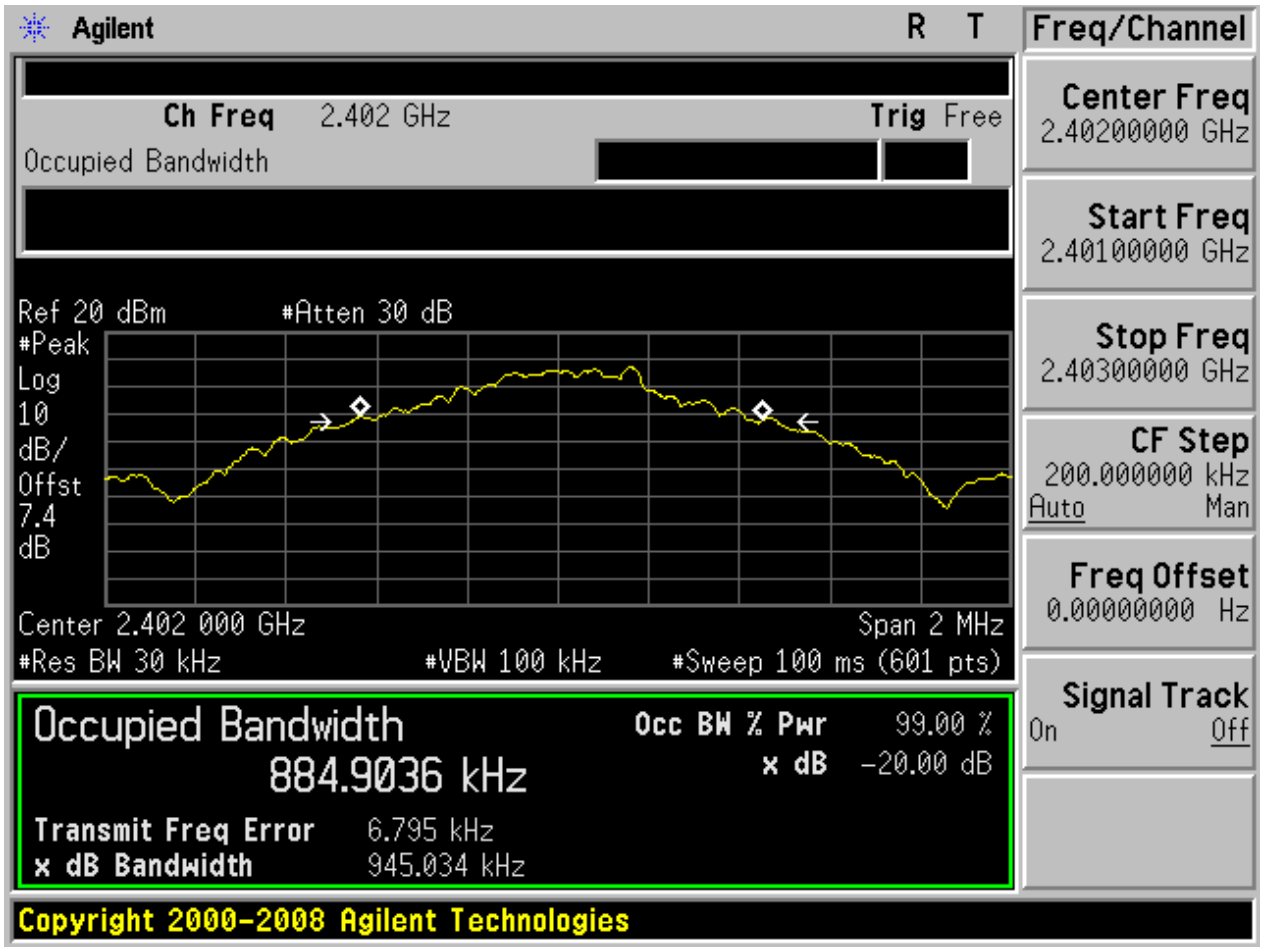
Appendix A: 20dB Emission Bandwidth (EBW)

1 Result Table

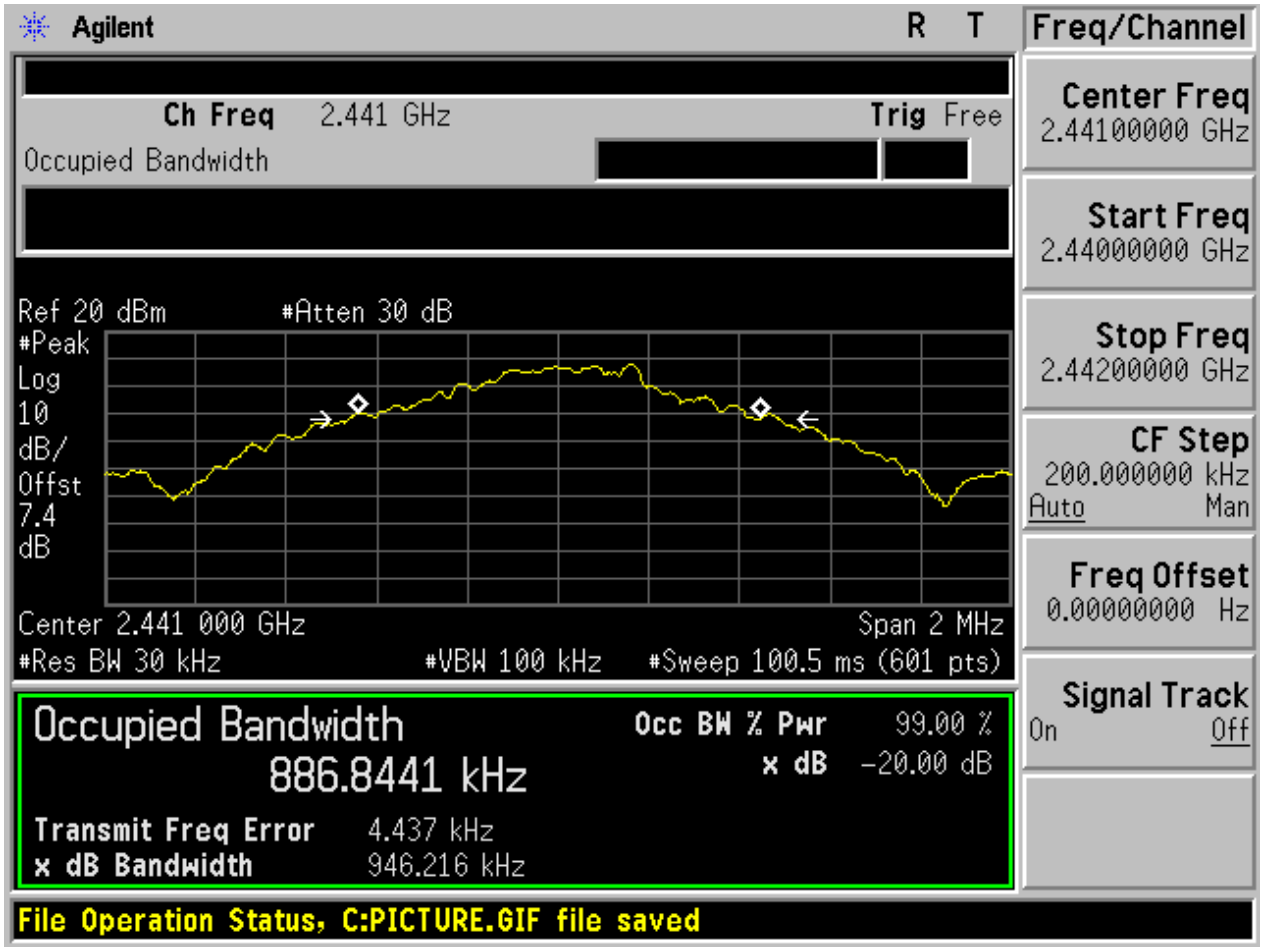
EUT Conf.	EBW [MHz]	Verdict
TM1_DH5_Ch0	0.945	Pass
TM1_DH5_Ch39	0.946	Pass
TM1_DH5_Ch78	0.945	Pass
TM2_2DH5_Ch0	1.285	Pass
TM2_2DH5_Ch39	1.285	Pass
TM2_2DH5_Ch78	1.284	Pass
TM3_3DH5_Ch0	1.282	Pass
TM3_3DH5_Ch39	1.278	Pass
TM3_3DH5_Ch78	1.279	Pass

2 Test Plot

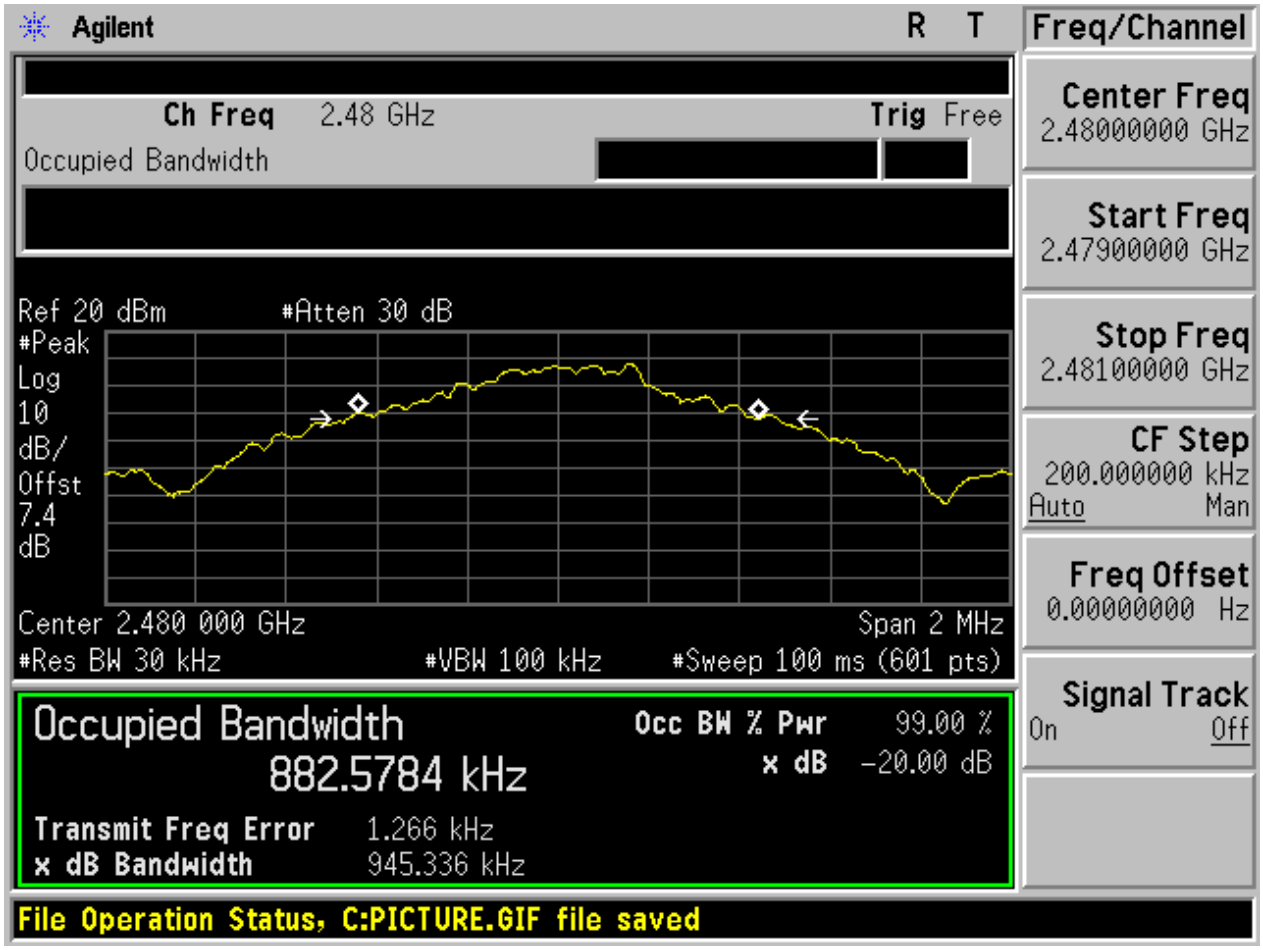
2.1 TM1_DH5_Ch0



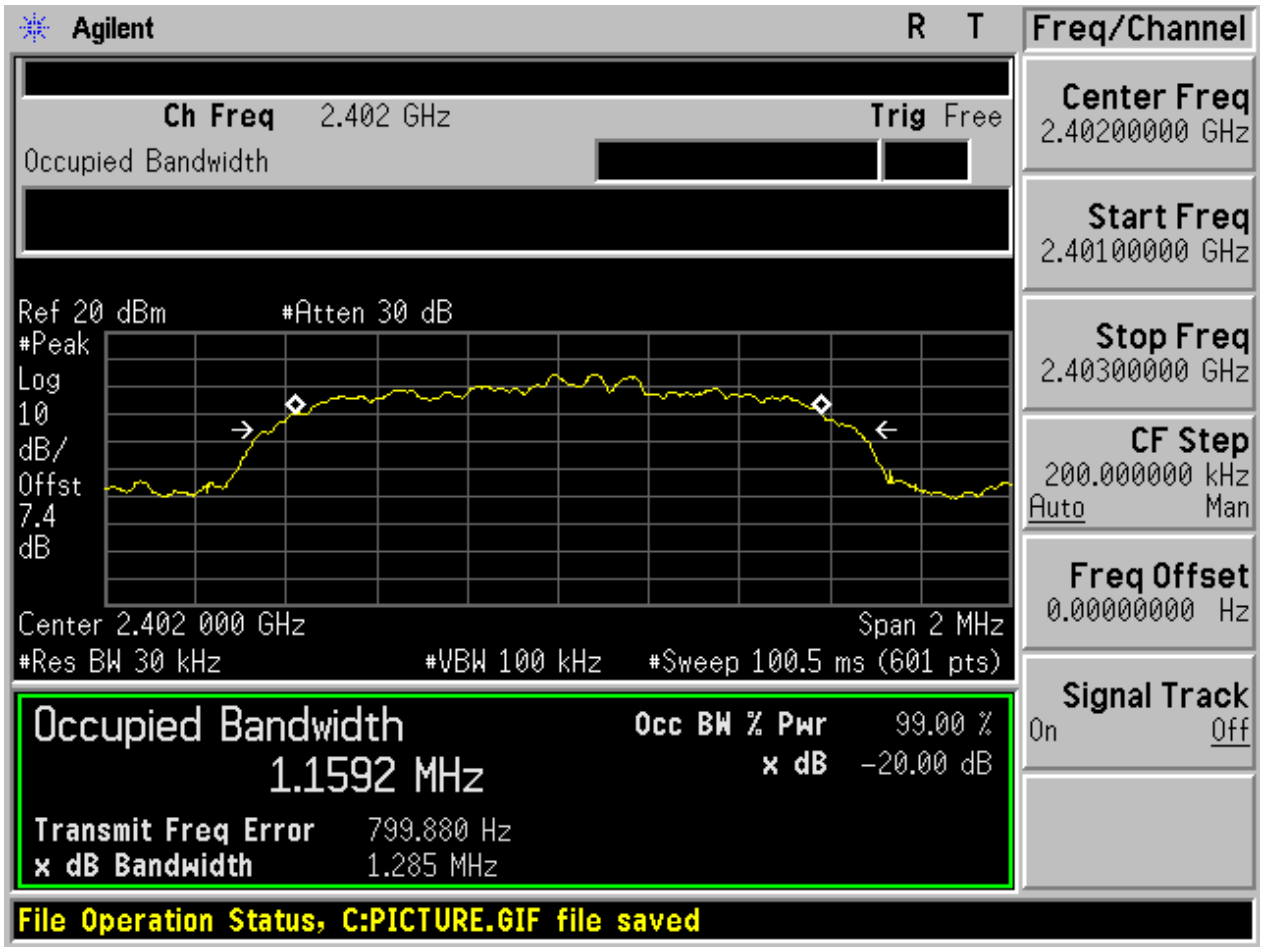
2.2 TM1_DH5_Ch39



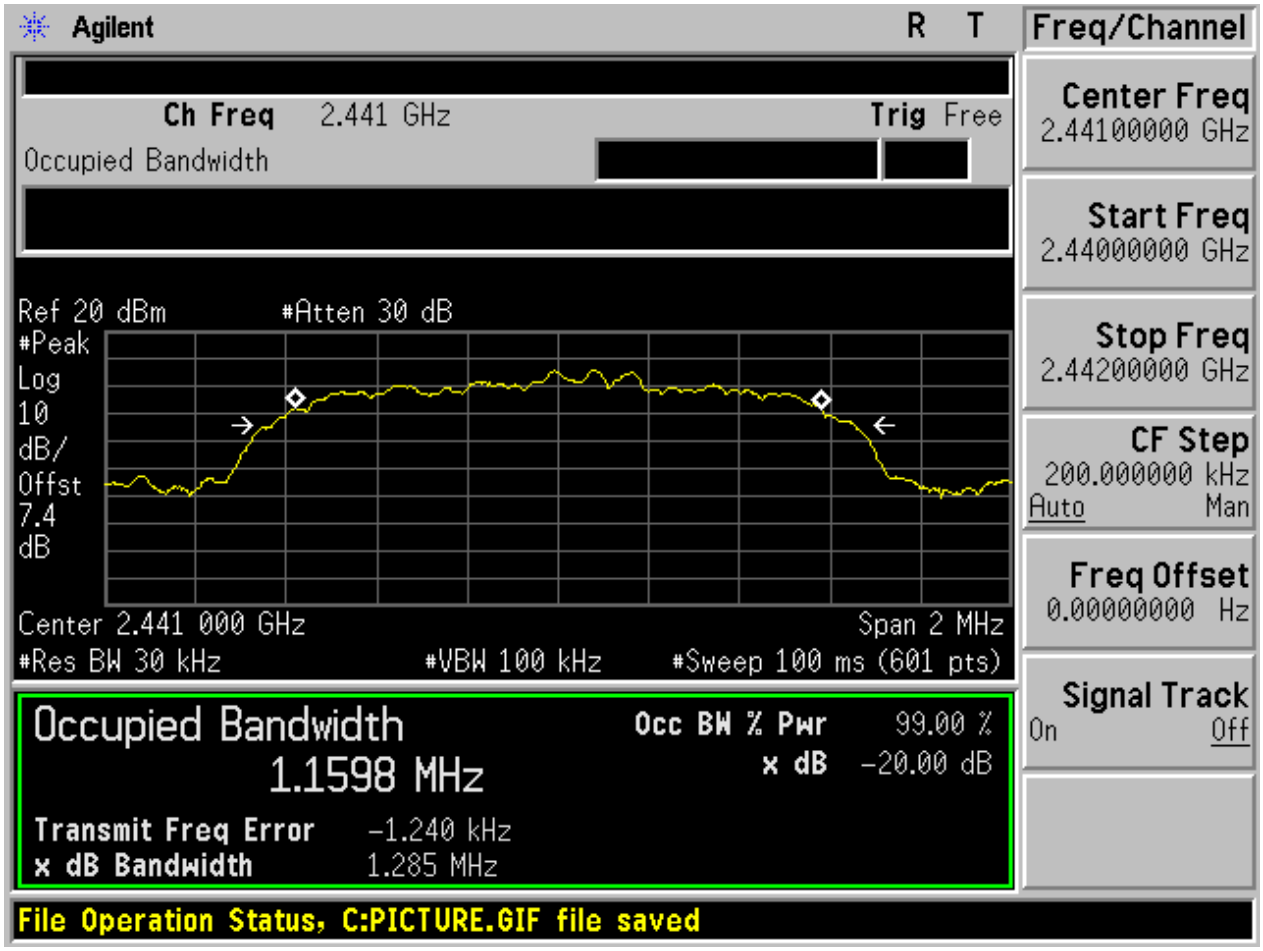
2.3 TM1_DH5_Ch78



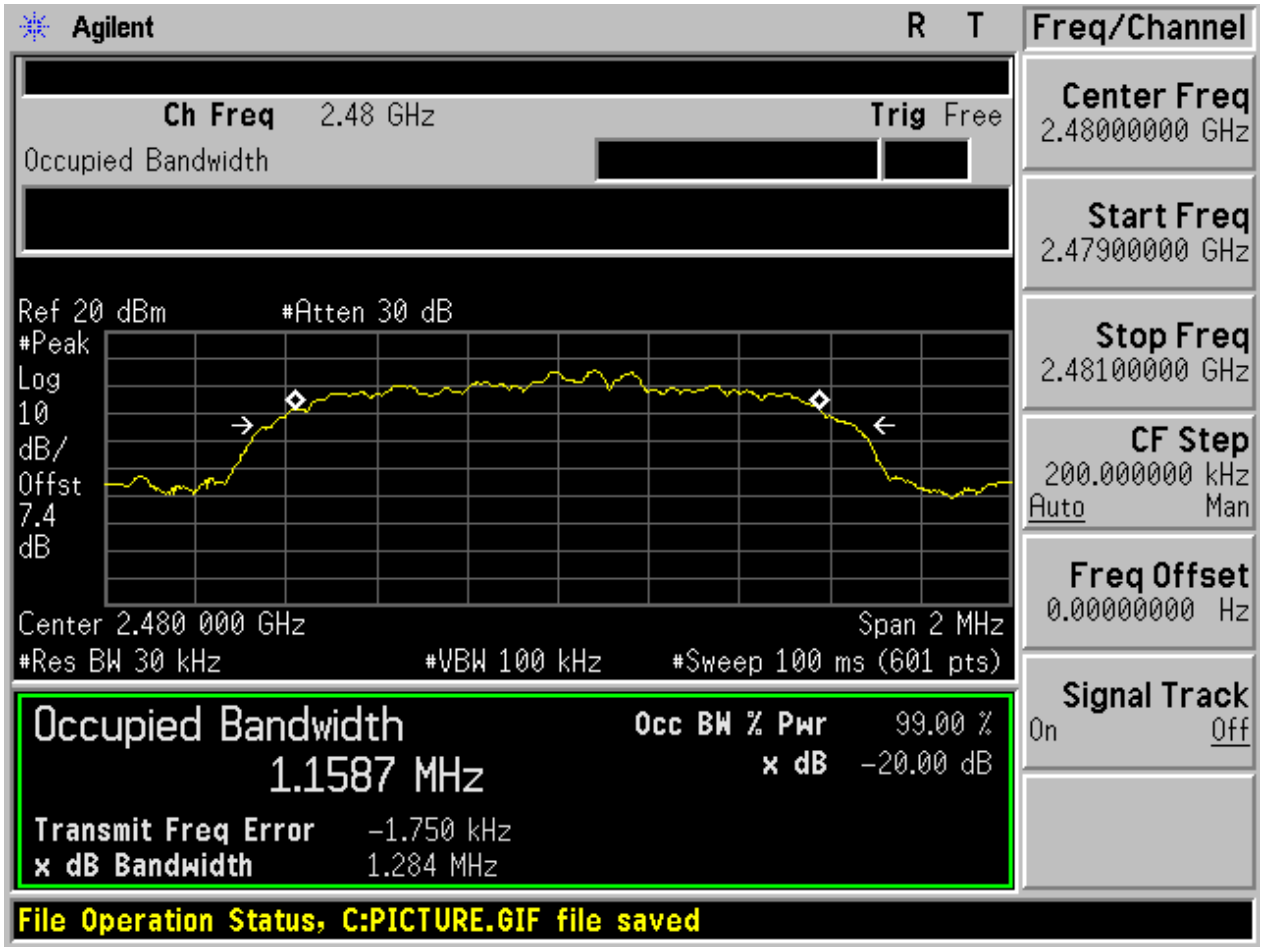
2.4 TM2_2DH5_Ch0



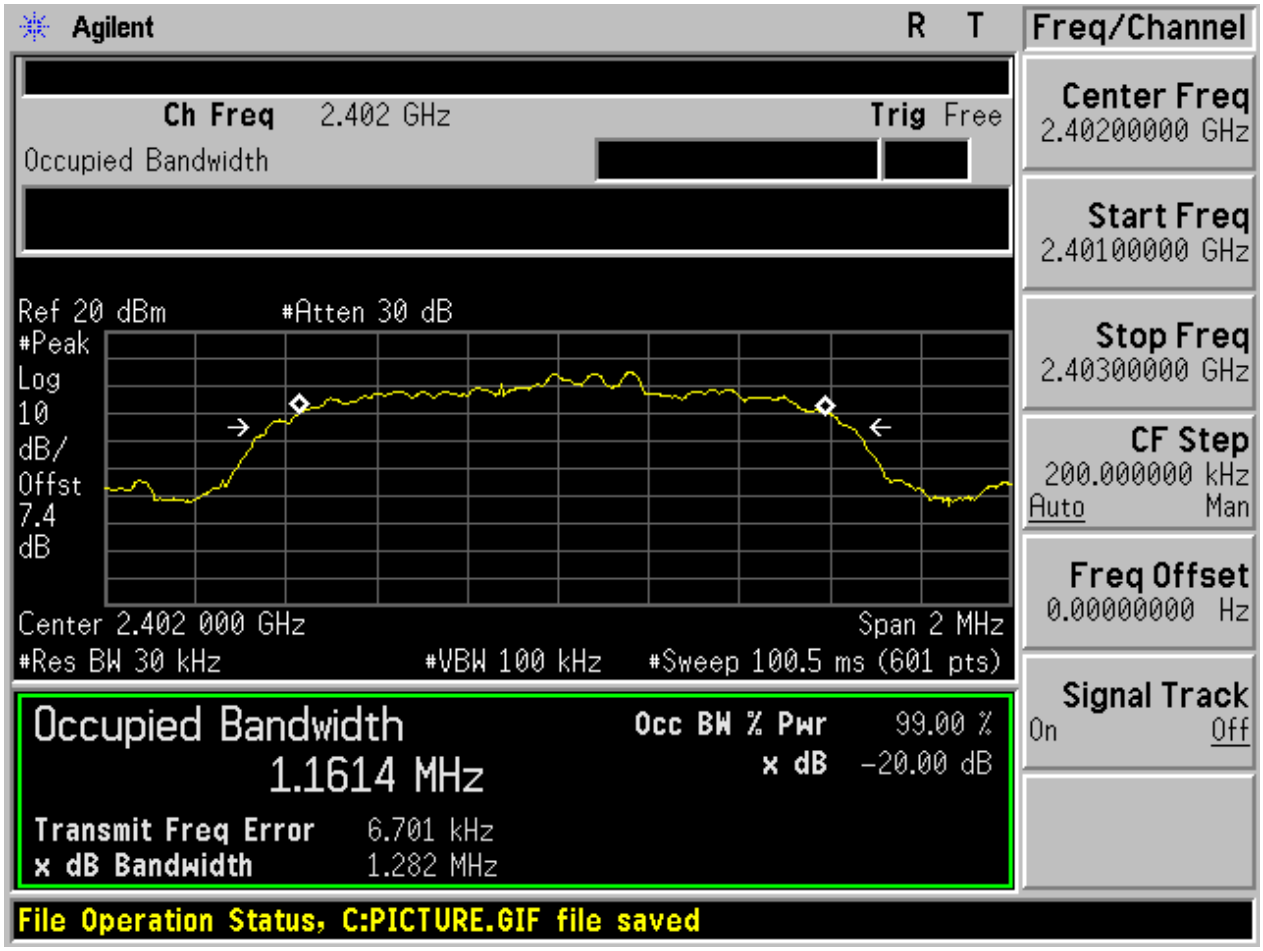
2.5 TM2_2DH5_Ch39



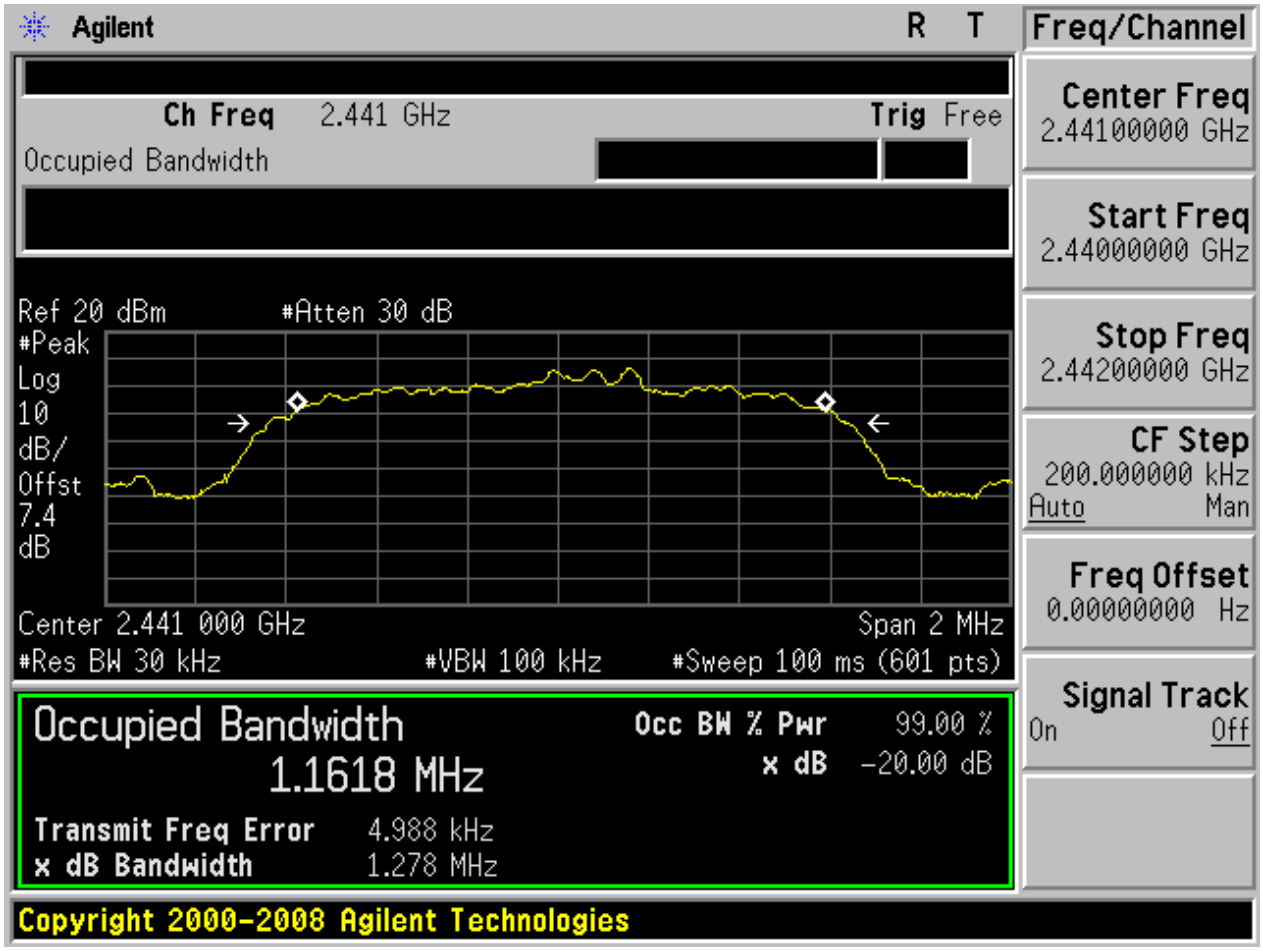
2.6 TM2_2DH5_Ch78



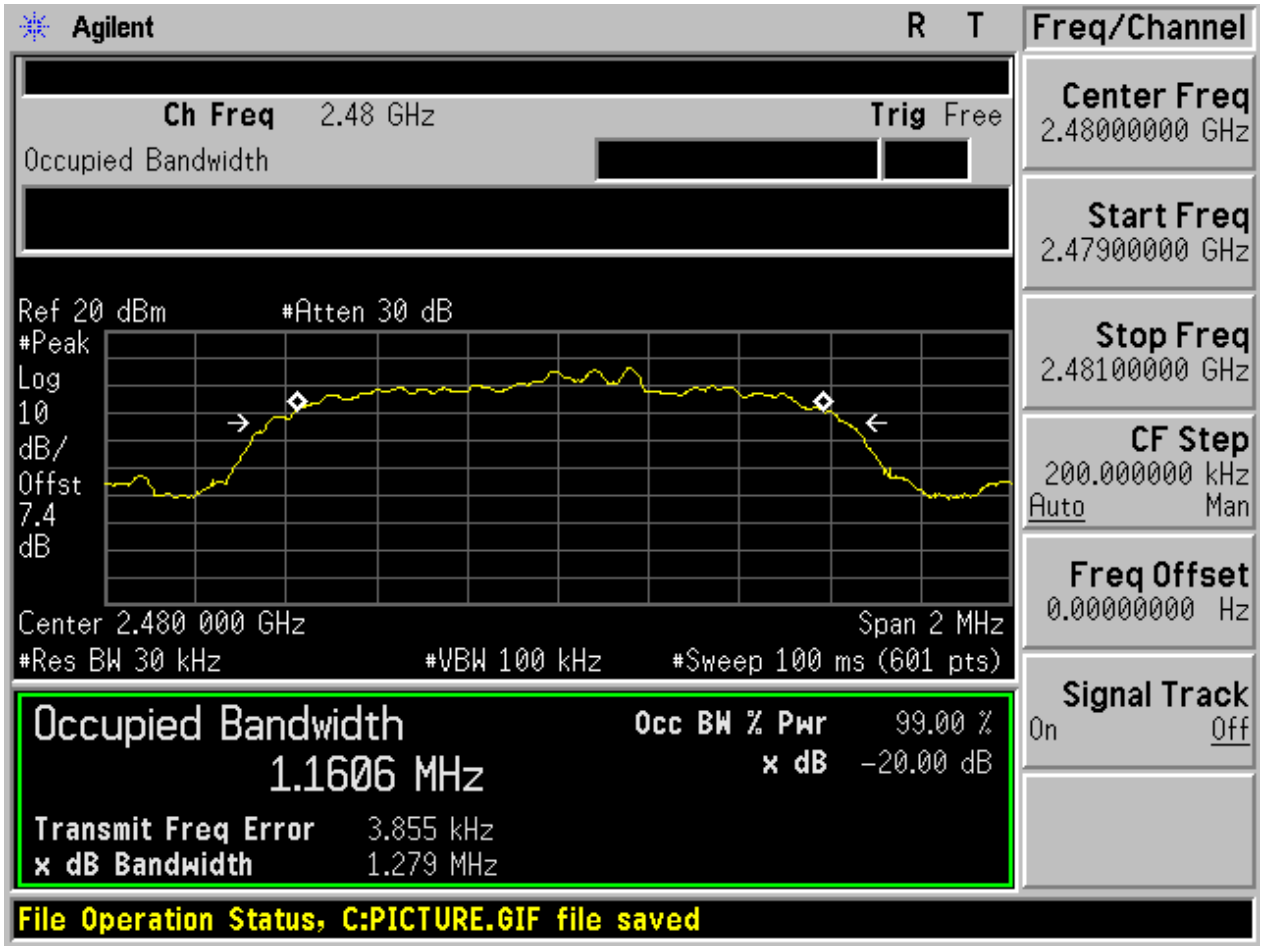
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78



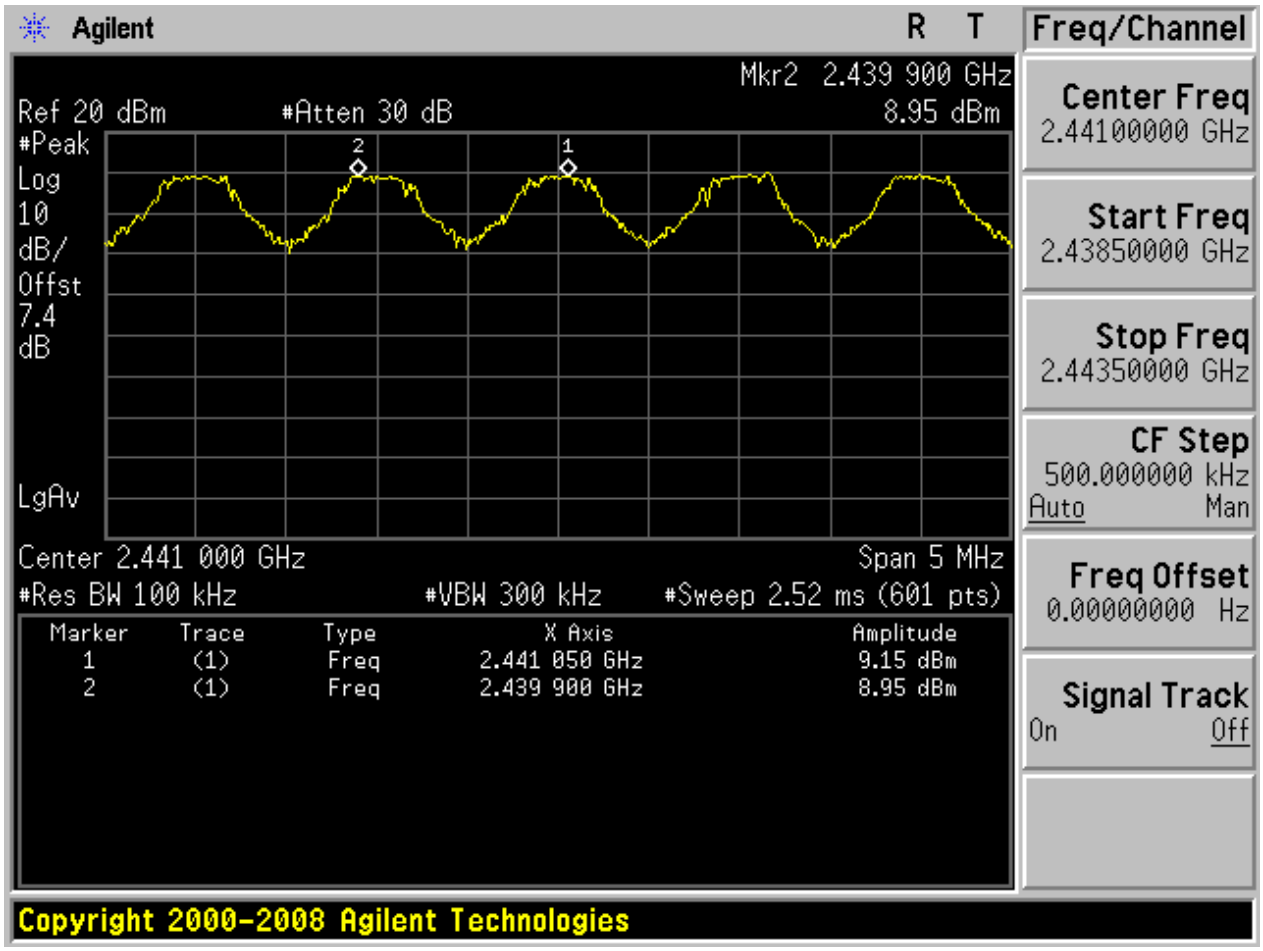
Appendix B: Carrier Frequency Separation

1 Result Table

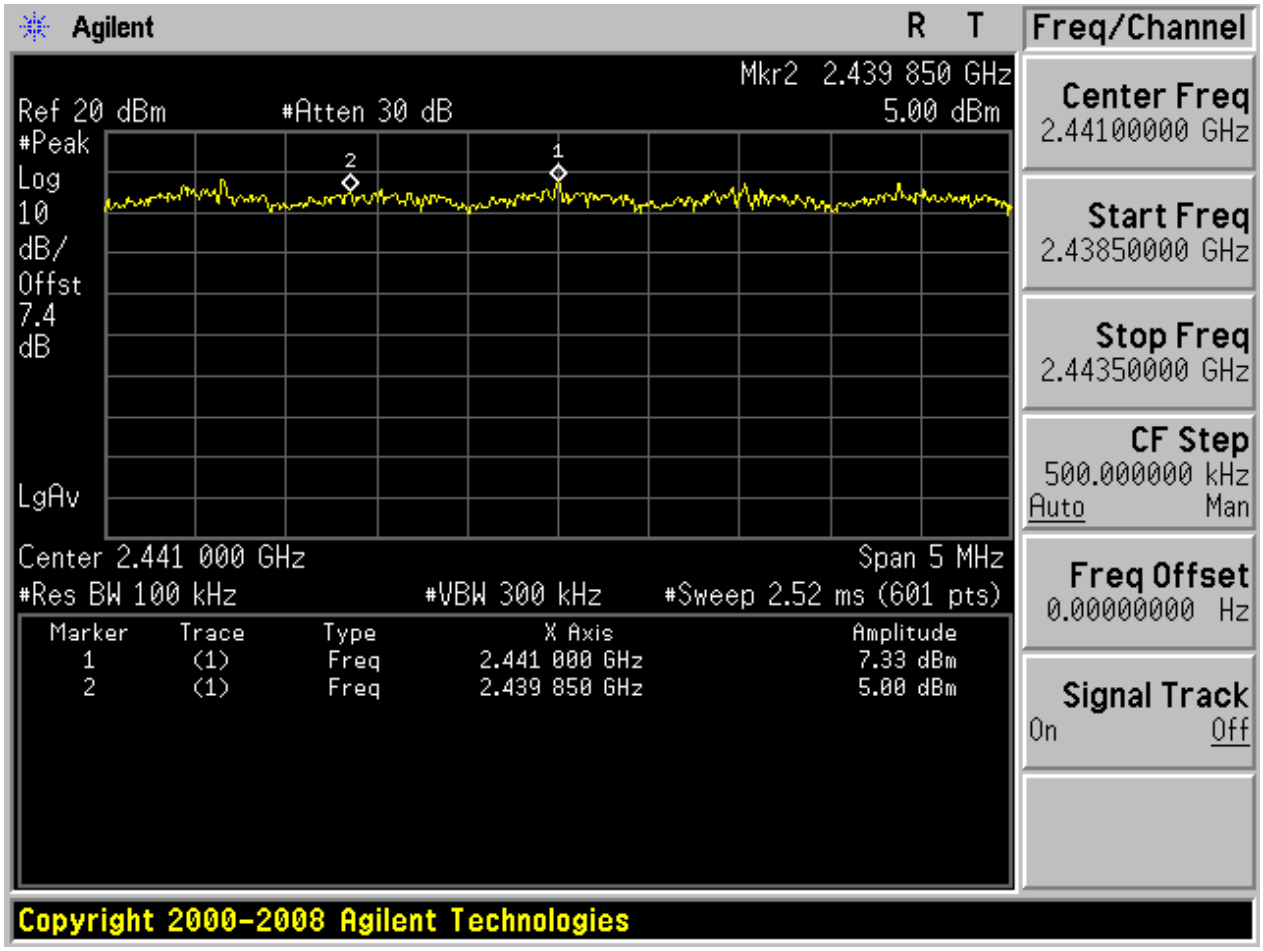
EUT Conf.	Carrier Frequency Separation [MHz]	Verdict
TM1_DH5_Hop	1.150	Pass
TM2_2DH5_Hop	1.150	Pass
TM3_3DH5_Hop	1.050	Pass

2 Test Plot

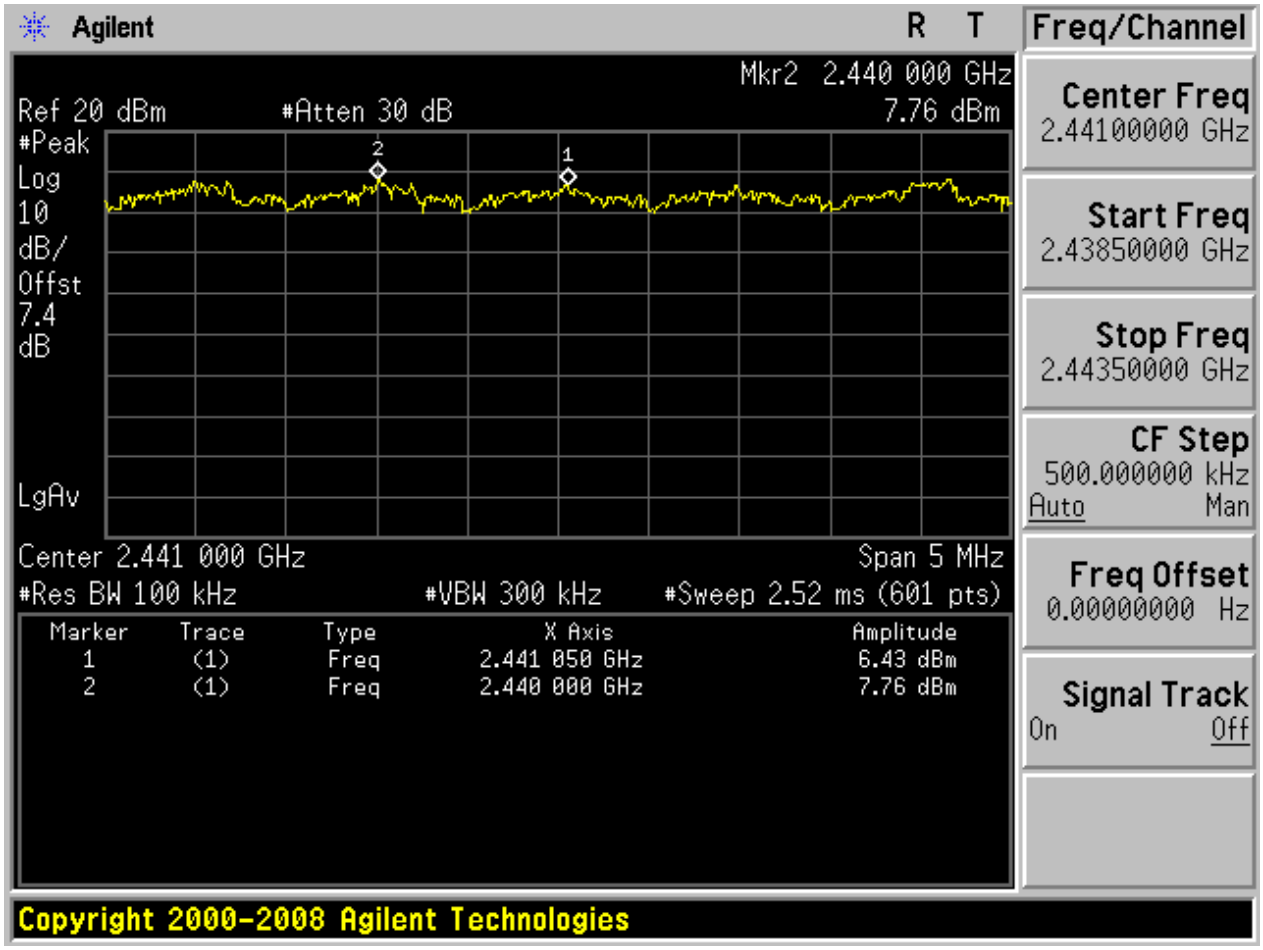
2.1 TM1_DH5_Hop



2.2 TM2_2DH5_Hop



2.3 TM3_3DH5_Hop



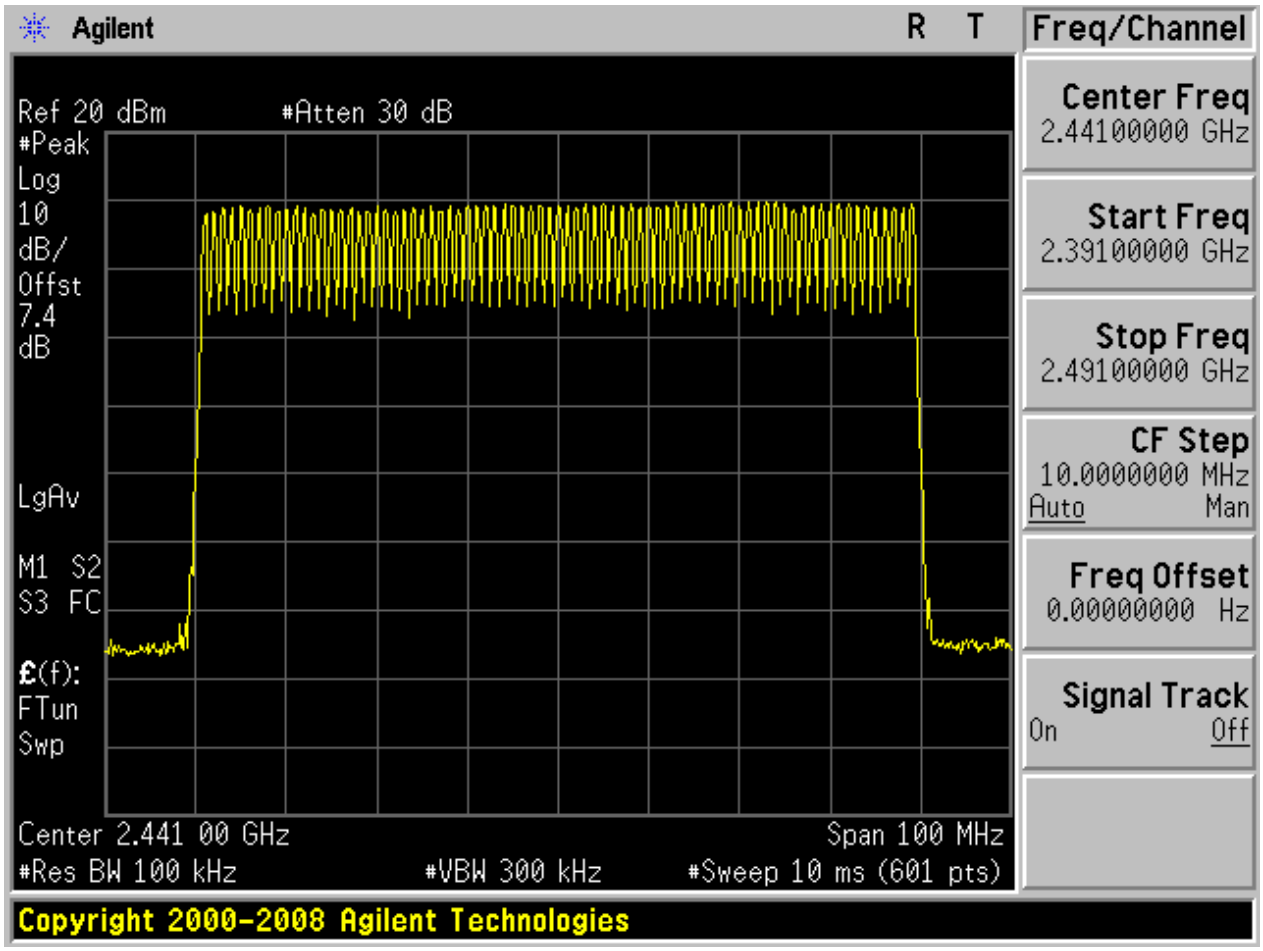
Appendix C: Number of Hopping Channel

1 Result Table

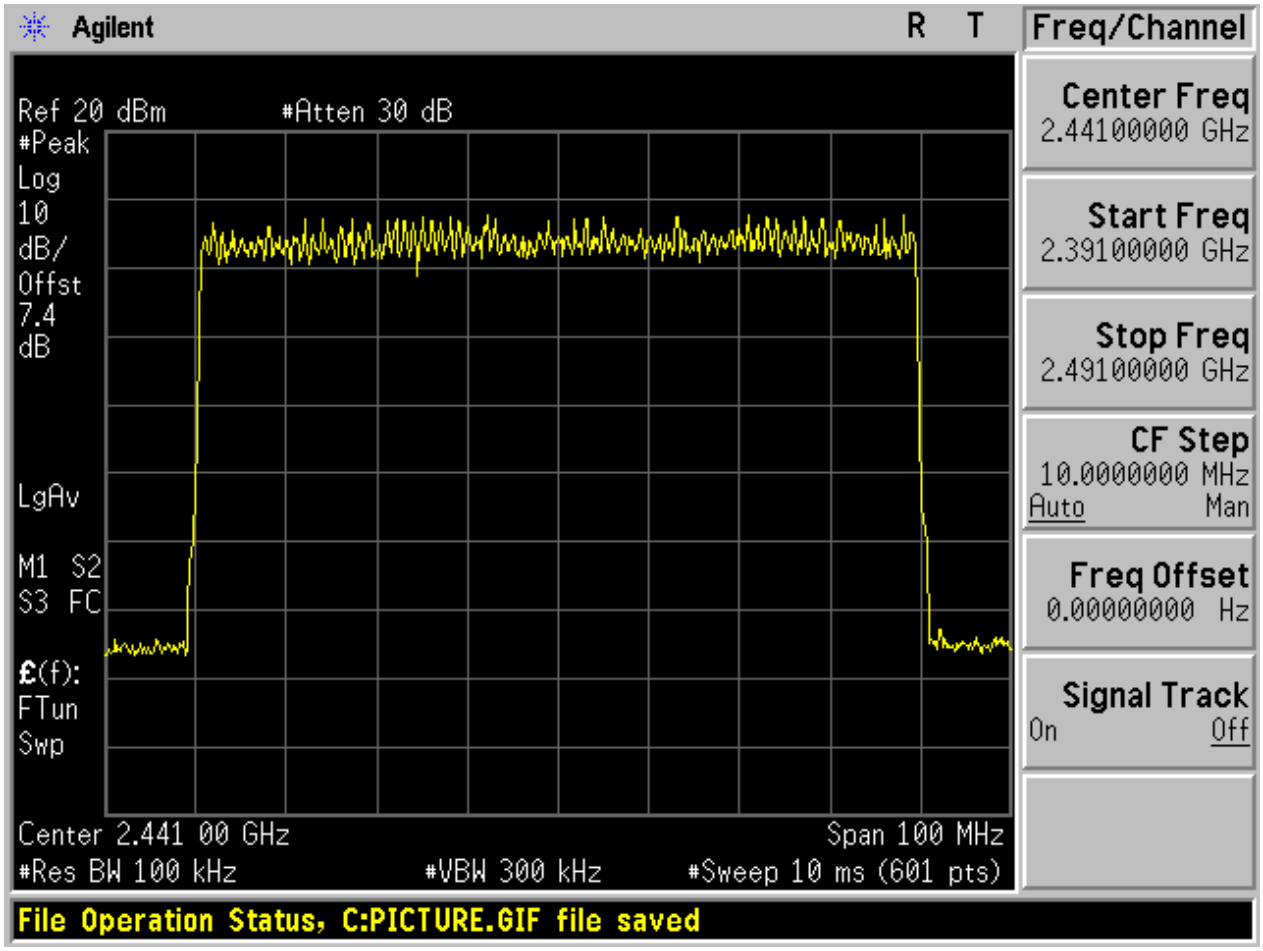
EUT Conf.	Number of Hopping Channel	Verdict
TM1_DH5_Hop	79	Pass
TM2_2DH5_Hop	79	Pass
TM3_3DH5_Hop	79	Pass

