



Appendix A: 20dB Emission Bandwidth (EBW)



1 Result Table

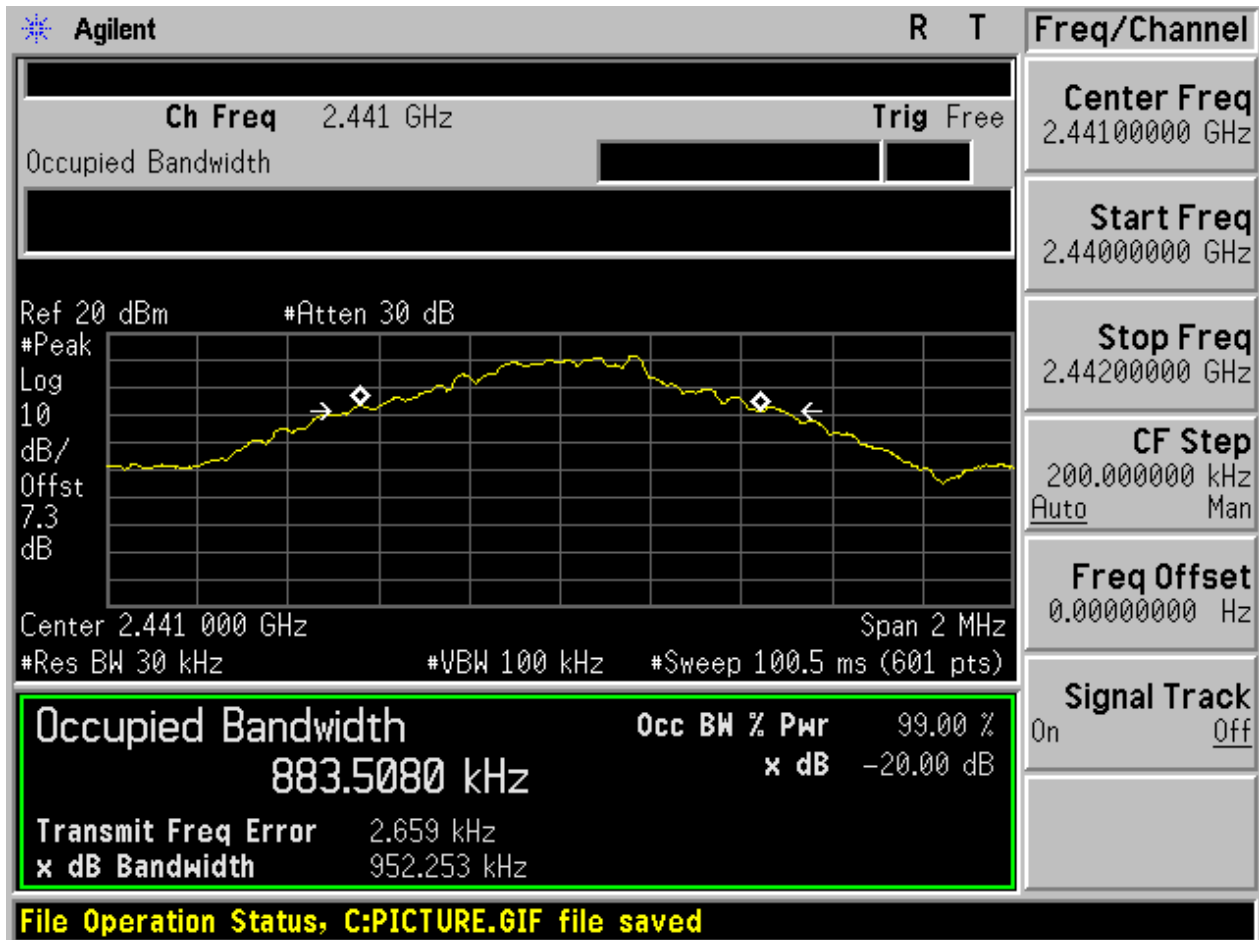
EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.951	Pass
TM1_DH5_Ch39	0.952	Pass
TM1_DH5_Ch78	0.945	Pass
TM2_2DH5_Ch0	1.287	Pass
TM2_2DH5_Ch39	1.279	Pass
TM2_2DH5_Ch78	1.278	Pass
TM3_3DH5_Ch0	1.287	Pass
TM3_3DH5_Ch39	1.271	Pass
TM3_3DH5_Ch78	1.268	Pass

2 Test Plot

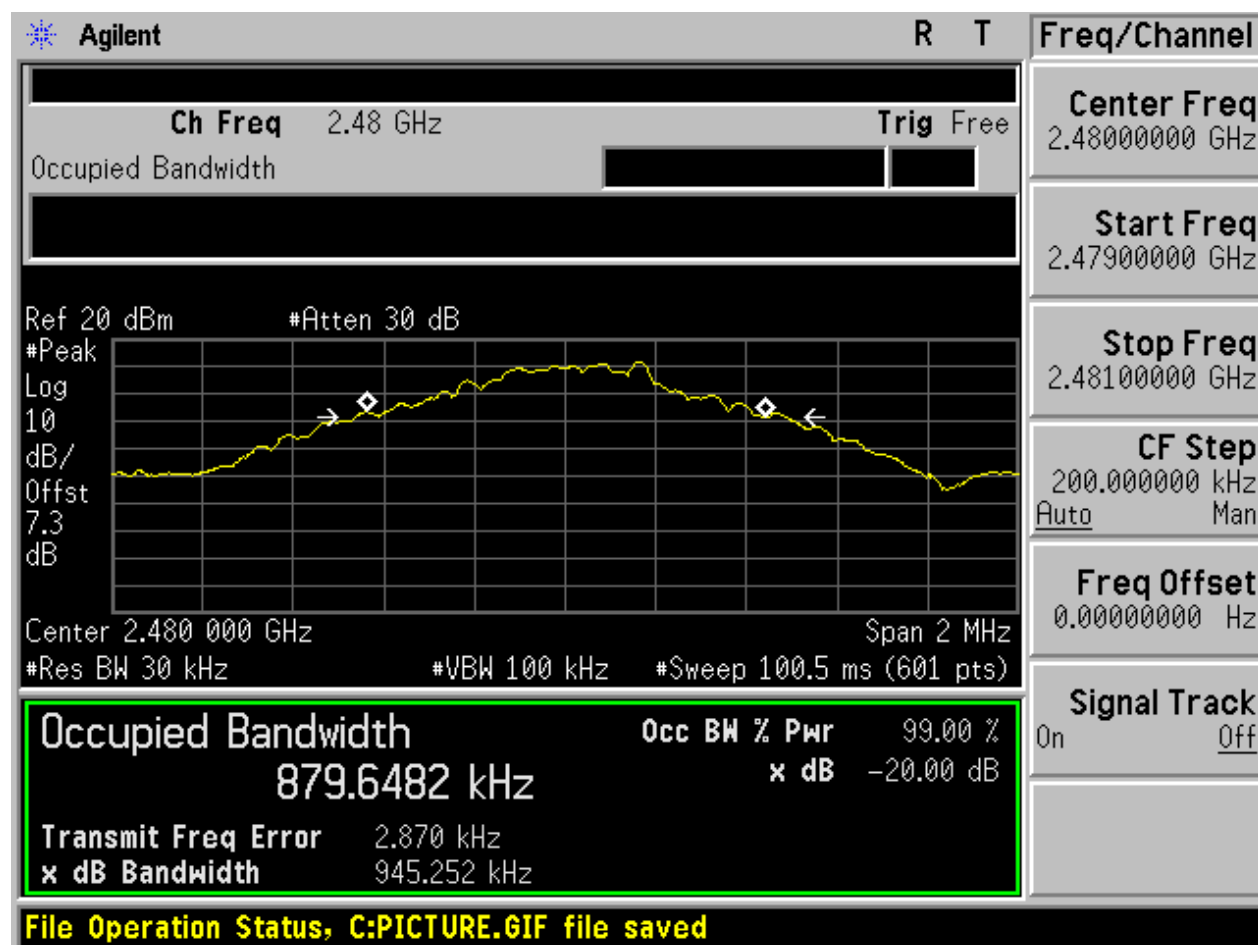
2.1 TM1_DH5_Ch0



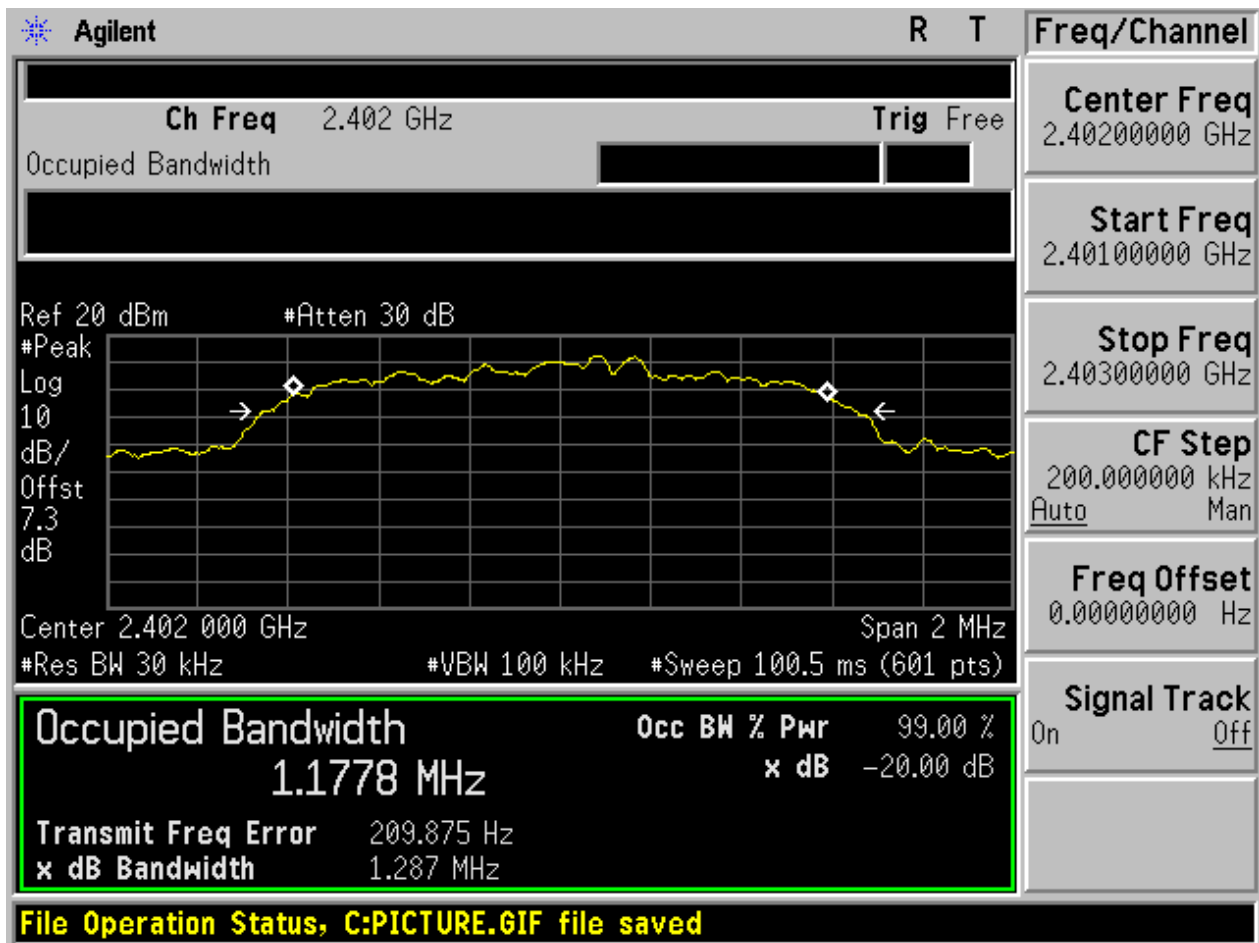
2.2 TM1_DH5_Ch39



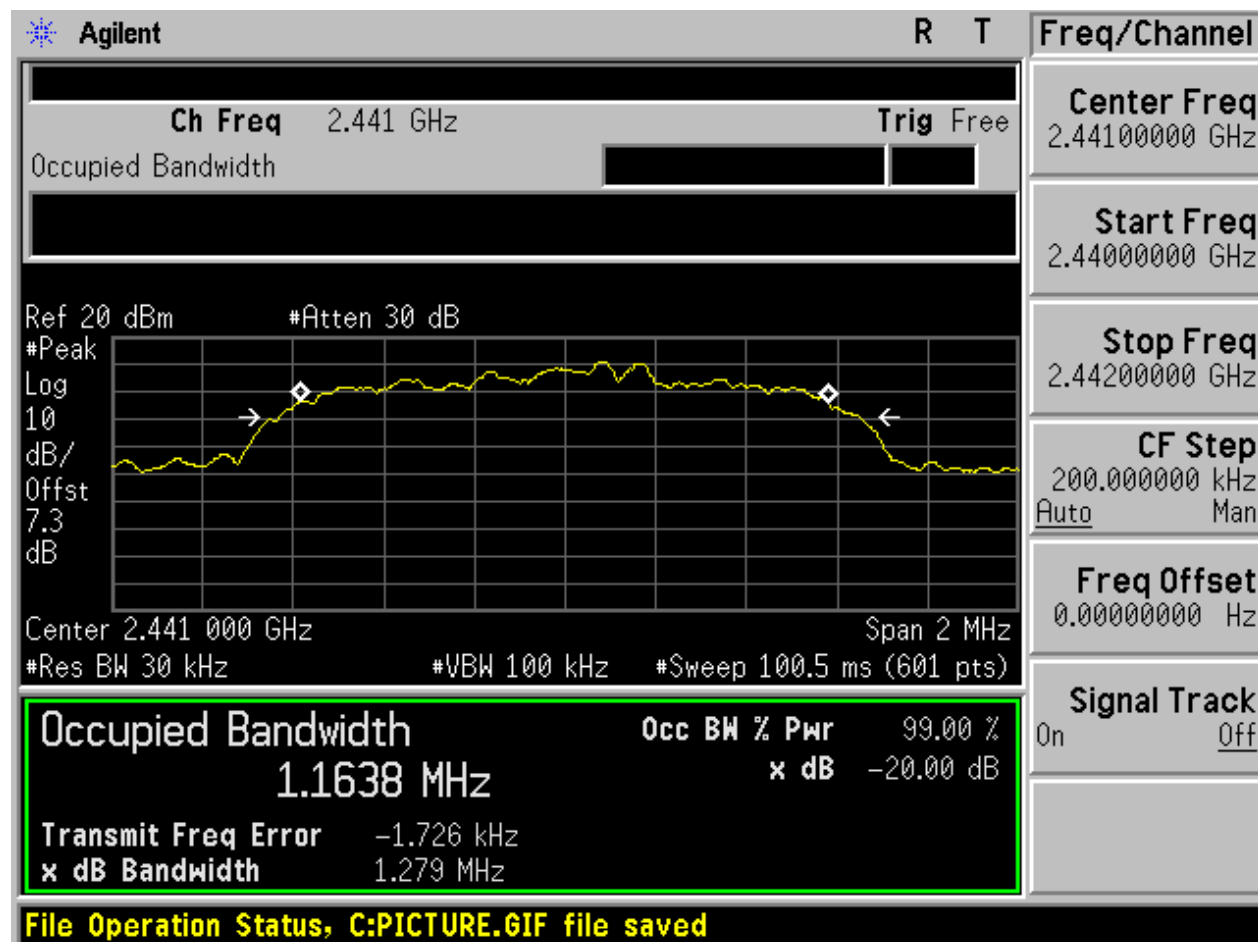
2.3 TM1_DH5_Ch78



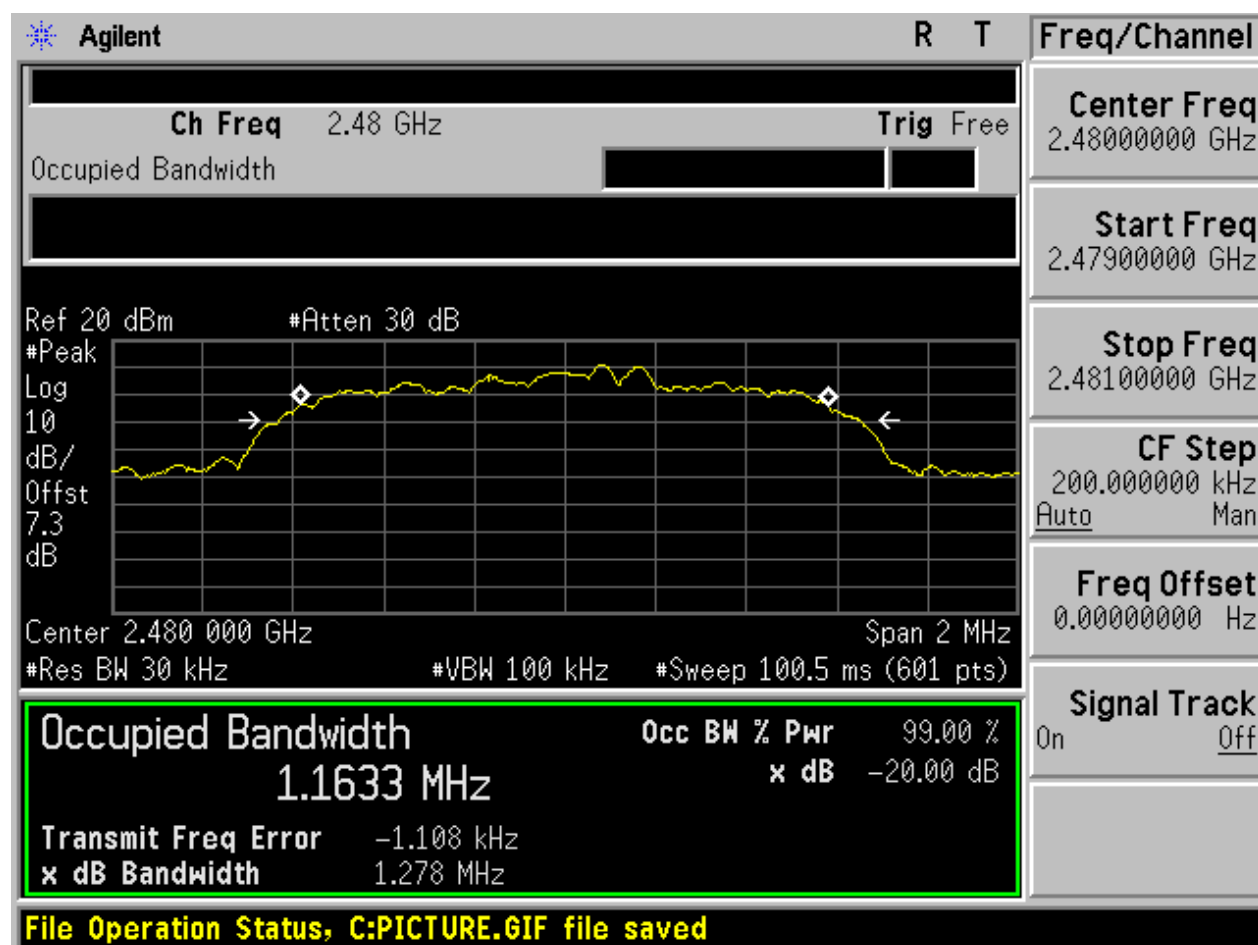
2.4 TM2_2DH5_Ch0



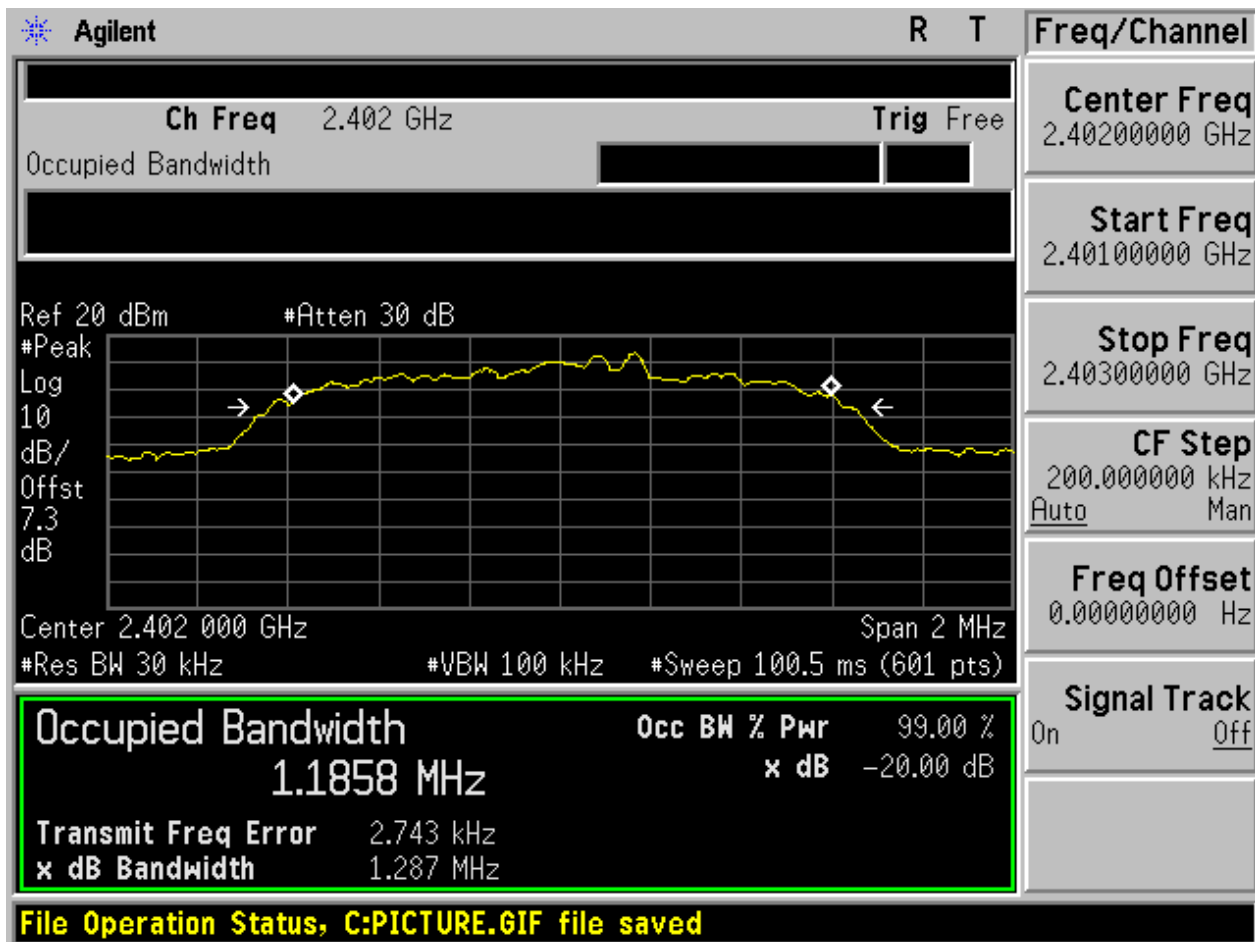
2.5 TM2_2DH5_Ch39



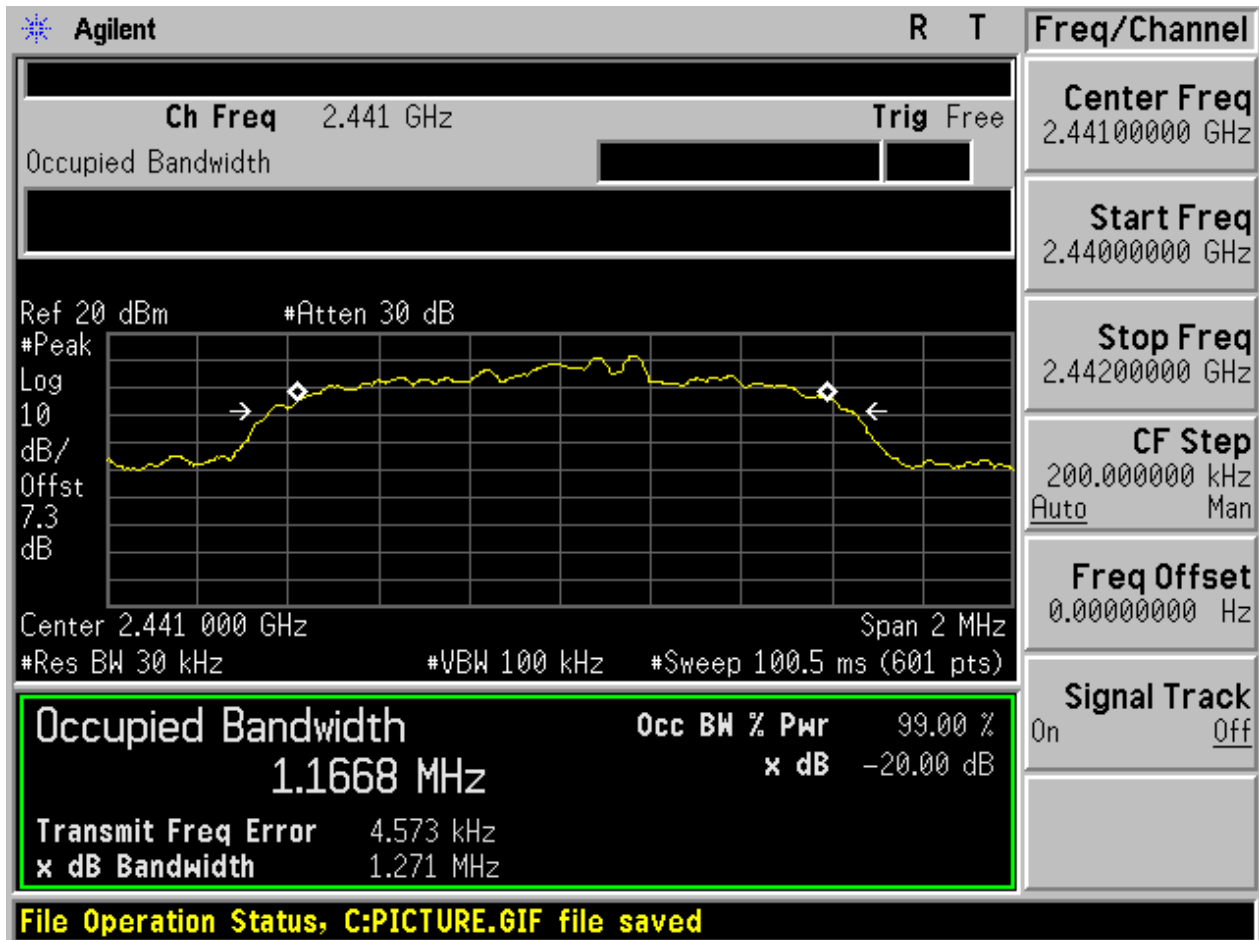
2.6 TM2_2DH5_Ch78



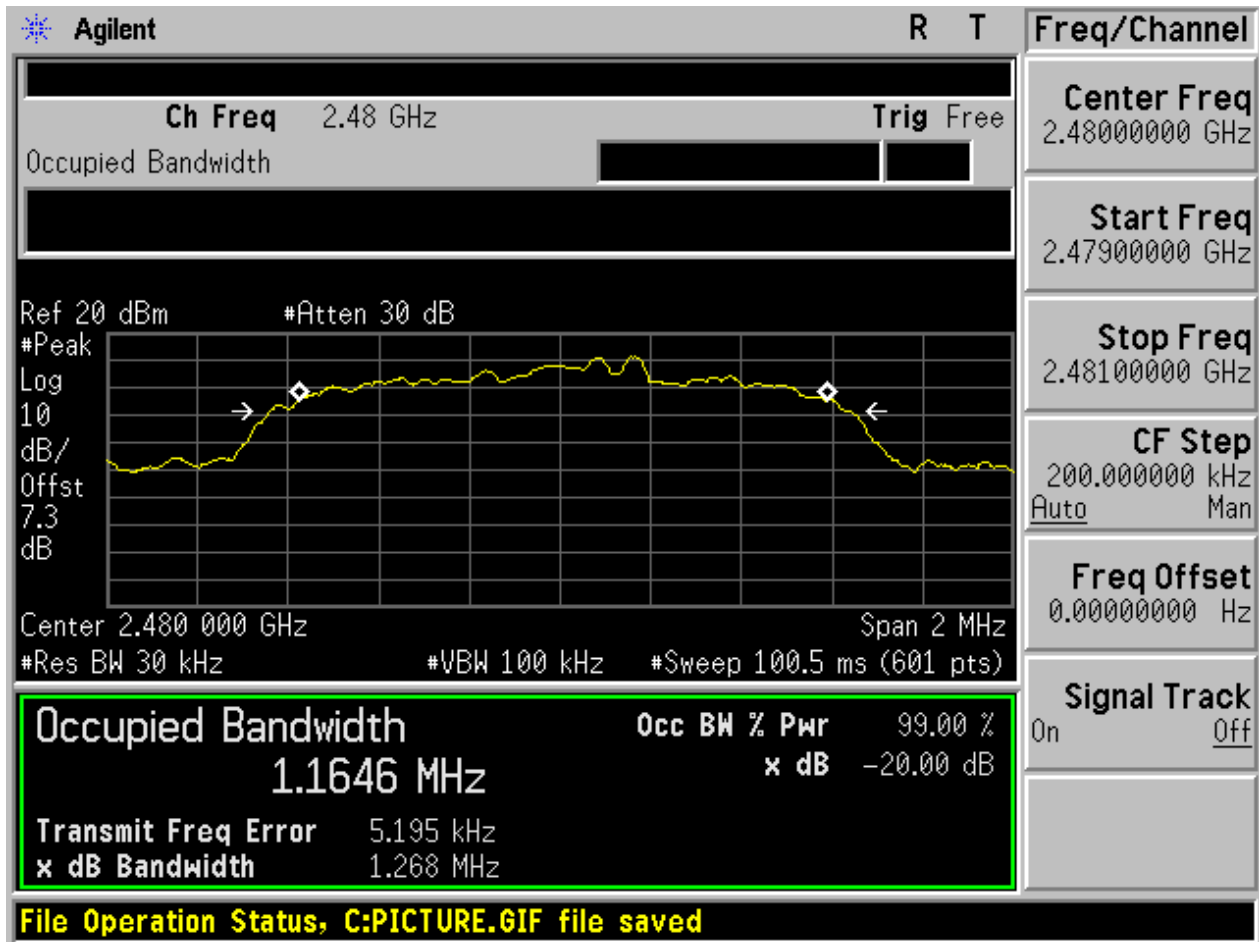
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78



Appendix B: Carrier Frequency Separation

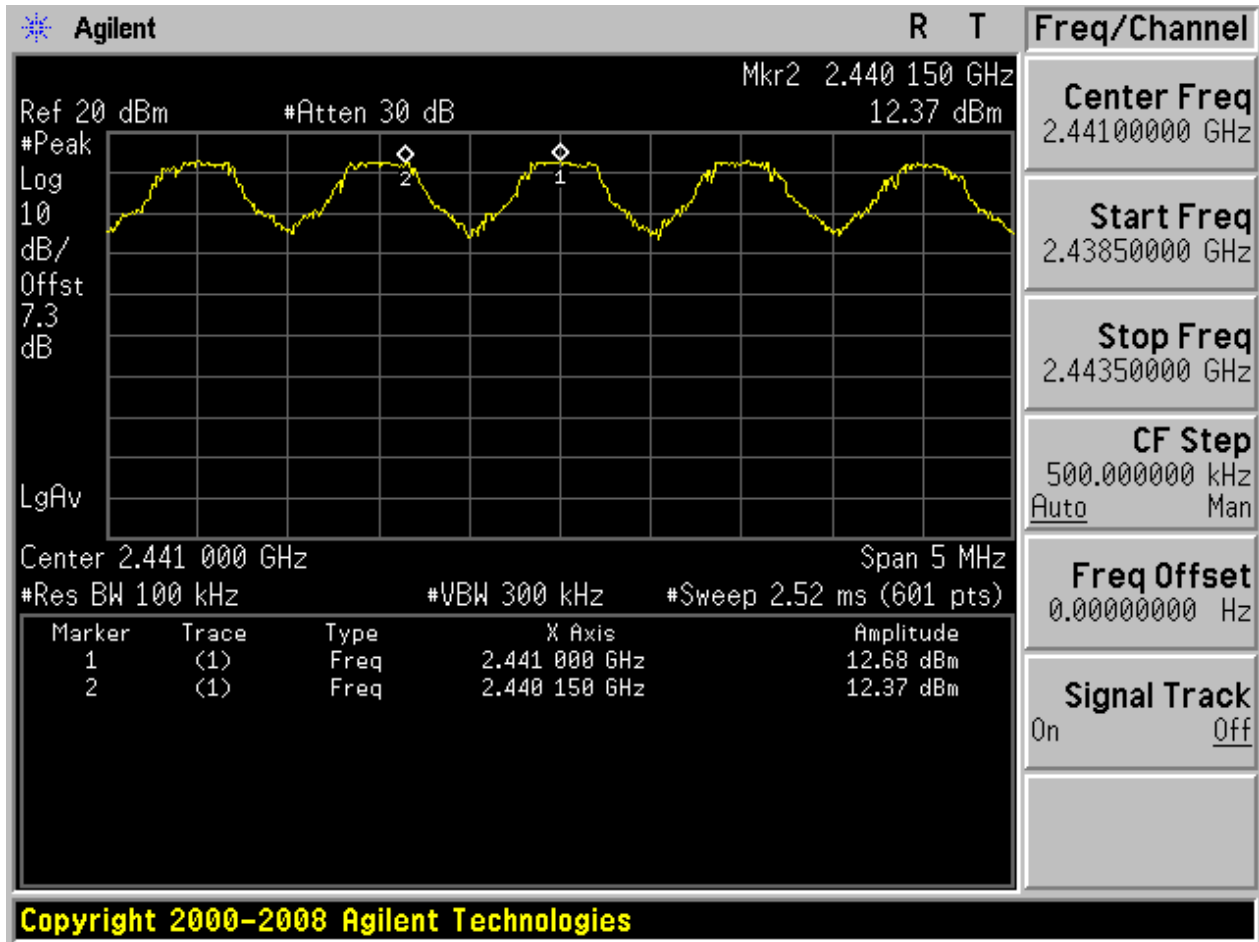


1 Result Table

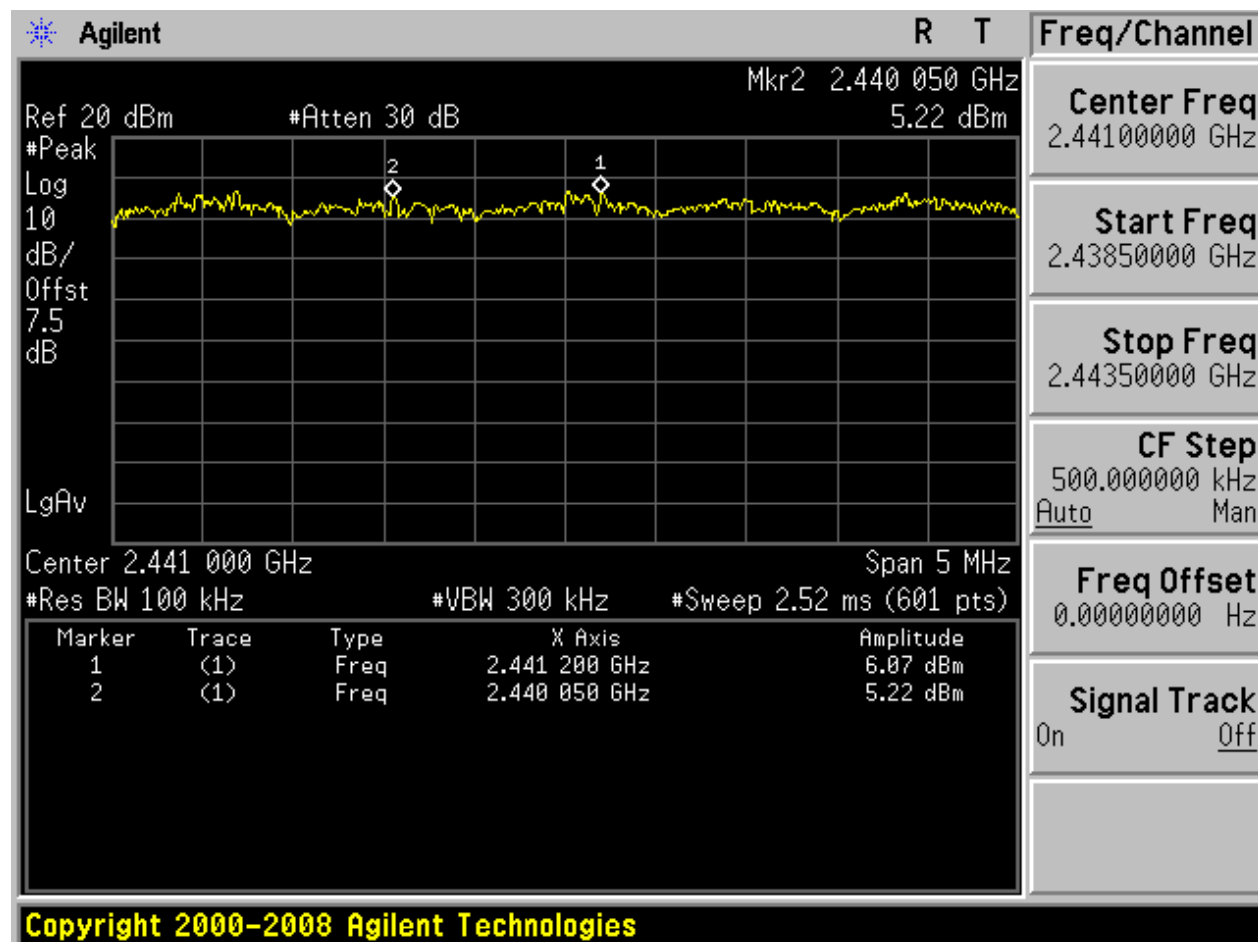
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	0.850	Pass
TM2_2DH5_Hop	1.150	Pass
TM3_3DH5_Hop	1.200	Pass

2 Test Plot

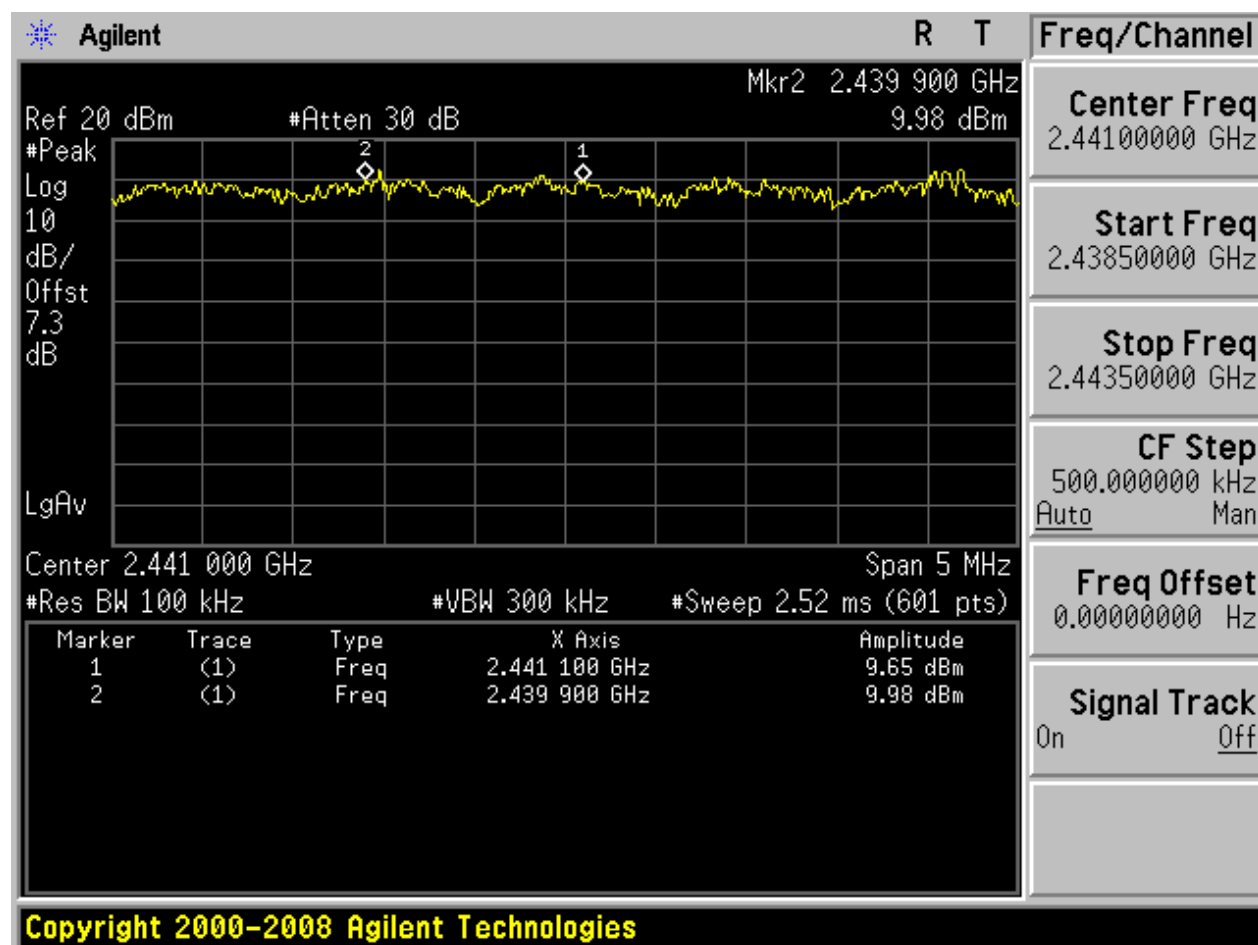
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop



Appendix C: Number of Hopping Channel

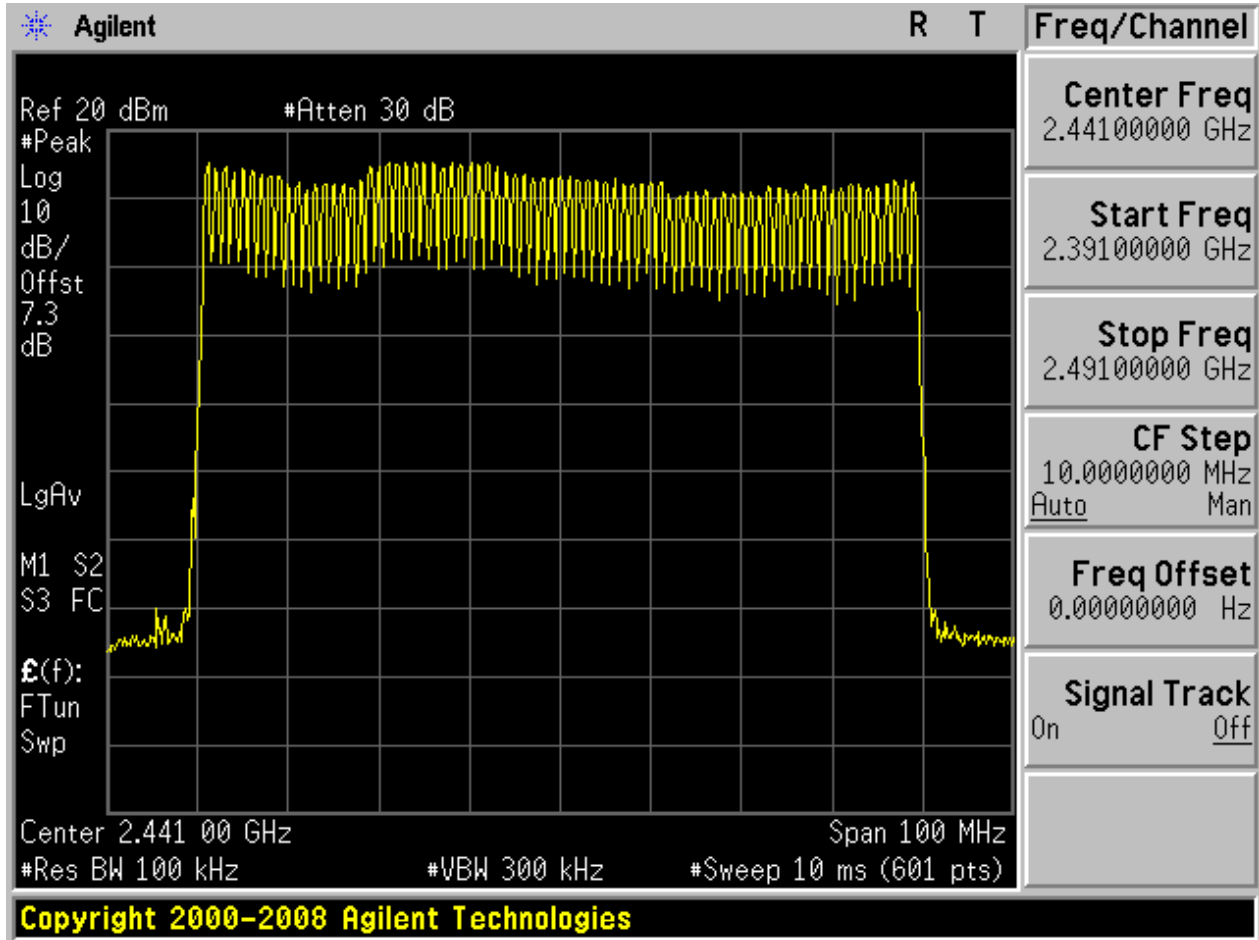


1 Result Table

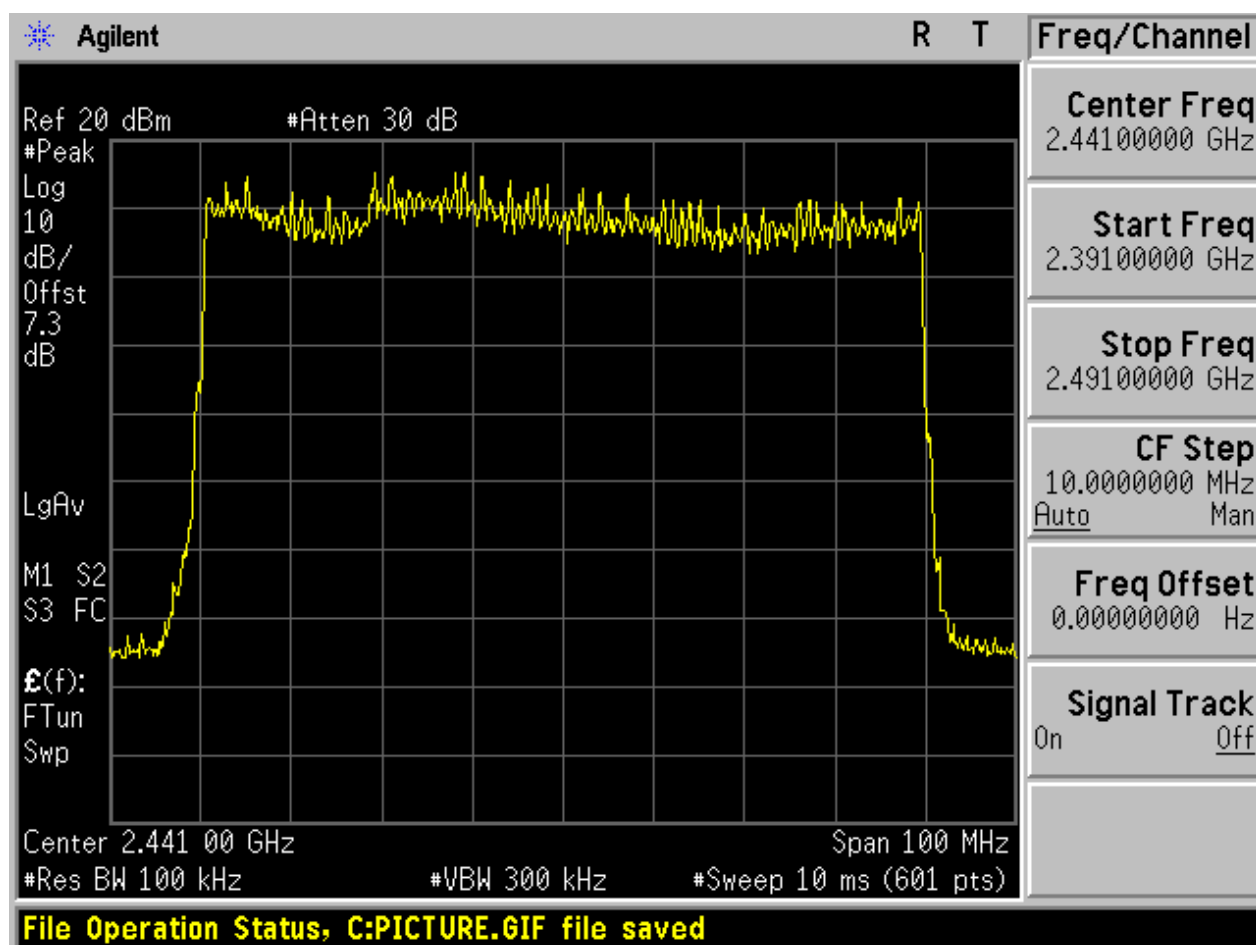
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

