



Appendix A: 20dB Emission Bandwidth (EBW)



1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.981	Pass
TM1_DH5_Ch39	0.988	Pass
TM1_DH5_Ch78	0.985	Pass
TM2_2DH5_Ch0	1.289	Pass
TM2_2DH5_Ch39	1.287	Pass
TM2_2DH5_Ch78	1.288	Pass
TM3_3DH5_Ch0	1.287	Pass
TM3_3DH5_Ch39	1.284	Pass
TM3_3DH5_Ch78	1.286	Pass



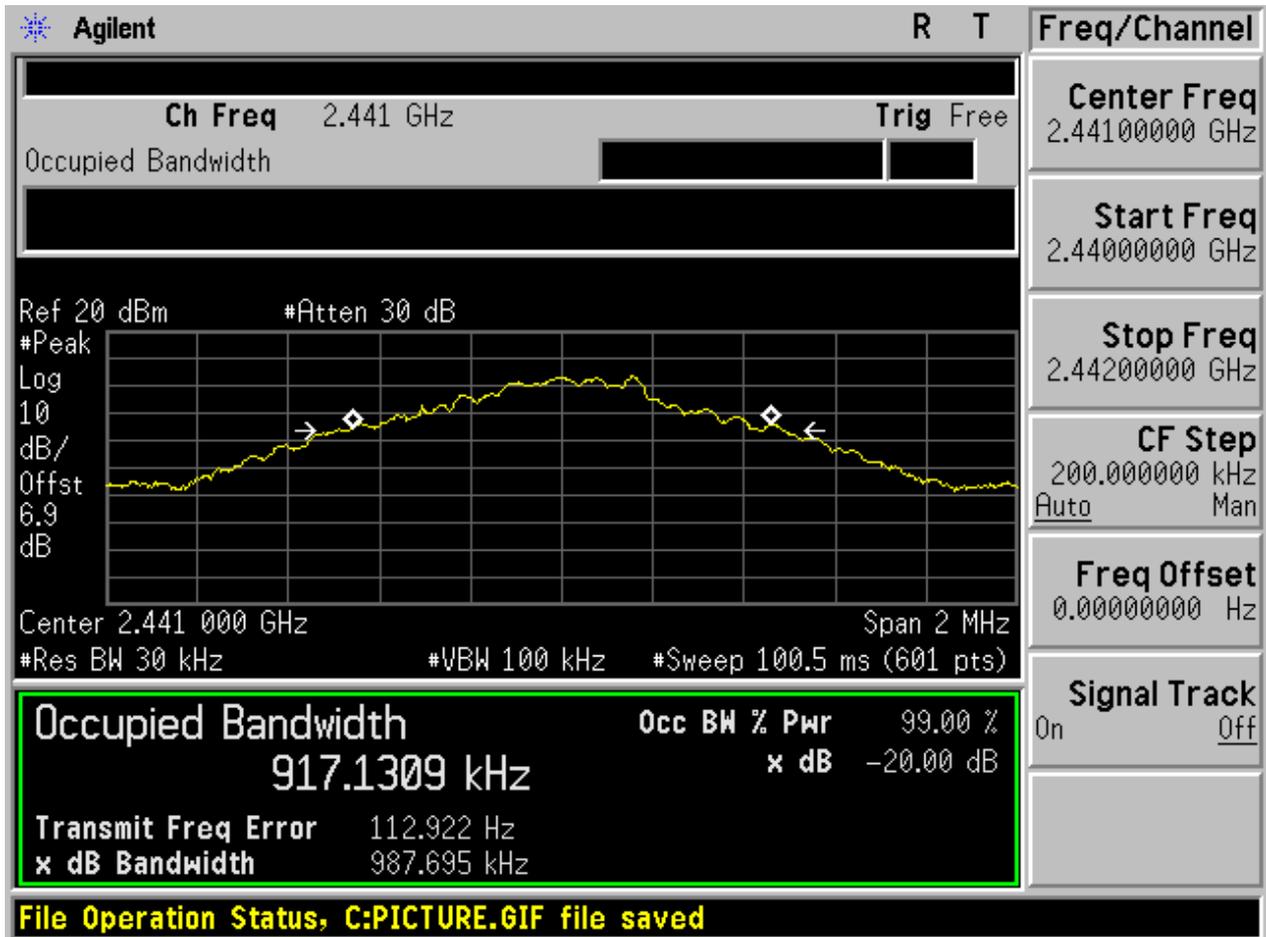
2 Test Plot

2.1 TM1_DH5_Ch0





2.2 TM1_DH5_Ch39



2.3 TM1_DH5_Ch78

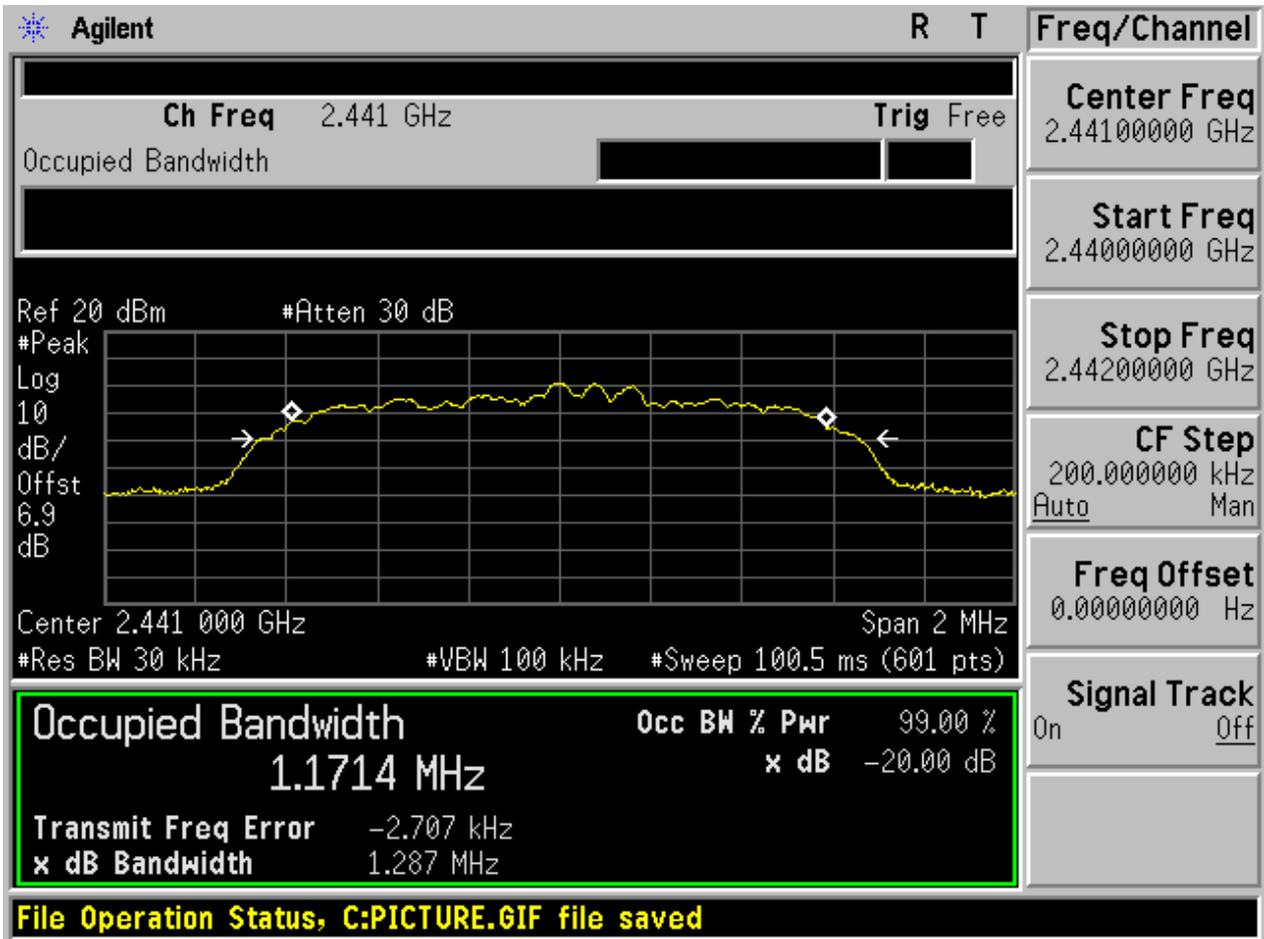


2.4 TM2_2DH5_Ch0



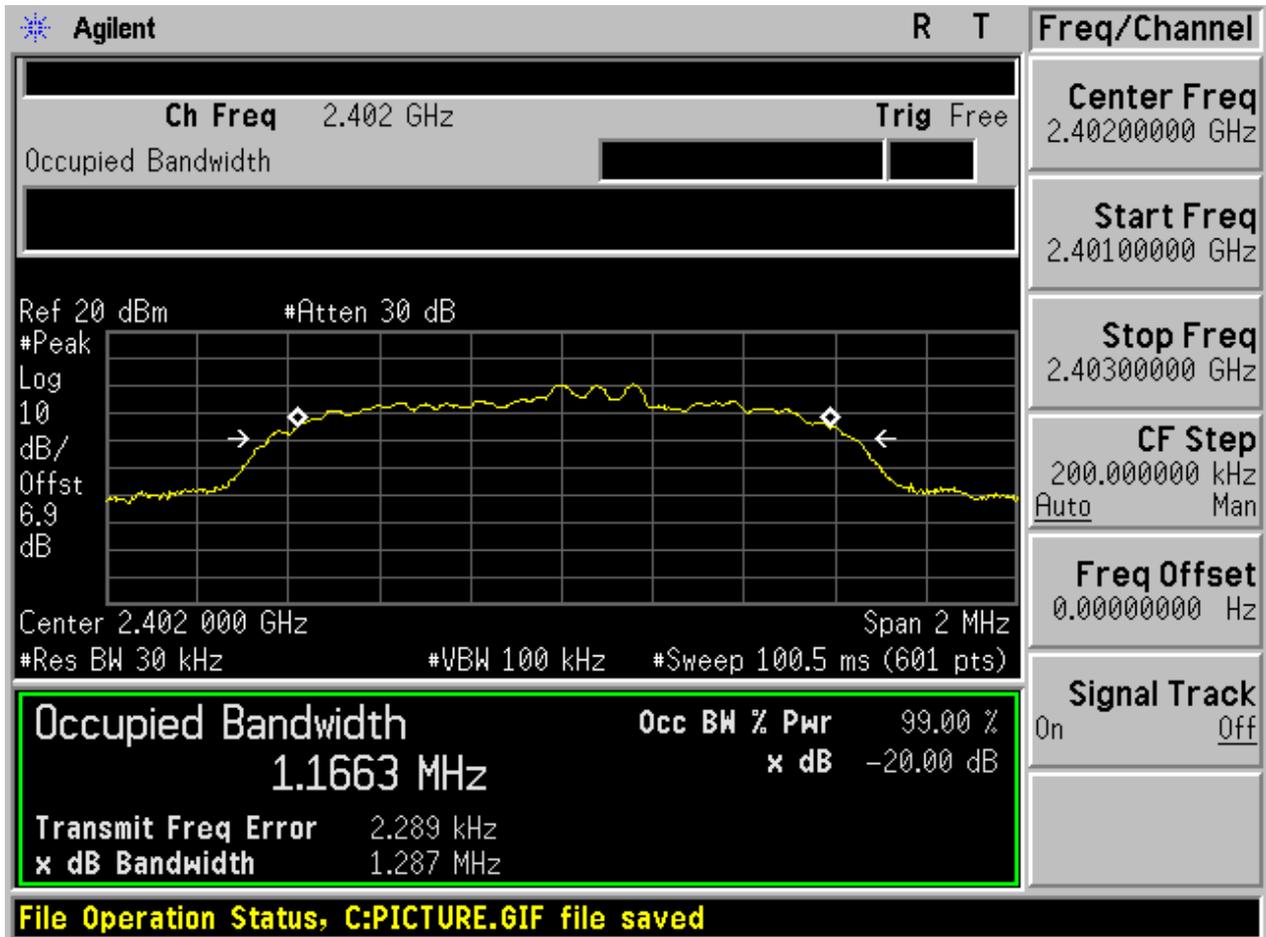


2.5 TM2_2DH5_Ch39





2.7 TM3_3DH5_Ch0



2.9 TM3_3DH5_Ch78

Agilent R T		Freq/Channel
Ch Freq 2.48 GHz Trig Free		Center Freq 2.48000000 GHz
Occupied Bandwidth [Progress Bar]		Start Freq 2.47900000 GHz
Ref 20 dBm #Atten 30 dB		Stop Freq 2.48100000 GHz
#Peak Log 10 dB/ Offst 6.9 dB		CF Step 200.000000 kHz Auto Man
		Freq Offset 0.00000000 Hz
Center 2.480 000 GHz Span 2 MHz		Signal Track On Off
#Res BW 30 kHz #VBW 100 kHz #Sweep 100.5 ms (601 pts)		
Occupied Bandwidth Occ BW % Pwr 99.00 %		
1.1678 MHz x dB -20.00 dB		
Transmit Freq Error 1.719 kHz		
x dB Bandwidth 1.286 MHz		
File Operation Status, C:PICTURE.GIF file saved		



Appendix B: Carrier Frequency Separation



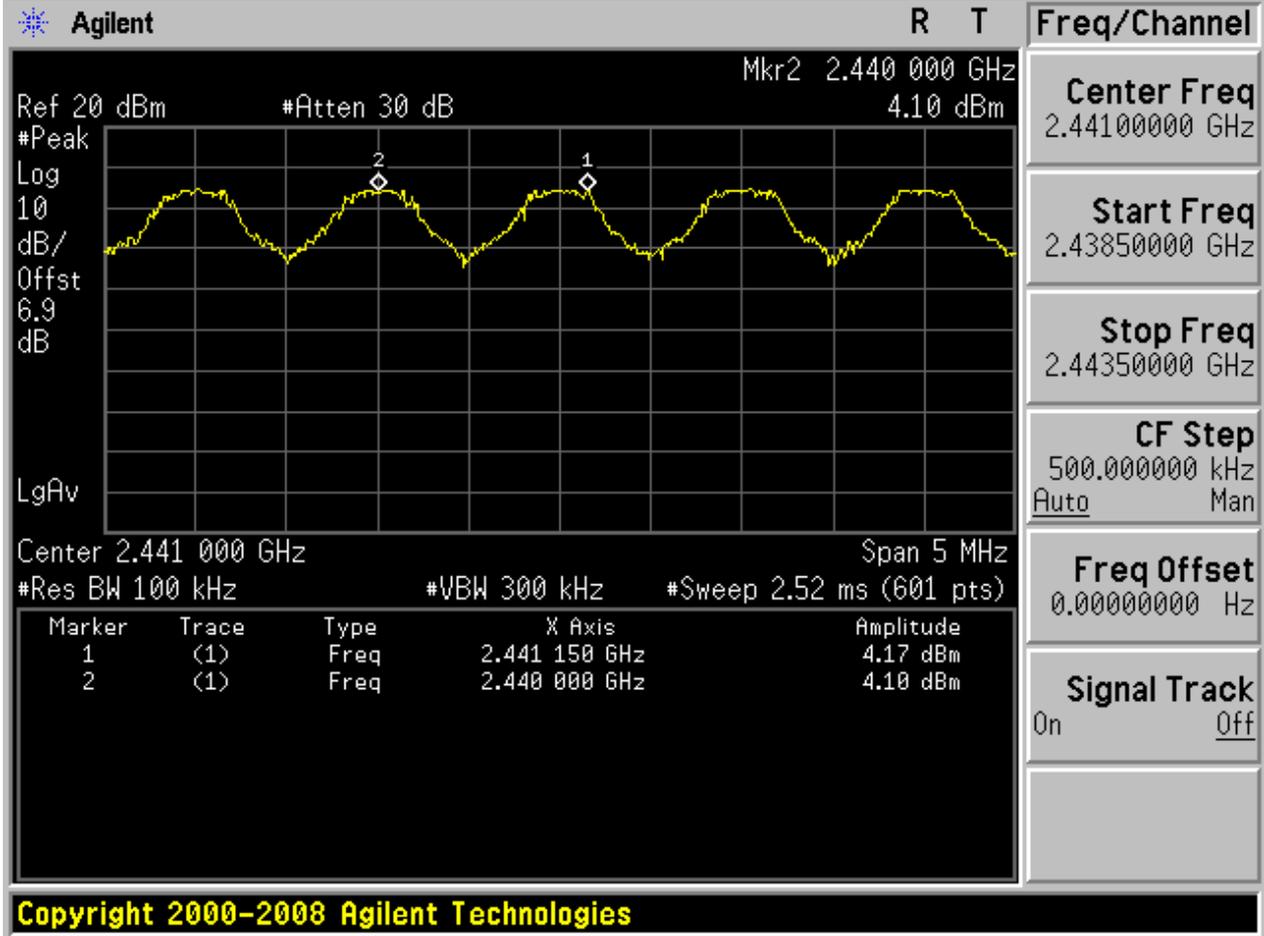
1 Result Table

EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	1.150	Pass
TM2_2DH5_Hop	1.100	Pass
TM3_3DH5_Hop	1.150	Pass

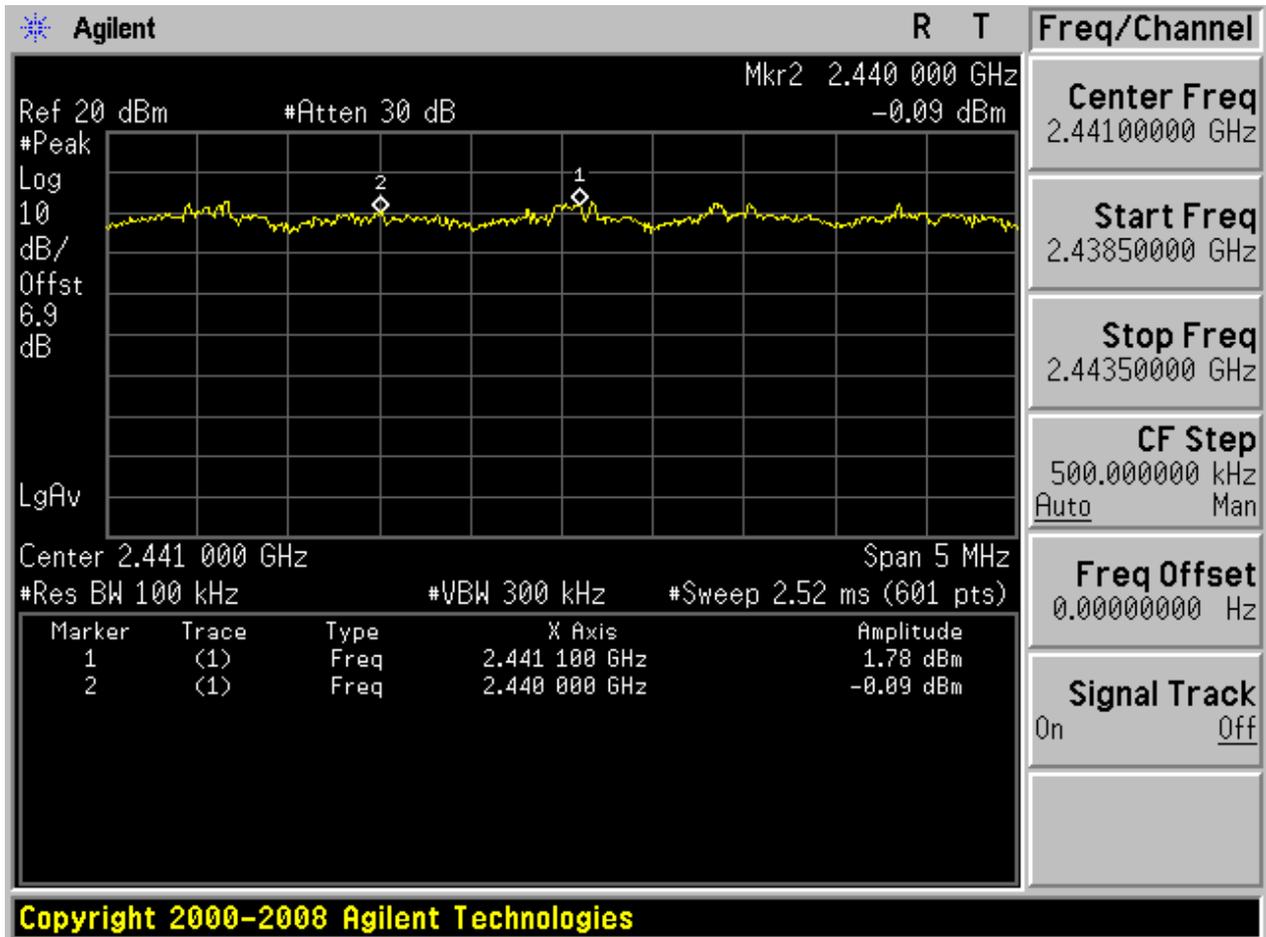


2 Test Plot

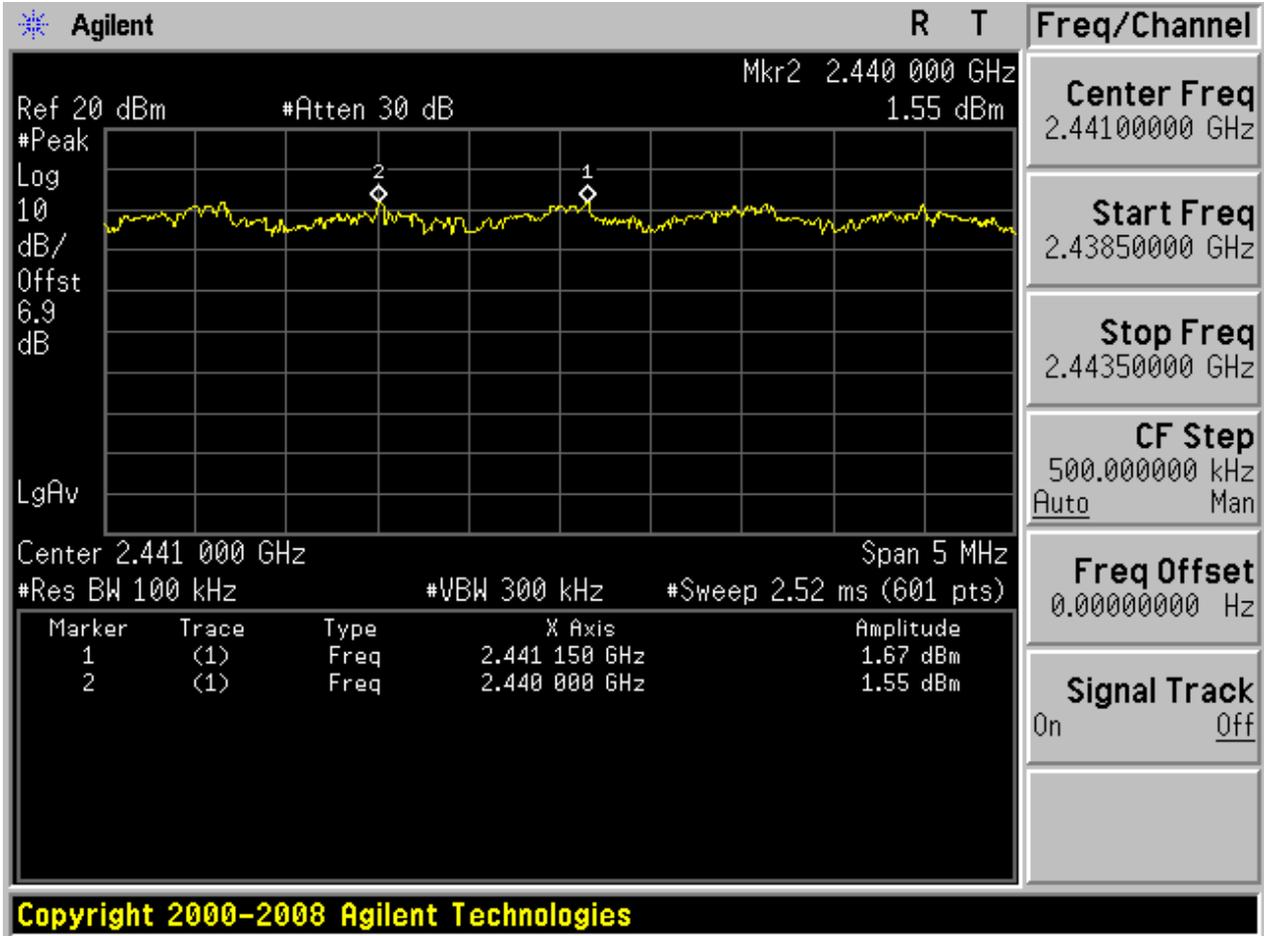
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop





Appendix C: Number of Hopping Channel



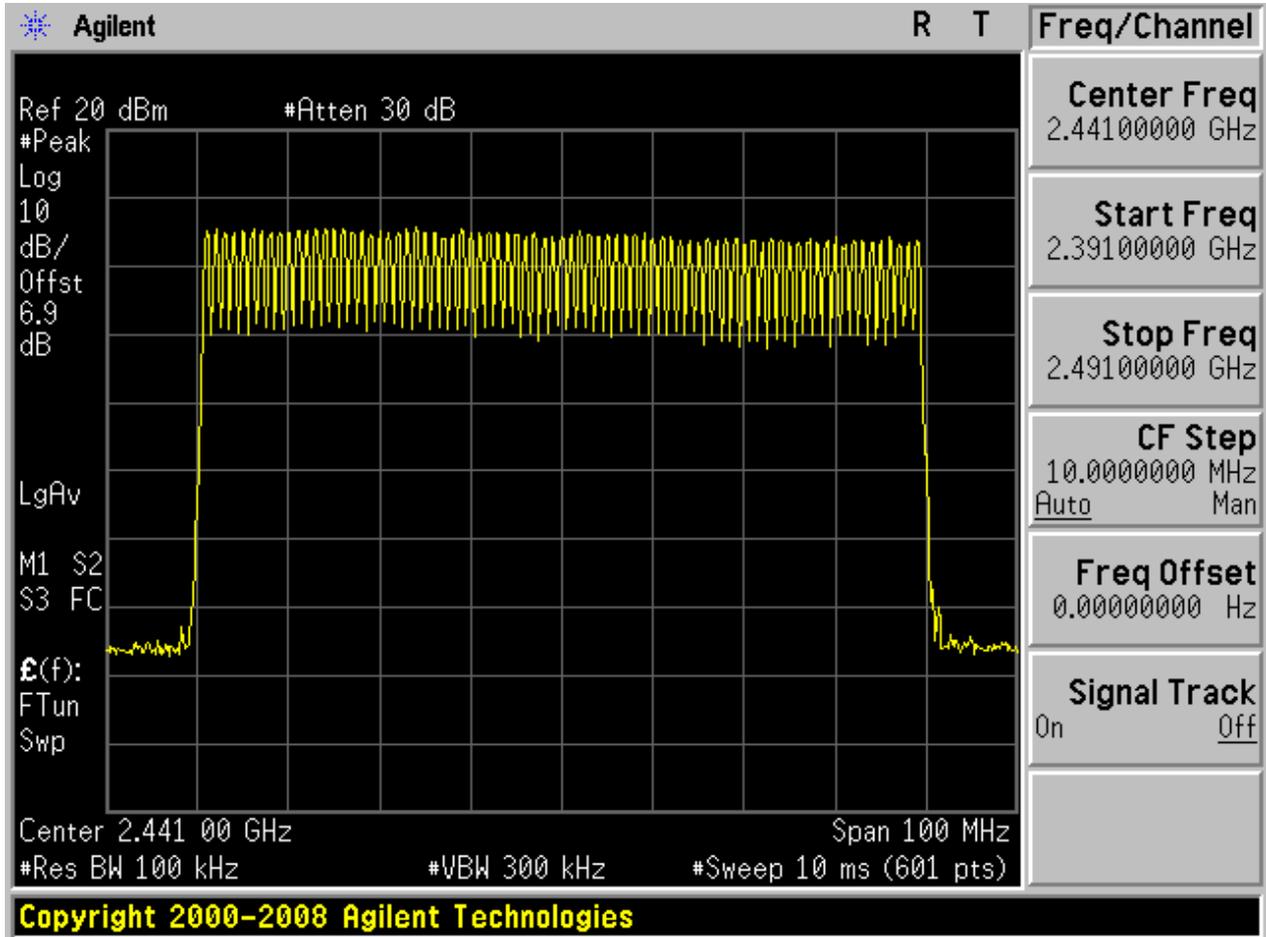
1 Result Table

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

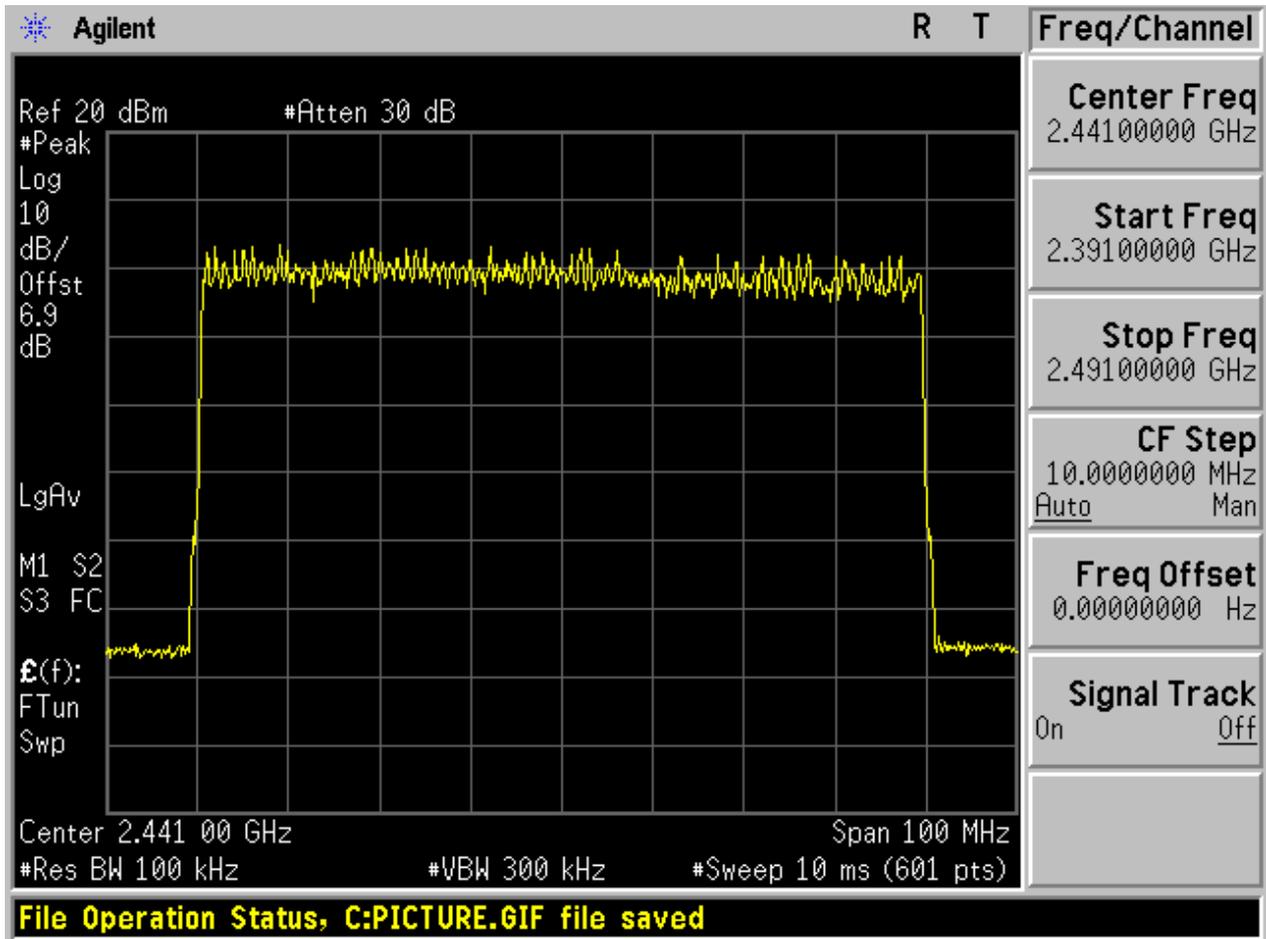


2 Test Plot

2.1 TM1_DH5_Hop

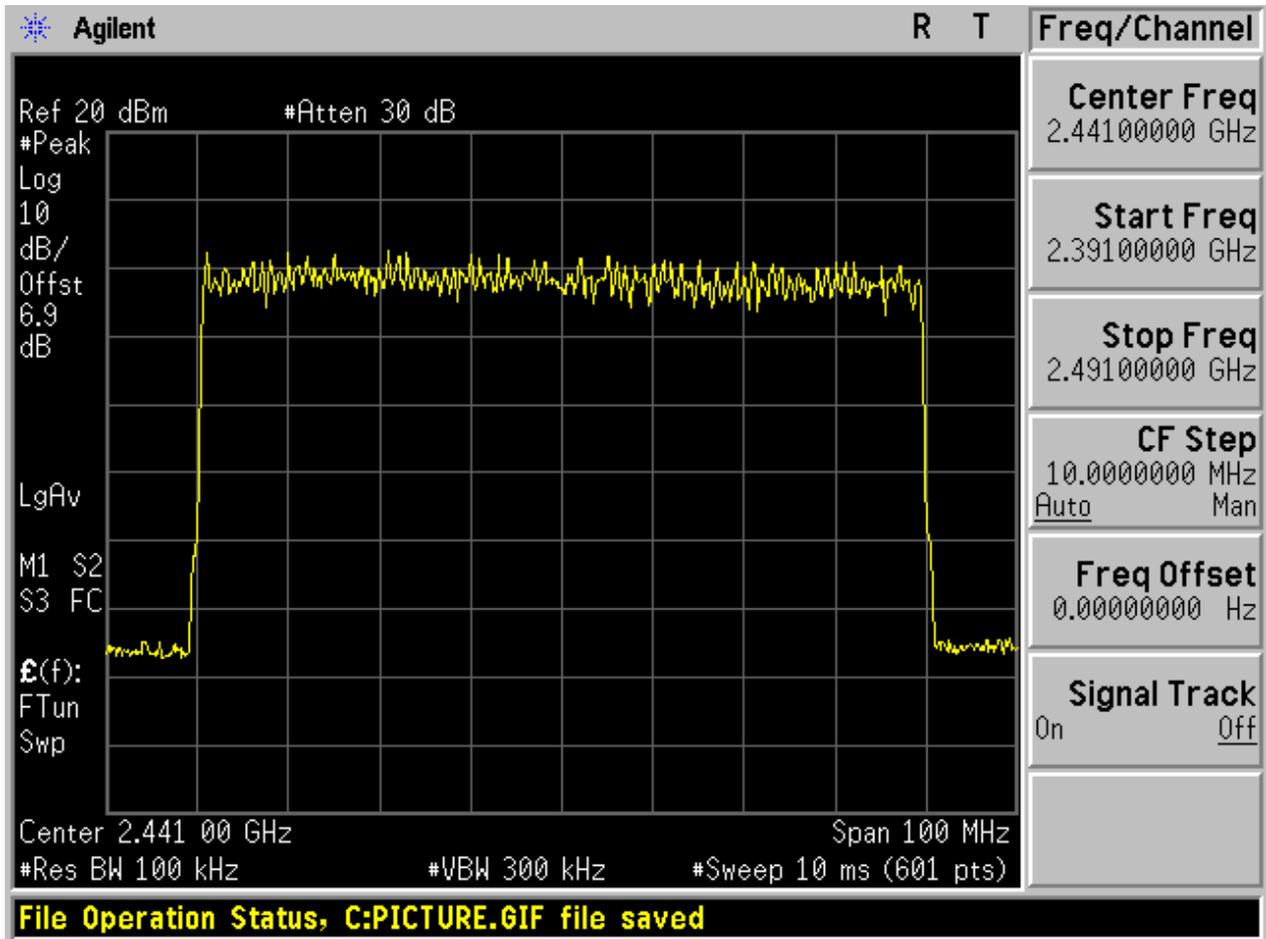


2.2 TM2_2DH5_Hop





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:

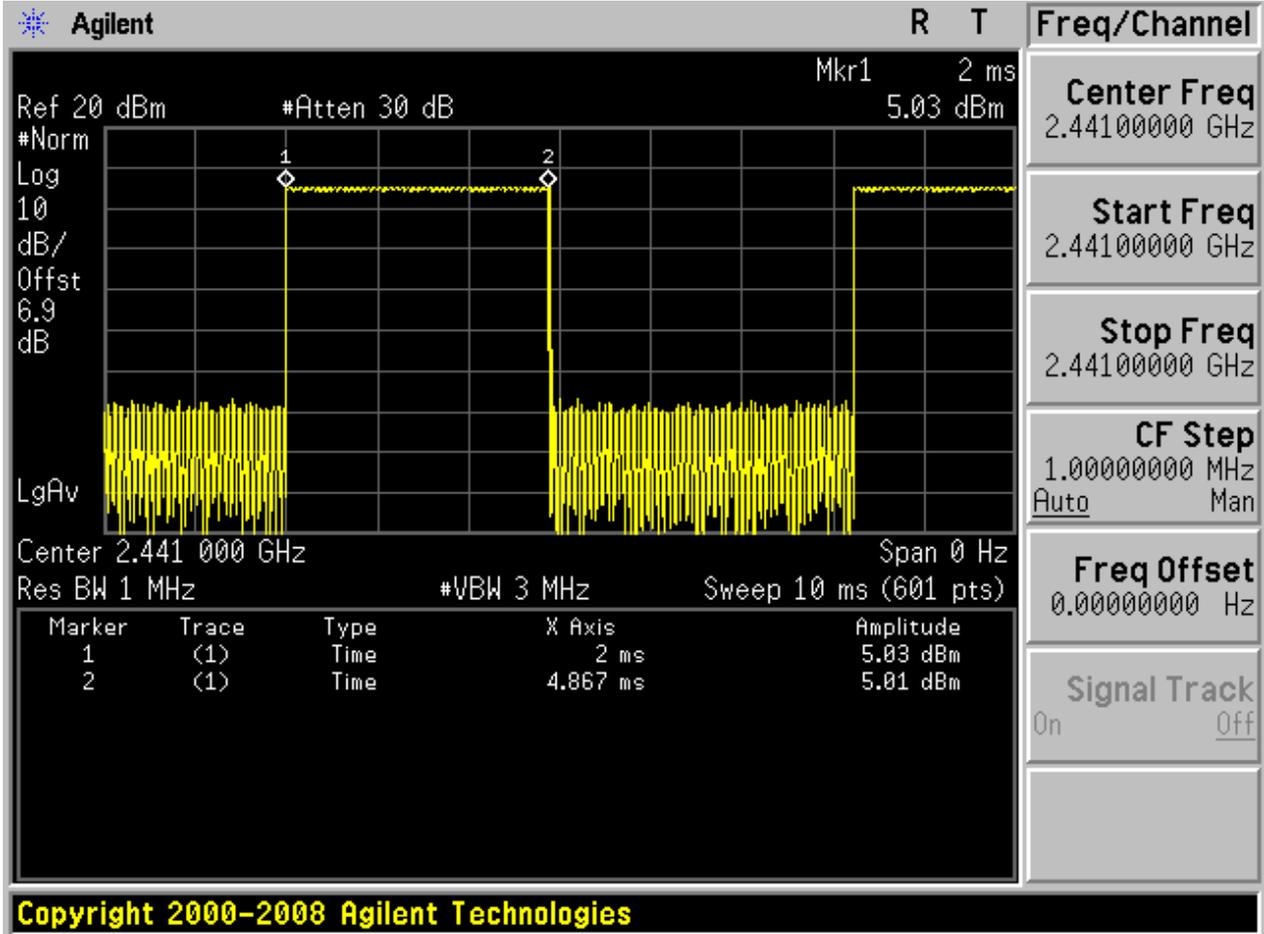
- The duration for dwell time calculation: $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT 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	2.867	106.67	0.306	Pass
TM2_2DH5_Ch39	2.900	106.67	0.309	Pass
TM3_3DH5_Ch39	2.900	106.67	0.309	Pass

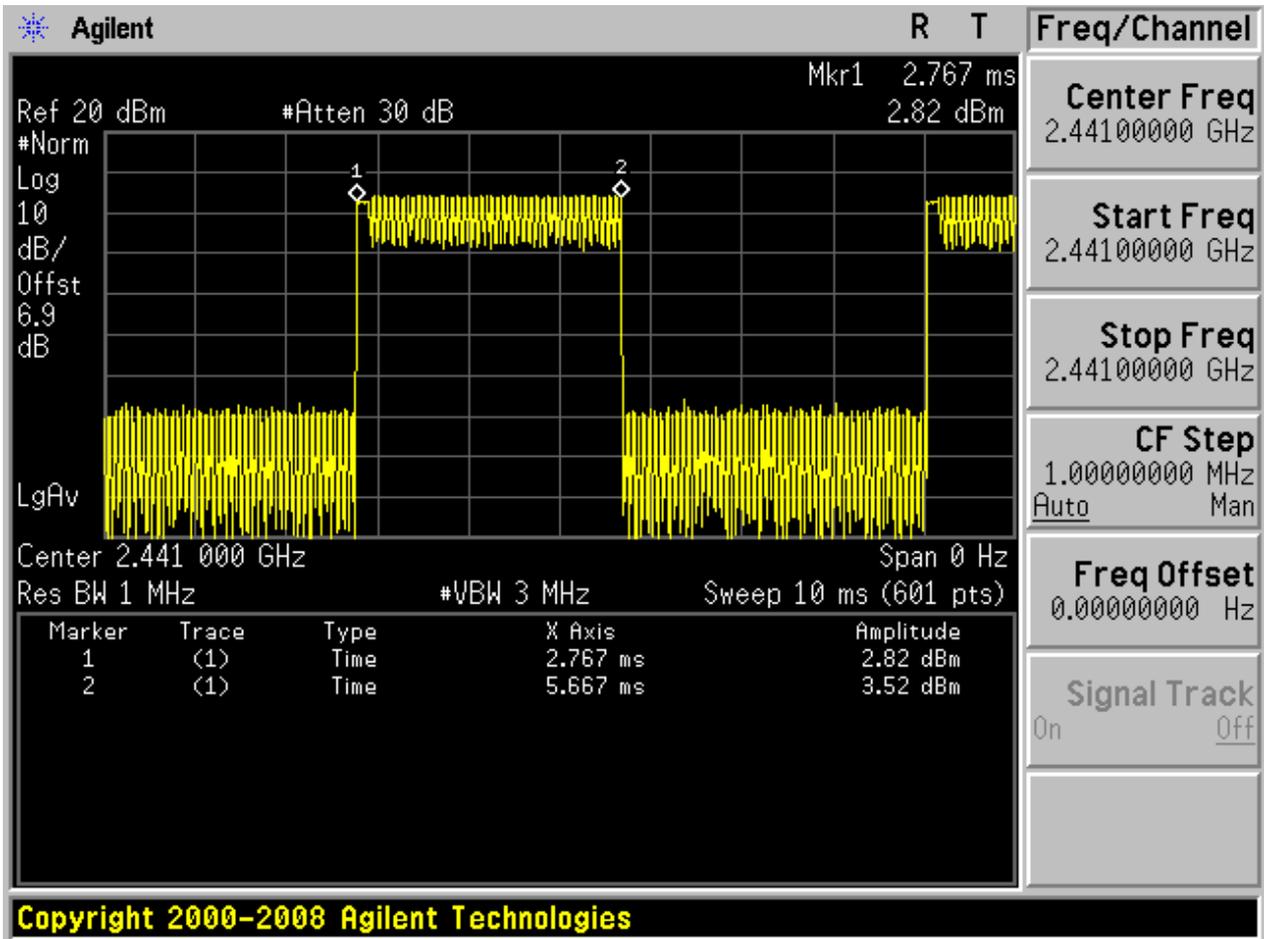
2 Test Plot

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

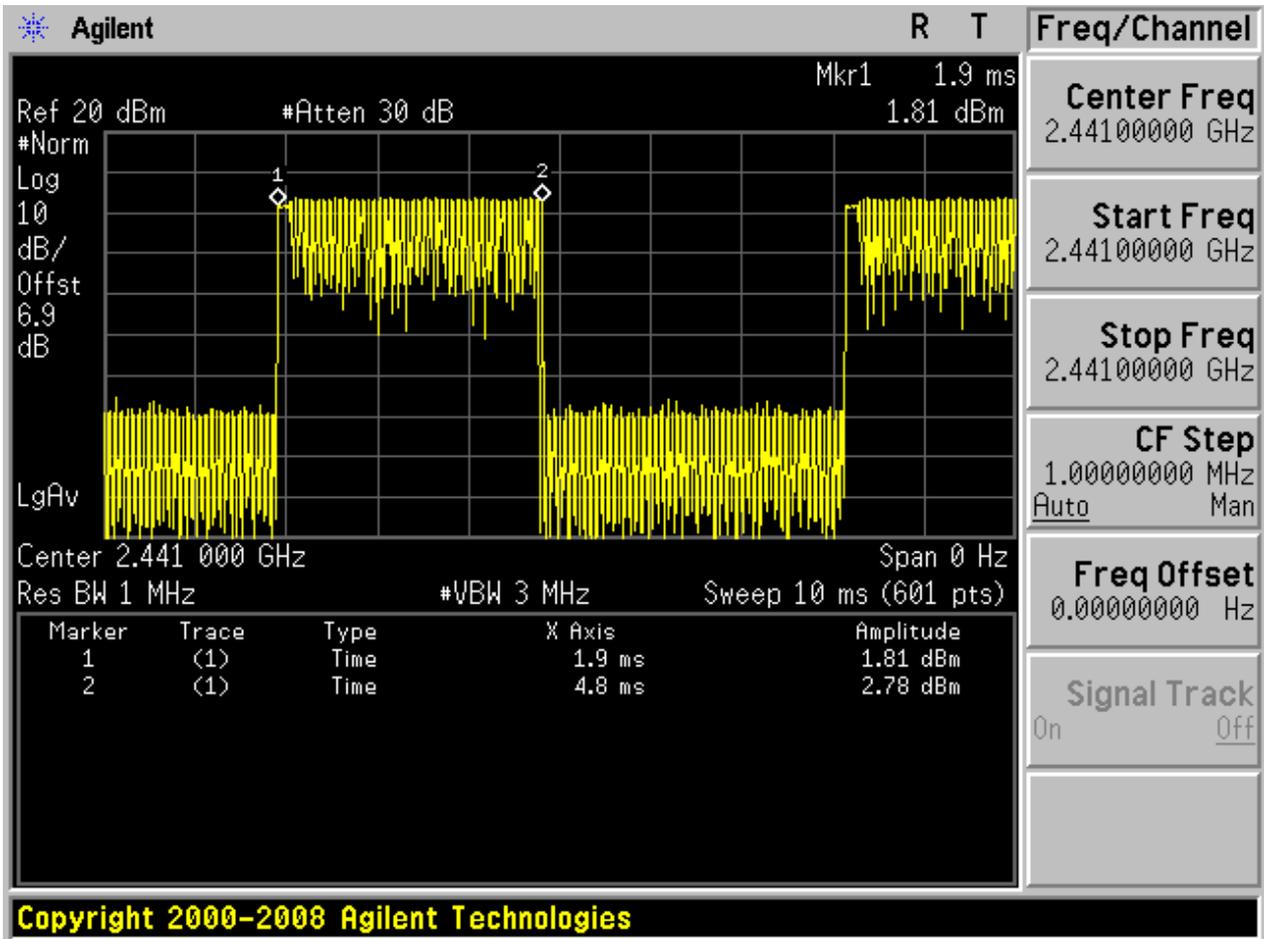
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39





