



Appendix A: 20dB Emission Bandwidth (EBW)



1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	1.022	Pass
TM1_DH5_Ch39	1.023	Pass
TM1_DH5_Ch78	1.024	Pass
TM2_2DH5_Ch0	1.346	Pass
TM2_2DH5_Ch39	1.340	Pass
TM2_2DH5_Ch78	1.340	Pass
TM3_3DH5_Ch0	1.310	Pass
TM3_3DH5_Ch39	1.326	Pass
TM3_3DH5_Ch78	1.325	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



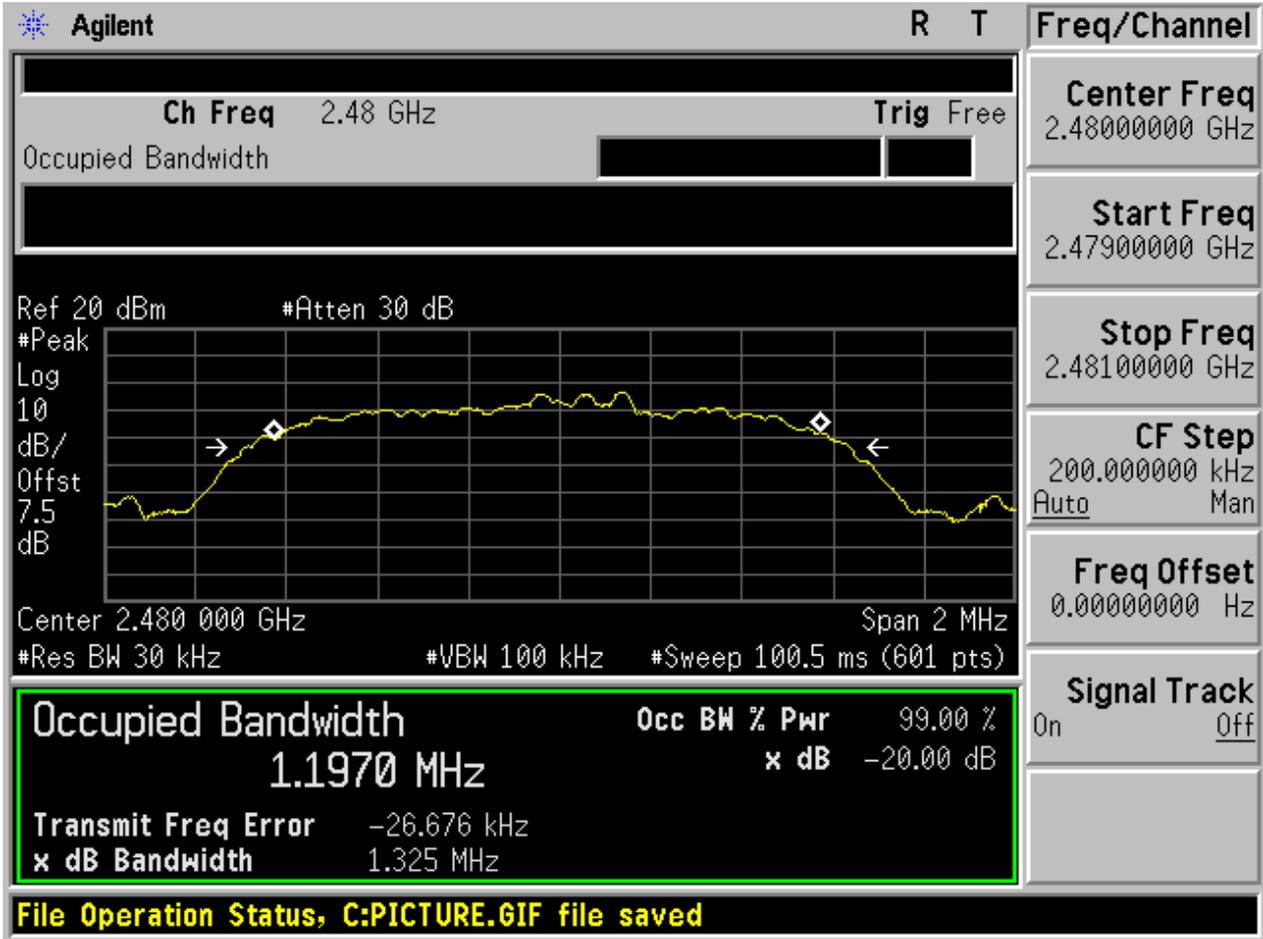
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78





Appendix B: Carrier Frequency Separation

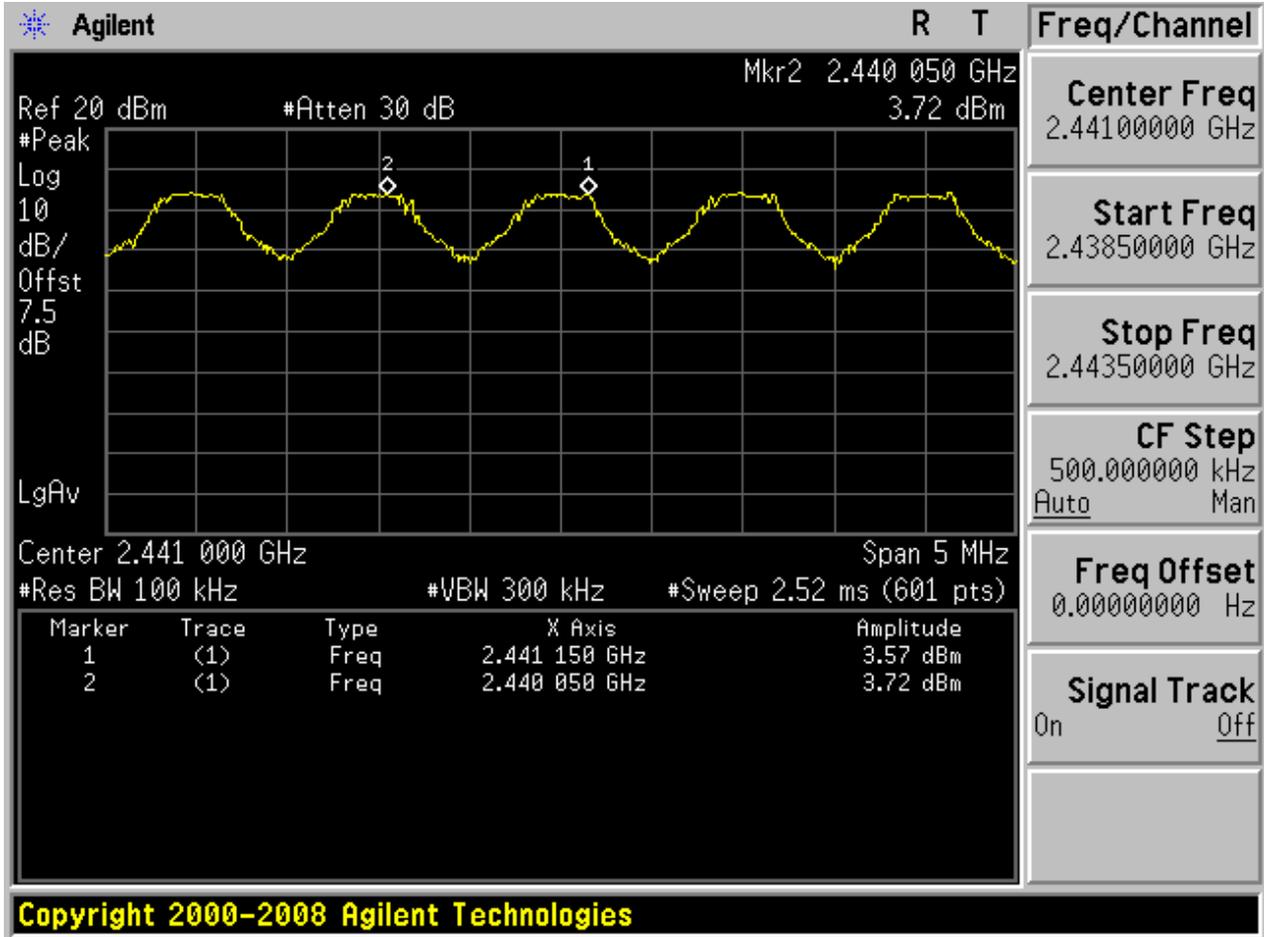


1 Result Table

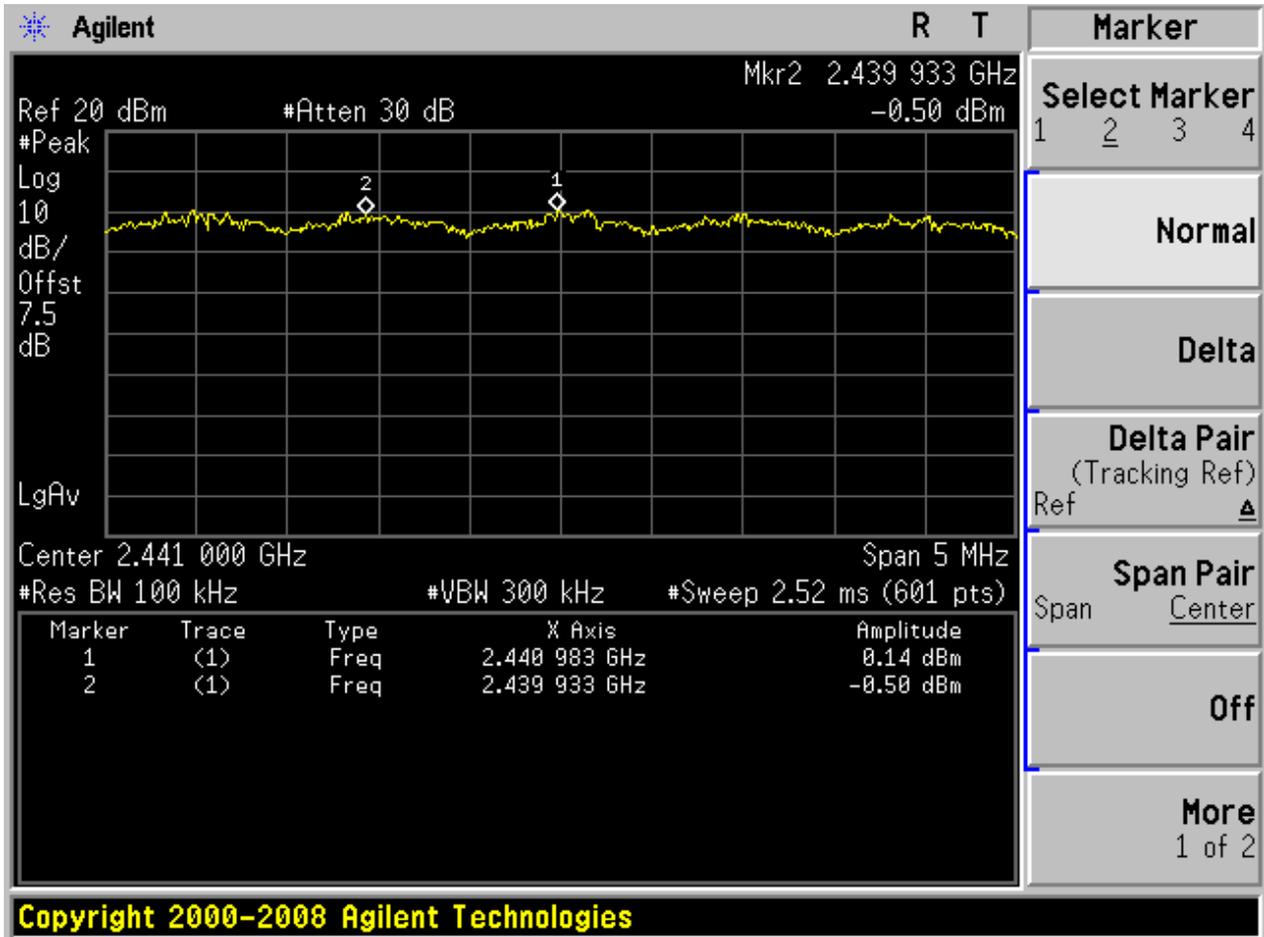
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	1.100	Pass
TM2_2DH5_Hop	1.050	Pass
TM3_3DH5_Hop	1.000	Pass

2 Test Plot

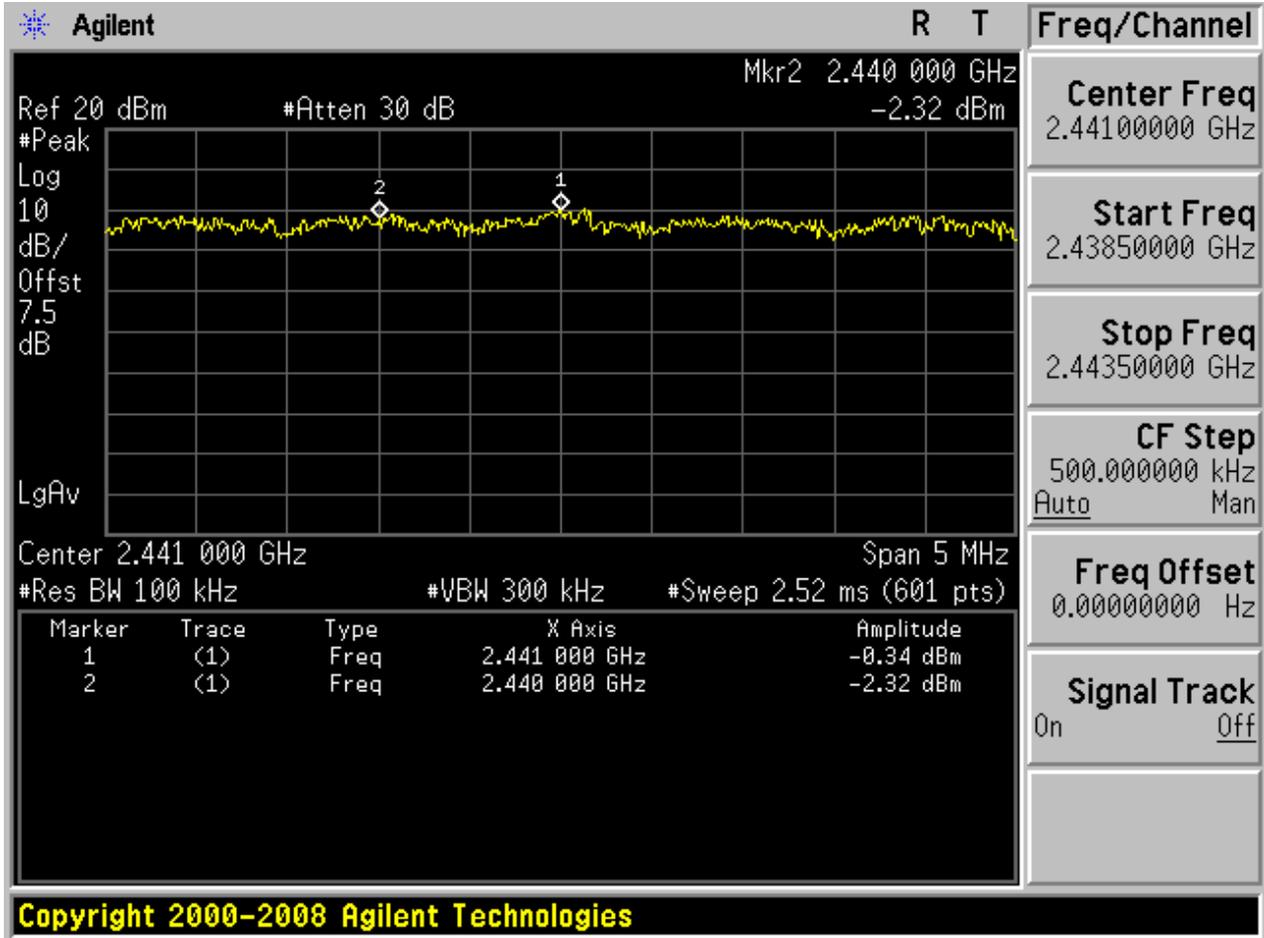
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop





Appendix C: Number of Hopping Channel

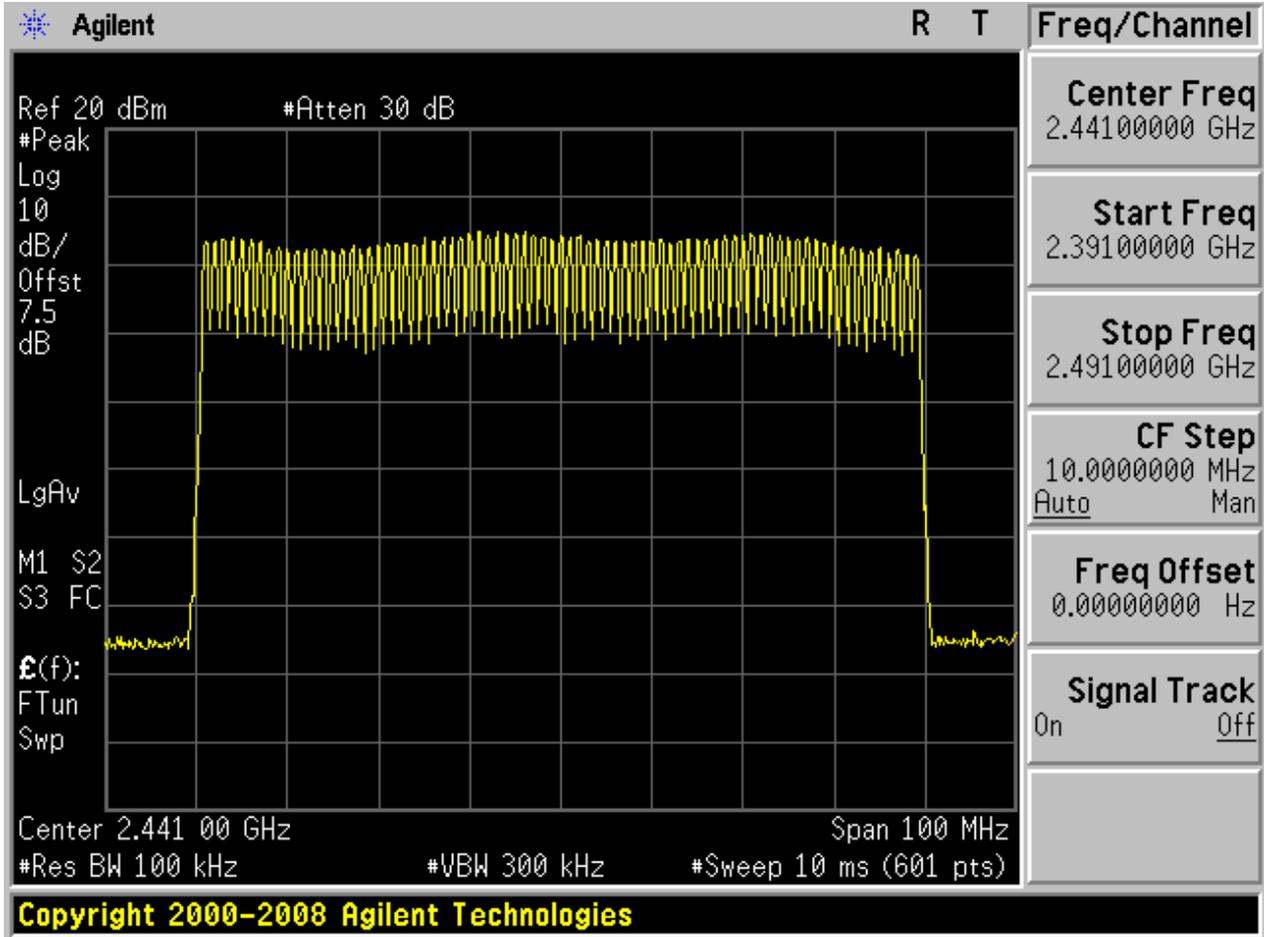


1 Result Table

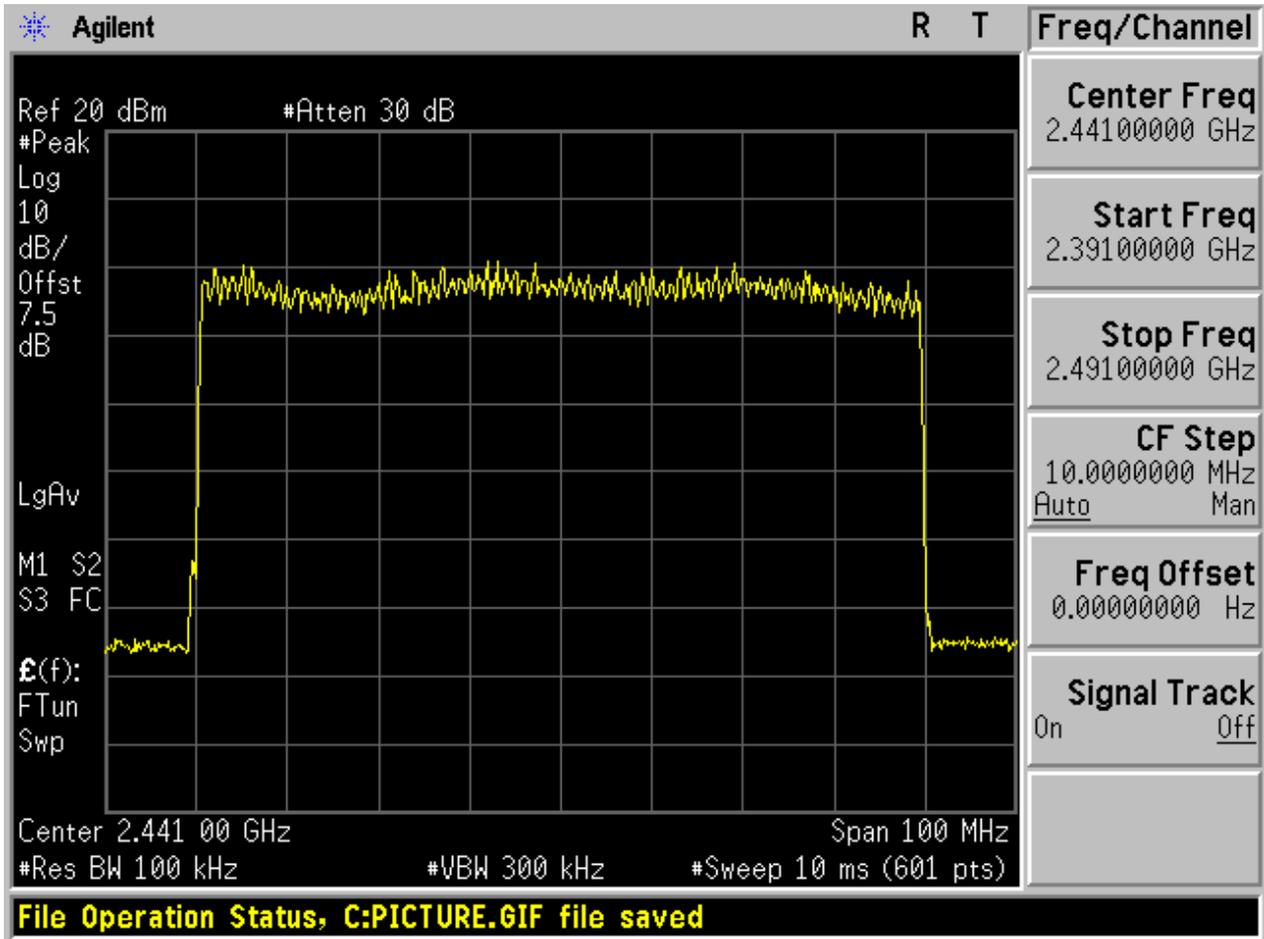
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

2 Test Plot

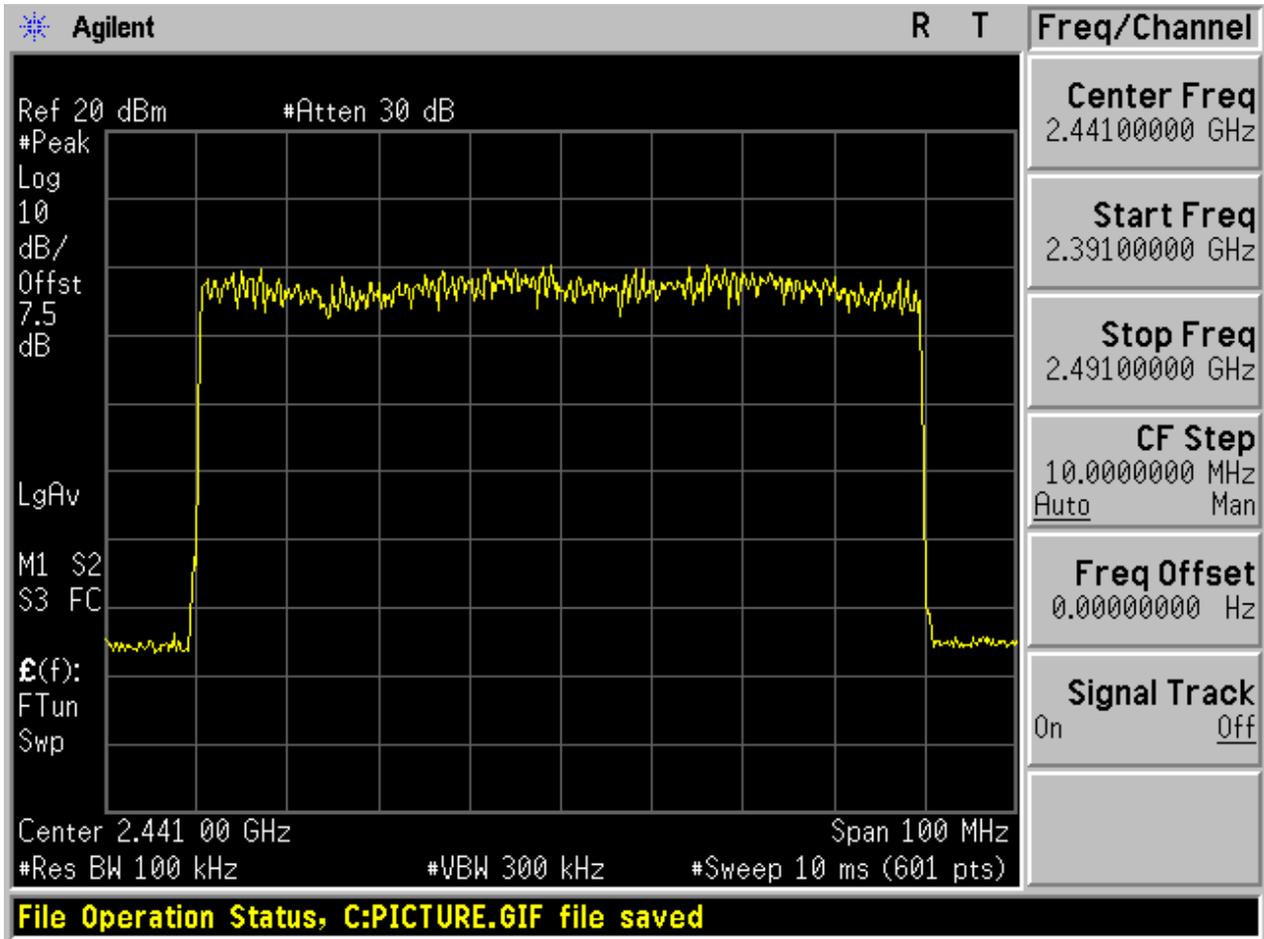
2.1 TM1_DH5_Hop



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:

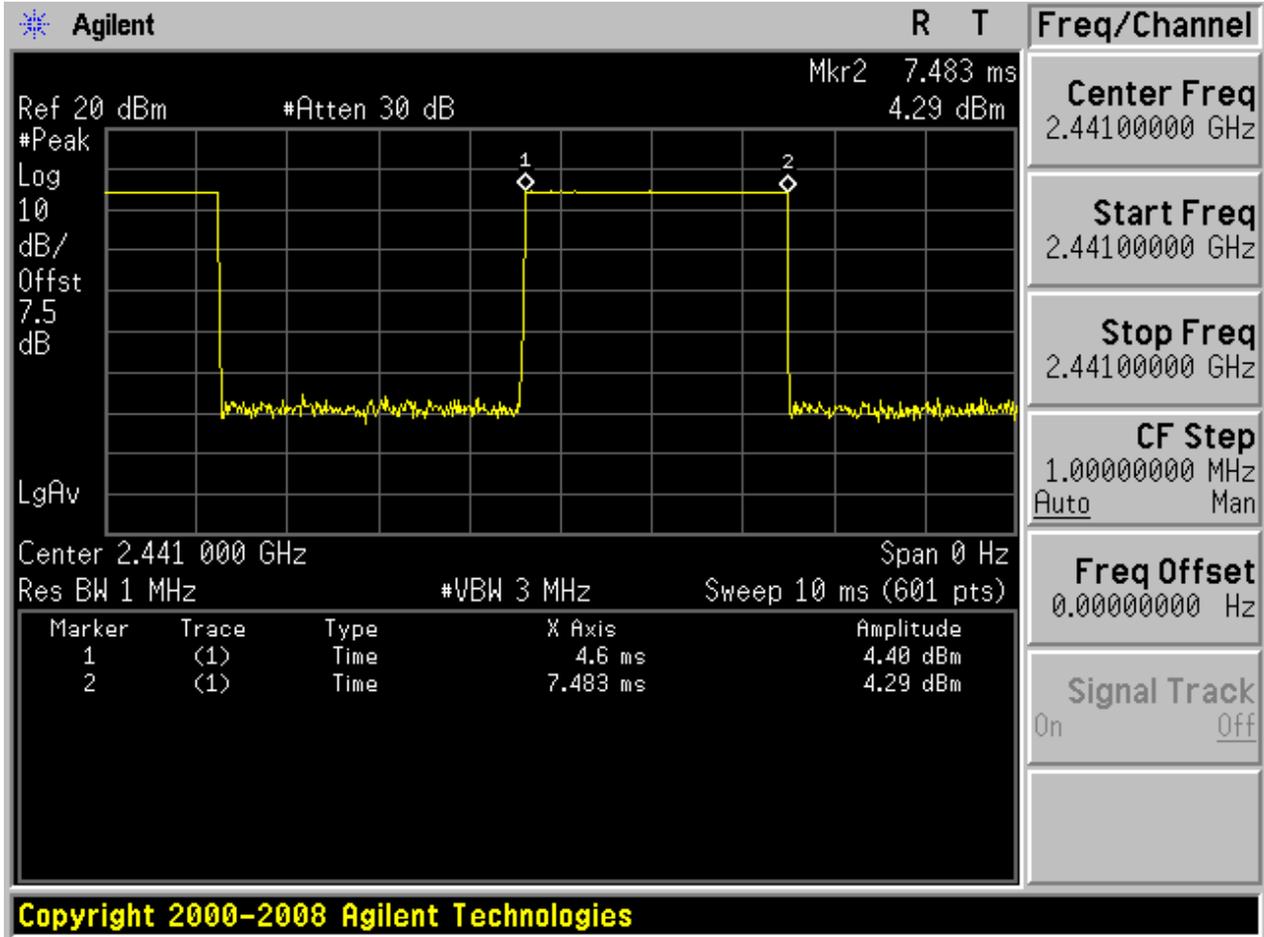
- The duration for dwell time calculation: $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT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

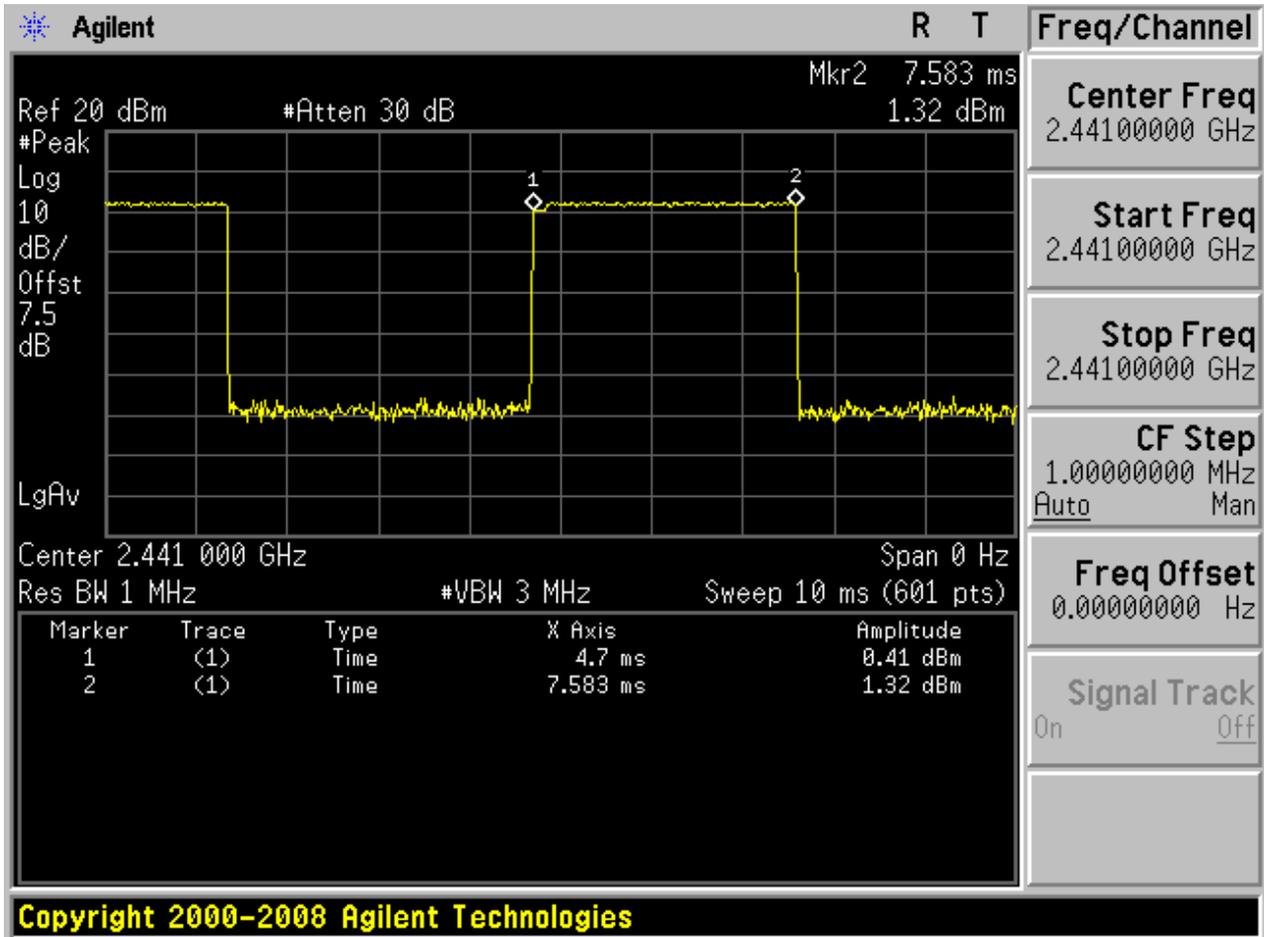
2 Test Plot

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

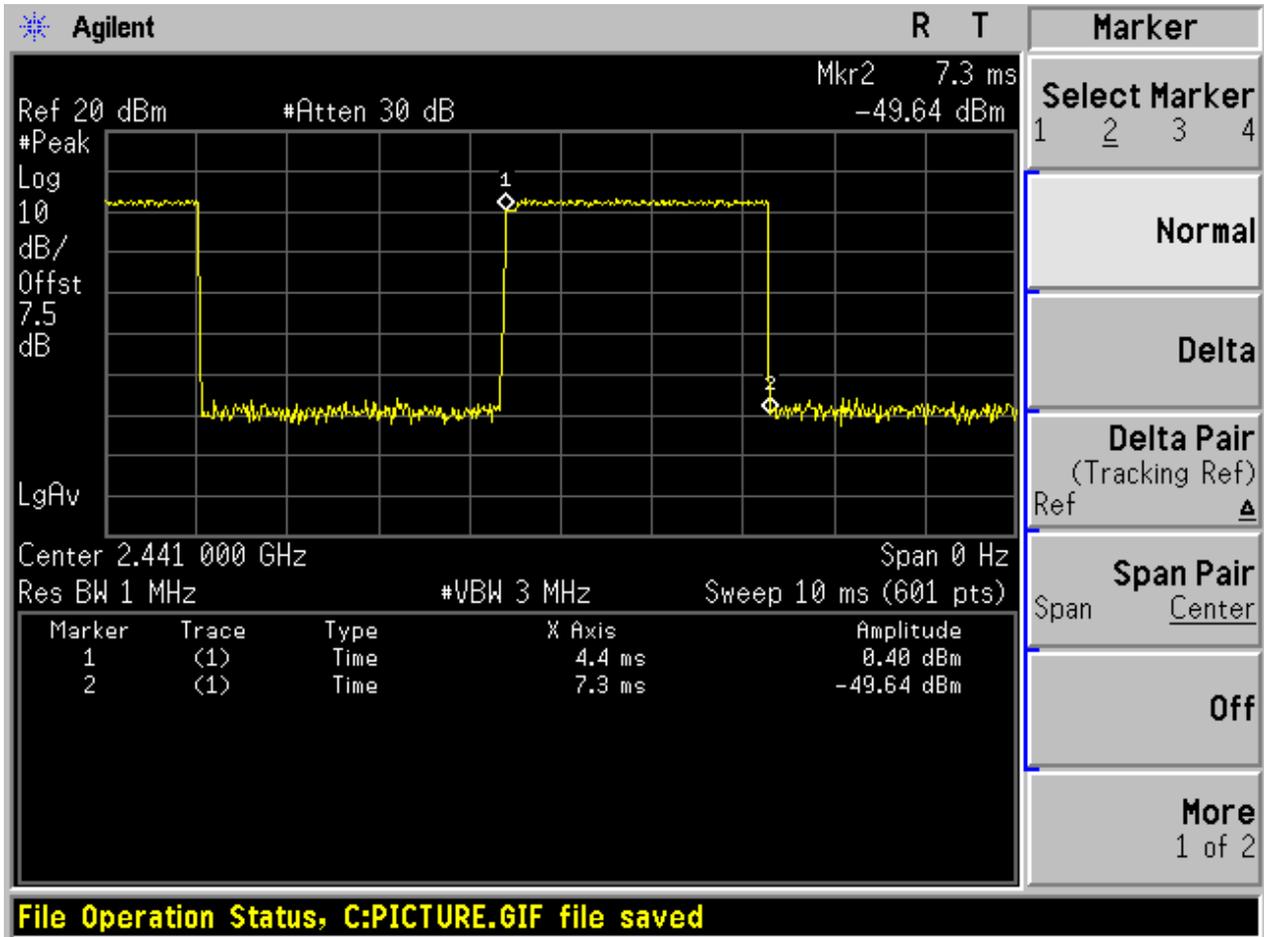
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39





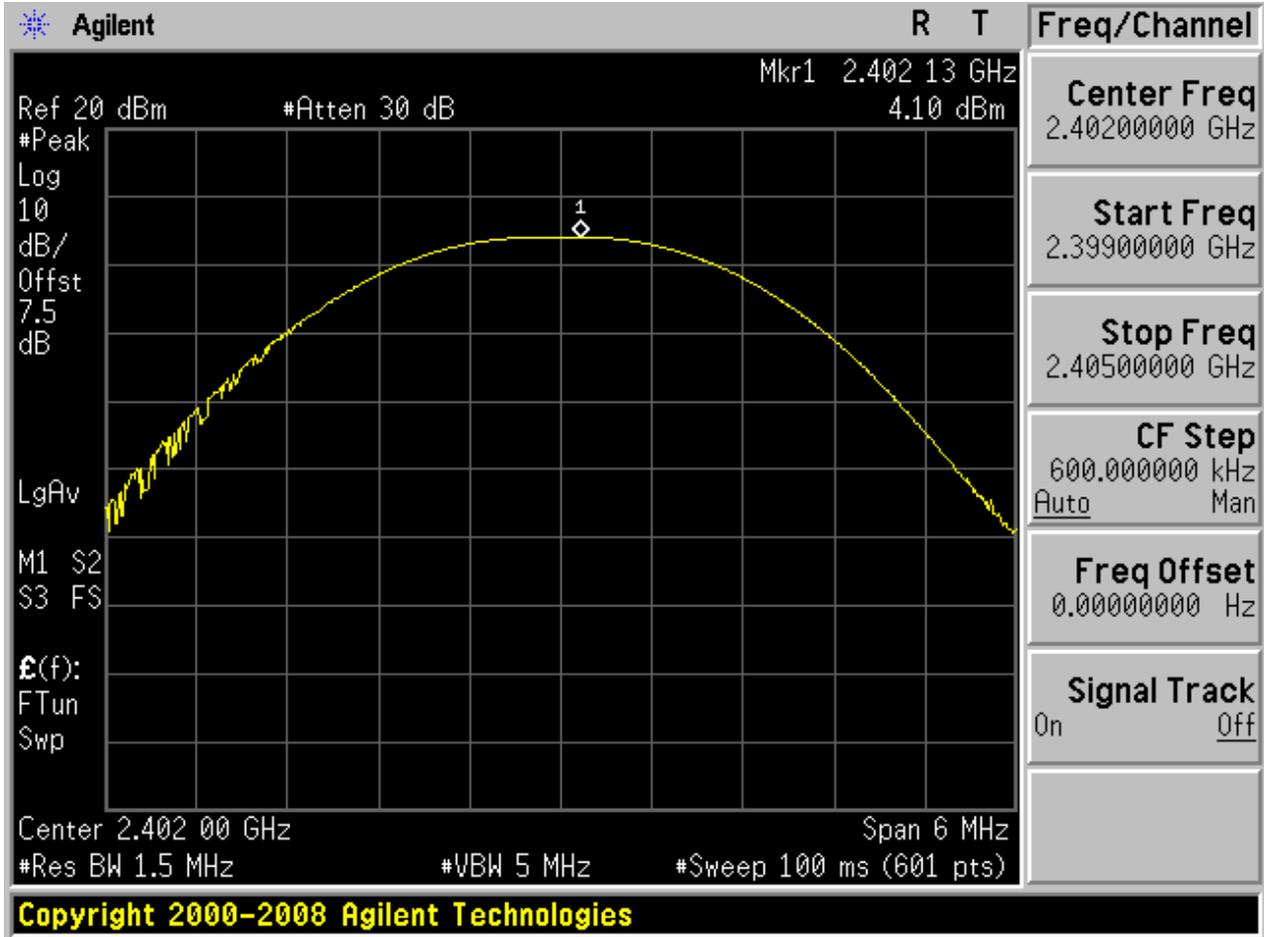
Appendix E: Maximum Peak Conducted Output Power

1 Result Table

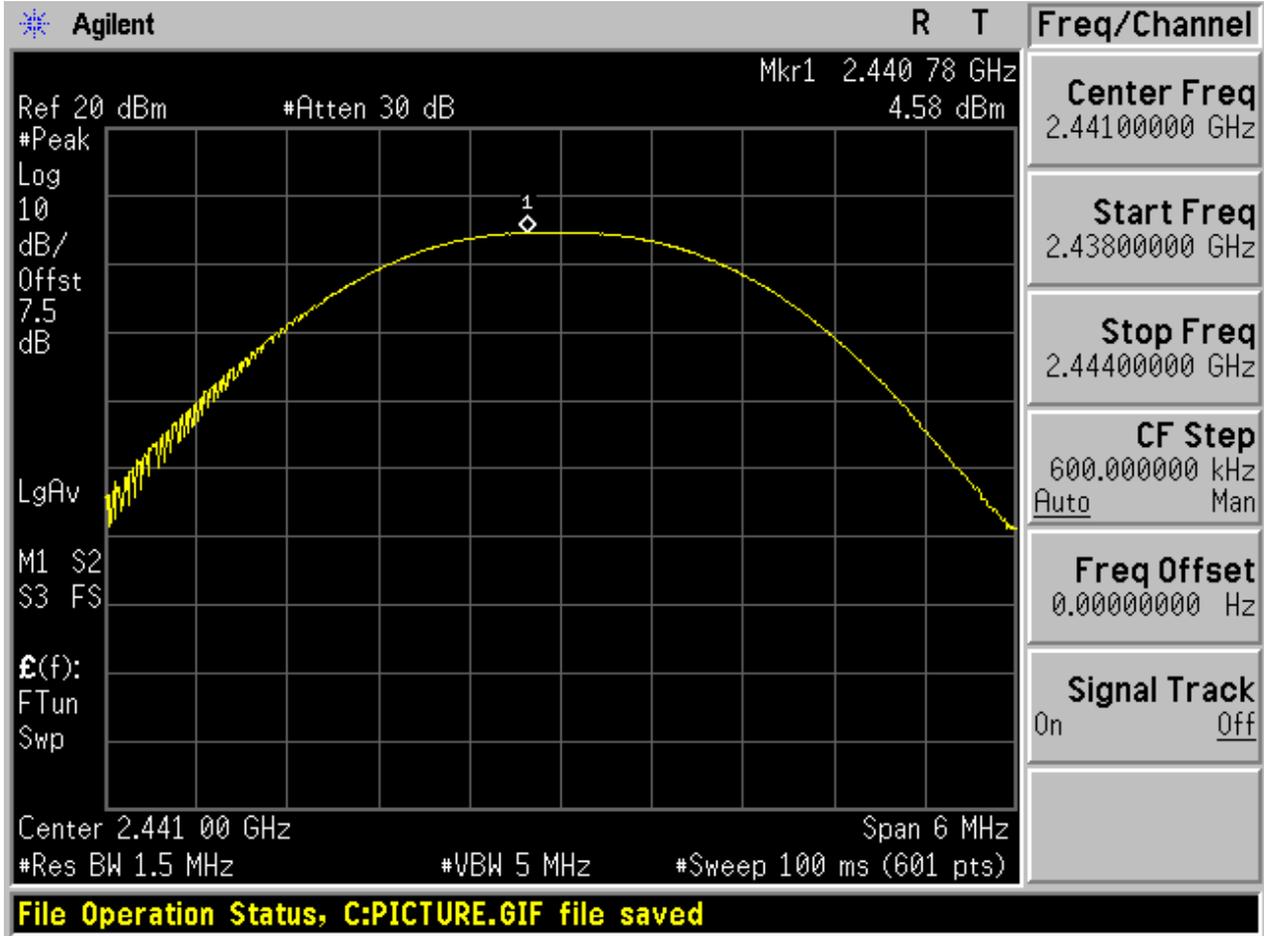
EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	4.1	Pass
TM1_DH5_Ch39	4.58	Pass
TM1_DH5_Ch78	2.42	Pass
TM2_2DH5_Ch0	2.65	Pass
TM2_2DH5_Ch39	2.82	Pass
TM2_2DH5_Ch78	0.5	Pass
TM3_3DH5_Ch0	3.09	Pass
TM3_3DH5_Ch39	3.32	Pass
TM3_3DH5_Ch78	1.06	Pass

