



# Appendix for Testreport



## Appendix A: DTS (6 dB) Bandwidth

In this document, the "DTS6dBBW" refers to the measured "DTS (6 dB) Bandwidth" value. In this Appendix, the "fc(DTS6dBBW)" refers to the centre of the measured "DTS6dBBW". The introduction of the "fc(DTS6dBBW)" is due to that other measurements use it as the spectrum analyzer setting.

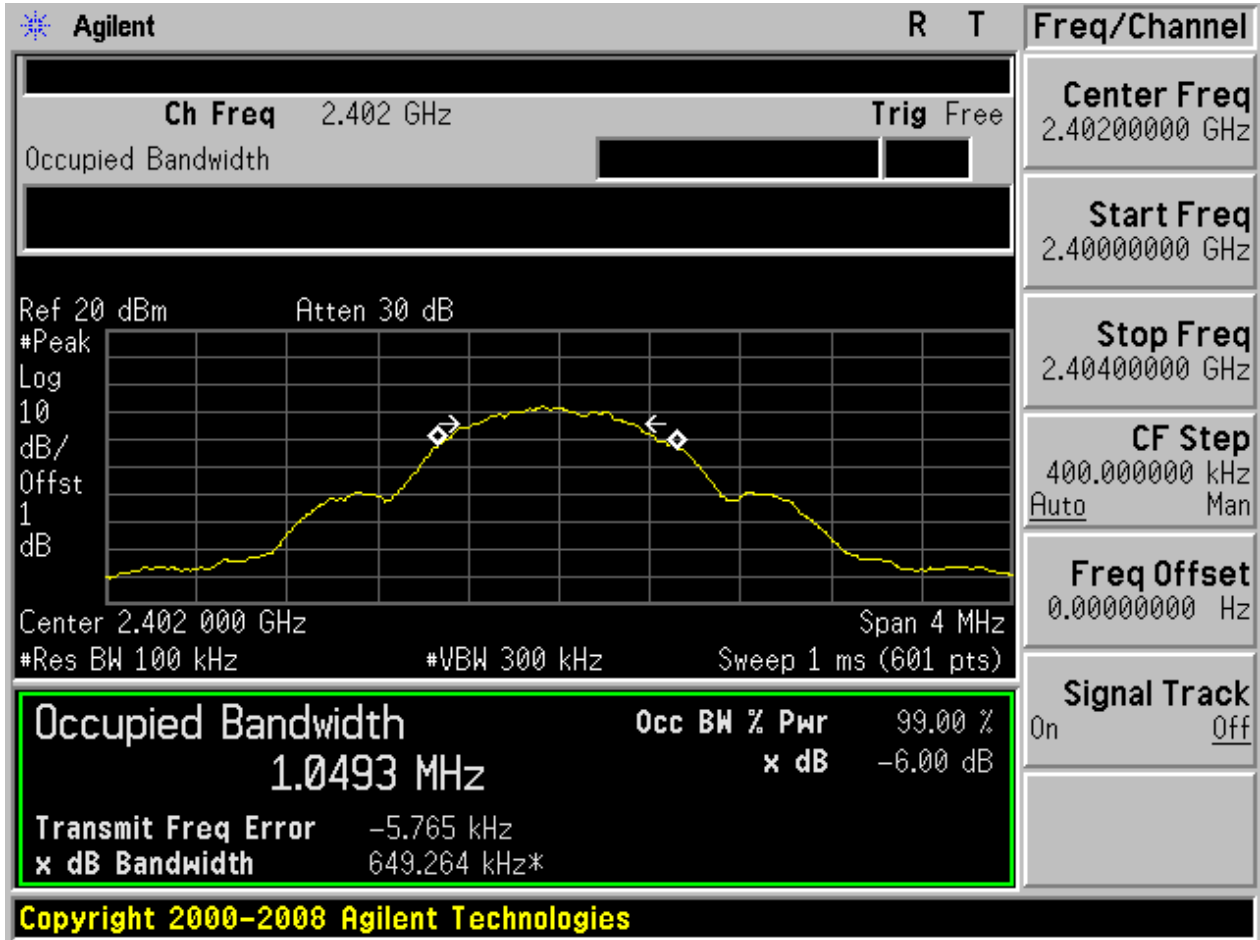
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
TM1_Ch0	L	2402	0.65	pass
TM1_Ch19	M	2440	0.68	pass
TM1_Ch39	H	2480	0.70	pass

