



# Appendix A: 20dB Emission Bandwidth (EBW)



## 1 Result Table

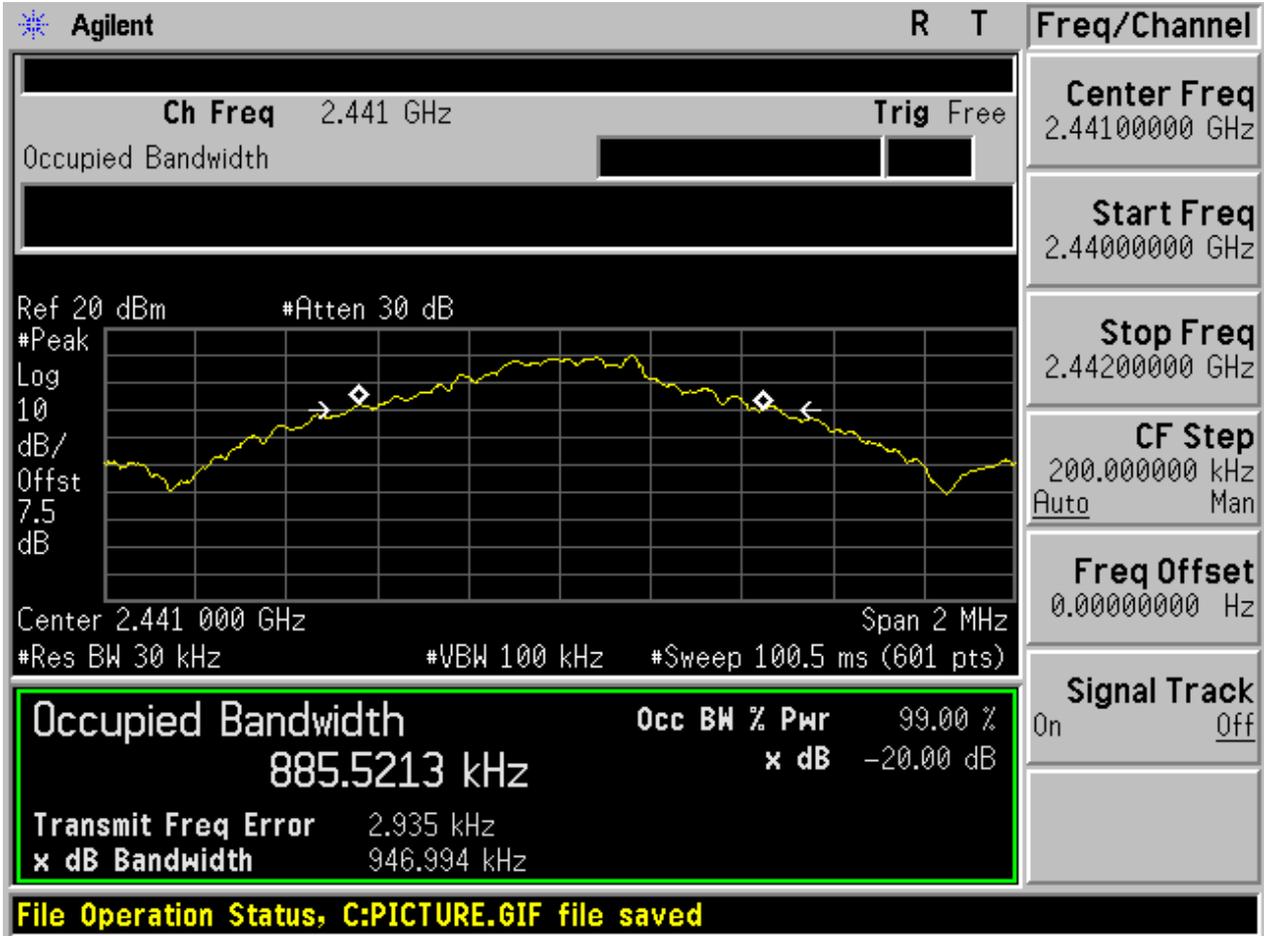
EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.944	Pass
TM1_DH5_Ch39	0.947	Pass
TM1_DH5_Ch78	0.946	Pass
TM2_2DH5_Ch0	1.285	Pass
TM2_2DH5_Ch39	1.285	Pass
TM2_2DH5_Ch78	1.285	Pass
TM3_3DH5_Ch0	1.278	Pass
TM3_3DH5_Ch39	1.278	Pass
TM3_3DH5_Ch78	1.276	Pass

## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0



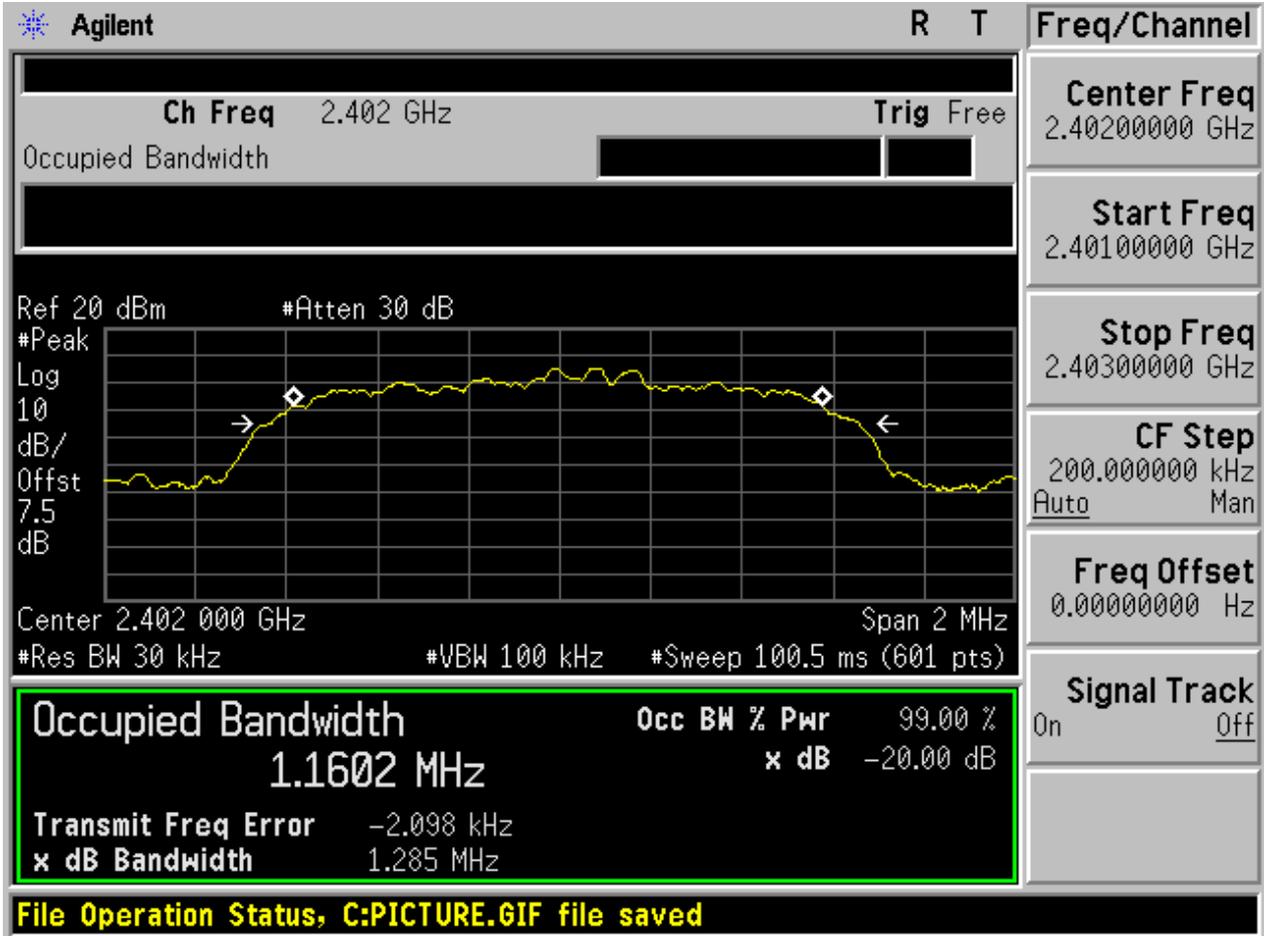
2.2 TM1\_DH5\_Ch39



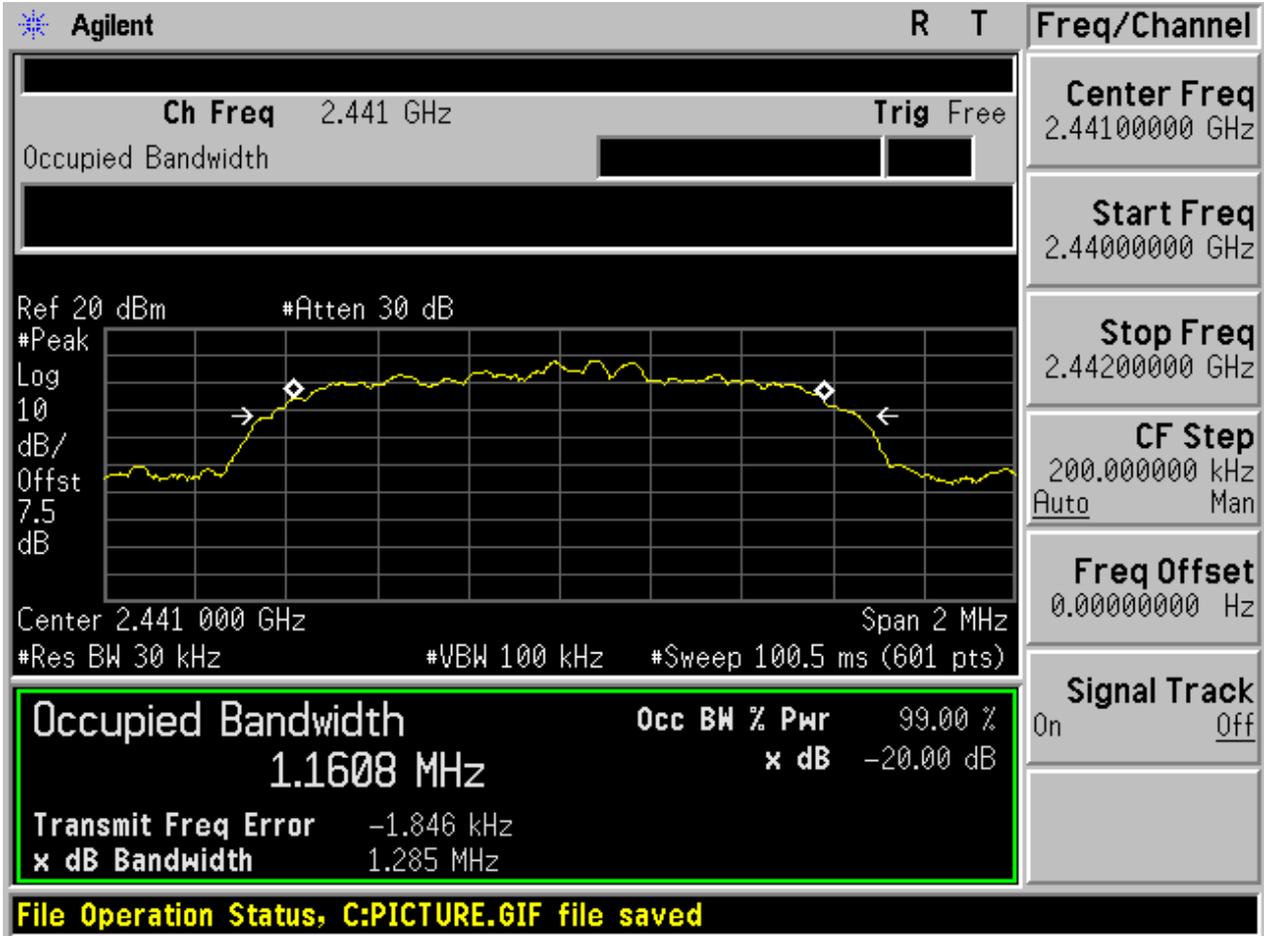
2.3 TM1\_DH5\_Ch78



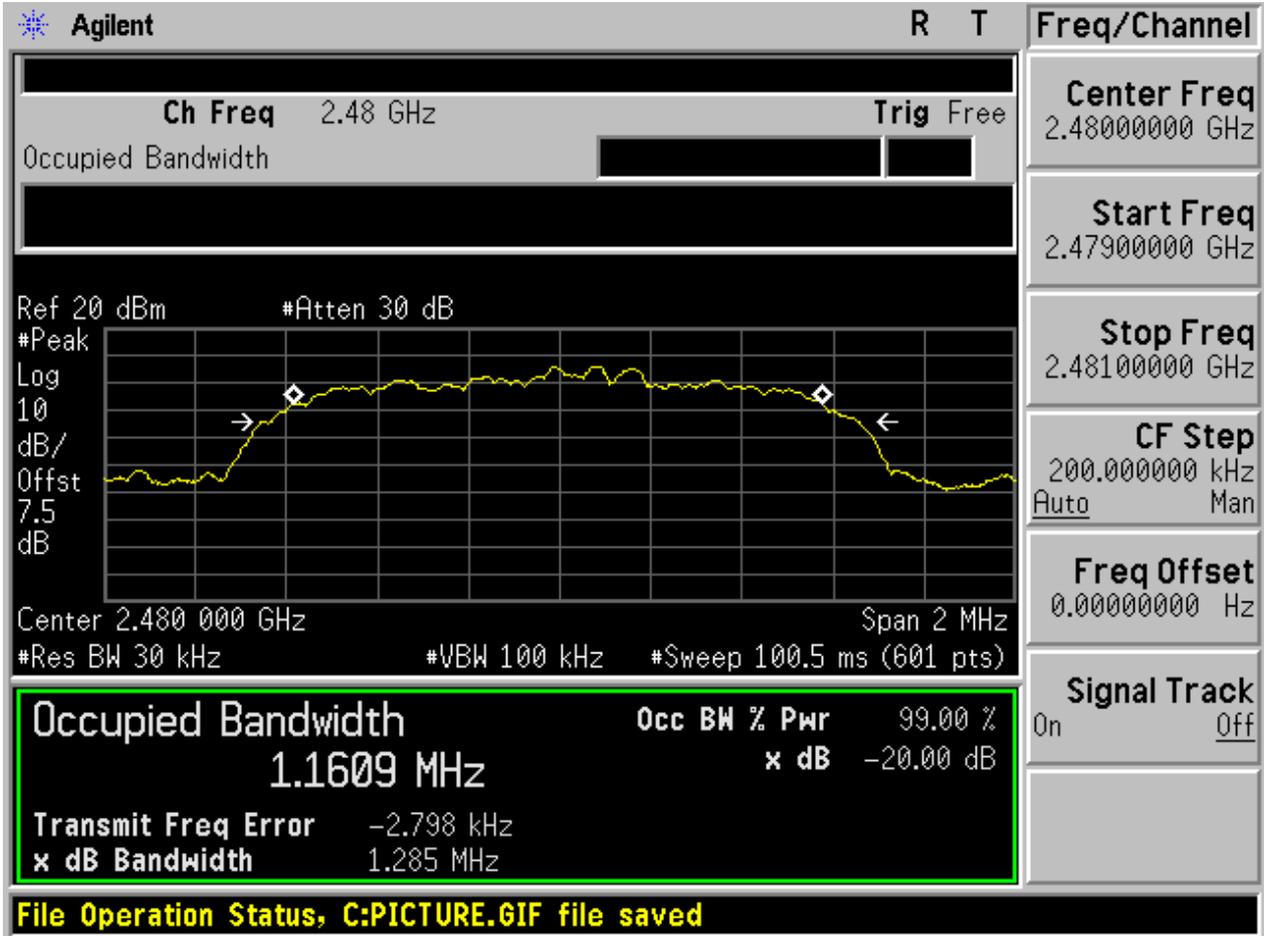
2.4 TM2\_2DH5\_Ch0



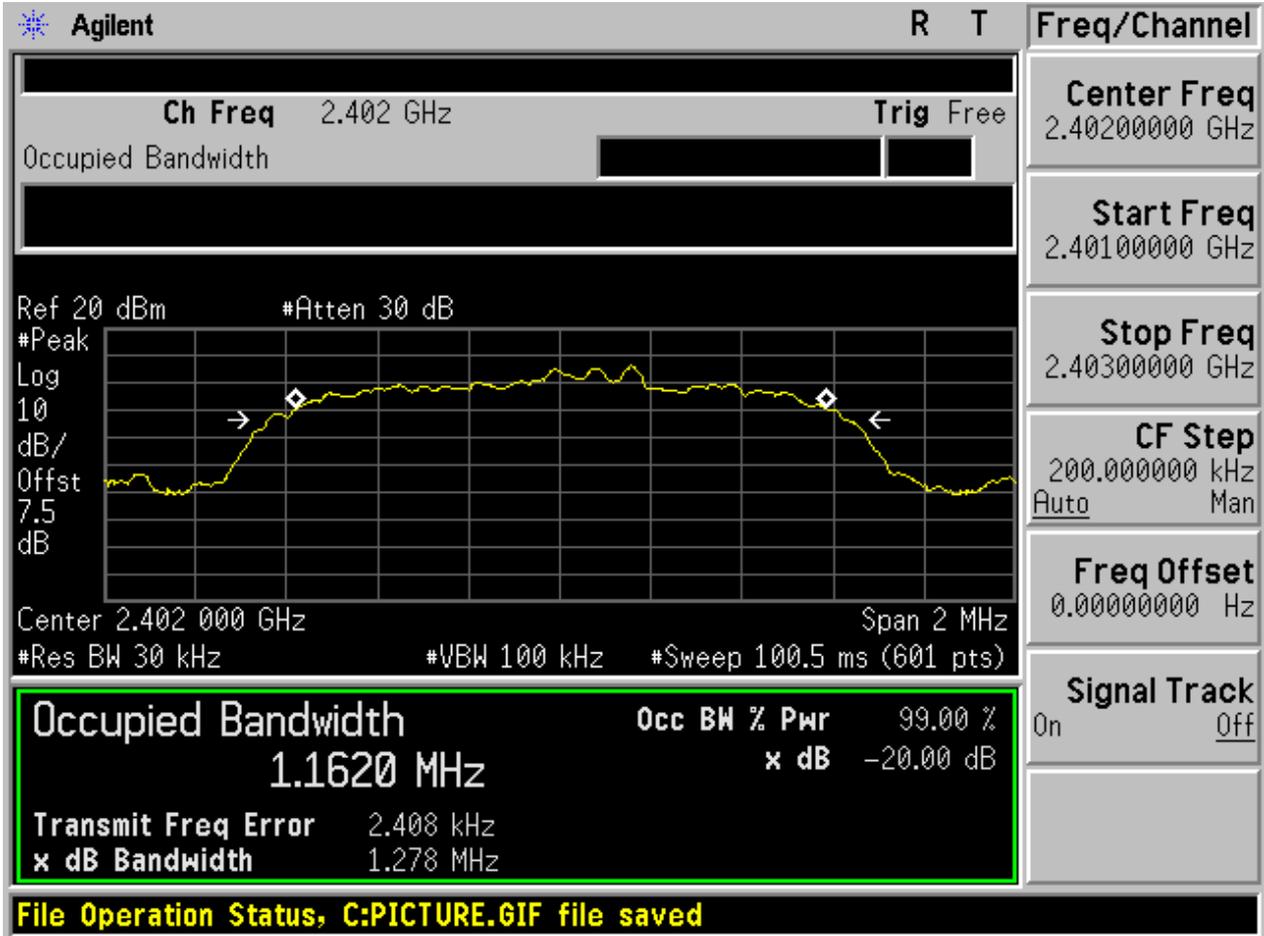
2.5 TM2\_2DH5\_Ch39



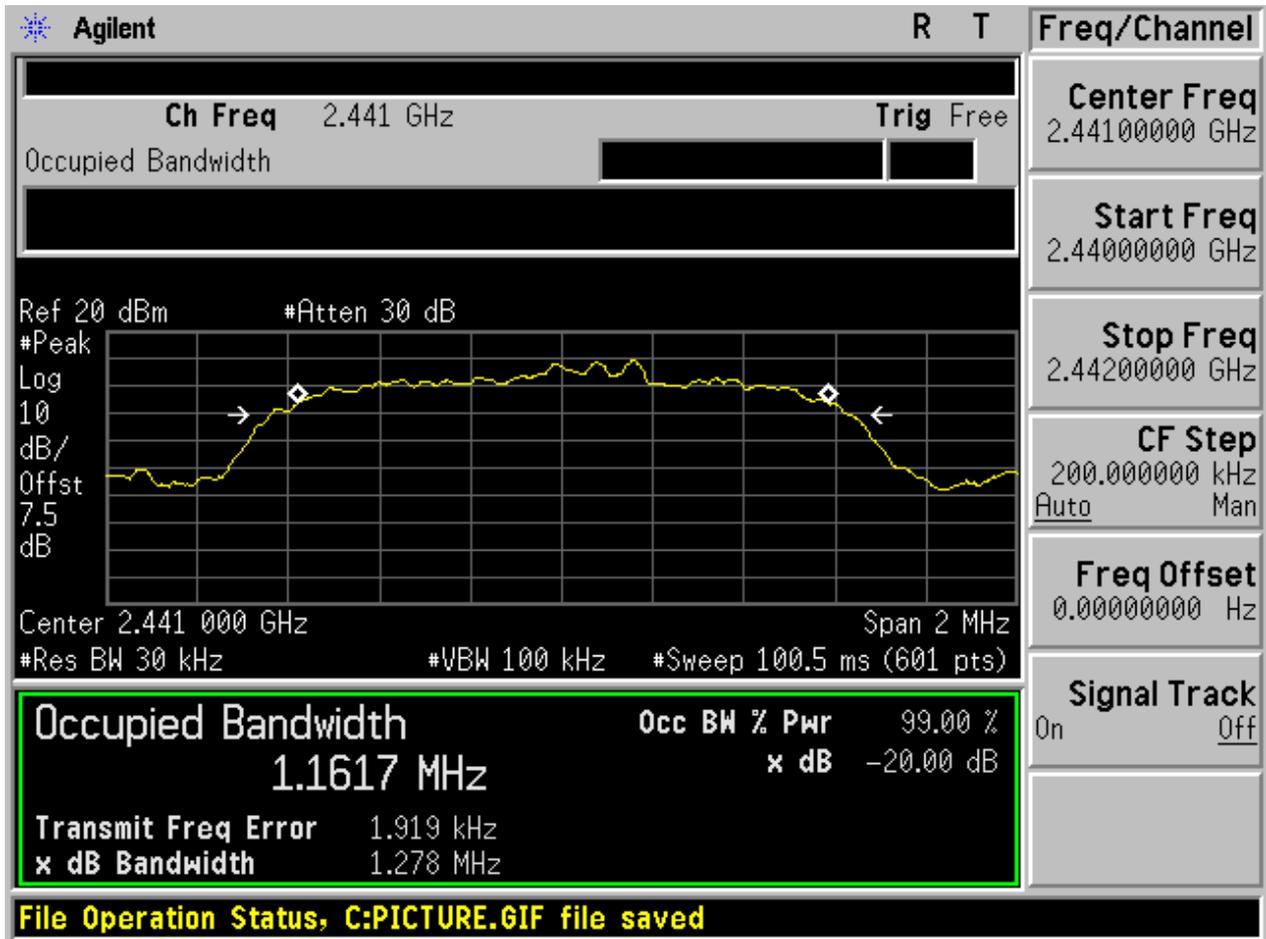
2.6 TM2\_2DH5\_Ch78



2.7 TM3\_3DH5\_Ch0



## 2.8 TM3\_3DH5\_Ch39



2.9 TM3\_3DH5\_Ch78

<b>Agilent</b> <span style="float: right;">R T</span>		<b>Freq/Channel</b>
<b>Ch Freq</b> 2.48 GHz <span style="float: right;"><b>Trig</b> Free</span>		<b>Center Freq</b> 2.48000000 GHz
Occupied Bandwidth <span style="float: right;">[Bar Graph]</span>		<b>Start Freq</b> 2.47900000 GHz
Ref 20 dBm <span style="float: right;">#Atten 30 dB</span>		<b>Stop Freq</b> 2.48100000 GHz
#Peak Log 10 dB/ Offst 7.5 dB		<b>CF Step</b> 200.000000 kHz Auto Man
		<b>Freq Offset</b> 0.00000000 Hz
Center 2.480 000 GHz <span style="float: right;">Span 2 MHz</span>		<b>Signal Track</b> On Off
#Res BW 30 kHz <span style="float: right;">#VBW 100 kHz #Sweep 100.5 ms (601 pts)</span>		
<b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 99.00 %</span>		
1.1619 MHz <span style="float: right;"><b>x dB</b> -20.00 dB</span>		
<b>Transmit Freq Error</b> 1.544 kHz		
<b>x dB Bandwidth</b> 1.276 MHz		
<b>File Operation Status, C:PICTURE.GIF file saved</b>		



# Appendix B: Carrier Frequency Separation

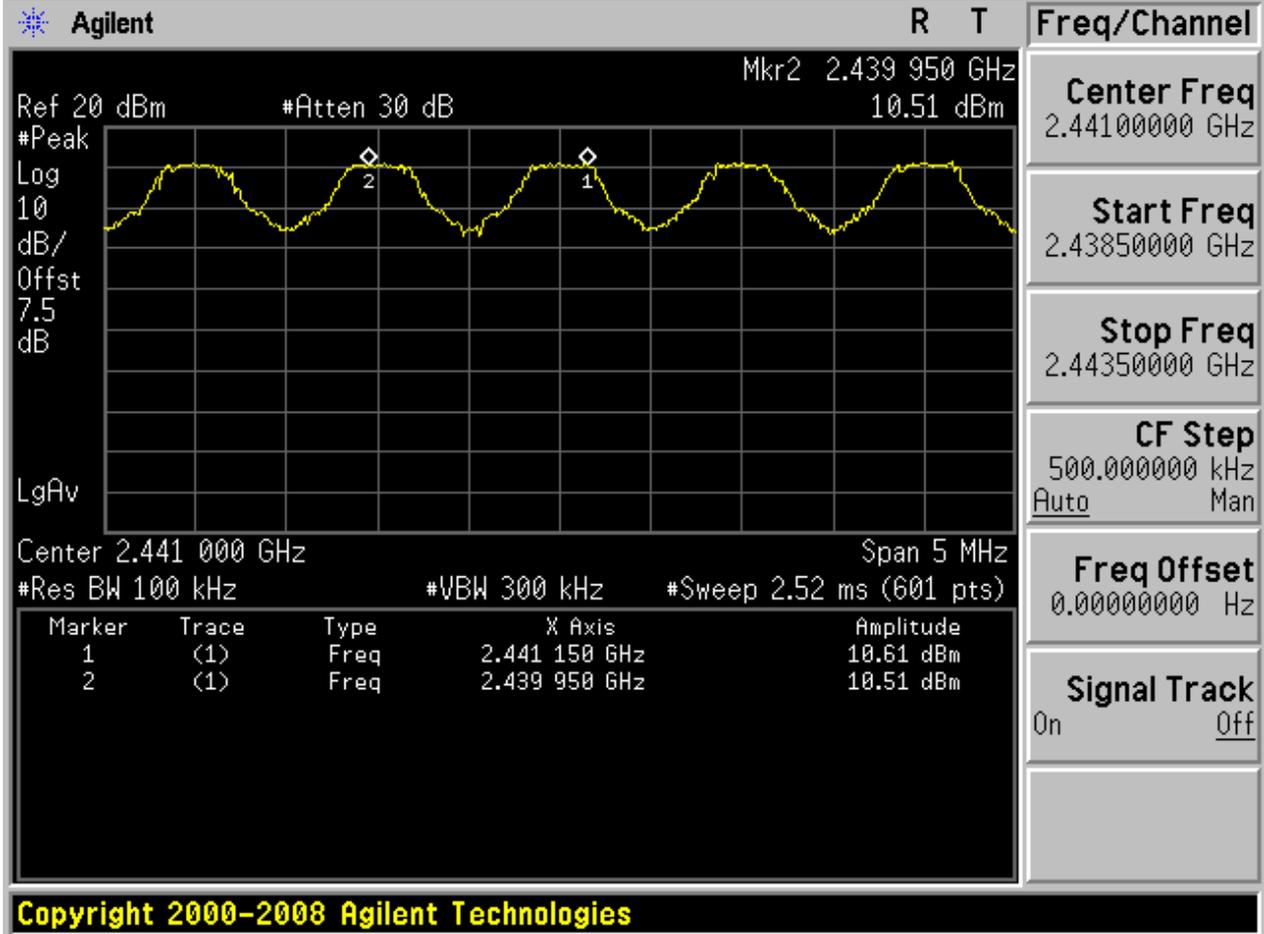


## 1 Result Table

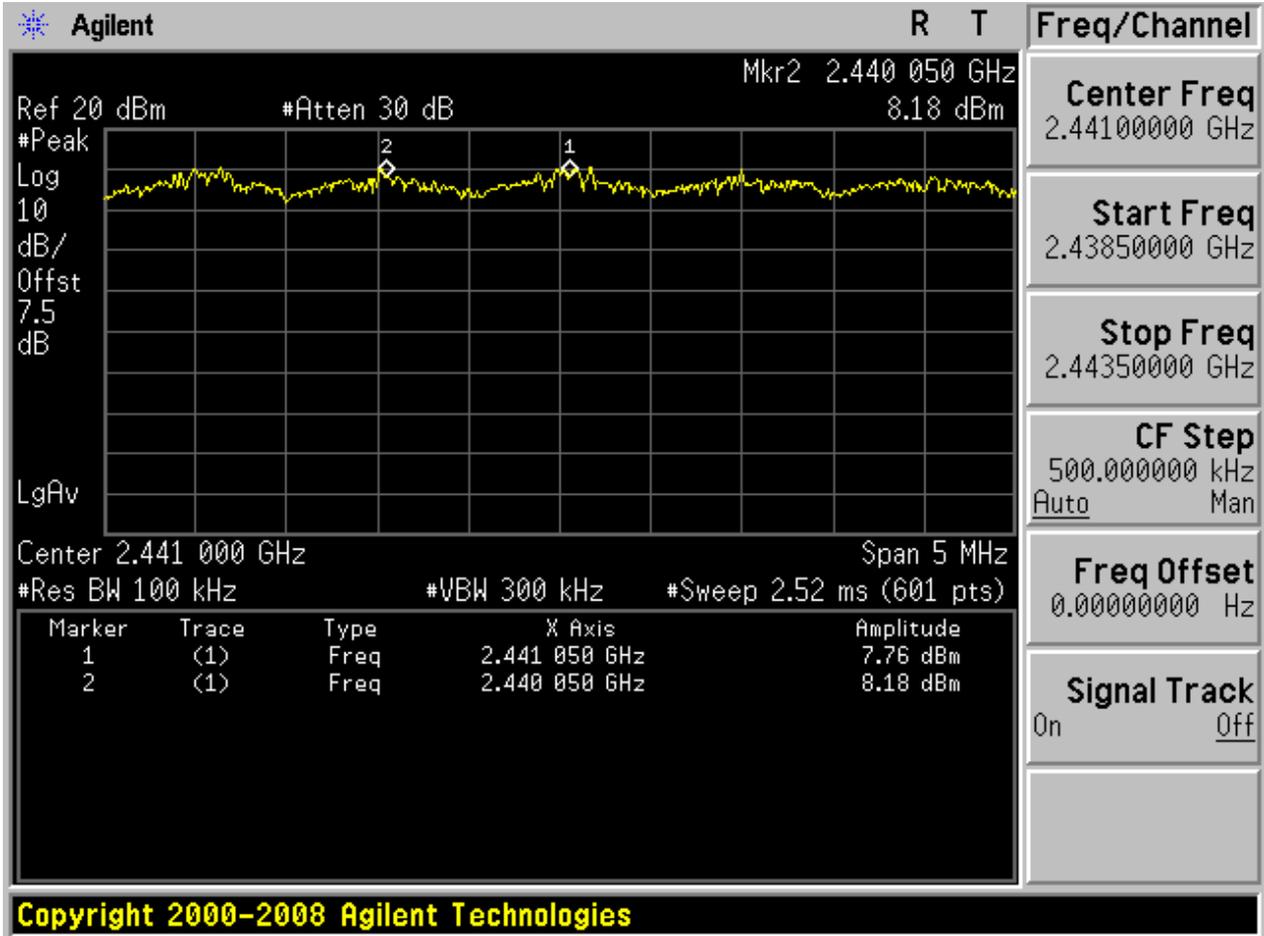
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	1.200	Pass
TM2_2DH5_Hop	1.000	Pass
TM3_3DH5_Hop	1.000	Pass

## 2 Test Plot

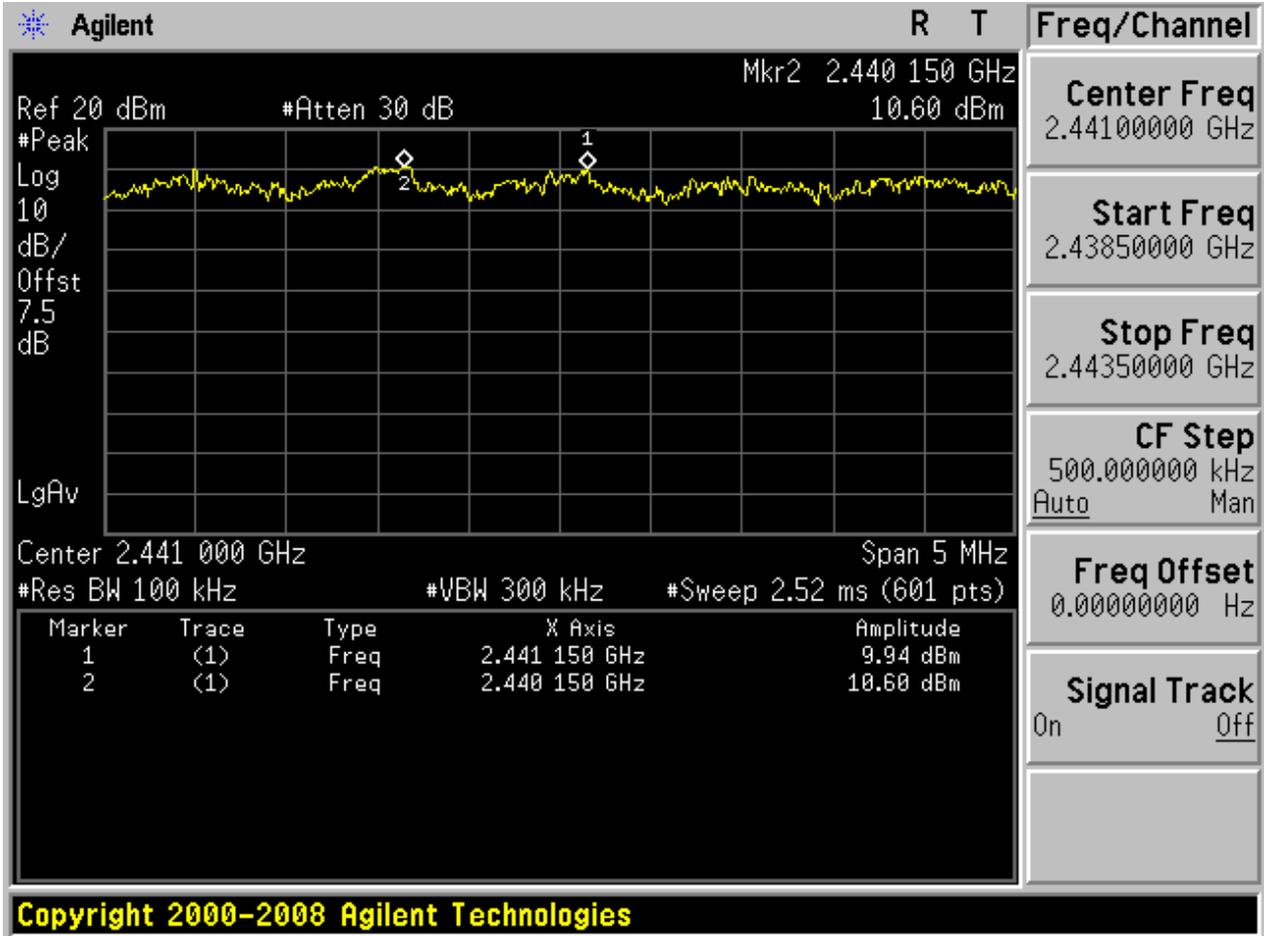
### 2.1 TM1\_DH5\_Hop



2.2 TM2\_2DH5\_Hop



### 2.3 TM3\_3DH5\_Hop





# Appendix C: Number of Hopping Channel

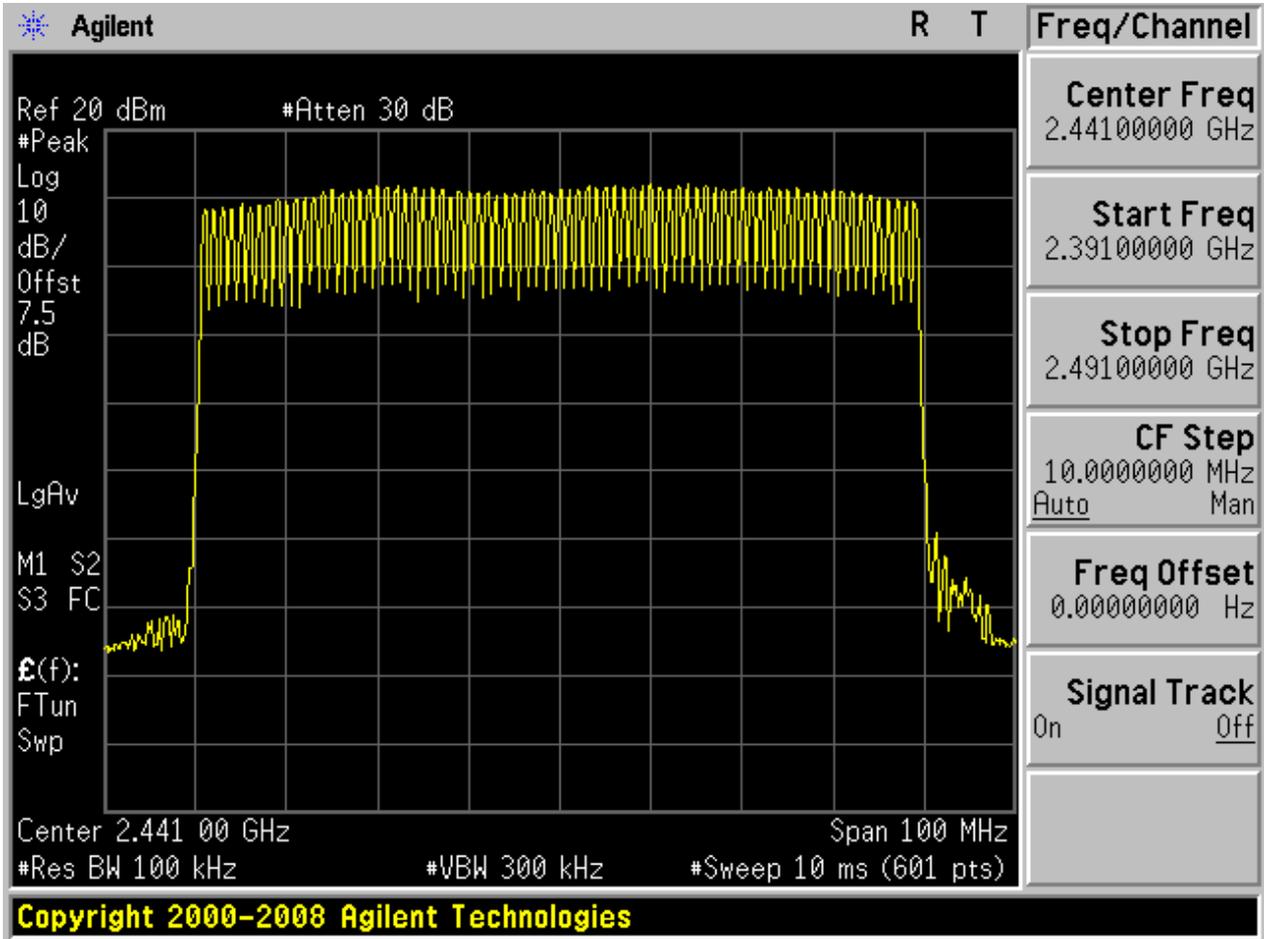


## 1 Result Table

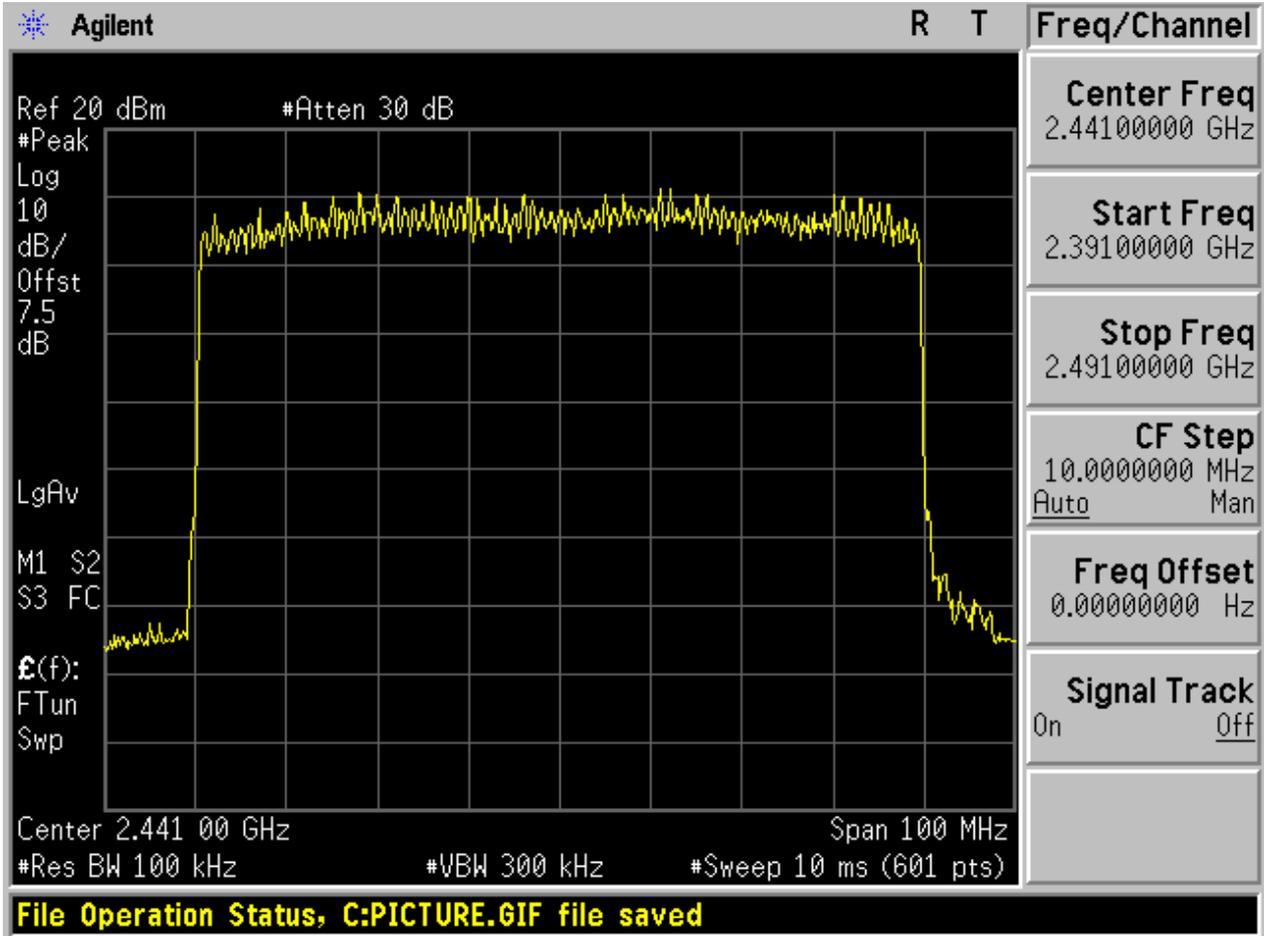
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

## 2 Test Plot

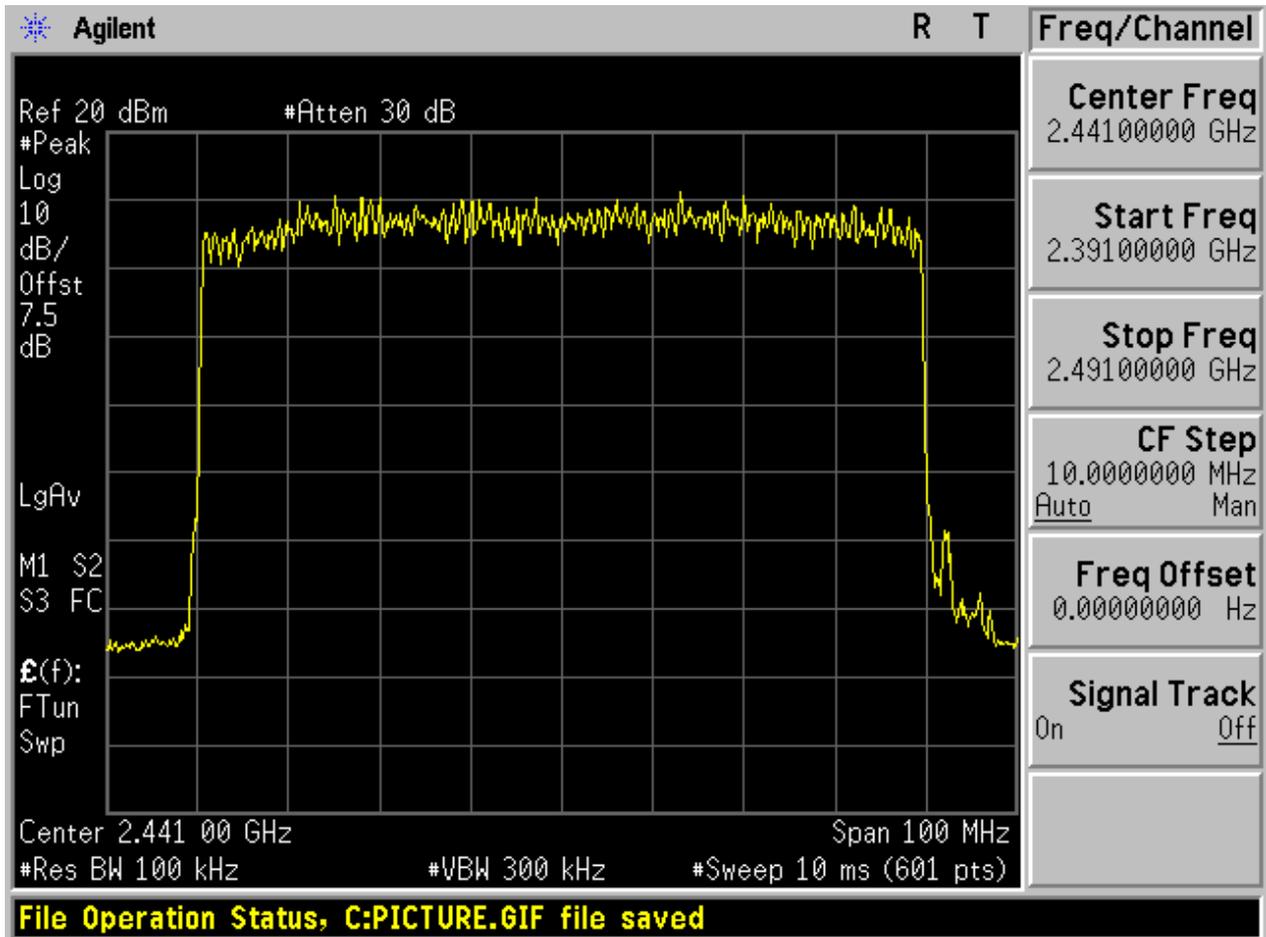
### 2.1 TM1\_DH5\_Hop



2.2 TM2\_2DH5\_Hop



### 2.3 TM3\_3DH5\_Hop





# Appendix D: Time of Occupancy (Dwell Time)

## 1 Result Table

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

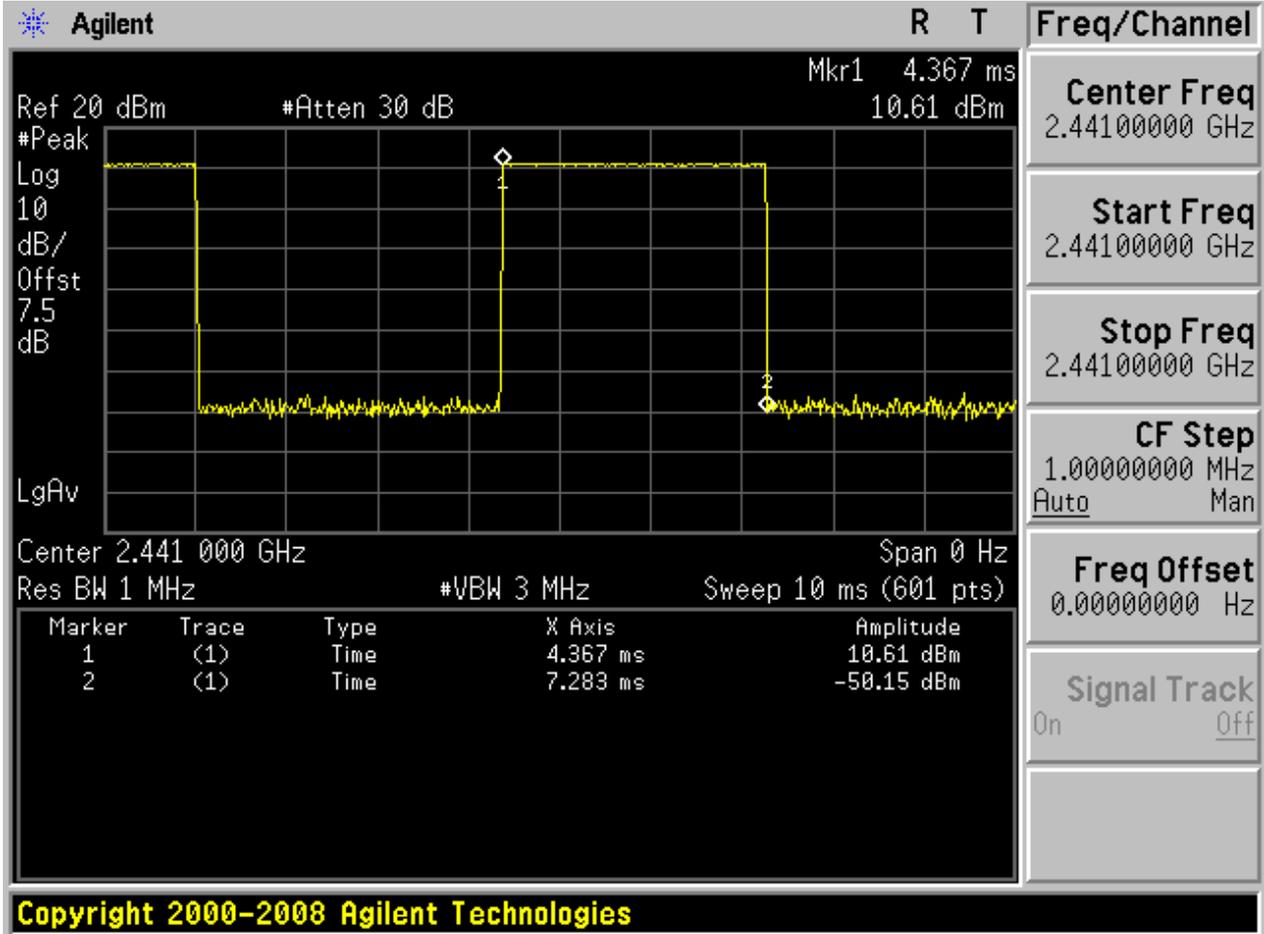
- The duration for dwell time calculation:  $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$ ;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected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