Appendix E: Maximum Peak Conducted Output Power



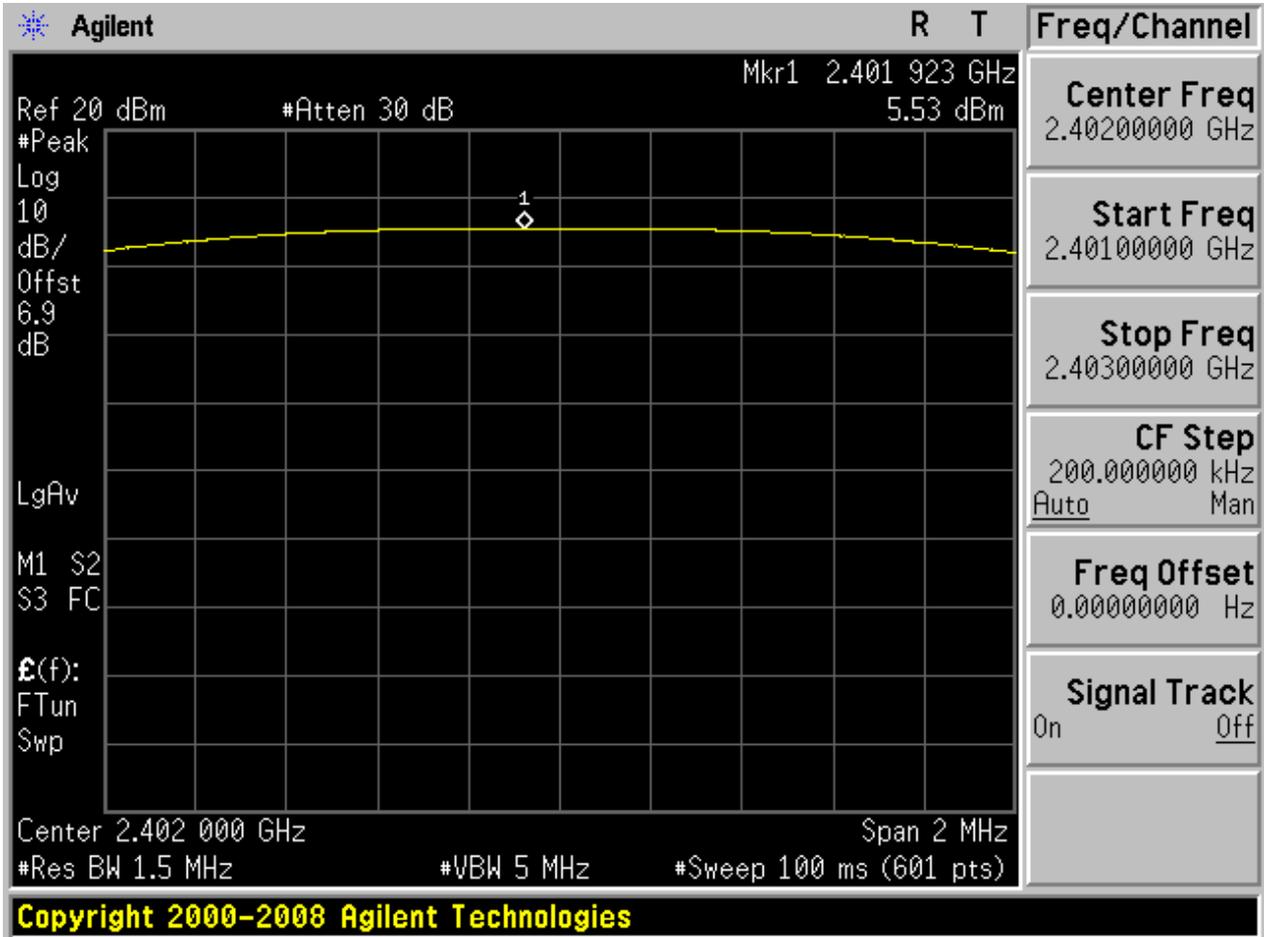
1 Result Table

EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	5.53	Pass
TM1_DH5_Ch39	5.06	Pass
TM1_DH5_Ch78	4.21	Pass
TM2_2DH5_Ch0	5.05	Pass
TM2_2DH5_Ch39	4.55	Pass
TM2_2DH5_Ch78	3.73	Pass
TM3_3DH5_Ch0	4.5	Pass
TM3_3DH5_Ch39	4.03	Pass
TM3_3DH5_Ch78	3.2	Pass



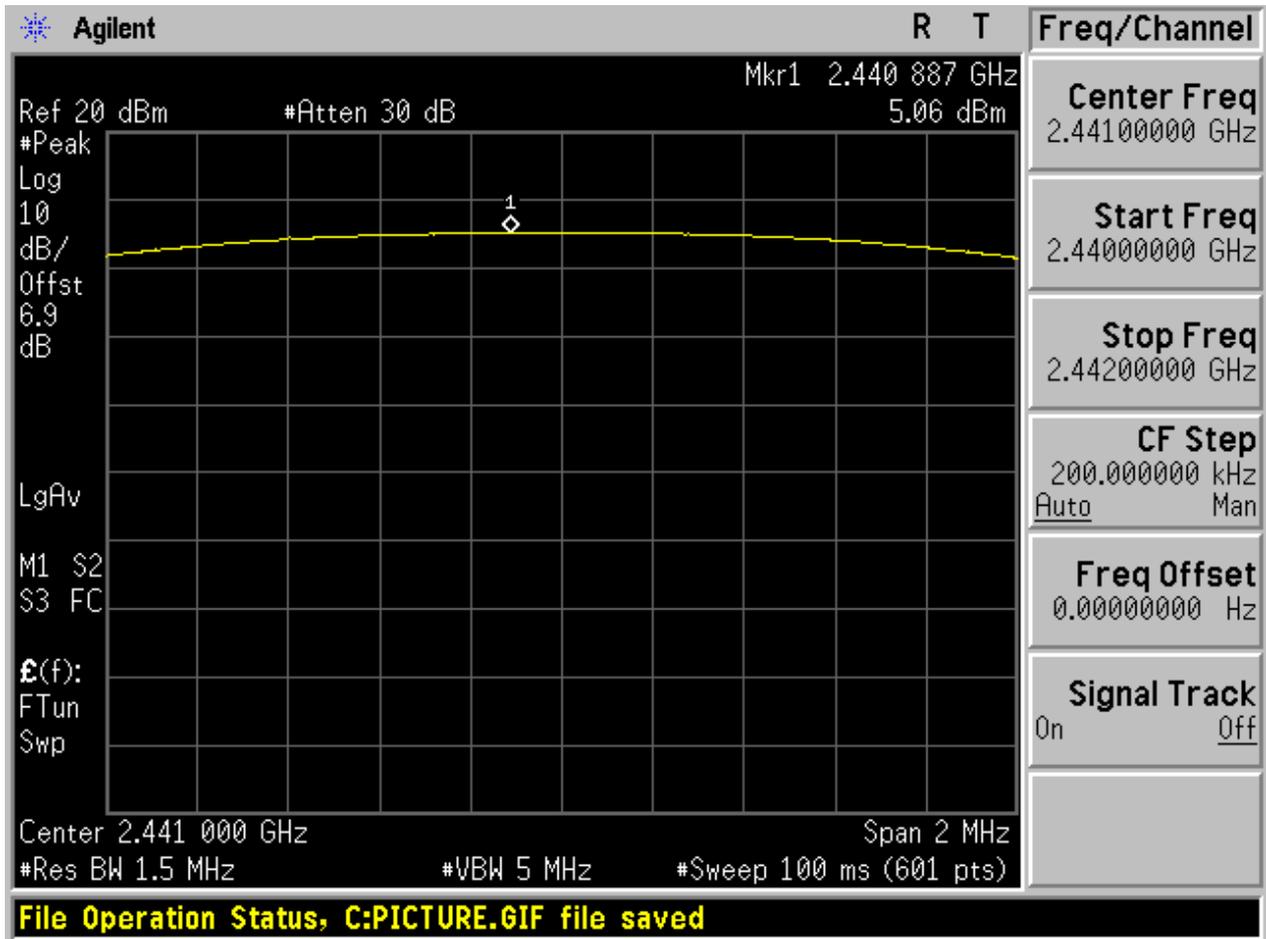
2 Test Plot

2.1 TM1_DH5_Ch0



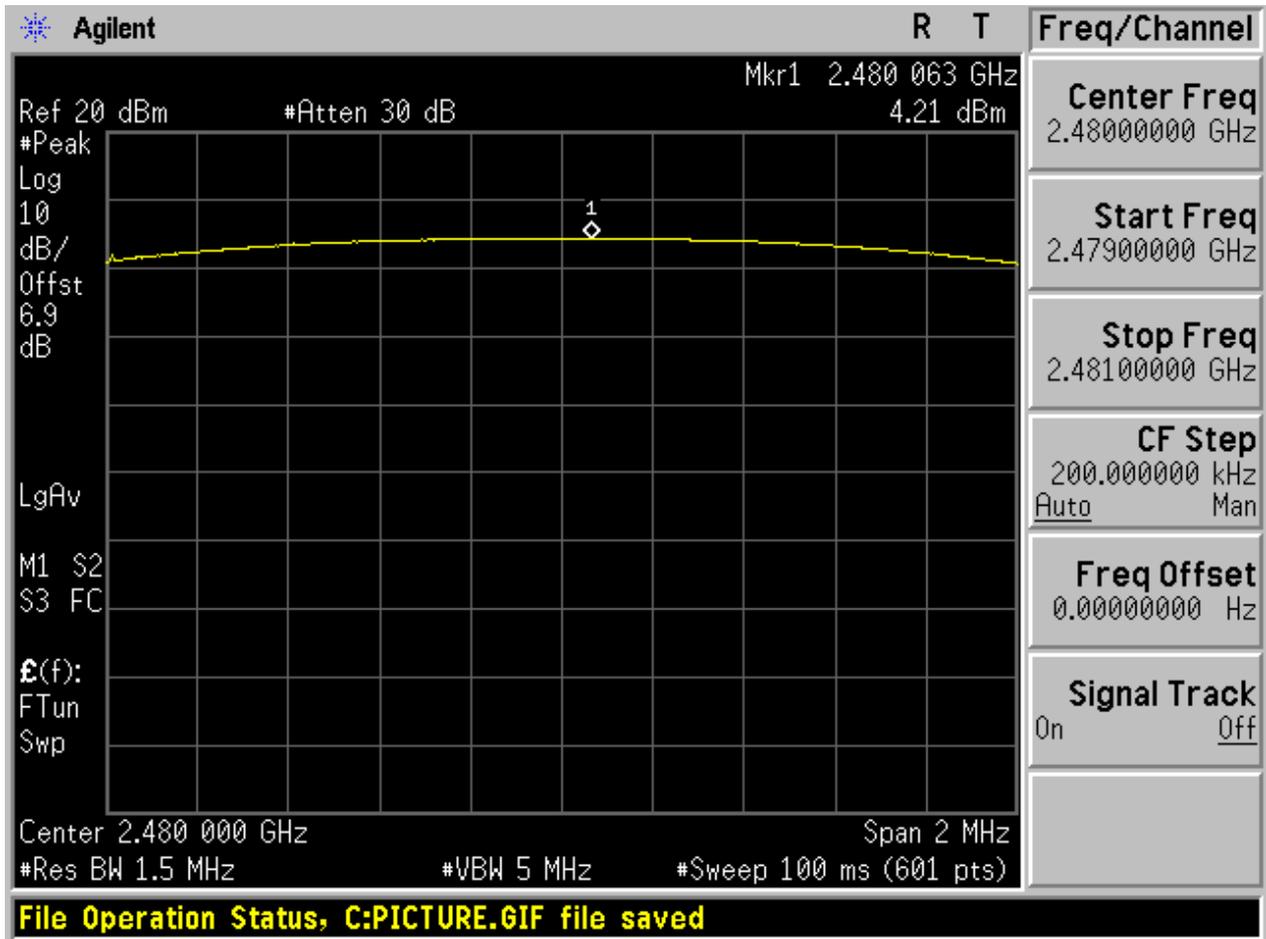


2.2 TM1_DH5_Ch39



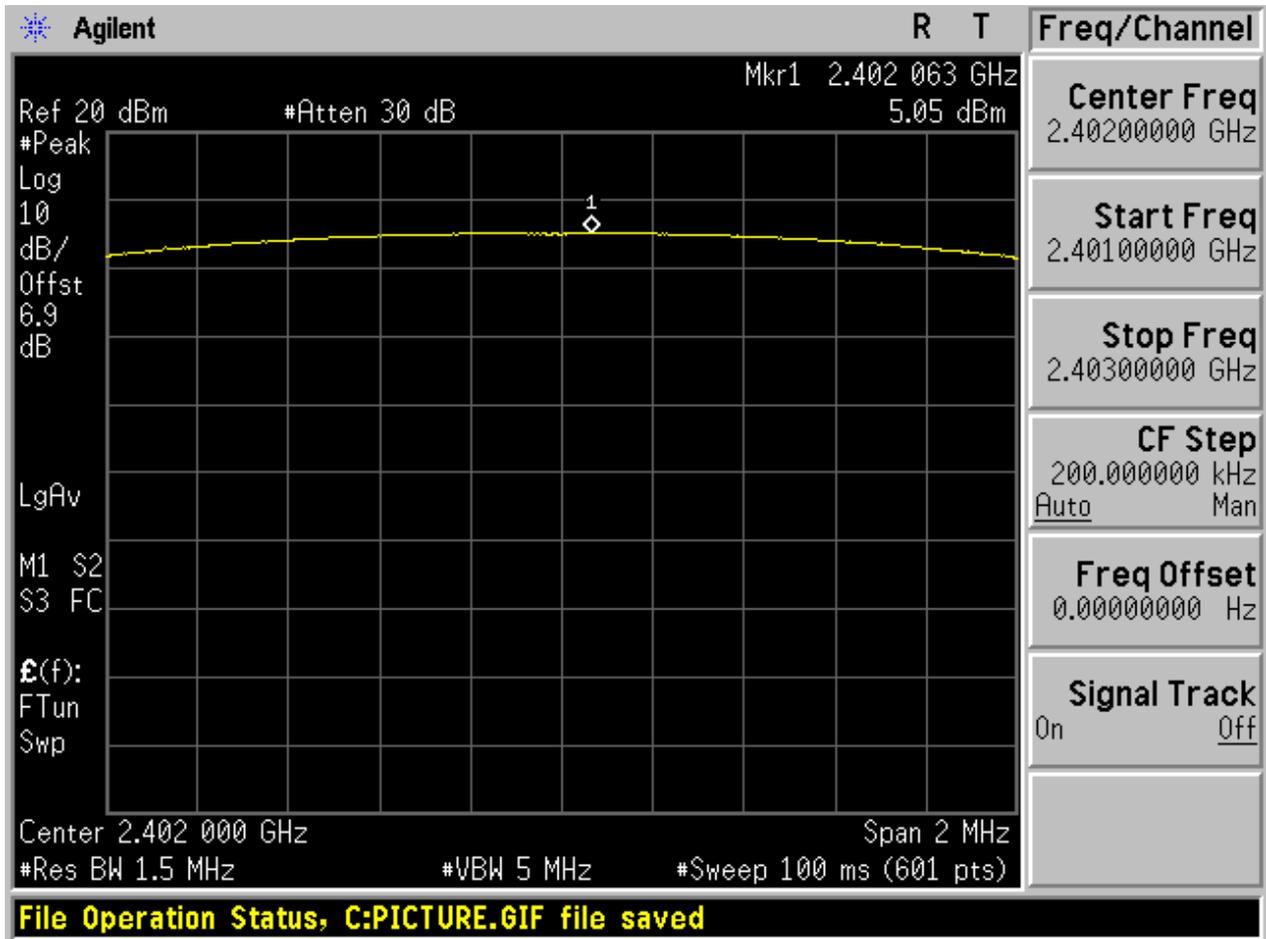


2.3 TM1_DH5_Ch78



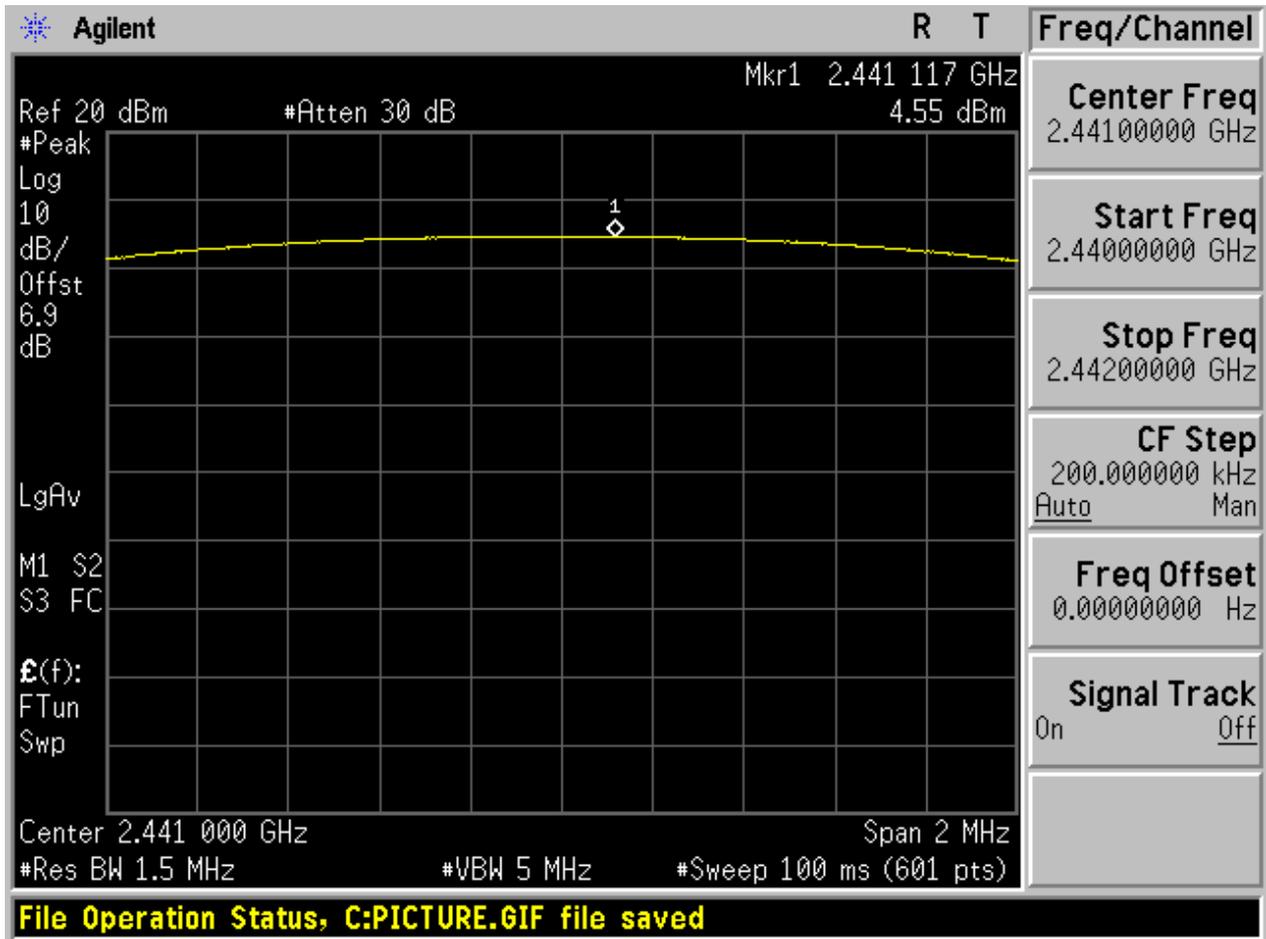


2.4 TM2_2DH5_Ch0

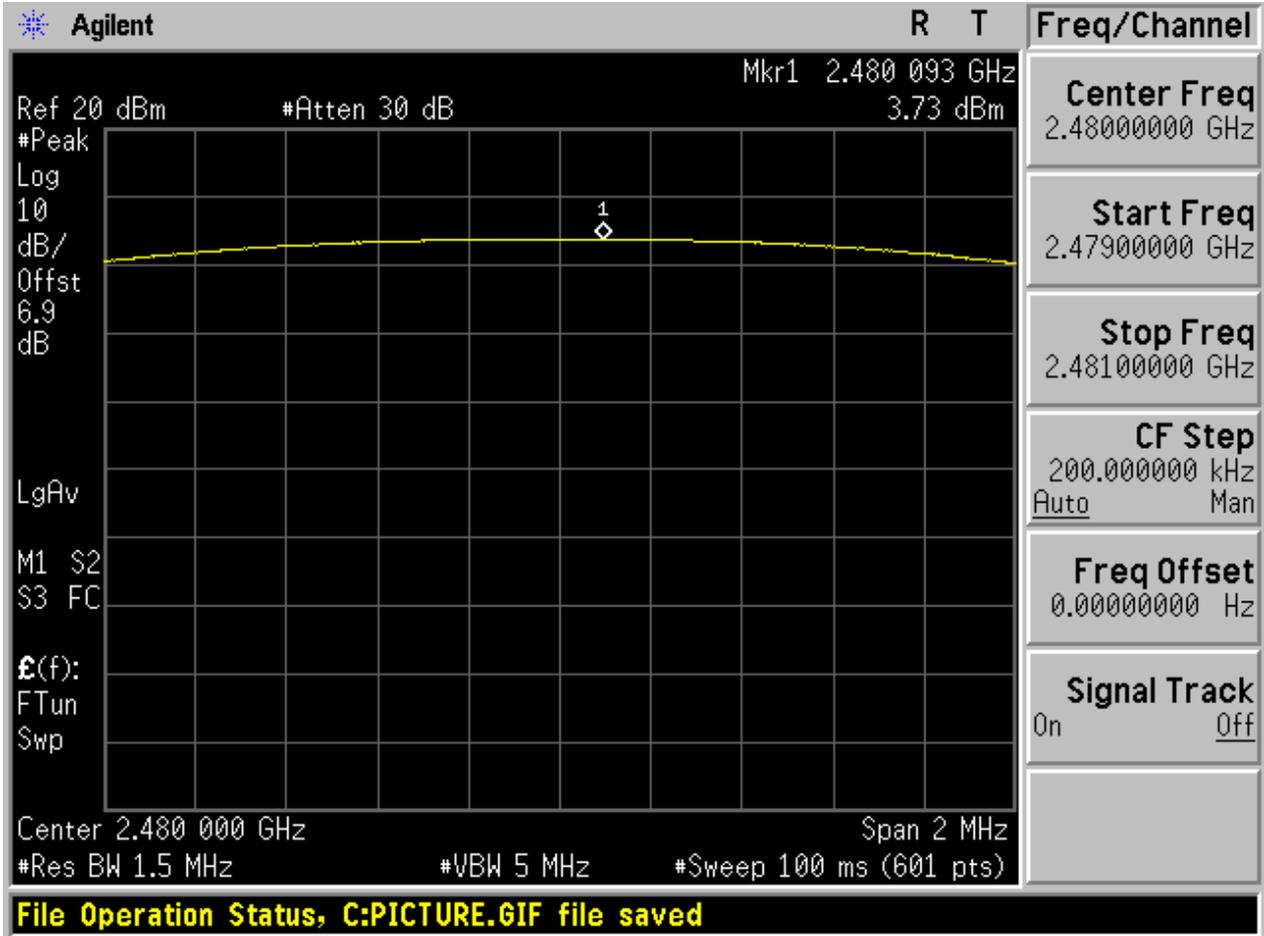




2.5 TM2_2DH5_Ch39

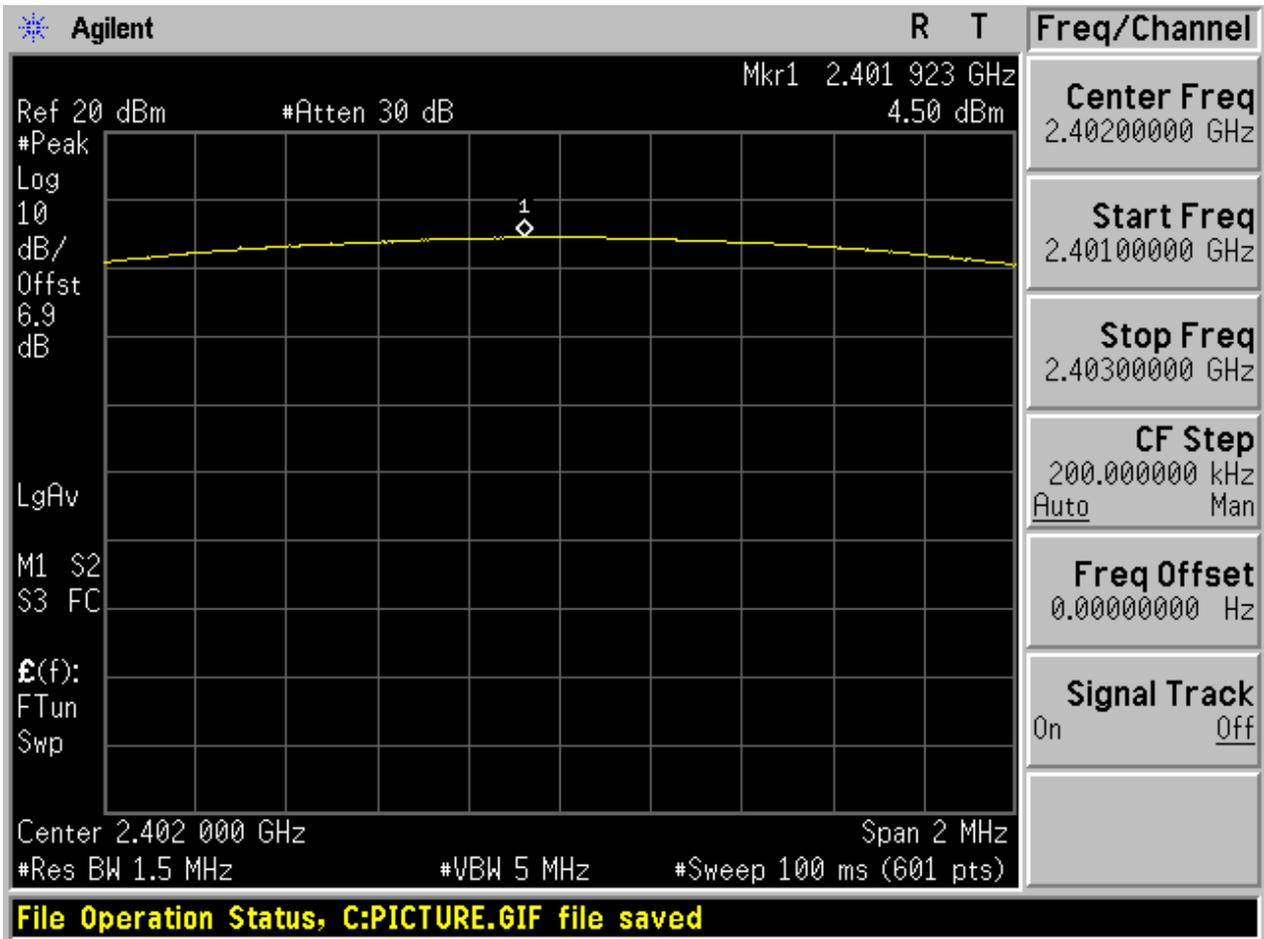


2.6 TM2_2DH5_Ch78



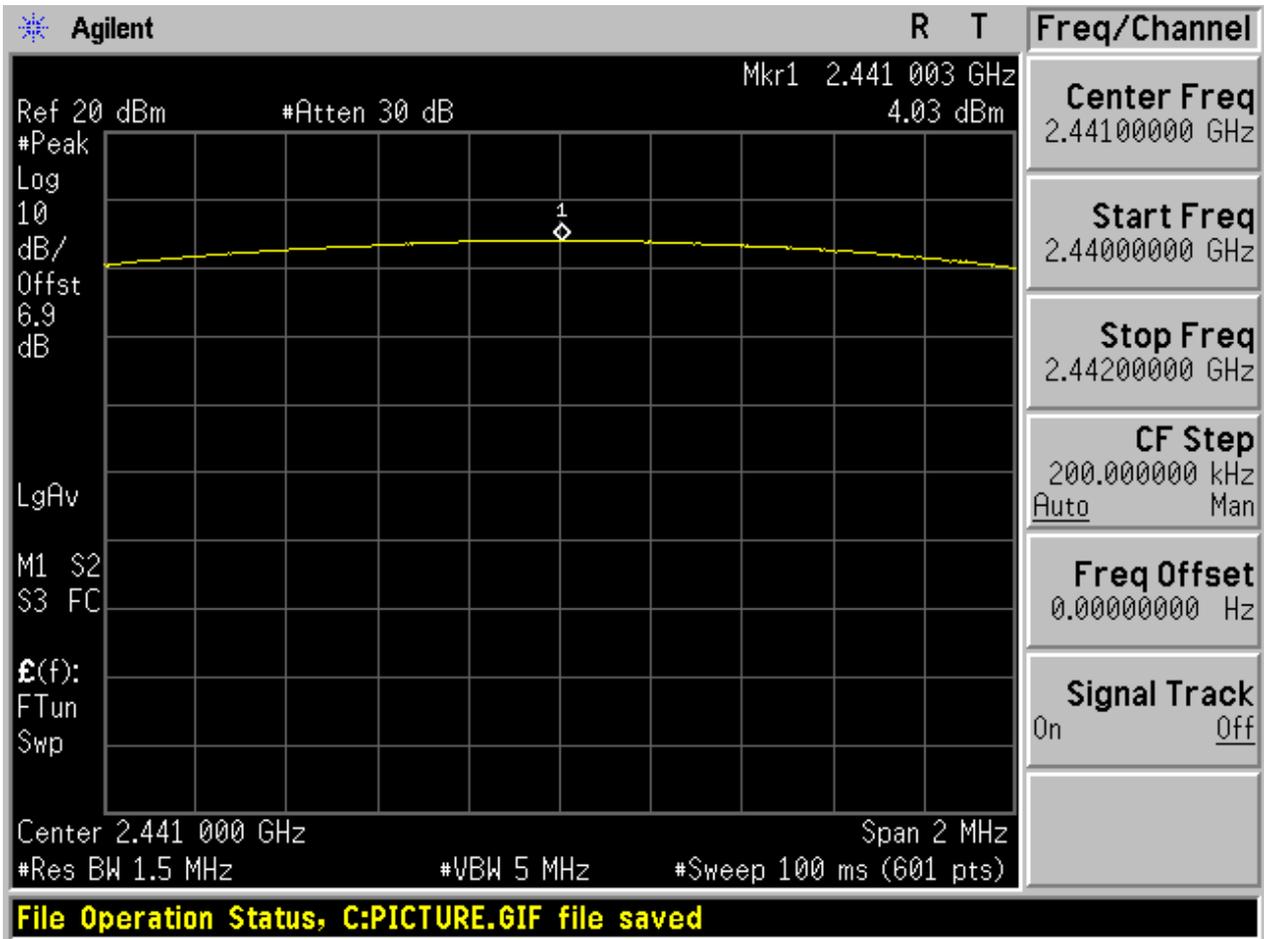


2.7 TM3_3DH5_Ch0



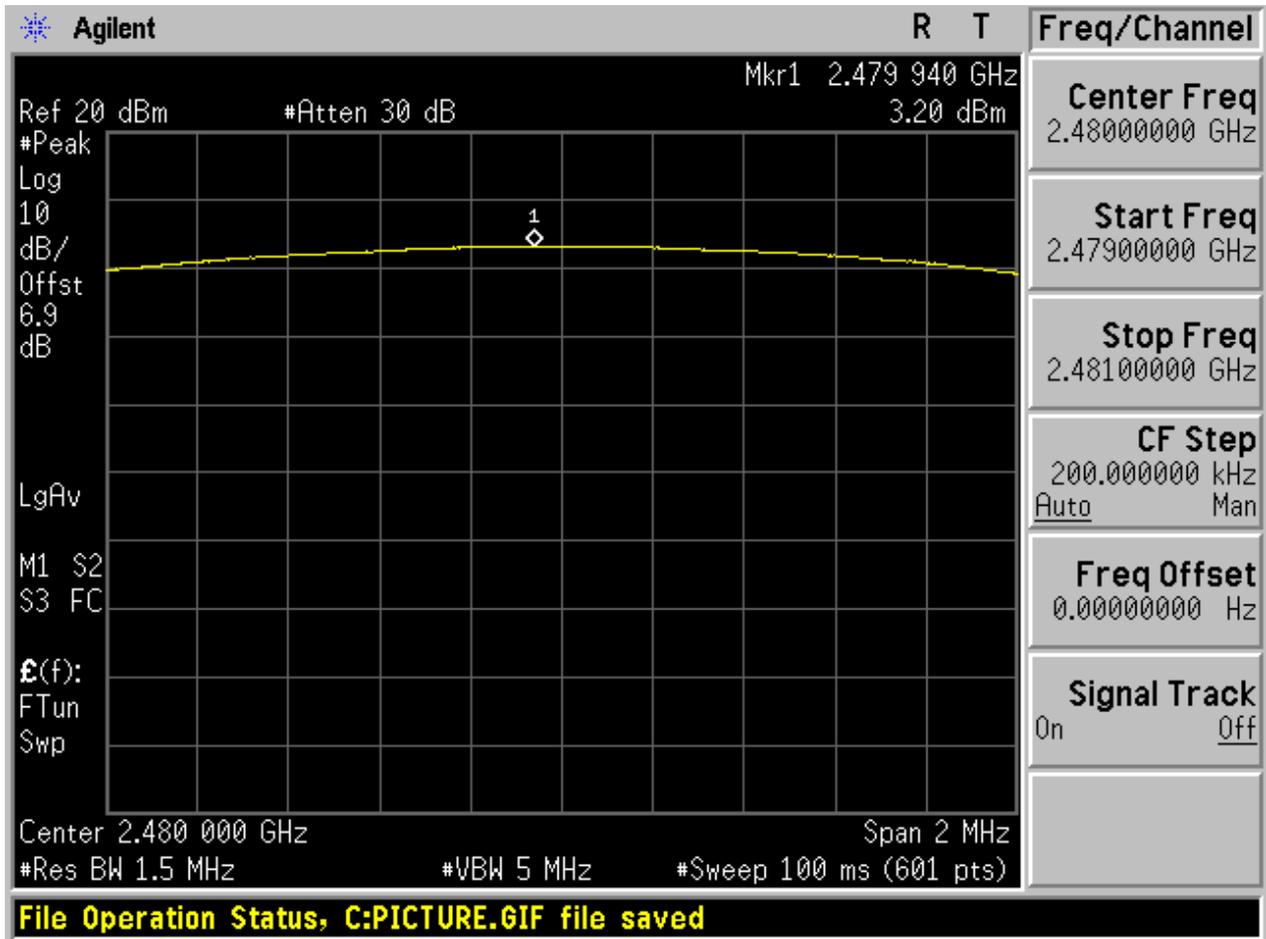


2.8 TM3_3DH5_Ch39





2.9 TM3_3DH5_Ch78





Appendix F: Band edge spurious emission



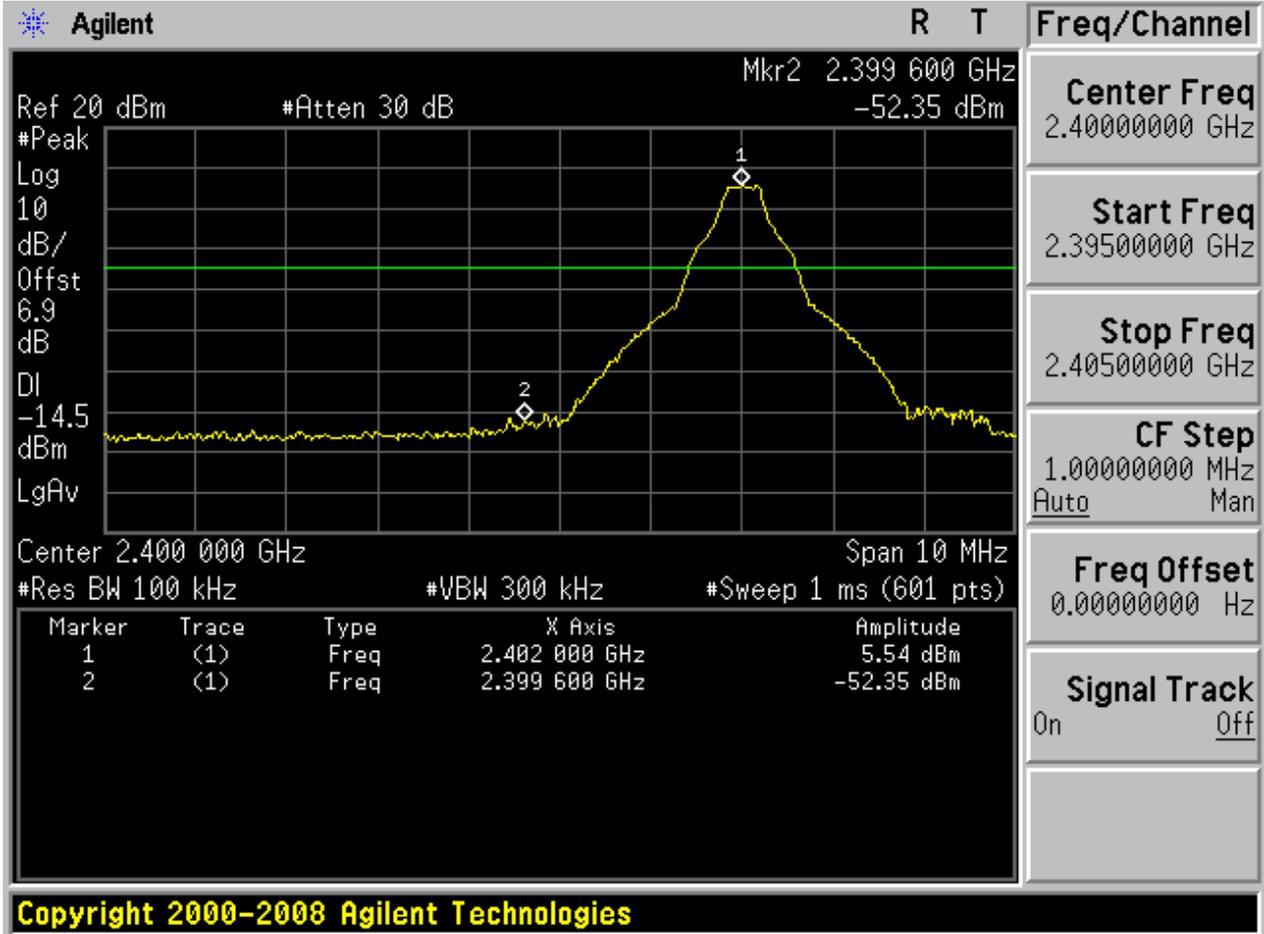
1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max. Spurious Level [dBm]	Limit [dBm]	Result
TM1_DH5 _Ch0	0	2402	-52.35	Off	5.54	-14.46	Pass
	-	-	-55.06	On	5.11	-14.89	Pass
TM1_DH5 _Ch78	78	2480	-54.66	Off	4.20	-15.8	Pass
	-	-	-54.97	On	3.63	-16.37	Pass
TM2_2DH 5_Ch0	0	2402	-52.77	Off	3.33	-16.67	Pass
	-	-	-54.81	On	3.28	-16.72	Pass
TM2_2DH 5_Ch78	78	2480	-54.08	Off	2.02	-17.98	Pass
	-	-	-54.71	On	1.45	-18.55	Pass
TM3_3DH 5_Ch0	0	2402	-54.38	Off	2.29	-17.71	Pass
	-	-	-55.67	On	1.92	-18.08	Pass
TM3_3DH 5_Ch78	78	2480	-54.94	Off	0.98	-19.02	Pass
	-	-	-55.18	On	-1.33	-21.33	Pass

