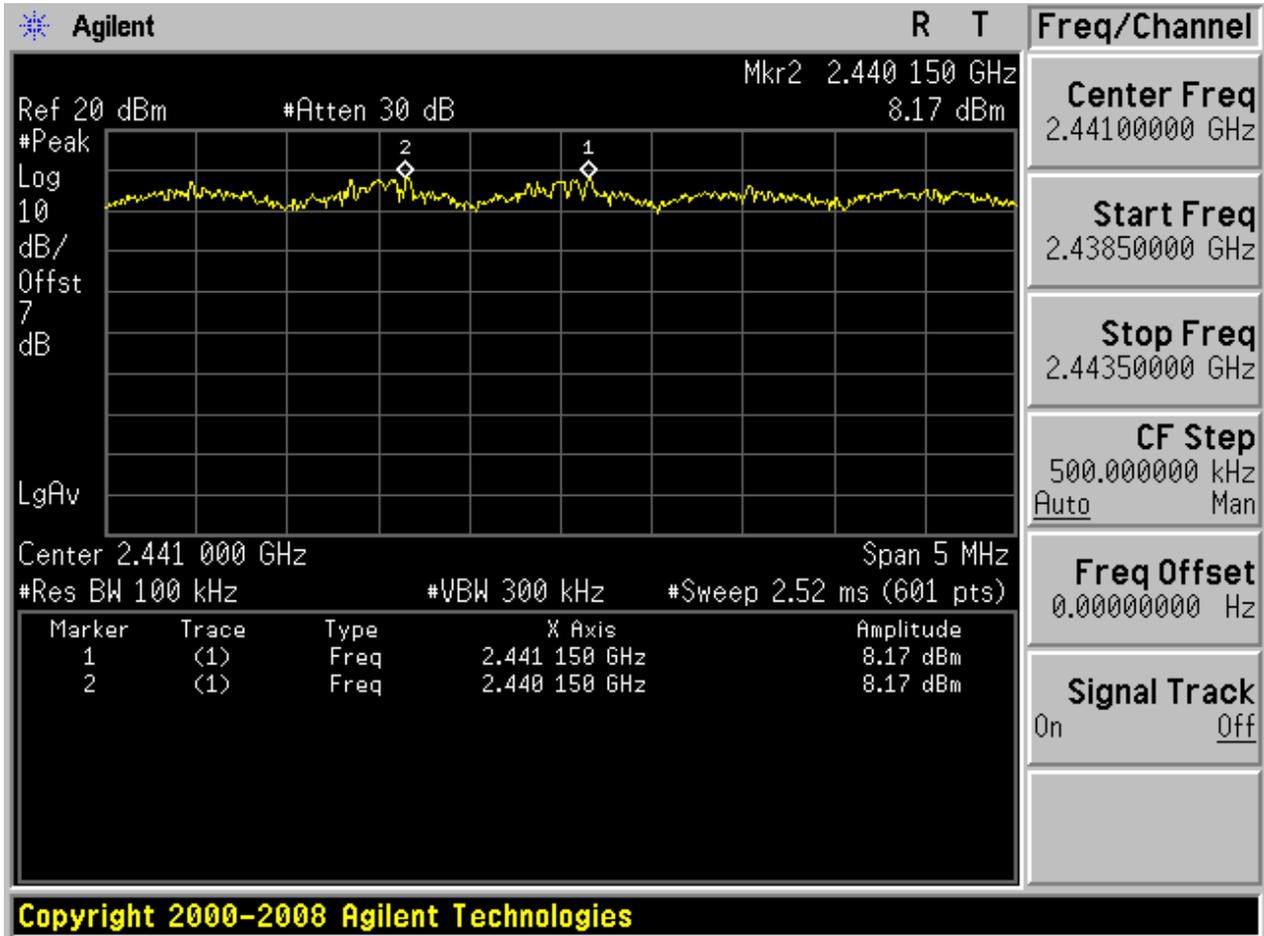
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	0.950	Pass
TM2_2DH5_Hop	1.000	Pass
TM3_3DH5_Hop	1.000	Pass

2 Test Plot

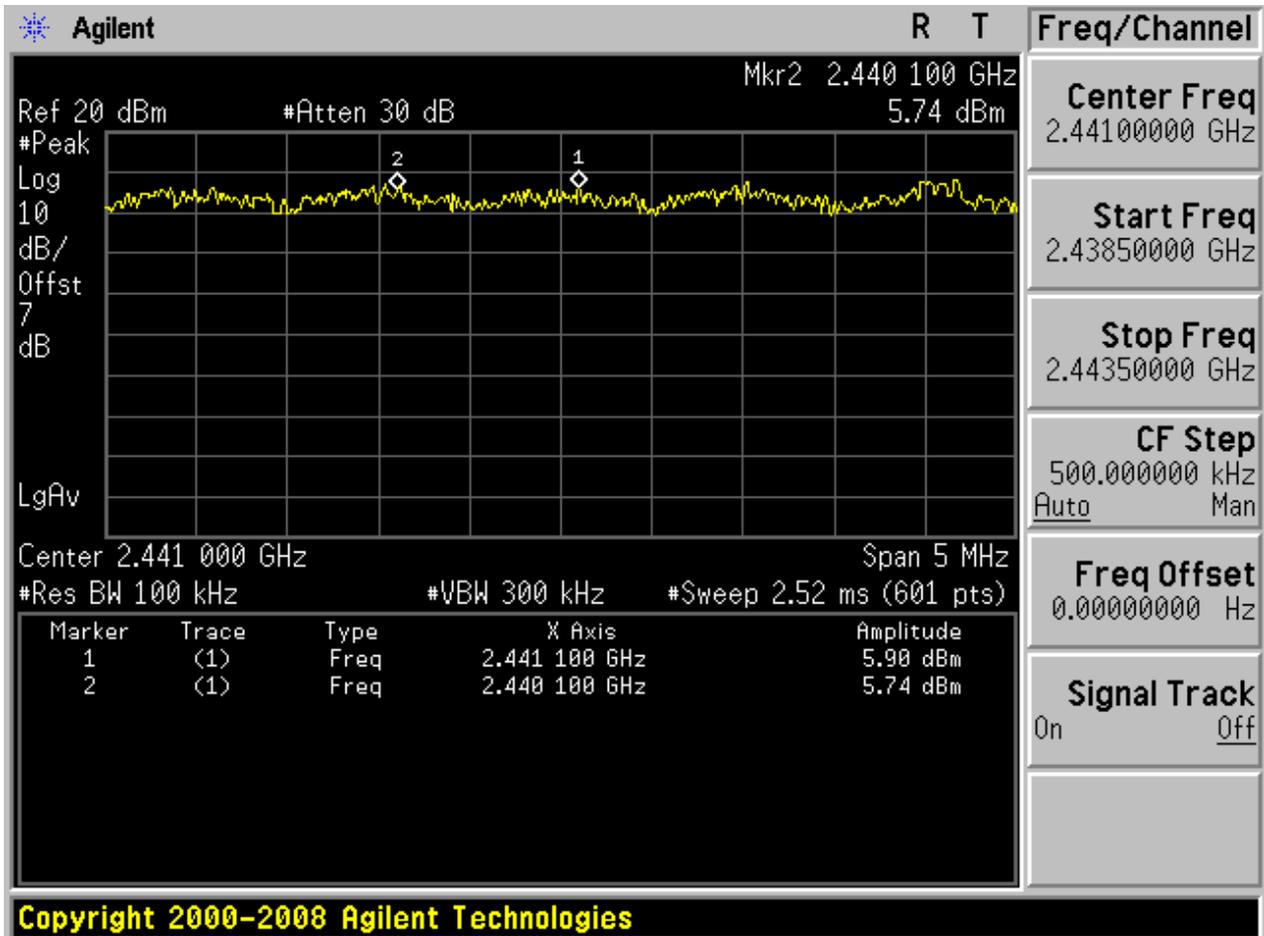
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop





Appendix C: Number of Hopping Channel

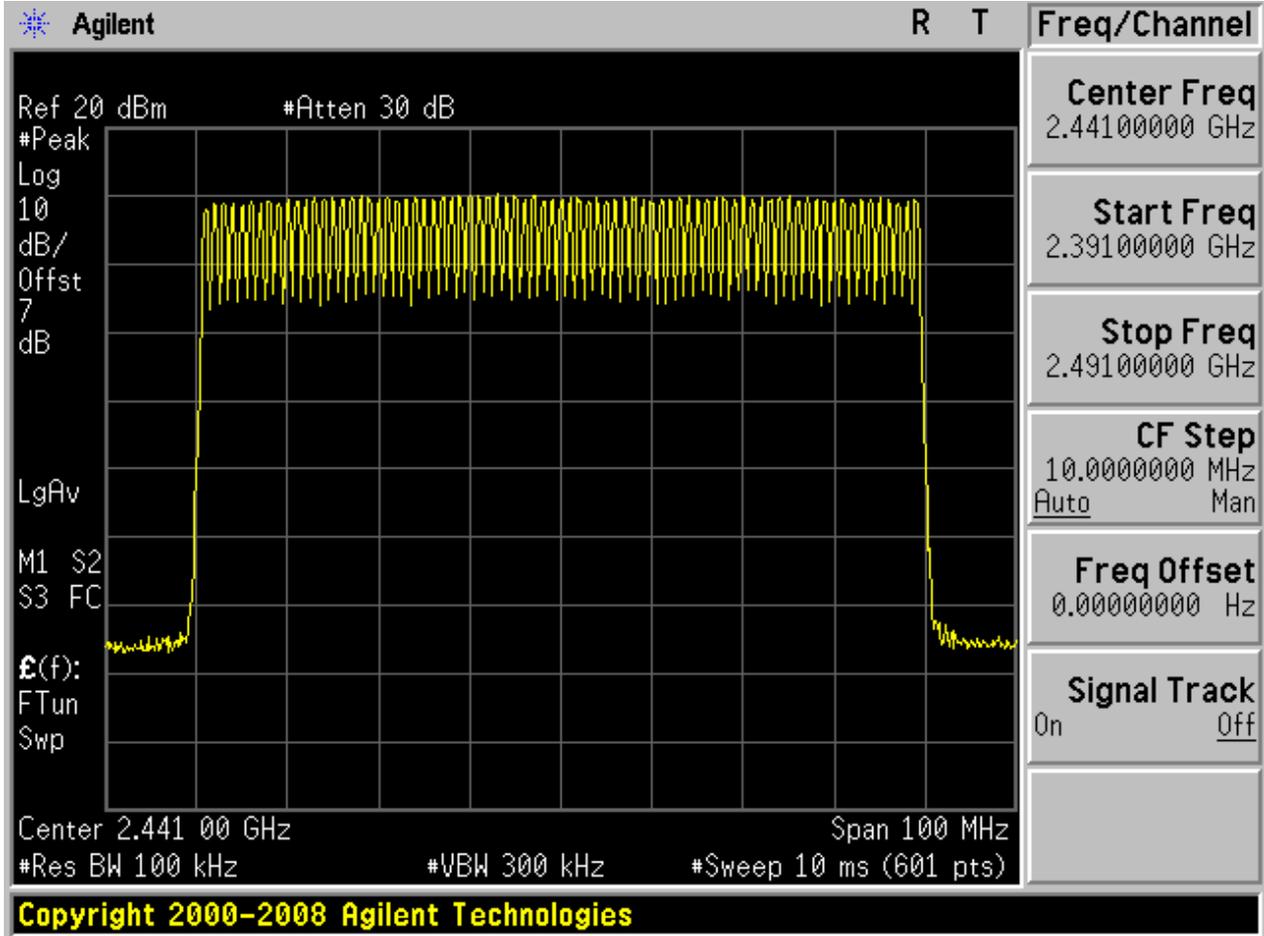


1 Result Table

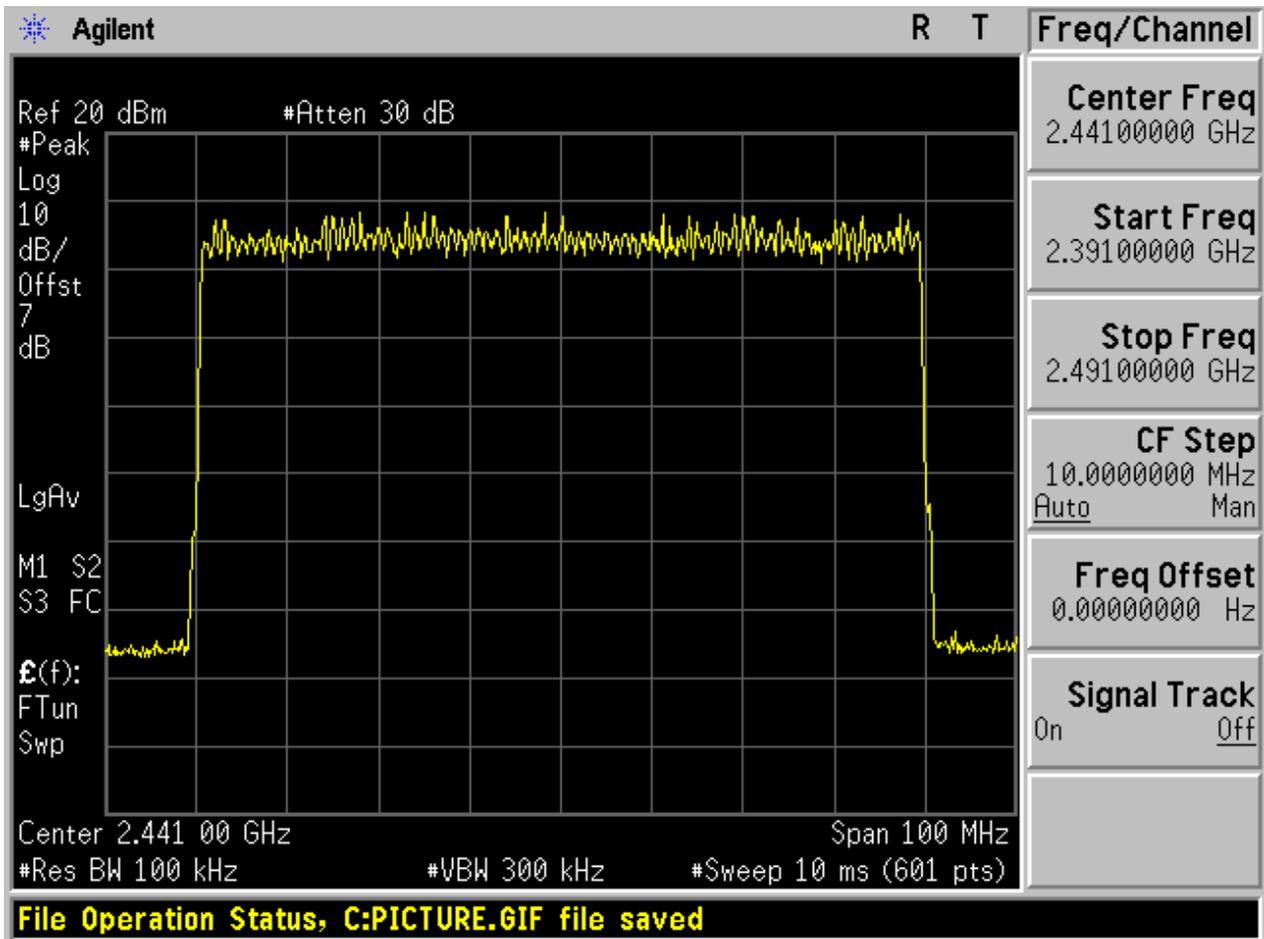
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

2 Test Plot

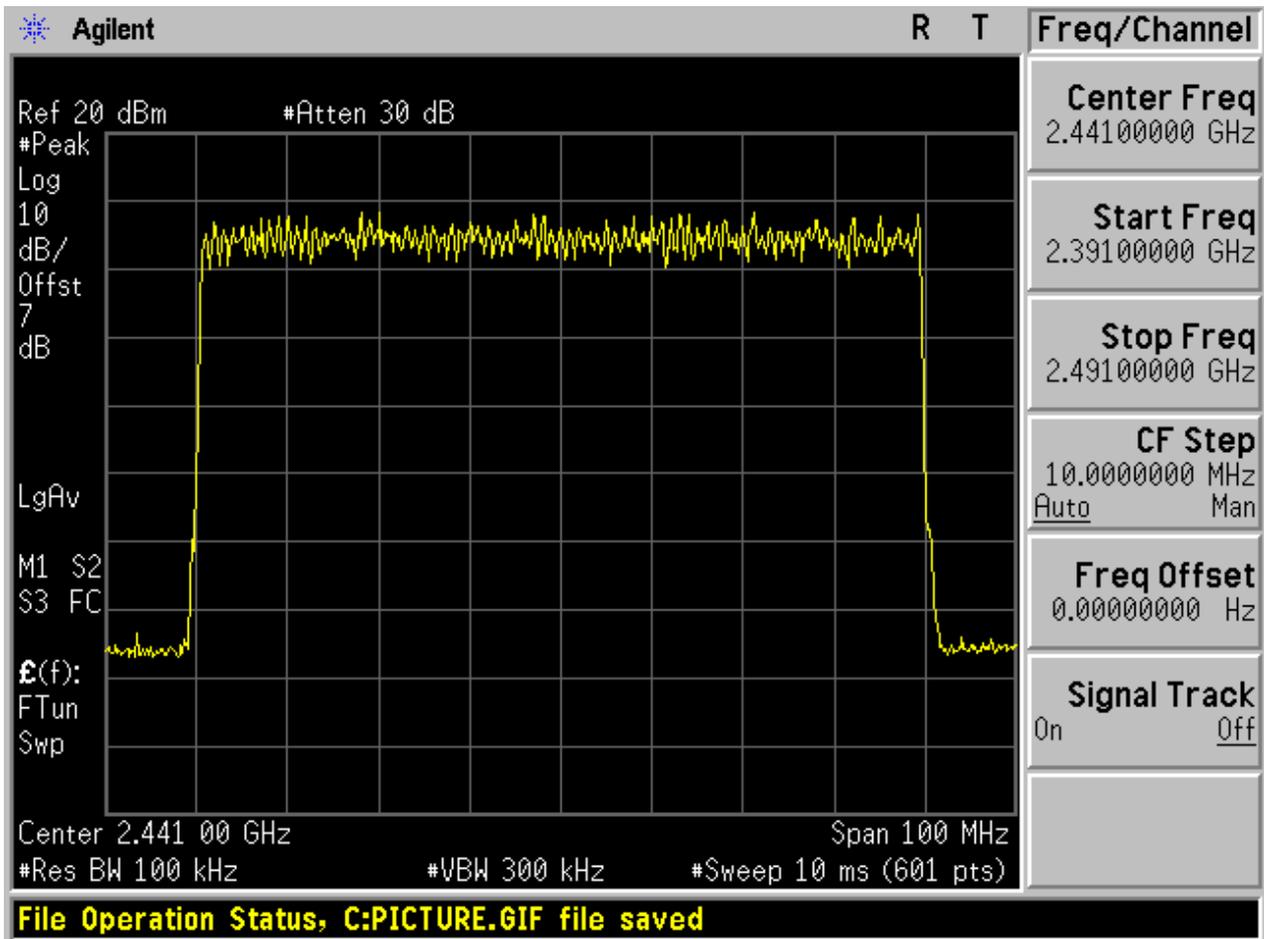
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop





Appendix D: Time of Occupancy (Dwell Time)

1 Result Table

The Dwell Time = Burst Width * Total Hops. The detailed calculations are showed as follows:

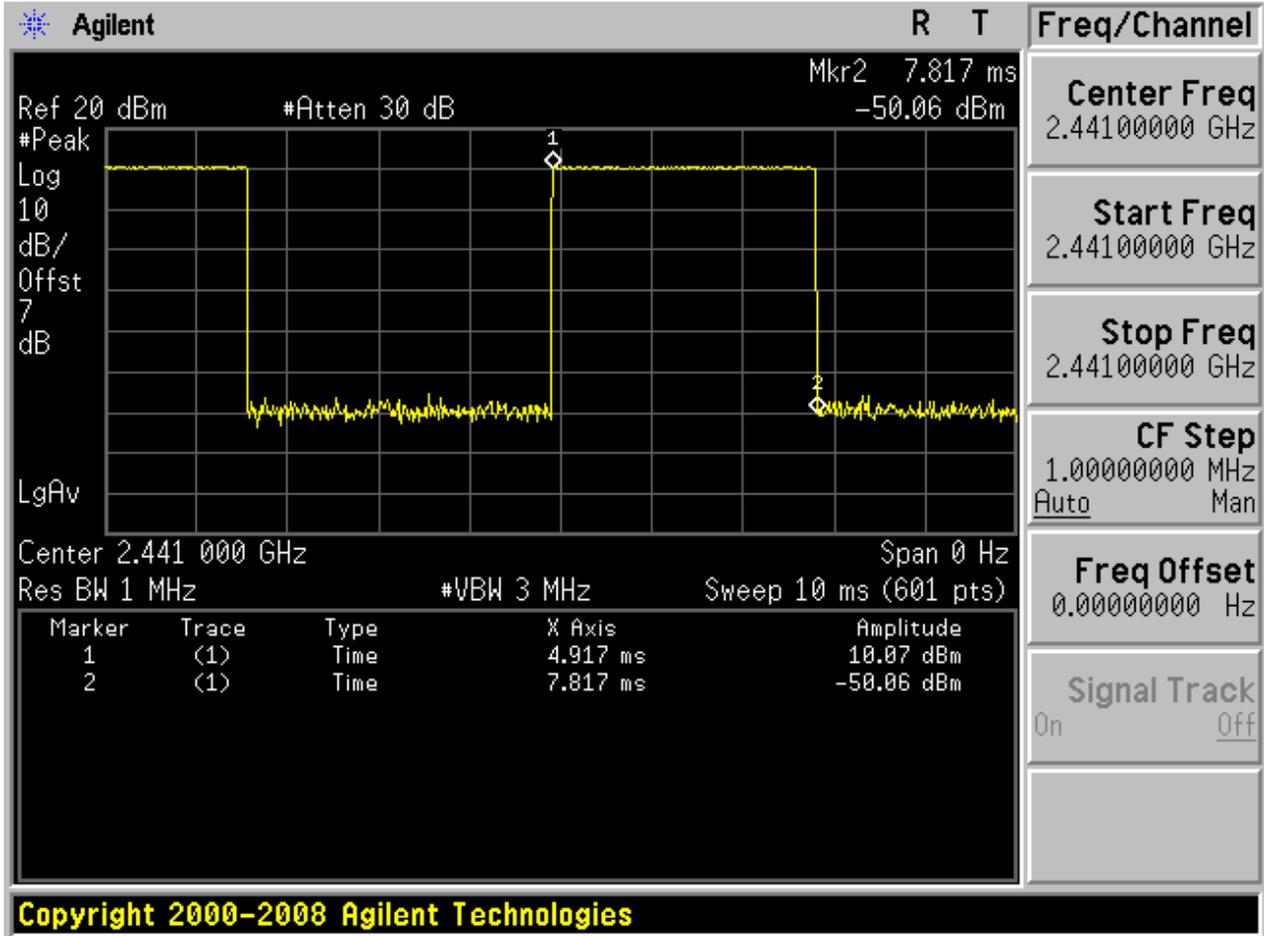
- The duration for dwell time calculation: $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses a slot type of 5-Tx&1-Rx and a hopping rate of 1600 [ch*hop/s] for all channels. So the final hopping rate for all channels is $1600 / 6 = 266.67 \text{ [ch*hop/s]}$;
- The hops per second on one channel: $266.67 \text{ [ch*hop/s]} / 79 \text{ [ch]} = 3.38 \text{ [hop/s]}$;
- The total hops for all channels within the dwell time calculation duration: $3.38 \text{ [hop/s]} * 31.6 \text{ [s*ch]} = 106.67 \text{ [hop*ch]}$;
- The dwell time for all channels hopping: $106.67 \text{ [hop*ch]} * \text{Burst Width [ms/hop/ch]}$.

EUT Conf.	Burst Width [ms/hop/ch]	Total Hops [hop*ch]	Dwell Time [ms]	Verdict
TM1_DH5_Ch39	2.900	106.67	0.309	Pass
TM2_2DH5_Ch39	2.900	106.67	0.309	Pass
TM3_3DH5_Ch39	2.900	106.67	0.309	Pass

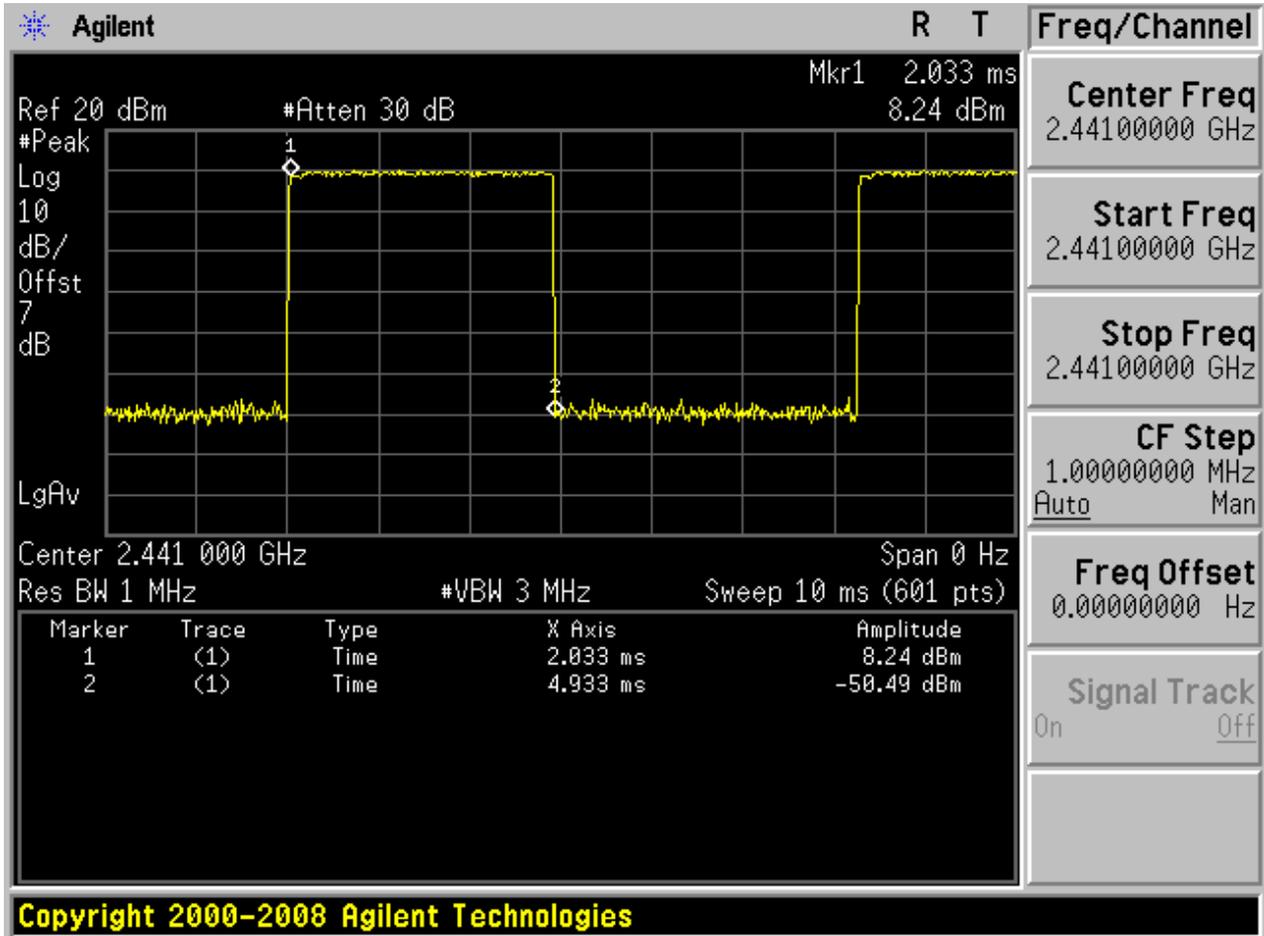
2 Test Plot

NOTE: The test plots are only for Burst Width measurements.

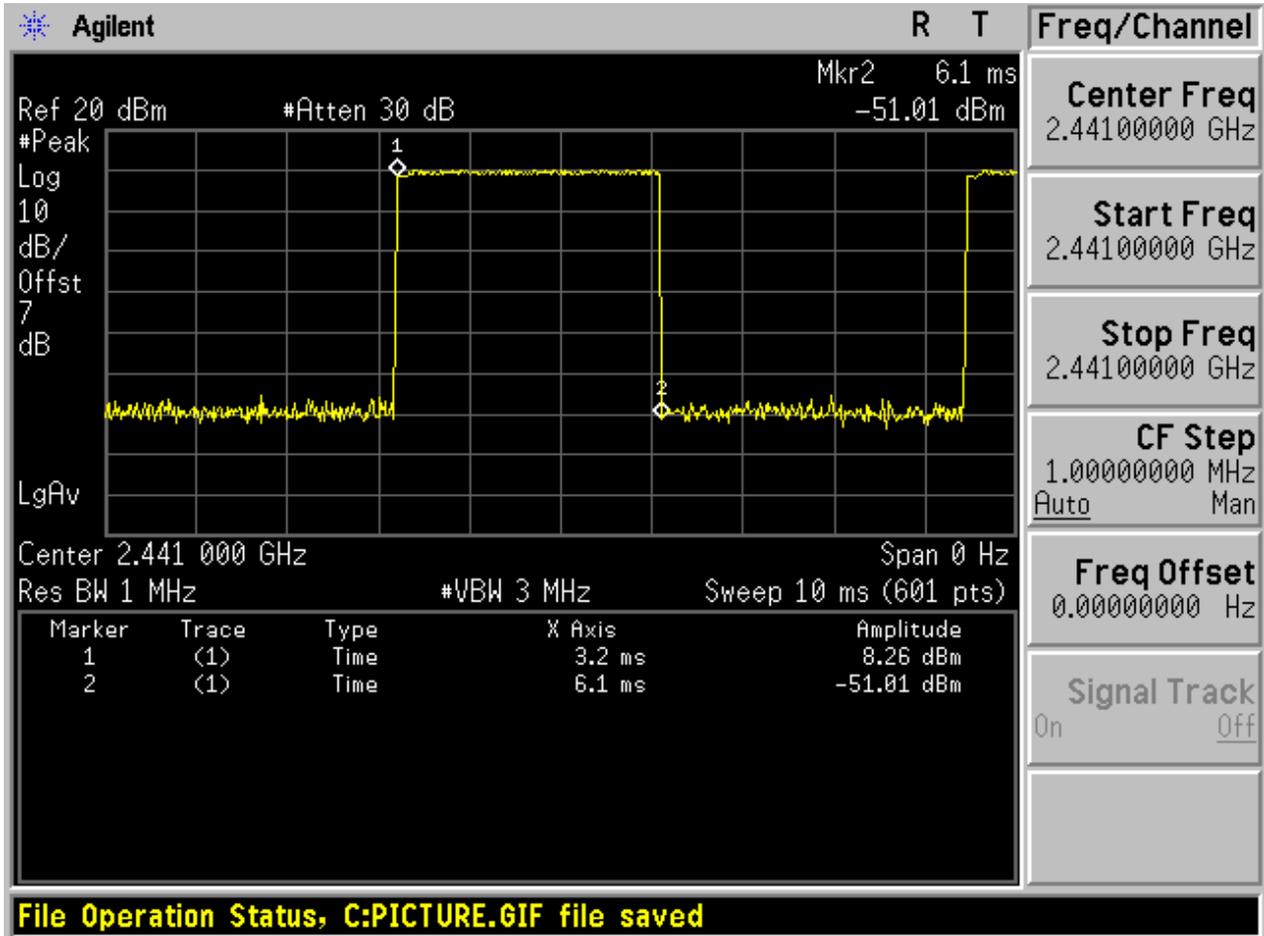
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39





Appendix E: Maximum Peak Conducted Output Power

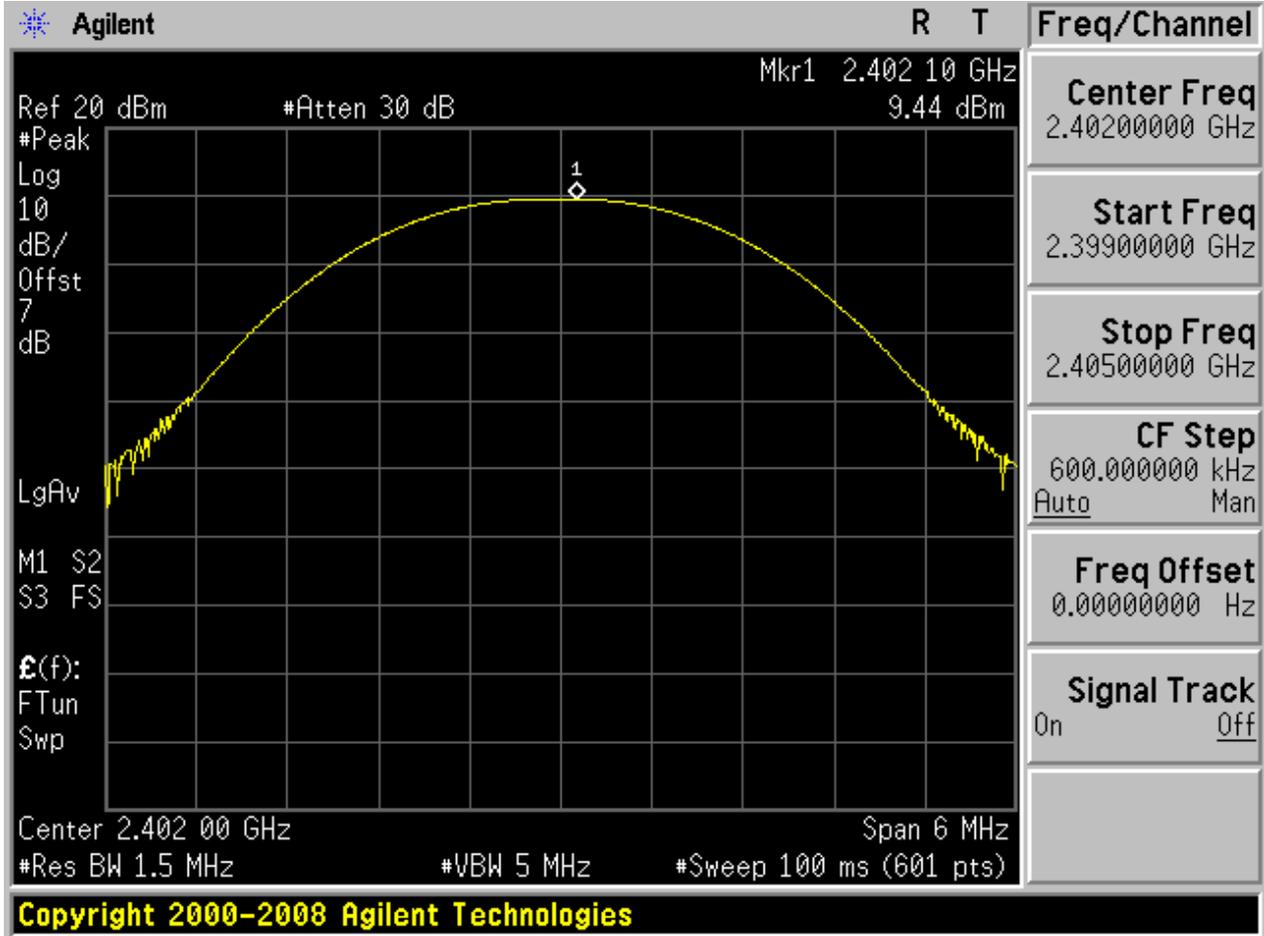


1 Result Table

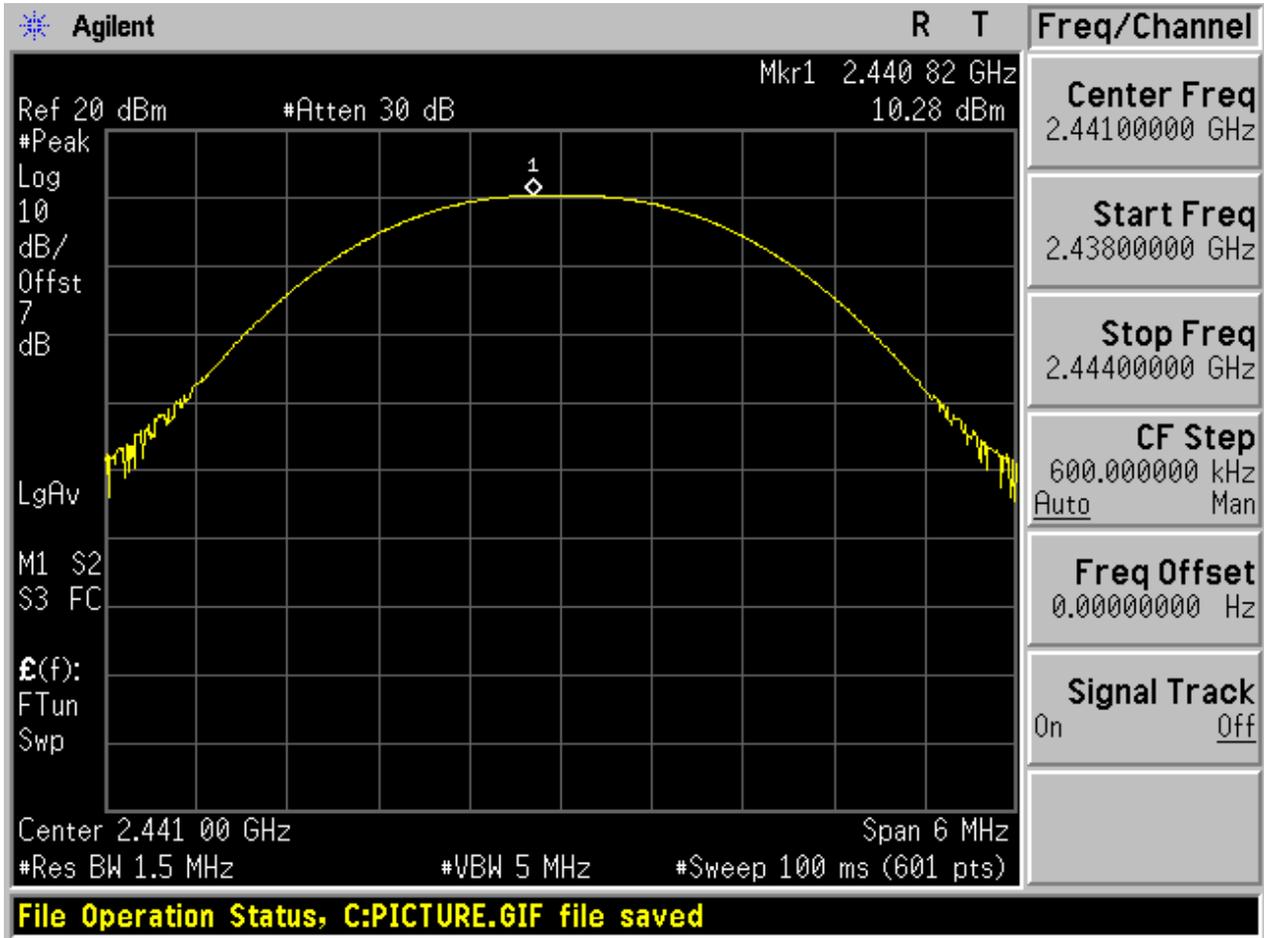
EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	9.44	Pass
TM1_DH5_Ch39	10.28	Pass
TM1_DH5_Ch78	10.02	Pass
TM2_2DH5_Ch0	9.43	Pass
TM2_2DH5_Ch39	10.27	Pass
TM2_2DH5_Ch78	9.96	Pass
TM3_3DH5_Ch0	9.6	Pass
TM3_3DH5_Ch39	10.45	Pass
TM3_3DH5_Ch78	10.16	Pass