EUT Conf.	Burst Width [ms/hop/ch]	Total Hops [hop*ch]	Dwell Time [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

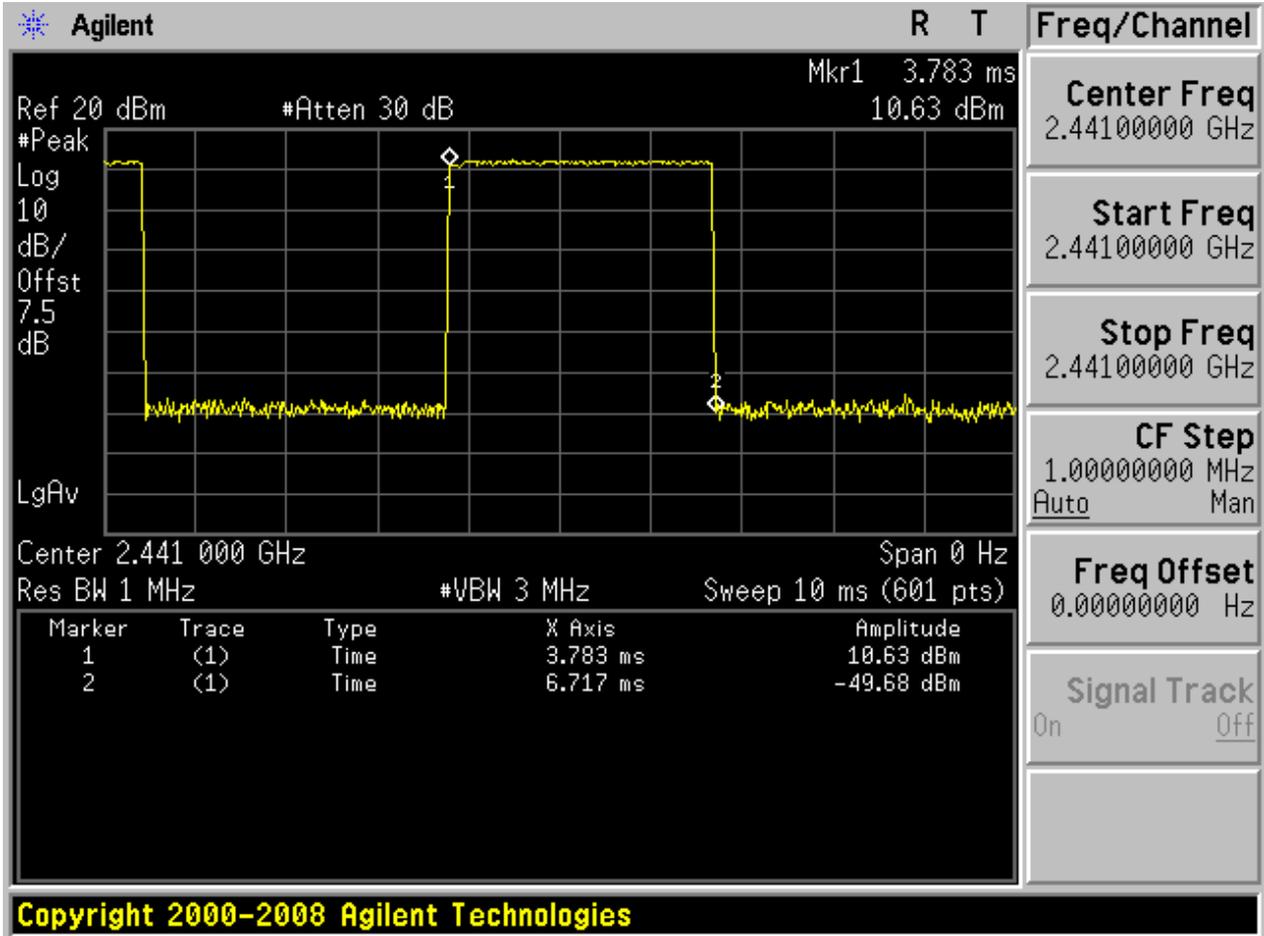
## 2 Test Plot

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

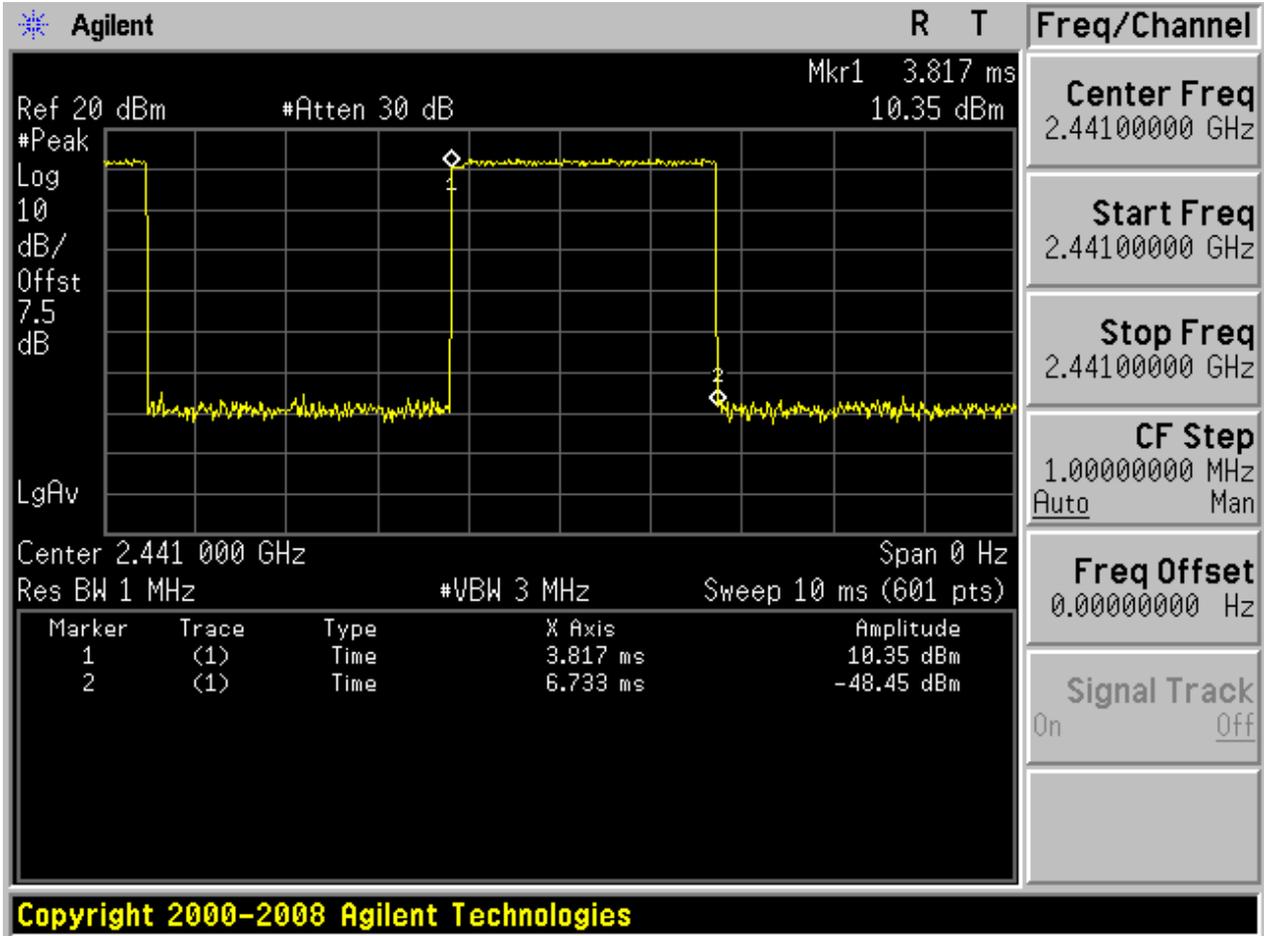
### 2.1 TM1\_DH5\_Ch39



2.2 TM2\_2DH5\_Ch39



2.3 TM3\_3DH5\_Ch39



Copyright 2000-2008 Agilent Technologies



# Appendix E: Maximum Peak Conducted Output Power

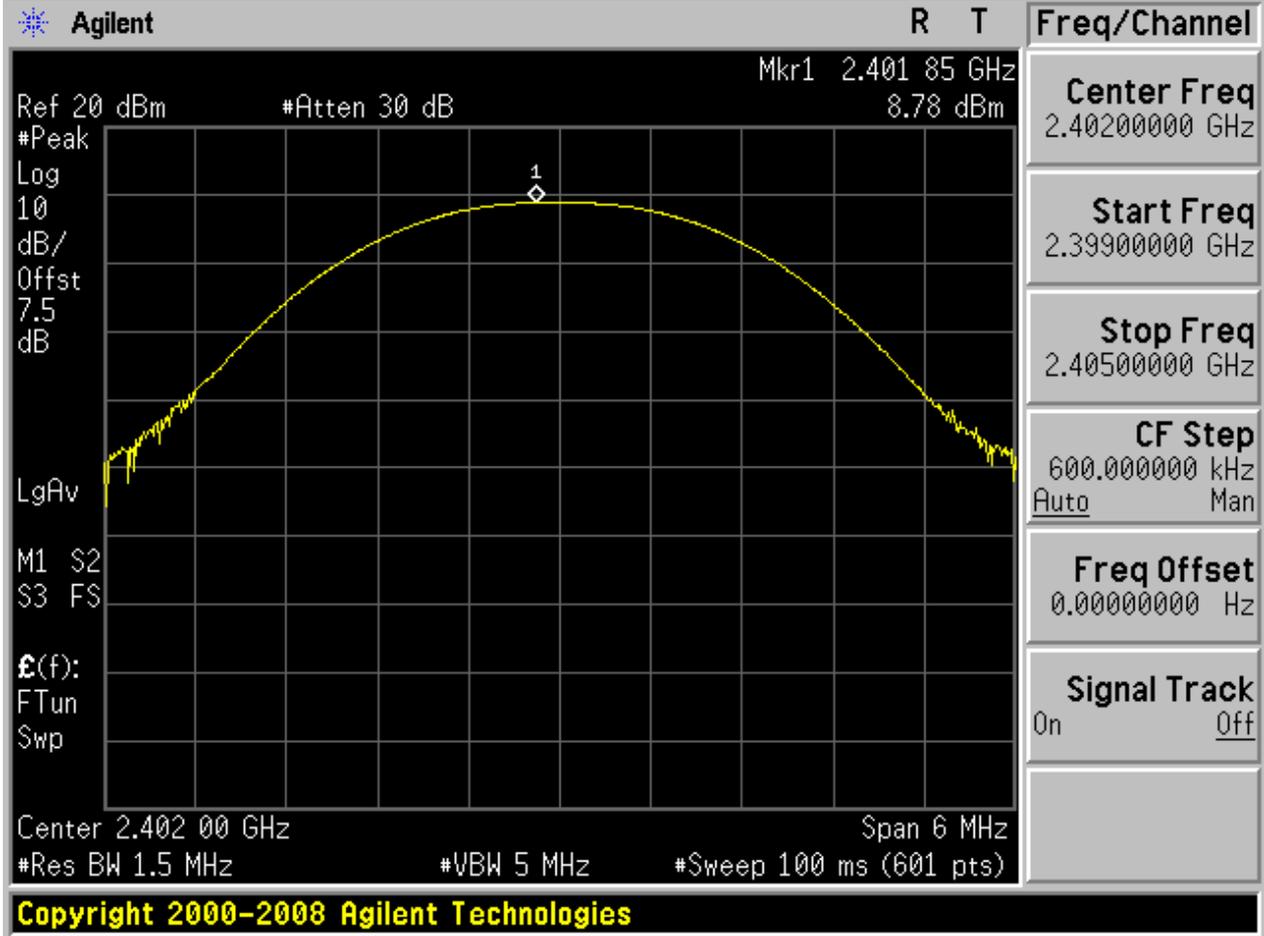


## 1 Result Table

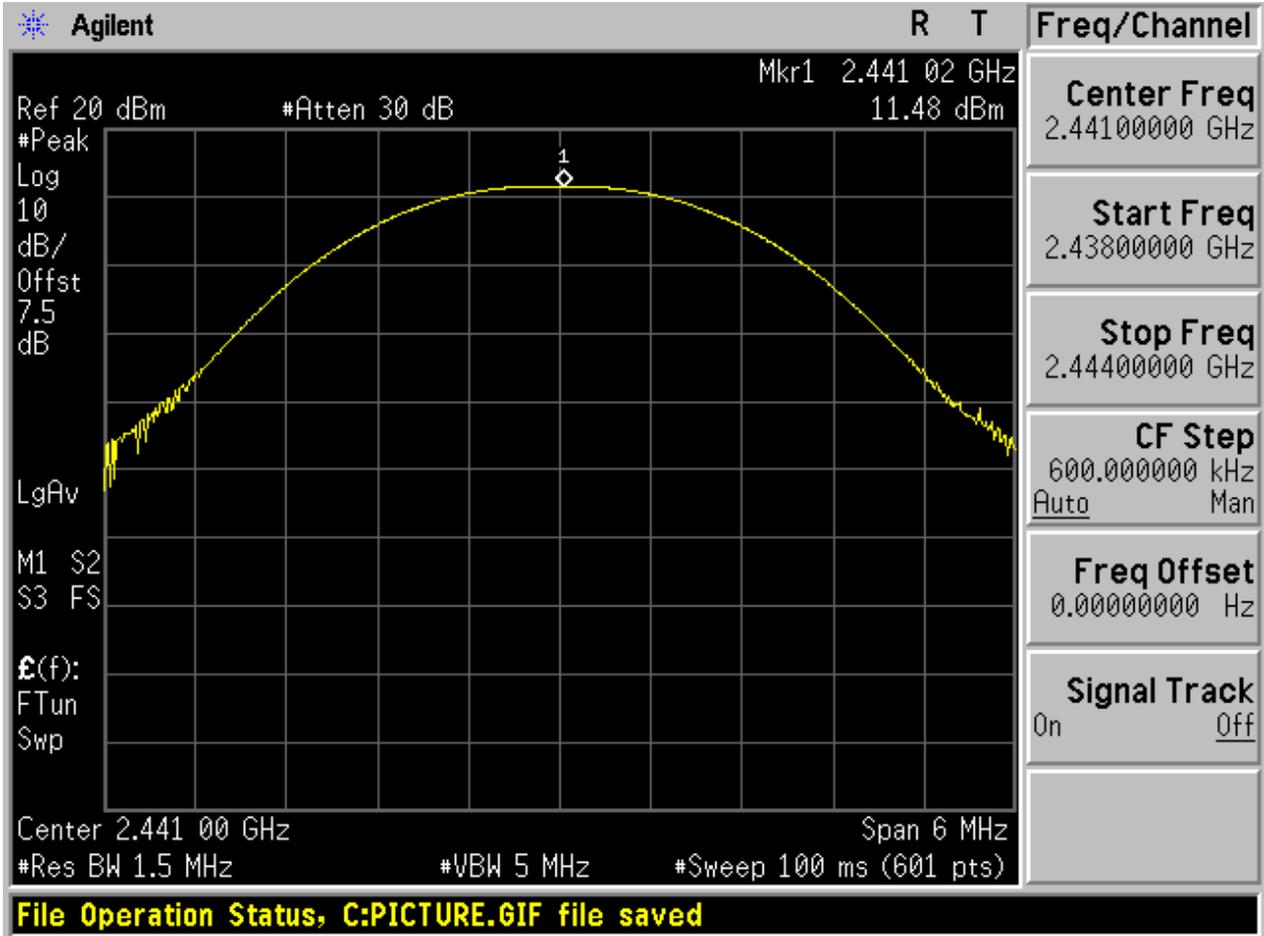
EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	8.78	Pass
TM1_DH5_Ch39	11.48	Pass
TM1_DH5_Ch78	9.9	Pass
TM2_2DH5_Ch0	9.63	Pass
TM2_2DH5_Ch39	12.56	Pass
TM2_2DH5_Ch78	10.43	Pass
TM3_3DH5_Ch0	9.91	Pass
TM3_3DH5_Ch39	12.84	Pass
TM3_3DH5_Ch78	11.00	Pass

## 2 Test Plot

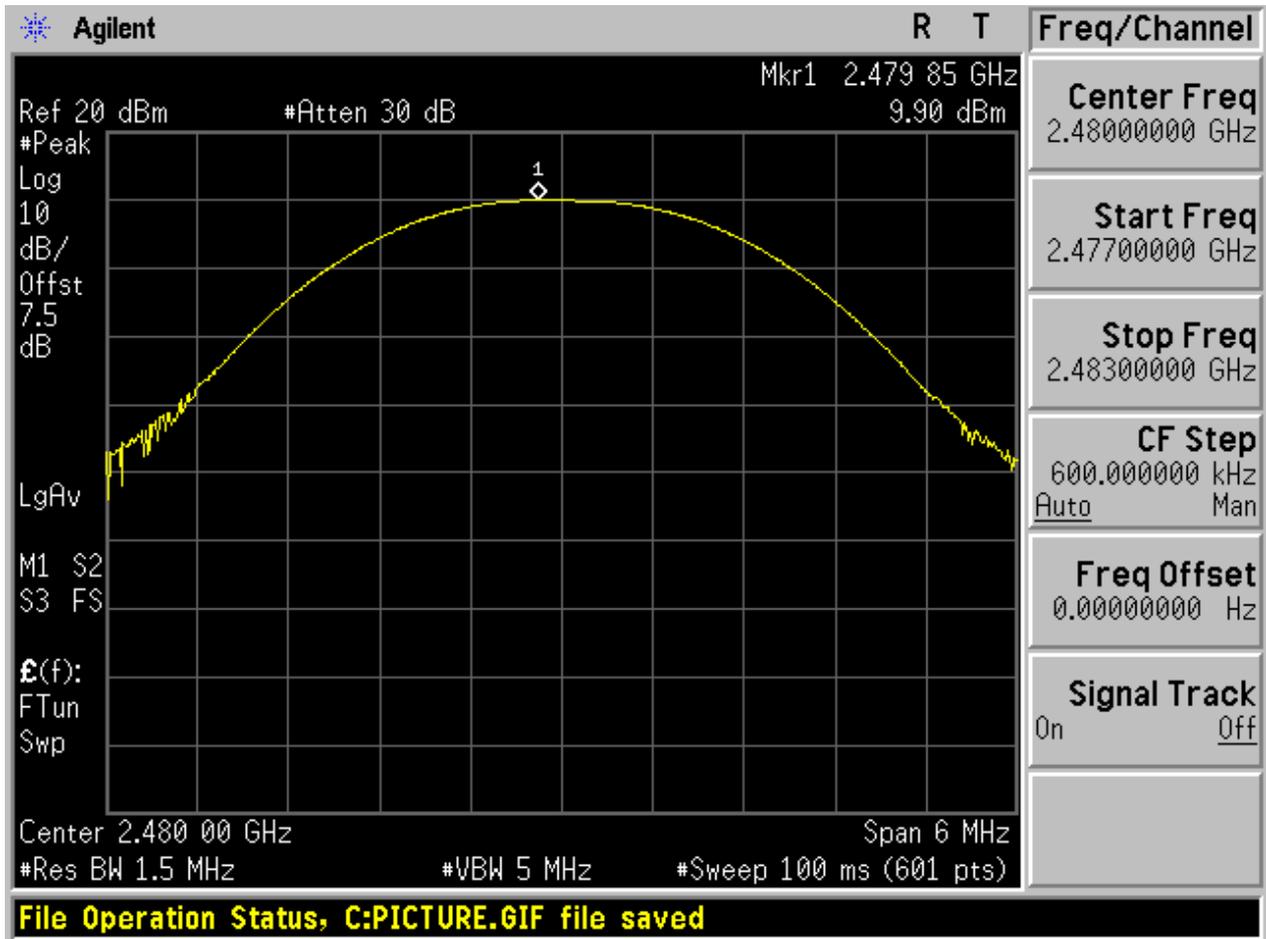
### 2.1 TM1\_DH5\_Ch0



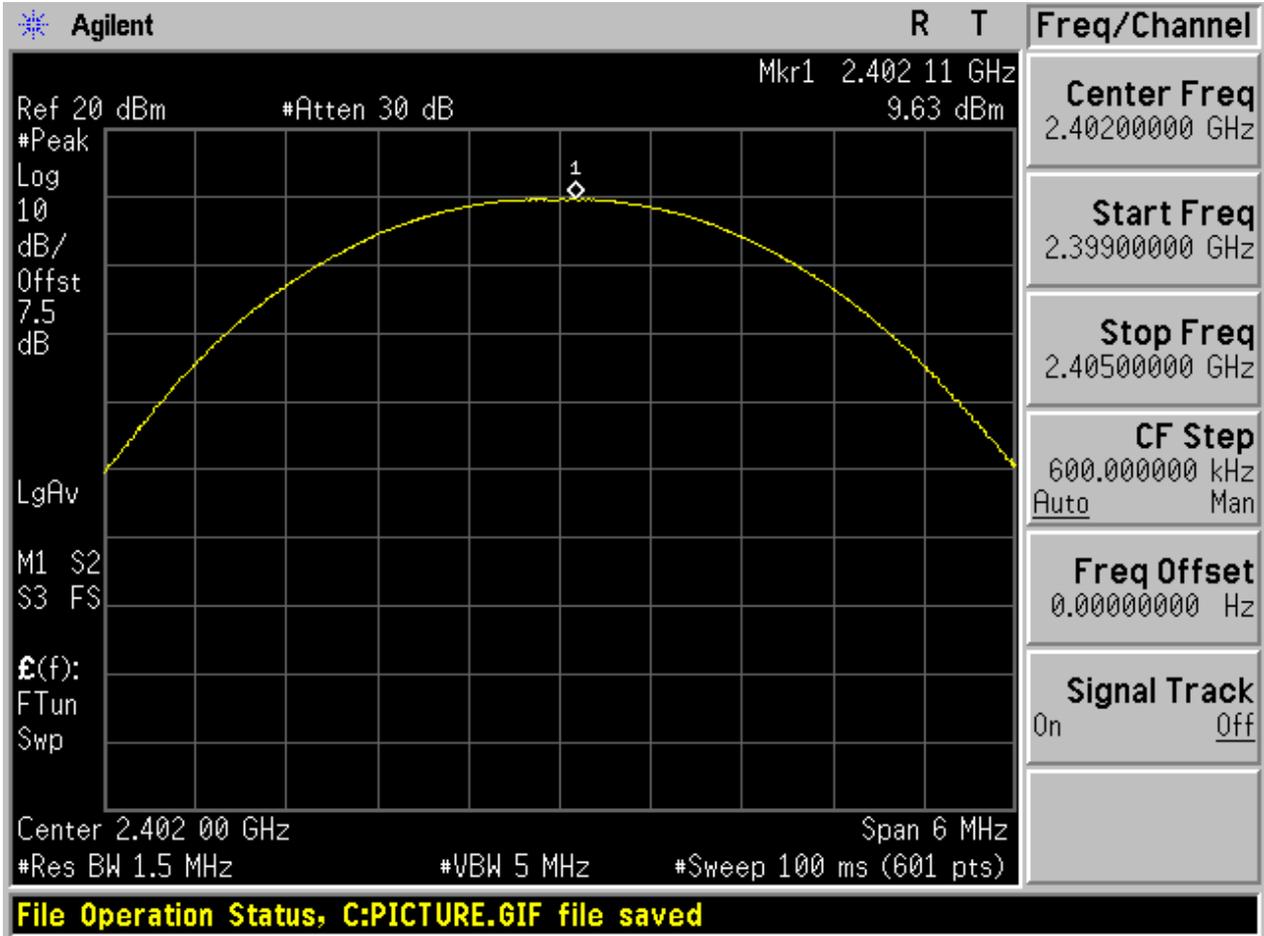
2.2 TM1\_DH5\_Ch39



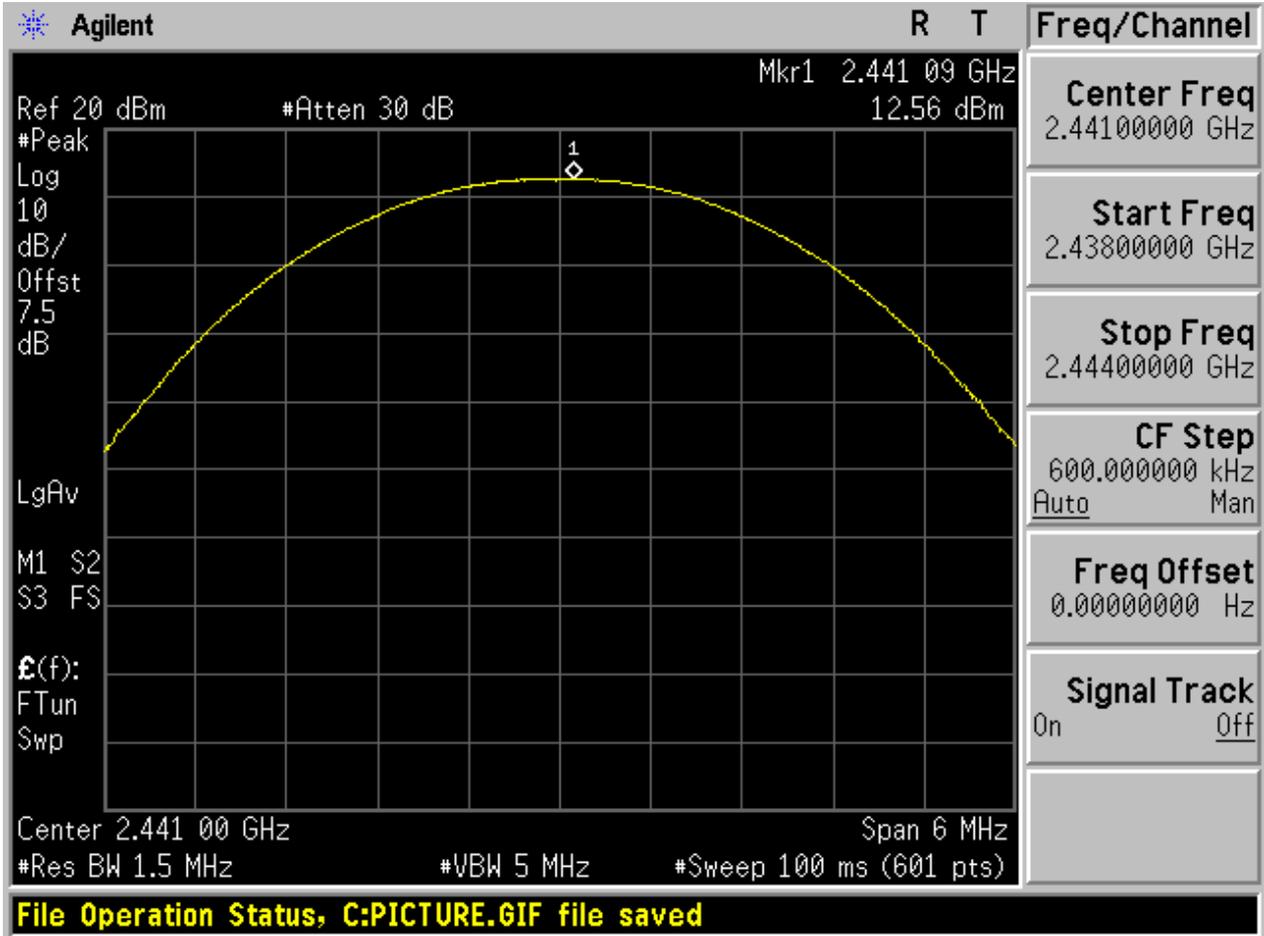
2.3 TM1\_DH5\_Ch78



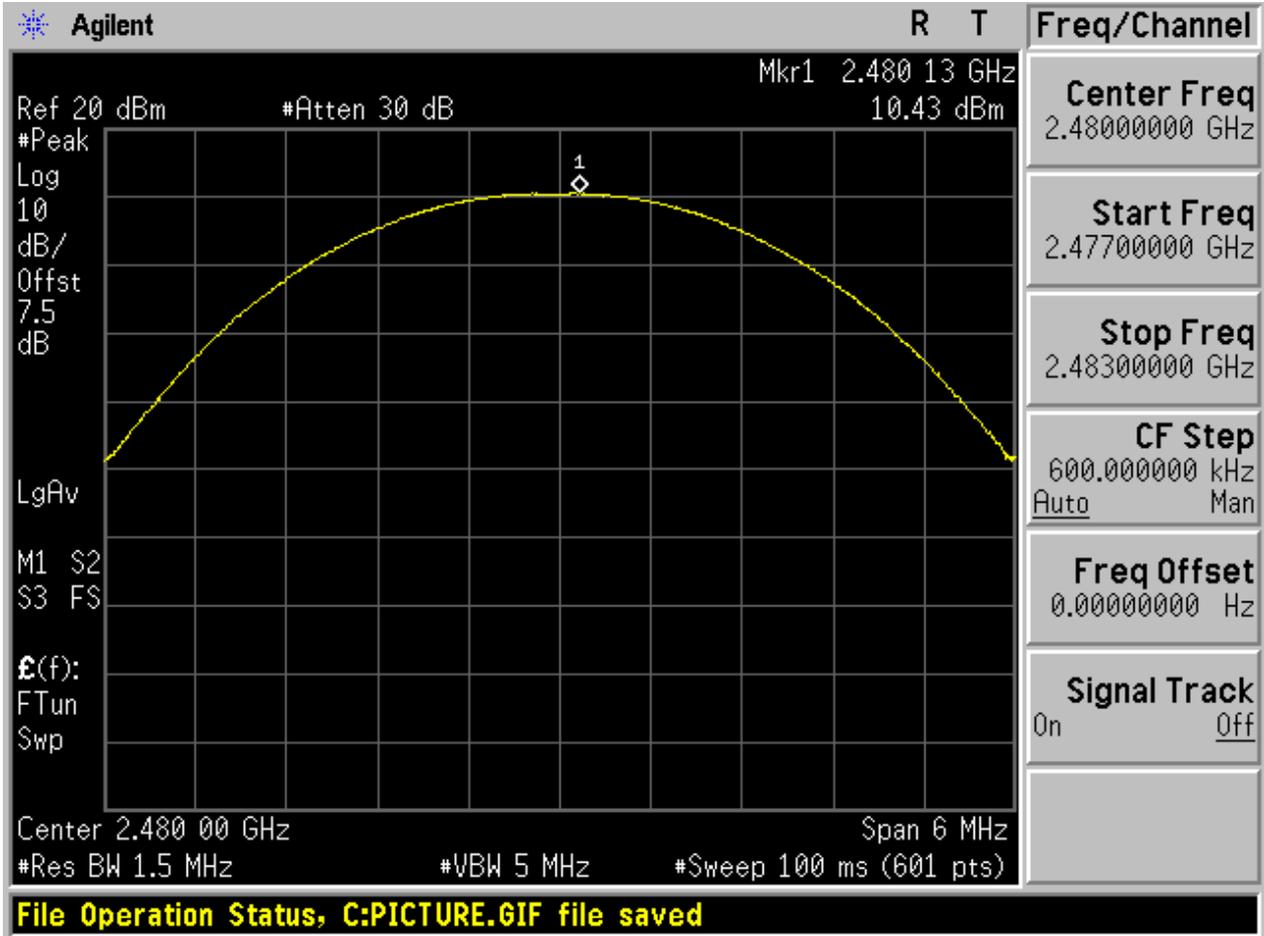
2.4 TM2\_2DH5\_Ch0



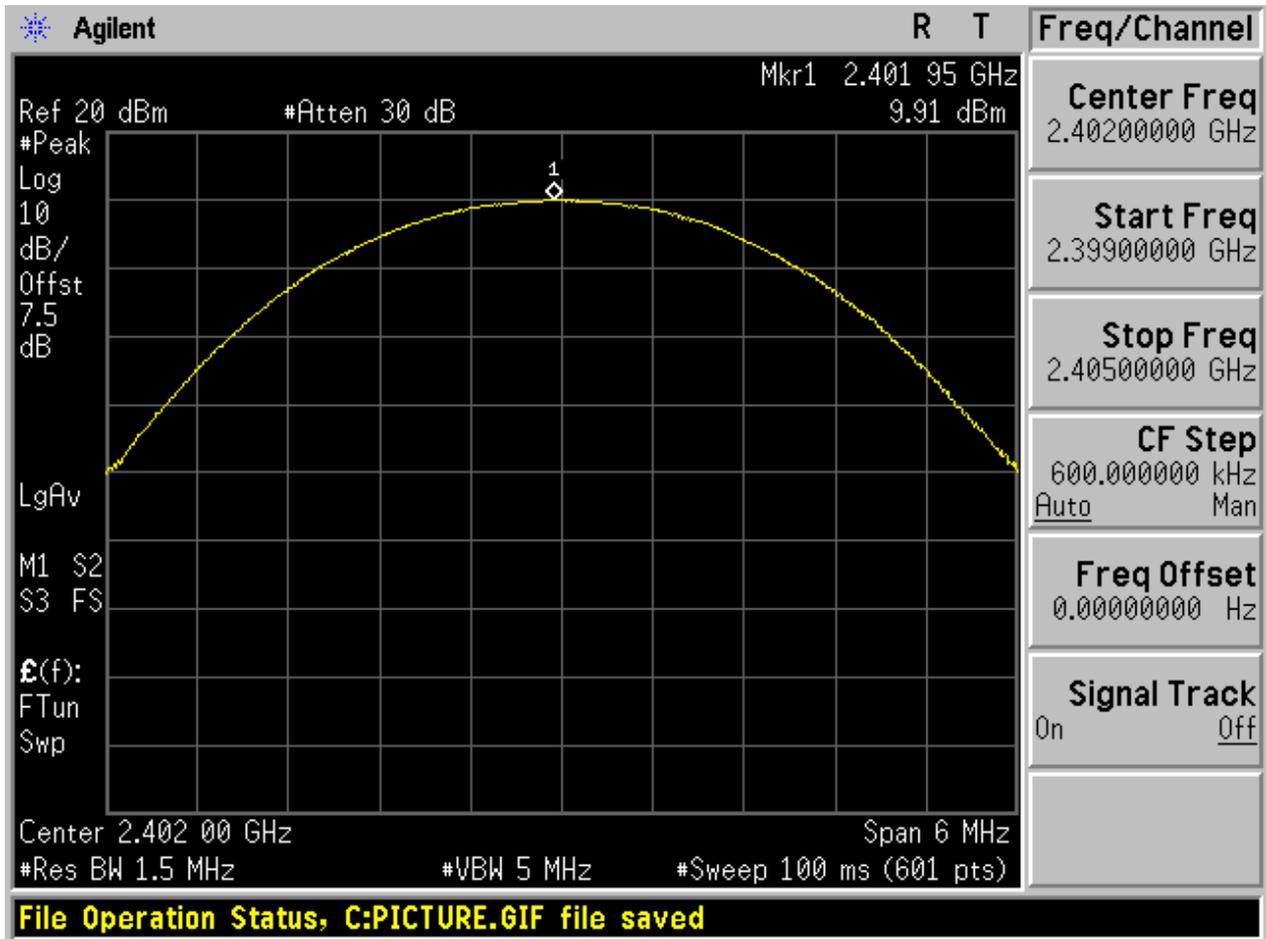
2.5 TM2\_2DH5\_Ch39



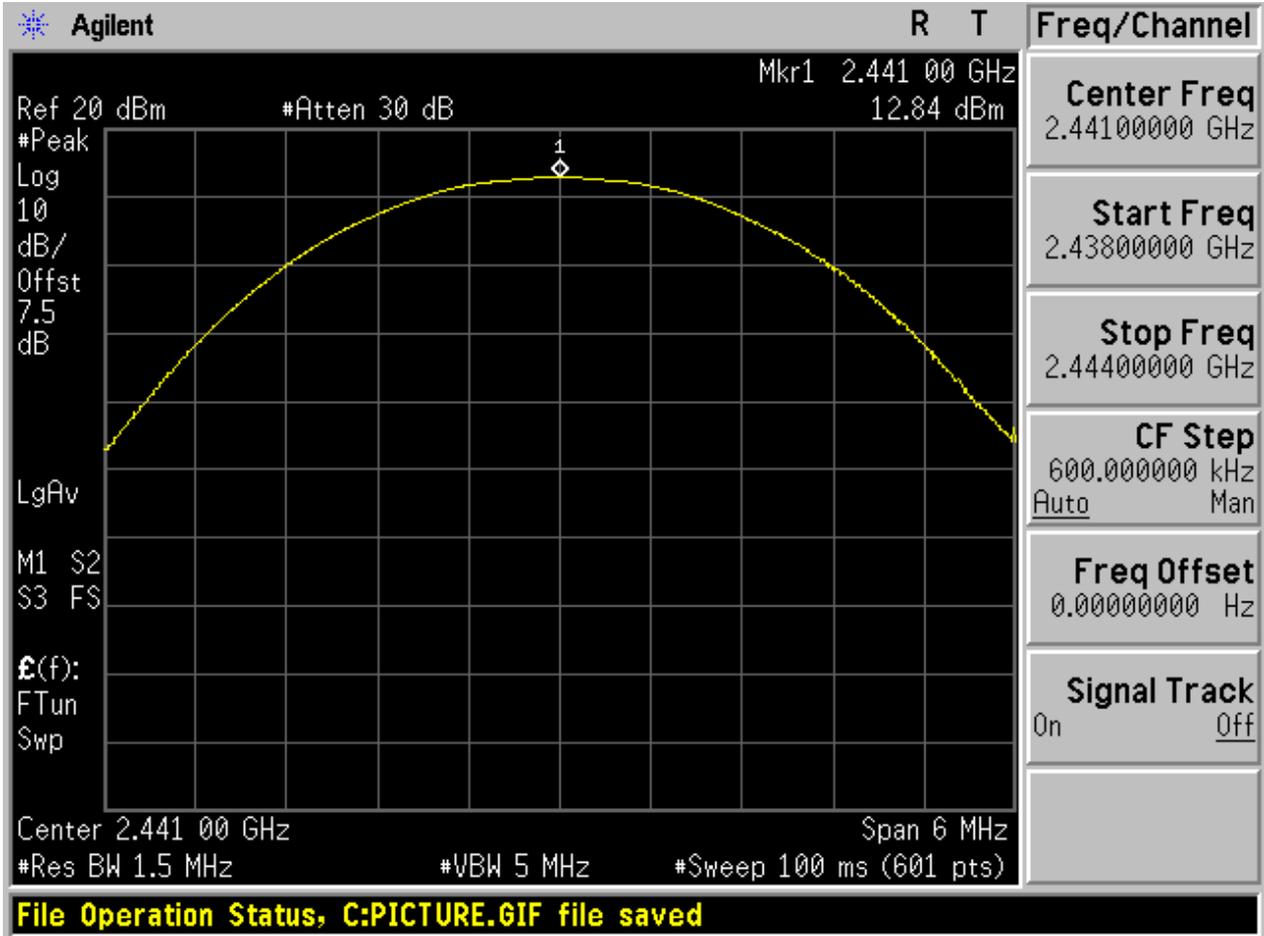
2.6 TM2\_2DH5\_Ch78



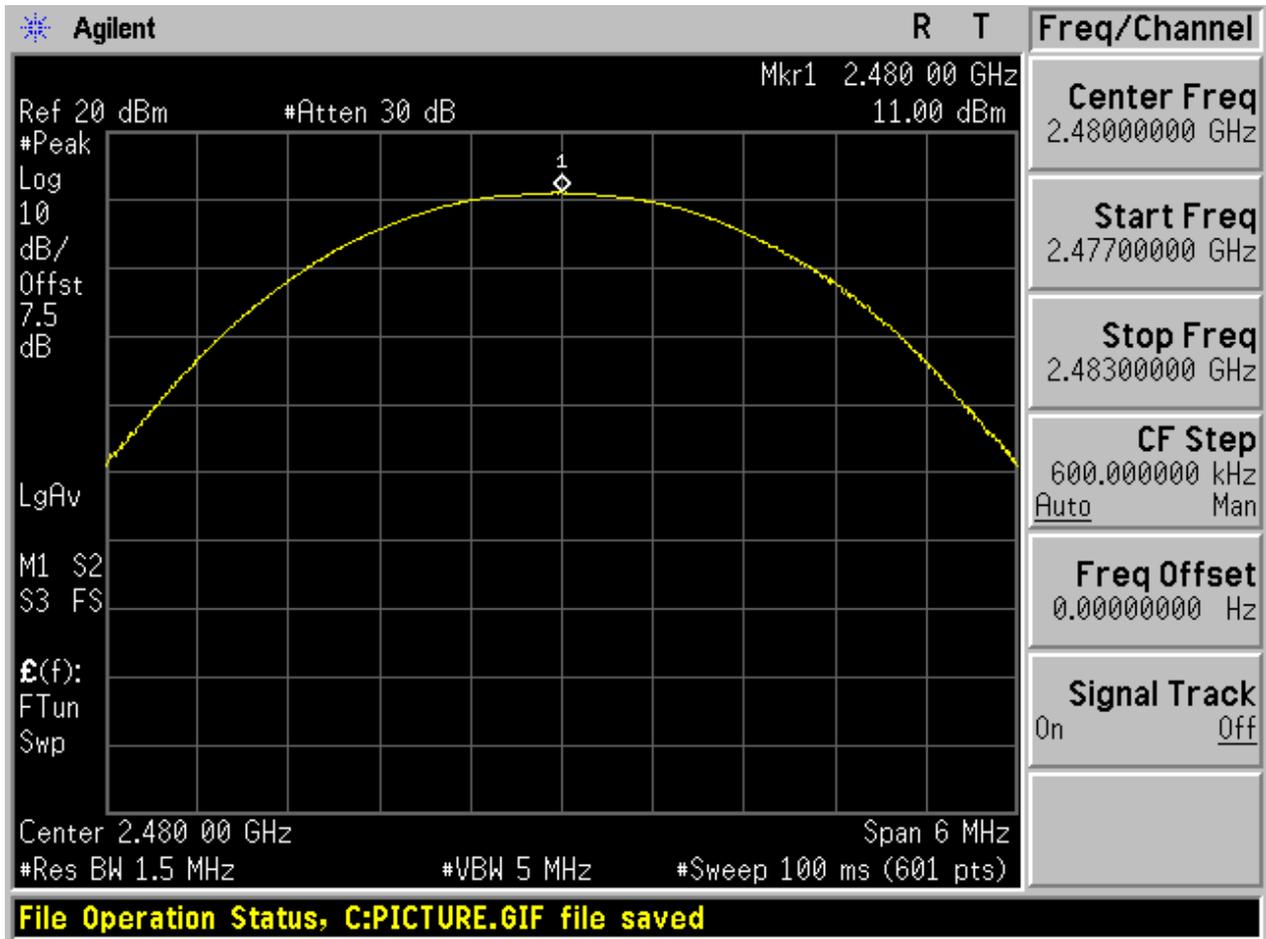
2.7 TM3\_3DH5\_Ch0



2.8 TM3\_3DH5\_Ch39



2.9 TM3\_3DH5\_Ch78





# Appendix F: Band edge spurious emission

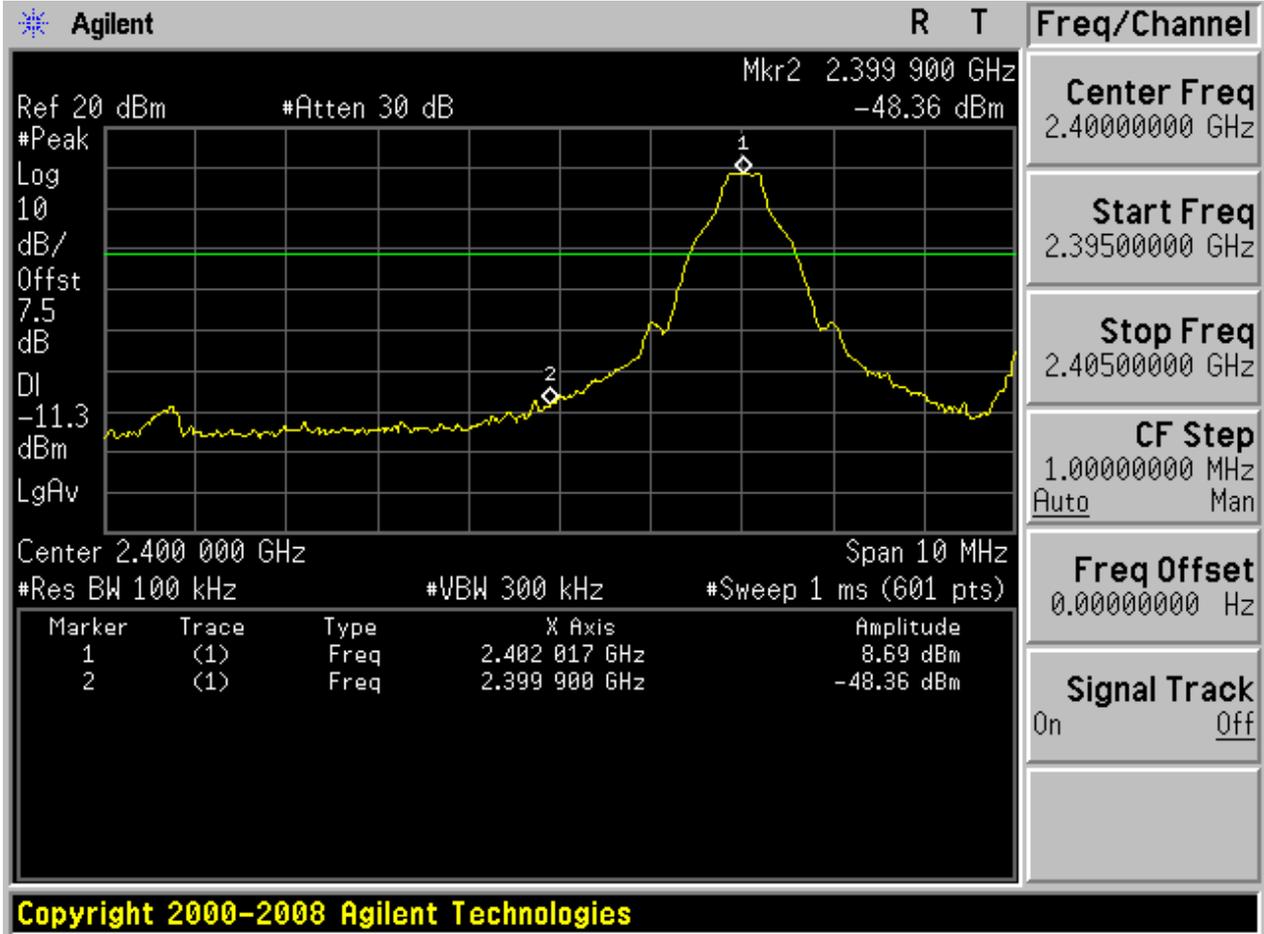
**1 Result Table**

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5_Ch0	0	2402	-48.36	Off	8.69	-11.31	Pass
	-	-	-51.31	On	8.50	-11.5	Pass
TM1_DH5_Ch78	78	2480	-42.33	Off	9.78	-10.22	Pass
	-	-	-43.44	On	9.44	-10.56	Pass
TM2_2DH_5_Ch0	0	2402	-49.36	Off	7.81	-12.19	Pass
	-	-	-51.6	On	7.13	-12.87	Pass
TM2_2DH_5_Ch78	78	2480	-38.07	Off	8.88	-11.12	Pass
	-	-	-48.23	On	9.02	-10.98	Pass
TM3_3DH_5_Ch0	0	2402	-47.91	Off	7.80	-12.2	Pass
	-	-	-53.28	On	6.08	-13.92	Pass
TM3_3DH_5_Ch78	78	2480	-39.08	Off	8.83	-11.17	Pass
	-	-	-39.63	On	7.17	-12.83	Pass

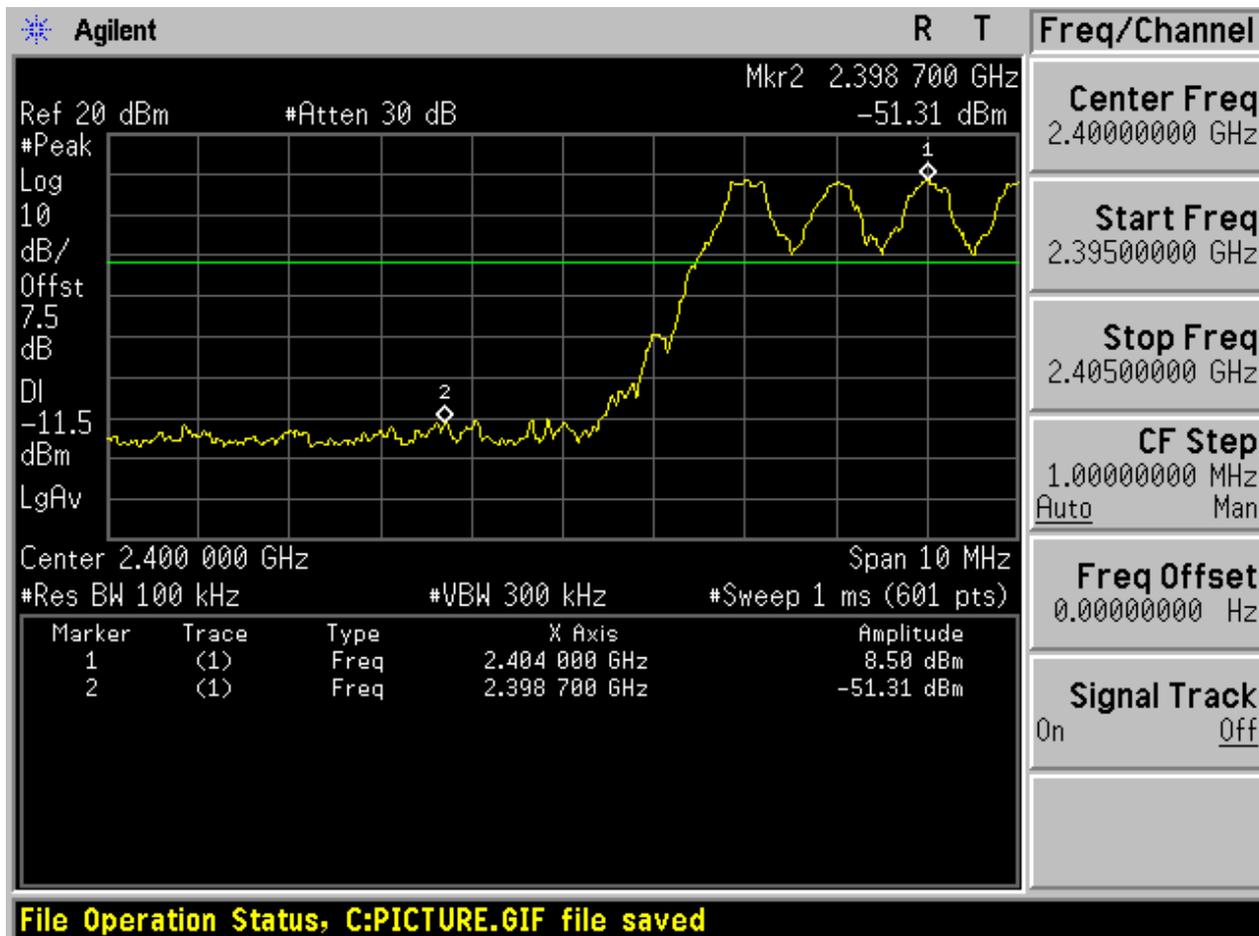
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