2 Test Plot

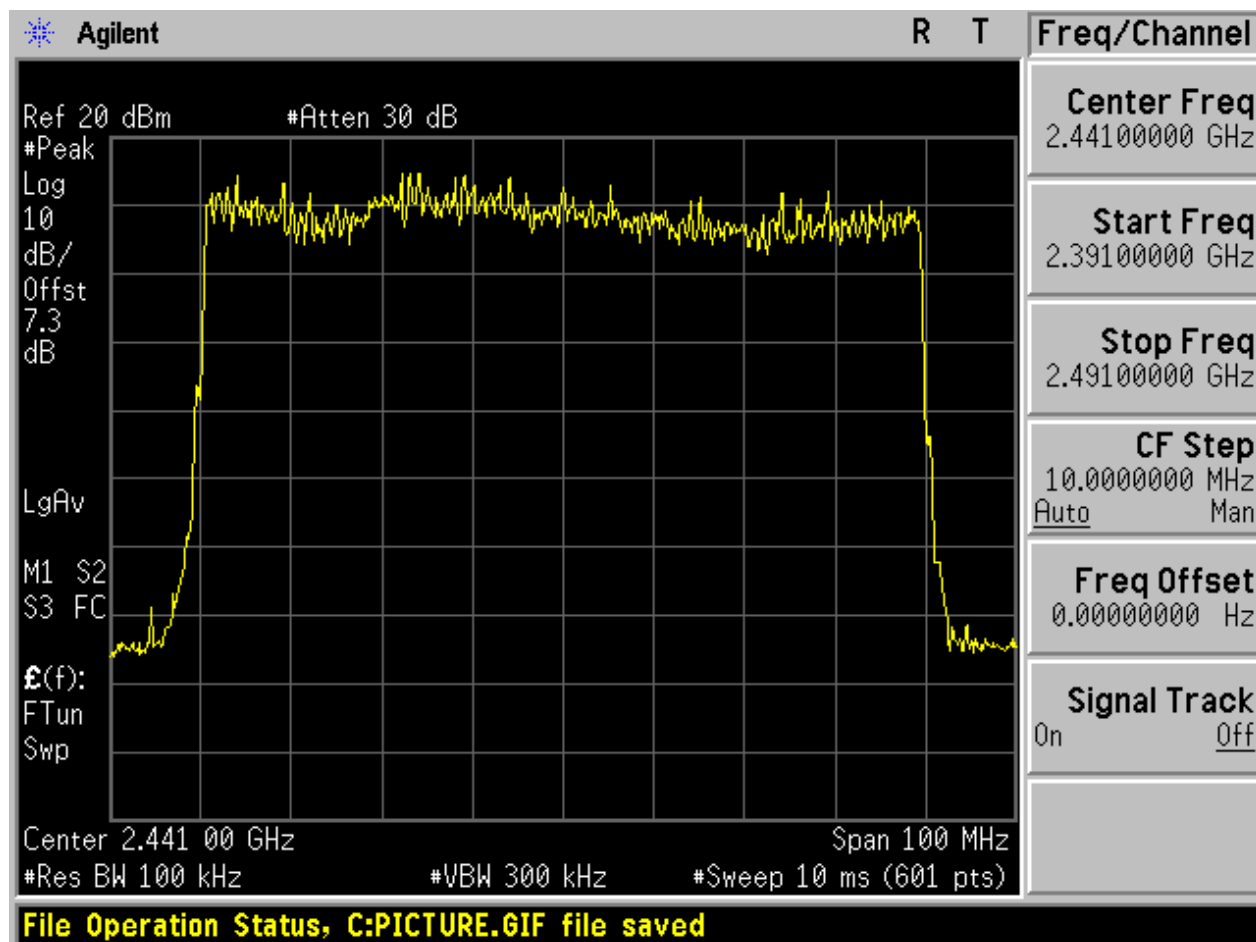
2.1 TM1_DH5_Hop



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:

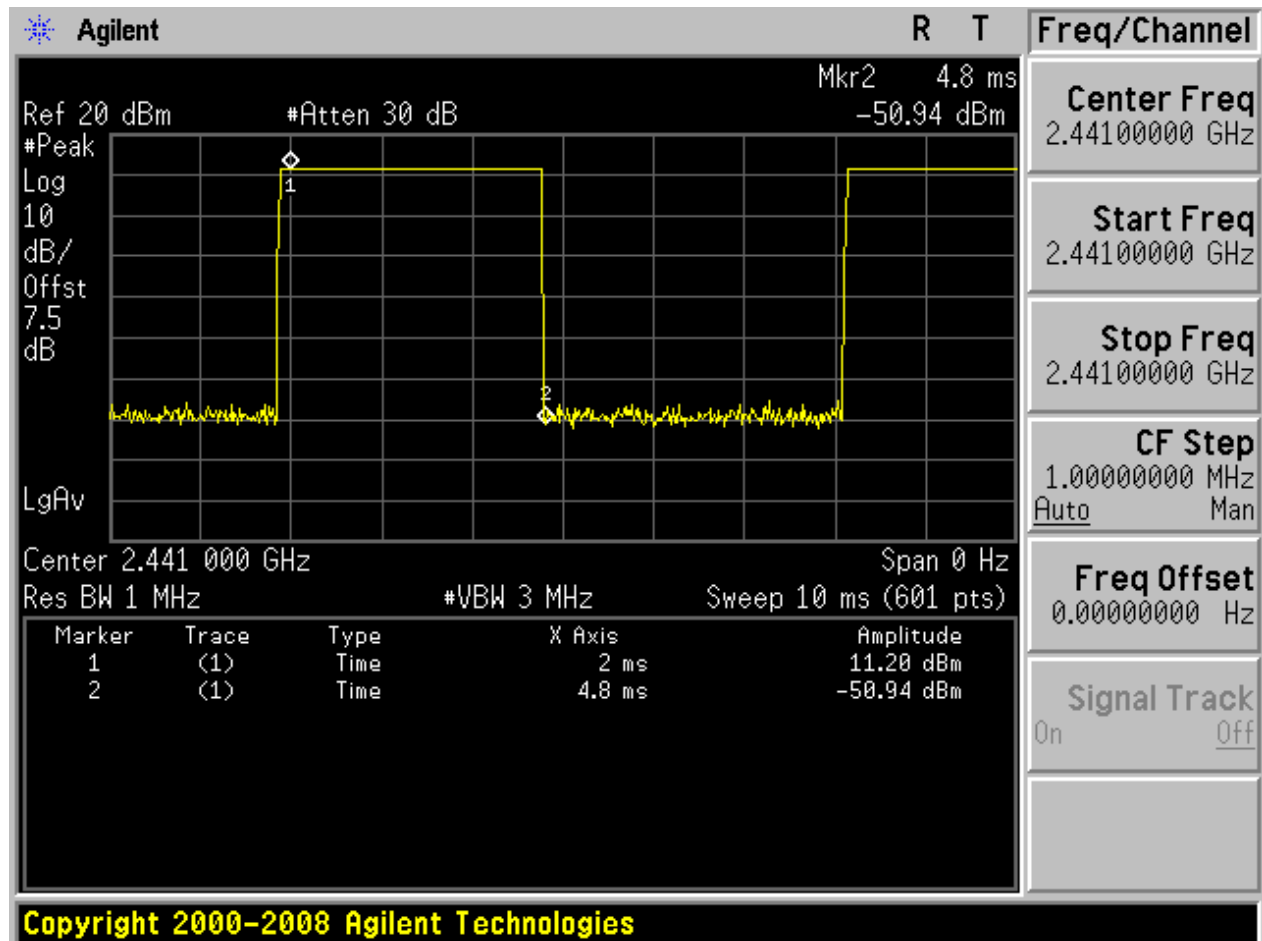
- The duration for dwell time calculation: $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT 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	2.800	106.67	0.298	Pass
TM2_2DH5_Ch39	2.900	106.67	0.309	Pass
TM3_3DH5_Ch39	2.900	106.67	0.309	Pass

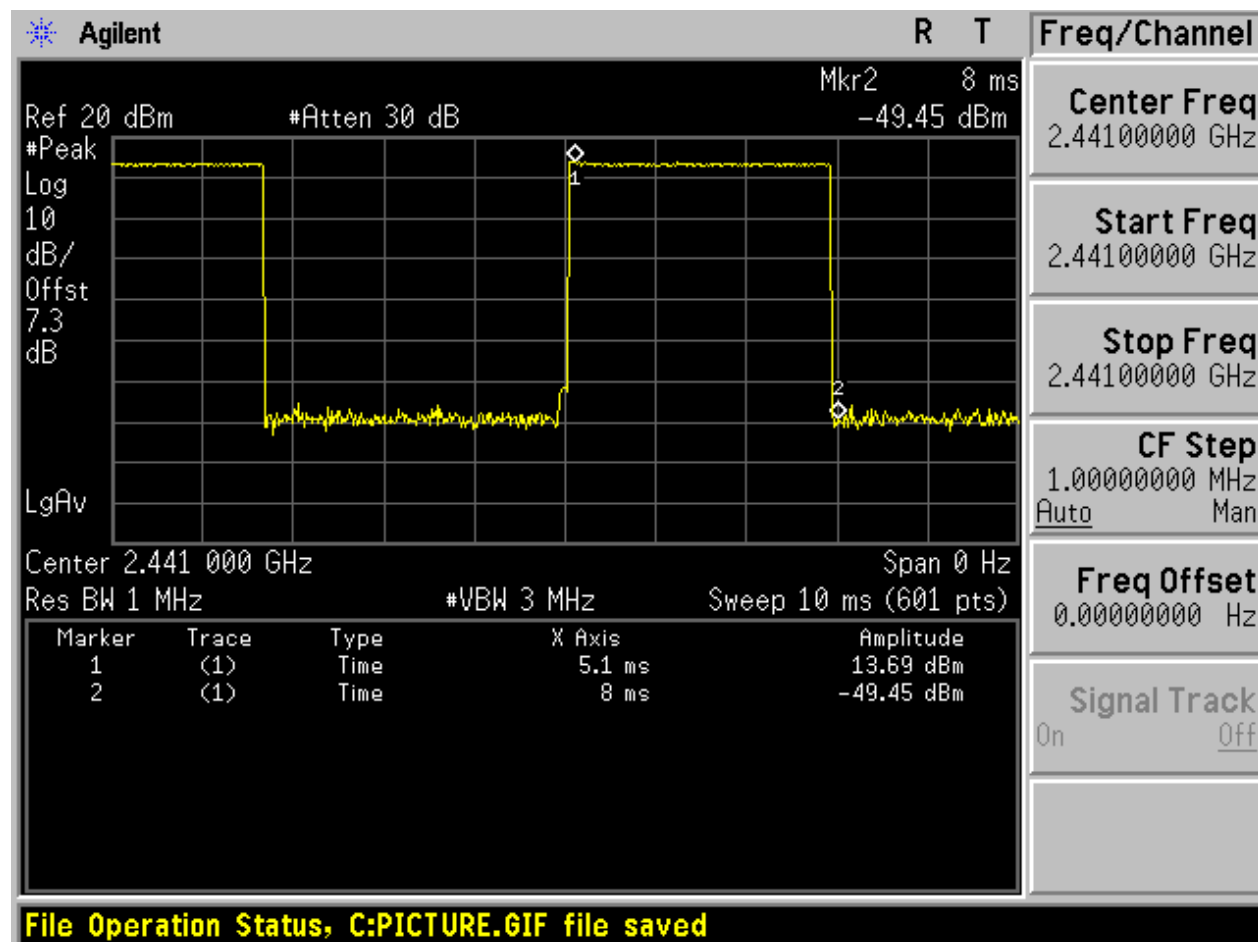
2 Test Plot

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

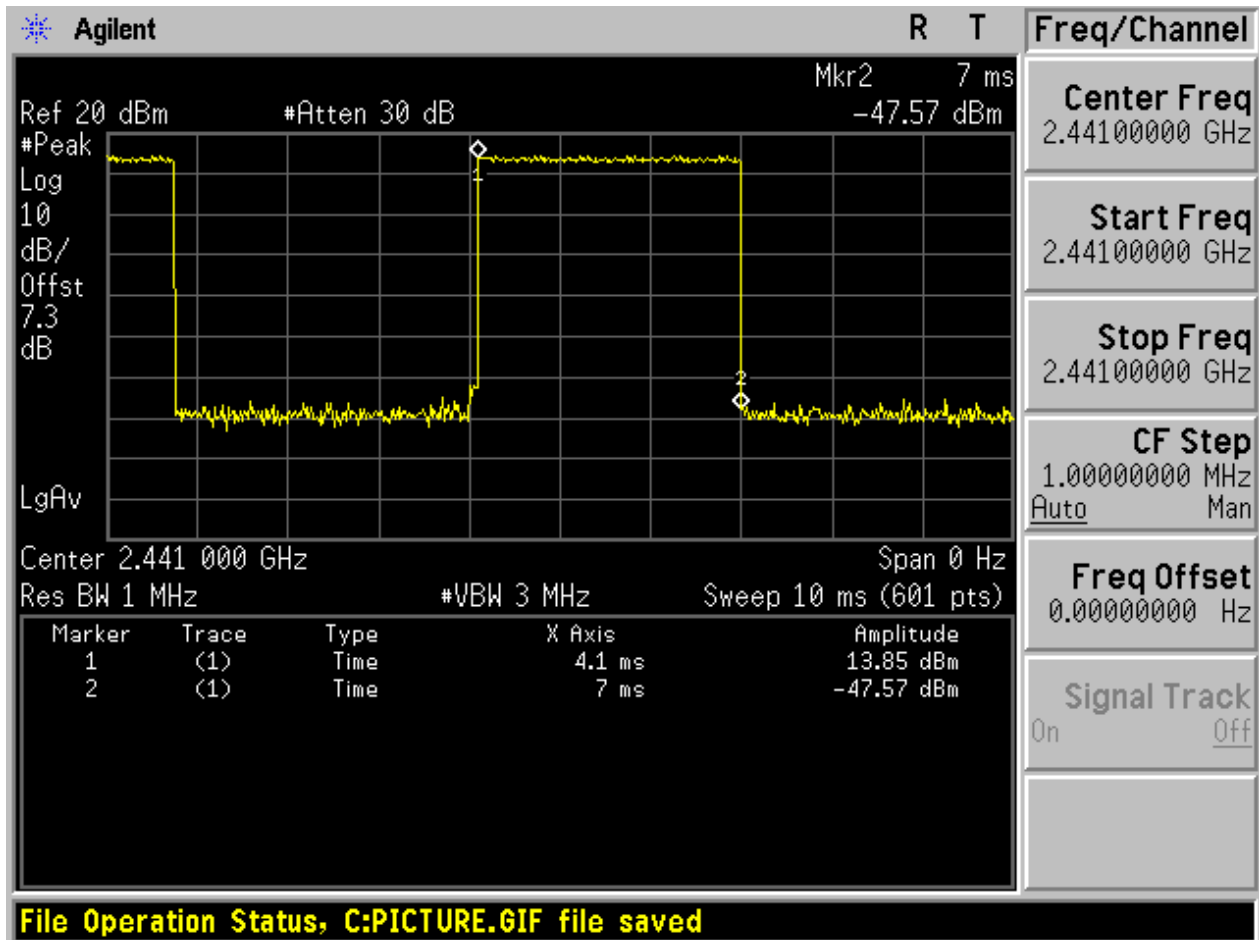
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39



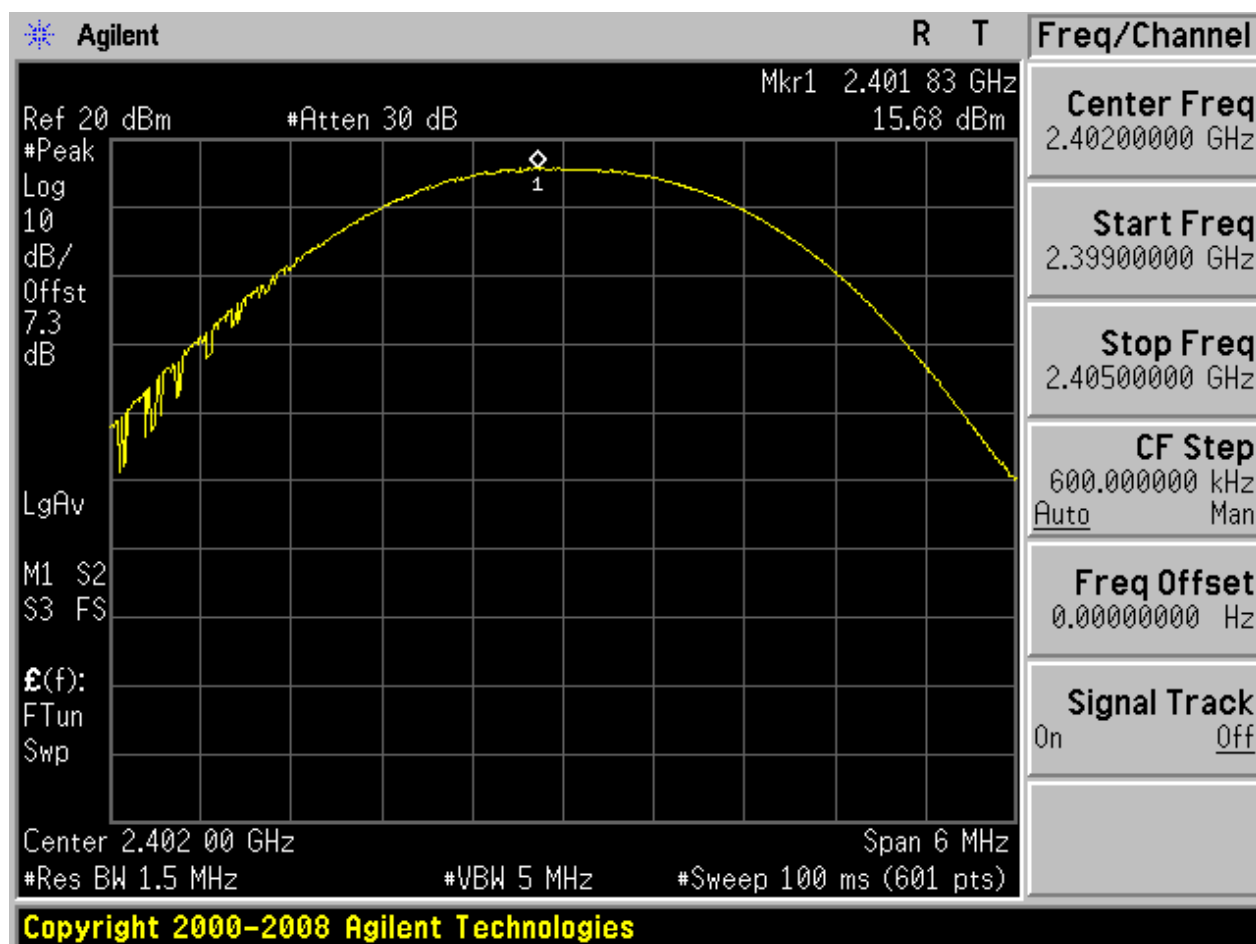
Appendix E: Maximum Peak Conducted Output Power

1 Result Table

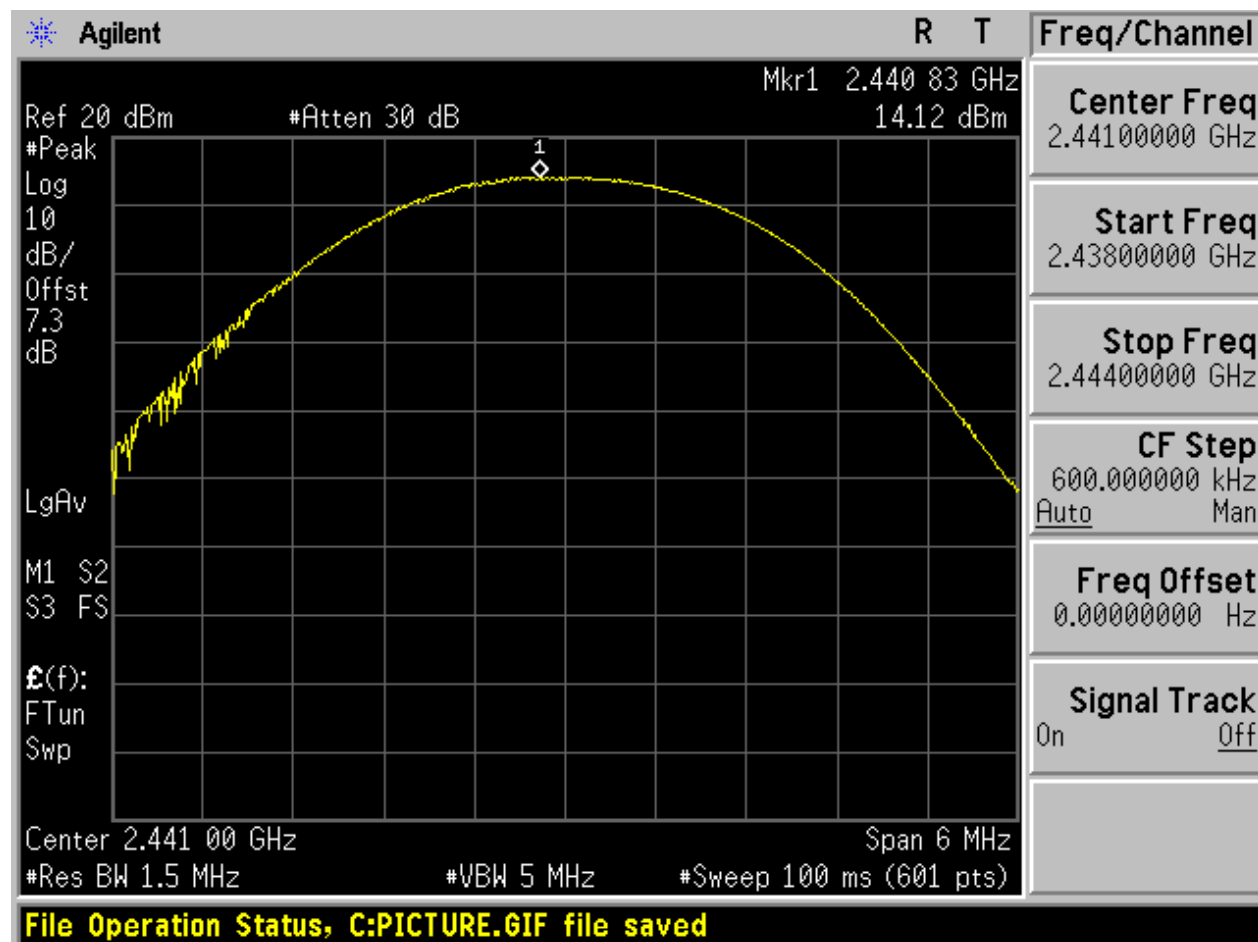
EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	15.68	Pass
TM1_DH5_Ch39	14.12	Pass
TM1_DH5_Ch78	13.85	Pass
TM2_2DH5_Ch0	15.7	Pass
TM2_2DH5_Ch39	14.14	Pass
TM2_2DH5_Ch78	13.86	Pass
TM3_3DH5_Ch0	15.72	Pass
TM3_3DH5_Ch39	14.44	Pass
TM3_3DH5_Ch78	14.22	Pass

2 Test Plot

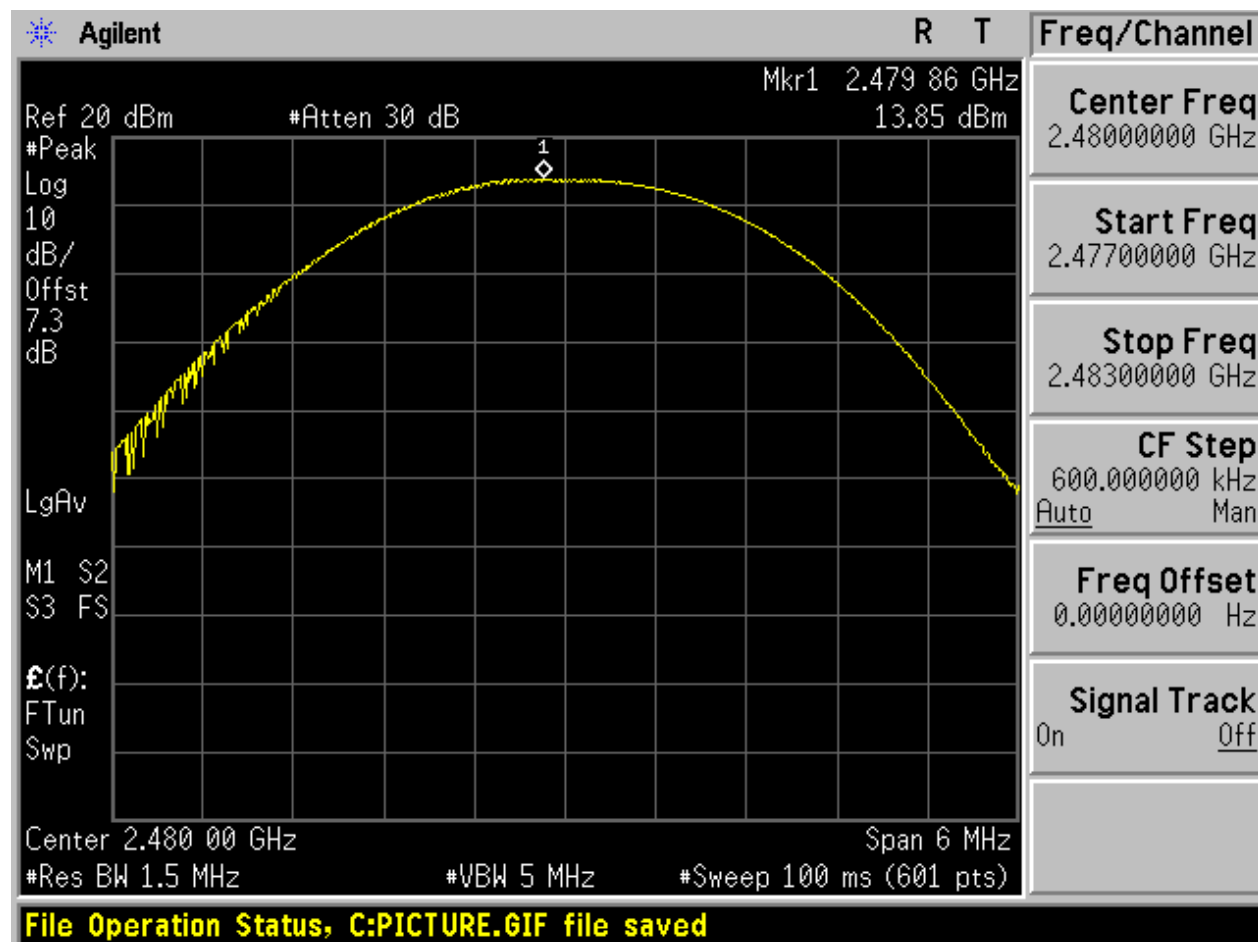
2.1 TM1_DH5_Ch0



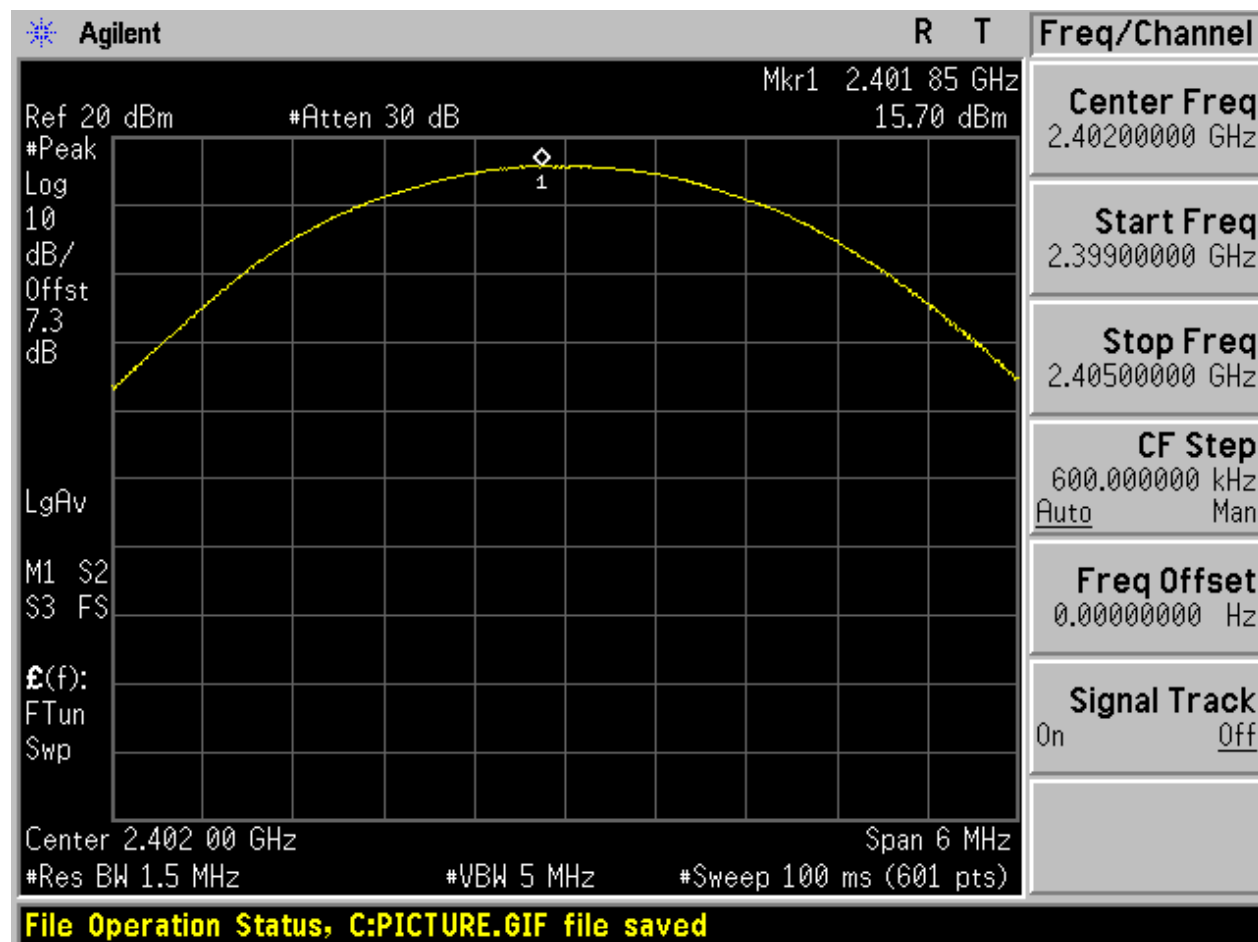
2.2 TM1_DH5_Ch39



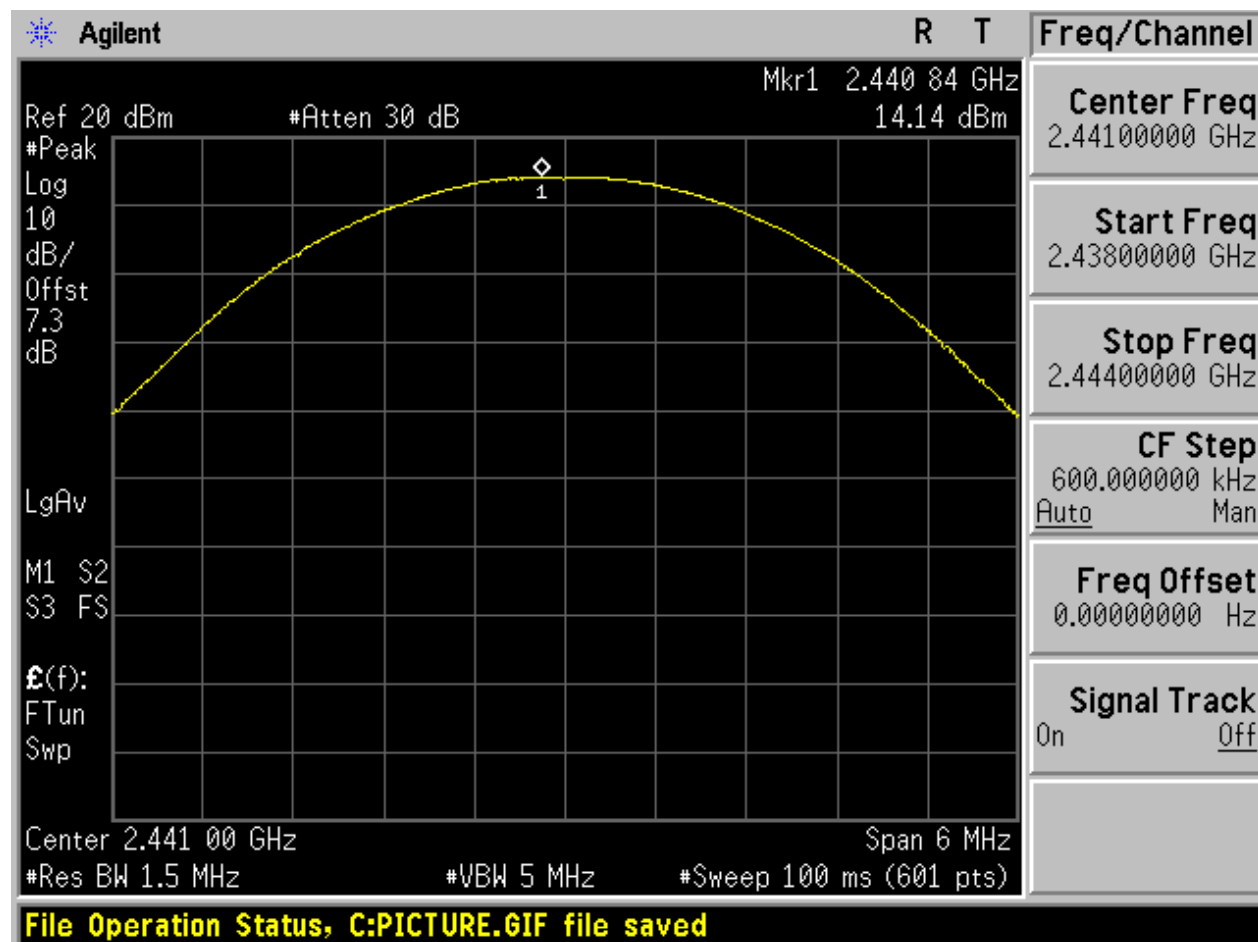
2.3 TM1_DH5_Ch78



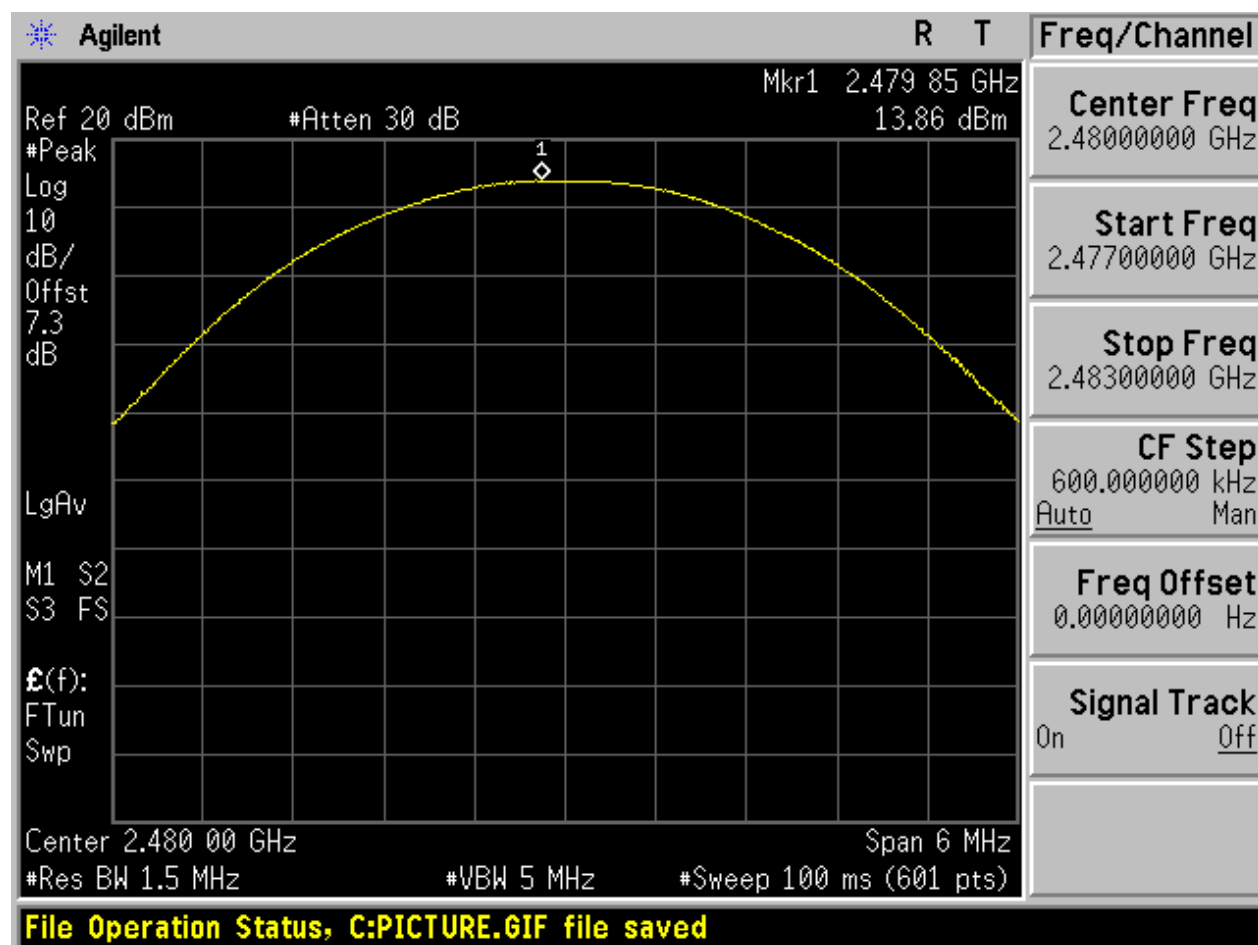
2.4 TM2_2DH5_Ch0



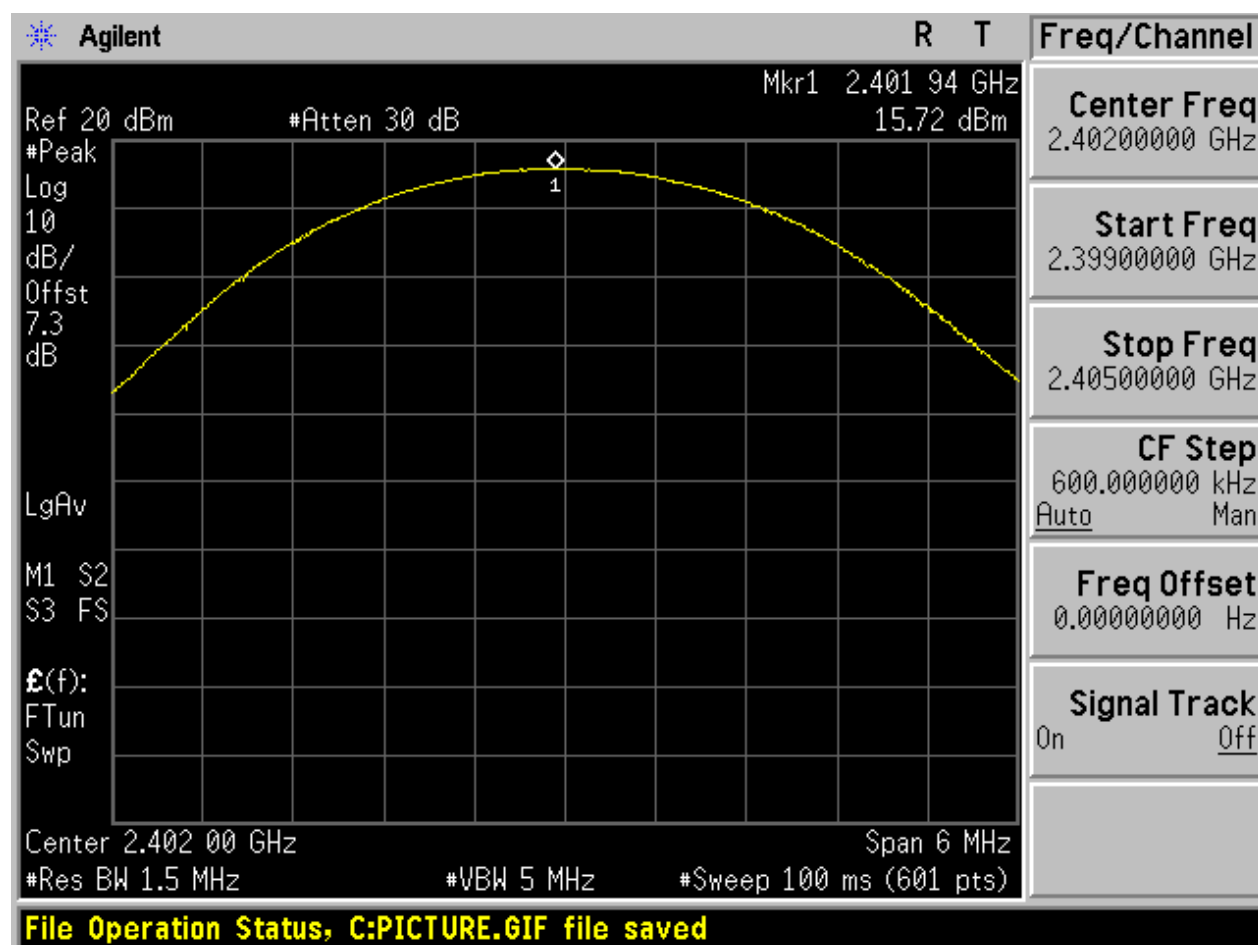
2.5 TM2_2DH5_Ch39



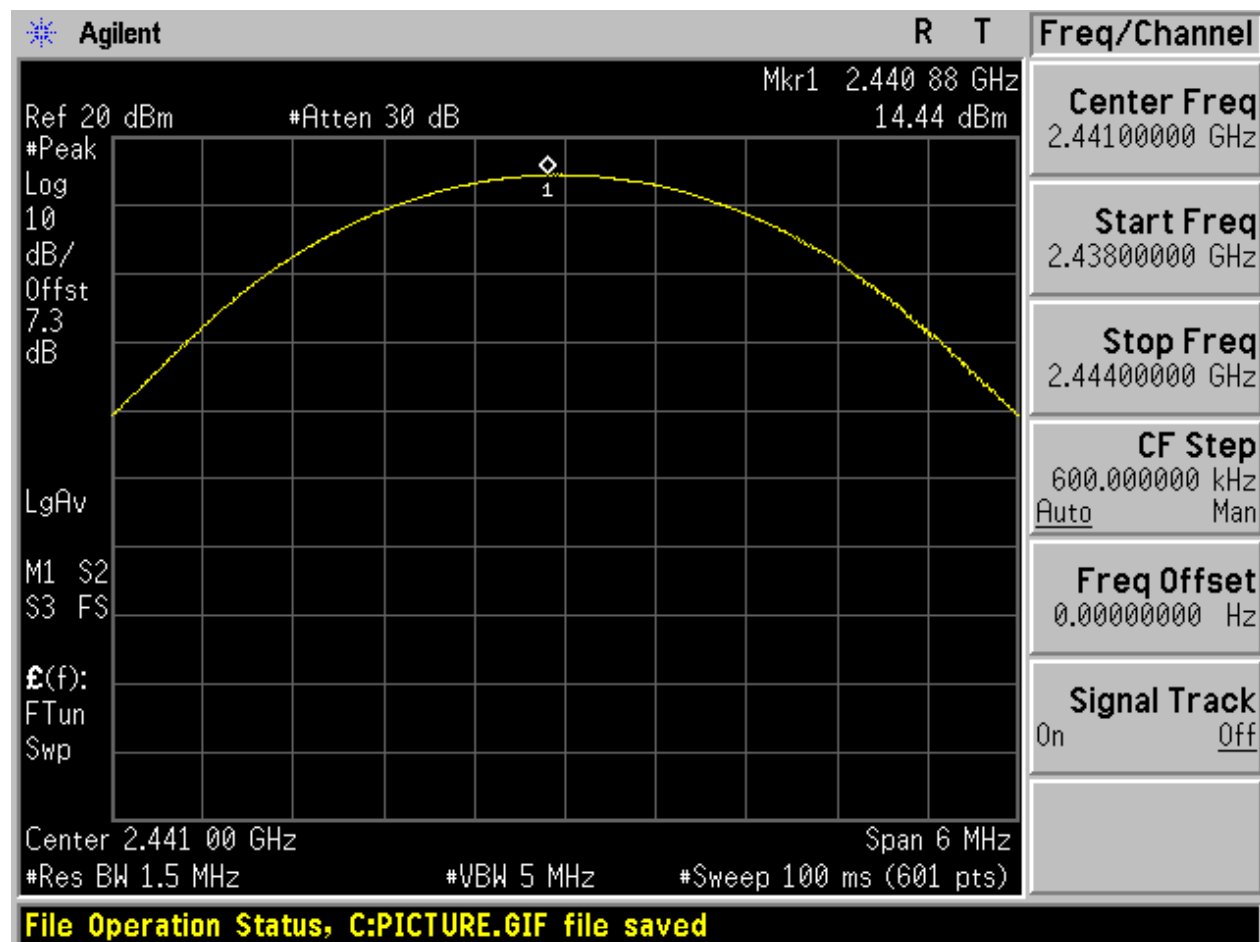
2.6 TM2_2DH5_Ch78



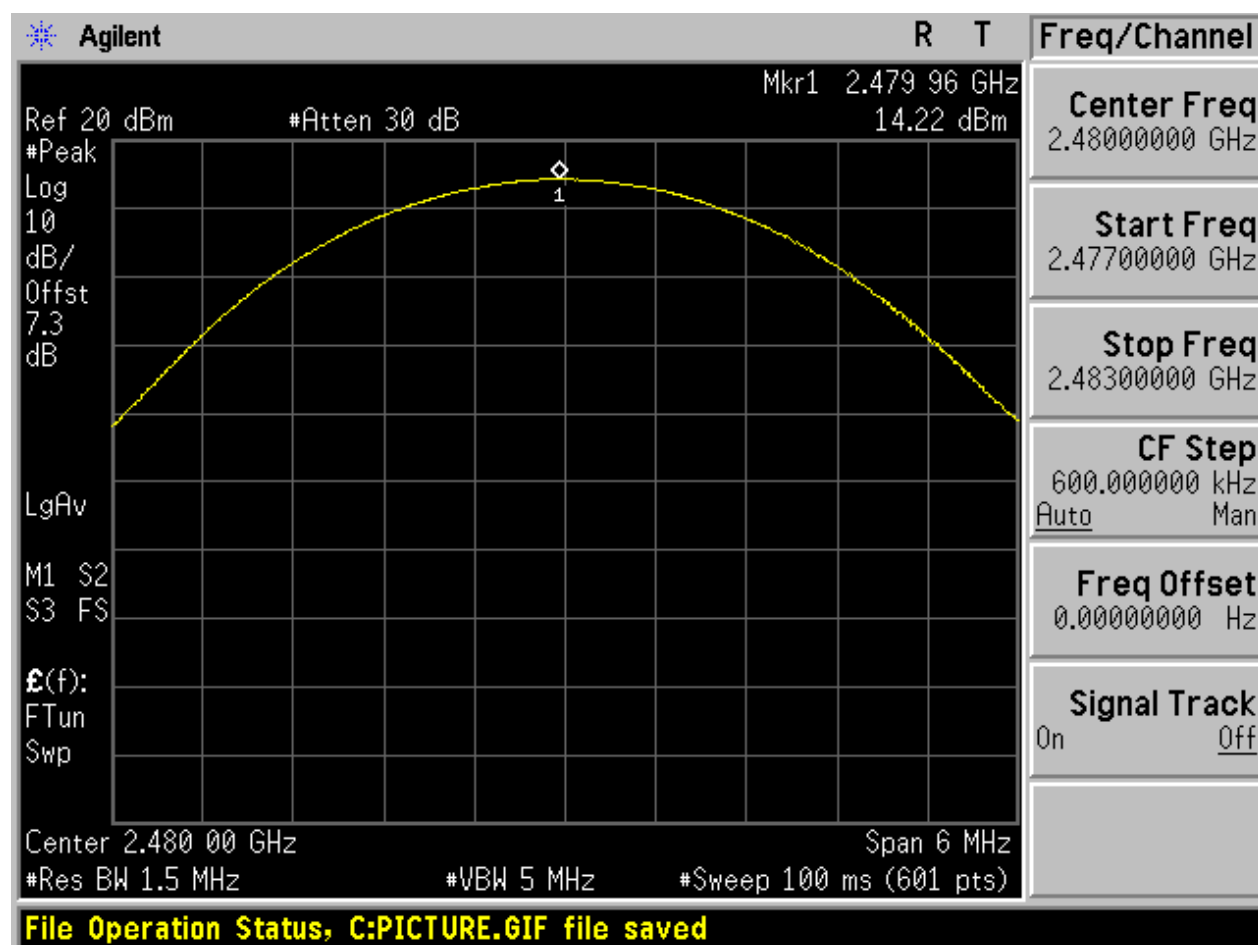
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78



