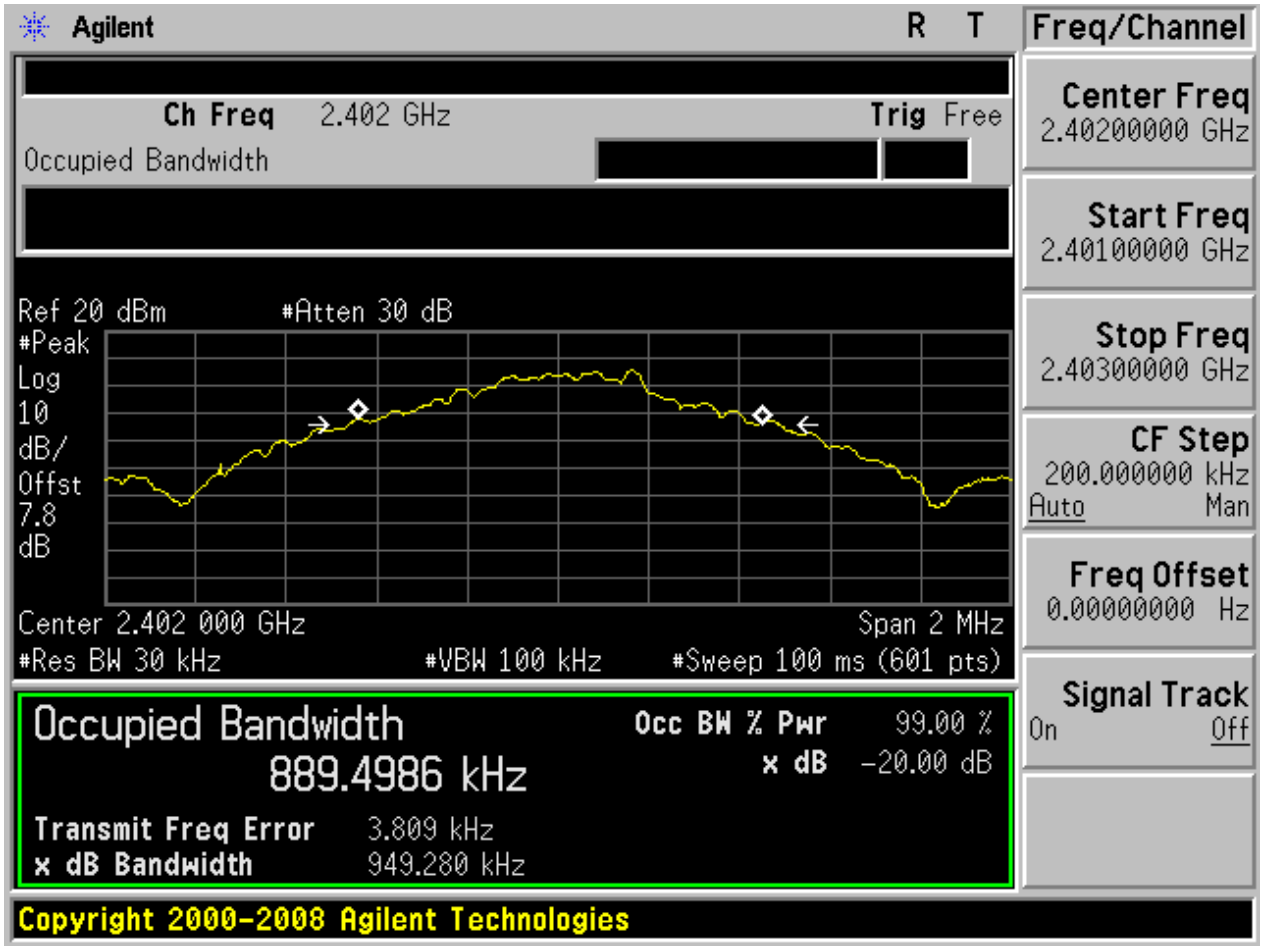
Appendix A: 20dB Emission Bandwidth (EBW)

1 Result Table

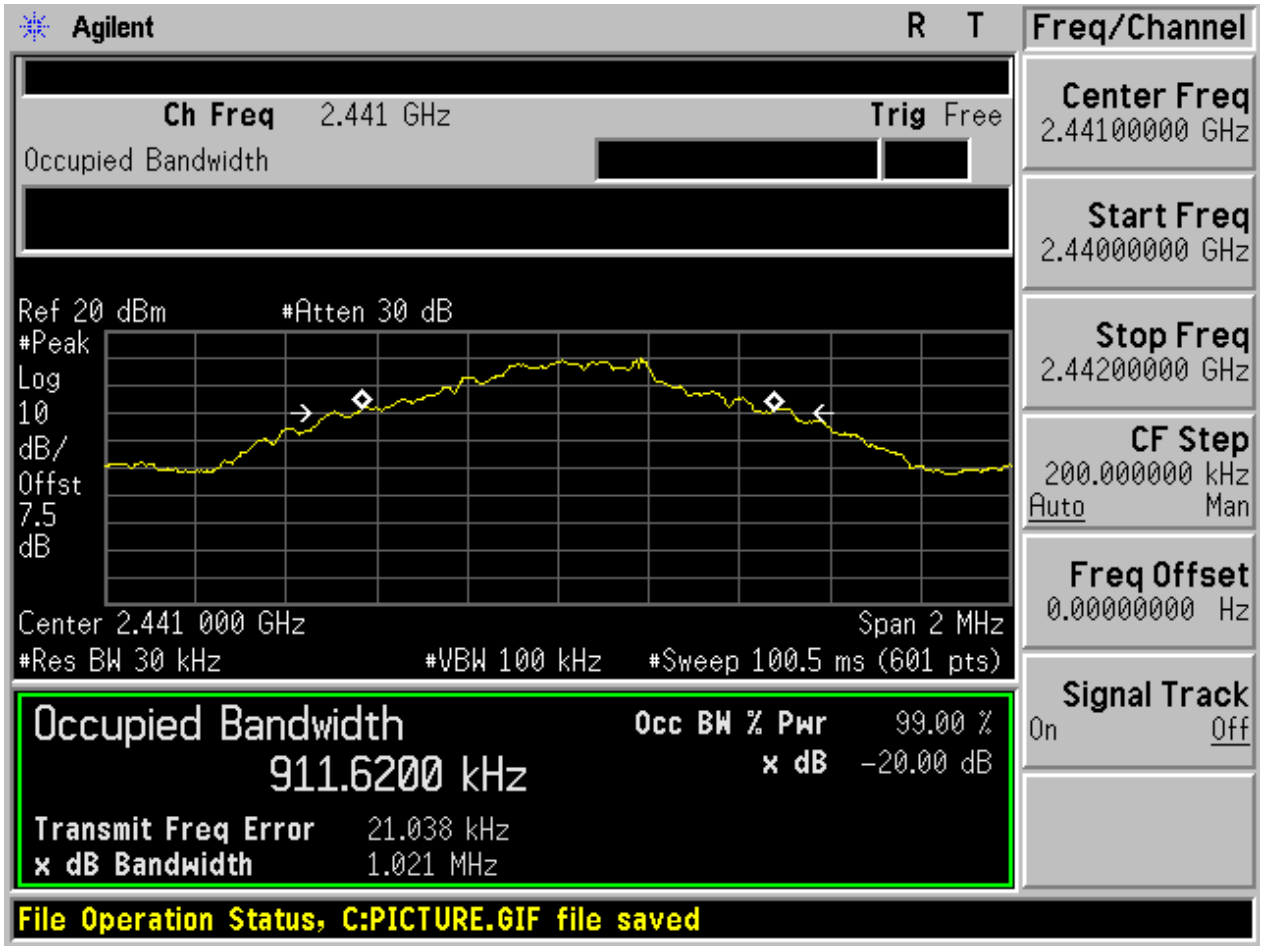
EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.889	Pass
TM1_DH5_Ch39	0.888	Pass
TM1_DH5_Ch78	0.911	Pass
TM2_2DH5_Ch0	1.163	Pass
TM2_2DH5_Ch39	1.202	Pass
TM2_2DH5_Ch78	1.159	Pass
TM3_3DH5_Ch0	1.167	Pass
TM3_3DH5_Ch39	1.199	Pass
TM3_3DH5_Ch78	1.163	Pass

2 Test Plot

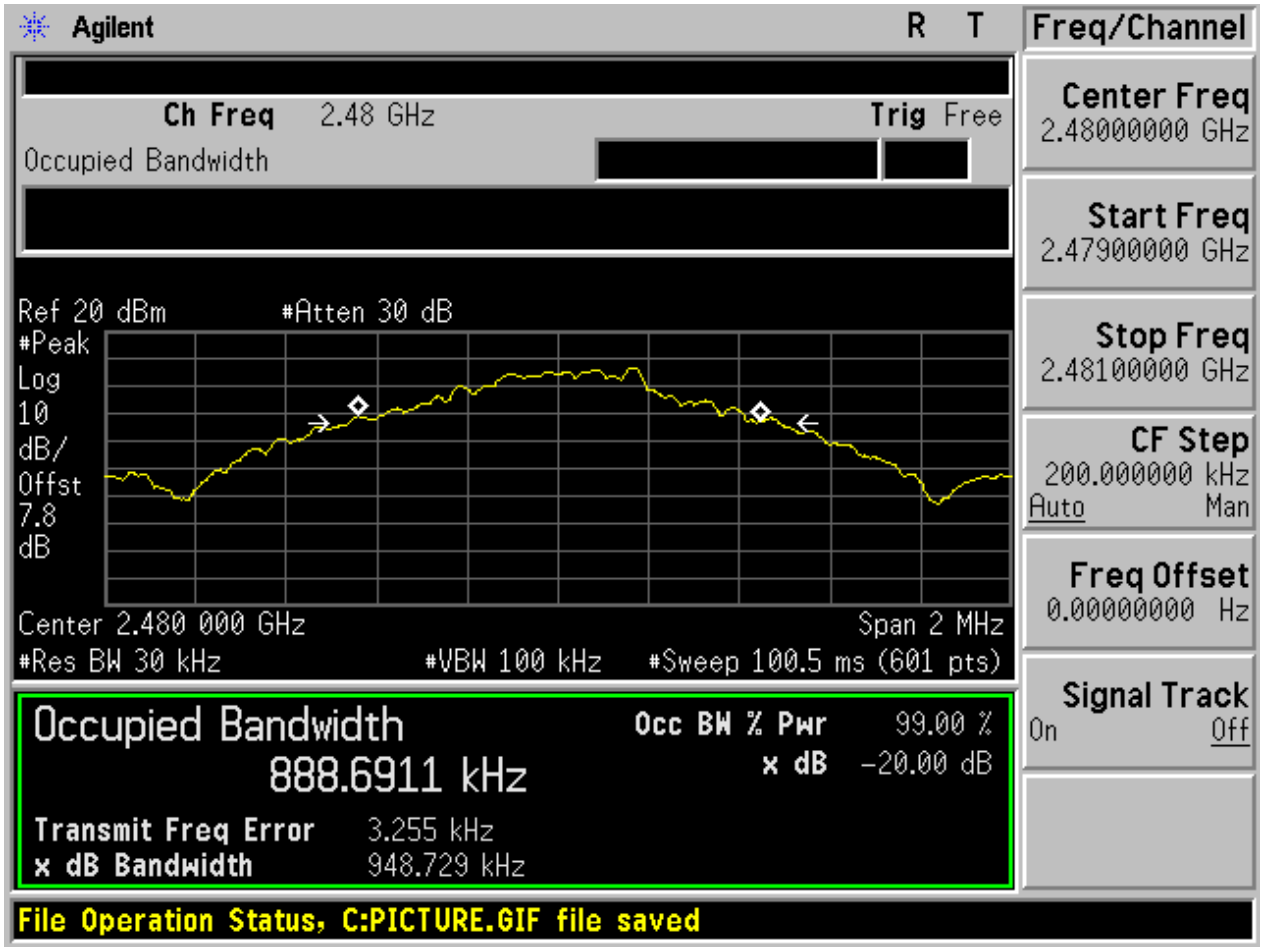
2.1 TM1_DH5_Ch0



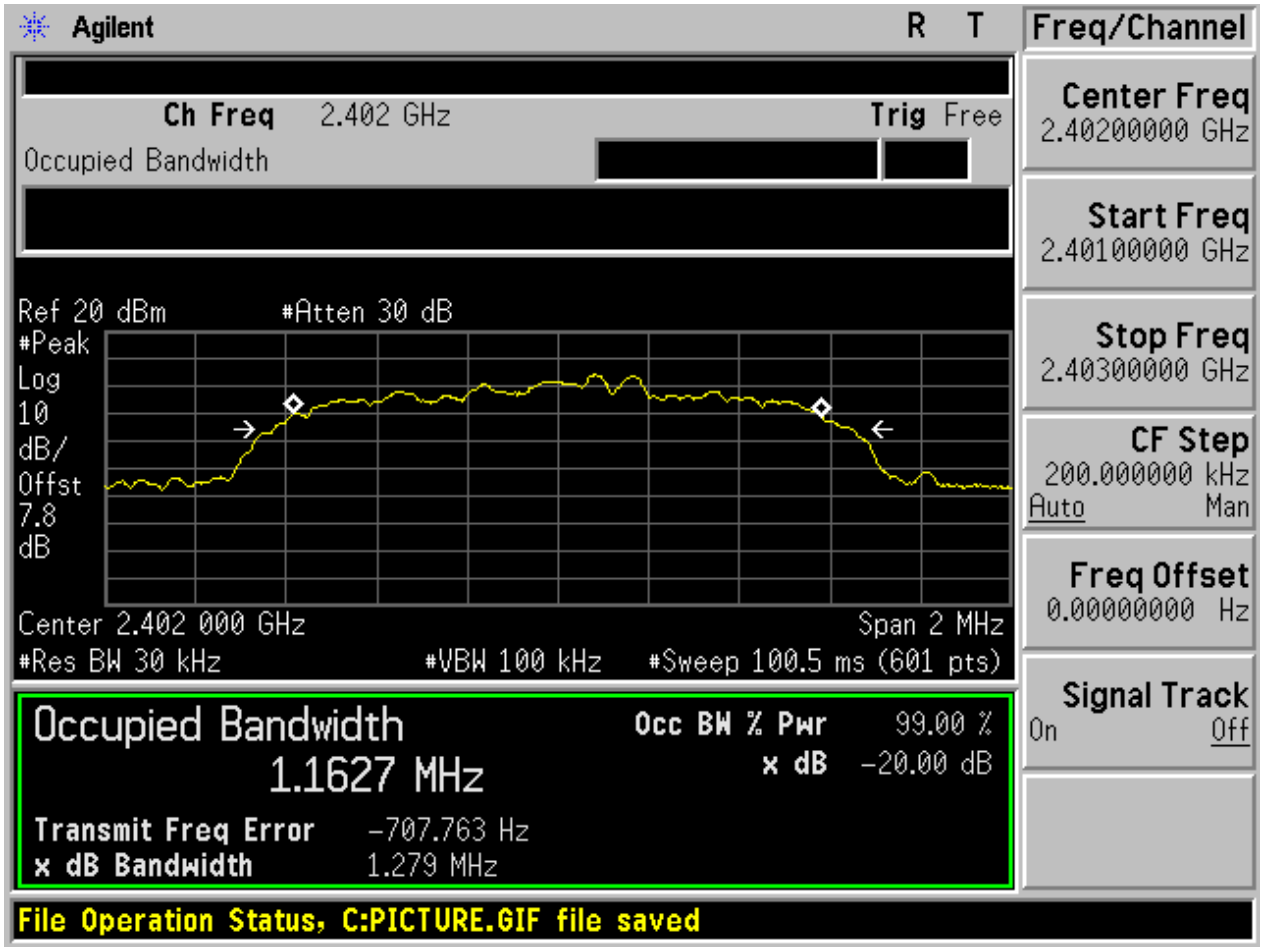
2.2 TM1_DH5_Ch39



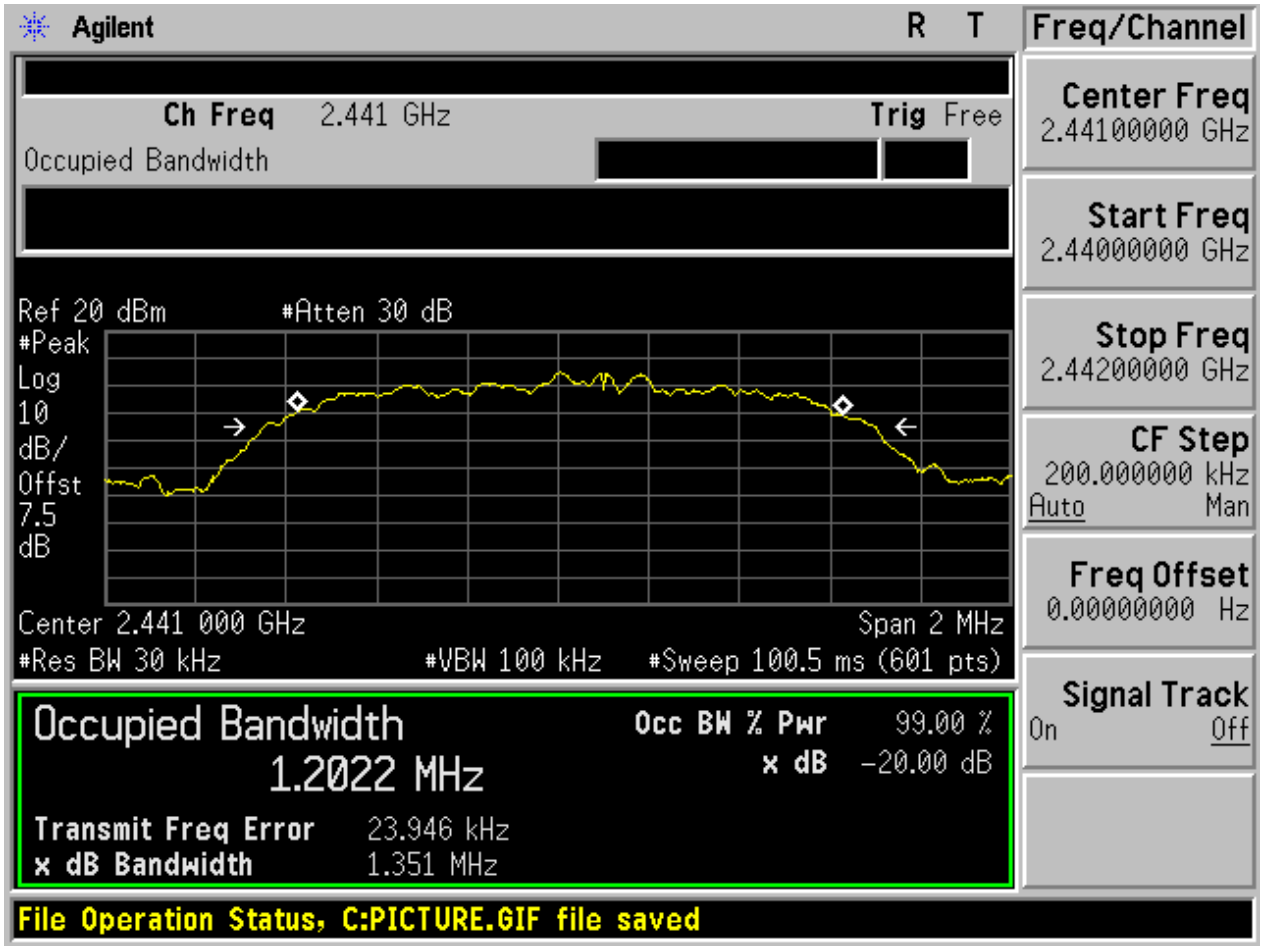
2.3 TM1_DH5_Ch78



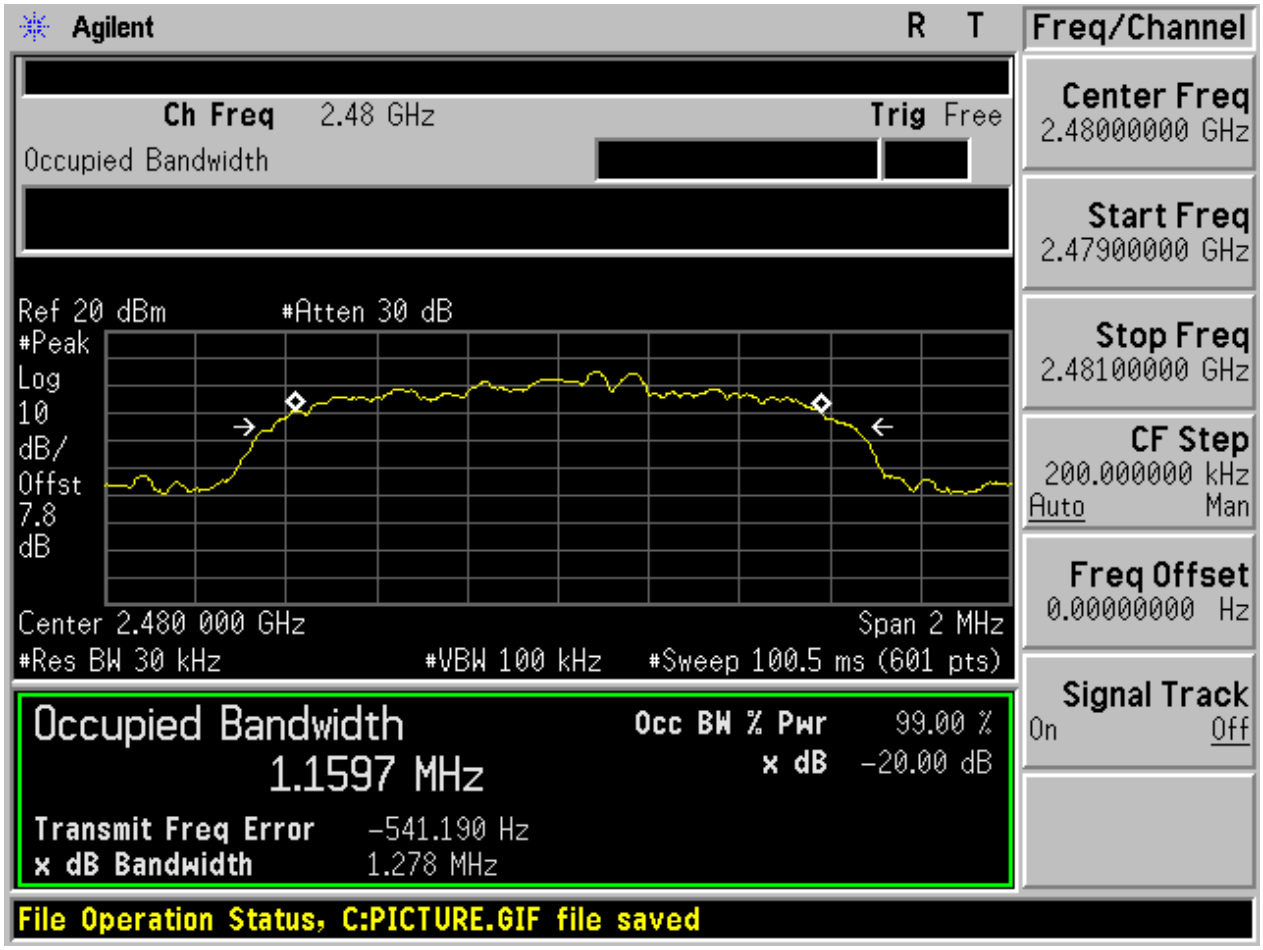
2.4 TM2_2DH5_Ch0



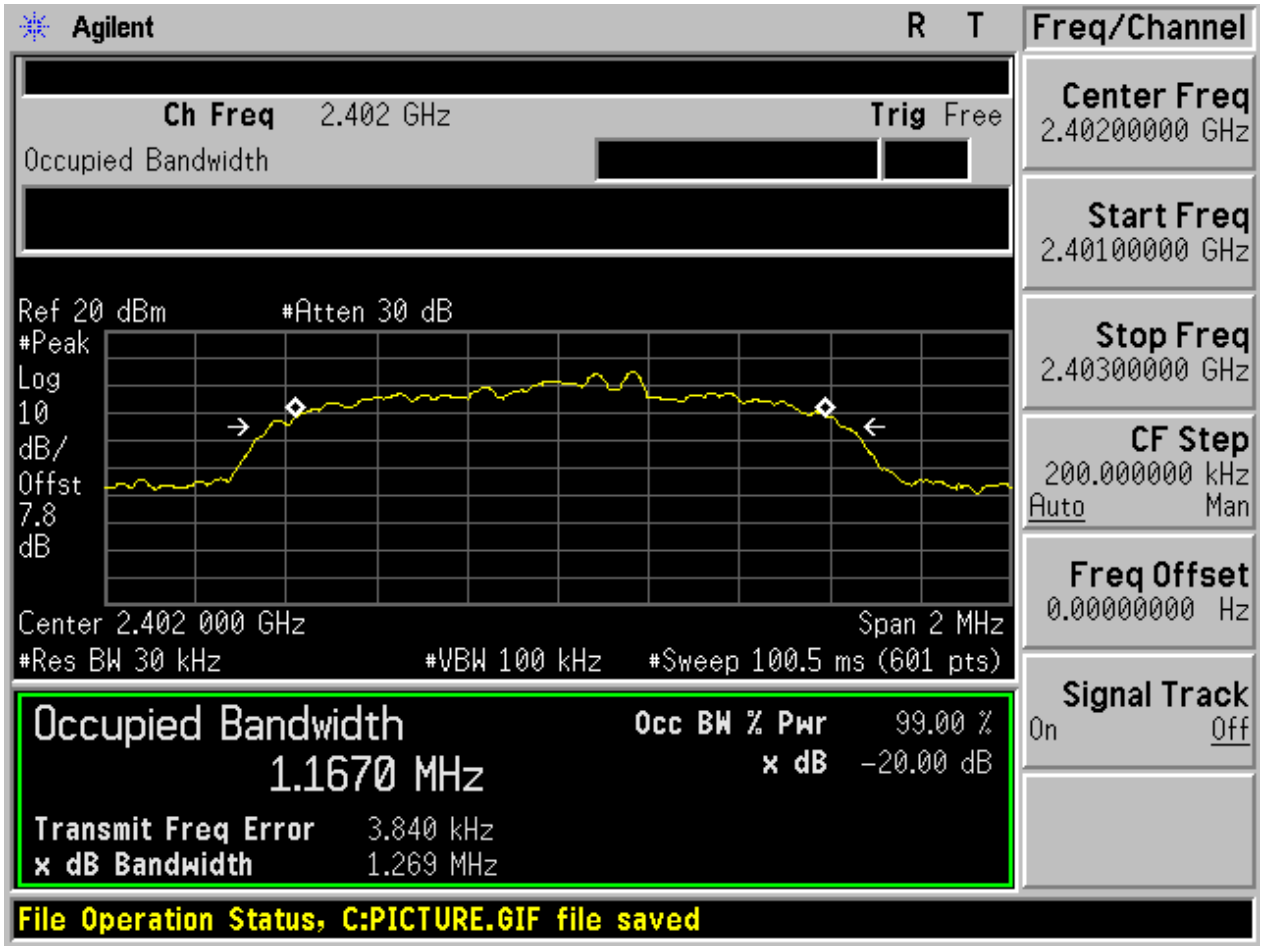
2.5 TM2_2DH5_Ch39



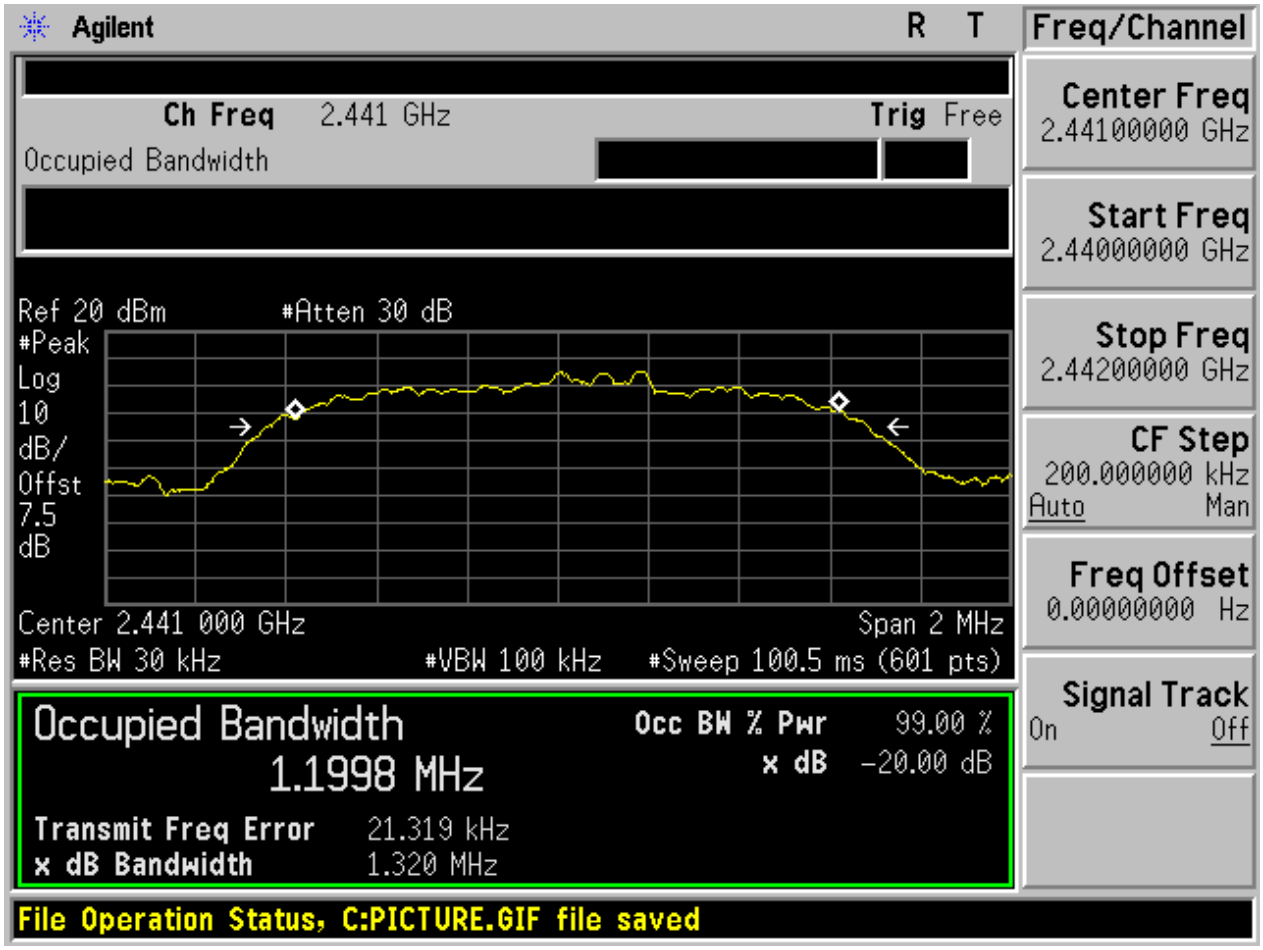
2.6 TM2_2DH5_Ch78



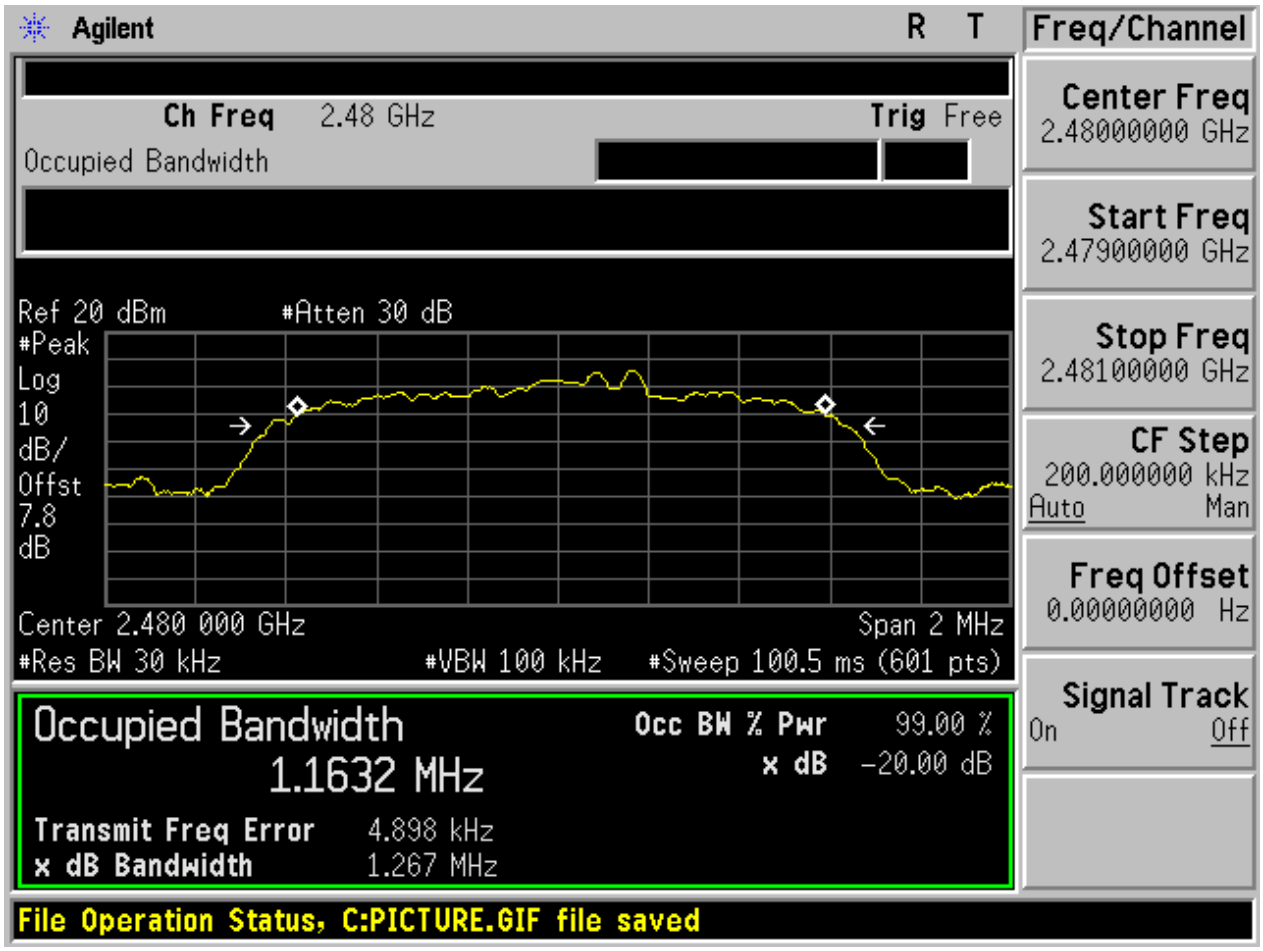
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78



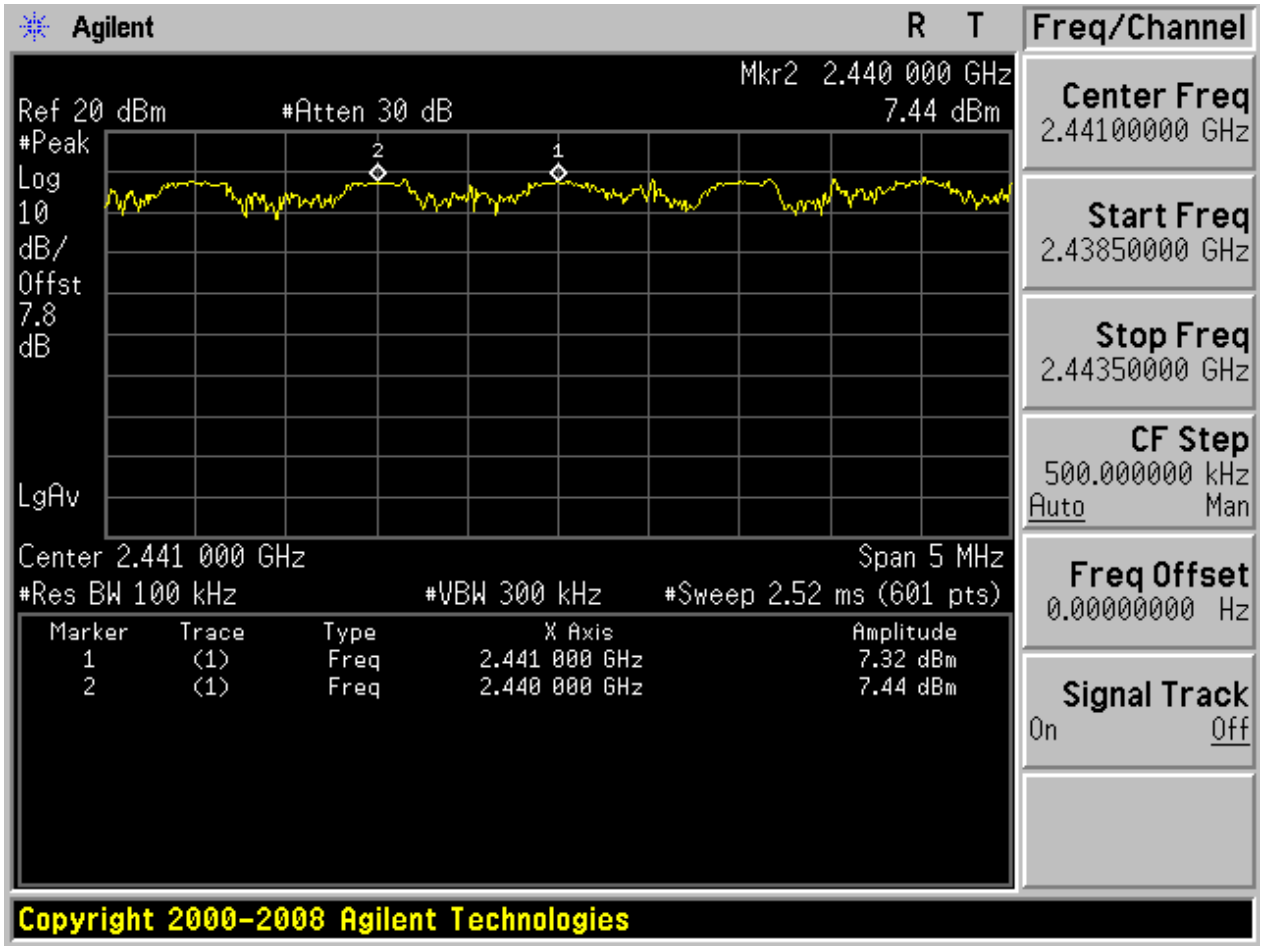
Appendix B: Carrier Frequency Separation

1 Result Table

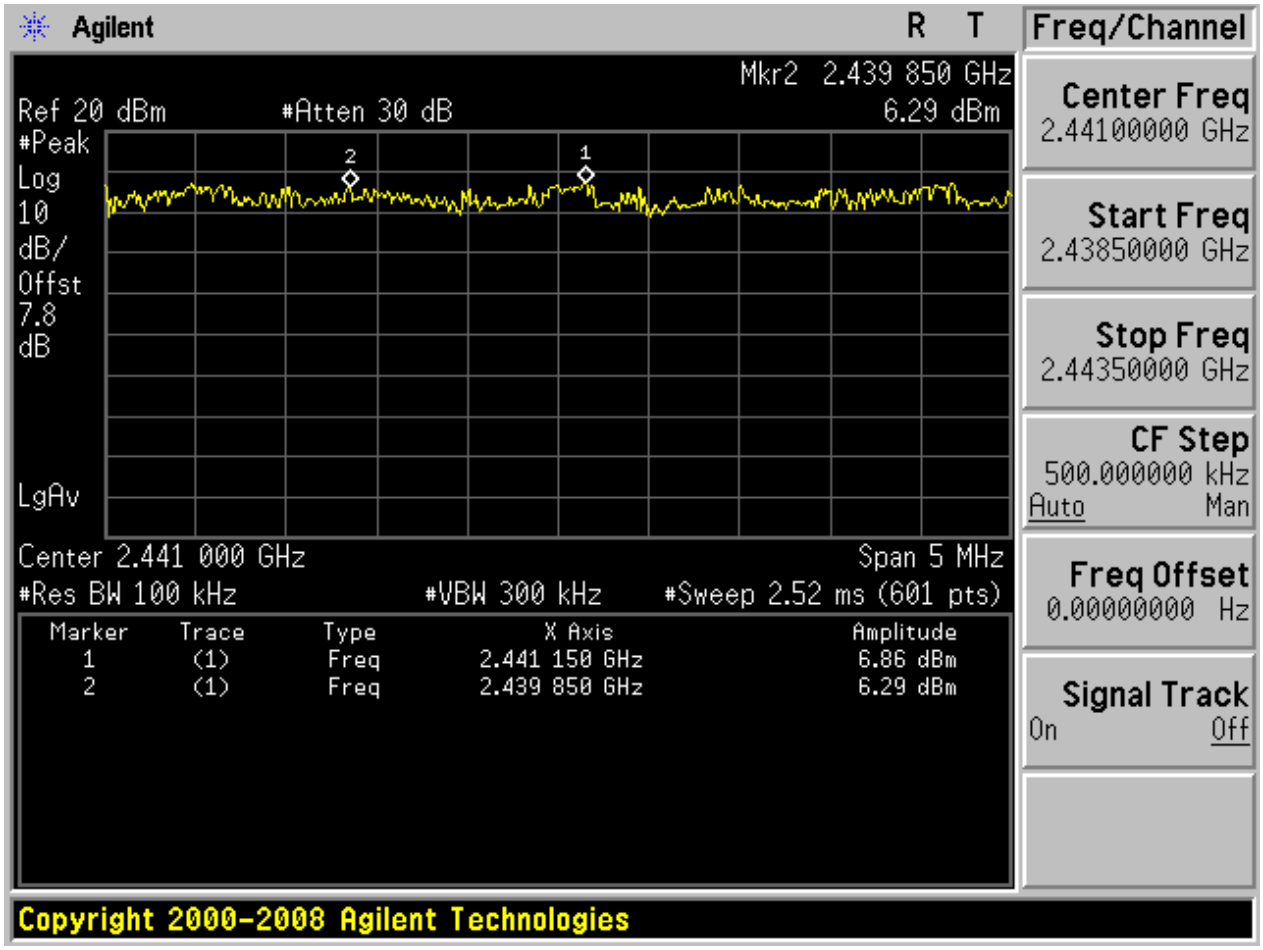
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	1.000	Pass
TM2_2DH5_Hop	1.300	Pass
TM3_3DH5_Hop	1.100	Pass

2 Test Plot

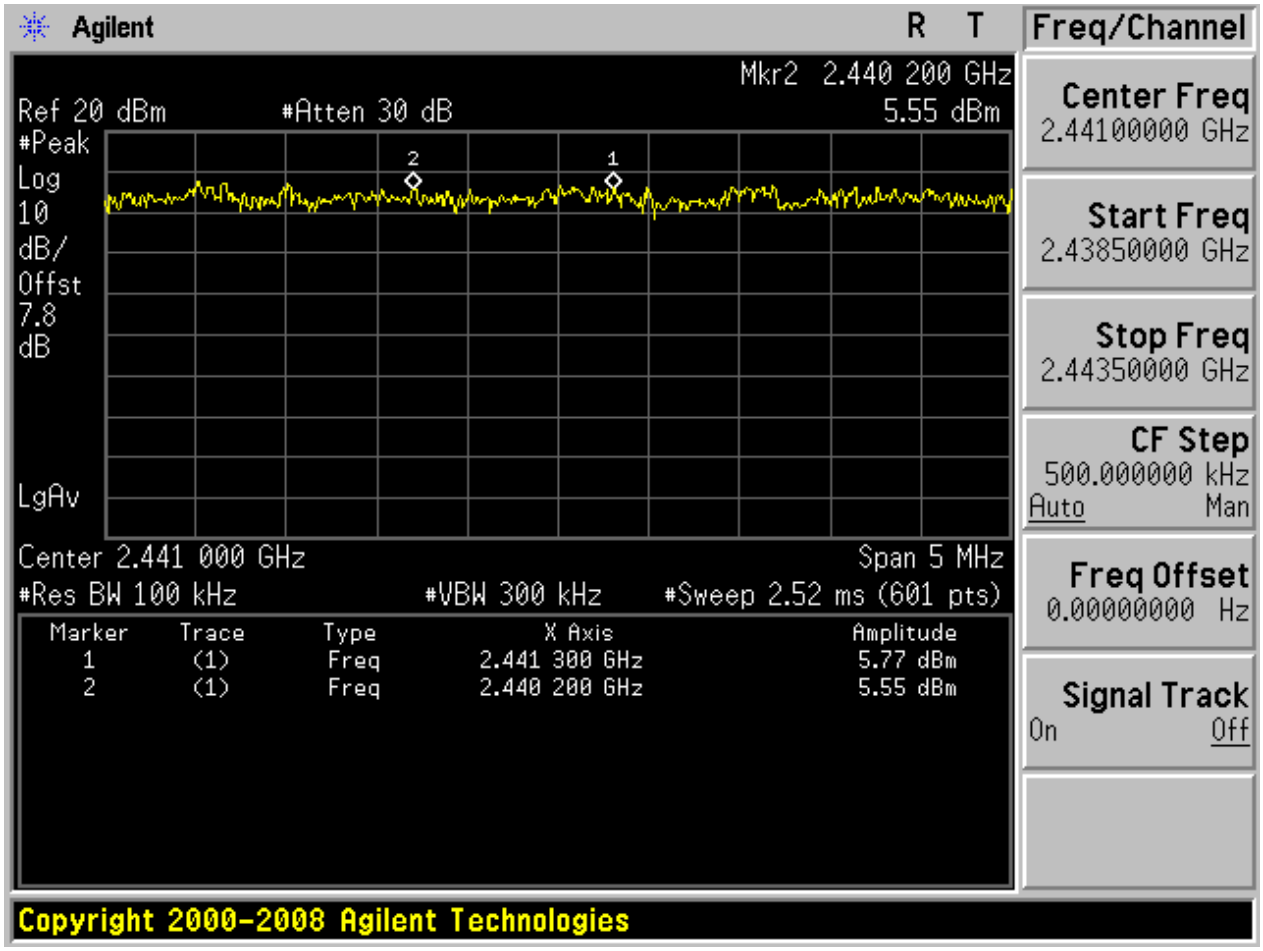
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop



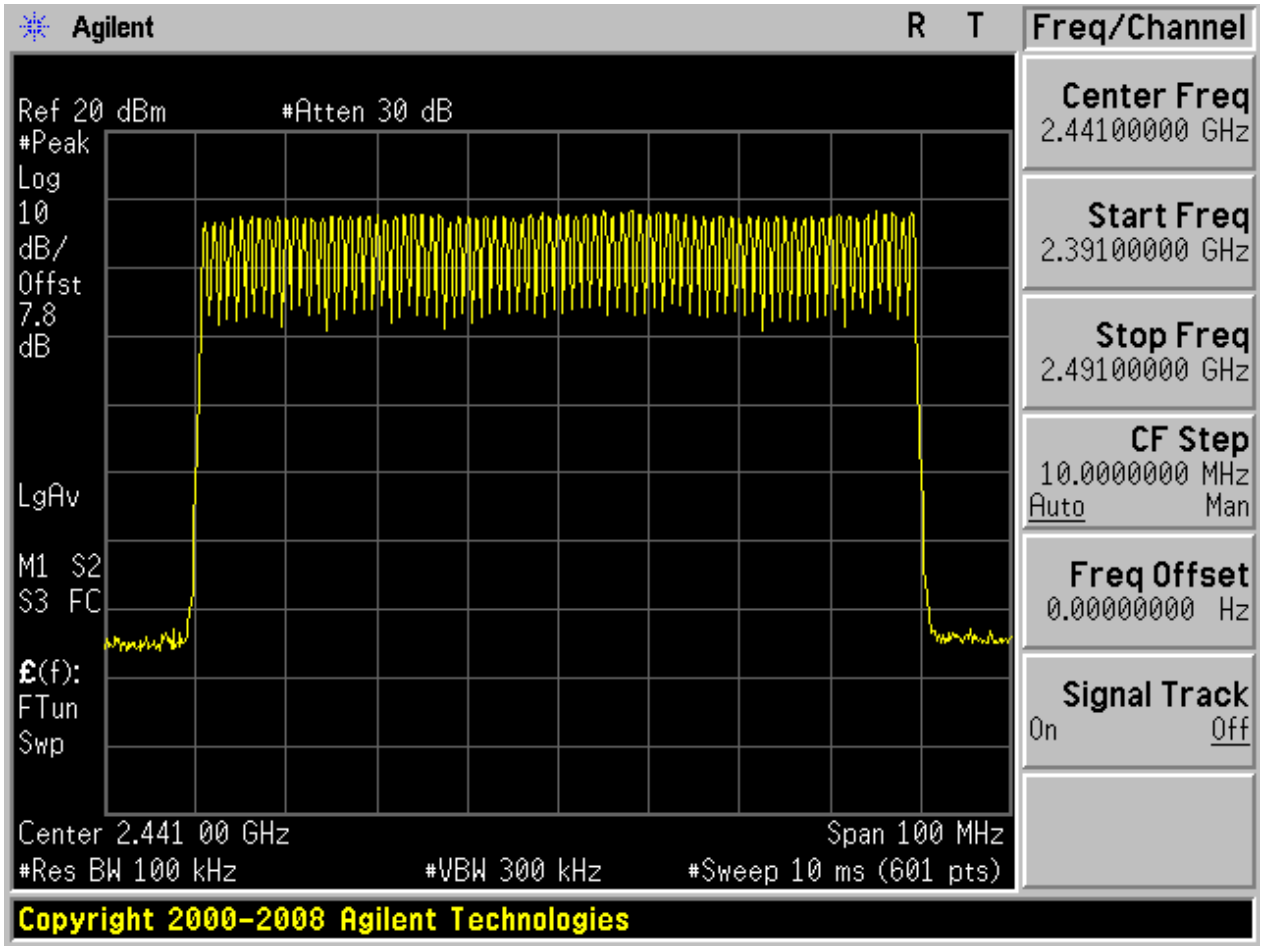
Appendix C: Number of Hopping Channel

1 Result Table

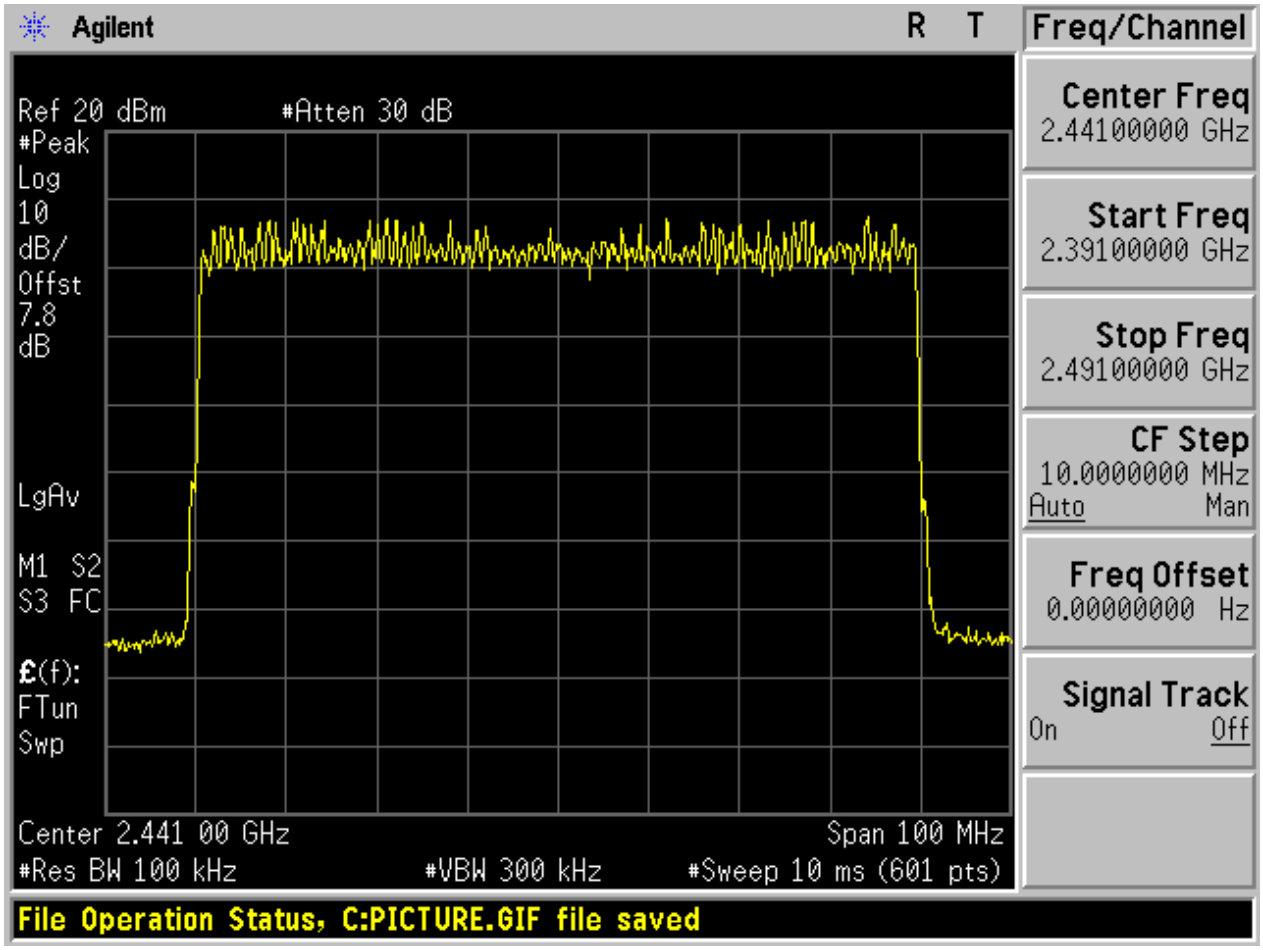
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

