



Appendix A: 20dB Emission Bandwidth (EBW)



1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.949	Pass
TM1_DH5_Ch39	0.949	Pass
TM1_DH5_Ch78	0.948	Pass
TM2_2DH5_Ch0	1.279	Pass
TM2_2DH5_Ch39	1.280	Pass
TM2_2DH5_Ch78	1.279	Pass
TM3_3DH5_Ch0	1.266	Pass
TM3_3DH5_Ch39	1.269	Pass
TM3_3DH5_Ch78	1.268	Pass

2 Test Plot

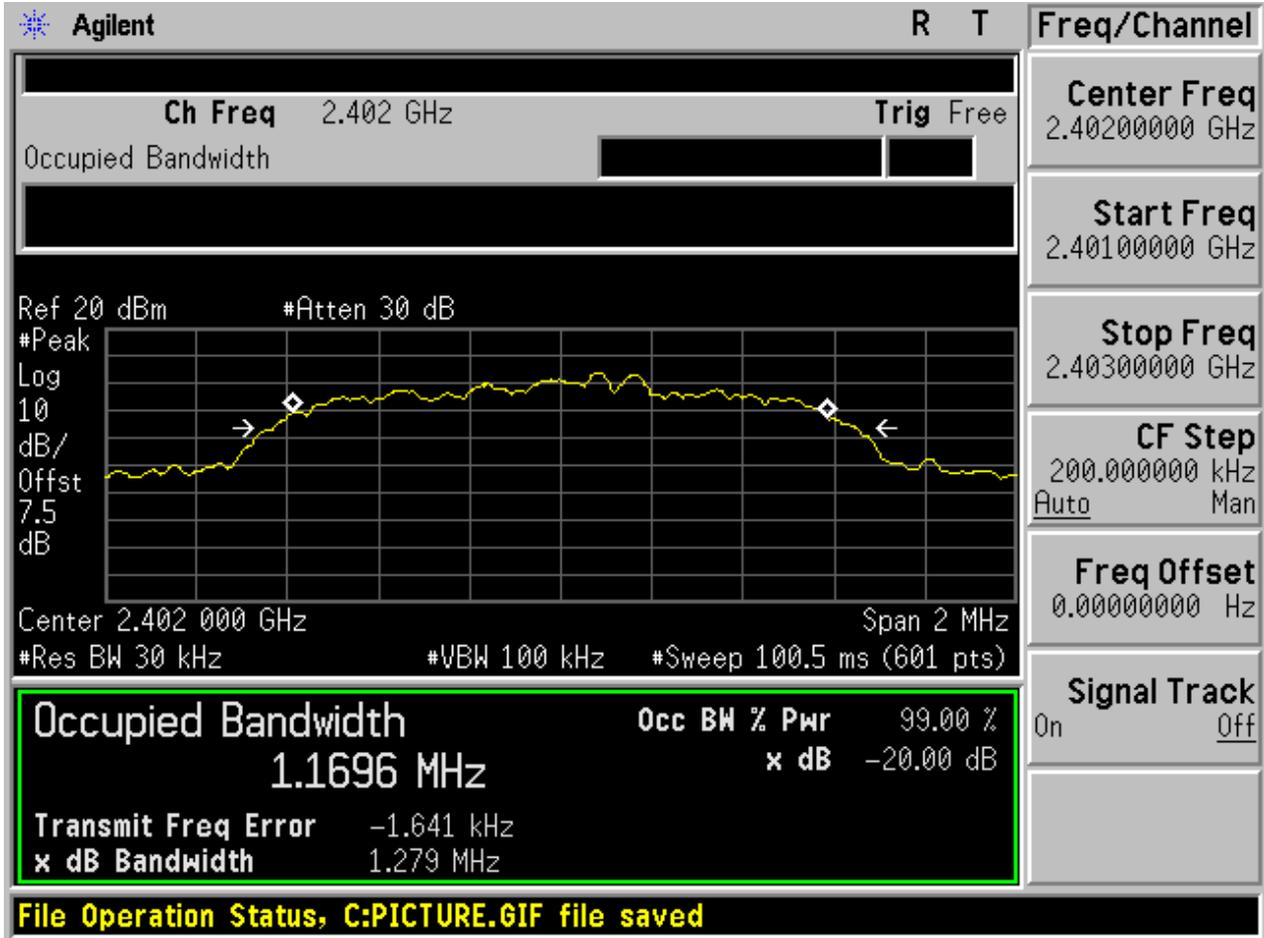
2.1 TM1_DH5_Ch0



2.3 TM1_DH5_Ch78



2.4 TM2_2DH5_Ch0



2.5 TM2_2DH5_Ch39



2.6 TM2_2DH5_Ch78



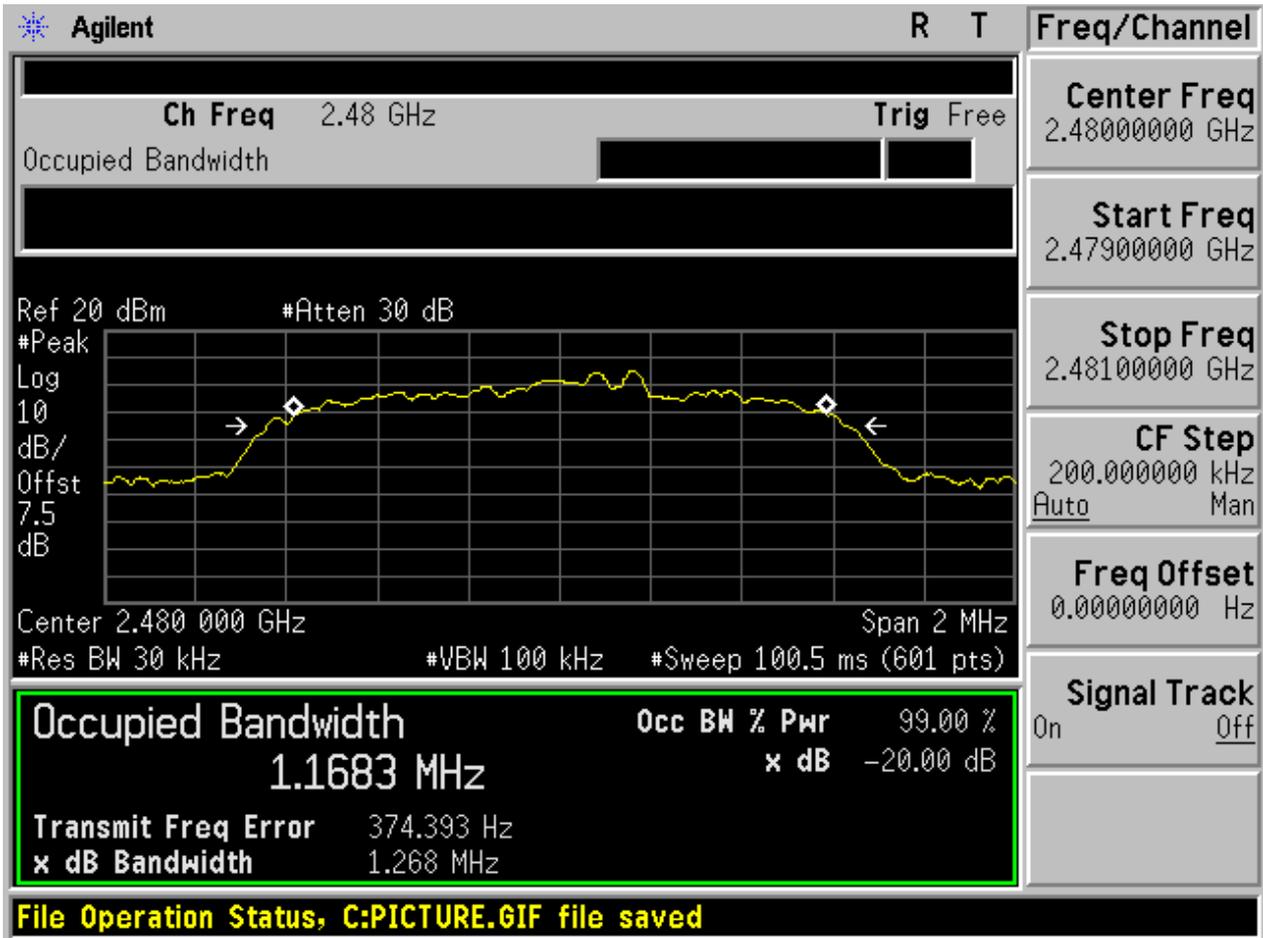
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78





Appendix B: Carrier Frequency Separation

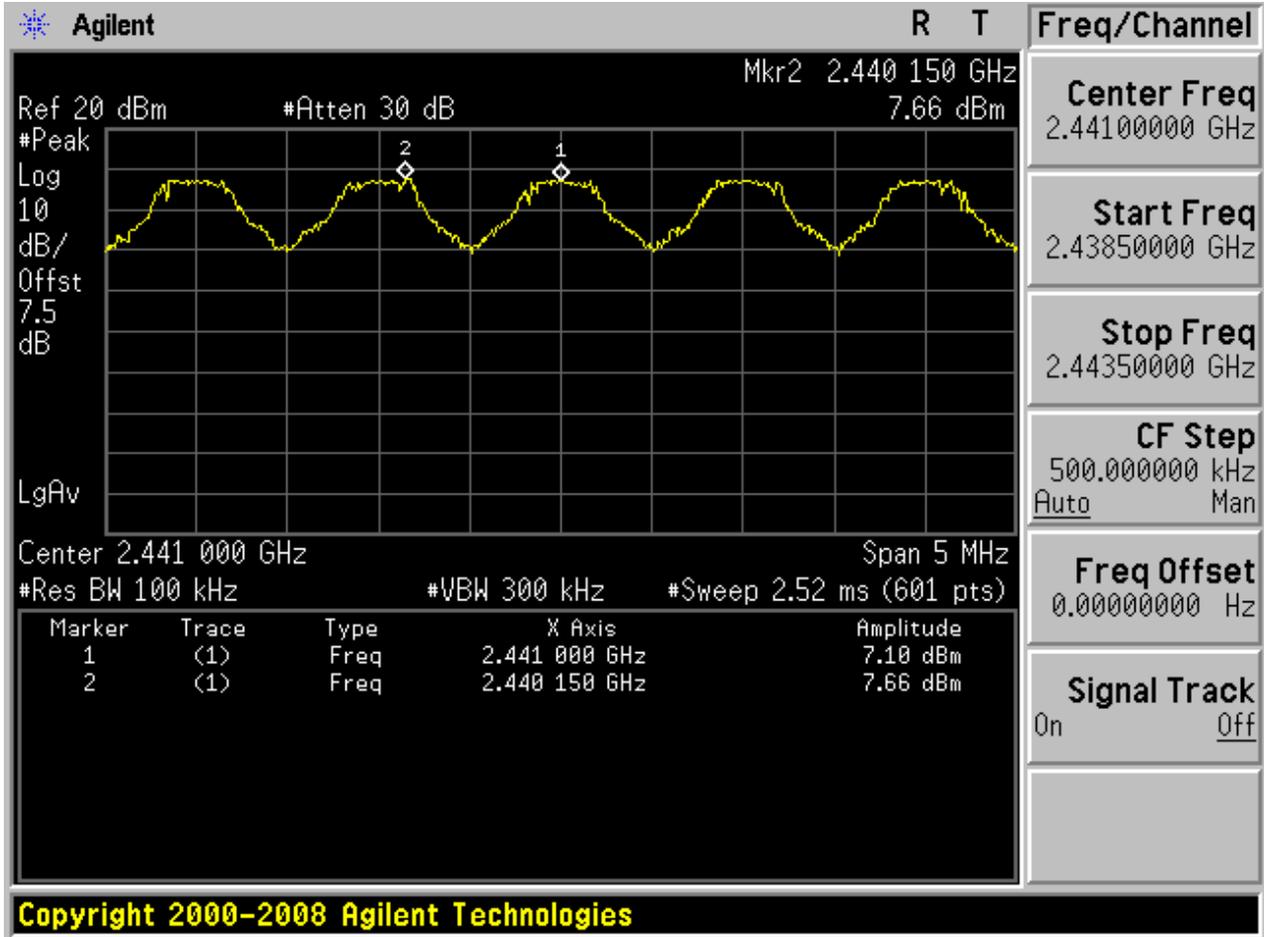


1 Result Table

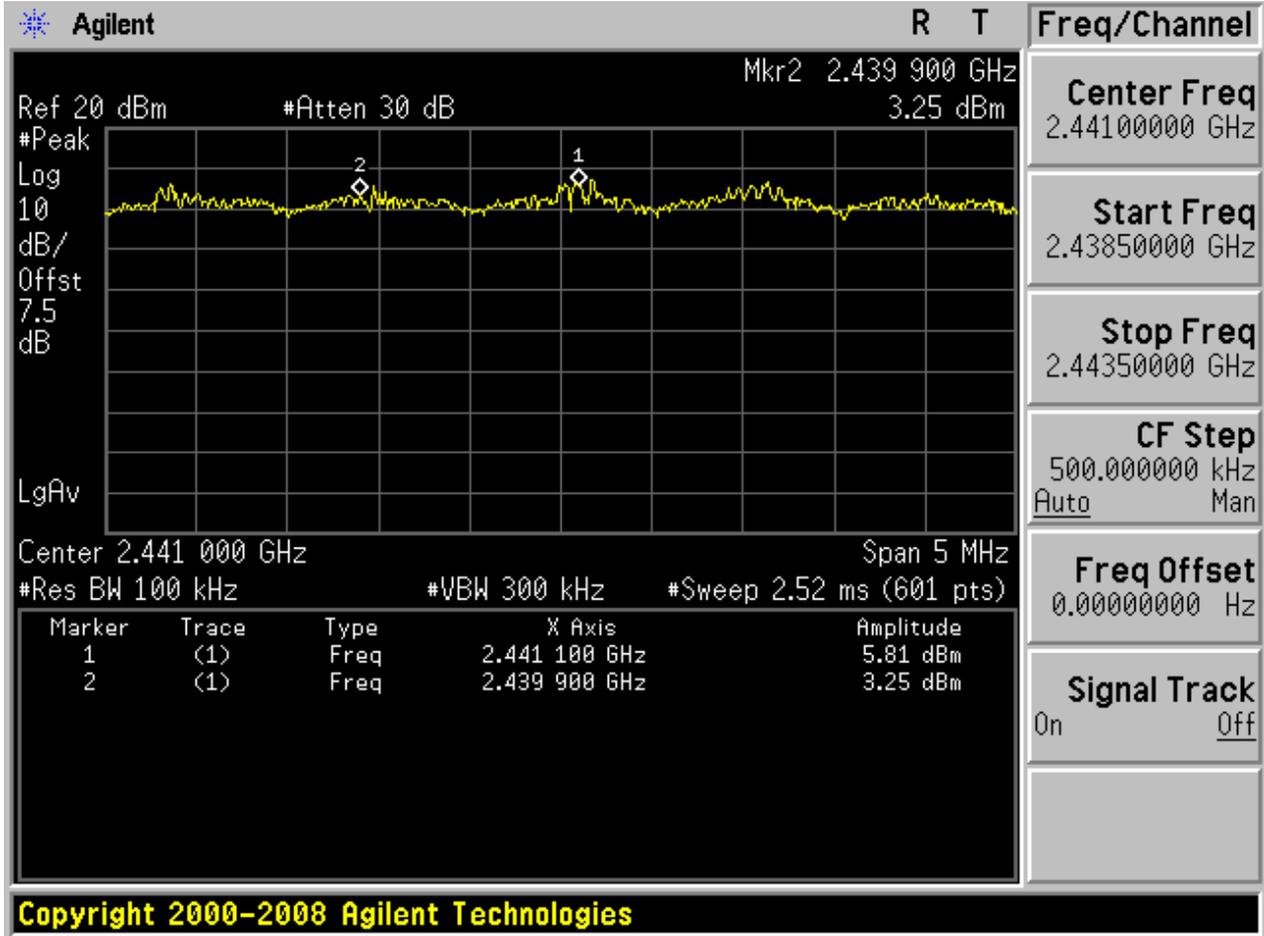
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	0.850	Pass
TM2_2DH5_Hop	1.200	Pass
TM3_3DH5_Hop	1.050	Pass

2 Test Plot

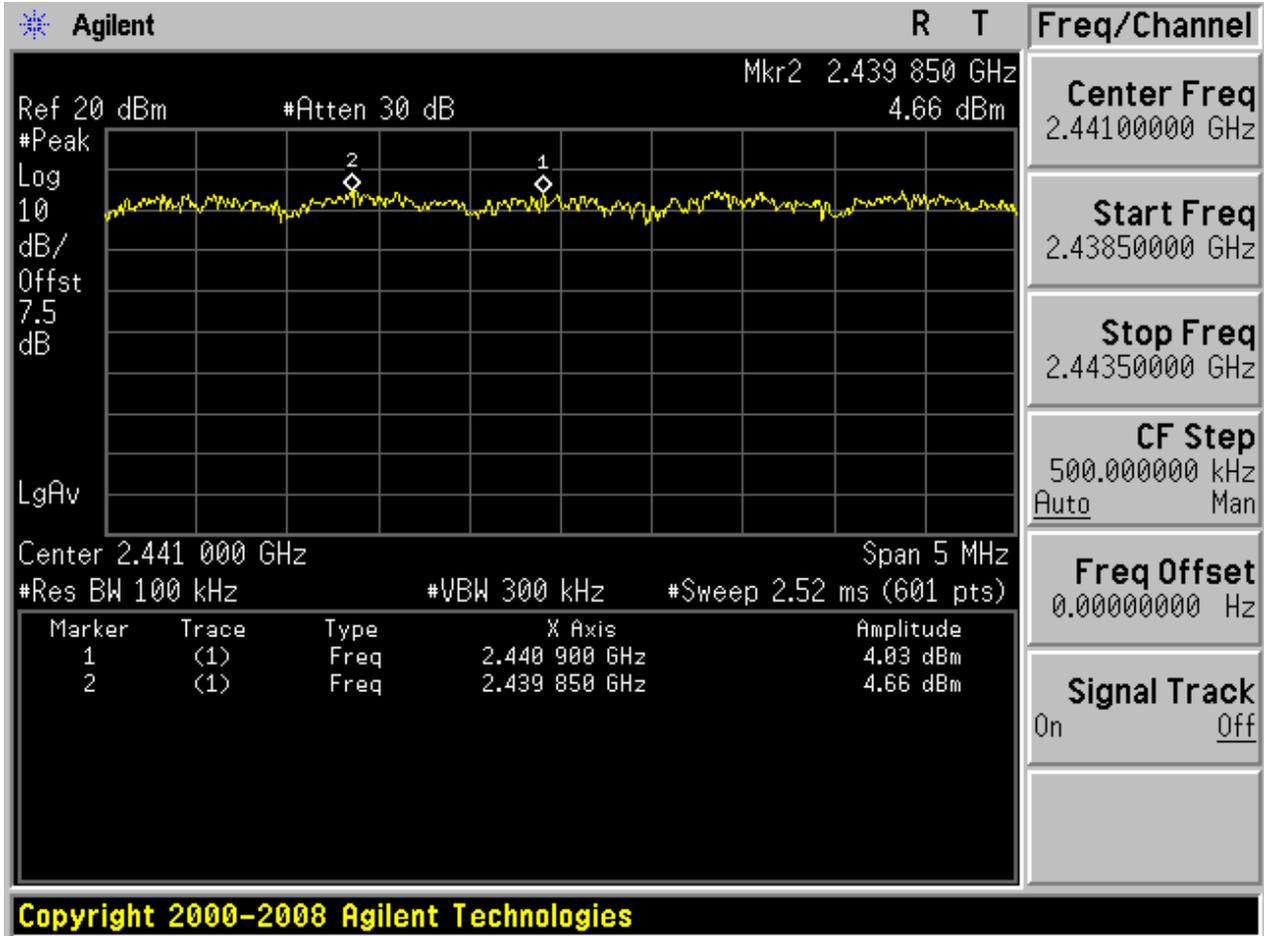
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop





Appendix C: Number of Hopping Channel

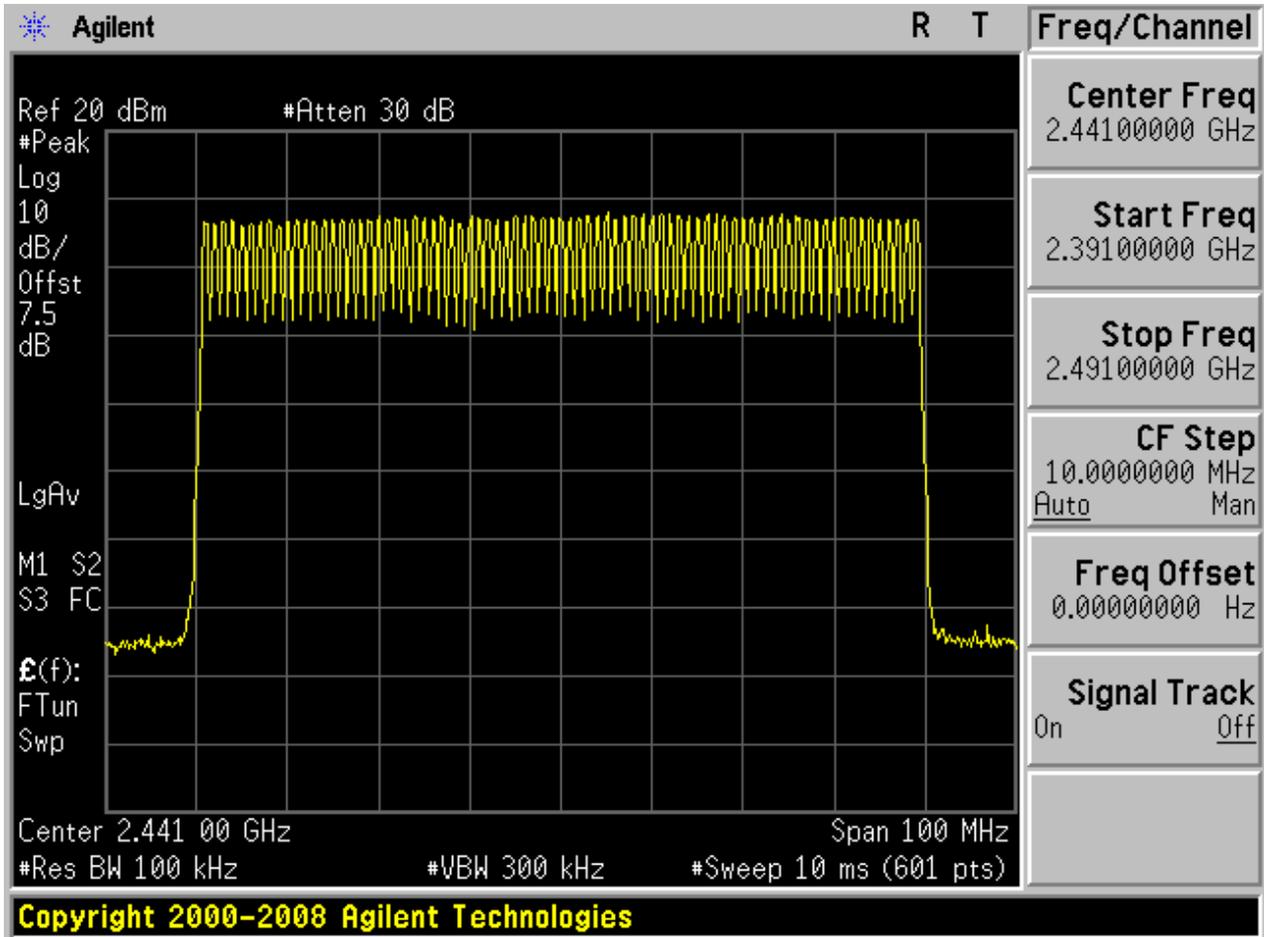


1 Result Table

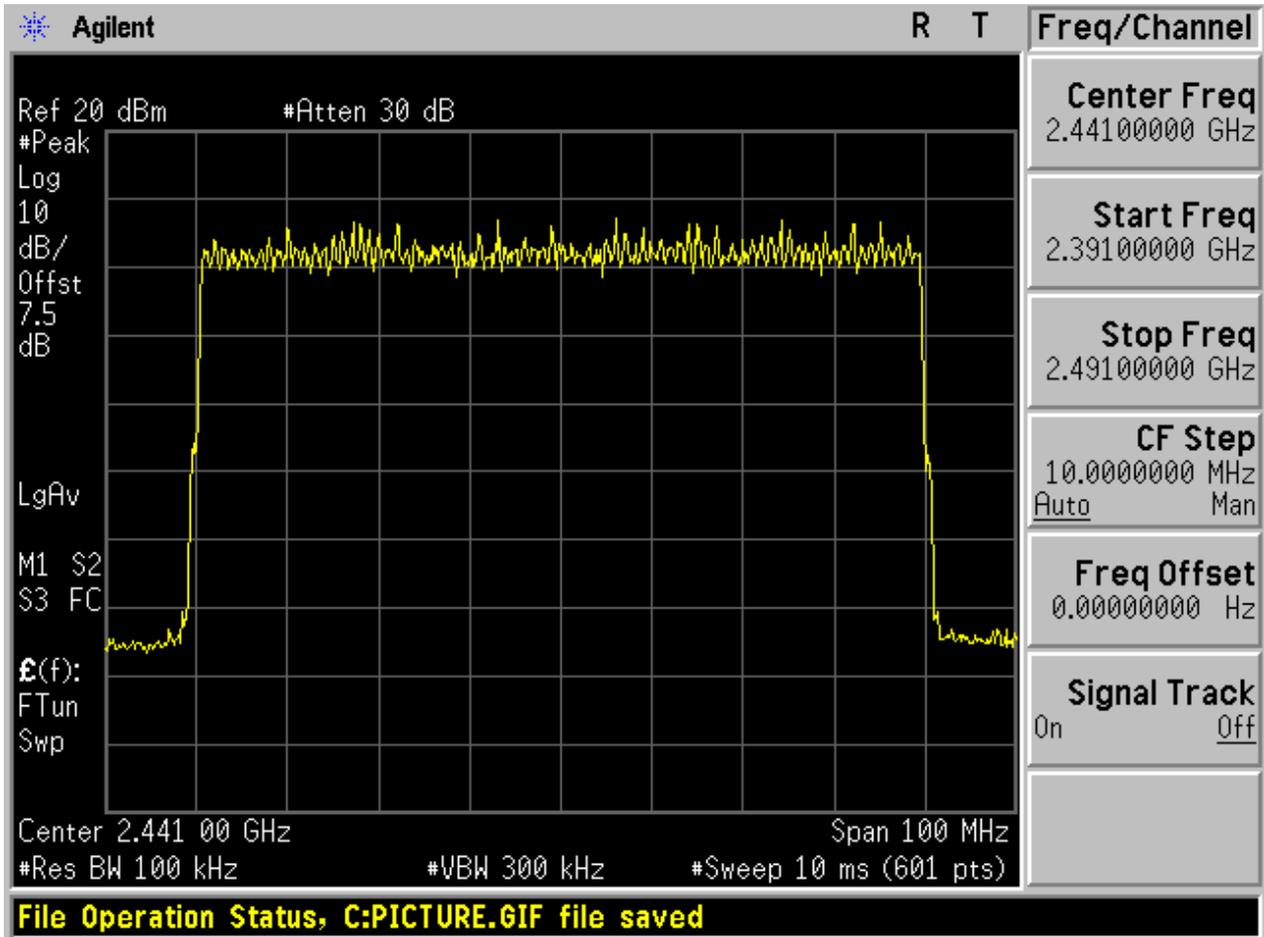
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

2 Test Plot

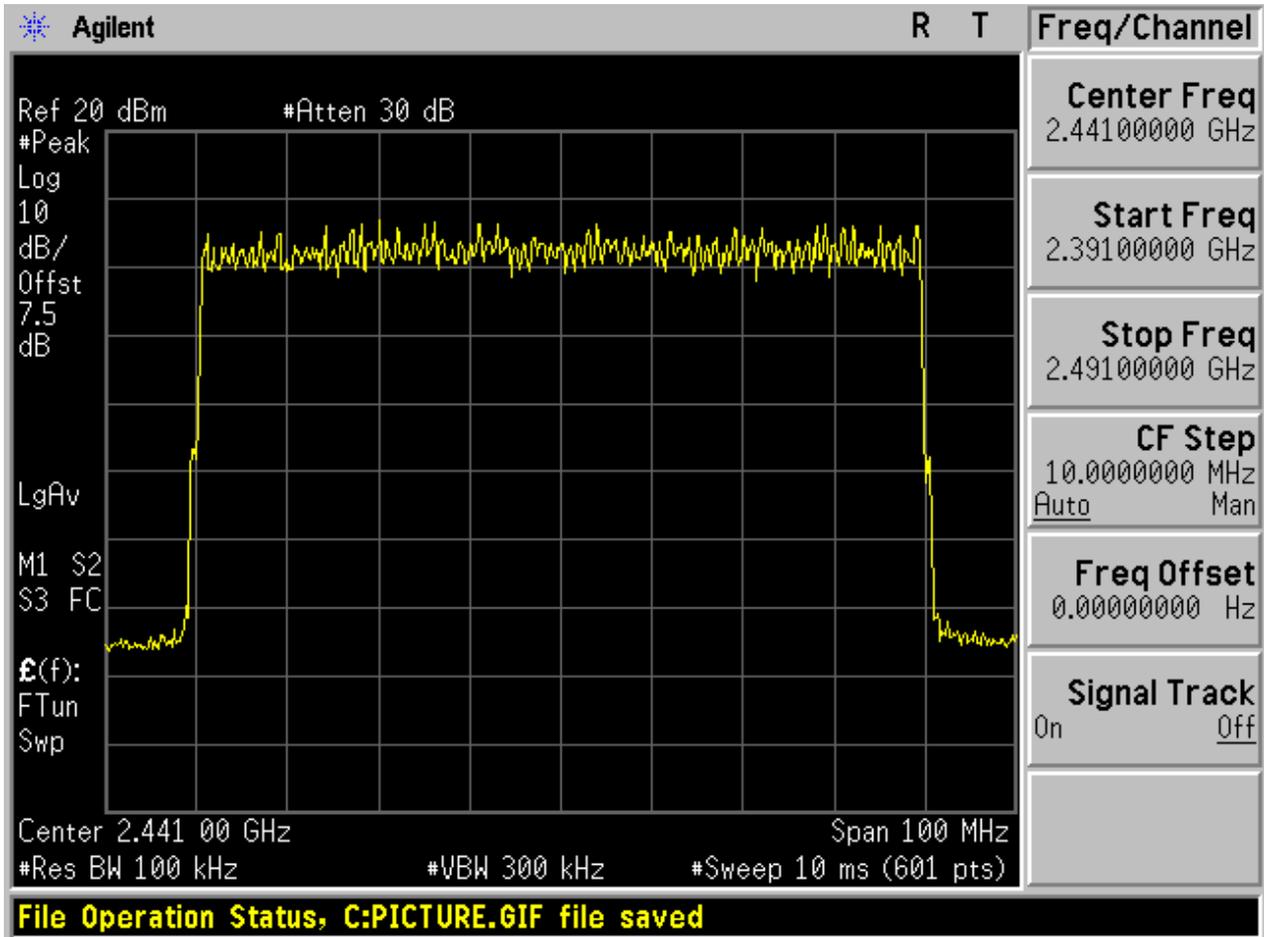
2.1 TM1_DH5_Hop



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:

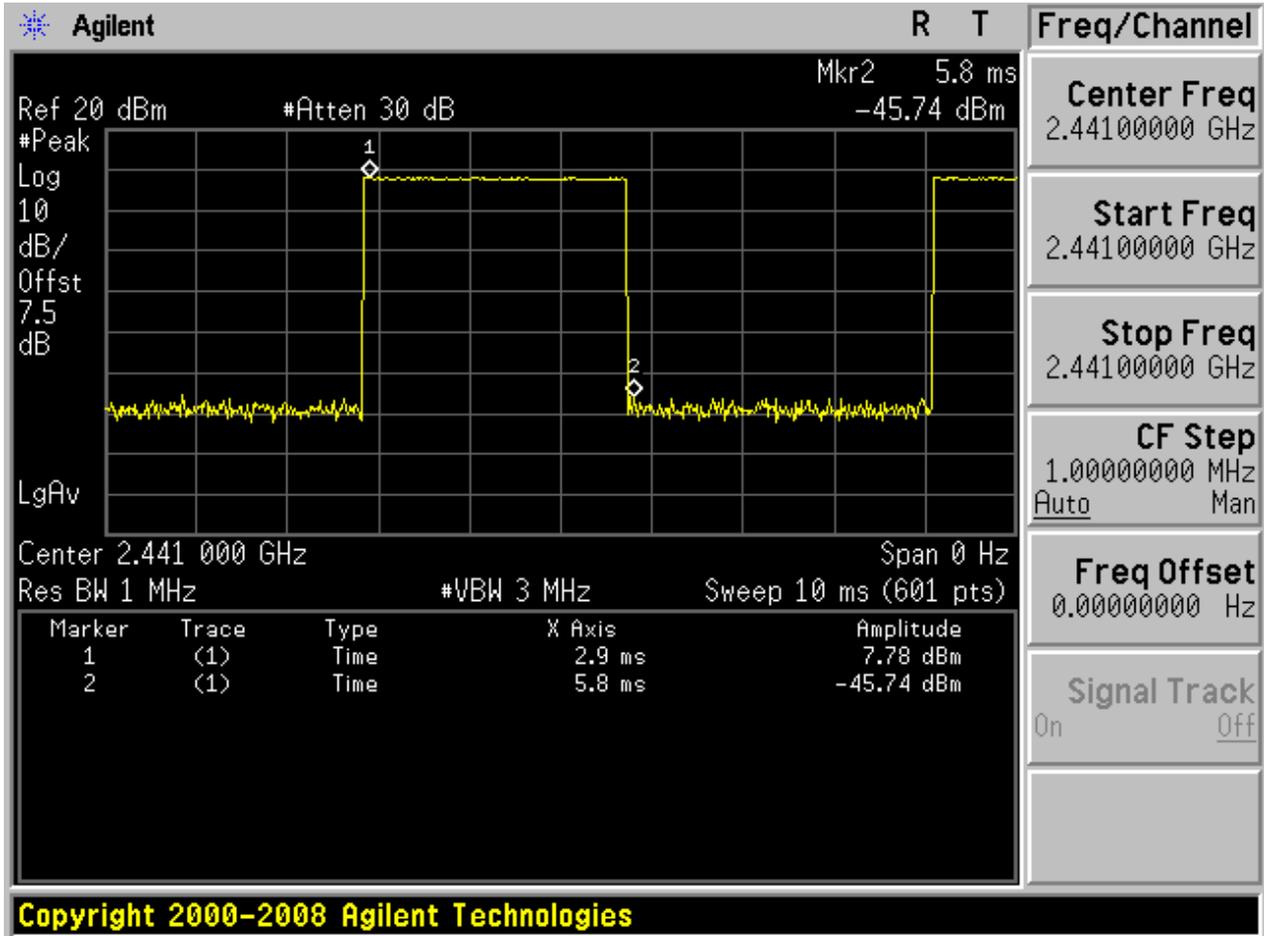
- The duration for dwell time calculation: $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT 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	2.90	106.67	0.309	Pass
TM2_2DH5_Ch39	2.90	106.67	0.309	Pass
TM3_3DH5_Ch39	2.90	106.67	0.309	Pass

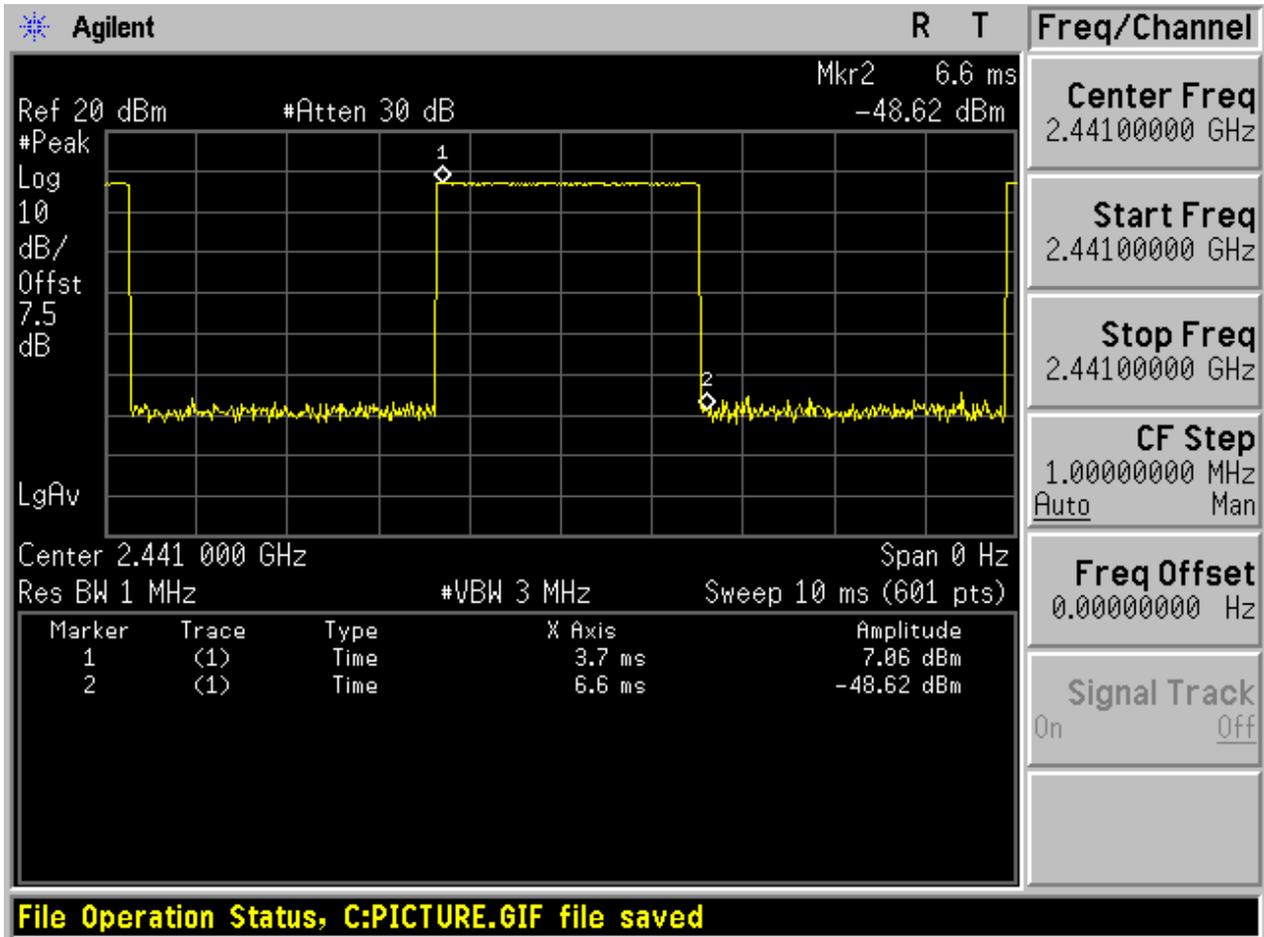
2 Test Plot

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

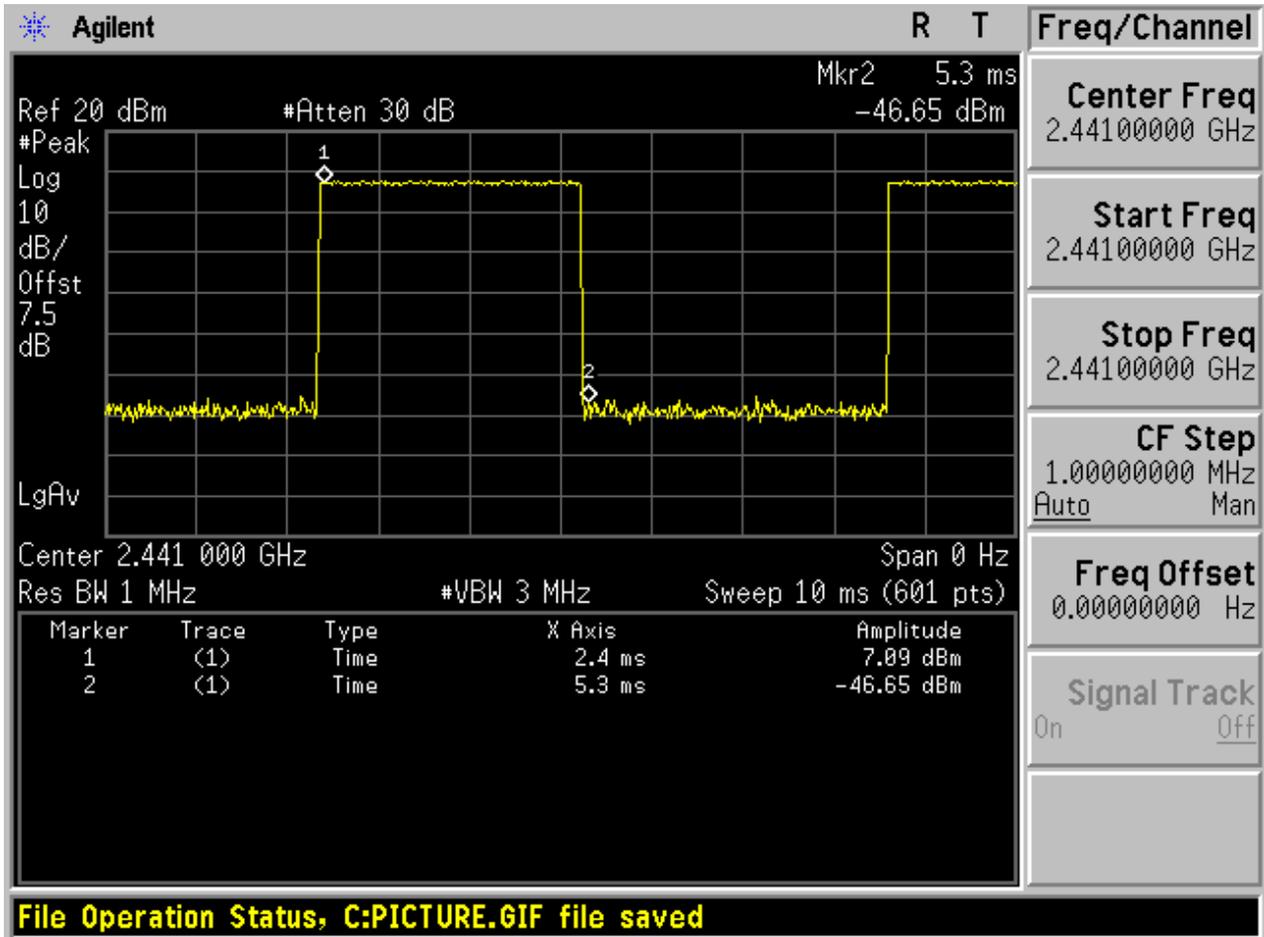
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39





Appendix E: Maximum Peak Conducted Output Power

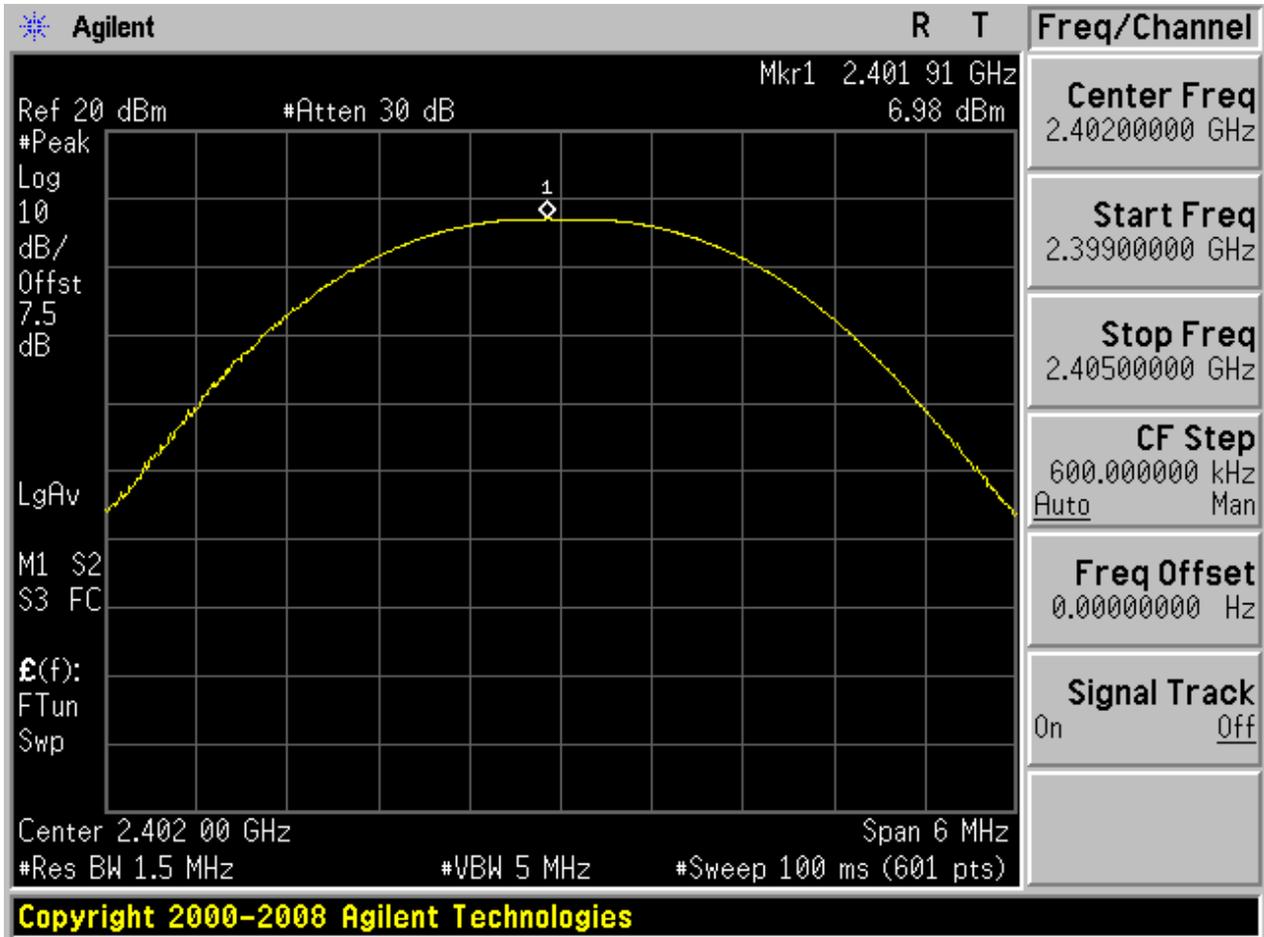


1 Result Table

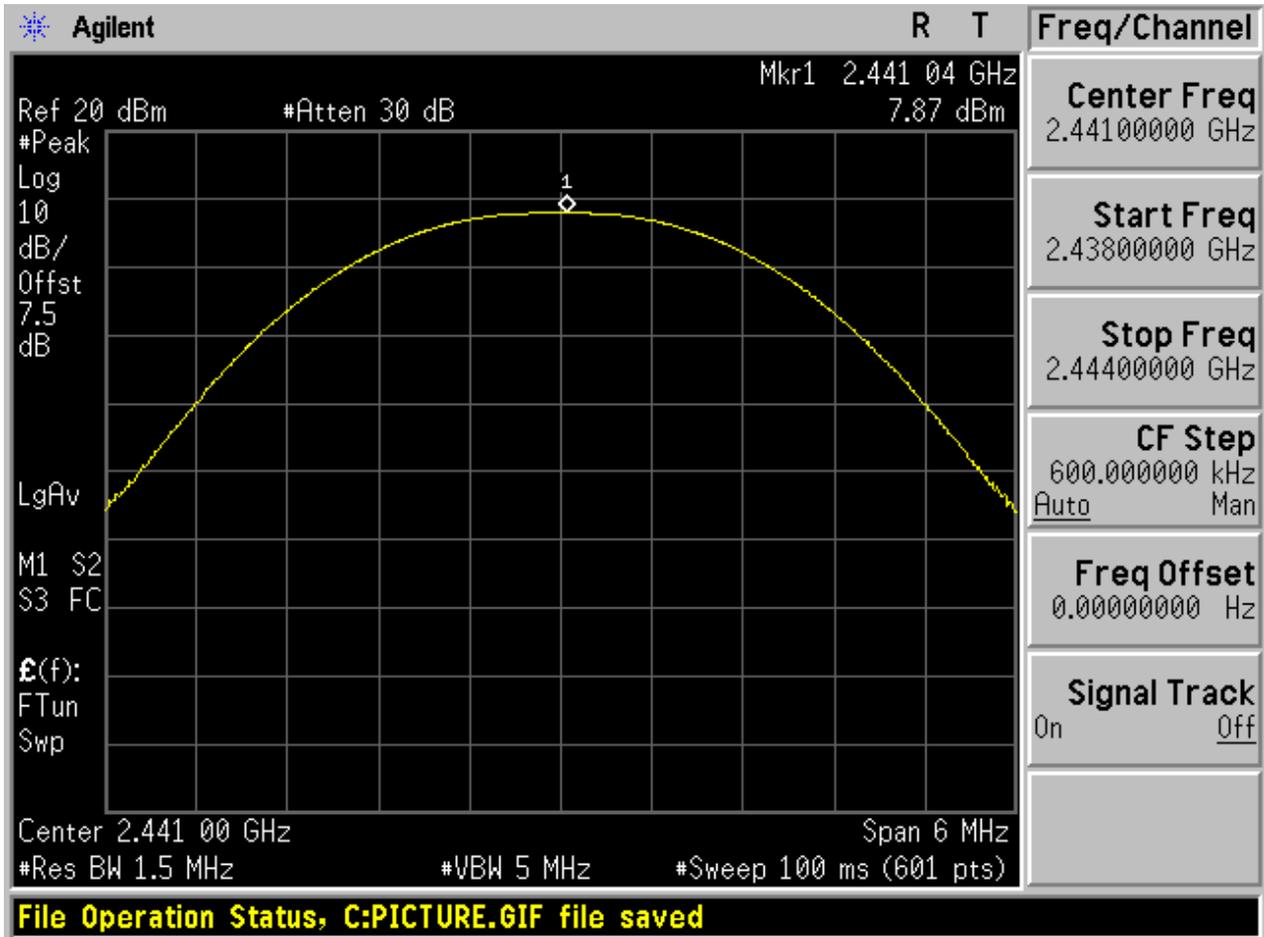
EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	6.98	Pass
TM1_DH5_Ch39	7.87	Pass
TM1_DH5_Ch78	7.55	Pass
TM2_2DH5_Ch0	6.76	Pass
TM2_2DH5_Ch39	7.66	Pass
TM2_2DH5_Ch78	7.3	Pass
TM3_3DH5_Ch0	6.91	Pass
TM3_3DH5_Ch39	7.82	Pass
TM3_3DH5_Ch78	7.47	Pass