2 Test Plot

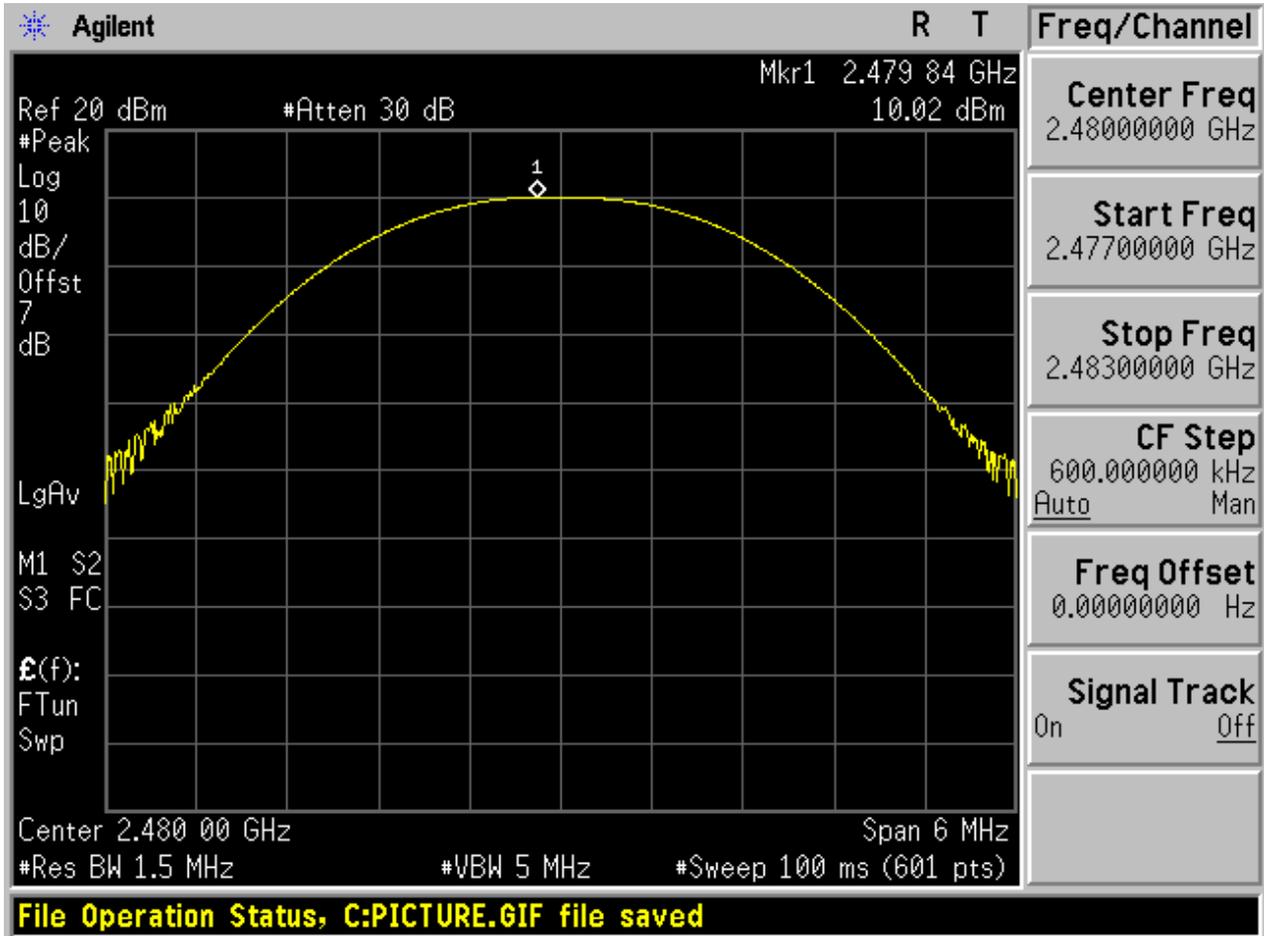
2.1 TM1_DH5_Ch0



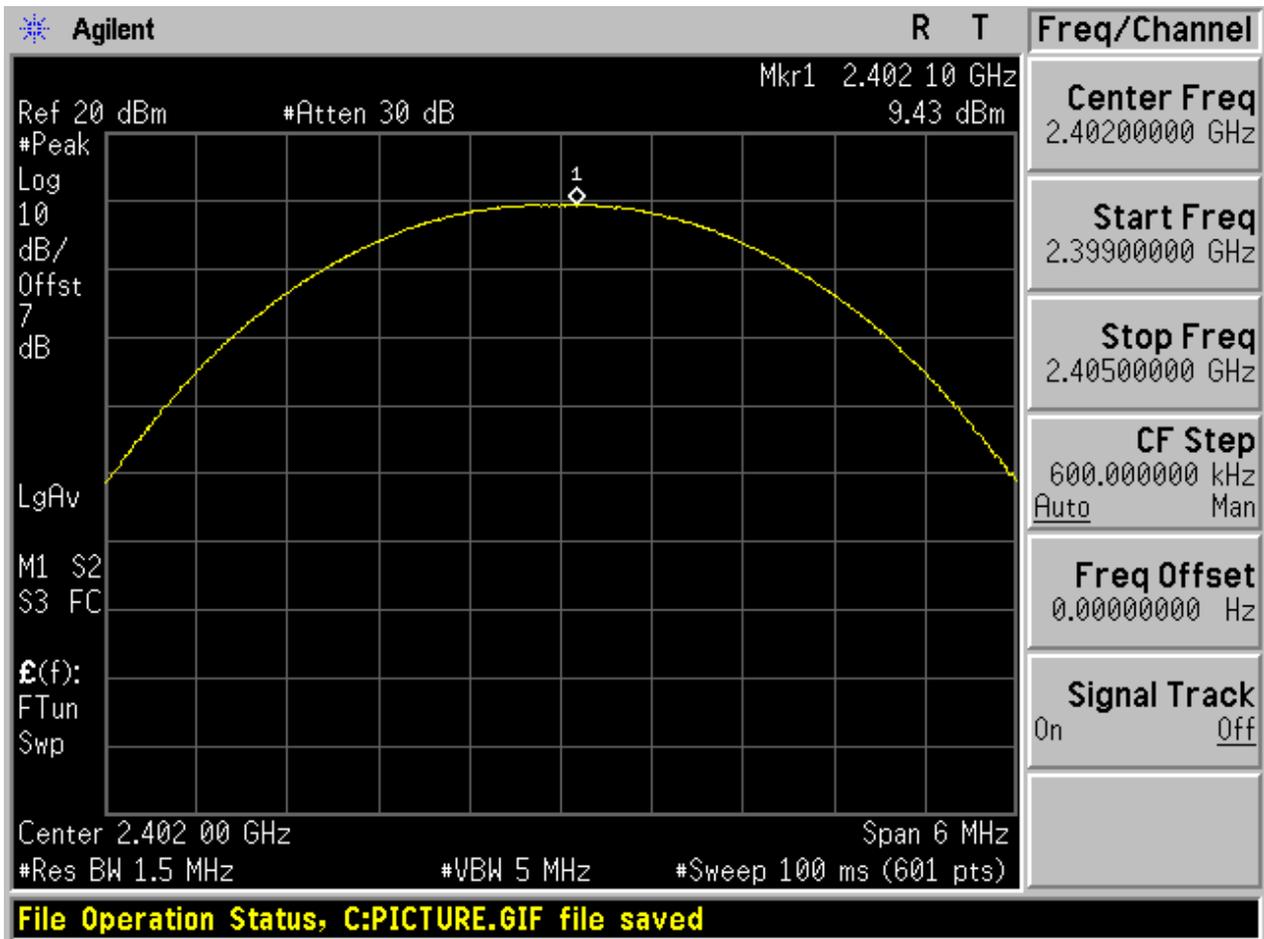
2.2 TM1_DH5_Ch39



2.3 TM1_DH5_Ch78

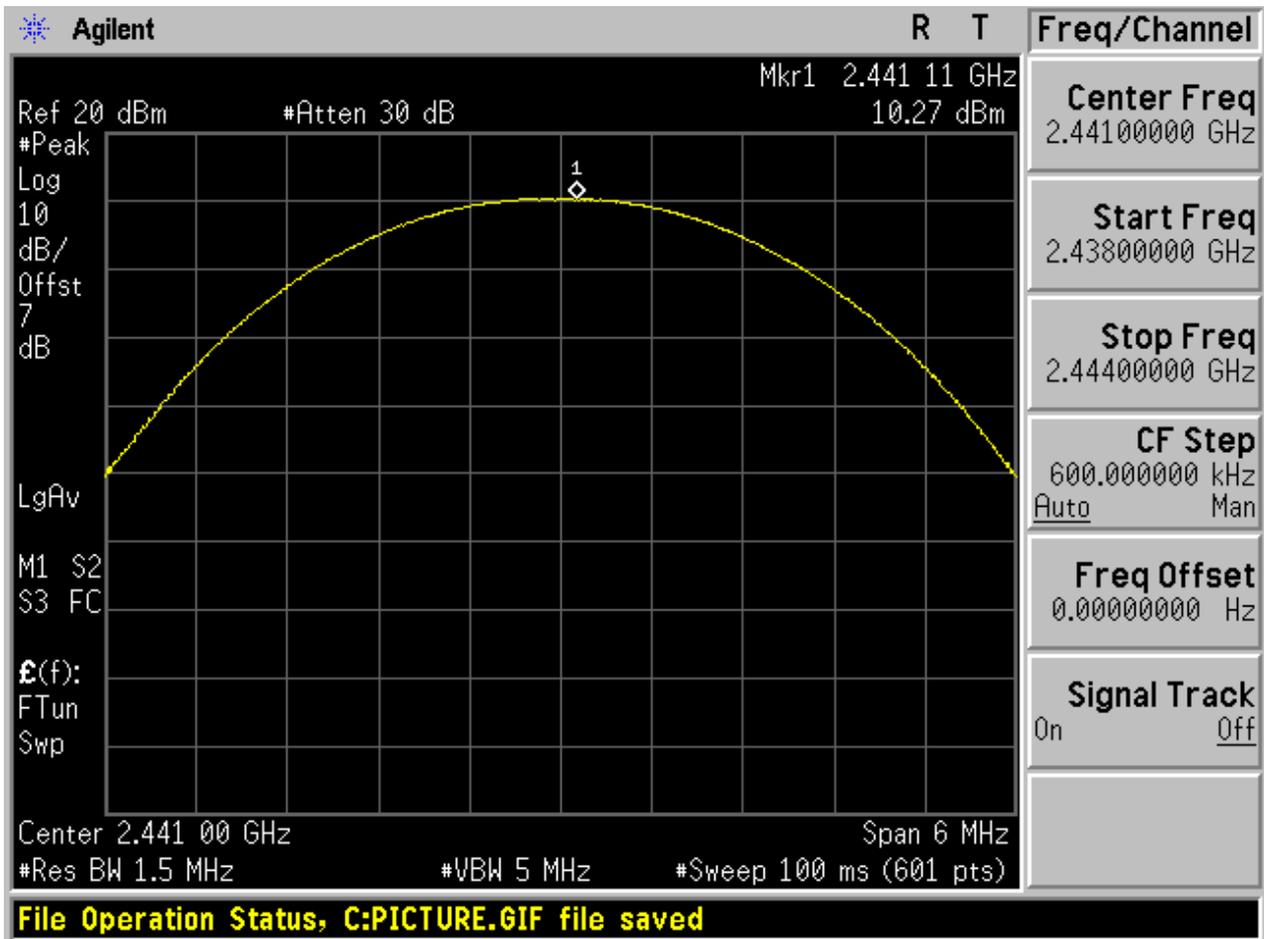


2.4 TM2_2DH5_Ch0

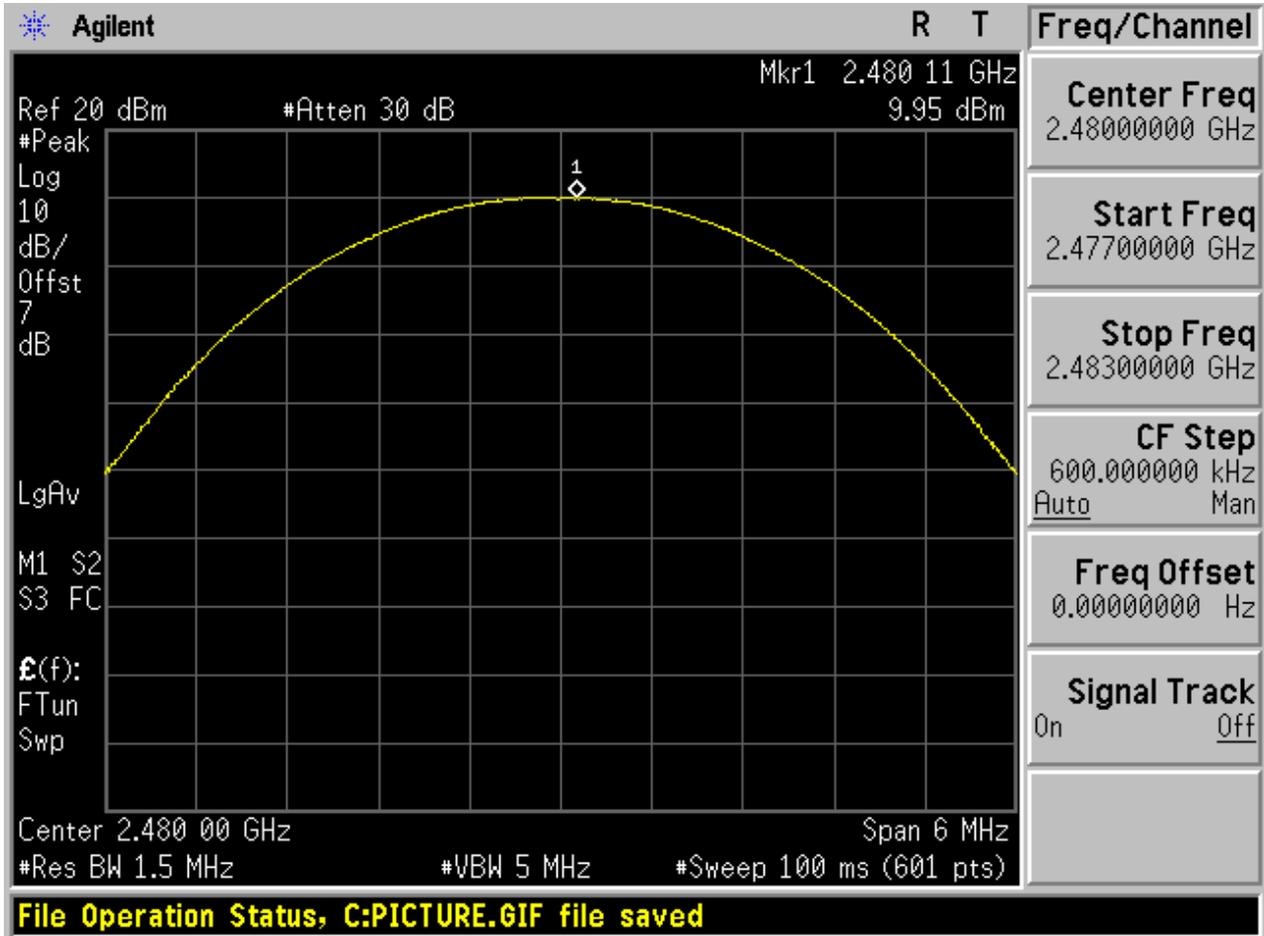




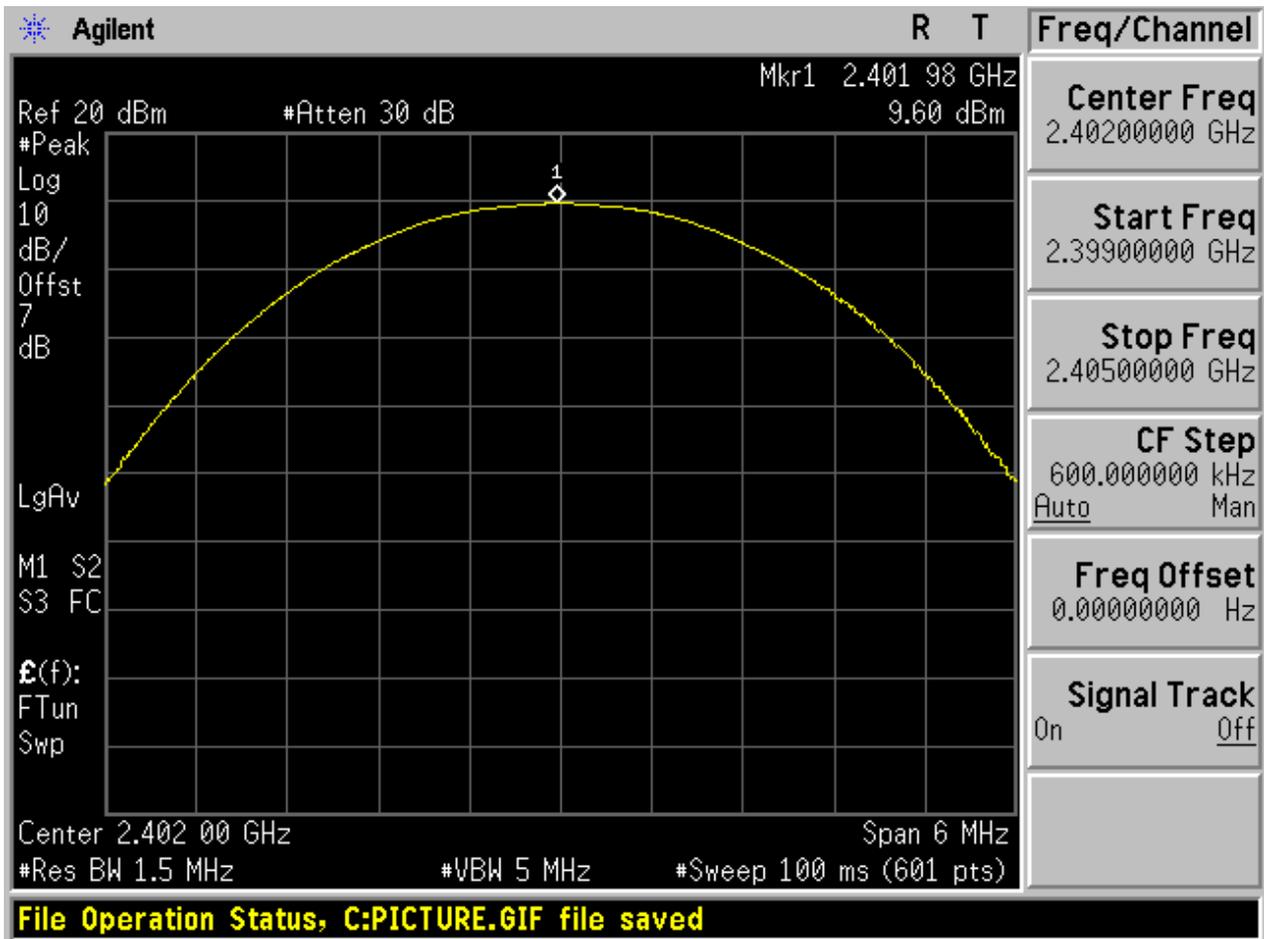
2.5 TM2_2DH5_Ch39



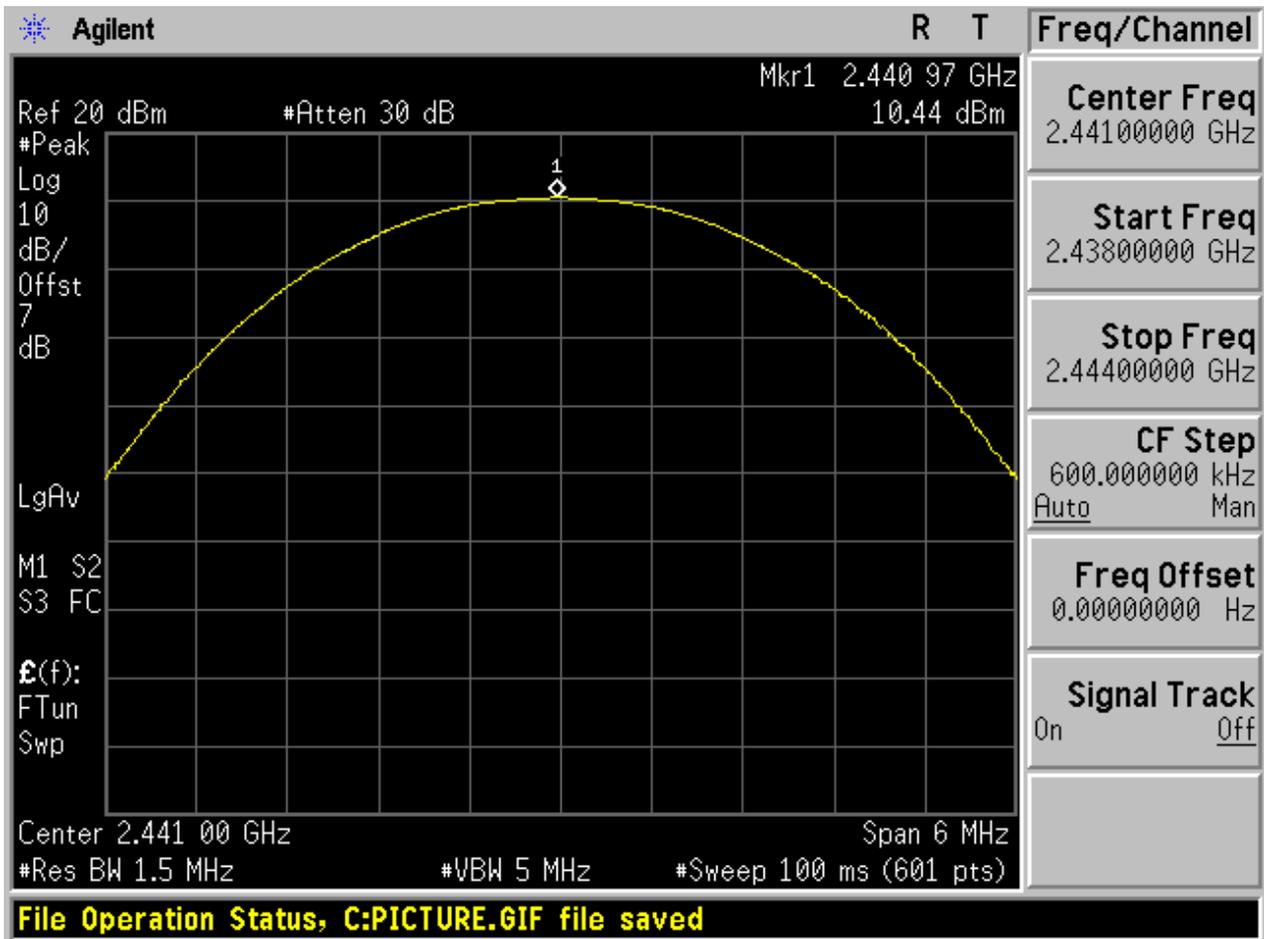
2.6 TM2_2DH5_Ch78



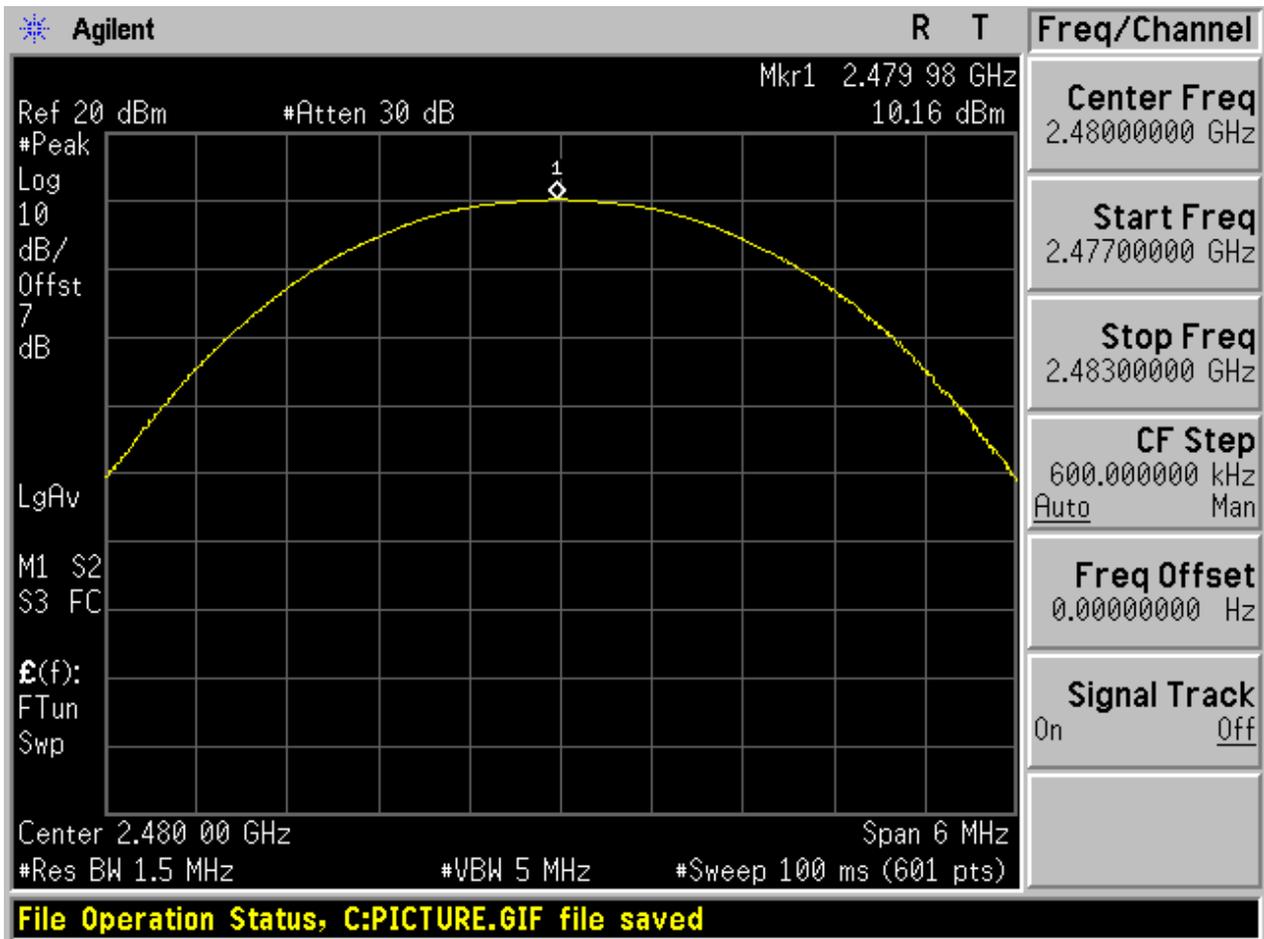
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78





Appendix F: Band edge spurious emission



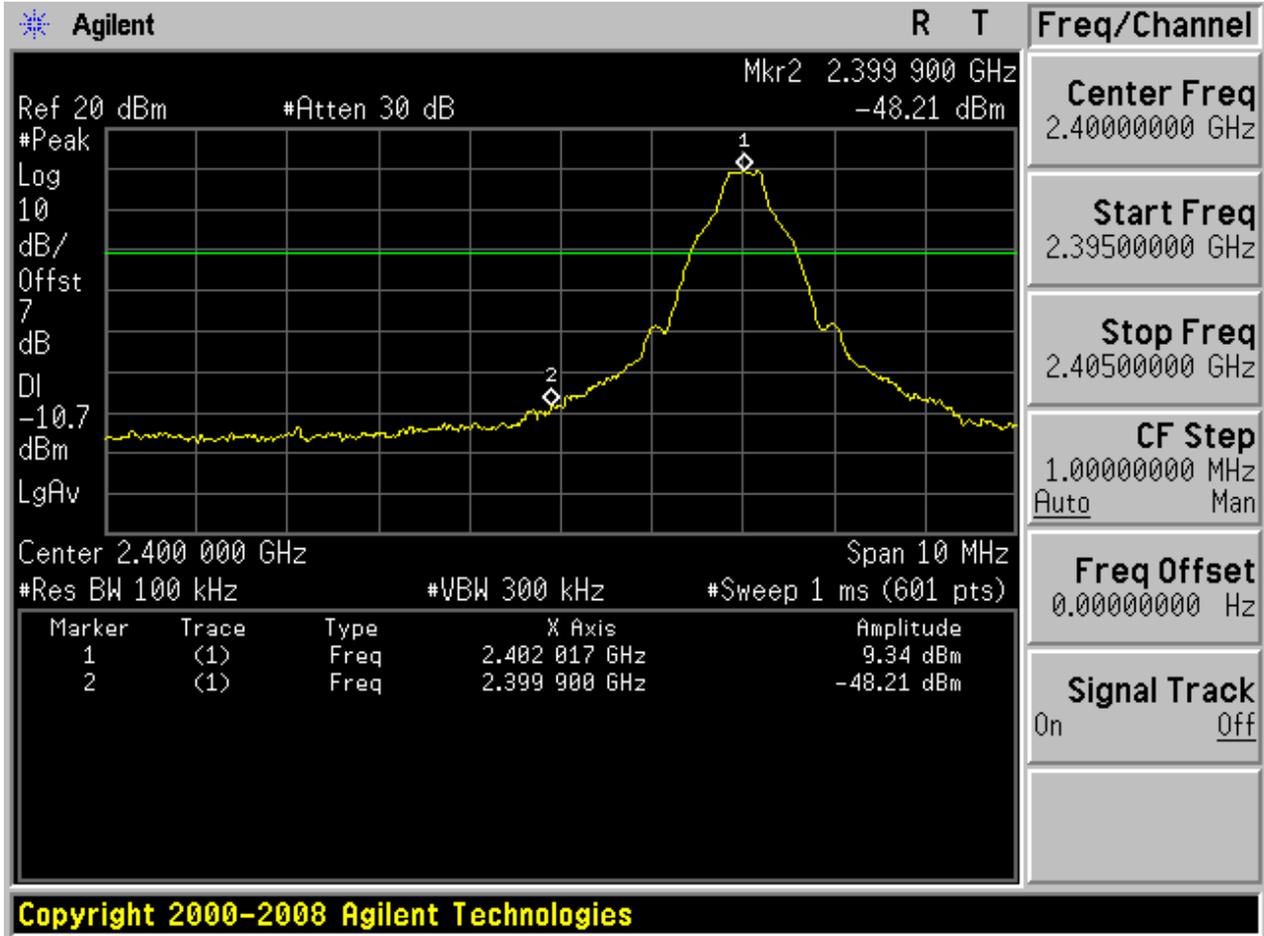
1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5 _Ch0	0	2402	-48.21	Off	9.34	-10.66	Pass
	-	-	-55.1	On	8.90	-11.1	Pass
TM1_DH5 _Ch78	78	2480	-53	Off	9.90	-10.1	Pass
	-	-	-54.53	On	9.65	-10.35	Pass
TM2_2DH 5_Ch0	0	2402	-50.17	Off	7.47	-12.53	Pass
	-	-	-54.64	On	5.32	-14.68	Pass
TM2_2DH 5_Ch78	78	2480	-53.88	Off	8.01	-11.99	Pass
	-	-	-54.1	On	7.94	-12.06	Pass
TM3_3DH 5_Ch0	0	2402	-51.11	Off	7.43	-12.57	Pass
	-	-	-54	On	7.44	-12.56	Pass
TM3_3DH 5_Ch78	78	2480	-53.38	Off	8.03	-11.97	Pass
	-	-	-54.12	On	7.48	-12.52	Pass