No hopping

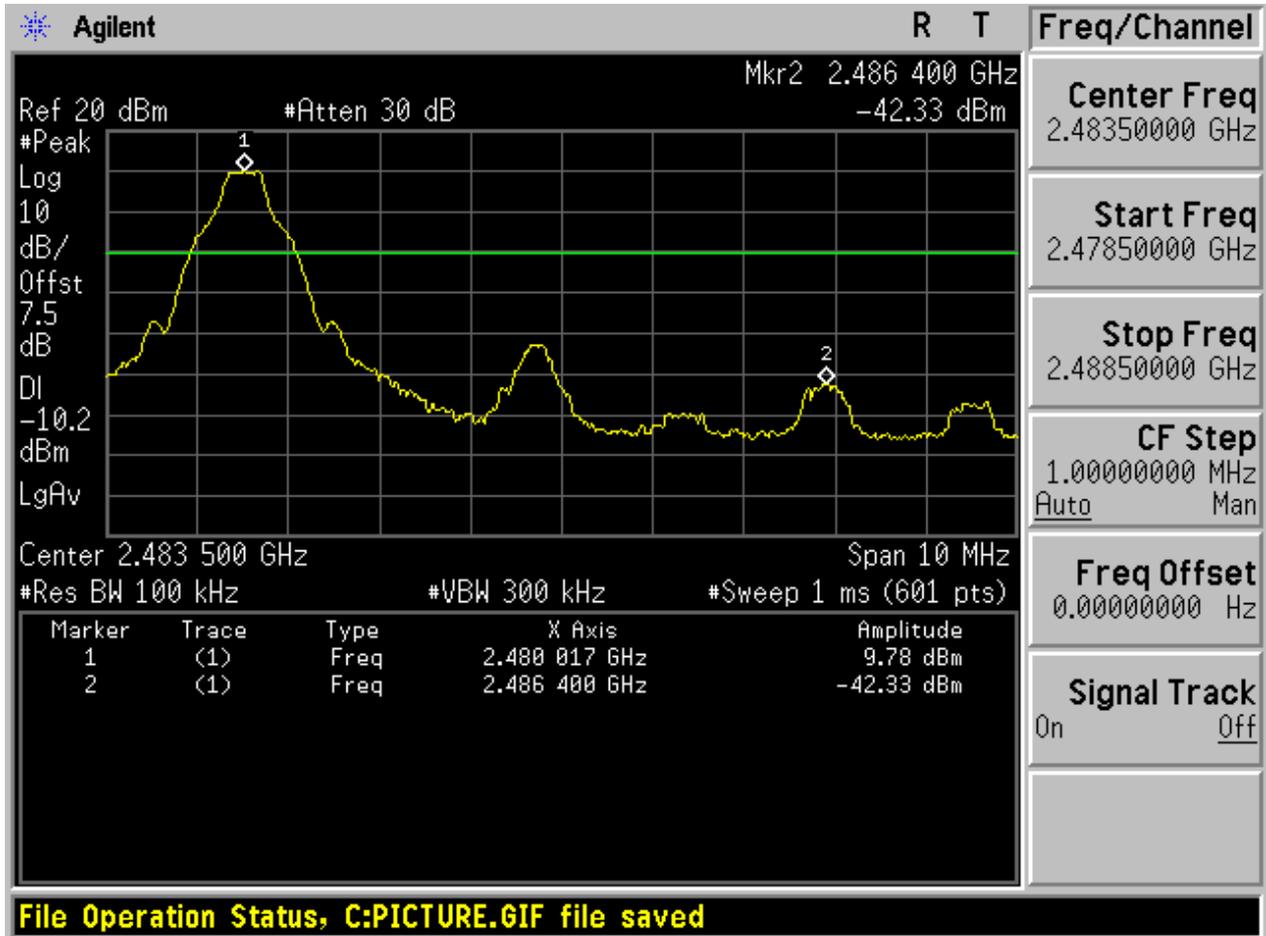


With hopping

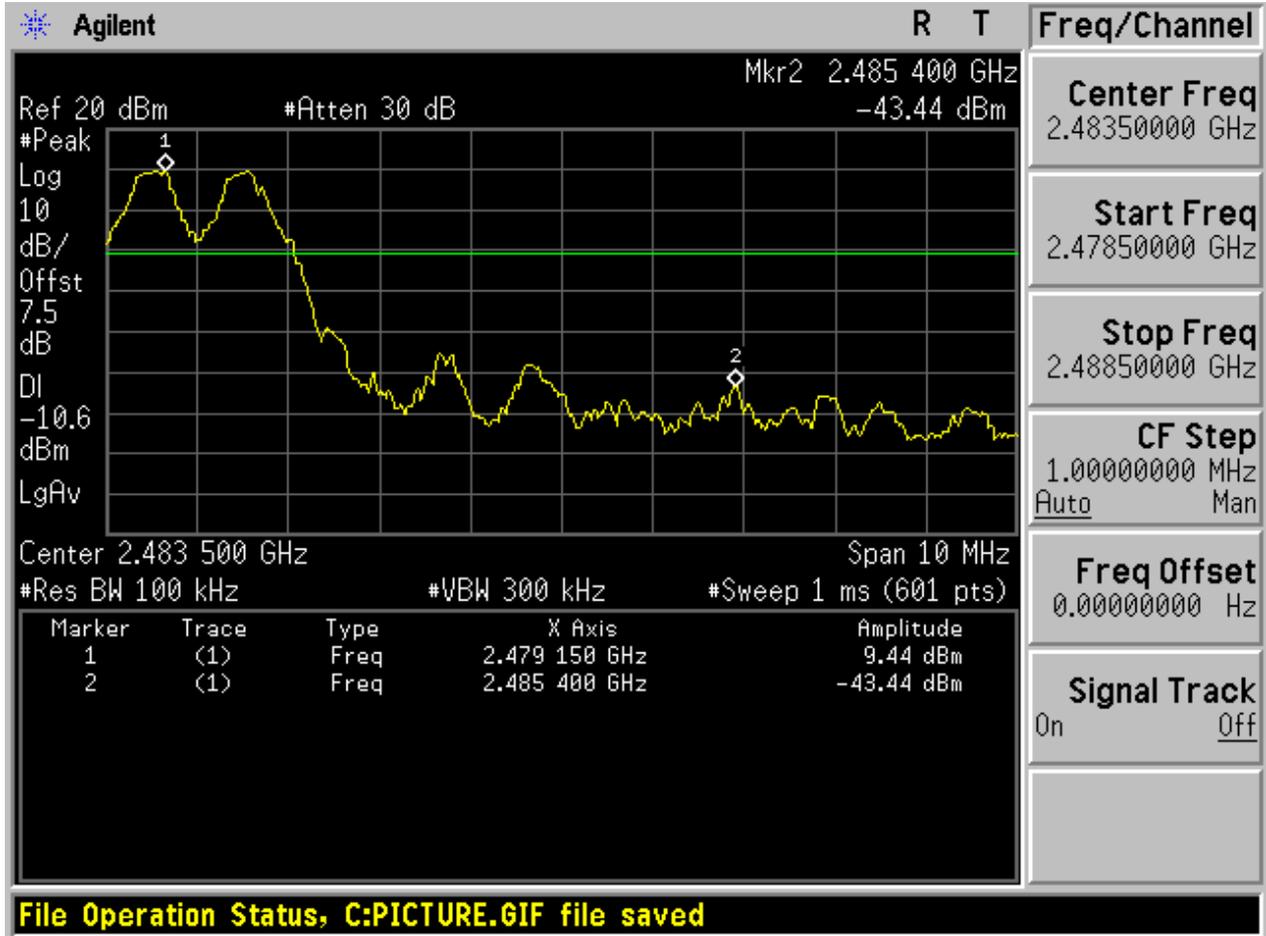


2.2 TM1\_DH5\_Ch78

No hopping

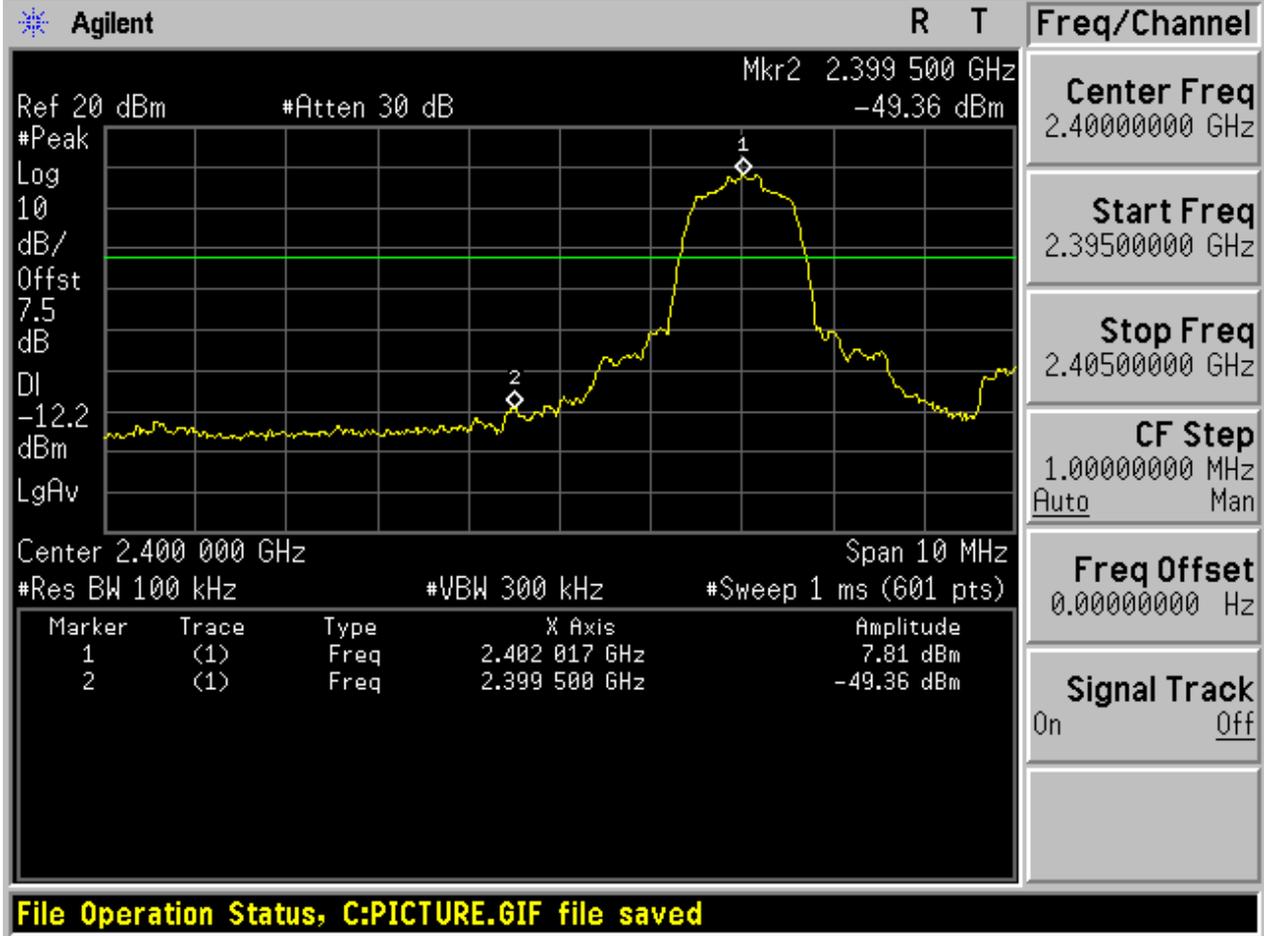


With hopping

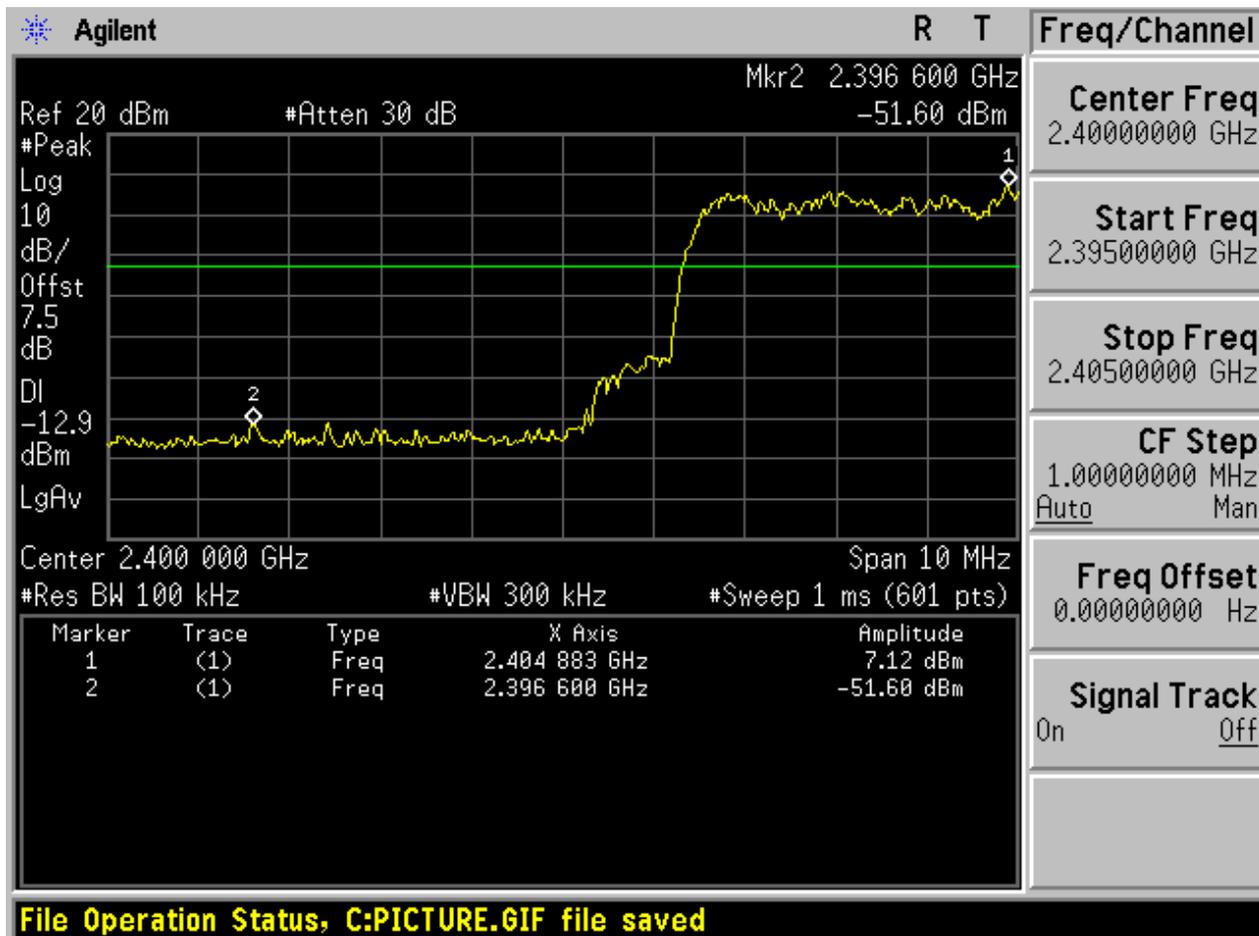


2.3 TM2\_2DH5\_Ch0

No hopping

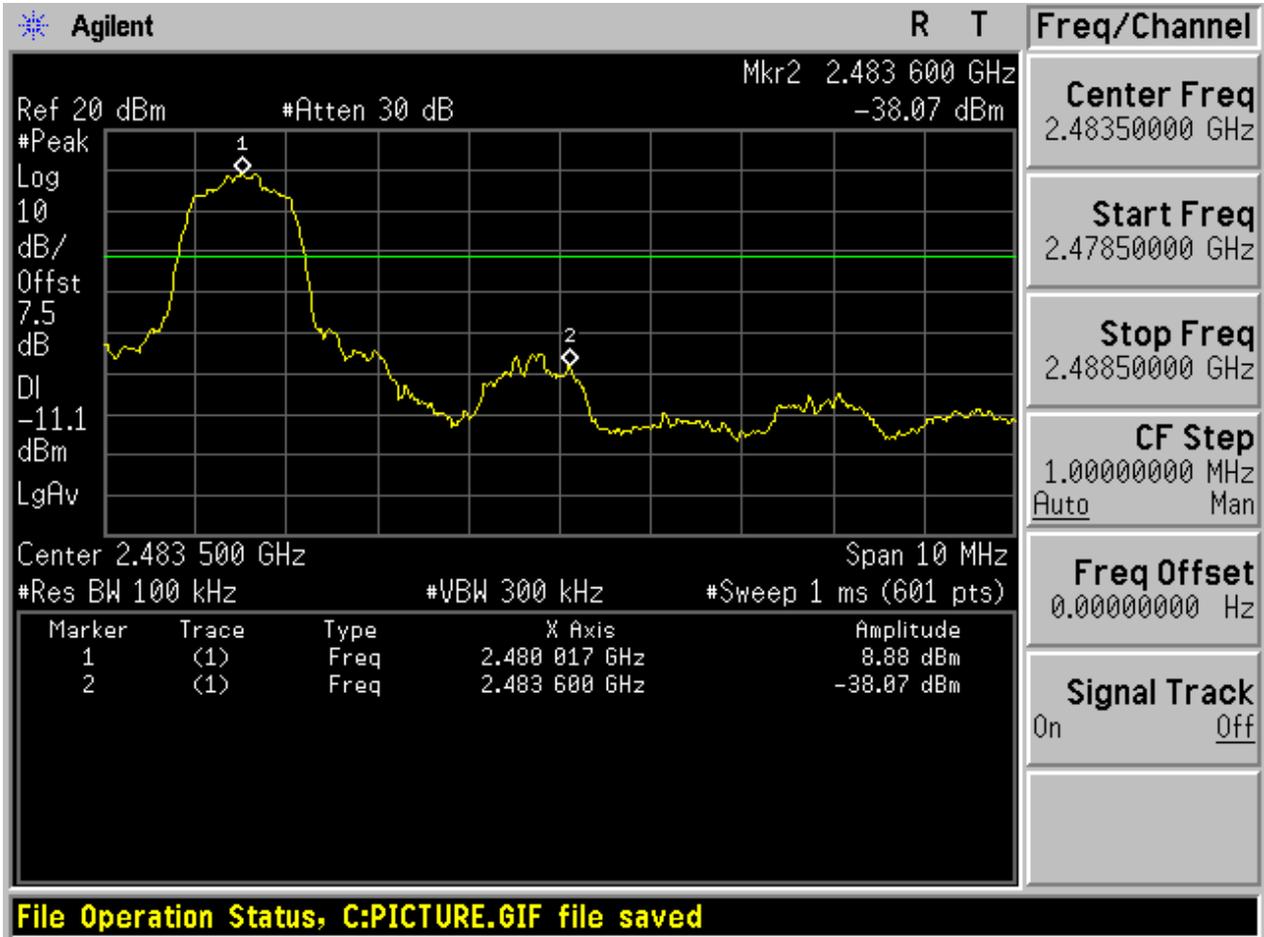


With hopping

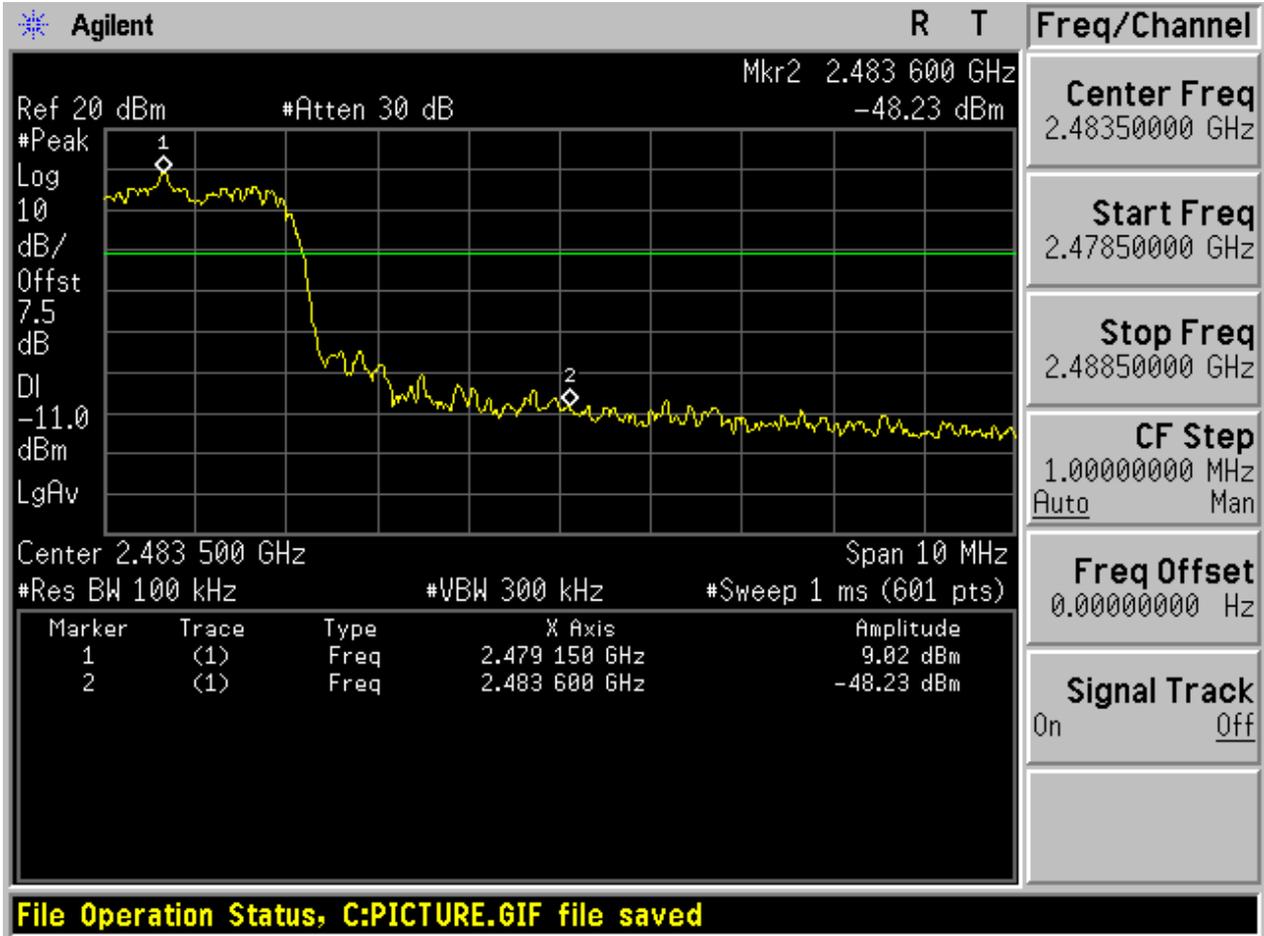


2.4 TM2\_2DH5\_Ch78

No hopping

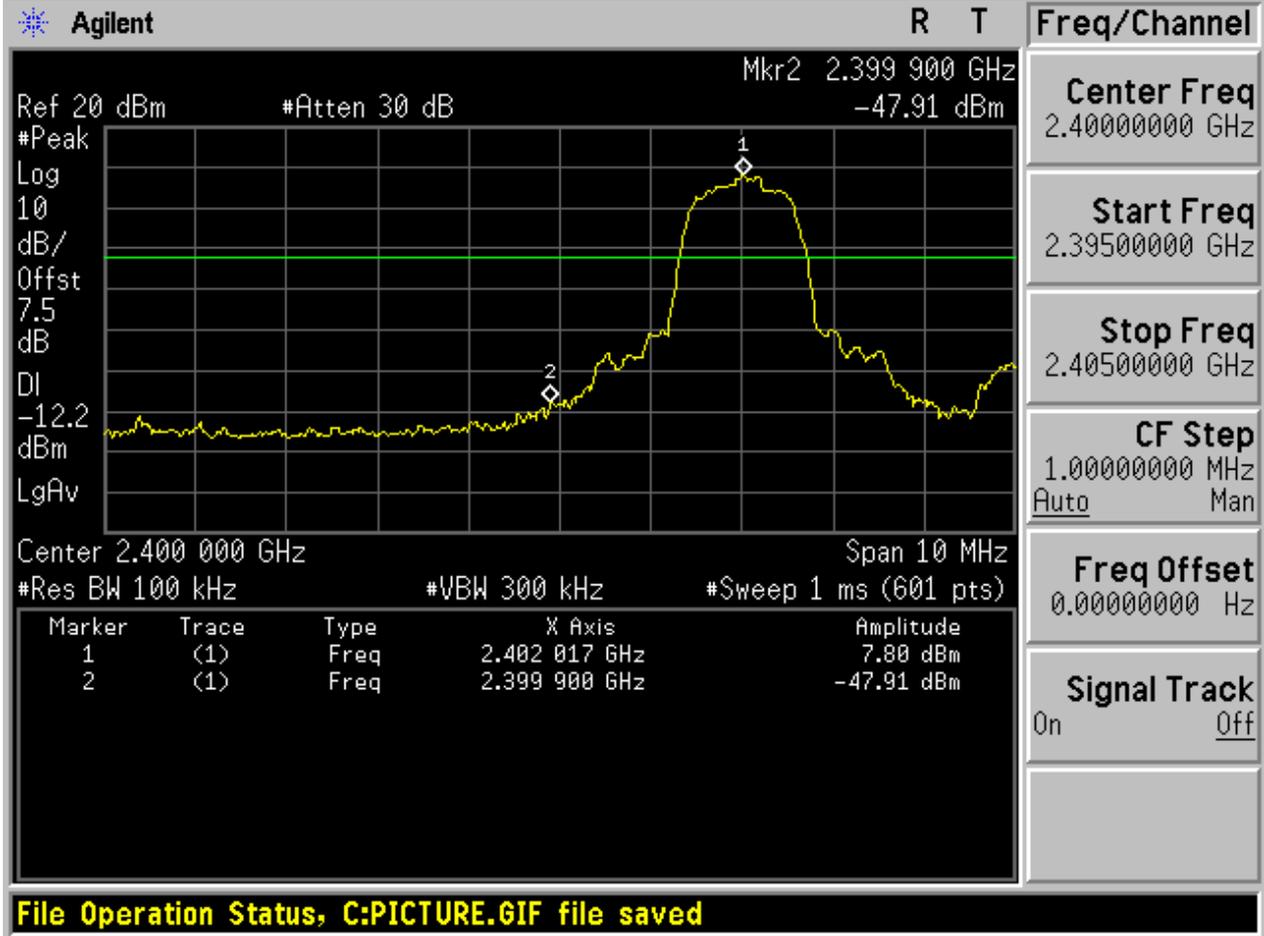


With hopping

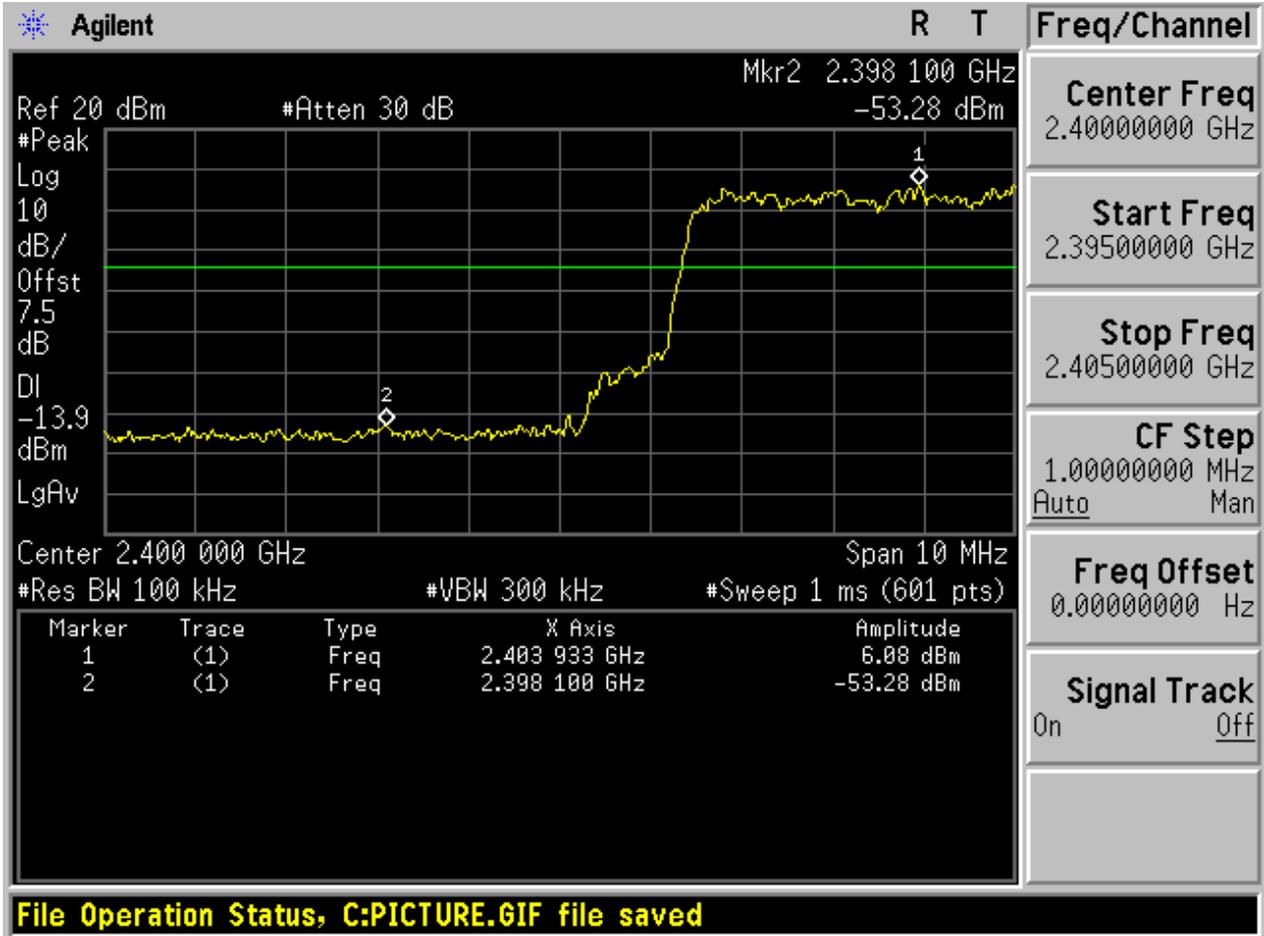


2.5 TM3\_3DH5\_Ch0

No hopping

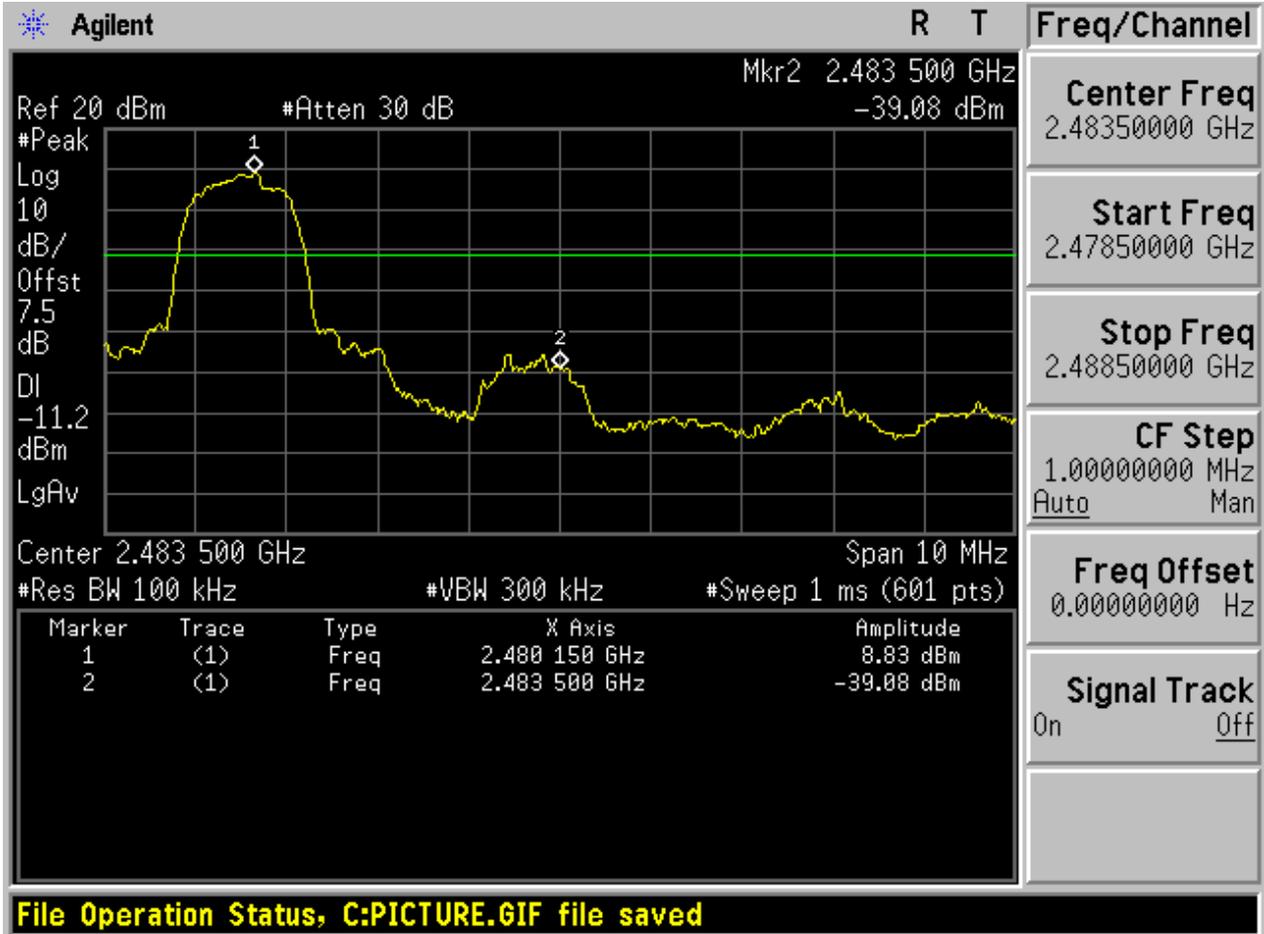


With hopping

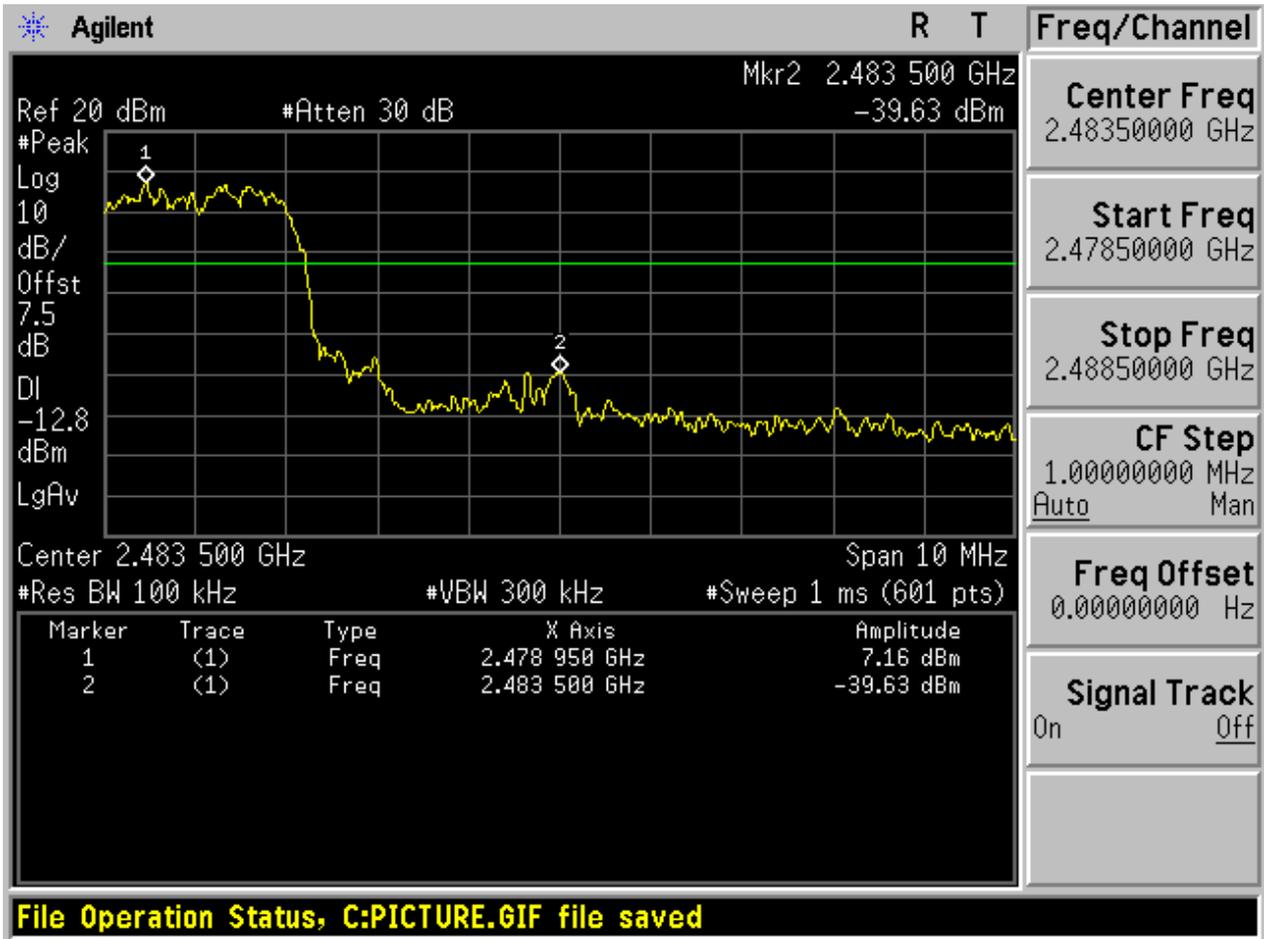


2.6 TM3\_3DH5\_Ch78

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”.

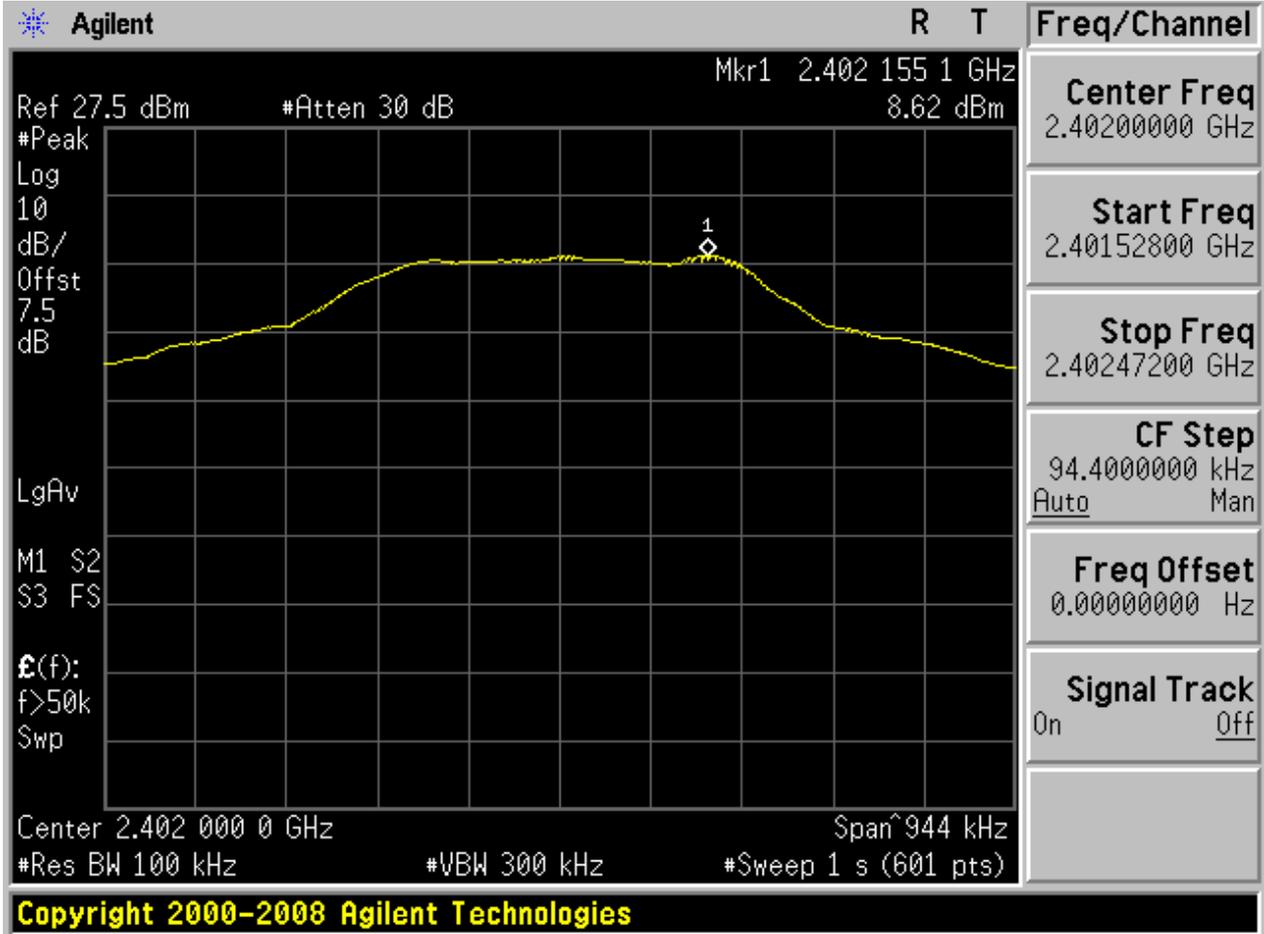
EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	8.63	< Limit	Pass
TM1_DH5_Ch39	11.60	< Limit	Pass
TM1_DH5_Ch78	9.66	< Limit	Pass
TM2_2DH5_Ch0	7.69	< Limit	Pass
TM2_2DH5_Ch39	10.38	< Limit	Pass
TM2_2DH5_Ch78	8.75	< Limit	Pass
TM3_3DH5_Ch0	7.71	< Limit	Pass
TM3_3DH5_Ch39	10.38	< Limit	Pass
TM3_3DH5_Ch78	8.76	< Limit	Pass