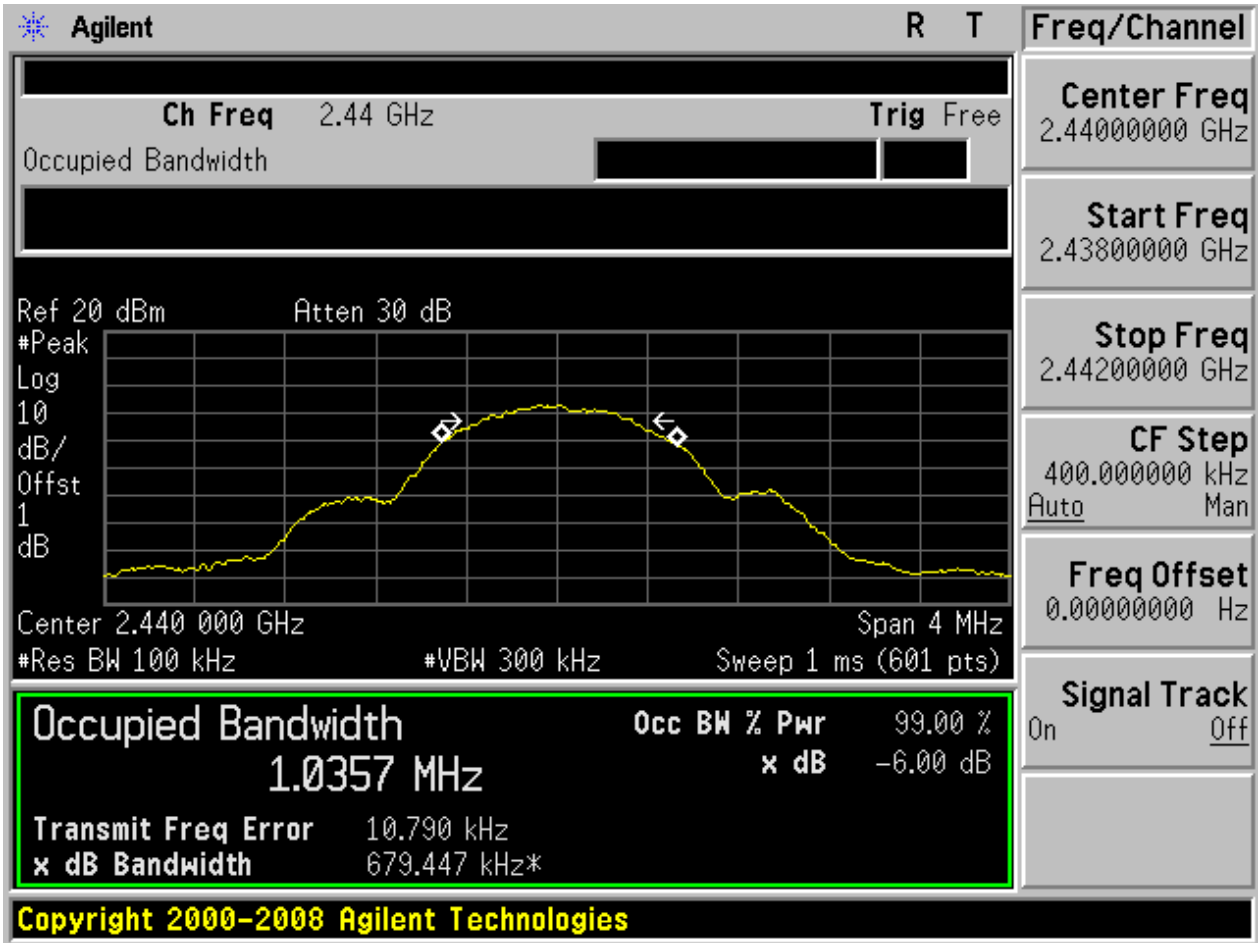
Part II - Test Plots

2.1 TM1\_Ch0\_L



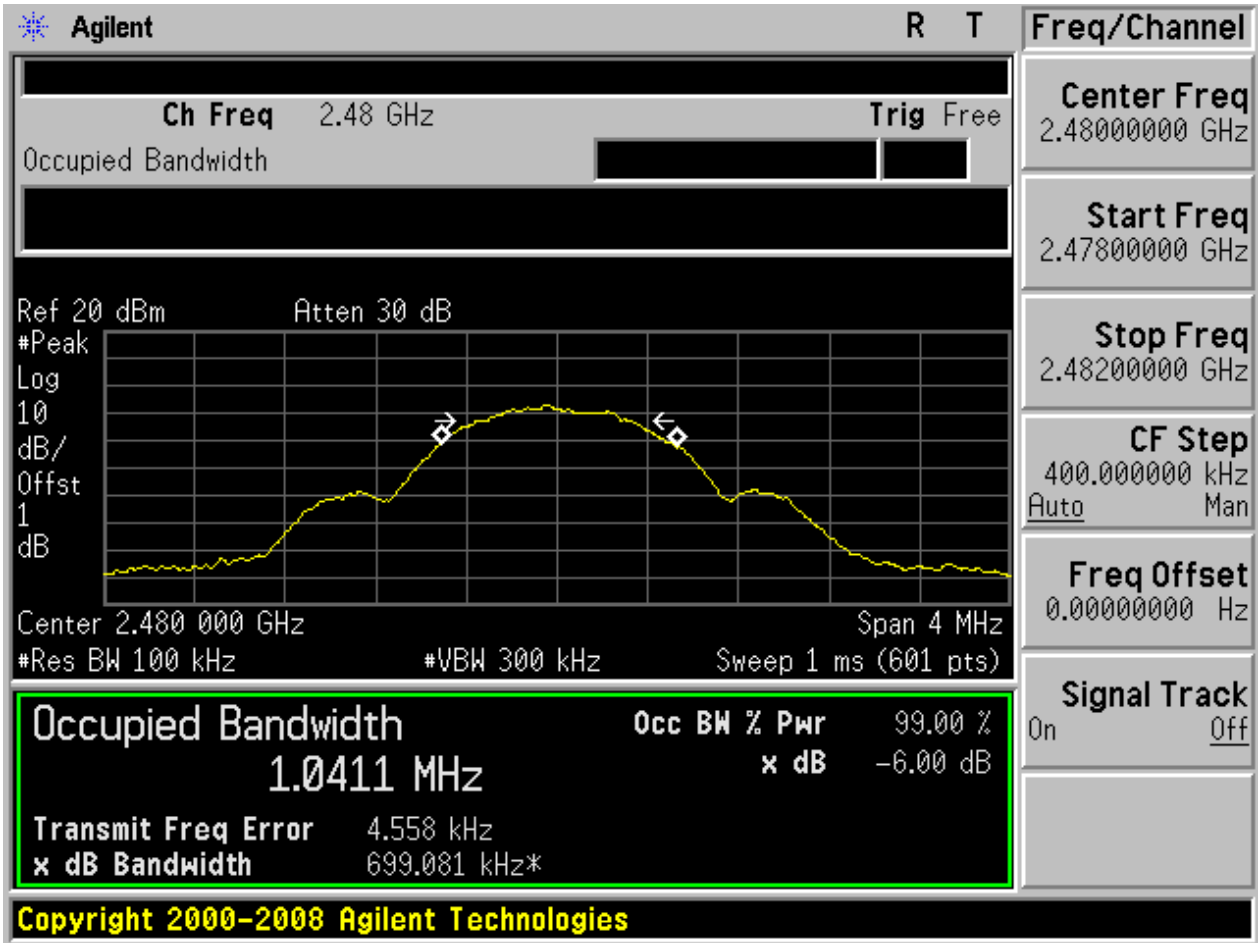


2.2 TM1\_Ch19\_M





2.3 TM1\_Ch39\_H





## Appendix B: Occupied Bandwidth

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Occupied Bandwidth [MHz]	Verdict
TM1_Ch0	L	2402	1.01	pass
TM1_Ch19	M	2440	1.01	pass
TM1_Ch39	H	2480	1.01	pass