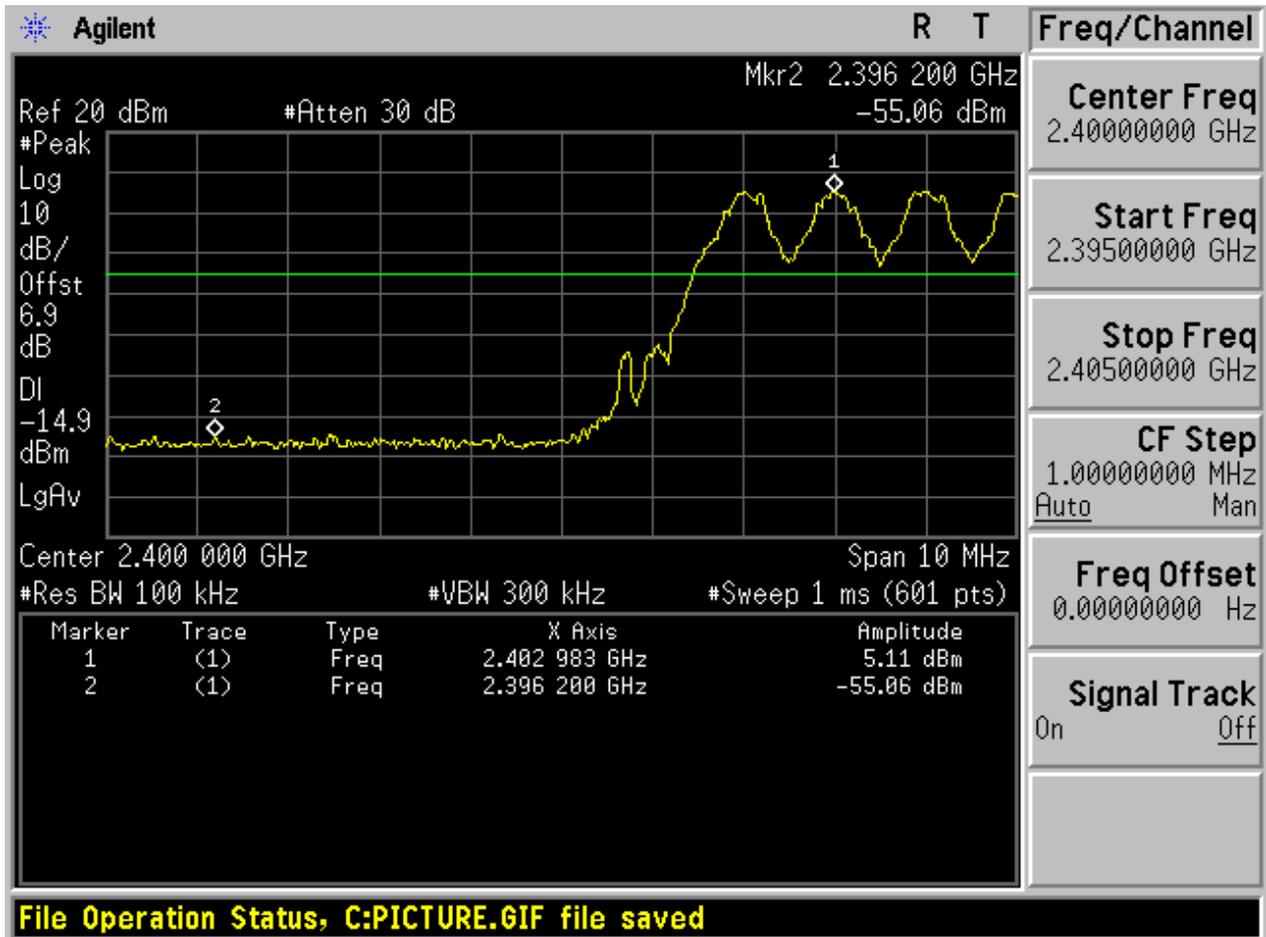
2 Test Plot

2.1 TM1_DH5_Ch0

No hopping

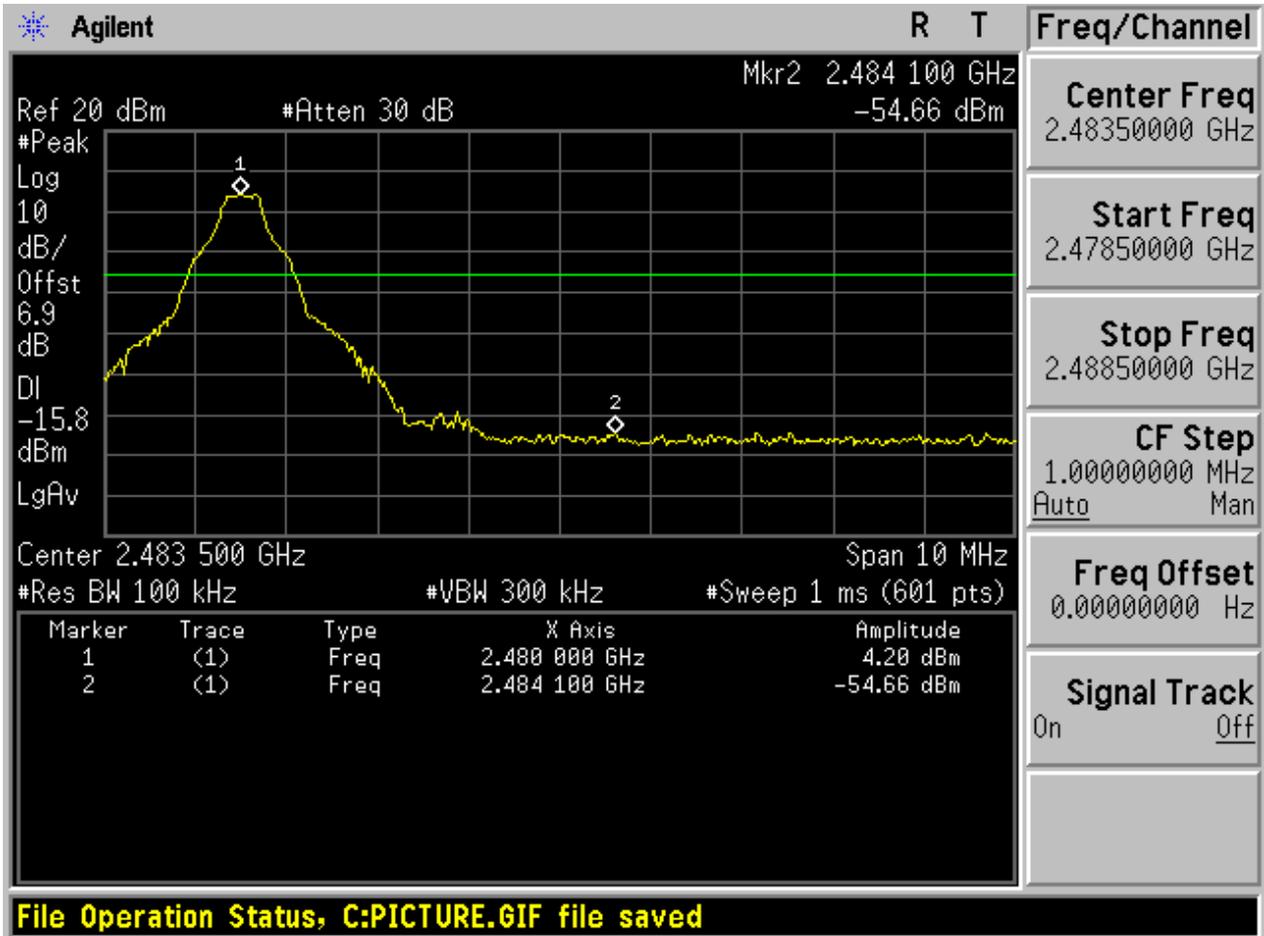


With hopping

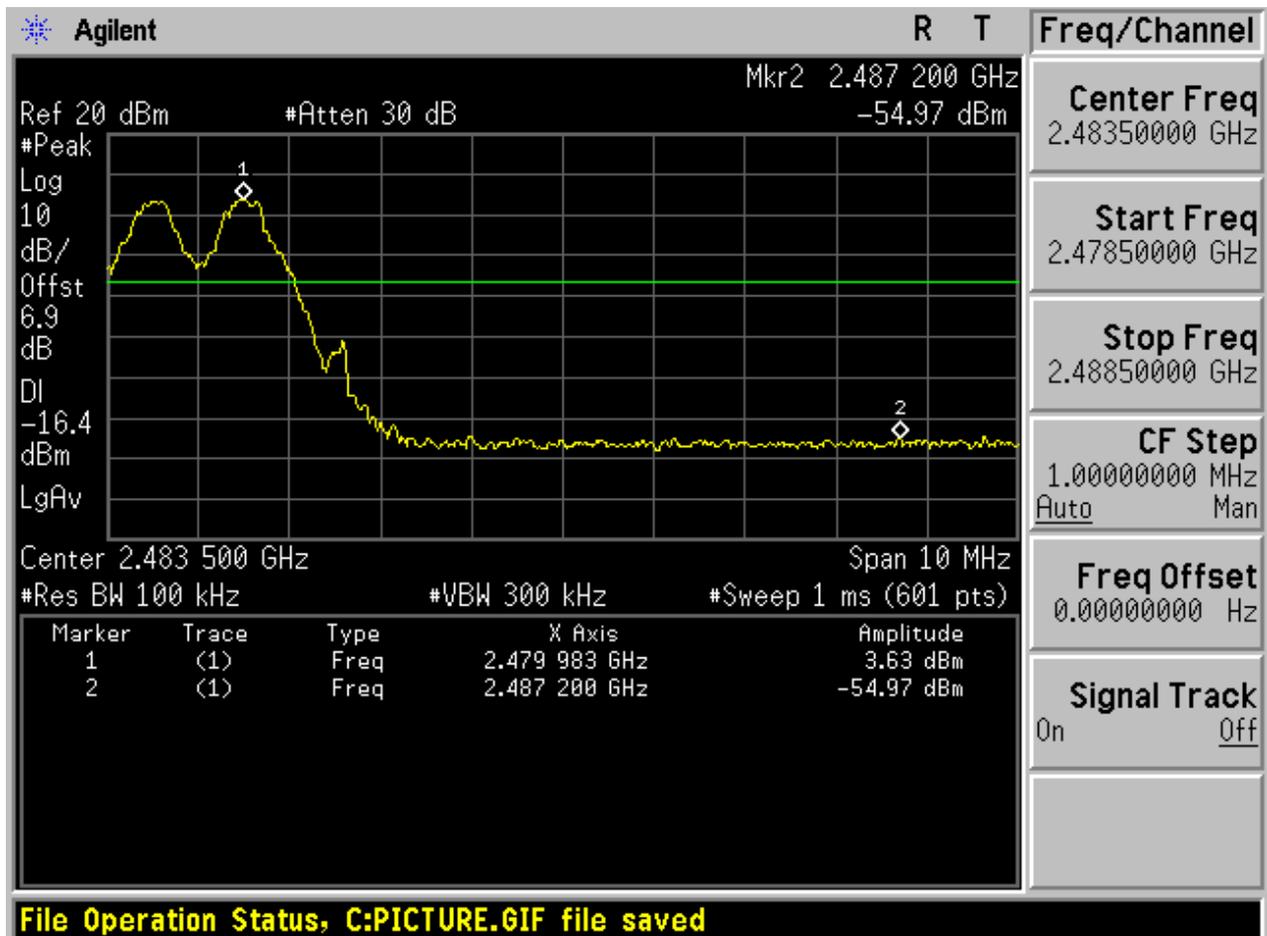


2.2 TM1_DH5_Ch78

No hopping

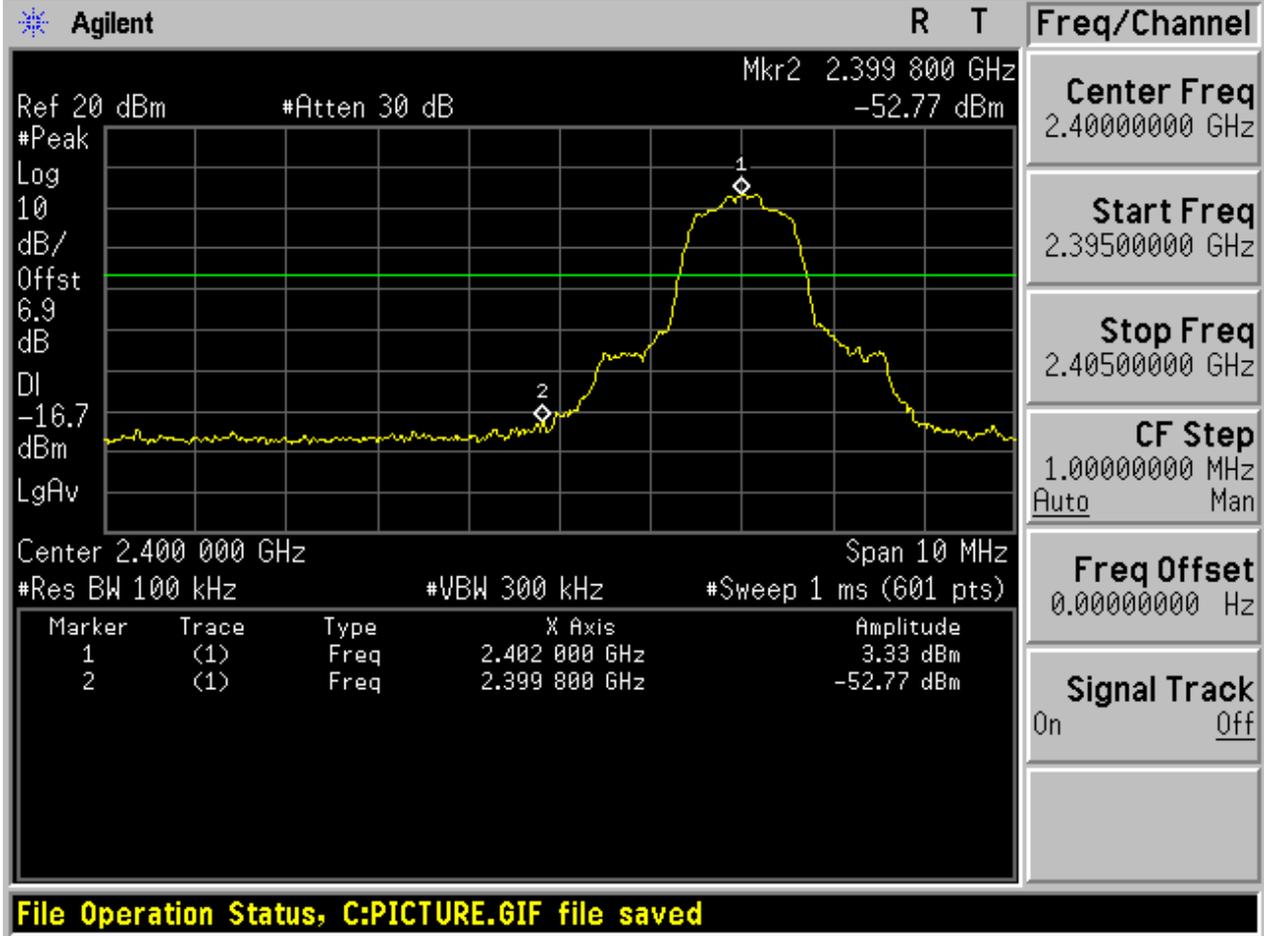


With hopping

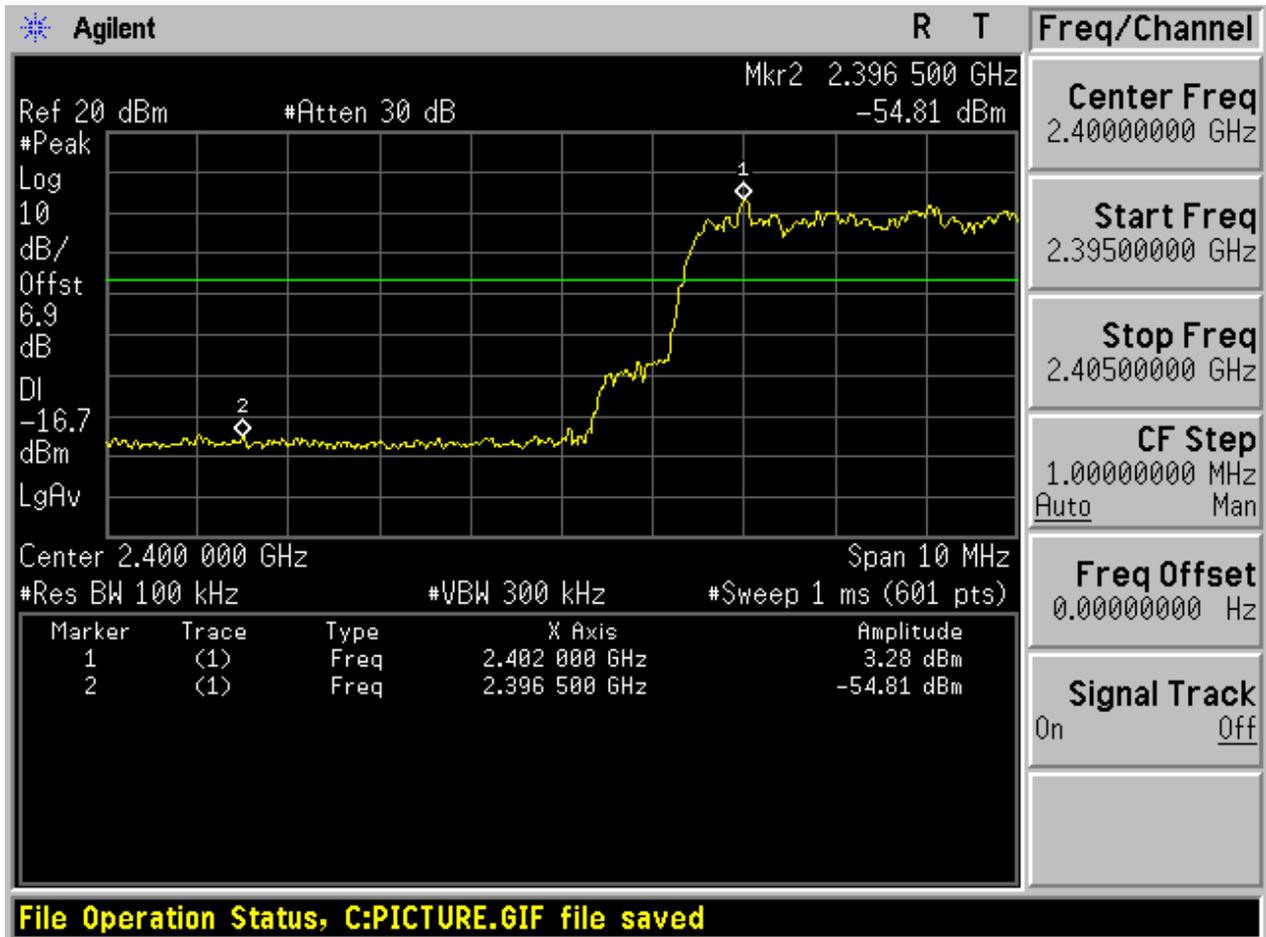


2.3 TM2_2DH5_Ch0

No hopping

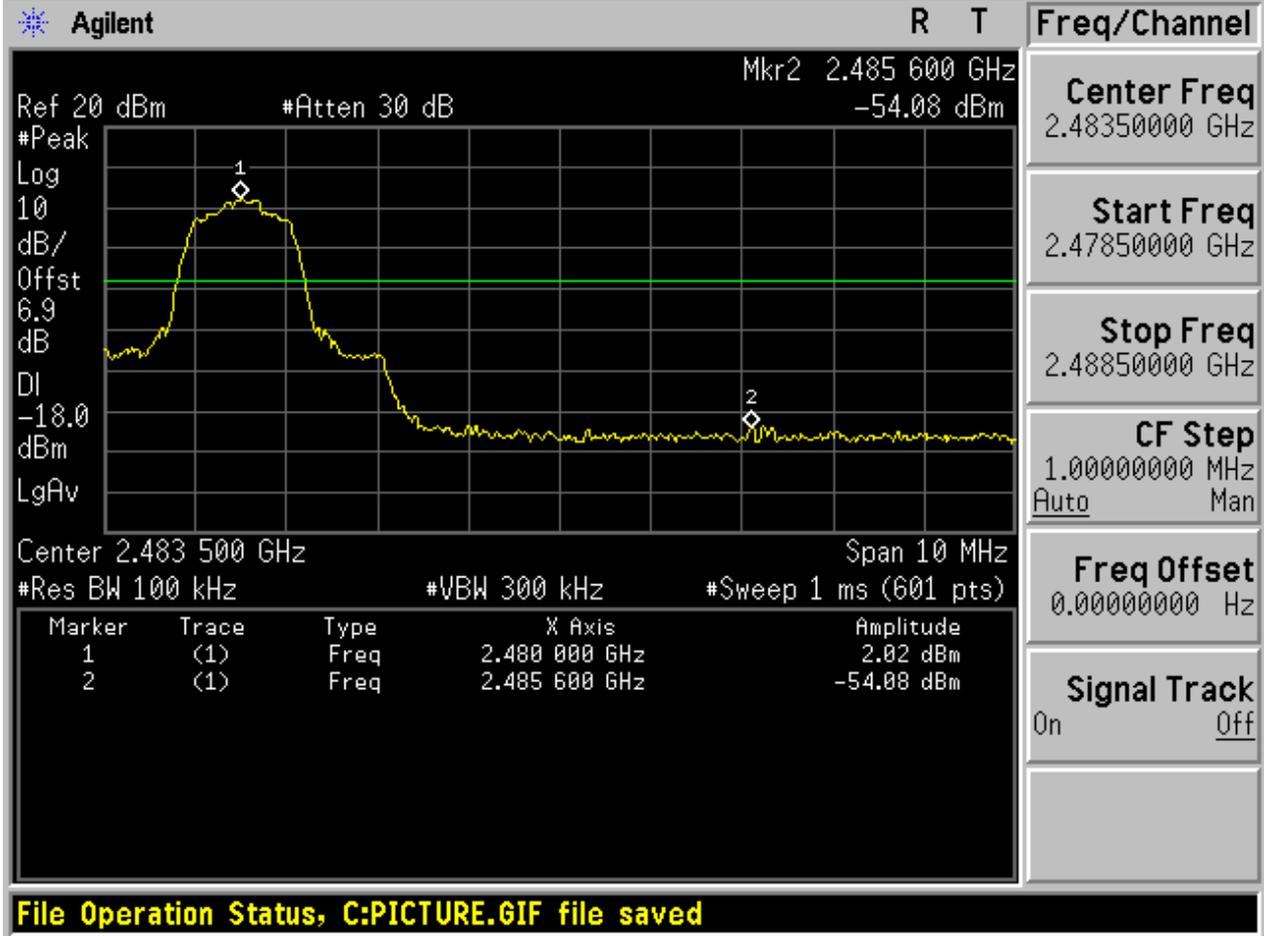


With hopping

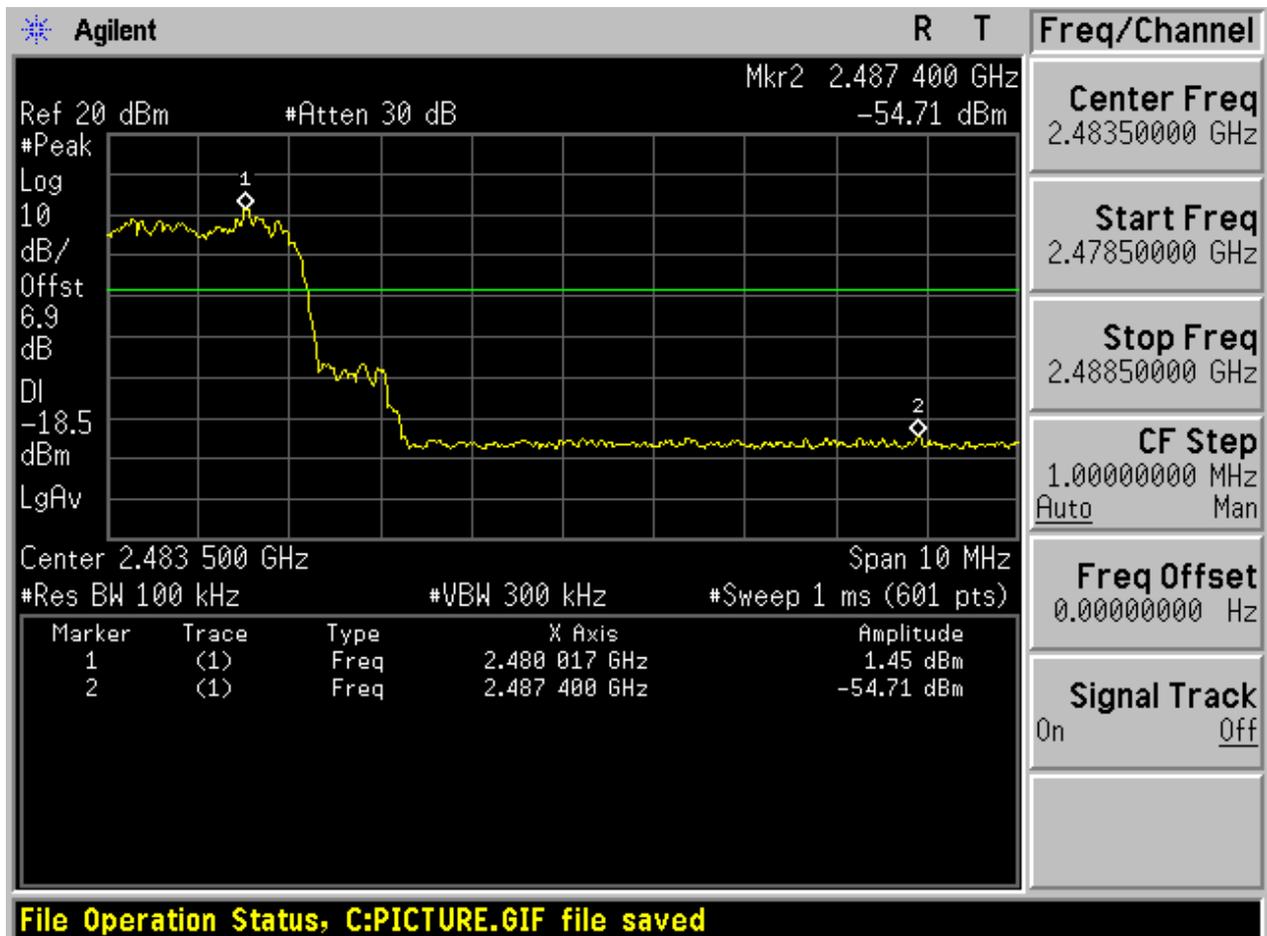


2.4 TM2_2DH5_Ch78

No hopping

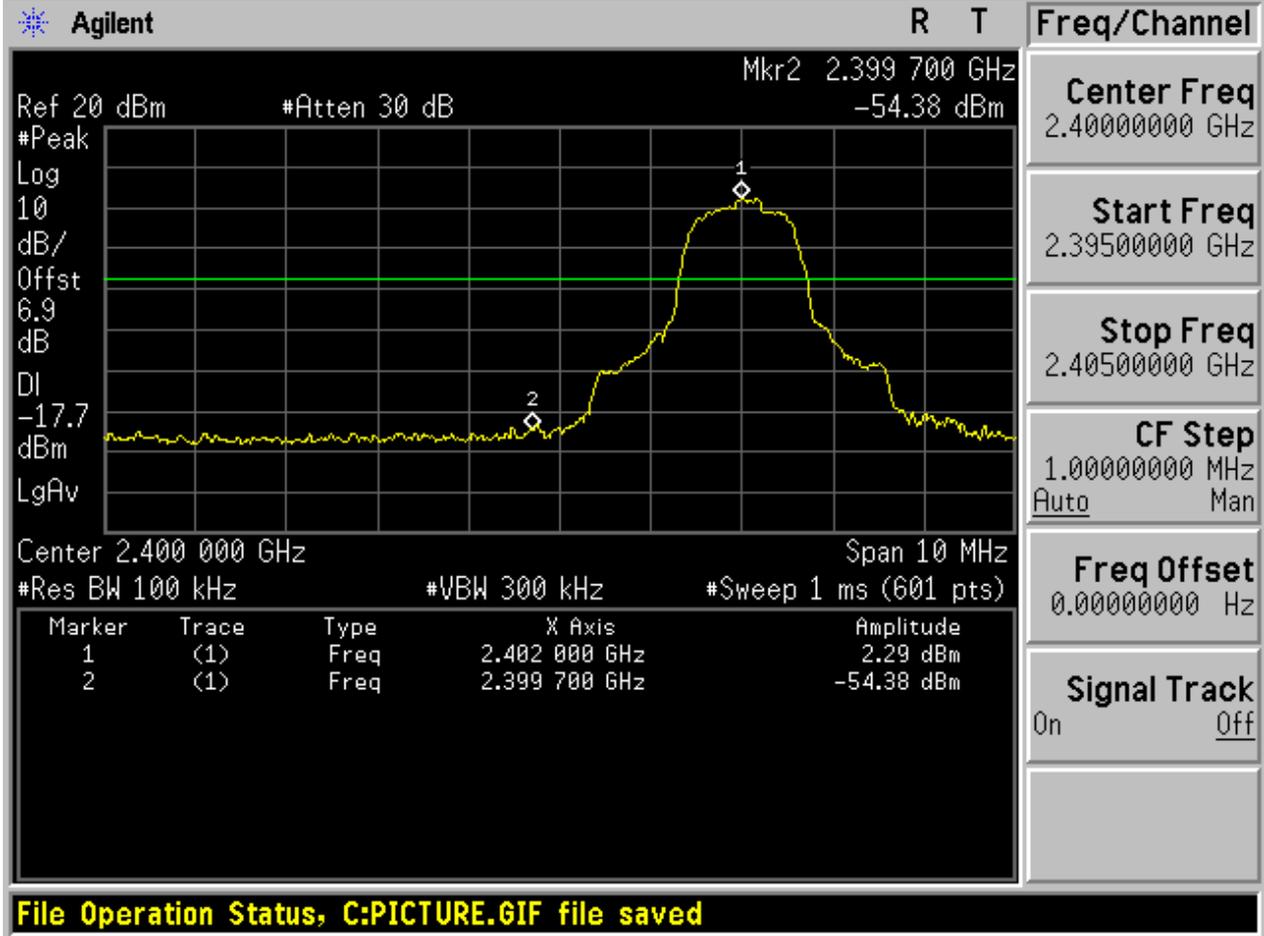


With hopping

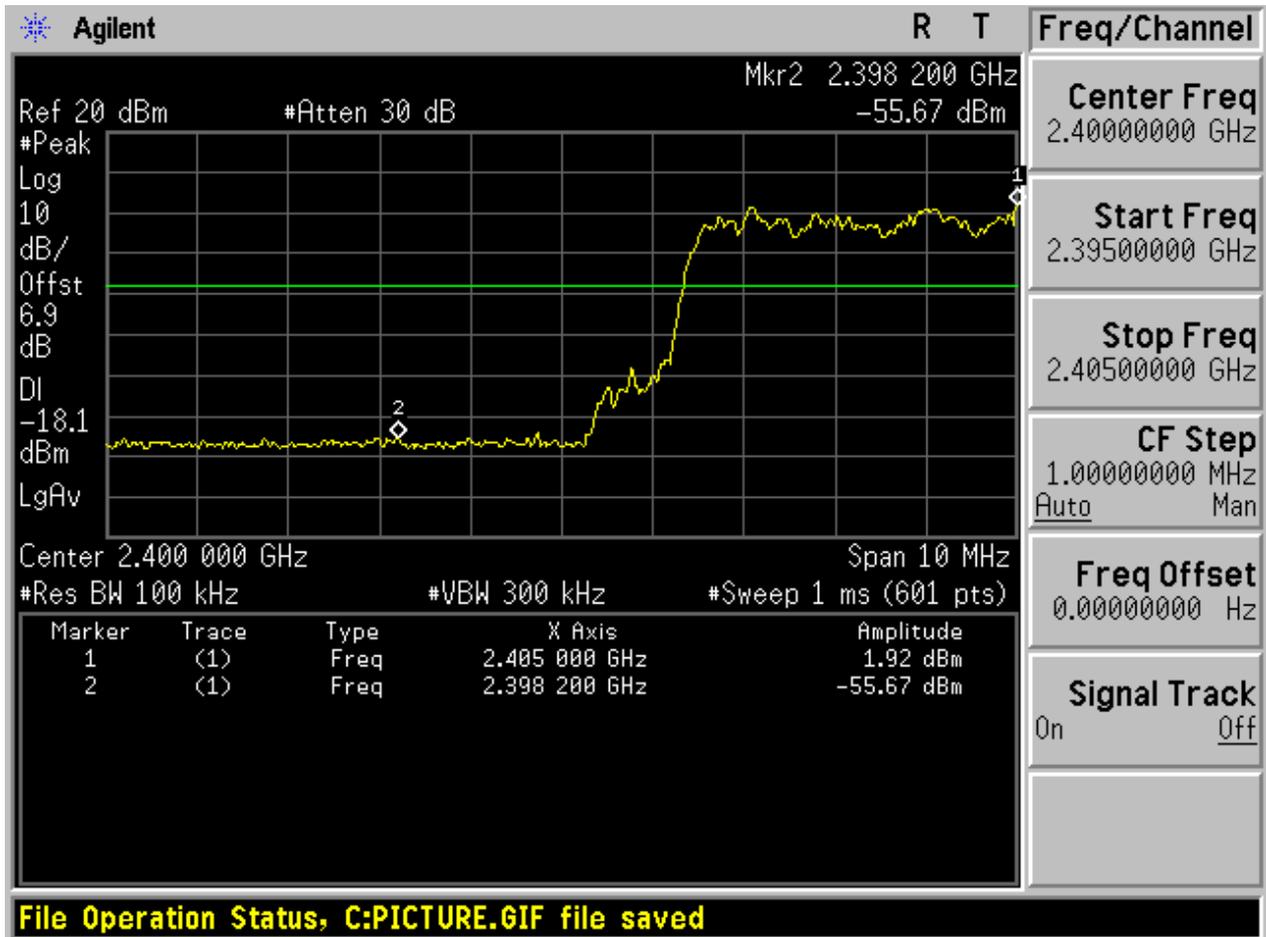


2.5 TM3_3DH5_Ch0

No hopping

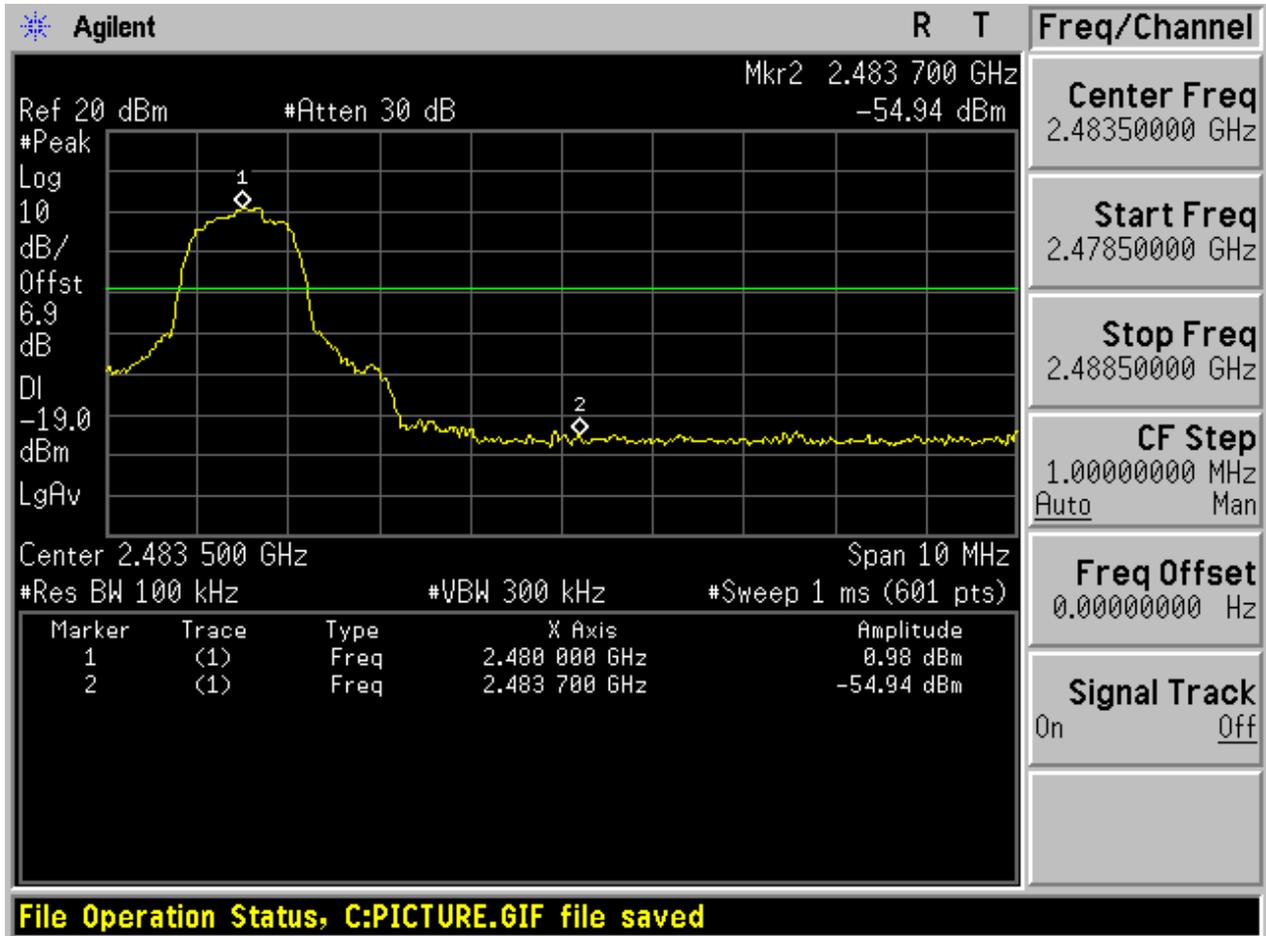


With hopping

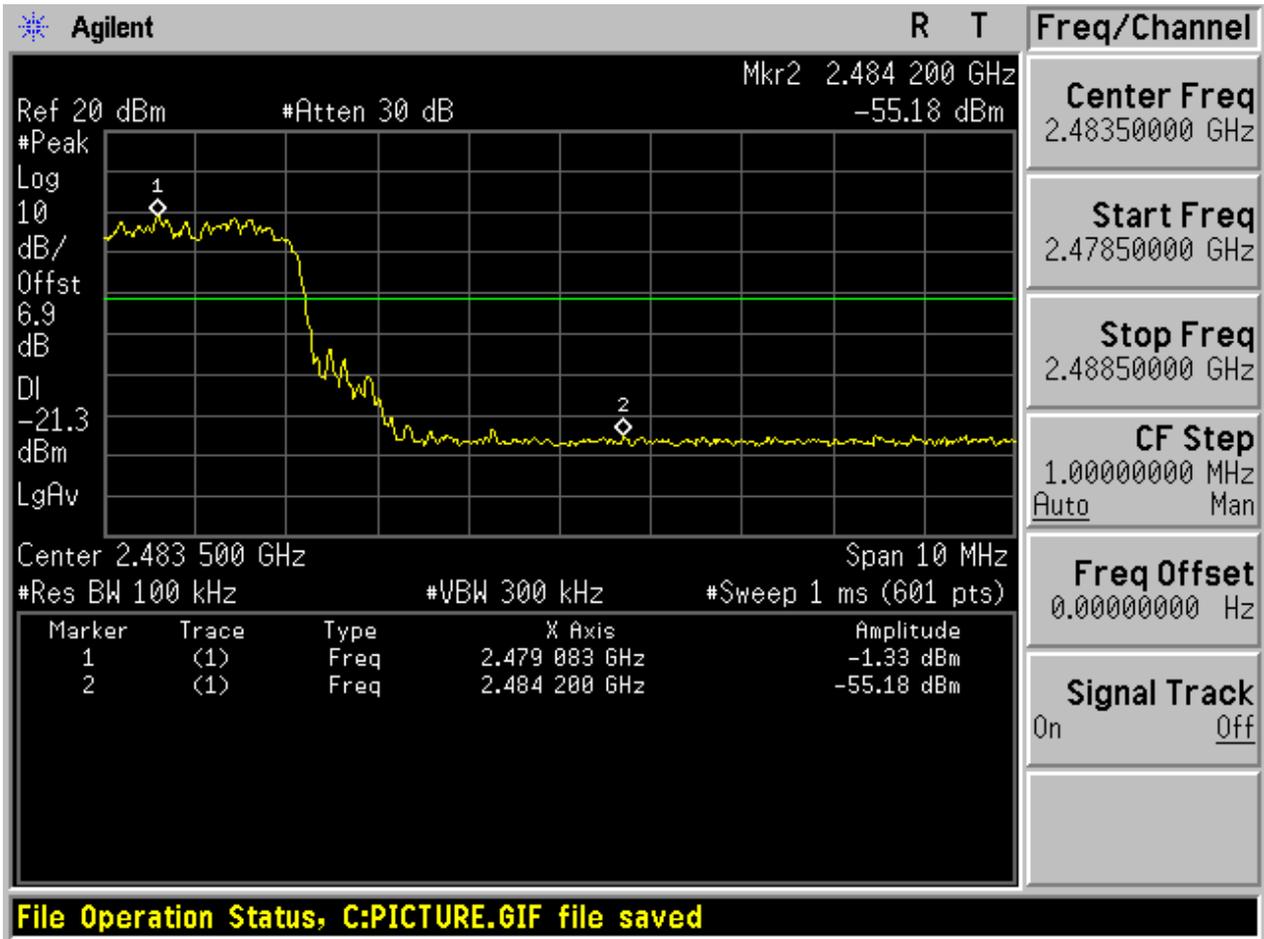


2.6 TM3_3DH5_Ch78

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”.

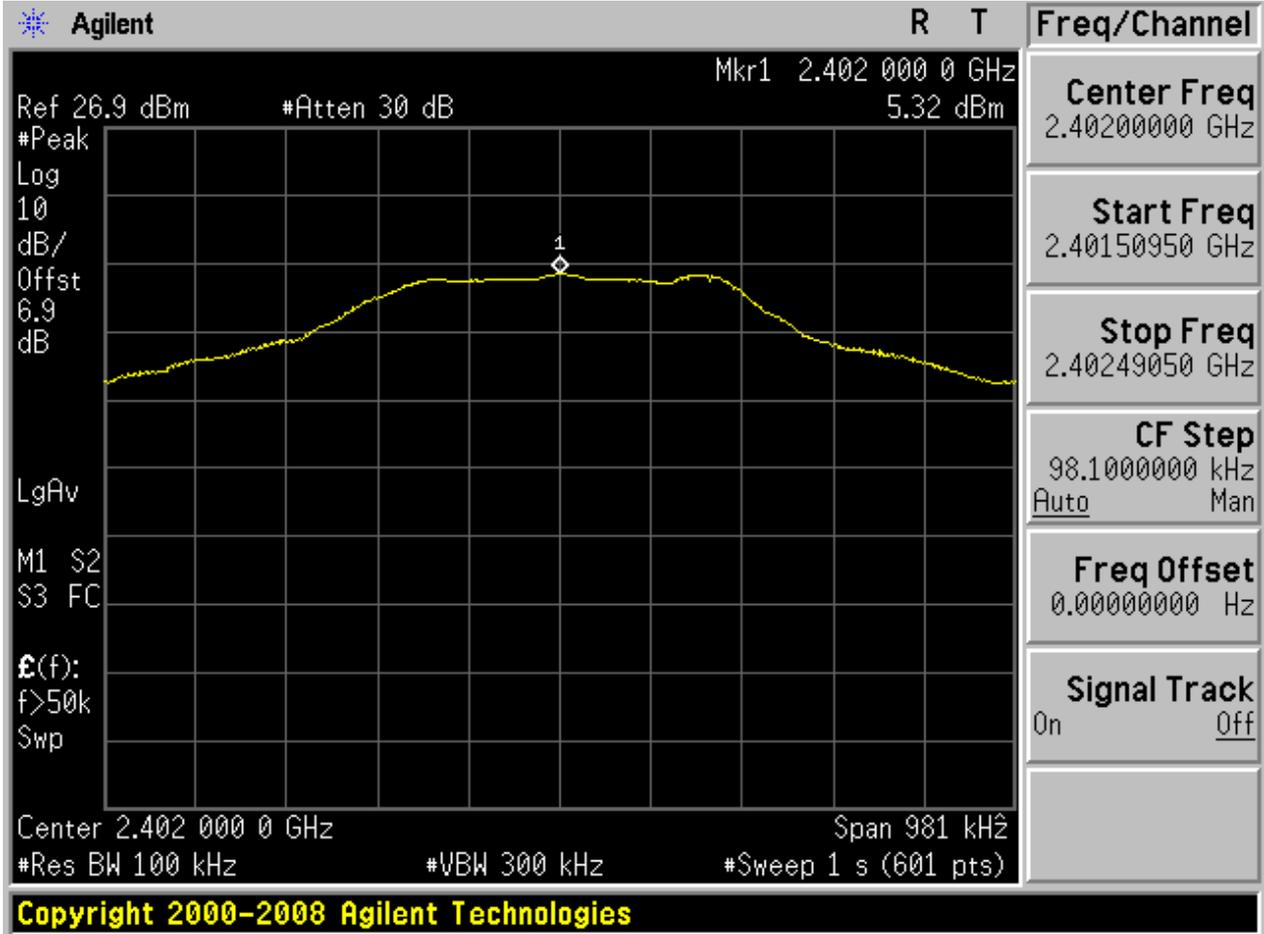
EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	5.32	< Limit	Pass
TM1_DH5_Ch39	5.02	< Limit	Pass
TM1_DH5_Ch78	4.07	< Limit	Pass
TM2_2DH5_Ch0	3.15	< Limit	Pass
TM2_2DH5_Ch39	2.82	< Limit	Pass
TM2_2DH5_Ch78	1.94	< Limit	Pass
TM3_3DH5_Ch0	2.12	< Limit	Pass
TM3_3DH5_Ch39	1.76	< Limit	Pass
TM3_3DH5_Ch78	0.92	< Limit	Pass