2 Test Plot

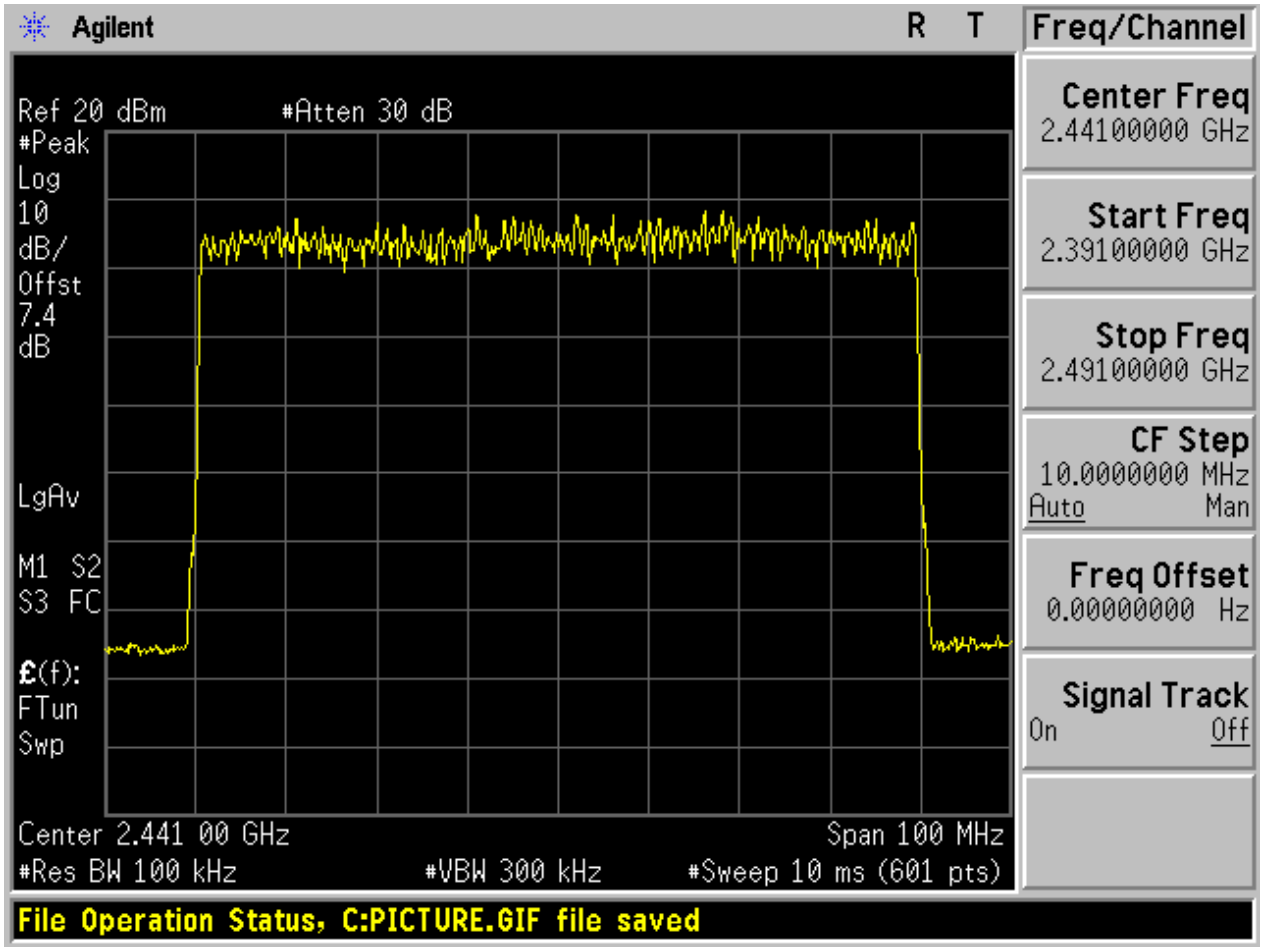
2.1 TM1_DH5_Hop



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:

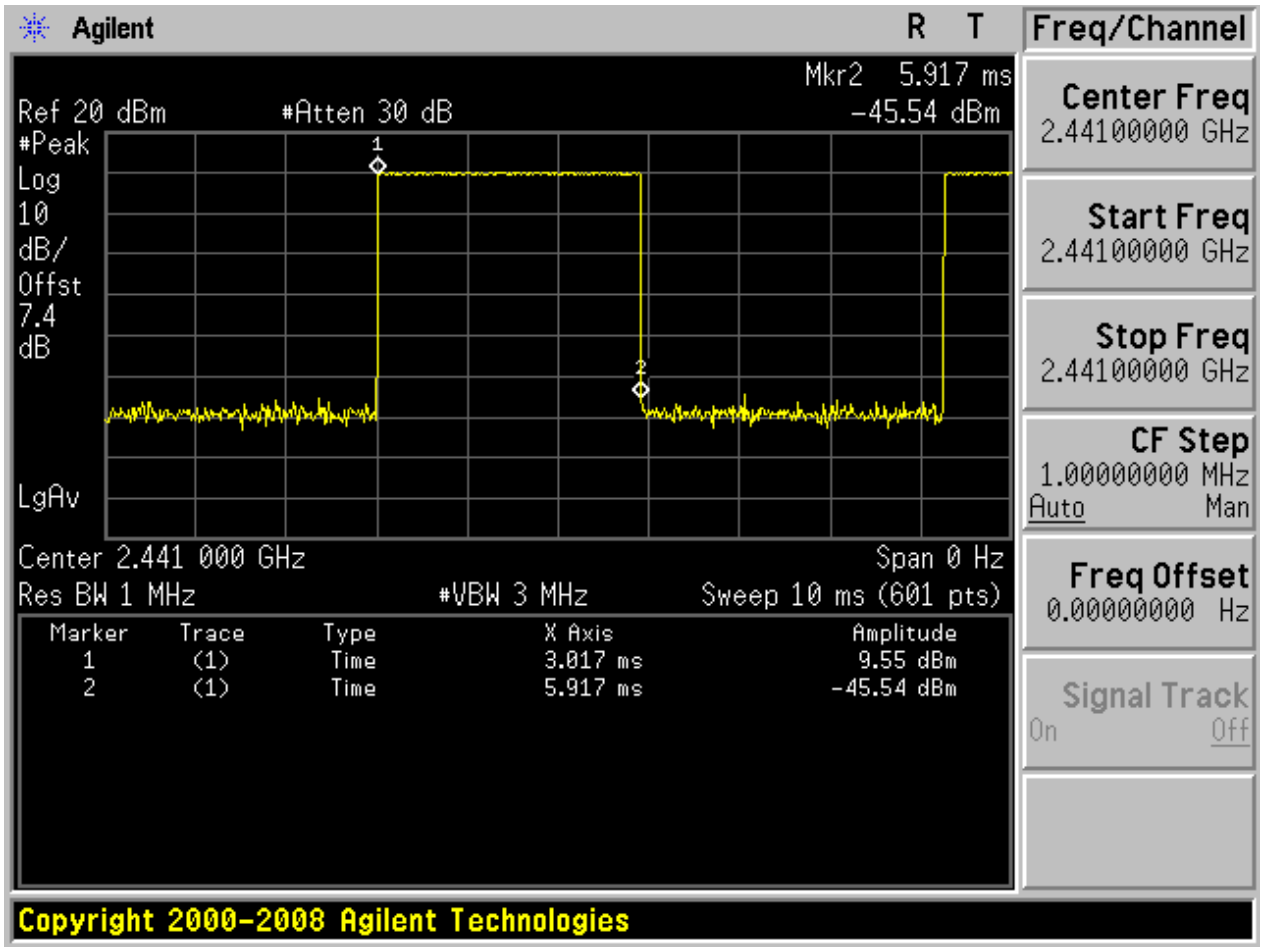
- The duration for dwell time calculation: 0.4 [s] * hopping number = 0.4 [s] * 79 [ch] = 31.6 [s*ch];
- The burst width [ms/hop/ch], which is directly measured, refers to the duration on one channel hop.
- The hops per second for all channels: The selected EUT Conf uses a slot type of 5-Tx&1-Rx and 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 [ms]	Verdict
TM1_DH5_Ch39	0.300	106.67	0.032	Pass
TM2_2DH5_Ch39	2.900	106.67	0.309	Pass
TM3_3DH5_Ch39	2.900	106.67	0.309	Pass

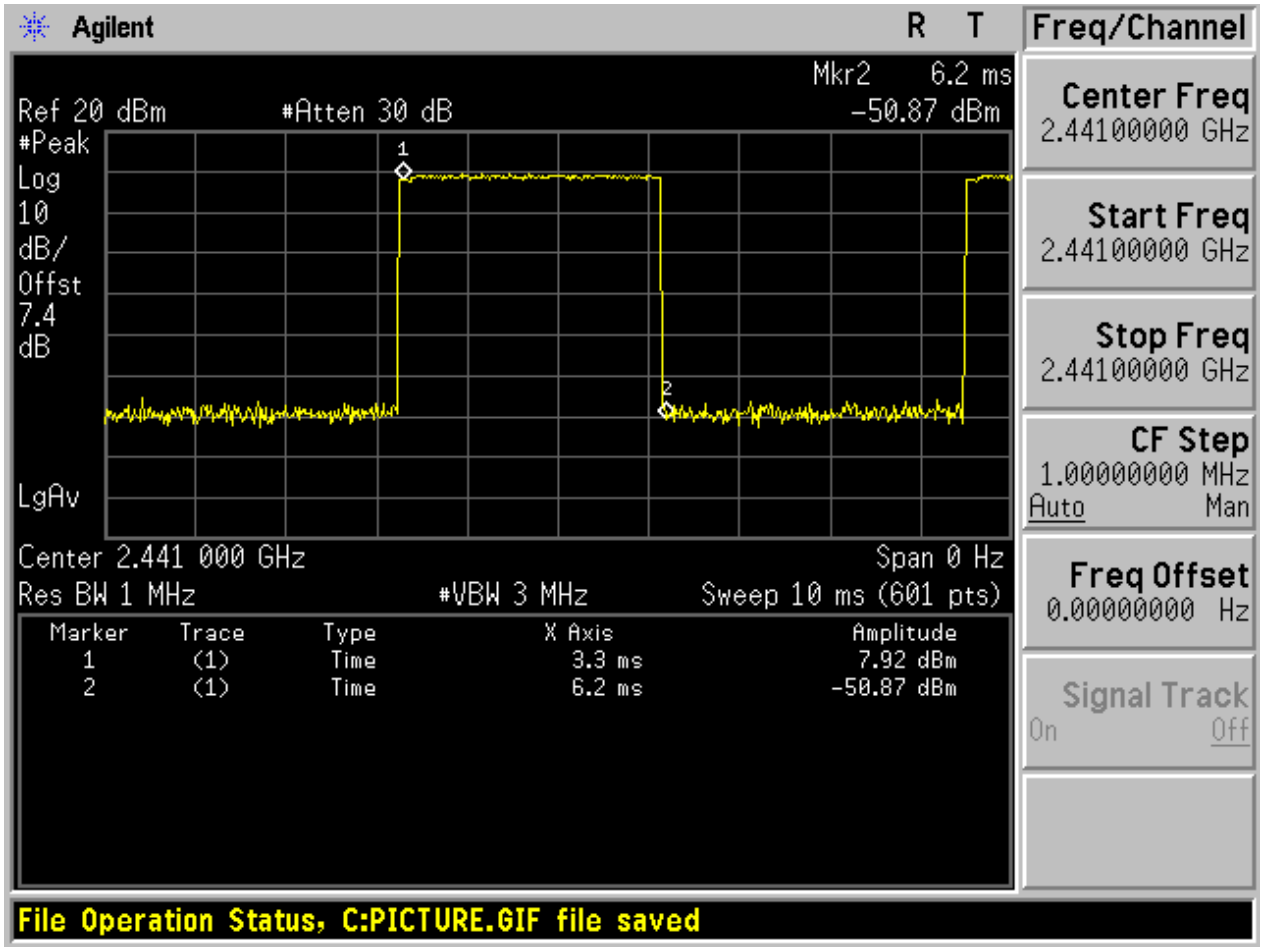
2 Test Plot

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

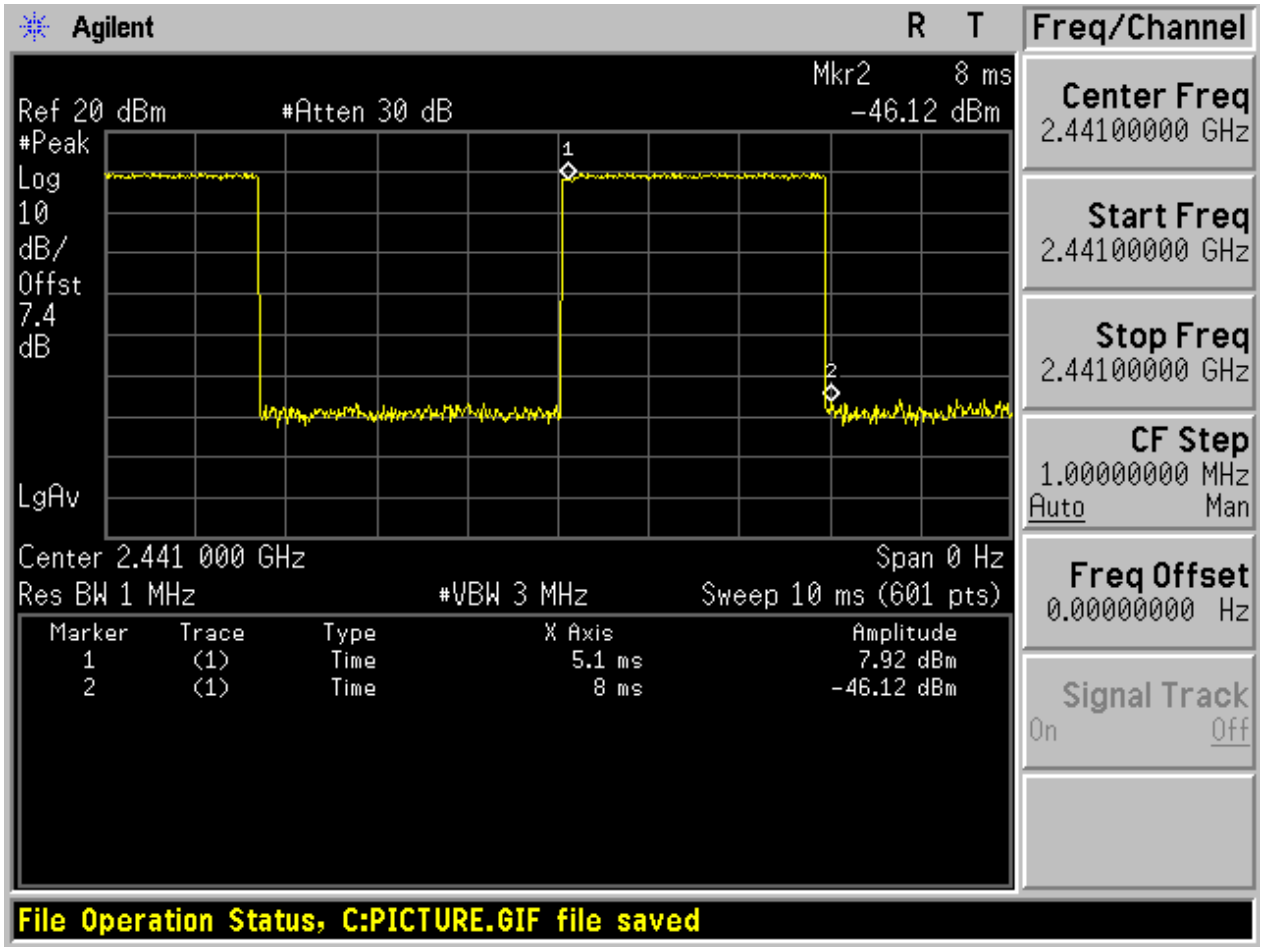
2.1 TM1_DH5_Ch39



2.2 TM2_2DH5_Ch39



2.3 TM3_3DH5_Ch39



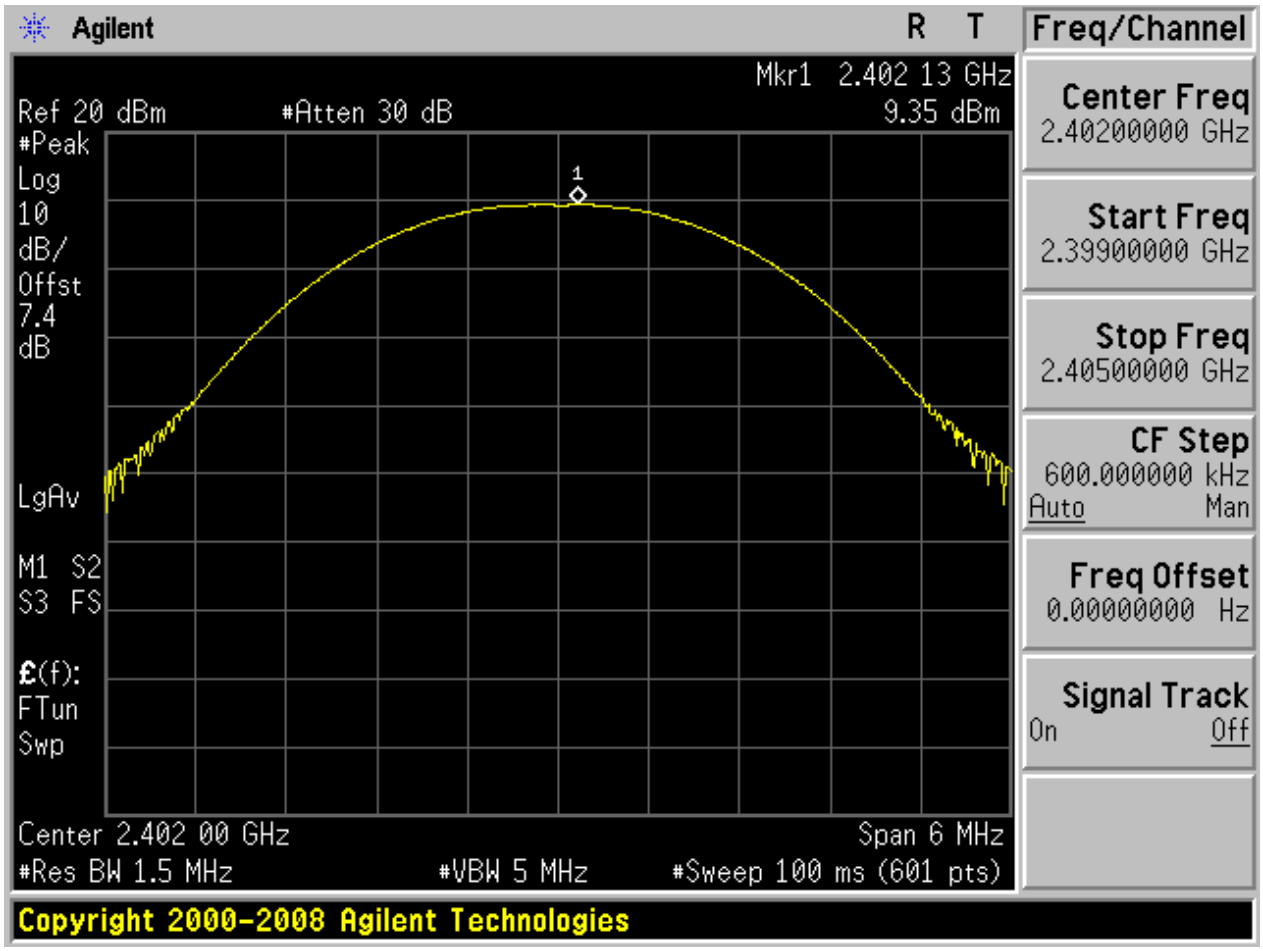
Appendix E: Maximum Peak Conducted Output Power

1 Result Table

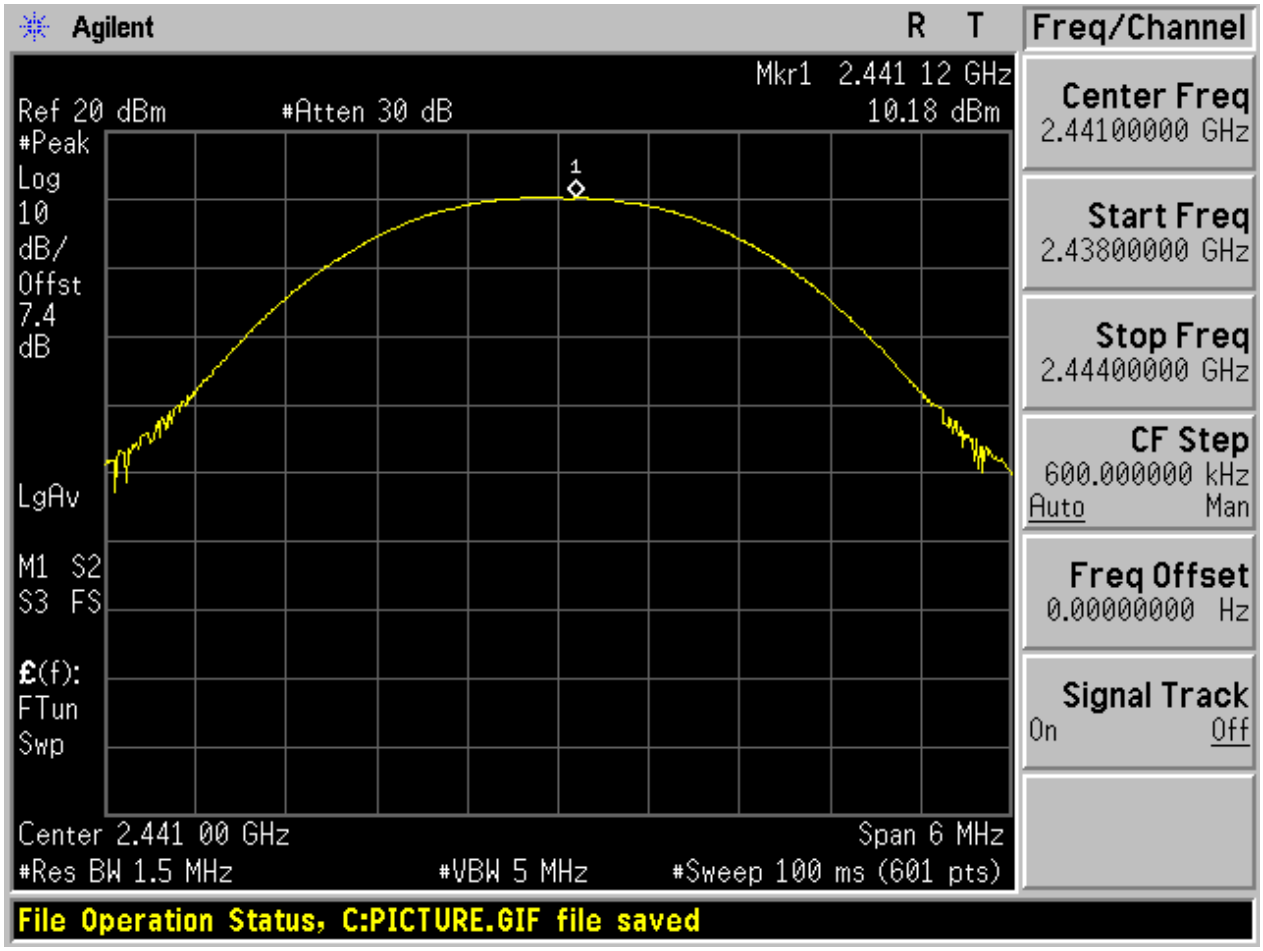
EUT Conf.	Max. Peak Power [dBm]	Verdict
TM1_DH5_Ch0	9.35	Pass
TM1_DH5_Ch39	10.18	Pass
TM1_DH5_Ch78	10.02	Pass
TM2_2DH5_Ch0	9.33	Pass
TM2_2DH5_Ch39	10.12	Pass
TM2_2DH5_Ch78	9.96	Pass
TM3_3DH5_Ch0	9.48	Pass
TM3_3DH5_Ch39	10.33	Pass
TM3_3DH5_Ch78	10.15	Pass

2 Test Plot

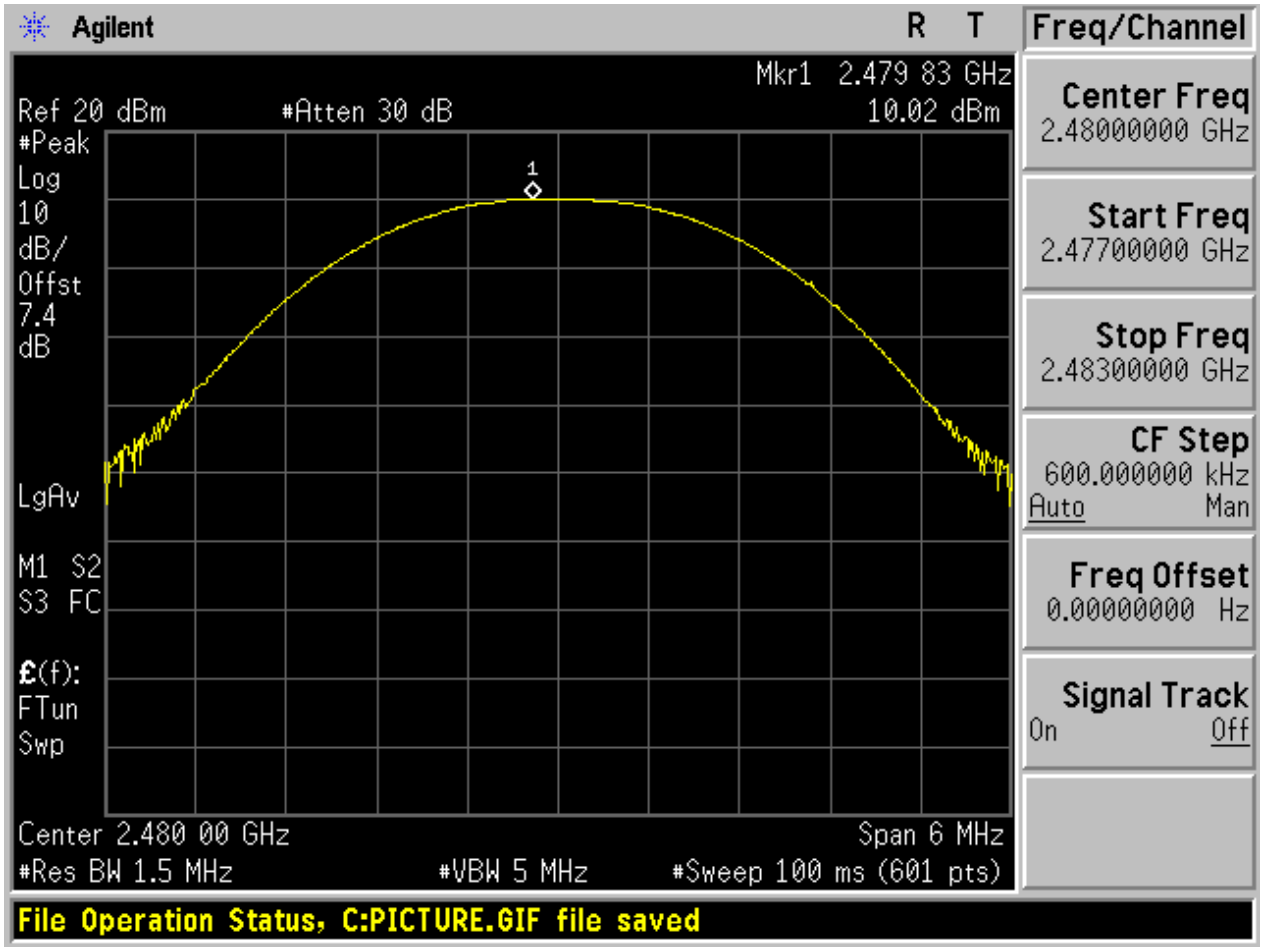
2.1 TM1_DH5_Ch0



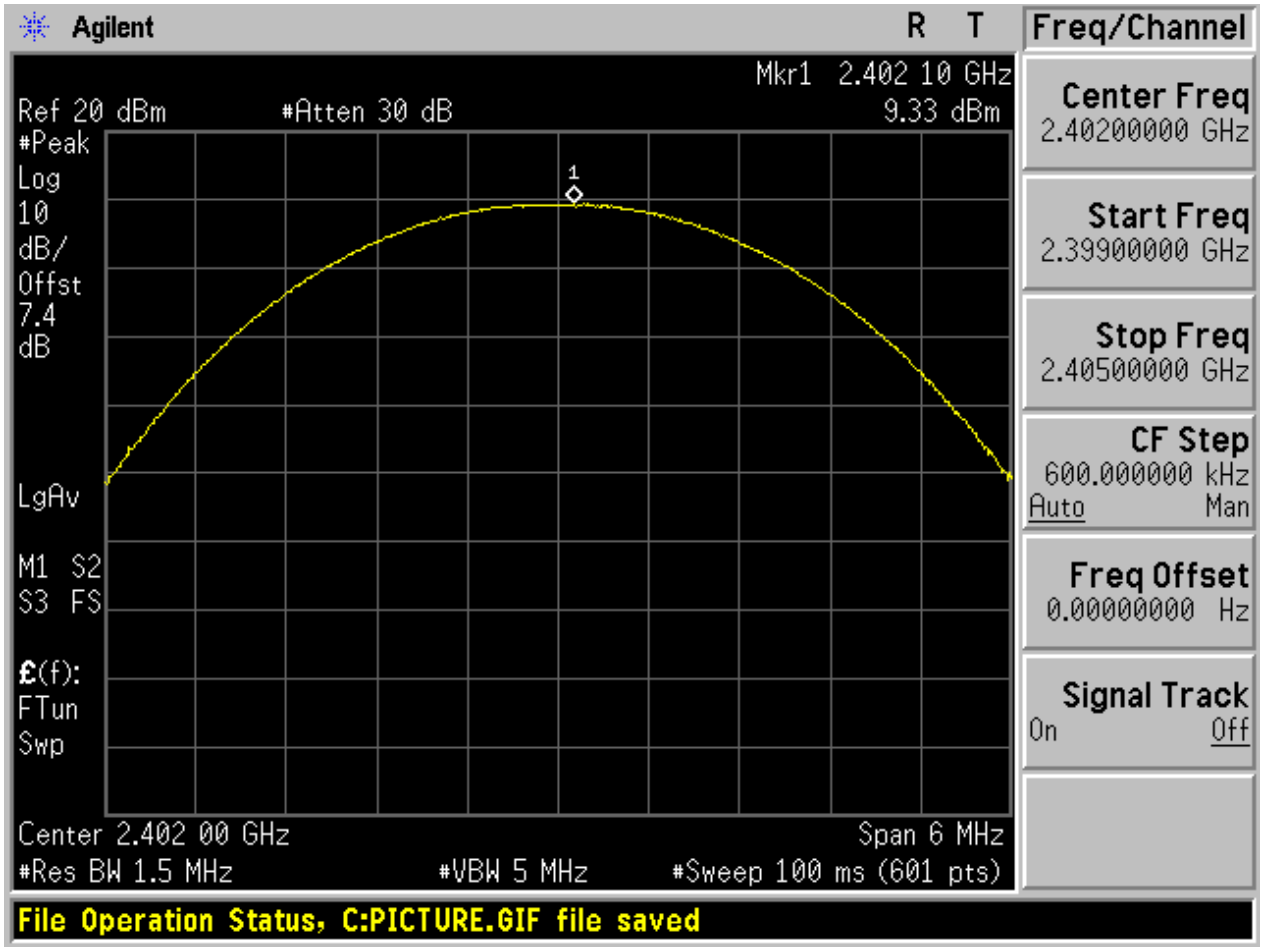
2.2 TM1_DH5_Ch39



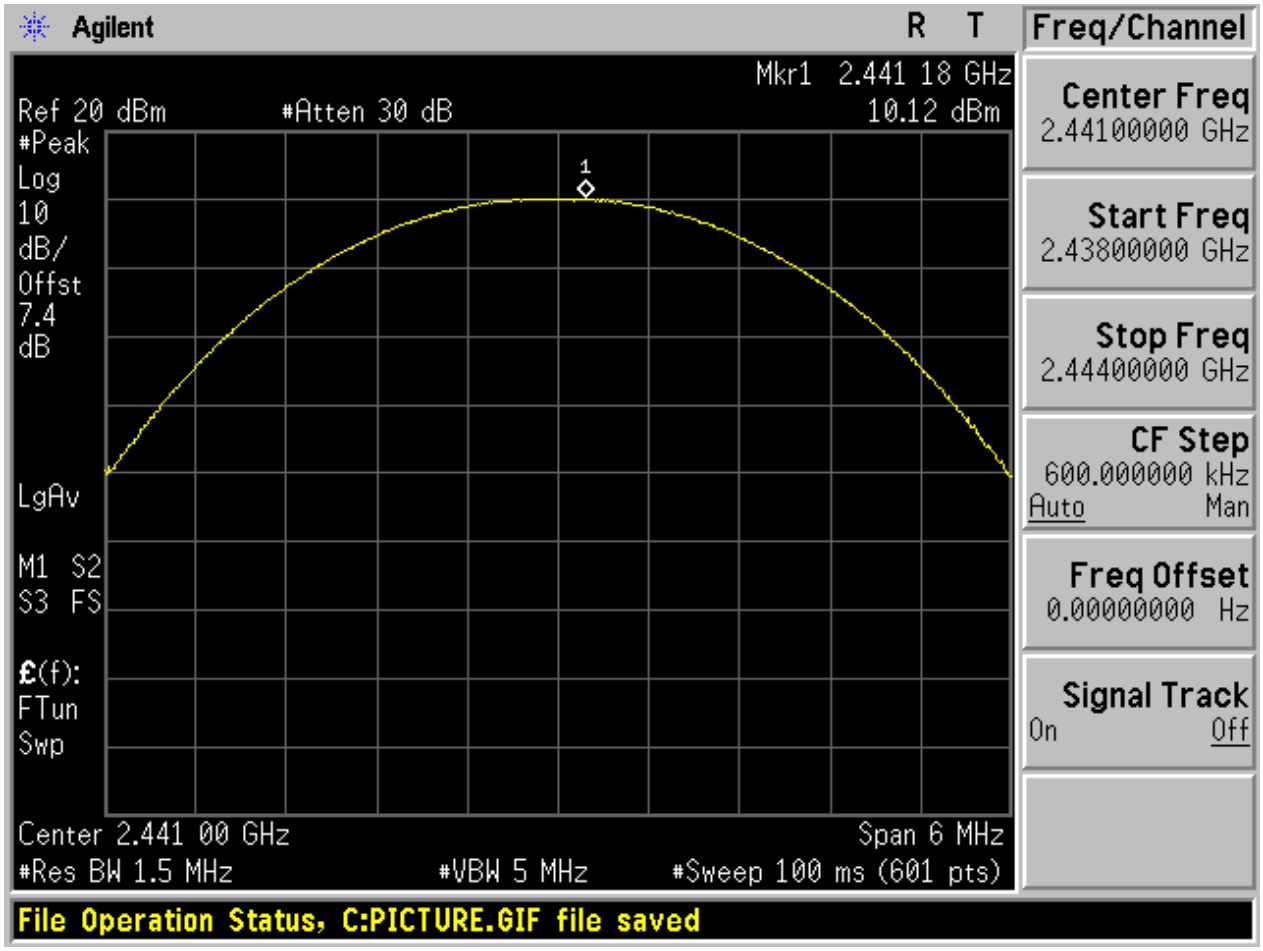
2.3 TM1_DH5_Ch78



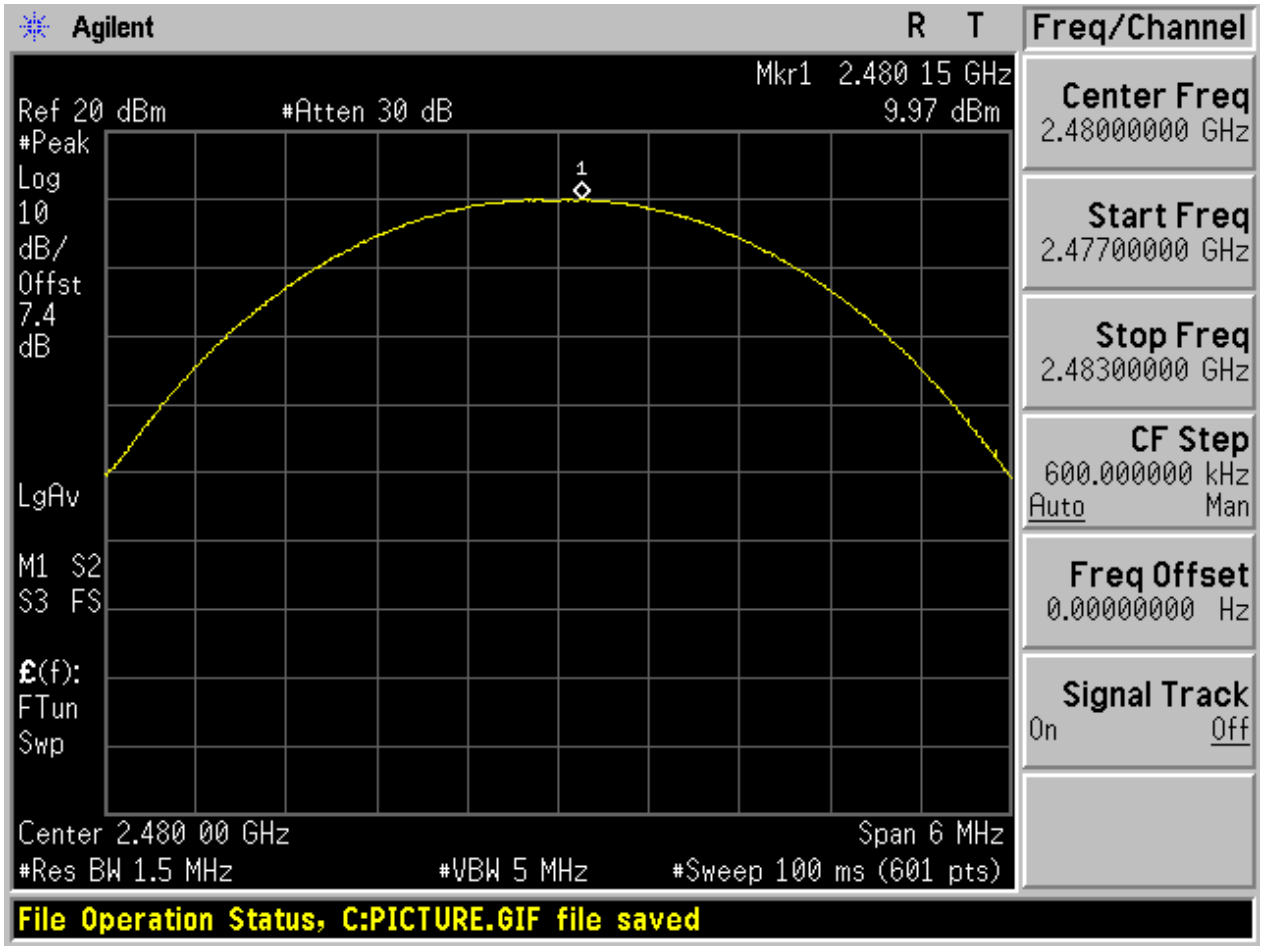
2.4 TM2_2DH5_Ch0



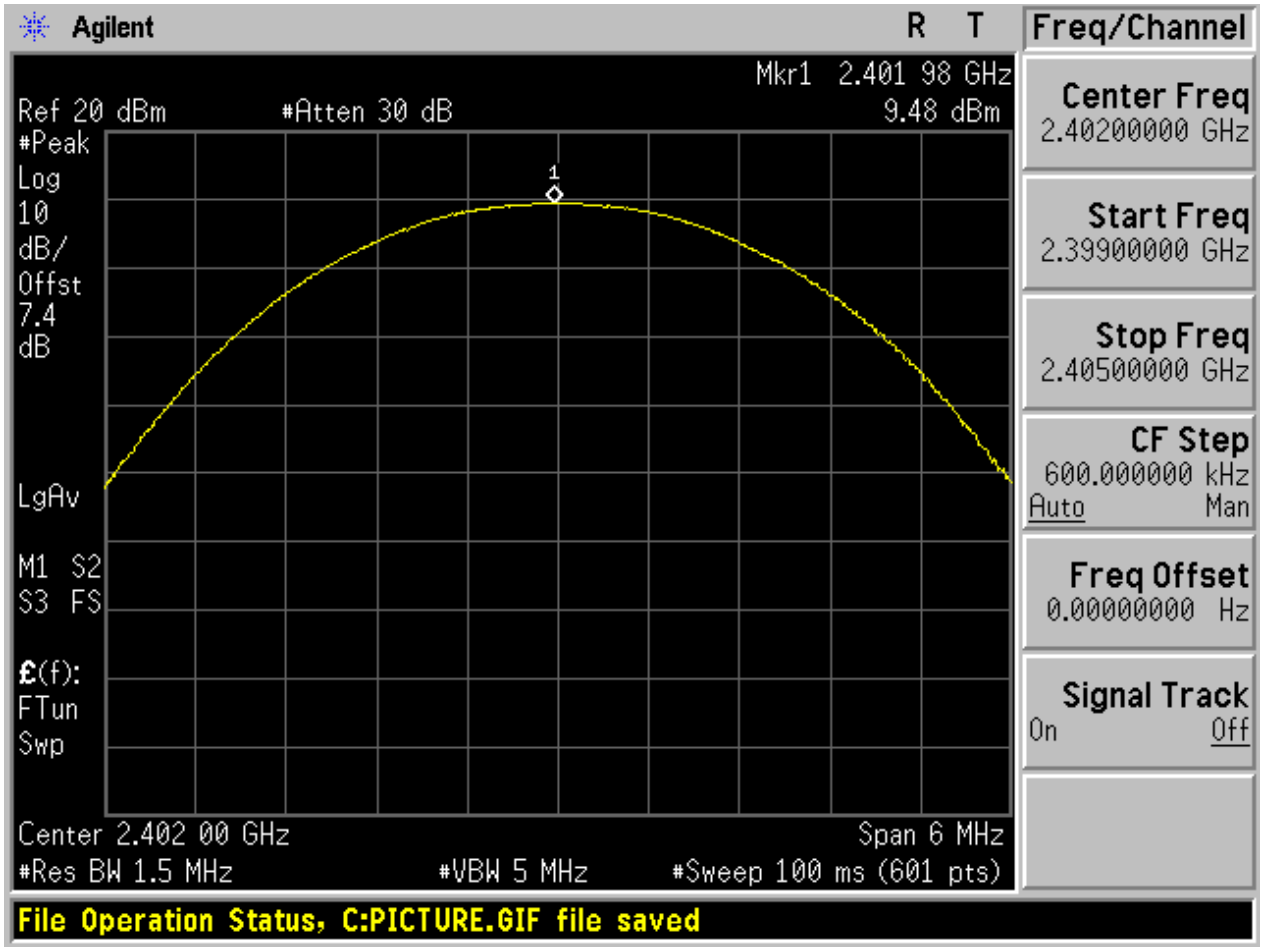
2.5 TM2_2DH5_Ch39



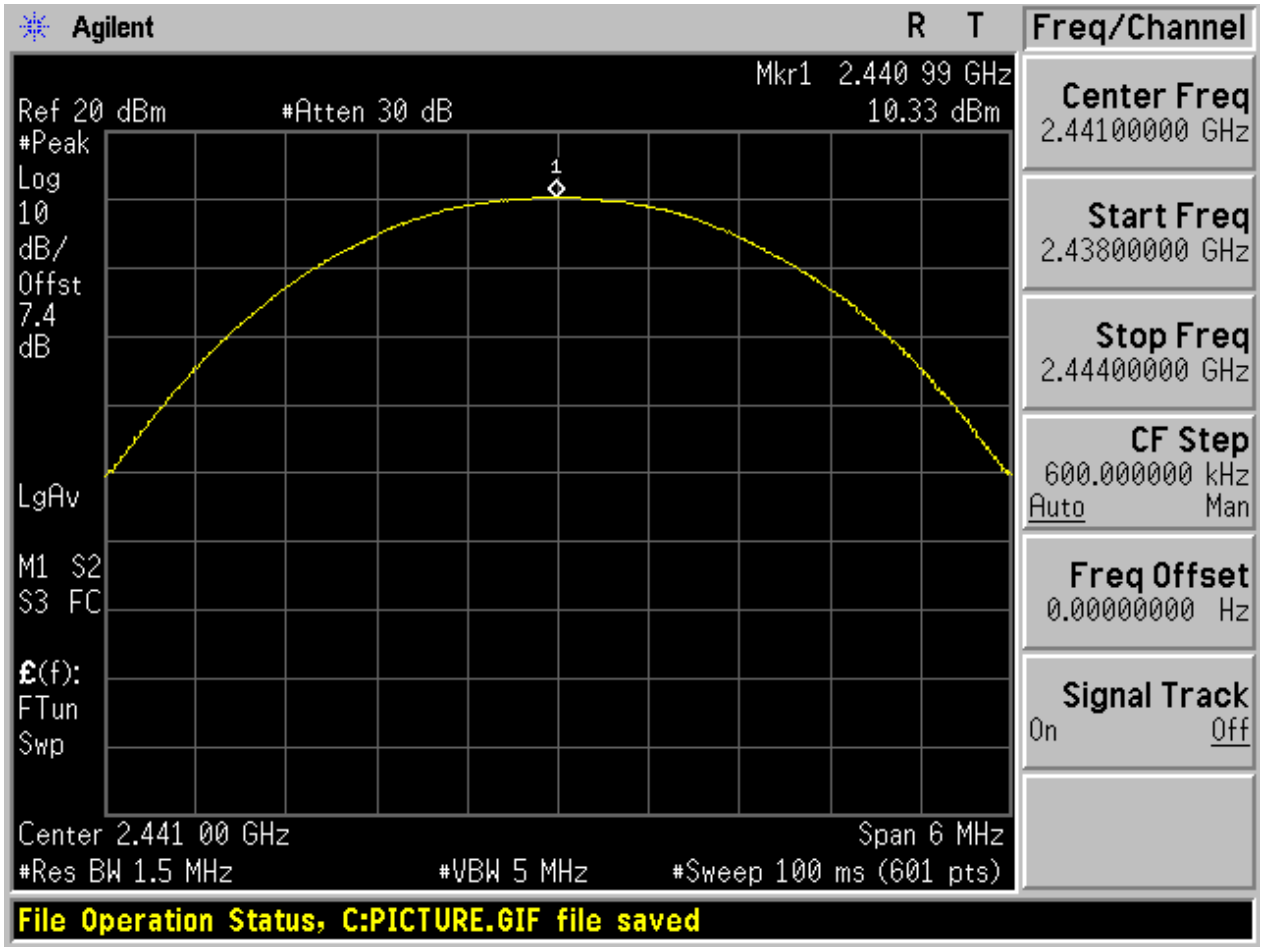
2.6 TM2_2DH5_Ch78



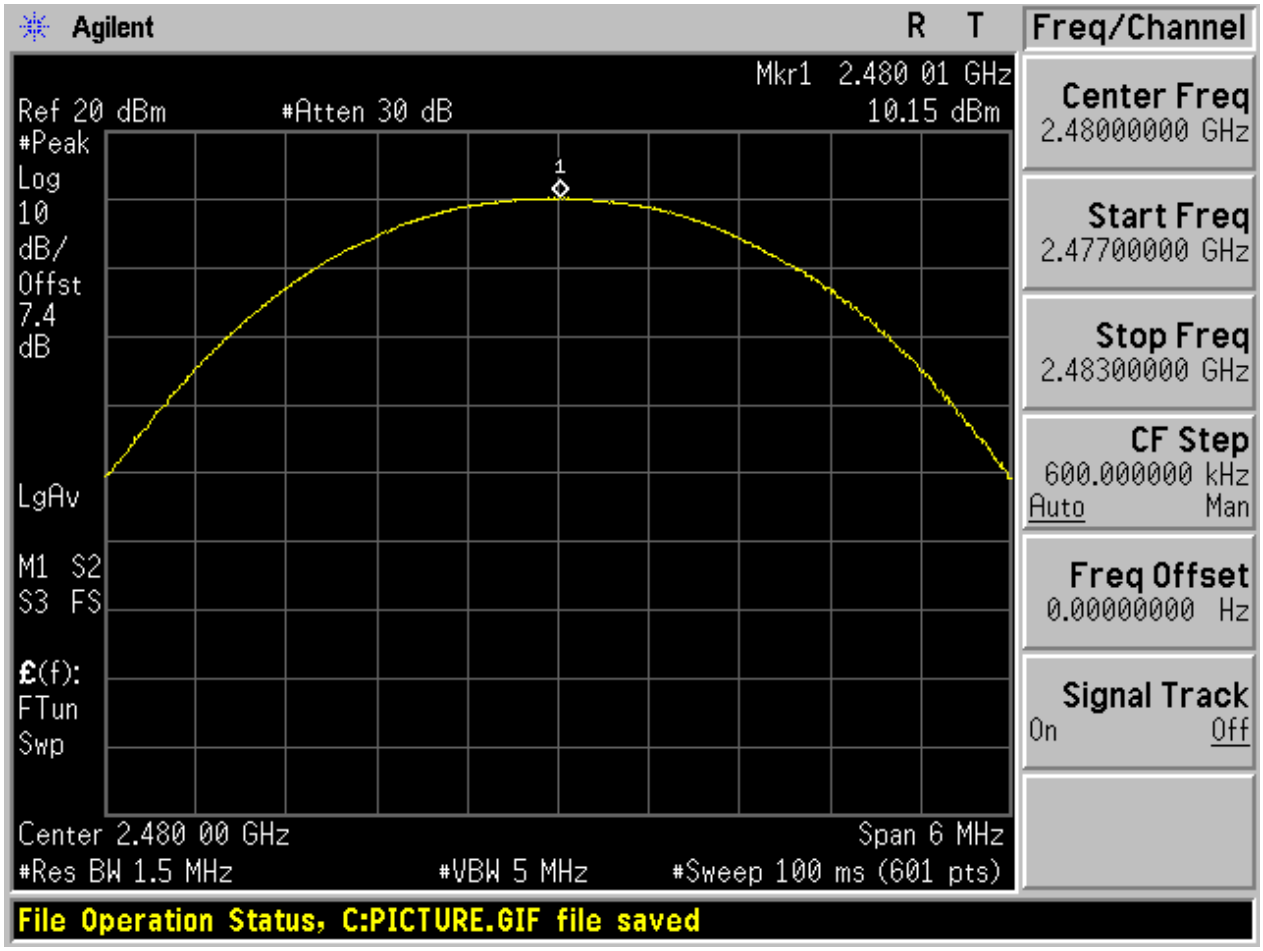
2.7 TM3_3DH5_Ch0



2.8 TM3_3DH5_Ch39



2.9 TM3_3DH5_Ch78



Appendix F: Band edge spurious emission

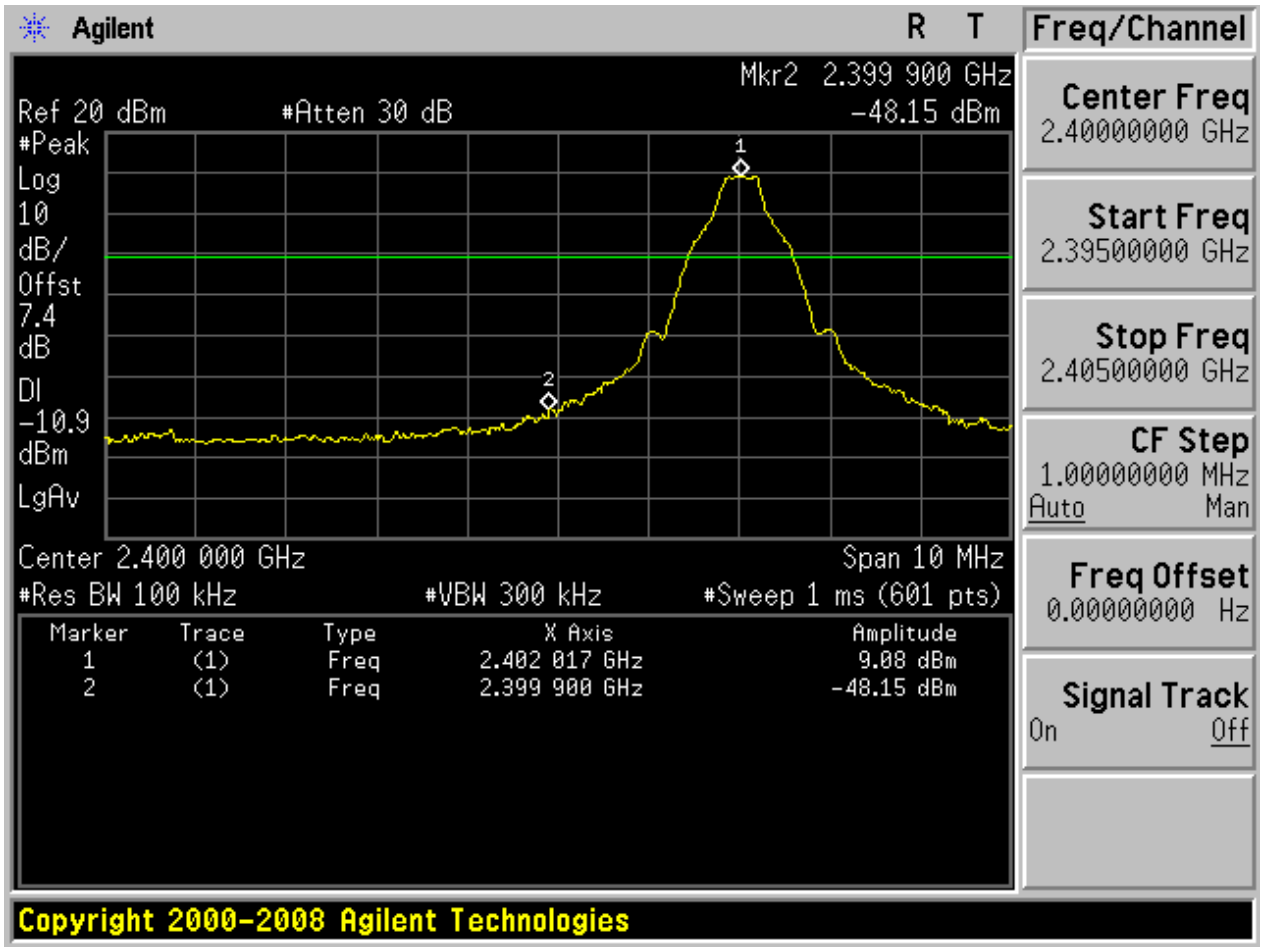
1 Result Table

EUT Conf.	Channel No.	Carrier Frequency [MHz]	Max. Spurious Level [dBm]	Frequency Hopping	Carrier Power [dBm]	Limit [dBm]	Result
TM1_DH5_Ch0	0	2402	-48.15	Off	9.08	-10.92	Pass
	-	-	-53.38	On	9.24	-10.76	Pass
TM1_DH5_Ch78	78	2480	-52.73	Off	9.42	-10.58	Pass
	-	-	-54.77	On	9.29	-10.71	Pass
TM2_2DH5_Ch0	0	2402	-50.1	Off	7.25	-12.75	Pass
	-	-	-54.21	On	5.91	-14.09	Pass
TM2_2DH5_Ch78	78	2480	-54.12	Off	7.58	-12.42	Pass
	-	-	-54.41	On	4.70	-15.3	Pass
TM3_3DH5_Ch0	0	2402	-51.33	Off	6.97	-13.03	Pass
	-	-	-54.18	On	6.34	-13.66	Pass
TM3_3DH5_Ch78	78	2480	-54.23	Off	7.55	-12.45	Pass
	-	-	-54.57	On	7.27	-12.73	Pass

