



# Appendix A: 20dB Emission Bandwidth (EBW)



## 1 Result Table

EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.947	Pass
TM1_DH5_Ch39	0.946	Pass
TM1_DH5_Ch78	0.946	Pass
TM2_2DH5_Ch0	1.284	Pass
TM2_2DH5_Ch39	1.284	Pass
TM2_2DH5_Ch78	1.283	Pass
TM3_3DH5_Ch0	1.280	Pass
TM3_3DH5_Ch39	1.280	Pass
TM3_3DH5_Ch78	1.279	Pass



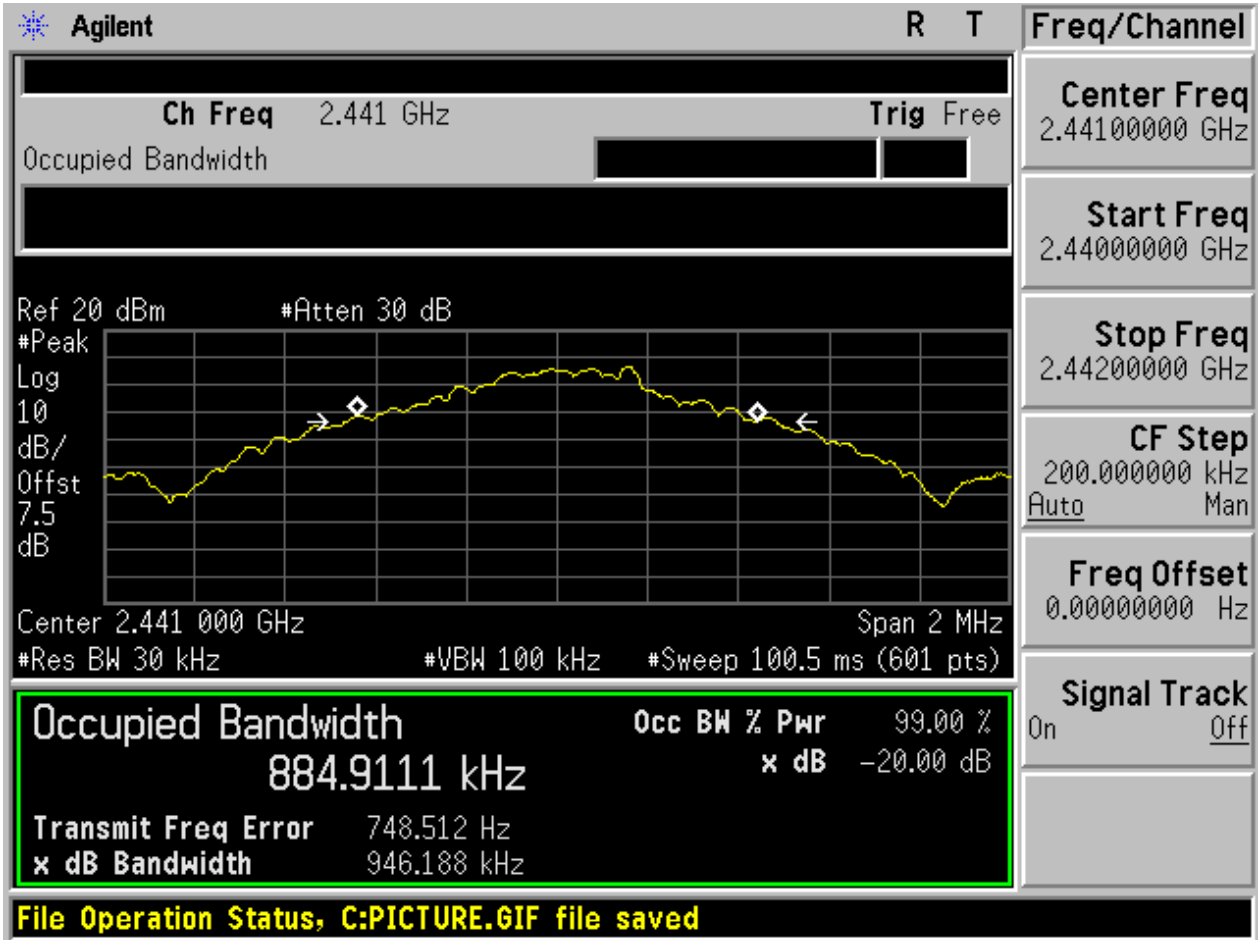
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

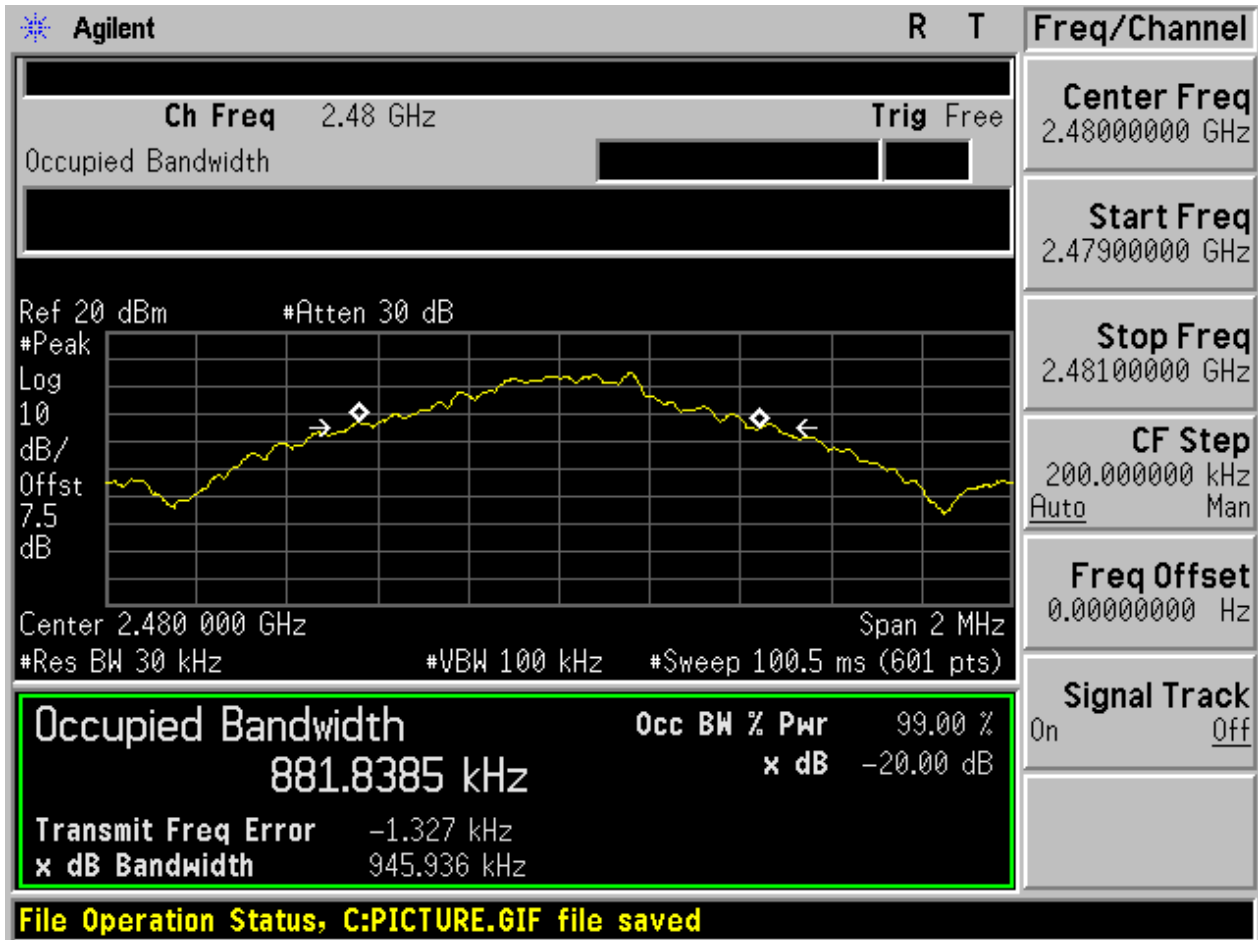




2.2 TM1\_DH5\_Ch39



## 2.3 TM1\_DH5\_Ch78

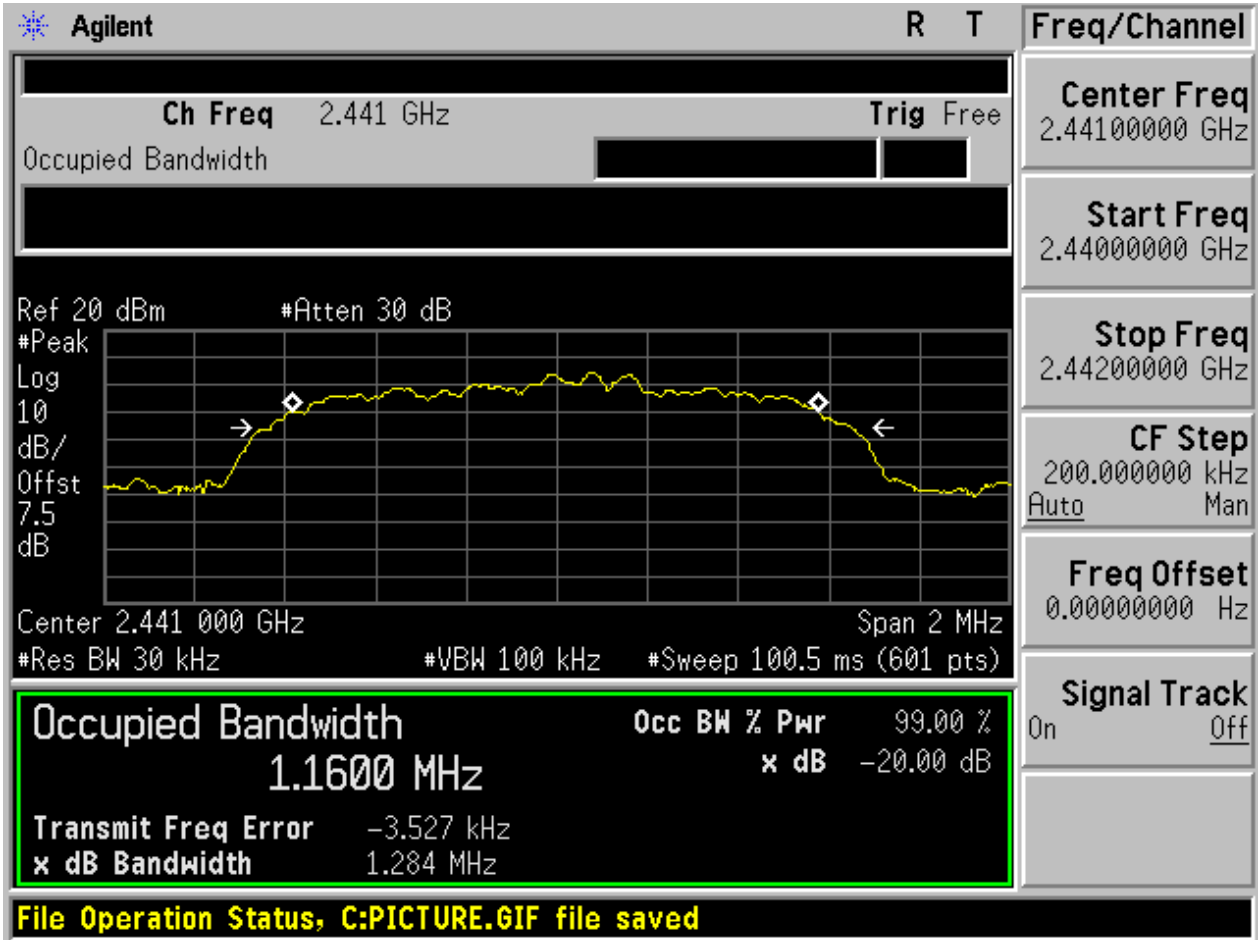


2.4 TM2\_2DH5\_Ch0



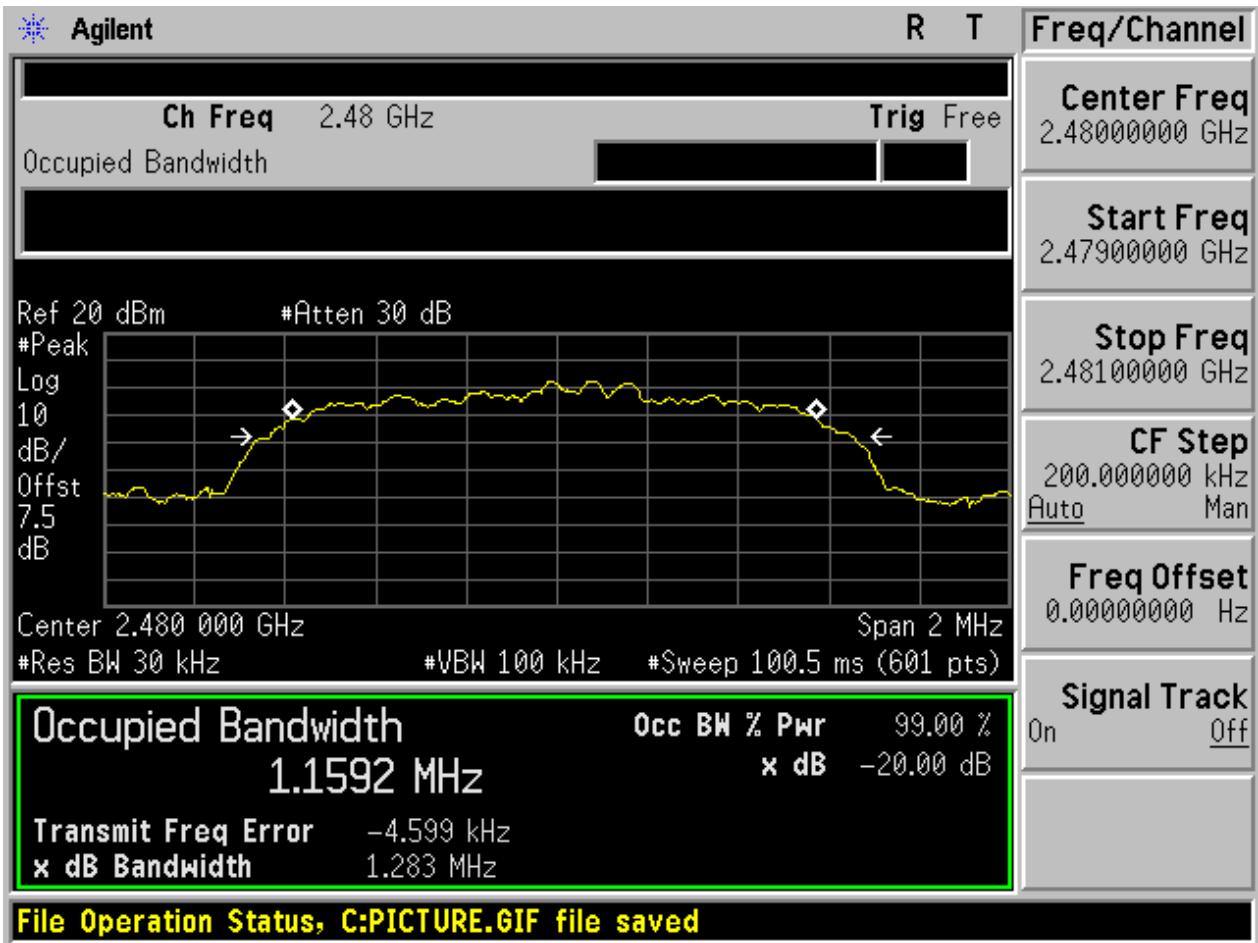


2.5 TM2\_2DH5\_Ch39





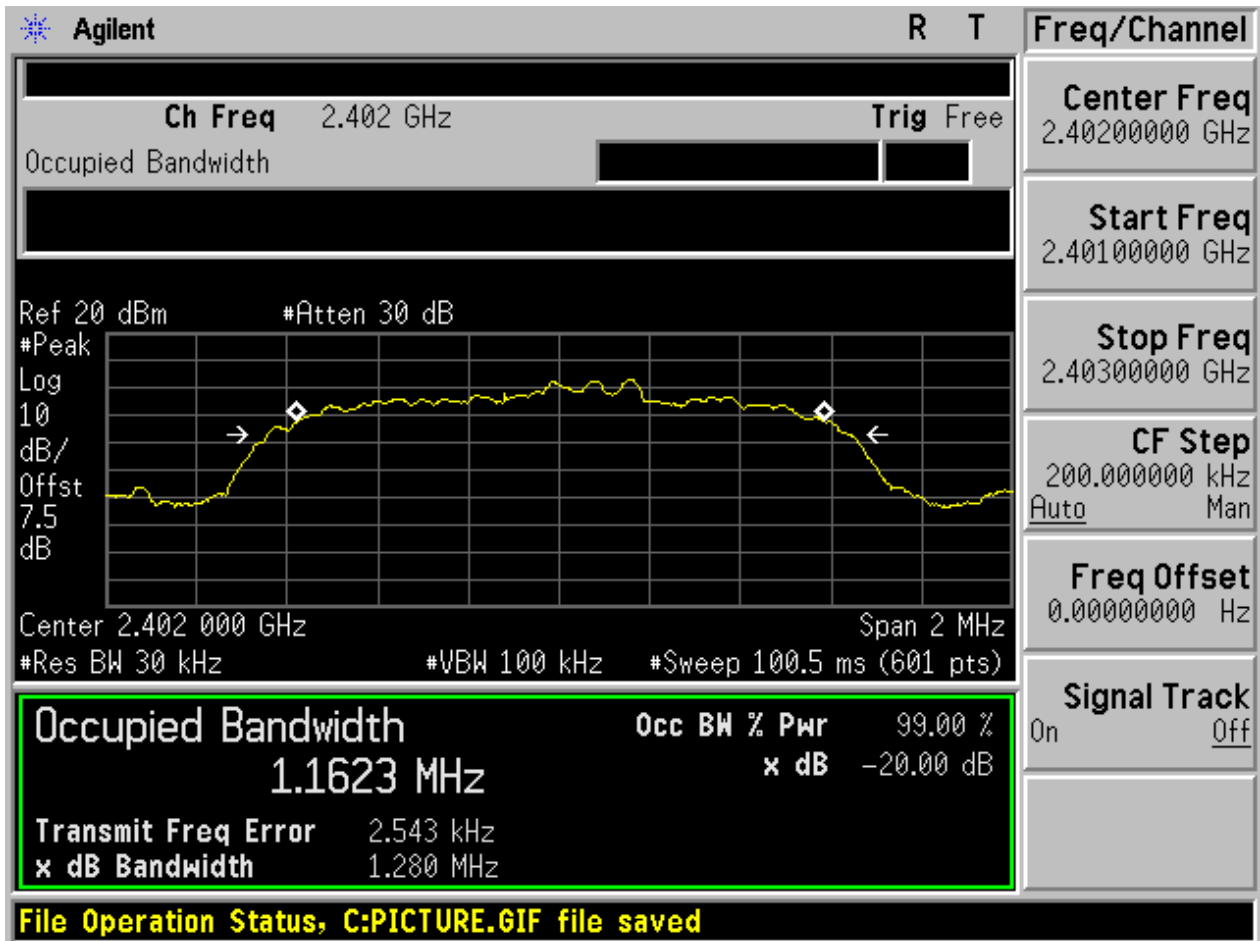
2.6 TM2\_2DH5\_Ch78





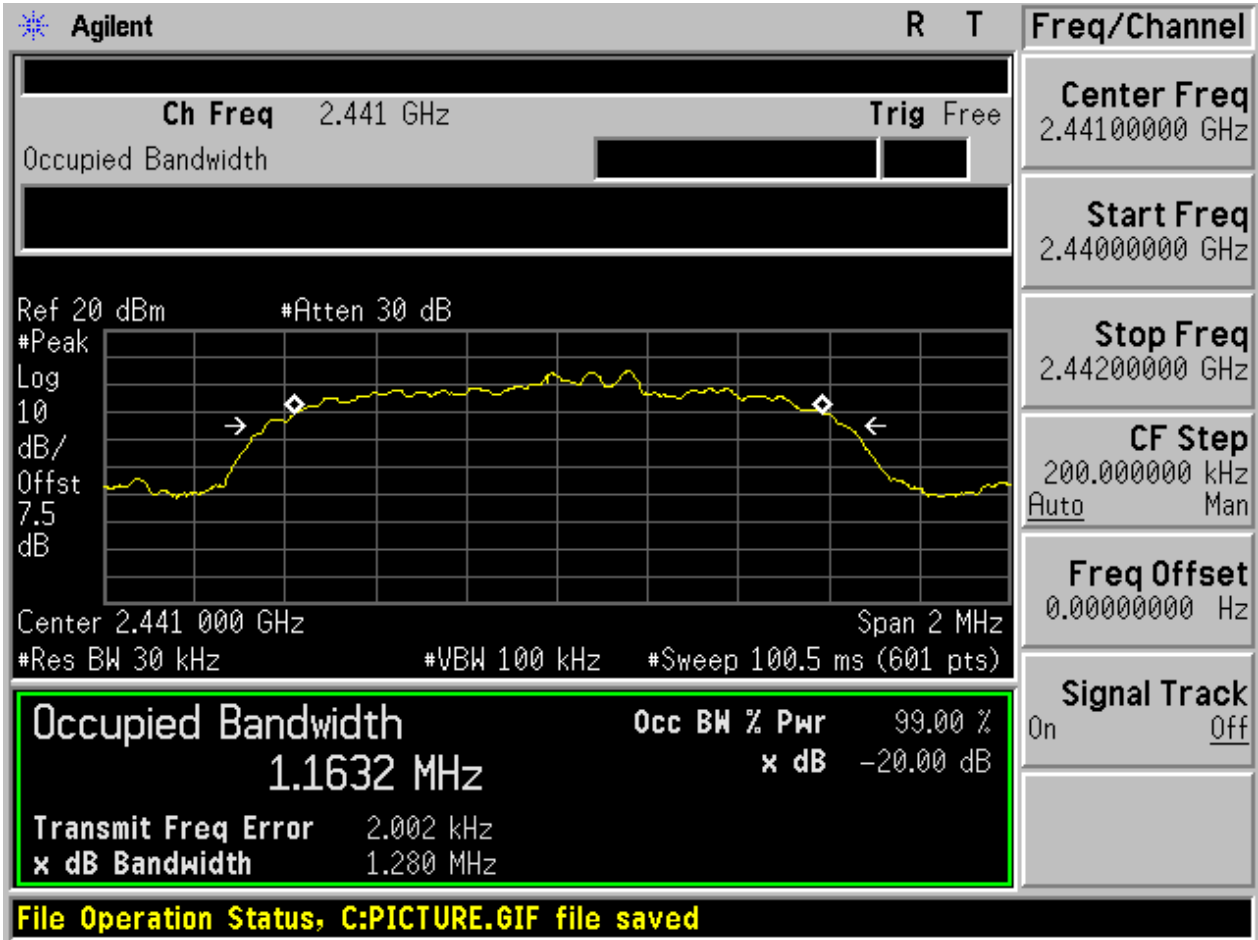


### 2.7 TM3\_3DH5\_Ch0



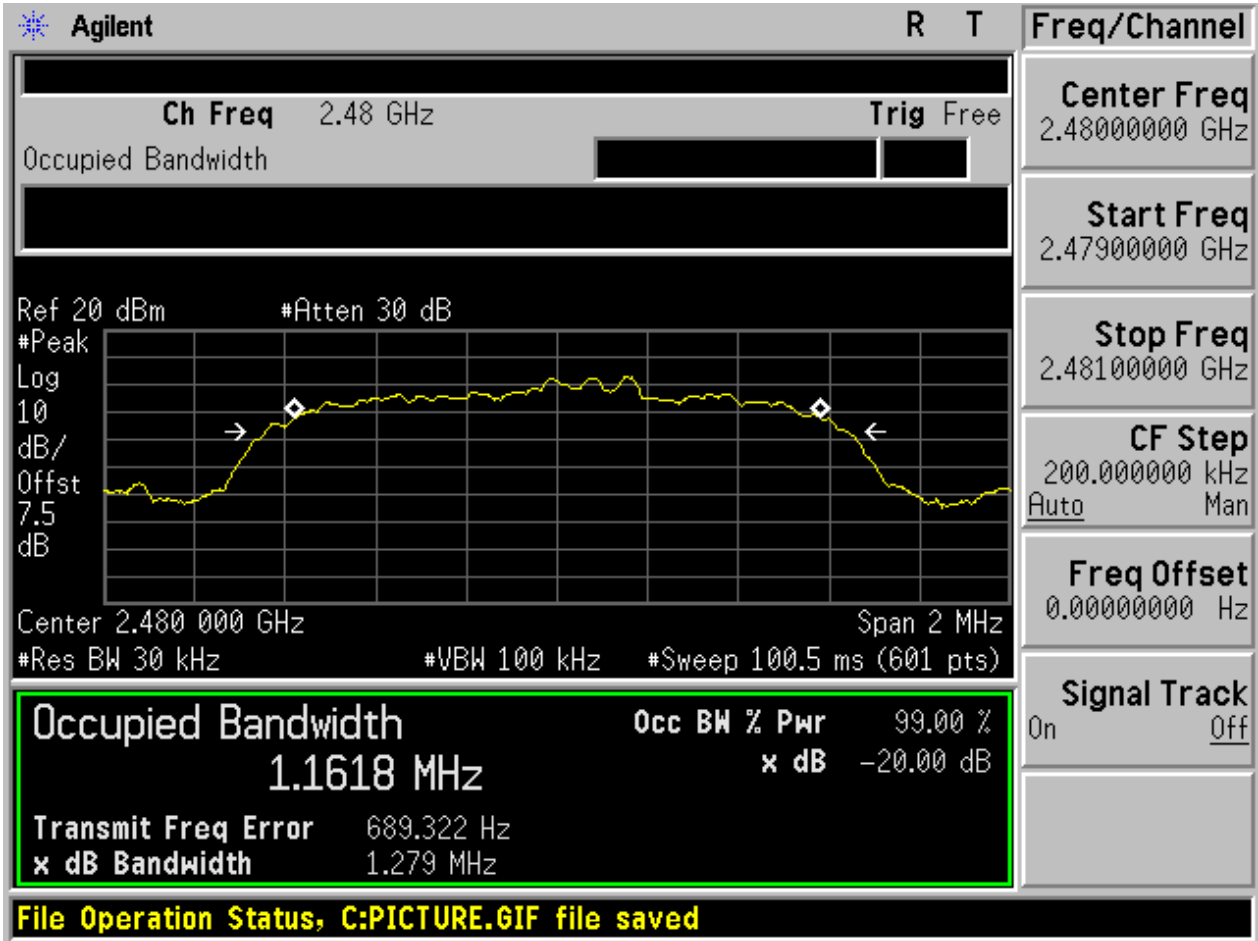


2.8 TM3\_3DH5\_Ch39





2.9 TM3\_3DH5\_Ch78





# Appendix B: Carrier Frequency Separation



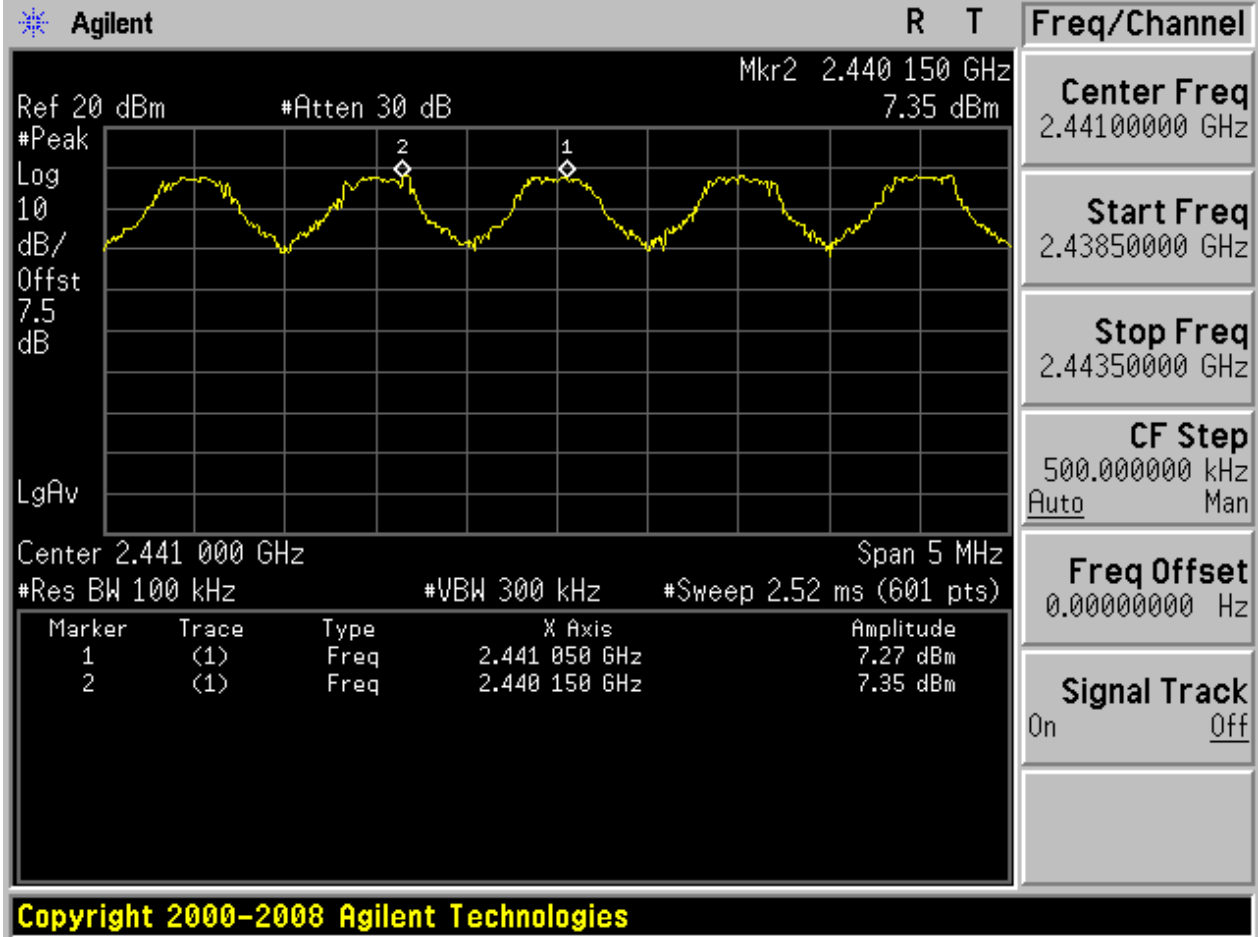
## 1 Result Table

EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	0.900	Pass
TM2_2DH5_Hop	1.000	Pass
TM3_3DH5_Hop	1.000	Pass



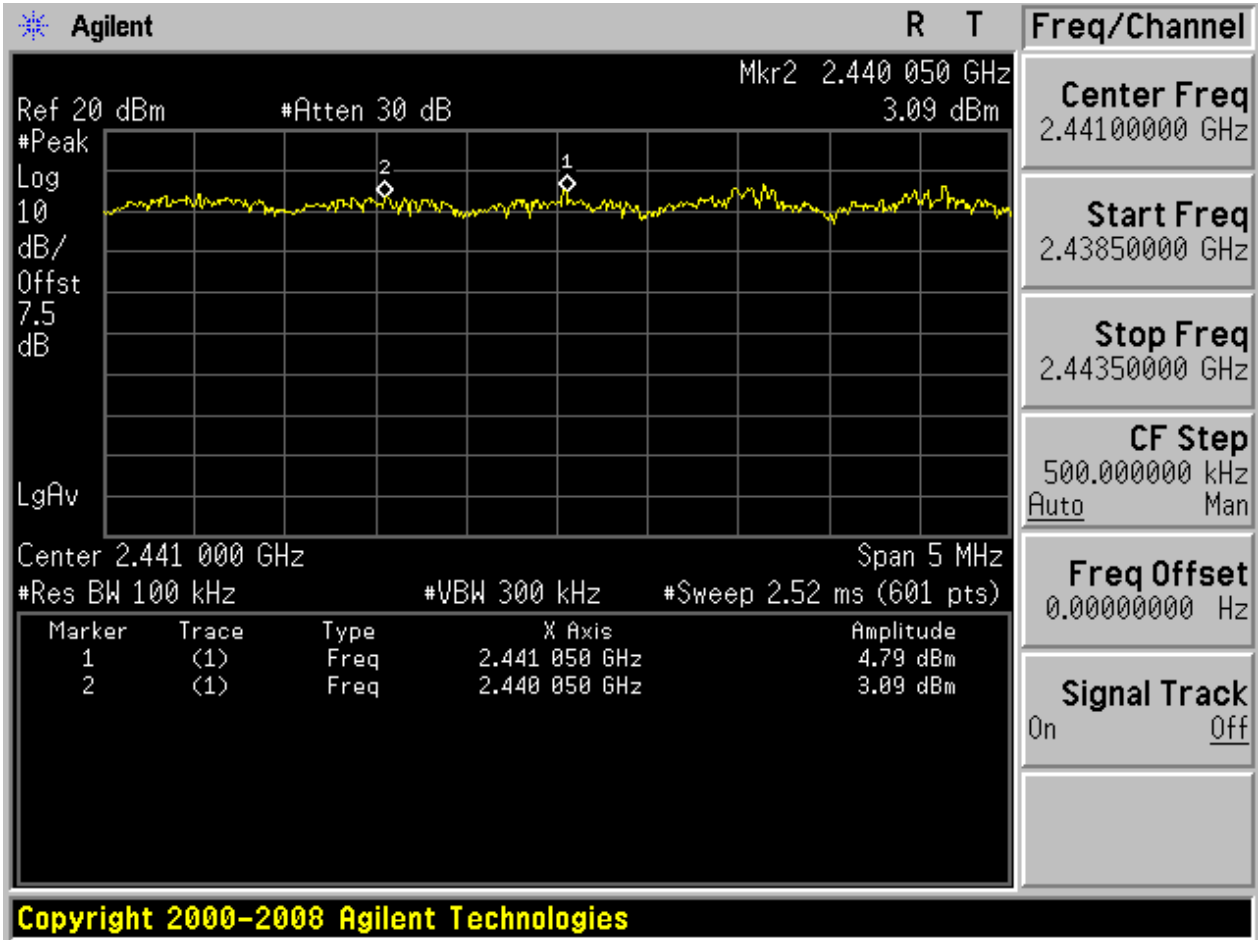
## 2 Test Plot

### 2.1 TM1\_DH5\_Hop

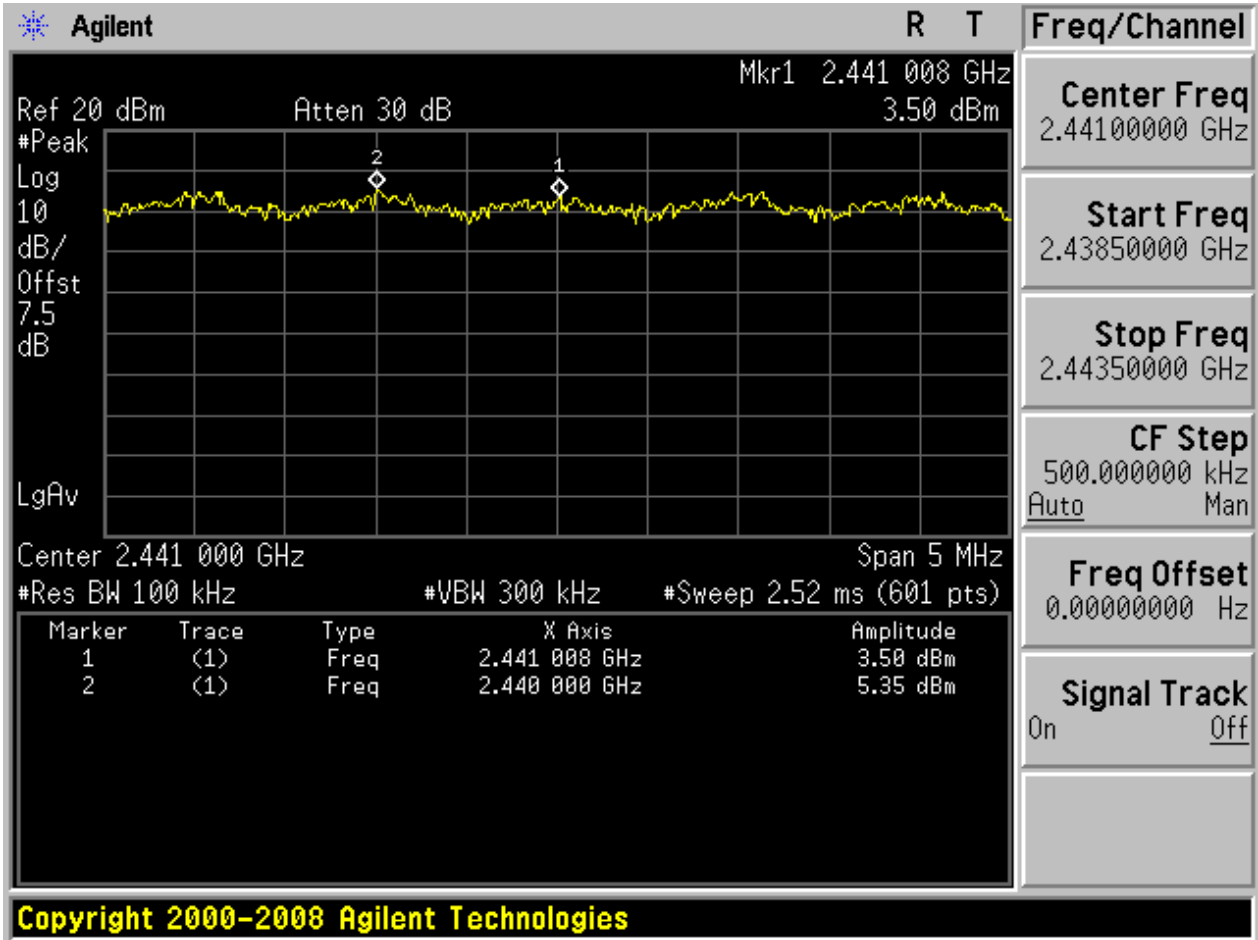




2.2 TM2\_2DH5\_Hop



### 2.3 TM3\_3DH5\_Hop







# Appendix C: Number of Hopping Channel



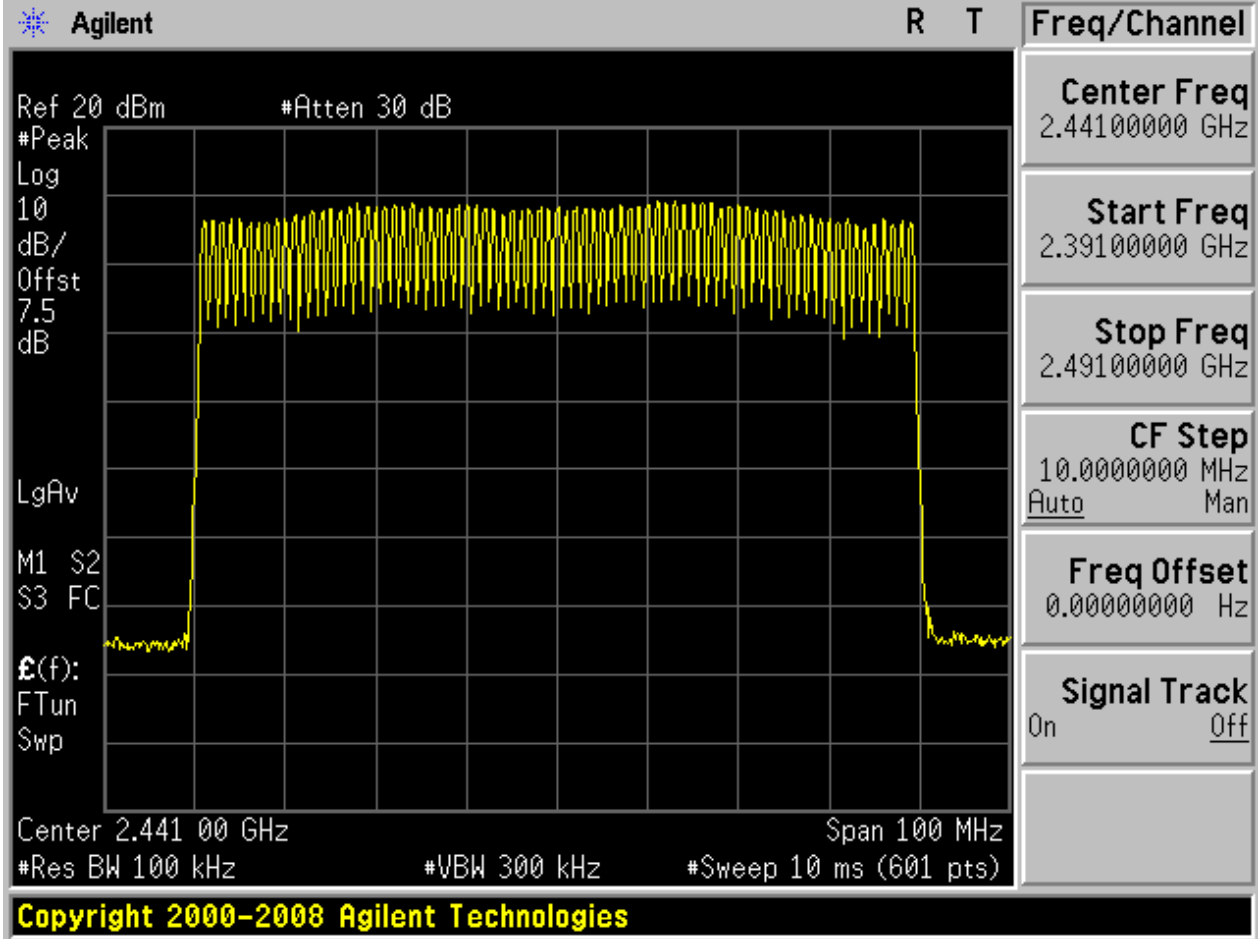
## 1 Result Table

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



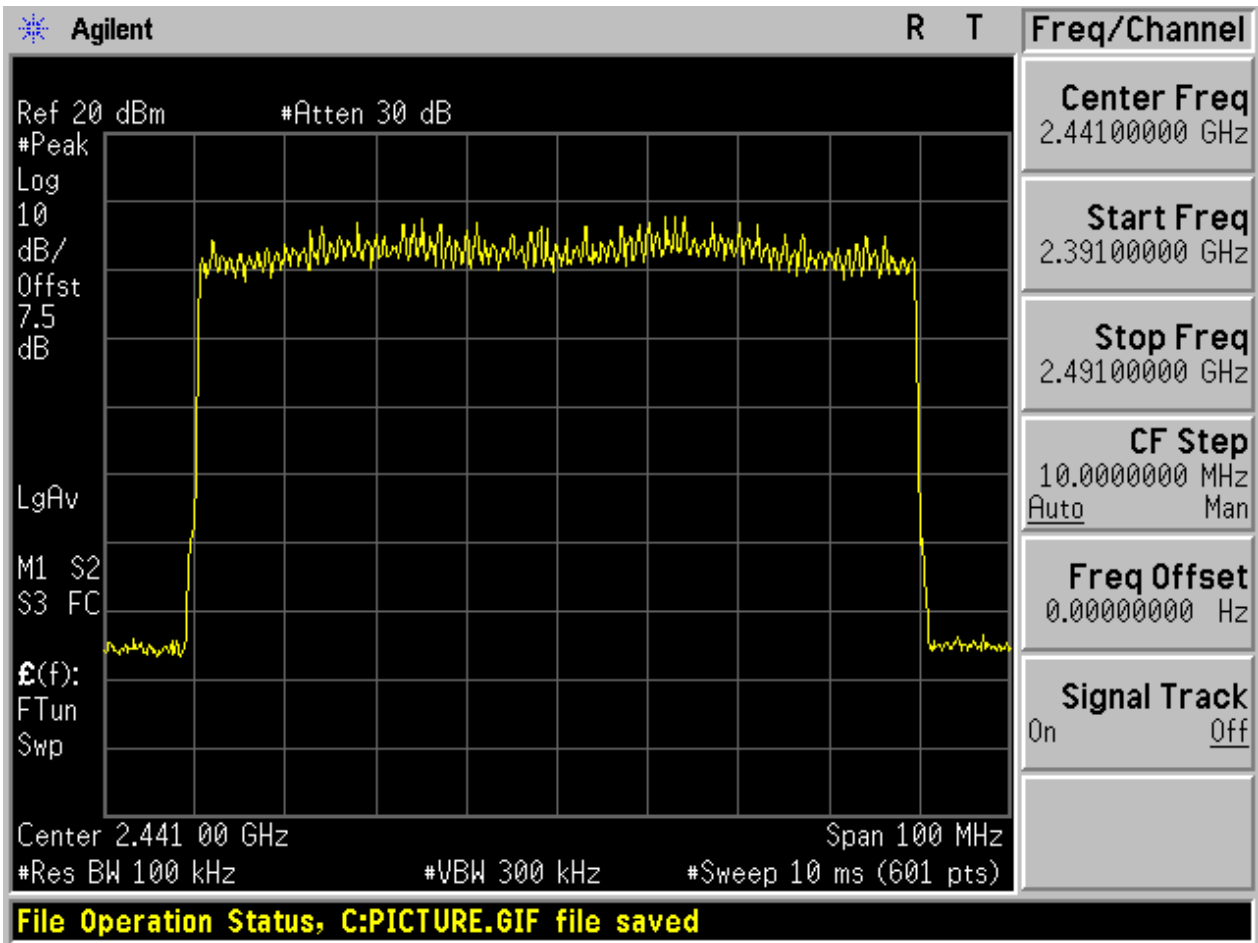
## 2 Test Plot

### 2.1 TM1\_DH5\_Hop



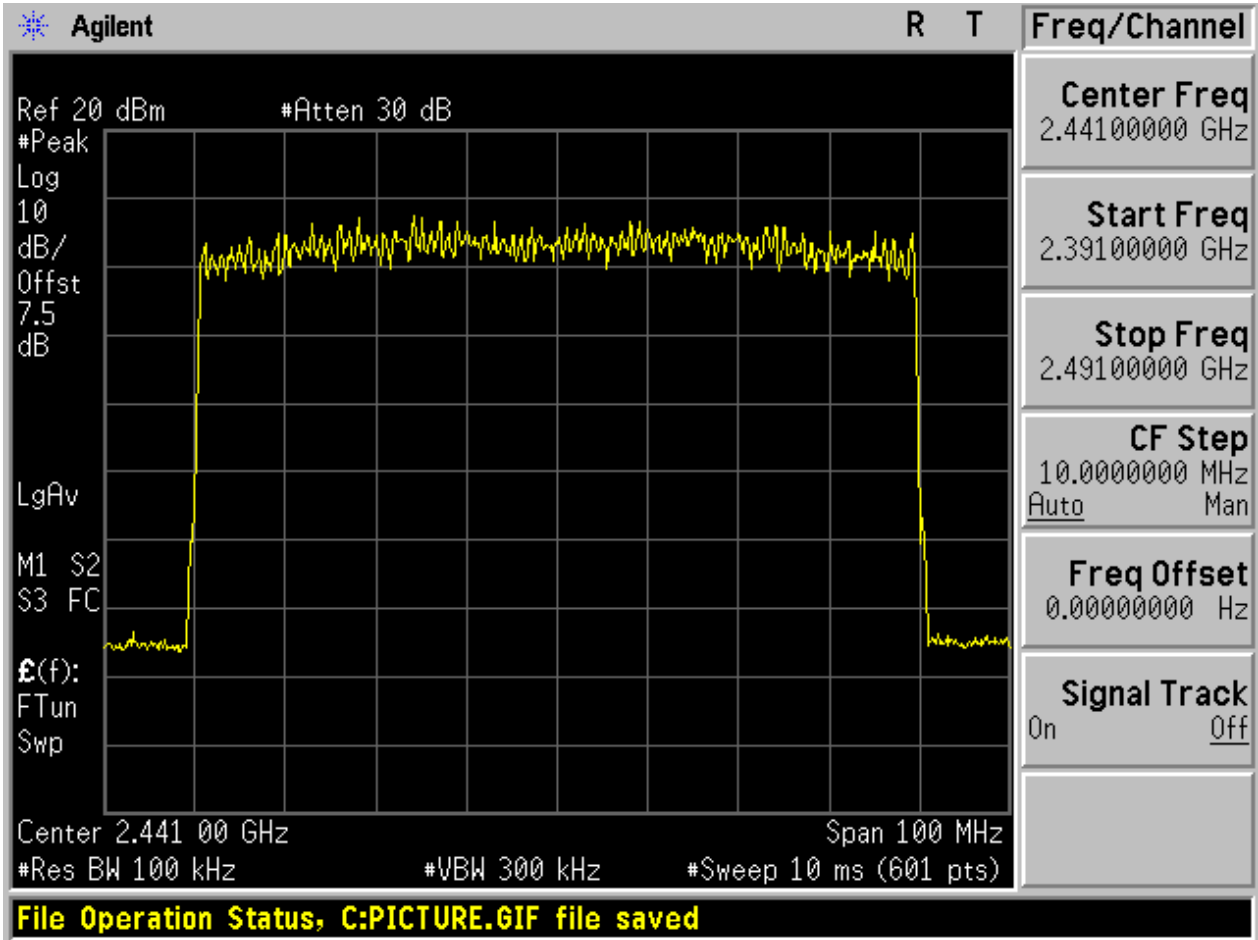


## 2.2 TM2\_2DH5\_Hop





### 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:

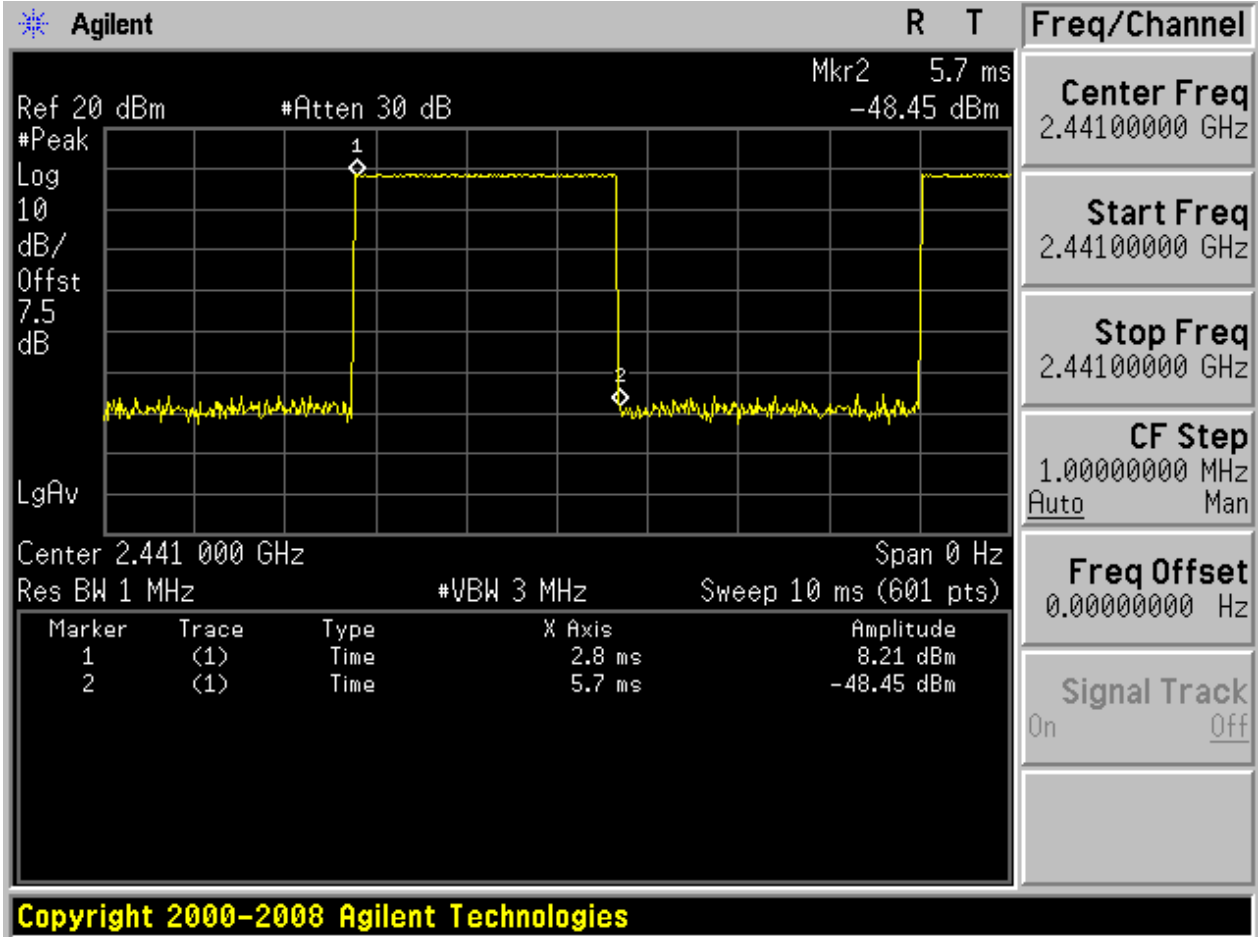
- The duration for dwell time calculation:  $0.4 \text{ [s]} * \text{hopping number} = 0.4 \text{ [s]} * 79 \text{ [ch]} = 31.6 \text{ [s*ch]}$ ;
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected 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 [ms]	Verdict
TM1_DH5_Ch39	2.900	106.67	0.309	Pass
TM2_2DH5_Ch39	2.400	106.67	0.256	Pass
TM3_3DH5_Ch39	2.900	106.67	0.309	Pass