2 Test Plot

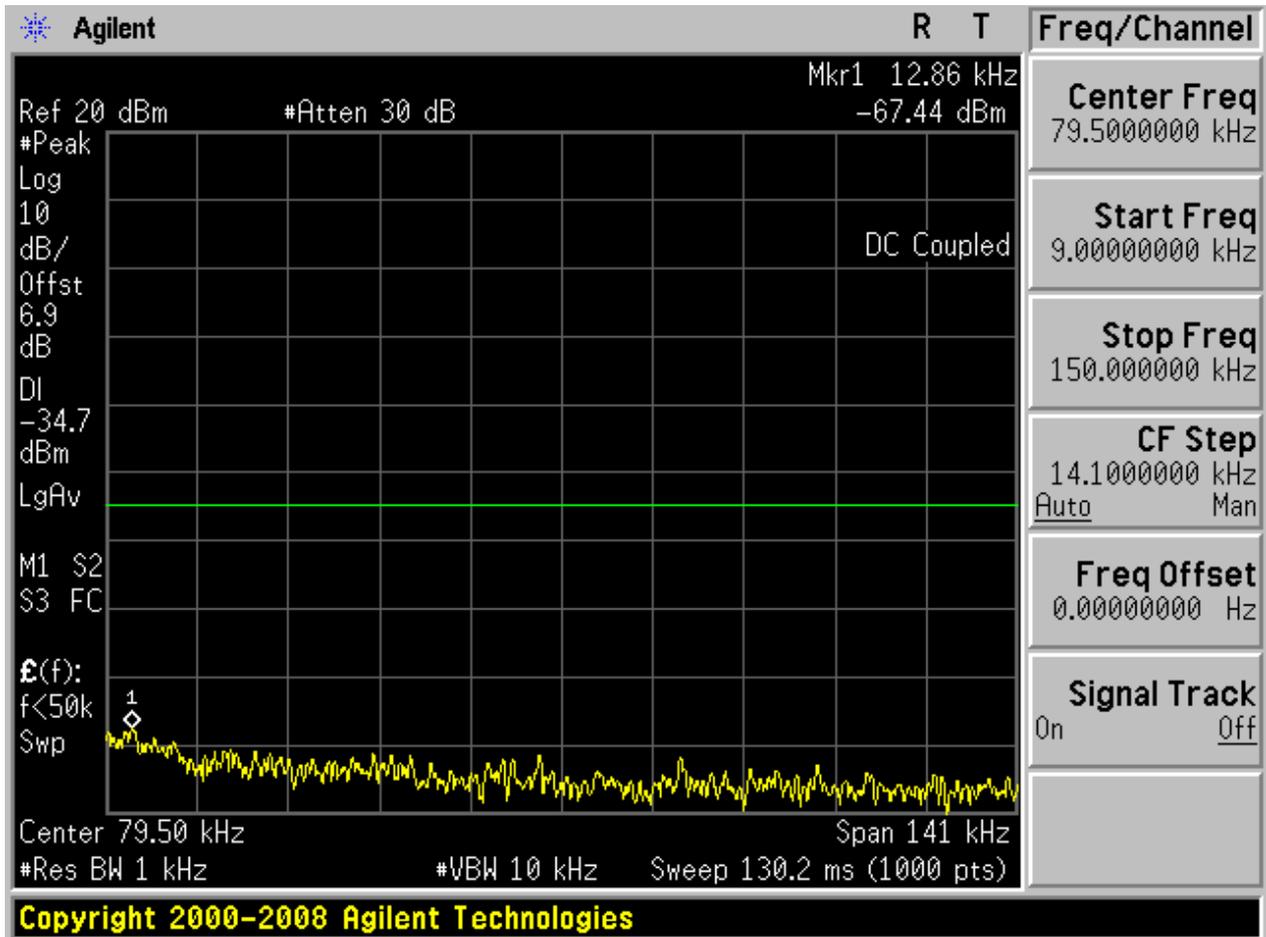
2.1 TM1_DH5_Ch0

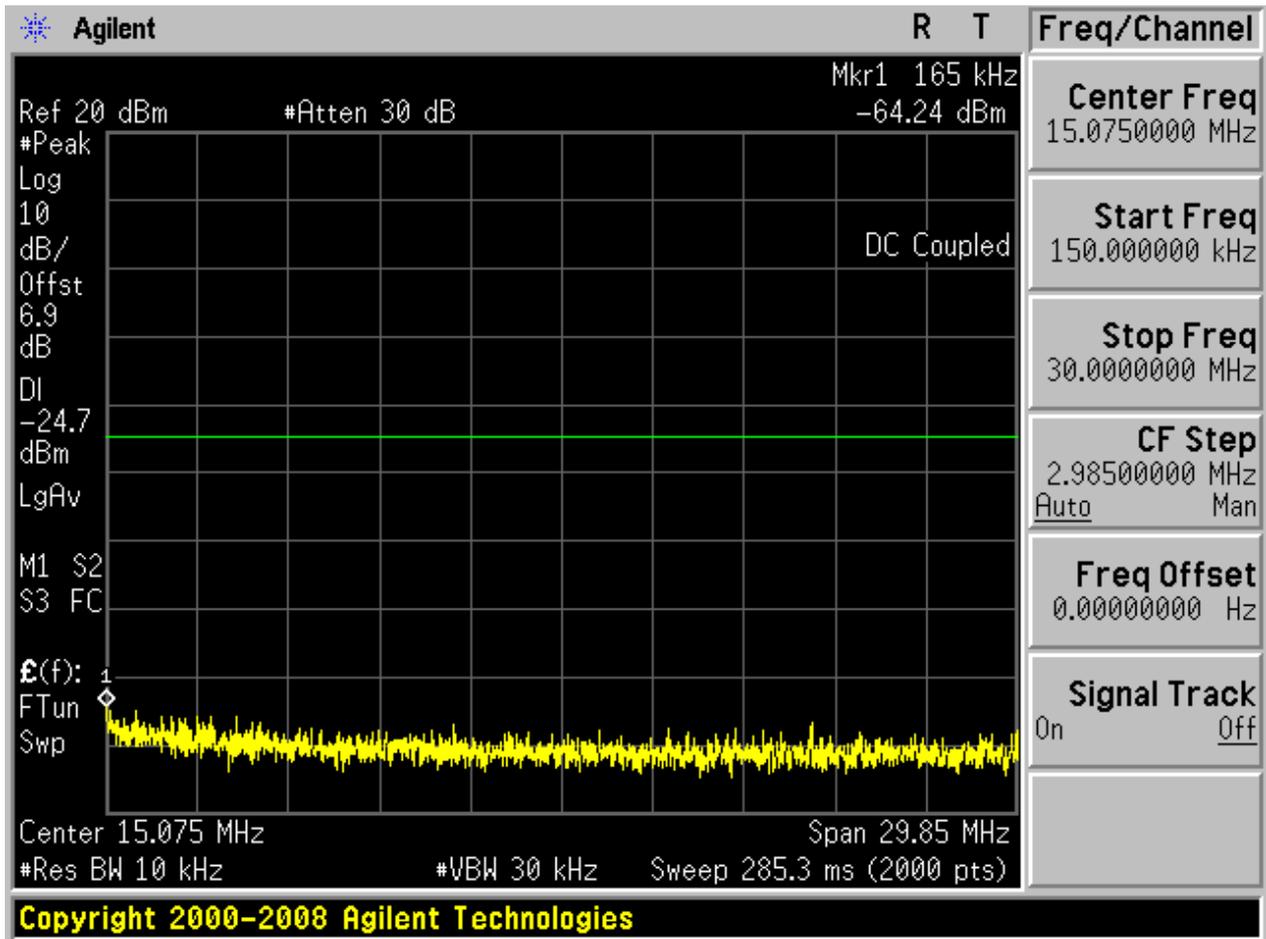
2.1.1 Pref

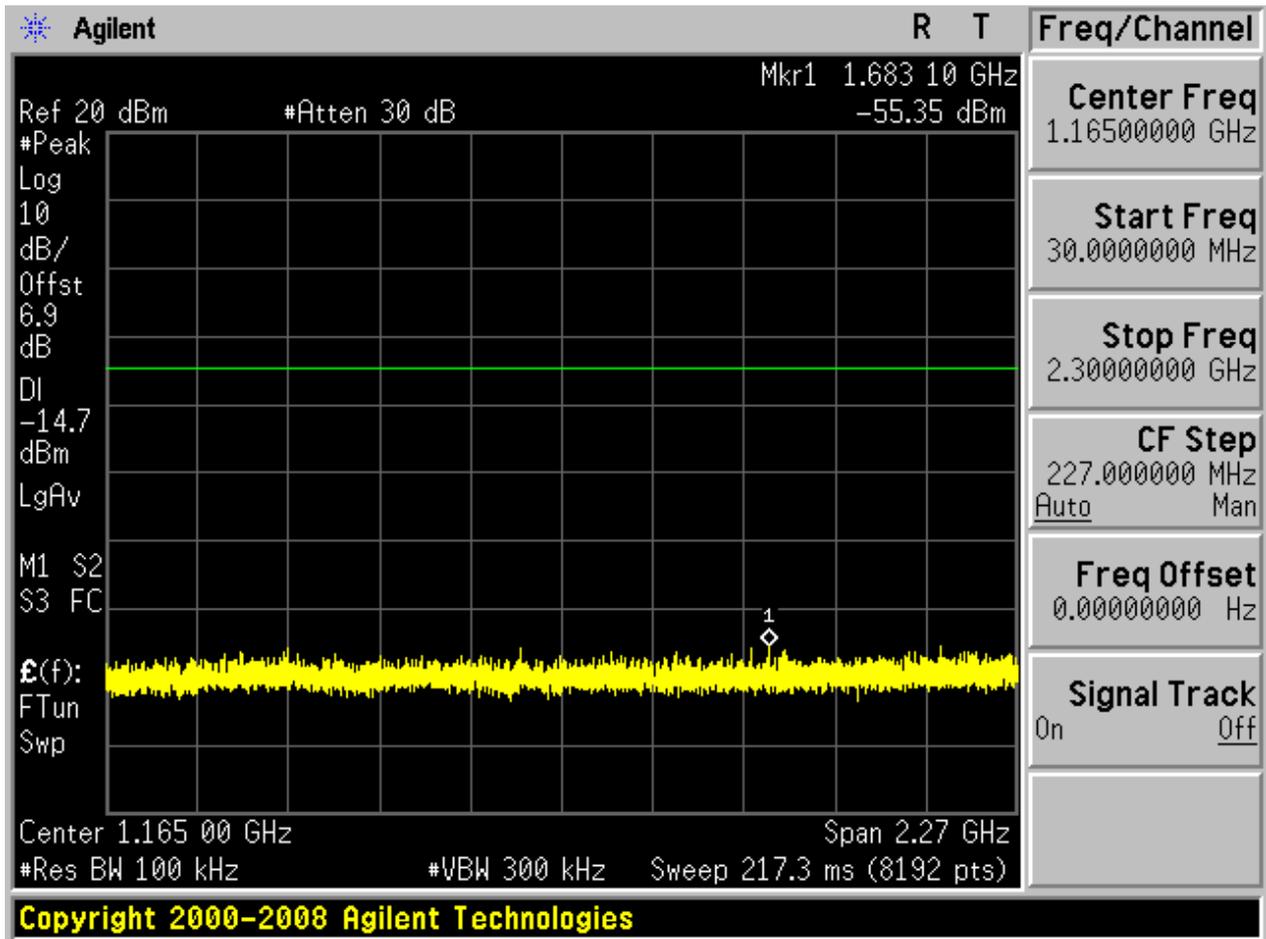


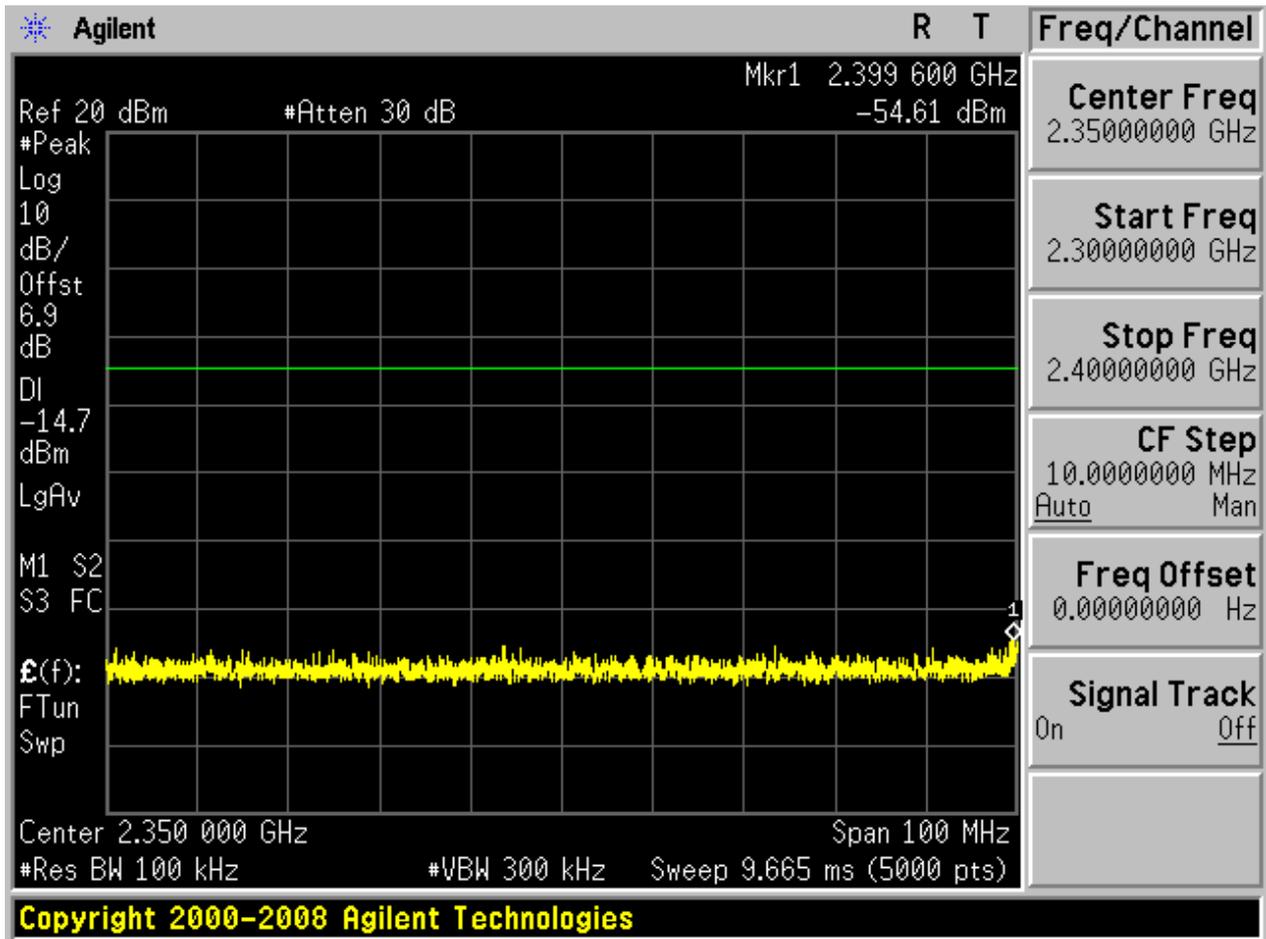


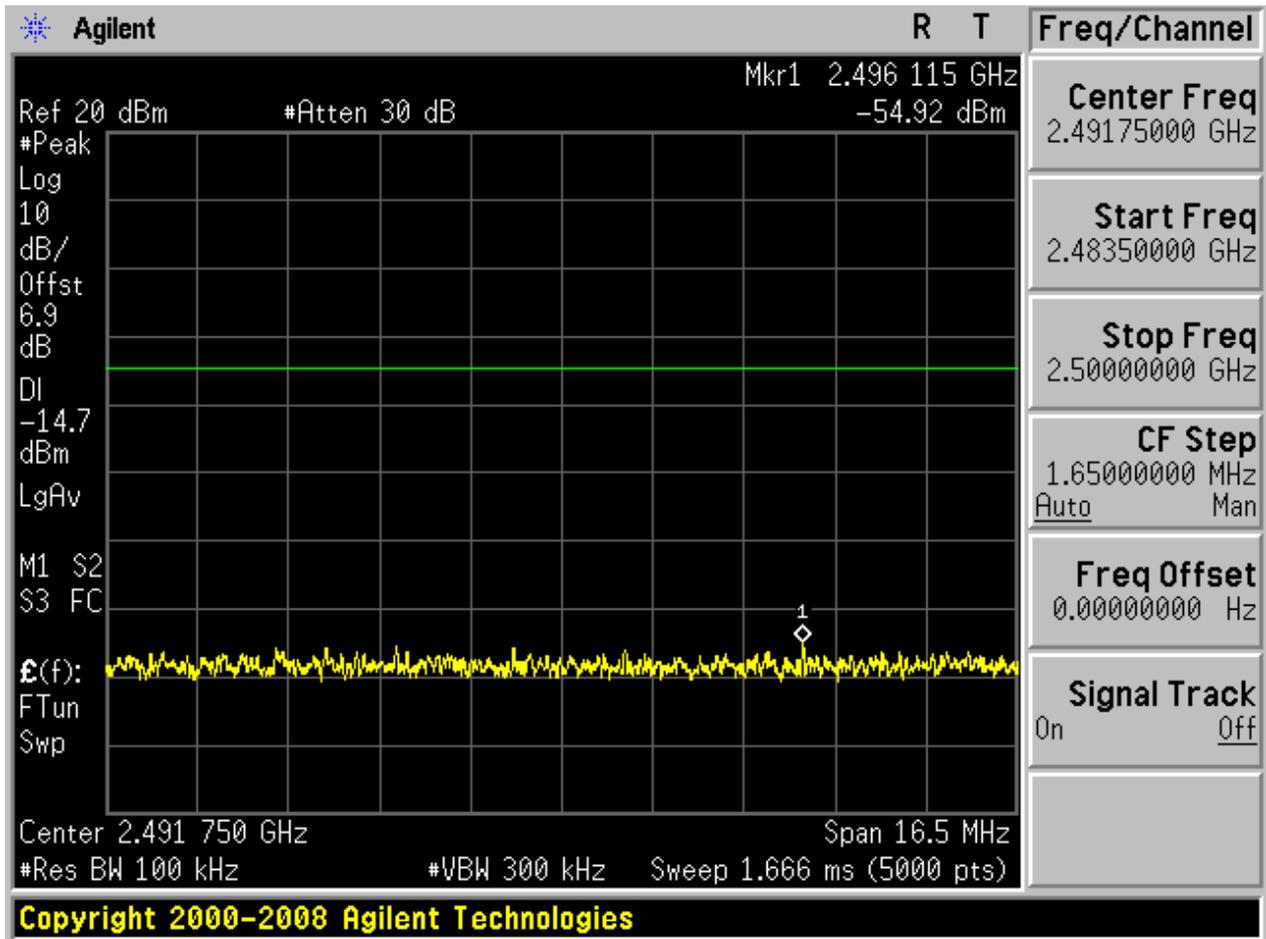
2.1.2 Puw

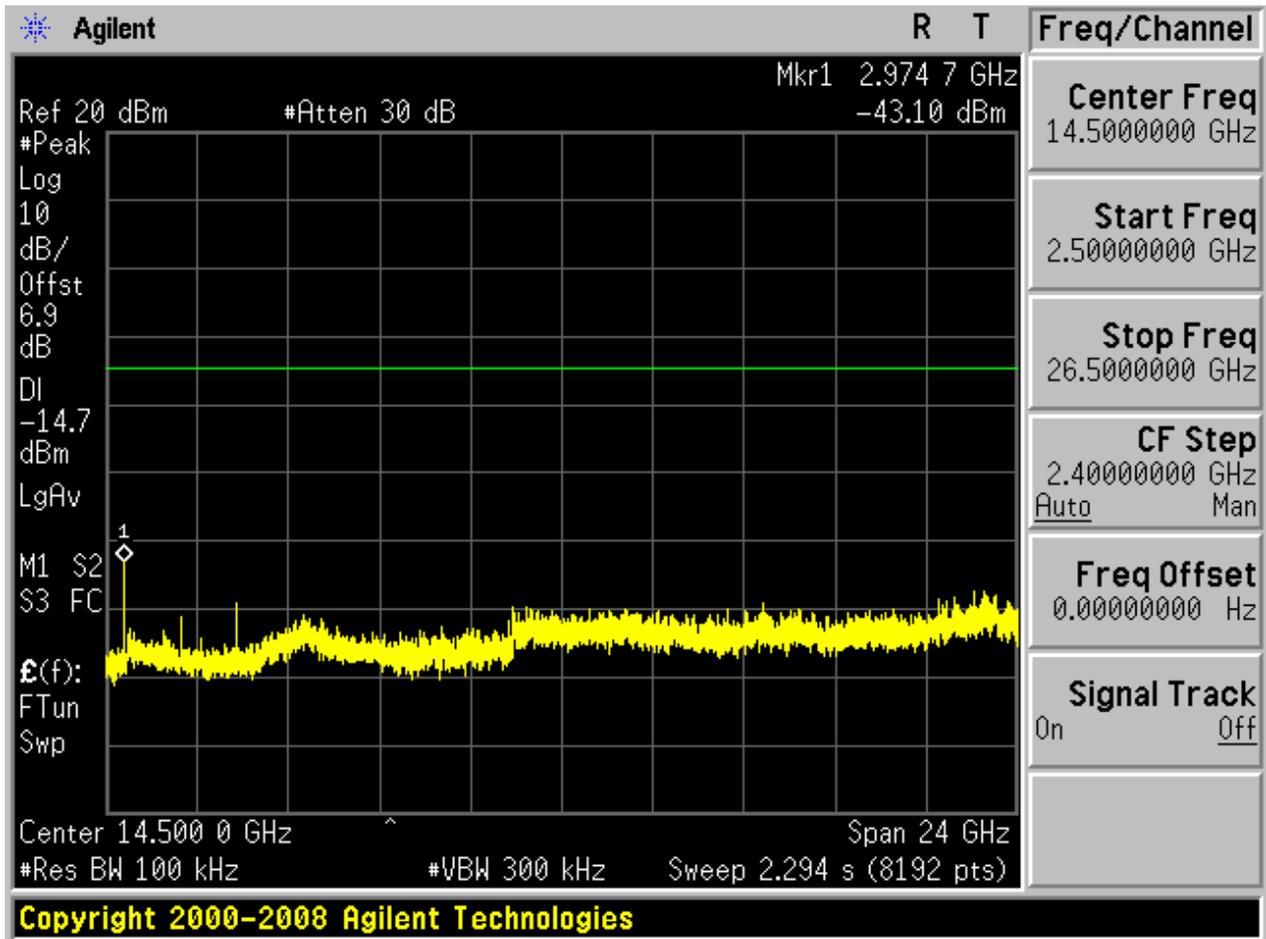








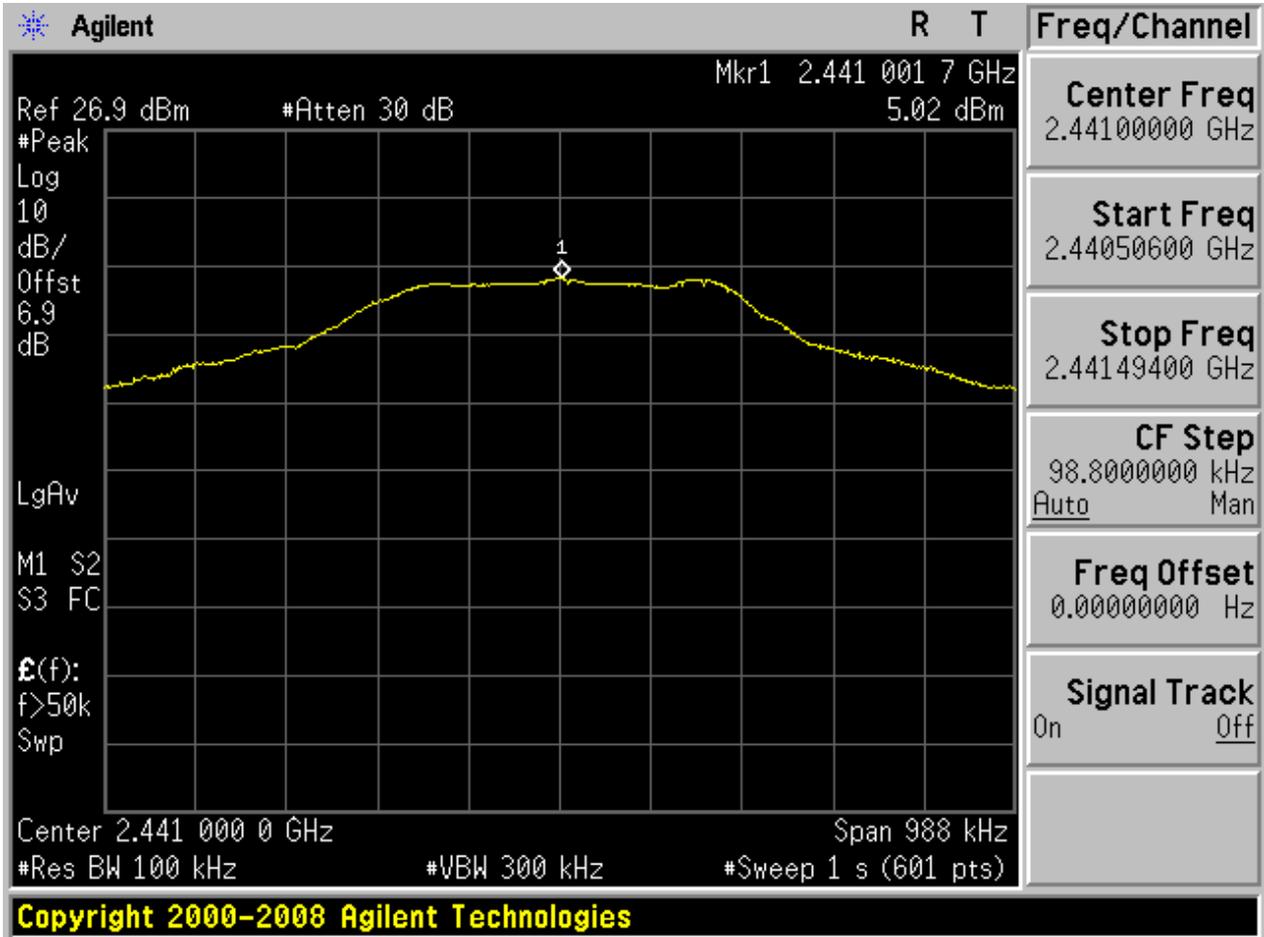






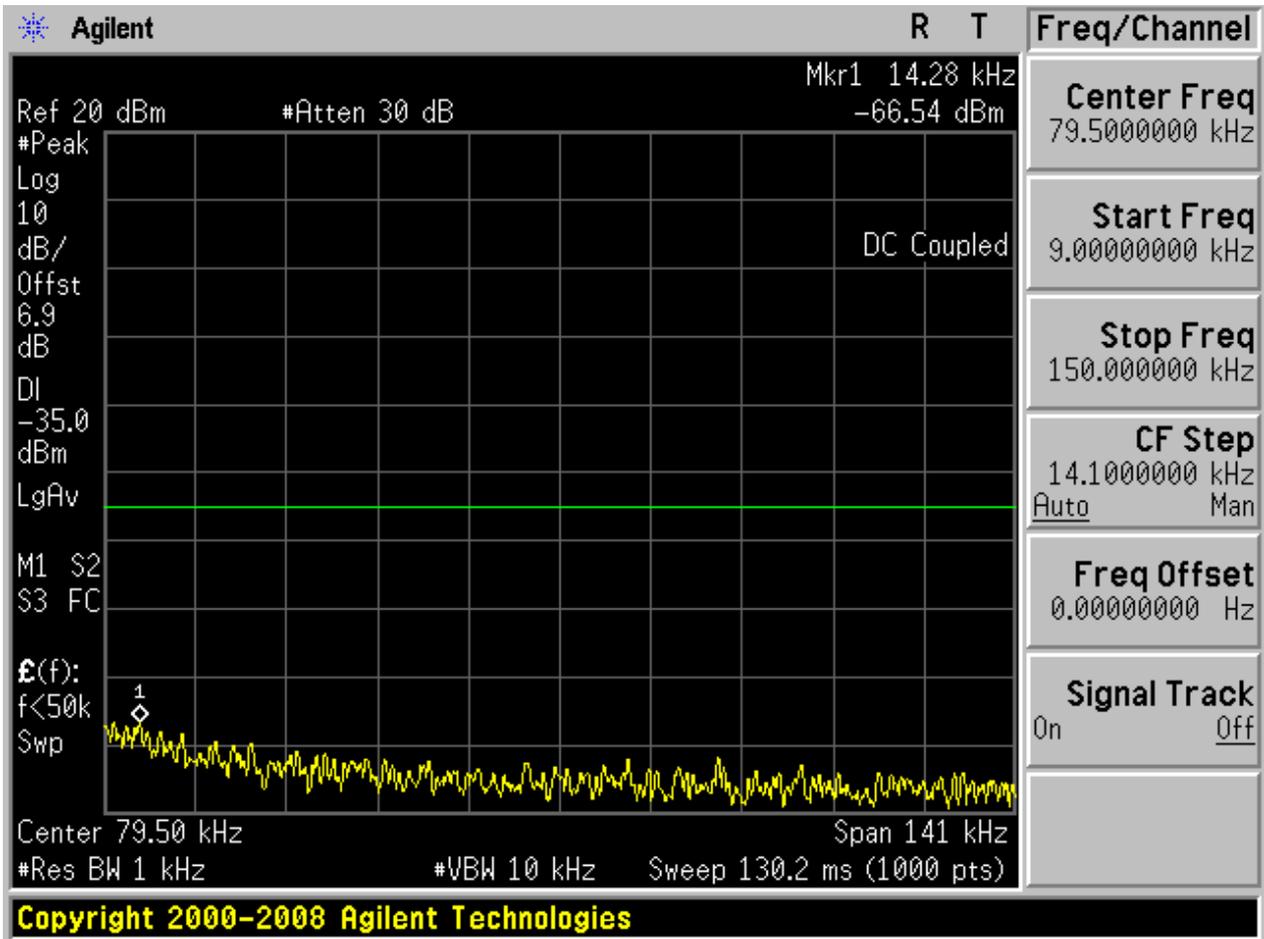
2.2 TM1_DH5_Ch39

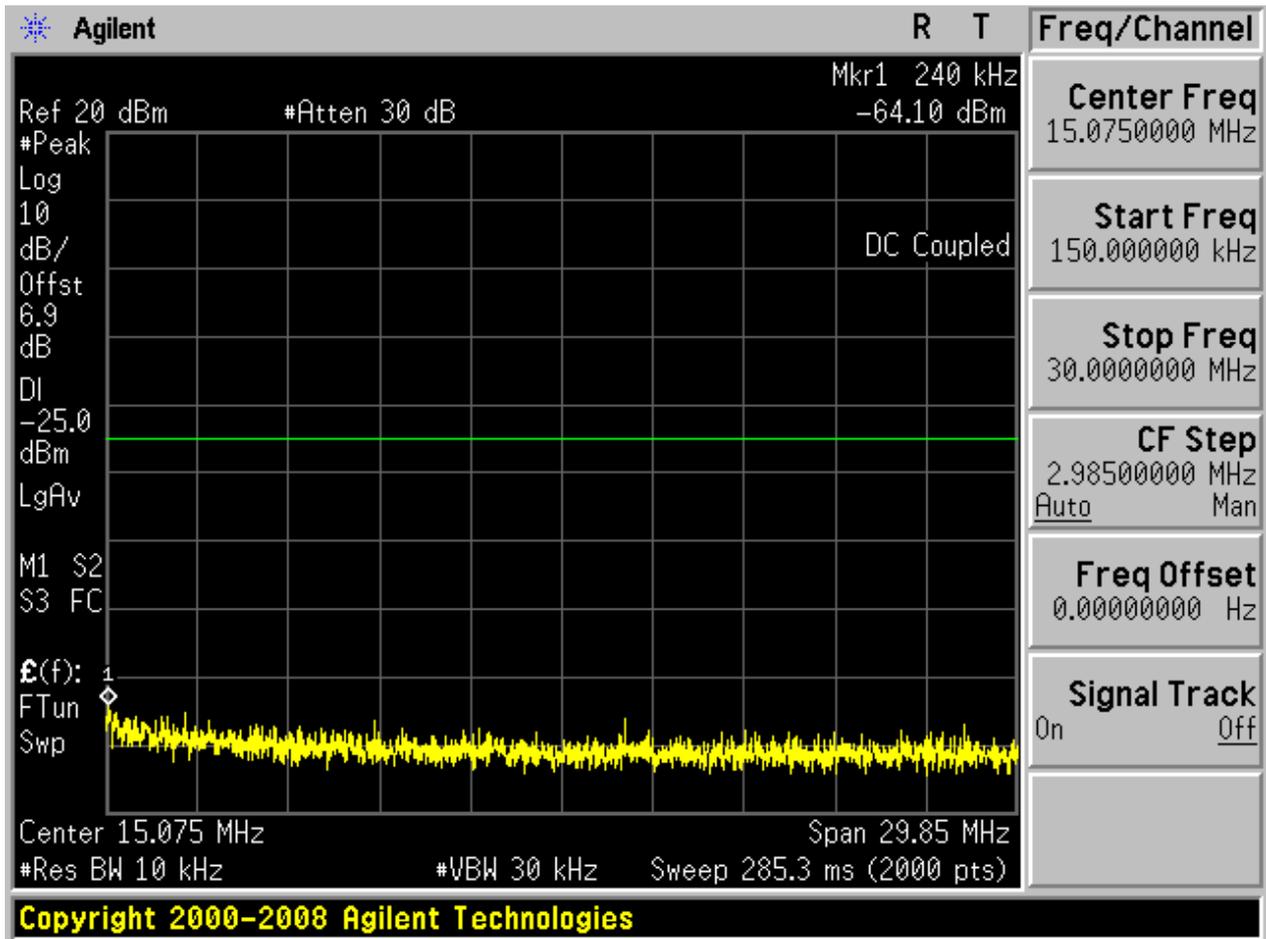
2.2.1 Pref

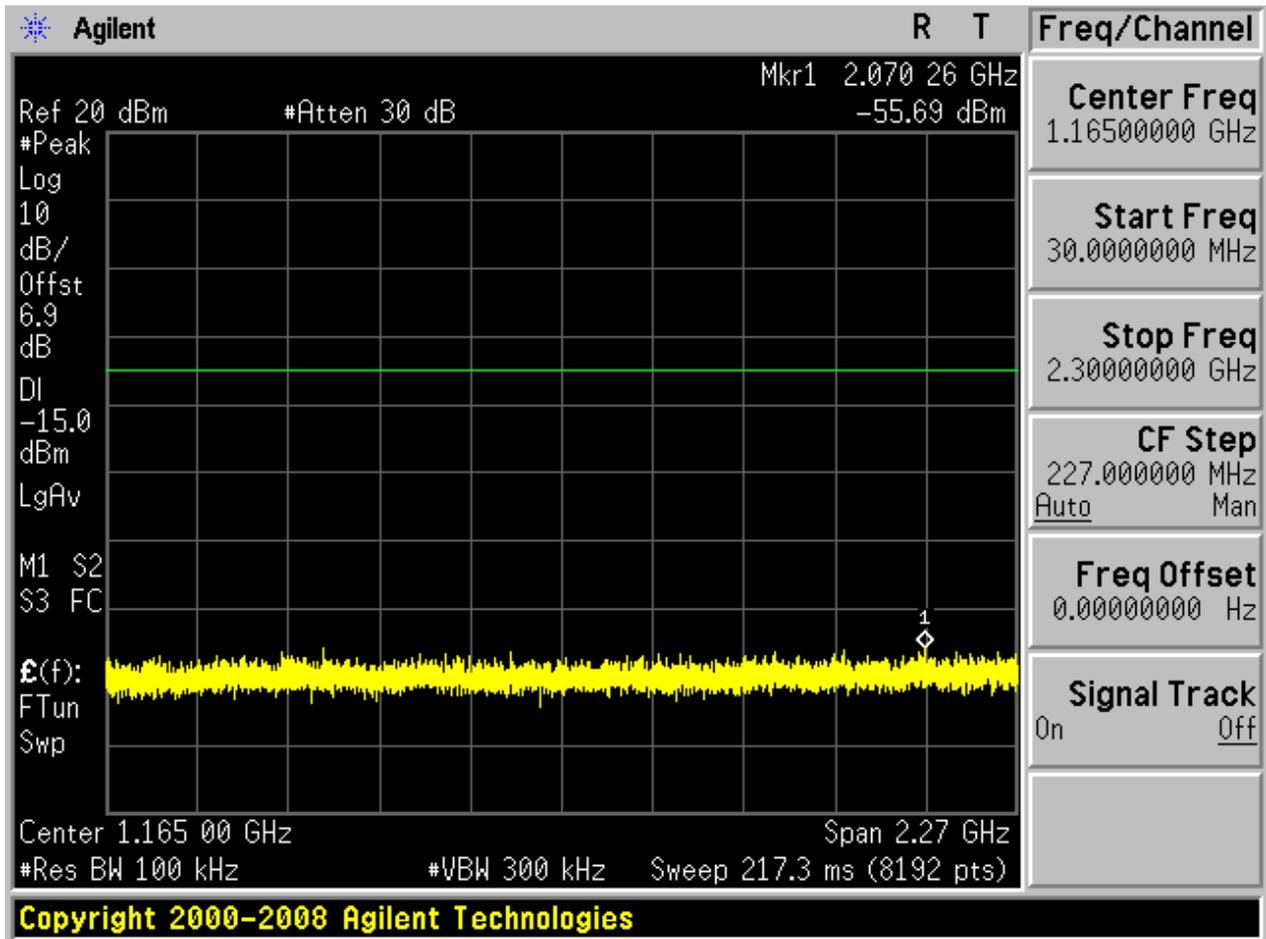


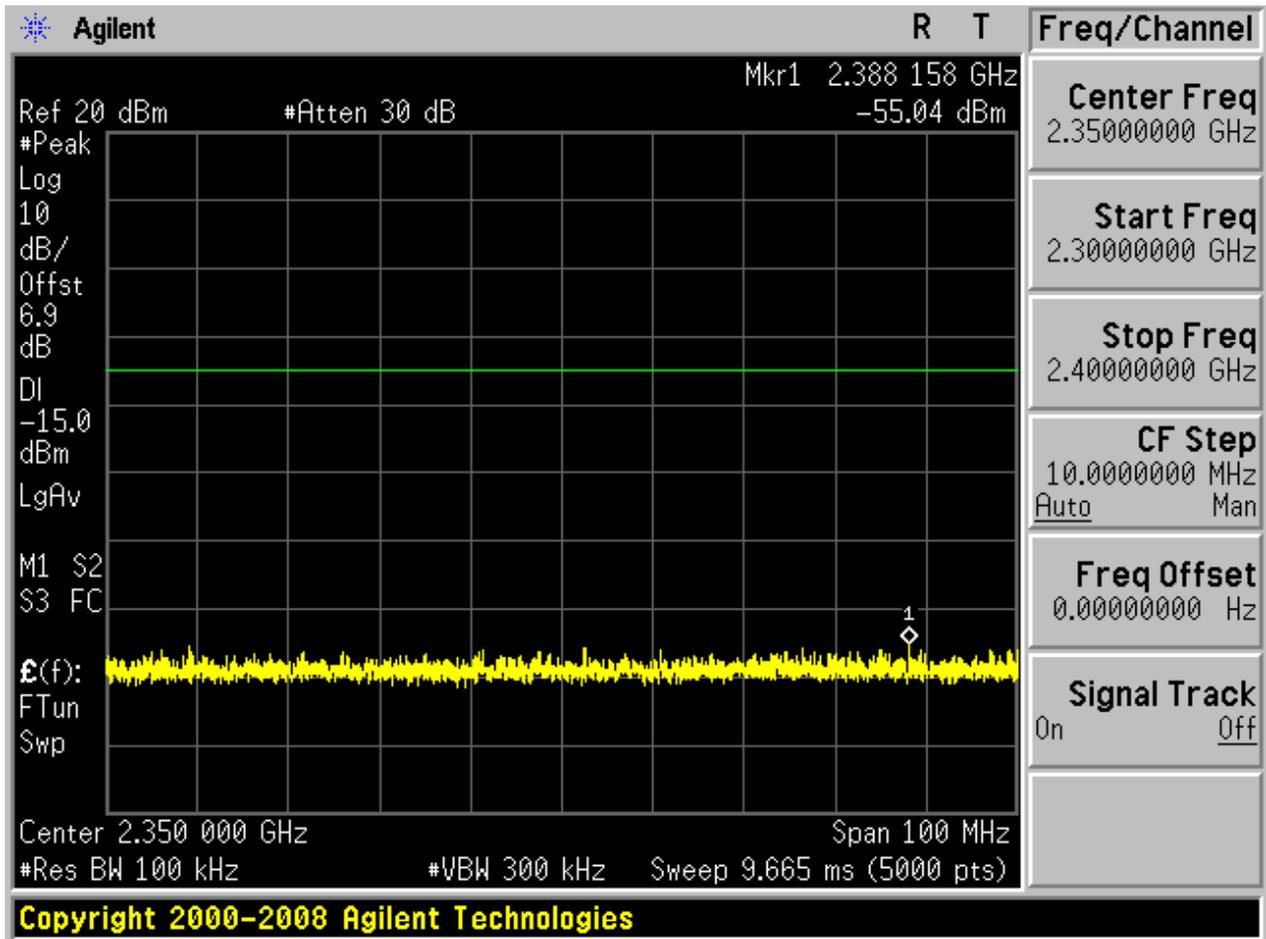


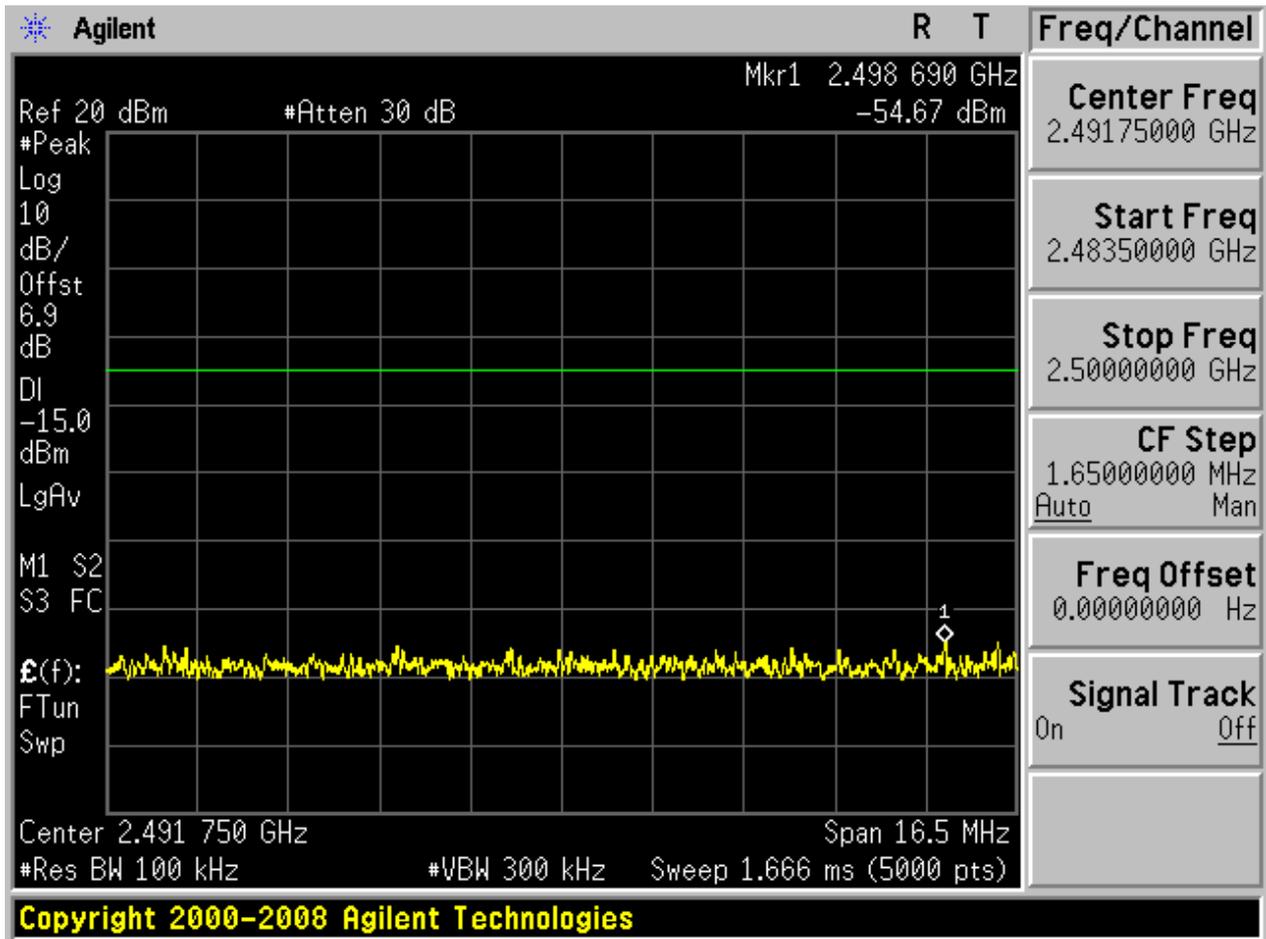