2 Test Plot

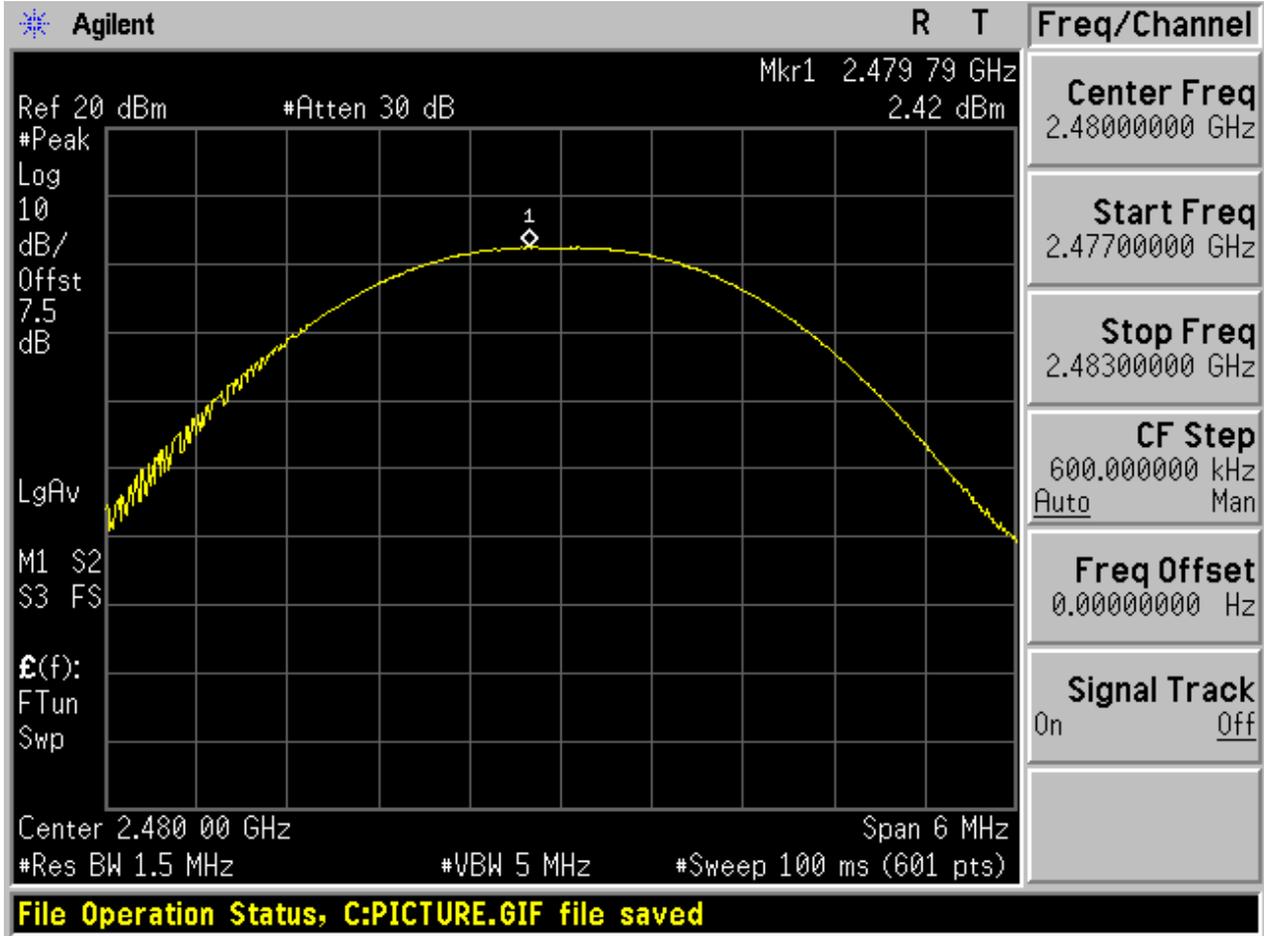
2.1 TM1_DH5_Ch0



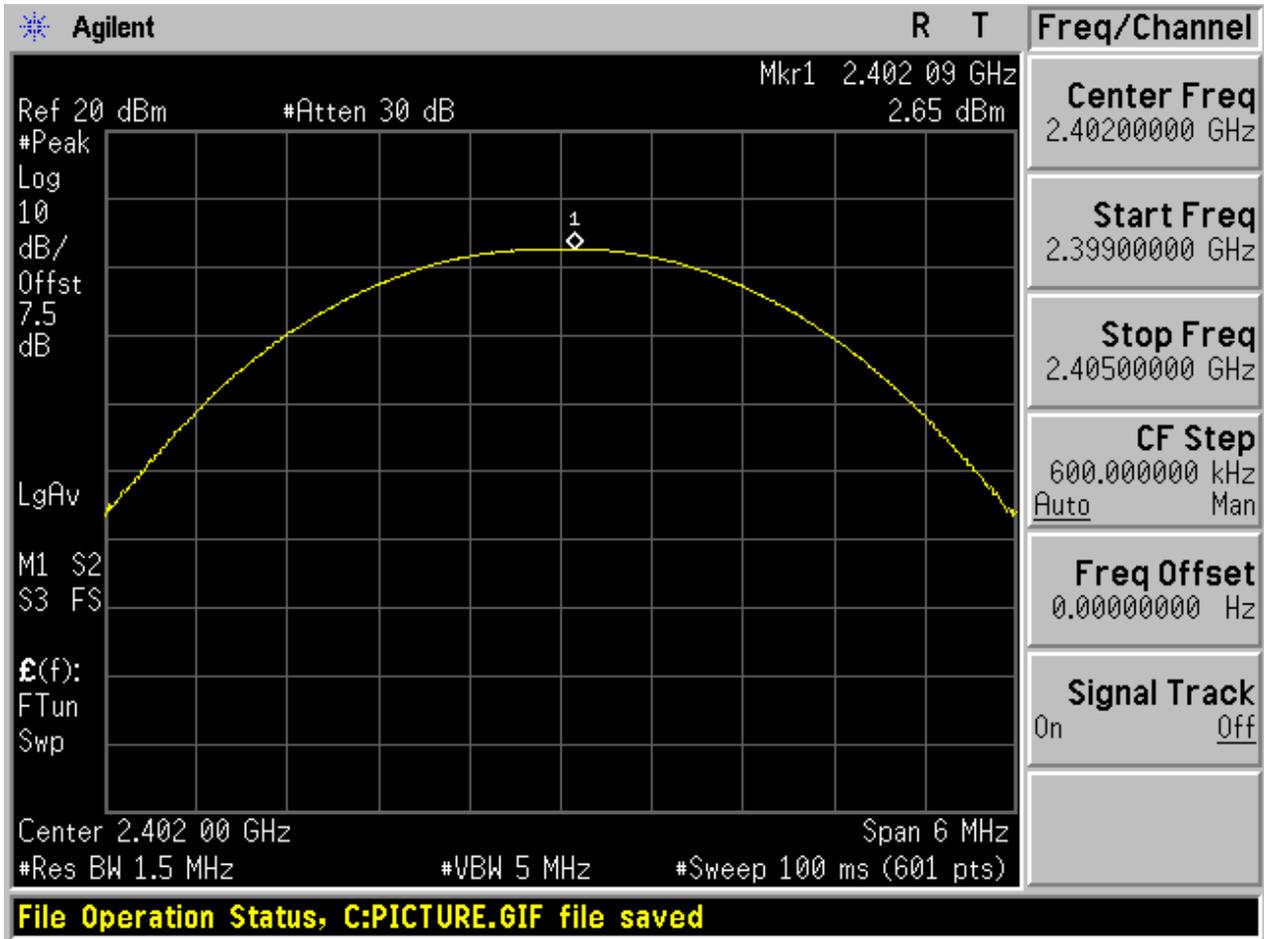
2.2 TM1_DH5_Ch39



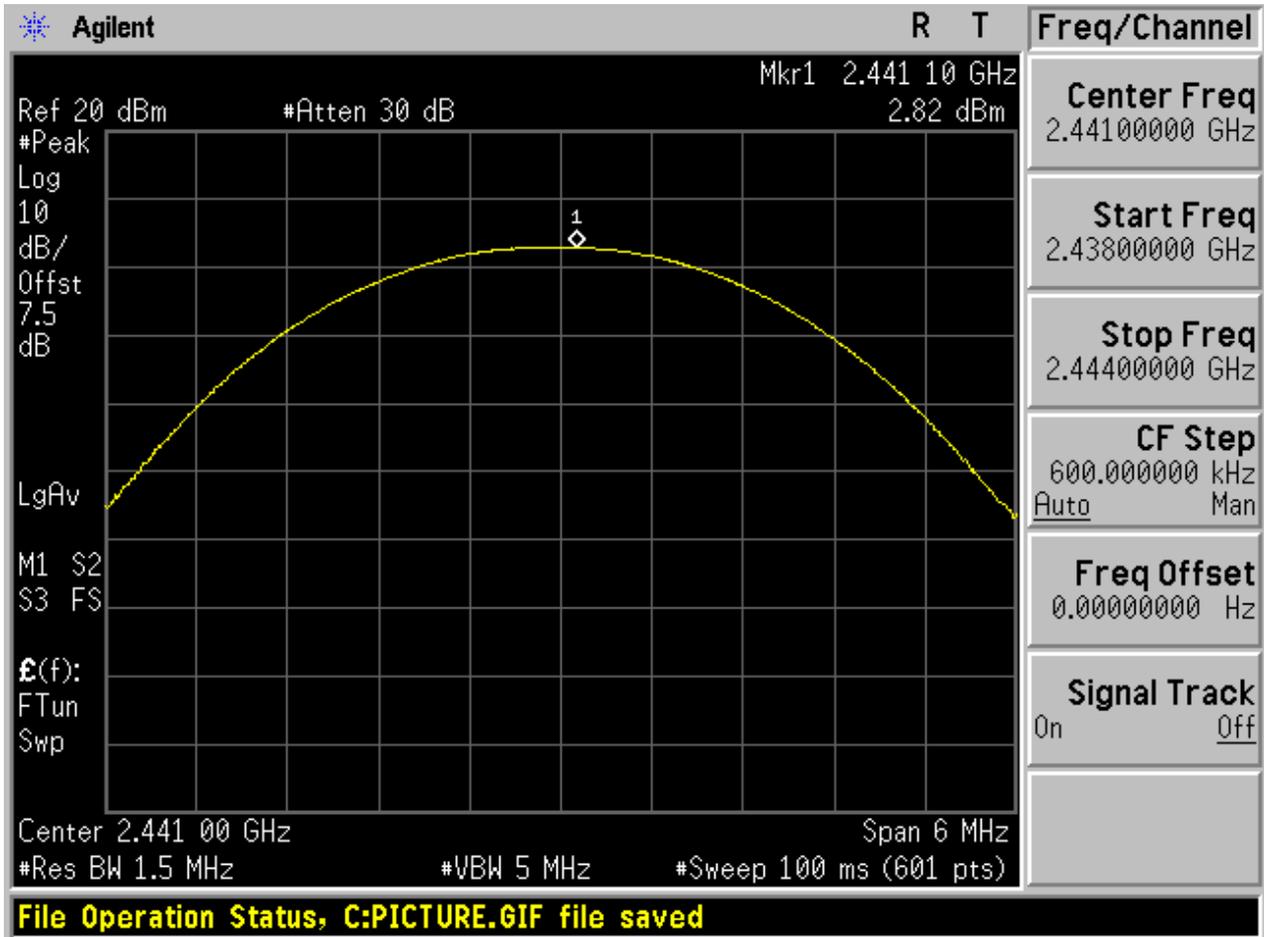
2.3 TM1_DH5_Ch78



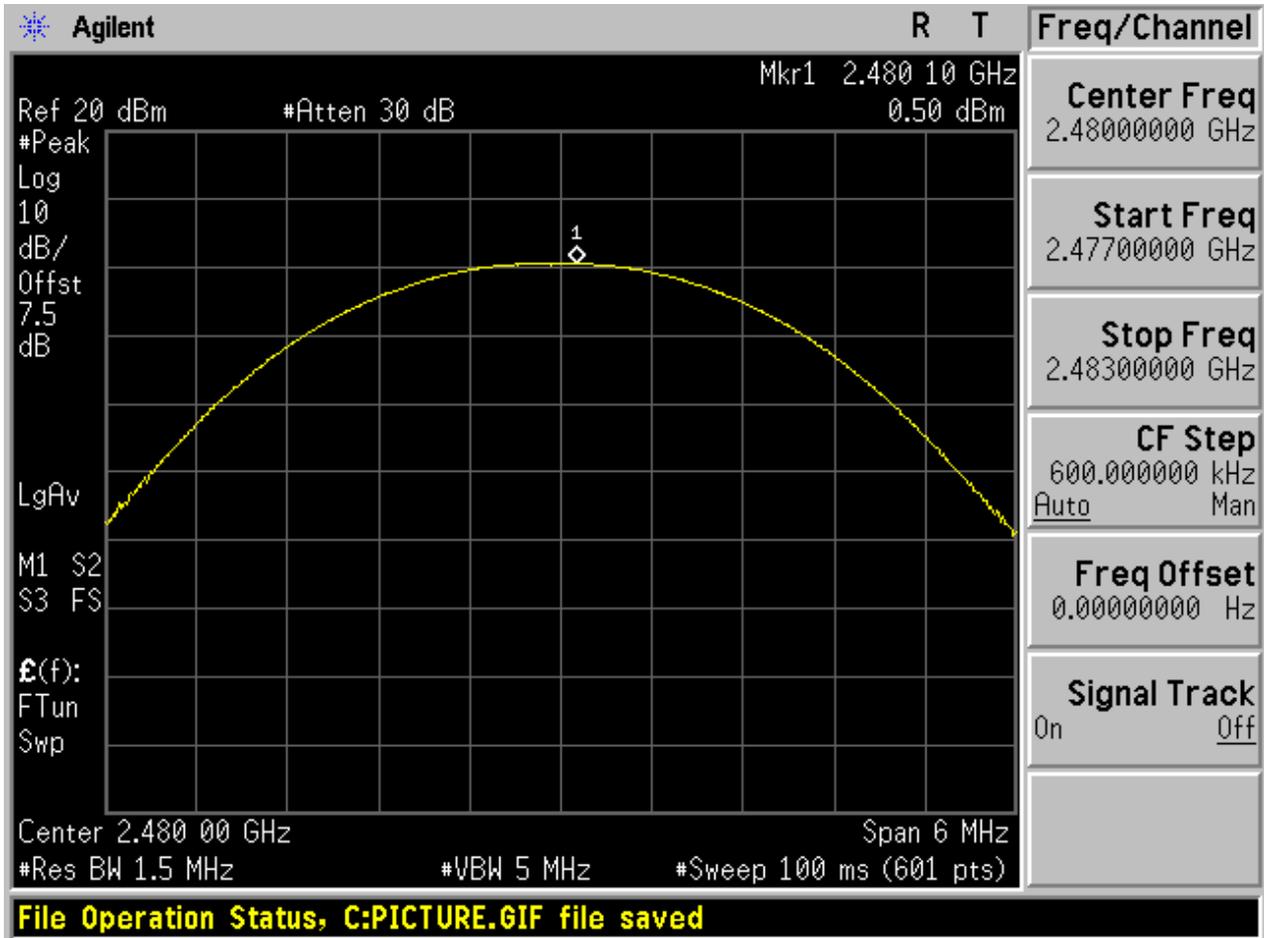
2.4 TM2_2DH5_Ch0



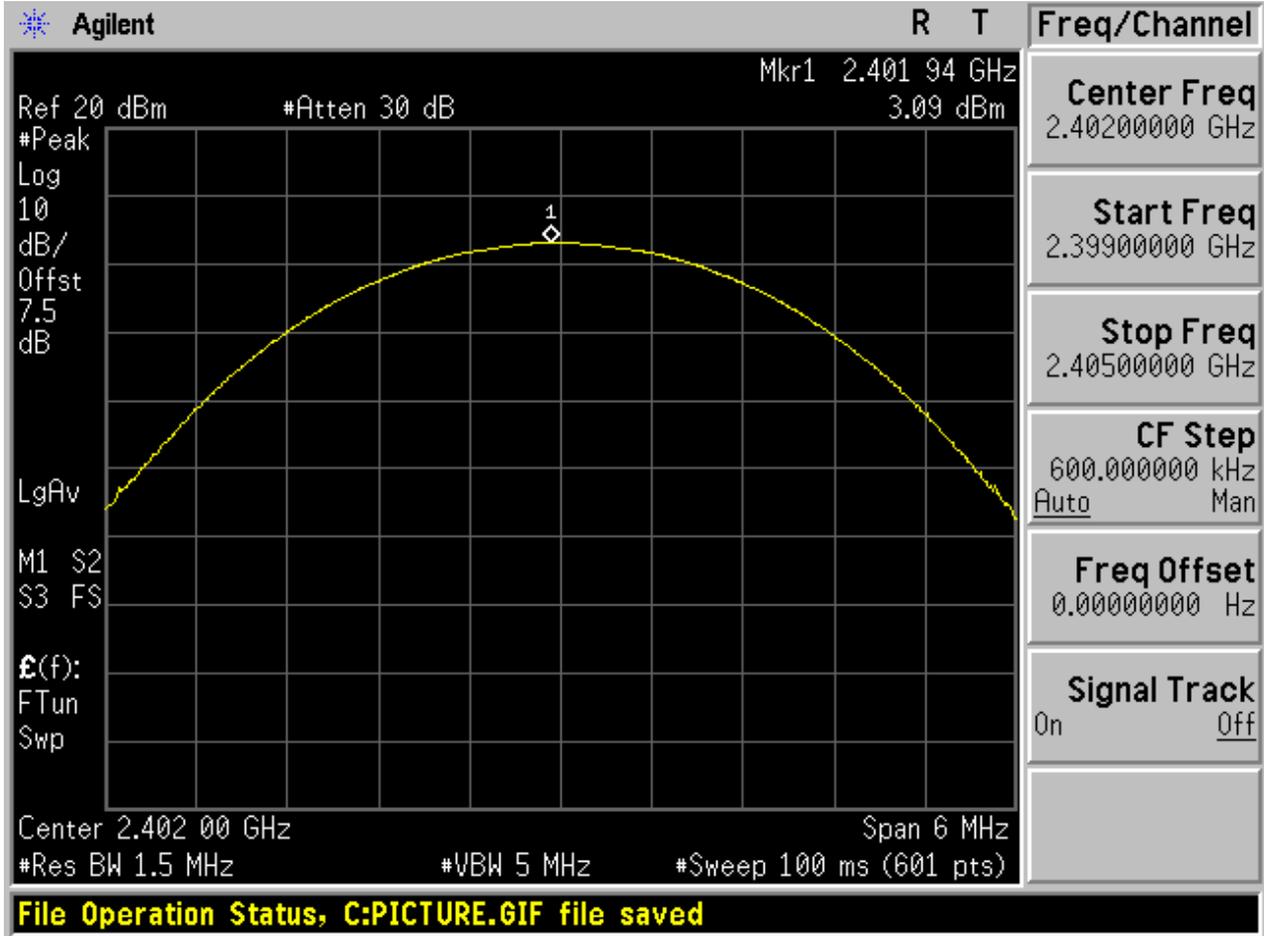
2.5 TM2_2DH5_Ch39



2.6 TM2_2DH5_Ch78

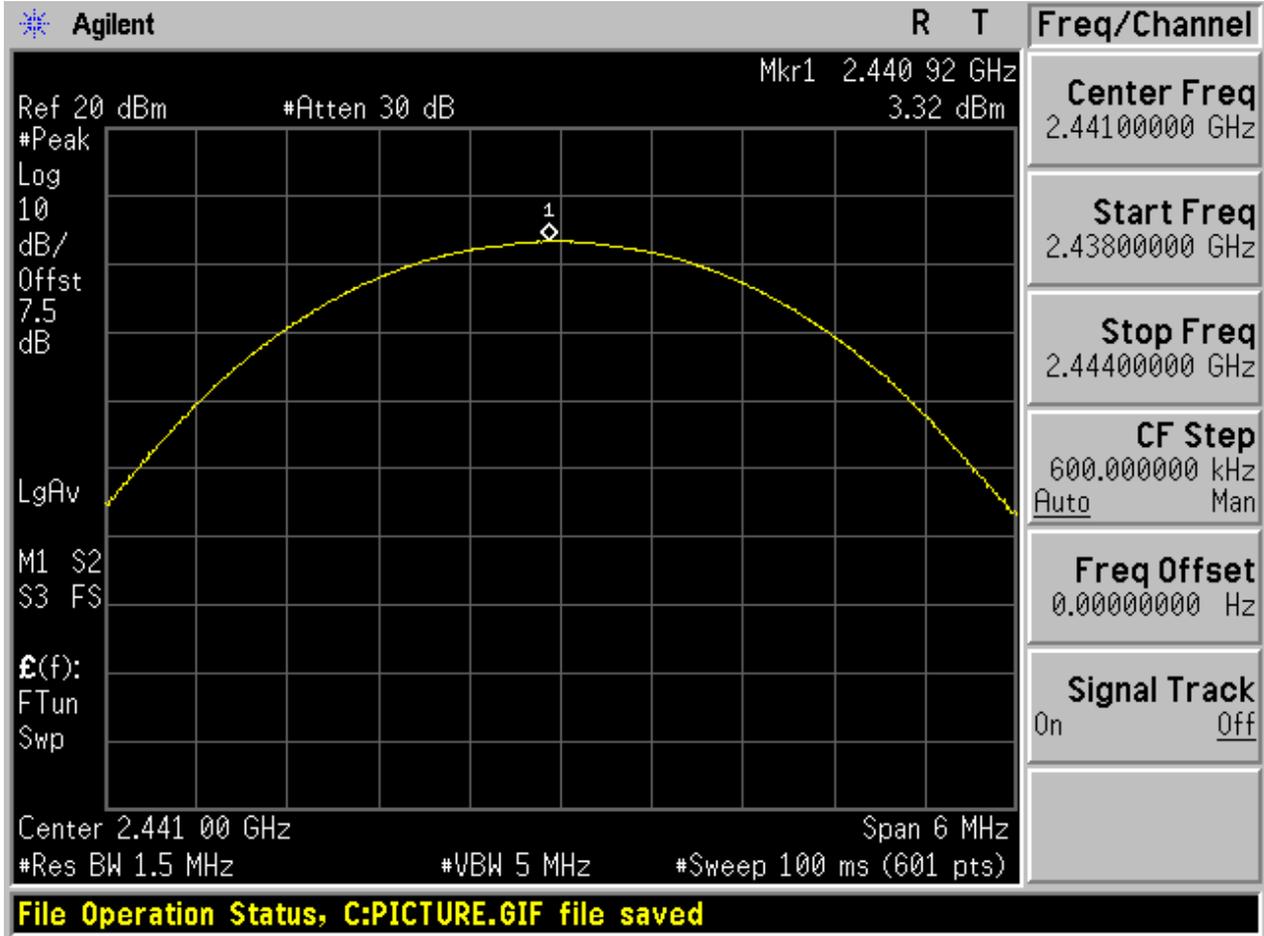


2.7 TM3_3DH5_Ch0

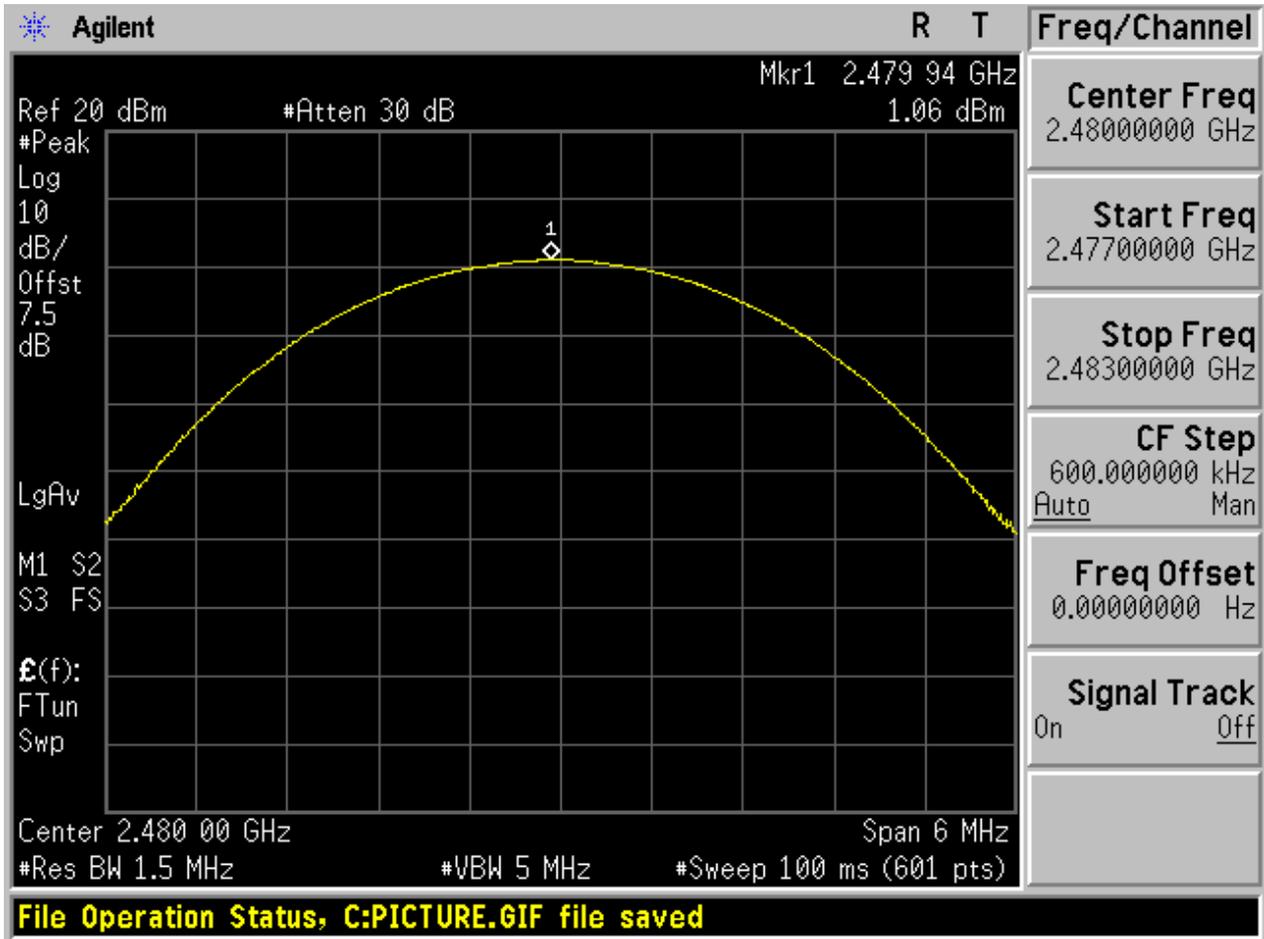




2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78





Appendix F: Band edge spurious emission

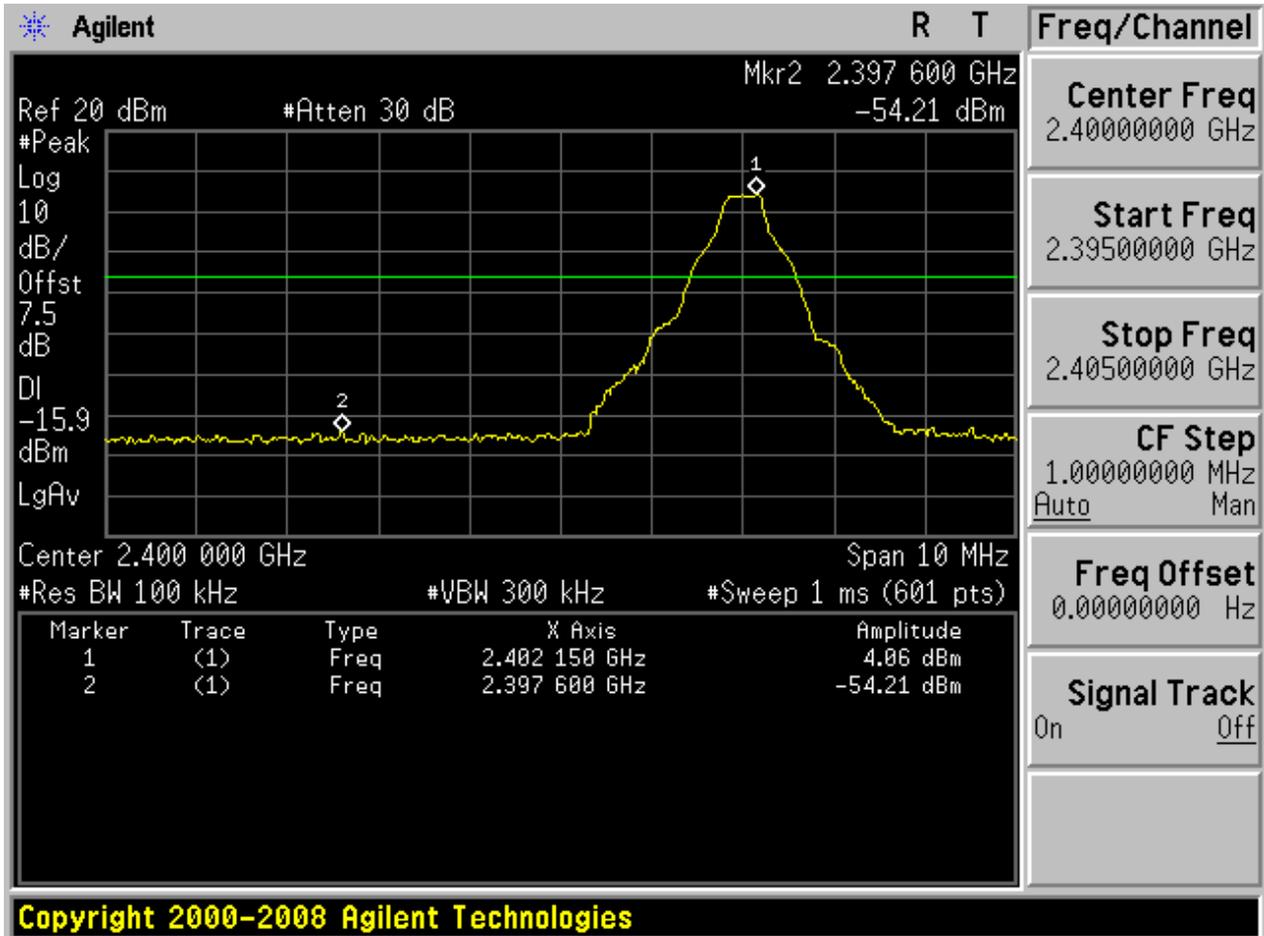
1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5_Ch0	0	2402	-54.2	Off	4.06	-15.94	Pass
	-	-	-54.5	On	3.98	-16.02	Pass
TM1_DH5_Ch78	78	2480	-54.72	Off	2.38	-17.62	Pass
	-	-	-54.38	On	2.04	-17.96	Pass
TM2_2DH_5_Ch0	0	2402	-54.66	Off	0.38	-19.62	Pass
	-	-	-54.86	On	0.25	-19.75	Pass
TM2_2DH_5_Ch78	78	2480	-54.28	Off	-1.78	-21.78	Pass
	-	-	-53.81	On	-3.23	-23.23	Pass
TM3_3DH_5_Ch0	0	2402	-54.48	Off	0.34	-19.66	Pass
	-	-	-54.56	On	0.33	-19.67	Pass
TM3_3DH_5_Ch78	78	2480	-54.08	Off	-1.81	-21.81	Pass
	-	-	-54.29	On	-1.83	-21.83	Pass