## 2 Test Plot

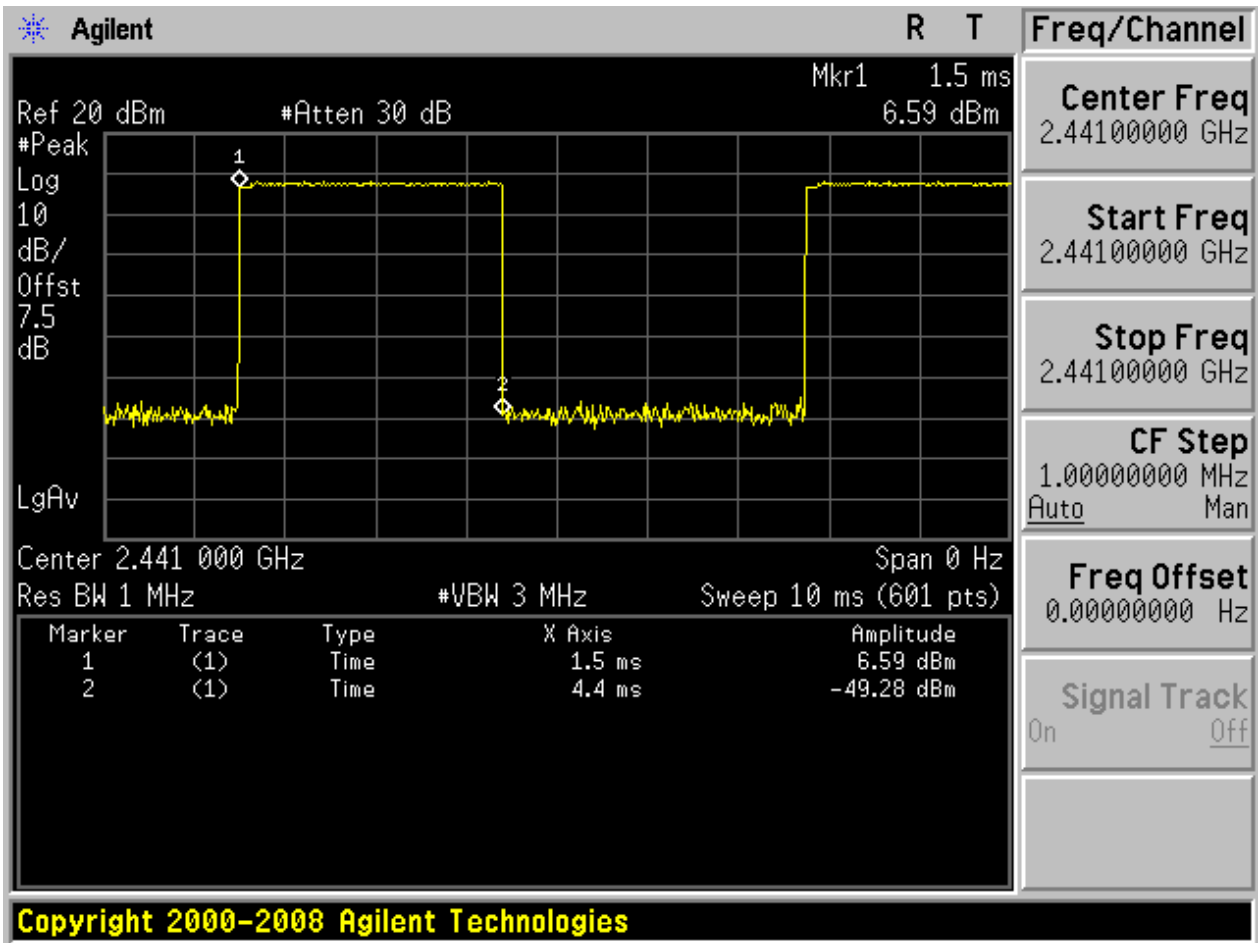
NOTE: The test plots are only for Burst Width measurements.

### 2.1 TM1\_DH5\_Ch39

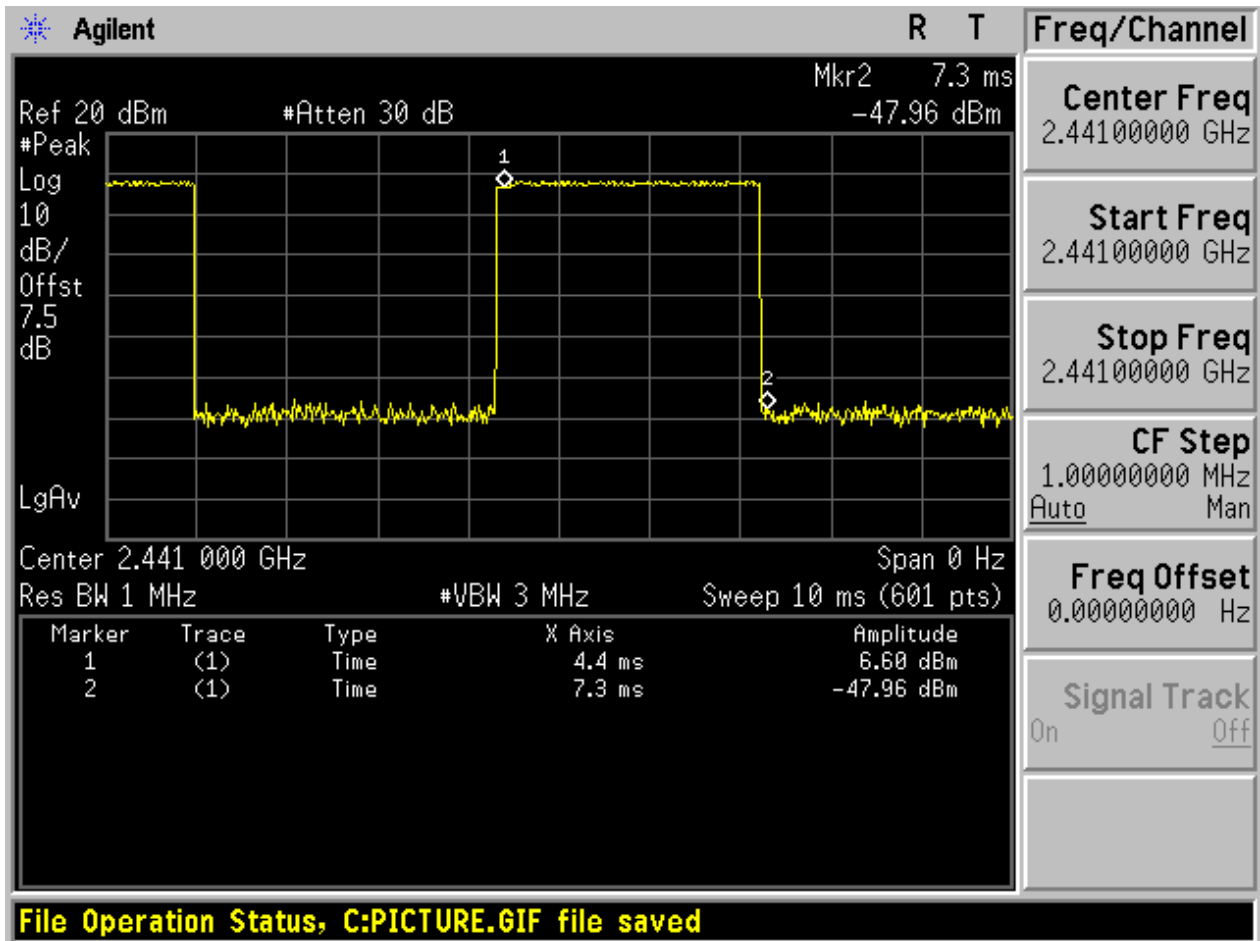




2.2 TM2\_2DH5\_Ch39



2.3 TM3\_3DH5\_Ch39





# Appendix E: Maximum Peak Conducted Output Power

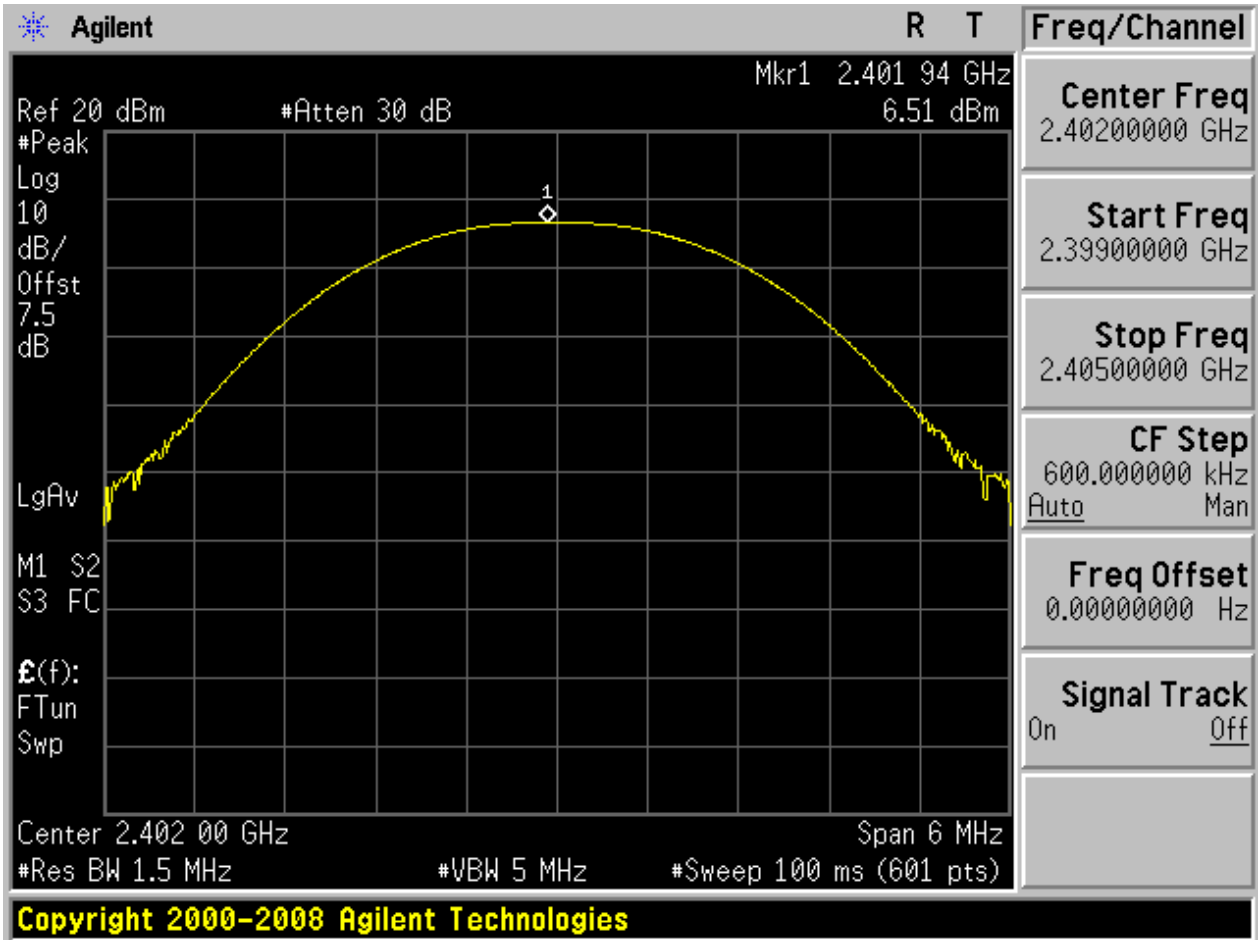


## 1 Result Table

EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	6.5	Pass
TM1_DH5_Ch39	8.42	Pass
TM1_DH5_Ch78	6.65	Pass
TM2_2DH5_Ch0	6.48	Pass
TM2_2DH5_Ch39	8.3	Pass
TM2_2DH5_Ch78	6.6	Pass
TM3_3DH5_Ch0	6.68	Pass
TM3_3DH5_Ch39	8.47	Pass
TM3_3DH5_Ch78	6.8	Pass

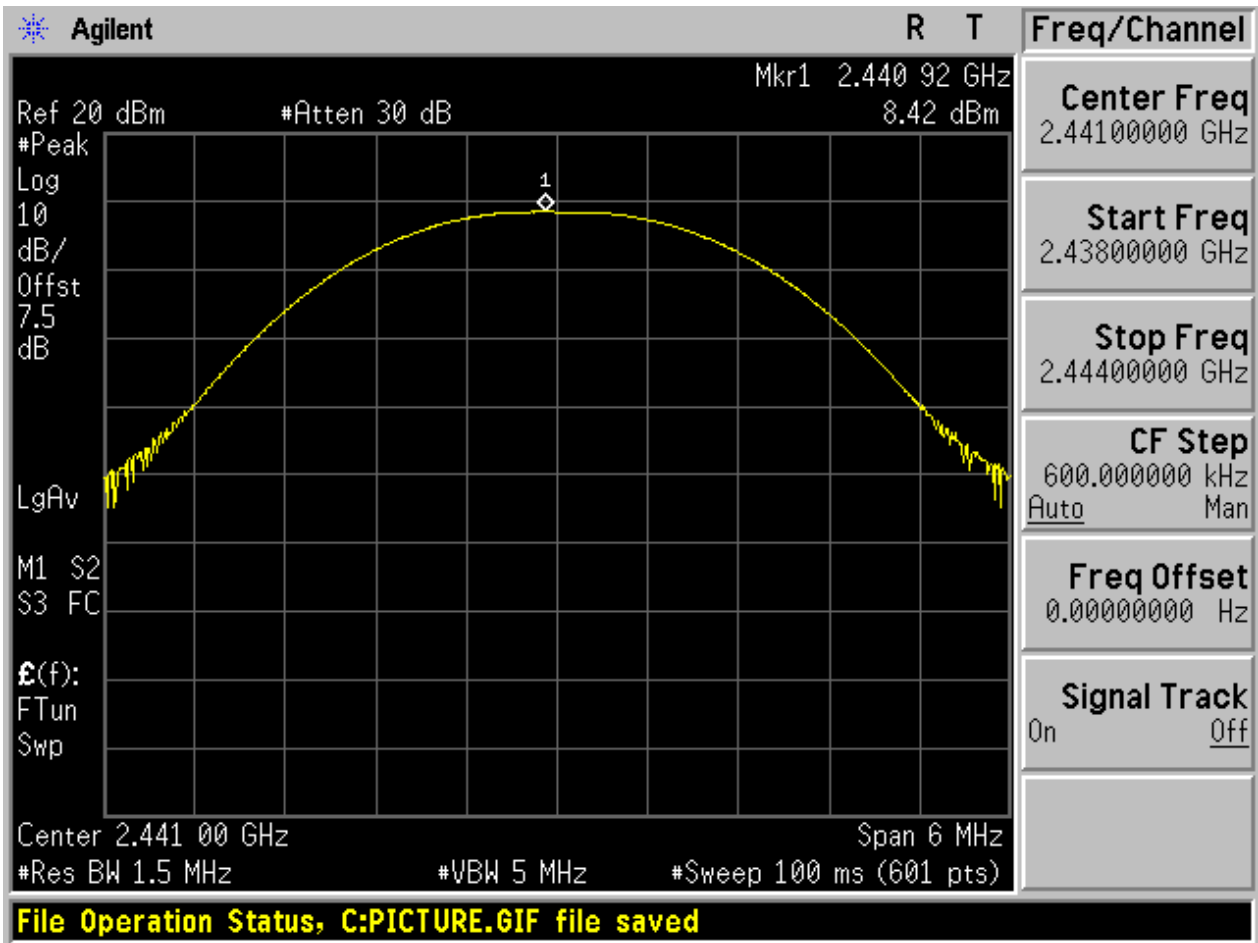
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

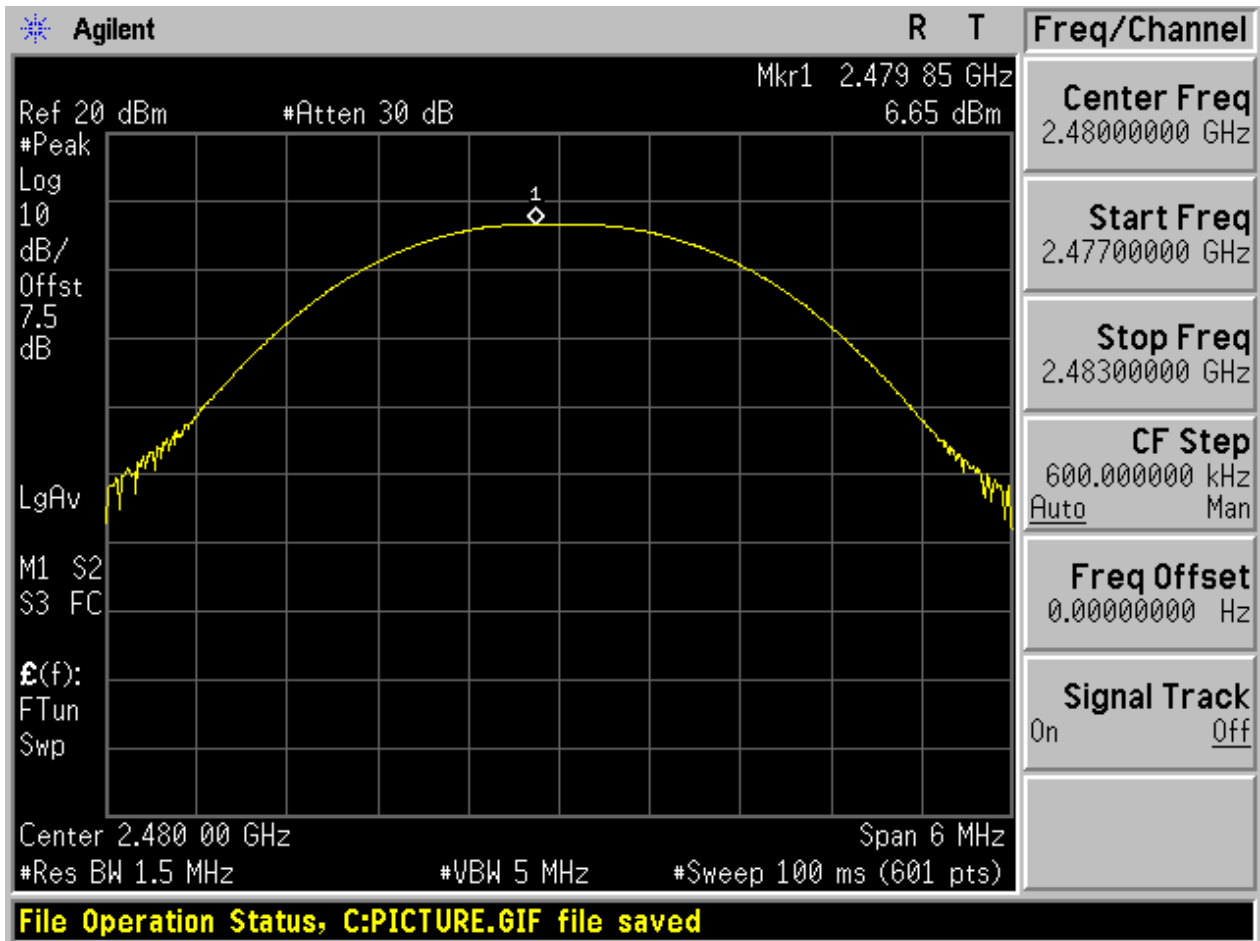




## 2.2 TM1\_DH5\_Ch39

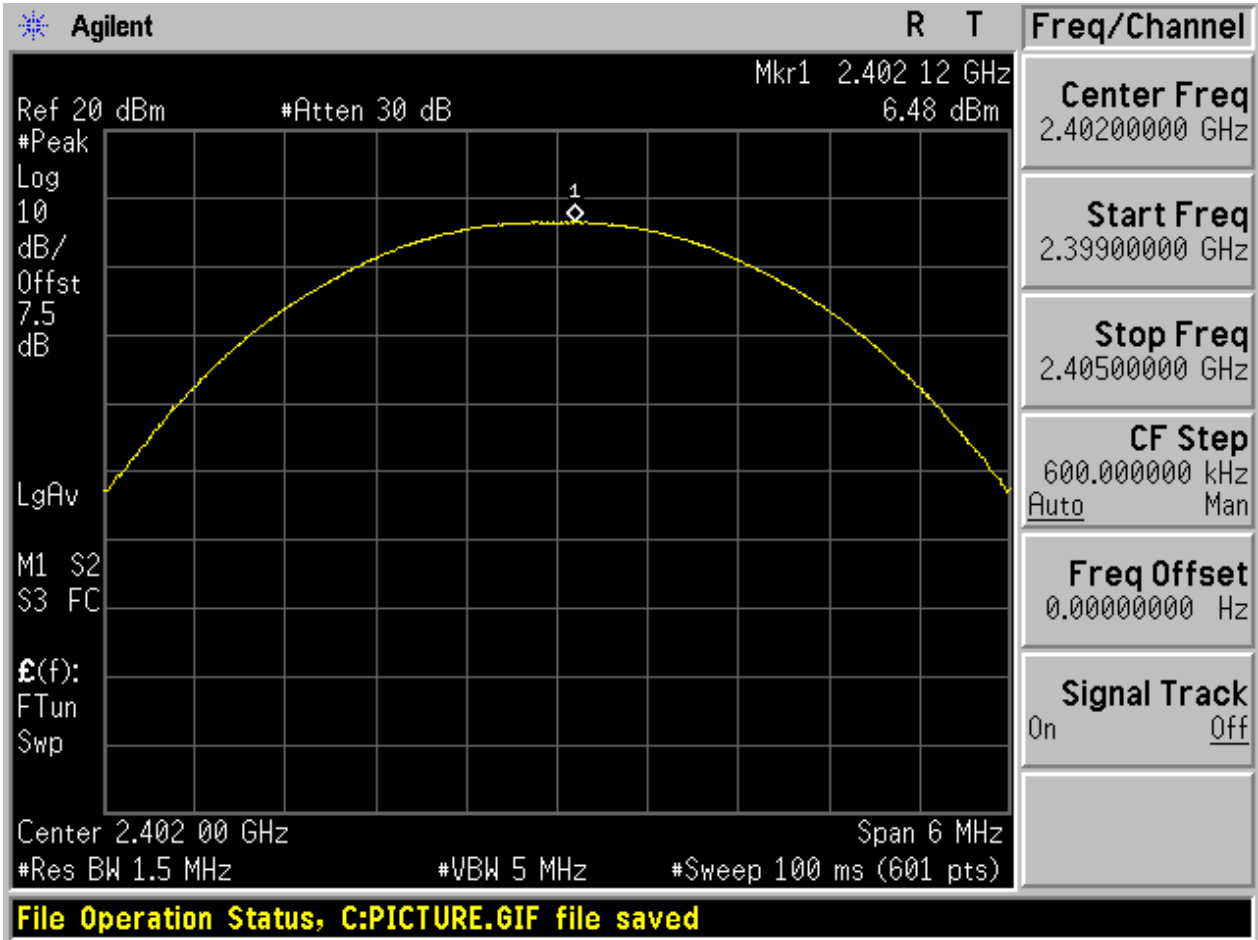


## 2.3 TM1\_DH5\_Ch78





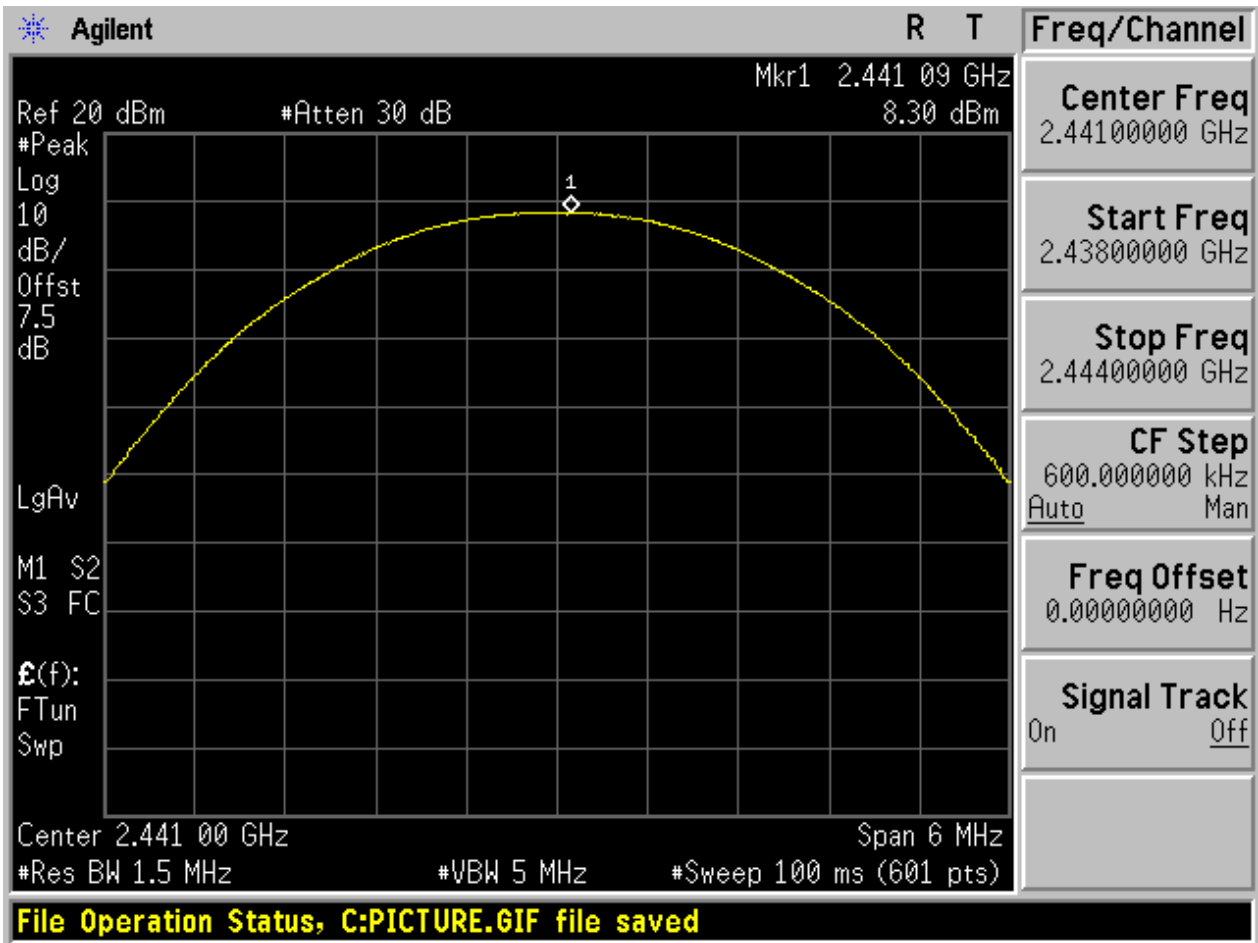
### 2.4 TM2\_2DH5\_Ch0



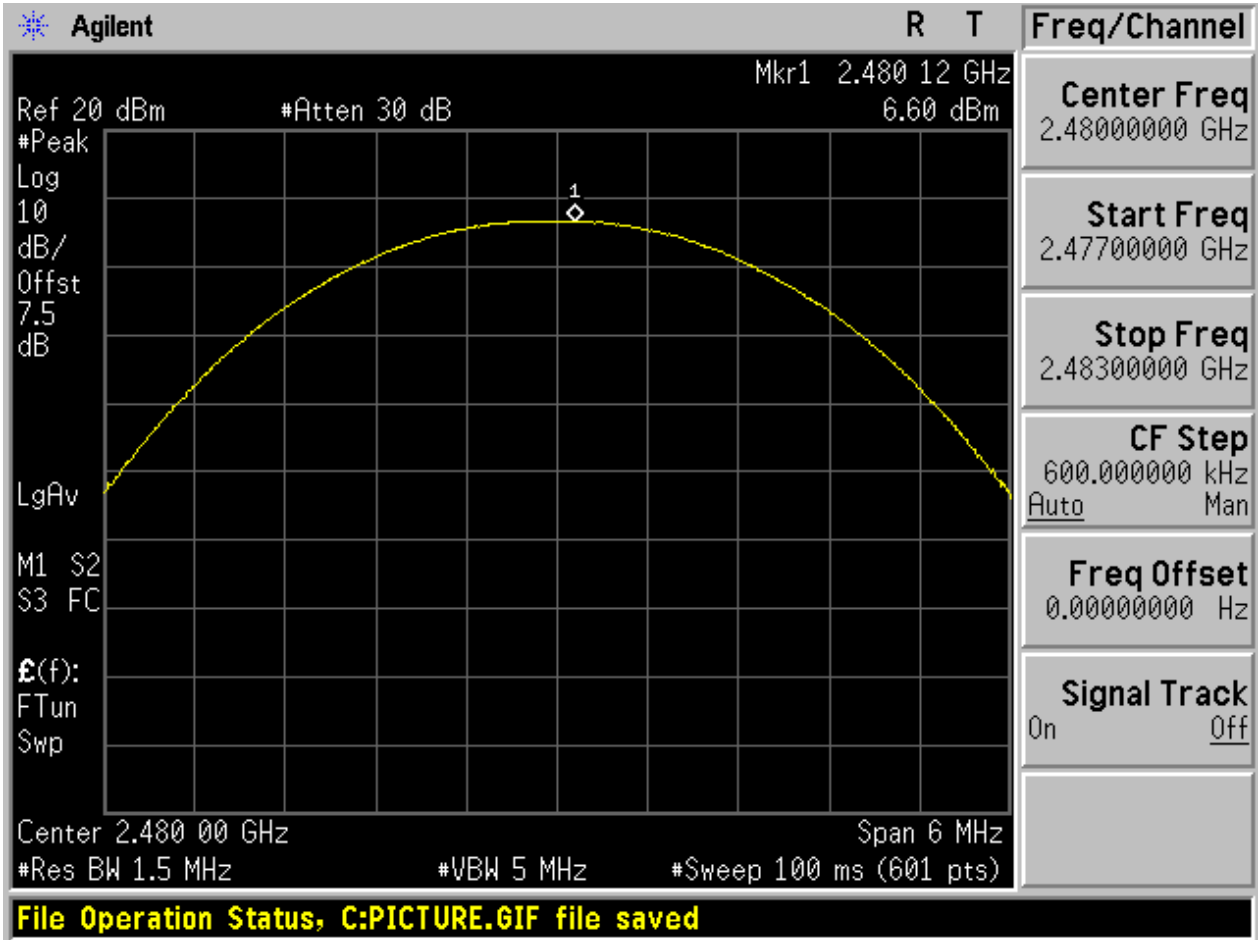




### 2.5 TM2\_2DH5\_Ch39

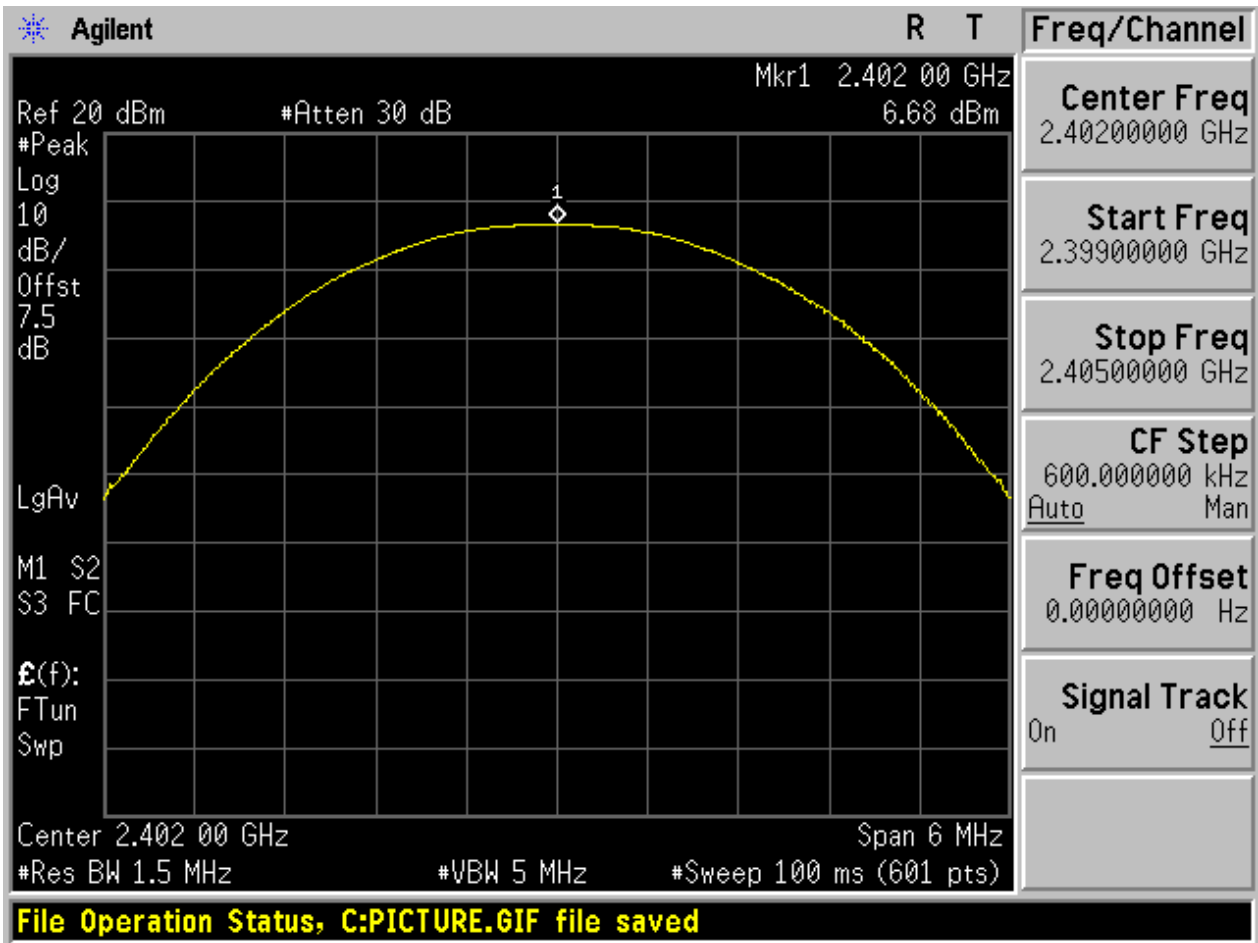


2.6 TM2\_2DH5\_Ch78



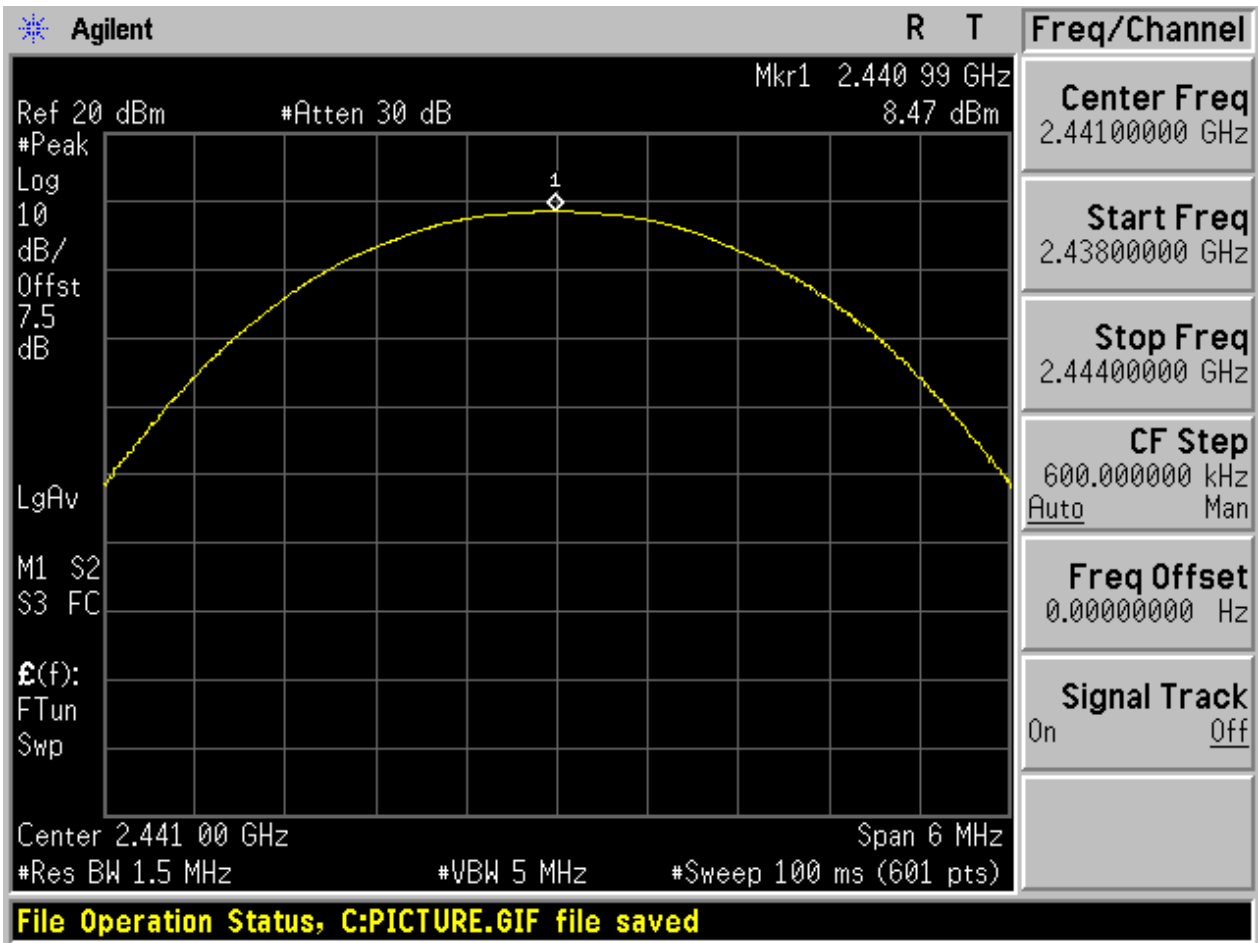


### 2.7 TM3\_3DH5\_Ch0



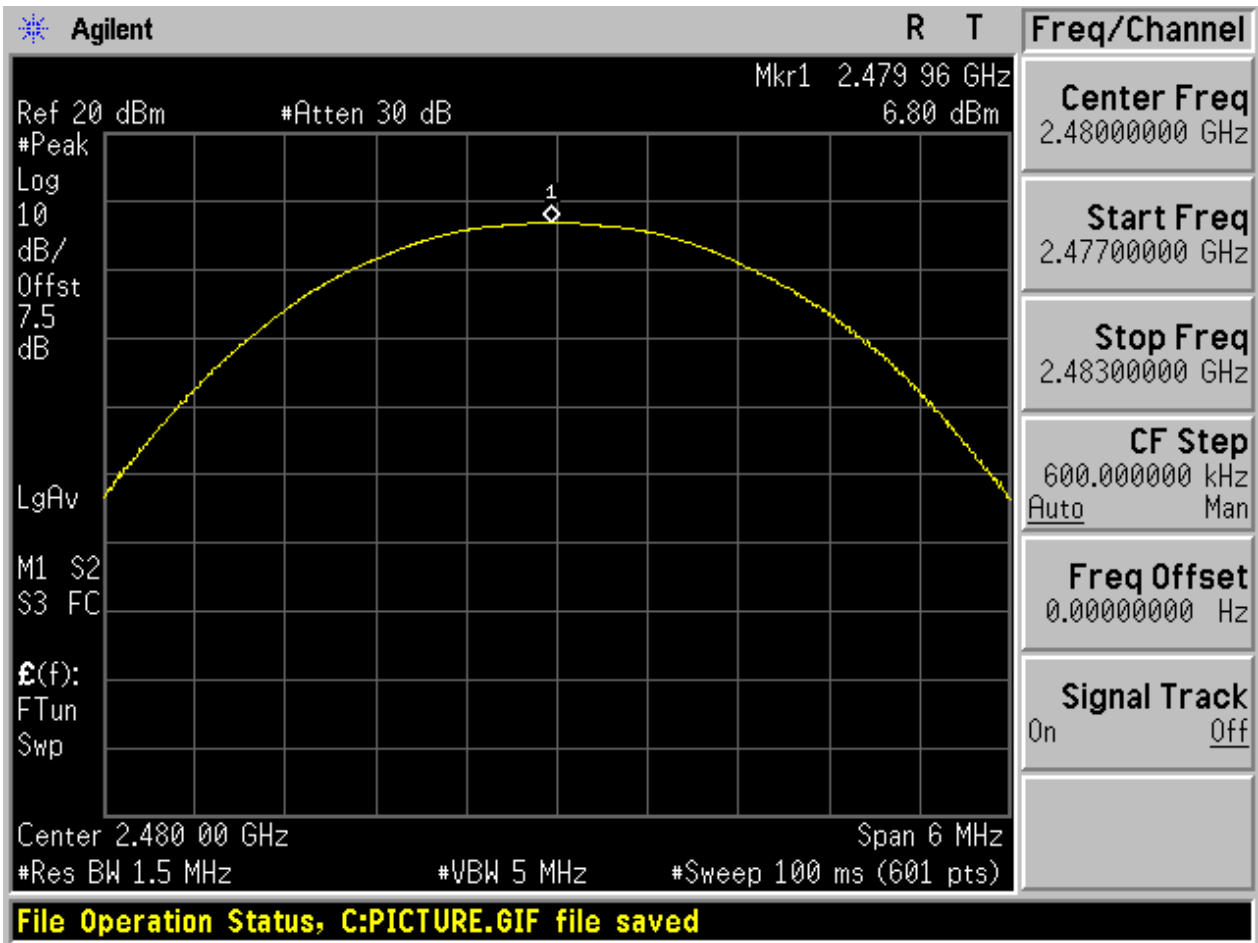


### 2.8 TM3\_3DH5\_Ch39





### 2.9 TM3\_3DH5\_Ch78





# Appendix F: Average Power

## 1 Result Table

EUT Conf.	Average Power [dBm]	Verdict
TM1_DH5_Ch0	5.59	Pass
TM1_DH5_Ch39	7.16	Pass
TM1_DH5_Ch78	5.52	Pass
TM2_2DH5_Ch0	3.95	Pass
TM2_2DH5_Ch39	5.71	Pass
TM2_2DH5_Ch78	3.83	Pass
TM3_3DH5_Ch0	3.92	Pass
TM3_3DH5_Ch39	5.74	Pass
TM3_3DH5_Ch78	3.81	Pass



# Appendix G: Band edge spurious emission



## 2 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	-50.26	Off	6.53	-13.47	Pass
	-	-	-54.31	On	6.41	-13.59	Pass
TM1_DH5 _Ch78	78	2480	-54.04	Off	6.59	-13.41	Pass
	-	-	-54.08	On	6.18	-13.82	Pass
TM2_2DH 5_Ch0	0	2402	-51.4	Off	4.83	-15.17	Pass
	-	-	-54.43	On	4.39	-15.61	Pass
TM2_2DH 5_Ch78	78	2480	-54.1	Off	4.88	-15.12	Pass
	-	-	-54.25	On	3.75	-16.25	Pass
TM3_3DH 5_Ch0	0	2402	-52.3	Off	4.78	-15.22	Pass
	-	-	-54.52	On	4.04	-15.96	Pass
TM3_3DH 5_Ch78	78	2480	-54.13	Off	4.88	-15.12	Pass
	-	-	-54.32	On	4.13	-15.87	Pass