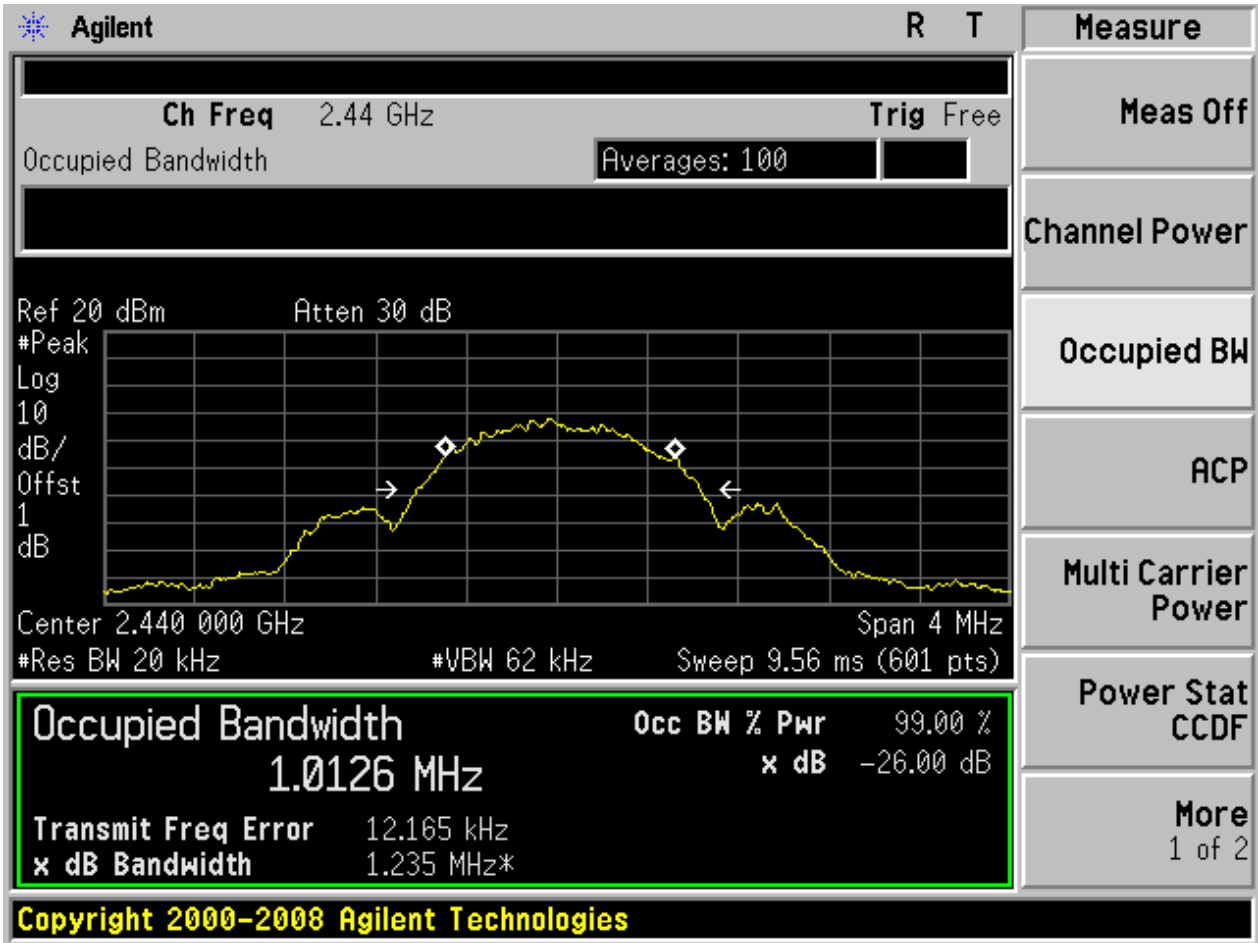
Part II - Test Plots

2.1 TM1\_Ch0\_L



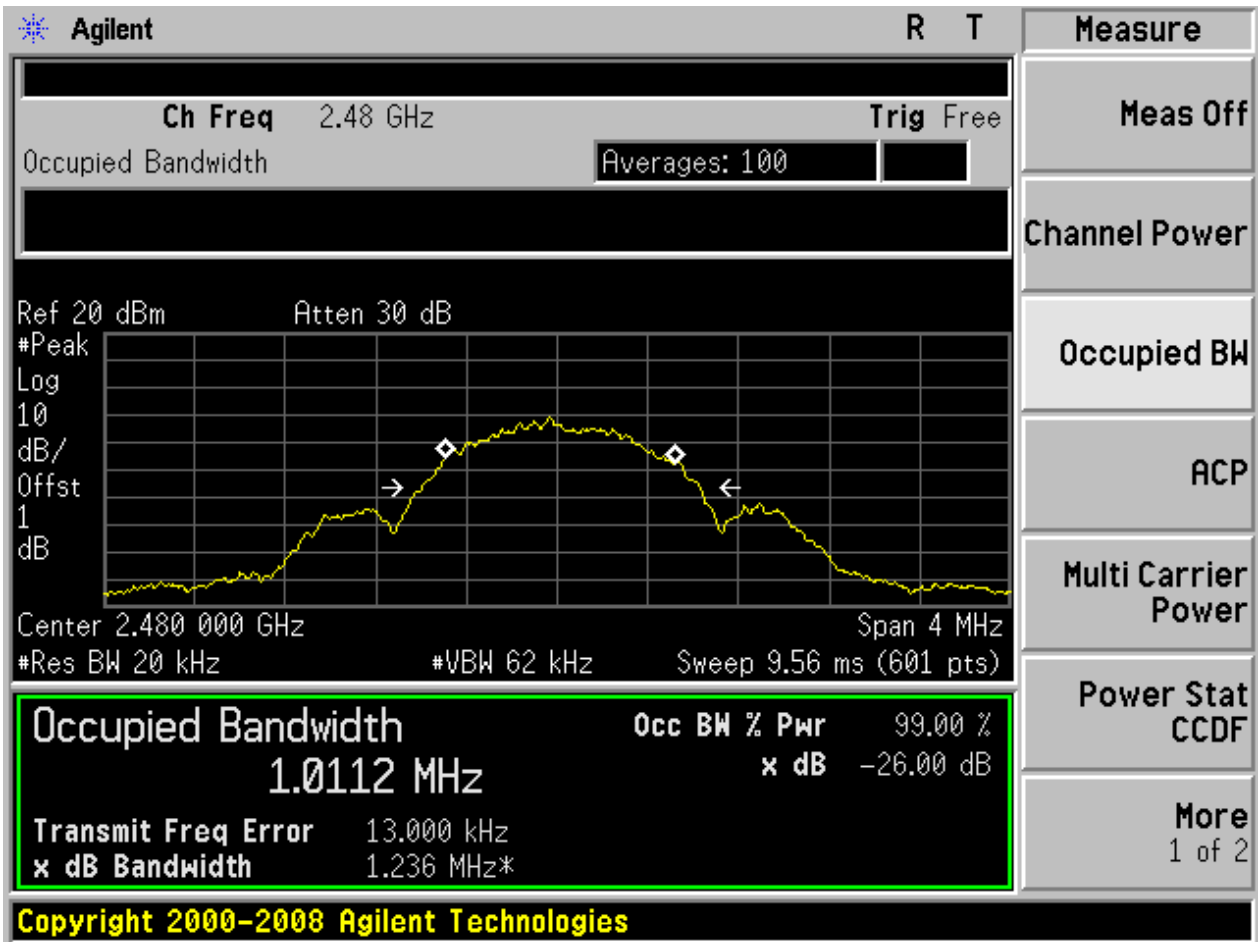


2.2 TM1\_Ch19\_M





2.3 TM1\_Ch39\_H





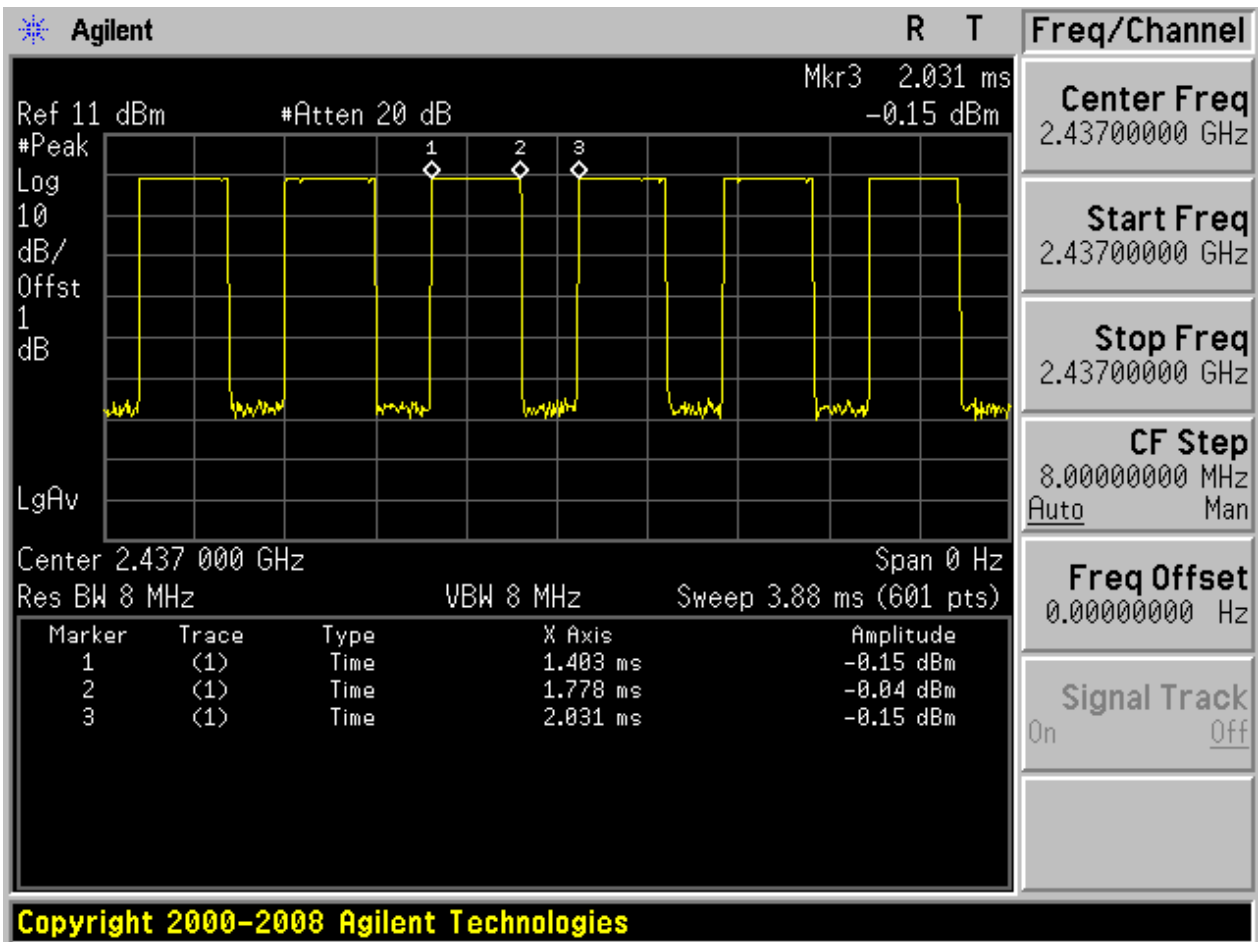