2 Test Plot

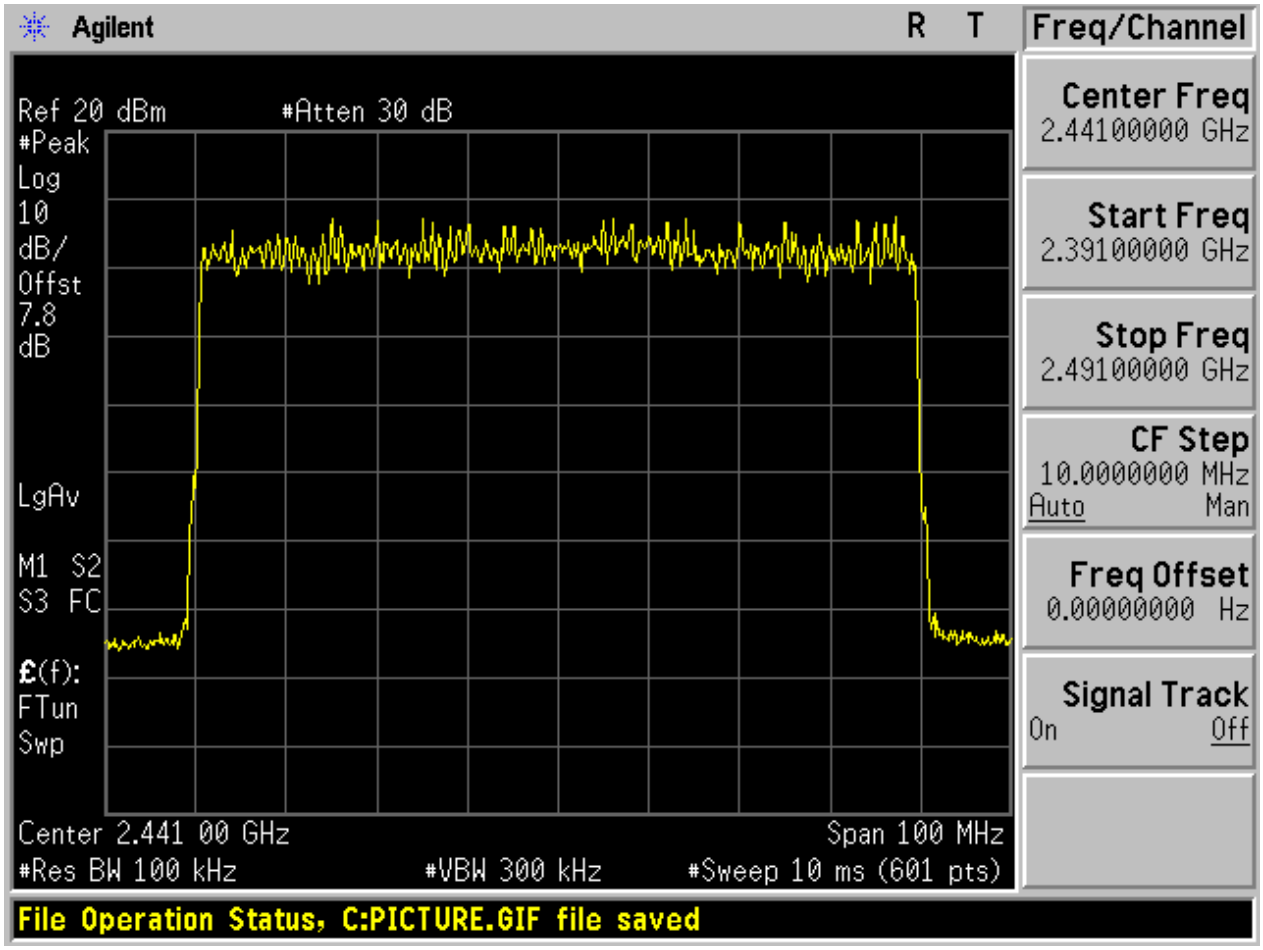
2.1 TM1_DH5_Hop



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:

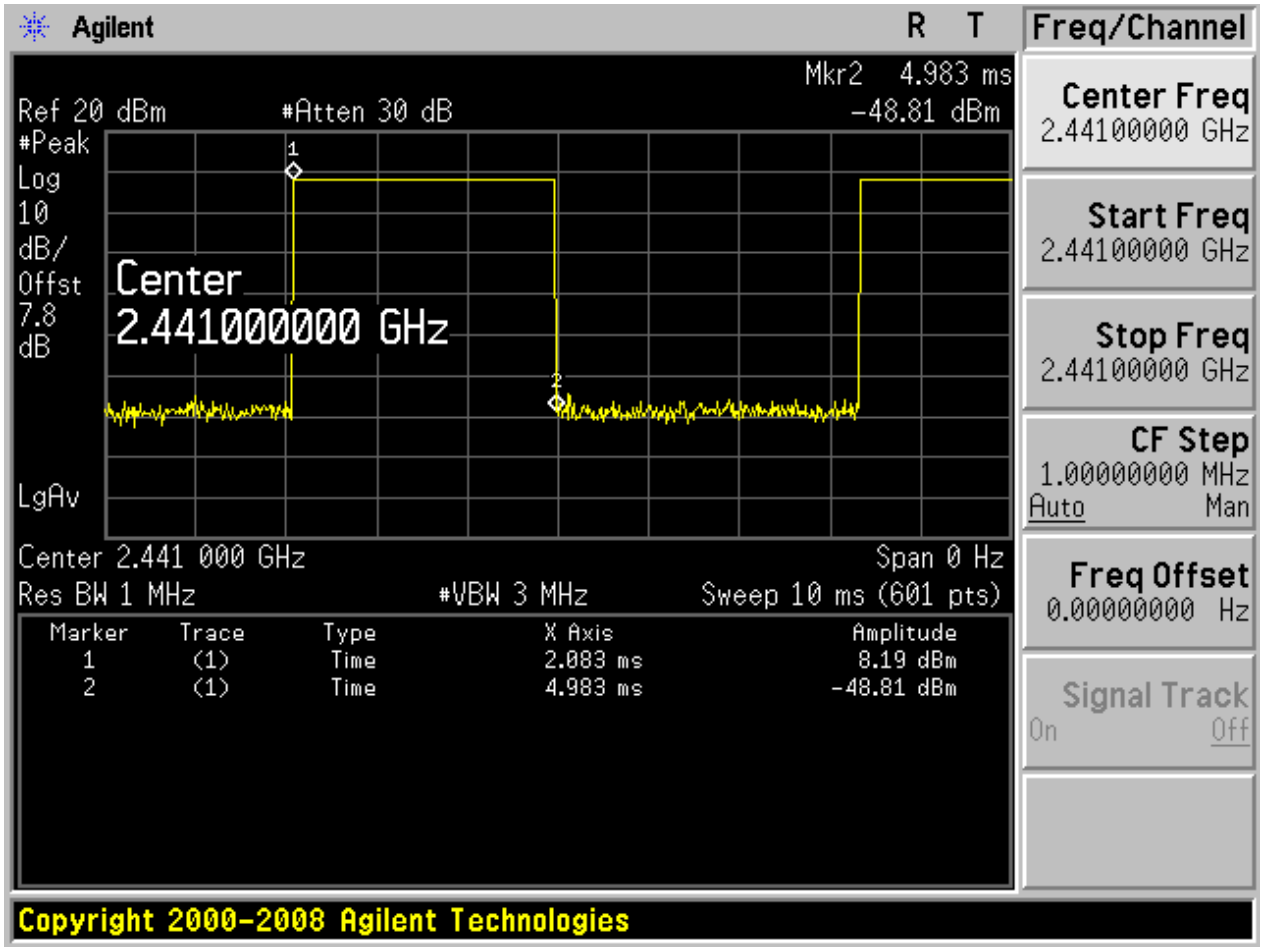
- The duration for dwell time calculation: 0.4 [s] * hopping number = 0.4 [s] * 79 [ch] = 31.6 [s*ch];
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses a slot type of 5-Tx&1-Rx and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

EUT Conf.	Burst Width [ms/hop/ch]	Total Hops [hop*ch]	Dwell Time [s]	Verdict
TM1_DH5_Ch39	2.900	106.67	0.309	Pass
TM2_2DH5_Ch39	2.900	106.67	0.309	Pass
TM3_3DH5_Ch39	2.900	106.67	0.309	Pass

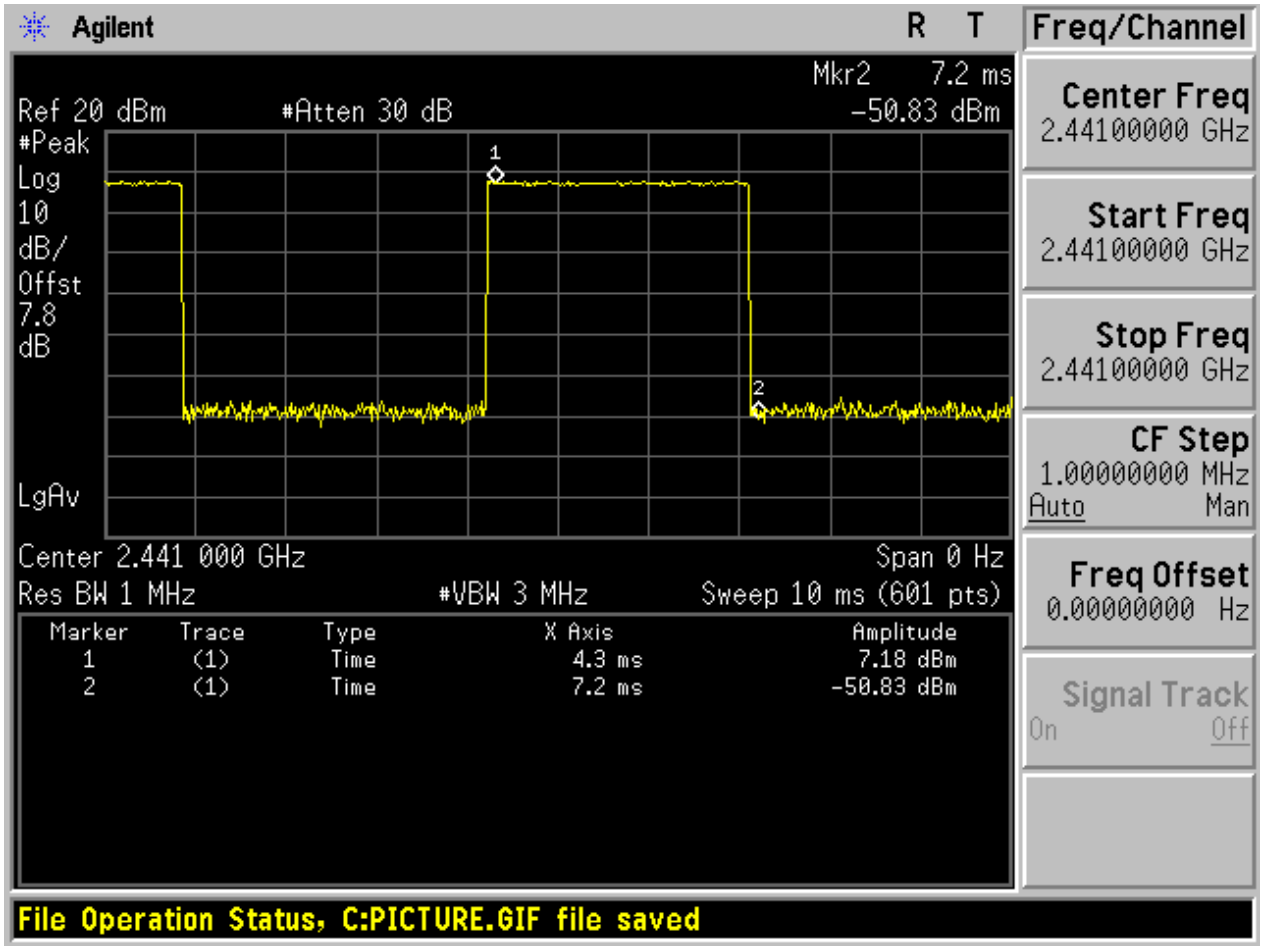
2 Test Plot

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

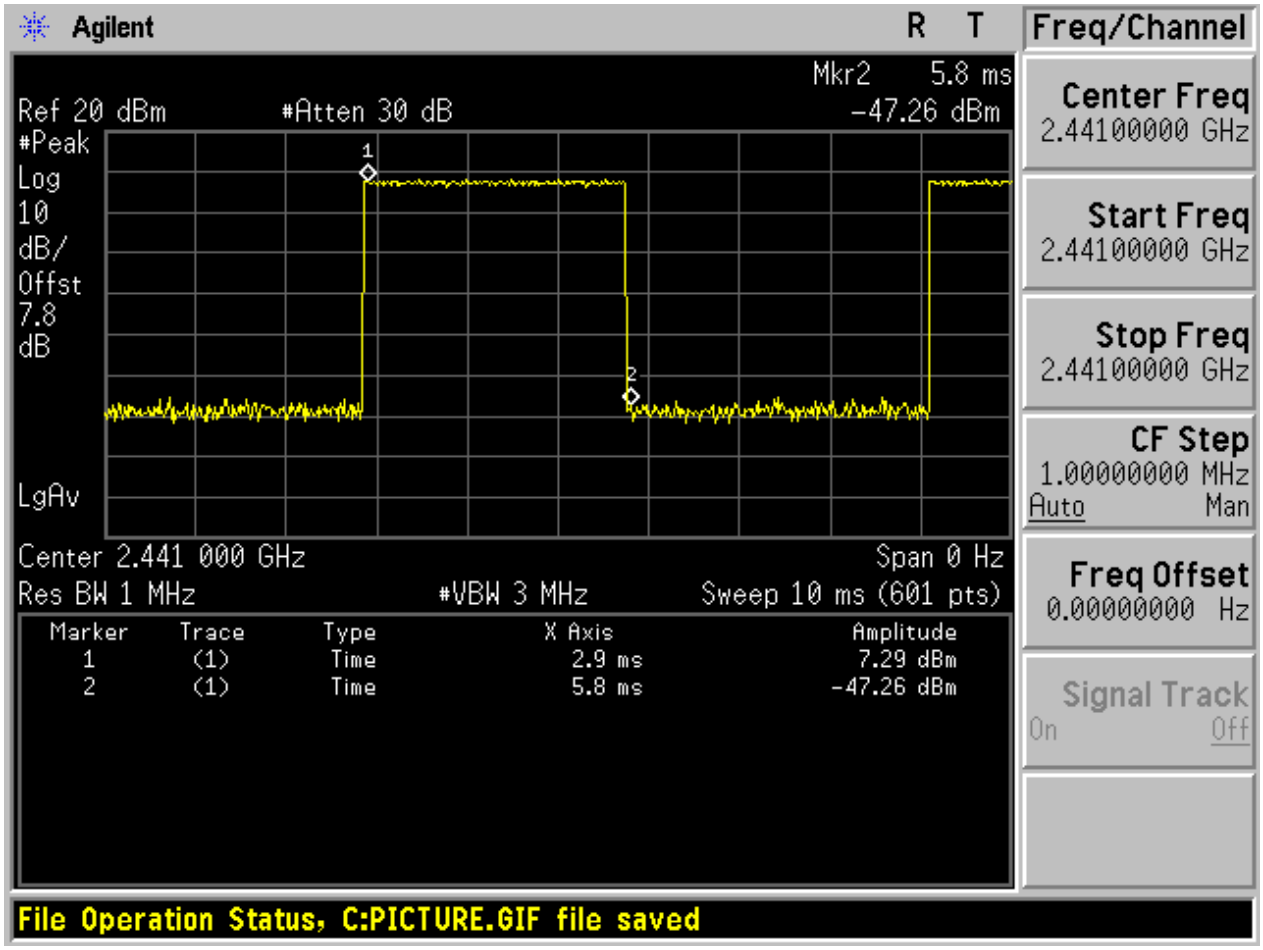
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39



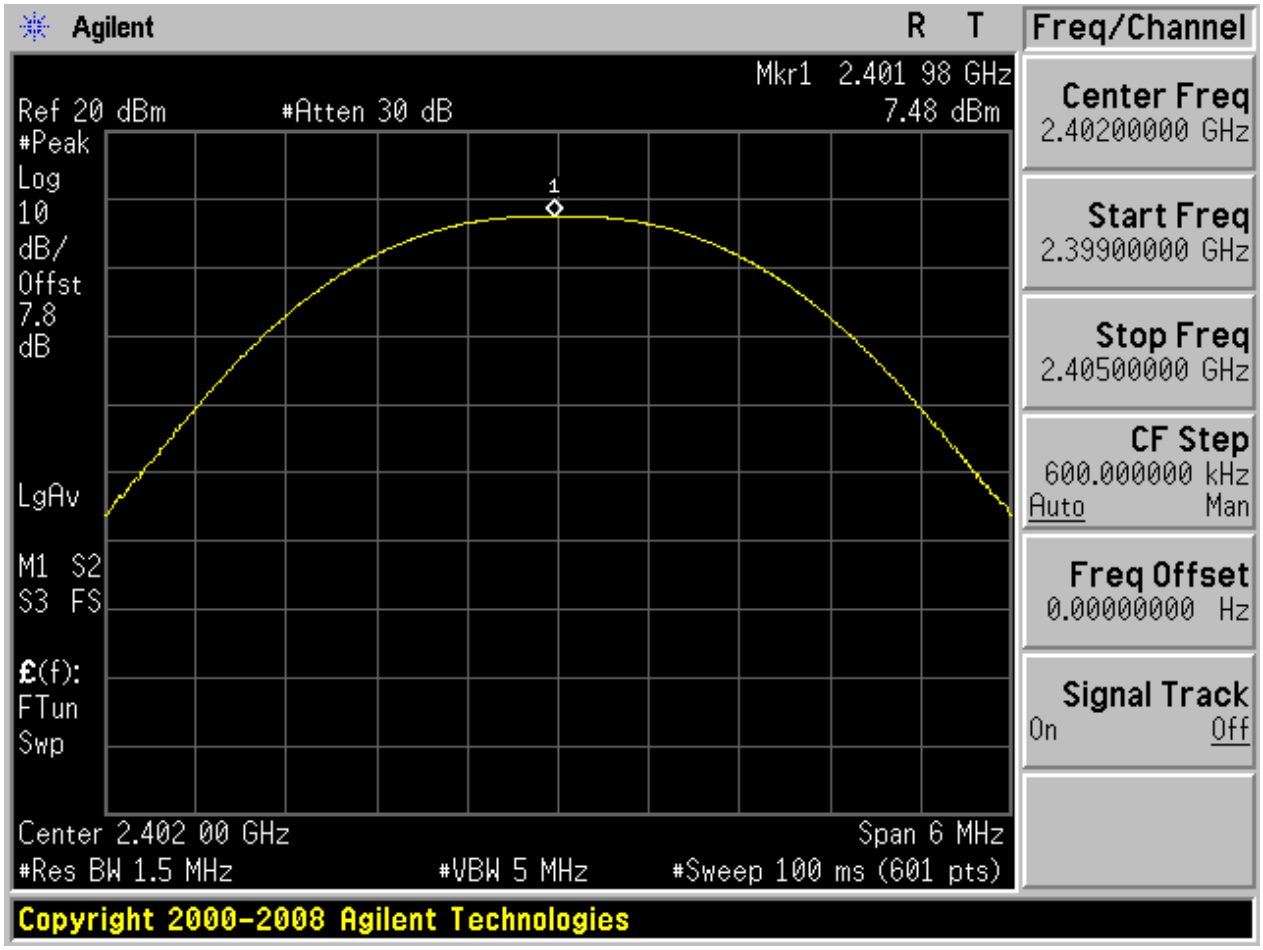
Appendix E: Maximum Peak Conducted Output Power

1 Result Table

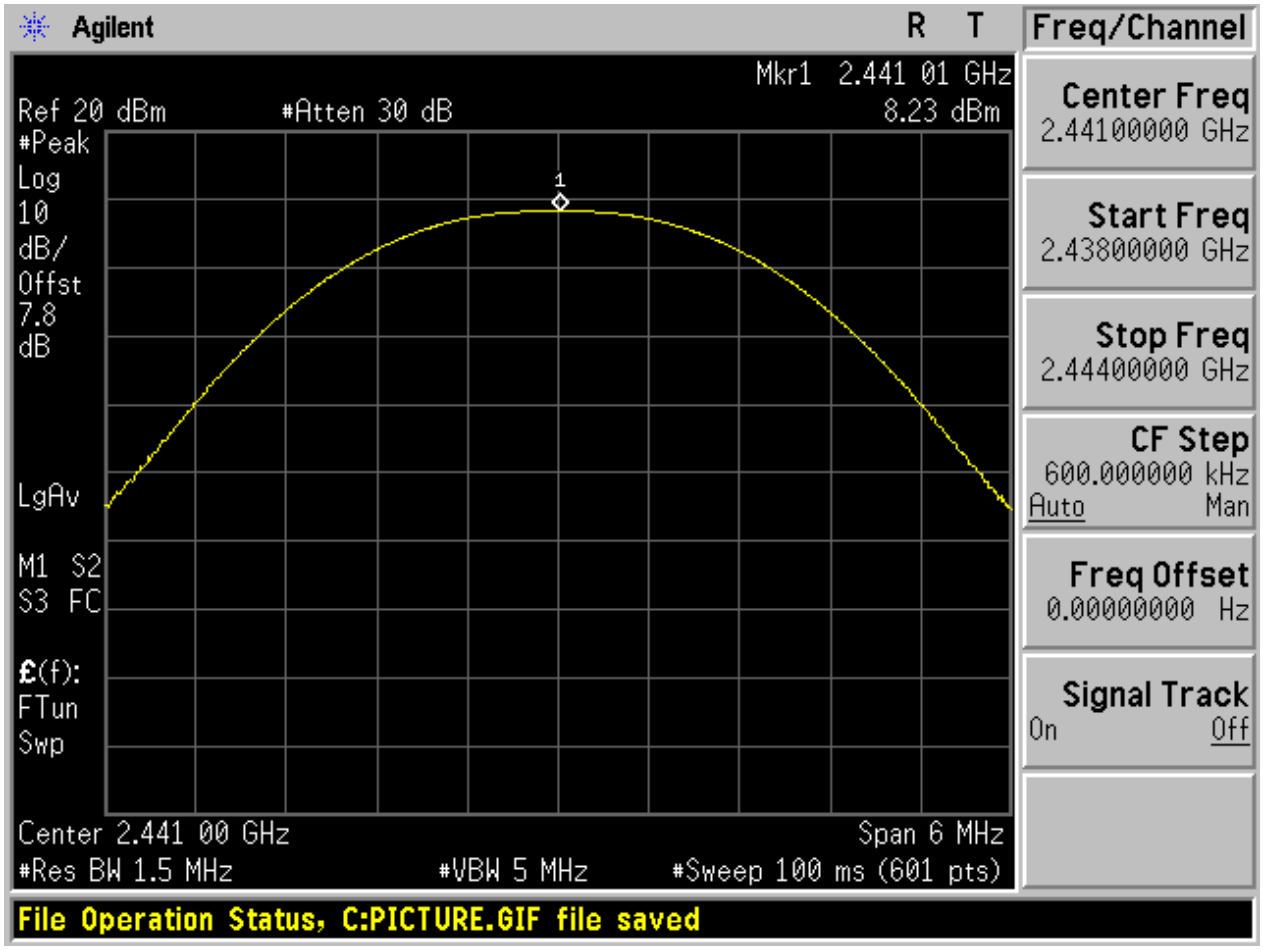
EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	7.48	Pass
TM1_DH5_Ch39	8.23	Pass
TM1_DH5_Ch78	8.53	Pass
TM2_2DH5_Ch0	7.22	Pass
TM2_2DH5_Ch39	7.92	Pass
TM2_2DH5_Ch78	8.22	Pass
TM3_3DH5_Ch0	7.33	Pass
TM3_3DH5_Ch39	8.05	Pass
TM3_3DH5_Ch78	8.36	Pass

2 Test Plot

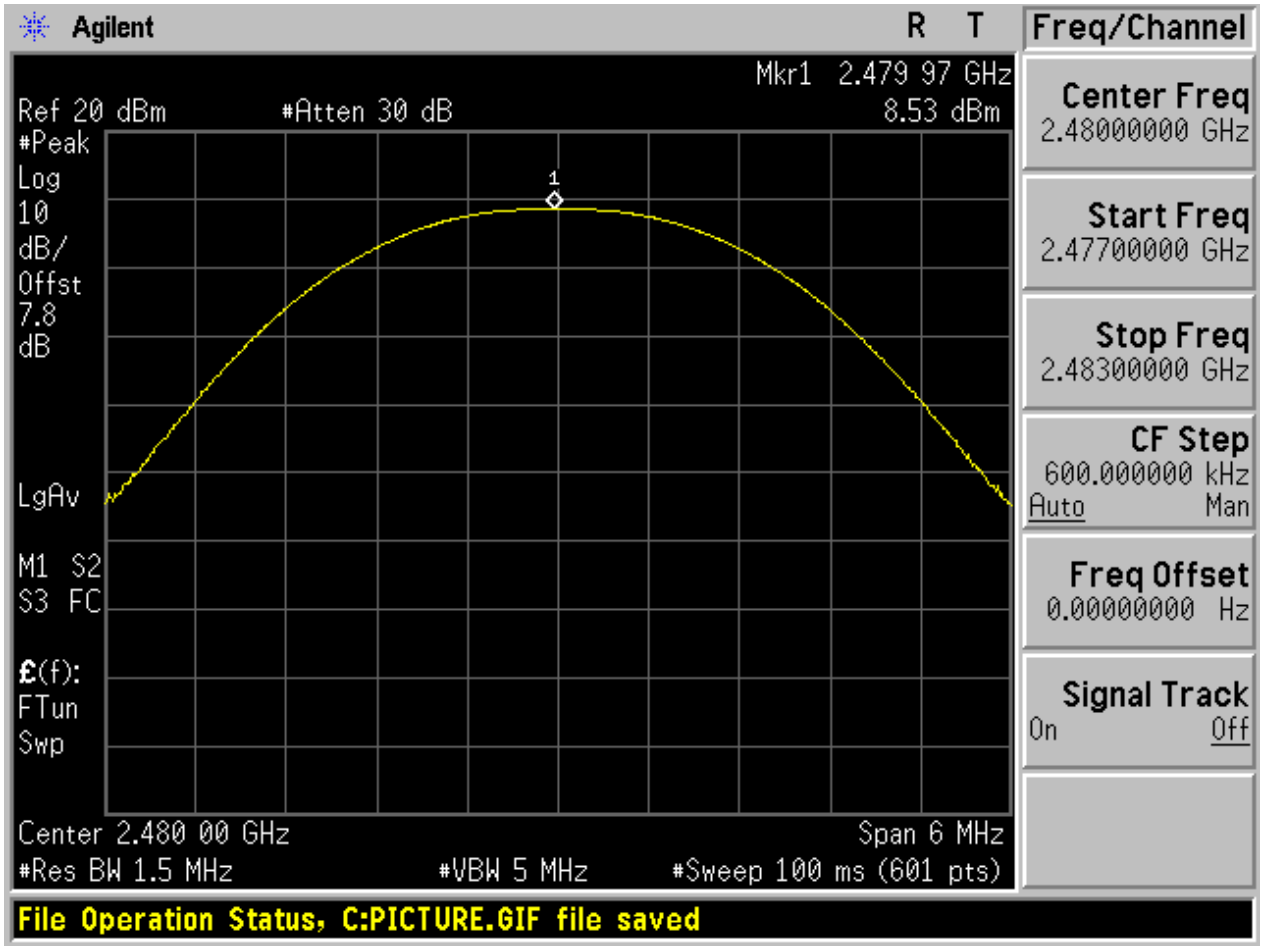
2.1 TM1_DH5_Ch0



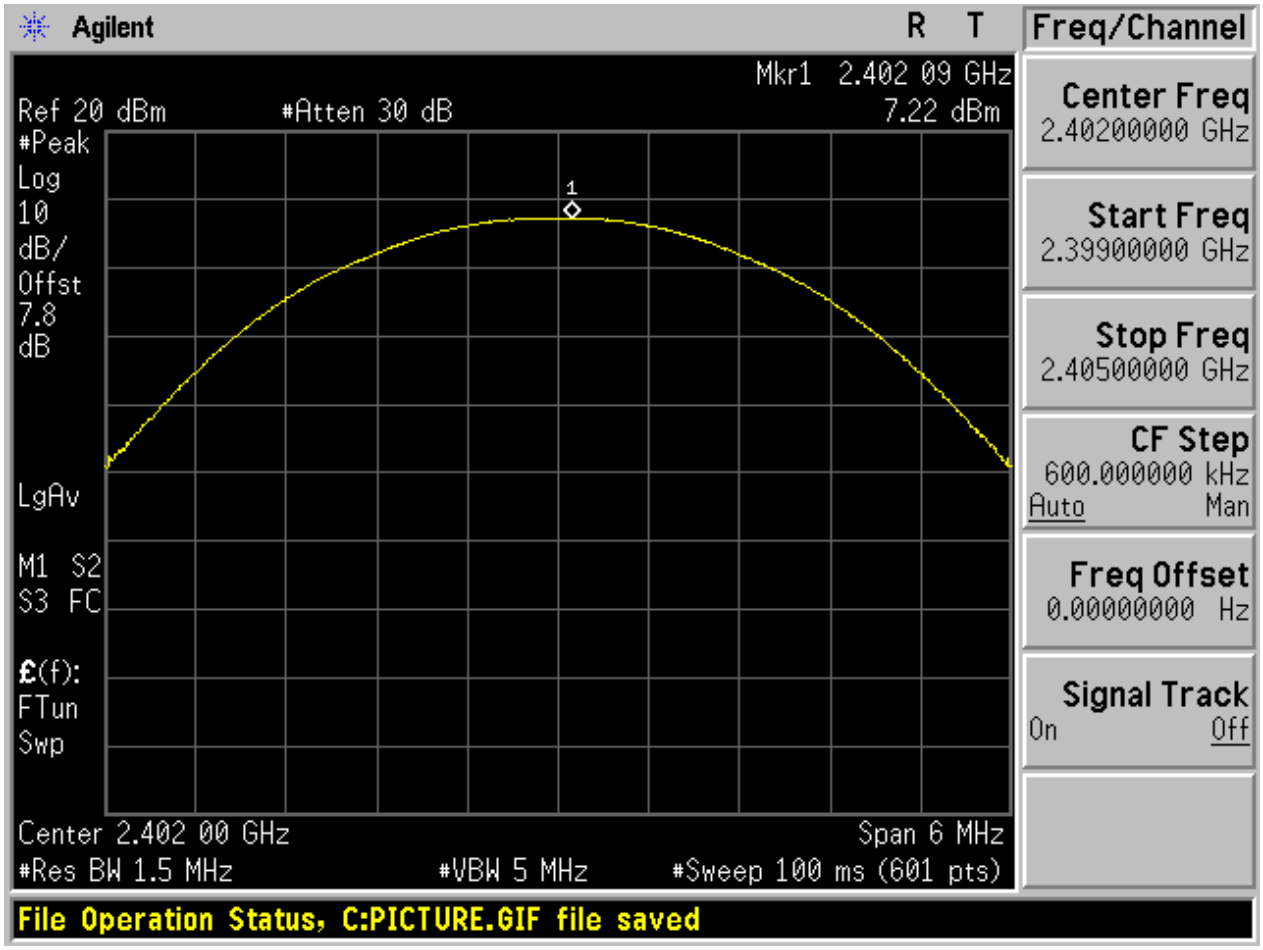
2.2 TM1_DH5_Ch39



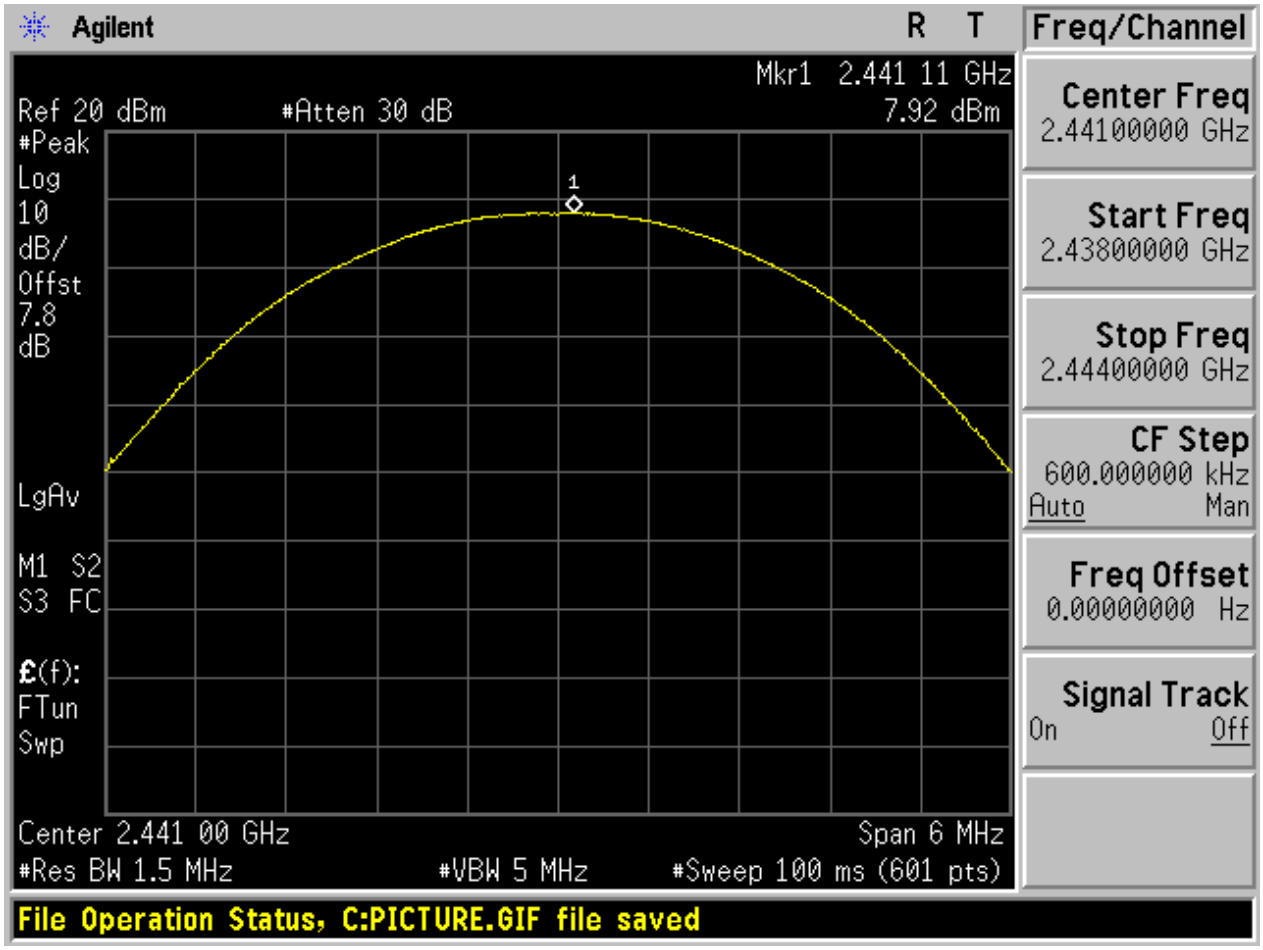
2.3 TM1_DH5_Ch78



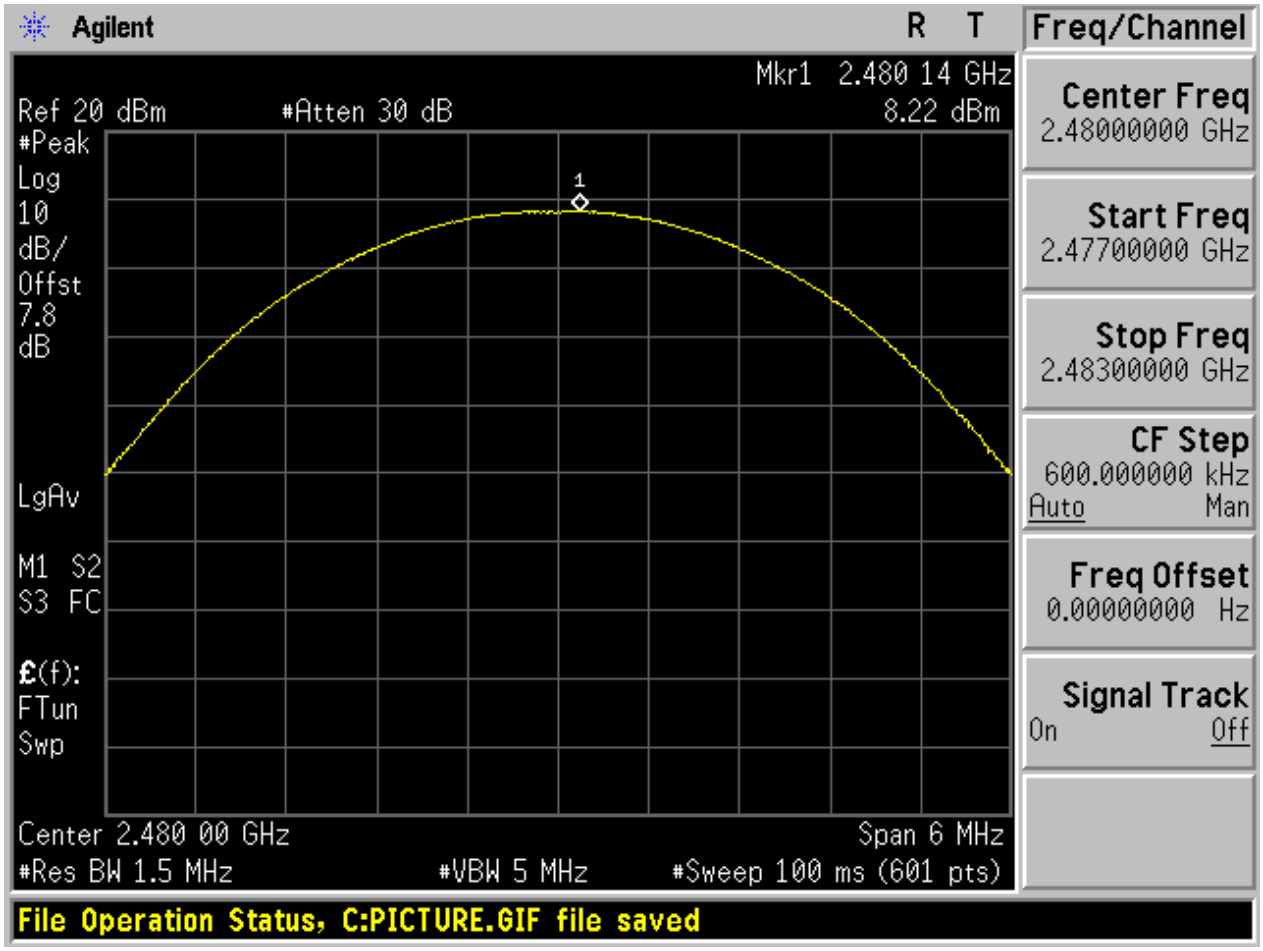
2.4 TM2_2DH5_Ch0



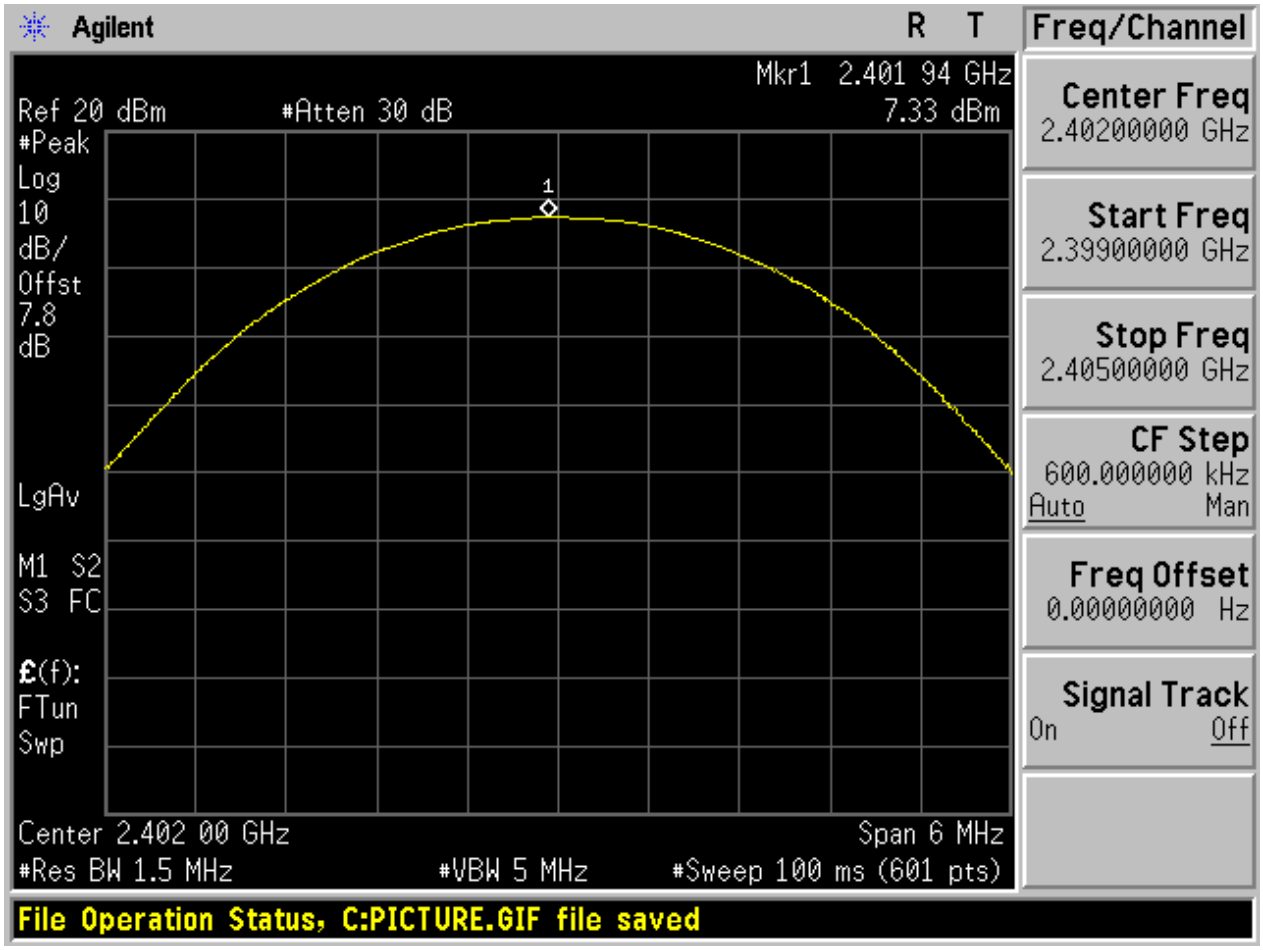
2.5 TM2_2DH5_Ch39



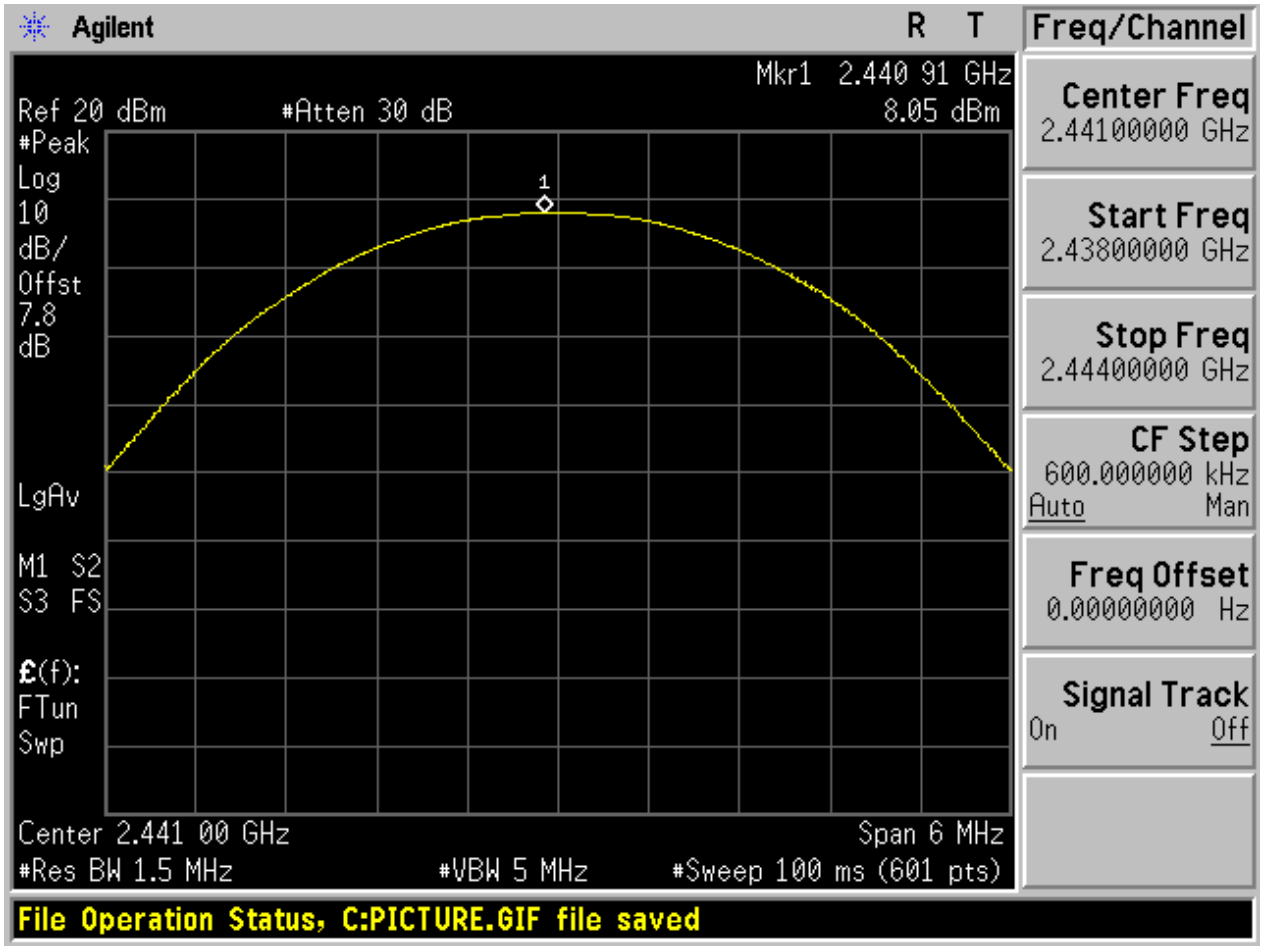
2.6 TM2_2DH5_Ch78



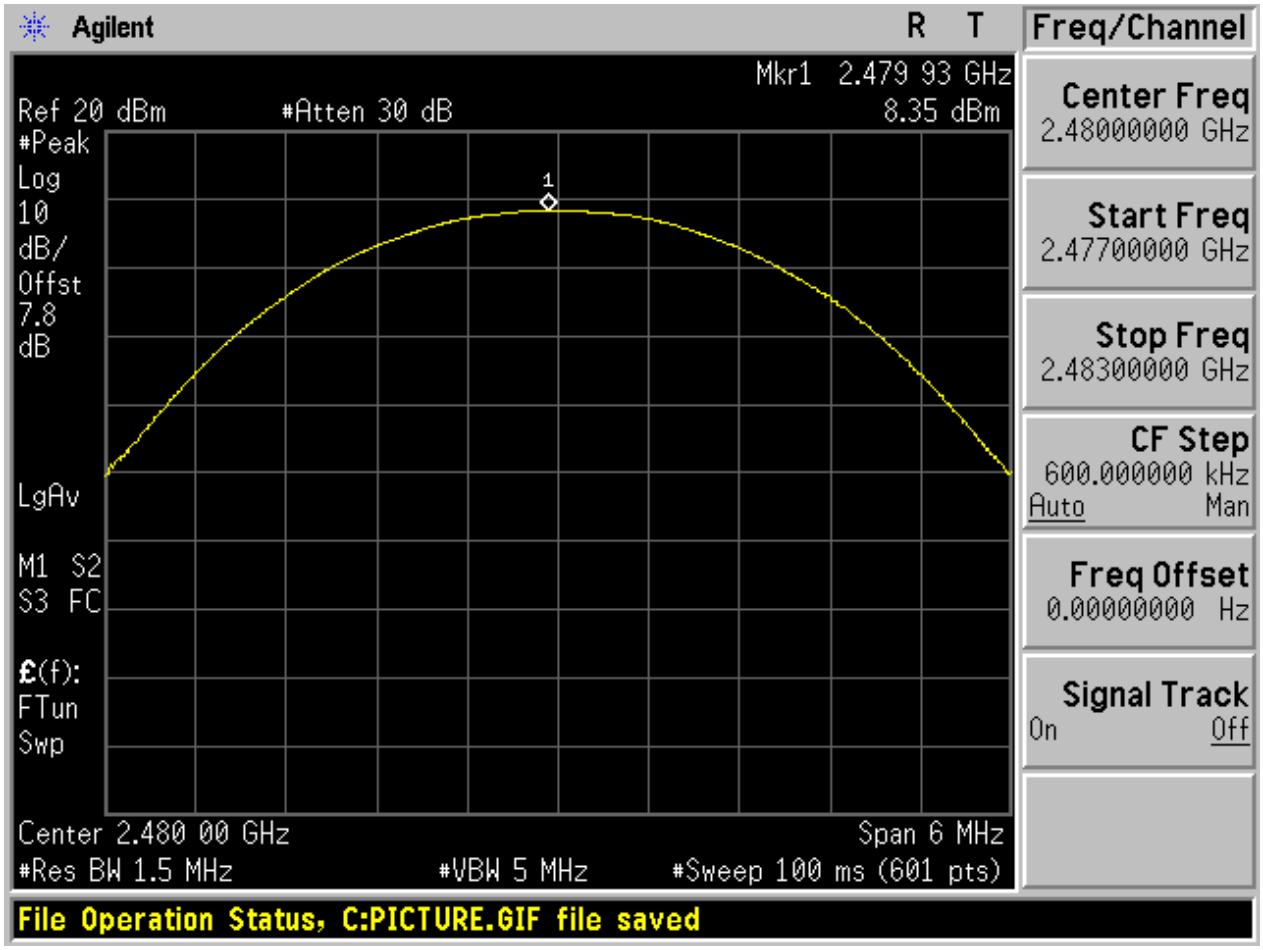
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78