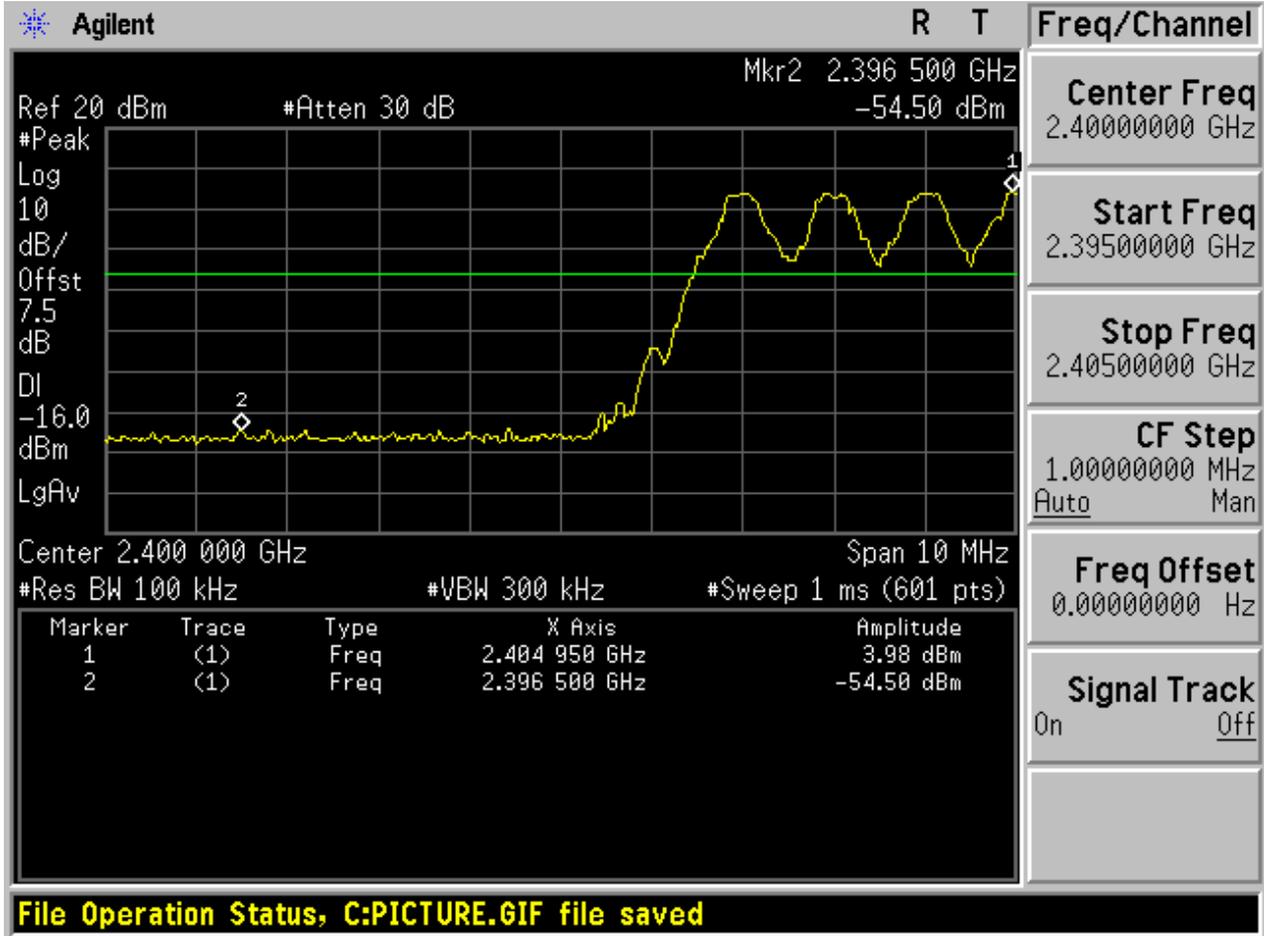
2 Test Plot

2.1 TM1_DH5_Ch0

No hopping

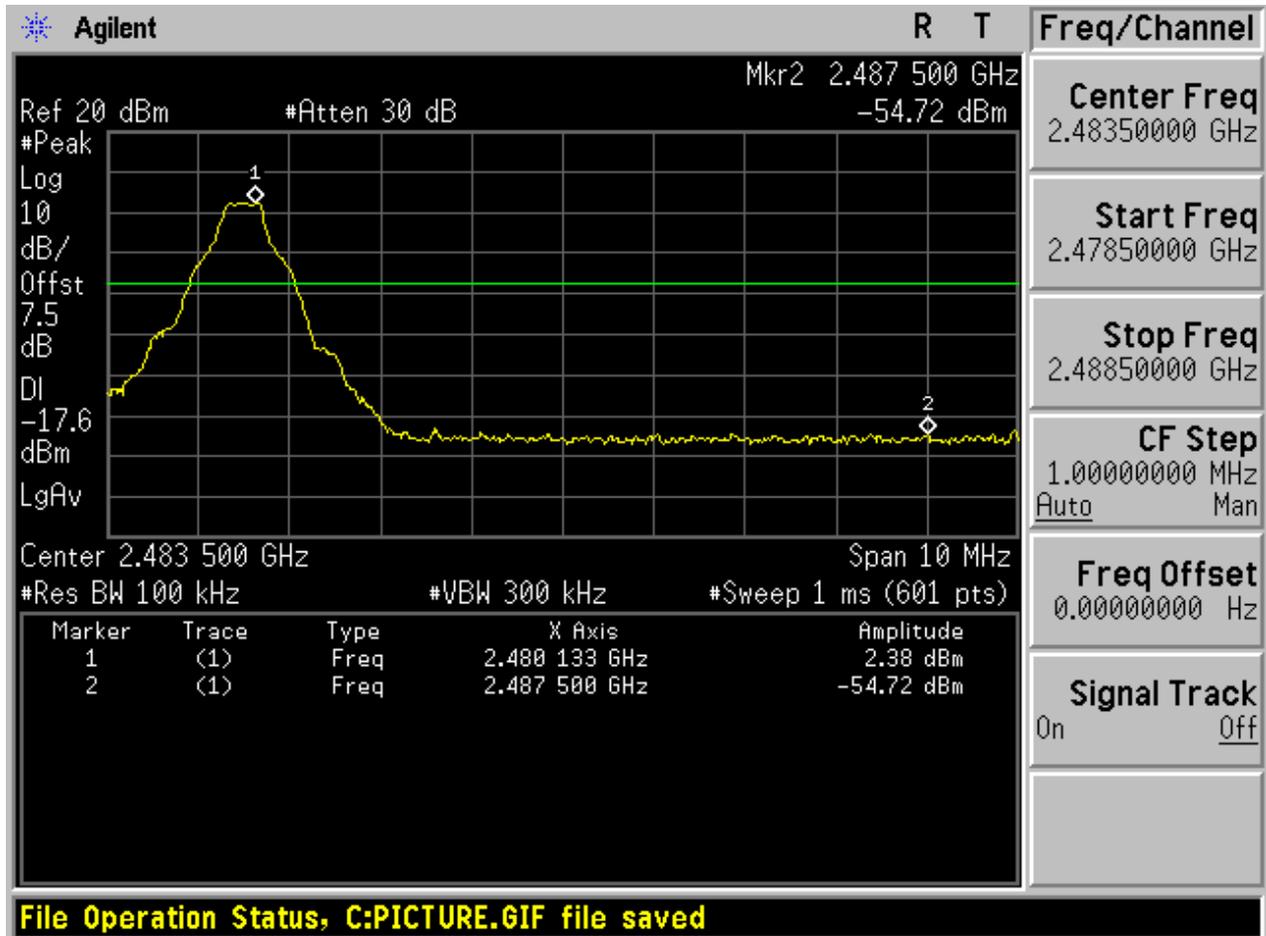


With hopping

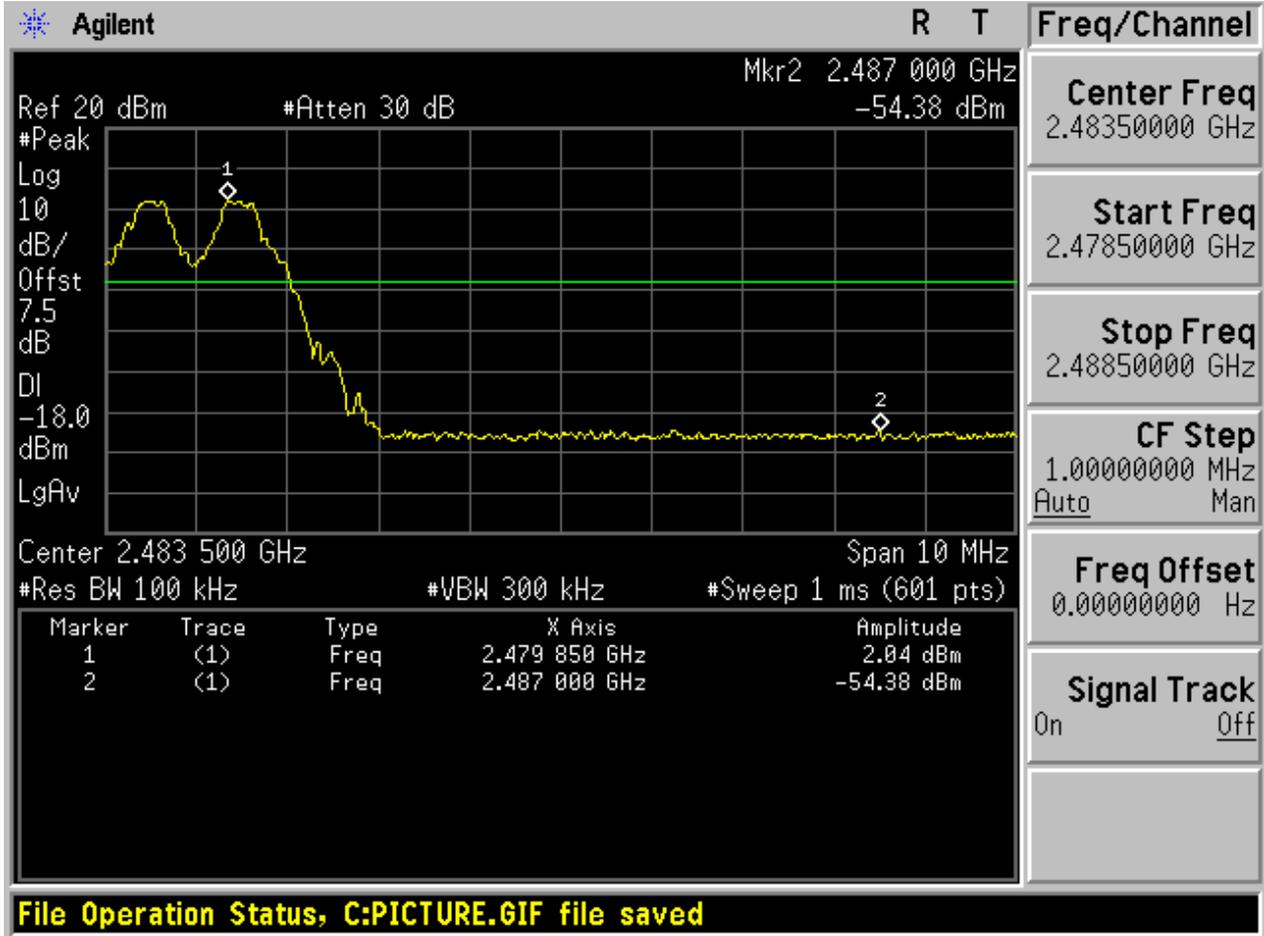


2.2 TM1_DH5_Ch78

No hopping

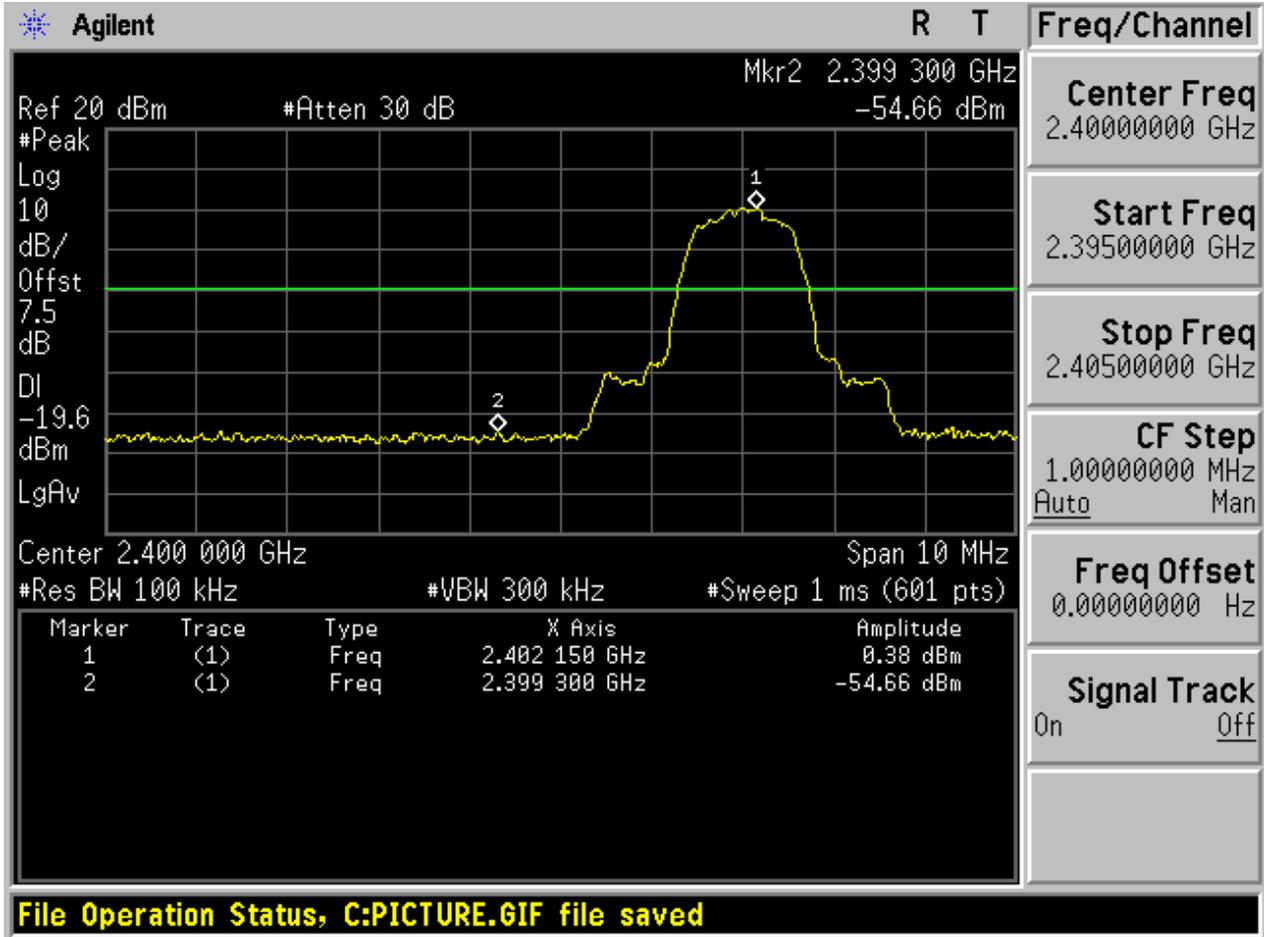


With hopping

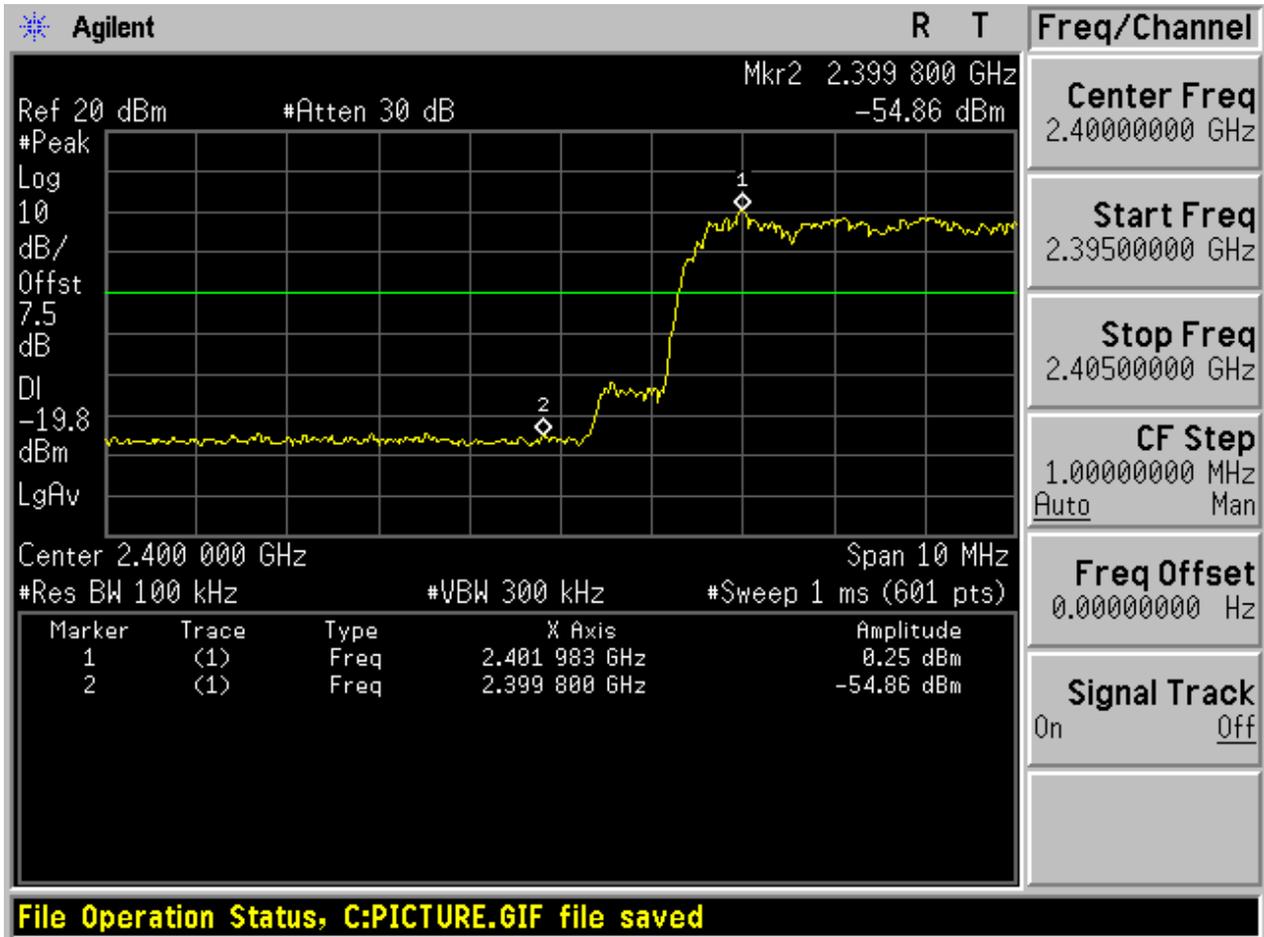


2.3 TM2_2DH5_Ch0

No hopping

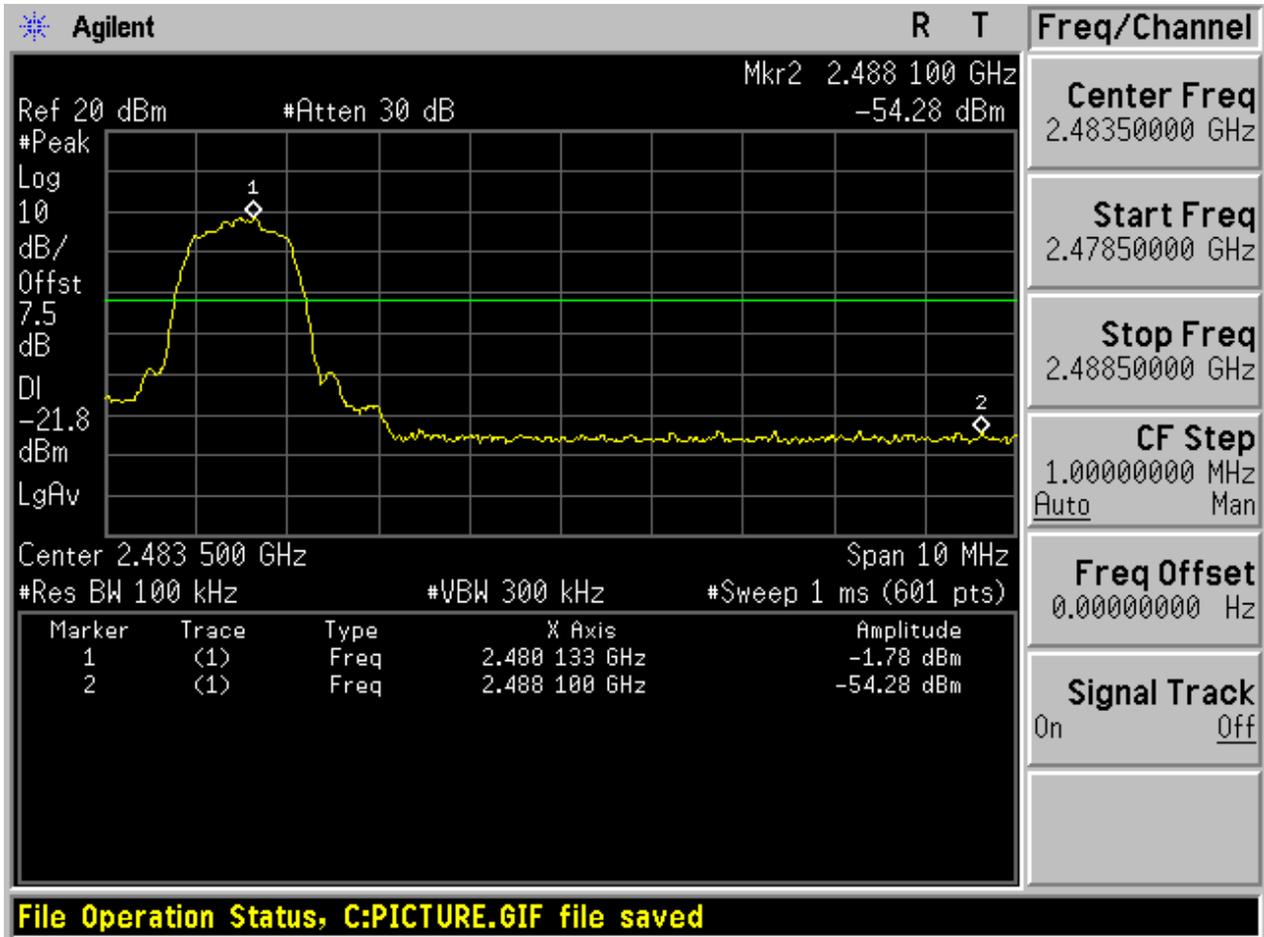


With hopping

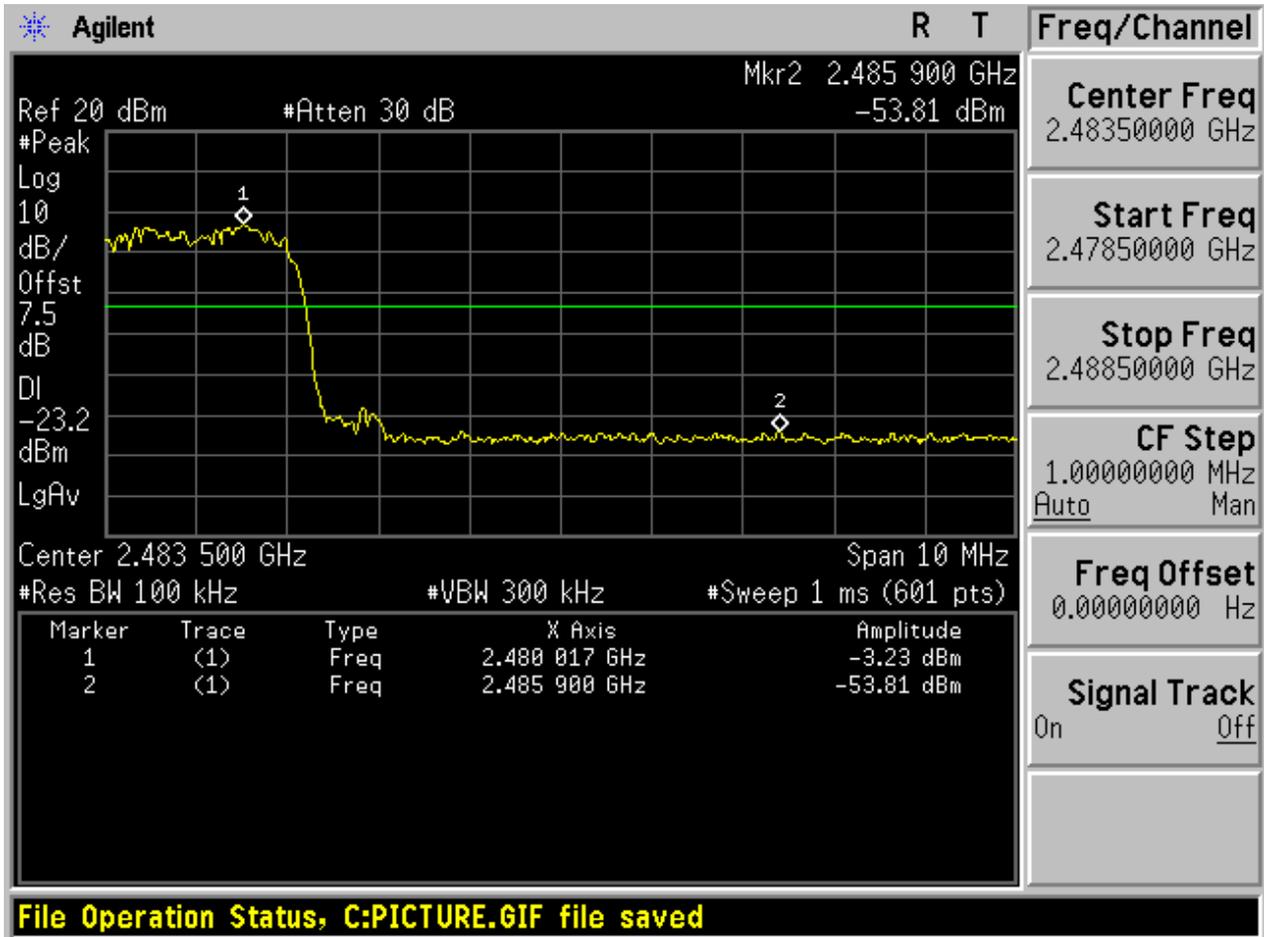


2.4 TM2_2DH5_Ch78

No hopping

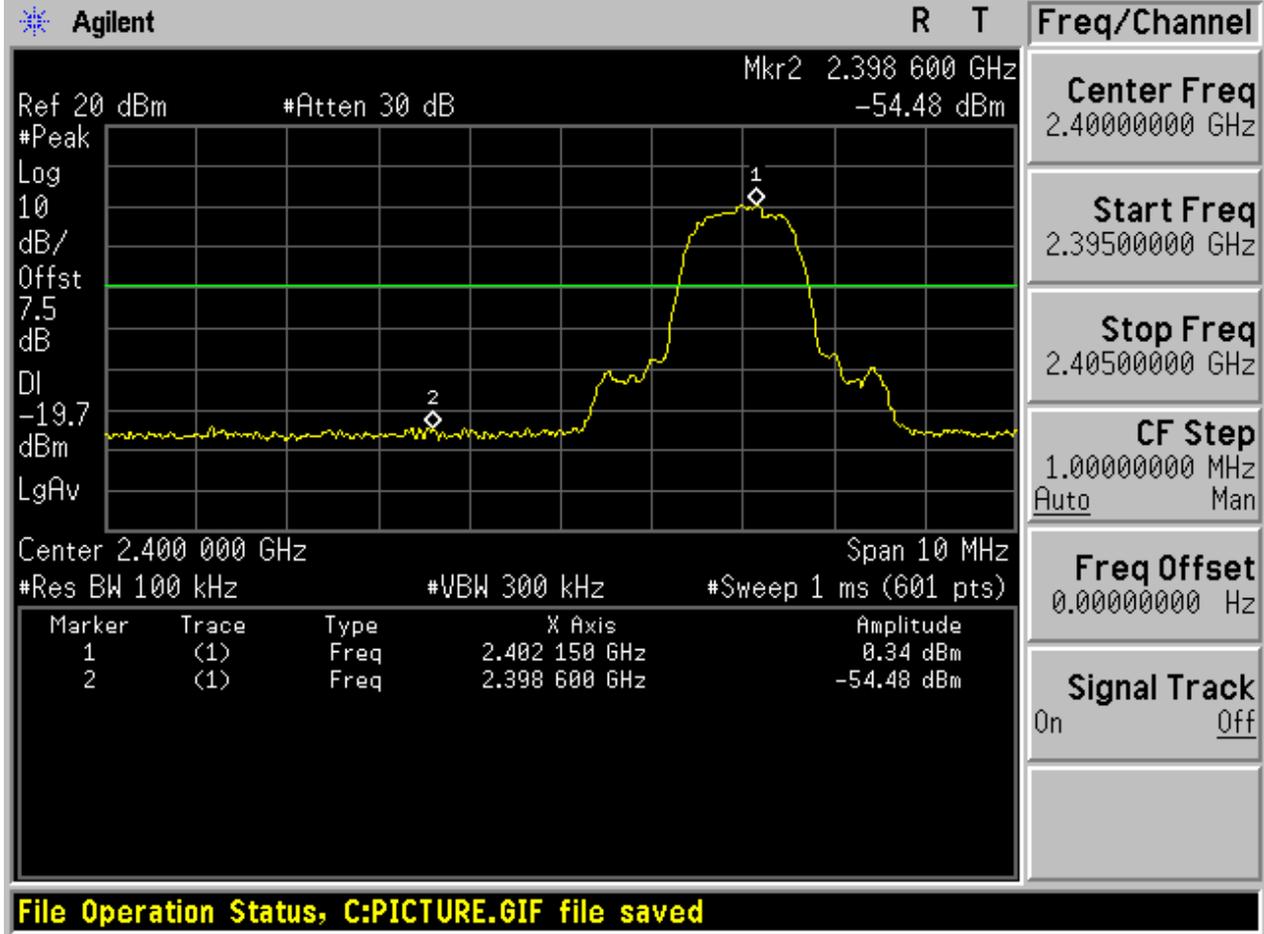


With hopping

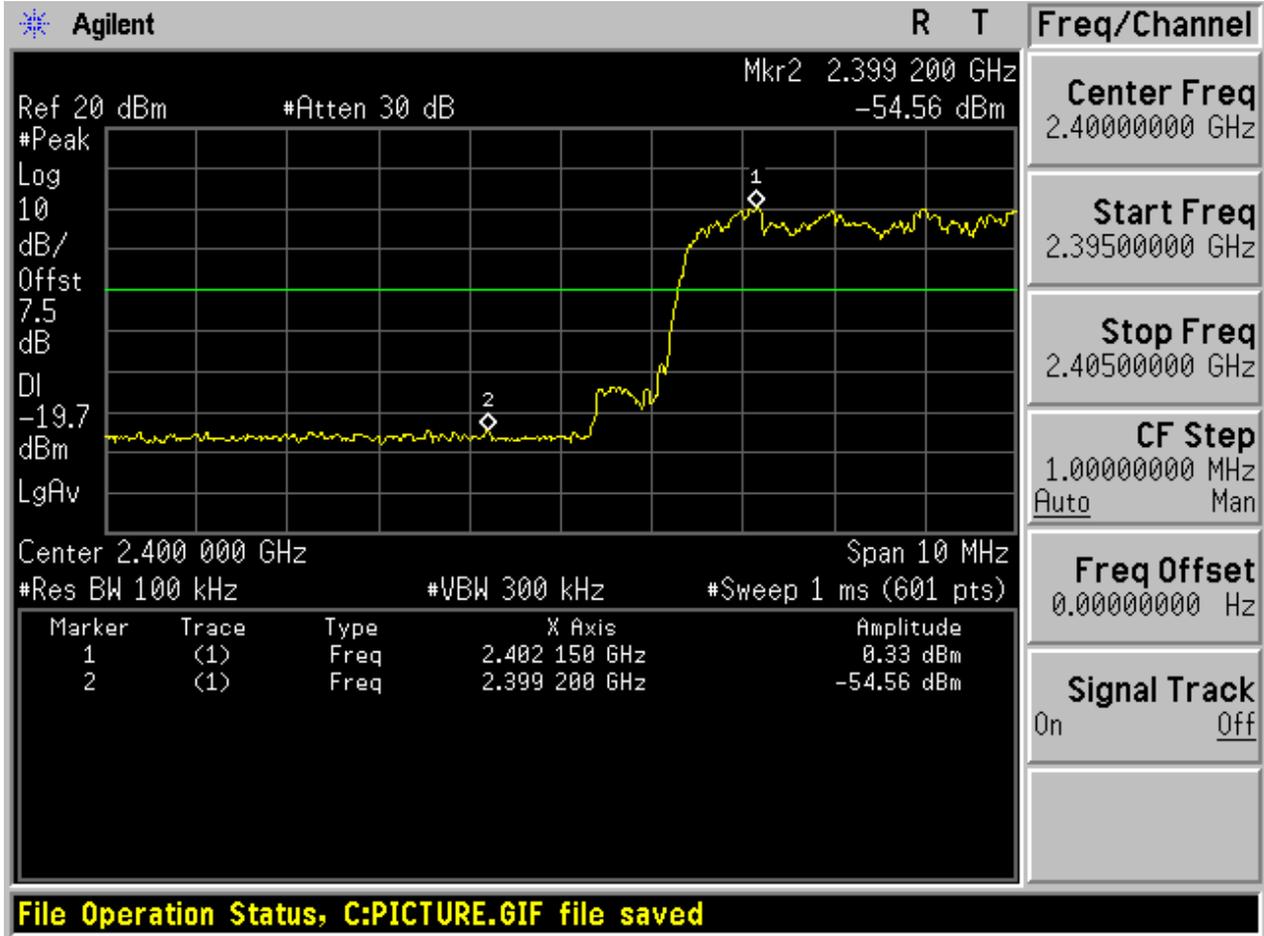


2.5 TM3_3DH5_Ch0

No hopping

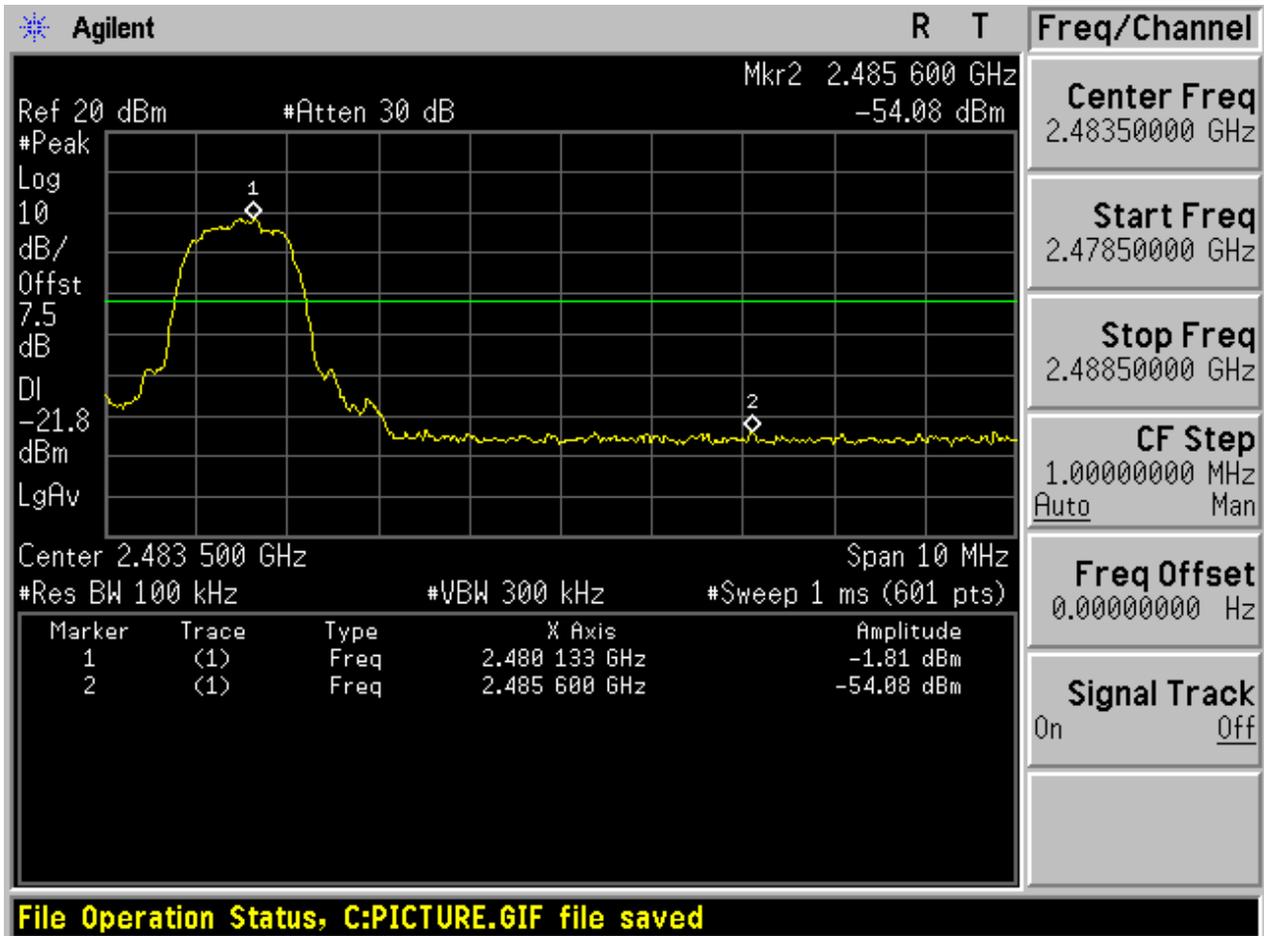


With hopping

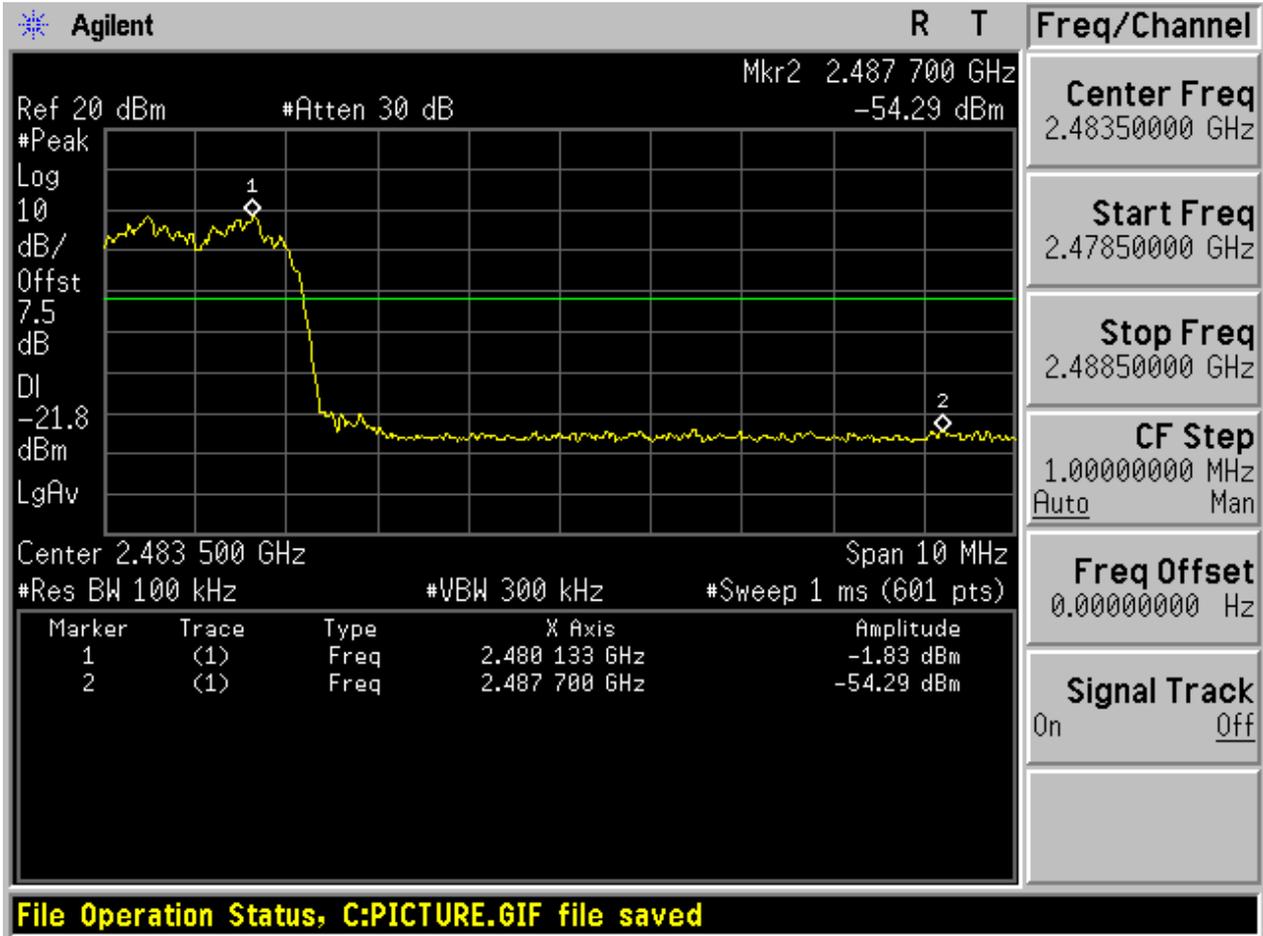


2.6 TM3_3DH5_Ch78

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.

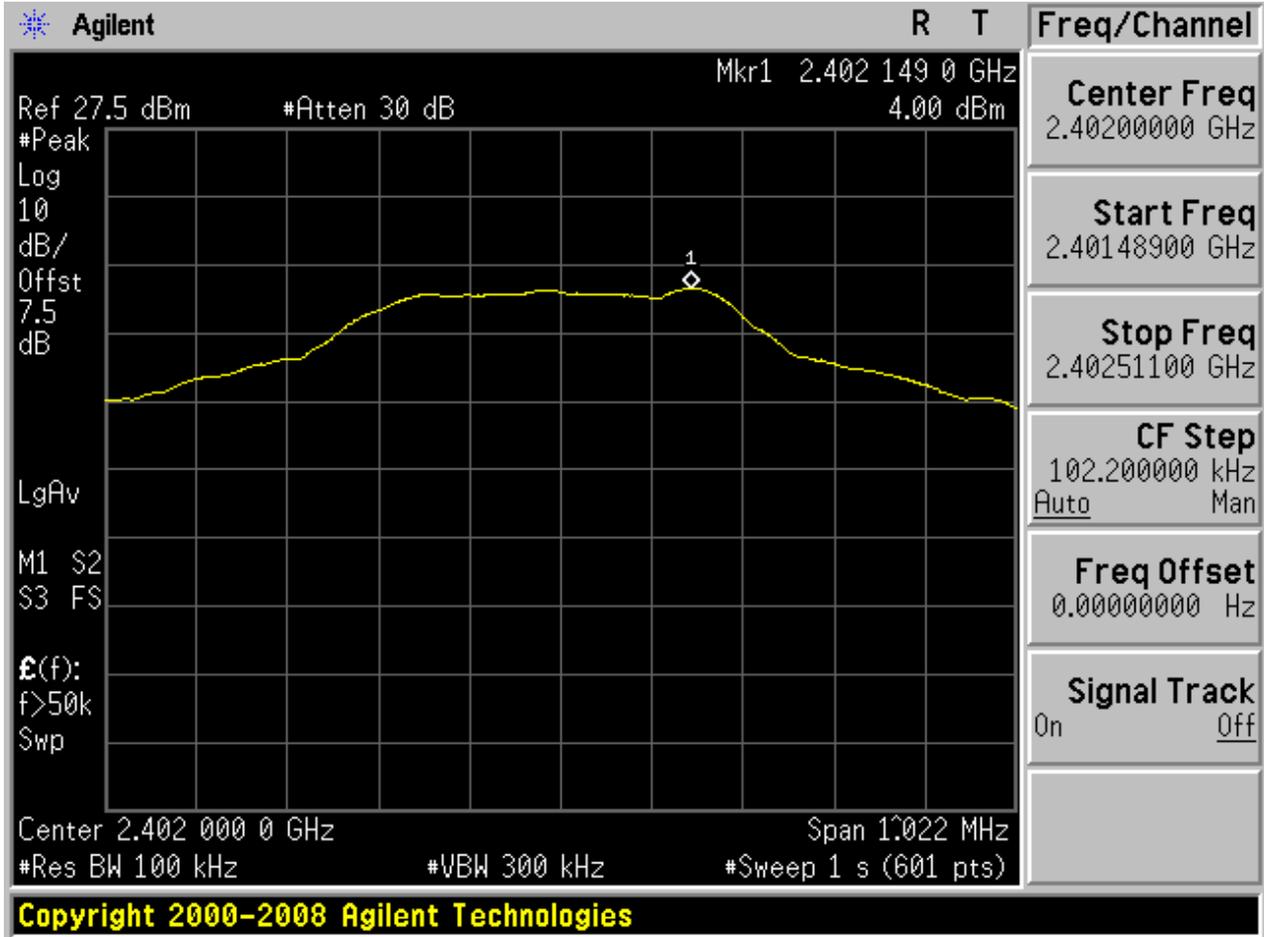
In the result table, the “< Limit” denotes that “The Puw [dBm] is less than Pref [dBm] - 20 [dB], see test plots for detailed”.

EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	4.00	< Limit	Pass
TM1_DH5_Ch39	4.47	< Limit	Pass
TM1_DH5_Ch78	2.30	< Limit	Pass
TM2_2DH5_Ch0	0.30	< Limit	Pass
TM2_2DH5_Ch39	0.50	< Limit	Pass
TM2_2DH5_Ch78	-1.83	< Limit	Pass
TM3_3DH5_Ch0	0.29	< Limit	Pass
TM3_3DH5_Ch39	0.52	< Limit	Pass
TM3_3DH5_Ch78	-1.82	< Limit	Pass