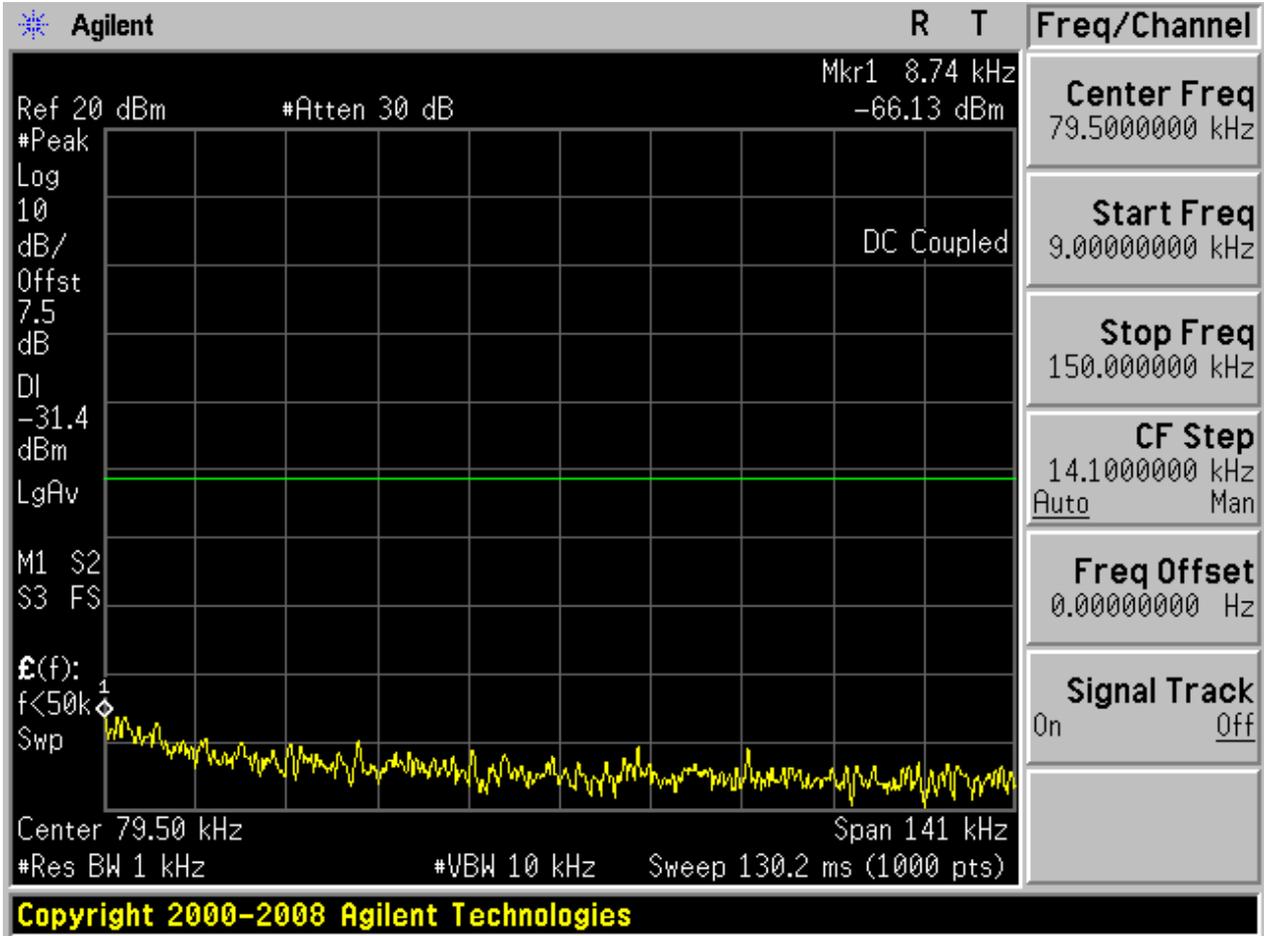
## 2 Test Plot

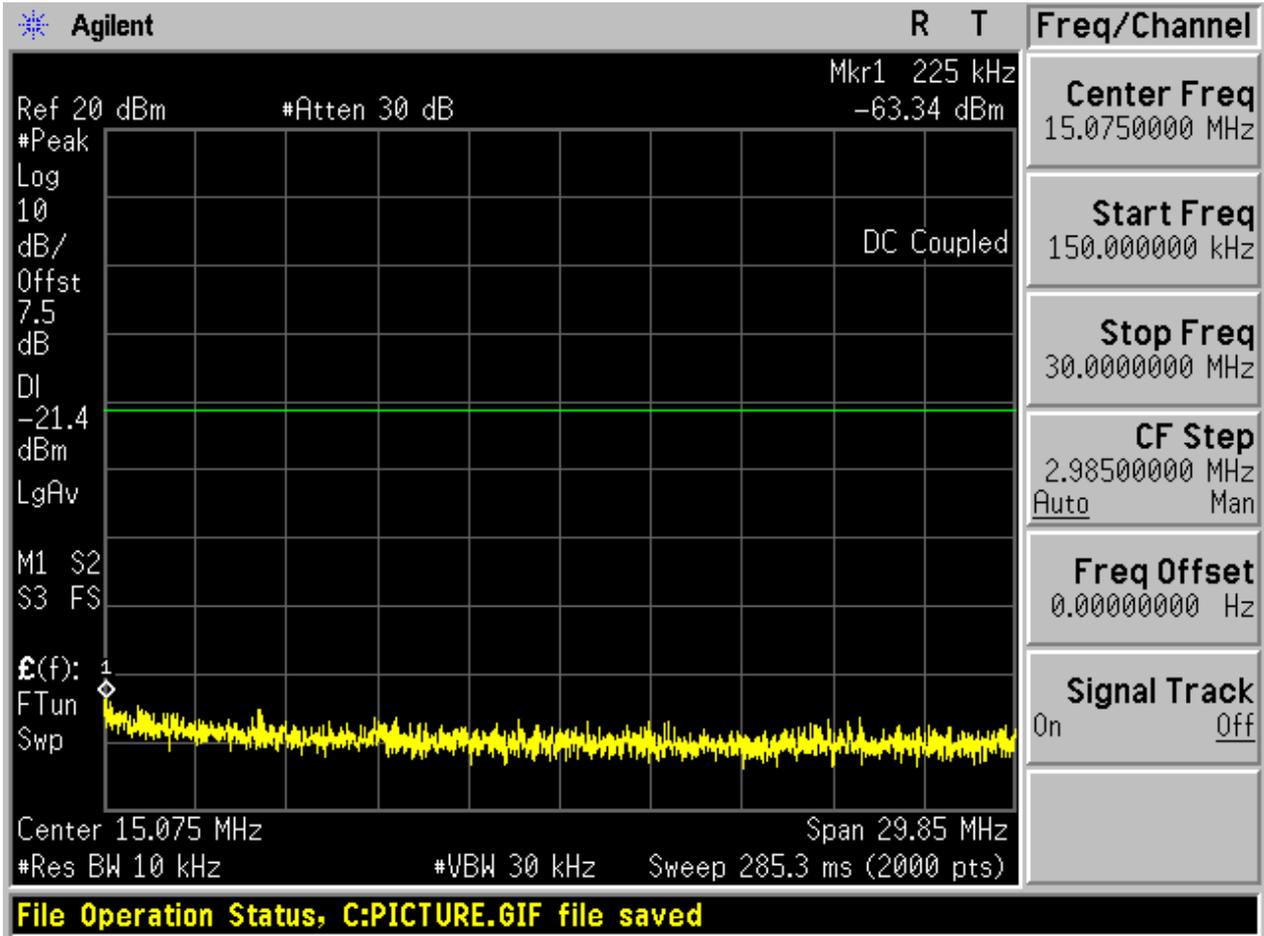
### 2.1 TM1\_DH5\_Ch0

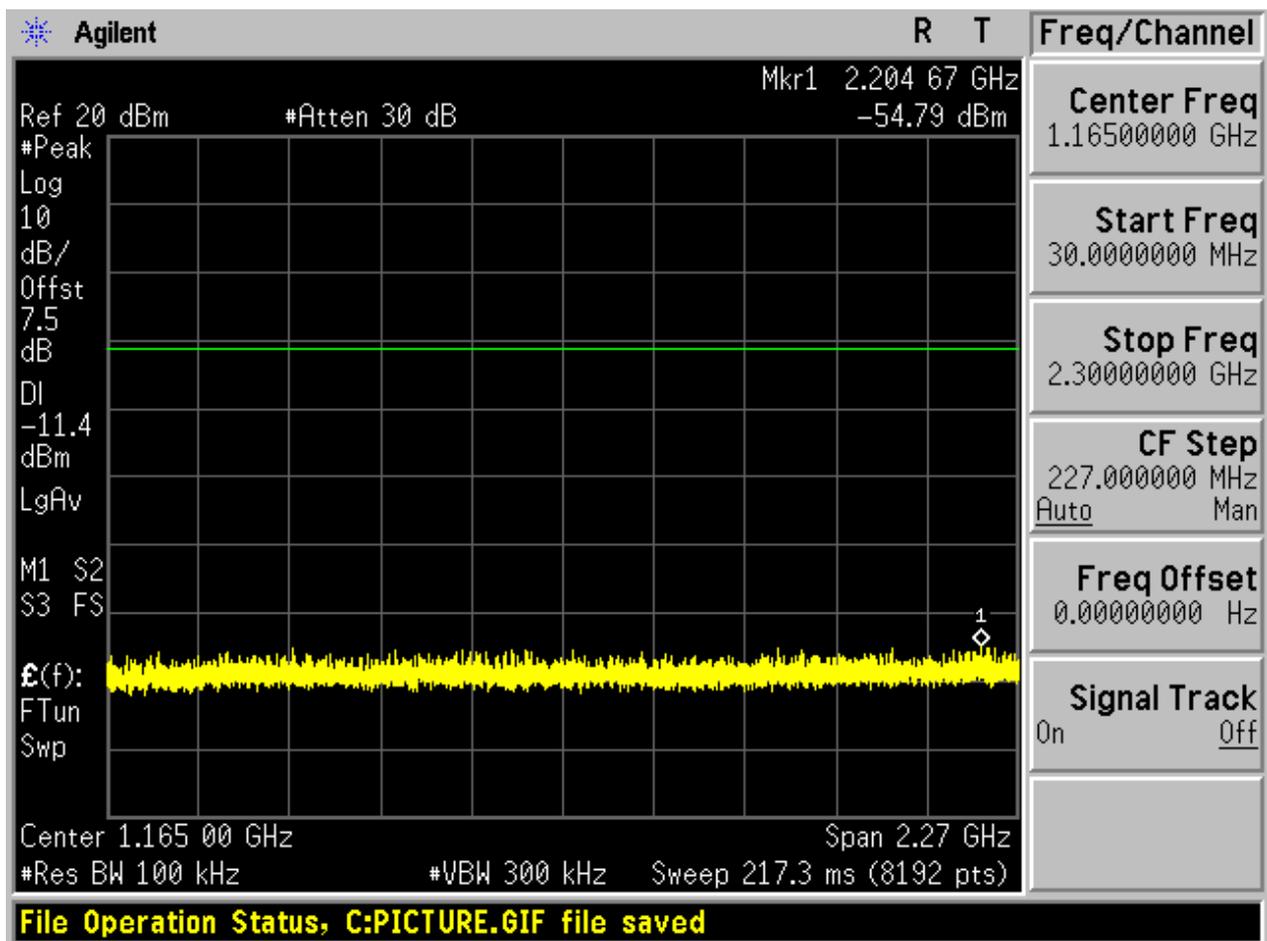
Pref

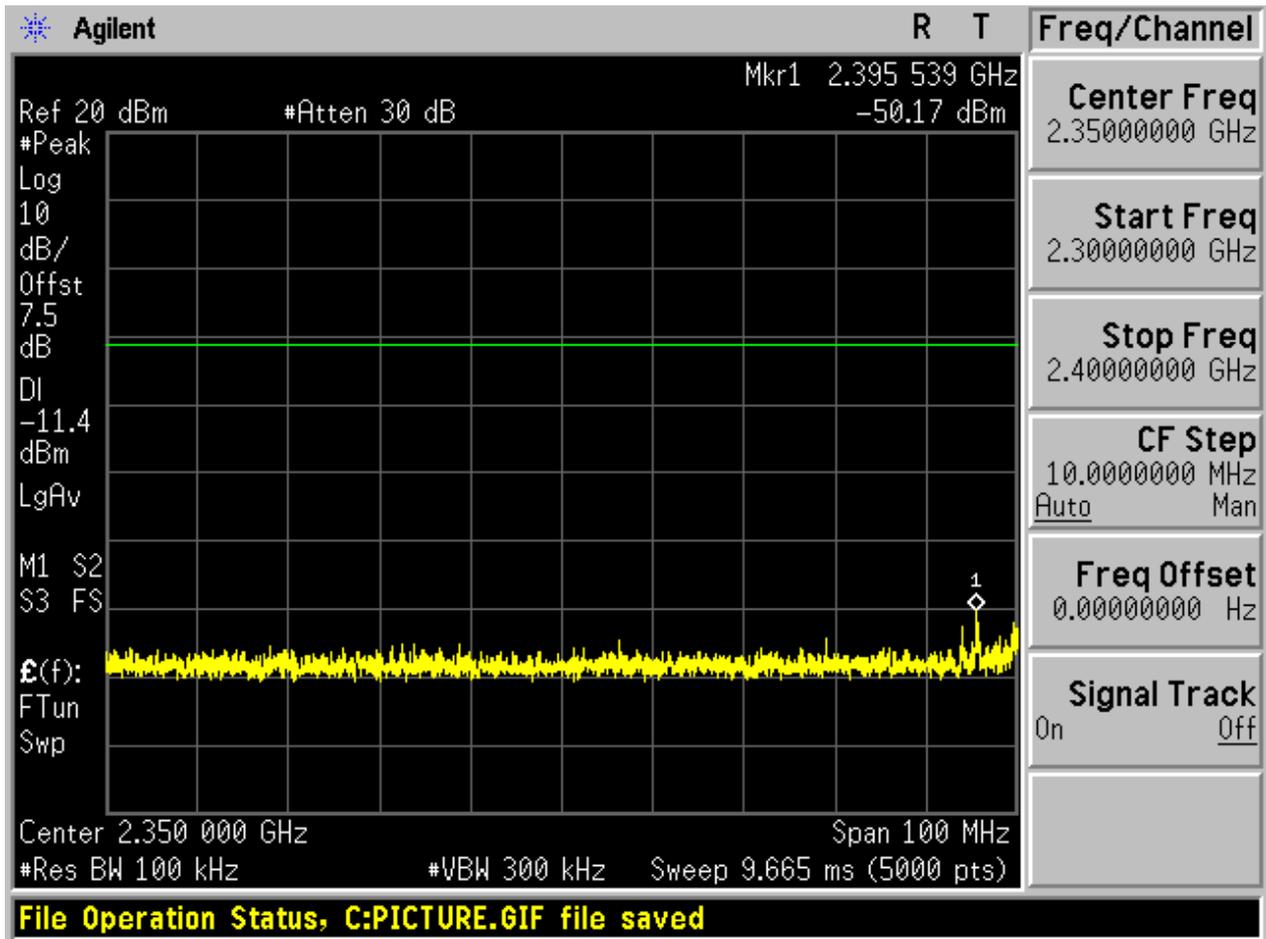


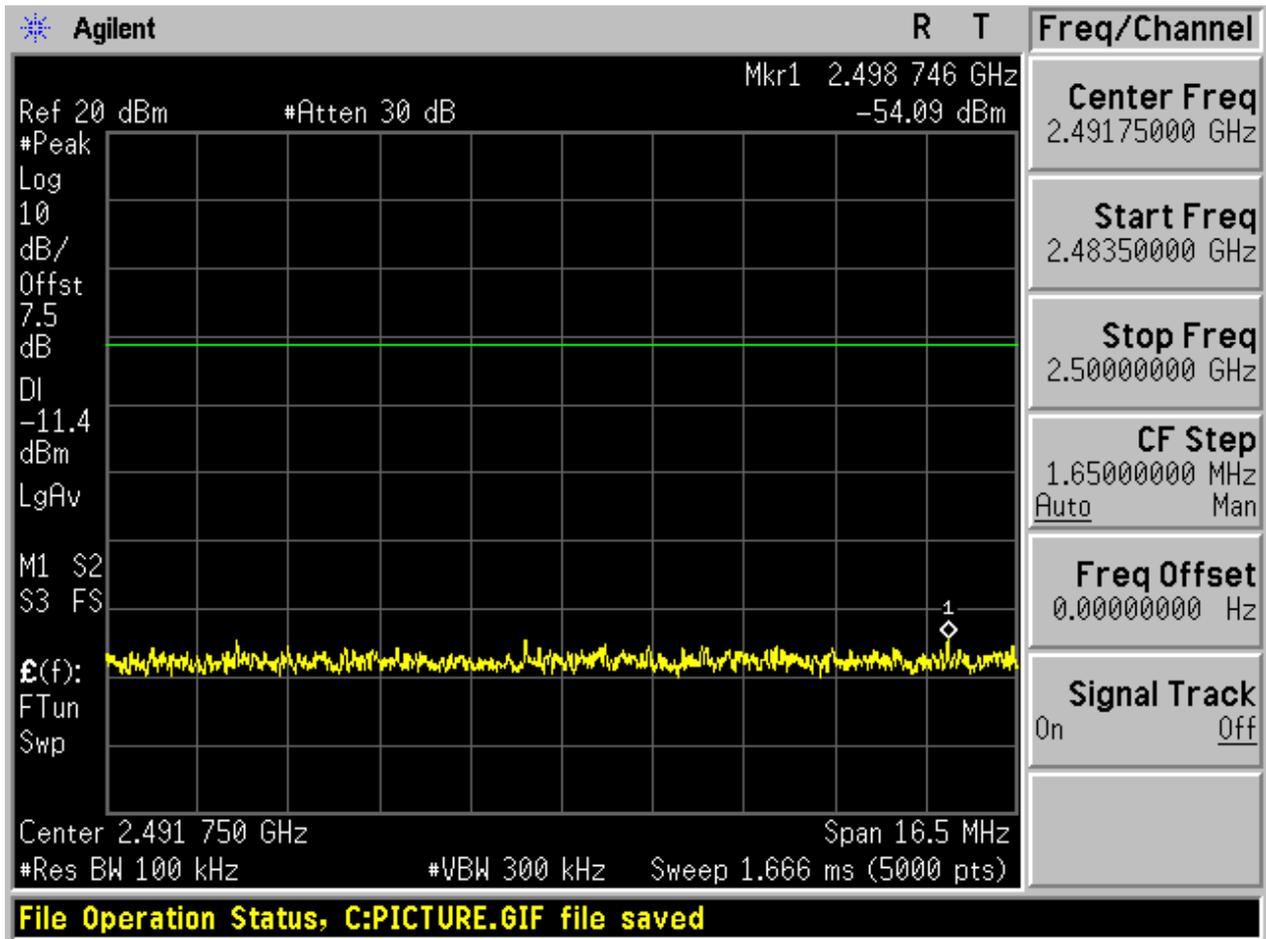
**Puw**

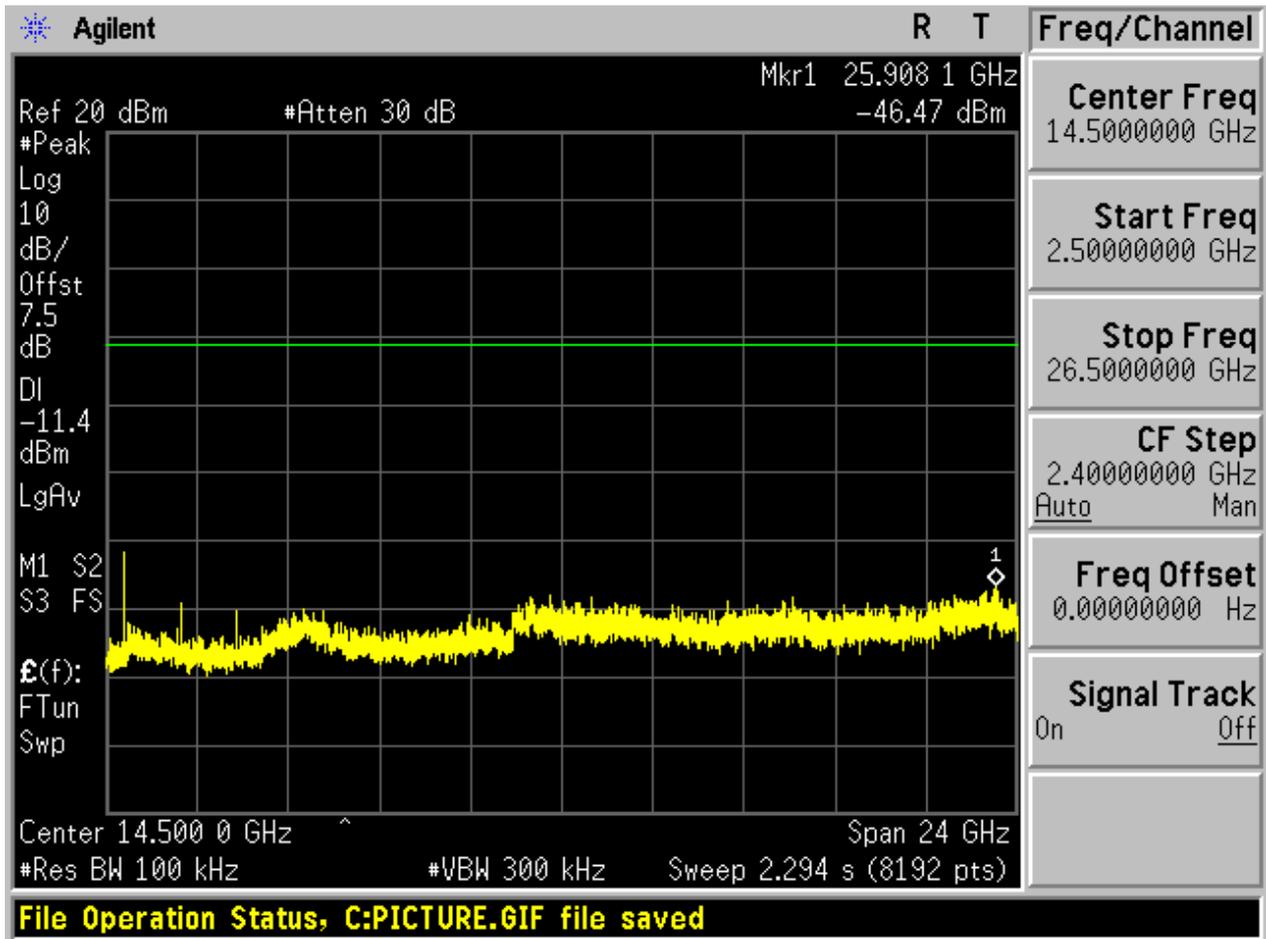






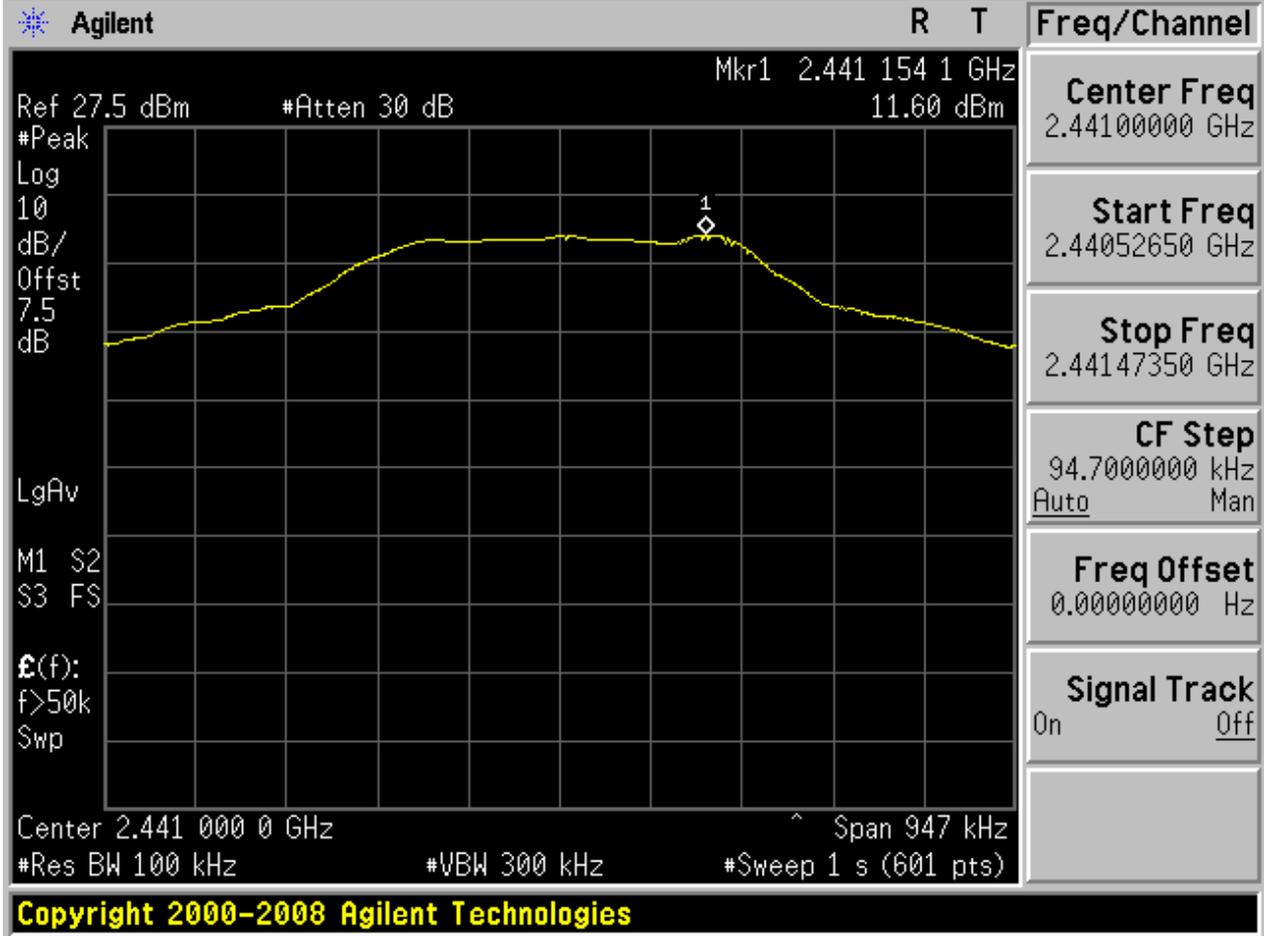




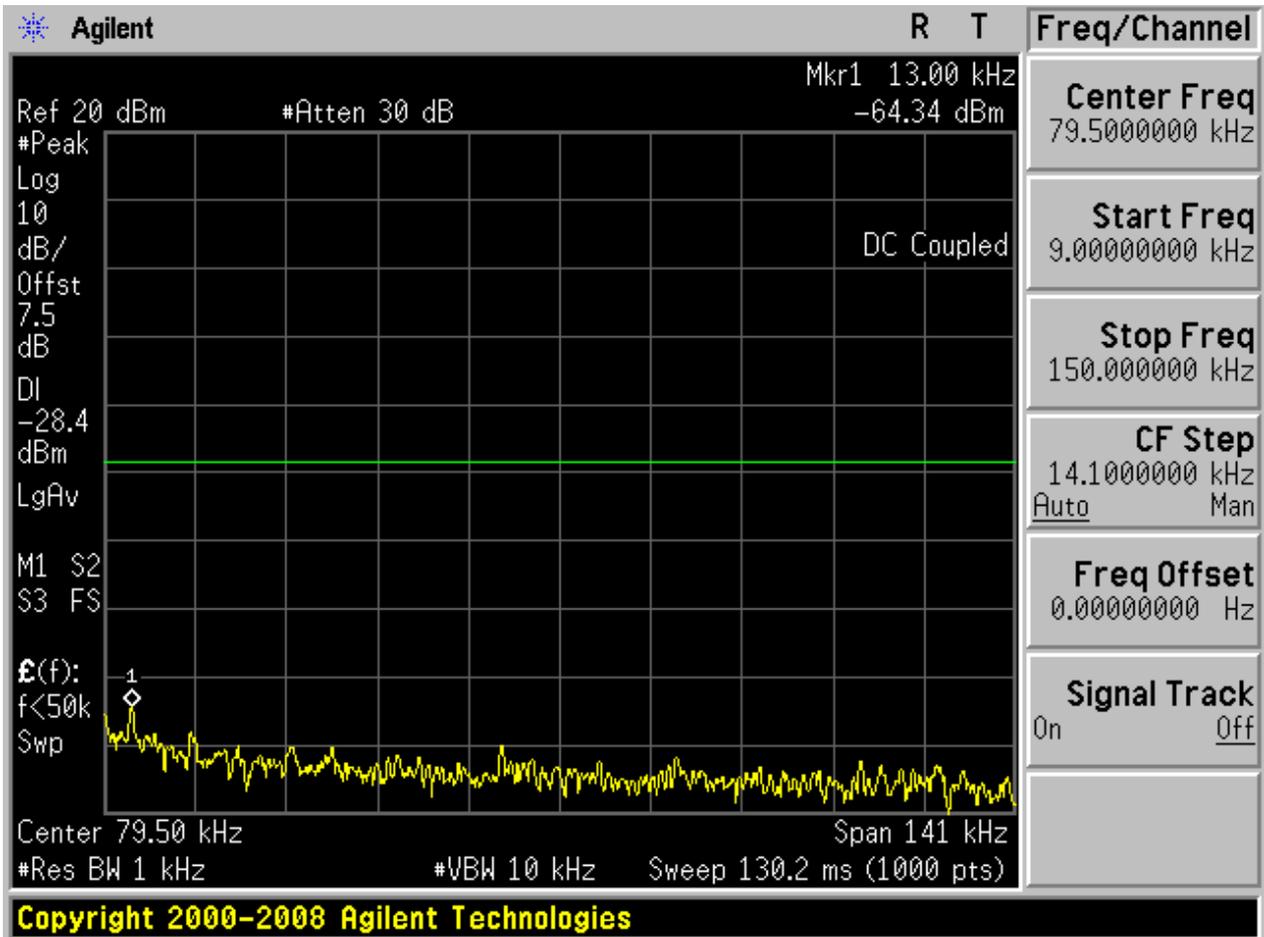


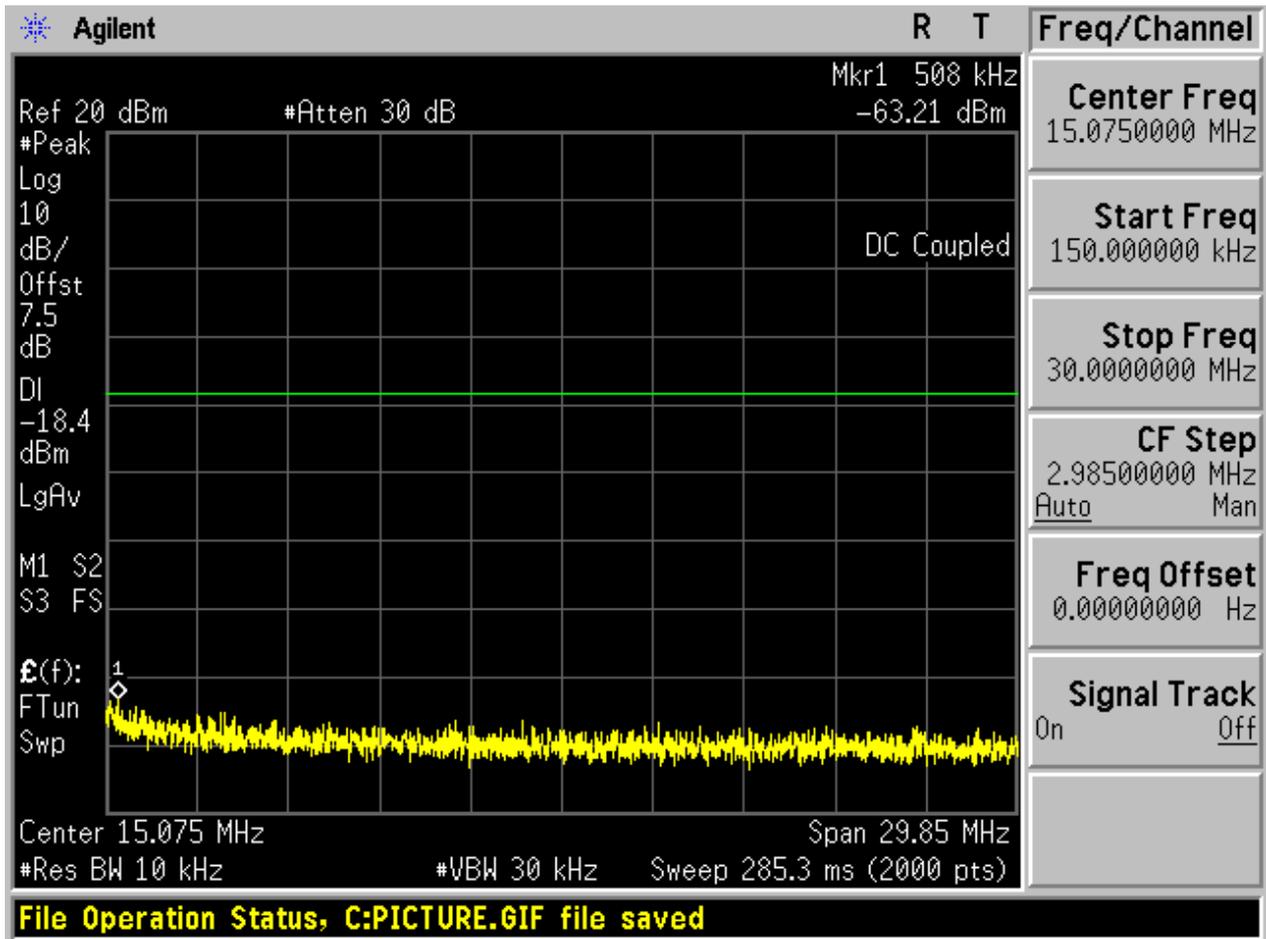
## 2.2 TM1\_DH5\_Ch39

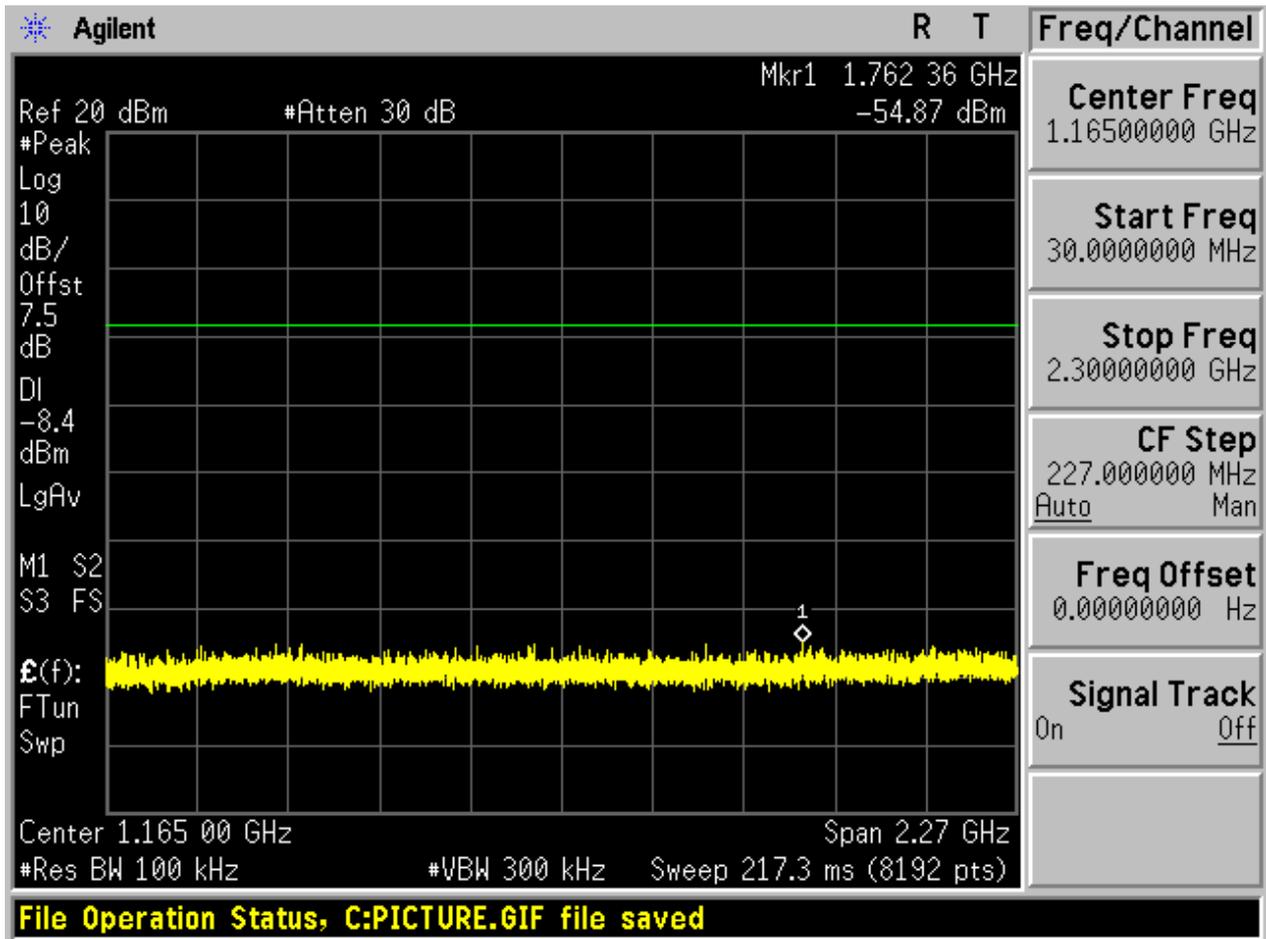
Pref

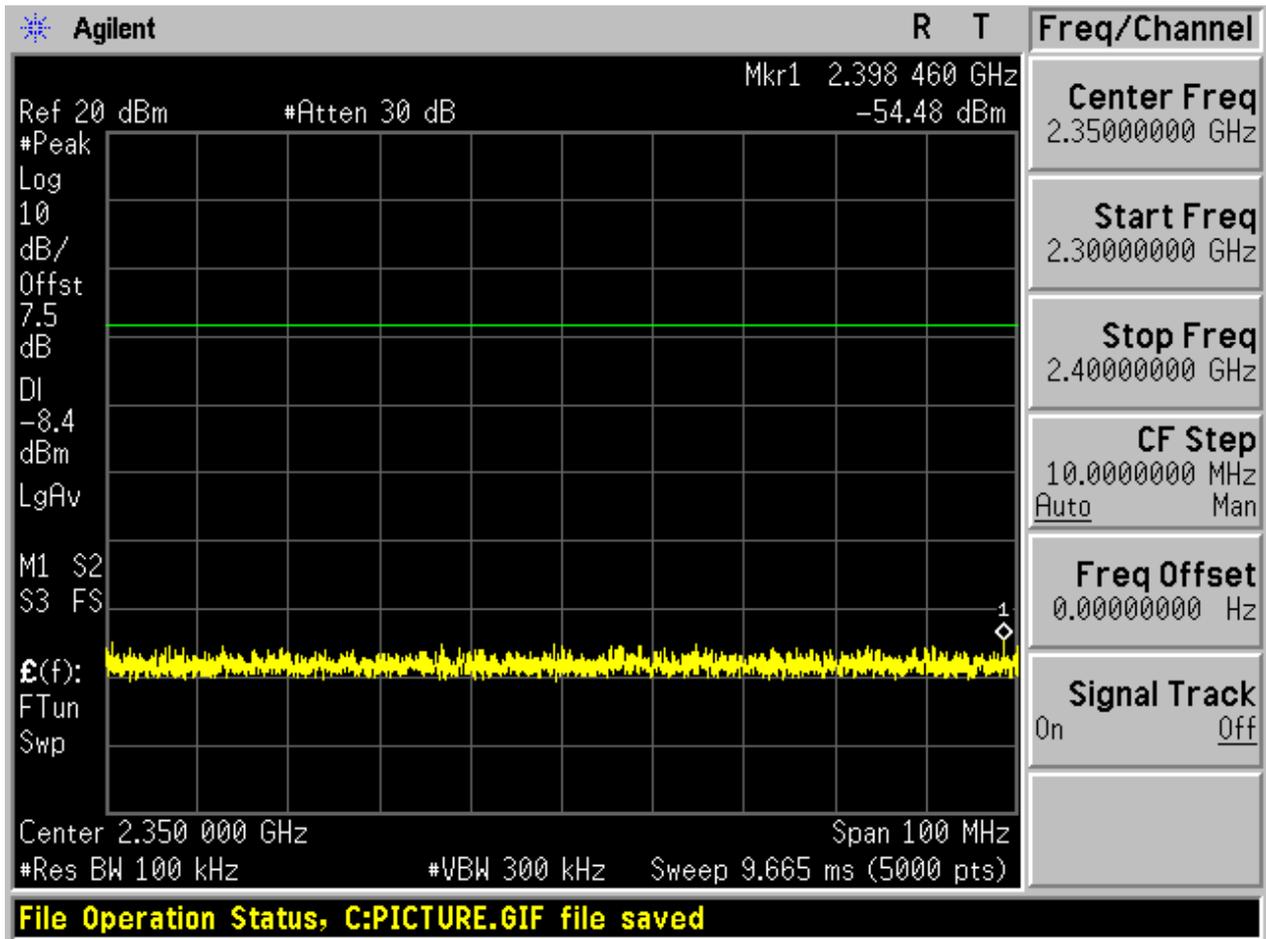


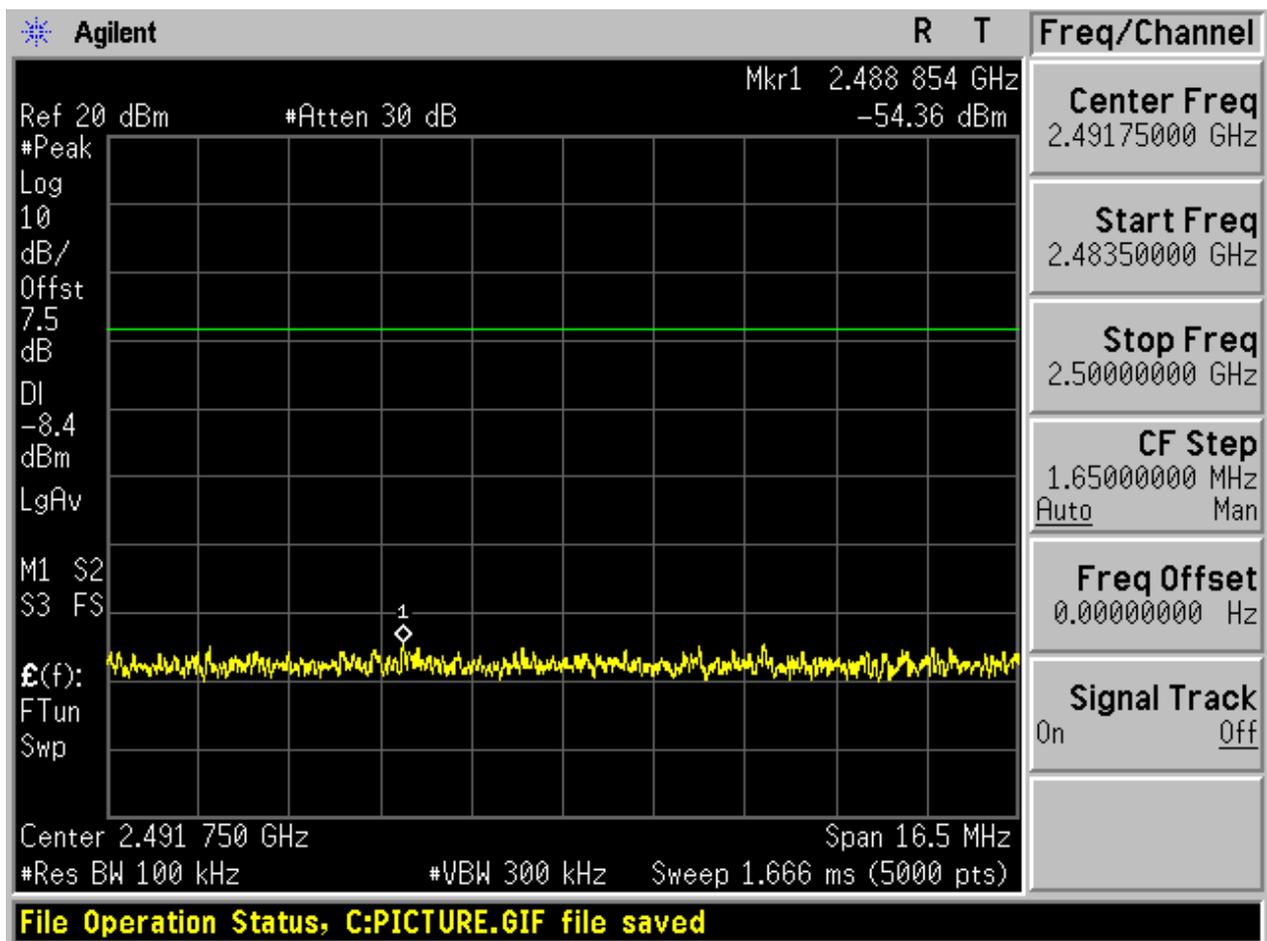
**P<sub>u</sub>w**

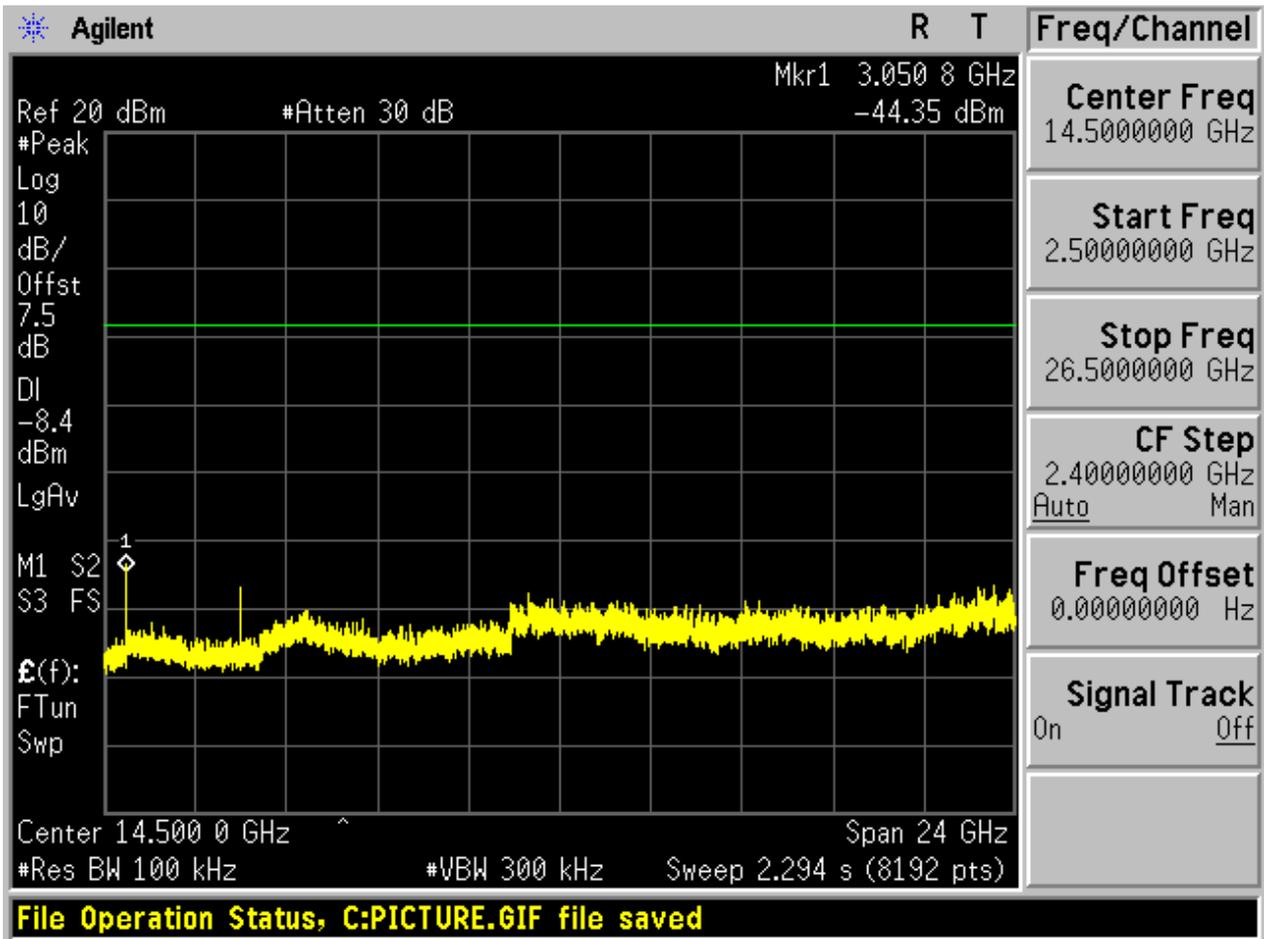






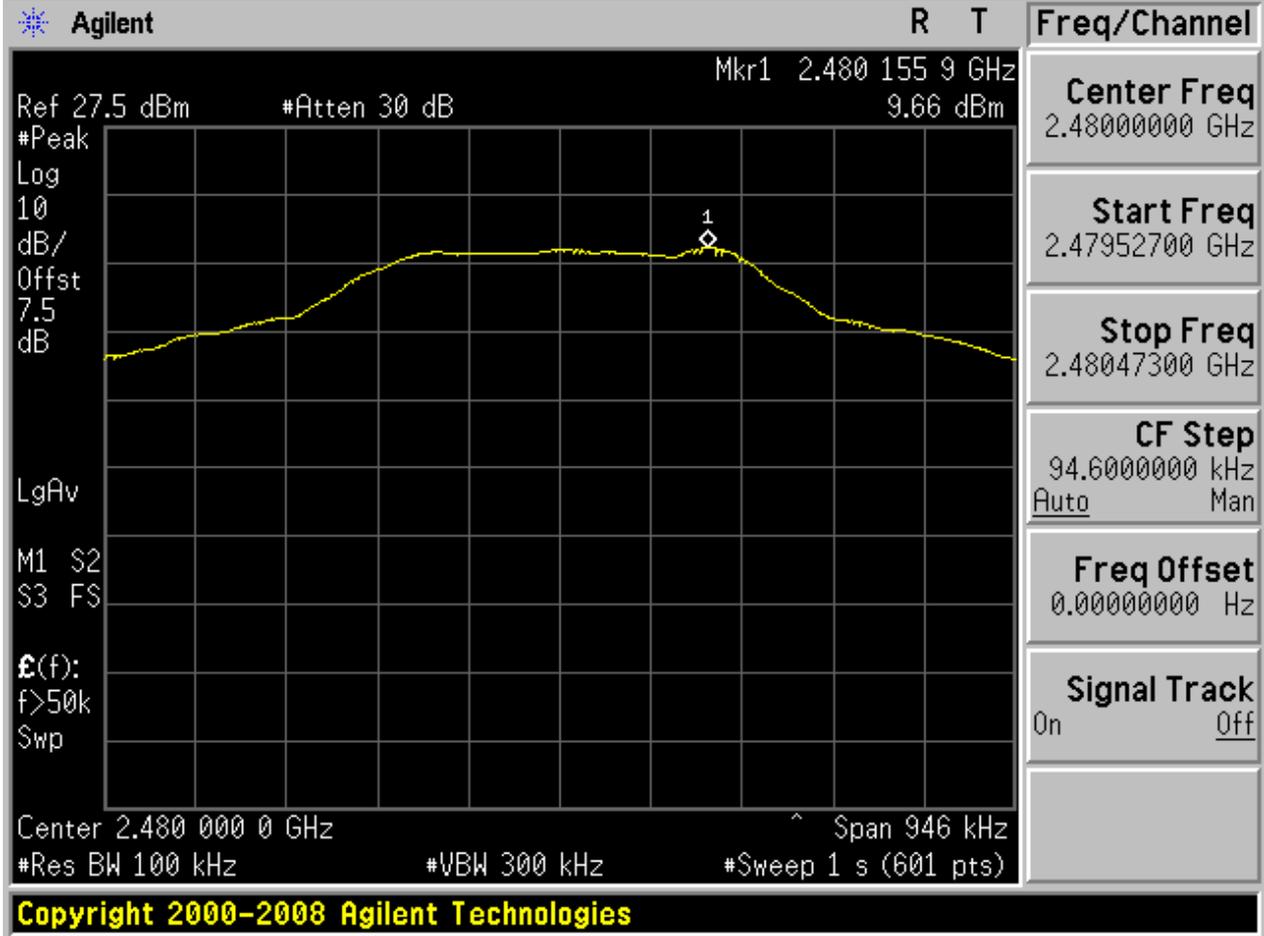




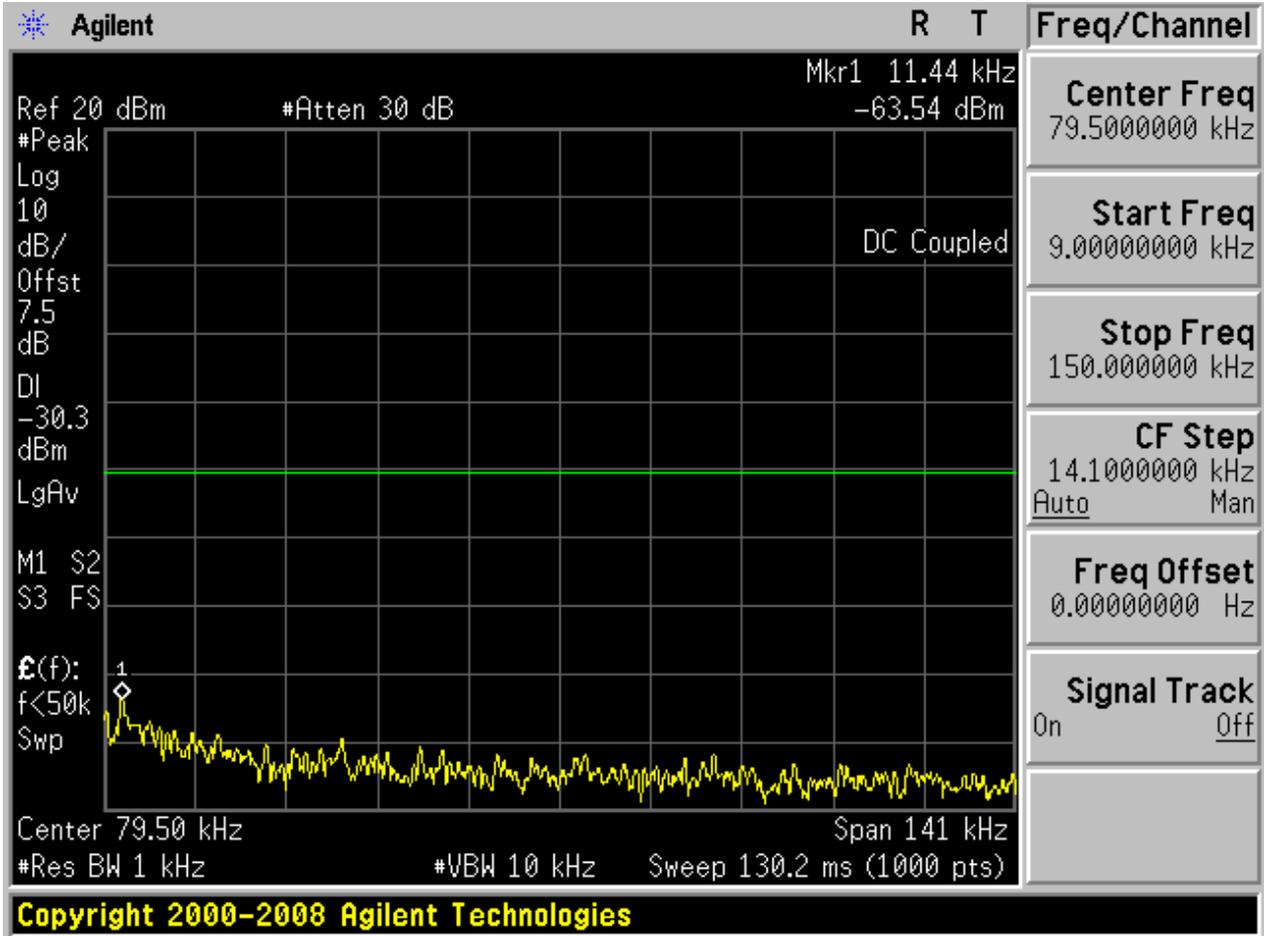


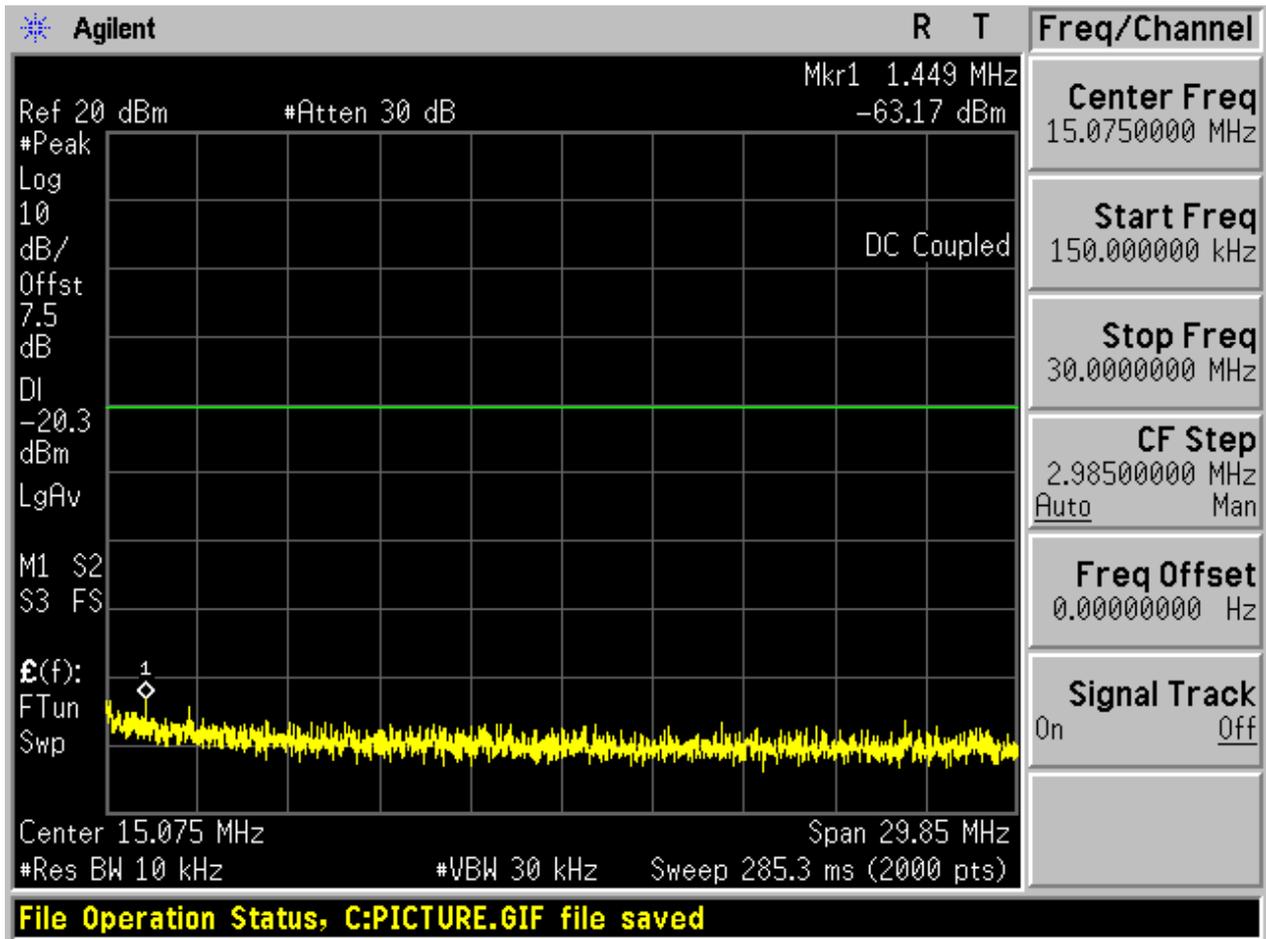
### 2.3 TM1\_DH5\_Ch78

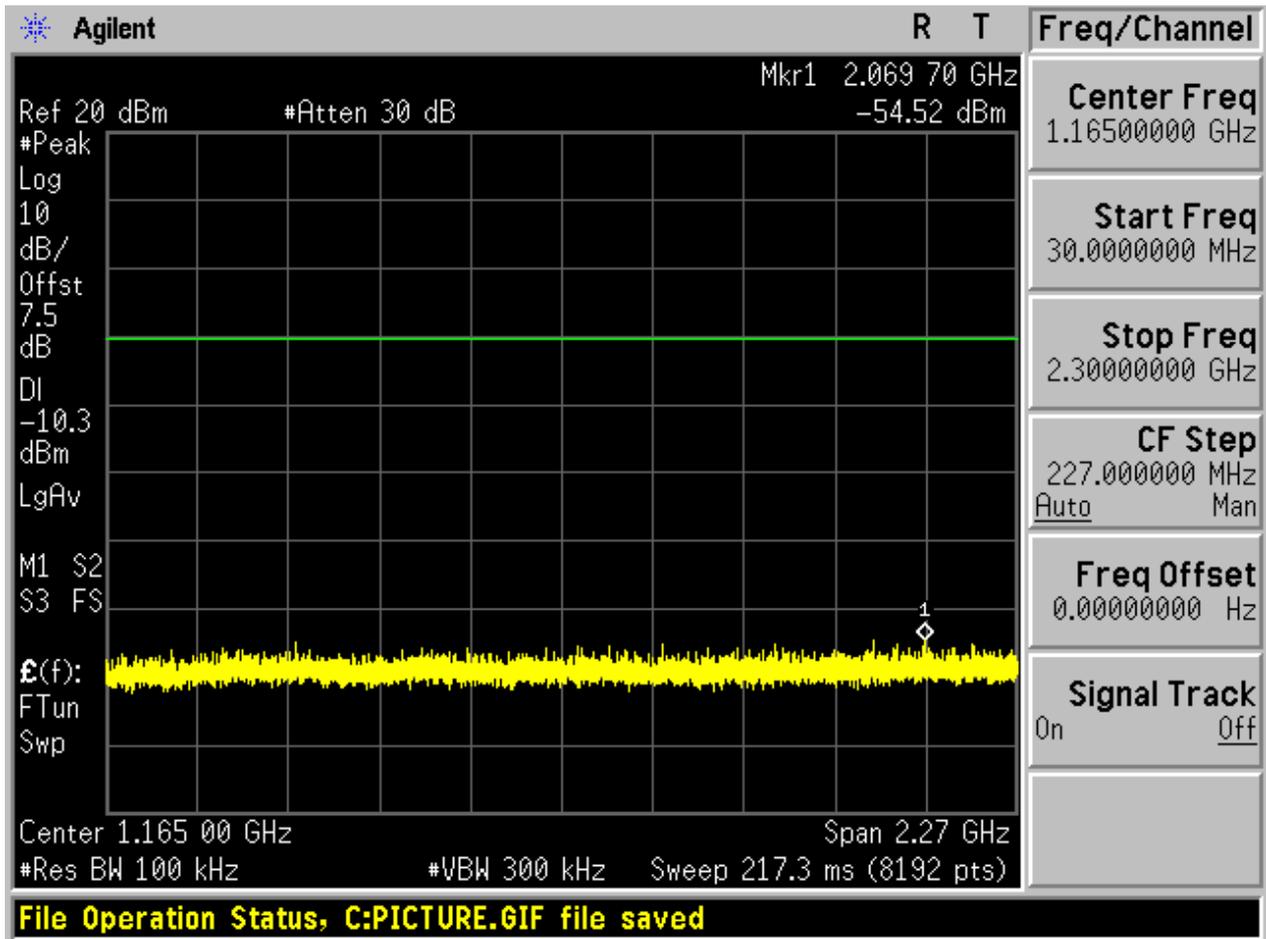
Pref

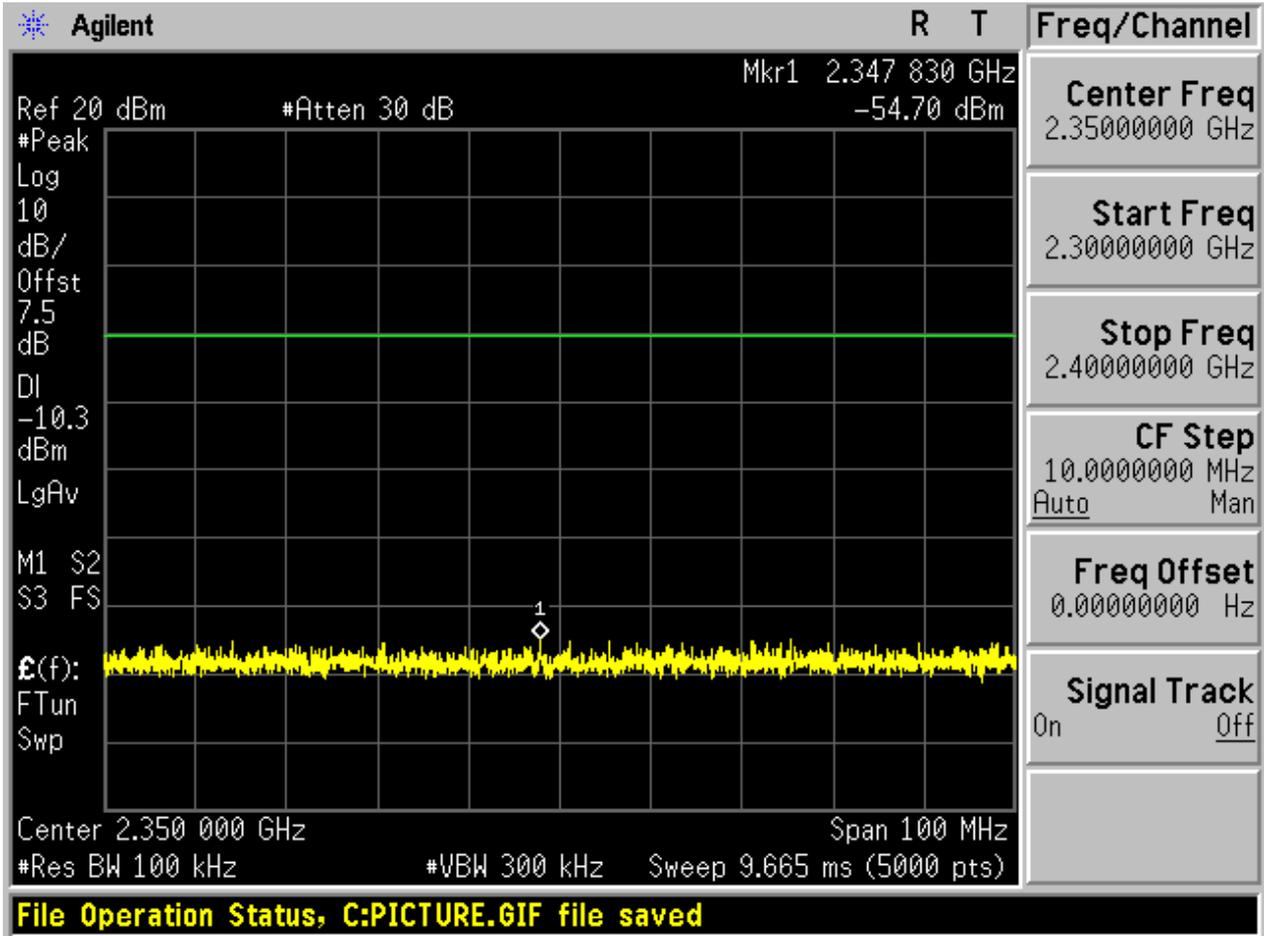


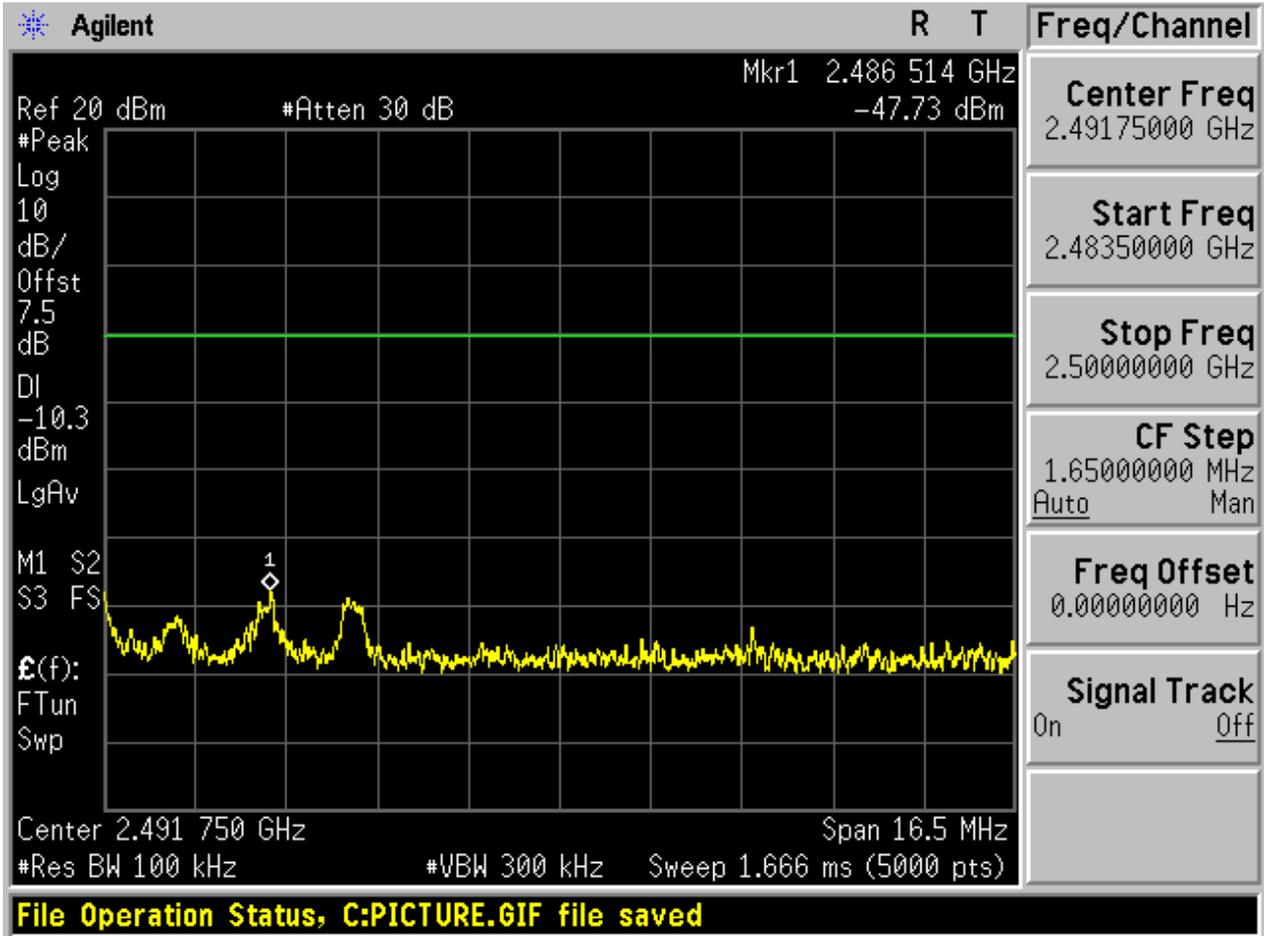
**Puw**

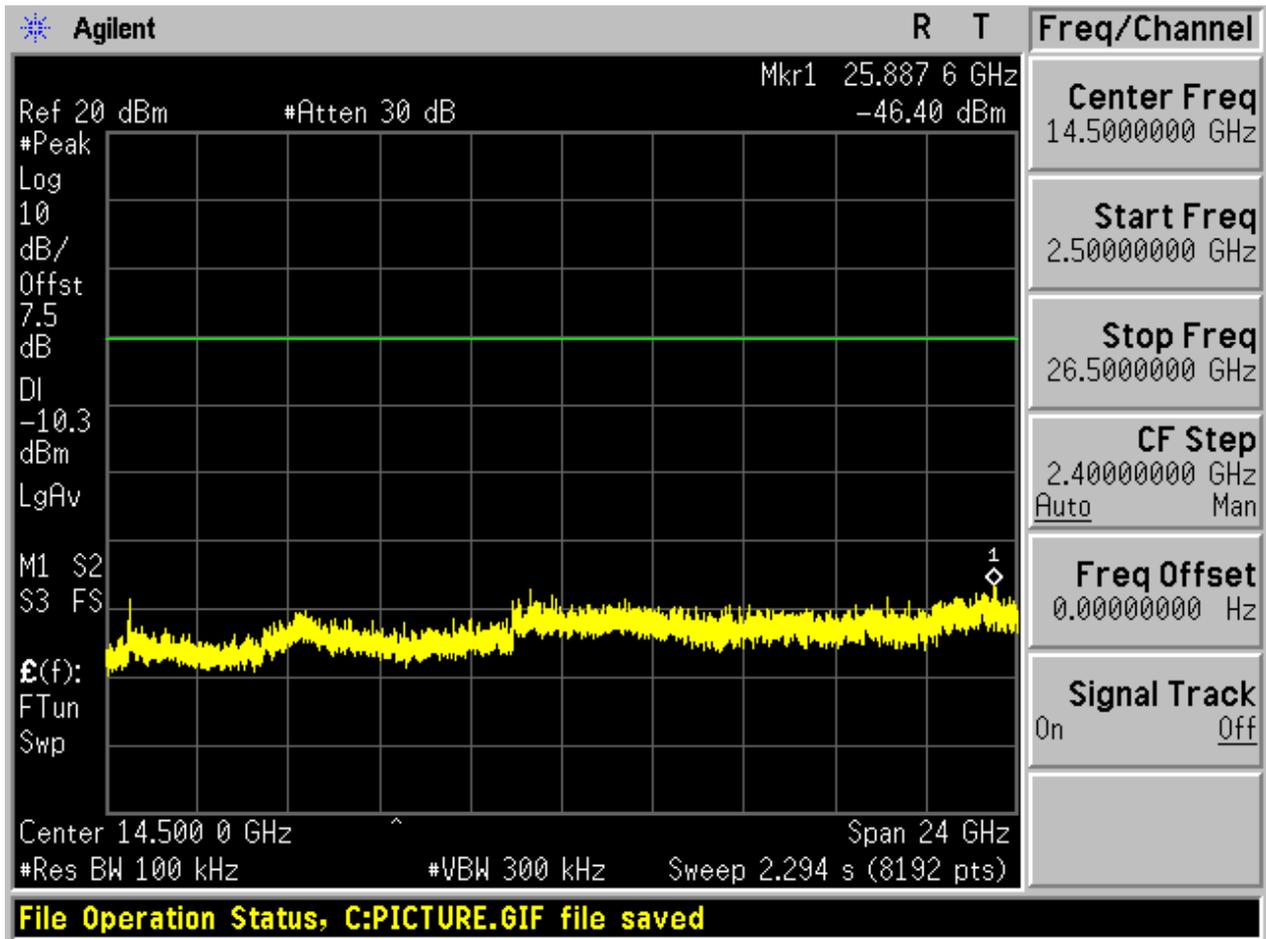








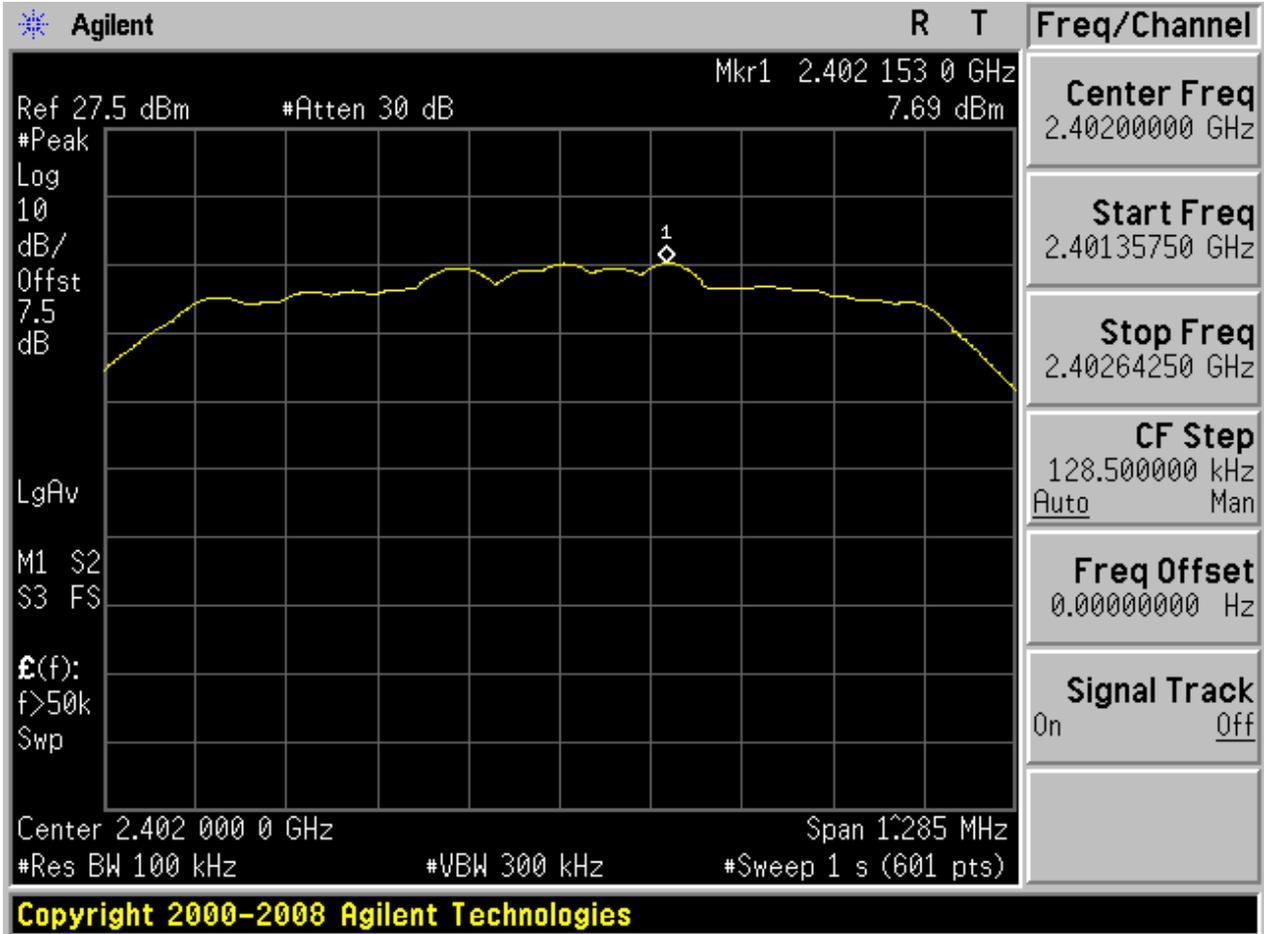




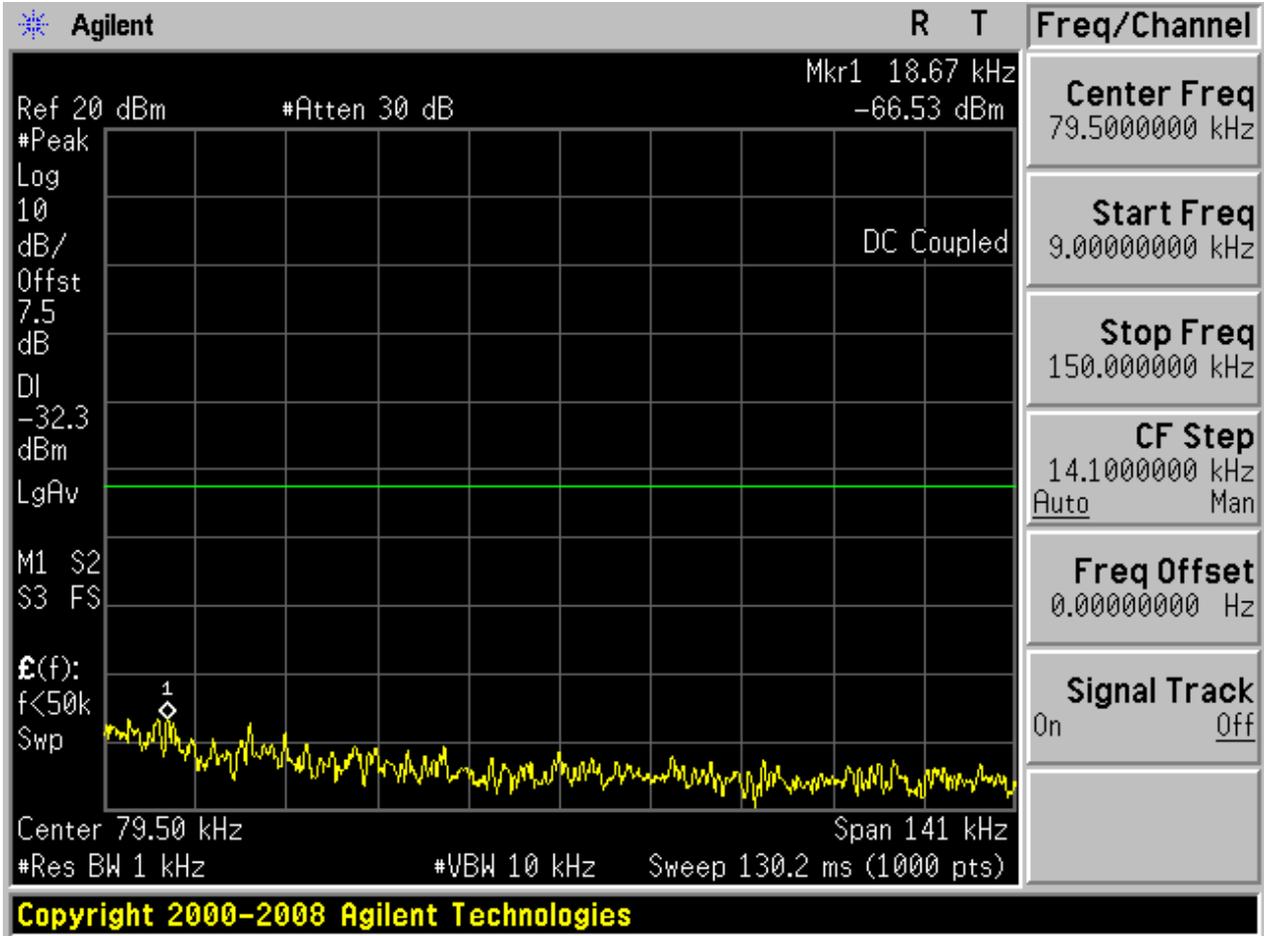


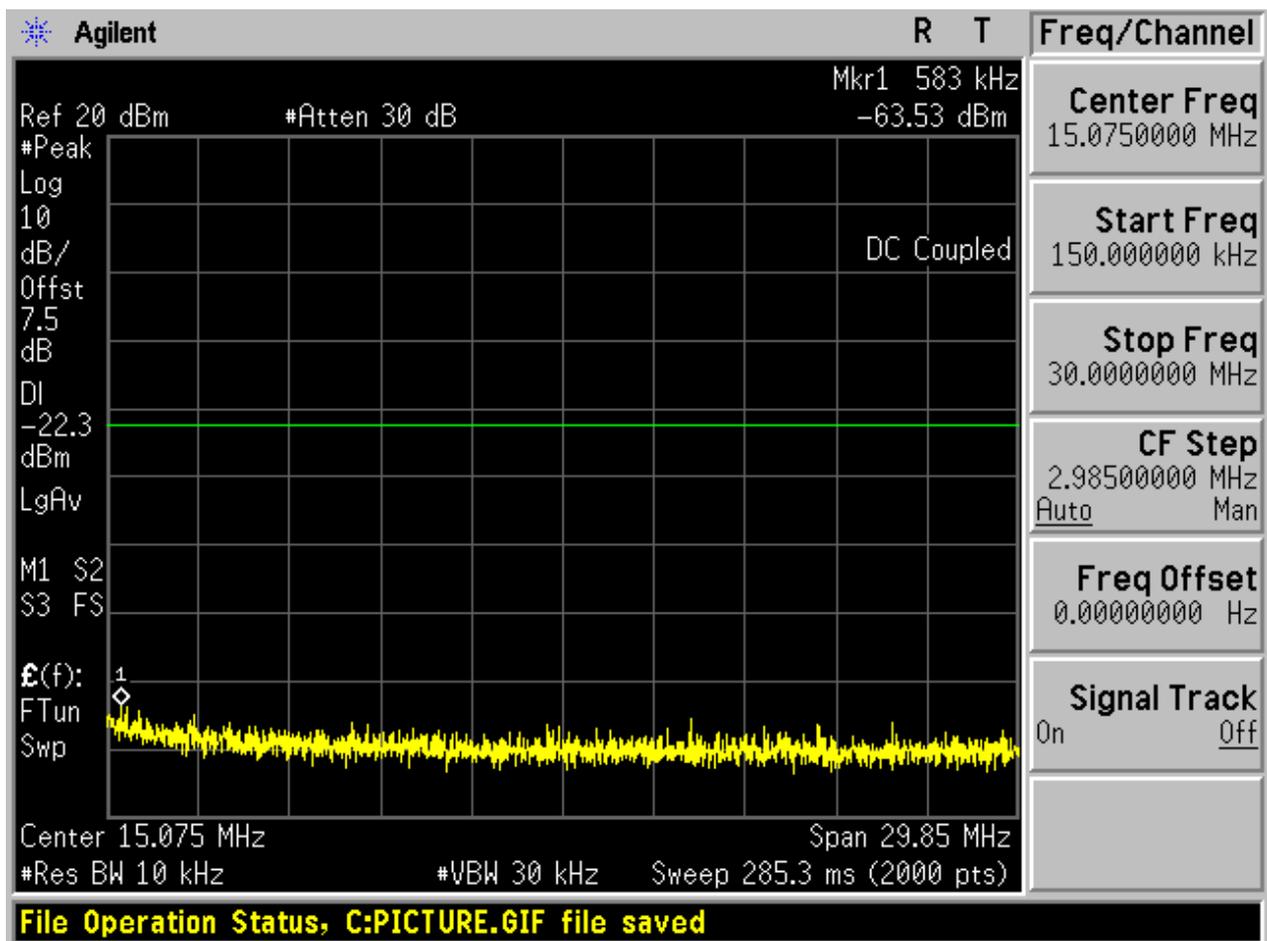
### 2.4 TM2\_2DH5\_Ch0

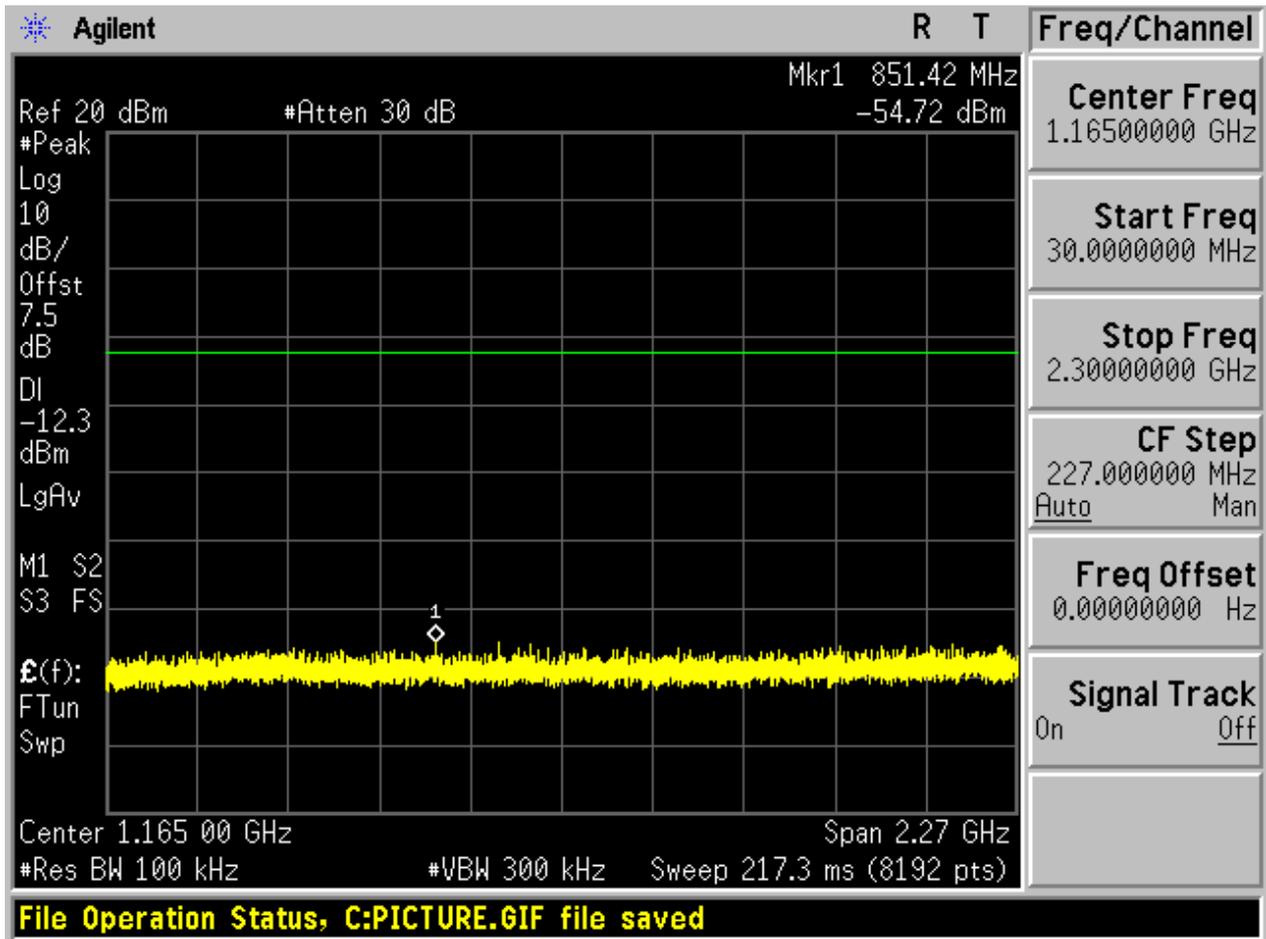
Pref

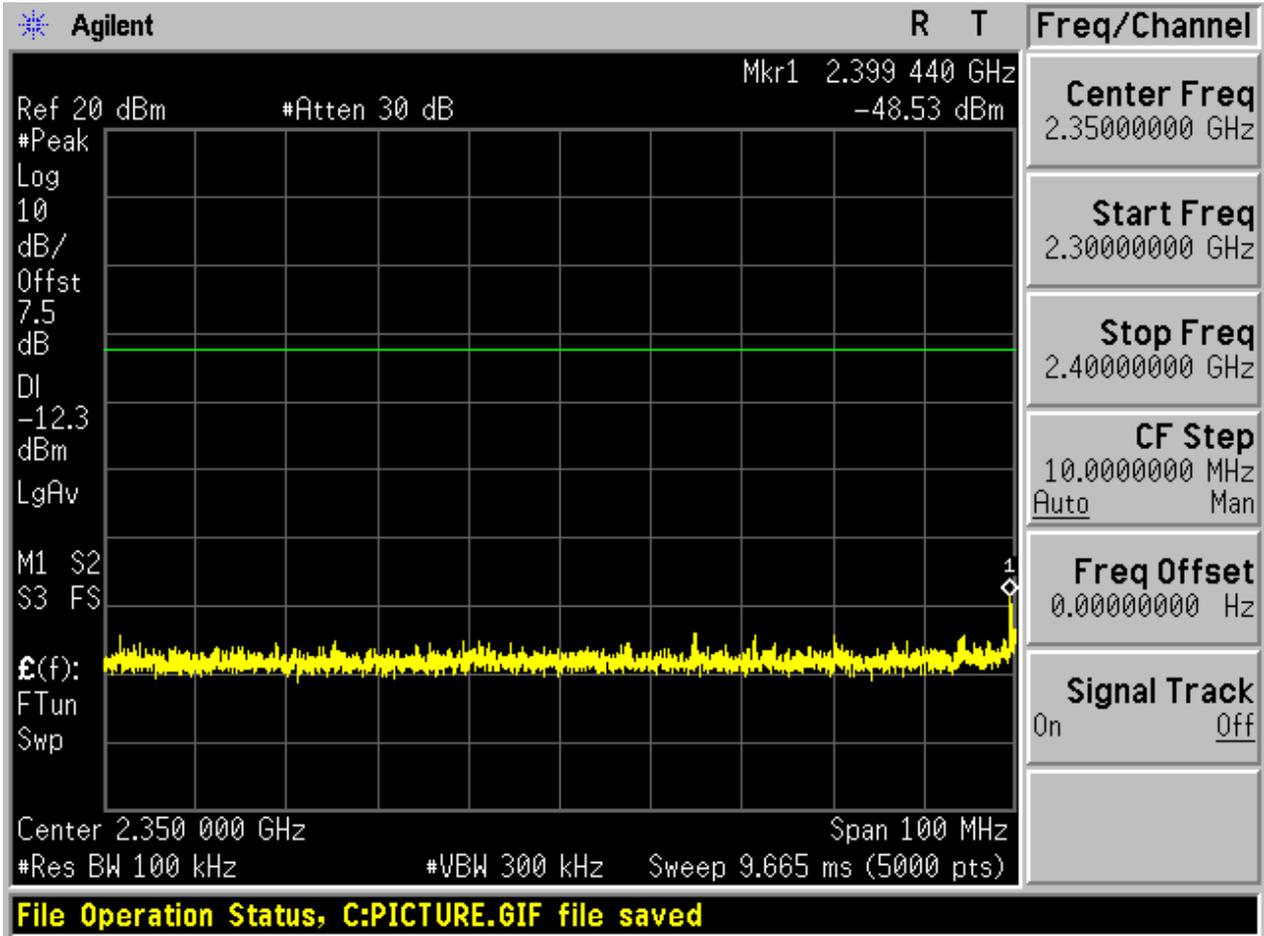


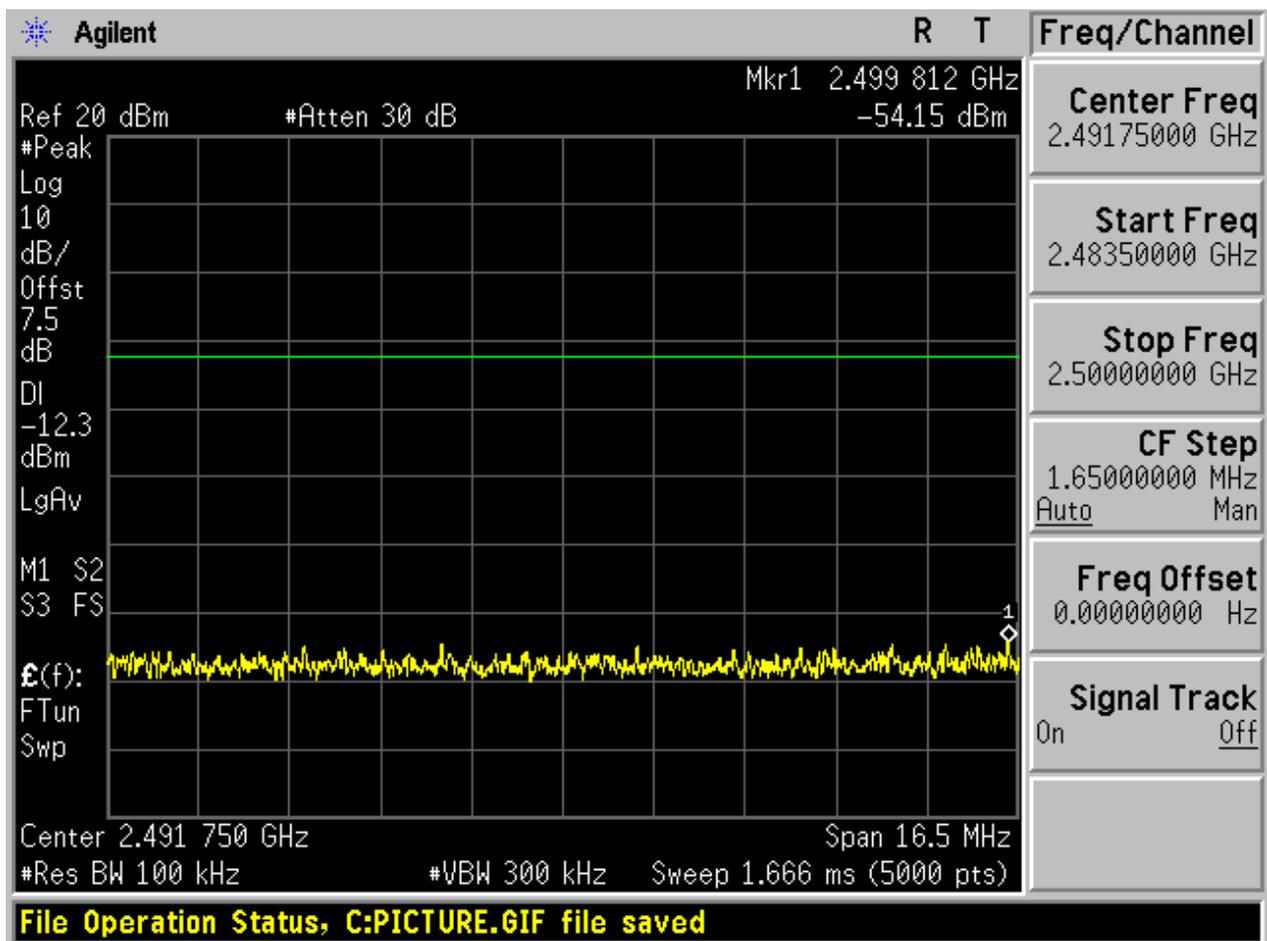
Puw

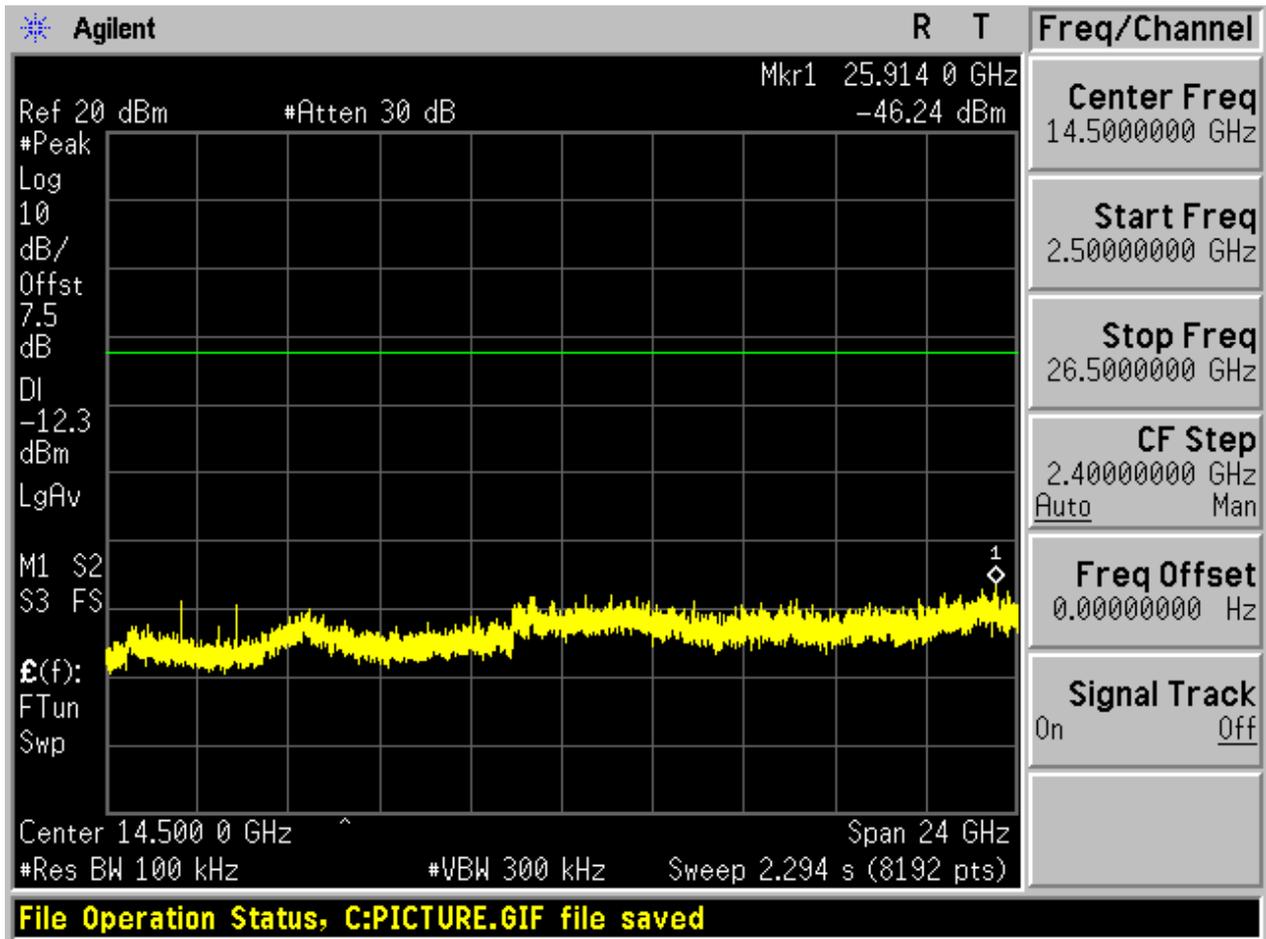








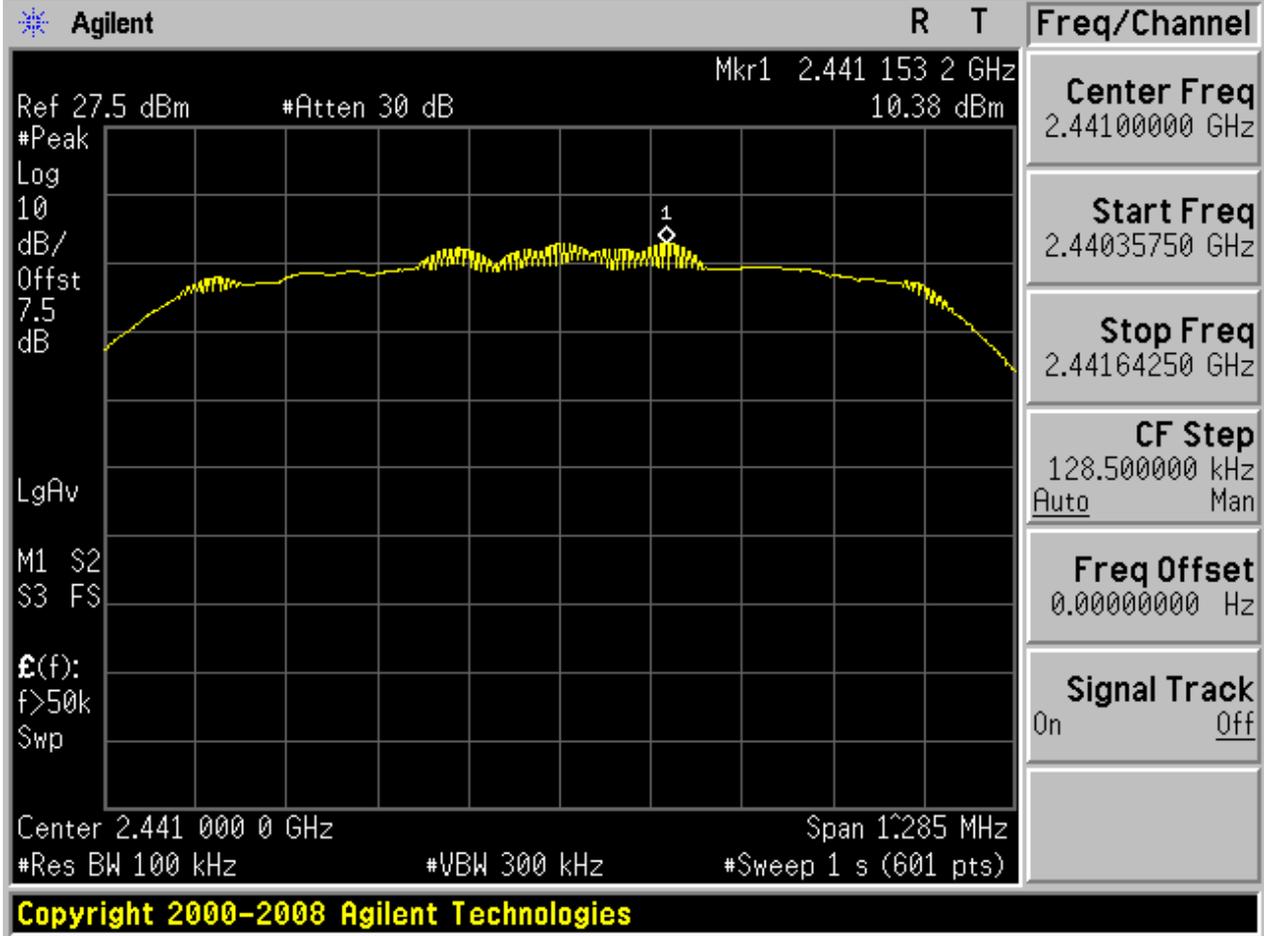




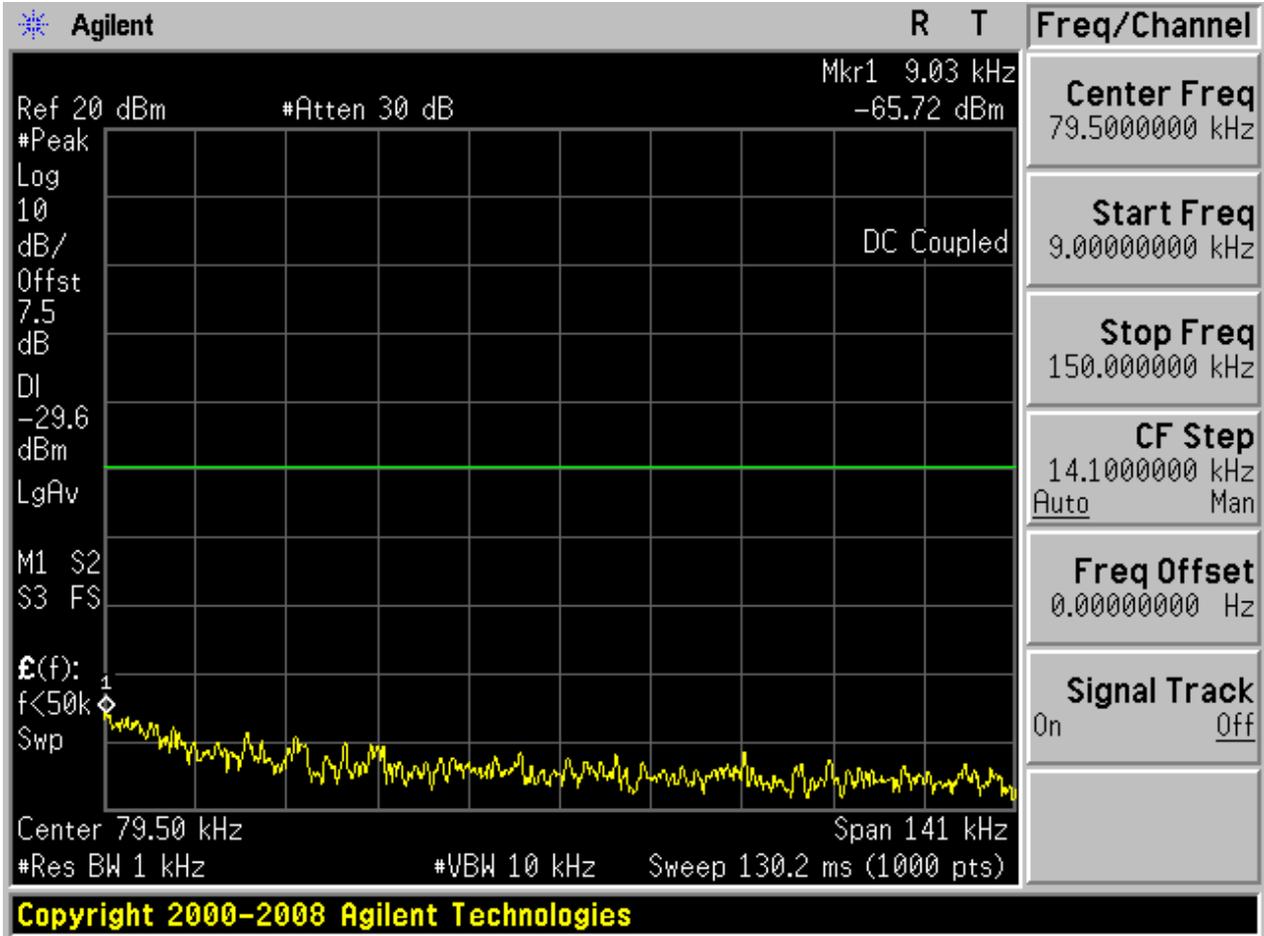


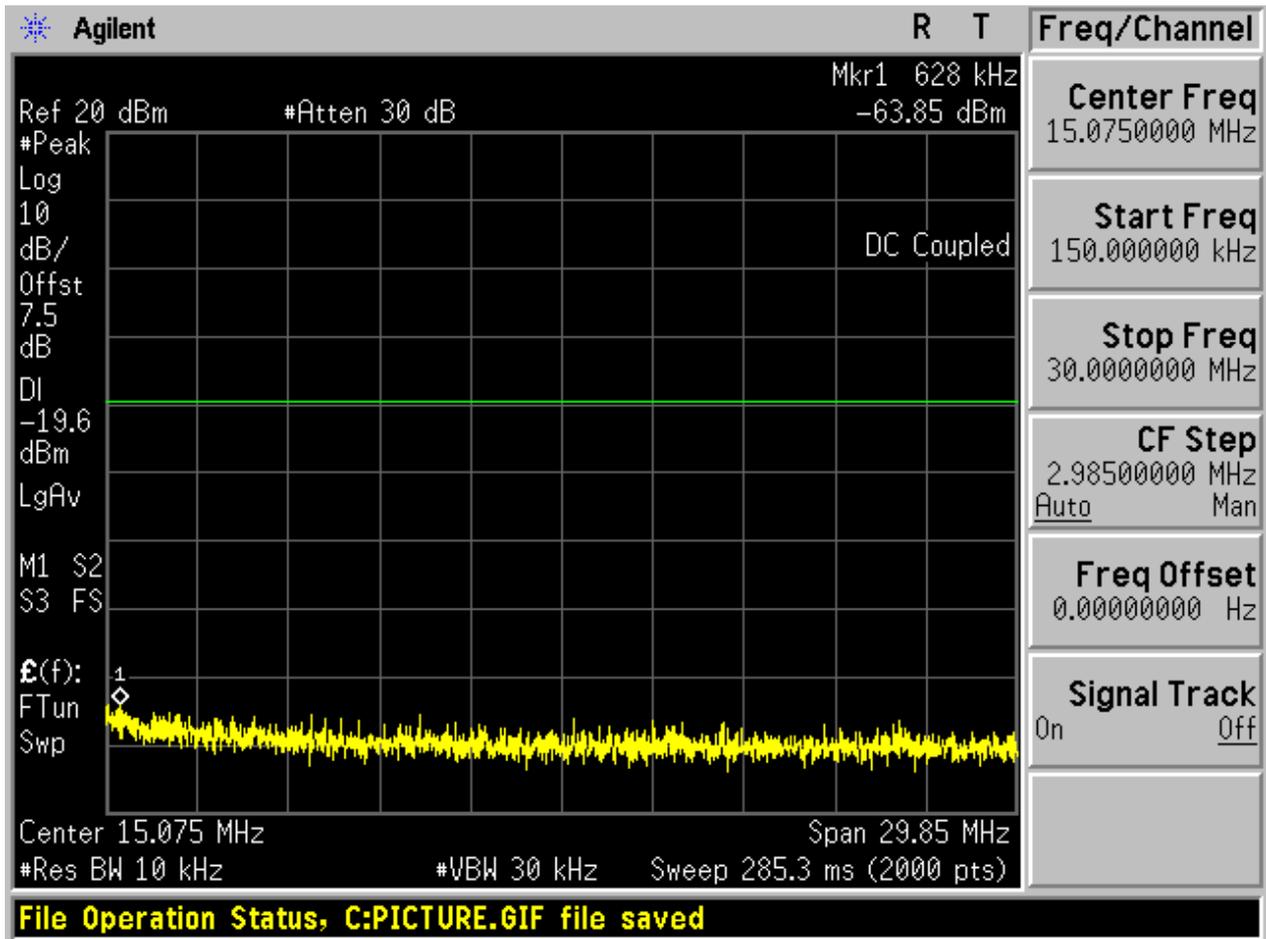