Appendix F: Band edge spurious emission

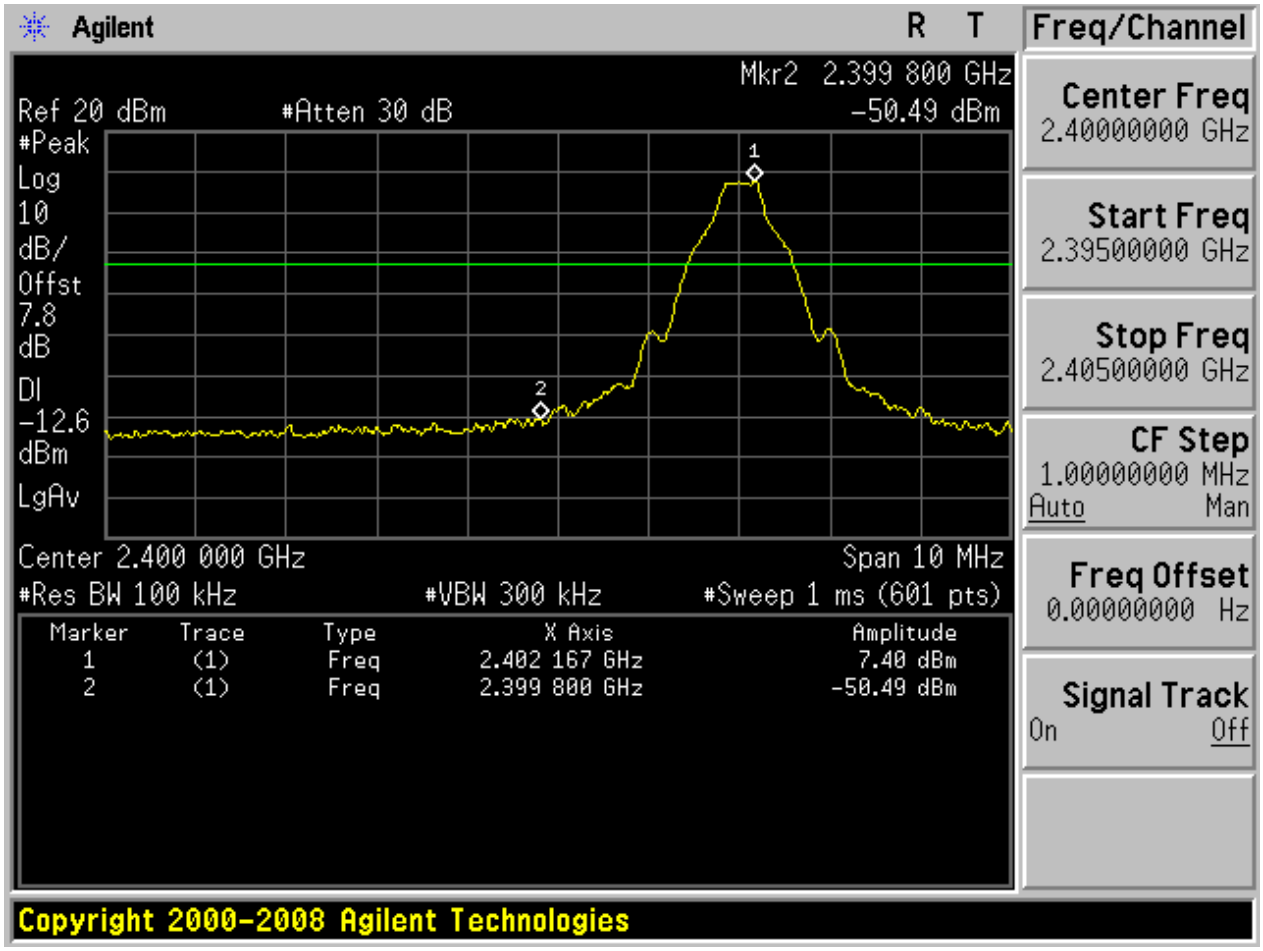
1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5_Ch0	0	2402	-50.49	Off	7.40	-12.6	Pass
	-	-	-52.27	On	7.21	-12.79	Pass
TM1_DH5_Ch78	78	2480	-50.89	Off	8.41	-11.59	Pass
	-	-	-51.76	On	8.41	-11.59	Pass
TM2_2DH5_Ch0	0	2402	-48.89	Off	6.51	-13.49	Pass
	-	-	-53.09	On	5.30	-14.7	Pass
TM2_2DH5_Ch78	78	2480	-51.01	Off	7.51	-12.49	Pass
	-	-	-53.48	On	6.93	-13.07	Pass
TM3_3DH5_Ch0	0	2402	-50.52	Off	6.53	-13.47	Pass
	-	-	-52.9	On	5.52	-14.48	Pass
TM3_3DH5_Ch78	78	2480	-51.8	Off	7.46	-12.54	Pass
	-	-	-53.14	On	4.28	-15.72	Pass

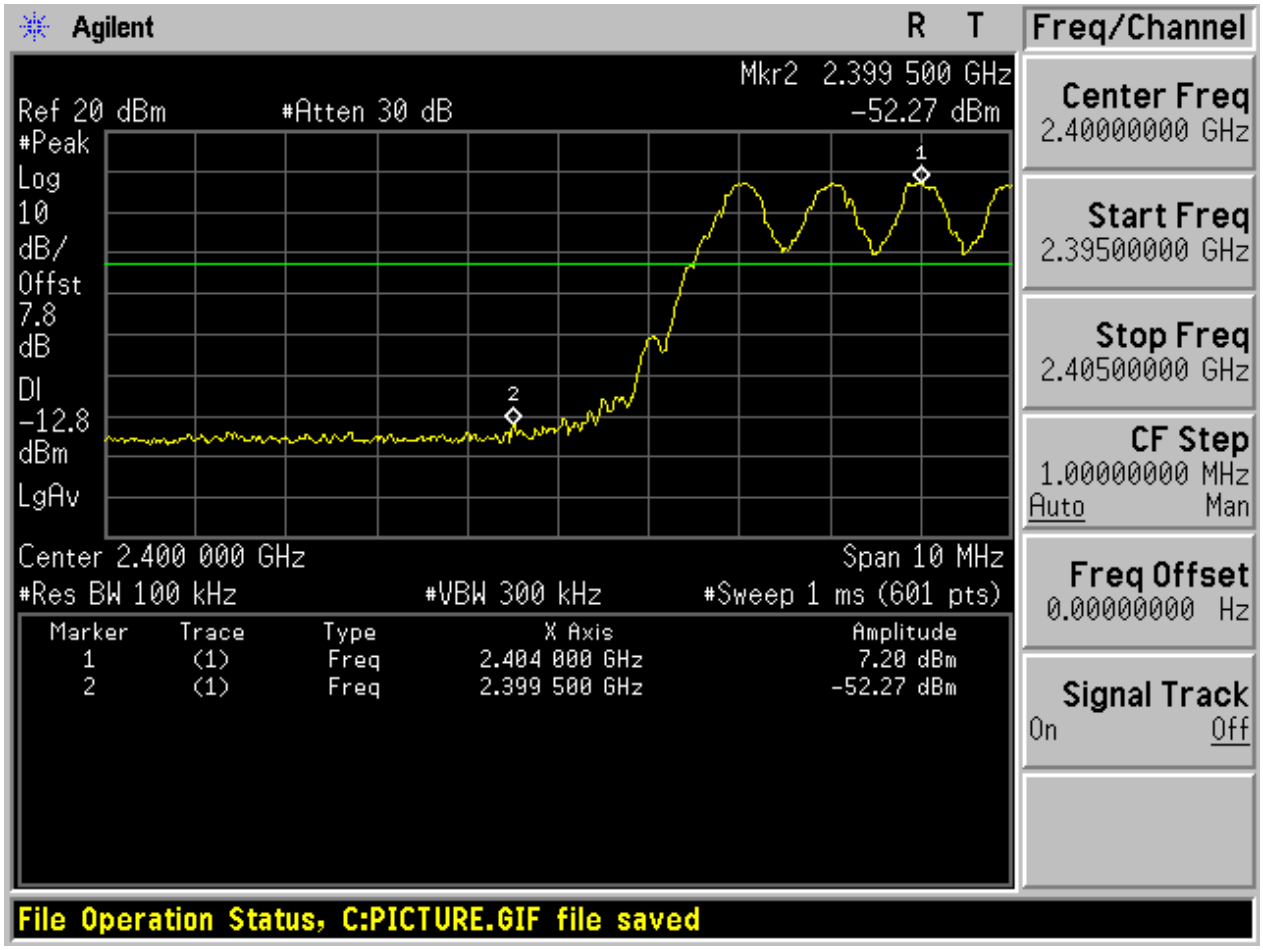
2 Test Plot

2.1 TM1_DH5_Ch0

No hopping

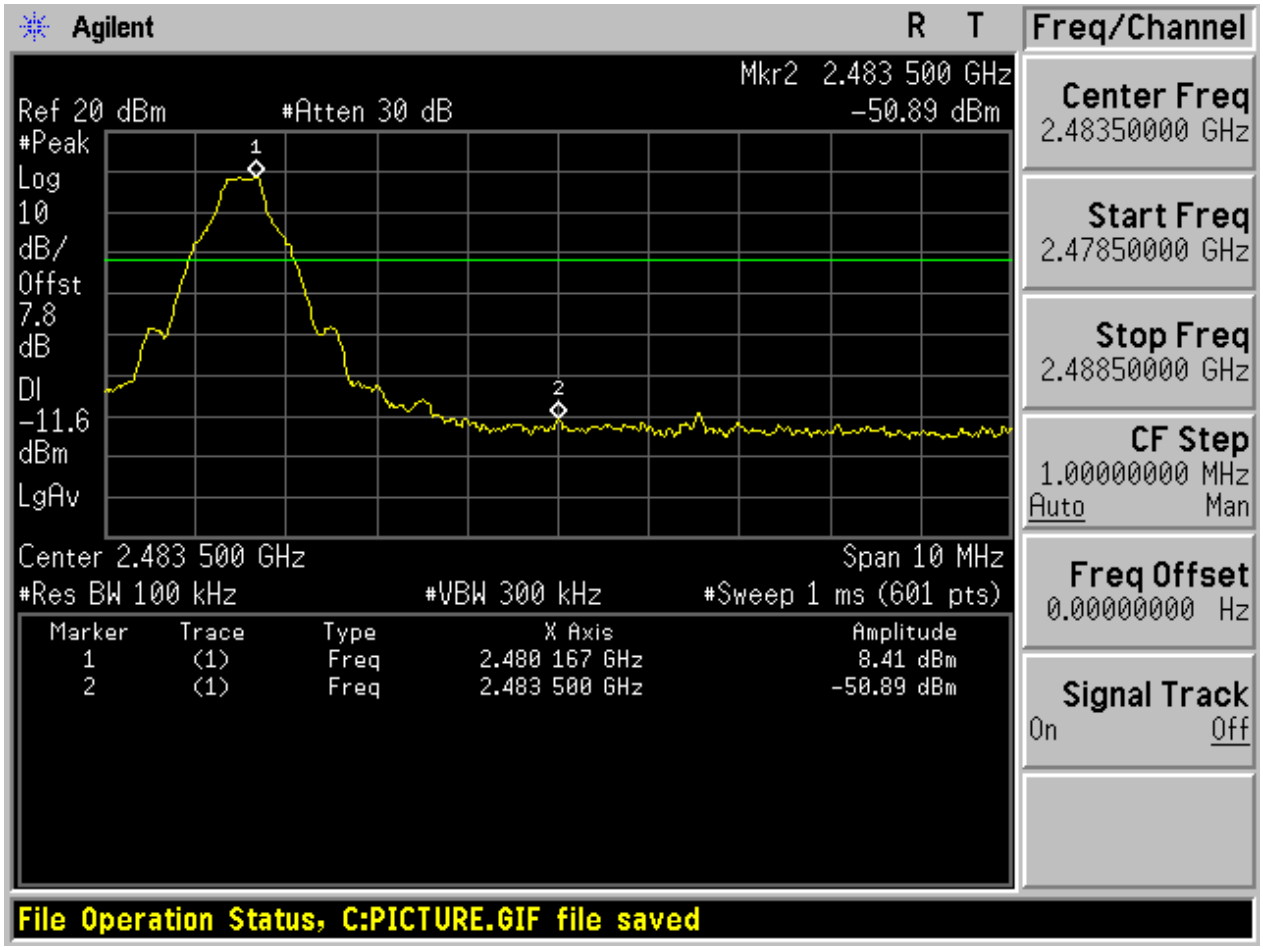


With hopping

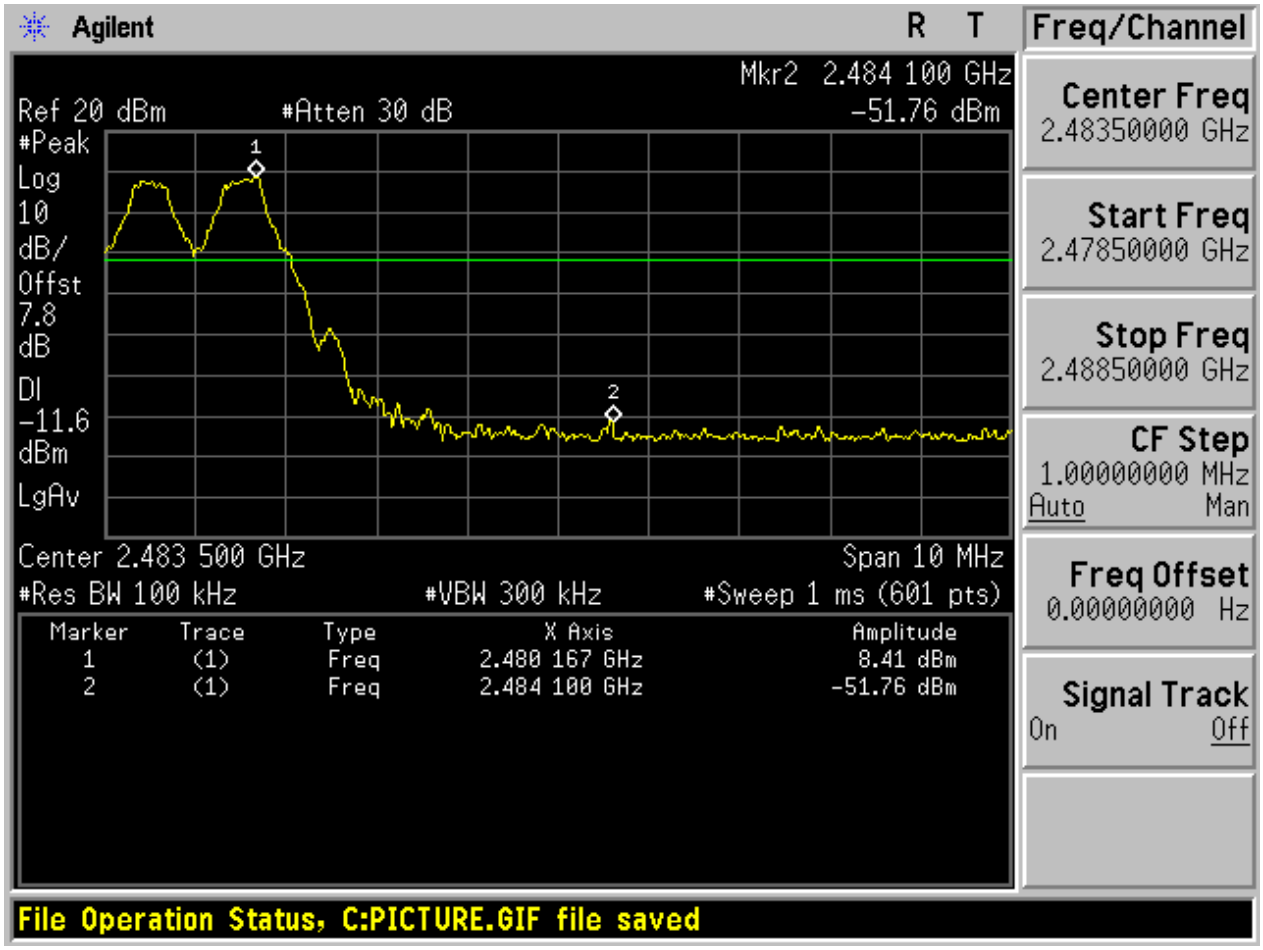


2.2 TM1_DH5_Ch78

No hopping

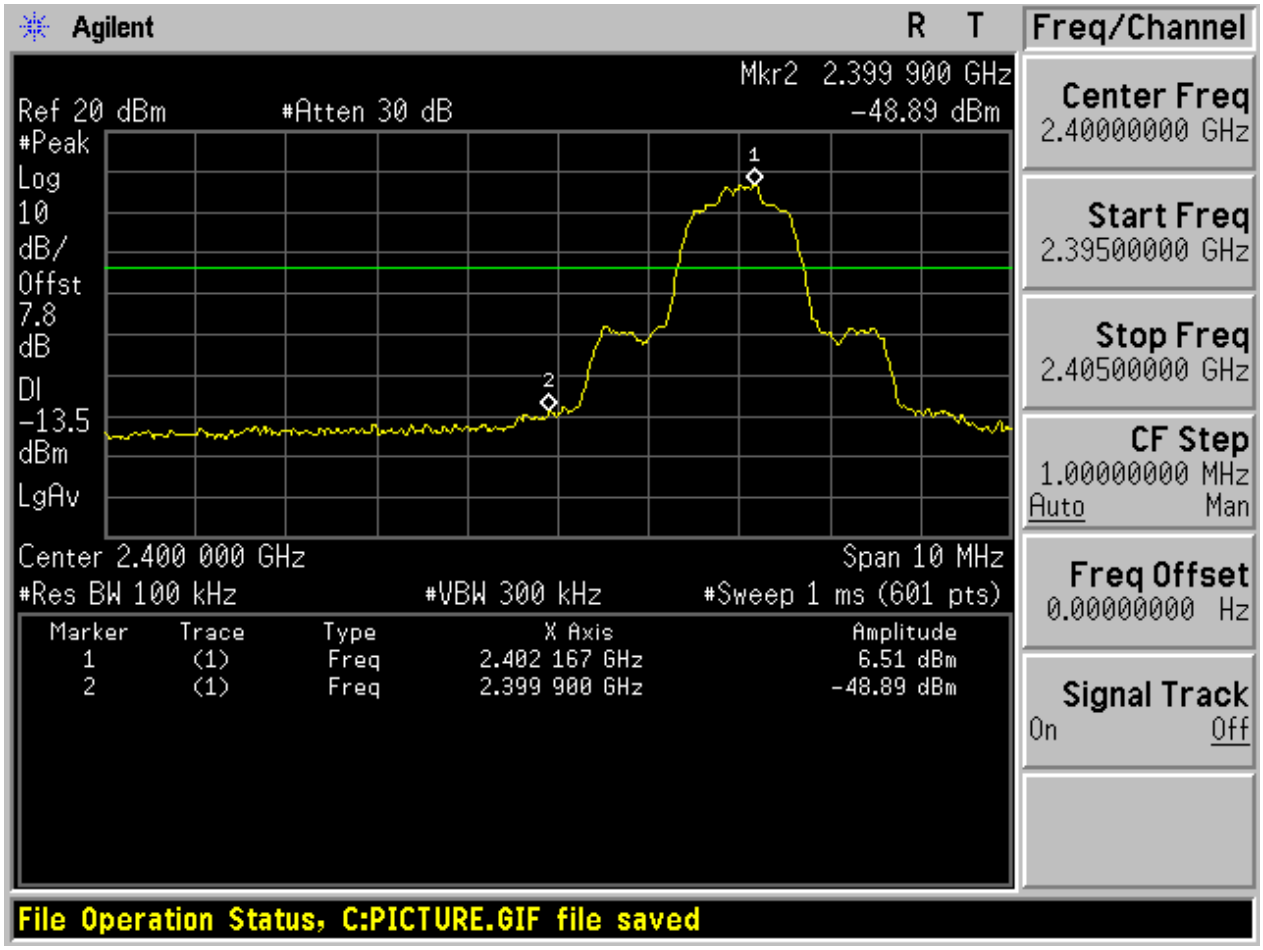


With hopping

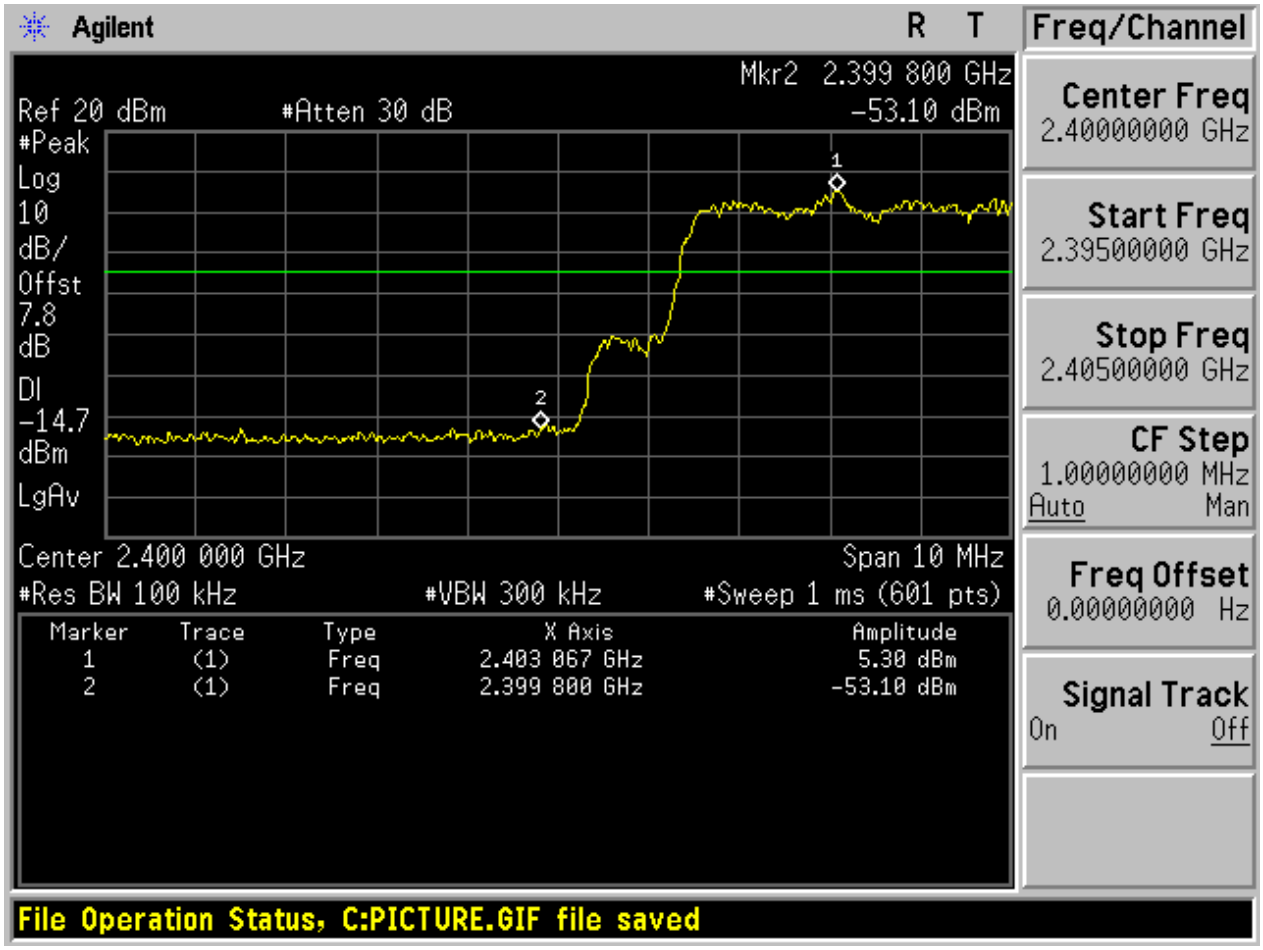


2.3 TM2_2DH5_Ch0

No hopping

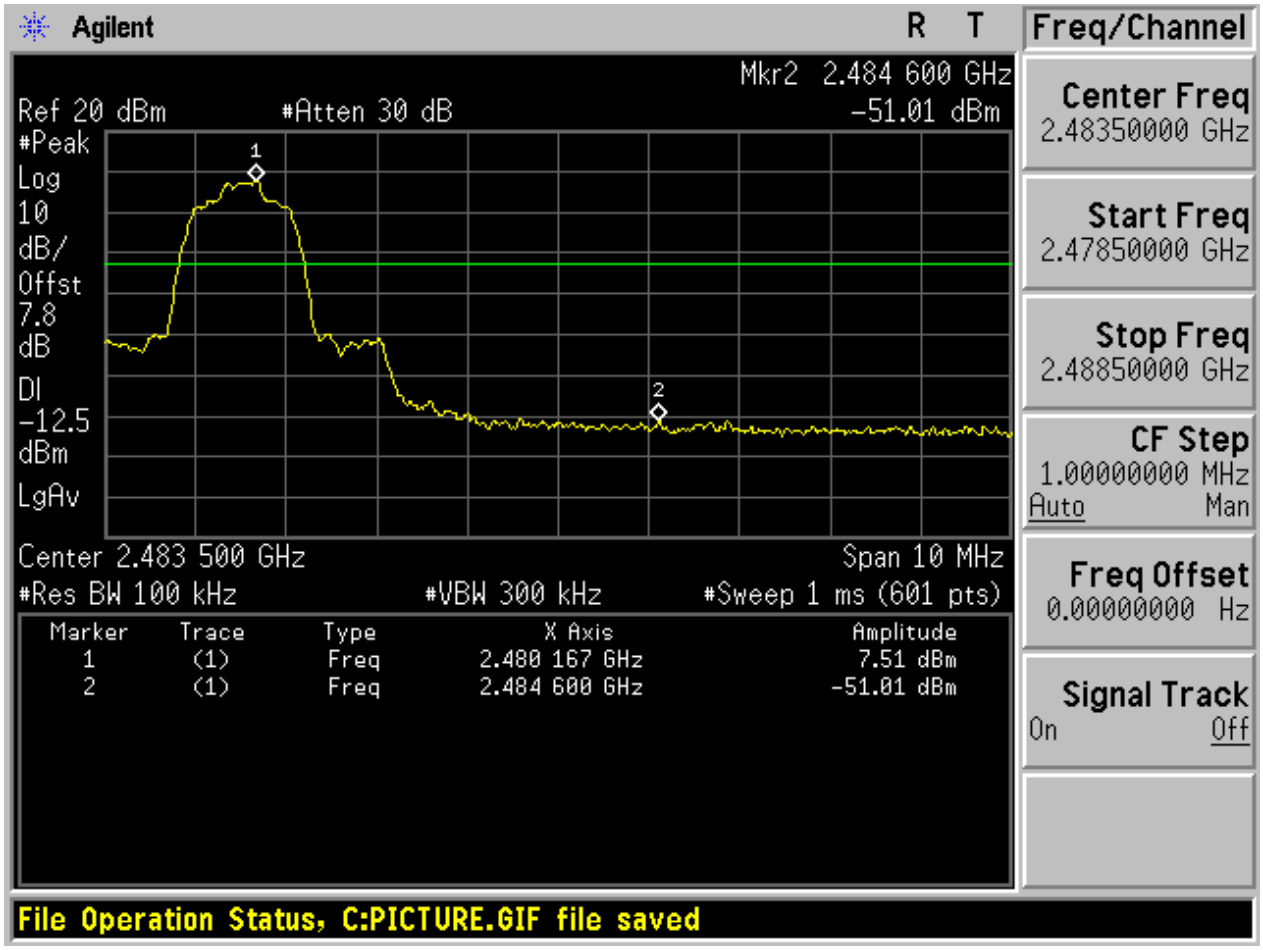


With hopping

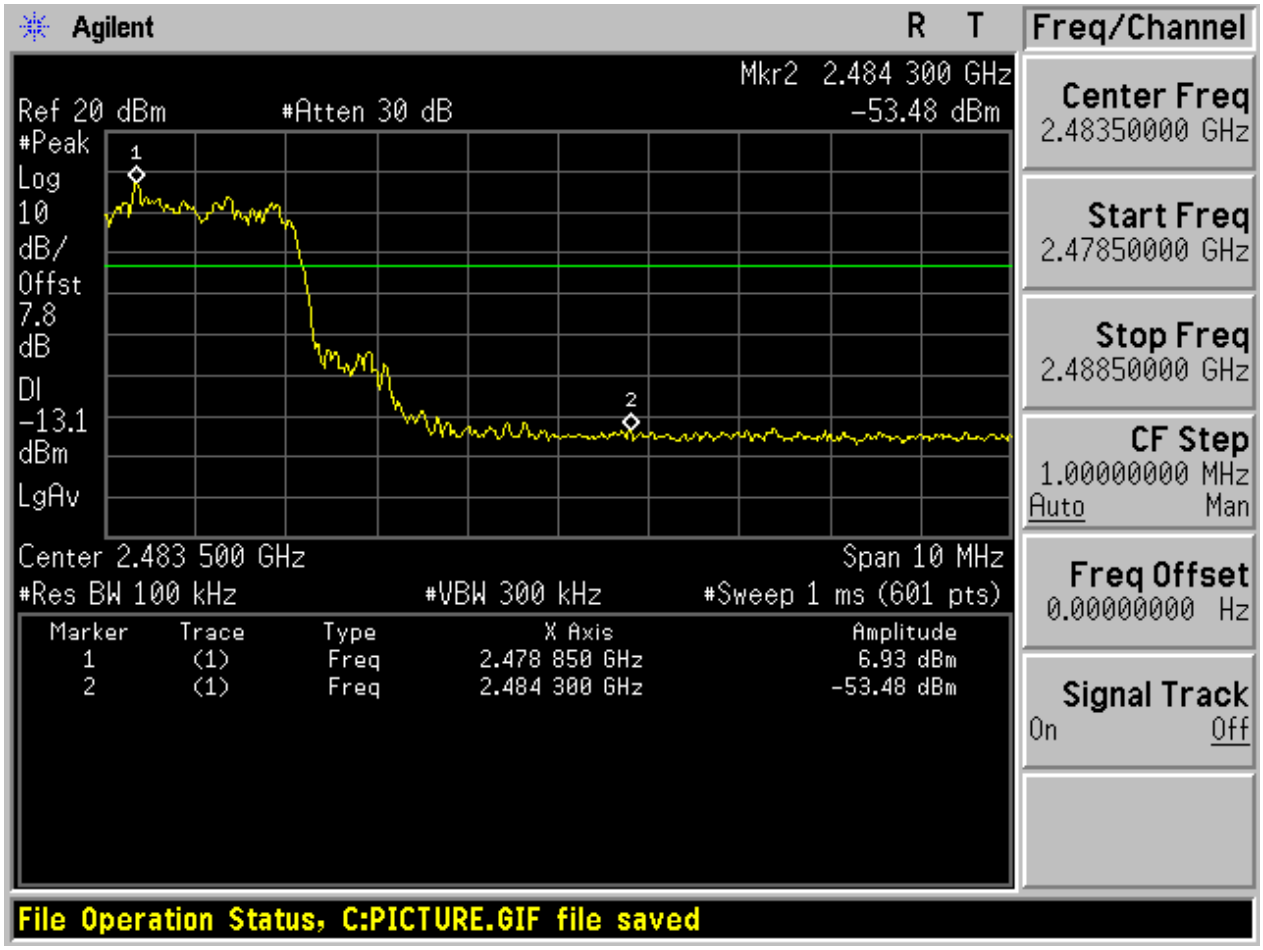


2.4 TM2_2DH5_Ch78

No hopping

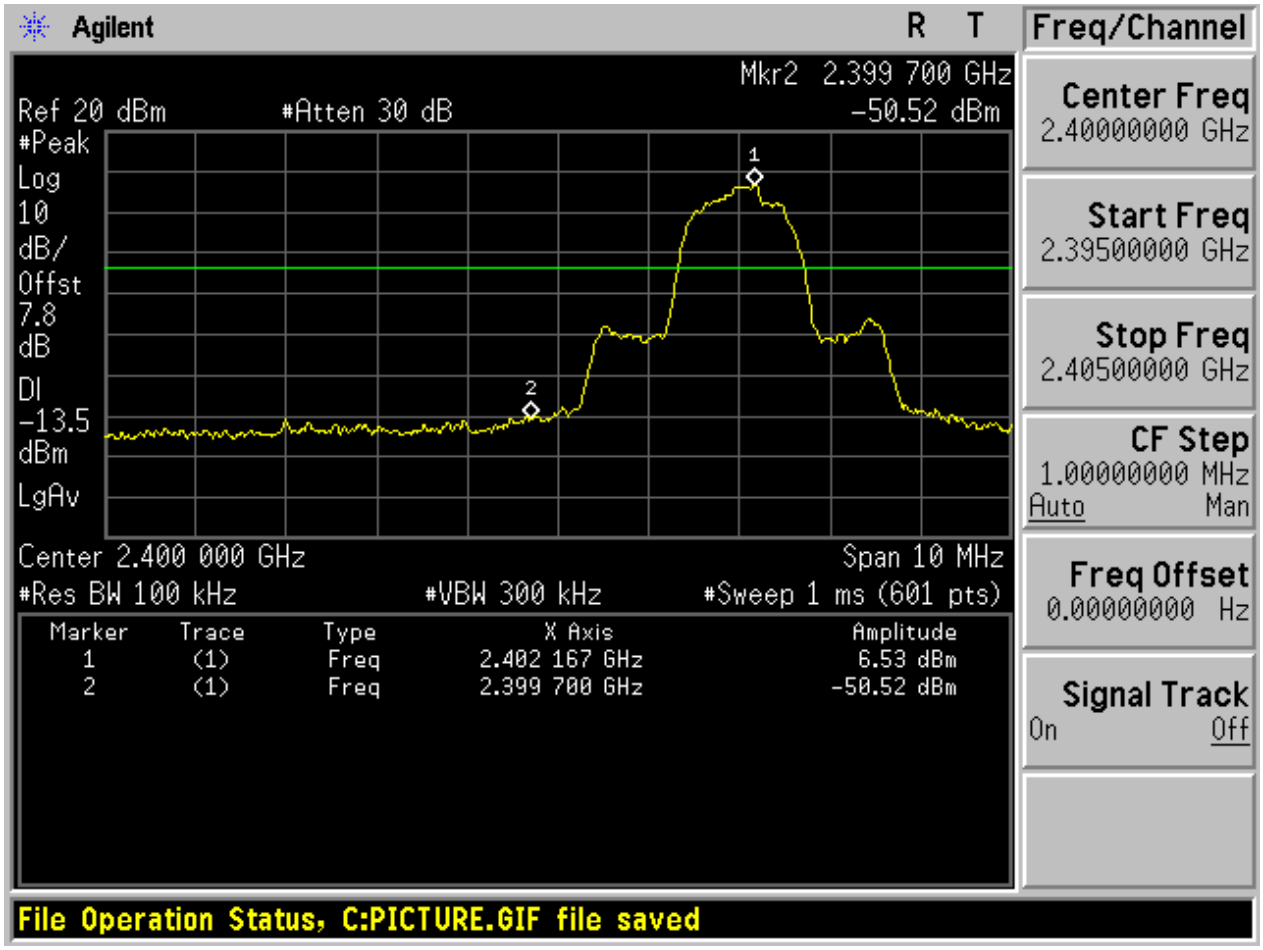


With hopping

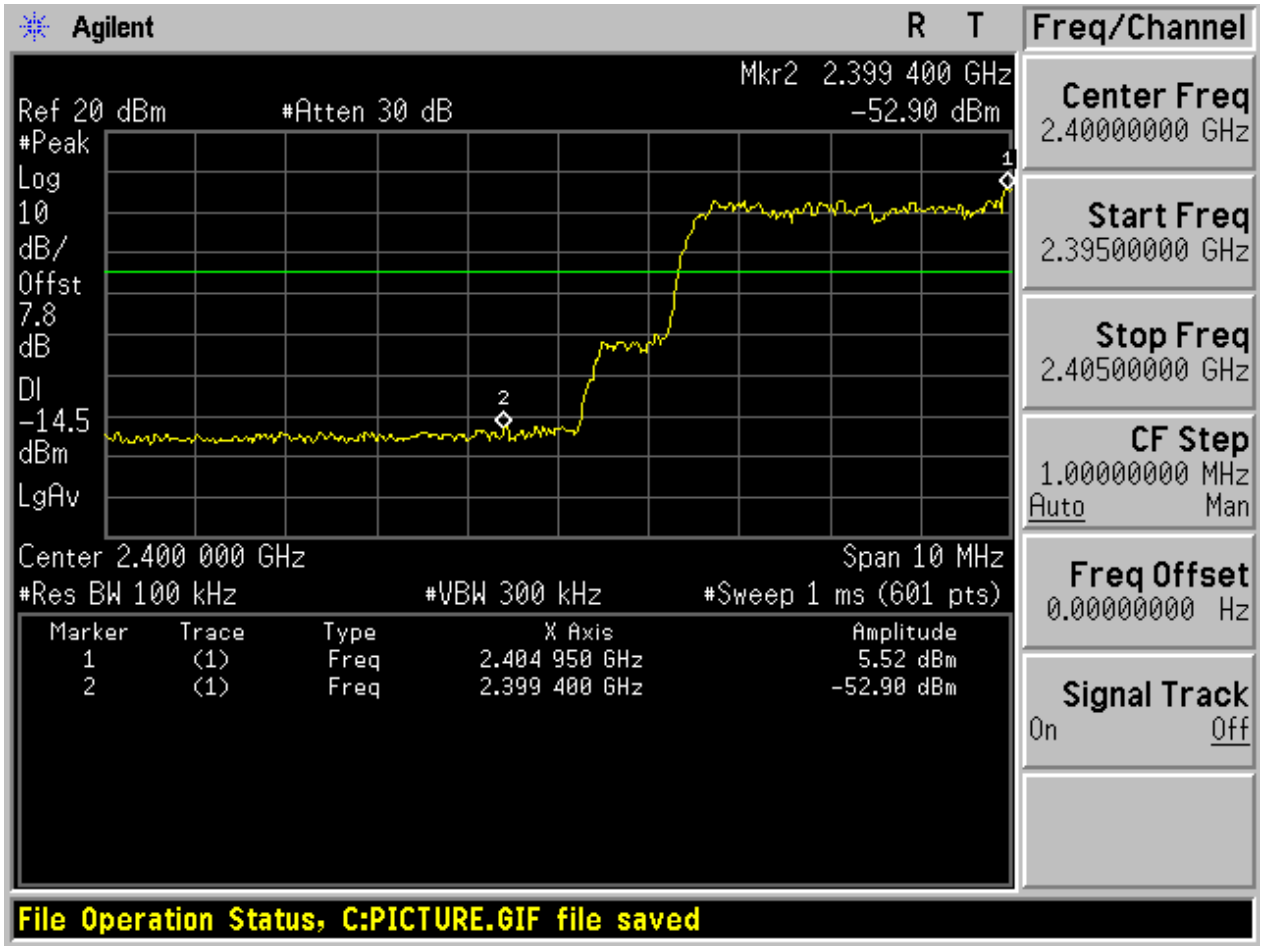


2.5 TM3_3DH5_Ch0

No hopping

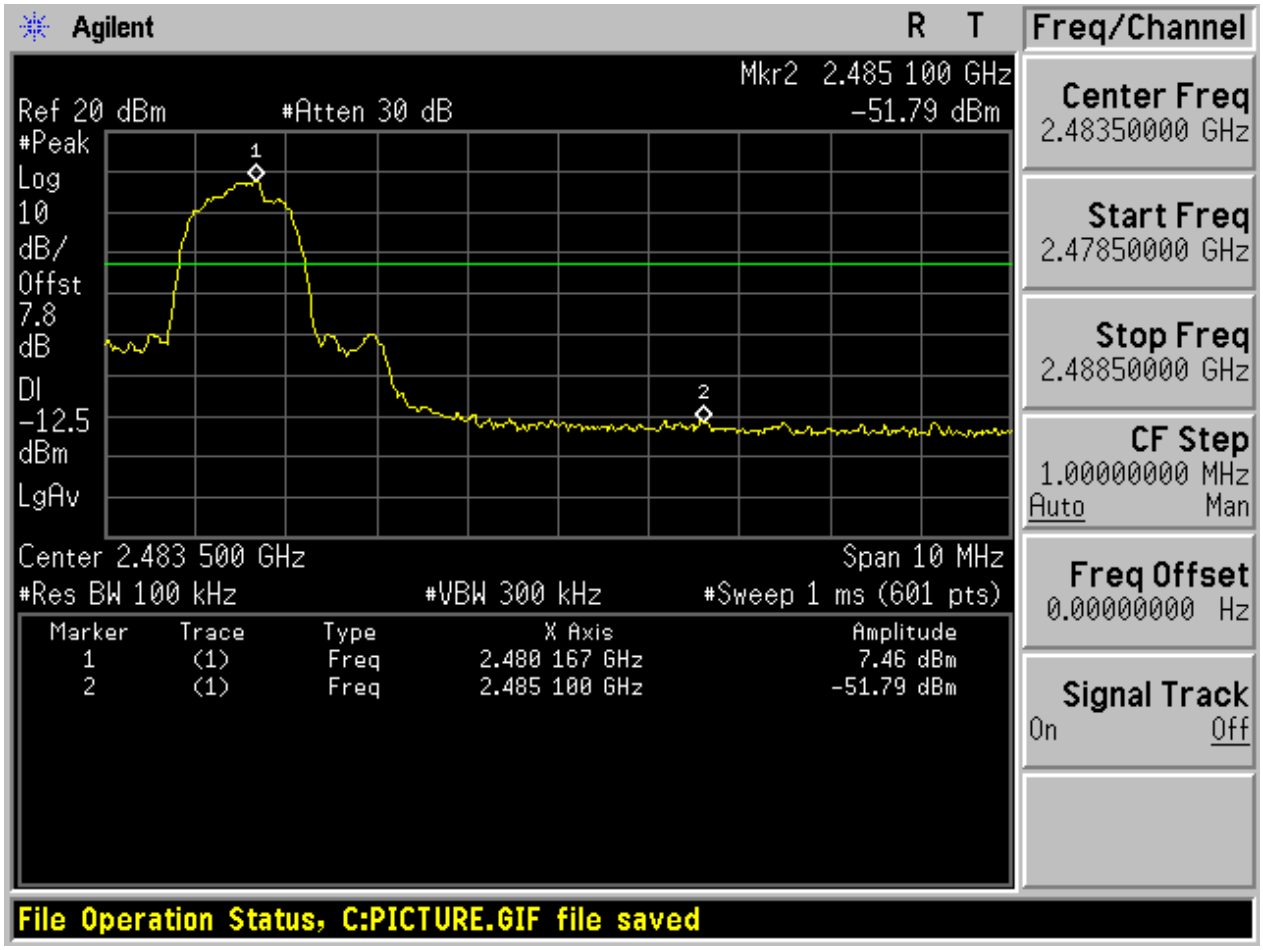


With hopping

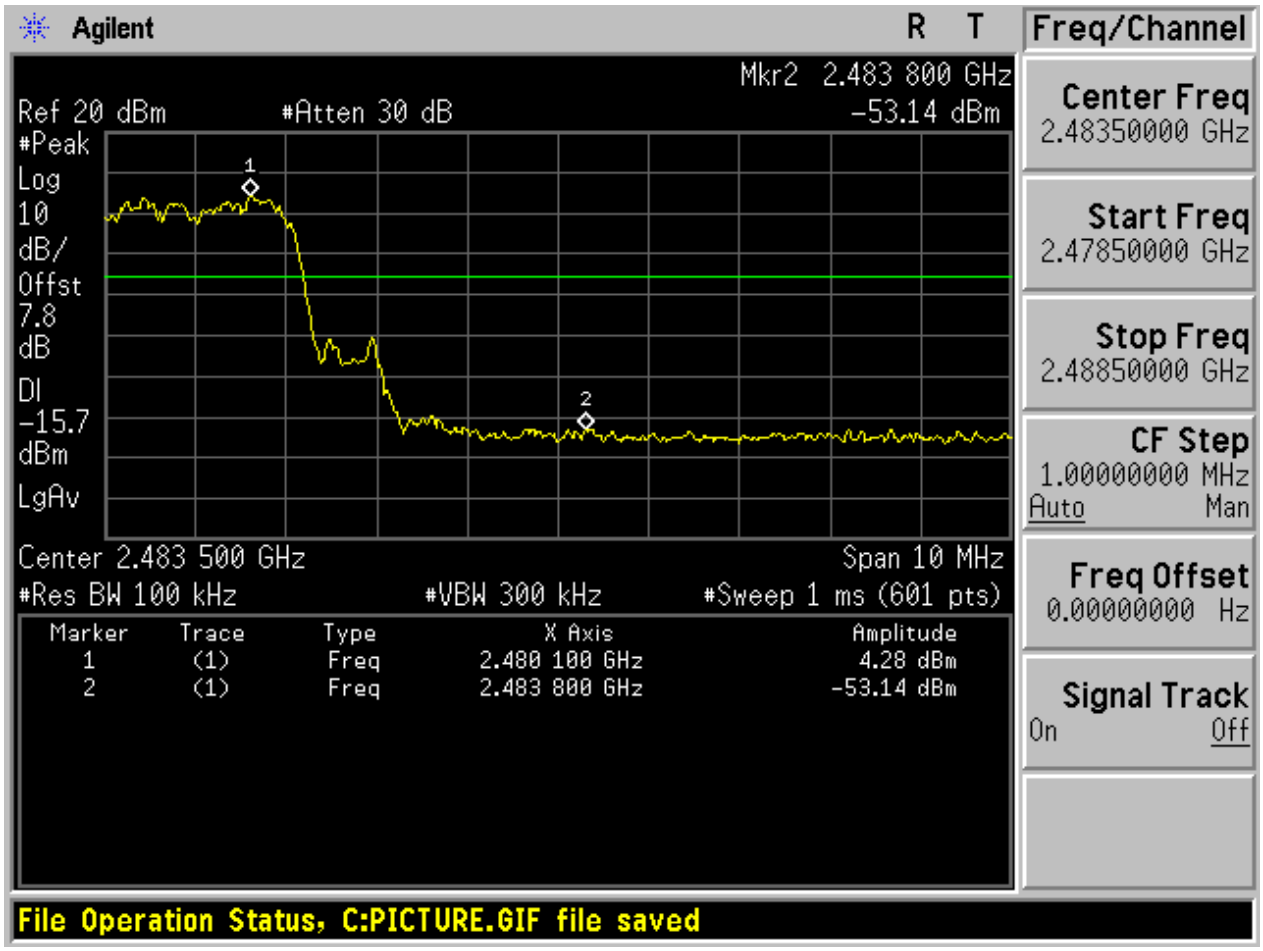


2.6 TM3_3DH5_Ch78

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” referrers 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 x lg(100 [kHz]/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.

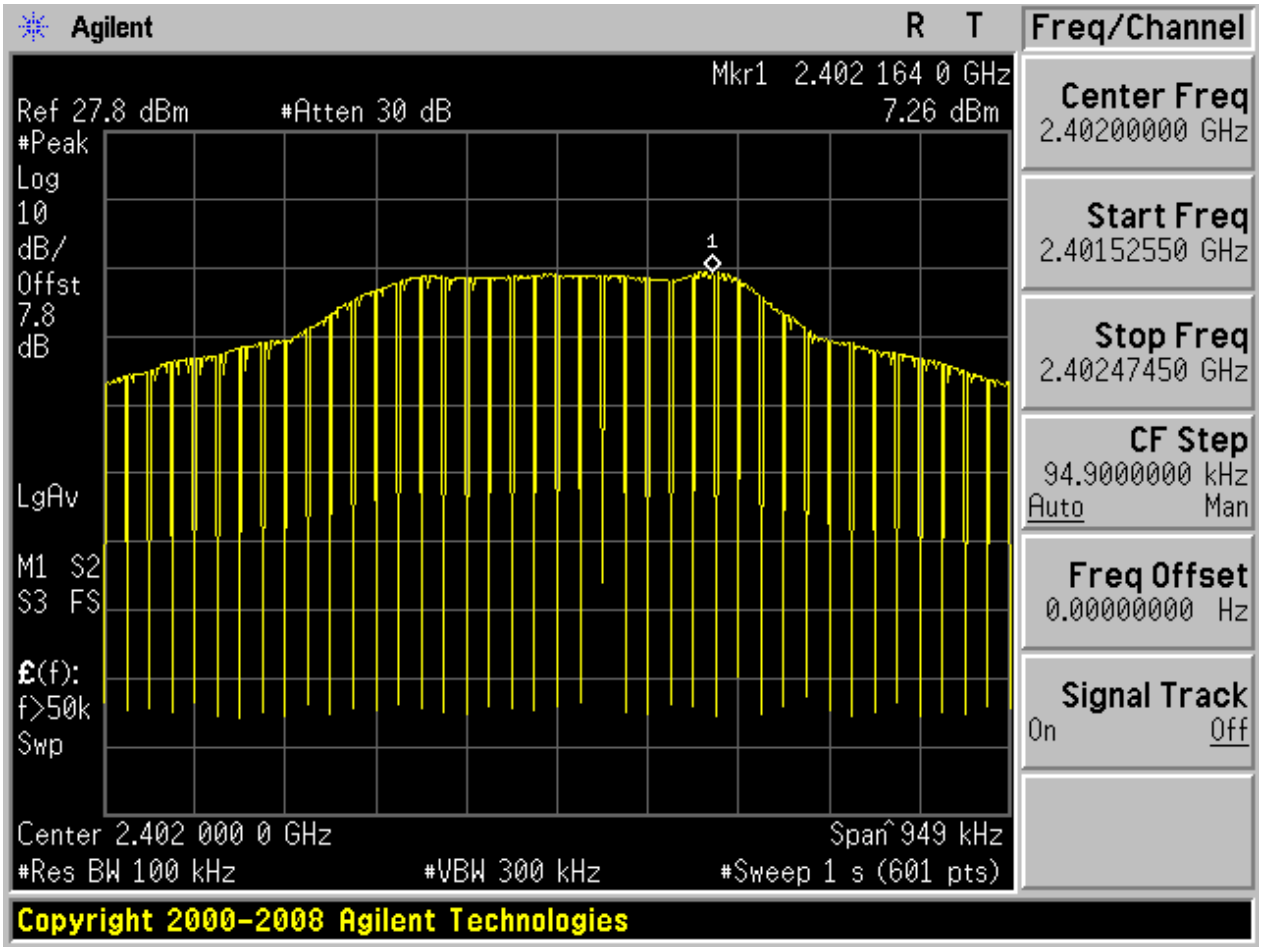
In the result table, the “< Limit” denotes that “The Puw [dBm] is less than Pref [dBm] - 20 [dB], see test plots for detailed”.

EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	7.26	< Limit	Pass
TM1_DH5_Ch39	7.96	< Limit	Pass
TM1_DH5_Ch78	8.30	< Limit	Pass
TM2_2DH5_Ch0	6.44	< Limit	Pass
TM2_2DH5_Ch39	7.10	< Limit	Pass
TM2_2DH5_Ch78	7.39	< Limit	Pass
TM3_3DH5_Ch0	6.39	< Limit	Pass
TM3_3DH5_Ch39	7.08	< Limit	Pass
TM3_3DH5_Ch78	7.35	< Limit	Pass

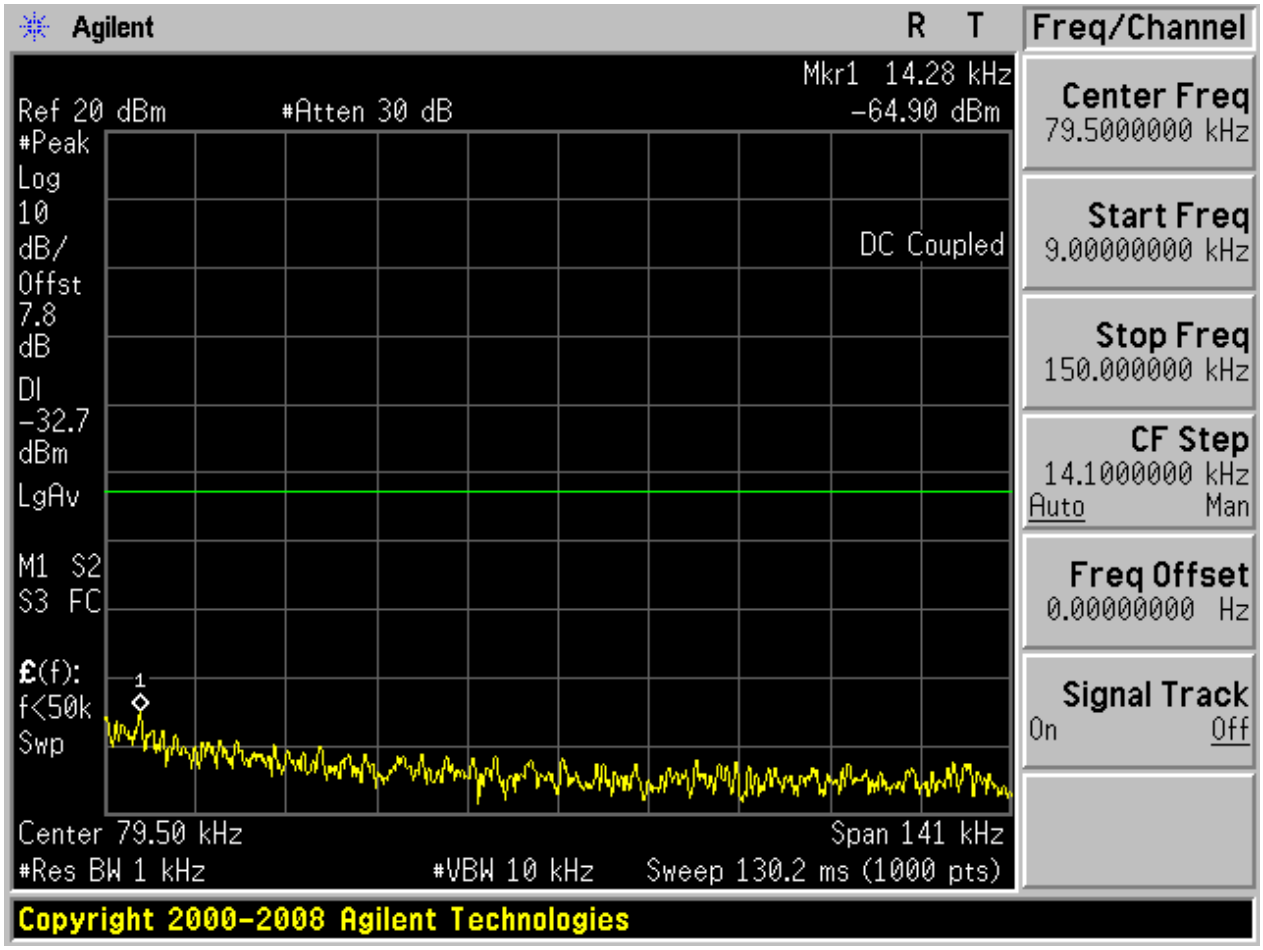
2 Test Plot

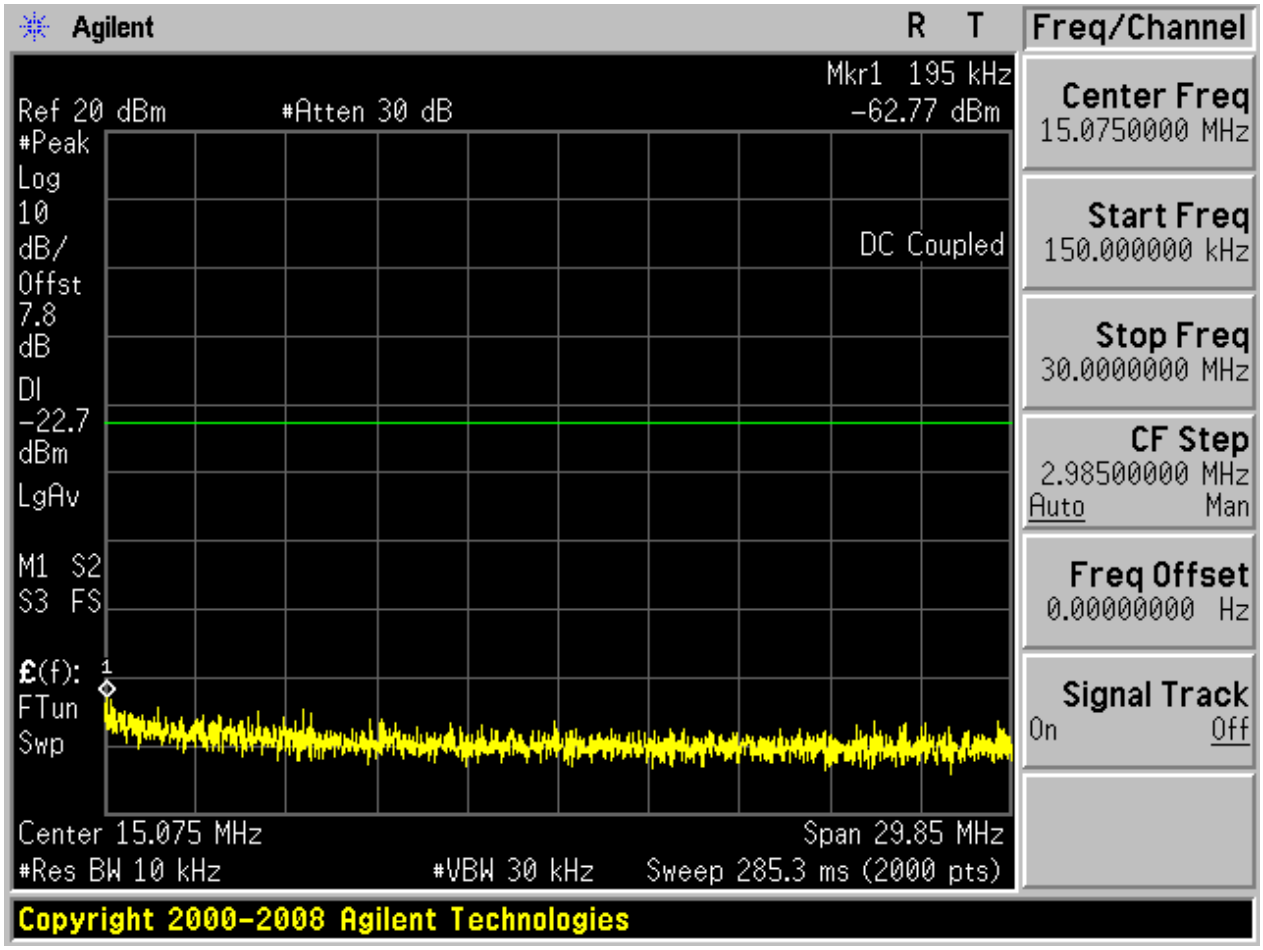
2.1 TM1_DH5_Ch0

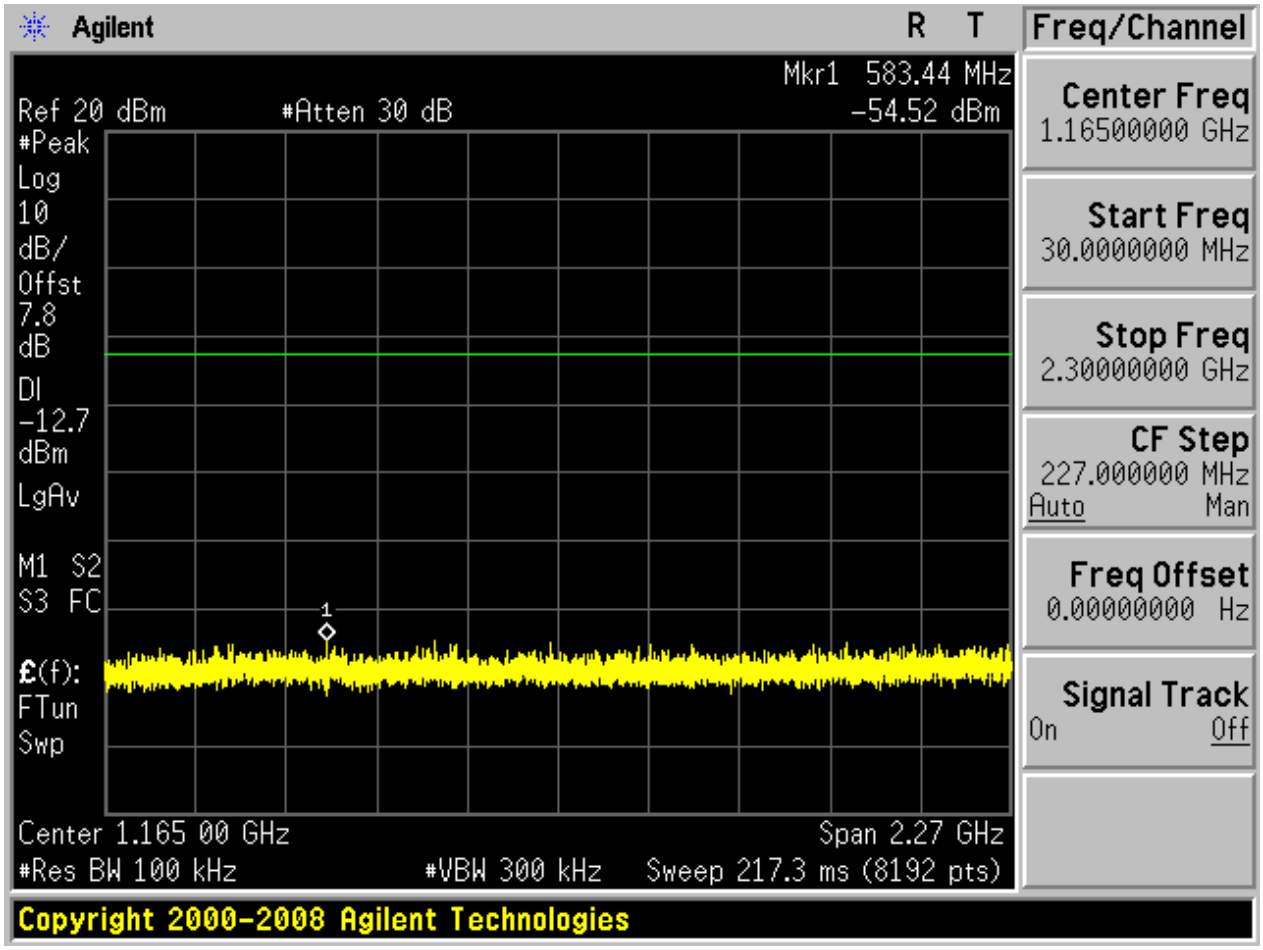
2.1.1 Pref

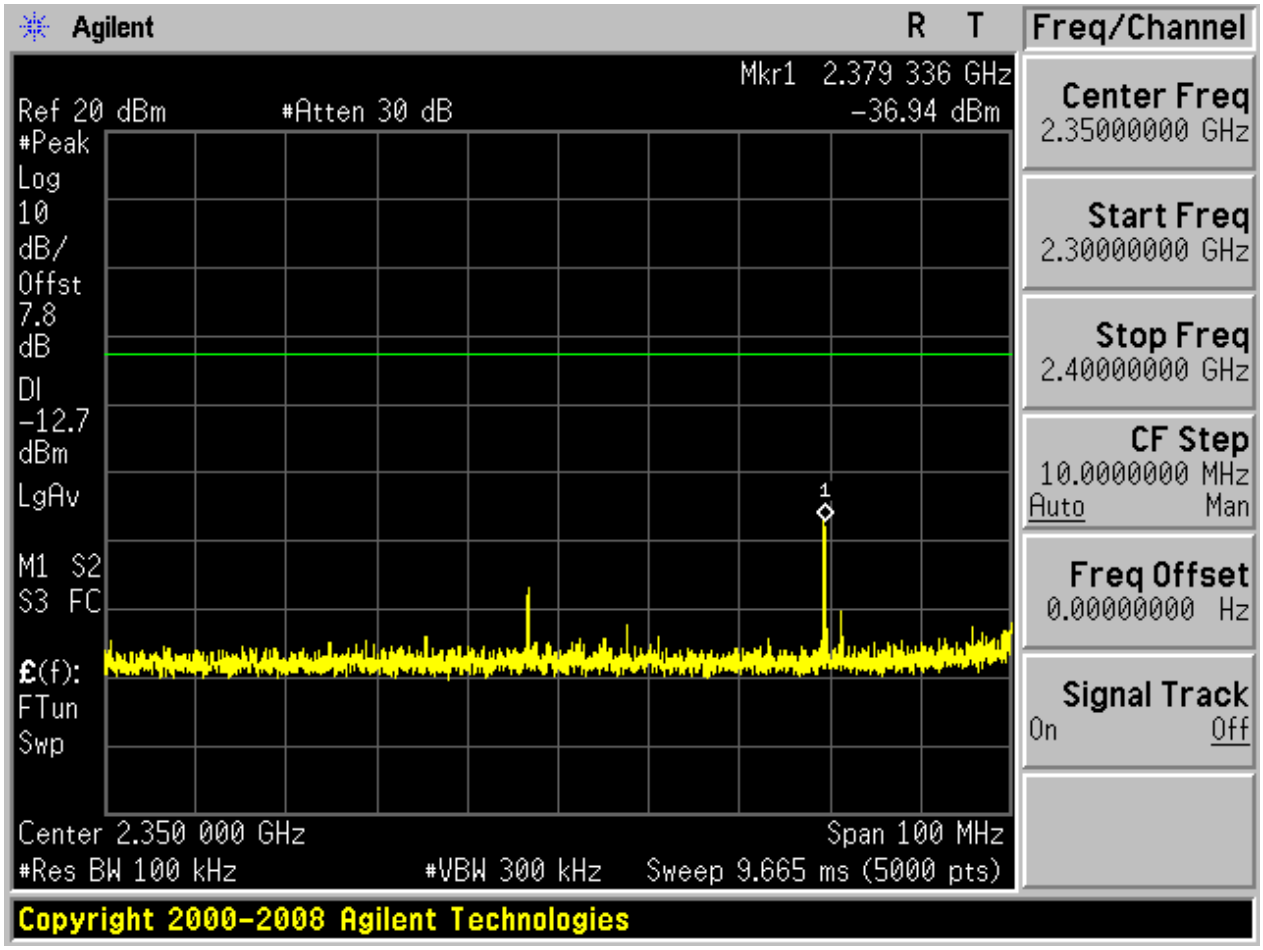


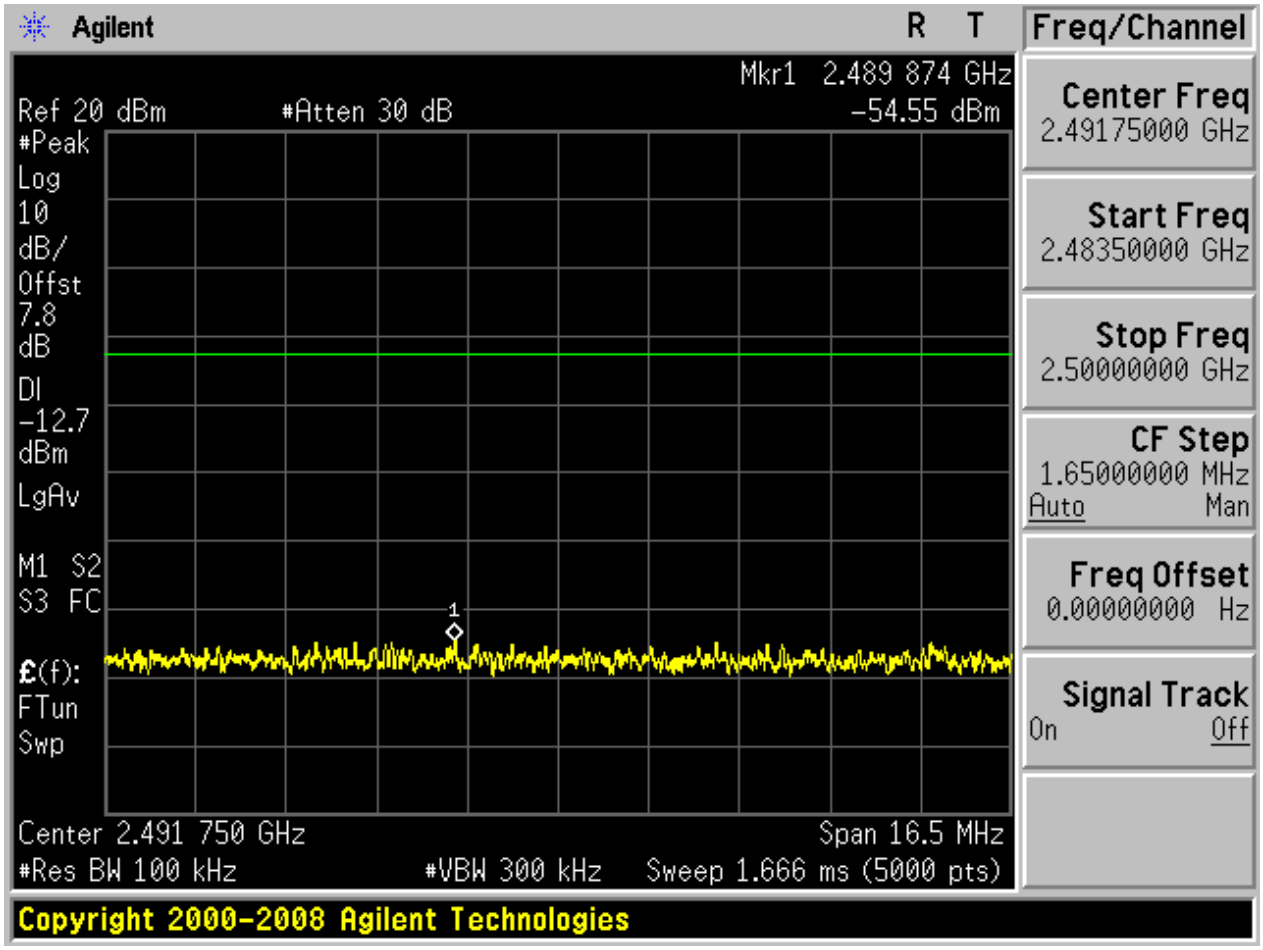
2.1.2 Puw

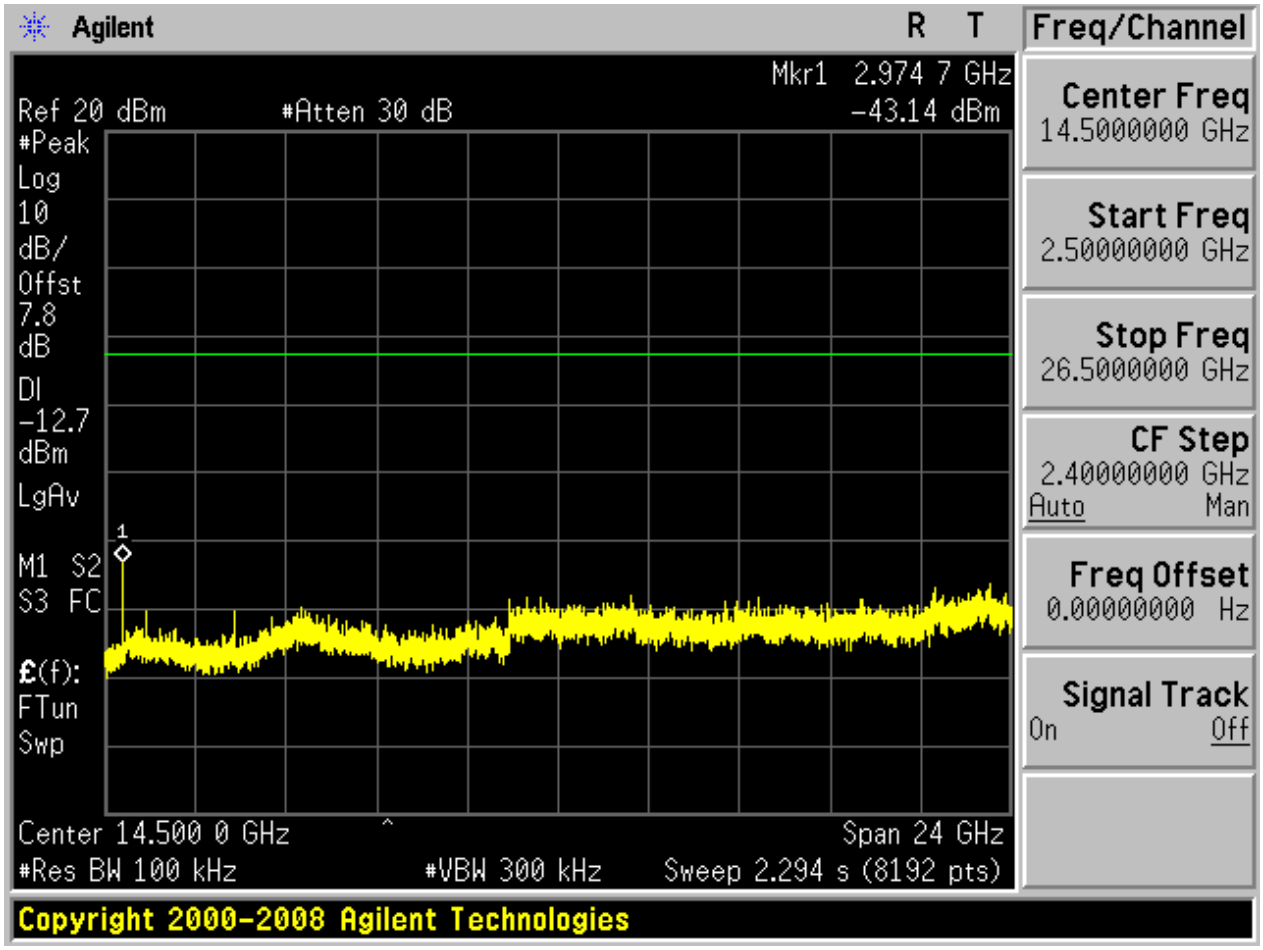






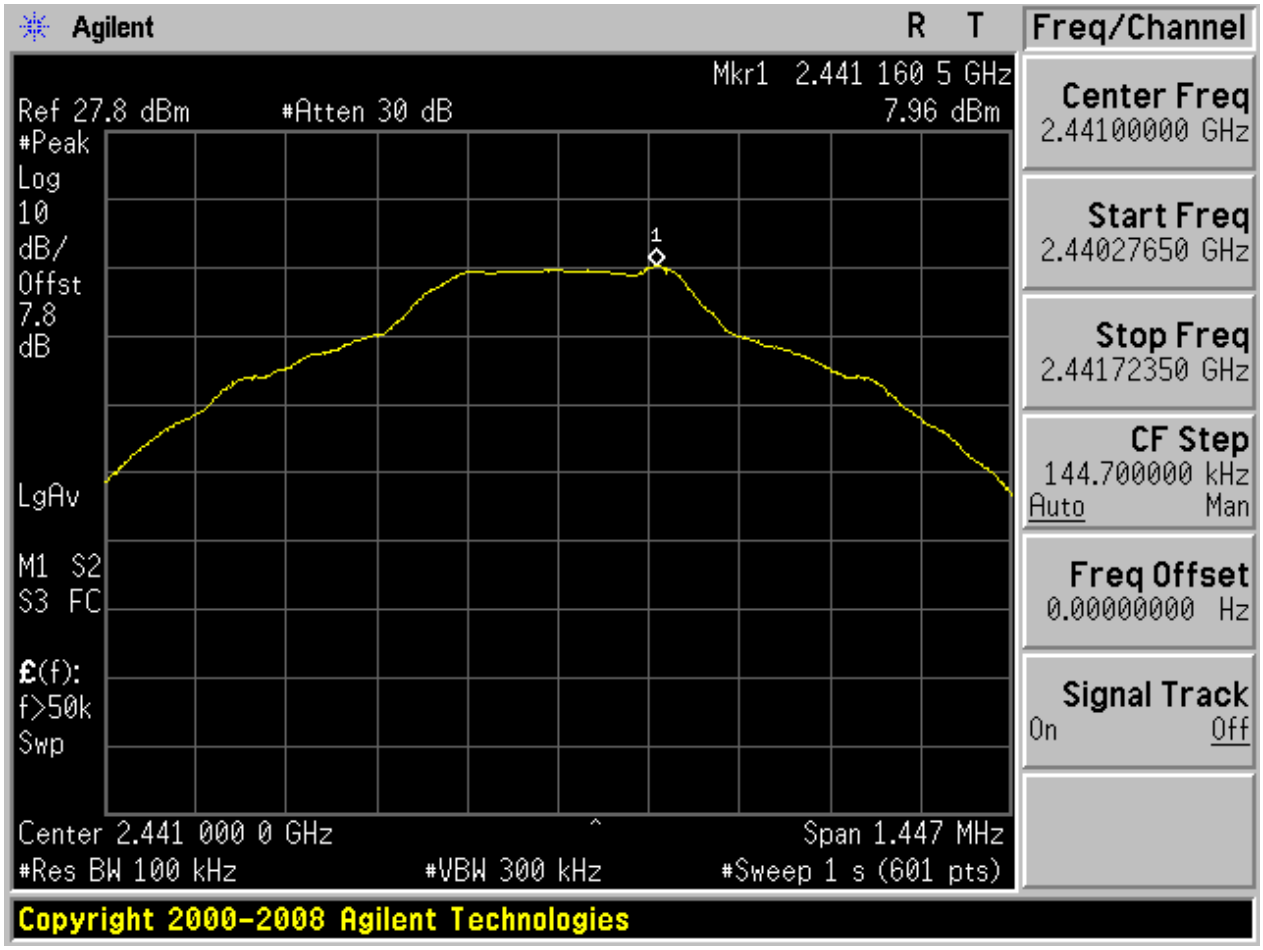




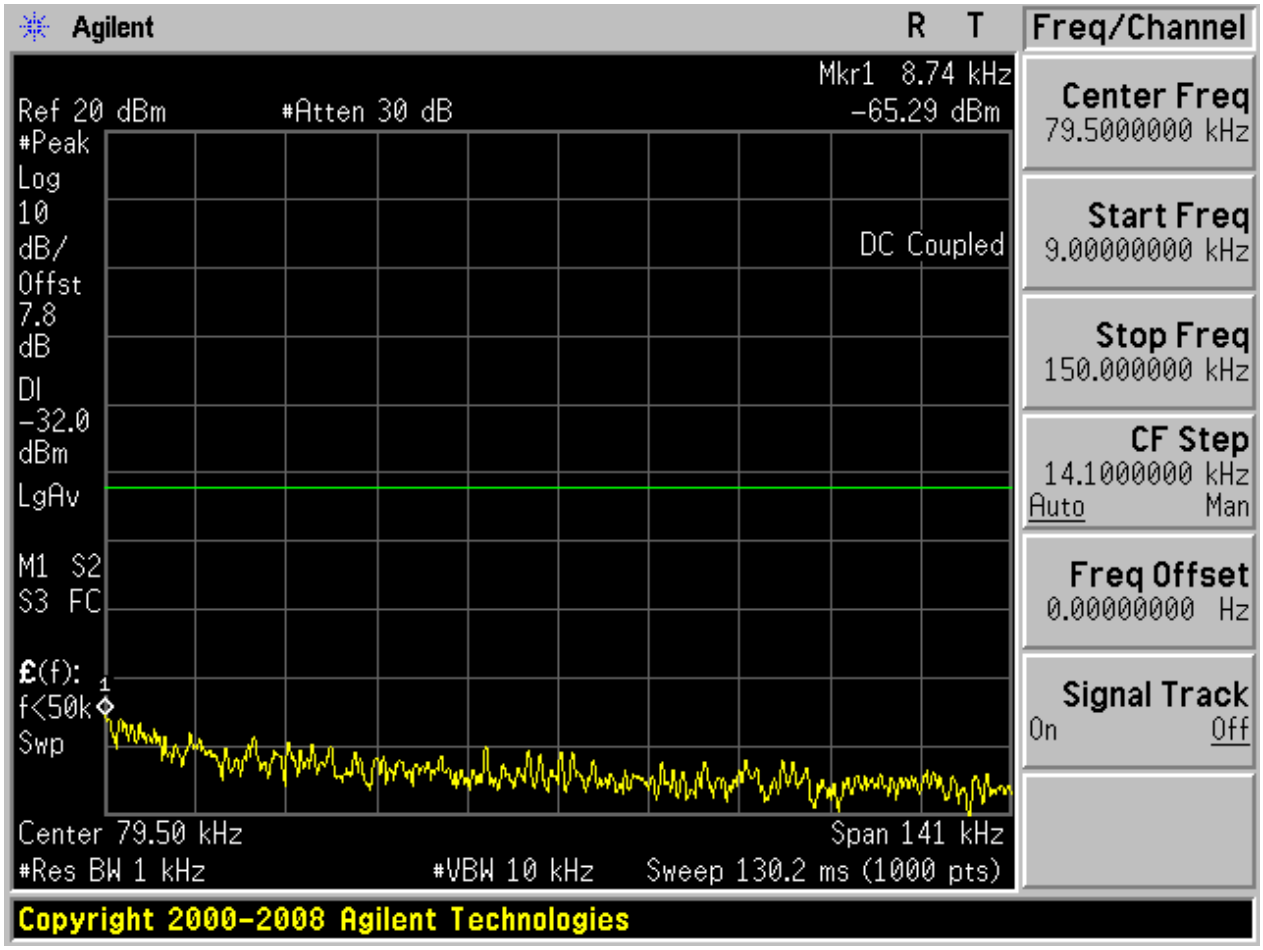

Agilent
R T
Freq/Channel
Mkr1 2.974 7 GHz
Ref 20 dBm
#Atten 30 dB
-43.14 dBm
#Peak
Log
10
dB/
Offst
7.8
dB
Dl
-12.7
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Center 14.500 0 GHz
Span 24 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.294 s (8192 pts)
Center Freq
14.5000000 GHz
Start Freq
2.50000000 GHz
Stop Freq
26.5000000 GHz
CF Step
2.40000000 GHz
Auto
Man
Freq Offset
0.000000000 Hz
Signal Track
On
Off
Copyright 2000-2008 Agilent Technologies