## Appendix C: Duty Cycle

### Part I - Test Results

Test Mode	TX Freq. [MHz]	Duty cycle [%]
TM1	CH0,CH19,CH39	60

### Part II - Test Plots

#### 2.1 TM1





## Appendix D: Maximum Conducted Average Output Power

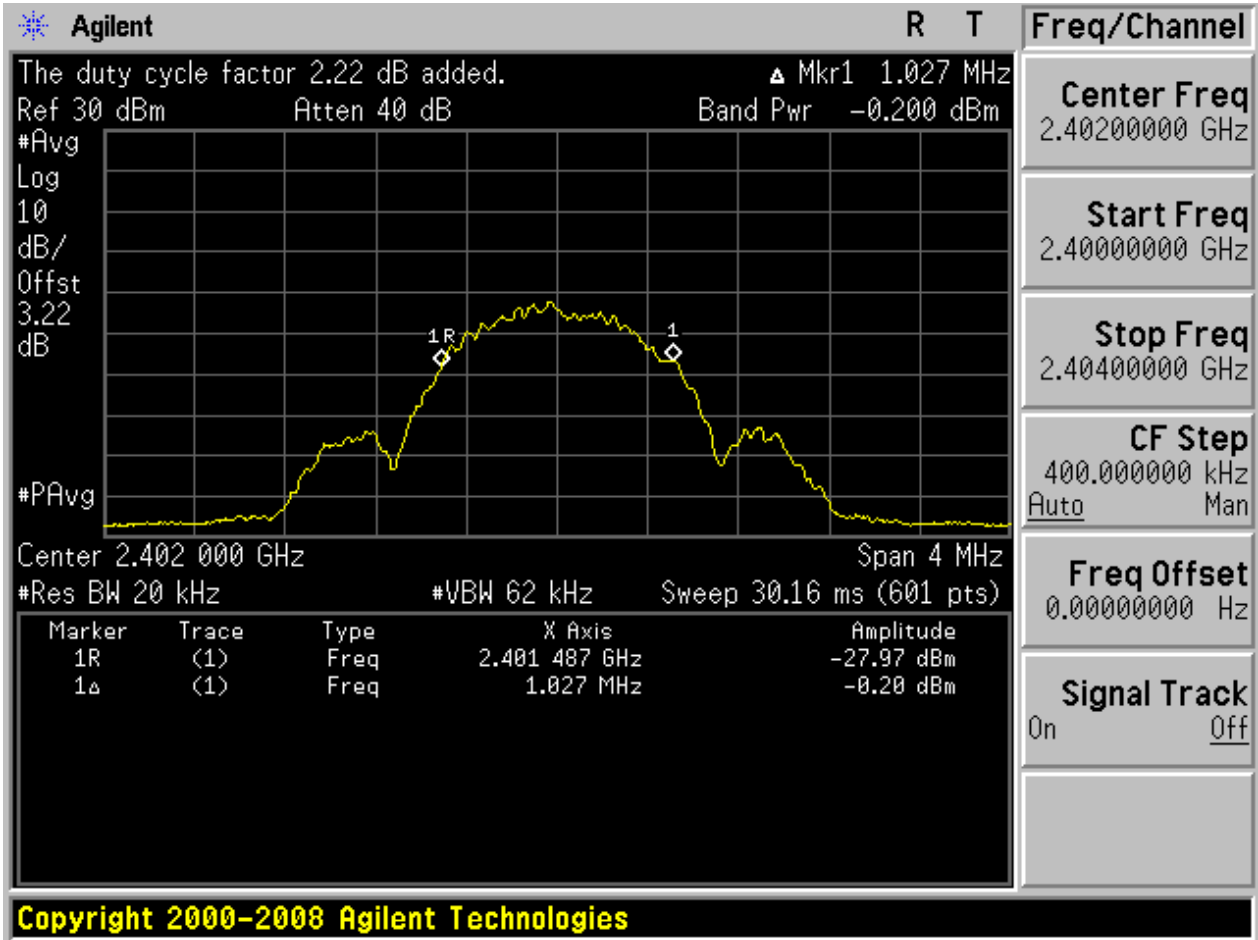
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	Power[dBm]	Verdict
TM1 _Ch0	L	2402	60	-0.2	pass
TM1 _Ch19	M	2440	60	0.21	pass
TM1 _Ch39	H	2480	60	0.43	pass