### 2.5 TM2\_2DH5\_Ch39

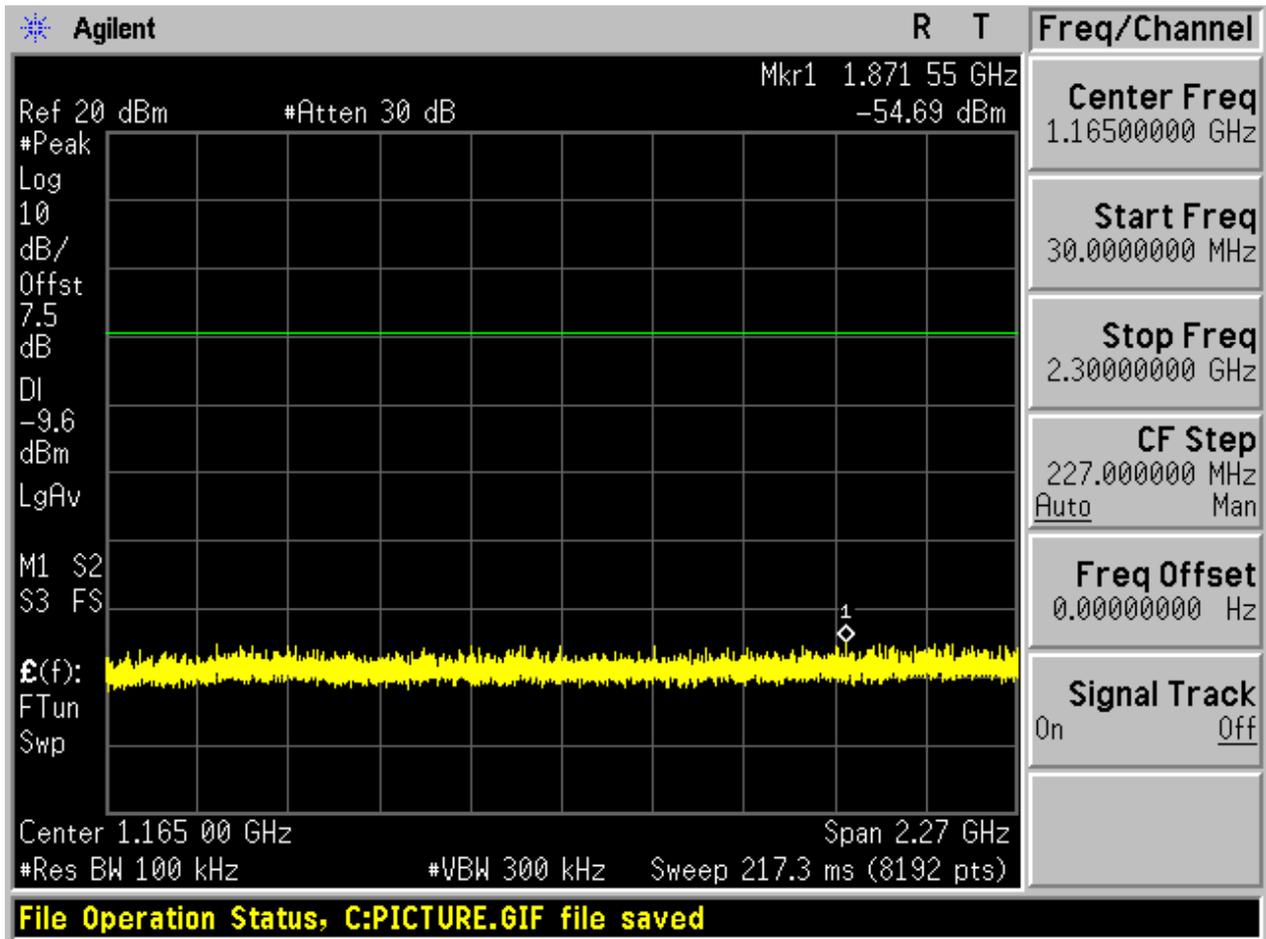
Pref

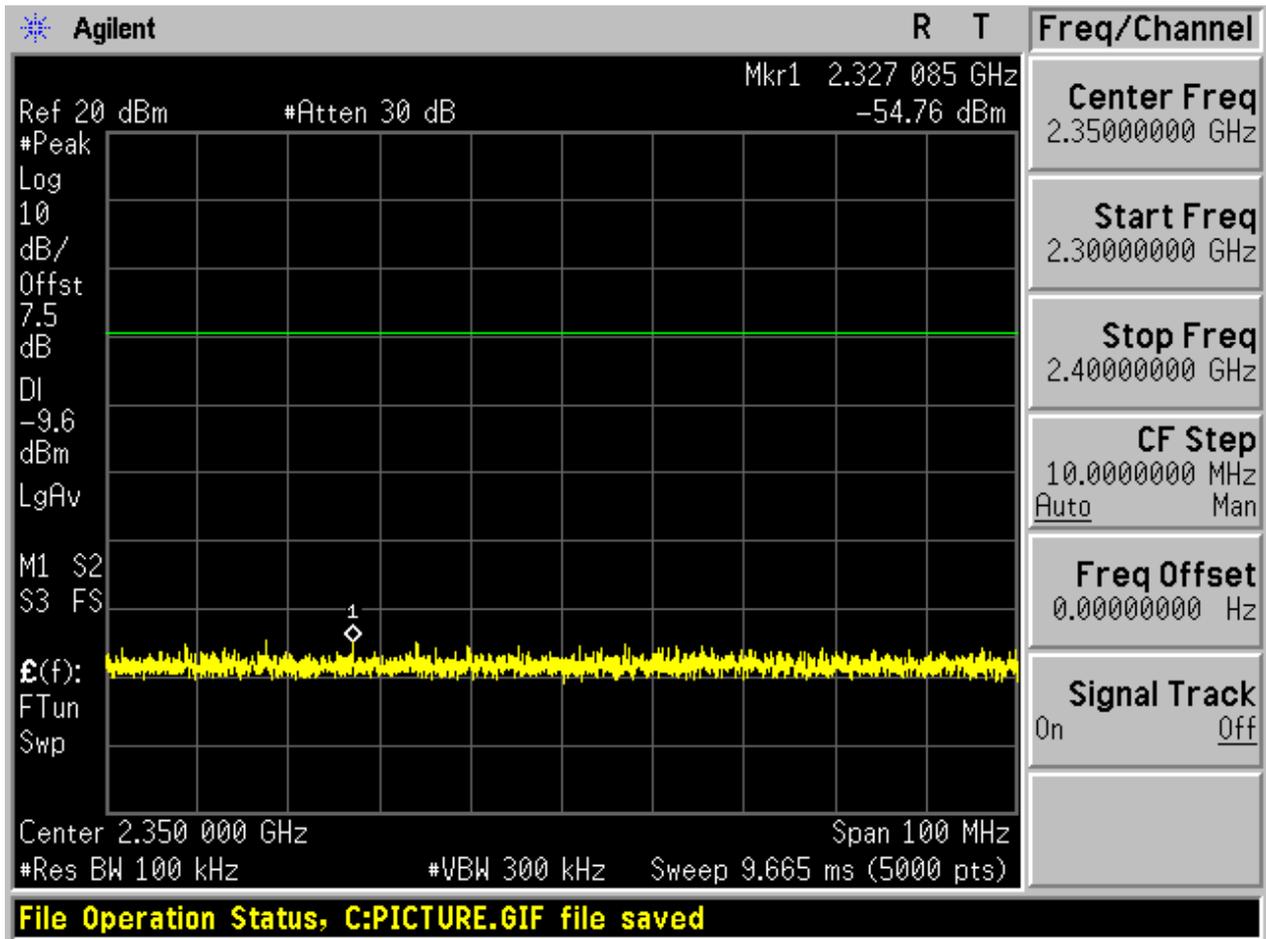


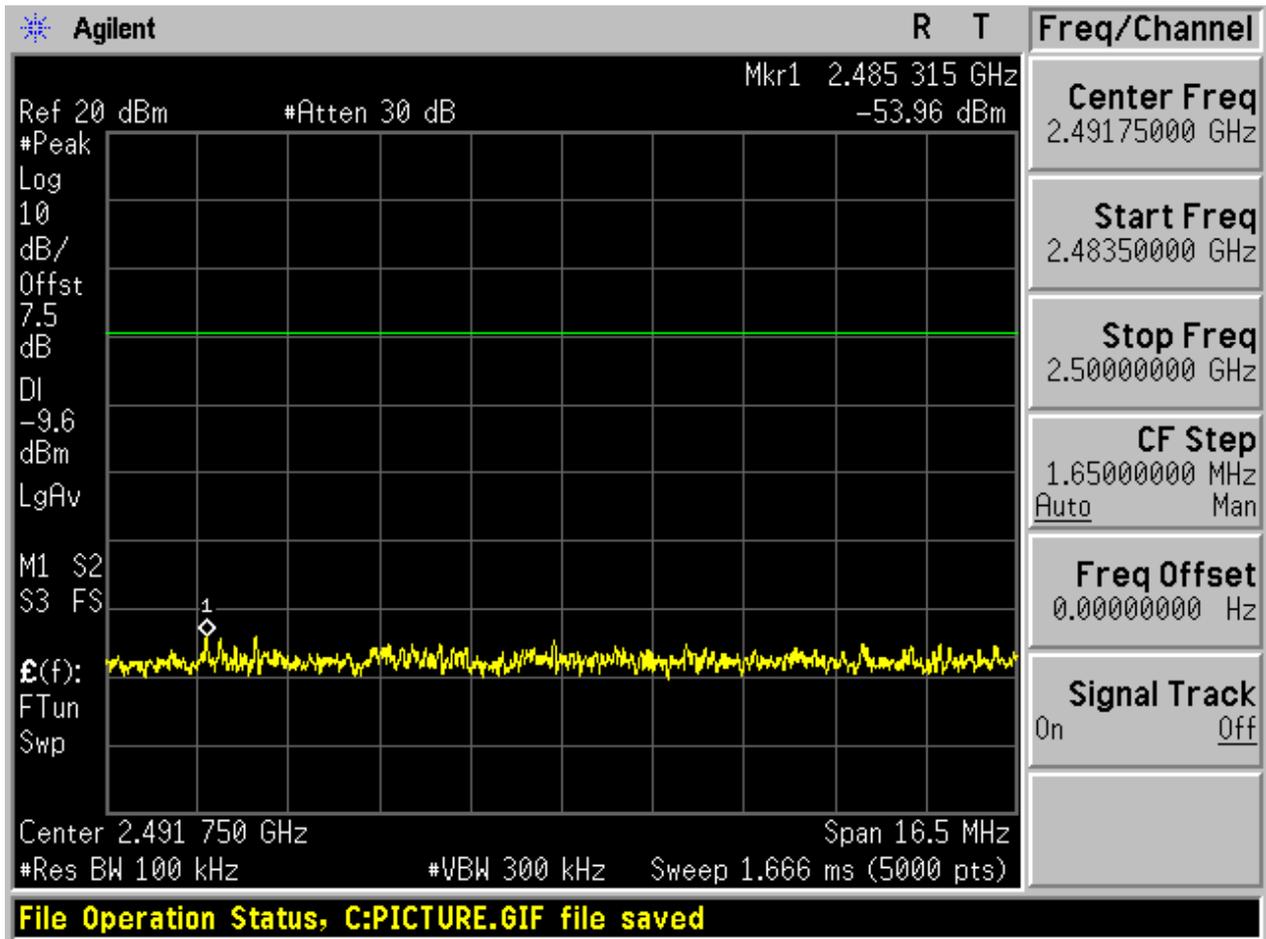
P<sub>uw</sub>

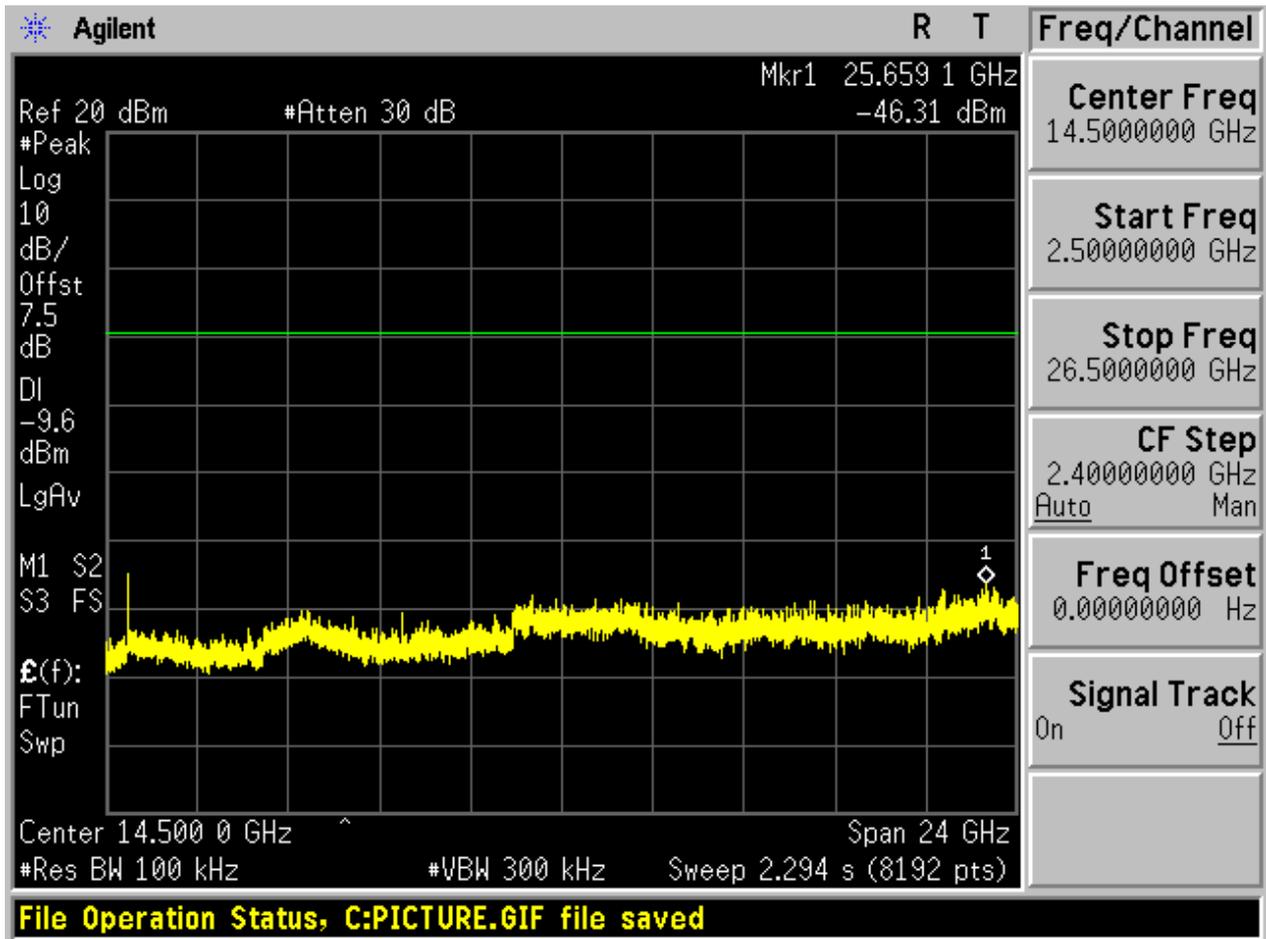






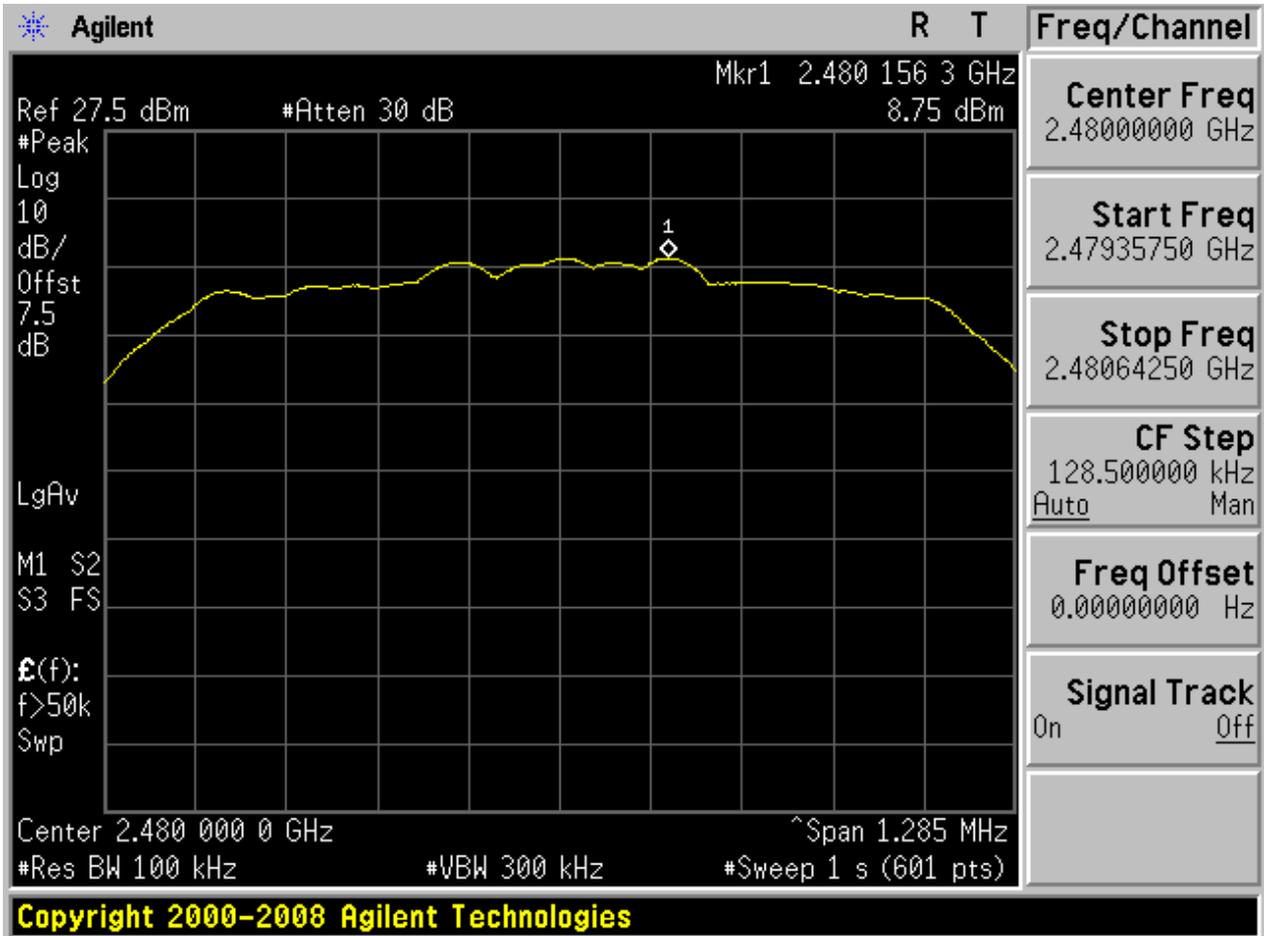




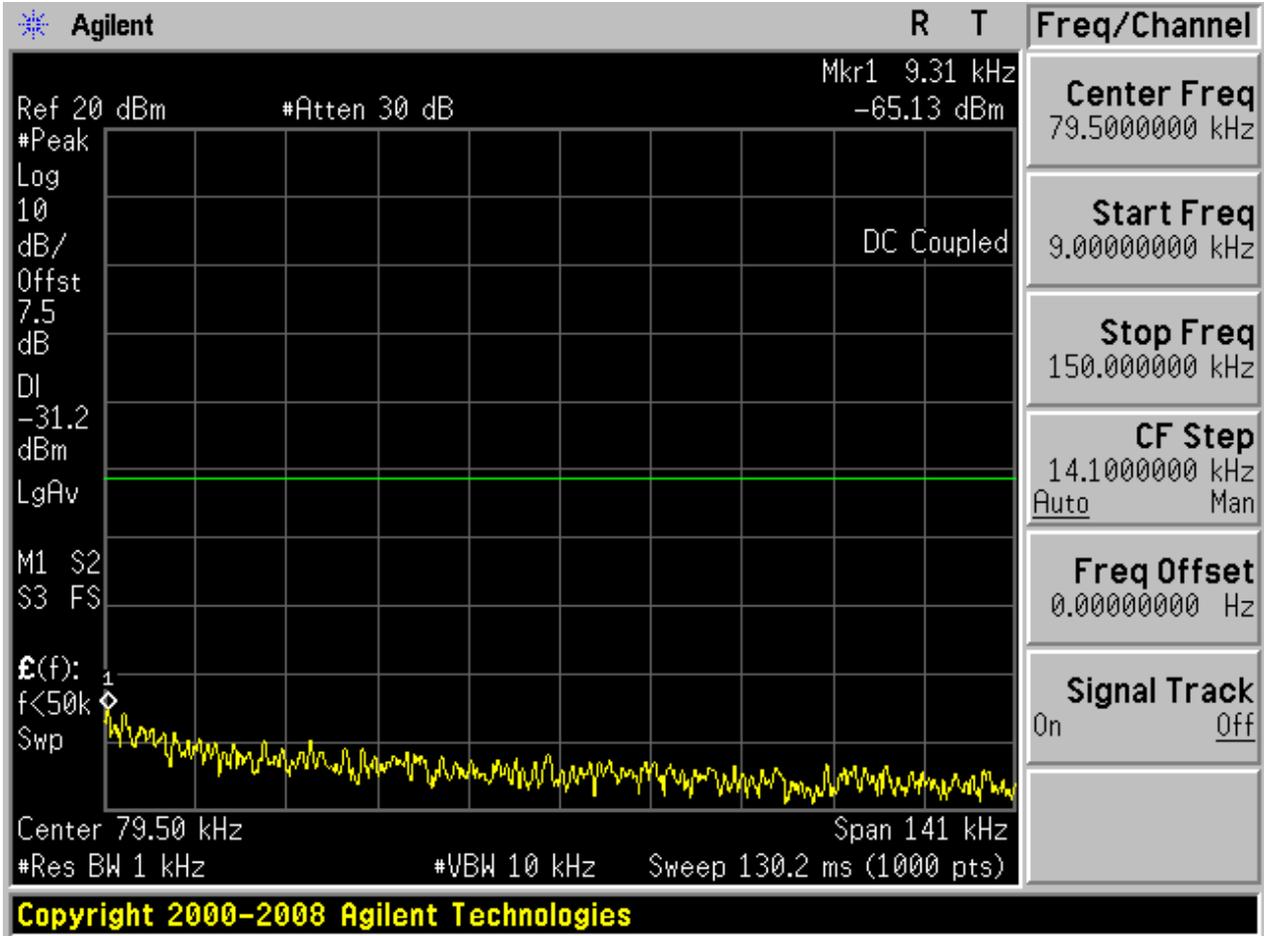


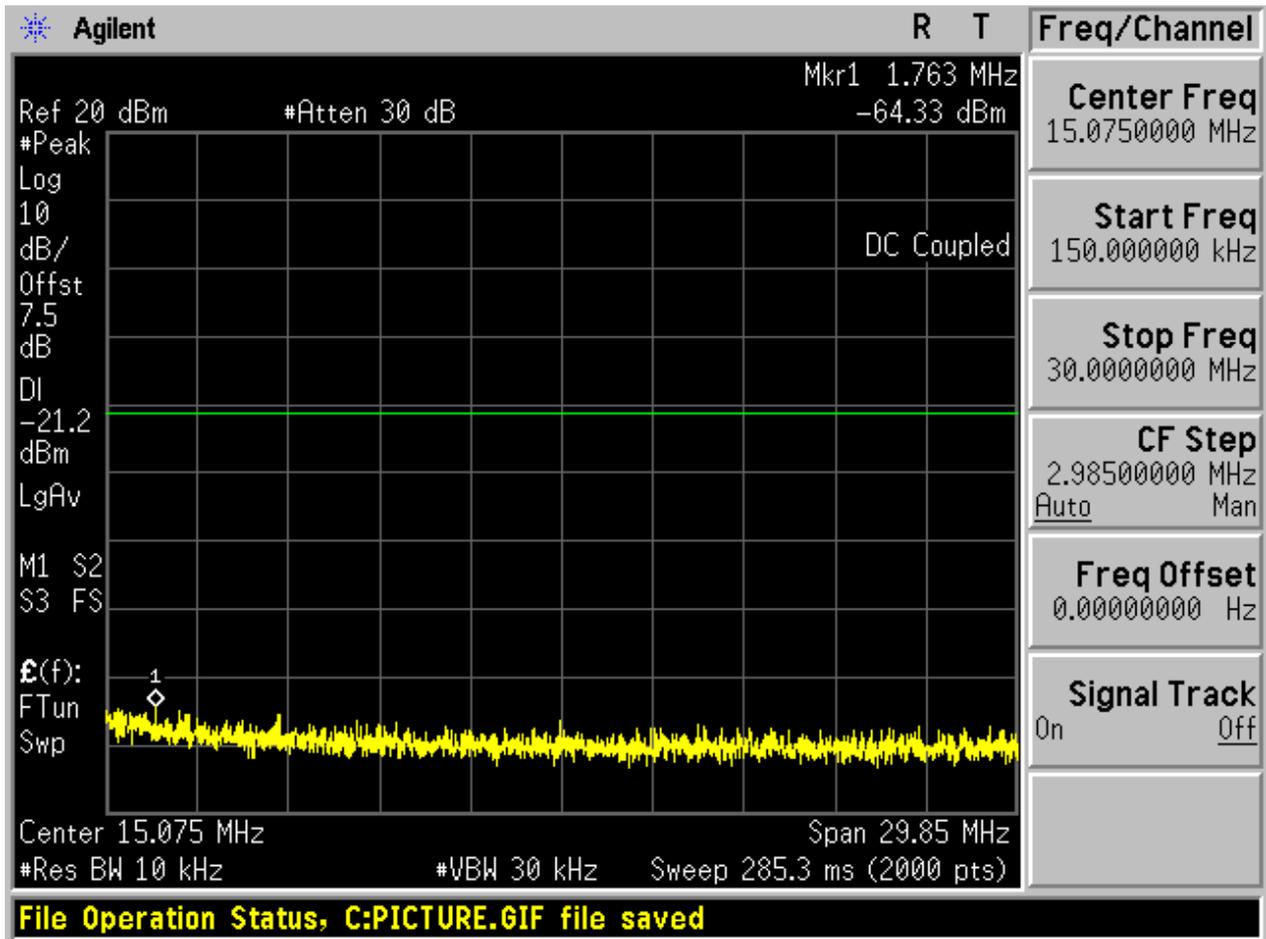
## 2.6 TM2\_2DH5\_Ch78

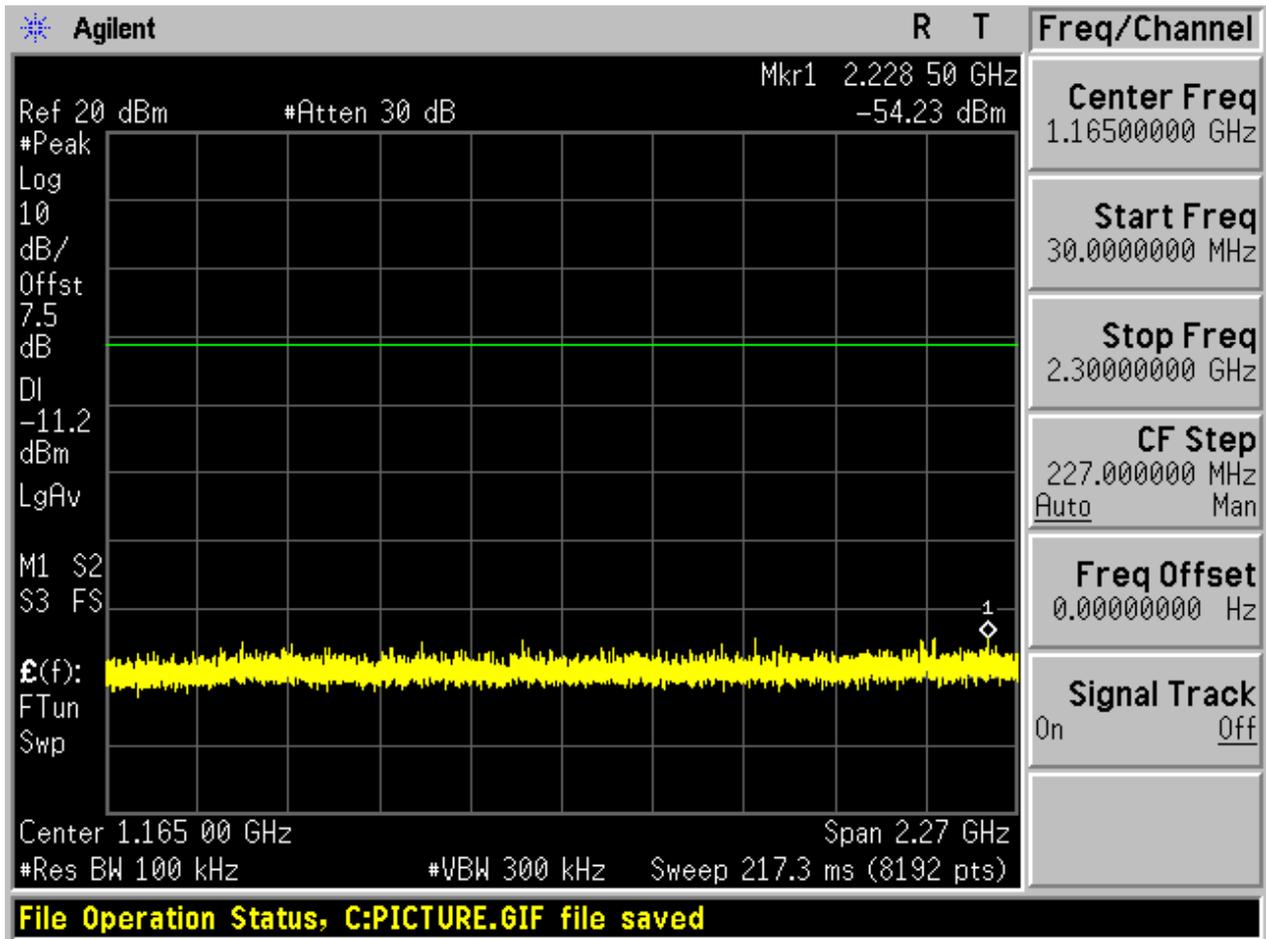
Pref

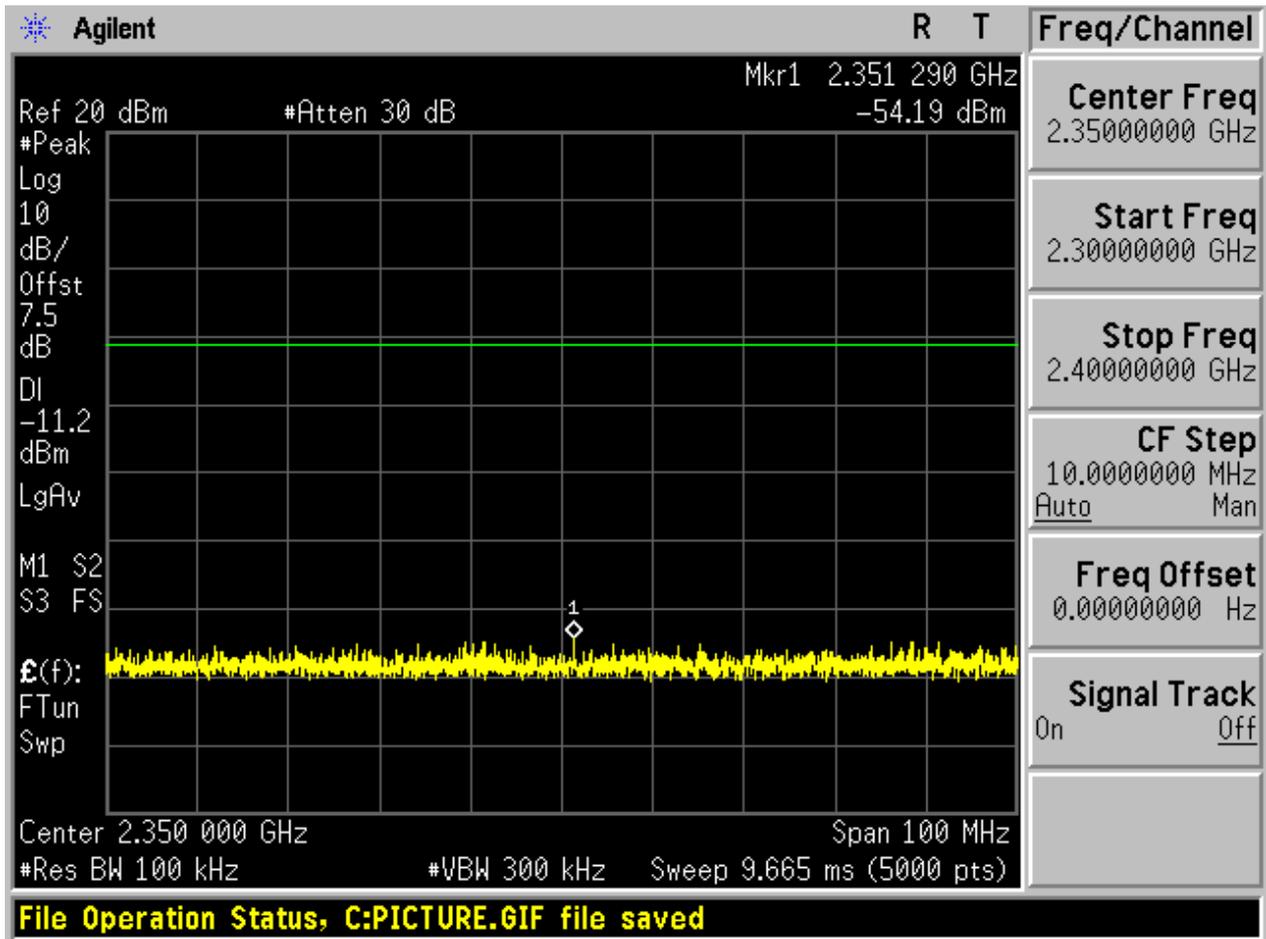


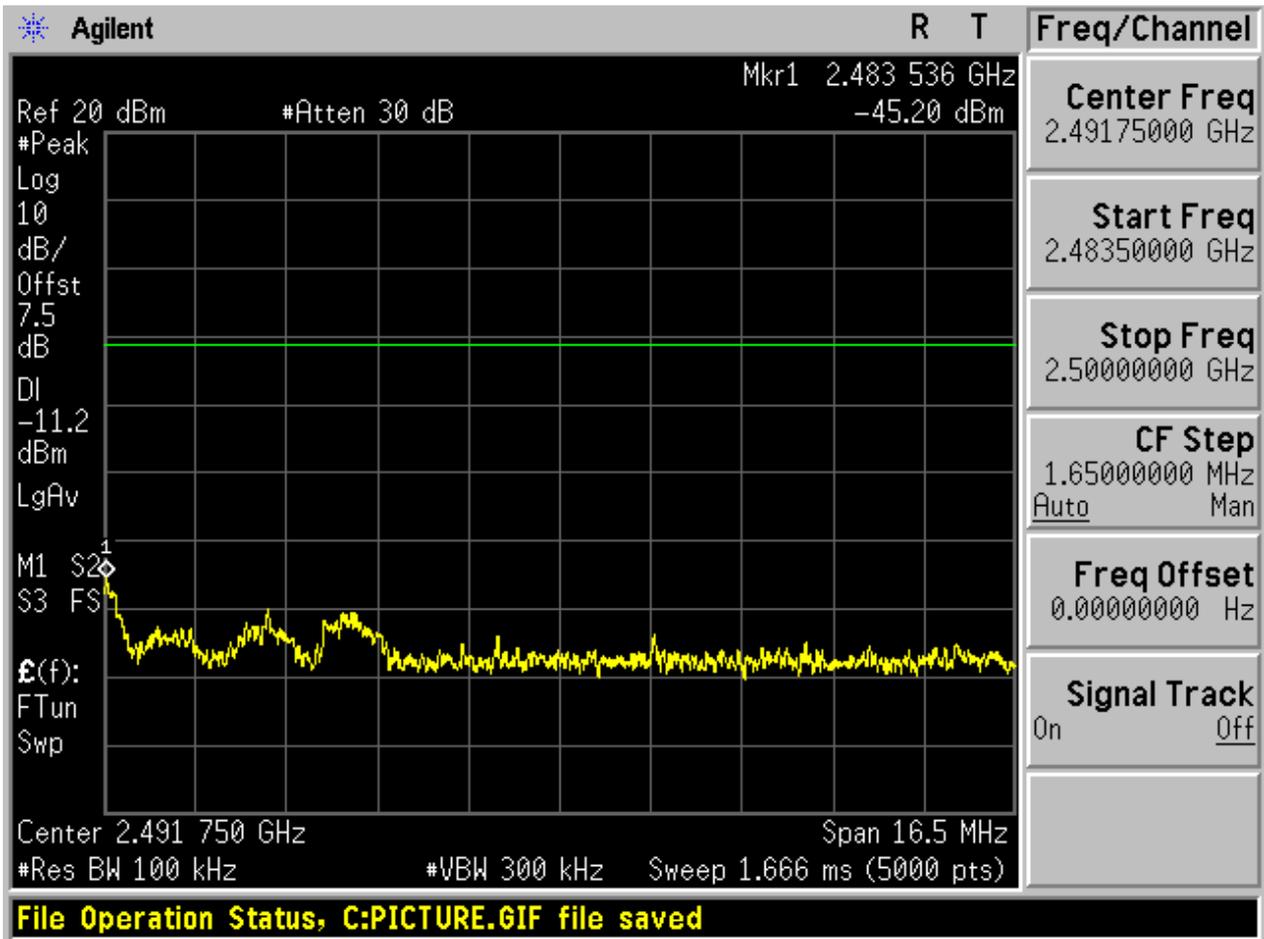
**Puw**

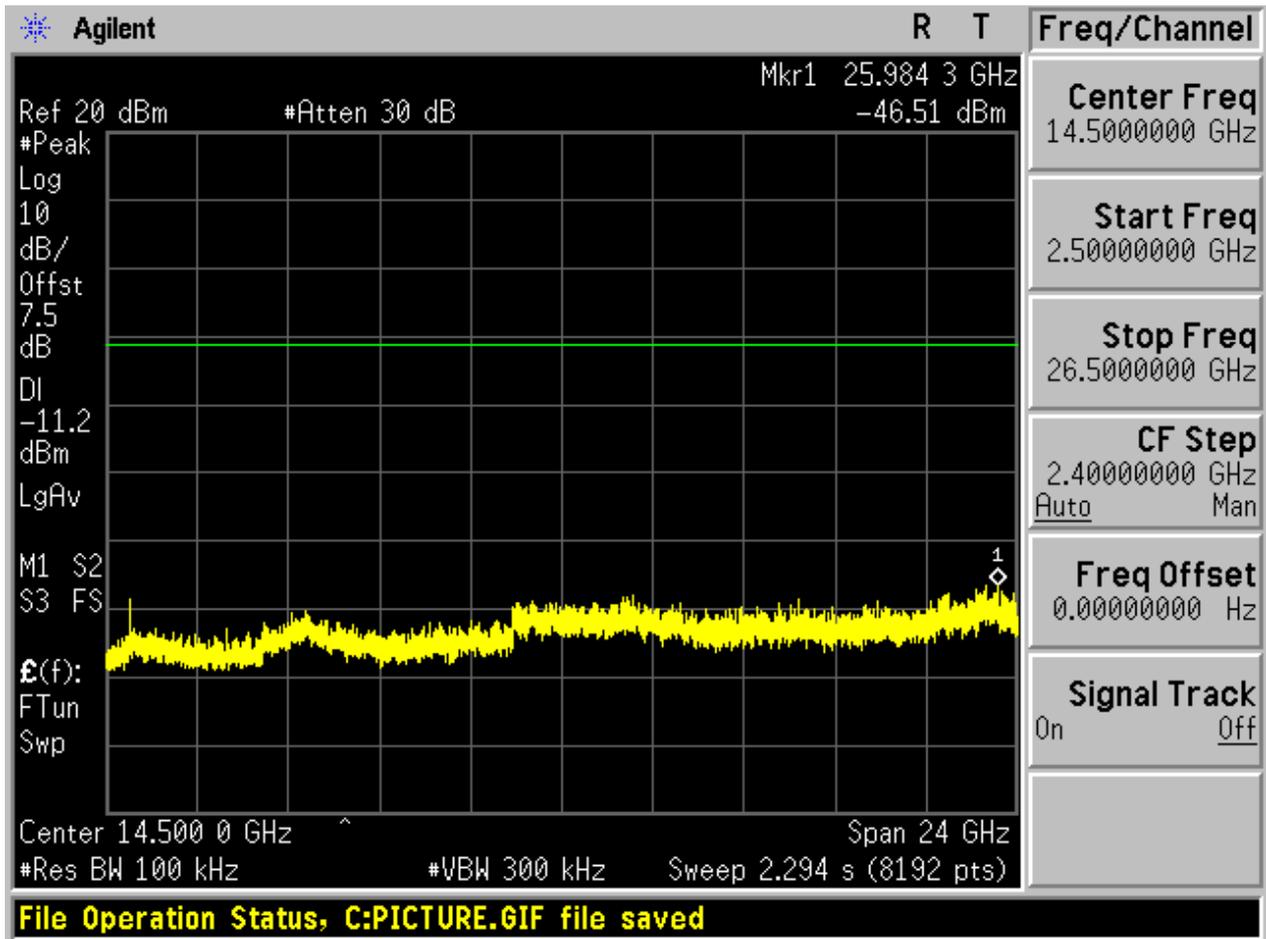






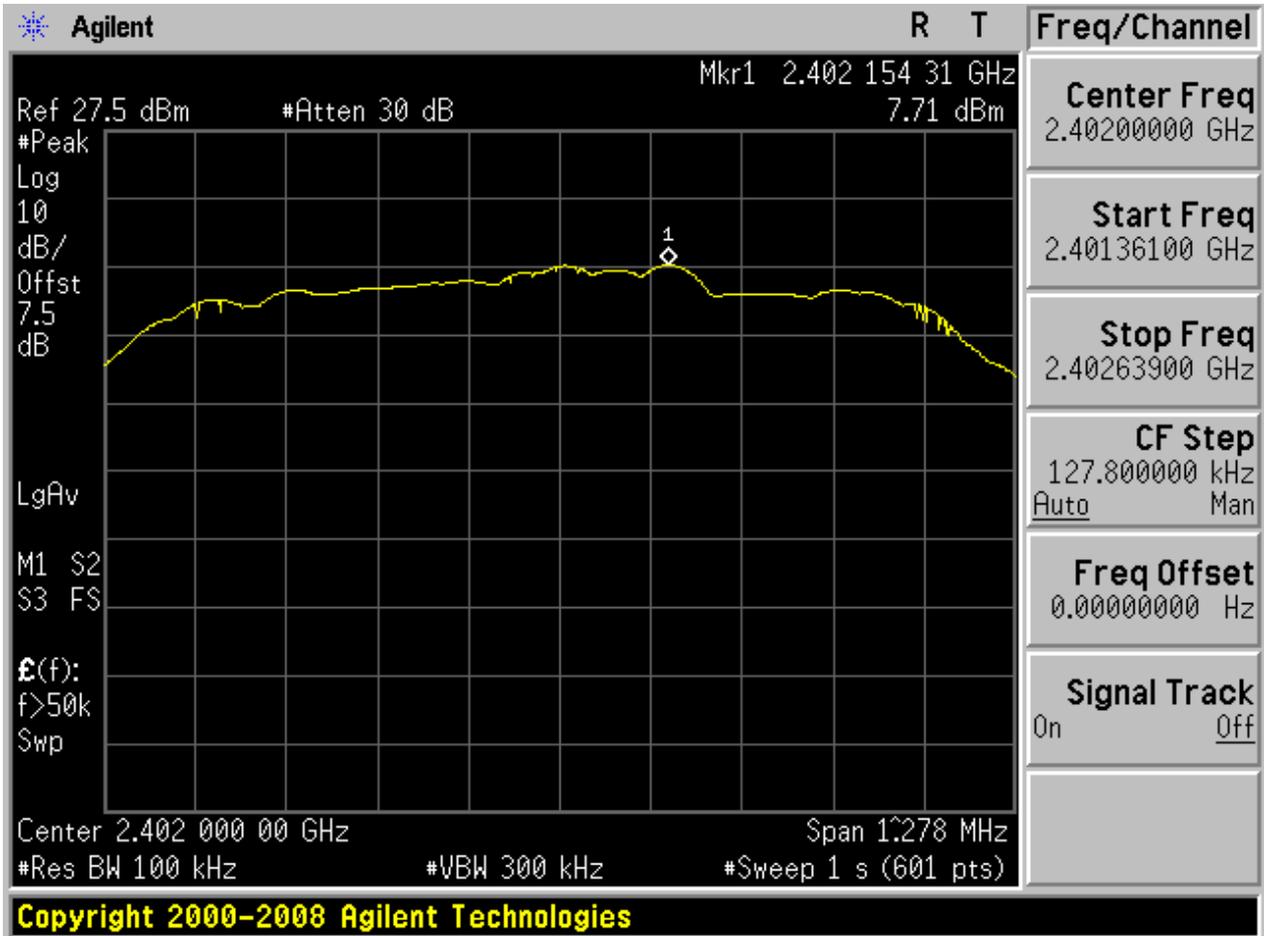




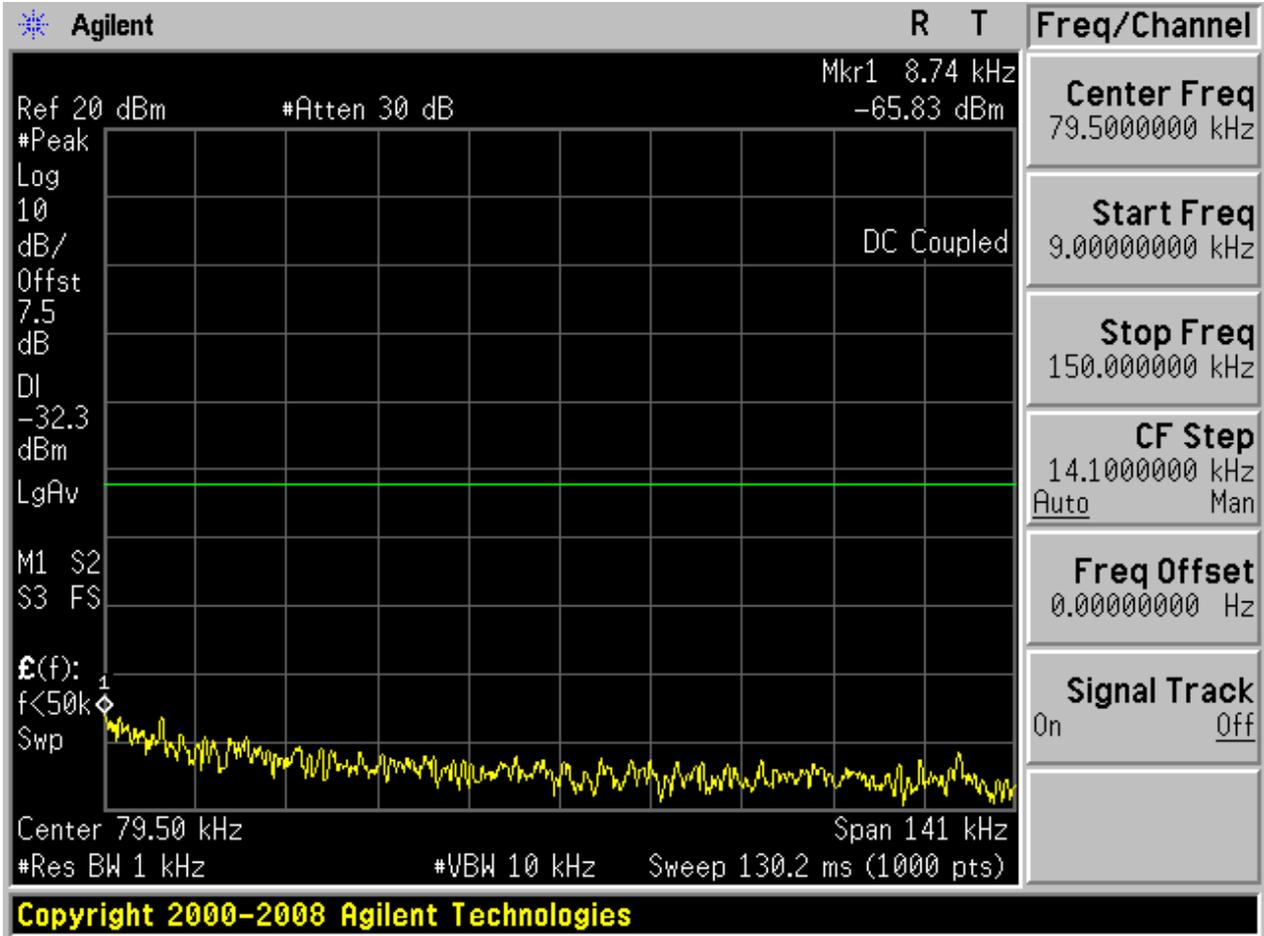


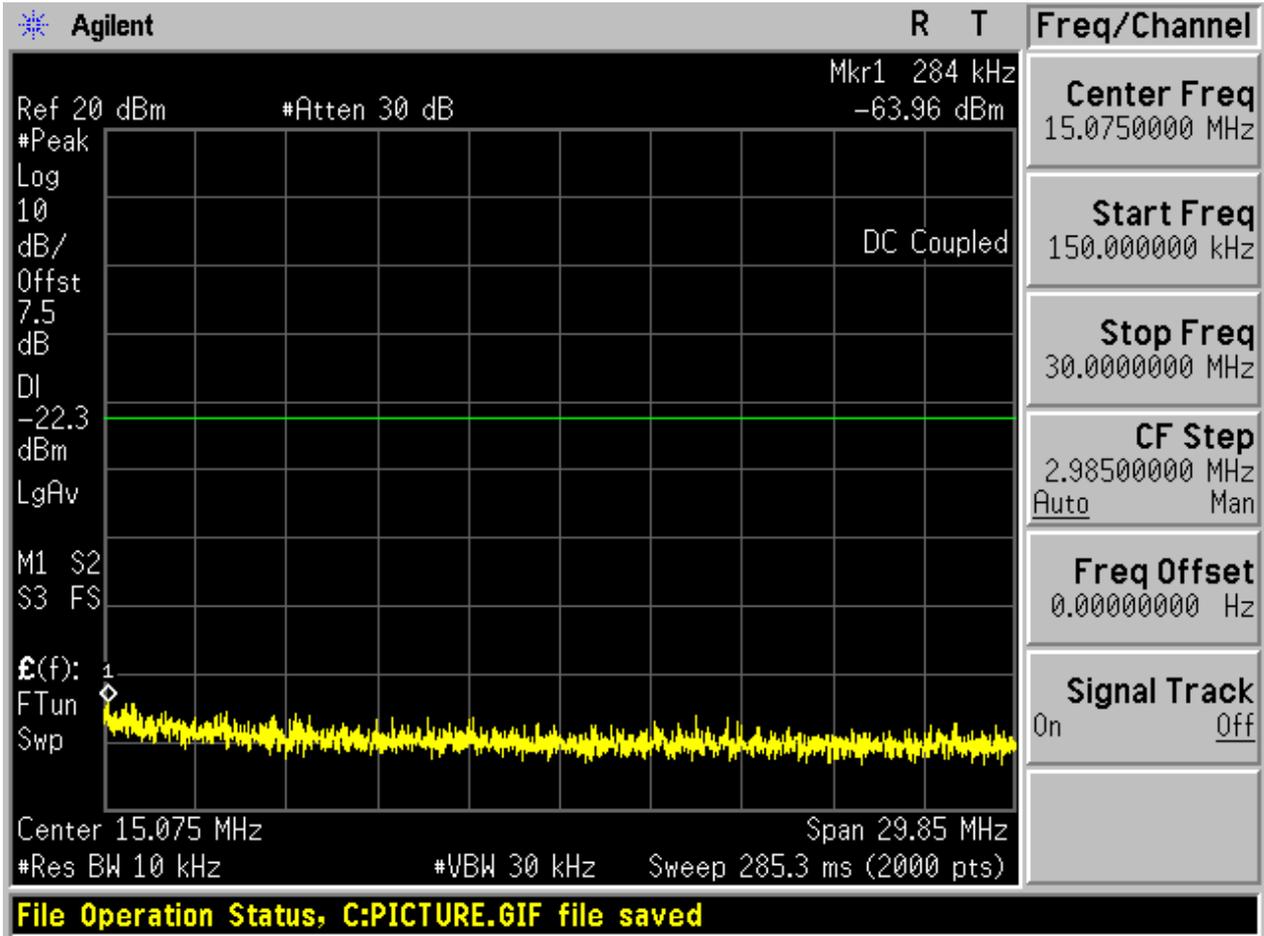
## 2.7 TM3\_3DH5\_Ch0

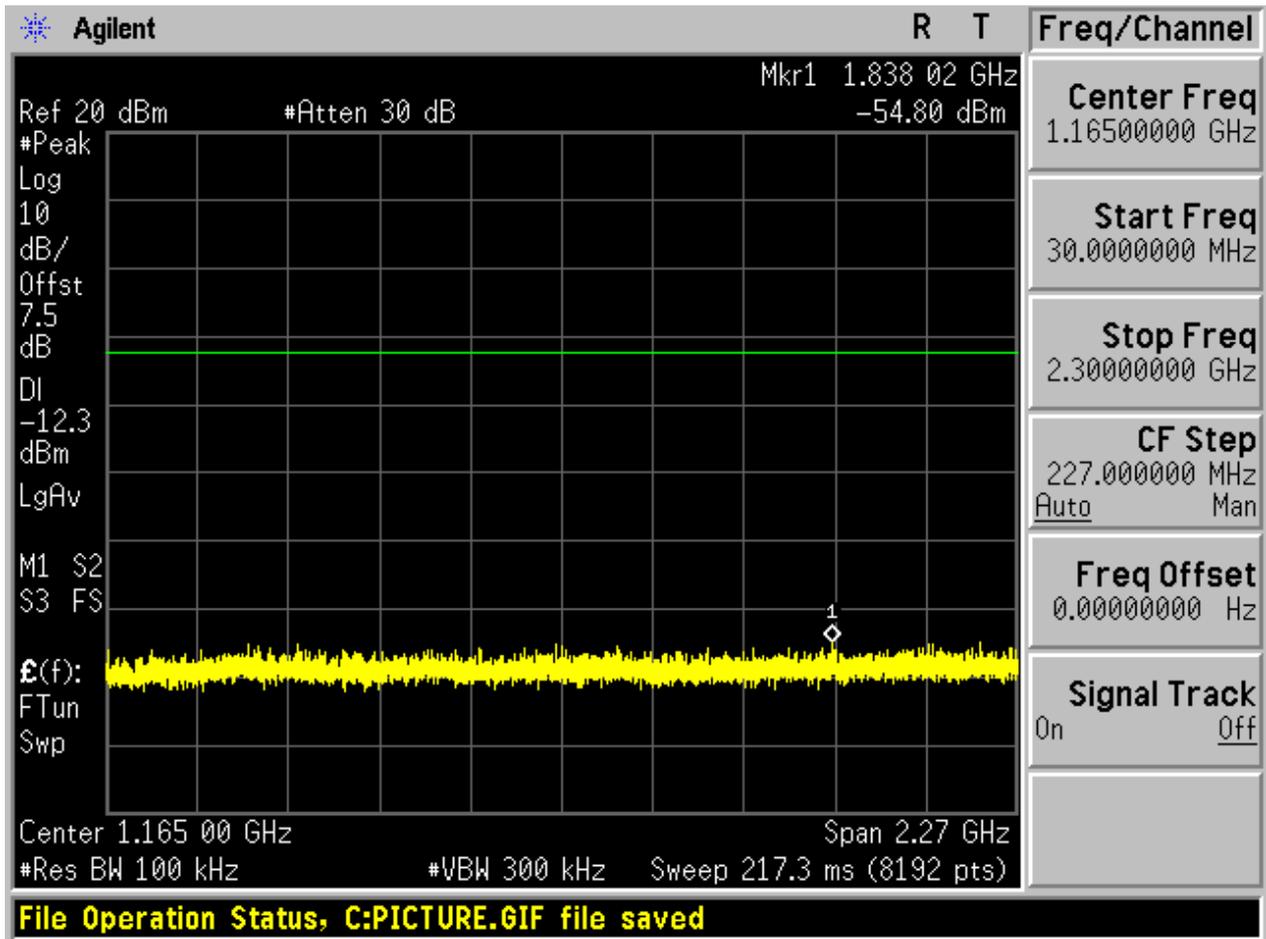
Pref

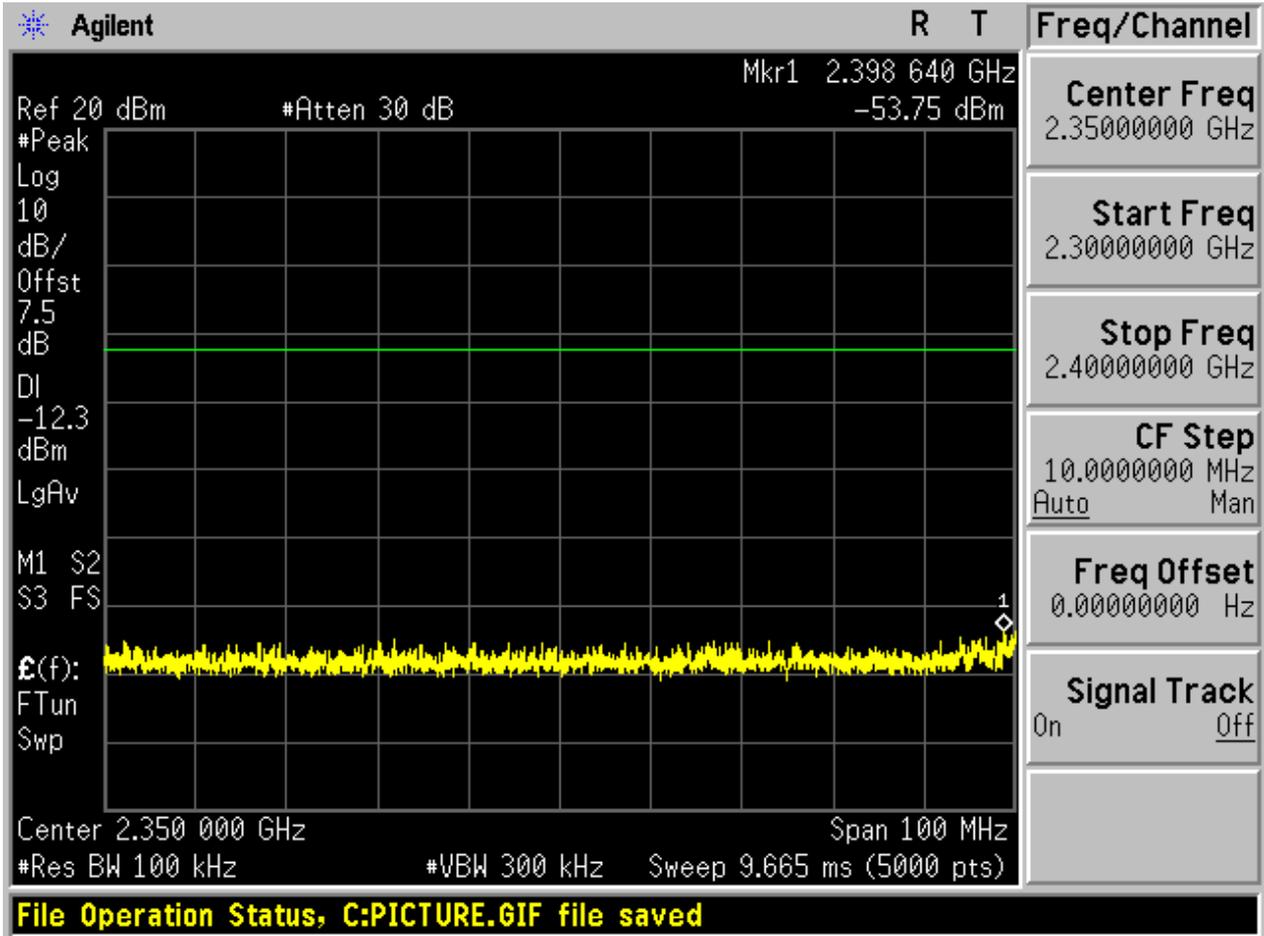


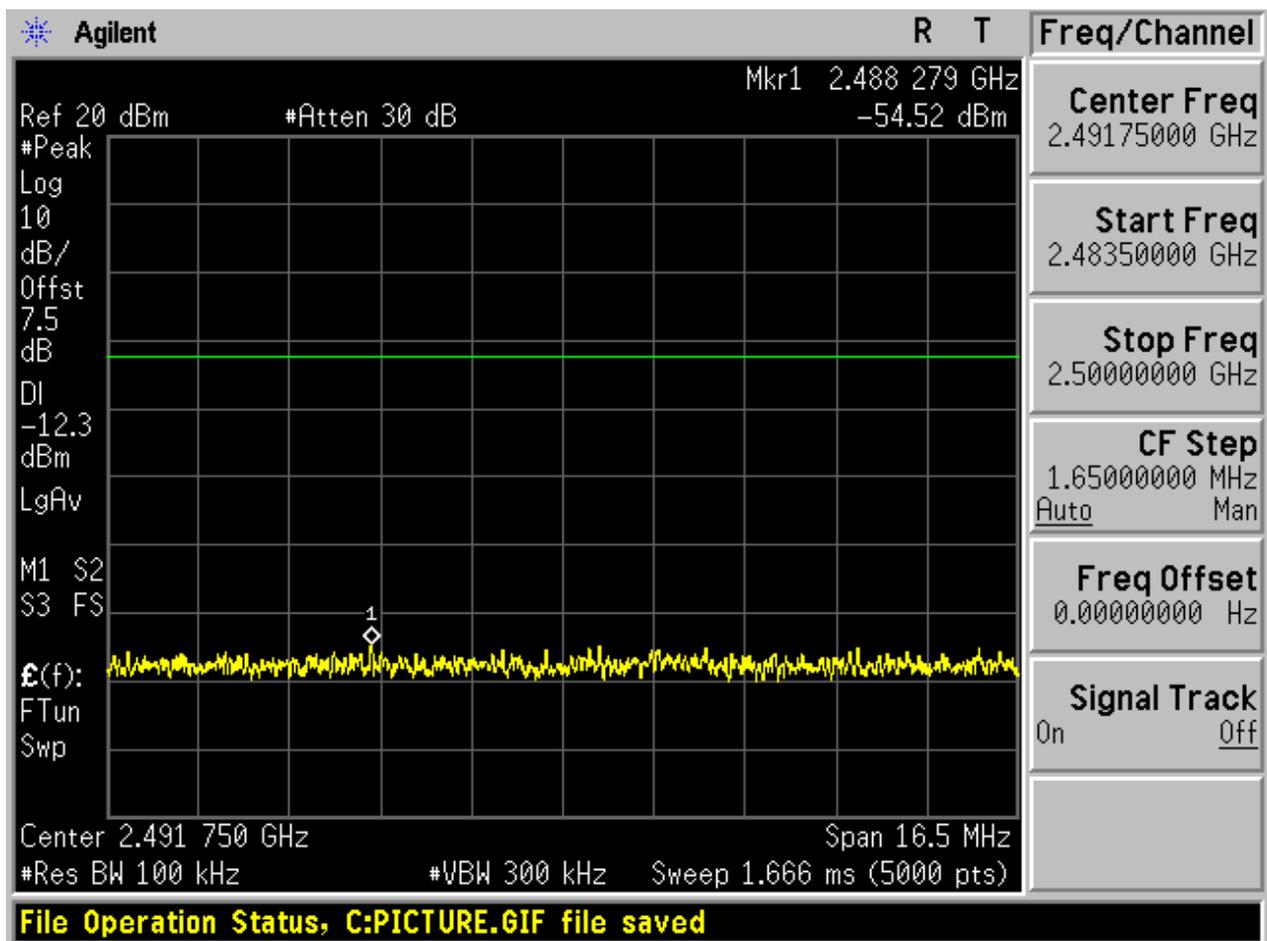
**Puw**

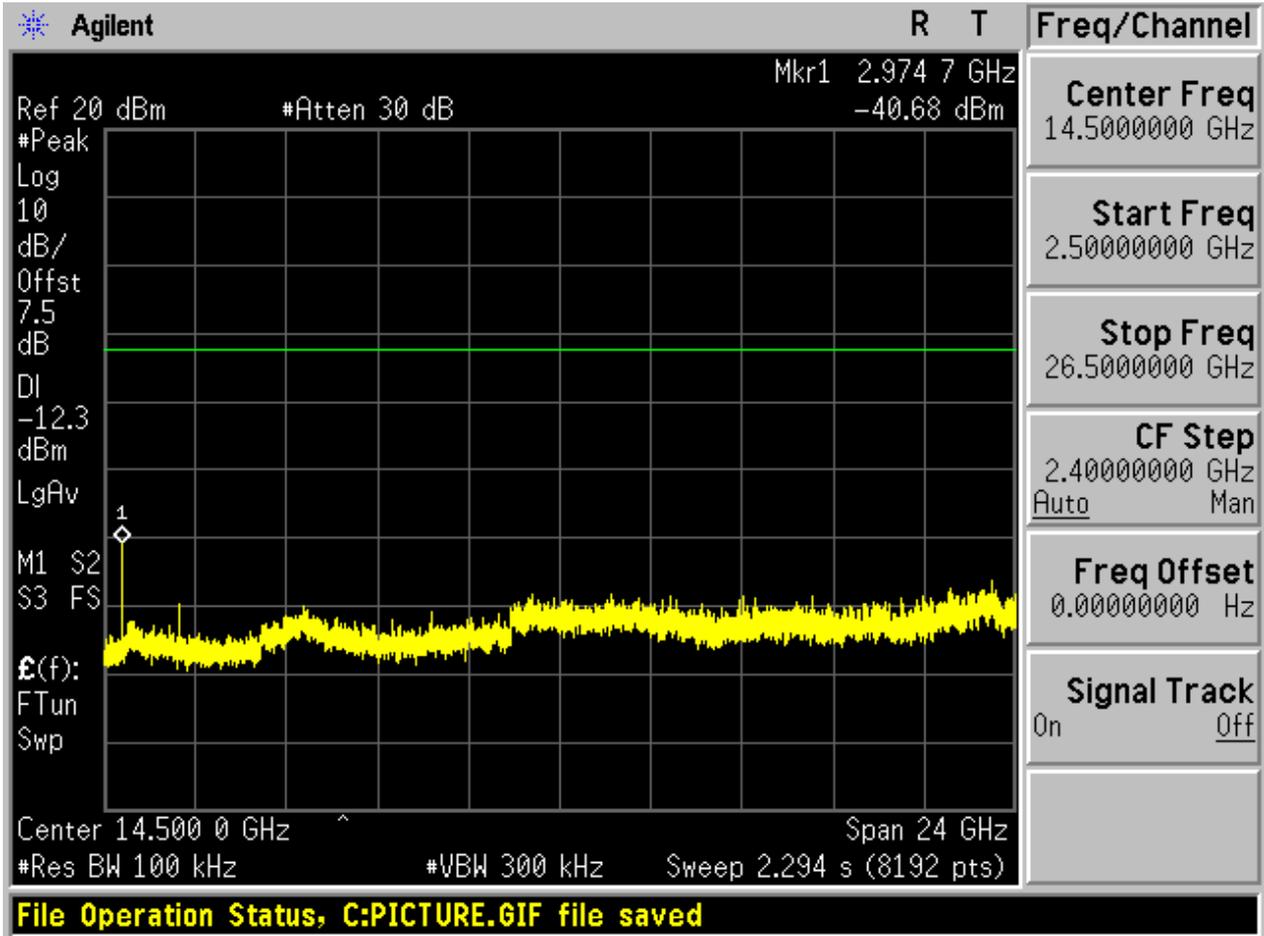






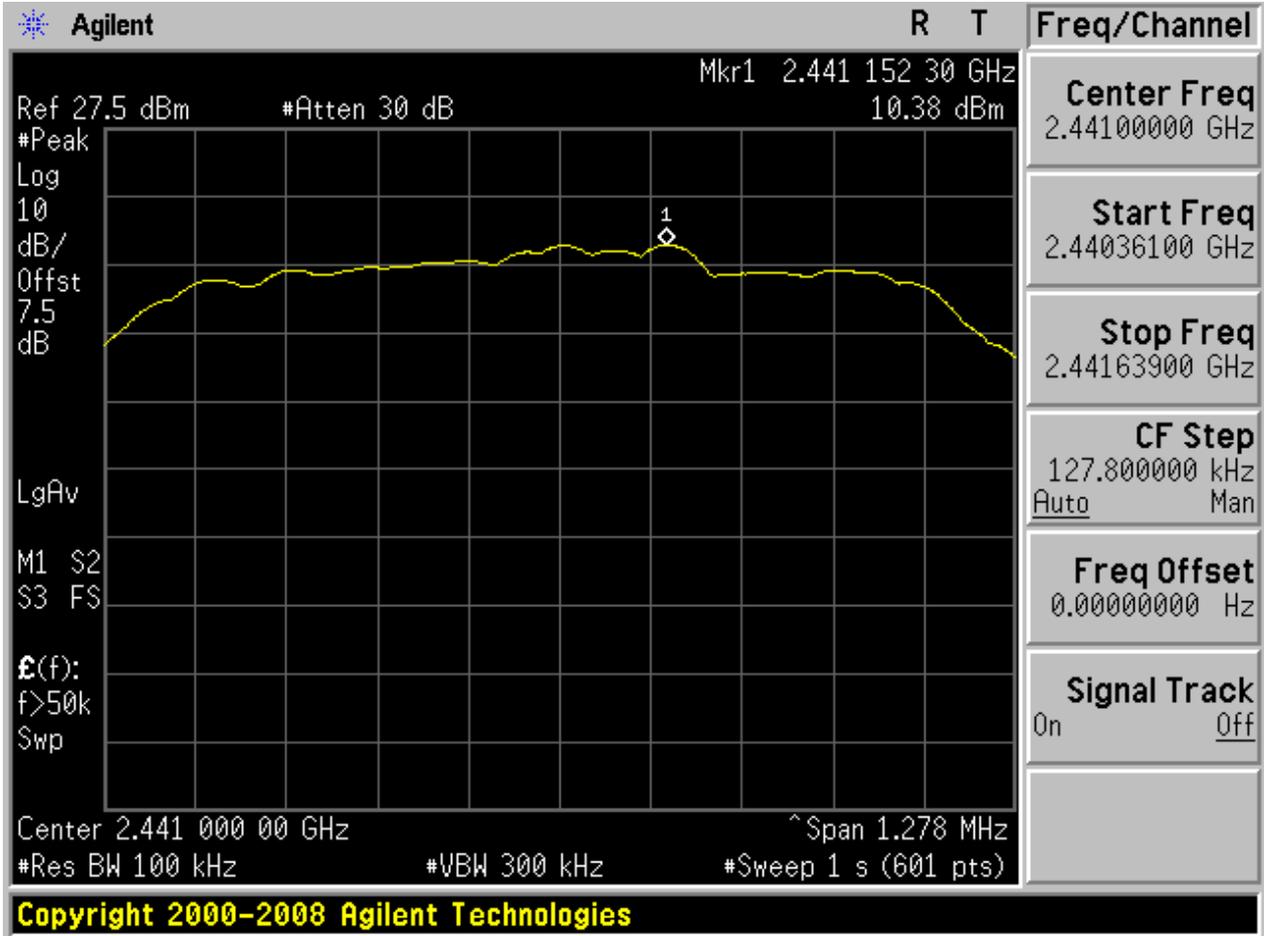




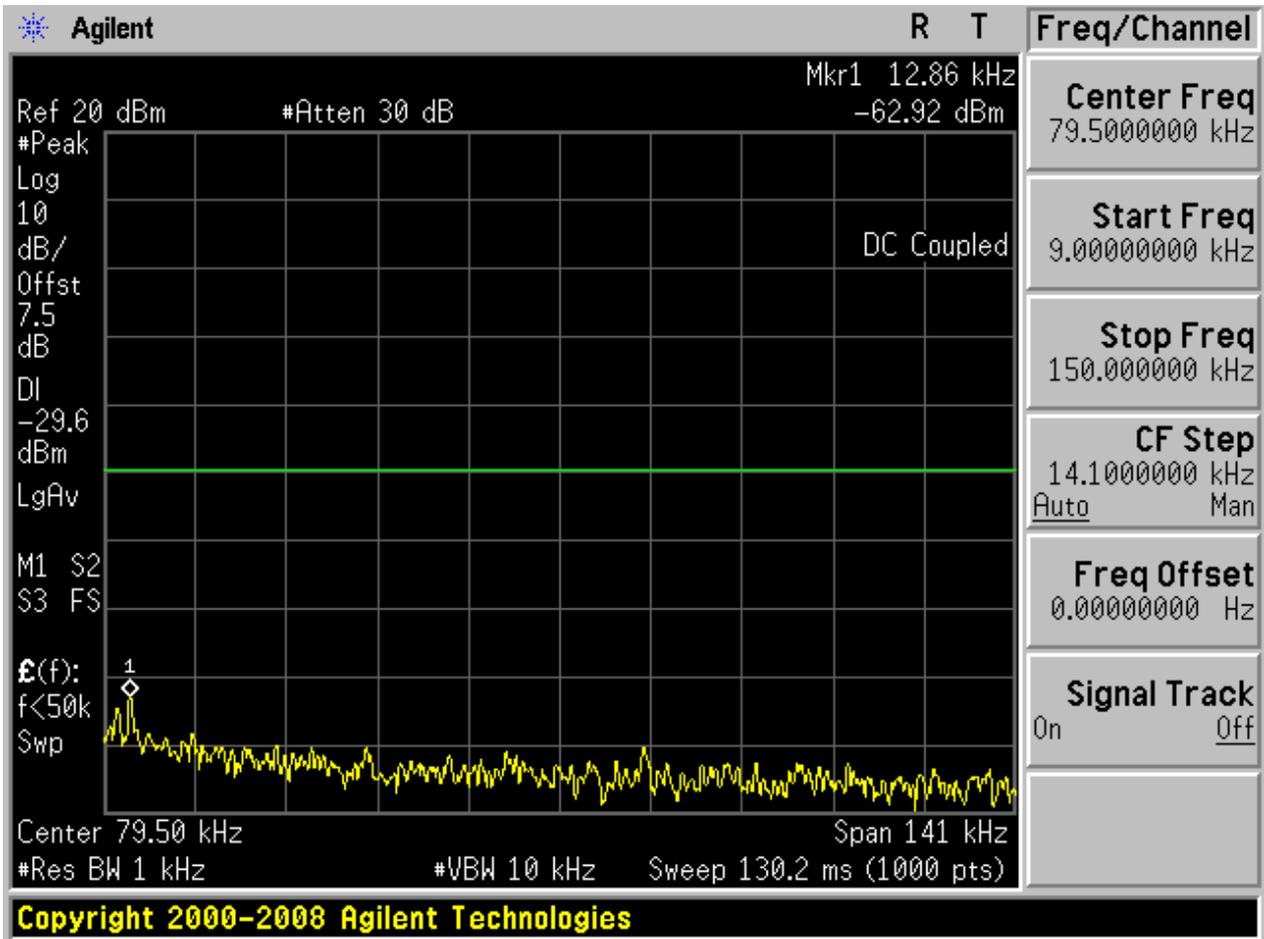


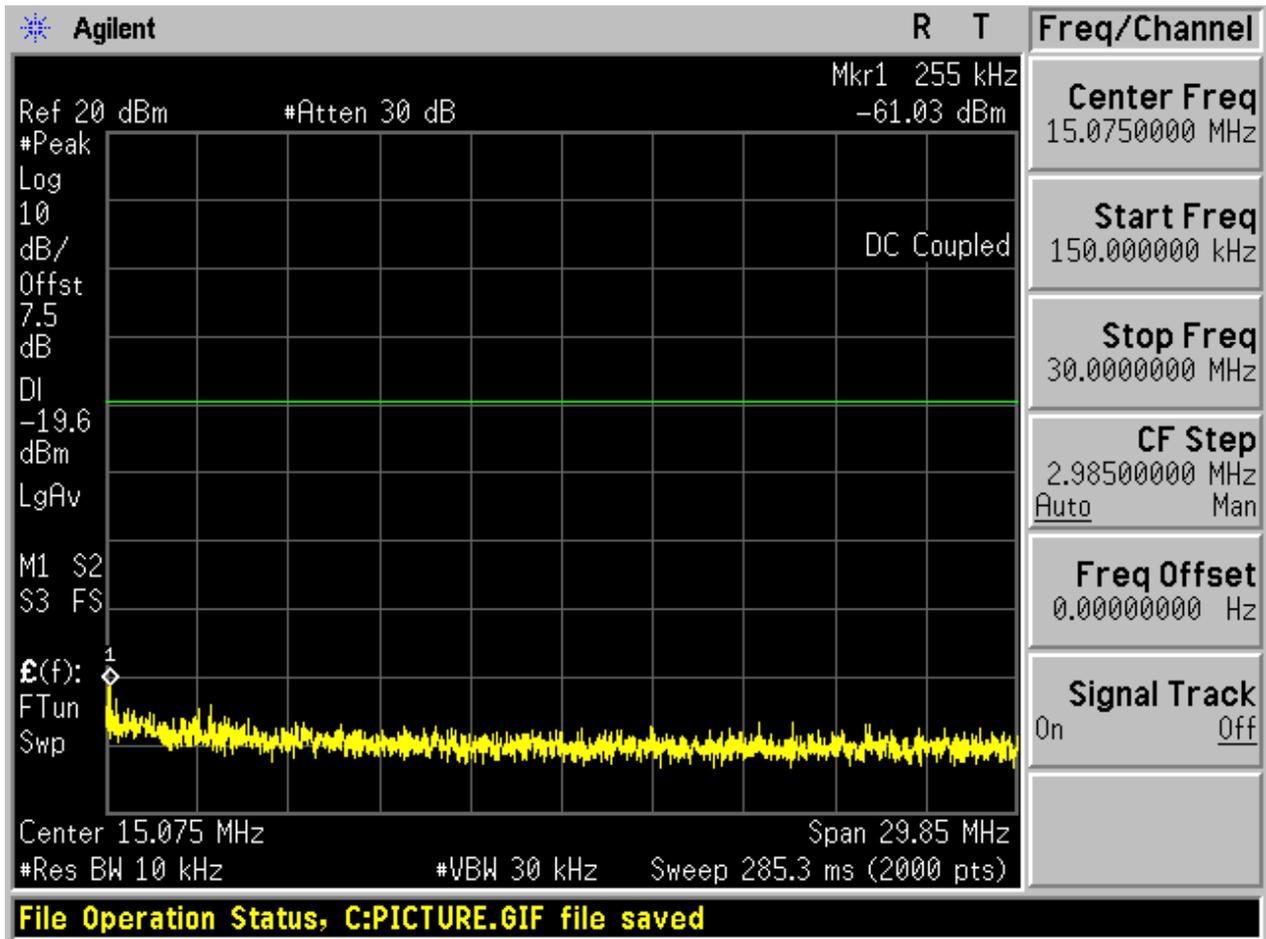
2.8 TM3\_3DH5\_Ch39

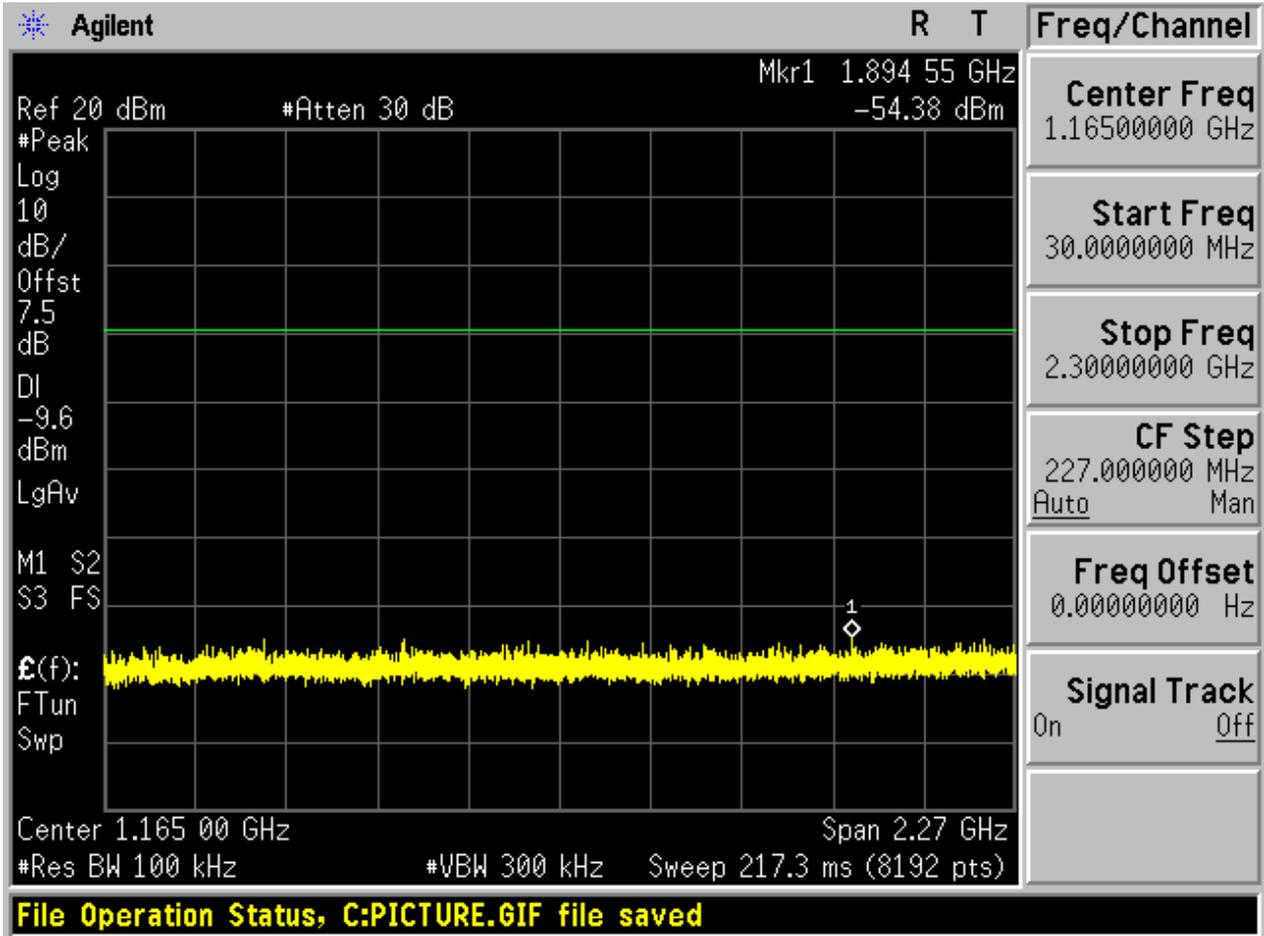
Pref

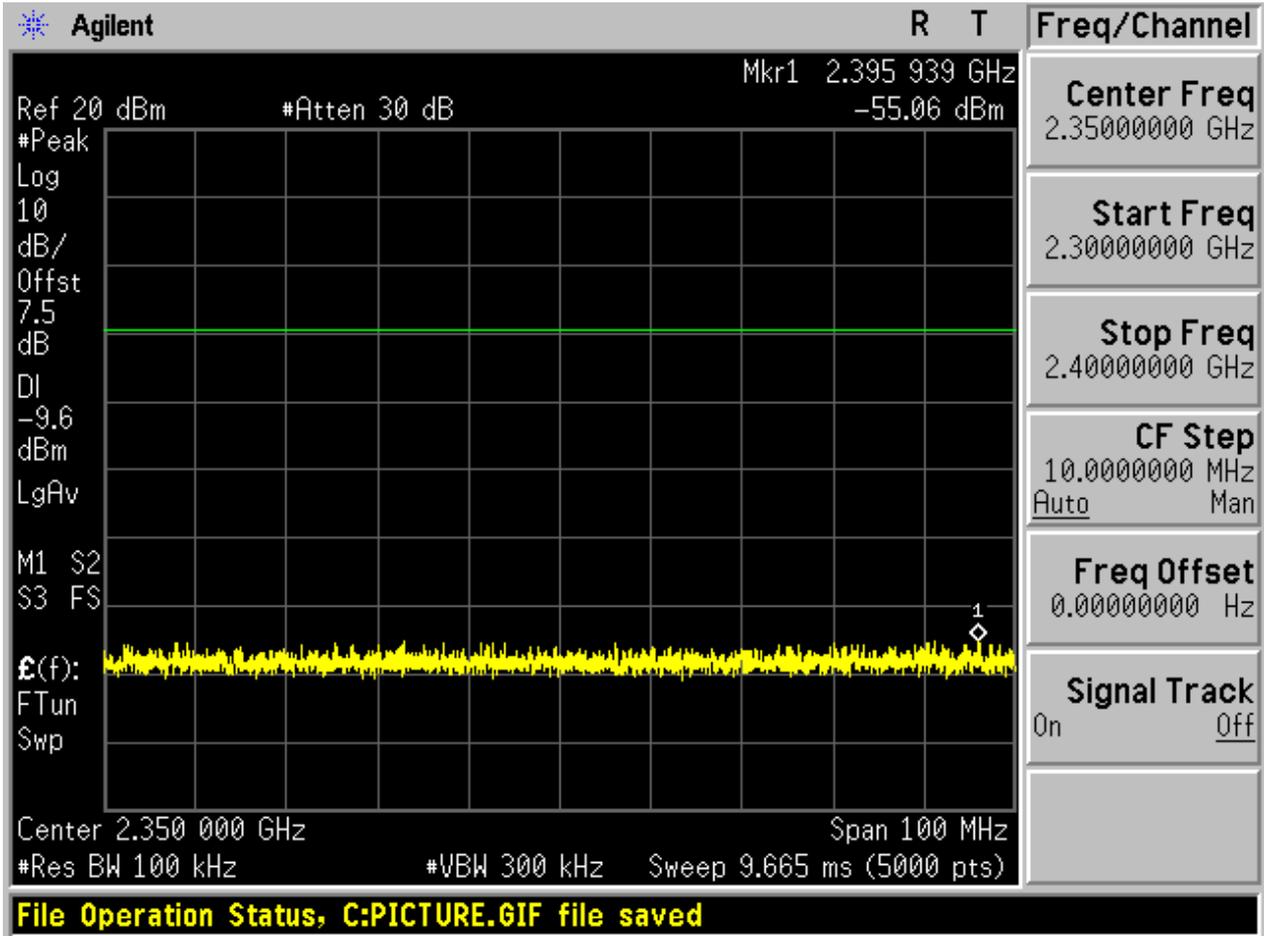


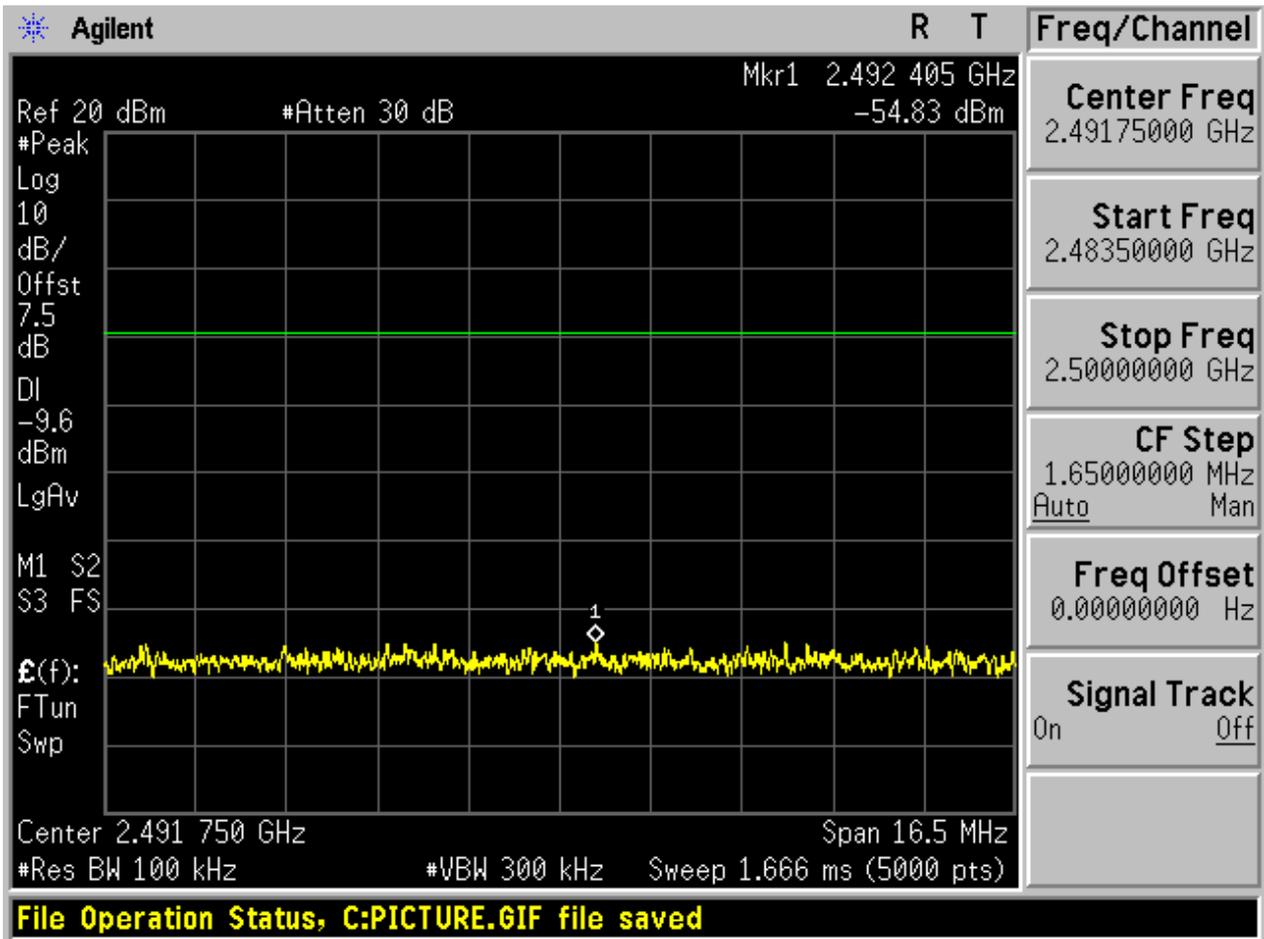
**Puw**

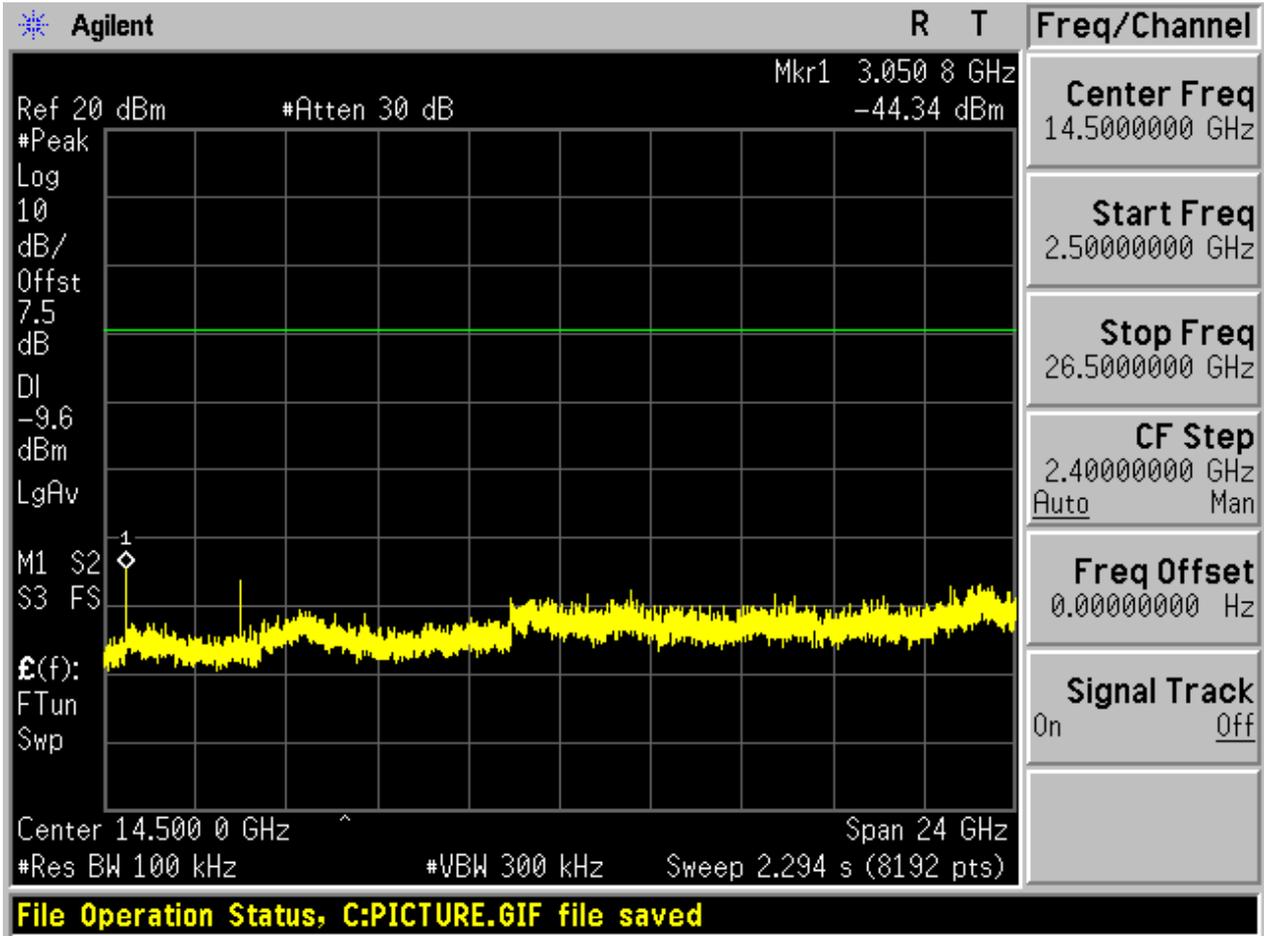






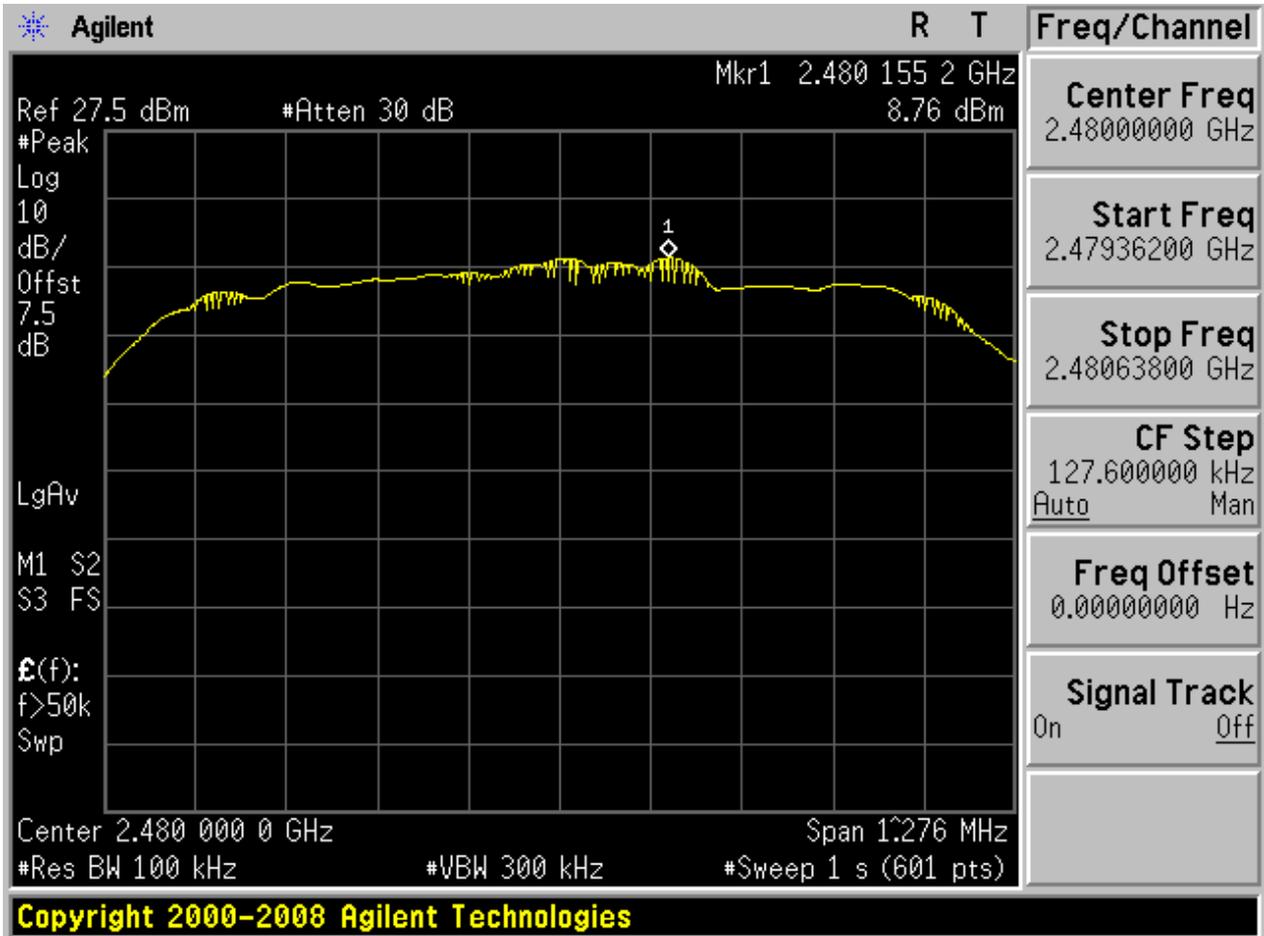






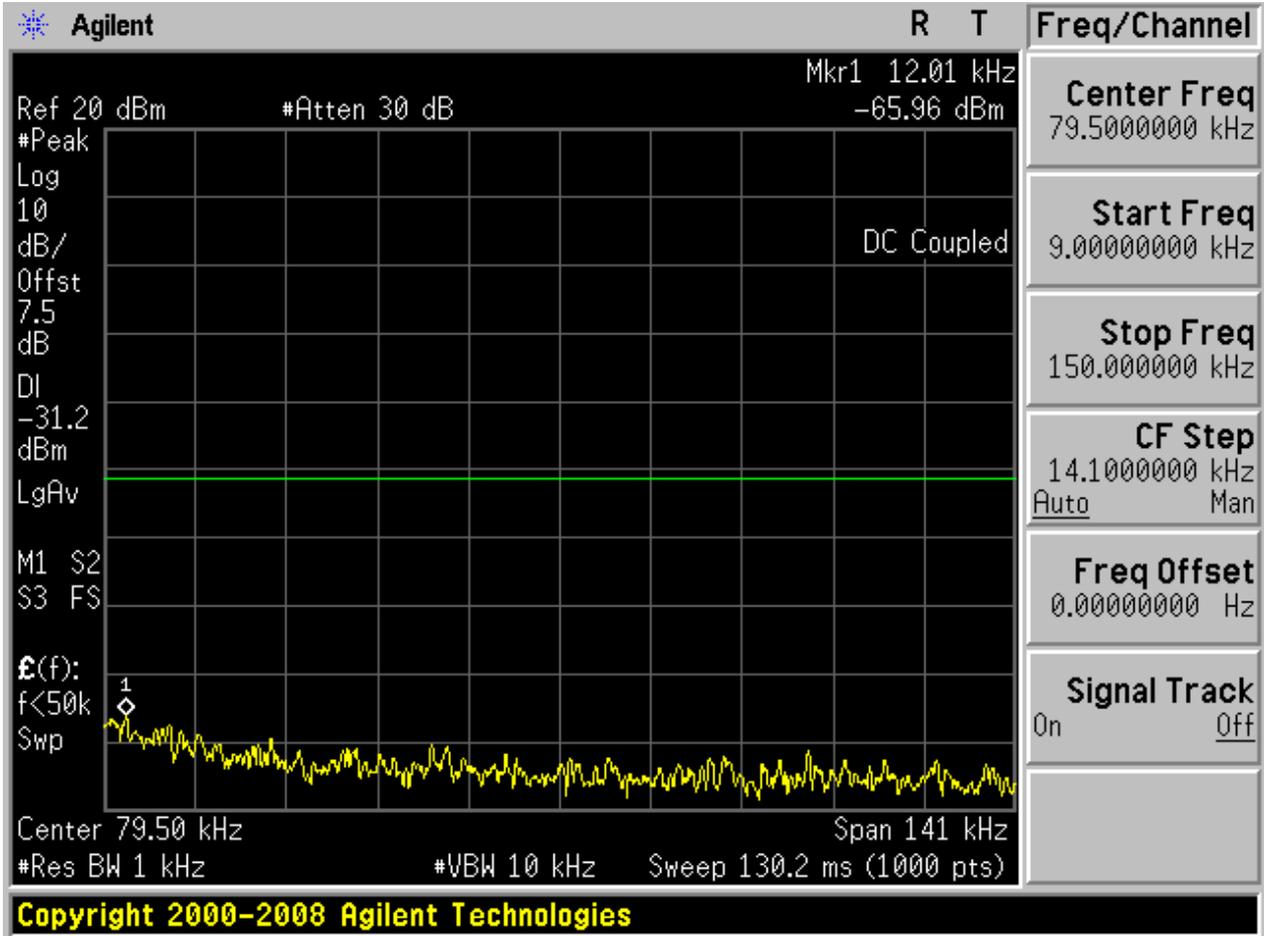
### 2.9 TM3\_3DH5\_Ch78

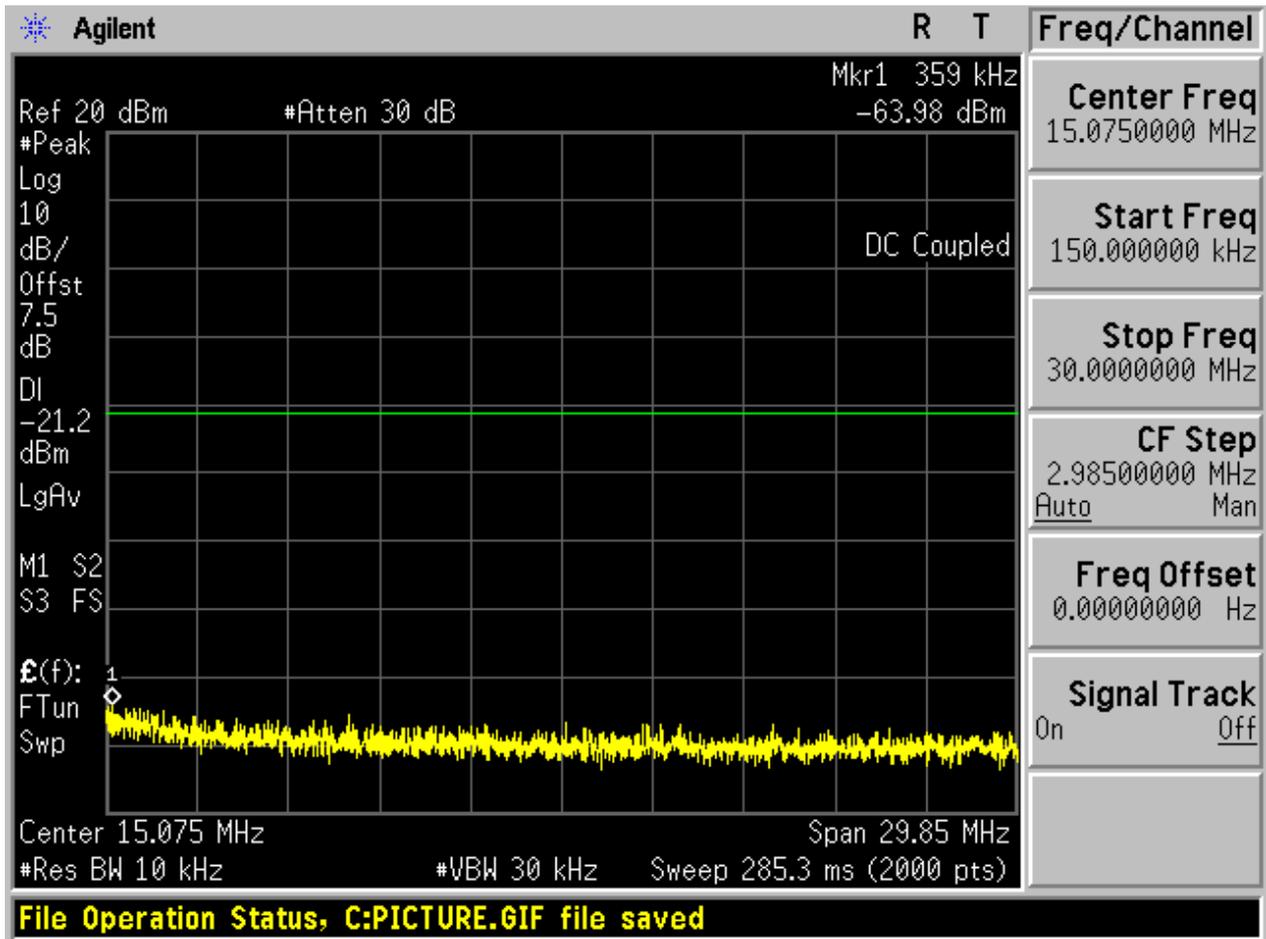
Pref

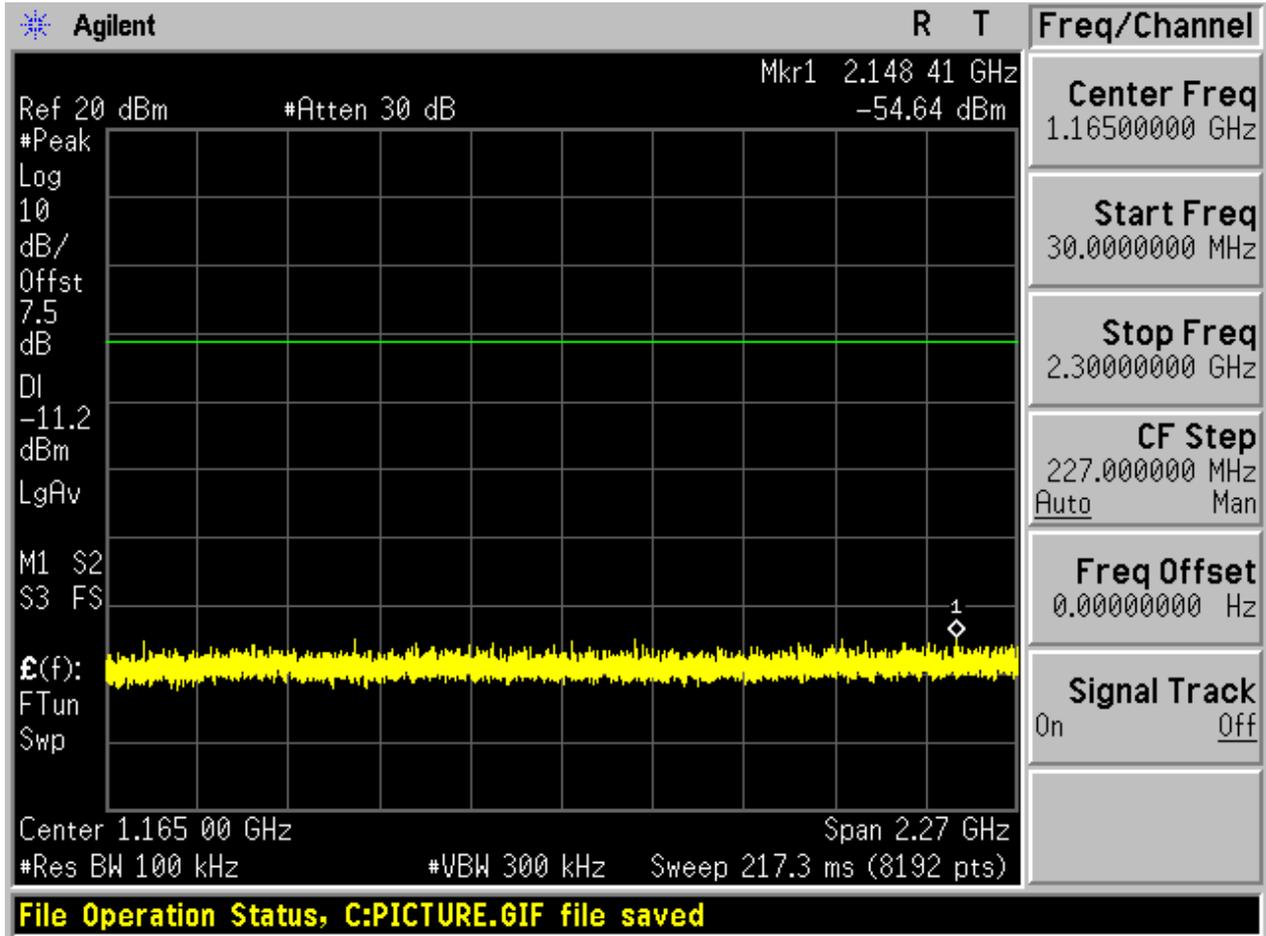


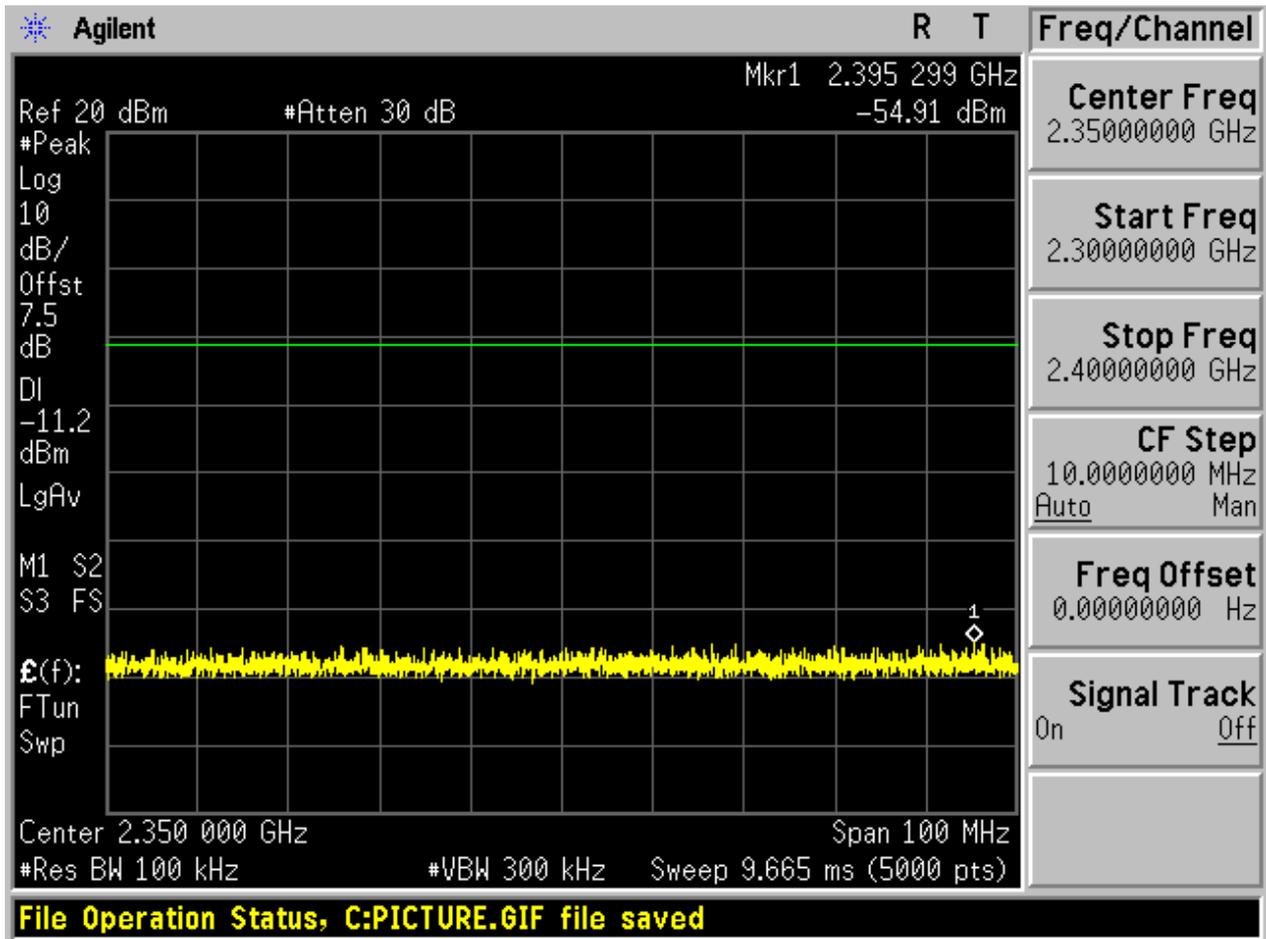


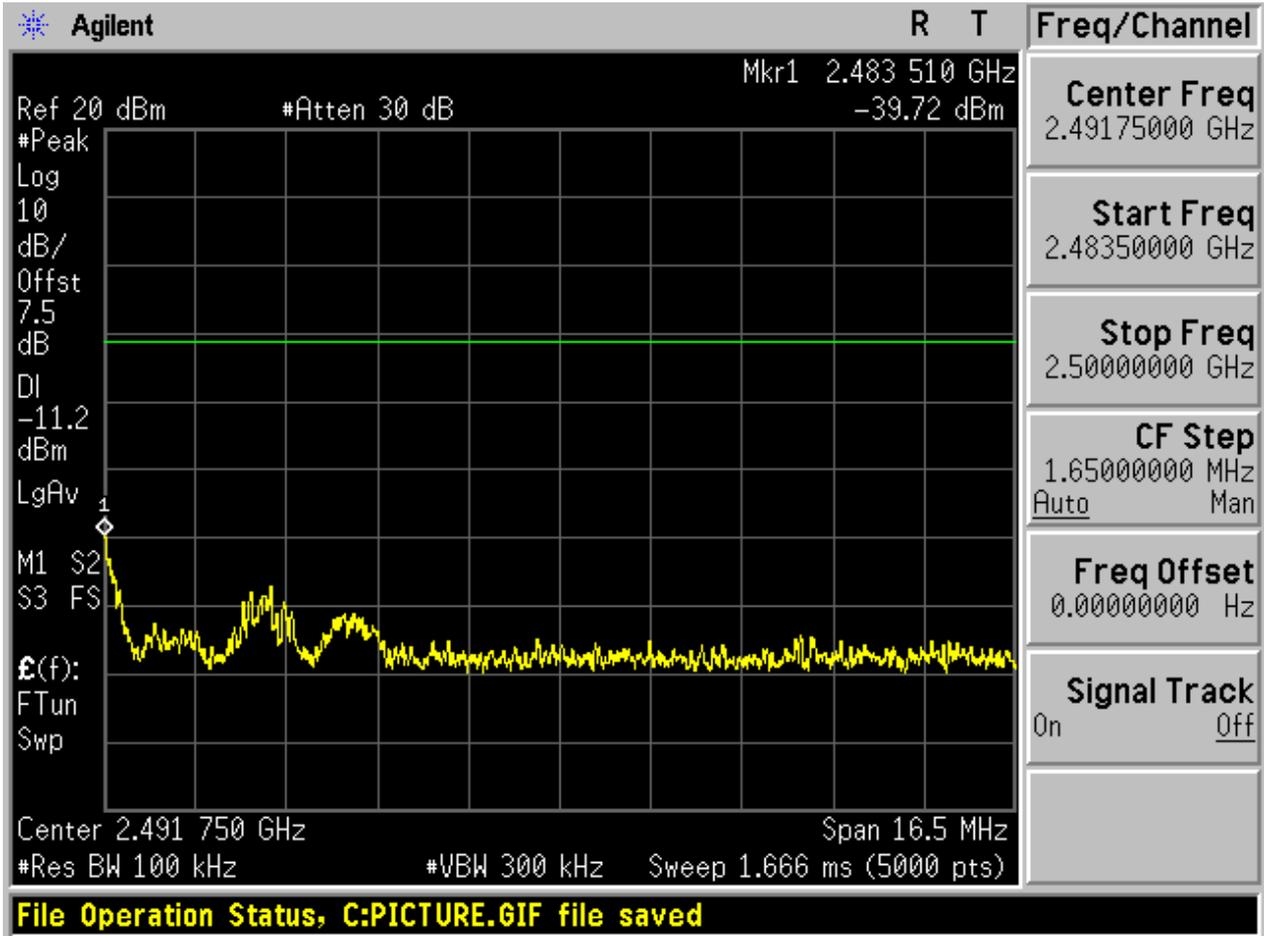
Puw