2 Test Plot

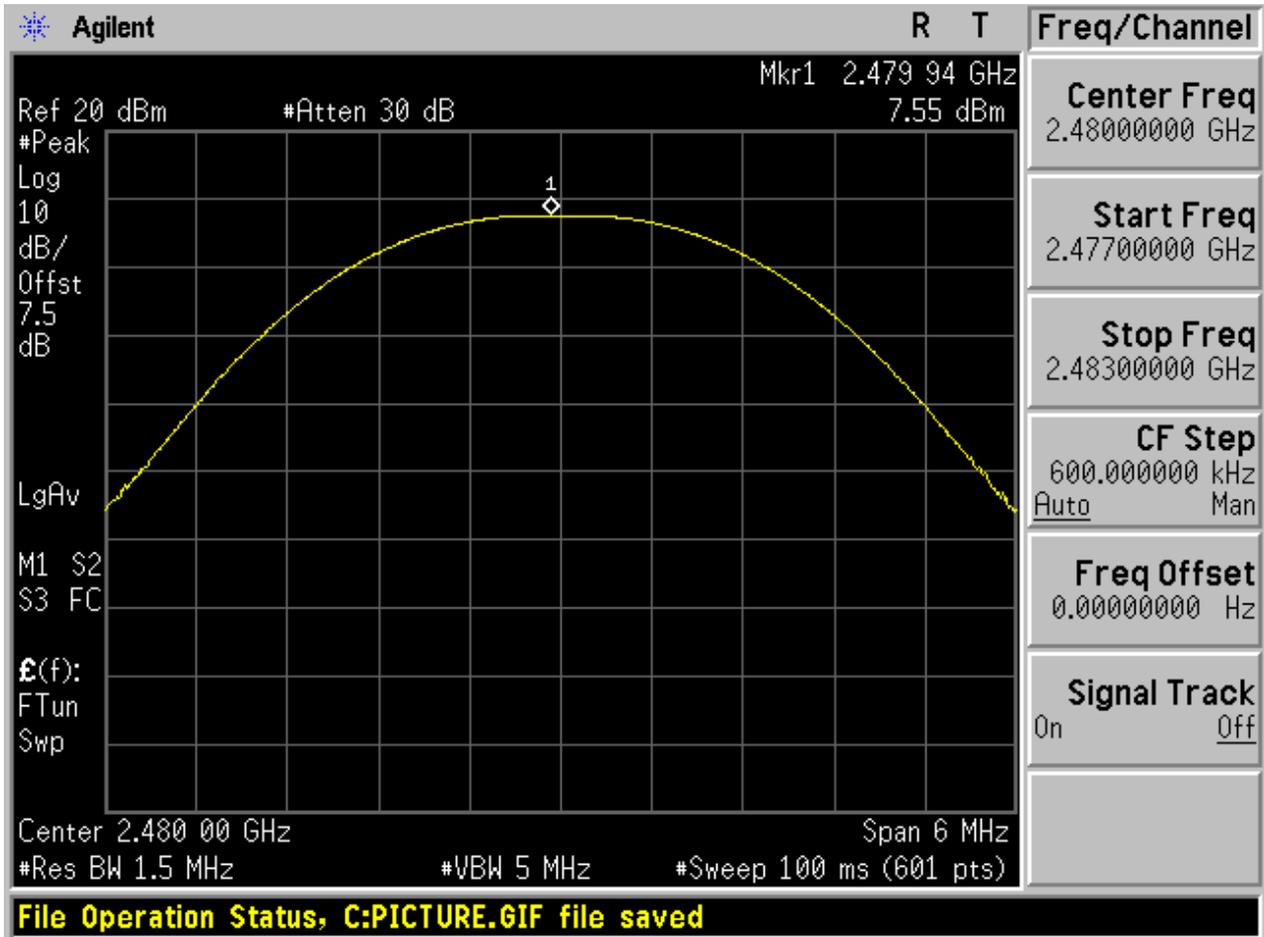
2.1 TM1_DH5_Ch0



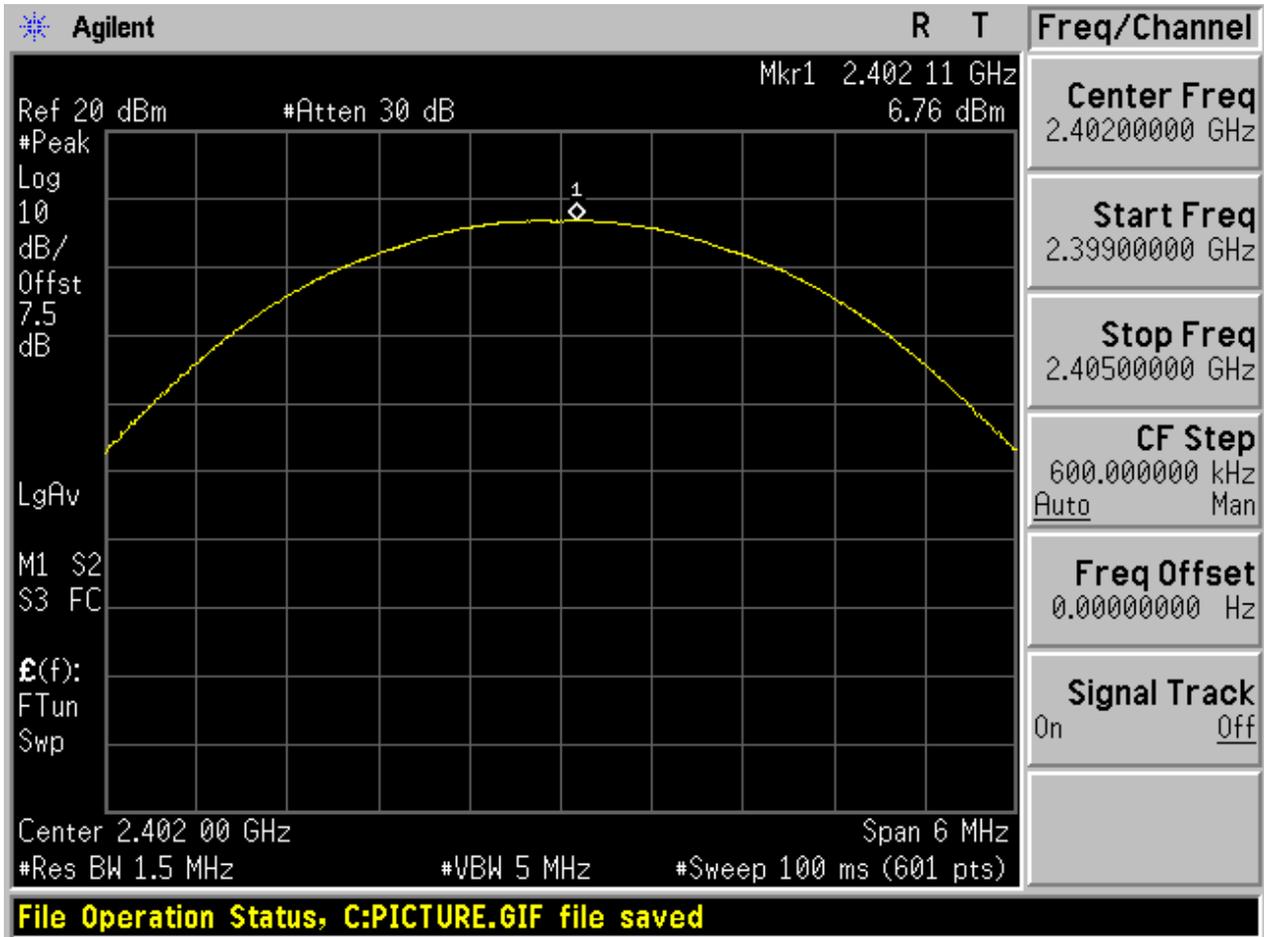
2.2 TM1_DH5_Ch39



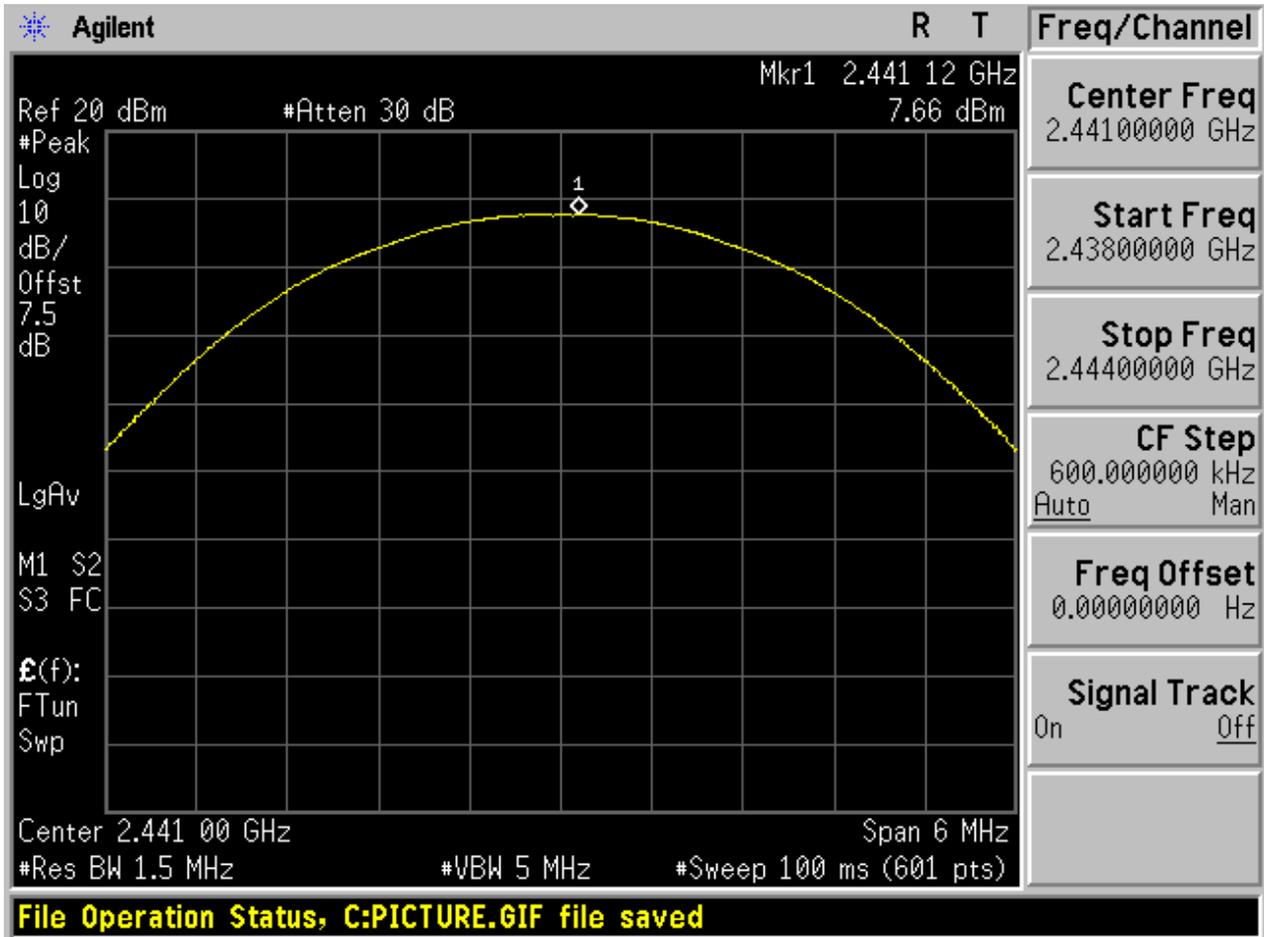
2.3 TM1_DH5_Ch78



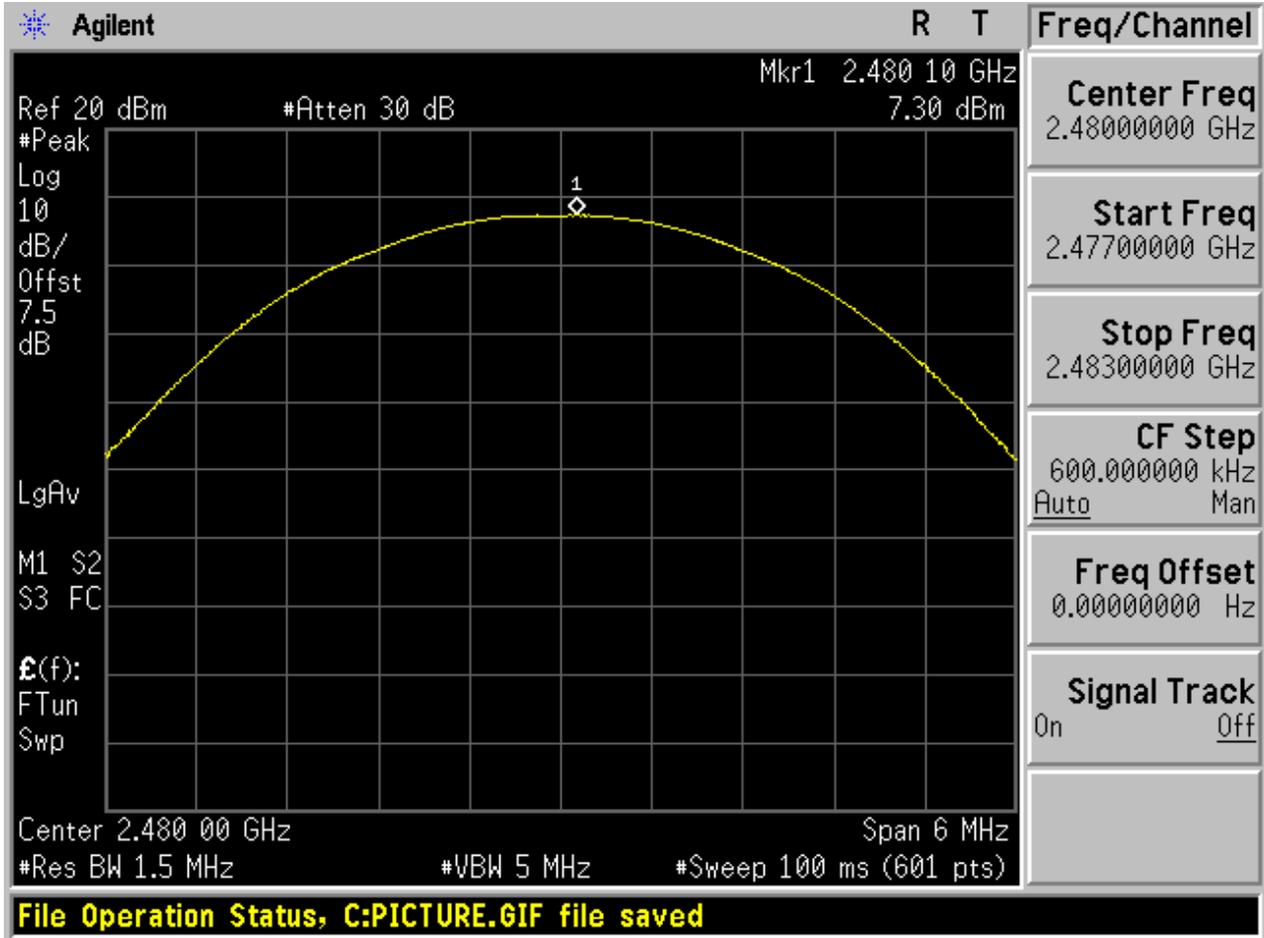
2.4 TM2_2DH5_Ch0



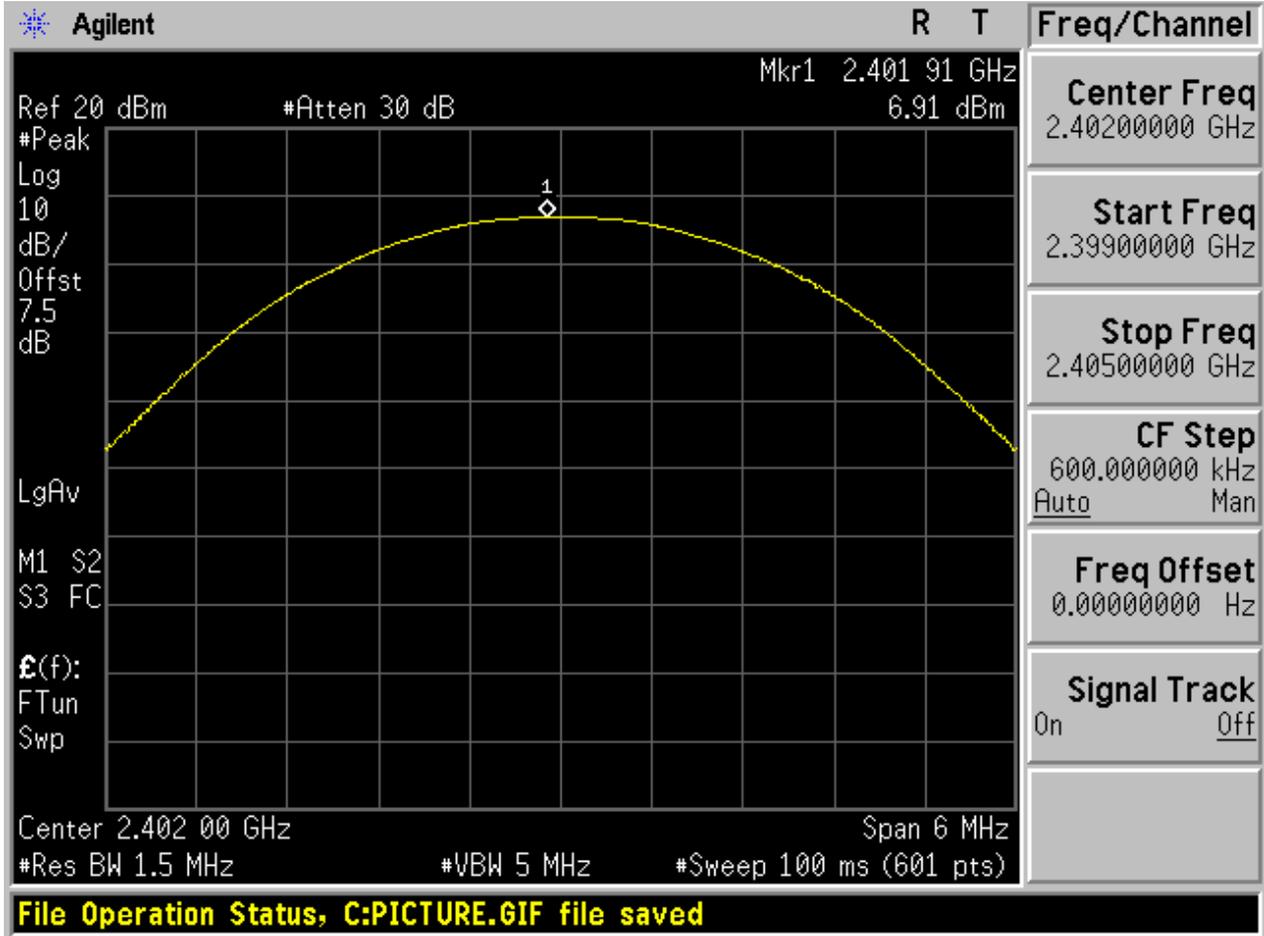
2.5 TM2_2DH5_Ch39



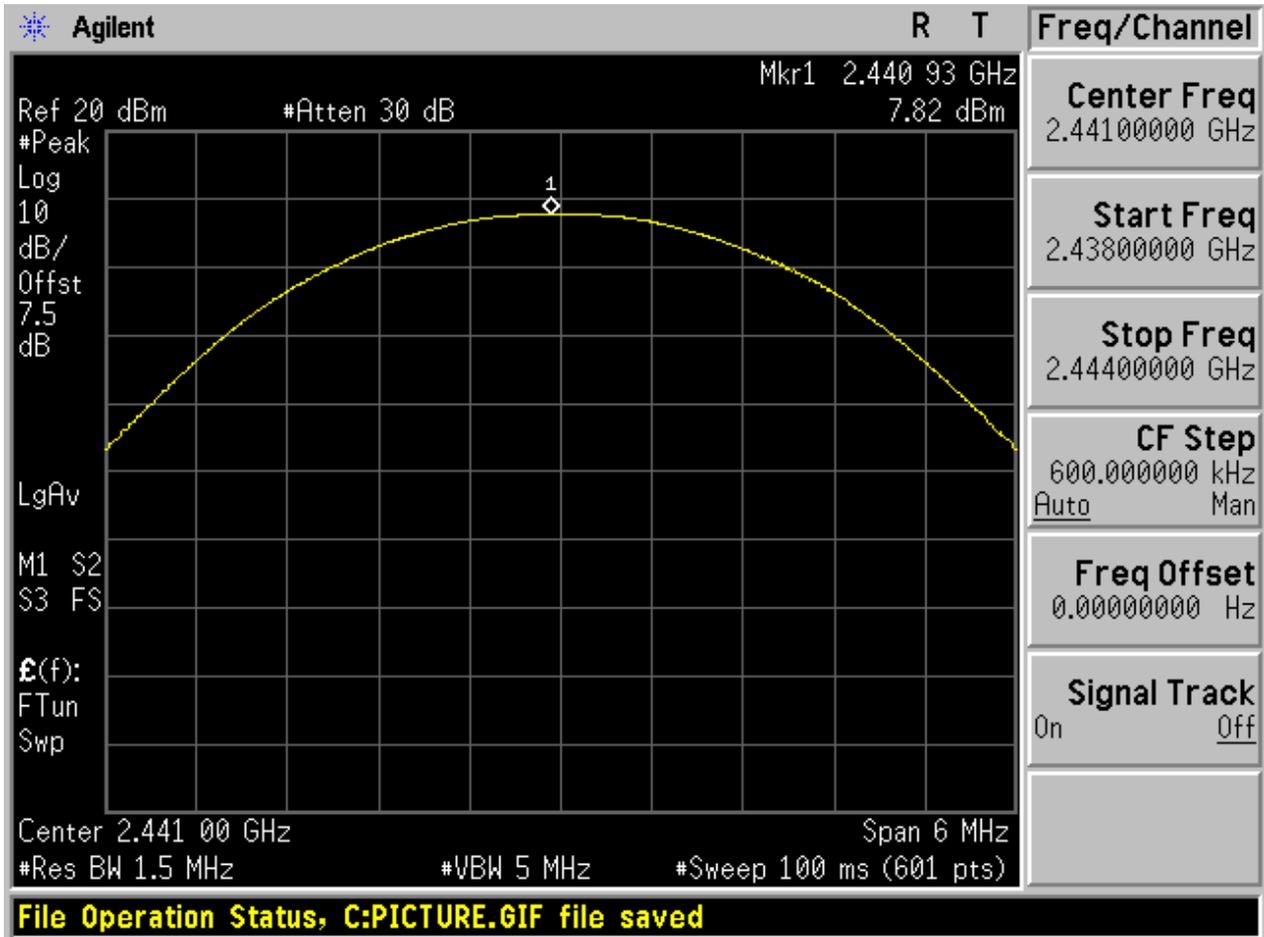
2.6 TM2_2DH5_Ch78



2.7 TM3_3DH5_Ch0

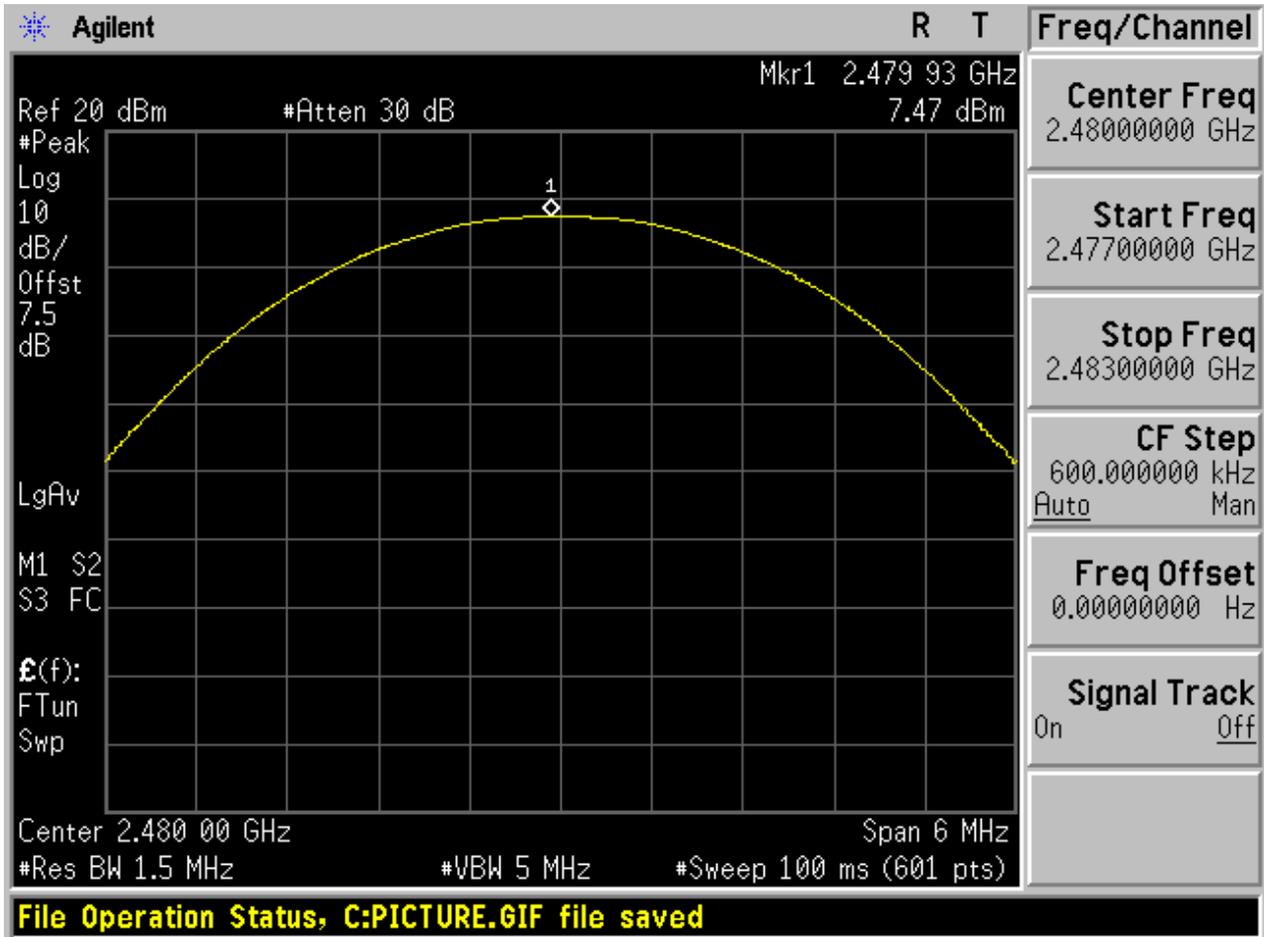


2.8 TM3_3DH5_Ch39





2.9 TM3_3DH5_Ch78





Appendix F: Band edge spurious emission



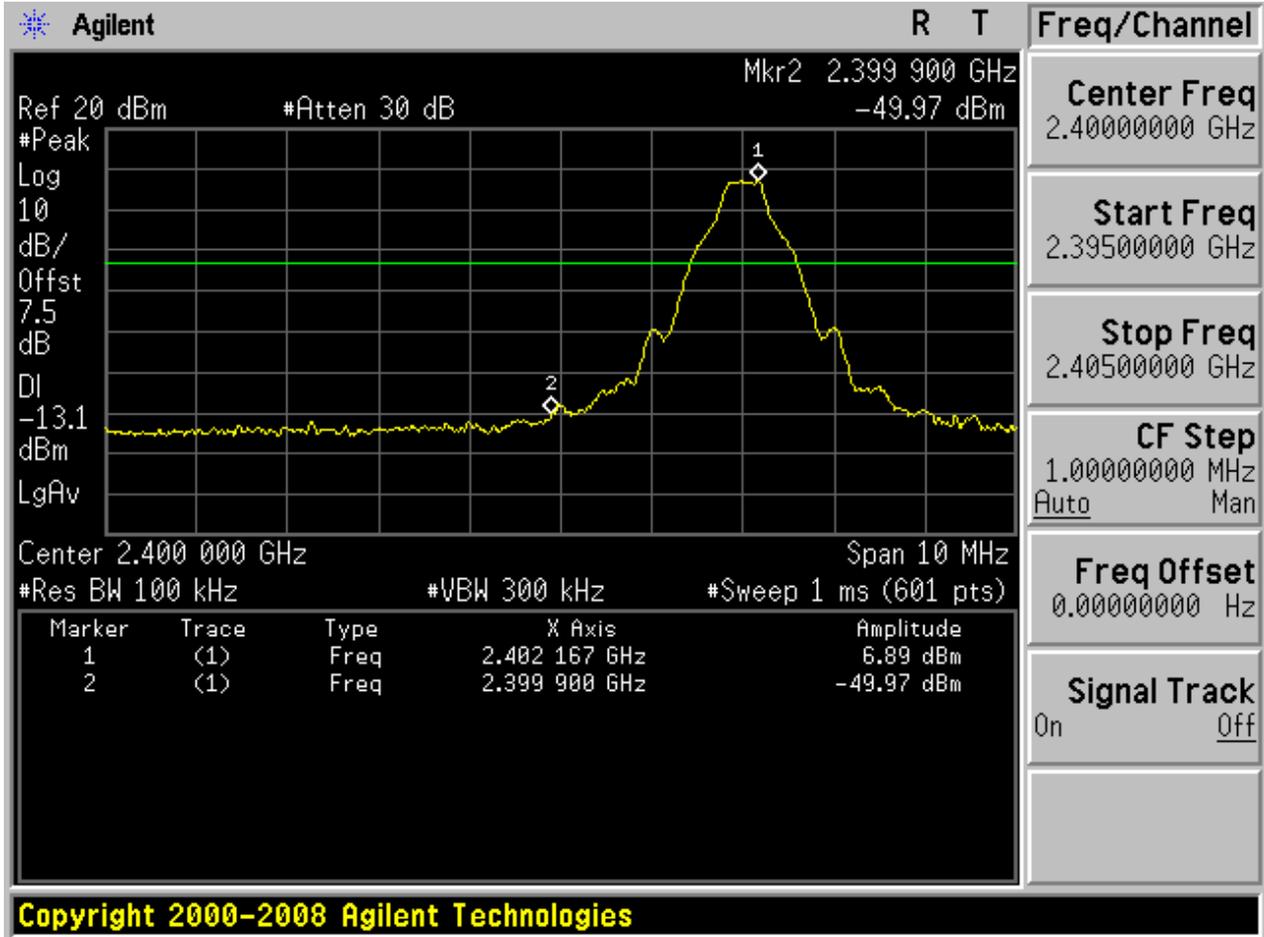
1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5_Ch0	0	2402	-49.97	Off	6.89	-13.11	Pass
	-	-	-52.76	On	6.61	-13.39	Pass
TM1_DH5_Ch78	78	2480	-51.46	Off	7.52	-12.48	Pass
	-	-	-53.16	On	6.86	-13.14	Pass
TM2_2DH_5_Ch0	0	2402	-46.27	Off	6.20	-13.8	Pass
	-	-	-47.54	On	5.58	-14.42	Pass
TM2_2DH_5_Ch78	78	2480	-51.23	Off	6.70	-13.3	Pass
	-	-	-53.81	On	3.02	-16.98	Pass
TM3_3DH_5_Ch0	0	2402	-47.72	Off	6.21	-13.79	Pass
	-	-	-53.41	On	5.69	-14.31	Pass
TM3_3DH_5_Ch78	78	2480	-52.29	Off	6.77	-13.23	Pass
	-	-	-53.39	On	6.14	-13.86	Pass