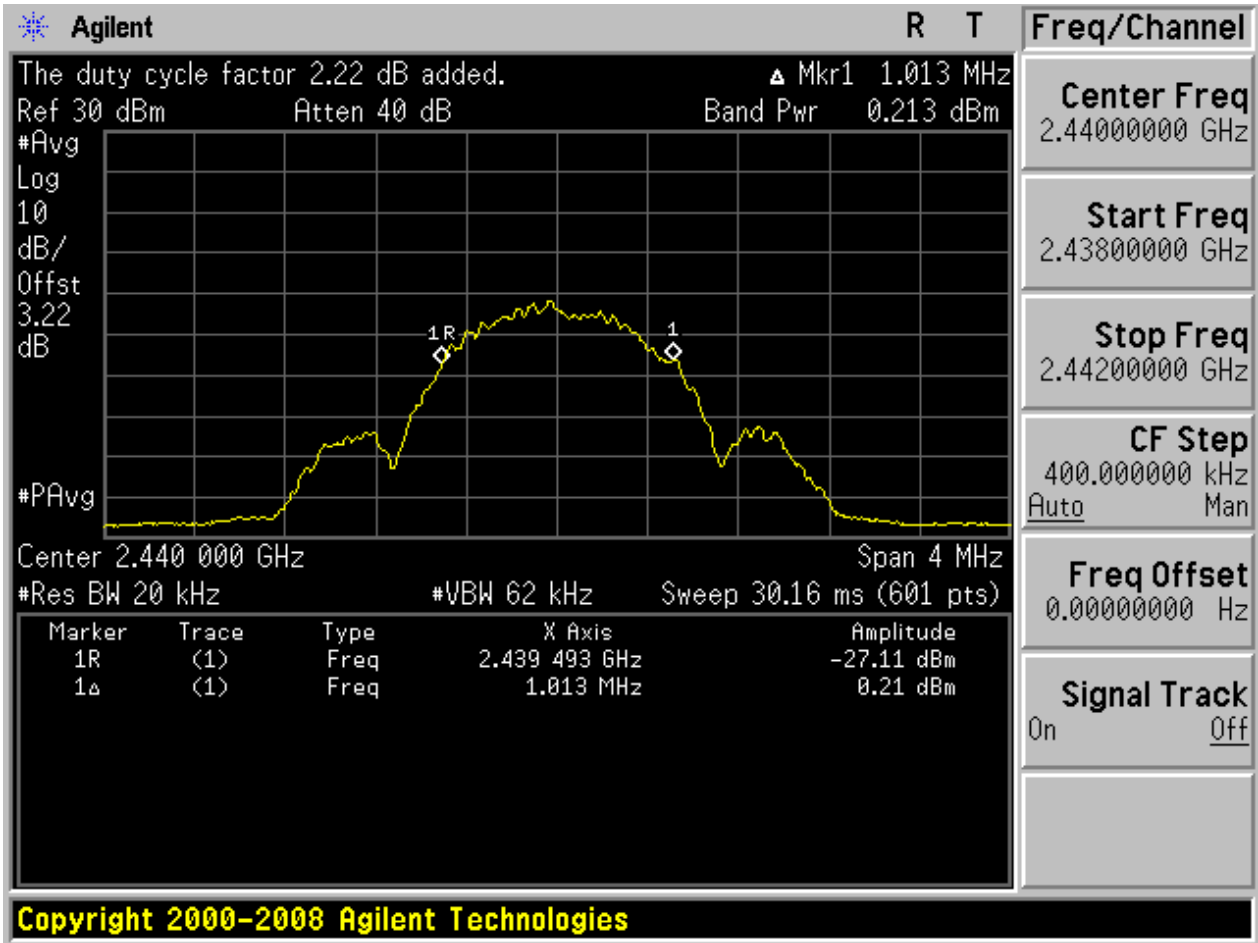
Part II - Test Plots

2.1 TM1\_Ch0\_L





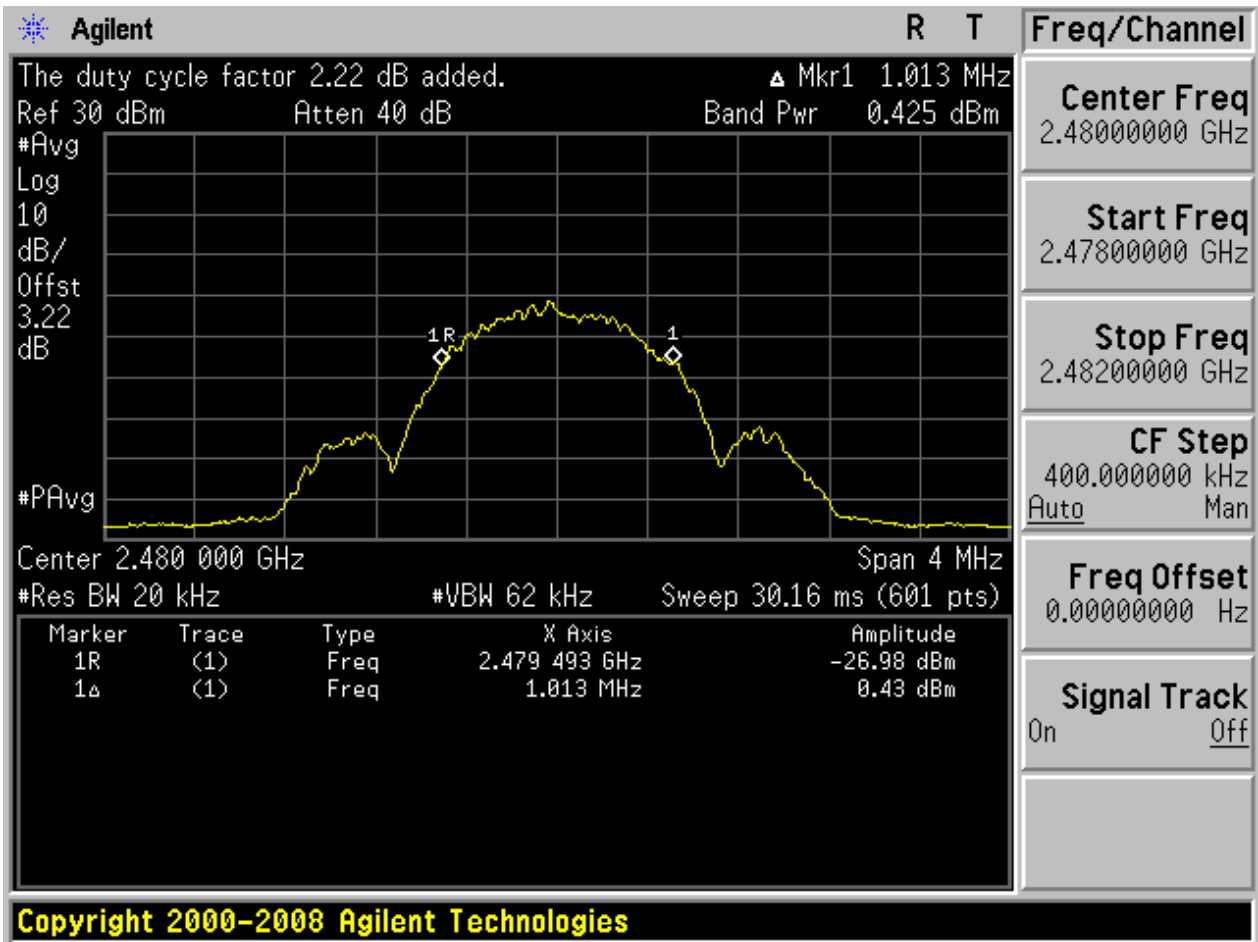
2.2 TM1\_Ch19\_M



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2.3 TM1\_Ch39\_H