Appendix F: Band edge spurious emission

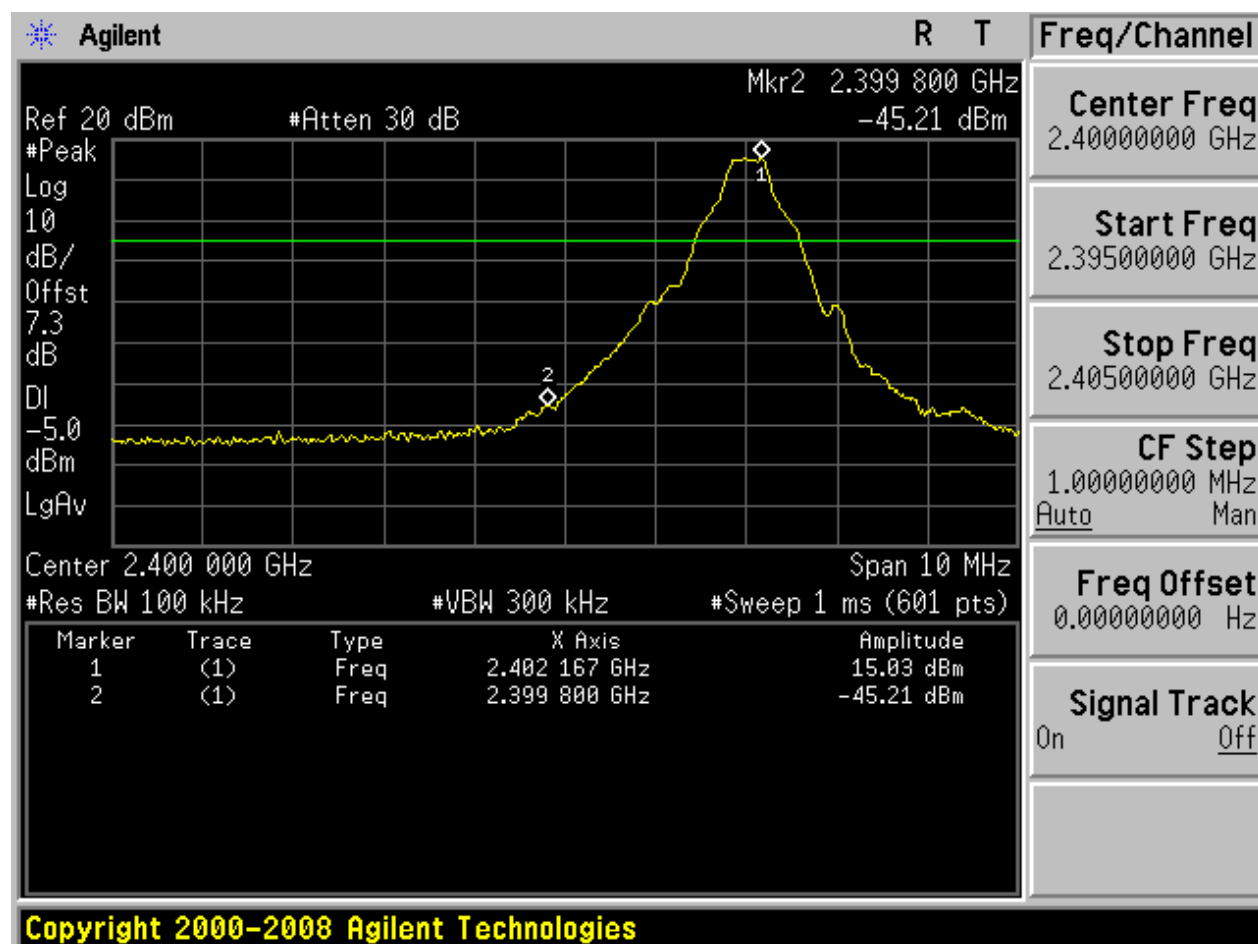
1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5_Ch0	0	2402	-45.21	Off	15.03	-4.97	Pass
	-	-	-49.99	On	15.04	-4.96	Pass
TM1_DH5_Ch78	78	2480	-50.76	Off	13.21	-6.79	Pass
	-	-	-51.85	On	13.00	-7	Pass
TM2_2DH5_Ch0	0	2402	-34.88	Off	15.10	-4.9	Pass
	-	-	-36.86	On	14.80	-5.2	Pass
TM2_2DH5_Ch78	78	2480	-48.61	Off	13.26	-6.74	Pass
	-	-	-51.24	On	11.09	-8.91	Pass
TM3_3DH5_Ch0	0	2402	-35.23	Off	15.10	-4.9	Pass
	-	-	-36.76	On	14.19	-5.81	Pass
TM3_3DH5_Ch78	78	2480	-48.84	Off	13.25	-6.75	Pass
	-	-	-51.64	On	11.01	-8.99	Pass

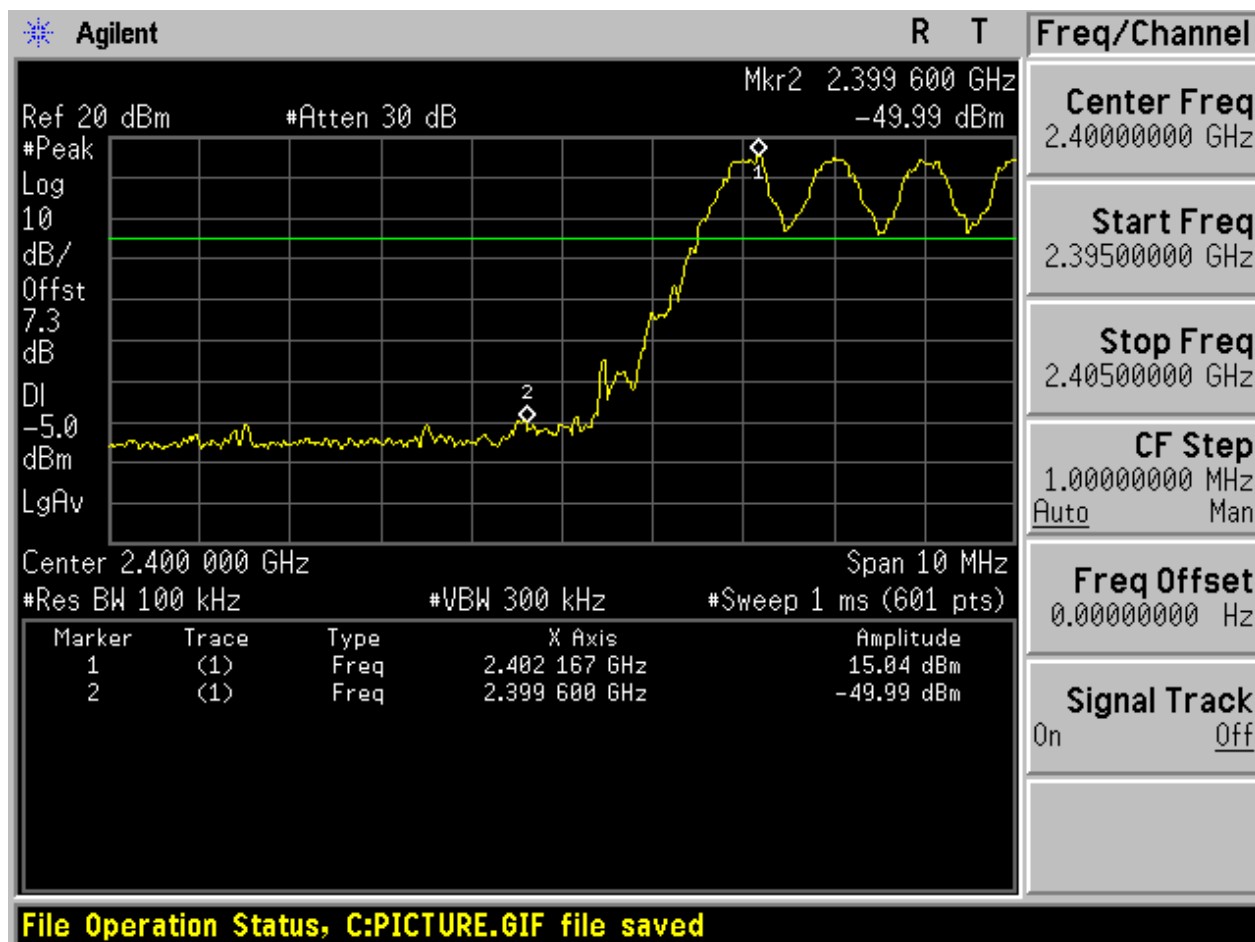
2 Test Plot

2.1 TM1_DH5_Ch0

No hopping

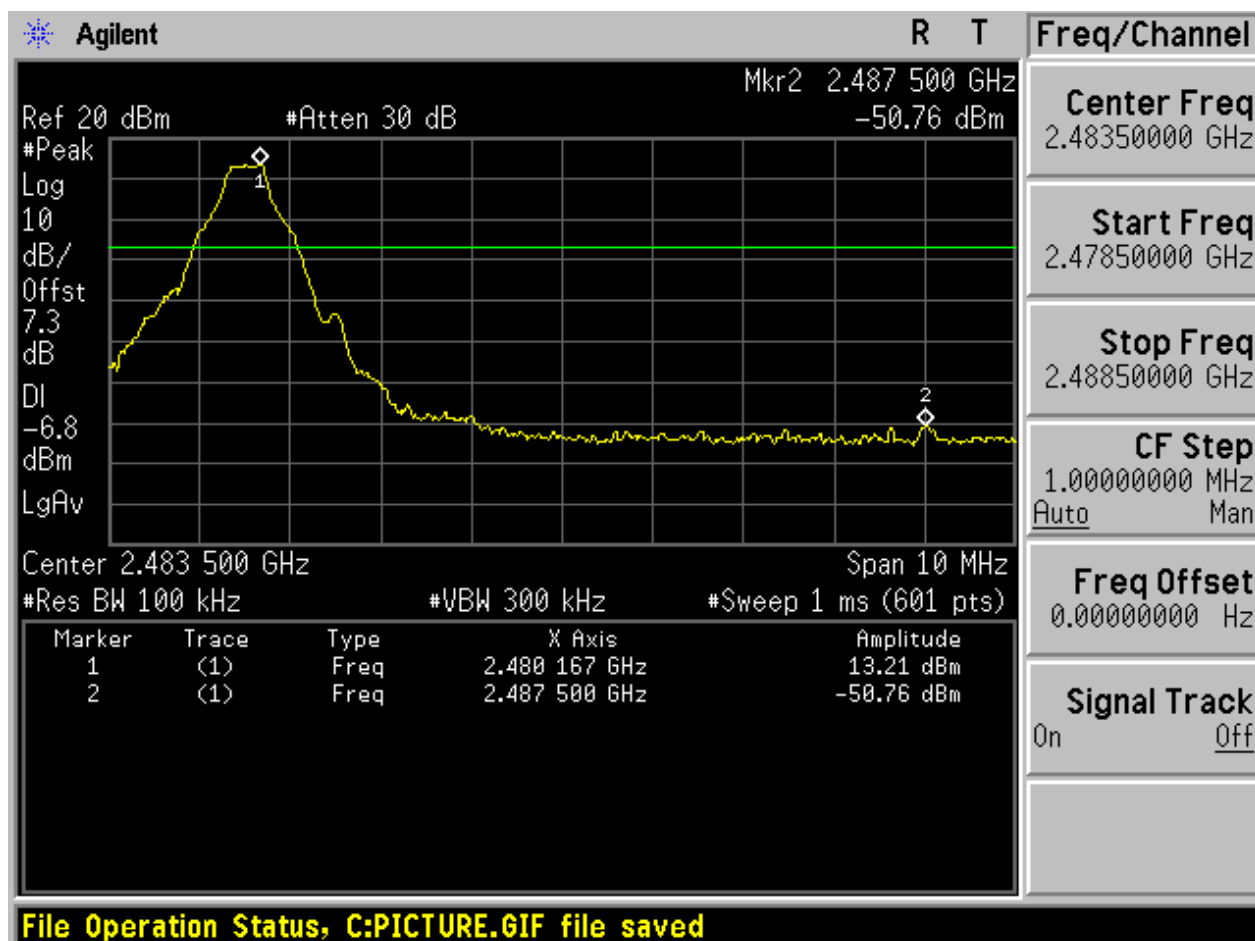


With hopping

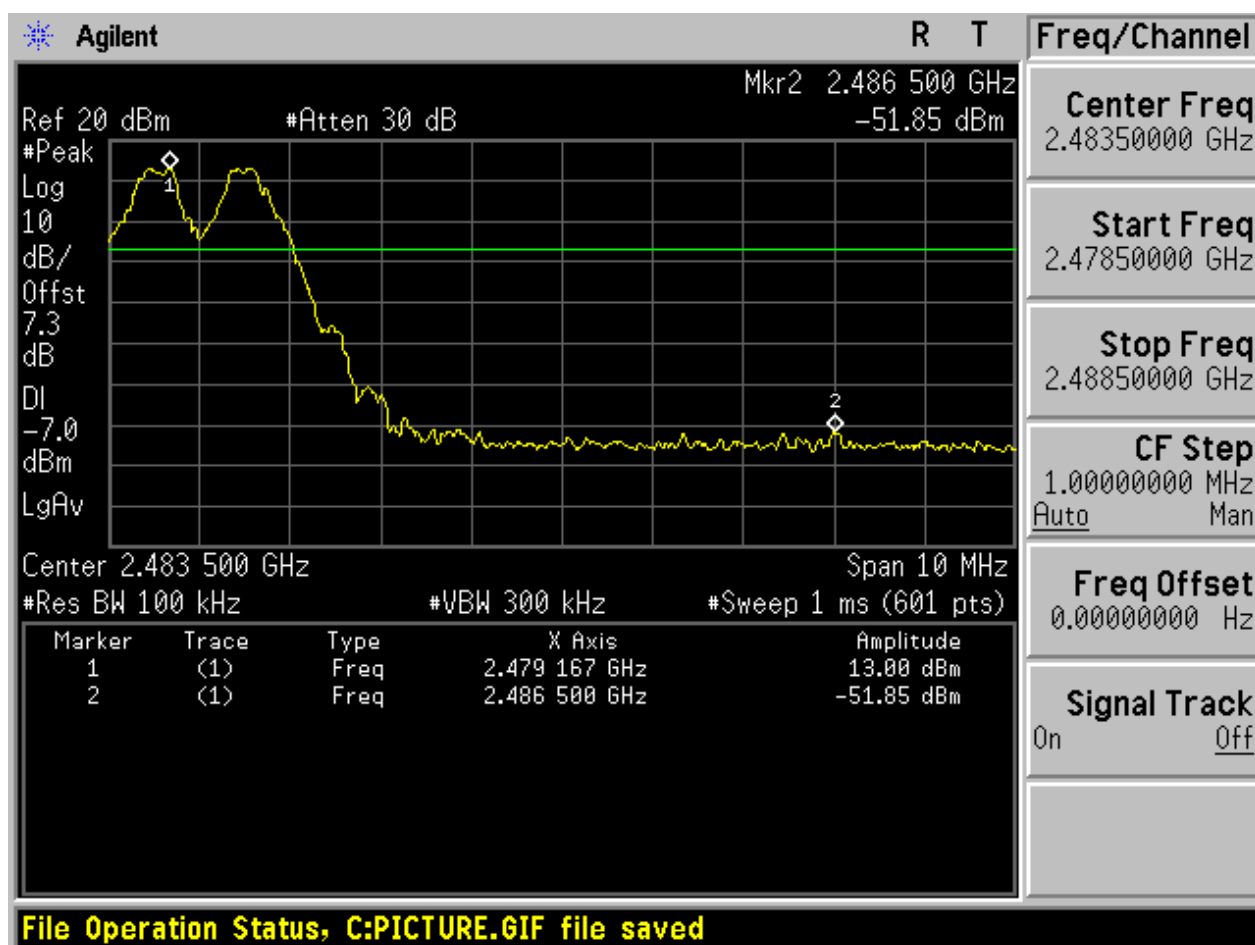


2.2 TM1_DH5_Ch78

No hopping

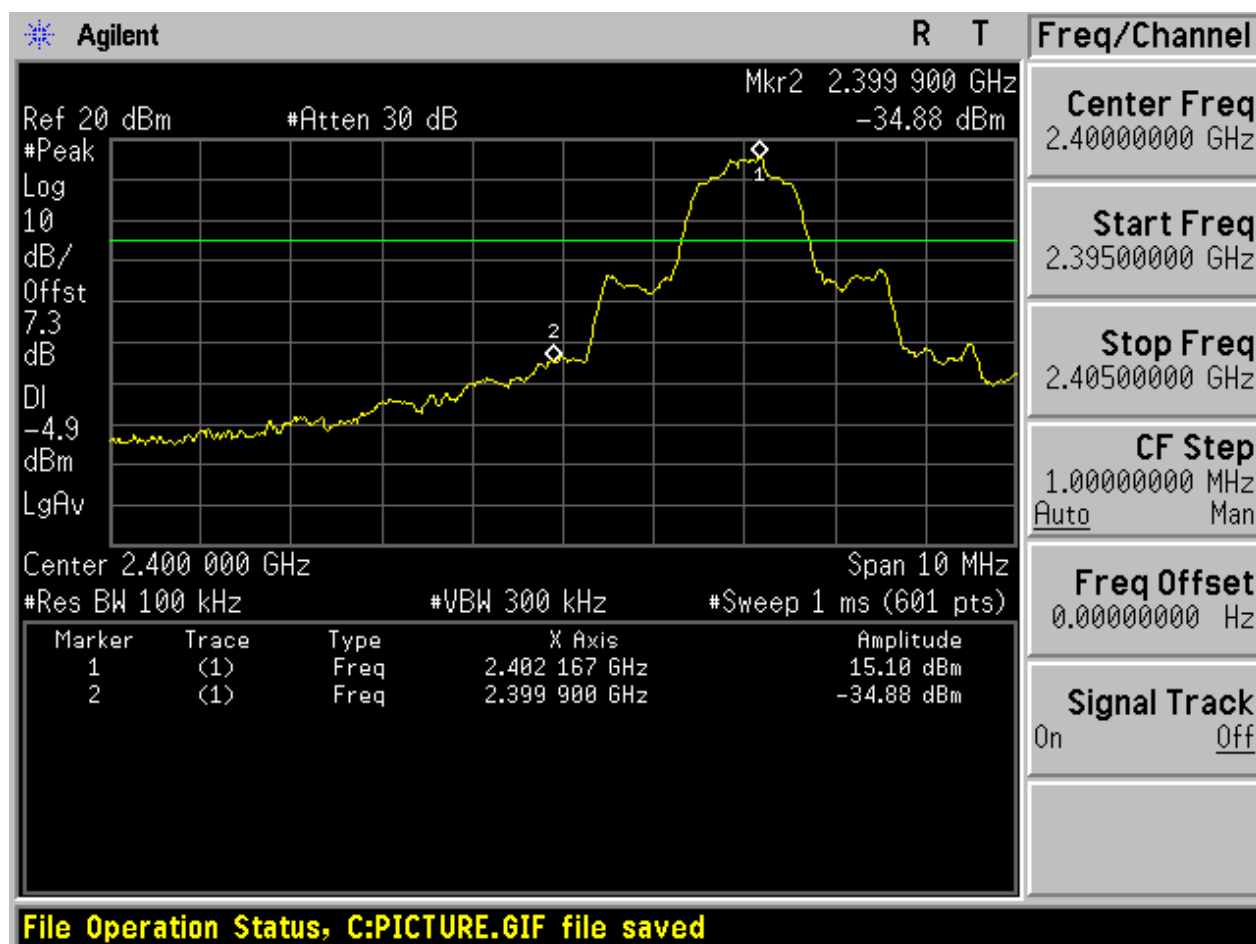


With hopping

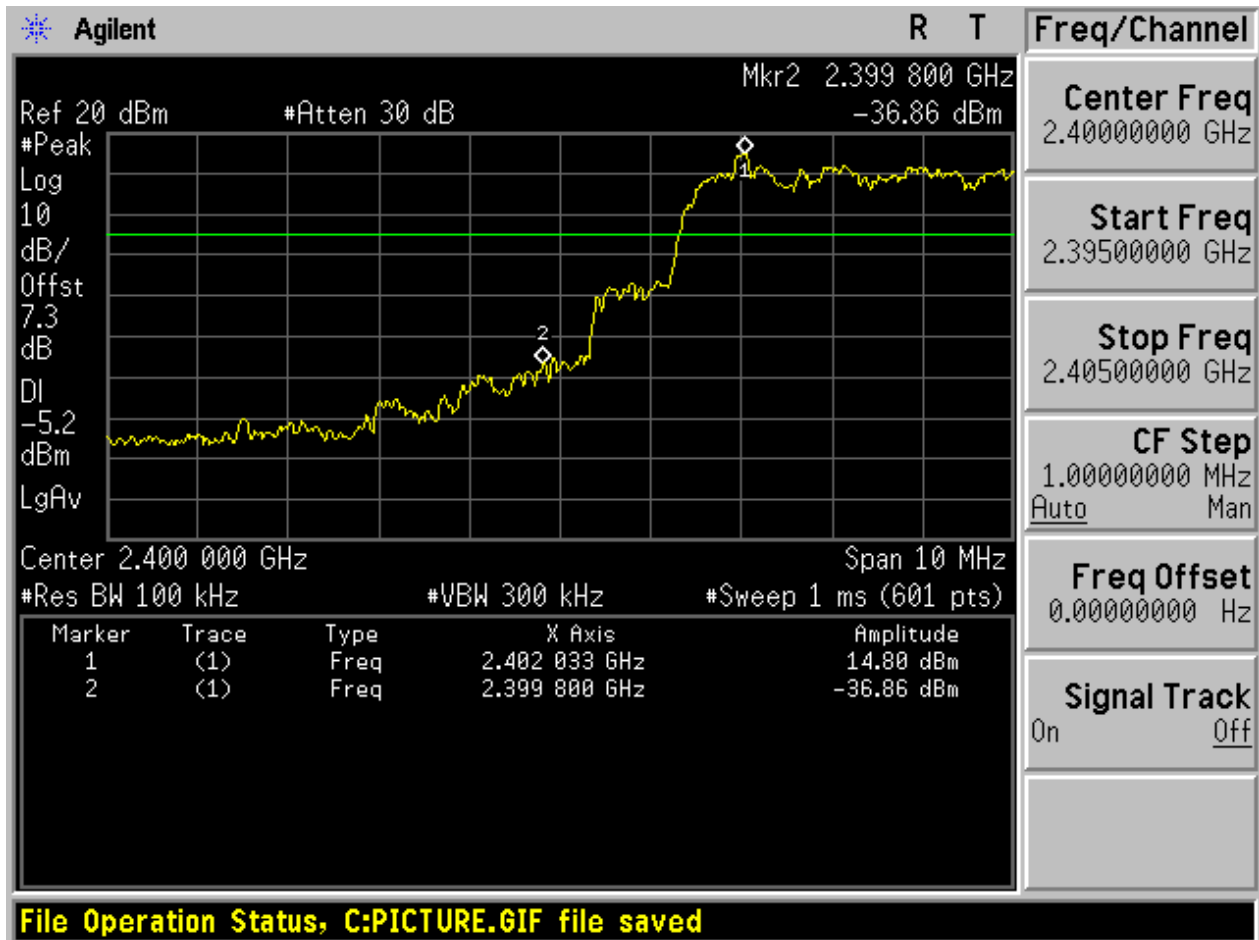


2.3 TM2_2DH5_Ch0

No hopping

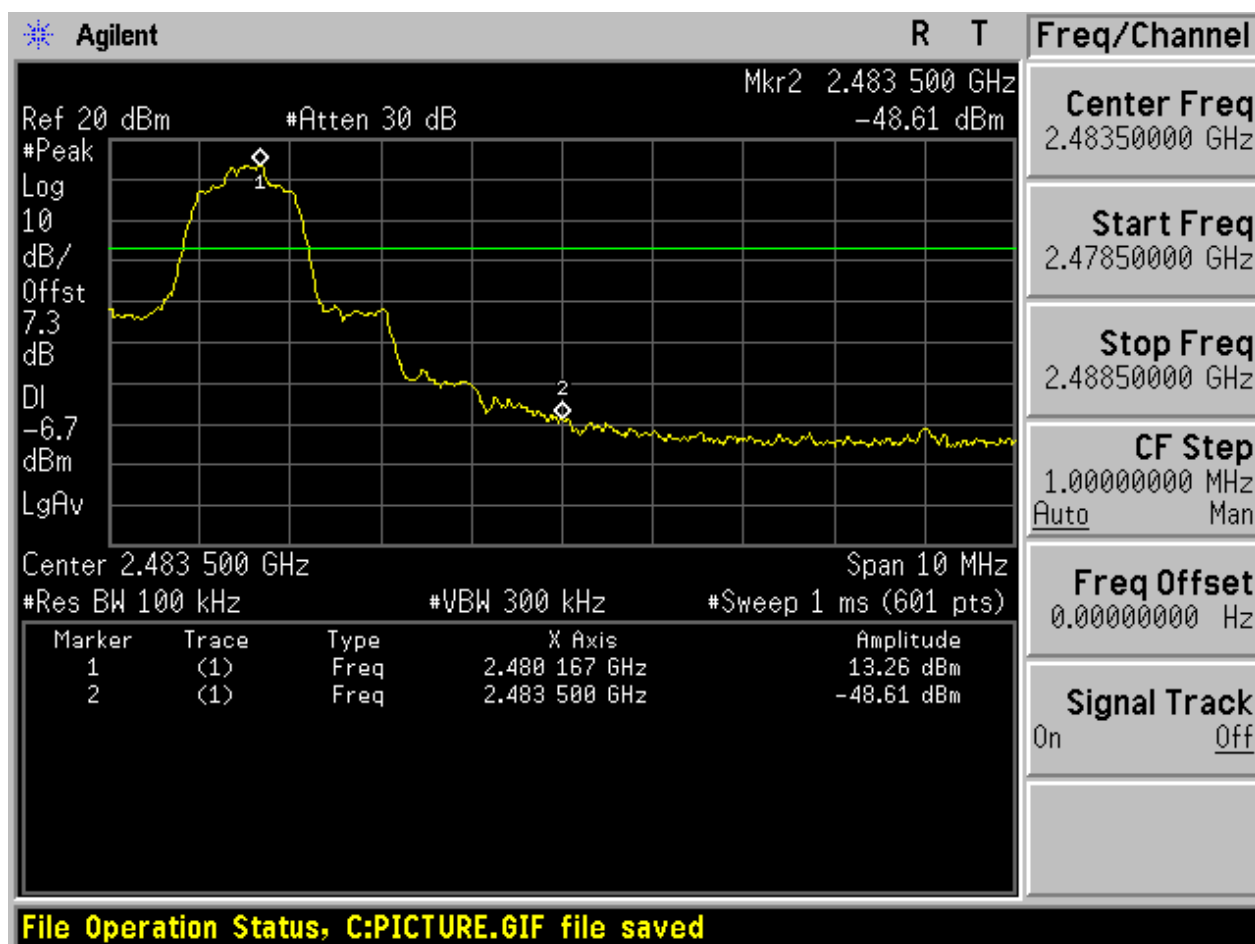


With hopping

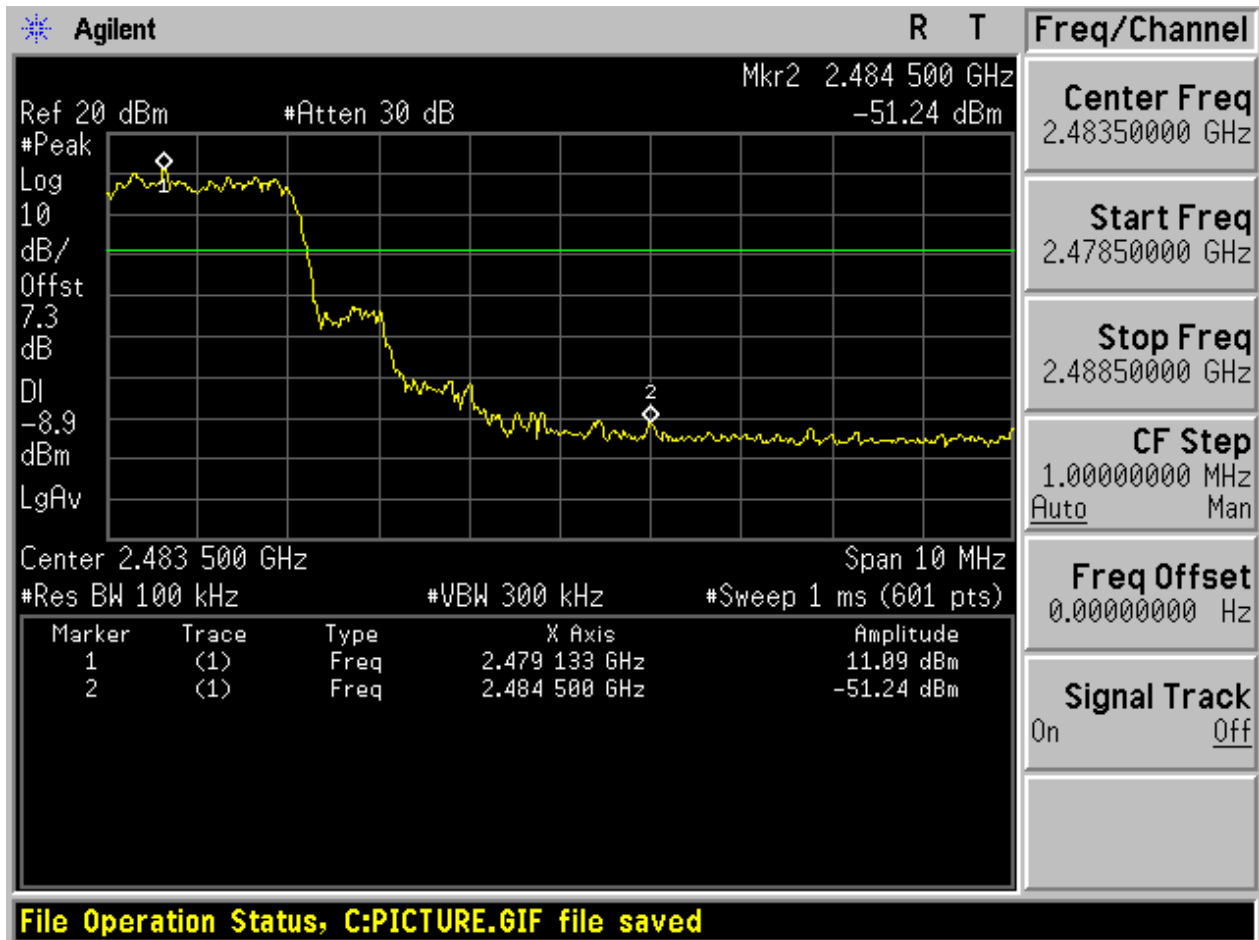


2.4 TM2_2DH5_Ch78

No hopping

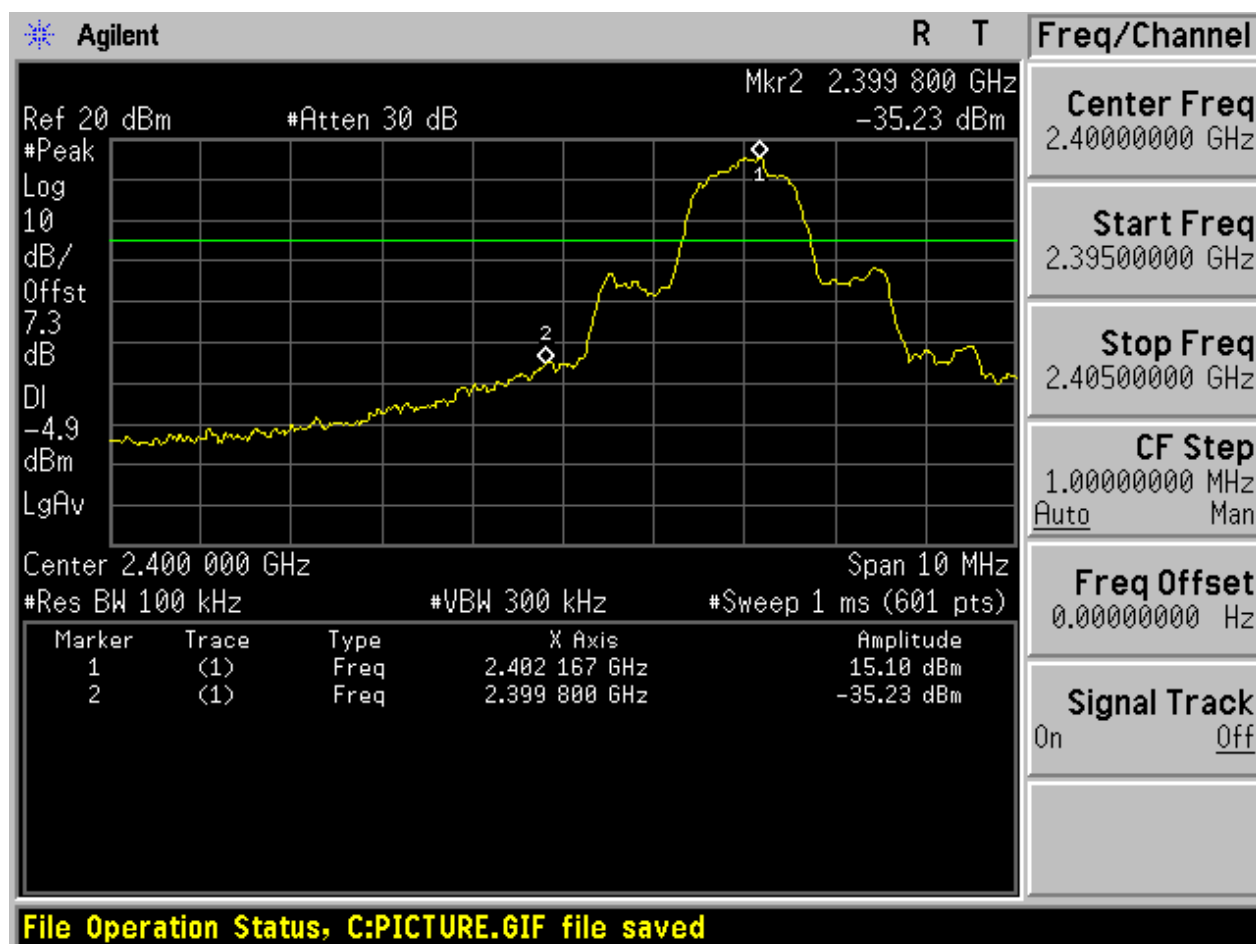


With hopping

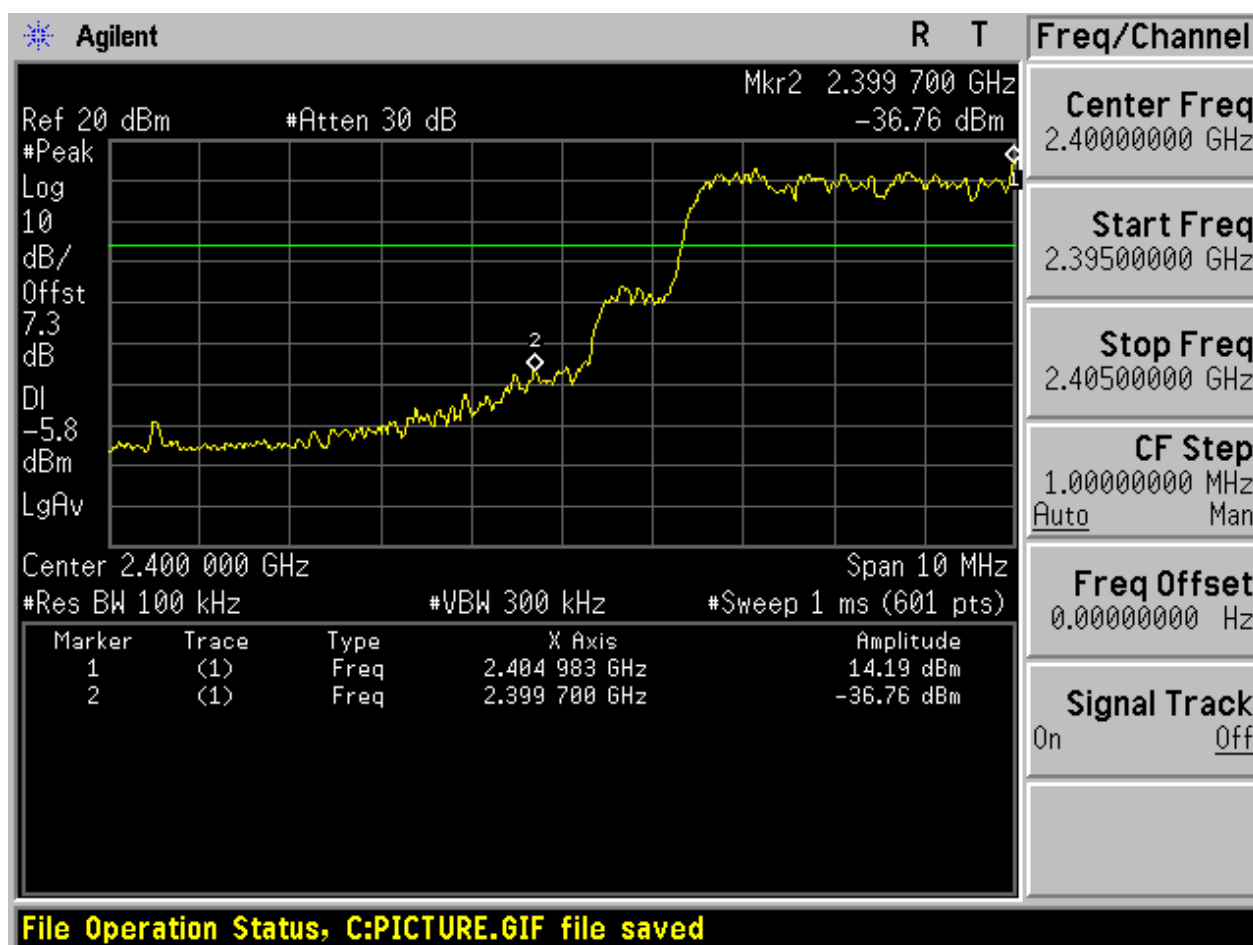


2.5 TM3_3DH5_Ch0

No hopping

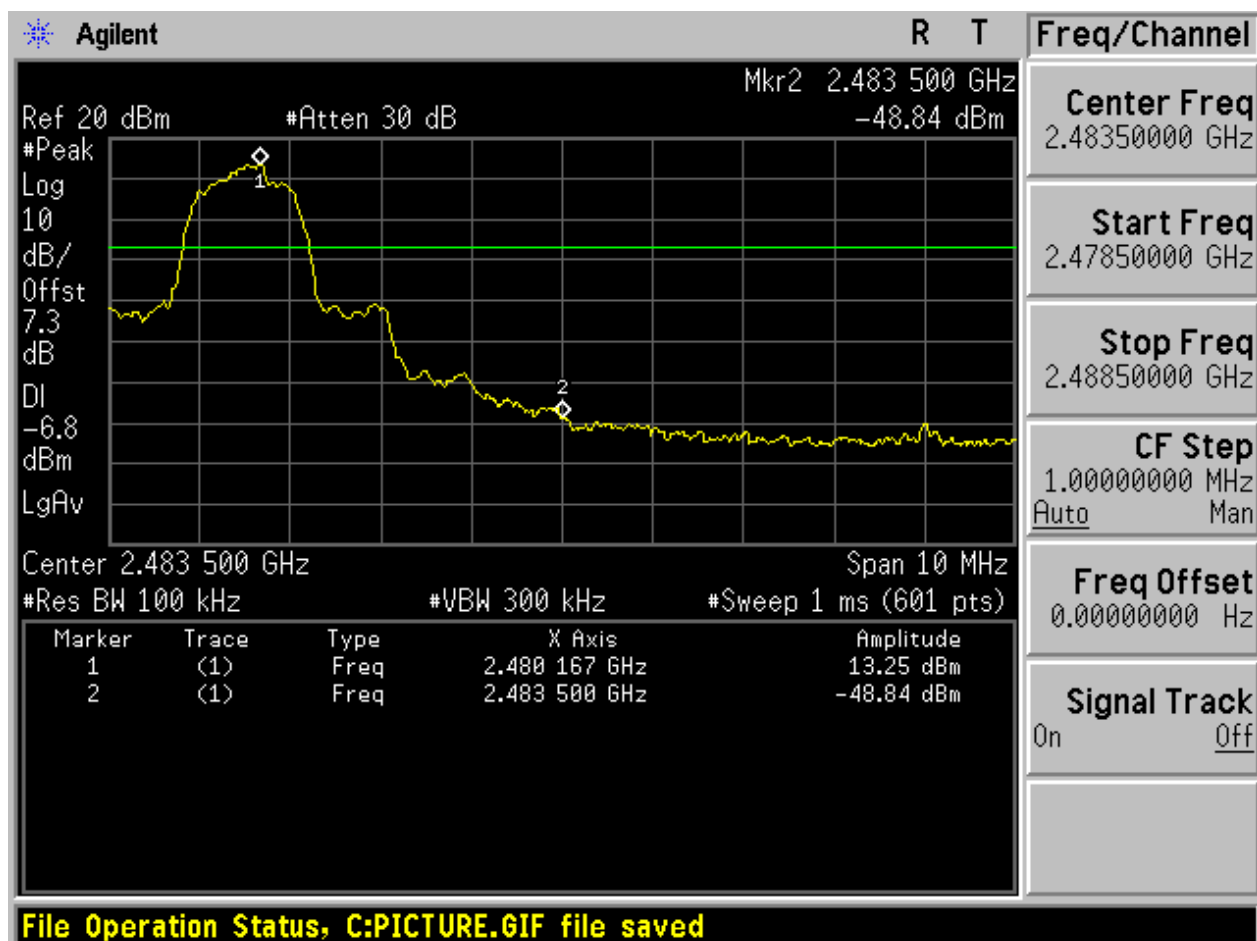


With hopping

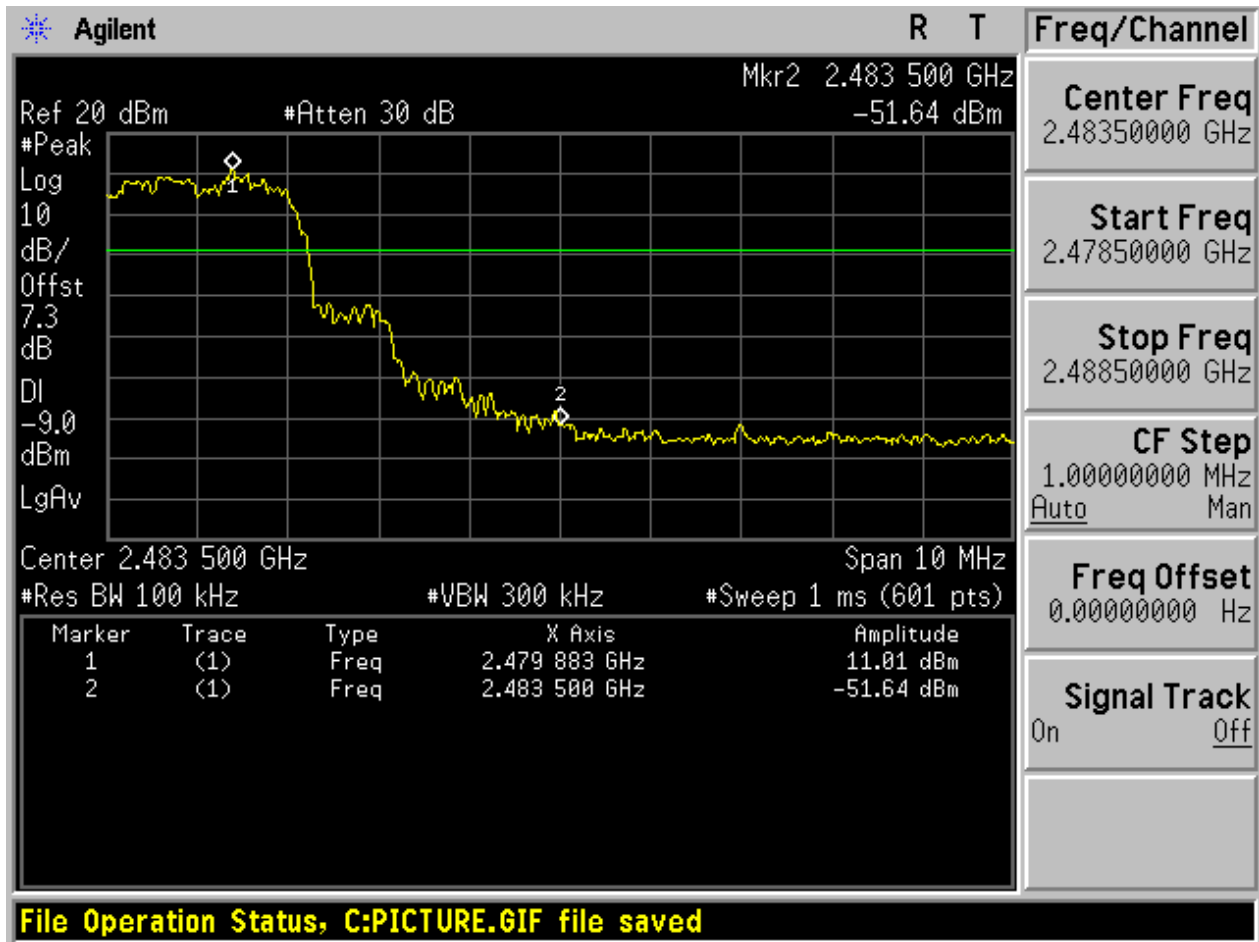


2.6 TM3_3DH5_Ch78

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.

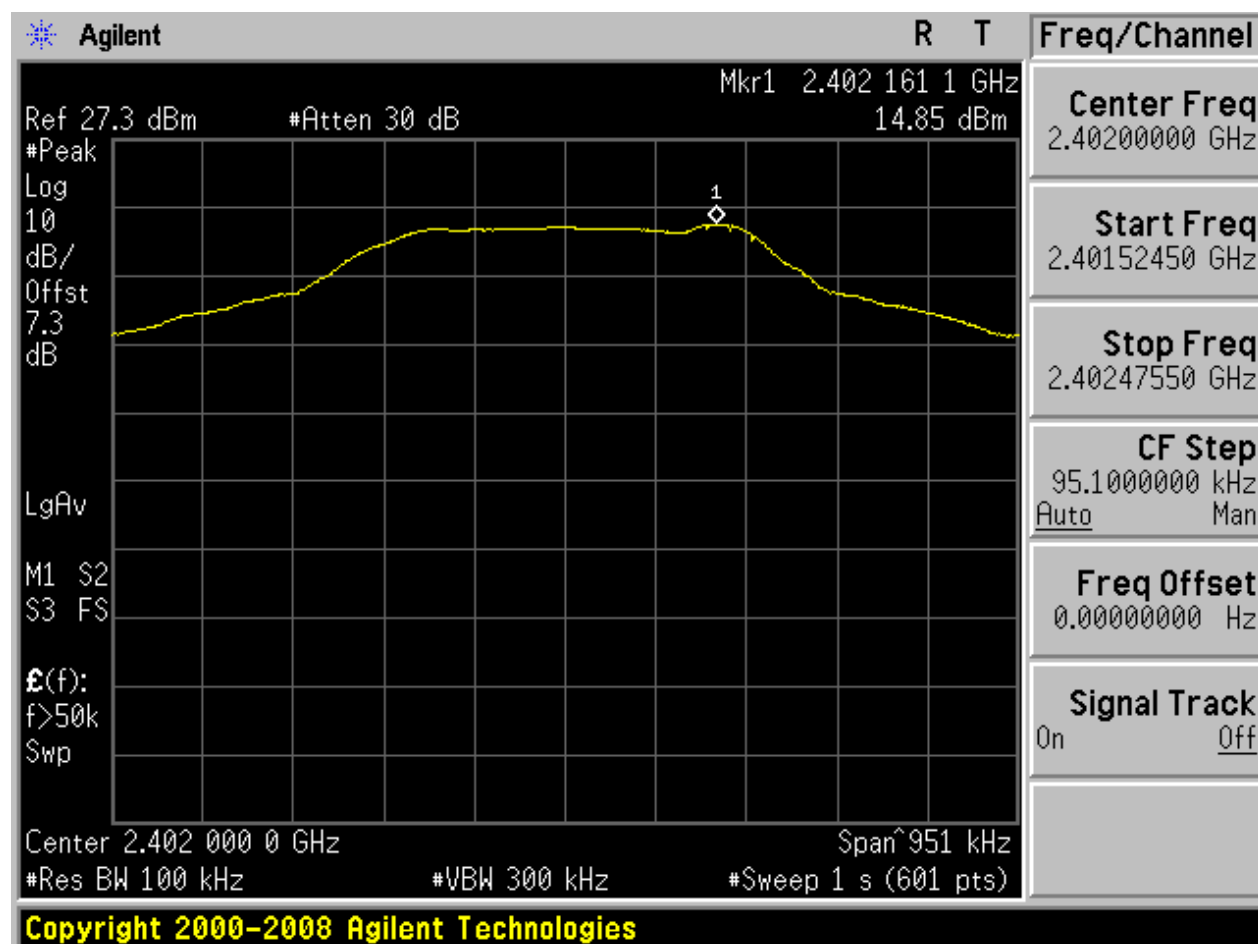
In the result table, the “< Limit” denotes that “The Puw [dBm] is less than Pref [dBm] - 20 [dB], see test plots for detailed”.

EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	14.85	< Limit	Pass
TM1_DH5_Ch39	13.20	< Limit	Pass
TM1_DH5_Ch78	13.09	< Limit	Pass
TM2_2DH5_Ch0	14.86	< Limit	Pass
TM2_2DH5_Ch39	13.26	< Limit	Pass
TM2_2DH5_Ch78	13.11	< Limit	Pass
TM3_3DH5_Ch0	14.86	< Limit	Pass
TM3_3DH5_Ch39	13.29	< Limit	Pass
TM3_3DH5_Ch78	13.12	< Limit	Pass

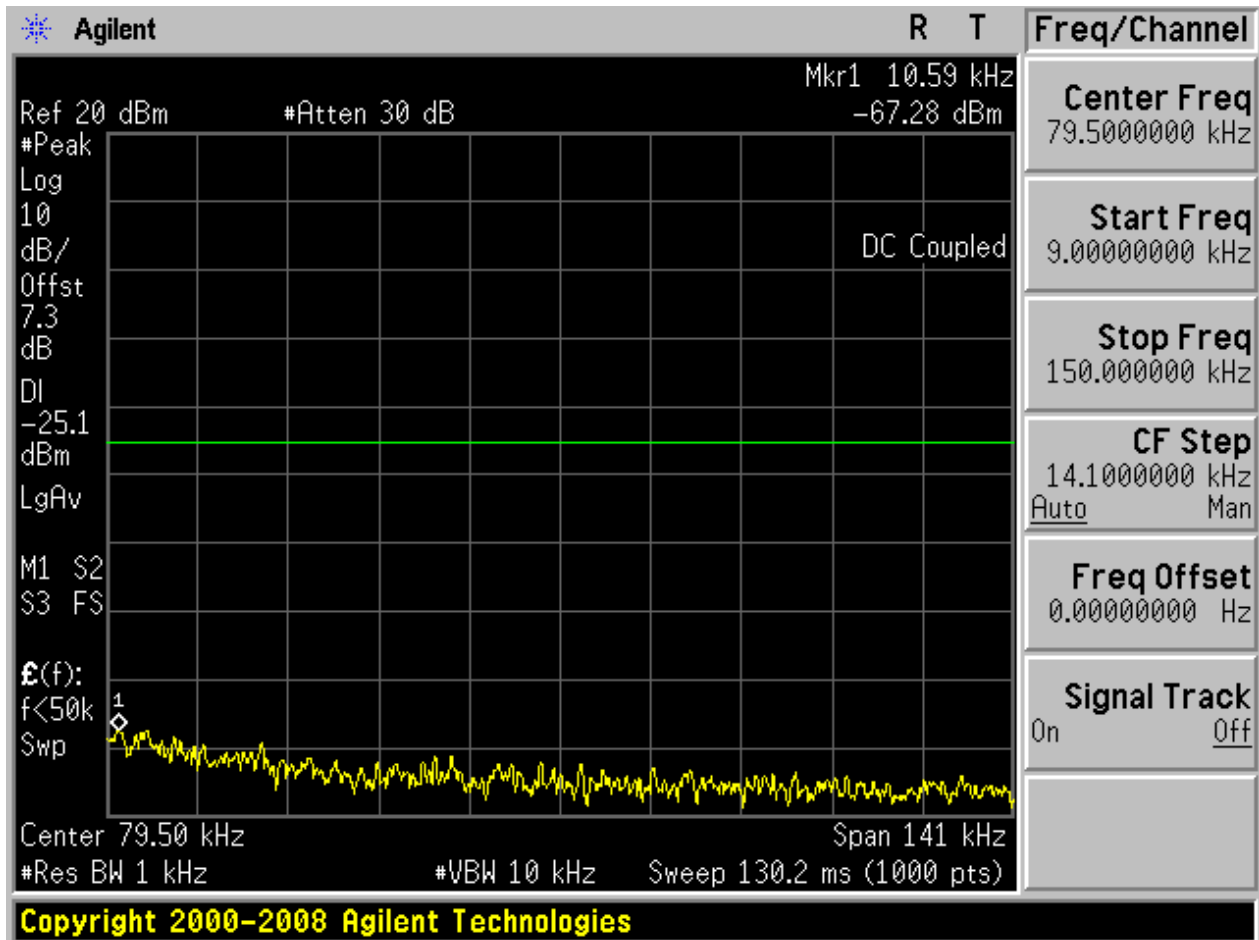
2 Test Plot

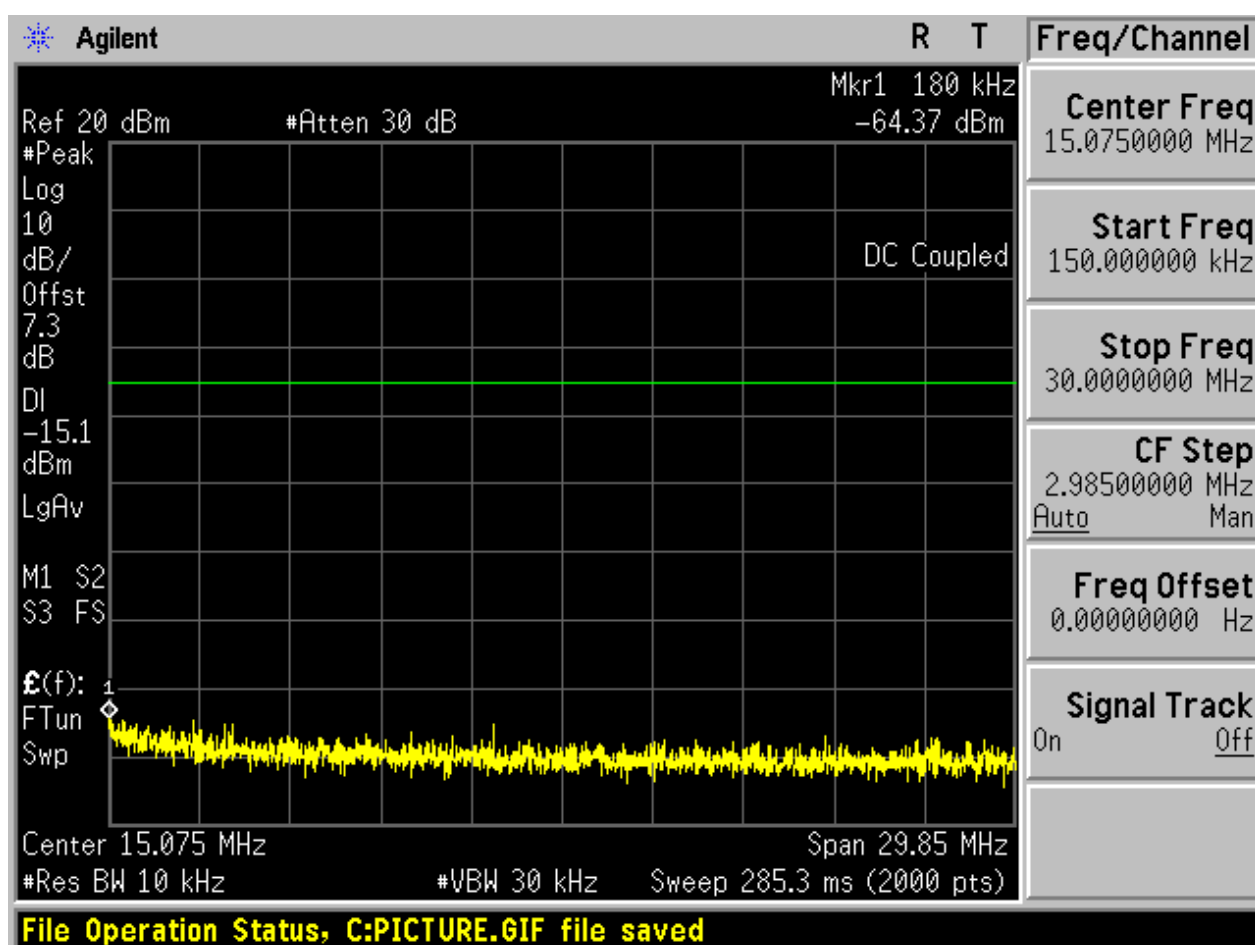
2.1 TM1_DH5_Ch0

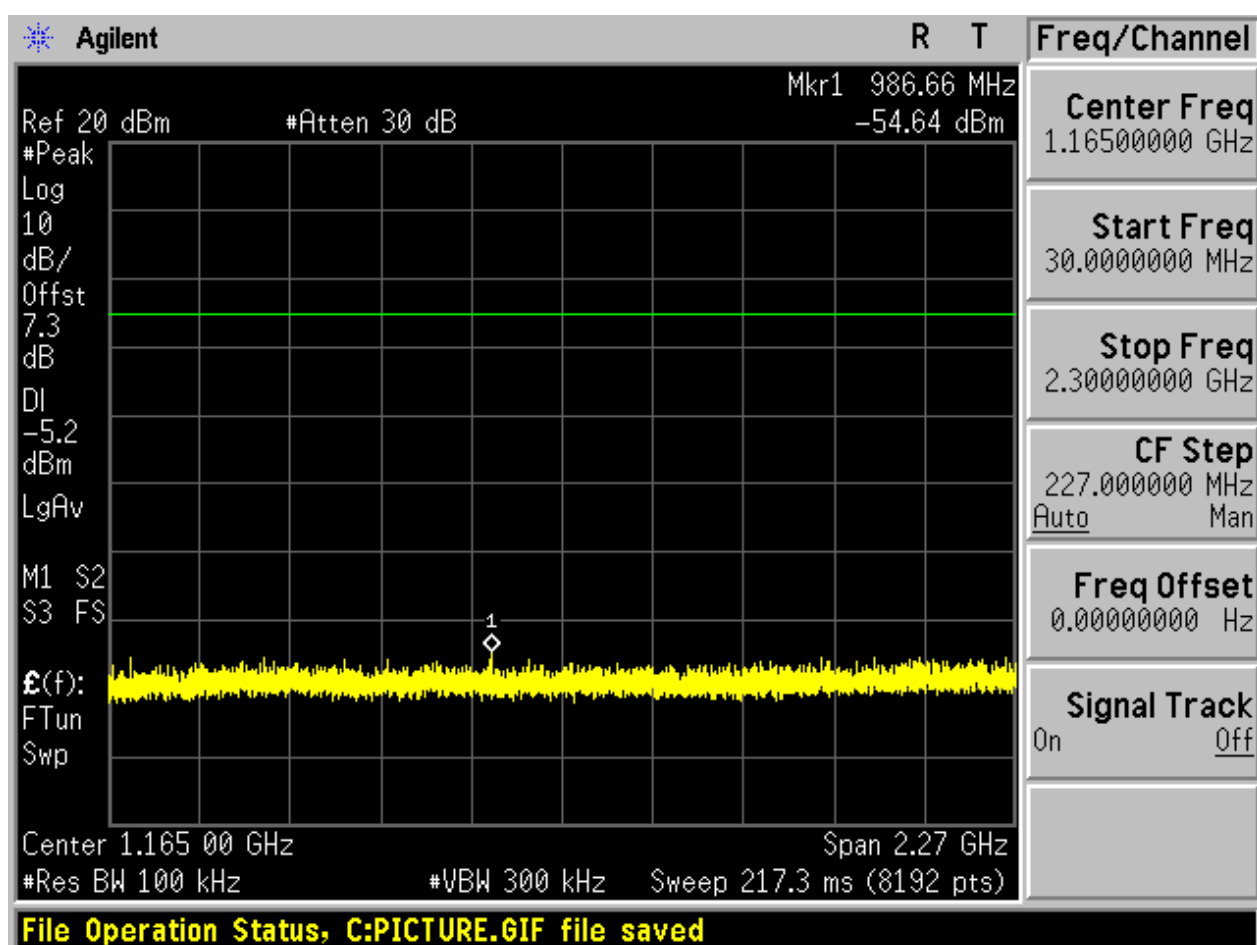
2.1.1 Pref

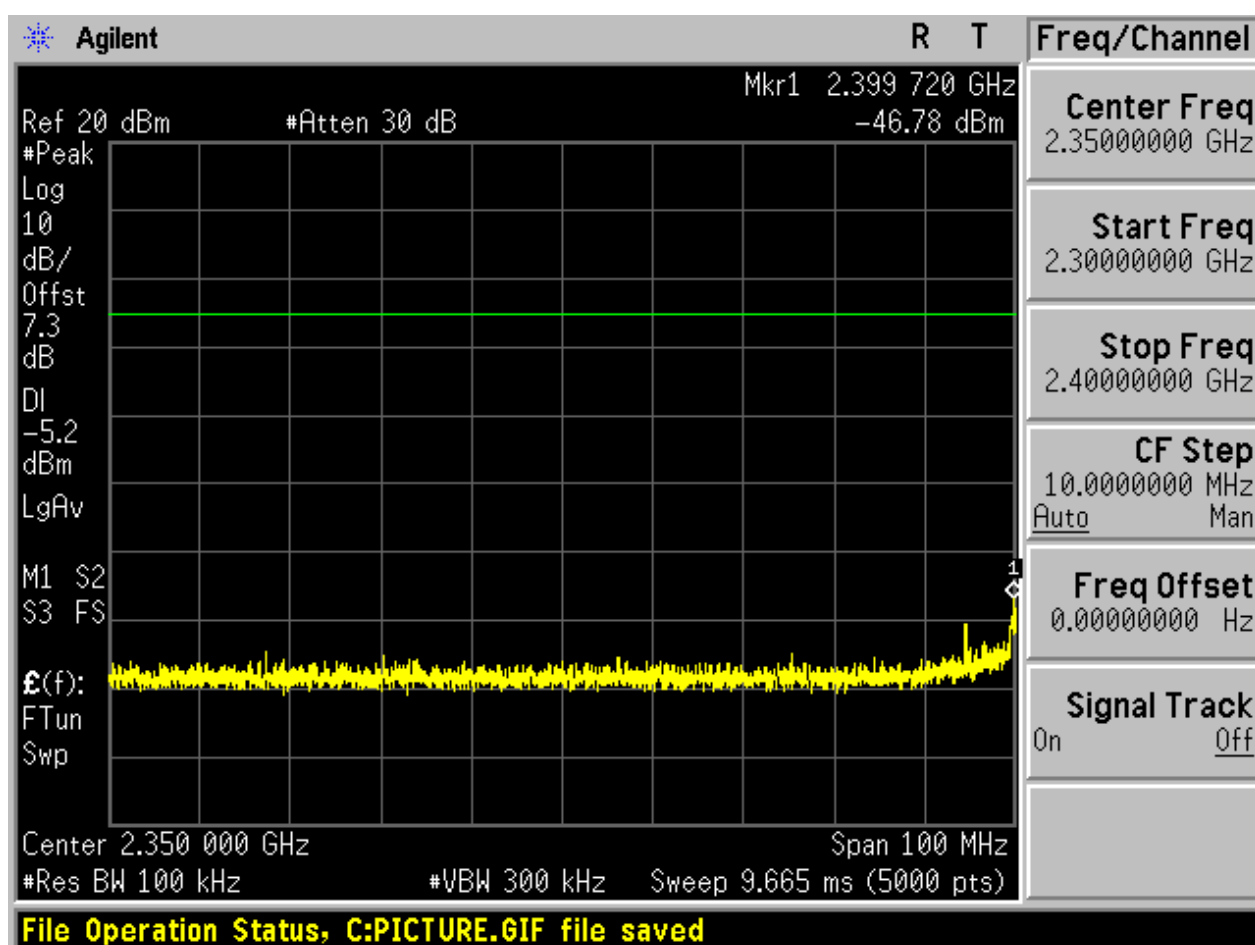


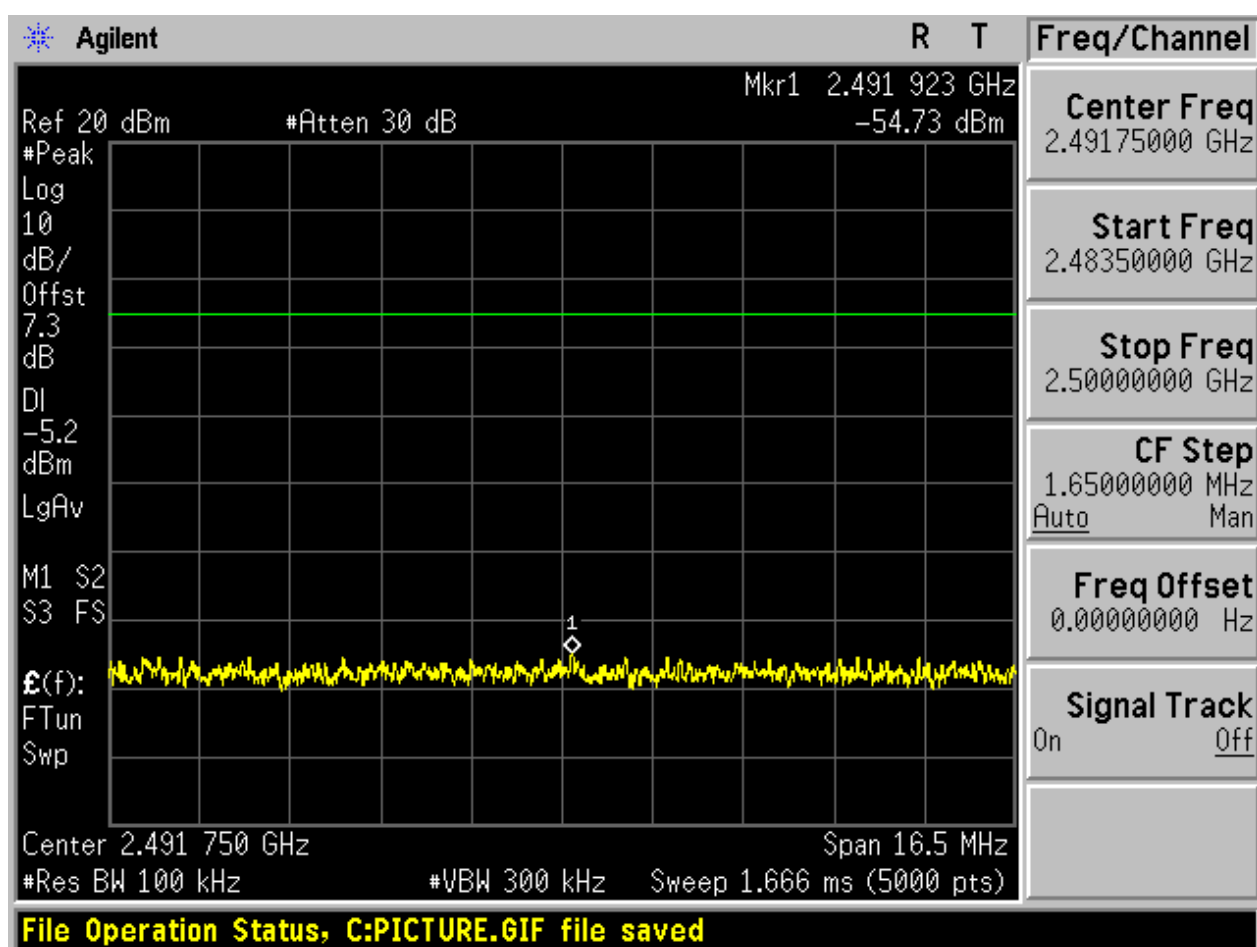
2.1.2 Puw

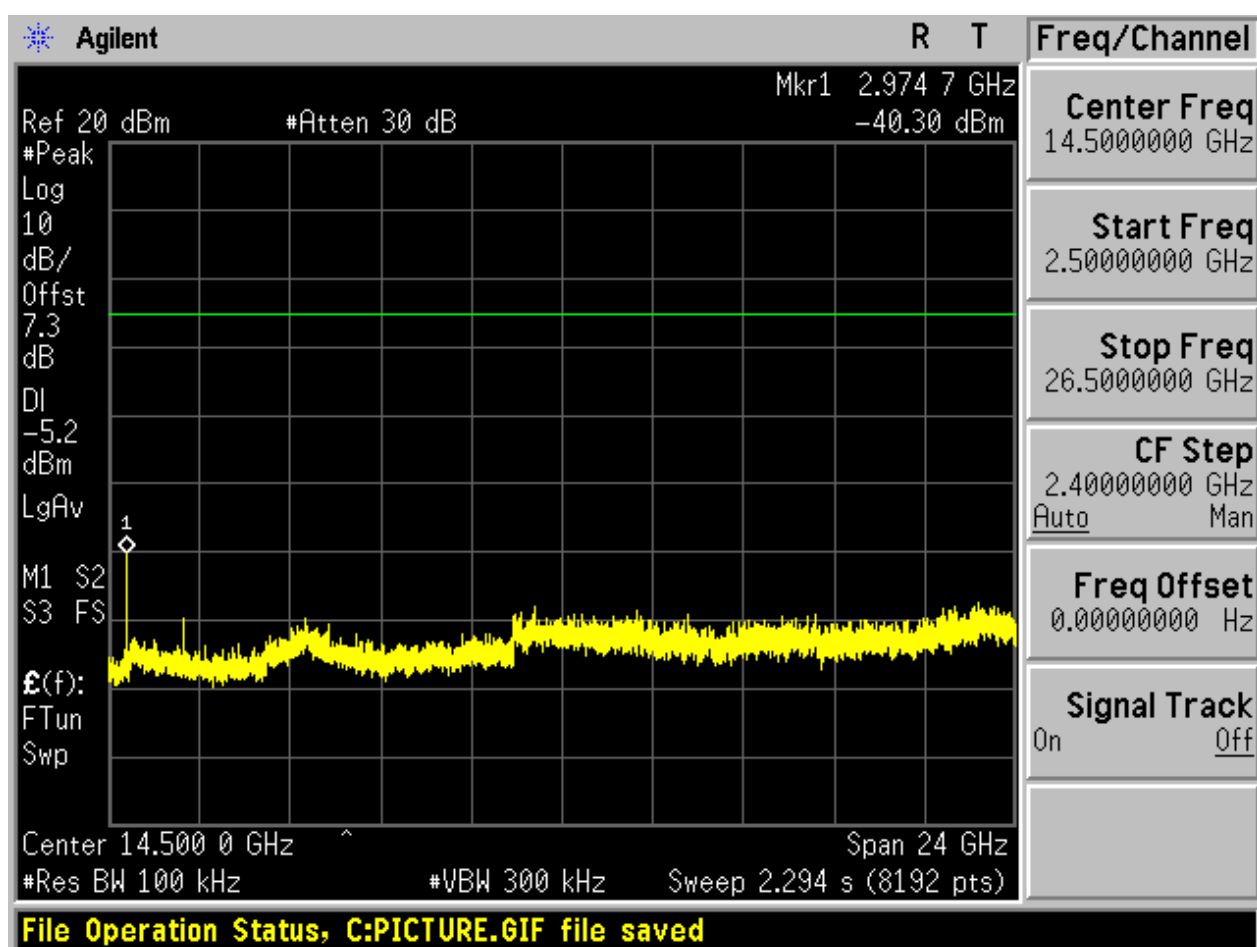






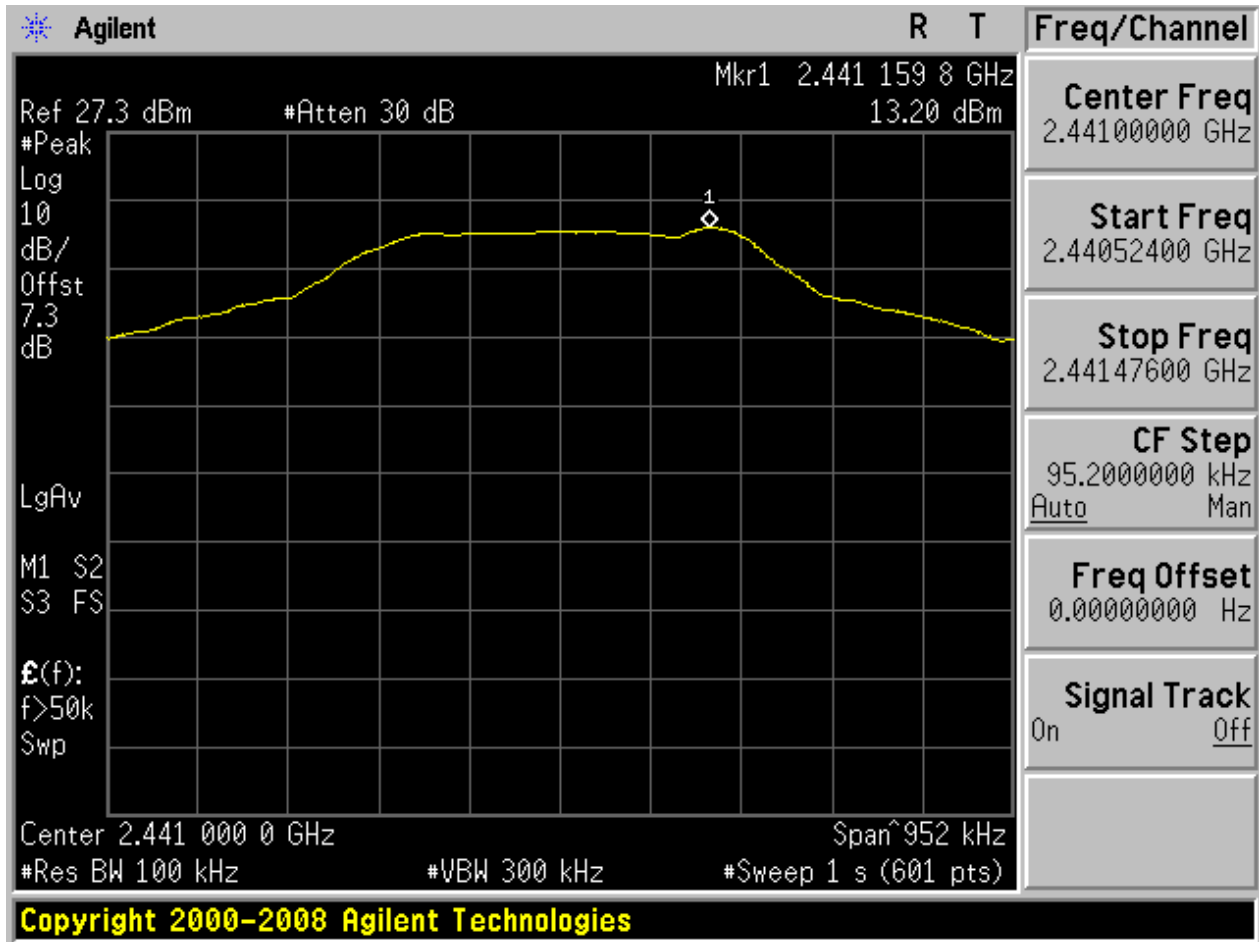




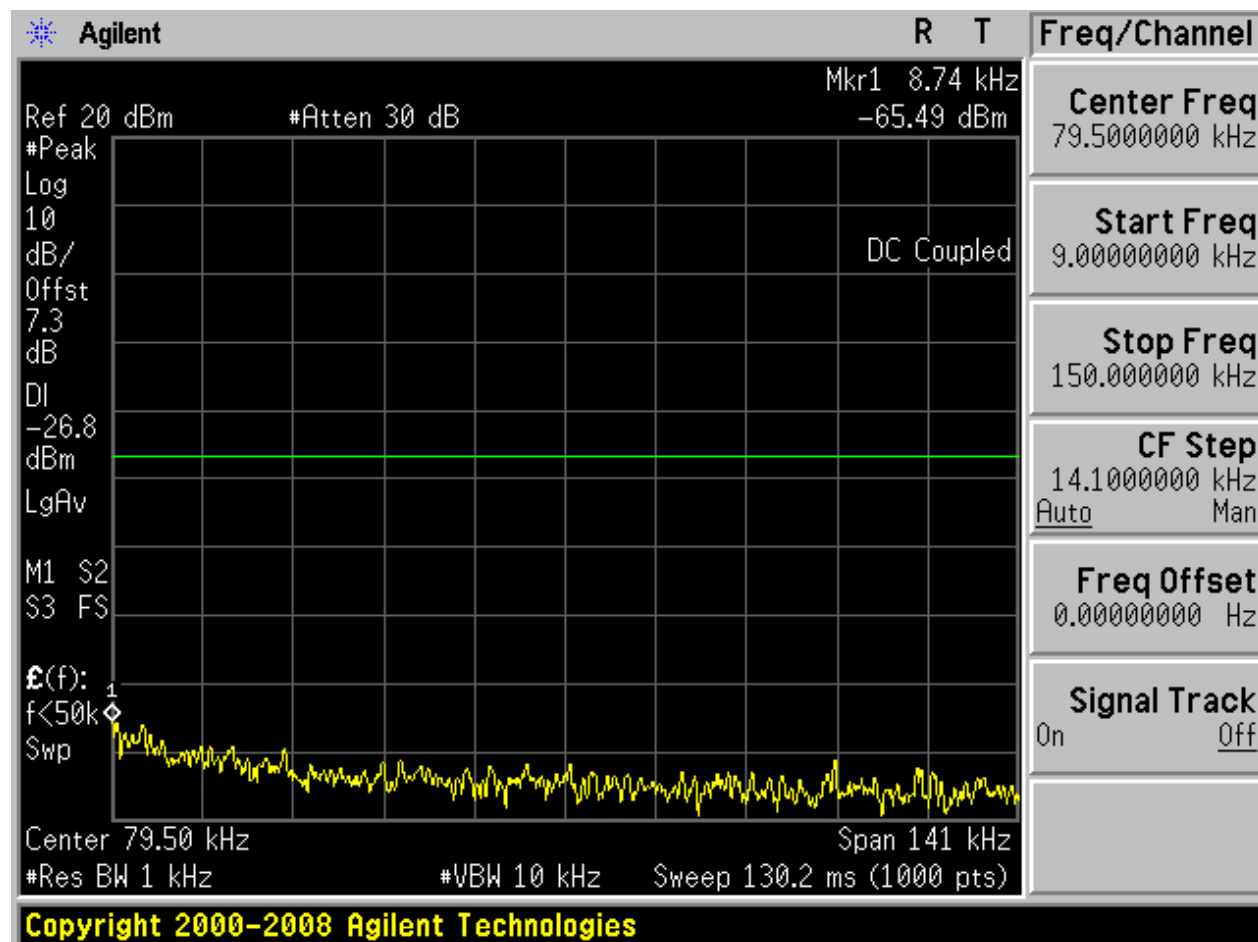


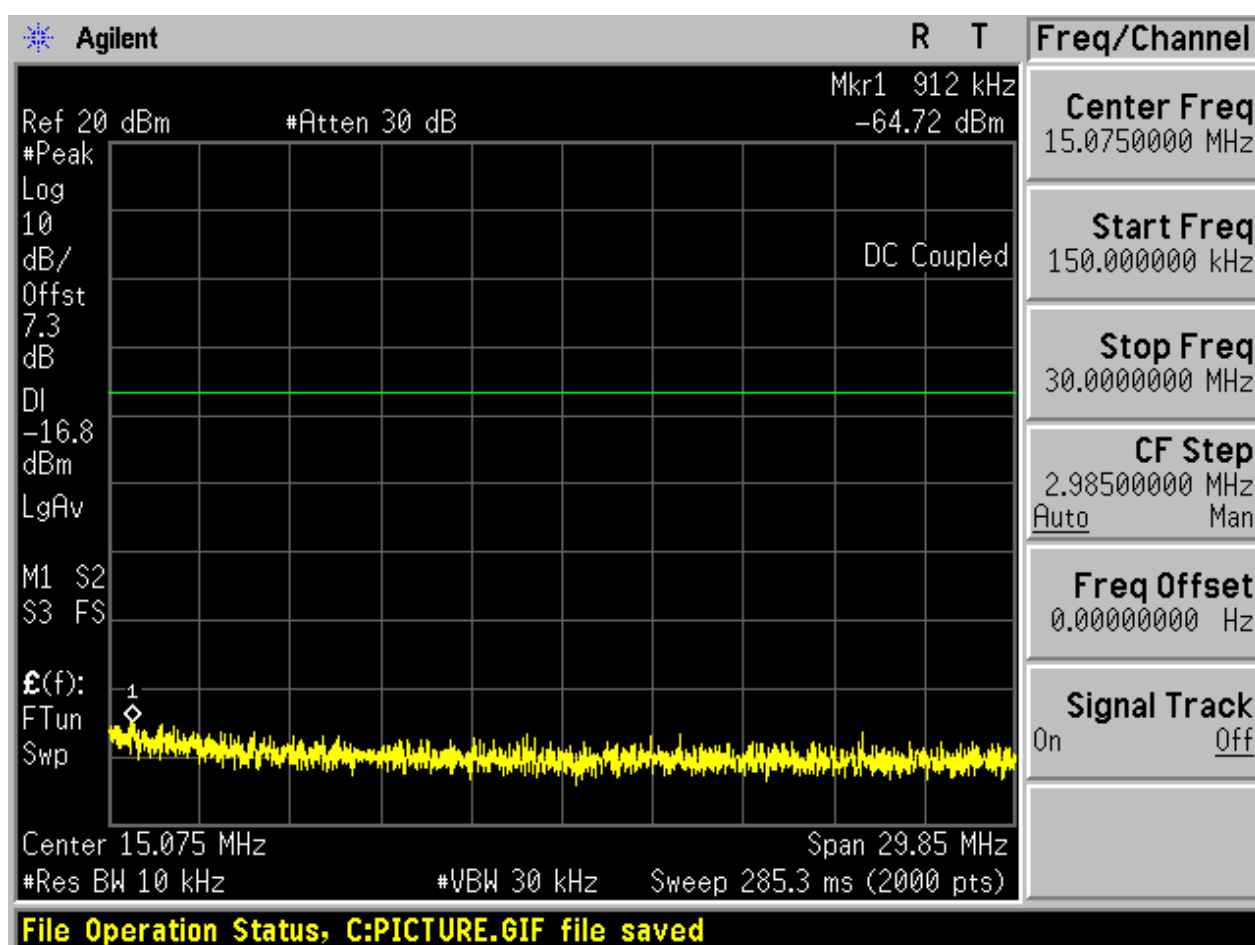
2.2 TM1_DH5_Ch39

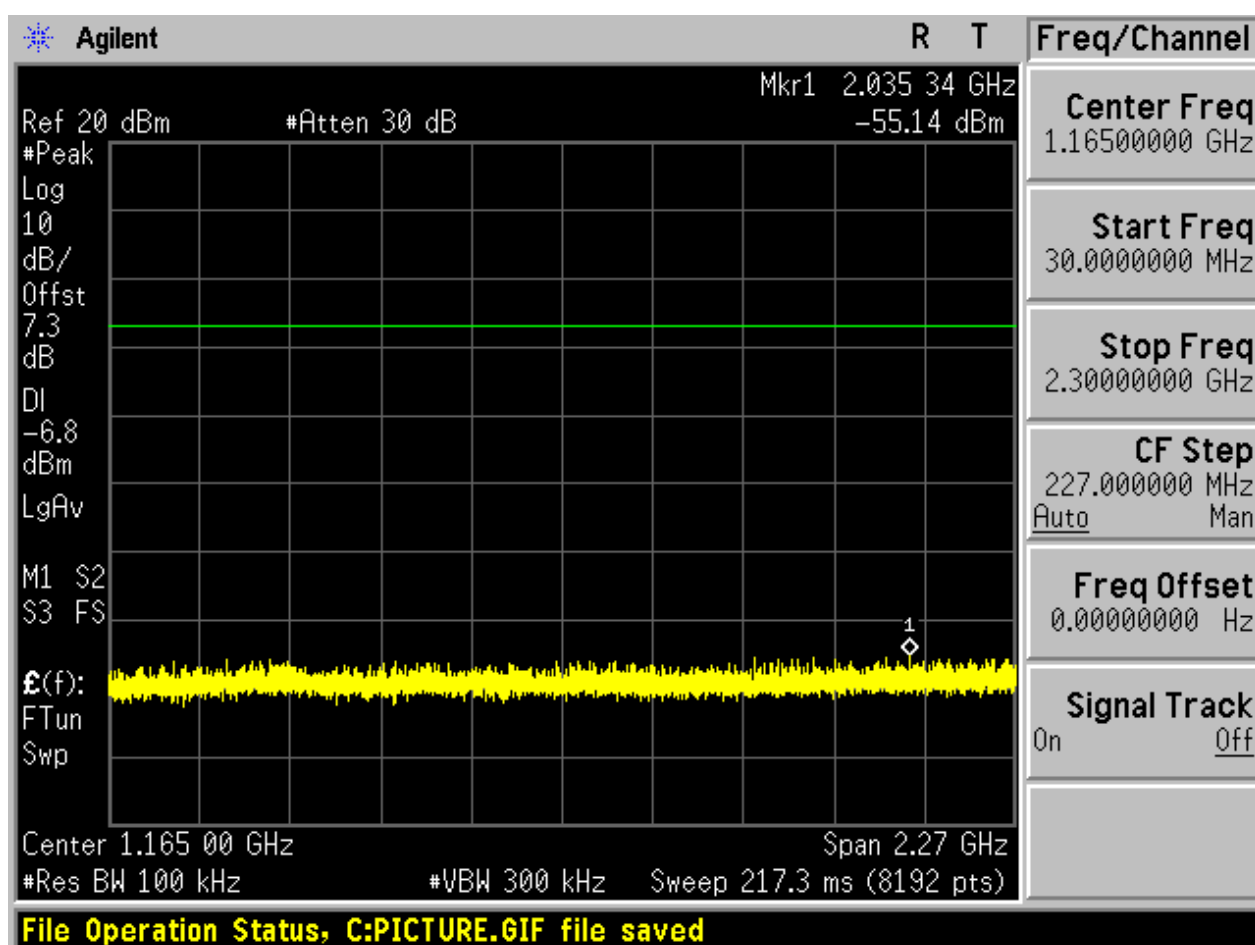
2.2.1 Pref

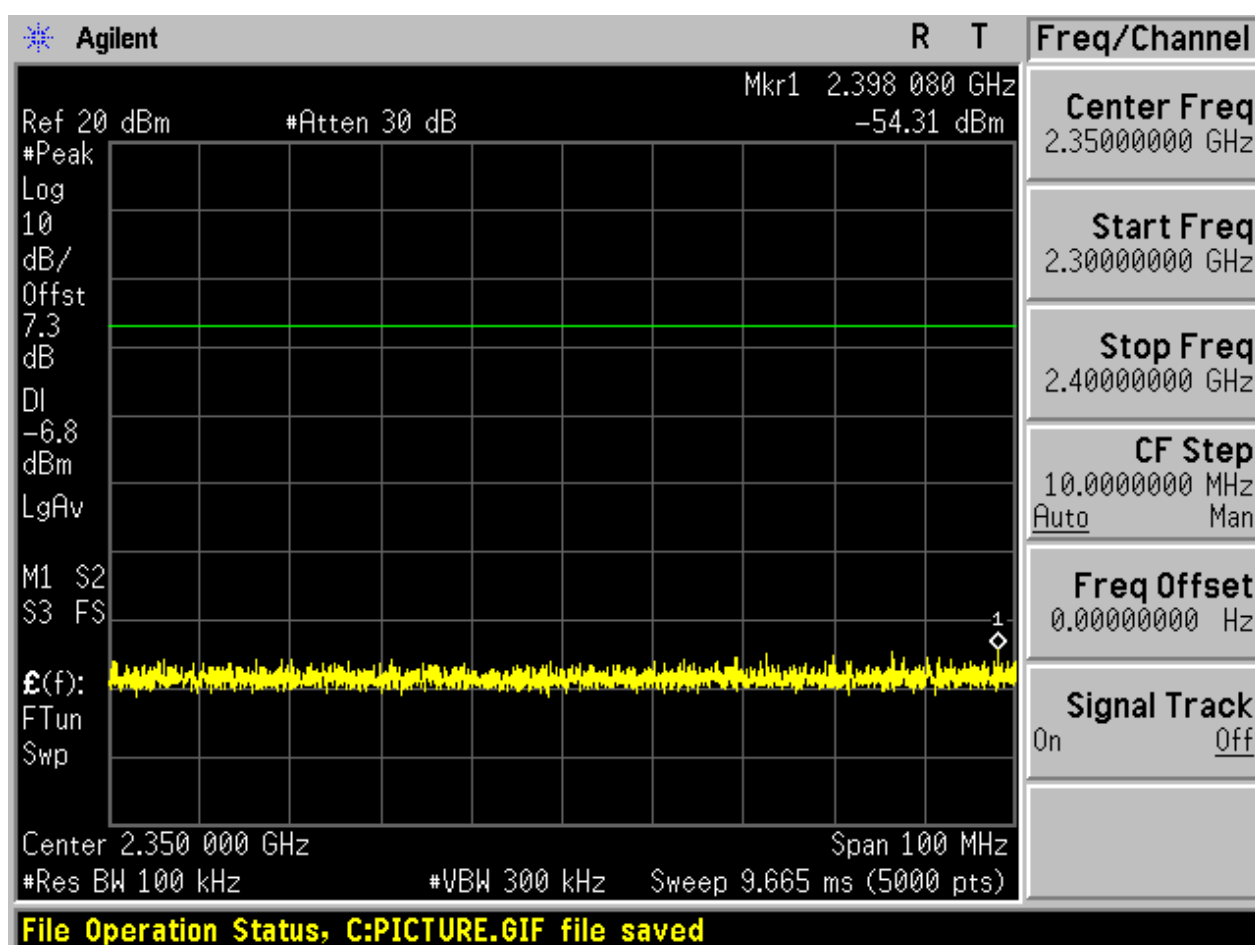


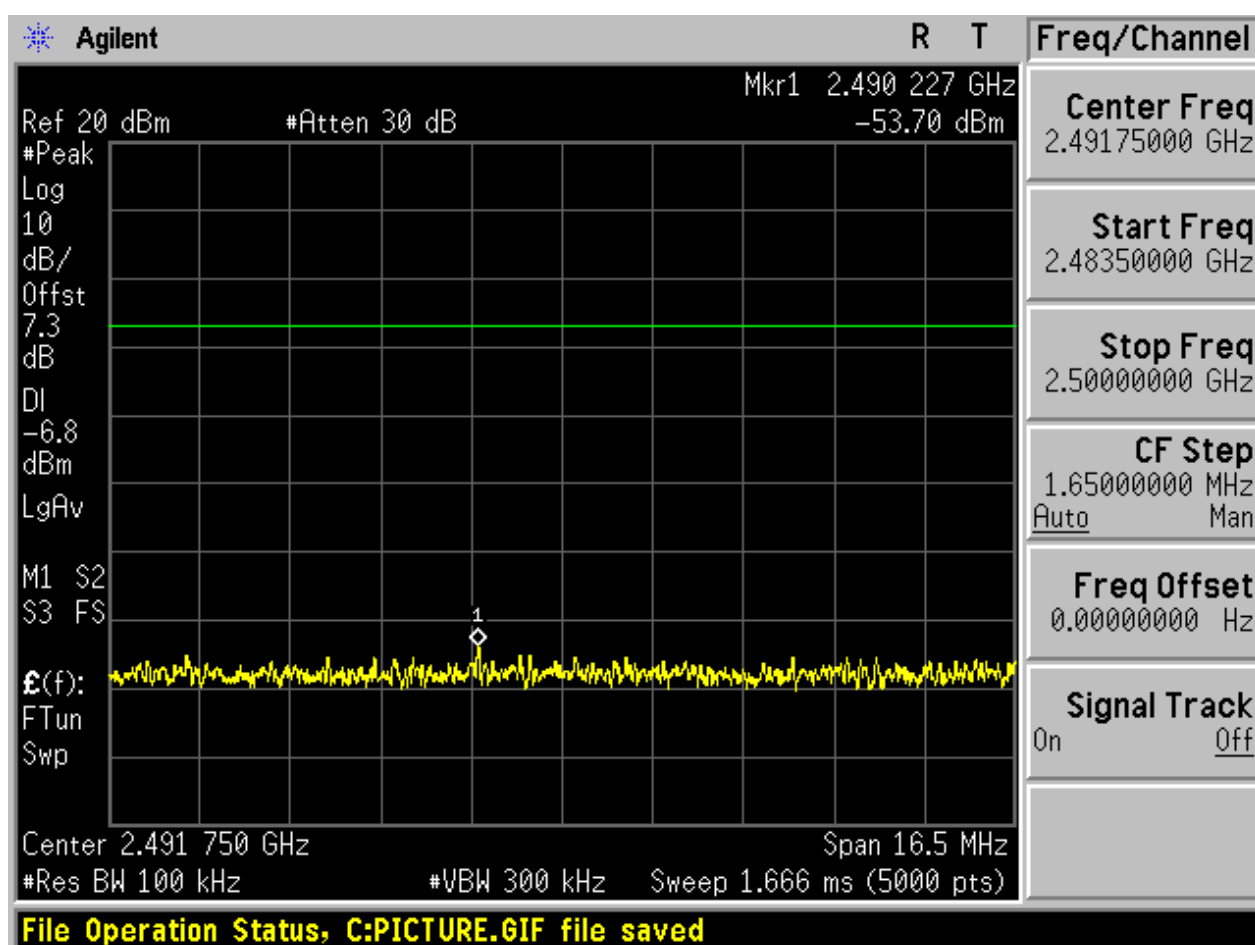
2.2.2 Puw

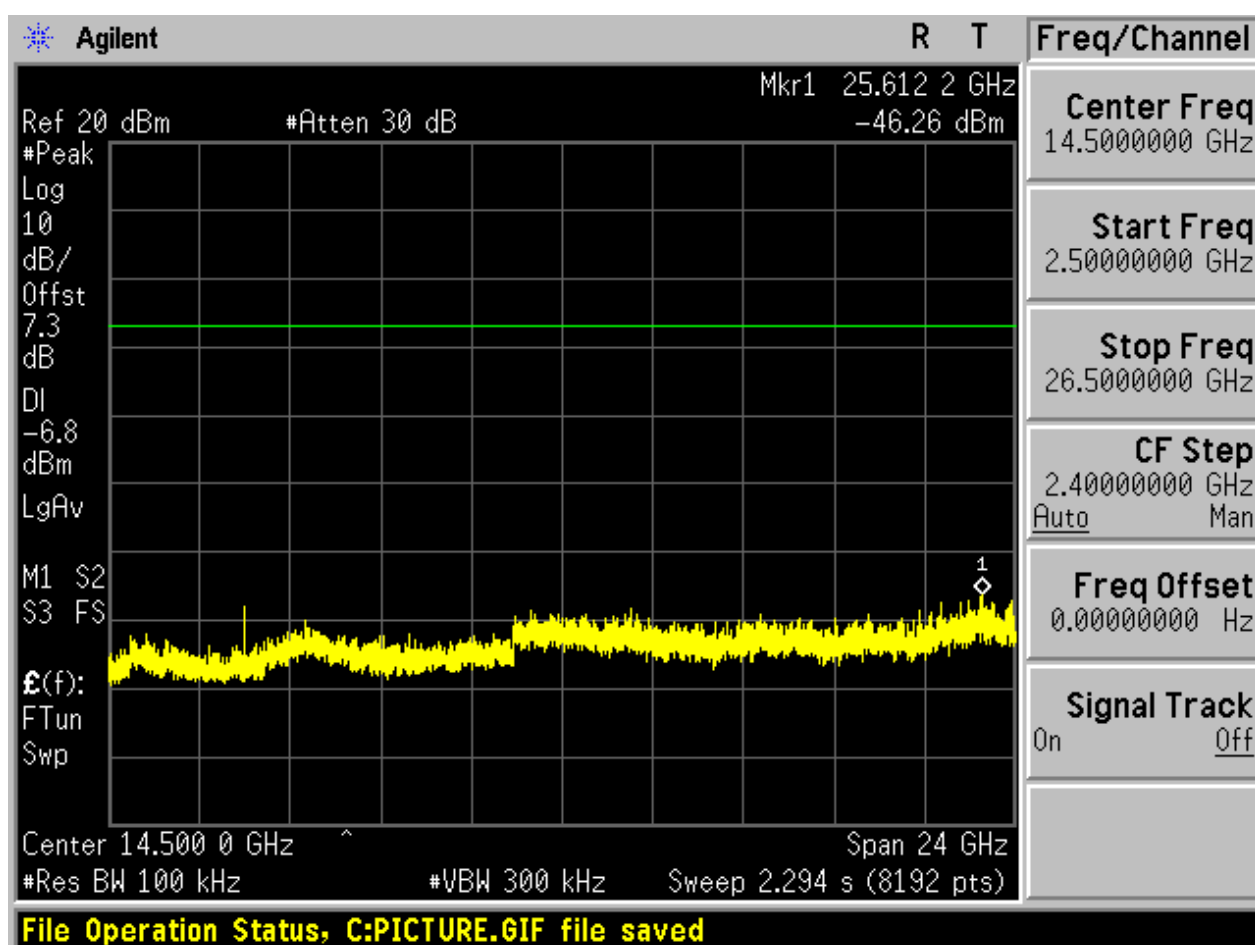






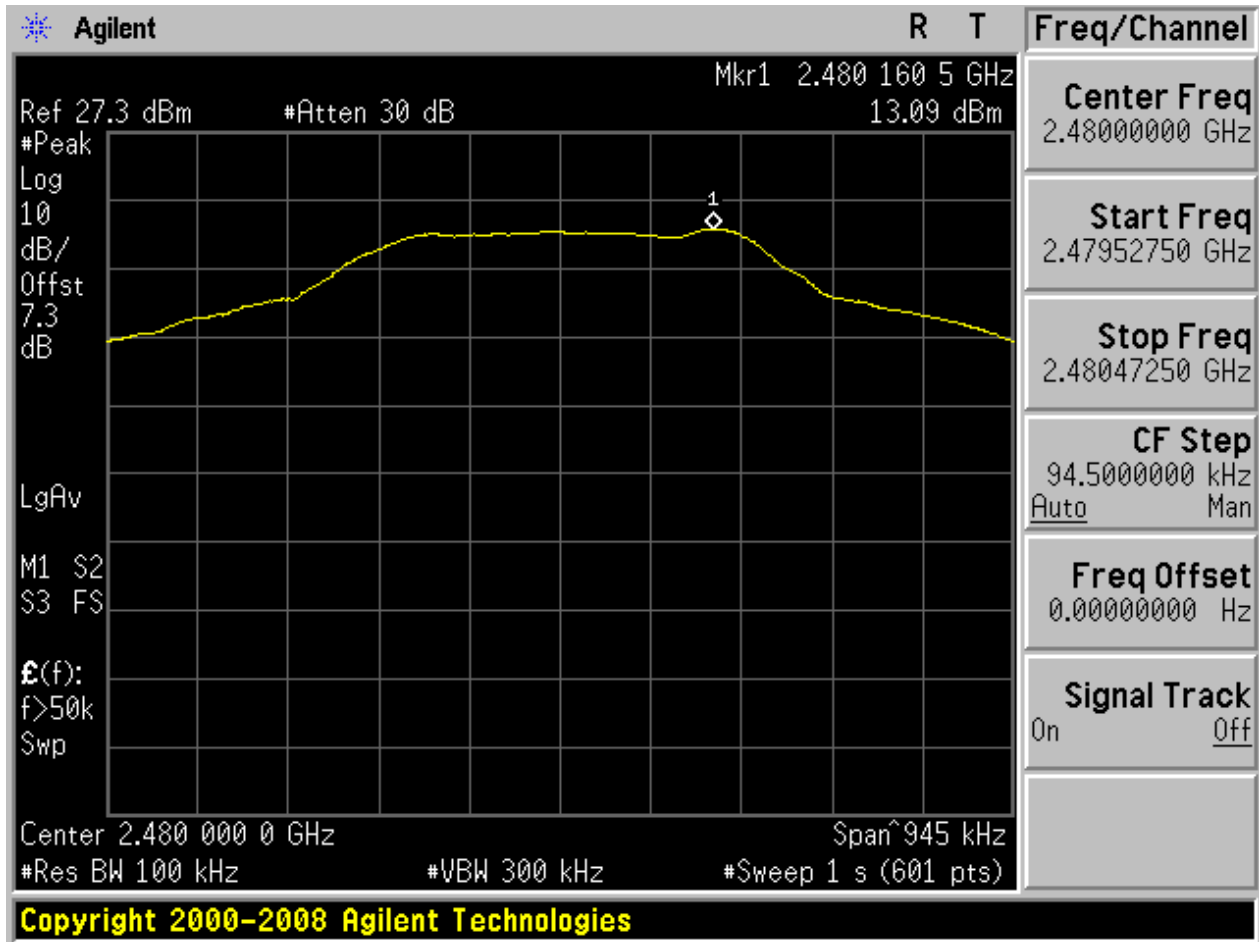




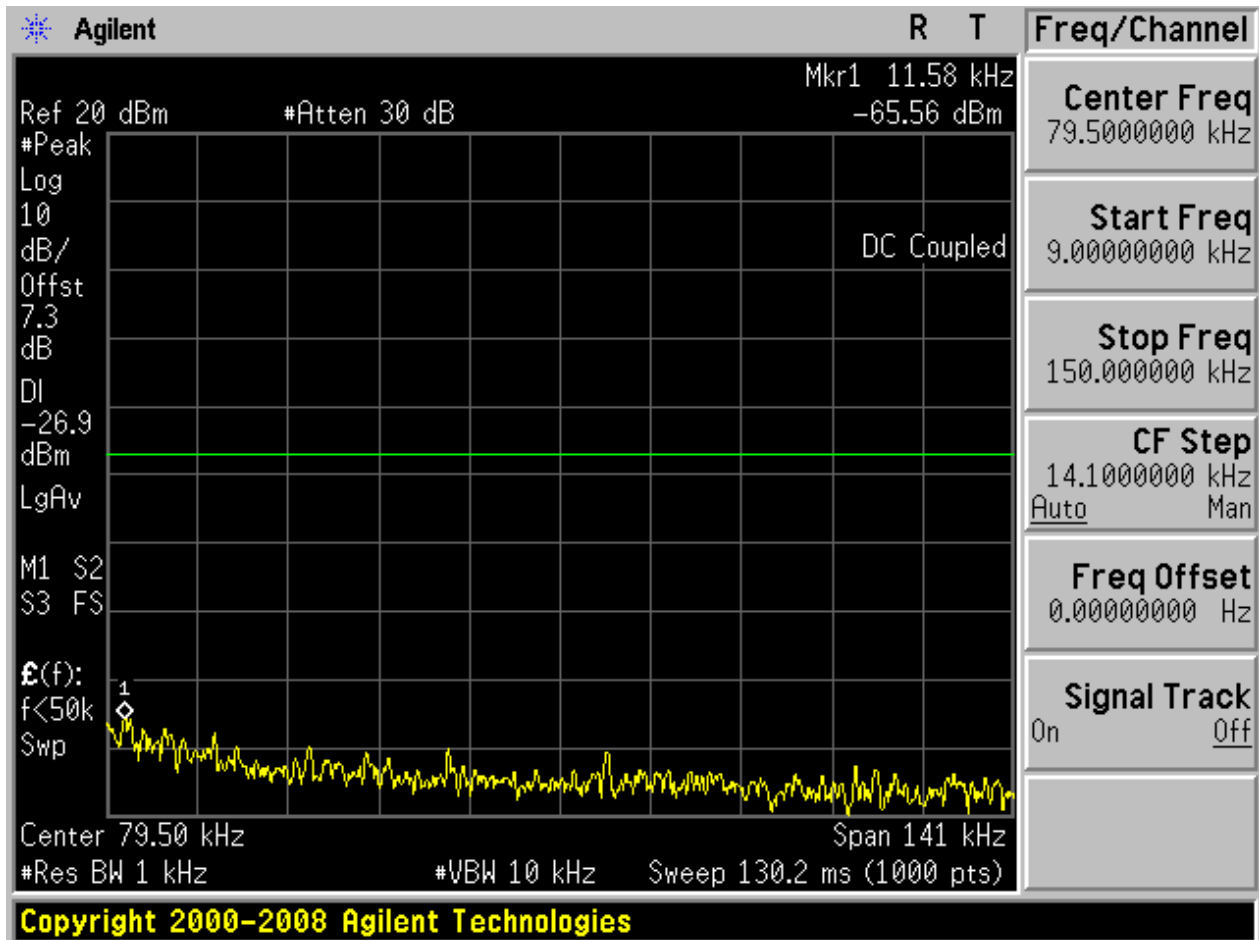


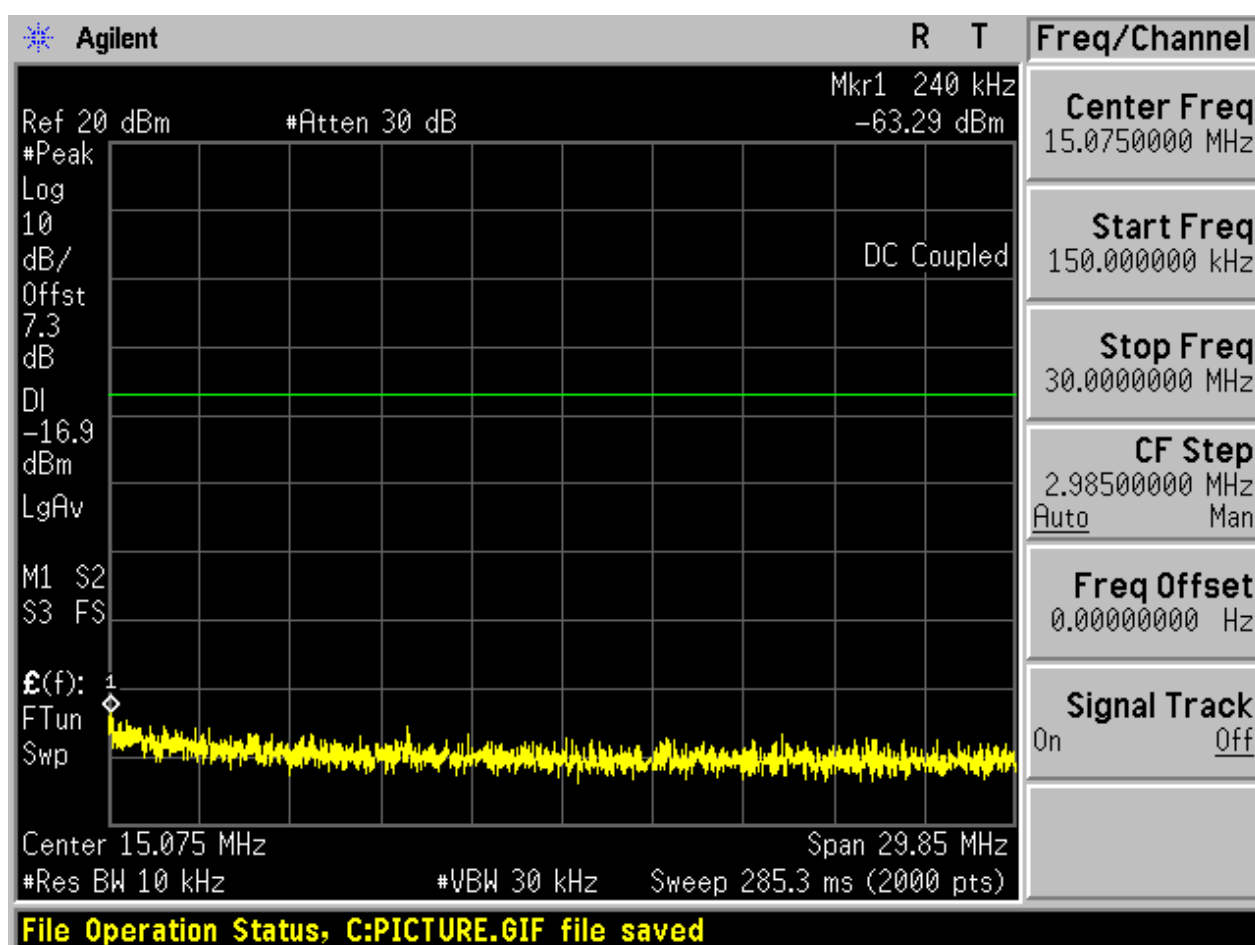
2.3 TM1_DH5_Ch78

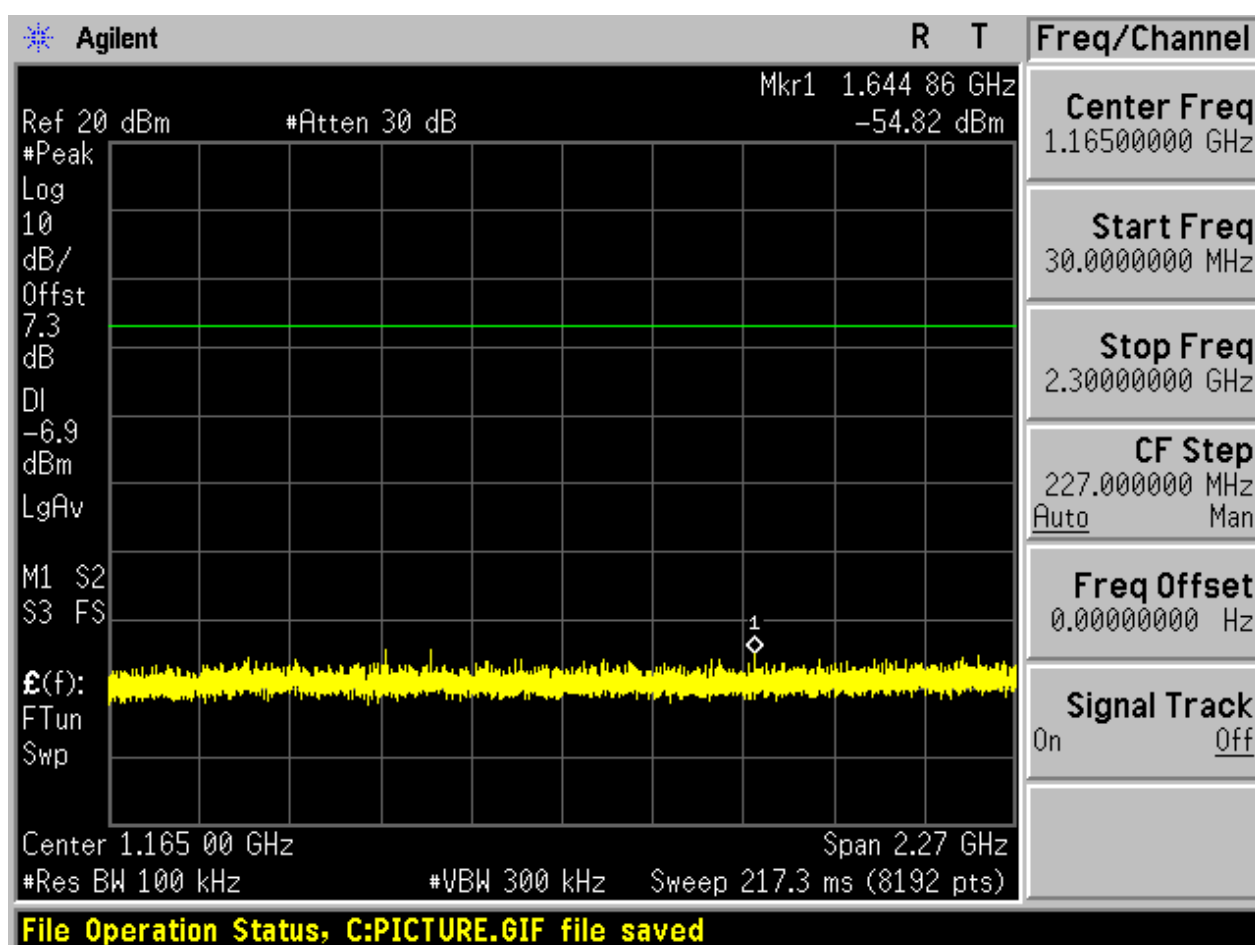
2.3.1 Pref

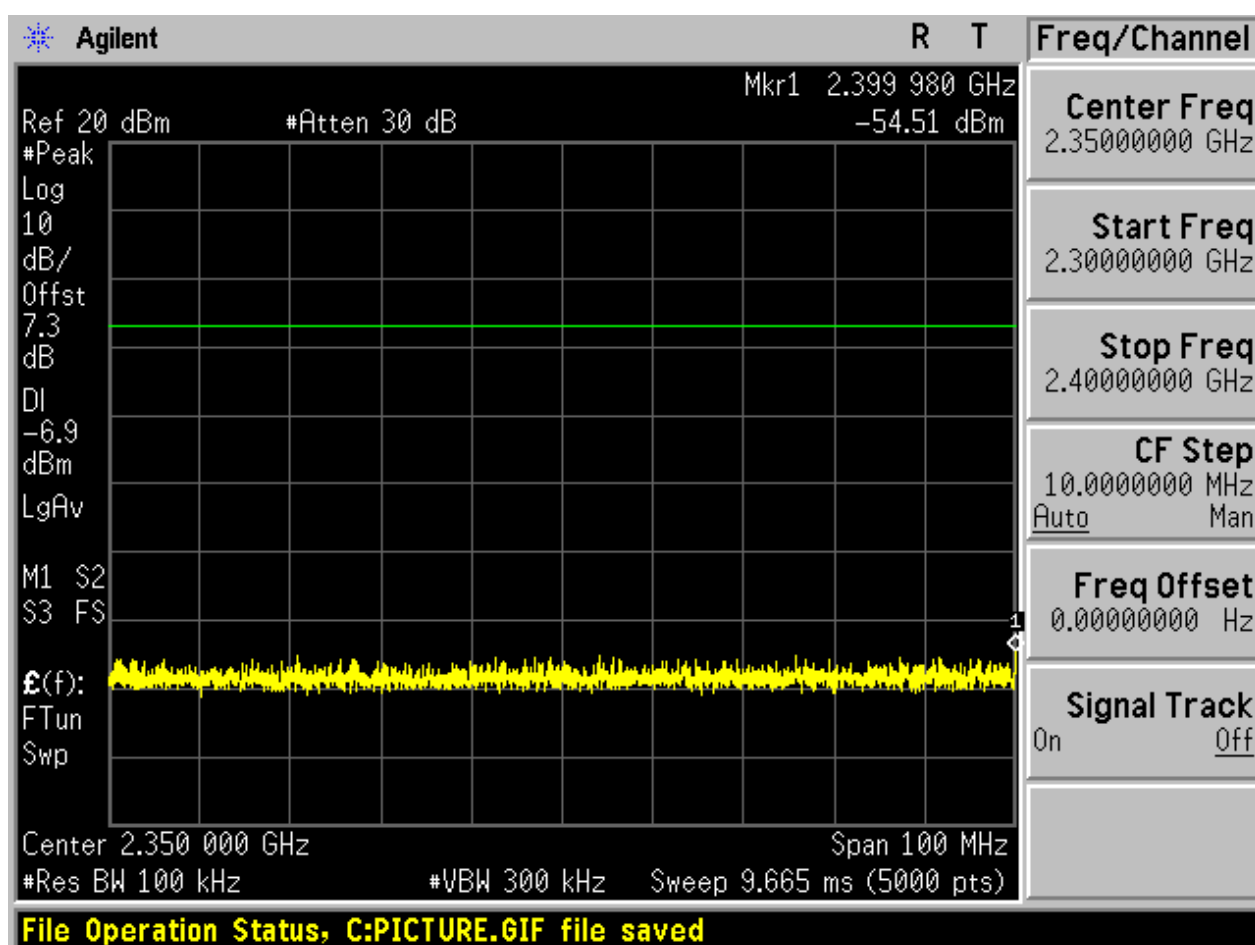


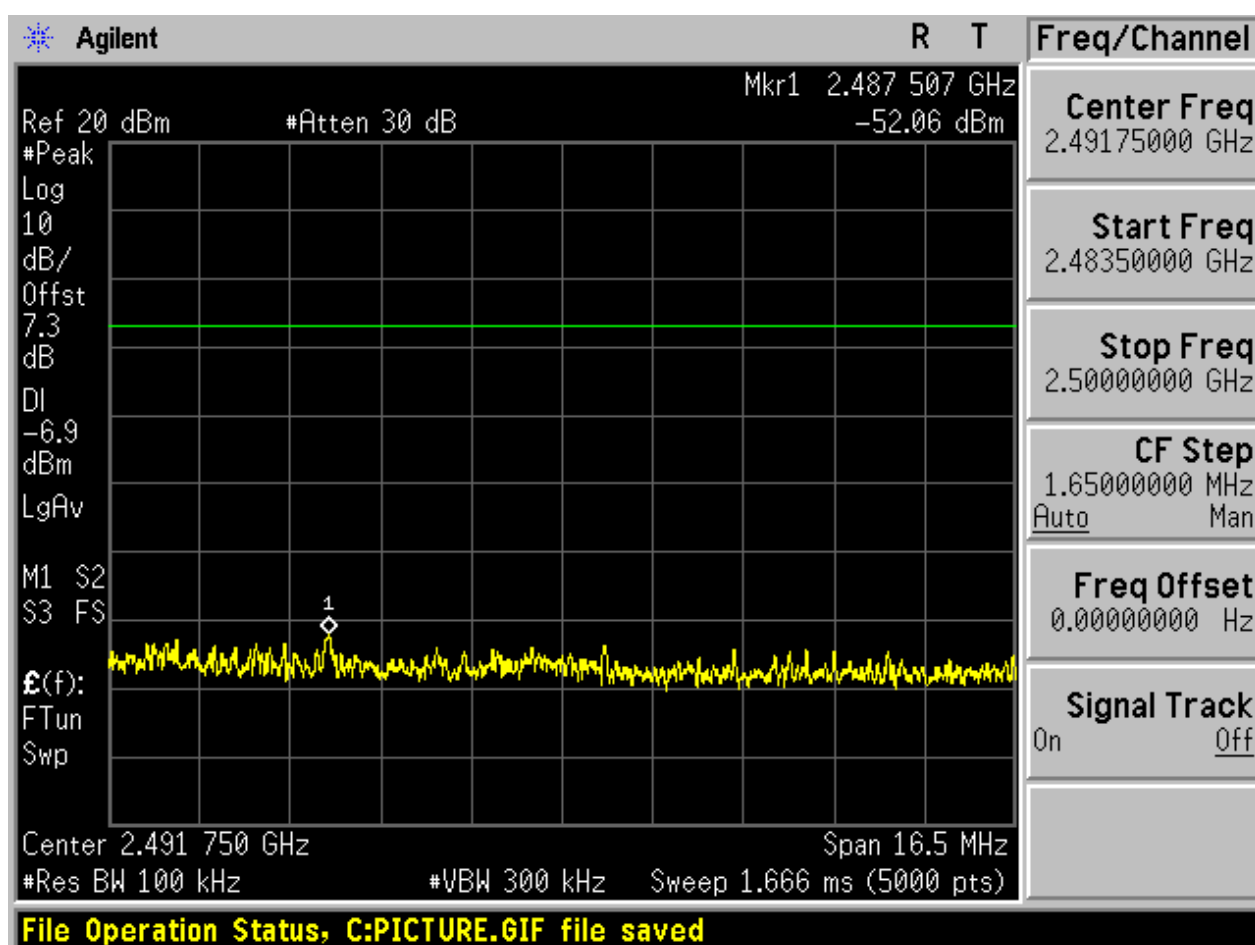
2.3.2 Puw