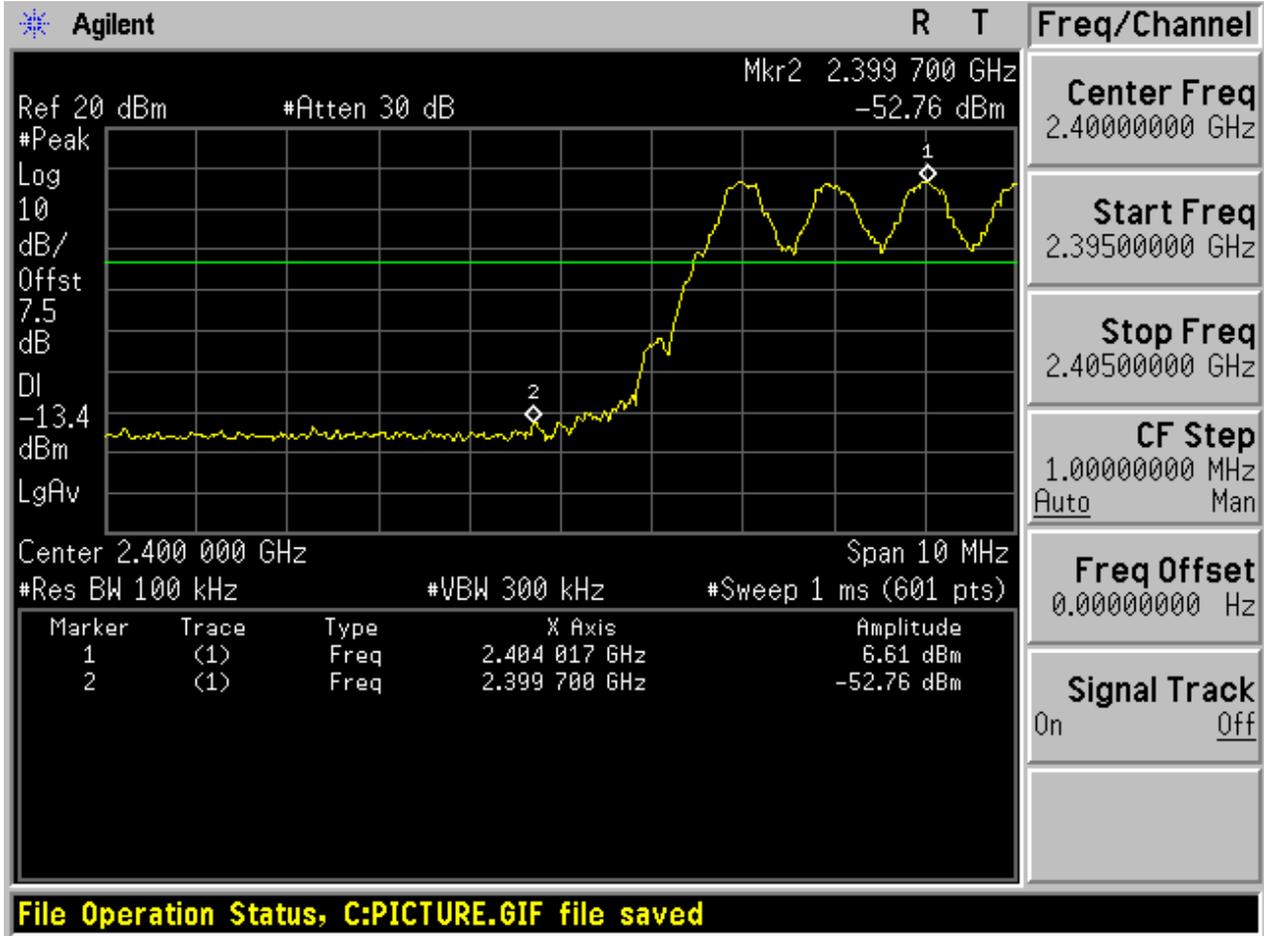
2 Test Plot

2.1 TM1_DH5_Ch0

No hopping

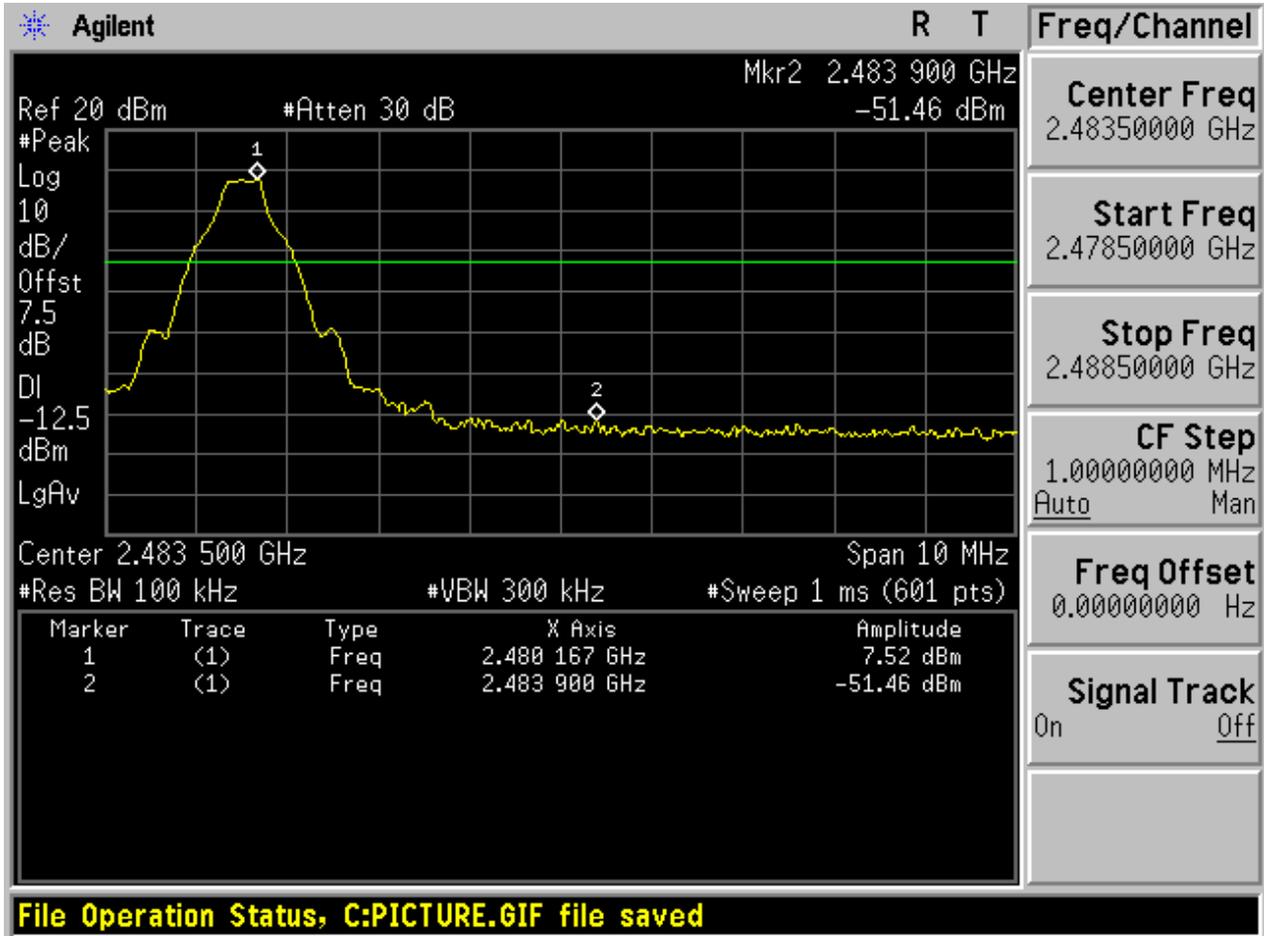


With hopping

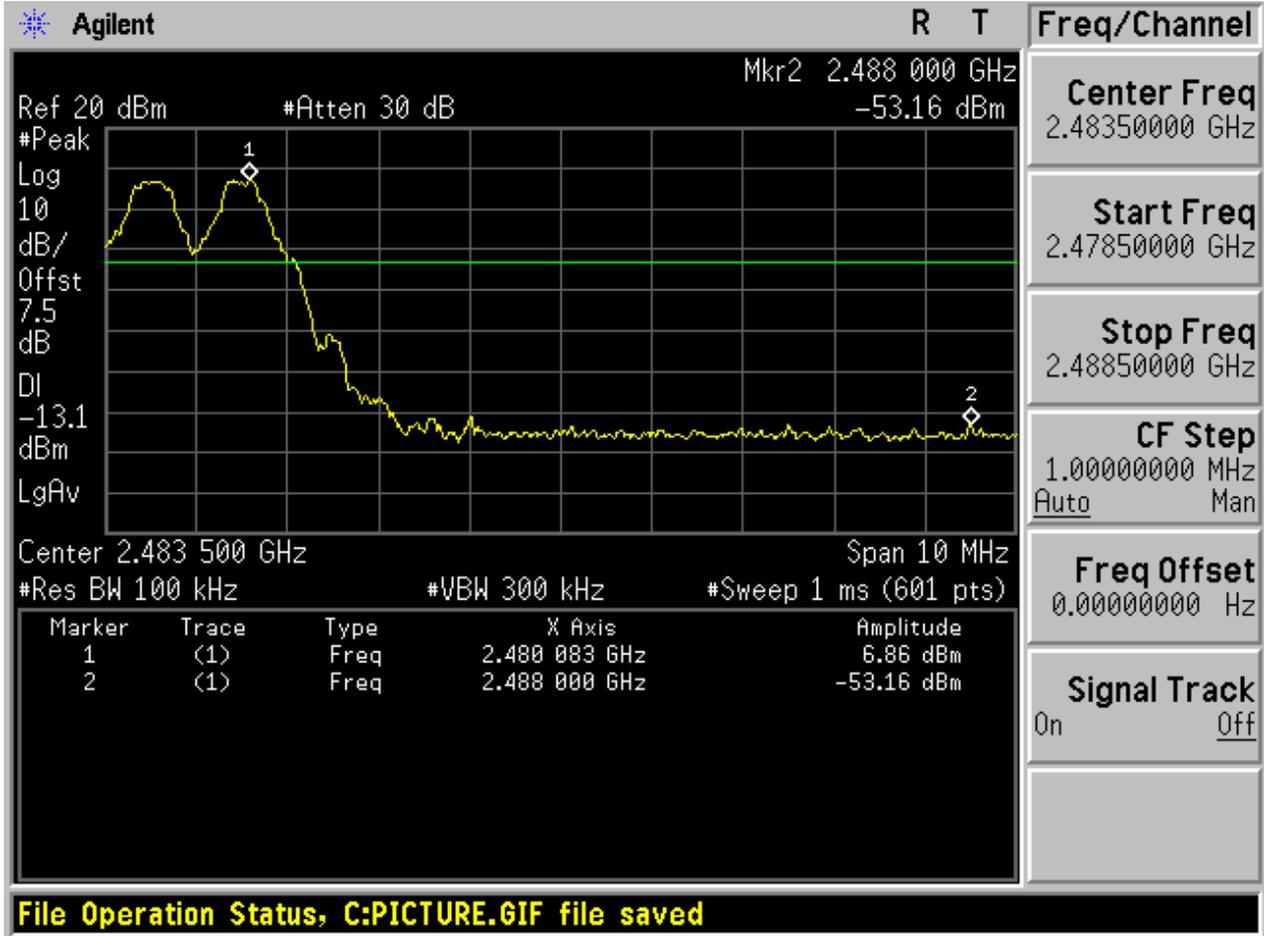


2.2 TM1_DH5_Ch78

No hopping

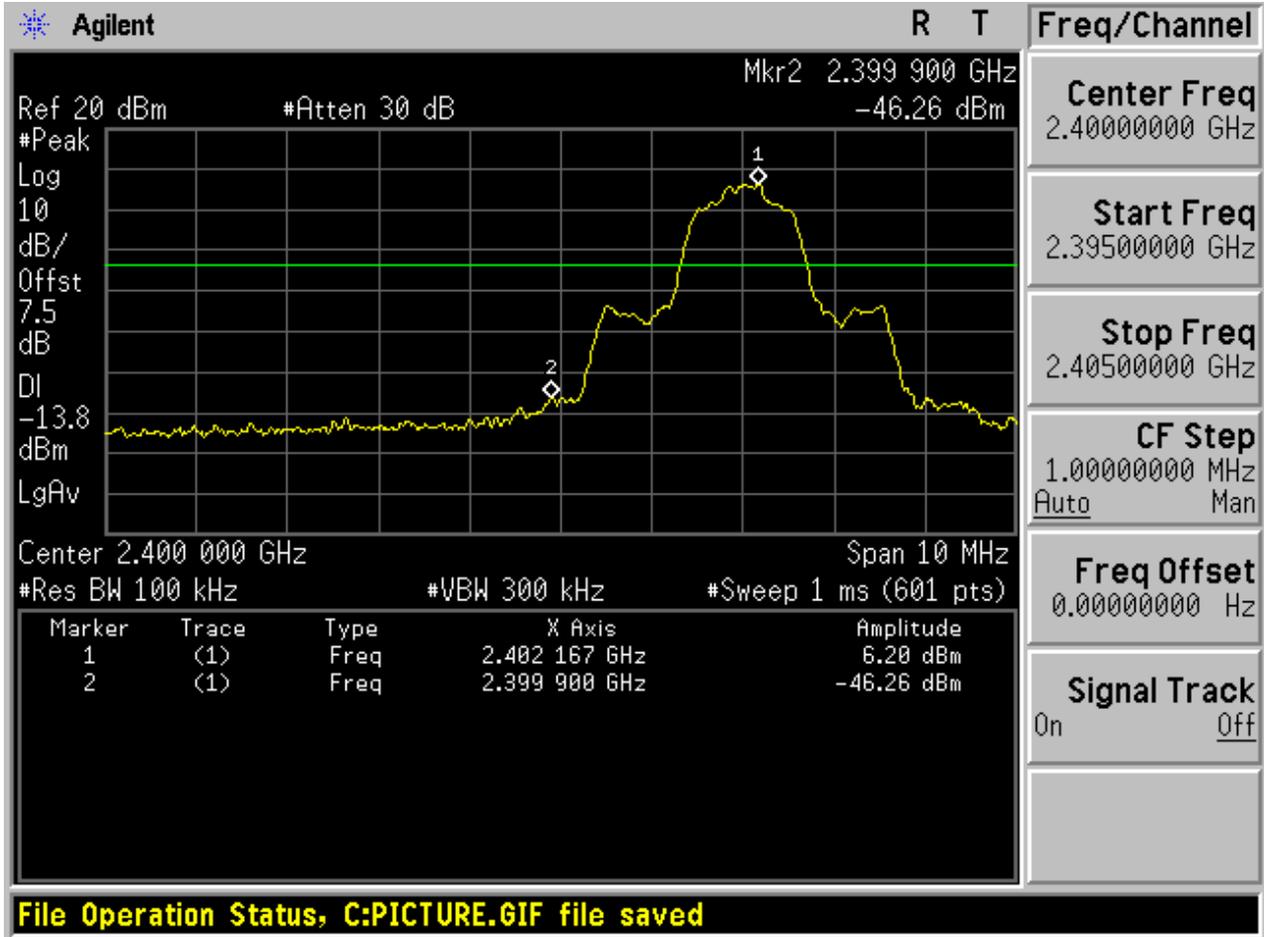


With hopping

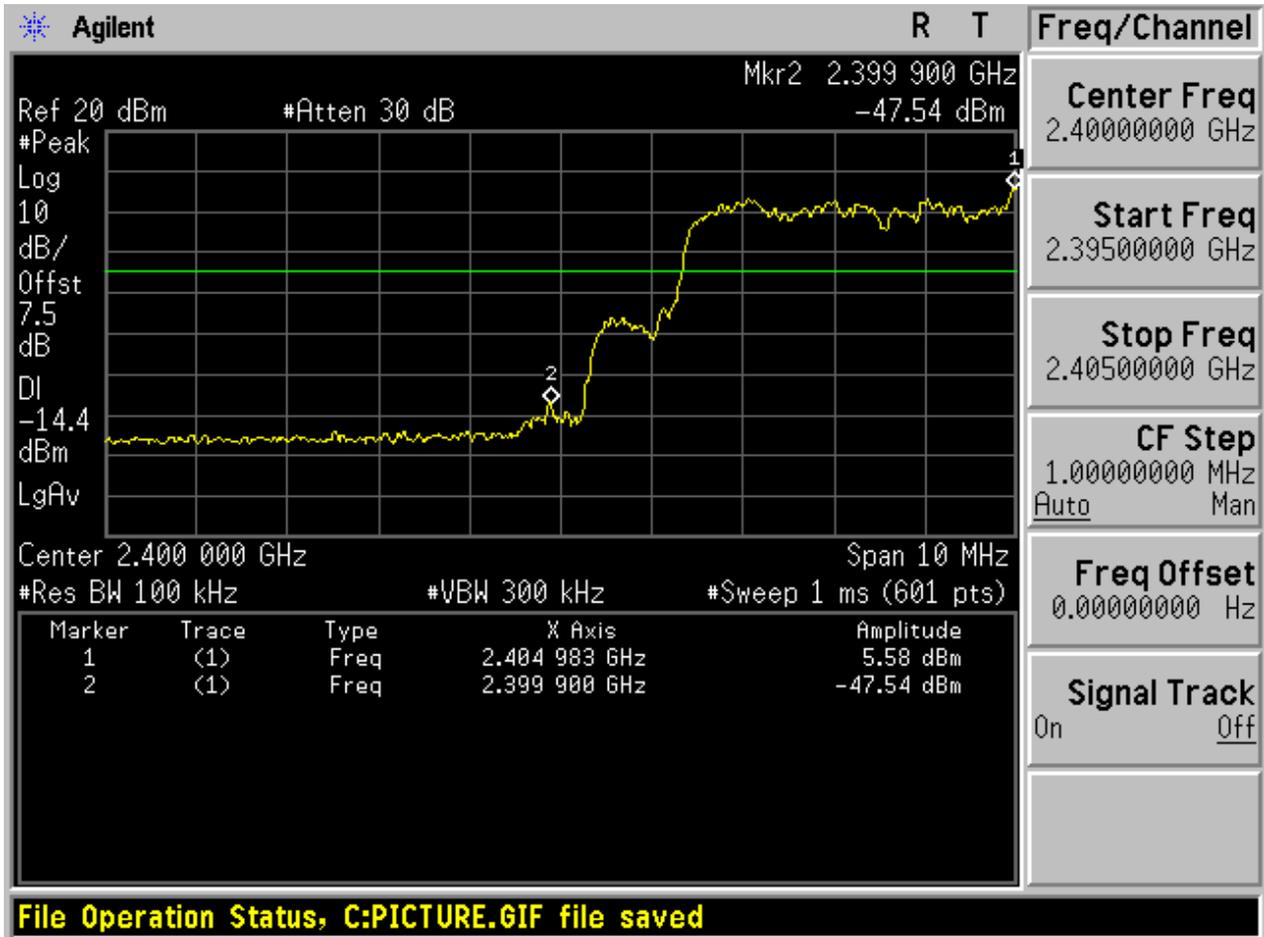


2.3 TM2_2DH5_Ch0

No hopping

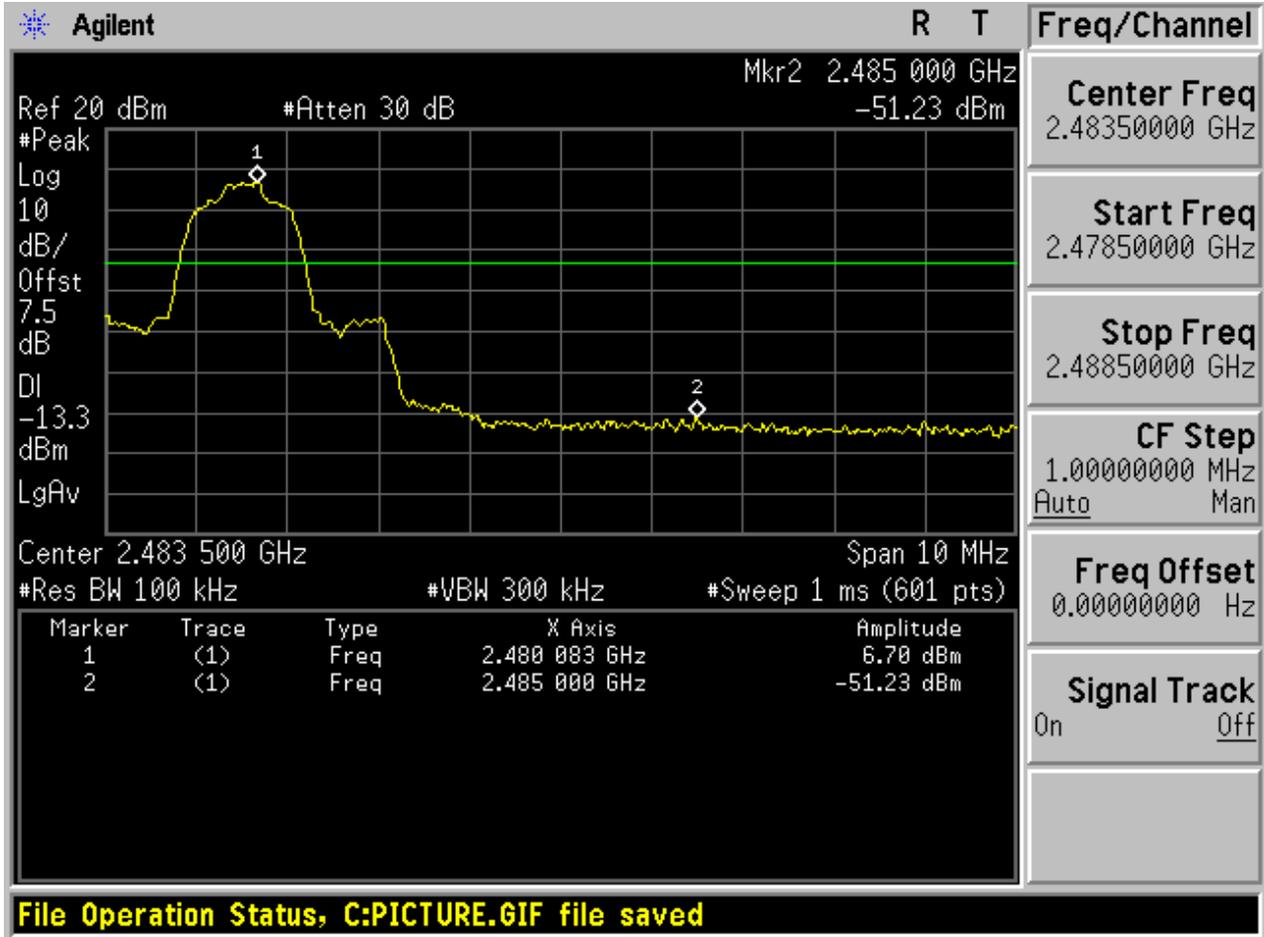


With hopping

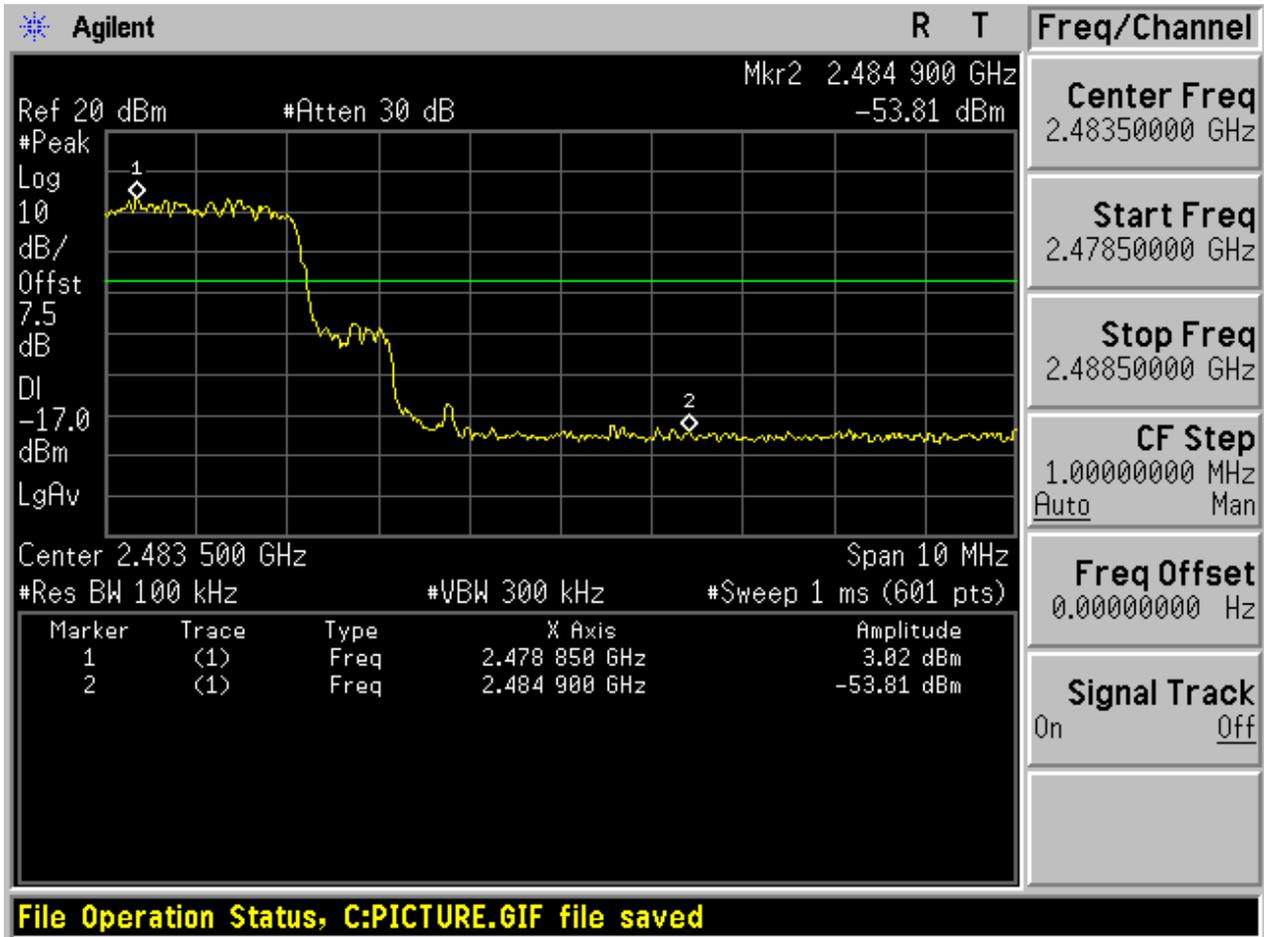


2.4 TM2_2DH5_Ch78

No hopping

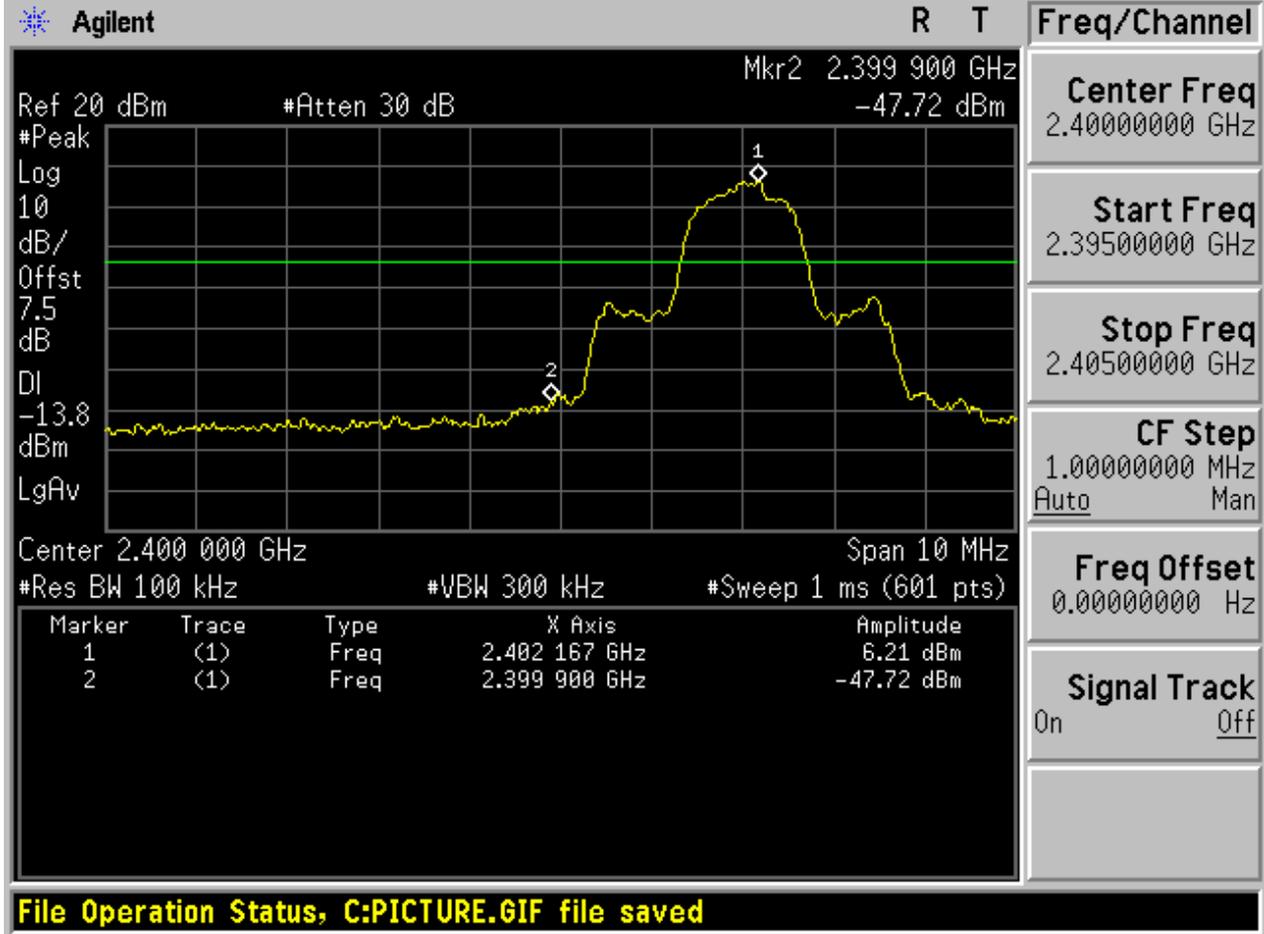


With hopping

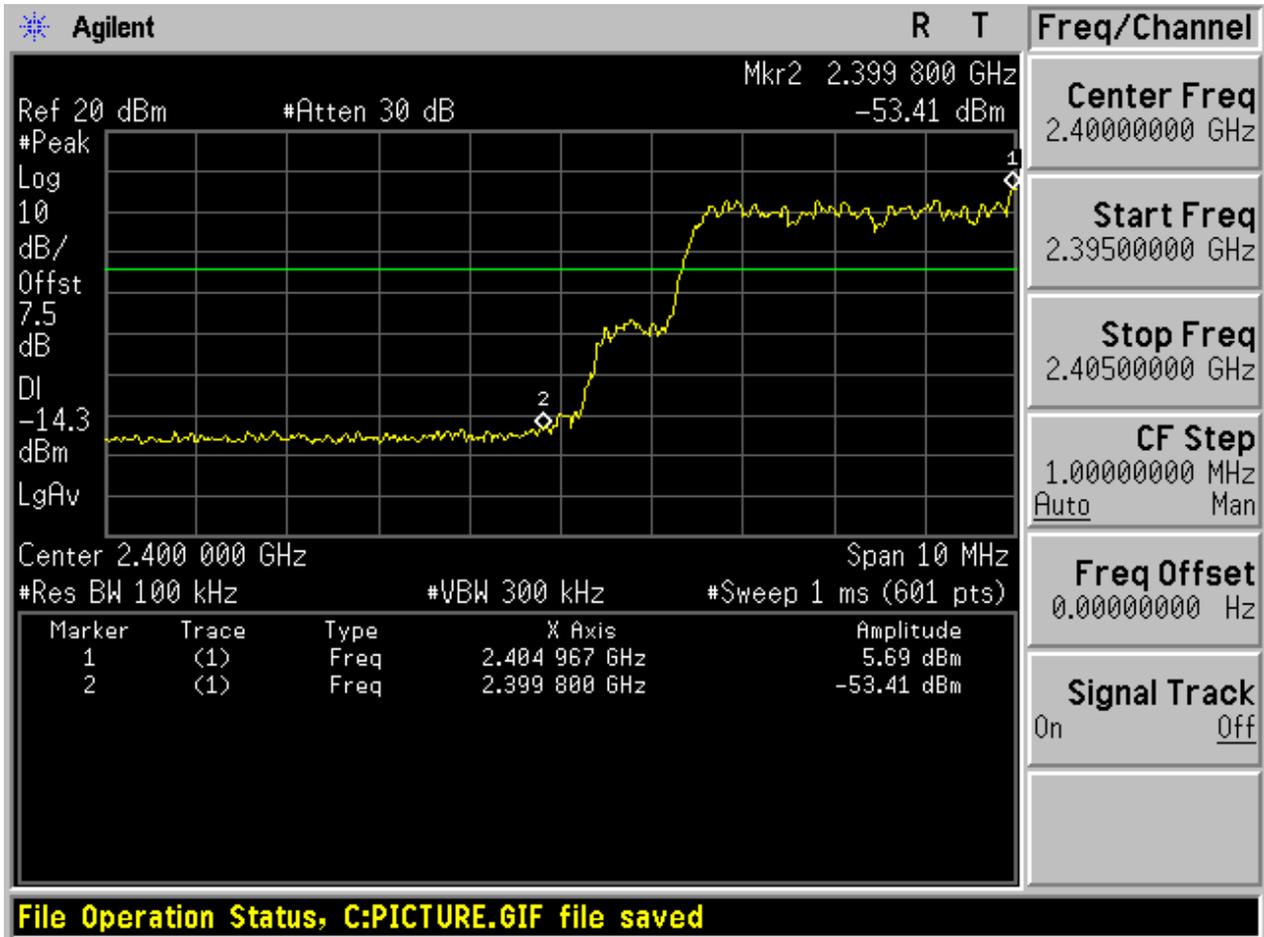


2.5 TM3_3DH5_Ch0

No hopping

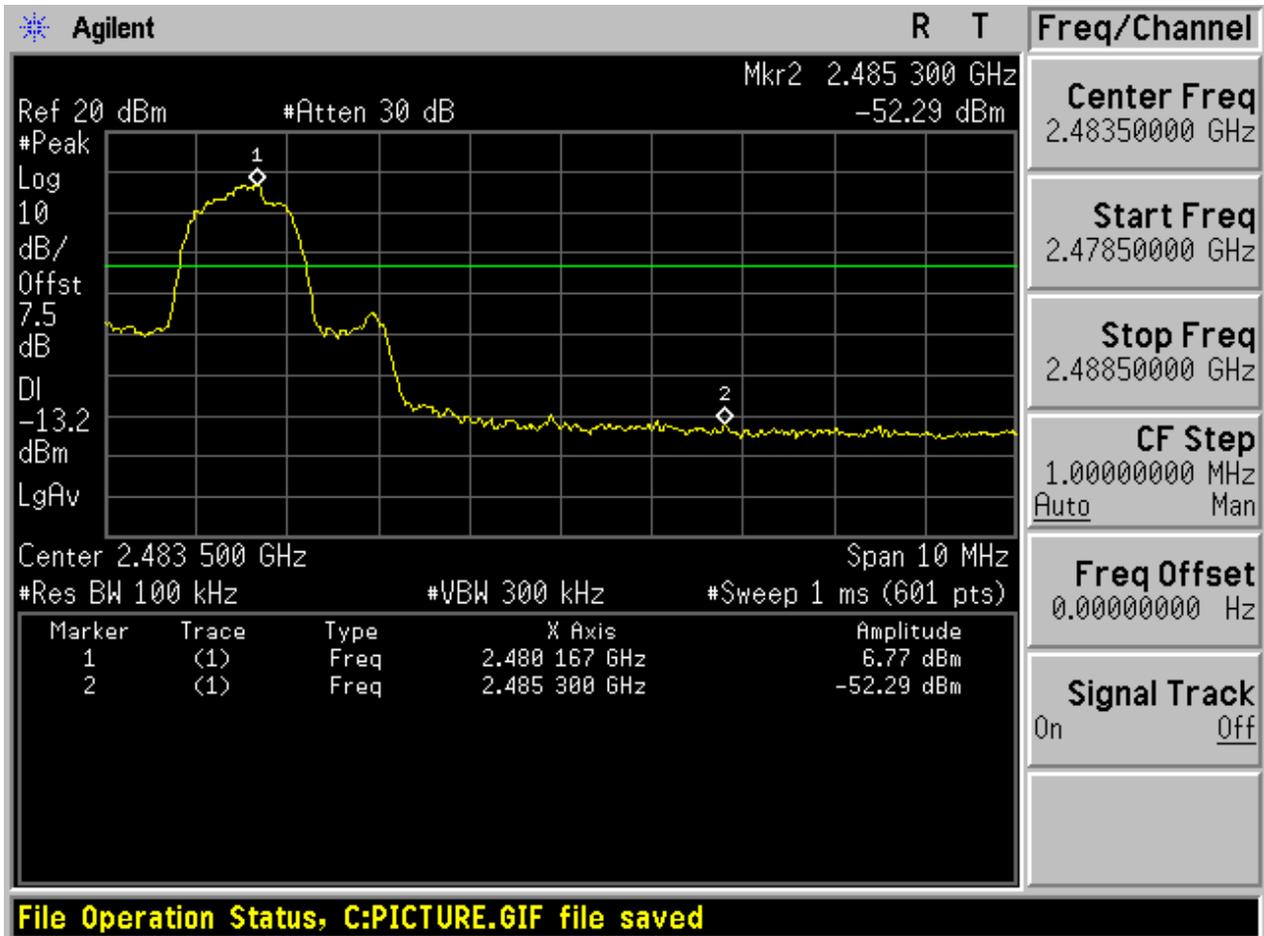


With hopping

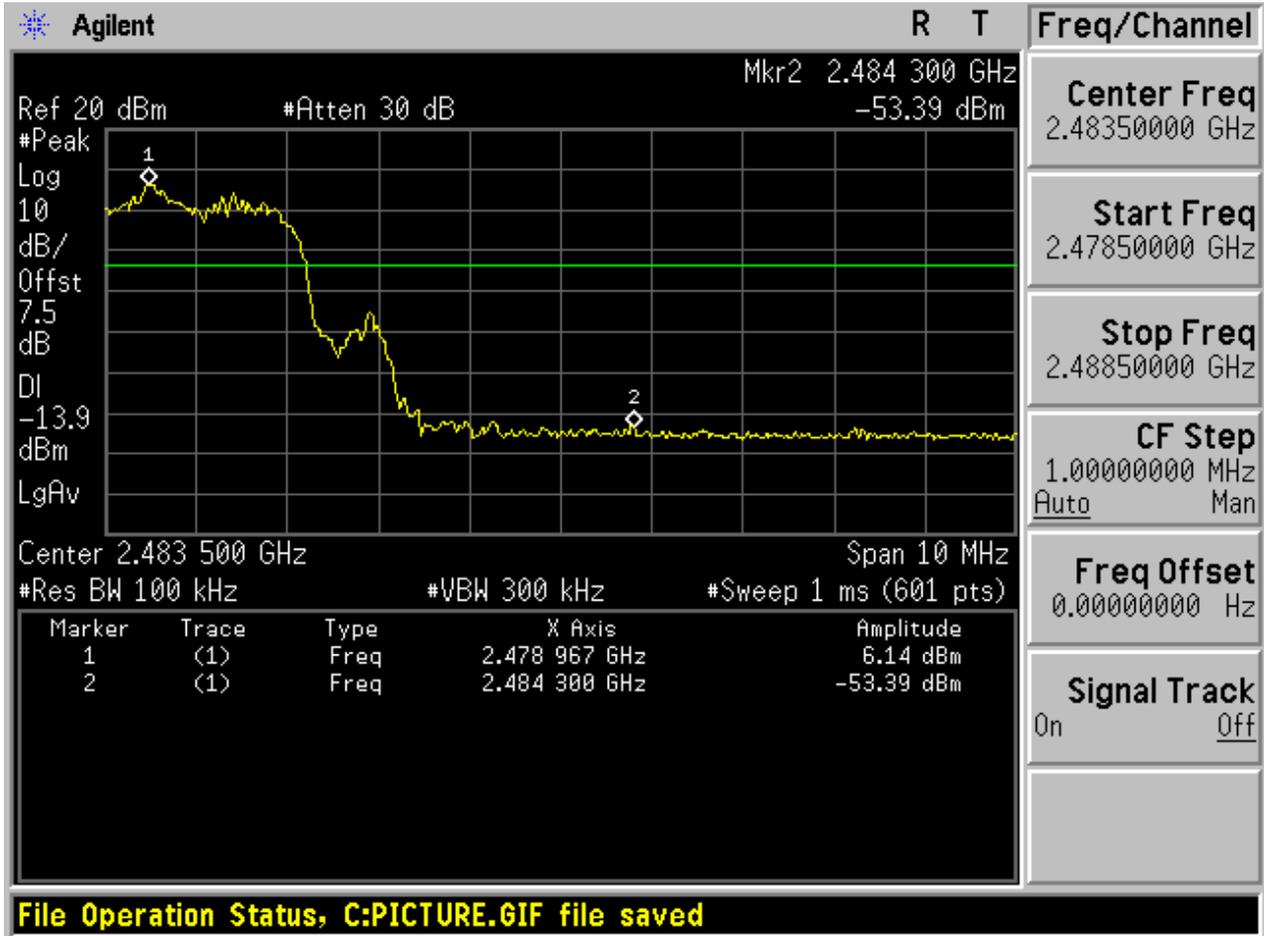


2.6 TM3_3DH5_Ch78

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.

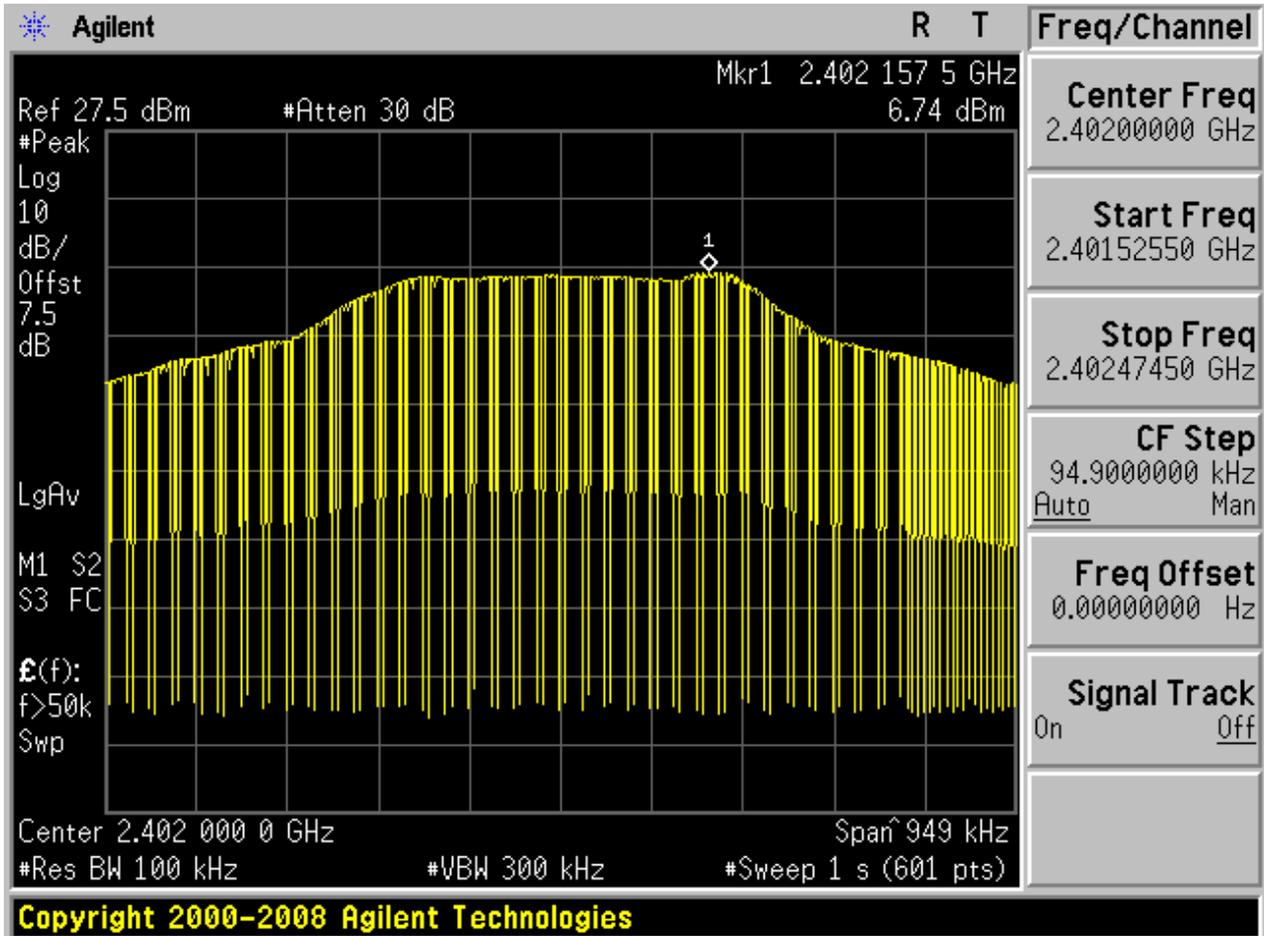
In the result table, the “< Limit” denotes that “The Puw [dBm] is less than Pref [dBm] - 20 [dB], see test plots for detailed”.

EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	6.74	< Limit	Pass
TM1_DH5_Ch39	7.75	< Limit	Pass
TM1_DH5_Ch78	7.42	< Limit	Pass
TM2_2DH5_Ch0	6.03	< Limit	Pass
TM2_2DH5_Ch39	7.07	< Limit	Pass
TM2_2DH5_Ch78	6.65	< Limit	Pass
TM3_3DH5_Ch0	6.03	< Limit	Pass
TM3_3DH5_Ch39	7.07	< Limit	Pass
TM3_3DH5_Ch78	6.64	< Limit	Pass