2 Test Plot

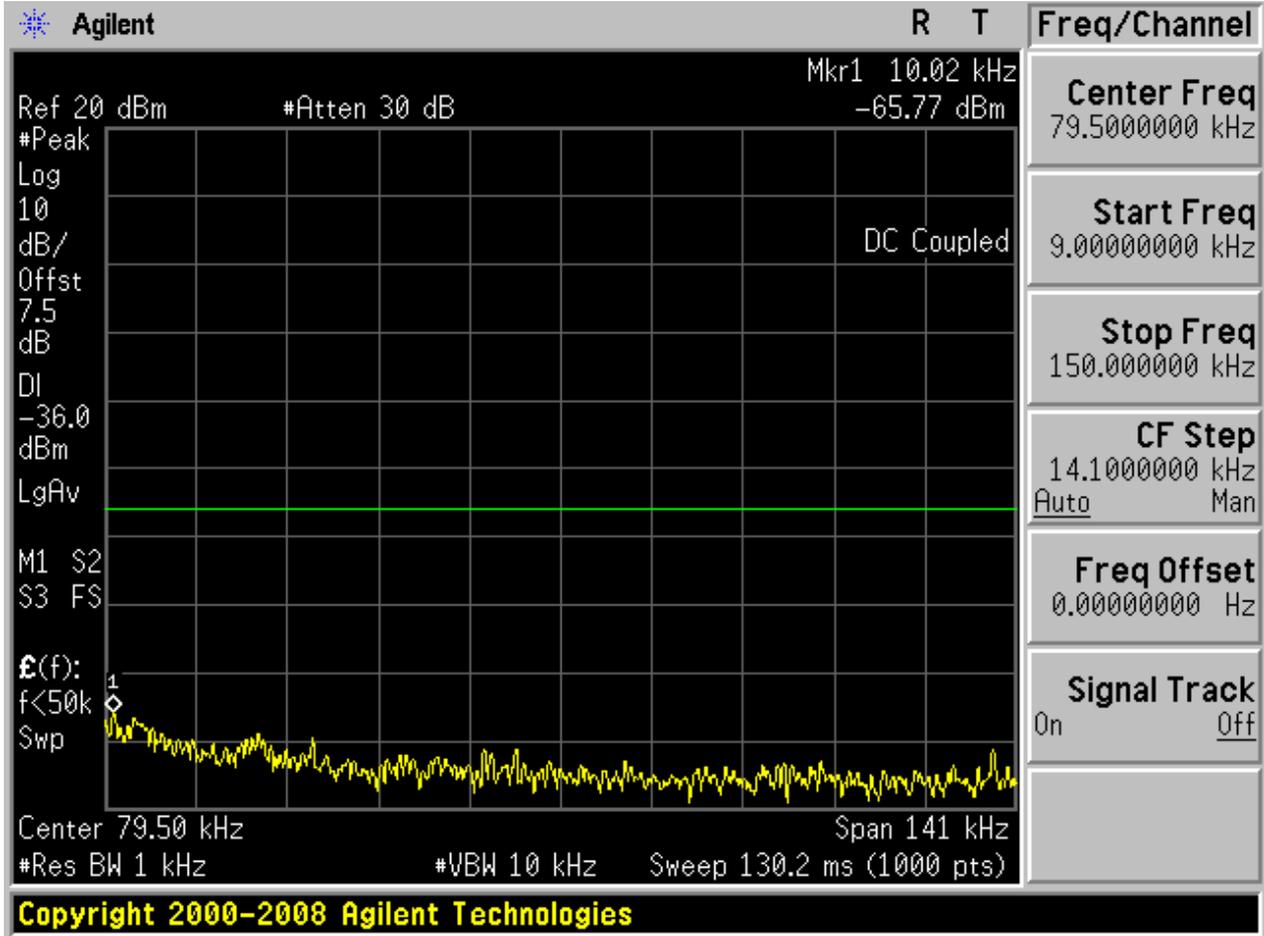
2.1 TM1_DH5_Ch0

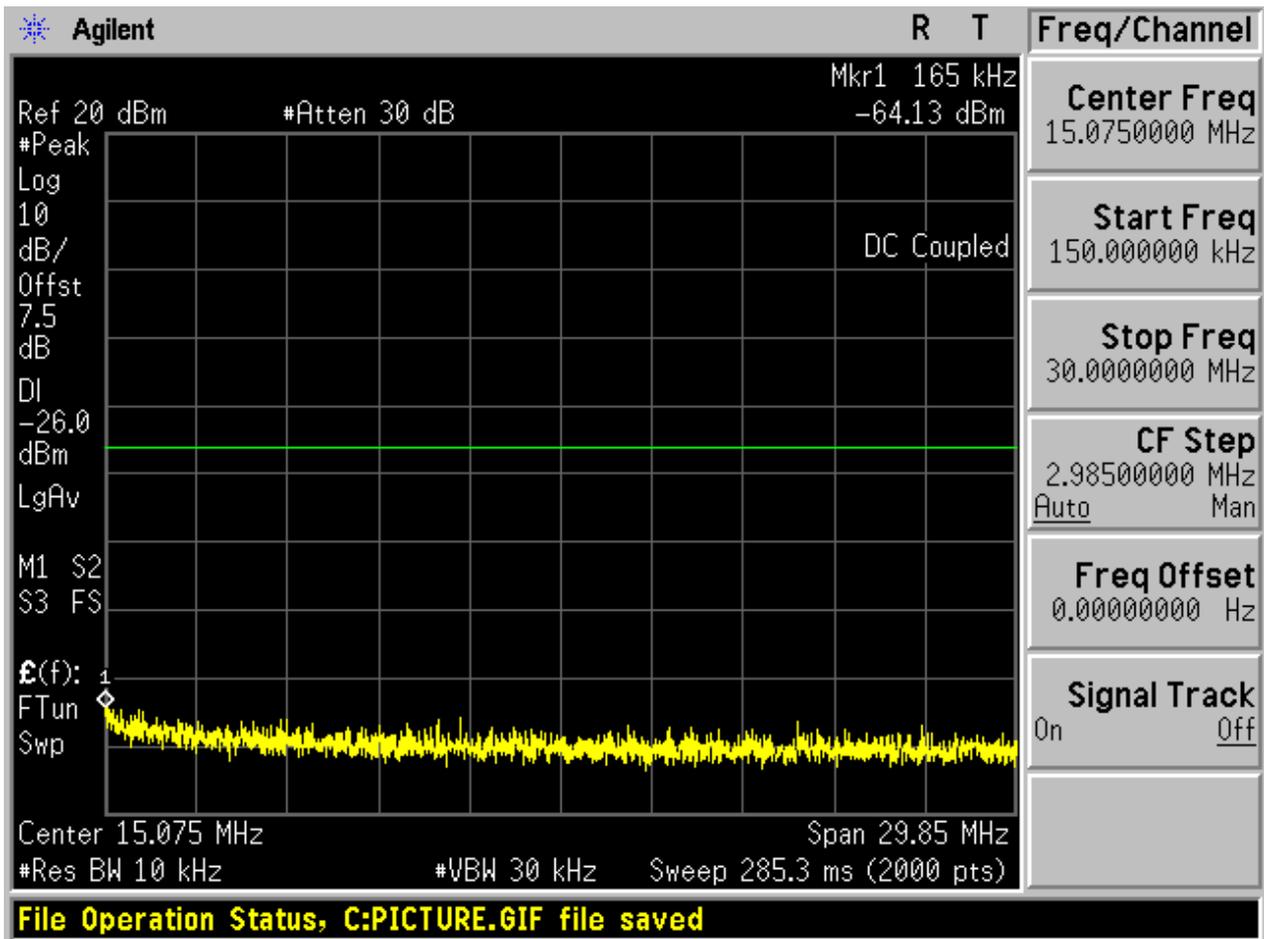
2.1.1 Pref

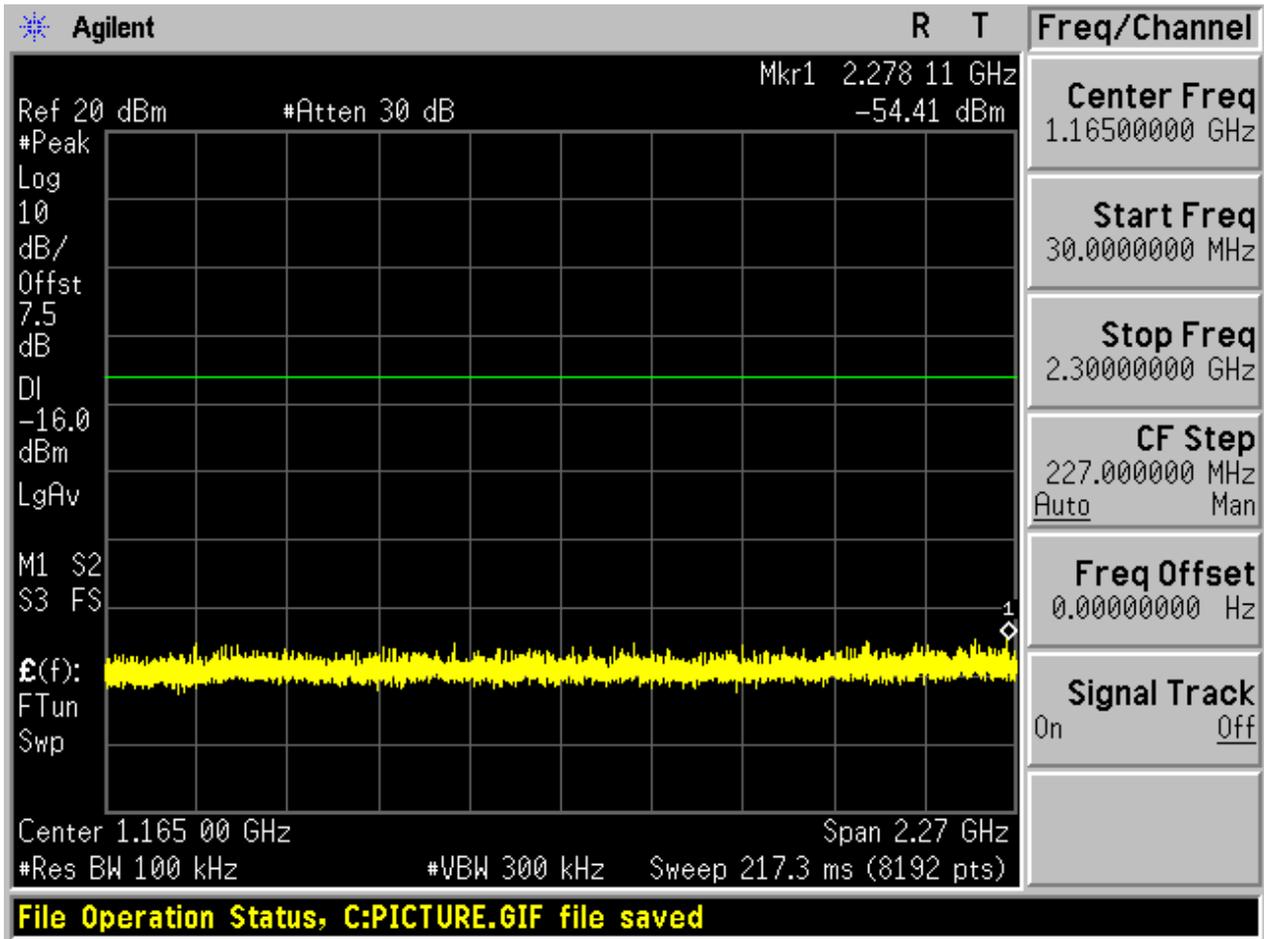


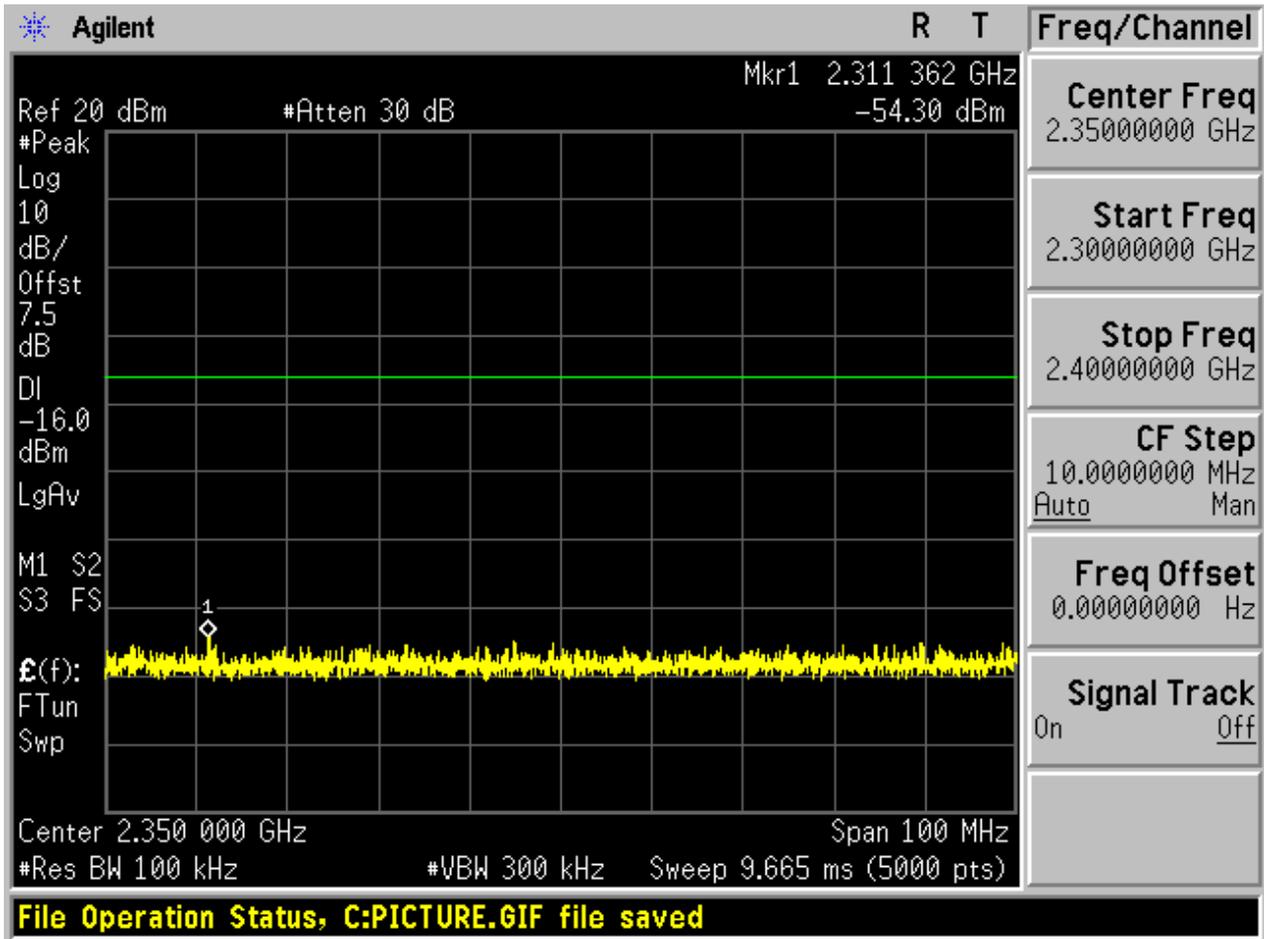


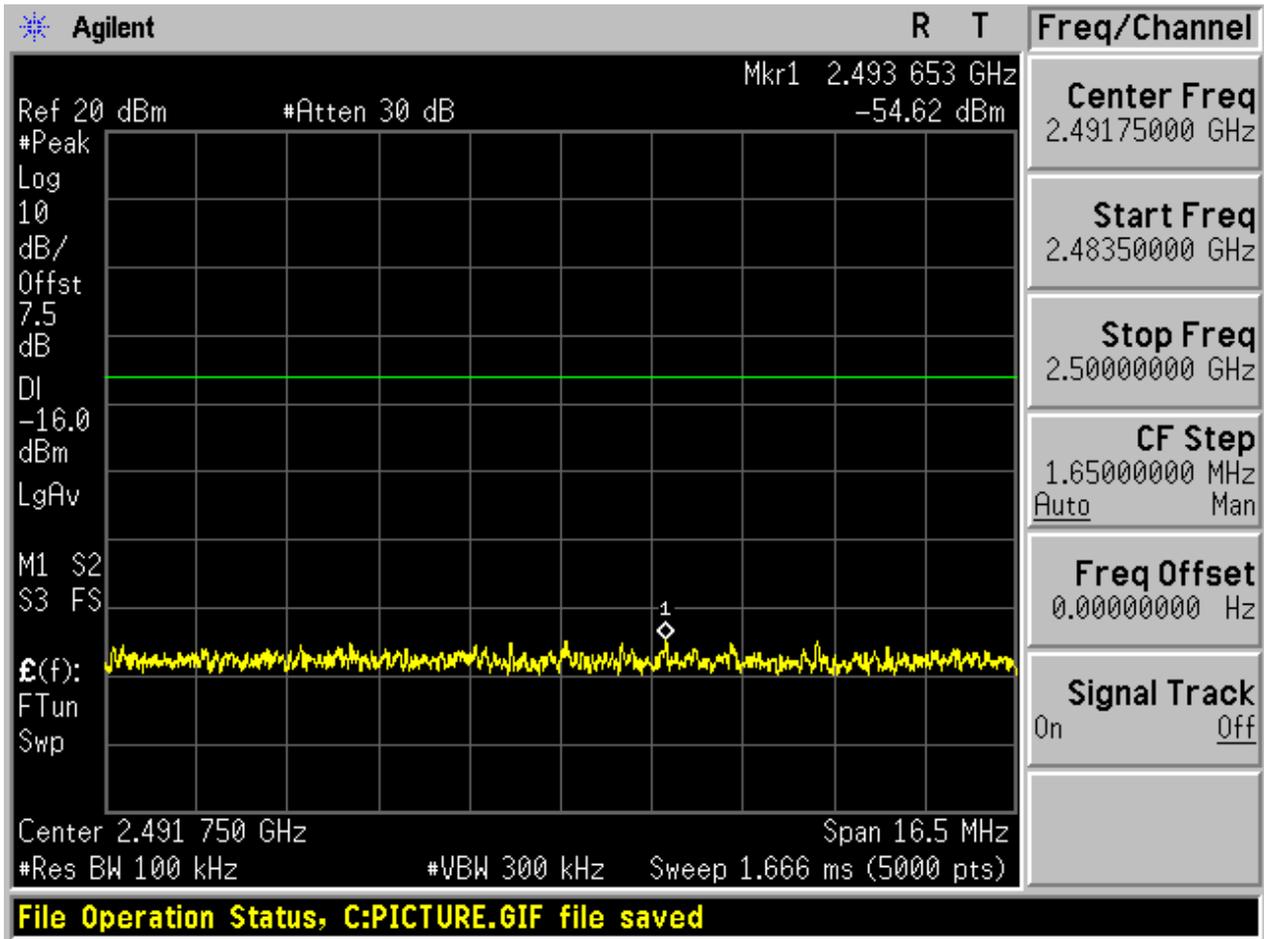
2.1.2 P_{uw}

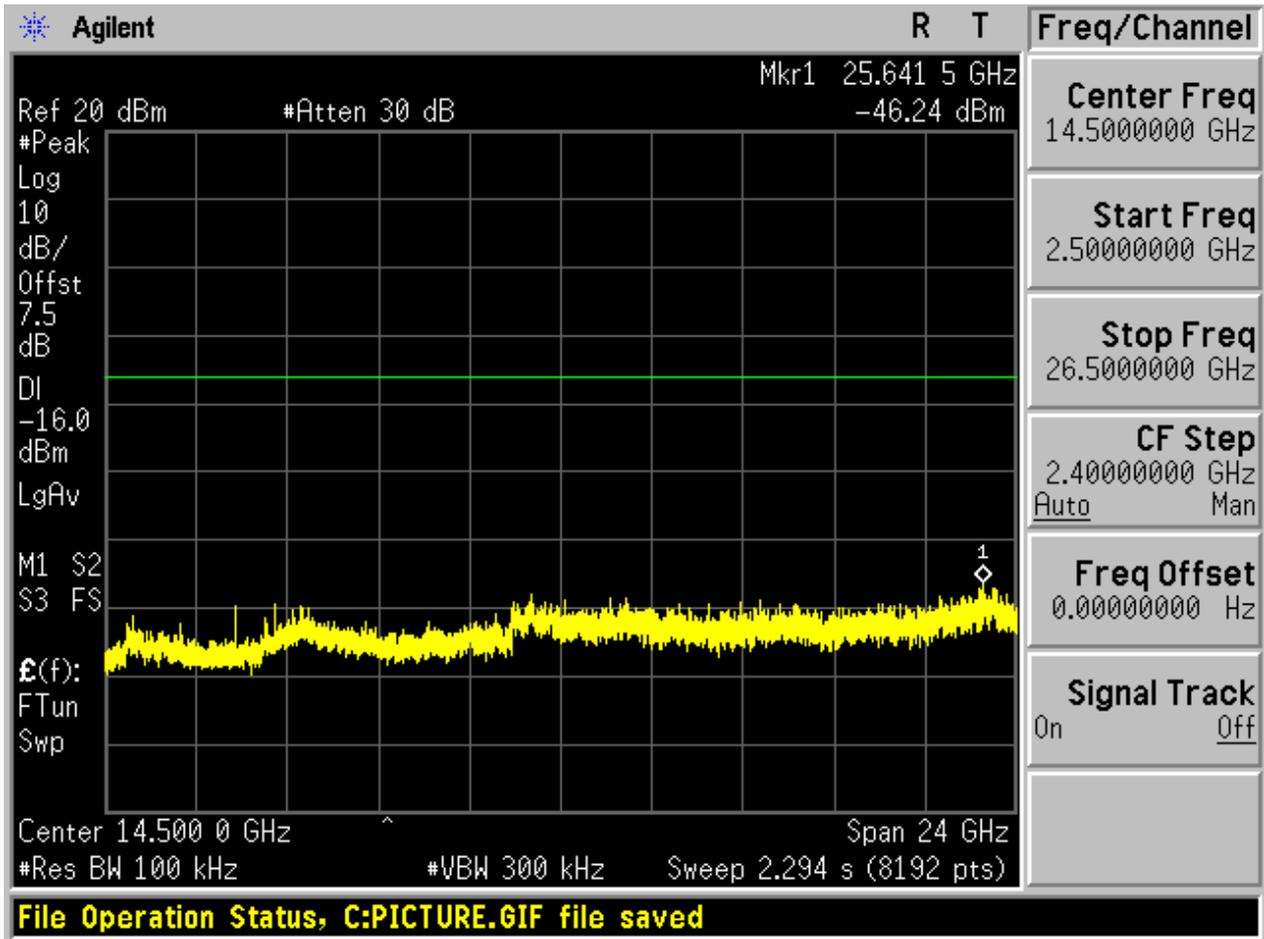










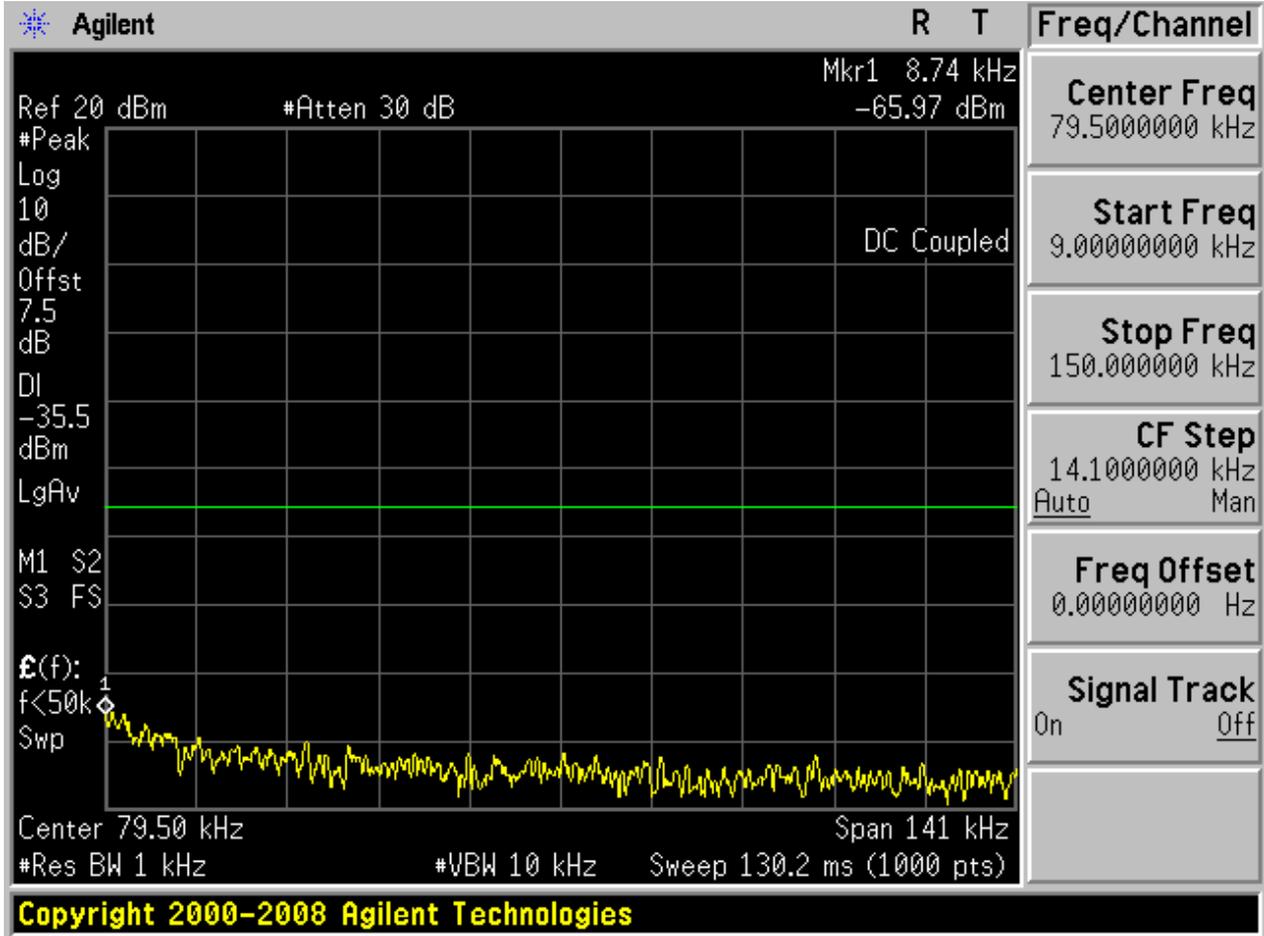


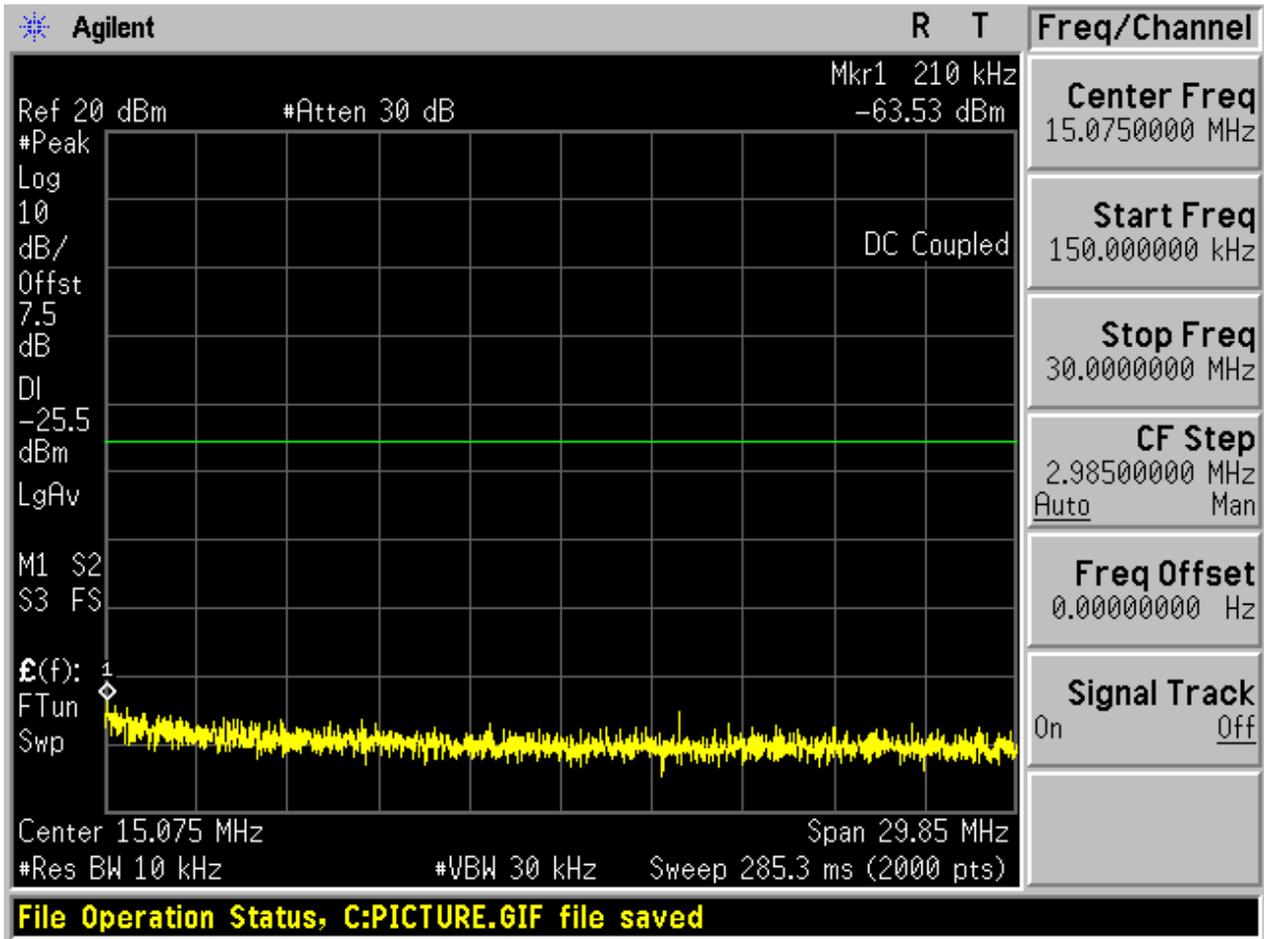
2.2 TM1_DH5_Ch39

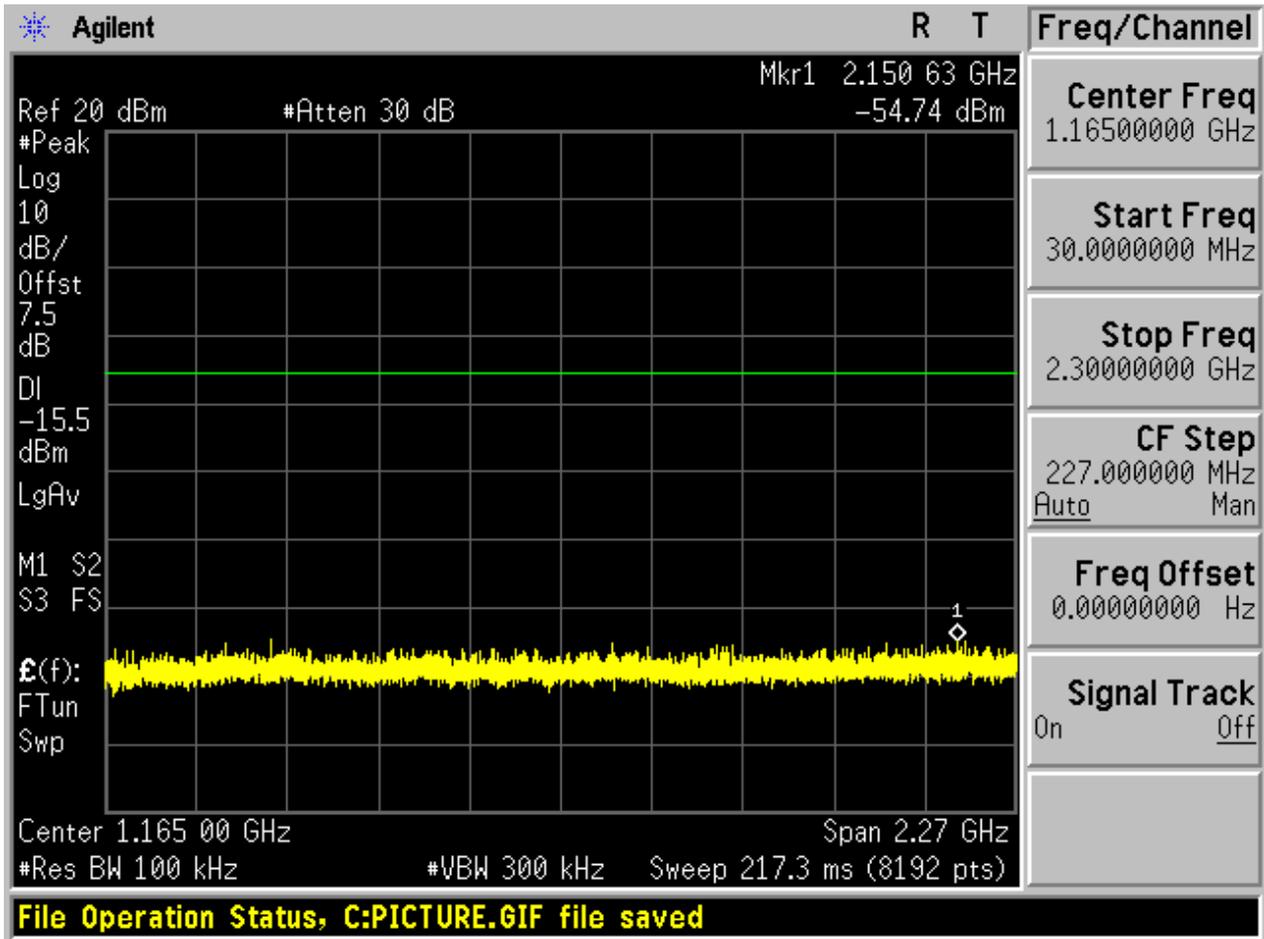
2.2.1 Pref

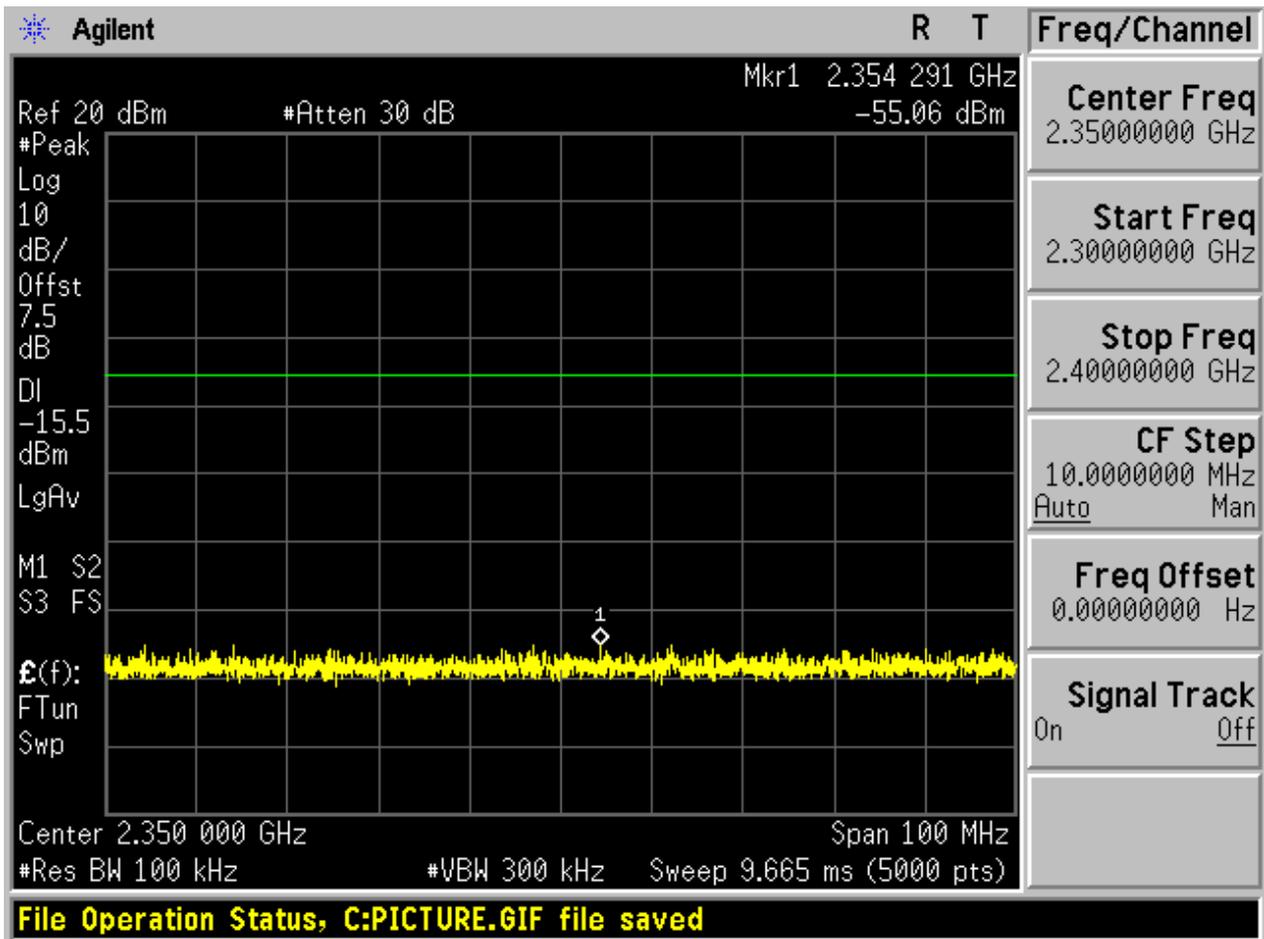


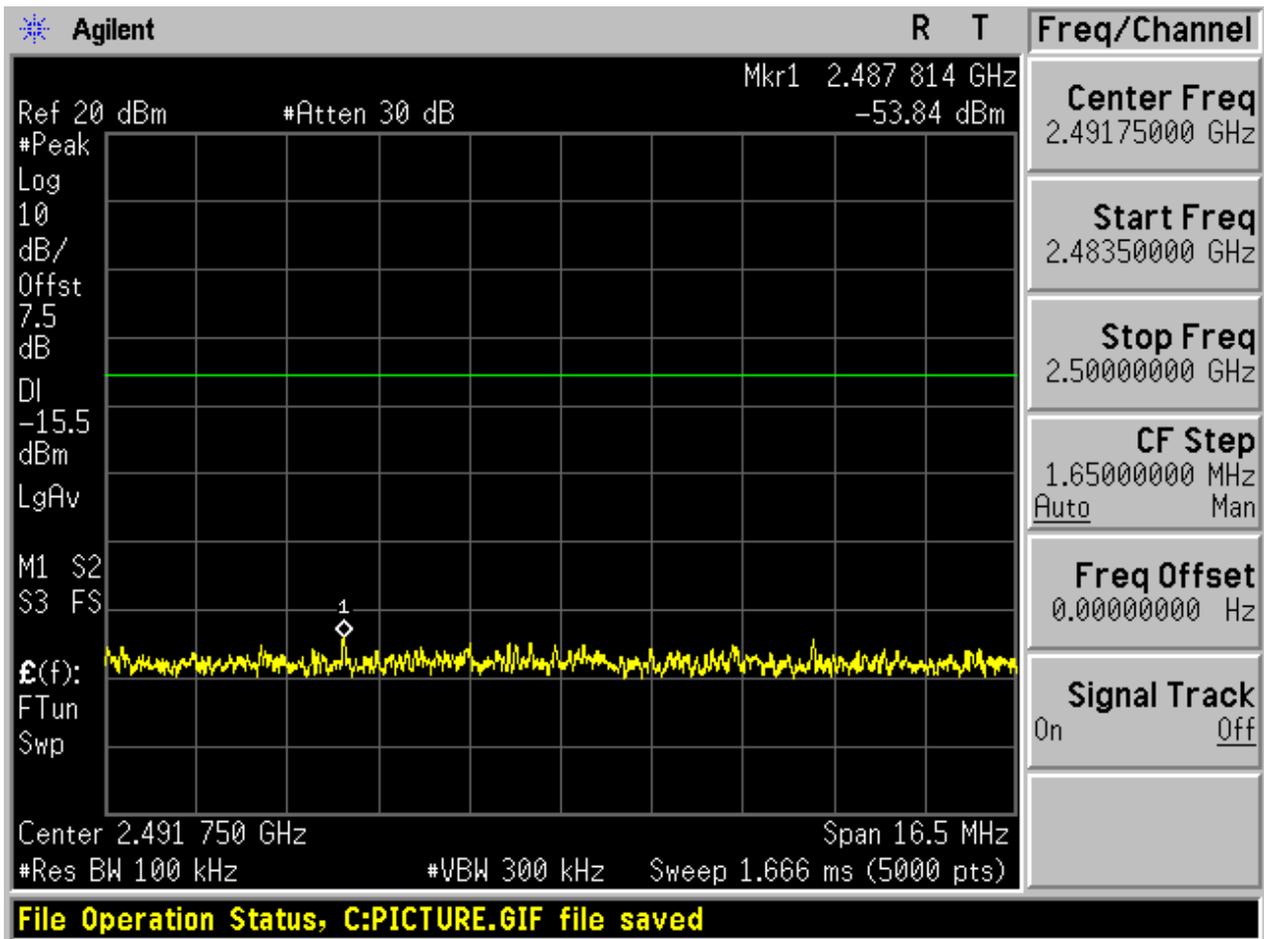
2.2.2 Puw

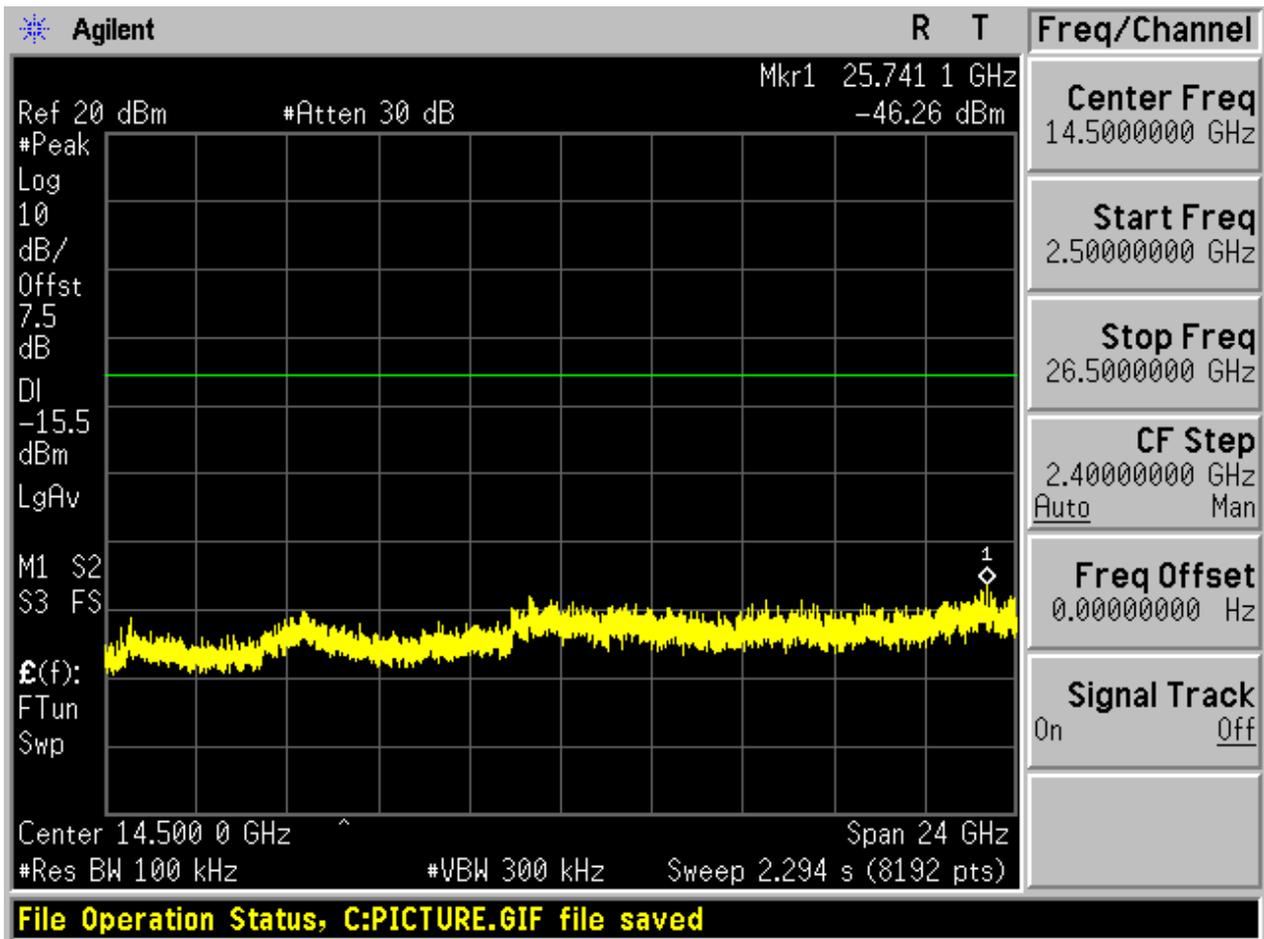