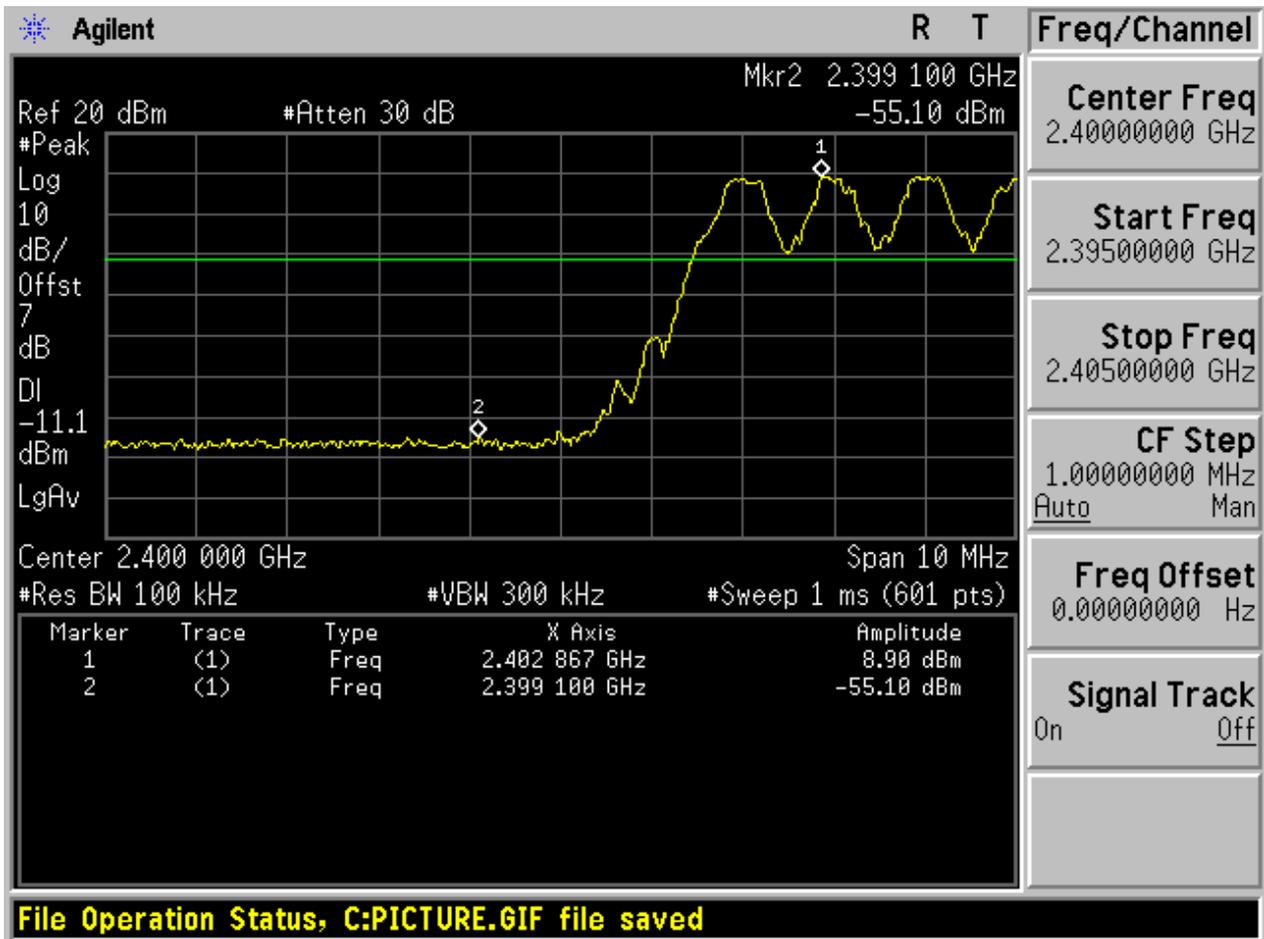
2 Test Plot

2.1 TM1_DH5_Ch0

No hopping

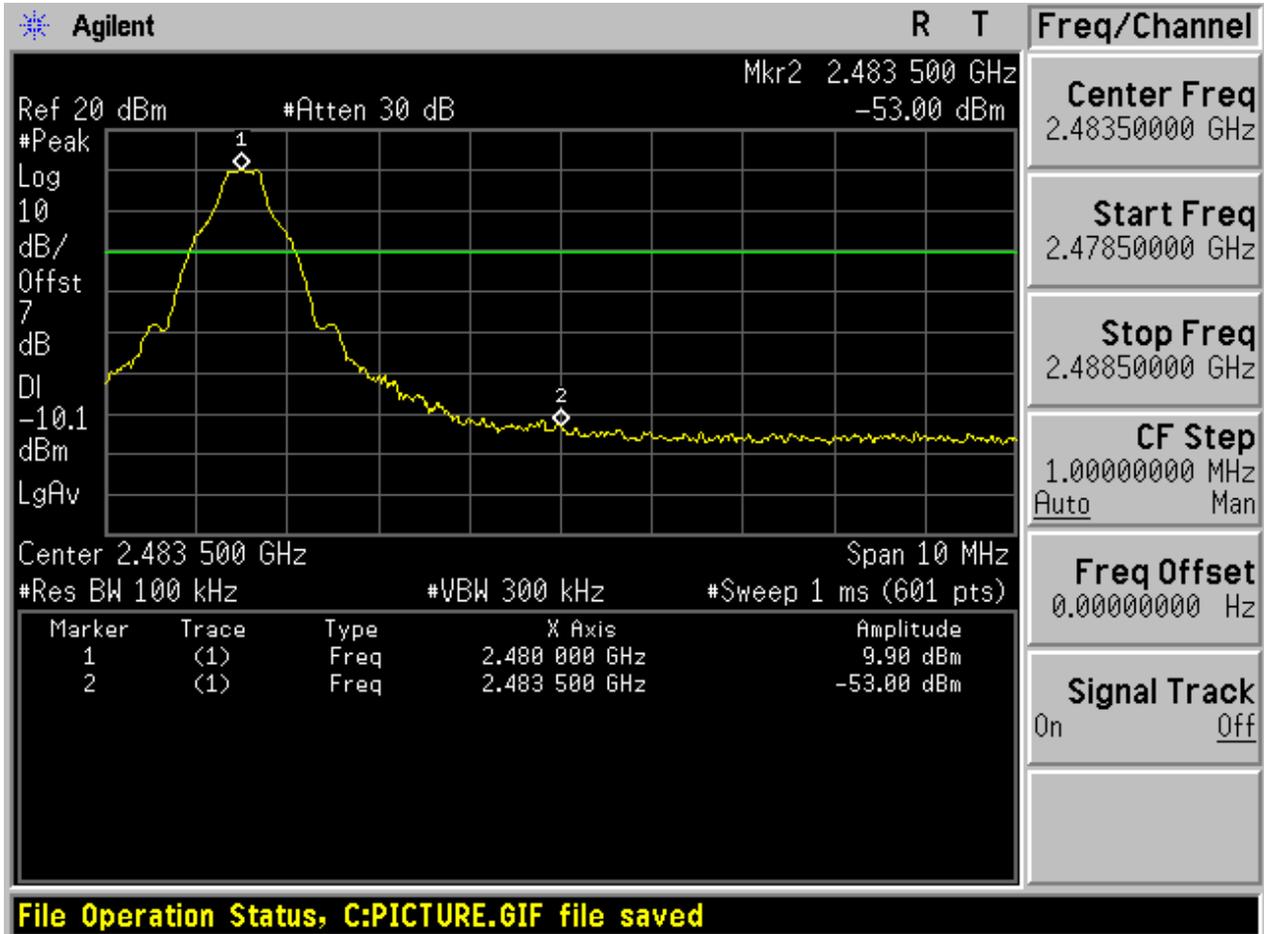


With hopping

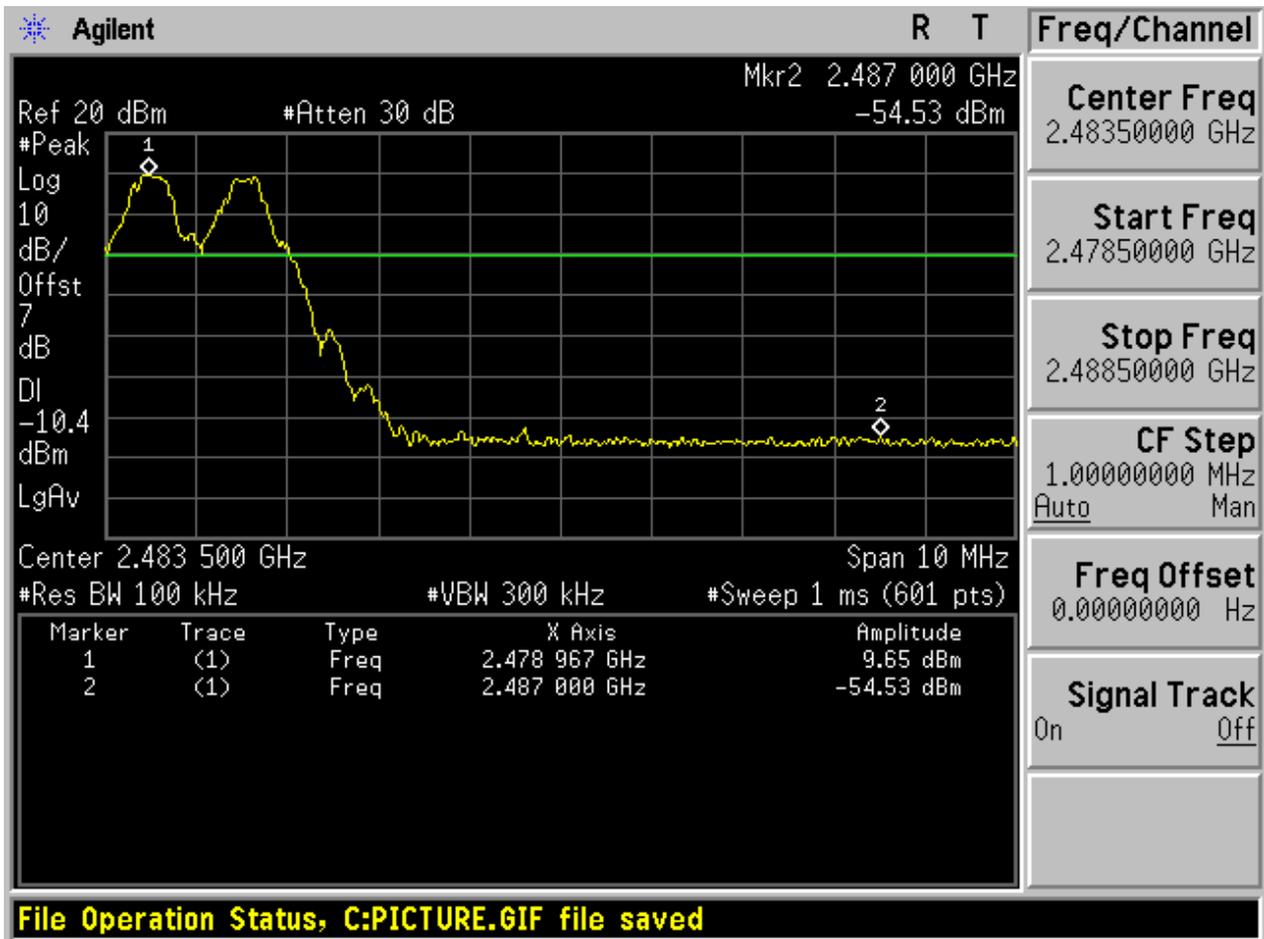


2.2 TM1_DH5_Ch78

No hopping

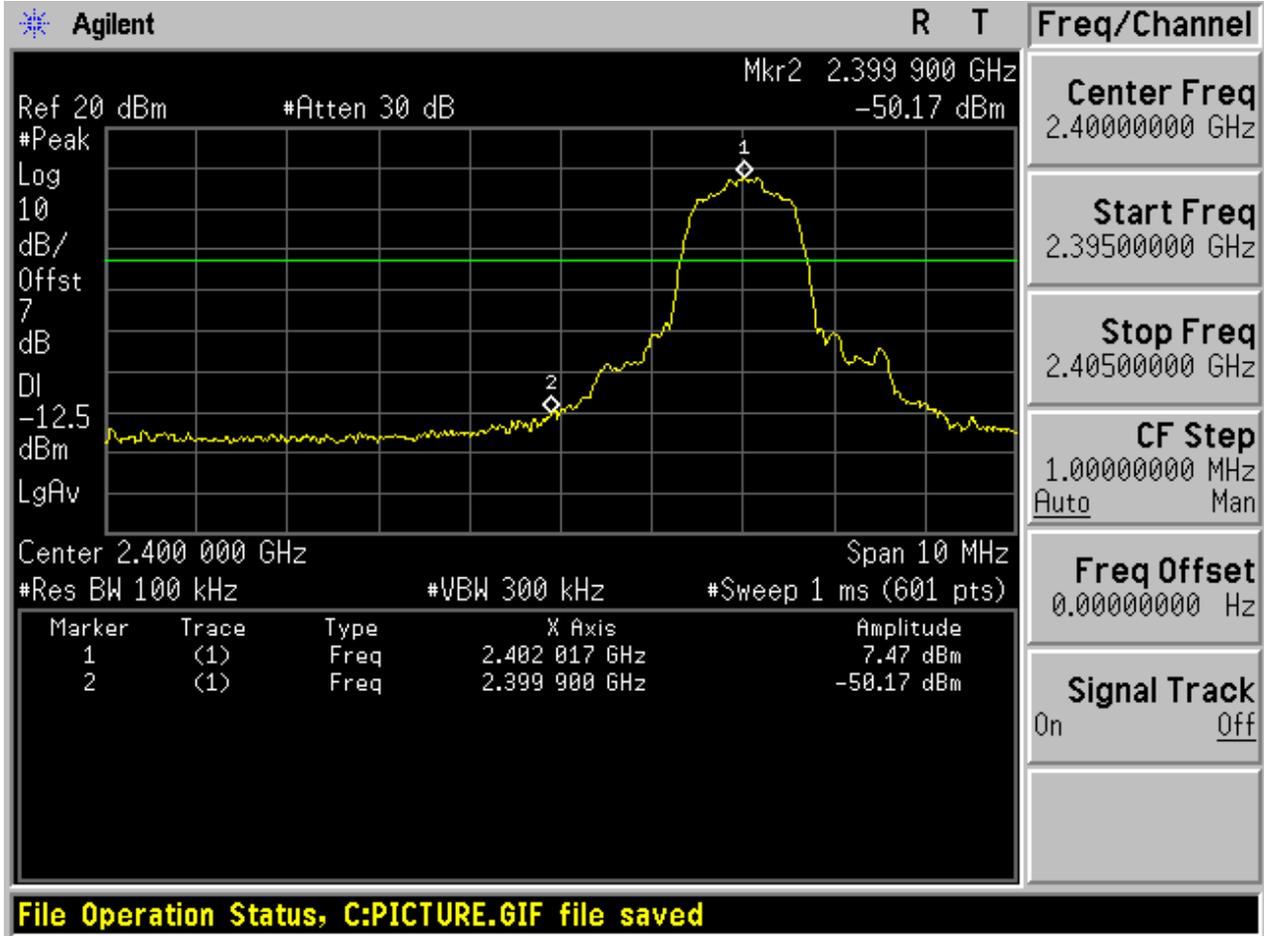


With hopping

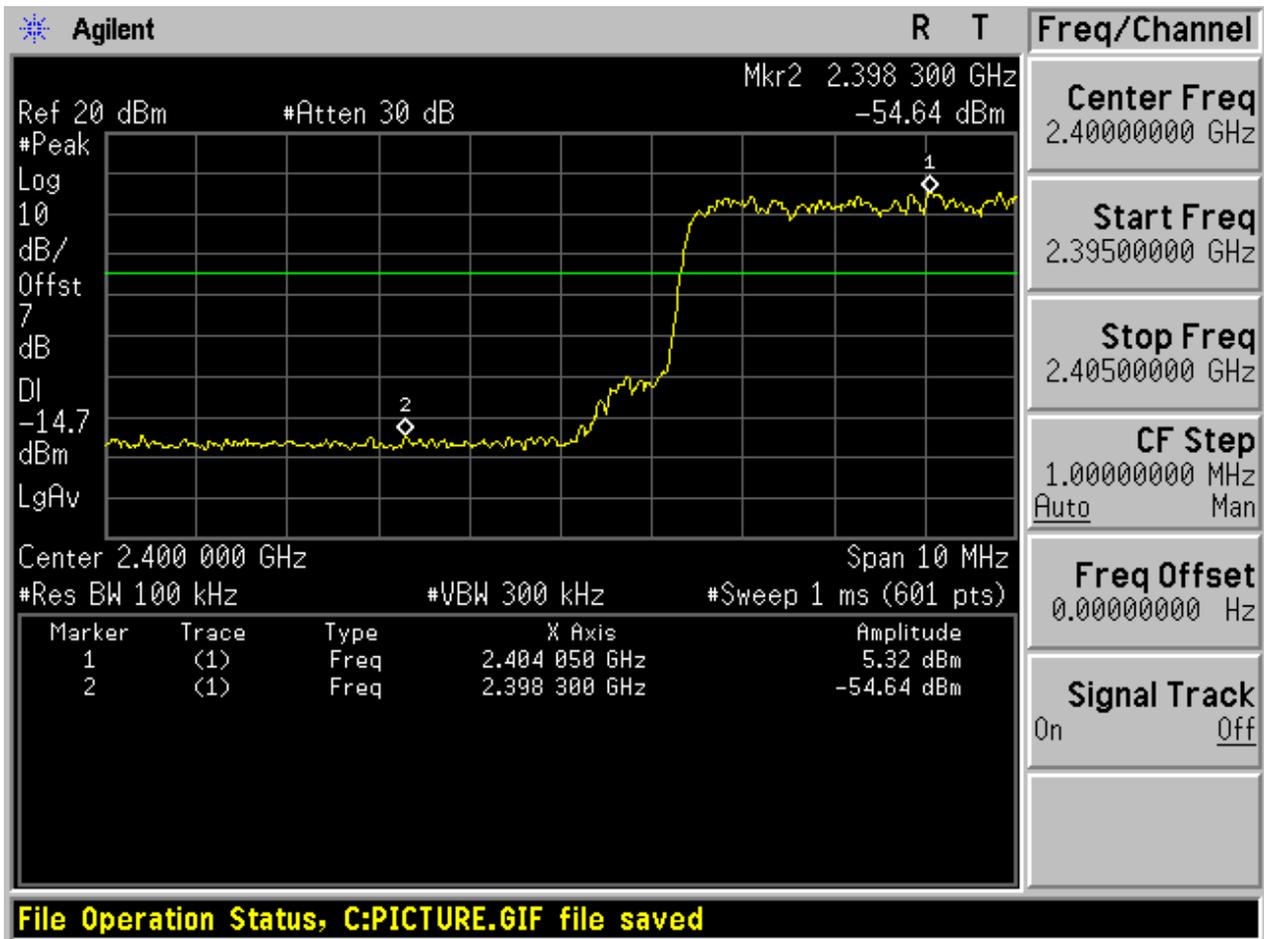


2.3 TM2_2DH5_Ch0

No hopping

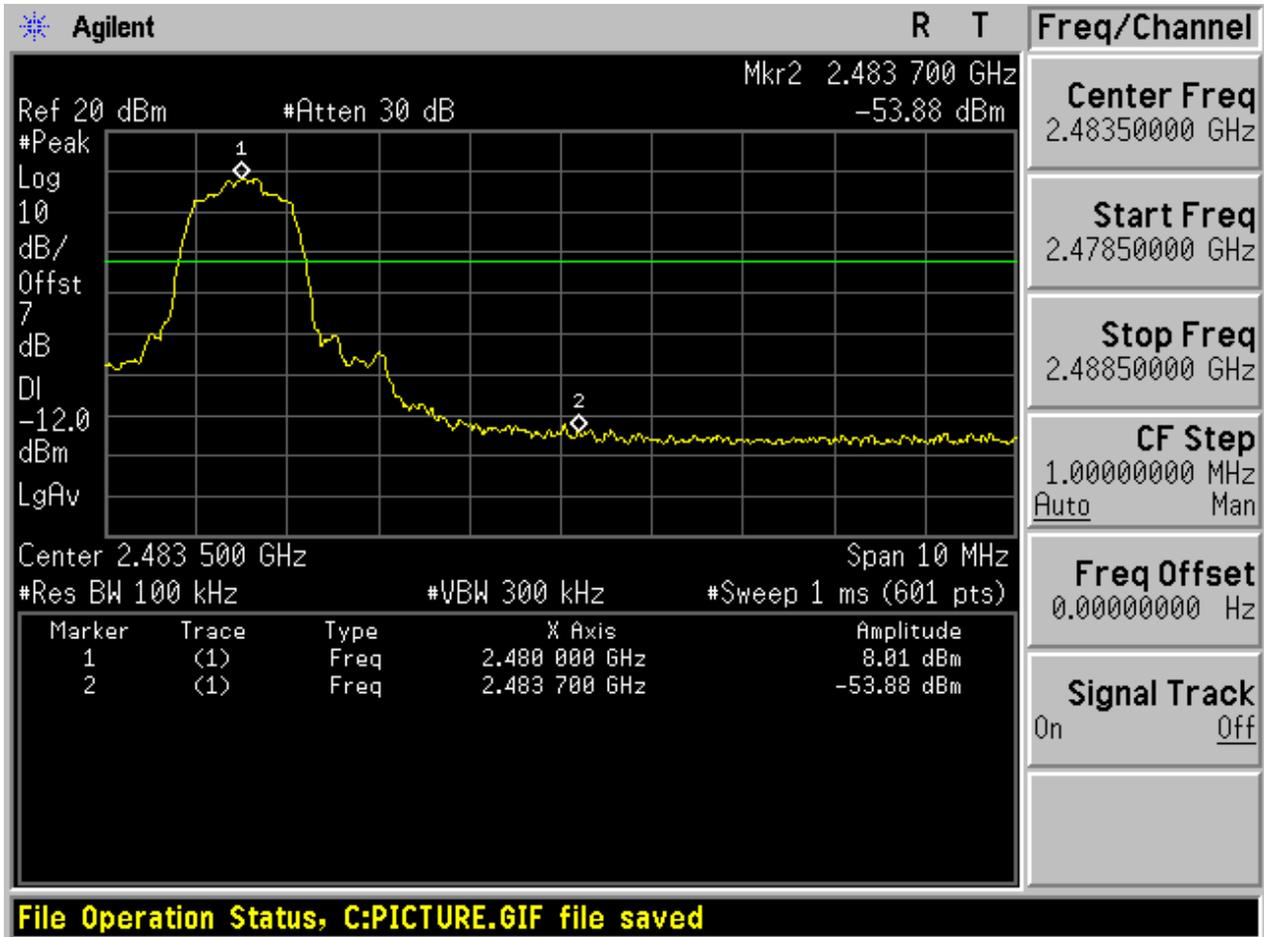


With hopping

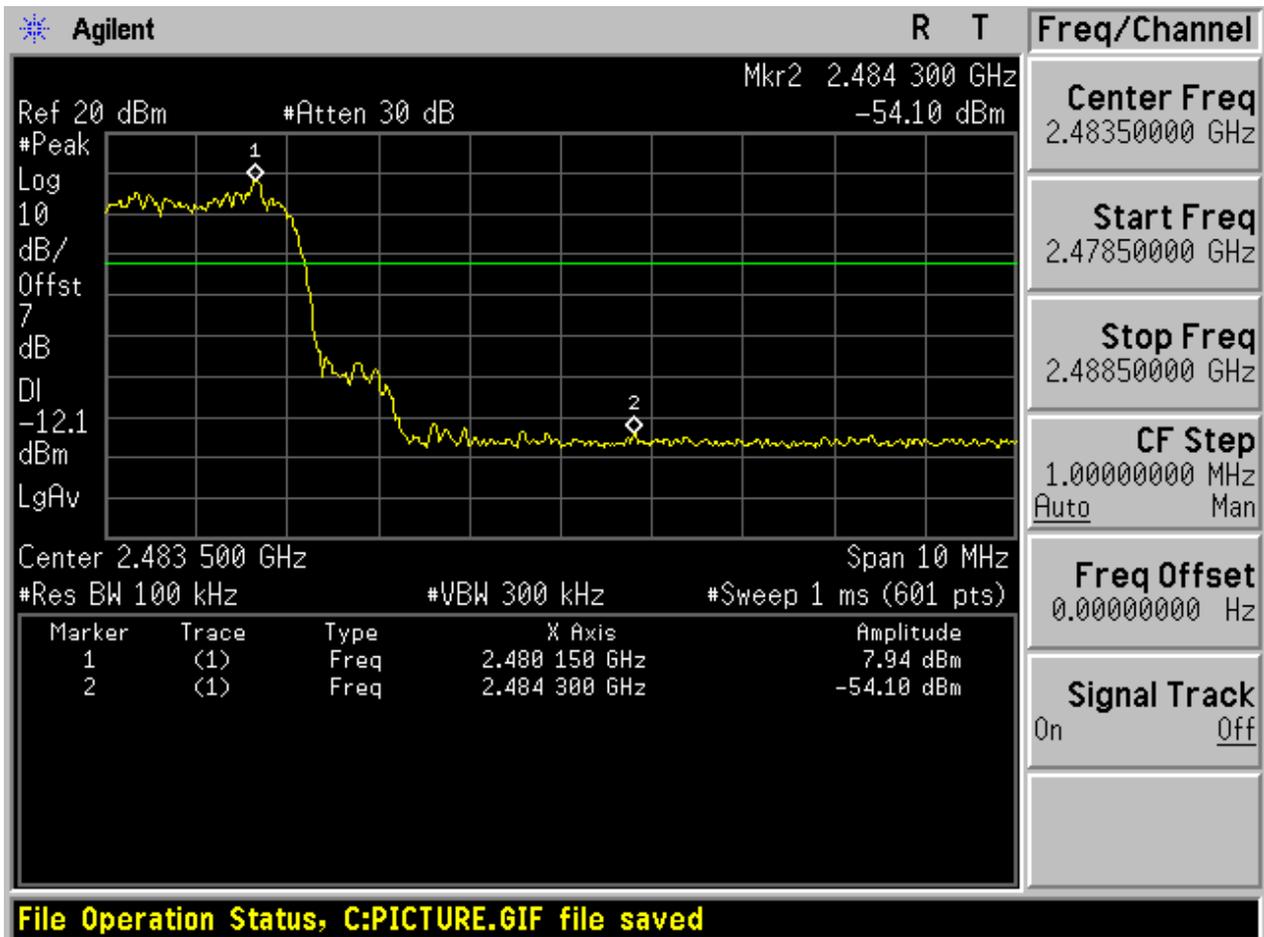


2.4 TM2_2DH5_Ch78

No hopping

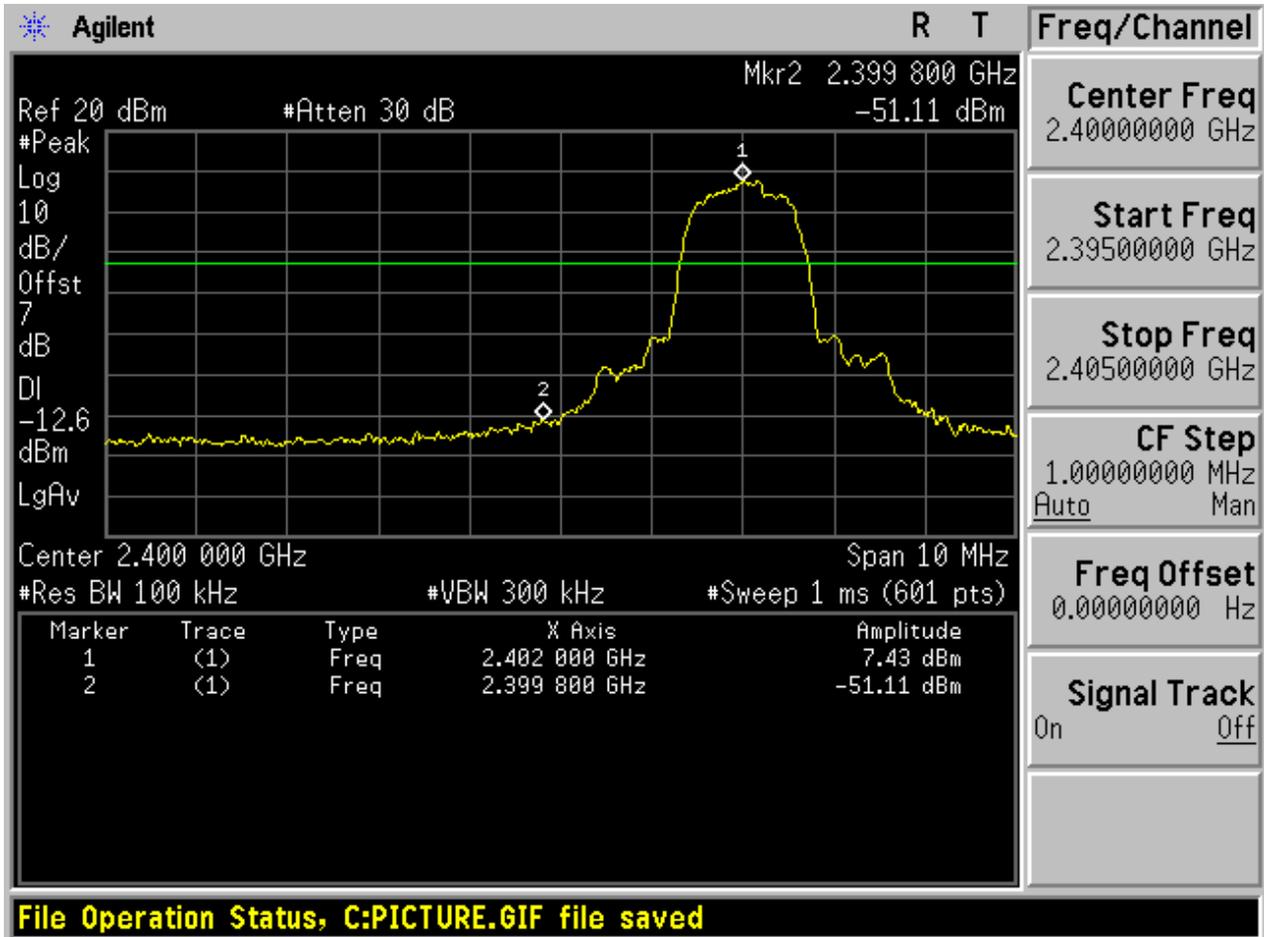


With hopping

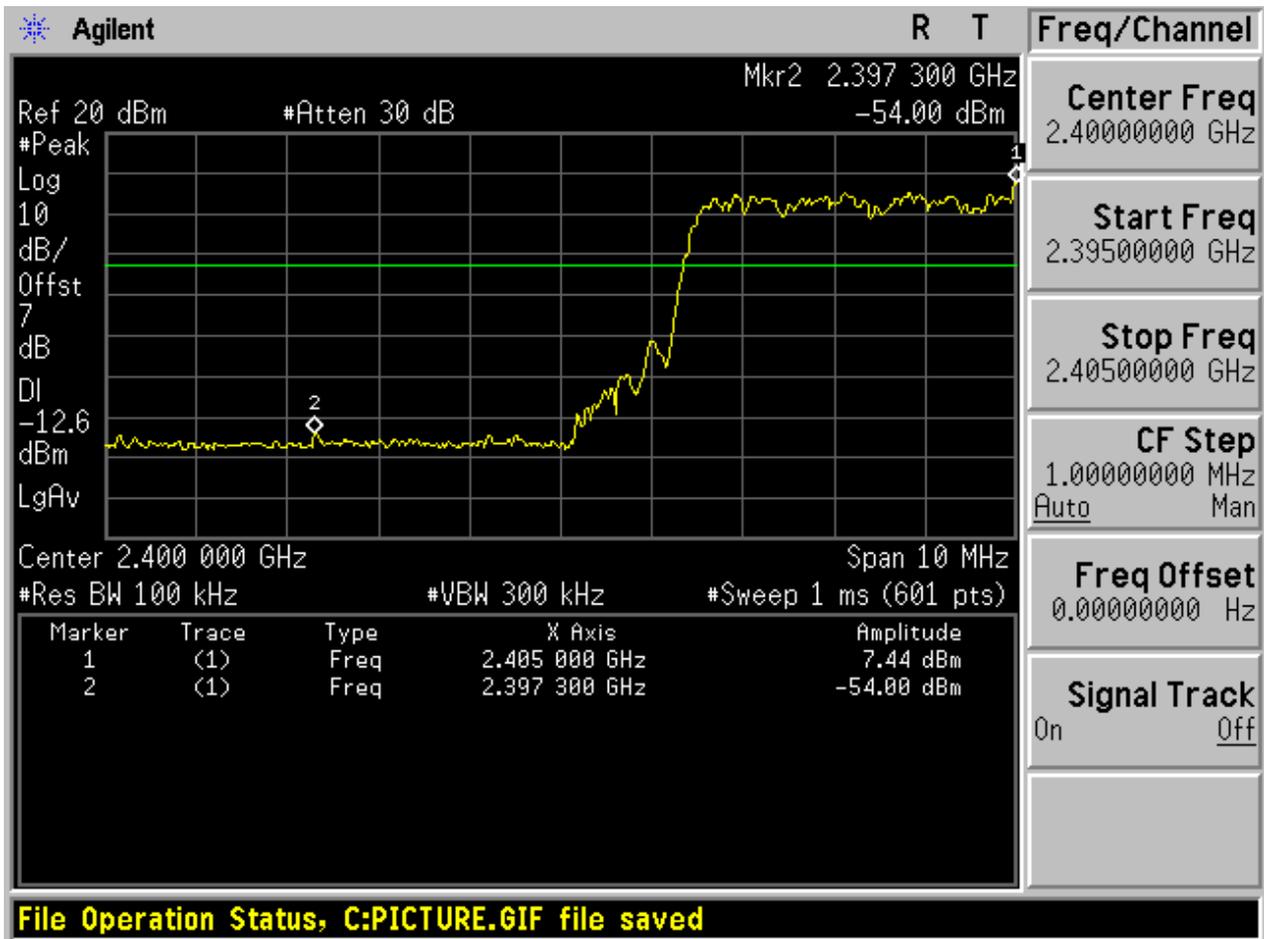


2.5 TM3_3DH5_Ch0

No hopping

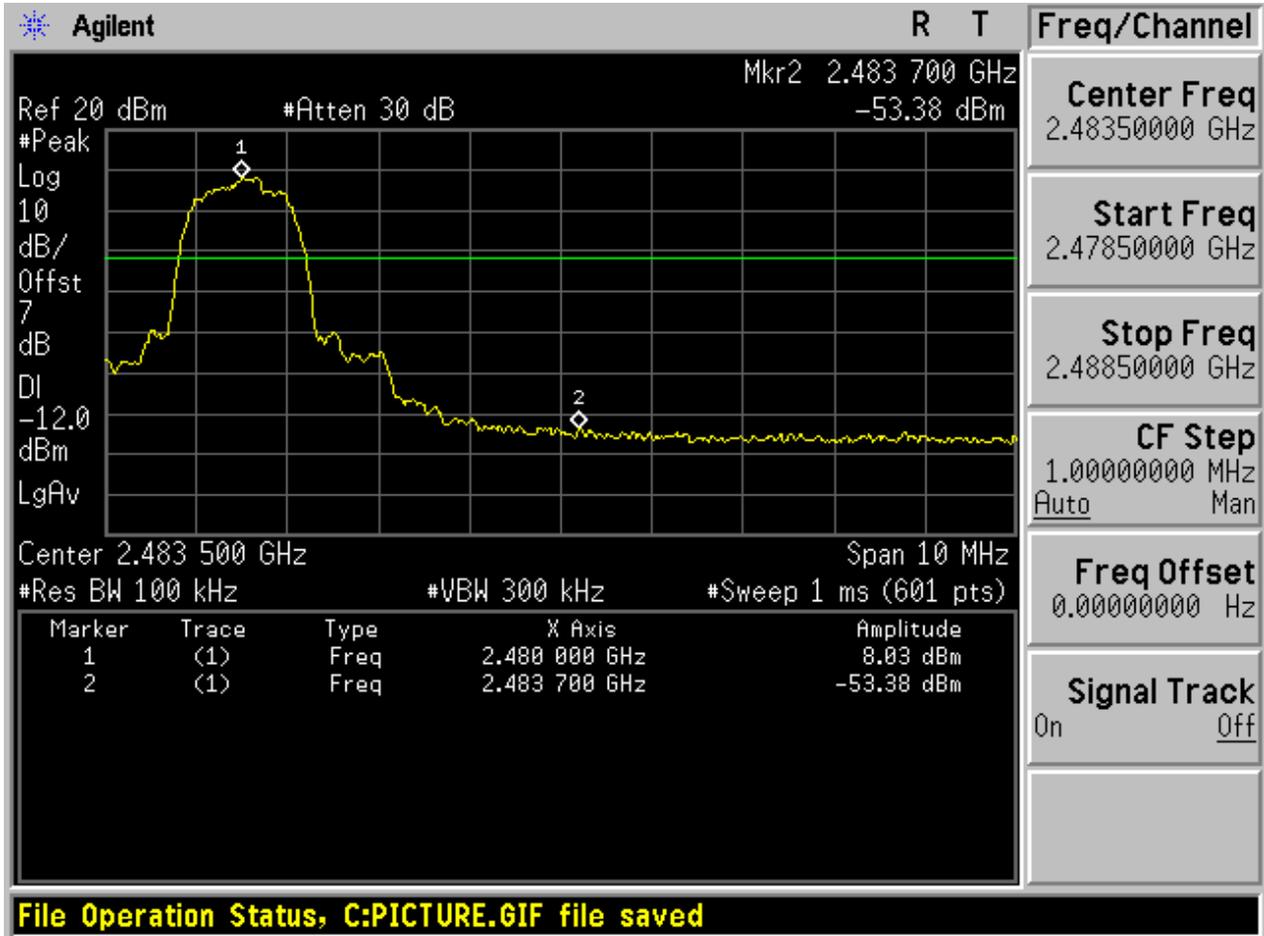


With hopping

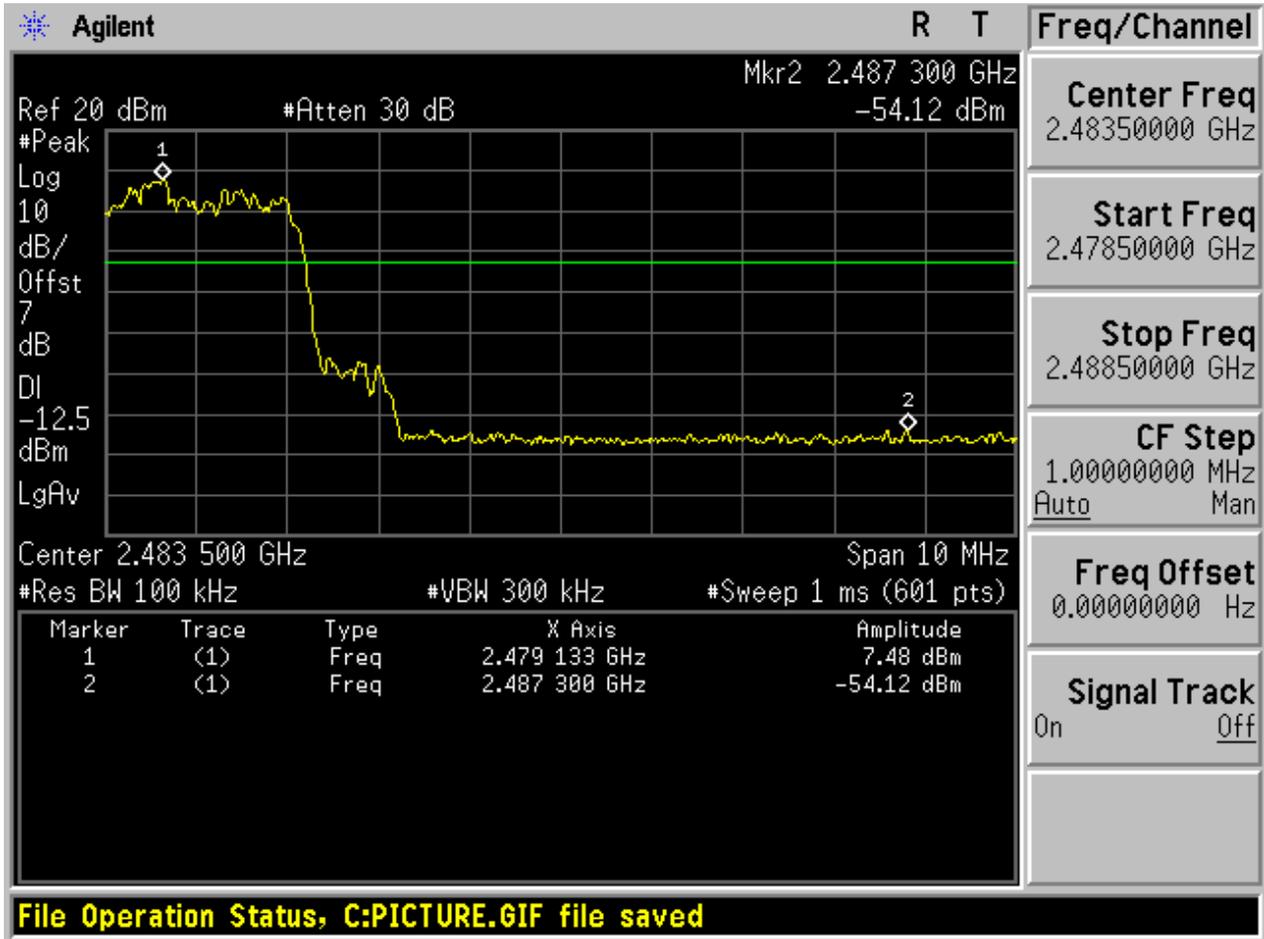


2.6 TM3_3DH5_Ch78

No hopping



With hopping





Appendix G: Conducted RF Spurious Emission



1 Result Table

In this Appendix, the “Pref” refers to the peak power level in any 100 kHz bandwidth within the fundamental emission which is used as the reference level, 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.

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

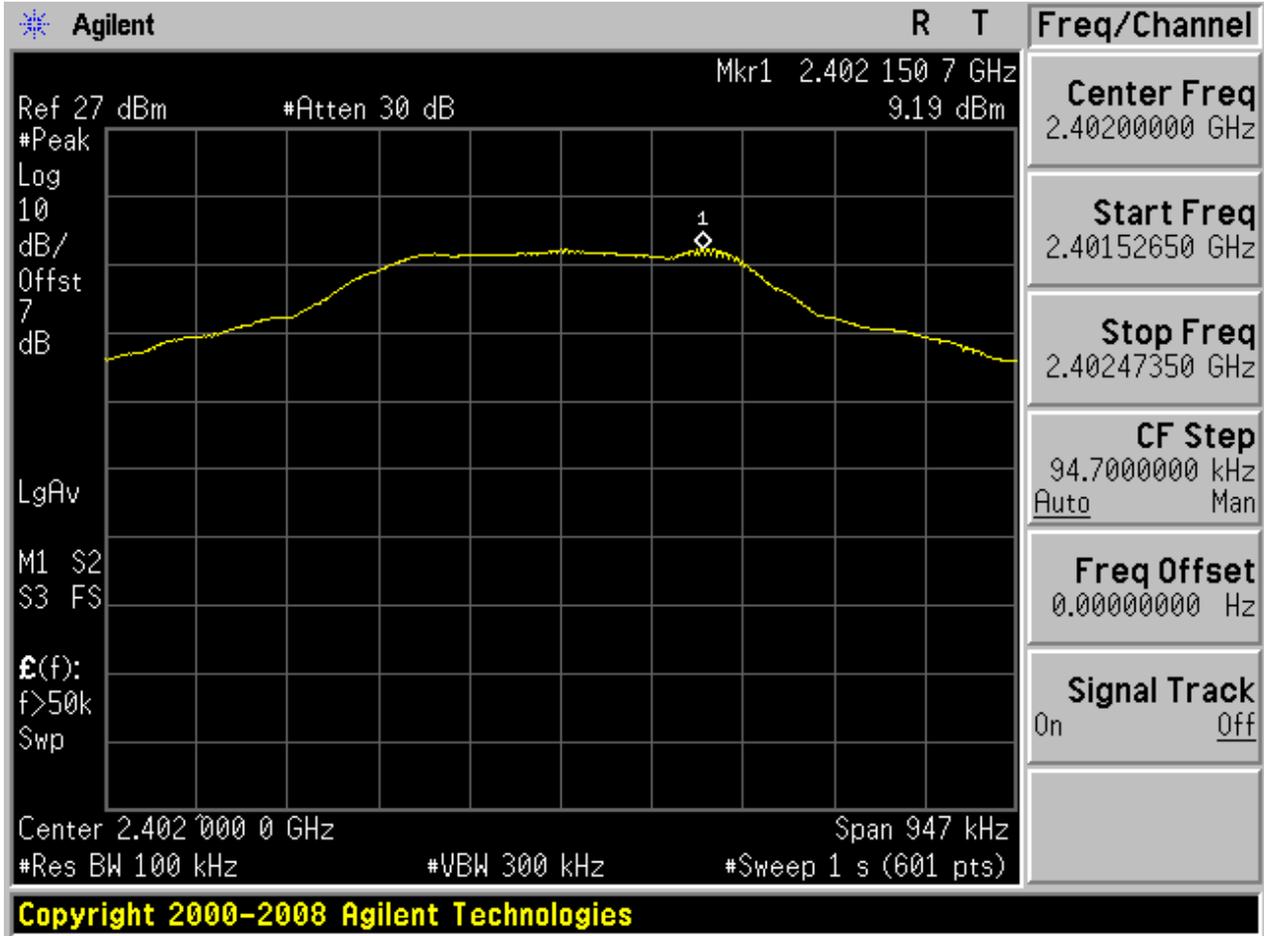
EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	9.19	< Limit	Pass
TM1_DH5_Ch39	10.02	< Limit	Pass
TM1_DH5_Ch78	9.73	< Limit	Pass
TM2_2DH5_Ch0	7.39	< Limit	Pass
TM2_2DH5_Ch39	8.21	< Limit	Pass
TM2_2DH5_Ch78	7.89	< Limit	Pass
TM3_3DH5_Ch0	7.39	< Limit	Pass
TM3_3DH5_Ch39	8.21	< Limit	Pass
TM3_3DH5_Ch78	7.90	< Limit	Pass