2 Test Plot

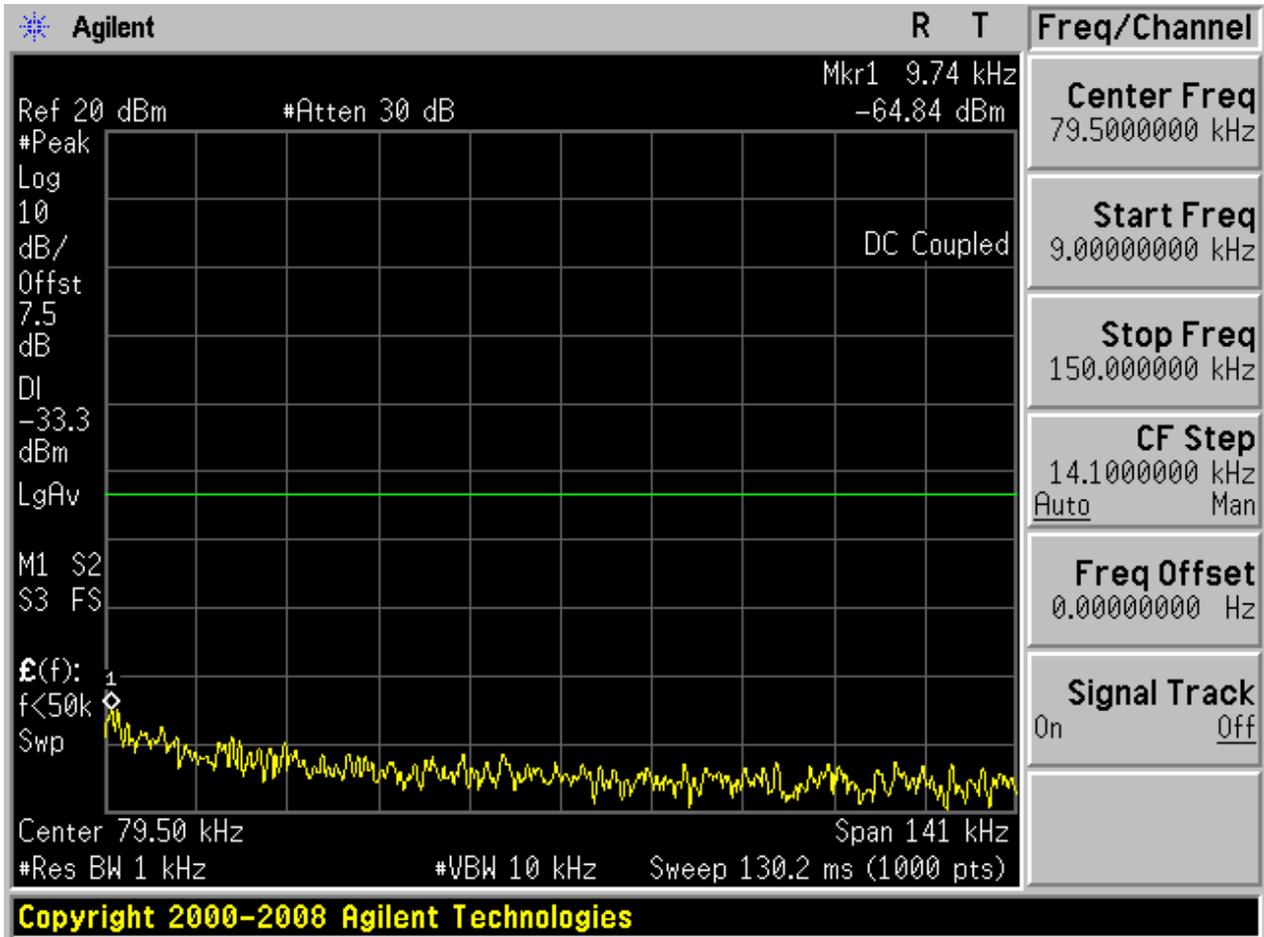
2.1 TM1_DH5_Ch0

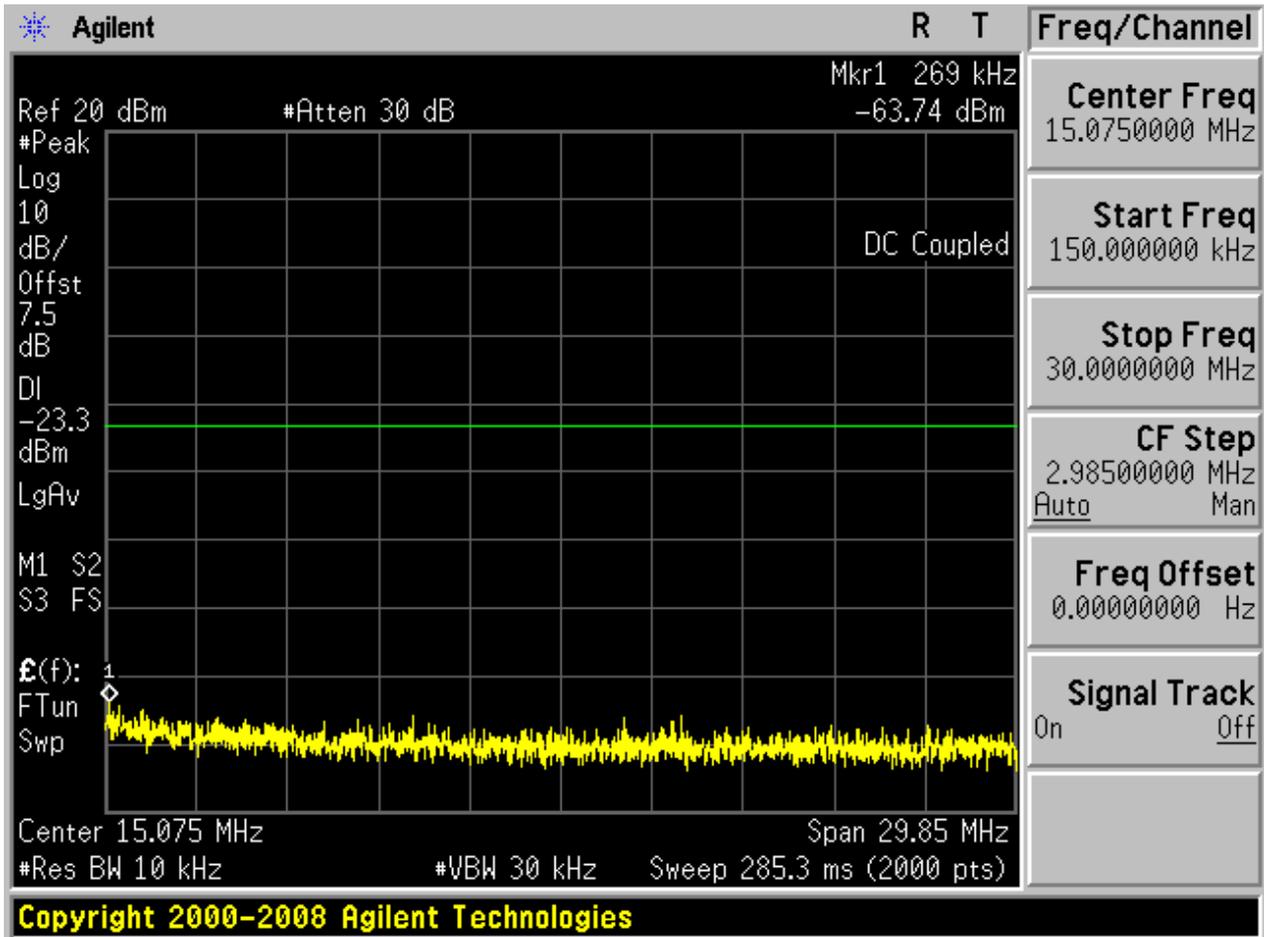
2.1.1 Pref

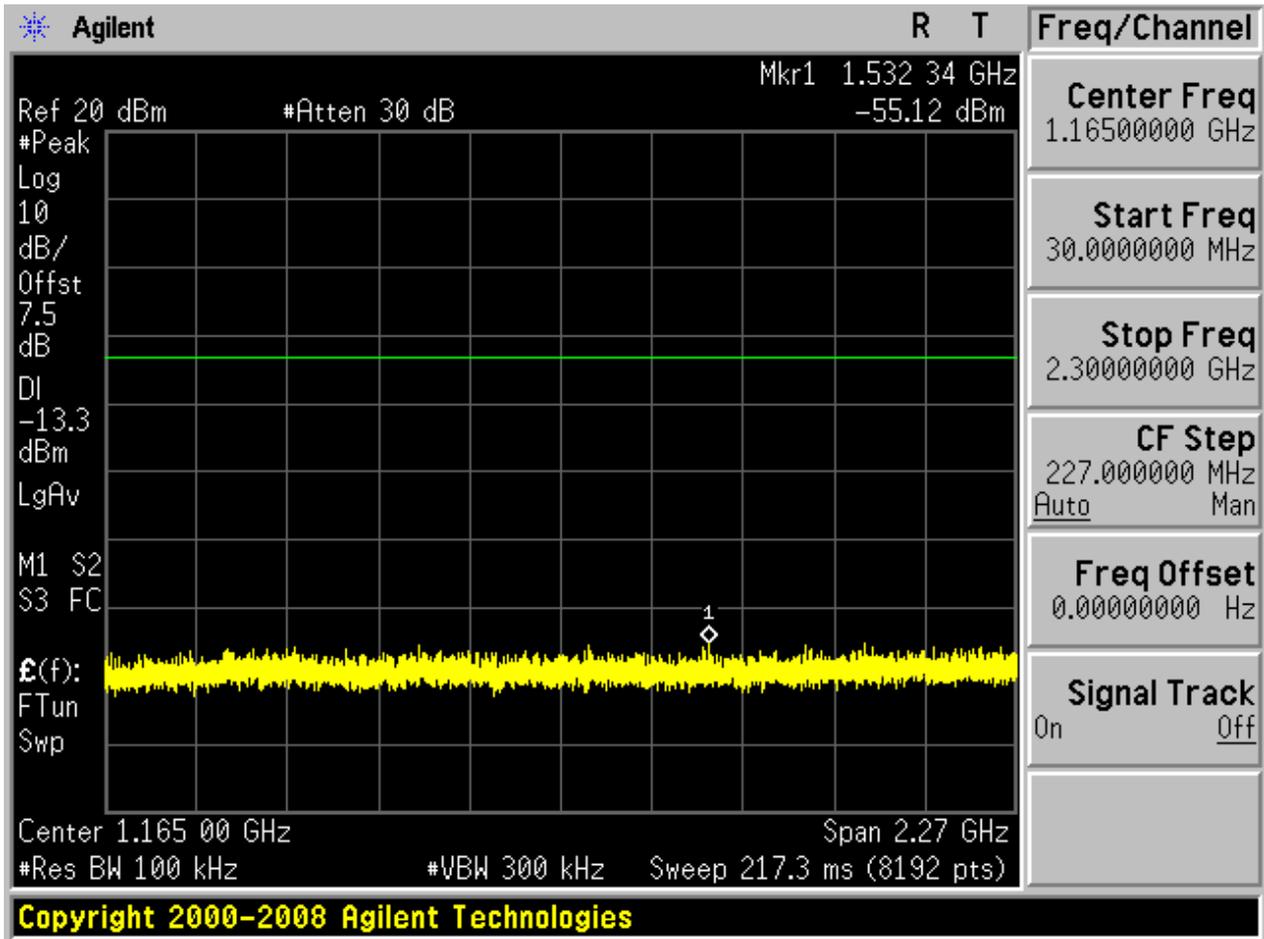


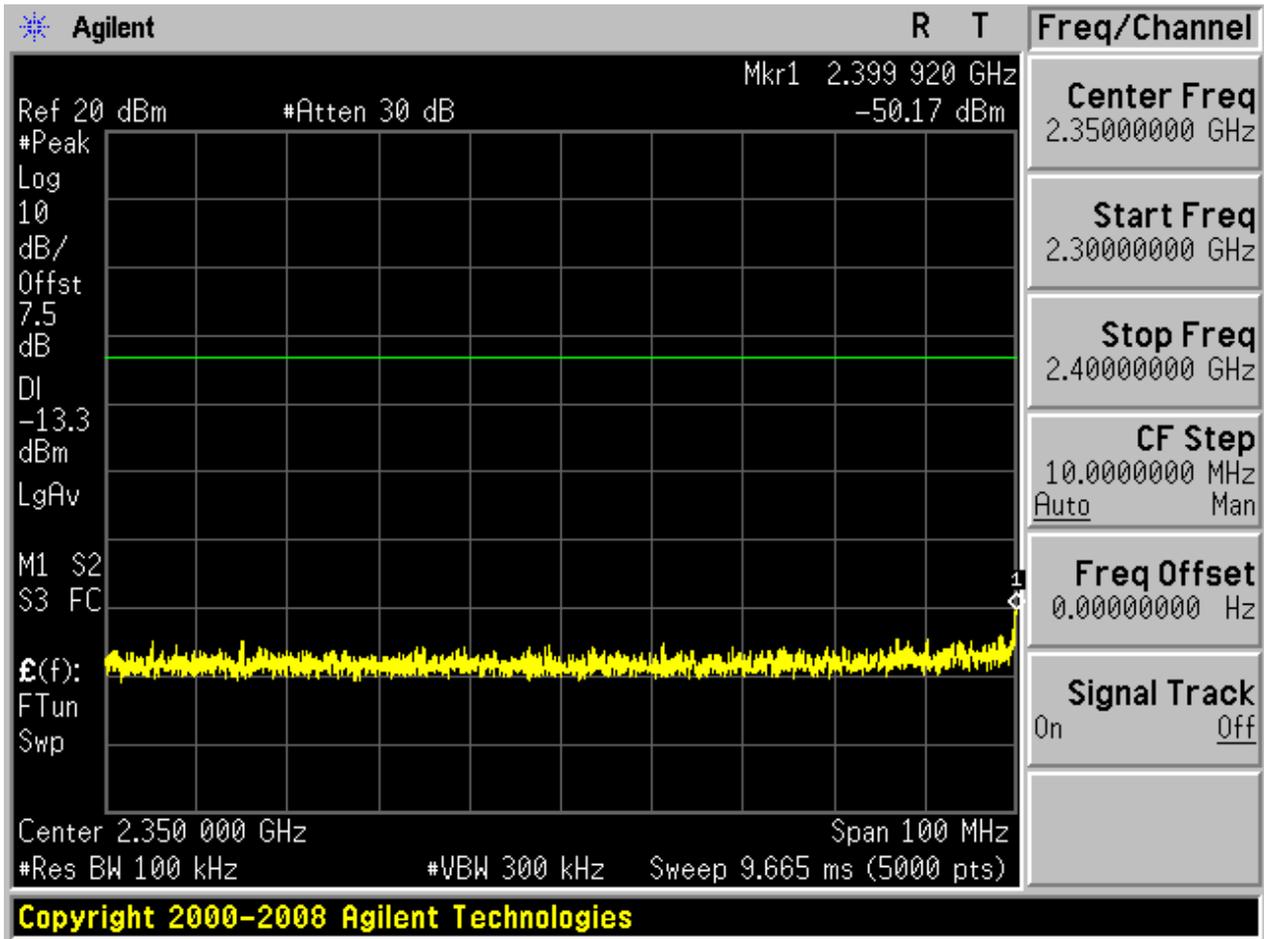


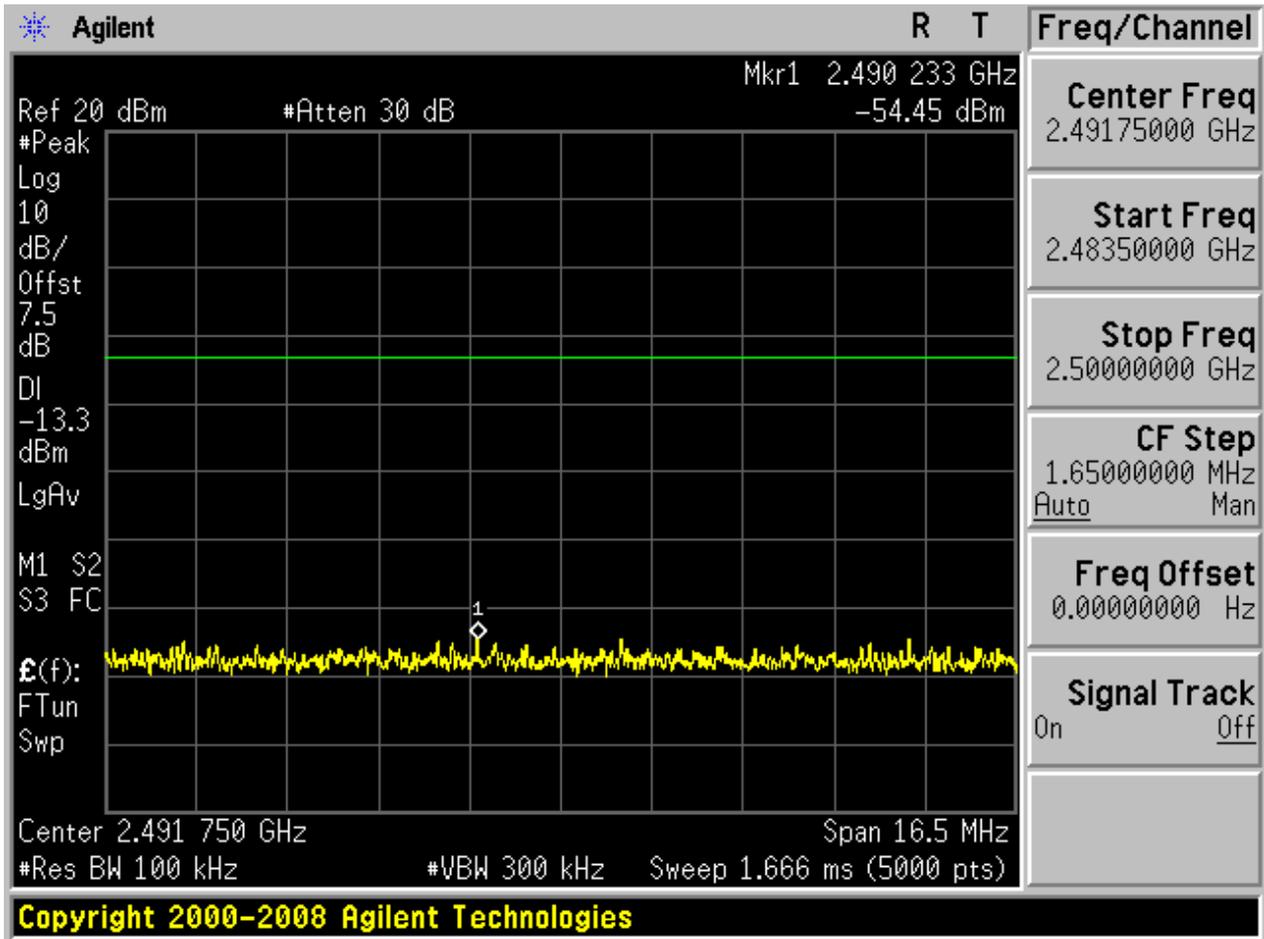
2.1.2 P_{uw}

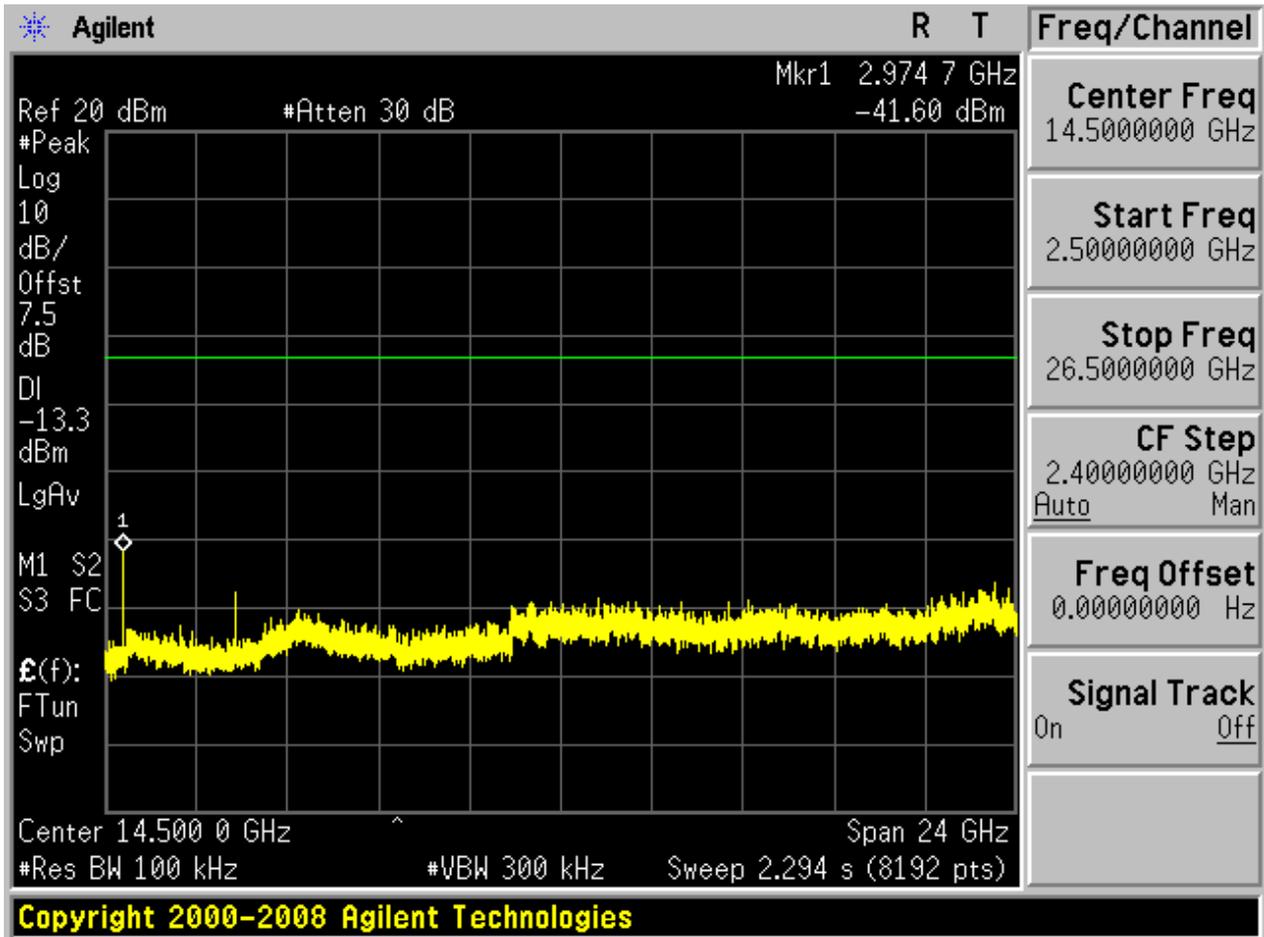






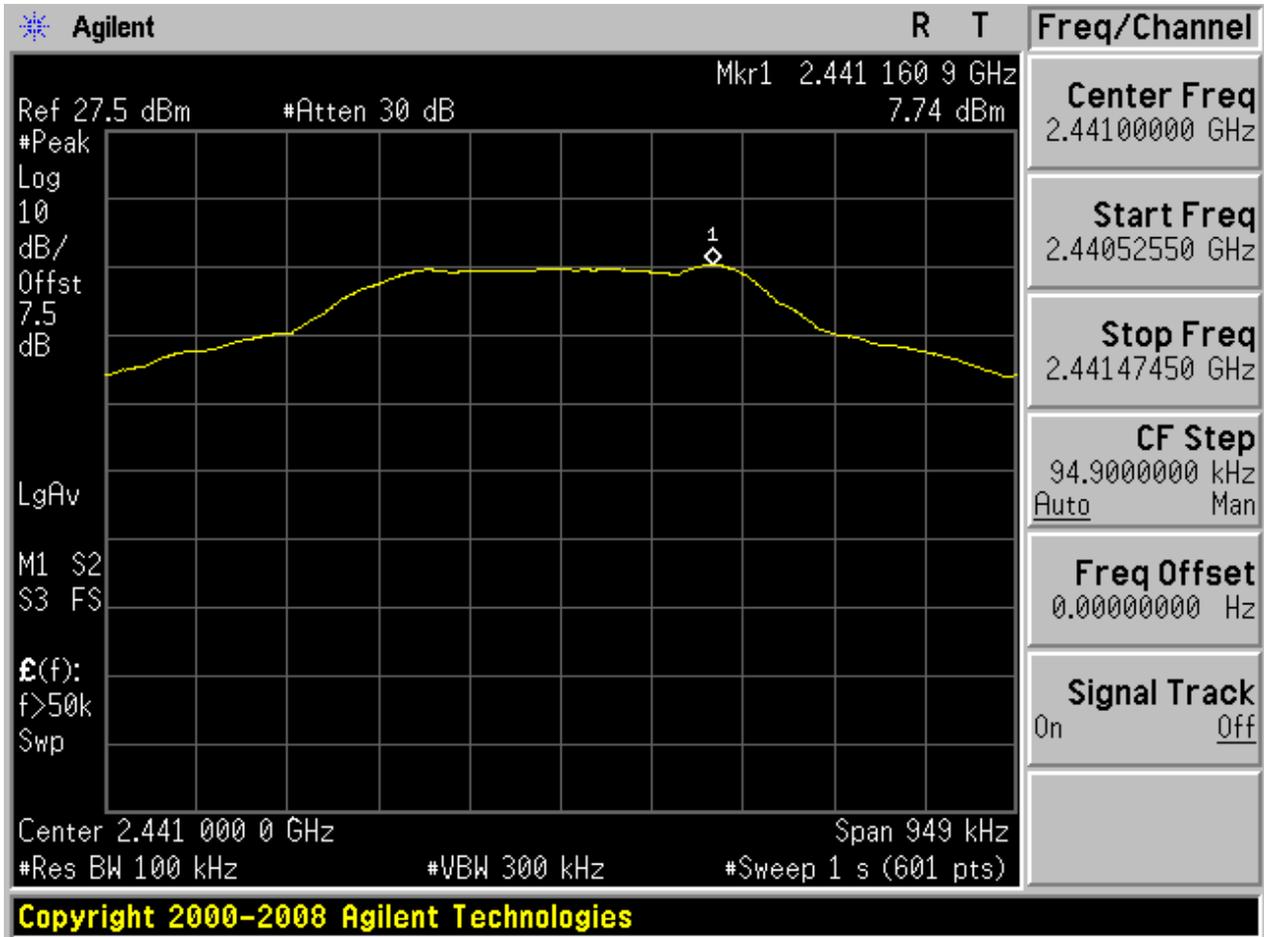




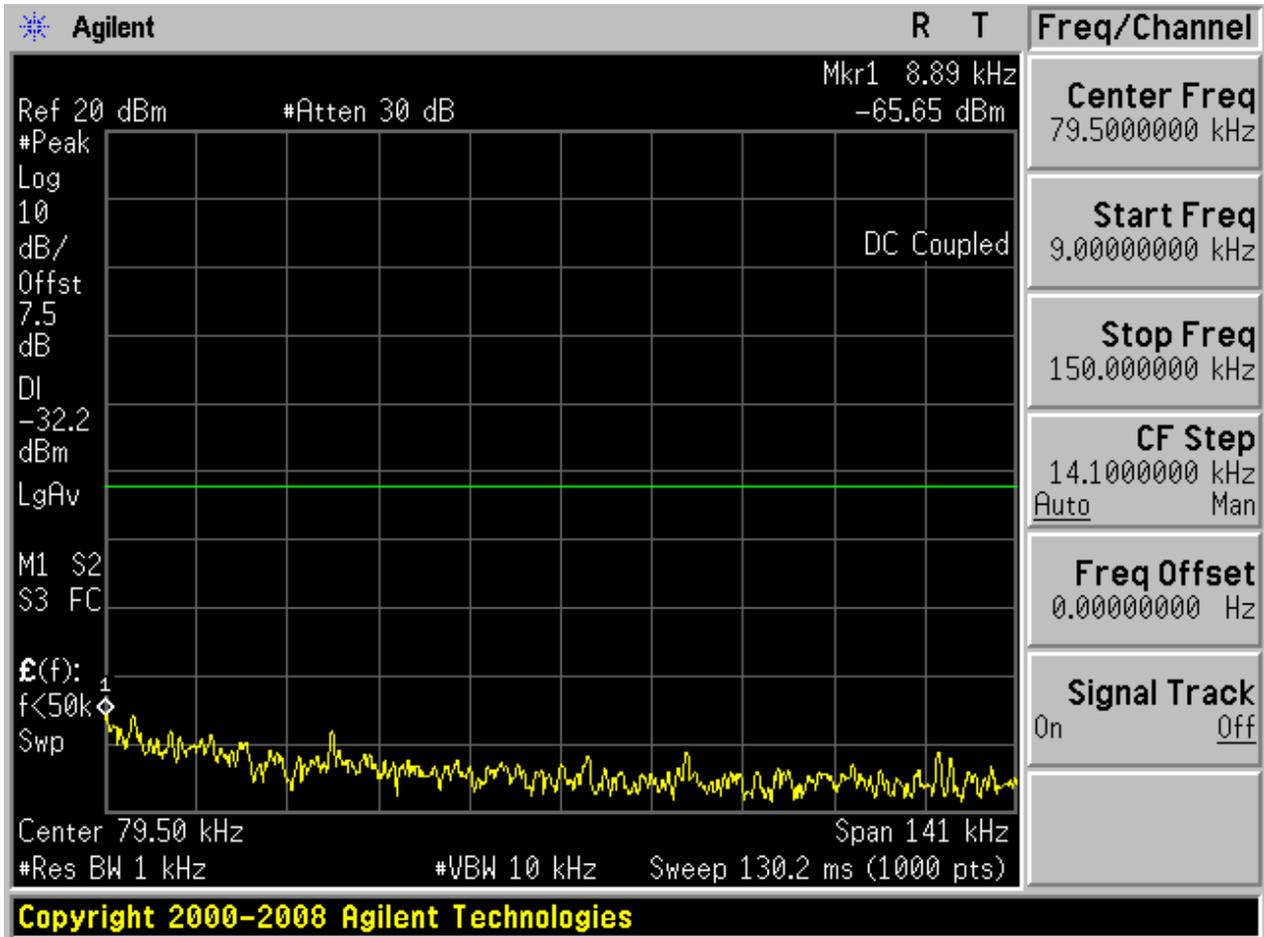


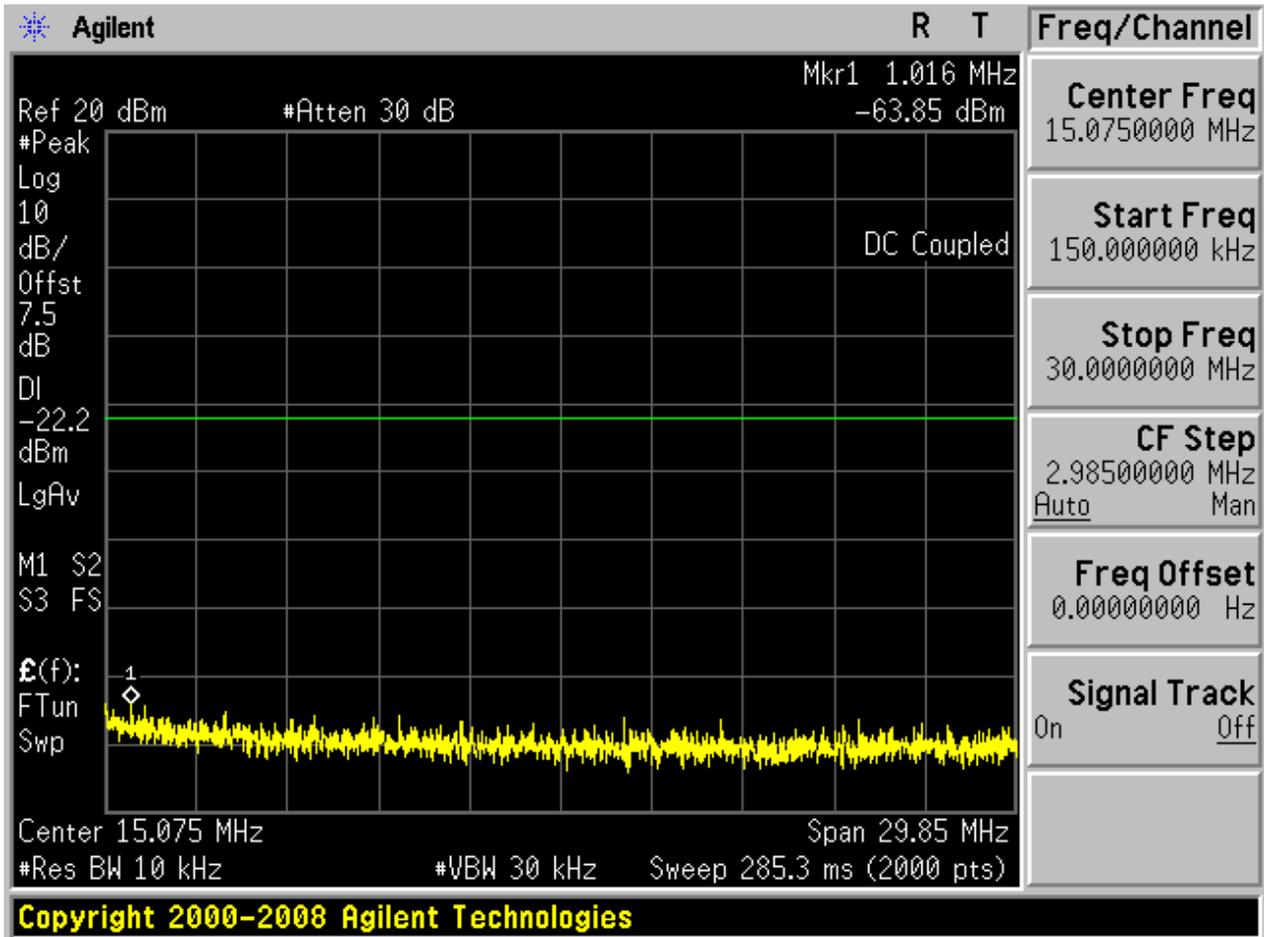
2.2 TM1_DH5_Ch39

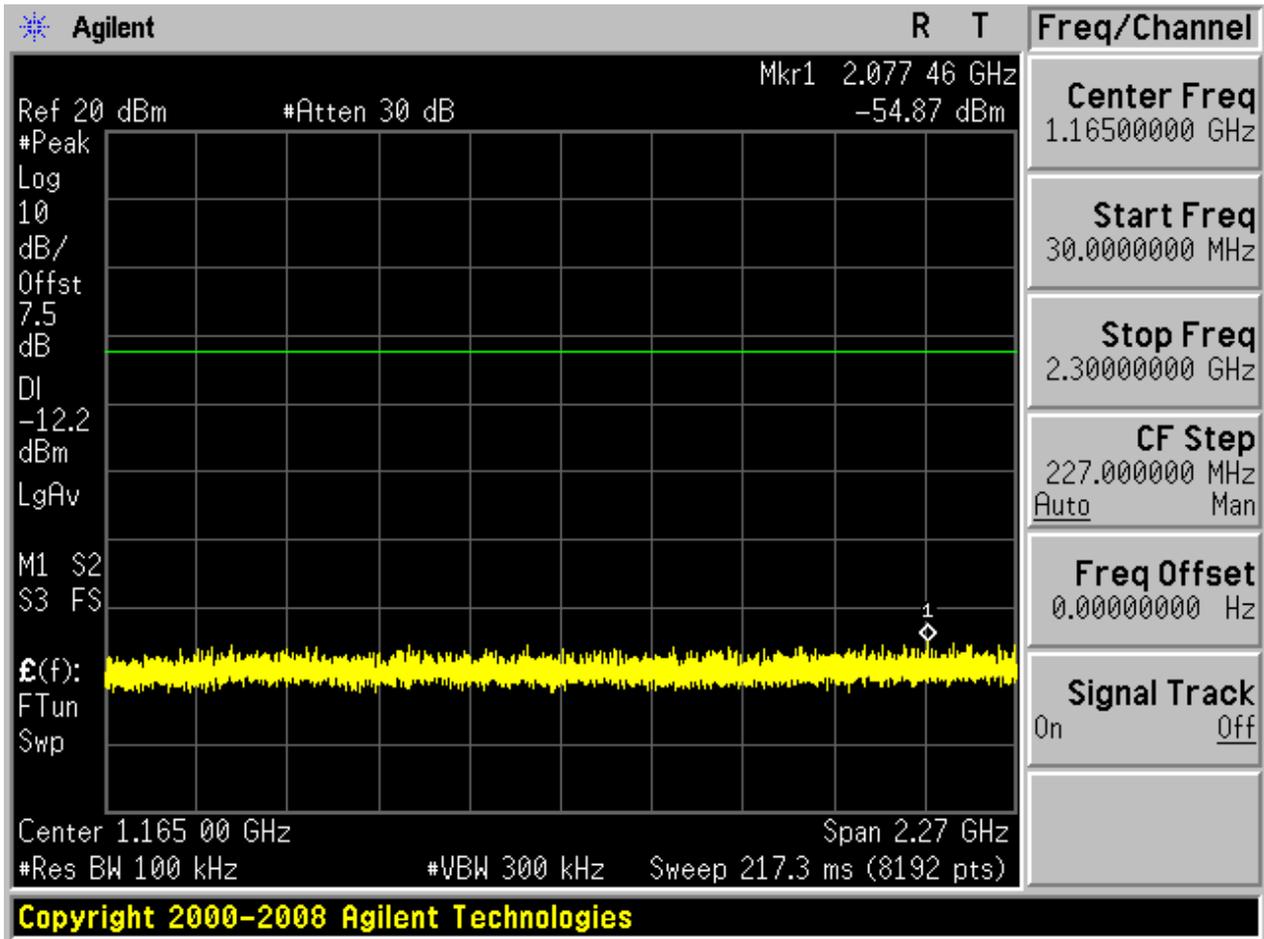
2.2.1 Pref

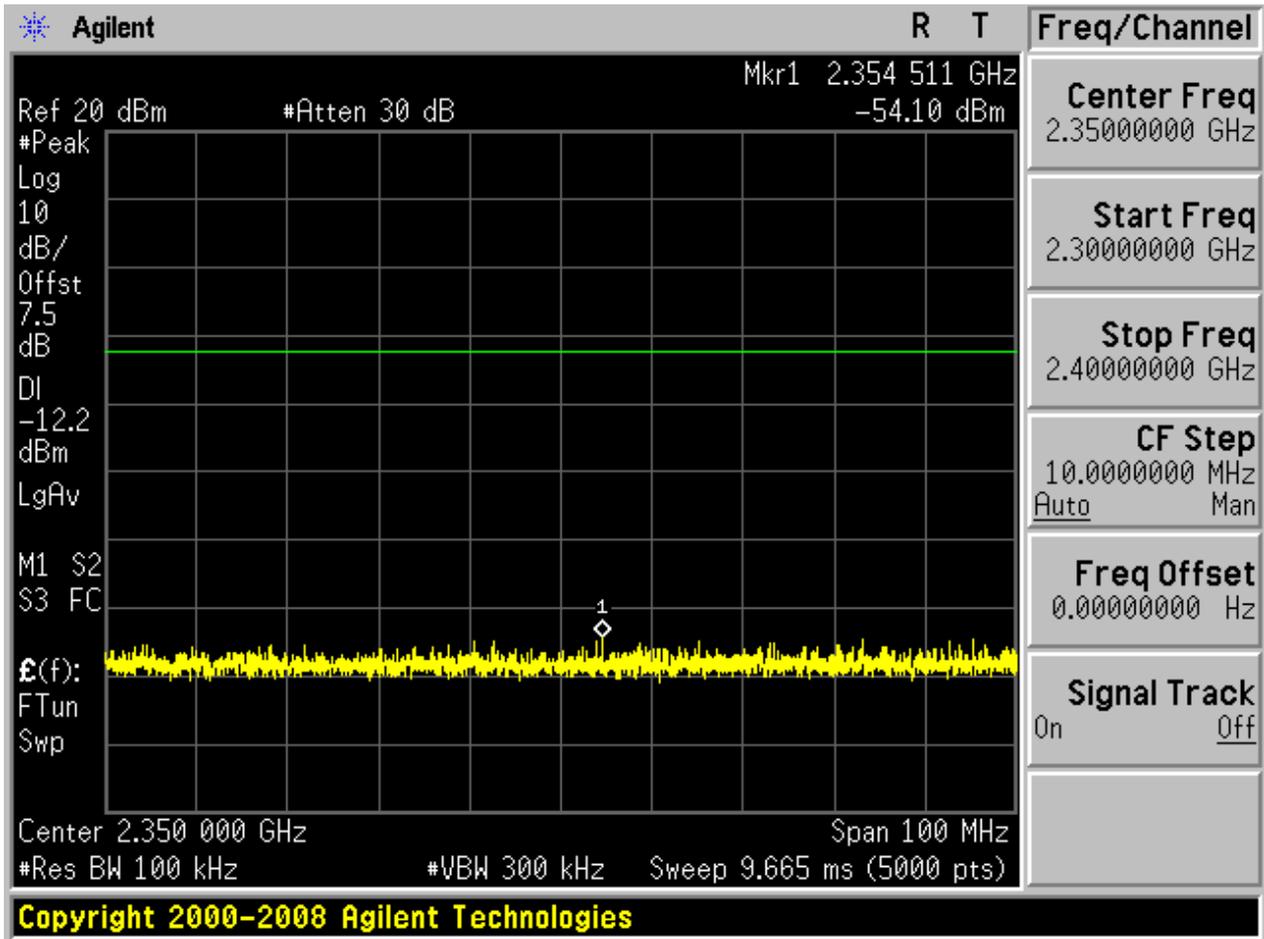


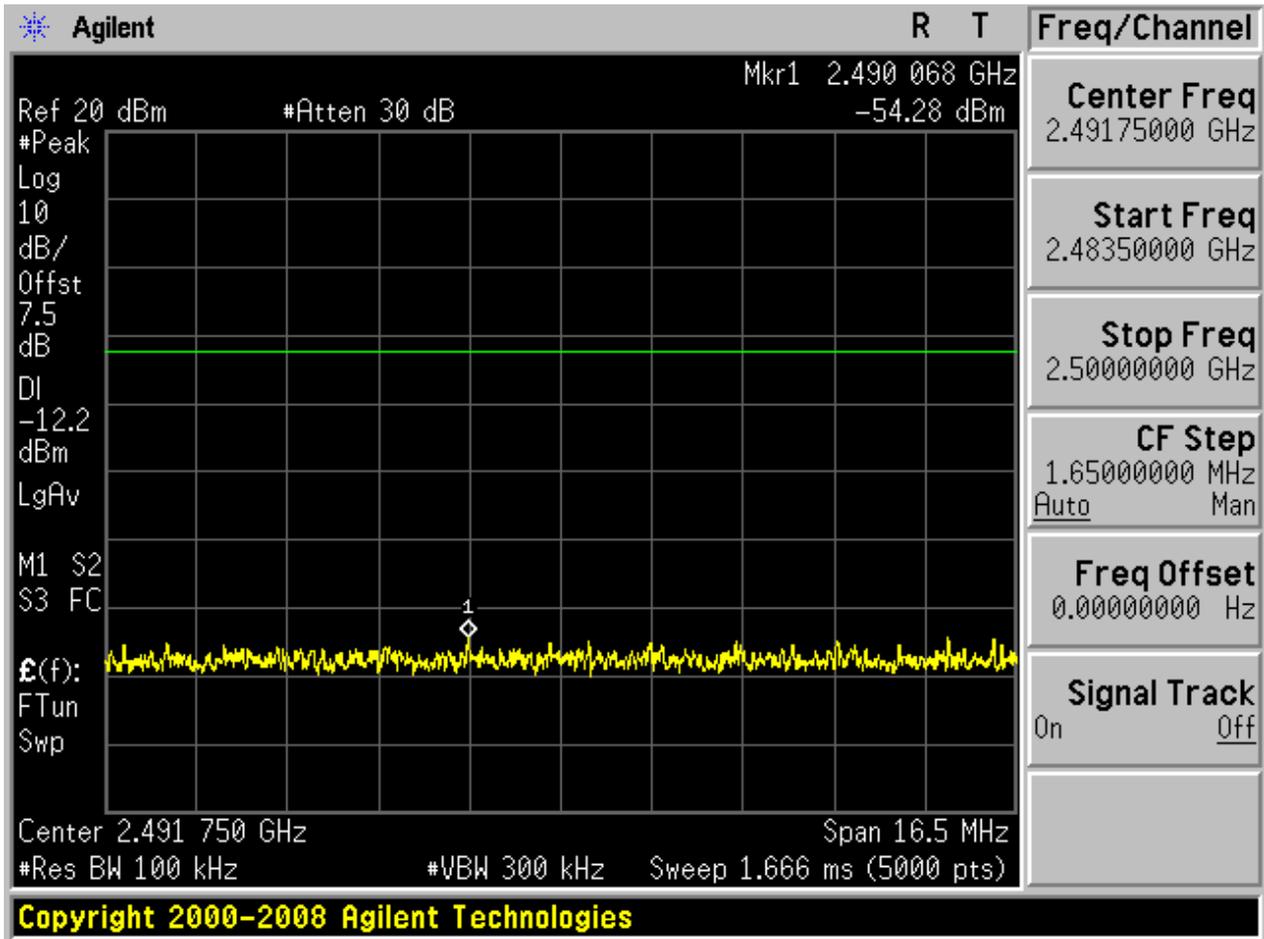
2.2.2 P_{uw}

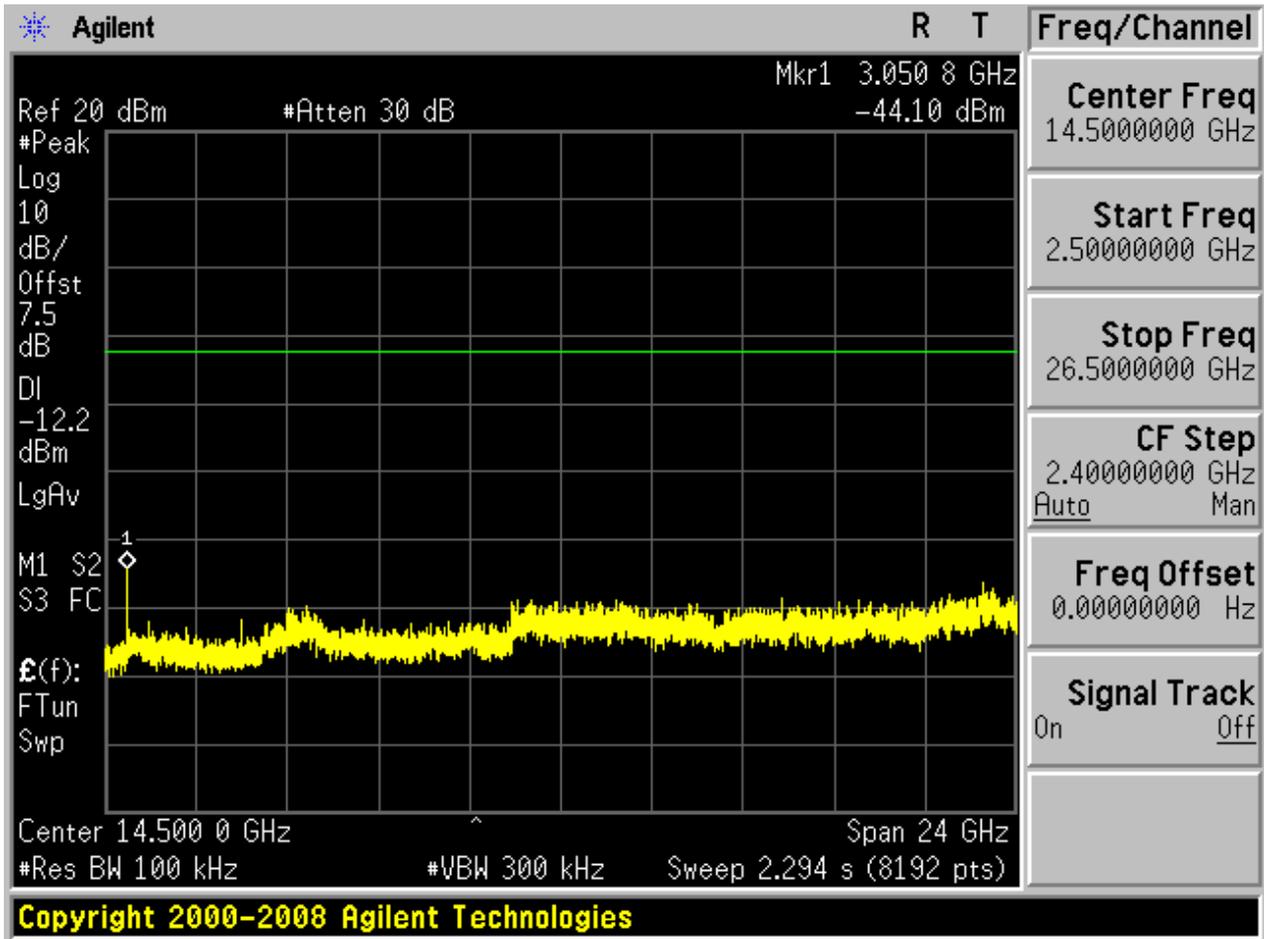