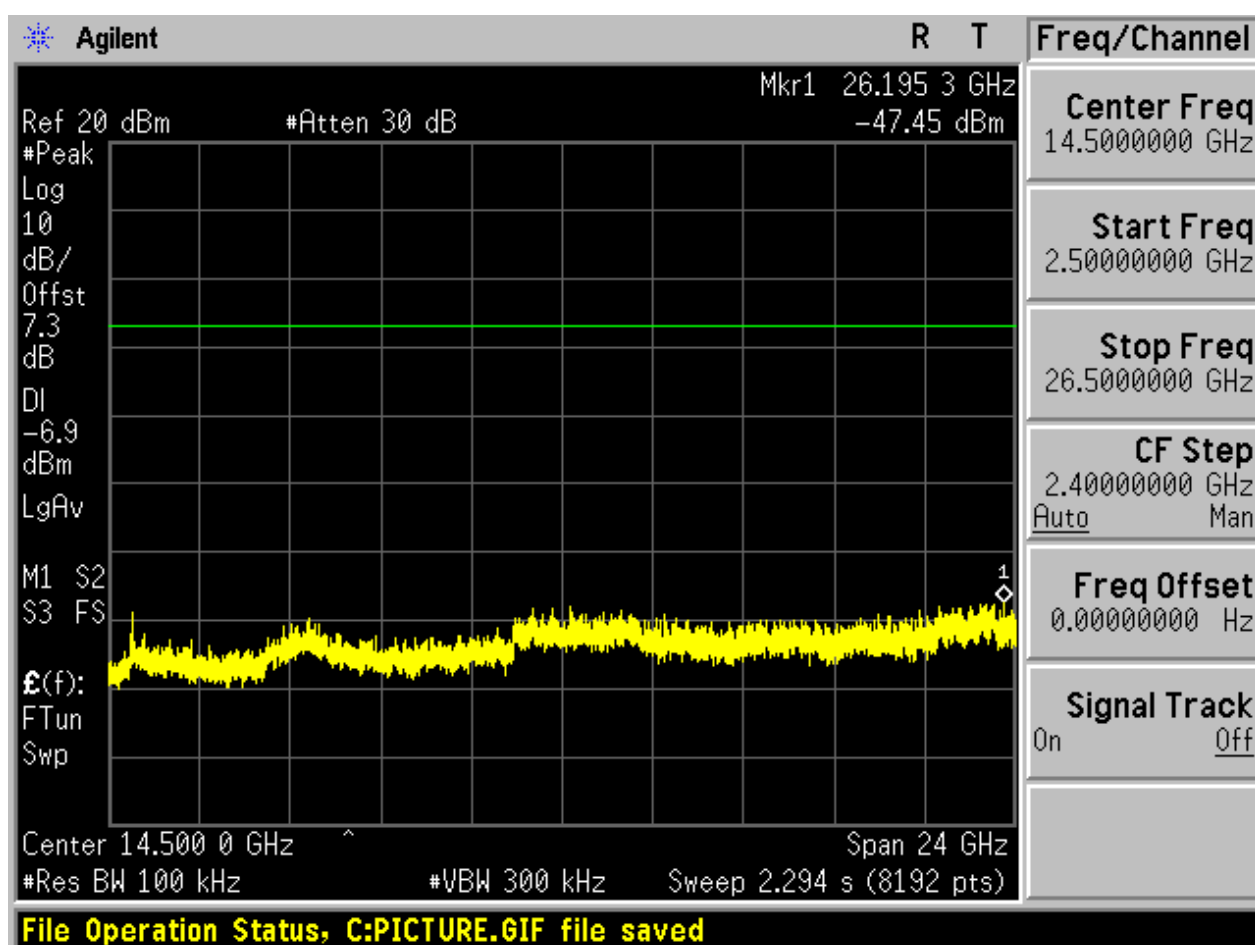






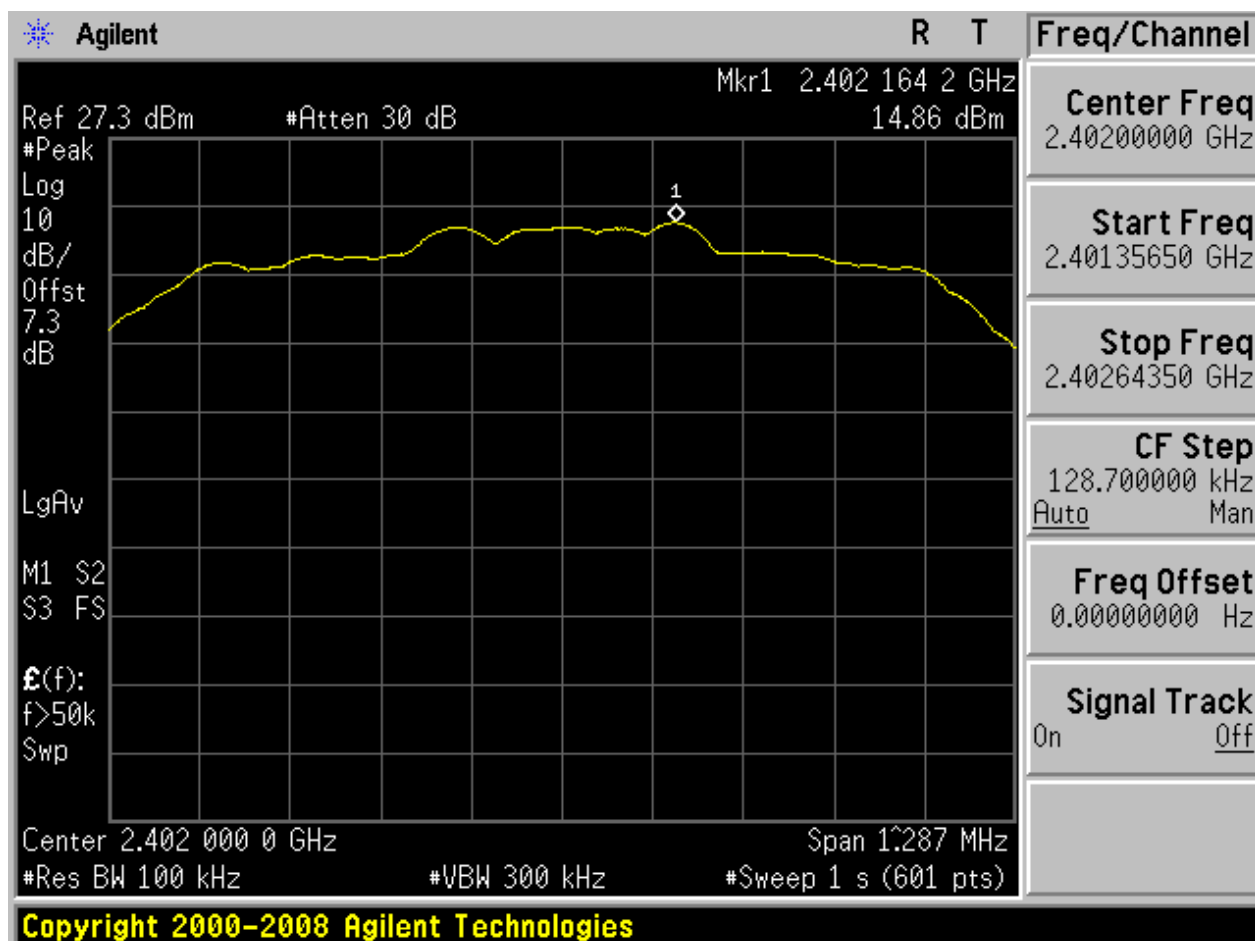




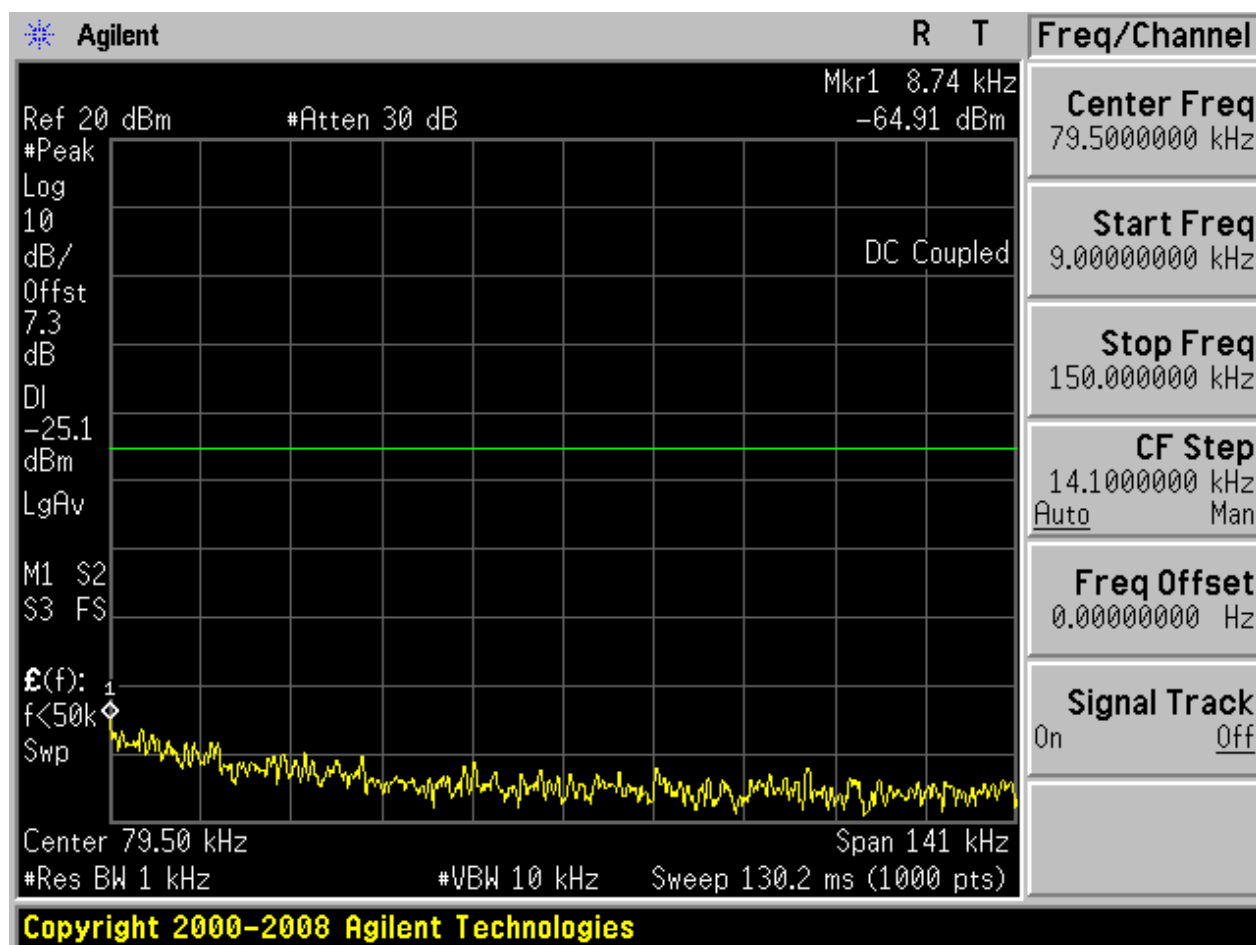


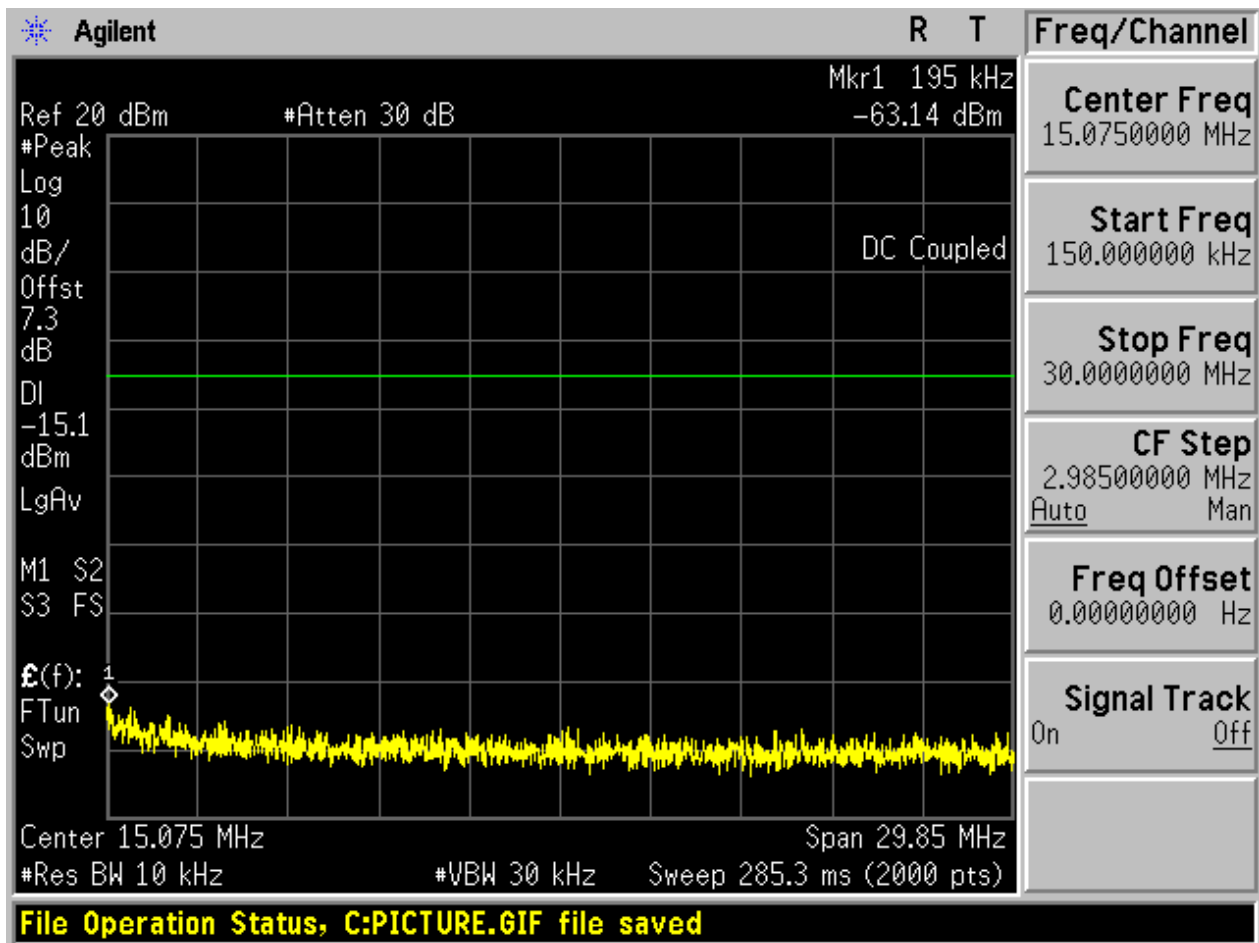
2.4 TM2_2DH5_Ch0

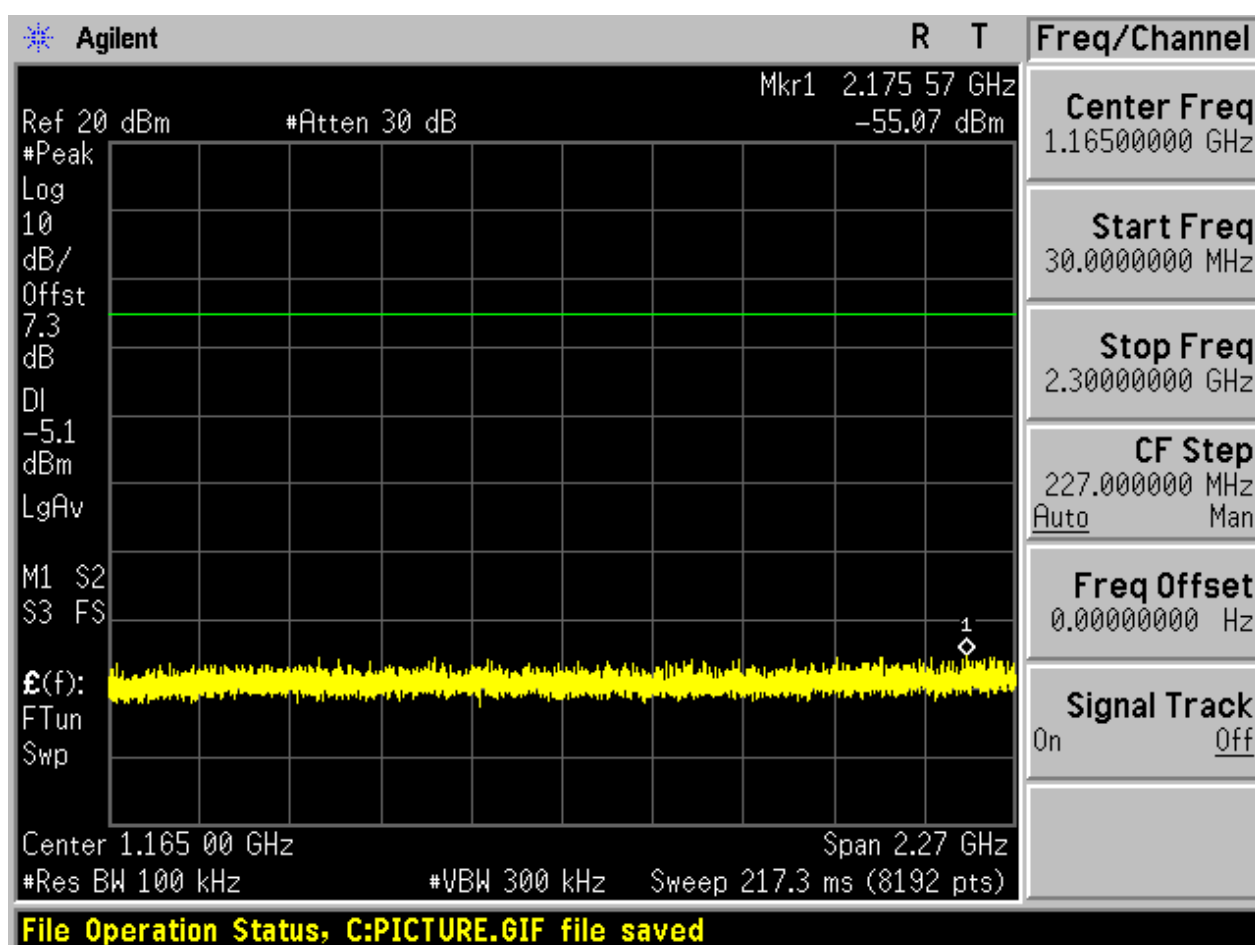
2.4.1 Pref

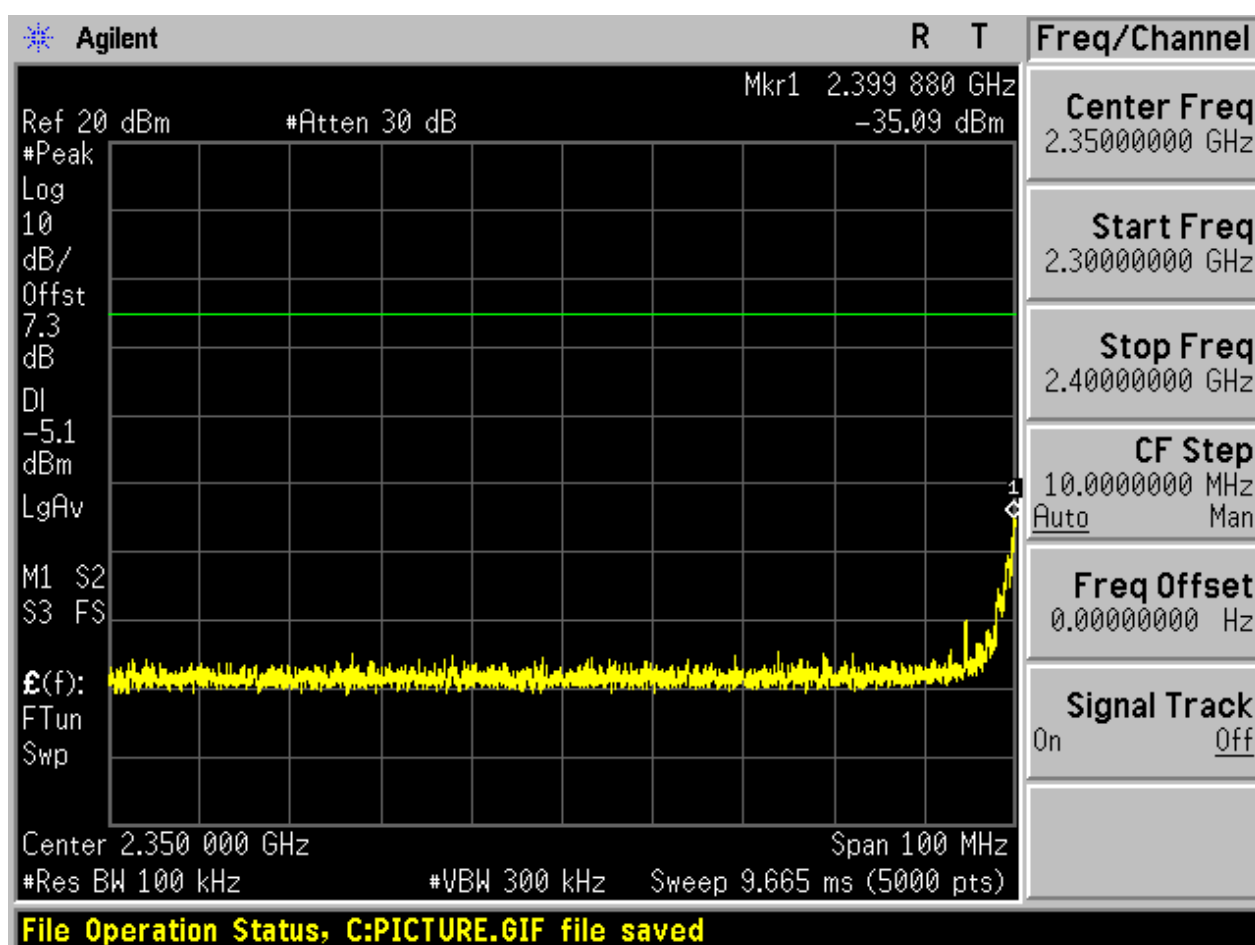


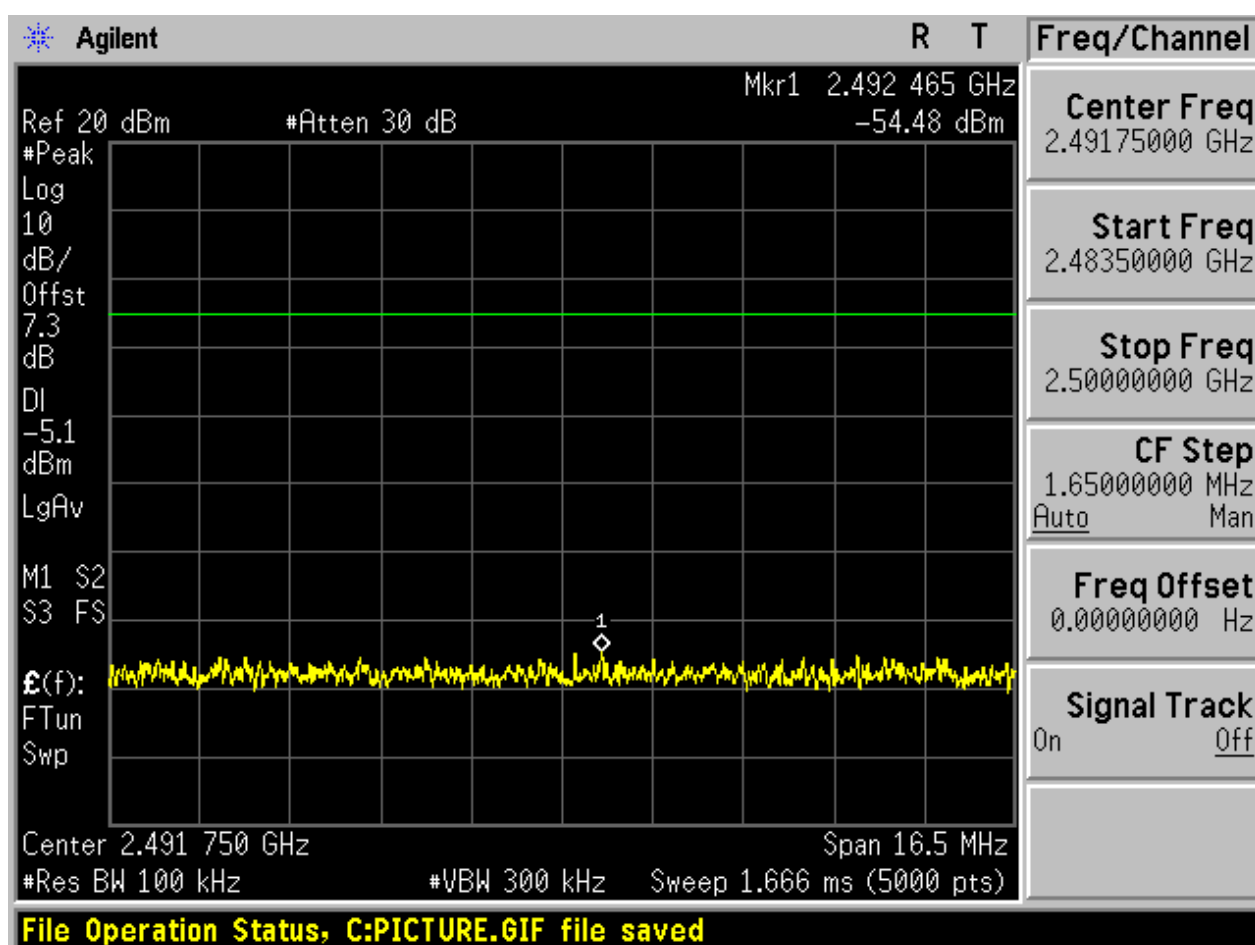
2.4.2 Puw

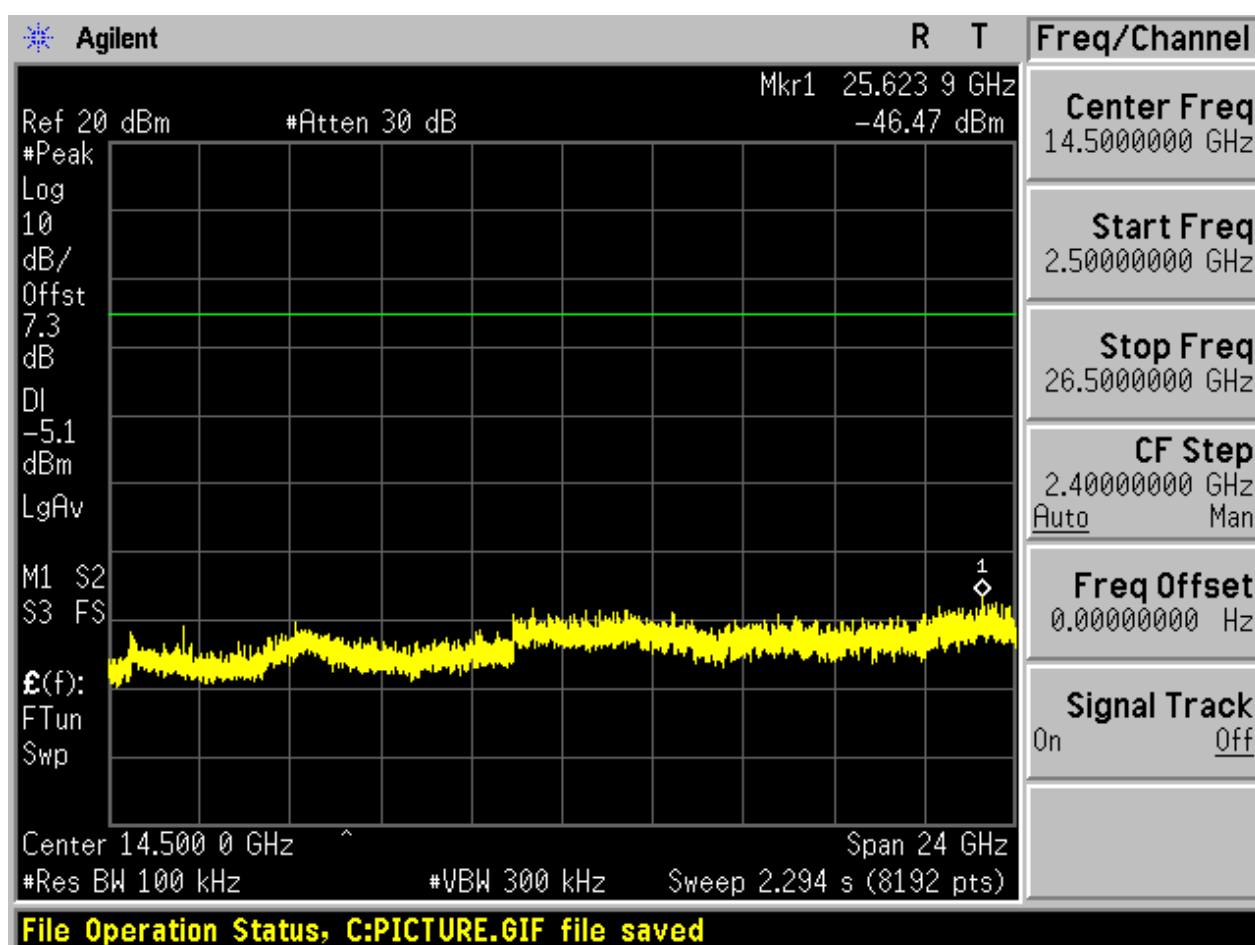






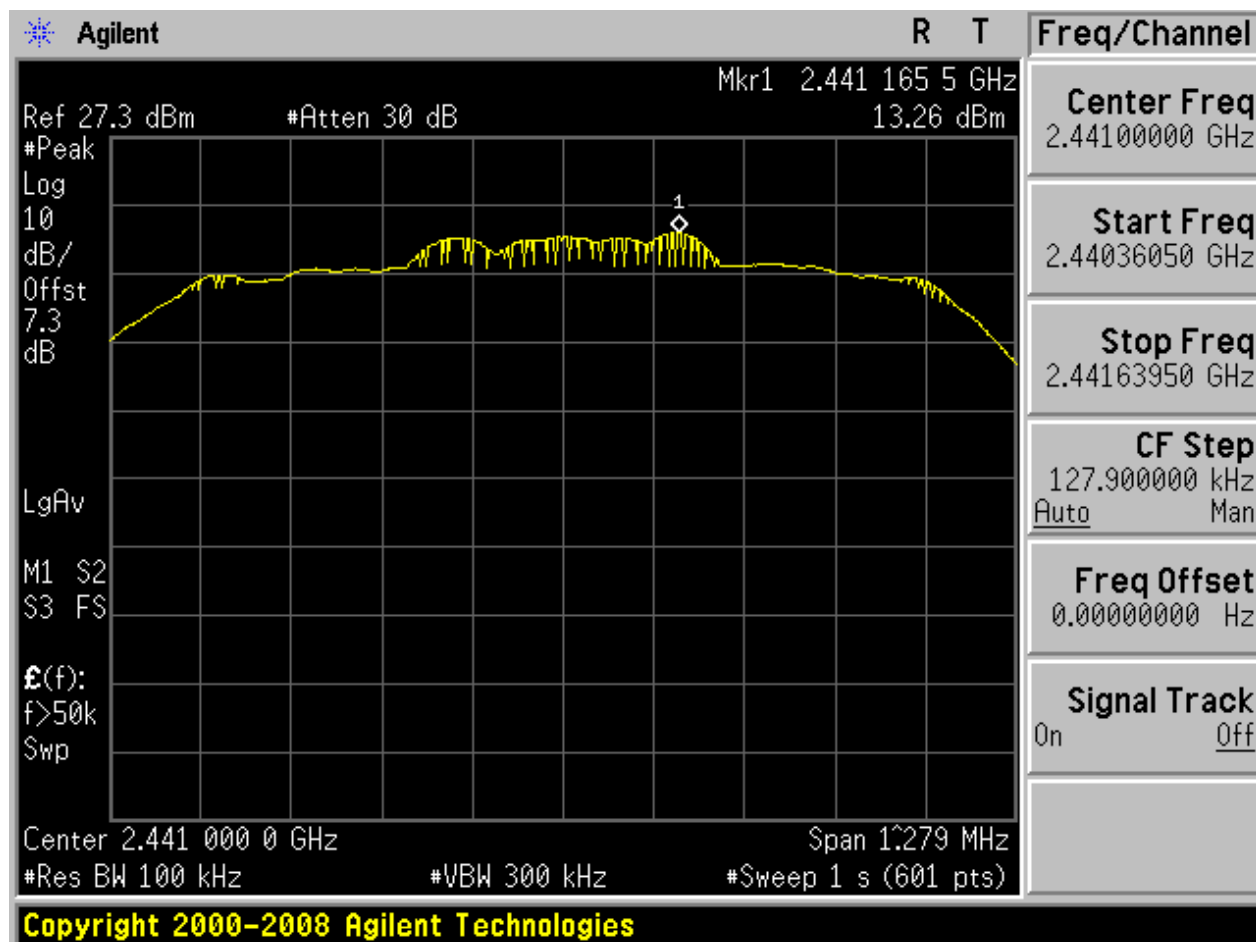




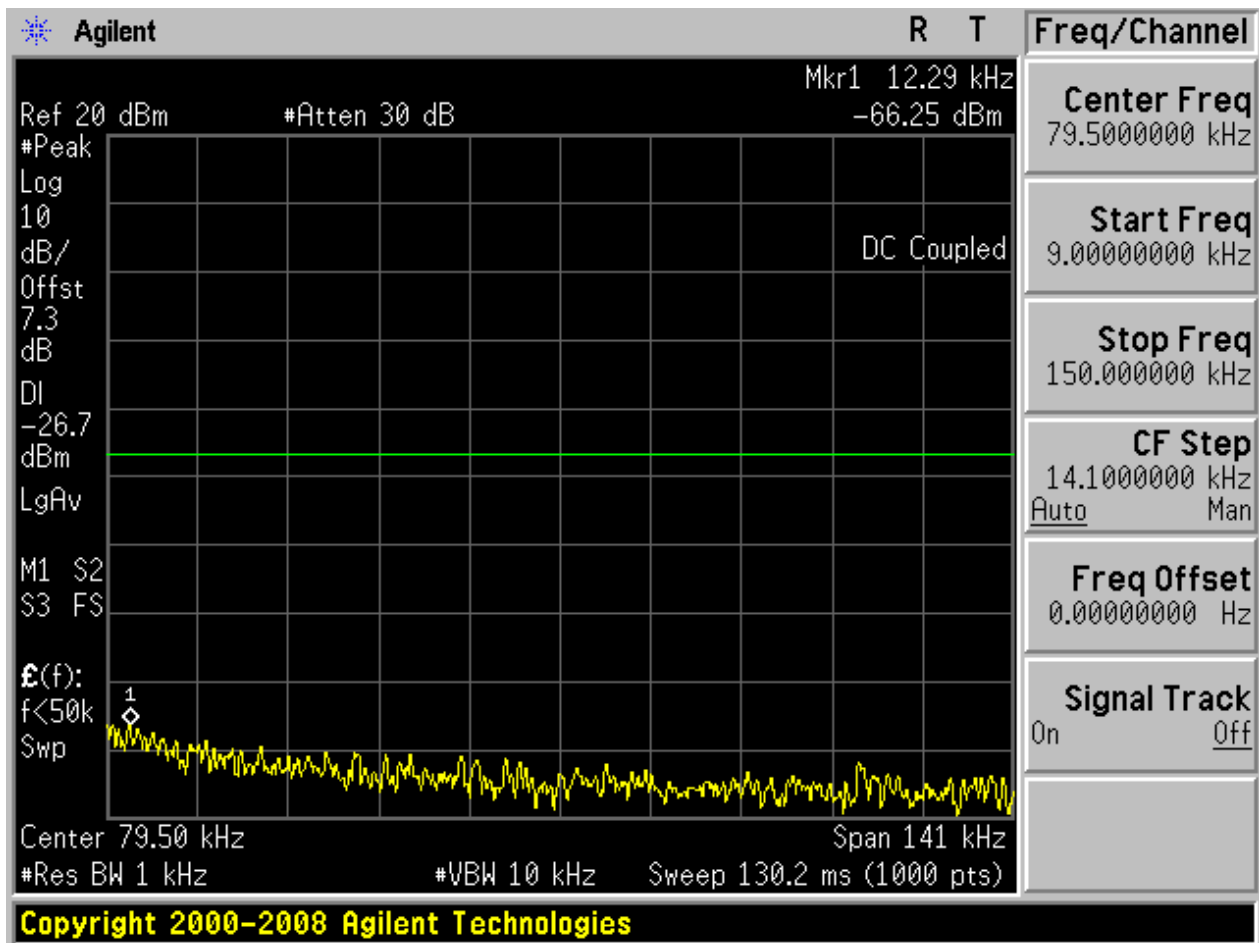


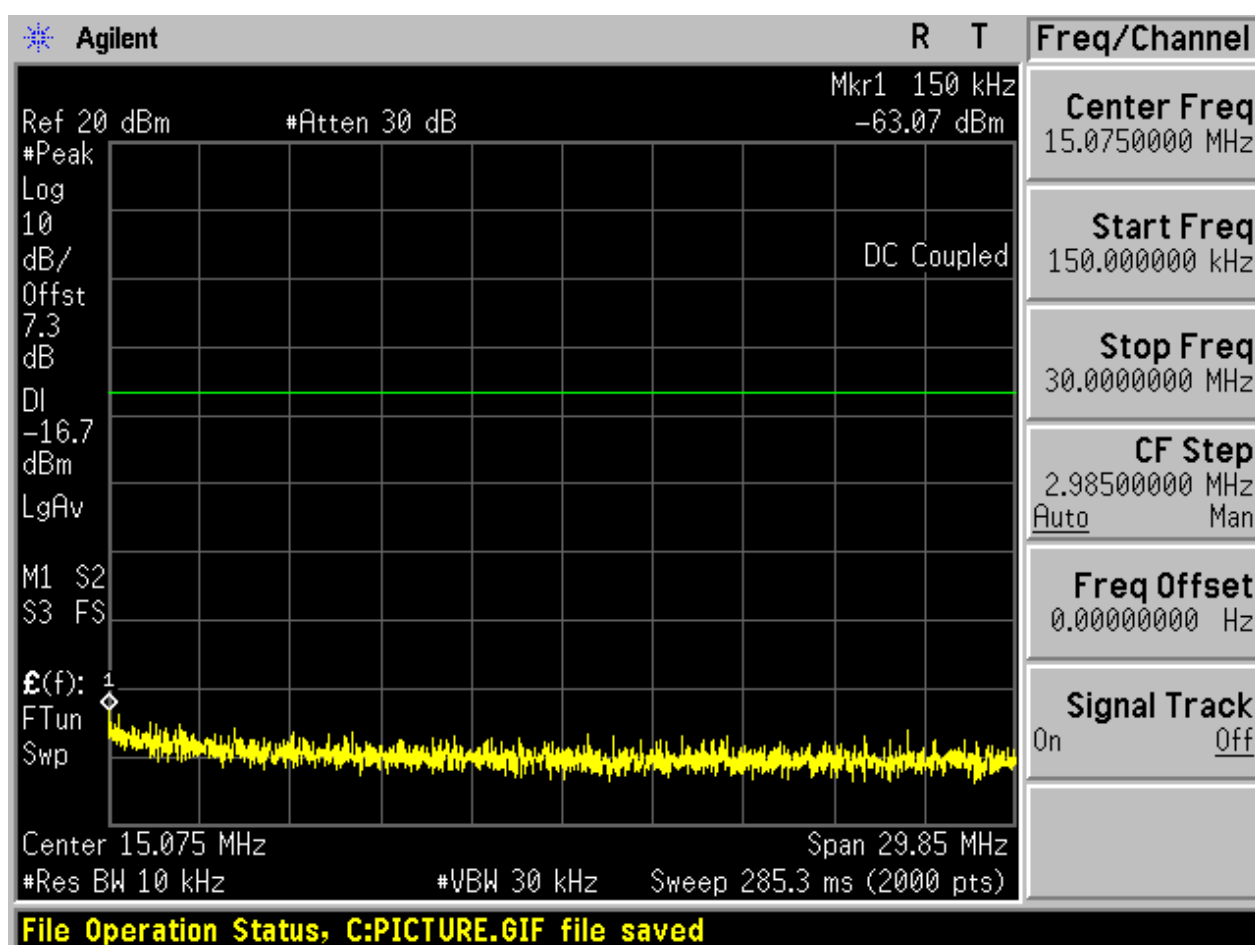
2.5 TM2_2DH5_Ch39

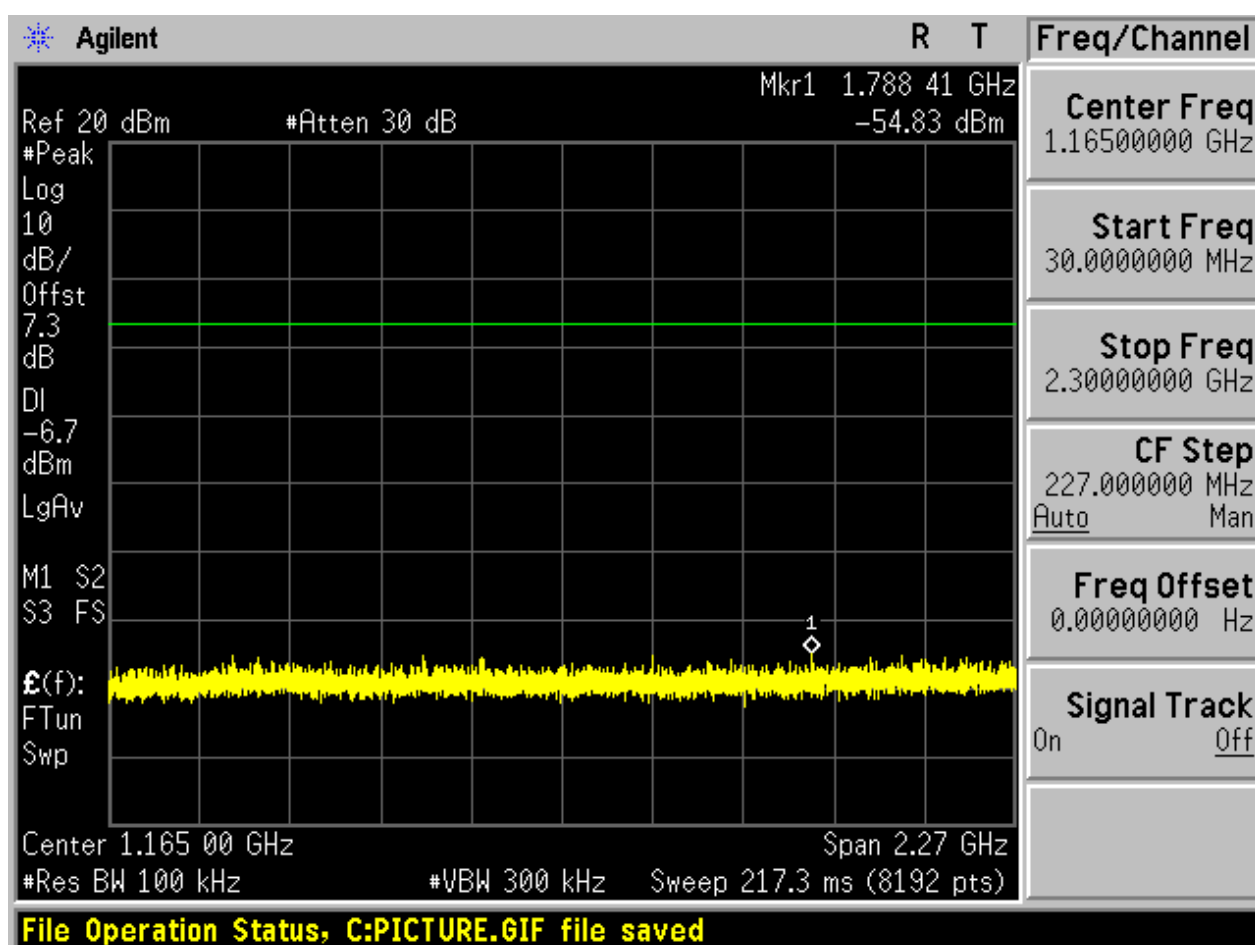
2.5.1 Pref

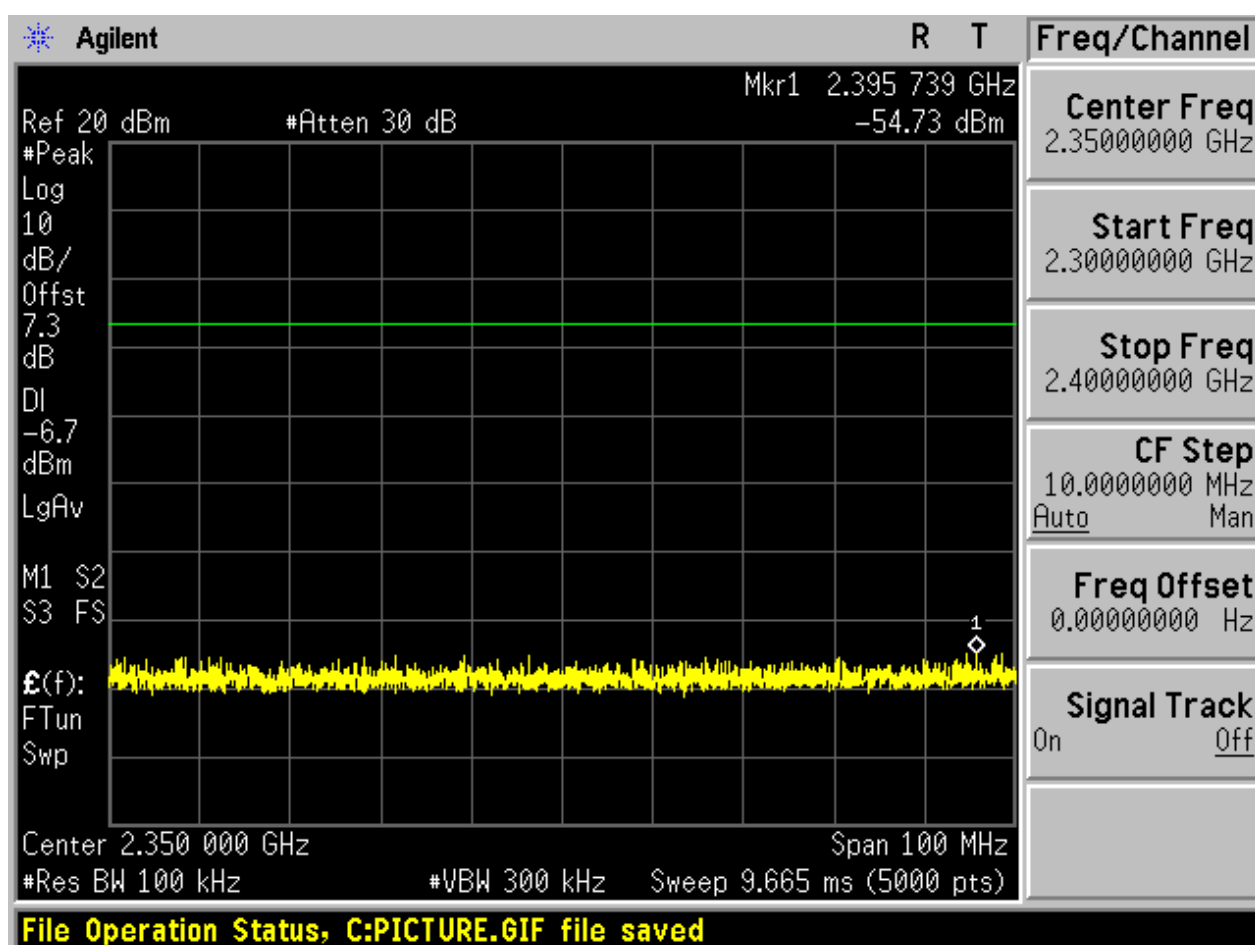


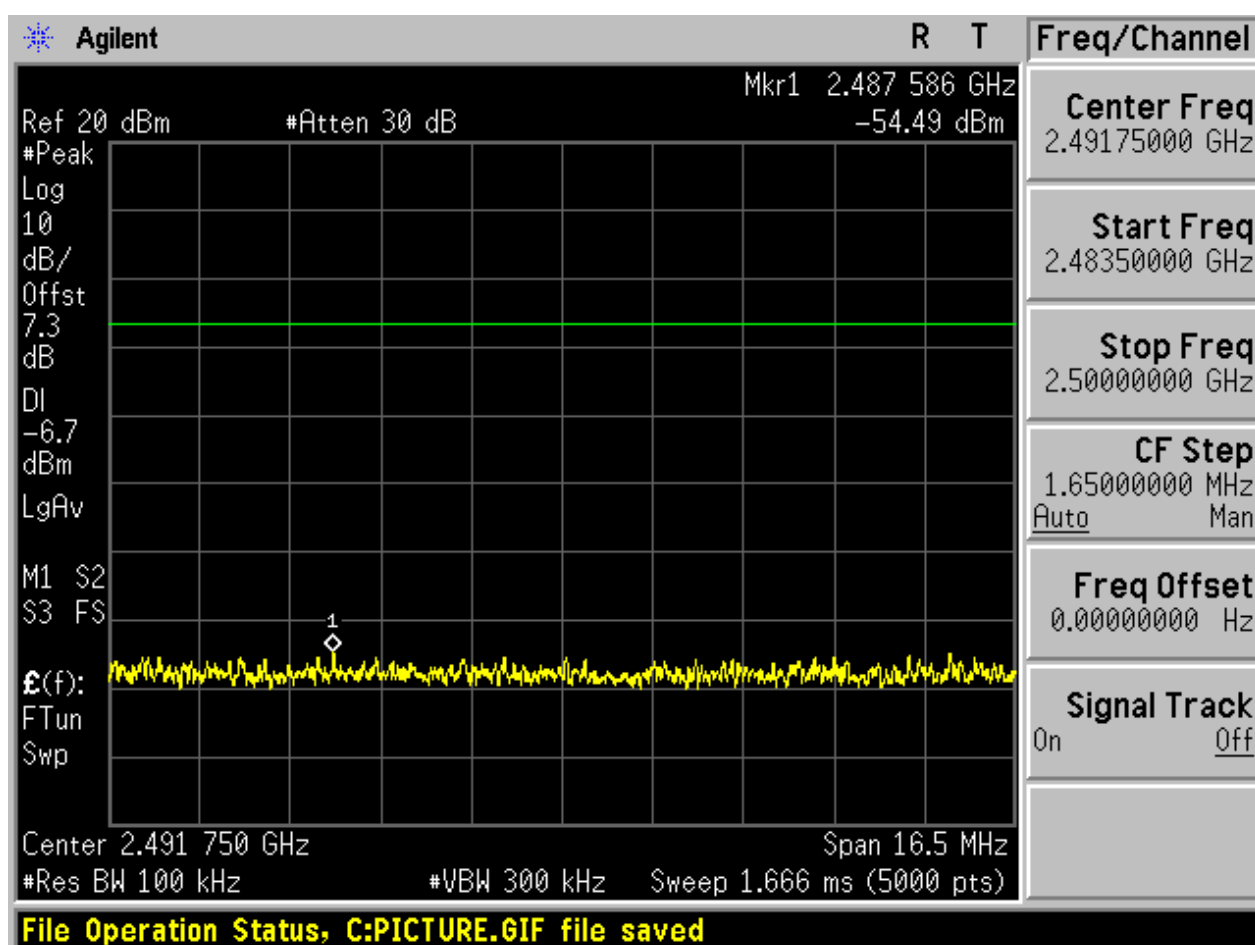
2.5.2 Puw

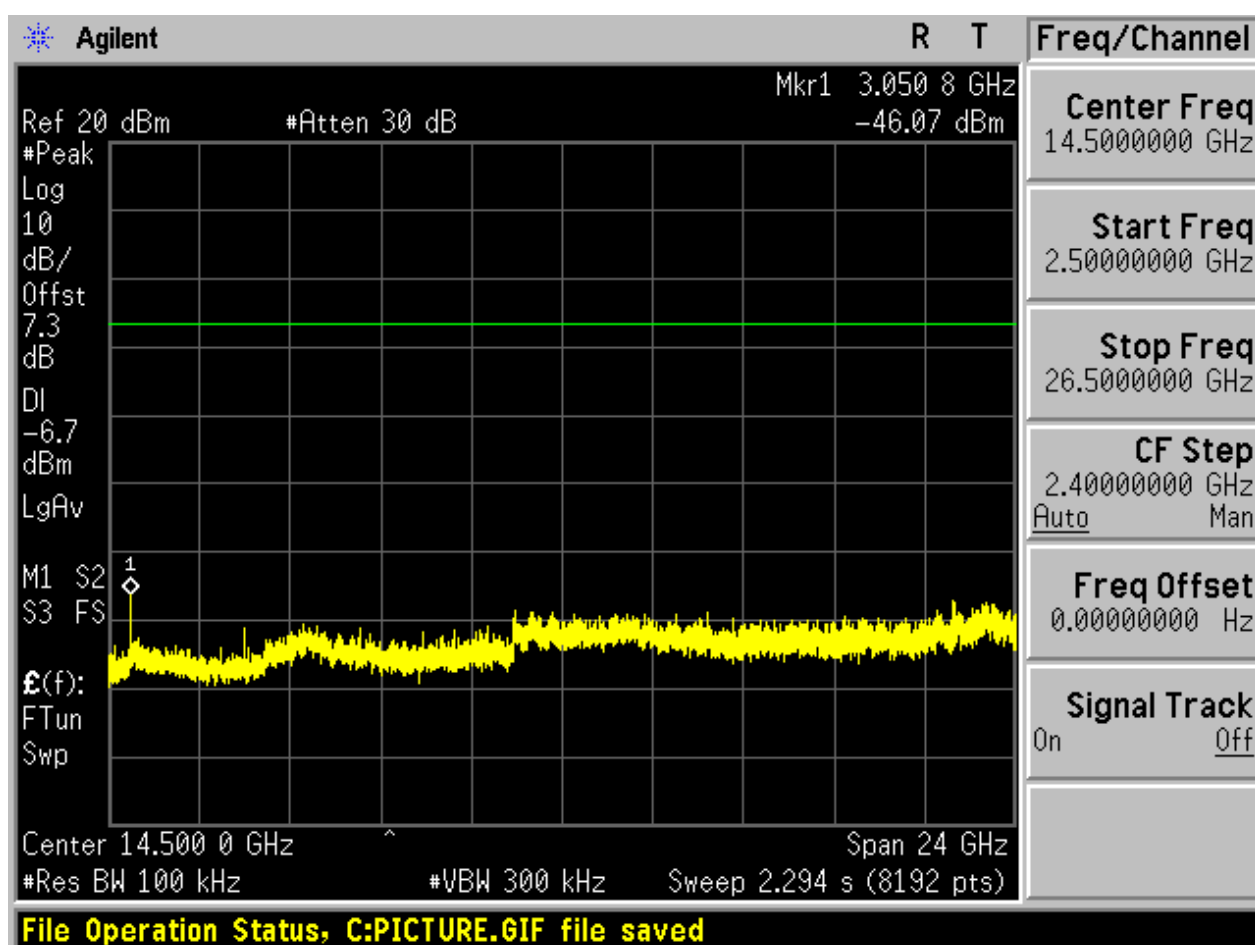






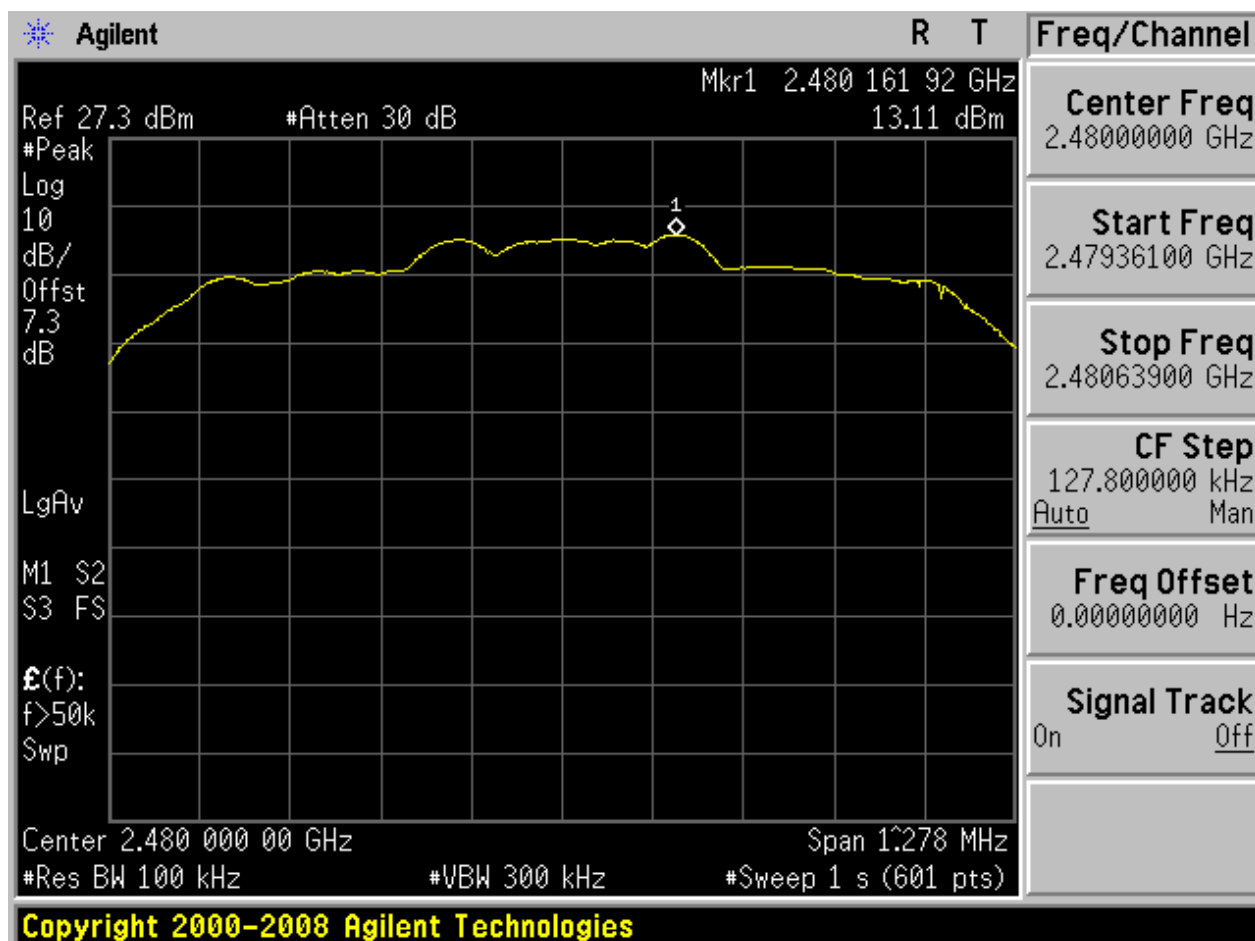




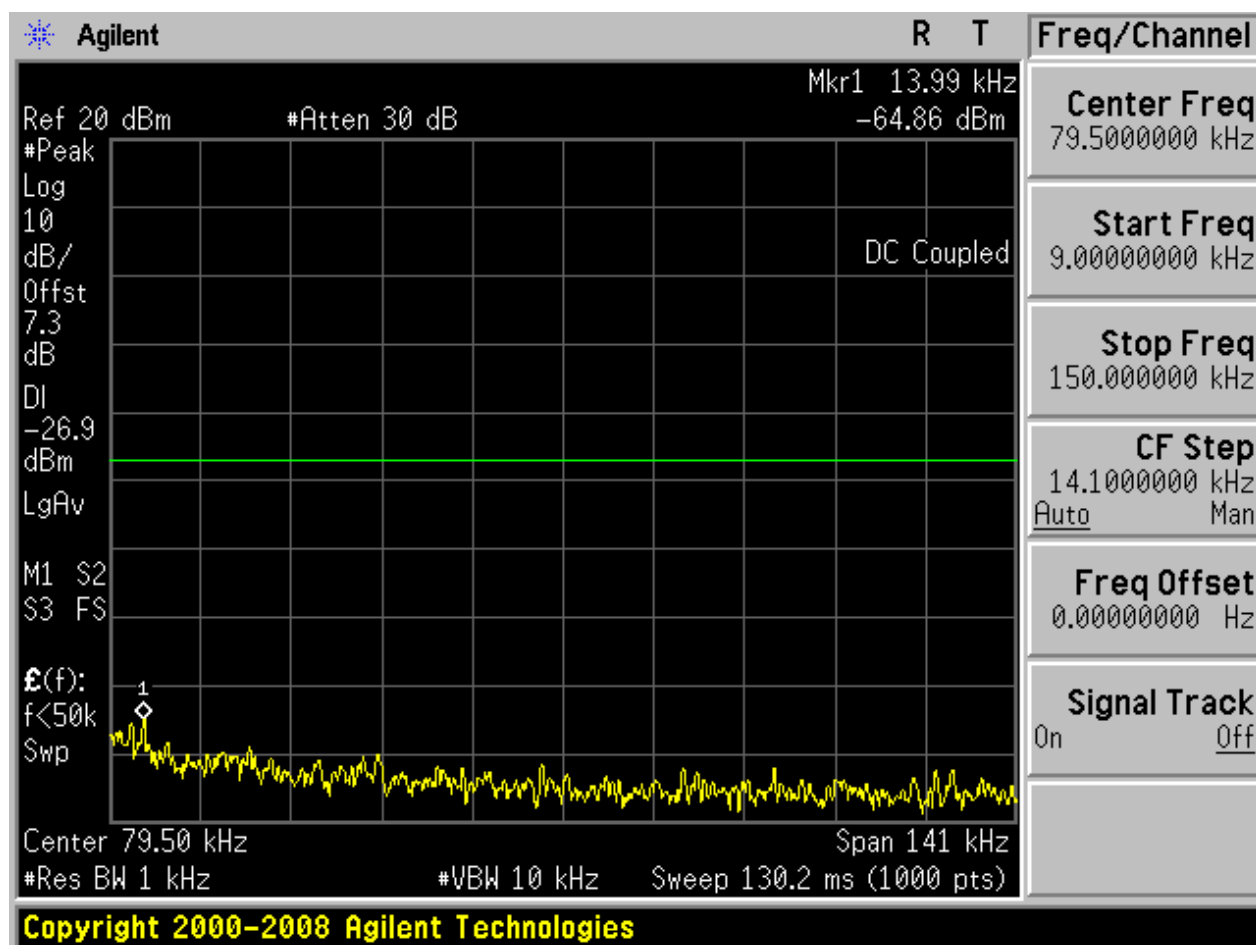


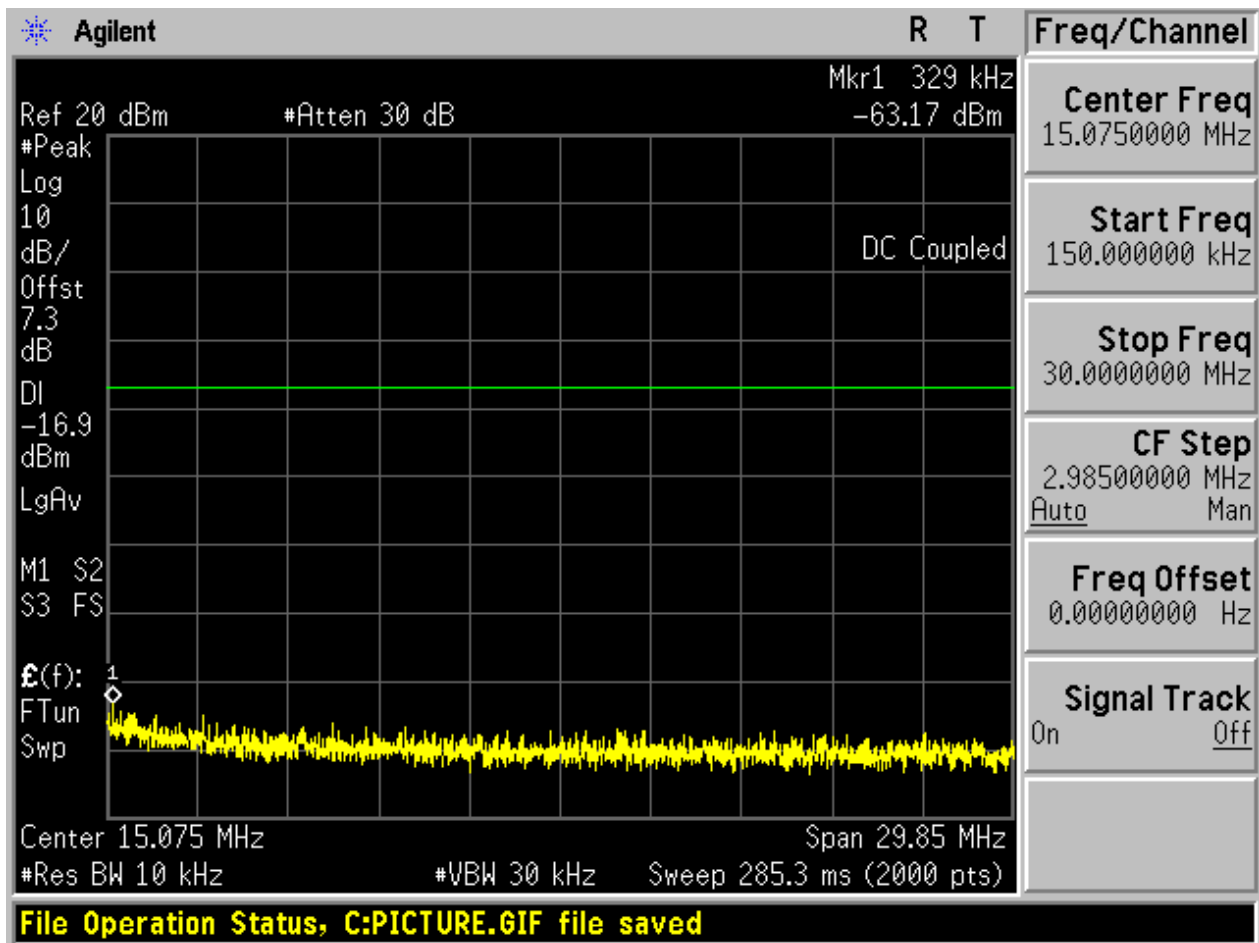
2.6 TM2_2DH5_Ch78

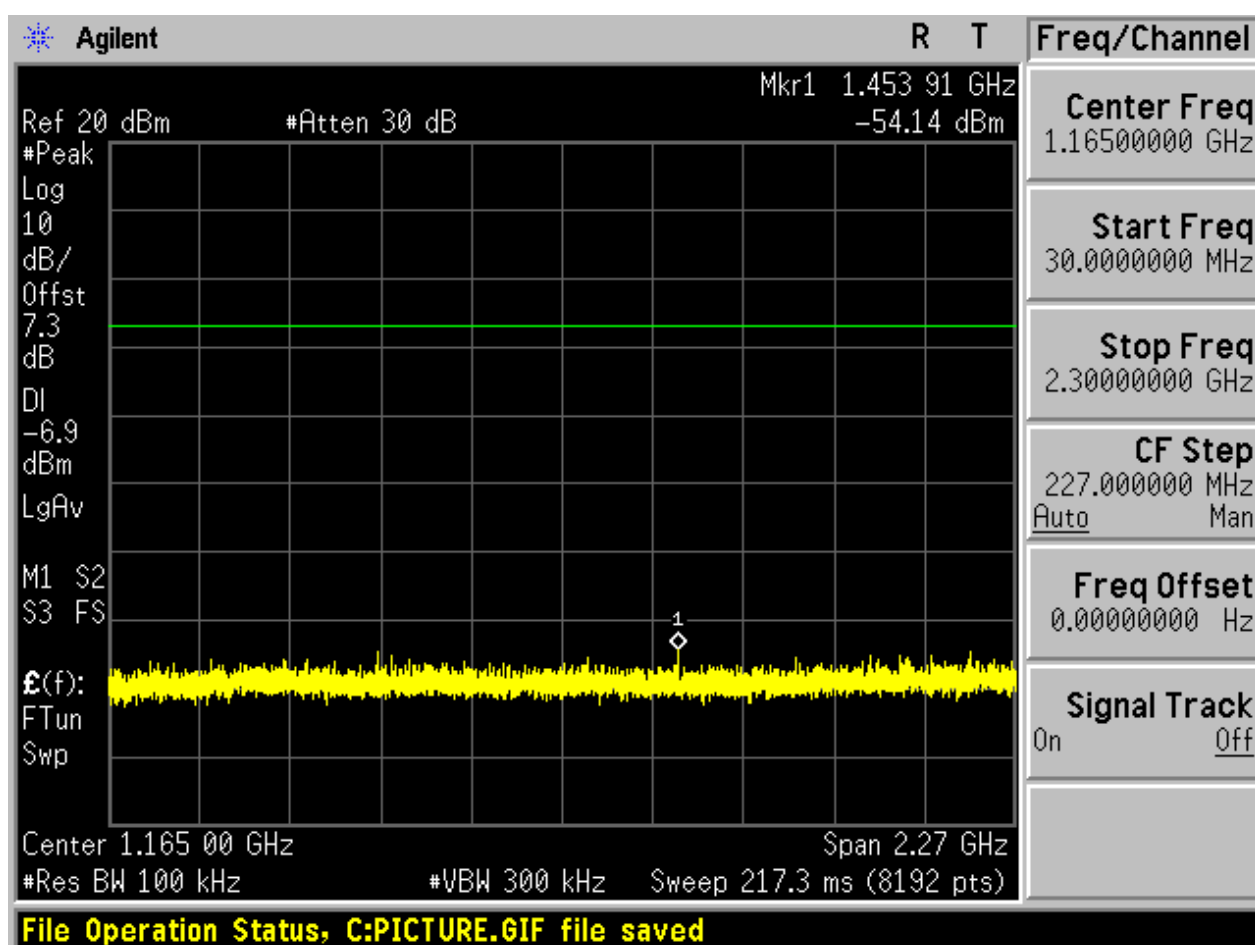
2.6.1 Pref

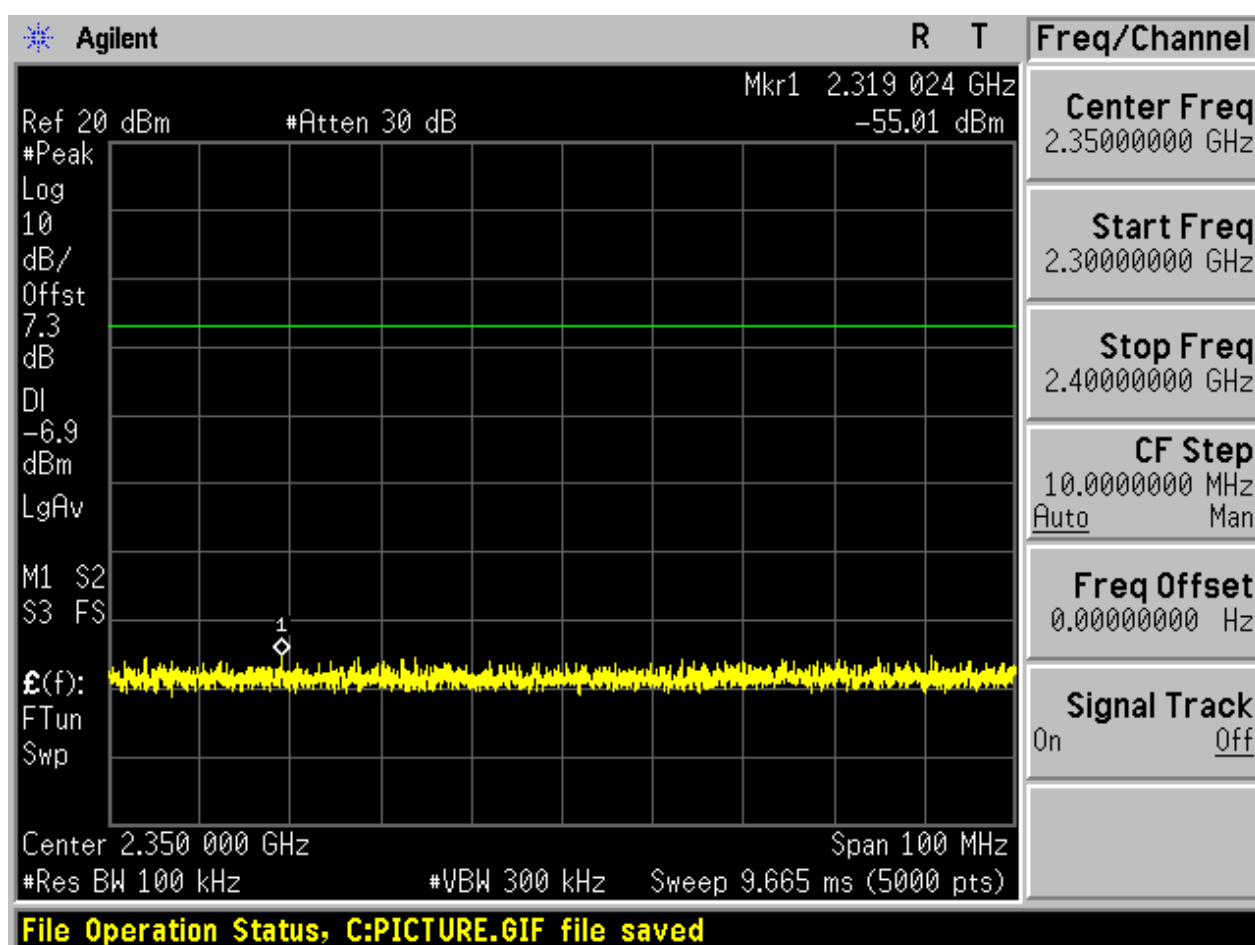


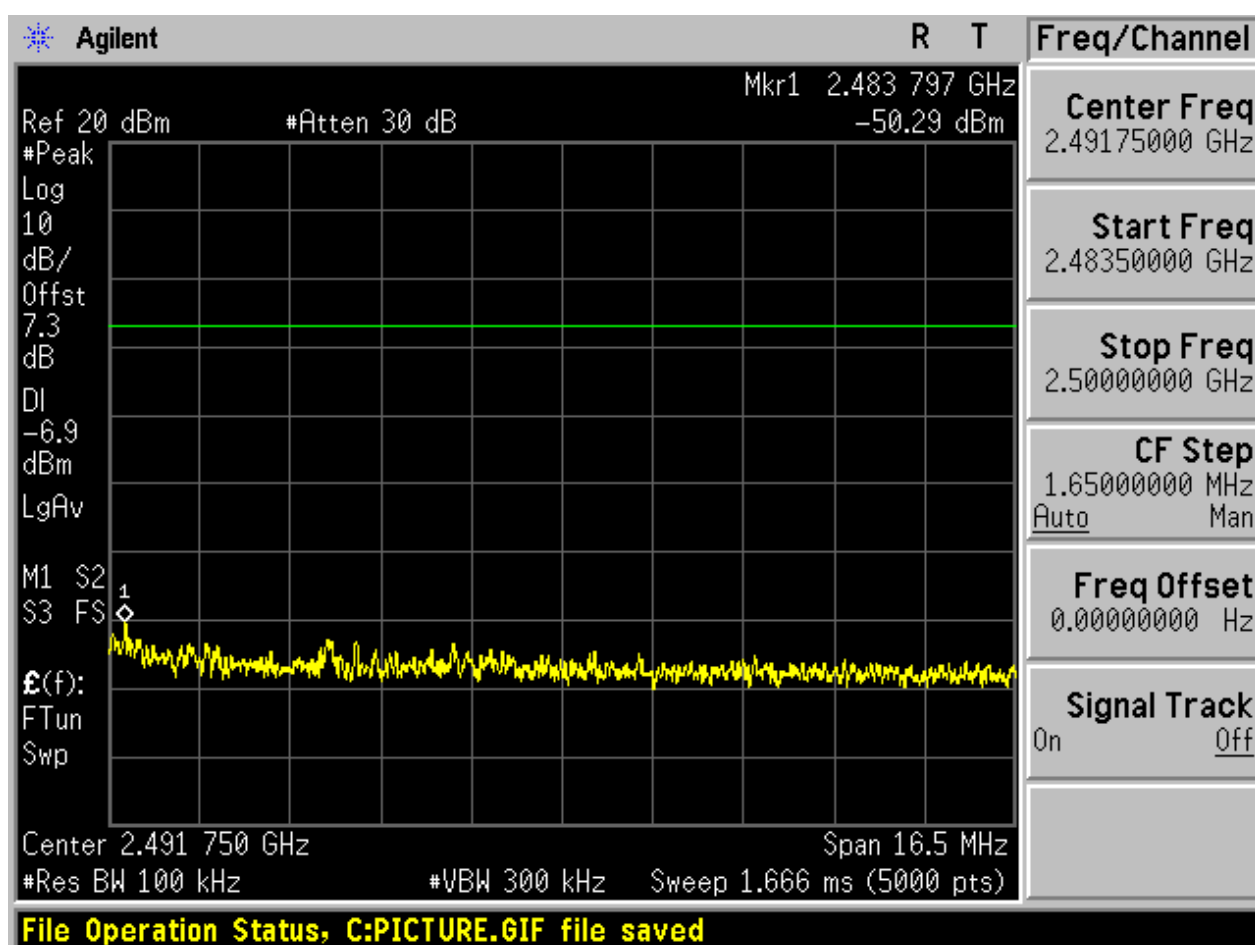
2.6.2 Puw

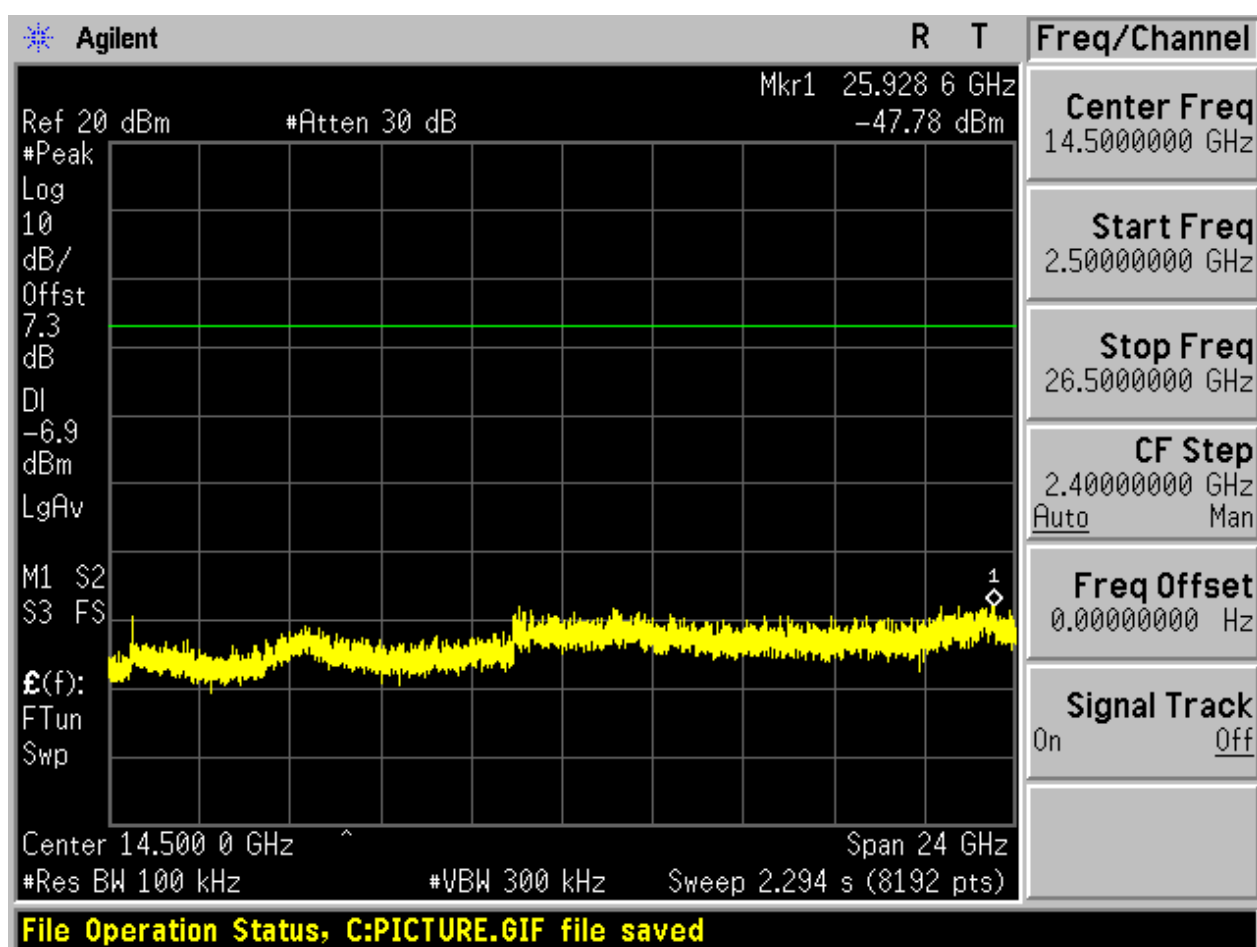






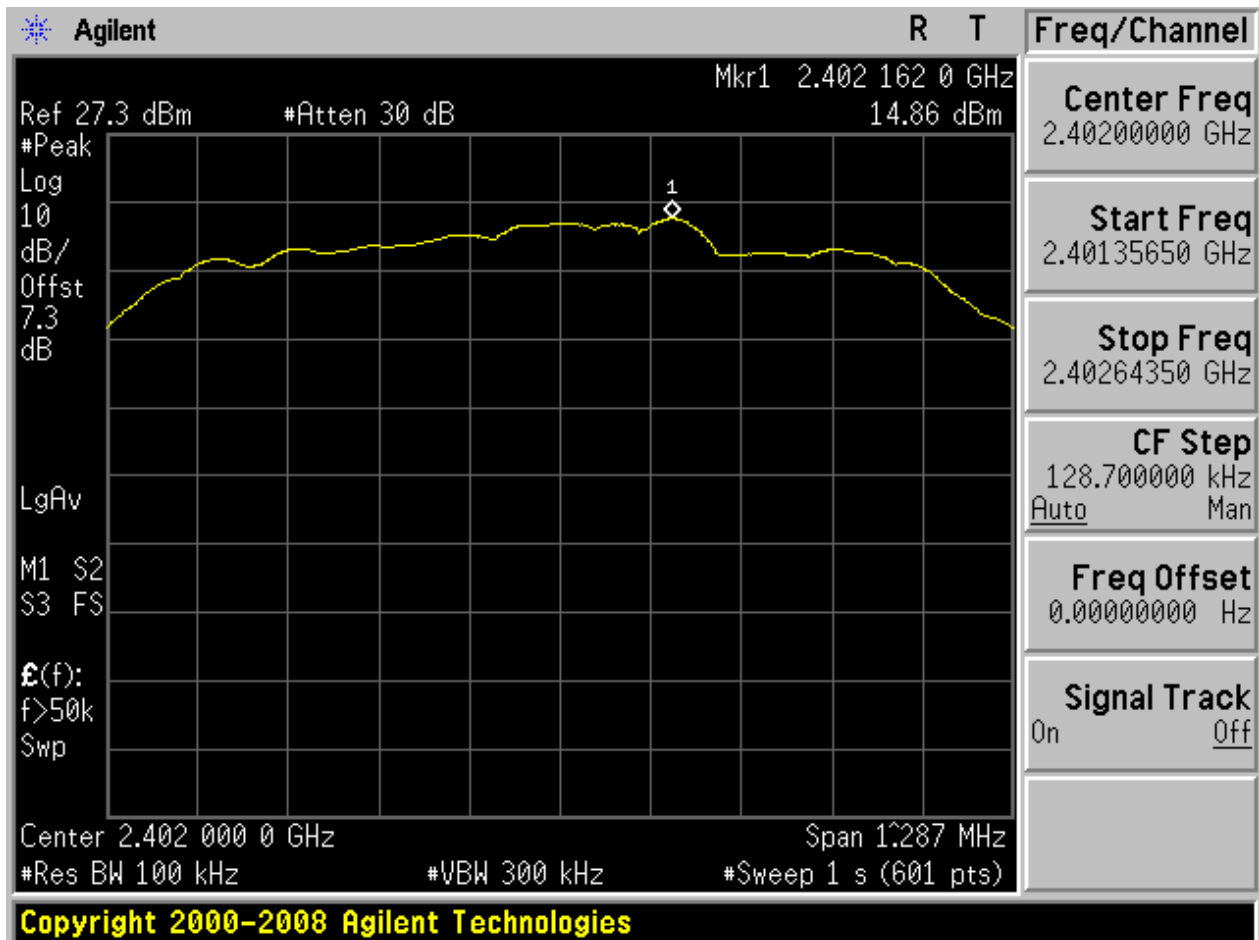




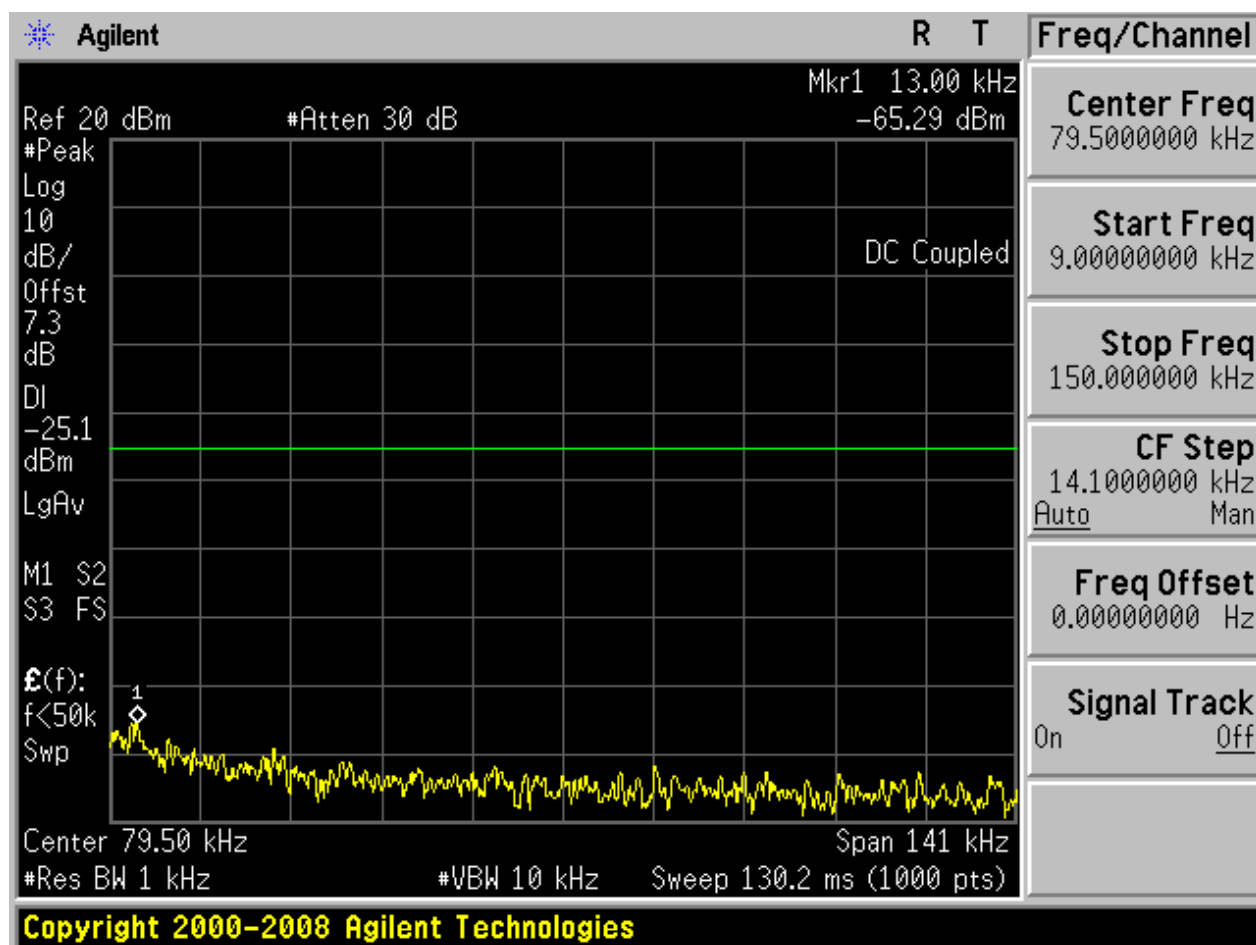


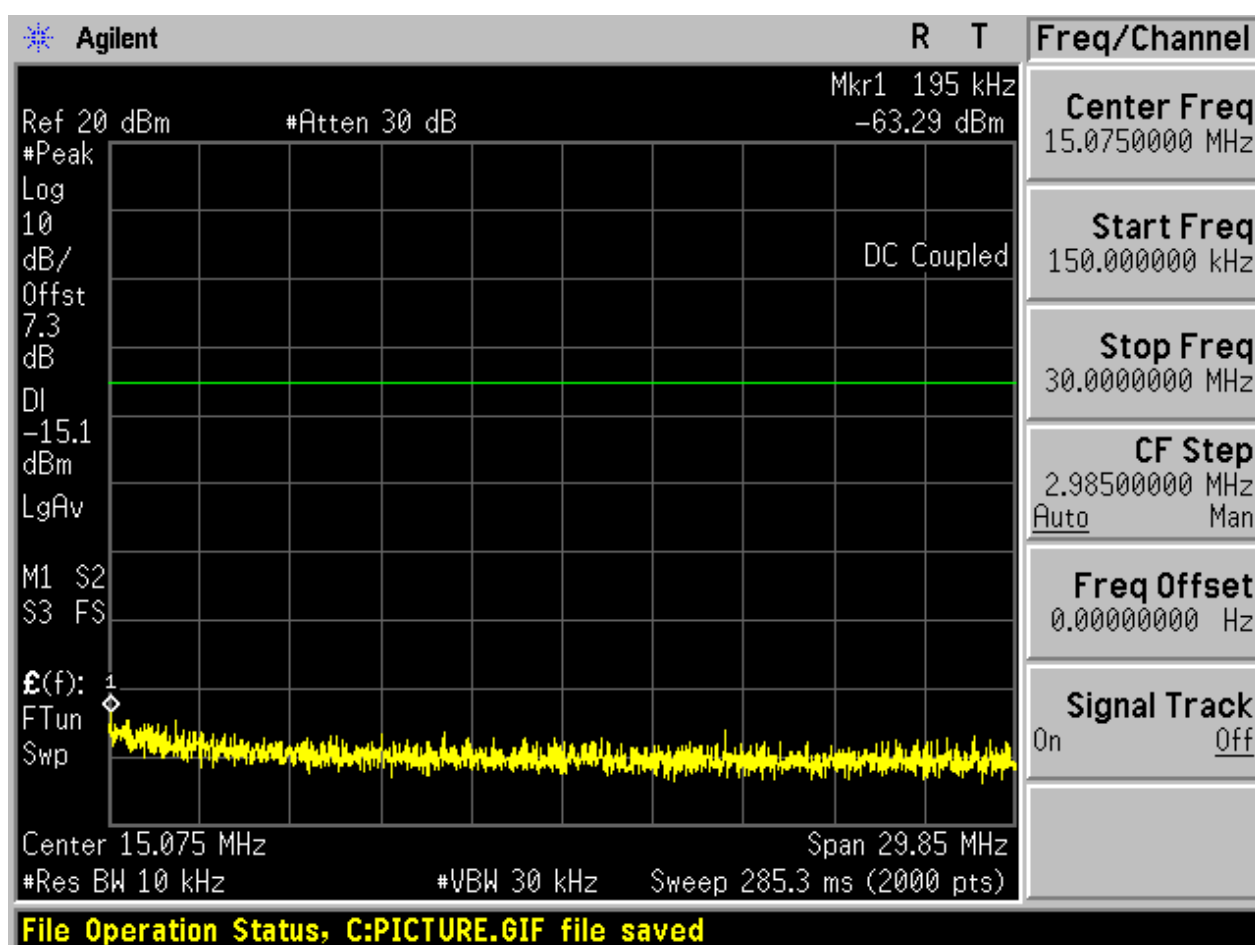
2.7 TM3_3DH5_Ch0

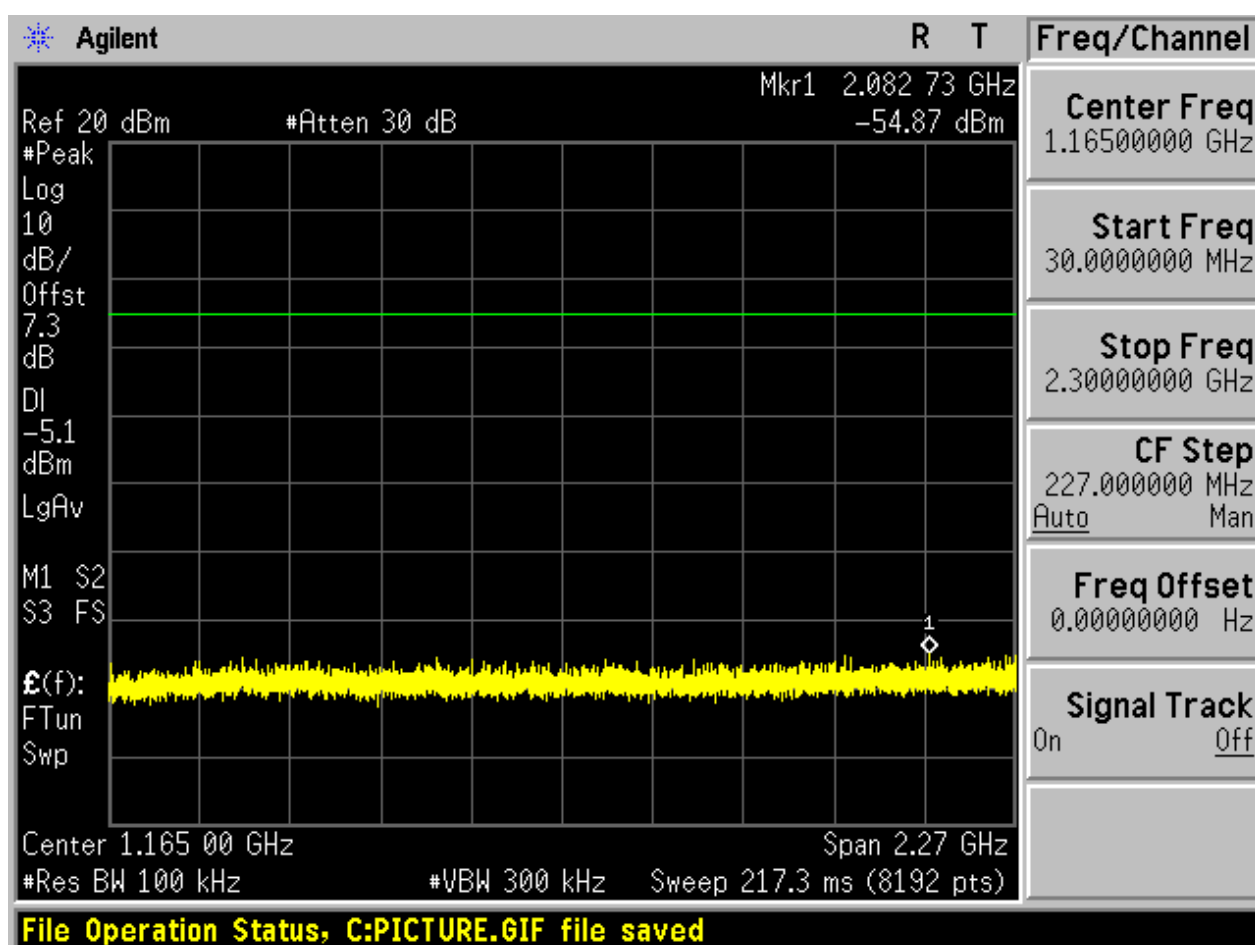
2.7.1 Pref