2.2.2 Puw

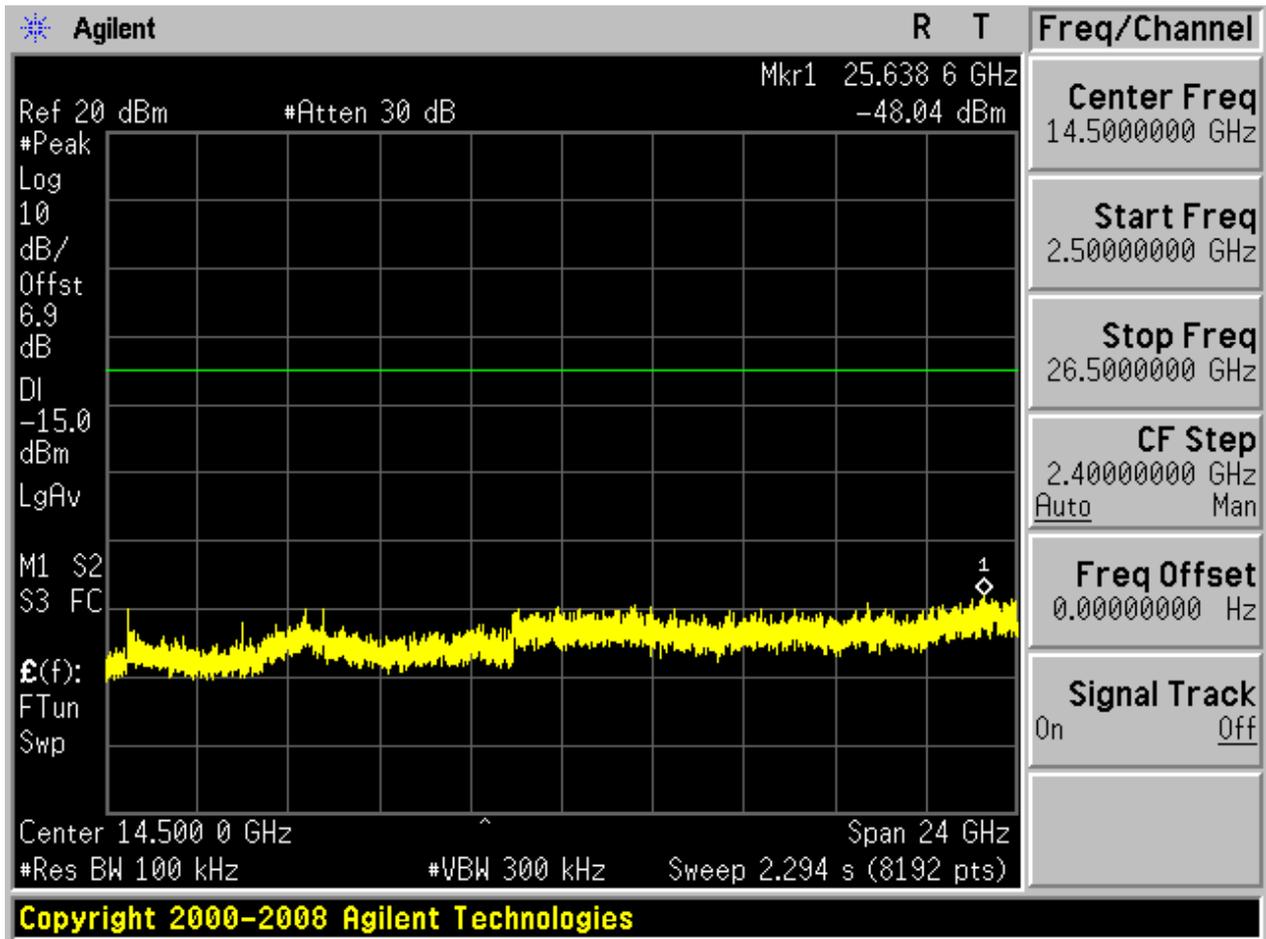








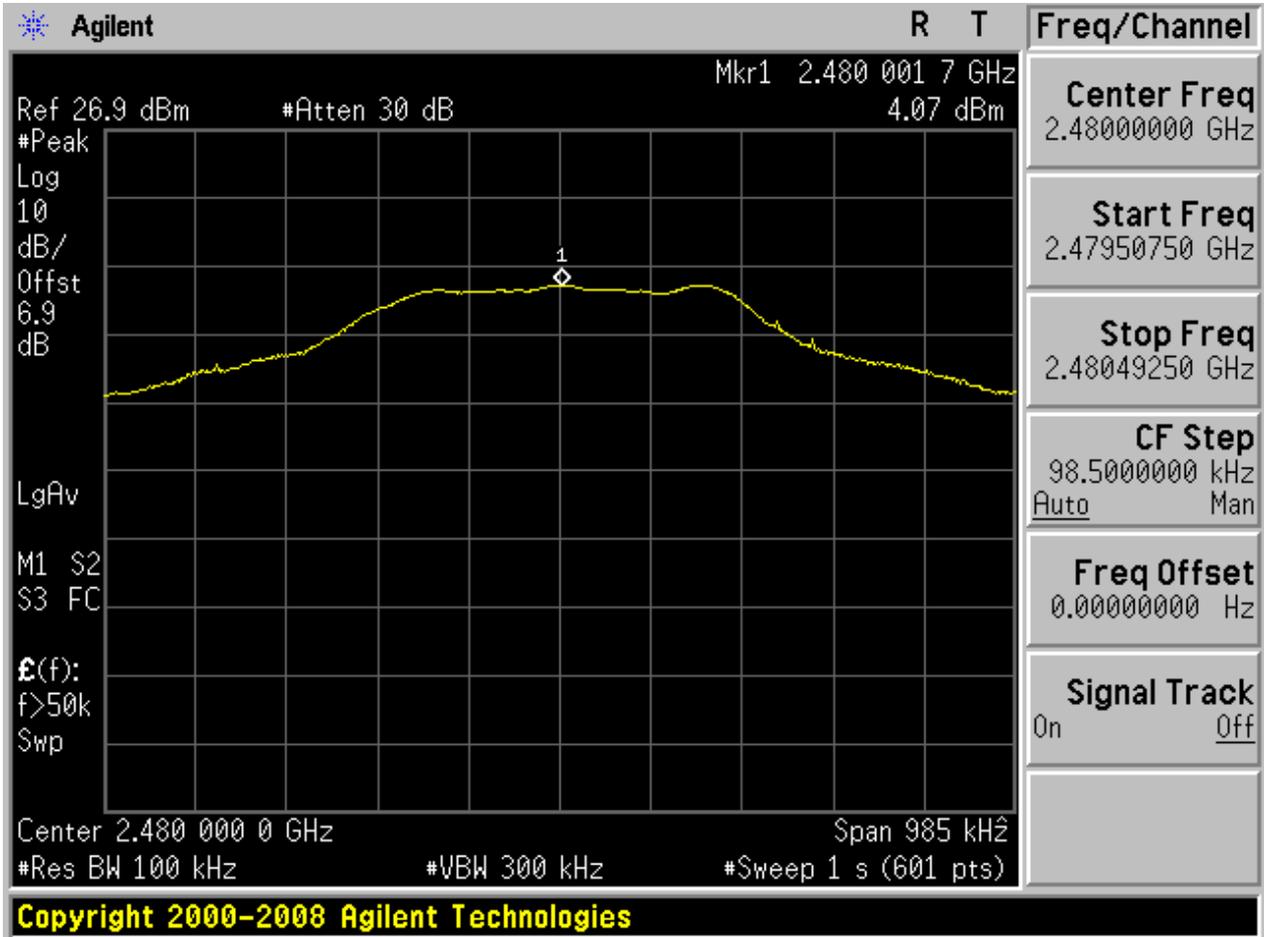






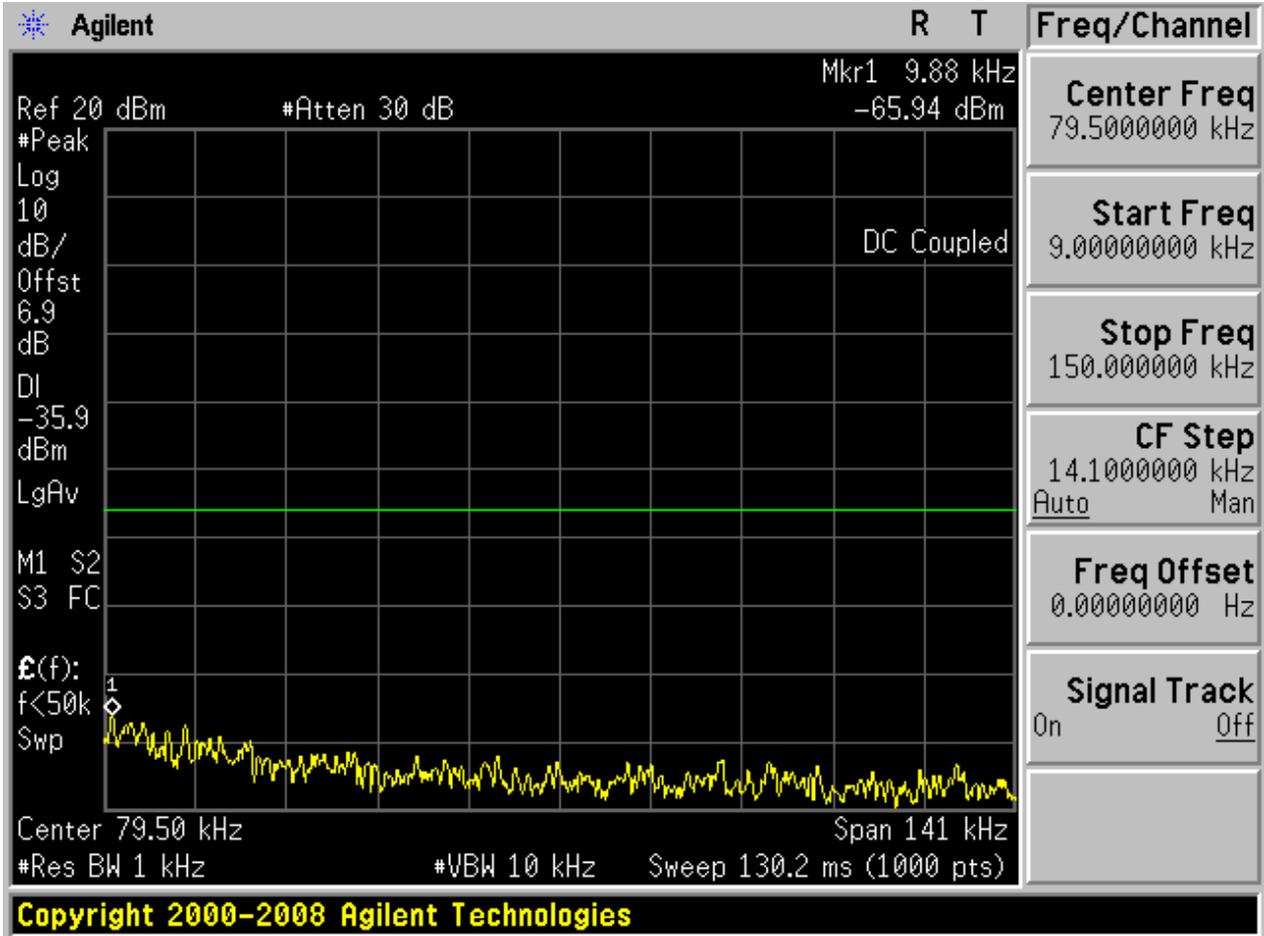
2.3 TM1_DH5_Ch78

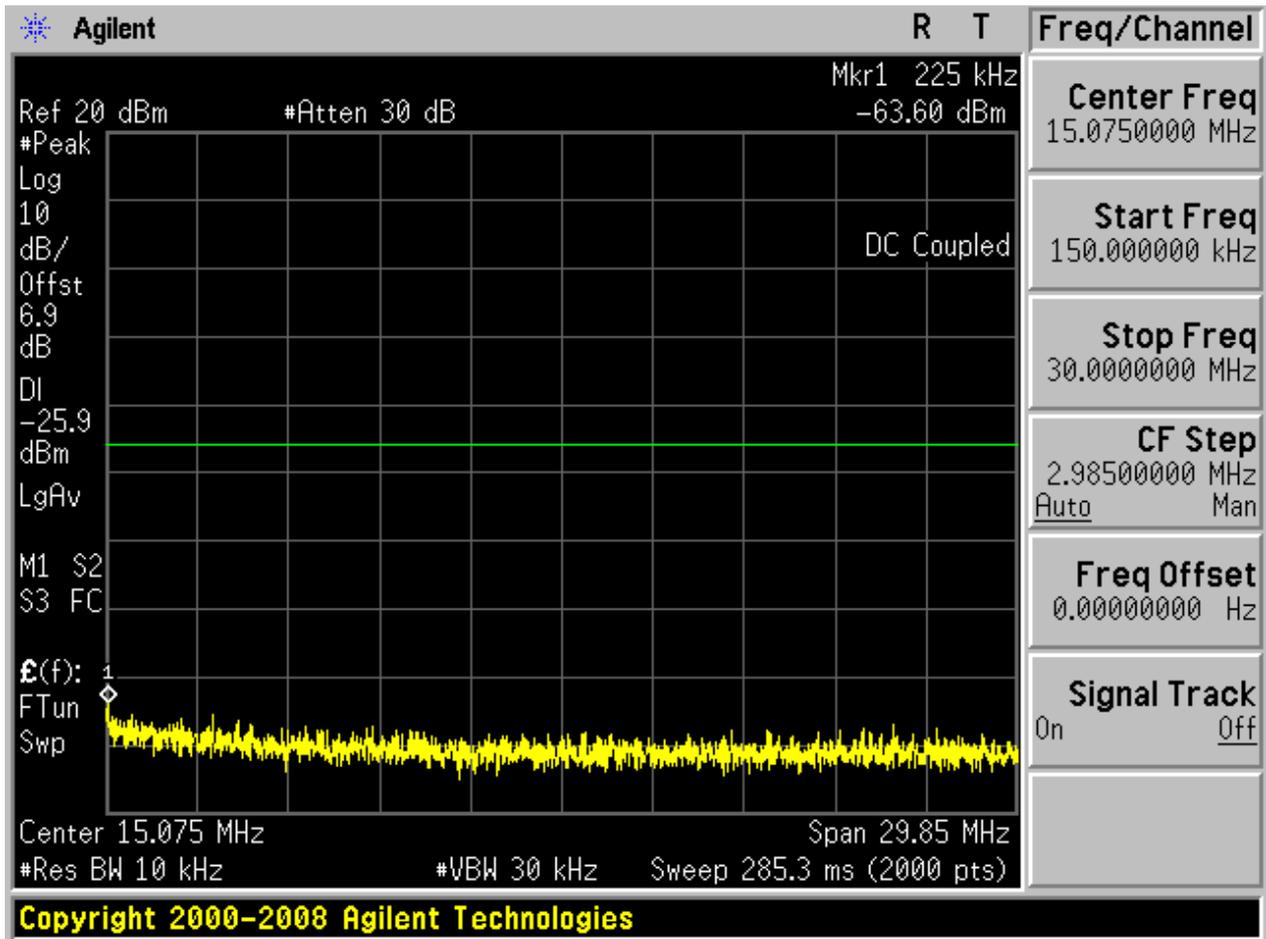
2.3.1 Pref

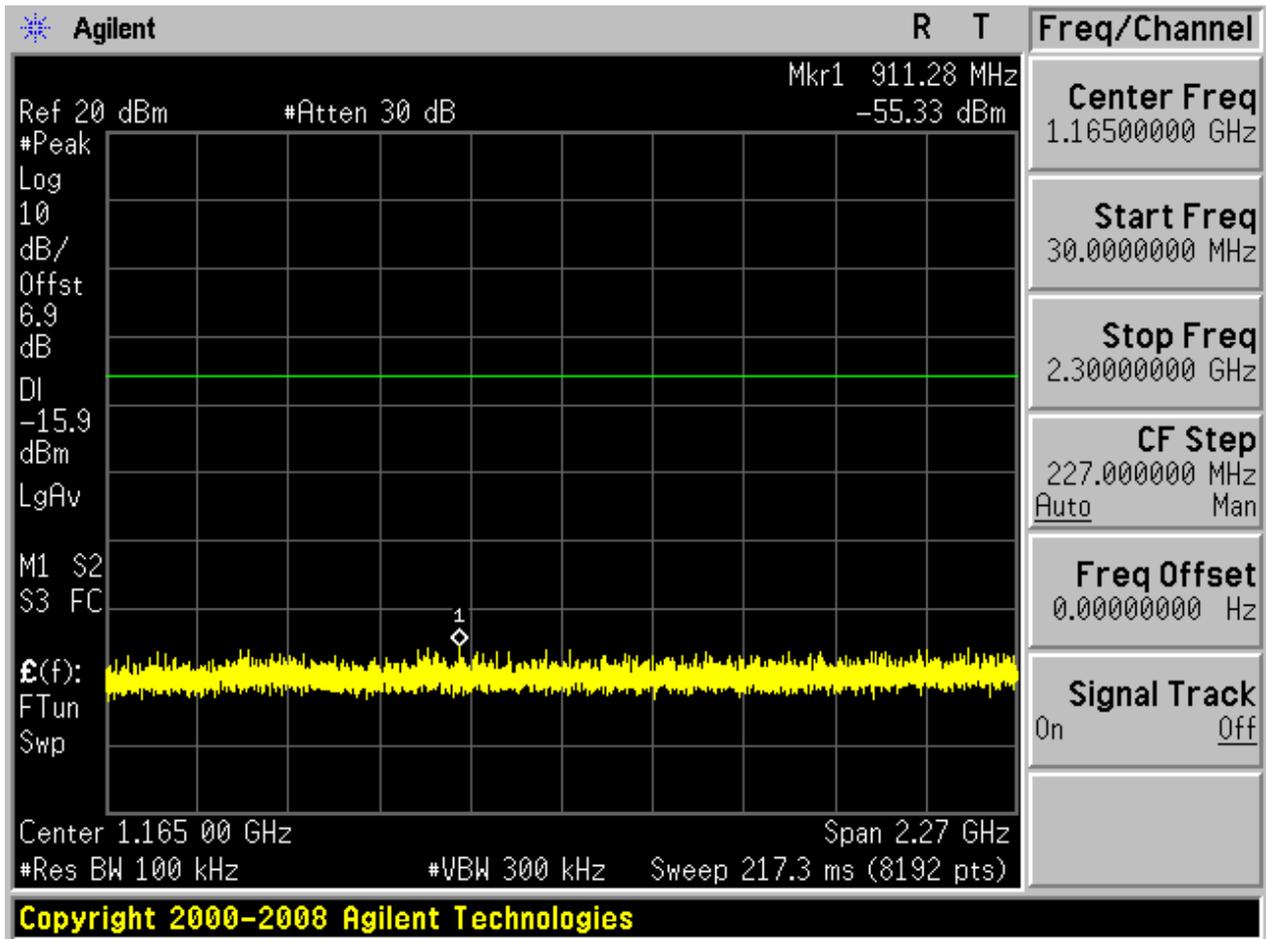


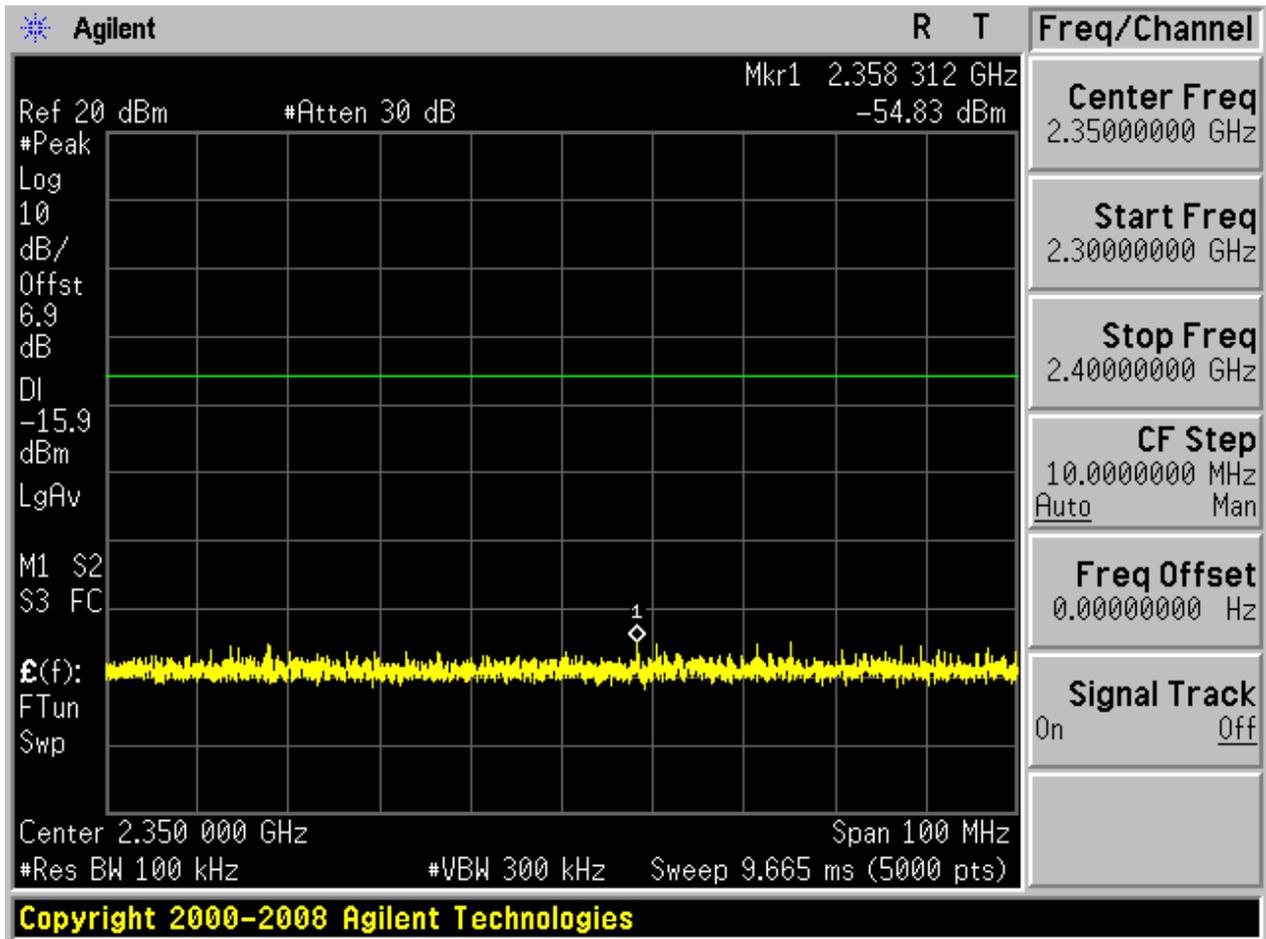


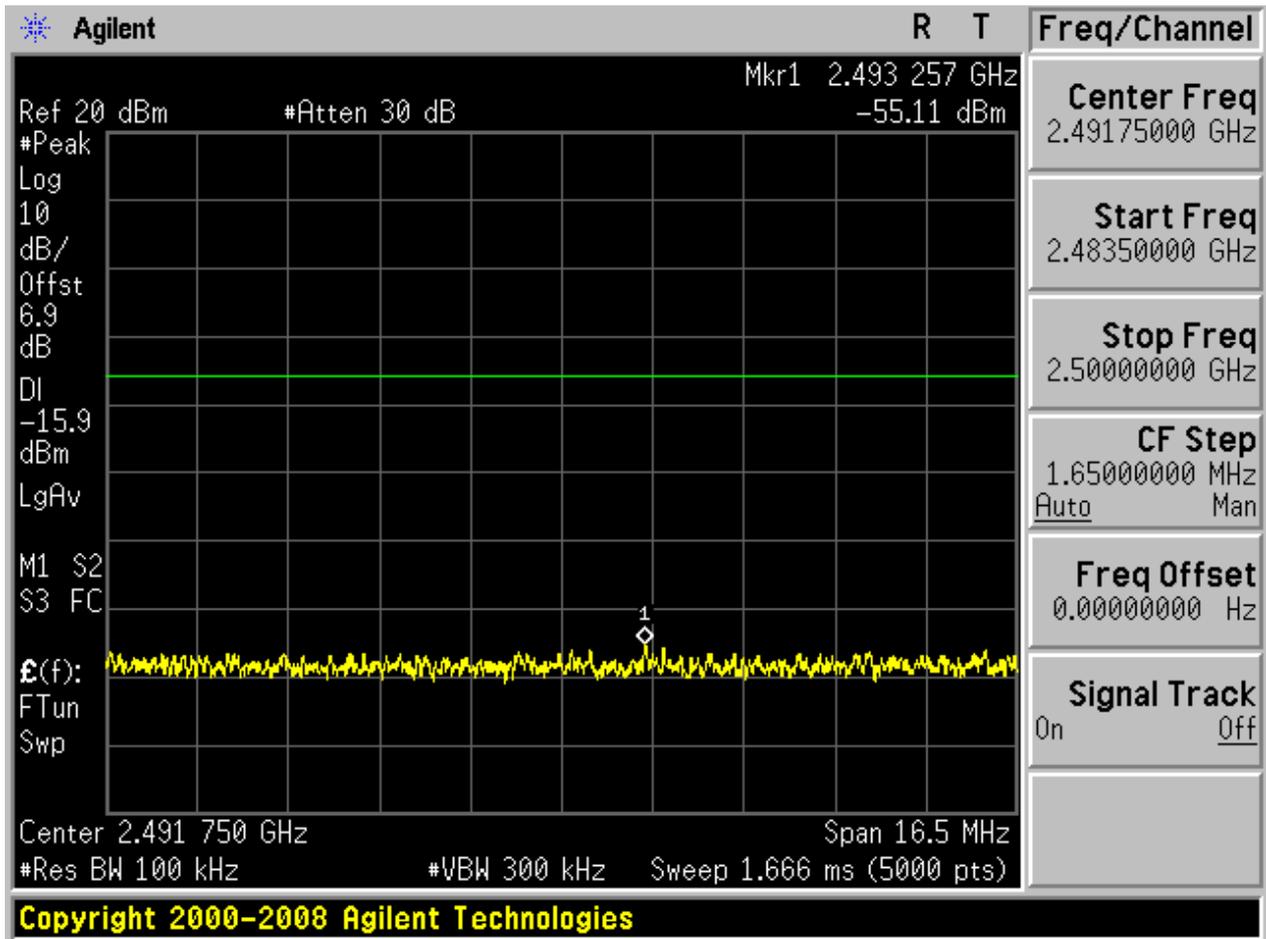
2.3.2 Puw

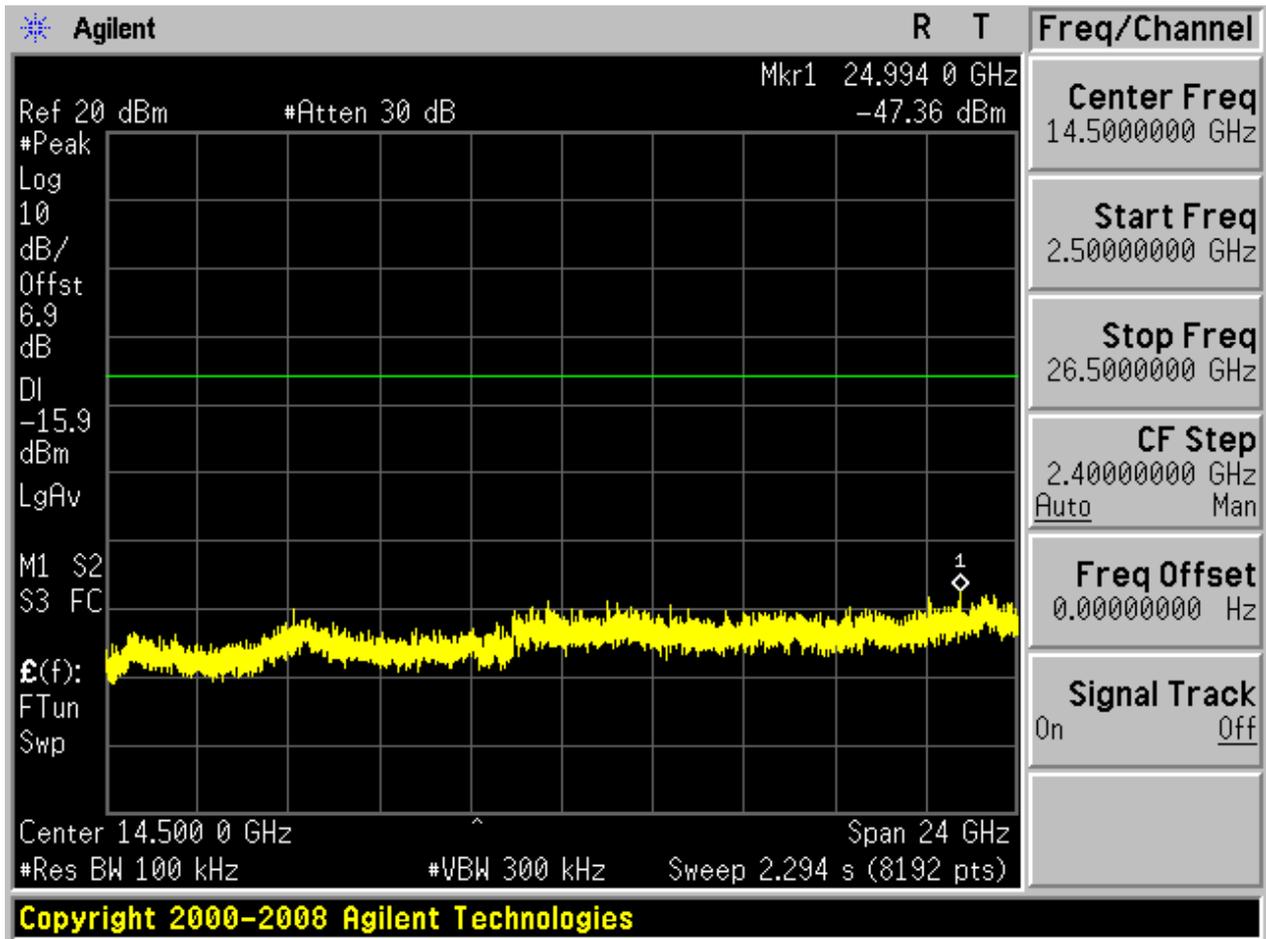








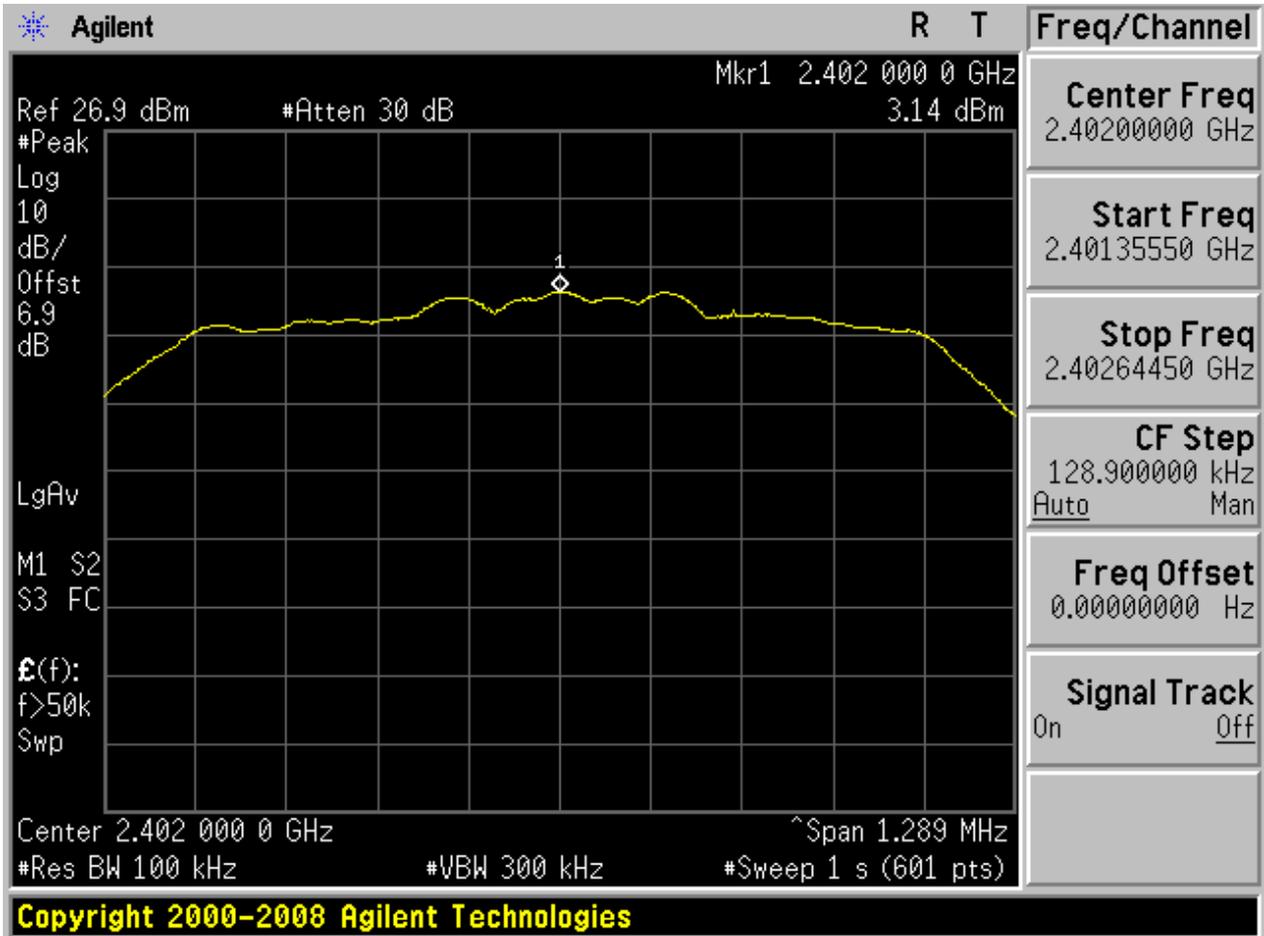






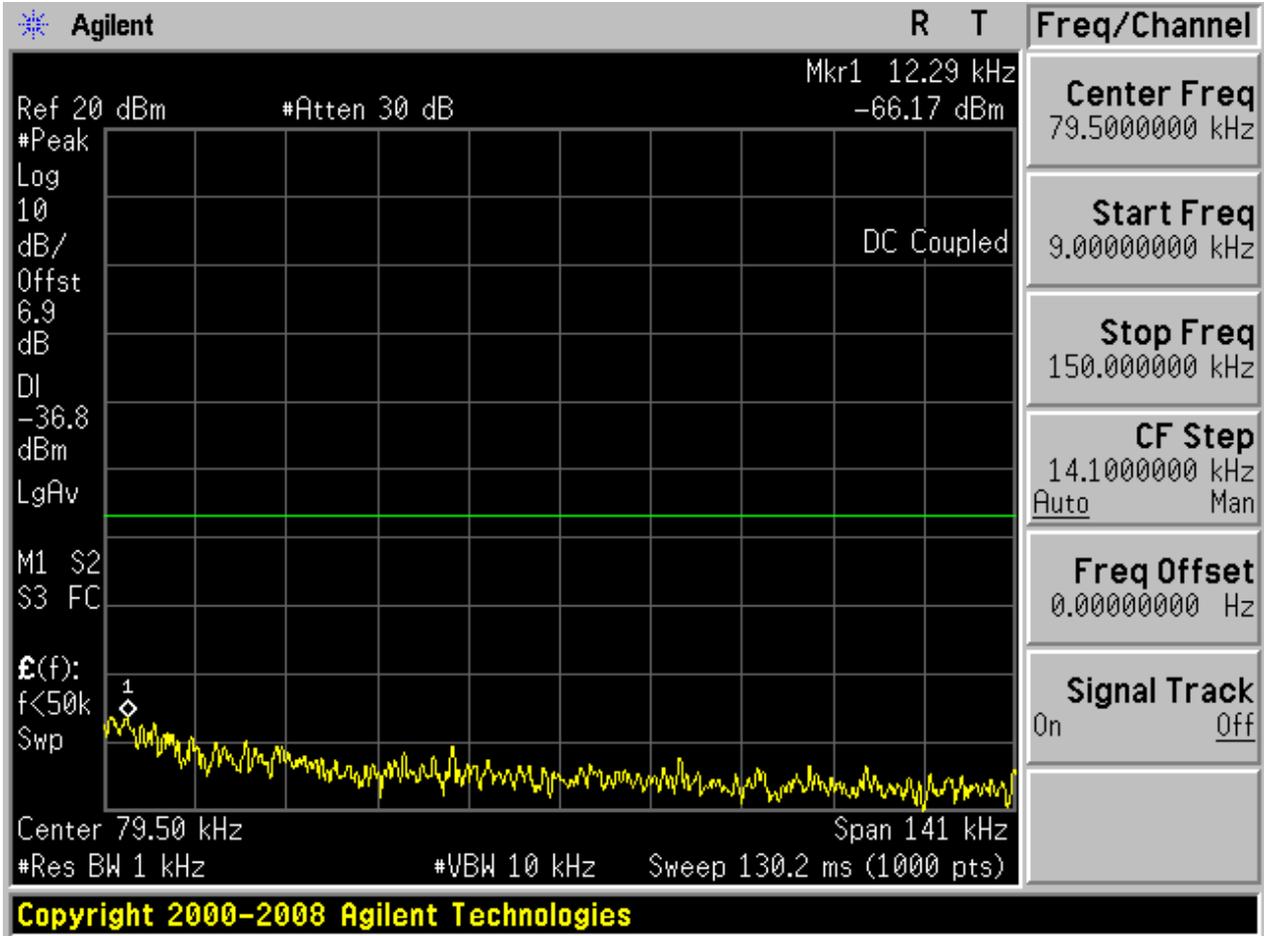
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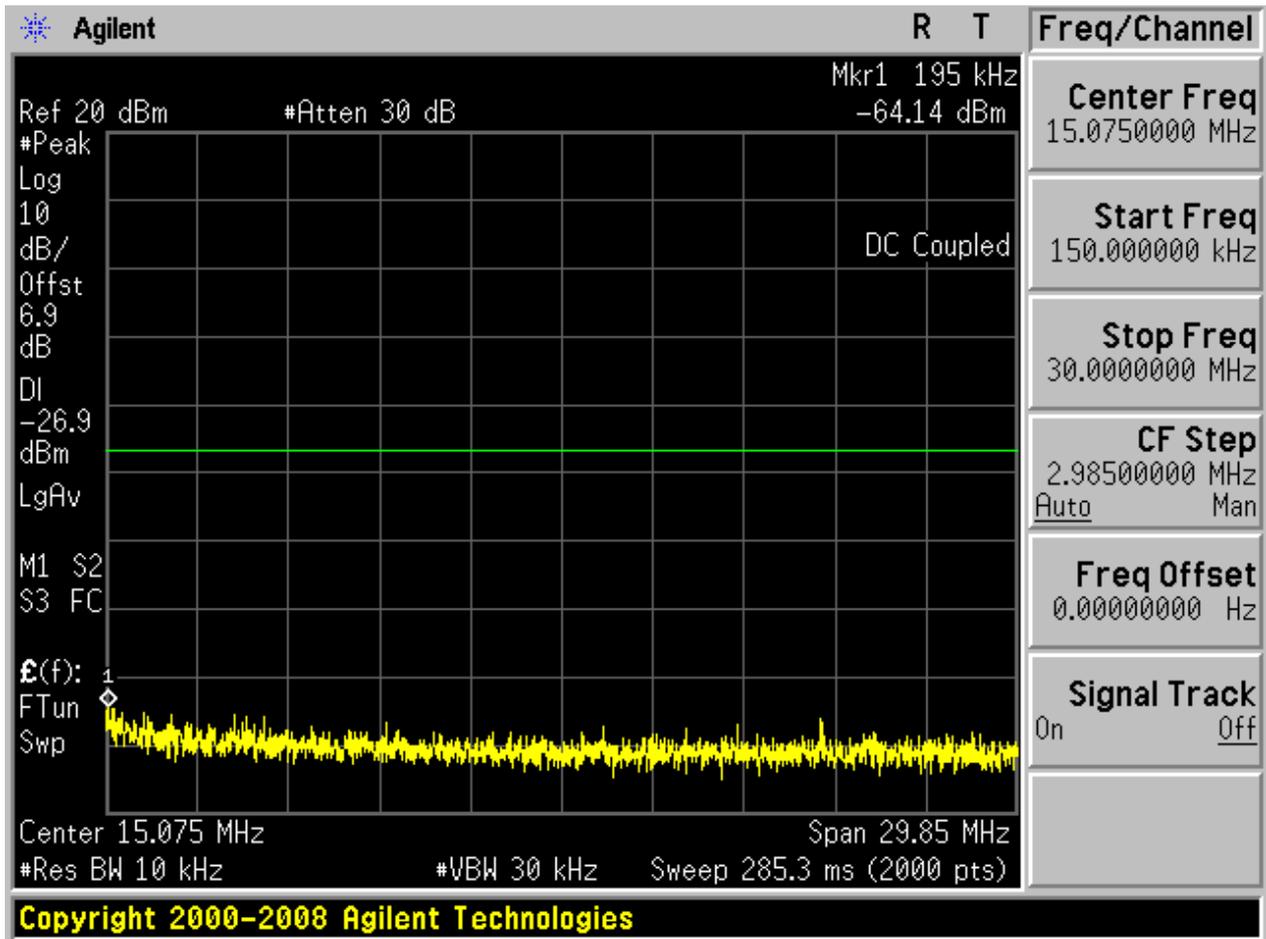
2.4.1 Pref