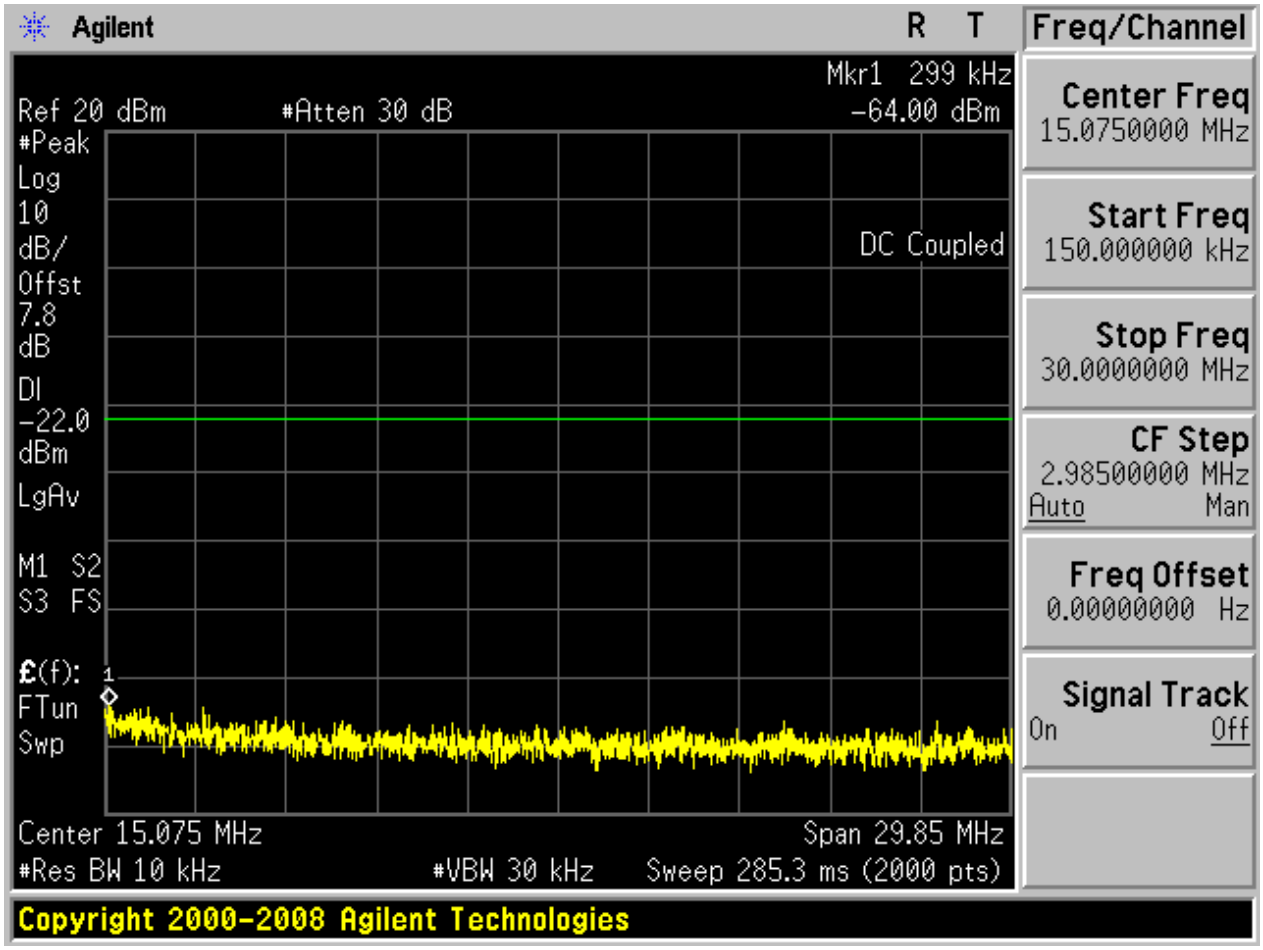
2.2 TM1_DH5_Ch39

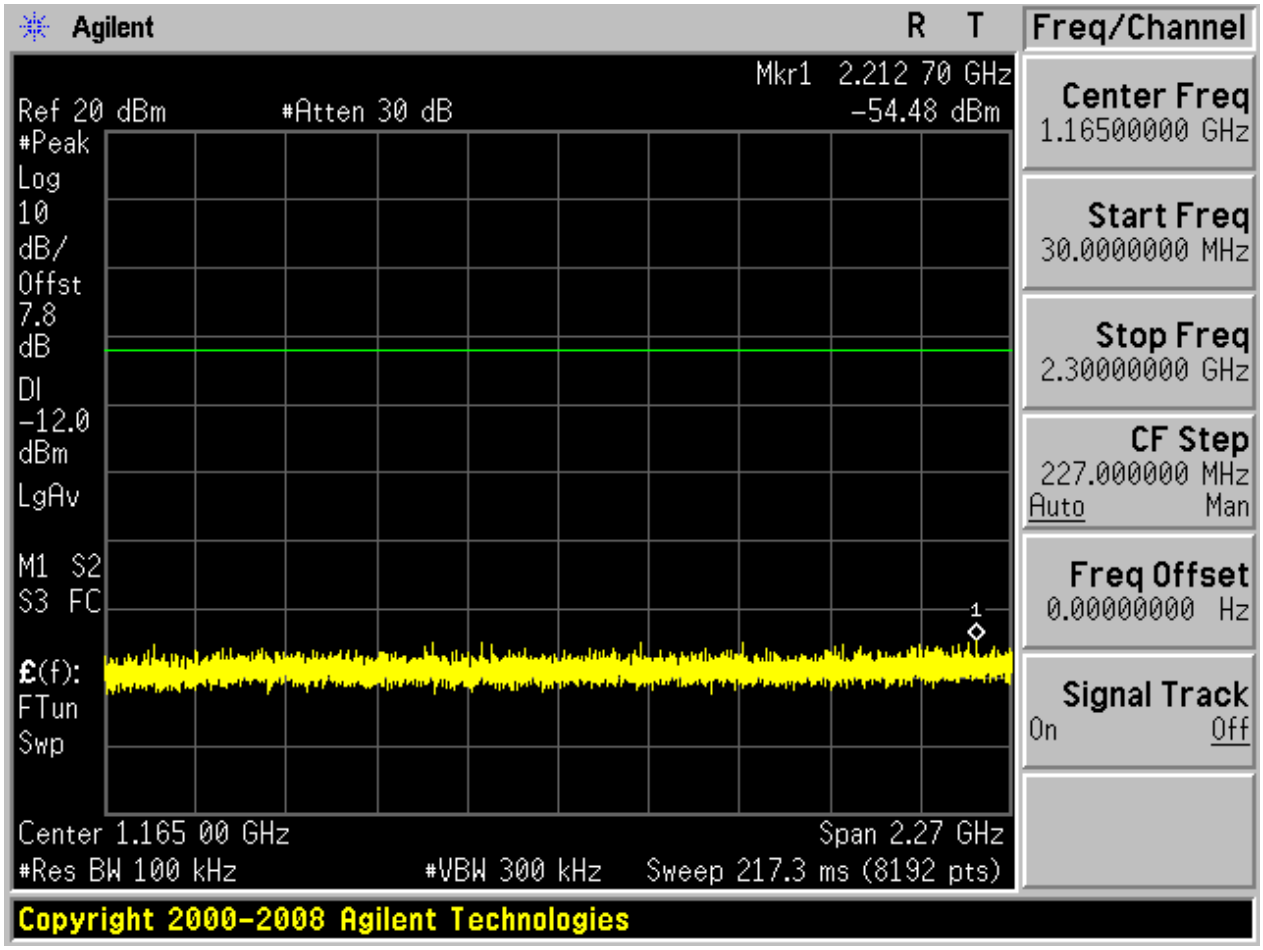
2.2.1 Pref

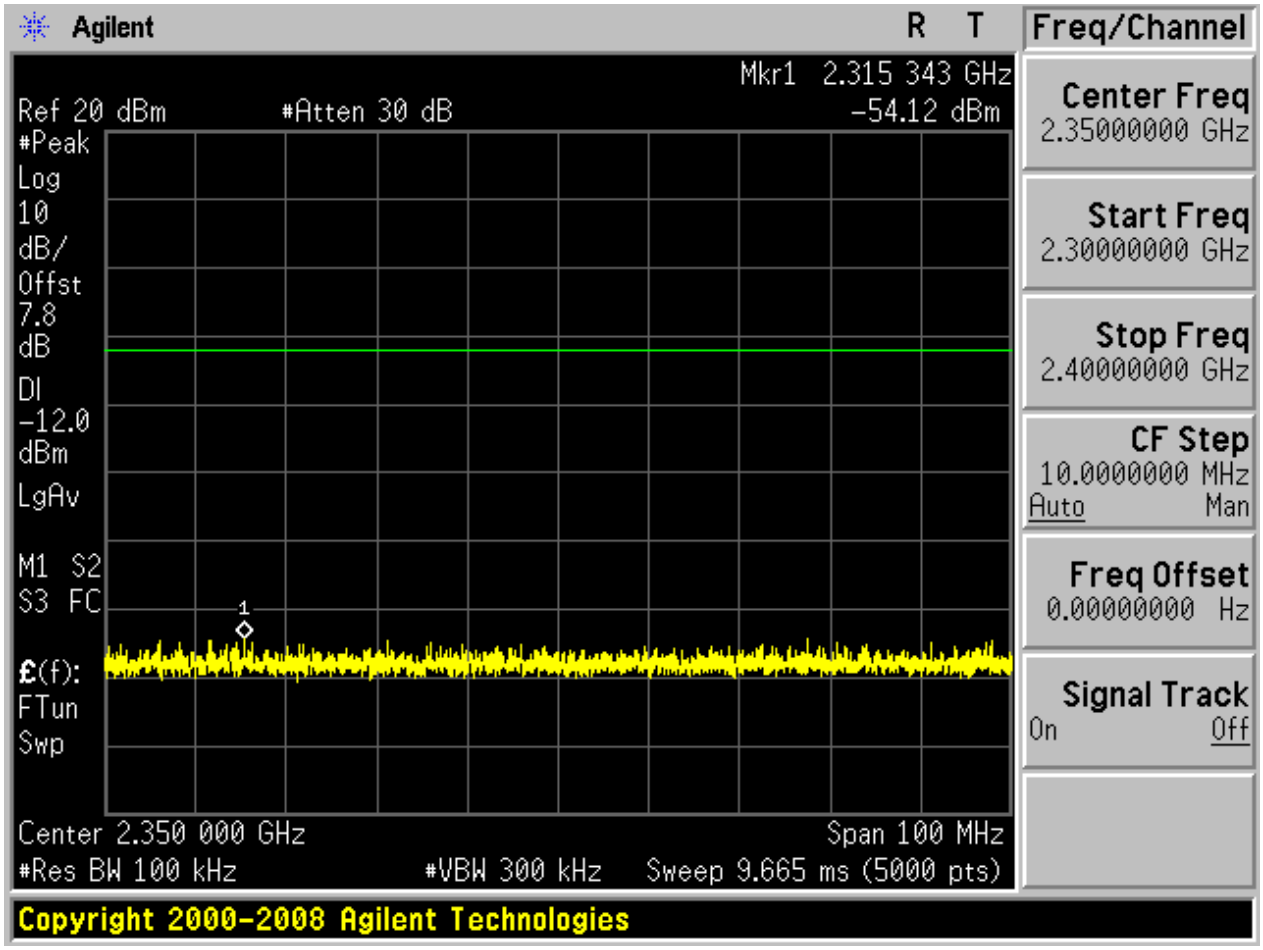


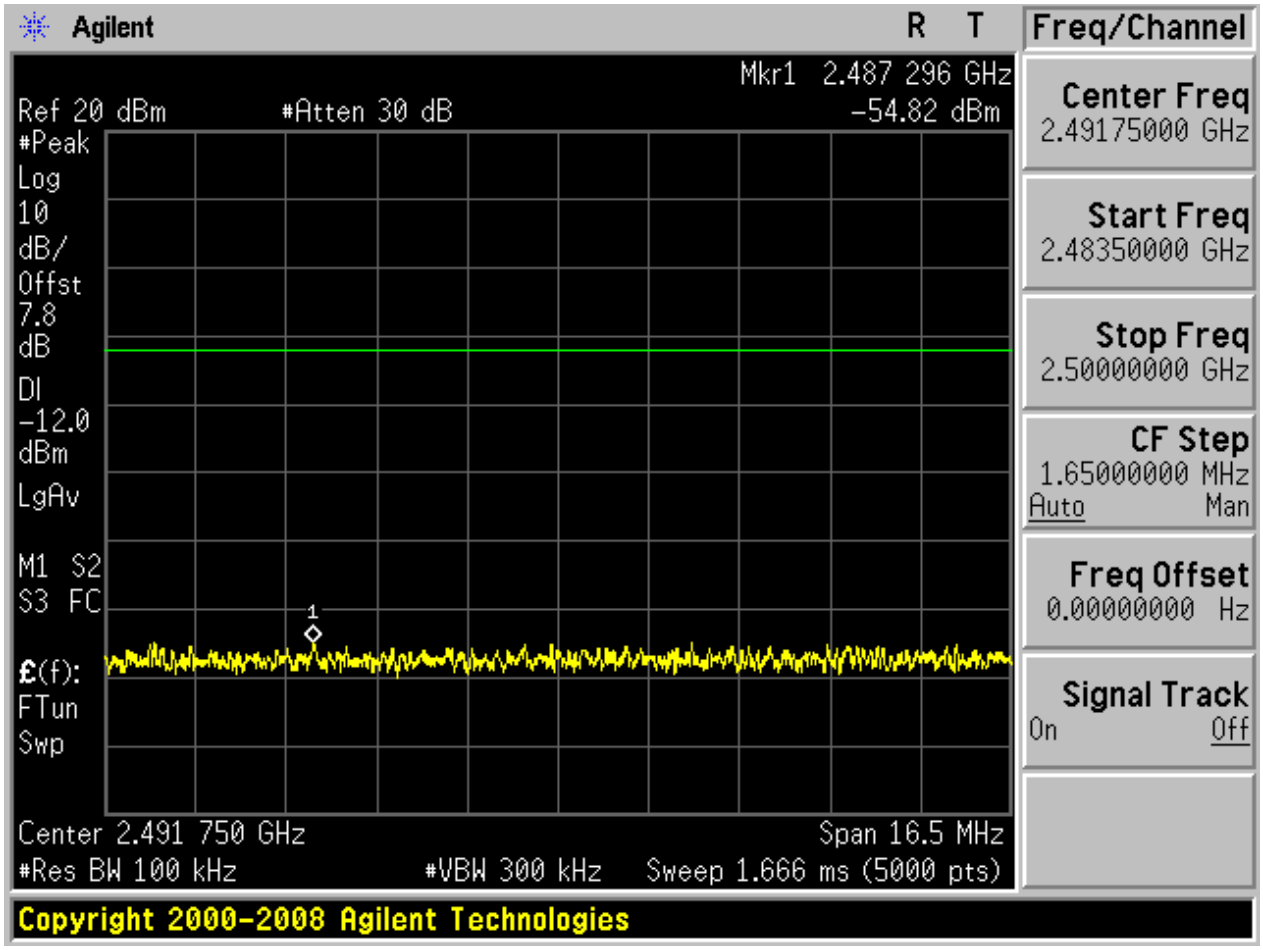
2.2.2 Puw

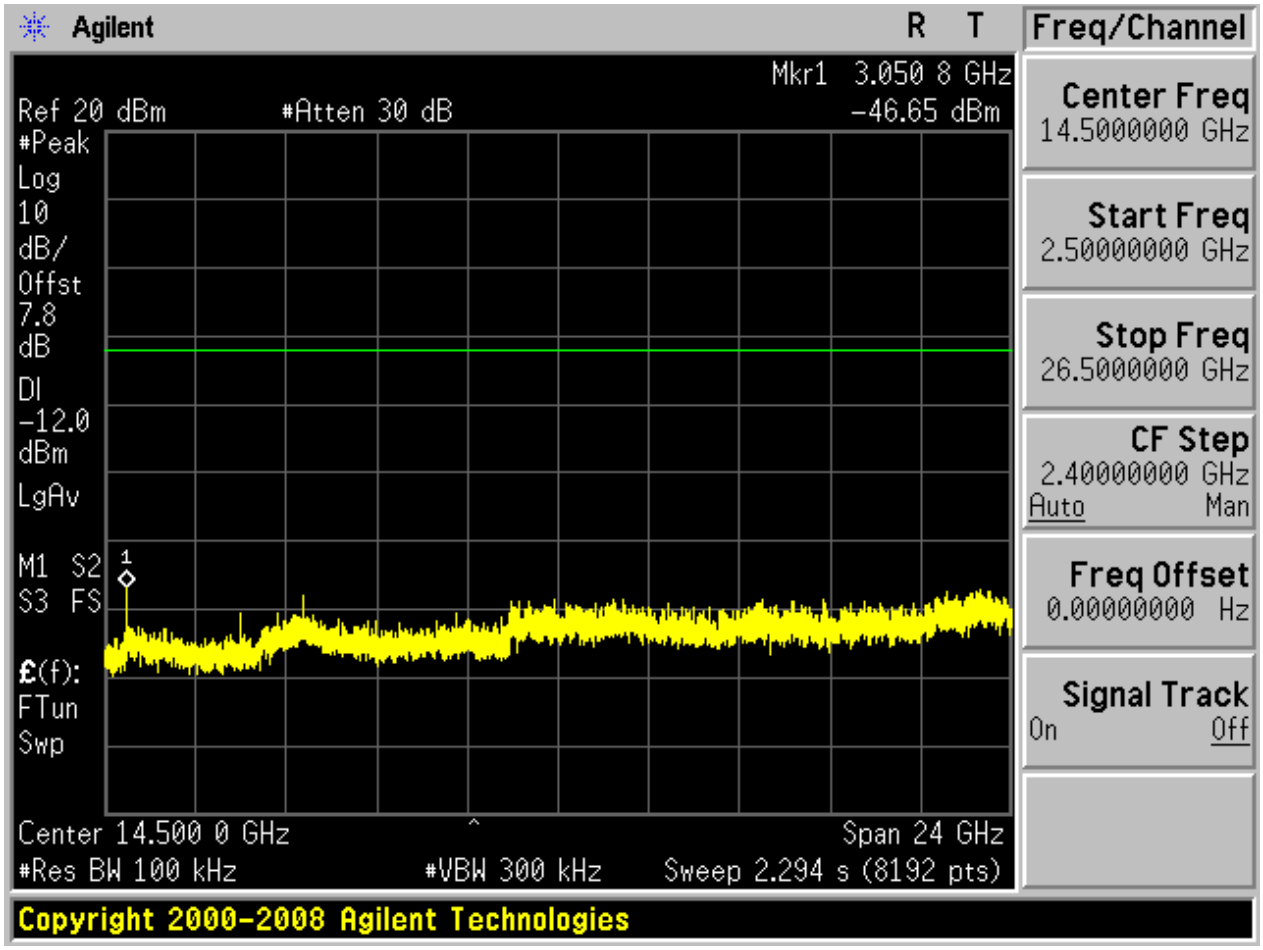






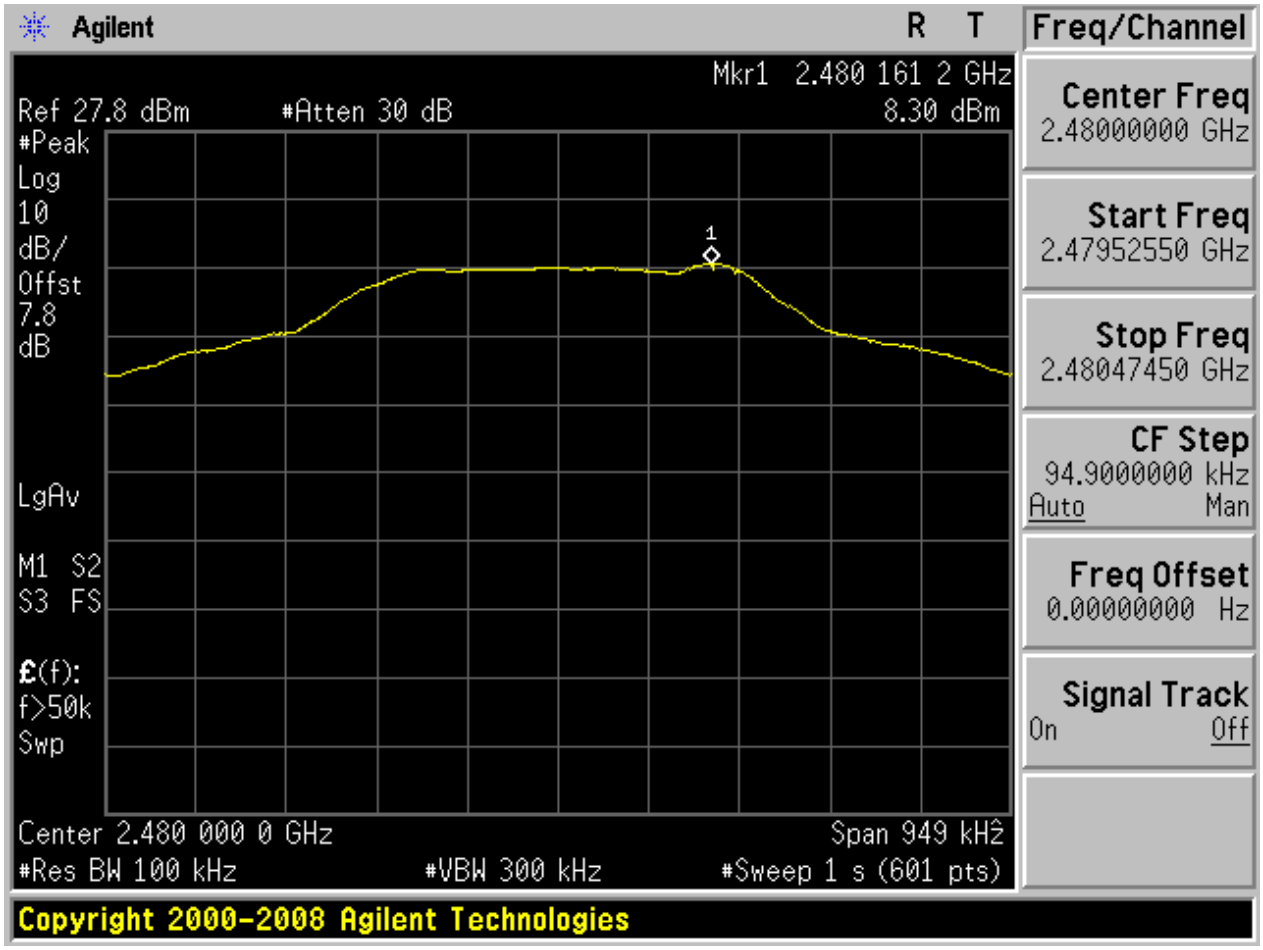




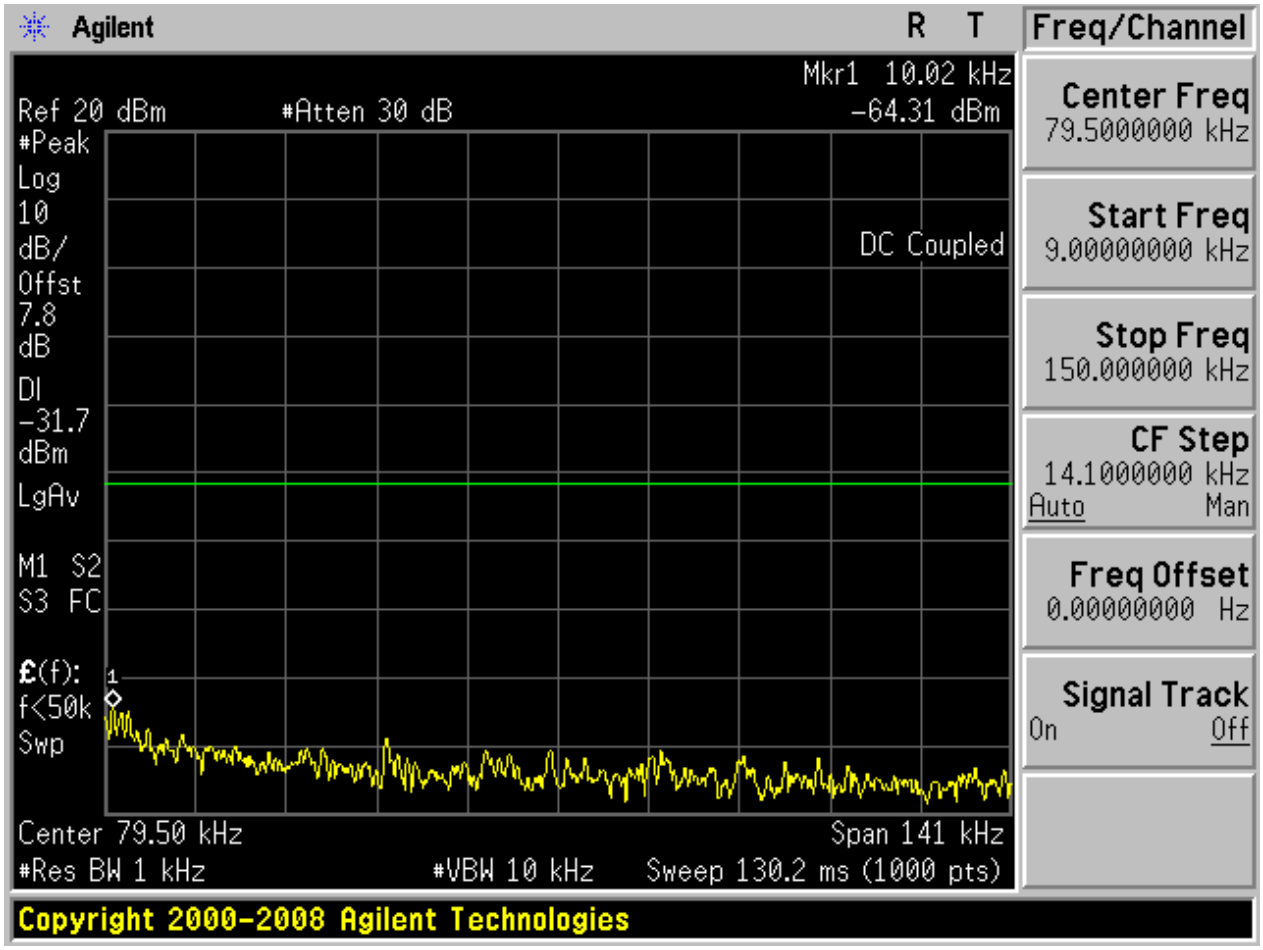

Agilent
R T
Freq/Channel
Mkr1 3.050 8 GHz
Ref 20 dBm
#Atten 30 dB
-46.65 dBm
#Peak
Log
10
dB/
Offst
7.8
dB
Dl
-12.0
dBm
LgAv
M1 S2
S3 FS
£(f):
FTun
Swp
Center Freq
14.5000000 GHz
Start Freq
2.50000000 GHz
Stop Freq
26.5000000 GHz
CF Step
2.40000000 GHz
Auto Man
Freq Offset
0.000000000 Hz
Signal Track
On Off
Center 14.500 0 GHz
Span 24 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.294 s (8192 pts)
Copyright 2000-2008 Agilent Technologies

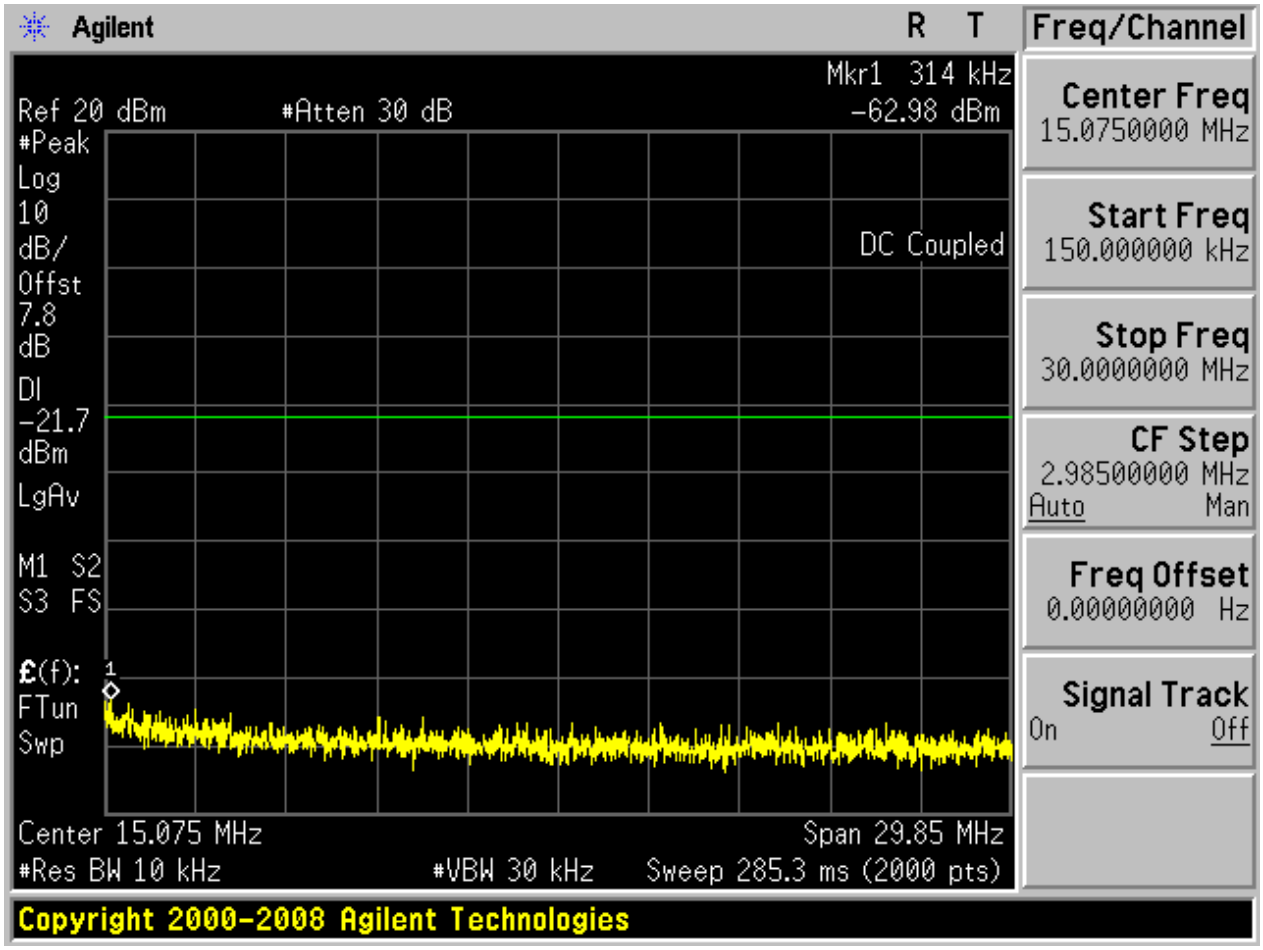
2.3 TM1_DH5_Ch78

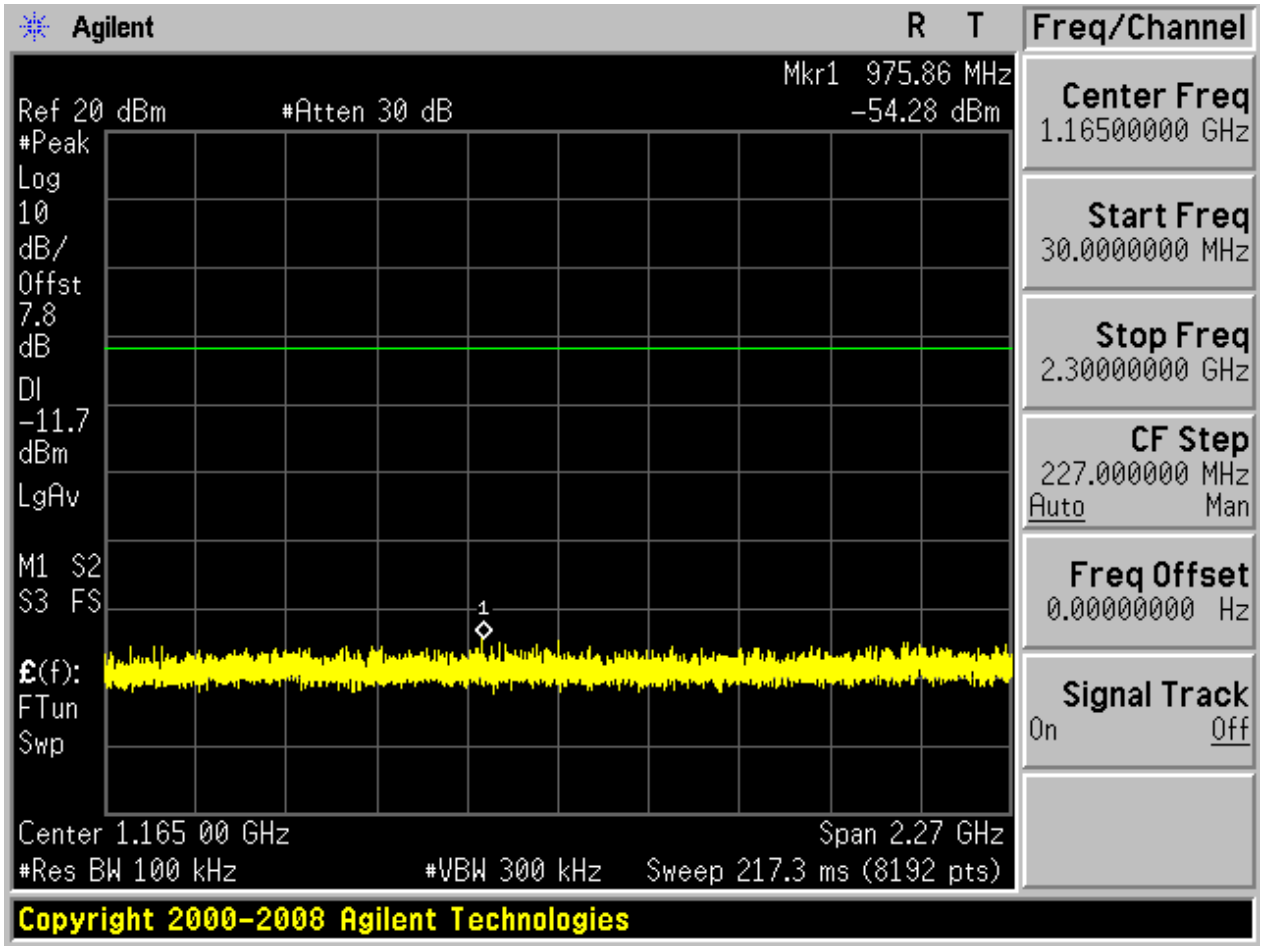
2.3.1 Pref

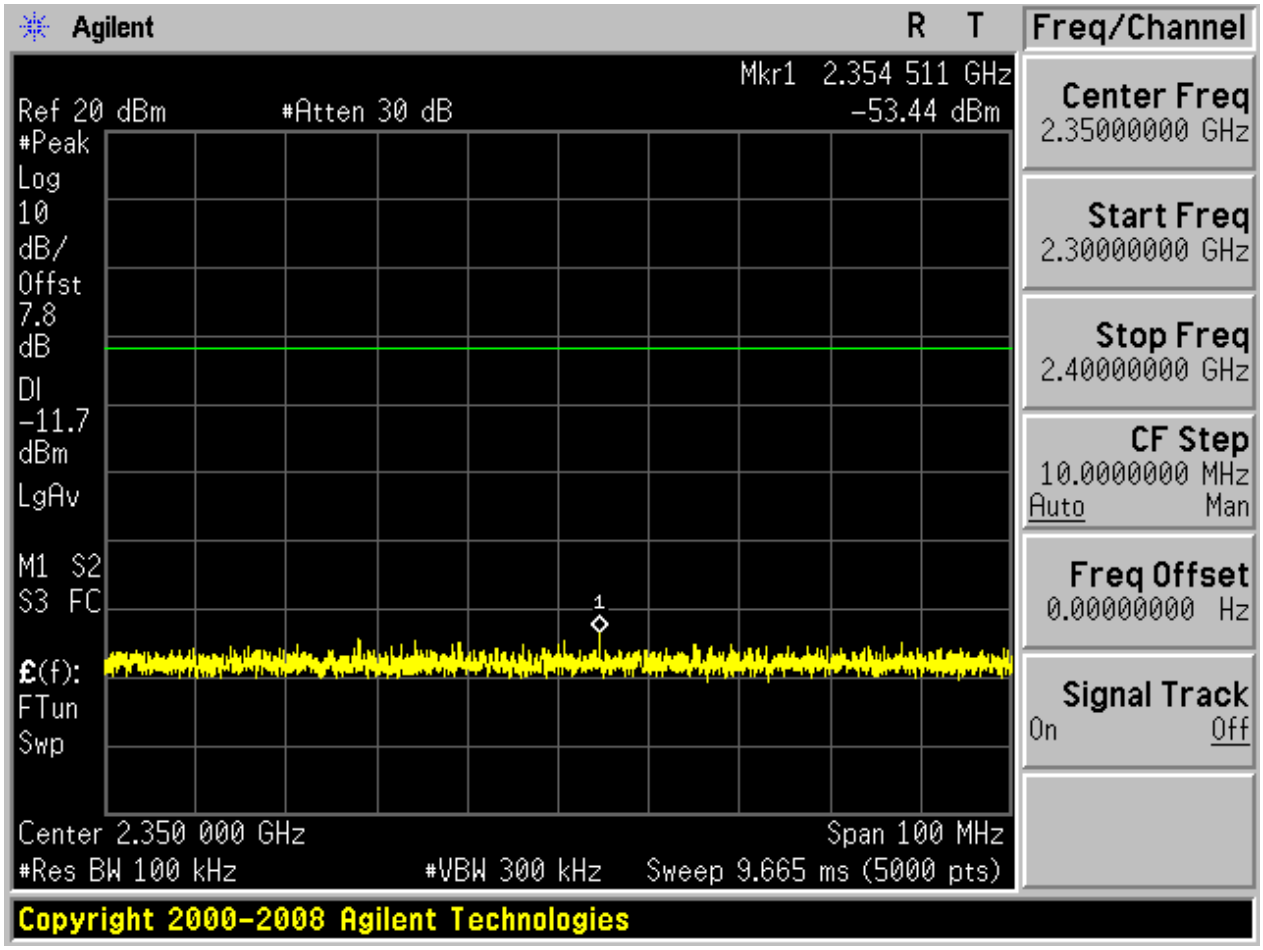


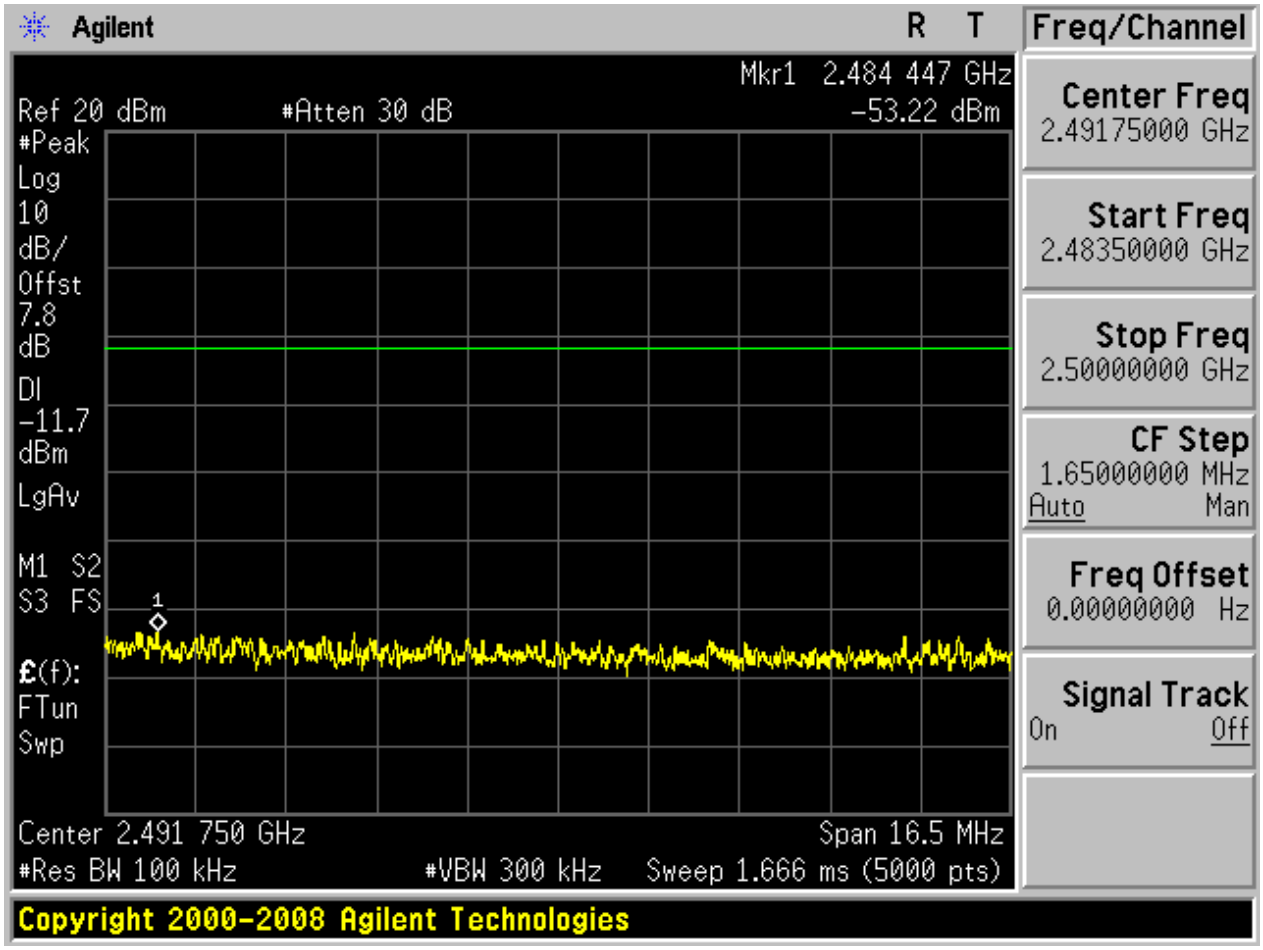
2.3.2 Puw

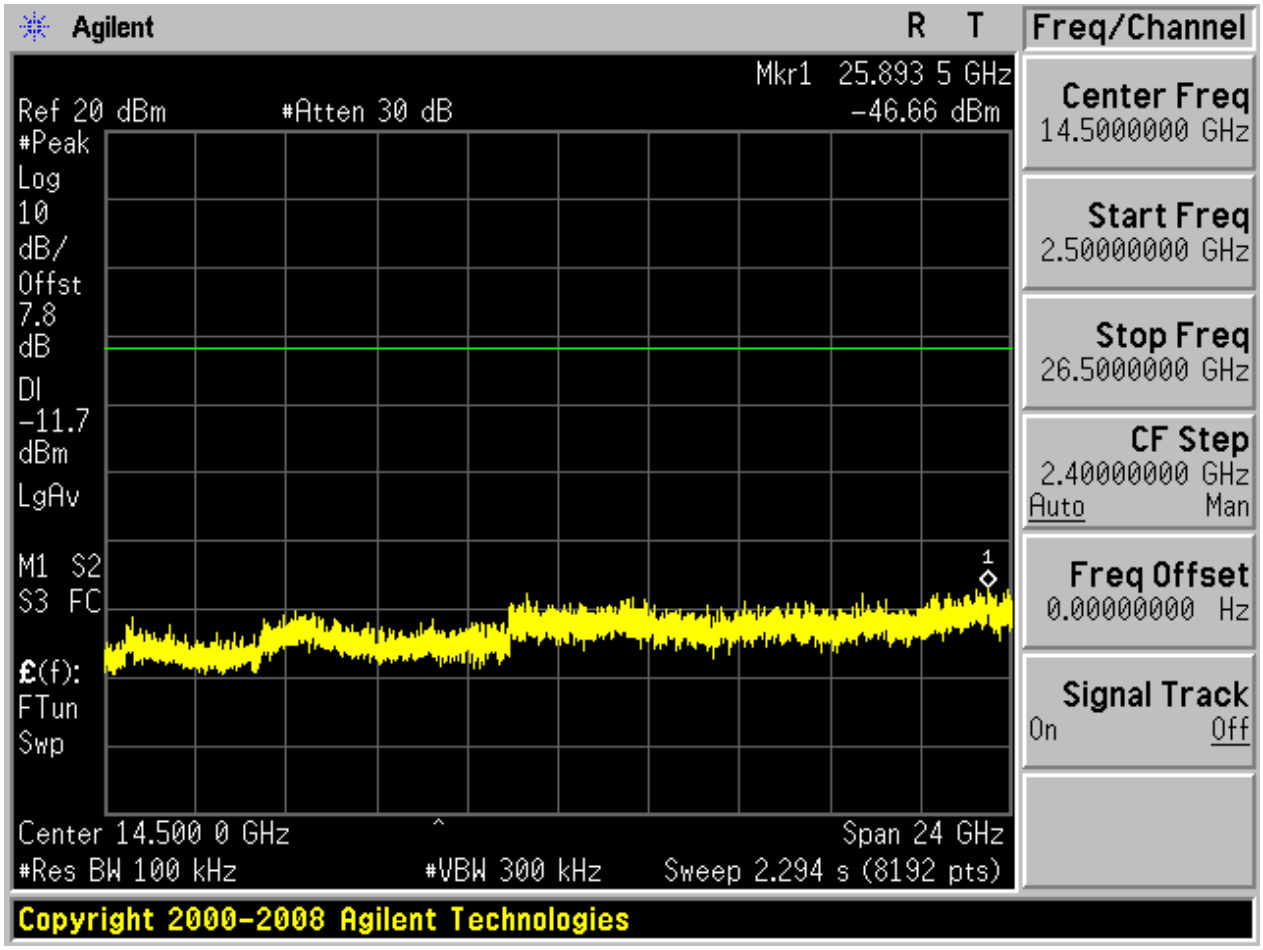






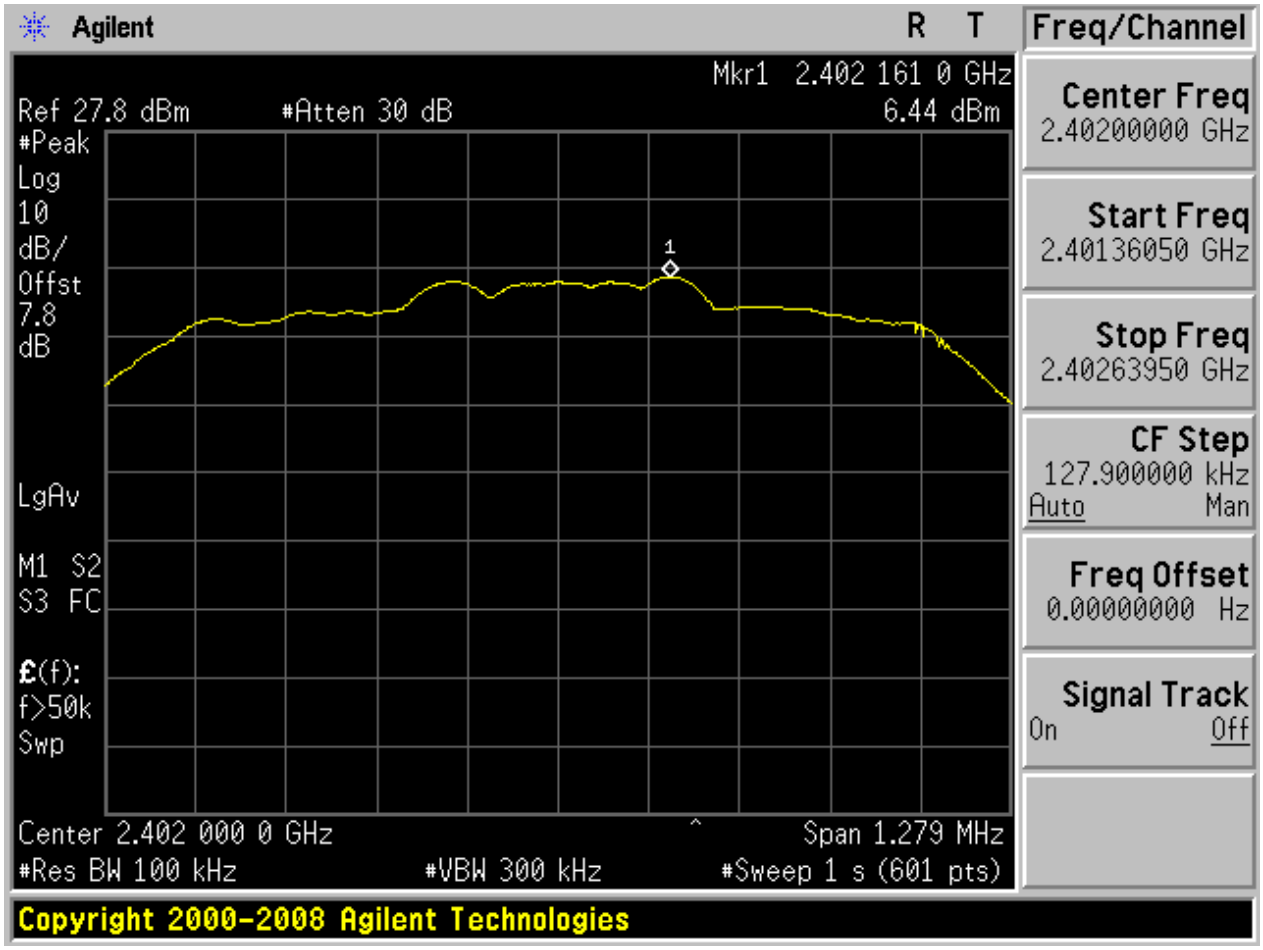

Agilent
R T
Freq/Channel
Mkr1 2.354 511 GHz
Ref 20 dBm
#Atten 30 dB
-53.44 dBm
#Peak
Log
10
dB/
Offst
7.8
dB
Dl
-11.7
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
Center Freq
2.35000000 GHz
Start Freq
2.30000000 GHz
Stop Freq
2.40000000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.000000000 Hz
Signal Track
On Off
Center 2.350 000 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 9.665 ms (5000 pts)
Copyright 2000-2008 Agilent Technologies



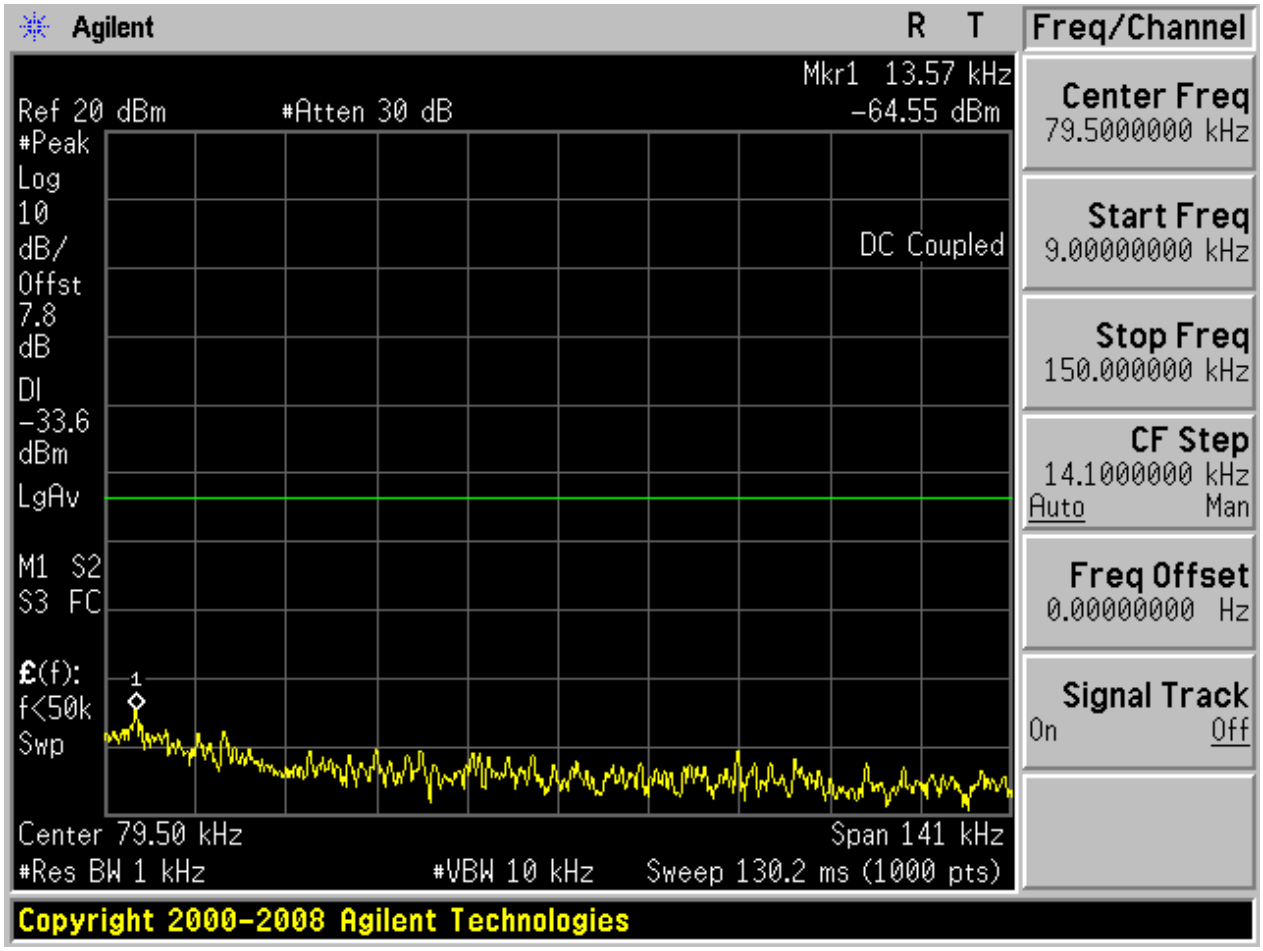


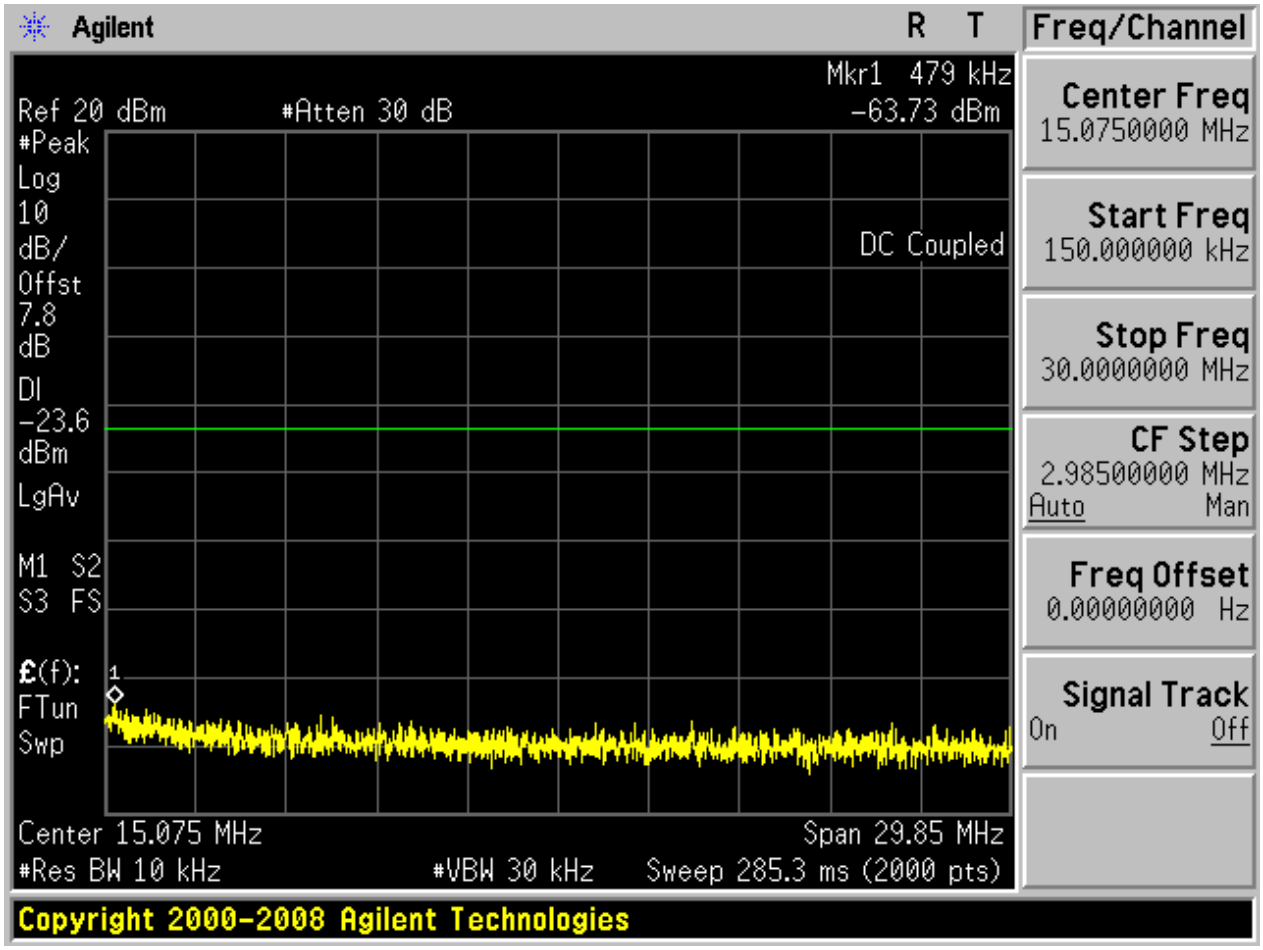
2.4 TM2_2DH5_Ch0

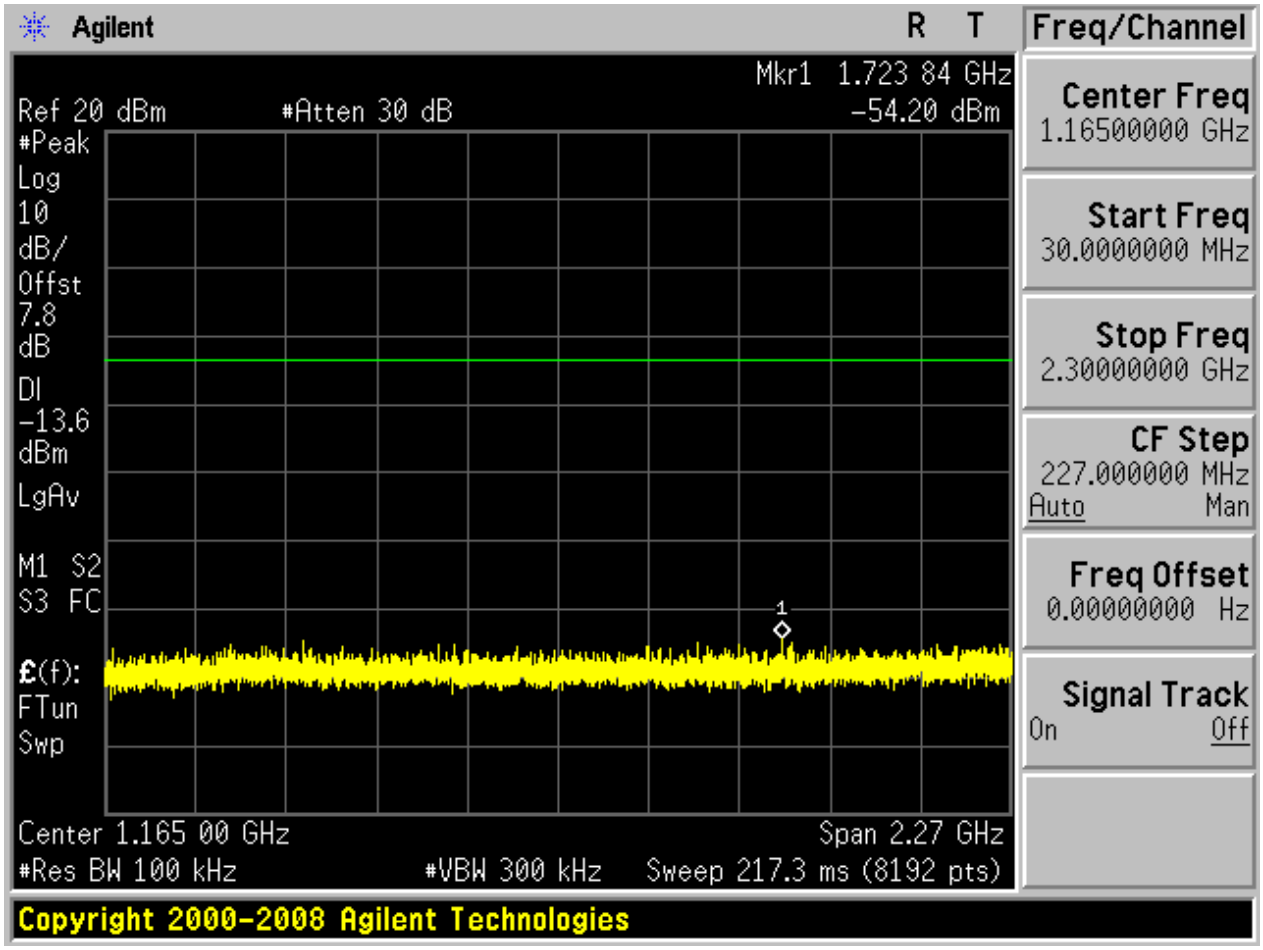
2.4.1 Pref

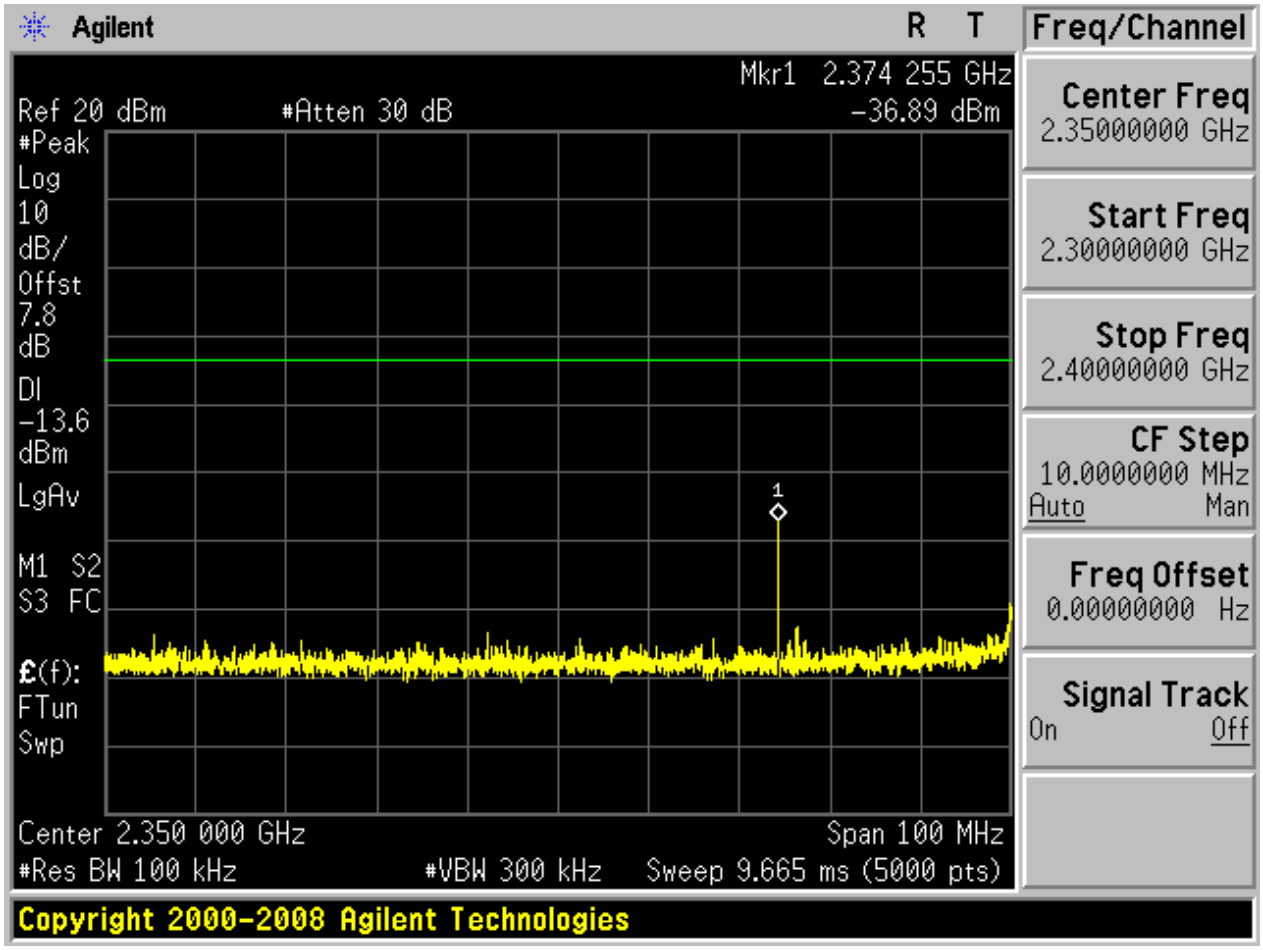


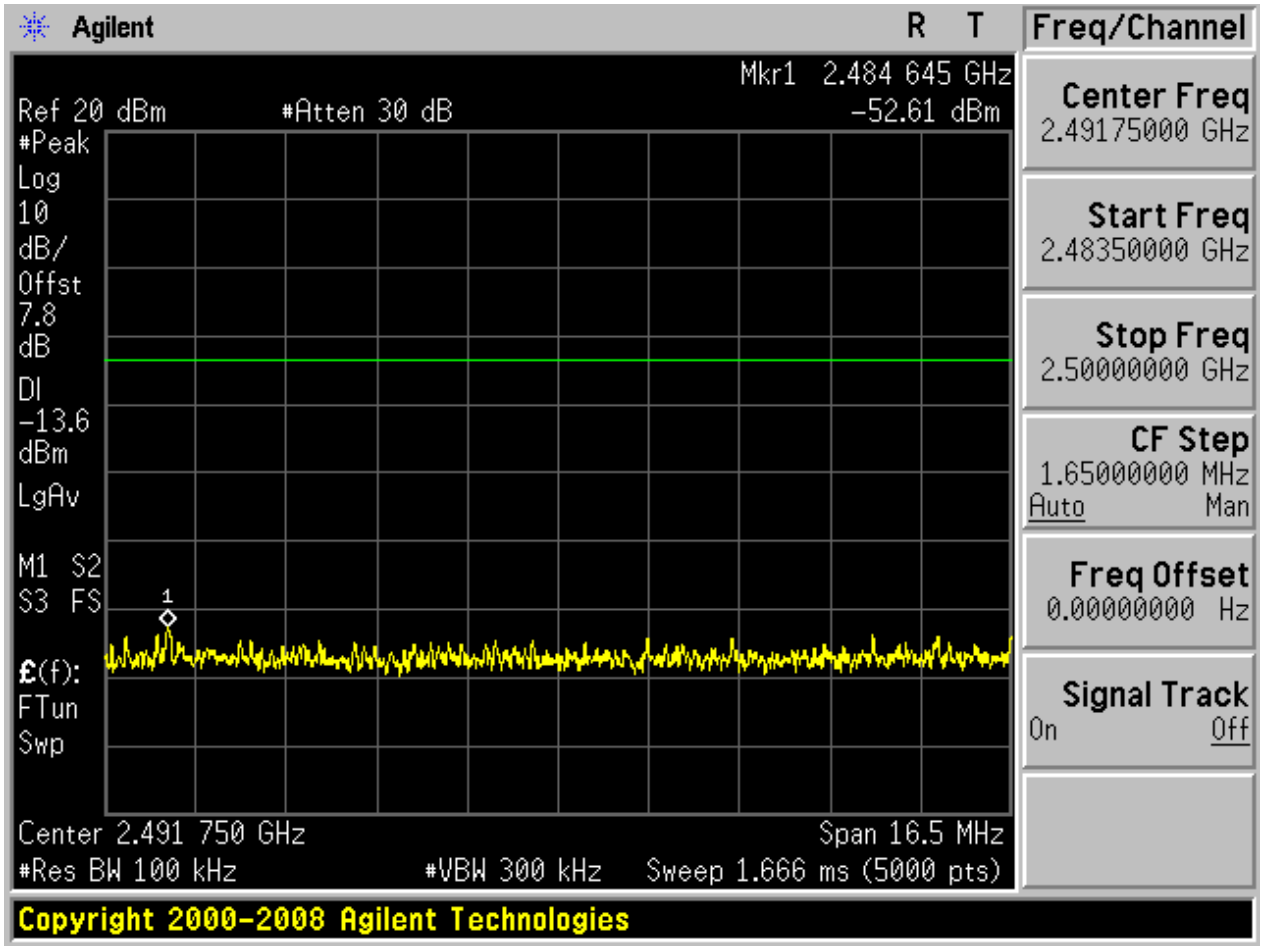
2.4.2 Puw

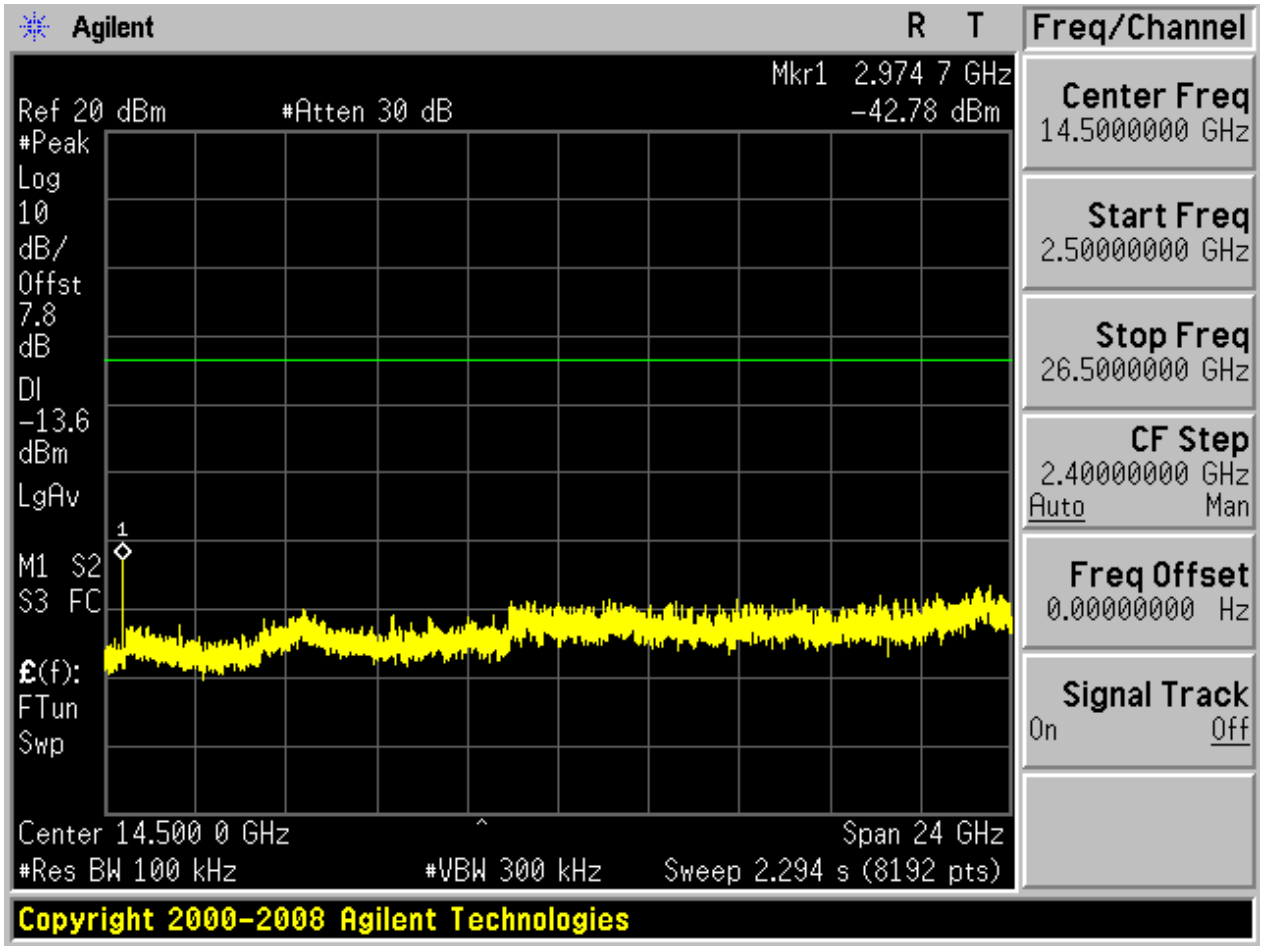






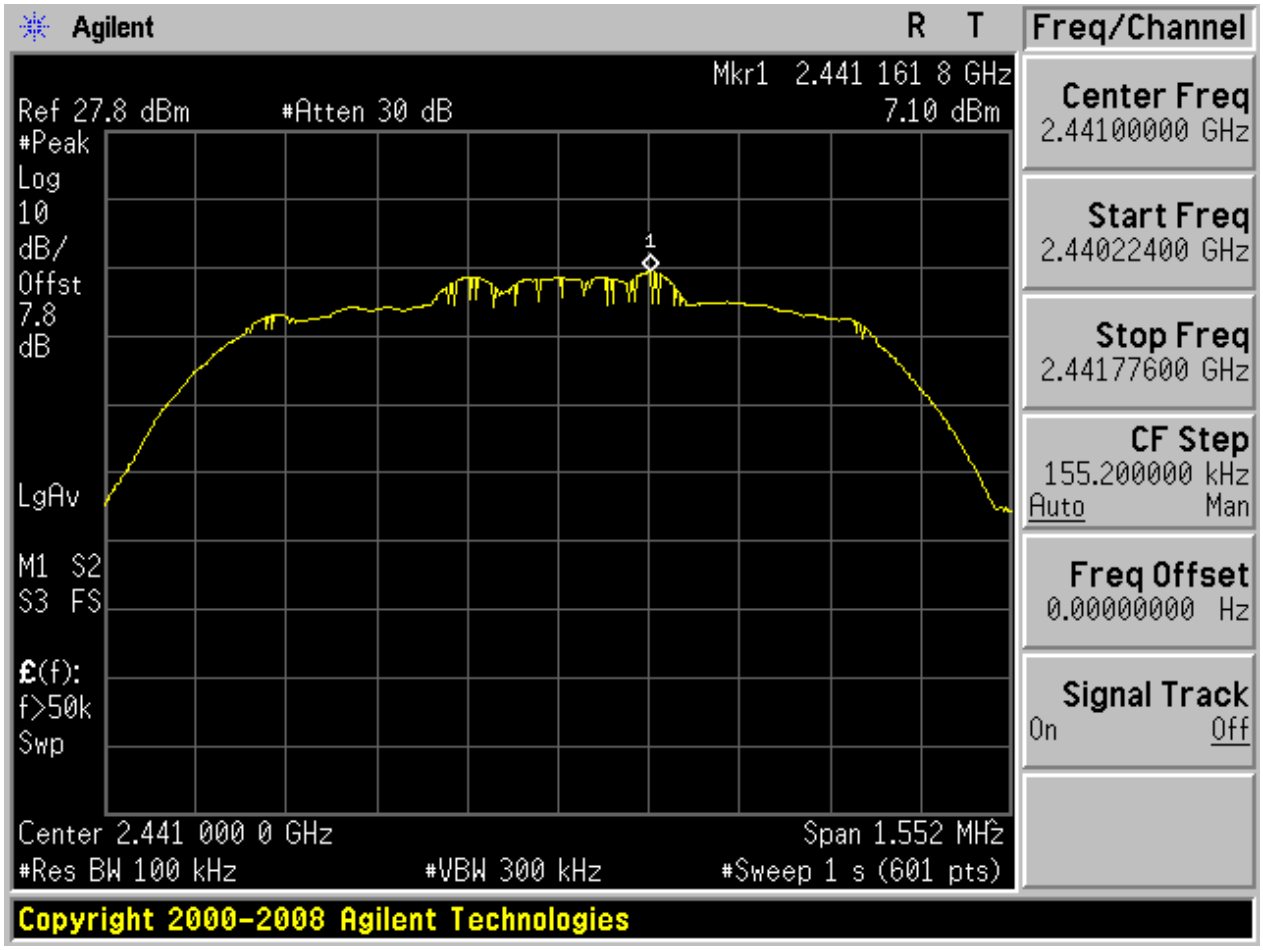

Agilent
R T
Freq/Channel
Mkr1 2.374 255 GHz
Ref 20 dBm
#Atten 30 dB
-36.89 dBm
#Peak
Log
10
dB/
Offst
7.8
dB
Dl
-13.6
dBm
LgAv
M1 S2
S3 FC
£(f):
FTun
Swp
1
Center Freq
2.35000000 GHz
Start Freq
2.30000000 GHz
Stop Freq
2.40000000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.000000000 Hz
Signal Track
On Off
Center 2.350 000 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 9.665 ms (5000 pts)
Copyright 2000-2008 Agilent Technologies