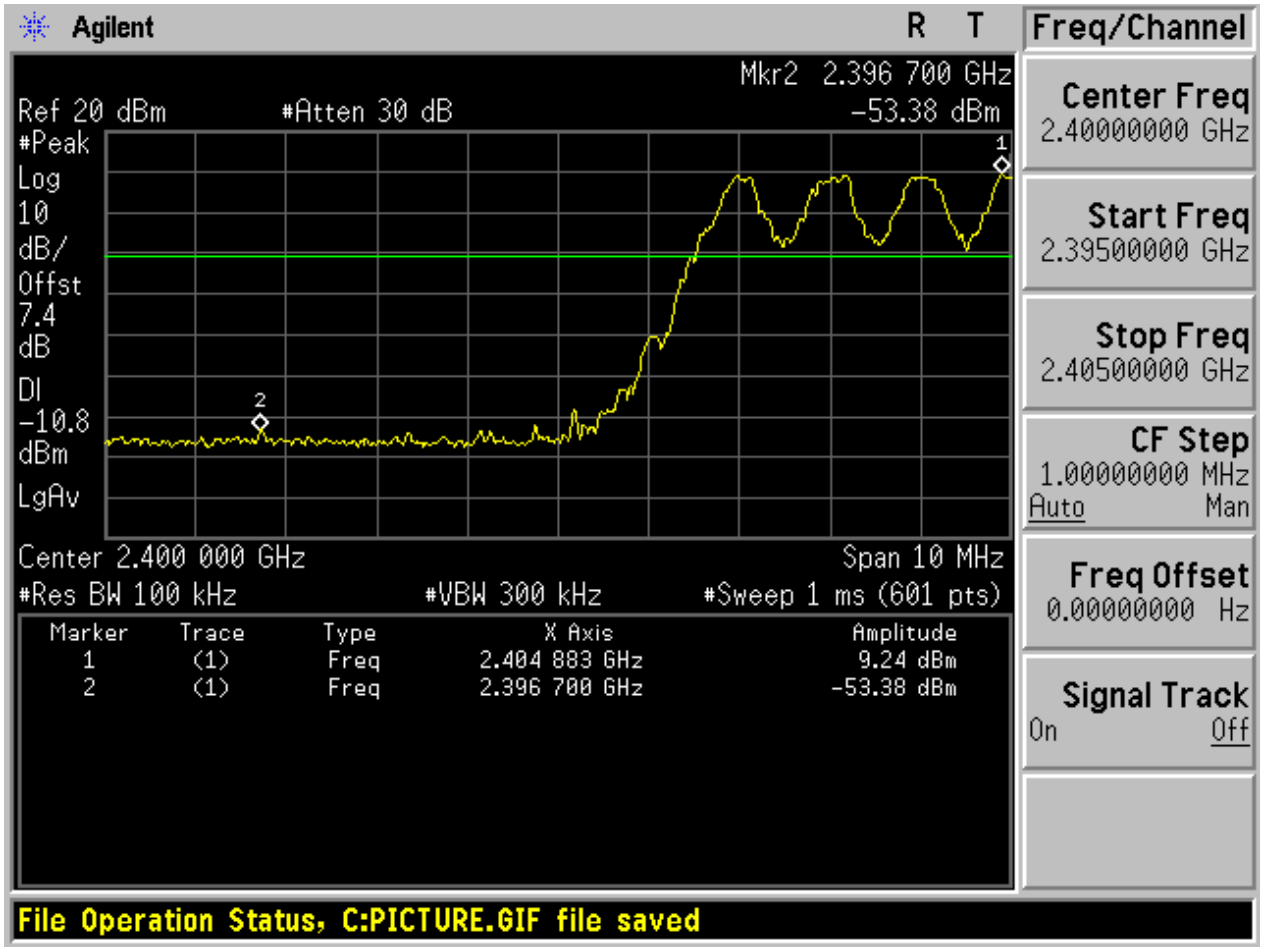
2 Test Plot

2.1 TM1_DH5_Ch0

No hopping

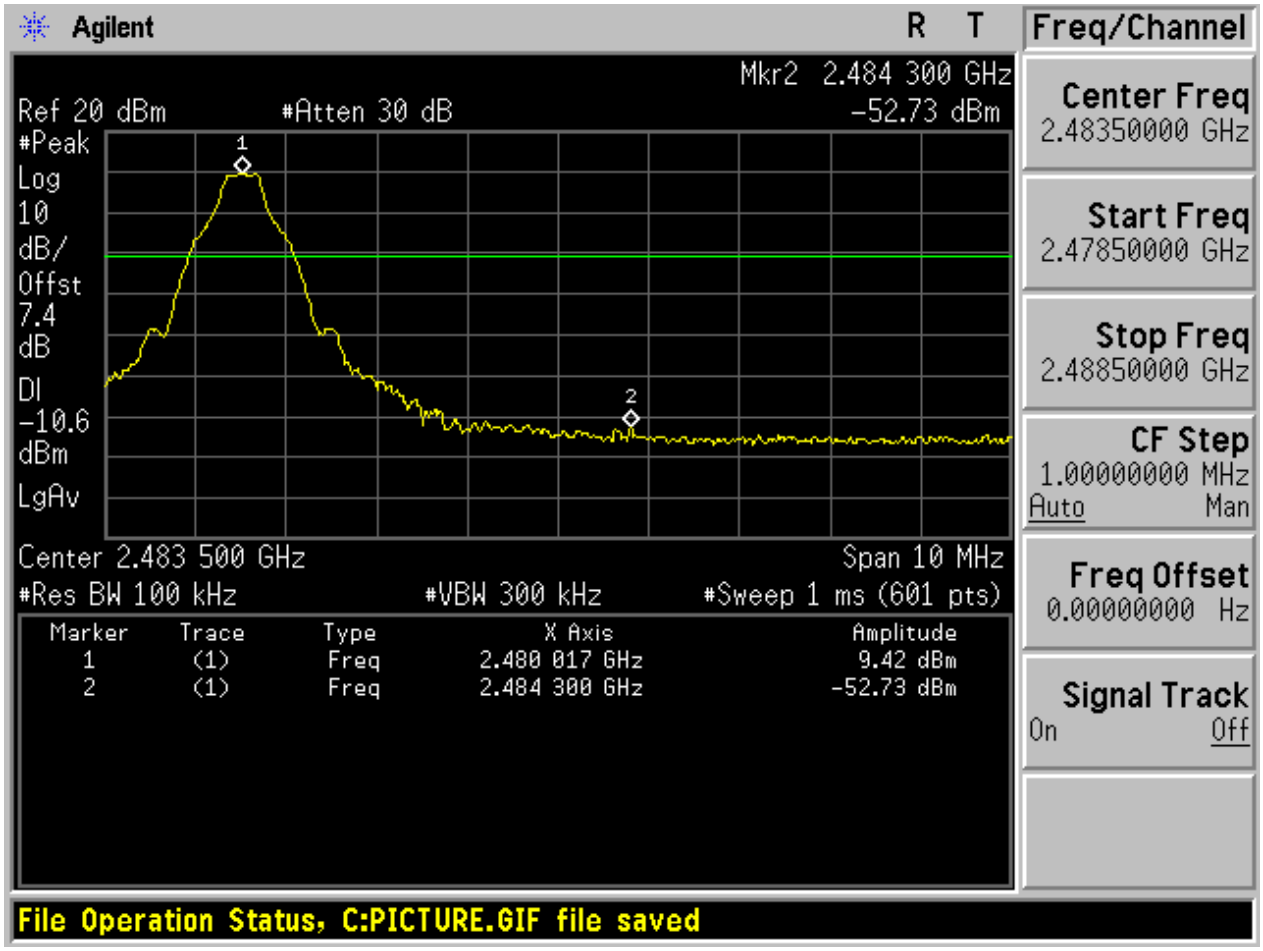


With hopping

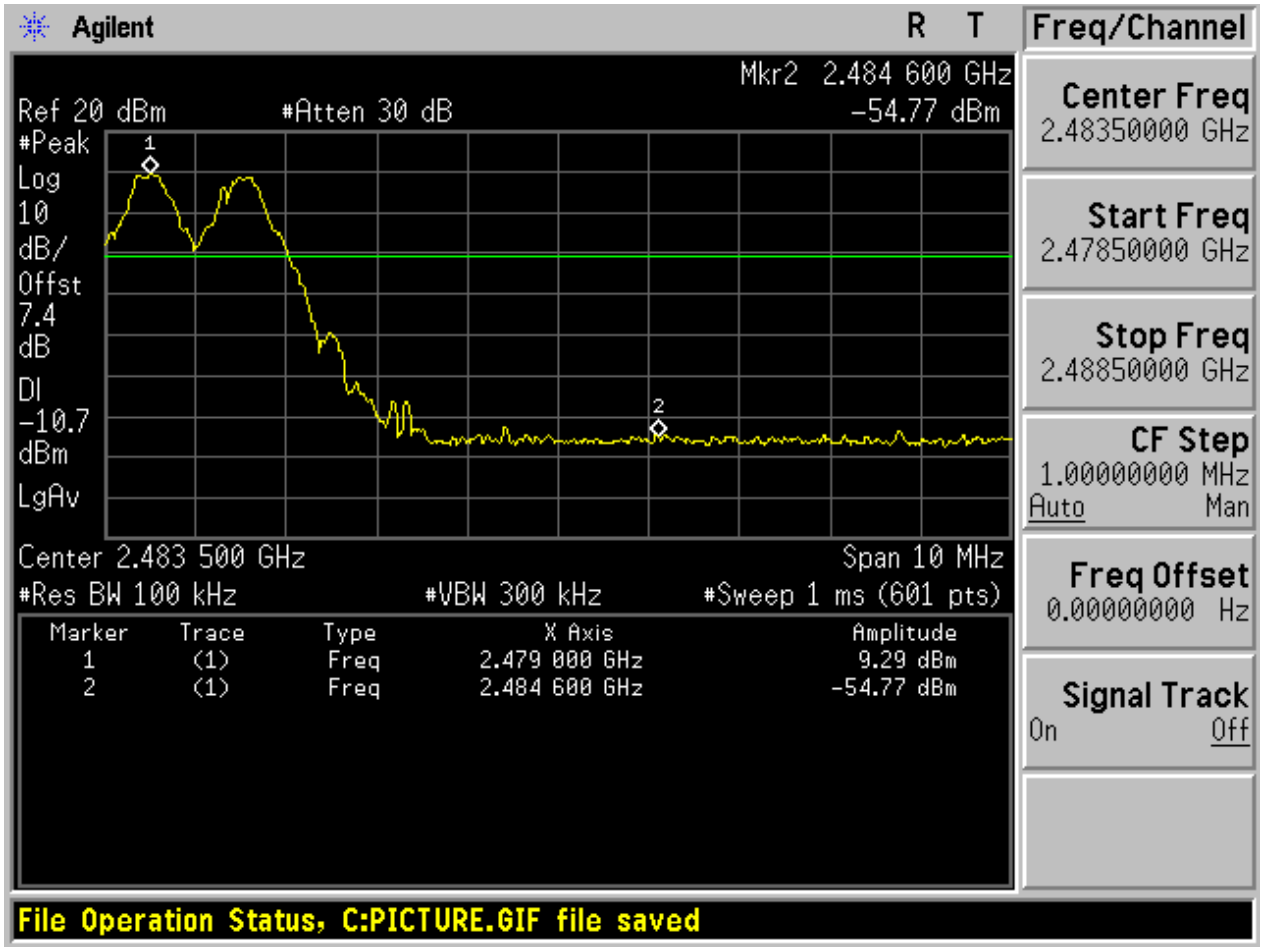


2.2 TM1_DH5_Ch78

No hopping

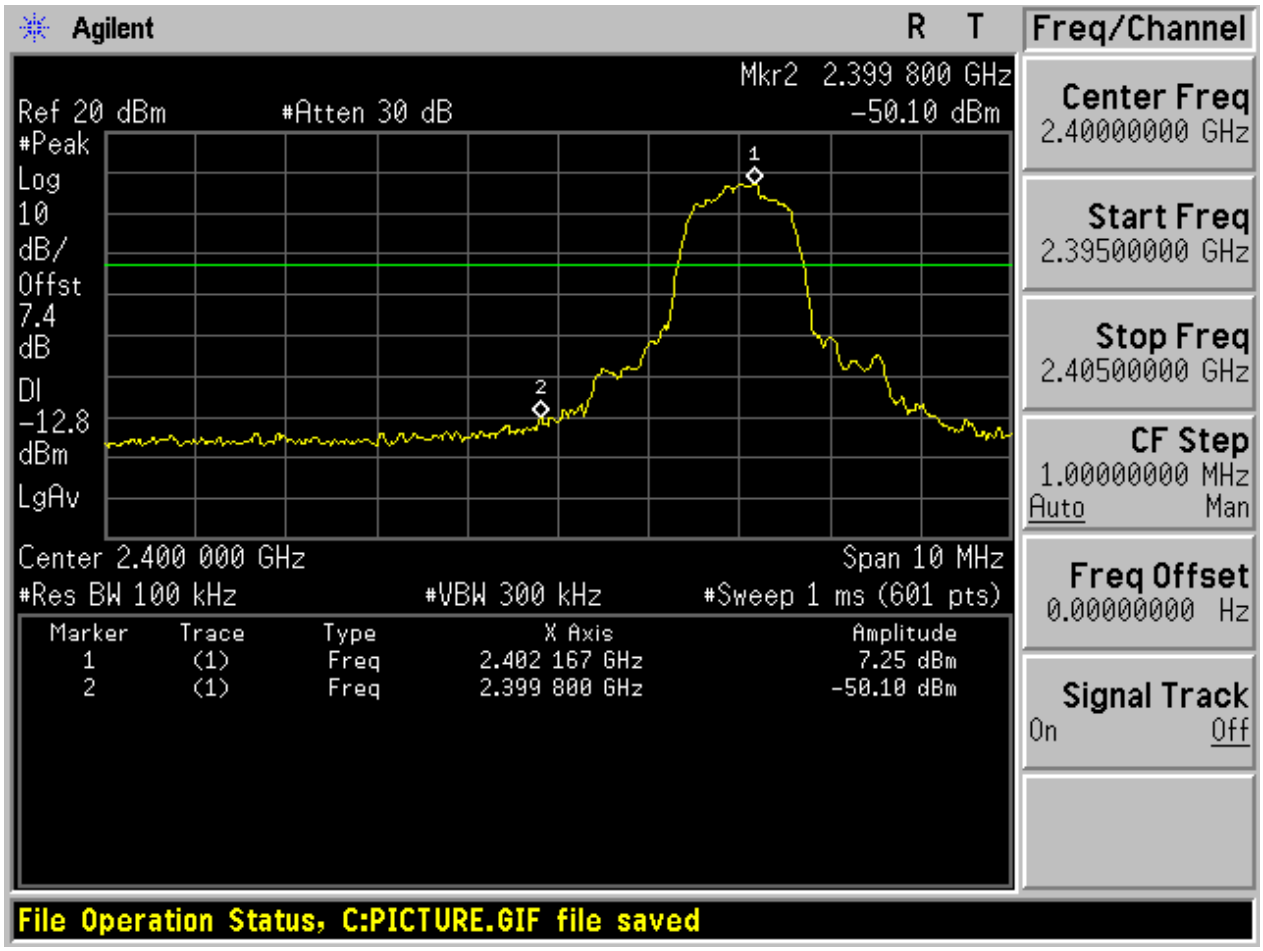


With hopping

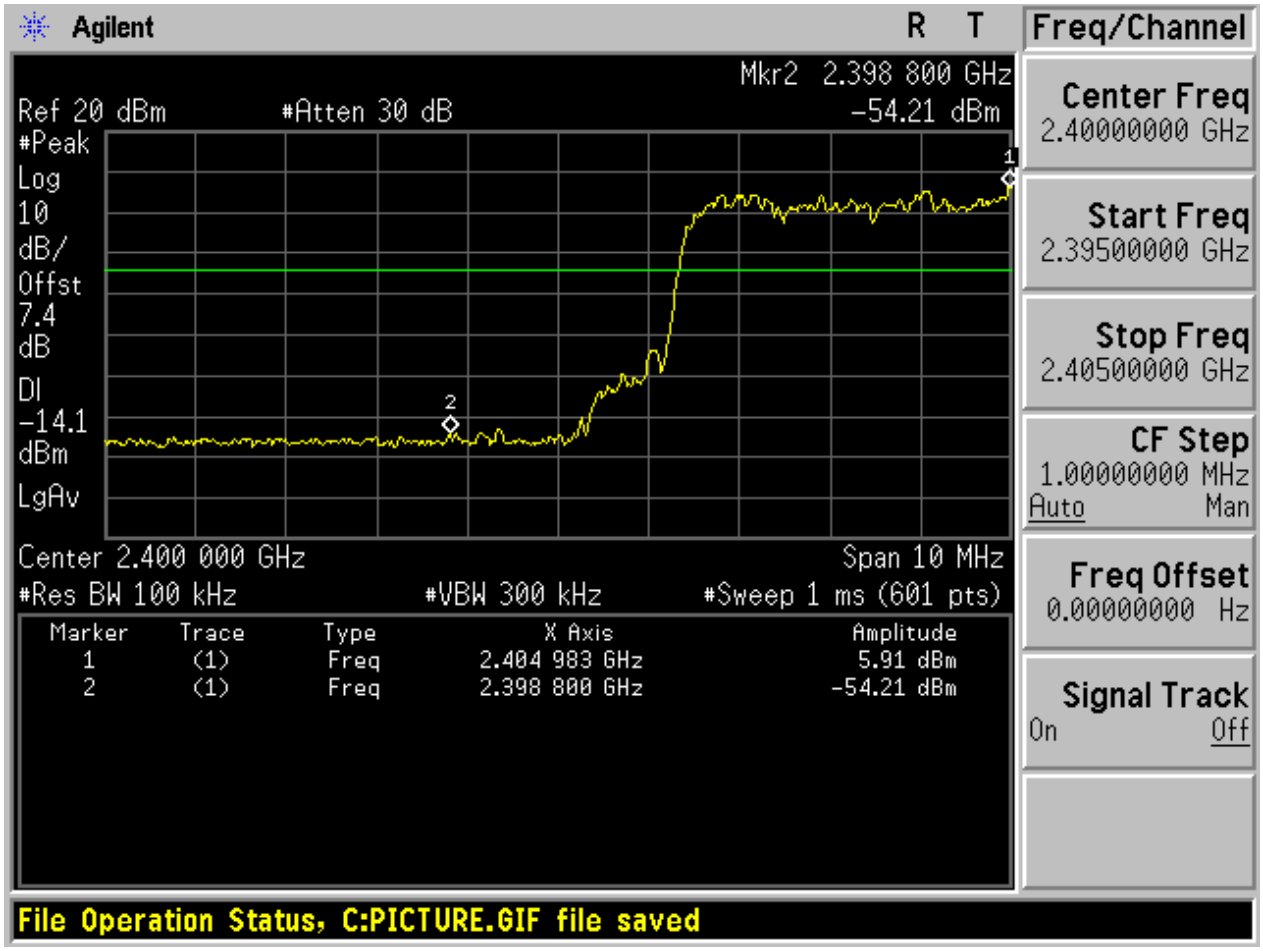


2.3 TM2_2DH5_Ch0

No hopping

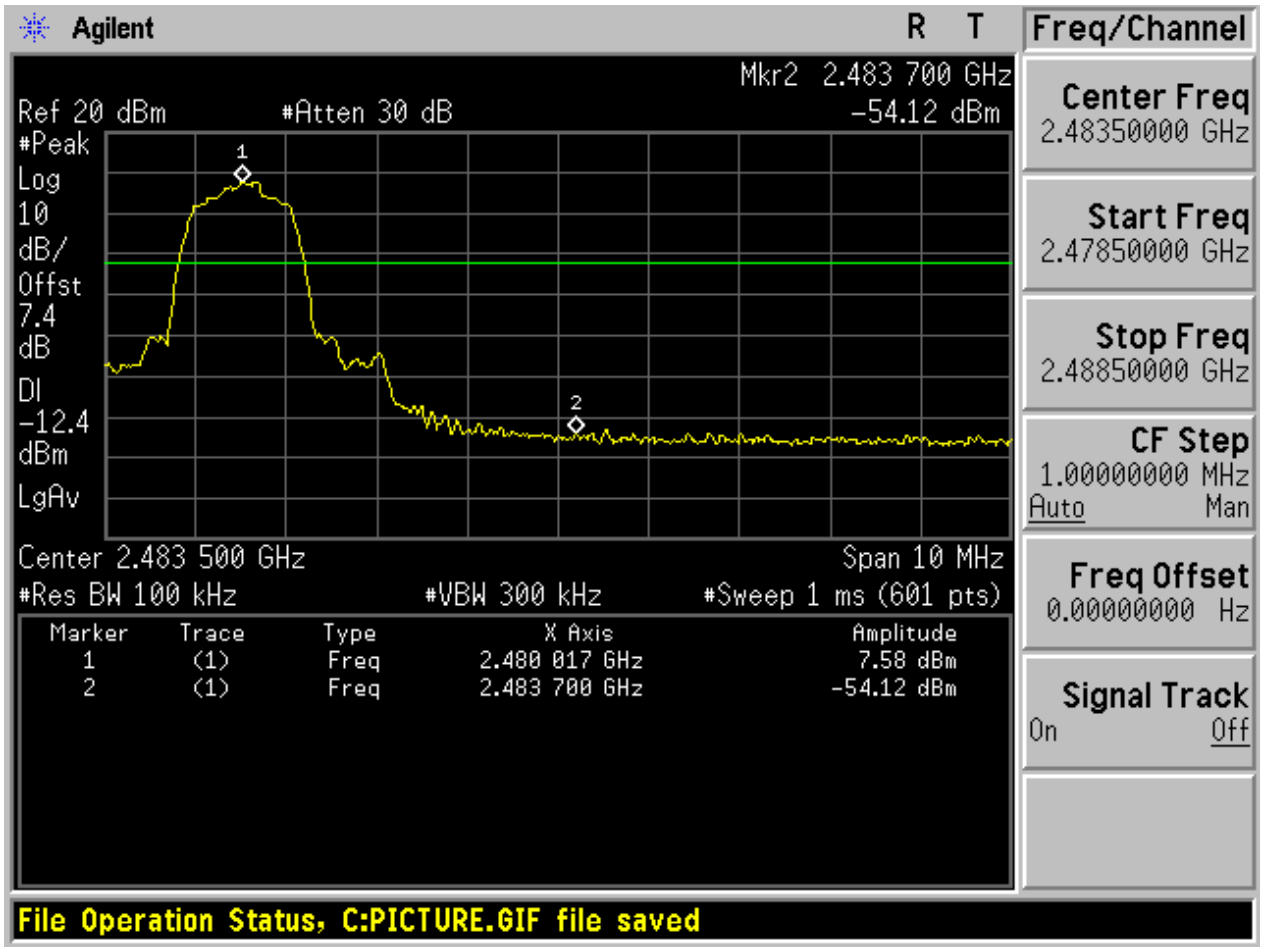


With hopping

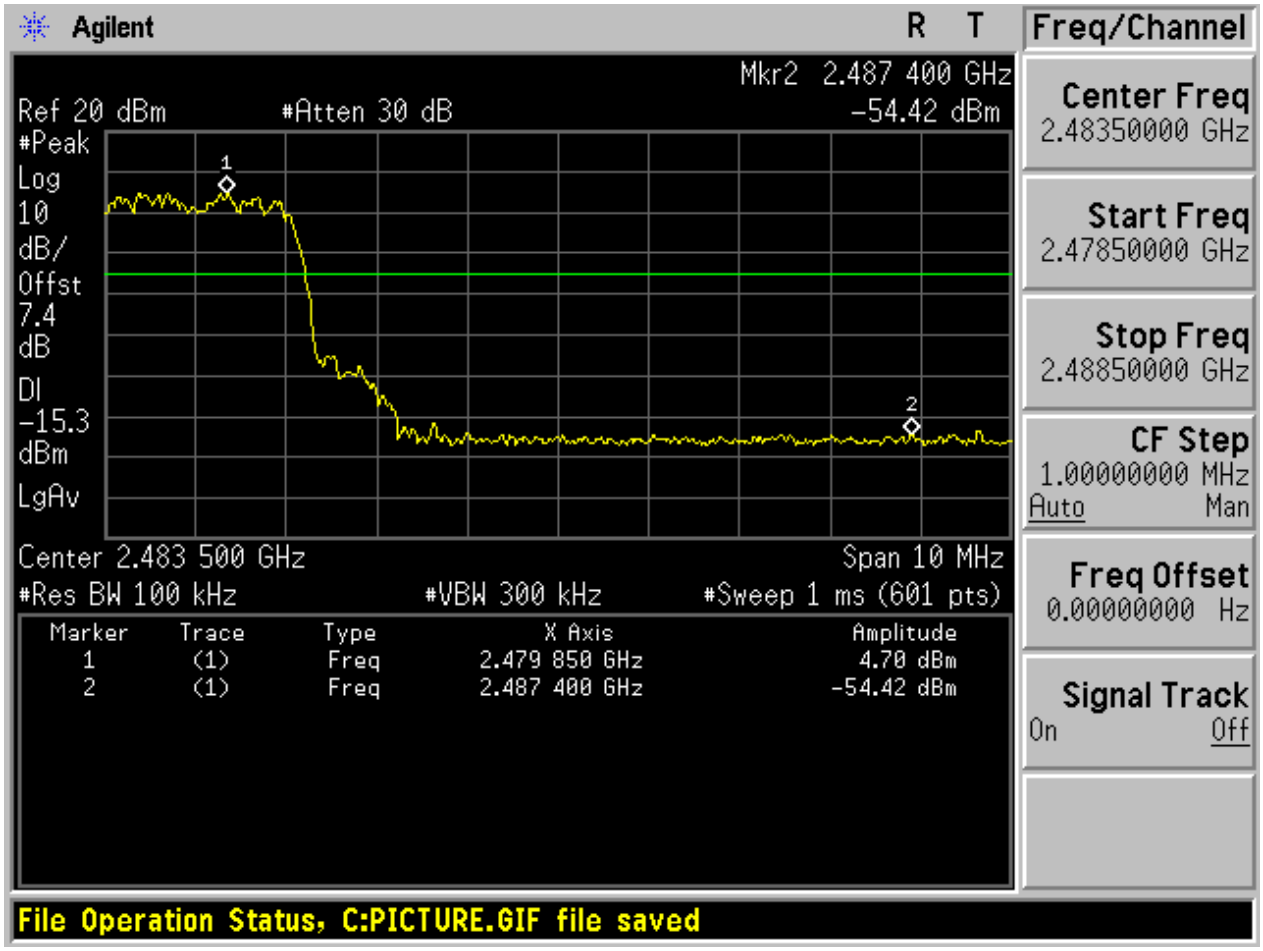


2.4 TM2_2DH5_Ch78

No hopping

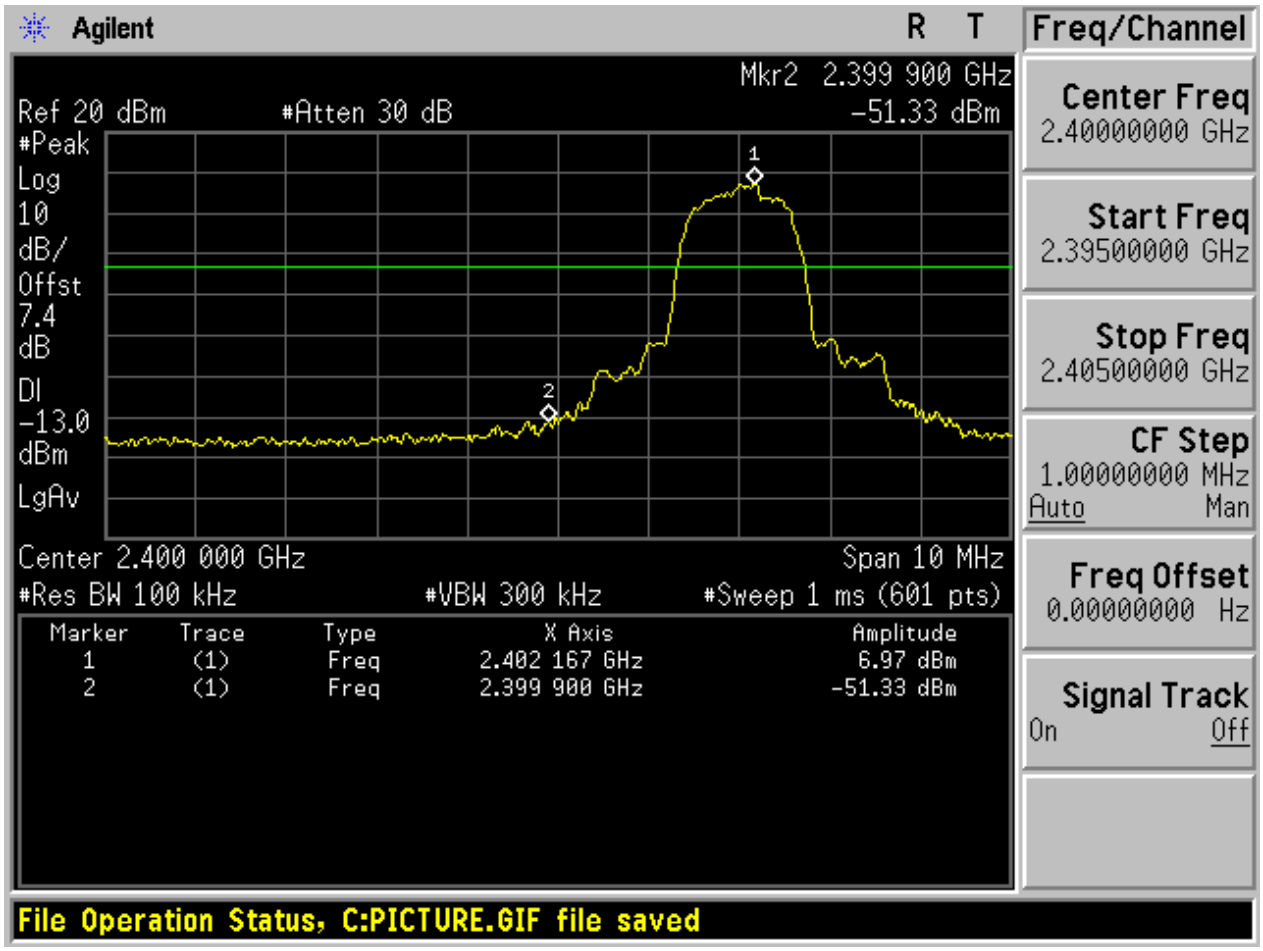


With hopping

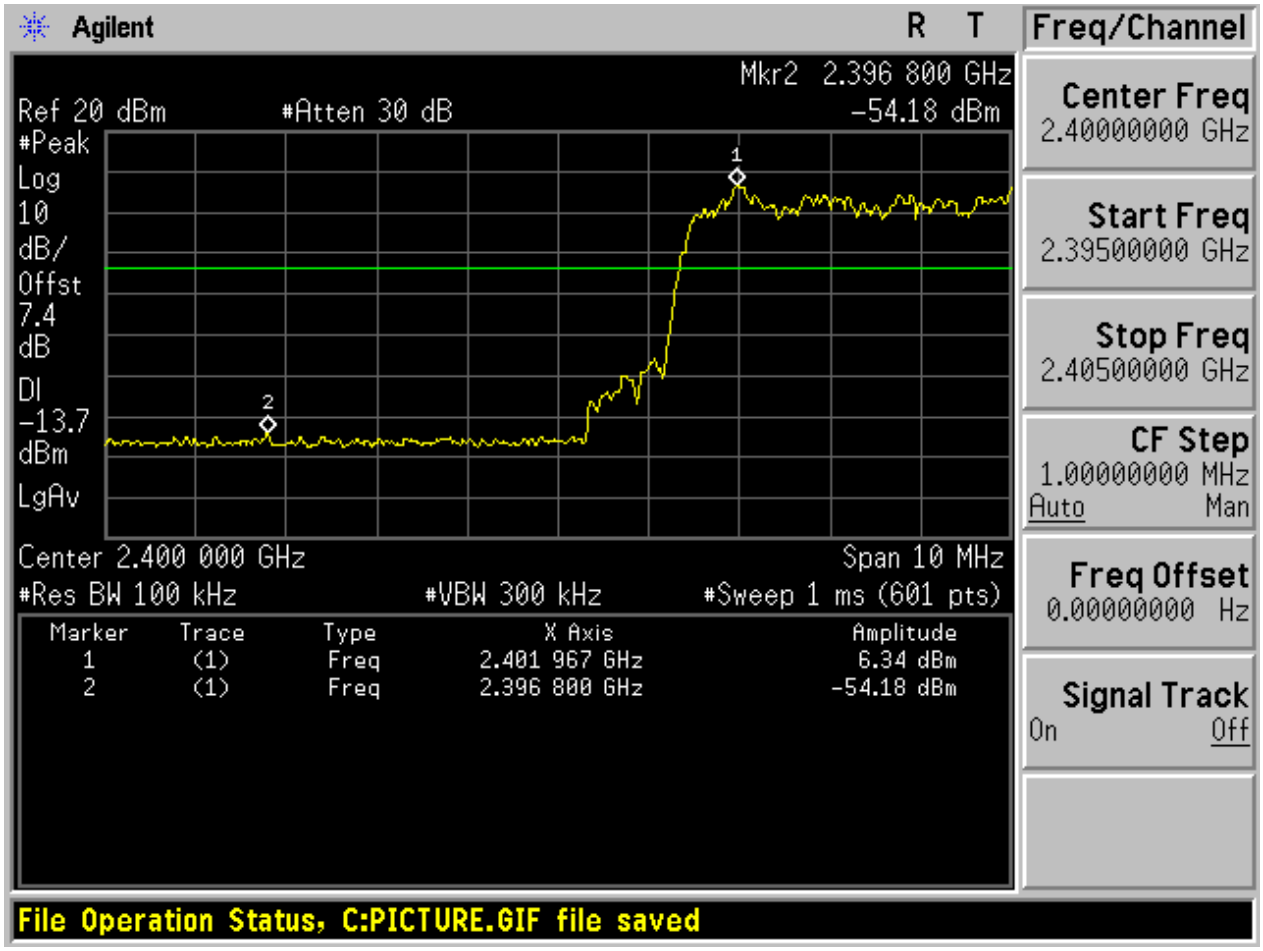


2.5 TM3_3DH5_Ch0

No hopping

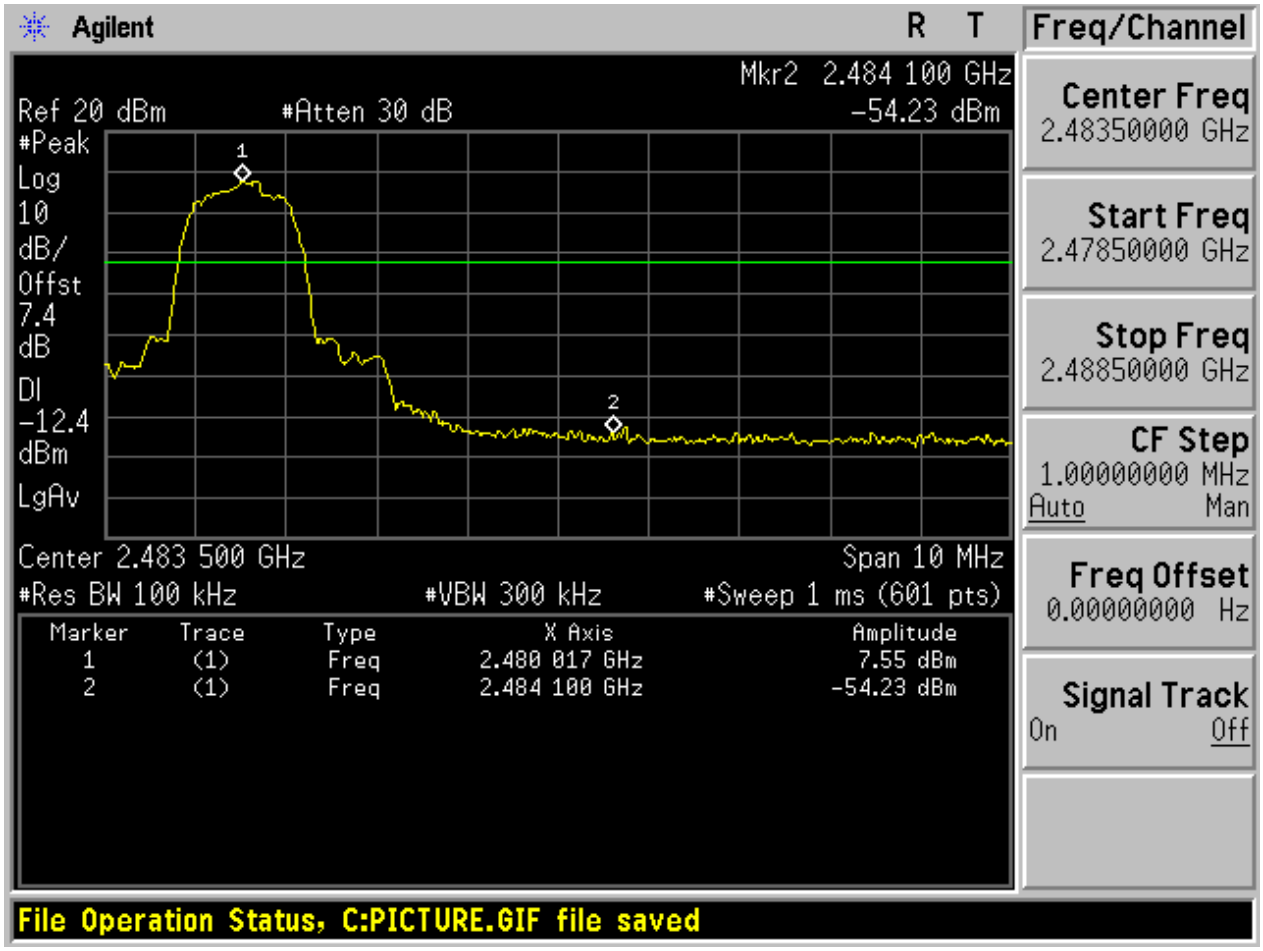


With hopping

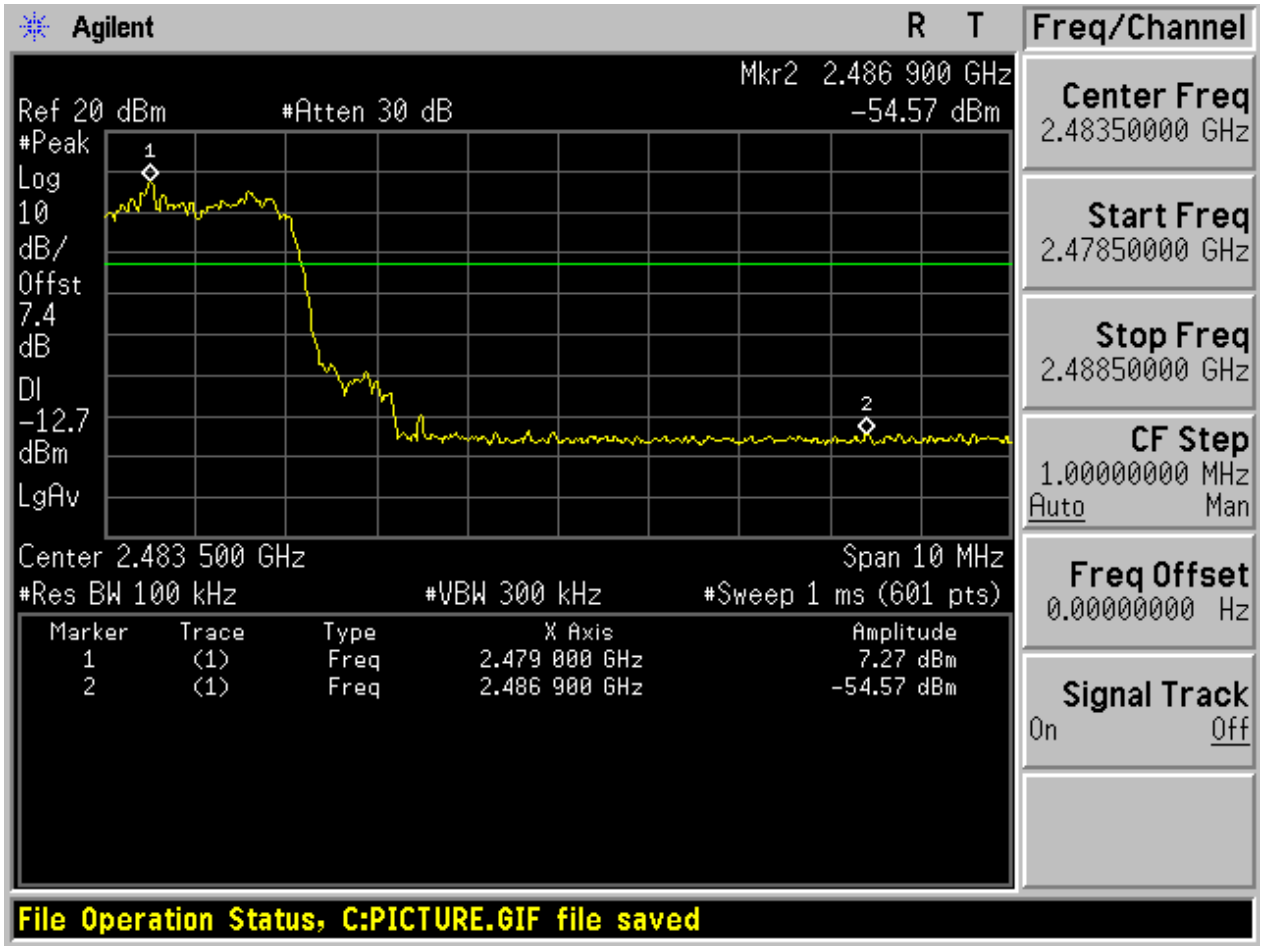


2.6 TM3_3DH5_Ch78

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.

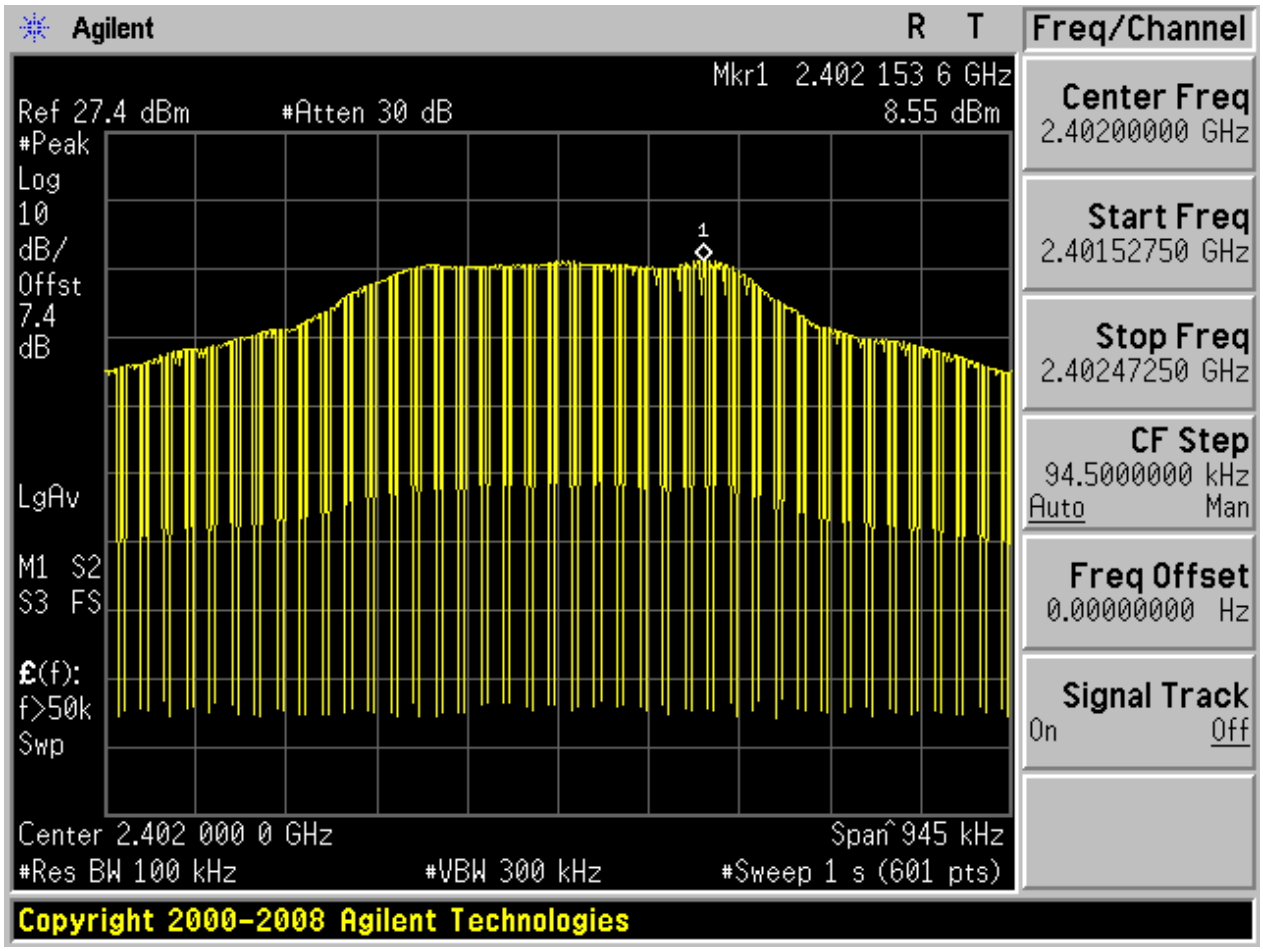
In the result table, the “< Limit” denotes that “The Puw [dBm] is less than Pref [dBm] - 20 [dB], see test plots for detailed”.