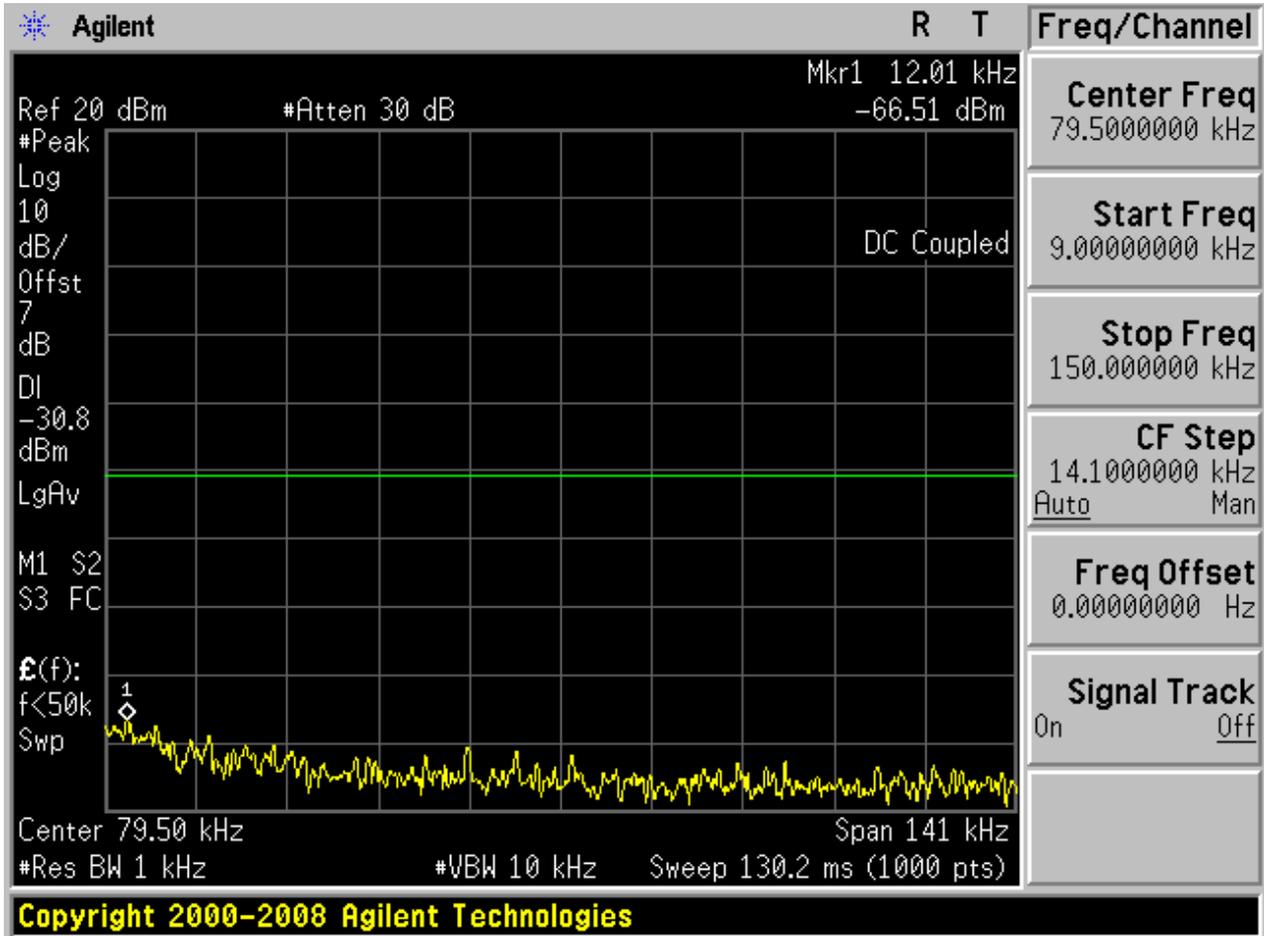
2 Test Plot

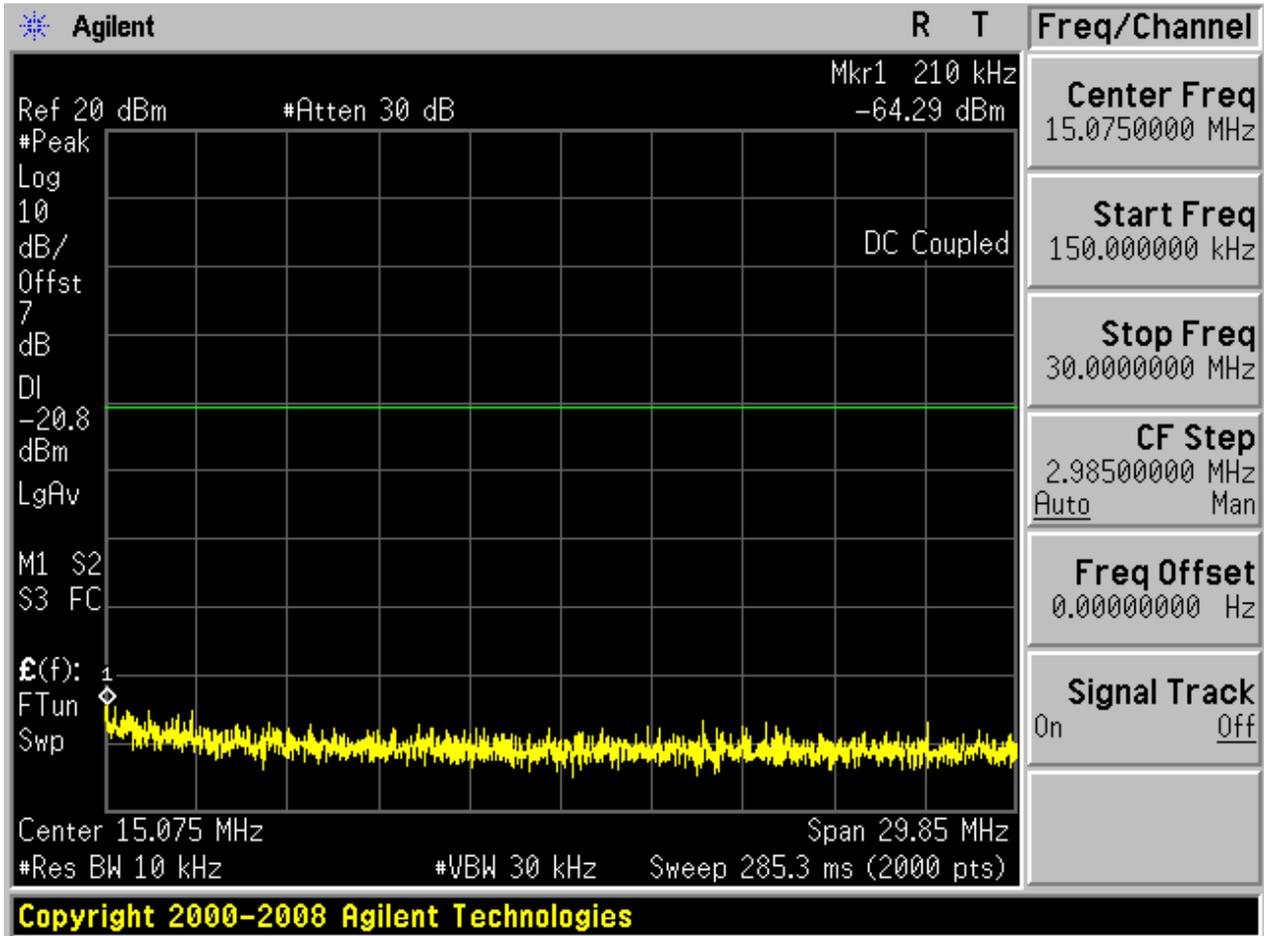
2.1 TM1_DH5_Ch0

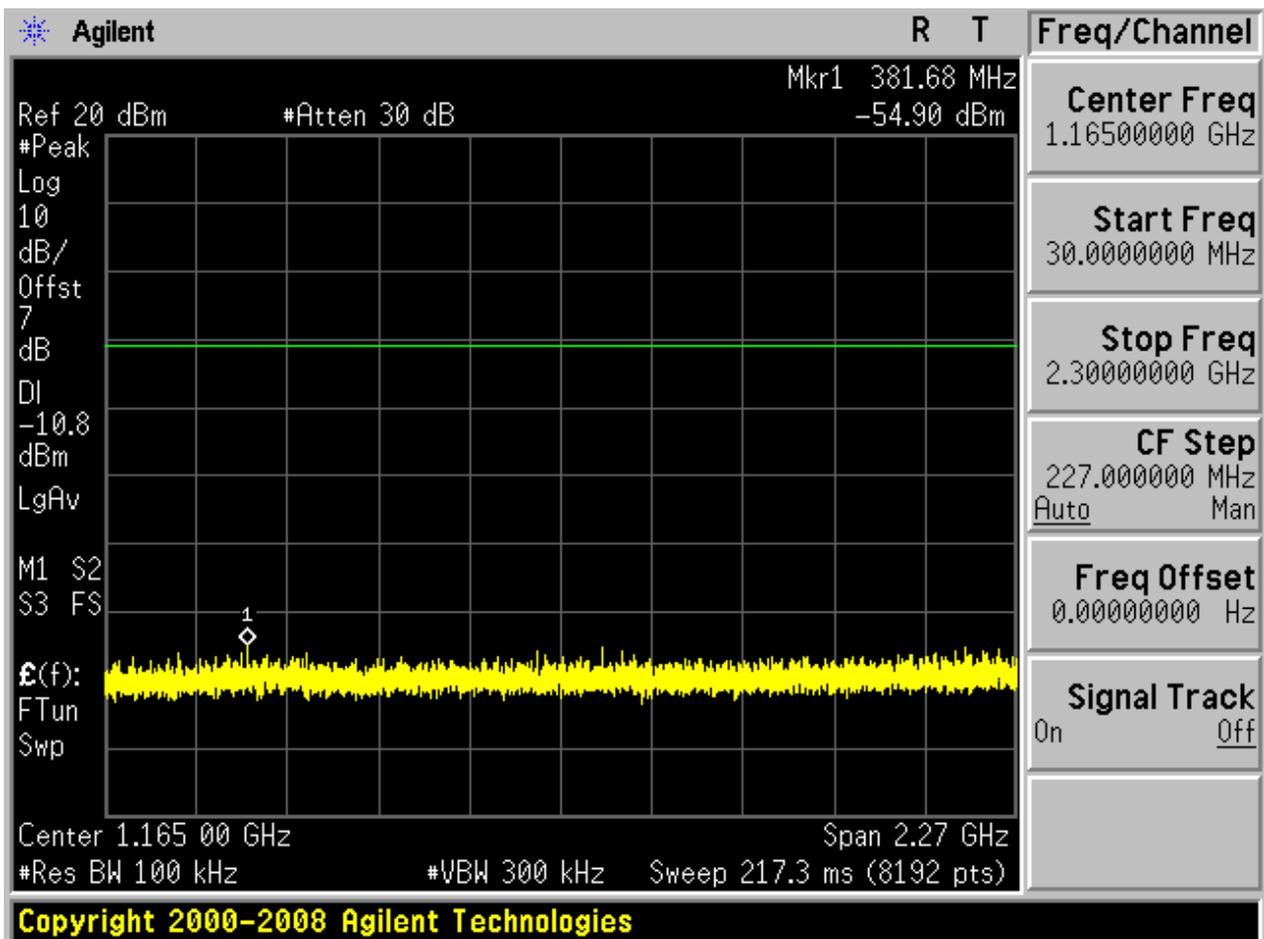
2.1.1 Pref

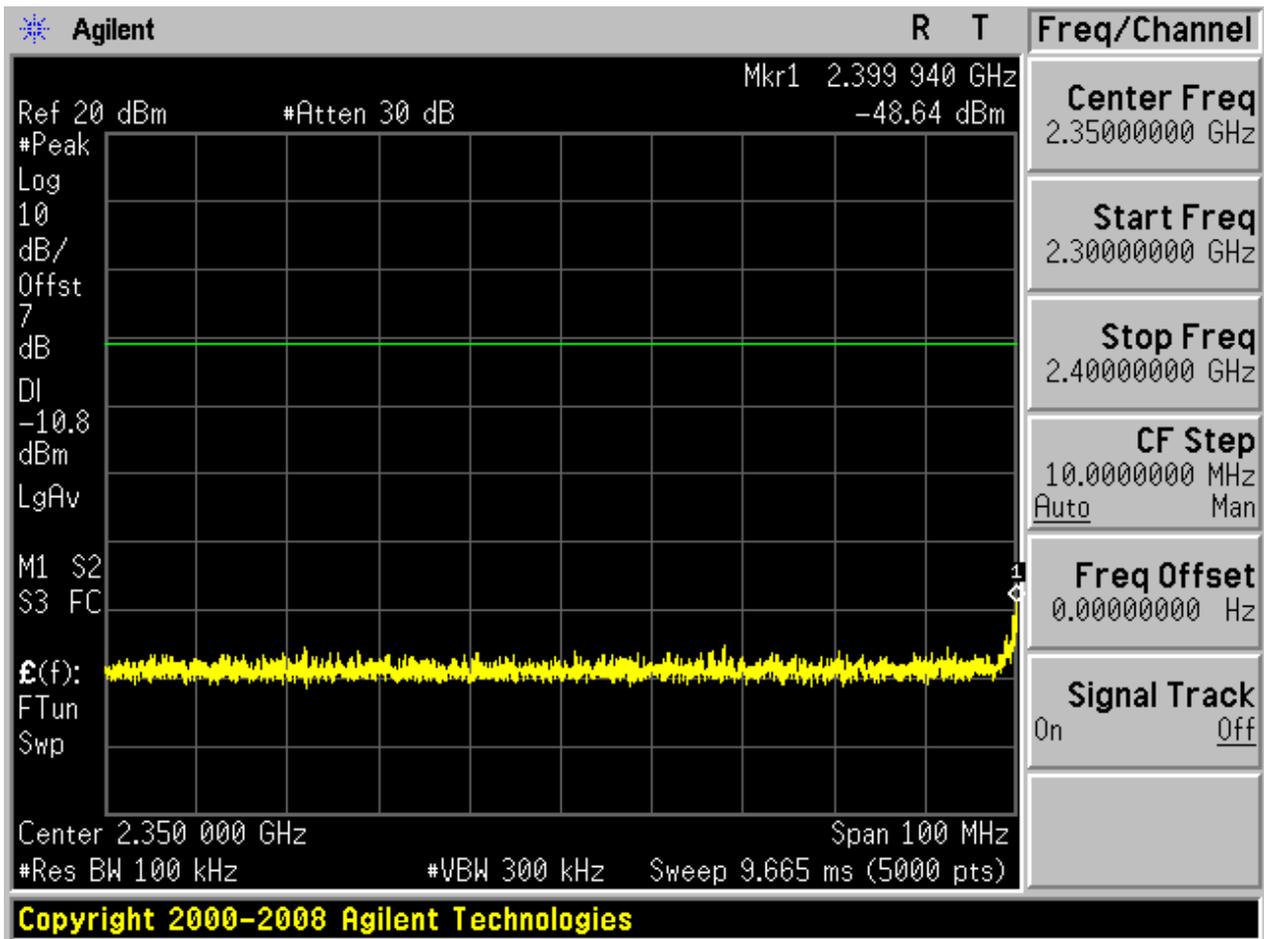


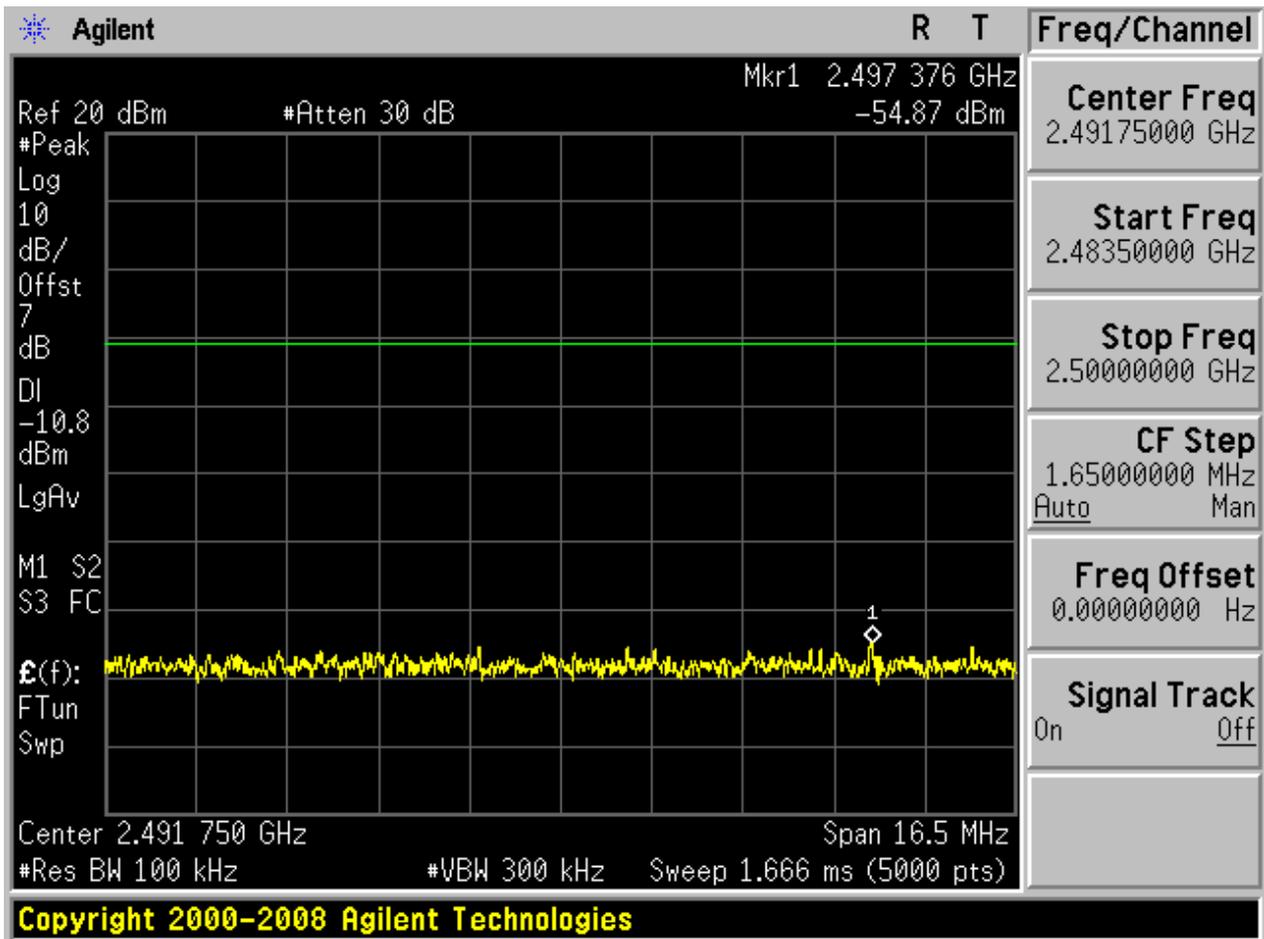
2.1.2 Puw

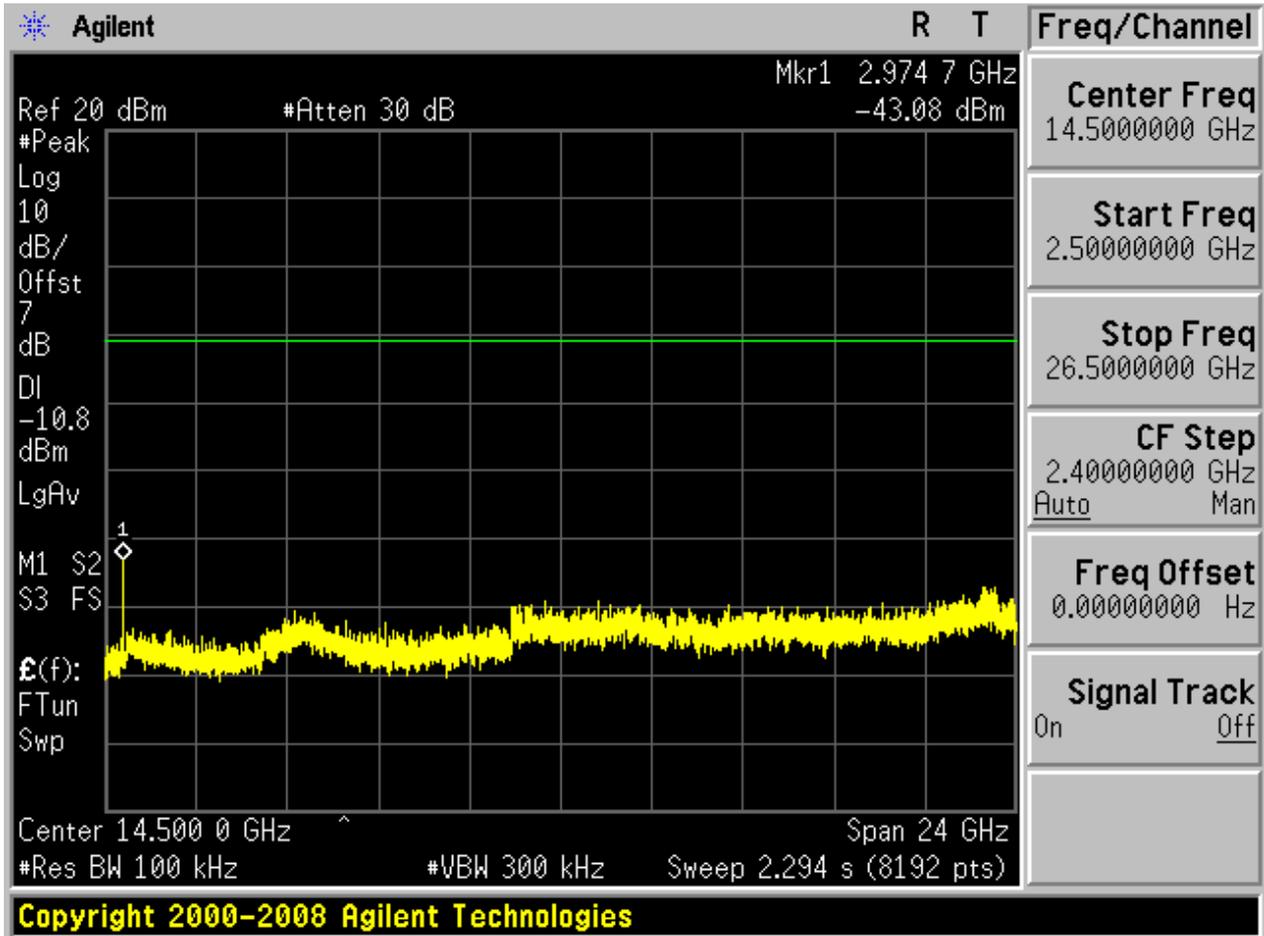








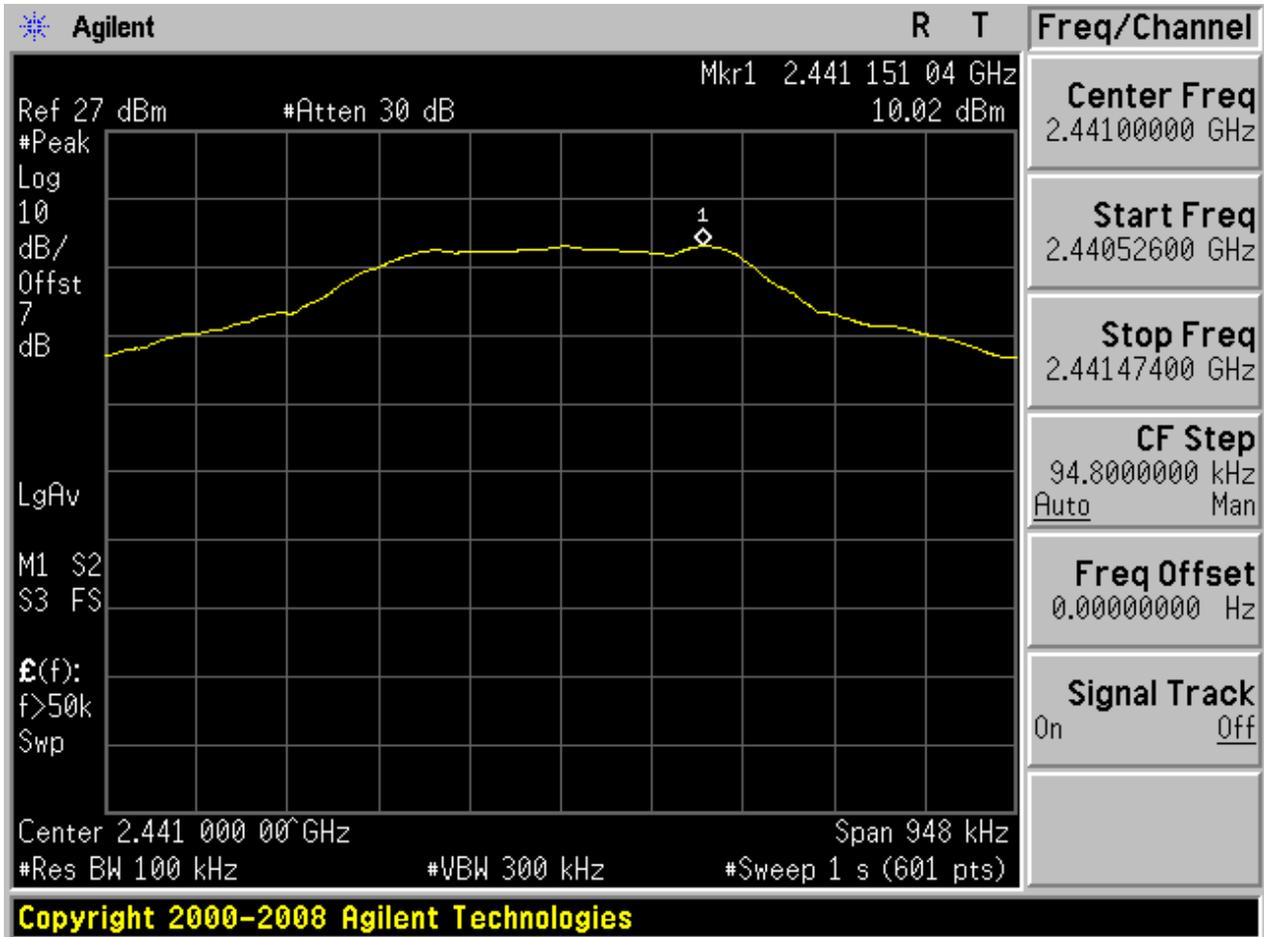




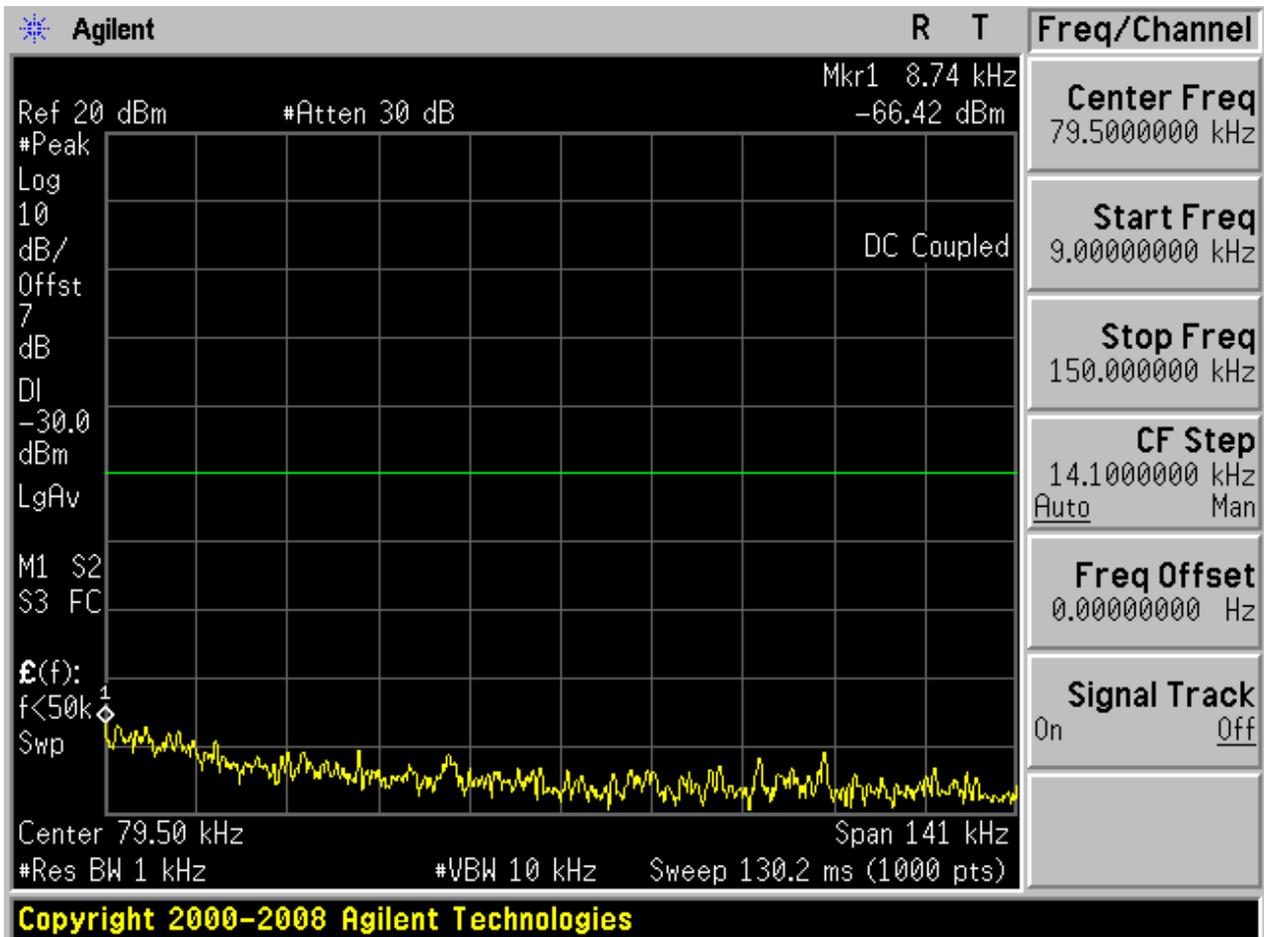


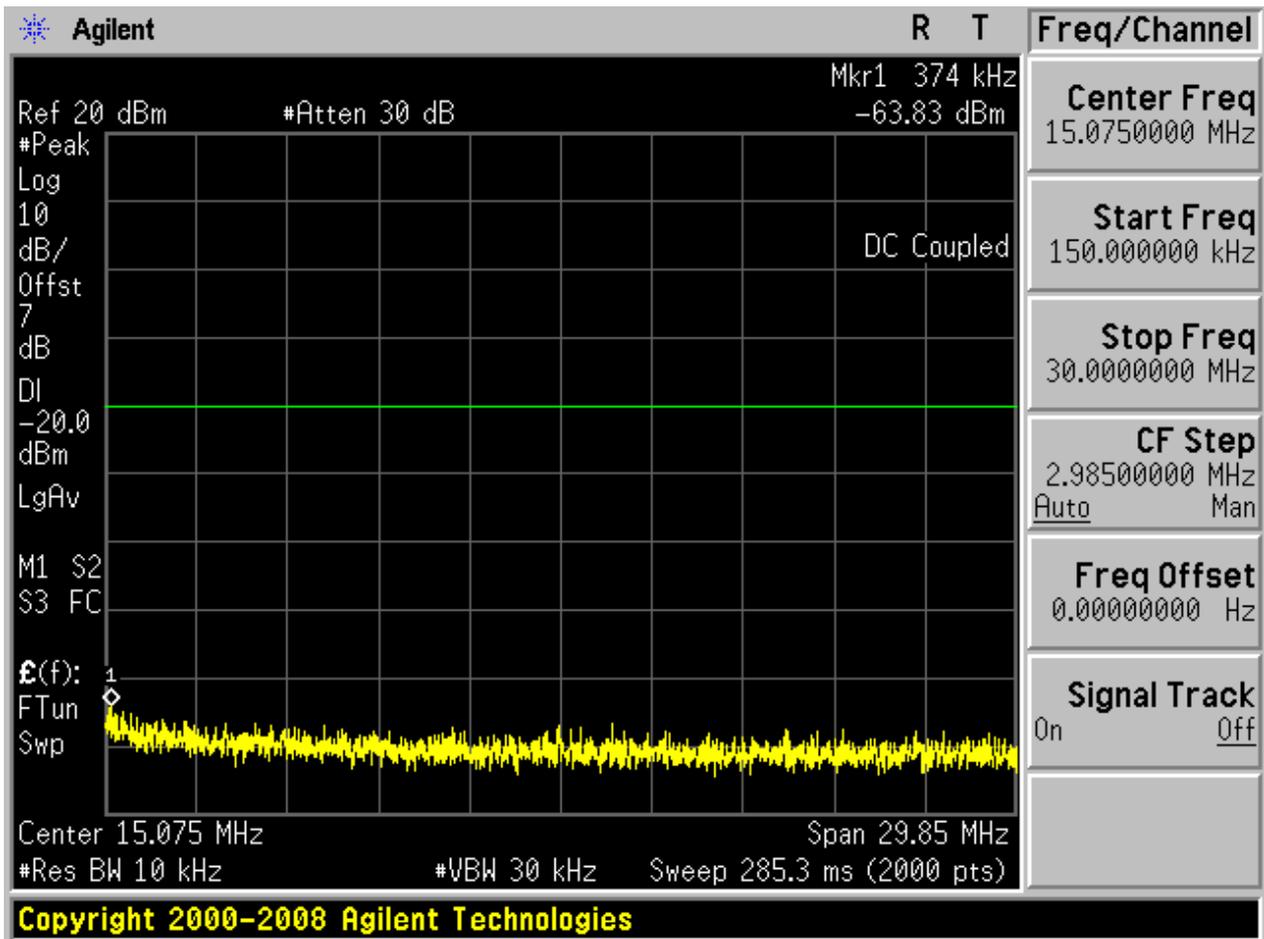
2.2 TM1_DH5_Ch39

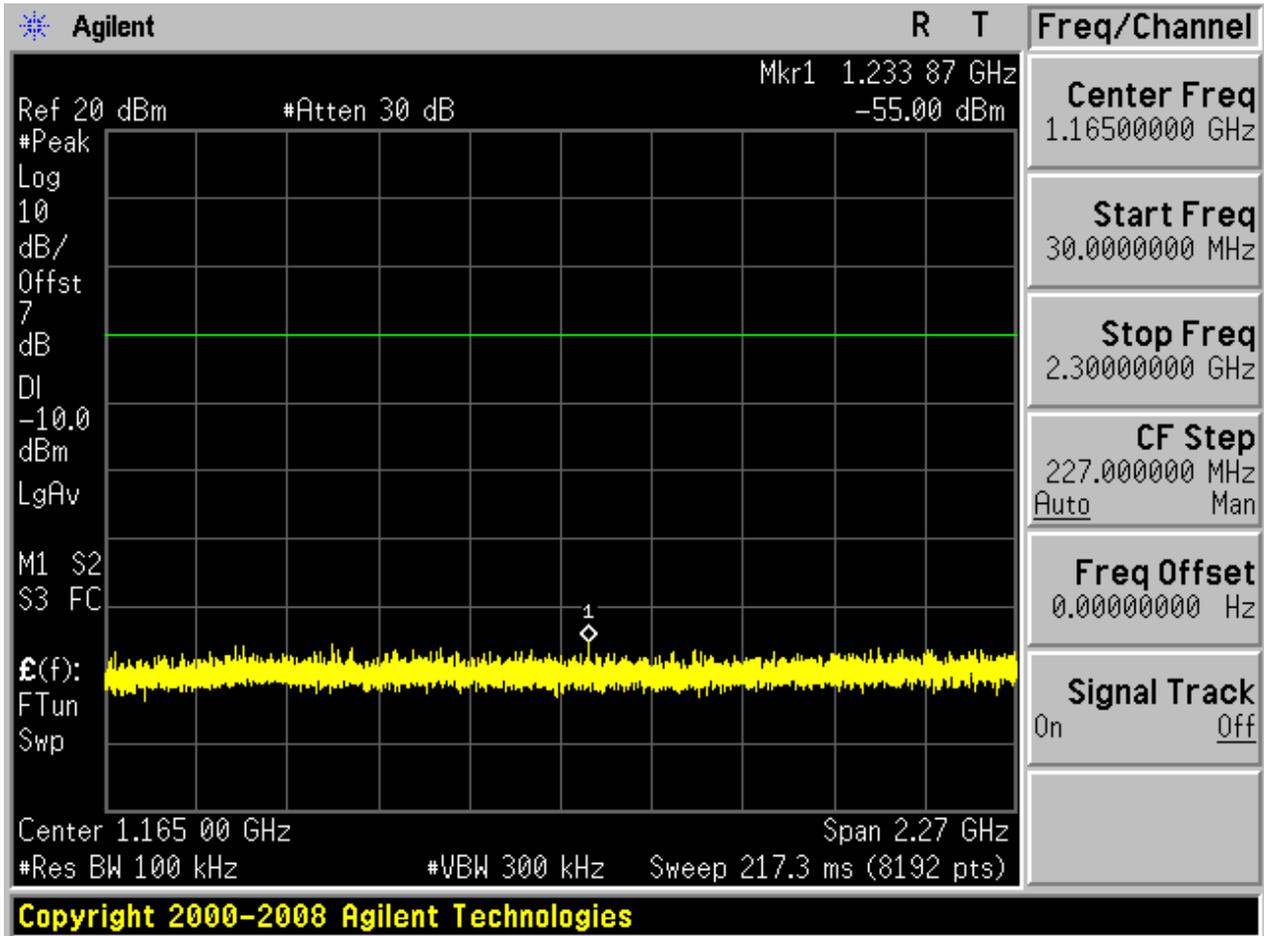
2.2.1 Pref

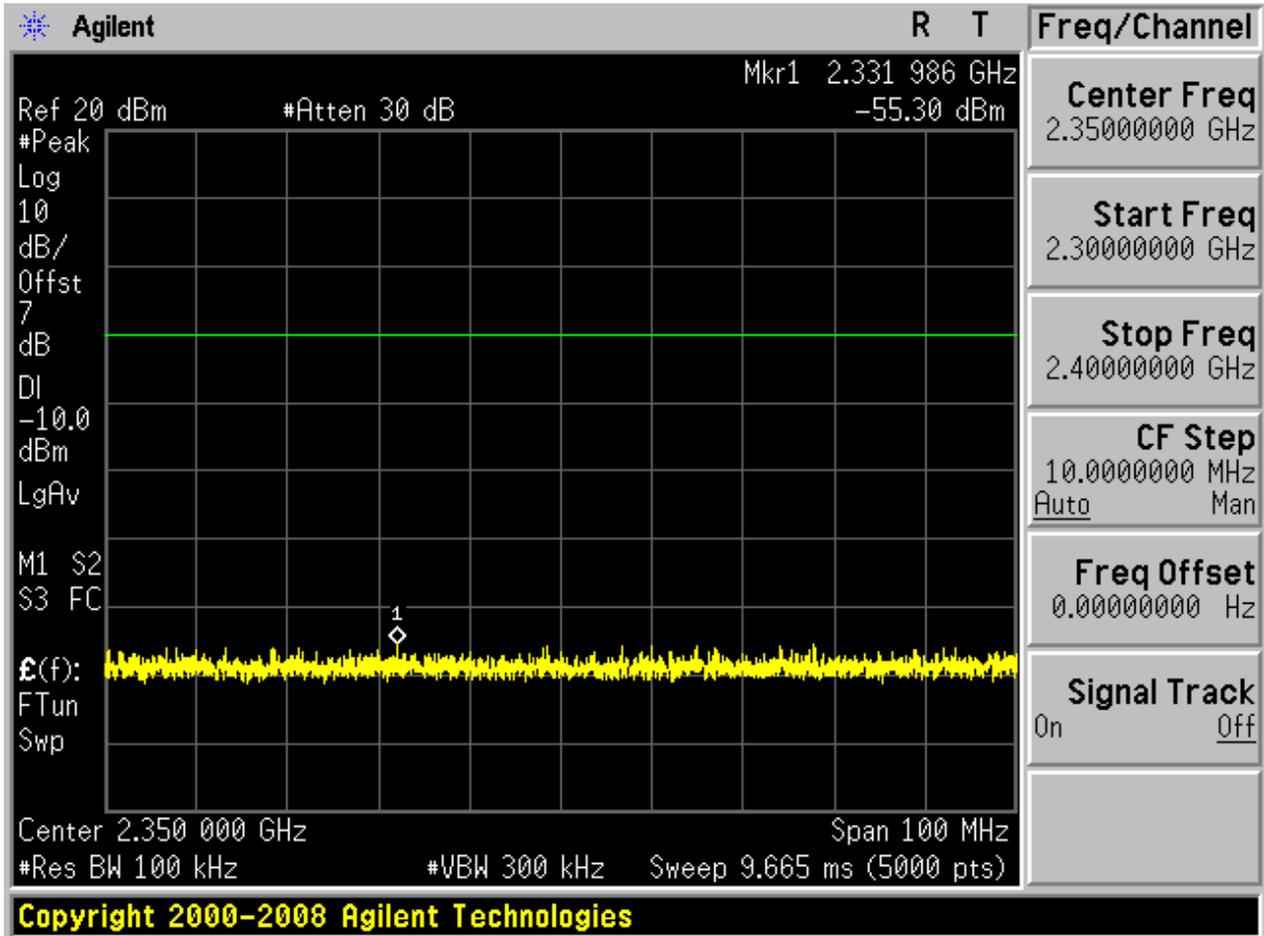


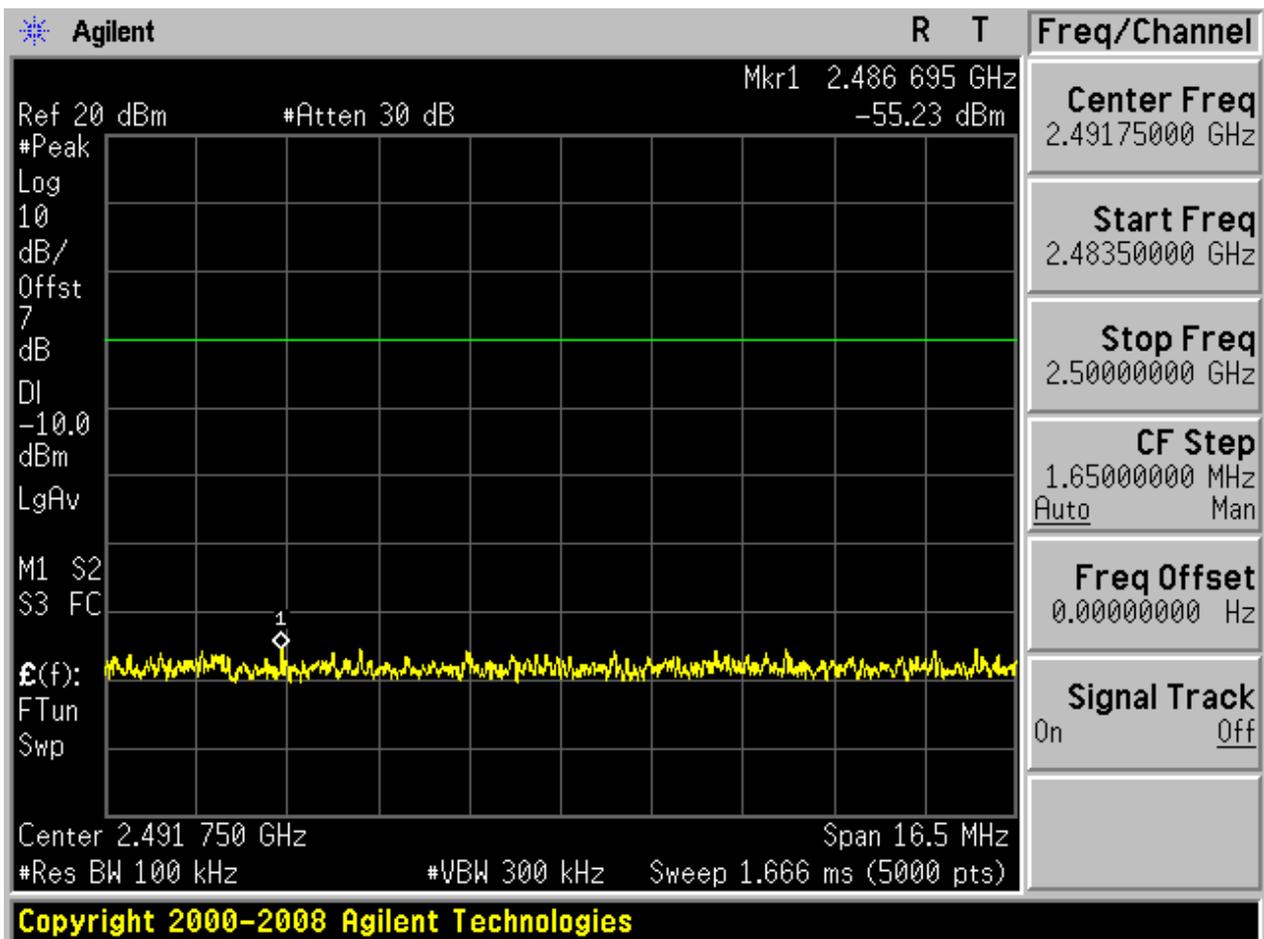
2.2.2 Puw

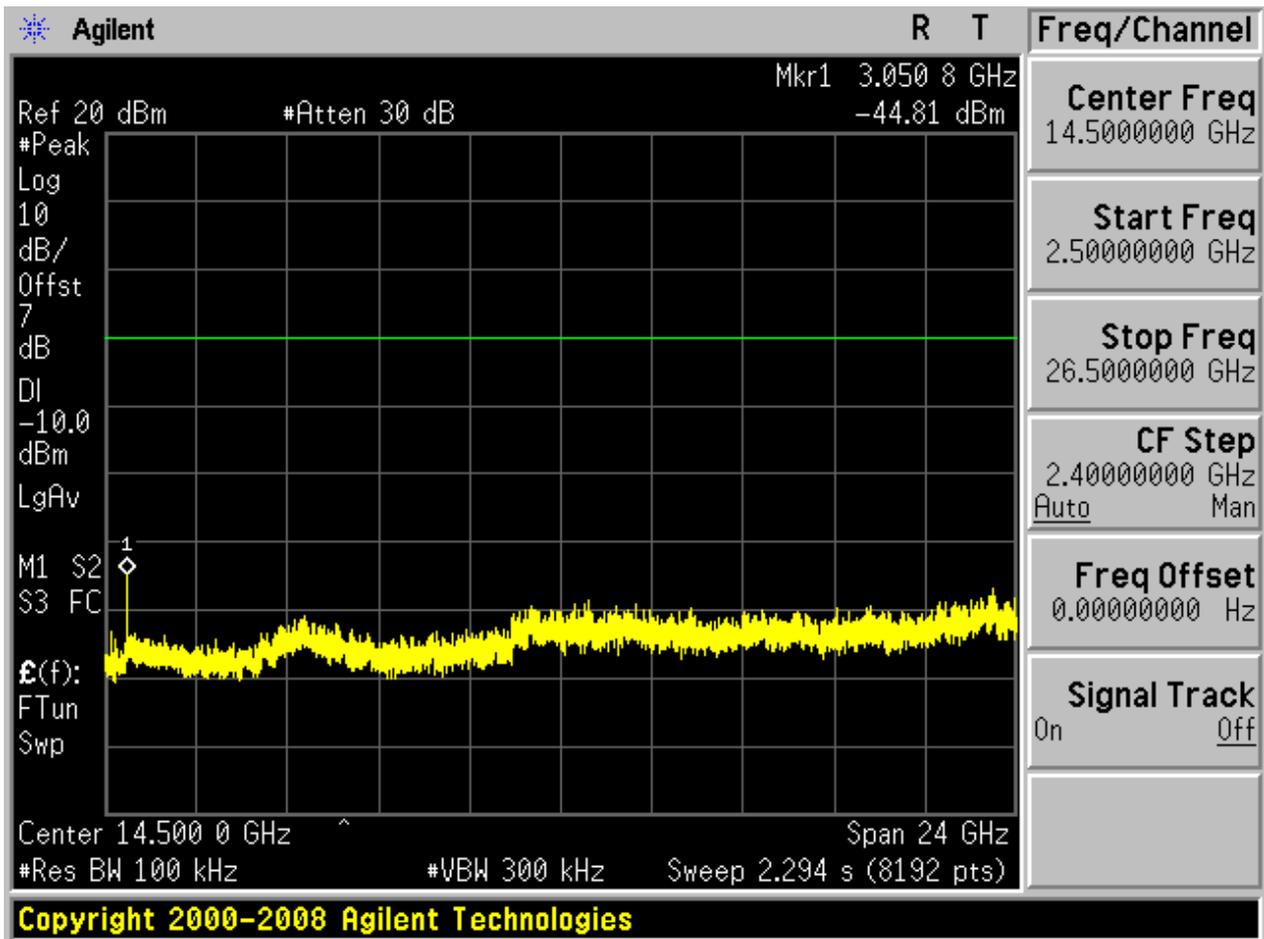






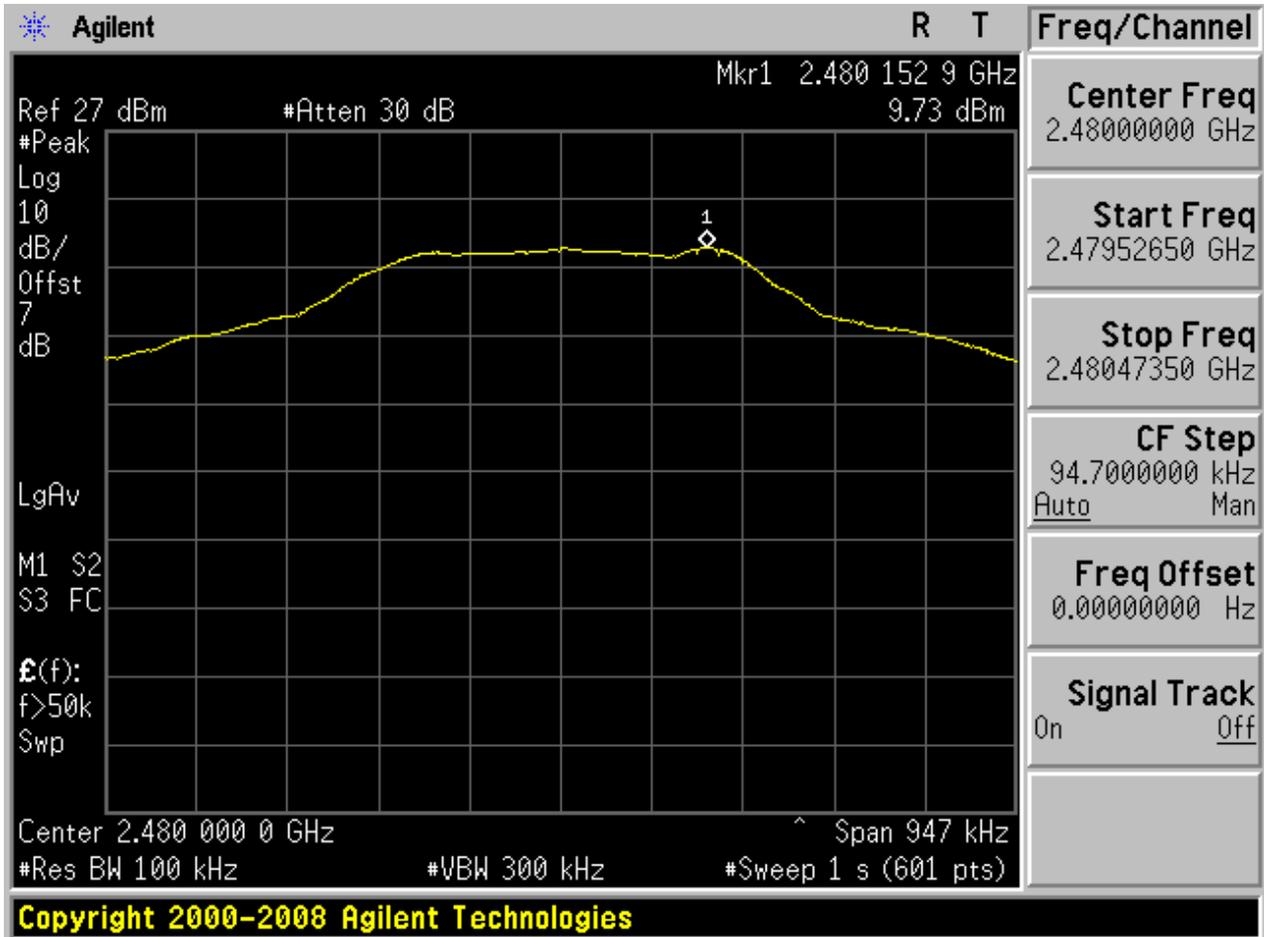






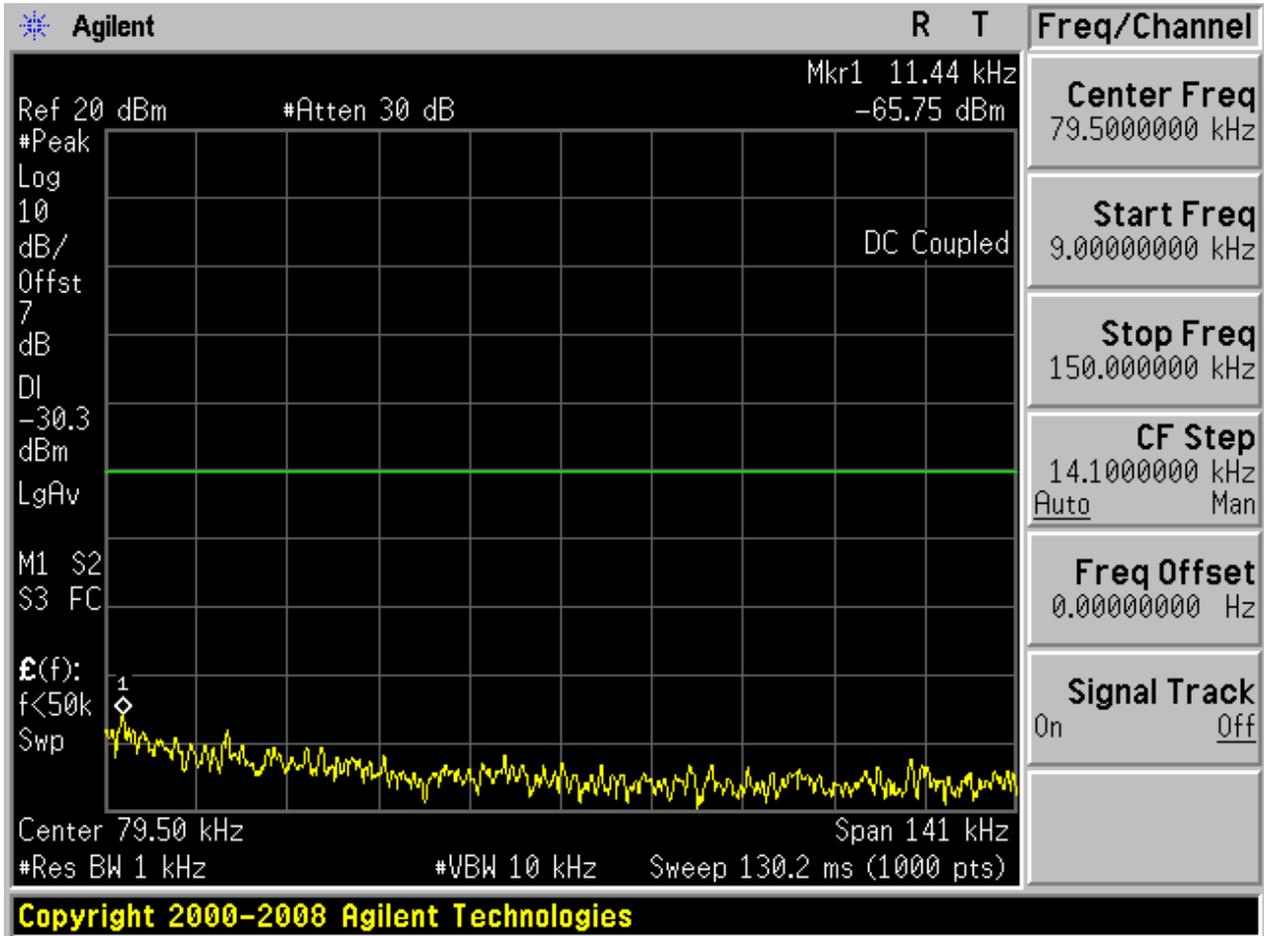
2.3 TM1_DH5_Ch78

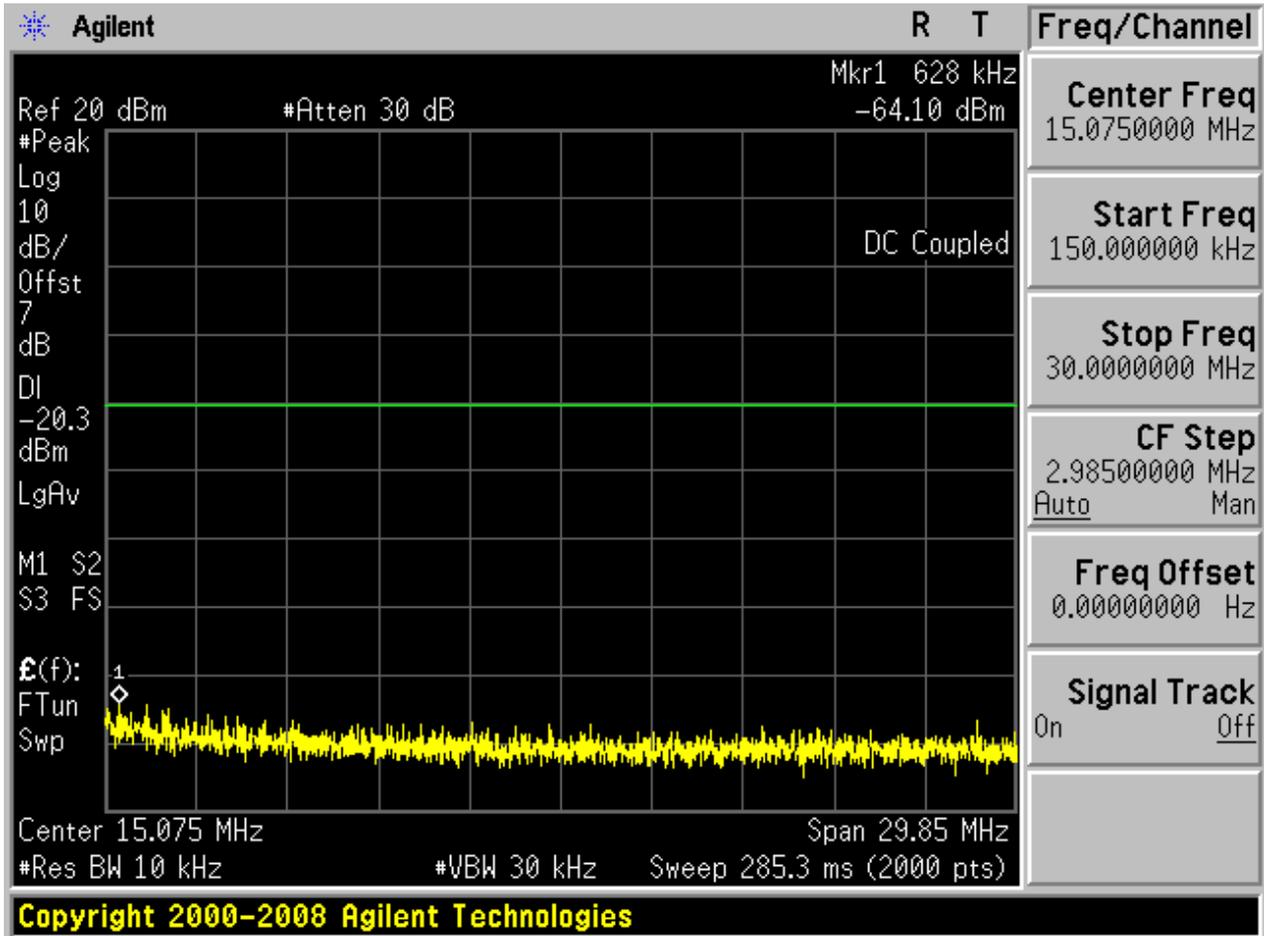
2.3.1 Pref

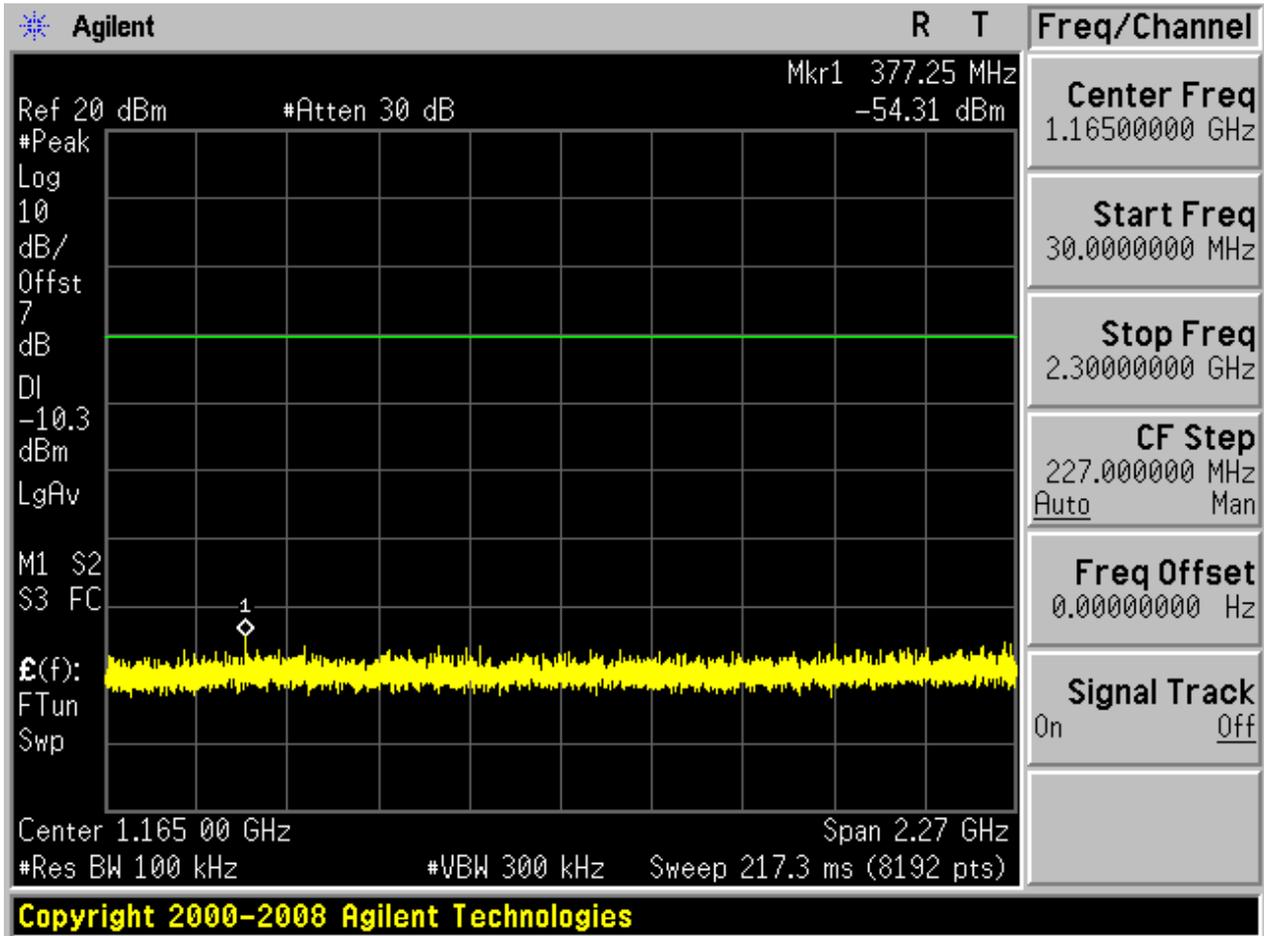


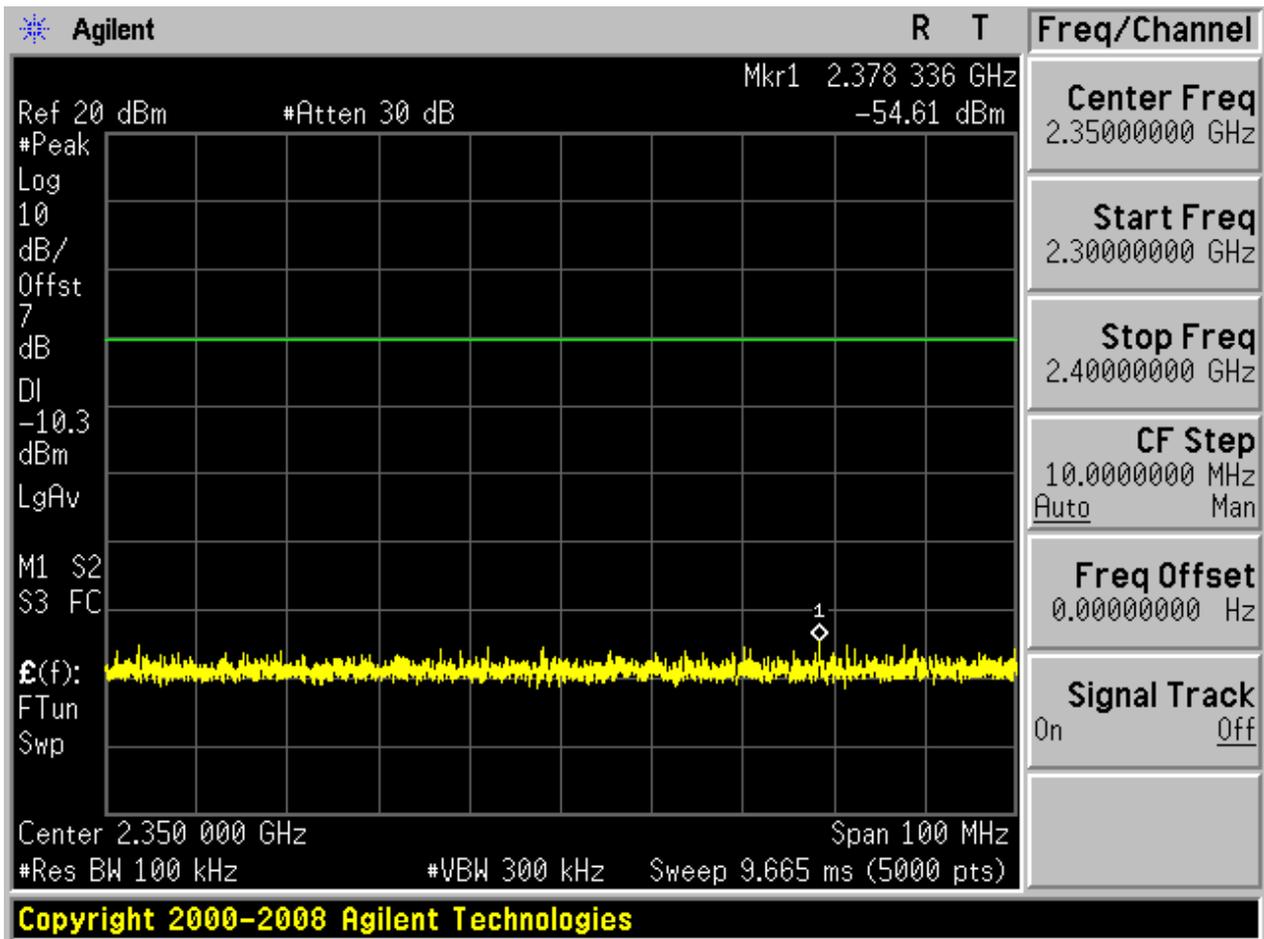


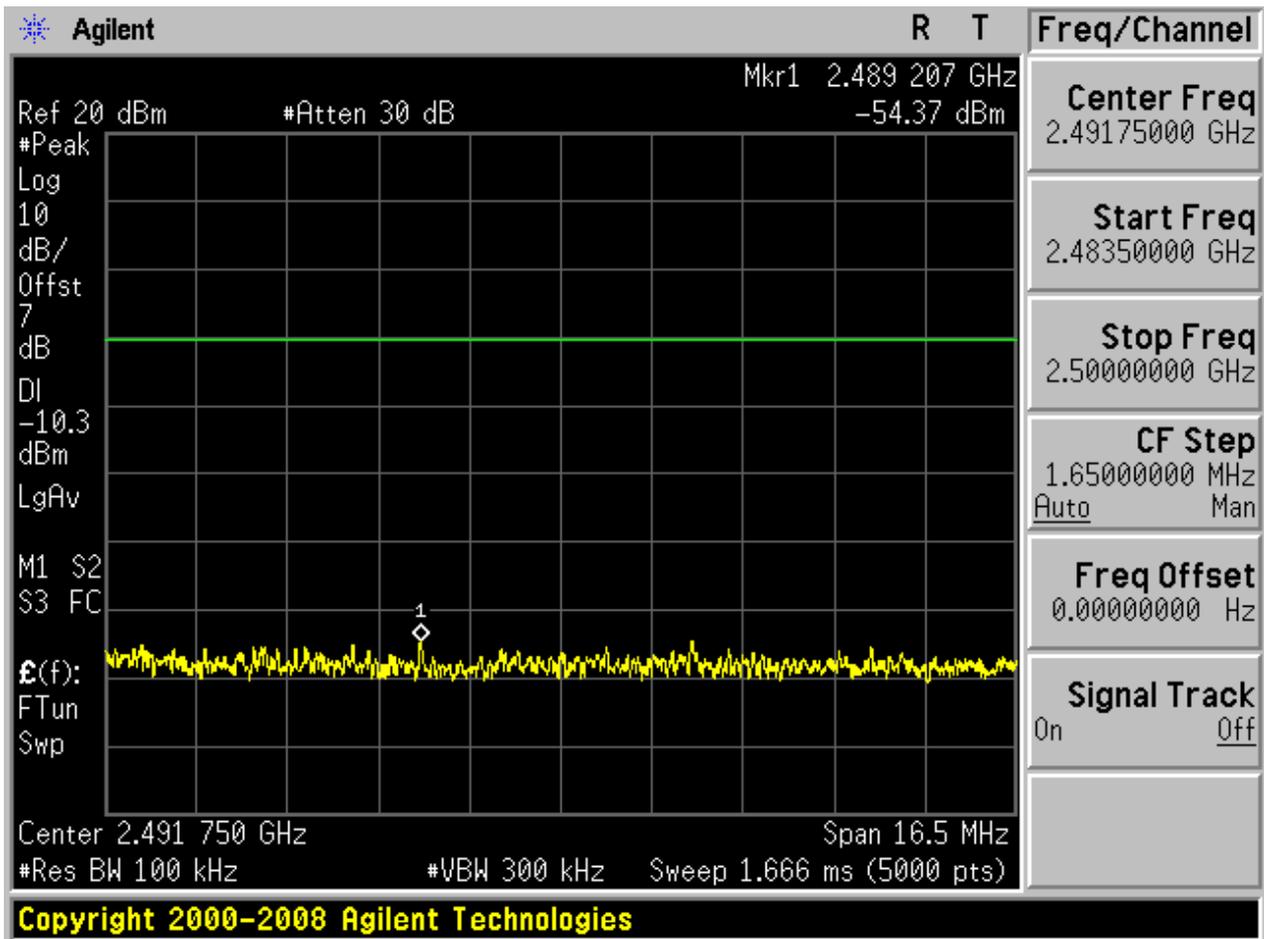
2.3.2 Puw

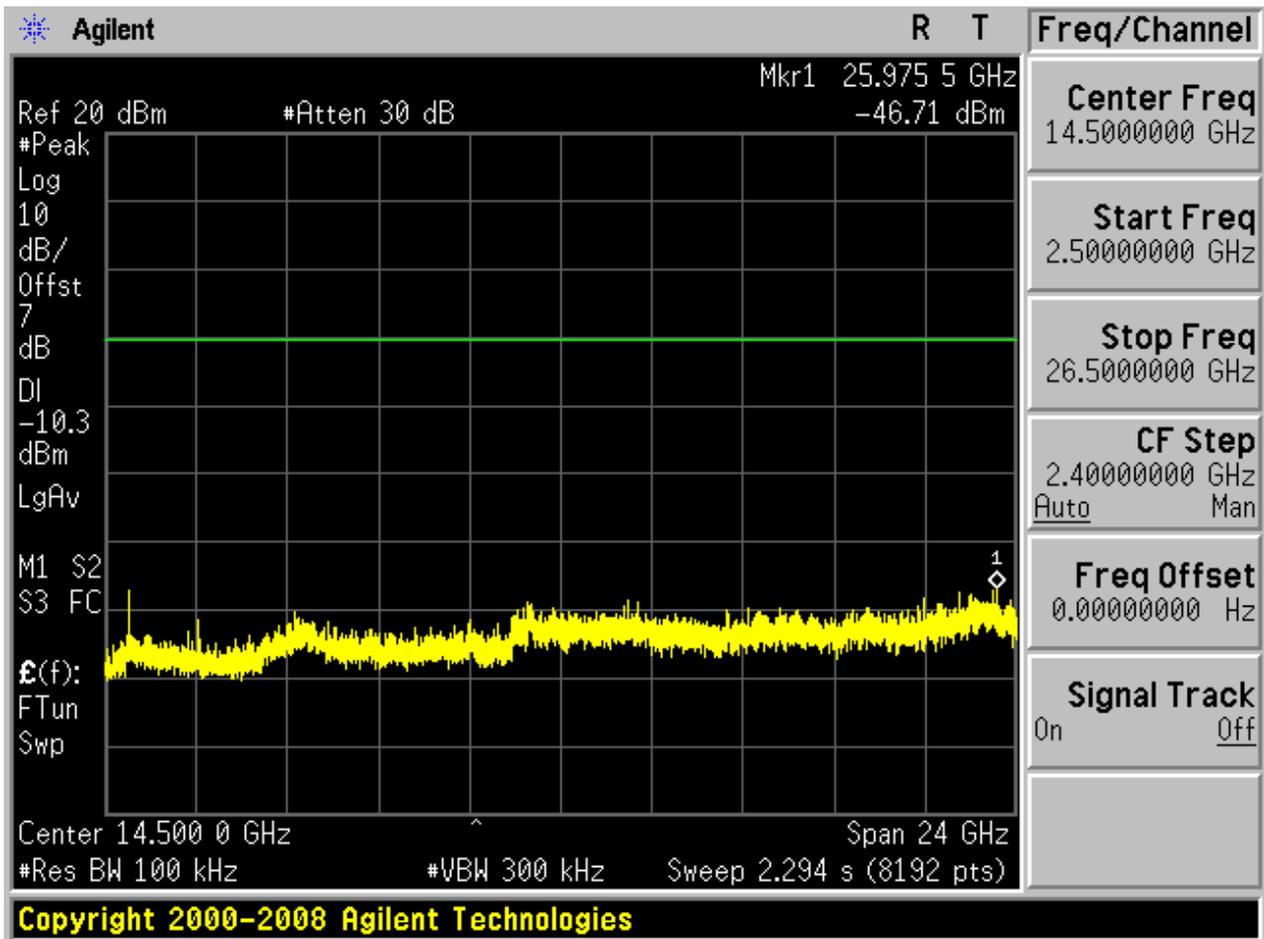






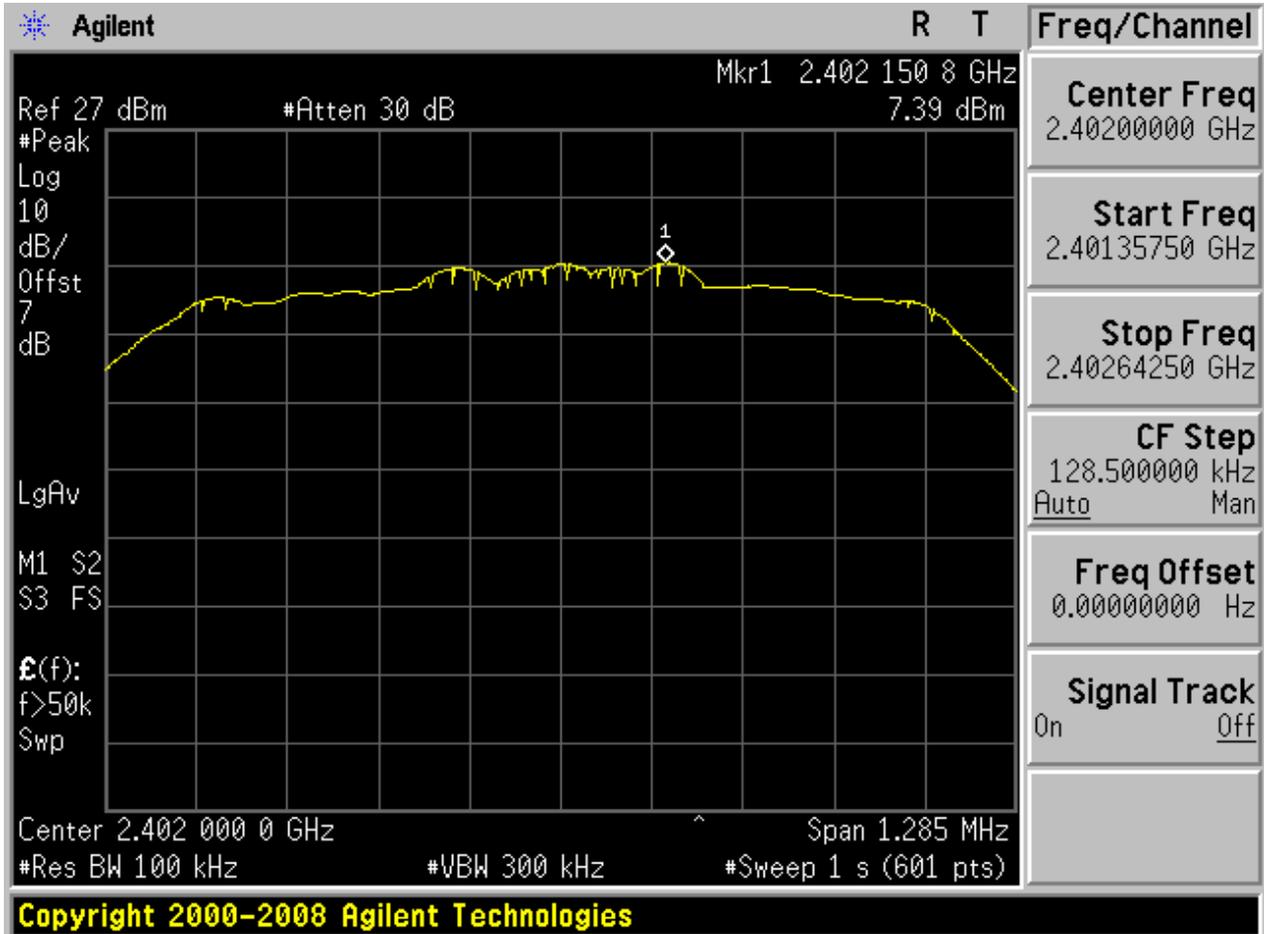




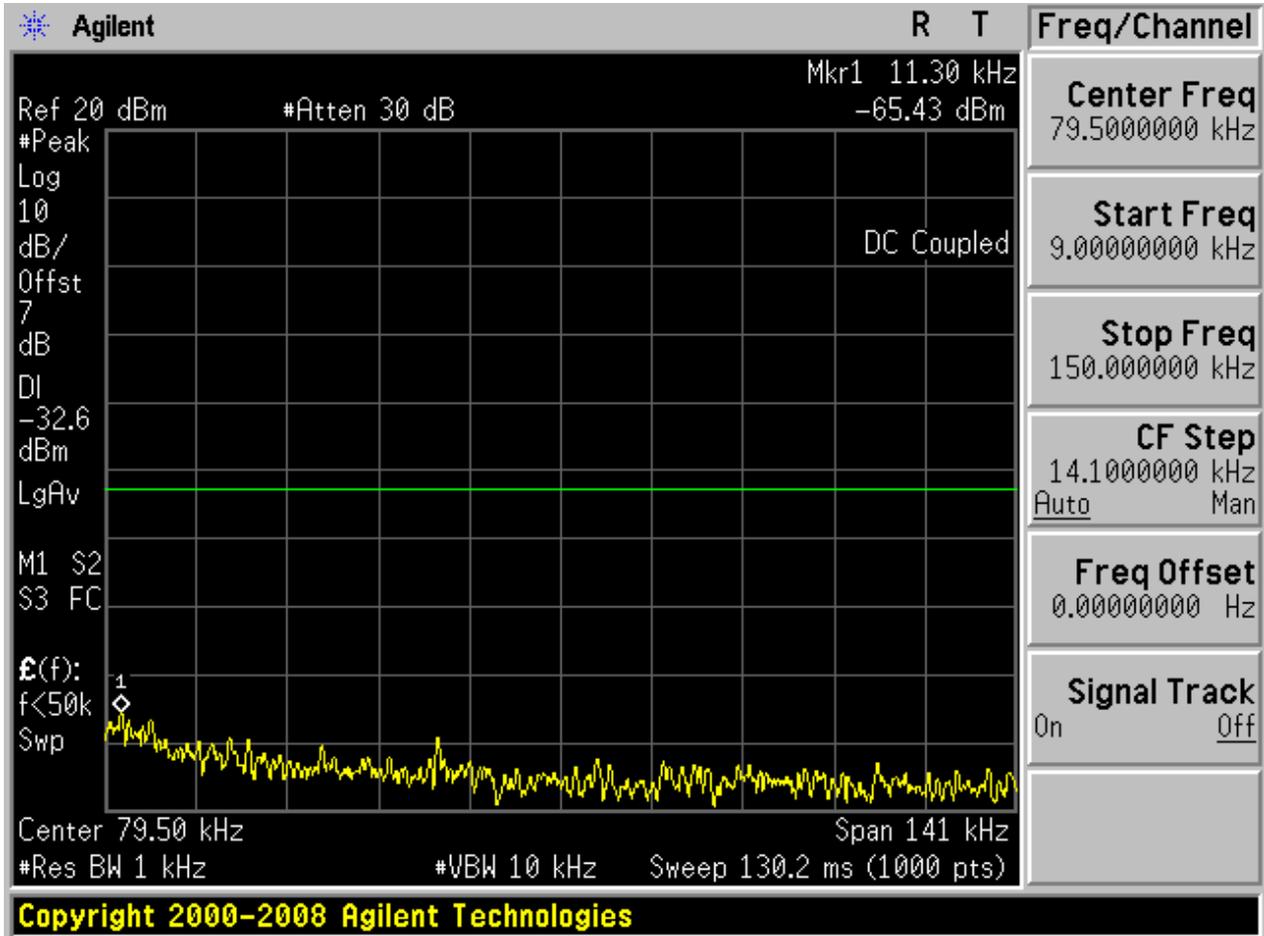


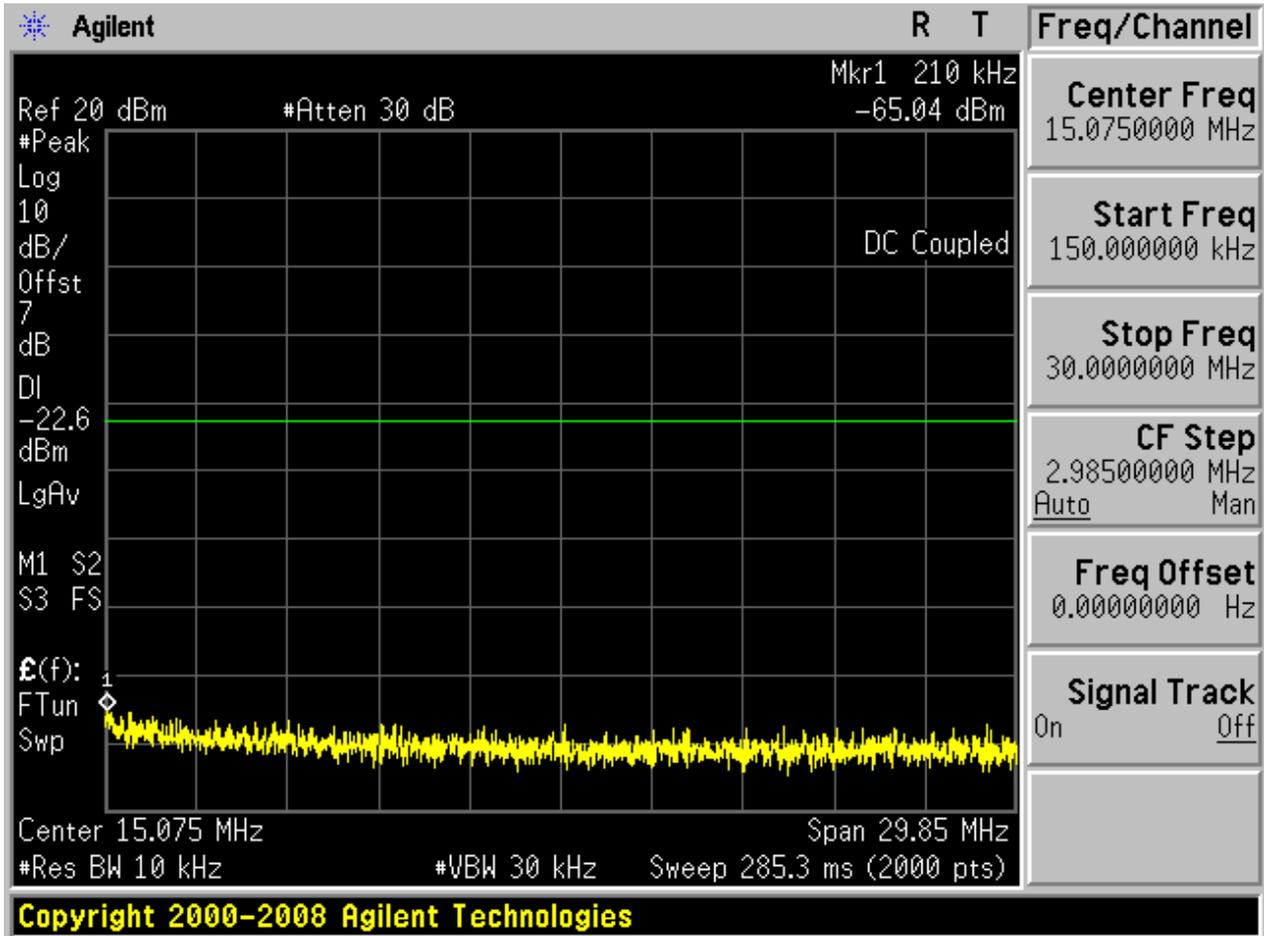