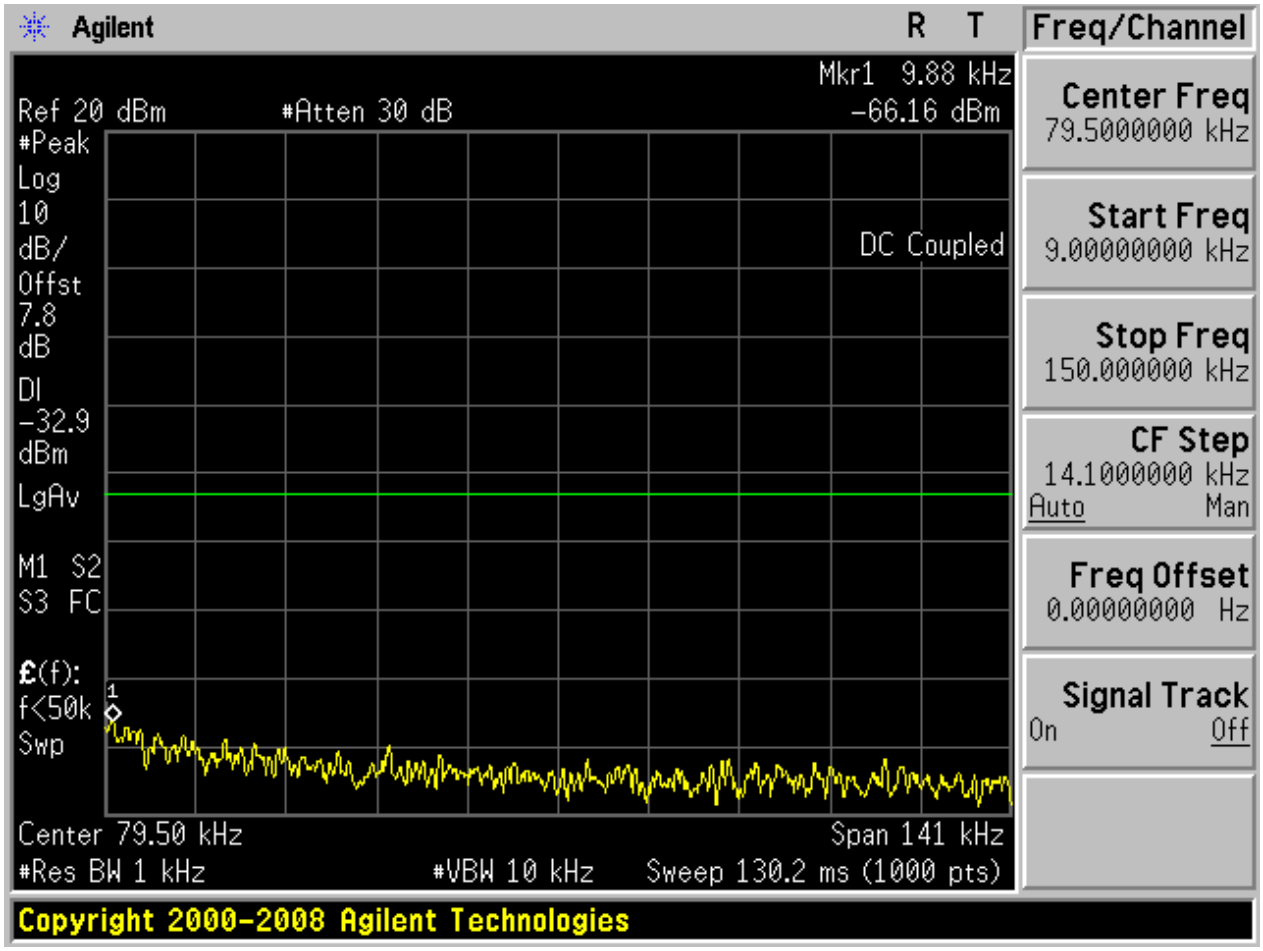


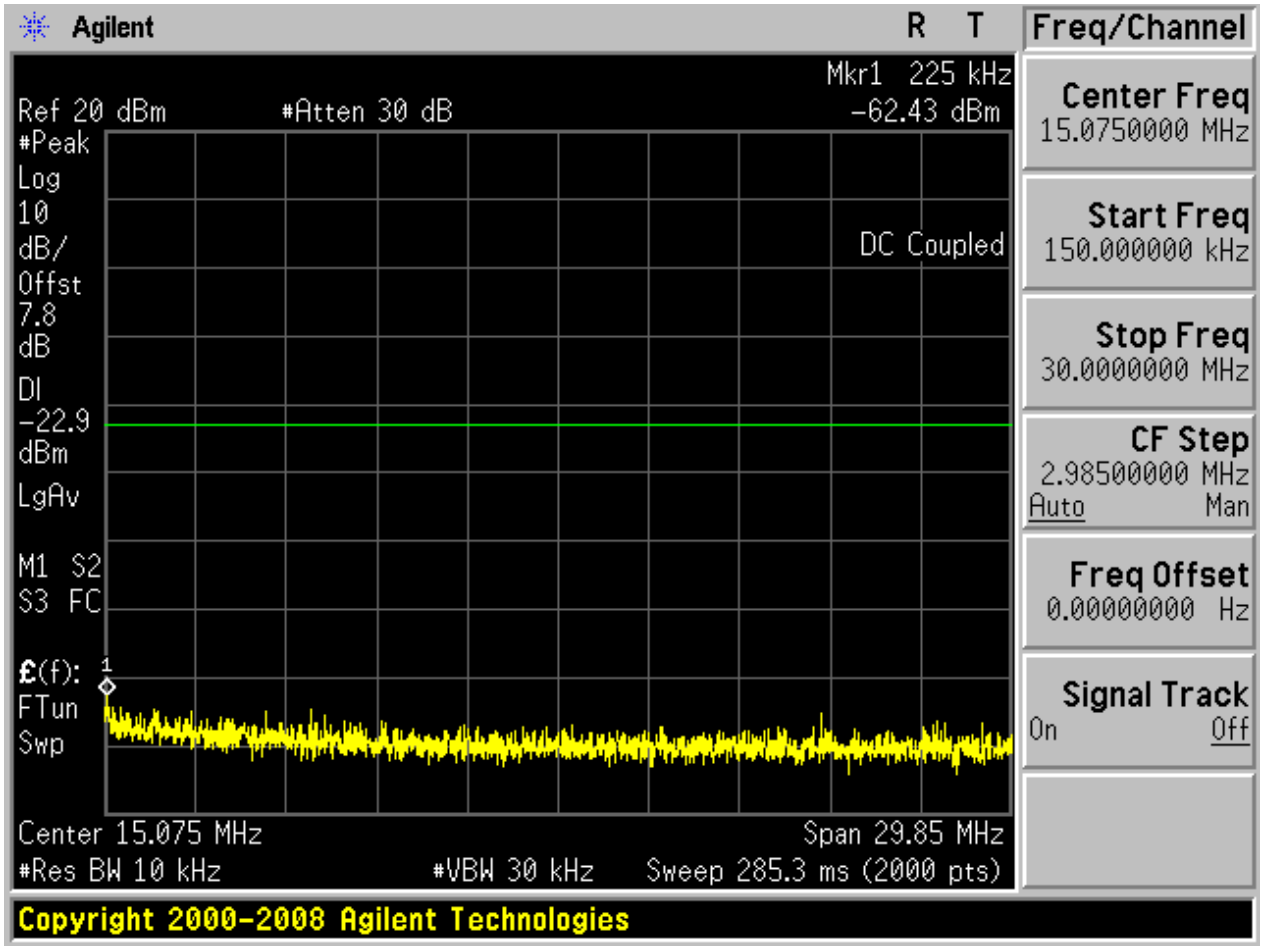
2.5 TM2_2DH5_Ch39

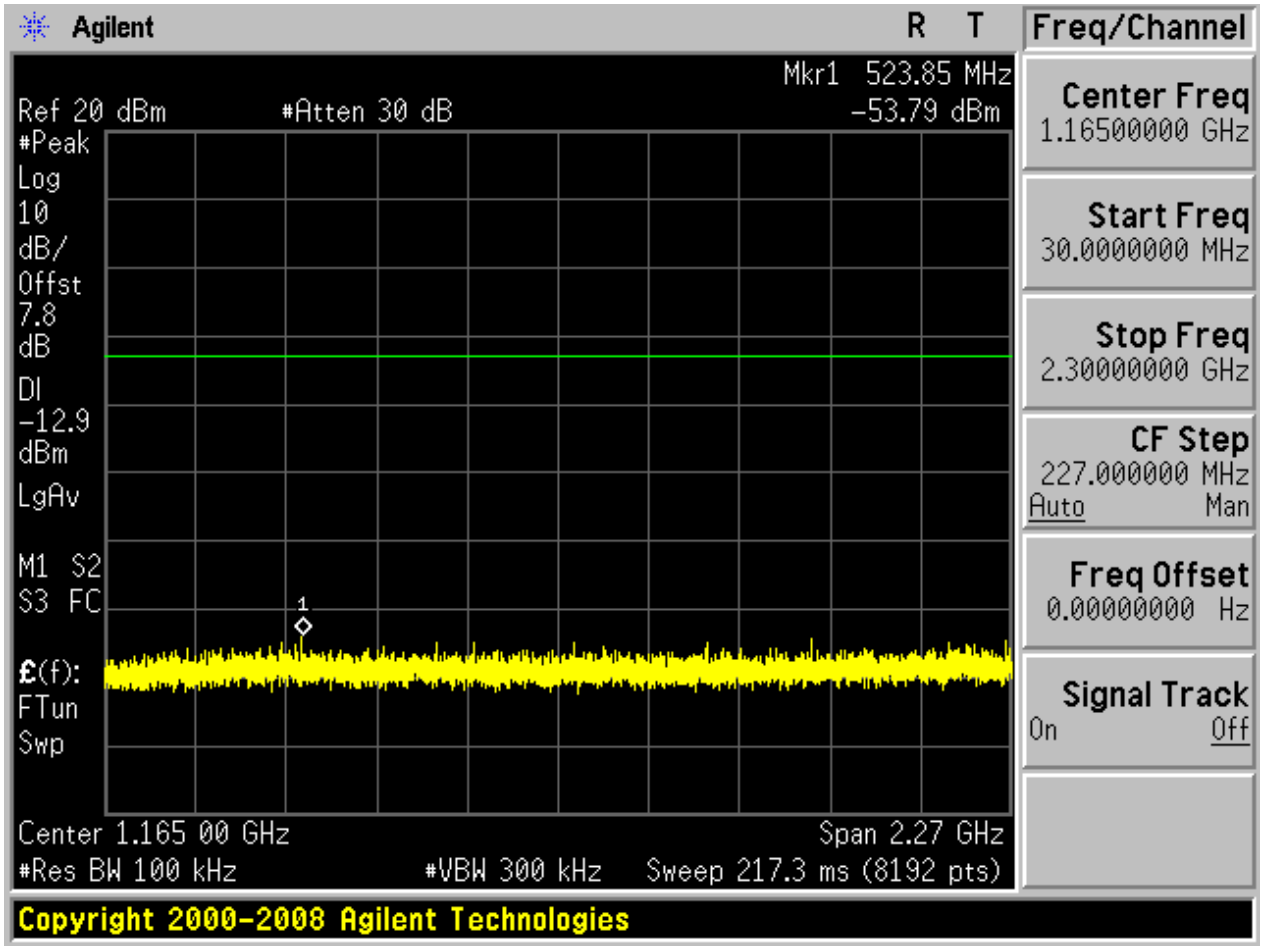
2.5.1 Pref

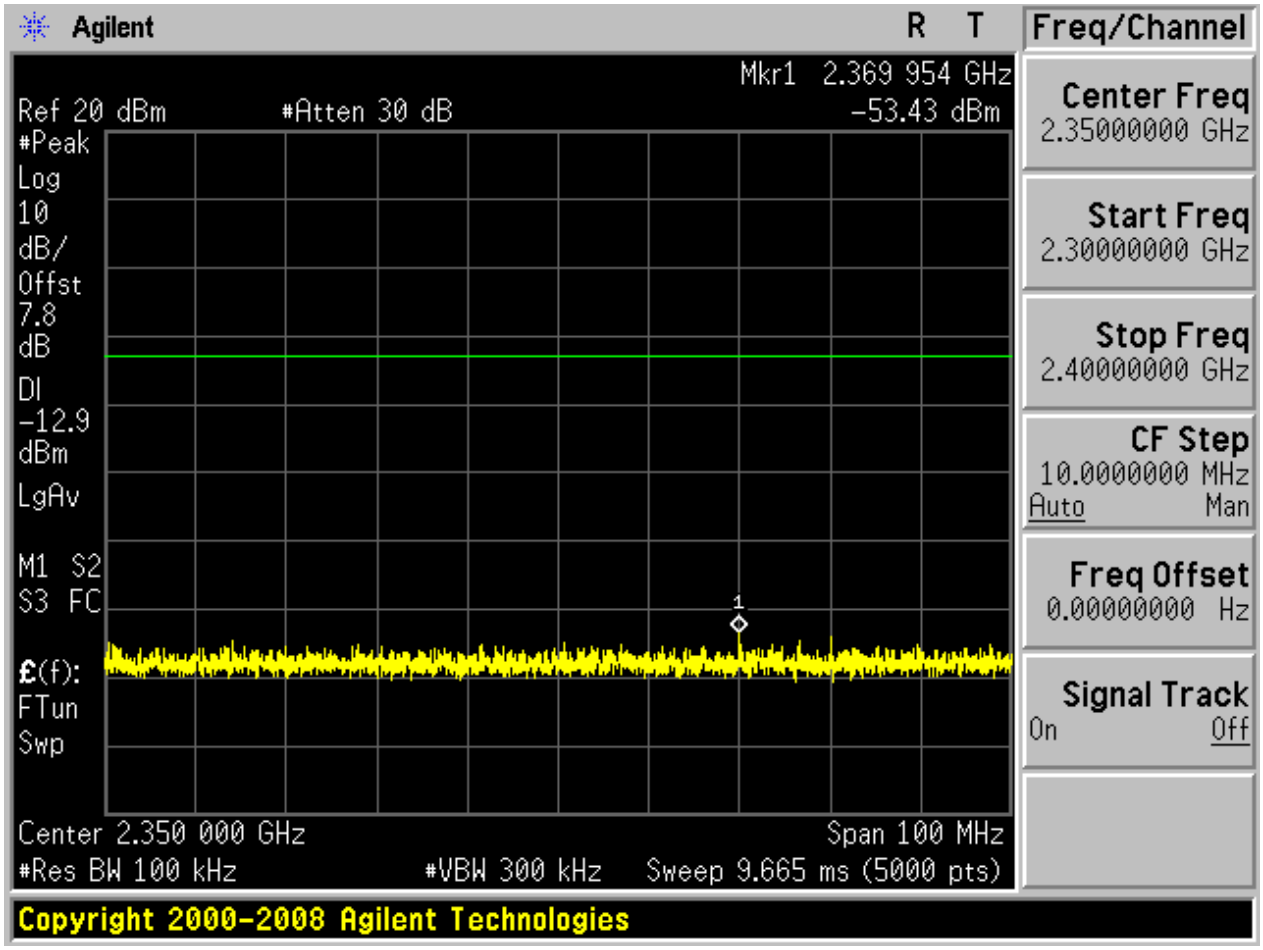


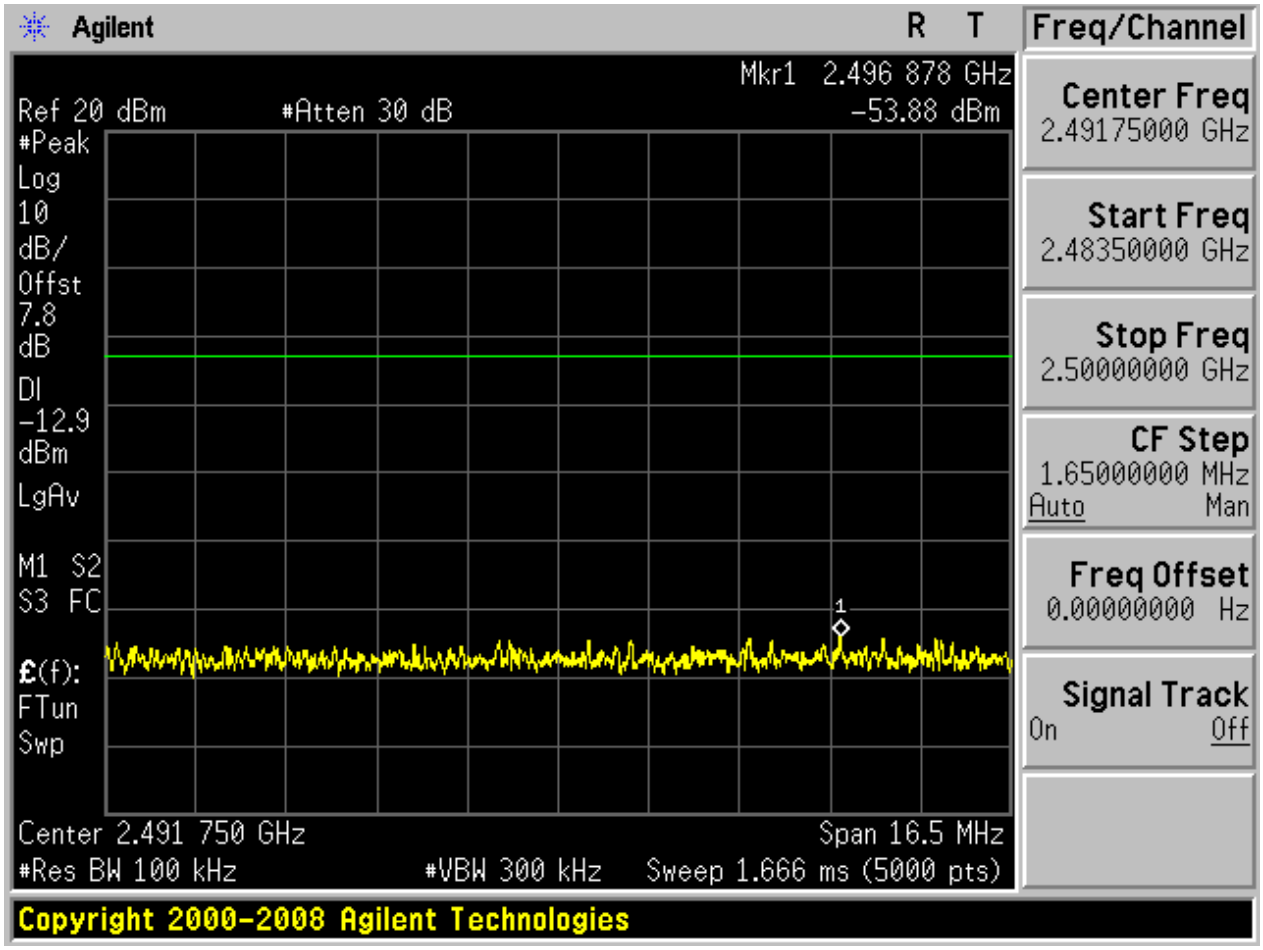
2.5.2 Puw

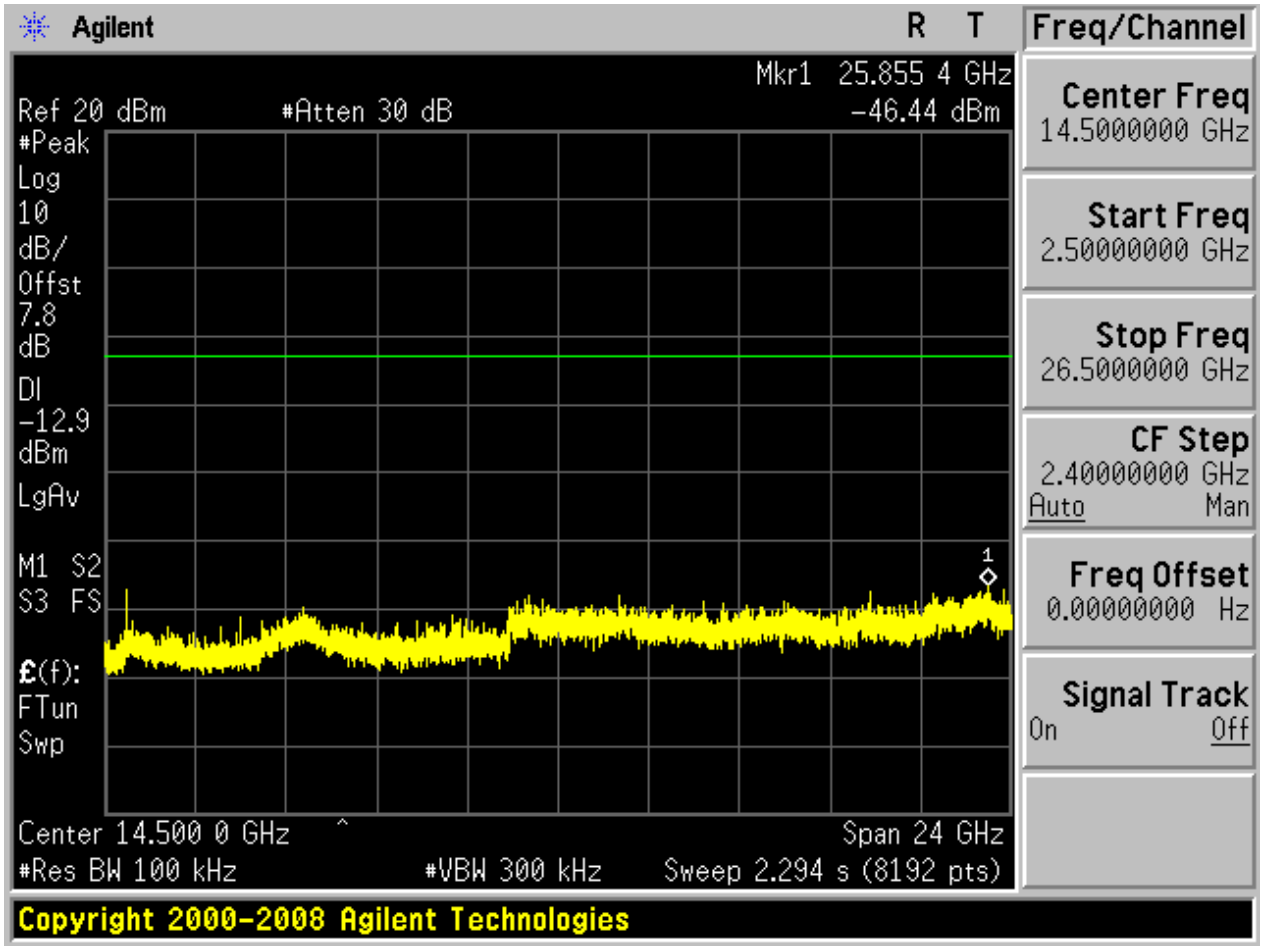






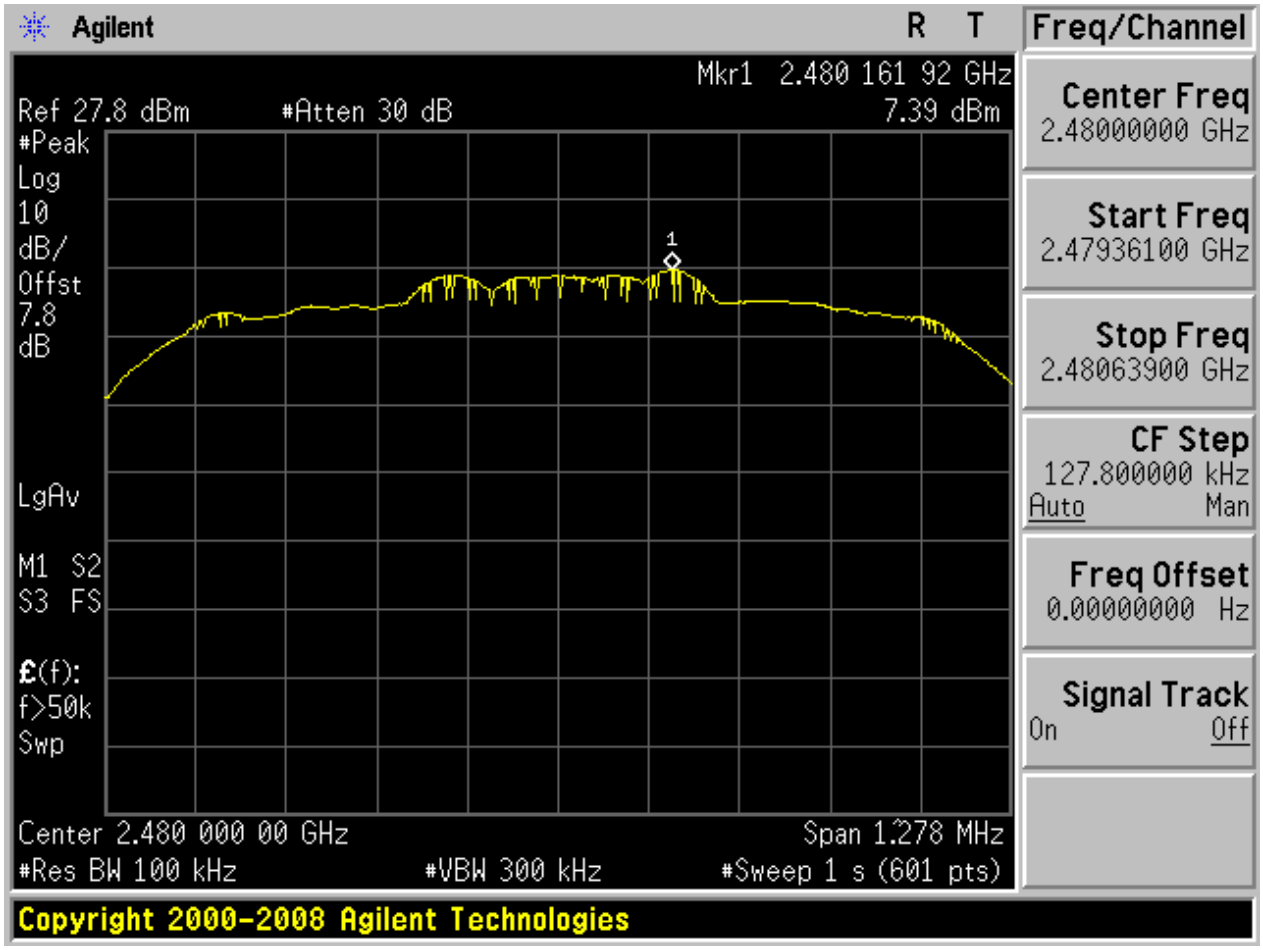




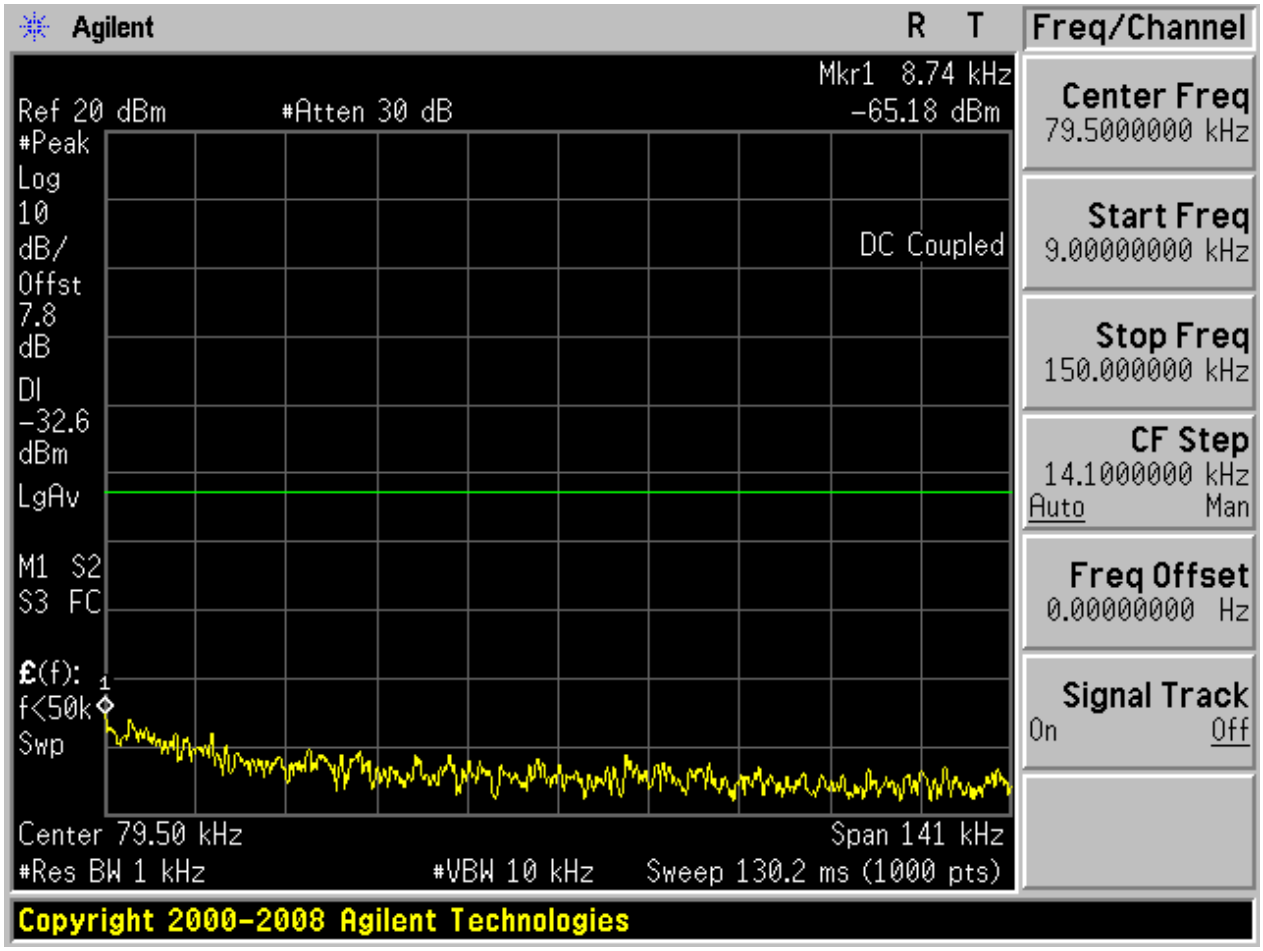


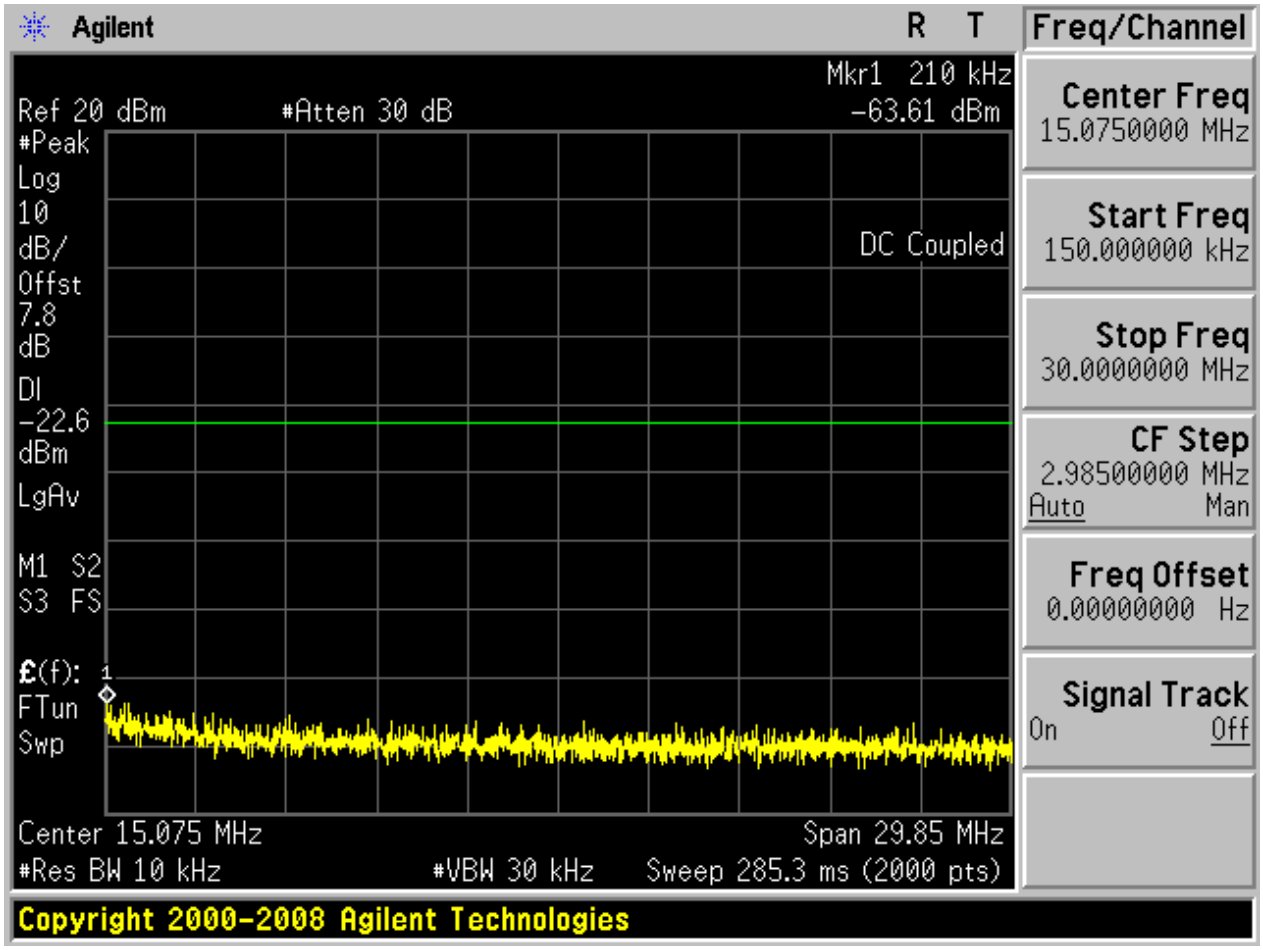
2.6 TM2_2DH5_Ch78

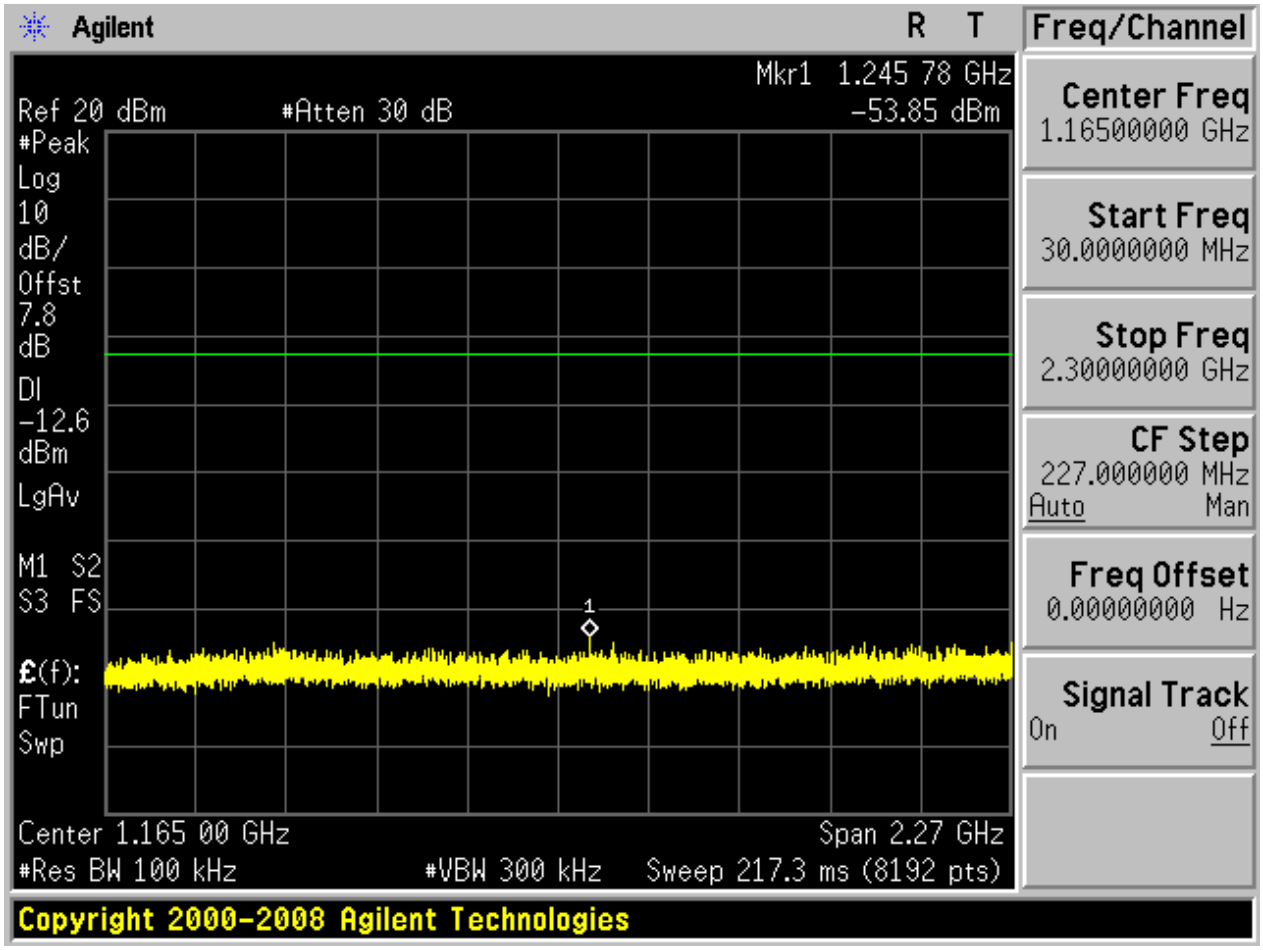
2.6.1 Pref

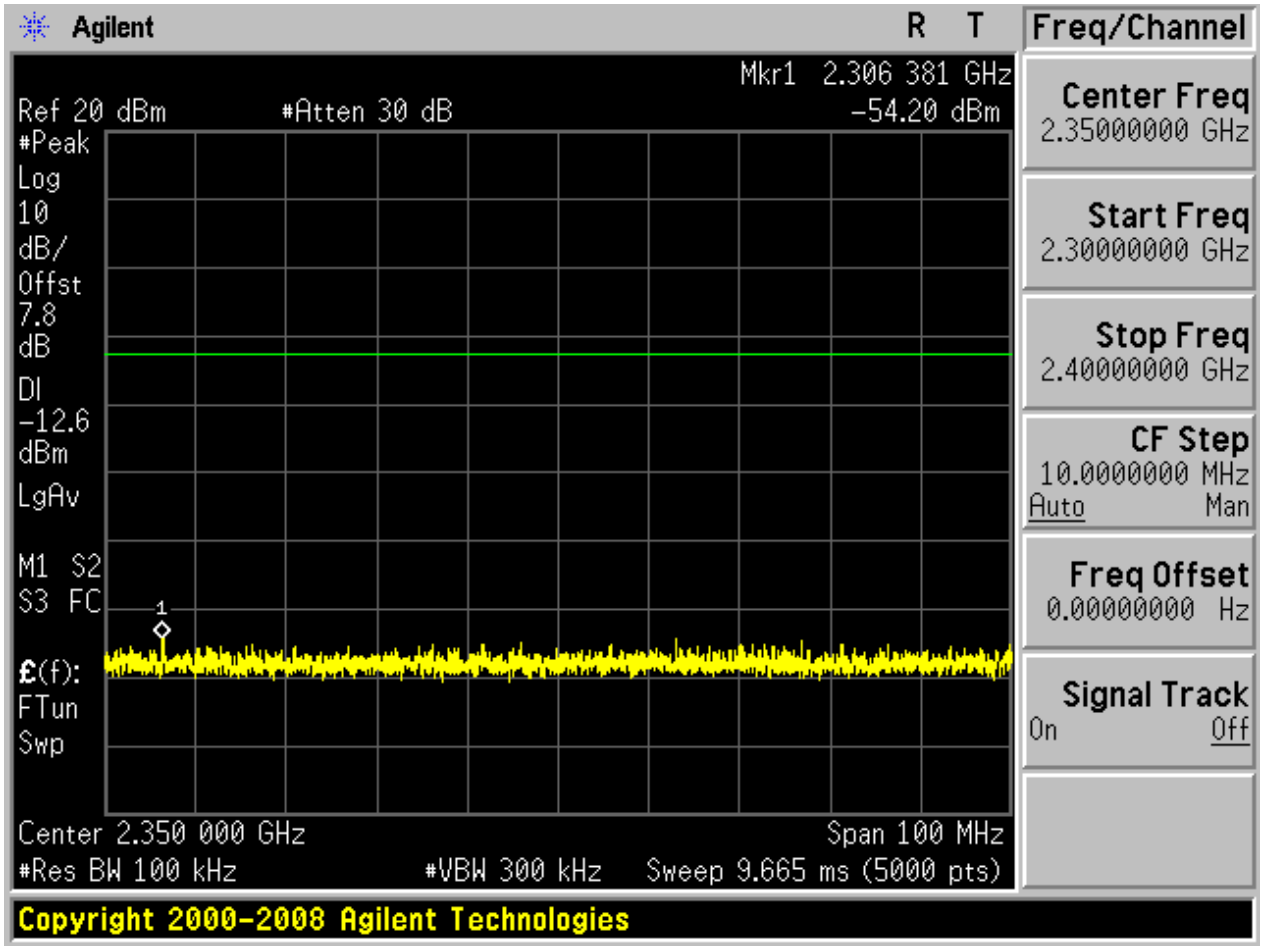


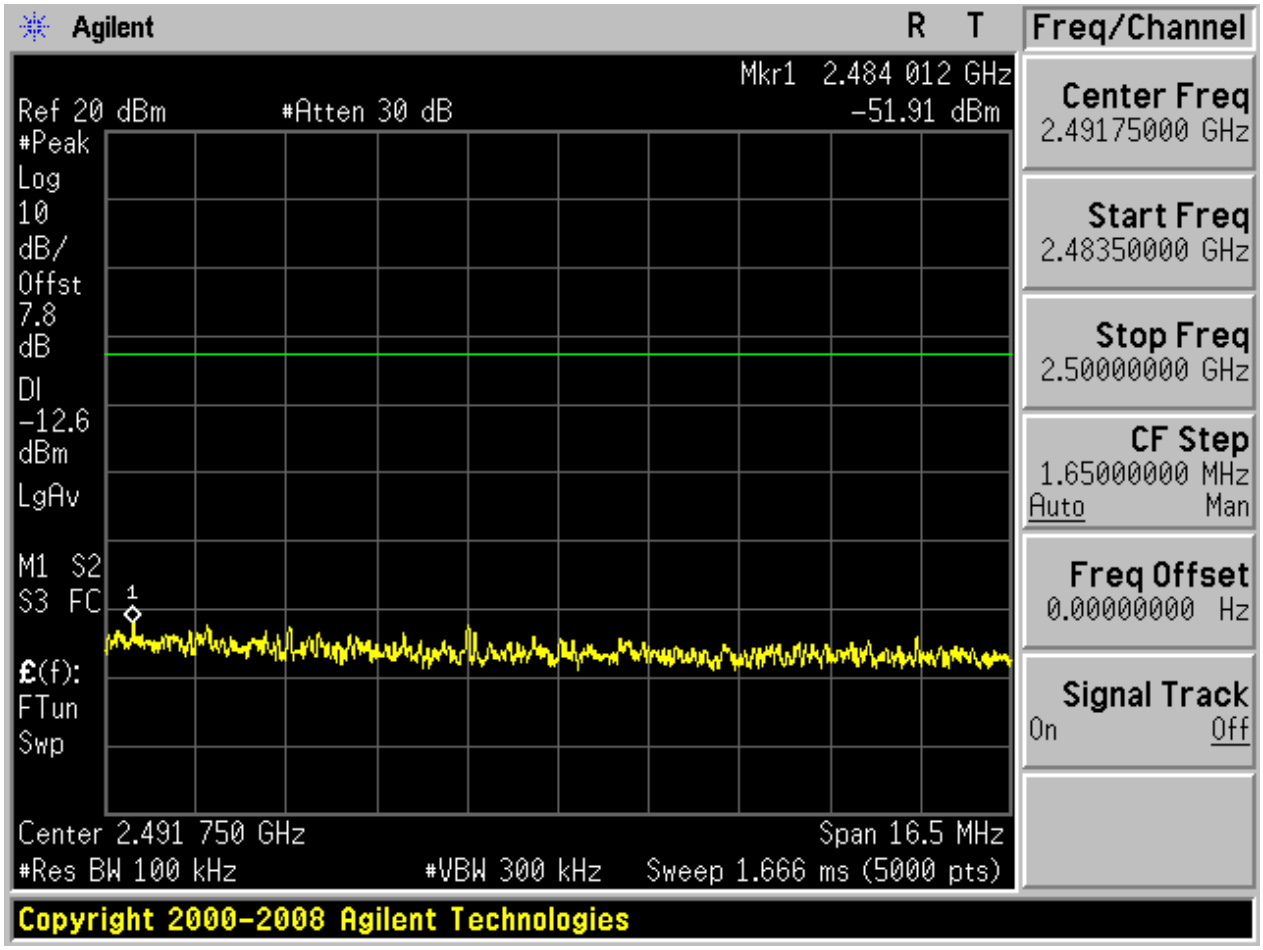
2.6.2 Puw

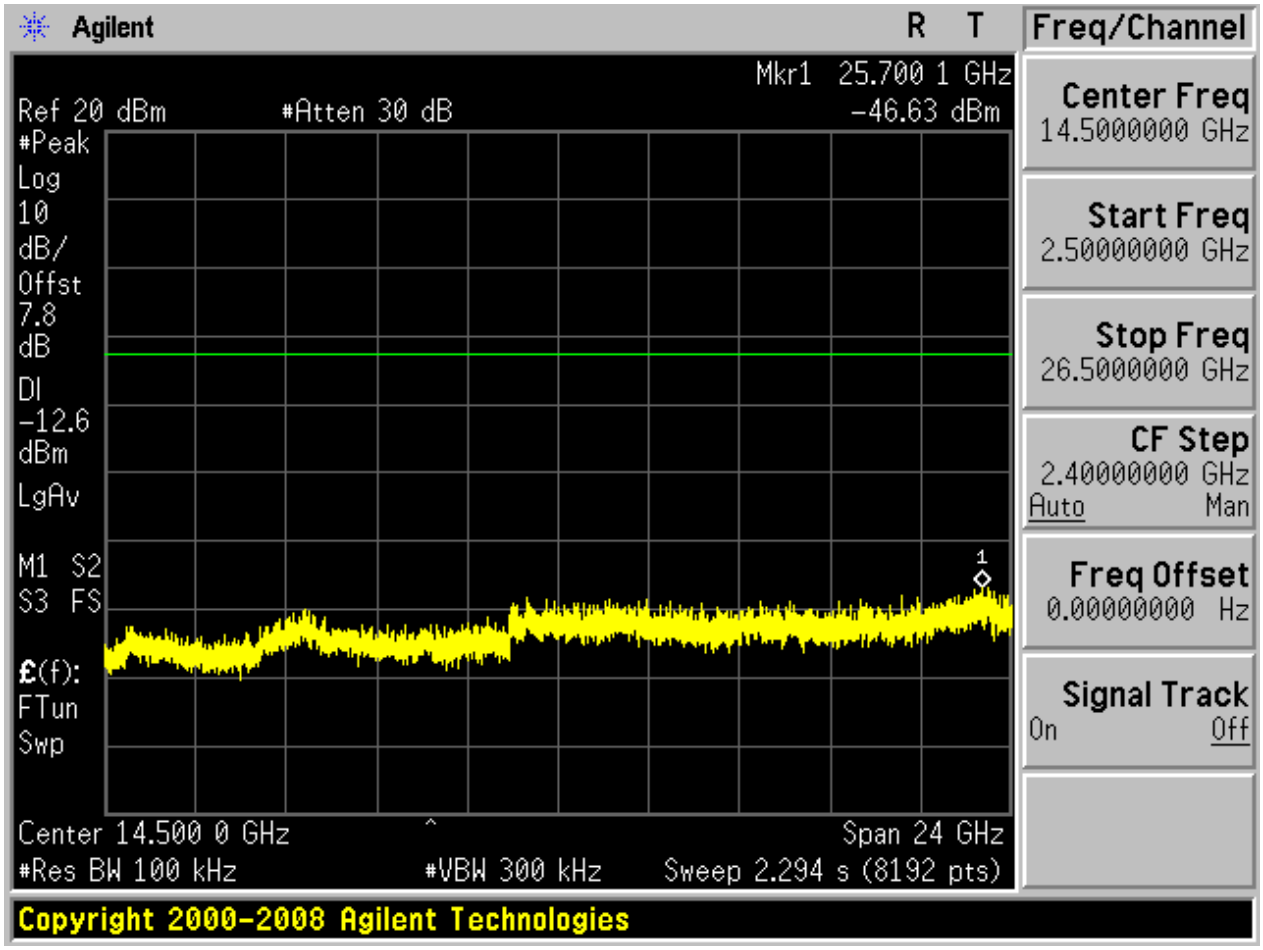



Agilent
R T
Freq/Channel
Mkr1 210 kHz
Ref 20 dBm
#Atten 30 dB
-63.61 dBm
#Peak
Log
10
dB/
Offst
7.8
dB
Dl
-22.6
dBm
LgAv
DC Coupled
M1 S2
S3 FS
£(f): 1
FTun
Swp
Center Freq
15.0750000 MHz
Start Freq
150.000000 kHz
Stop Freq
30.0000000 MHz
CF Step
2.98500000 MHz
Auto Man
Freq Offset
0.000000000 Hz
Signal Track
On Off
Center 15.075 MHz
Span 29.85 MHz
#Res BW 10 kHz
#VBW 30 kHz
Sweep 285.3 ms (2000 pts)
Copyright 2000-2008 Agilent Technologies