EUT Conf.	Pref [dBm/100 kHz]	Puw [dBm/100 kHz]	Verdict
TM1_DH5_Ch0	8.55	< Limit	Pass
TM1_DH5_Ch39	9.65	< Limit	Pass
TM1_DH5_Ch78	9.46	< Limit	Pass
TM2_2DH5_Ch0	6.70	< Limit	Pass
TM2_2DH5_Ch39	8.11	< Limit	Pass
TM2_2DH5_Ch78	7.82	< Limit	Pass
TM3_3DH5_Ch0	6.72	< Limit	Pass
TM3_3DH5_Ch39	8.12	< Limit	Pass
TM3_3DH5_Ch78	7.83	< Limit	Pass

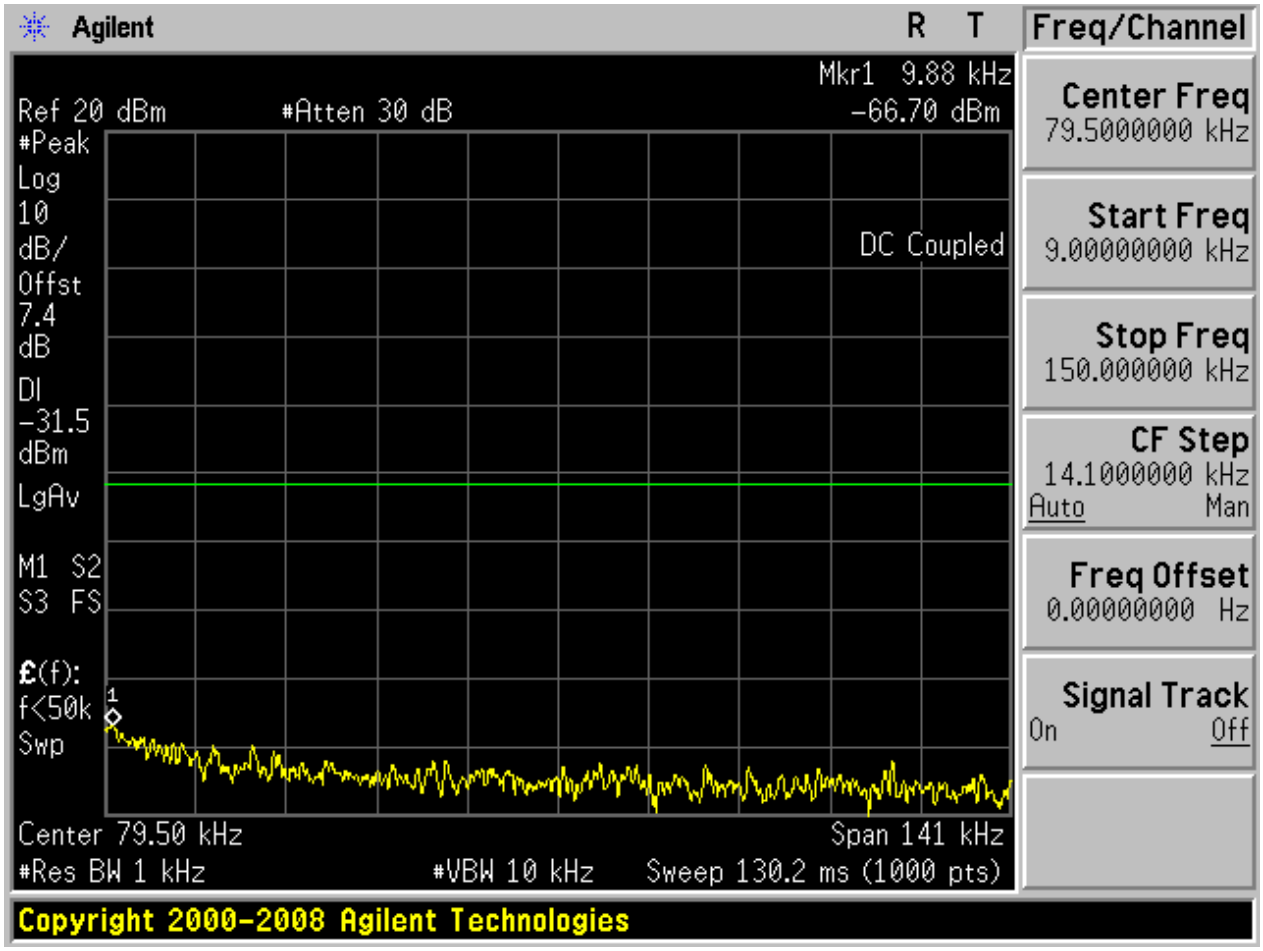
2 Test Plot

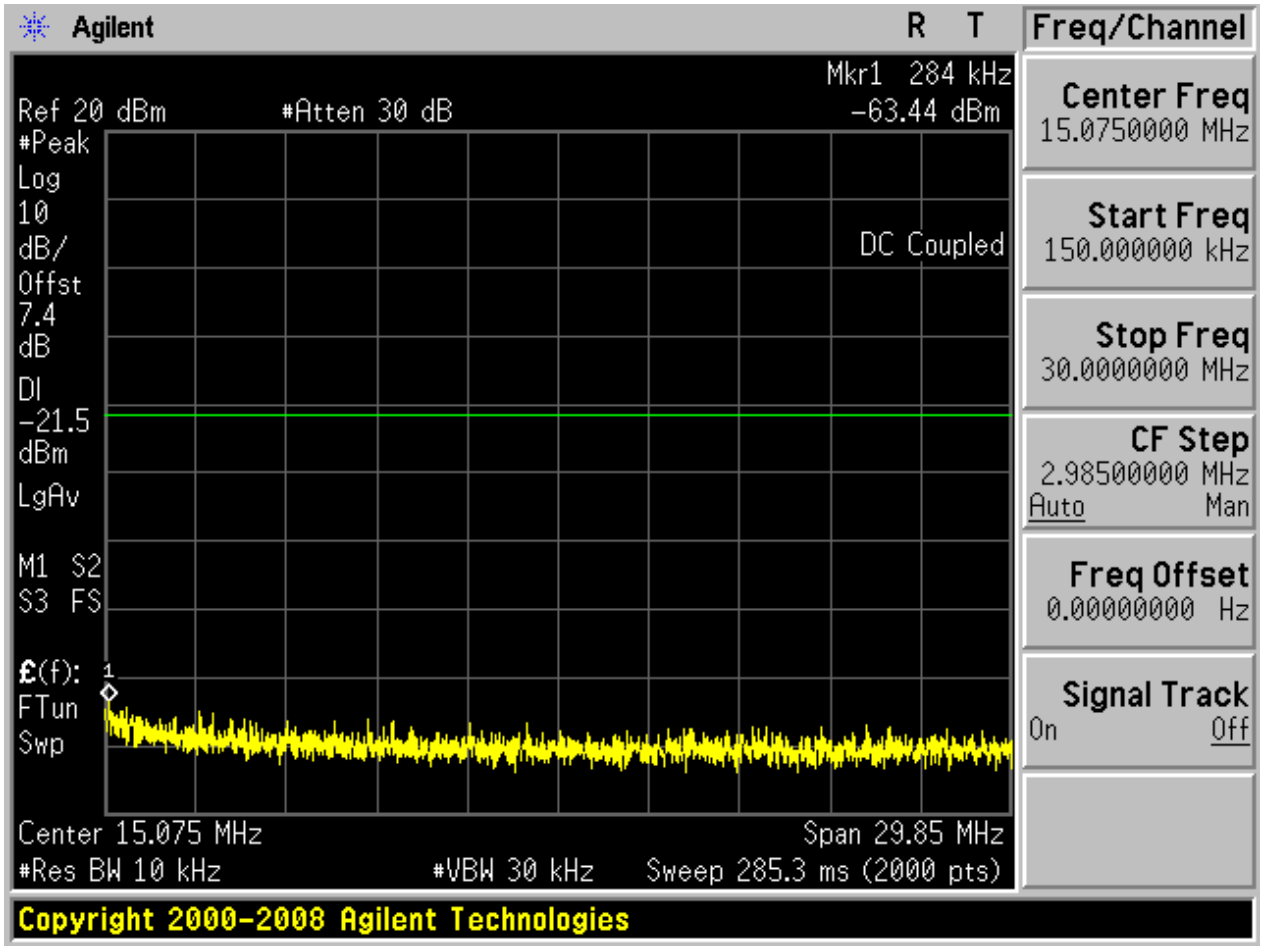
2.1 TM1_DH5_Ch0

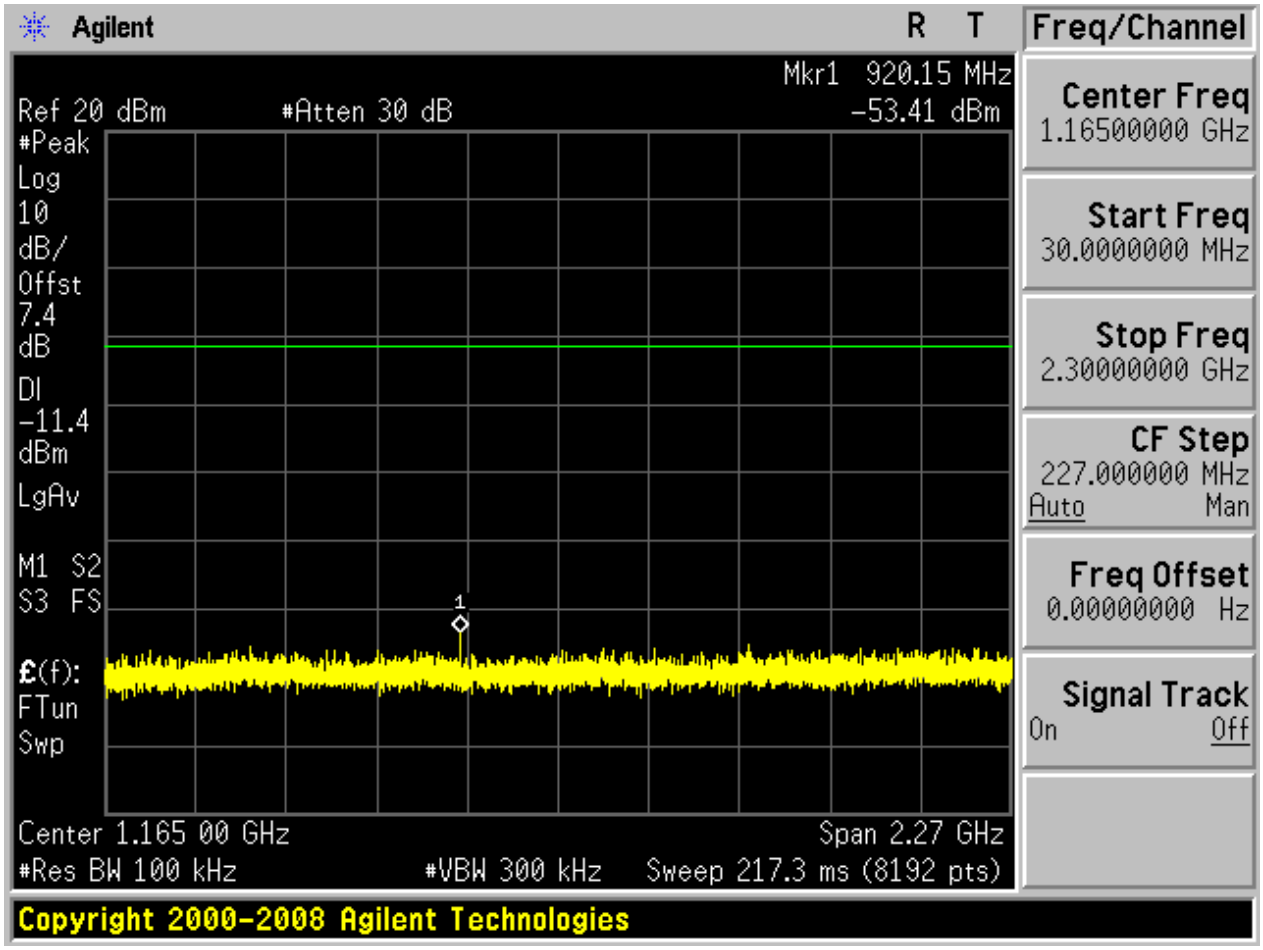
2.1.1 Pref

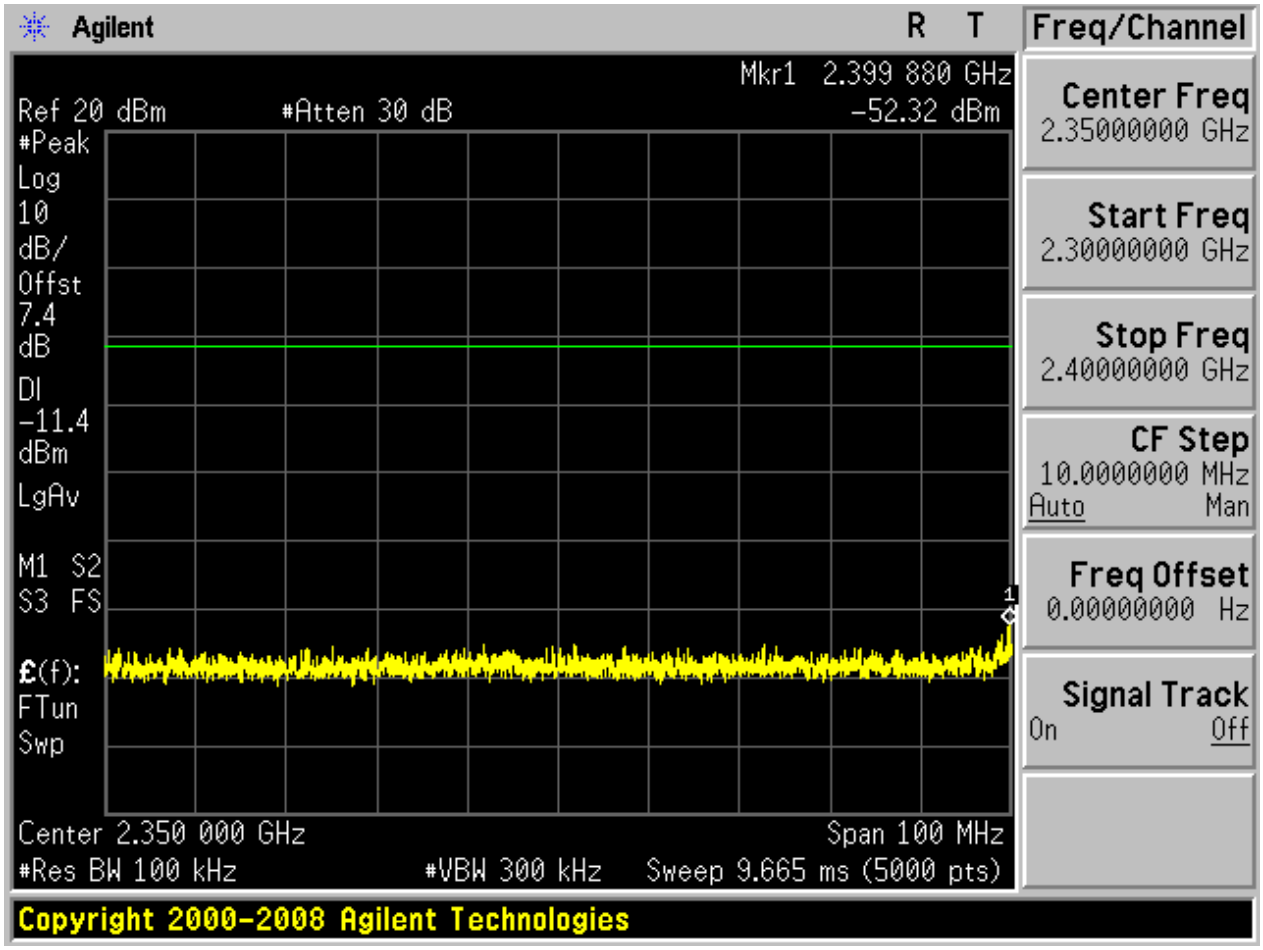


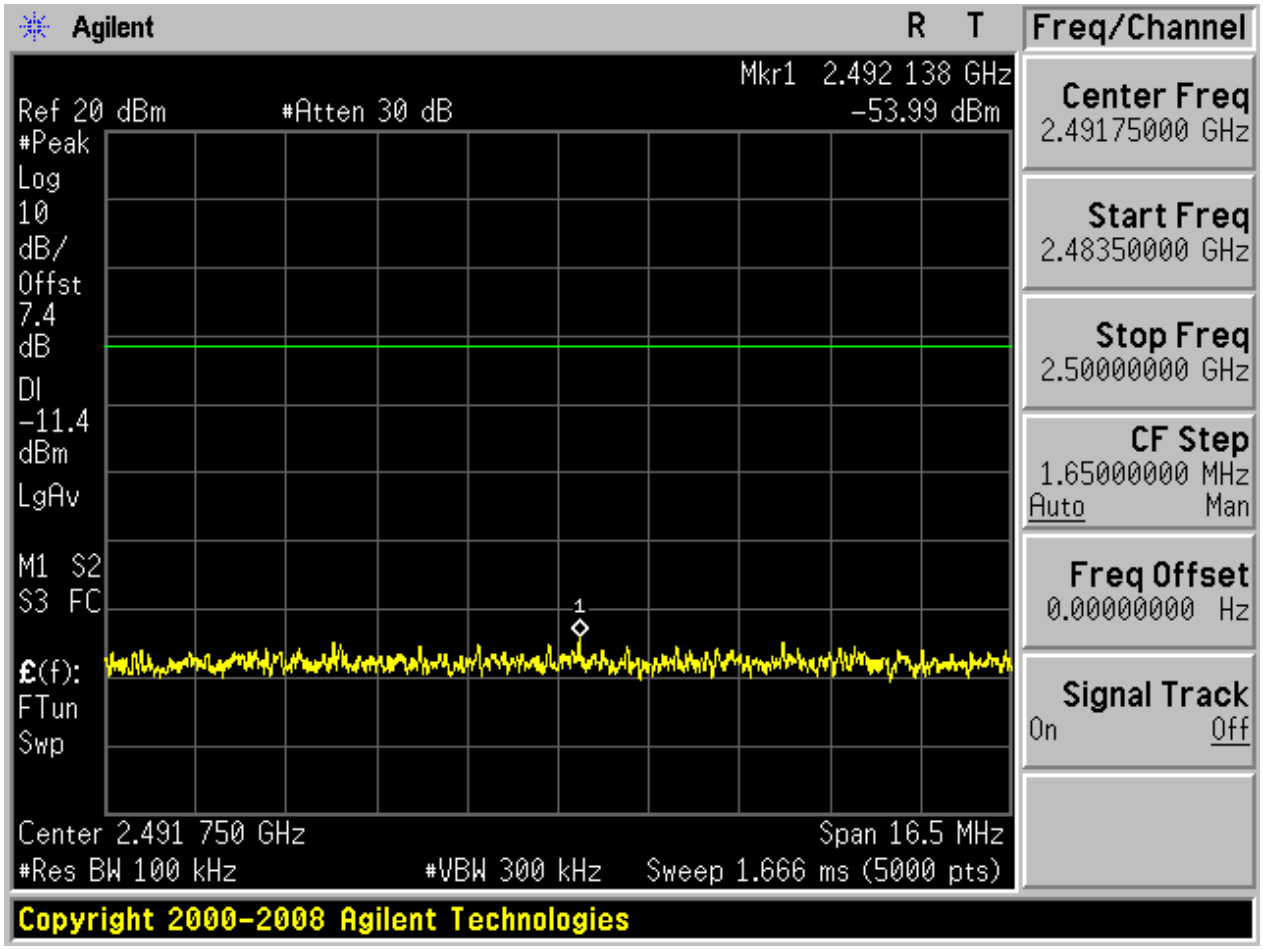
2.1.2 Puw

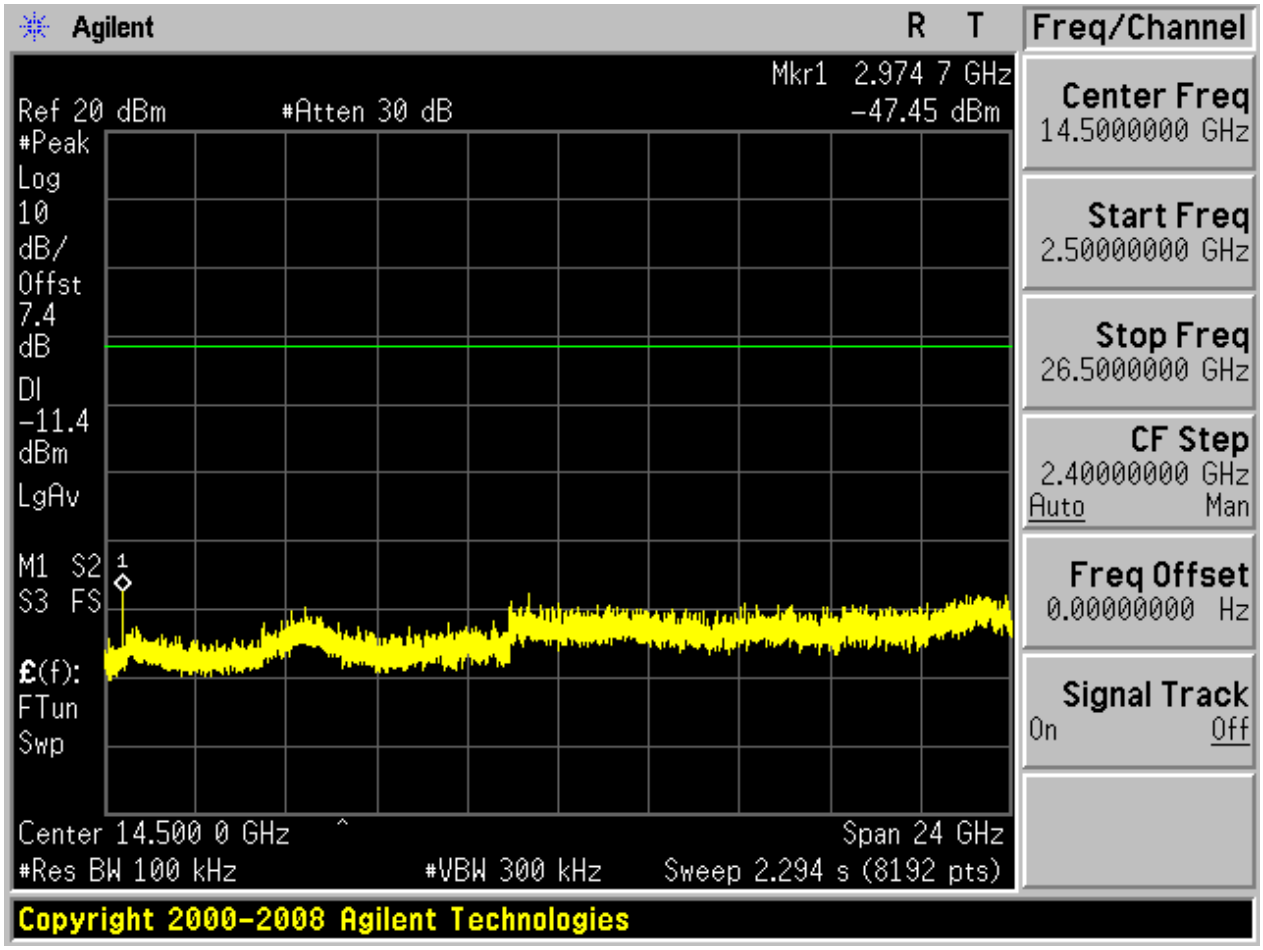






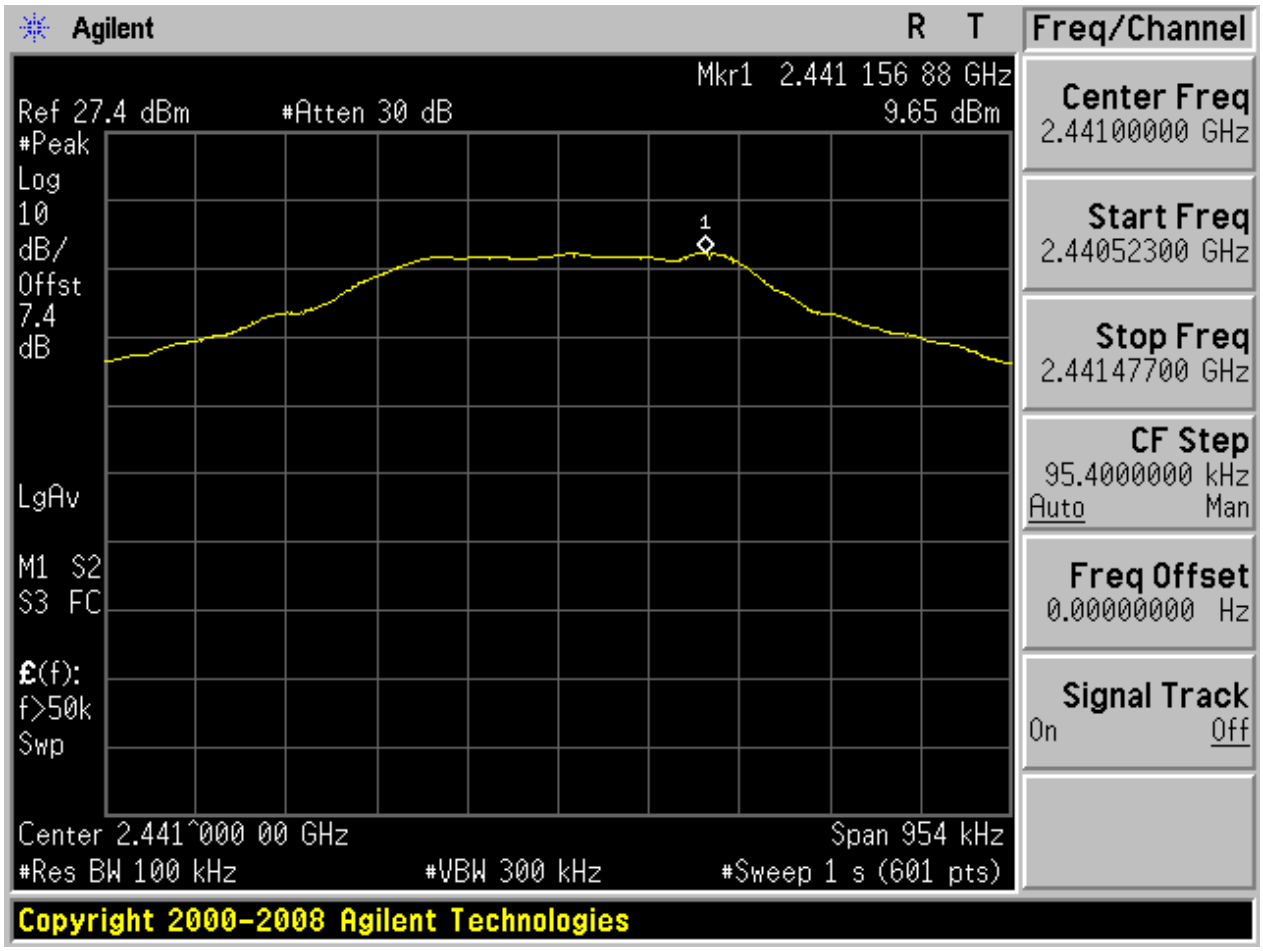




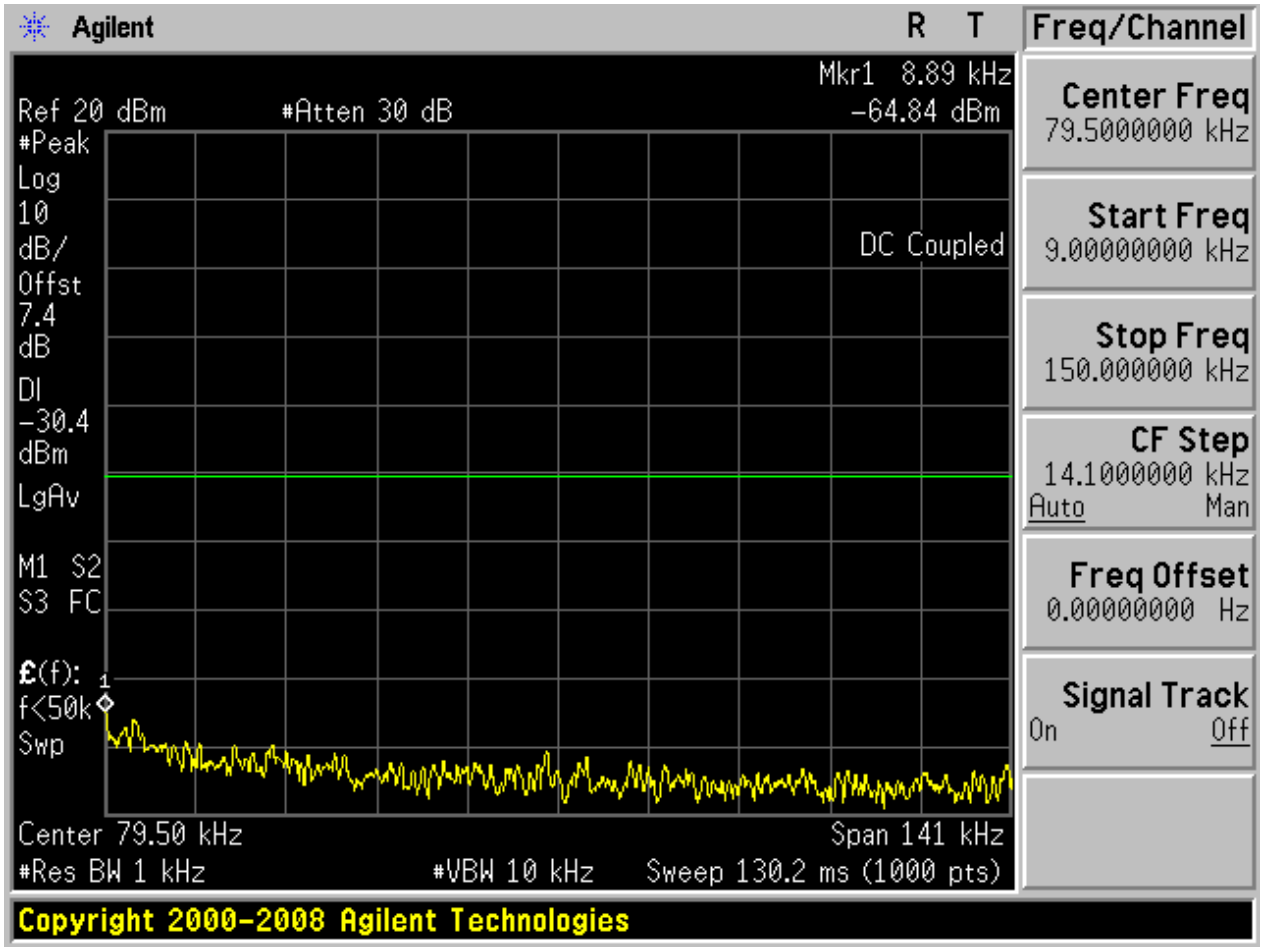


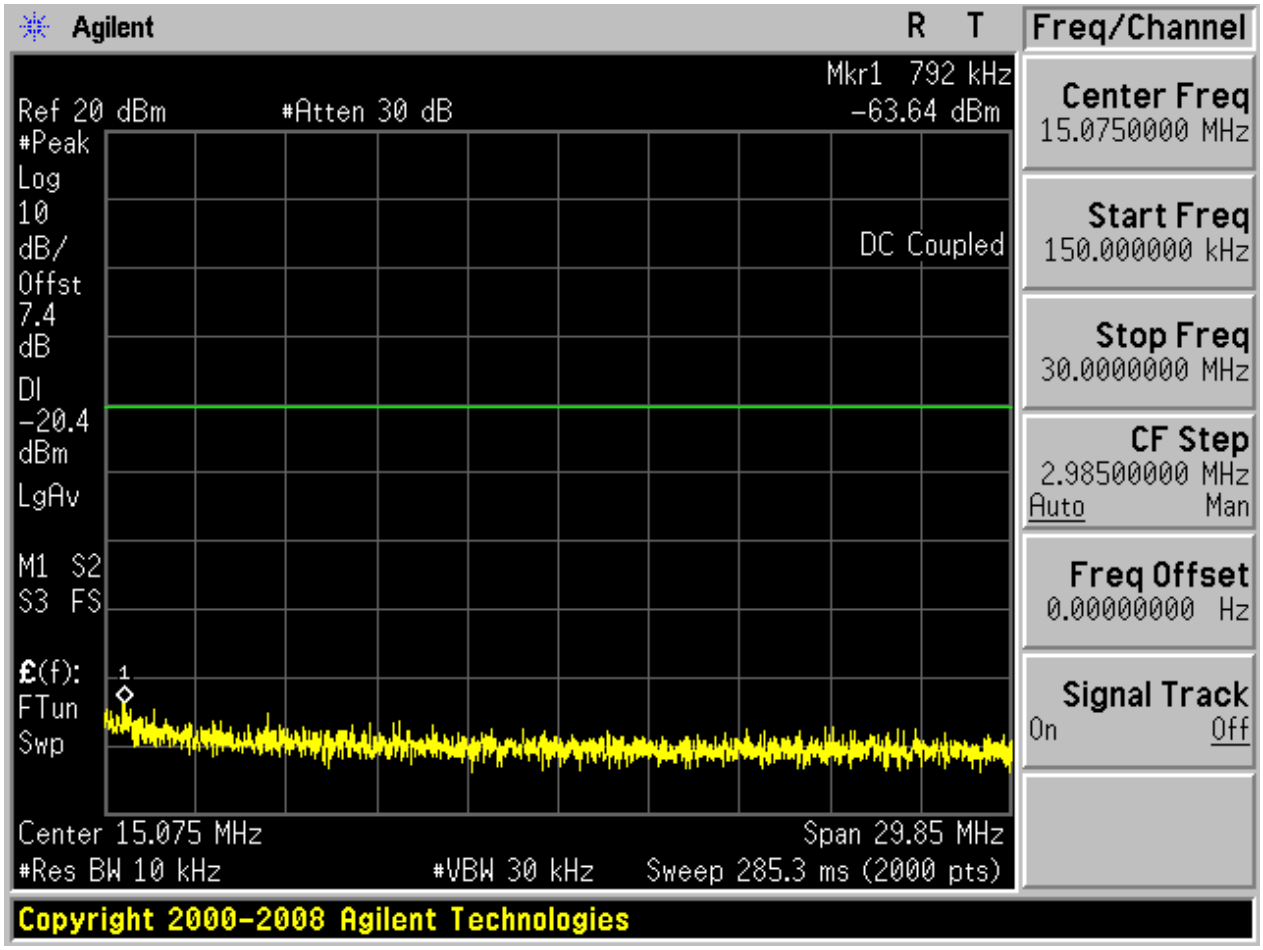
2.2 TM1_DH5_Ch39

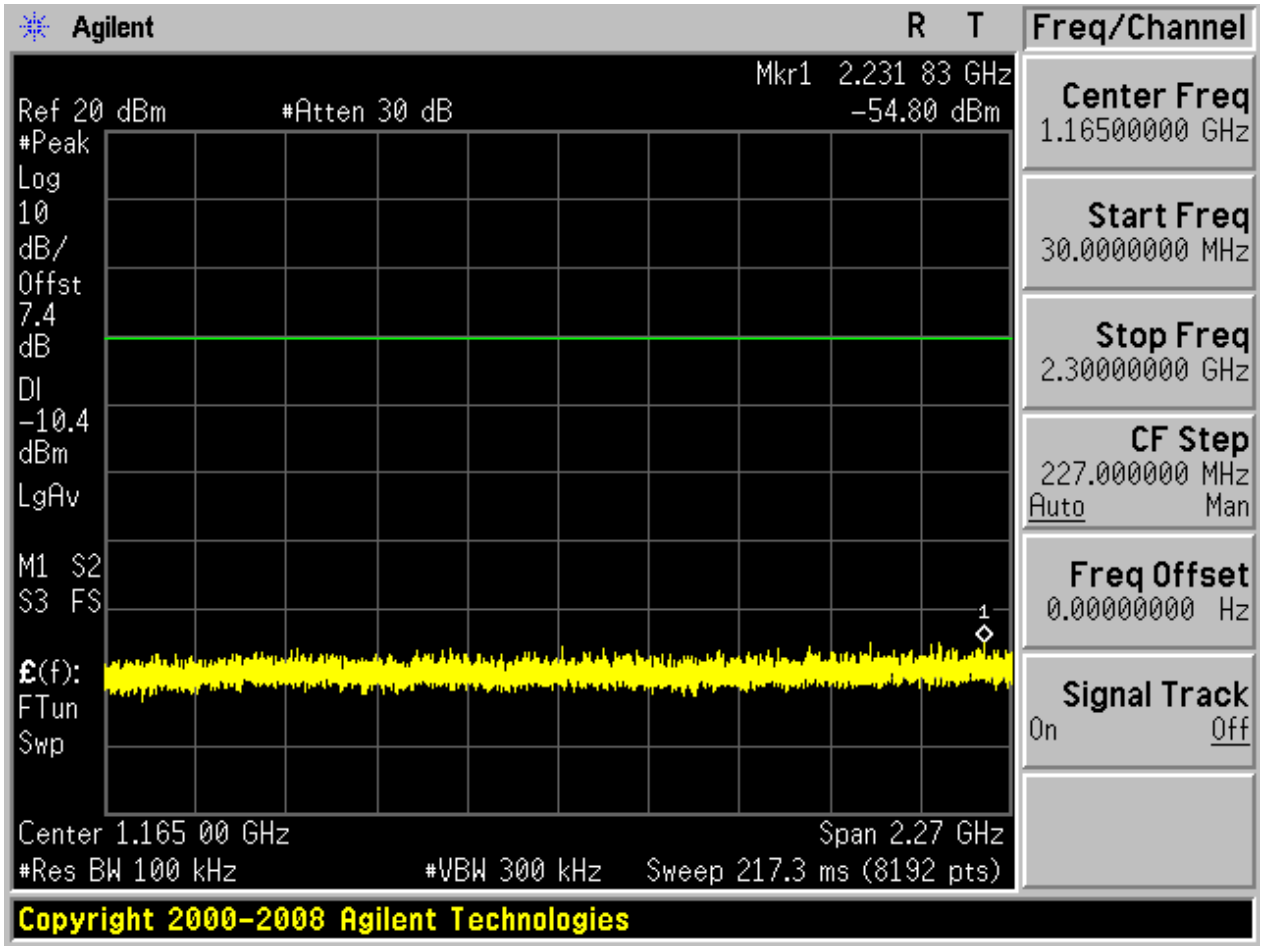
2.2.1 Pref

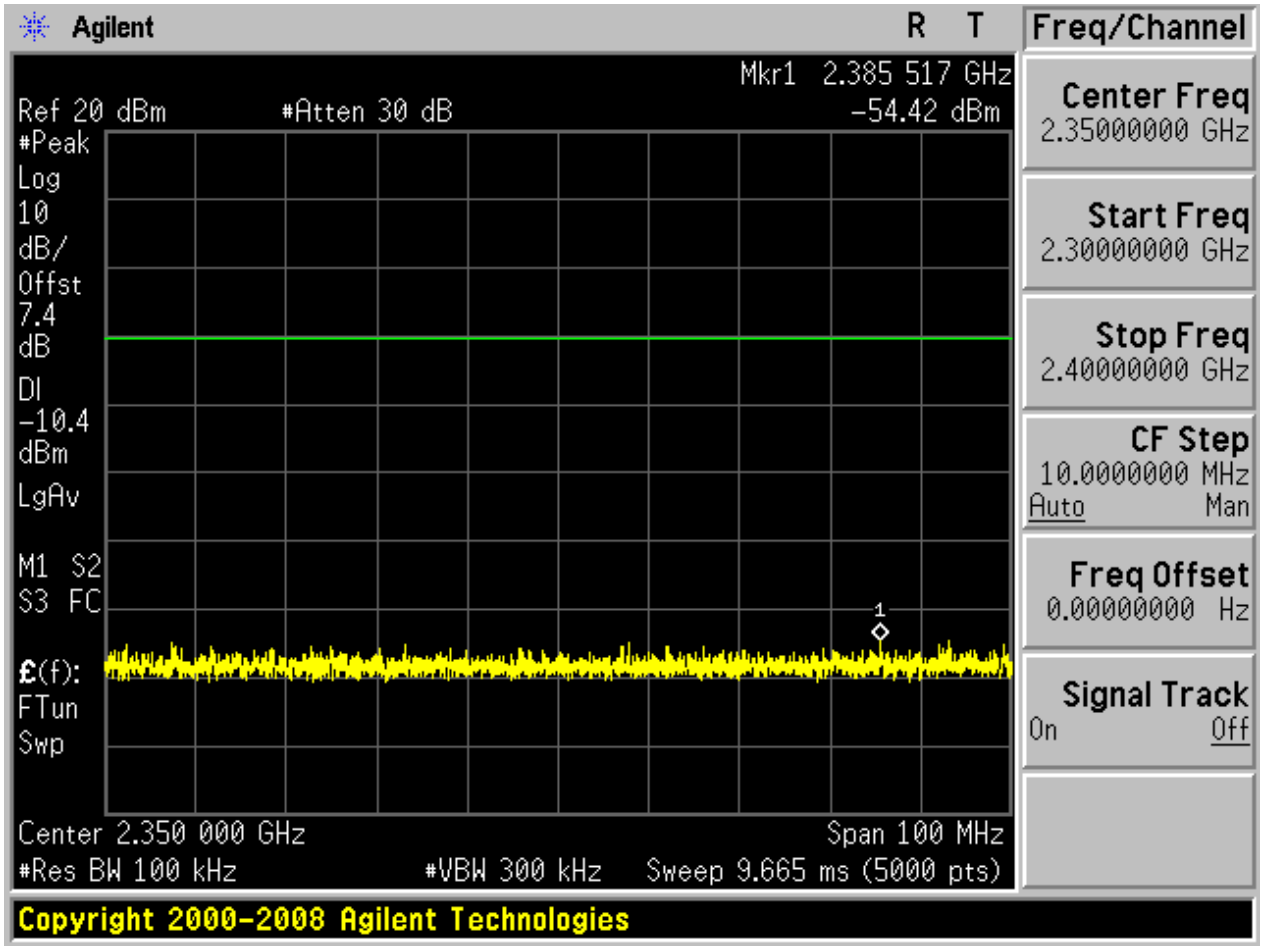


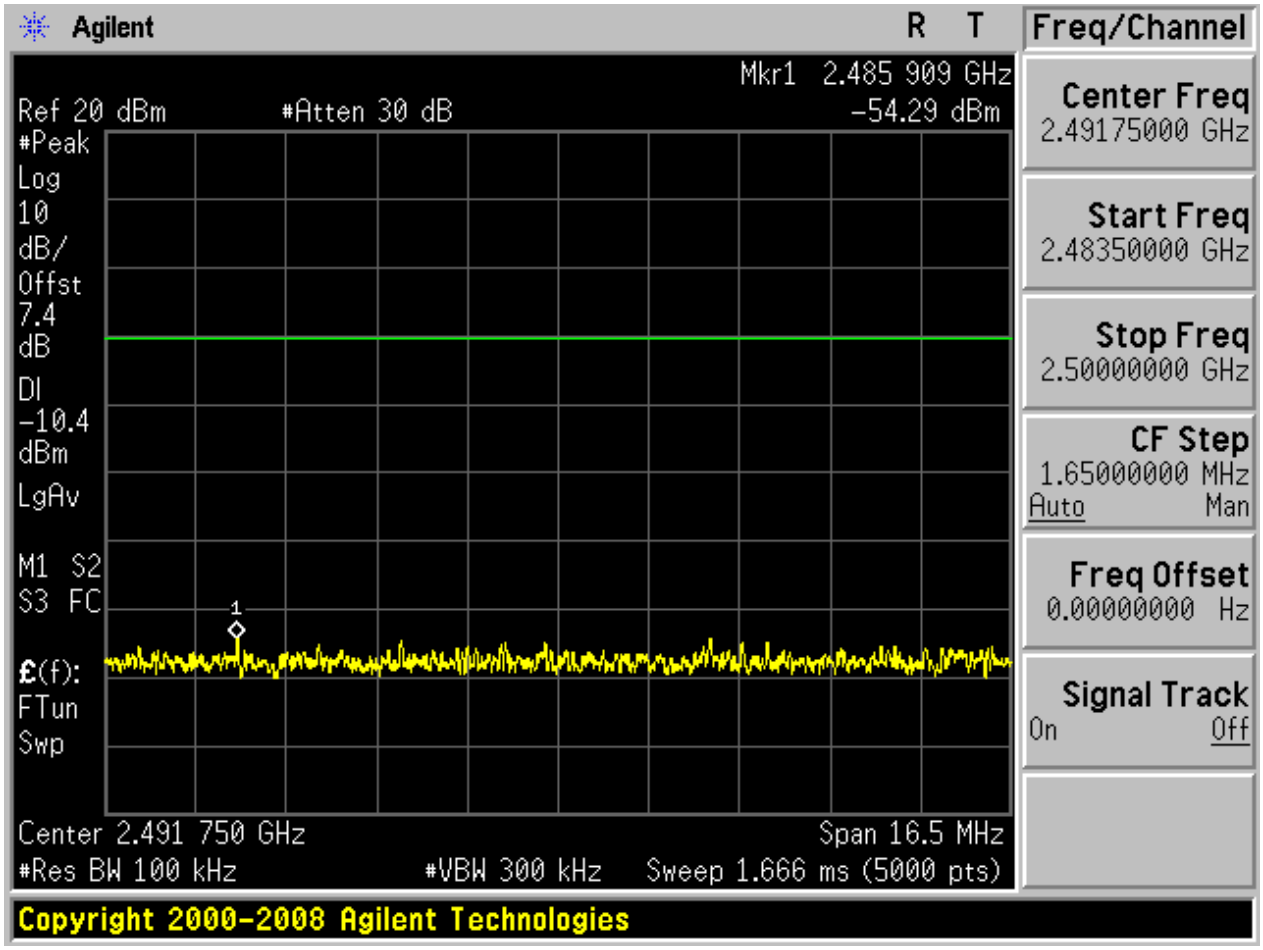
2.2.2 Puw

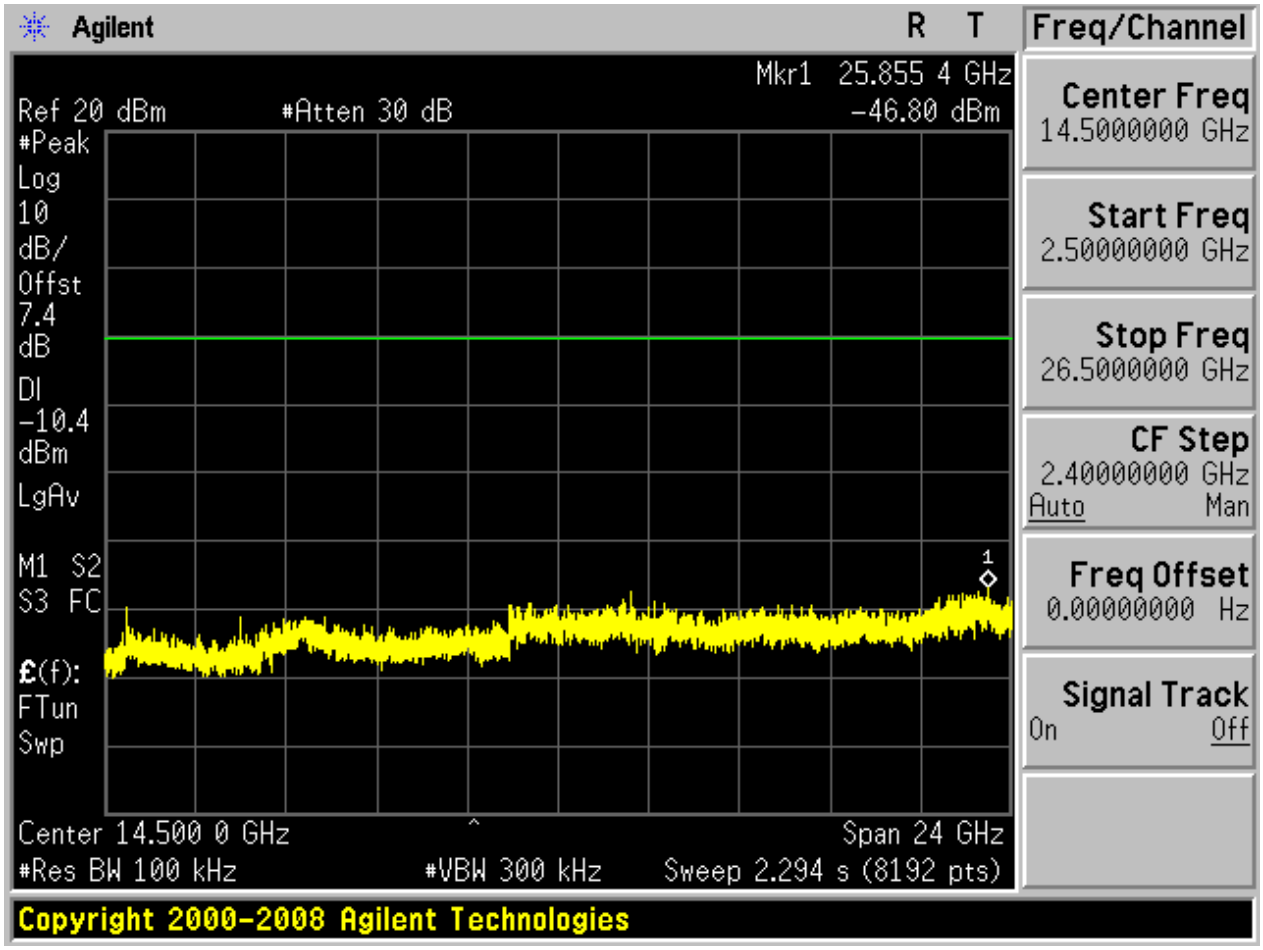












Puw-spuriou_TM1_39_1

Puw-spuriou_TM1_39_2

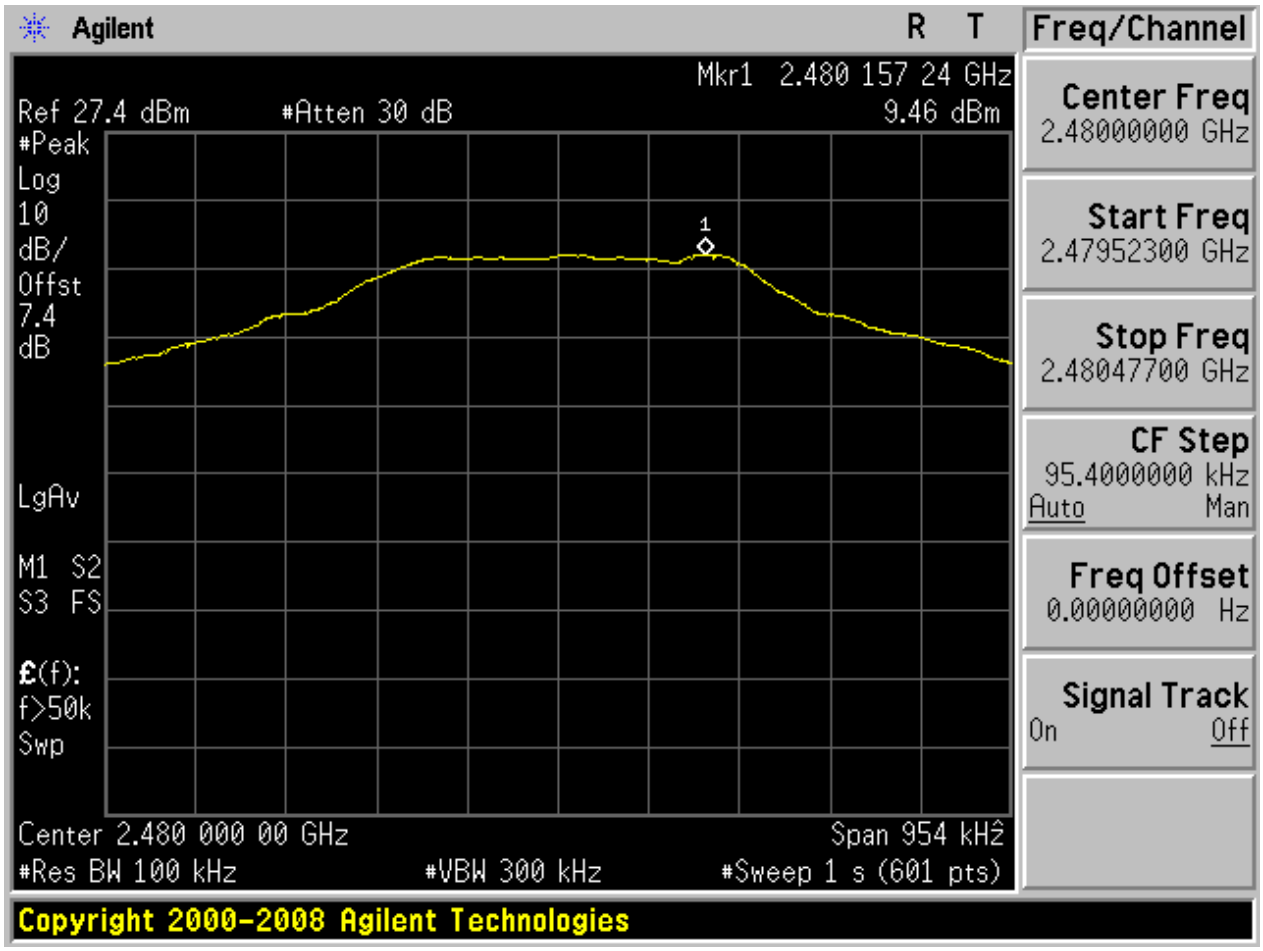
Puw-spuriou_TM1_39_3

Puw-spuriou_TM1_39_4

Puw-spuriou_TM1_39_5

2.3 TM1_DH5_Ch78

2.3.1 Pref