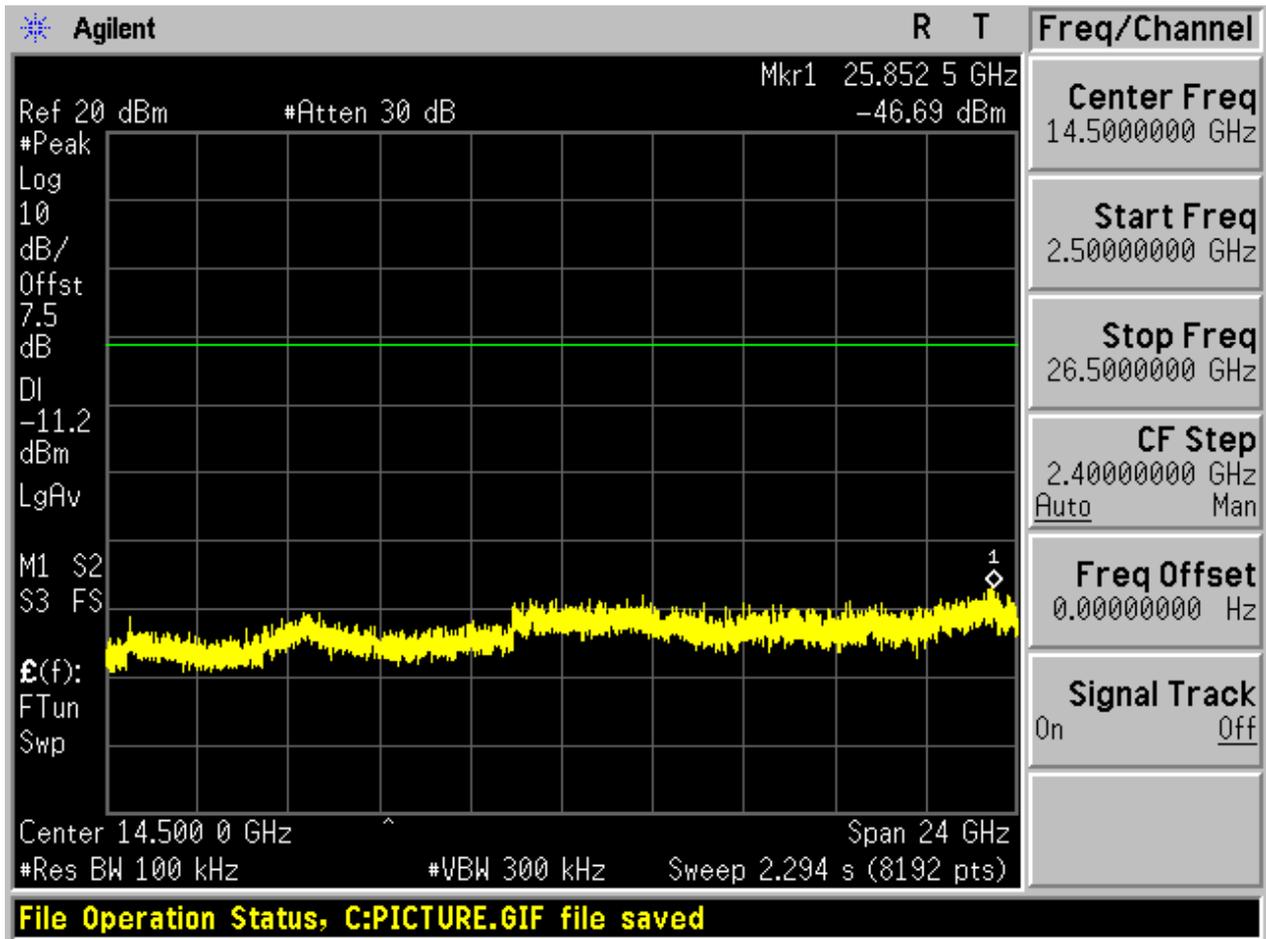














# Appendix H: Radiated Emissions in the Restricted Bands

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

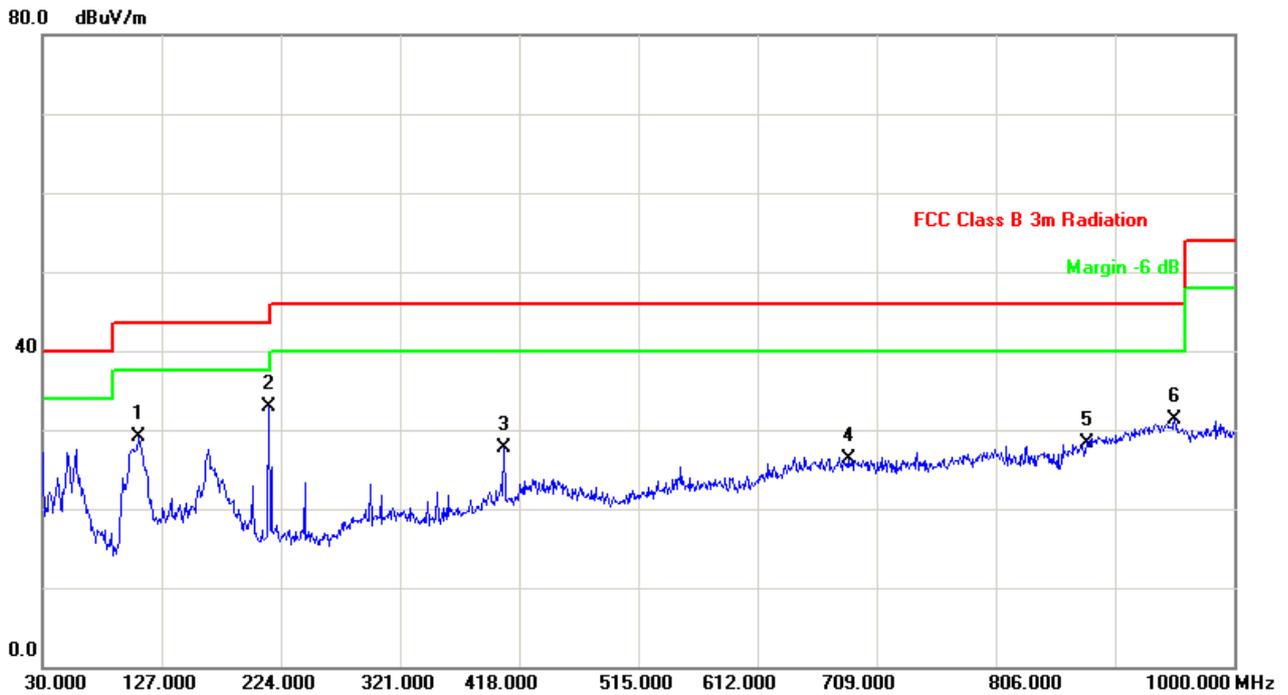
### Part 1: Testing Range of “9 kHz to 30MHz”

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.

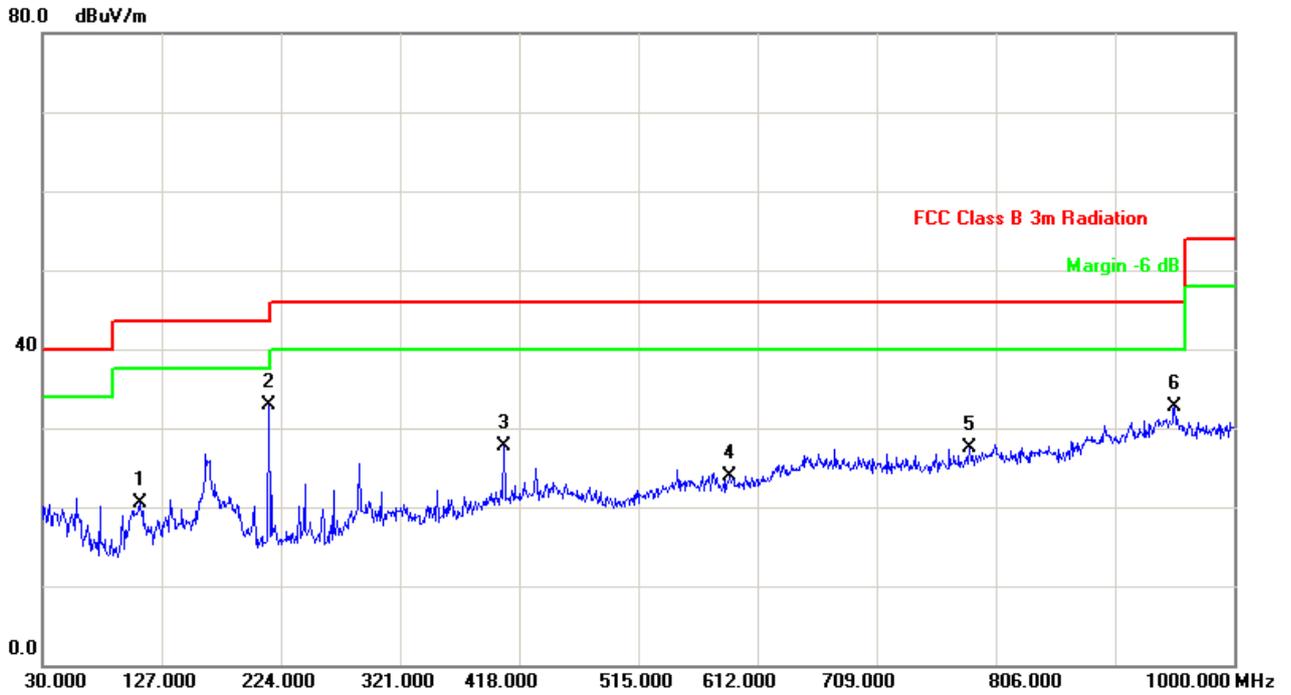
Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



No.	Mk.	Freq. MHz	Reading Level dBuA	Correct Factor dB	Measure- ment dBuA	Limit dBuA	Margin dB	Plarization
1		108.5700	43.03	-13.92	29.11	43.50	-14.39	VERTICAL
2	*	214.3000	46.50	-13.58	32.92	43.50	-10.58	VERTICAL
3		405.3900	34.86	-7.12	27.74	46.00	-18.26	VERTICAL
4		685.7200	27.78	-1.52	26.26	46.00	-19.74	VERTICAL
5		879.7200	27.33	1.04	28.37	46.00	-17.63	VERTICAL



6	951.5000	28.19	3.07	31.26	46.00	-14.74	VERTICAL
---	----------	-------	------	-------	-------	--------	----------



No.	Mk.	Freq. MHz	Reading Level dBuA	Correct Factor dB	Measure- ment dBuA	Limit dBuA	Margin dB	Comment
1		109.5400	34.28	-13.84	20.44	43.50	-23.06	HORIZONTAL
2	*	214.3000	46.41	-13.58	32.83	43.50	-10.67	HORIZONTAL
3		405.3900	34.86	-7.12	27.74	46.00	-18.26	HORIZONTAL
4		589.6900	28.55	-4.64	23.91	46.00	-22.09	HORIZONTAL
5		784.6600	27.80	-0.32	27.48	46.00	-18.52	HORIZONTAL
6		951.5000	29.67	3.07	32.74	46.00	-13.26	HORIZONTAL



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

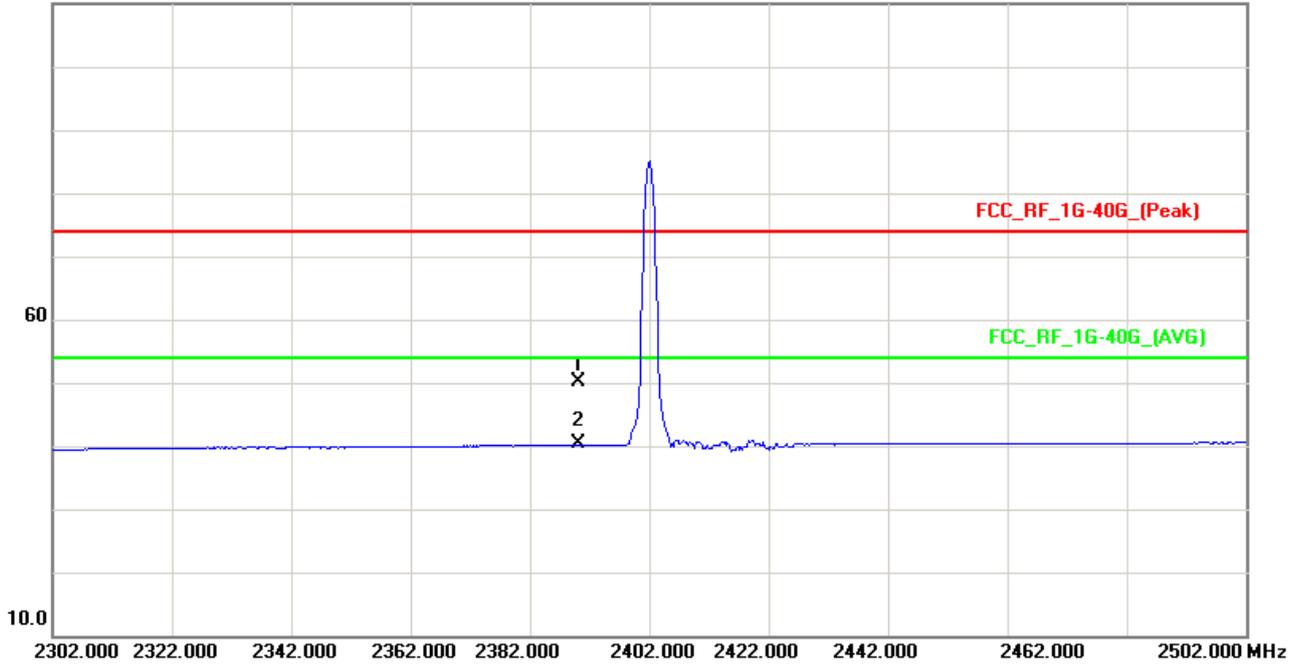
NOTE1: No peak found in the Test Range of “18 GHz to 26.5GHz”