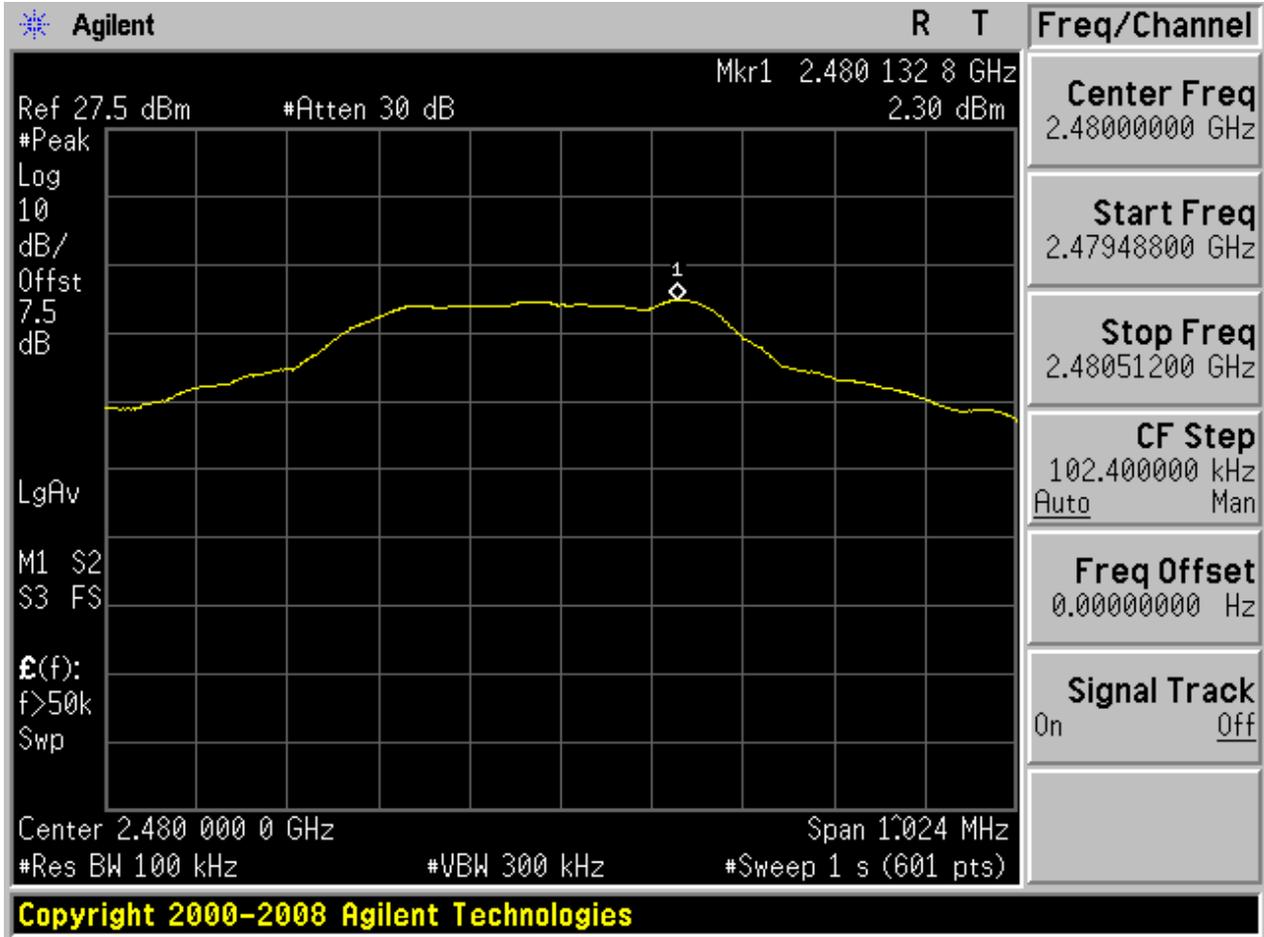




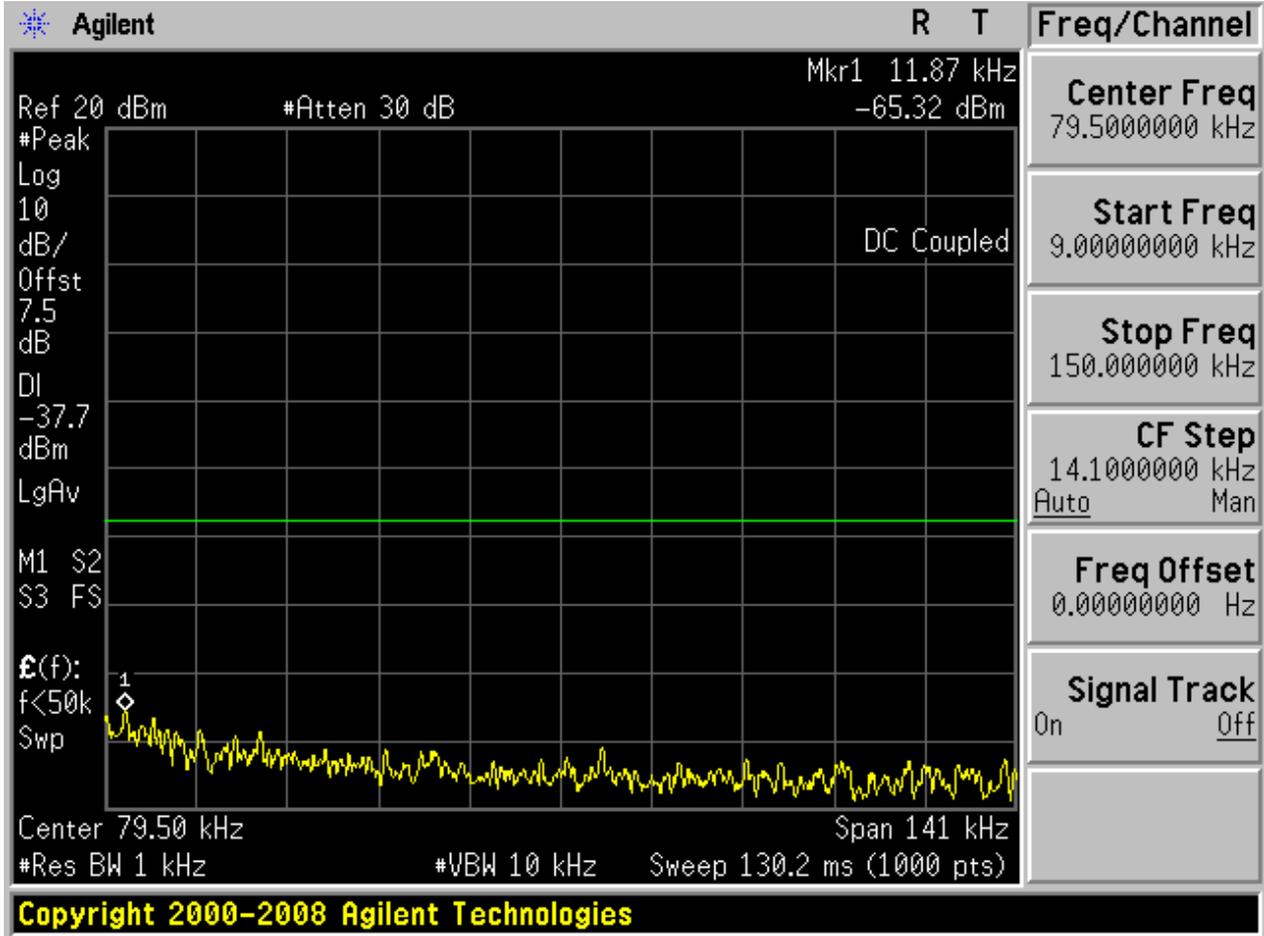


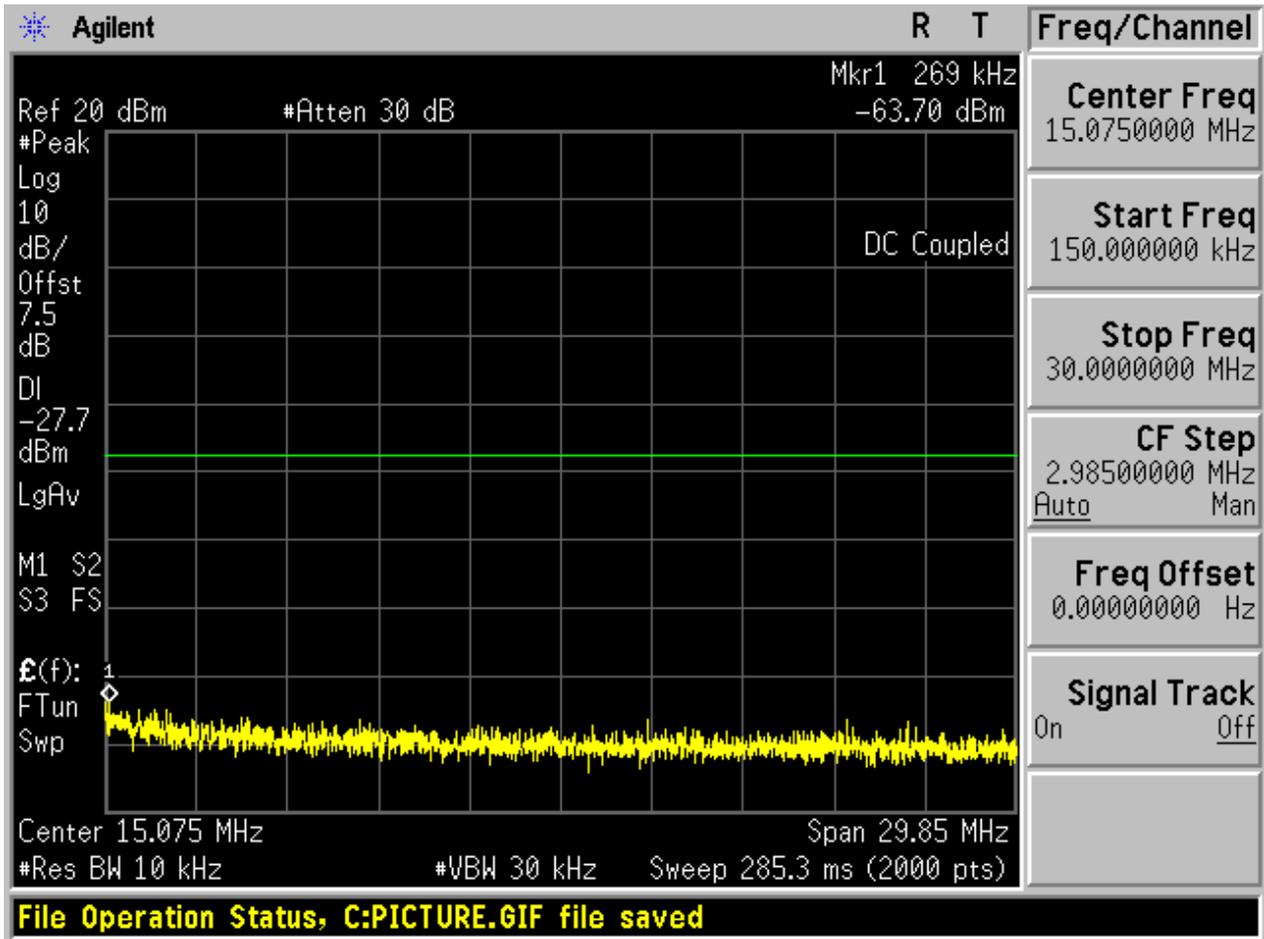
2.3 TM1_DH5_Ch78

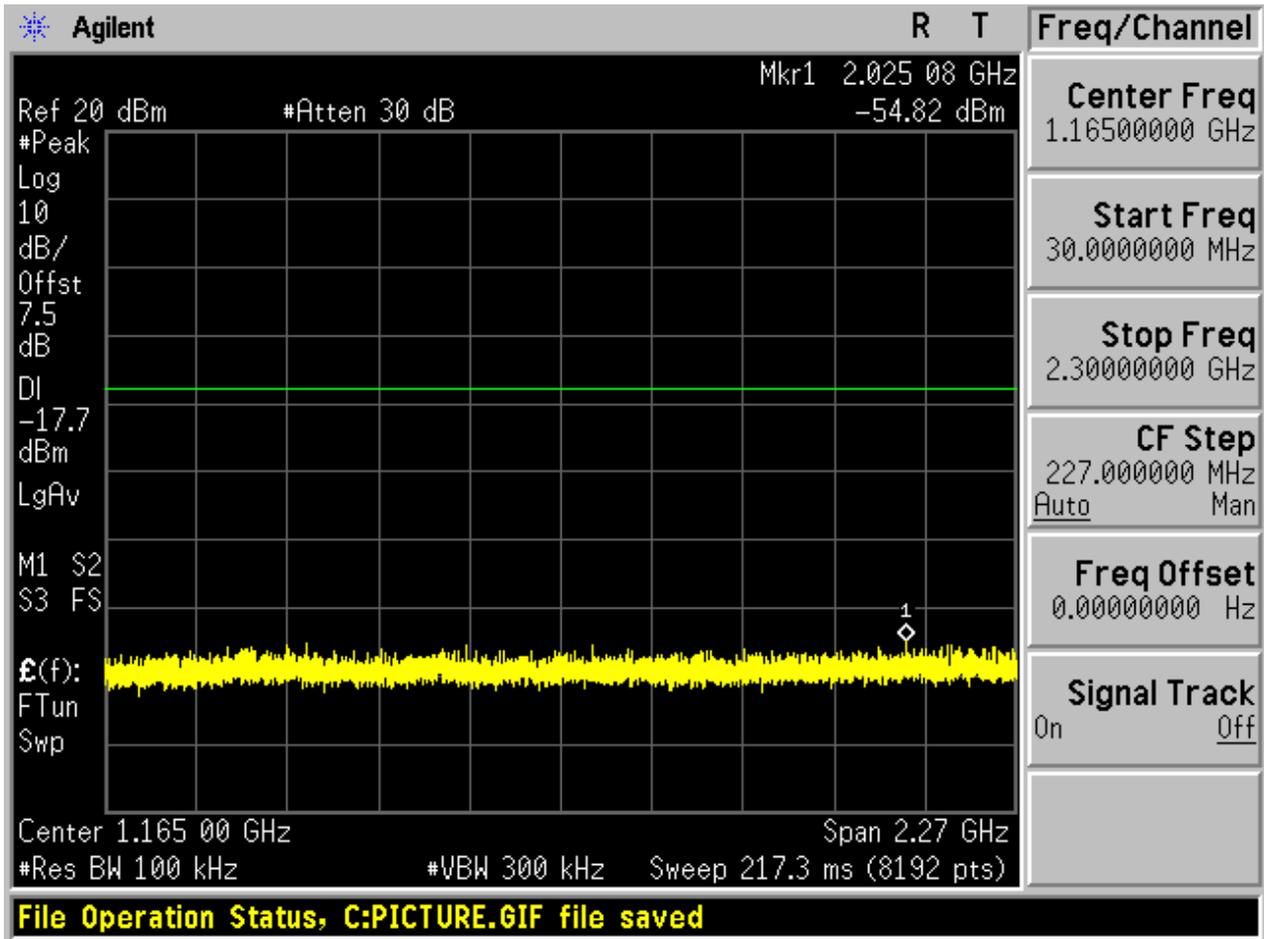
2.3.1 Pref

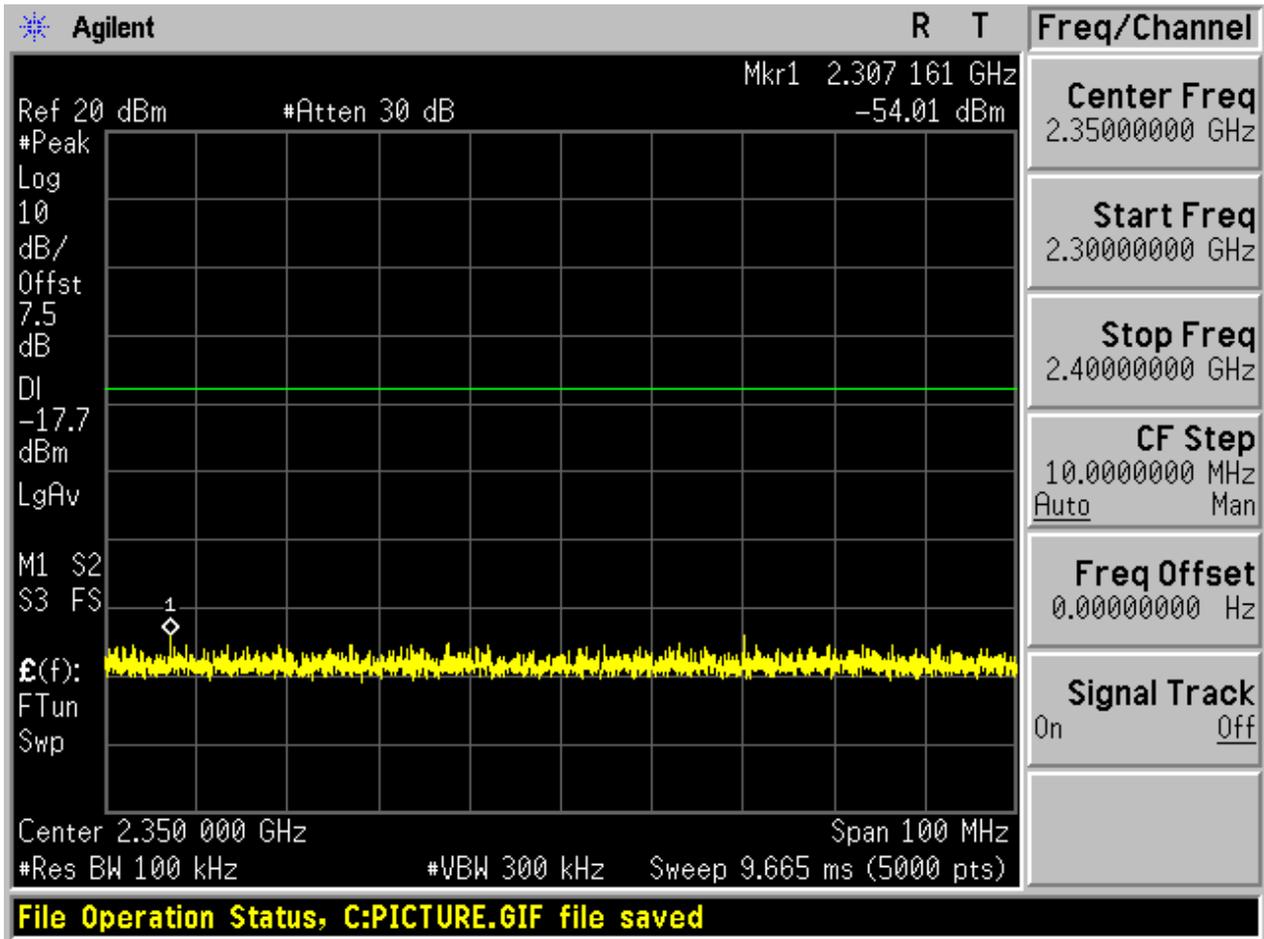


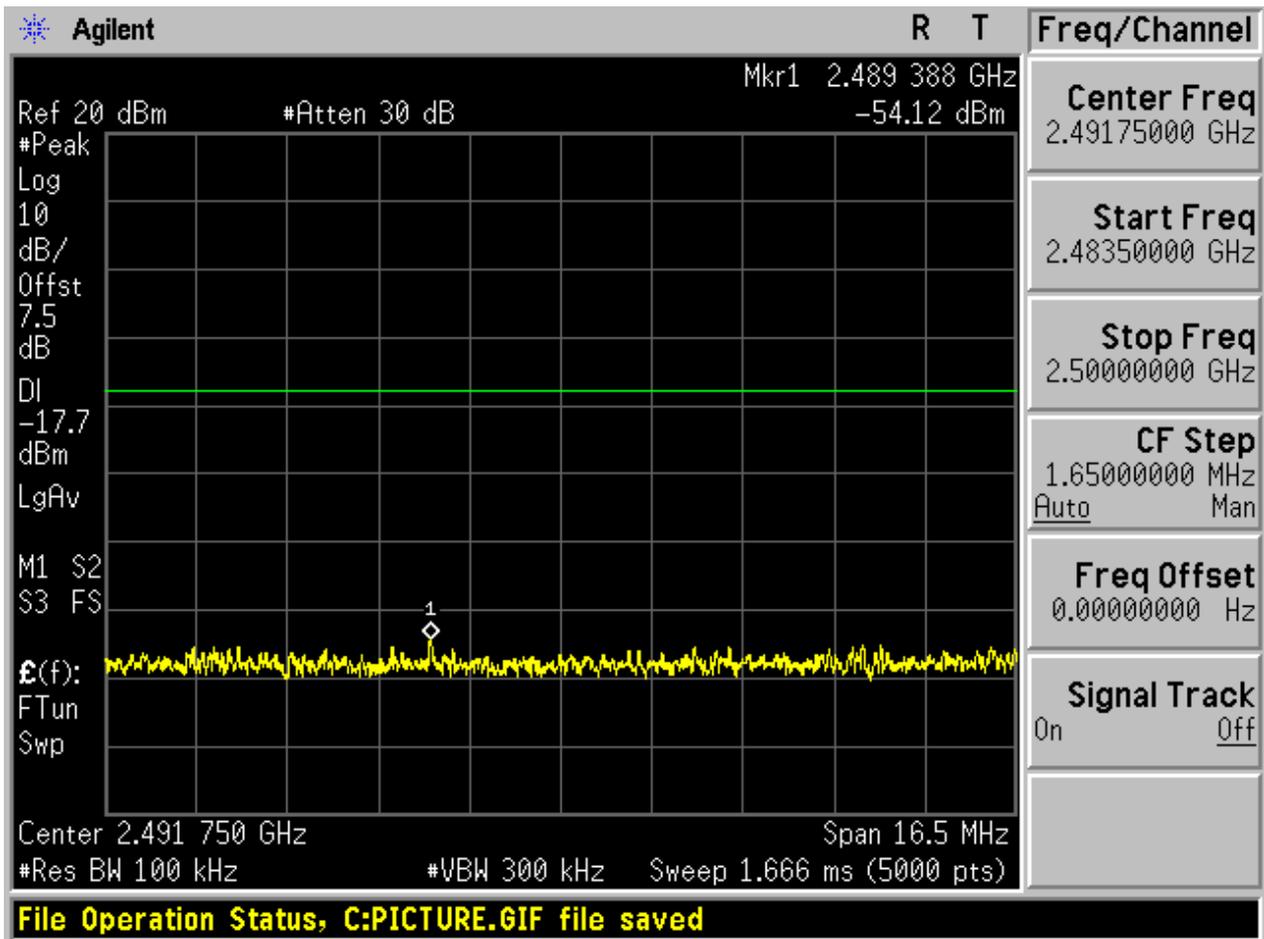
2.3.2 Puw

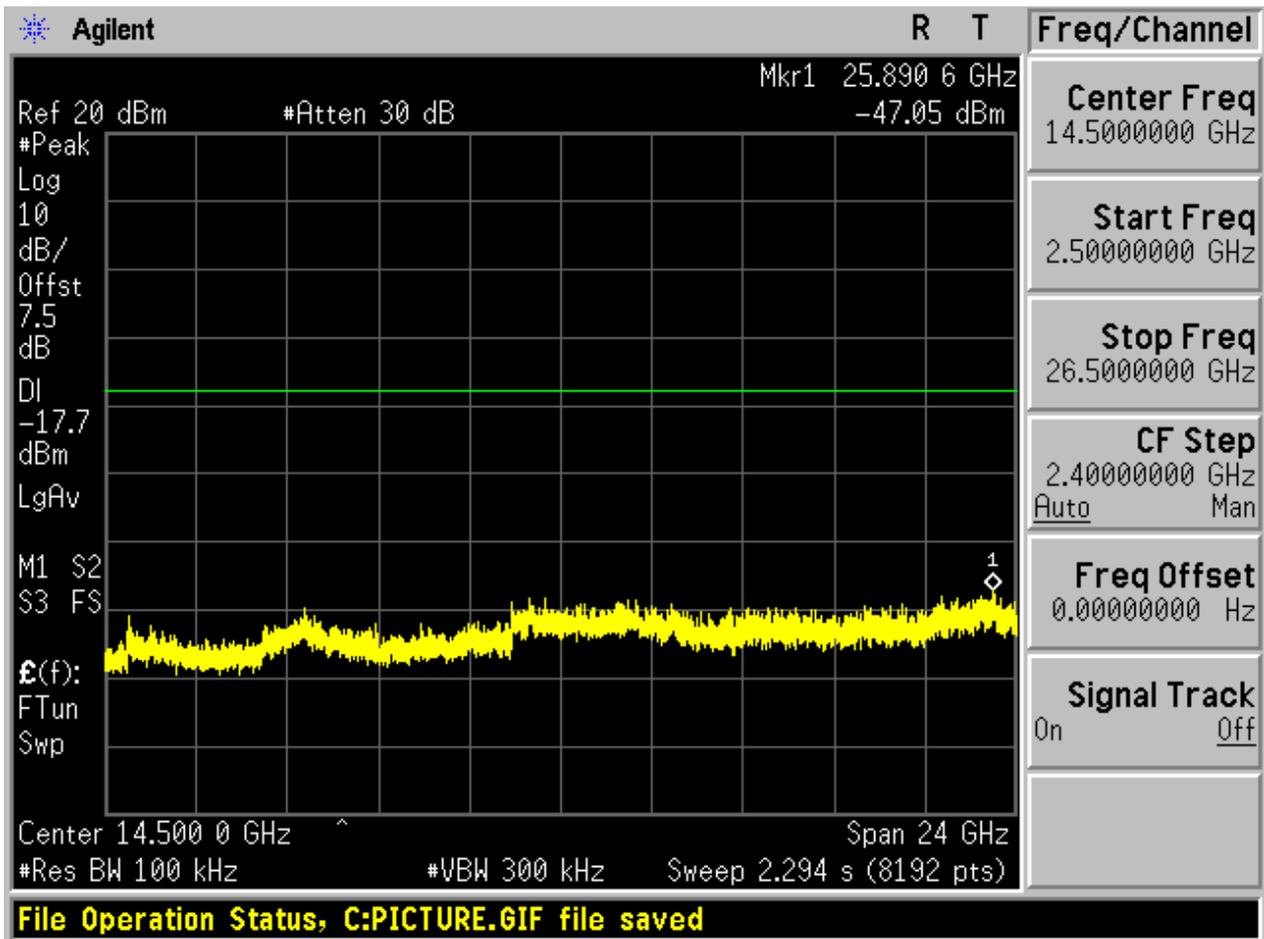






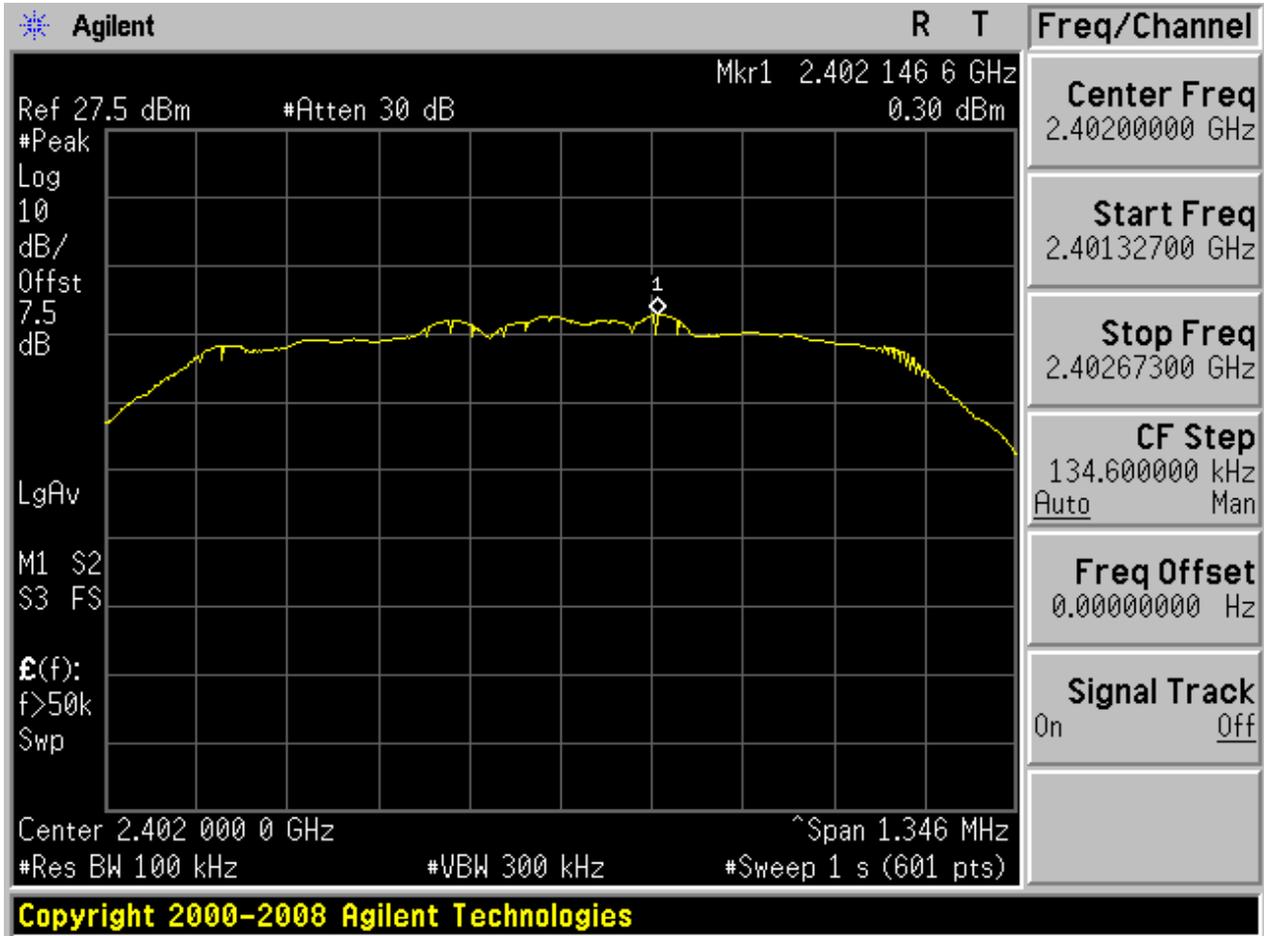




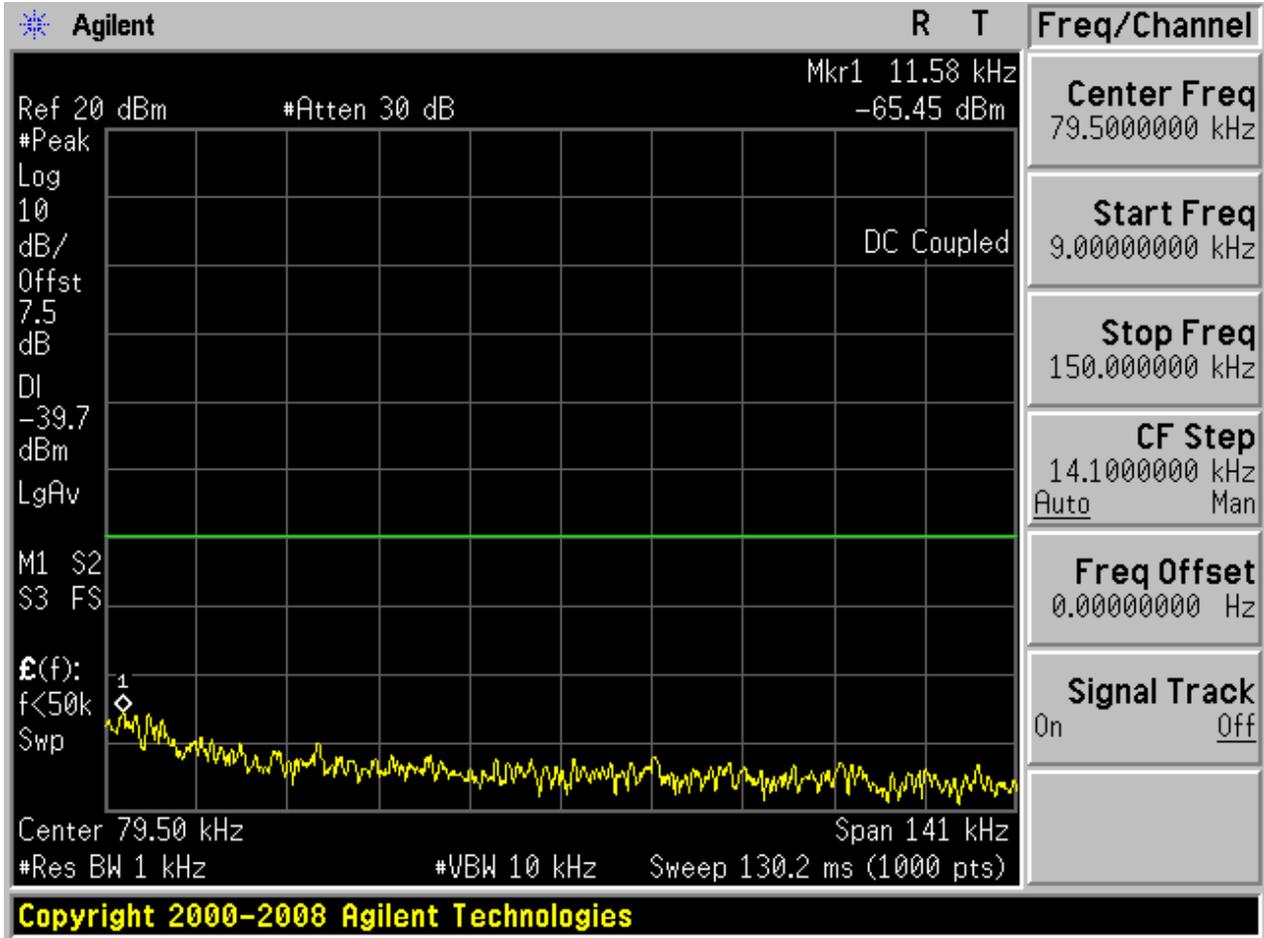


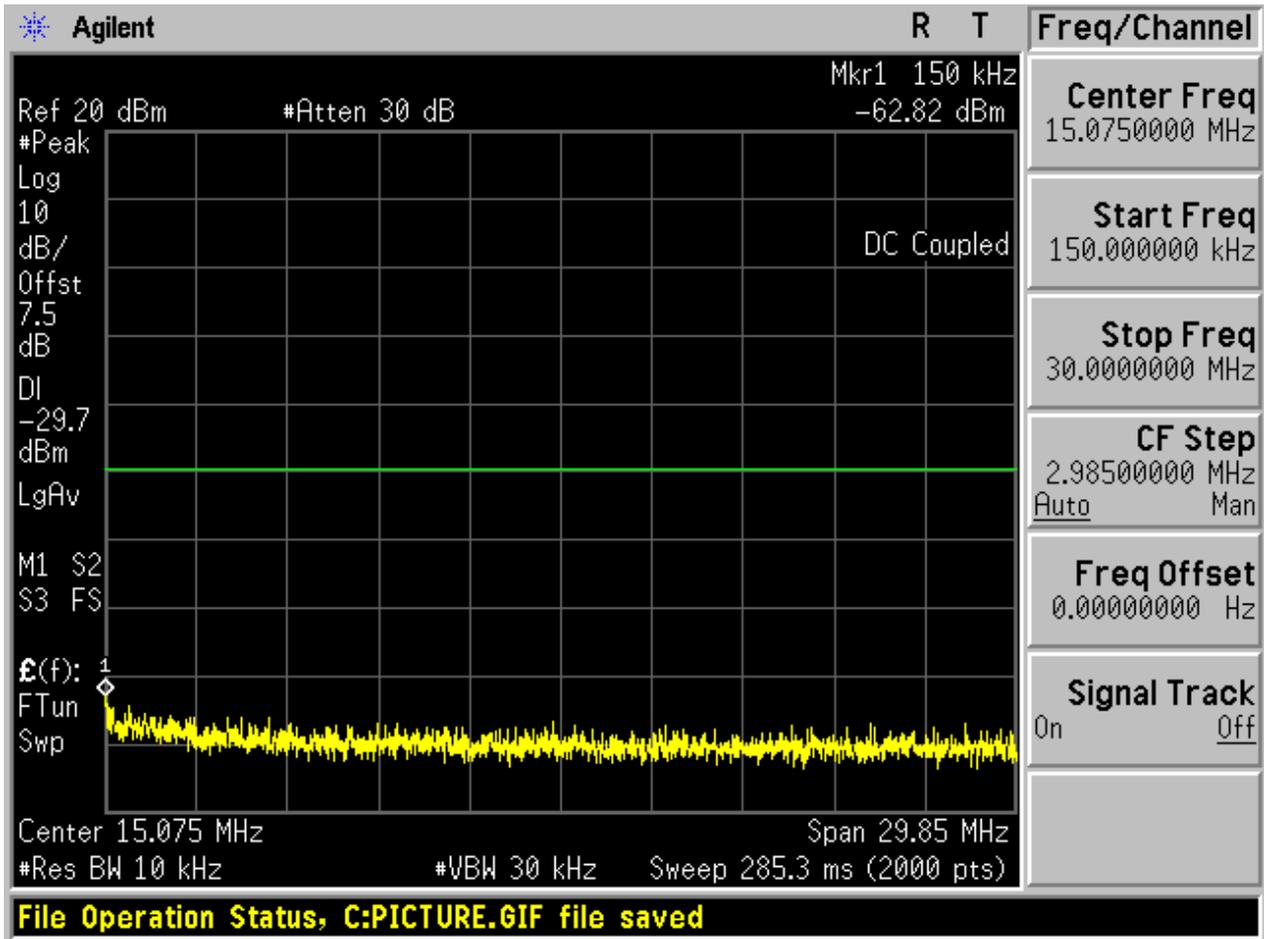
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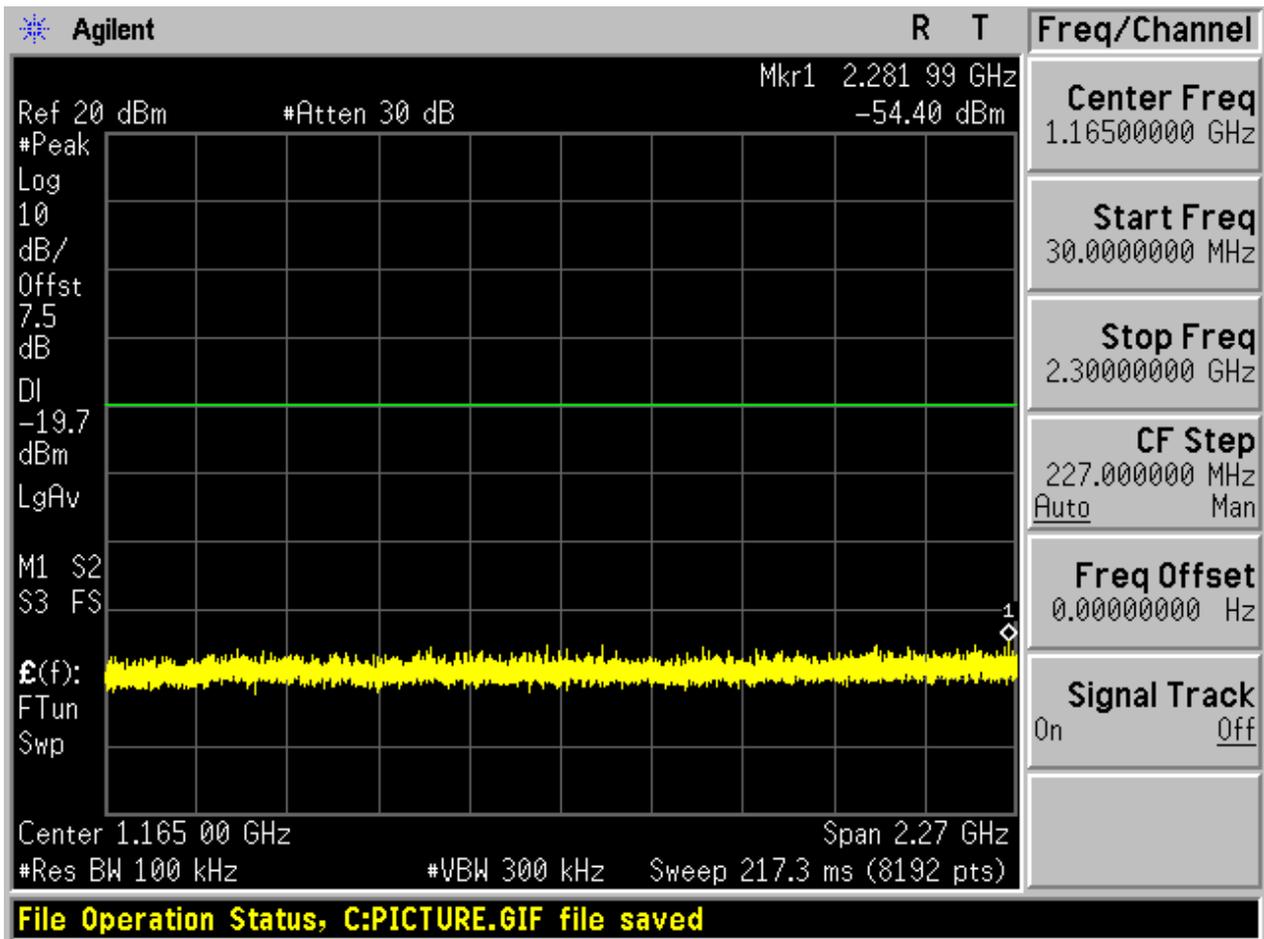
2.4.1 Pref