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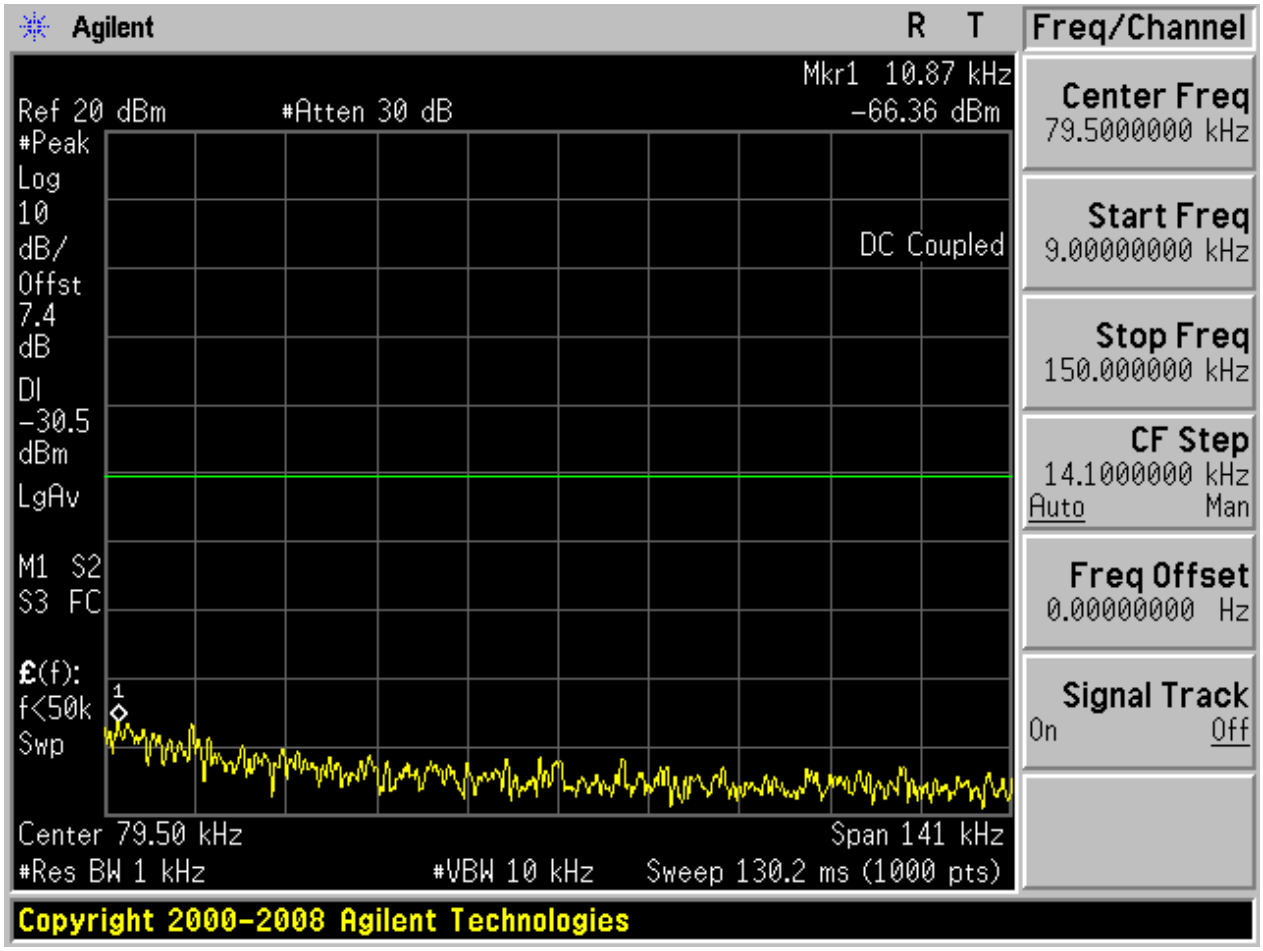
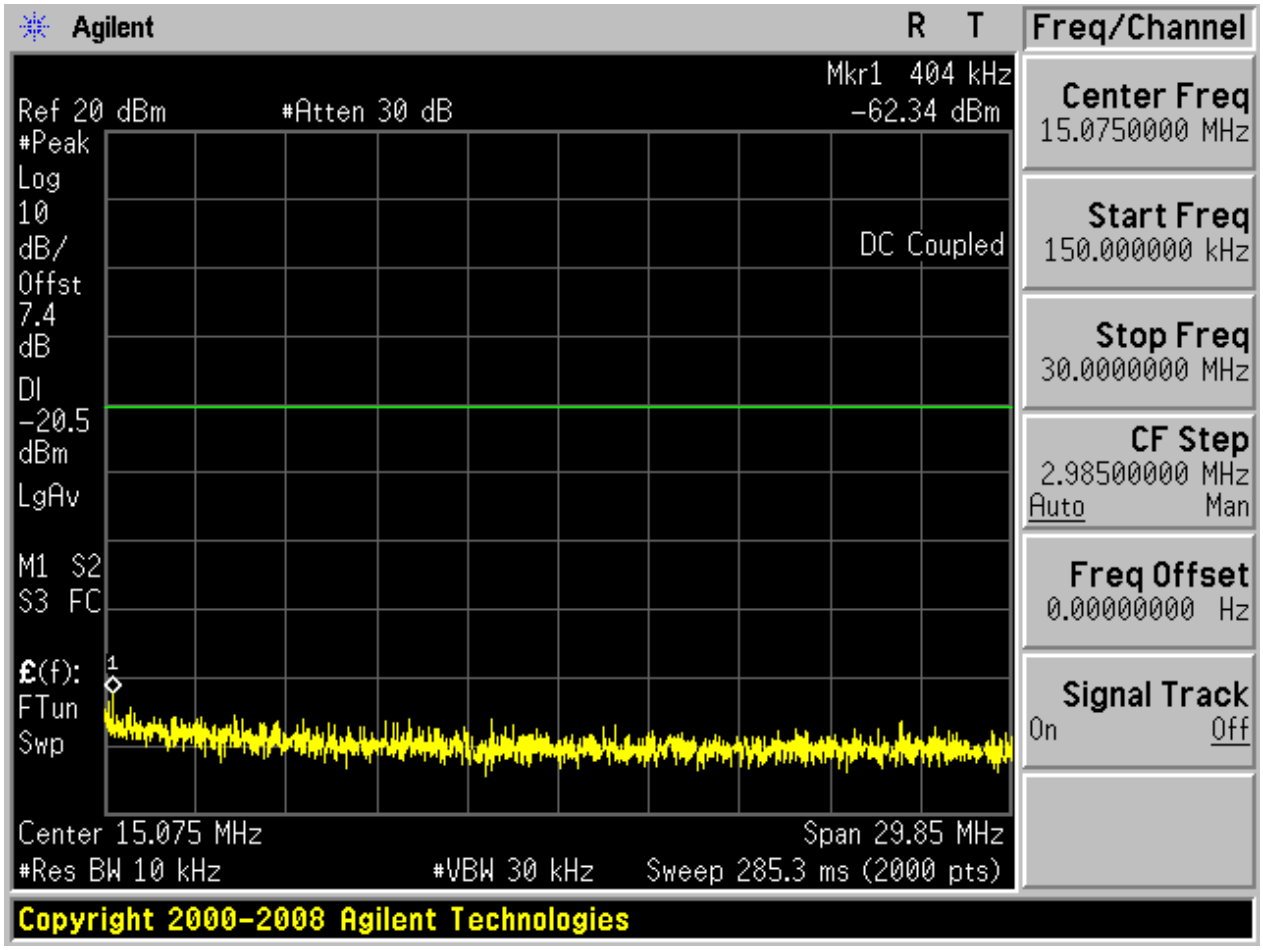
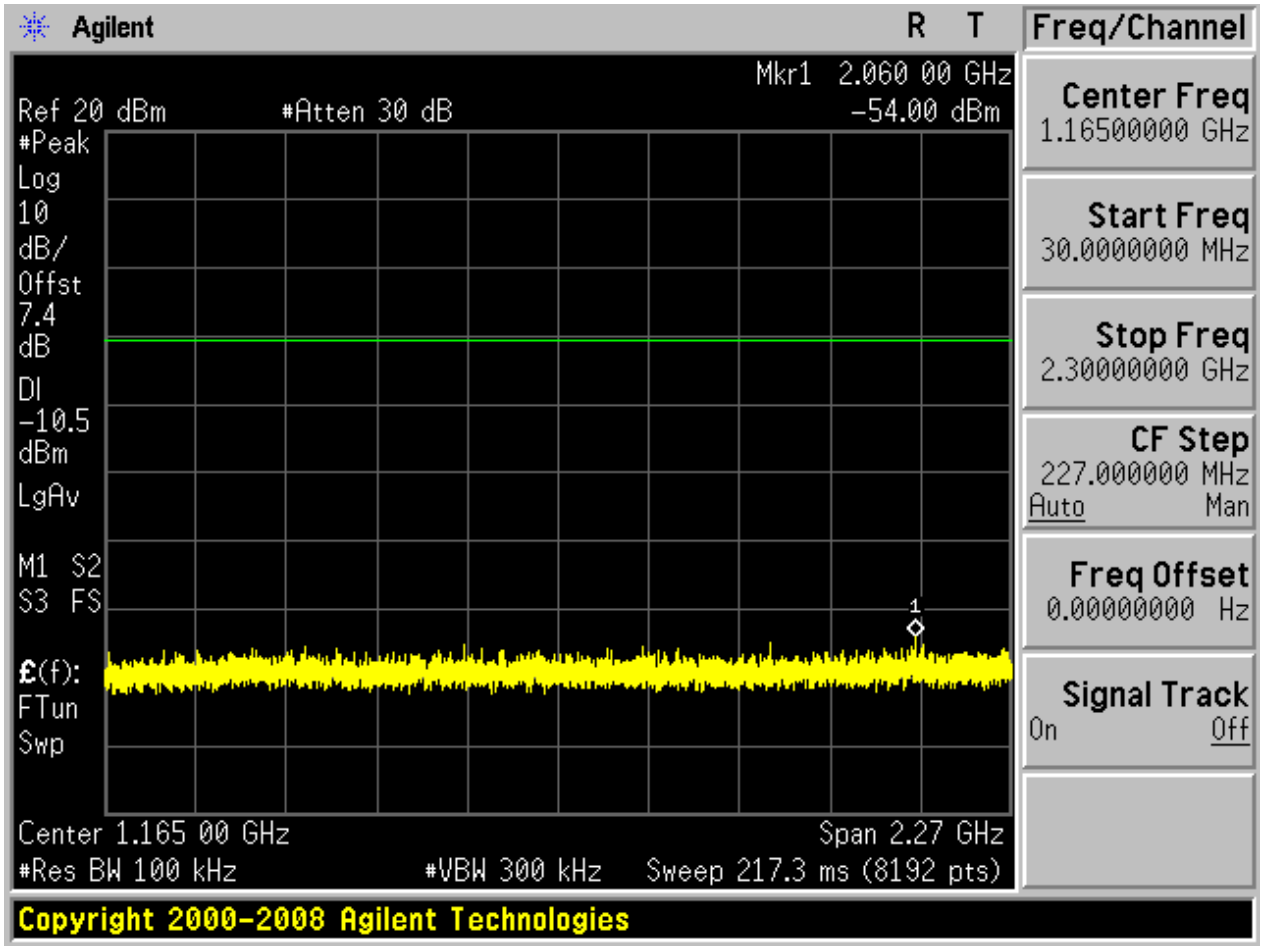
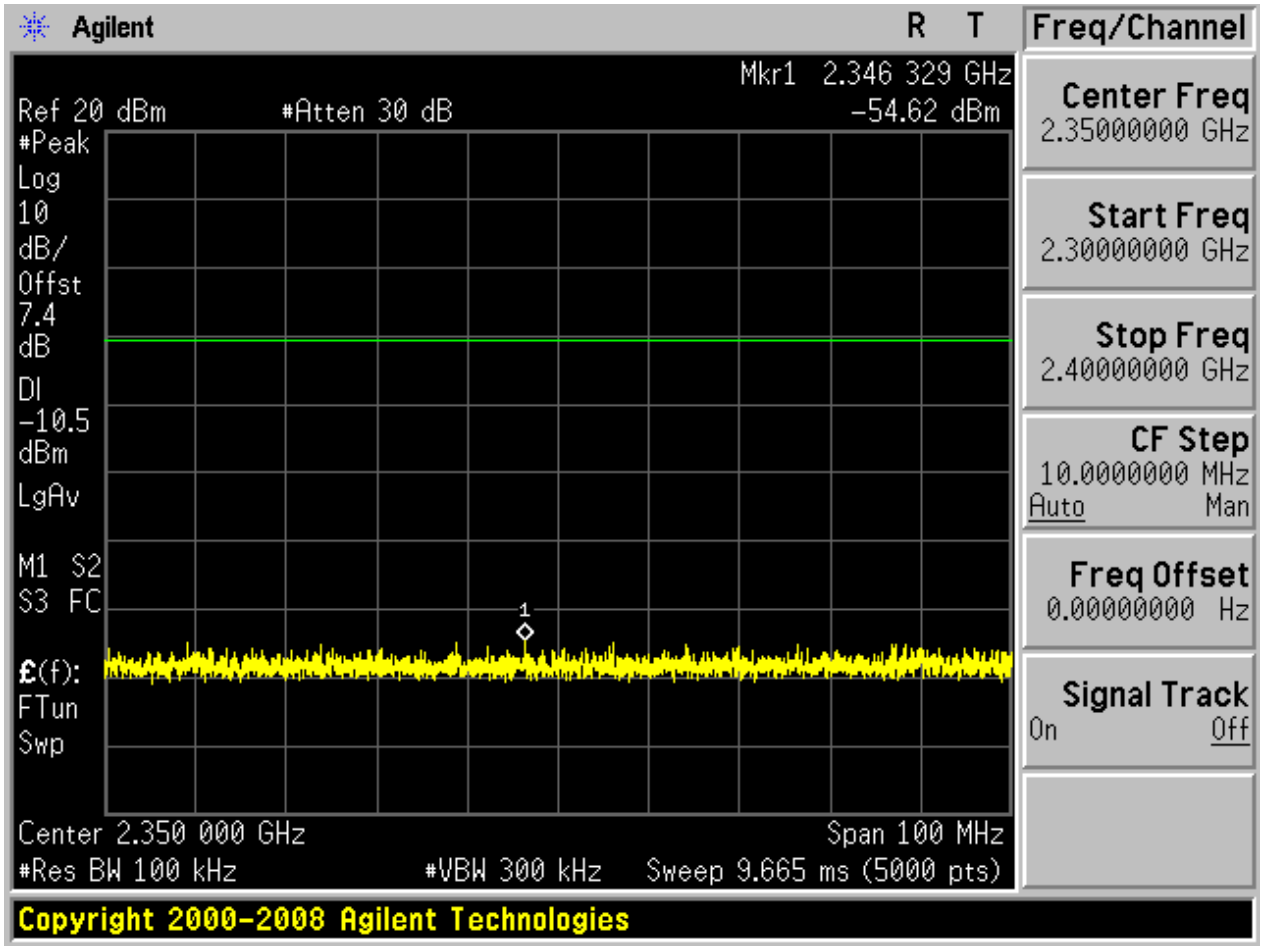
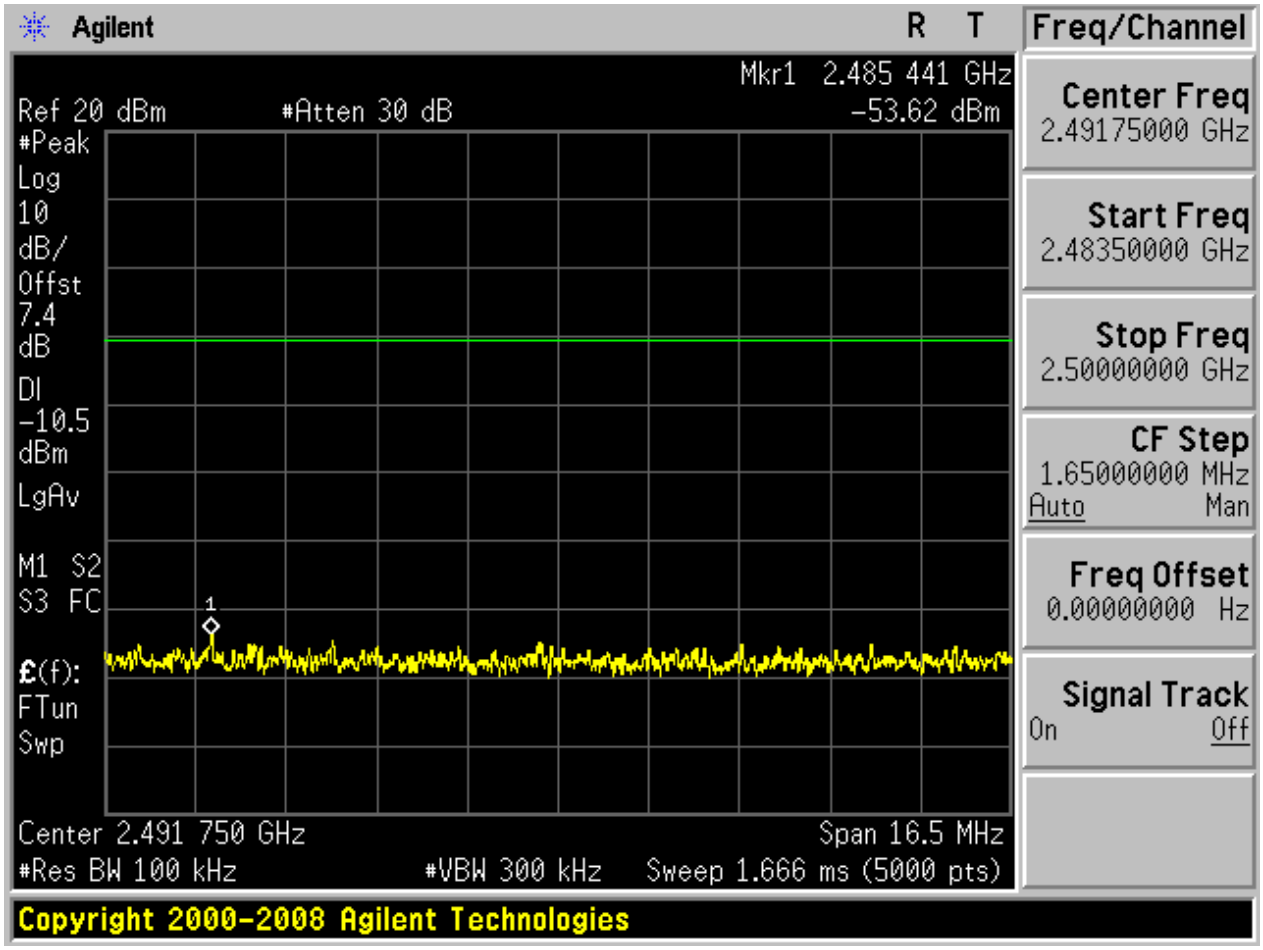
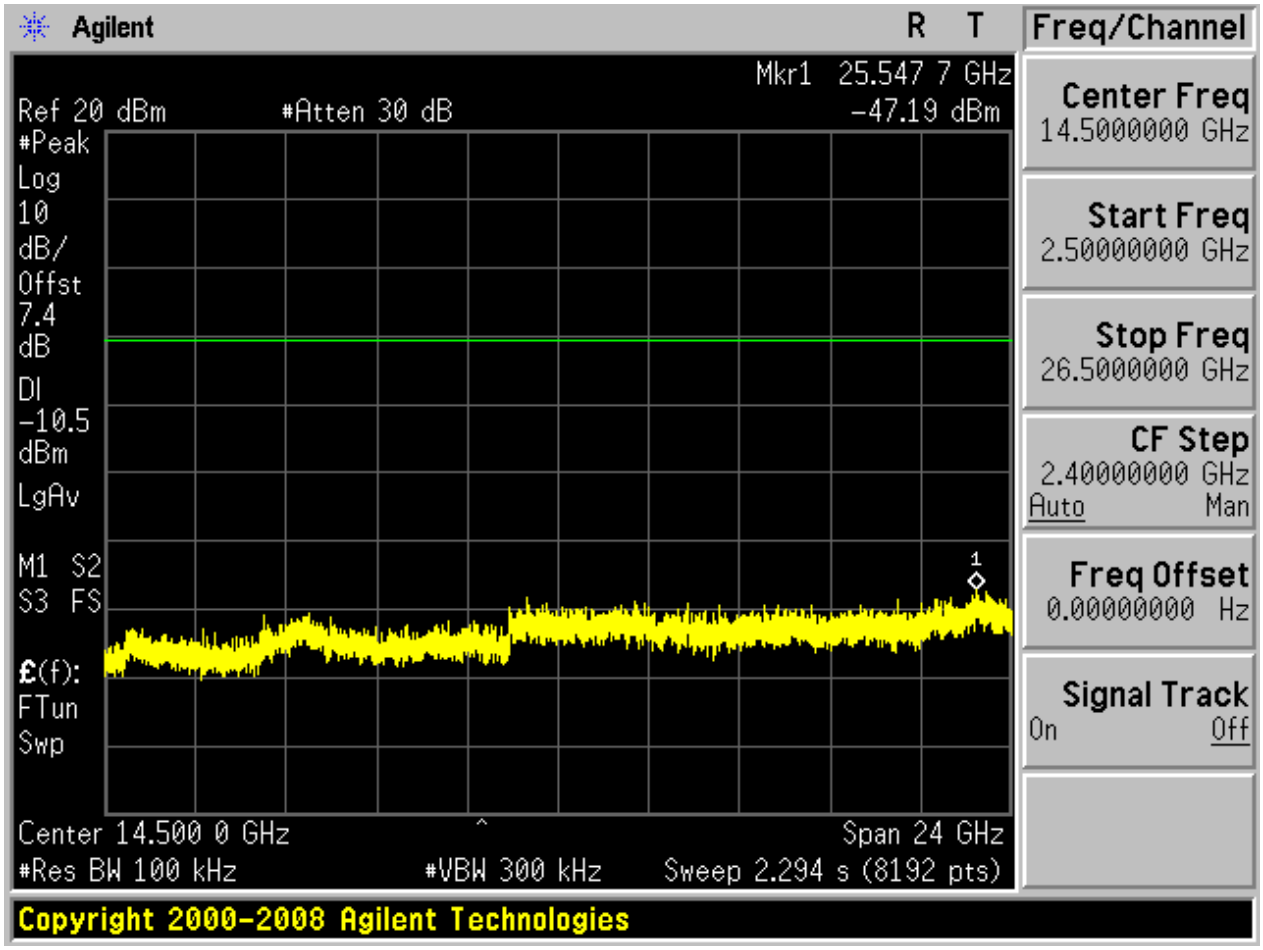












Puw-spuriou_TM1_78_1

Puw-spuriou_TM1_78_2

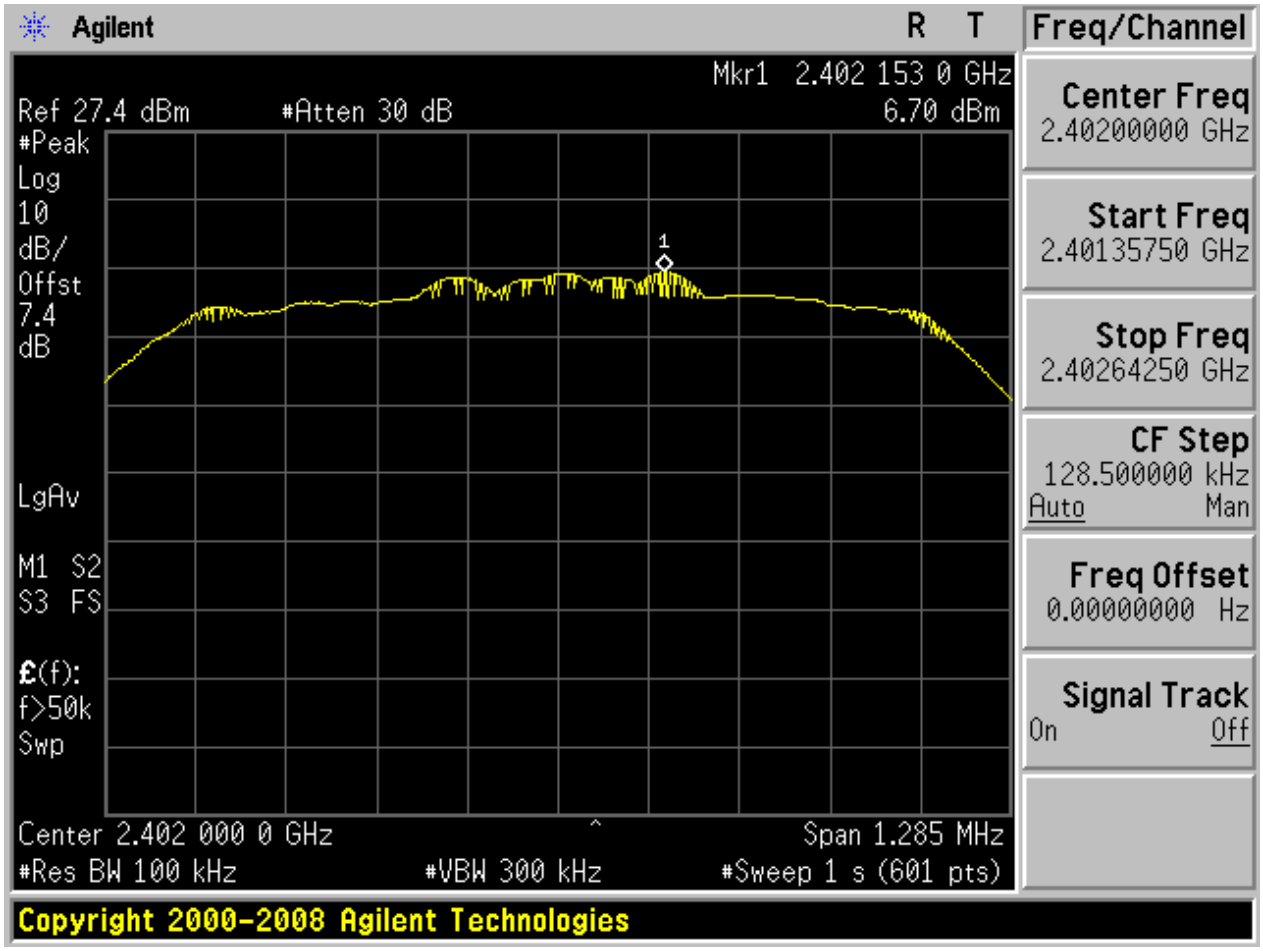
Puw-spuriou_TM1_78_3

Puw-spuriou_TM1_78_4

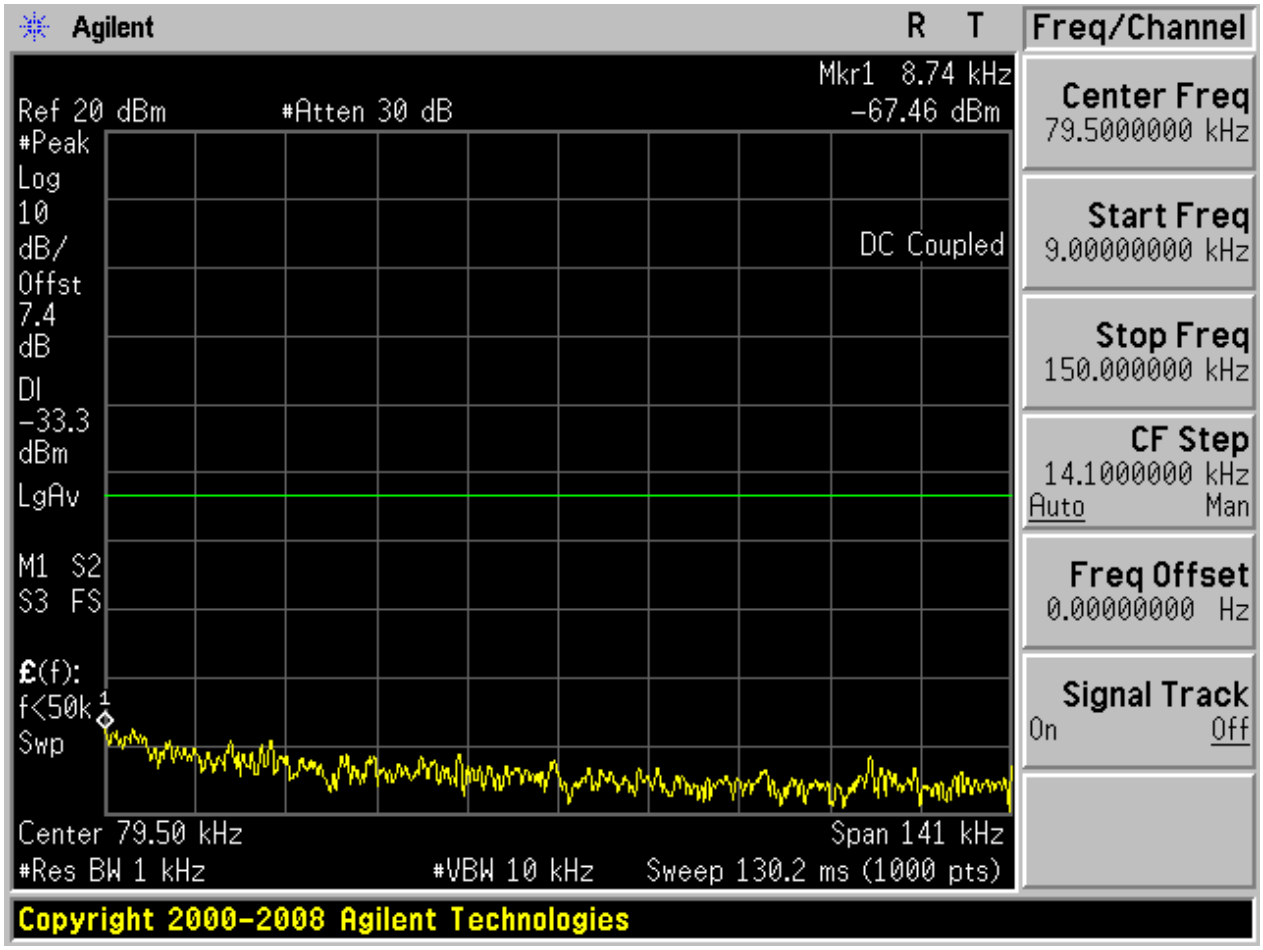
Puw-spuriou_TM1_78_5

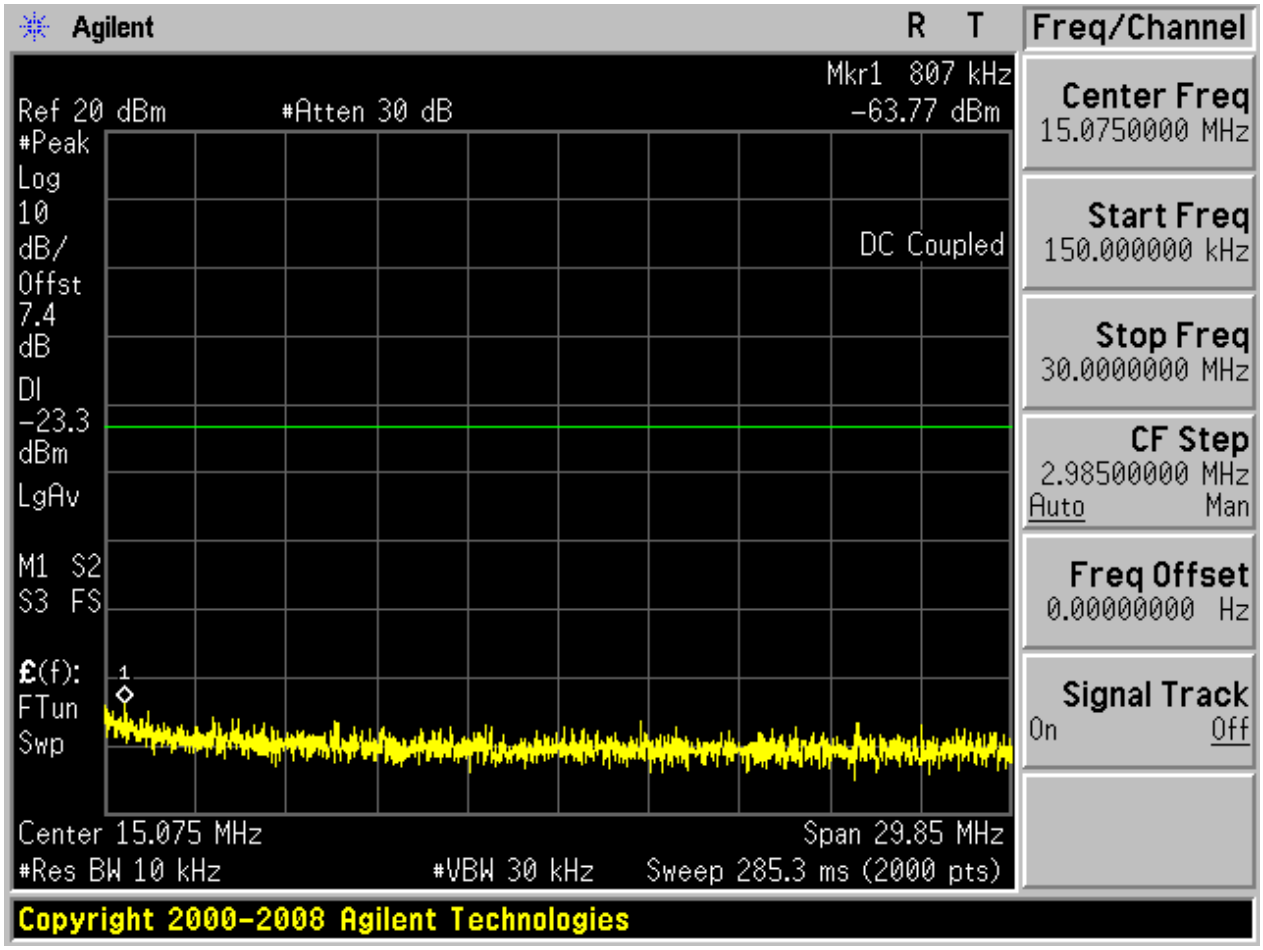
2.4 TM2_2DH5_Ch0

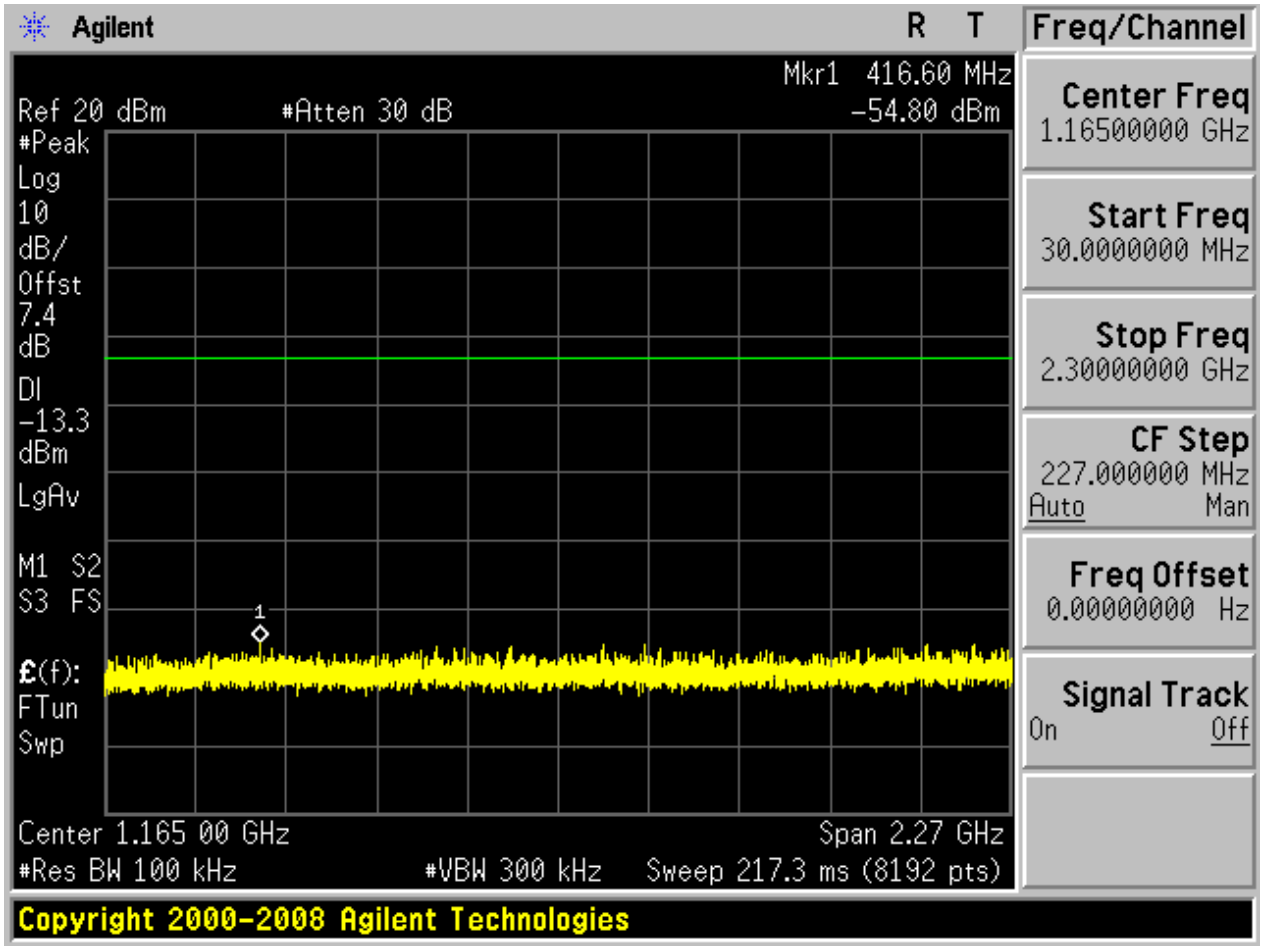
2.4.1 Pref

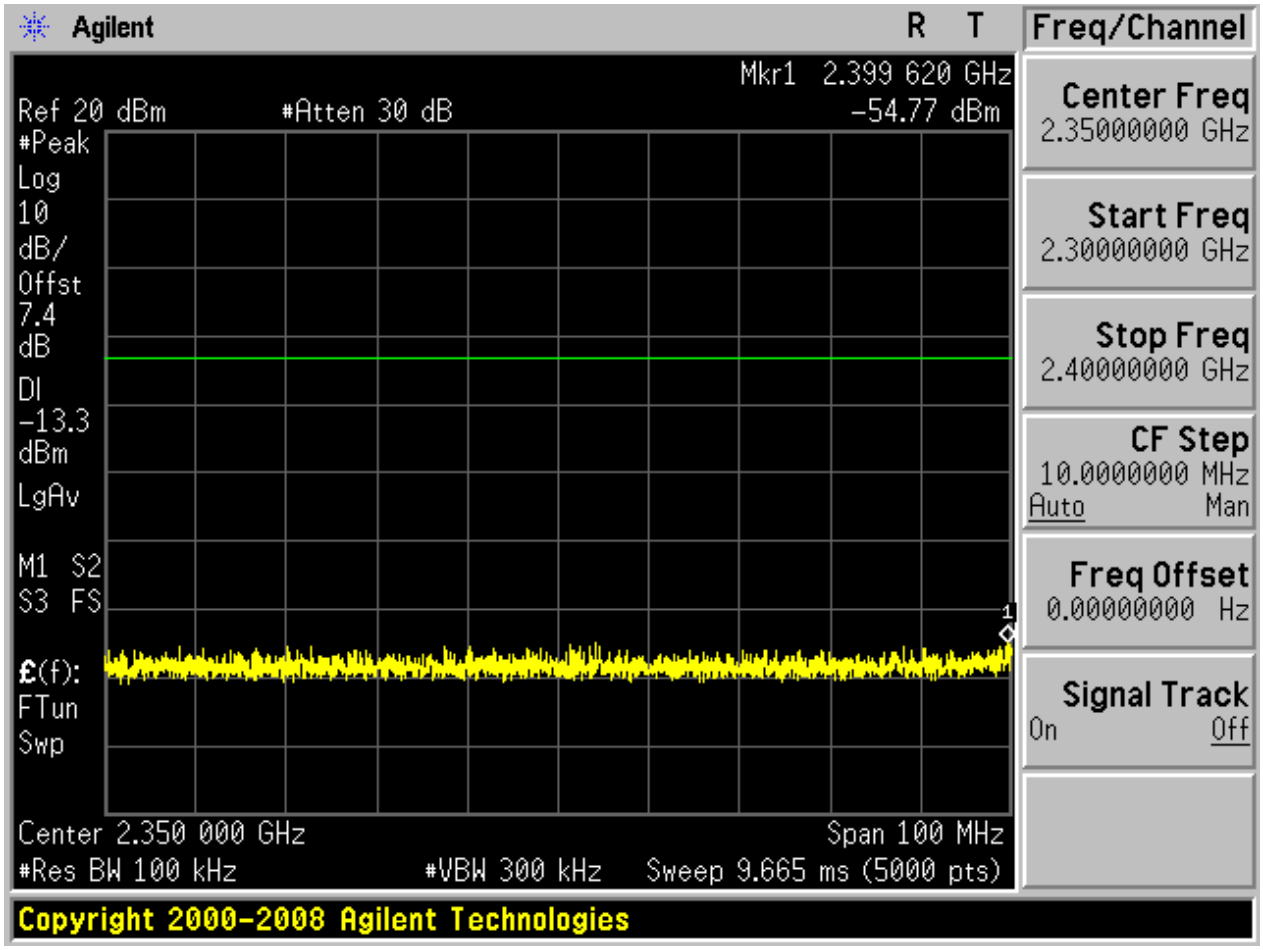


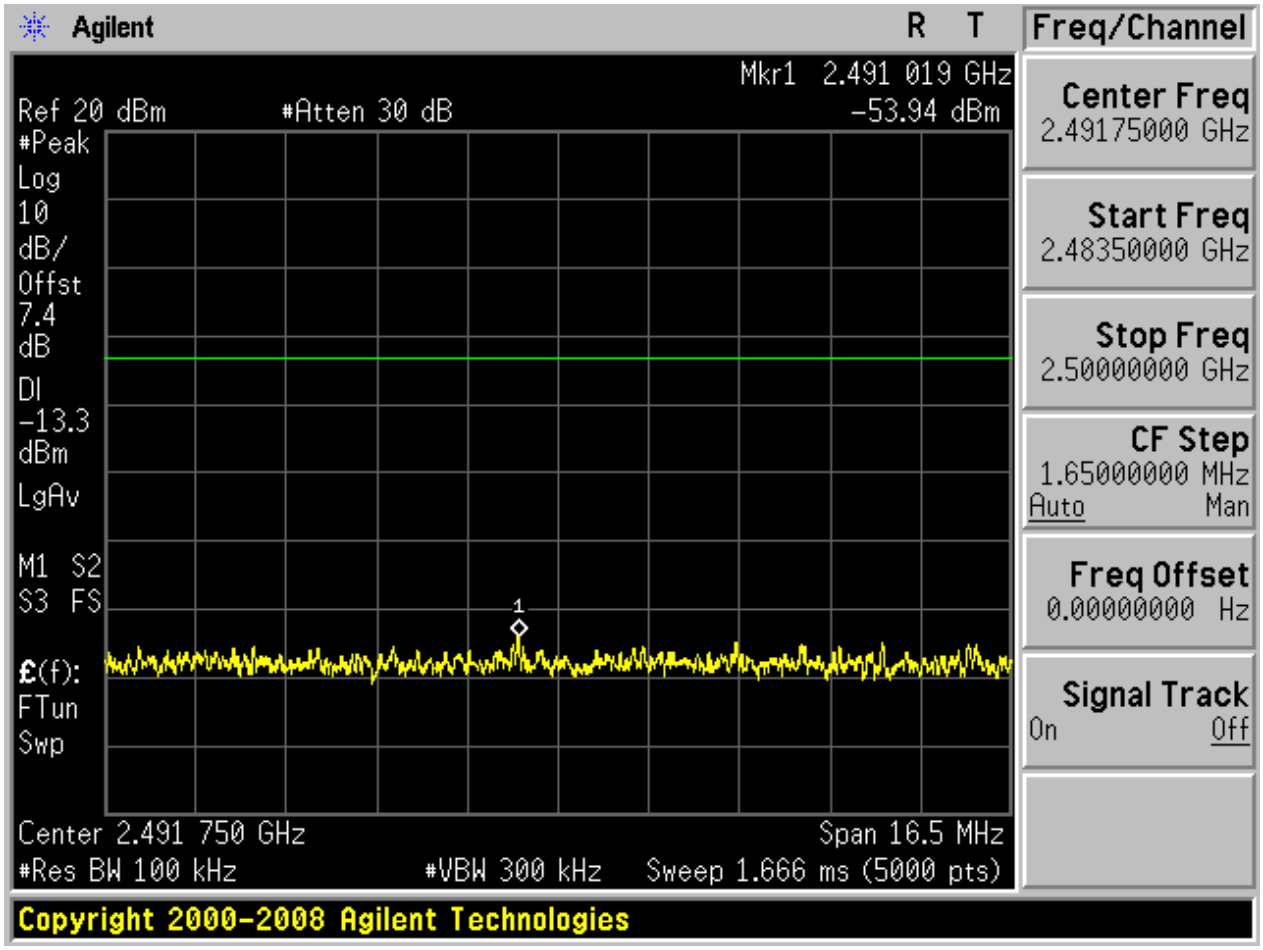
2.4.2 Puw

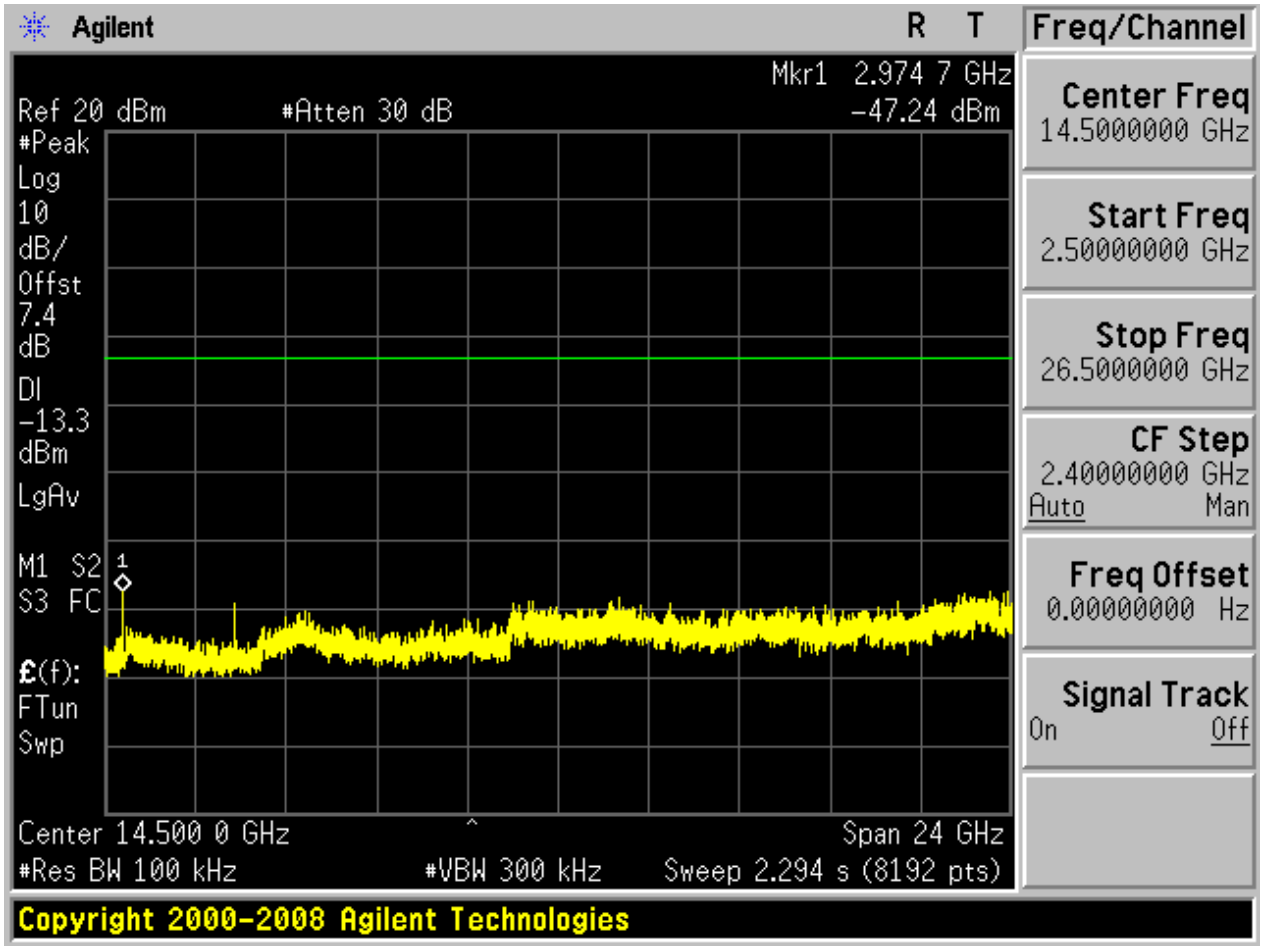






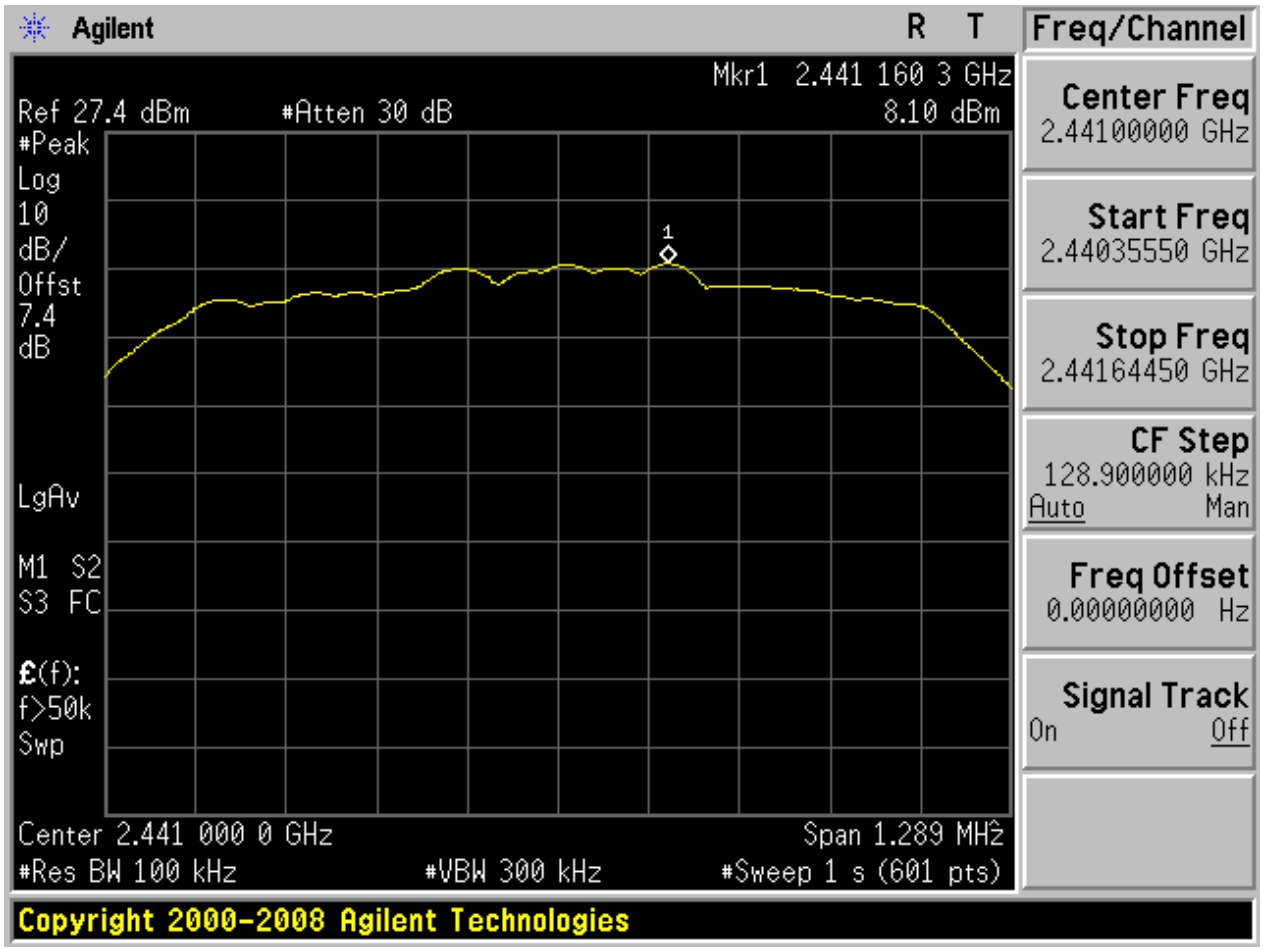

Agilent
R T
Freq/Channel
Mkr1 2.399 620 GHz
Ref 20 dBm
#Atten 30 dB
-54.77 dBm
#Peak
Log
10
dB/
Offst
7.4
dB
Dl
-13.3
dBm
LgAv
M1 S2
S3 FS
£(f):
FTun
Swp
Center Freq
2.35000000 GHz
Start Freq
2.30000000 GHz
Stop Freq
2.40000000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.000000000 Hz
Signal Track
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