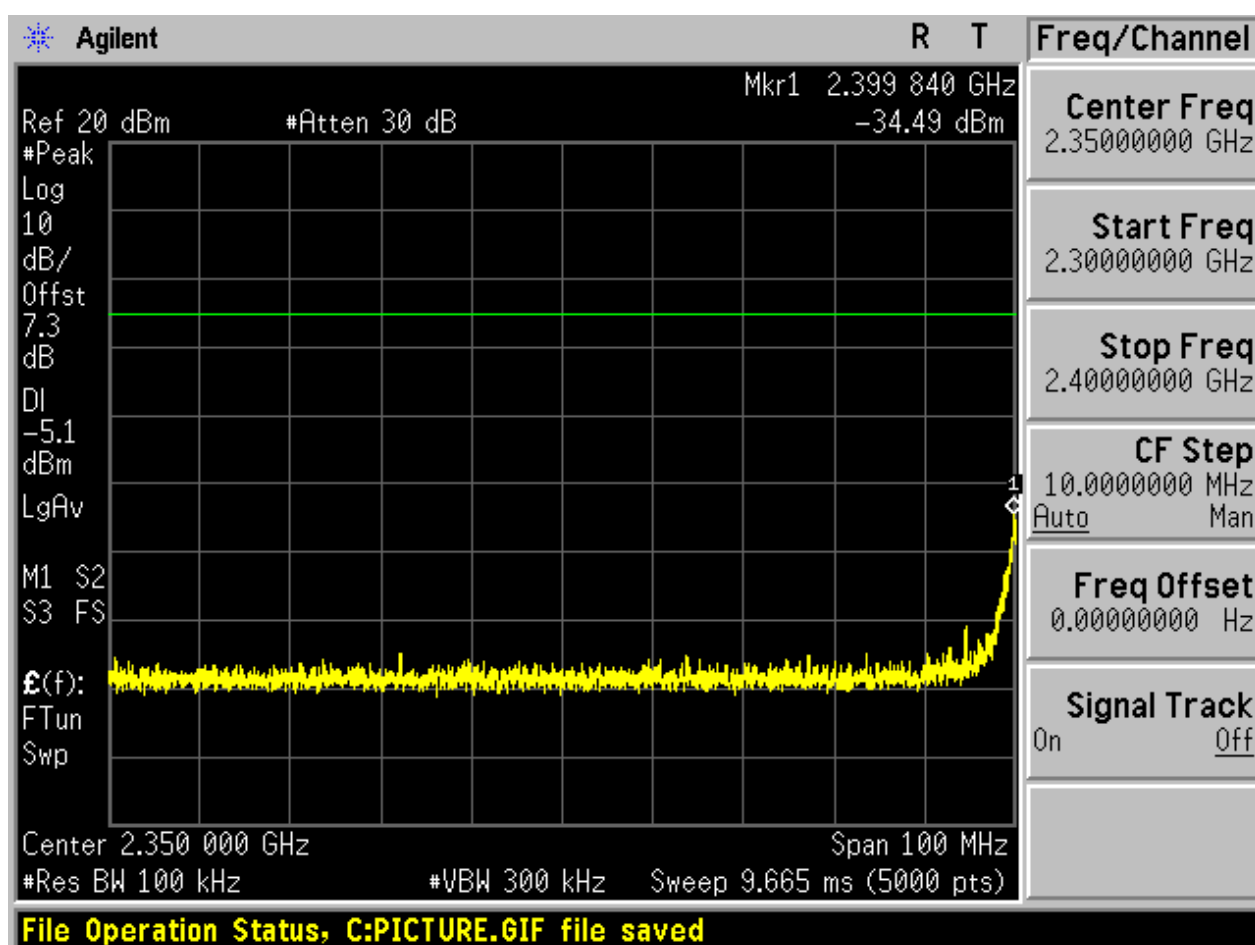


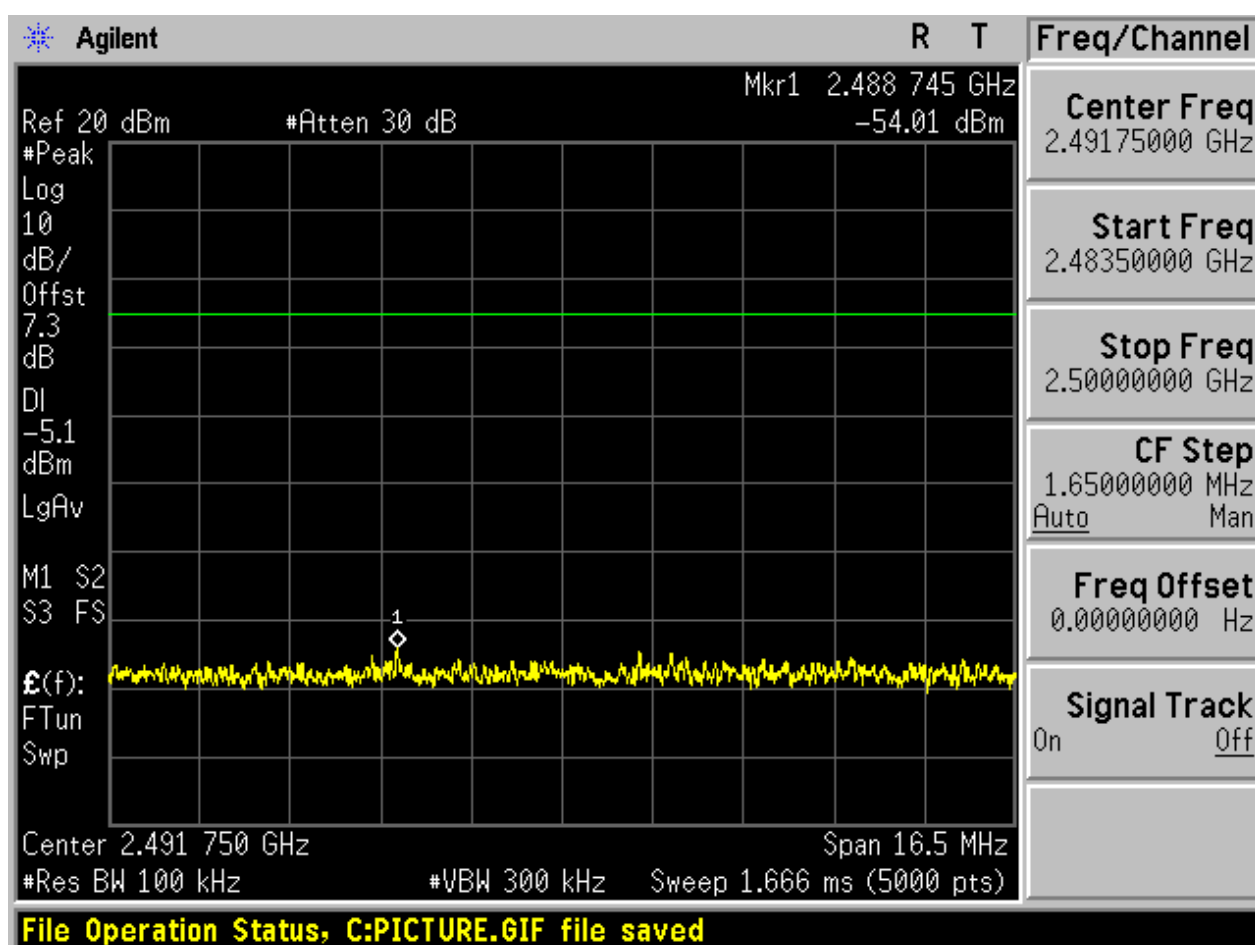
2.7.2 Puw

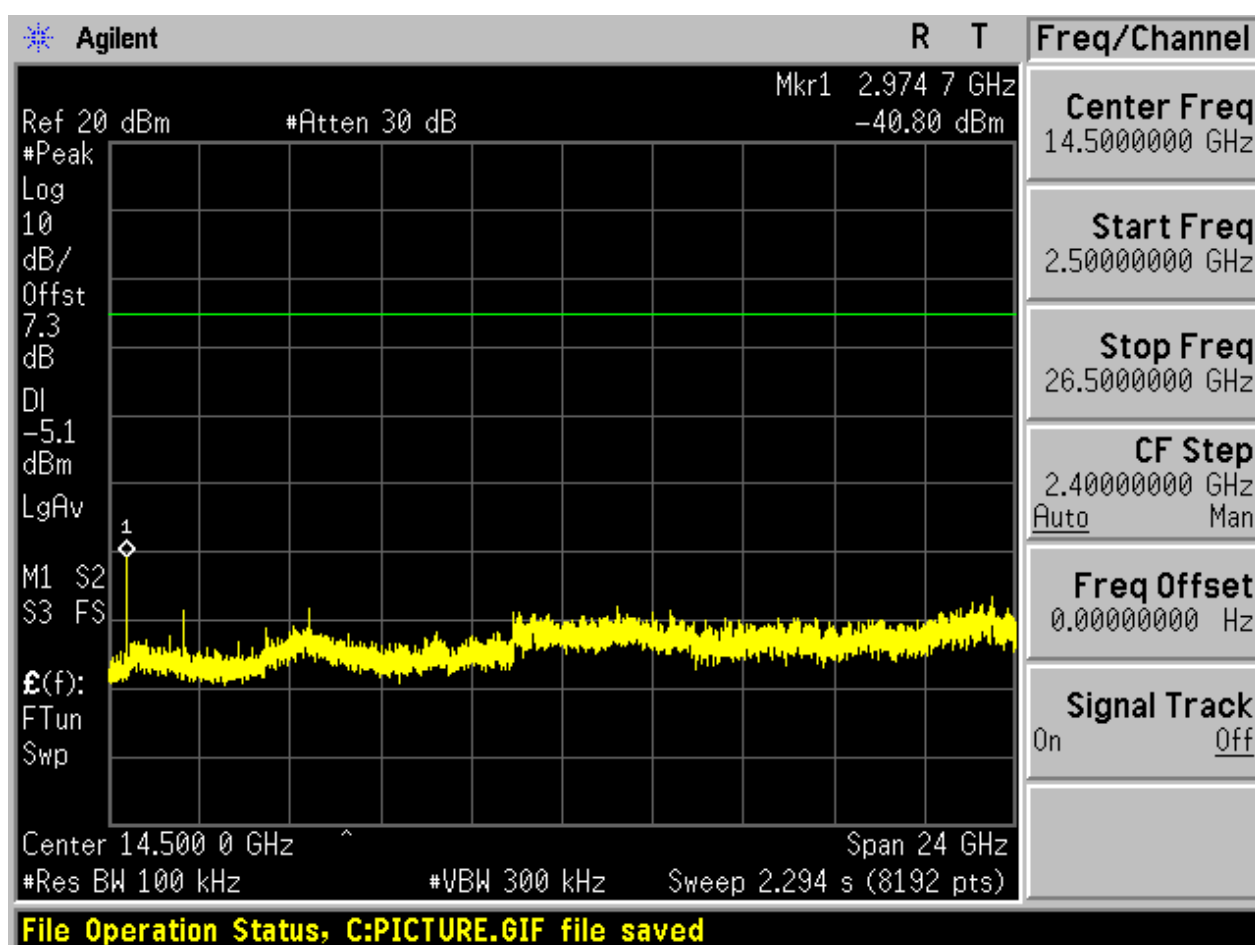






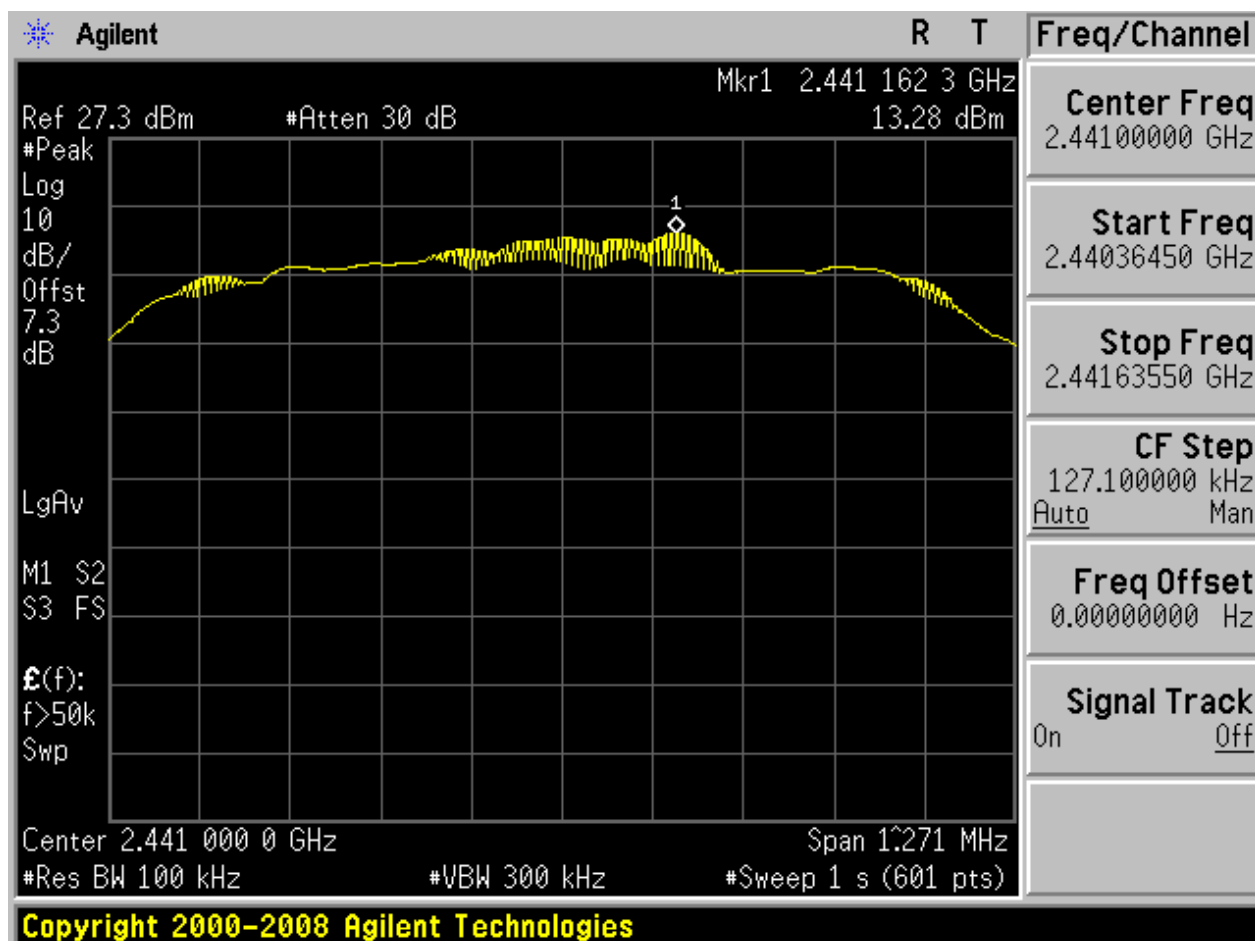




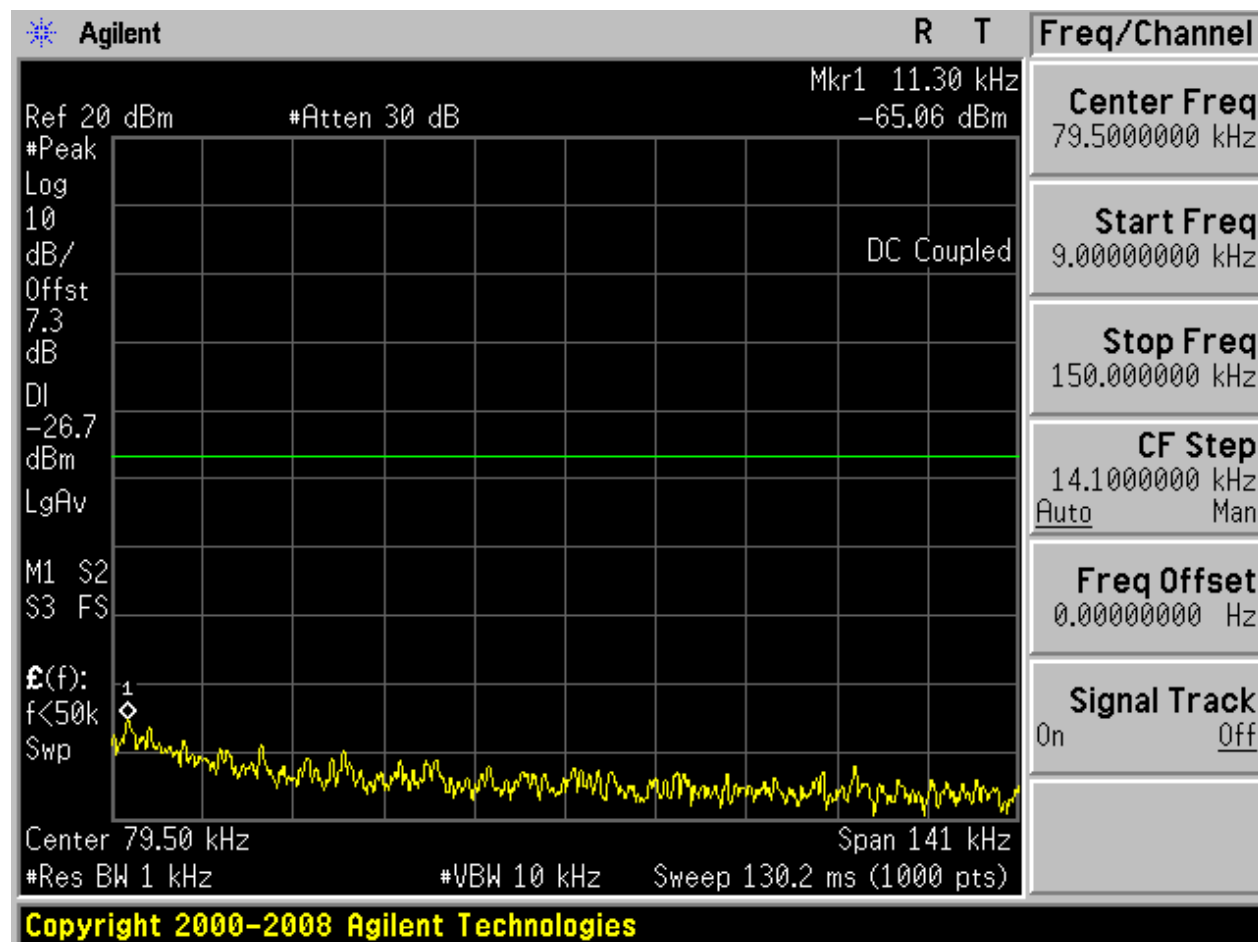


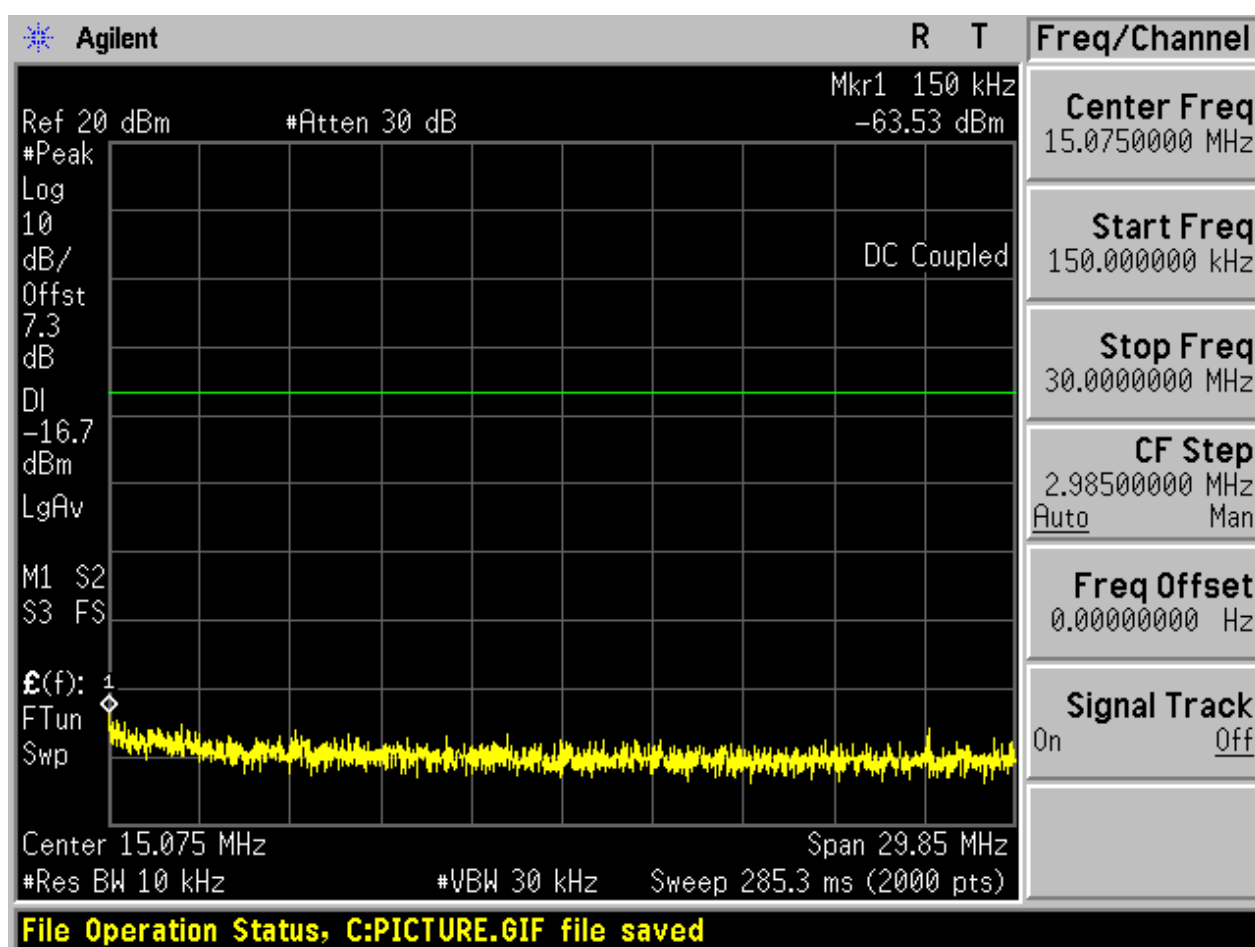
2.8 TM3_3DH5_Ch39

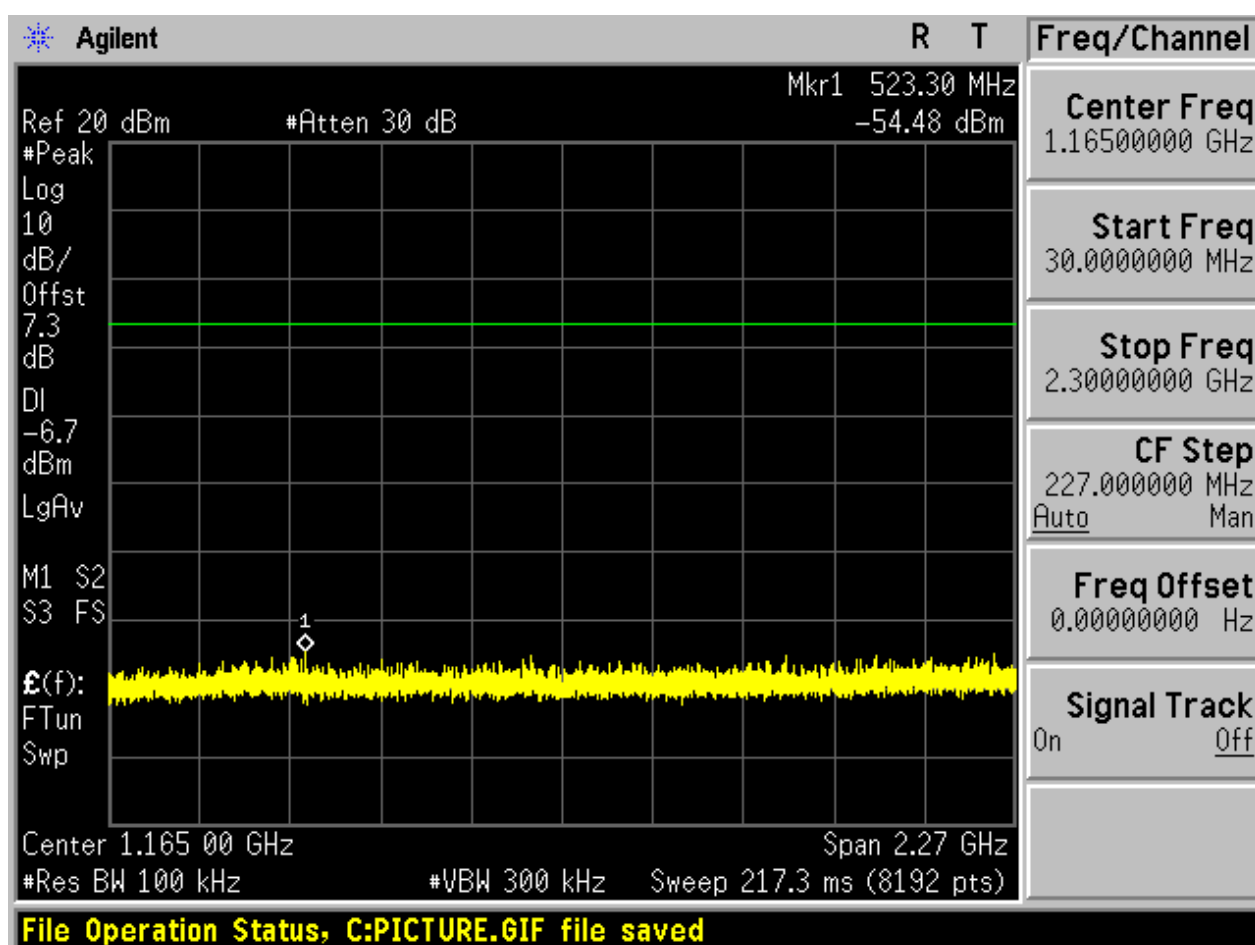
2.8.1 Pref

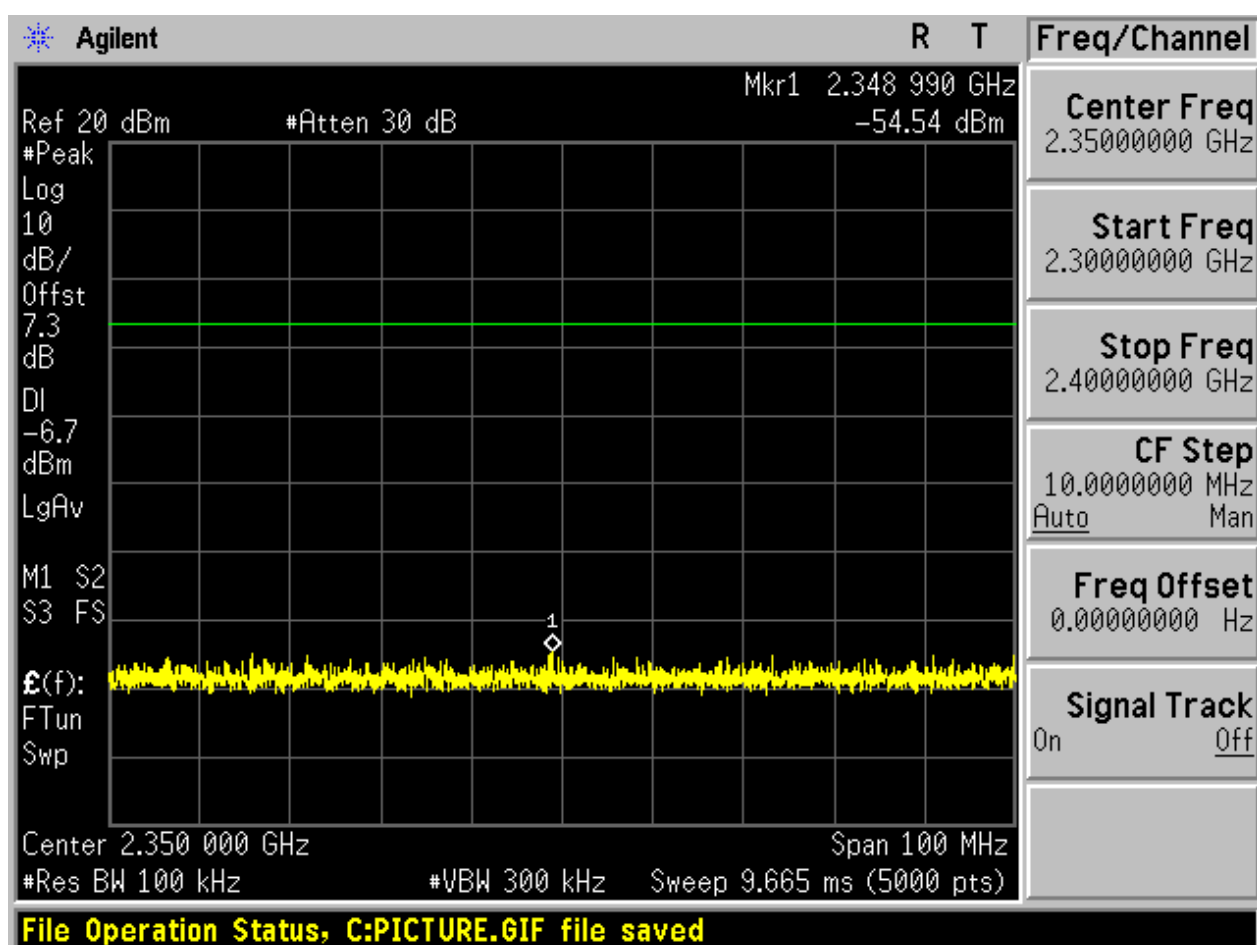


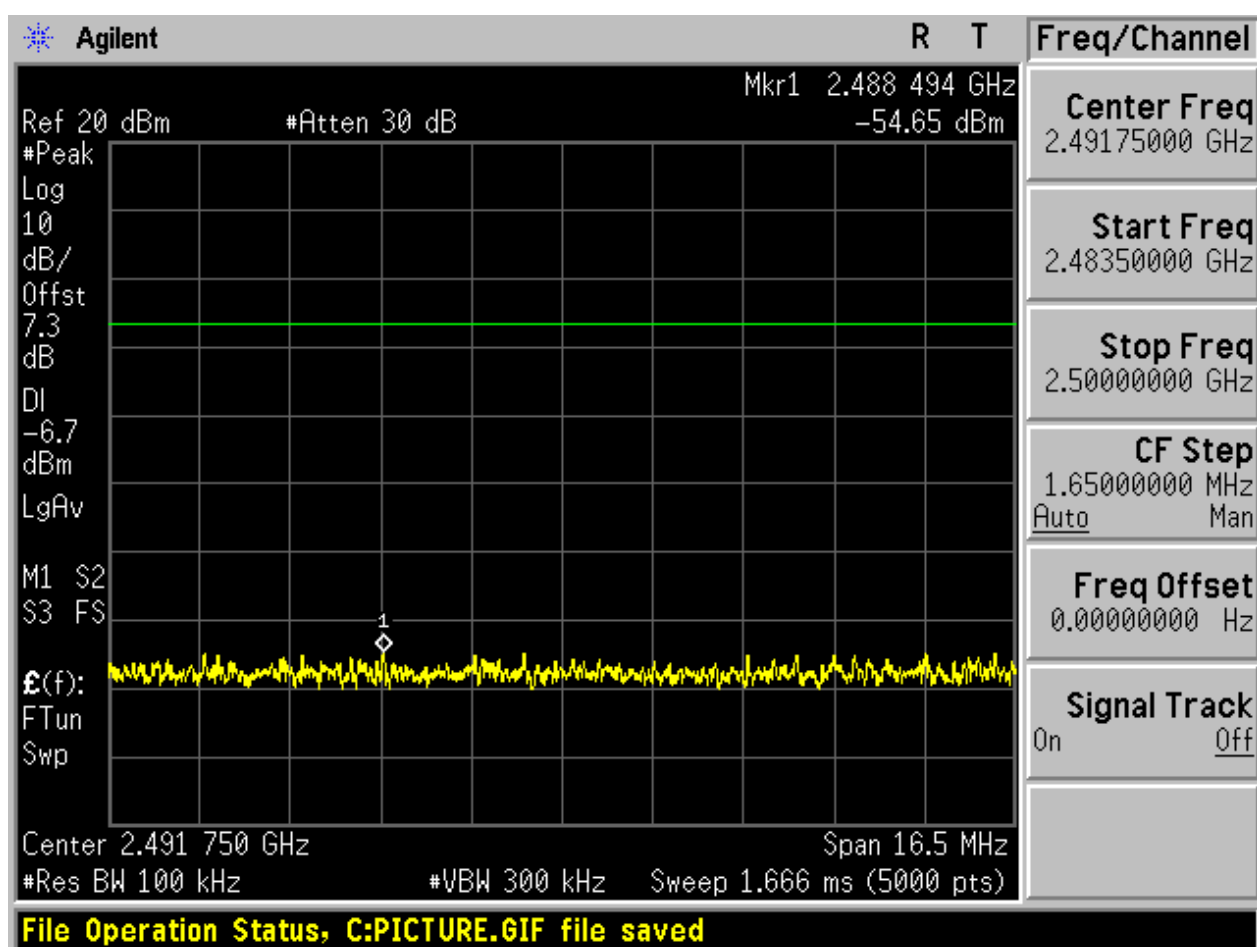
2.8.2 Puw

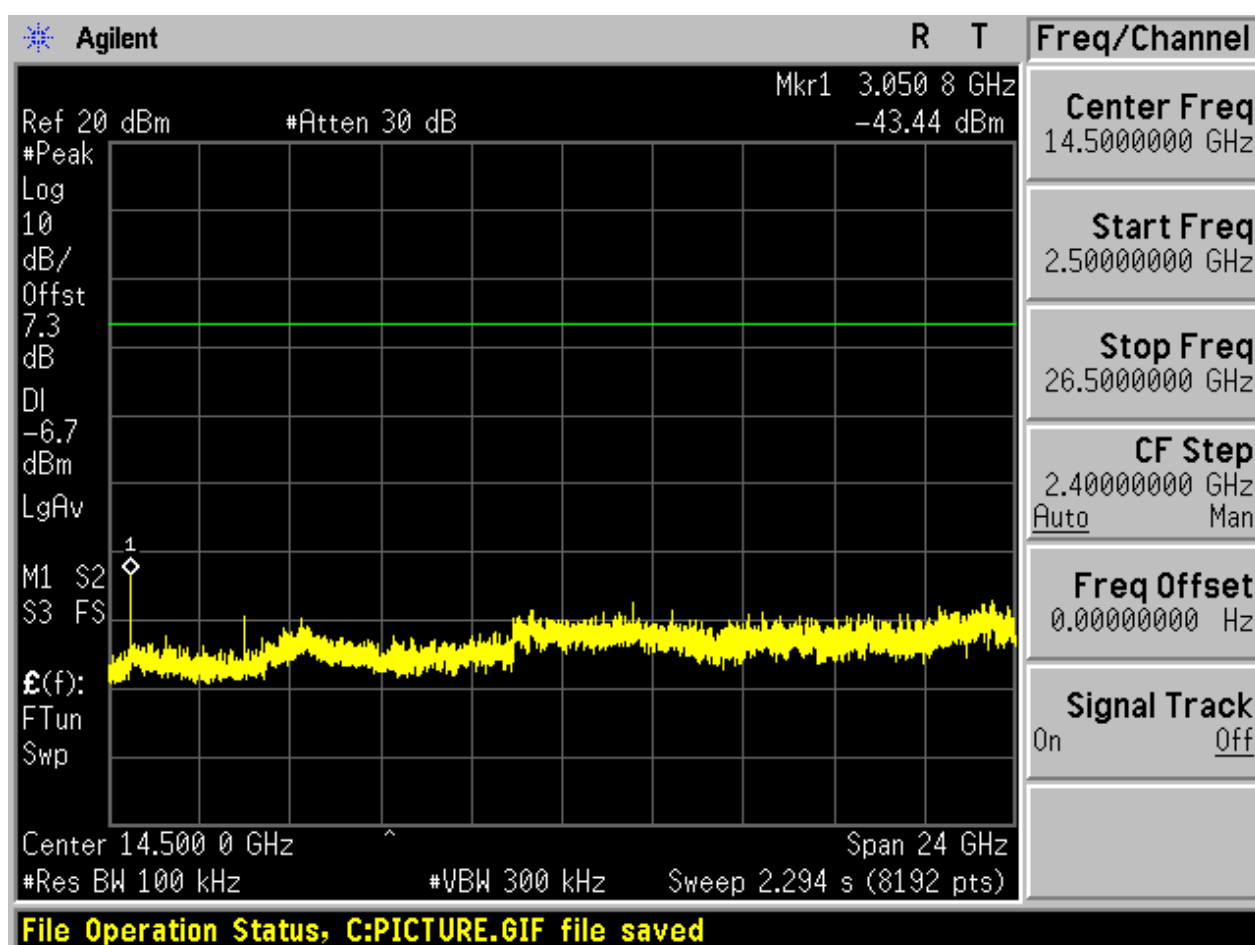






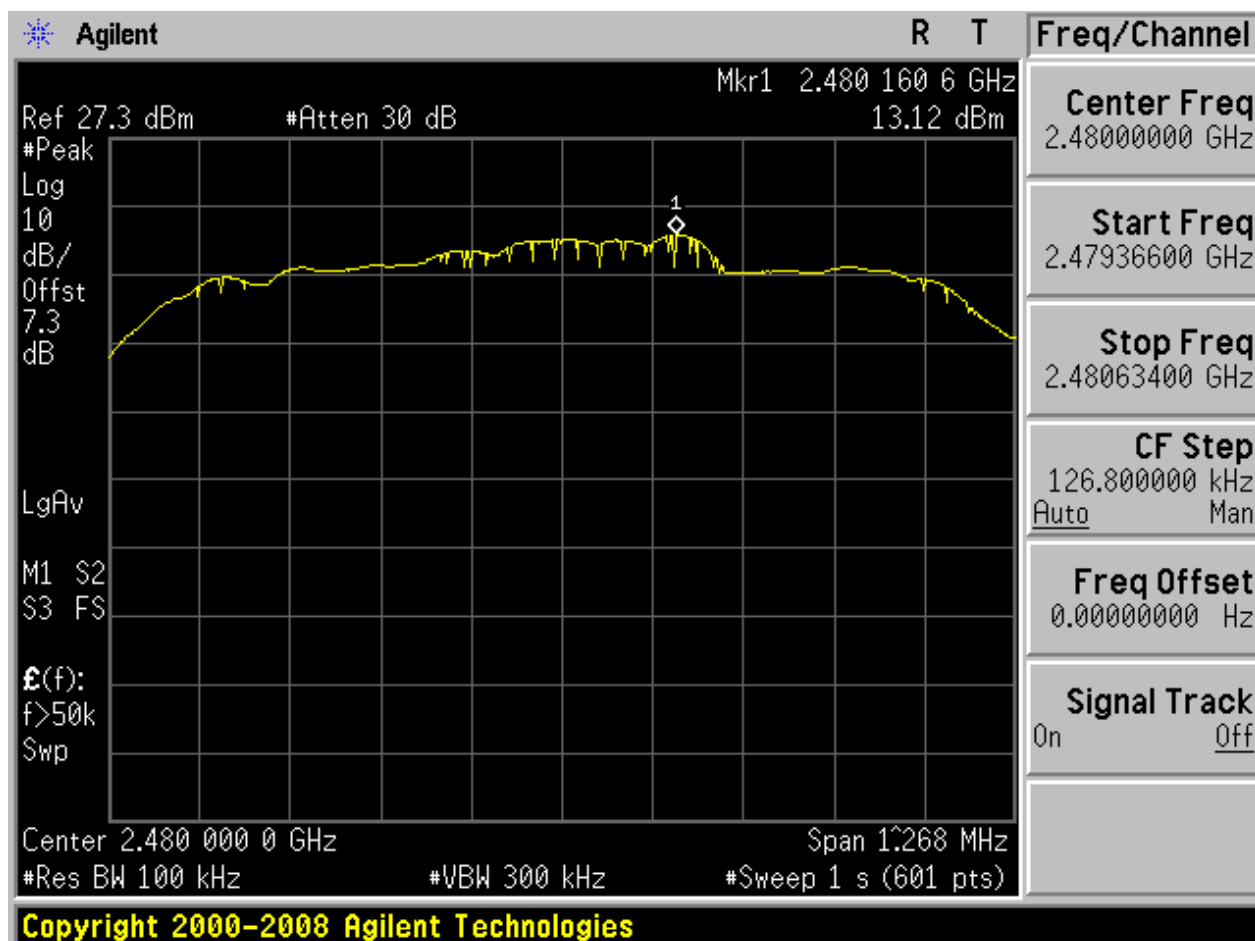




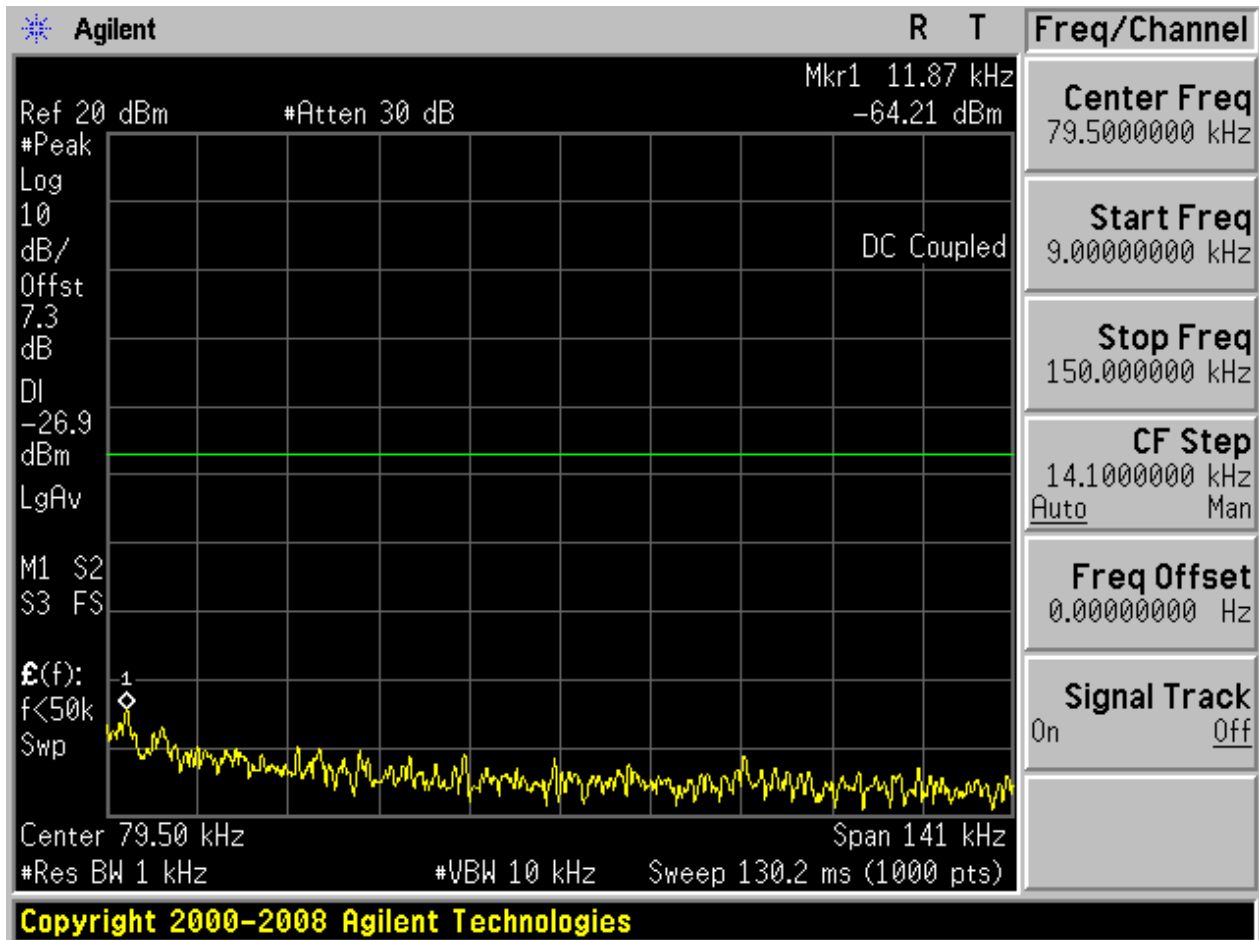


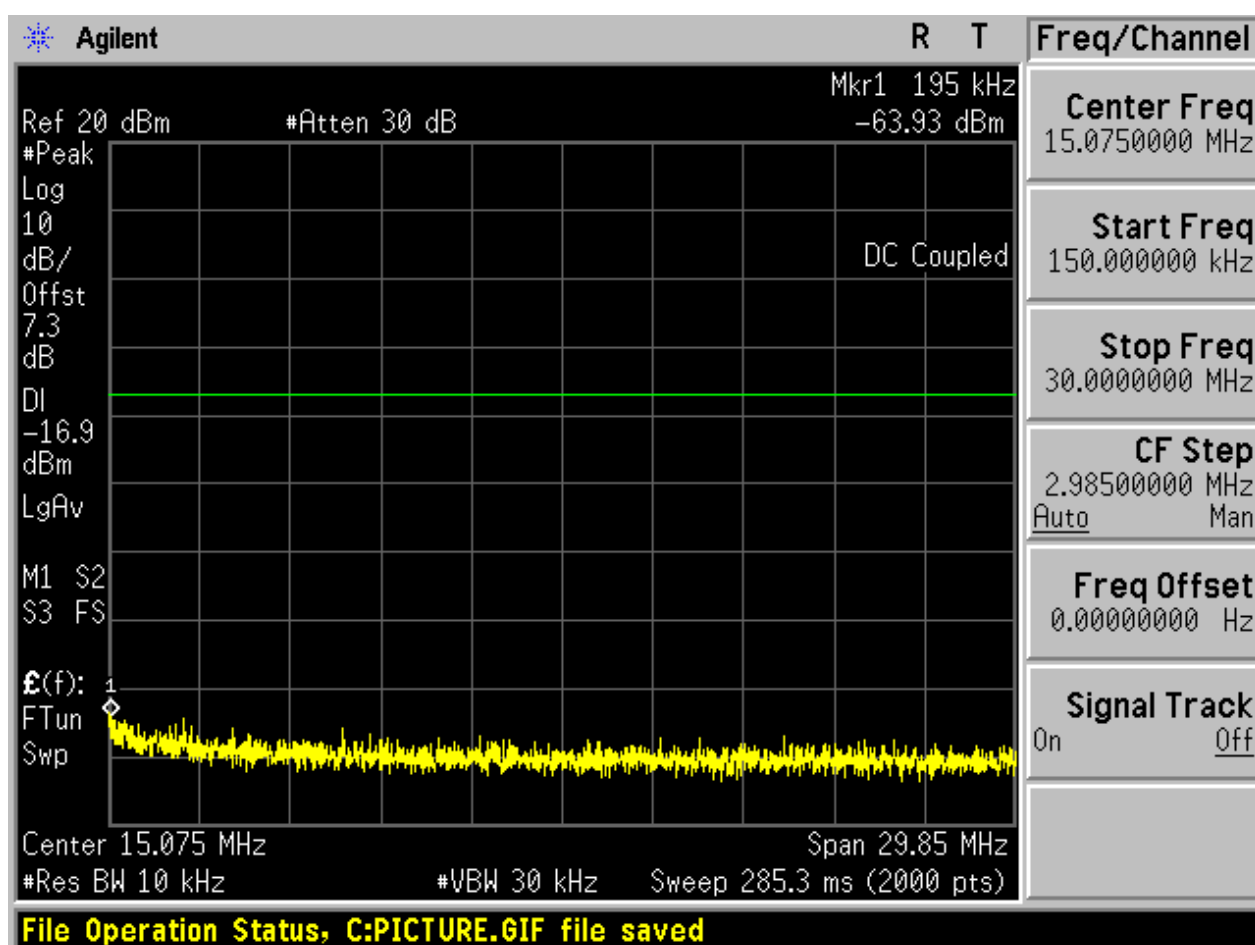
2.9 TM3_3DH5_Ch78

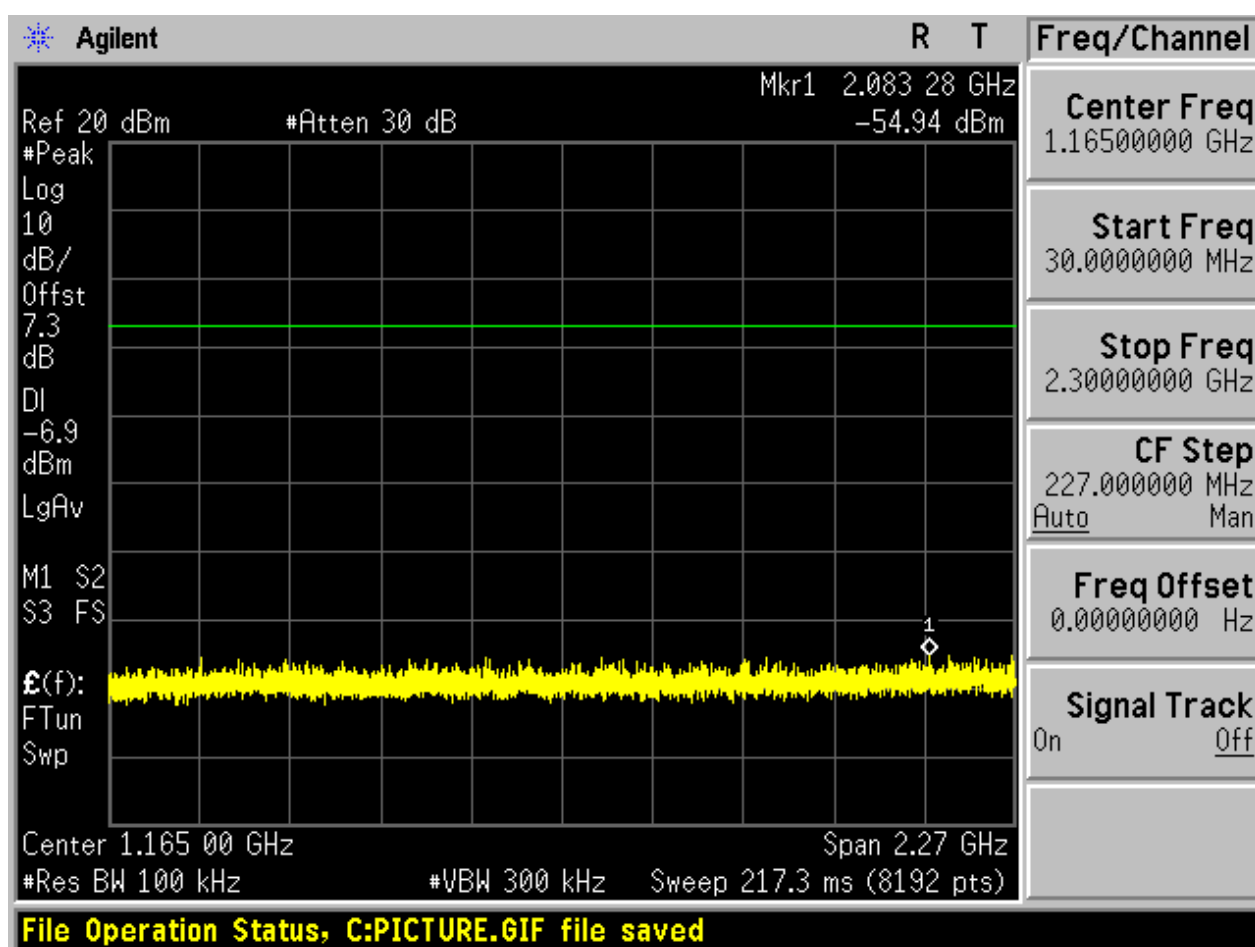
2.9.1 Pref

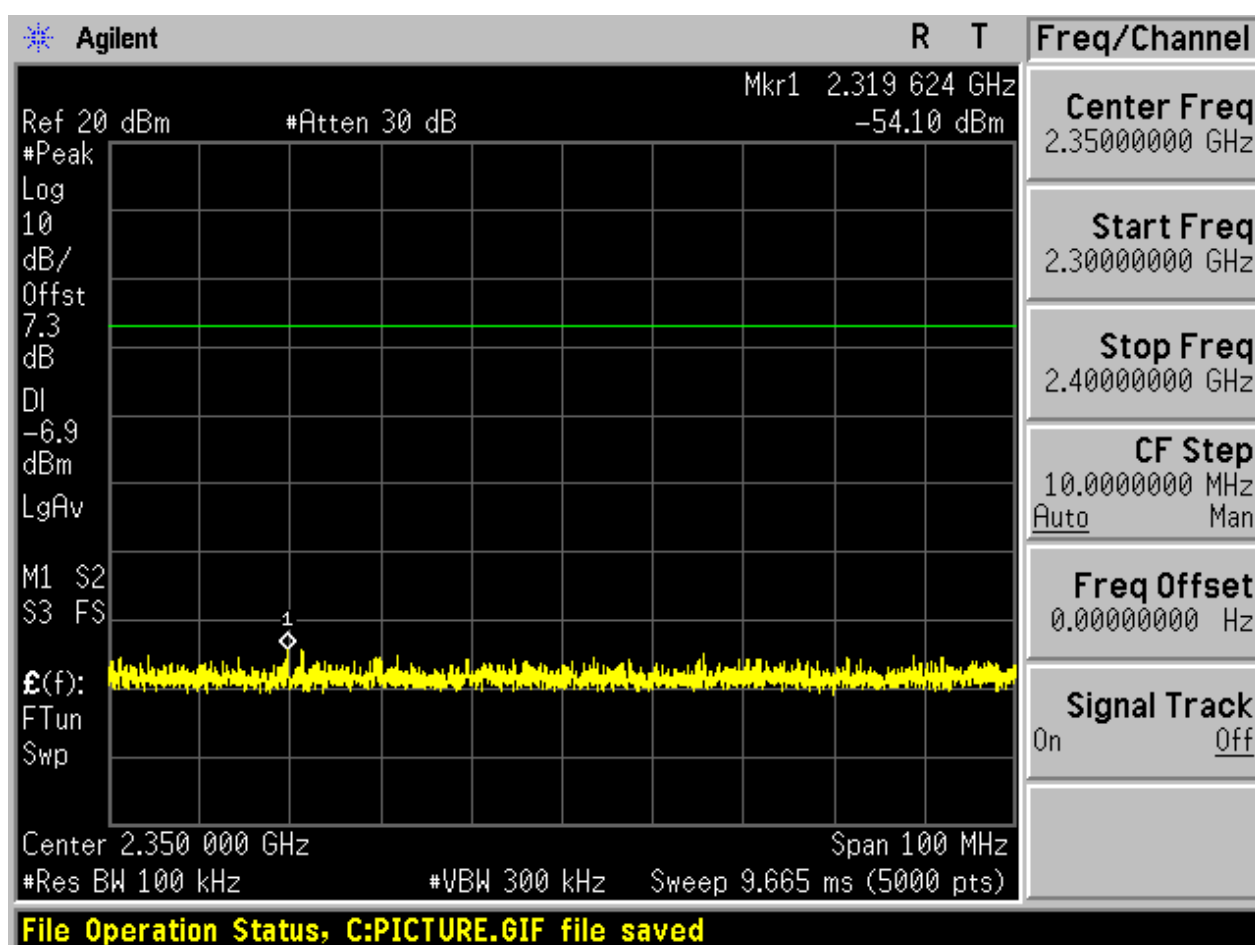


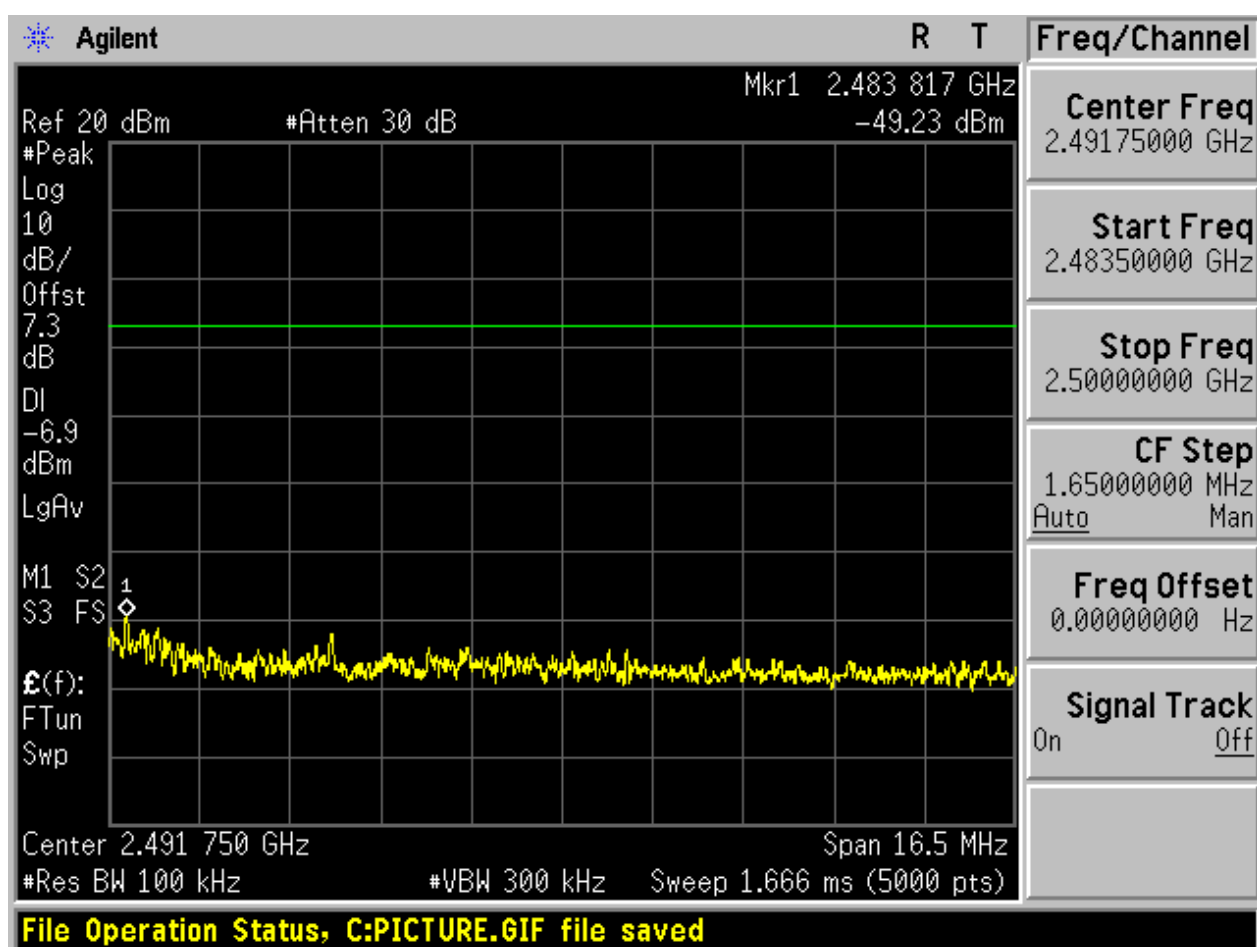
2.9.2 Puw

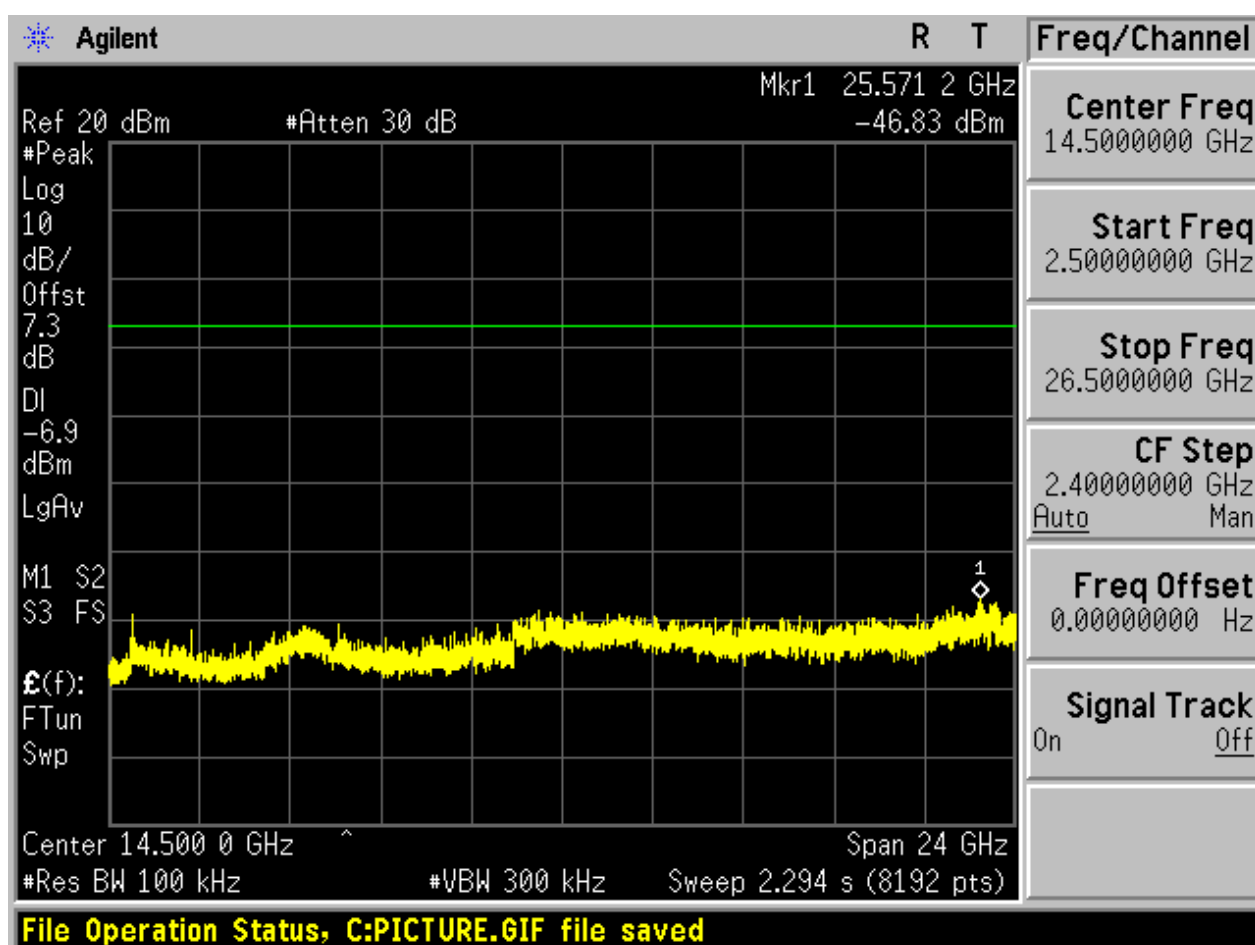












Appendix H: Radiated Emissions in the Restricted Bands

Note: We tested all modes, but the data presented below is the worst case. Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.

The simultaneous transmission has been considered

3 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 “1 GHz to 3 GHz”, and
- (Part 5): Test range of “3 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
1 GHz to 3 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass
	TM1_DH5_Ch78 (Worst Conf.)	< Limit	Pass
3 GHz to 18 GHz	TM1_DH5_Ch0 (Worse Conf.)	< Limit	Pass
18 GHz to 26.5 GHz	TM1_DH5_Ch0 (Worst Conf.)	< Limit	Pass

4 Result Plot

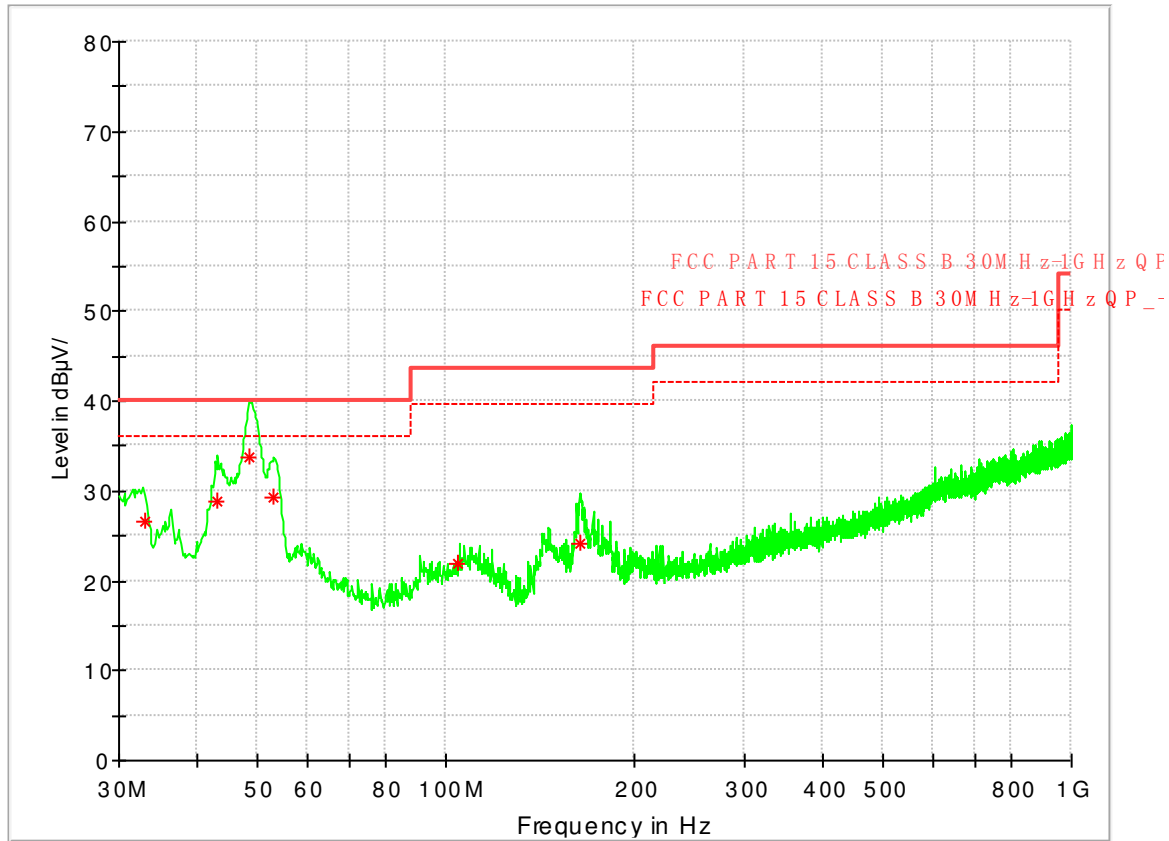
Part 1: Testing Range of “9 KHz to 30 MHz”

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).



Final Result 1

Frequency (MHz)	QuasiPeak	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth	Corr. (dB)
32.966320	26.64	40.00	-13.36	137.0	V	228.	14.8
42.950160	28.87	40.00	-11.13	100.0	V	325.	15.2
48.641680	33.71	40.00	-6.29	100.0	V	336.	15.1
52.907120	29.38	40.00	-10.62	100.0	V	285.	14.9
104.79480	21.92	43.50	-21.58	200.0	V	-2.0	13.7
163.46496	24.17	43.50	-19.33	100.0	V	278.	10.6

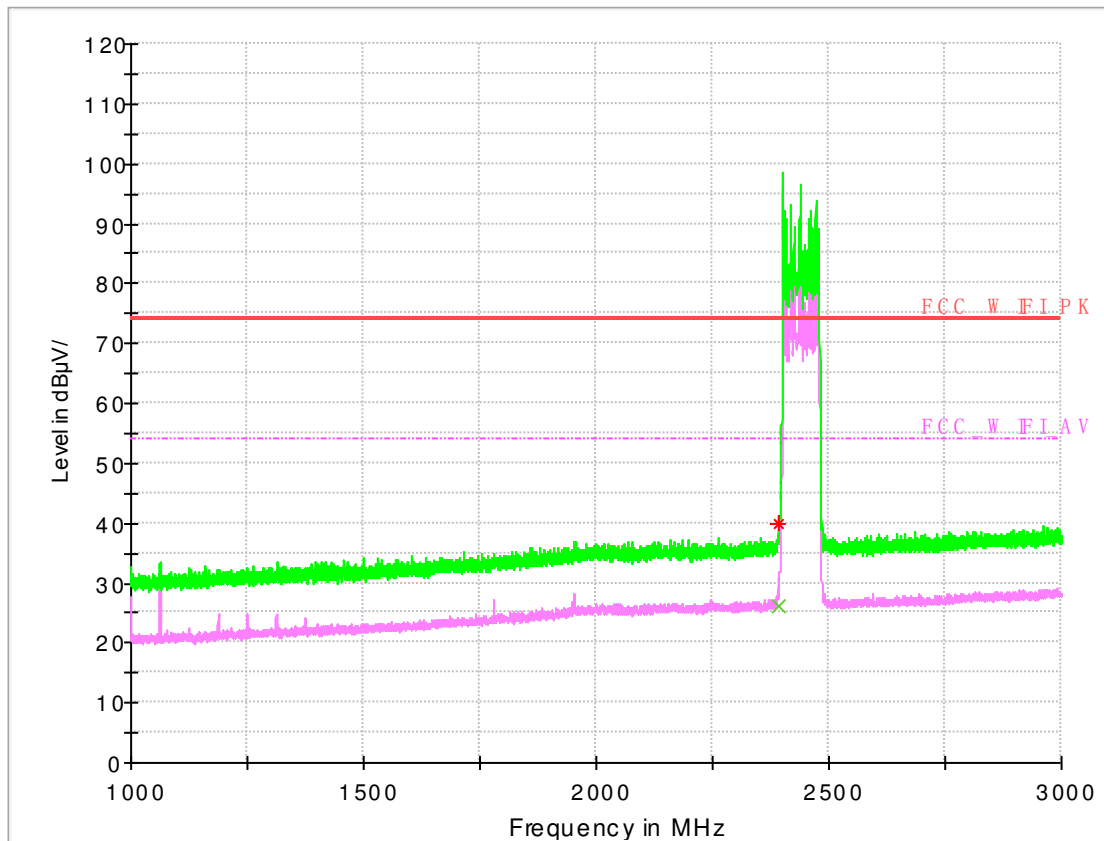
Part 3: Testing Range of “18 GHz to 26.5 GHz”

NOTE1: No peak found in the Test Range of “18 GHz to 26.5 GHz”

Part 4: Testing Range of “1GHz to 3GHz”

- Note 1: The testing range of “1 GHz to 3 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.

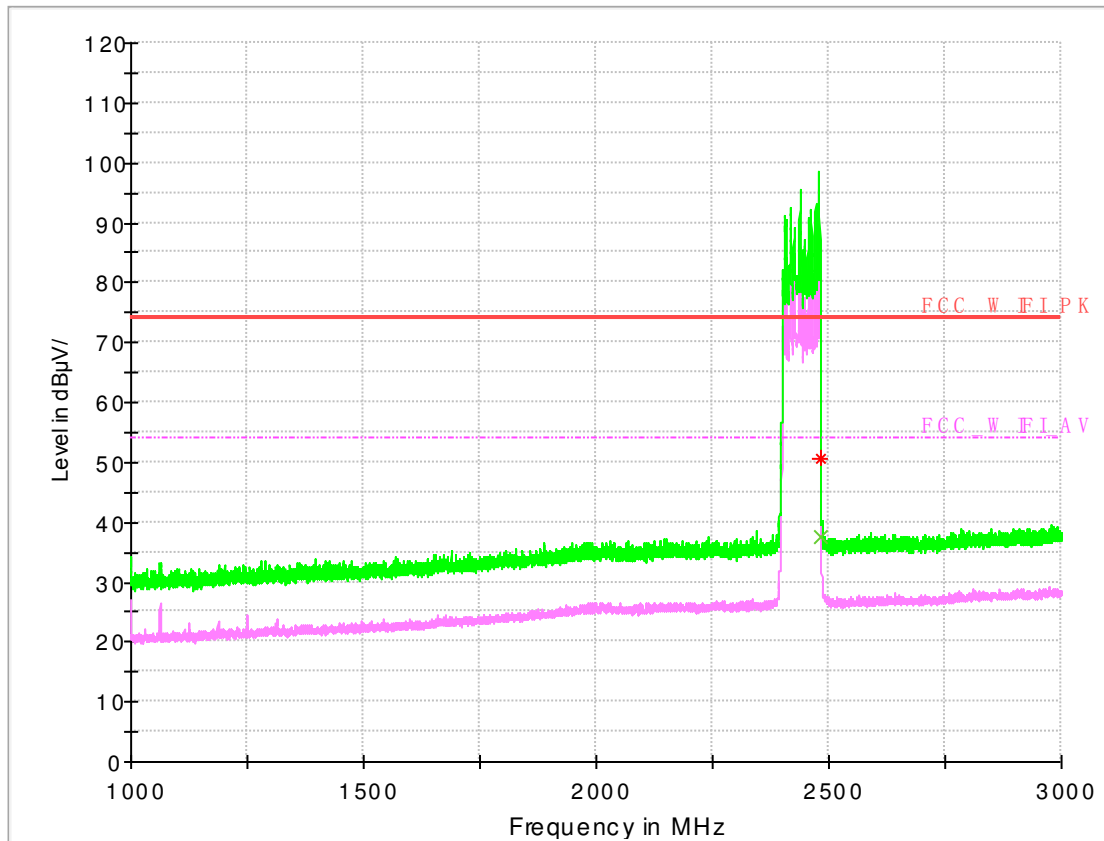
Channel 0



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

Frequency (MHz)	MaxPeak	Average (dB μ V/m)	Limit (dB μ V/m)	Margin	Height (cm)	Pol	Azimuth	Corr.
2390.55933	---	26.08	54.00	-27.92	100.0	H	-8.0	-7.5
2390.922667	39.88	---	74.00	-34.12	136.0	V	323.0	-7.3