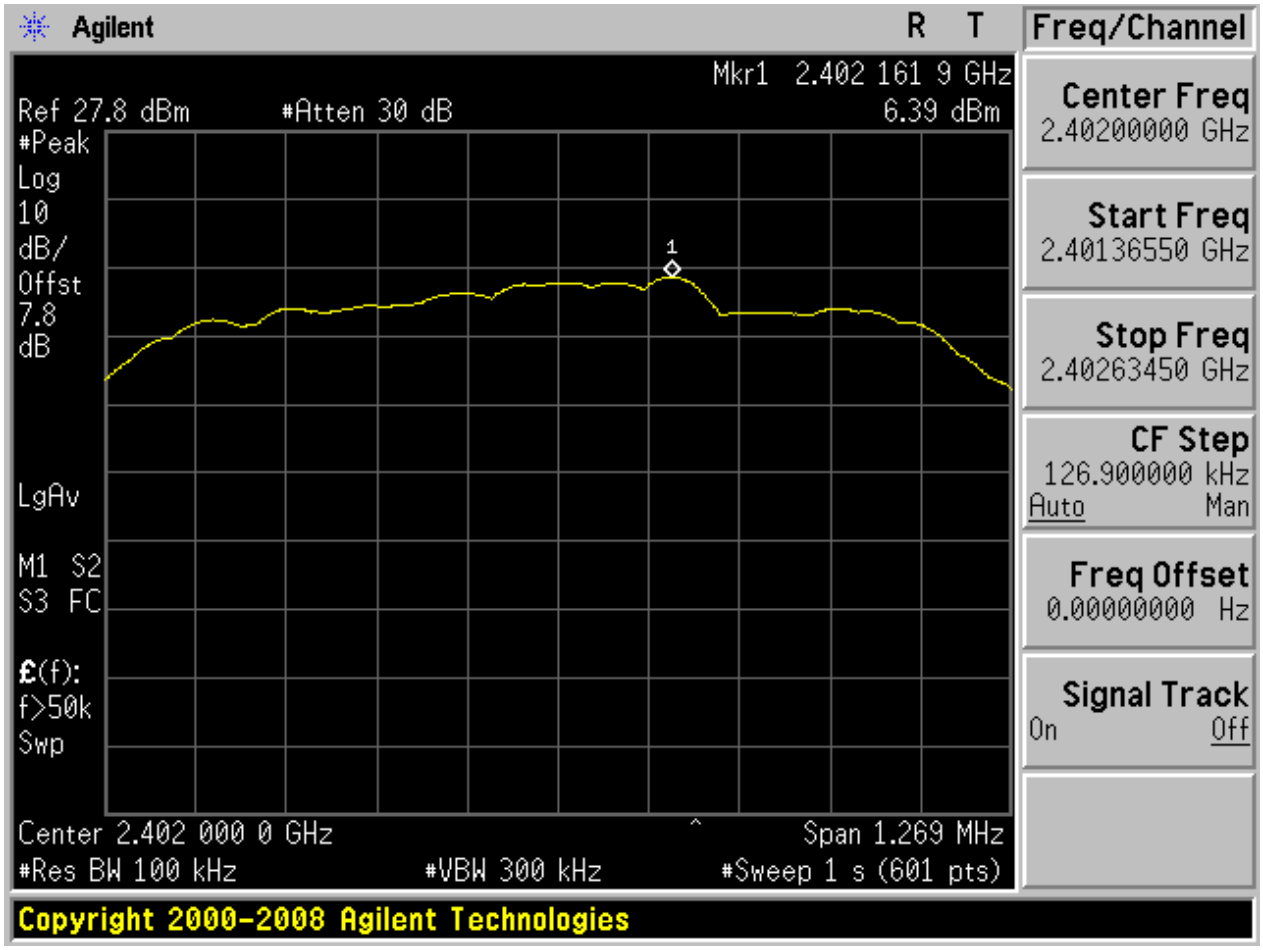




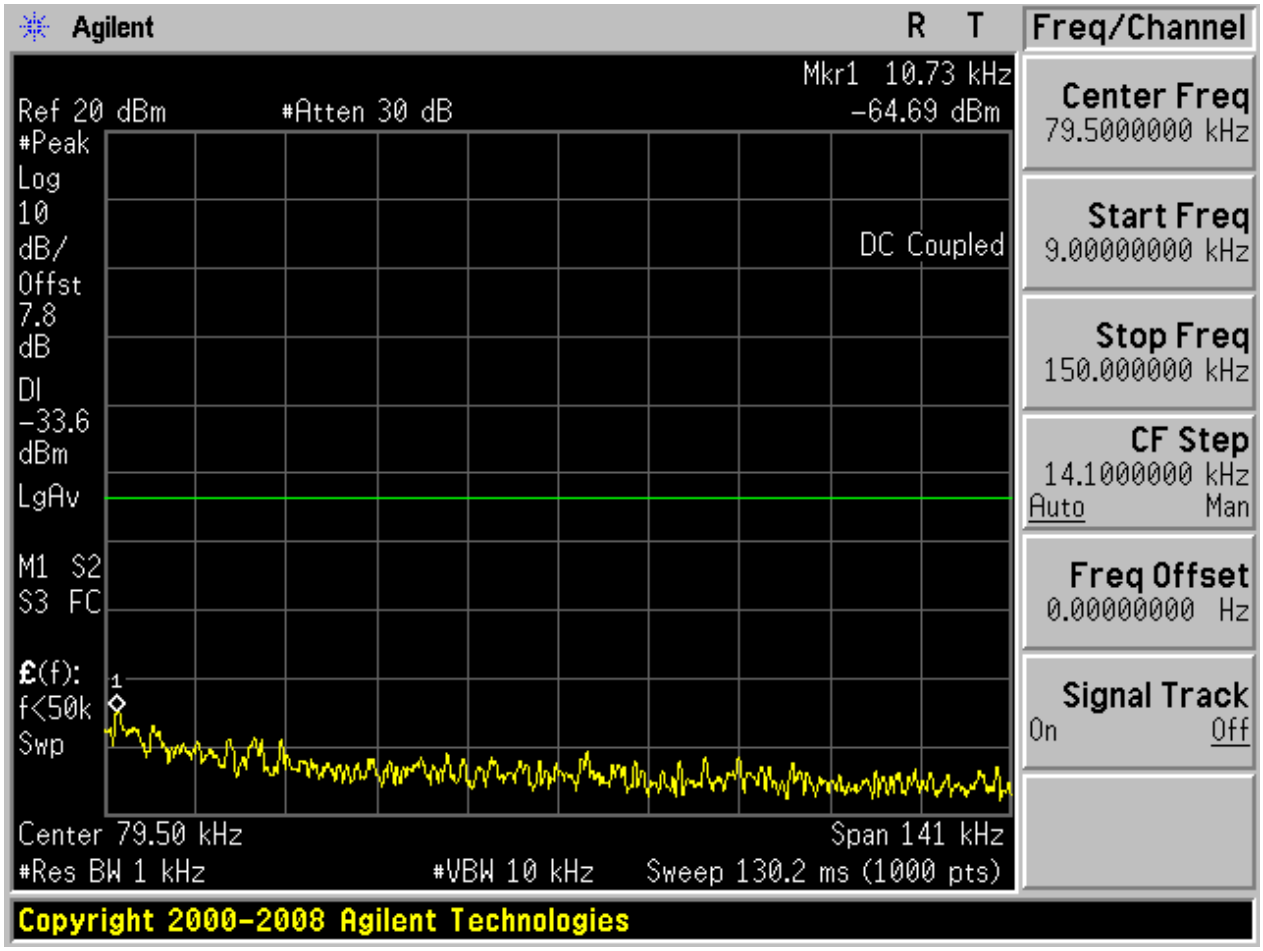


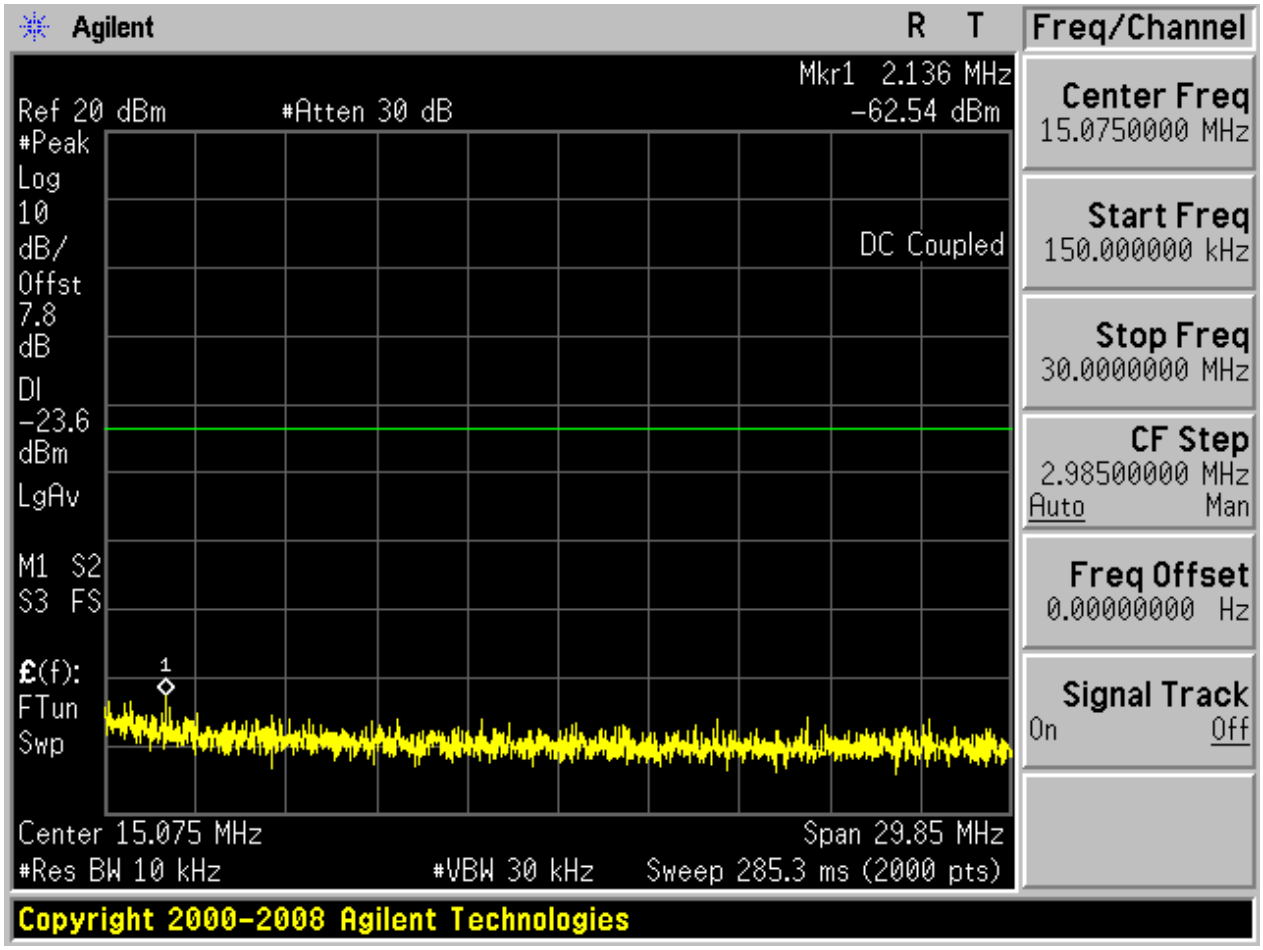
2.7 TM3_3DH5_Ch0

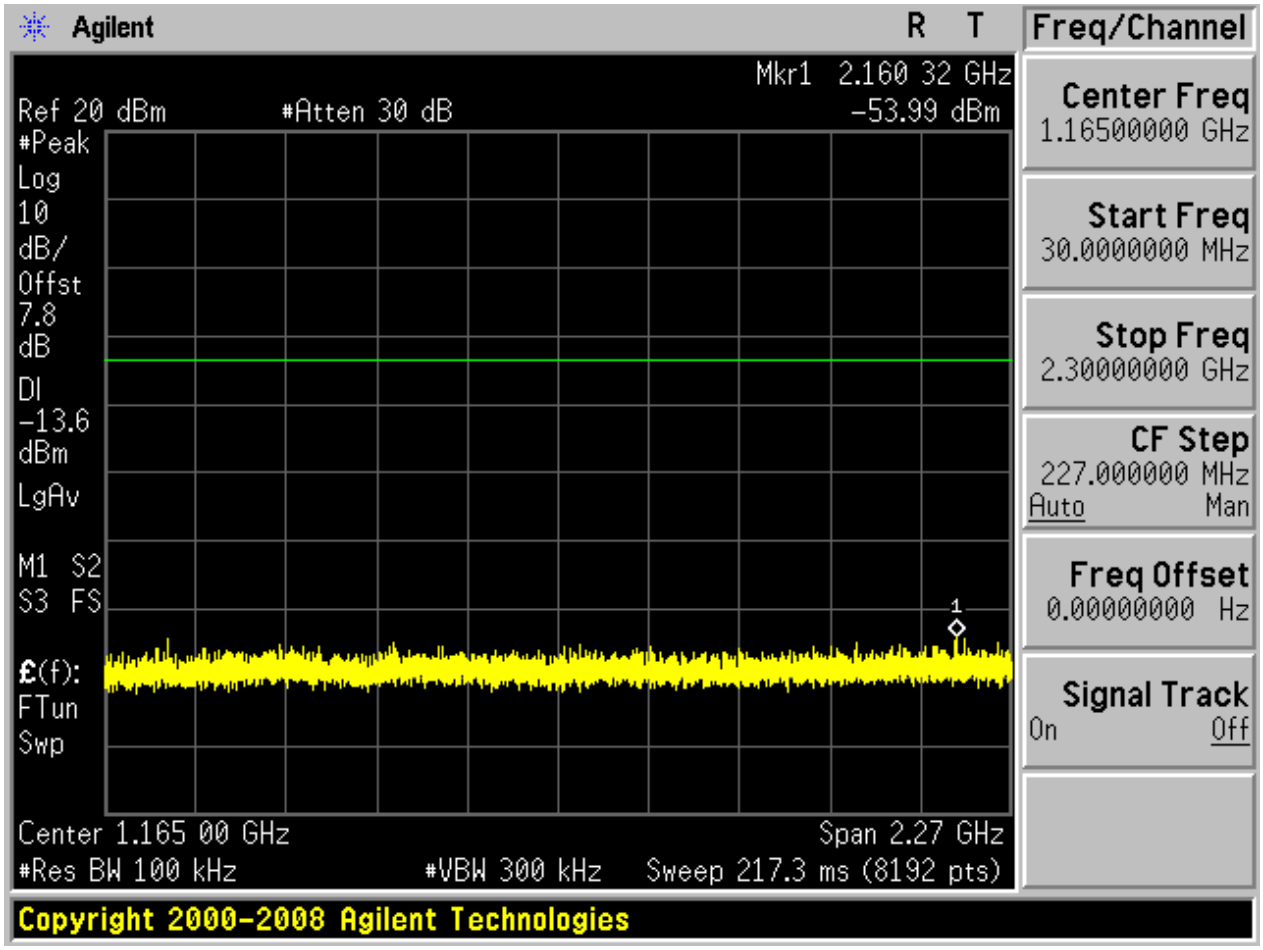
2.7.1 Pref

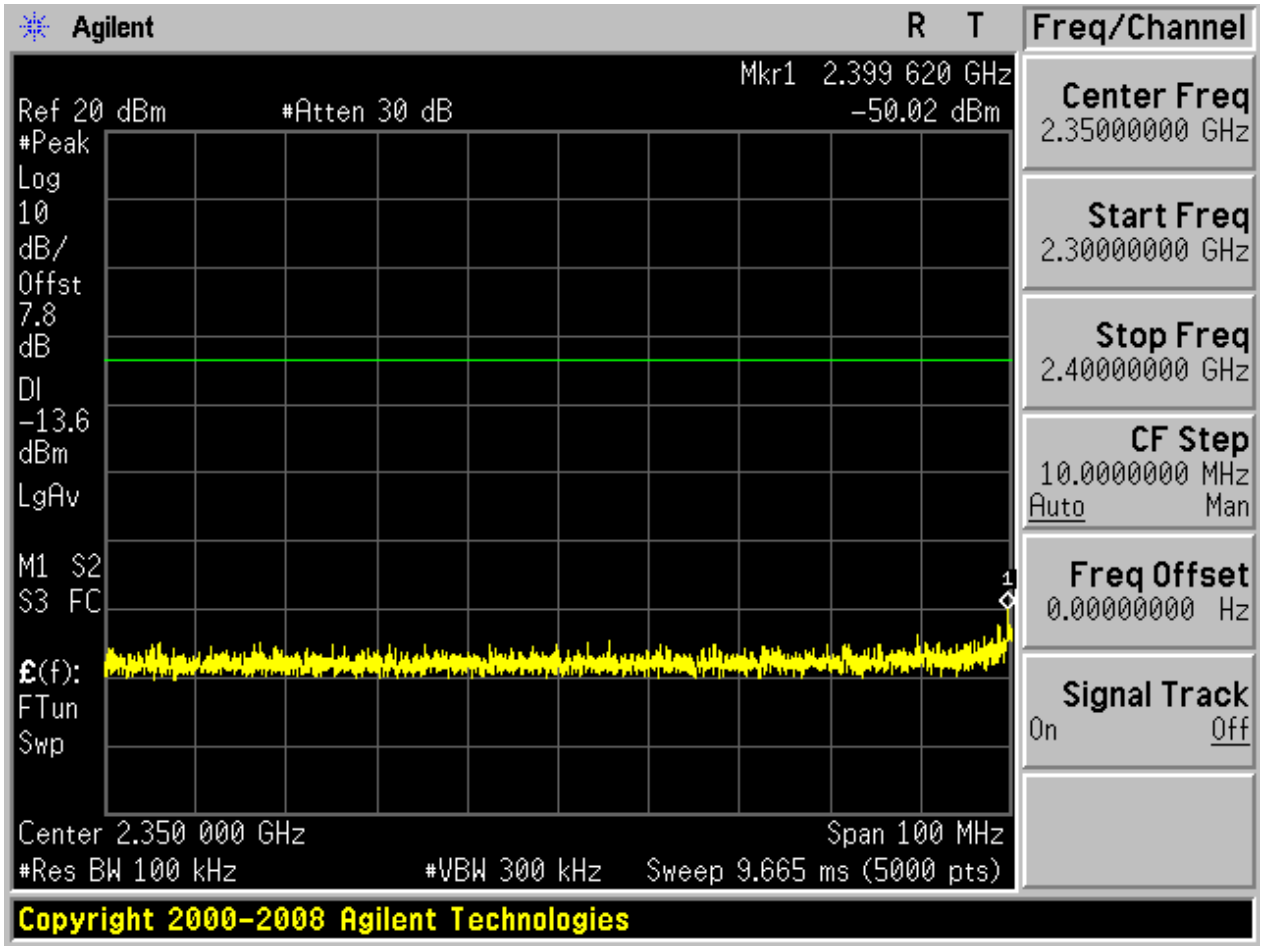


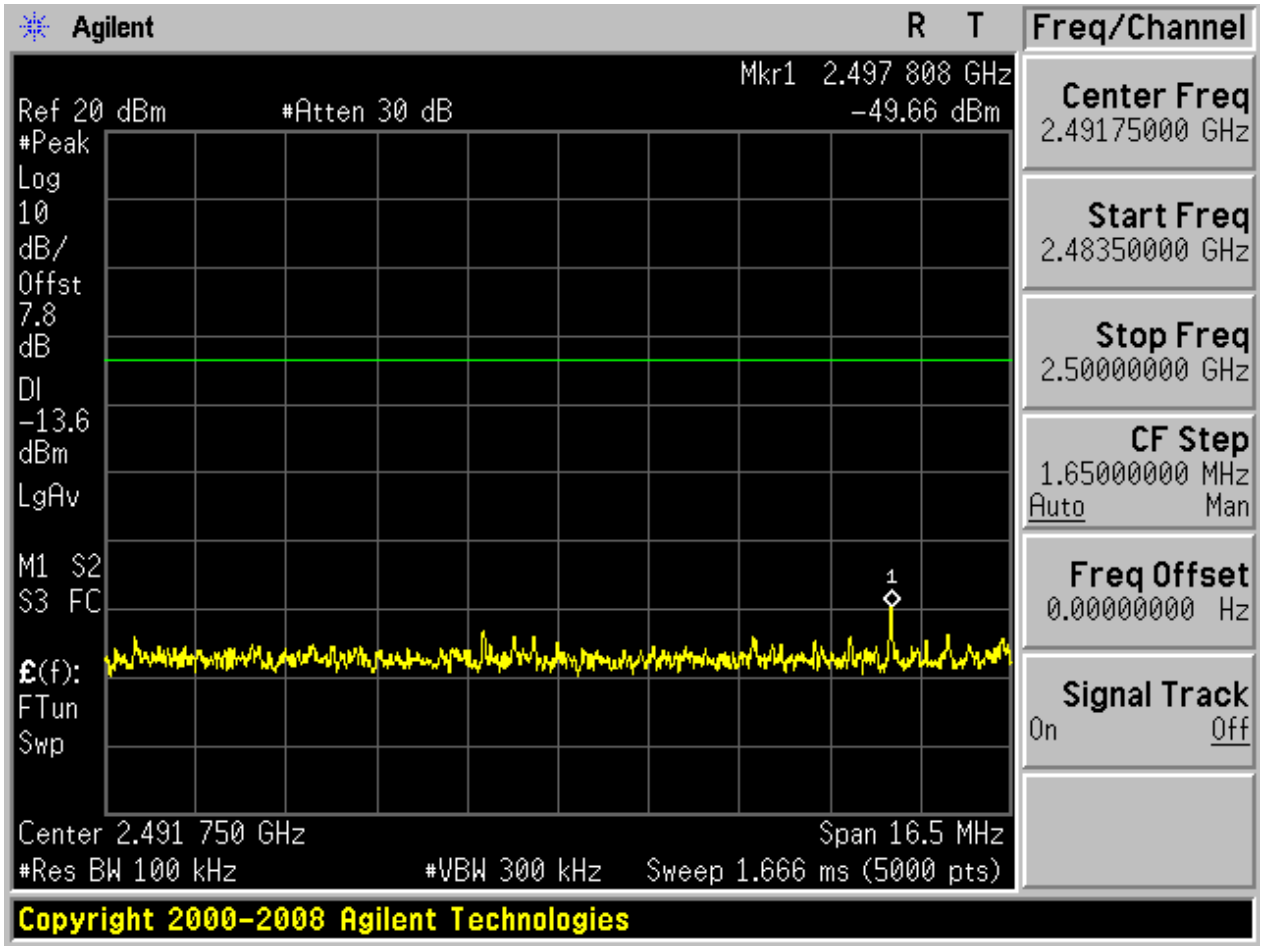
2.7.2 Puw

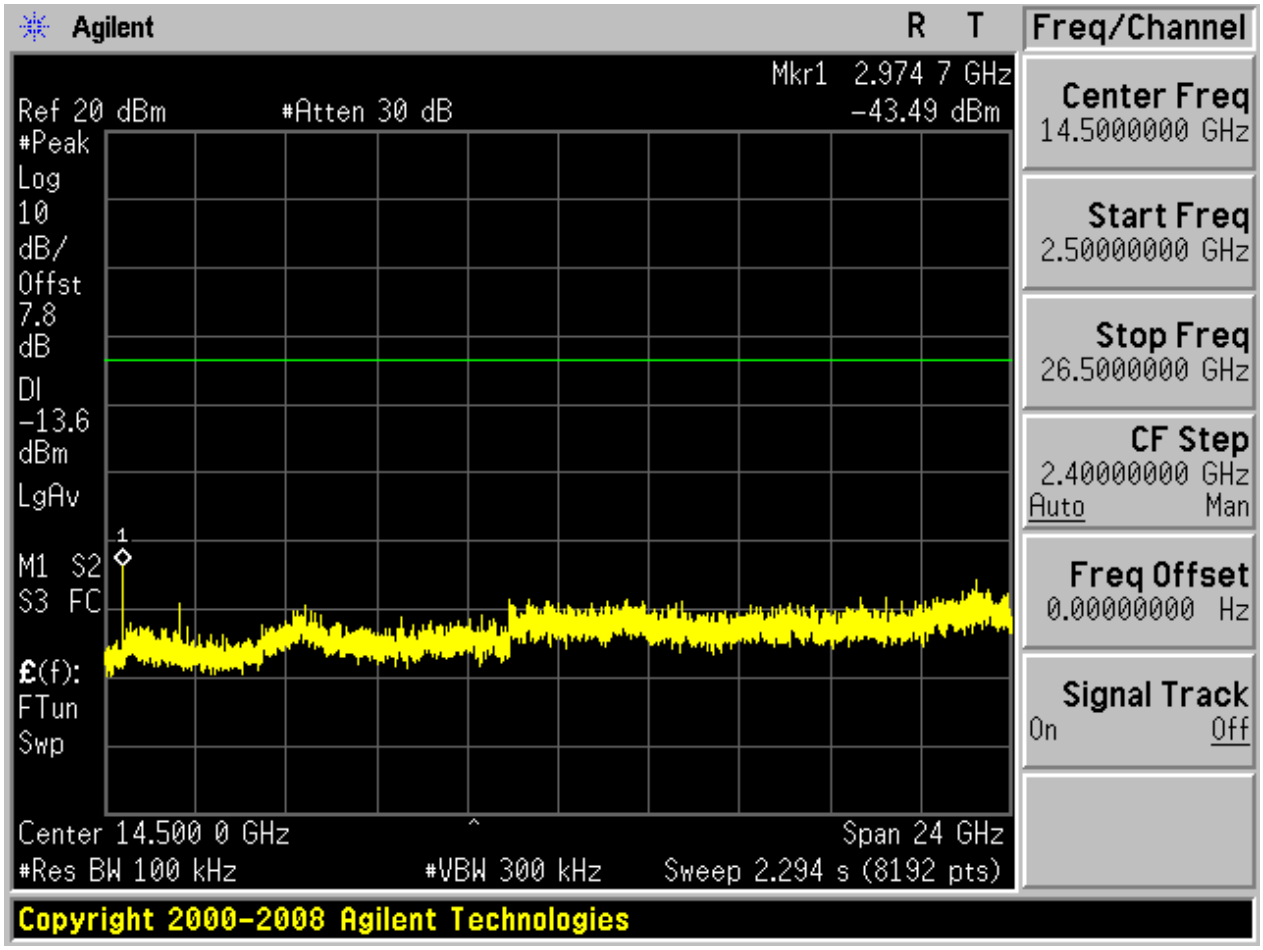






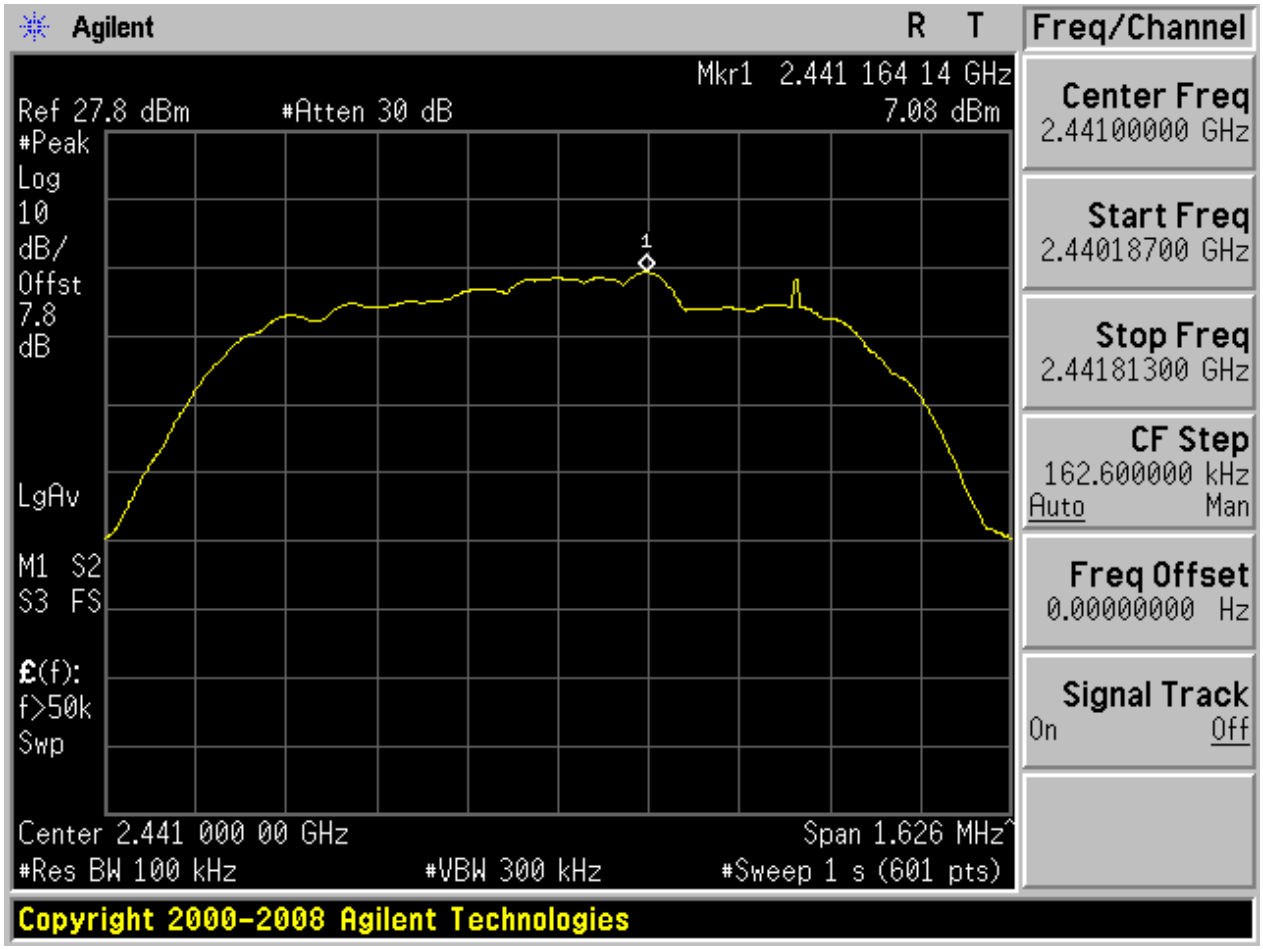




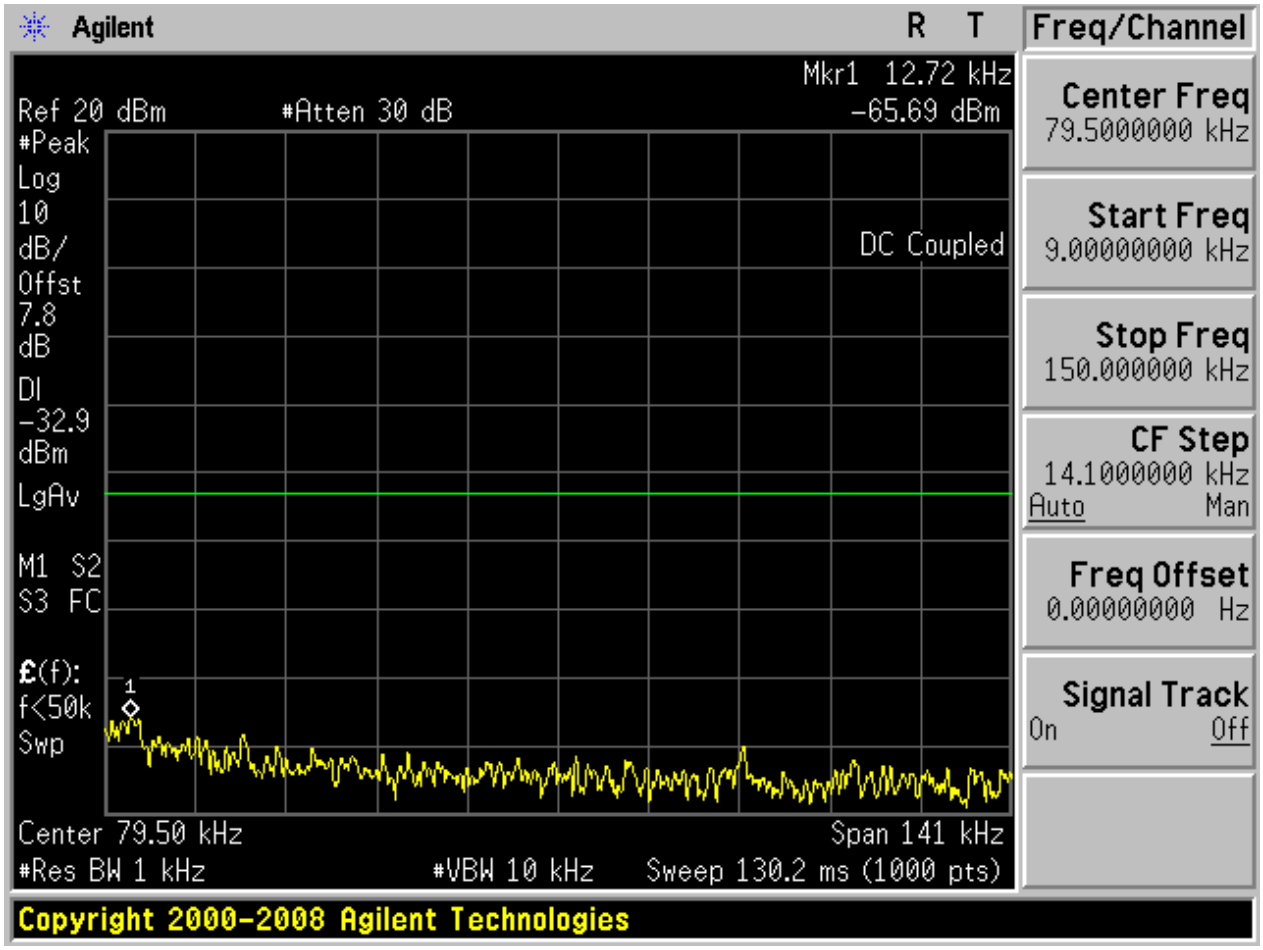


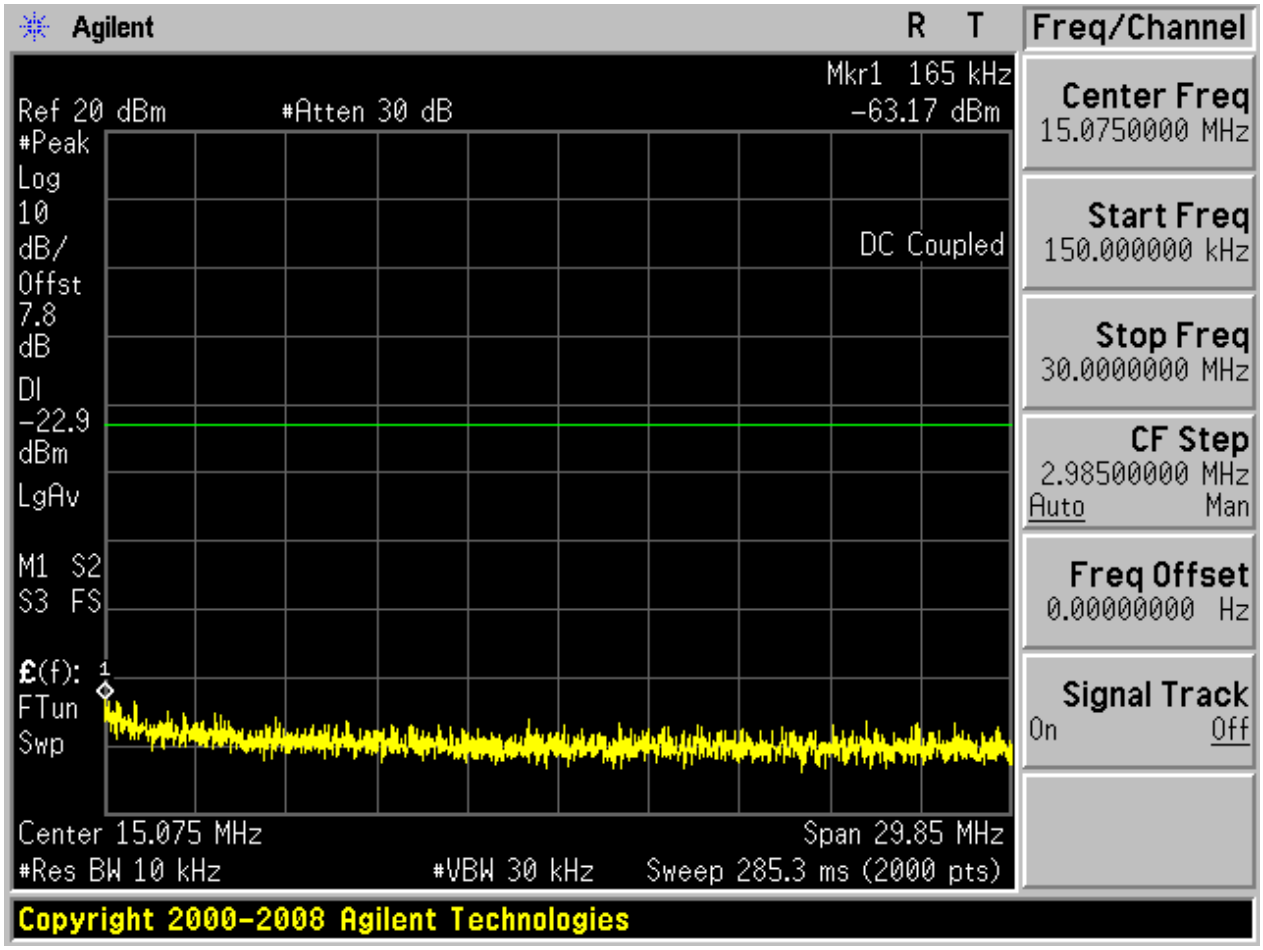
2.8 TM3_3DH5_Ch39

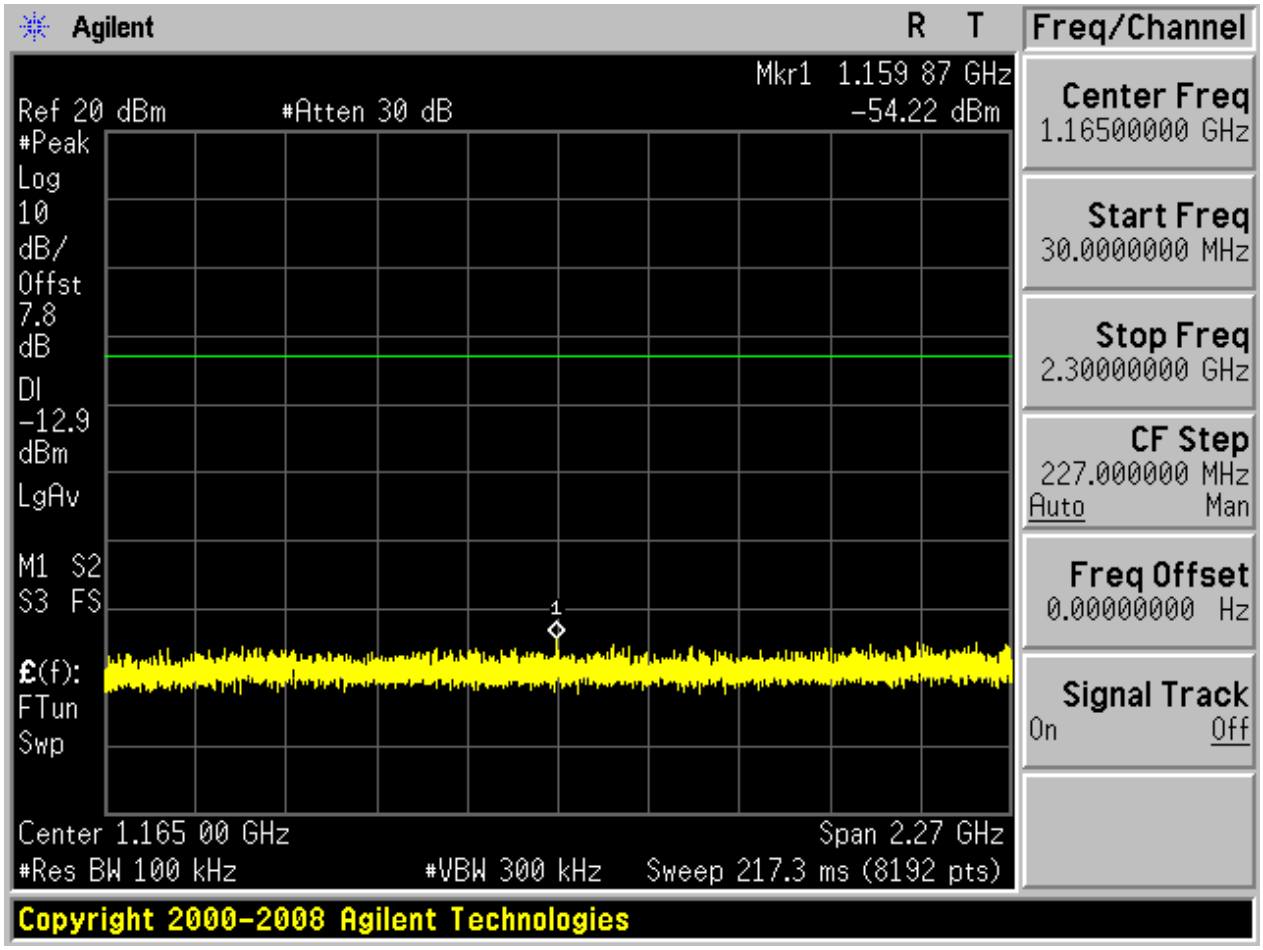
2.8.1 Pref

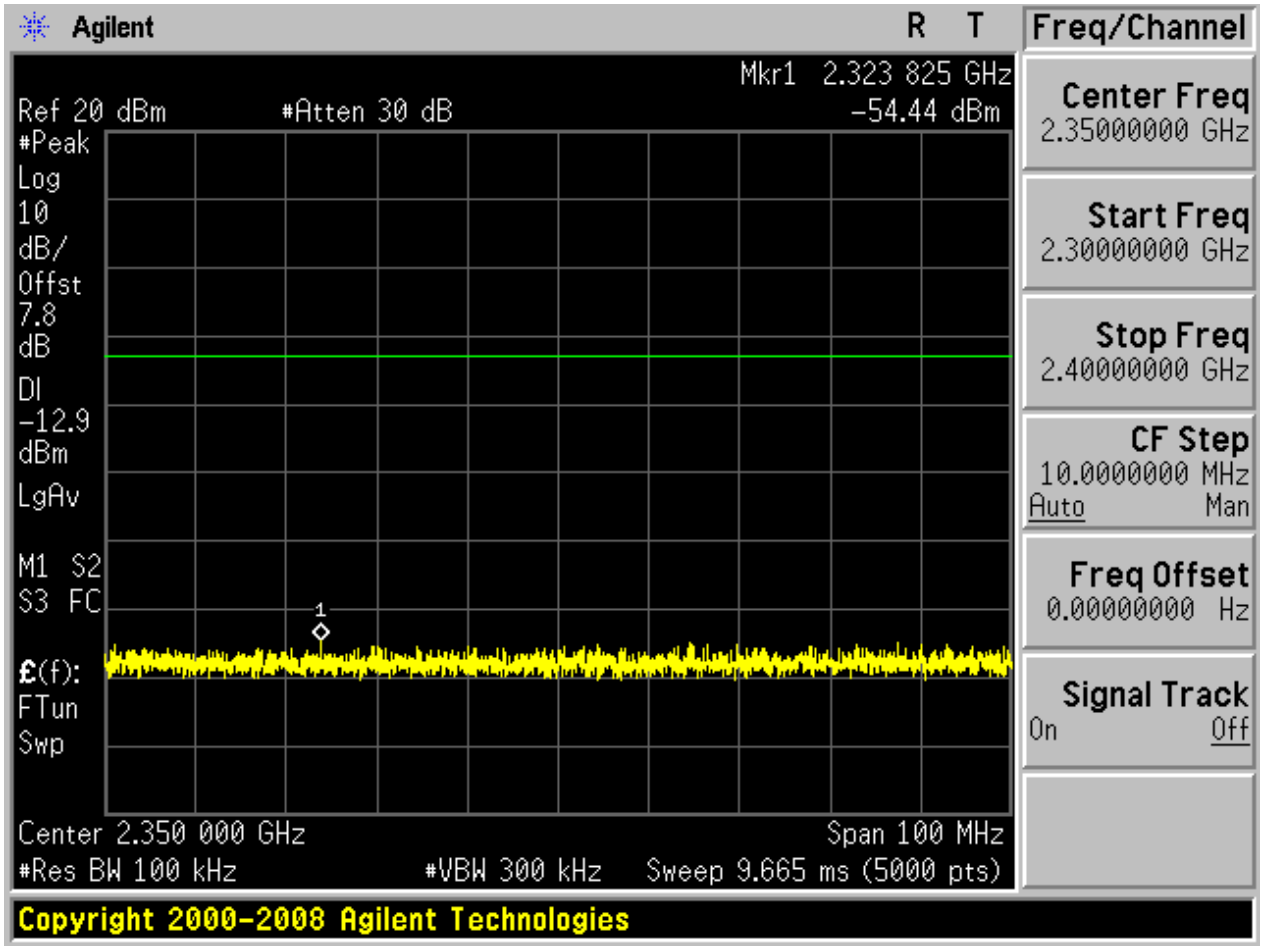


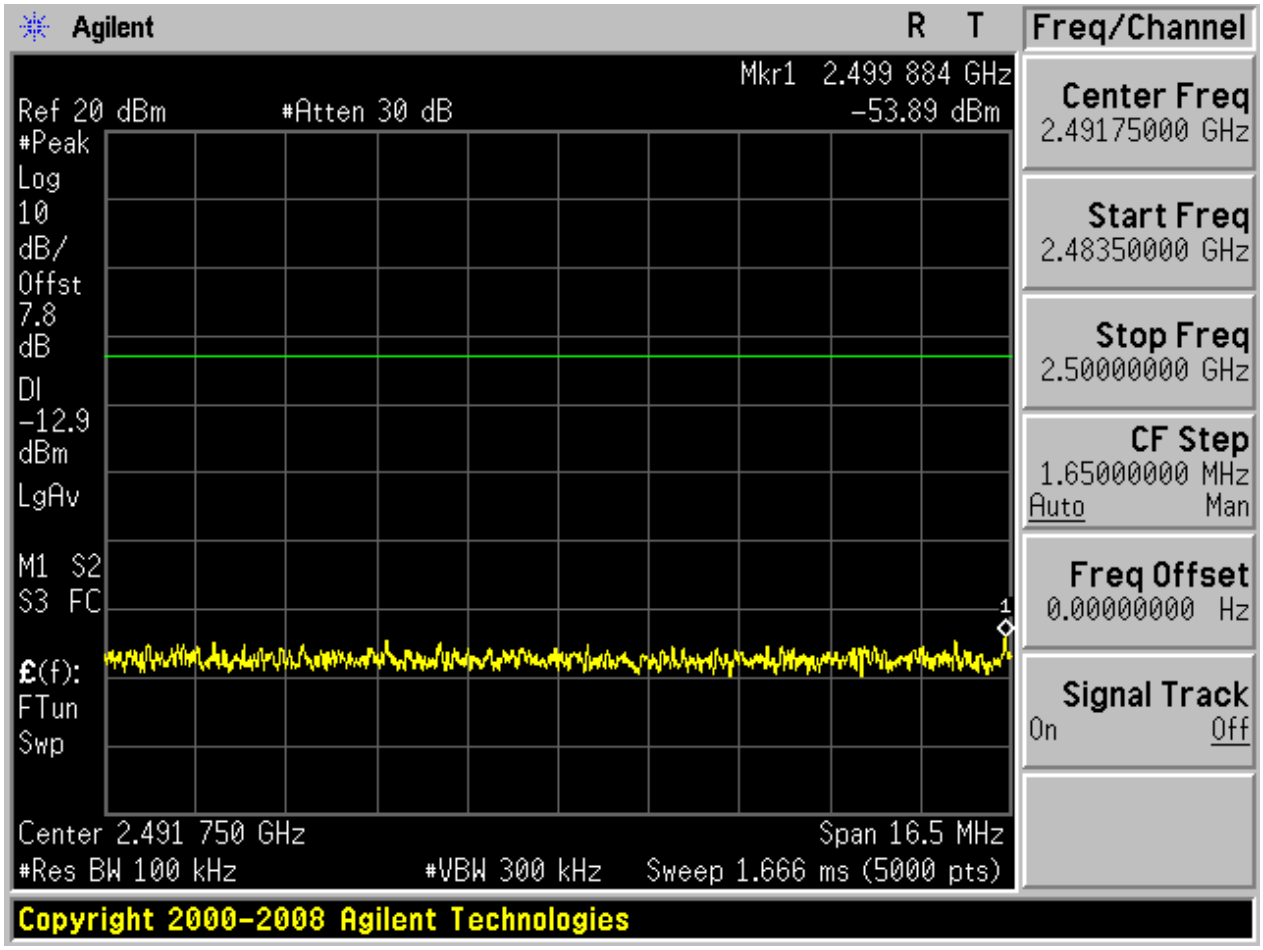
2.8.2 Puw

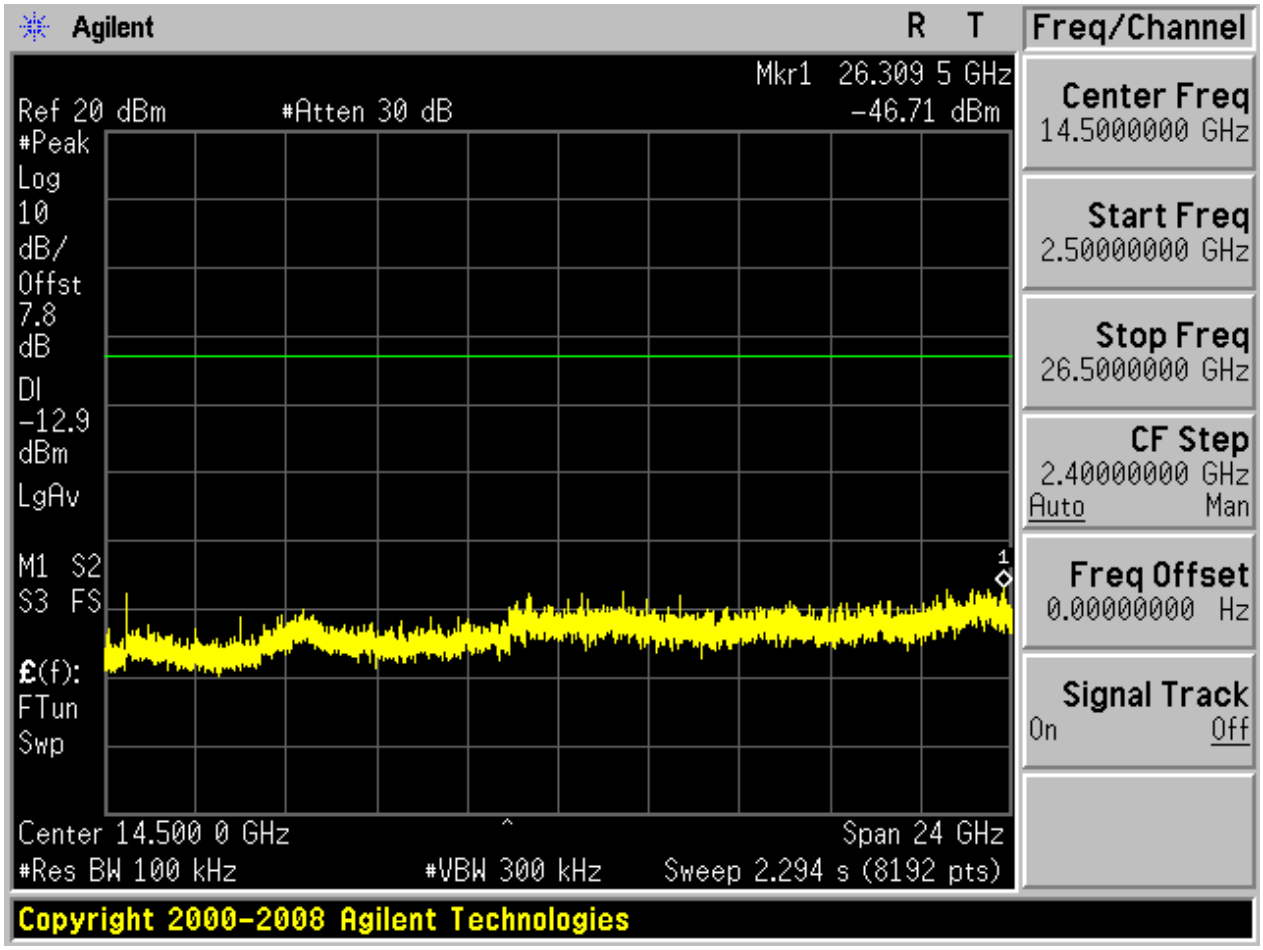






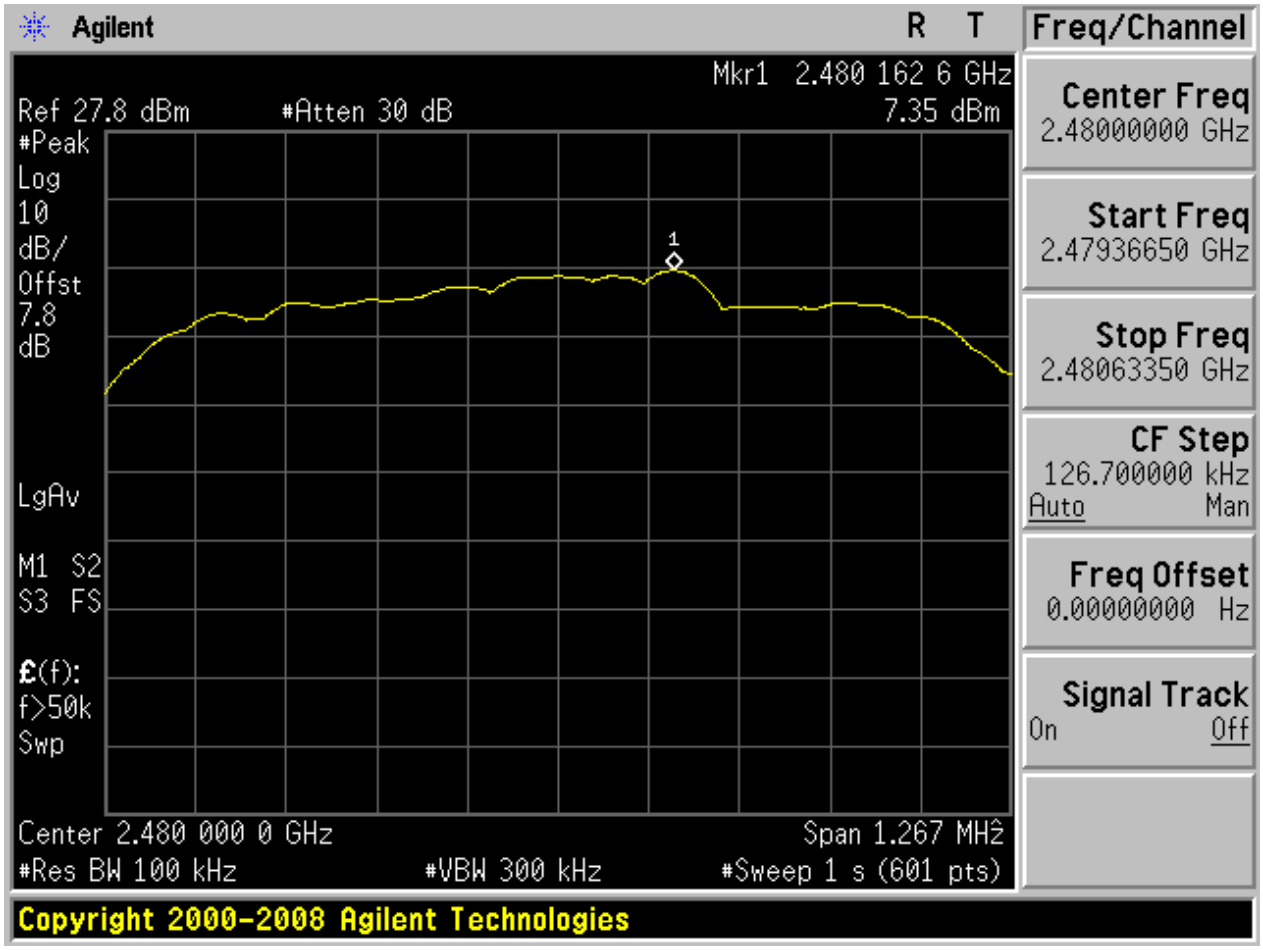




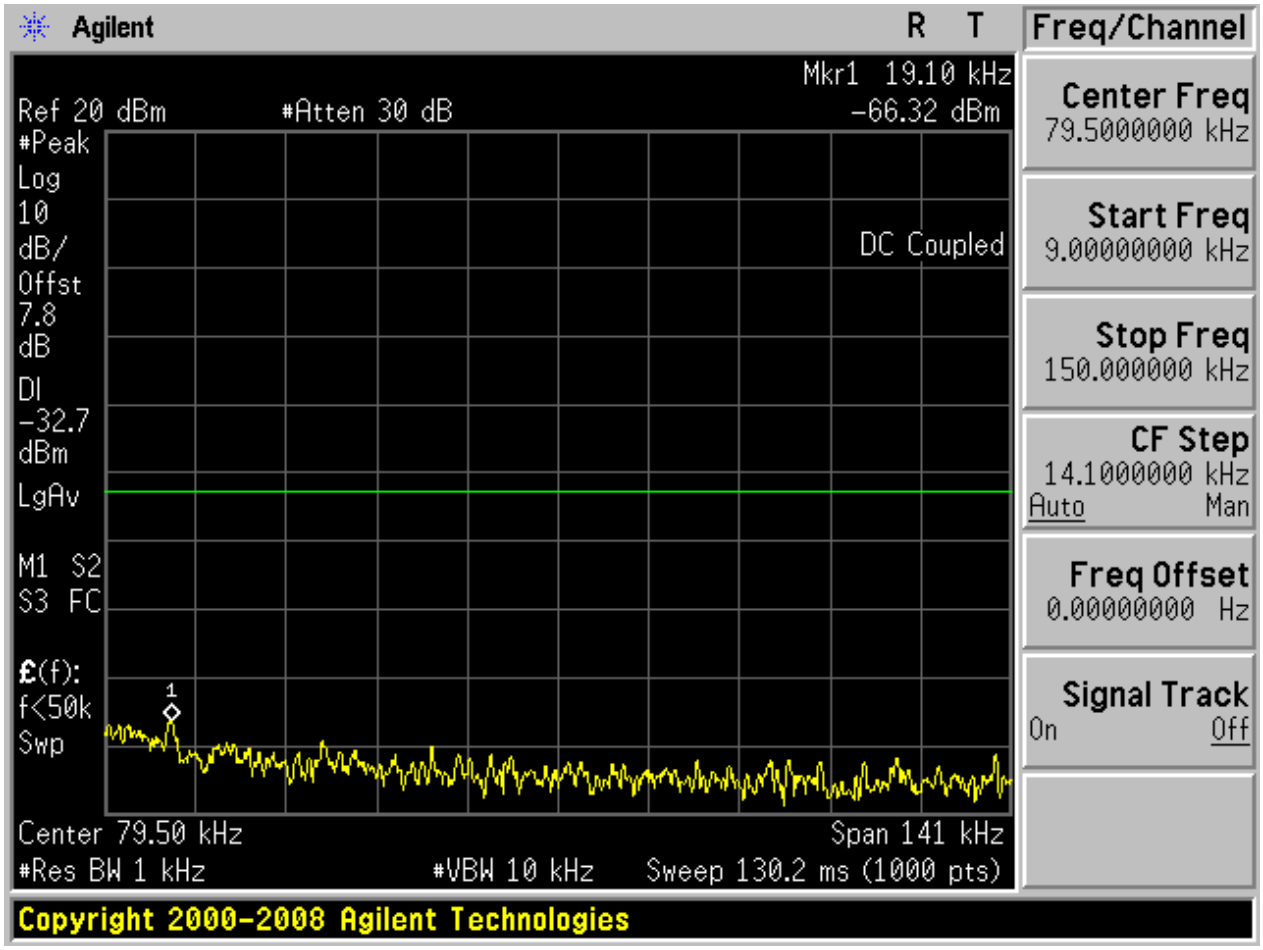


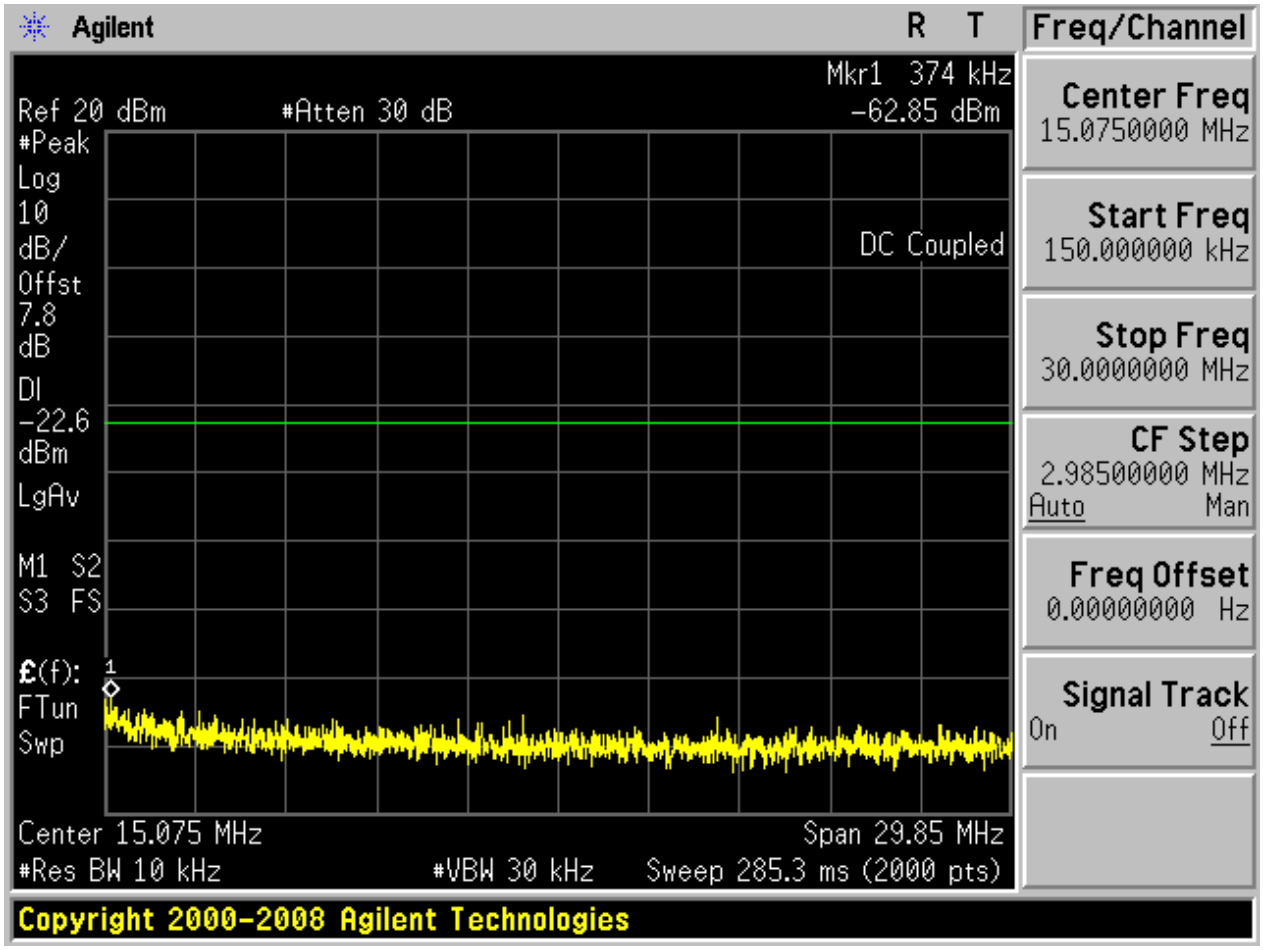
2.9 TM3_3DH5_Ch78

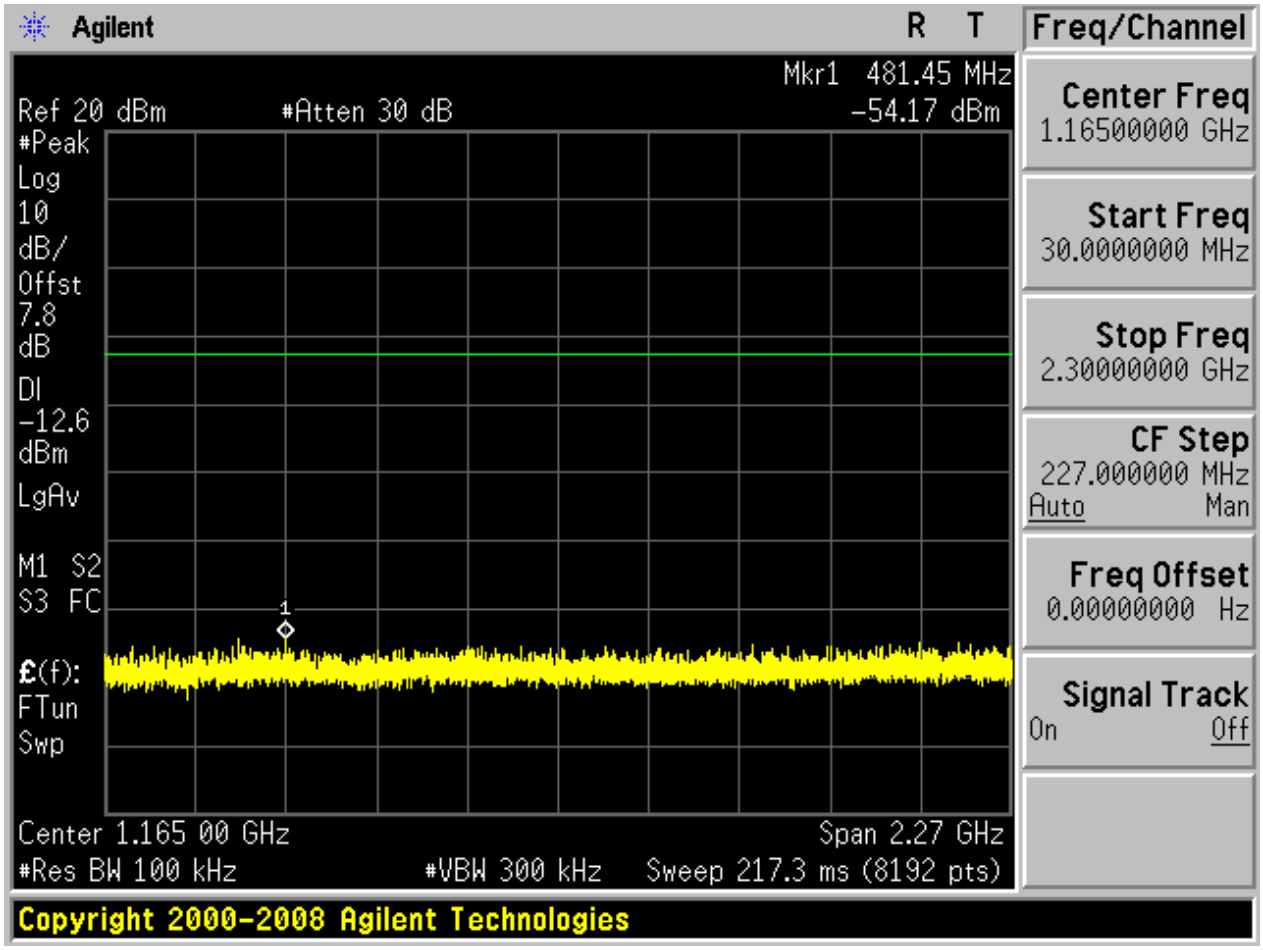
2.9.1 Pref

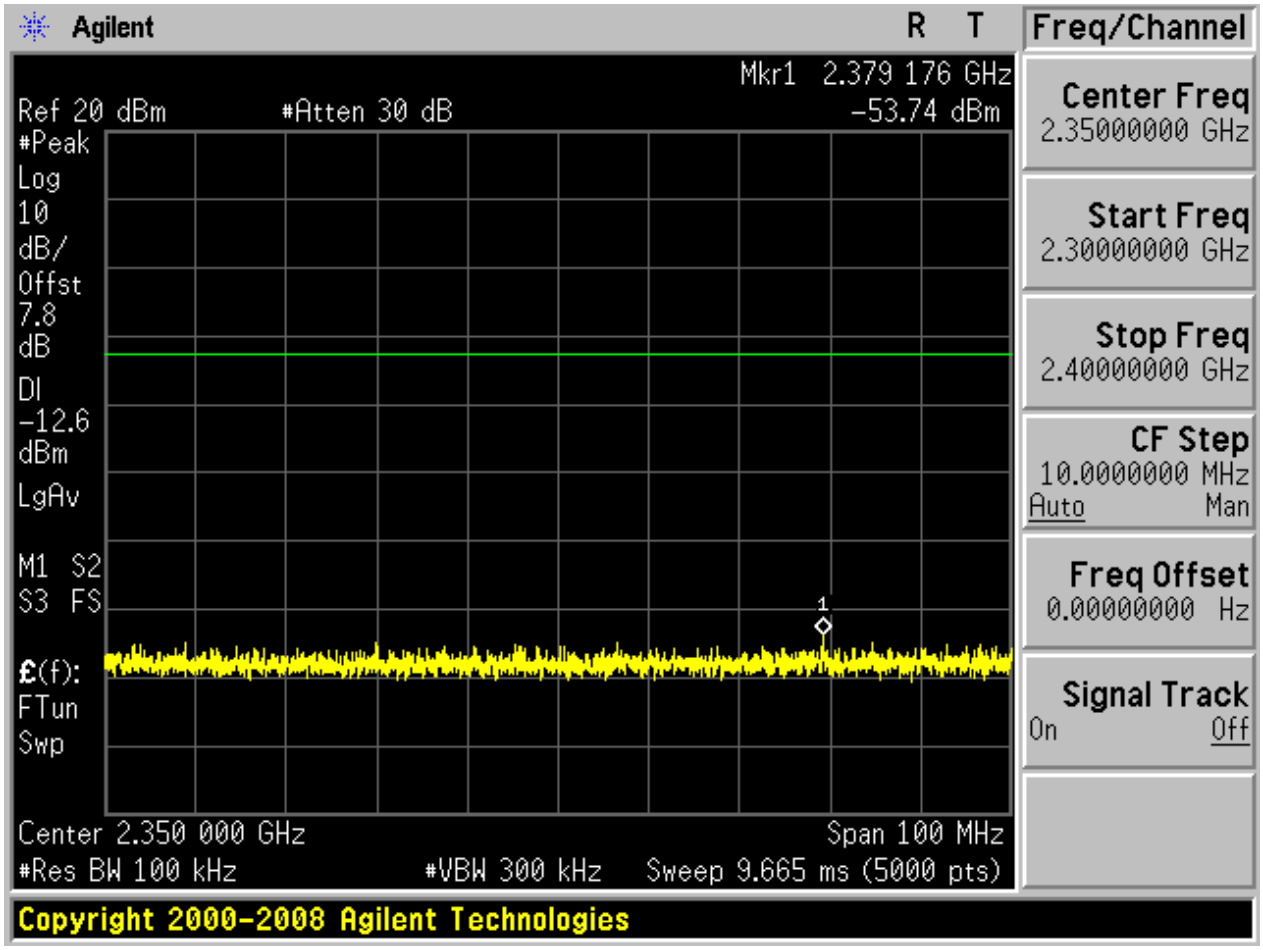


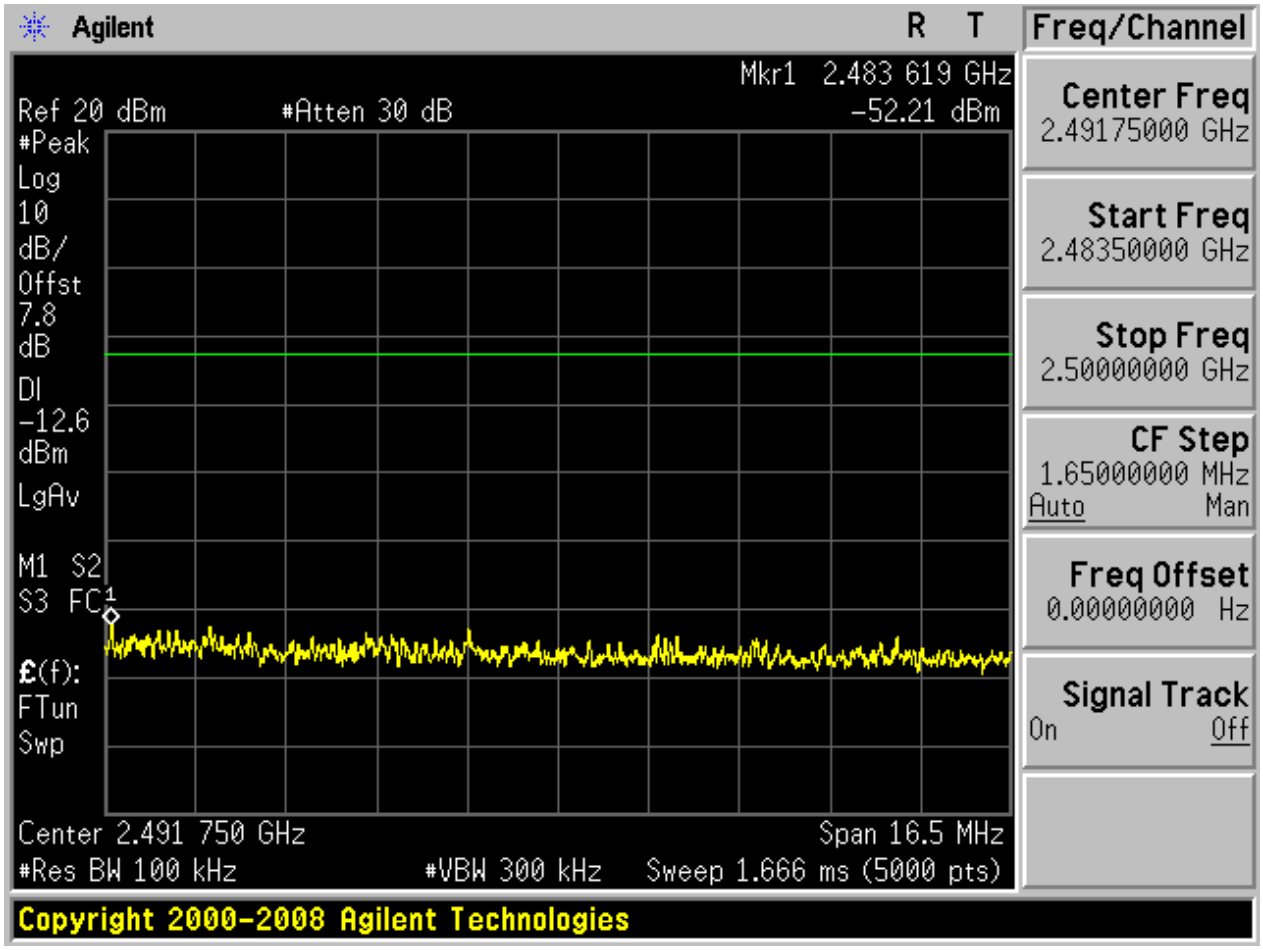
2.9.2 Puw

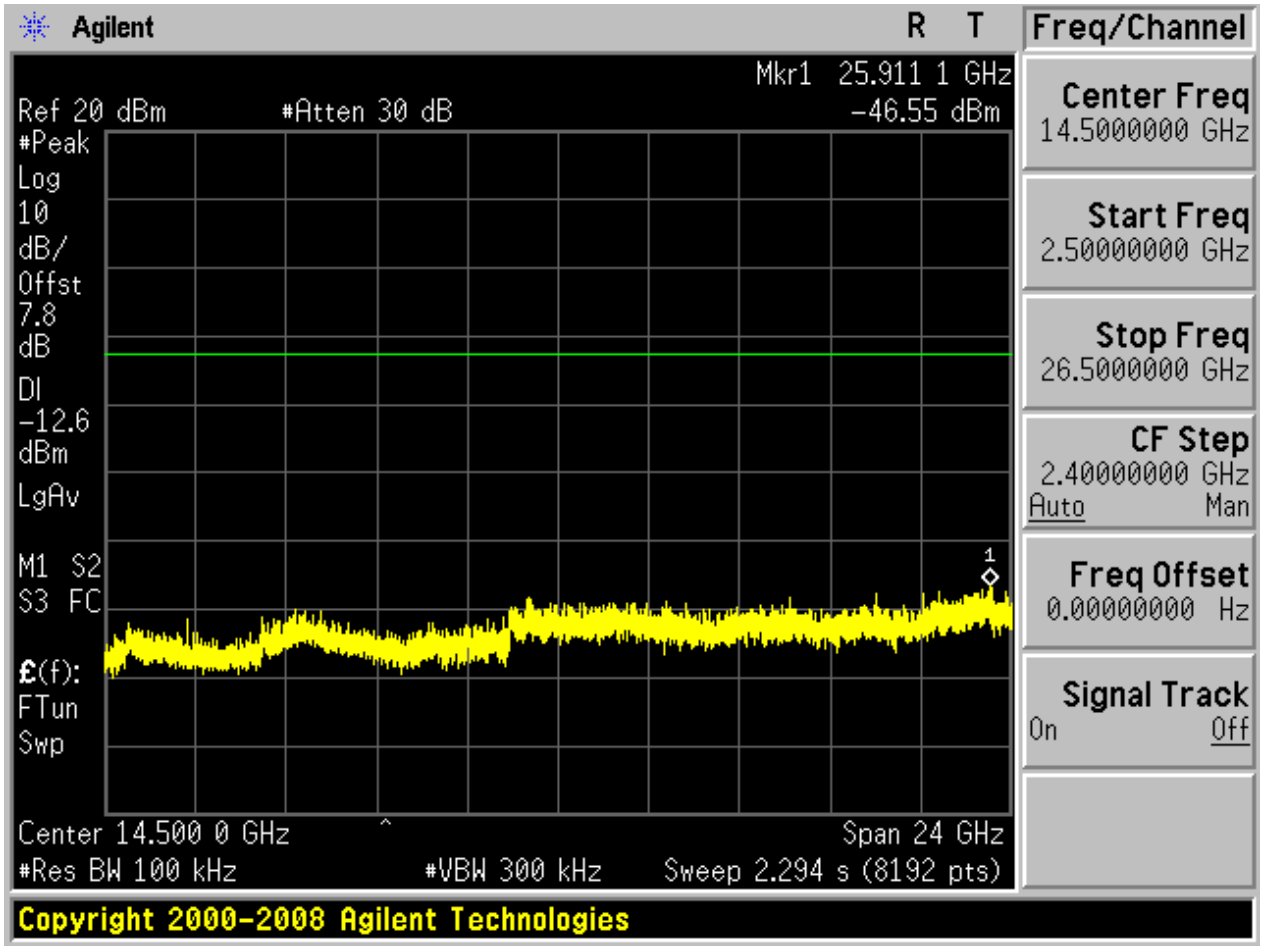







Agilent
R T
Freq/Channel
Mkr1 2.379 176 GHz
Ref 20 dBm
#Atten 30 dB
-53.74 dBm
#Peak
Log
10
dB/
Offst
7.8
dB
Dl
-12.6
dBm
LgAv
M1 S2
S3 FS
£(f):
FTun
Swp
Center Freq
2.35000000 GHz
Start Freq
2.30000000 GHz
Stop Freq
2.40000000 GHz
CF Step
10.0000000 MHz
Auto
Man
Freq Offset
0.000000000 Hz
Signal Track
On
Off
Center 2.350 000 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 9.665 ms (5000 pts)
Copyright 2000-2008 Agilent Technologies





Appendix H: Radiated Emissions in the Restricted Bands

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 “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

2 Result Plot

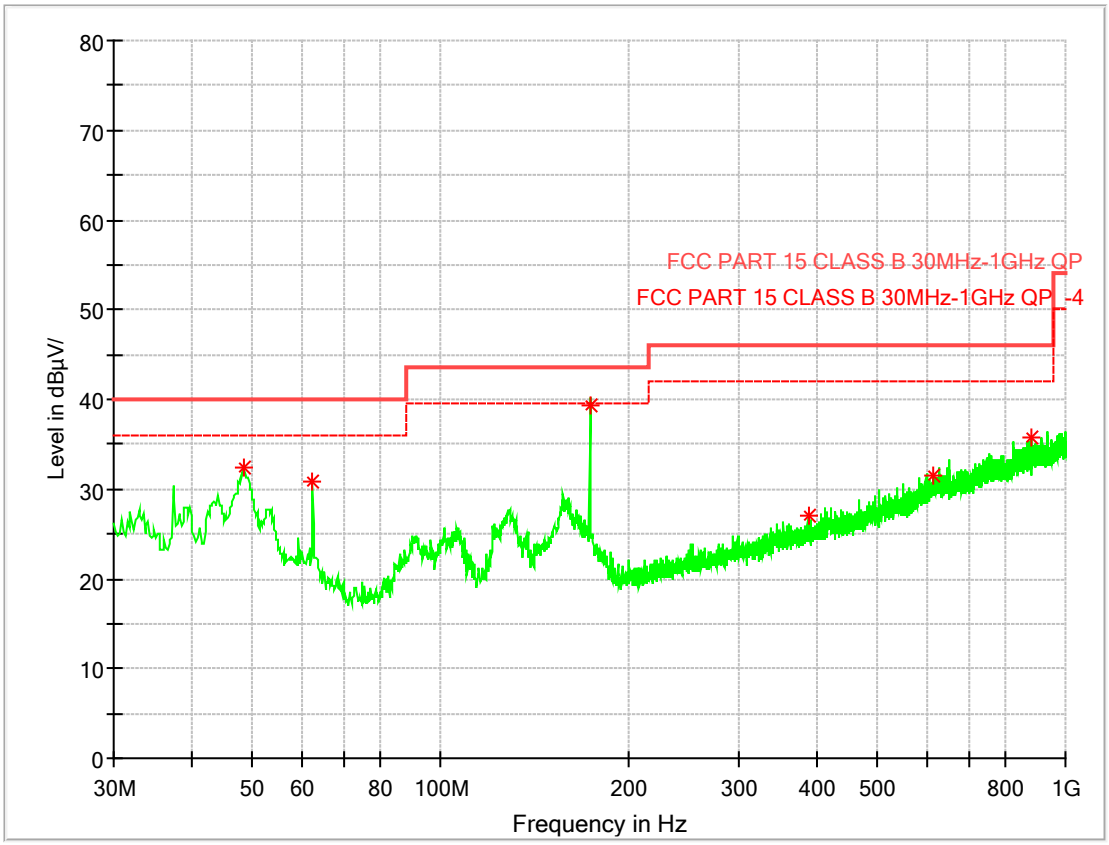
Part 1: Testing Range of “9 KHz to 30 MHz”

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	MaxPeak	Limit	Margin	Height	Pol	Azimuth	Corr.
48.430000	32.50	40.00	-7.50	100.0	V	308.0	15.1
62.398000	30.90	40.00	-9.10	100.0	V	302.0	12.7