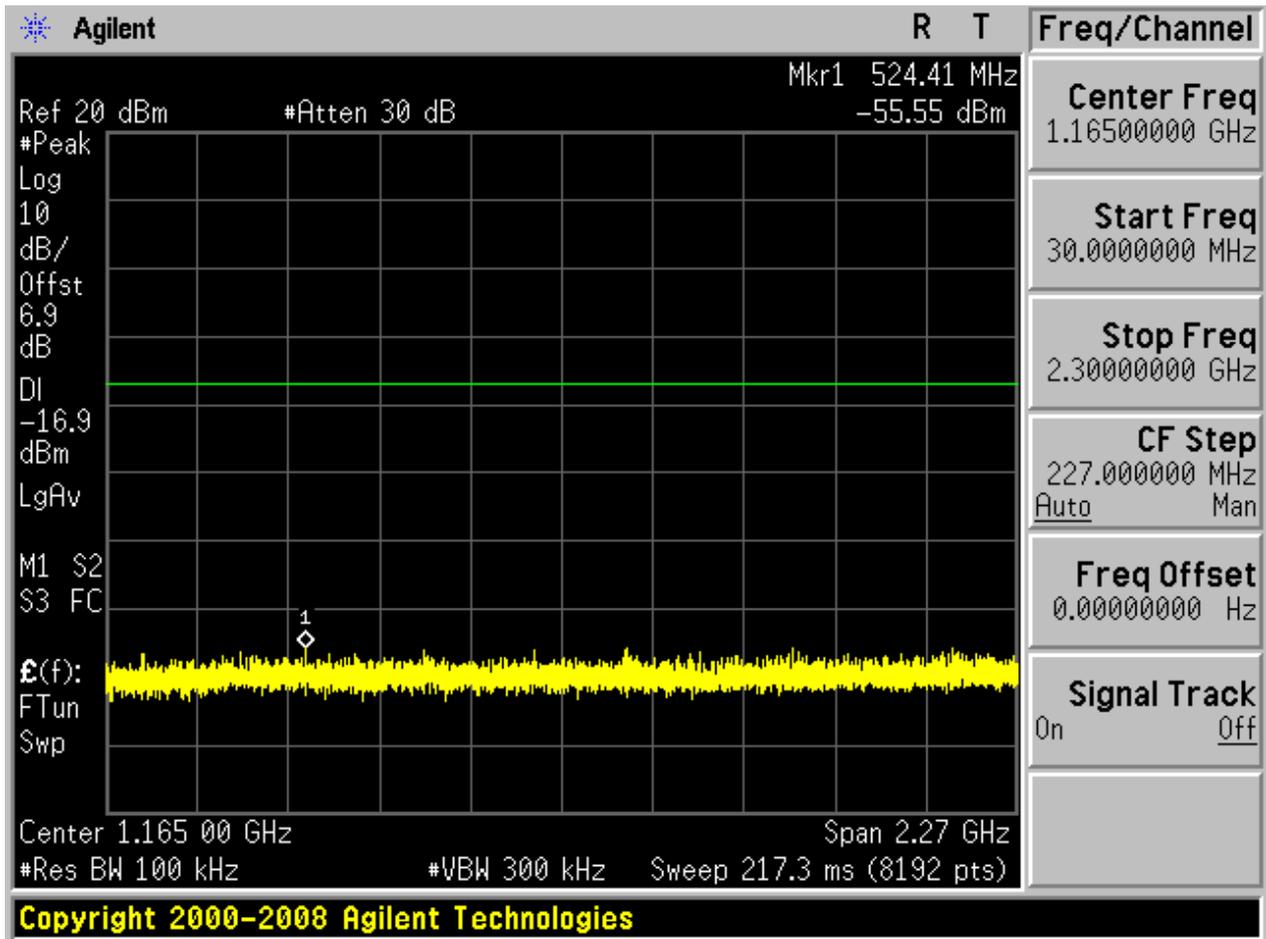


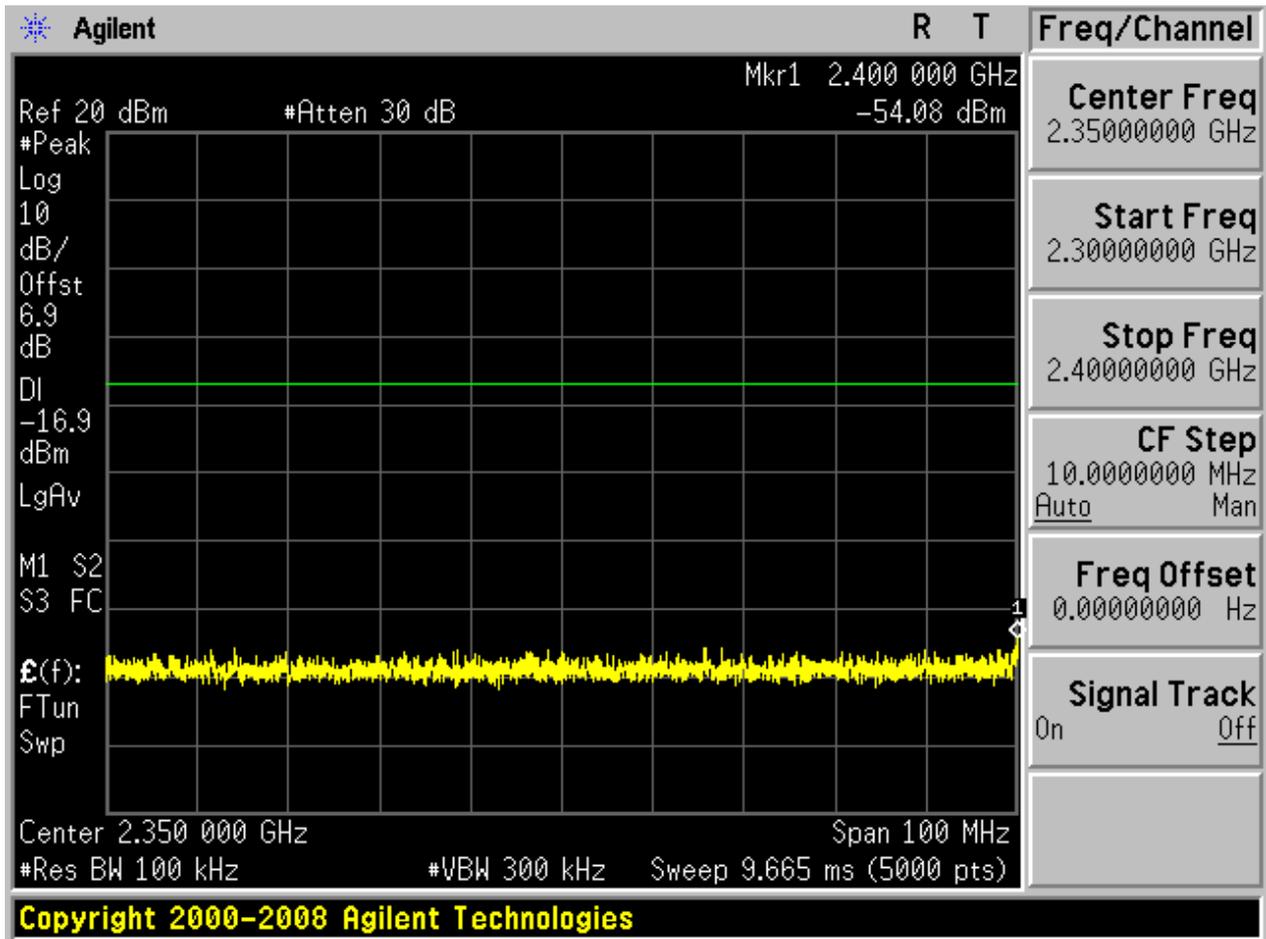


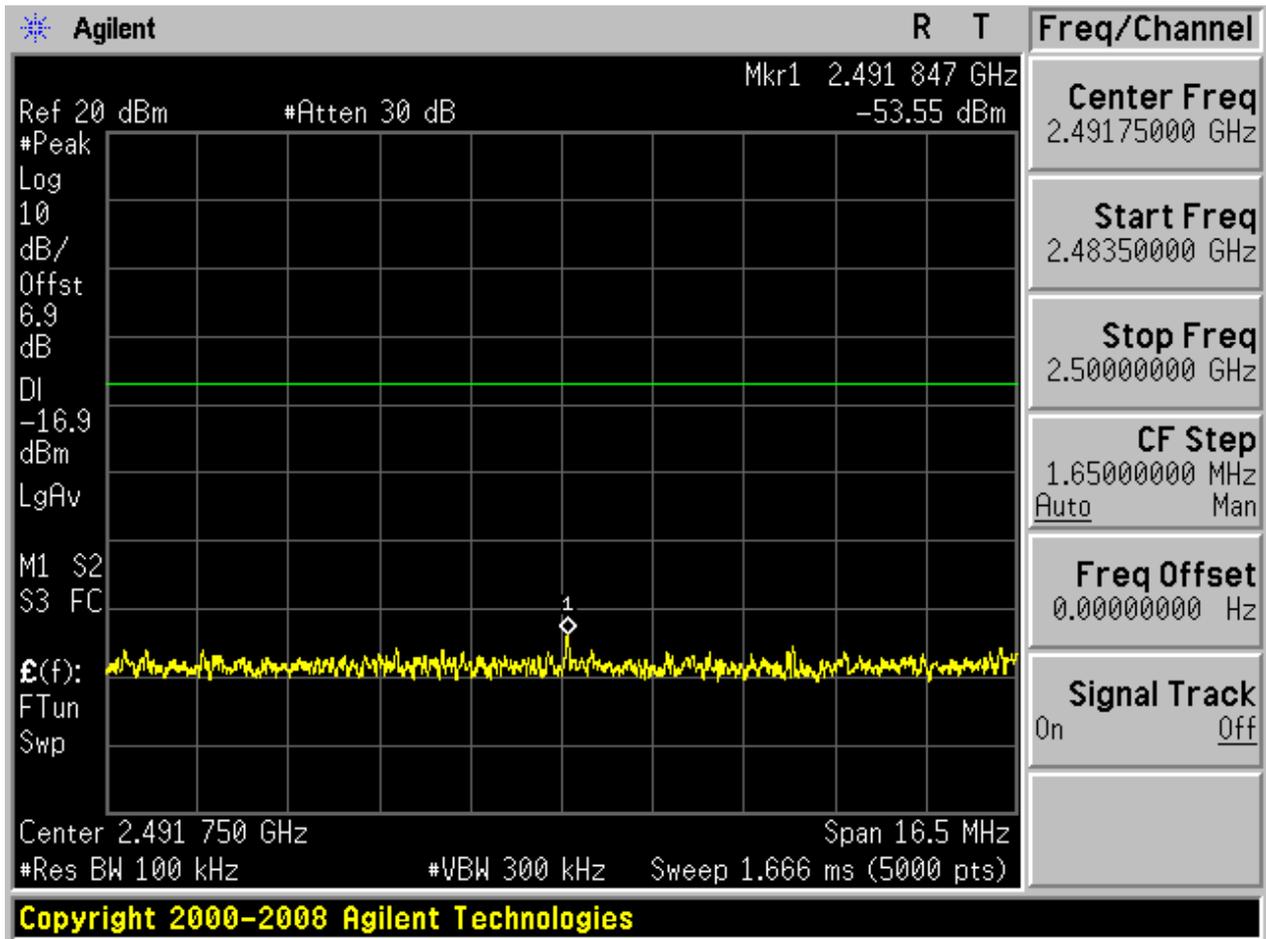
2.4.2 Puw

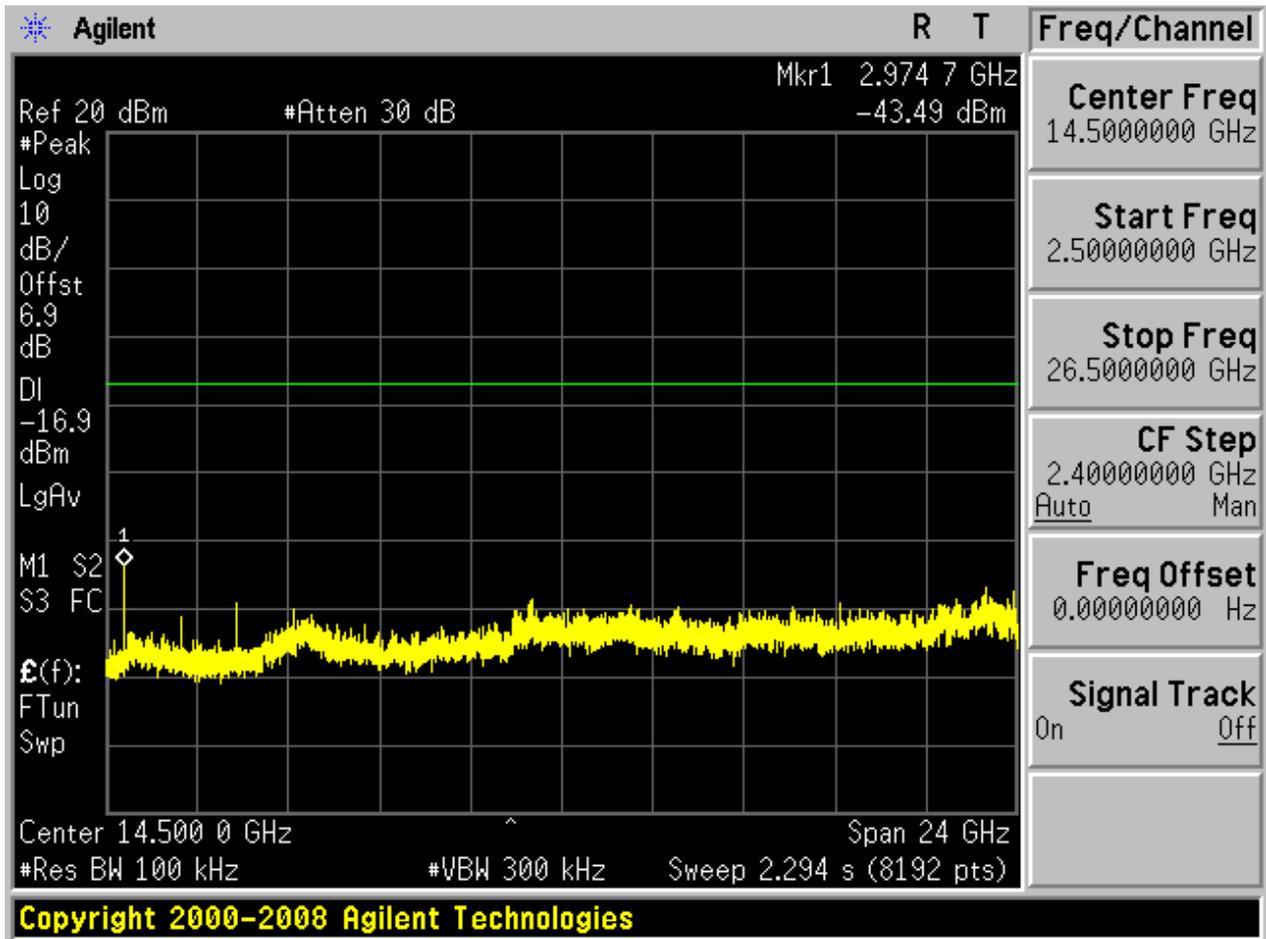








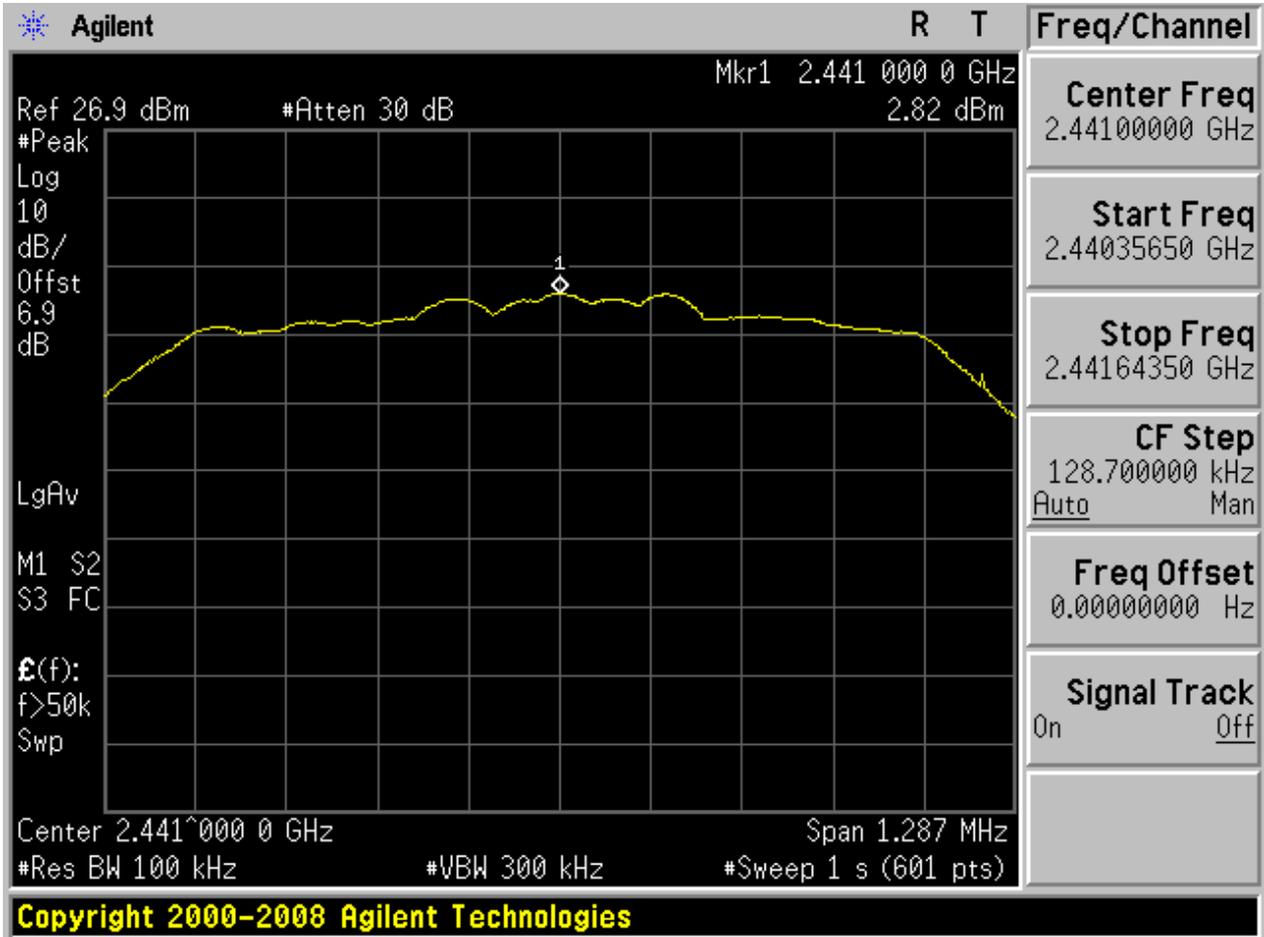






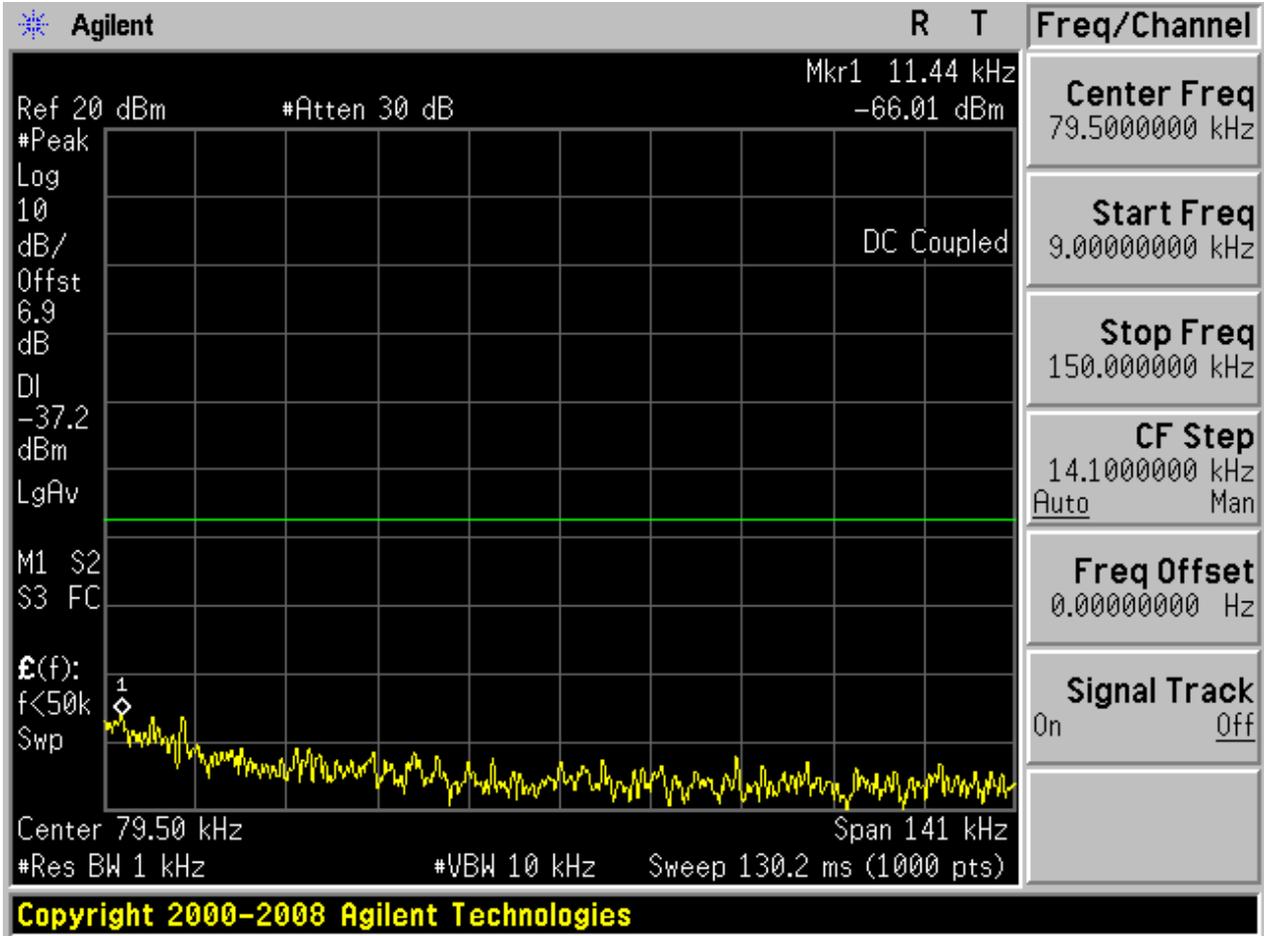
2.5 TM2_2DH5_Ch39

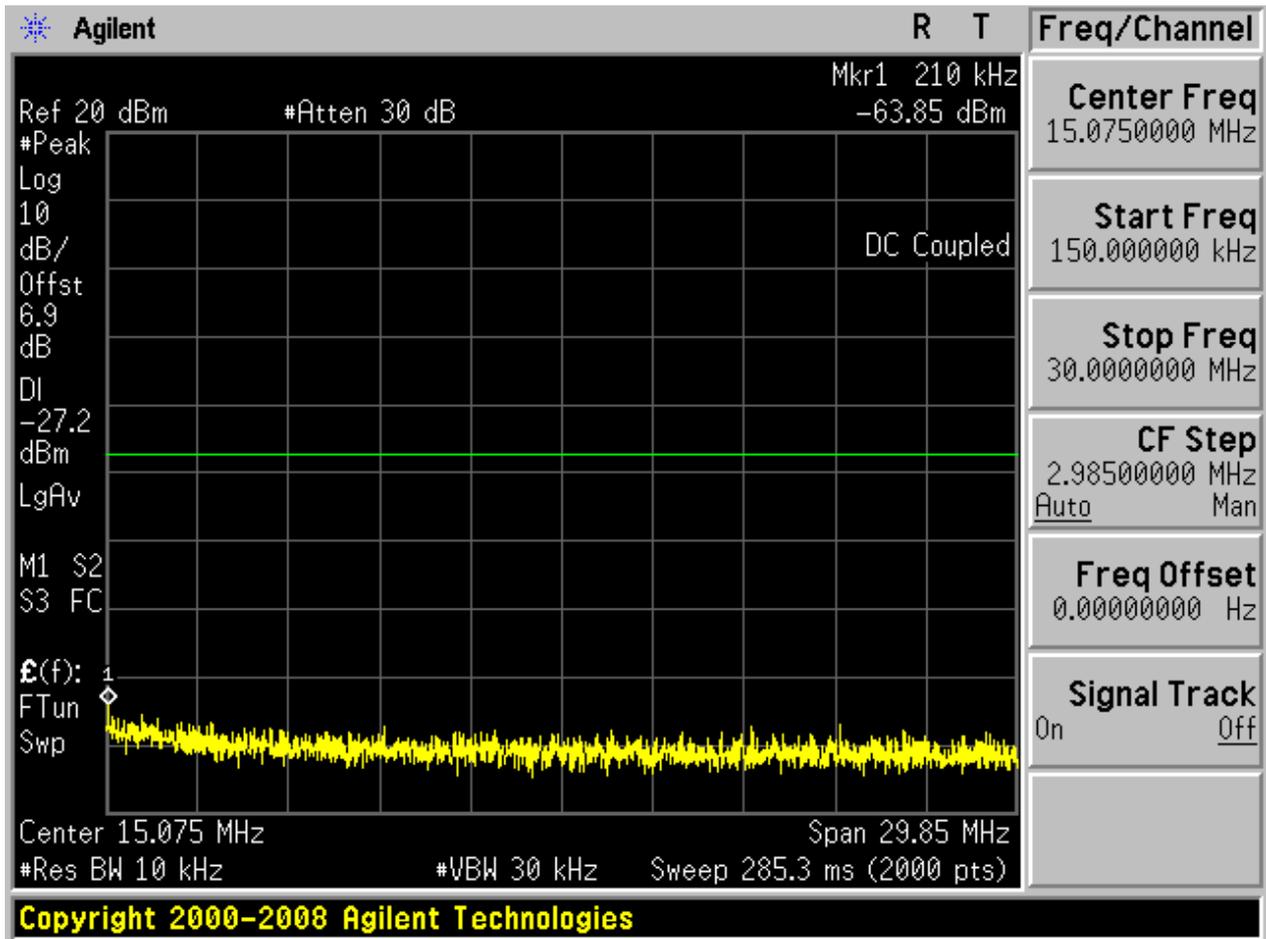
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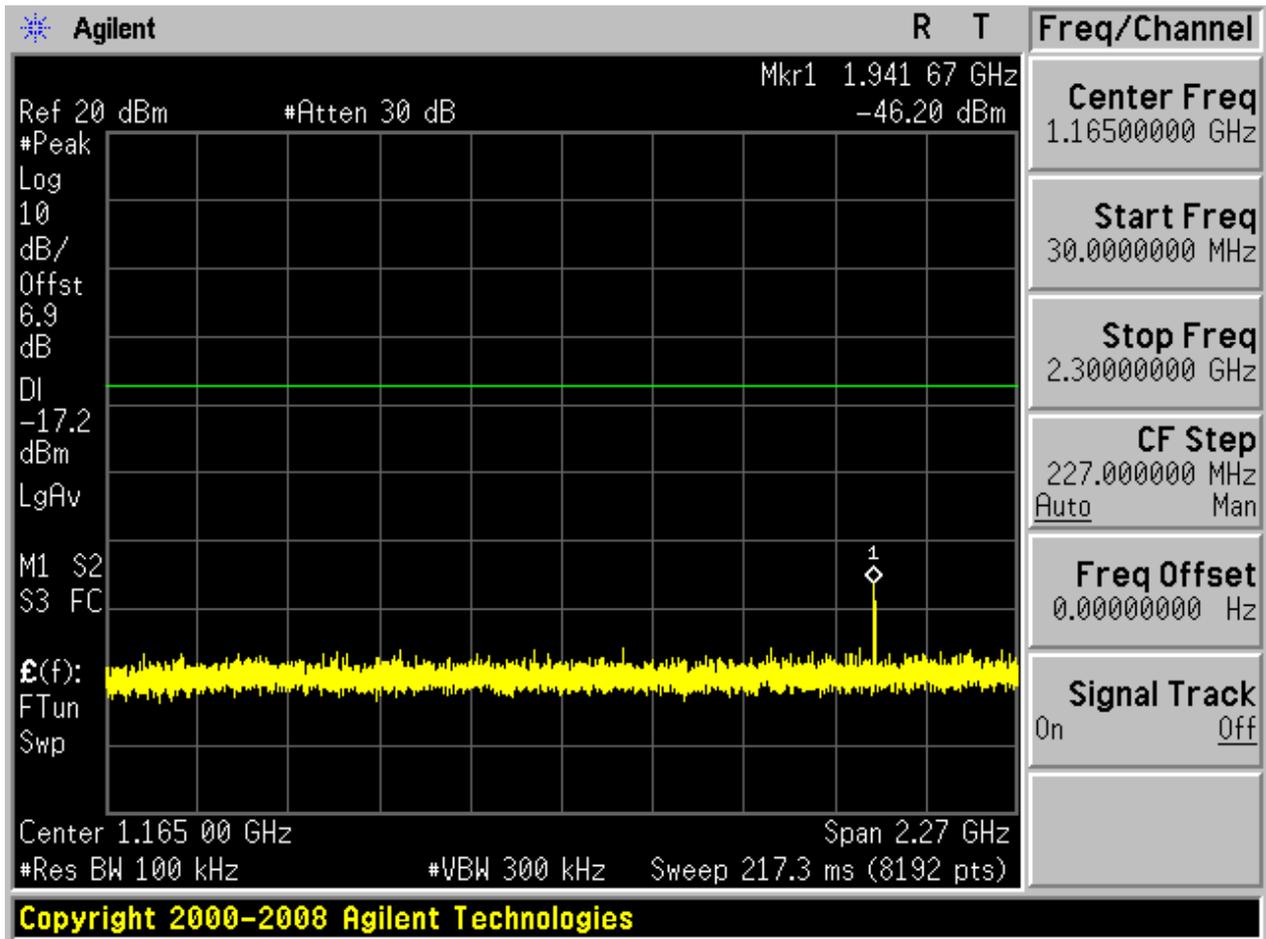


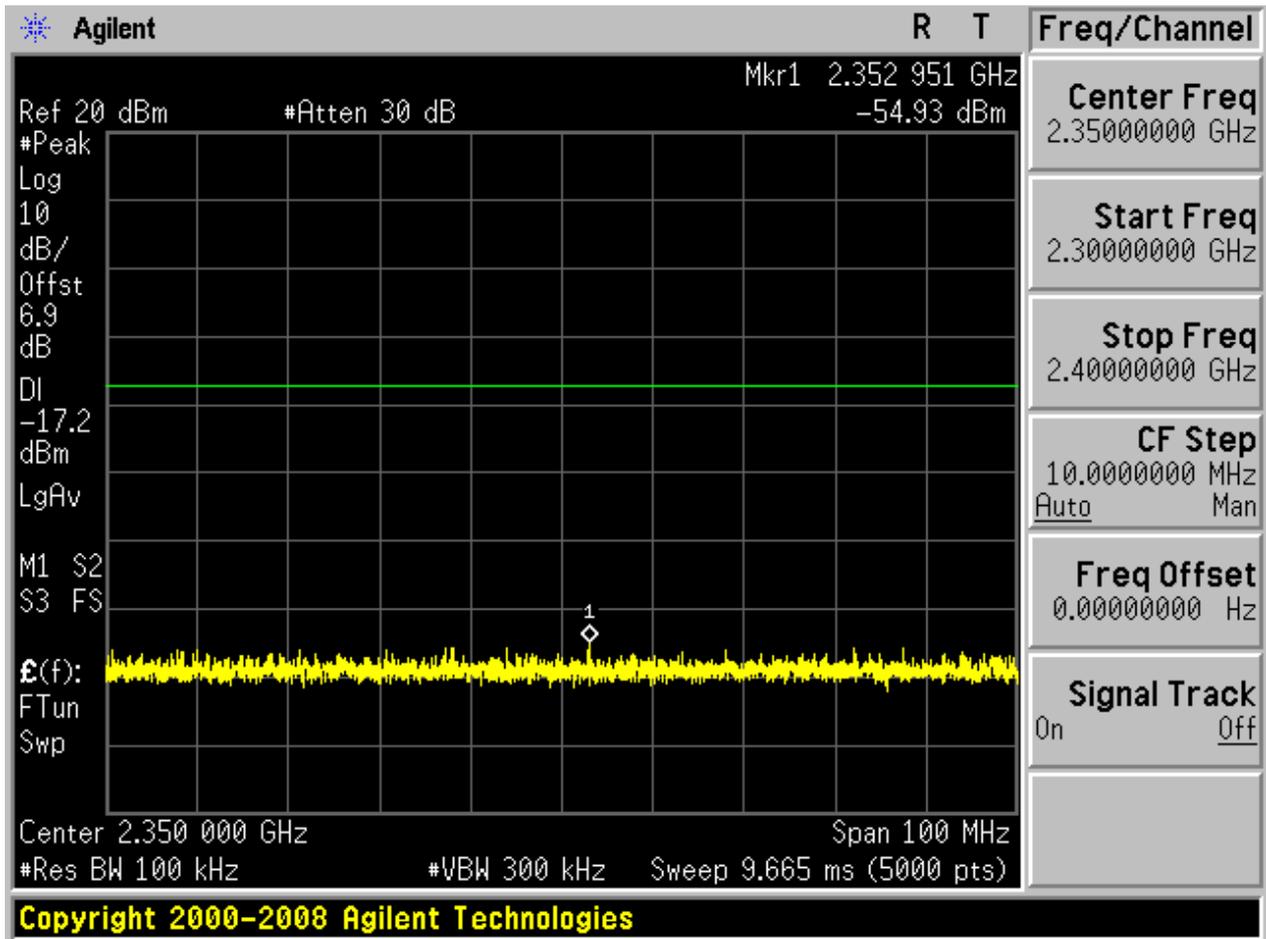


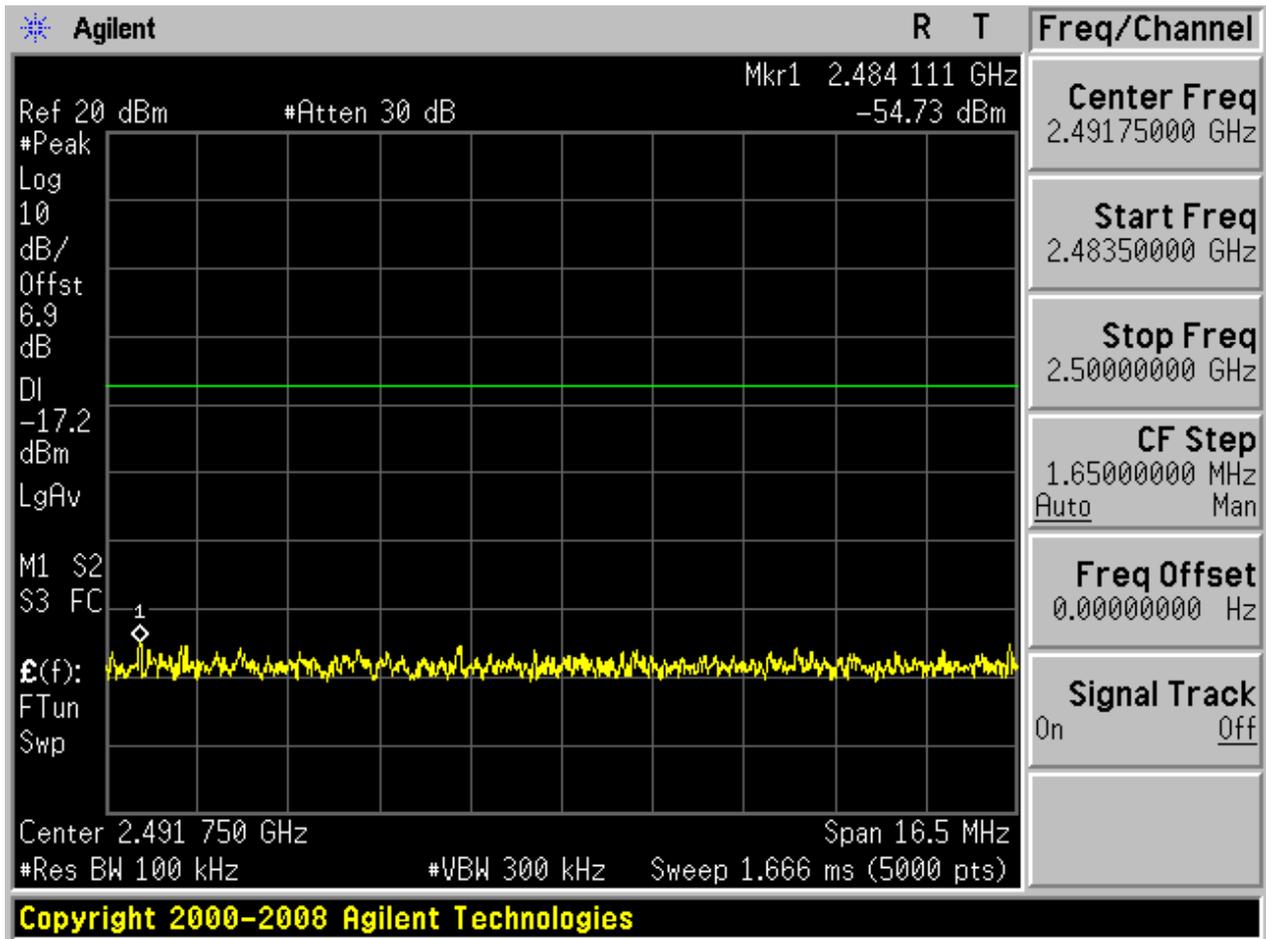
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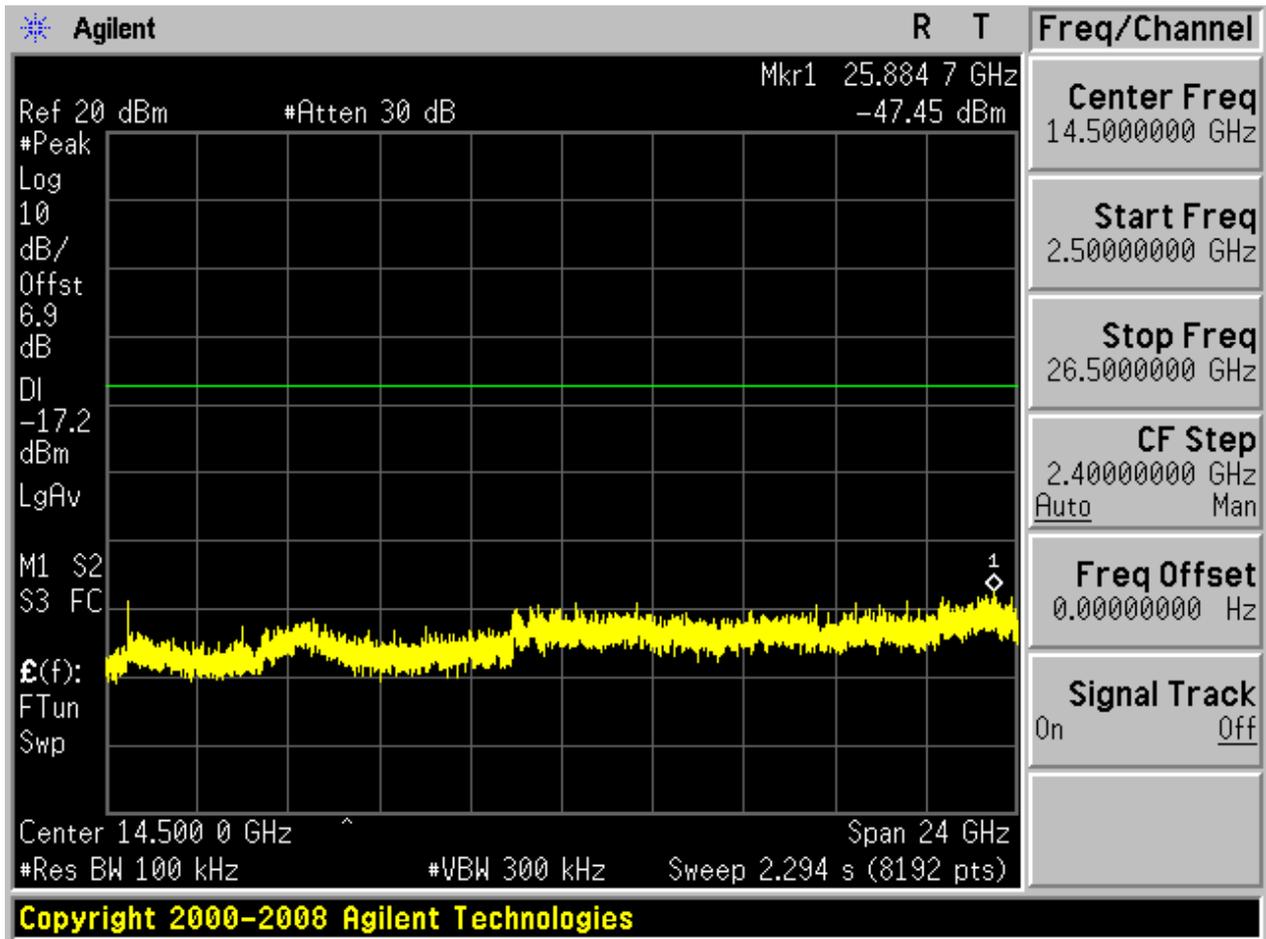








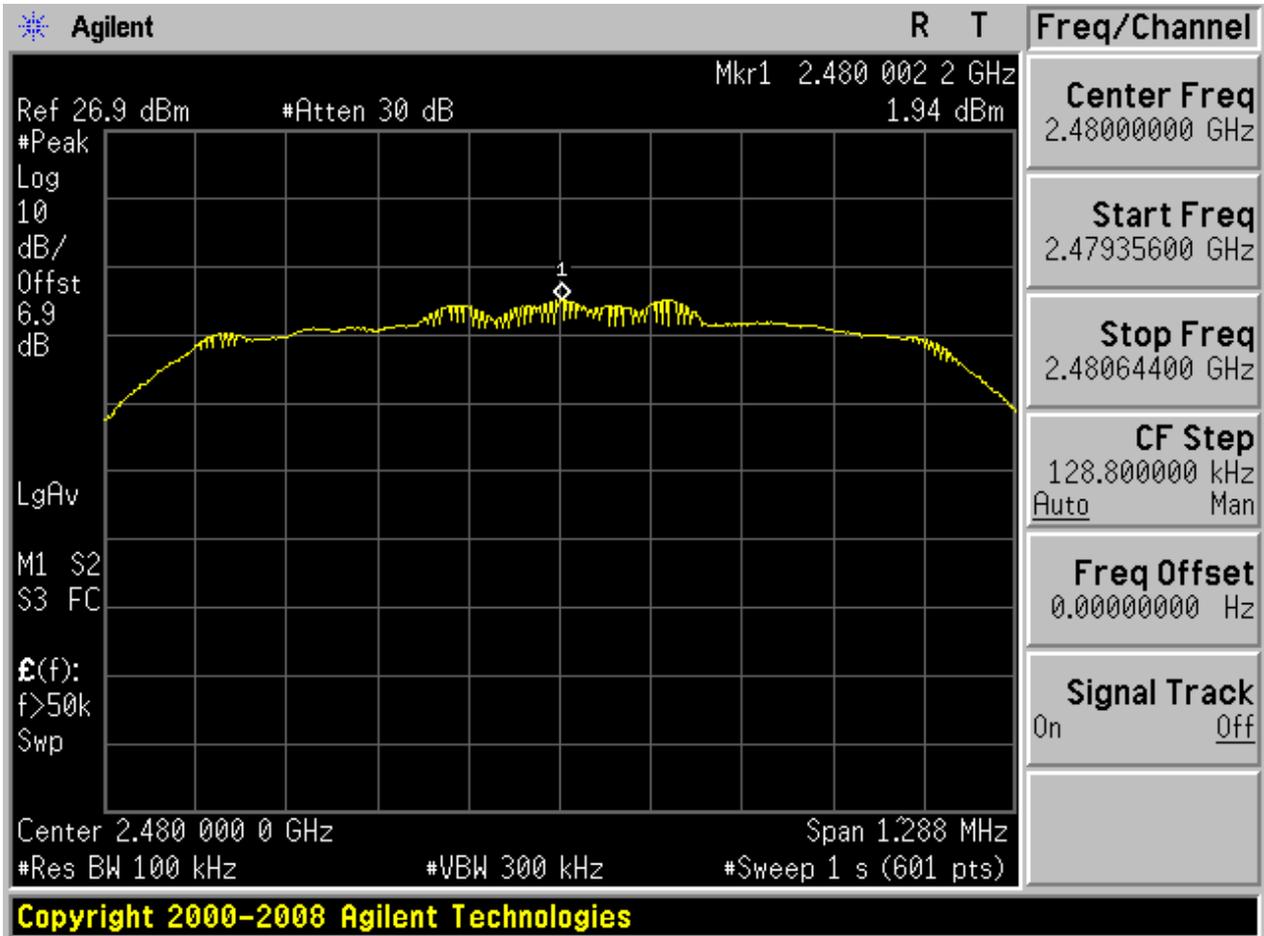






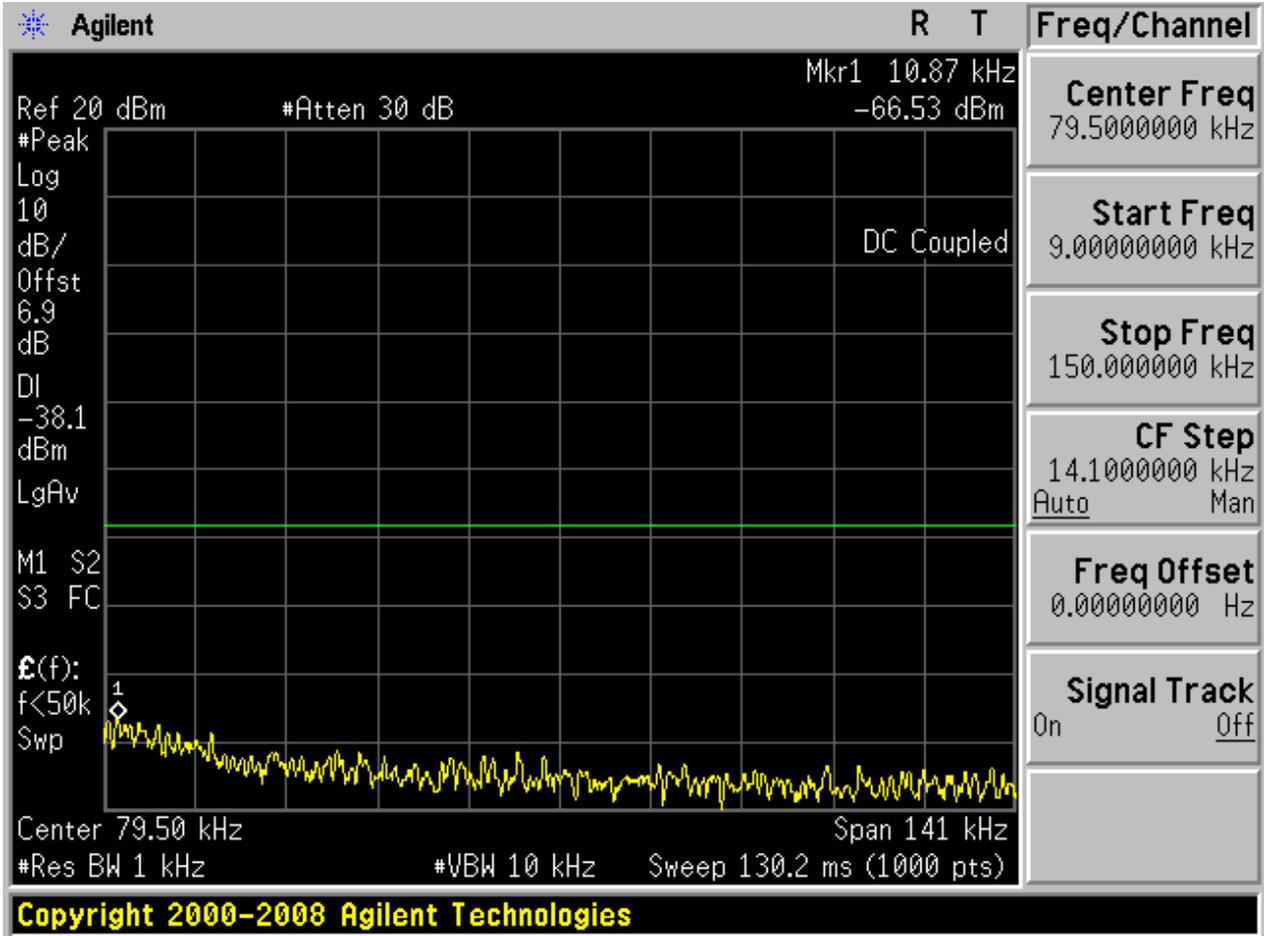
2.6 TM2_2DH5_Ch78

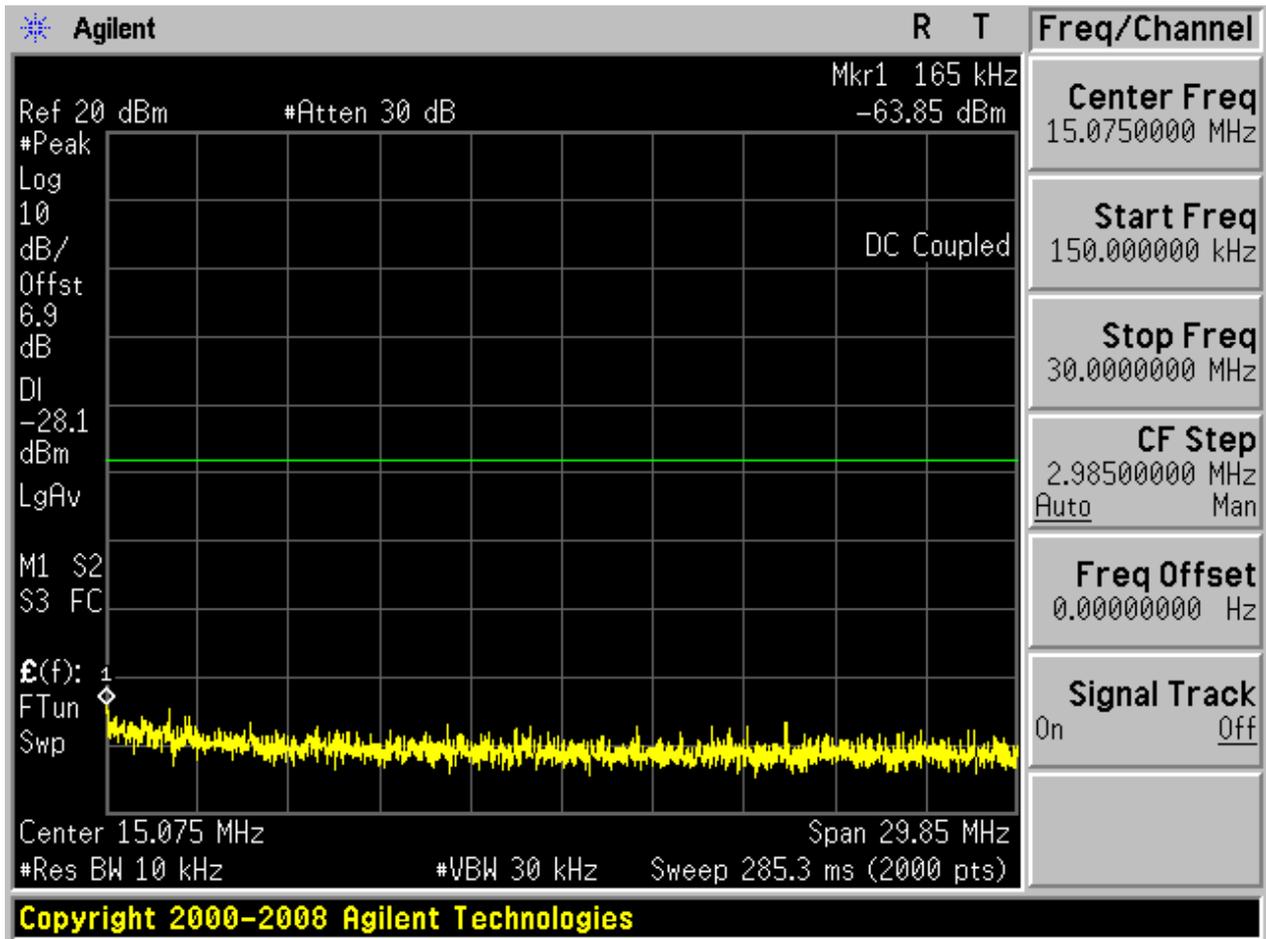
2.6.1 Pref

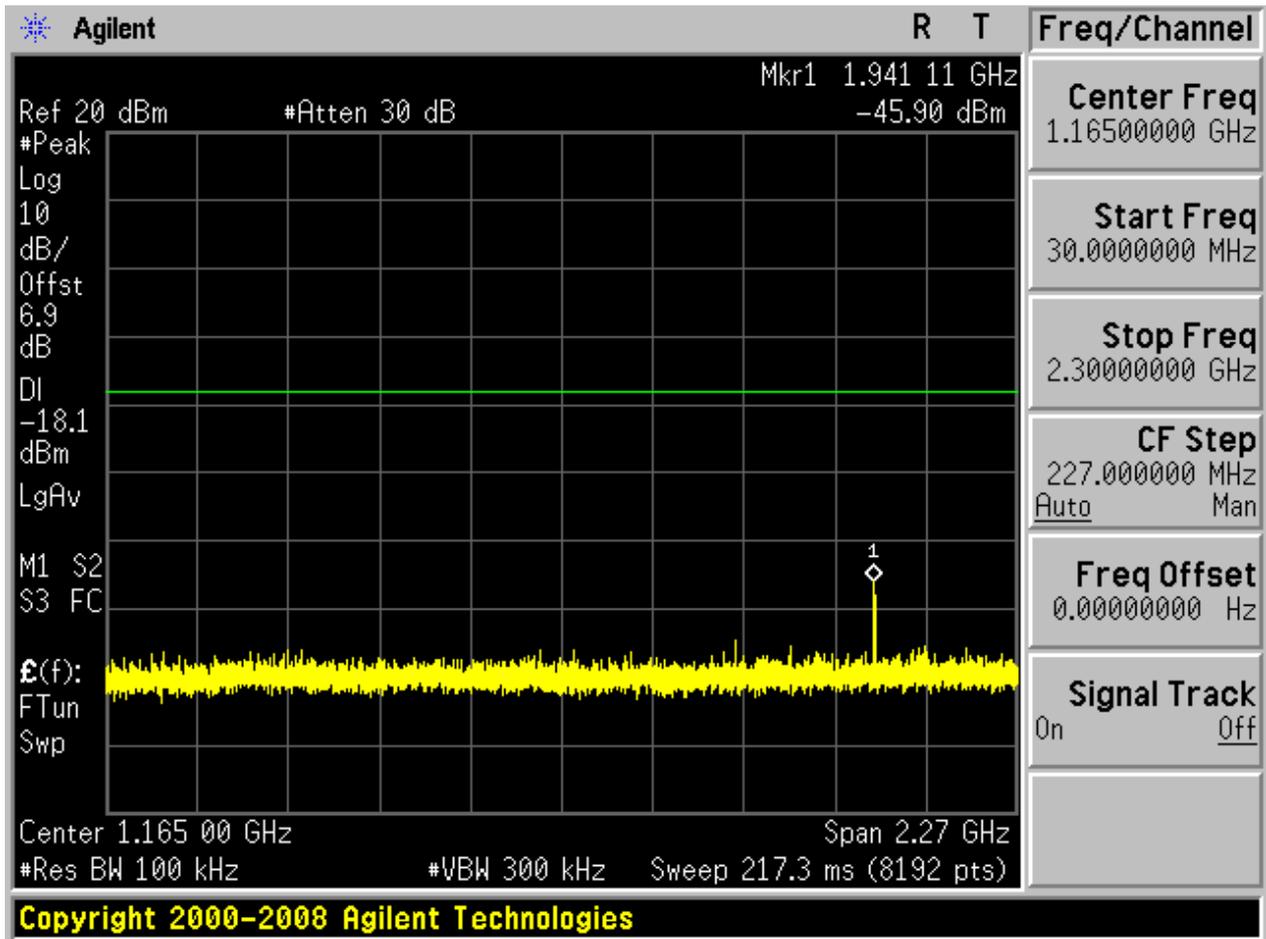


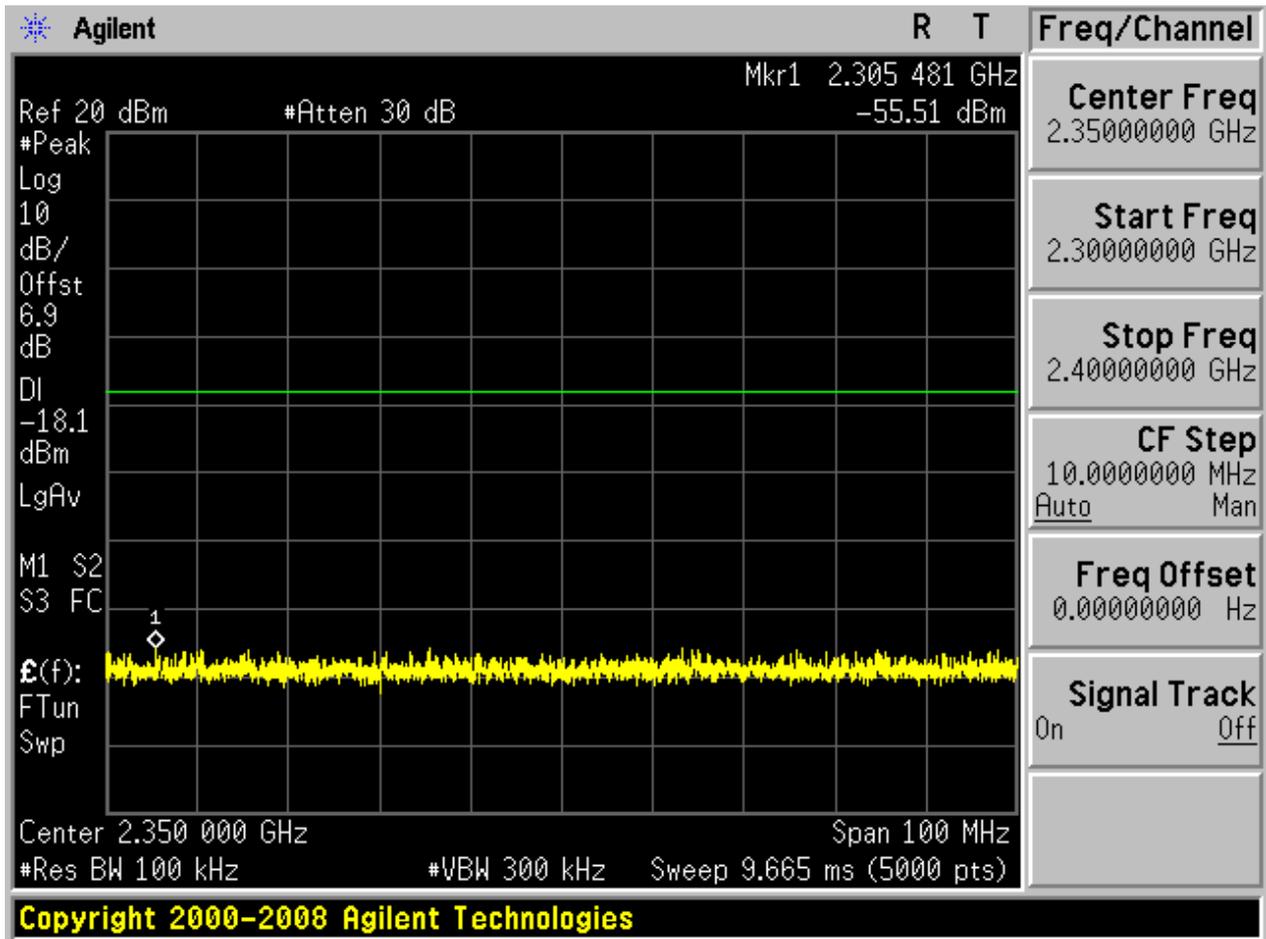


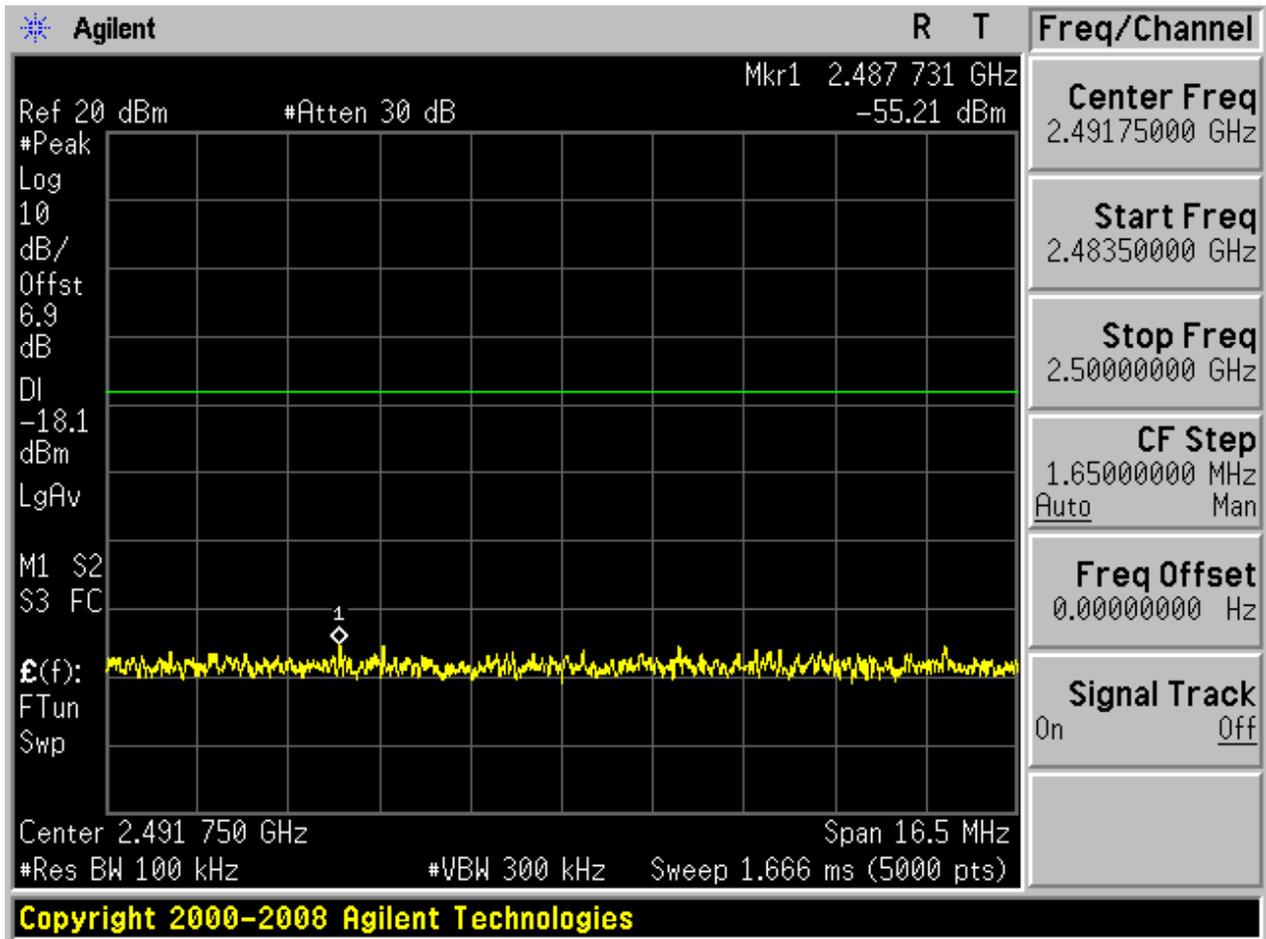
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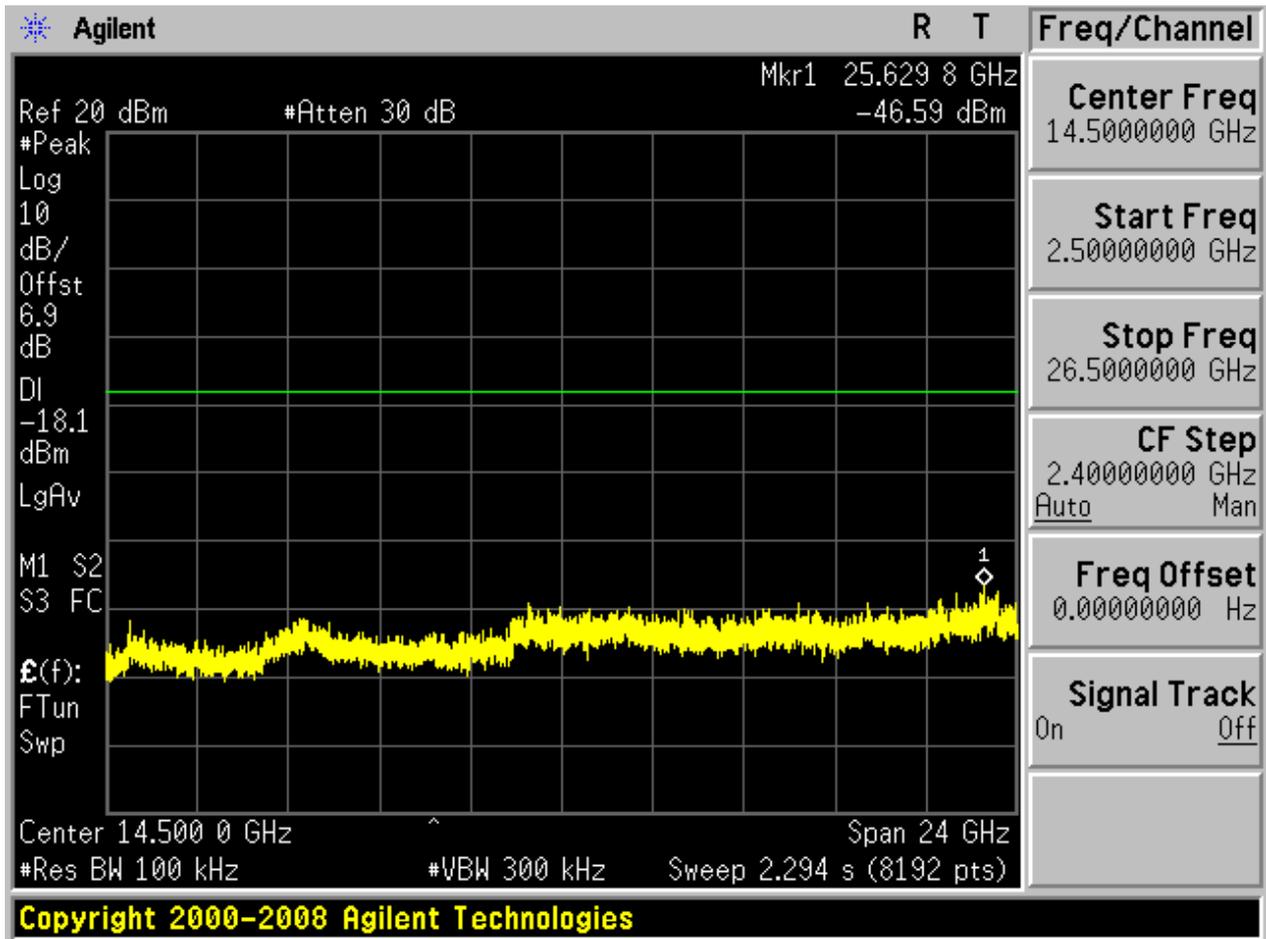