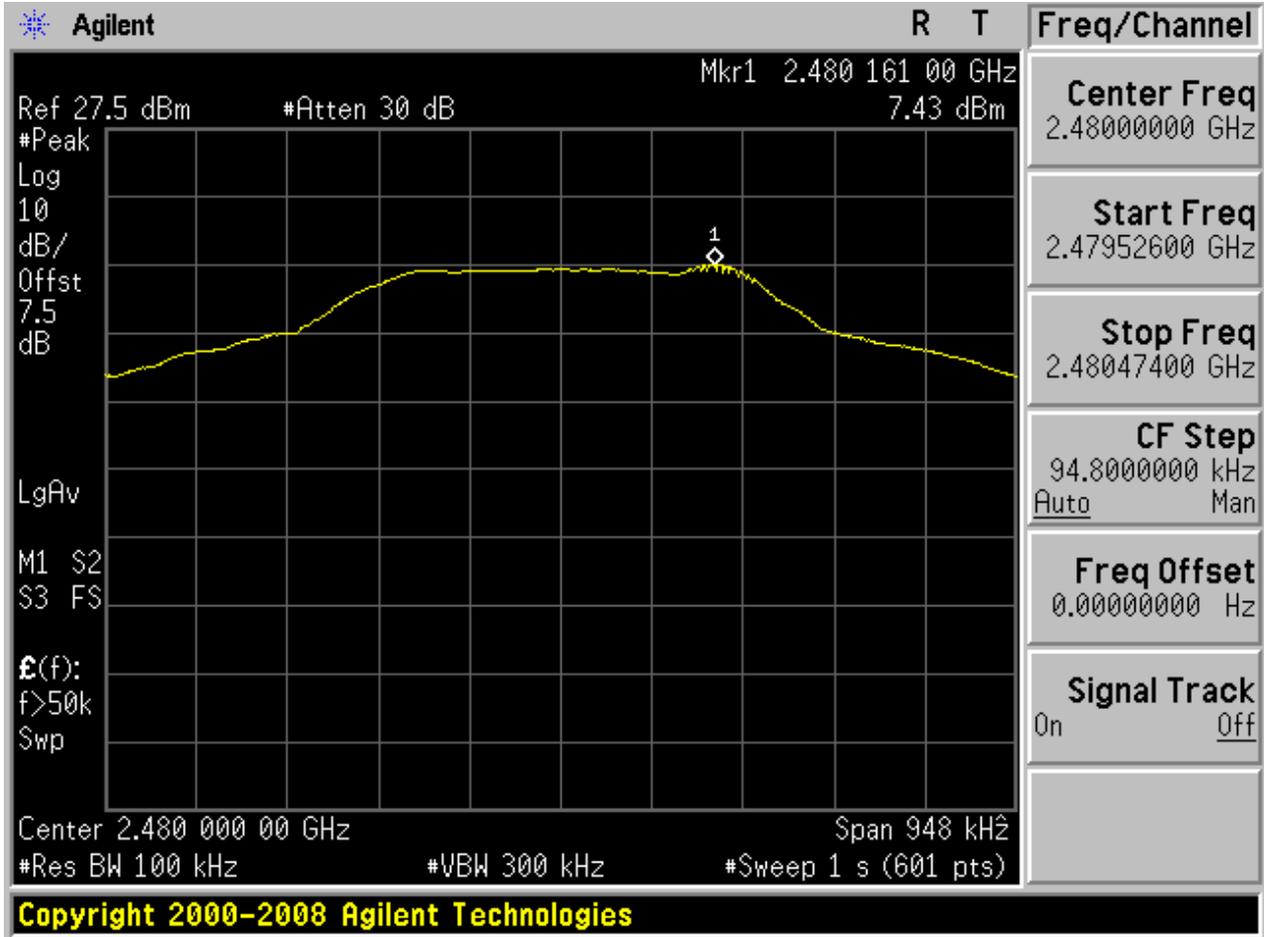




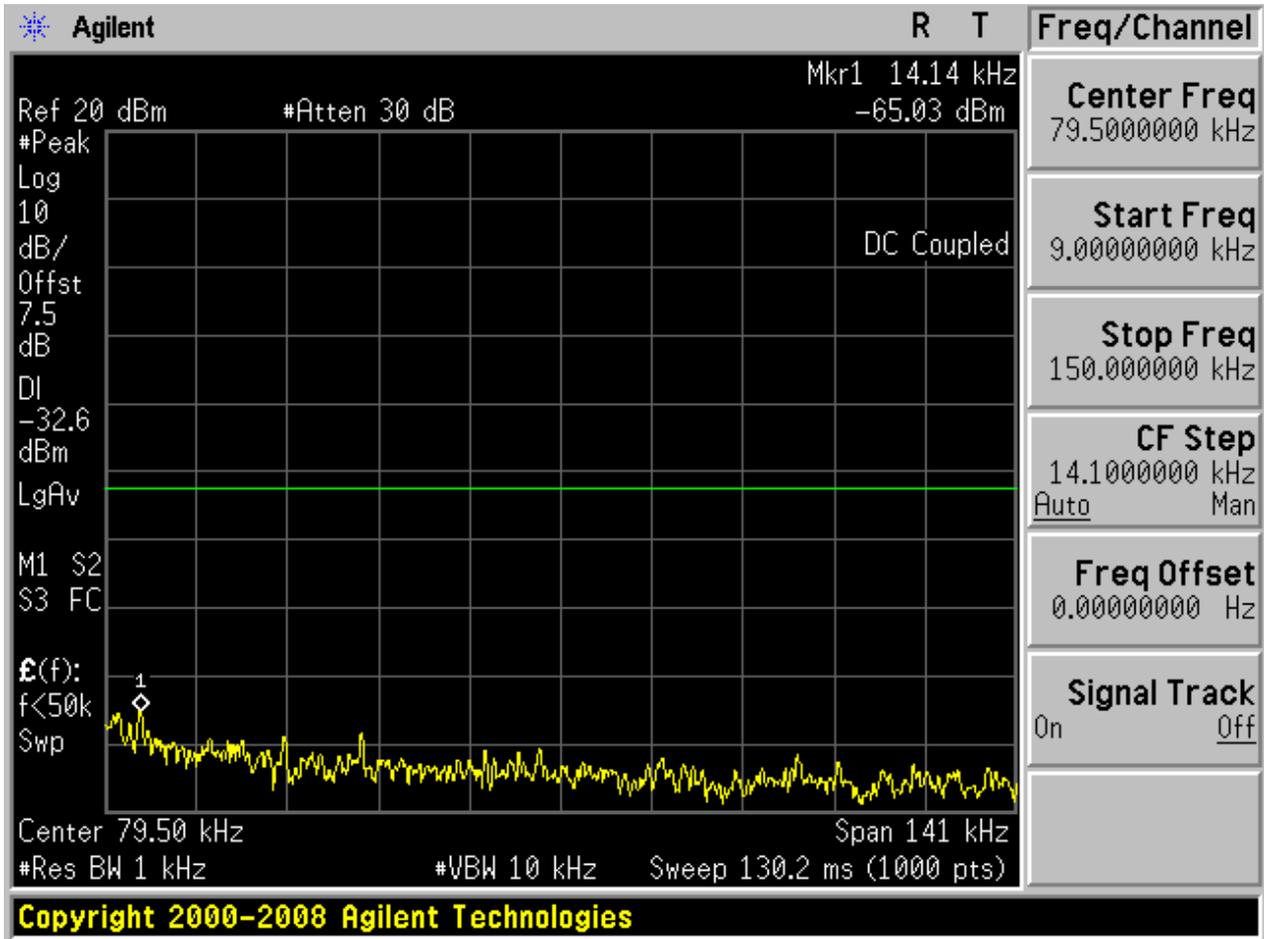


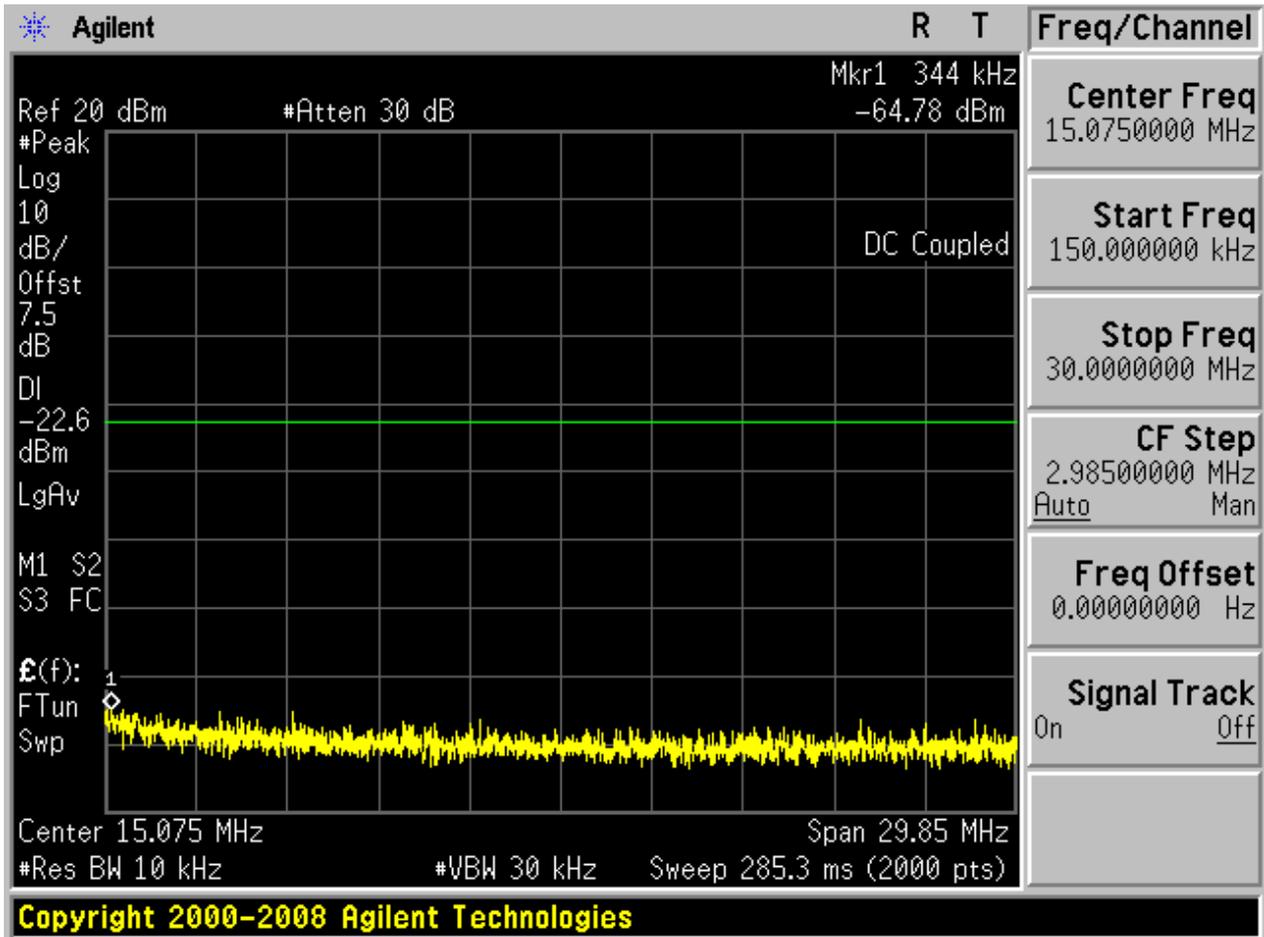
2.3 TM1_DH5_Ch78

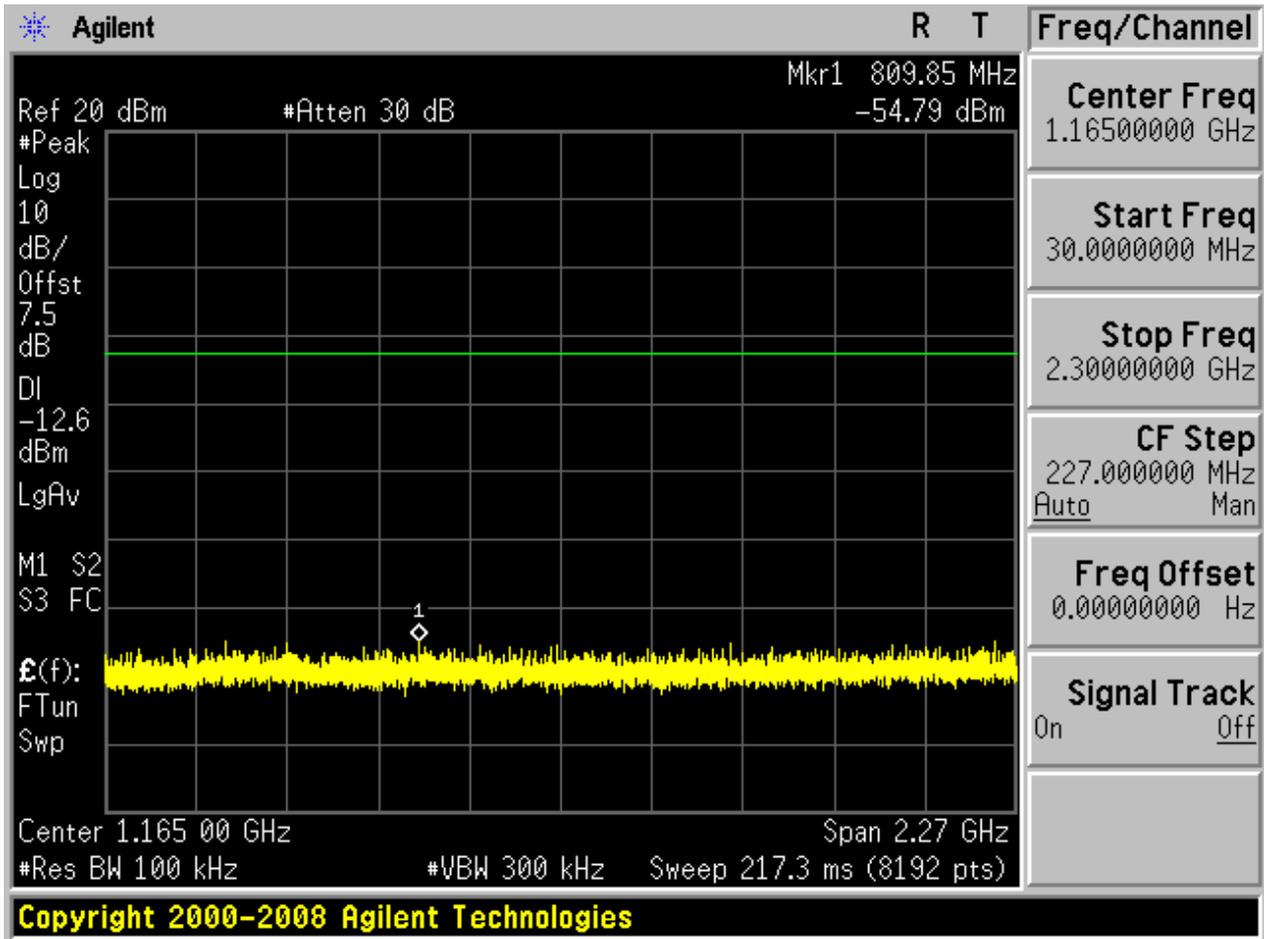
2.3.1 Pref

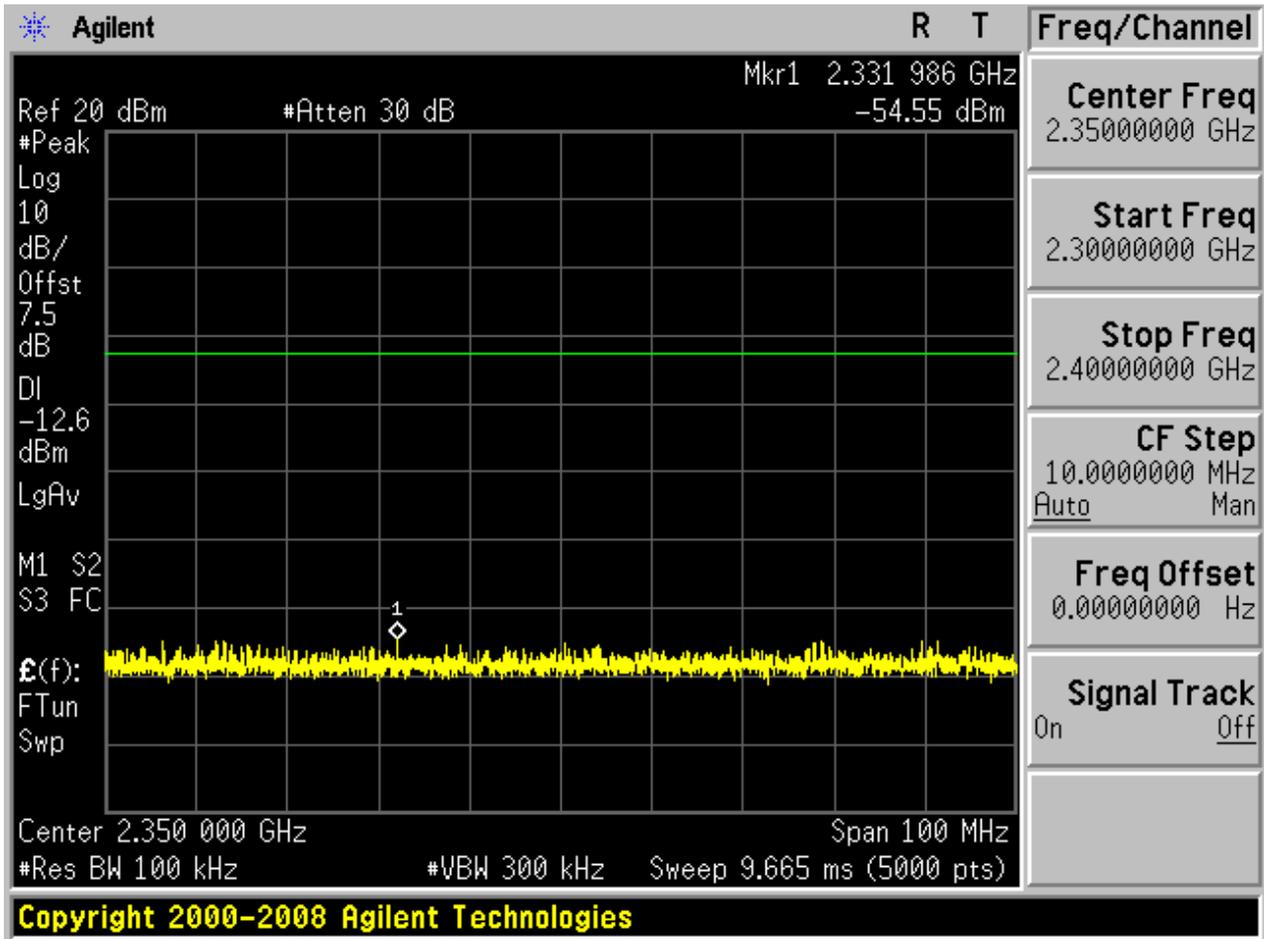


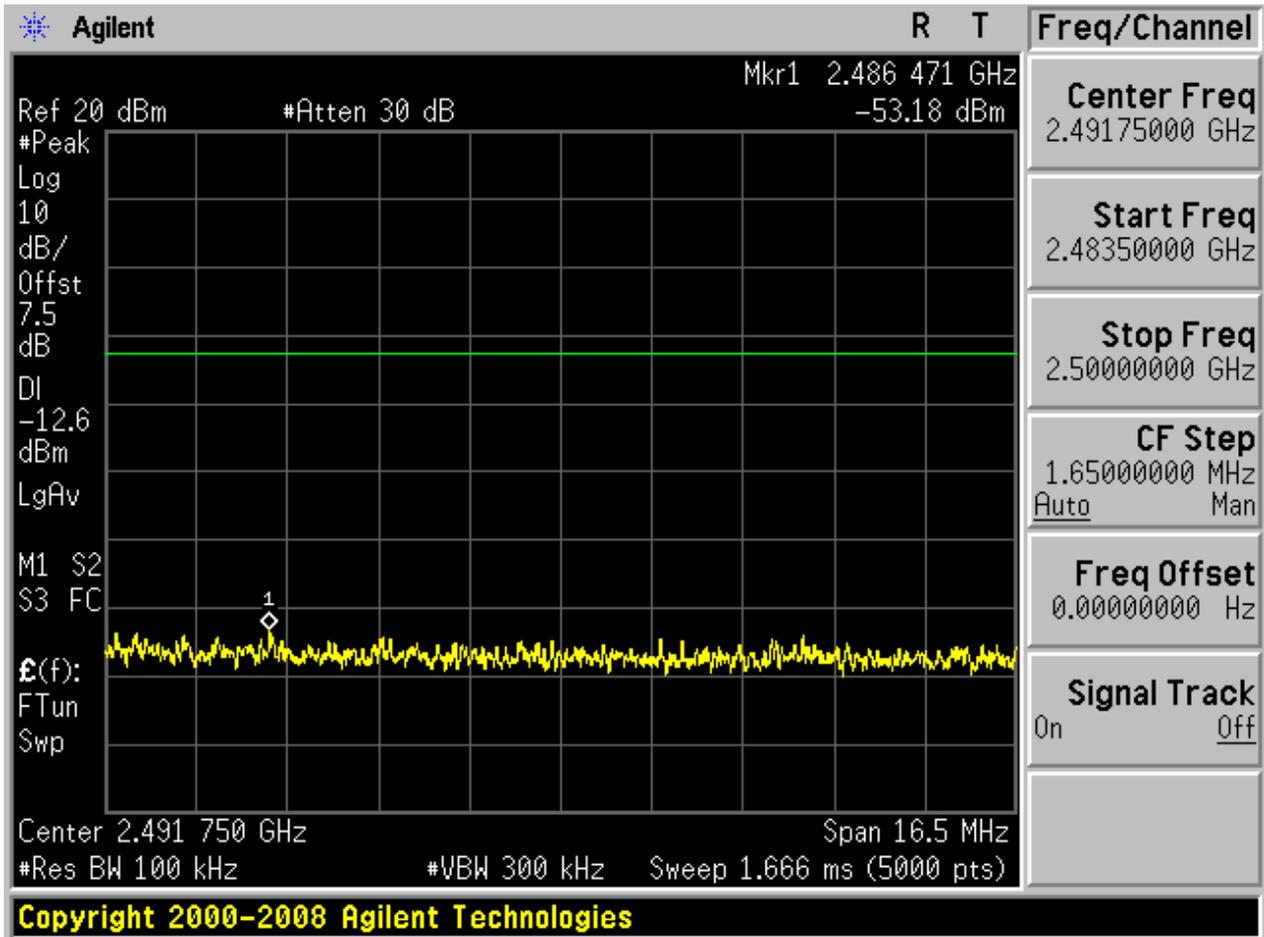
2.3.2 P_{uw}

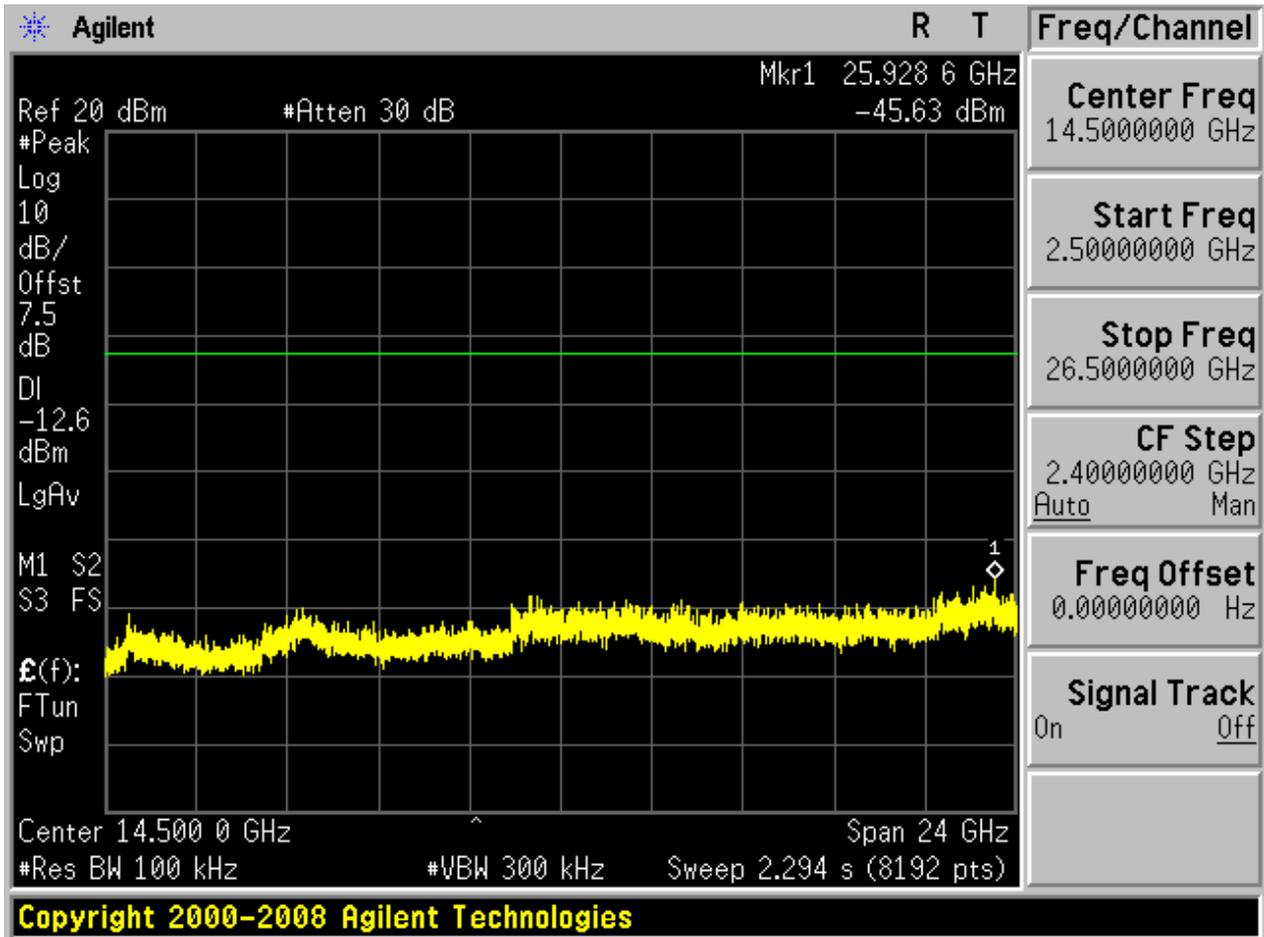






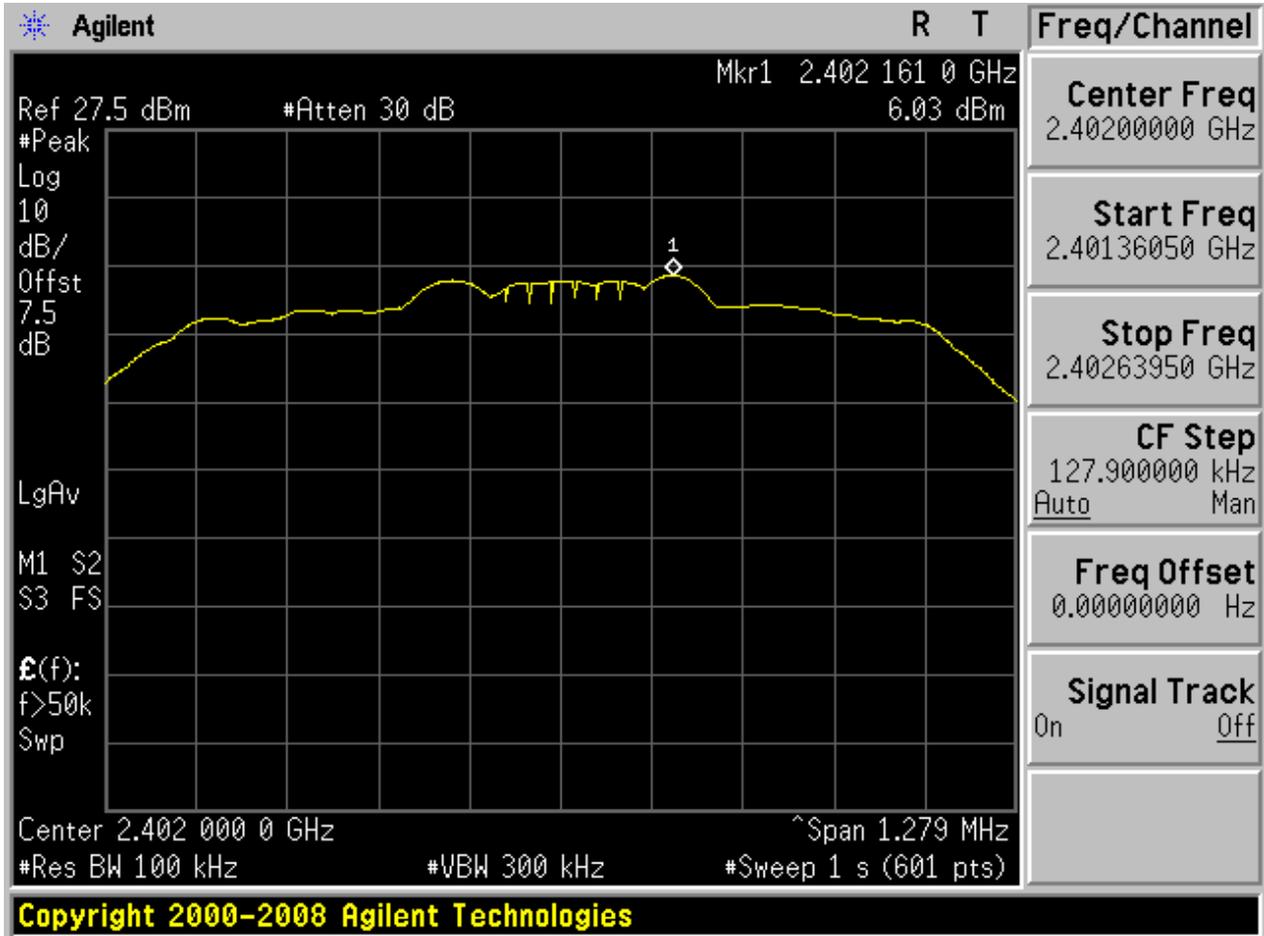




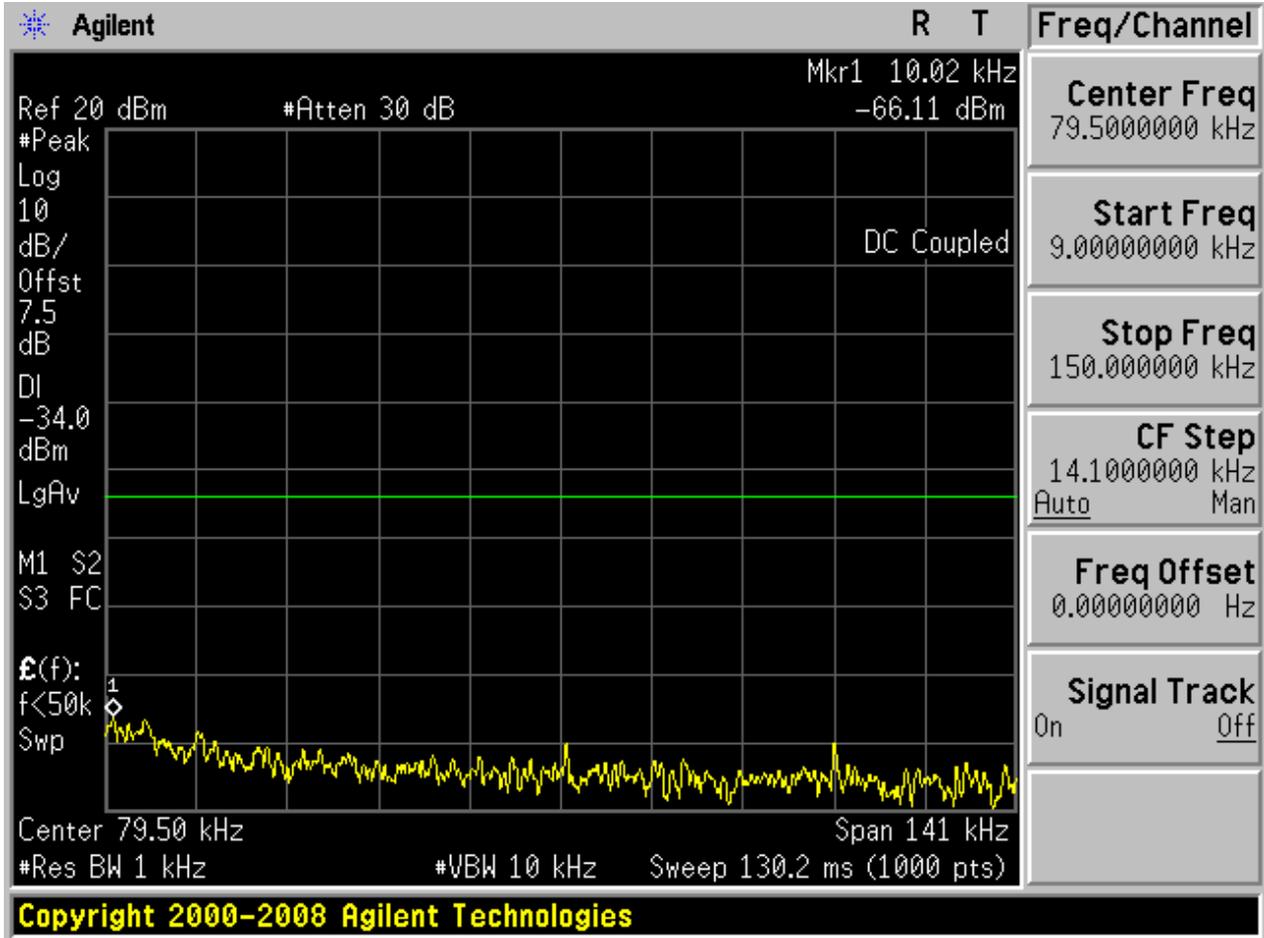


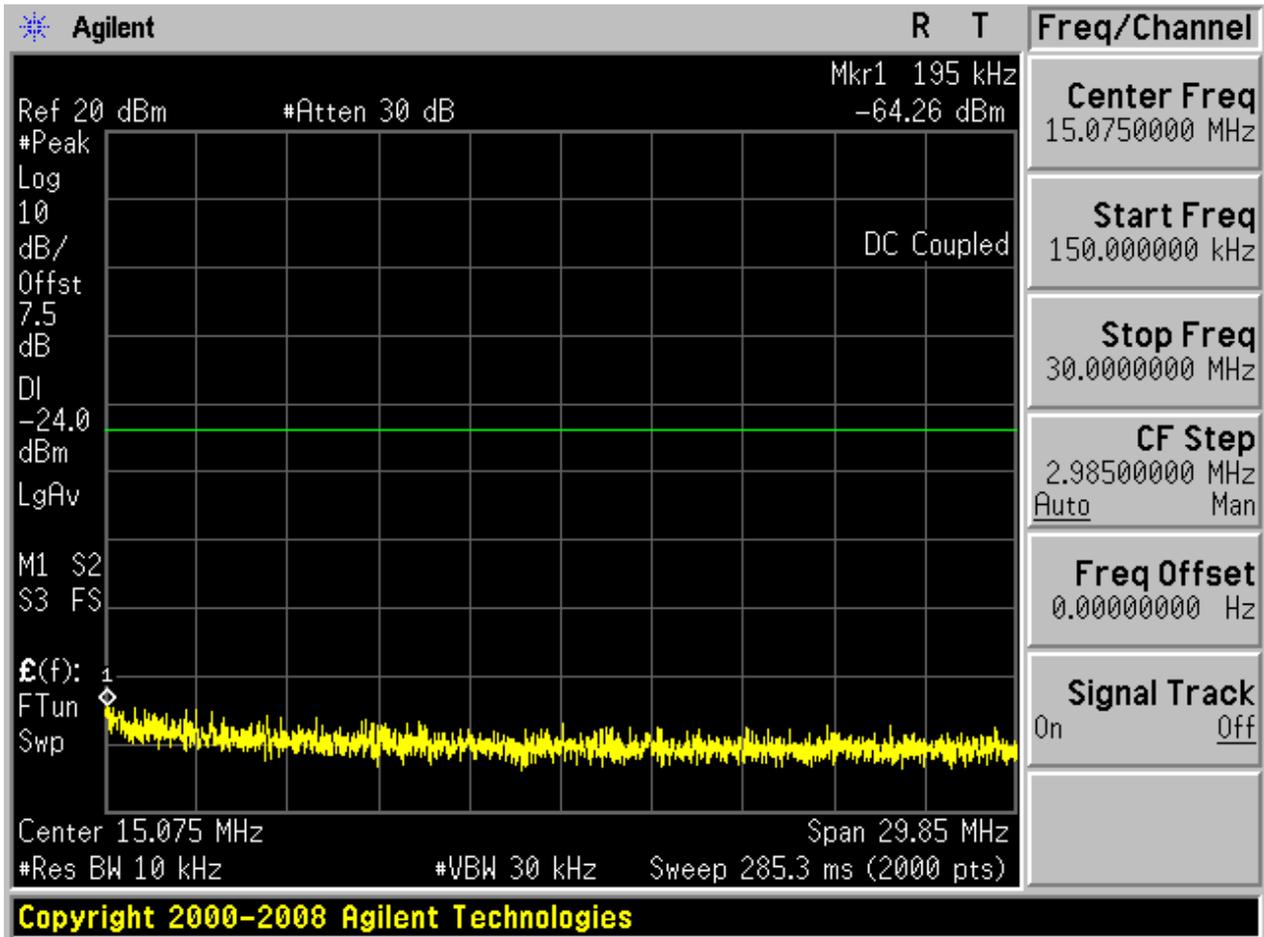
2.4 TM2_2DH5_Ch0

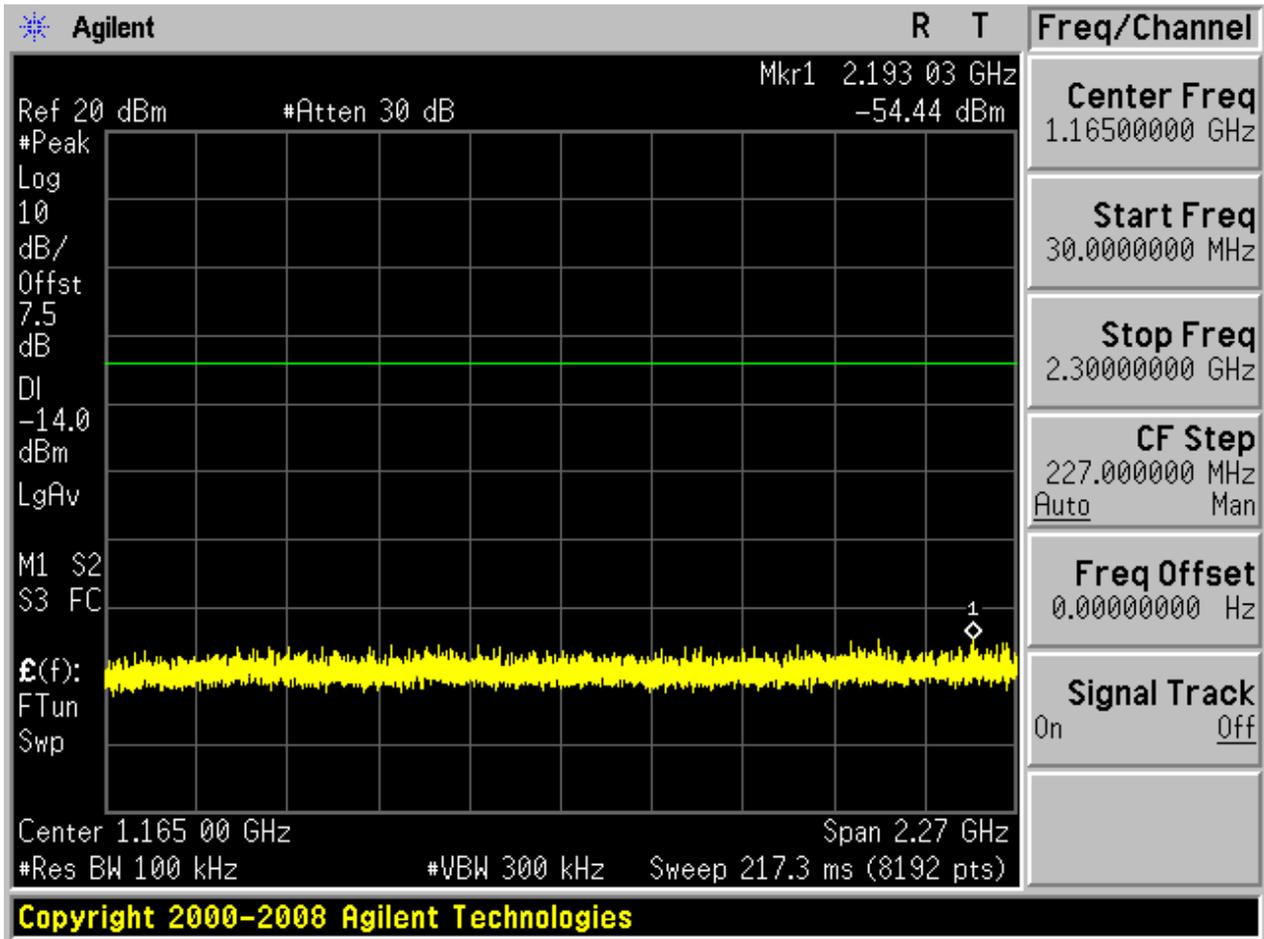
2.4.1 Pref

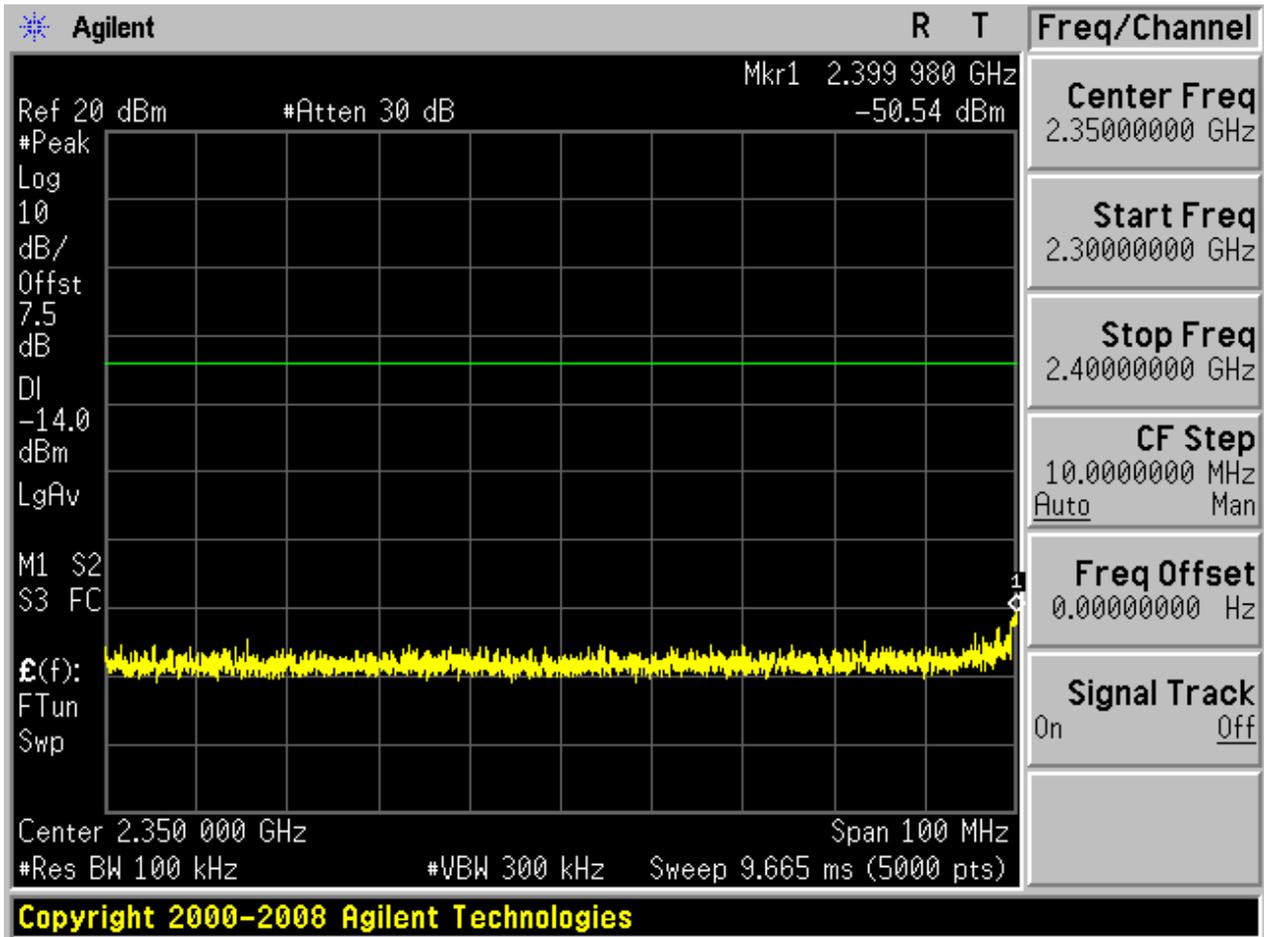


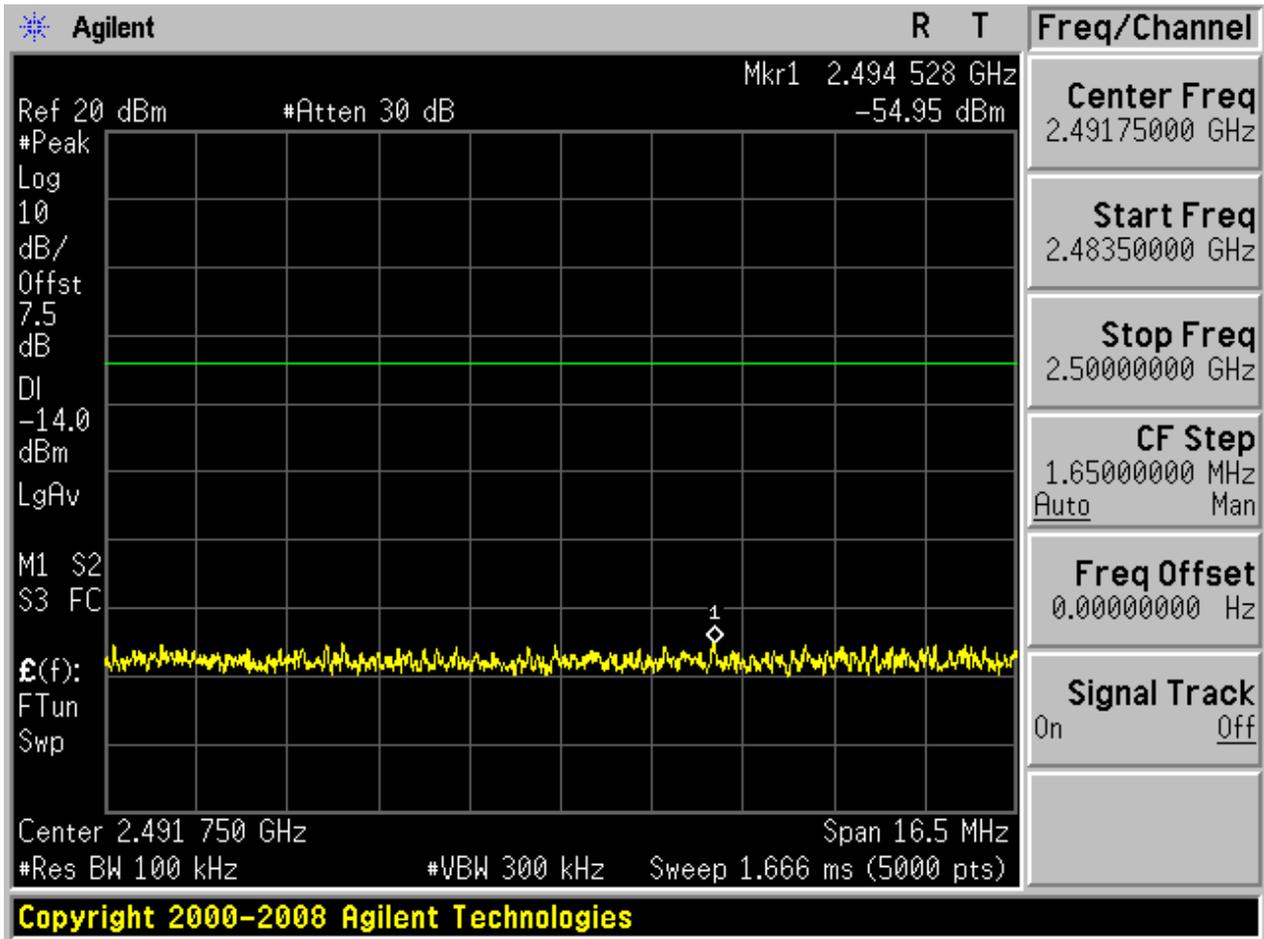
2.4.2 P_{uw}