2.4 TM2_2DH5_Ch0

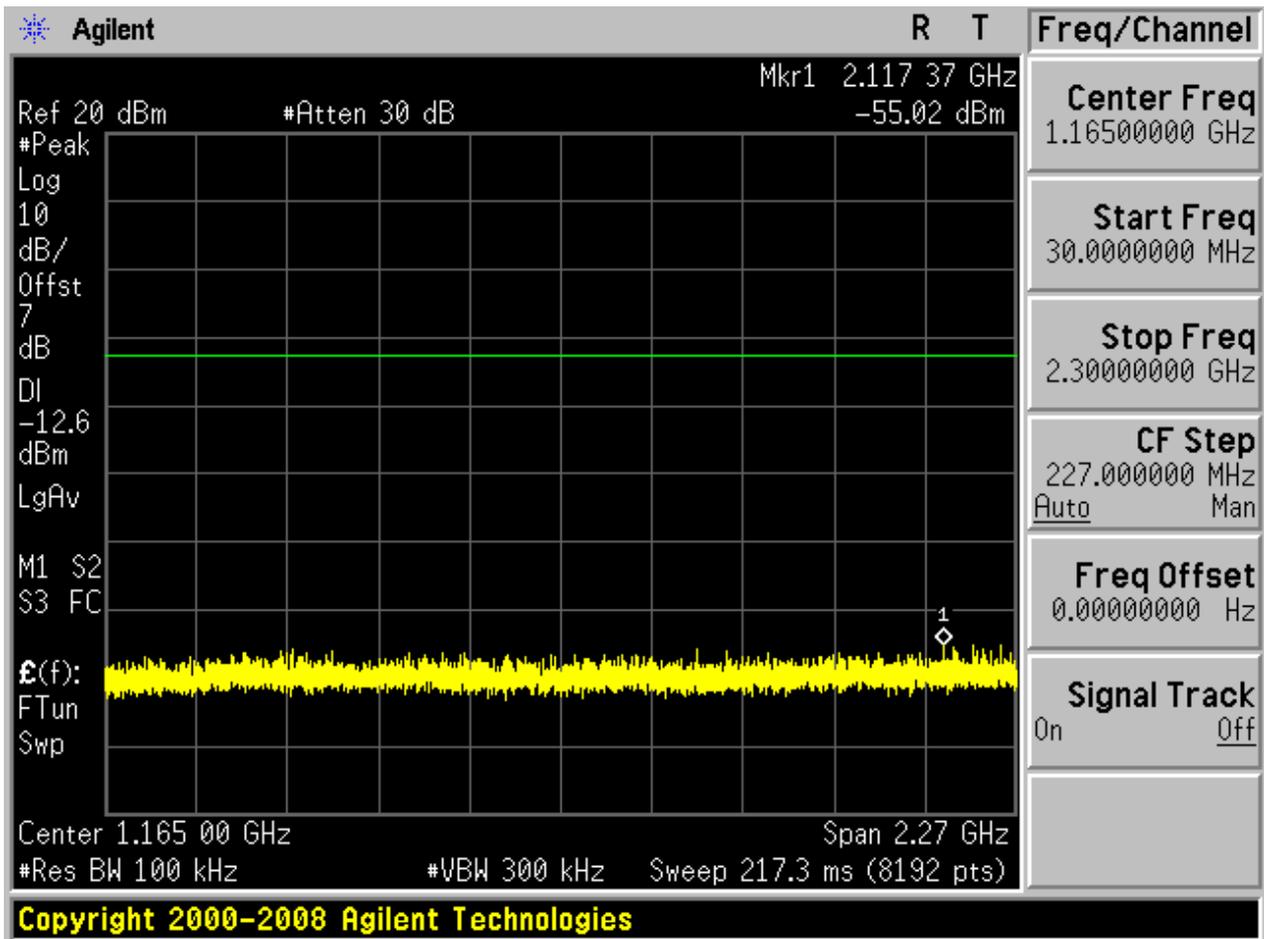
2.4.1 Pref

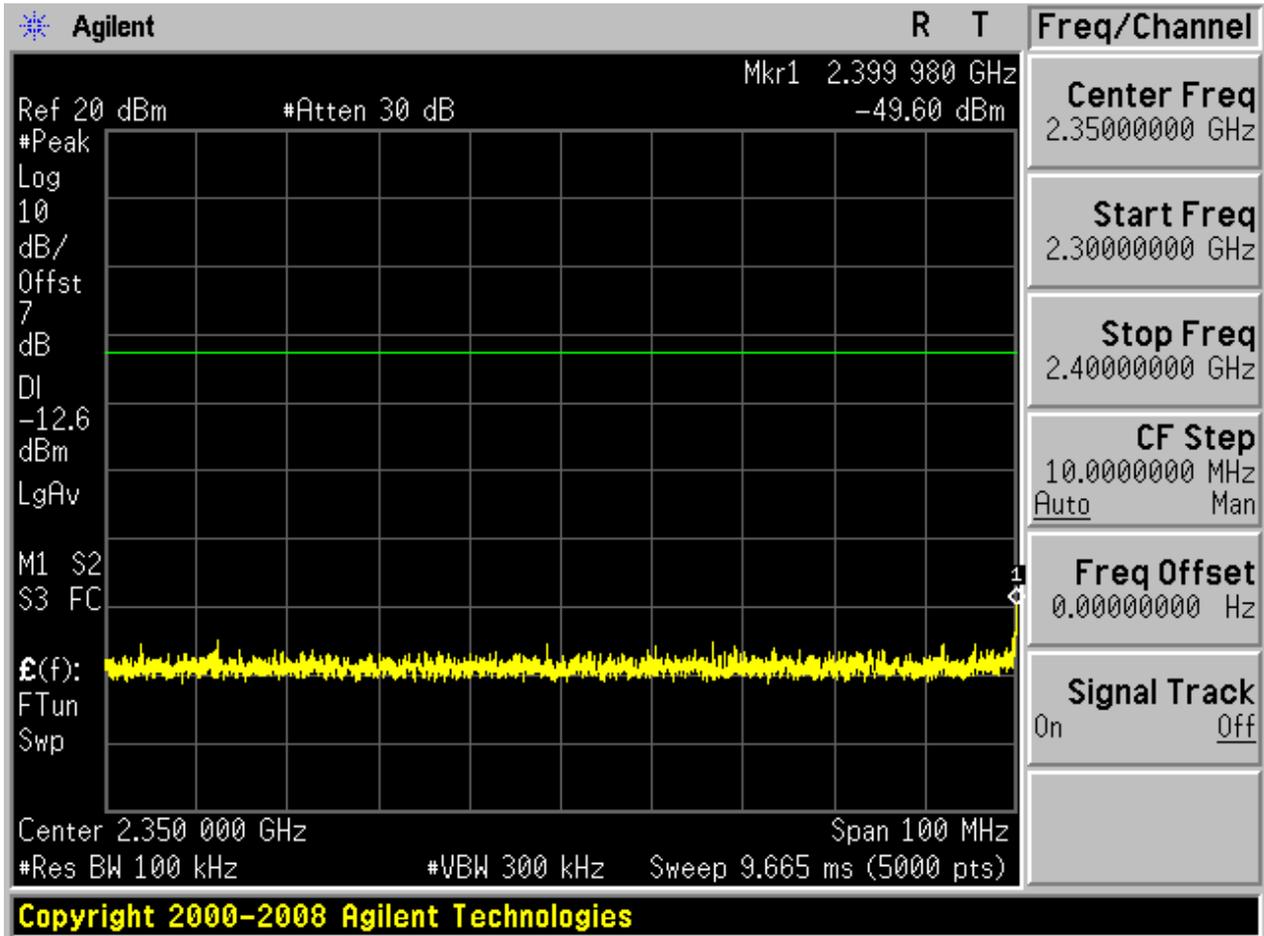


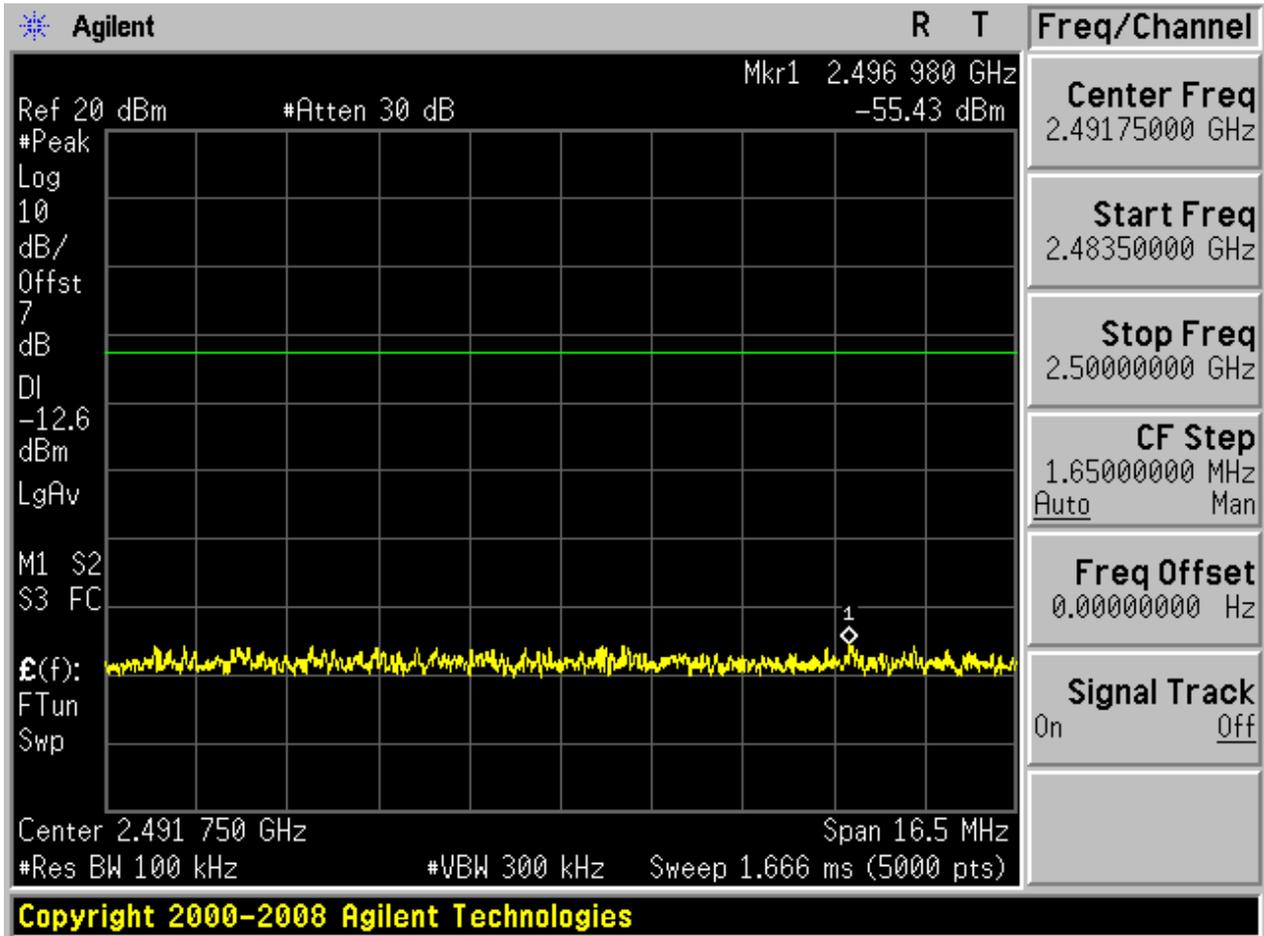
2.4.2 Puw

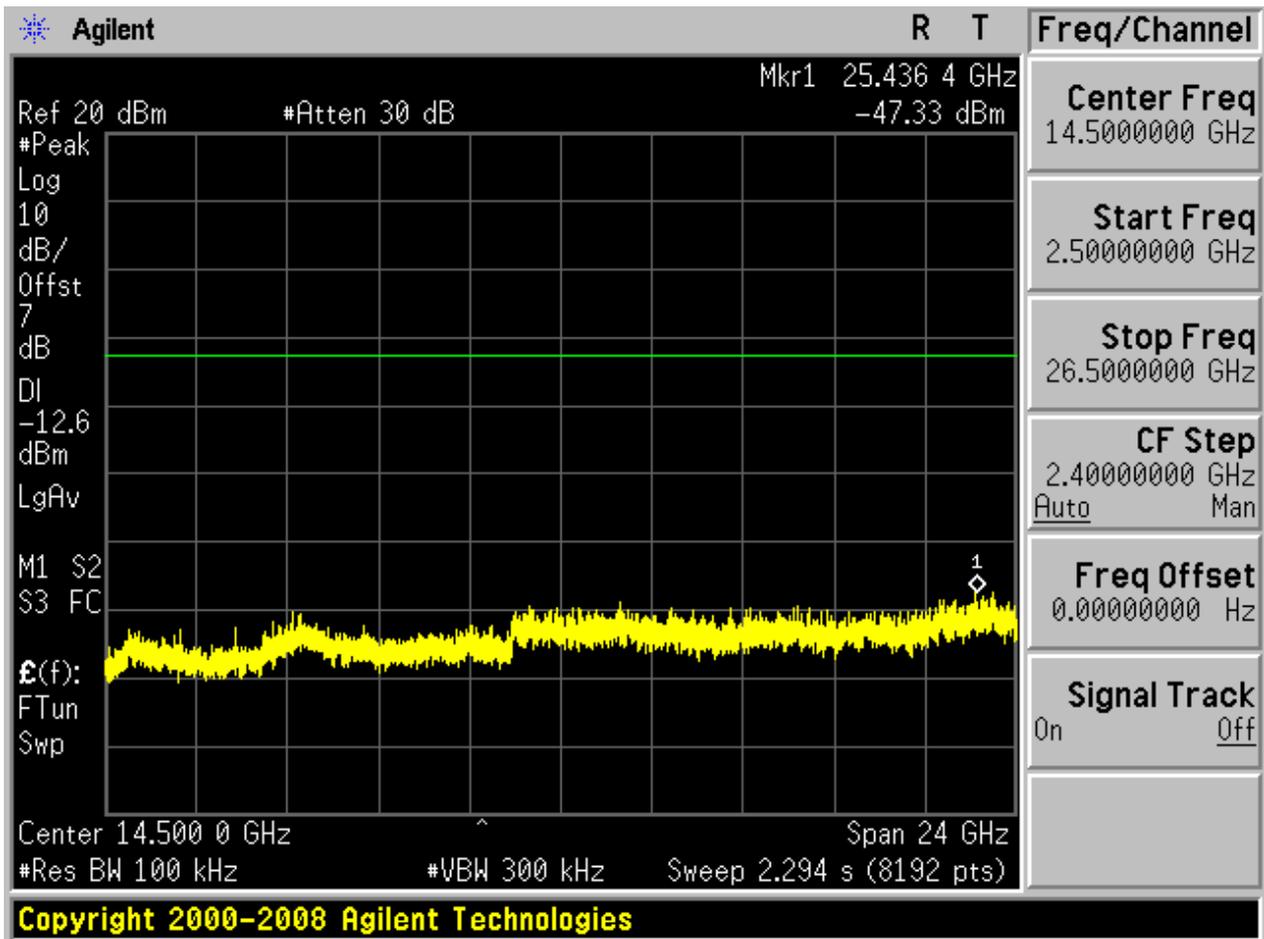






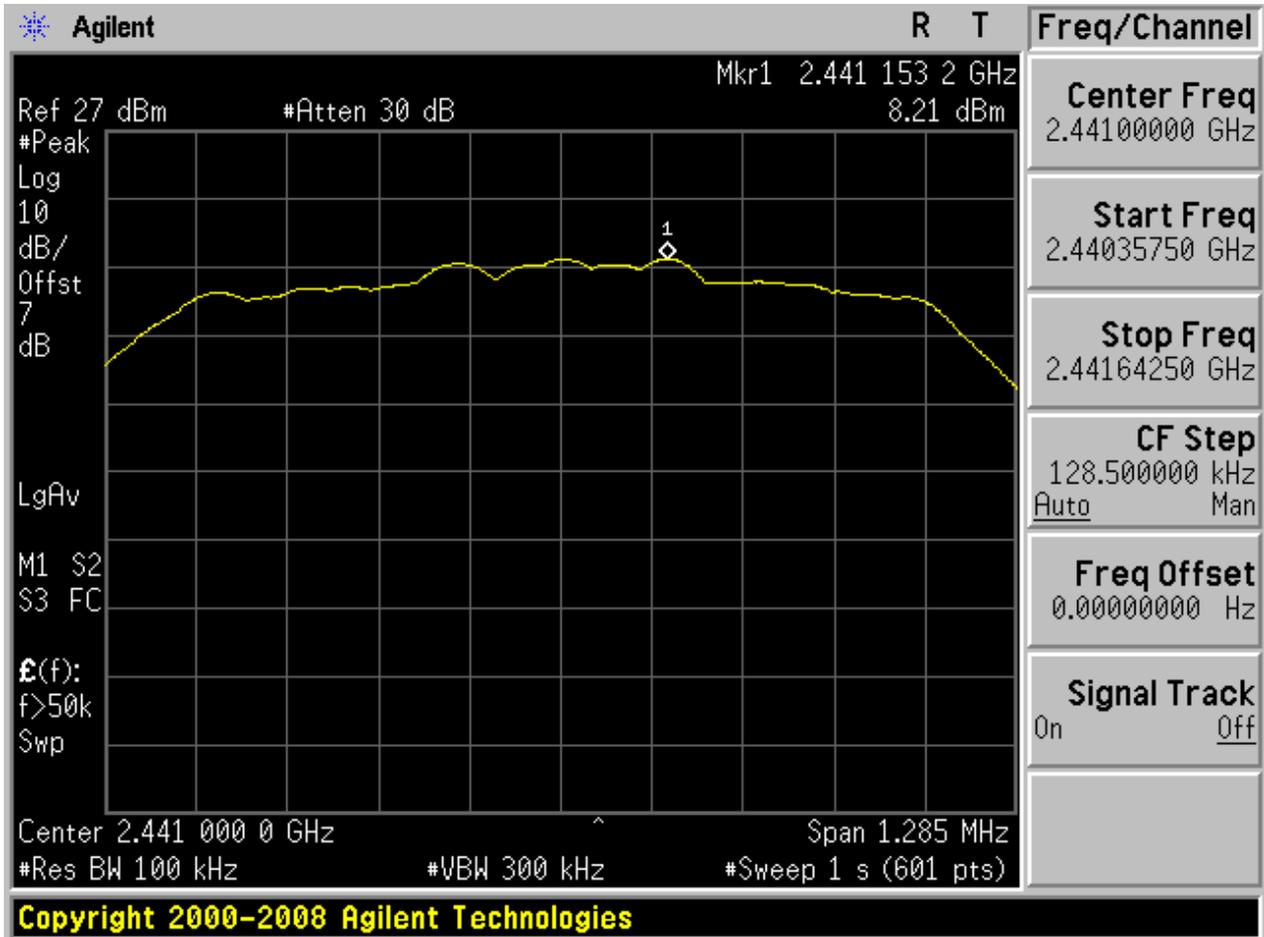




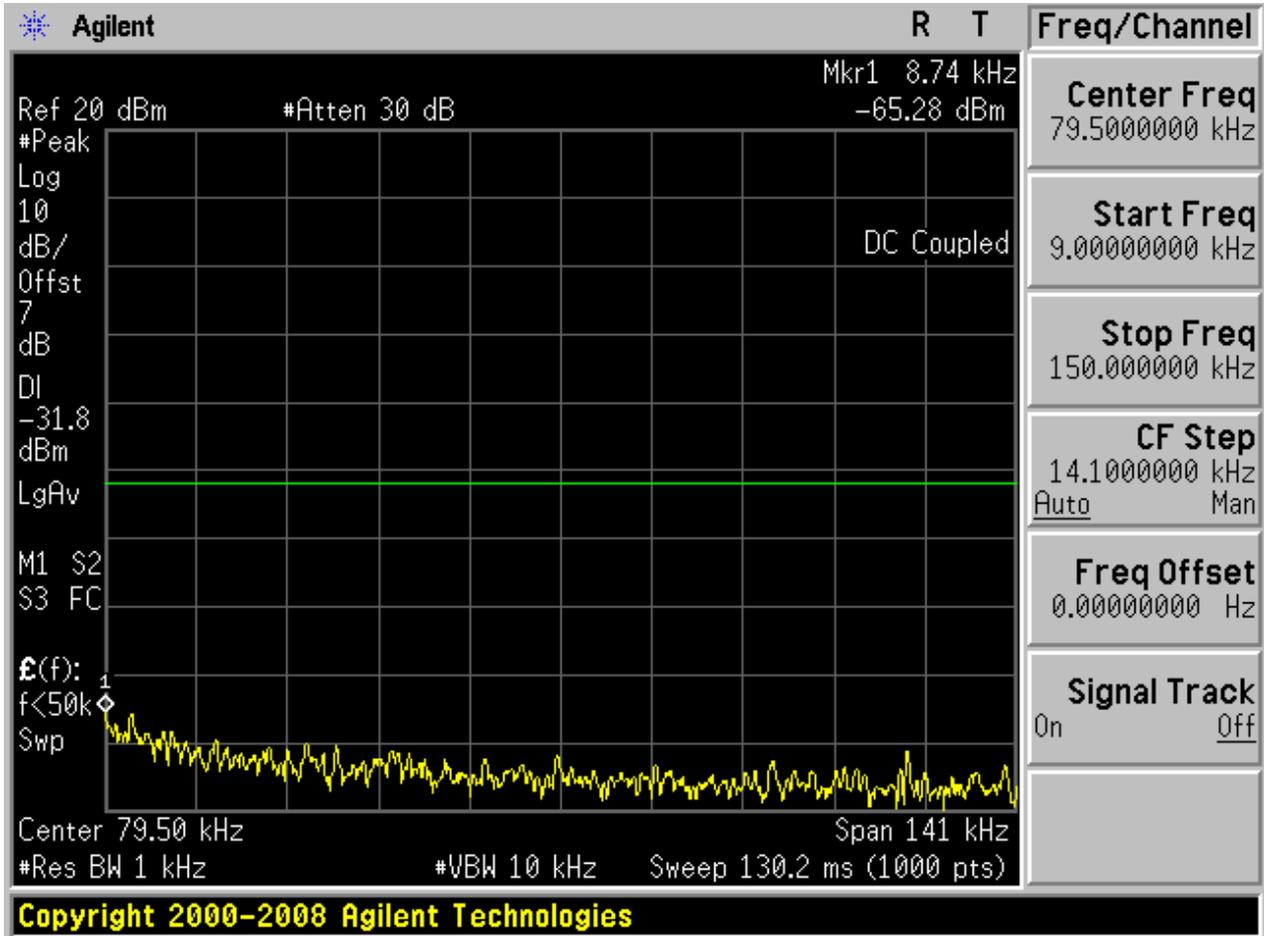


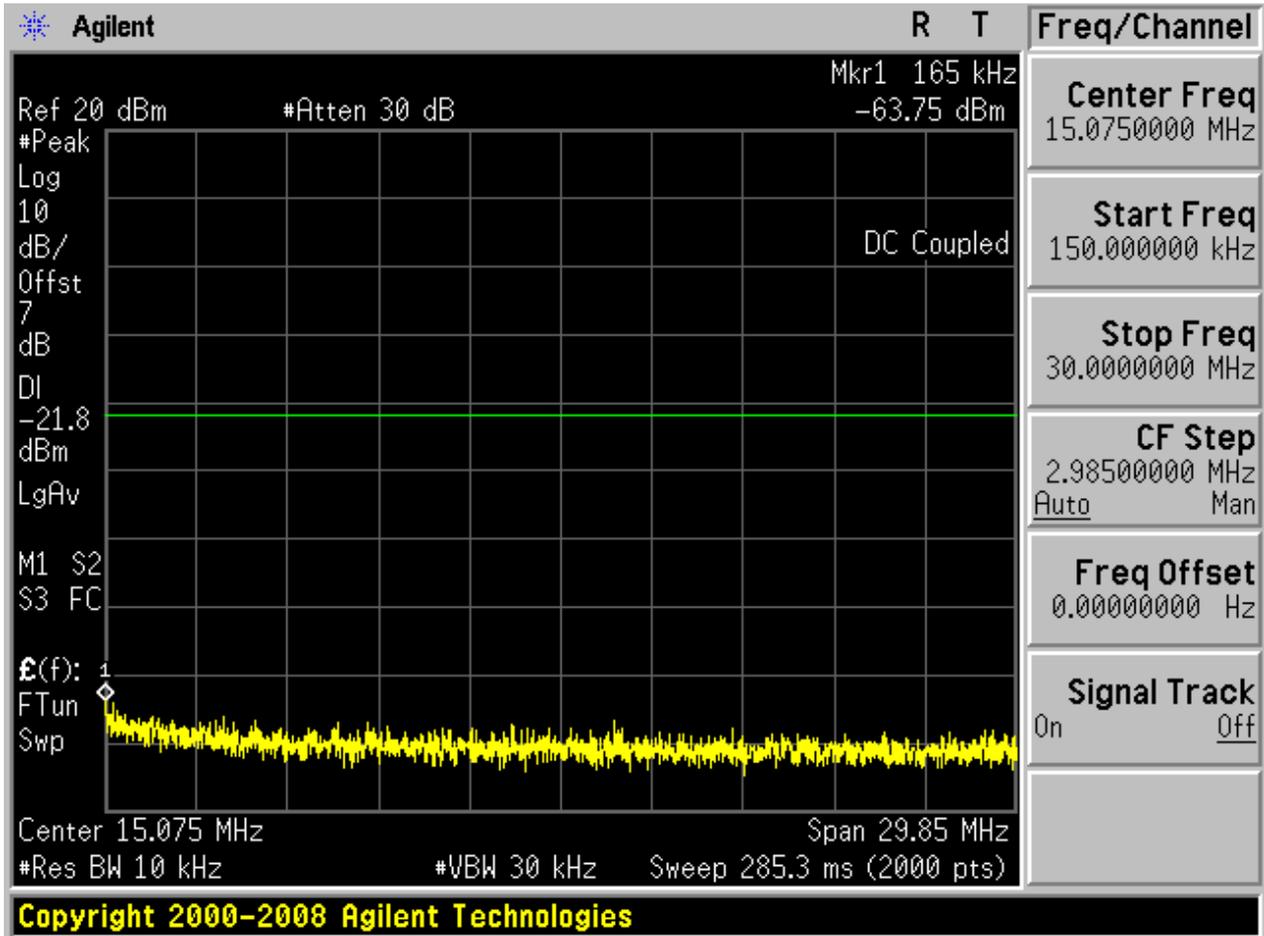
2.5 TM2_2DH5_Ch39

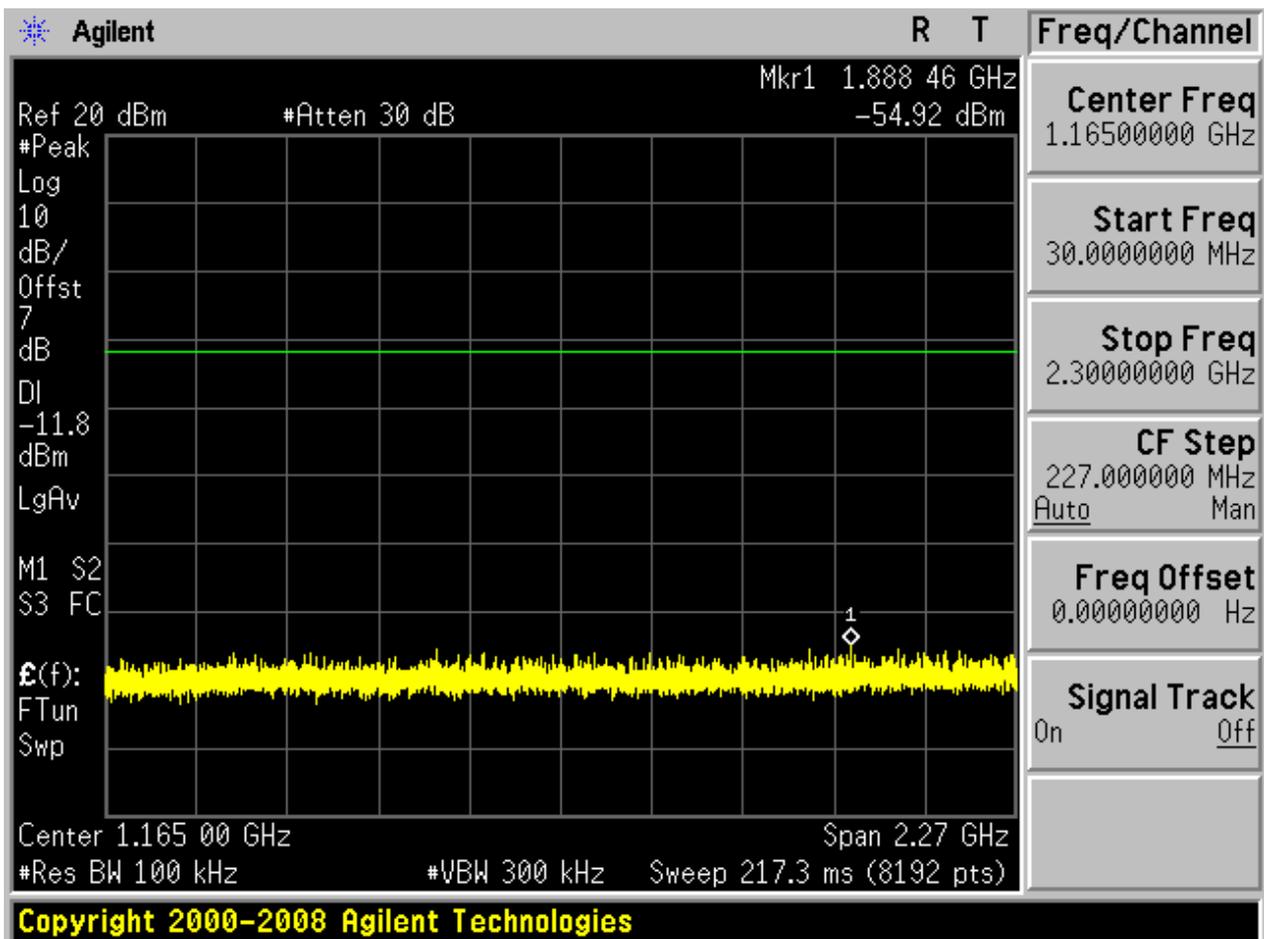
2.5.1 Pref

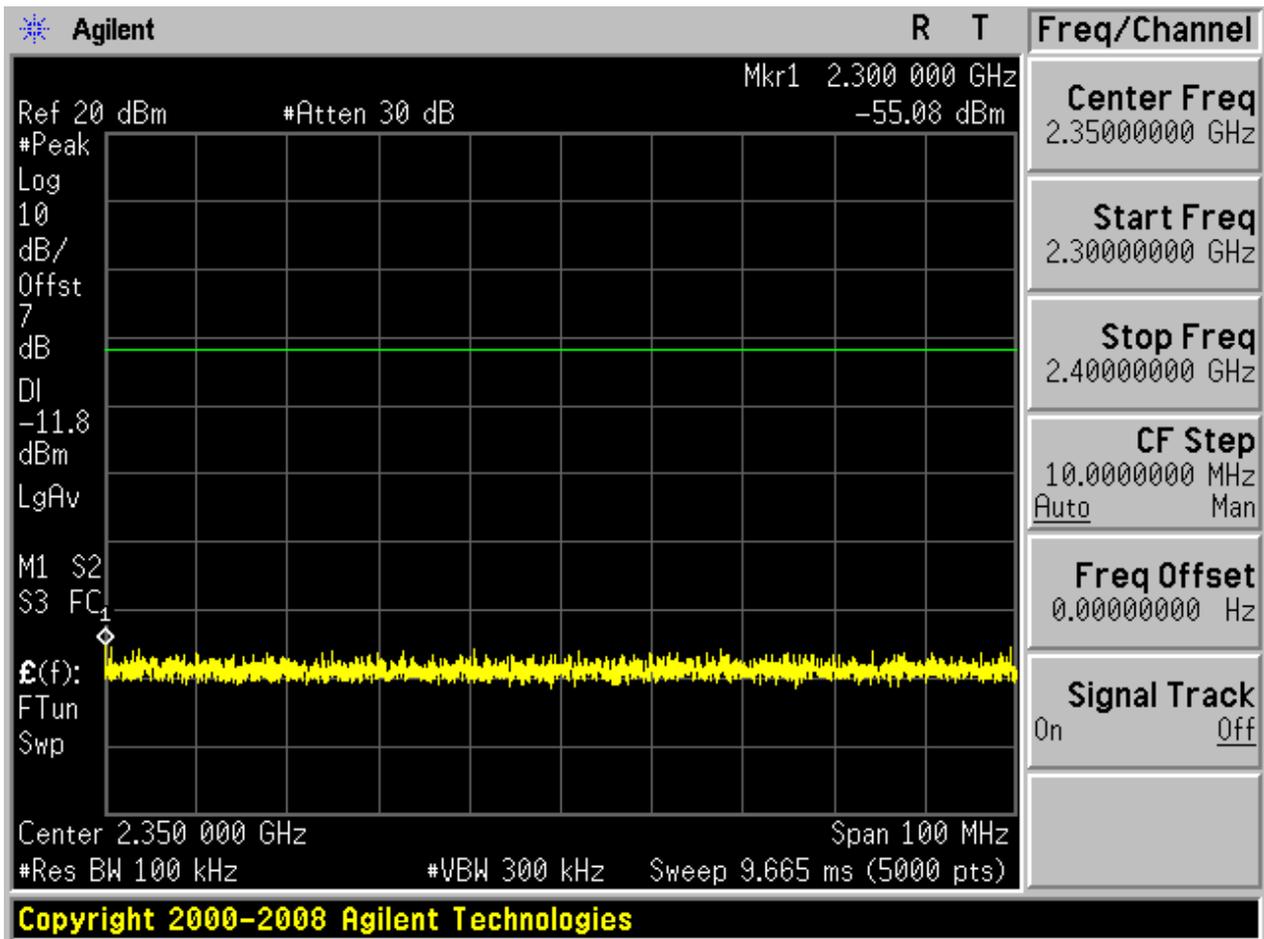


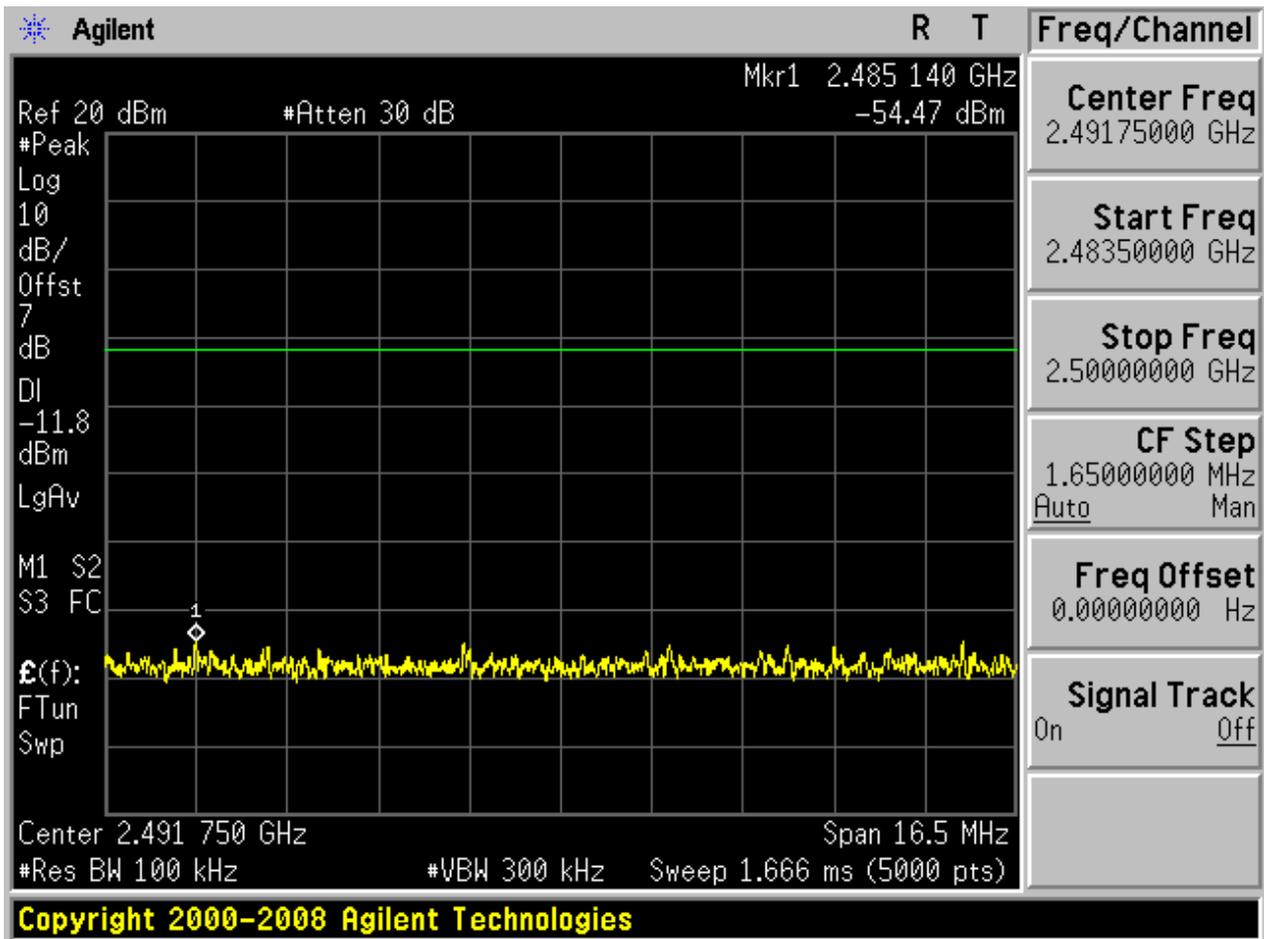
2.5.2 Puw

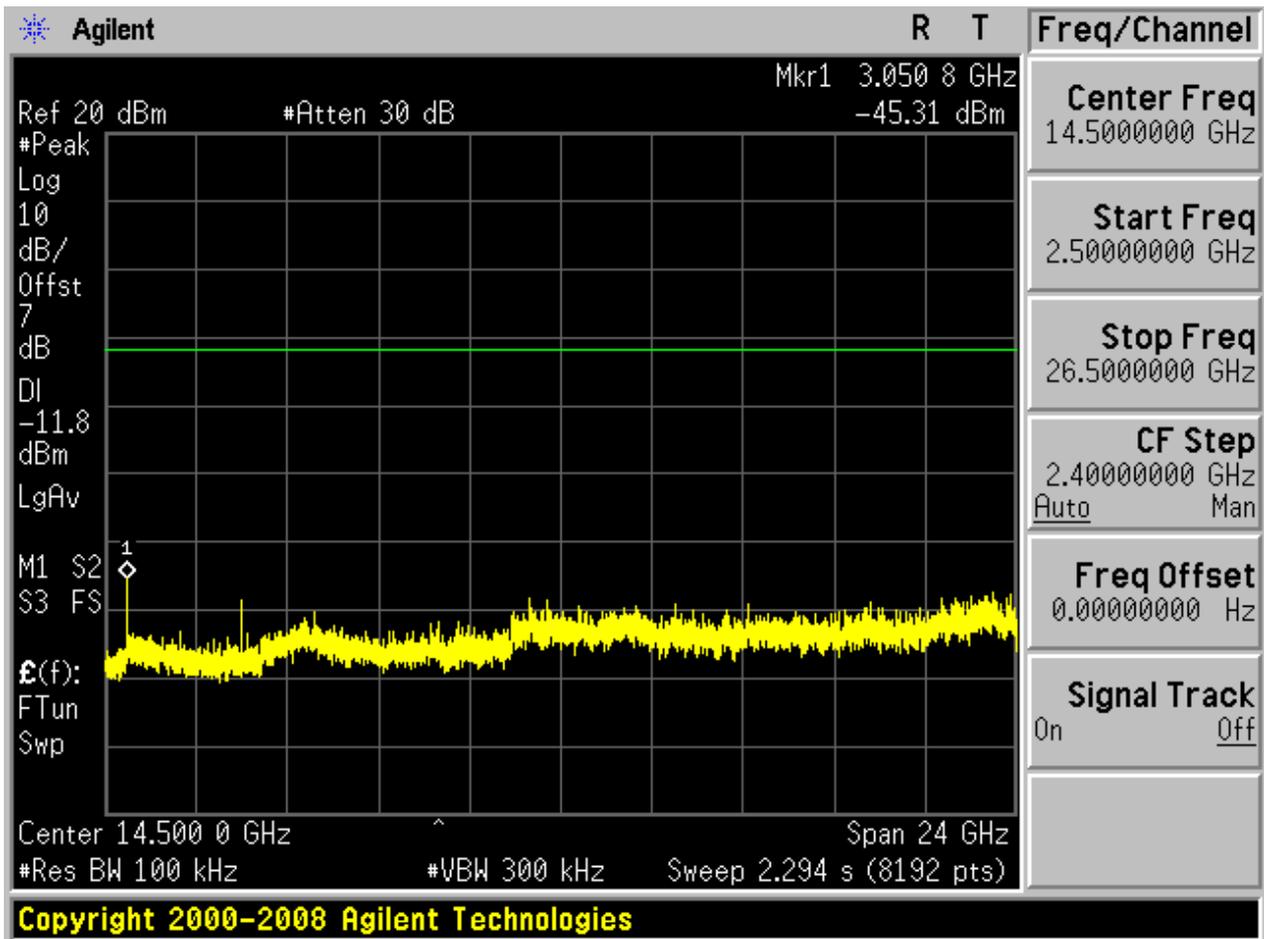








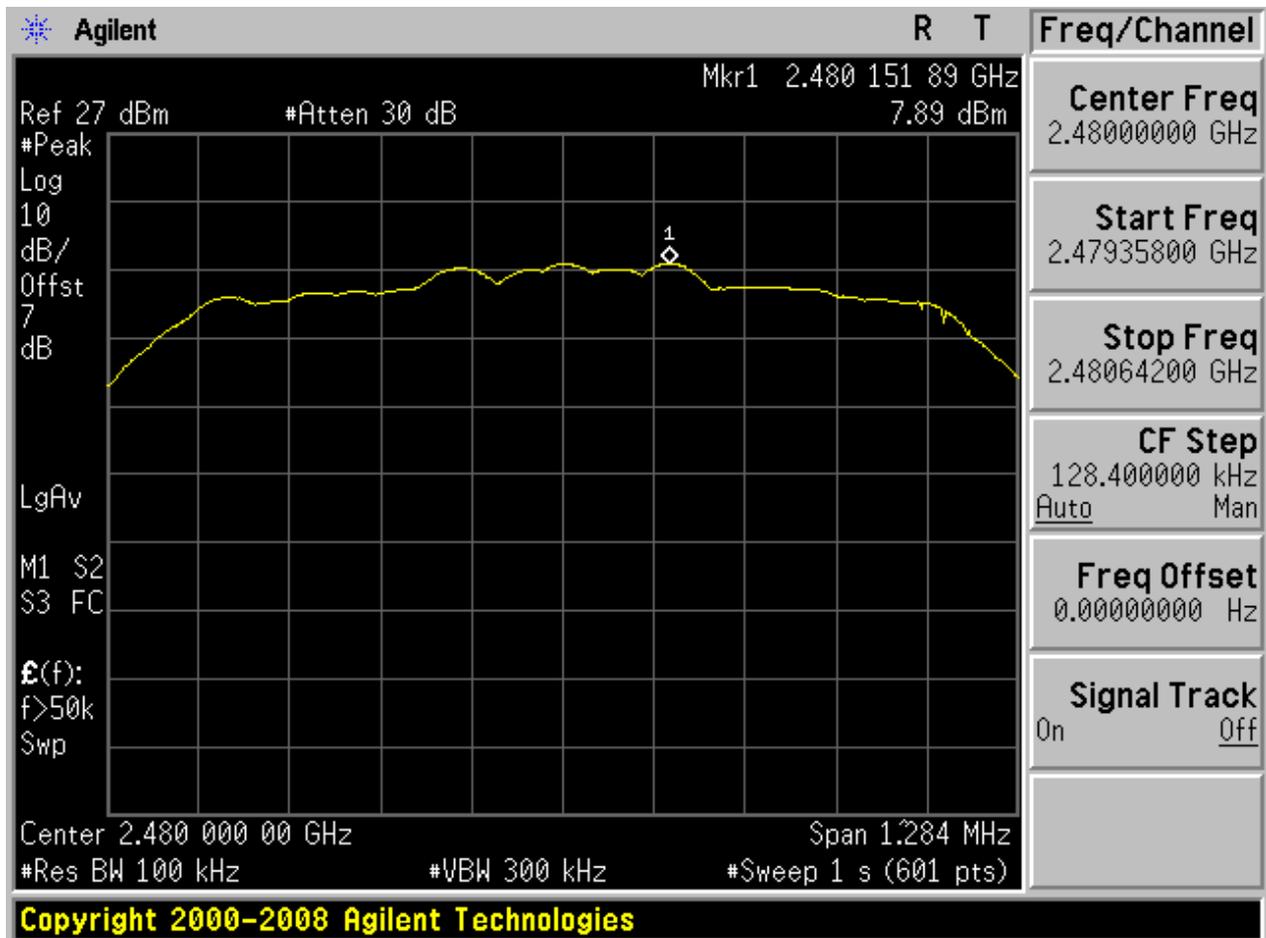




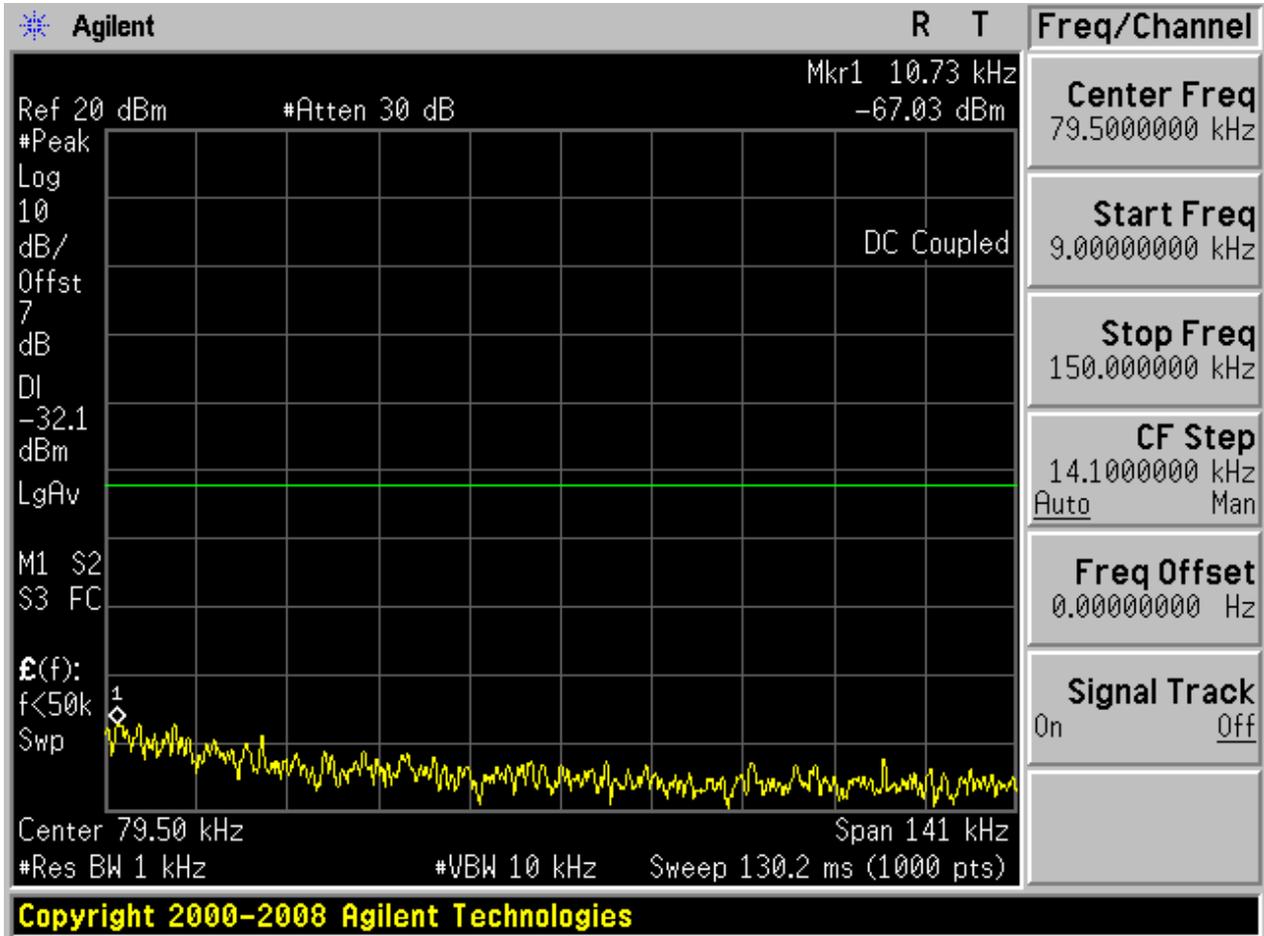


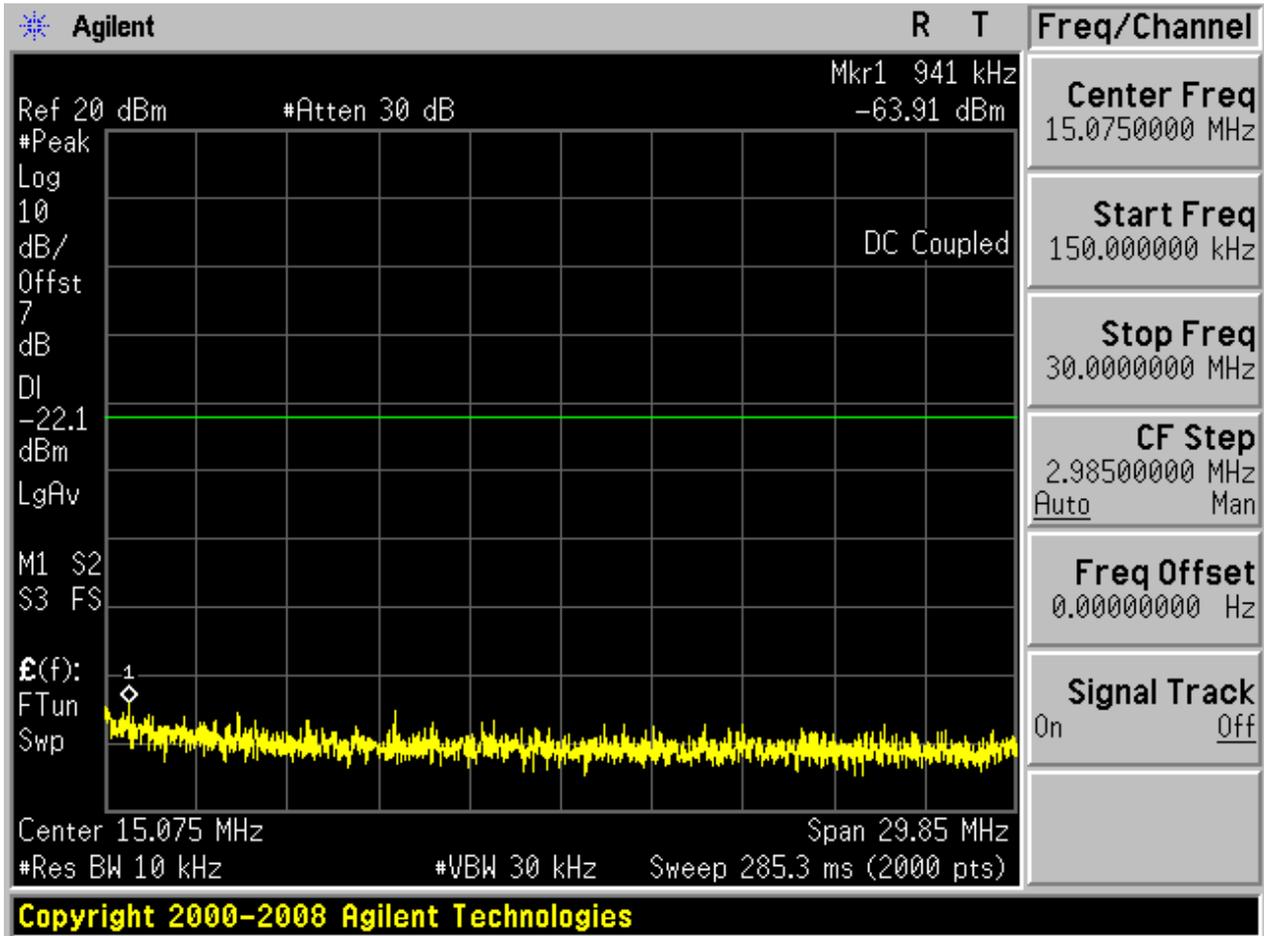
2.6 TM2_2DH5_Ch78

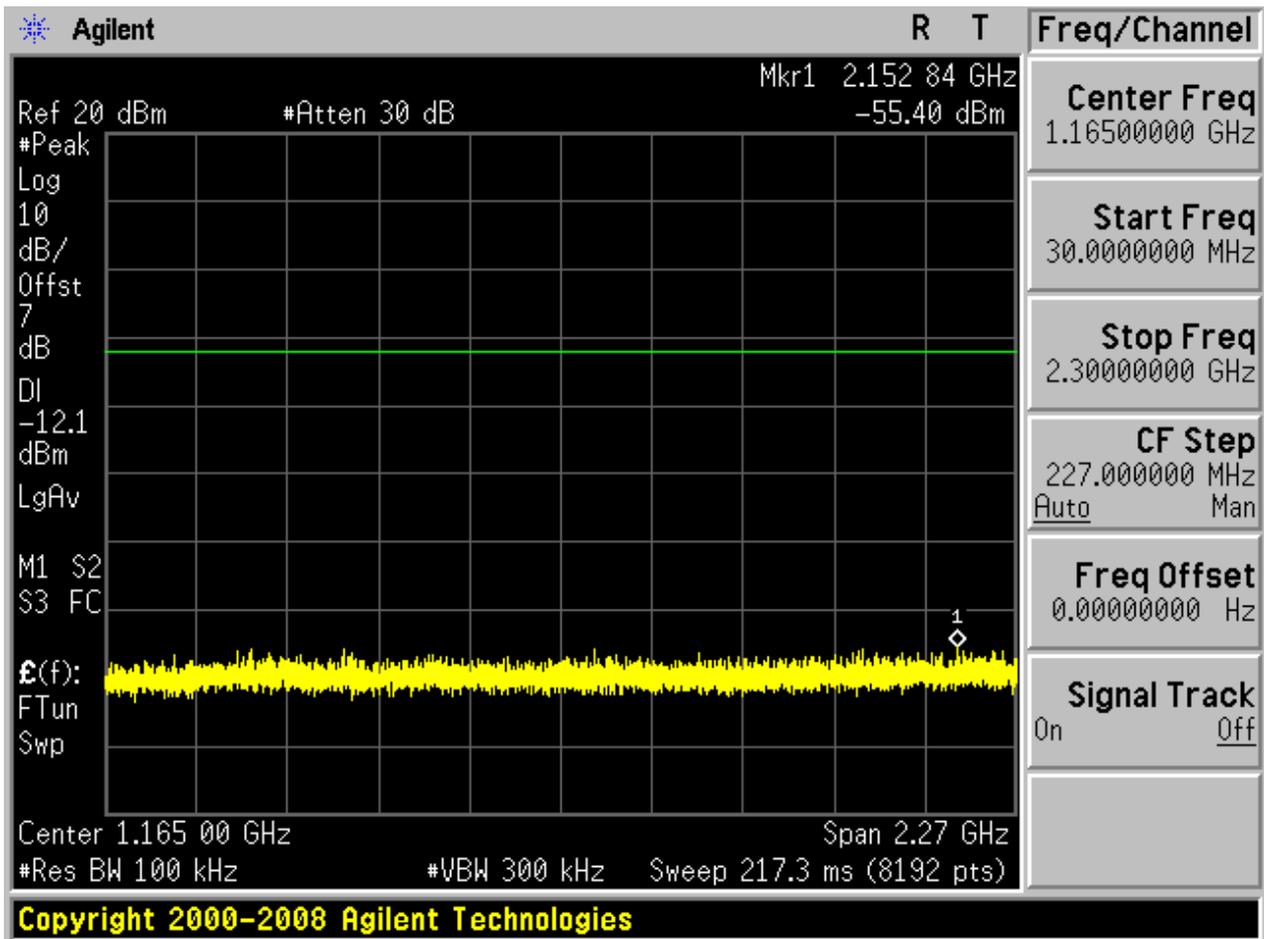
2.6.1 Pref

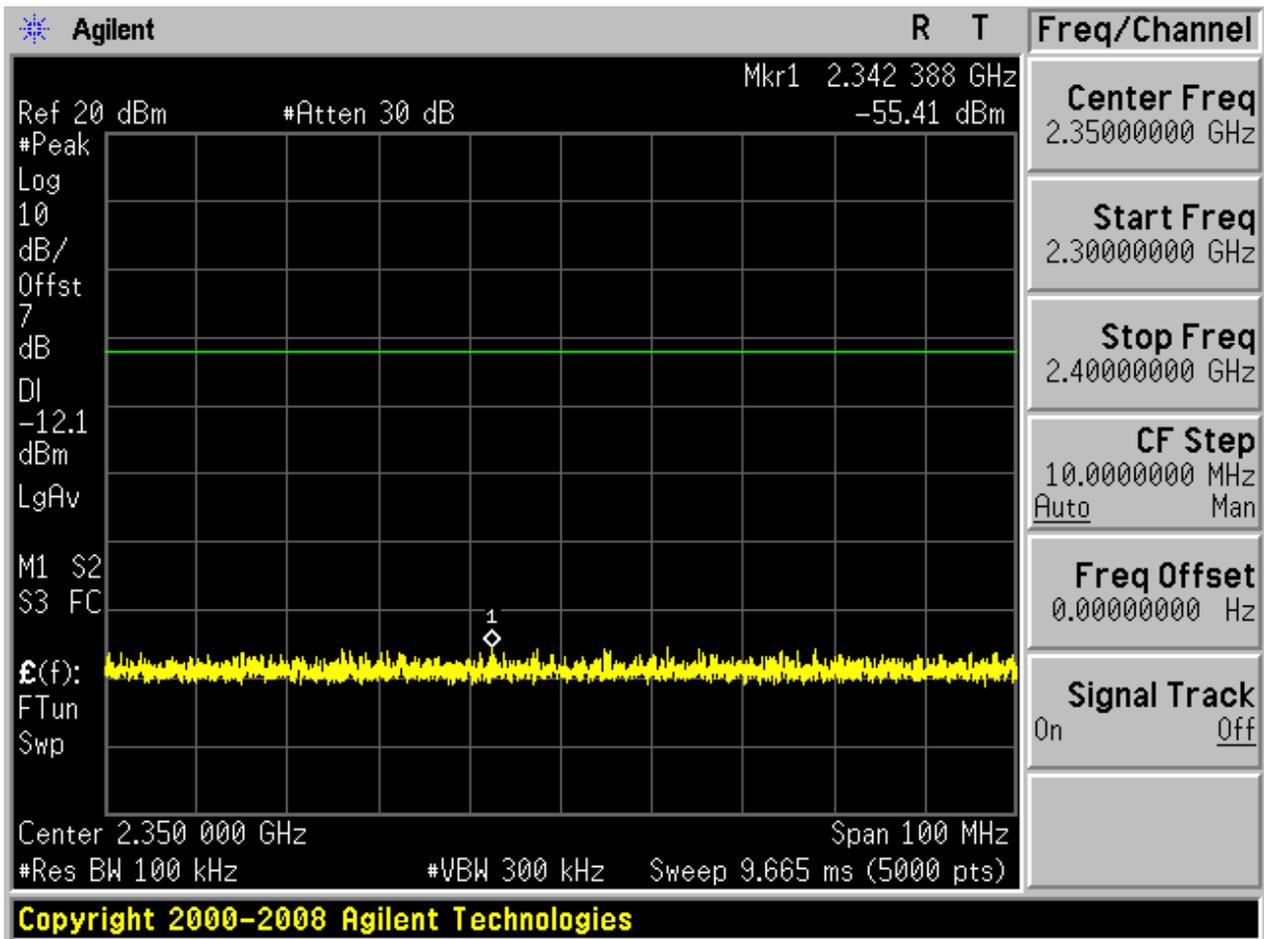


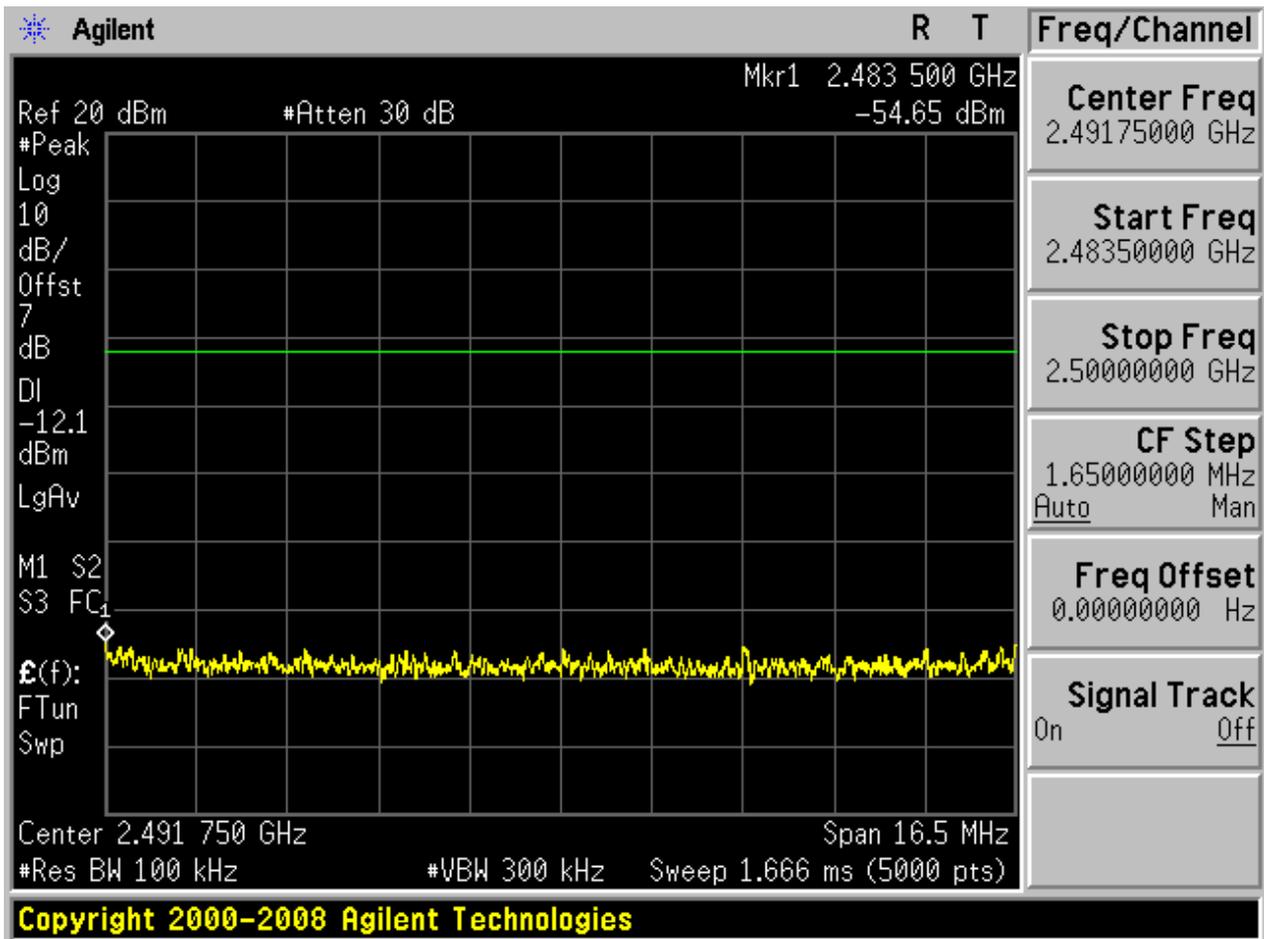
2.6.2 Puw

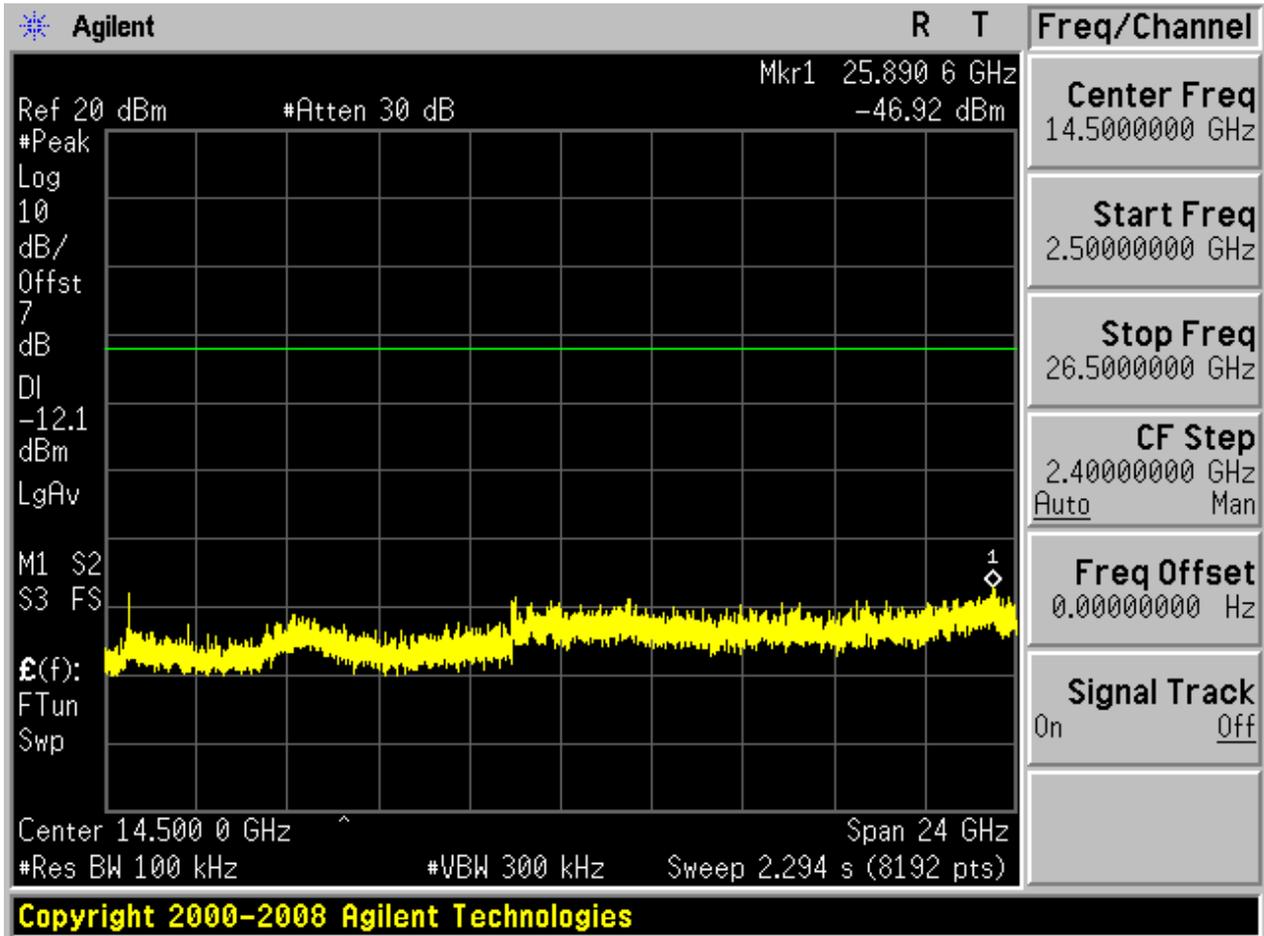






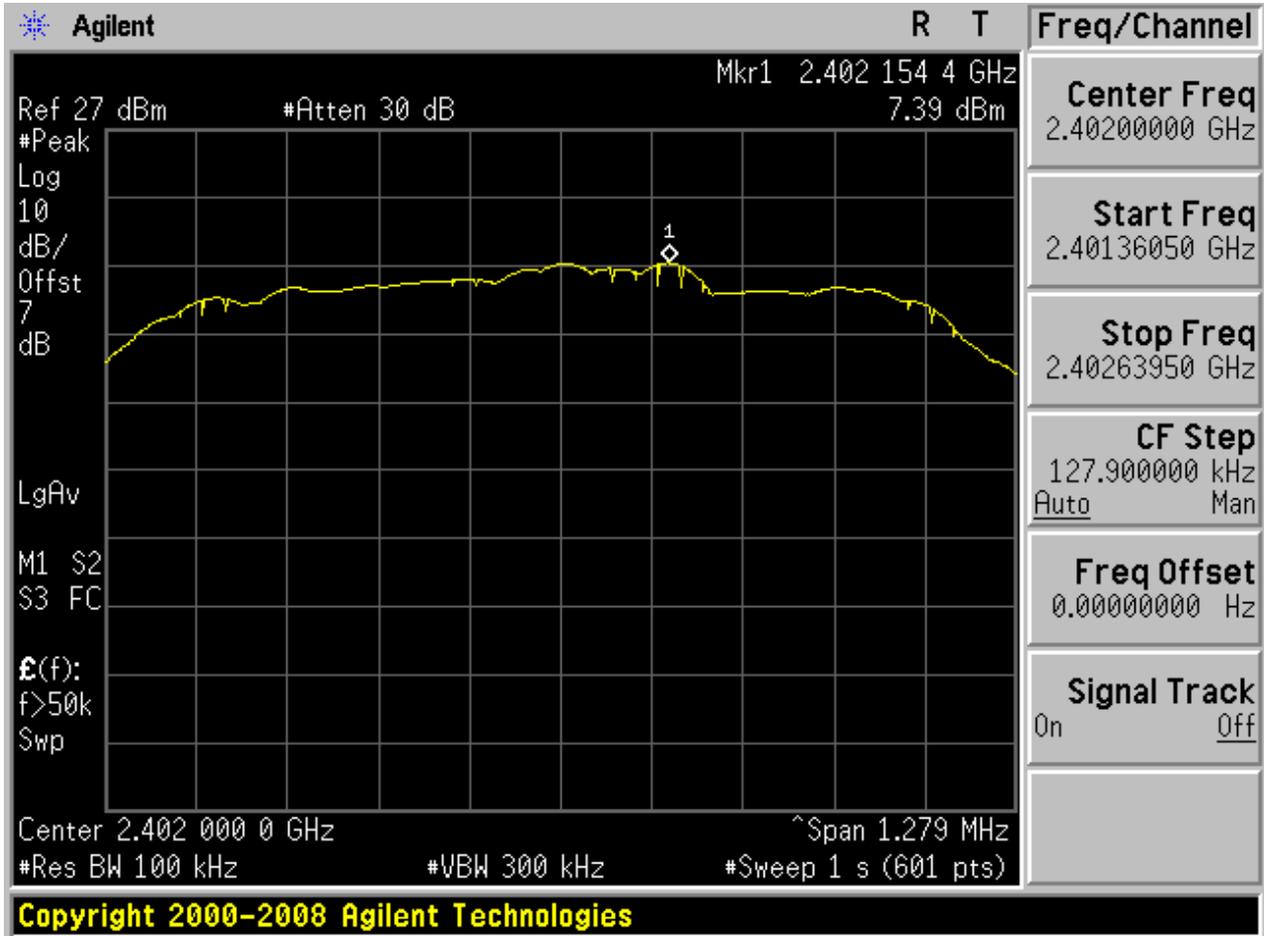




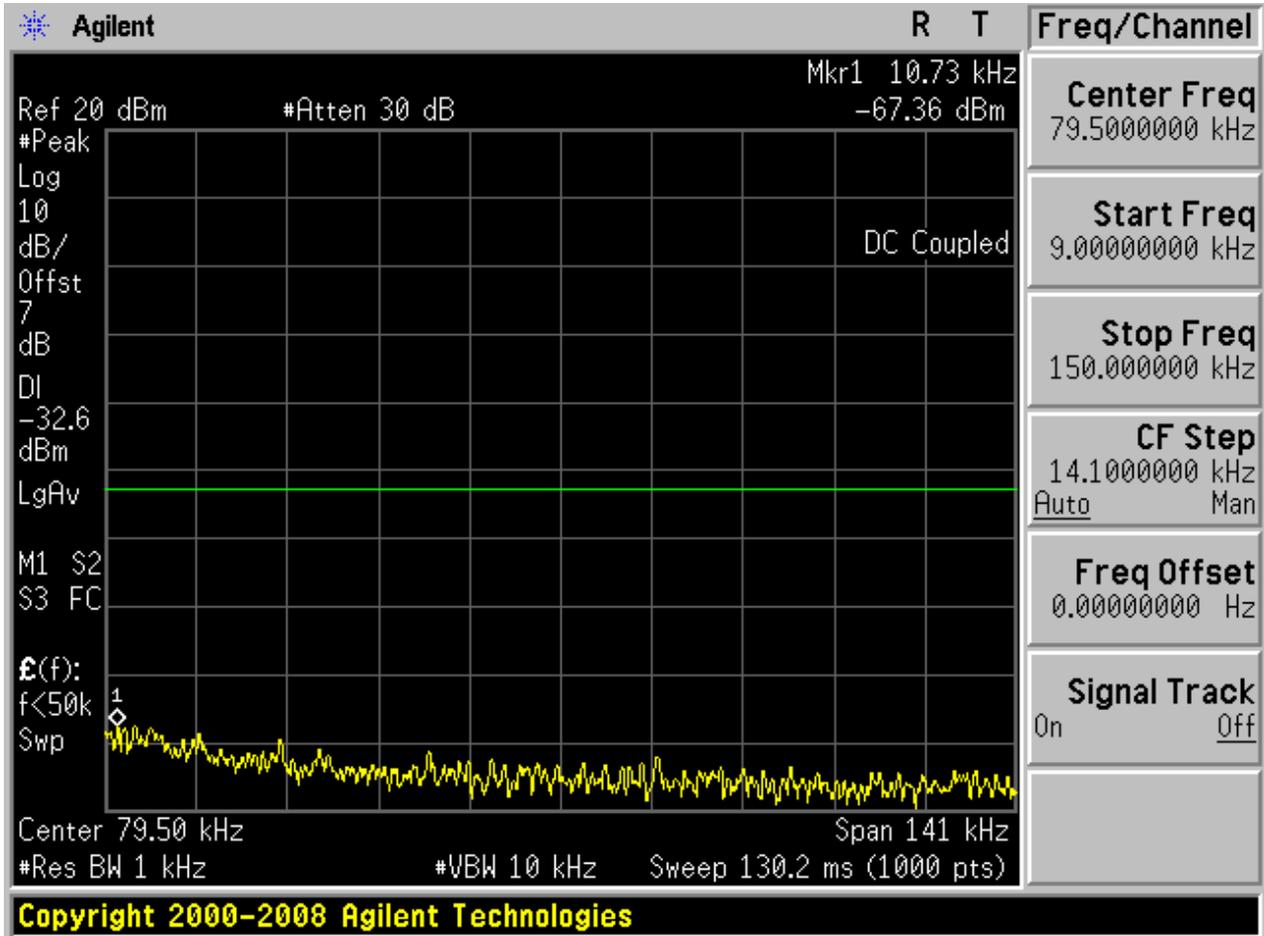


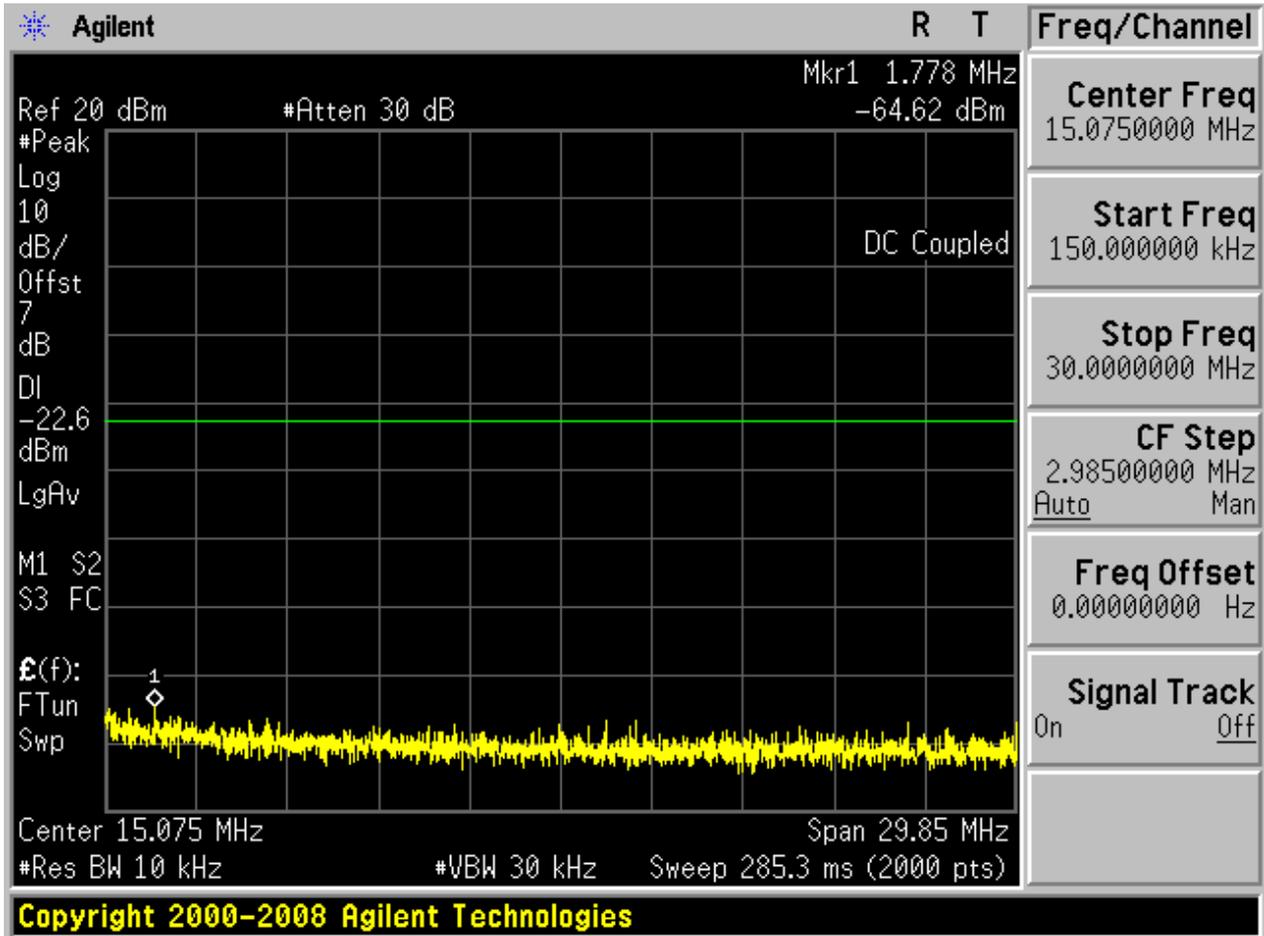
2.7 TM3_3DH5_Ch0

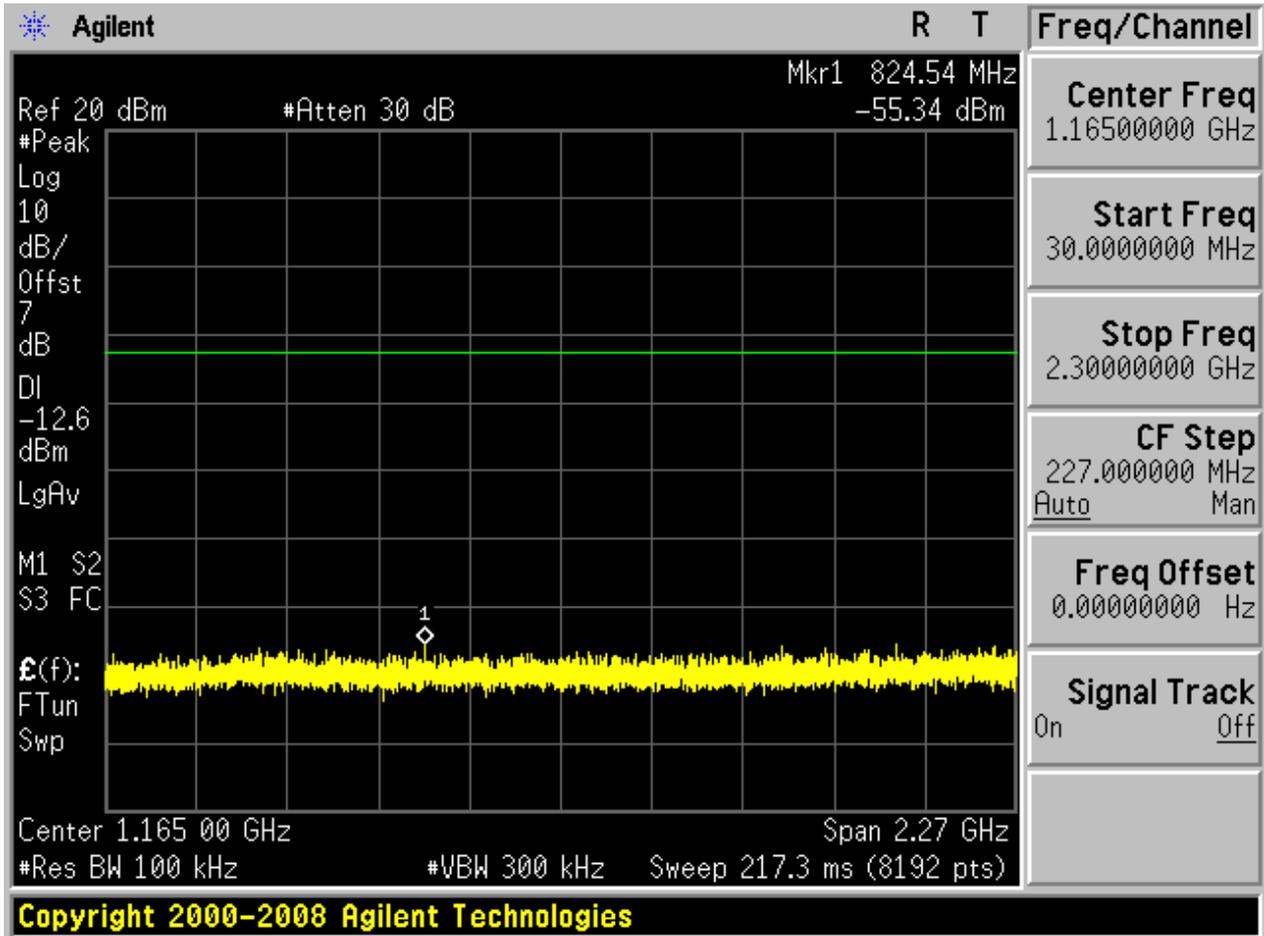
2.7.1 Pref