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

**Channel 0**

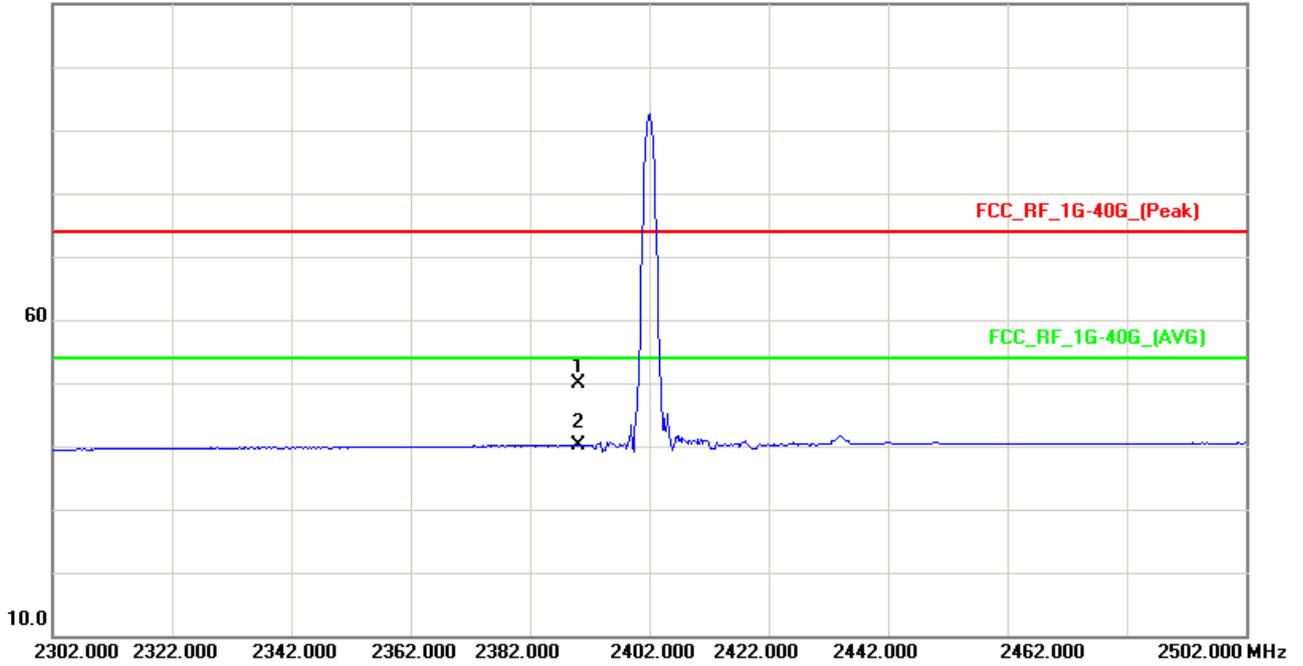
110.0 dB $\mu$ V/m



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Polarization
		MHz	dB $\mu$ V	dB	dB $\mu$ V/m	dB $\mu$ V/m	dB		r
1		2390.000	14.36	35.88	50.24	74.00	-23.76	peak	VERTICAL
2	*	2390.000	4.62	35.88	40.50	54.00	-13.50	AVG	VERTICAL

110.0 dBuV/m

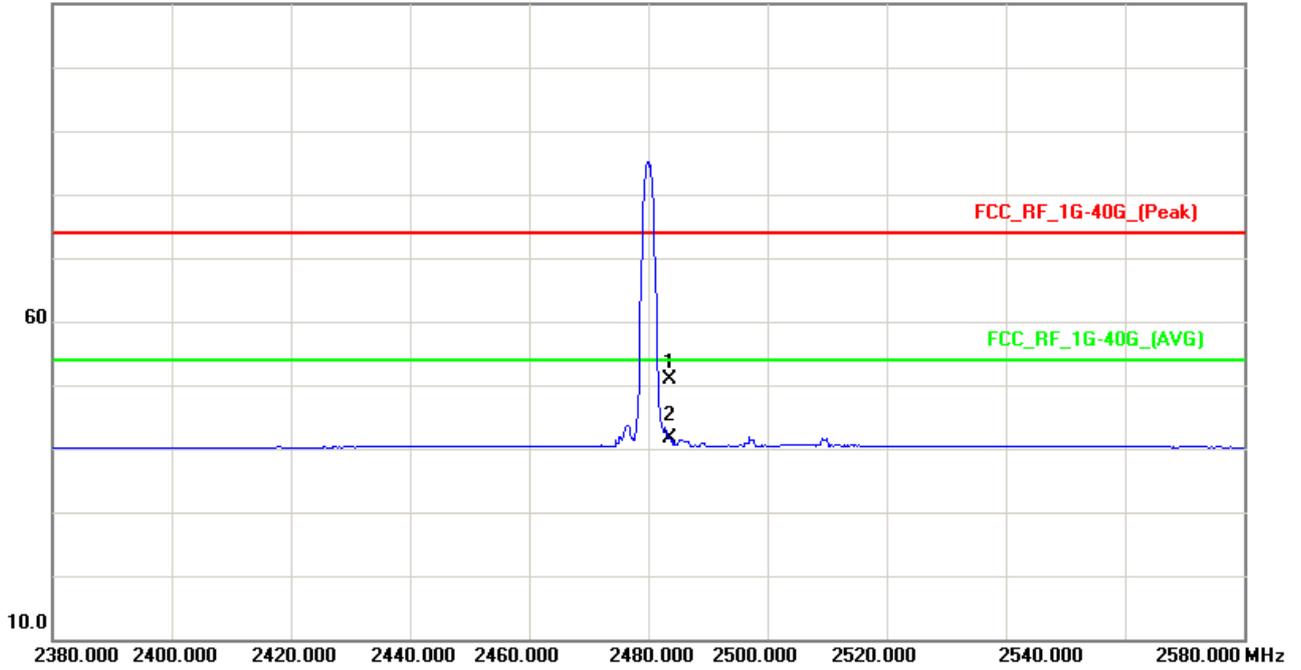


Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Polarization r
1		2390.000	14.05	35.88	49.93	74.00	-24.07	peak	HORIZONTAL
2	*	2390.000	4.28	35.88	40.16	54.00	-13.84	AVG	HORIZONTAL

**Channel 78**

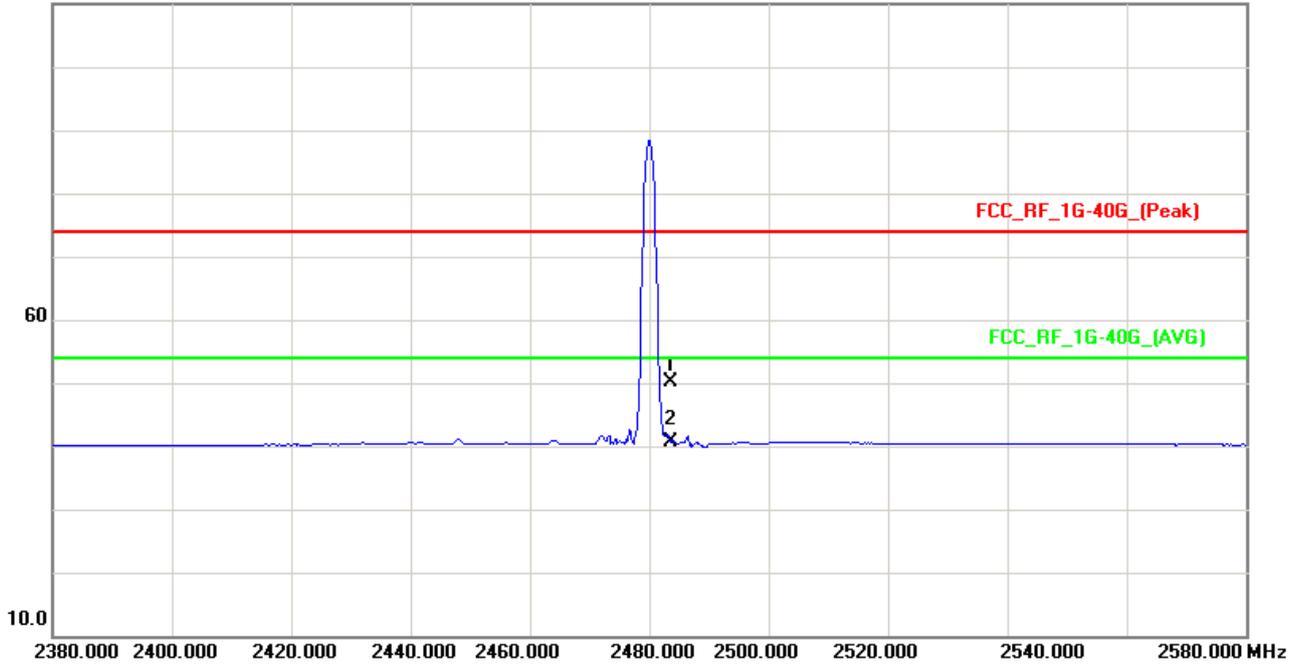
110.0 dBuV/m



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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Polarization r
1		2483.500	14.47	36.39	50.86	74.00	-23.14	peak	VERTICAL
2	*	2483.500	5.35	36.39	41.74	54.00	-12.26	AVG	VERTICAL

110.0 dBuV/m



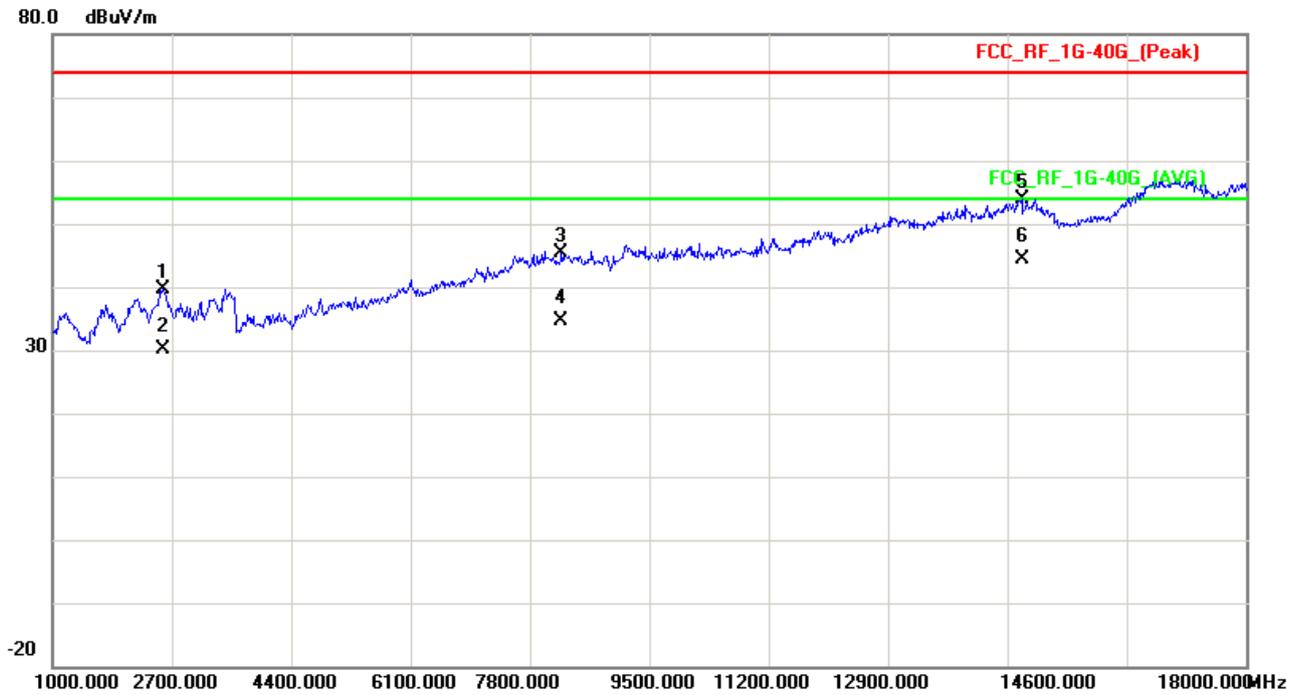
Note: The peak exceeds the limit line is carrier frequency.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Polarization r
1		2483.500	13.73	36.39	50.12	74.00	-23.88	peak	HORIZONTAL
2	*	2483.500	4.15	36.39	40.54	54.00	-13.46	AVG	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 $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).

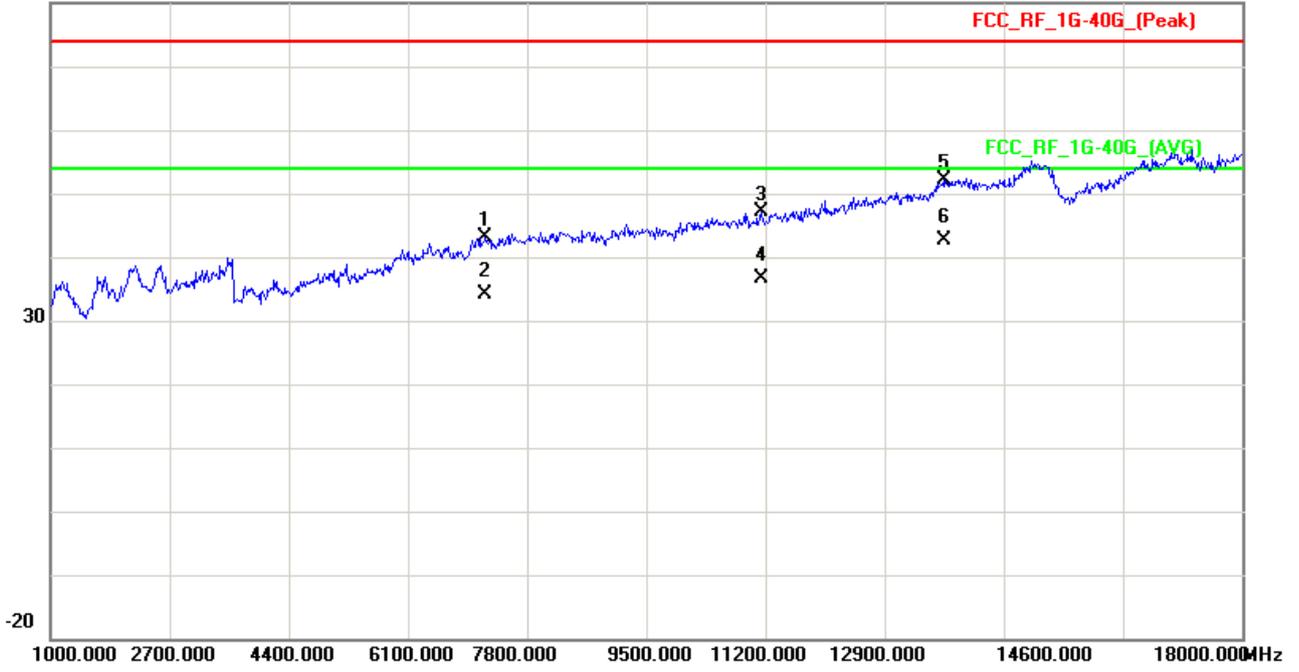
**Vertical**





Horizontal

80.0 dBuV/m





# Appendix I: AC Power Line Conducted Emissions



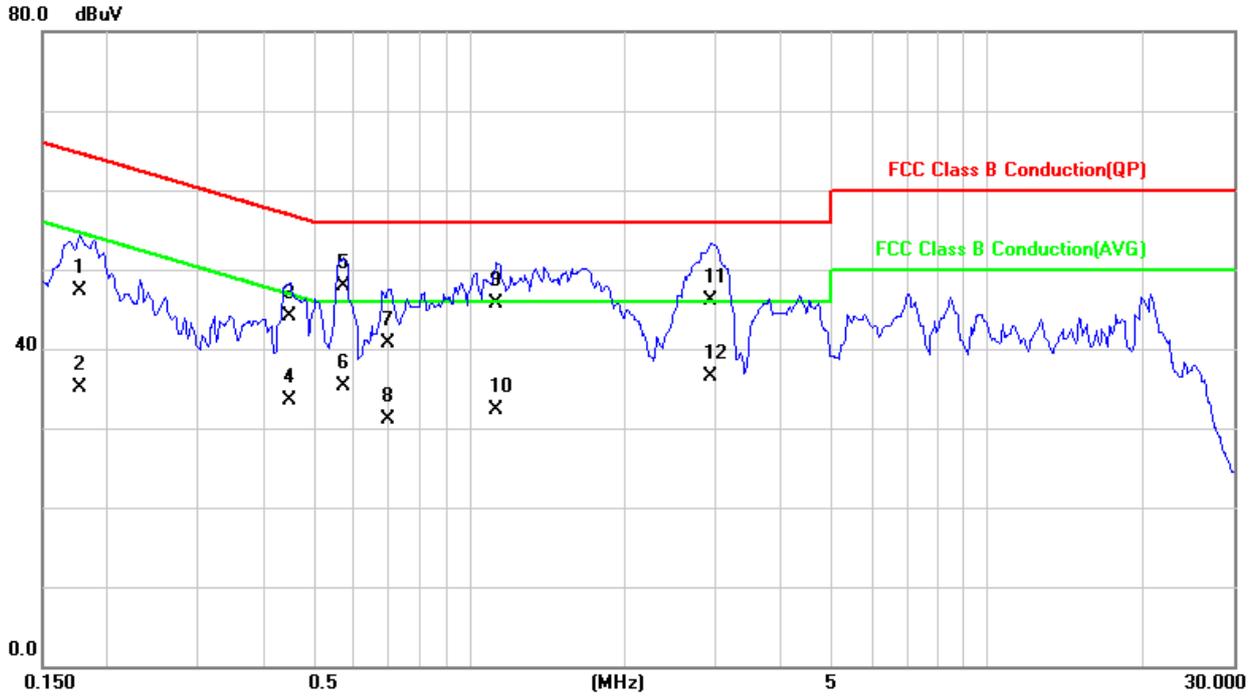