173.560000	39.30	43.50	-4.20	100.0	V	276.0	11.1
387.348000	27.10	46.00	-18.90	100.0	V	129.0	17.6
615.686000	31.45	46.00	-14.55	100.0	H	8.0	22.2
884.570000	35.84	46.00	-10.16	100.0	V	81.0	25.5

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”

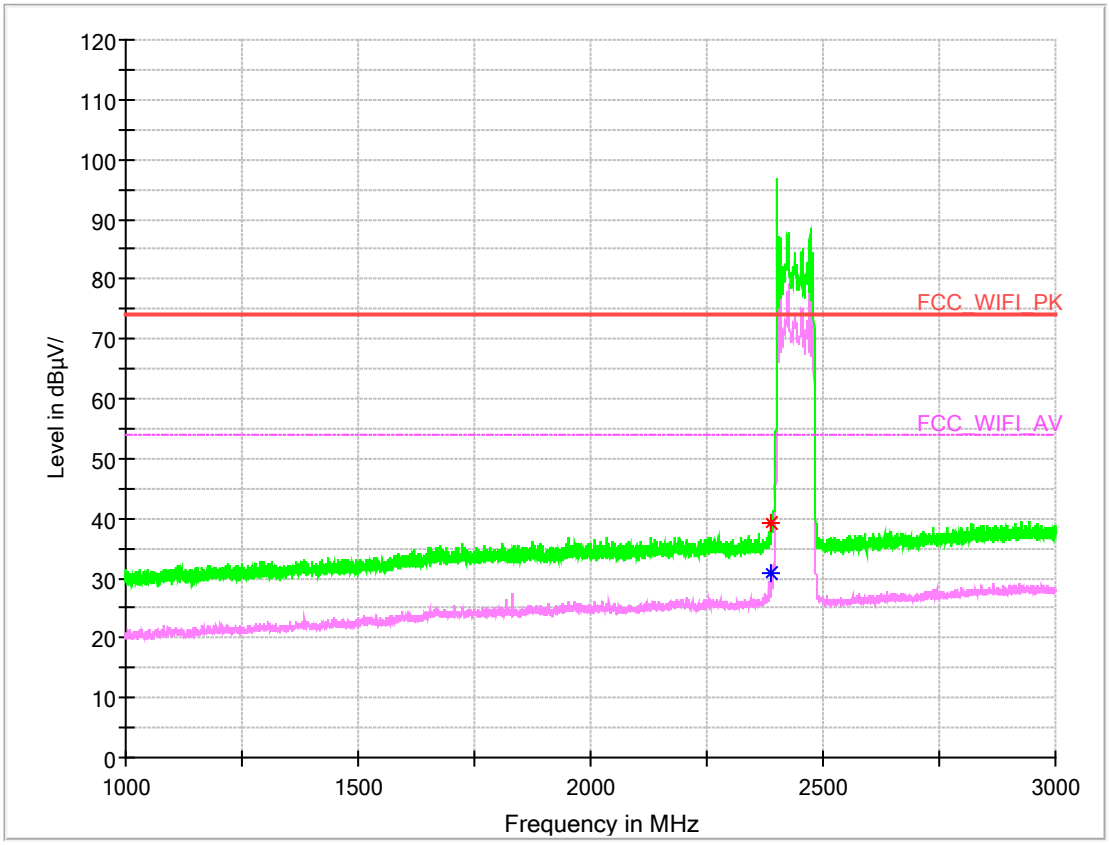
Part 4: Testing Range of "1GHz to 3GHz"

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 dBµV/m) and Average Limit (54 dBµV/m).

Note 3: The peak spike exceeds the limit line is EUT's operating frequency.

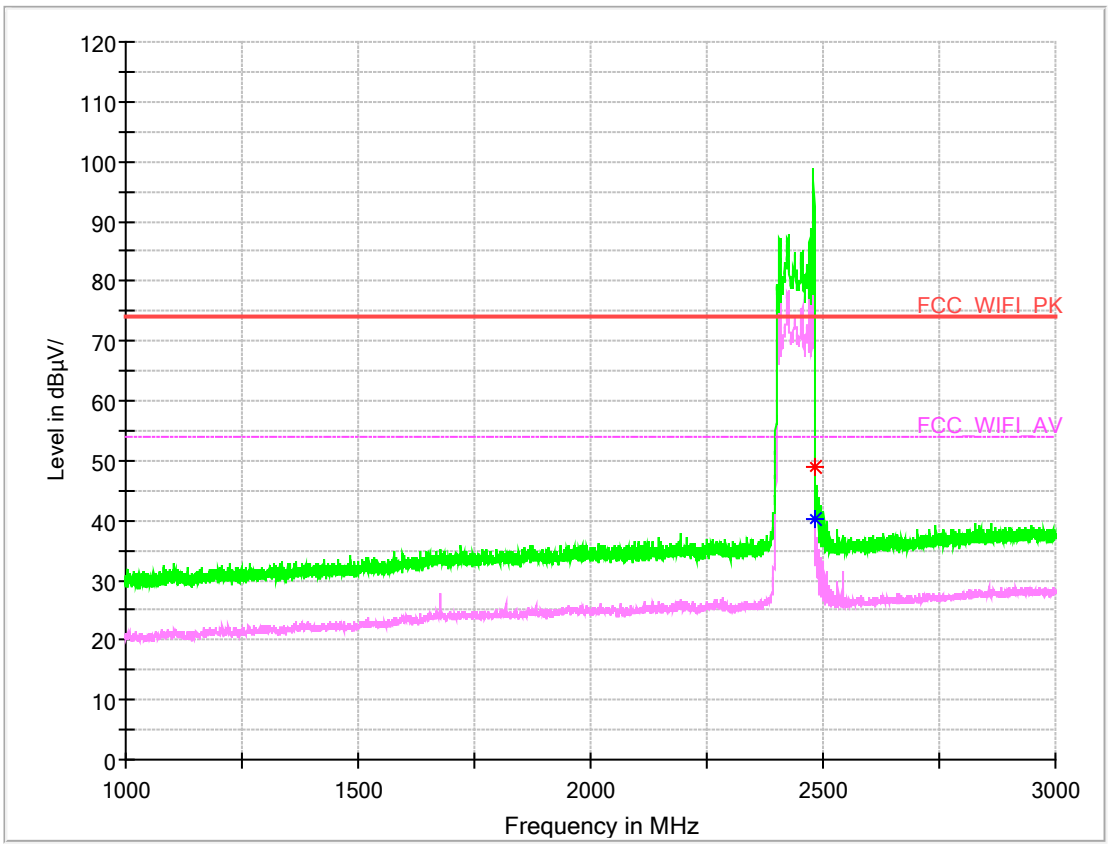
Channel 0



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

Frequency	MaxPeak	Average	Limit	Margin	Height	Pol	Azimuth	Corr.
2390.00000	39.36	---	74.00	-34.64	100.0	H	194.0	-7.8
2390.00000	---	30.76	54.00	-23.24	100.0	H	194.0	-7.8

Channel 78



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

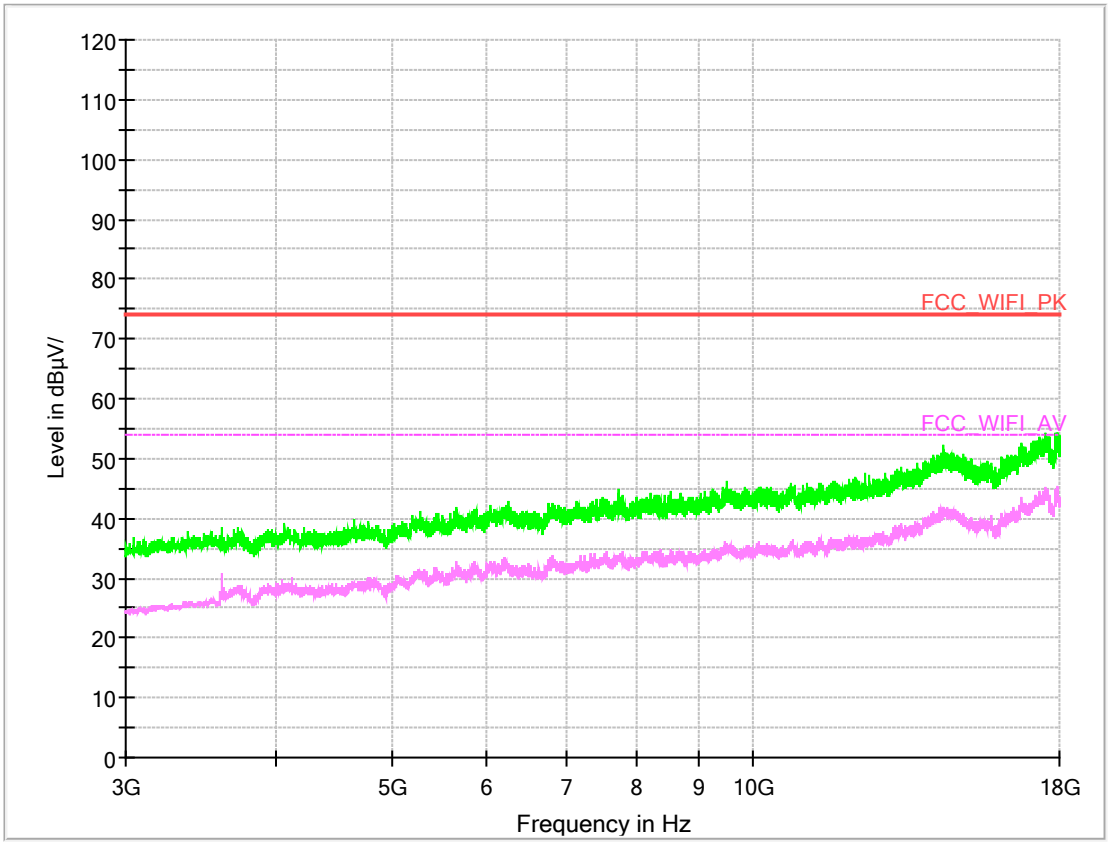
Frequency	MaxPeak	Average	Limit	Margin	Height	Pol	Azimuth	Corr.
2483.50000	48.86	---	74.00	-25.14	100.0	H	183.0	1.2
2483.50000	---	40.08	54.00	-13.92	100.0	H	183.0	1.2

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.

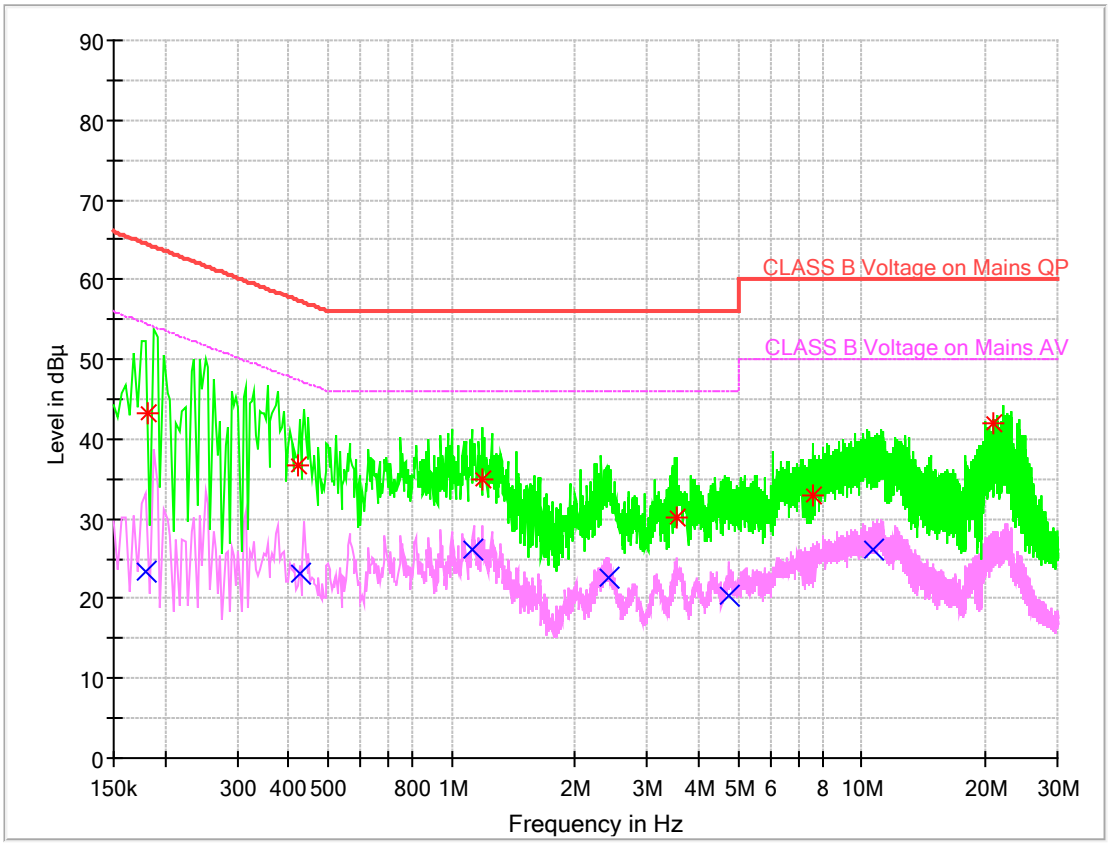
Note 3: Two limits are required in the testing range above 3 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).



Appendix I: AC Power Line Conducted Emissions

3 Result Table

Note: RBW =9 kHz, VBW = 30 kHz



Final Result

Frequency (MHz)	QuasiPeak	Average (dB µ V)	Limit (dB µ	Corr. (dB)	Margin (dB)	Line	Filter
0.180771	43.29	---	64.45	9.7	-21.16	L1	ON
20.867923	42.05	---	60.00	10.2	-17.95	N	ON
7.610162	32.97	---	60.00	9.9	-27.03	N	ON
0.422047	36.63	---	57.41	9.7	-20.78	N	ON
3.541028	30.10	---	56.00	9.8	-25.90	N	ON
1.189500	35.01	---	56.00	9.7	-20.99	N	ON
0.179759	---	23.43	54.50	9.7	-31.07	L1	ON
10.684239	---	26.26	50.00	10.0	-23.74	N	ON

0.426337	---	23.15	47.32	9.7	-24.18	N	ON
4.735258	---	20.46	46.00	9.9	-25.54	N	ON
1.125703	---	26.09	46.00	9.7	-19.91	N	ON
2.417328	---	22.63	46.00	9.8	-23.37	N	ON

END