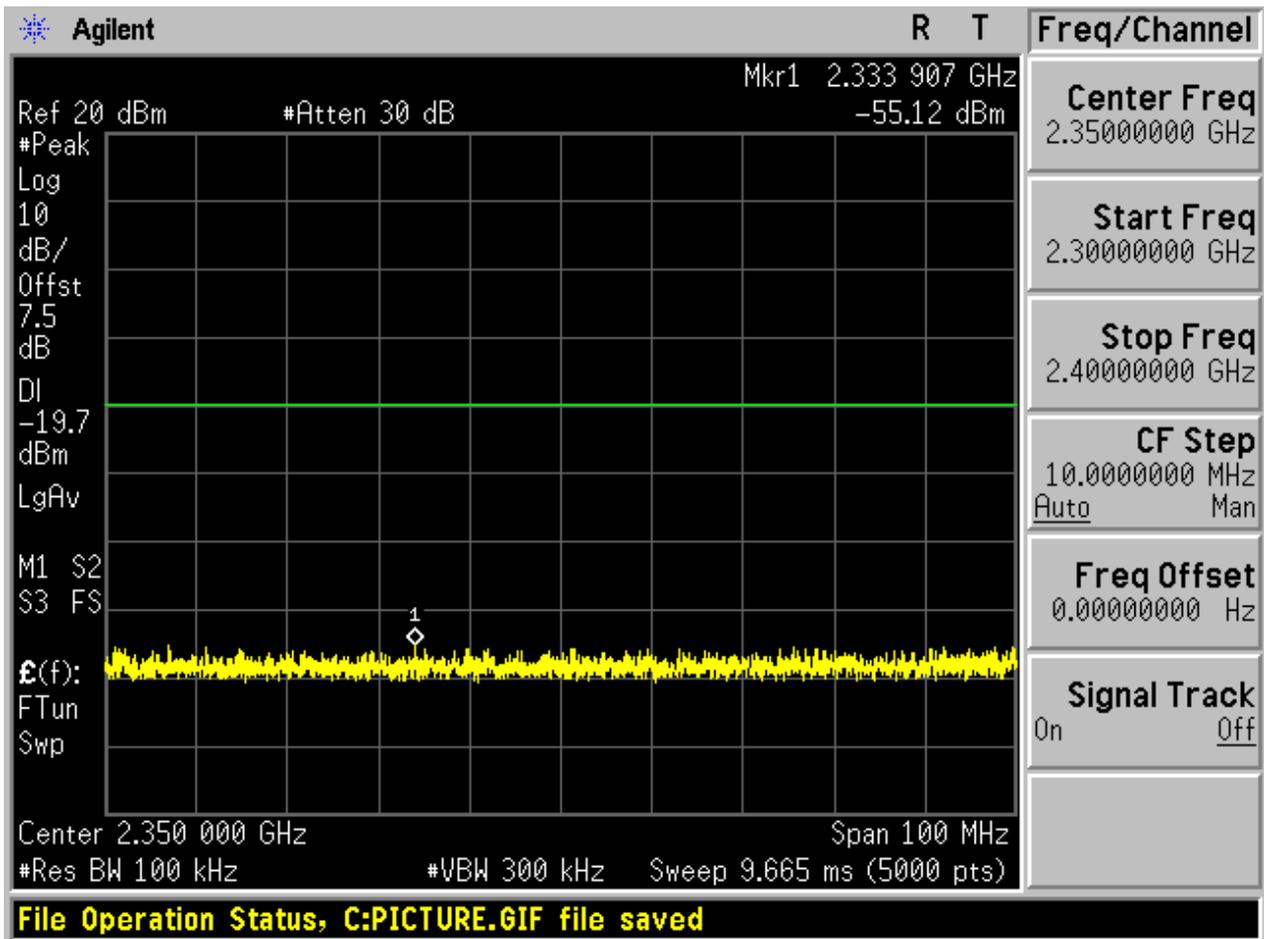


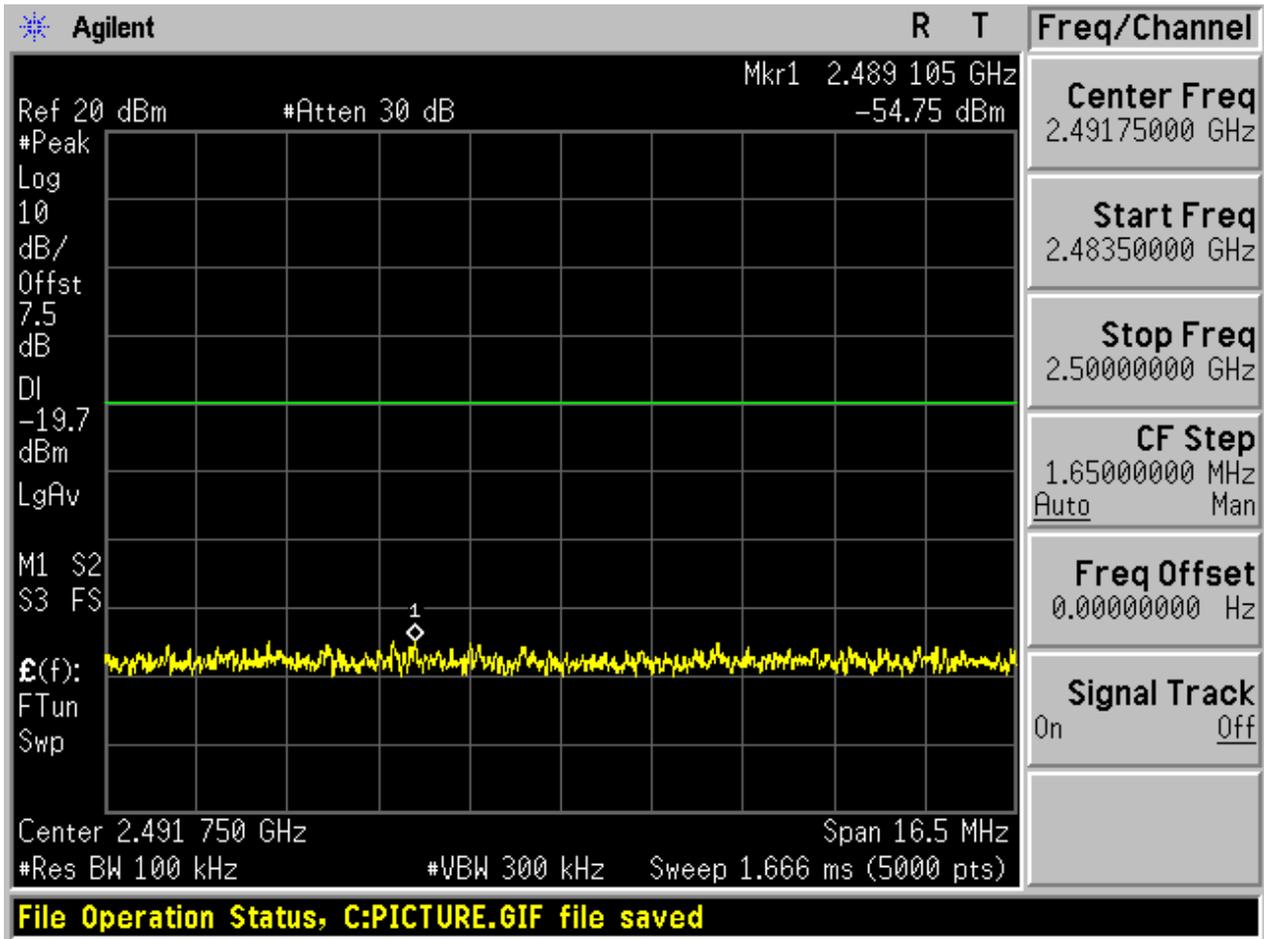
2.4.2 P_{uw}

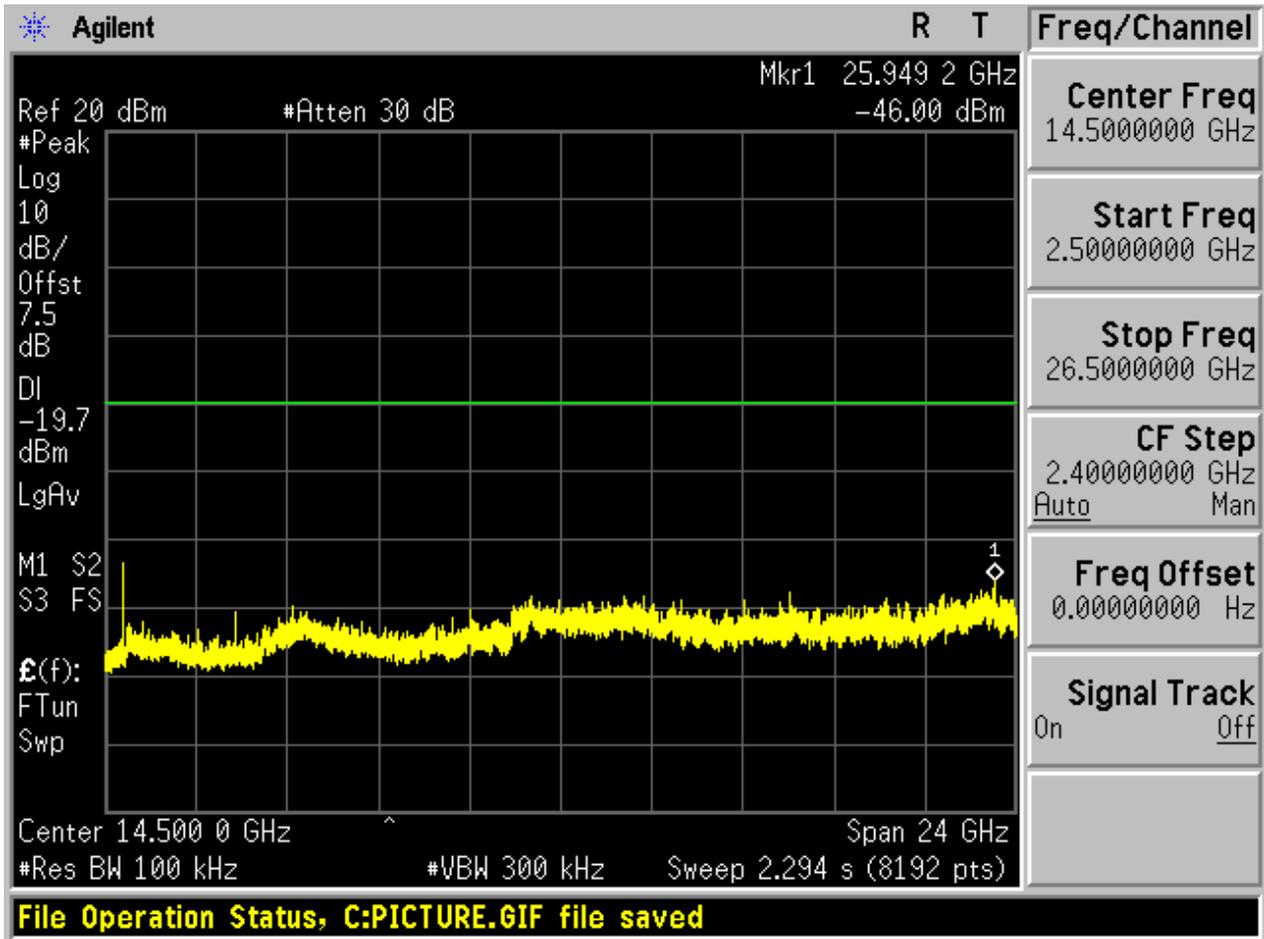








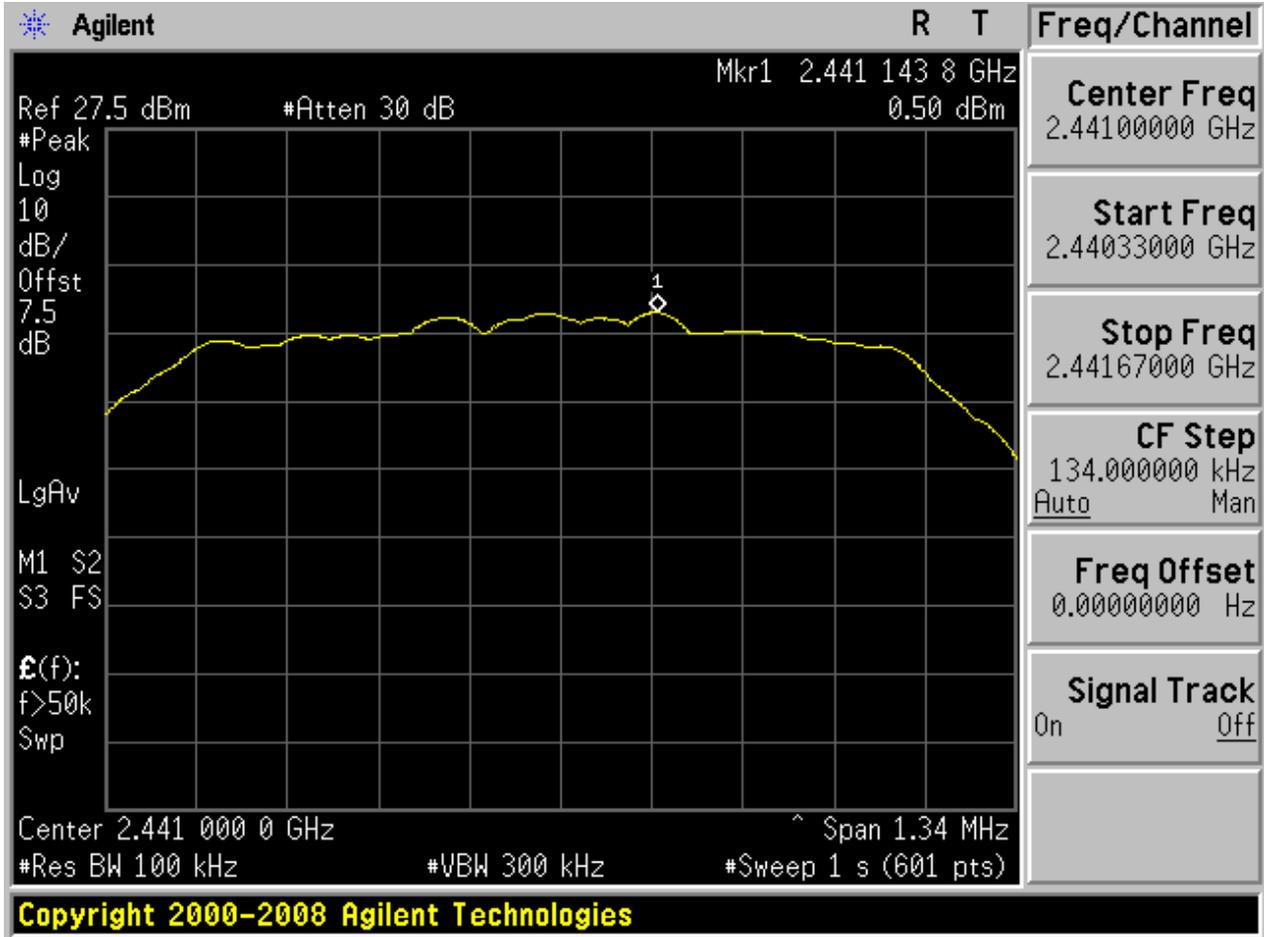




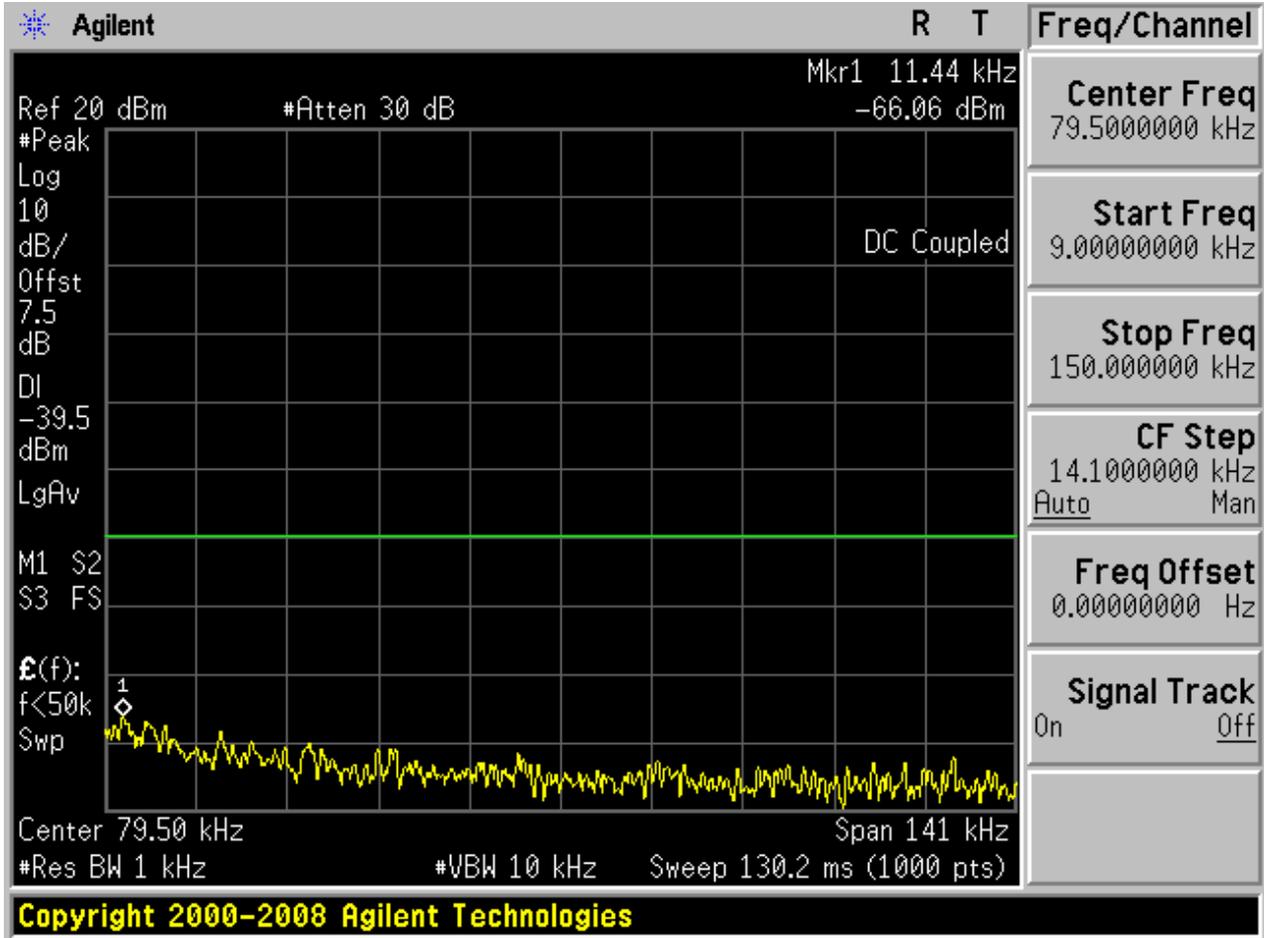


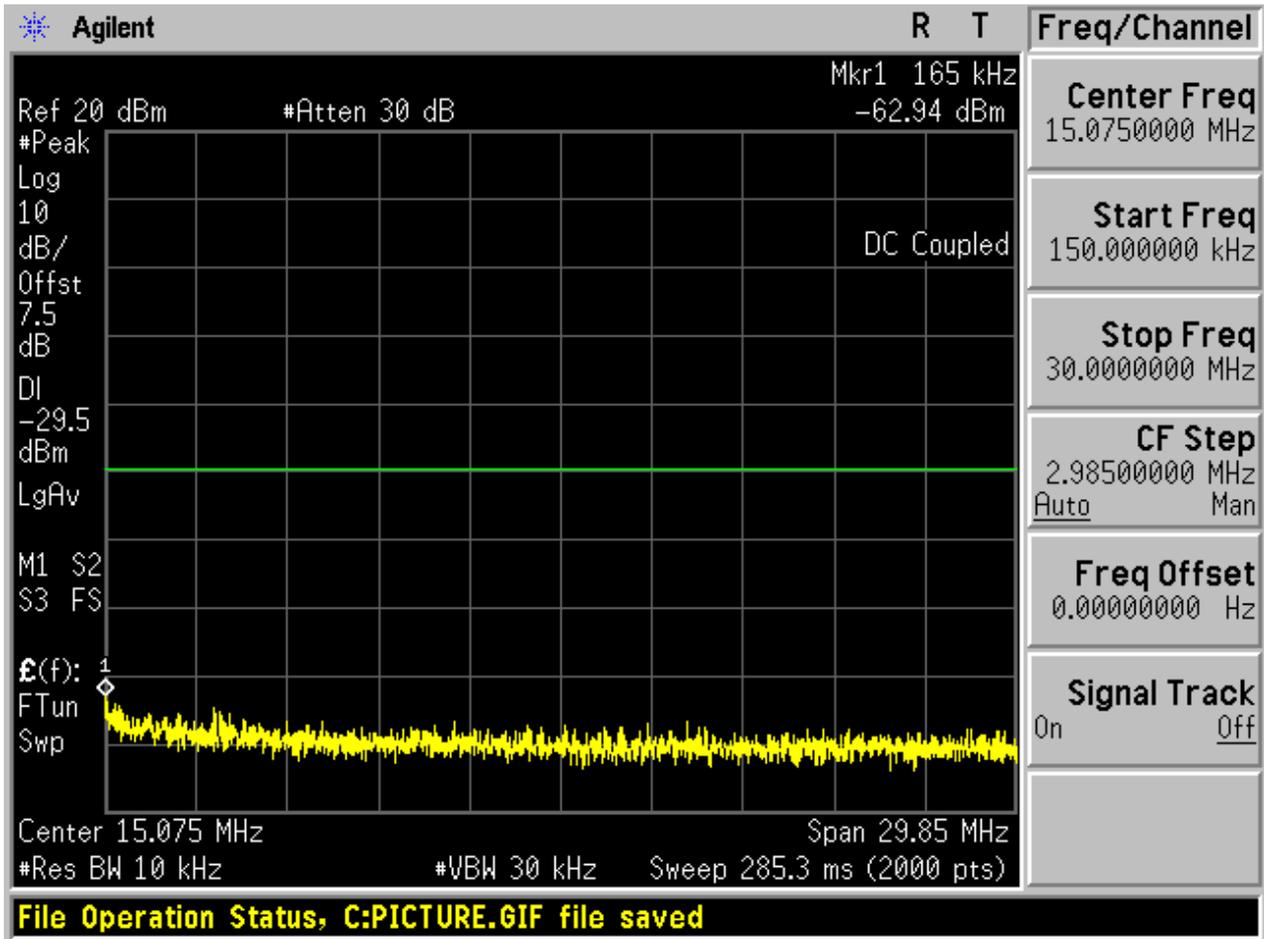
2.5 TM2_2DH5_Ch39

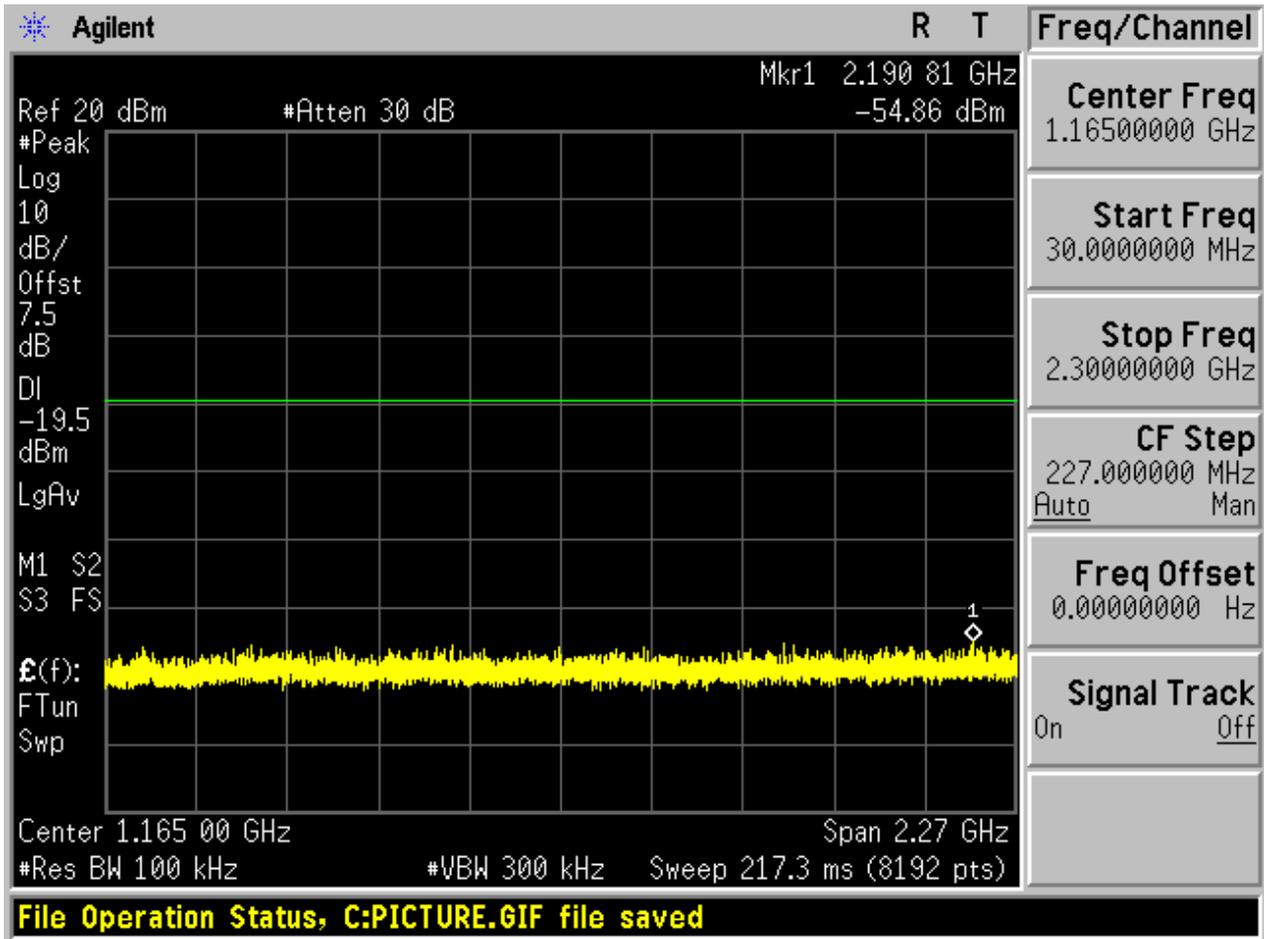
2.5.1 Pref

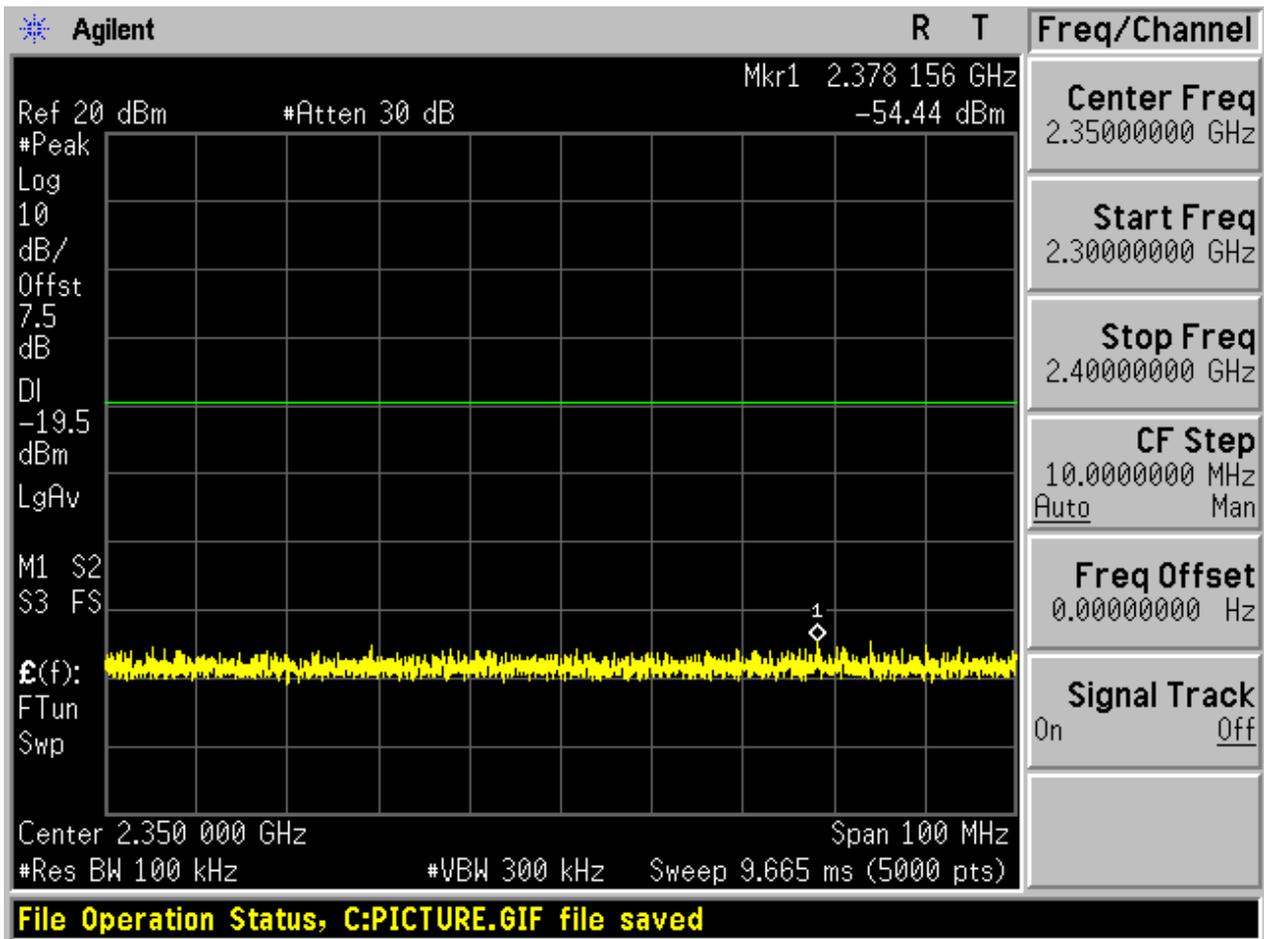


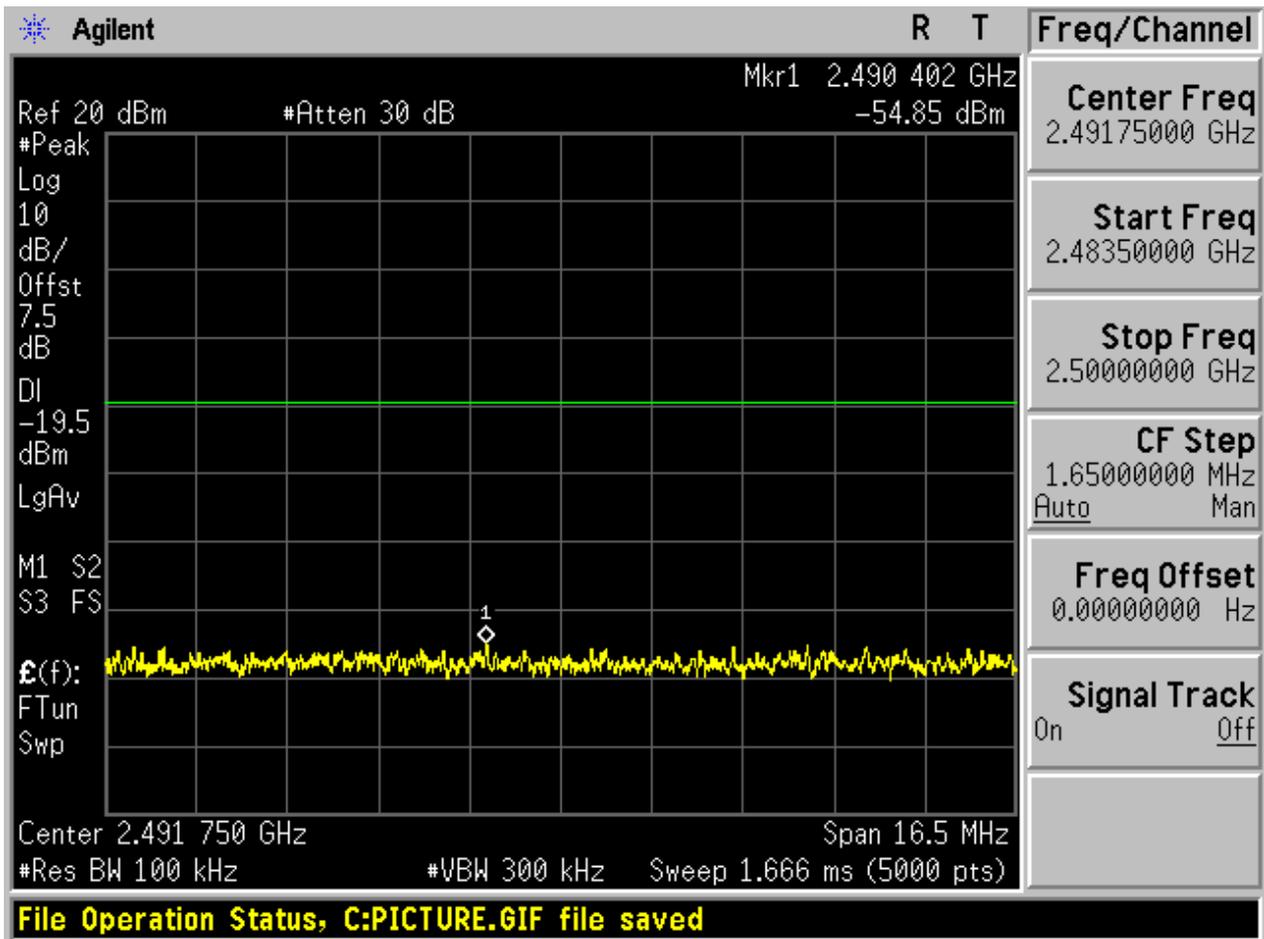
2.5.2 Puw

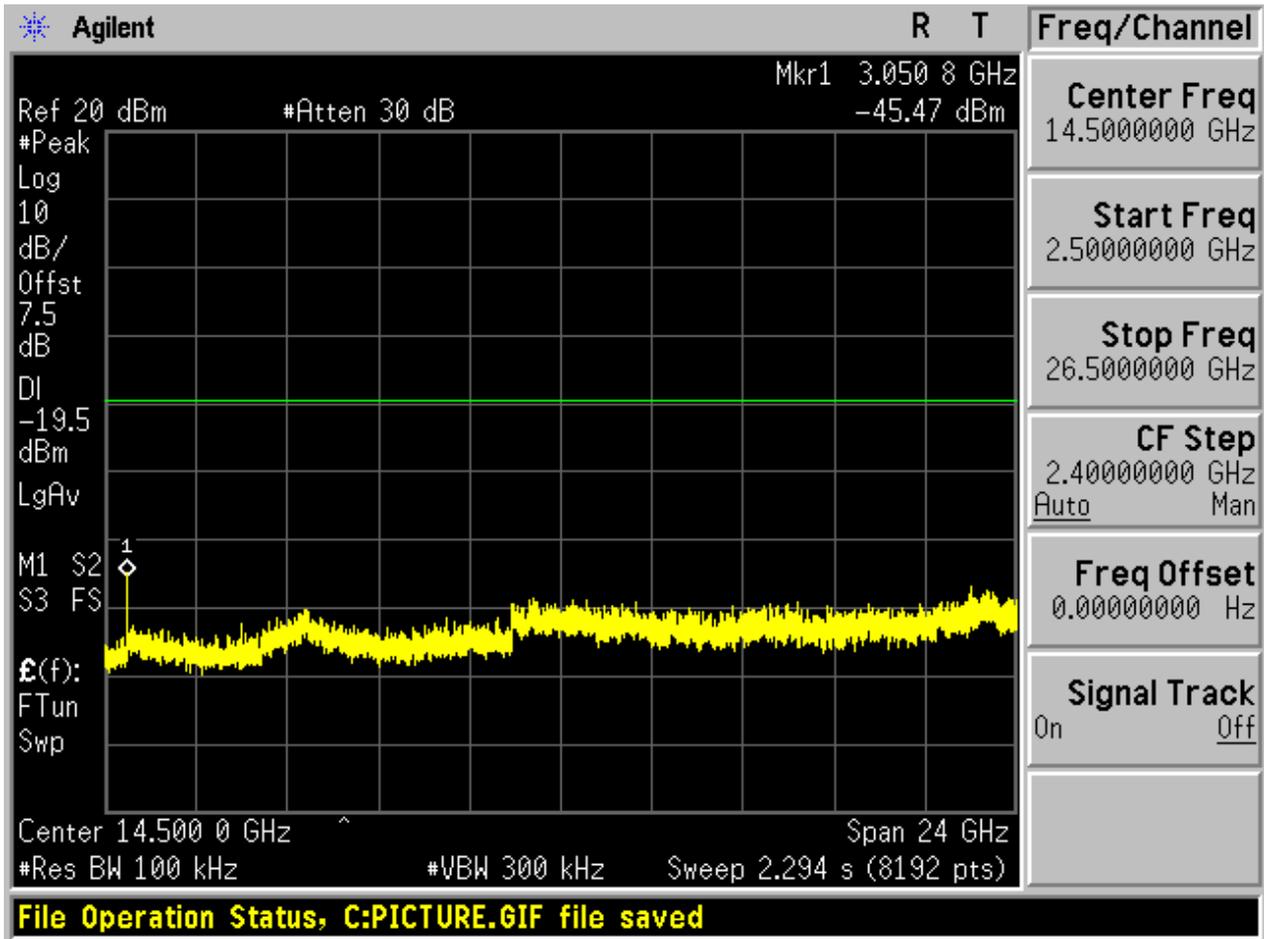






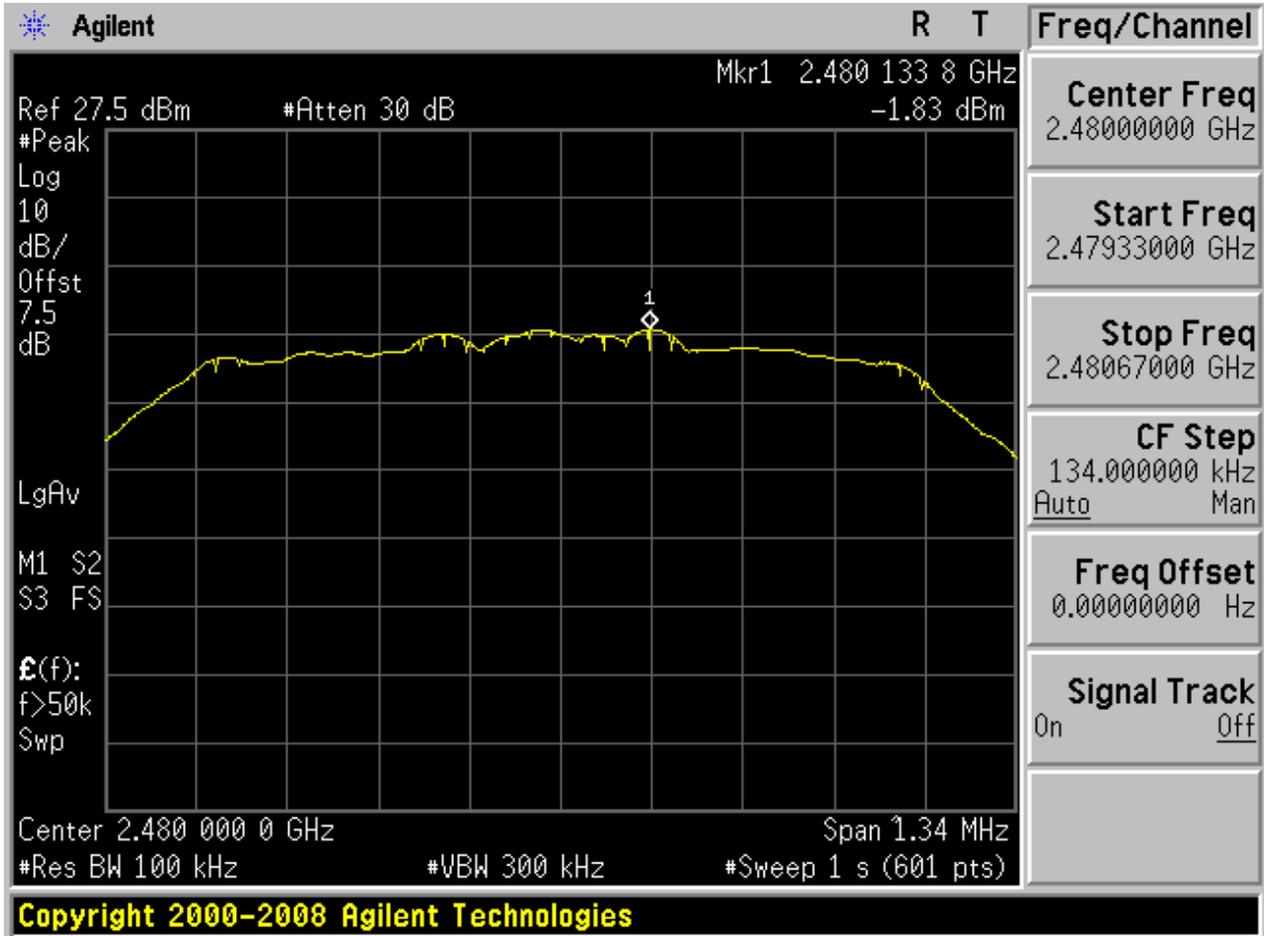




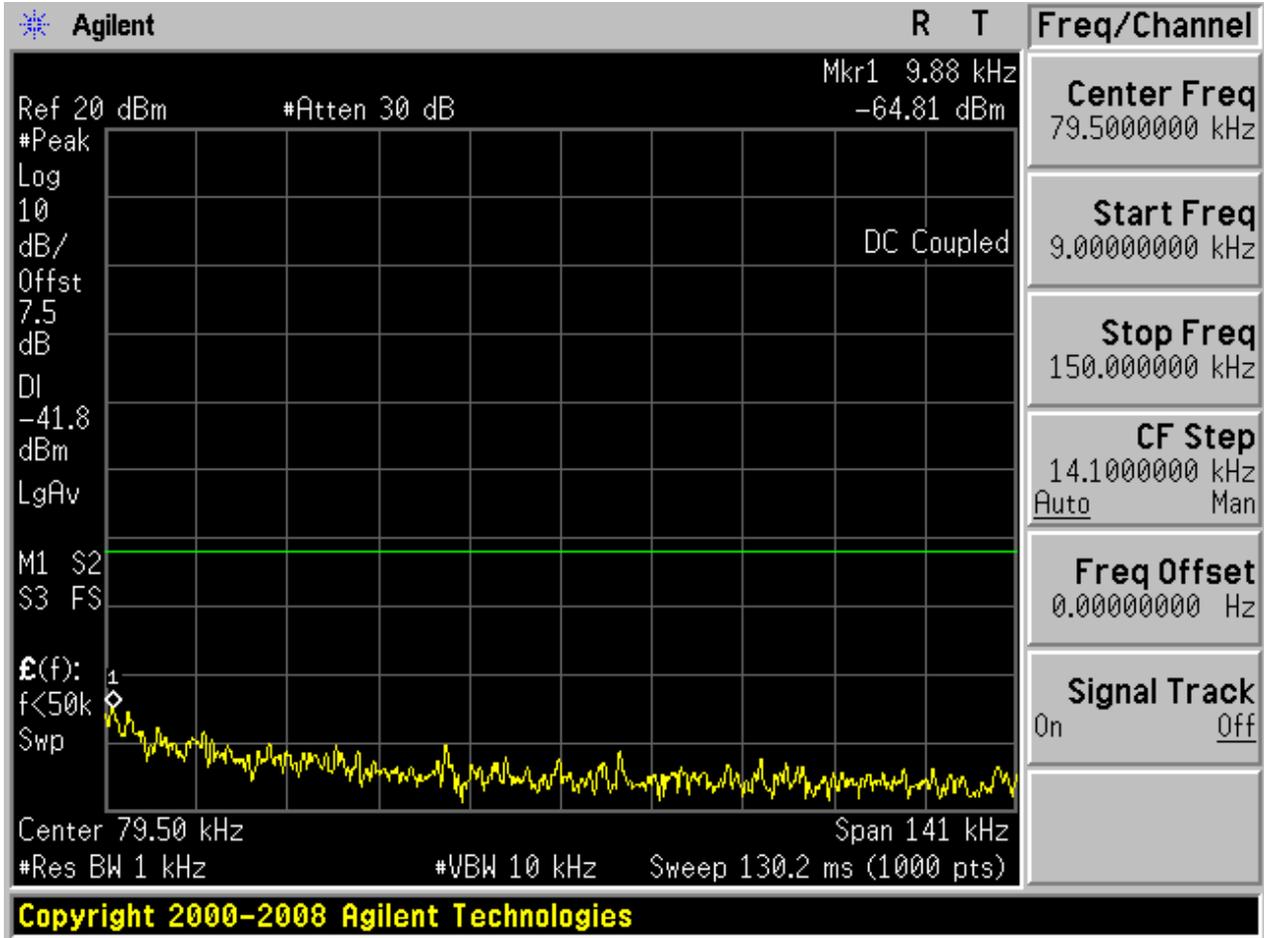


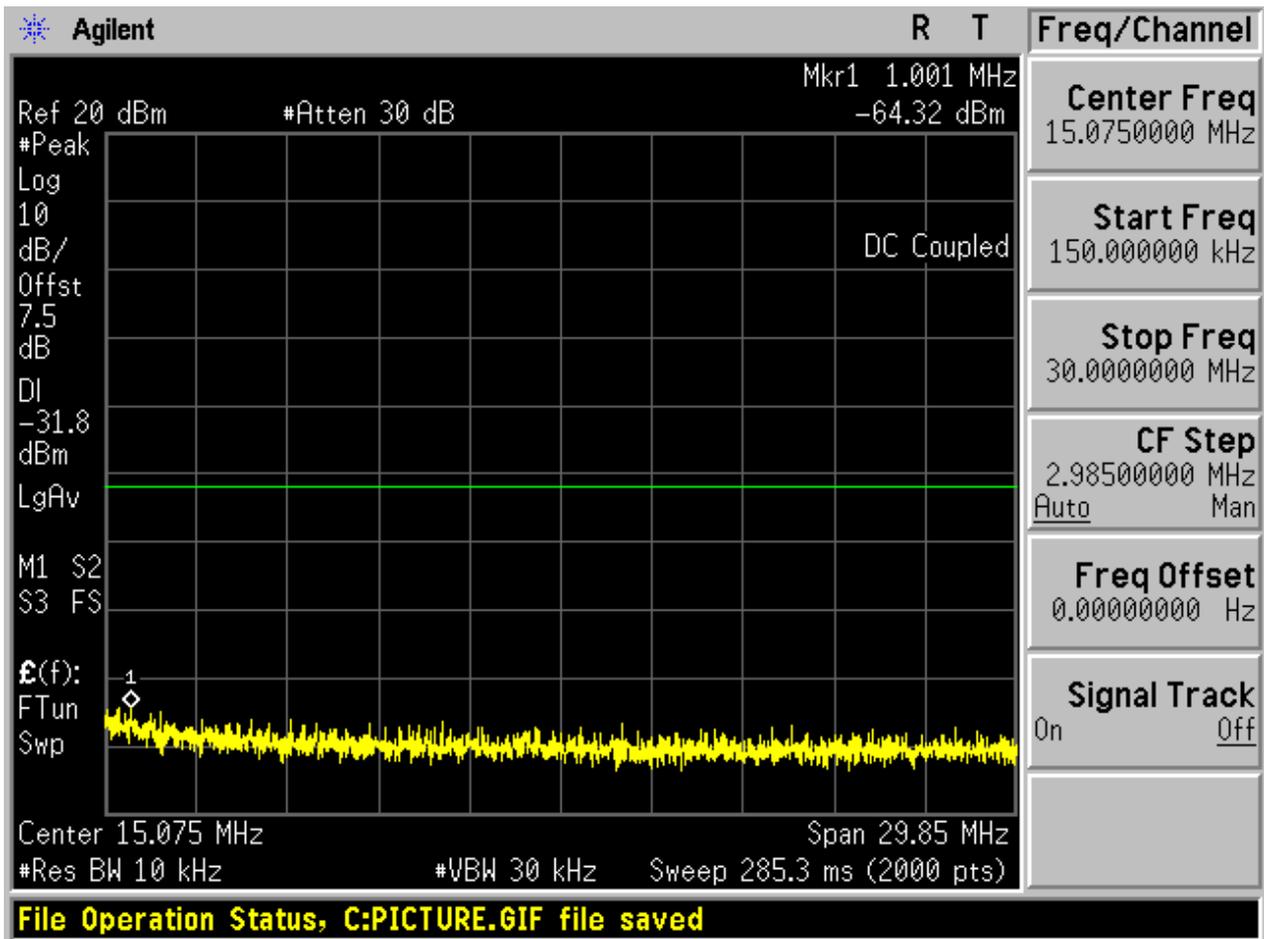
2.6 TM2_2DH5_Ch78

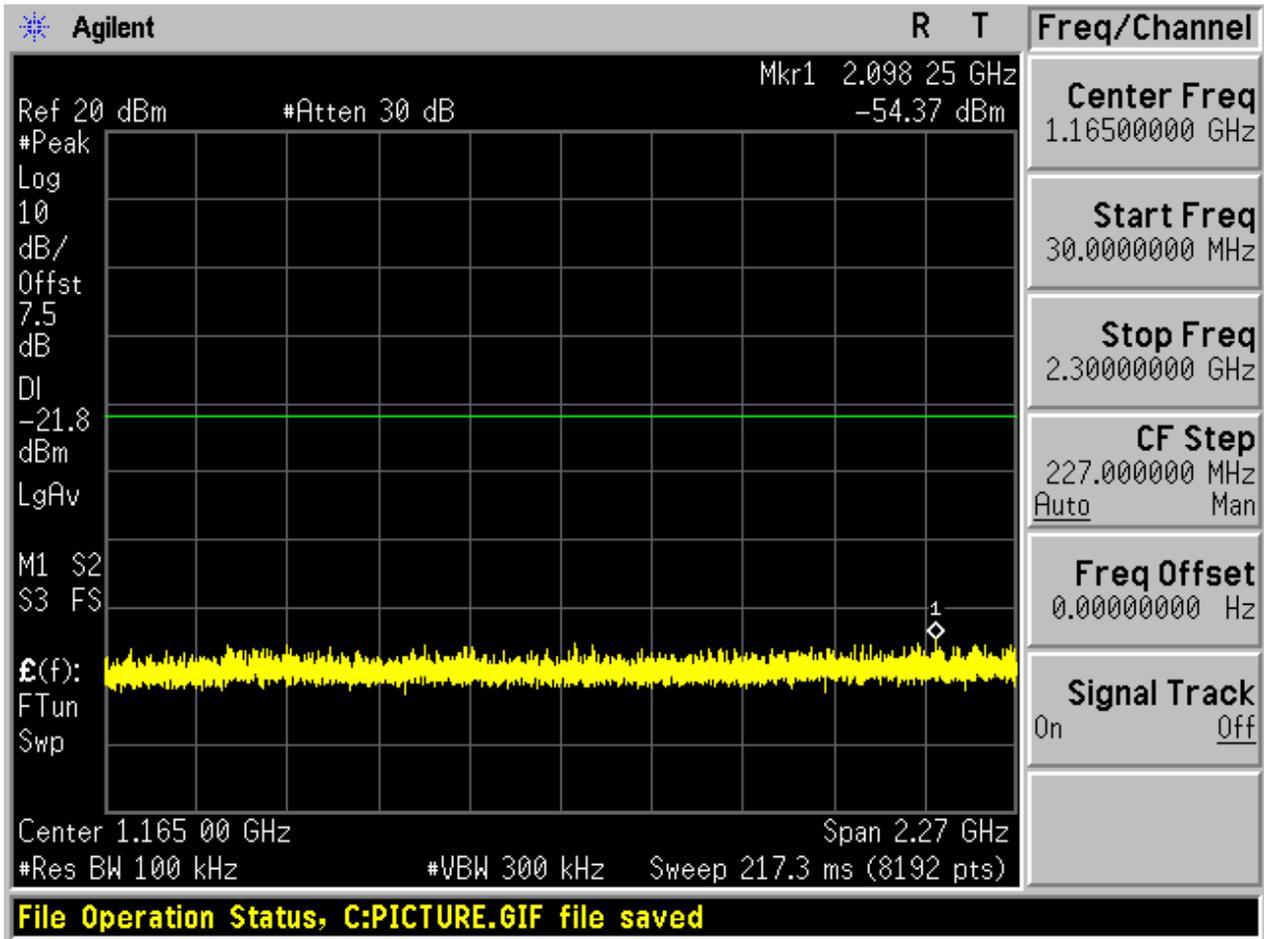
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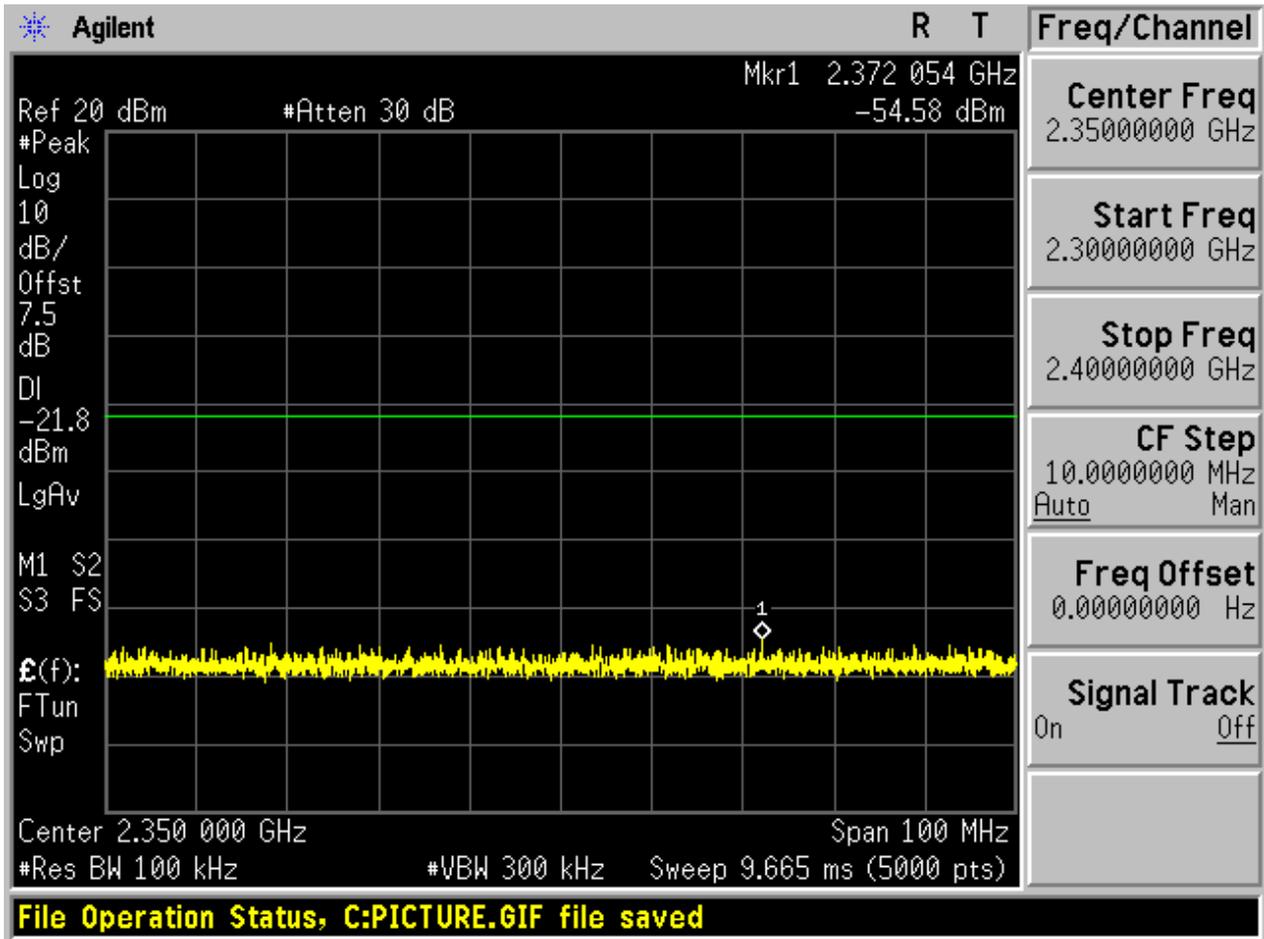