## 1 Result Table

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

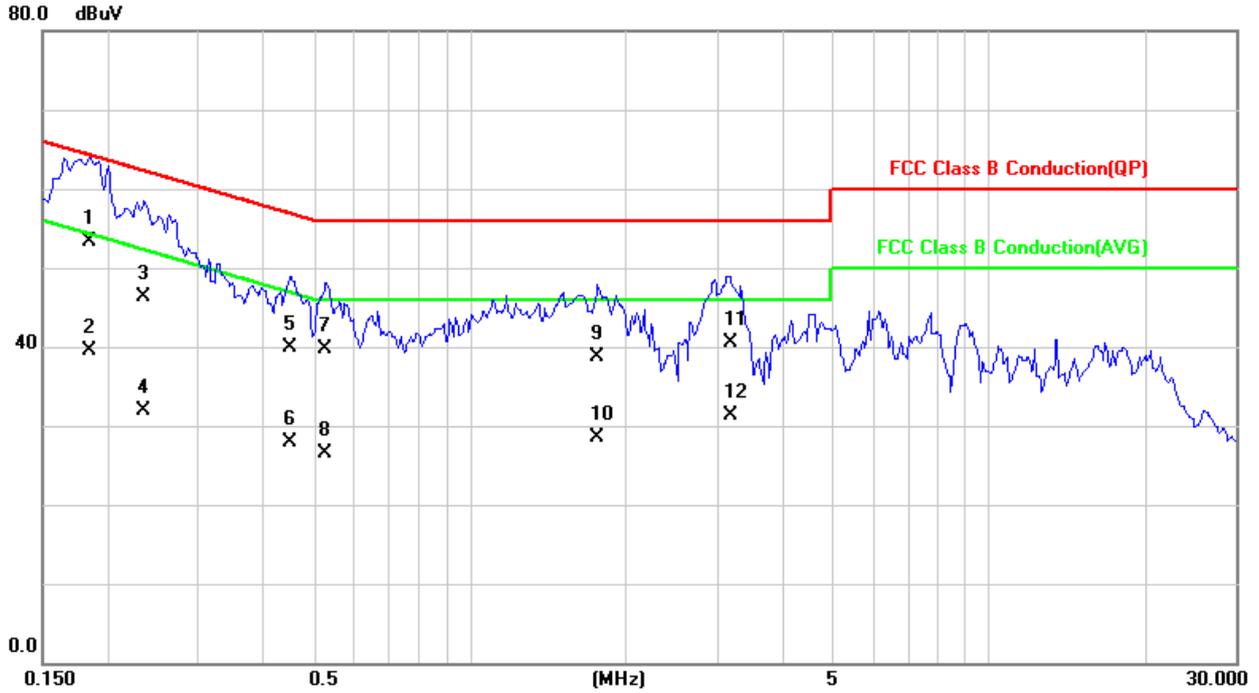
EUT Conf.	Maximum Emissions	Verdict
TM1_DH5_Ch39	Not found obvious spikes or see marked spikes on plots and listed emissions records.	Pass

## 2 Result Plot

Channel 39



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Line
1	0.1773	37.60	9.69	47.29	64.61	-17.32	QP	L1
2	0.1773	25.50	9.69	35.19	54.61	-19.42	AVG	L1
3	0.4508	34.30	9.82	44.12	56.86	-12.74	QP	L1
4	0.4508	23.70	9.82	33.52	46.86	-13.34	AVG	L1
5	0.5720	38.10	9.84	47.94	56.00	-8.06	QP	L1
6	0.5720	25.50	9.84	35.34	46.00	-10.66	AVG	L1
7	0.7007	30.80	9.90	40.70	56.00	-15.30	QP	L1
8	0.7007	21.20	9.90	31.10	46.00	-14.90	AVG	L1
9	1.1344	35.70	10.01	45.71	56.00	-10.29	QP	L1
10	1.1344	22.20	10.01	32.21	46.00	-13.79	AVG	L1
11	2.9273	36.20	9.83	46.03	56.00	-9.97	QP	L1
12	2.9273	26.70	9.83	36.53	46.00	-9.47	AVG	L1



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Line
1	0.1852	43.60	9.61	53.21	64.25	-11.04	QP	N
2	0.1852	29.90	9.61	39.51	54.25	-14.74	AVG	N
3	0.2360	36.60	9.62	46.22	62.24	-16.02	QP	N
4	0.2360	22.30	9.62	31.92	52.24	-20.32	AVG	N
5	0.4508	30.20	9.64	39.84	56.86	-17.02	QP	N
6	0.4508	18.30	9.64	27.94	46.86	-18.92	AVG	N
7	0.5290	30.10	9.65	39.75	56.00	-16.25	QP	N
8	0.5290	16.90	9.65	26.55	46.00	-19.45	AVG	N
9	1.7672	28.80	9.88	38.68	56.00	-17.32	QP	N
10	1.7672	18.70	9.88	28.58	46.00	-17.42	AVG	N
11	3.1797	30.70	9.83	40.53	56.00	-15.47	QP	N
12	3.1797	21.50	9.83	31.33	46.00	-14.67	AVG	N

END