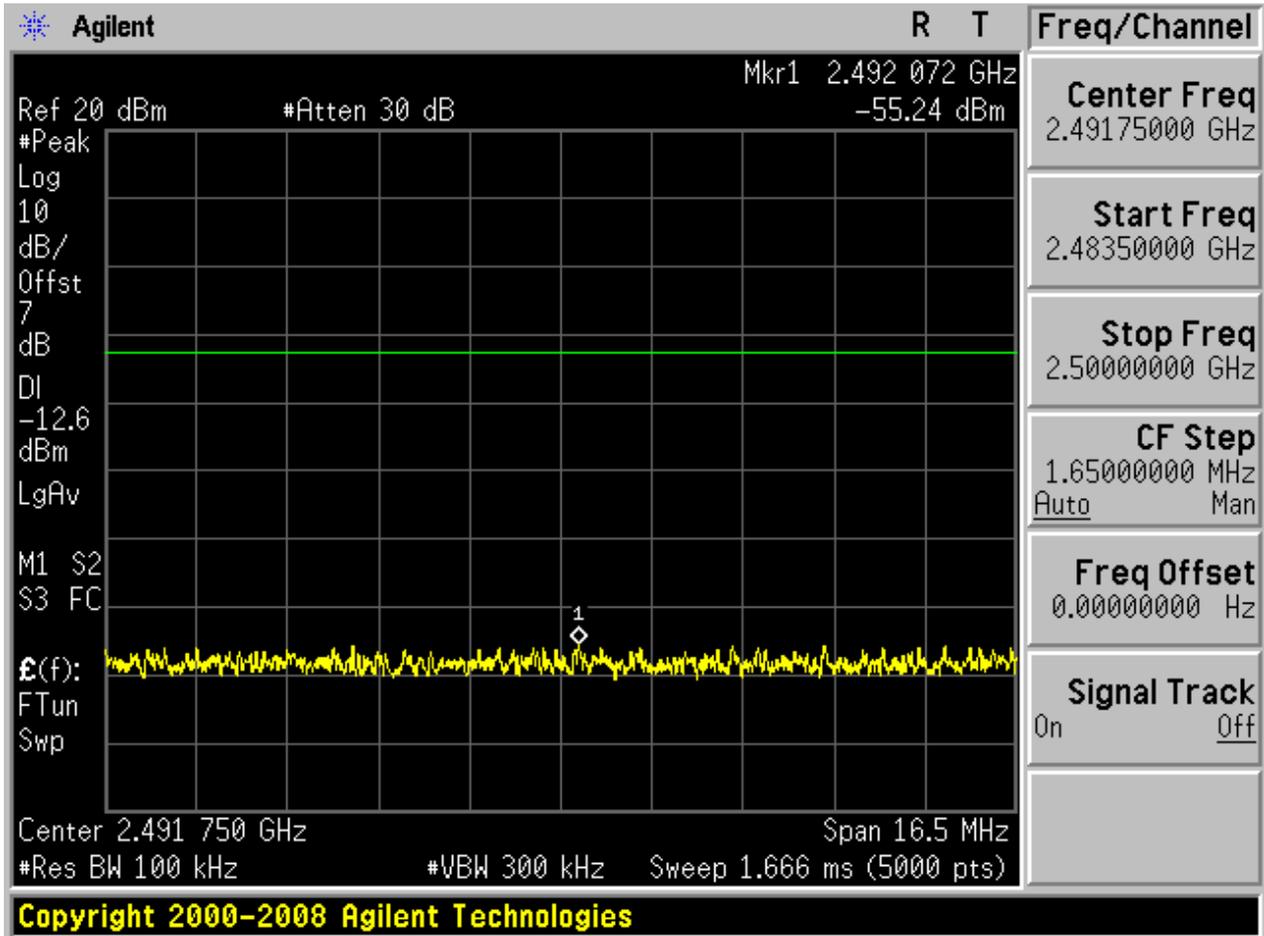


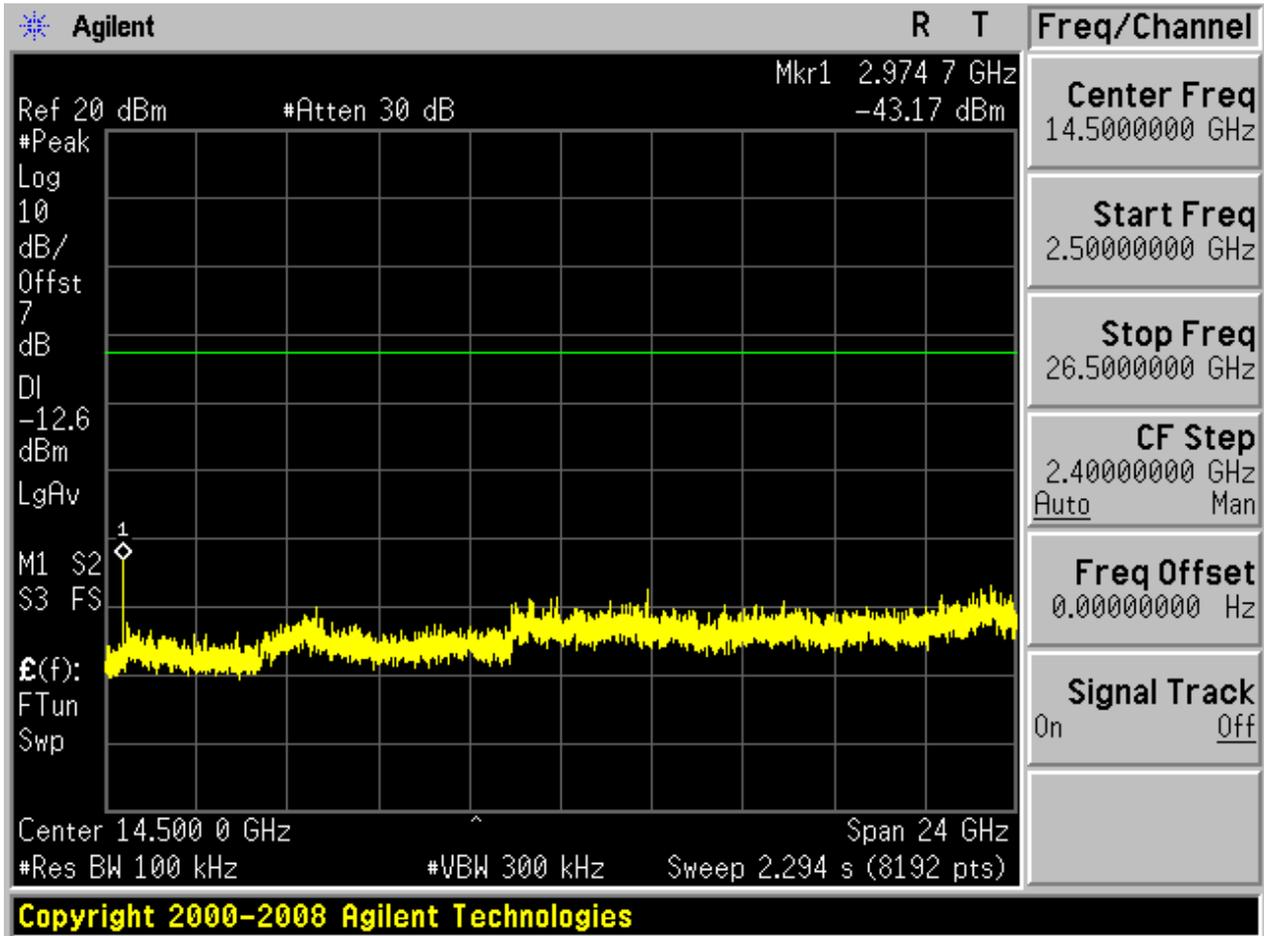
2.7.2 Puw







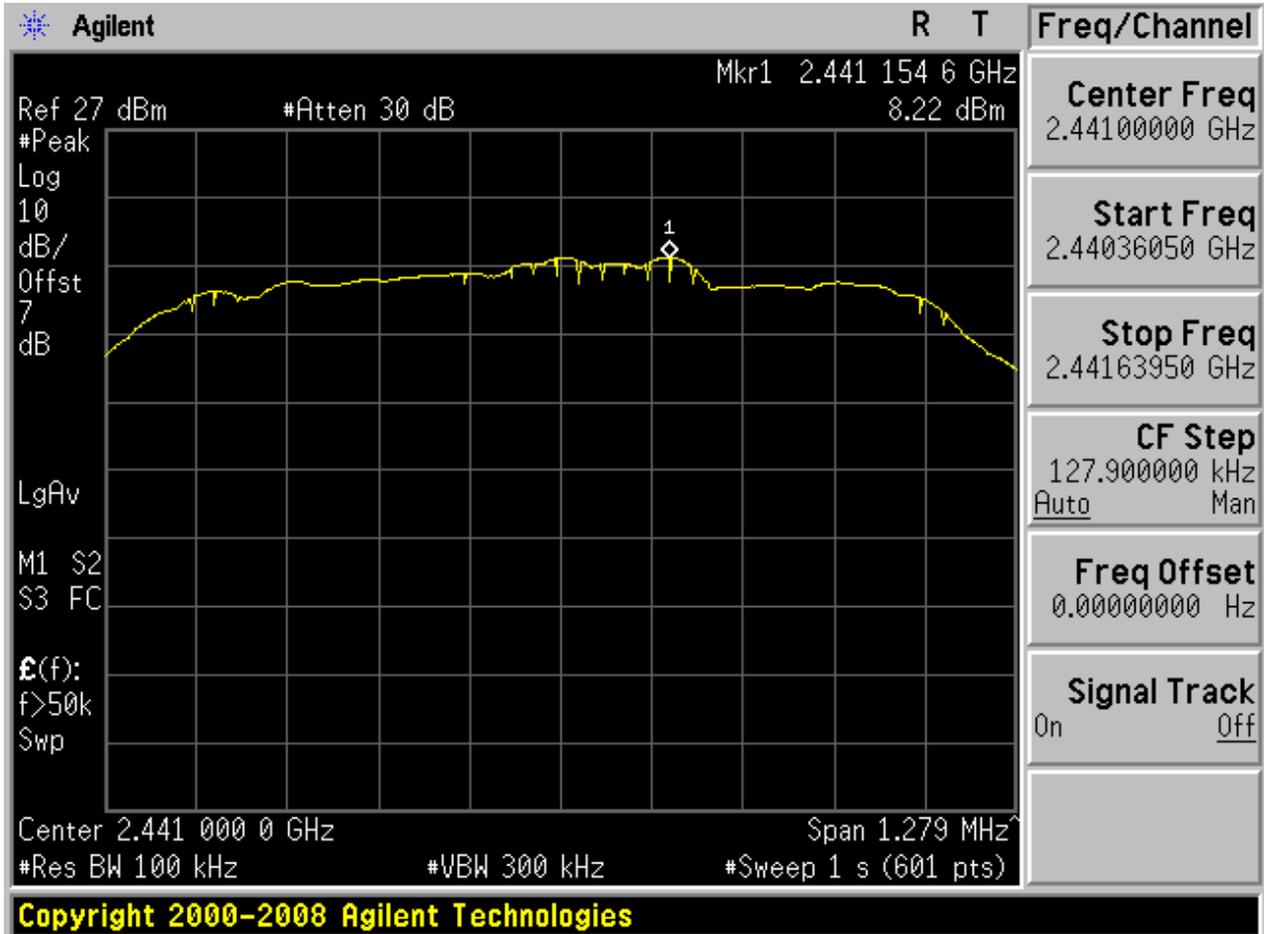




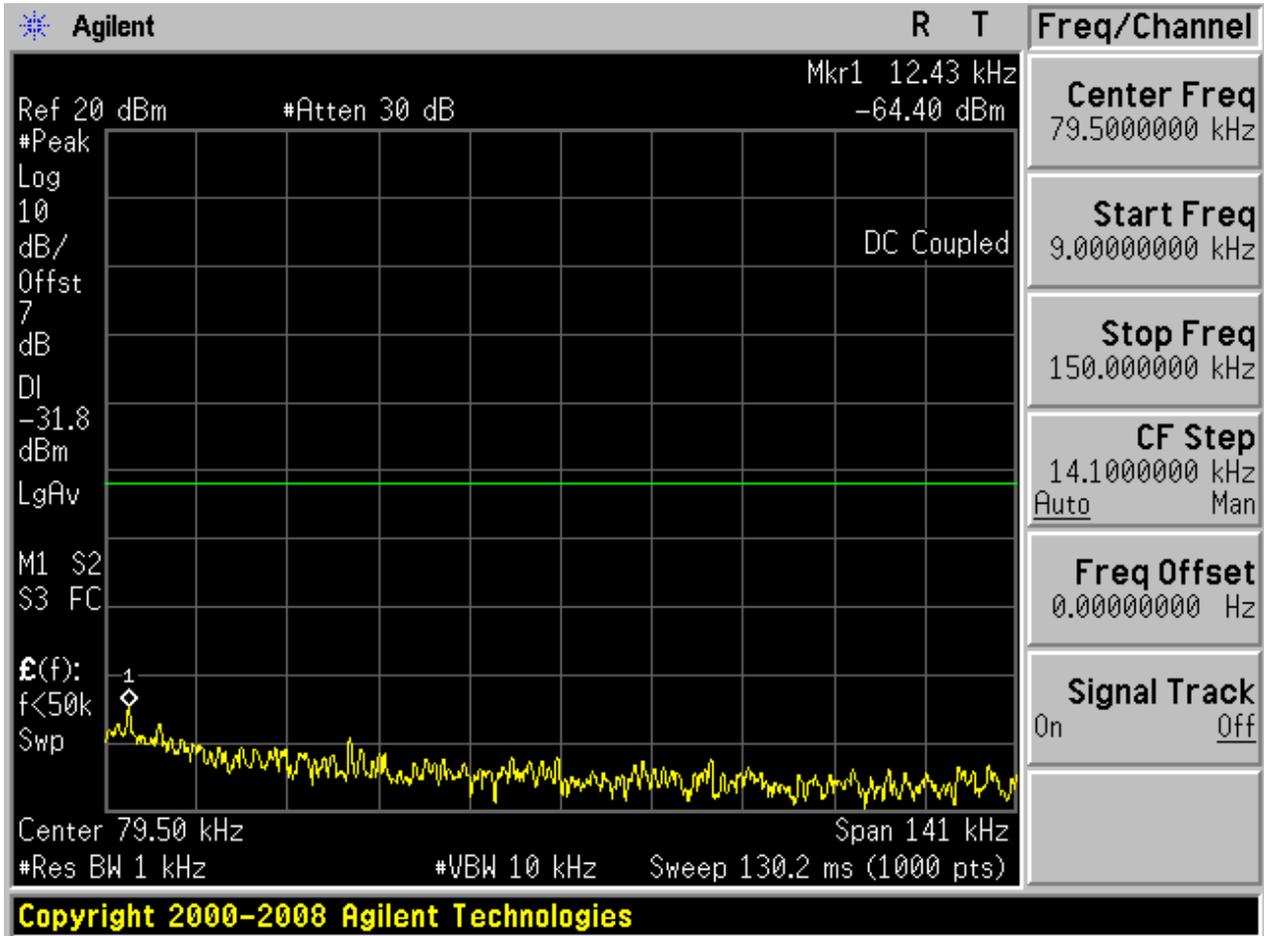


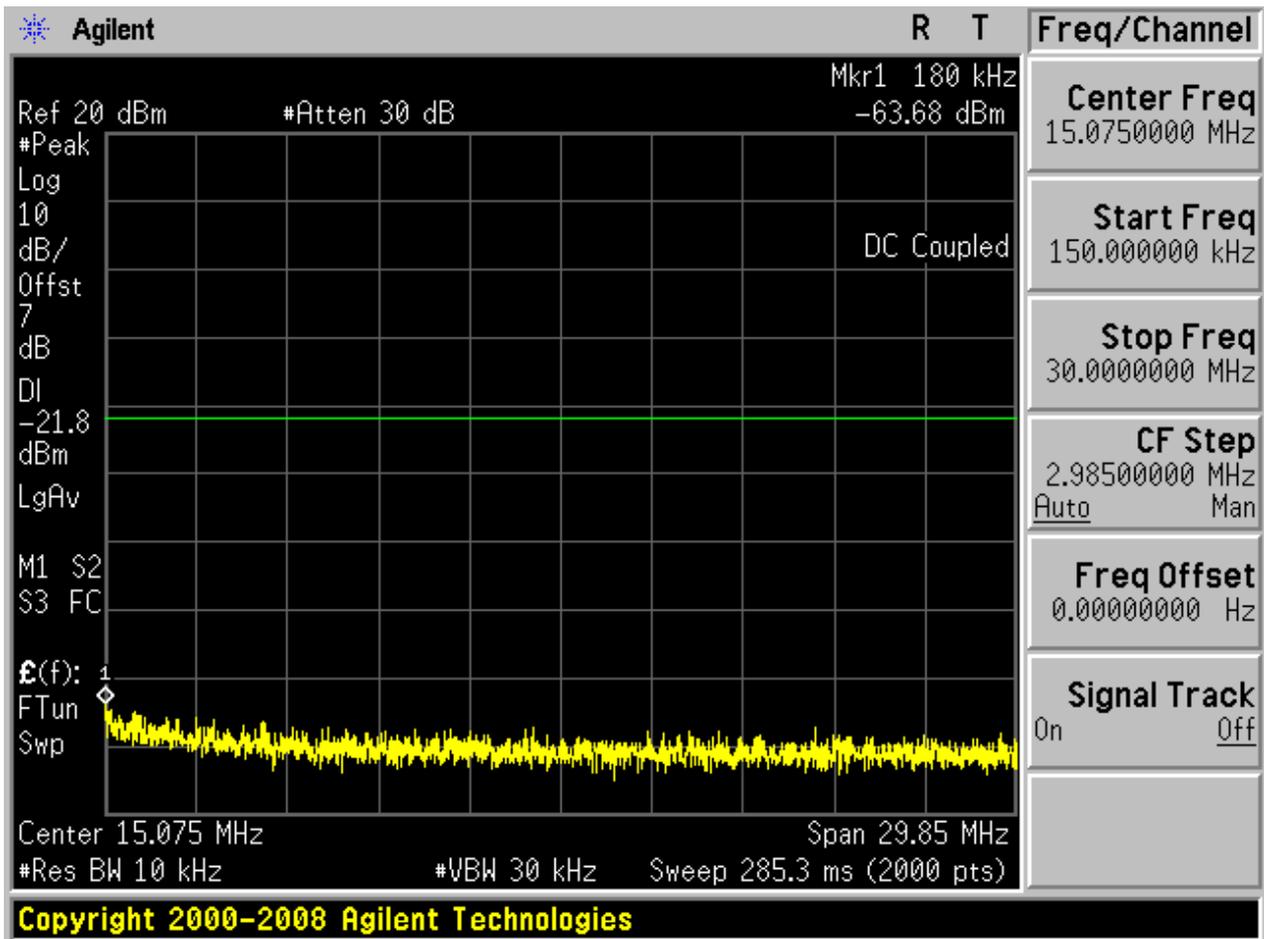
2.8 TM3_3DH5_Ch39

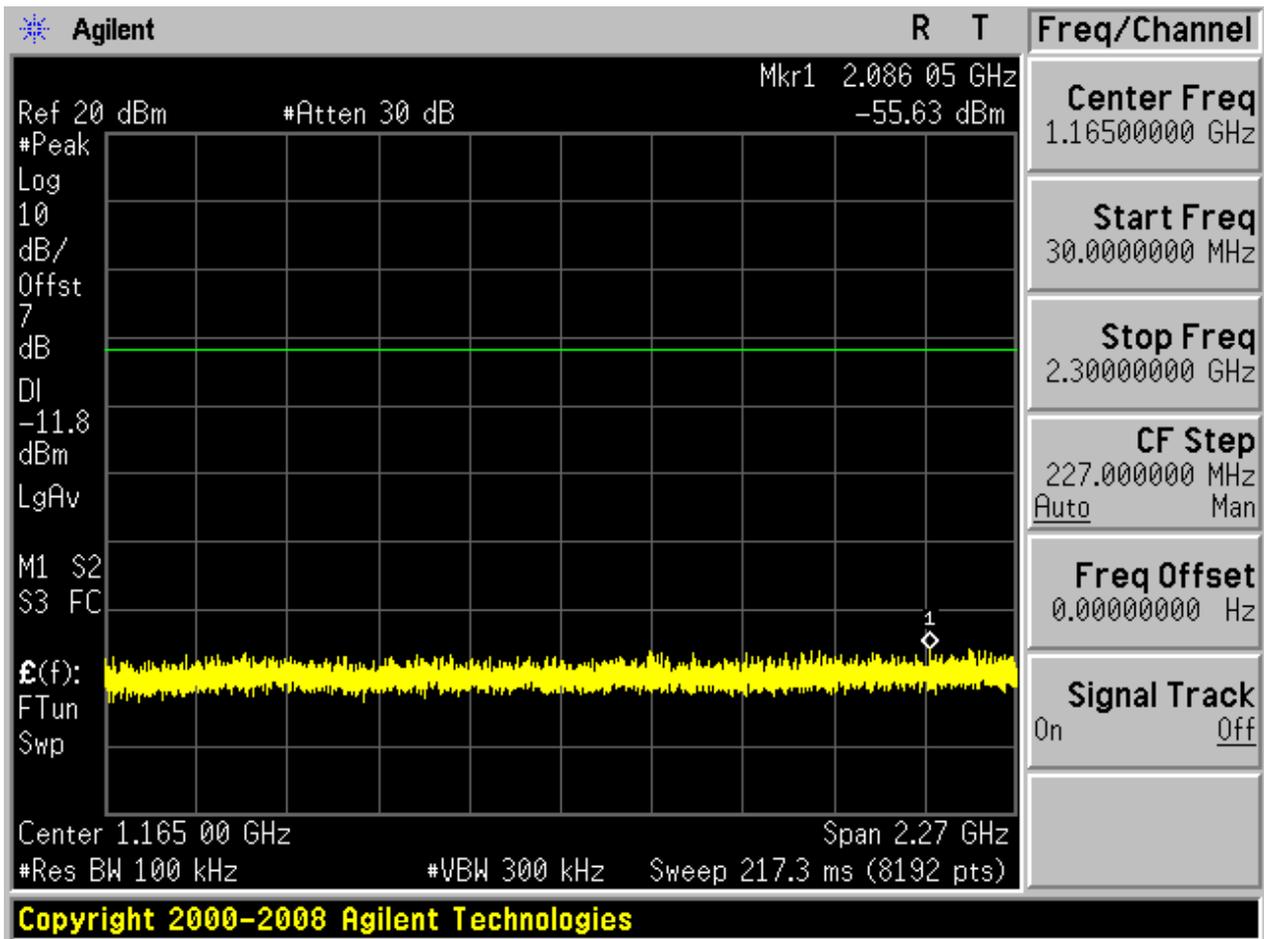
2.8.1 Pref

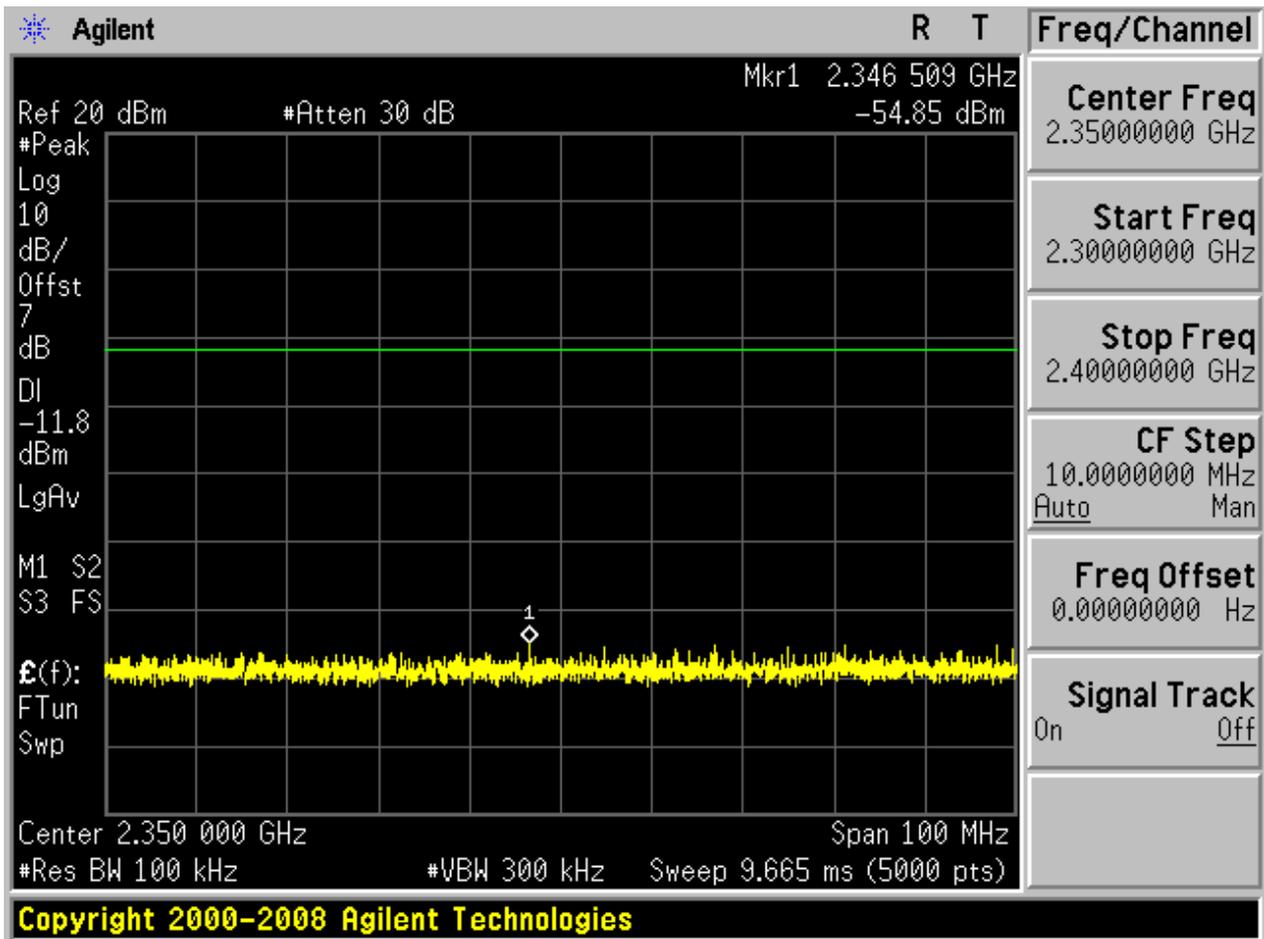


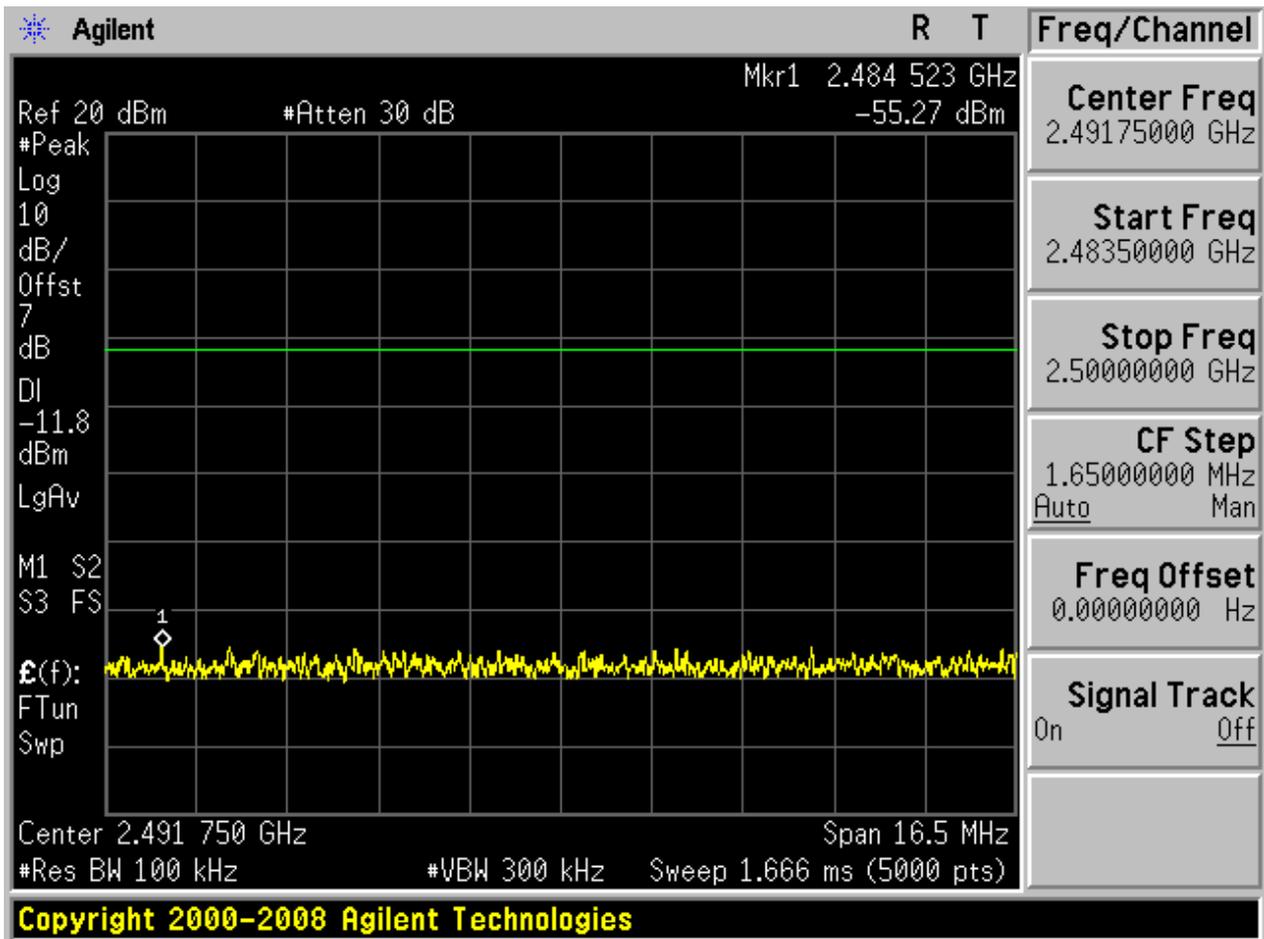
2.8.2 Puw

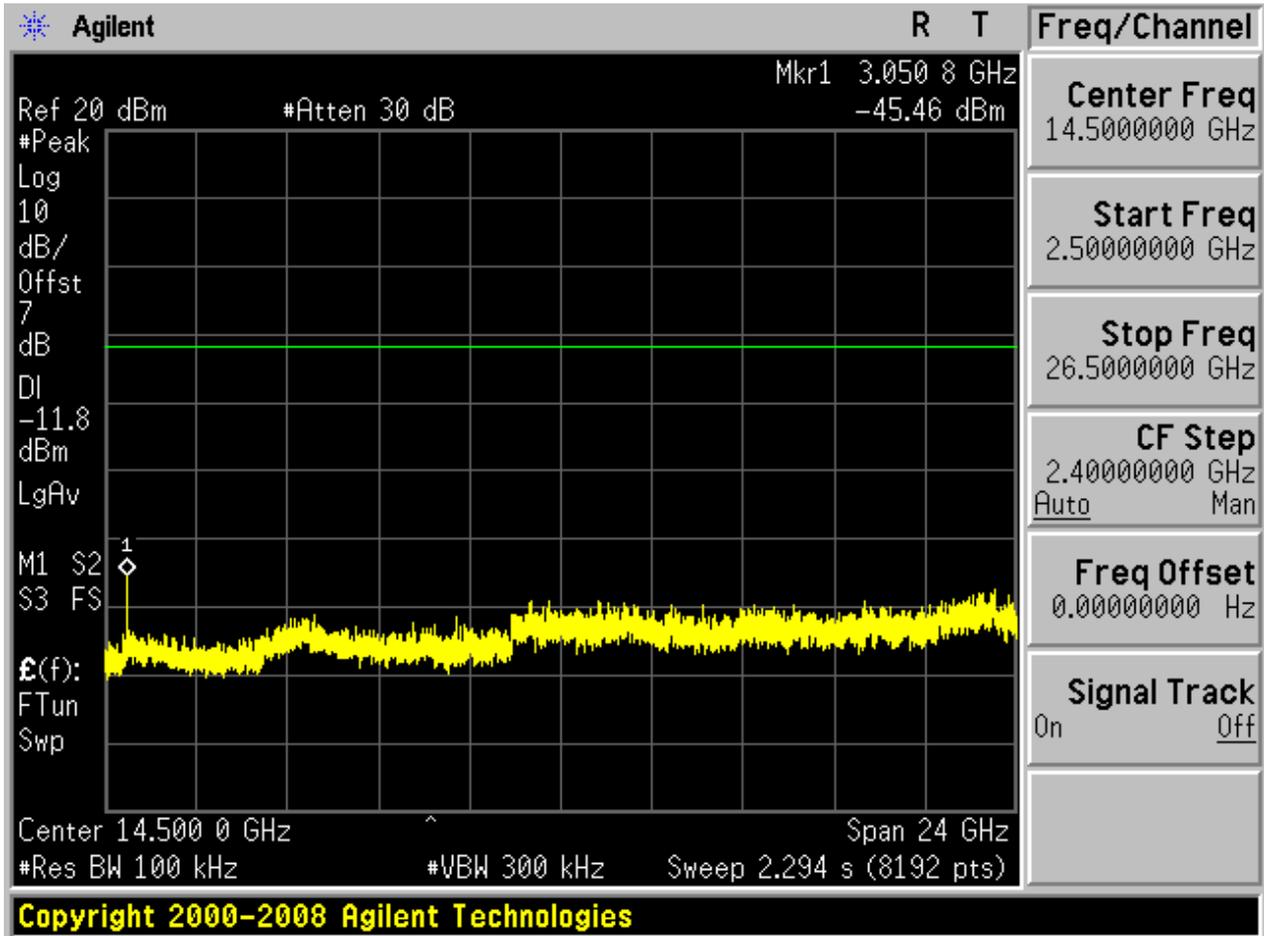








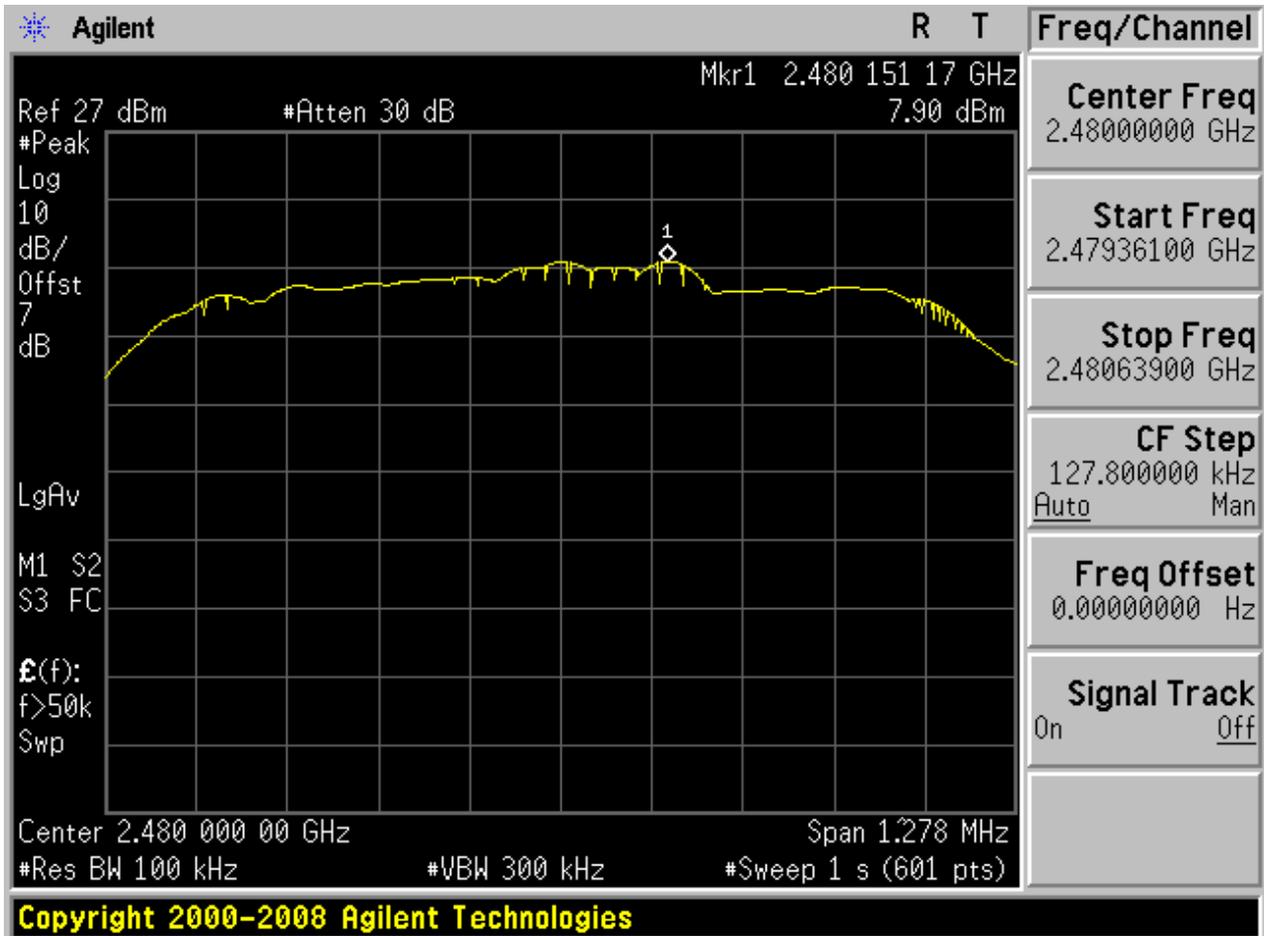




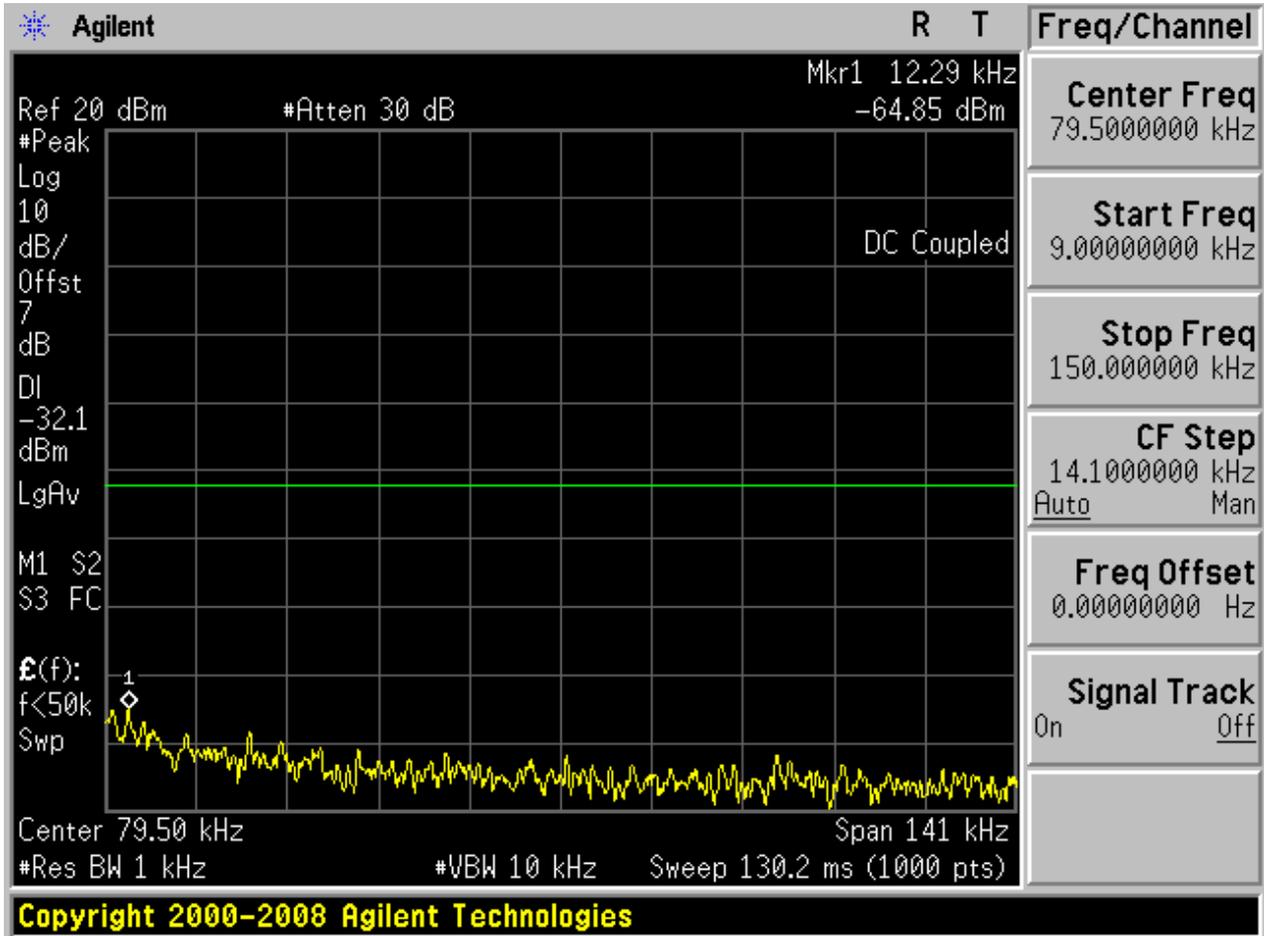


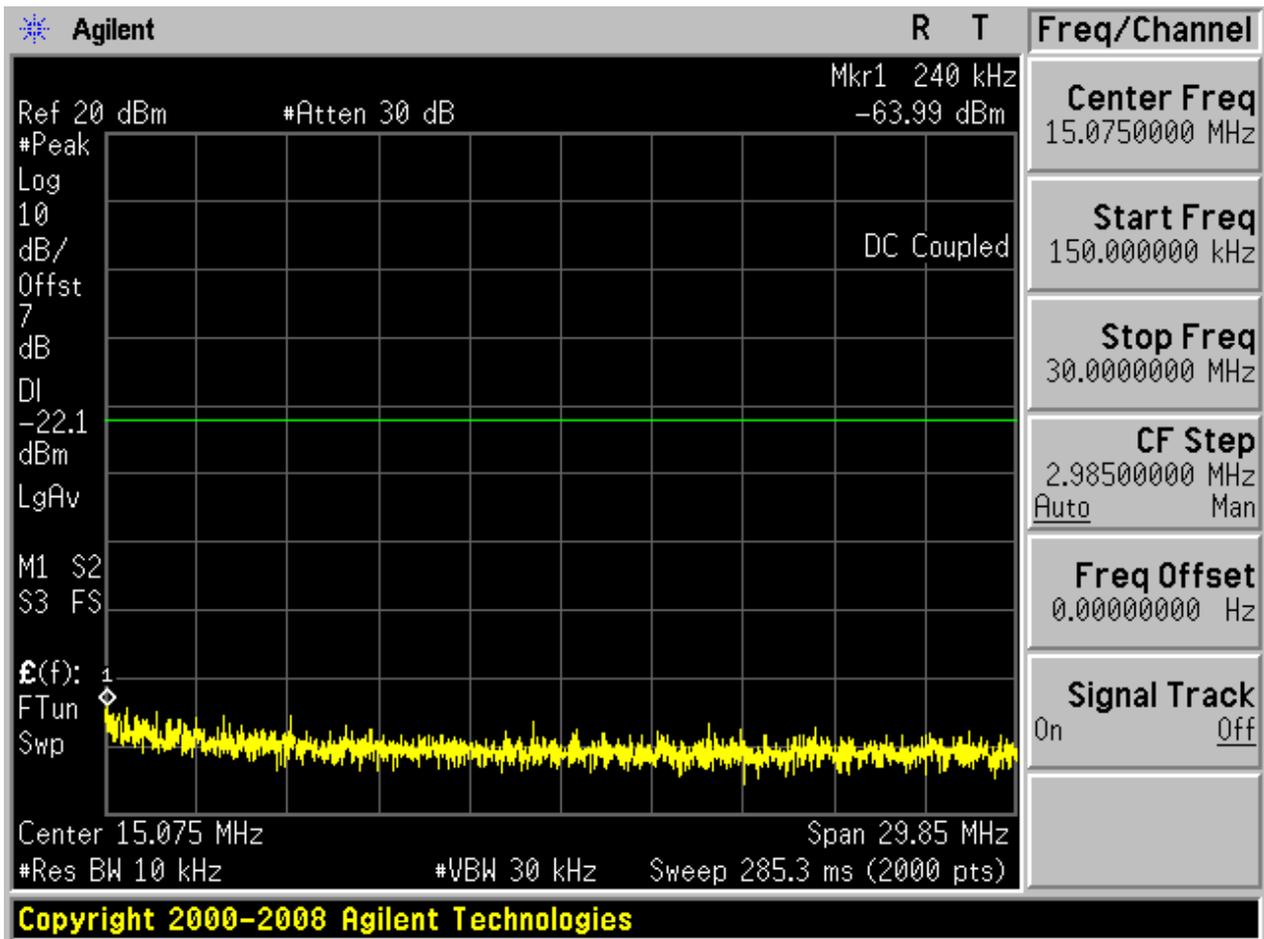
2.9 TM3_3DH5_Ch78

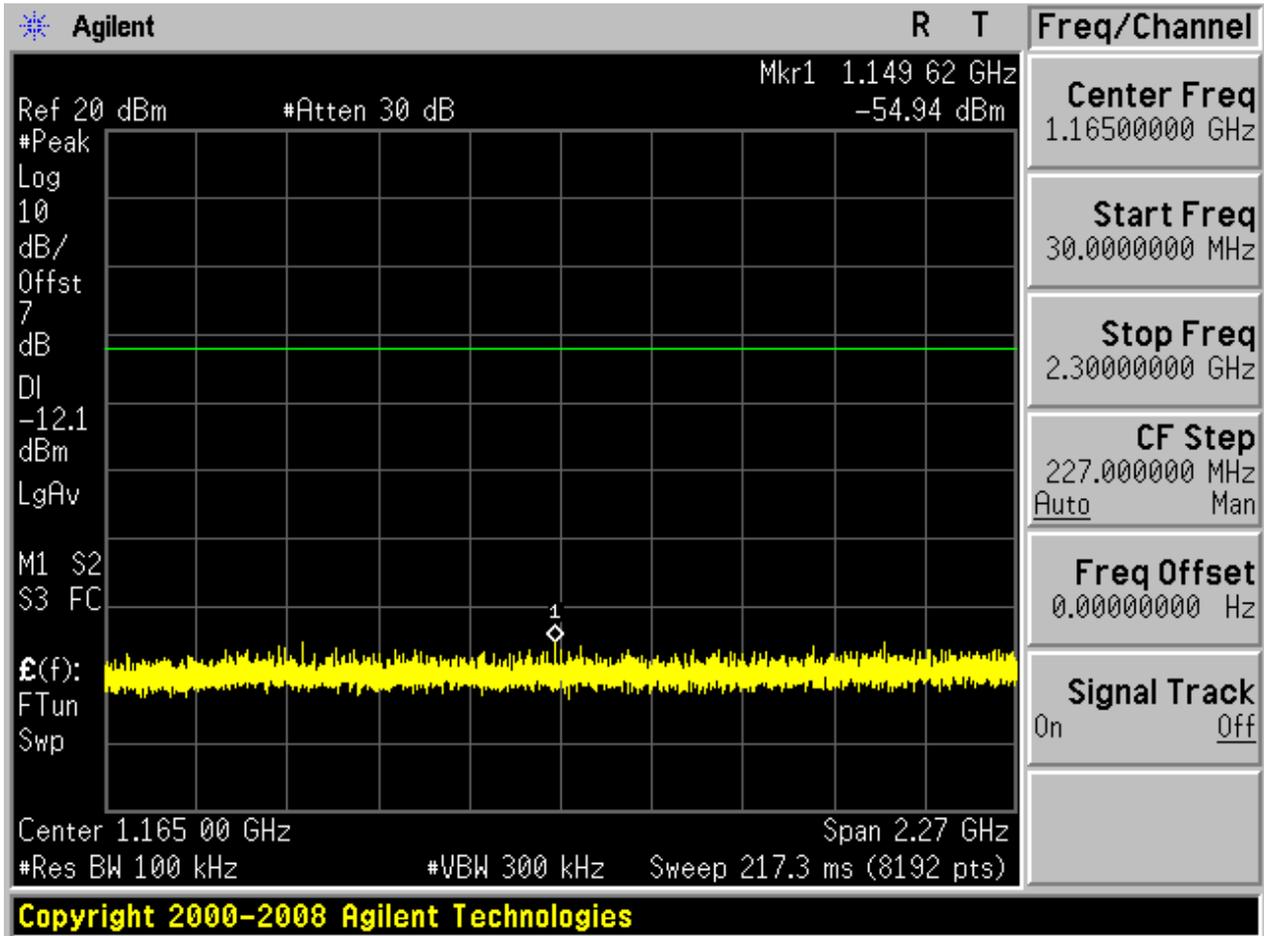
2.9.1 Pref

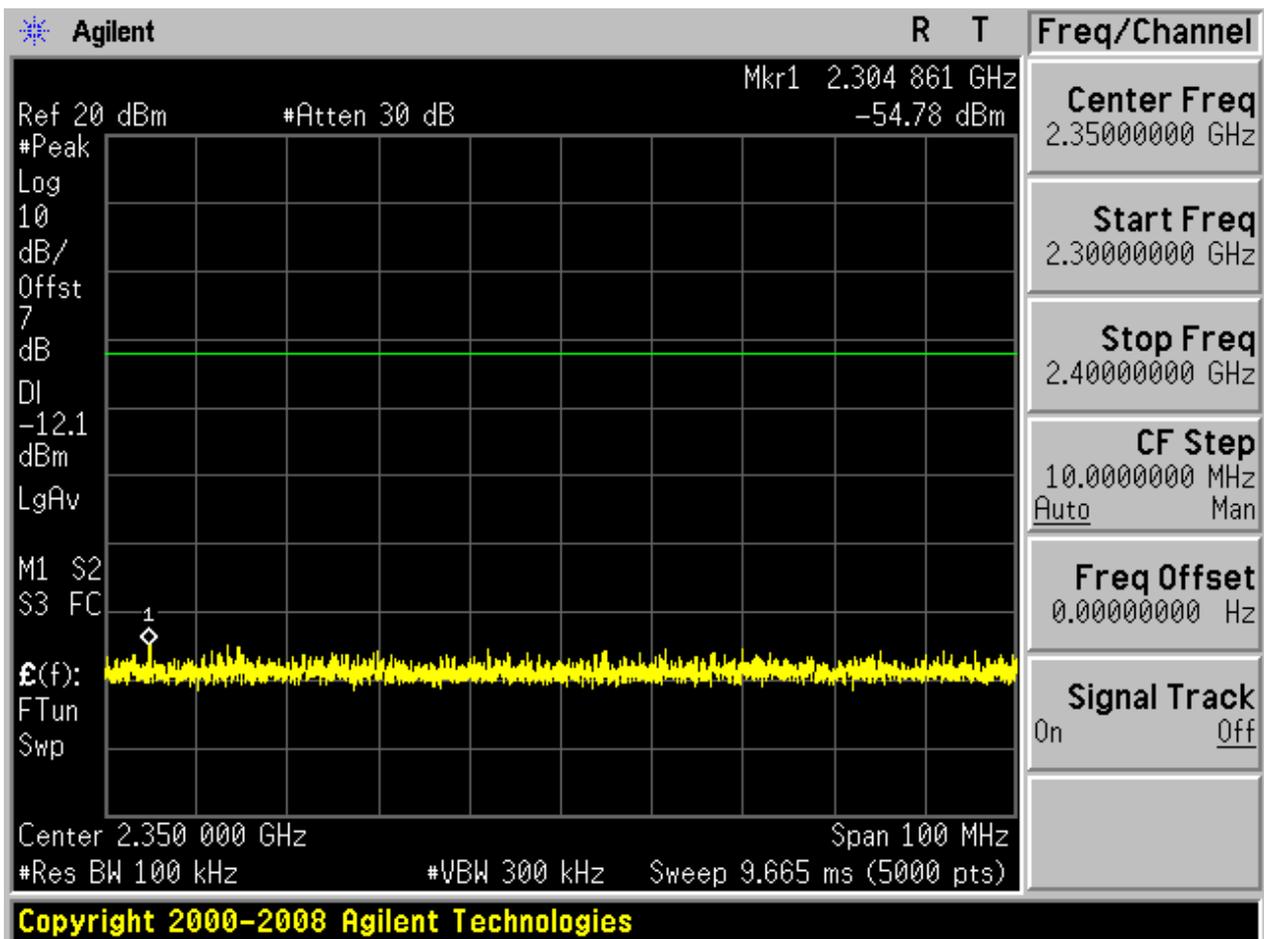


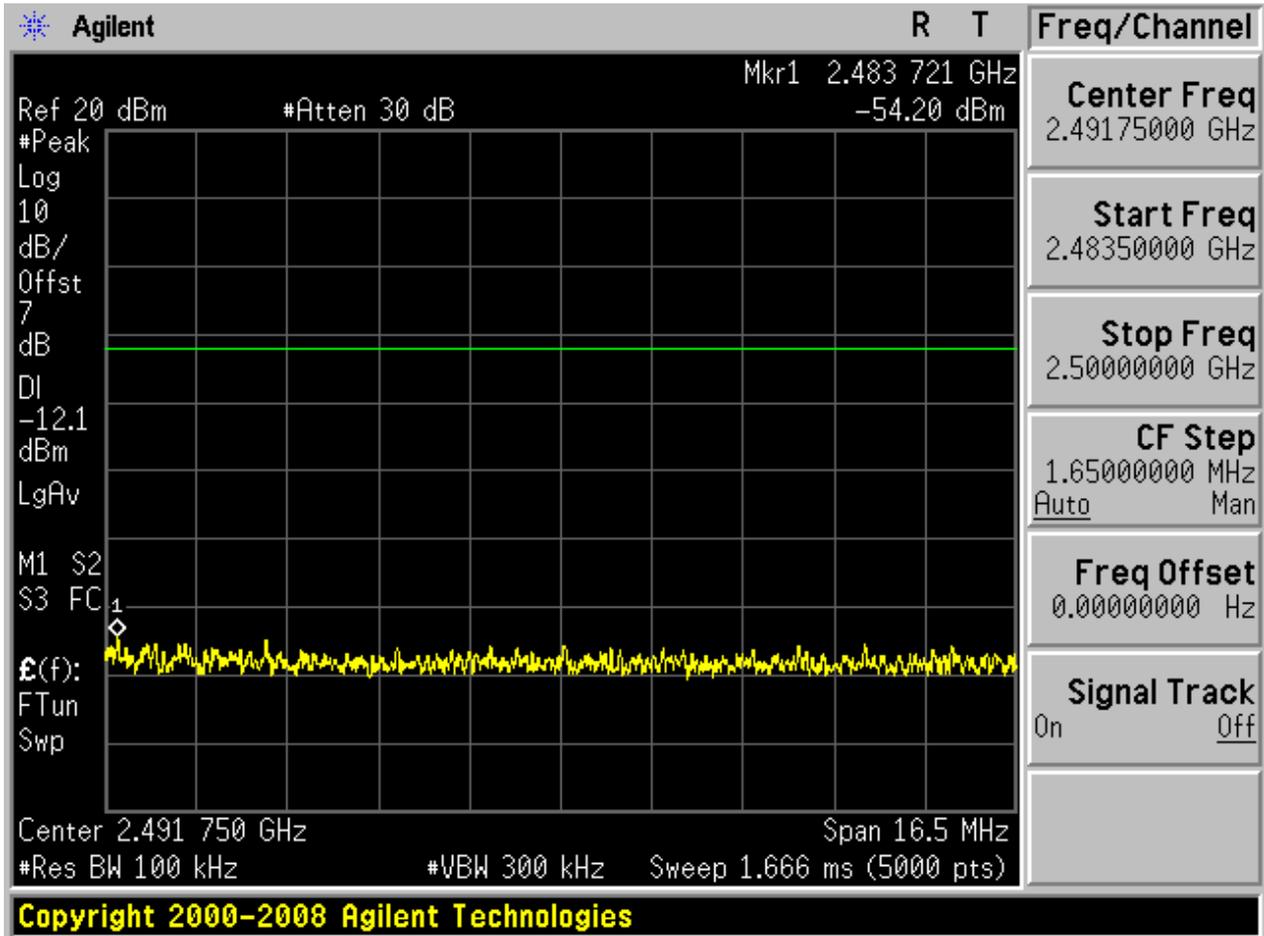
2.9.2 Puw

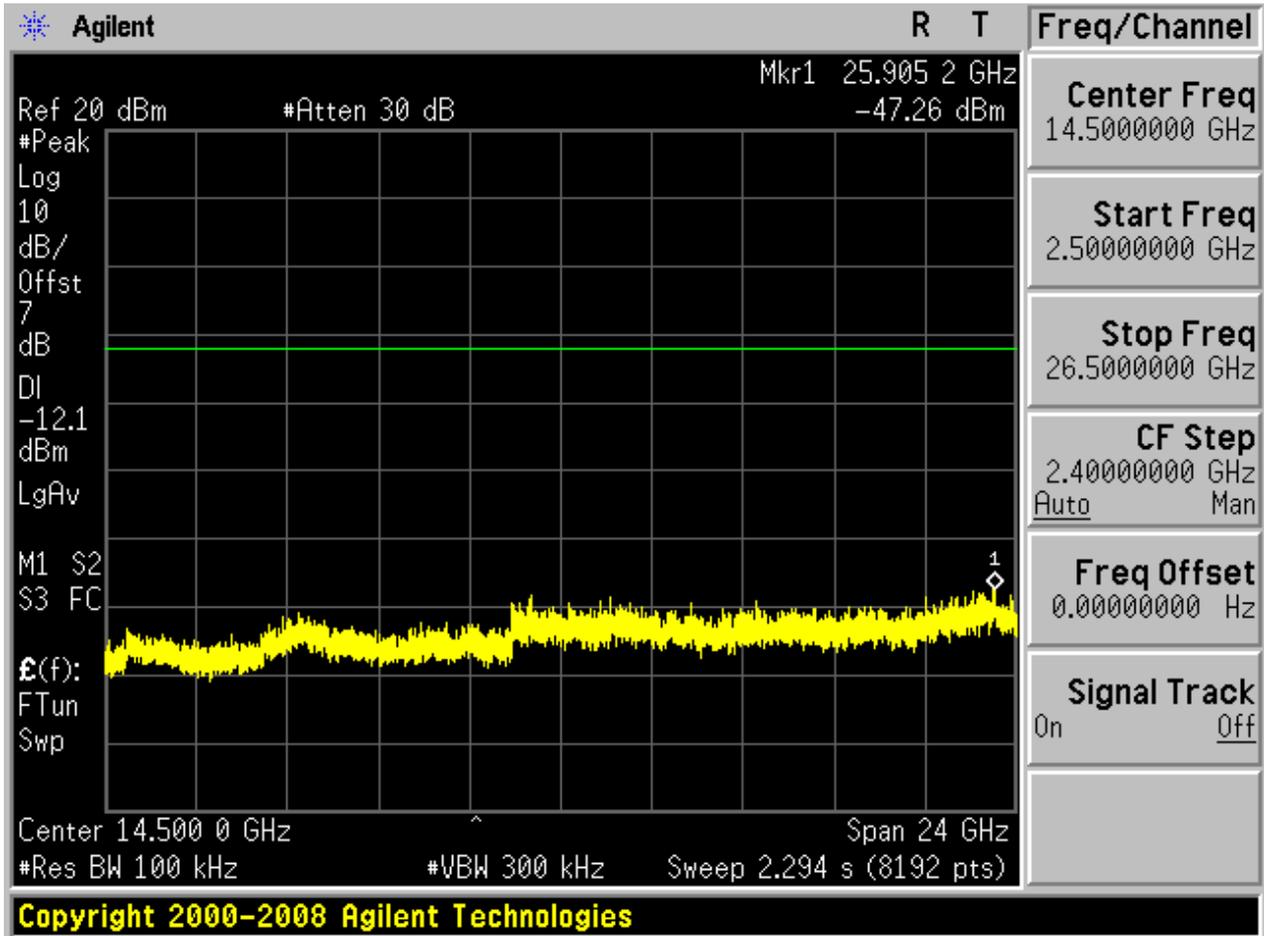














Appendix H: Radiated Emissions in the Restricted Bands

Note: We tested all modes, but the data presented below is the worst case.

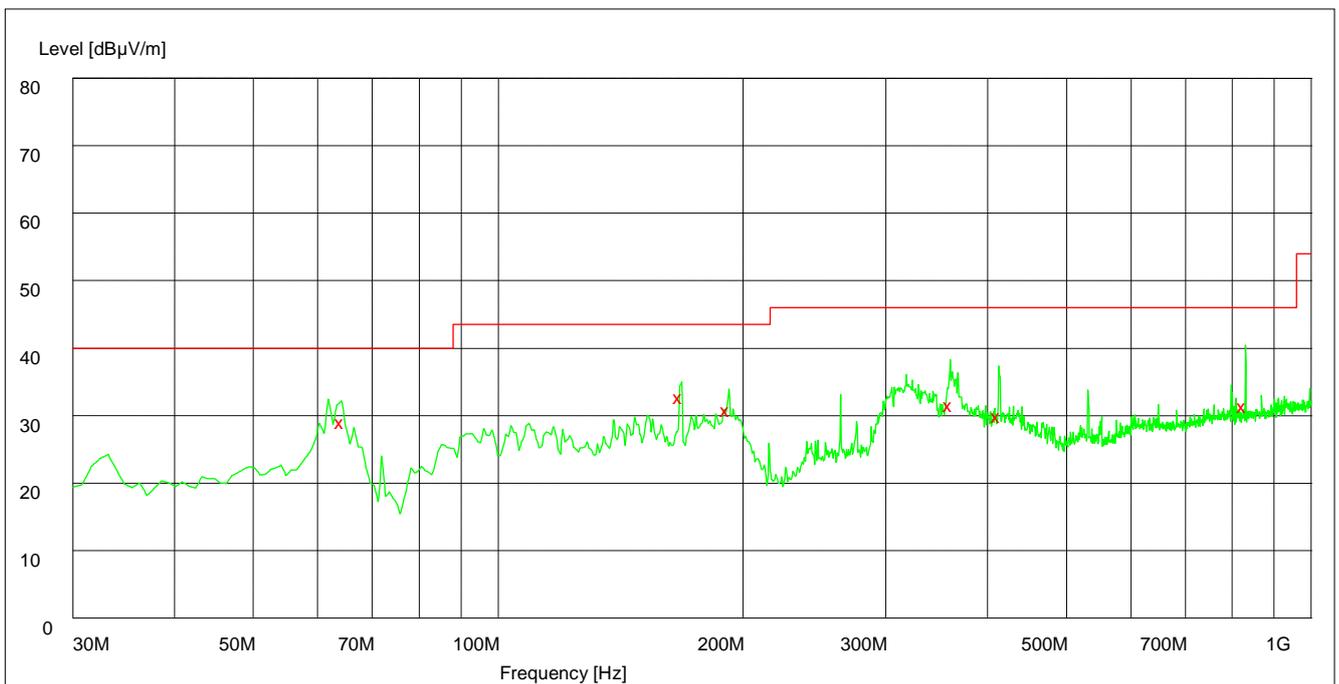
Part 1: Testing Range of “9 kHz to 30MHz”

NOTE1: No peak found in the Test Range of “9 kHz to 30MHz”

Part 2: 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.