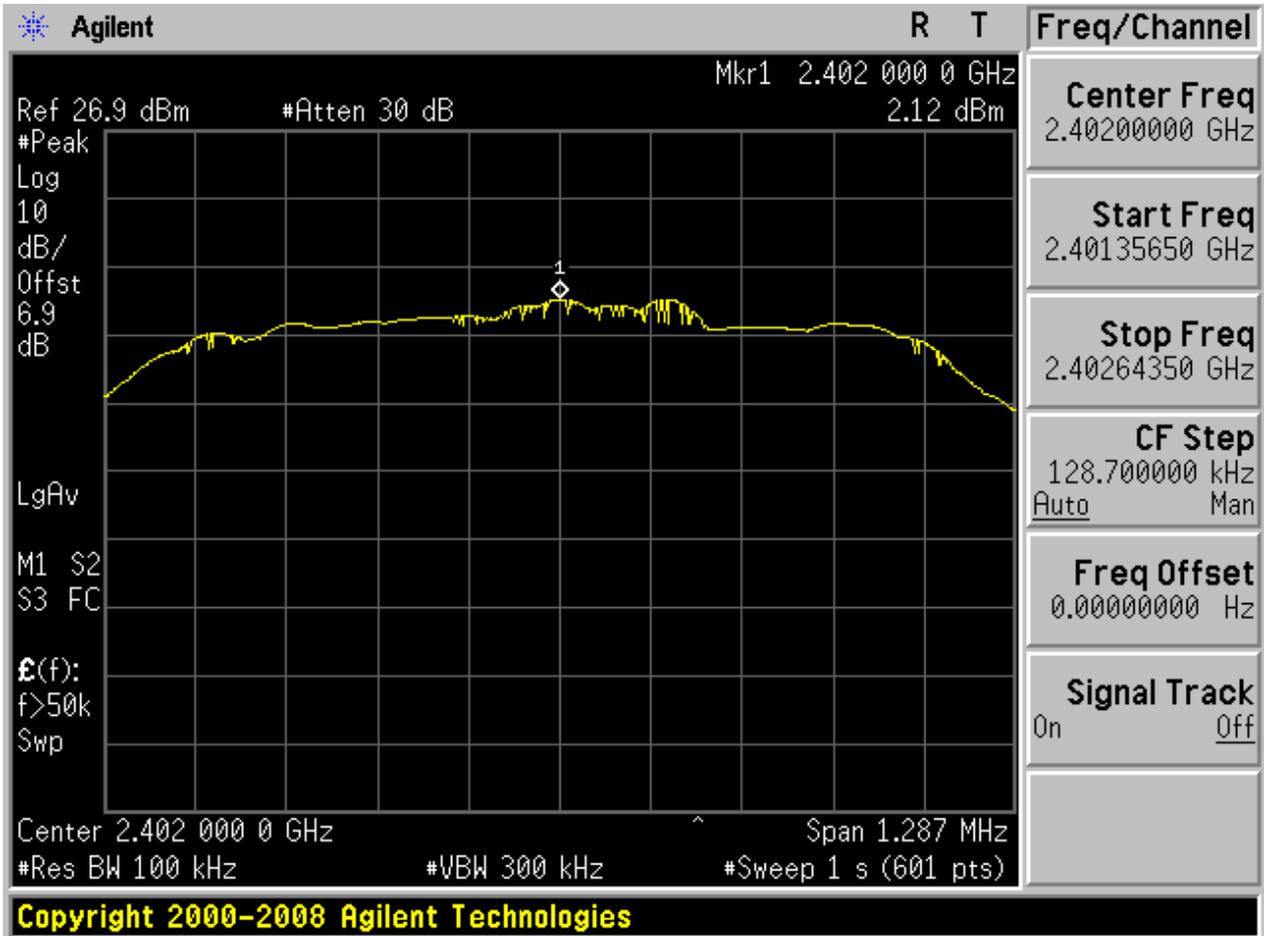




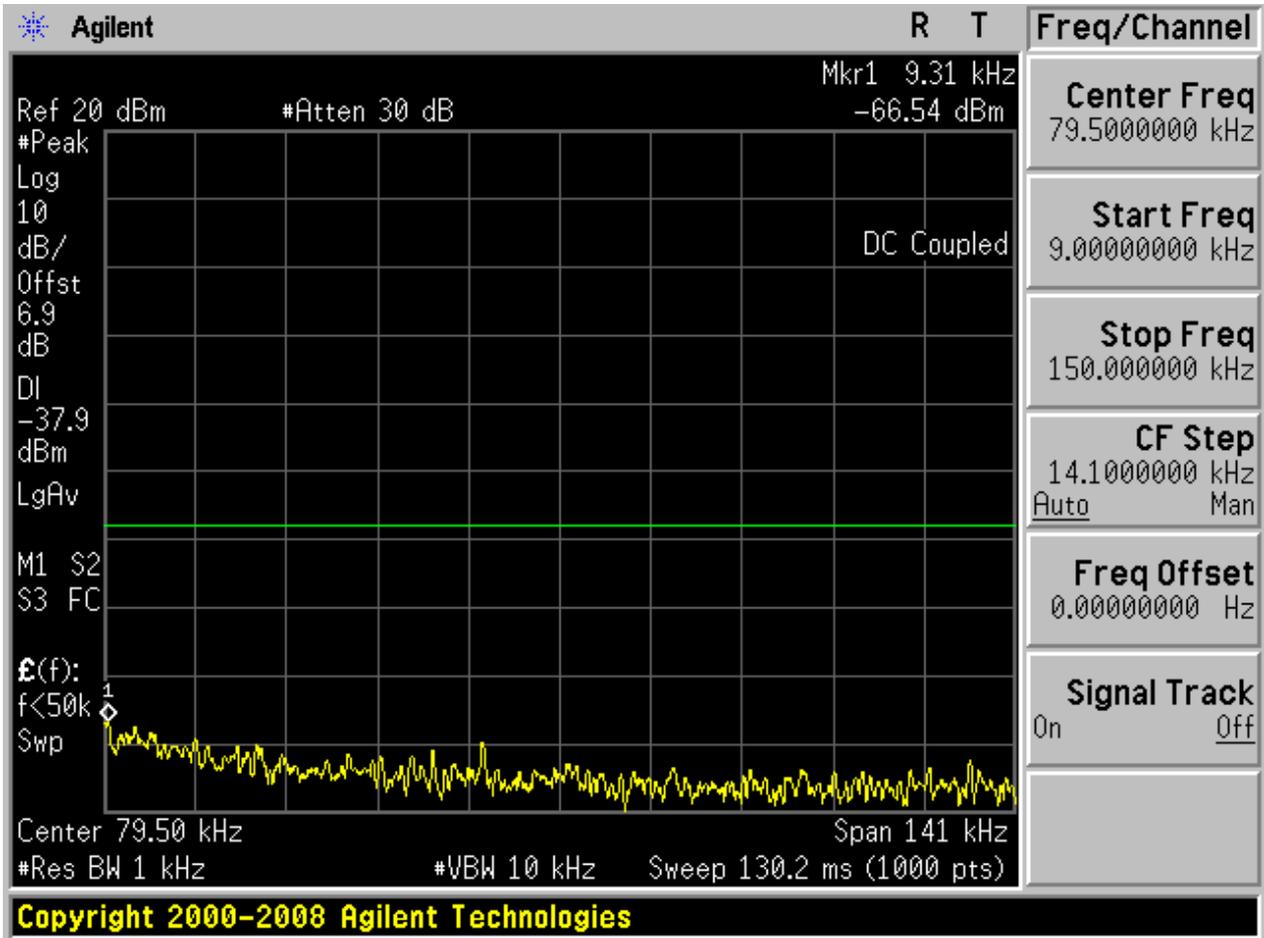


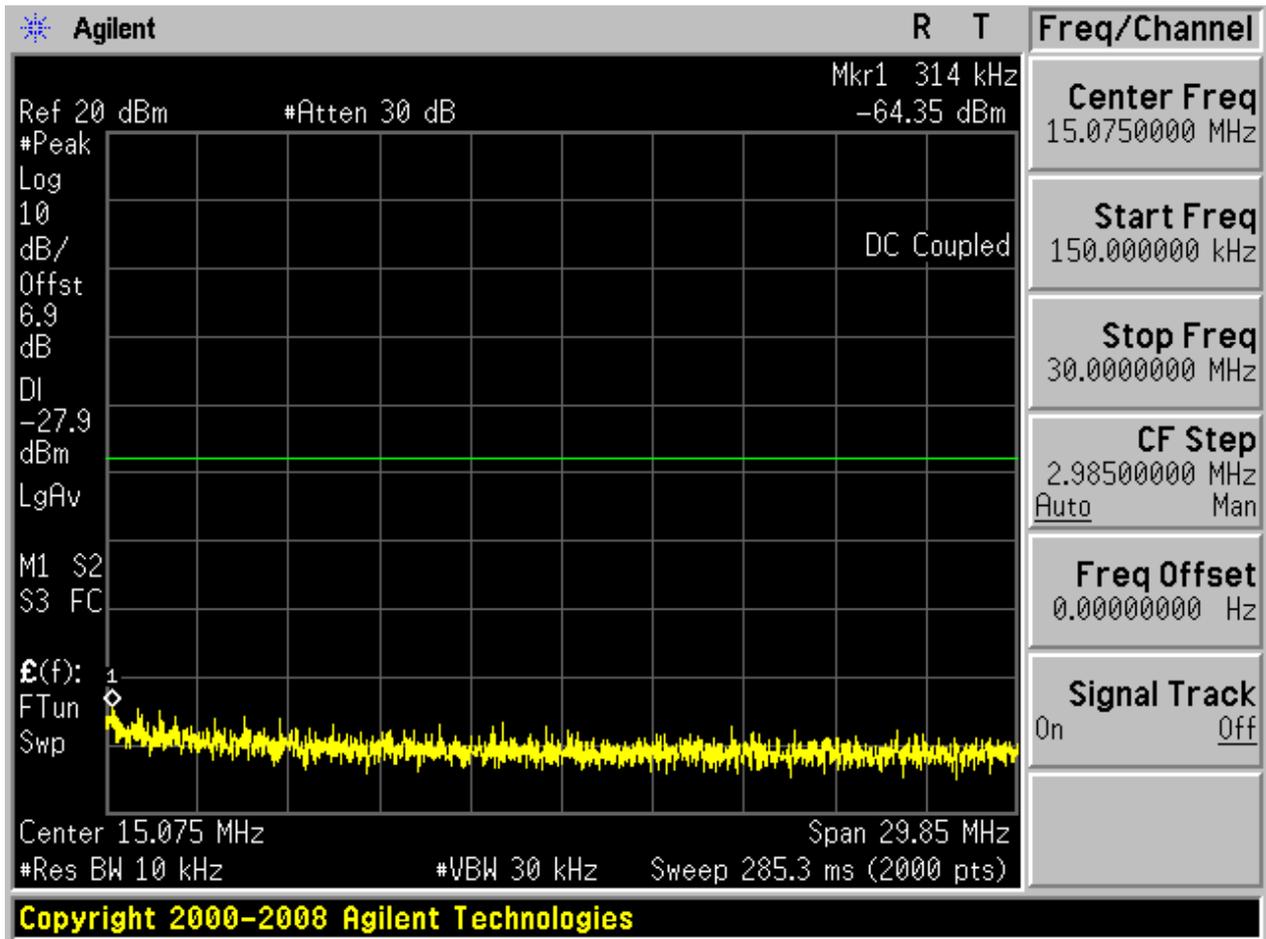
2.7 TM3_3DH5_Ch0

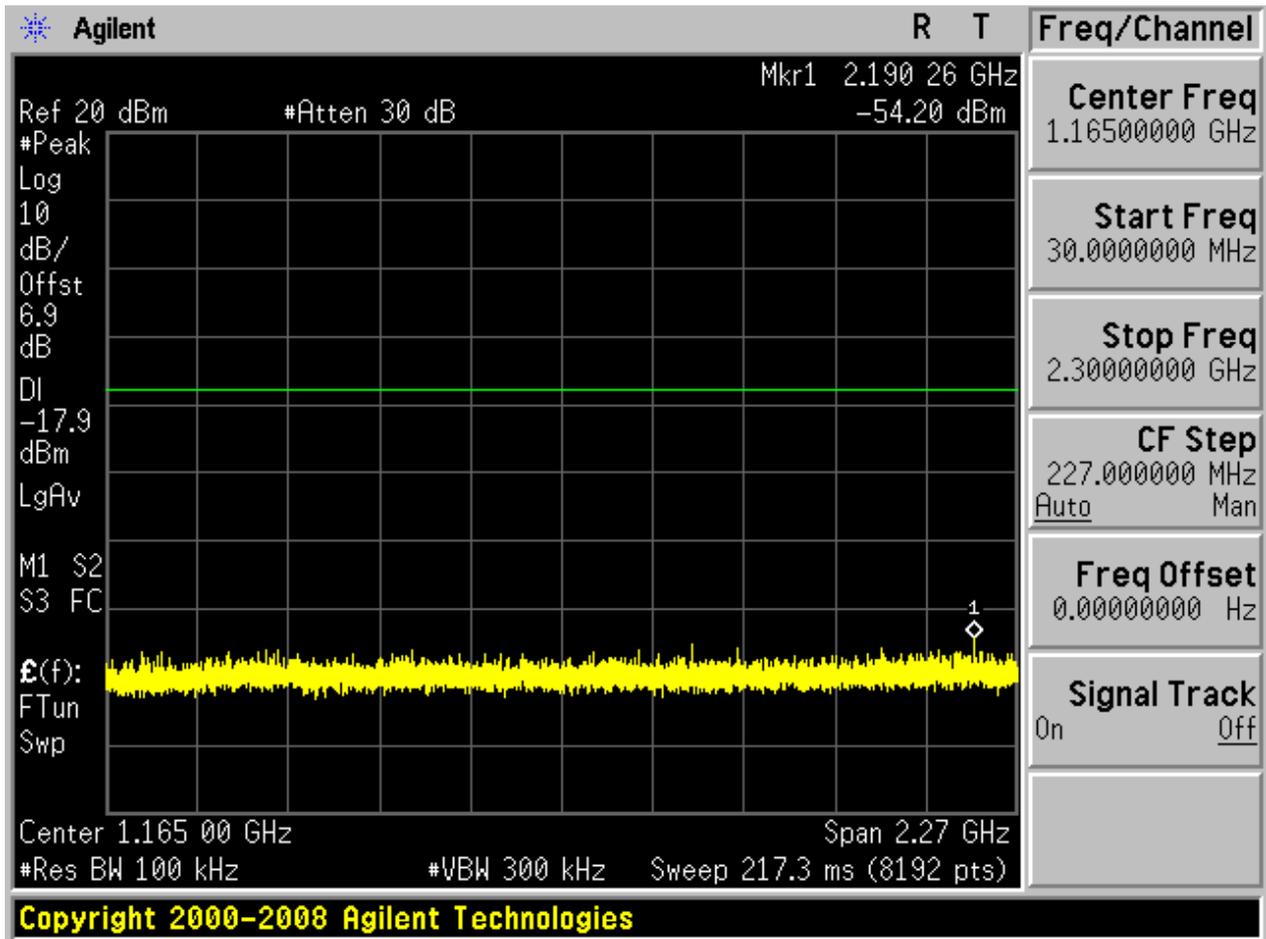
2.7.1 Pref

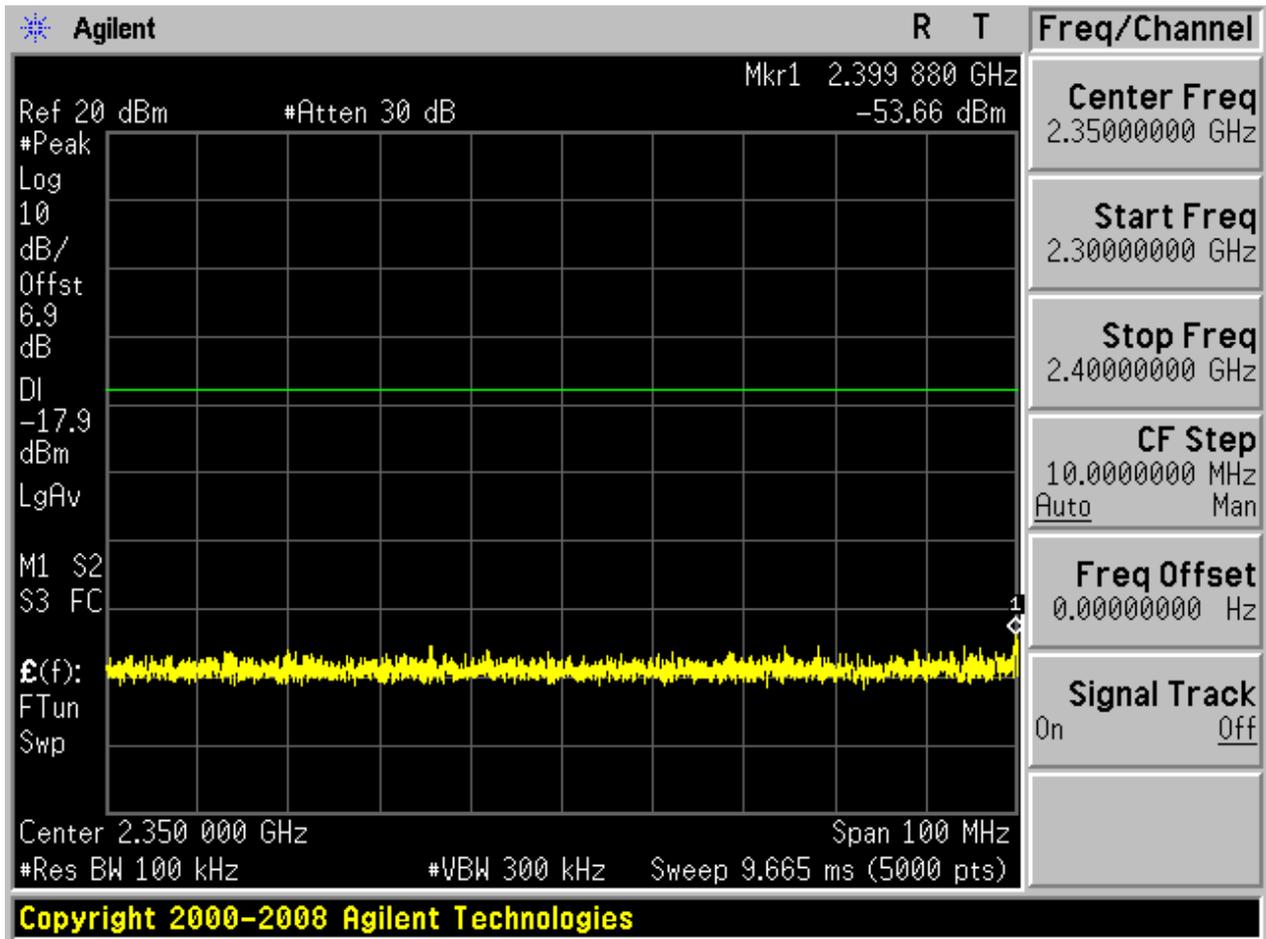


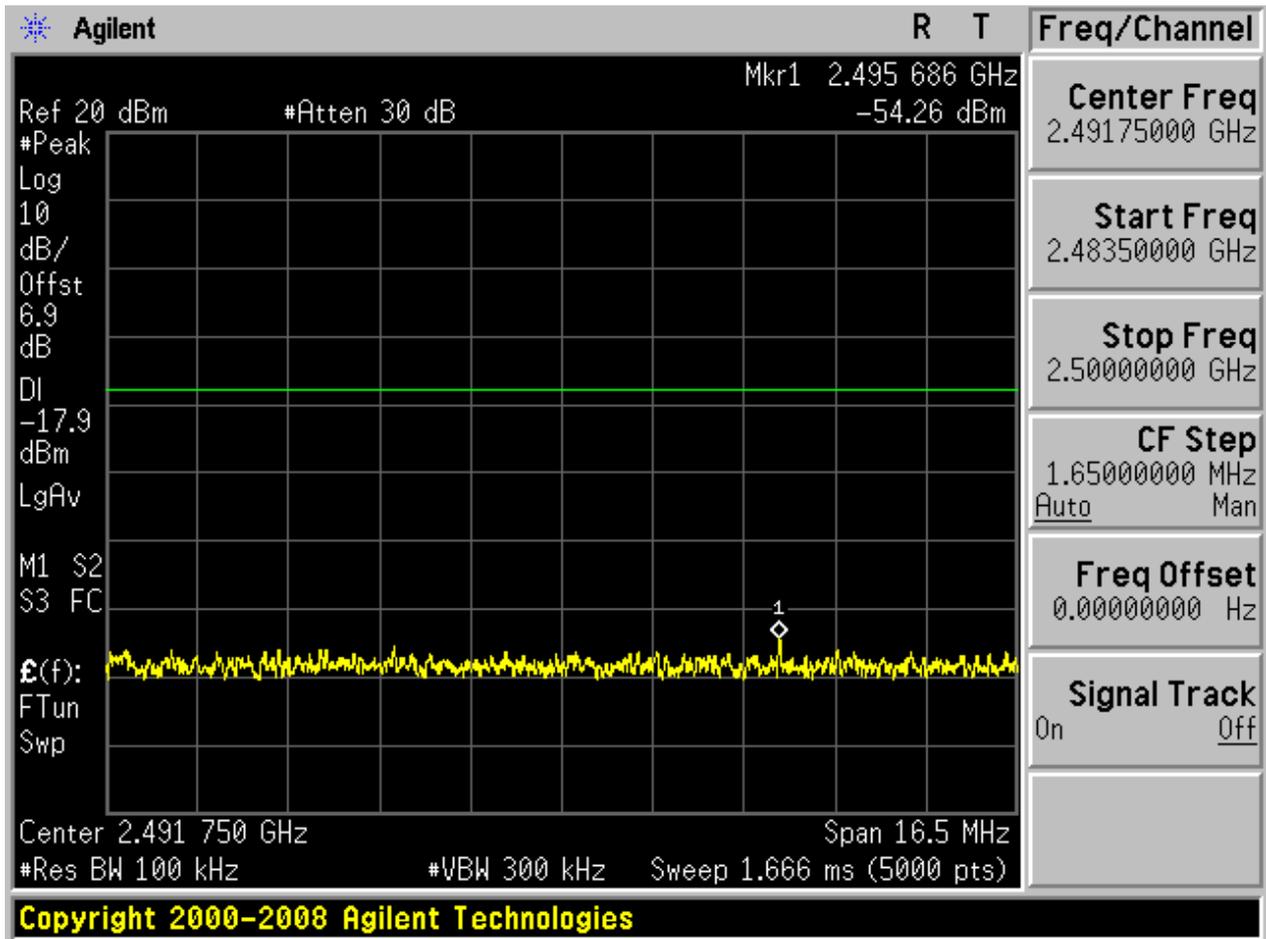
2.7.2 Puw

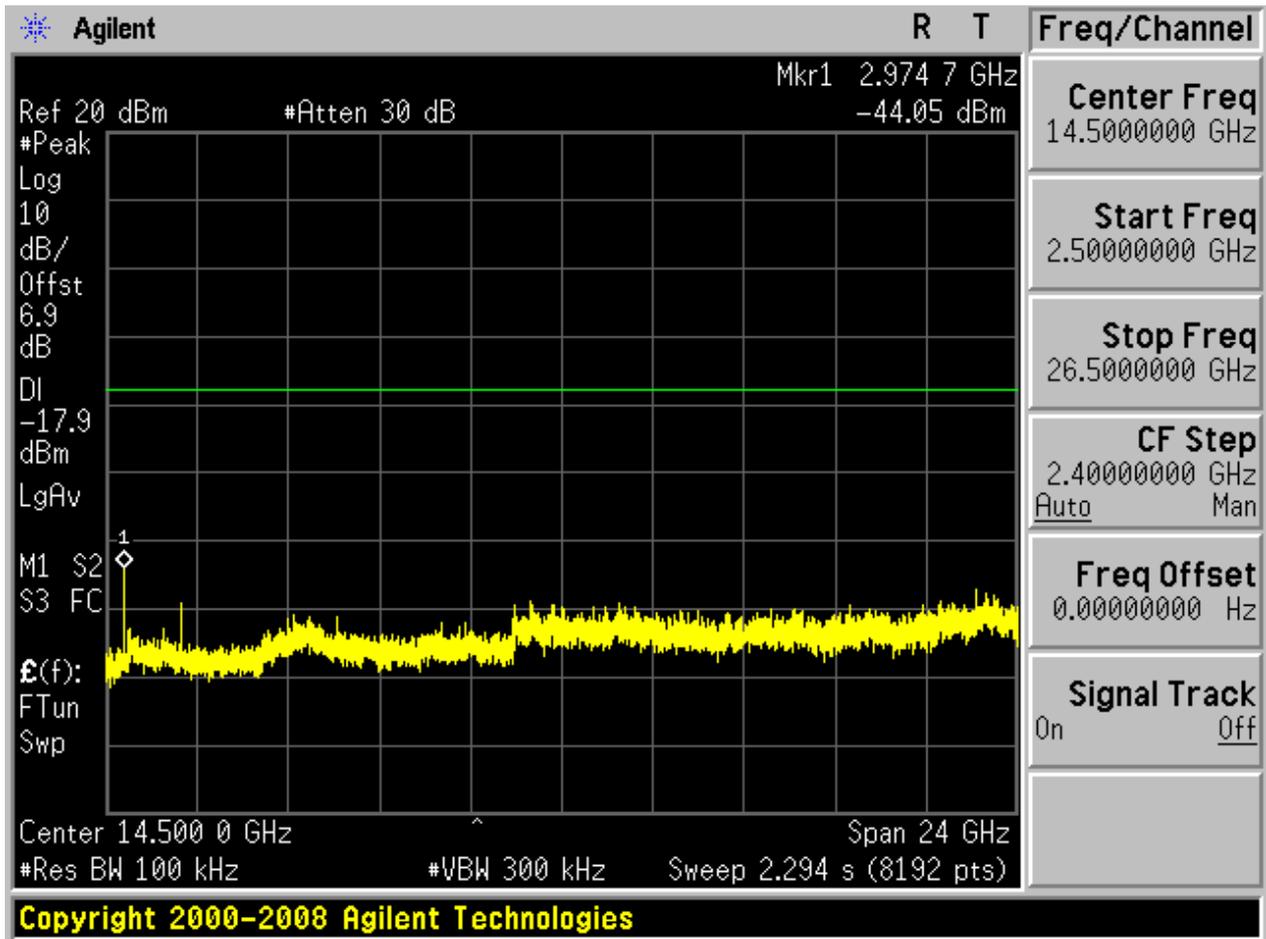








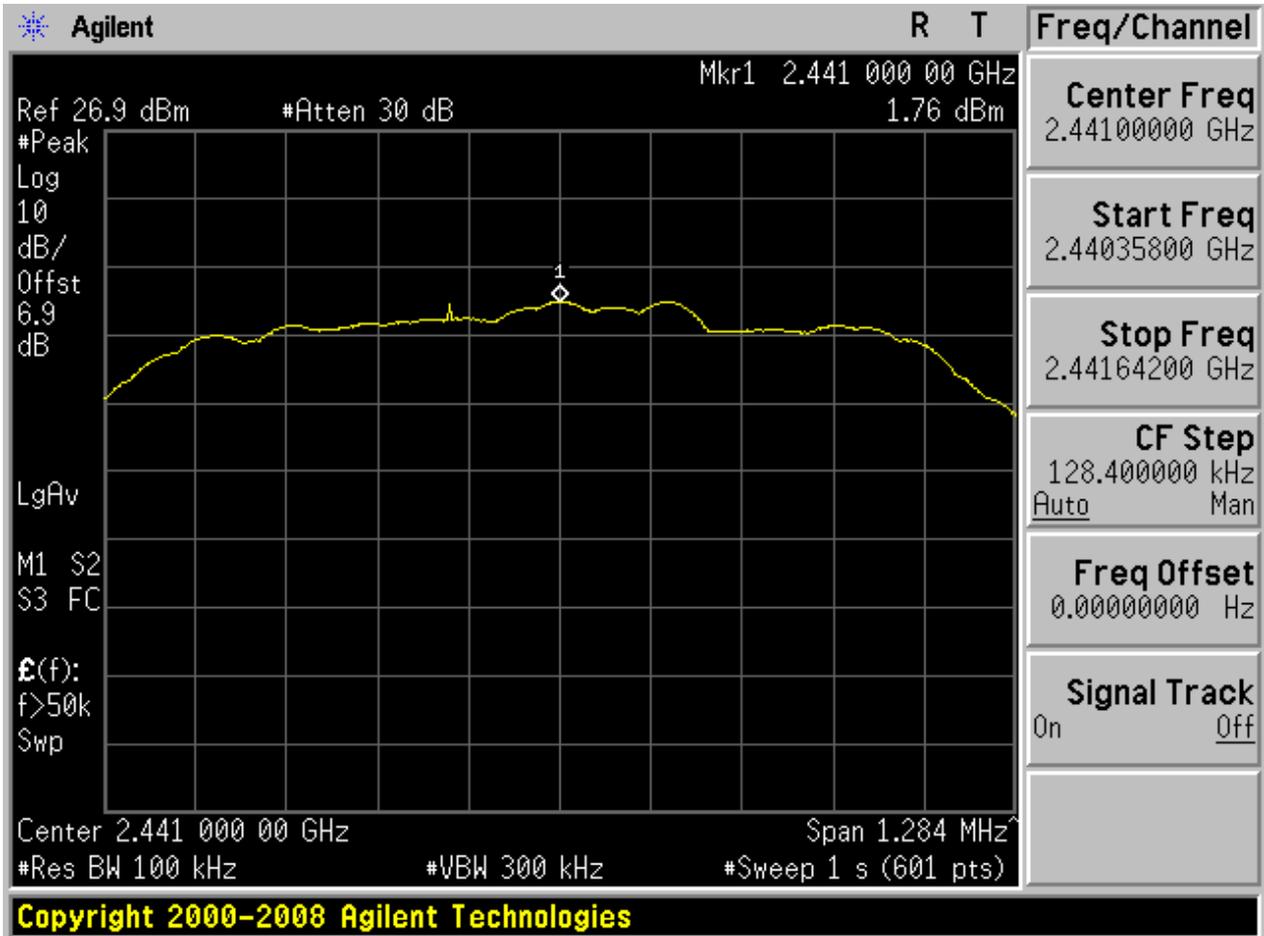






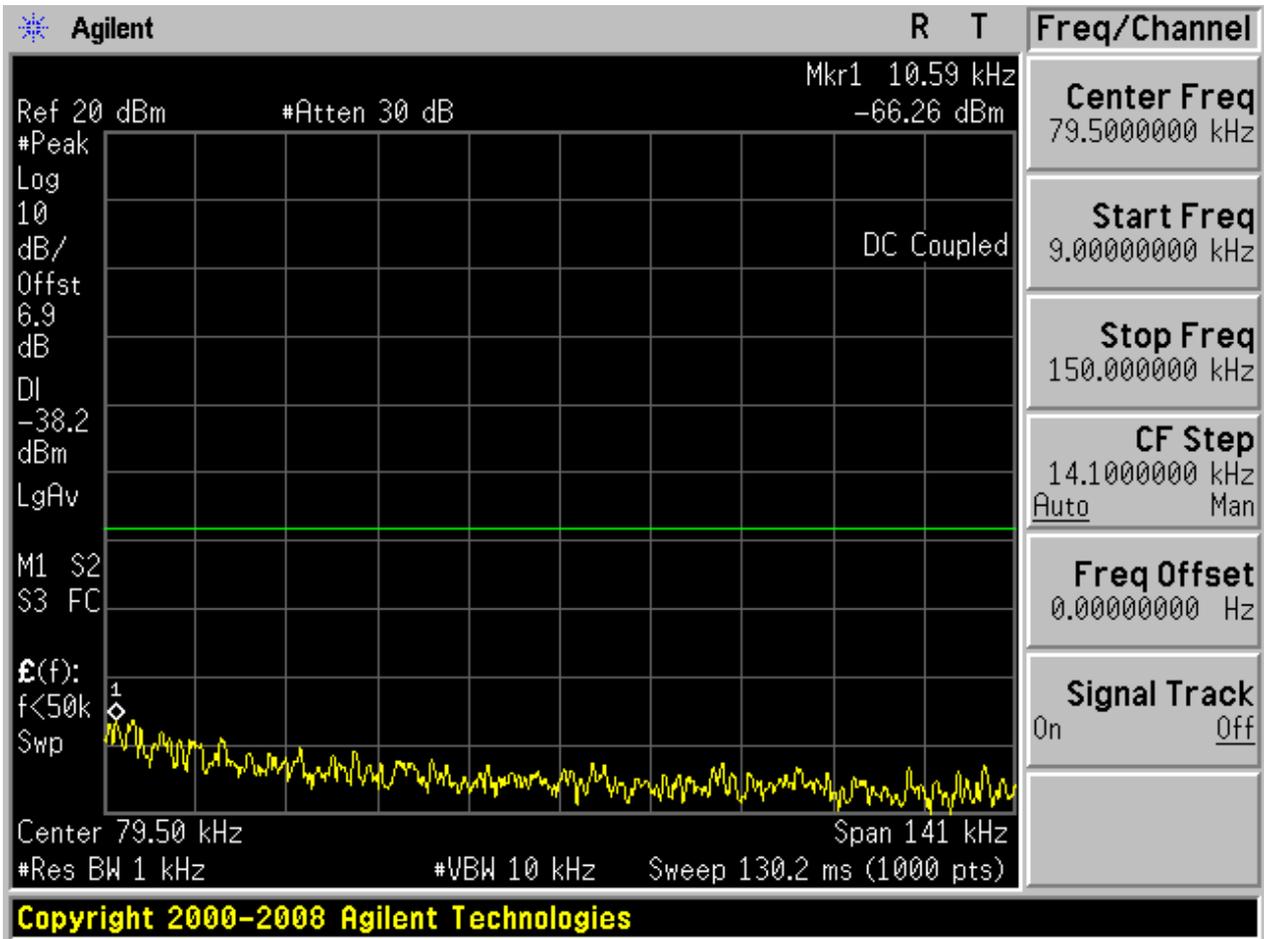
2.8 TM3_3DH5_Ch39

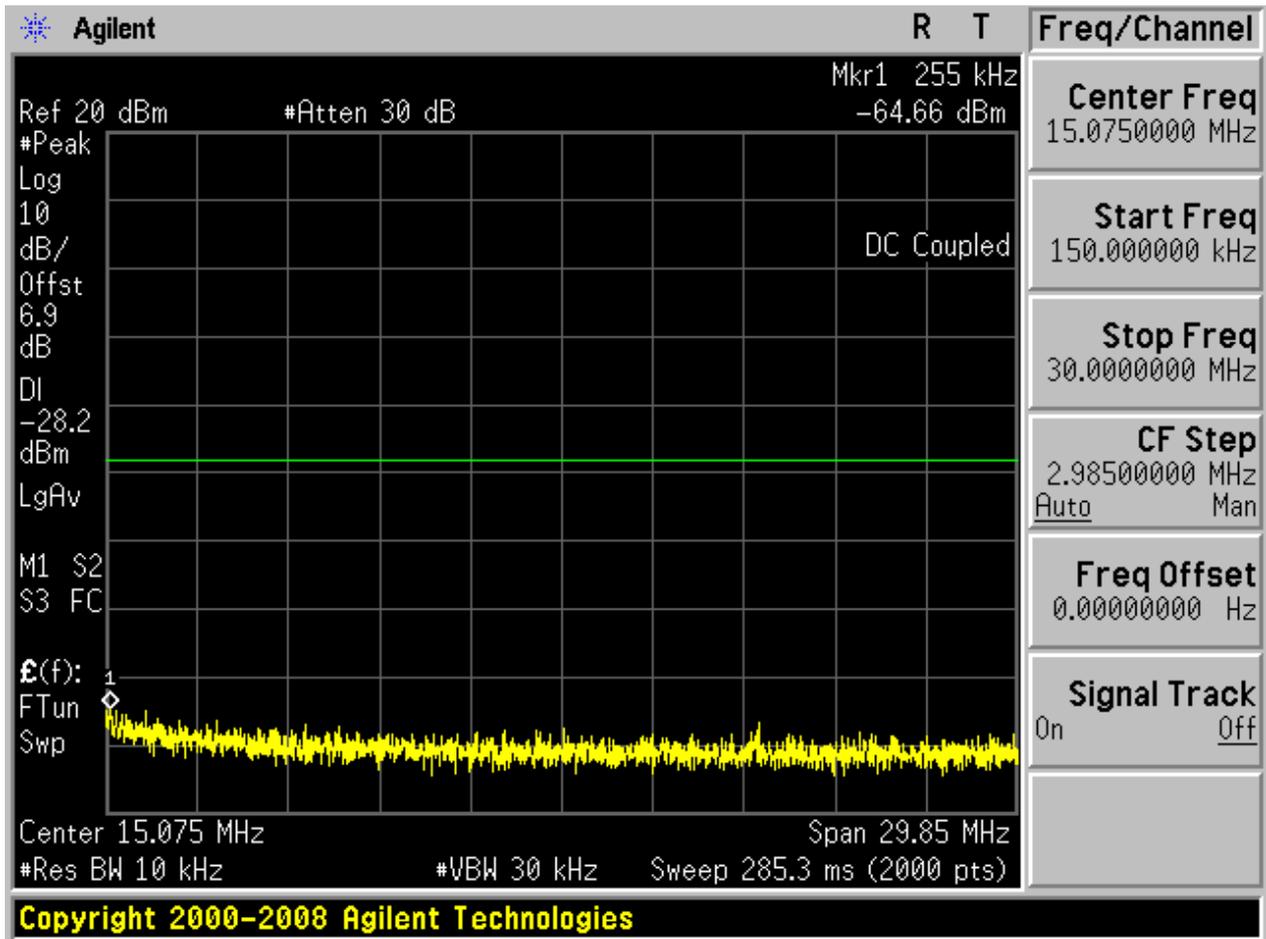
2.8.1 Pref

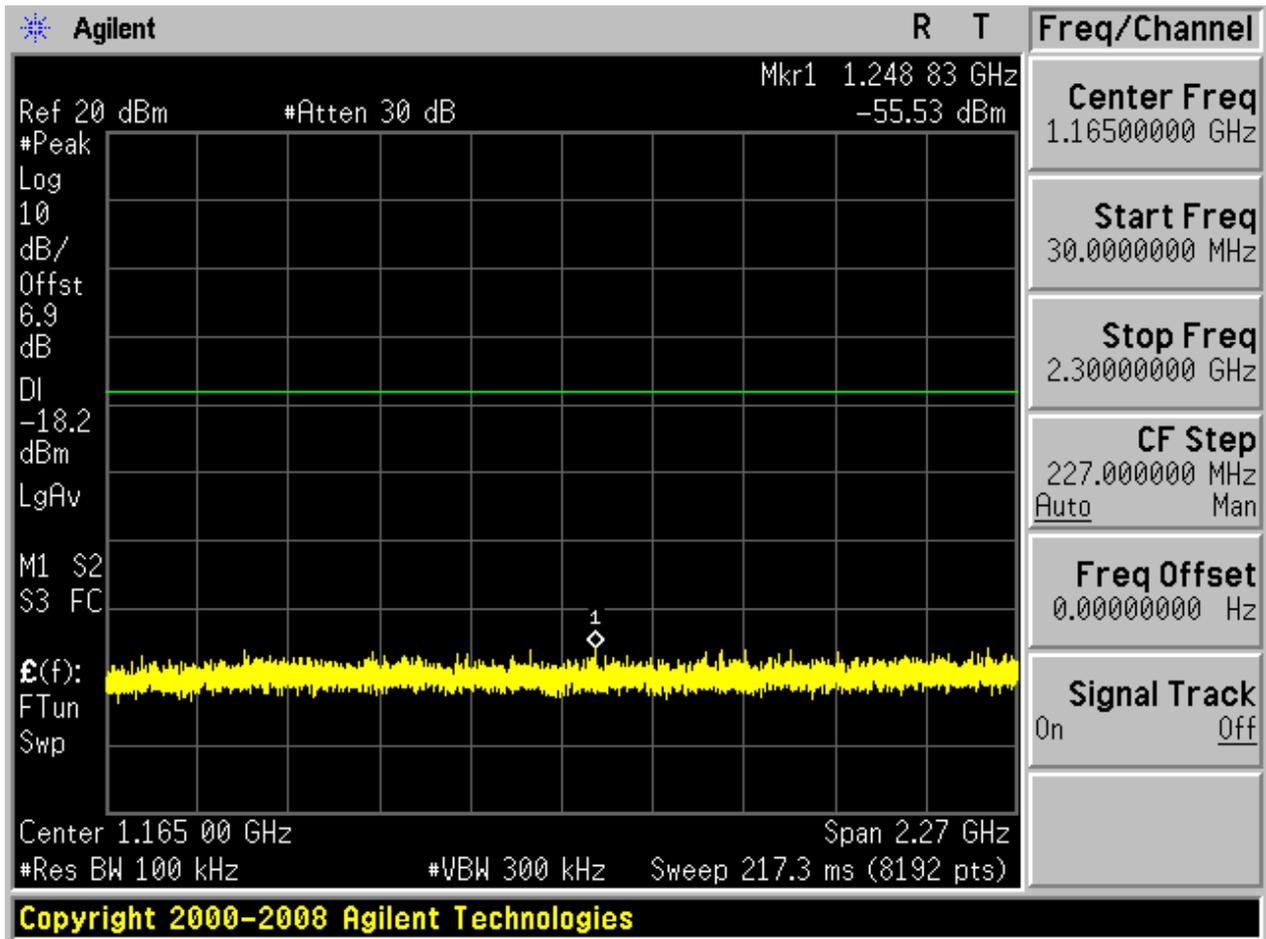


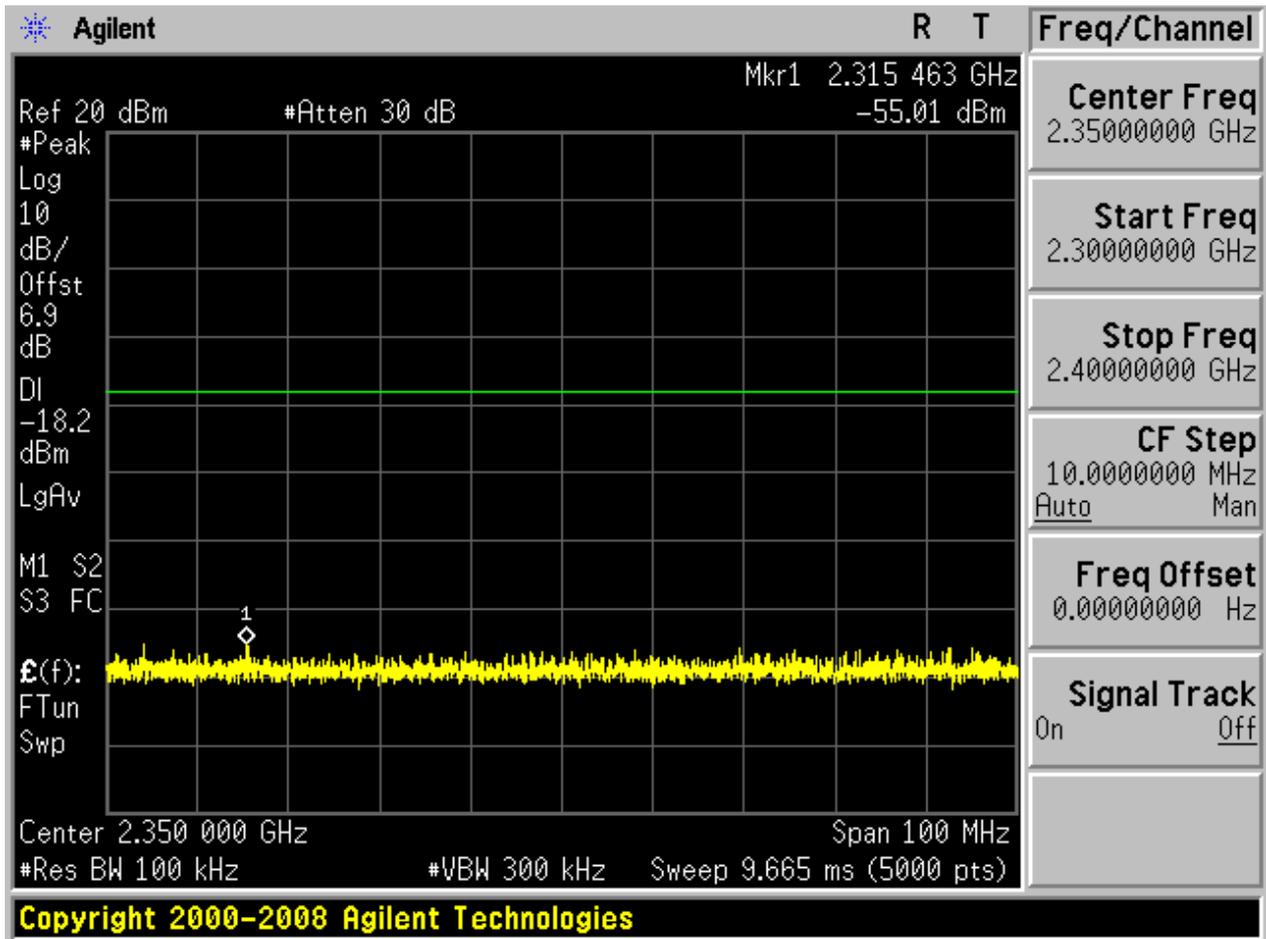


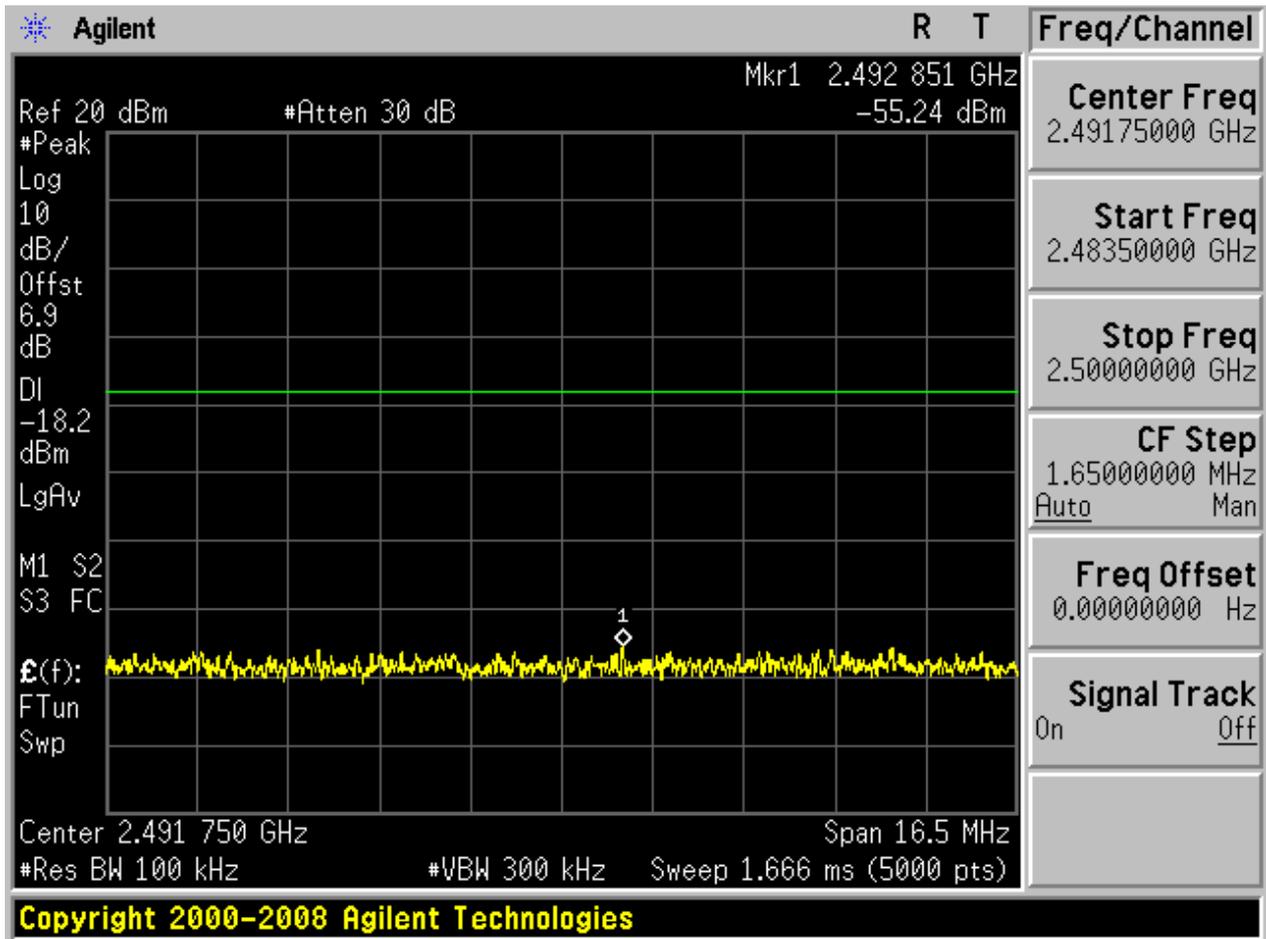
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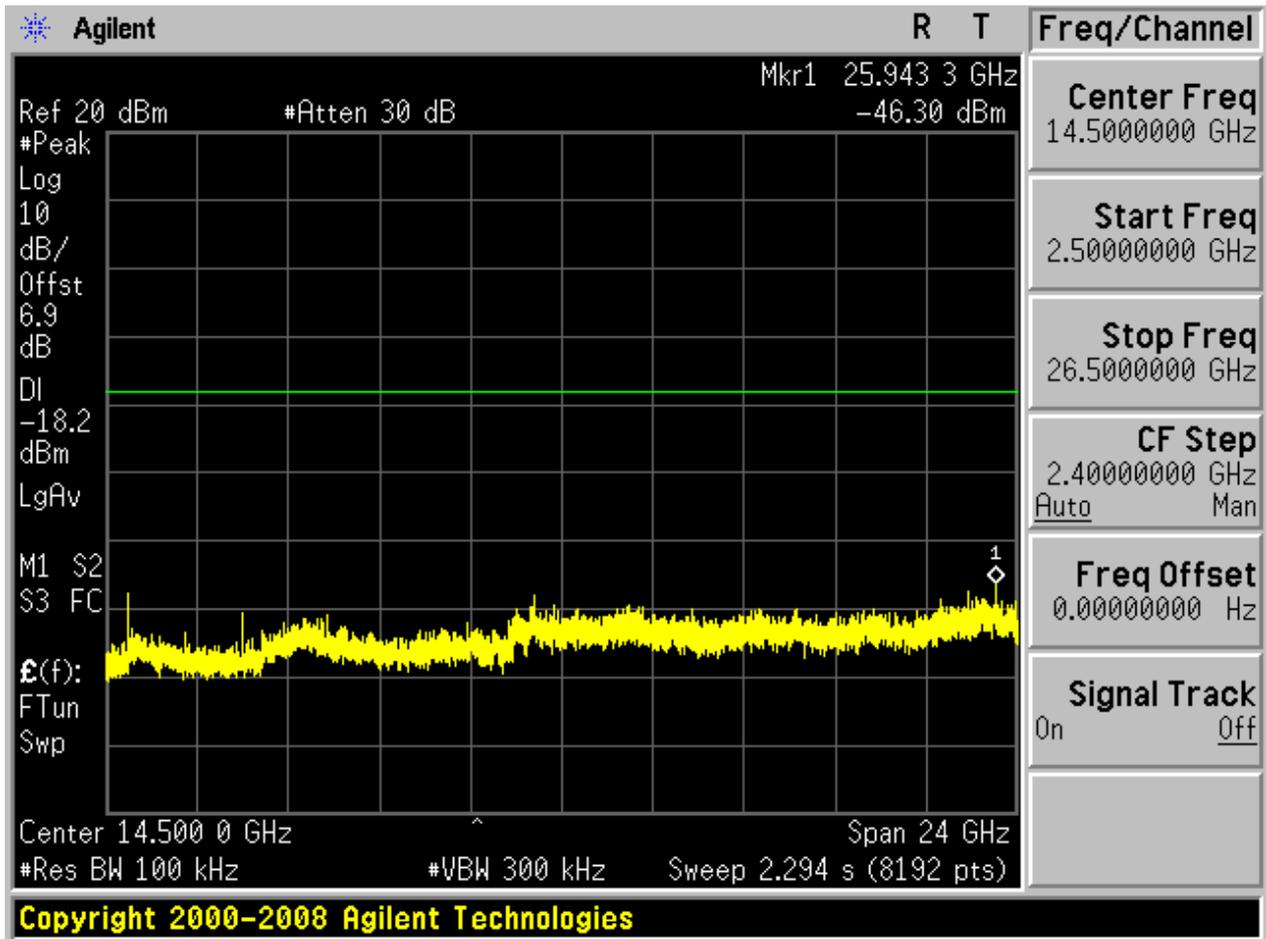