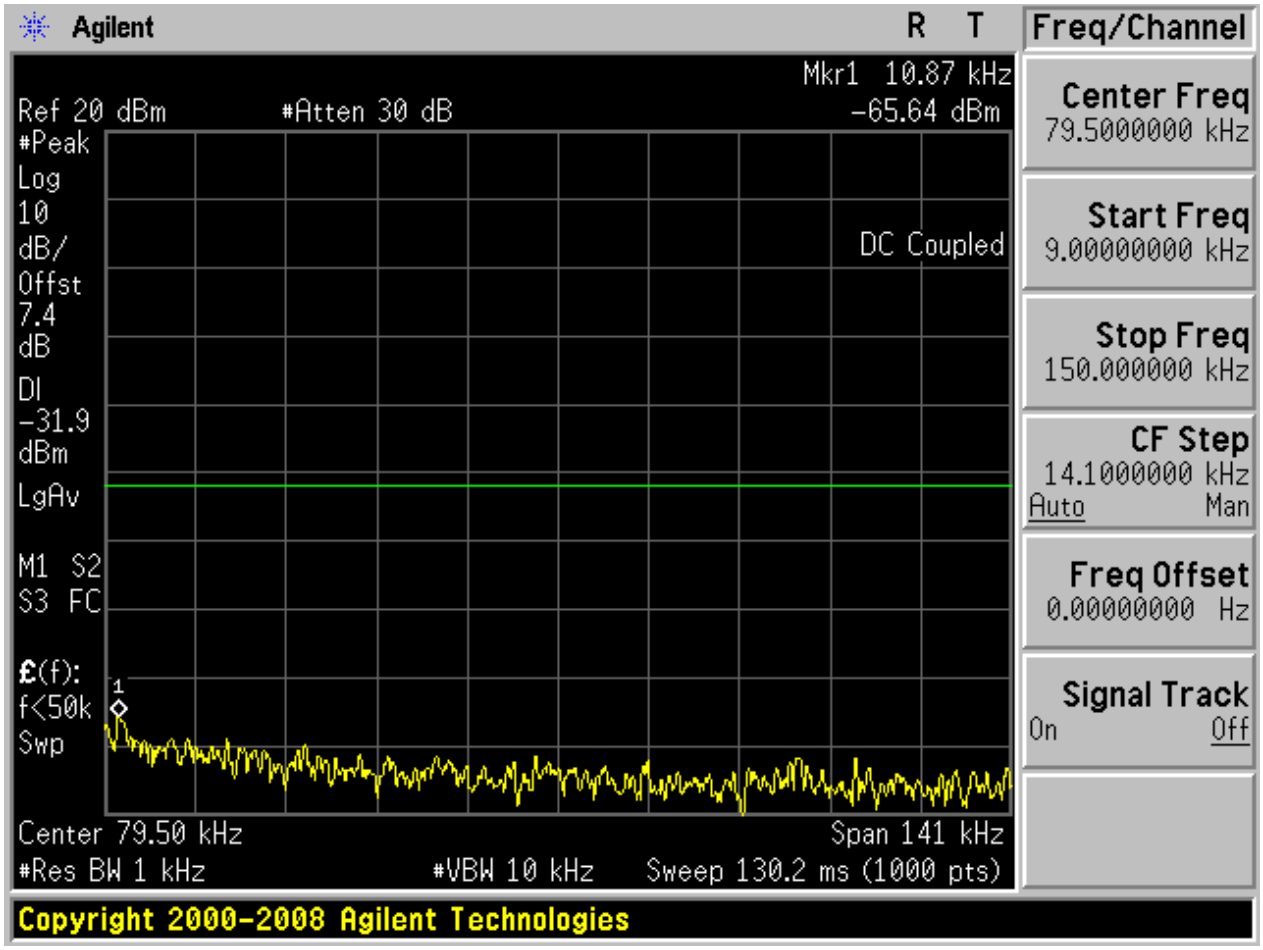


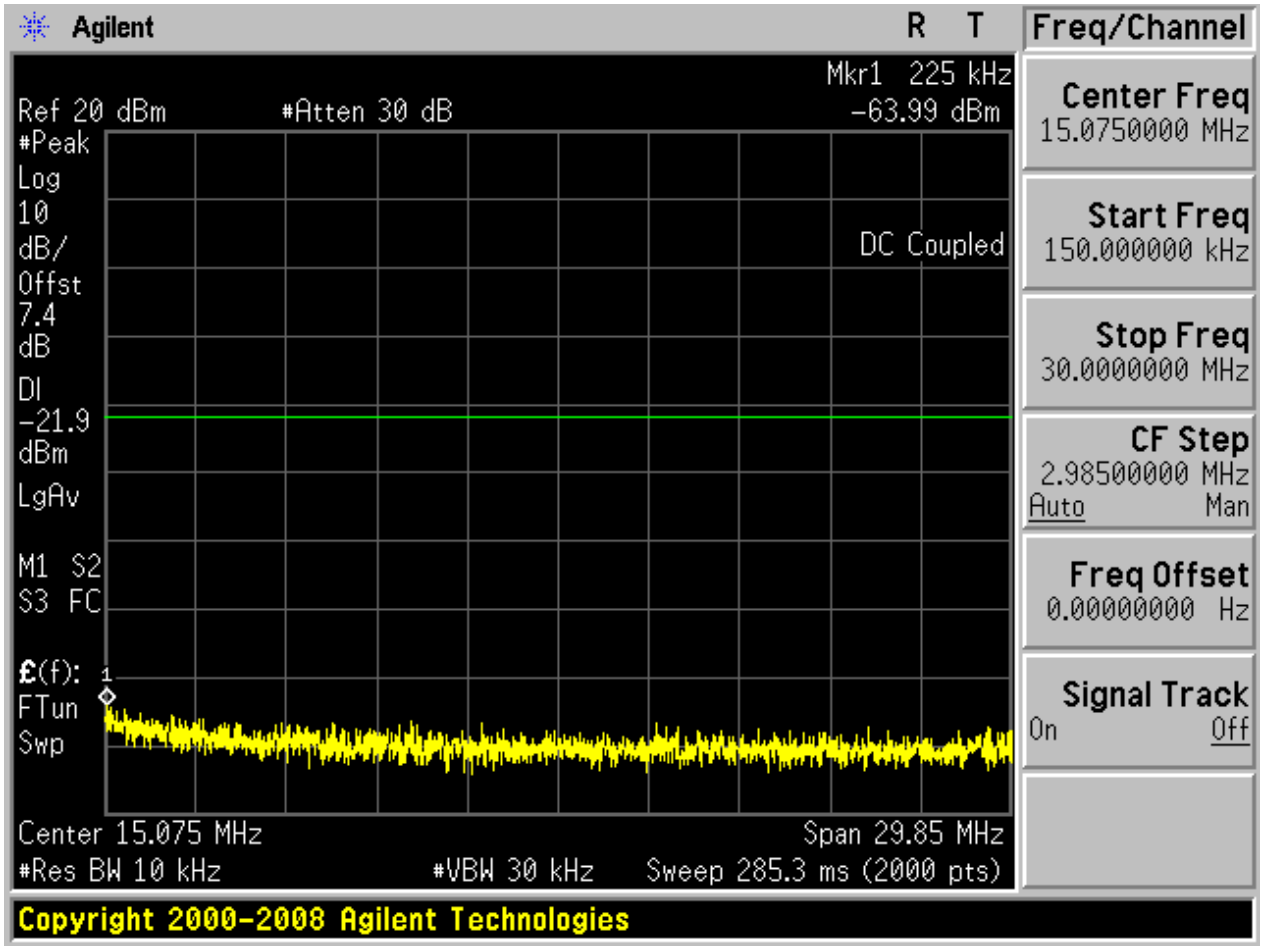
2.5 TM2_2DH5_Ch39

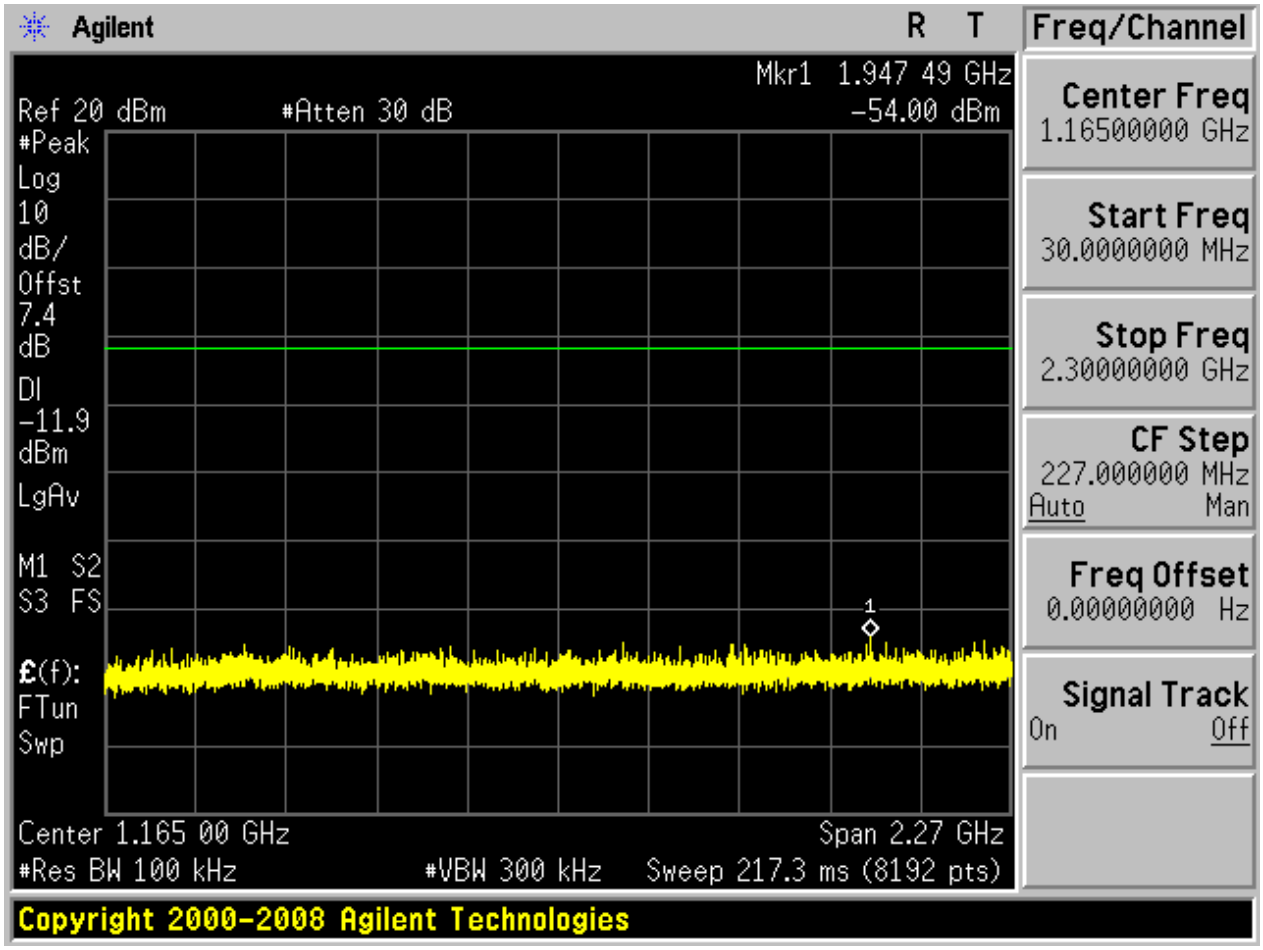
2.5.1 Pref

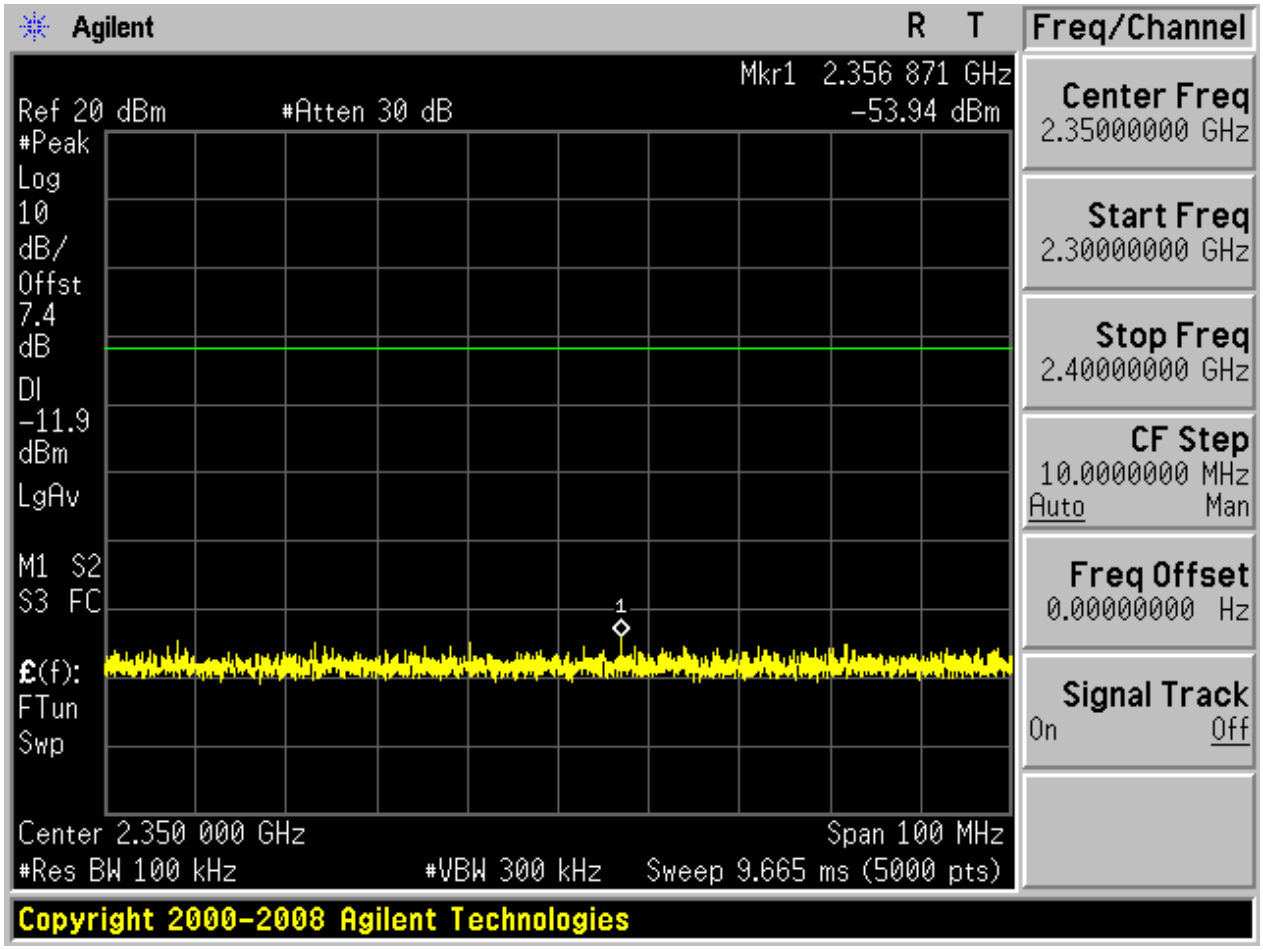


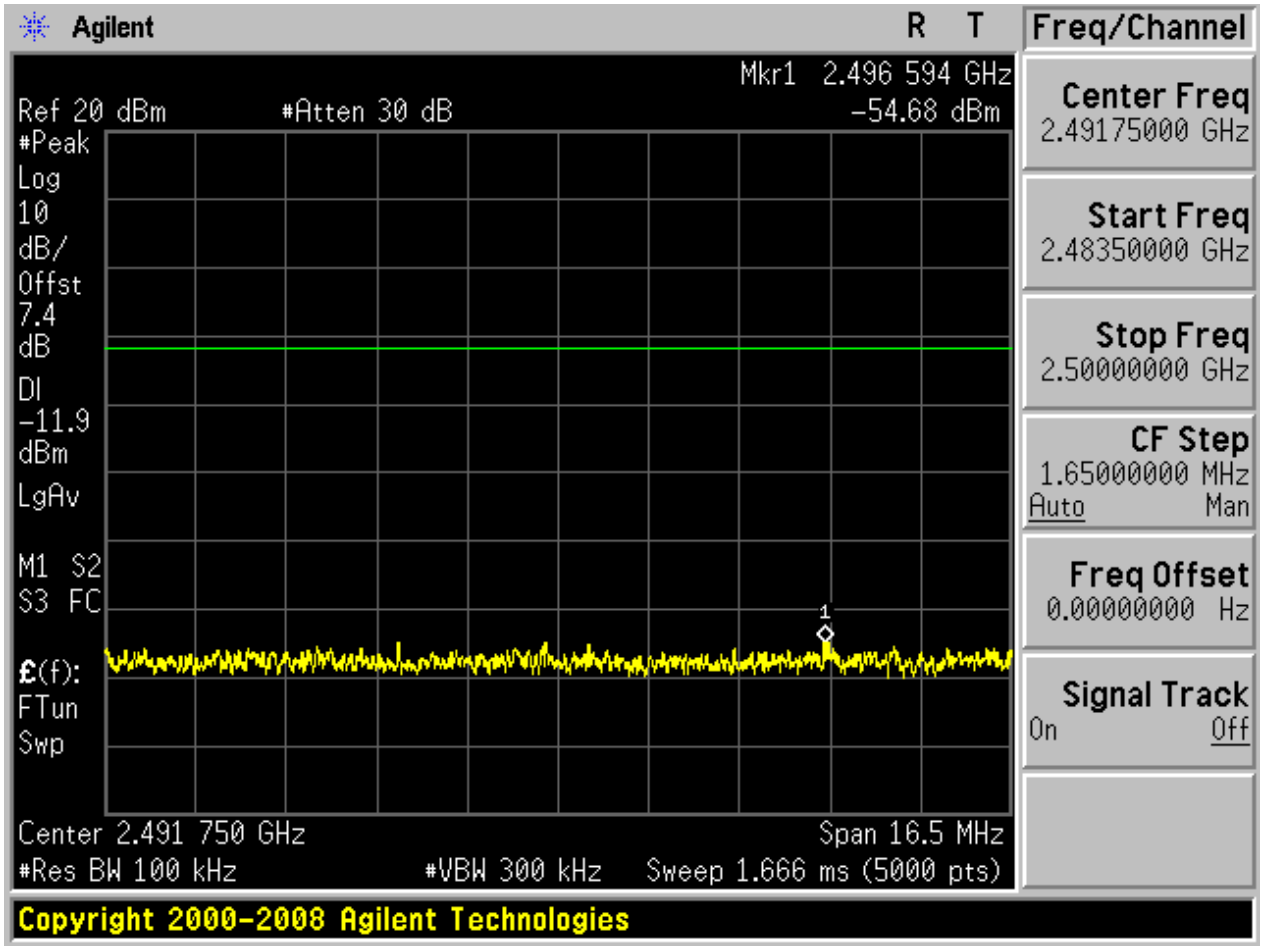
2.5.2 Puw

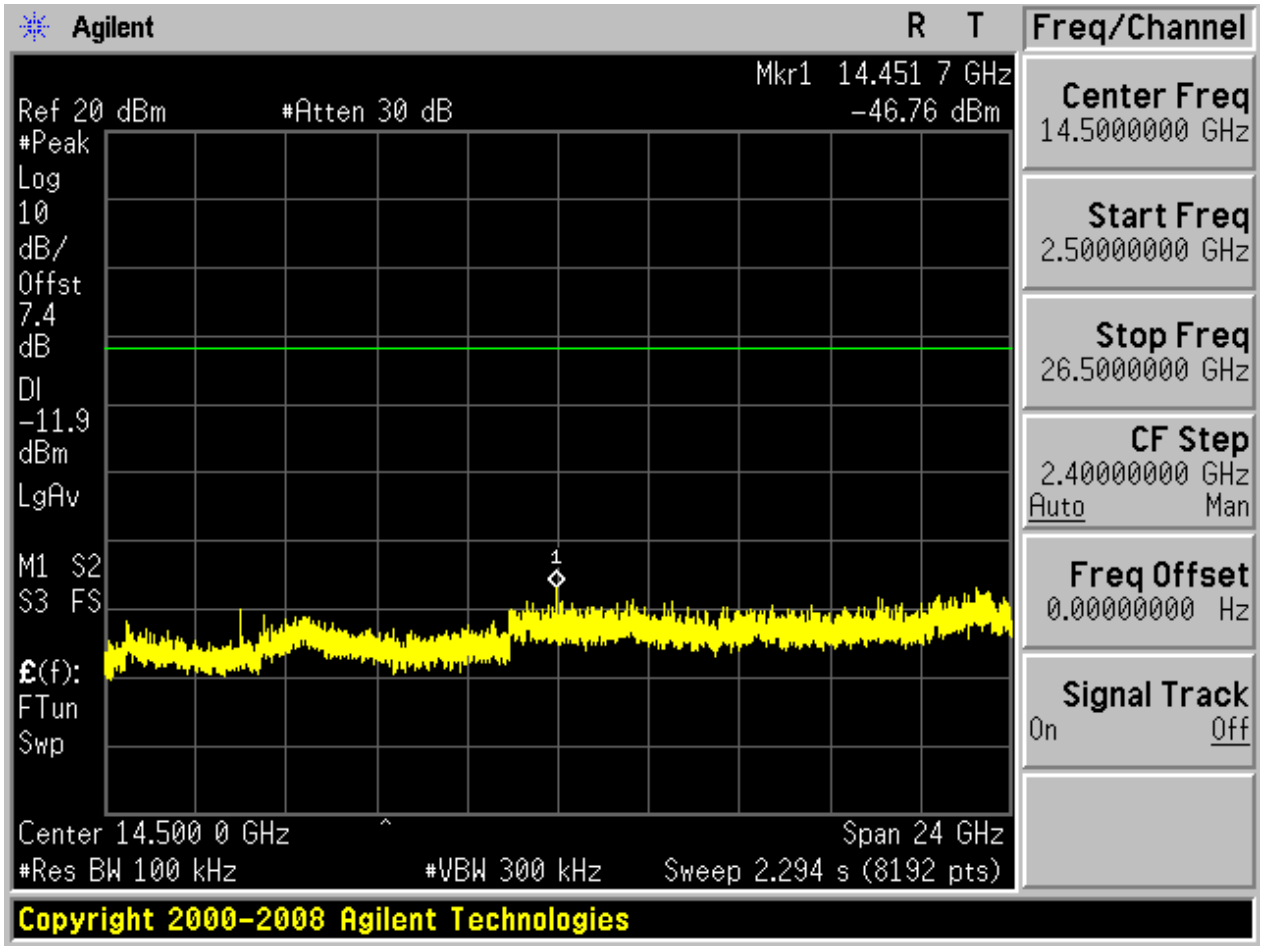






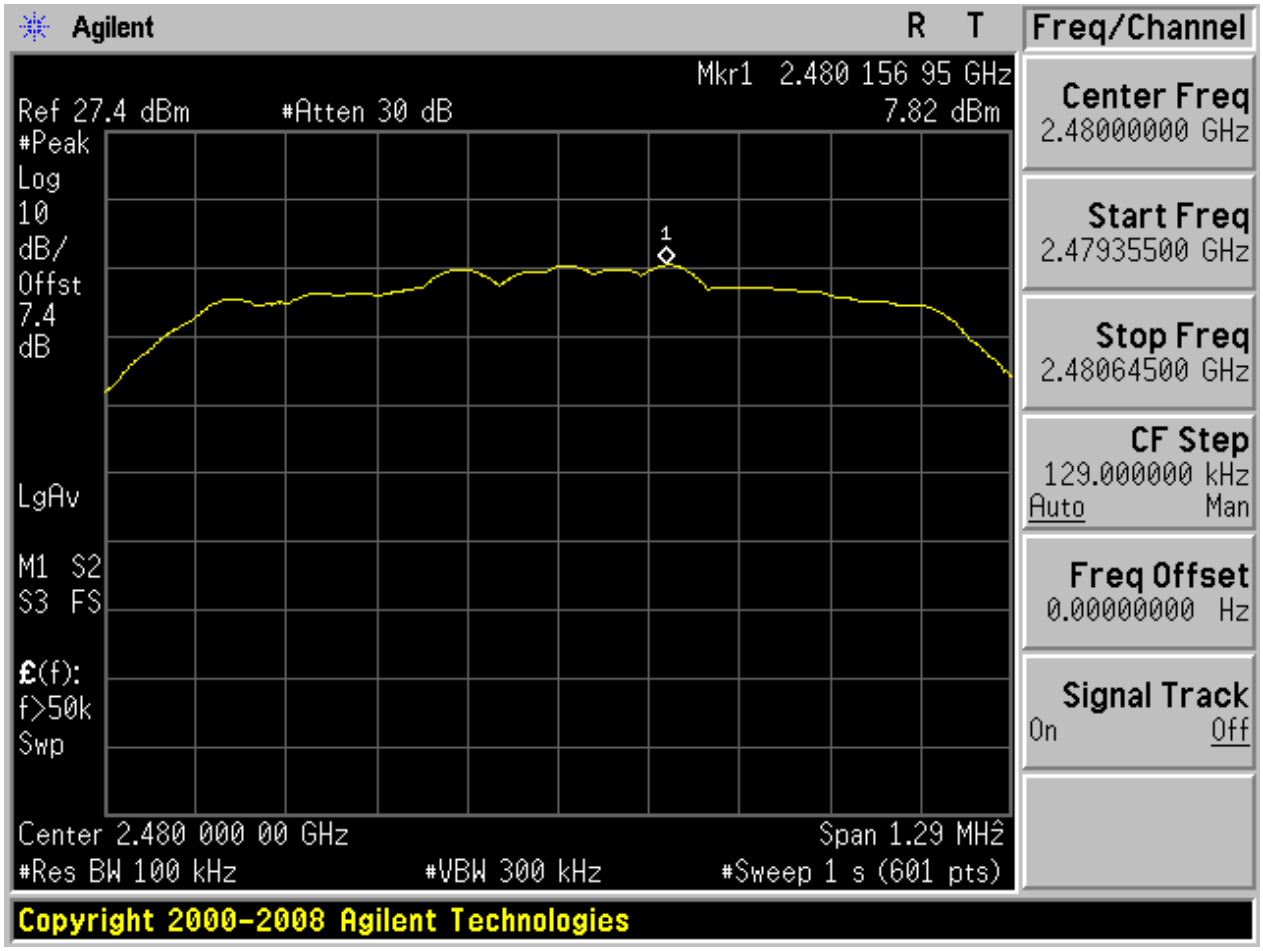




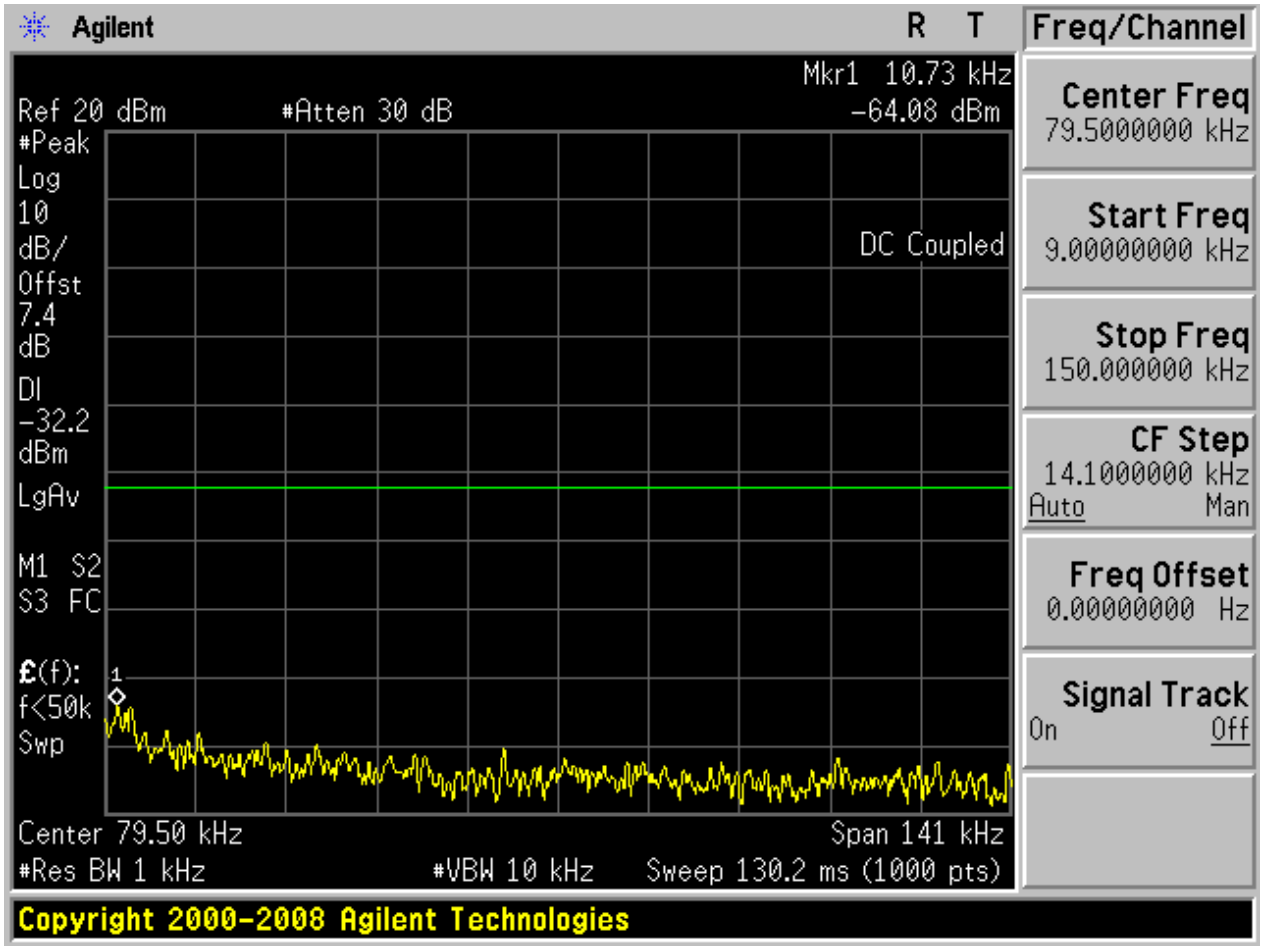


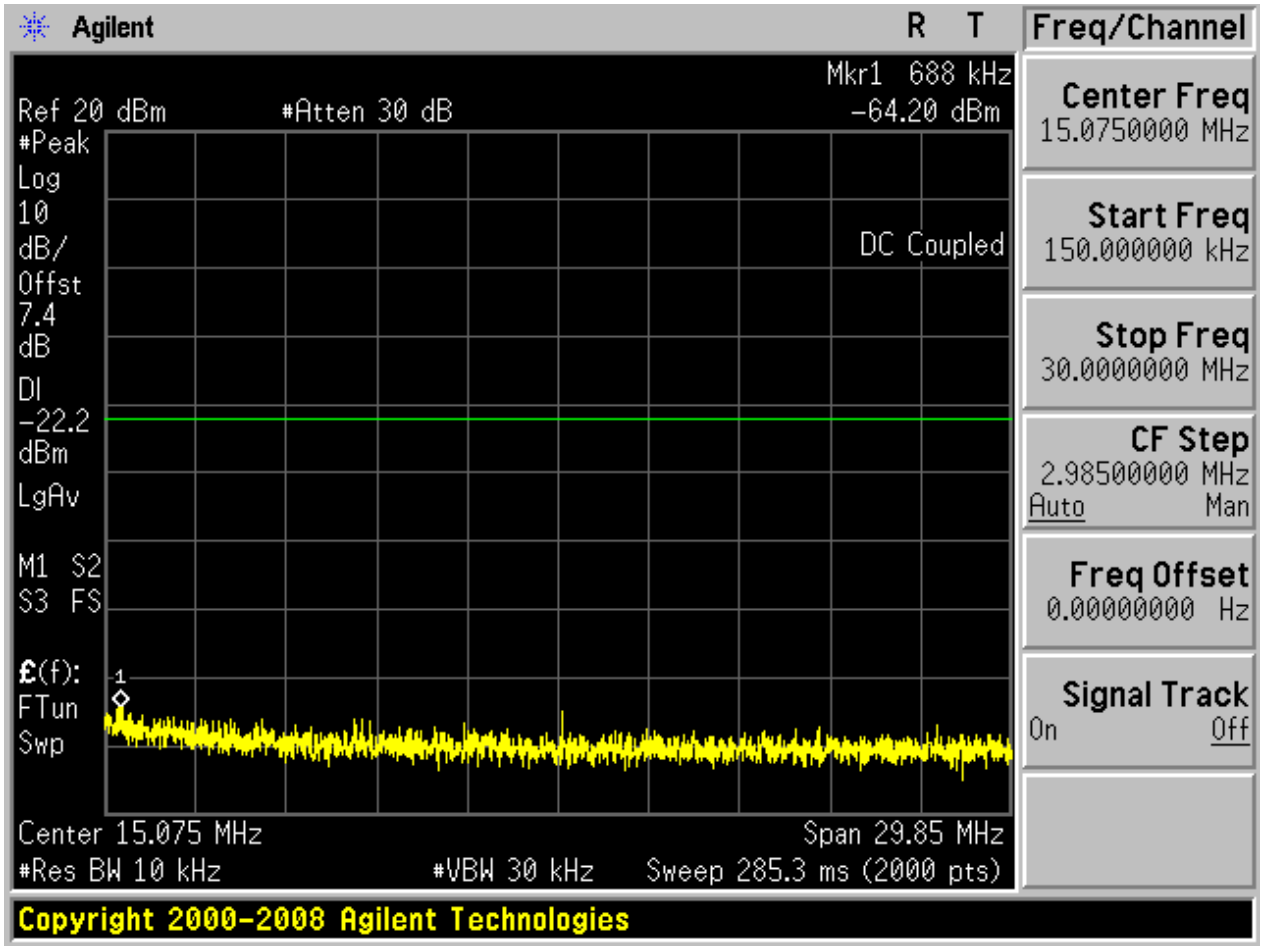
2.6 TM2_2DH5_Ch78

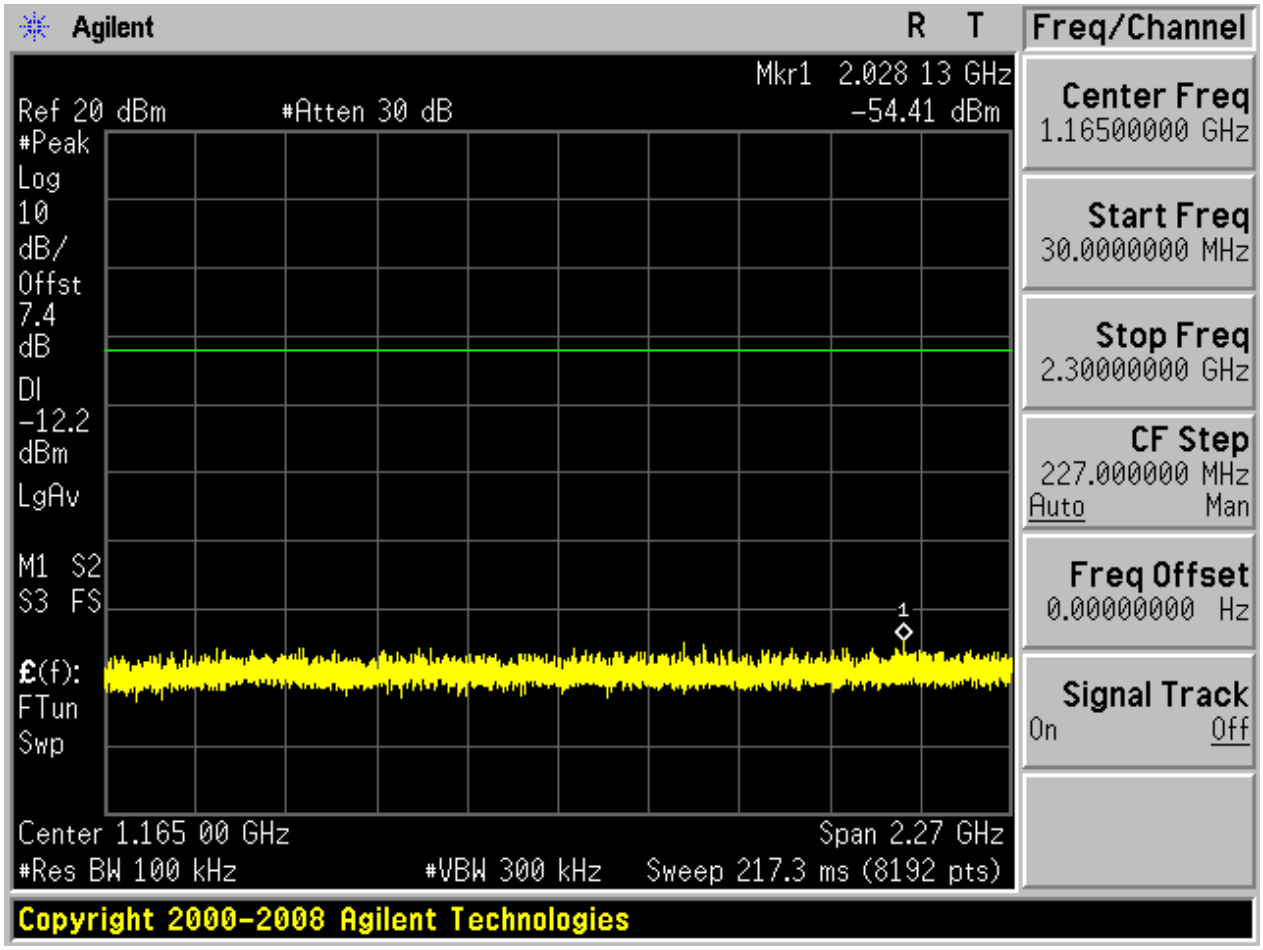
2.6.1 Pref

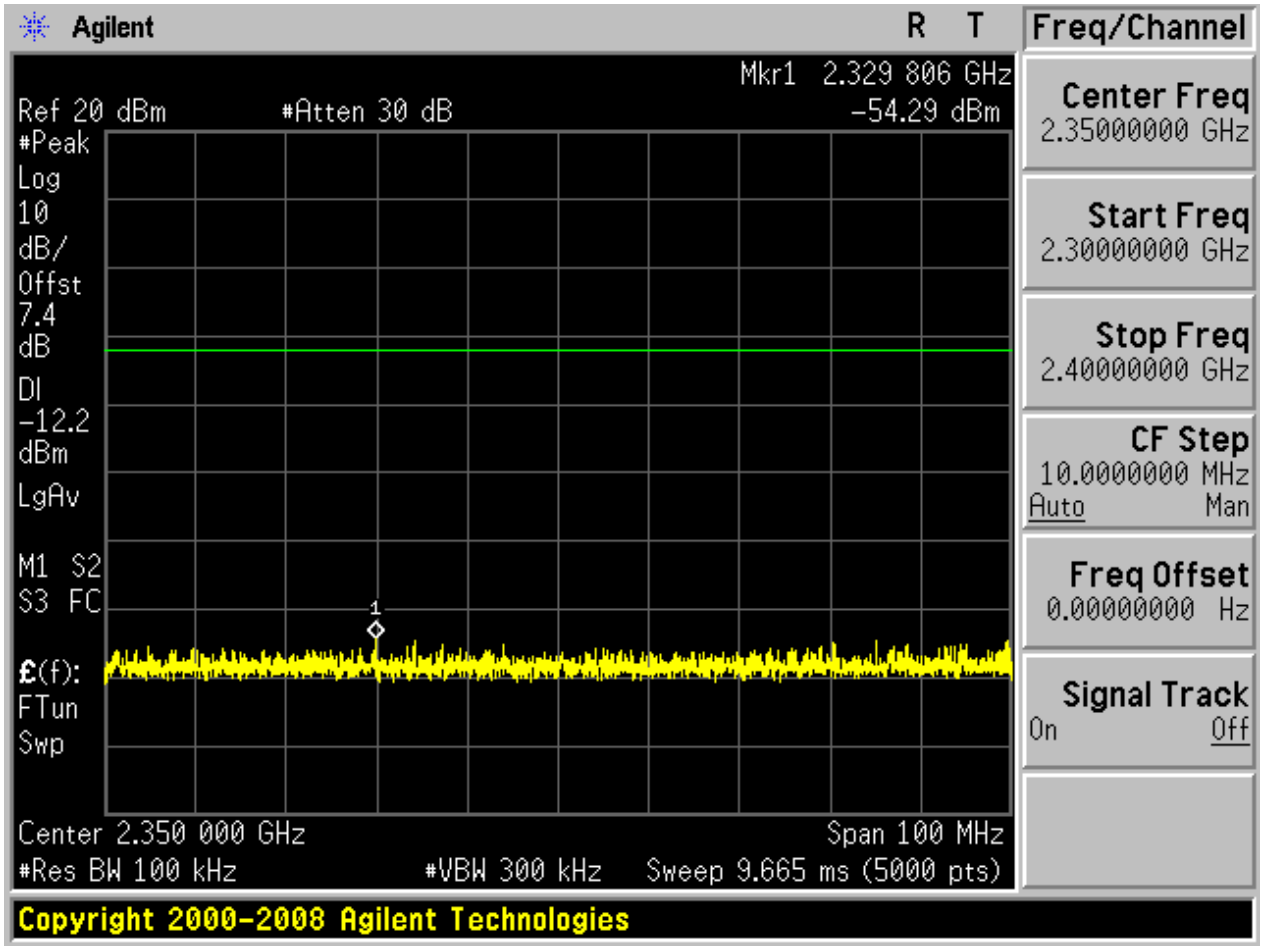


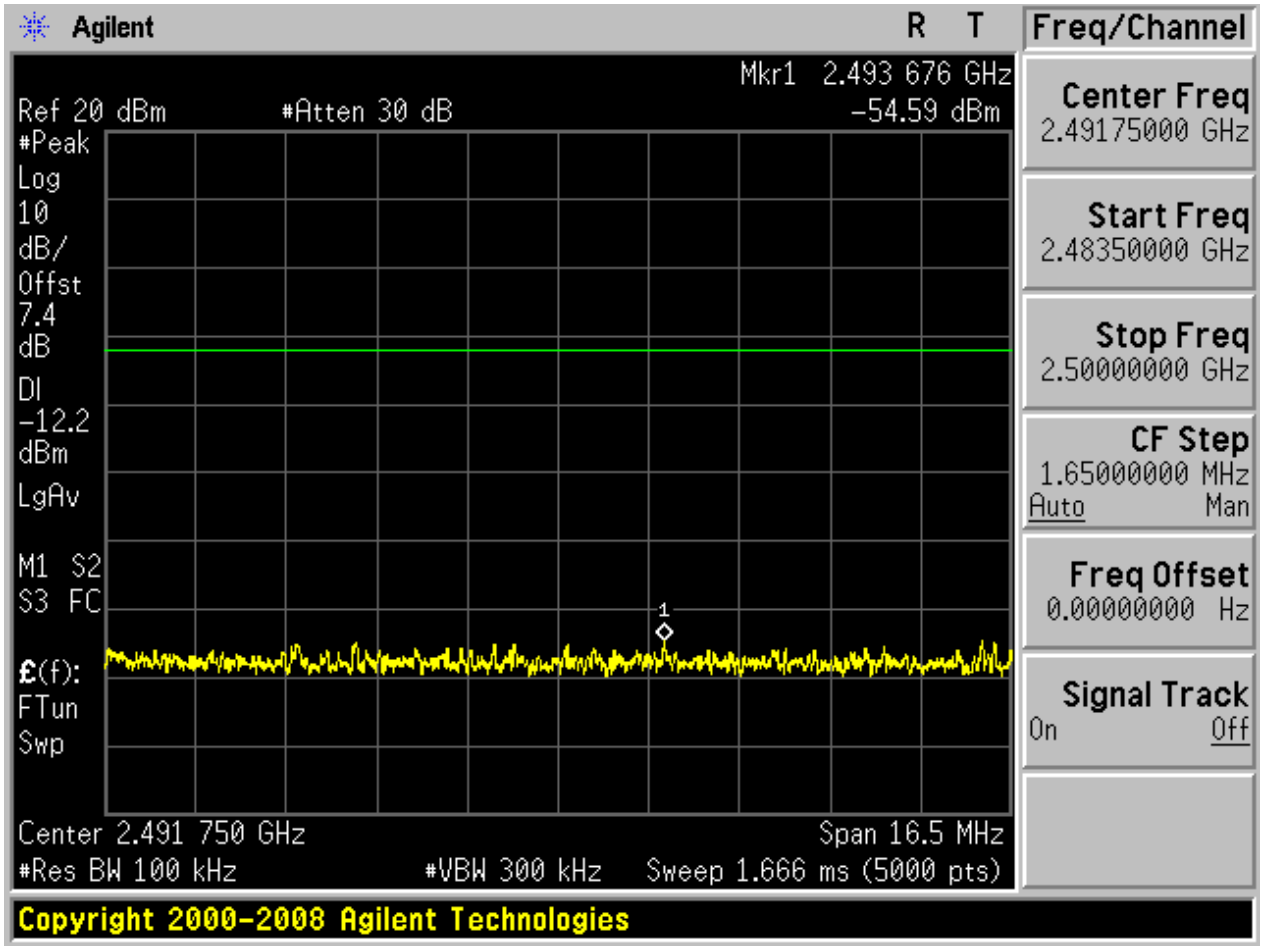
2.6.2 Puw

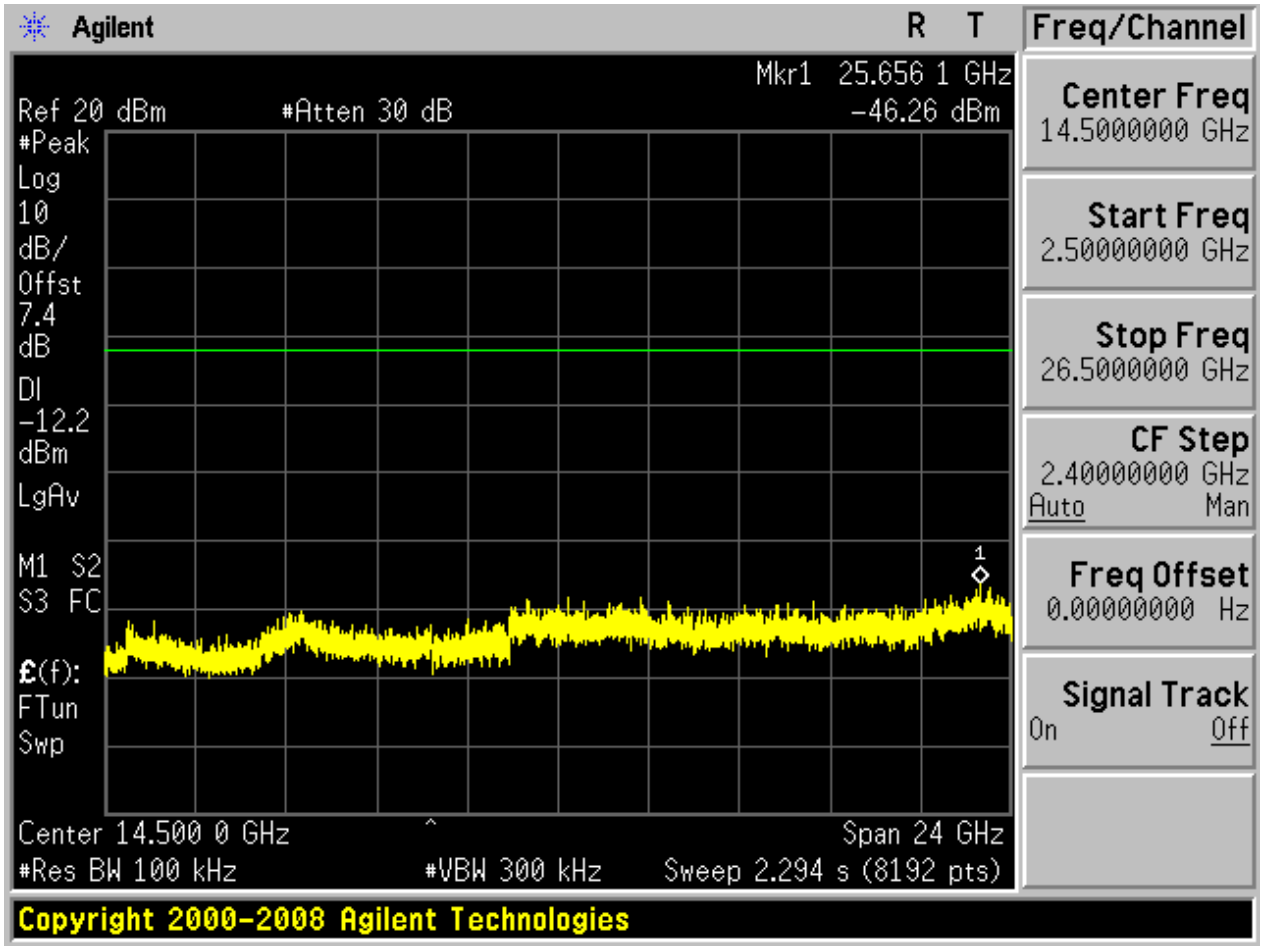






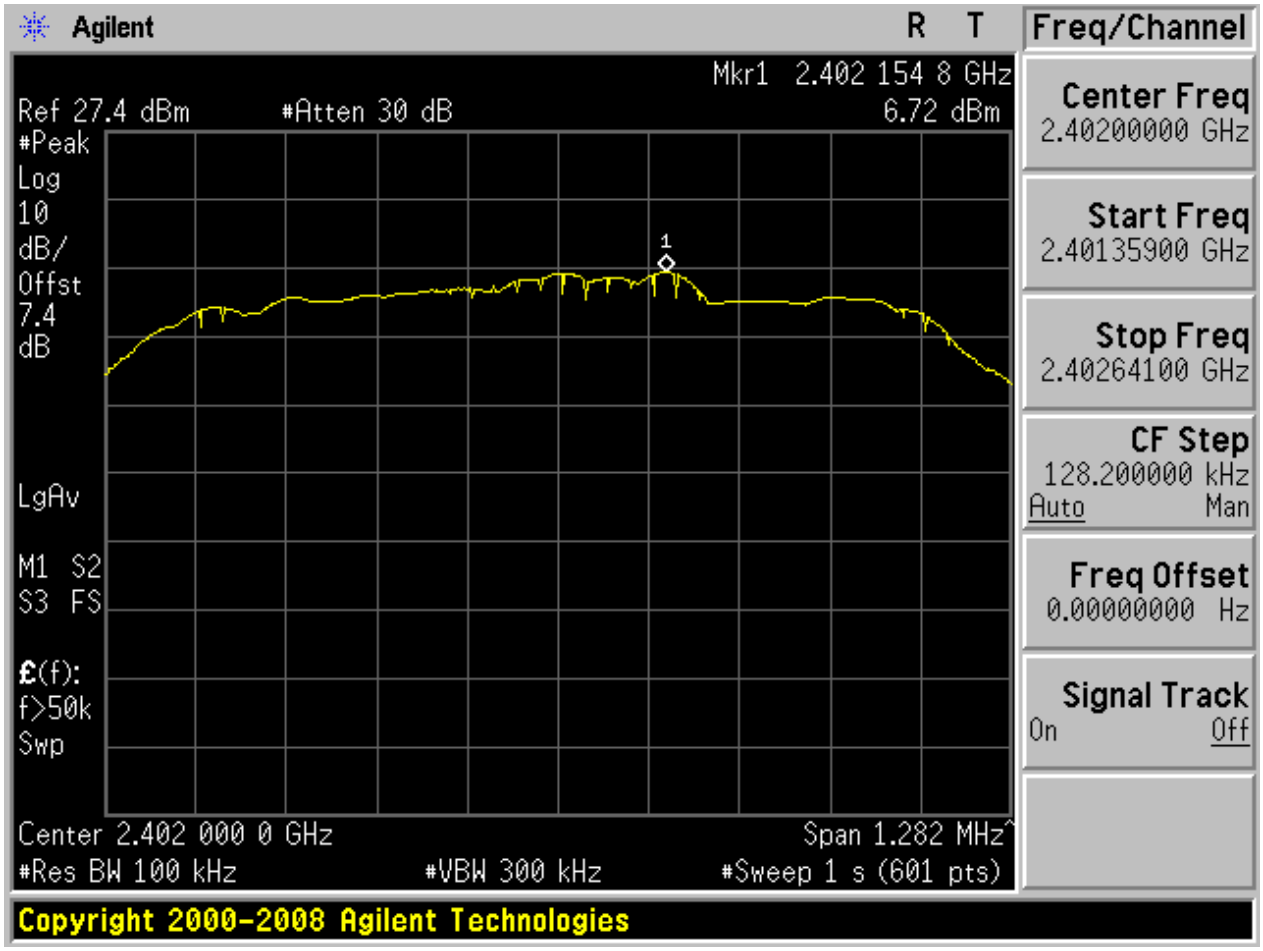




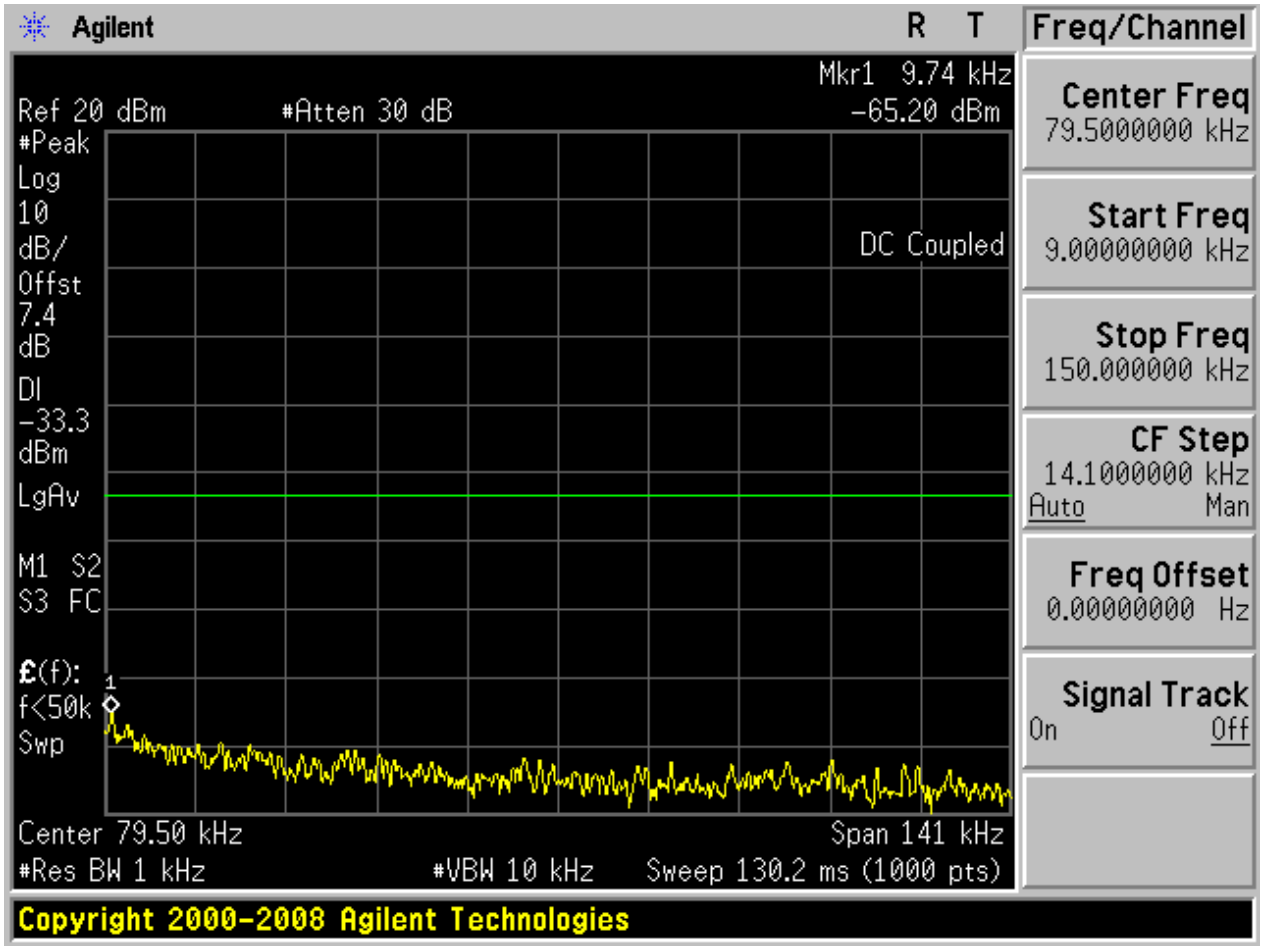


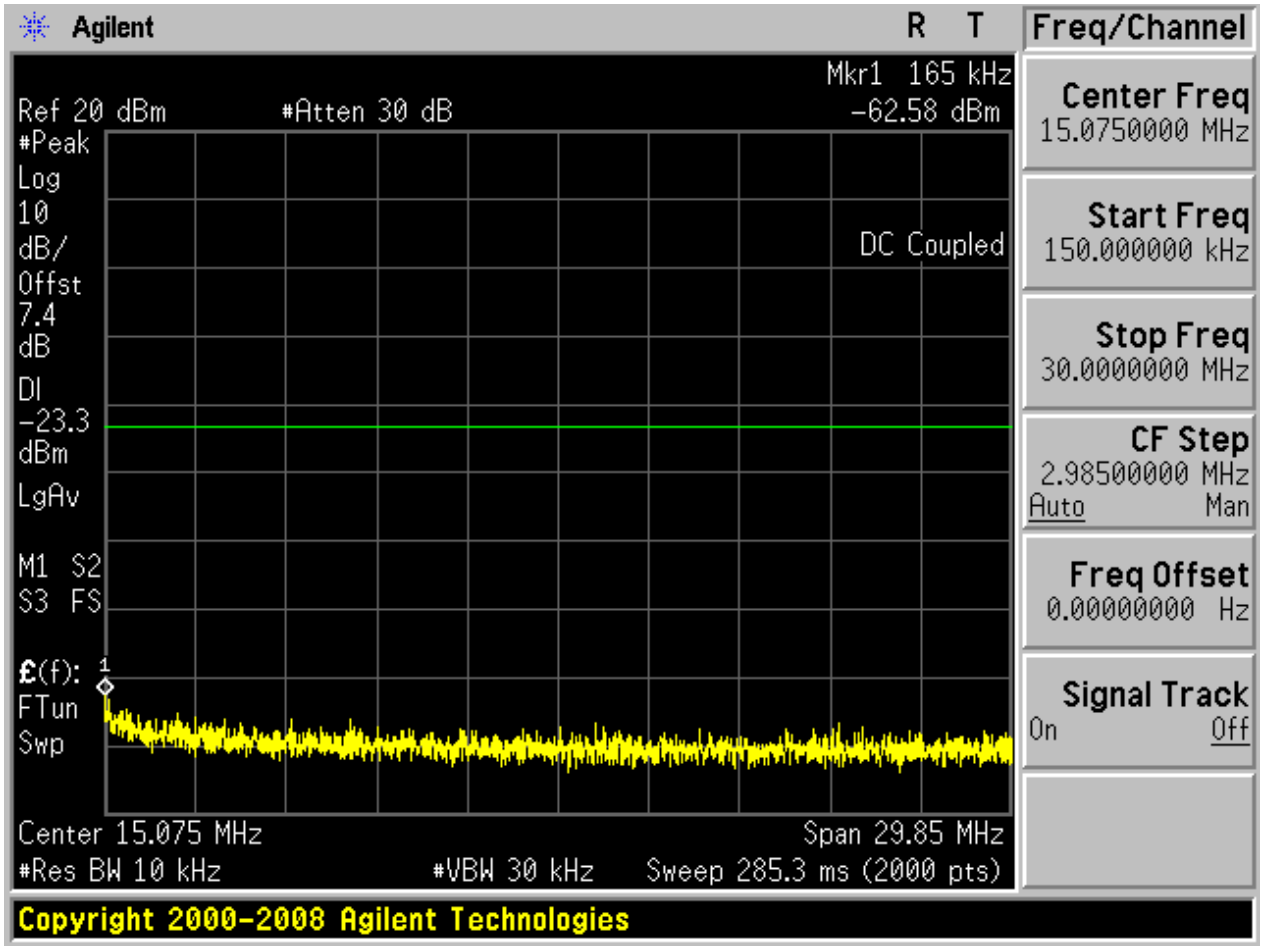
2.7 TM3_3DH5_Ch0

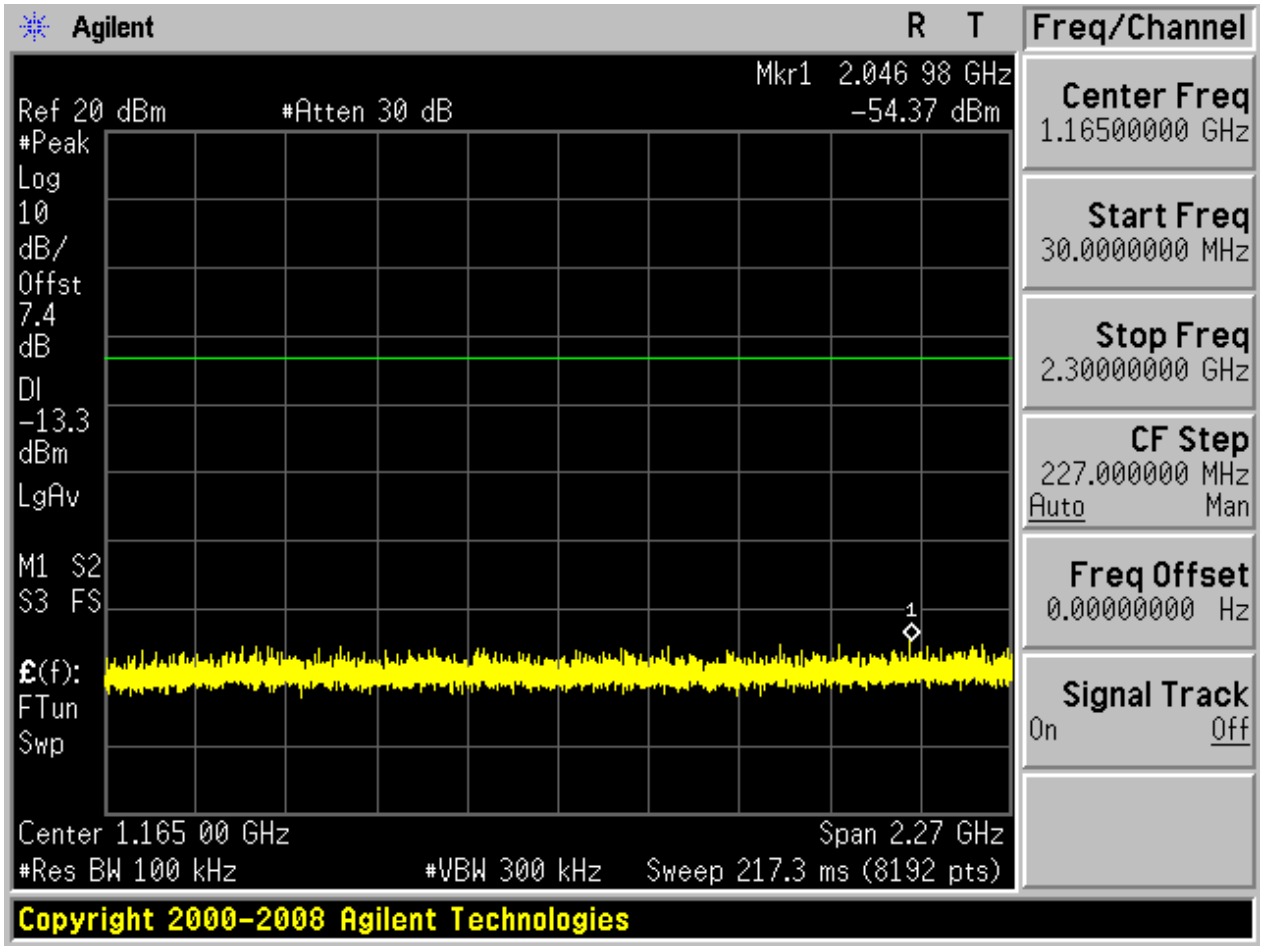
2.7.1 Pref

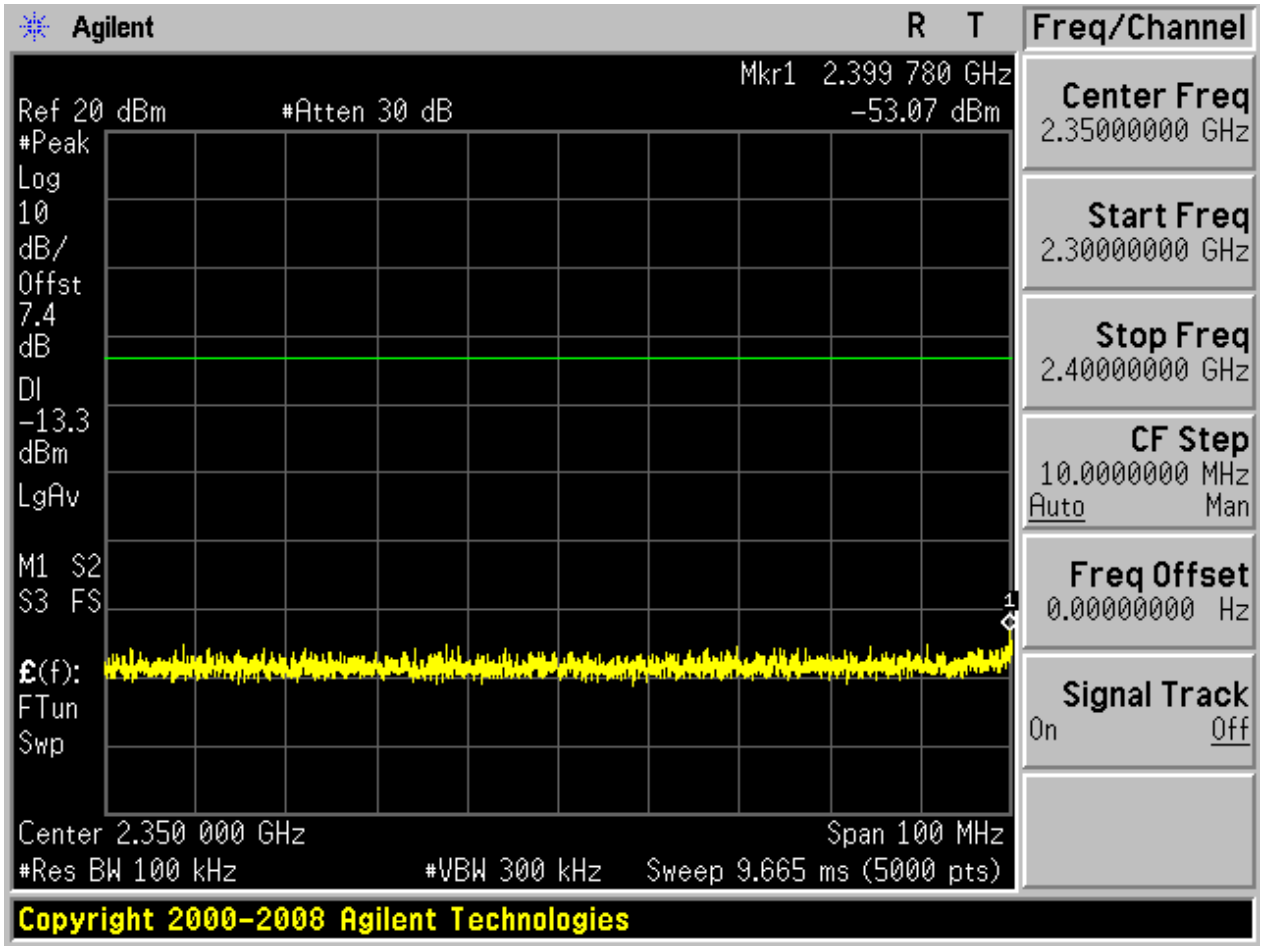


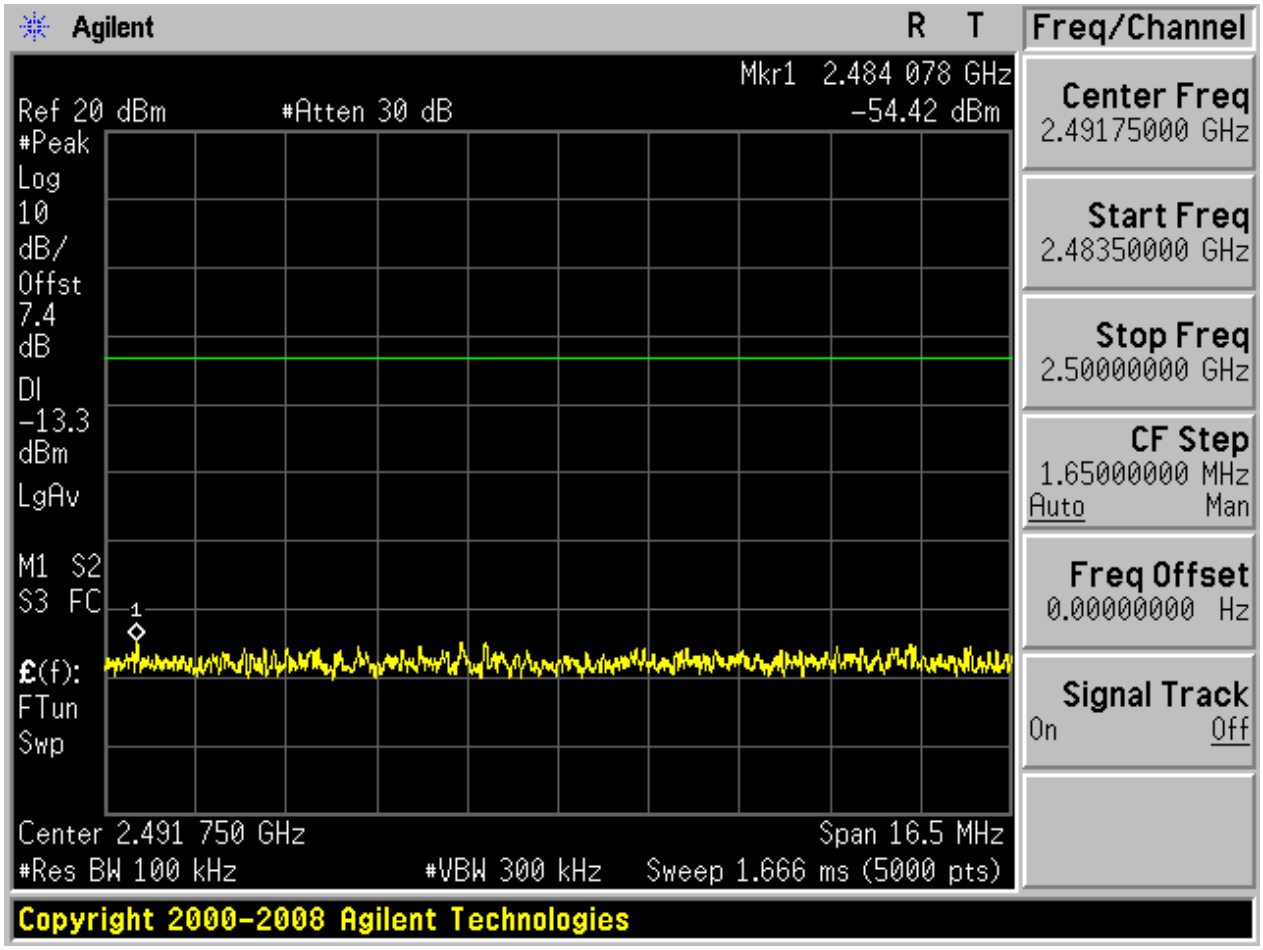
2.7.2 Puw

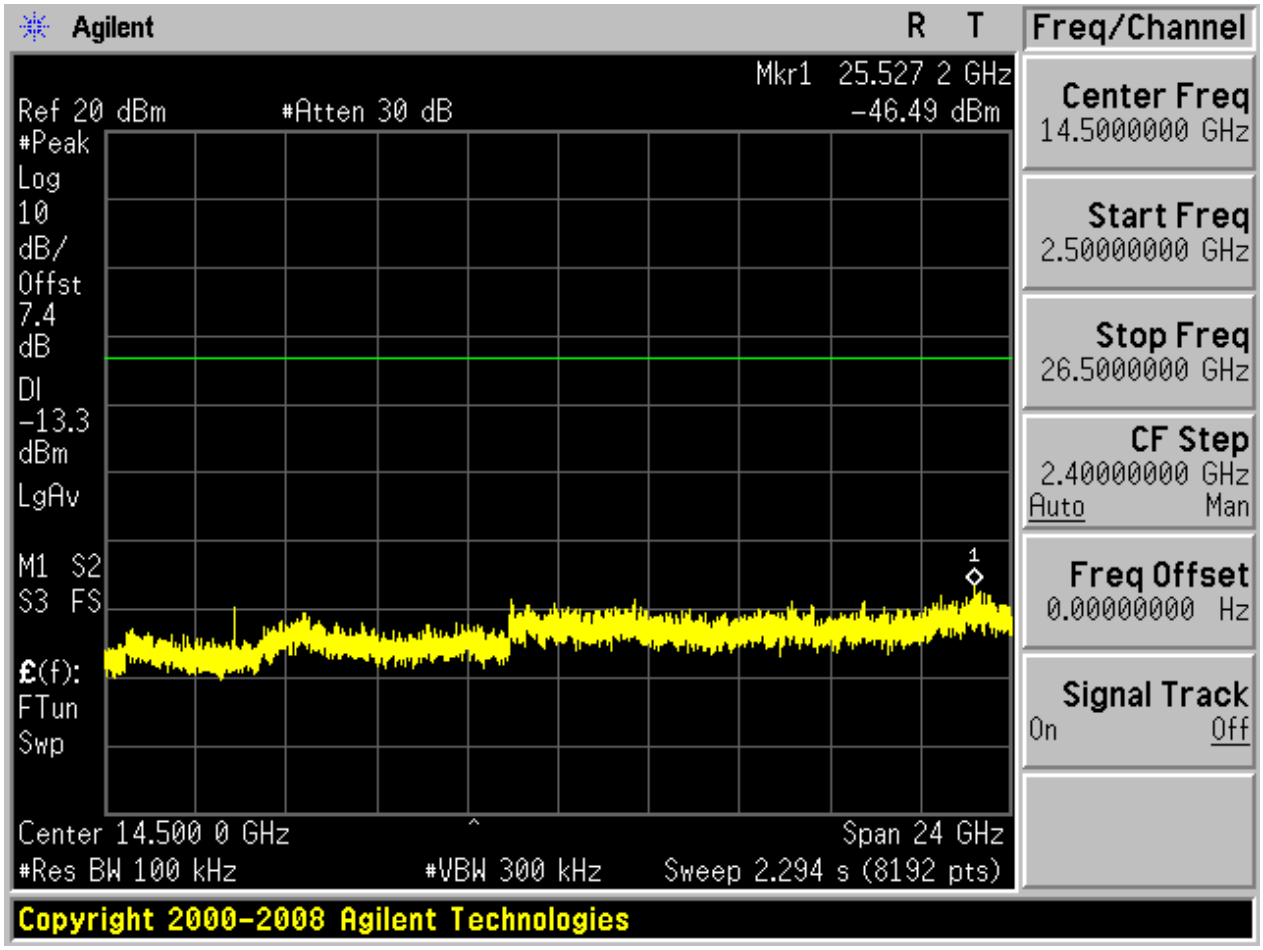






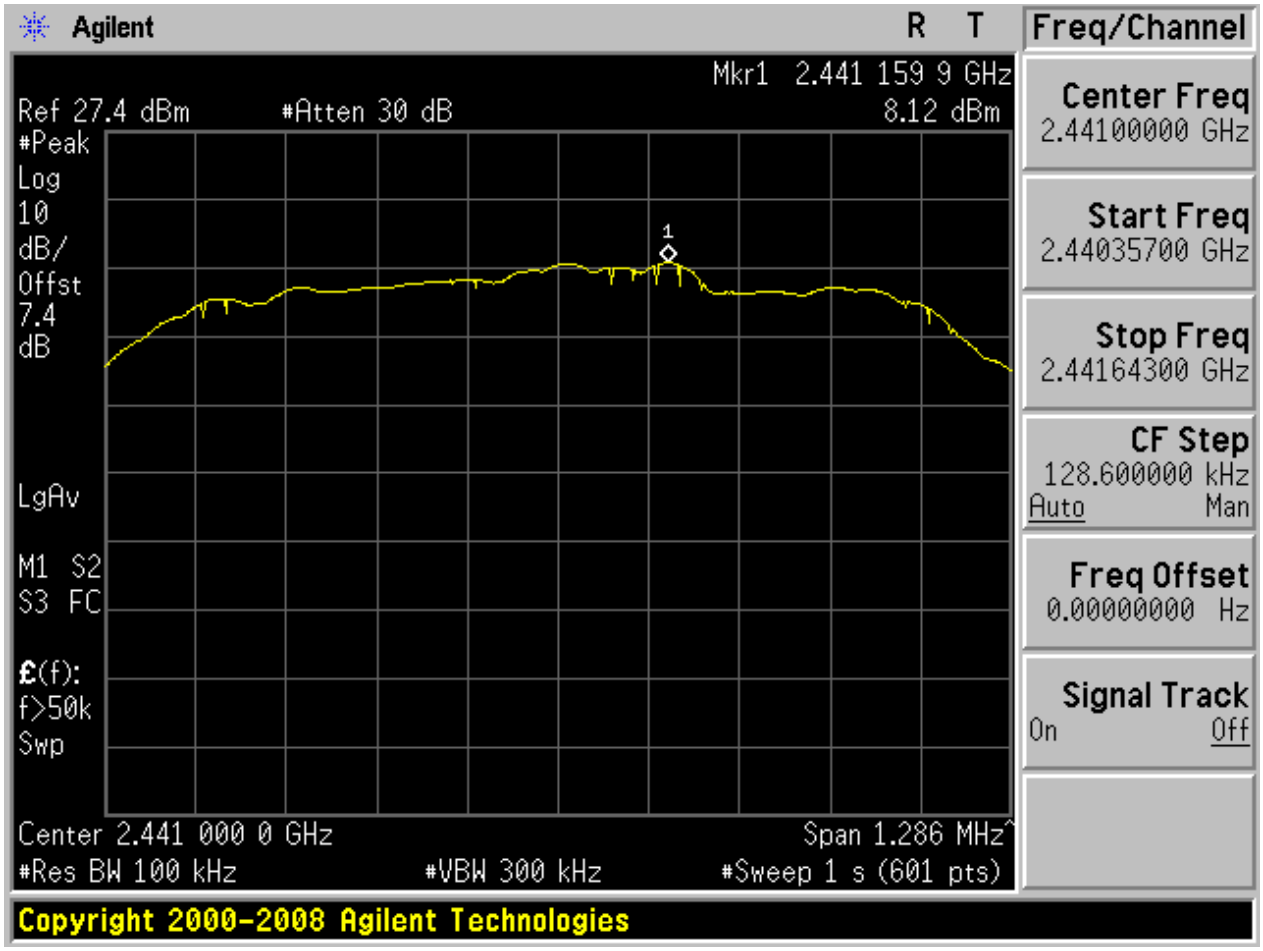




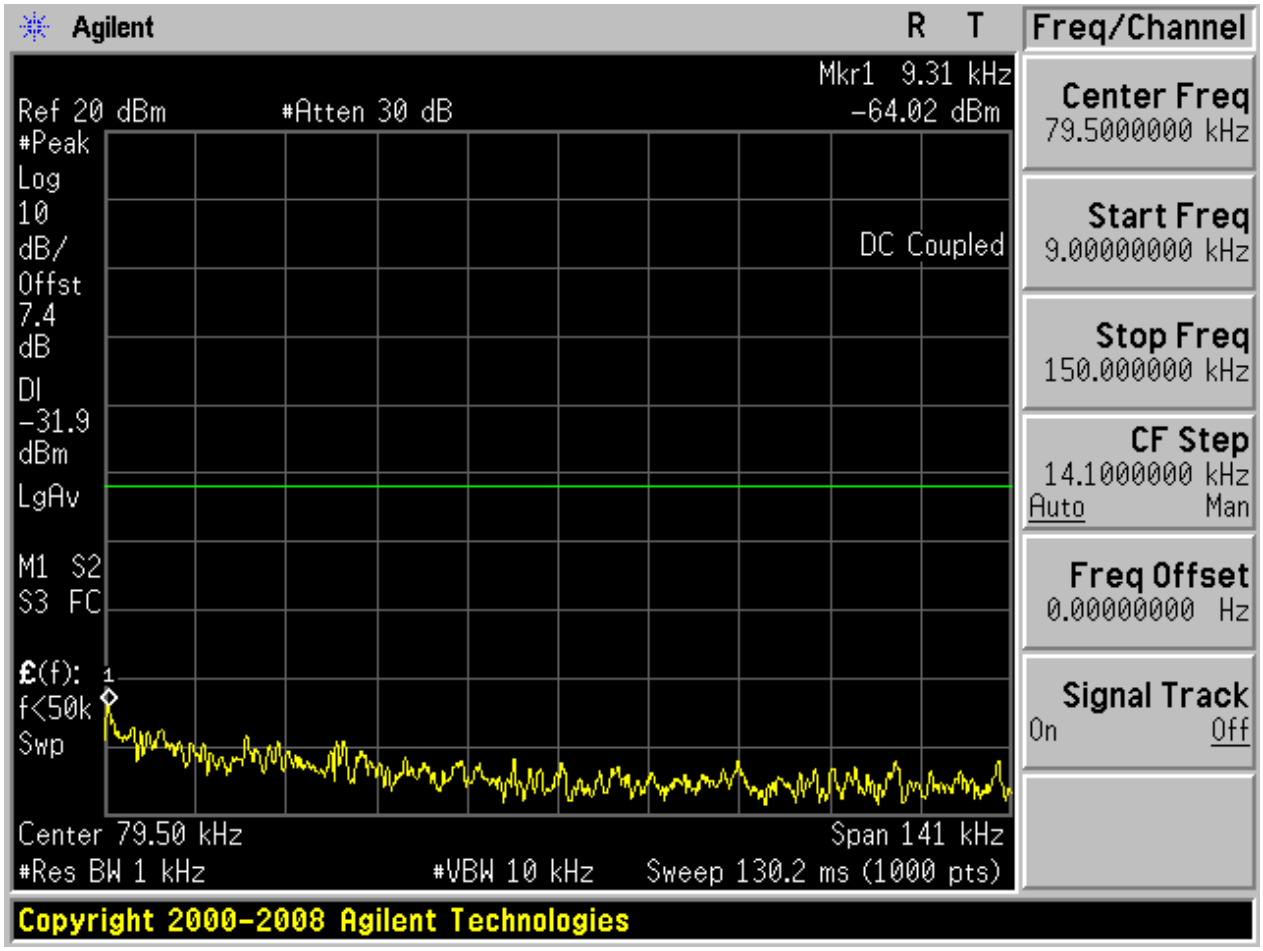


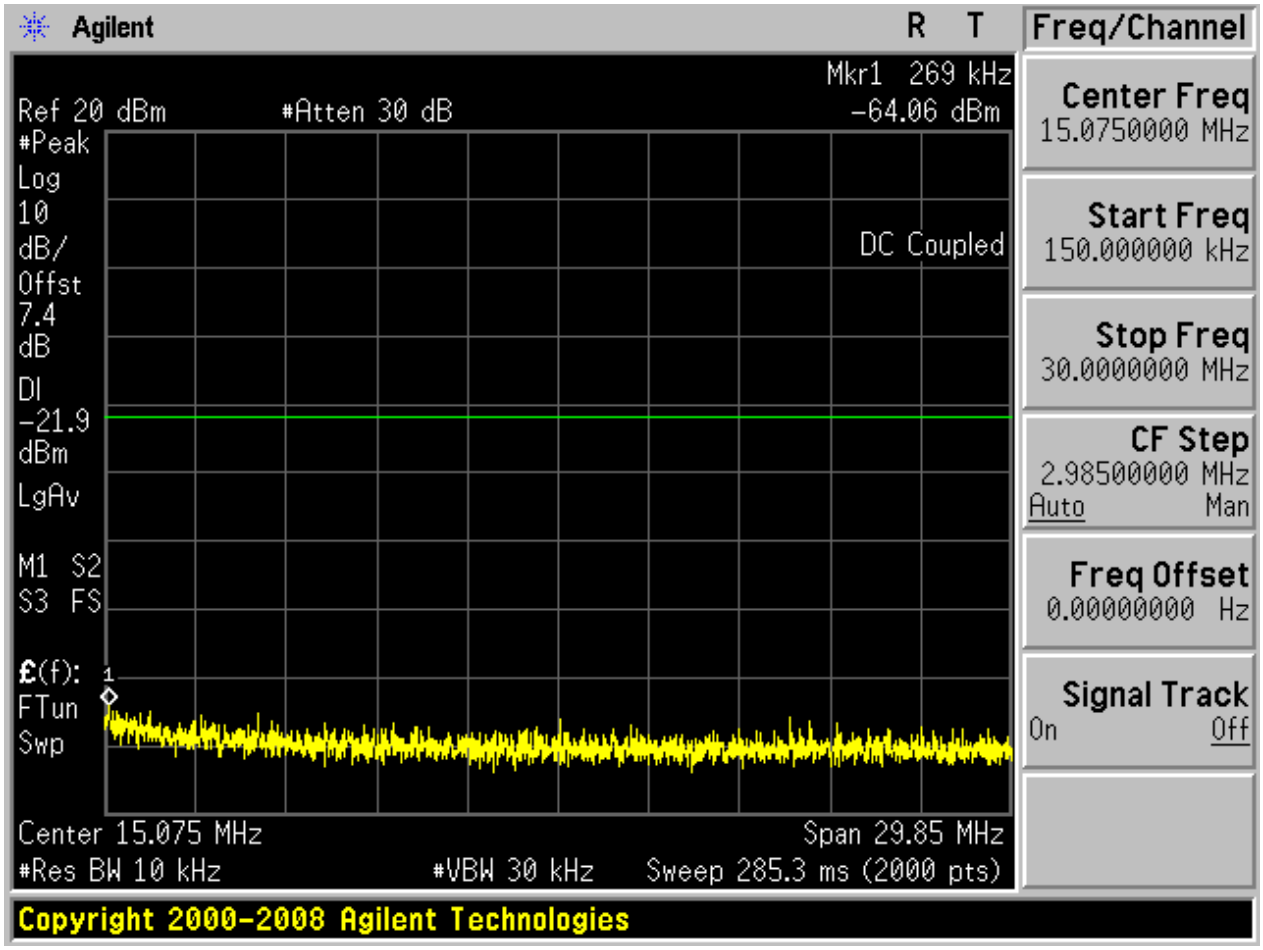
2.8 TM3_3DH5_Ch39

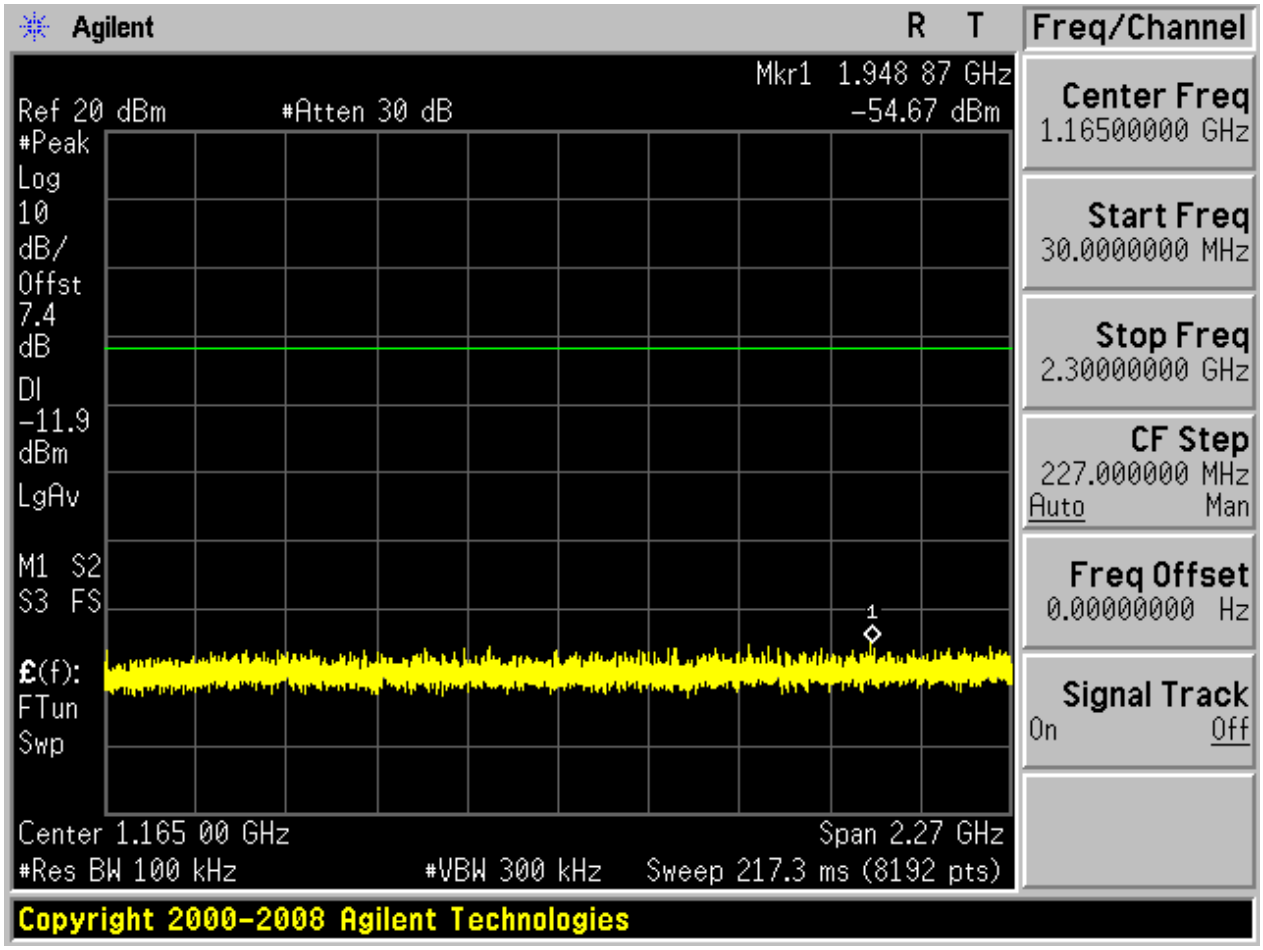
2.8.1 Pref

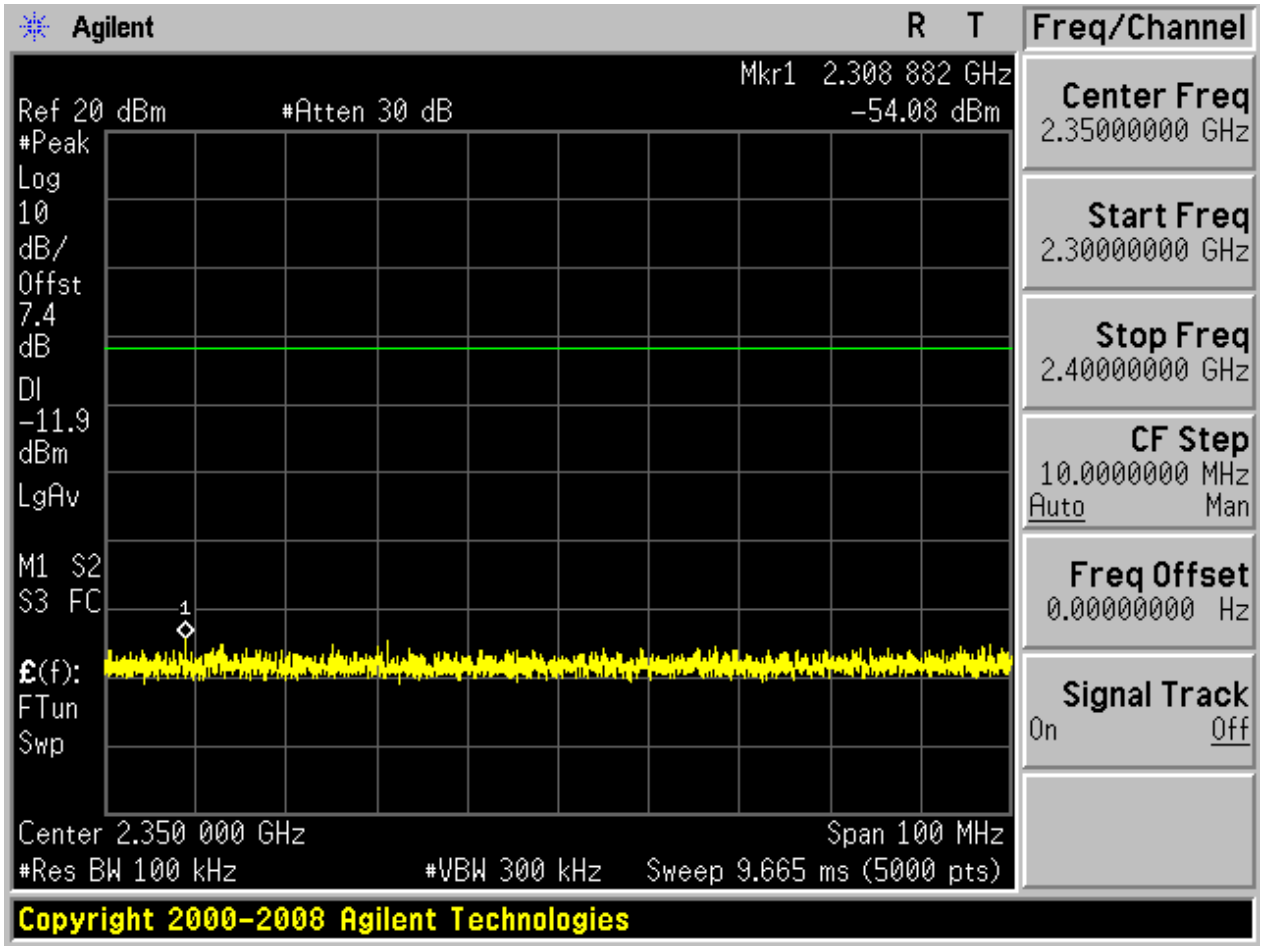


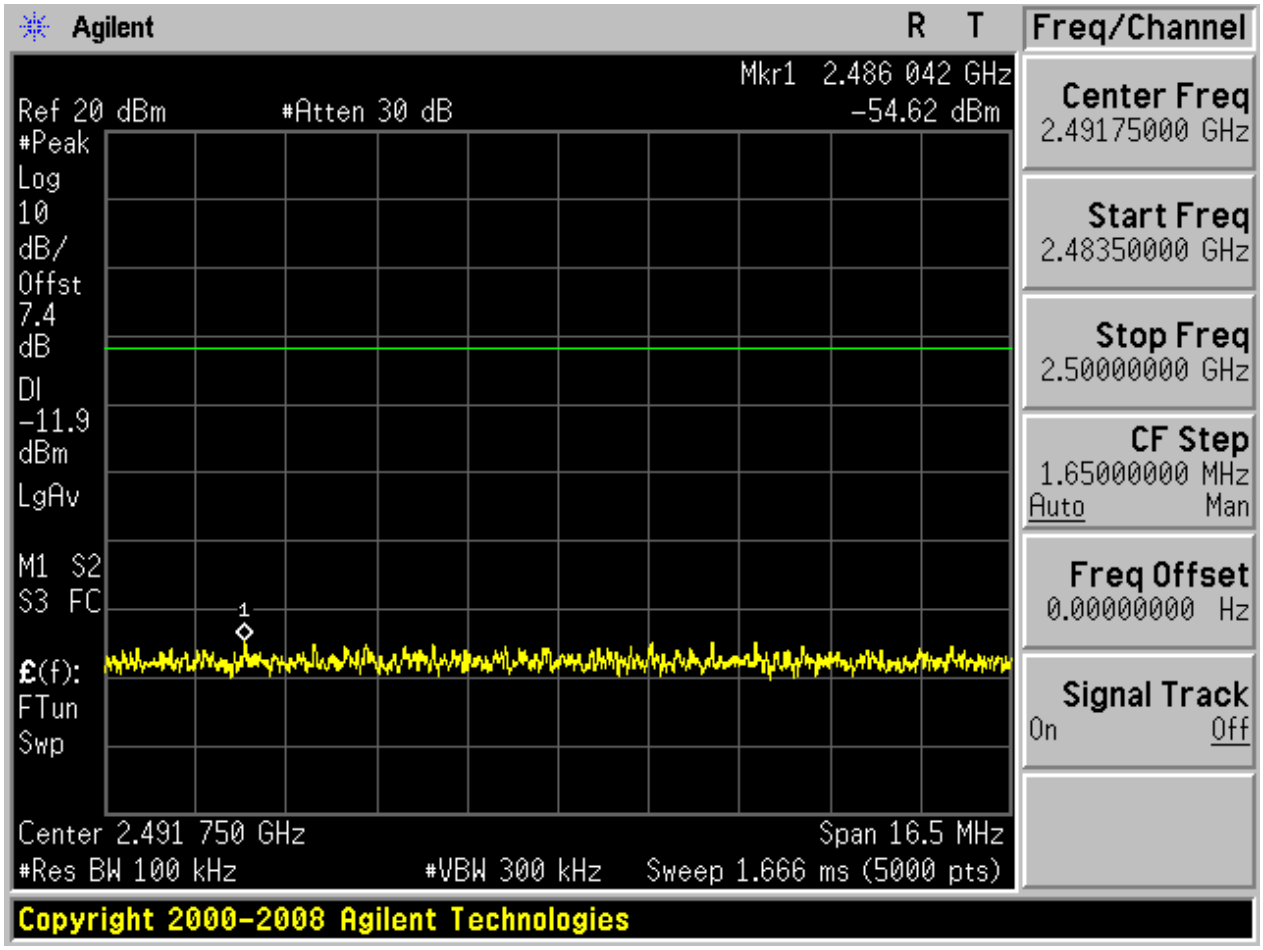
2.8.2 Puw

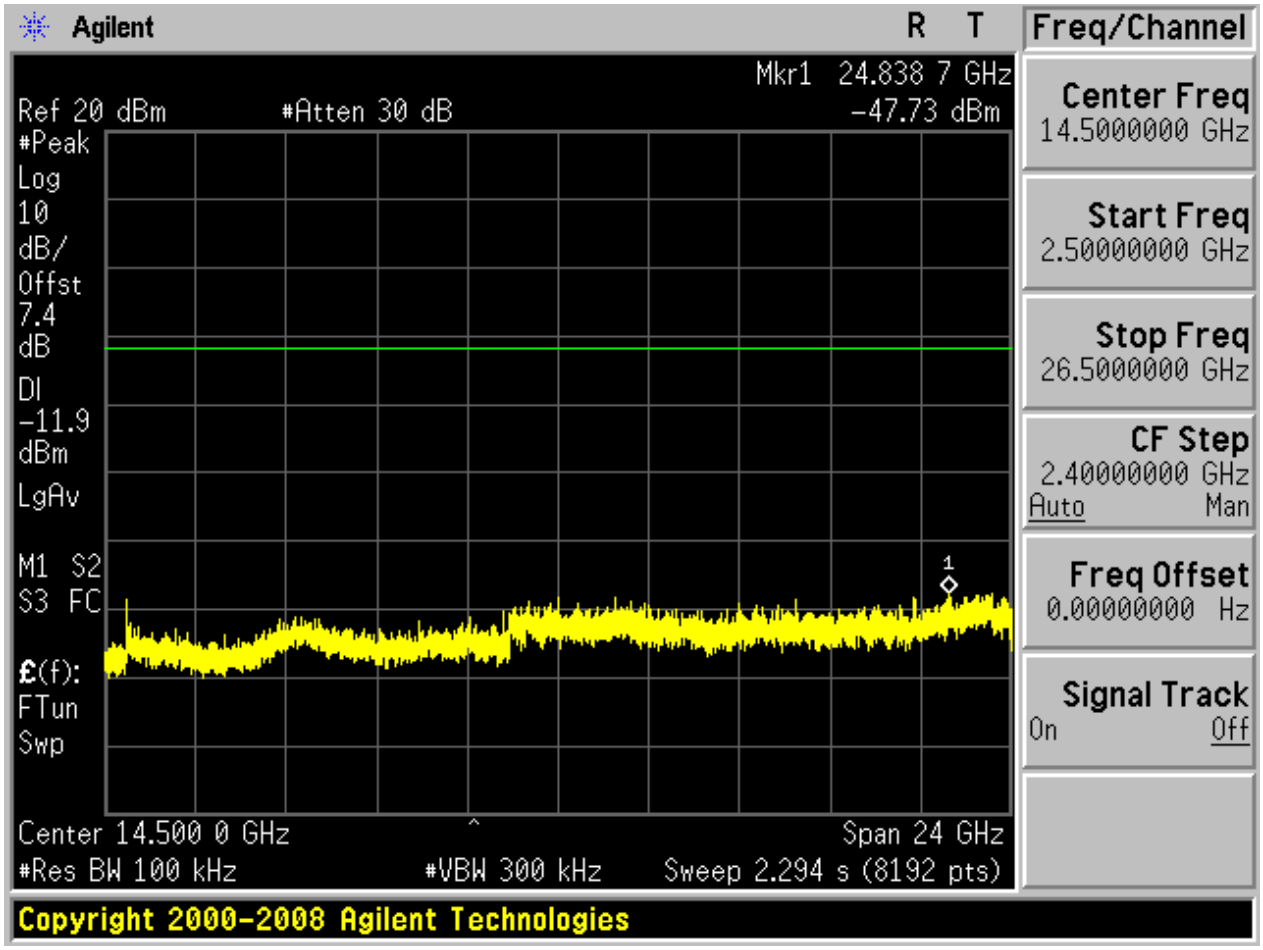






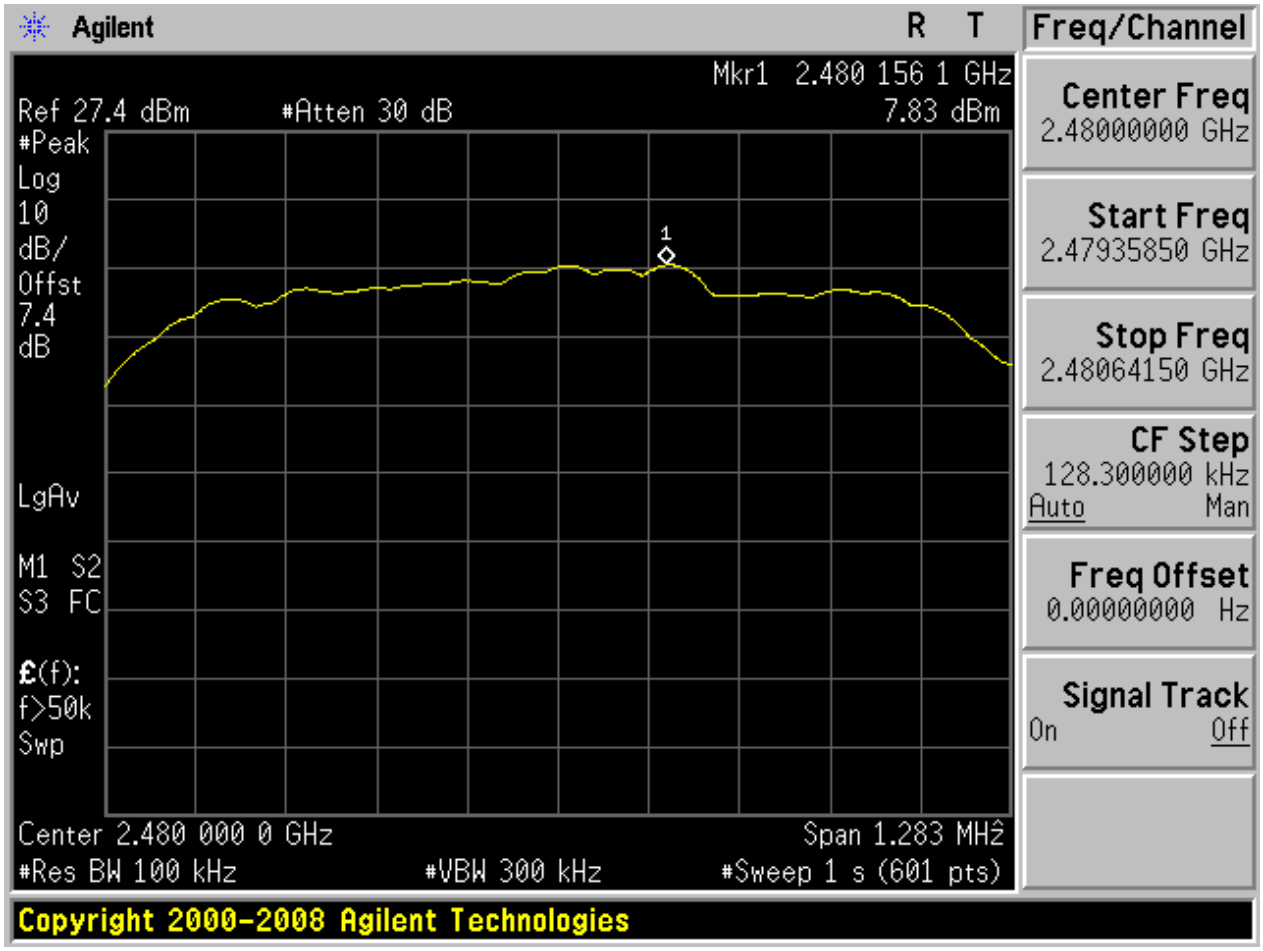




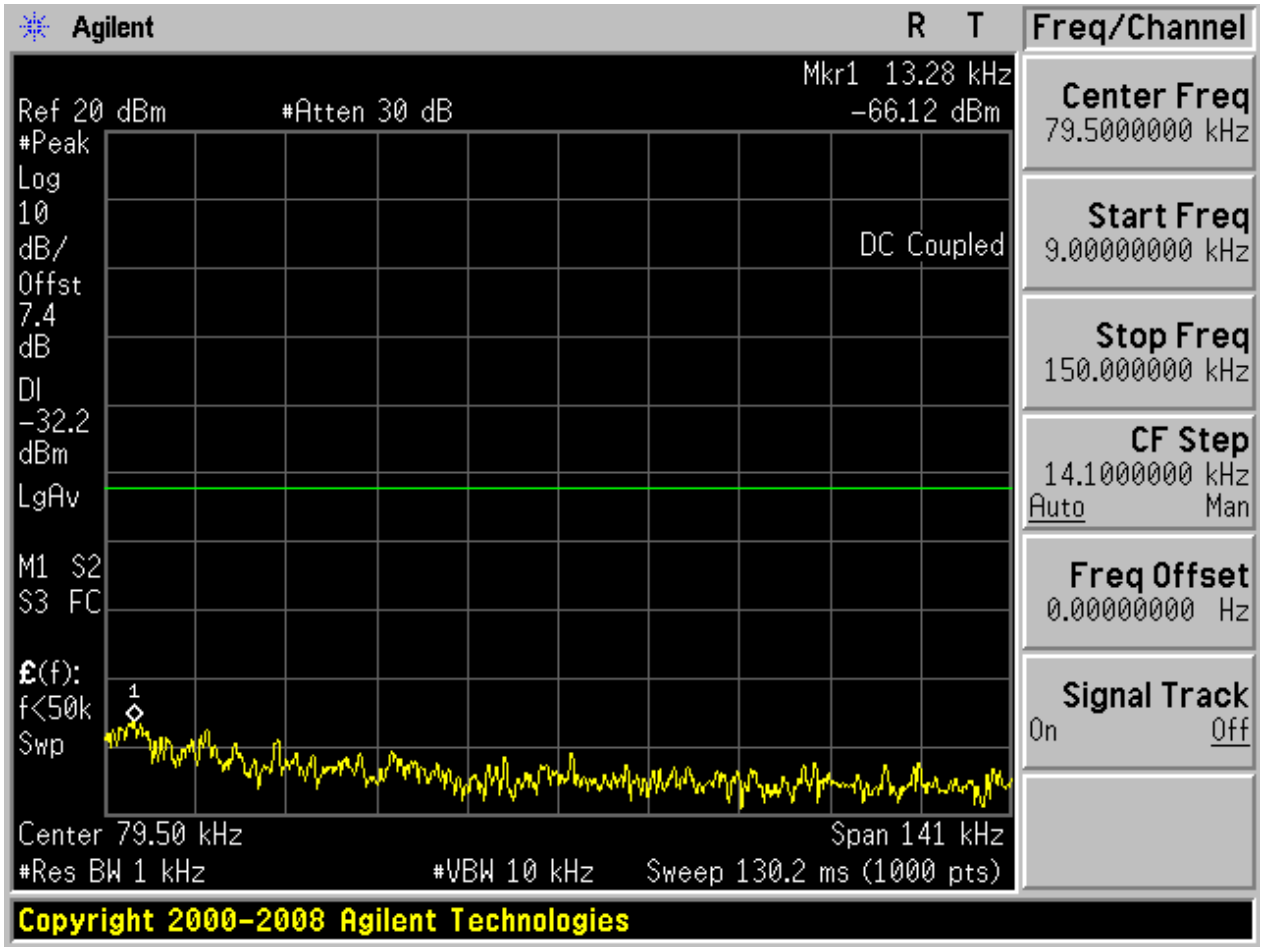


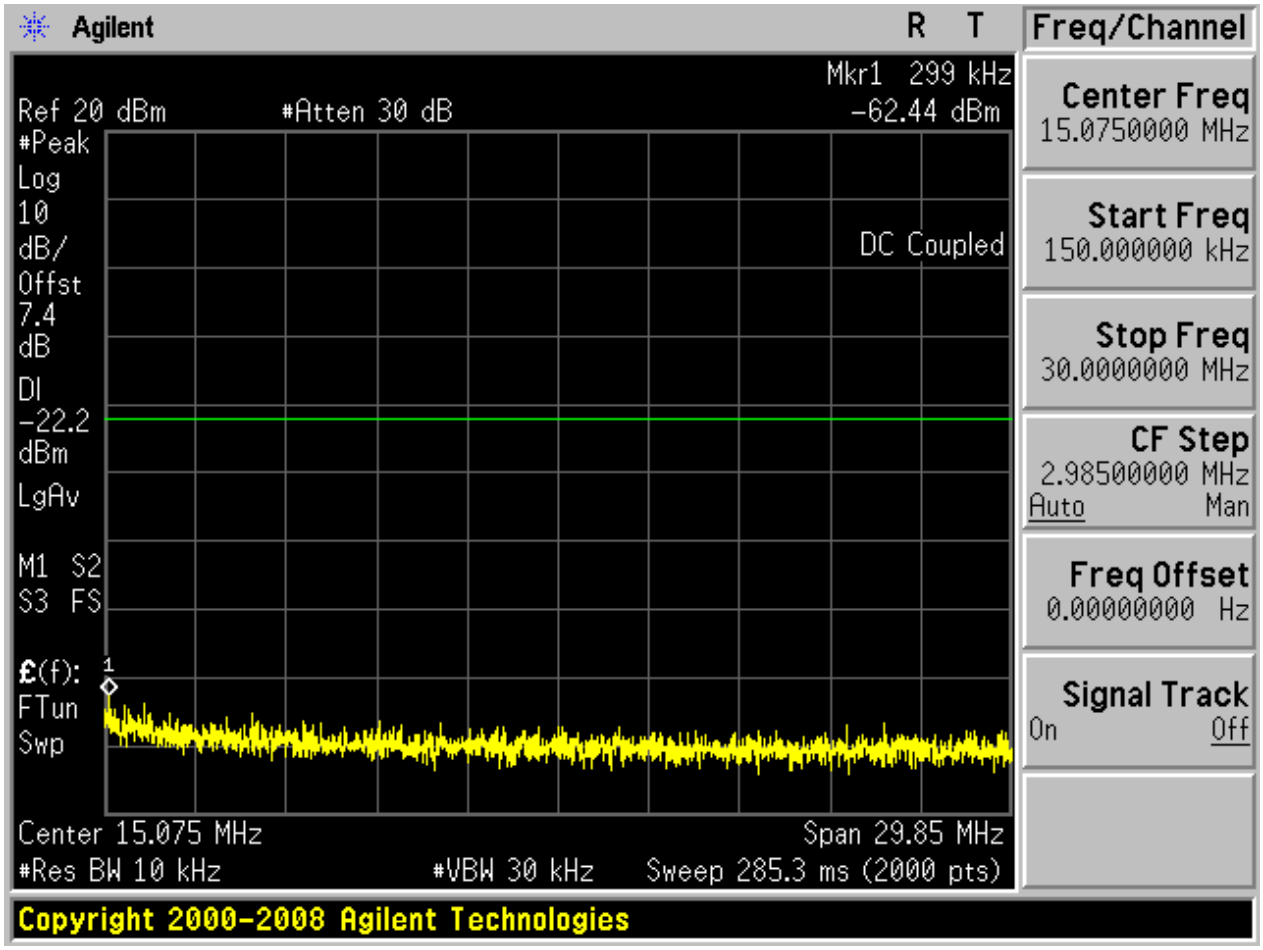
2.9 TM3_3DH5_Ch78

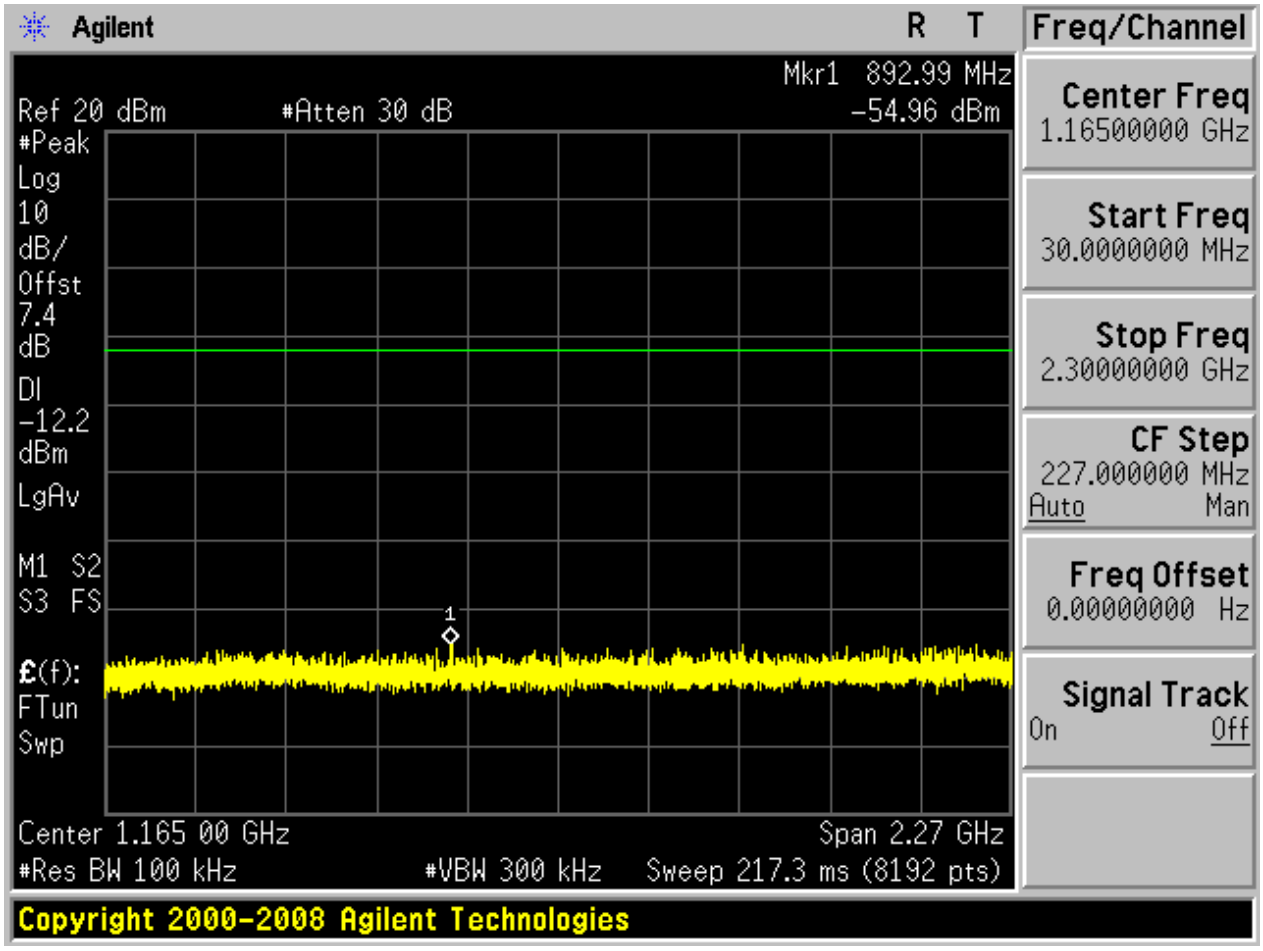
2.9.1 Pref

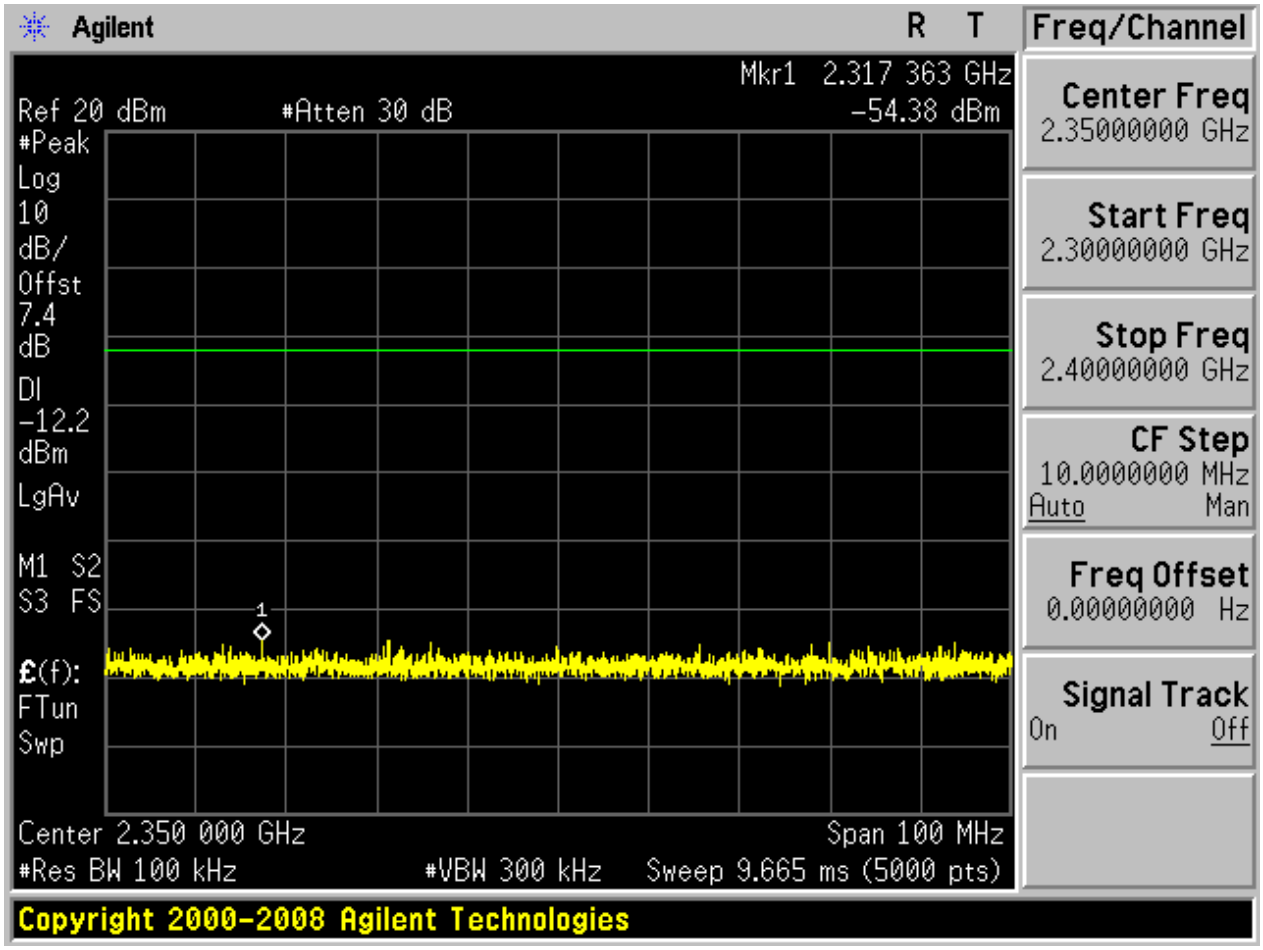


2.9.2 Puw








Agilent
R T
Freq/Channel
Mkr1 2.317 363 GHz
Ref 20 dBm
#Atten 30 dB
-54.38 dBm
#Peak
Log
10
dB/
Offst
7.4
dB
Dl
-12.2