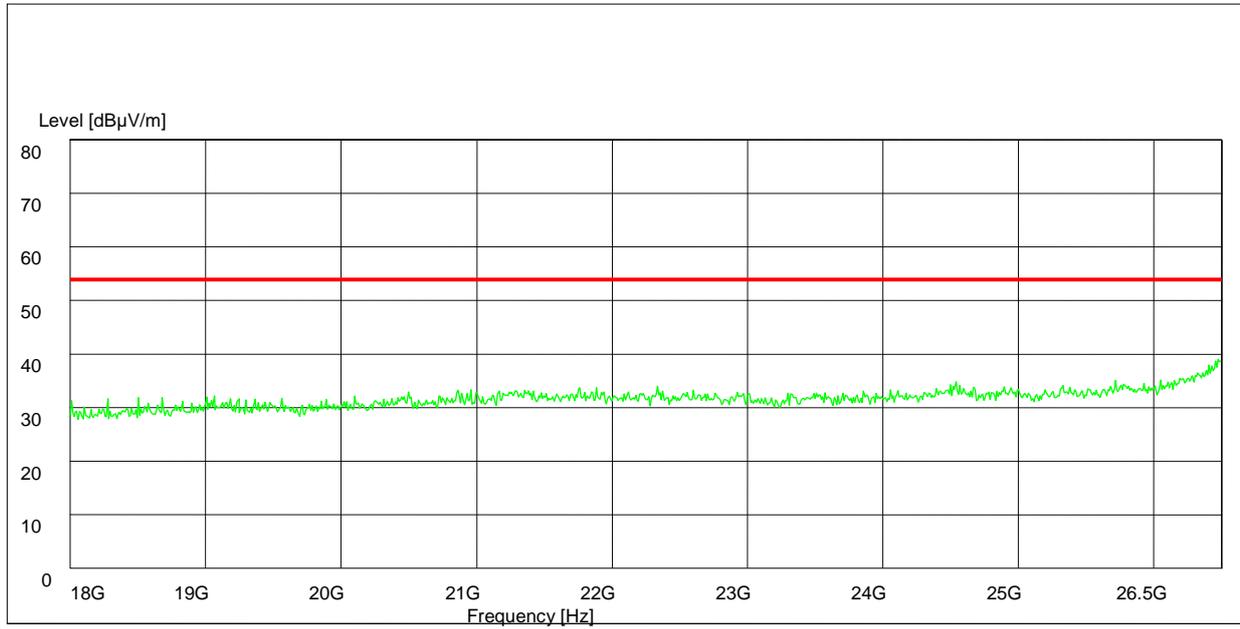
Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
64.444000	30.40	11.8	40.0	9.6	100.0	97.00	VERTICAL
168.012000	34.00	10.6	43.5	9.5	100.0	227.00	VERTICAL
192.004000	32.20	12.2	43.5	11.3	100.0	70.00	HORIZONTAL
360.580000	32.80	16.8	46.0	13.2	100.0	230.00	HORIZONTAL
412.928000	31.30	17.8	46.0	14.7	100.0	102.00	VERTICAL
829.156000	32.70	24.0	46.0	13.3	131.0	9.00	HORIZONTAL

Part 3: Testing Range of “18 GHz to 26.5 GHz”

Note: No peak found in pre- test.

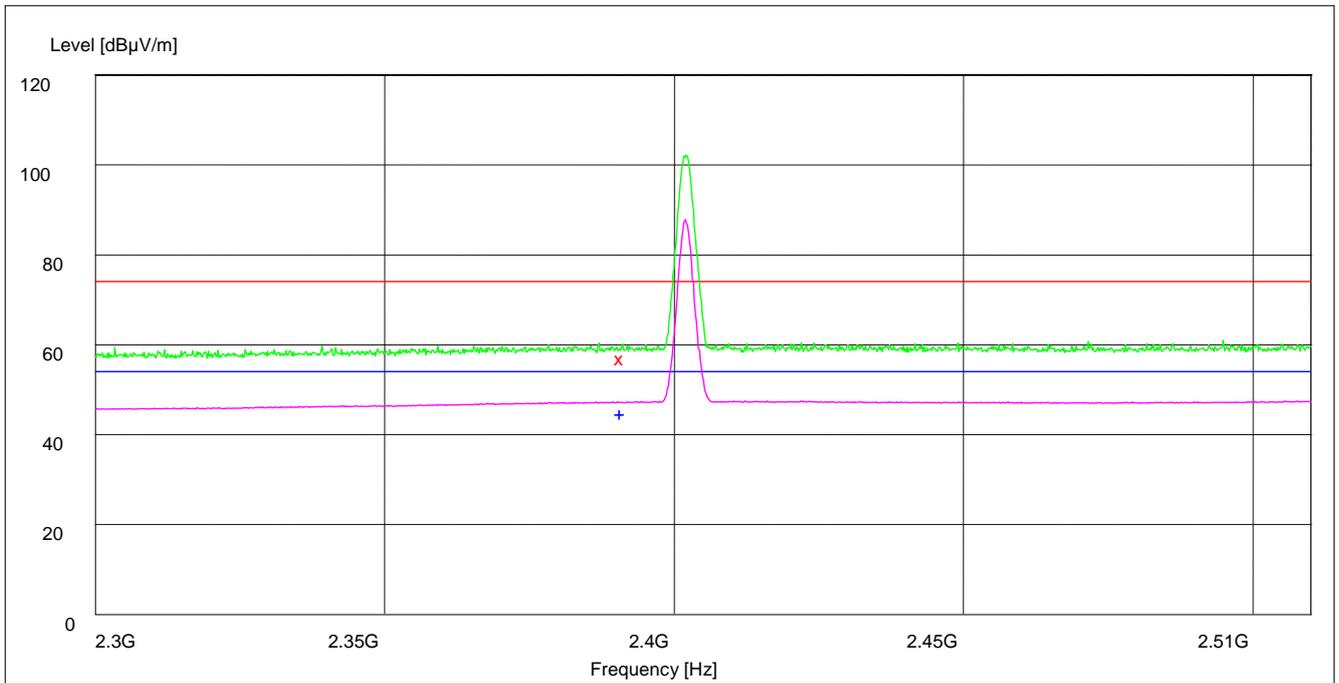


Part 4: Testing Range of “2.3GHz to 2.5GHz”

- 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 dB μ V/m) and Average Limit (54 dB μ V/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

3 Test Mode:

3.1 Channel 00



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

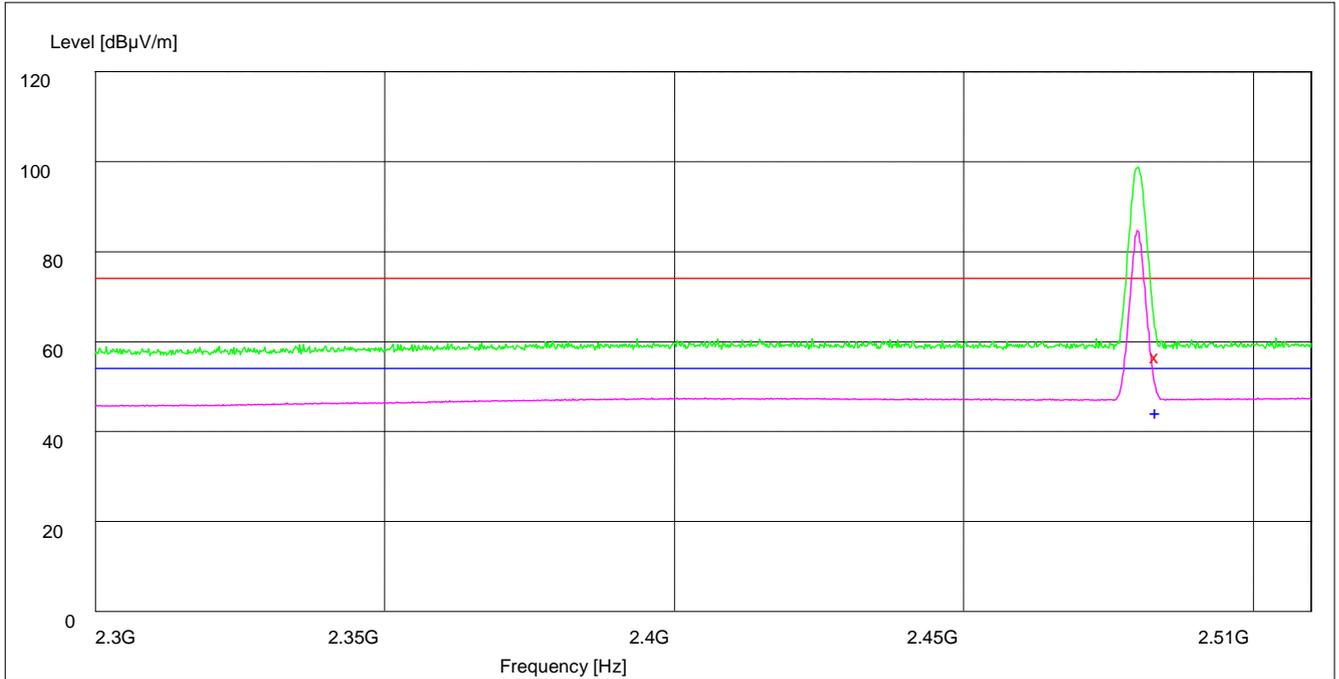
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	56.40	34.8	74.0	17.6	103.0	79.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	43.60	34.8	54.0	10.4	184.0	218.00	HORIZONTAL

3.2 Channel 78