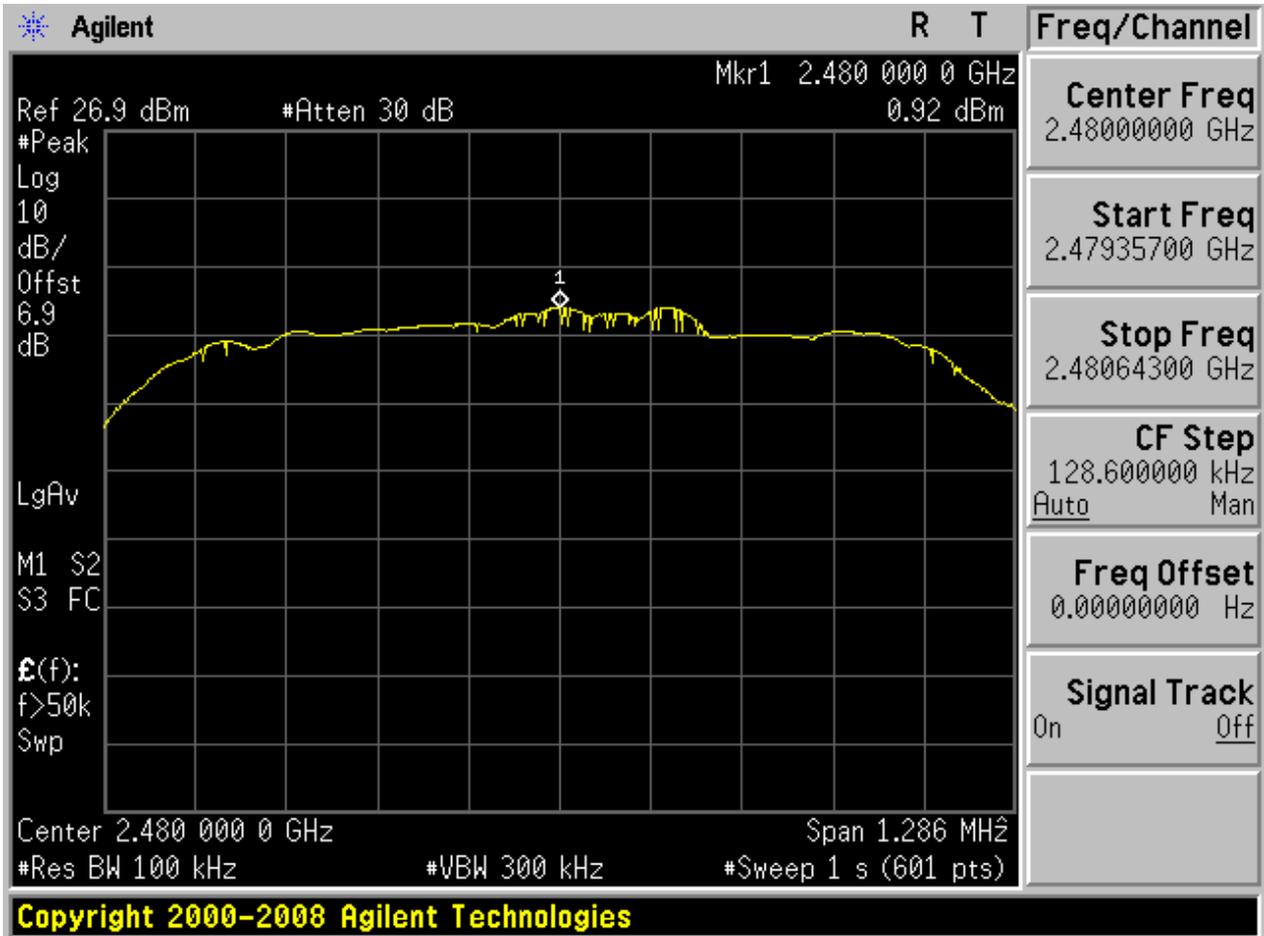






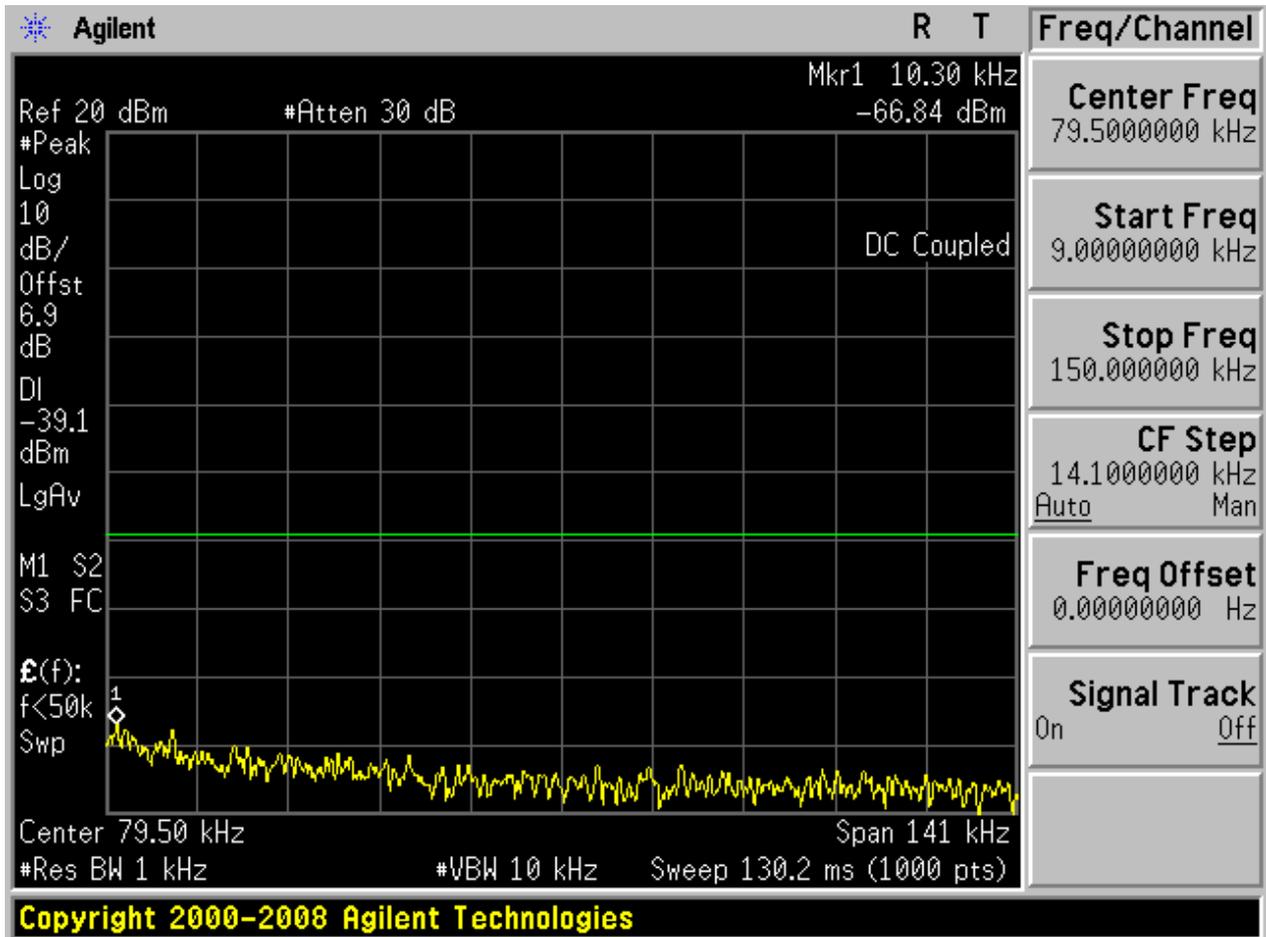
2.9 TM3_3DH5_Ch78

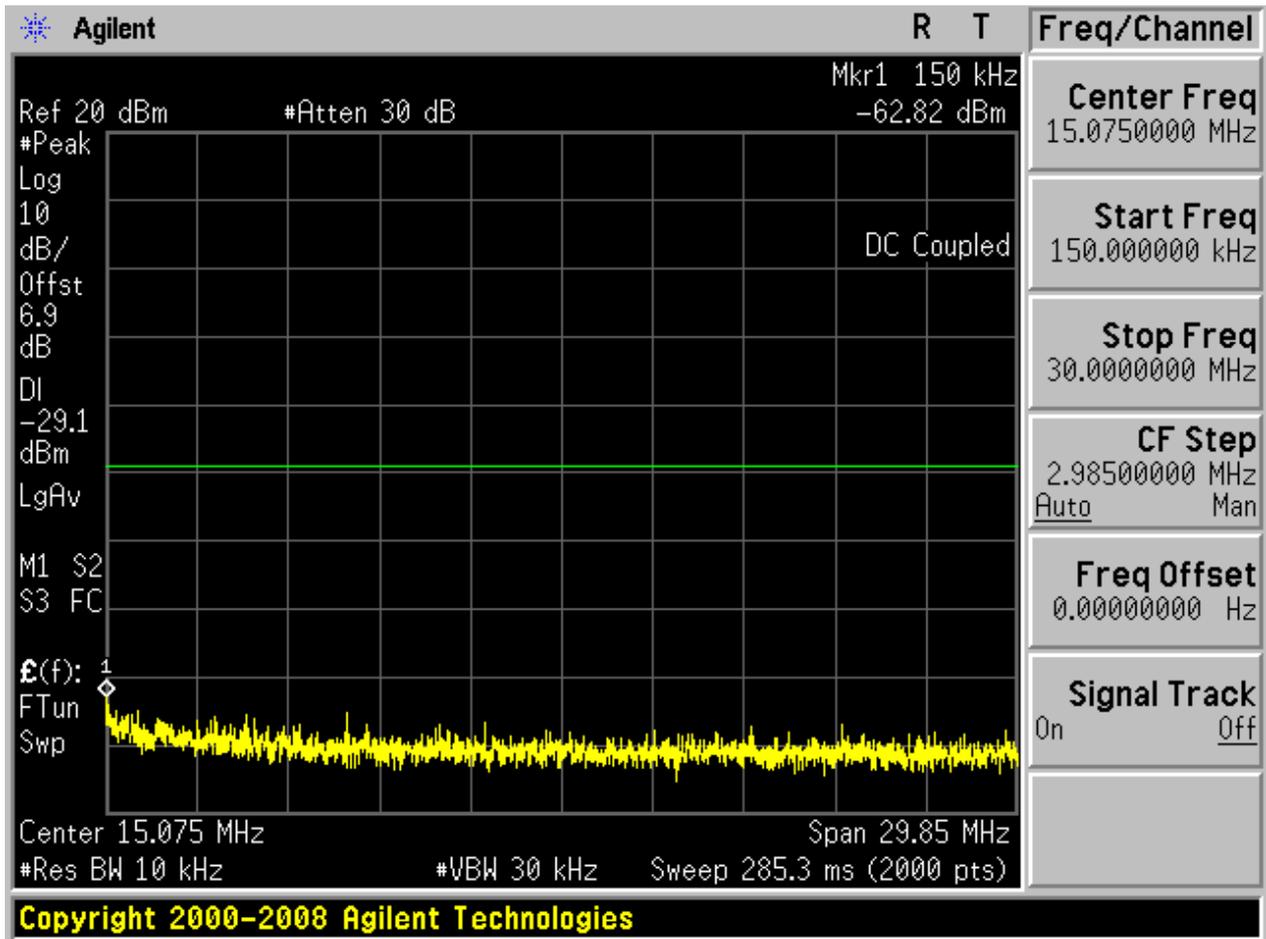
2.9.1 Pref

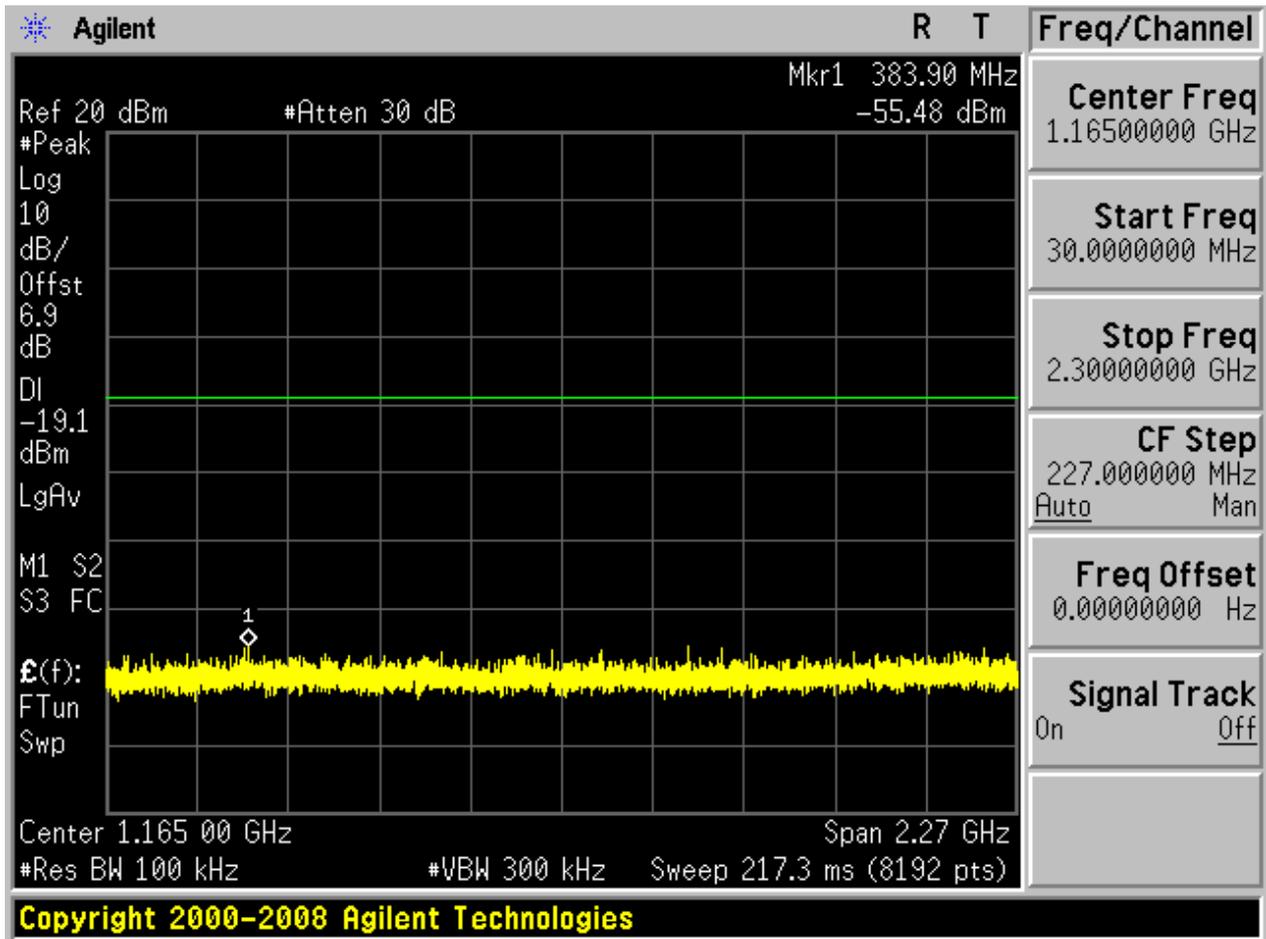


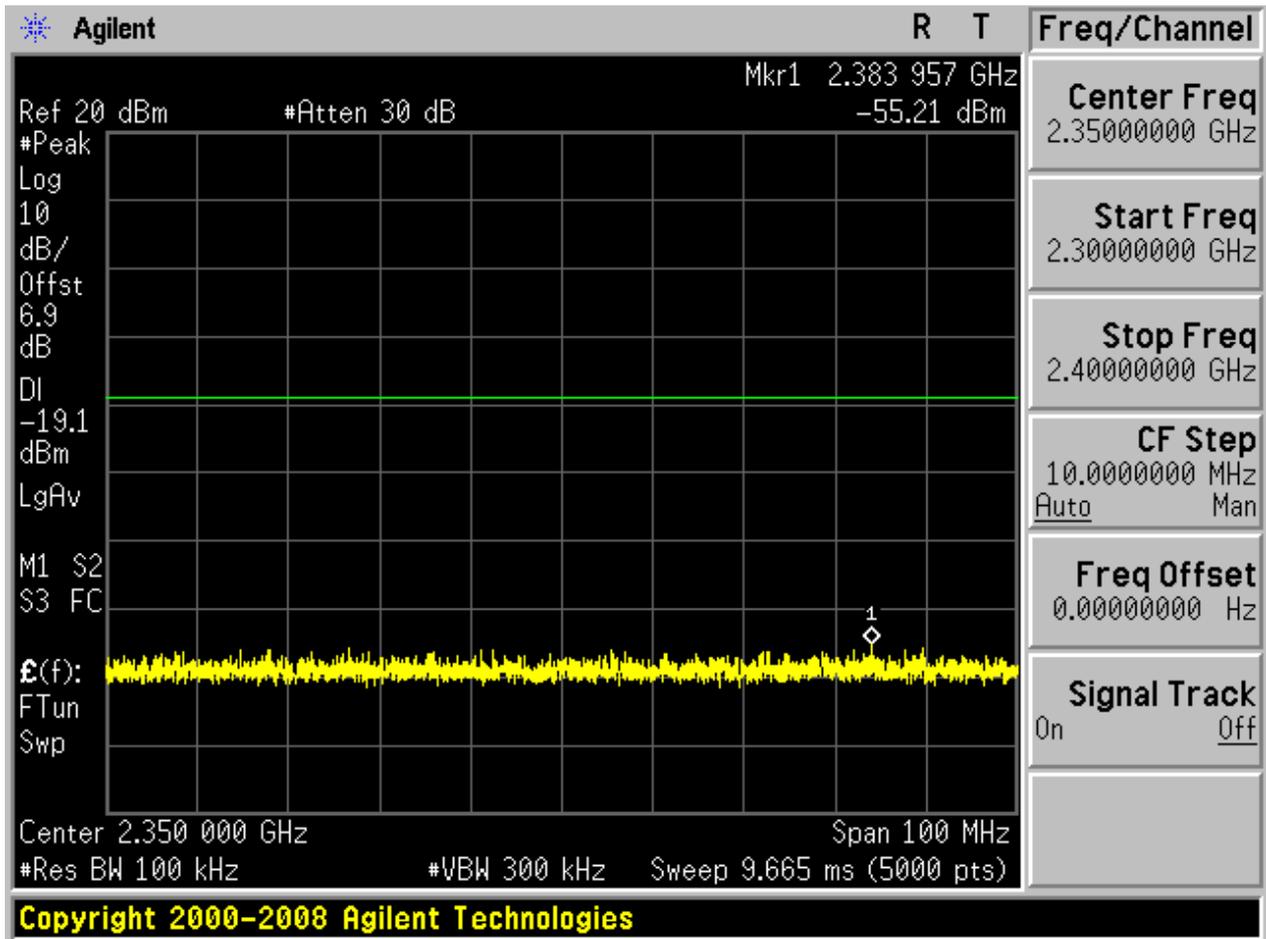


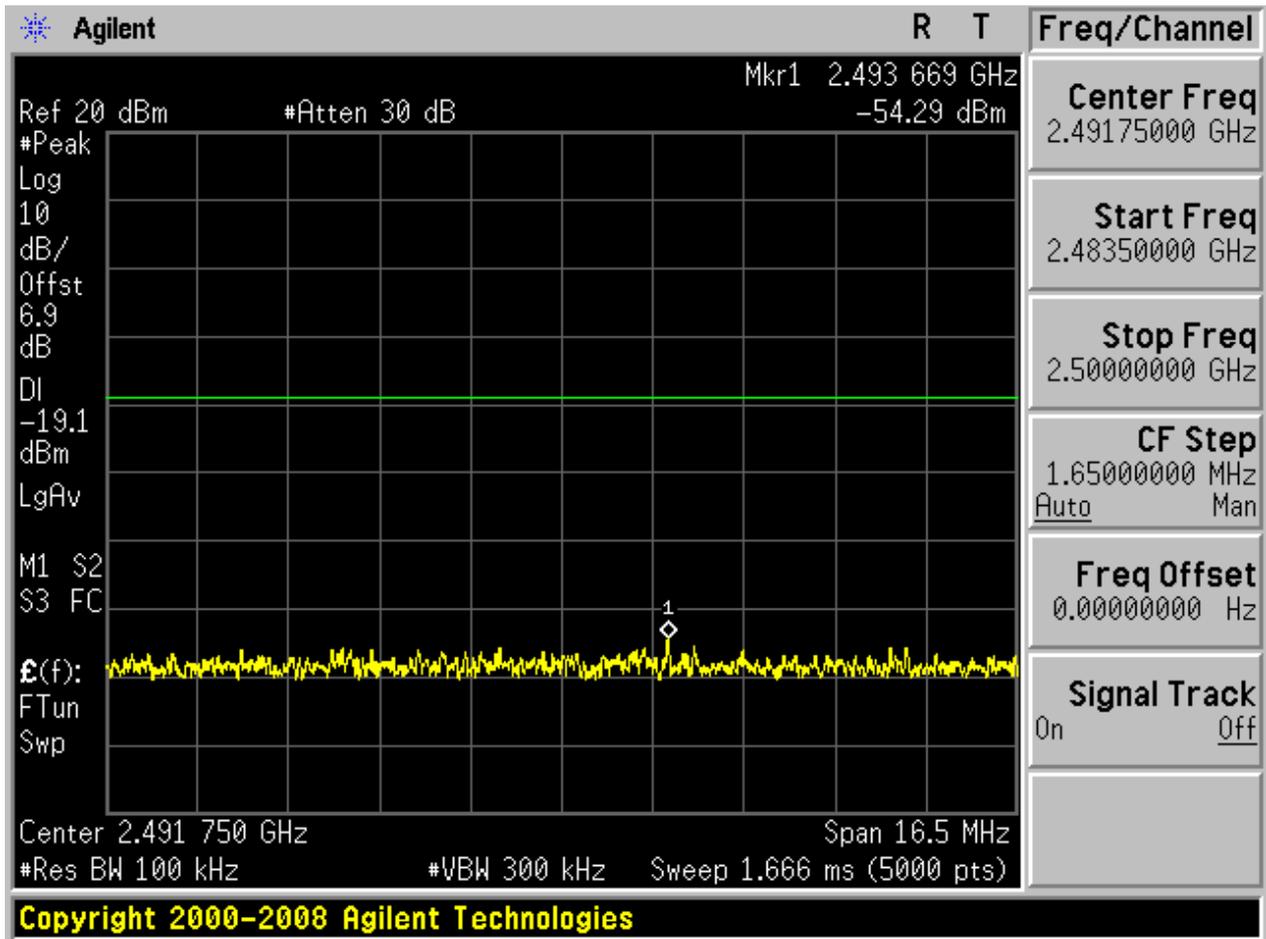
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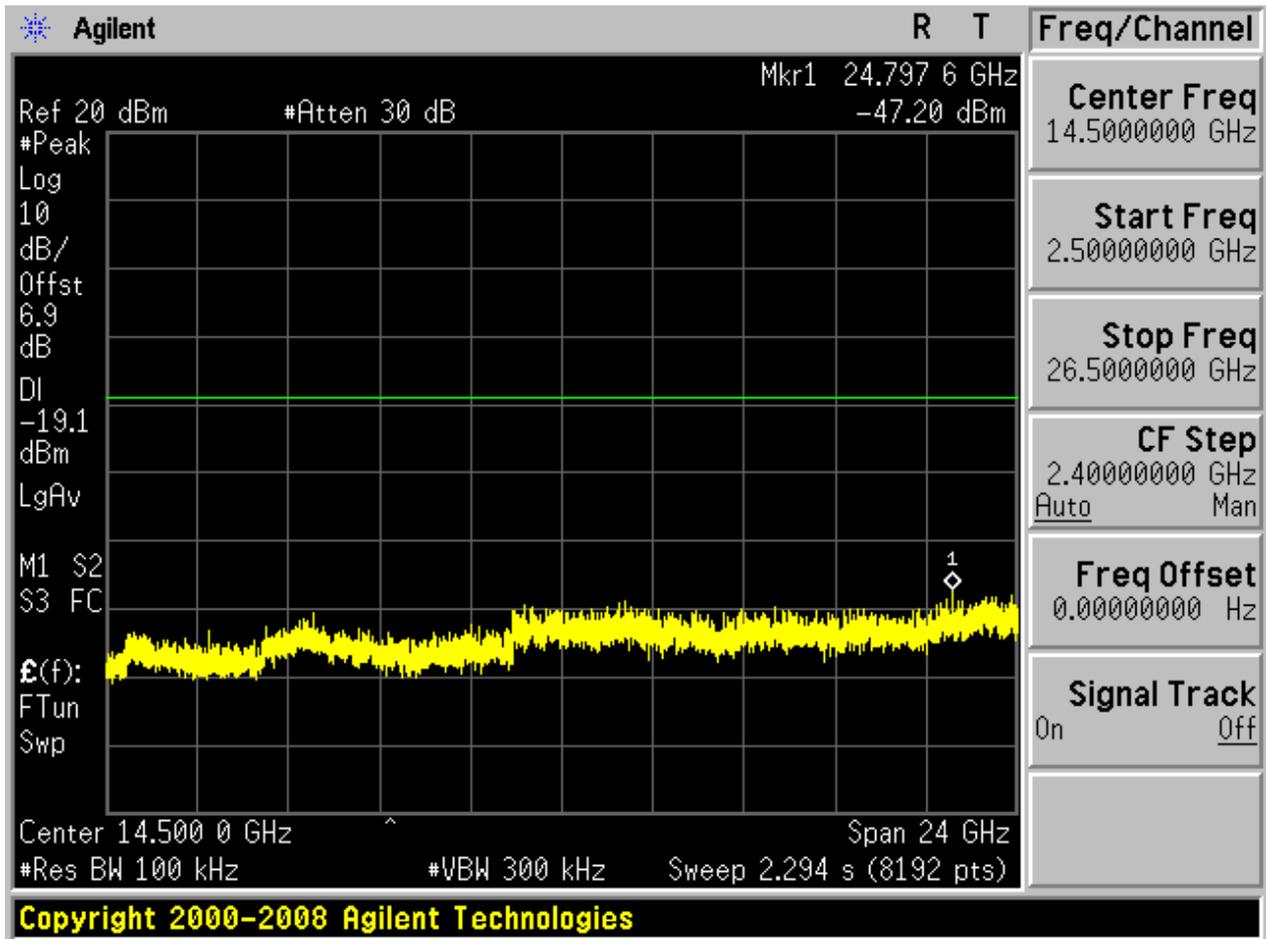














Appendix H: Radiated Emissions in the Restricted Bands



1 Result Table

The whole testing range is from “30 MHz to 26.5 GHz (10th harmonics)” is divided into 4 parts according to the test site settings, which are:

- (Part 1): Test range of “30 MHz to 1 GHz”,
- (Part 2): Test range of “18 GHz to 26.5 GHz”.
- (Part 3): Test range of “2.3 GHz to 2.51 GHz”.
- (Part 4): Test range of “1 GHz to 18 GHz”, and

In this Appendix, only the test results and plots under the worst case can be reported. In the result table, the “< Limit” denotes that “Not found obvious spikes or see marked spikes on plots and listed emissions records”.

Test Range	EUT Conf.	Emissions	Verdict
30 MHz to 1 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
2.3 GHz to 2.51 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
	TM1_DH5_Ch78 (Worst Conf.)	< Limit	Pass
1 GHz to 18 GHz	TM1_DH5_Ch0 (Worse Conf.)	< Limit	Pass
18 GHz to 26.5 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass

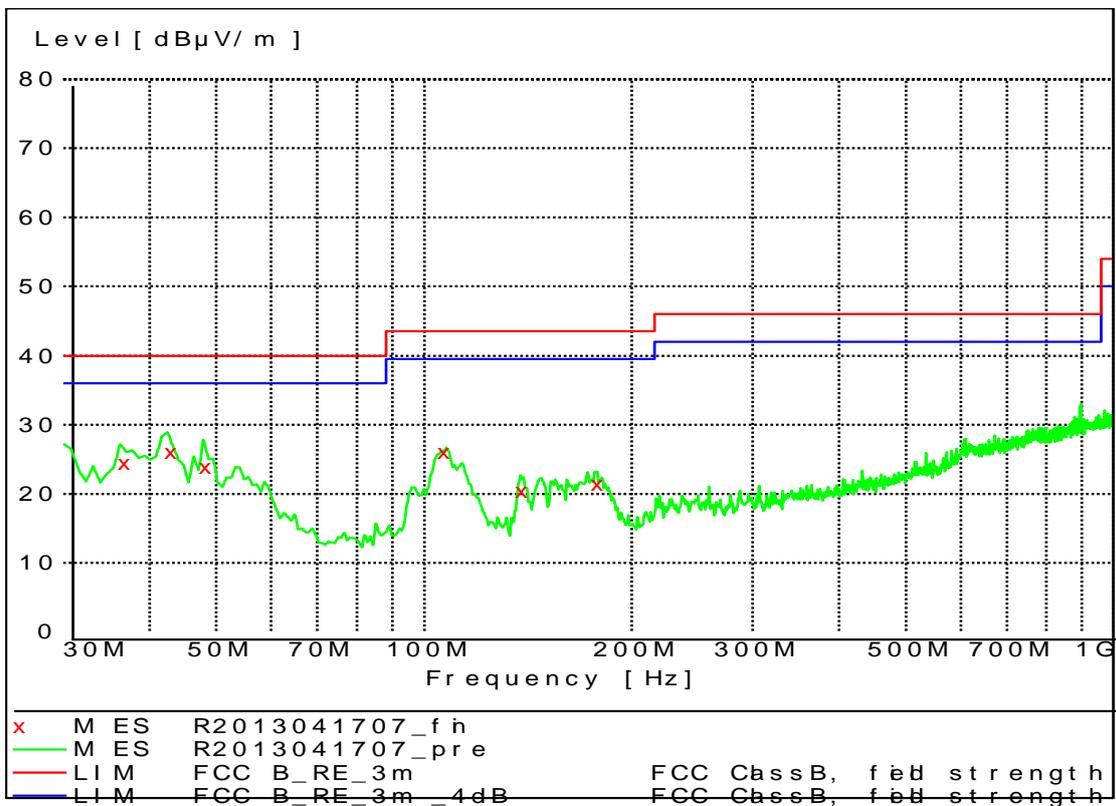
2 Result Plot

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)**.

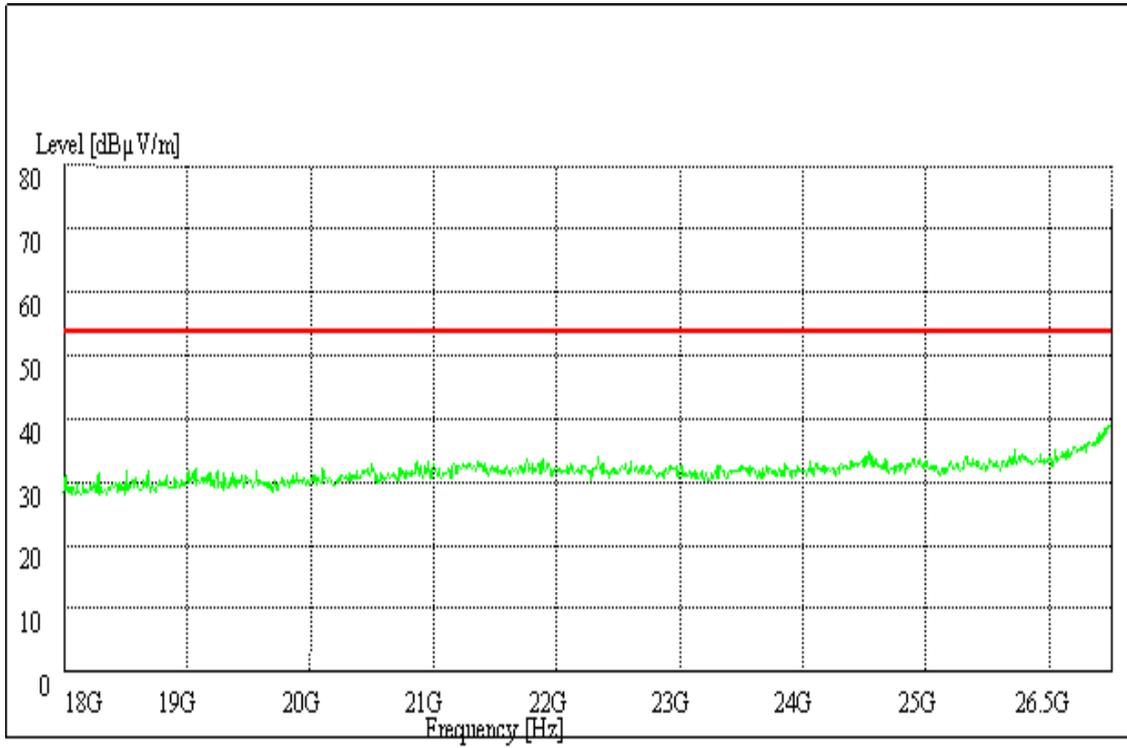
2.1.1 30MHz~1GHz



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height deg	Azimuth	Polarization
36.840000	24.40	15.2	40.0	15.6	100.0	119.00	VERTICAL
43.020000	26.00	15.1	40.0	14.0	100.0	0.00	VERTICAL
48.300000	23.90	15.1	40.0	16.1	100.0	62.00	VERTICAL
107.040000	26.10	13.3	43.5	17.4	112.0	24.00	VERTICAL
138.720000	20.40	10.0	43.5	23.1	100.0	100.00	VERTICAL
178.800000	21.40	11.2	43.5	22.1	100.0	115.00	VERTICAL

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



Note: No peak found in pre- test.

Part 3: Testing Range of “2.3GHz to 2.51GHz”

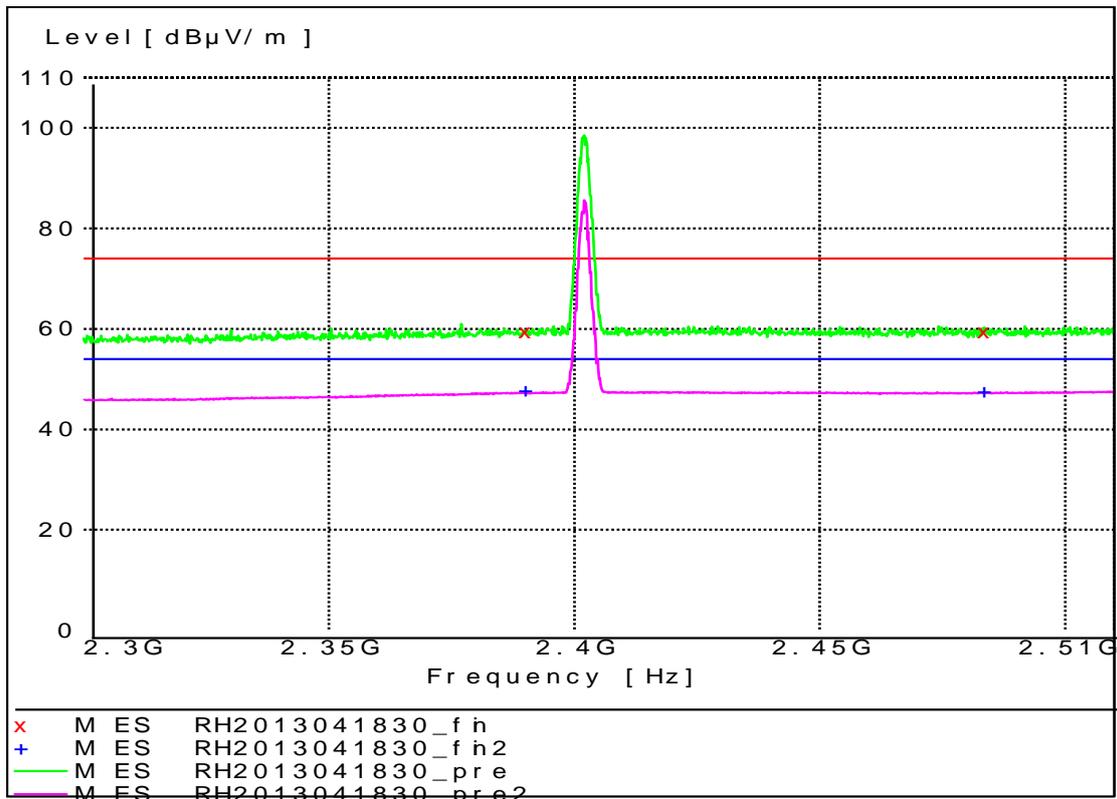
Note 1: The testing range of “2.3 GHz to 2.51 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands. The test results and plot for testing range showed as below is [the WORST case for all Test Modes and Channels](#).

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 0



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

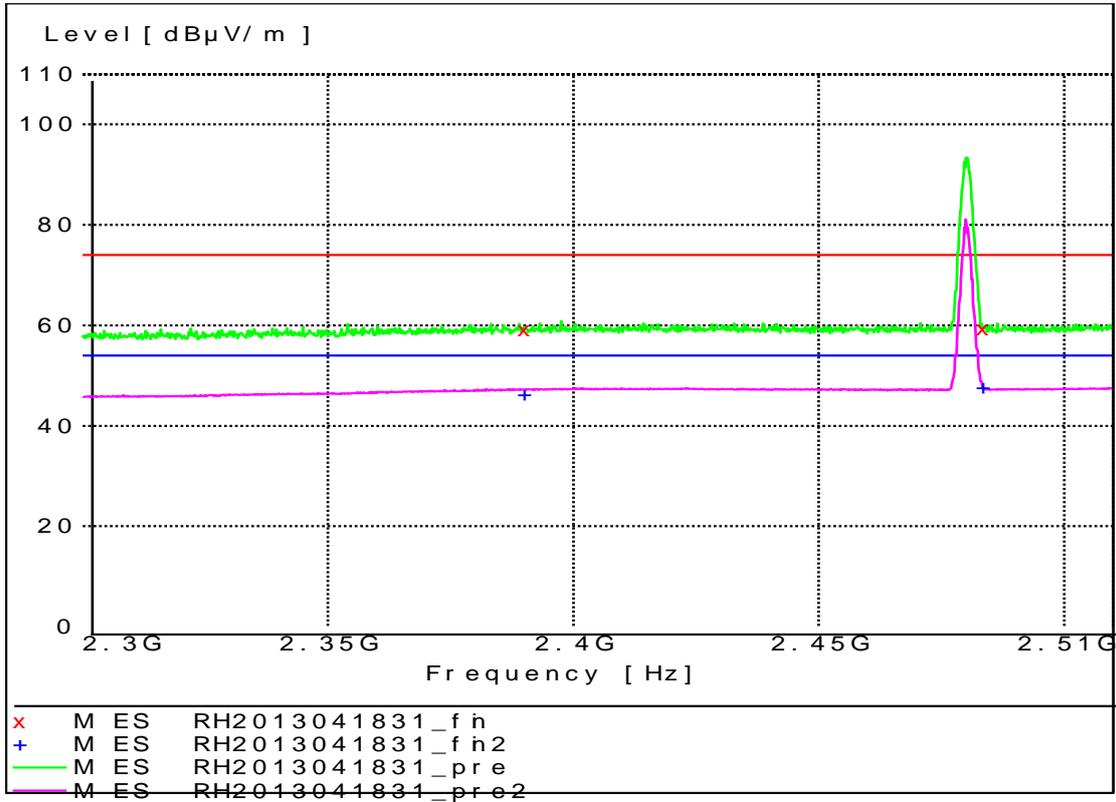
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height deg	Azimuth	Polarization
2390.000000	59.50	34.8	74.0	14.5	150.0	102.00	HORIZONTAL
2483.500000	59.60	35.1	74.0	14.4	150.0	50.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height deg	Azimuth	Polarization
2390.000000	47.90	34.8	54.0	6.1	129.0	301.00	HORIZONTAL
2483.500000	47.70	35.1	54.0	6.3	102.0	136.00	HORIZONTAL

3.2 Channel 78



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

MEASUREMENT RESULT: PK Detector

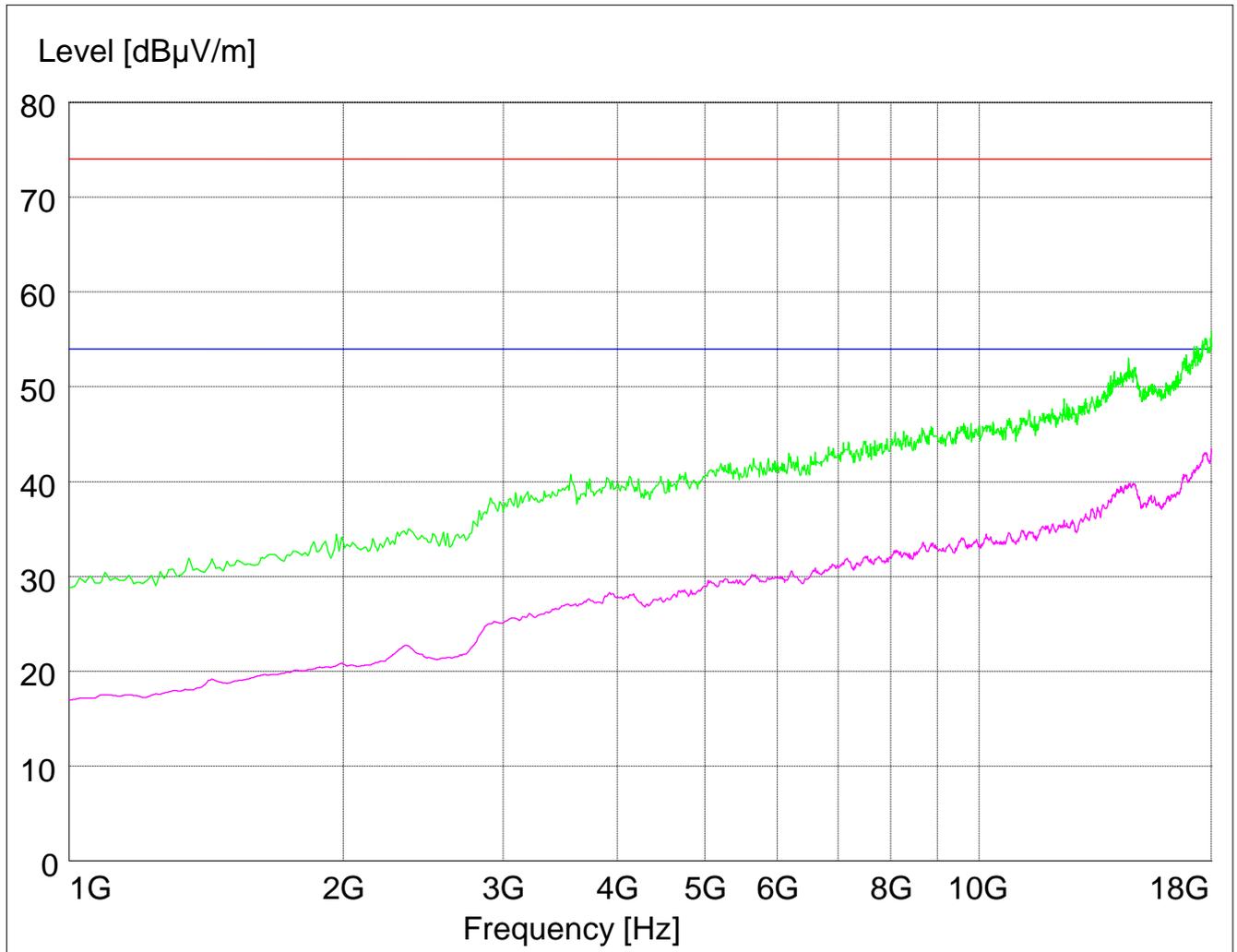
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height deg	Azimuth	Polarization
2390.000000	59.20	34.8	74.0	14.8	149.0	46.00	HORIZONTAL
2483.500000	59.50	35.1	74.0	14.5	147.0	35.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height deg	Azimuth	Polarization
2390.000000	46.40	34.8	54.0	7.6	135.0	43.00	VERTICAL
2483.500000	47.70	35.1	54.0	6.3	110.0	75.00	HORIZONTAL

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

- Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is **the WORST case for all Test Modes and Channels**. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands far away 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: AC Power Line Conducted Emissions



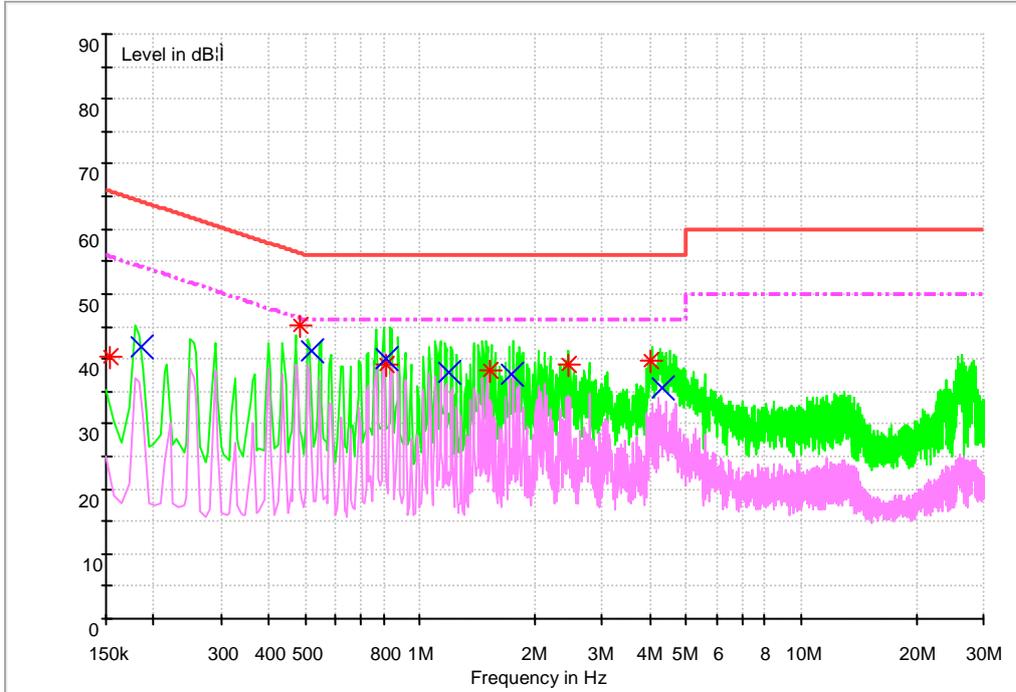
1 Result Table

In this Appendix, only the test results and plots under the worst case can be reported.

EUT Conf.	Maximum Emissions	Verdict
TM1_DH5_Ch39	Not found obvious spikes or see marked spikes on plots and listed emissions records.	Pass

2 Result Plot

2.1 TM1_DH5_Ch39



MEASUREMENT RESULT: QP Detector

Frequency (MHz)	QuasiPeak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	PE
0.154210	40.4	L1	9.7	25.4	65.8	FLO
0.481283	45.2	N	9.7	11.1	56.3	FLO
0.811744	39.3	N	9.7	16.7	56.0	FLO
1.514546	38.3	L1	9.7	17.7	56.0	FLO
2.438310	39.2	N	9.7	16.8	56.0	FLO
4.000306	39.6	N	9.8	16.4	56.0	FLO

MEASUREMENT RESULT: AV Detector

Frequency (MHz)	CAverage (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	PE
0.185696	41.9	N	9.7	12.3	54.2	FLO
0.517823	41.1	N	9.7	4.9	46.0	FLO
0.815839	40.1	N	9.7	5.9	46.0	FLO
1.187389	37.8	N	9.7	8.2	46.0	FLO
1.742808	37.6	N	9.7	8.4	46.0	FLO
4.295888	35.4	N	9.8	10.6	46.0	FLO

END