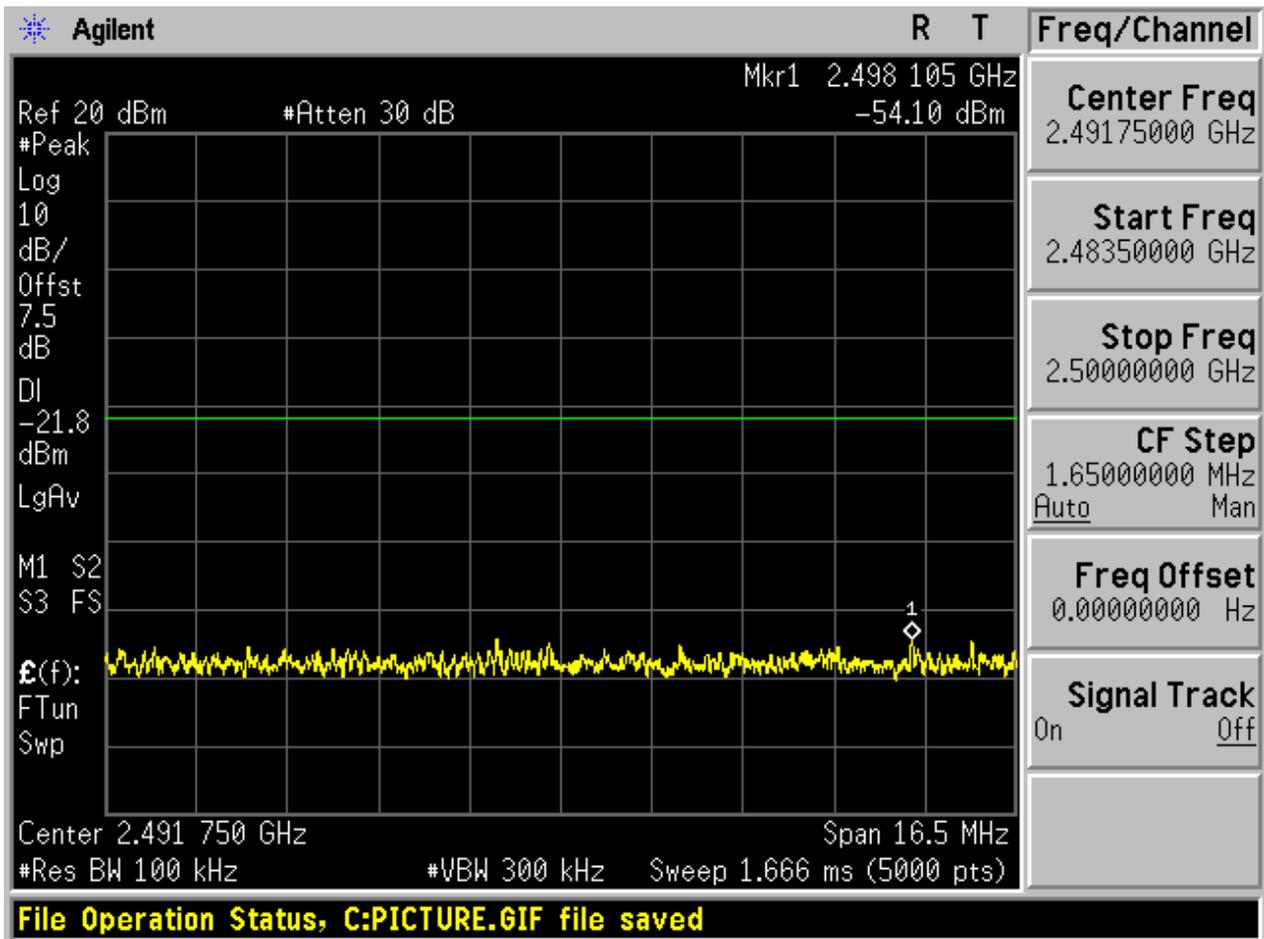
2.6.2 Puw

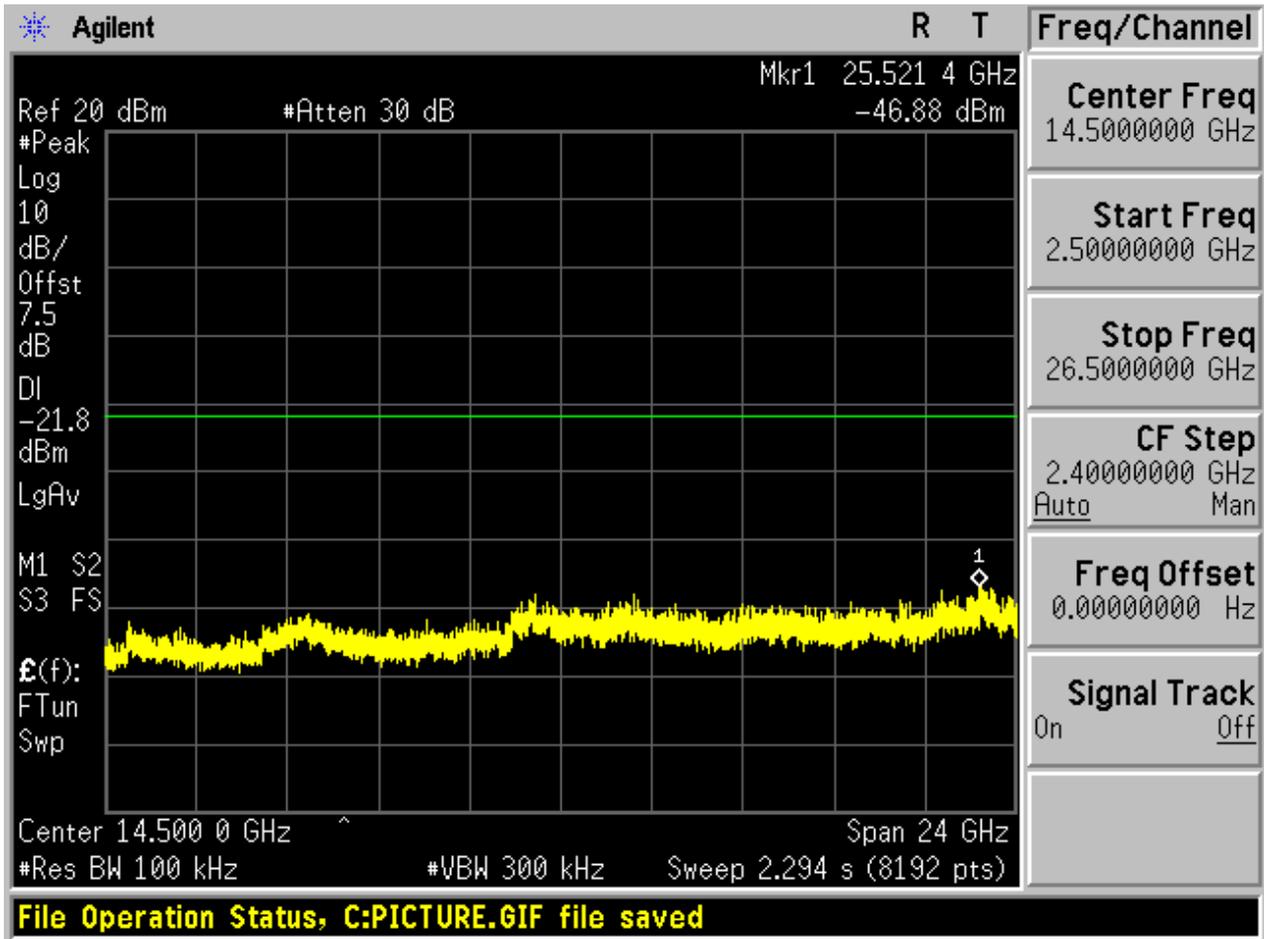






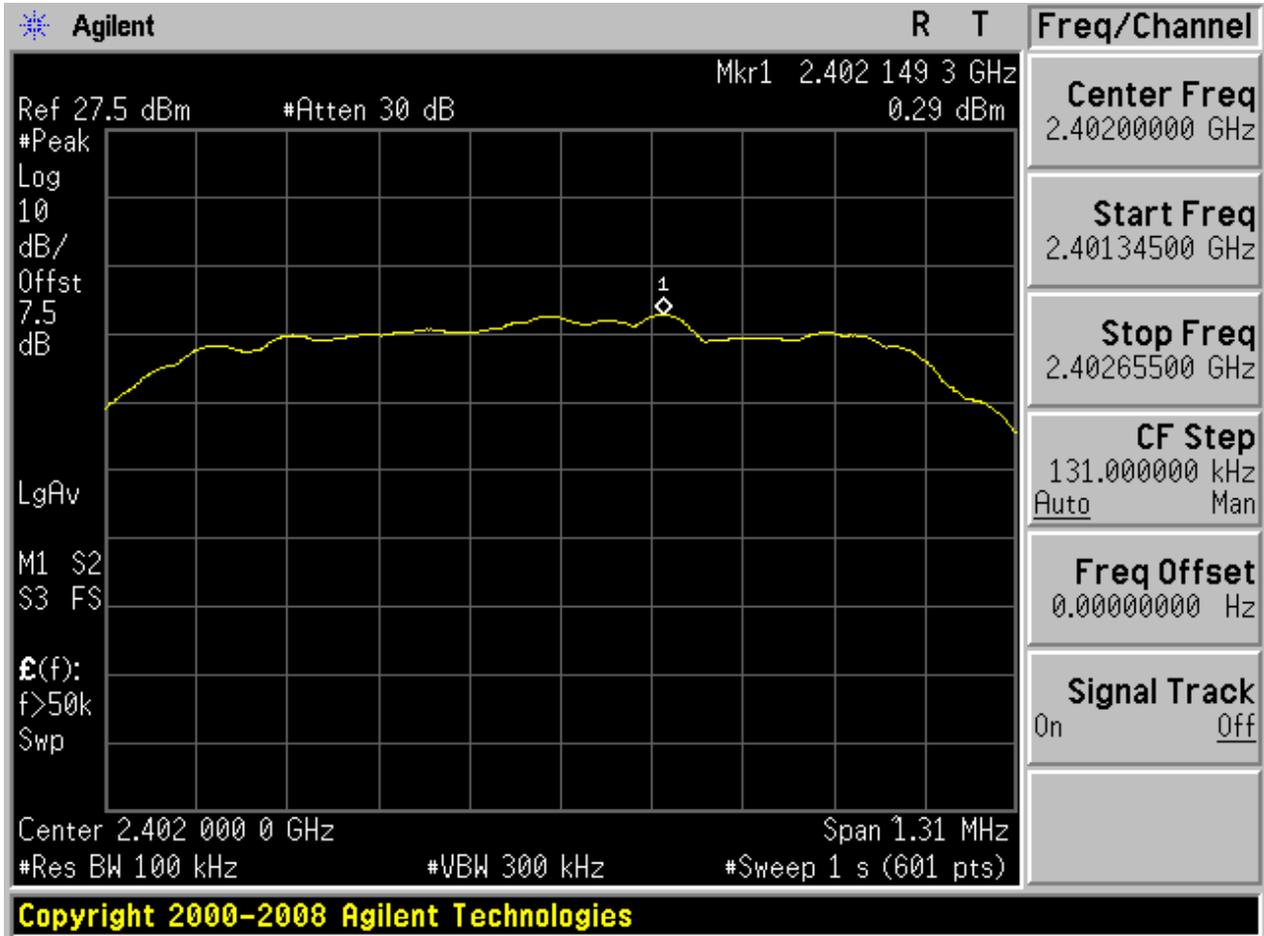




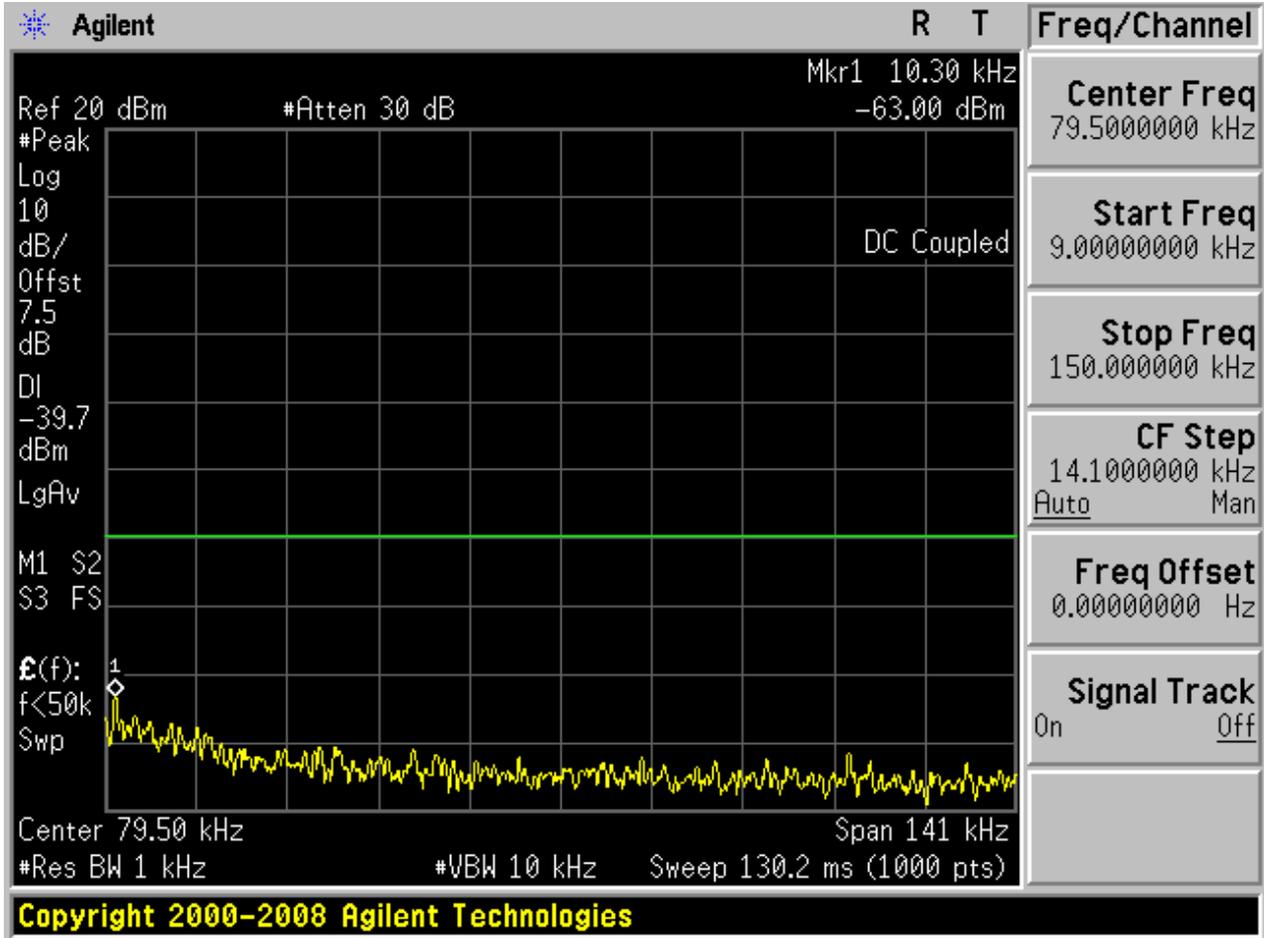


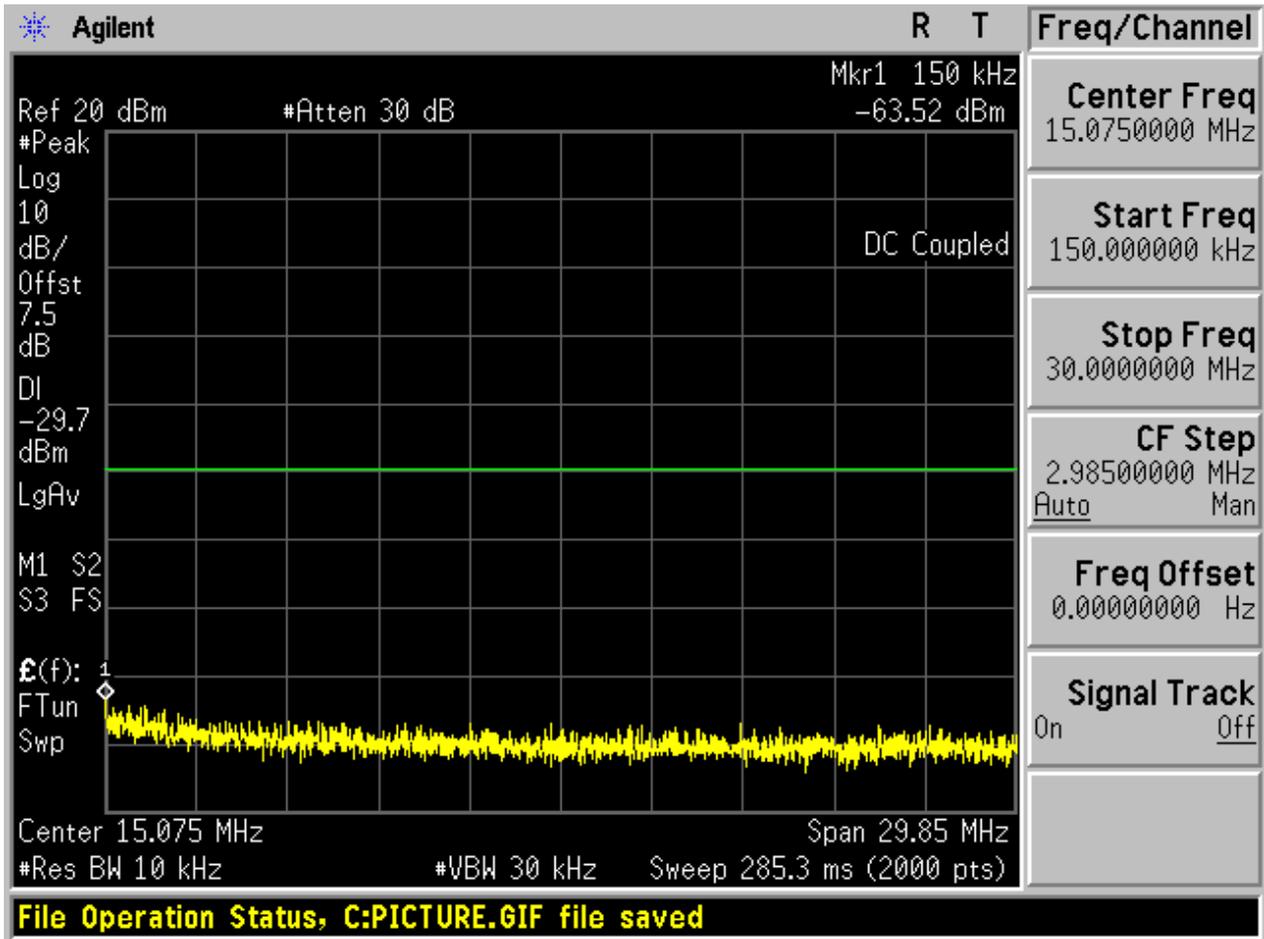
2.7 TM3_3DH5_Ch0

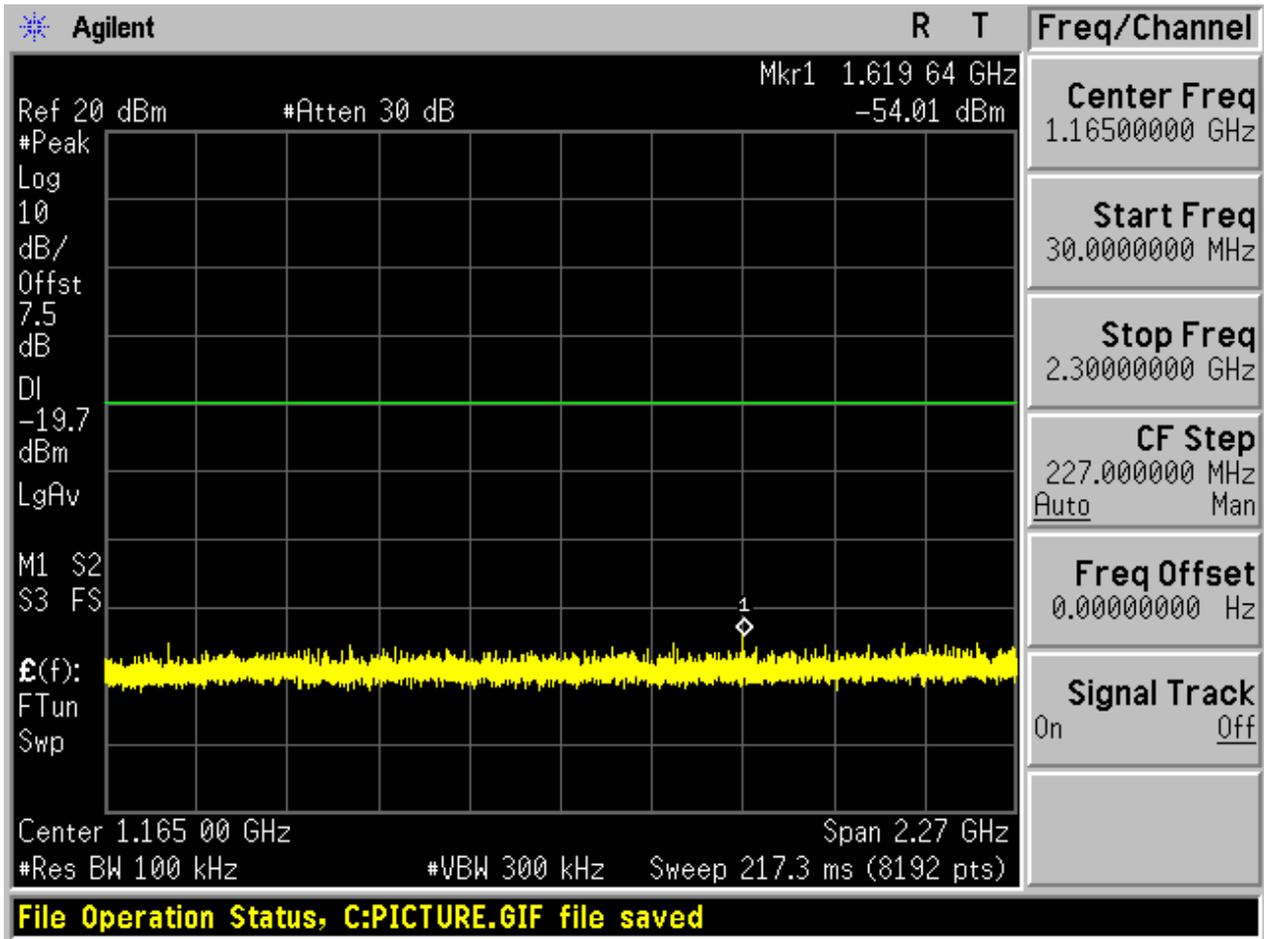
2.7.1 Pref

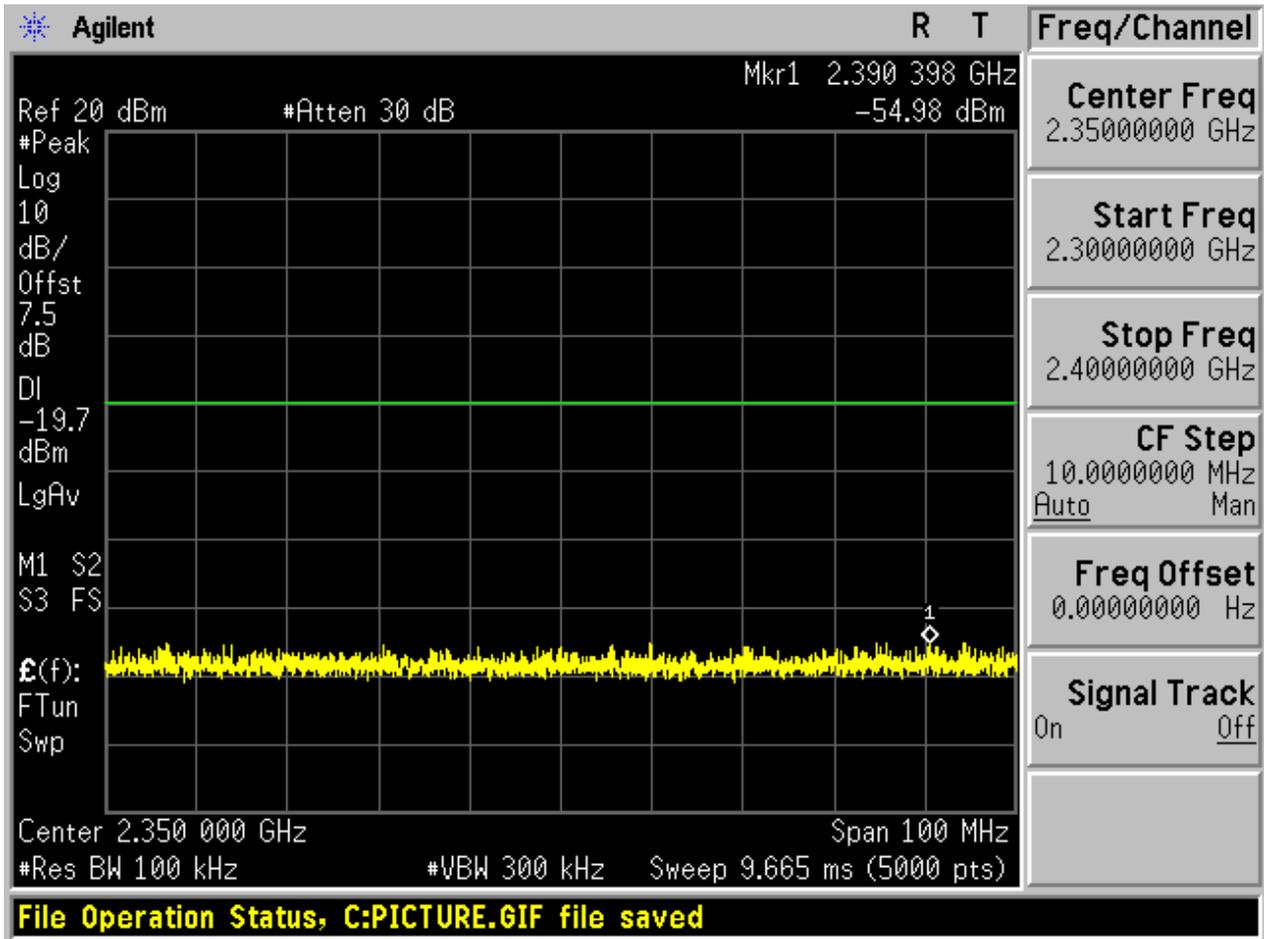


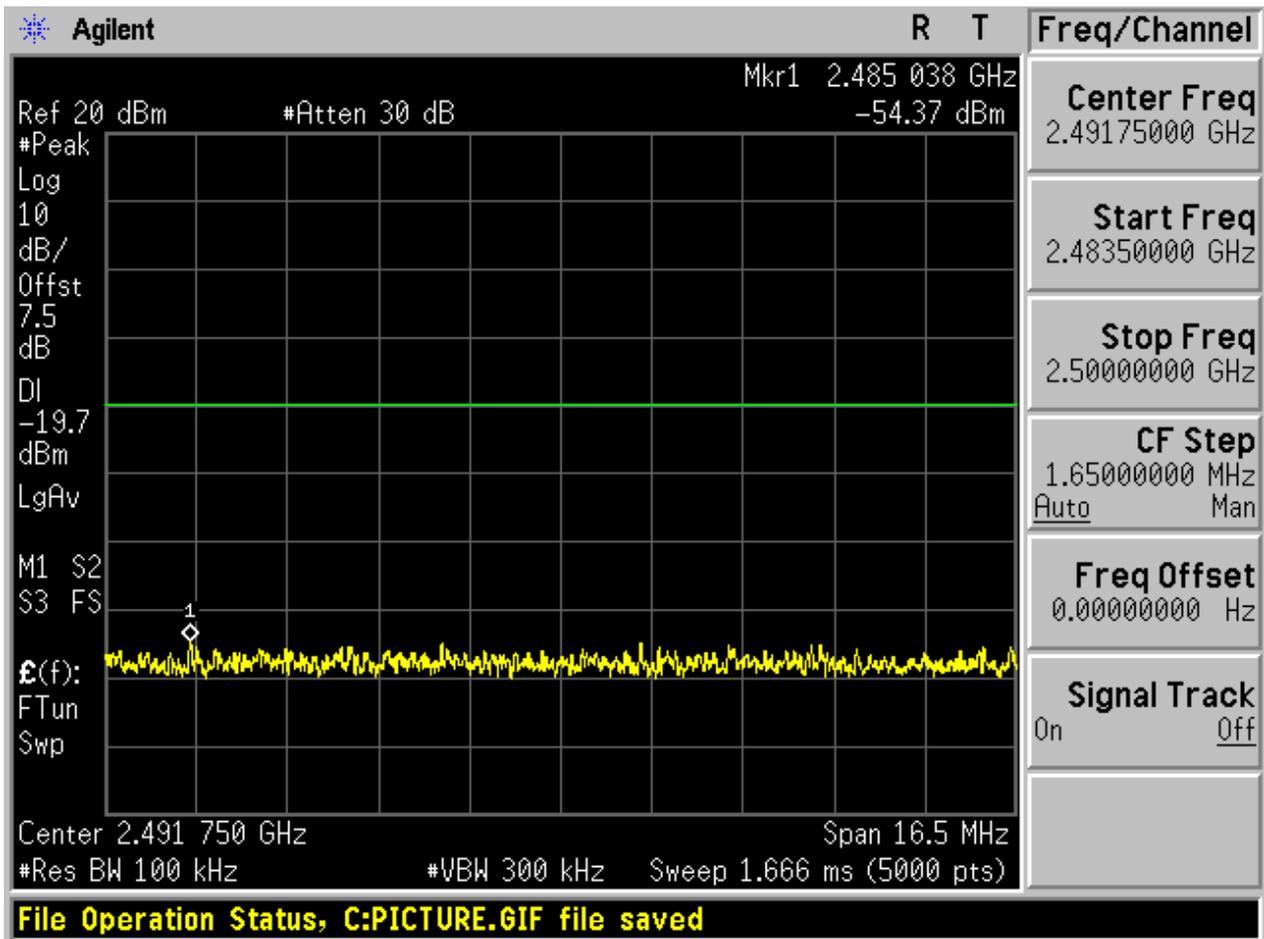
2.7.2 P_{uw}

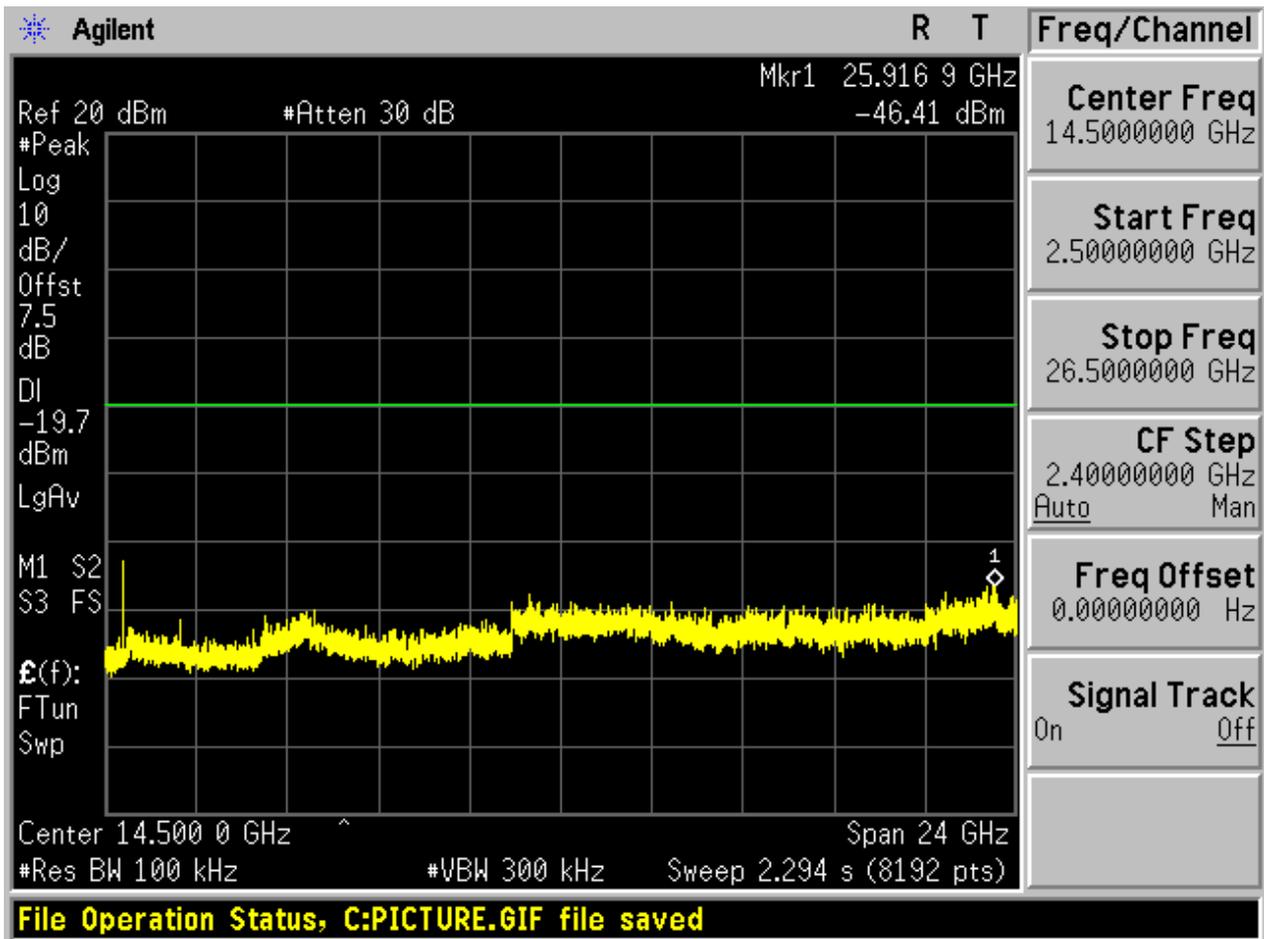








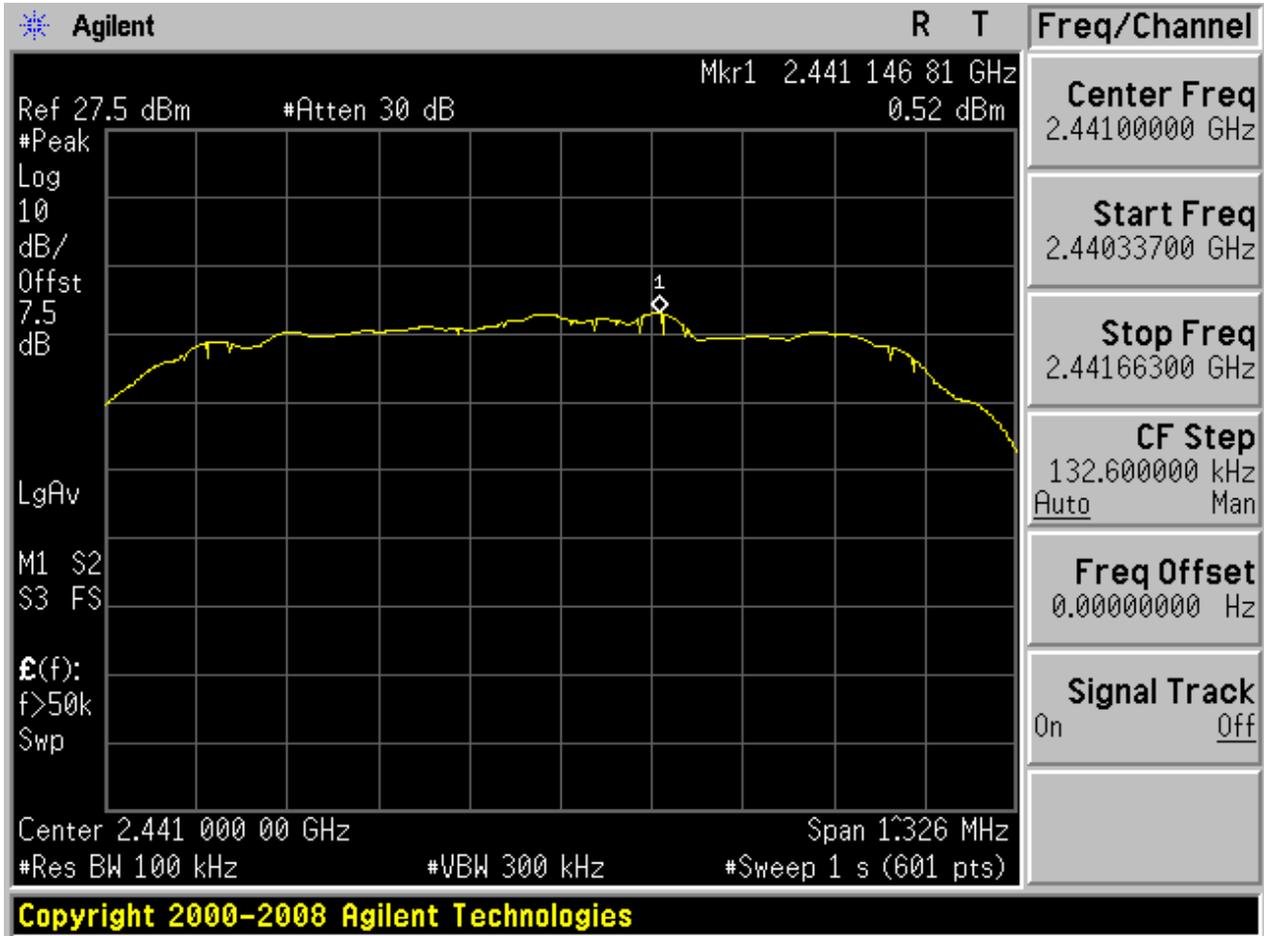




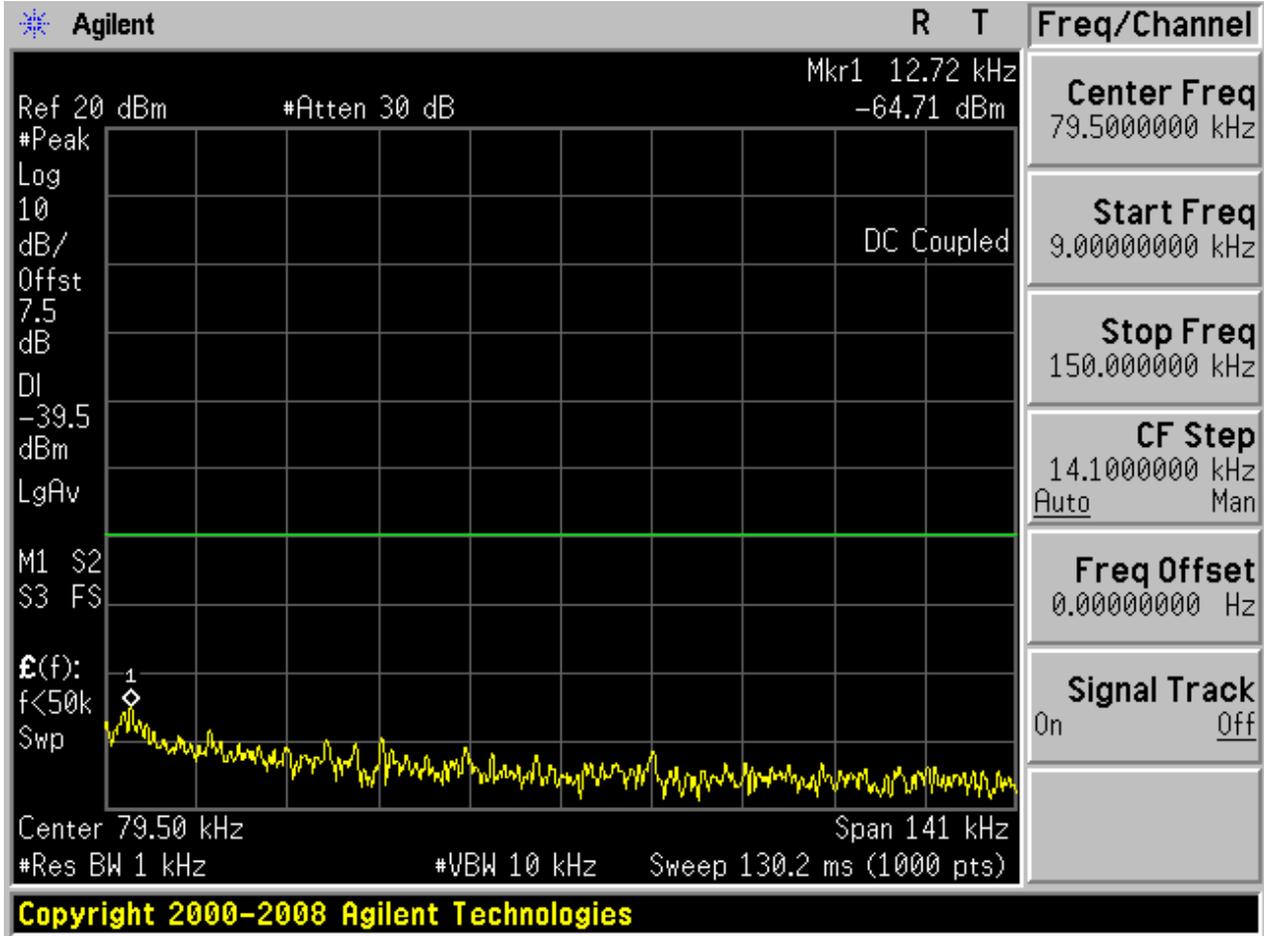


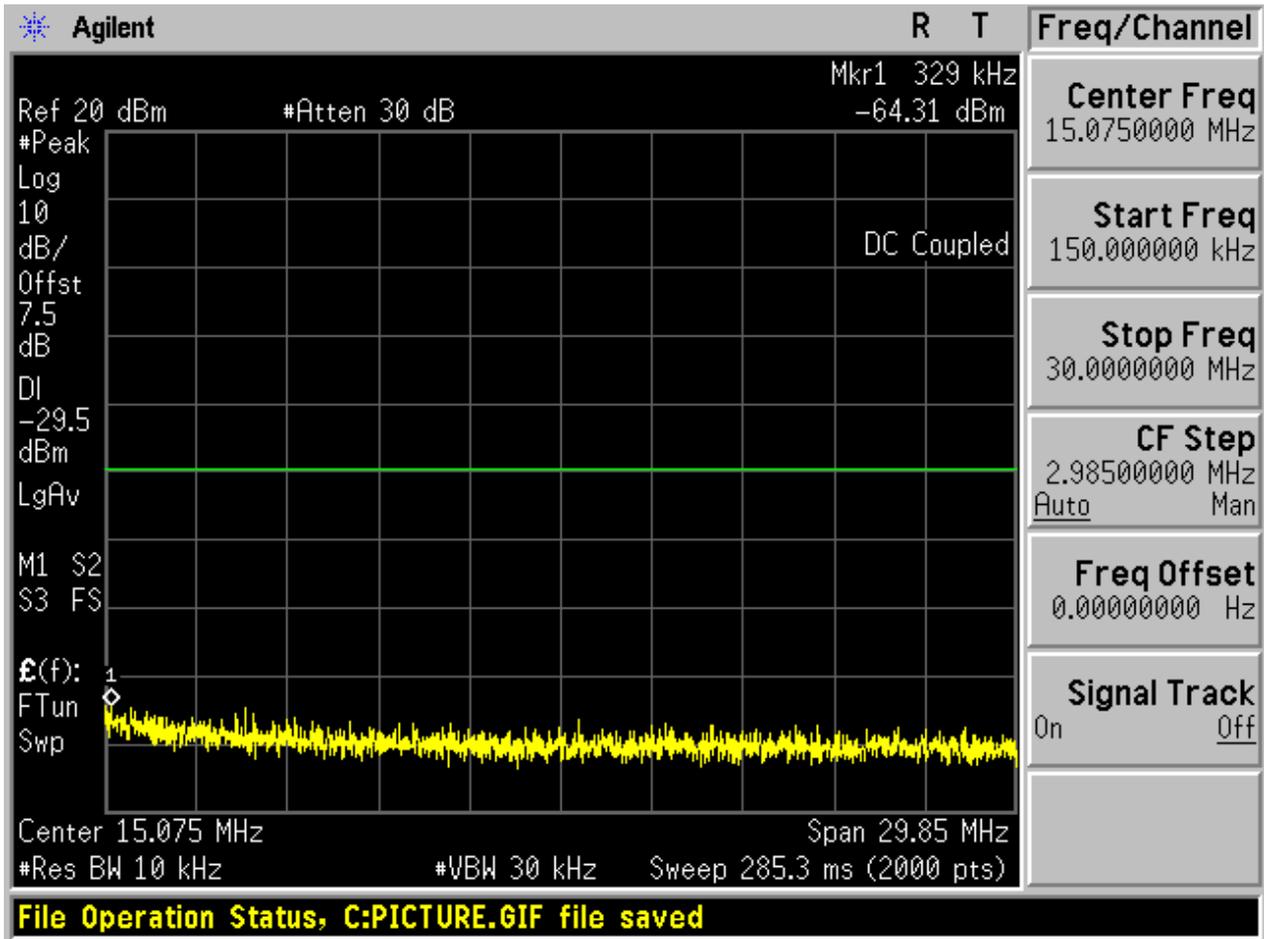
2.8 TM3_3DH5_Ch39

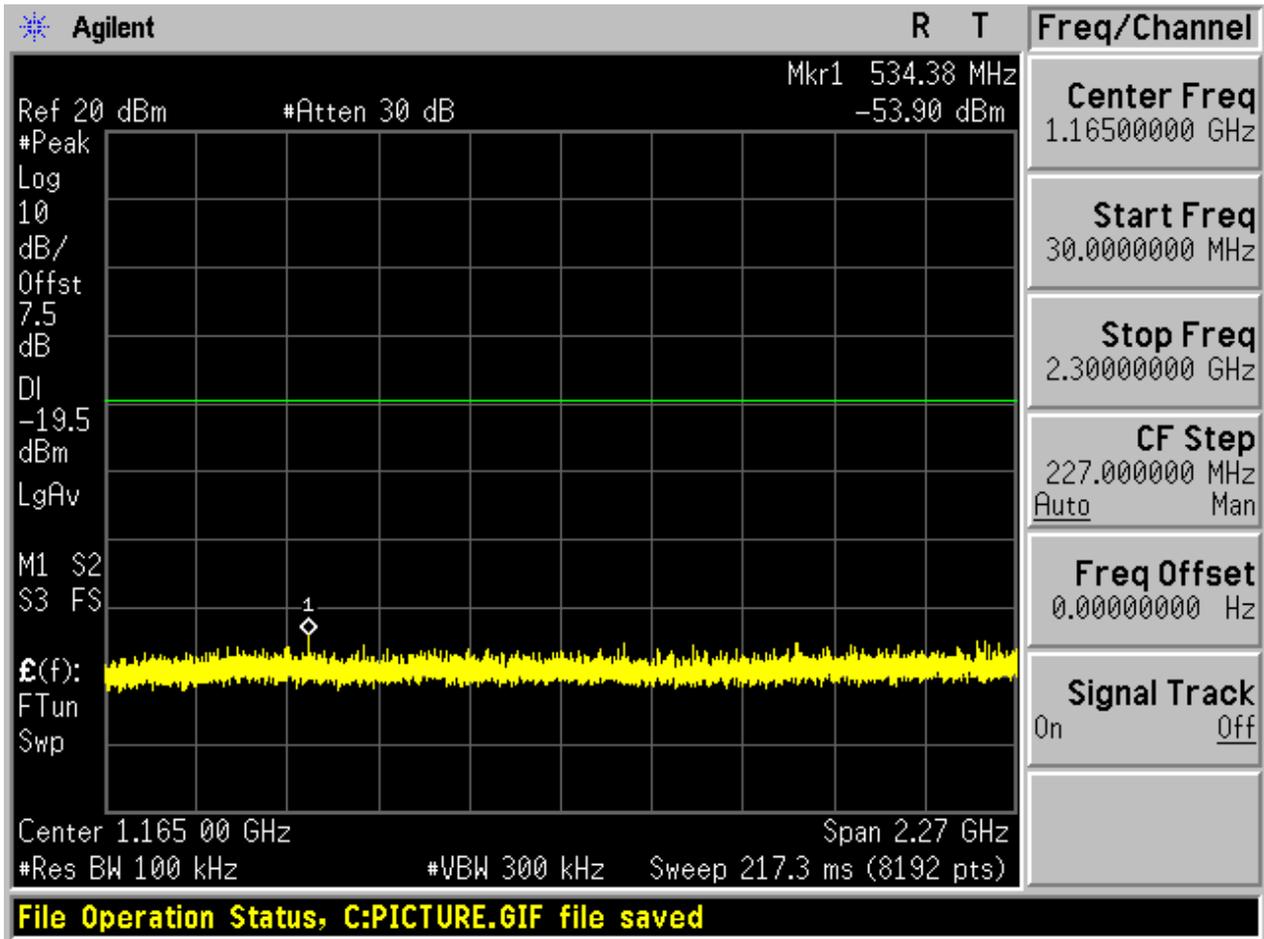
2.8.1 Pref

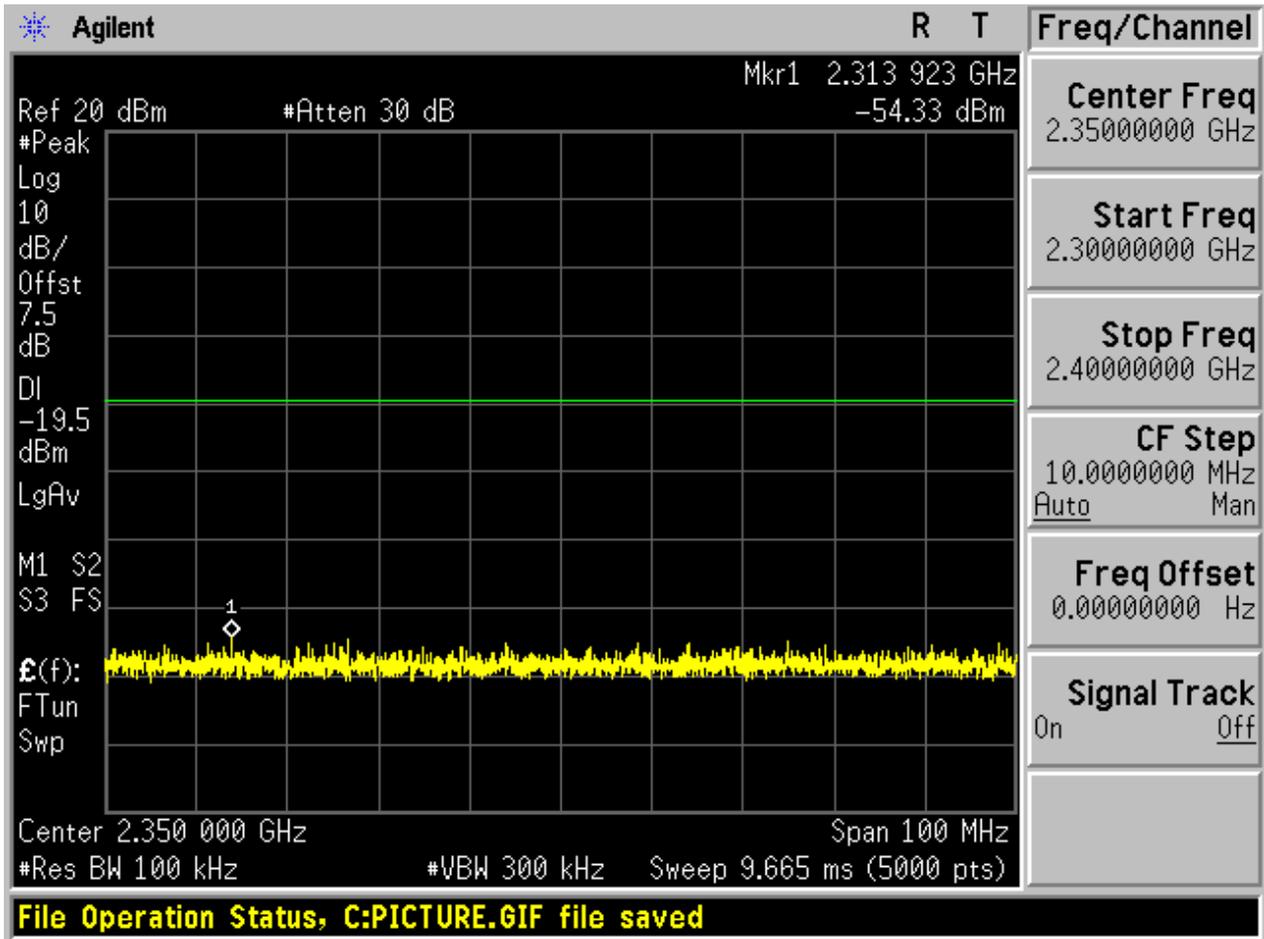


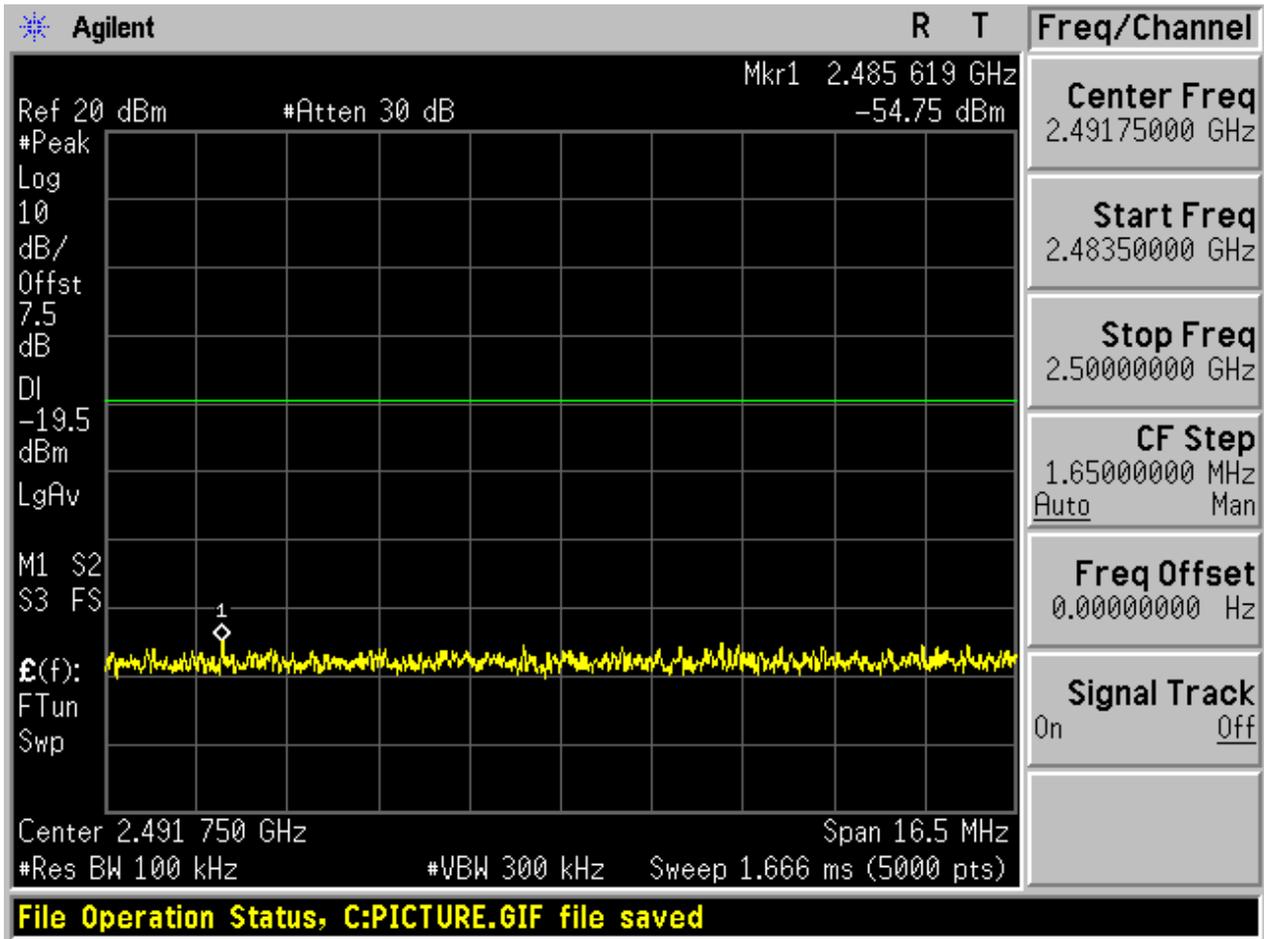
2.8.2 Puw

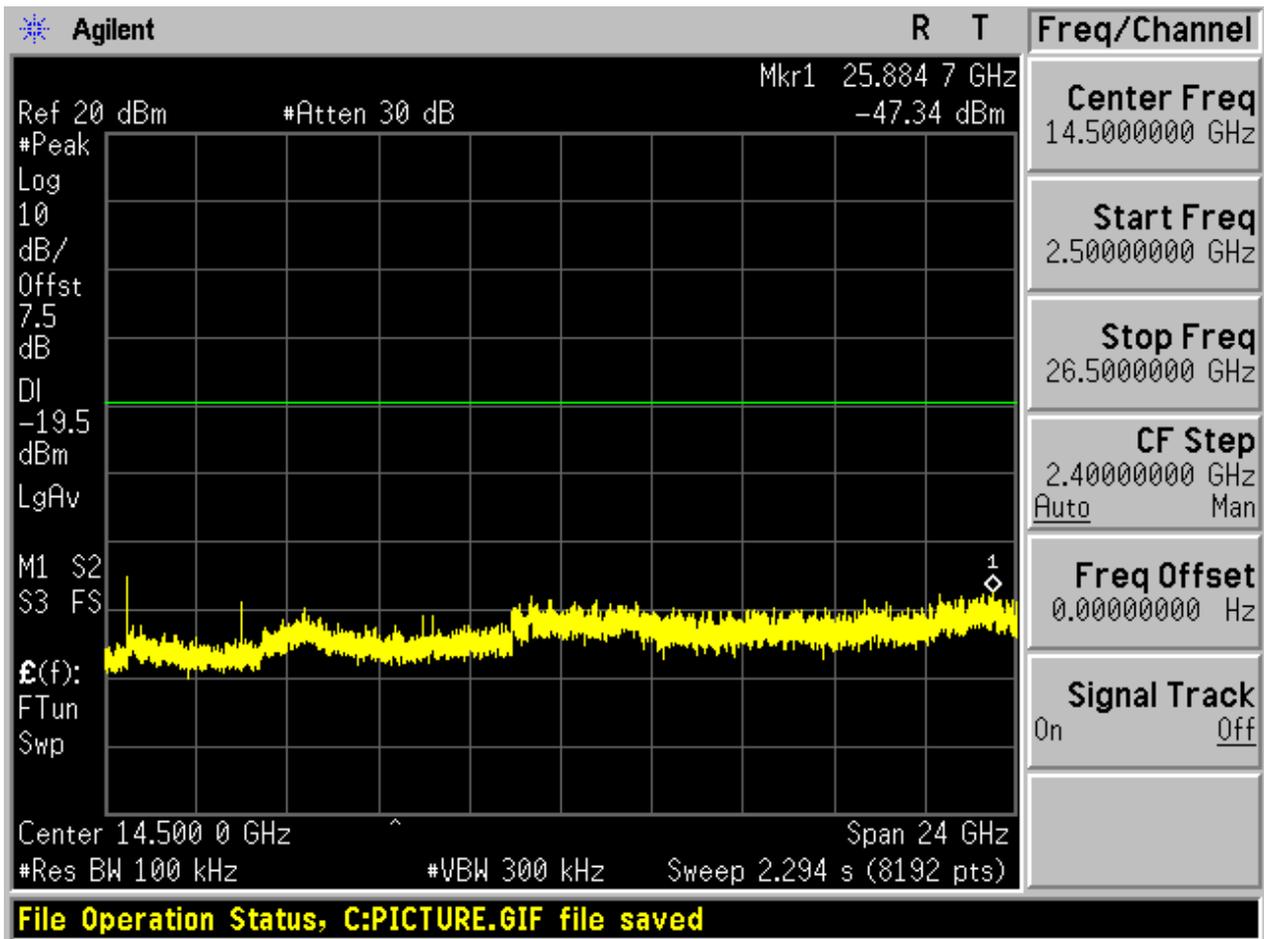






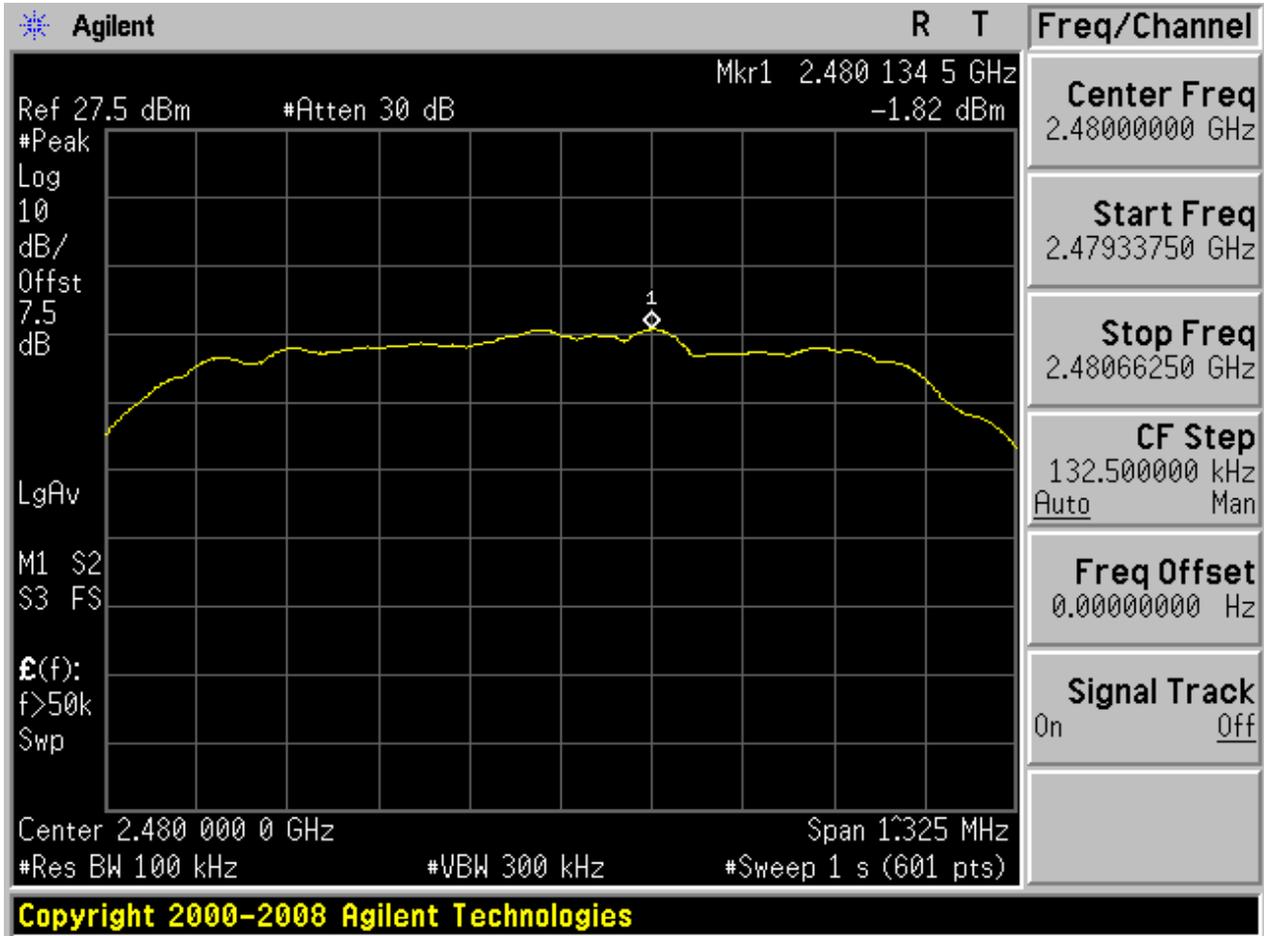






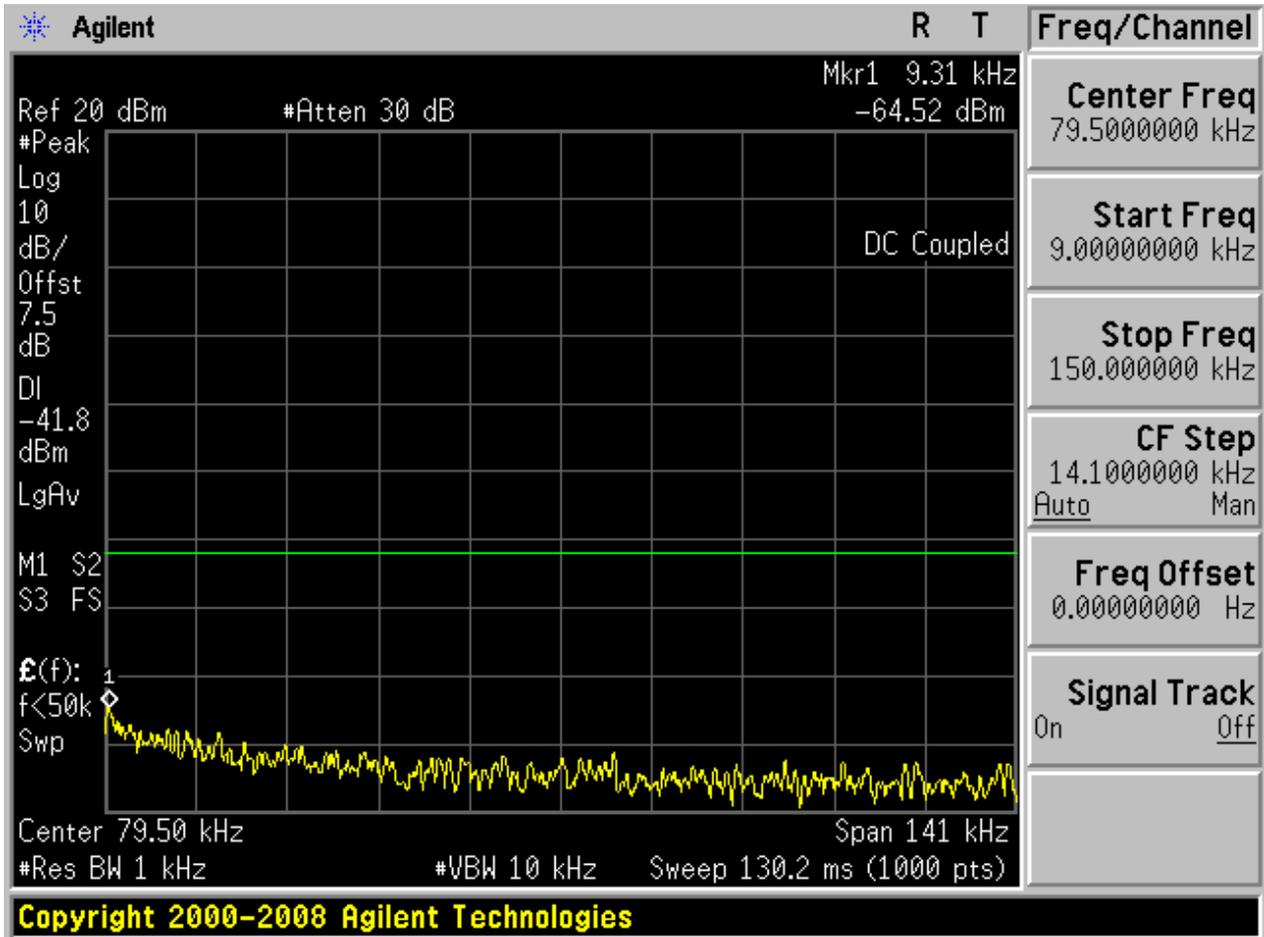
2.9 TM3_3DH5_Ch78

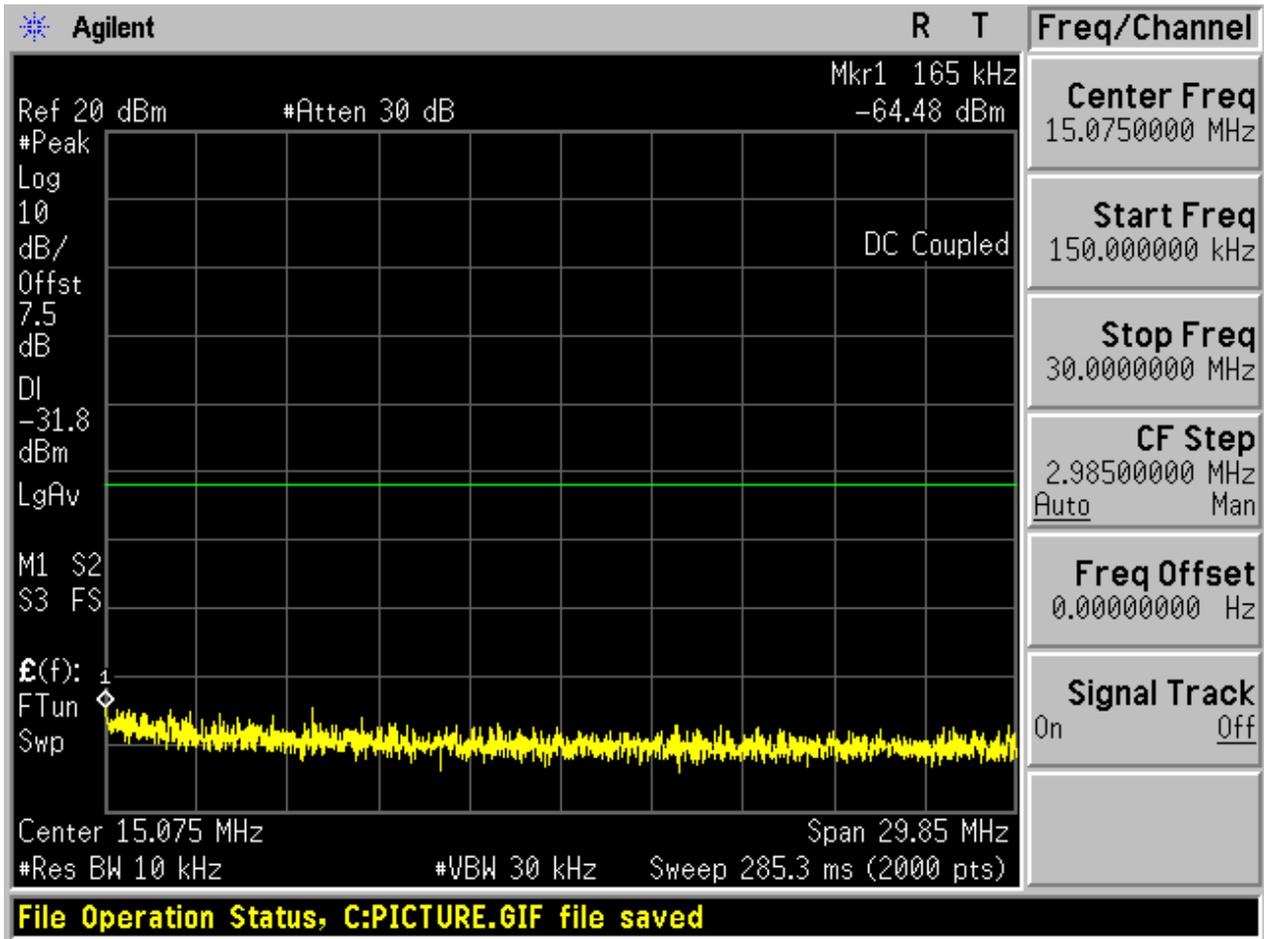
2.9.1 Pref

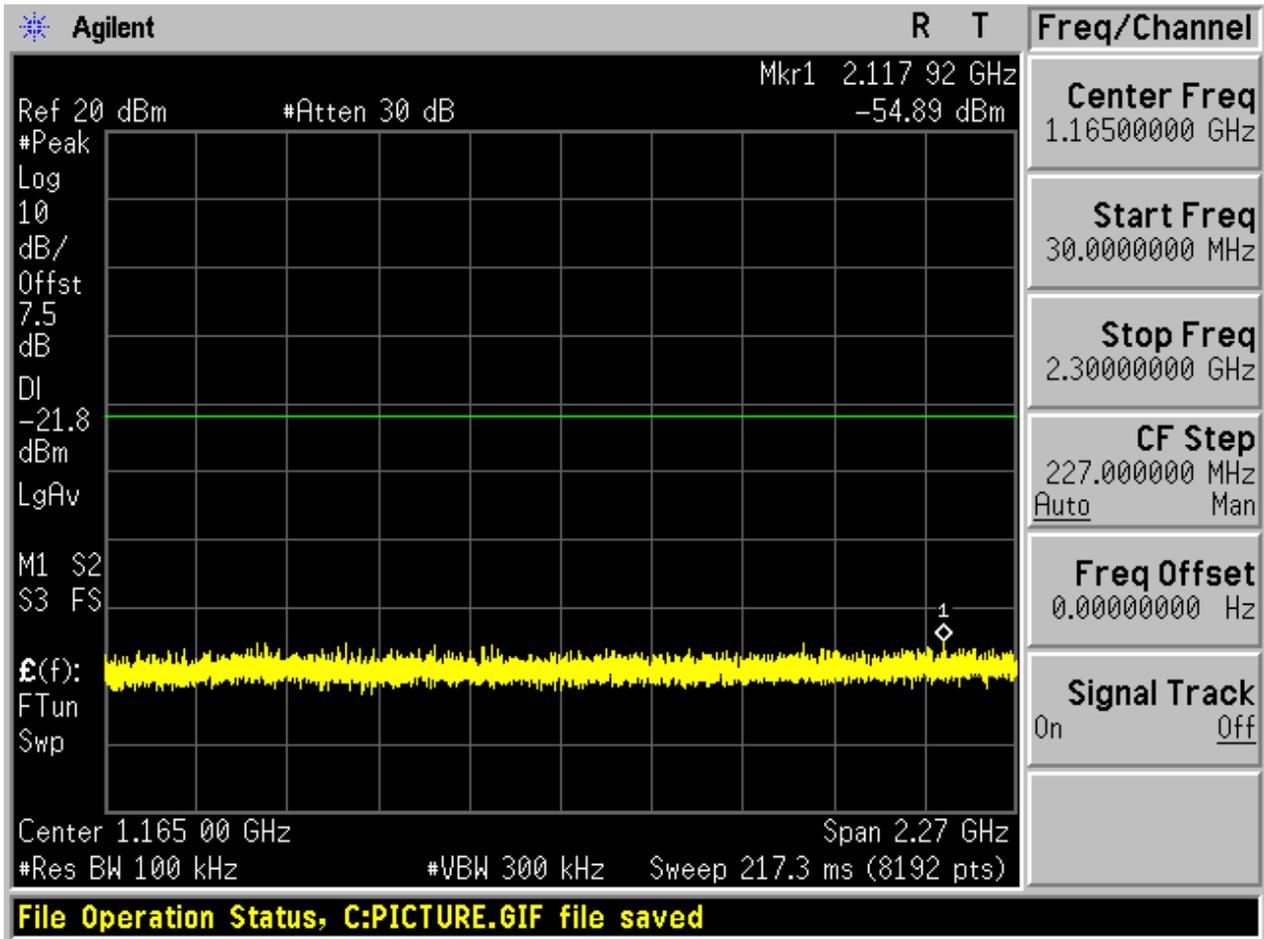


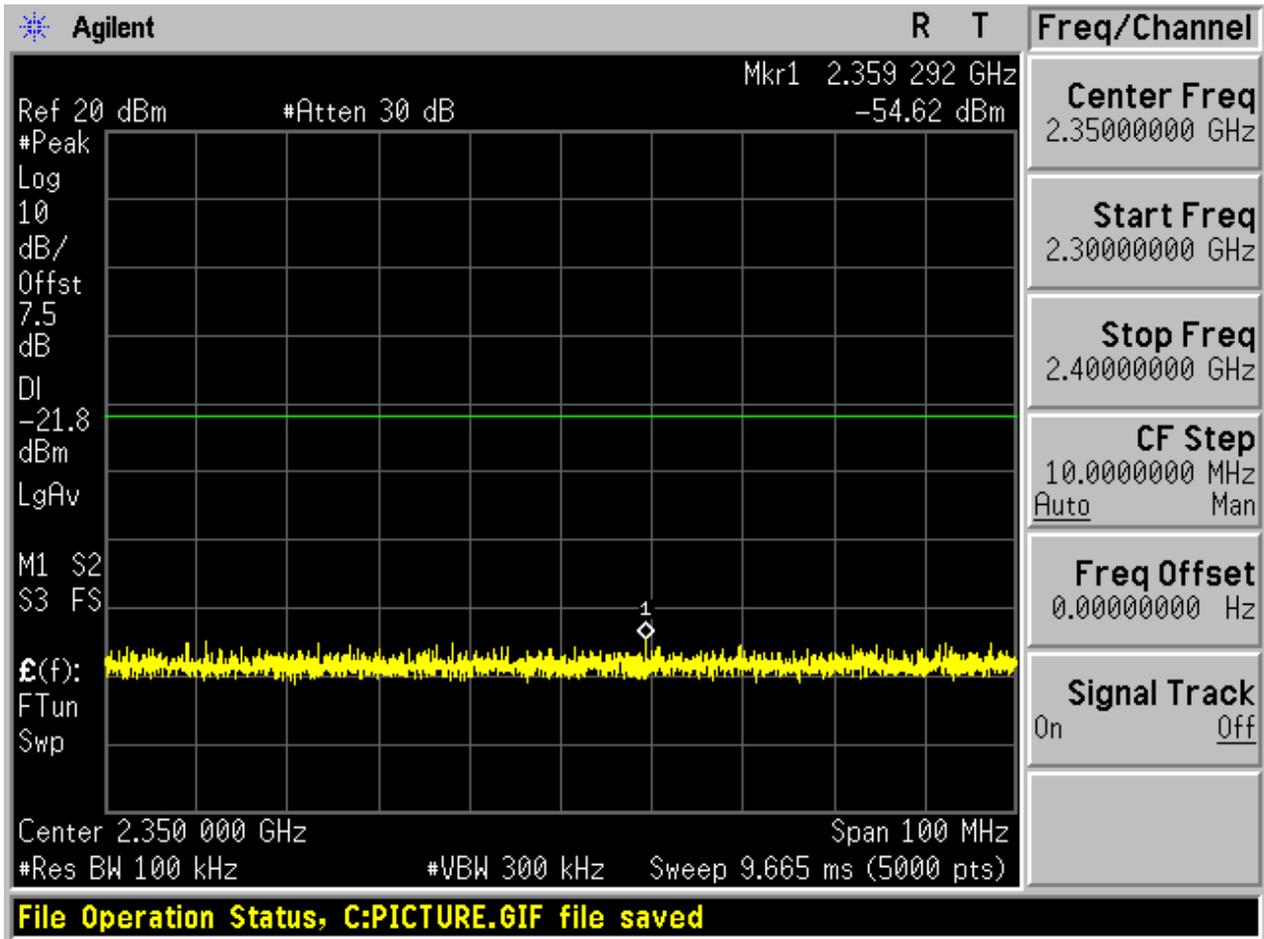


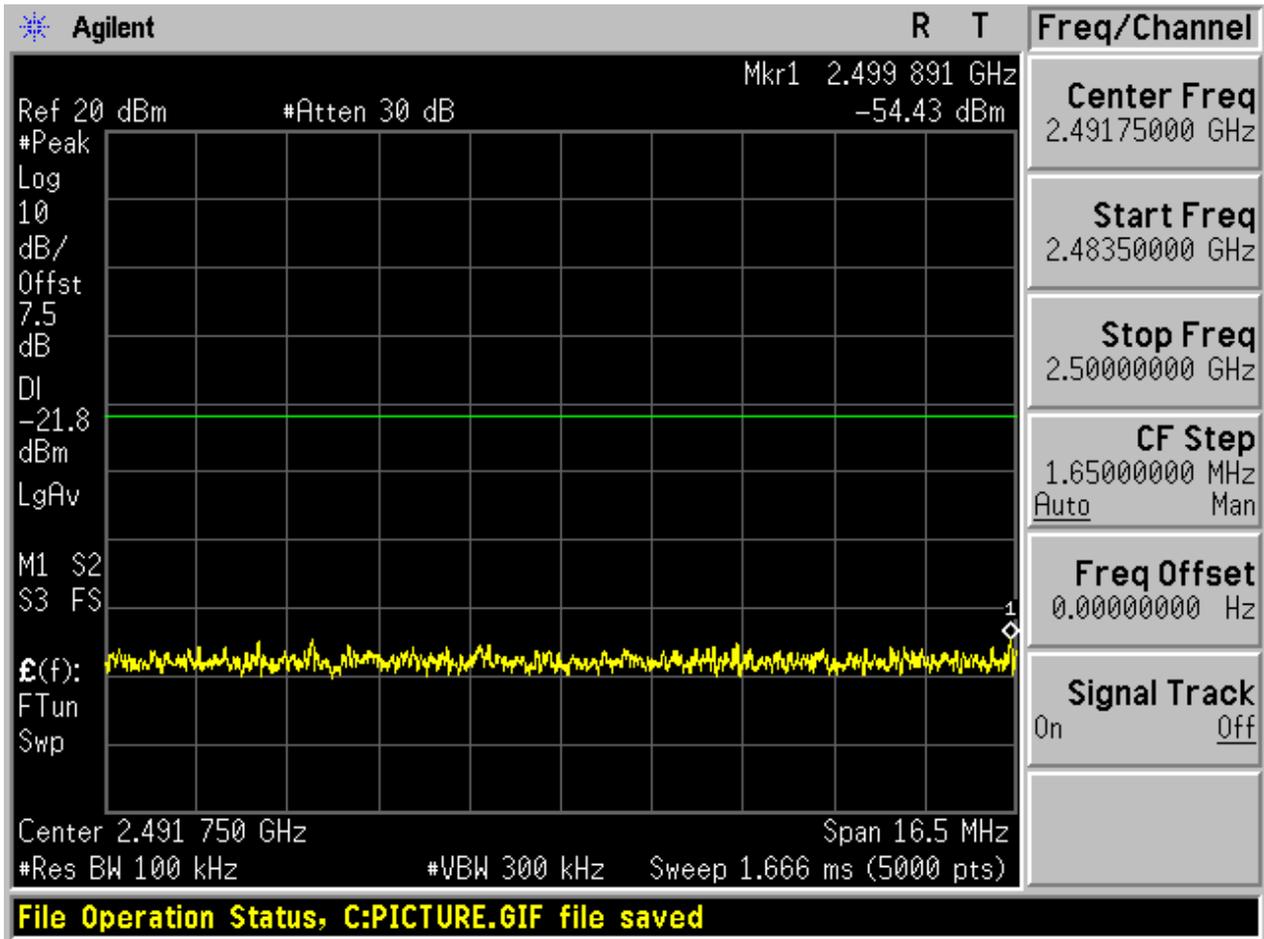
2.9.2 Puw

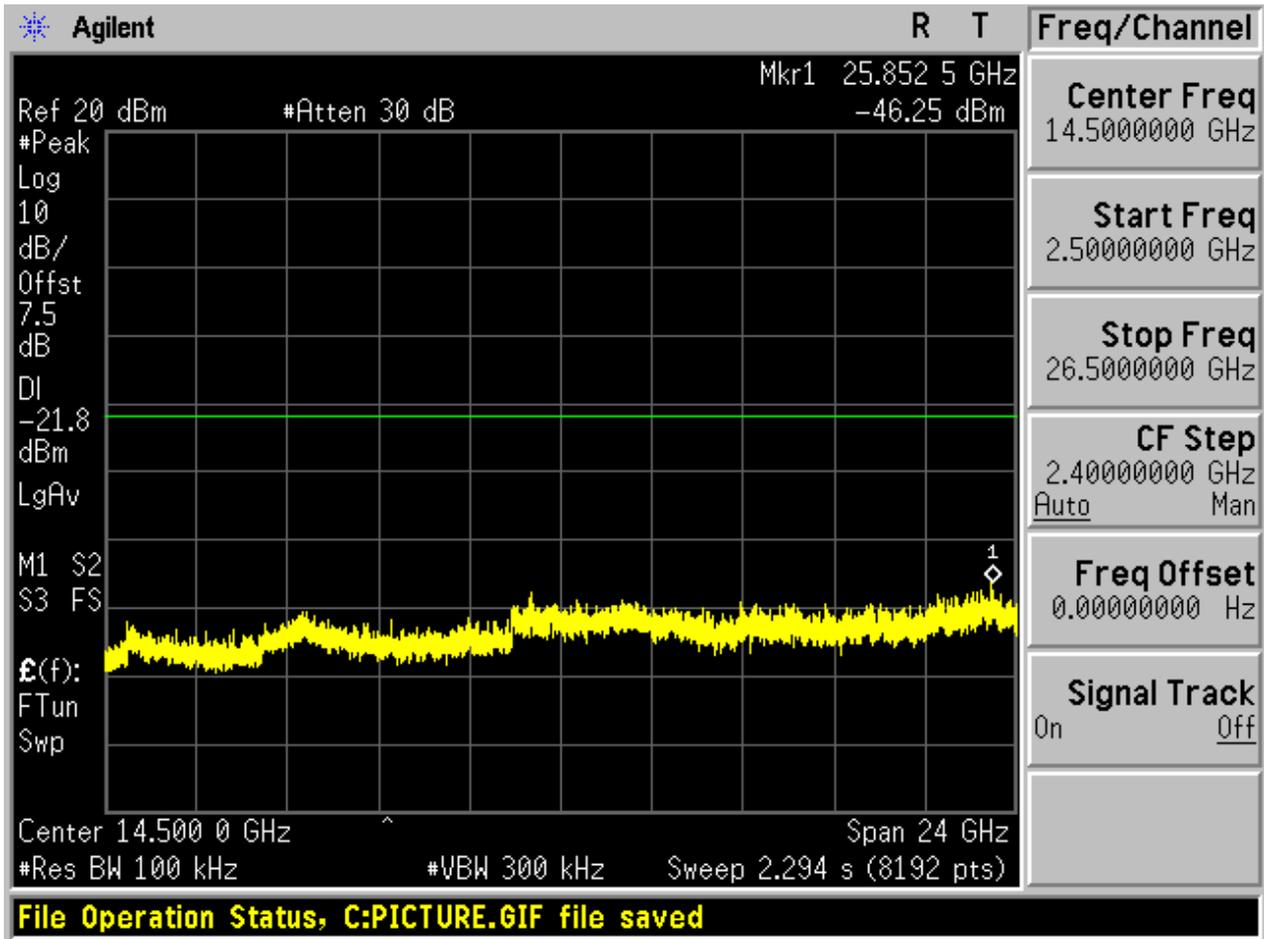














Appendix H: Radiated Emissions in the Restricted Bands

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

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 “9 KHz to 30 MHz”,
- (Part 2): Test range of “30 MHz to 1 GHz”,
- (Part 3): Test range of “18 GHz to 26.5 GHz”.
- (Part 4): Test range of “2.3 GHz to 2.5 GHz”, and
- (Part 5): Test range of “1 GHz to 18 GHz”.

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
18 GHz to 26.5 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
	TM1_DH5_Ch78 (Worst Conf.)	< Limit	Pass
2.3 GHz to 2.5 GHz	TM1_DH5_Ch0 (Worse Conf.)	< Limit	Pass
1 GHz to 18 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass

2 Result Plot

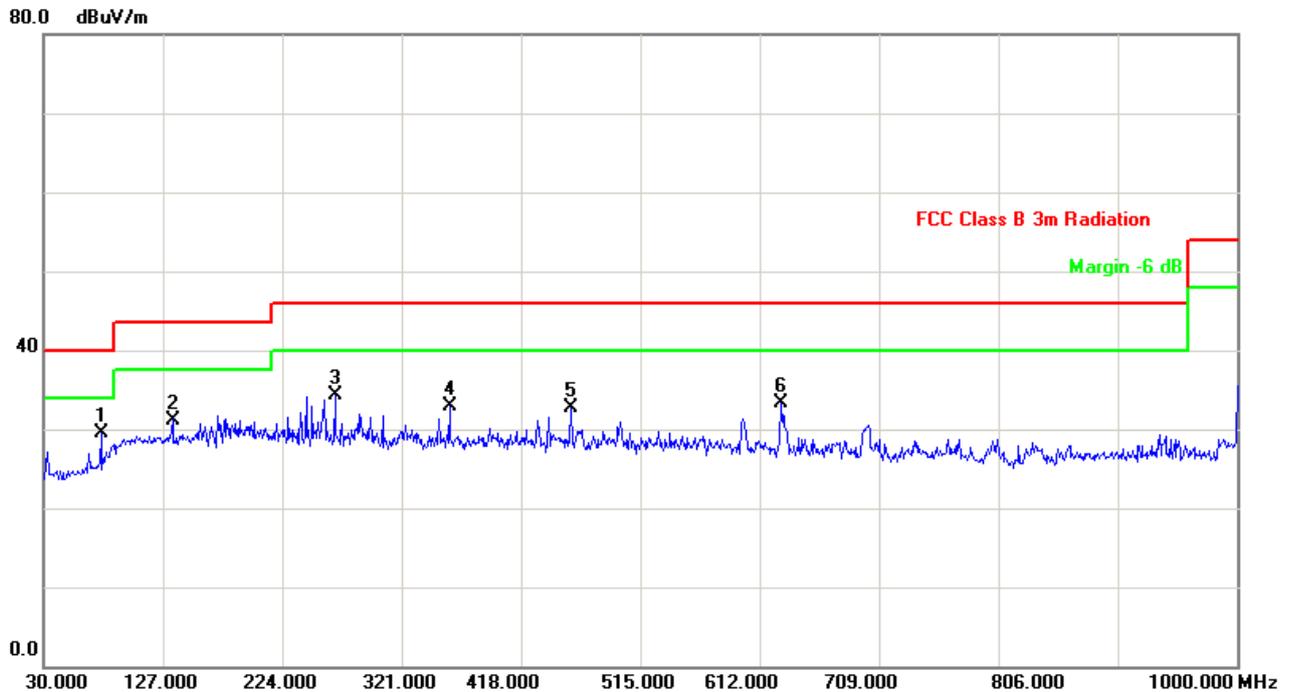
Part 1: Testing Range of “9 kHz to 30MHz”

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

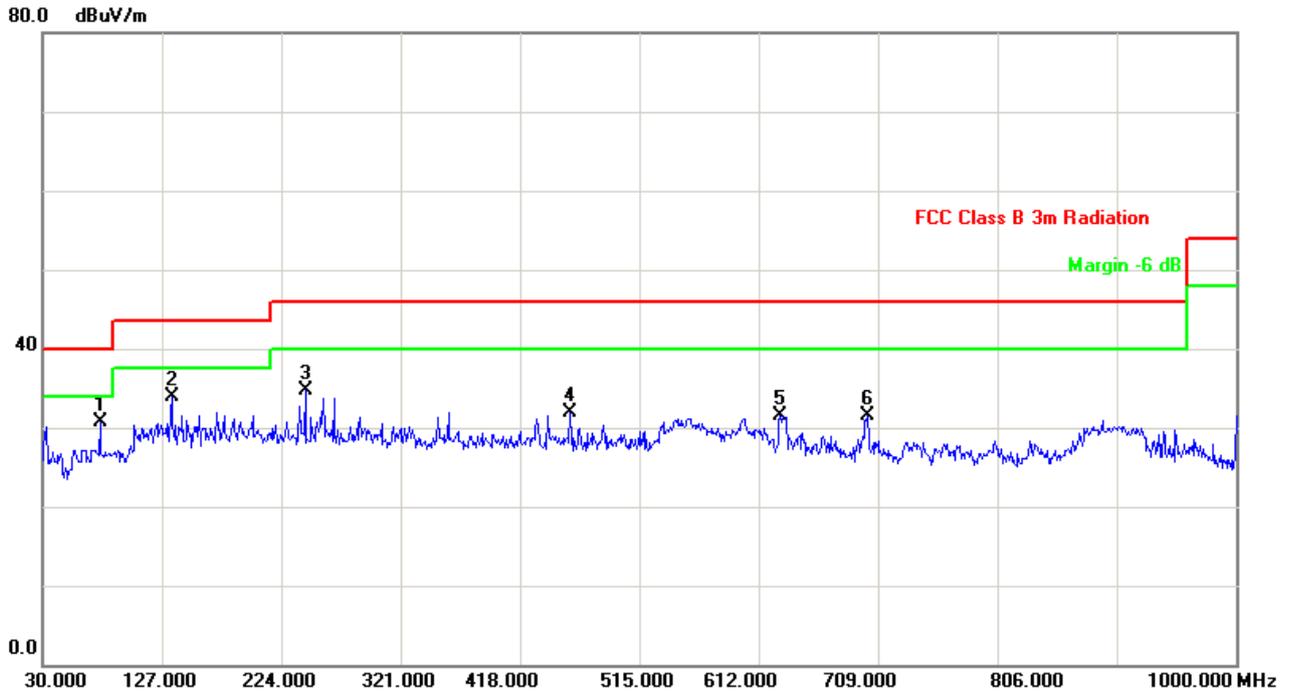
Part 2: Testing Range of “30 MHz to 1 GHz”

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).

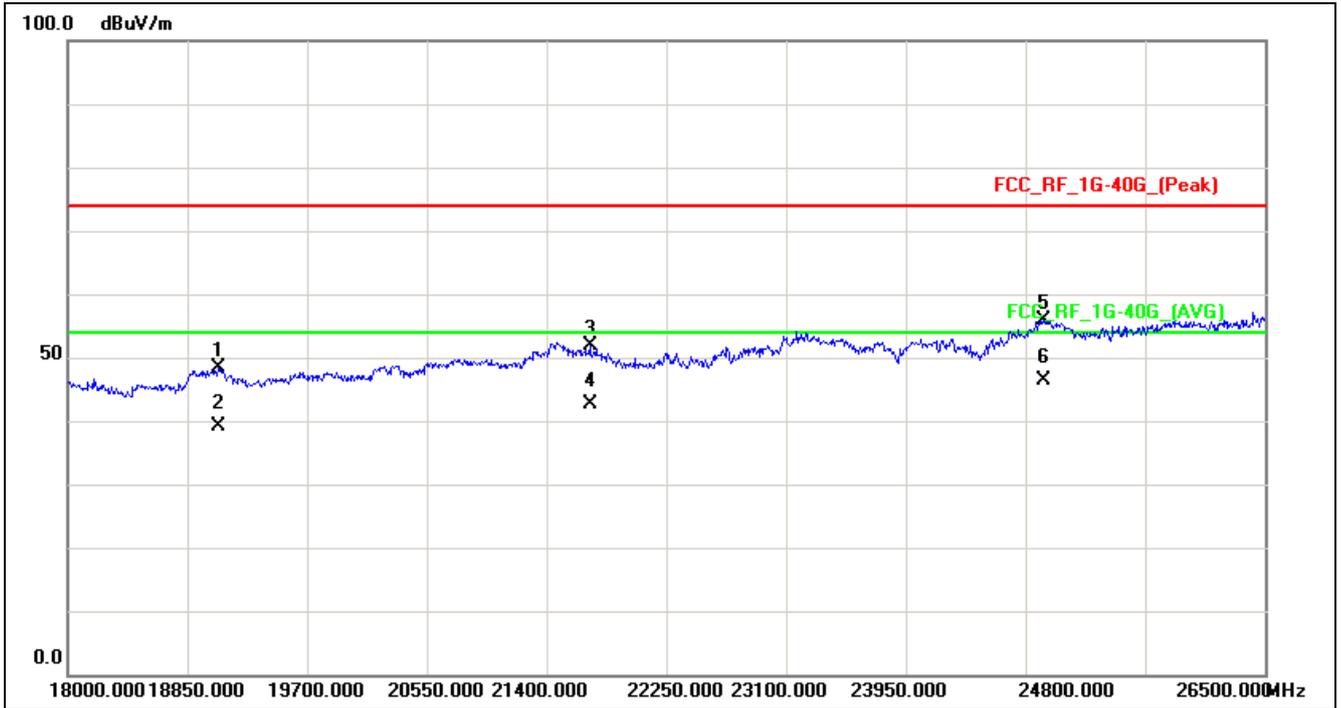


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Plarization
1	*	76.5600	29.52	0.00	29.52	40.00	-10.48	VERTICAL
2		134.7600	31.20	0.00	31.20	43.50	-12.30	VERTICAL
3		266.6800	34.31	0.00	34.31	46.00	-11.69	VERTICAL
4		359.8000	32.84	0.00	32.84	46.00	-13.16	VERTICAL
5		458.7400	32.61	0.00	32.61	46.00	-13.39	VERTICAL
6		629.4600	33.25	0.00	33.25	46.00	-12.75	VERTICAL

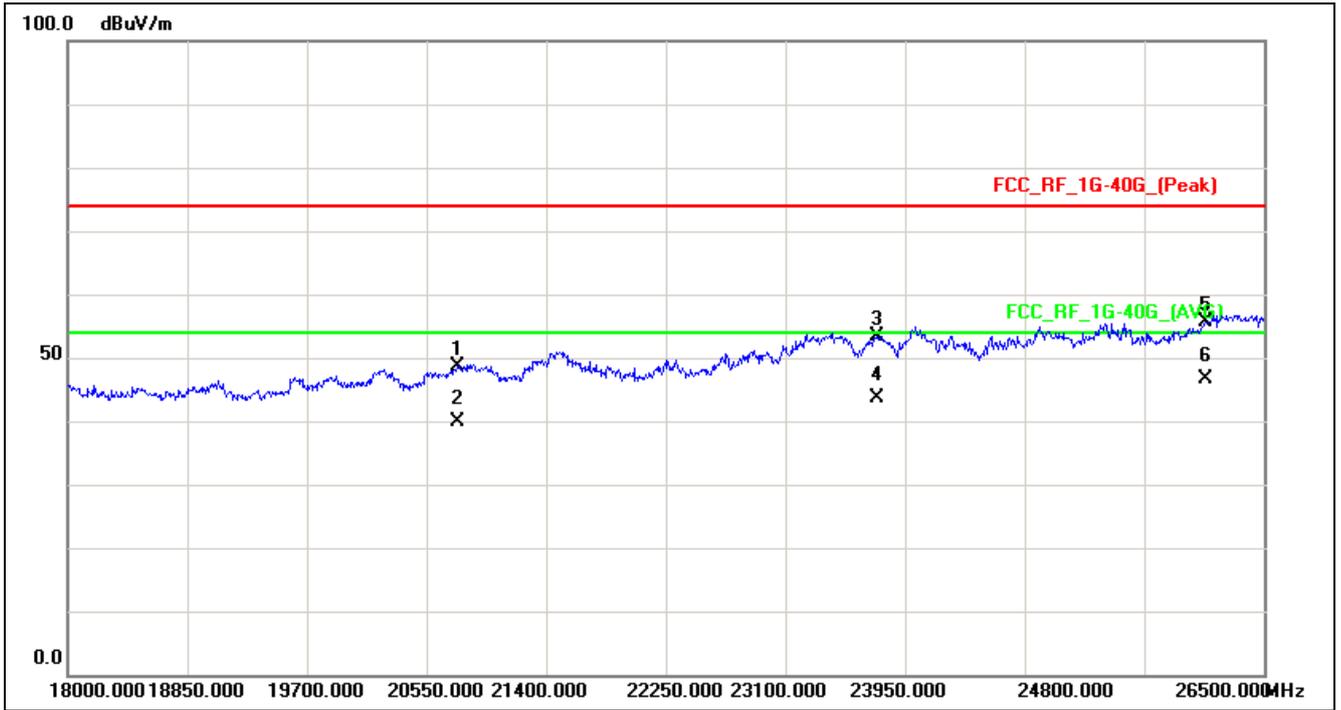


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Plarization
1	*	76.5600	30.65	0.00	30.65	40.00	-9.35	peak	HORIZONTAL
2		134.7600	33.96	0.00	33.96	43.50	-9.54	peak	HORIZONTAL
3		243.4000	34.70	0.00	34.70	46.00	-11.30	peak	HORIZONTAL
4		458.7400	31.88	0.00	31.88	46.00	-14.12	peak	HORIZONTAL
5		629.4600	31.56	0.00	31.56	46.00	-14.44	peak	HORIZONTAL
6		700.2700	31.44	0.00	31.44	46.00	-14.56	peak	HORIZONTAL

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



Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)
19066.750	V	26.86	21.61	48.47	74.00	-25.53
19066.750	V	17.56	21.61	39.17	54.00	-14.83
21706.000	V	29.69	22.14	51.83	74.00	-22.17