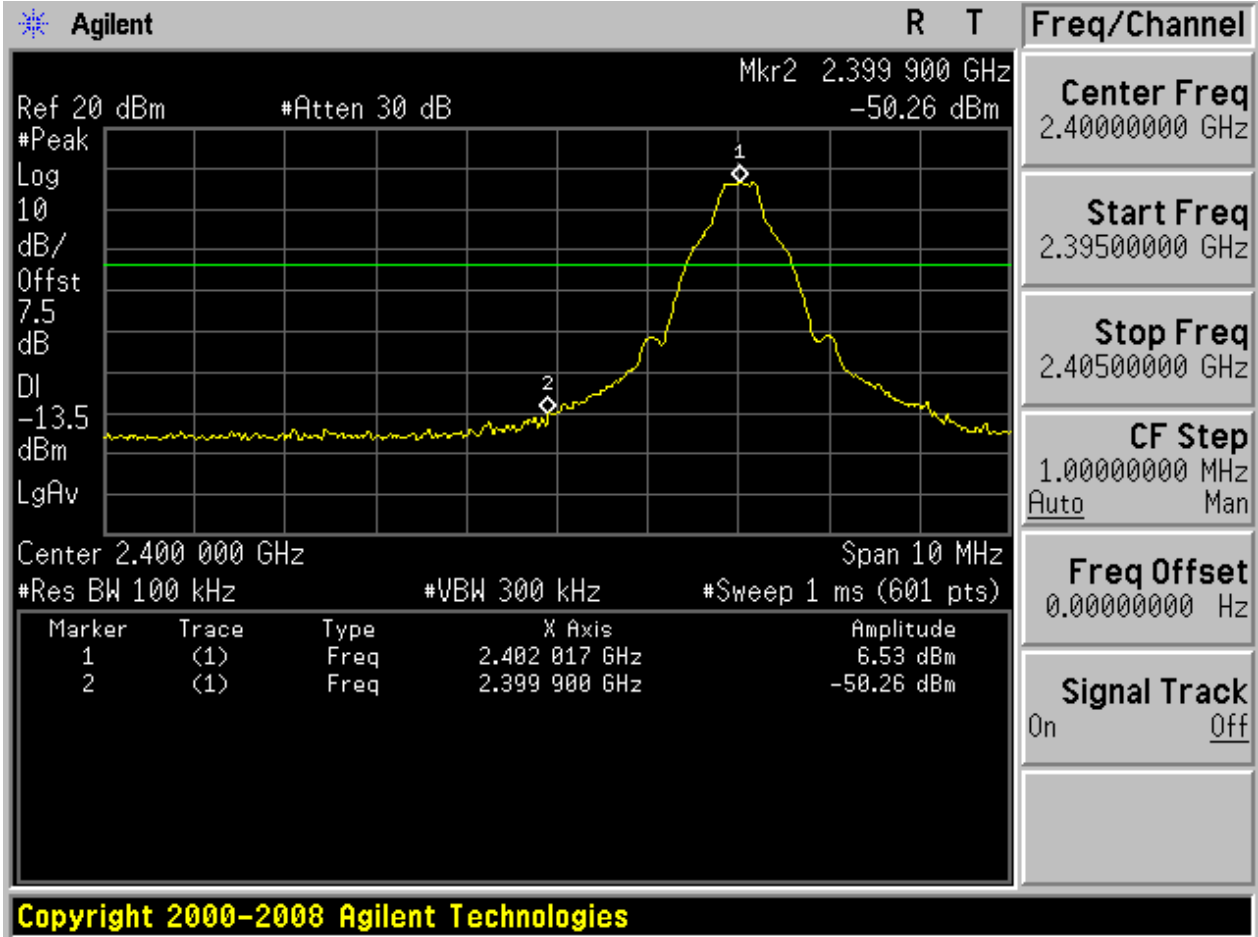




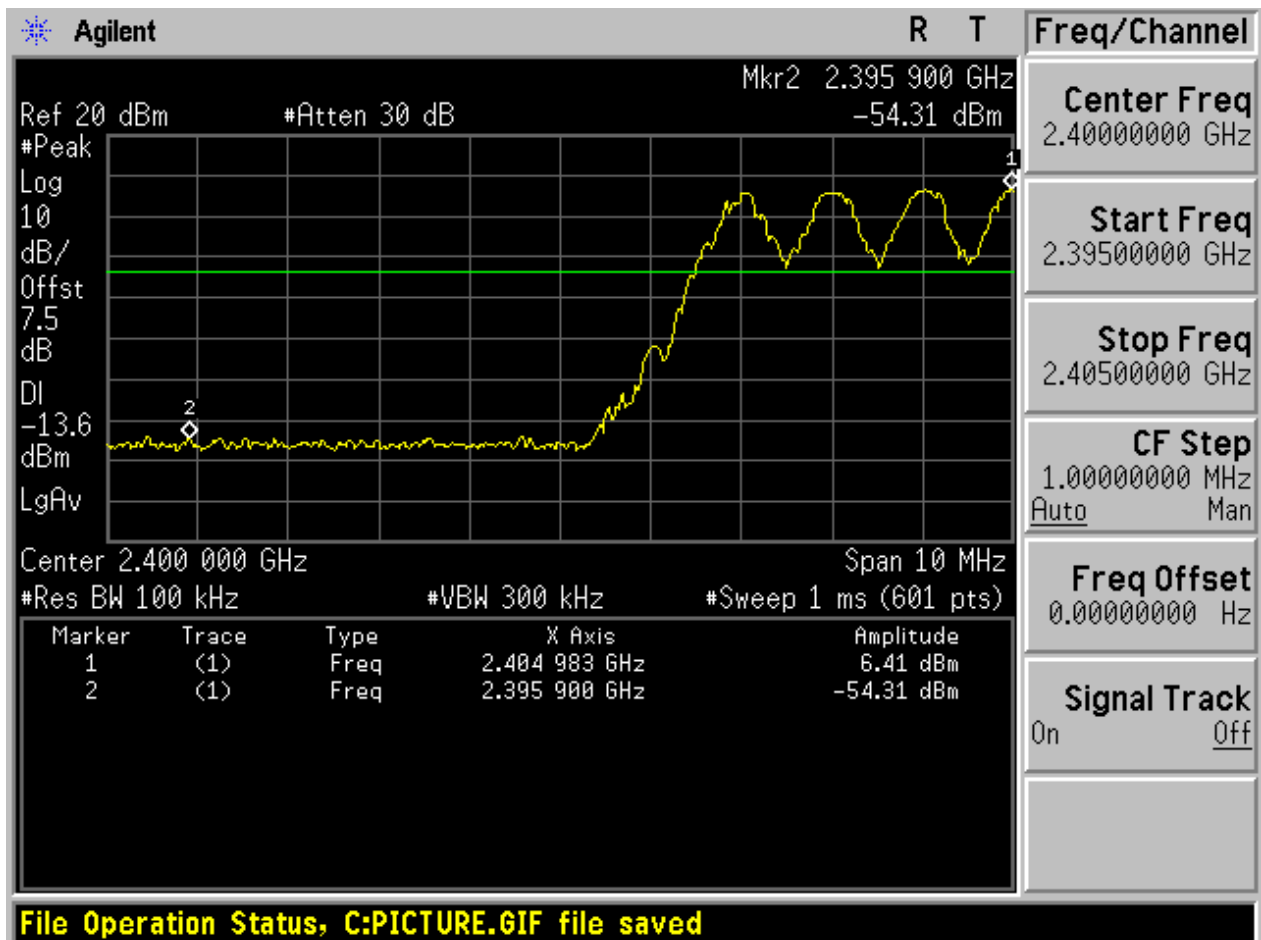
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

No hopping

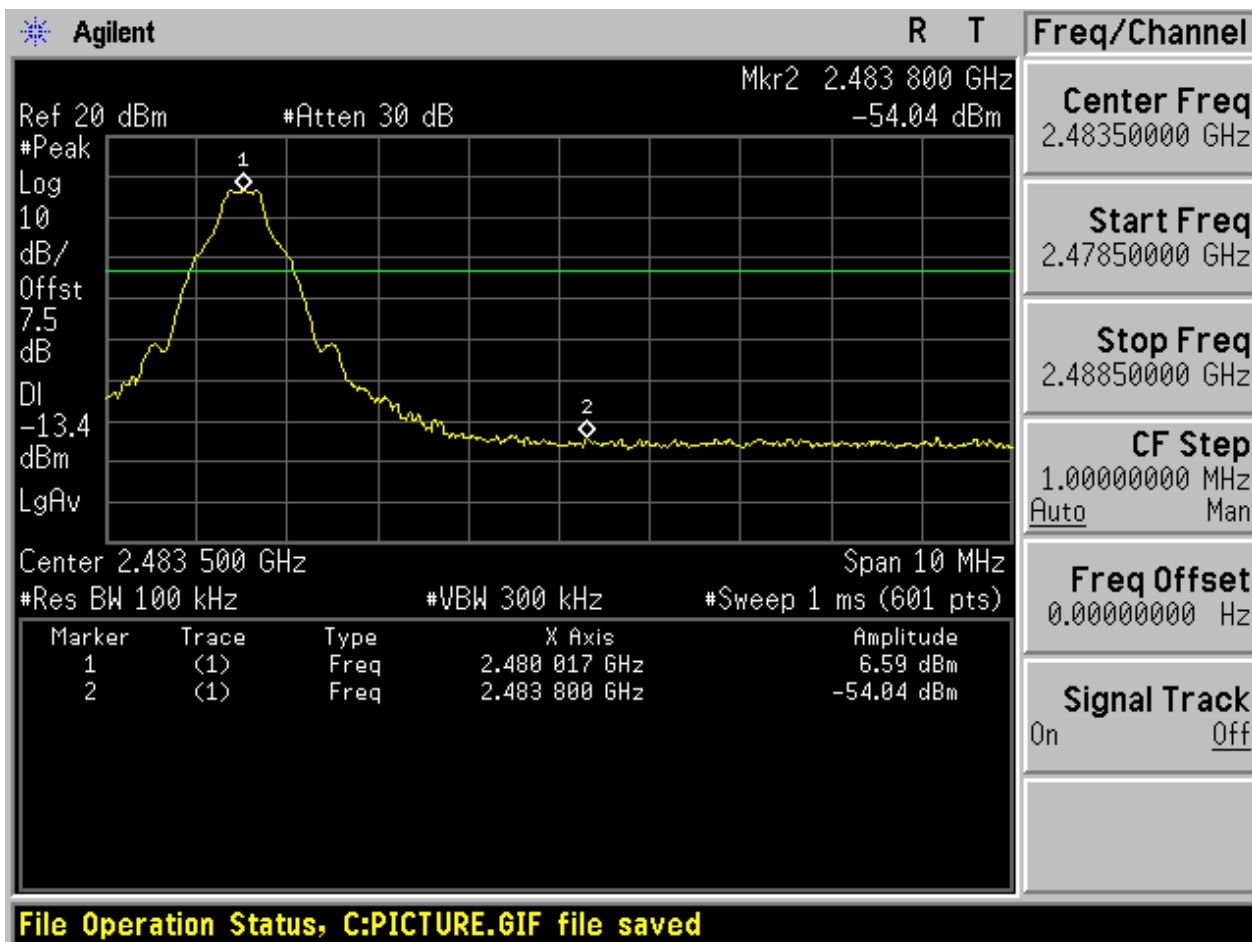


With hopping

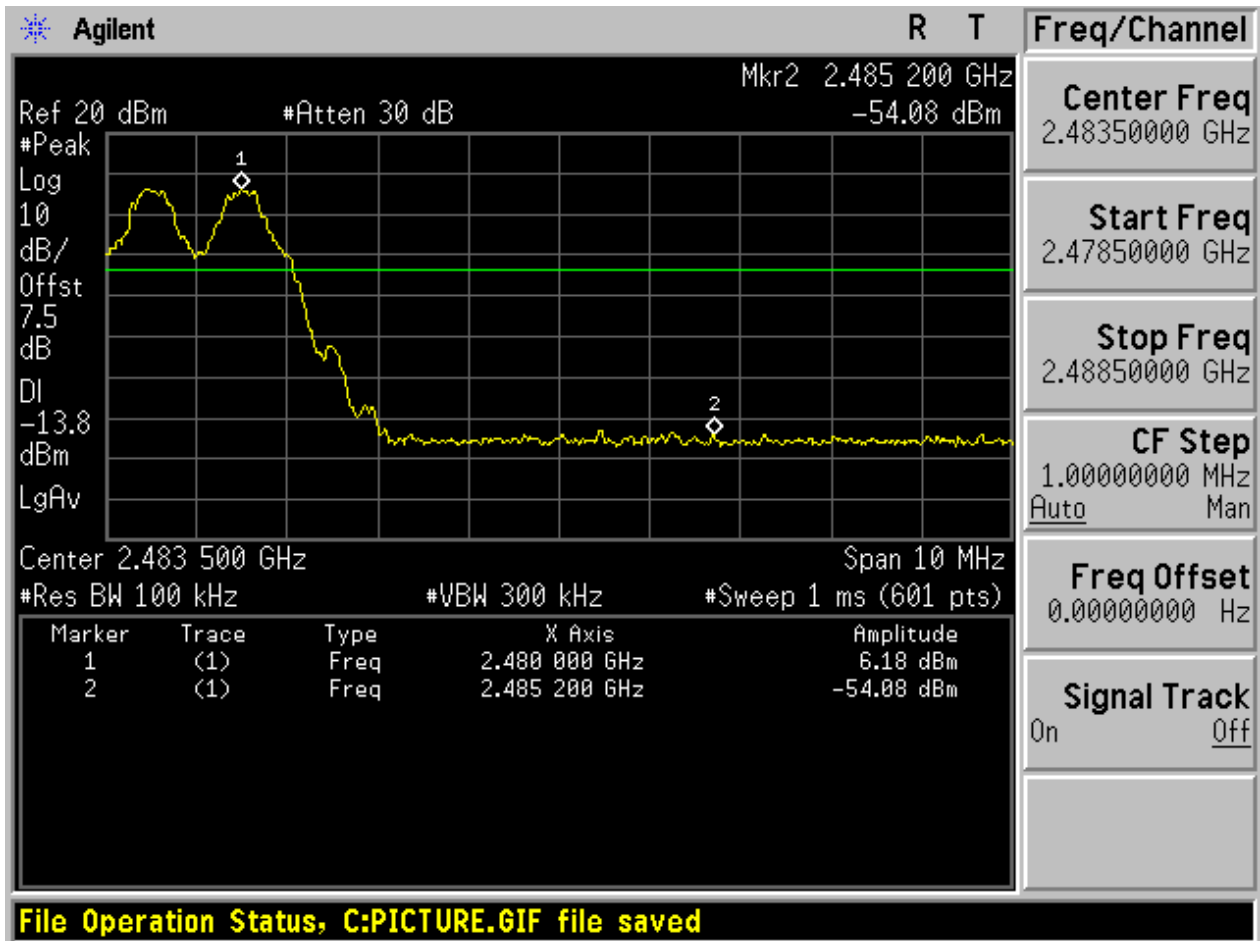


2.2 TM1\_DH5\_Ch78

No hopping

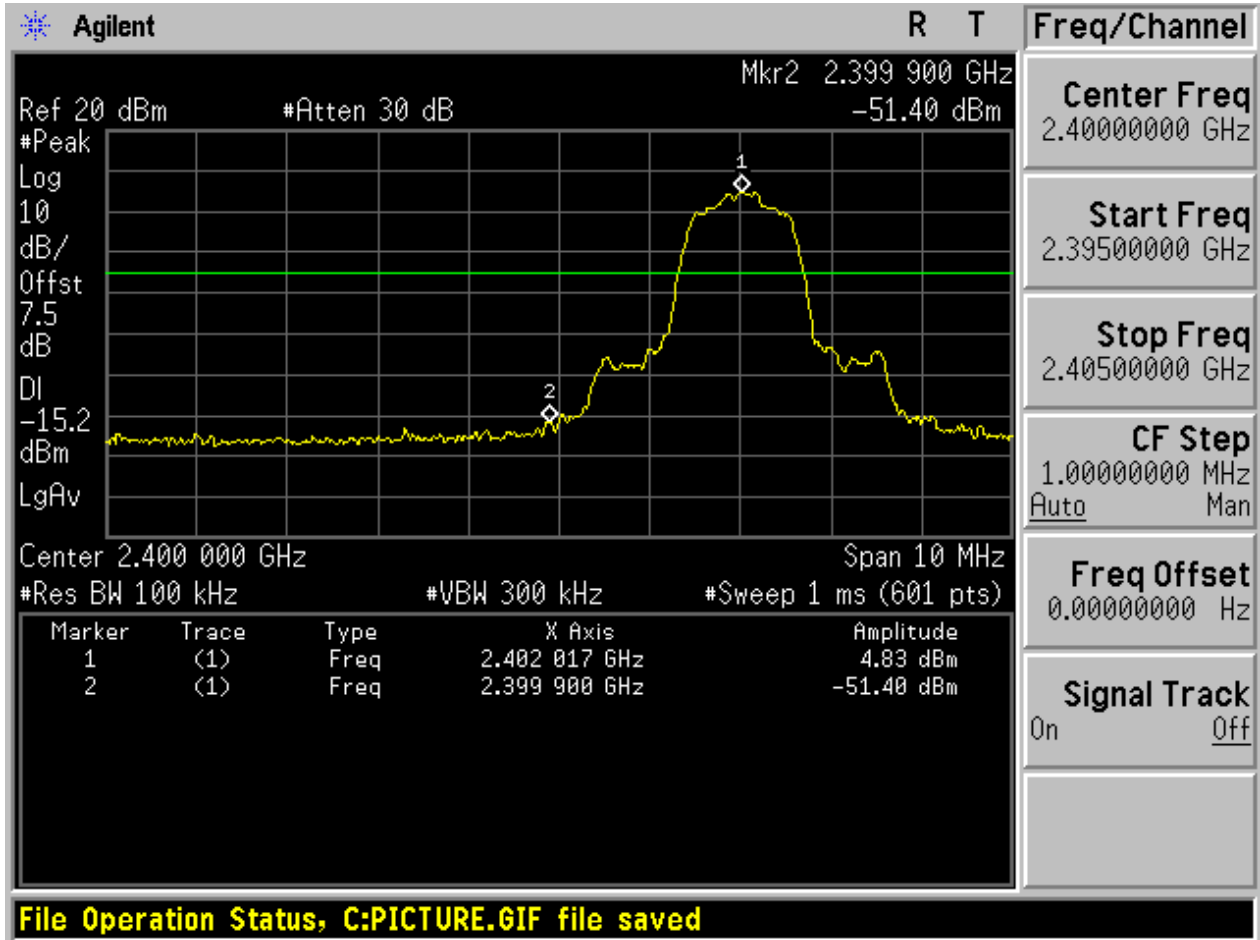


With hopping

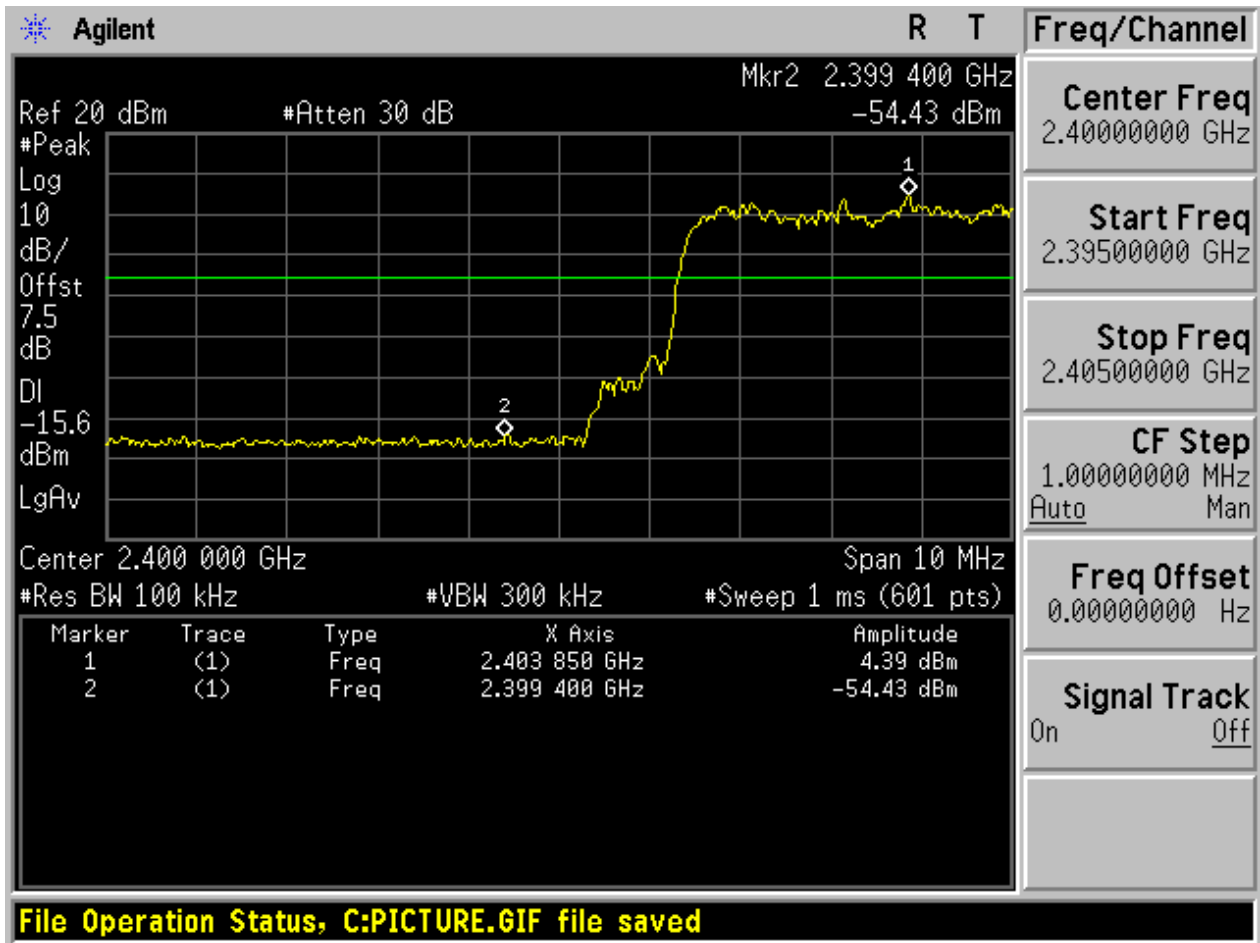


2.3 TM2\_2DH5\_Ch0

No hopping

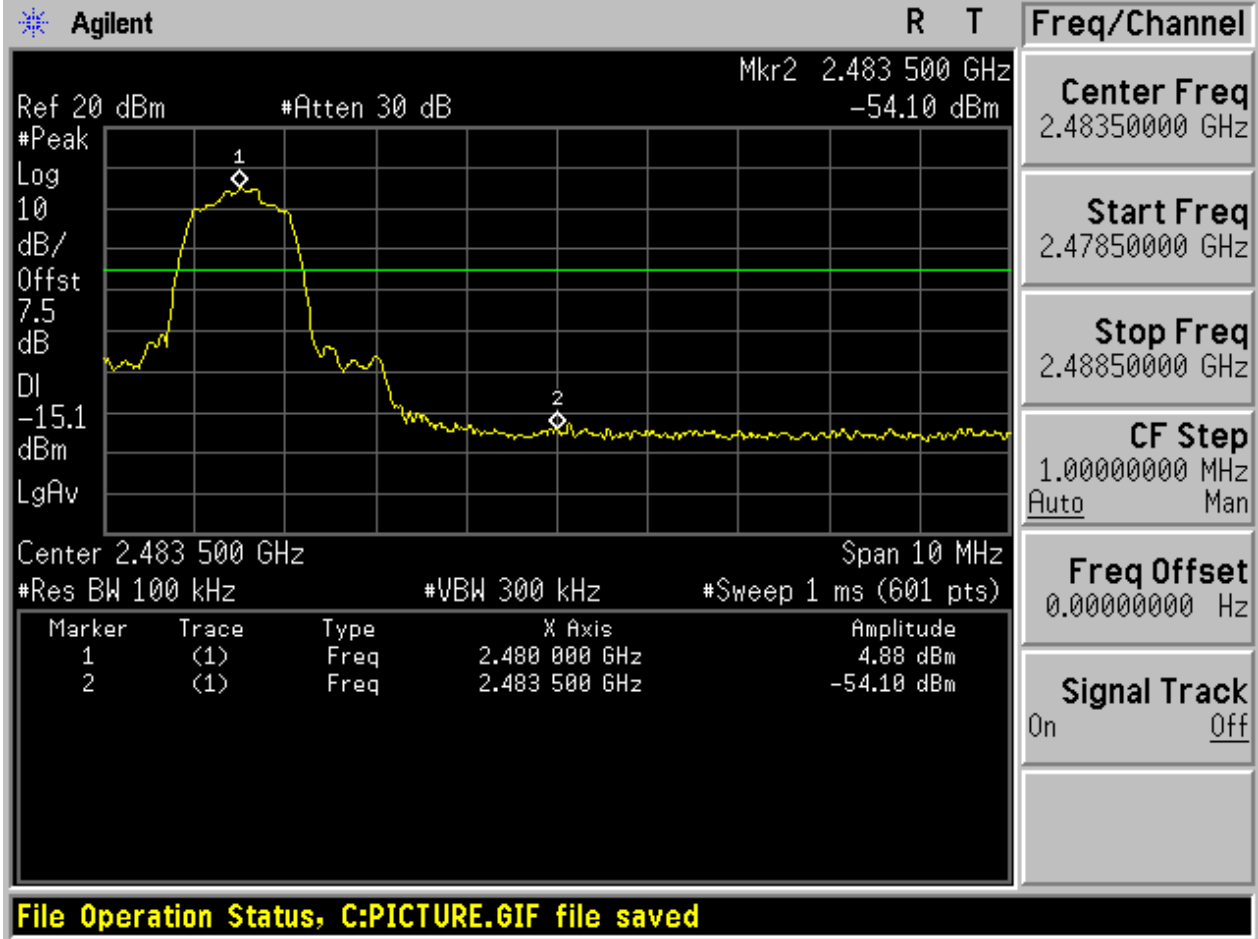


With hopping

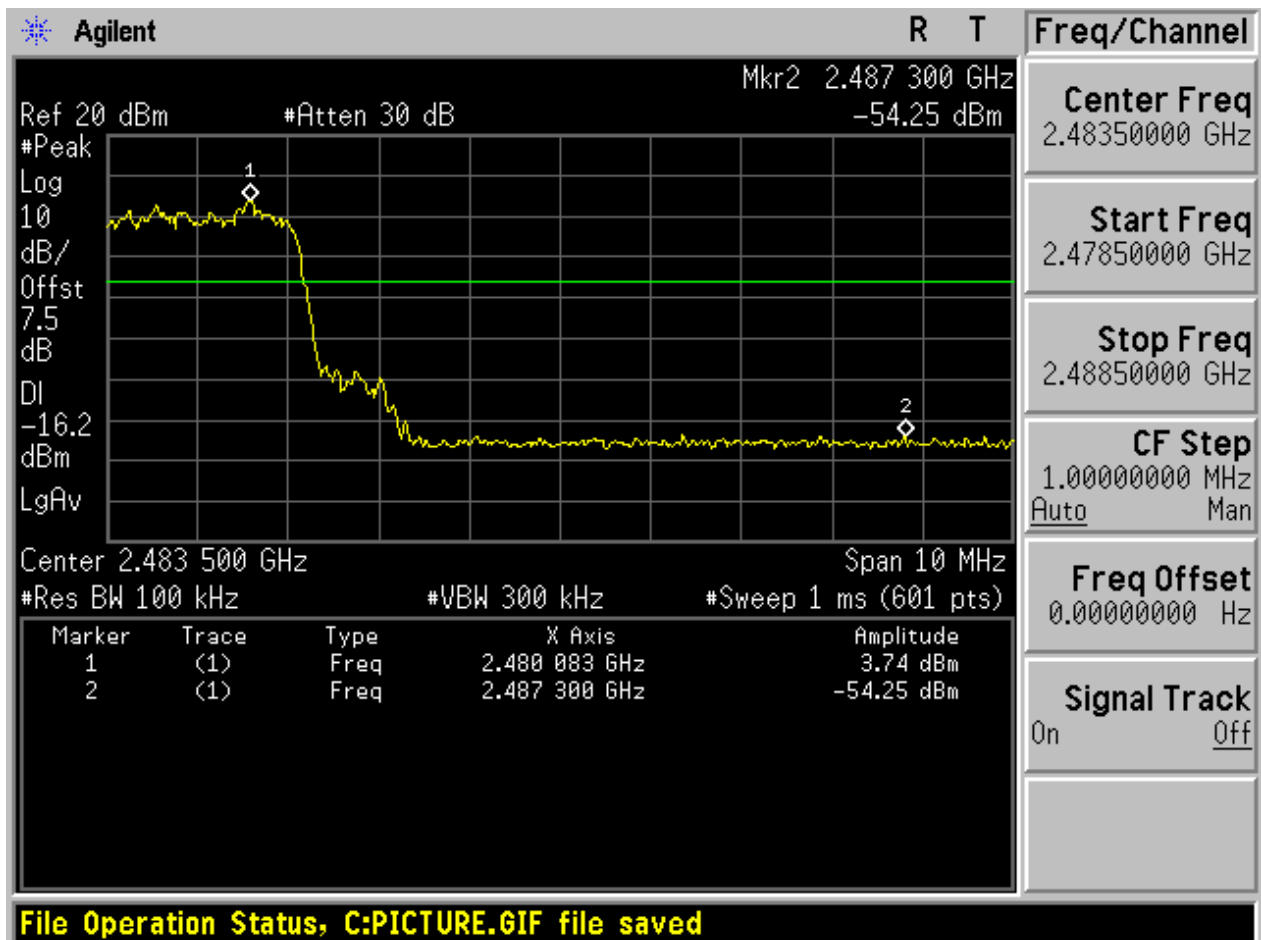


2.4 TM2\_2DH5\_Ch78

No hopping



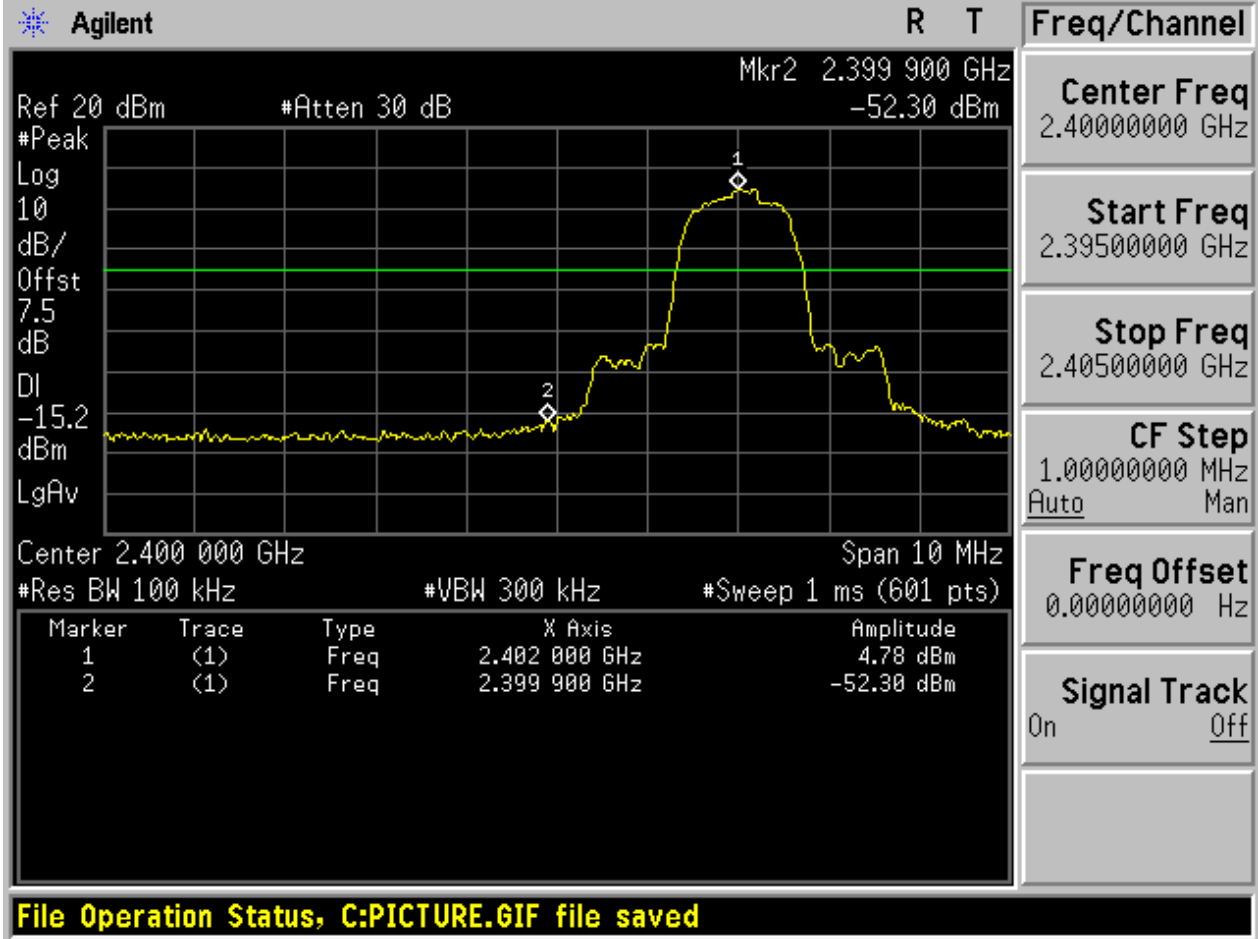
With hopping



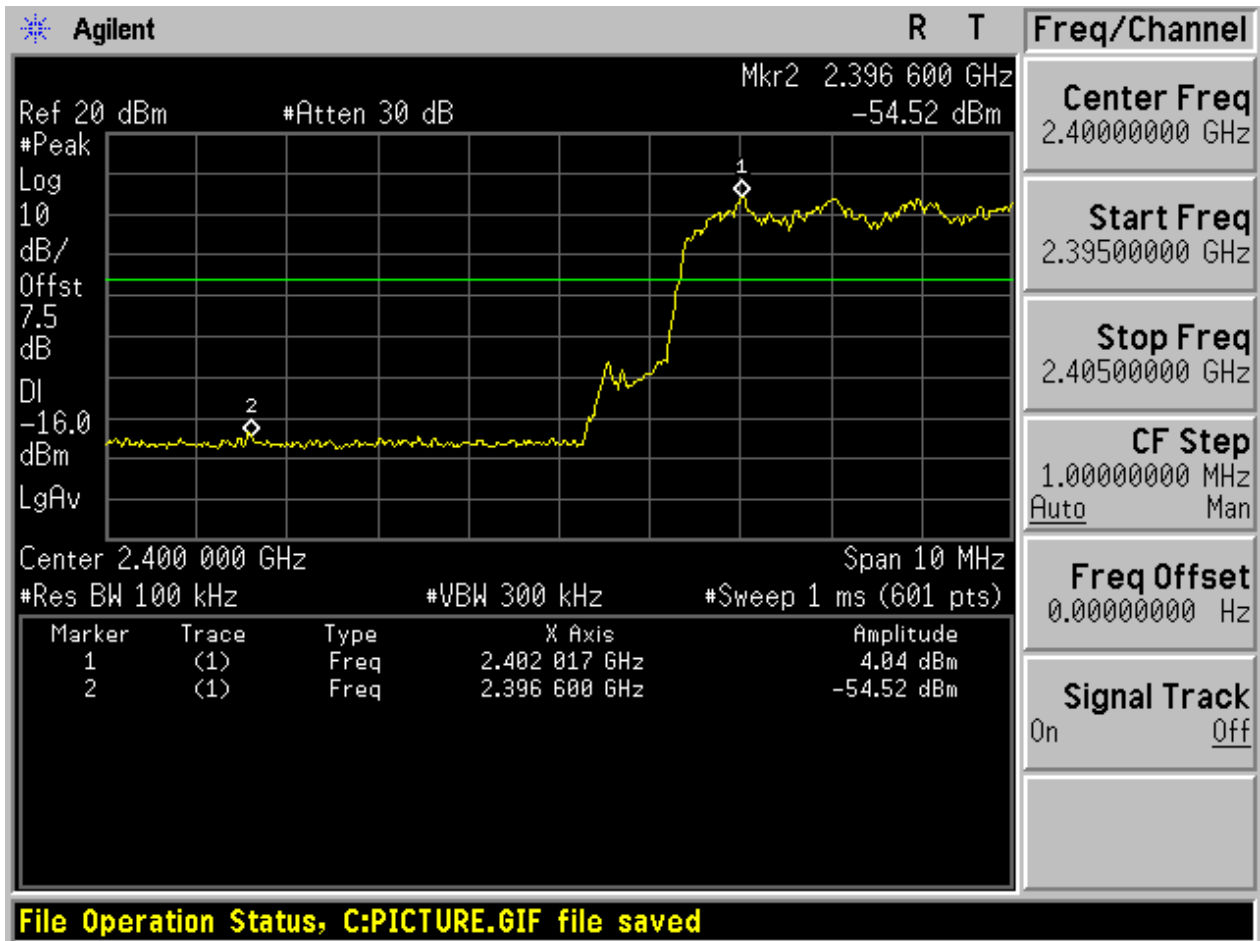


2.5 TM3\_3DH5\_Ch0

No hopping

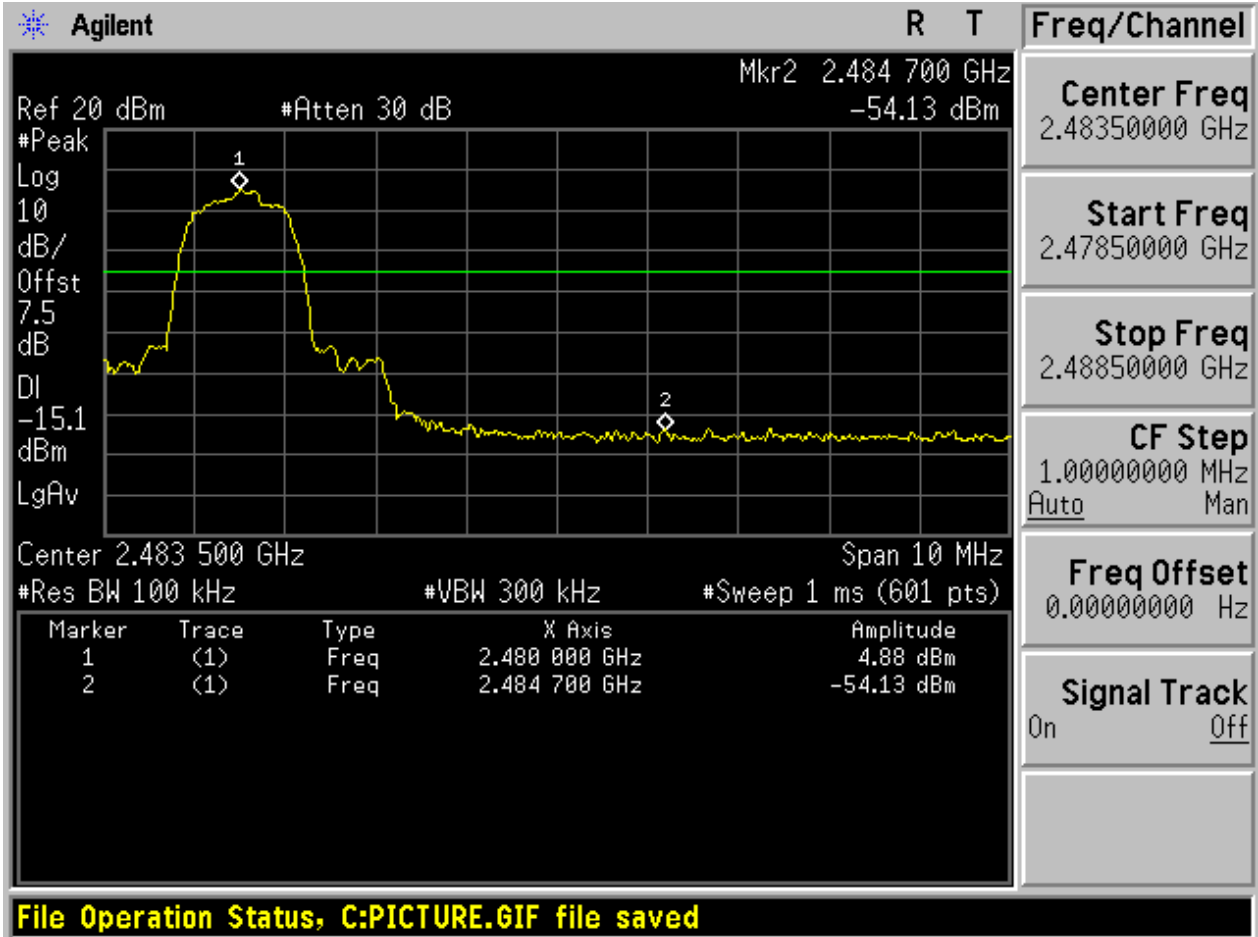


With hopping



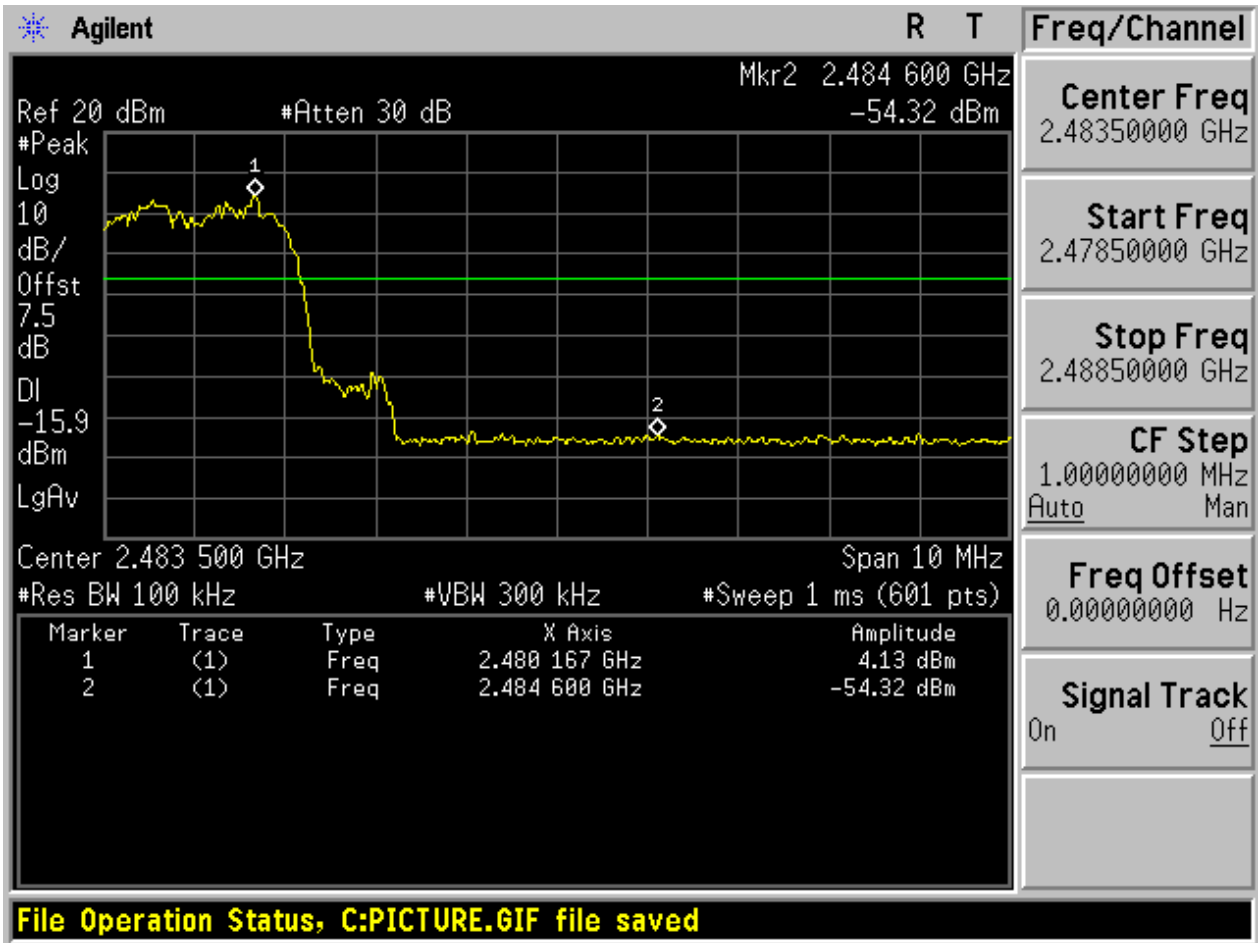
2.6 TM3\_3DH5\_Ch78

No hopping





With hopping





# Appendix H: Conducted RF Spurious Emission

## 1 Result Table

In this Appendix, the “Pref” refers to the peak power level in any 100 kHz bandwidth within the fundamental emission which is used as the reference level, the “Puw” refers to the maximum emission power in 100 kHz band segments outside of the authorized frequency band.