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

MEASUREMENT RESULT: PK Detector

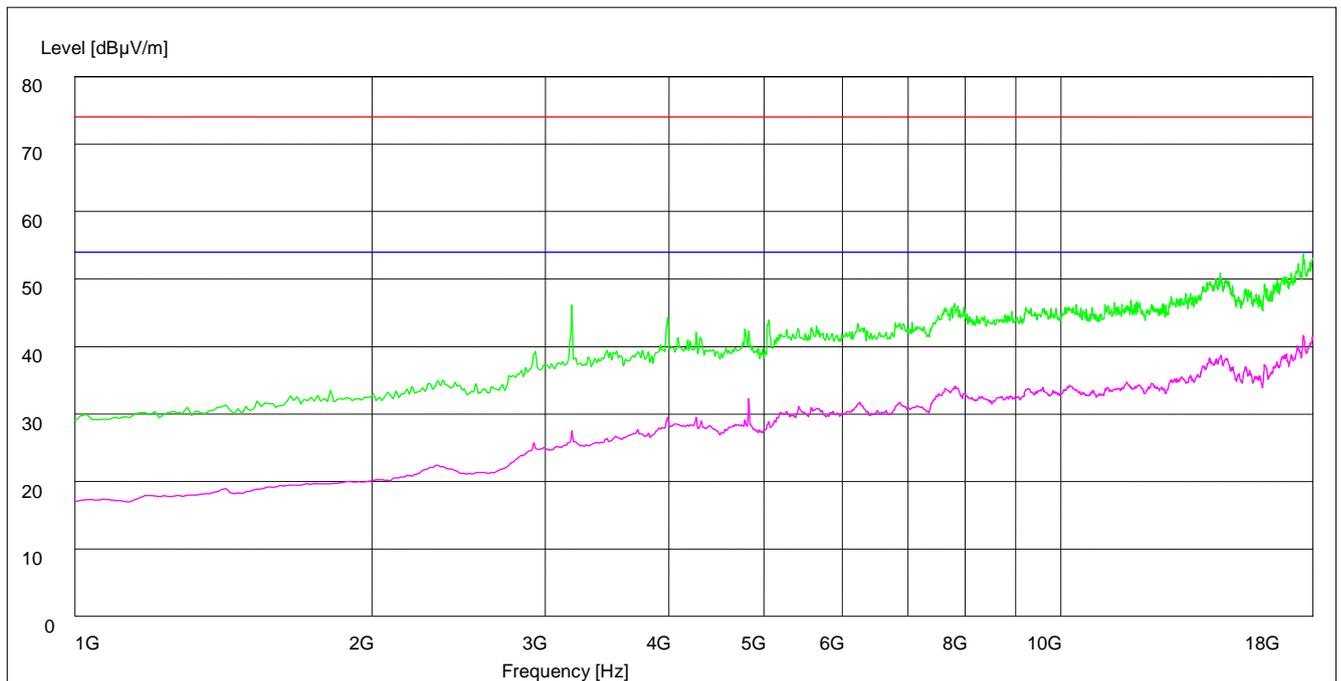
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	58.80	35.1	74.0	15.2	100.0	241.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	46.30	35.1	54.0	7.7	144.0	168.00	VERTICAL

Part 5: 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).

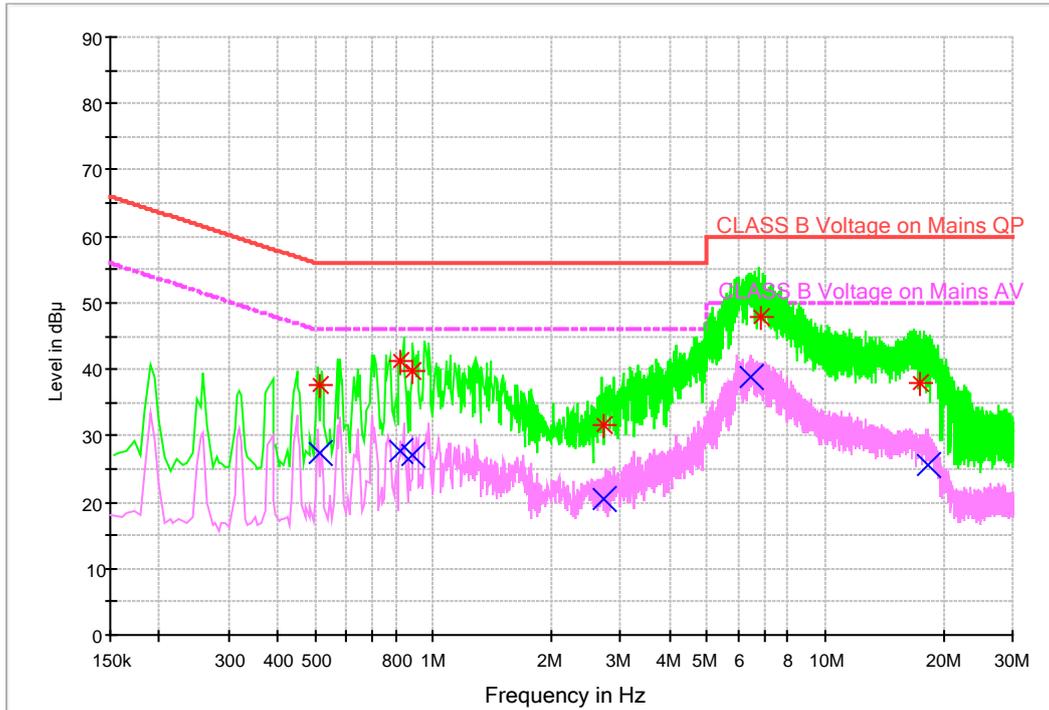


Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 40

CLASS B Voltage with ENV216



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBμV	Line	Transd dB	Margin dB	Limit dBμV	PE
0.516045	37.6	N	9.7	18.4	56.0	FLO
0.825634	41.3	N	9.7	14.7	56.0	FLO
0.886616	39.8	N	9.7	16.2	56.0	FLO
2.727892	31.7	N	9.7	24.3	56.0	FLO
6.829754	47.8	N	9.9	12.2	60.0	FLO
17.423626	37.8	L1	10.1	22.2	60.0	FLO



MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB μ V	Line	Transd dB	Margin dB	Limit dB μ V	PE
0.515595	27.5	N	9.7	18.5	46.0	FLO
0.826196	27.8	N	9.7	18.2	46.0	FLO
0.888952	27.2	N	9.7	18.8	46.0	FLO
2.731002	20.5	N	9.7	25.5	46.0	FLO
6.445268	38.7	N	9.8	11.3	50.0	FLO
18.279874	25.5	N	10.1	24.5	50.0	FLO

END