21706.000	V	20.54	22.14	42.68	54.00	-11.32
24931.750	V	30.12	25.76	55.88	74.00	-18.12
24931.750	V	20.67	25.76	46.43	54.00	-7.57



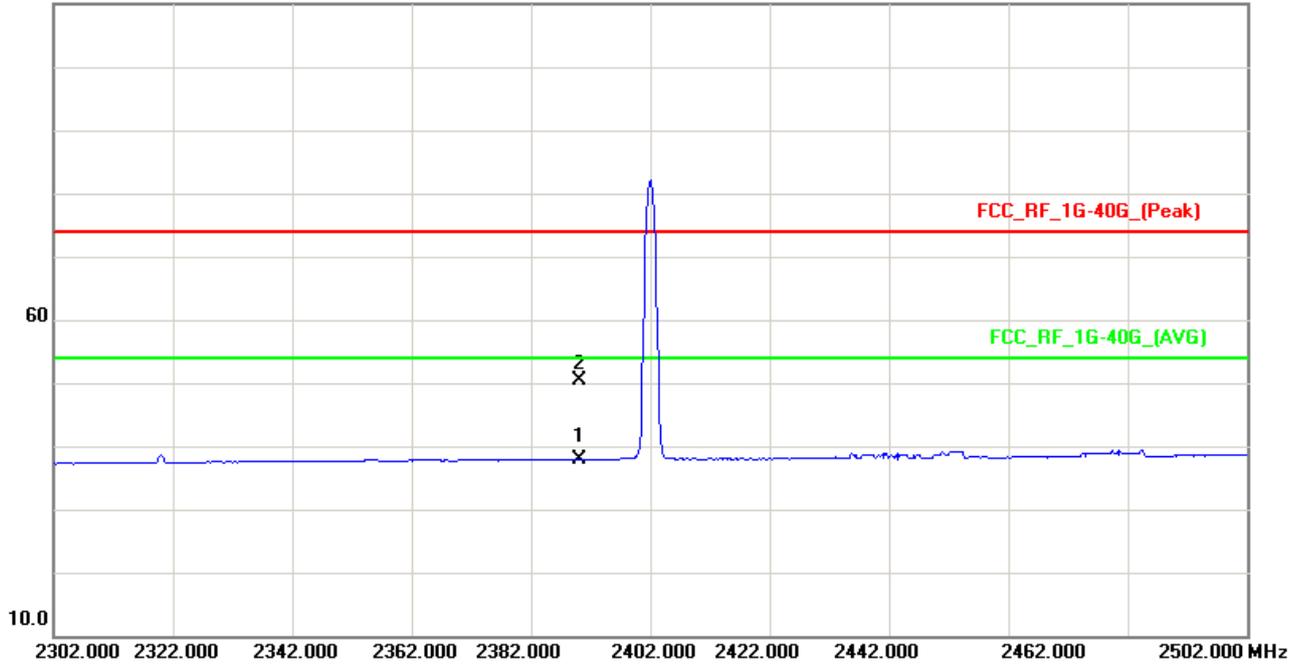
Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)
20766.750	H	27.46	21.23	48.69	74.00	-25.31
20766.750	H	18.67	21.23	39.90	54.00	-14.10
23750.250	H	28.60	24.78	53.38	74.00	-20.62
23750.250	H	18.86	24.78	43.64	54.00	-10.36
26087.750	H	29.41	26.24	55.65	74.00	-18.35
26087.750	H	20.27	26.24	46.51	54.00	-7.49

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.

Channel 0

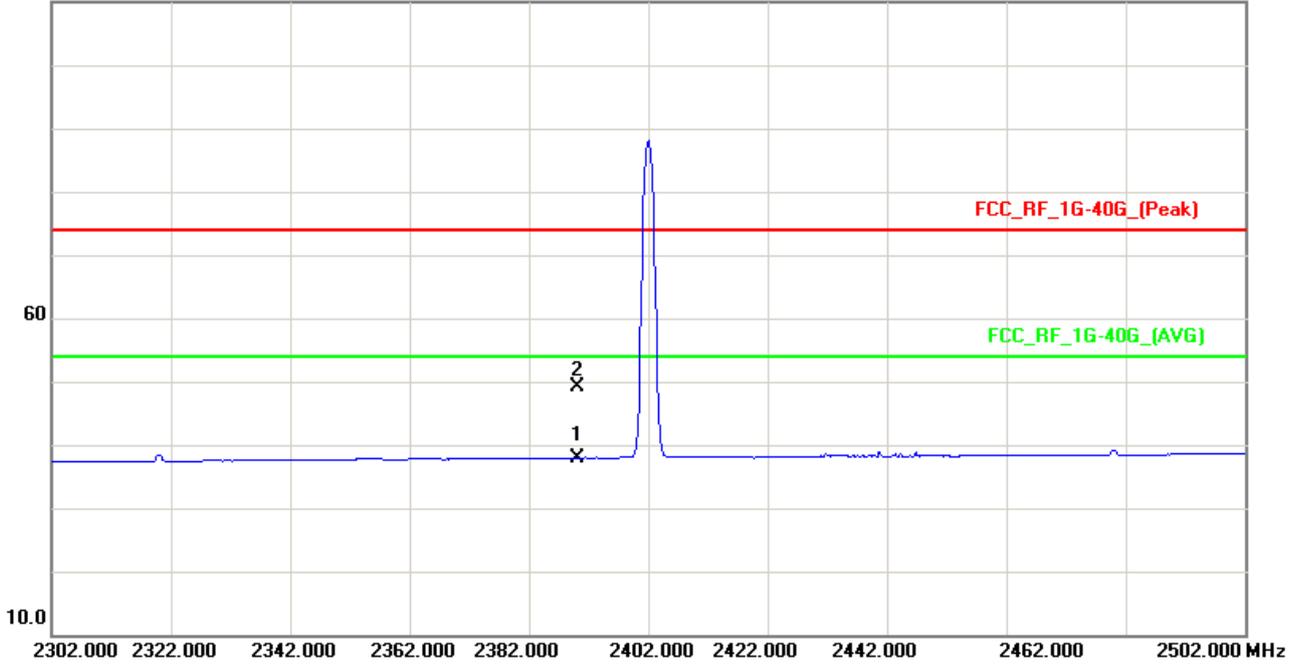
110.0 dB μ V/m



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Polarization r
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	2390.000	2.06	35.88	37.94	54.00	-16.06	AVG	VERTICAL
2		2390.000	14.53	35.88	50.41	74.00	-23.59	peak	VERTICAL

110.0 dBuV/m

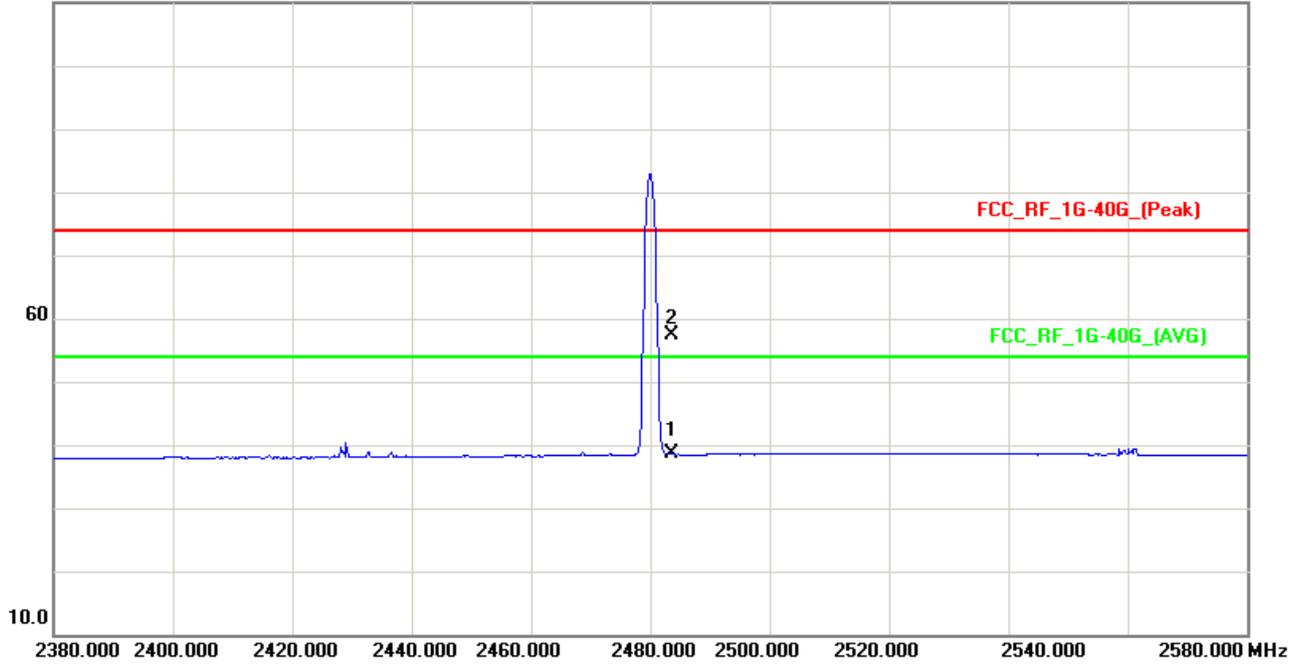


Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Polarization r
1	*	2390.000	2.10	35.88	37.98	54.00	-16.02	AVG	HORIZONTAL
2		2390.000	13.15	35.88	49.03	74.00	-24.97	peak	HORIZONTAL

Channel 78

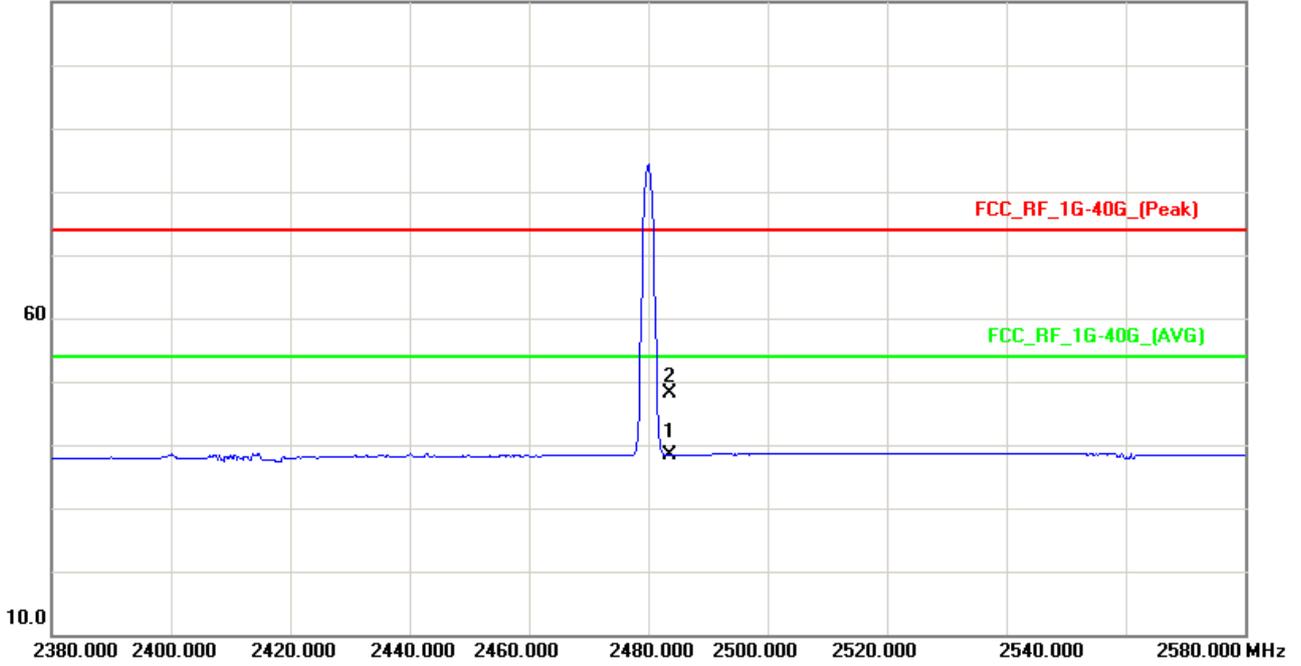
110.0 dBuV/m



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Polarization r
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB		
1	*	2483.500	2.13	36.39	38.52	54.00	-15.48	AVG	VERTICAL
2		2483.500	20.94	36.39	57.33	74.00	-16.67	peak	VERTICAL

110.0 dBuV/m



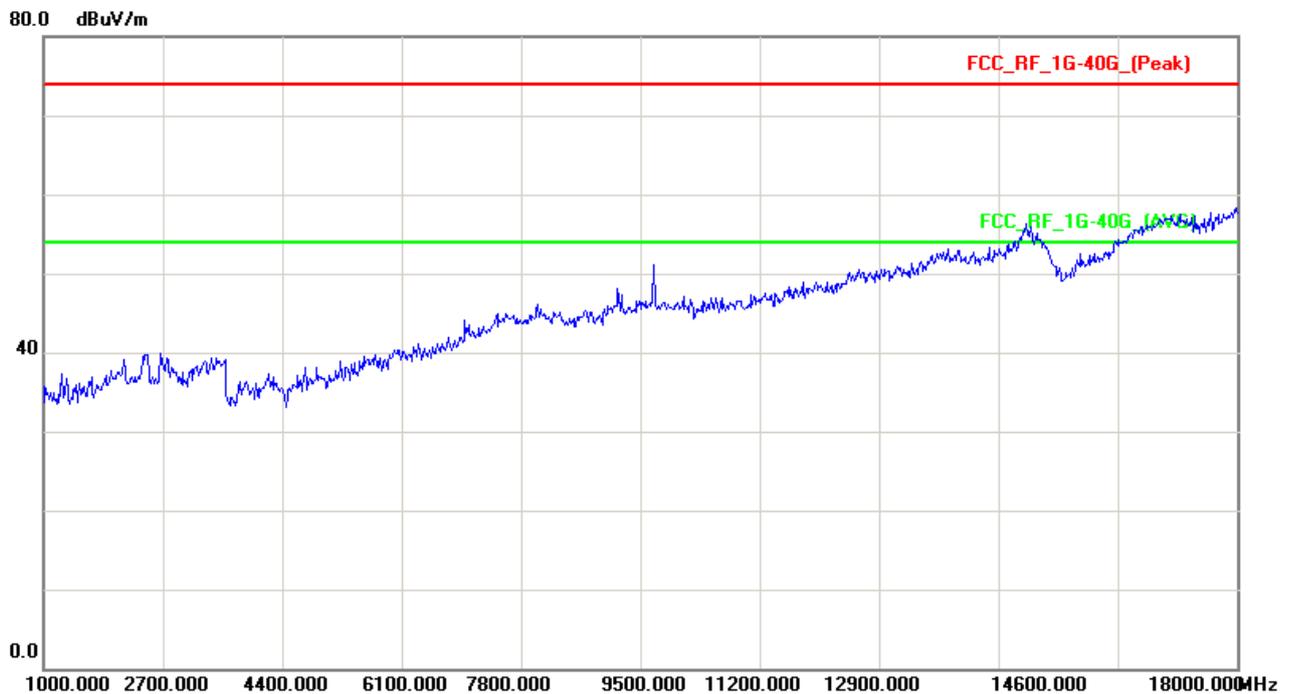
Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Polarization r
1	*	2483.500	2.03	36.39	38.42	54.00	-15.58	AVG	HORIZONTAL
2		2483.500	11.76	36.39	48.15	74.00	-25.85	peak	HORIZONTAL

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).

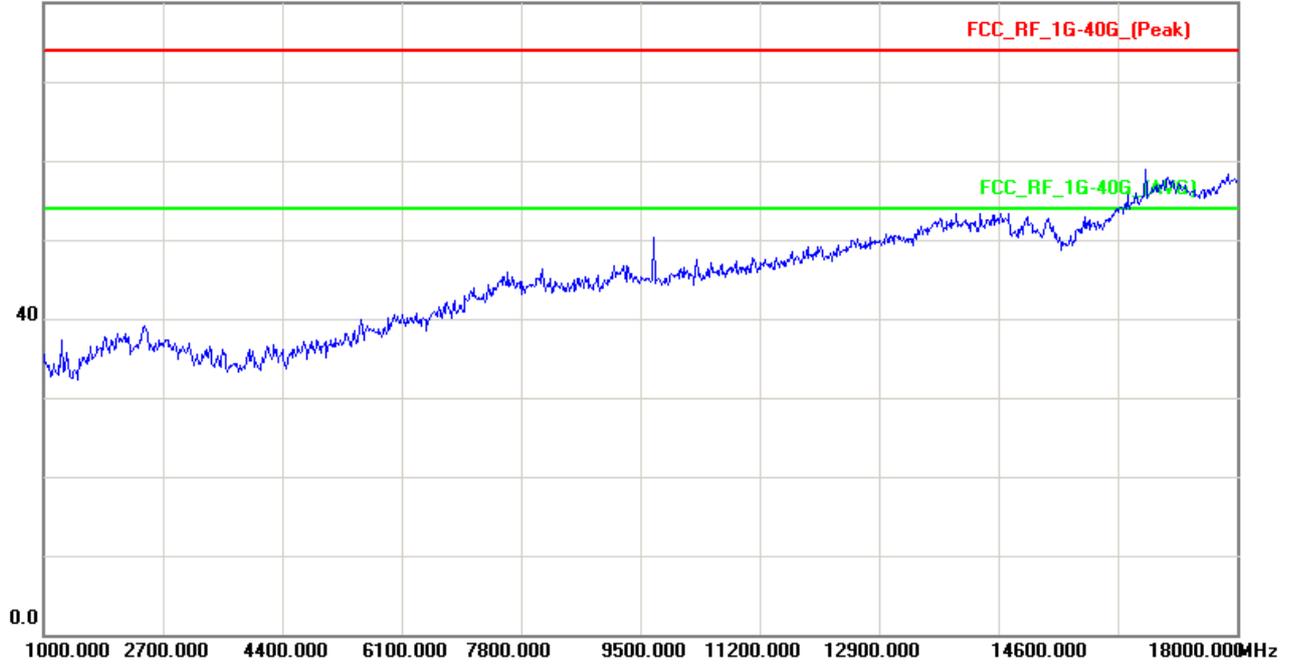
Vertical





Horizontal

80.0 dBuV/m





Appendix I: AC Power Line Conducted Emissions

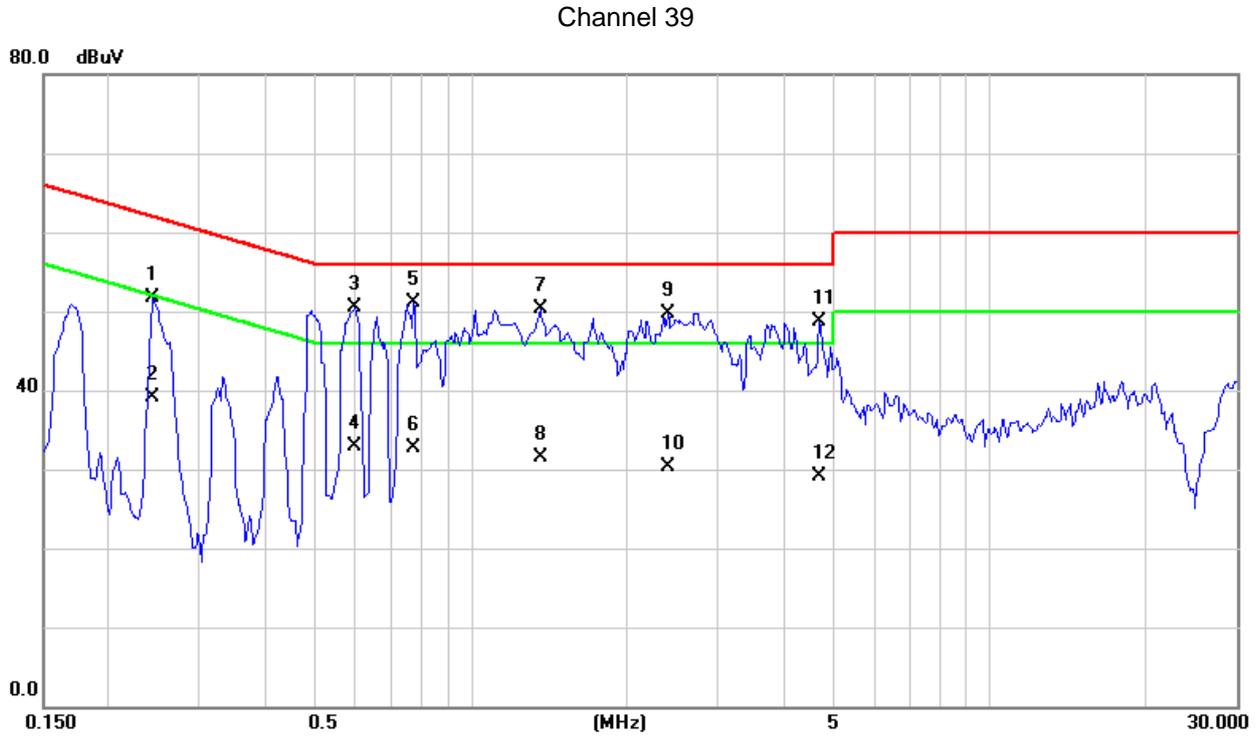


1 Result Table

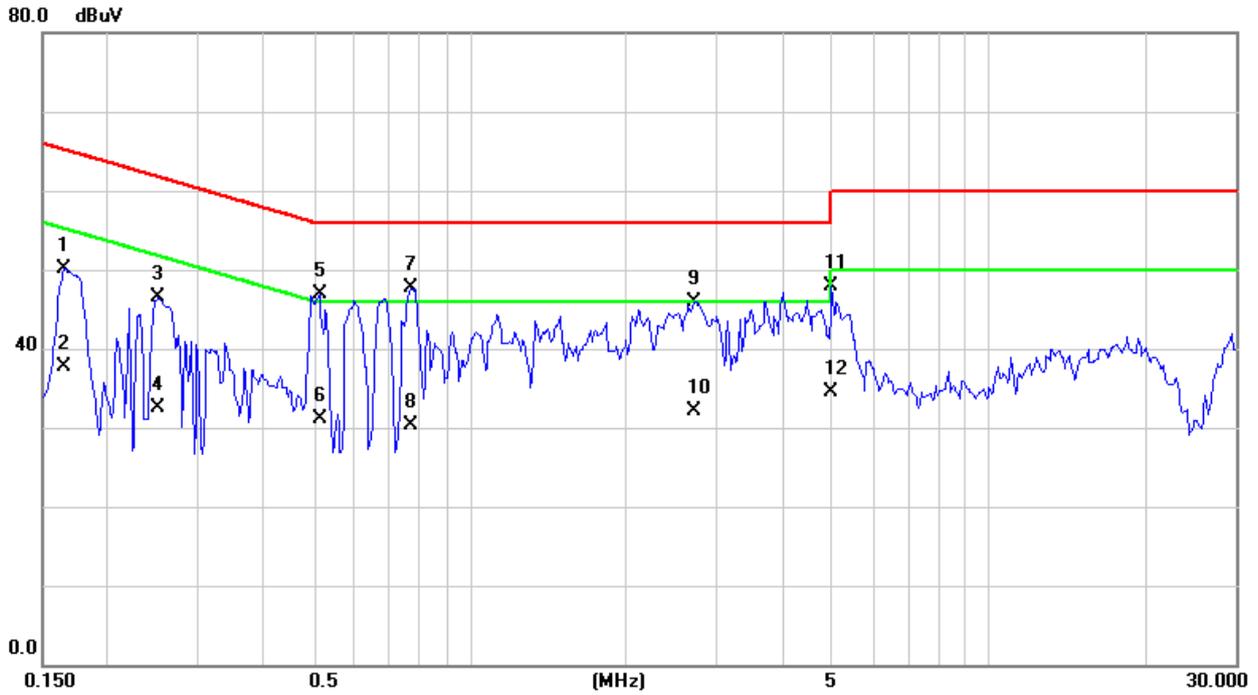
In this Appendix, only the test results and plots under the worst case can be reported.

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



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Line
1		0.2437	41.97	9.67	51.64	61.97	-10.33	L1
2		0.2437	29.50	9.67	39.17	51.97	-12.80	L1
3		0.5992	40.80	9.77	50.57	56.00	-5.43	L1
4		0.5992	23.10	9.77	32.87	46.00	-13.13	L1
5	*	0.7790	41.20	9.81	51.01	56.00	-4.99	L1
6		0.7790	22.90	9.81	32.71	46.00	-13.29	L1
7		1.3610	40.45	9.80	50.25	56.00	-5.75	L1
8		1.3610	21.70	9.80	31.50	46.00	-14.50	L1
9		2.4000	40.06	9.73	49.79	56.00	-6.21	L1
10		2.4000	20.50	9.73	30.23	46.00	-15.77	L1
11		4.7148	39.78	8.87	48.65	56.00	-7.35	L1
12		4.7148	20.30	8.87	29.17	46.00	-16.83	L1



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Line
		MHz	dBuV	dB	dBuV	dBuV	dB	
1		0.1655	40.63	9.54	50.17	65.18	-15.01	N
2		0.1655	28.10	9.54	37.64	55.18	-17.54	N
3		0.2516	36.85	9.56	46.41	61.70	-15.29	N
4		0.2516	22.90	9.56	32.46	51.70	-19.24	N
5		0.5132	37.31	9.58	46.89	56.00	-9.11	N
6		0.5132	21.50	9.58	31.08	46.00	-14.92	N
7		0.7711	38.04	9.60	47.64	56.00	-8.36	N
8		0.7711	20.80	9.60	30.40	46.00	-15.60	N
9		2.7125	36.20	9.62	45.82	56.00	-10.18	N
10		2.7125	22.50	9.62	32.12	46.00	-13.88	N
11	*	4.9805	38.14	9.75	47.89	56.00	-8.11	N
12		4.9805	24.80	9.75	34.55	46.00	-11.45	N

END