Considering that the higher ratio of RBW to the span for the frequency ranges below 30 MHz makes the results determination be complicated, a narrower RBW other than 100 kHz is used for these ranges. The measured value should add a RBW correction factor (RBWCF) where  $RBWCF [dB] = 10 \times \lg(100 [kHz]/\text{narrower RBW [kHz]})$ . As to this Appendix, the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

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

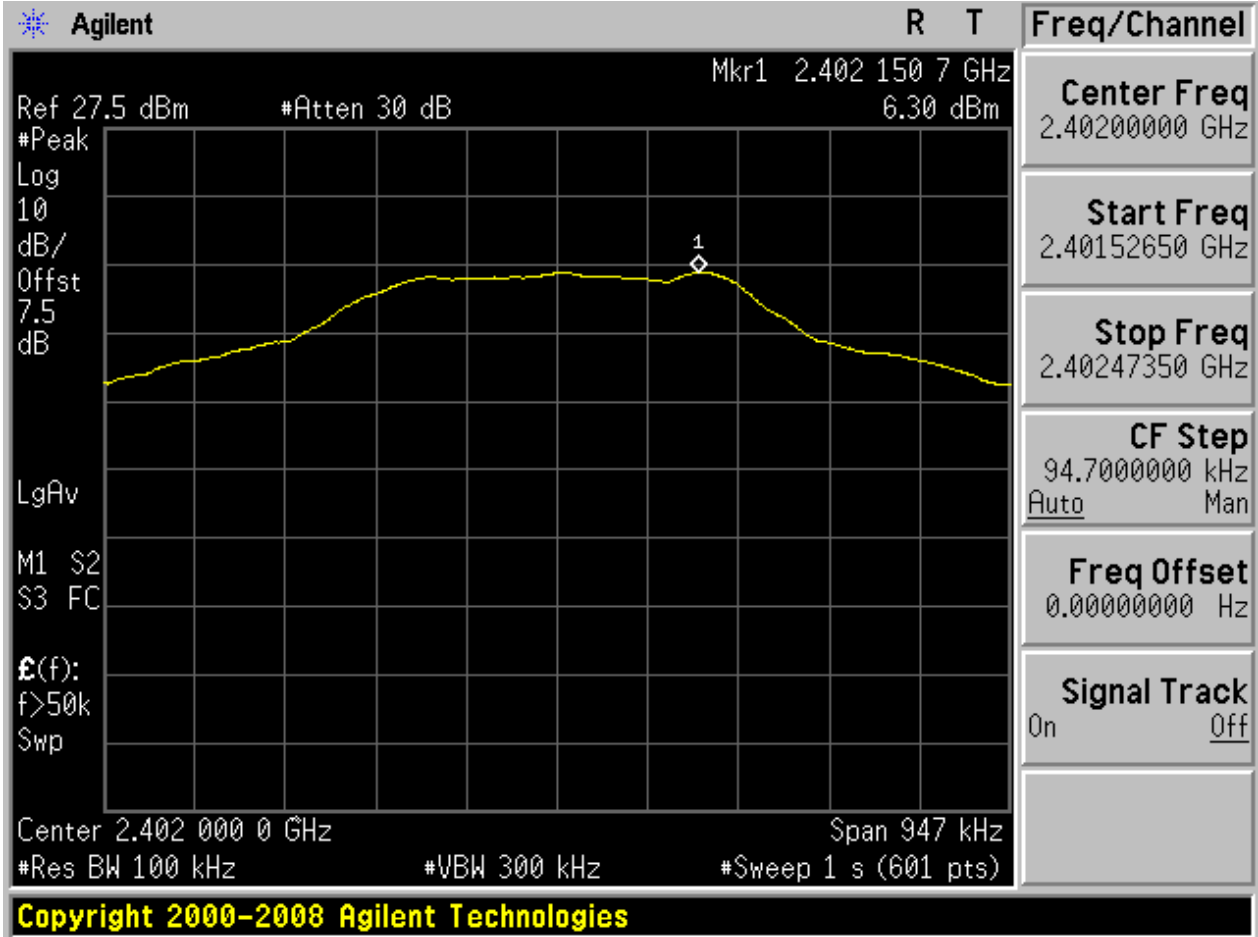
EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	6.30	< Limit	Pass
TM1_DH5_Ch39	8.16	< Limit	Pass
TM1_DH5_Ch78	6.45	< Limit	Pass
TM2_2DH5_Ch0	4.63	< Limit	Pass
TM2_2DH5_Ch39	6.55	< Limit	Pass
TM2_2DH5_Ch78	4.70	< Limit	Pass
TM3_3DH5_Ch0	4.65	< Limit	Pass
TM3_3DH5_Ch39	6.56	< Limit	Pass
TM3_3DH5_Ch78	4.70	< Limit	Pass