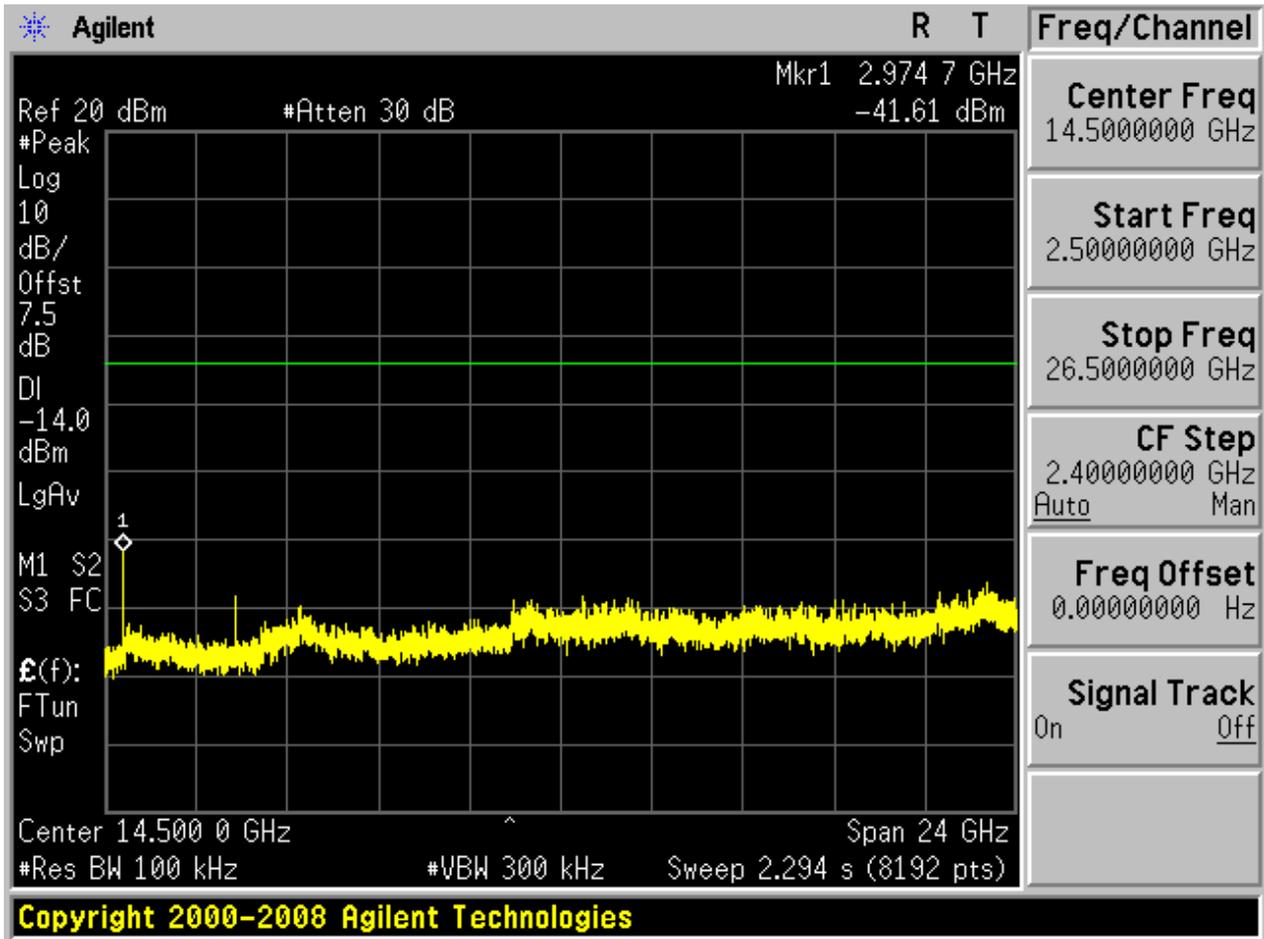






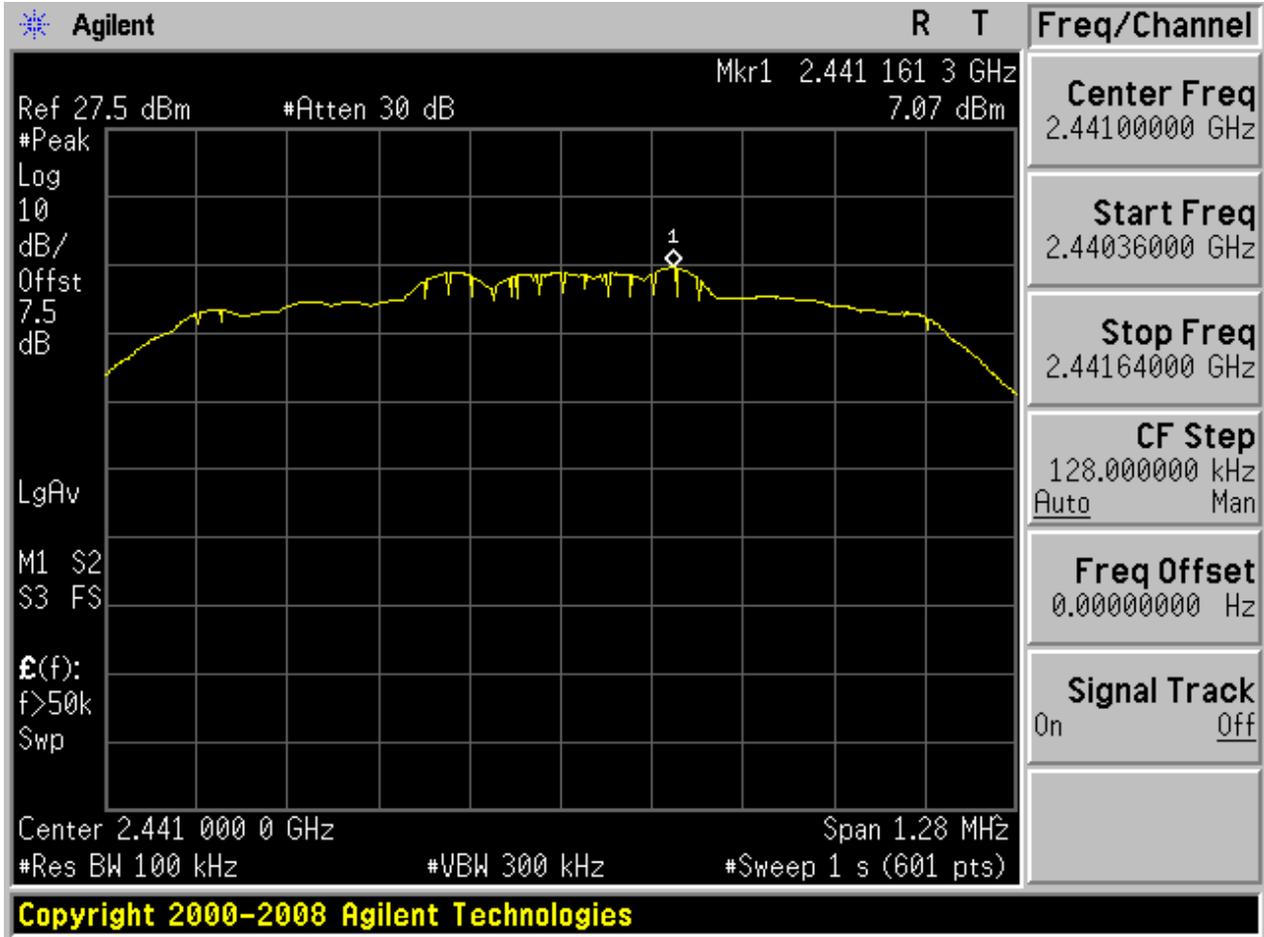




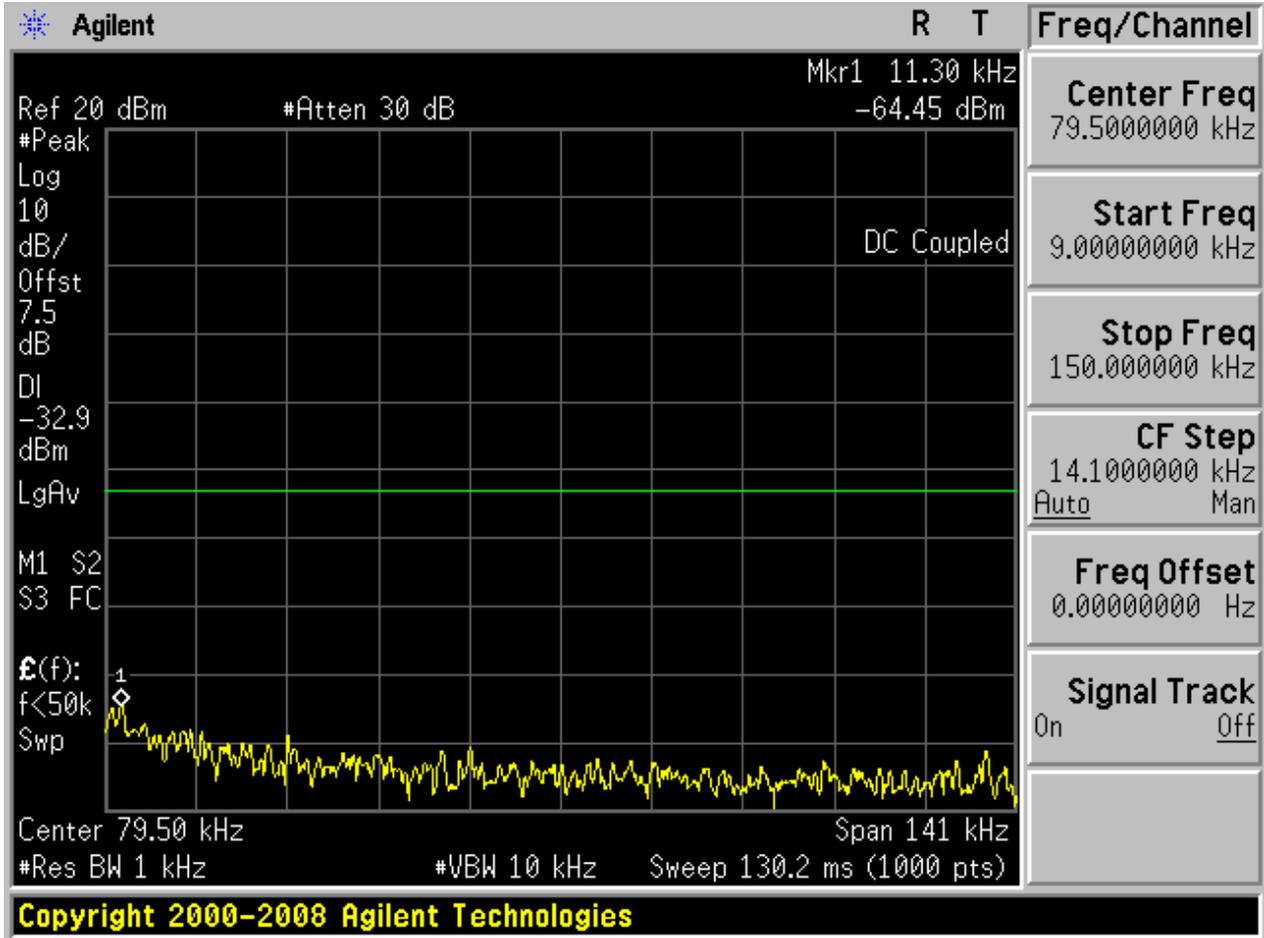


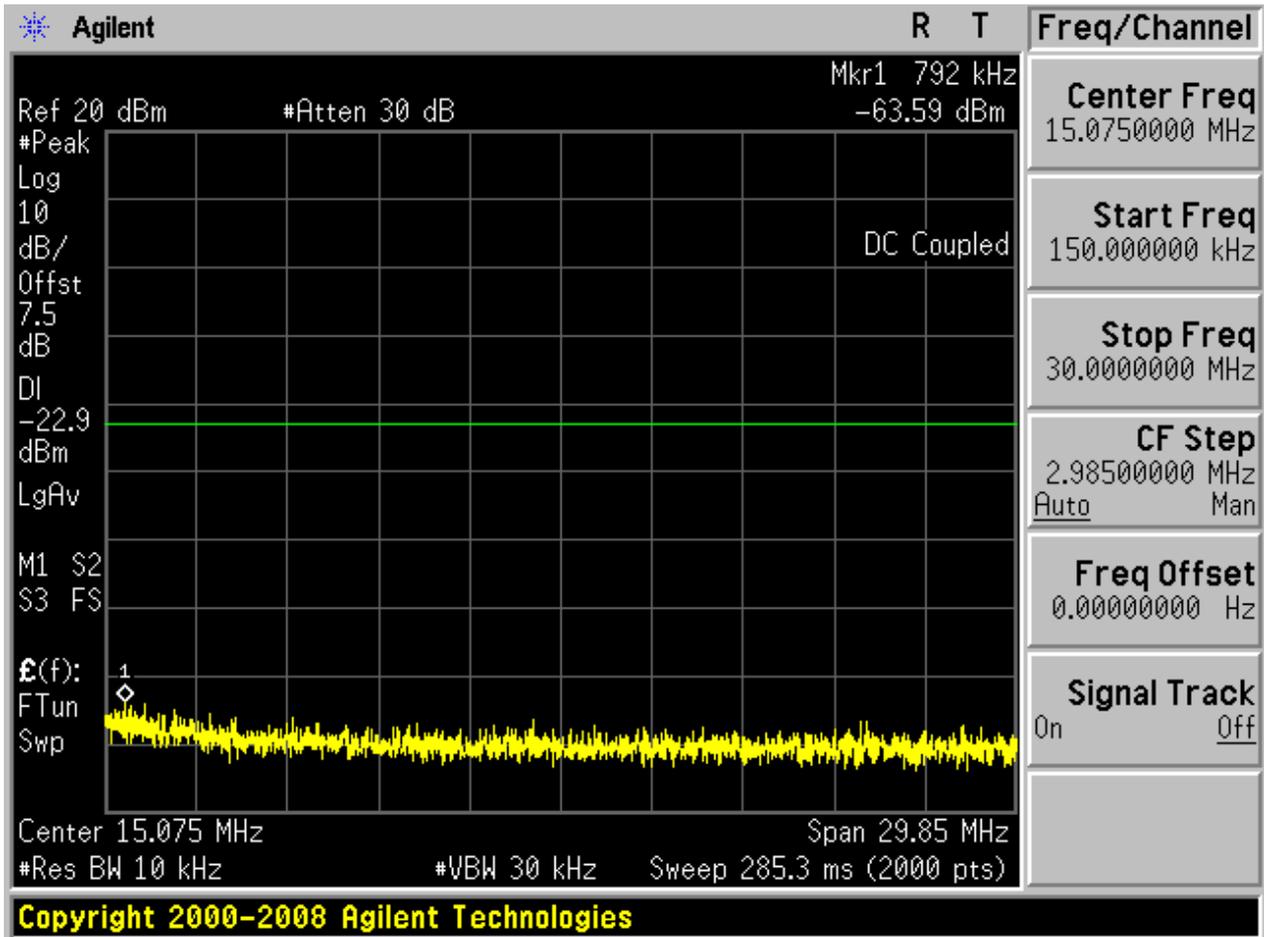
2.5 TM2_2DH5_Ch39

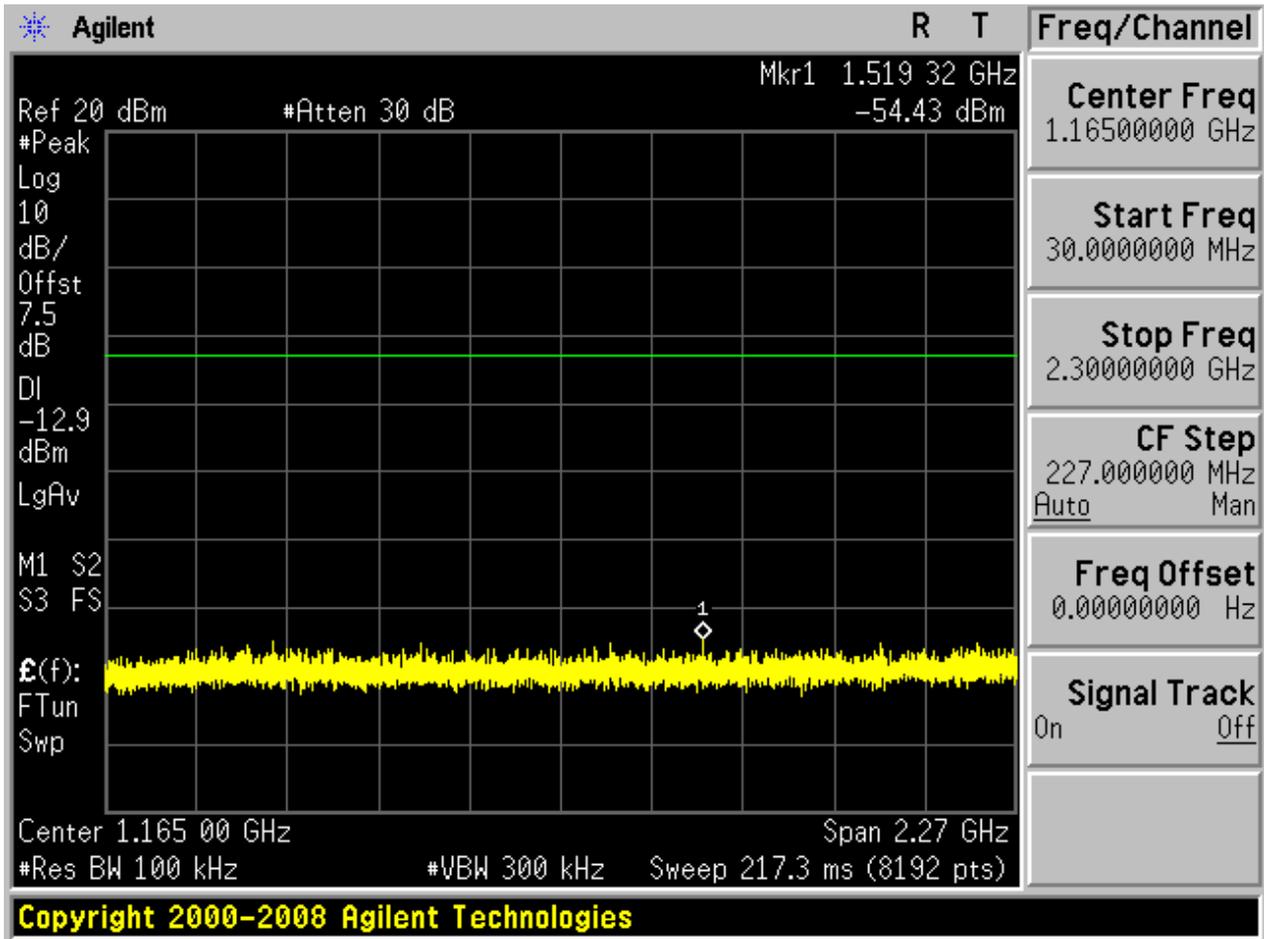
2.5.1 Pref

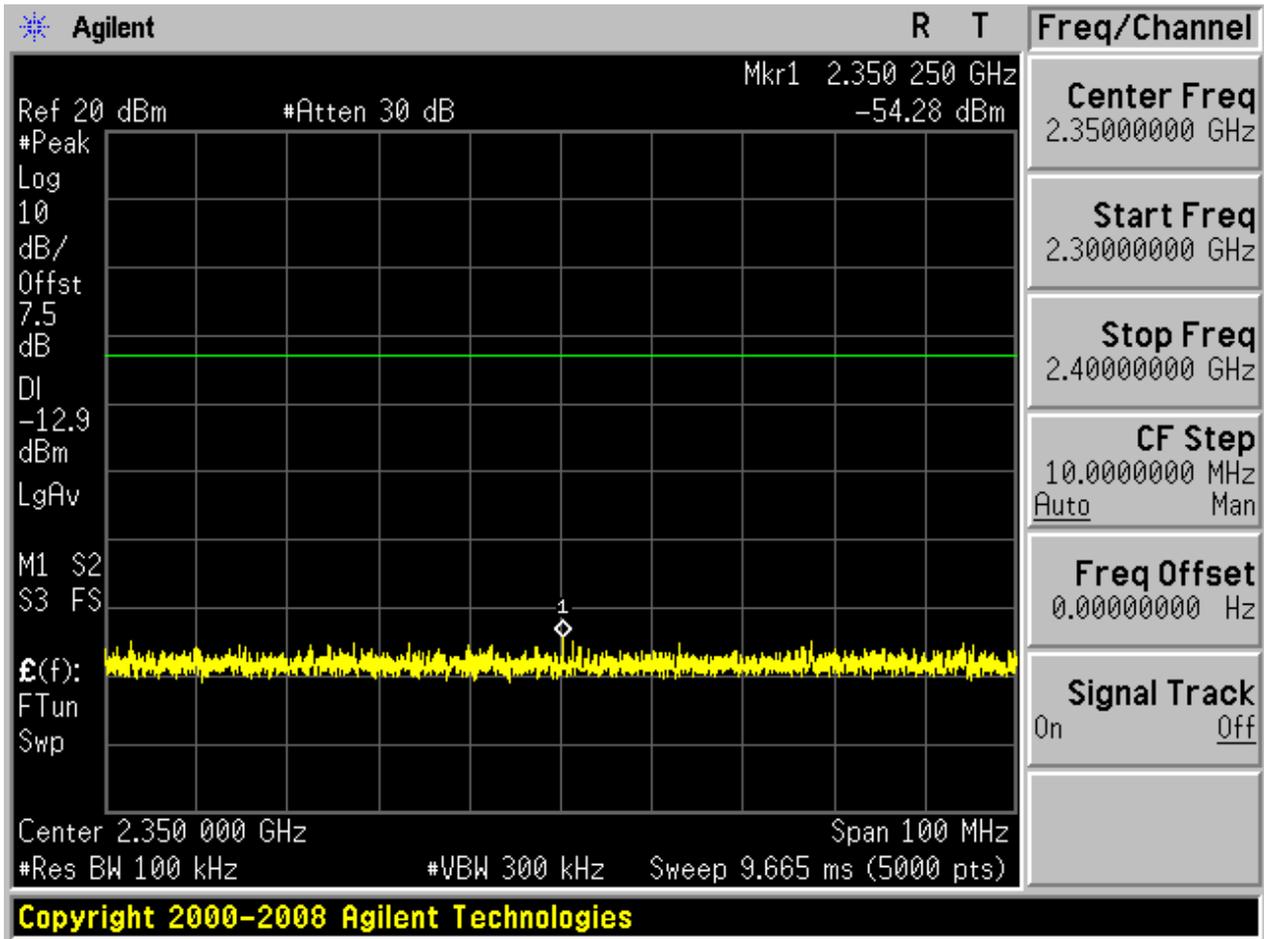


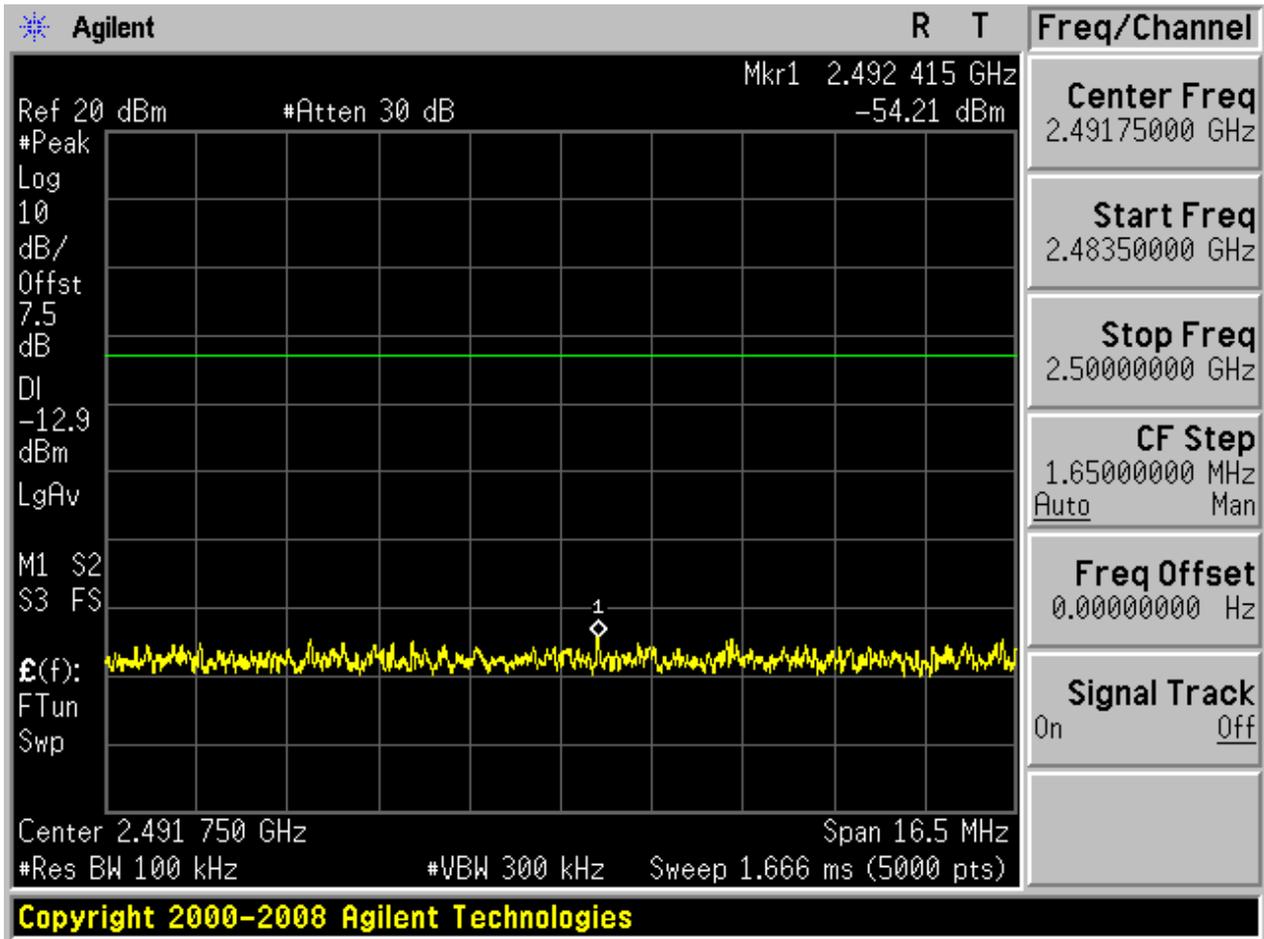
2.5.2 Puw

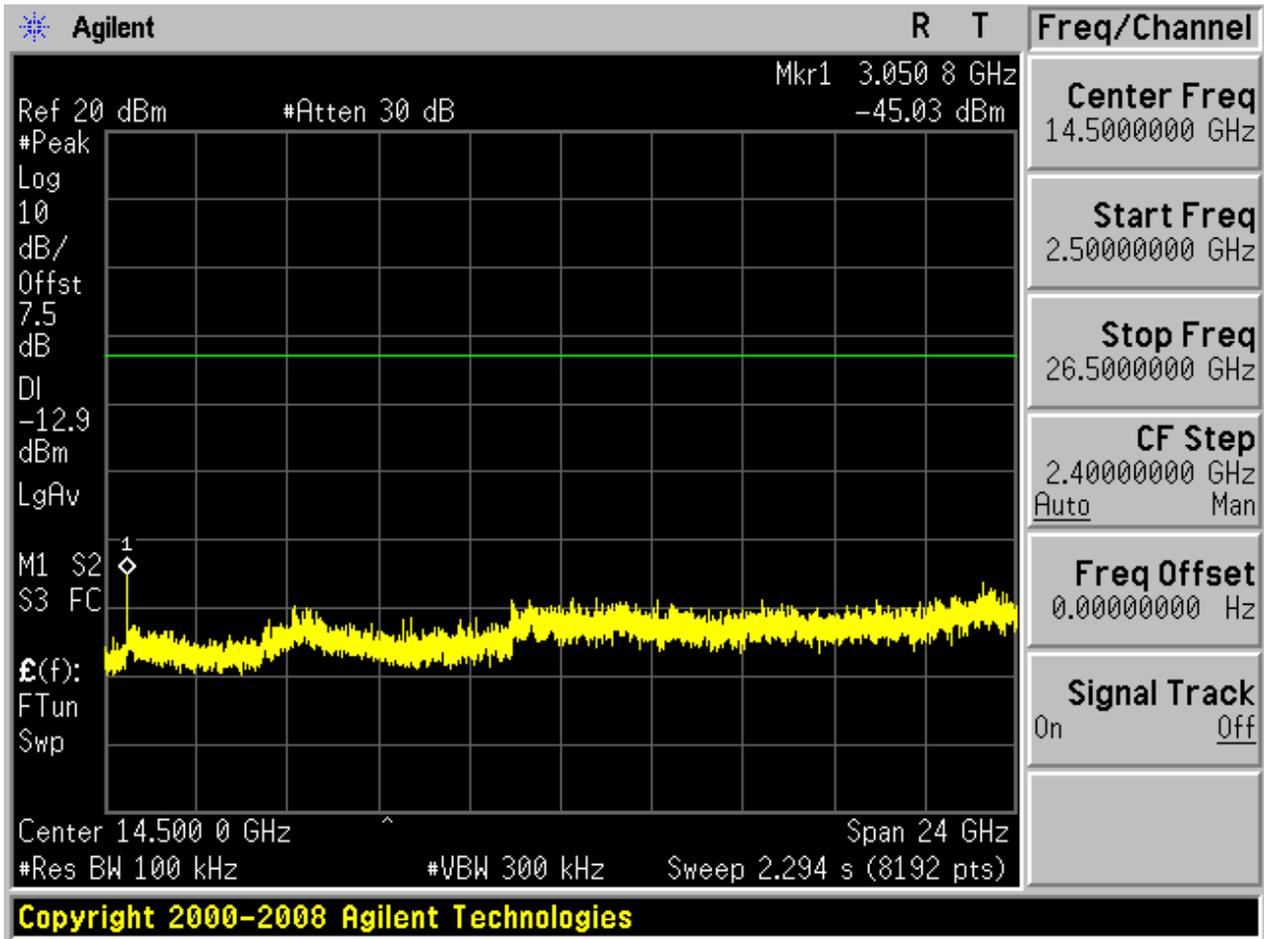






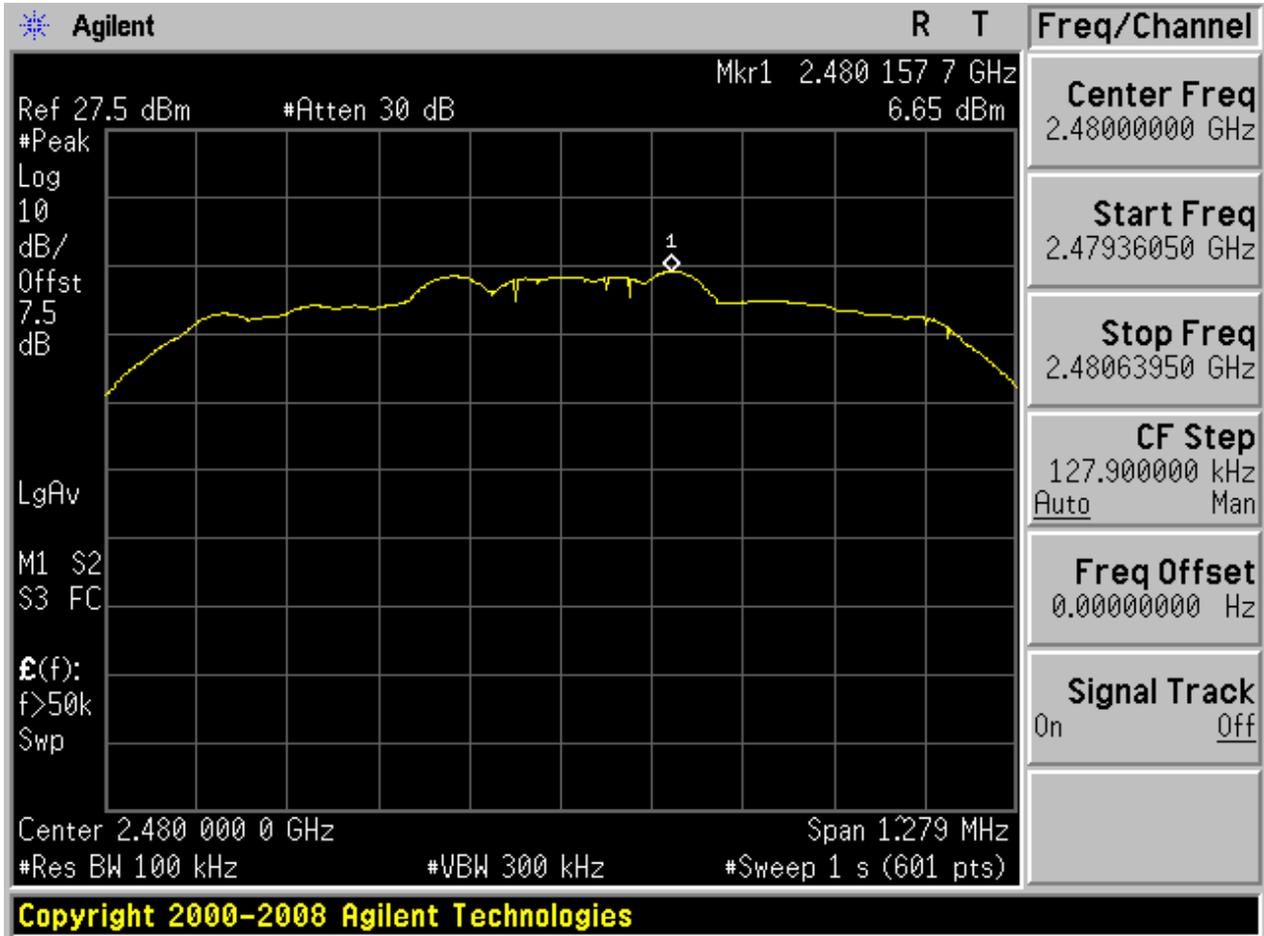




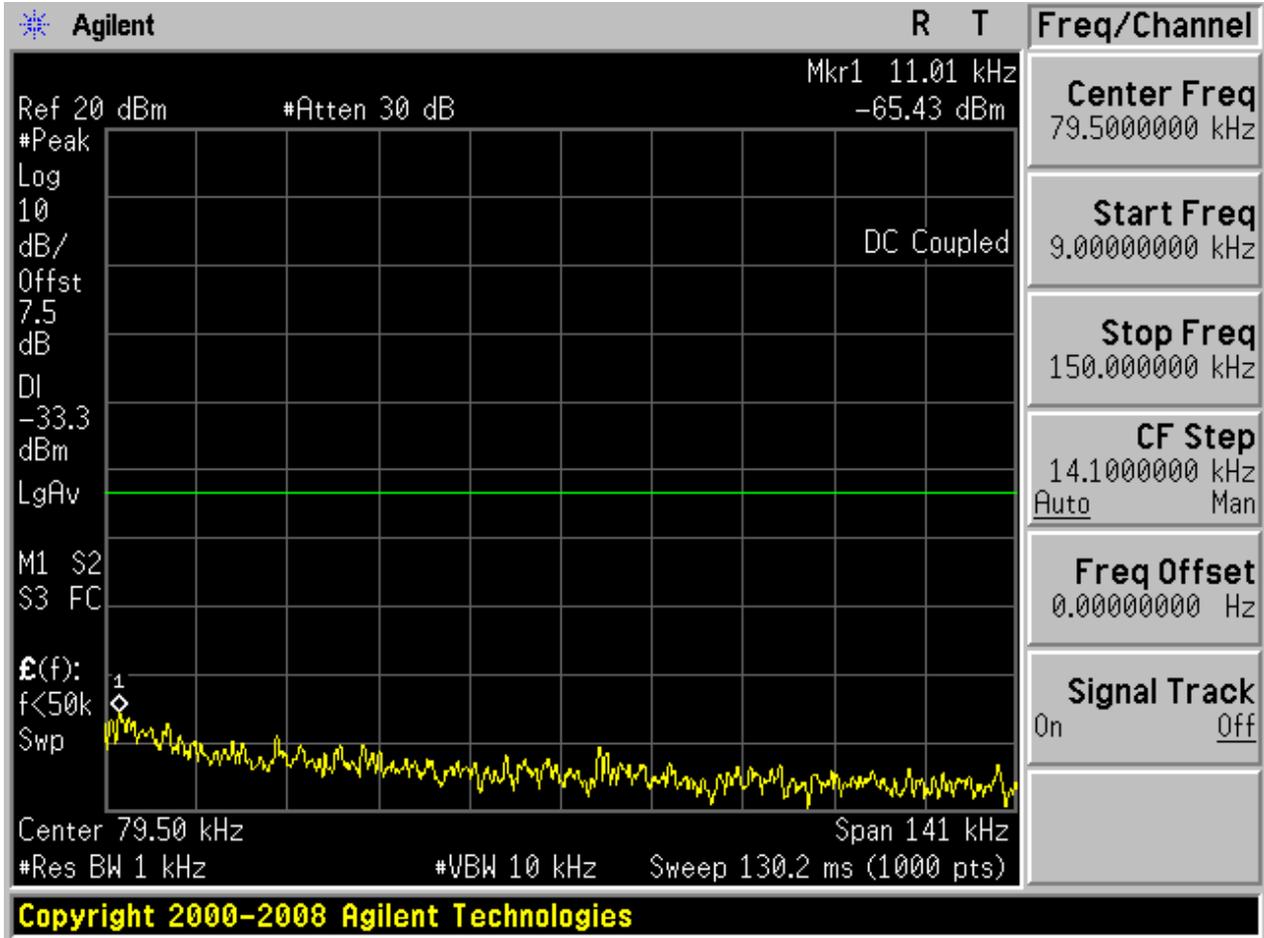


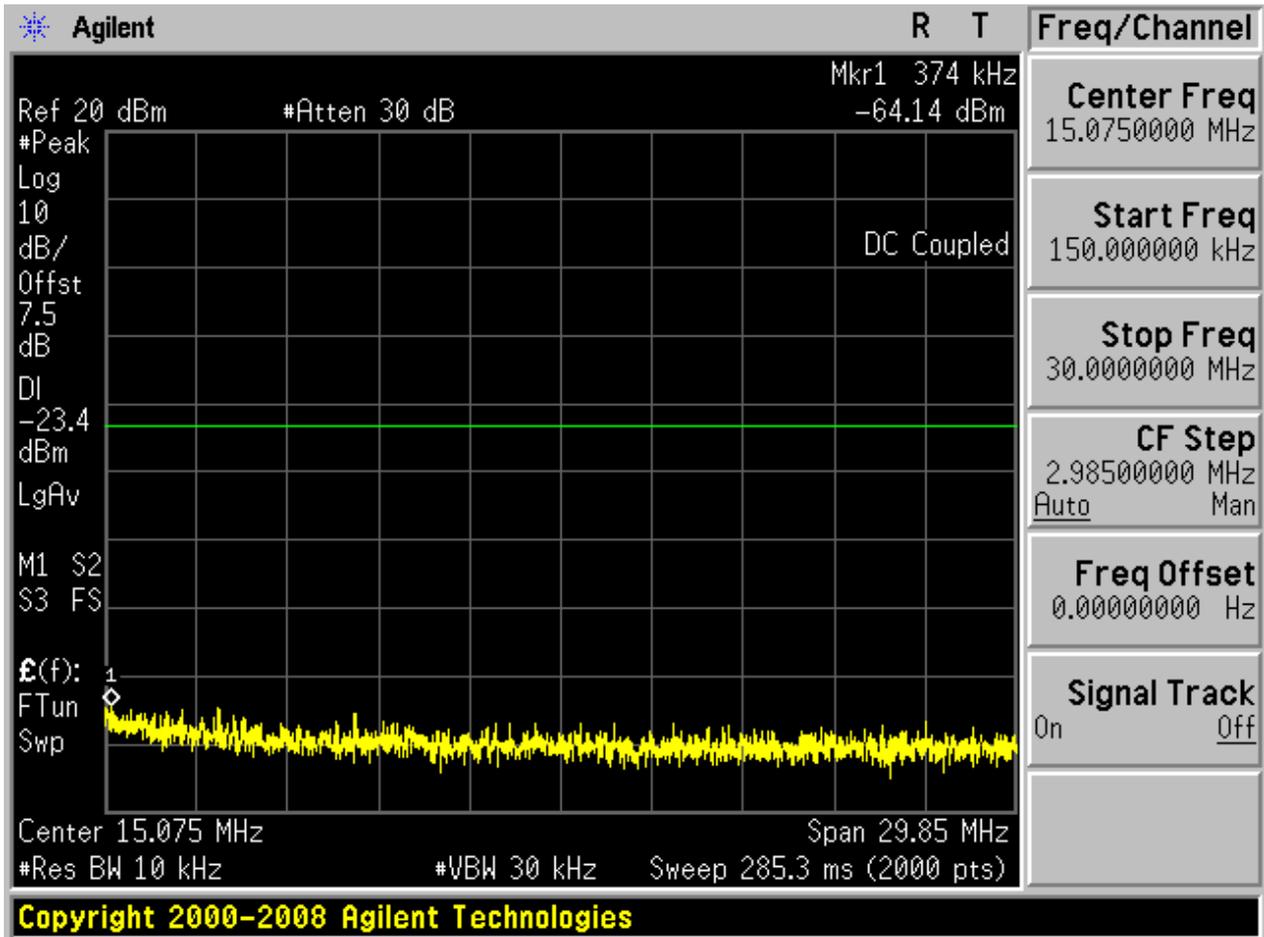
2.6 TM2_2DH5_Ch78

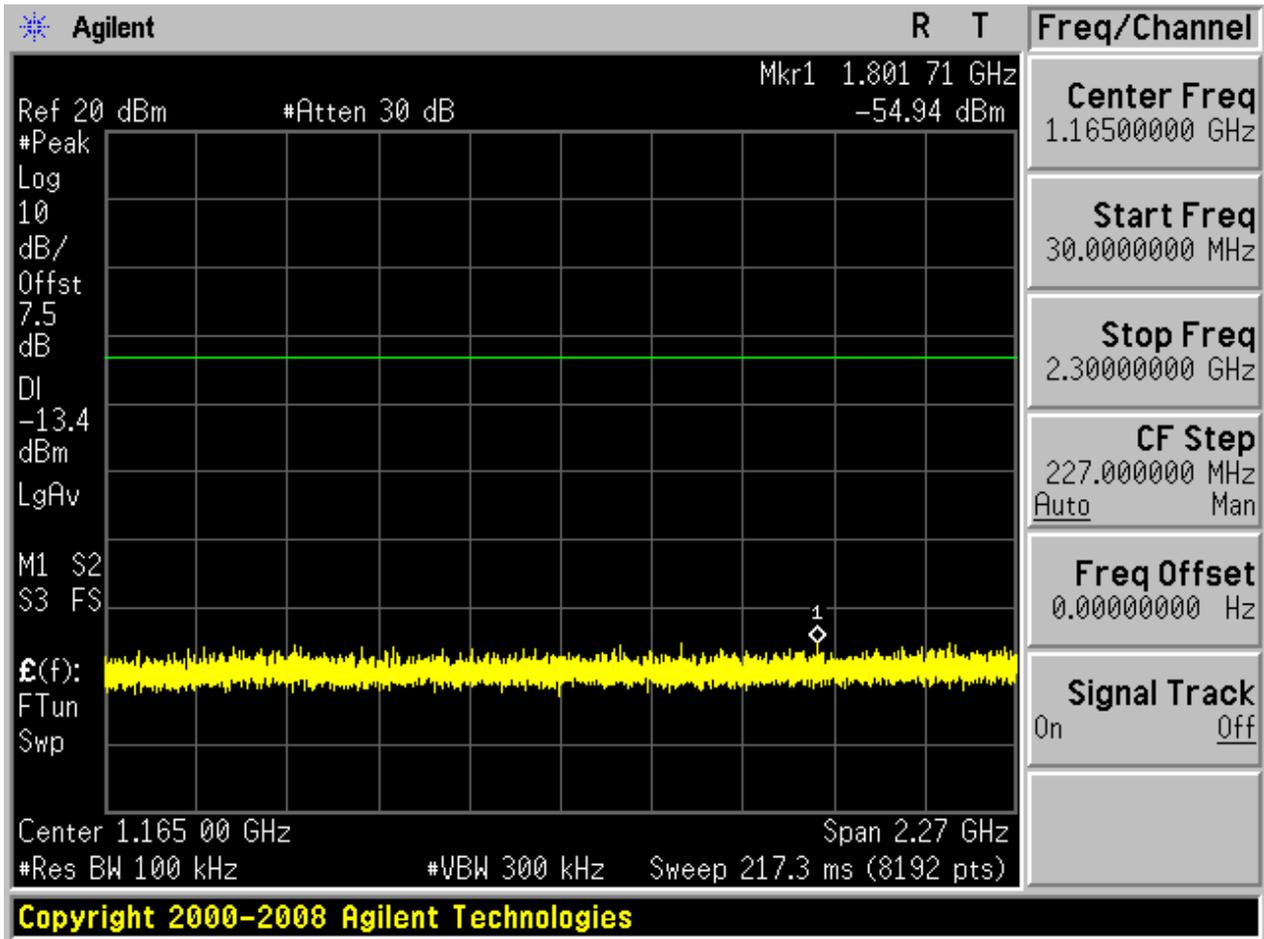
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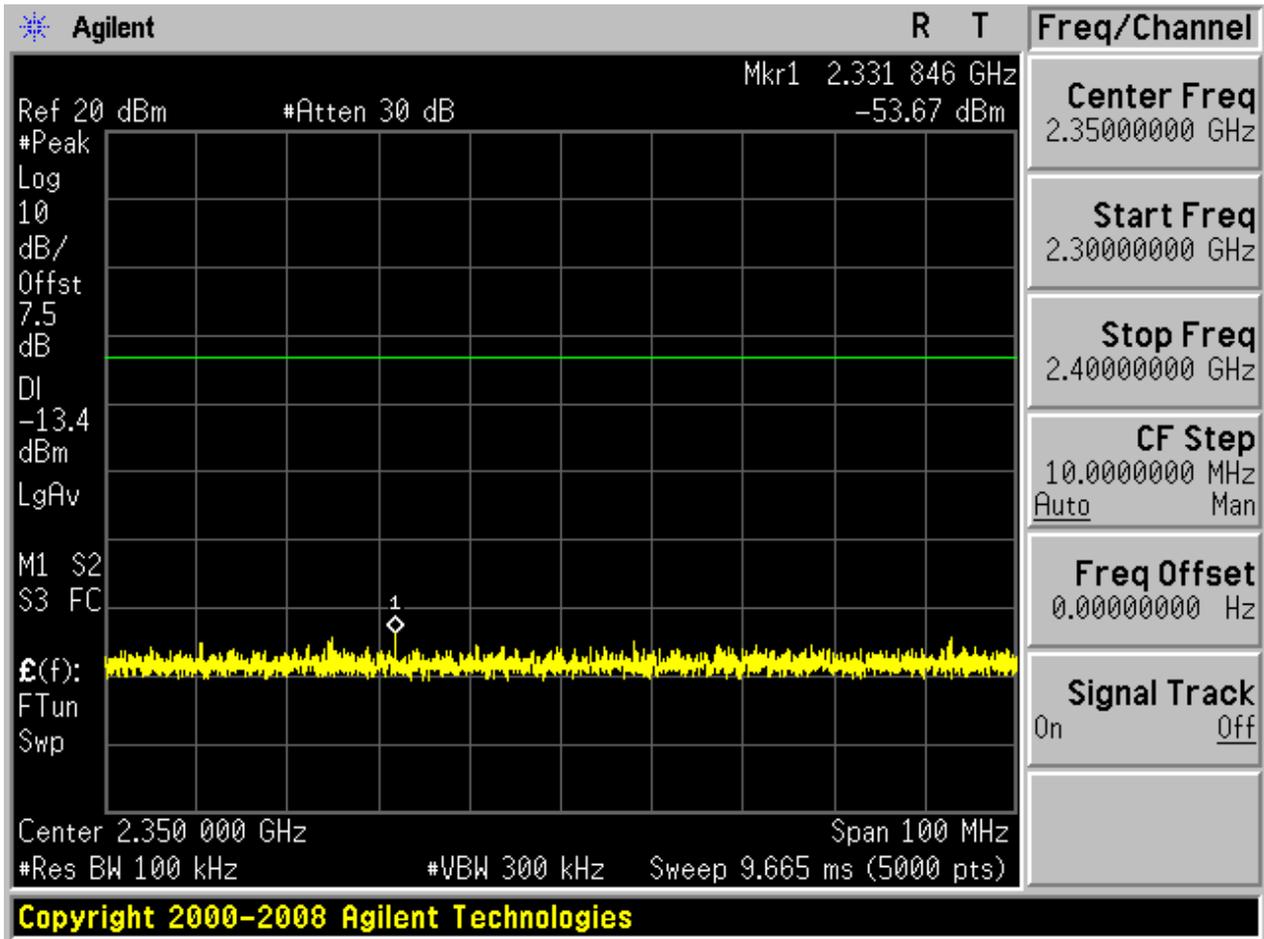