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
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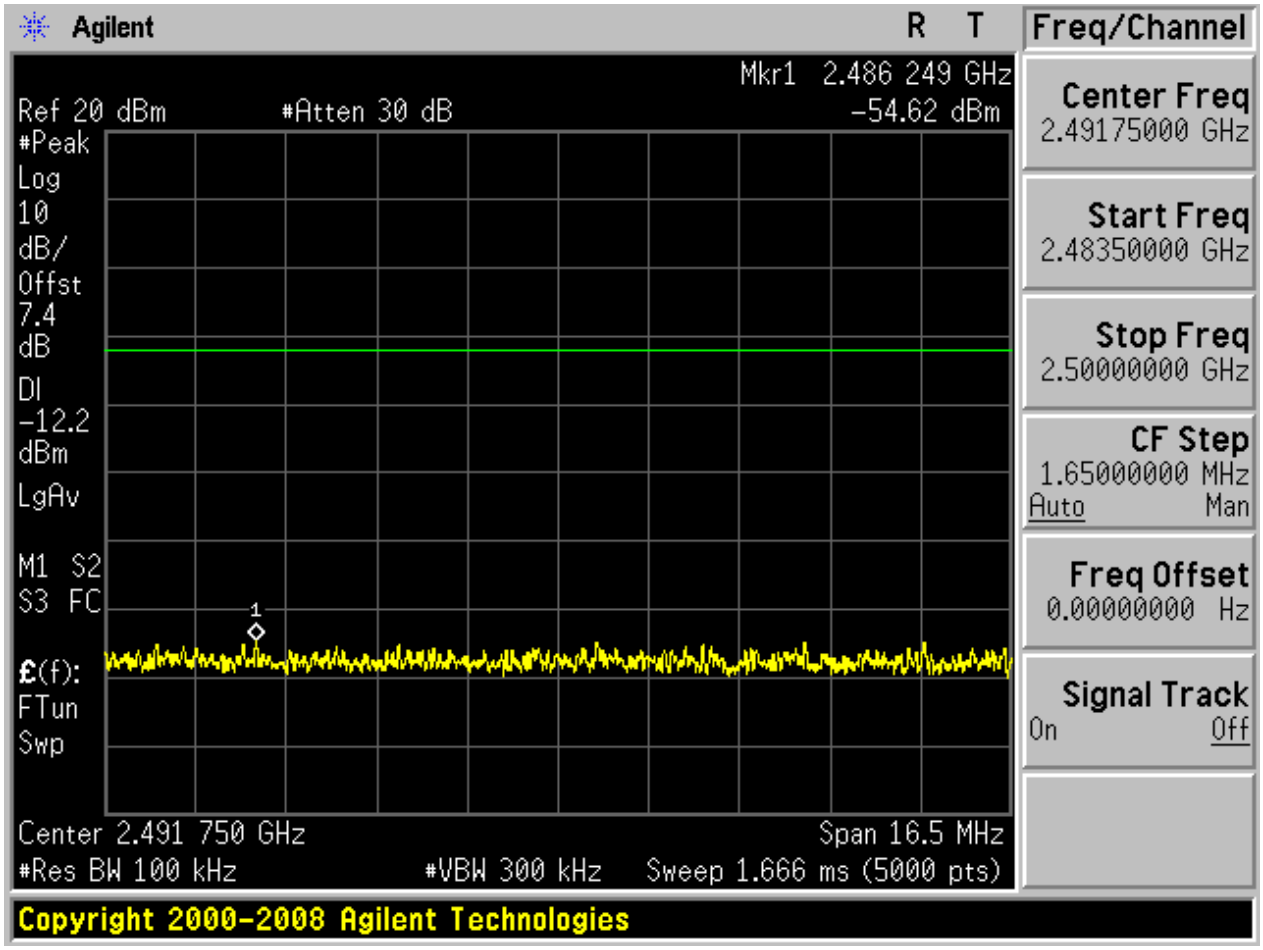
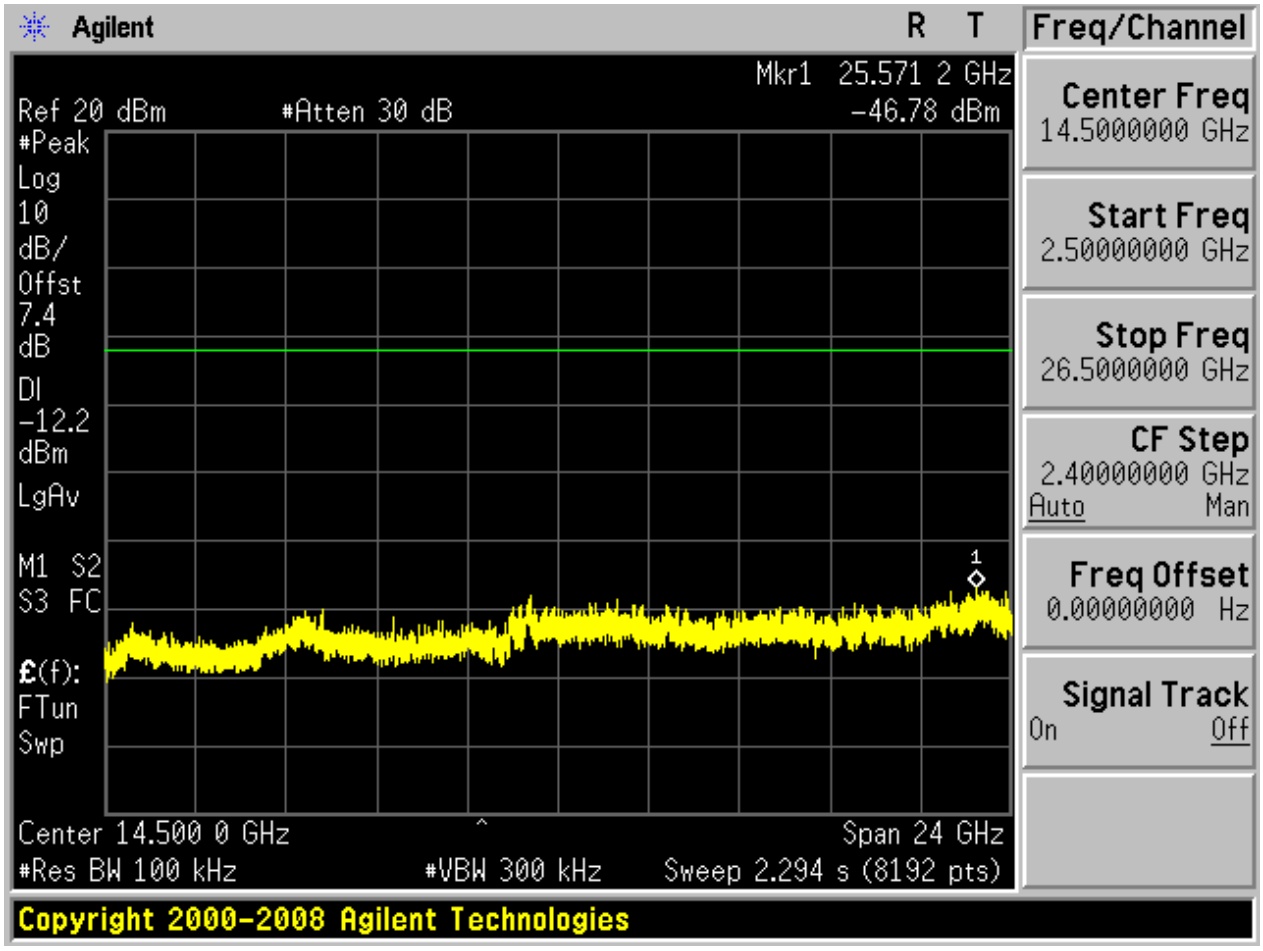
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 9.665 ms (5000 pts)
Copyright 2000-2008 Agilent Technologies





Appendix H: Radiated Emissions in the Restricted Bands

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

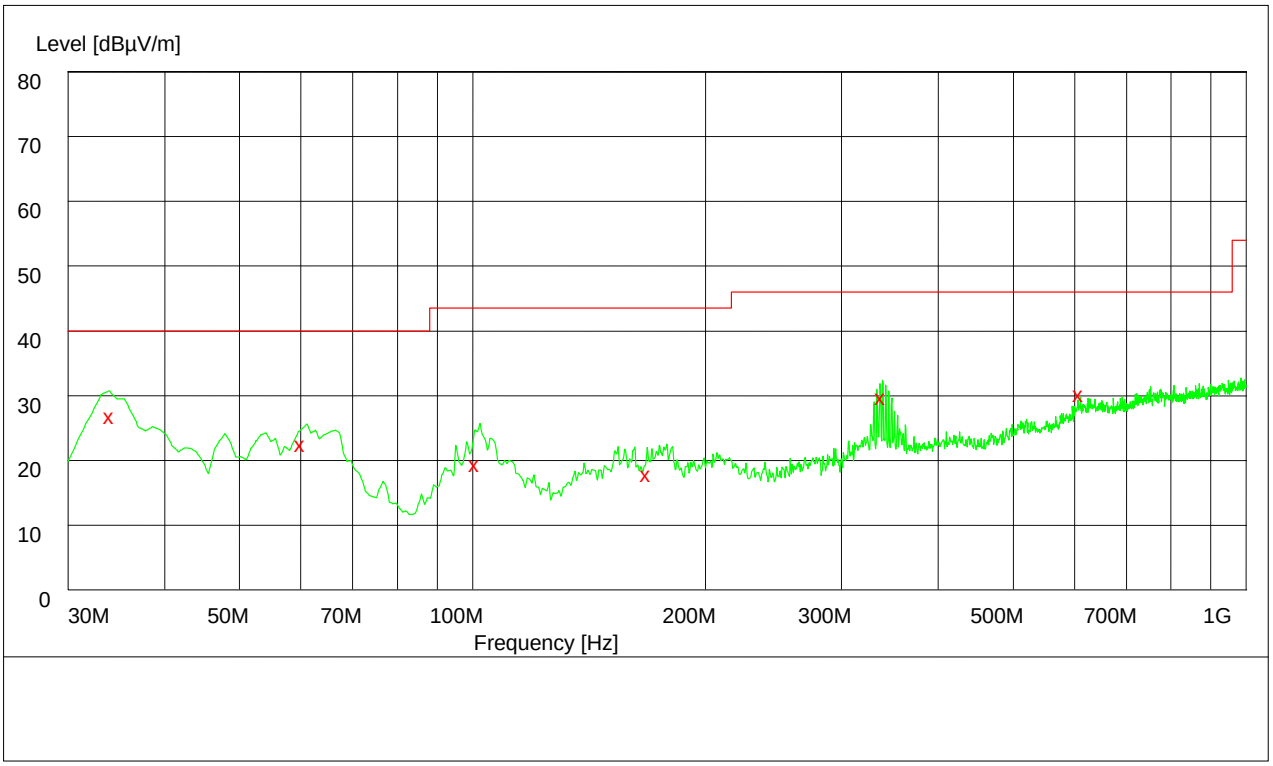
In this Appendix, only the test results and plots under the worst case can be reported. In the result table, the “< Limit” denotes that “Not found obvious spikes or see marked spikes on plots and listed emissions records”.

2 Result Plot

2.1.1 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.

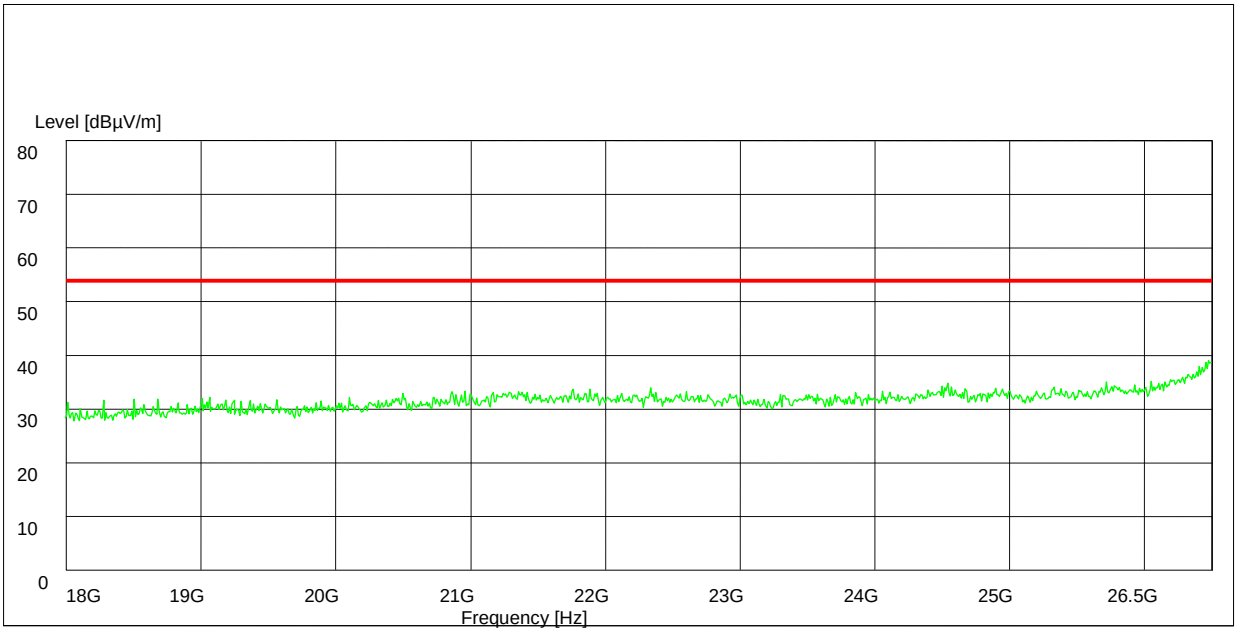
Note 2: The emissions in this range are mainly from the Platform Device (Notepad PC and its ancillary components).



Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Plarization
34.120000	28.20	13.2	40.0	11.8	100.0	360.00	VERTICAL
60.200000	23.90	15.1	40.0	16.1	180.0	92.00	VERTICAL
101.268000	20.80	13.8	43.5	22.7	131.0	358.00	VERTICAL
168.488000	19.30	10.7	43.5	24.2	100.0	132.00	VERTICAL
339.144000	31.10	19.1	46.0	14.9	100.0	73.00	HORIZONTAL
610.324000	31.70	24.0	46.0	14.3	132.0	92.00	VERTICAL

2.1.2 Part 2: Testing Range of “18 GHz to 26.5 GHz”

Note: No peak found in pre- test.



2.1.3 Part 3: Testing Range of "2.3GHz to 2.5GHz"

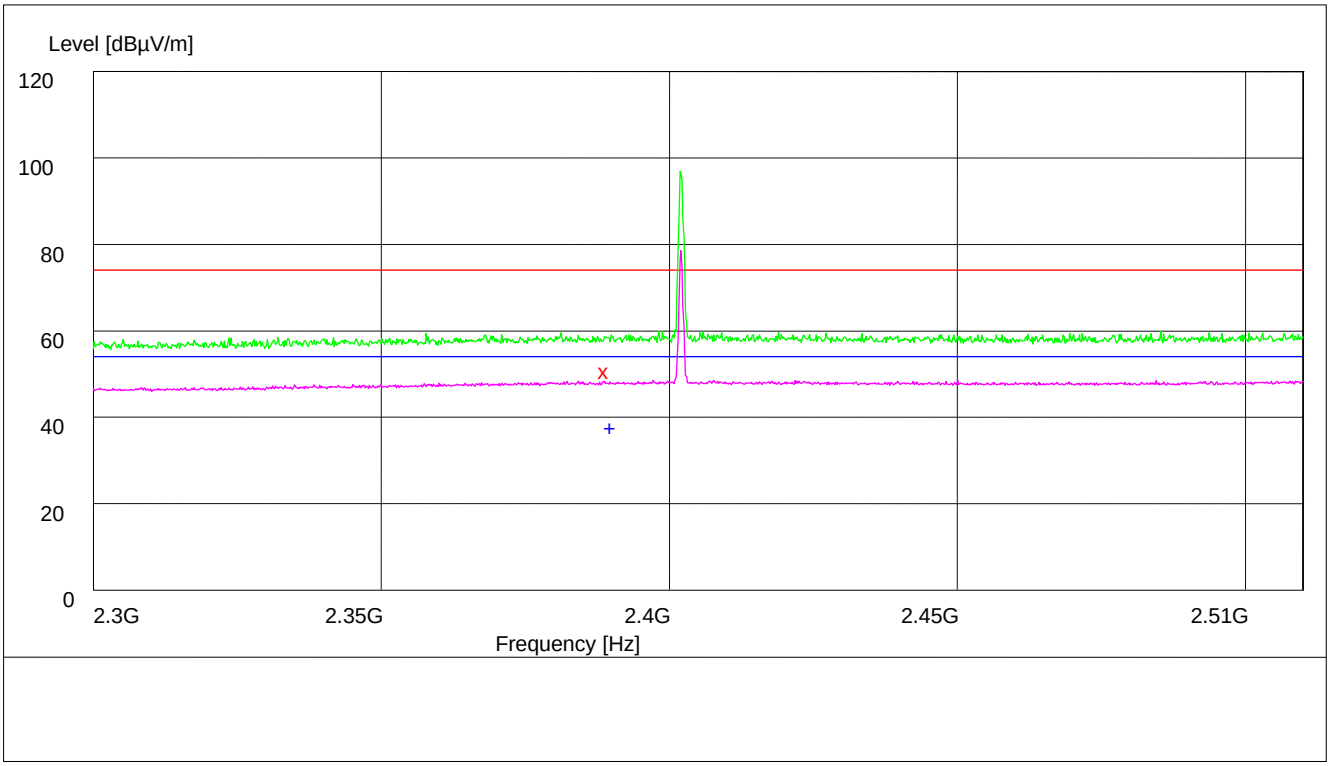
Note 1: The testing range of "2.3 GHz to 2.5 GHz" is for checking radiated emissions located in restricted bands near the EUT operating bands.

Note 2: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dBμV/m) and Average Limit (54 dBμV/m).