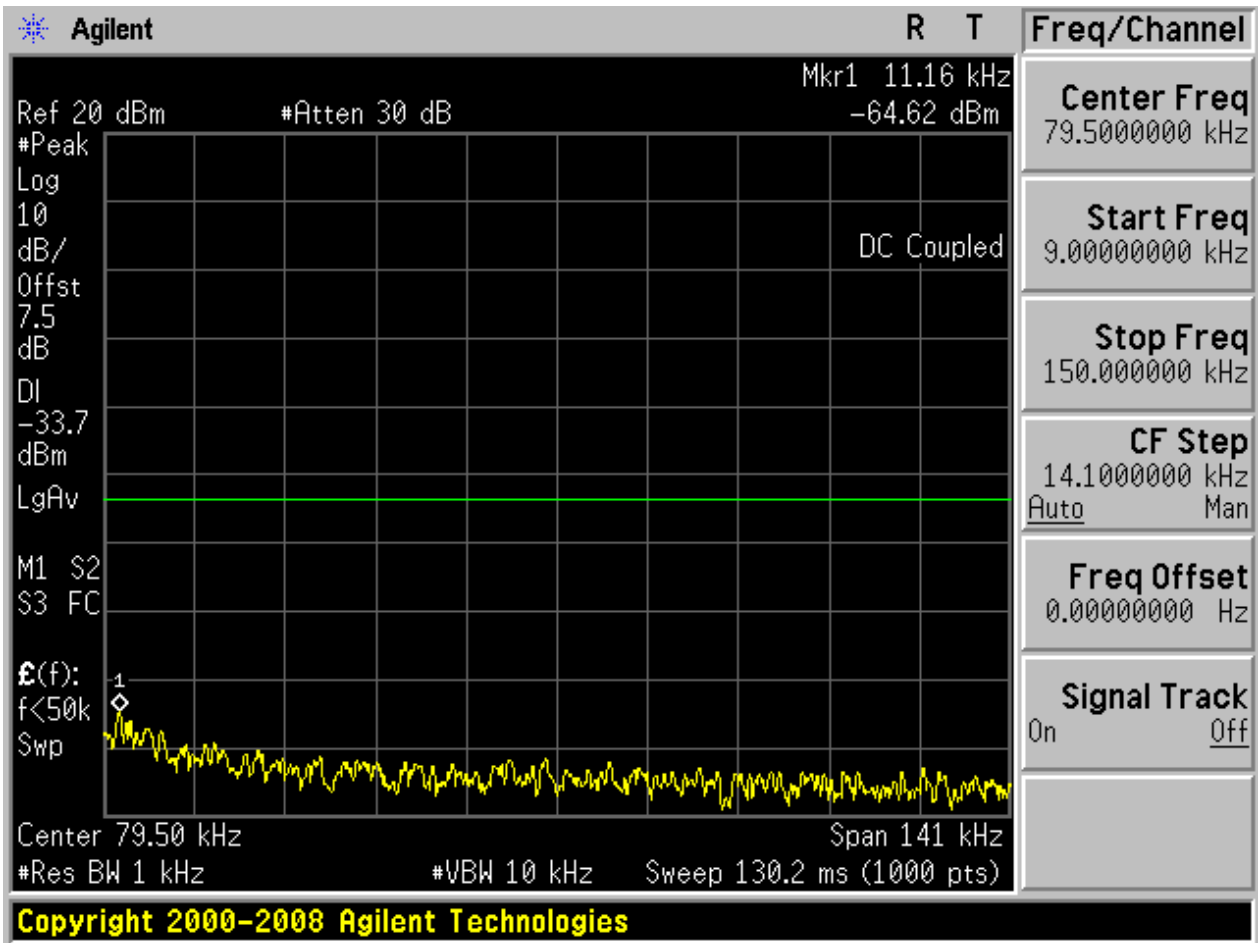
## 2 Test Plot

### 2.1 TM1\_DH5\_Ch0

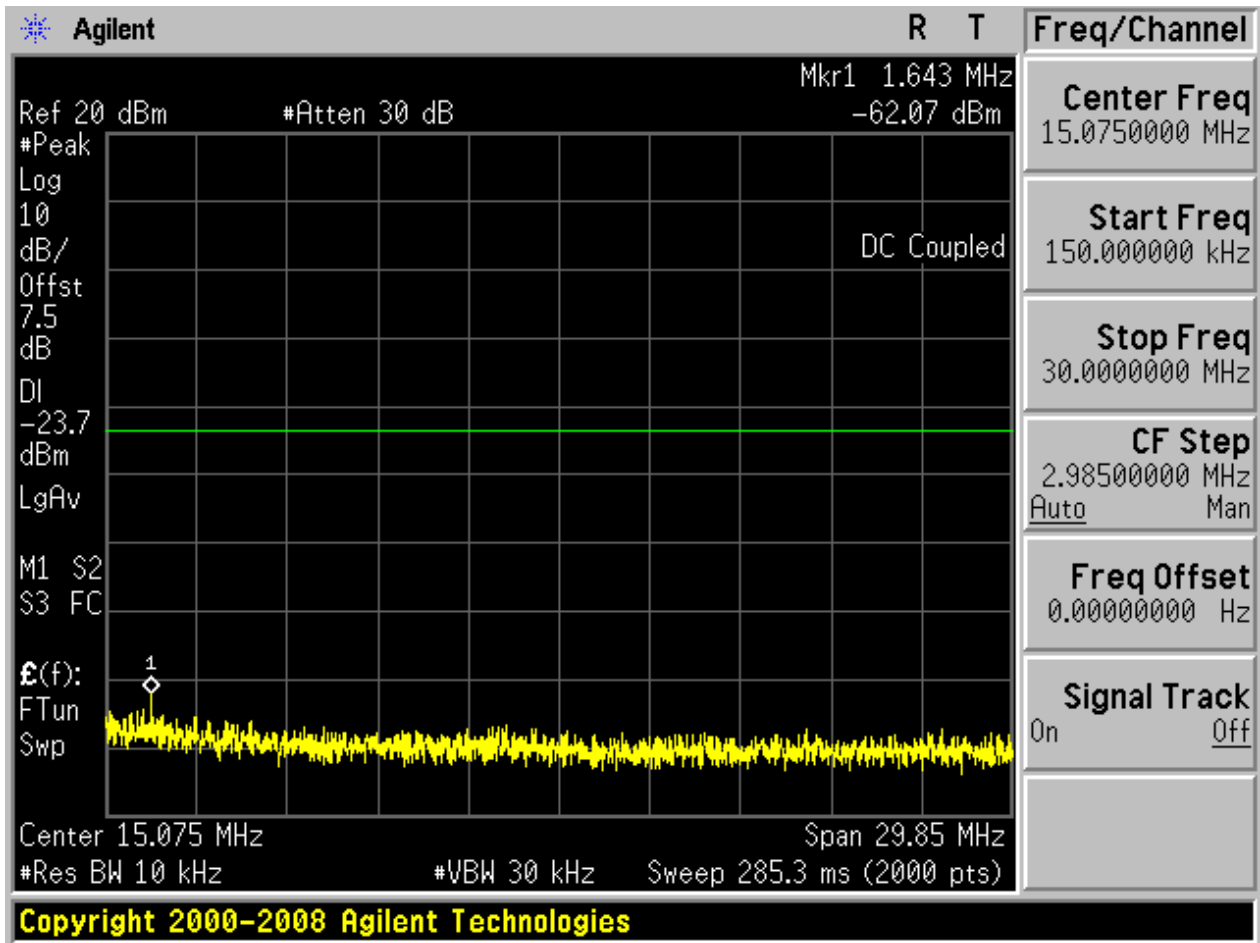
#### 2.1.1 Pref

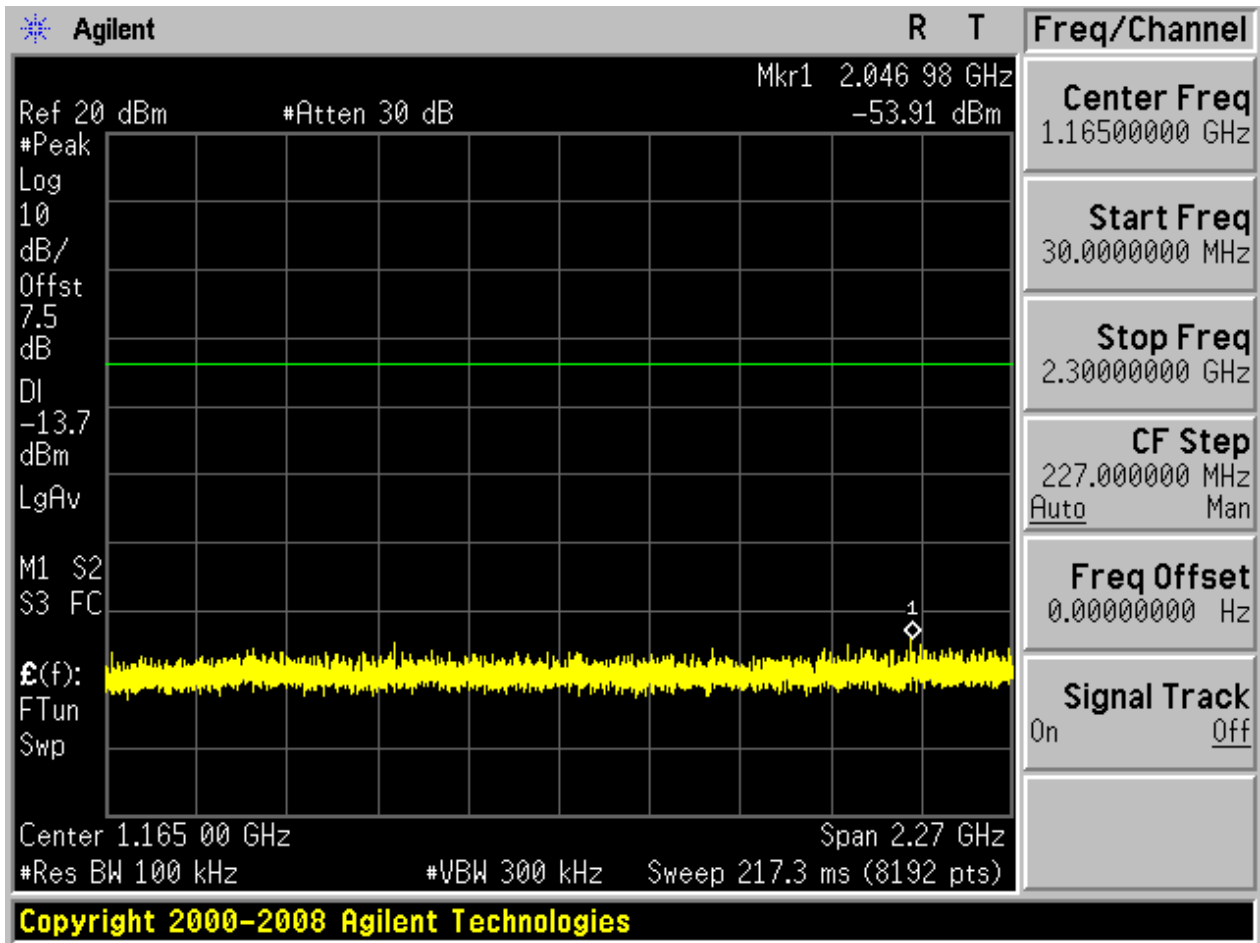


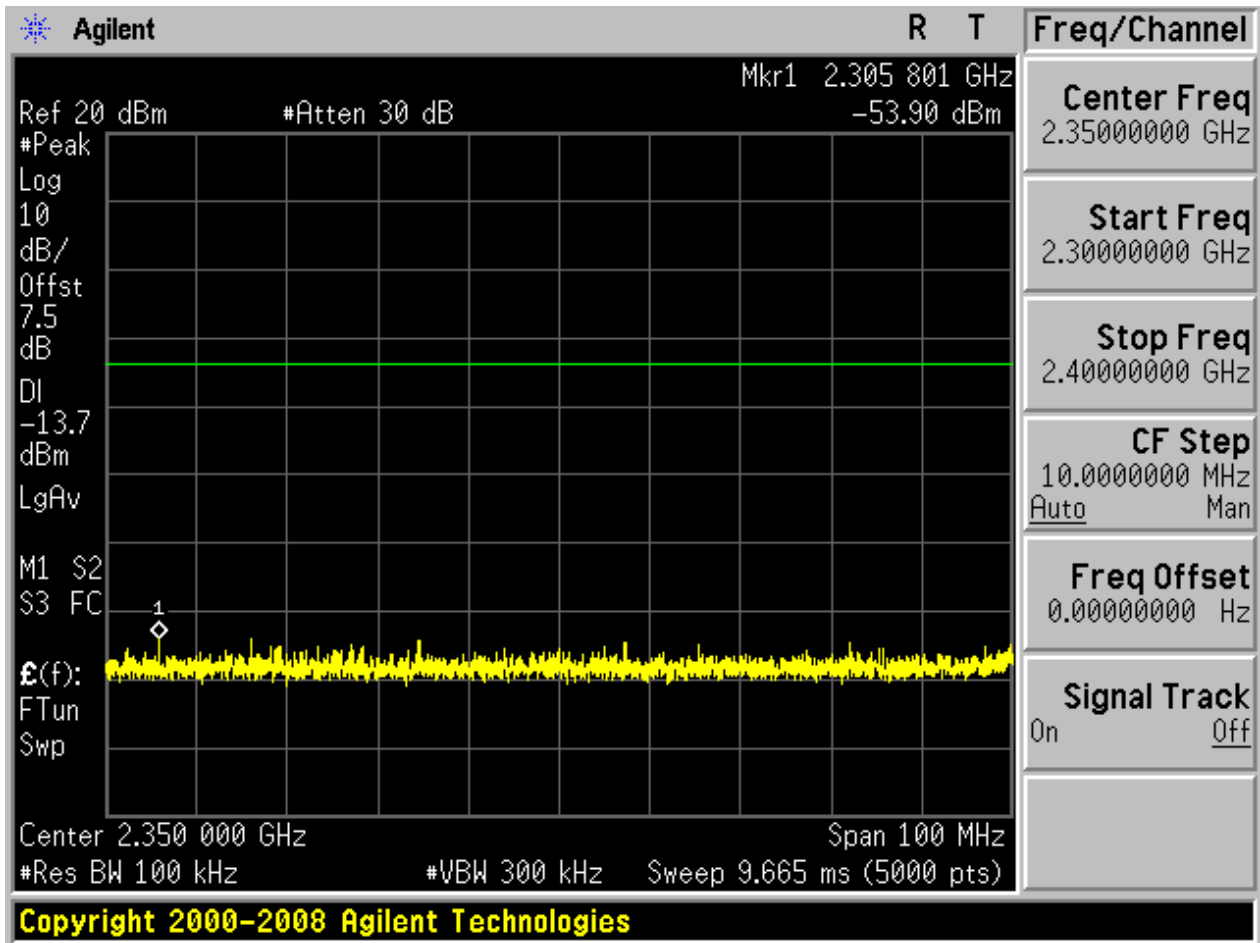
2.1.2 Puw

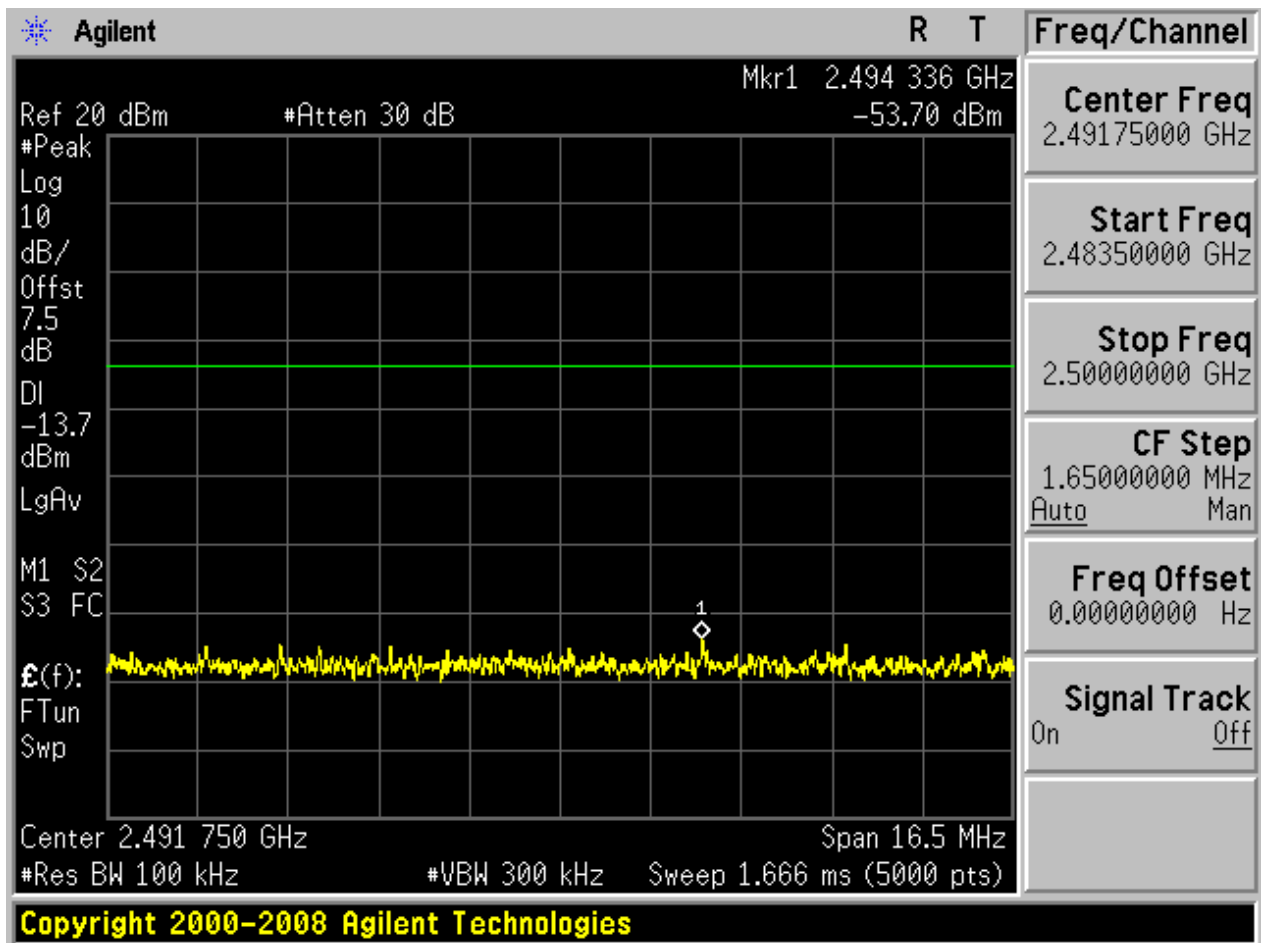


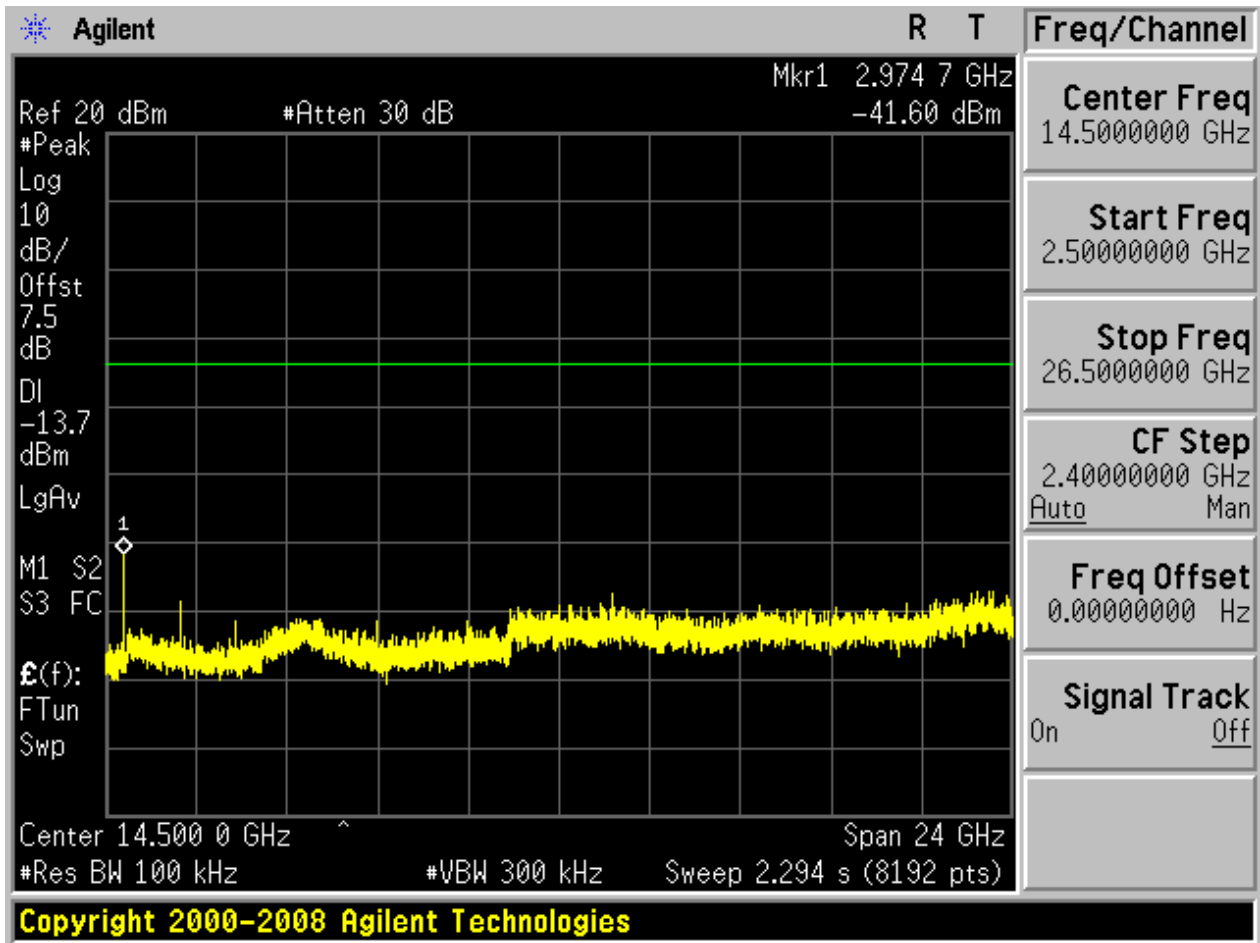








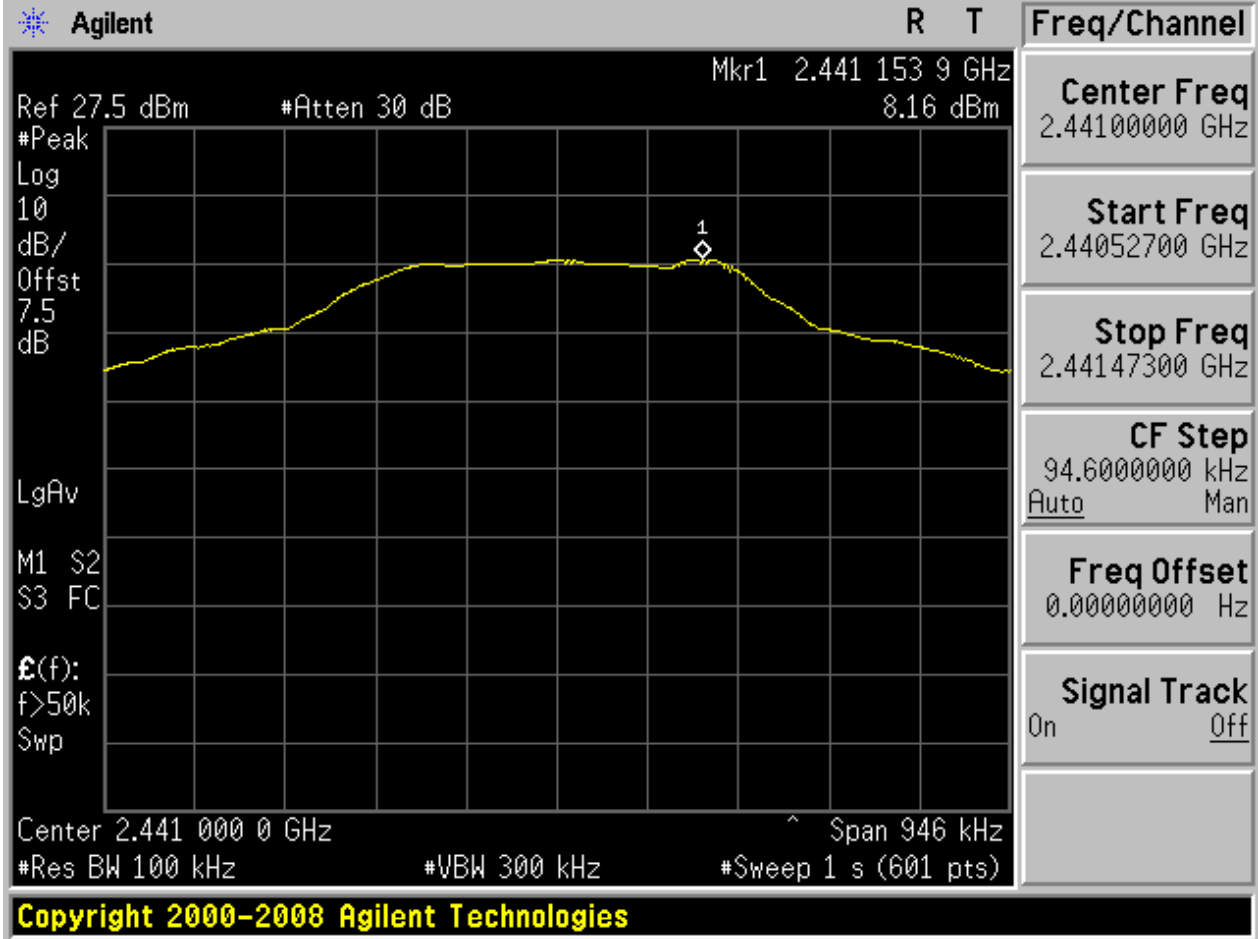




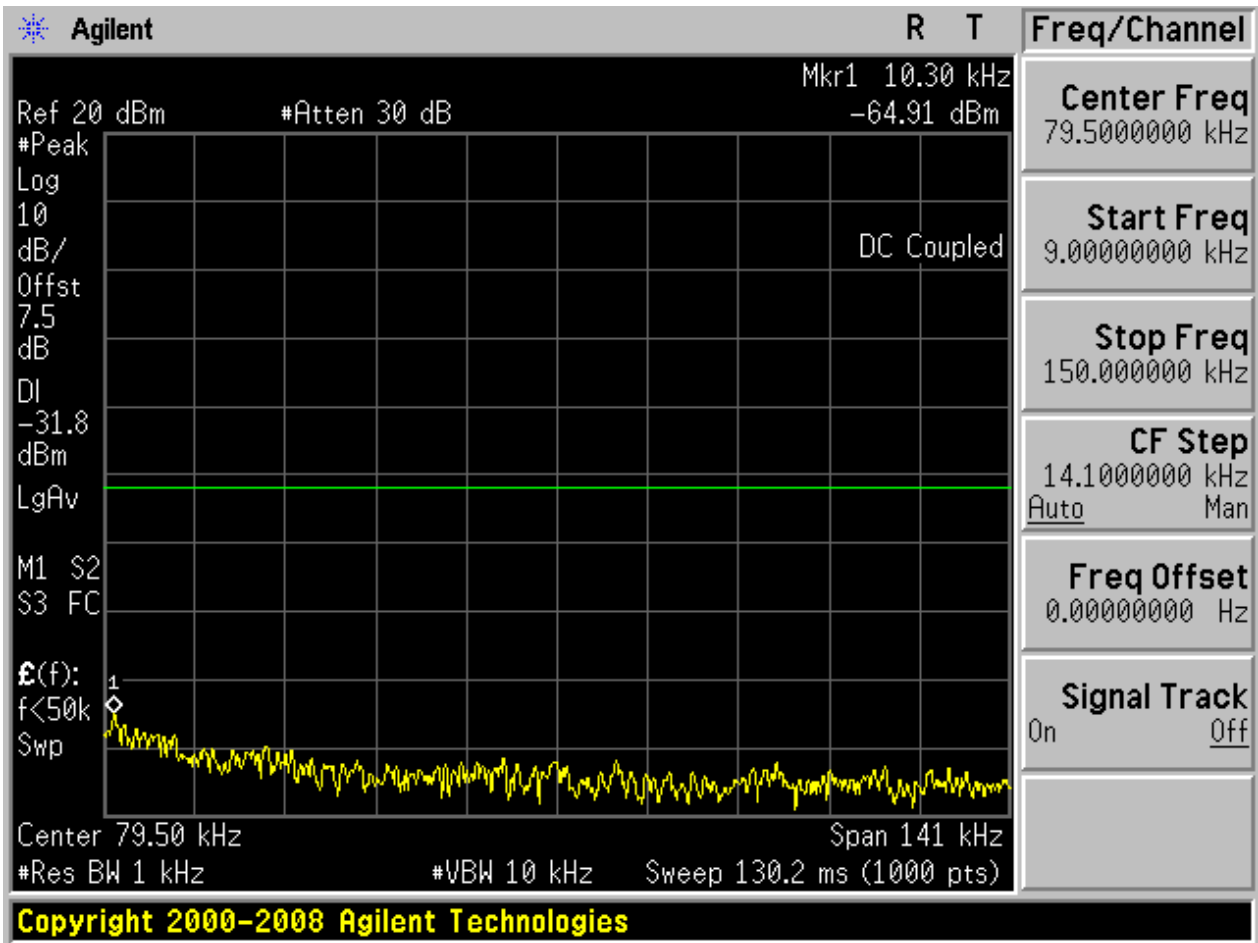


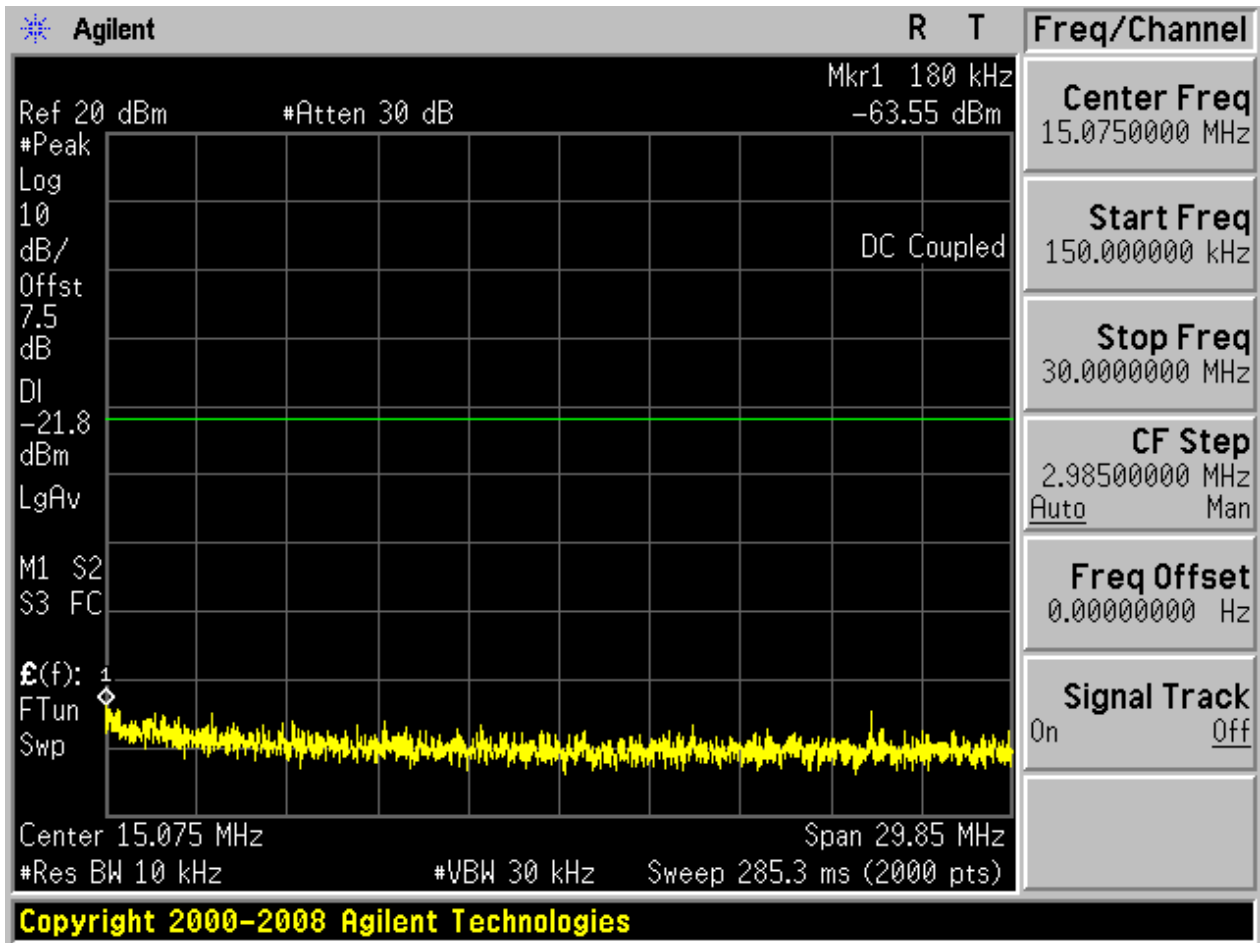
## 2.2 TM1\_DH5\_Ch39

### 2.2.1 Pref

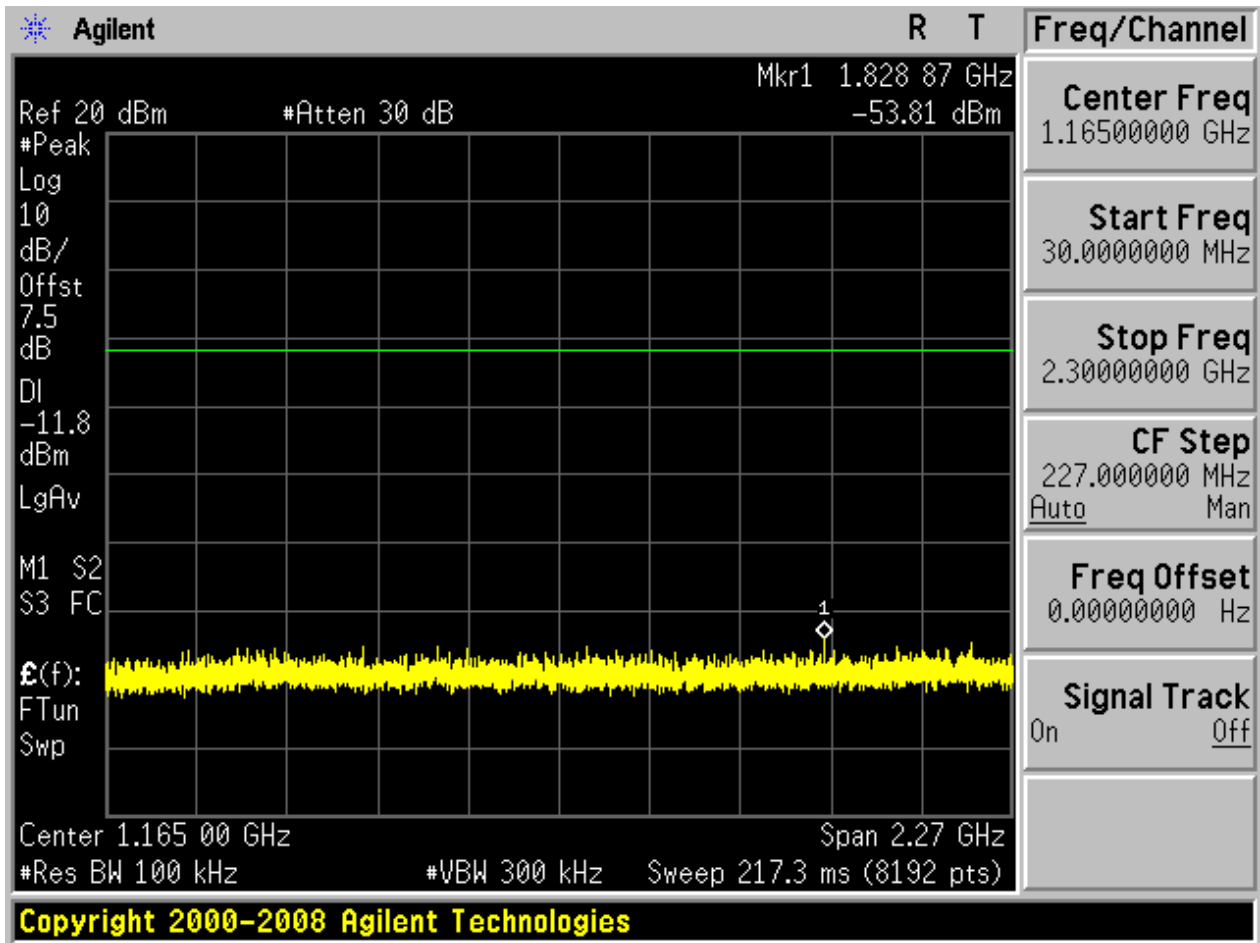


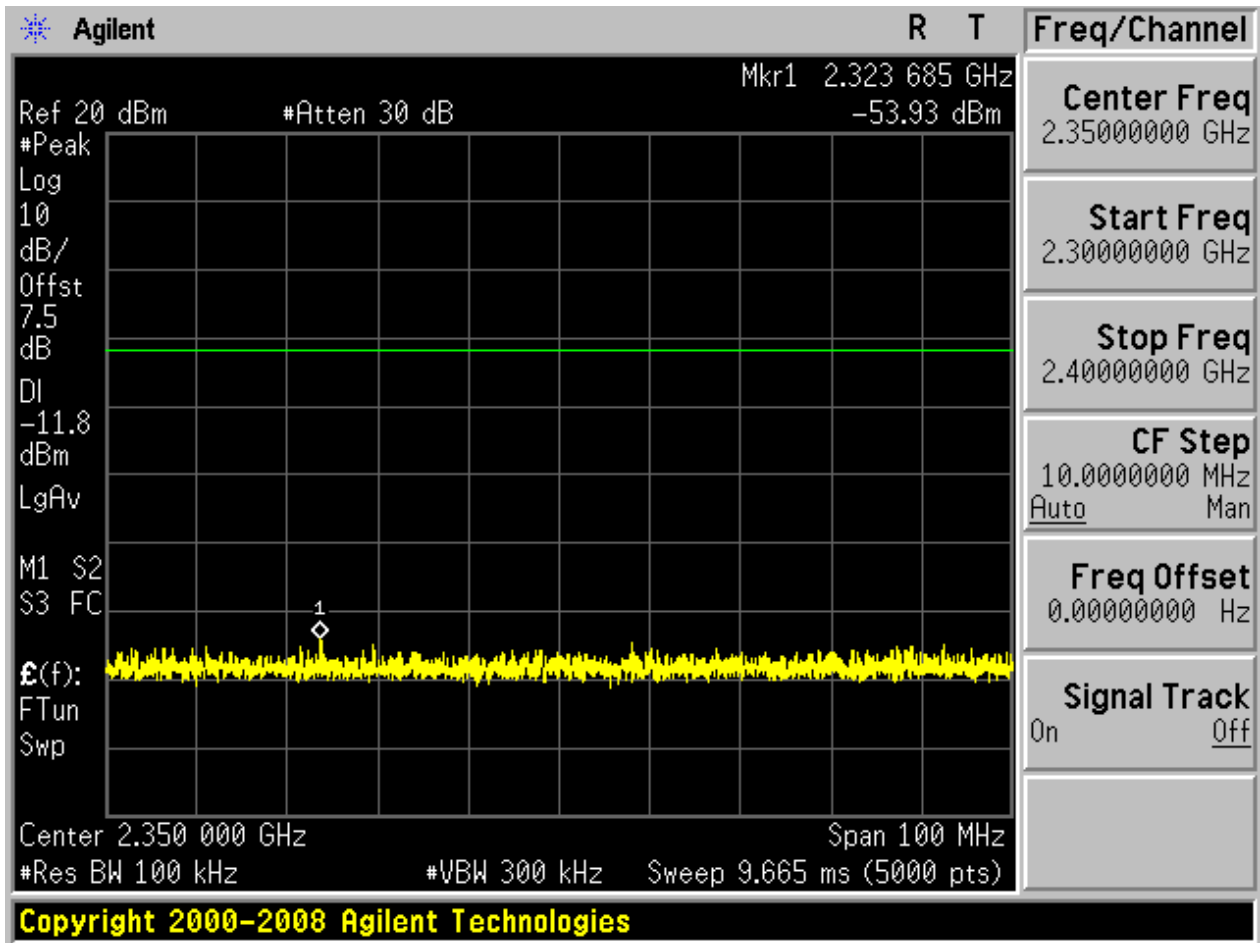
2.2.2 Puw

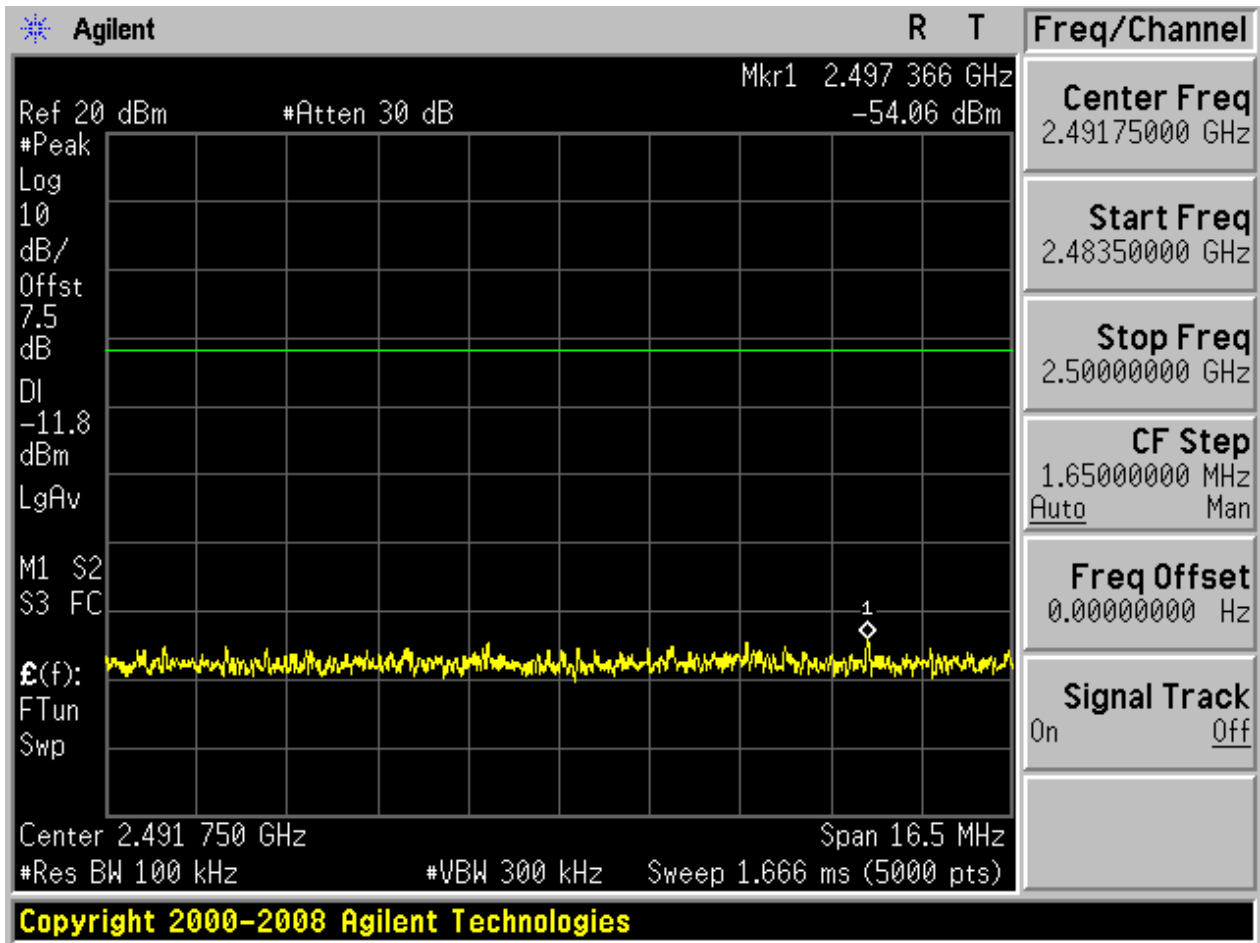


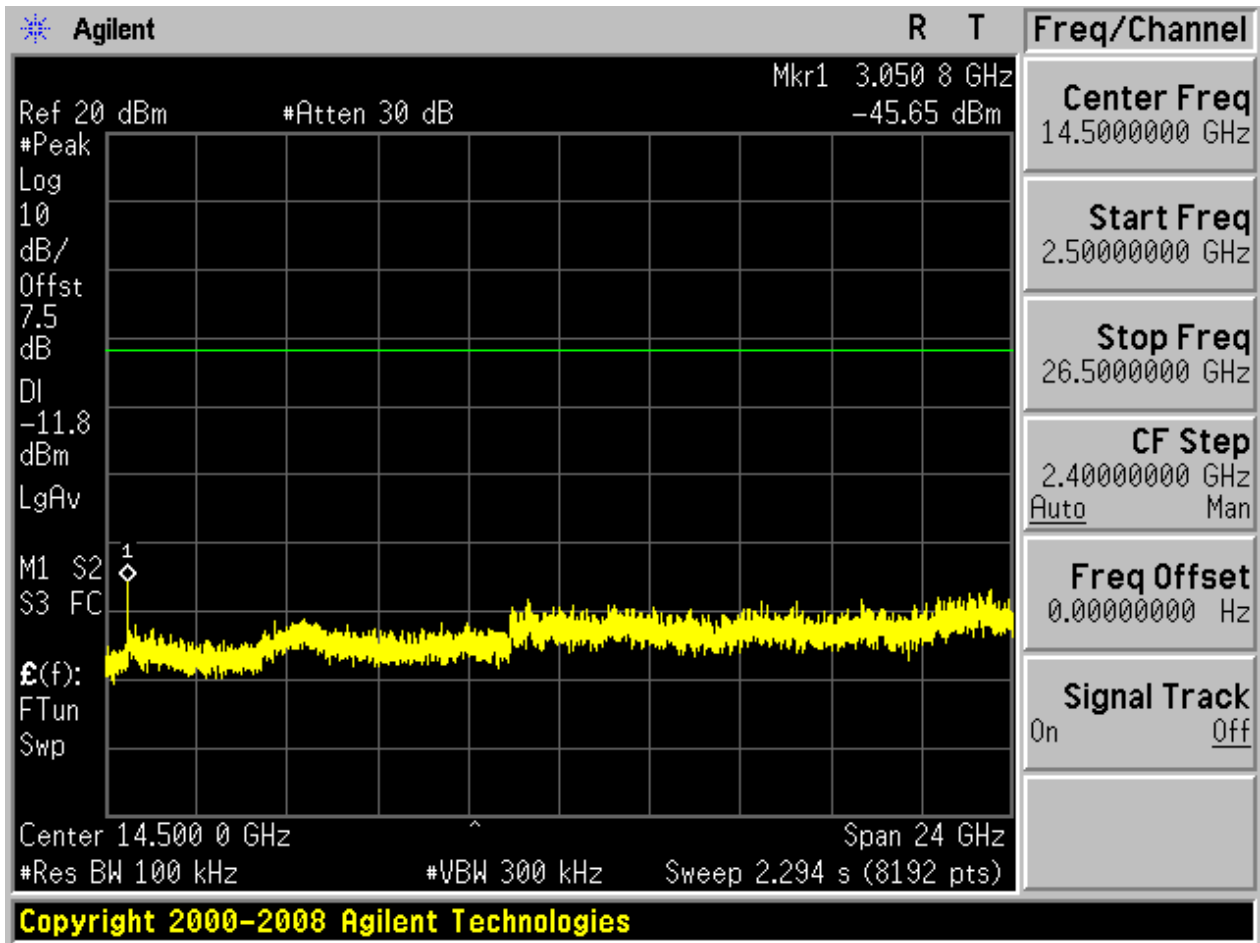








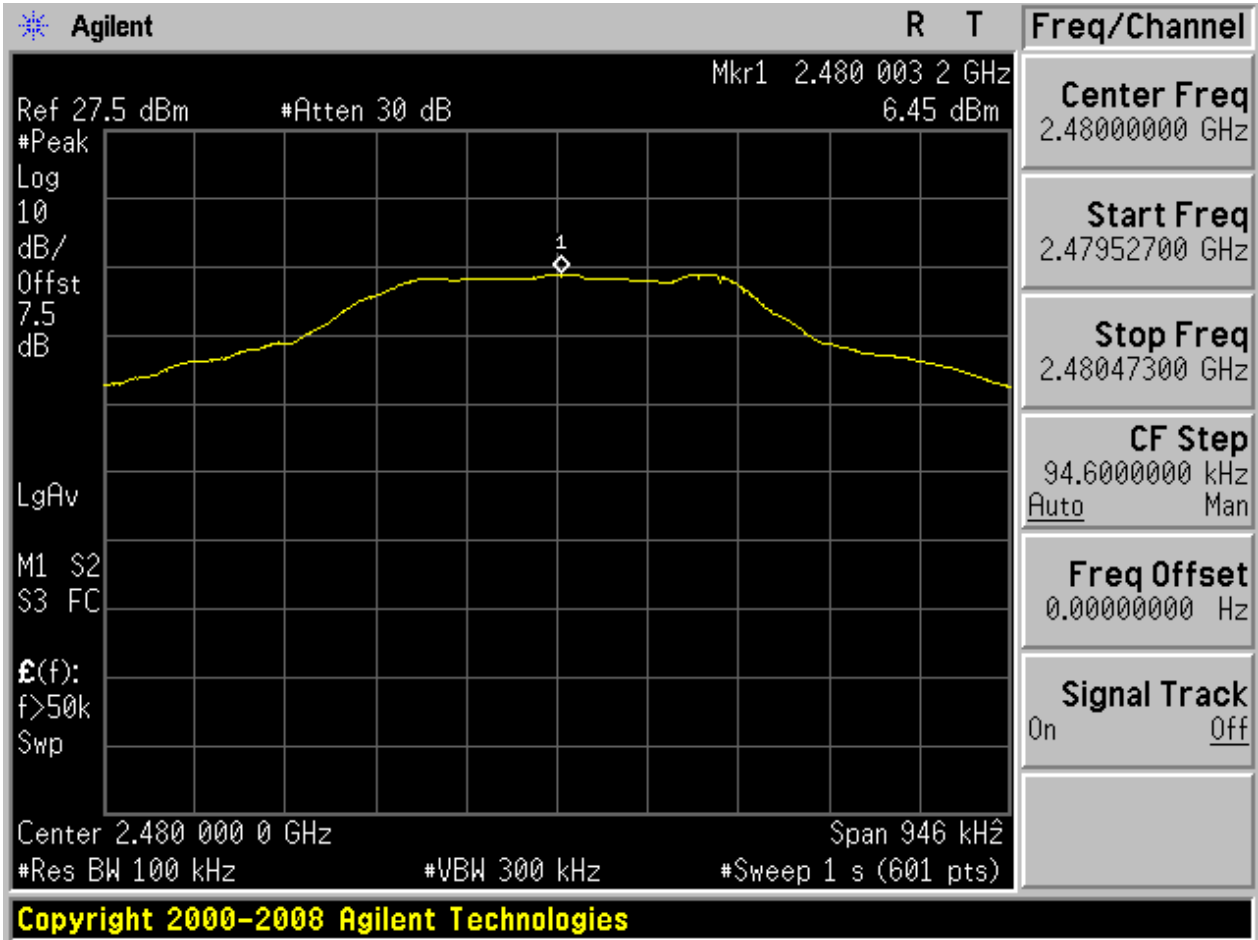




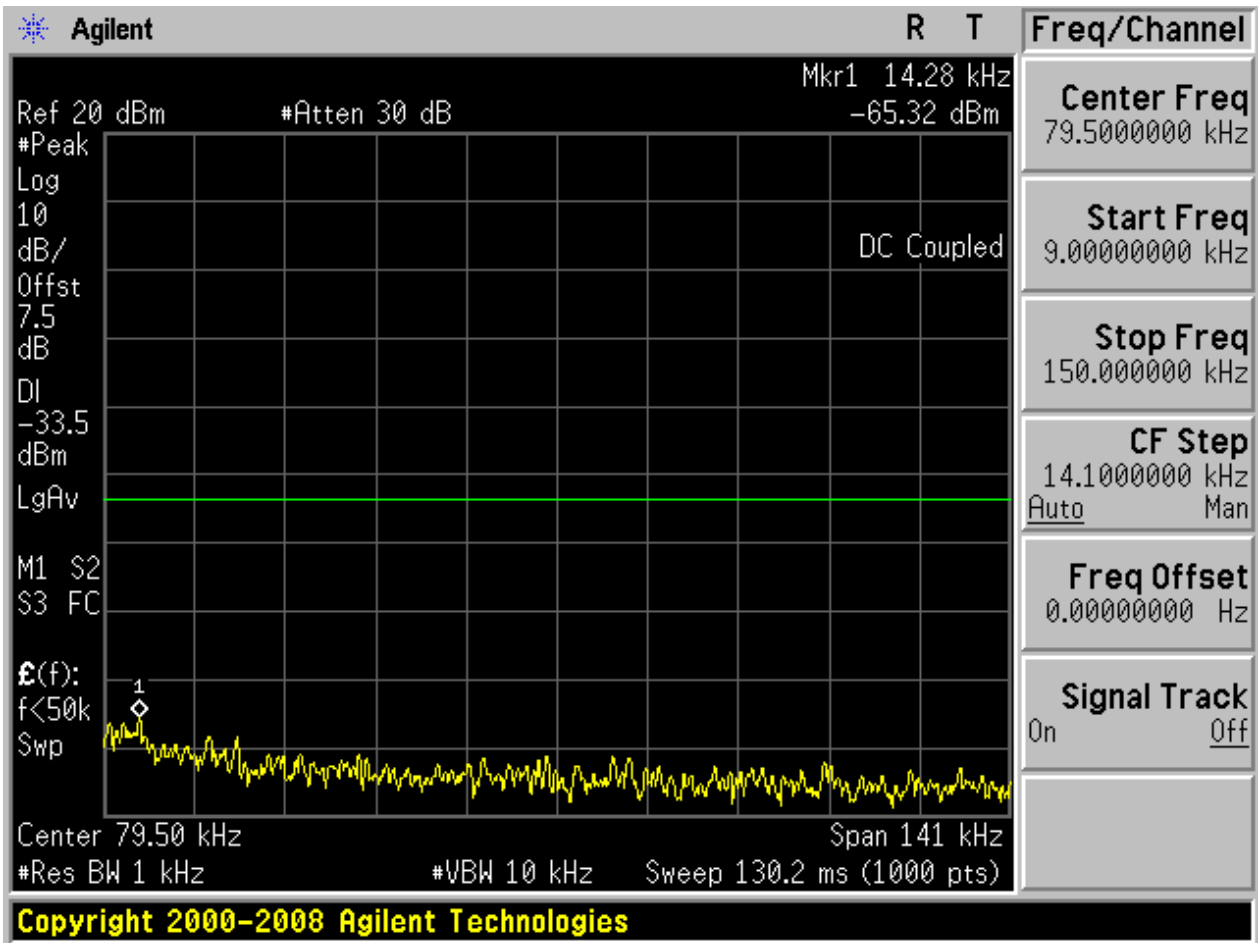


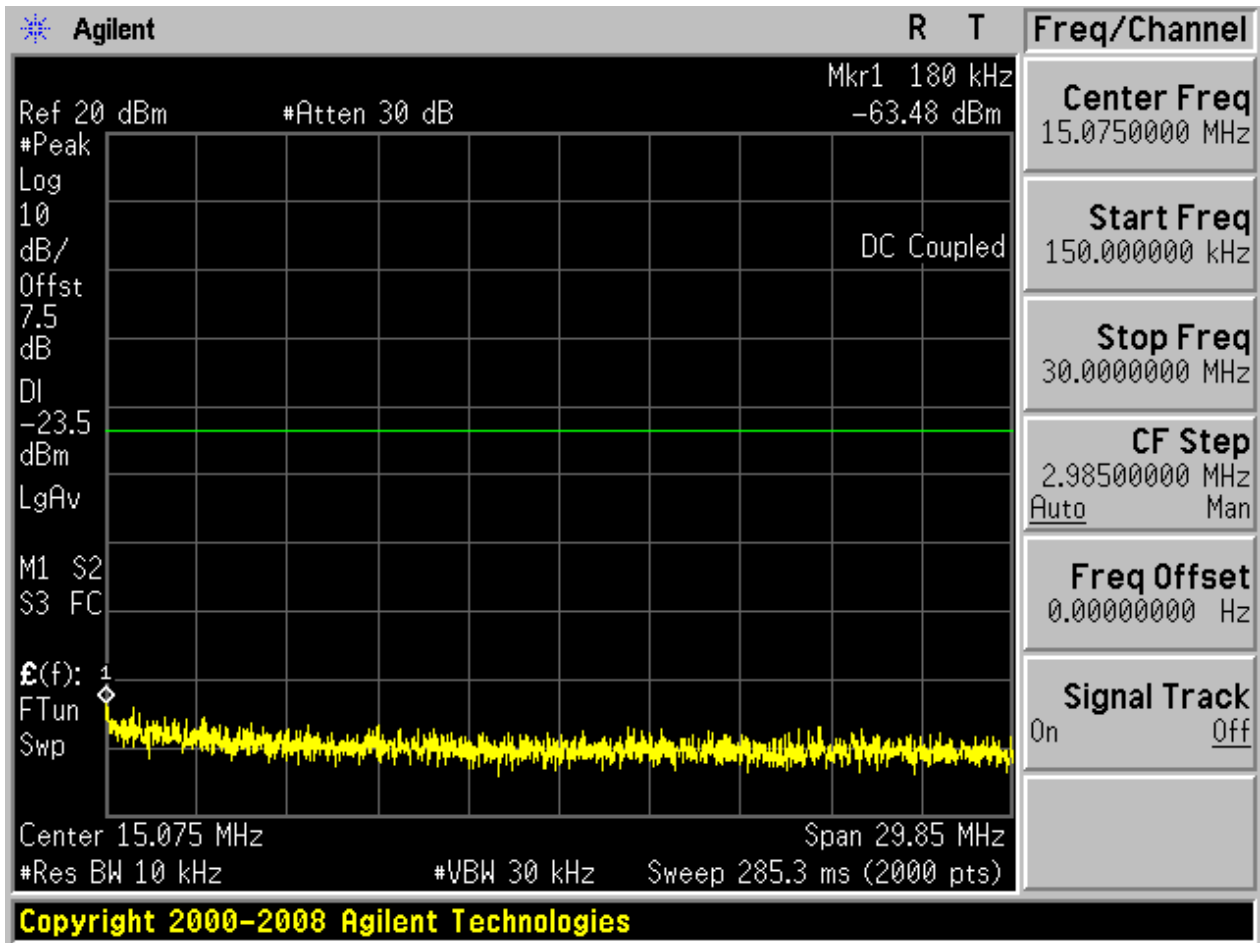
### 2.3 TM1\_DH5\_Ch78

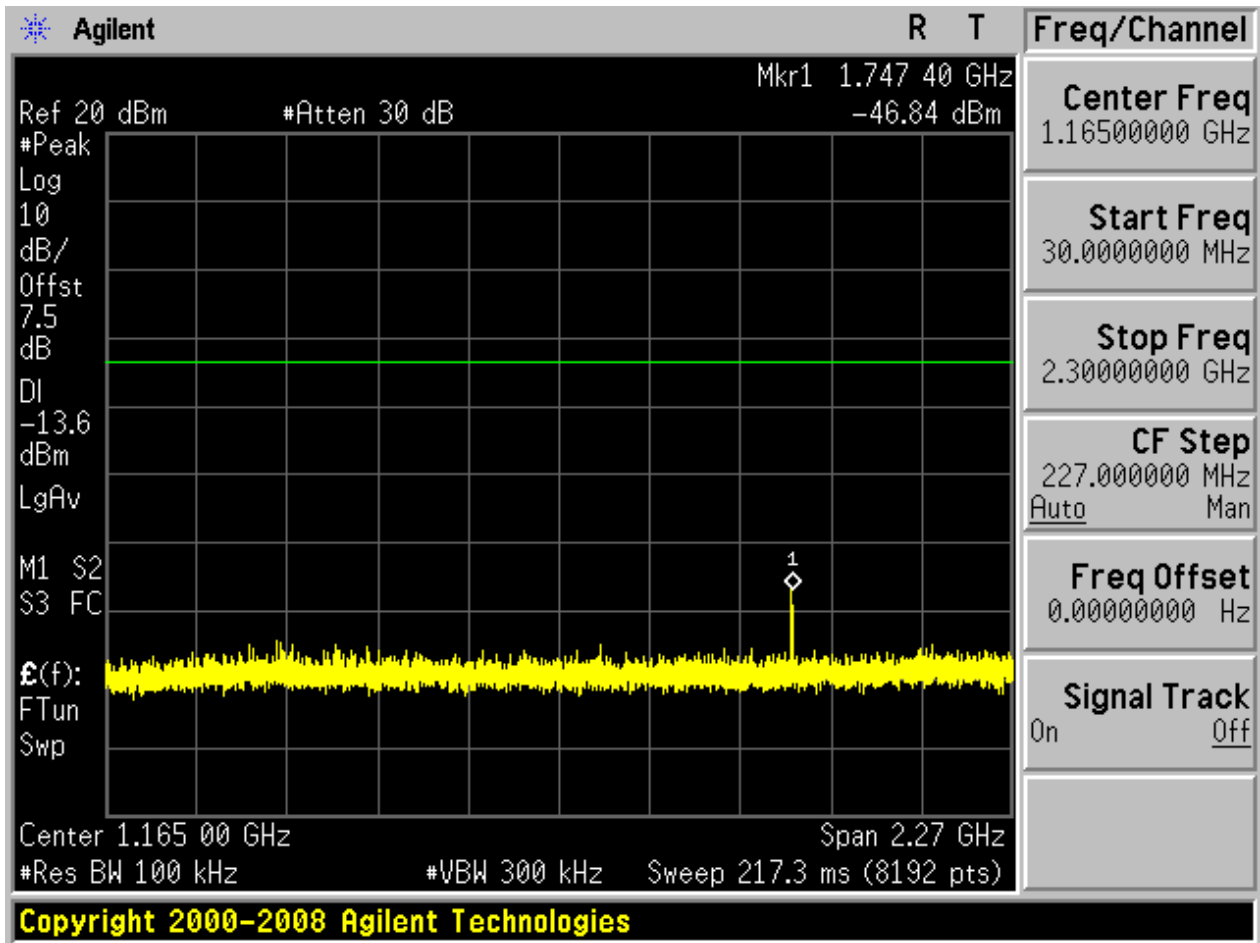
#### 2.3.1 Pref



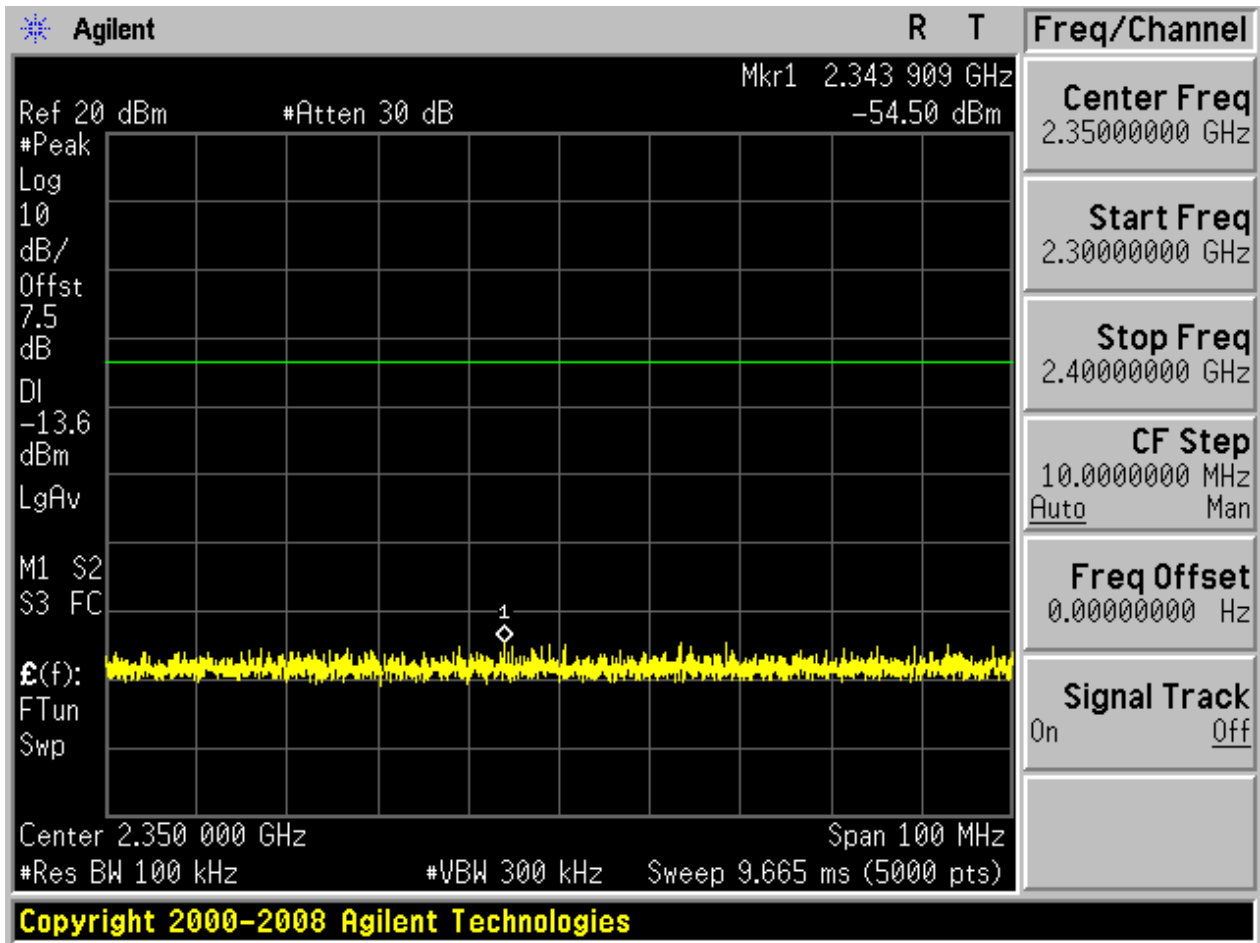
2.3.2 Puw

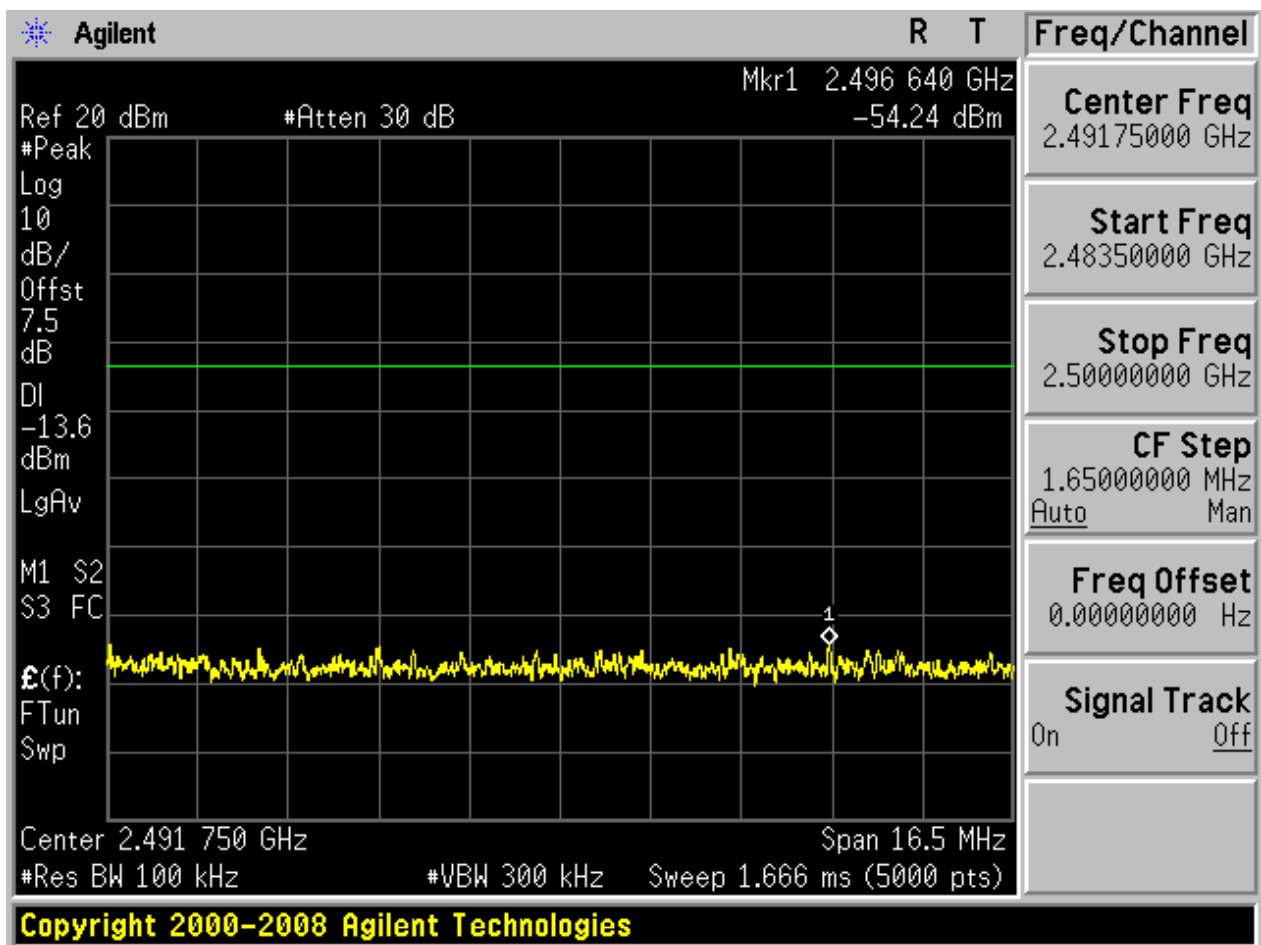


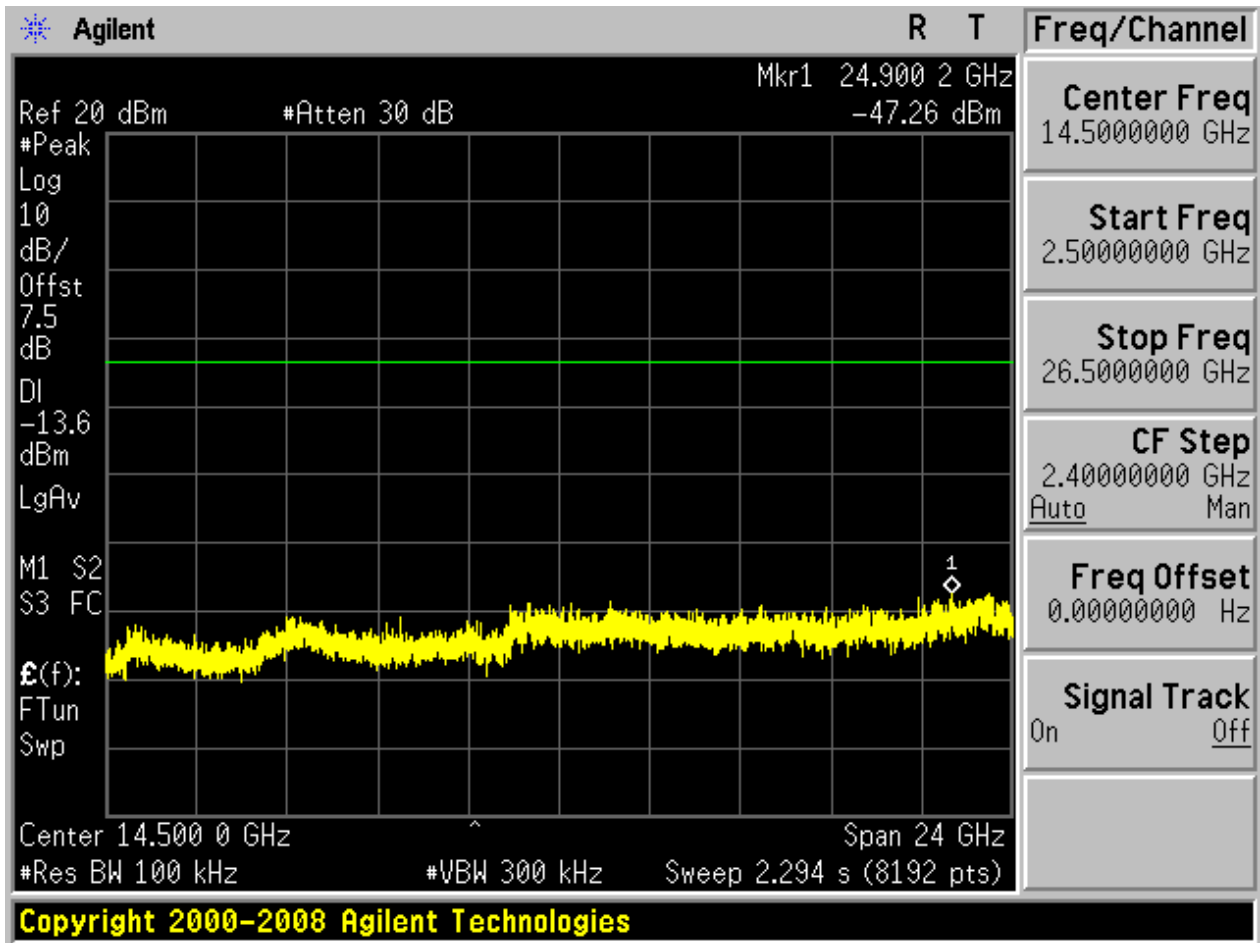








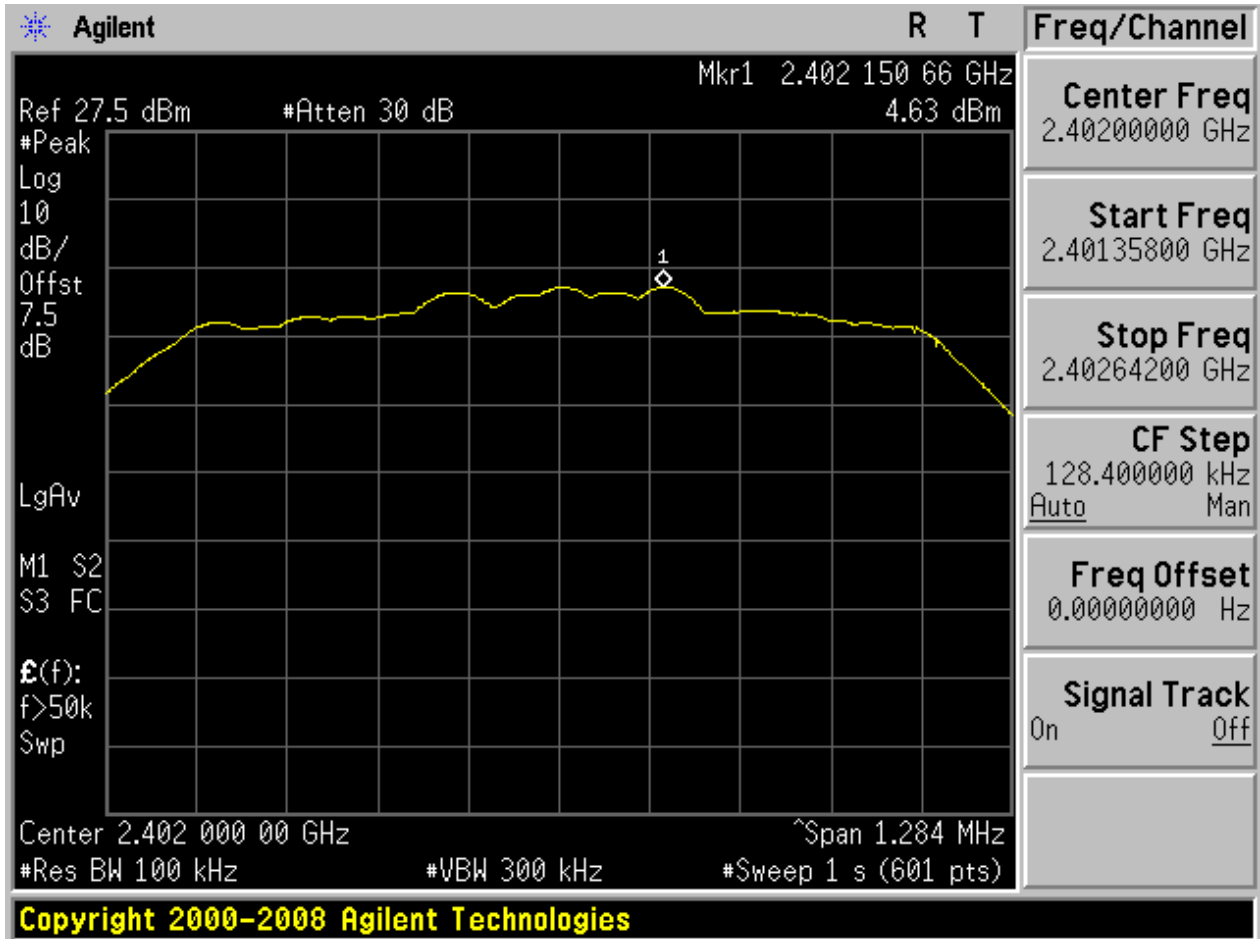






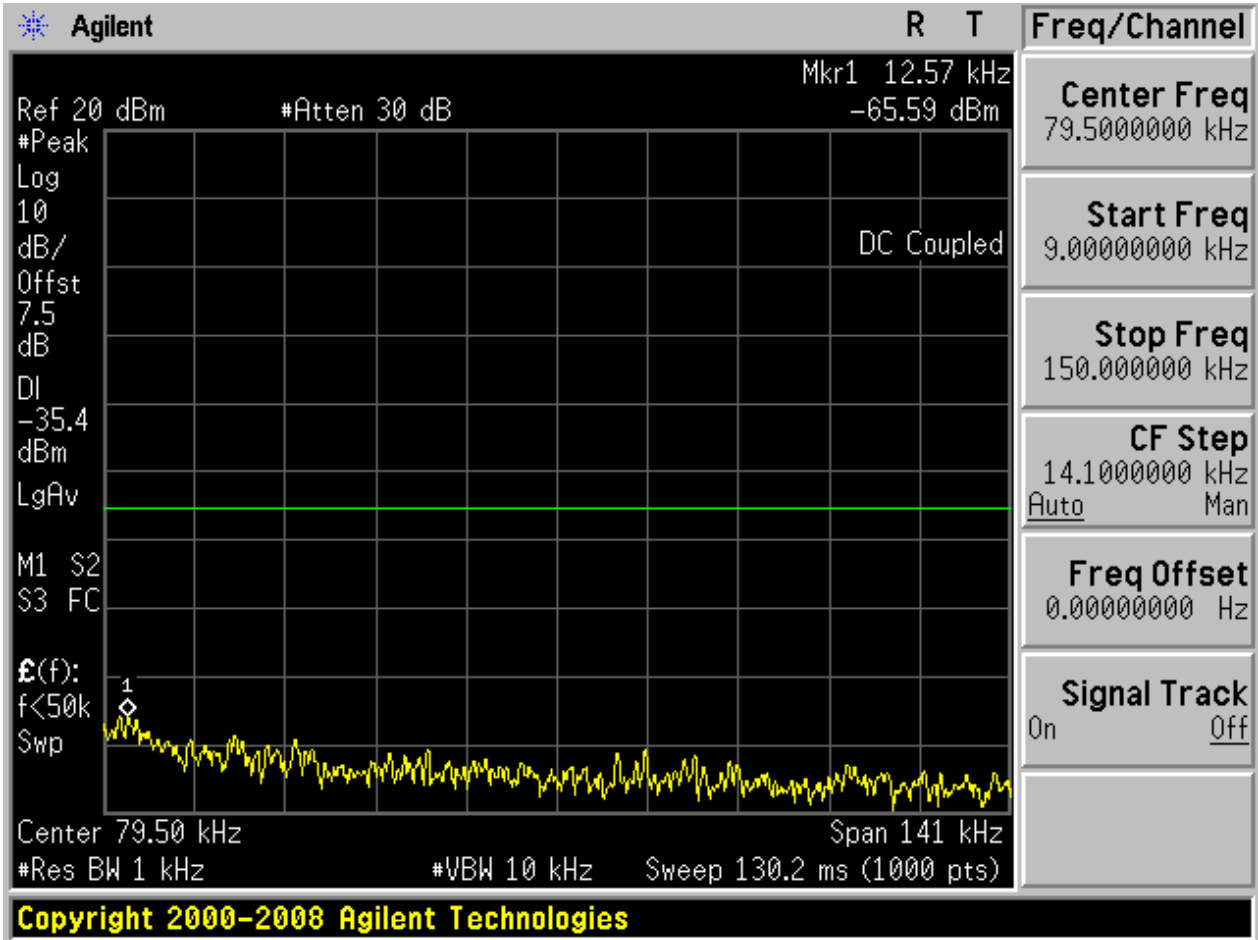
## 2.4 TM2\_2DH5\_Ch0

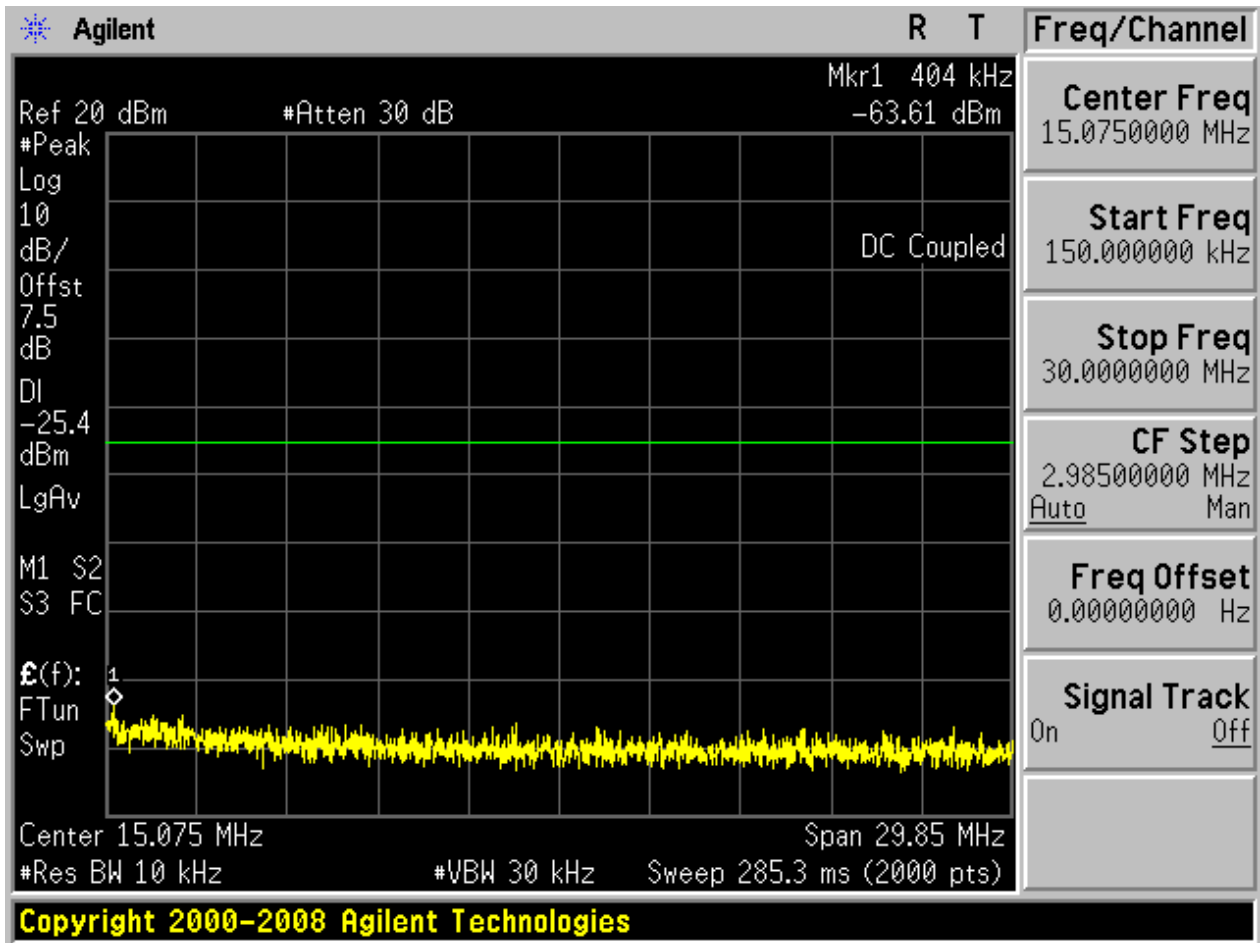
### 2.4.1 Pref

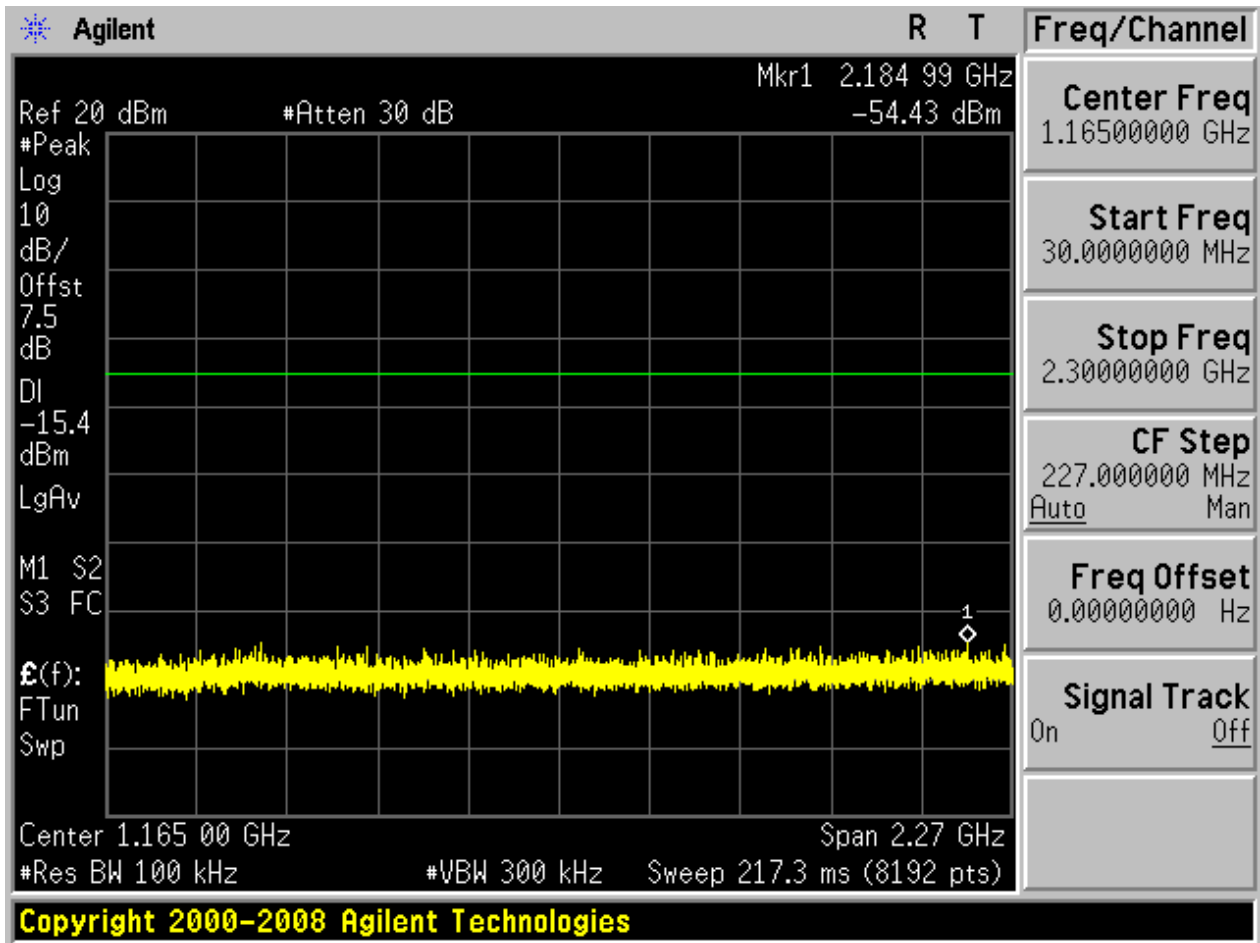


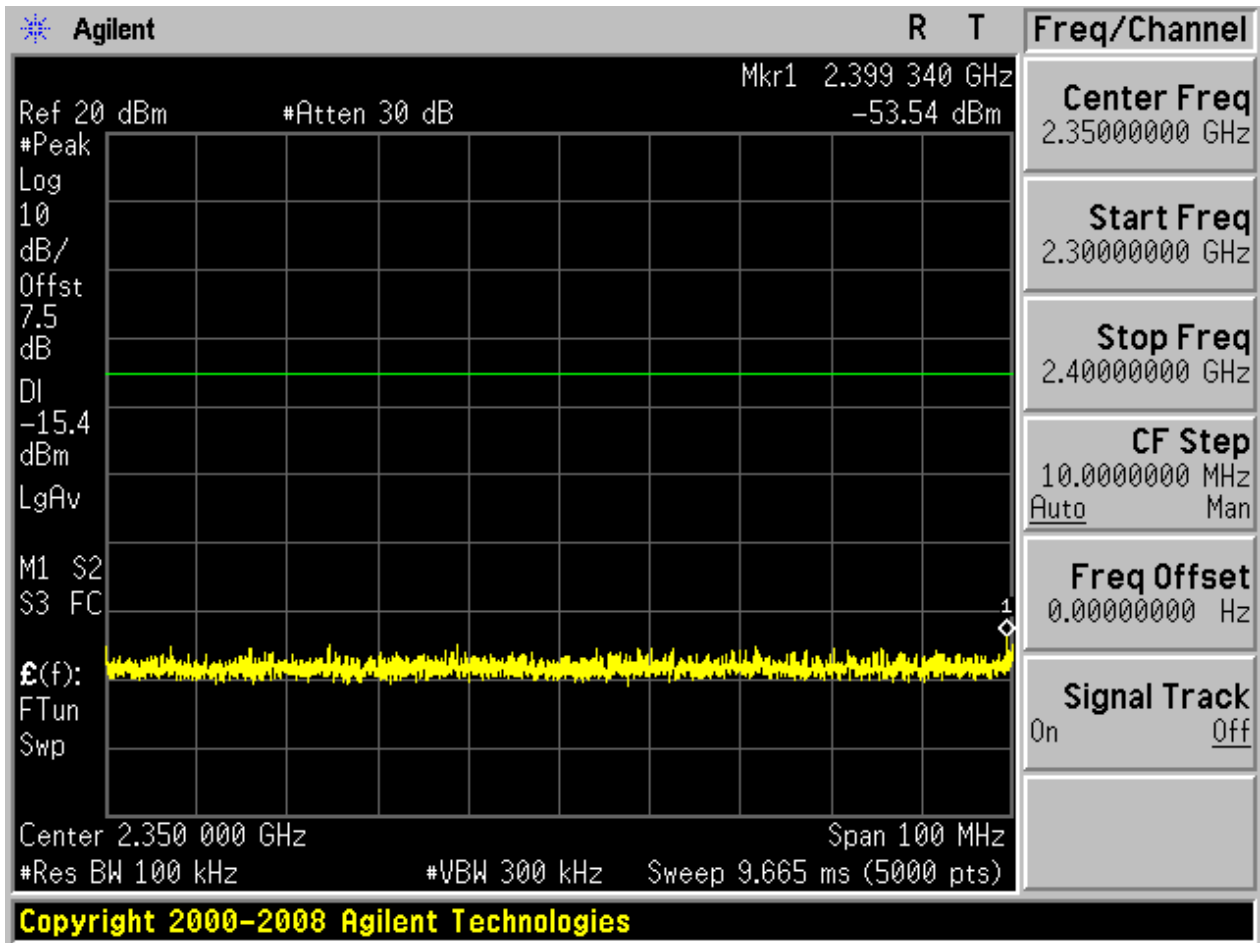


2.4.2 Puw

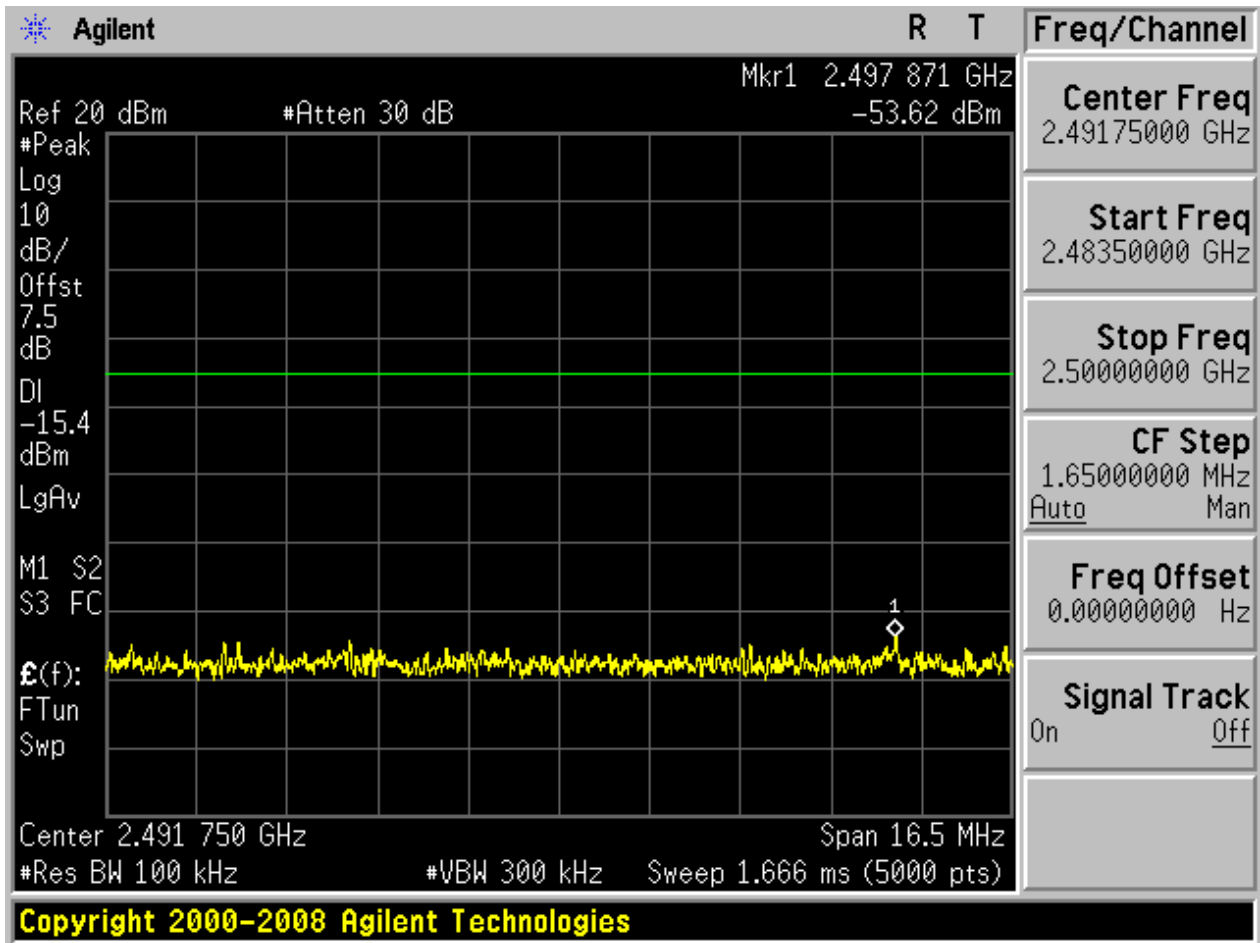


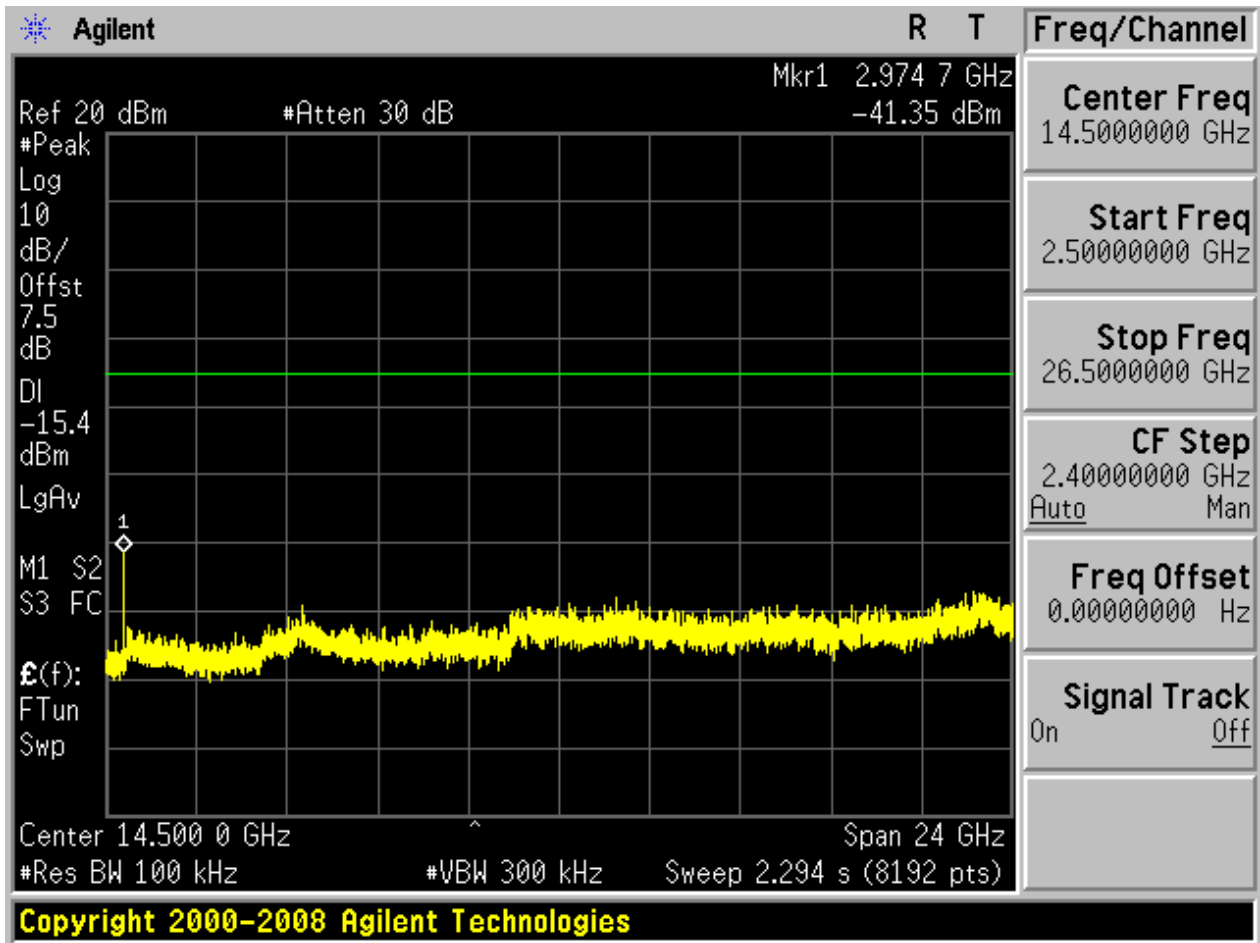








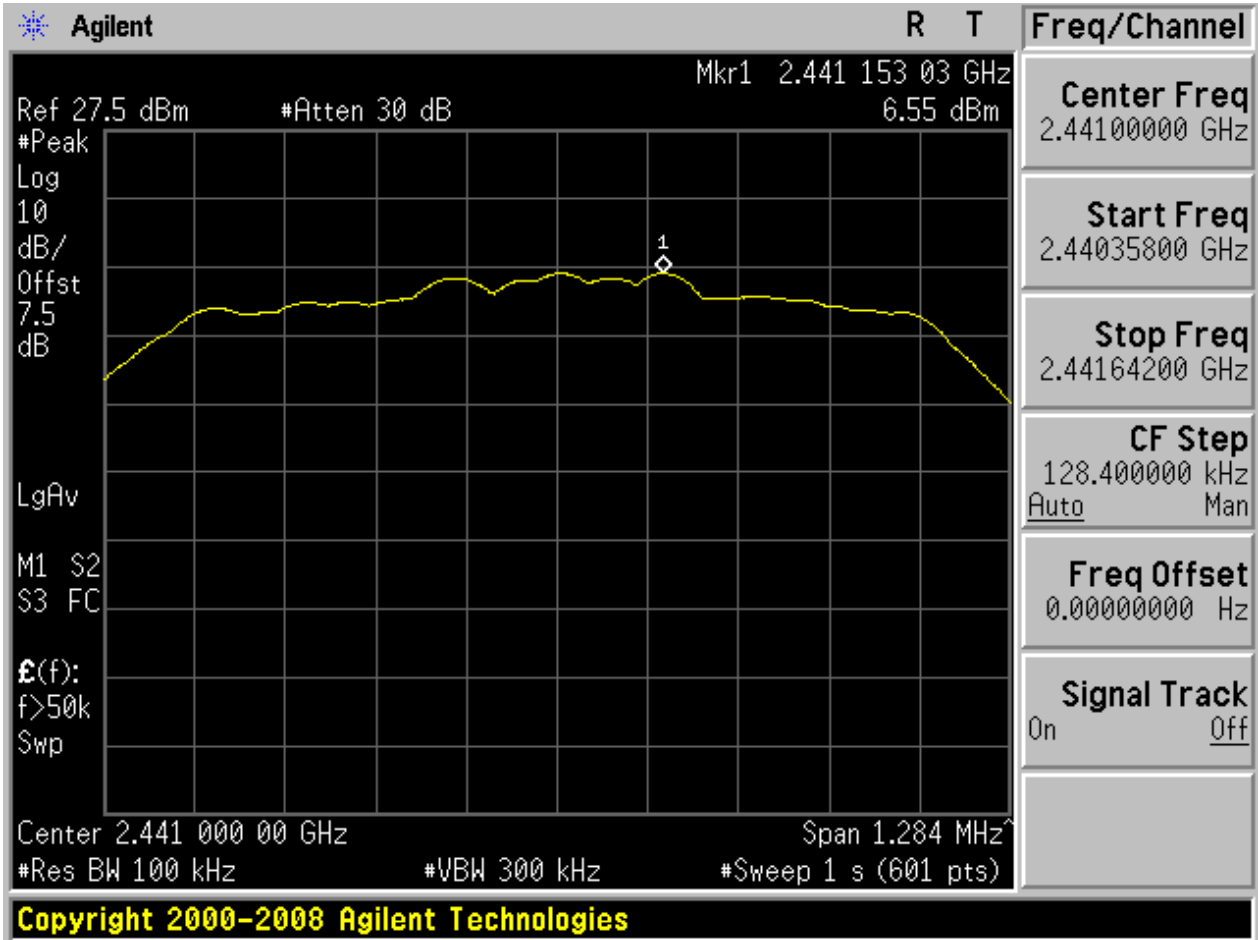






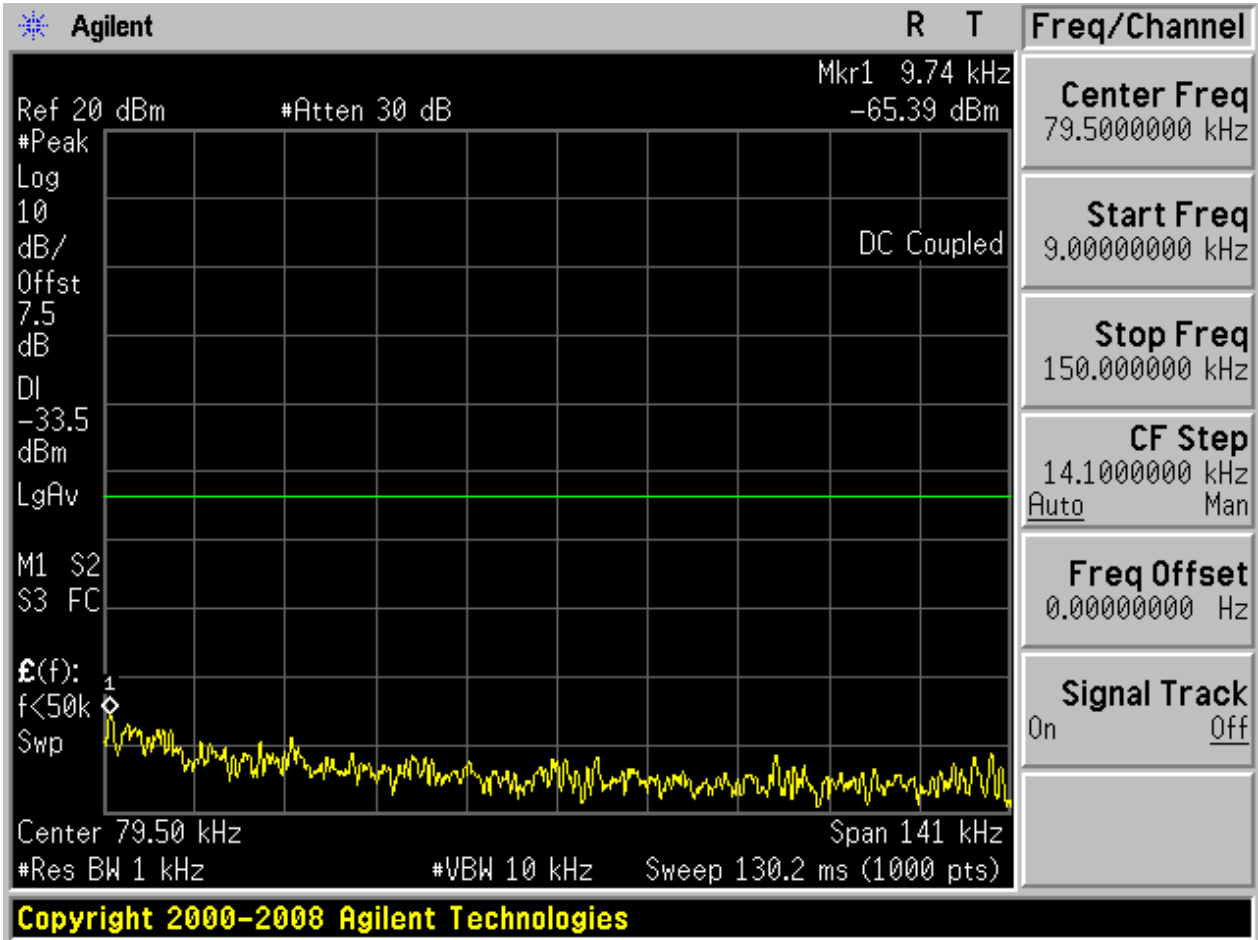
## 2.5 TM2\_2DH5\_Ch39

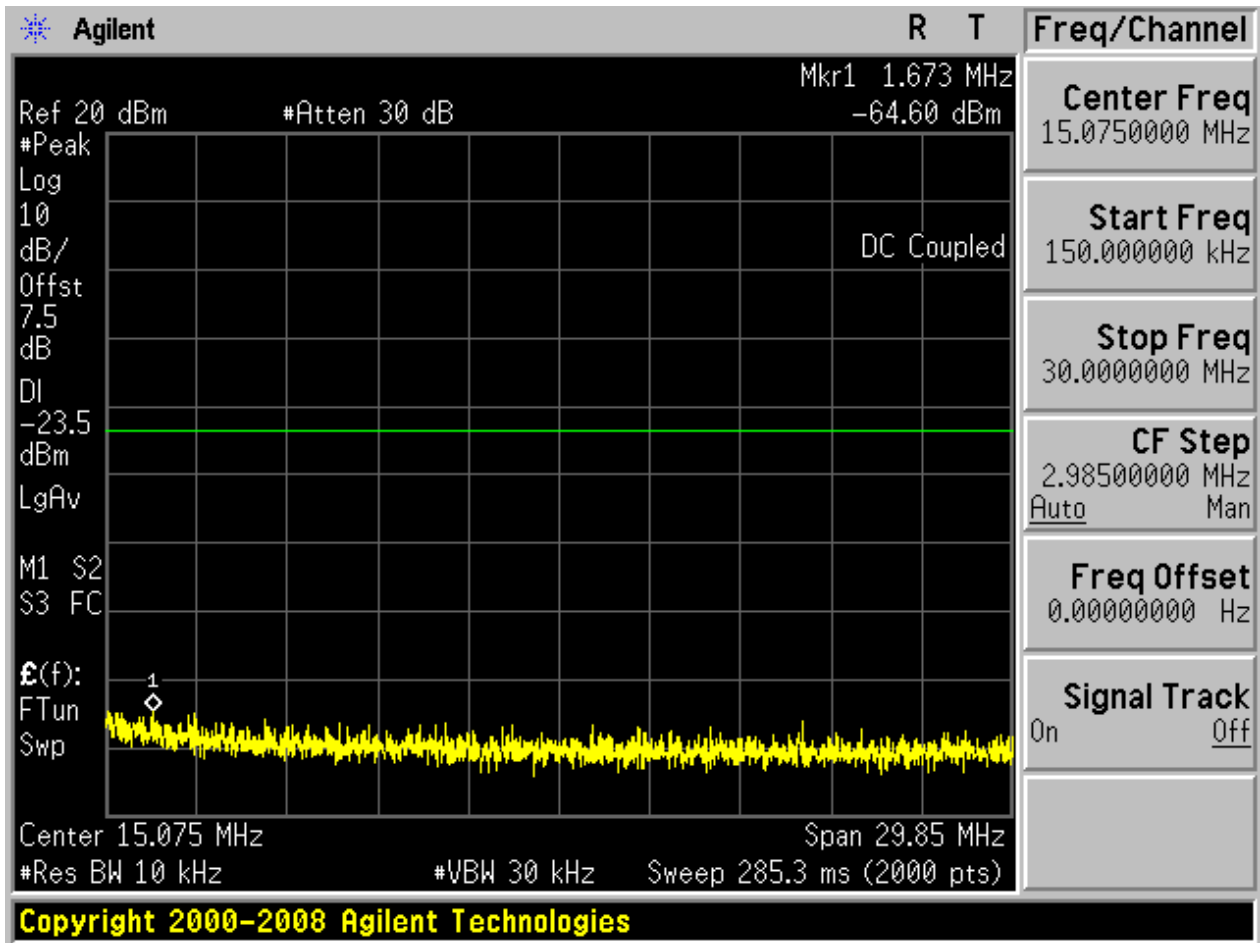