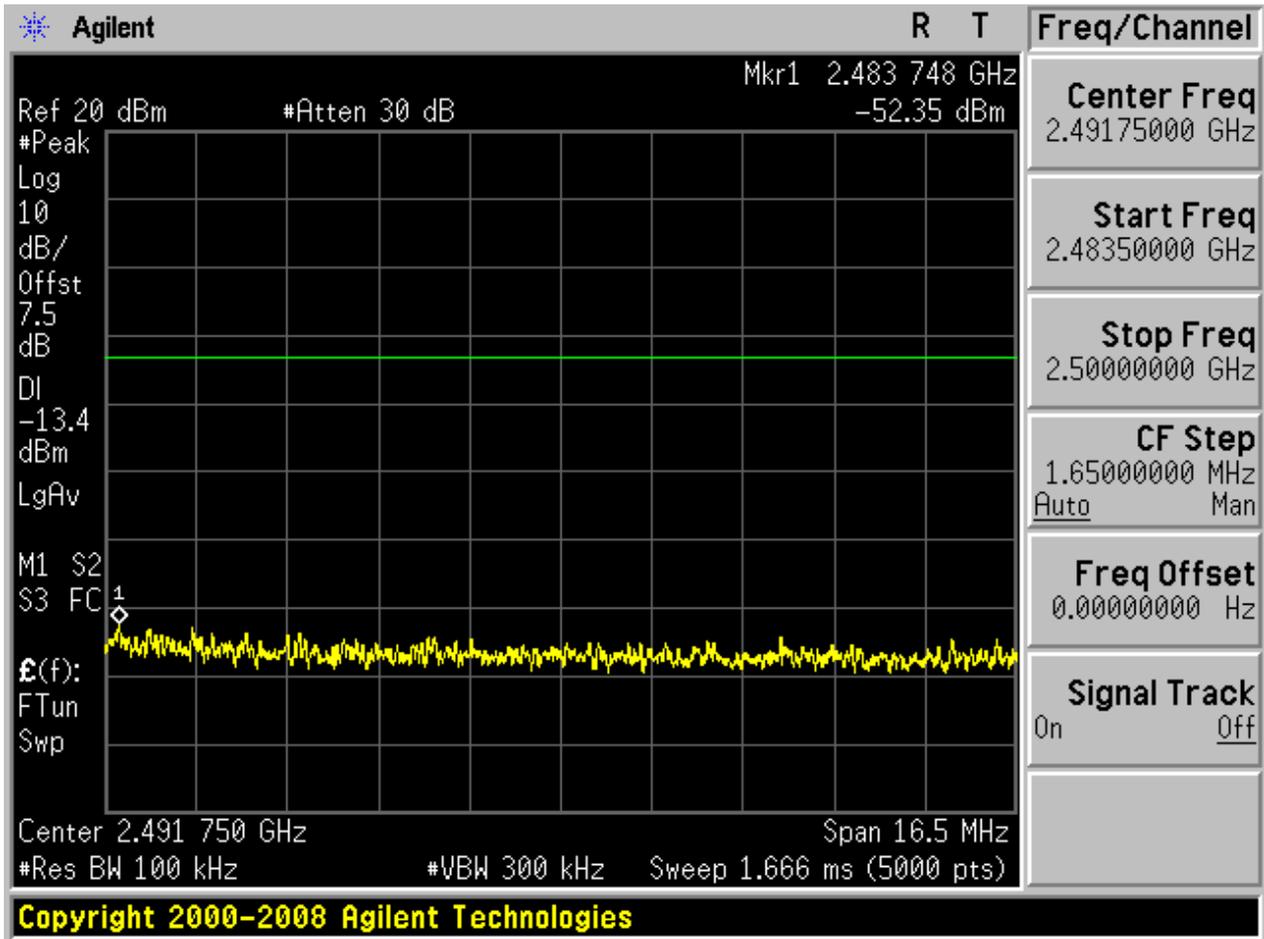
2.6.2 P_{uw}

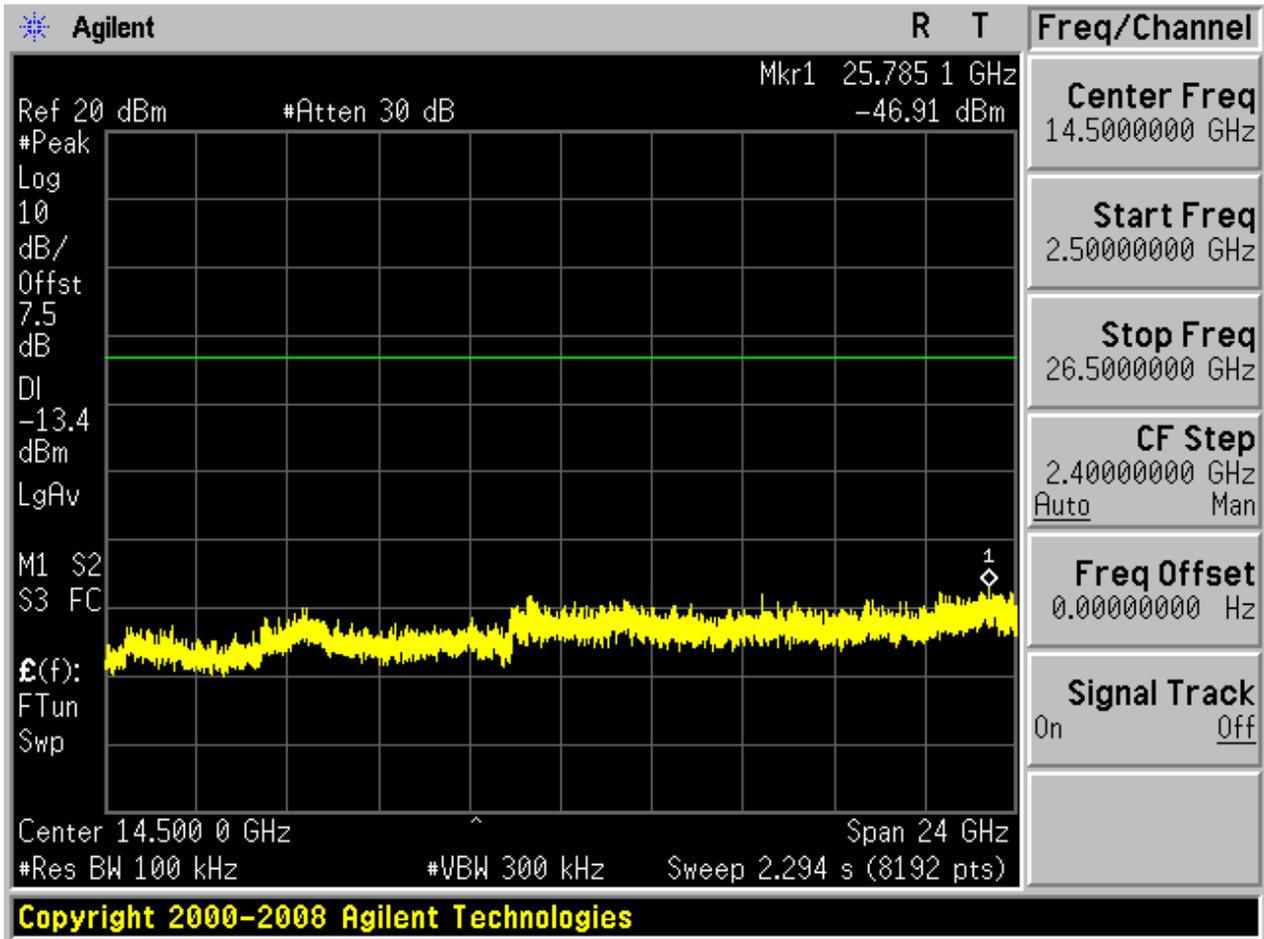






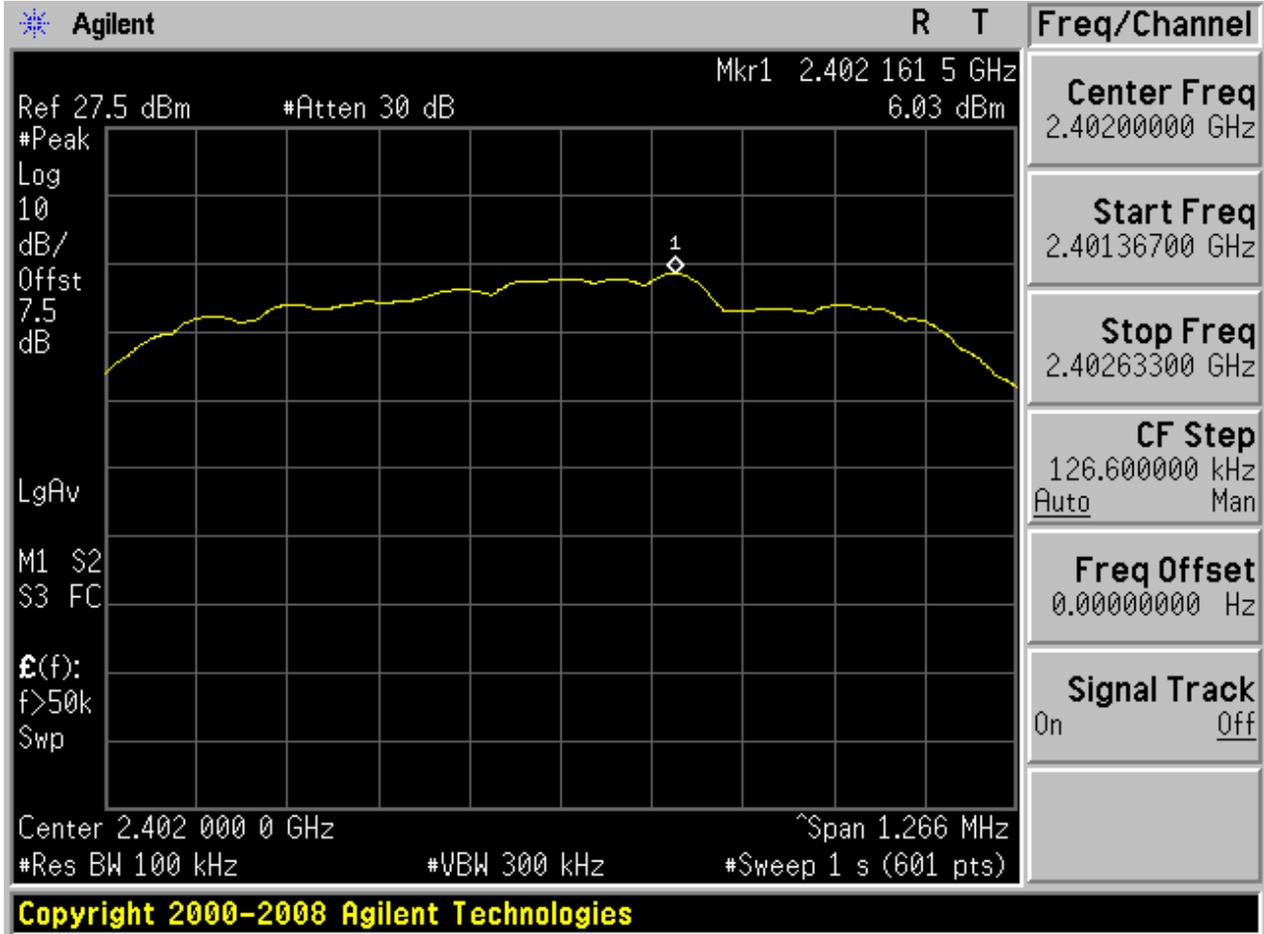




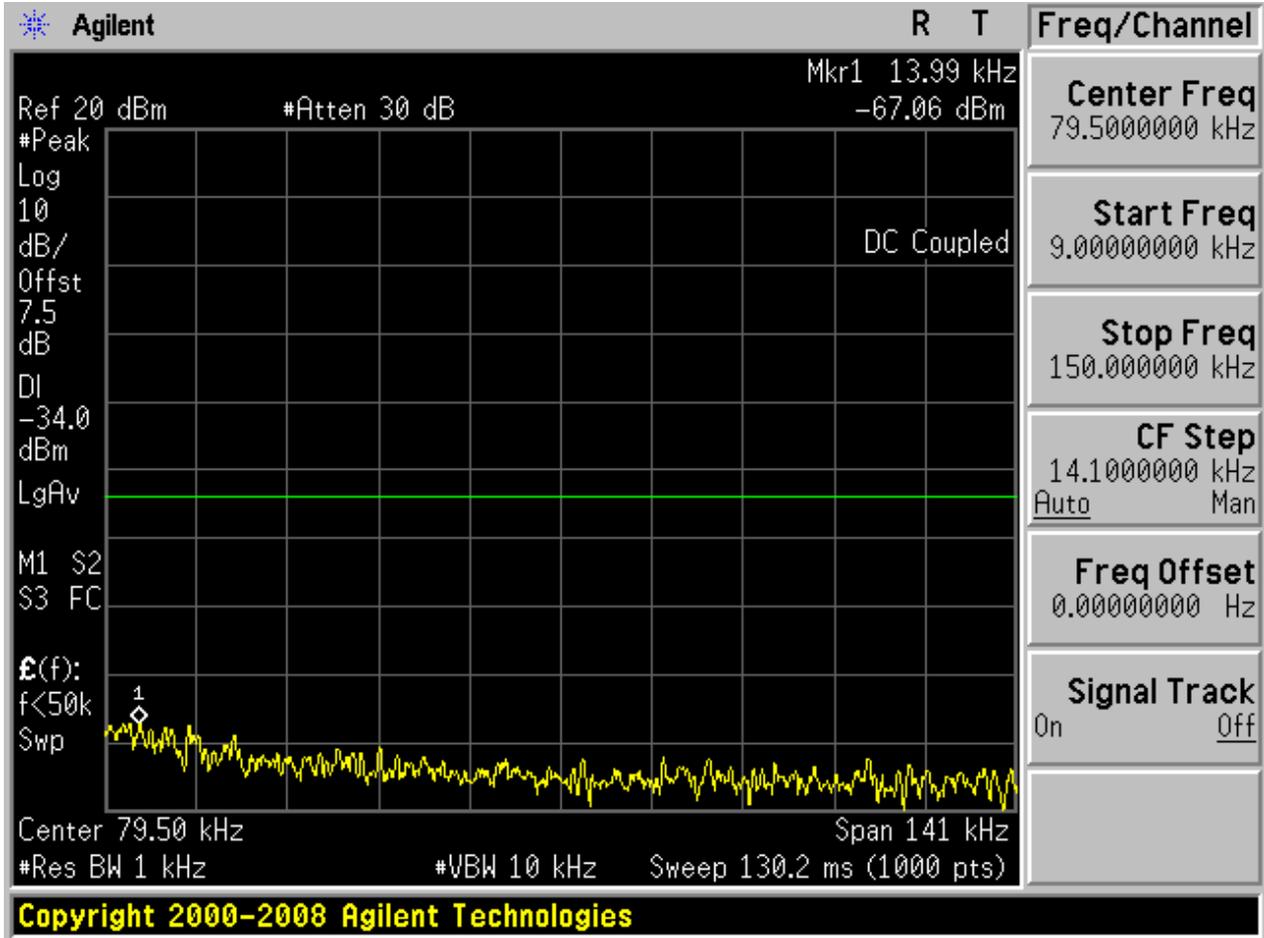


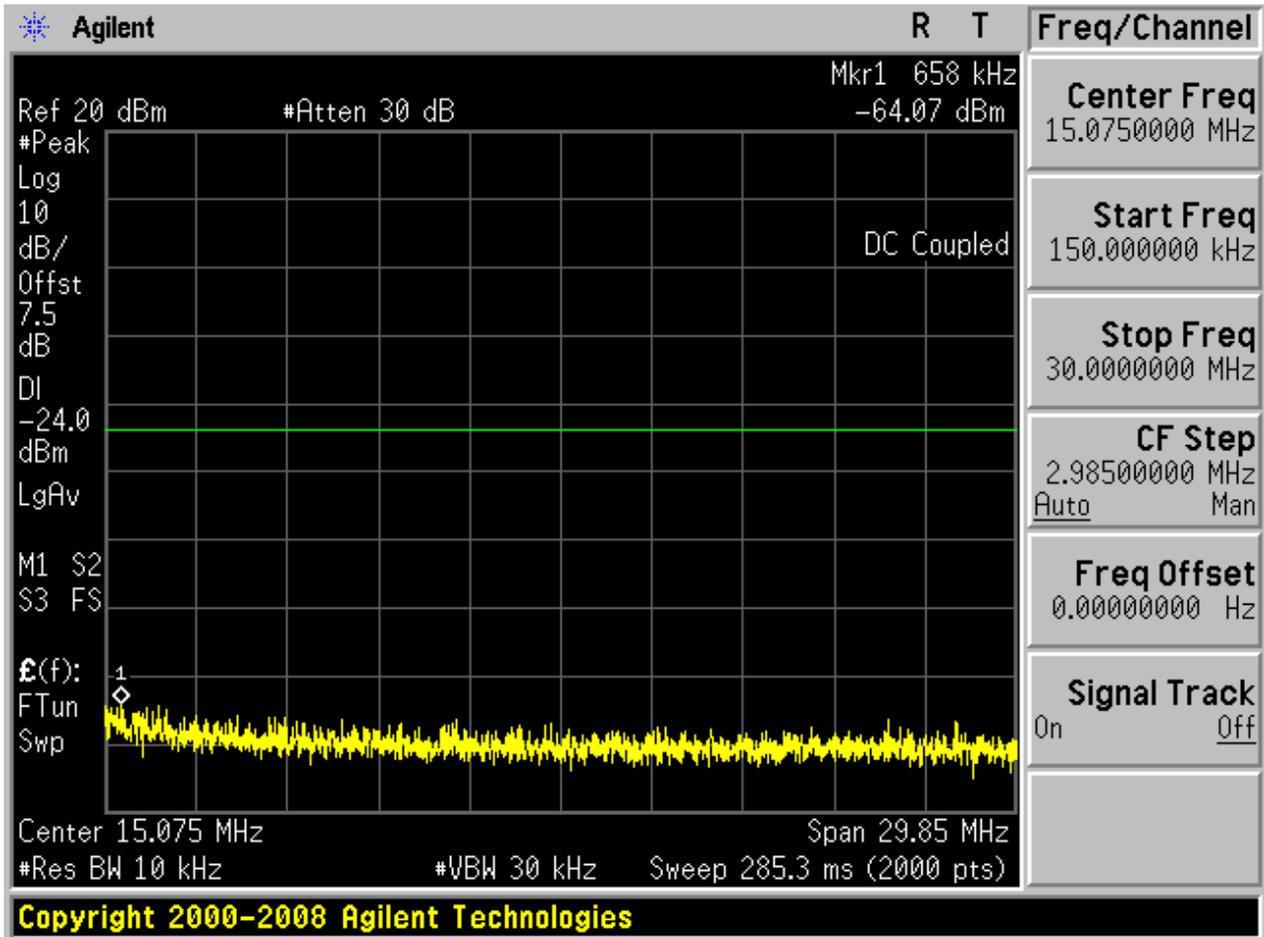
2.7 TM3_3DH5_Ch0

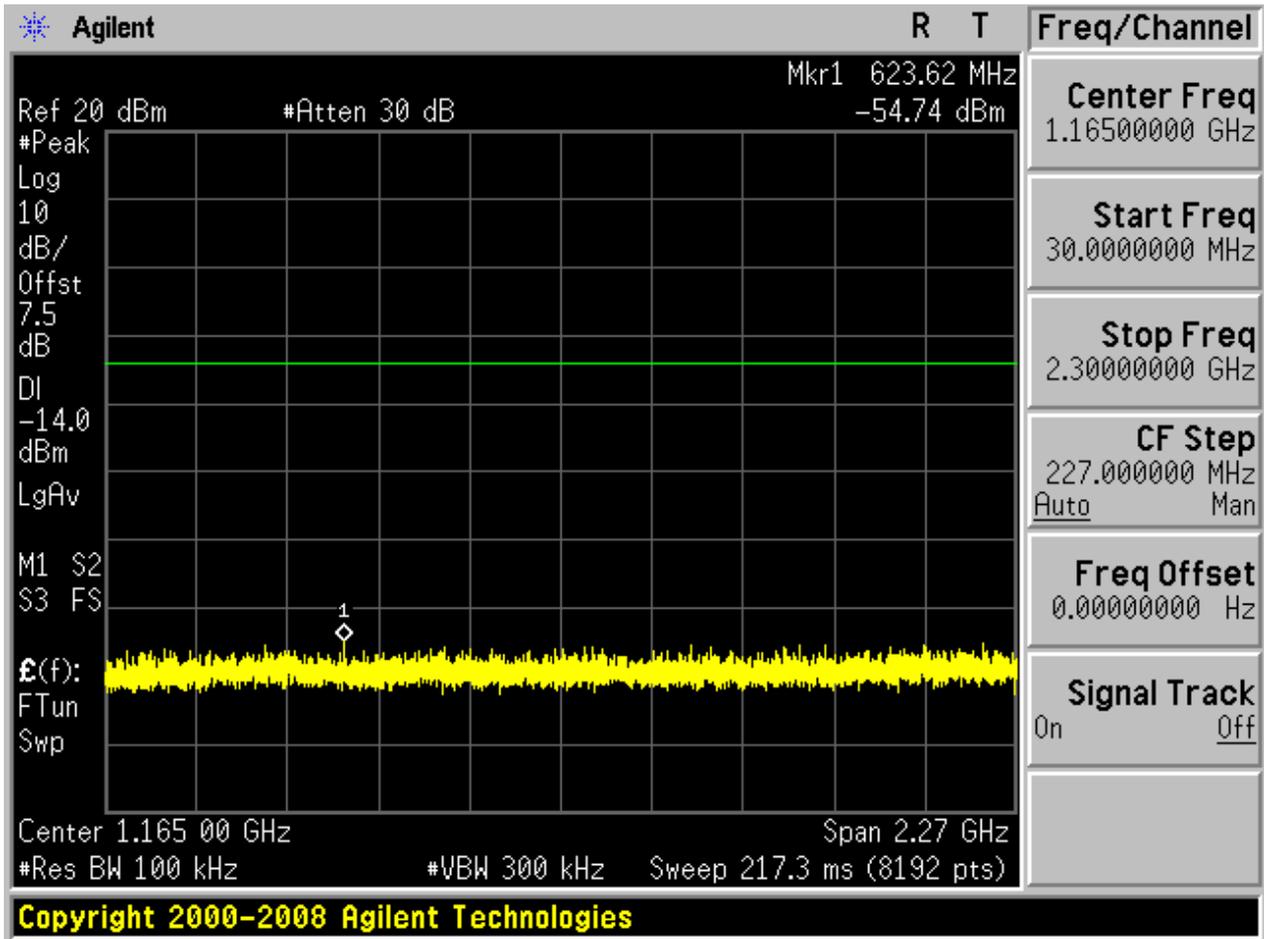
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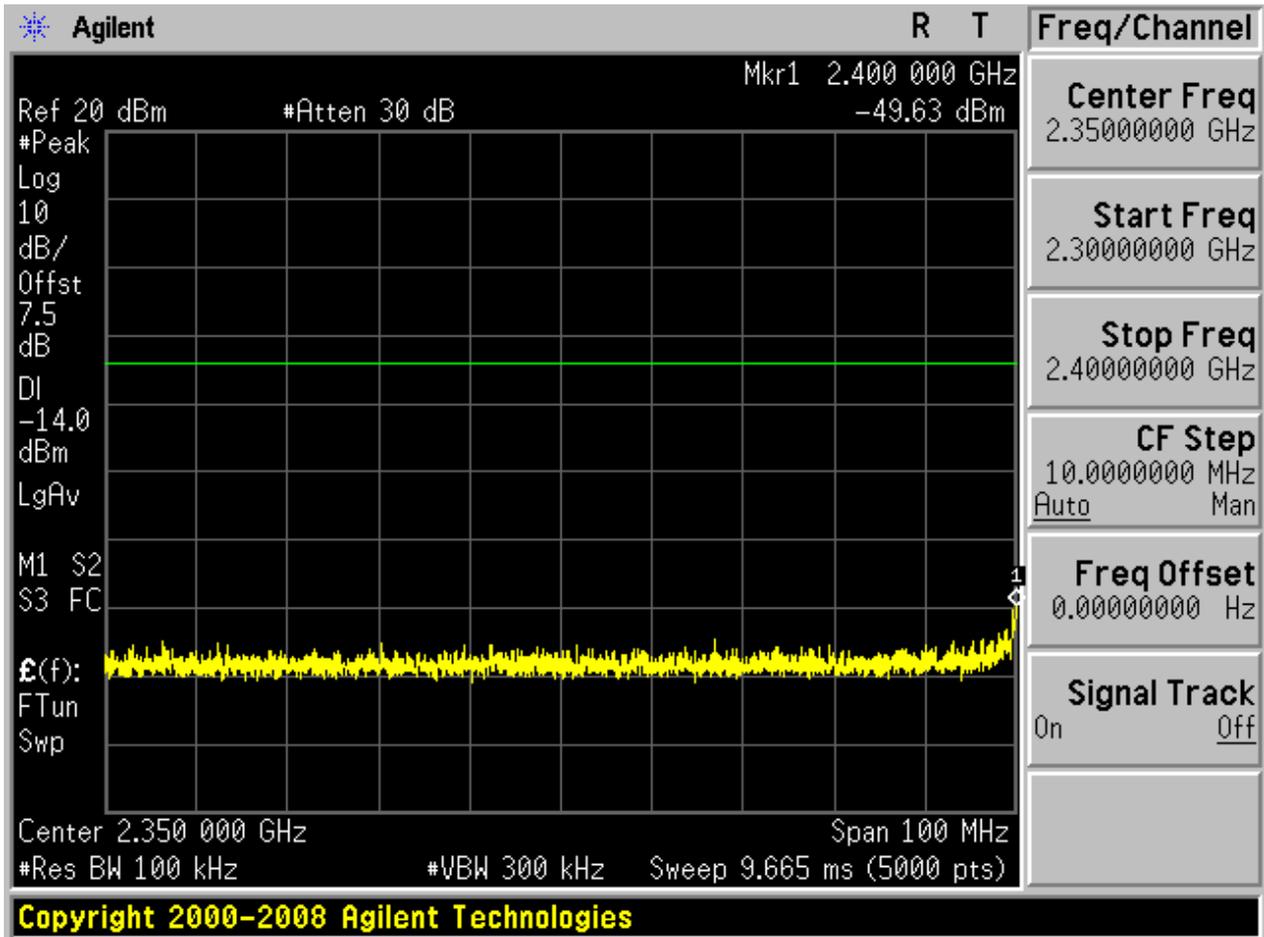