Channel 78



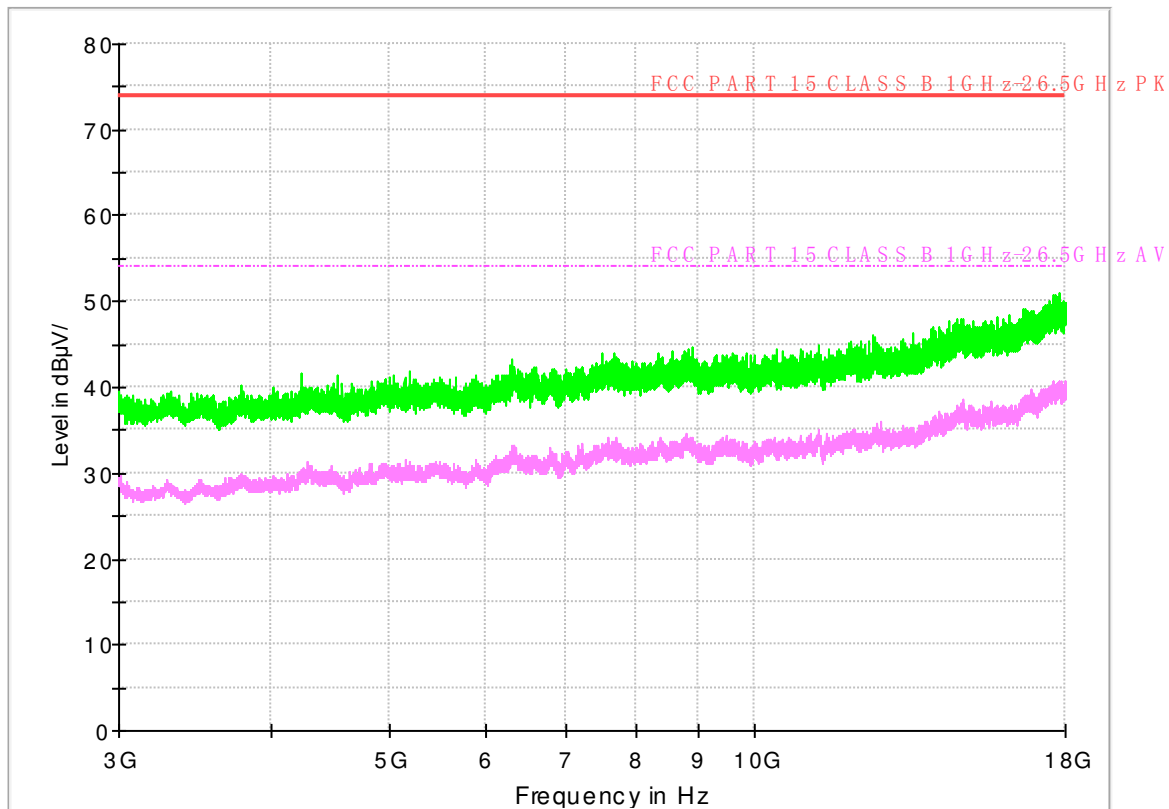
Note: The peak exceeds the limit line is carrier frequency.

Frequency (MHz)	MaxPeak	Average (dBμV/m)	Limit (dBμV/m)	Margin	Height (cm)	Pol	Azimuth	Corr.
2482.50133	50.69	---	74.00	-23.31	155.0	H	210.0	4.8
2482.520667	---	37.60	54.00	-16.40	107.0	H	190.0	4.7

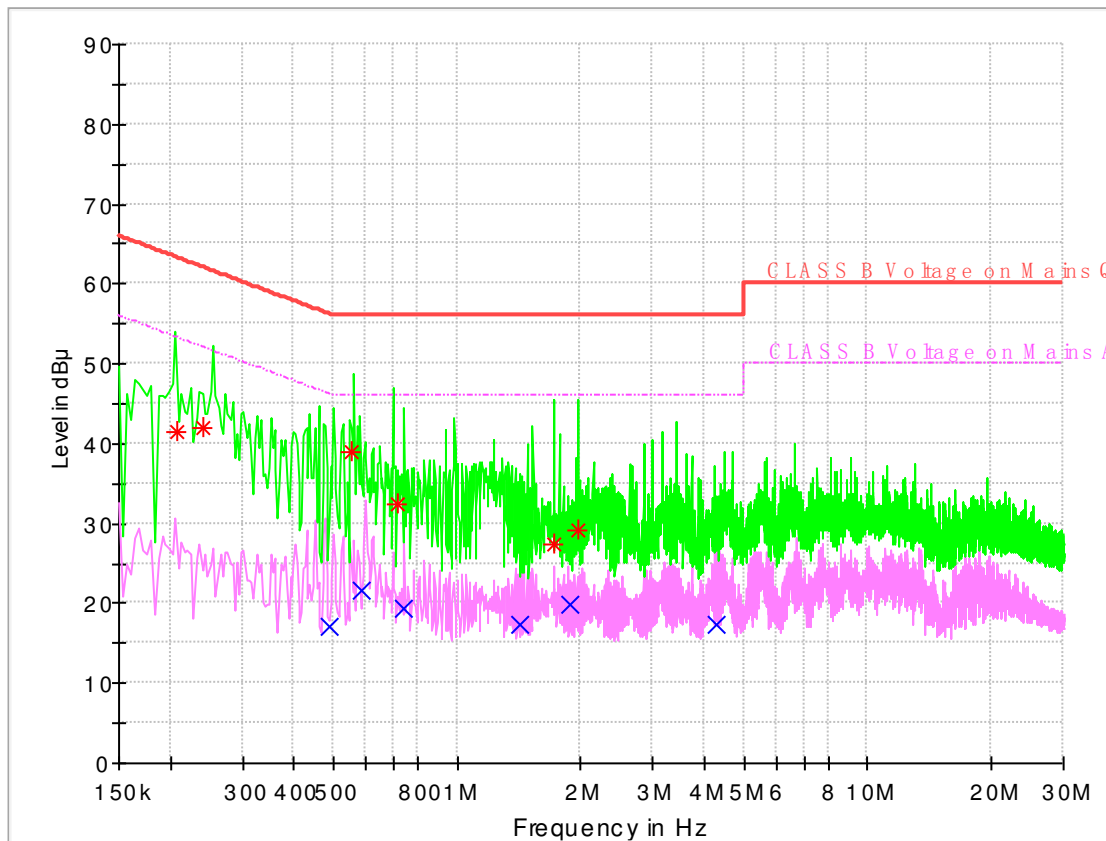
Part 5: Testing Range of “3 GHz to 18 GHz”

- Note 1: The test results and plot for testing range of “3 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 “3 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 3 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).

Full Spectrum



Appendix I: AC Power Line Conducted Emissions



Frequency	QuasiPea	Average	Limit	Margin	Line	Filter	Corr.
0.207906	41.44	---	63.29	-21.85	N	ON	9.7
0.240874	41.91	---	62.07	-20.16	L1	ON	9.7
0.490466	---	16.98	46.16	-29.18	L1	ON	9.7
0.555348	38.84	---	56.00	-17.16	L1	ON	9.7
0.588089	---	21.55	46.00	-24.45	L1	ON	9.7
0.713013	32.46	---	56.00	-23.54	N	ON	9.7
0.742014	---	19.26	46.00	-26.74	L1	ON	9.7
1.418079	---	17.23	46.00	-28.77	N	ON	9.7
1.729198	27.42	---	56.00	-28.58	N	ON	9.8
1.885594	---	19.91	46.00	-26.09	L1	ON	9.8
1.961665	29.04	---	56.00	-26.96	N	ON	9.8
4.296744	---	17.42	46.00	-28.58	L1	ON	9.9

END