### 2.5.1 Pref

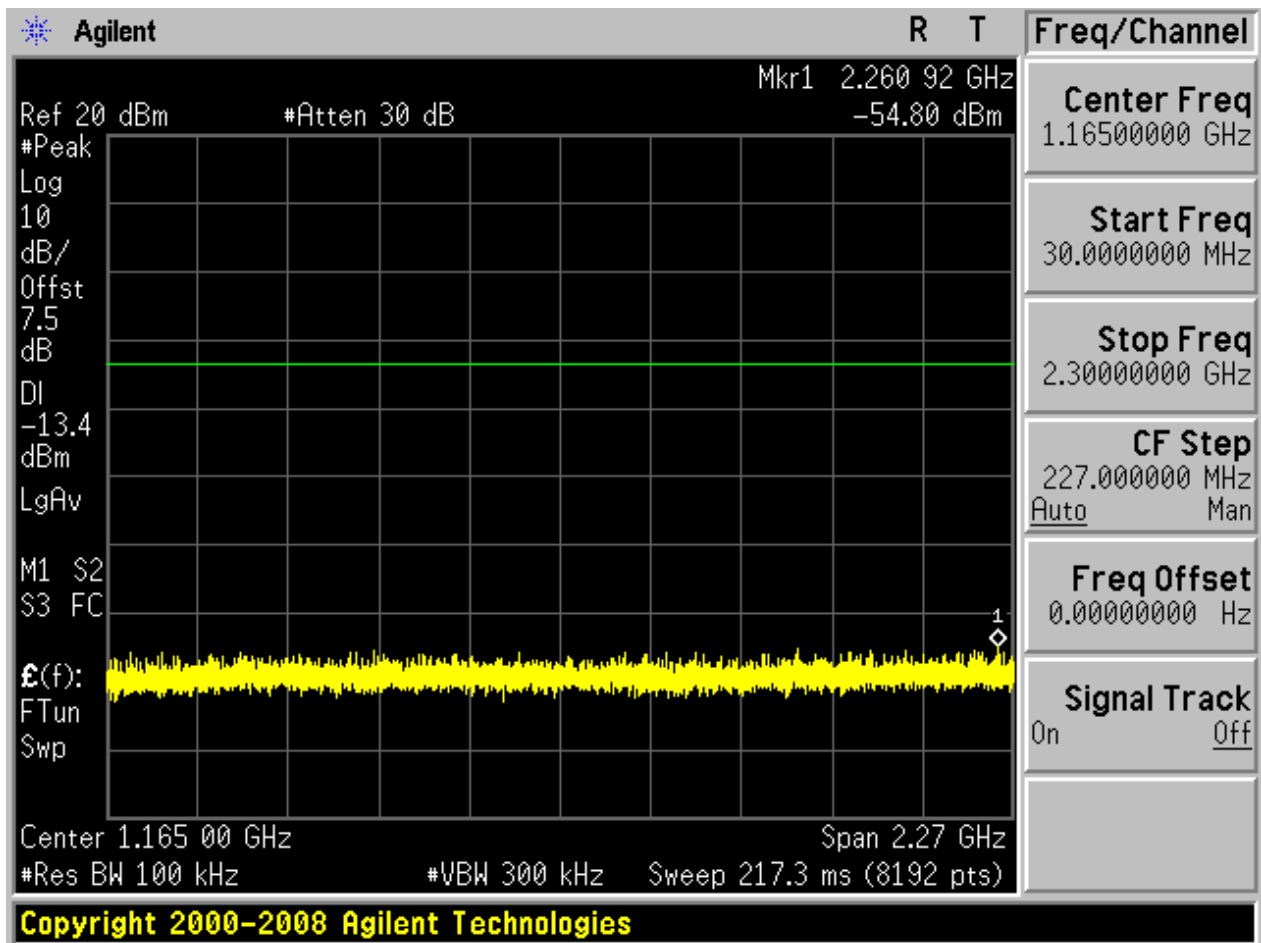


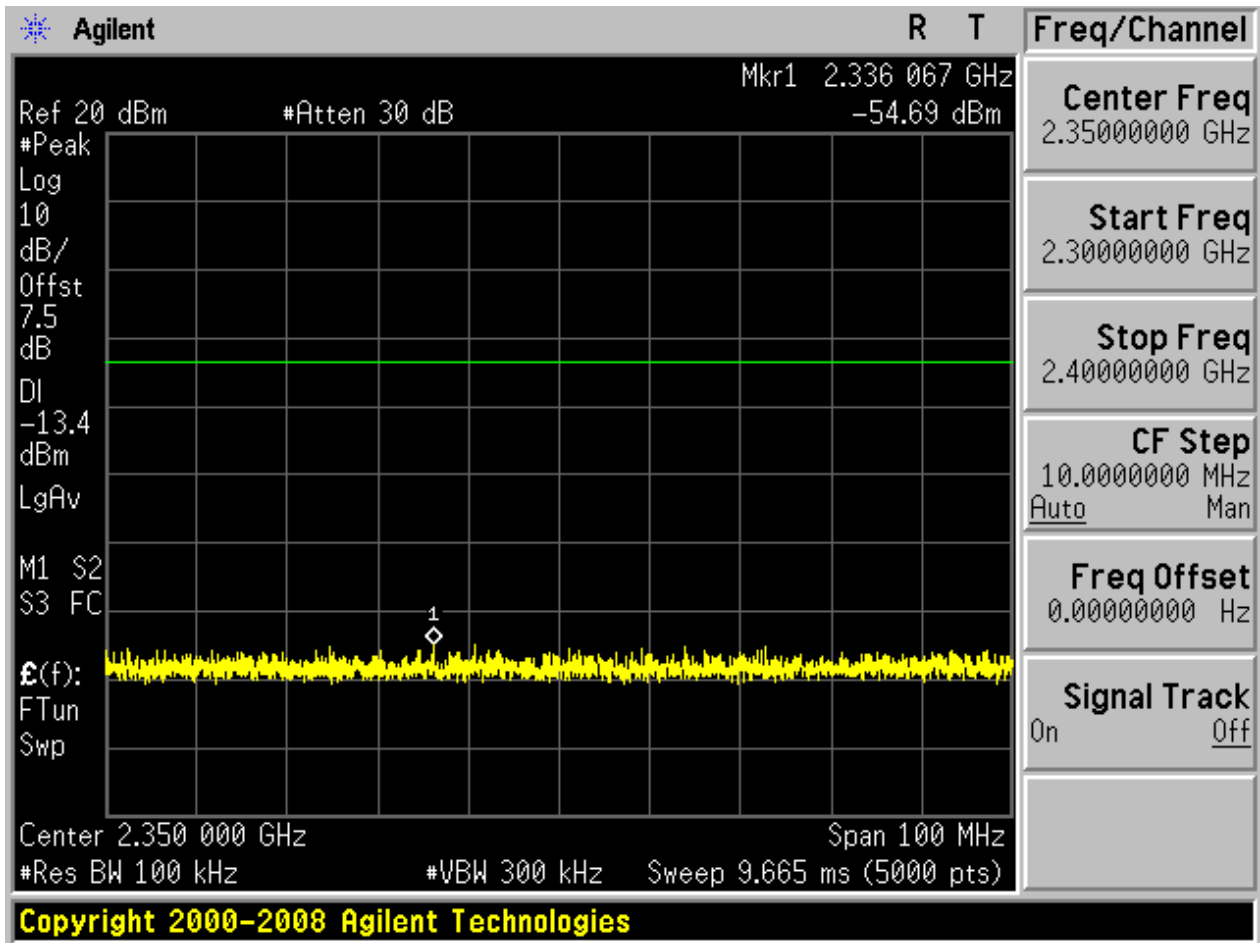


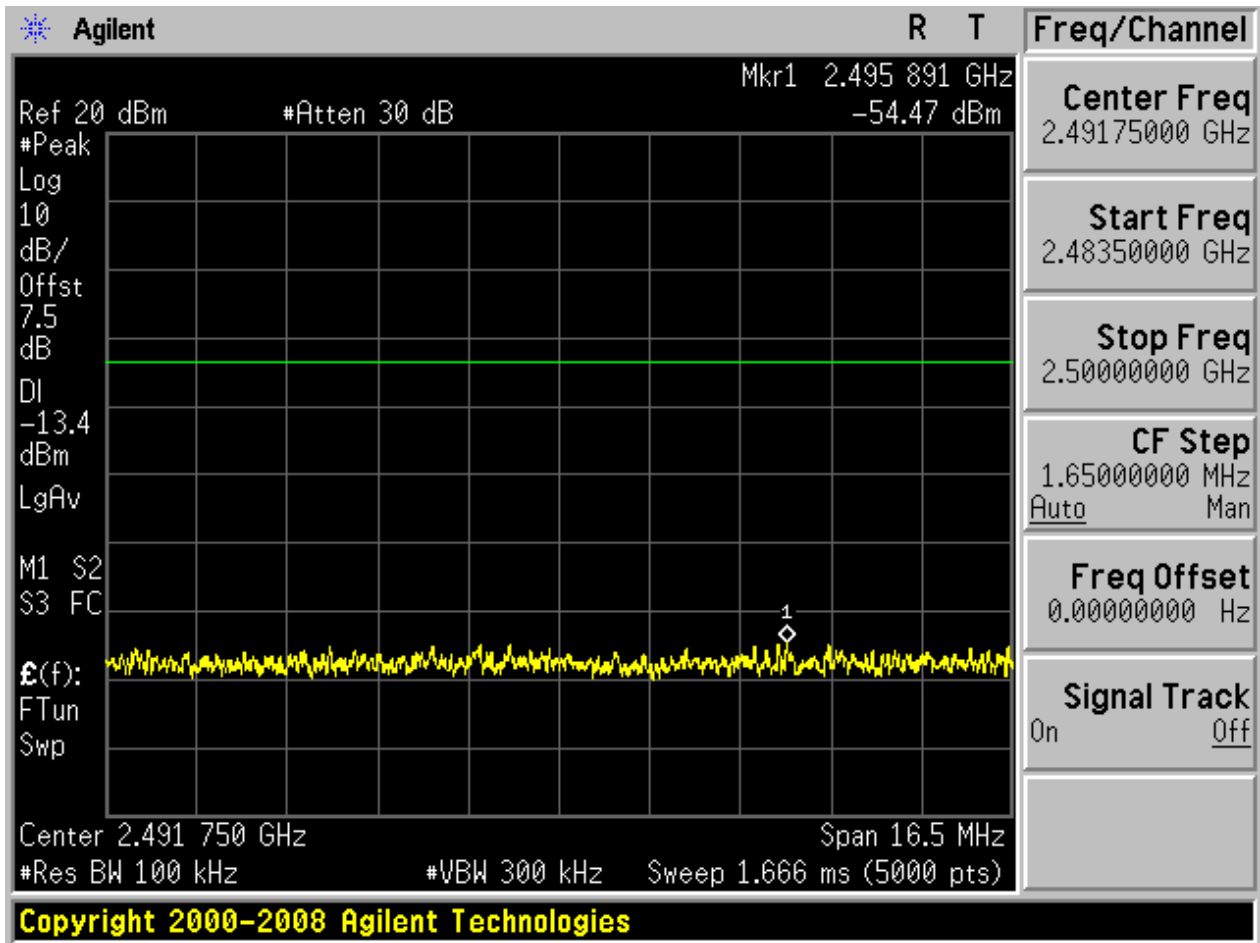
2.5.2 Puw



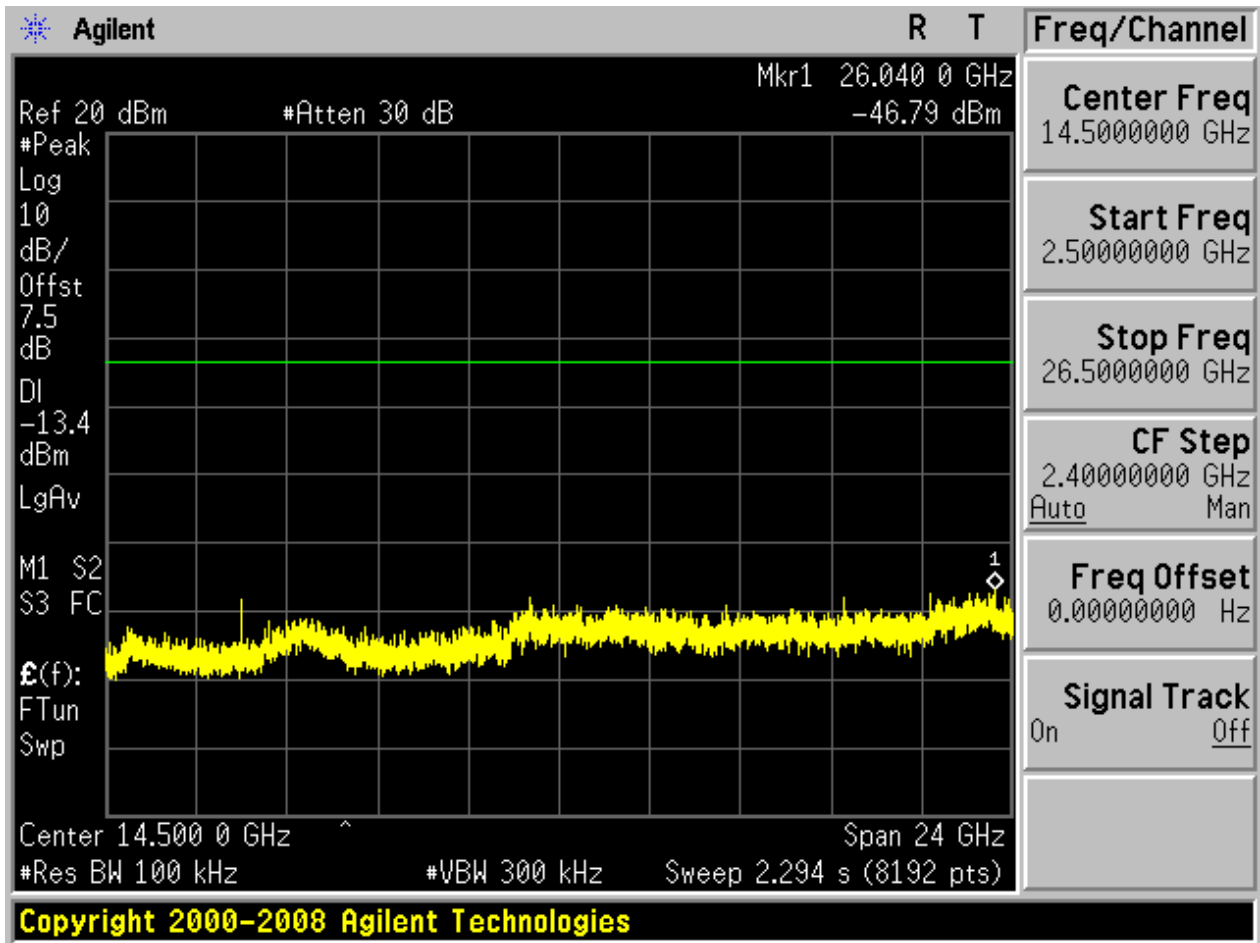








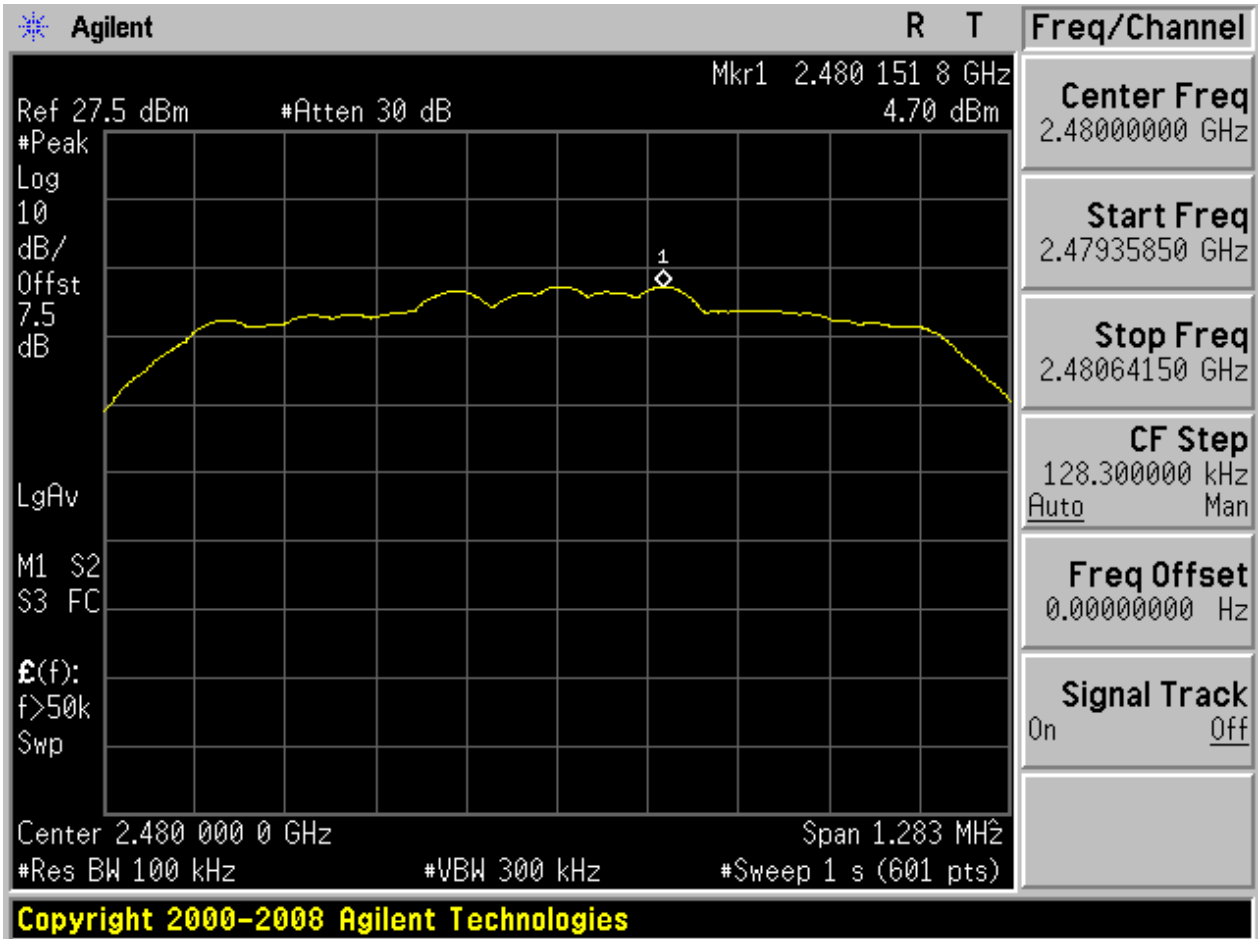




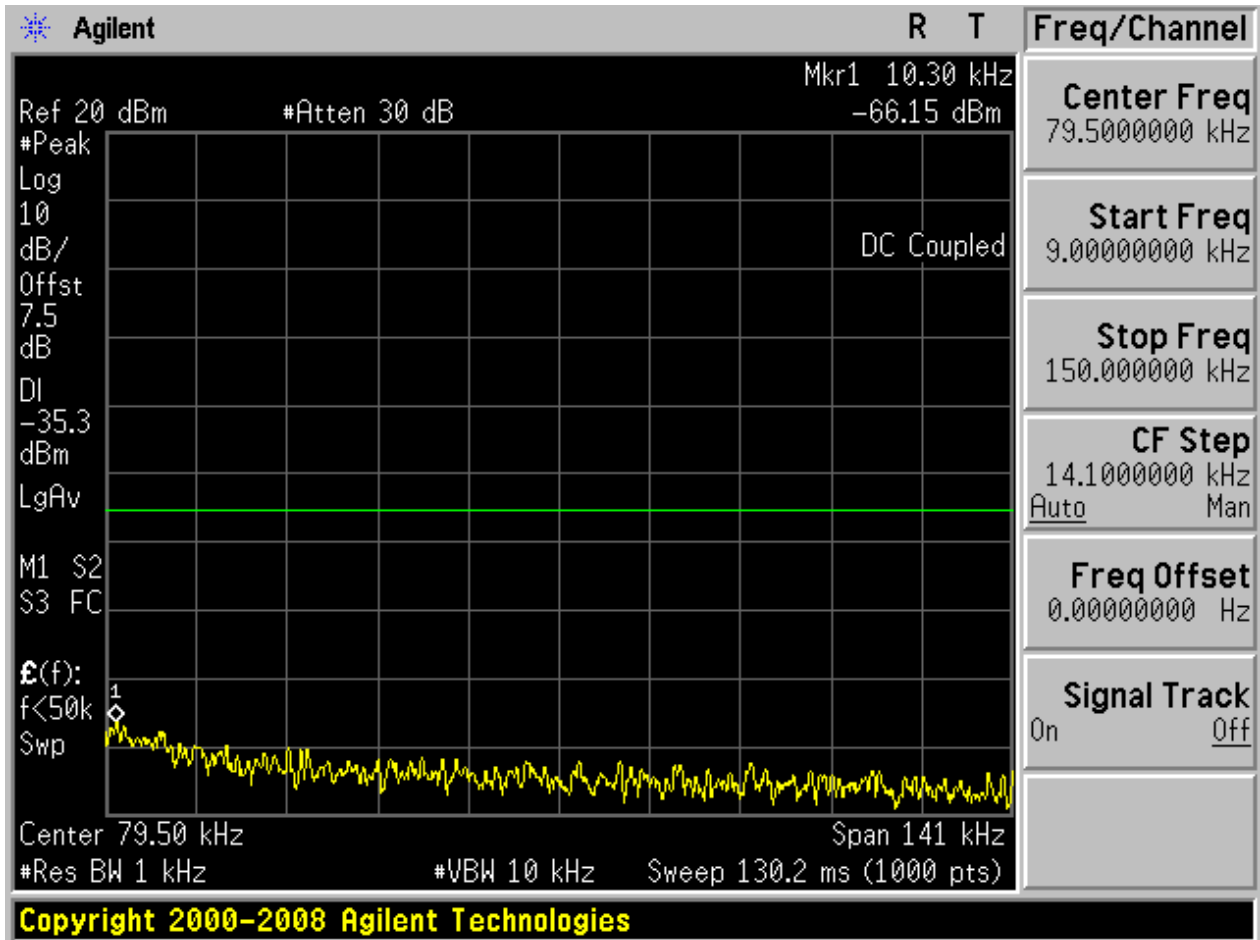


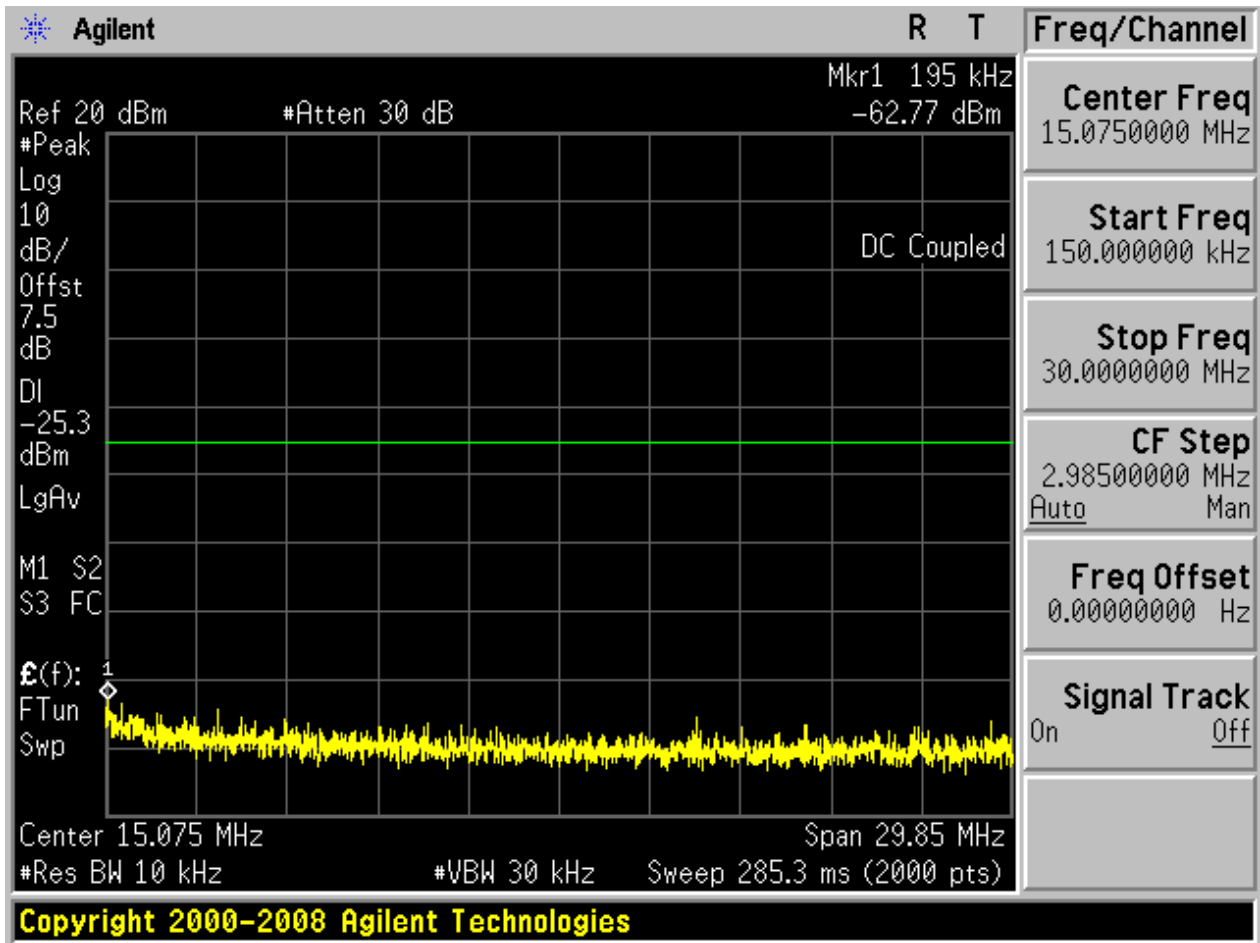
## 2.6 TM2\_2DH5\_Ch78

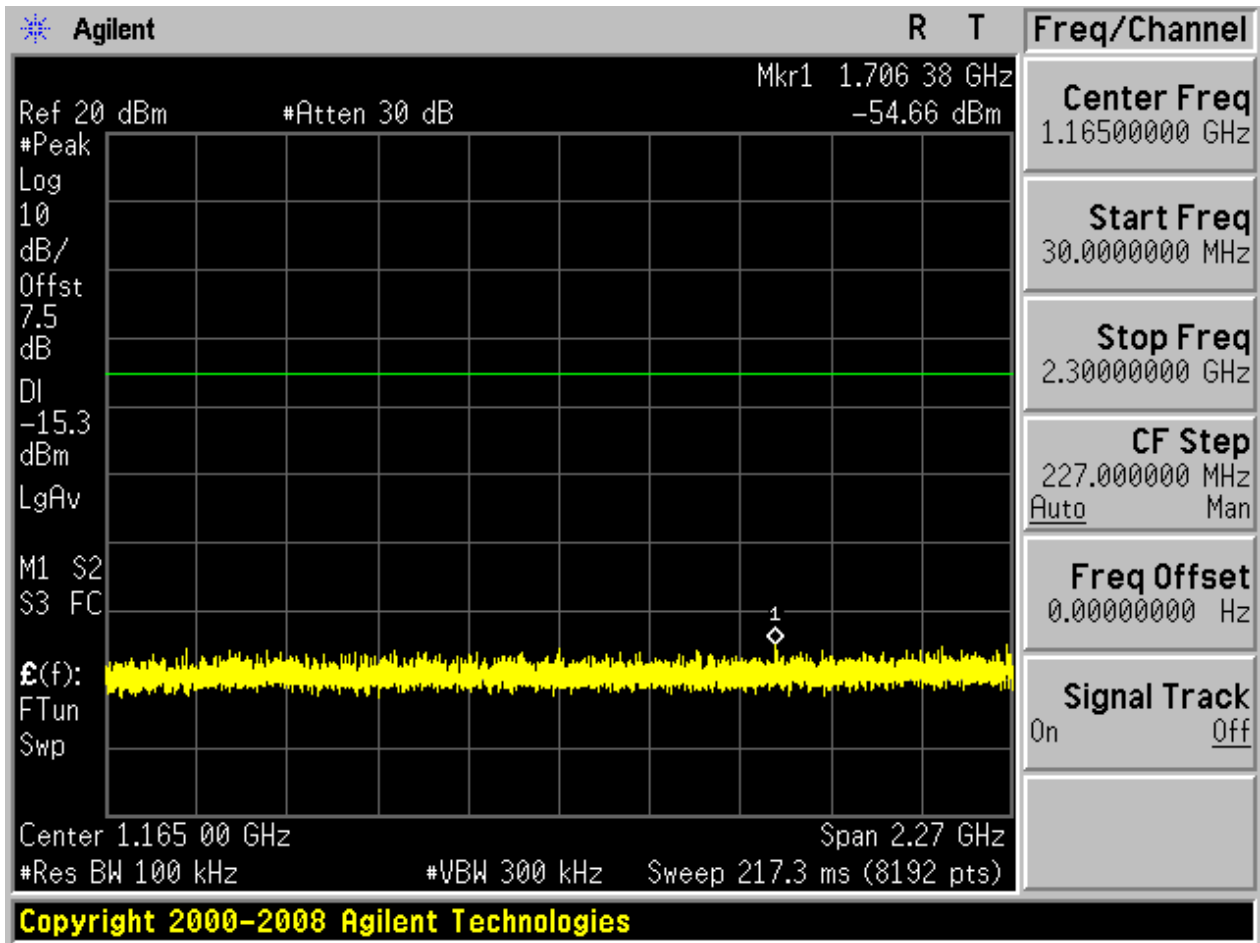
### 2.6.1 Pref

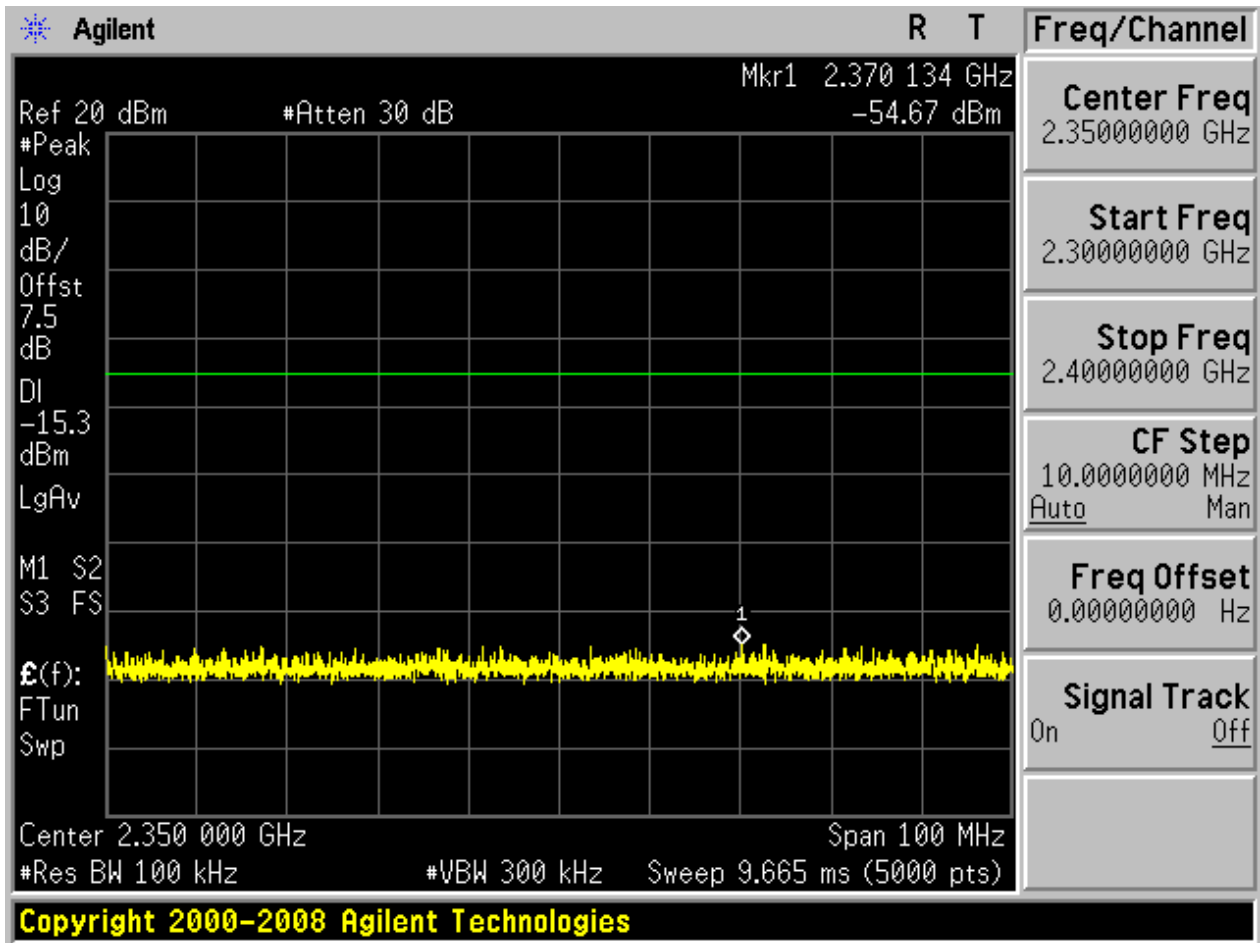


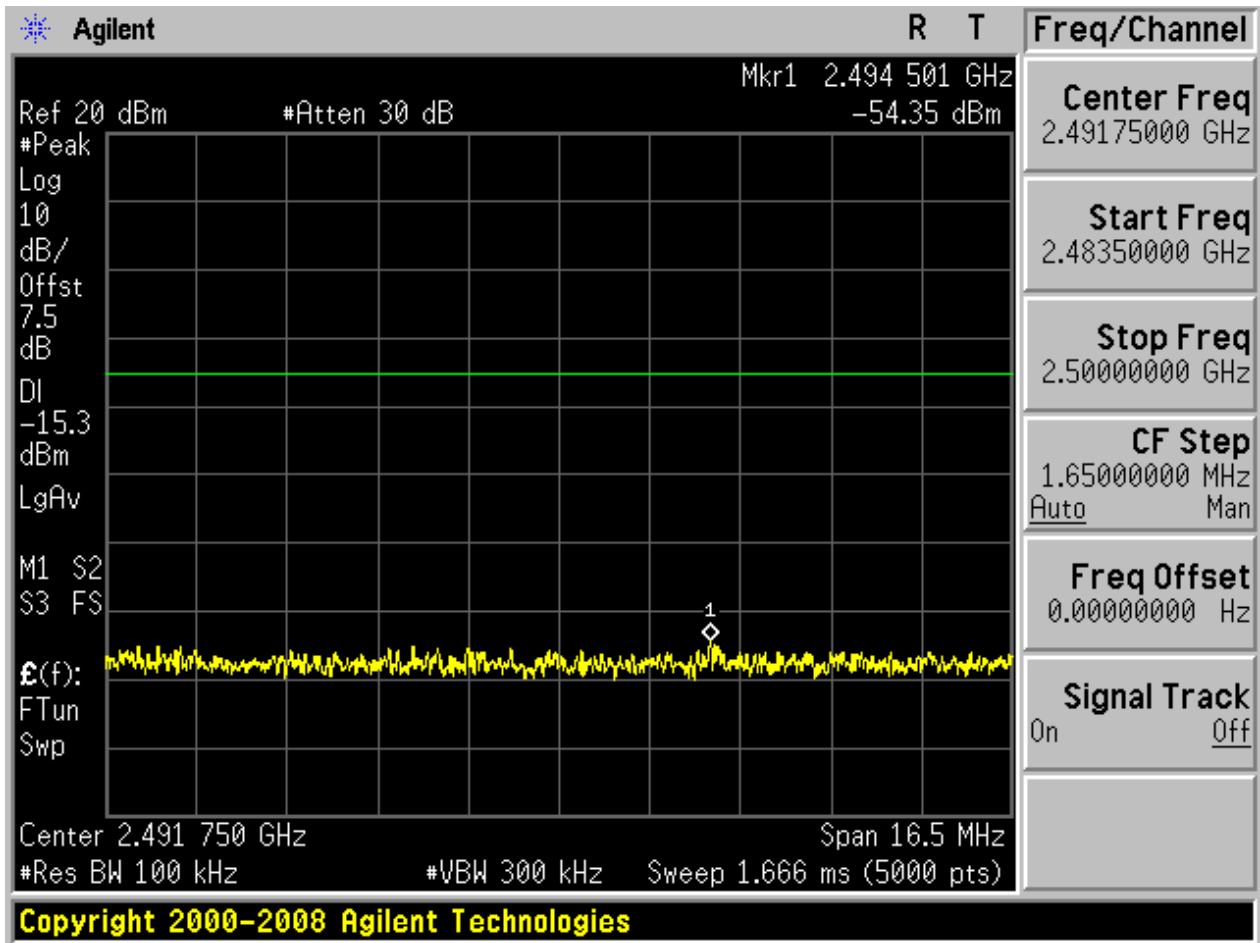
2.6.2 Puw

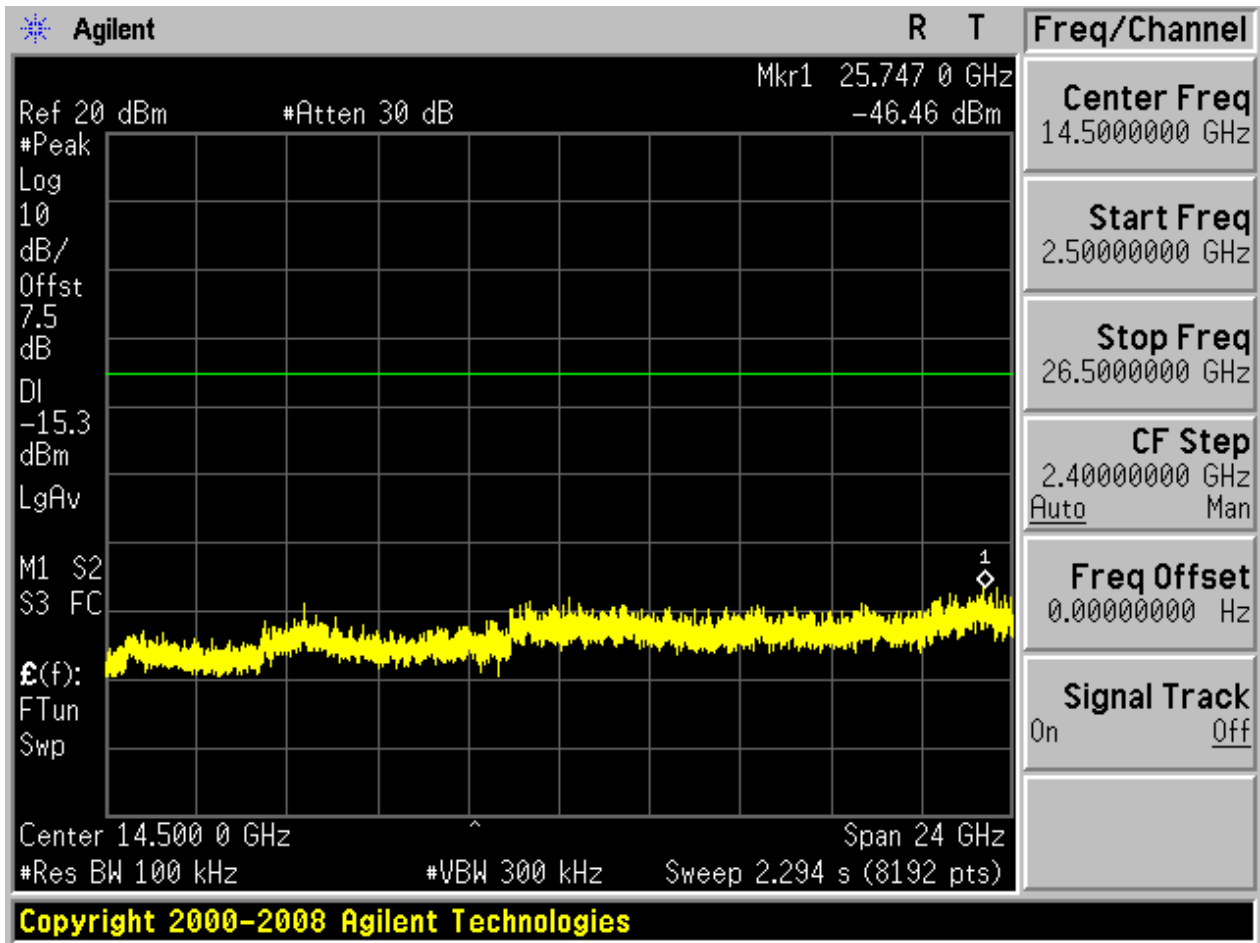










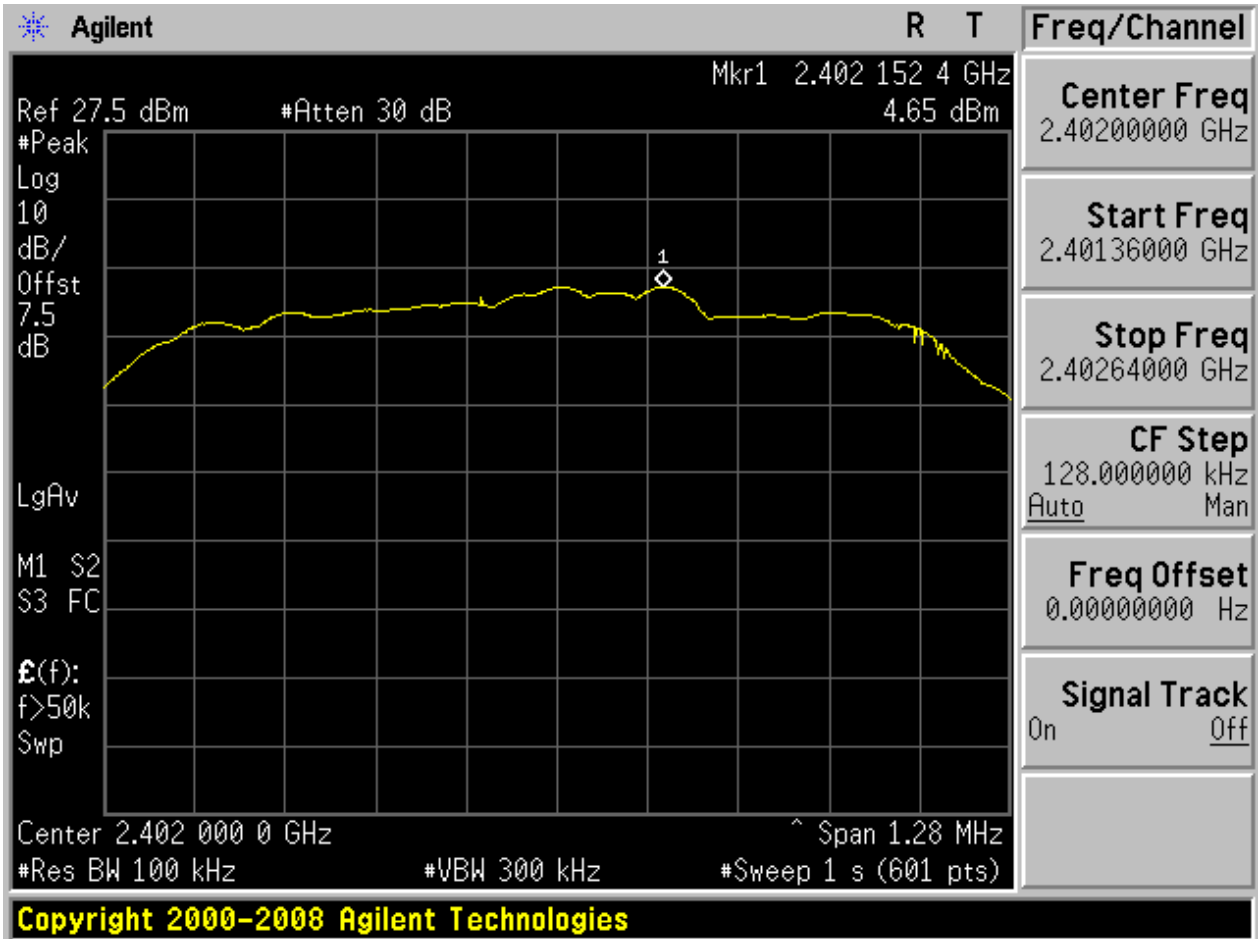




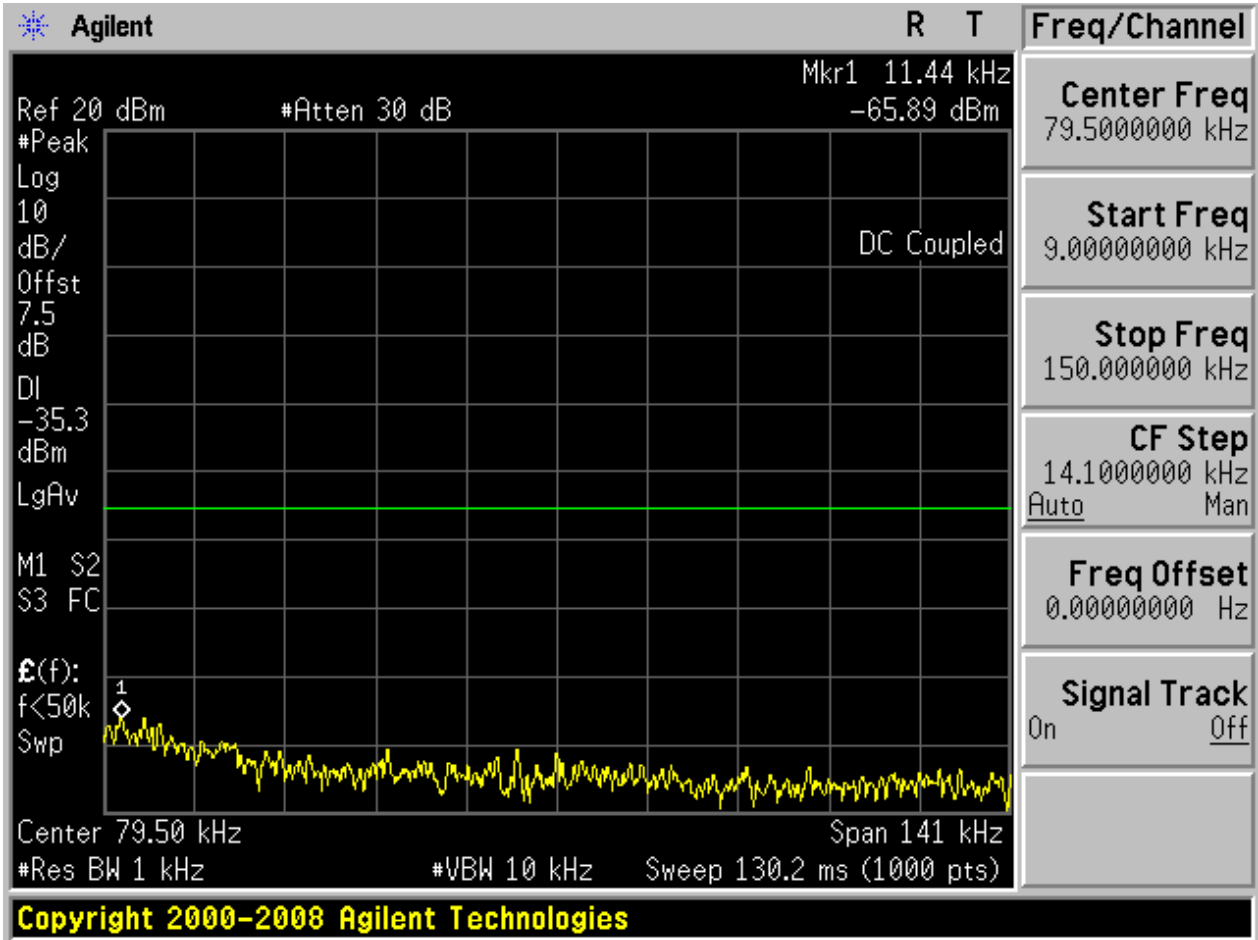


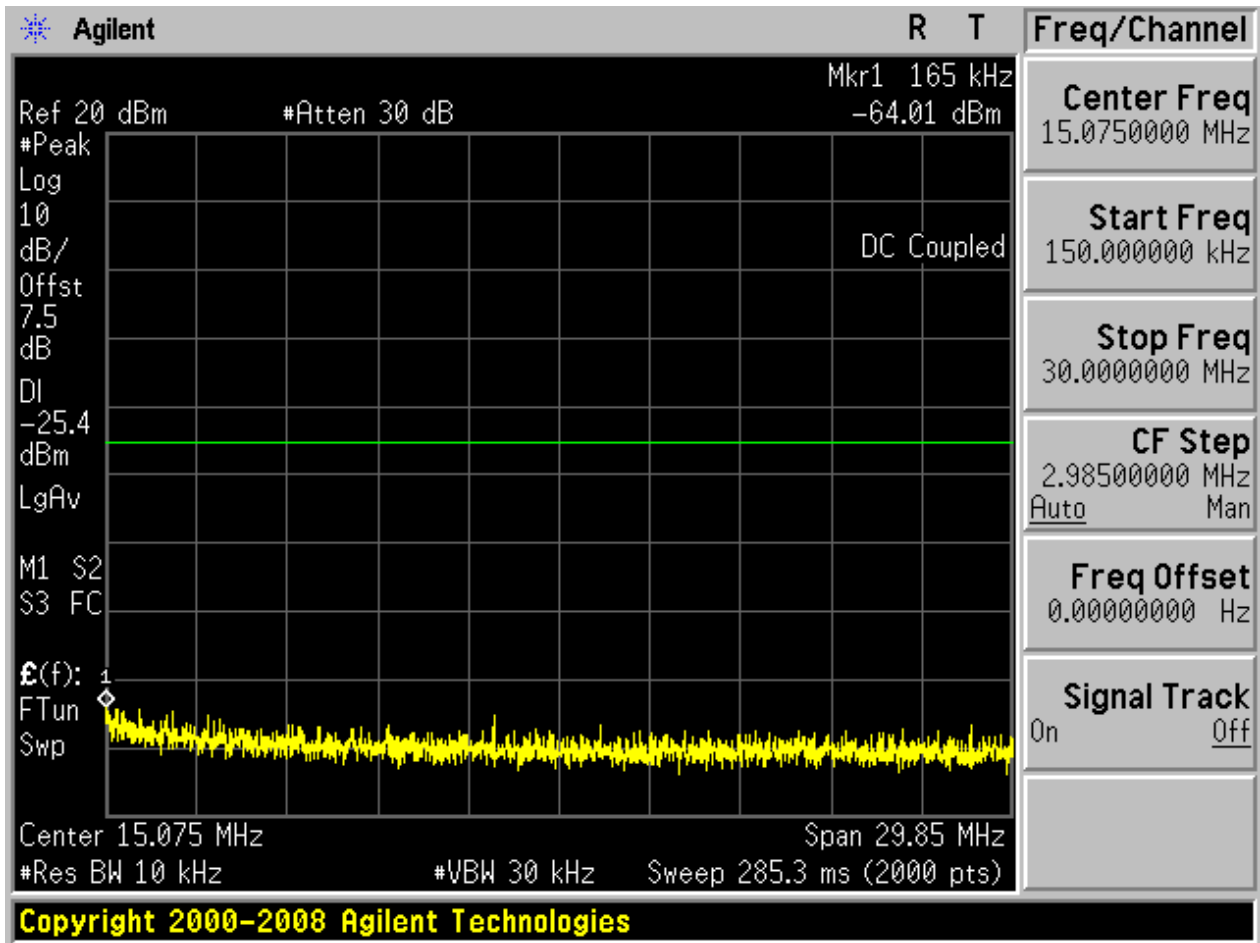
## 2.7 TM3\_3DH5\_Ch0

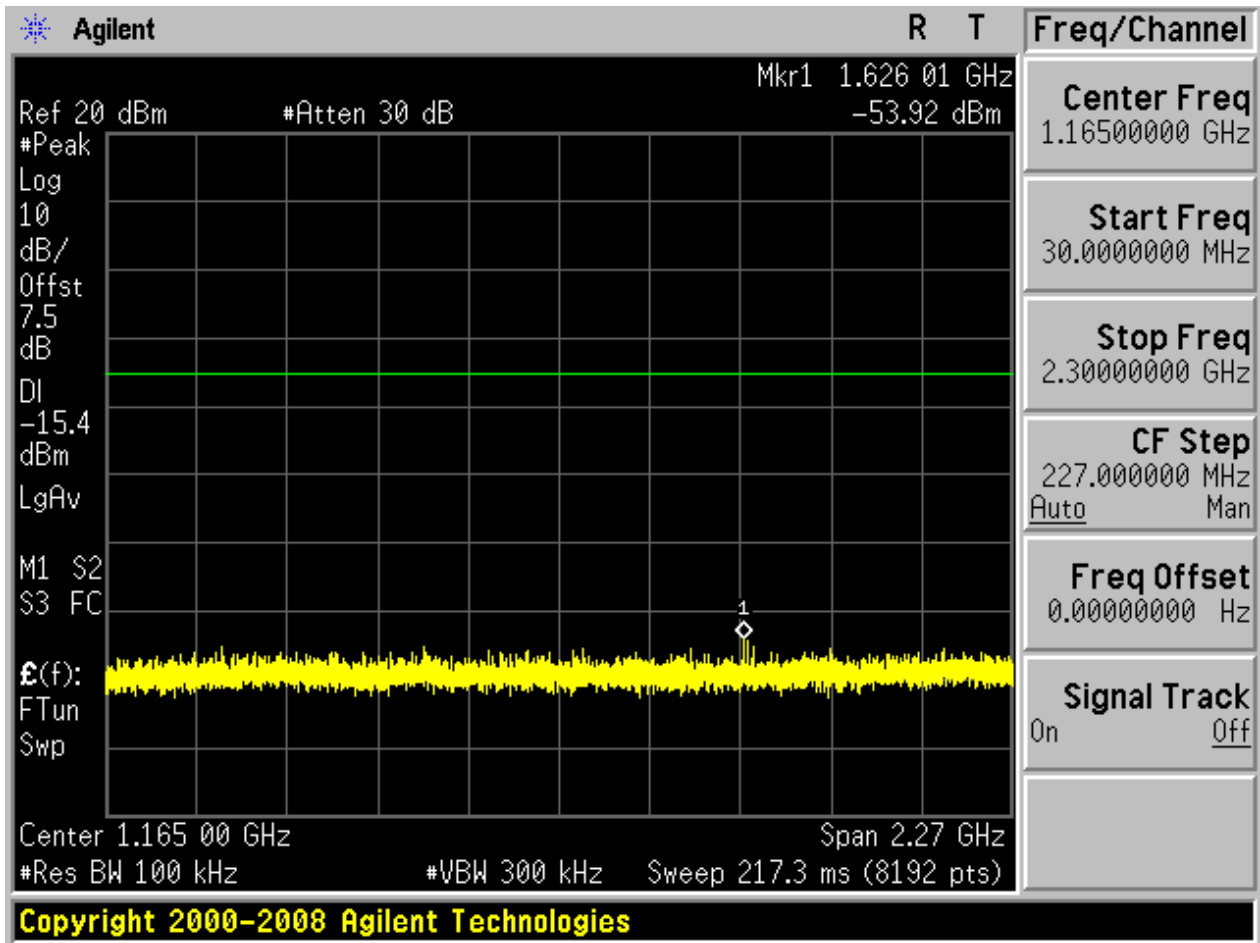
### 2.7.1 Pref

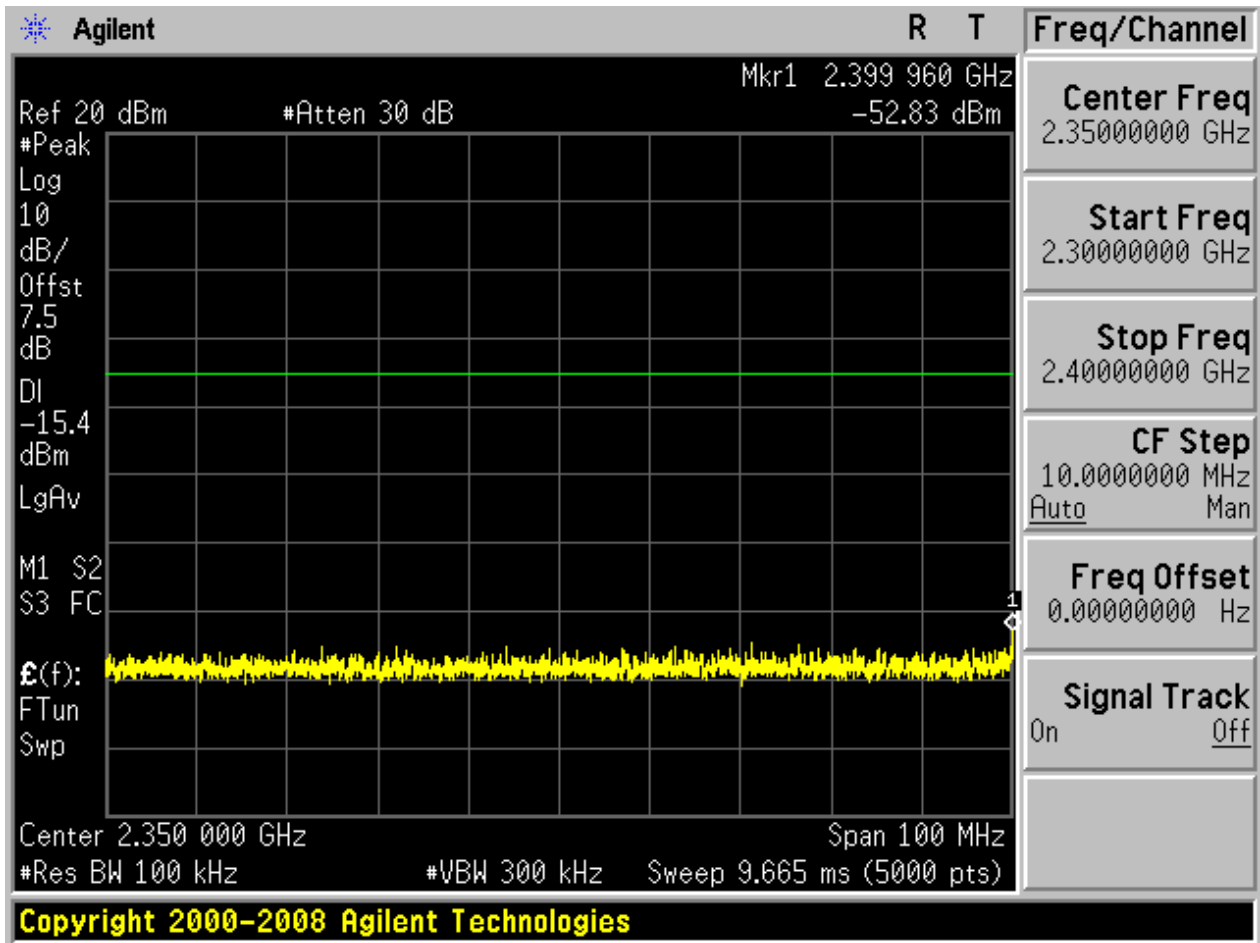


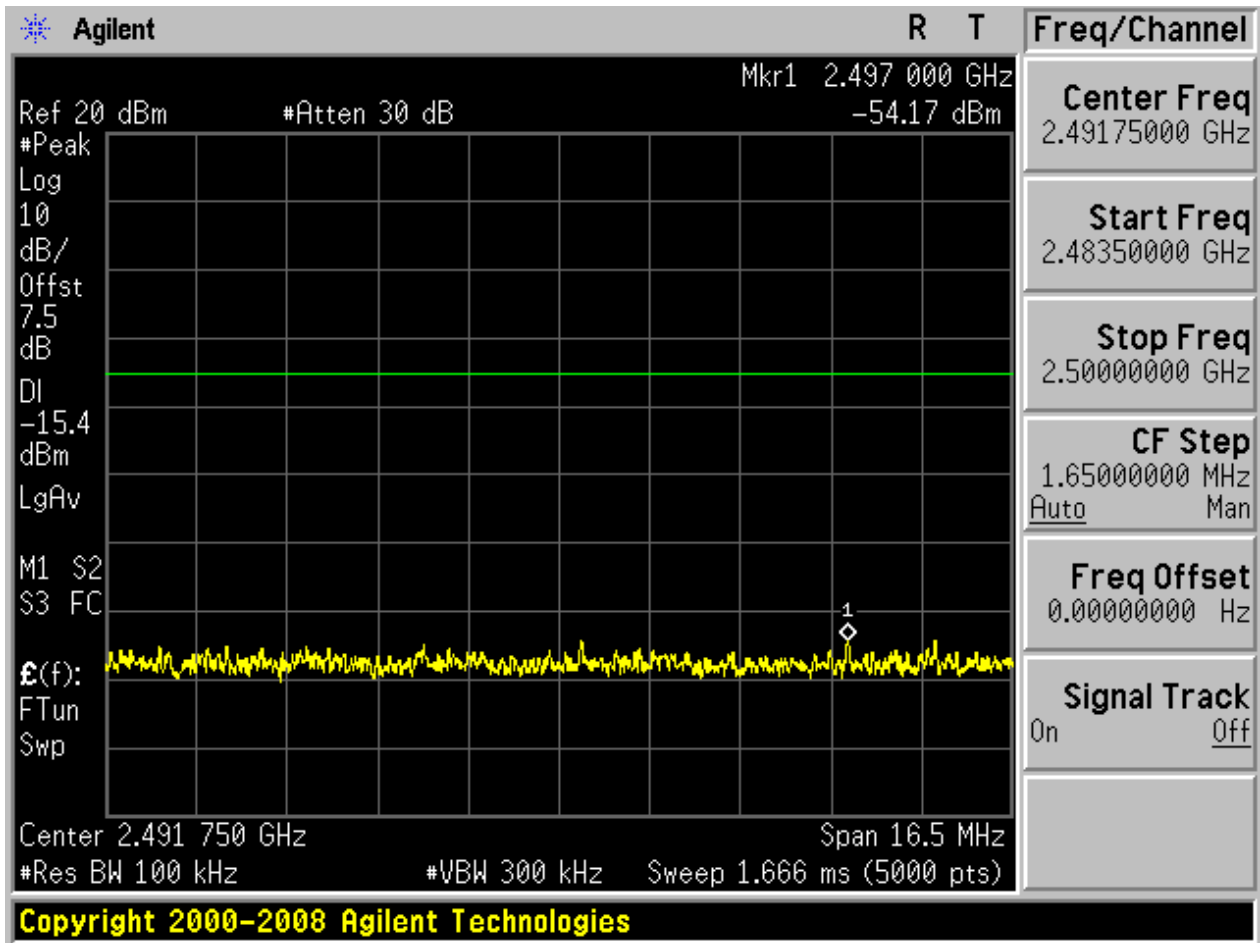
2.7.2 Puw

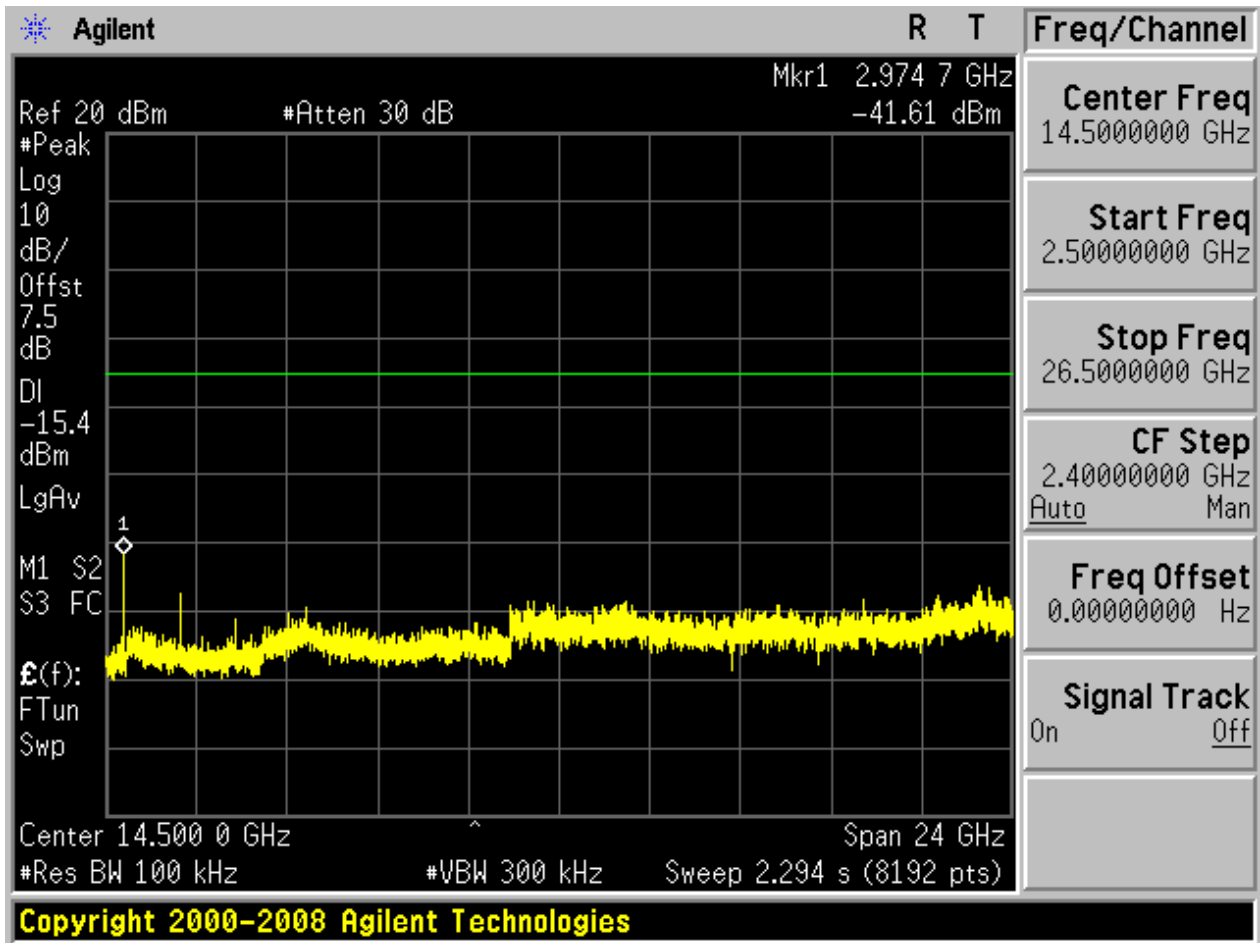








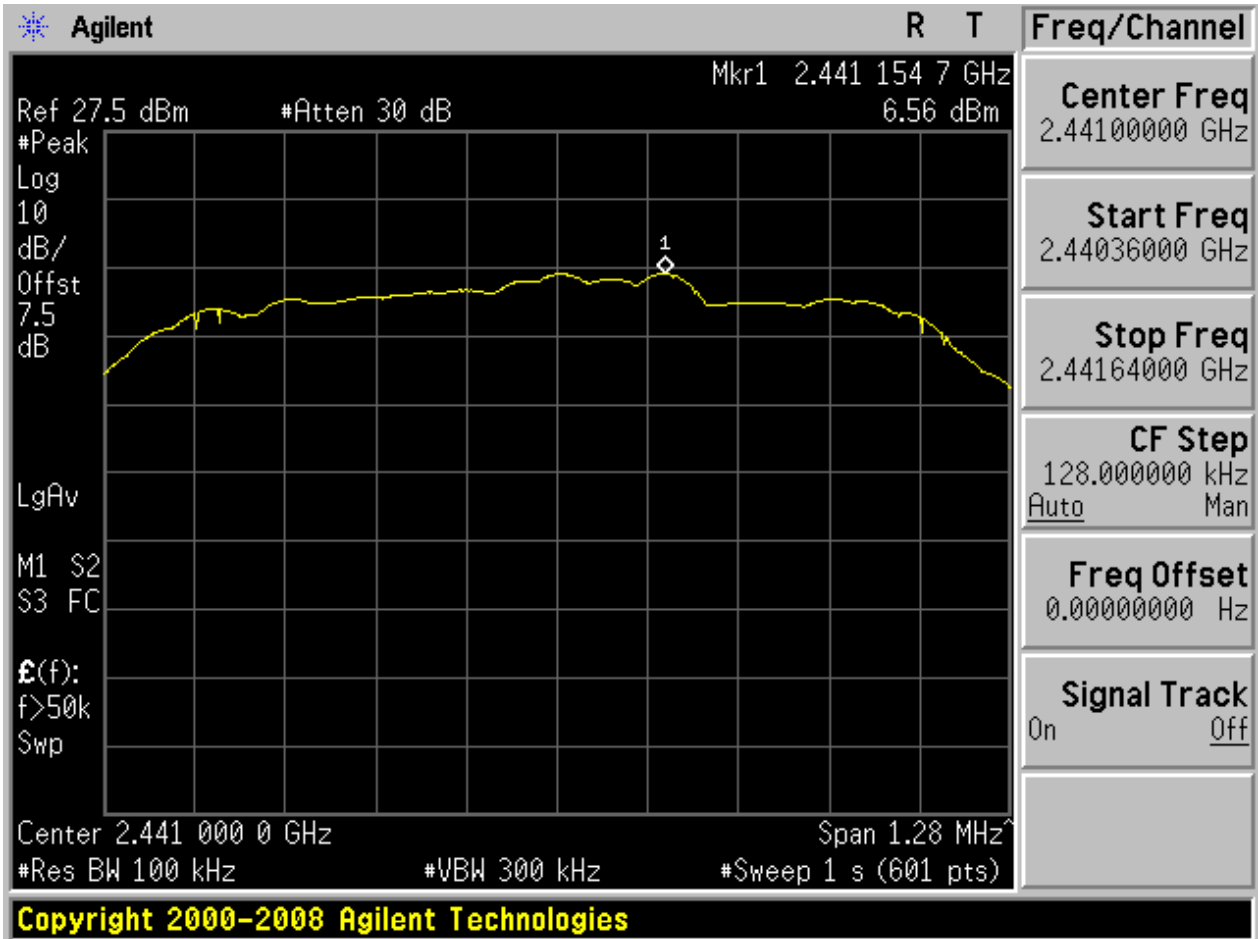






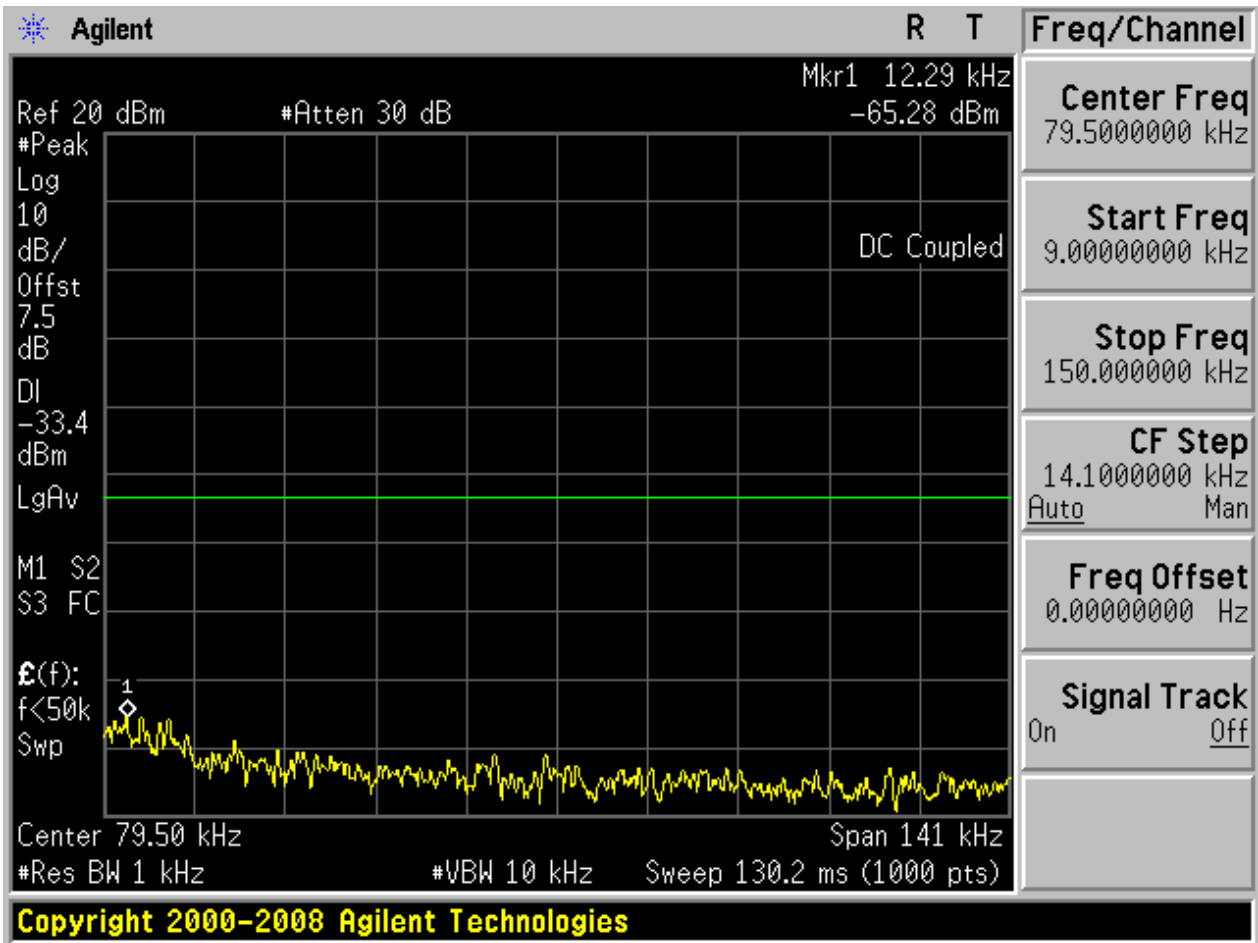
## 2.8 TM3\_3DH5\_Ch39

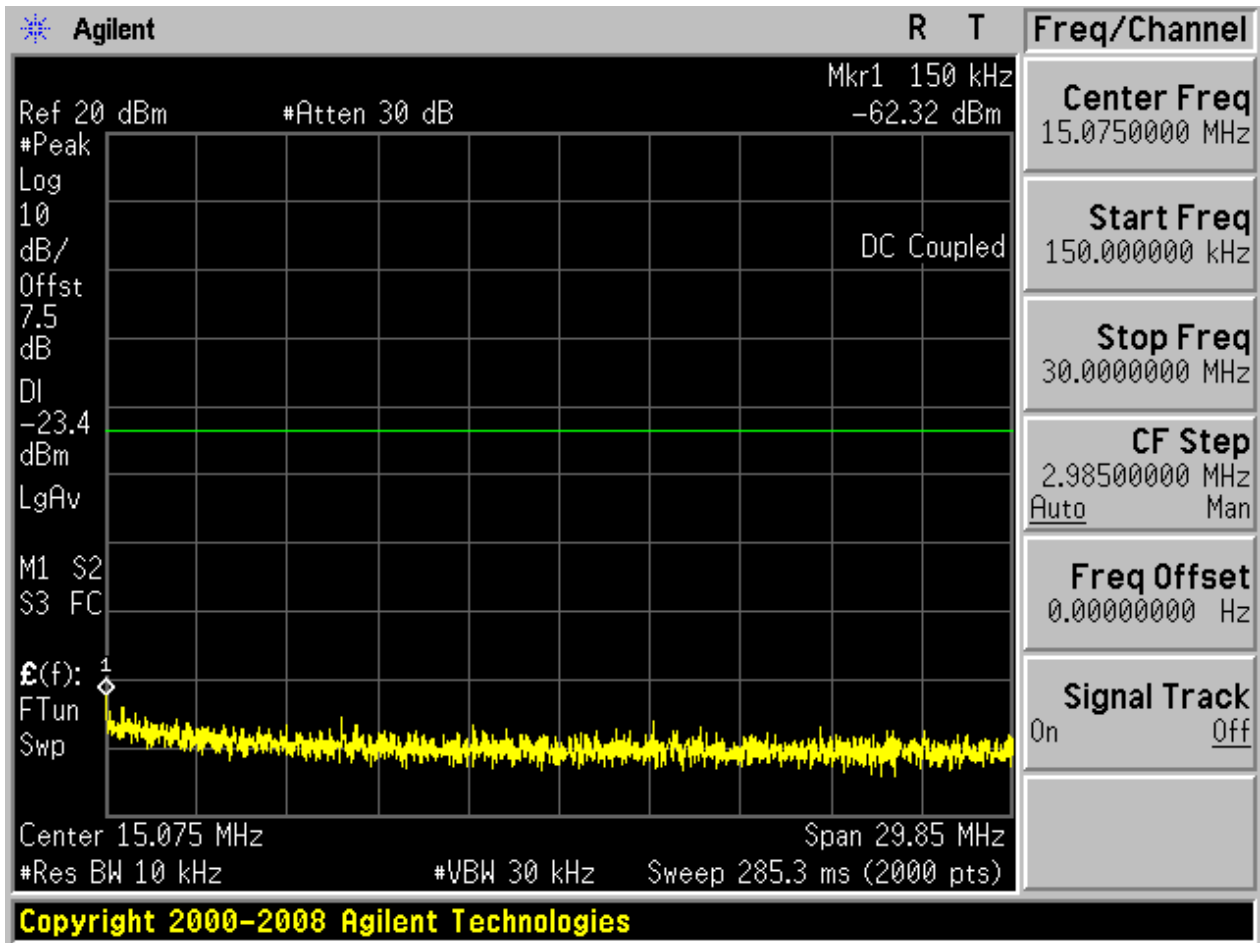
### 2.8.1 Pref

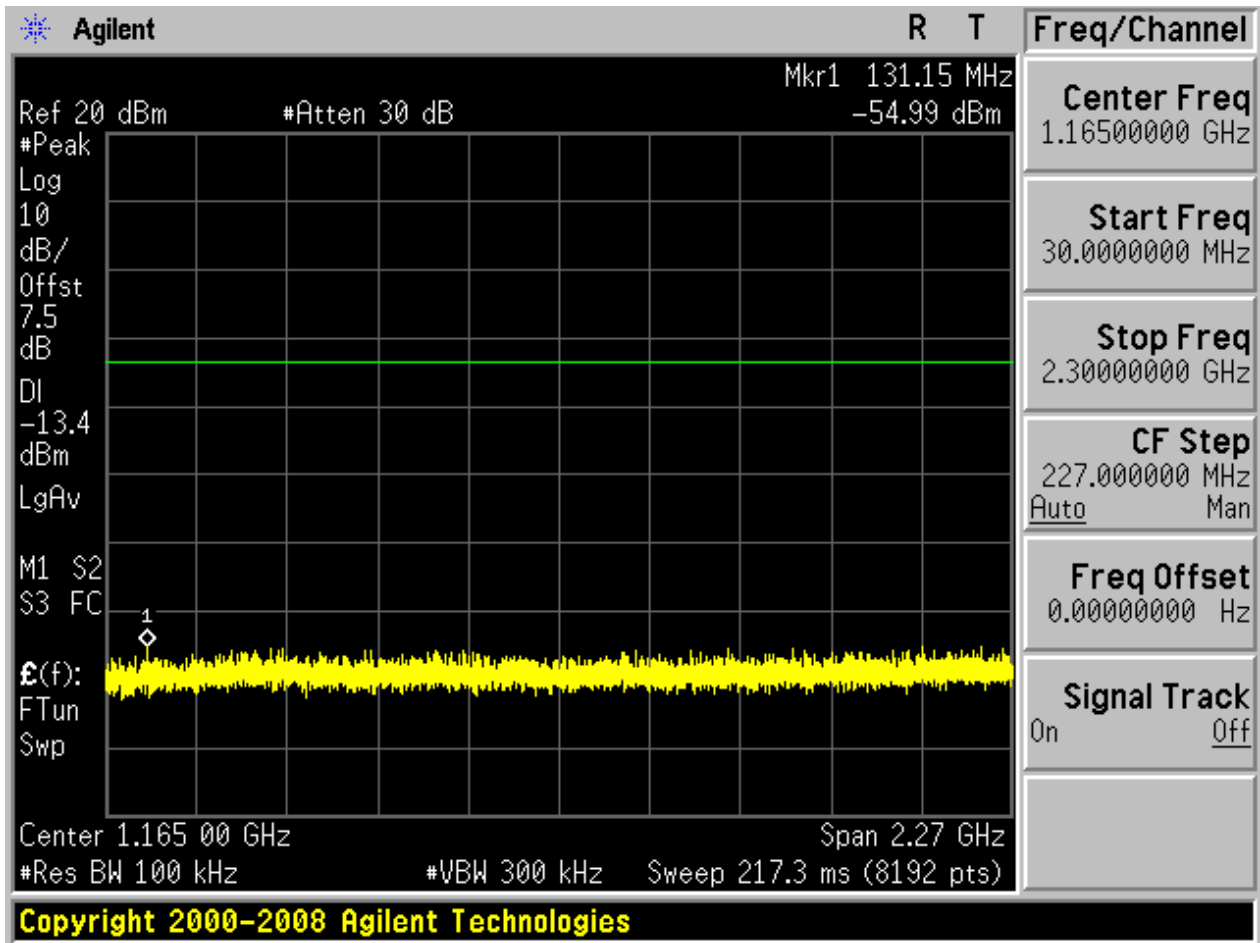


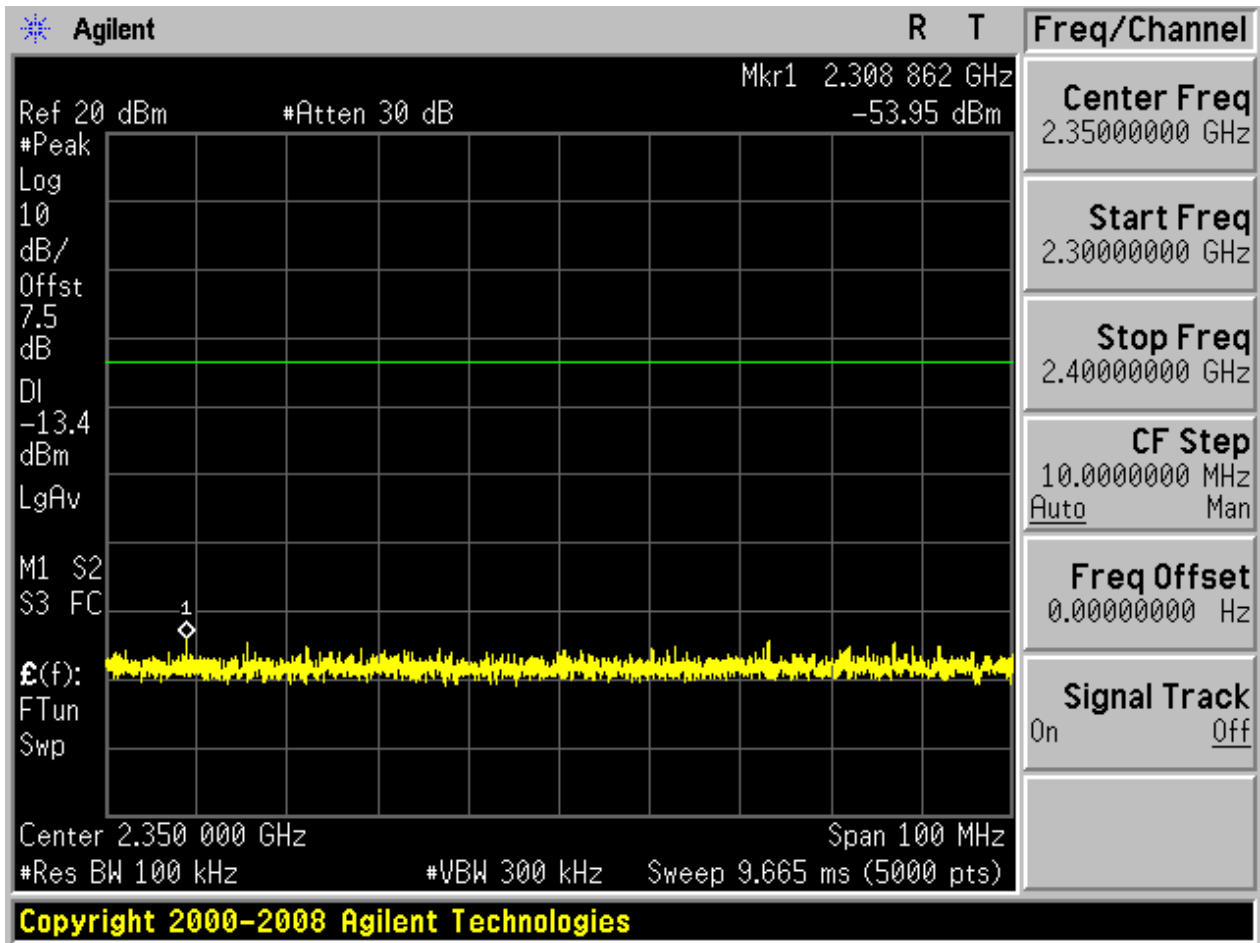


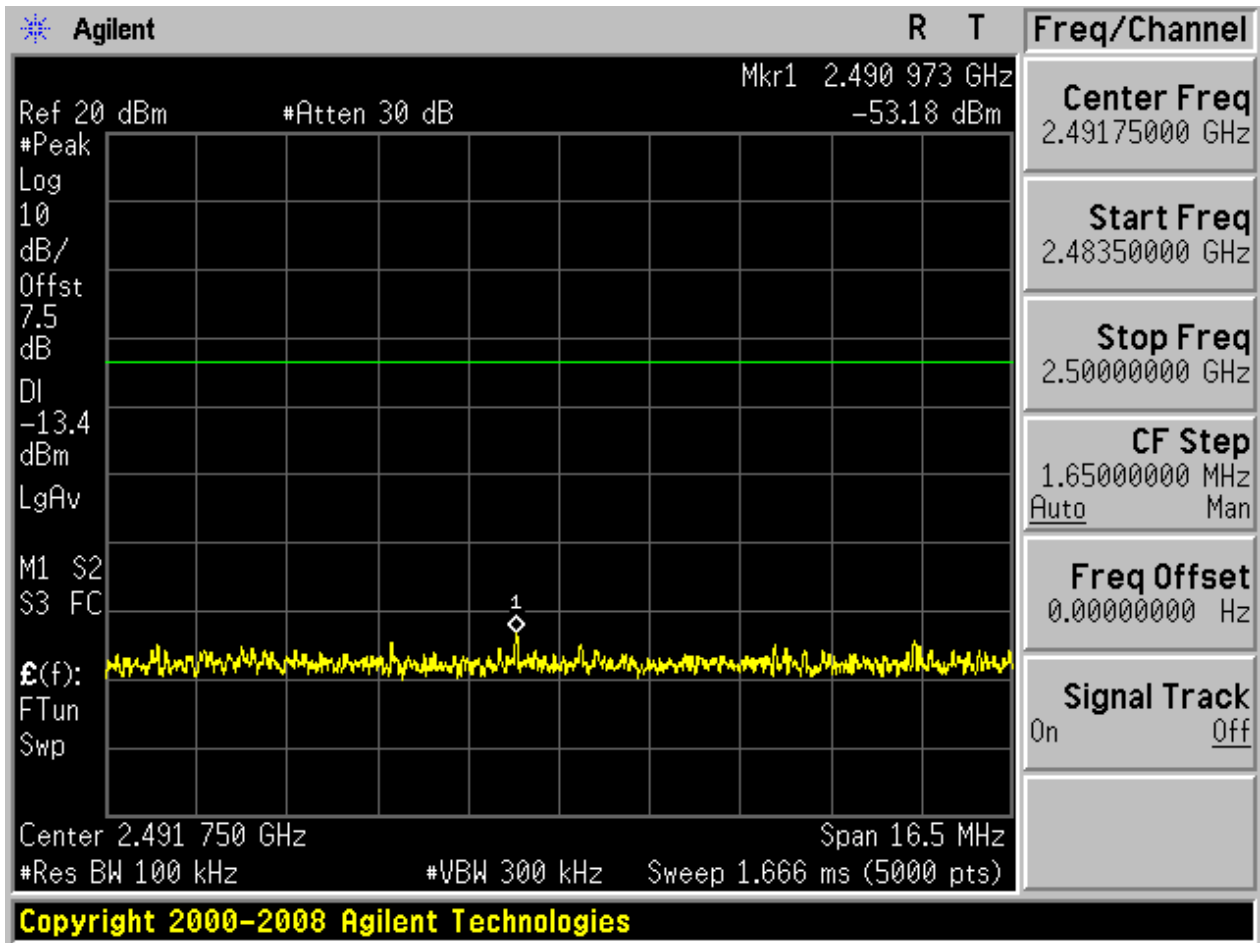
2.8.2 Puw

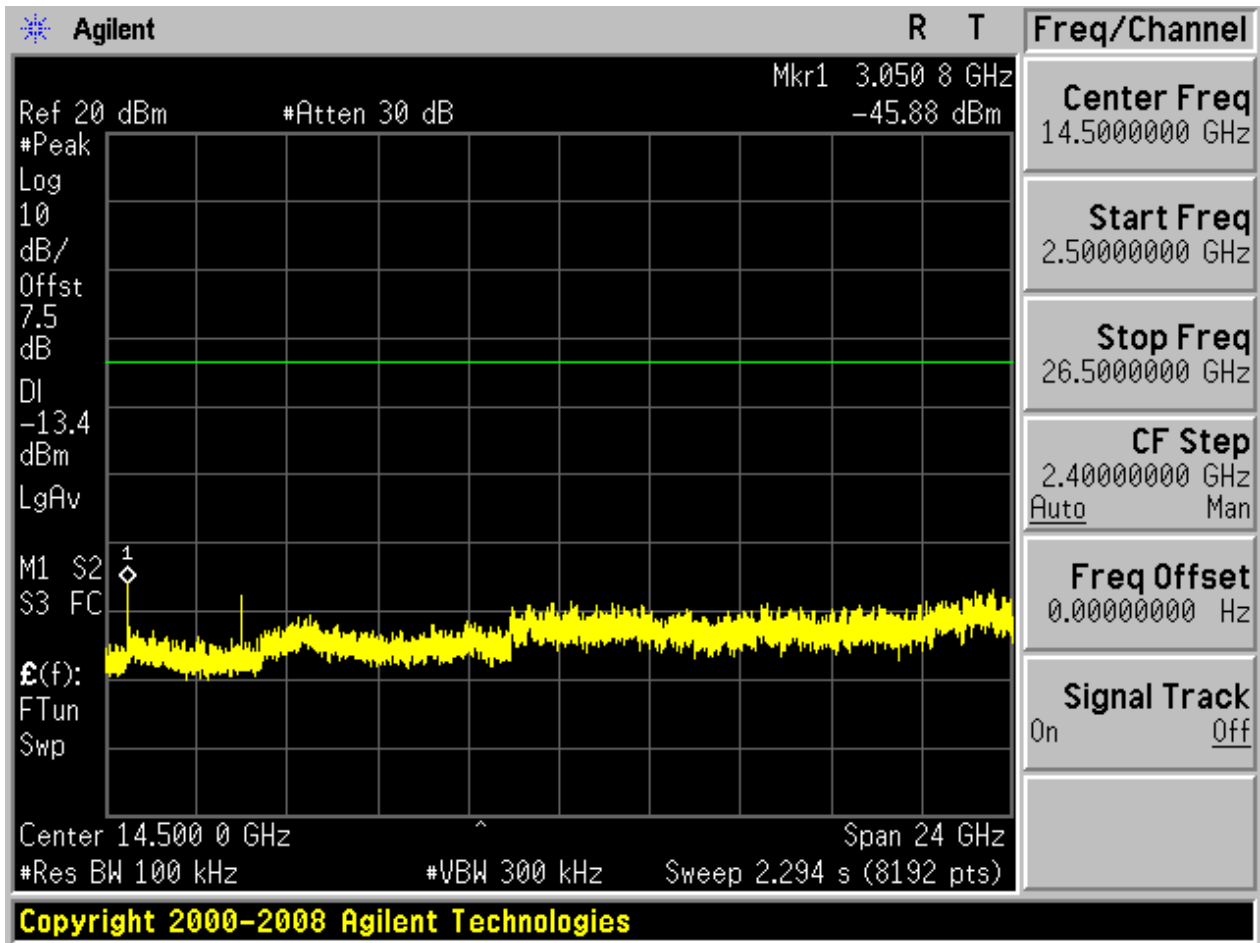








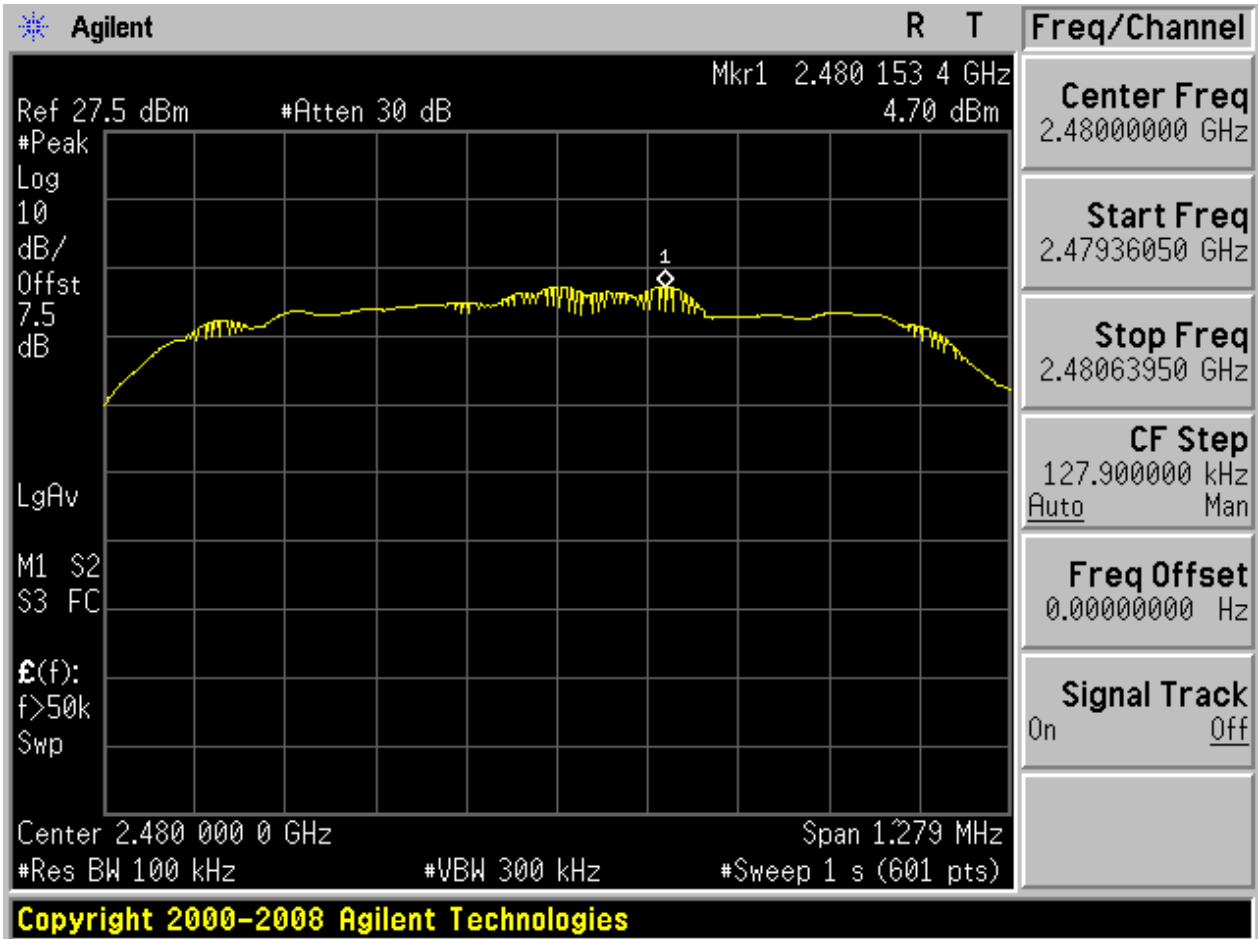






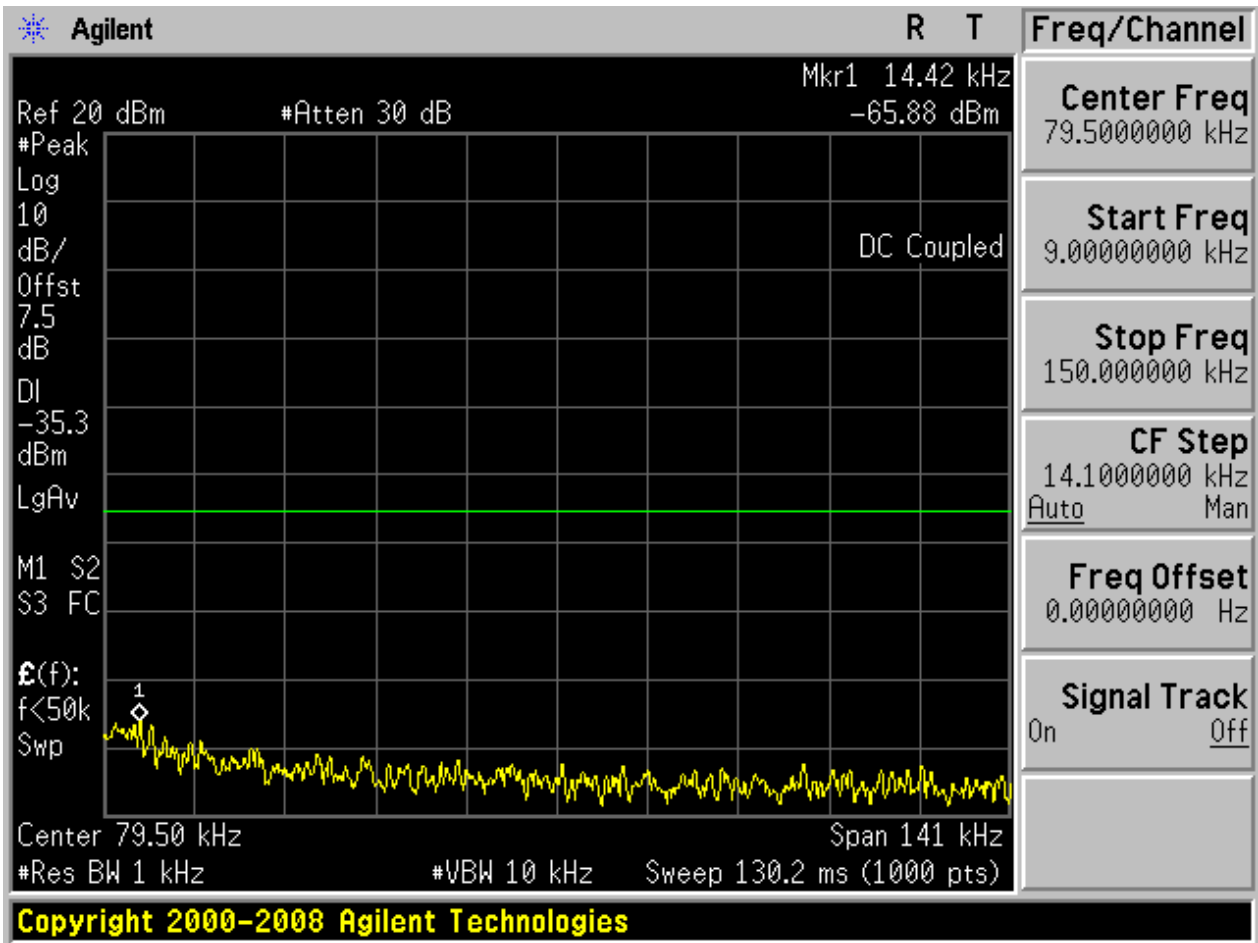
## 2.9 TM3\_3DH5\_Ch78

### 2.9.1 Pref

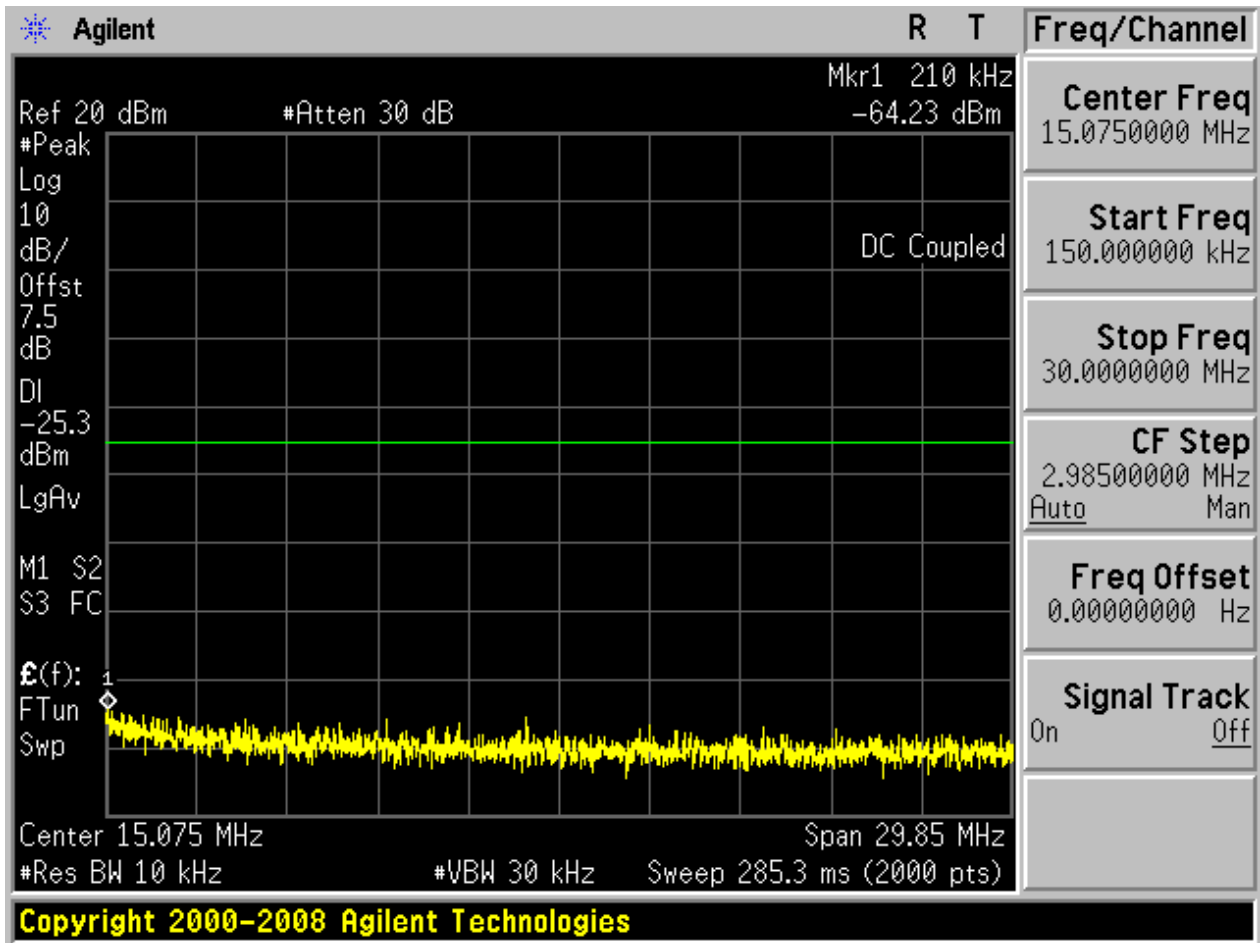


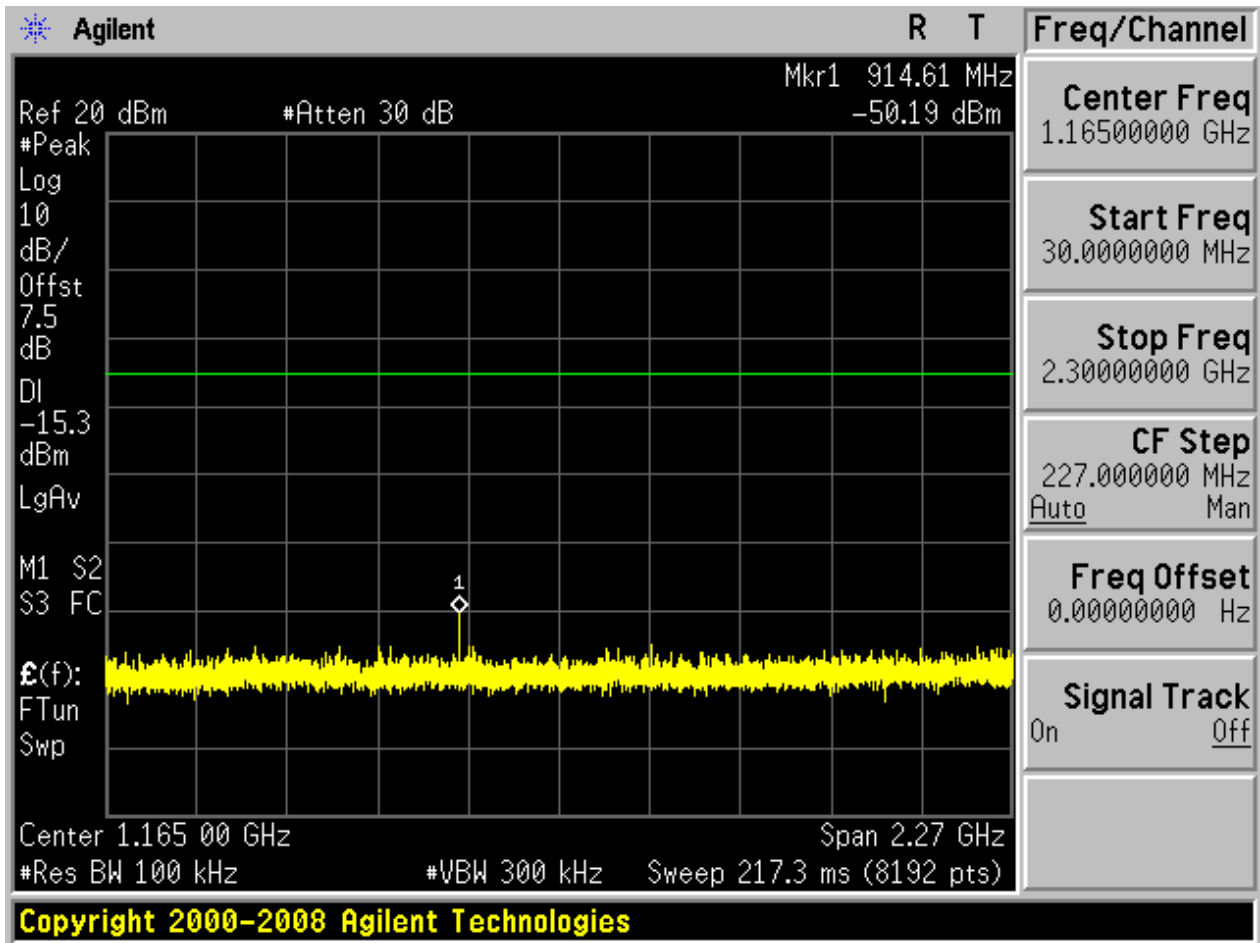


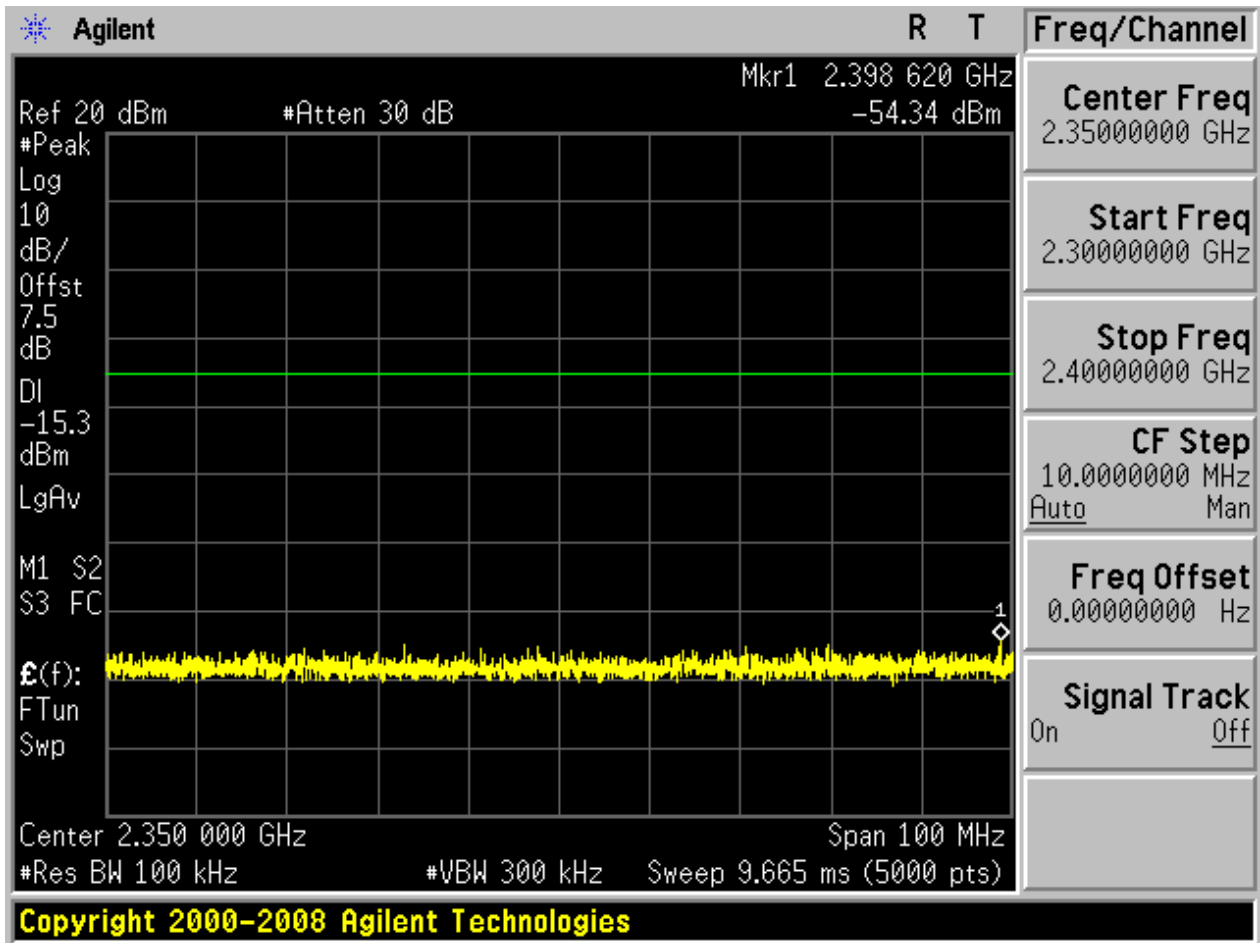