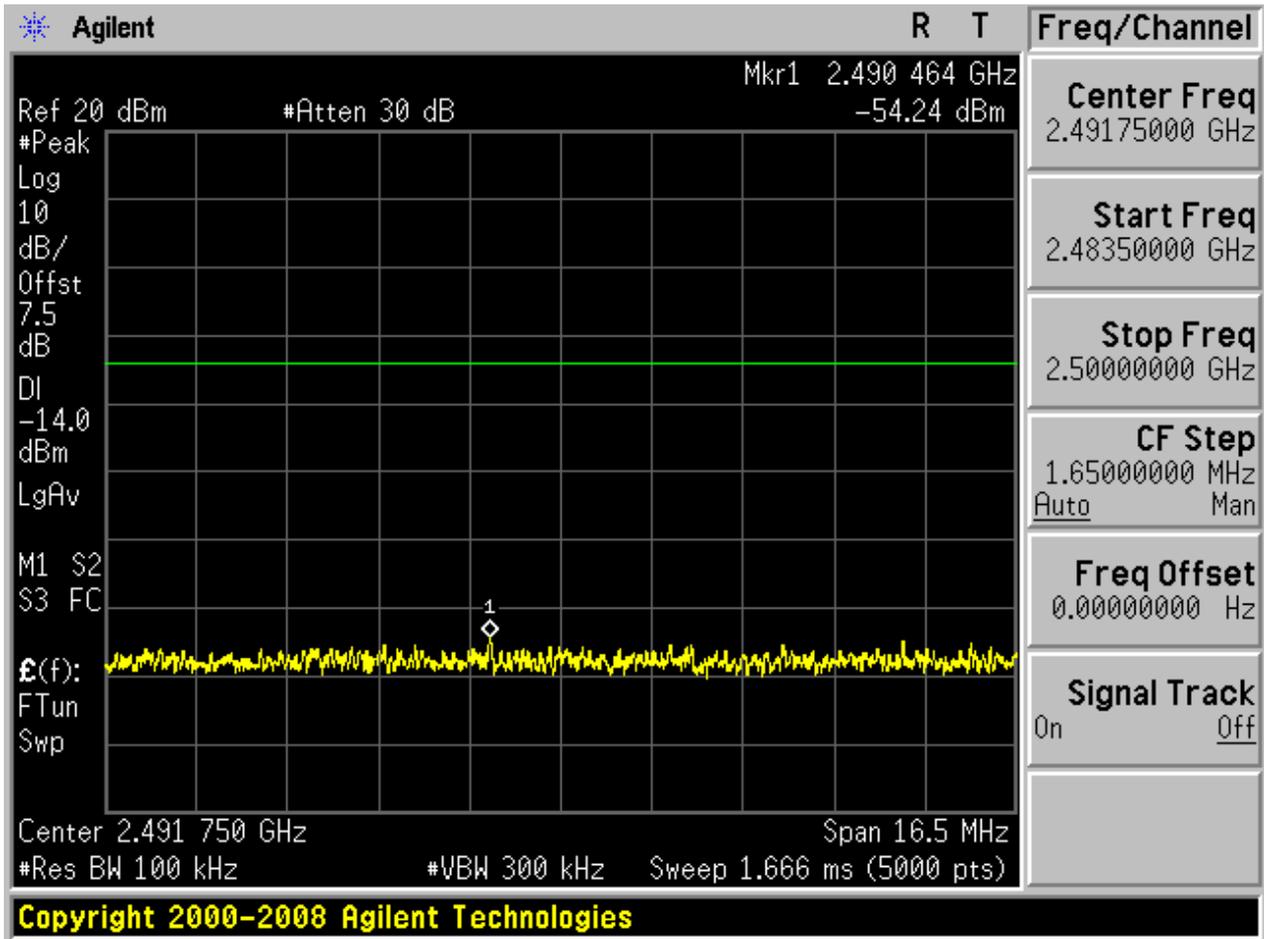
2.7.2 Puw

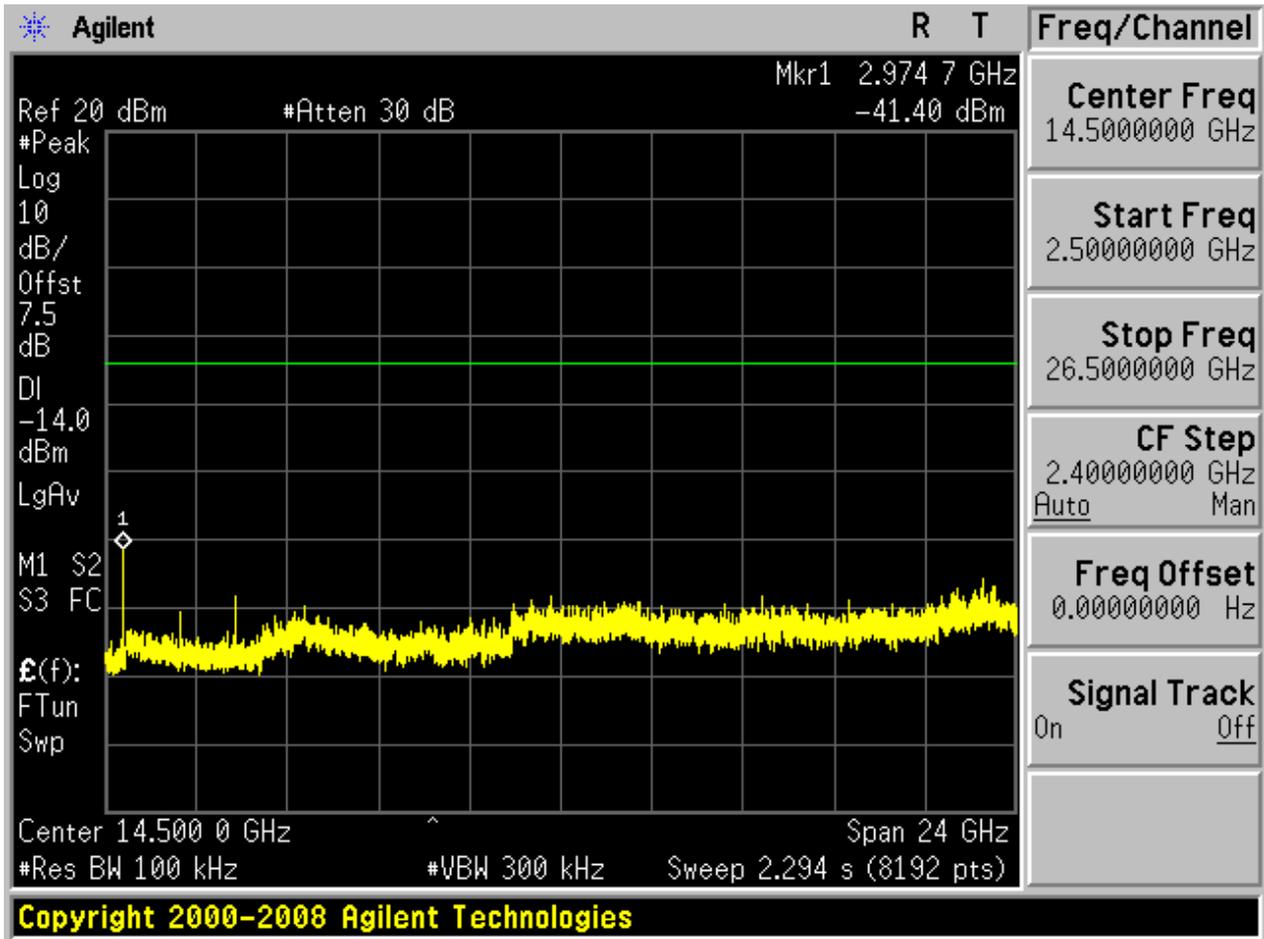






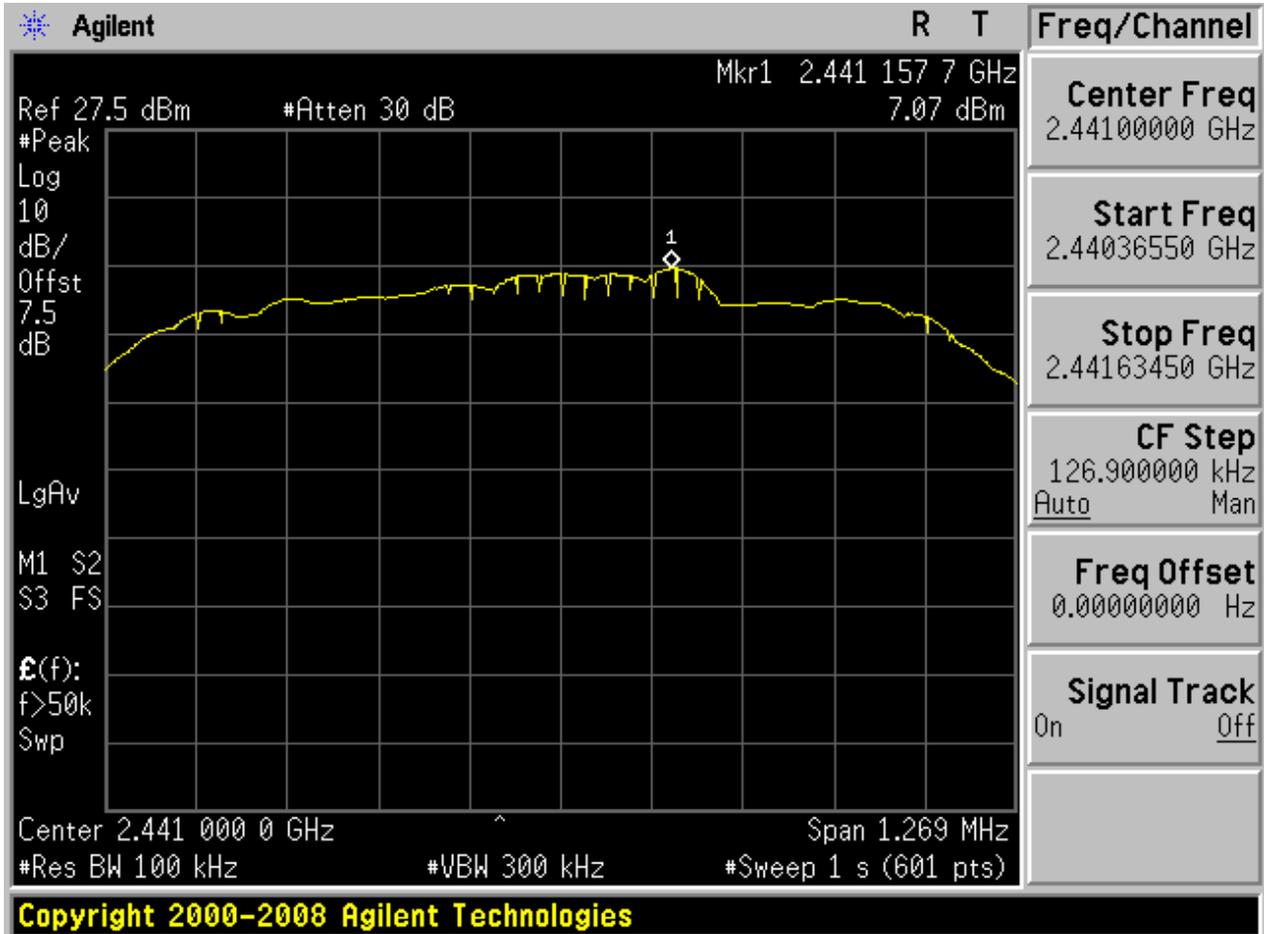




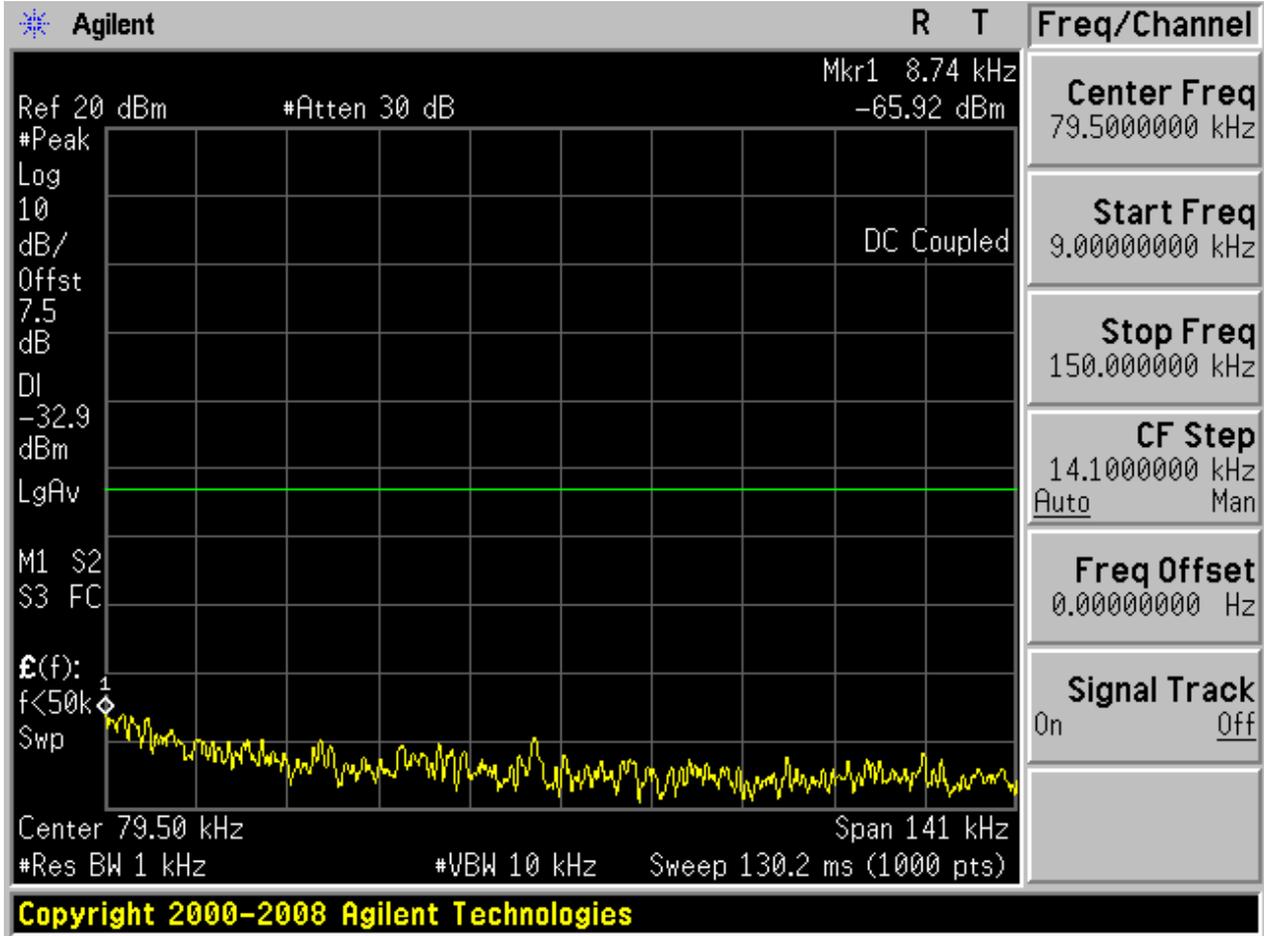


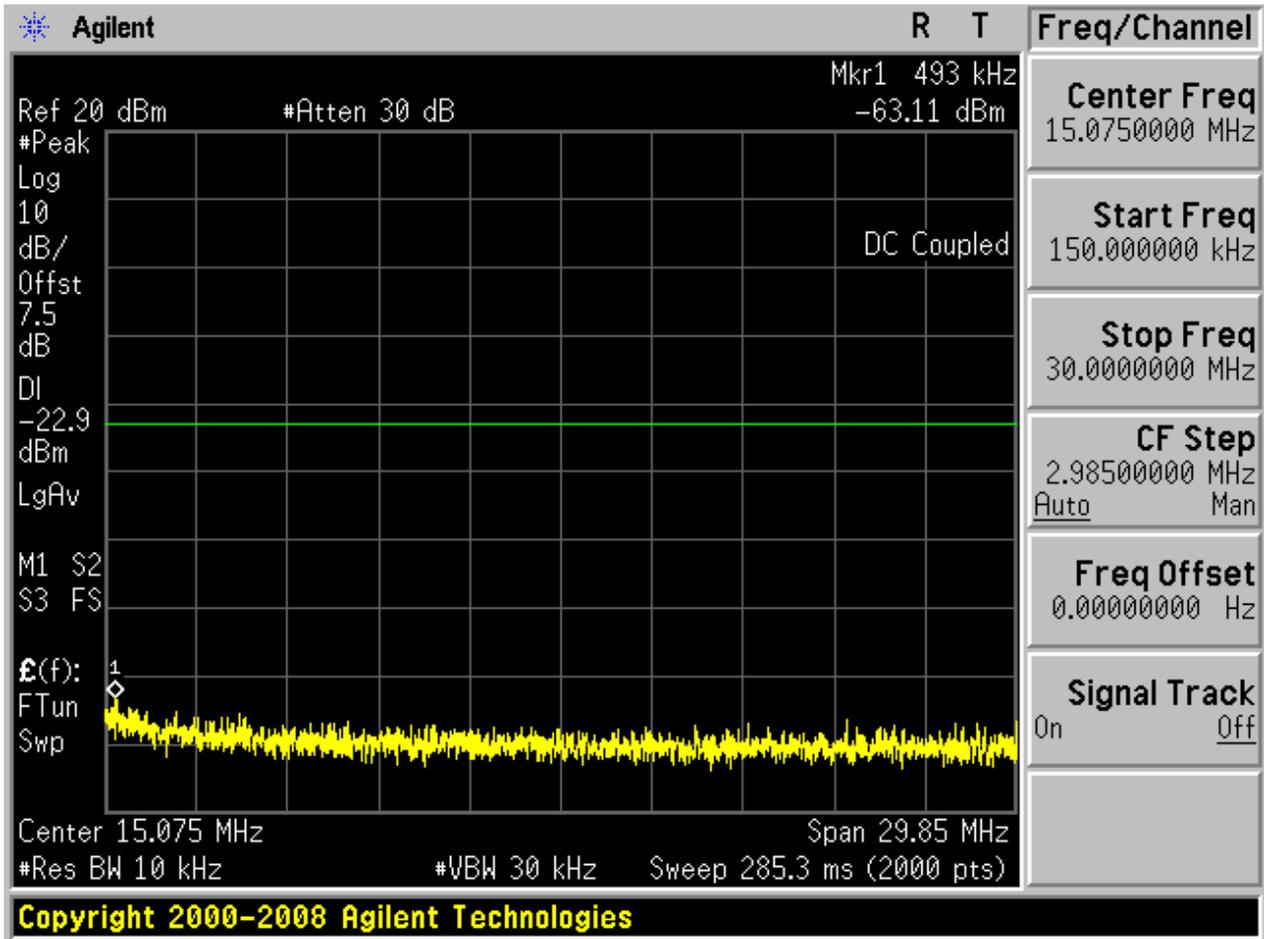
2.8 TM3_3DH5_Ch39

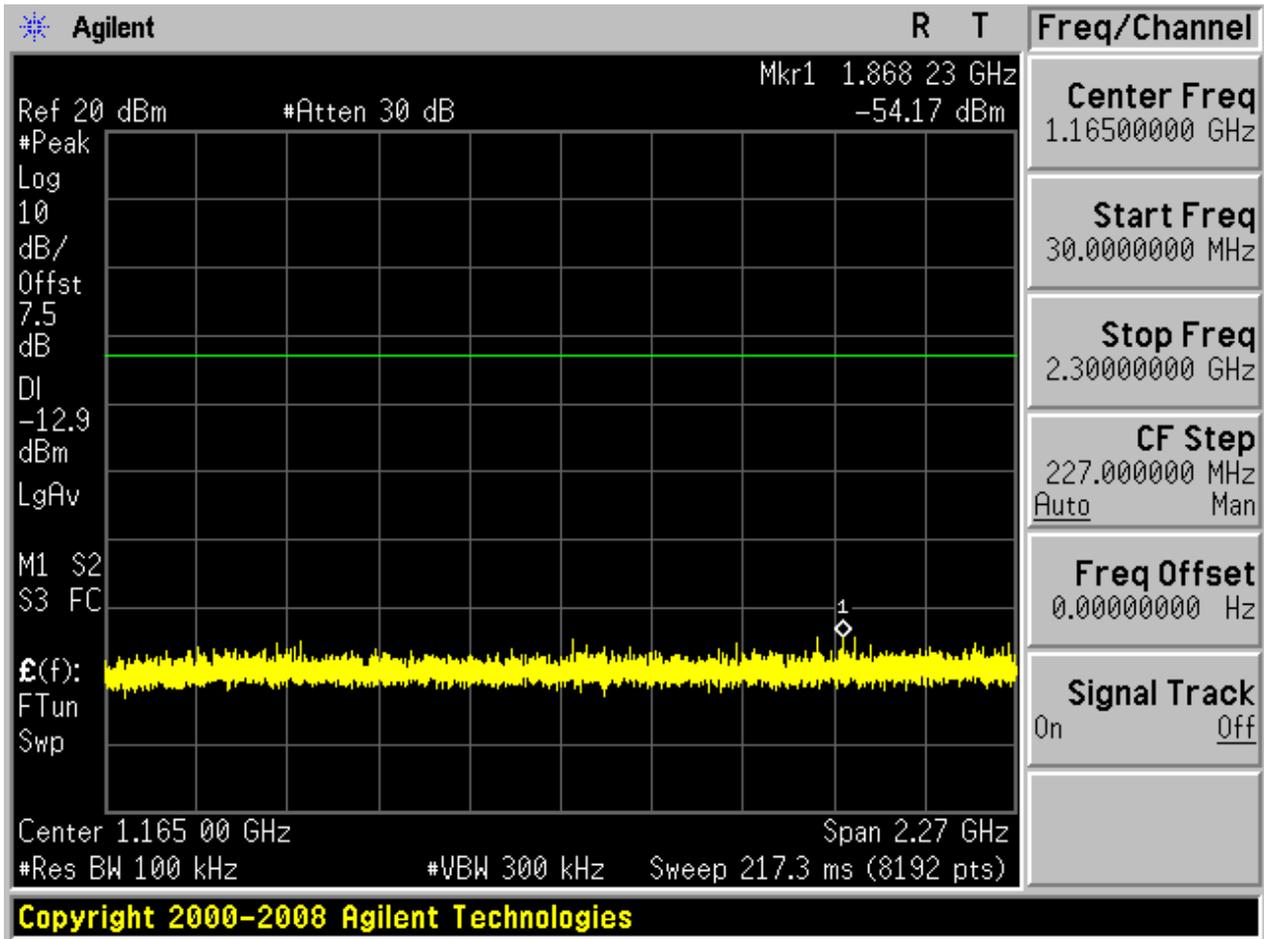
2.8.1 Pref

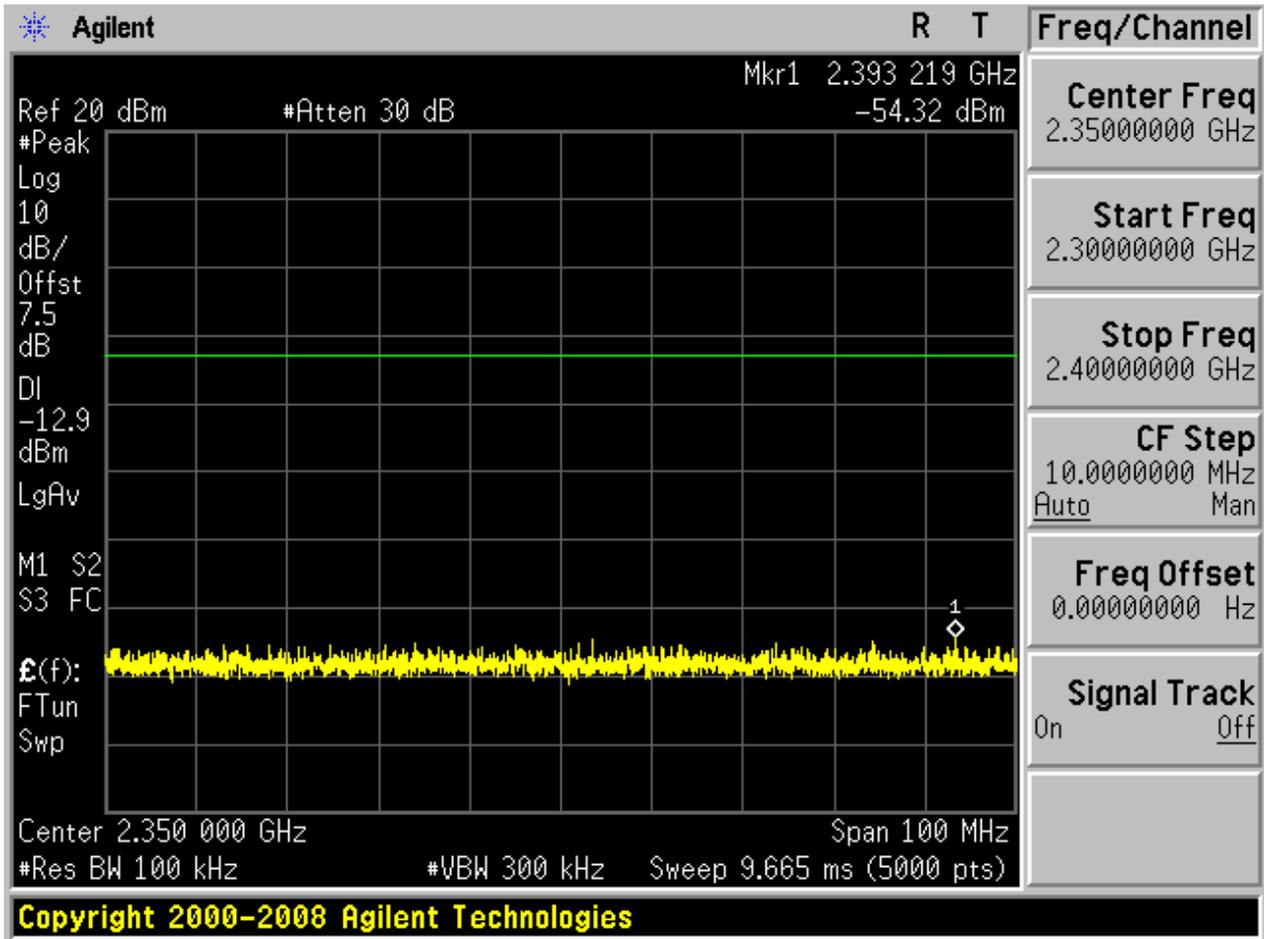


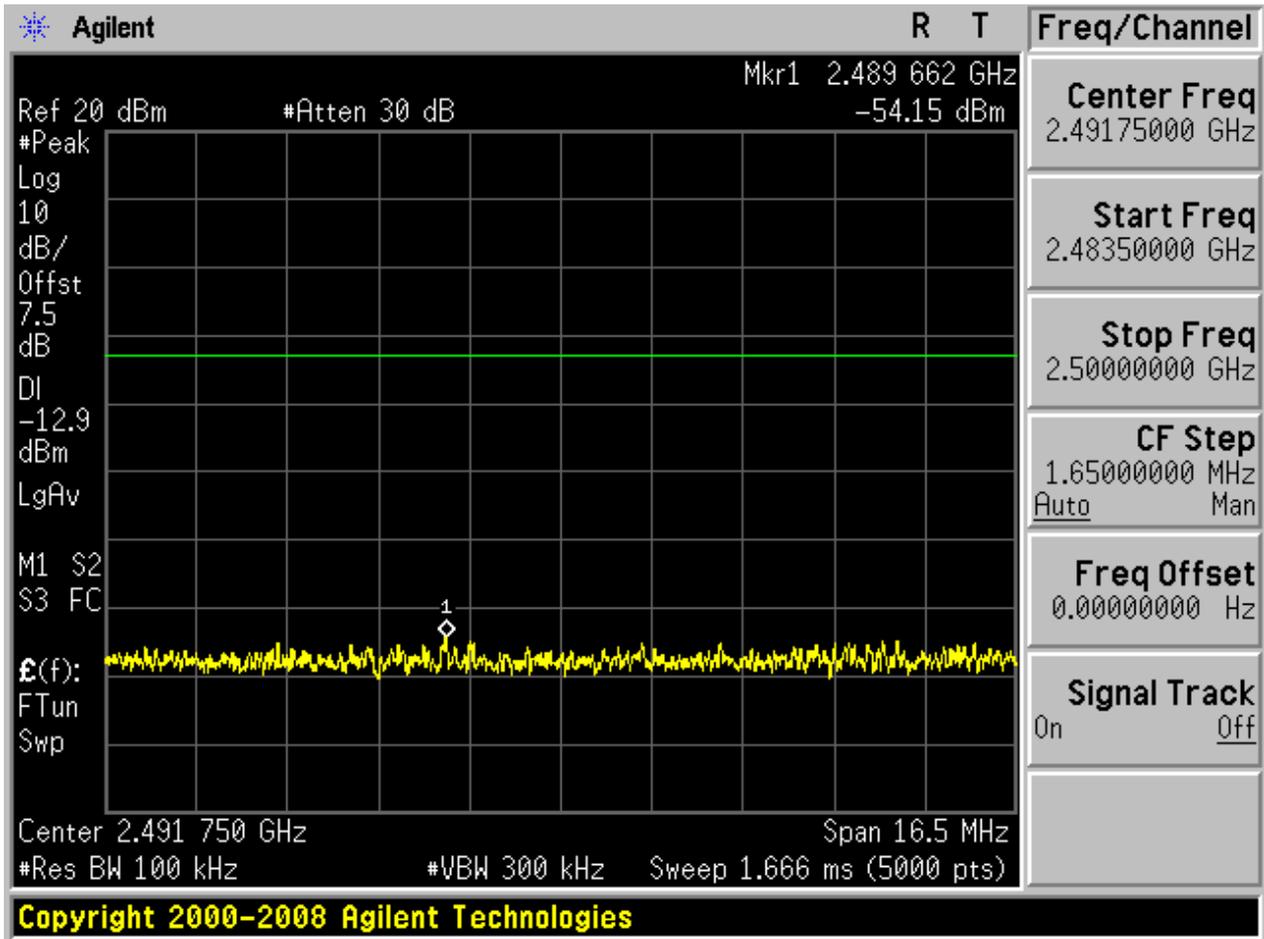
2.8.2 P_{uw}

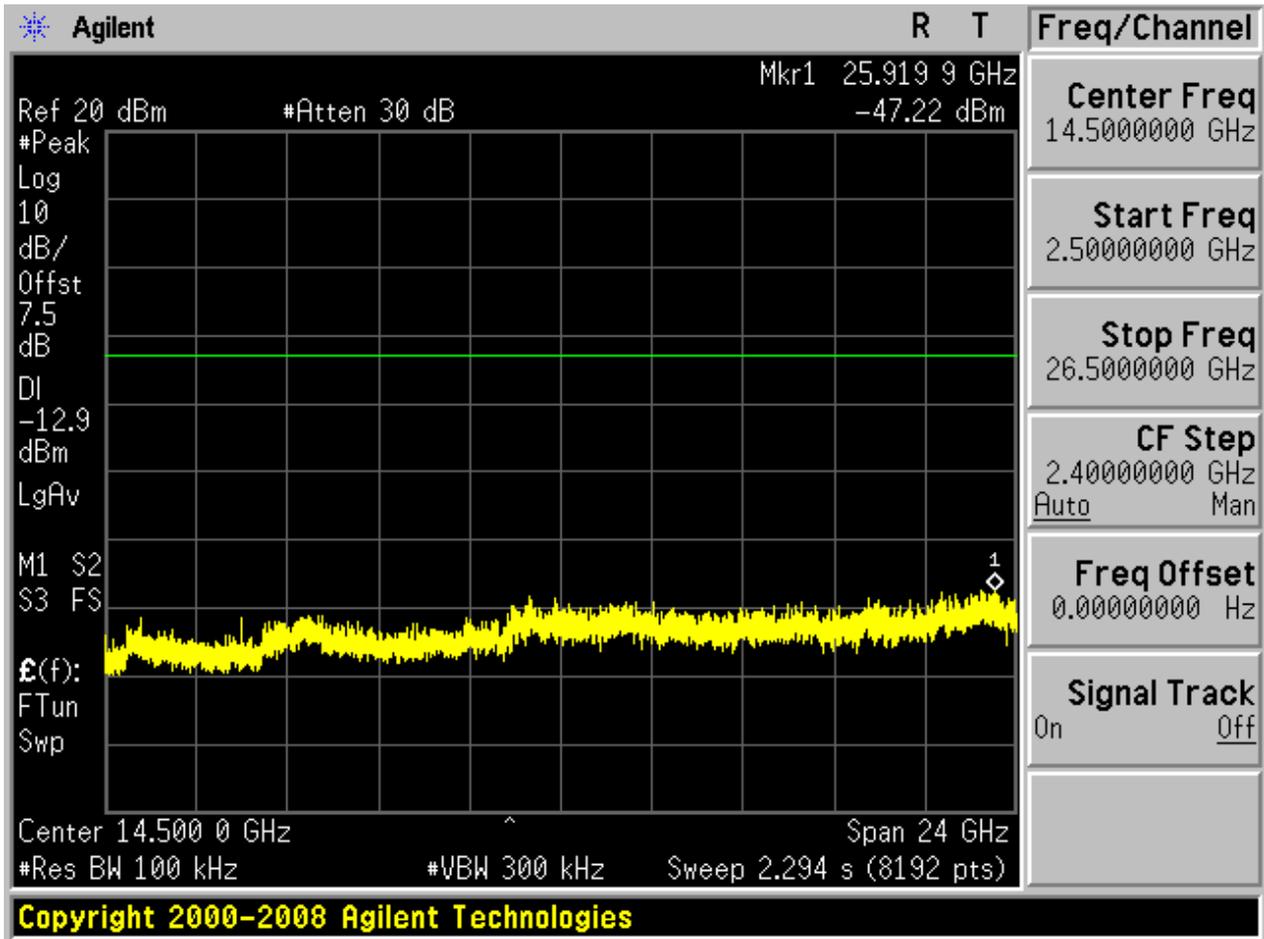






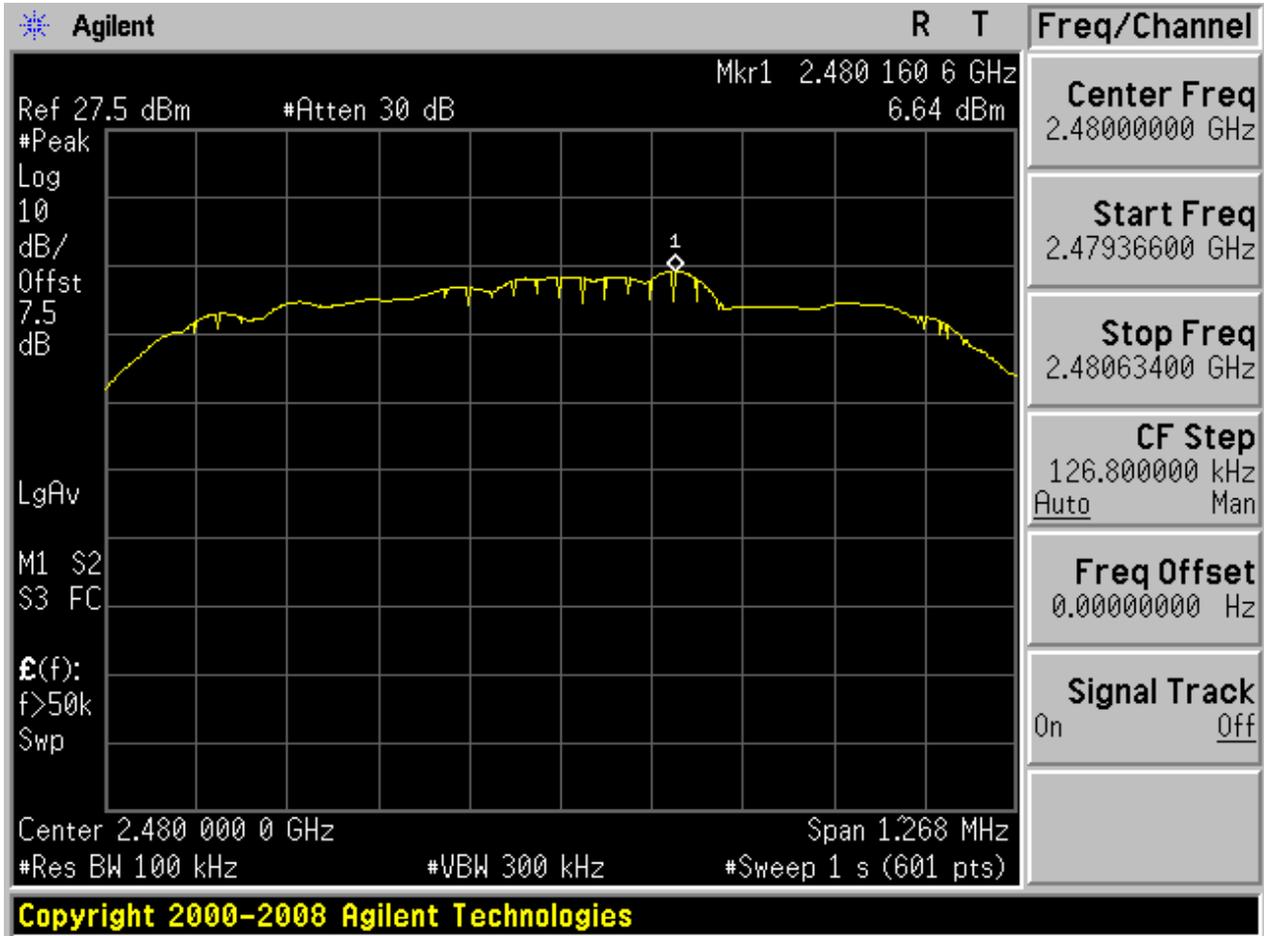




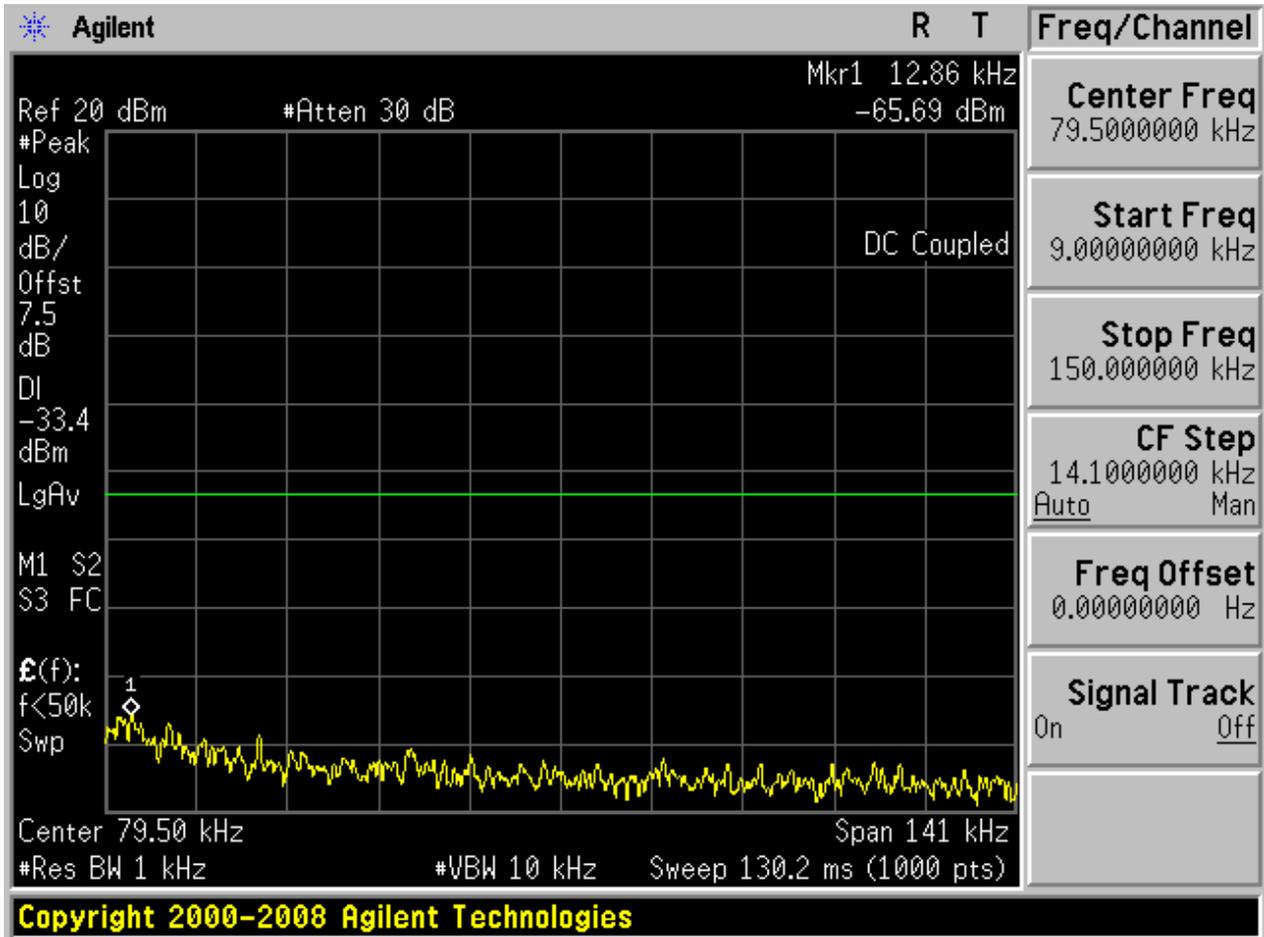


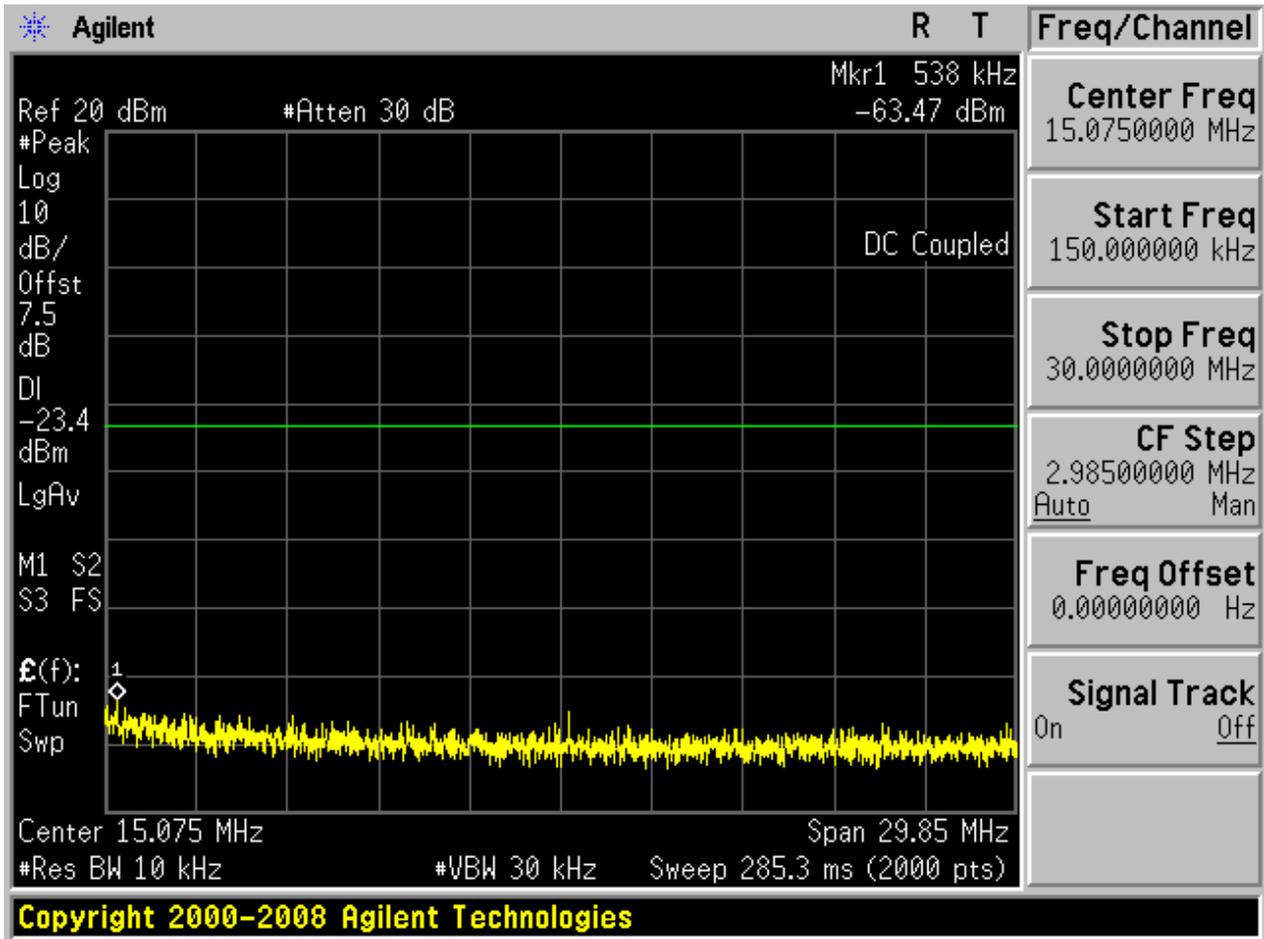
2.9 TM3_3DH5_Ch78

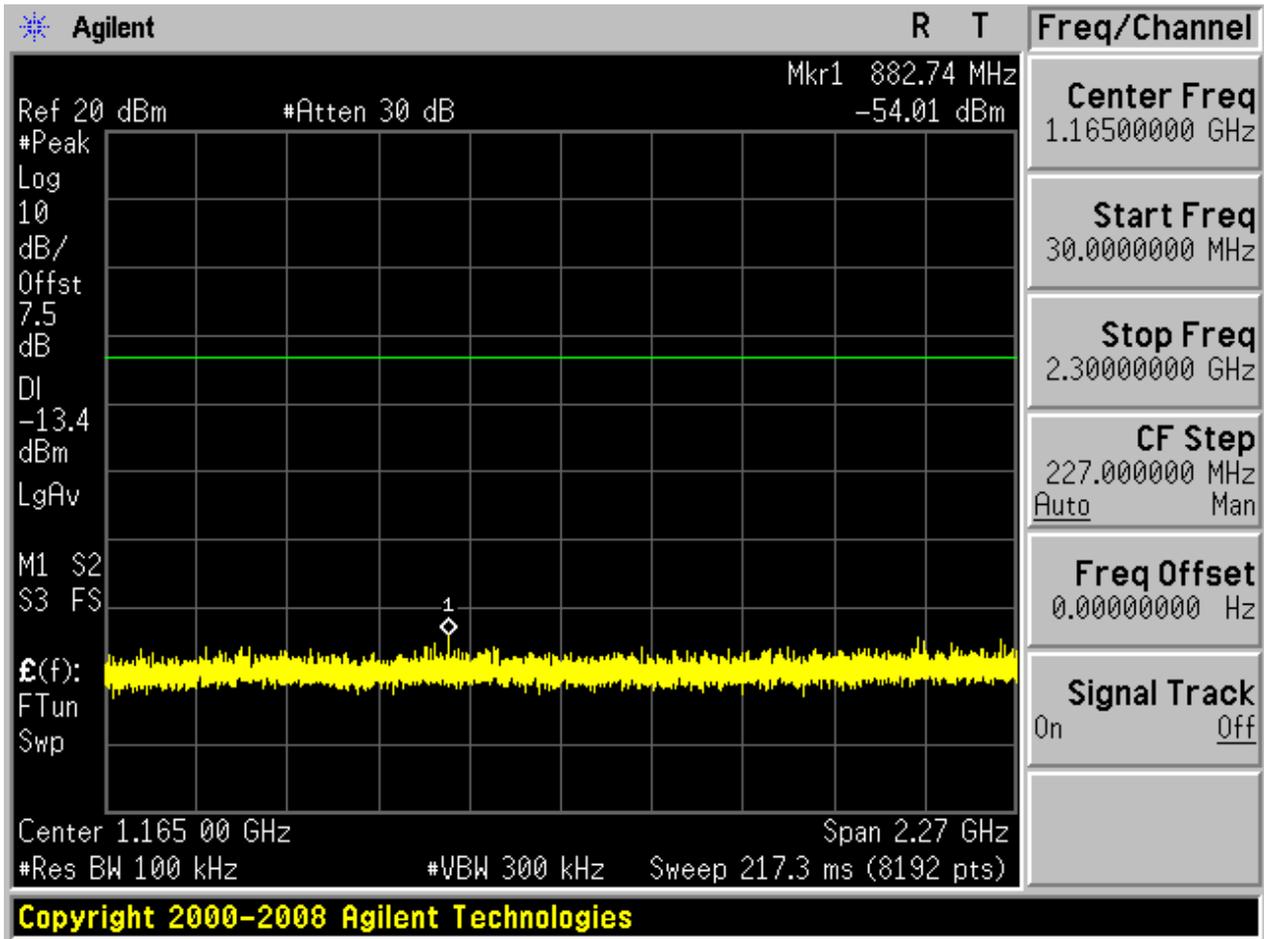
2.9.1 Pref

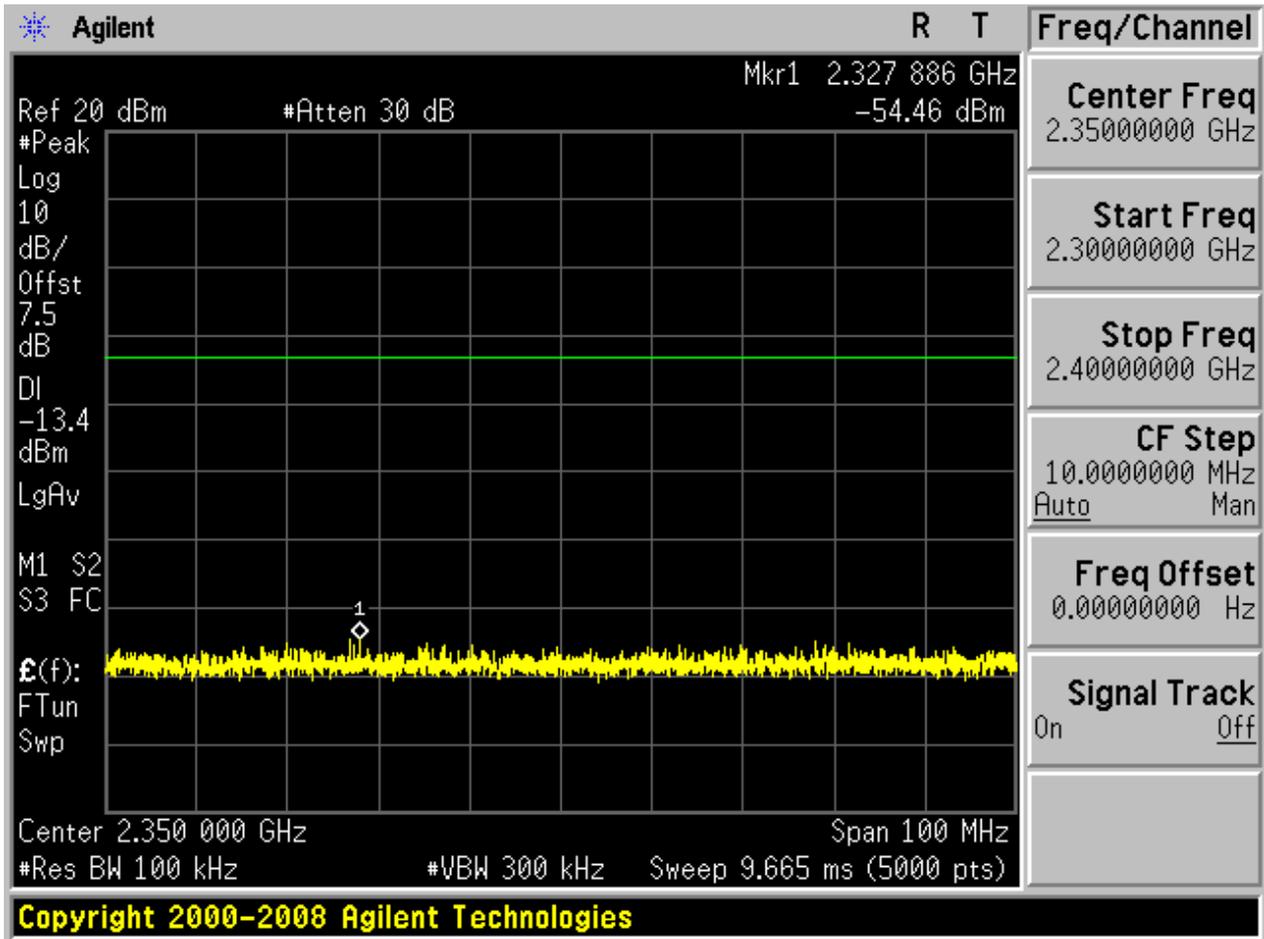


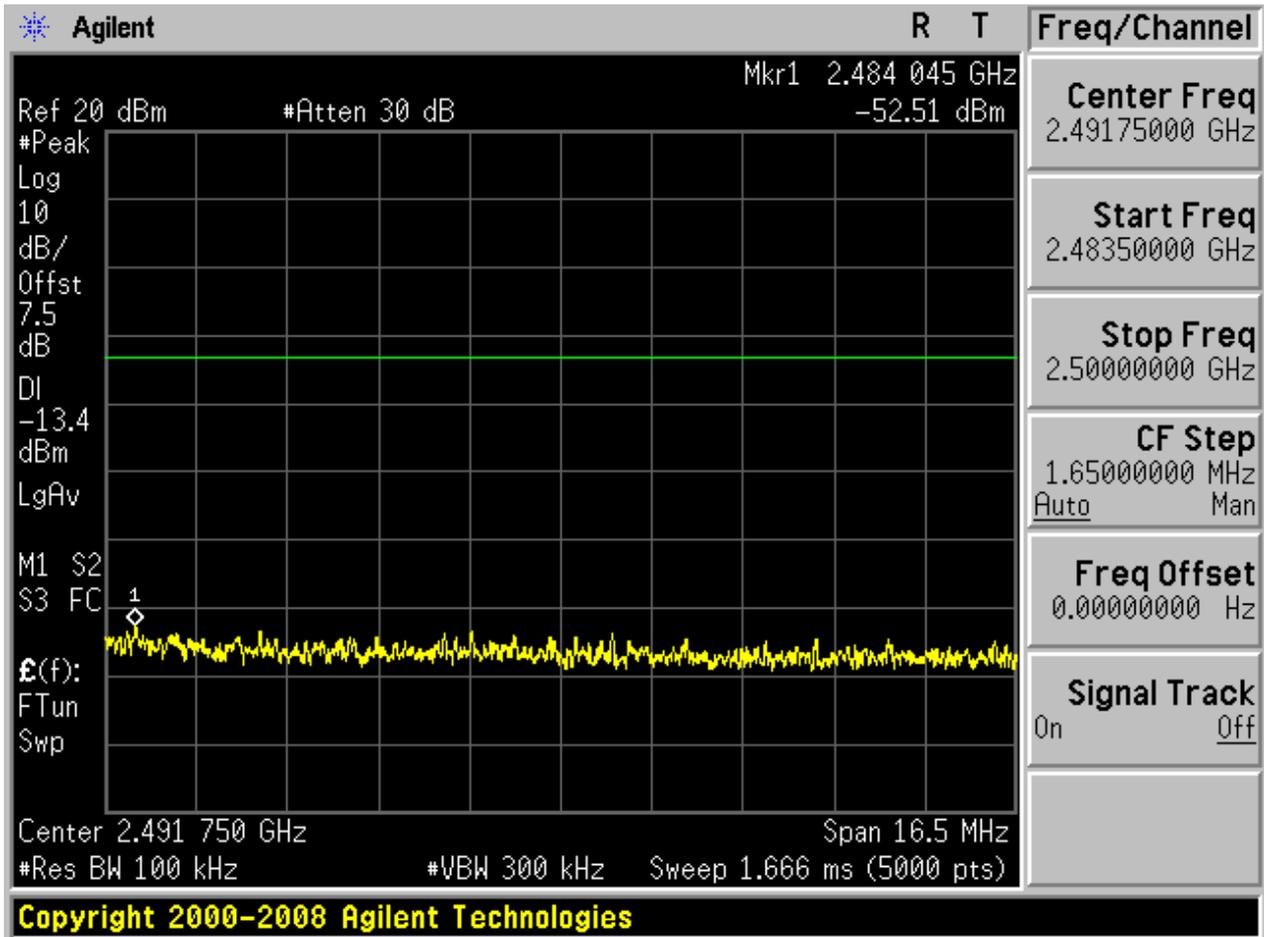
2.9.2 Puw

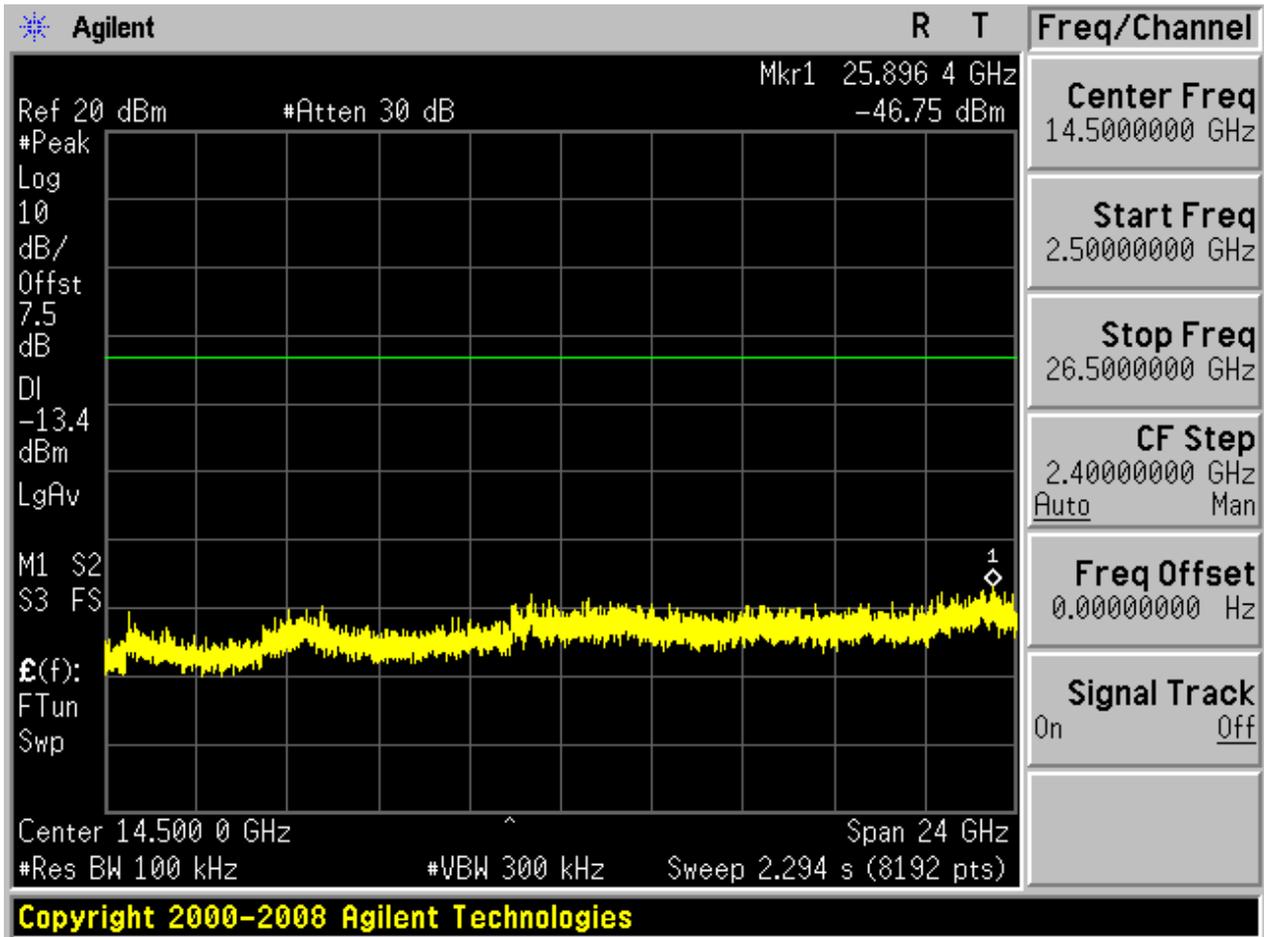










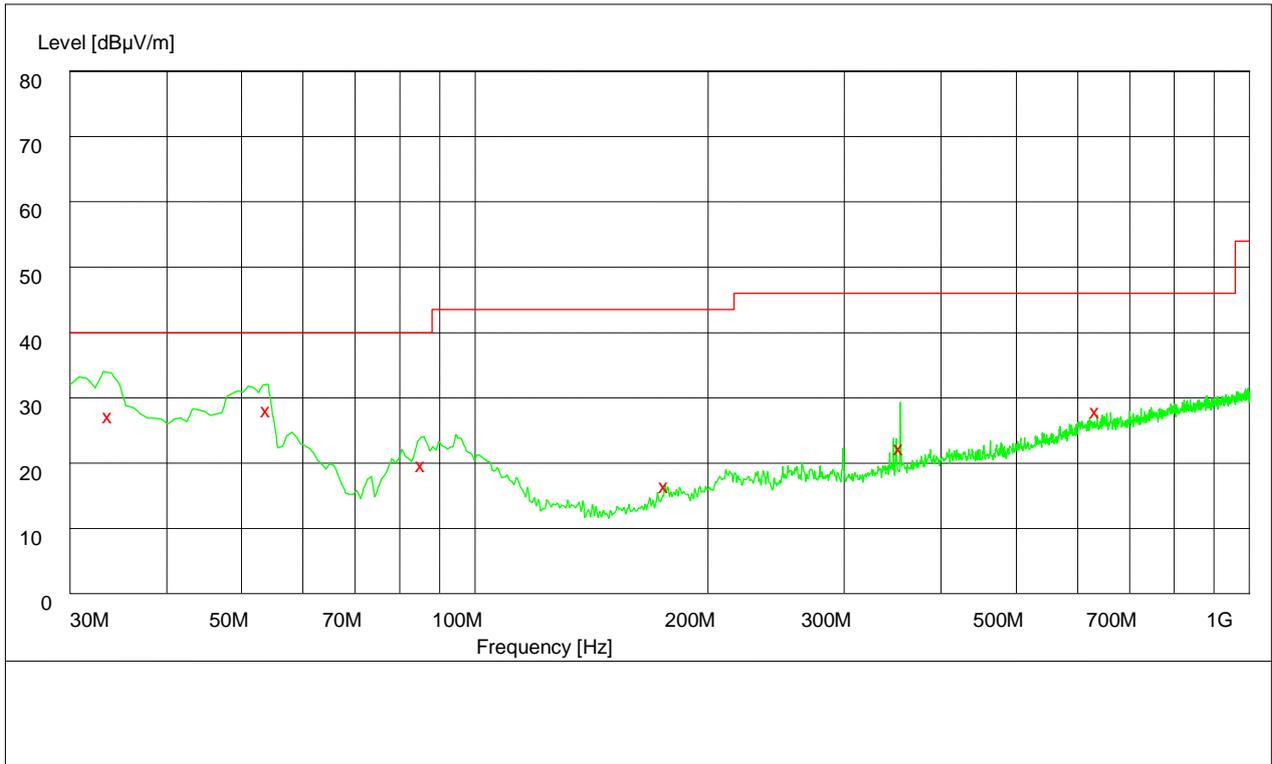




Appendix H: Radiated Emissions in the Restricted Bands

Part 1: Testing Range of “30 MHz to 1 GHz”

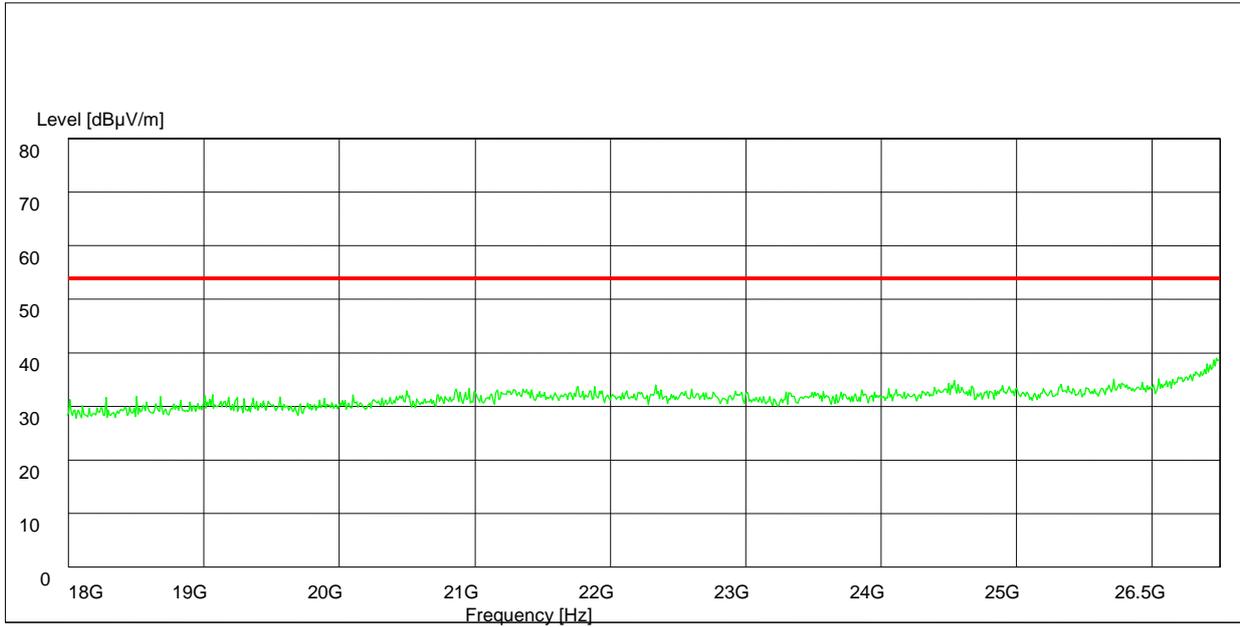
- Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
33.780000	28.60	14.3	40.0	11.4	100.0	276.00	VERTICAL
54.120000	29.50	14.6	40.0	10.5	100.0	286.00	VERTICAL
85.740000	21.20	11.0	40.0	18.8	169.0	121.00	VERTICAL
176.760000	18.00	11.1	43.5	25.5	183.0	284.00	HORIZONTAL
354.900000	23.80	16.7	46.0	22.2	154.0	351.00	HORIZONTAL
636.300000	29.30	21.7	46.0	16.7	200.0	183.00	VERTICAL

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

Note: No peak found in pre- test.



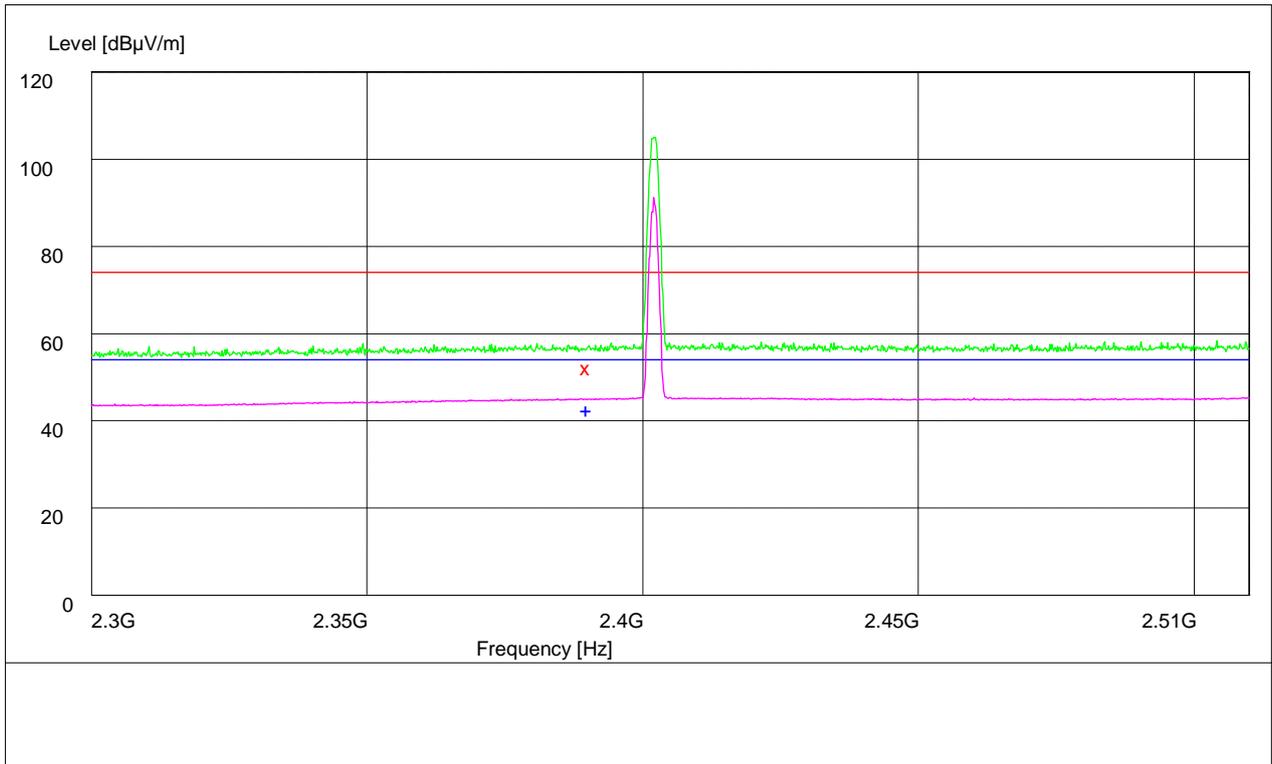


Part 3: Testing Range of “2.3GHz to 2.5GHz”

- 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.

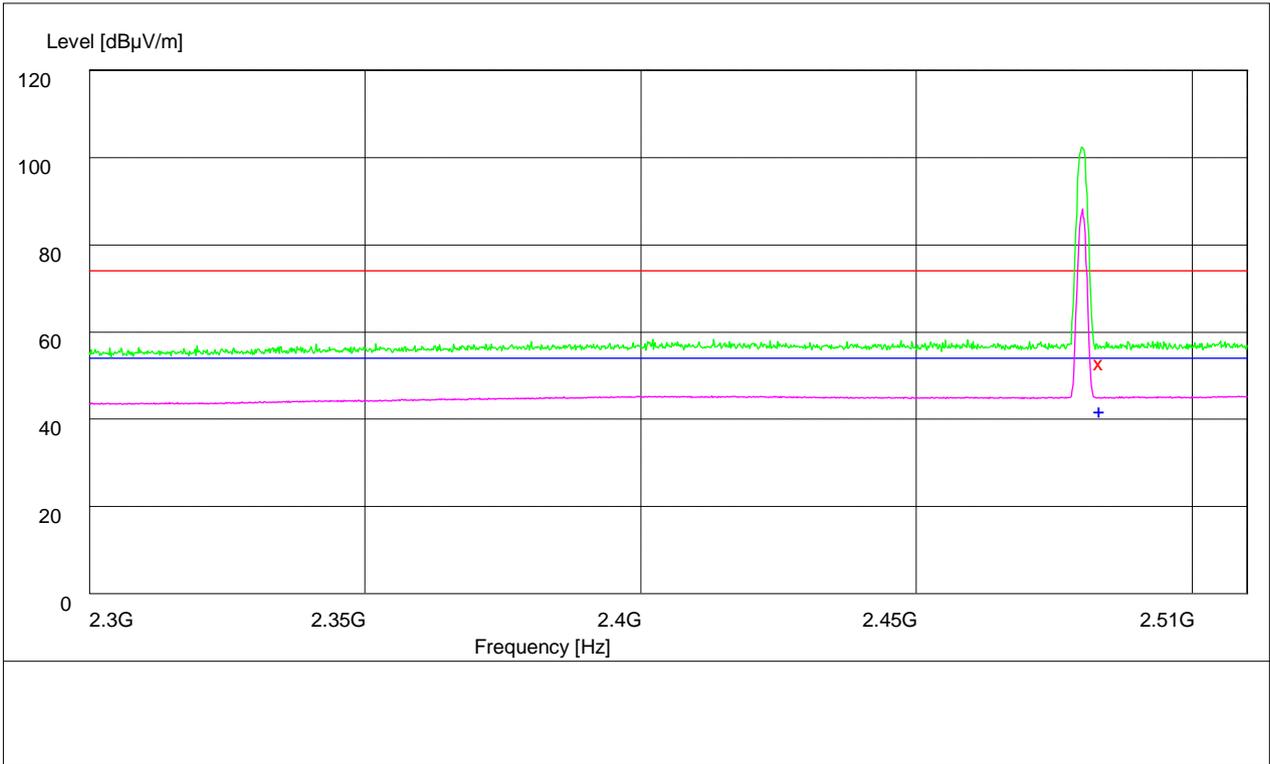
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	54.30	34.7	74.0	19.7	176.0	263.00	VERTICAL

MEASUREMENT RESULT: AVDetector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	44.50	34.7	54.0	9.5	100.0	243.00	HORIZONTAL

3.2 Channel 78



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

MEASUREMENT RESULT: PK Detector

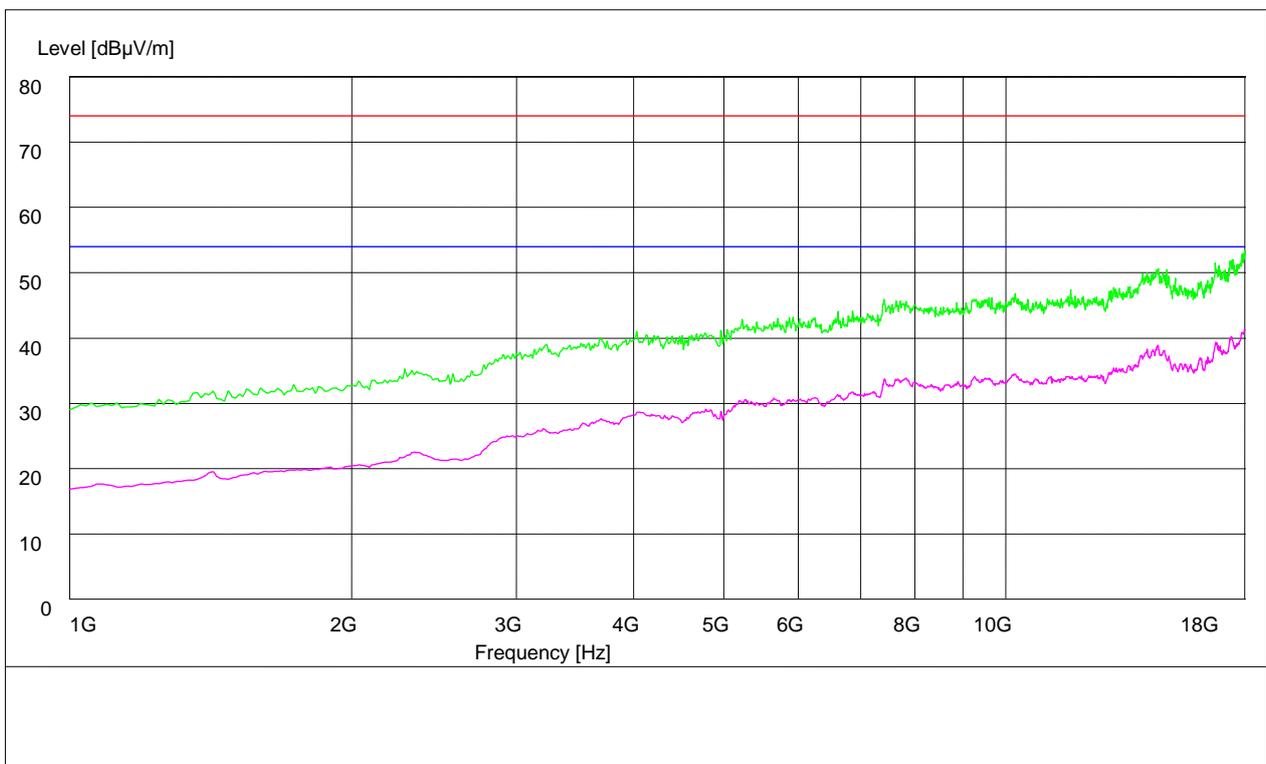
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	54.90	35.0	74.0	19.1	112.0	18.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	44.20	35.0	54.0	9.8	200.0	267.00	VERTICAL

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

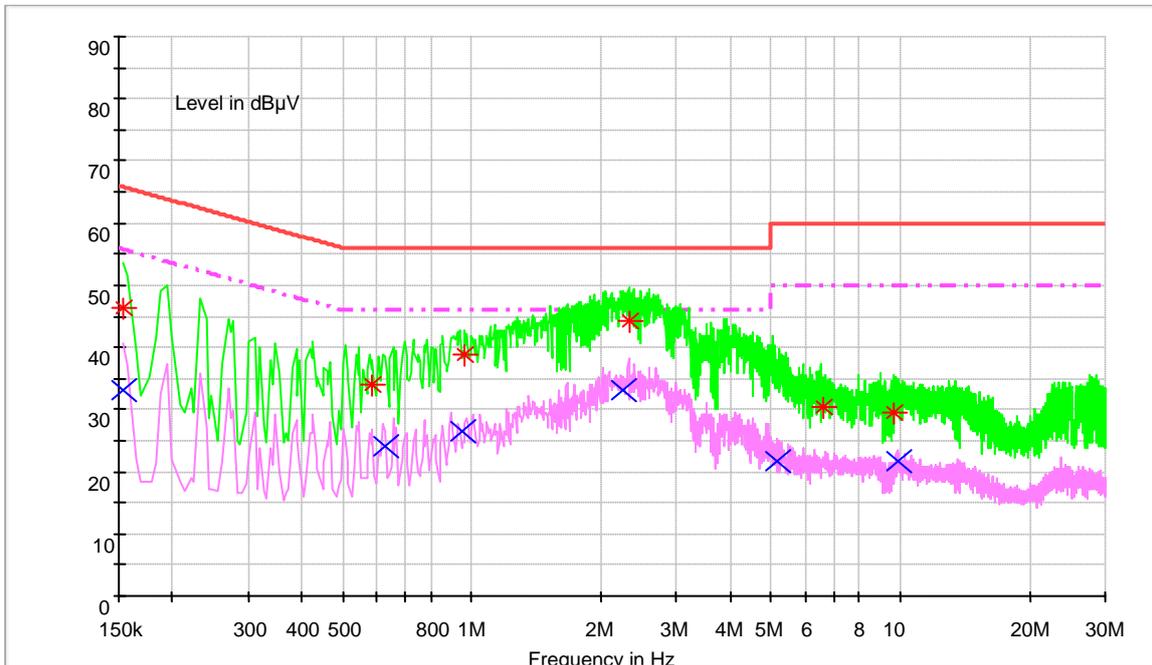
- Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).



Appendix G: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 39



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.154367	46.4	9.7	65.8	19.4	L1	FLO
0.58203	33.9	9.7	56	22.1	L1	FLO
0.965756	38.7	9.7	56	17.3	L1	FLO
2.323852	44.4	9.7	56	11.6	N	FLO
6.603004	30.3	9.8	60	29.7	N	FLO
9.64176	29.6	9.9	60	30.4	L1	FLO



MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Line	PE
0.154281	33	9.7	55.8	22.8	N	FLO
0.627772	24.1	9.7	46	21.9	L1	FLO
0.951848	26.5	9.7	46	19.5	L1	FLO
2.260425	33.2	9.7	46	12.8	N	FLO
5.167838	21.6	9.8	50	28.4	N	FLO
9.866422	21.6	9.9	50	28.4	N	FLO

END