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

2.1.3.1 Test Mode:

2.1.3.1.1 Channel 00



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

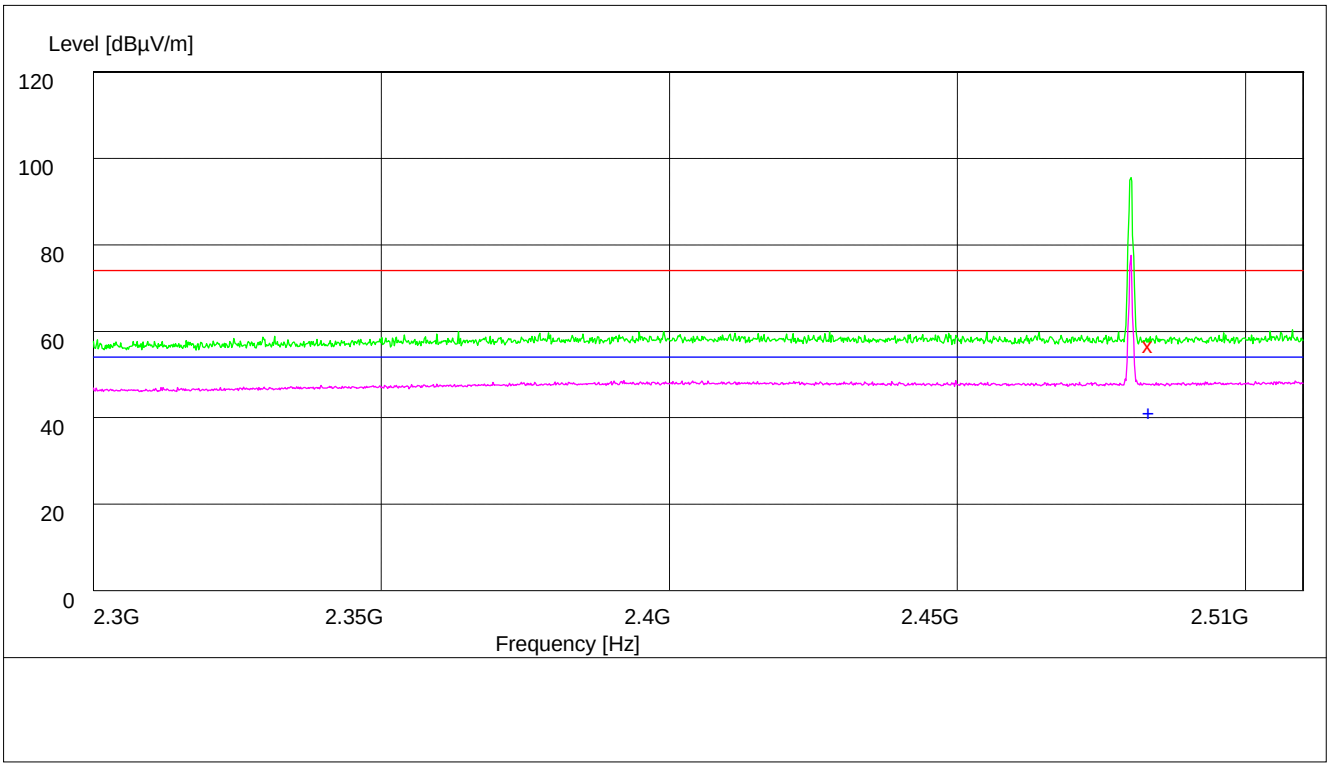
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2389.000000	52.80	34.8	74.0	21.2	102.0	300.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	39.60	34.8	54.0	14.4	200.0	290.00	HORIZONTAL

2.1.3.1.2 Channel 78



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

MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	58.80	35.1	74.0	15.2	200.0	360.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

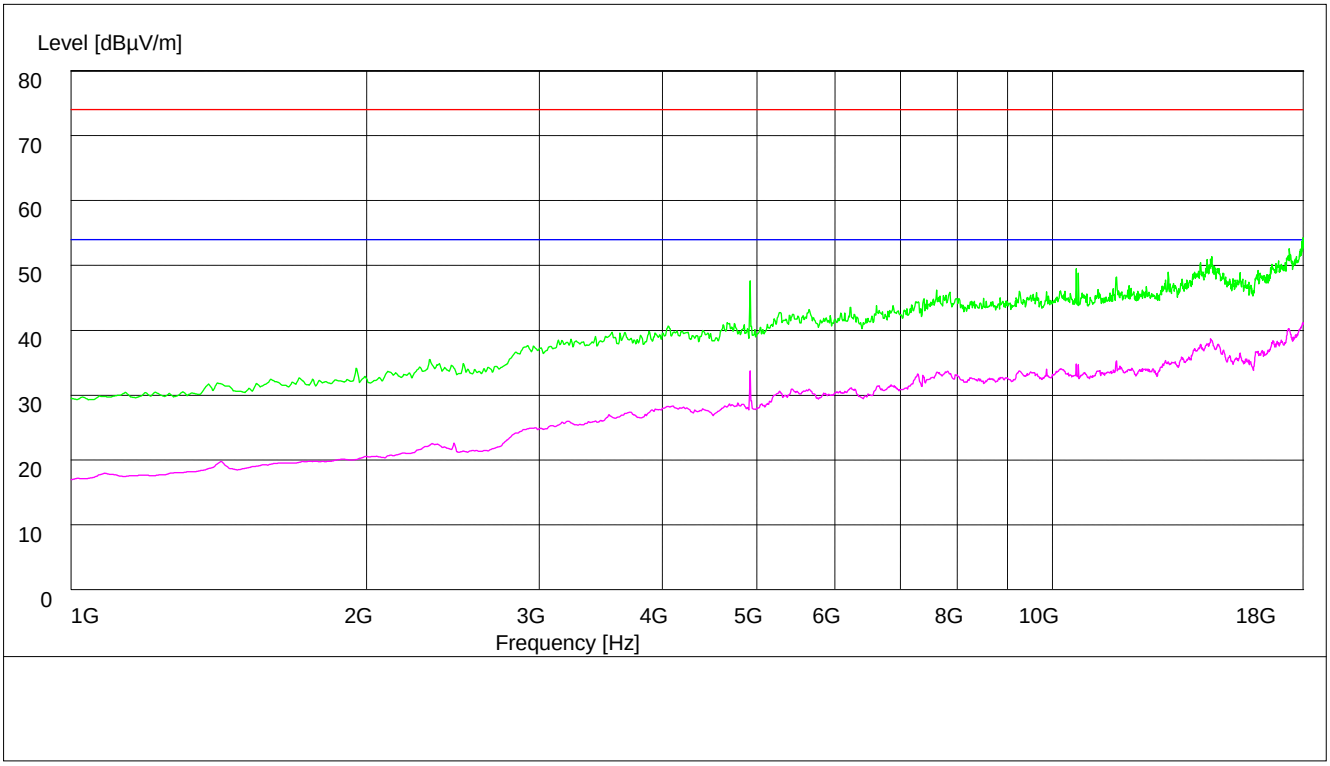
Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Height cm	Azimuth deg	Polarization
2483.500000	43.30	35.1	54.0	10.7	100.0	139.00	VERTICAL

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

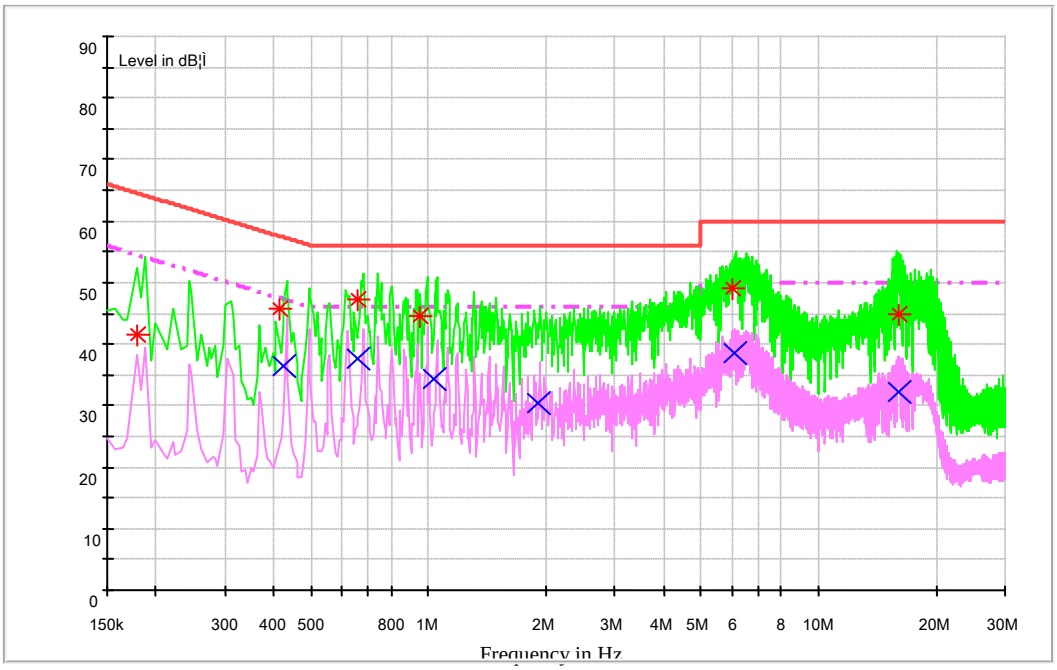
EUT Conf.	Maximum Emissions	Verdict
TM1_DH5_Ch39	Not found obvious spikes or see marked spikes on plots and listed emissions records.	Pass

2 Result Plot

2.1 TM1_DH5_Ch39

Channel 39

CLASS B Voltage with ENV216



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Line	Transd dB	Margin dB	Limit dBµV	PE
0.179027	41.6	L1	9.7	22.9	64.5	FLO
0.416700	45.6	N	9.7	11.9	57.5	FLO
0.655894	47.2	N	9.7	8.8	56.0	FLO
0.952158	44.7	N	9.7	11.3	56.0	FLO
6.040485	49.1	N	9.8	10.9	60.0	FLO
16.088362	45.0	L1	10.0	15.0	60.0	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Line	Transd dB	Margin dB	Limit dBµV	PE
0.426128	36.3	N	9.7	11.0	47.3	FLO
0.657244	37.7	N	9.7	8.3	46.0	FLO
1.036822	34.4	N	9.7	11.6	46.0	FLO

1.898168	30.3	N	9.7	15.7	46.0	FLO
6.106717	38.6	N	9.8	11.4	50.0	FLO
16.006496	32.2	L1	10.0	17.8	50.0	FLO

END