2.9.2 Puw

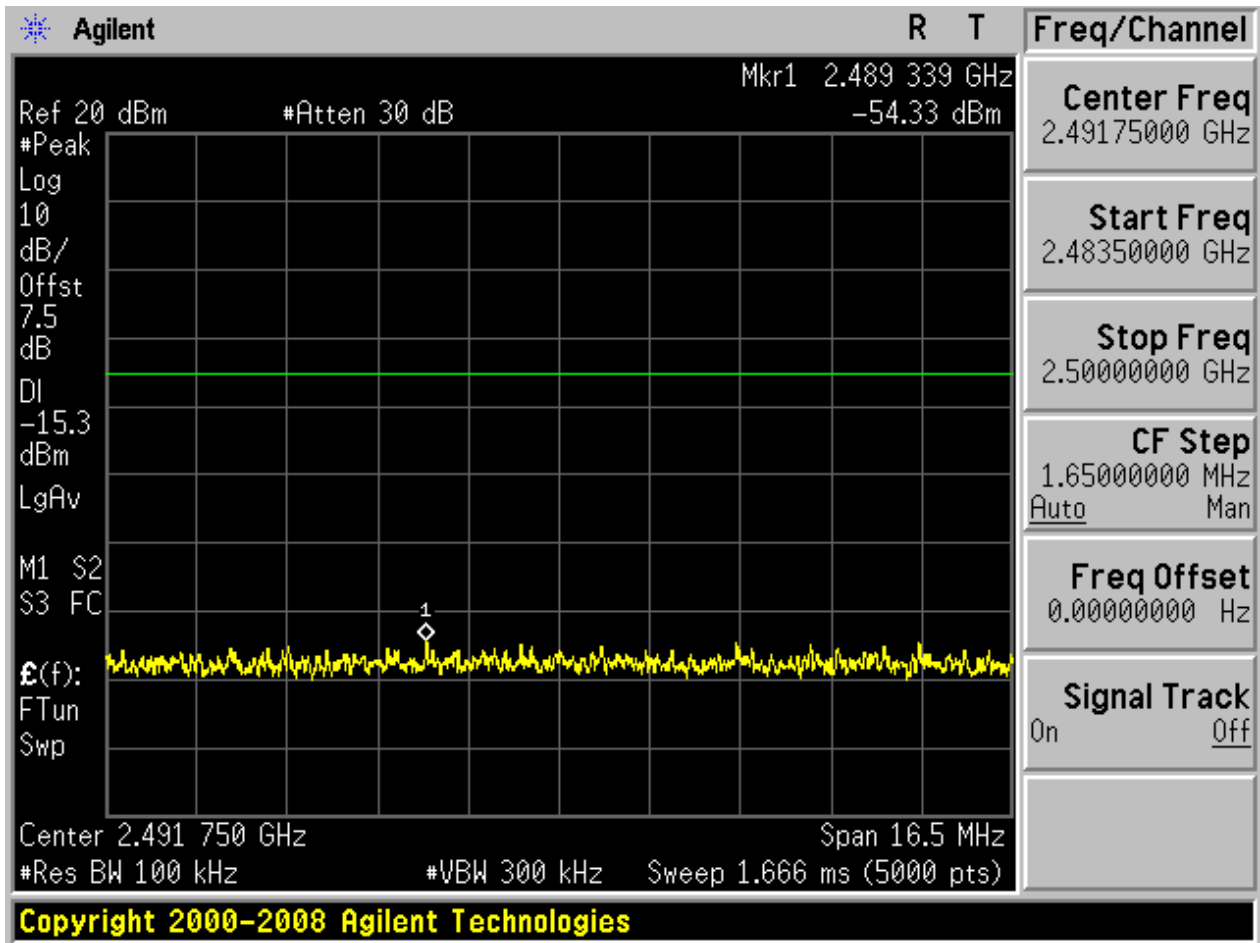


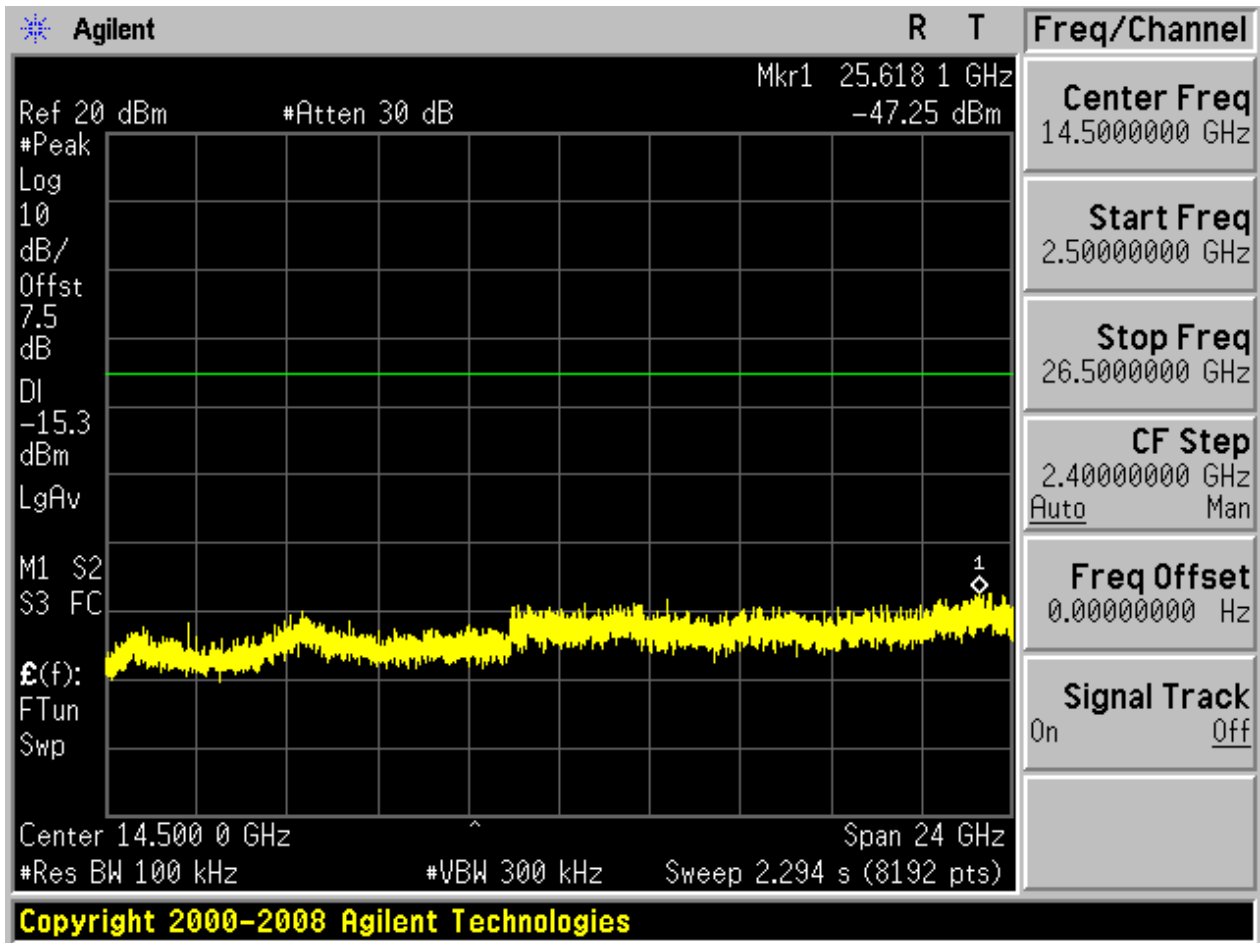














# Appendix I

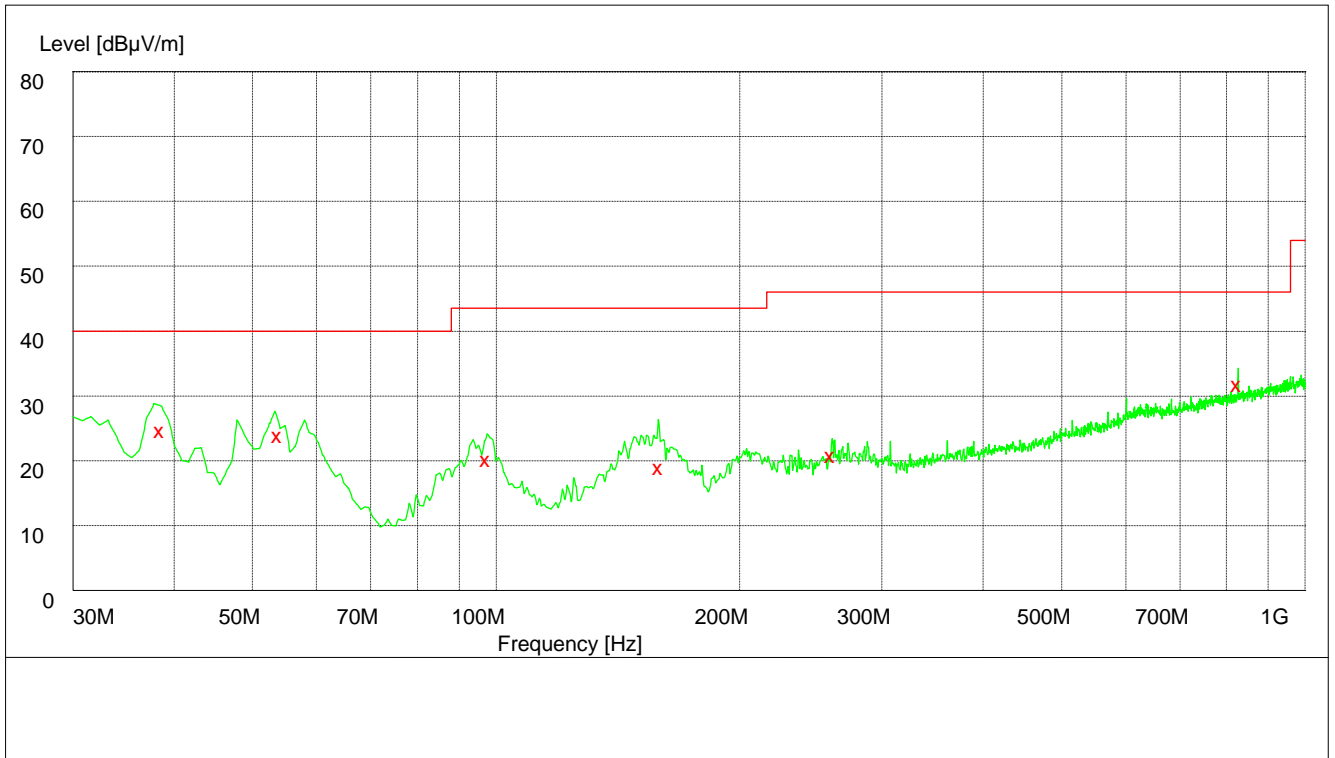
## Radiated spurious emission



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

Note 1: The test results and plot for testing range of “30 MHz to 1 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.

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



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
38.640000	26.10	12.8	40.0	13.9	100.0	68.00	VERTICAL
54.000000	25.30	12.7	40.0	14.7	108.0	257.00	VERTICAL
97.680000	21.60	13.0	43.5	21.9	111.0	112.00	VERTICAL
159.480000	20.40	9.6	43.5	23.1	100.0	275.00	VERTICAL
260.460000	22.30	14.3	46.0	23.7	120.0	1.00	HORIZONTAL
826.560000	33.30	25.4	46.0	12.7	137.0	37.00	VERTICAL



## Part 2: Testing Range of "18 GHz to 26.5 GHz"

Note: No peak found in pre- test.



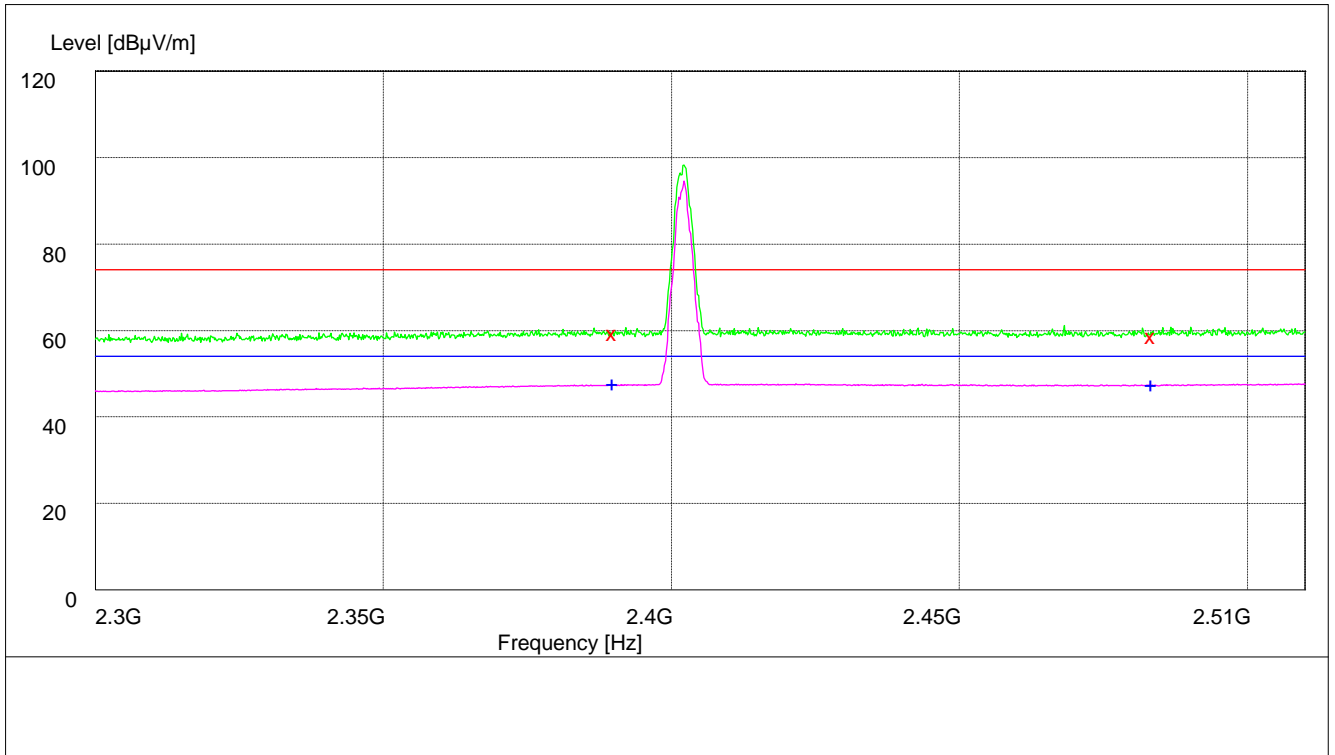


### Part 3: Testing Range of “2.3GHz to 2.5GHz”

- Note 1: The testing range of “2.3 GHz to 2.5 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.
- Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

### 3 Test Mode:

#### 3.1 Channel 00



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

#### MEASUREMENT RESULT: PK Detector

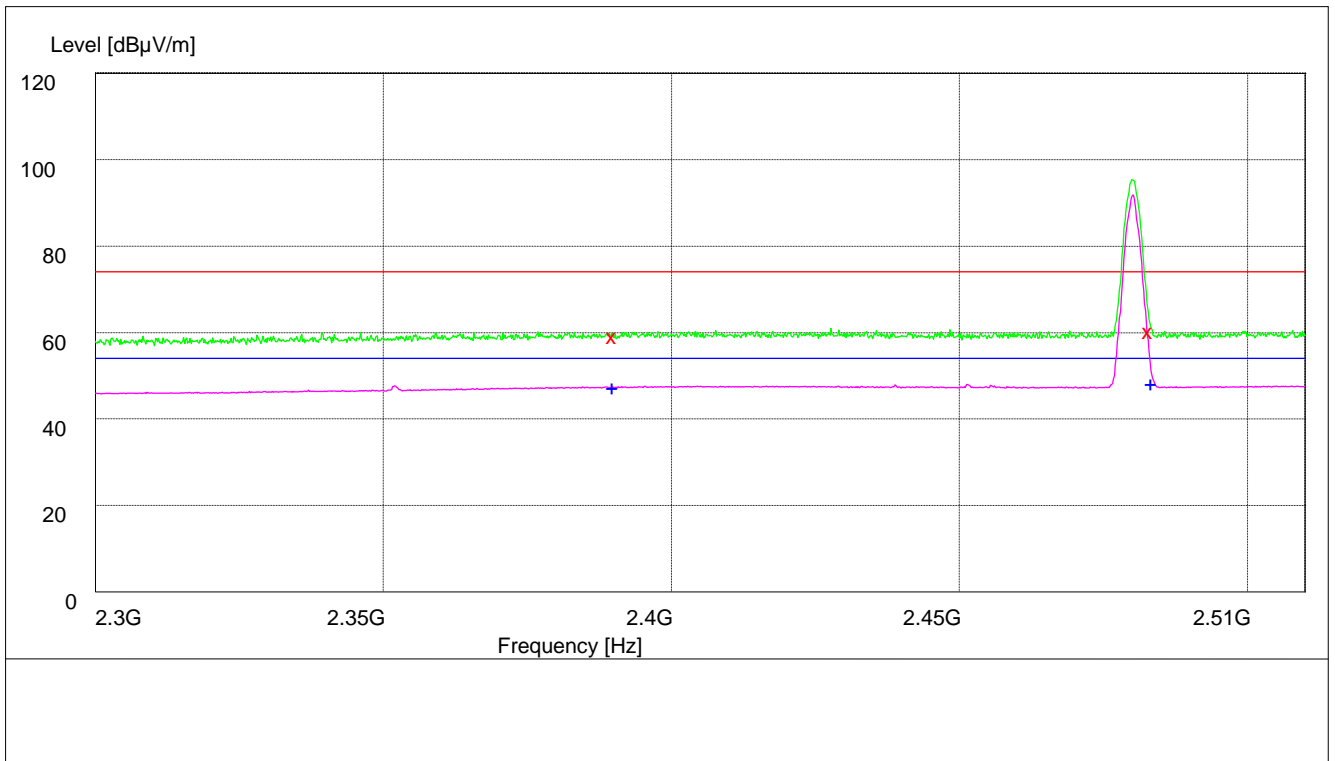
Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.60	34.8	74.0	14.4	101.0	142.00	HORIZONTAL
2483.500000	58.20	35.1	74.0	15.8	108.0	21.00	VERTICAL

#### MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.70	34.8	54.0	6.3	102.0	174.00	HORIZONTAL
2483.500000	47.10	35.1	54.0	6.9	100.0	35.00	VERTICAL



### 3.2 Channel 78



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

#### MEASUREMENT RESULT: PK Detector

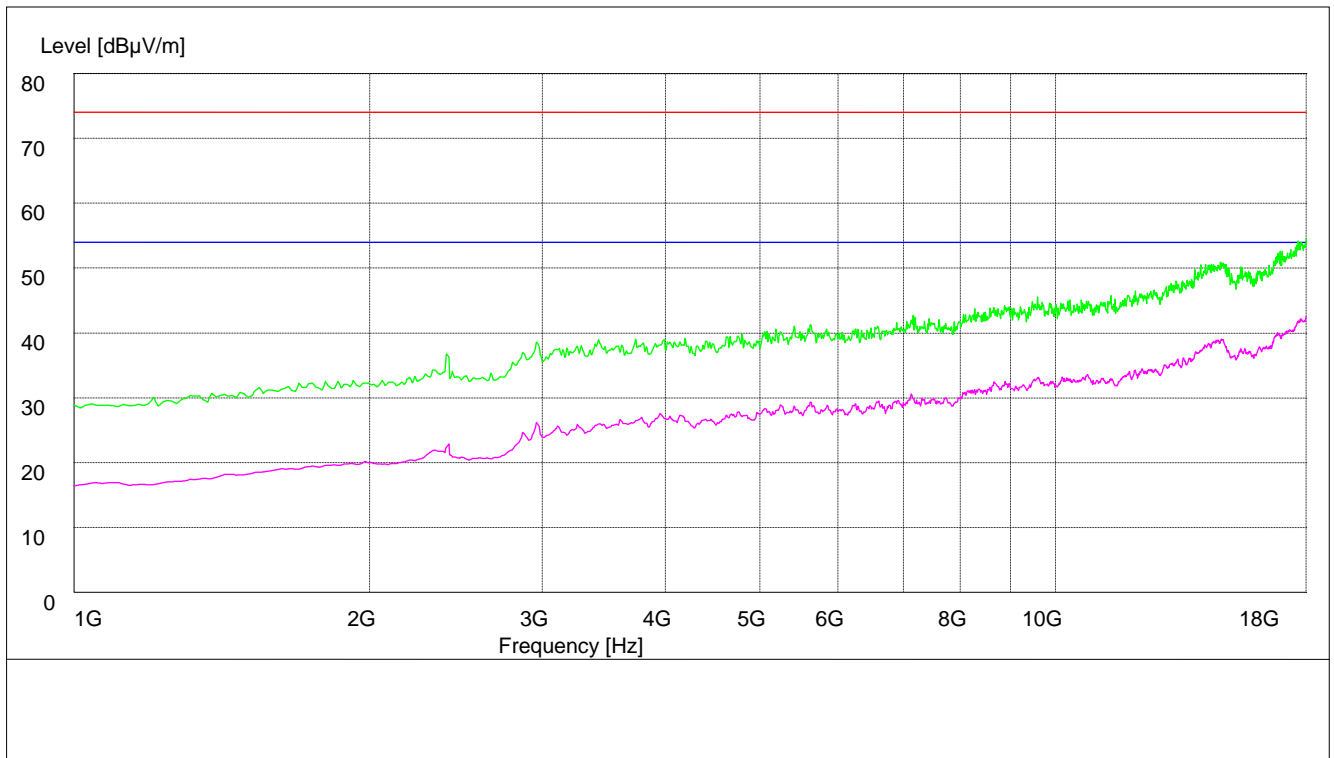
Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.70	34.8	74.0	14.3	128.0	57.00	HORIZONTAL
2483.000000	60.90	35.1	74.0	13.1	107.0	131.00	VERTICAL

#### MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.50	34.8	54.0	6.5	113.0	218.00	VERTICAL
2483.500000	49.00	35.1	54.0	5.0	106.0	52.00	HORIZONTAL

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

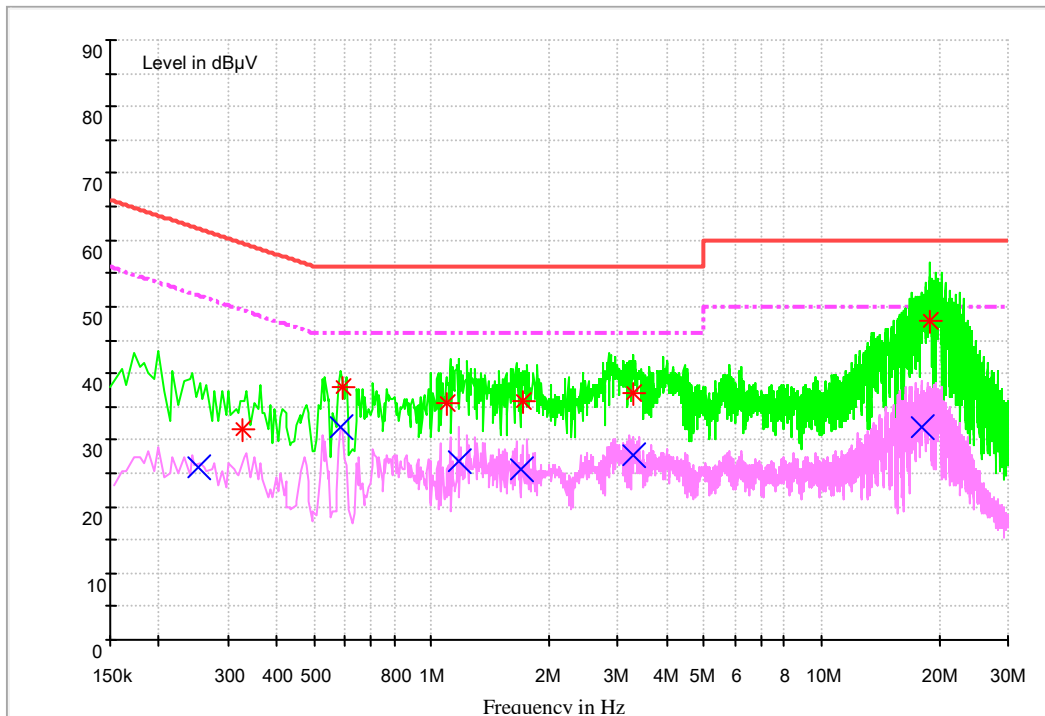
- Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located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



# Appendix J

## Conducted Emission at Power Port

### Channel 40



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Line	Transd dB	Margin dB	Limit dBµV	PE
0.326816	31.6	N	9.7	27.9	59.5	FLO
0.591915	38.0	N	9.7	18.0	56.0	FLO
1.097929	35.6	N	9.7	20.4	56.0	FLO
1.712508	35.8	N	9.7	20.2	56.0	FLO
3.277432	36.9	N	9.7	19.1	56.0	FLO
18.912889	47.9	L1	10.1	12.1	60.0	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Line	Transd dB	Margin dB	Limit dBµV	PE
0.253402	26.0	N	9.7	25.6	51.6	FLO



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0.587528	31.8	N	9.7	14.2	46.0	FLO
1.177084	26.9	L1	9.7	19.1	46.0	FLO
1.699031	25.7	N	9.7	20.3	46.0	FLO
3.273982	27.6	N	9.7	18.4	46.0	FLO
18.049402	31.9	N	10.1	18.1	50.0	FLO

---

END