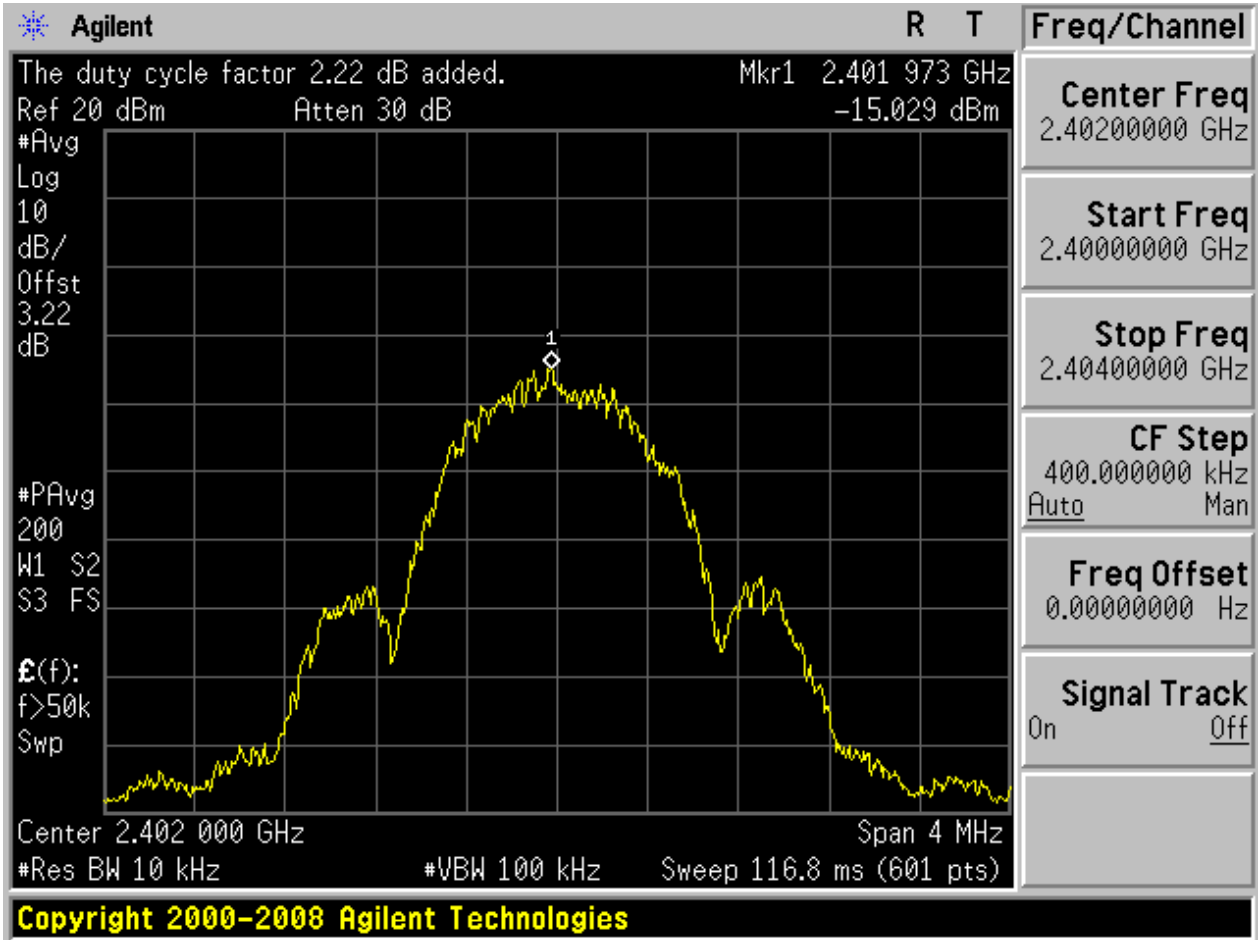
## Appendix E: Maximum Power Spectral Density Level

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	PD[MHz]	Verdict
TM1 _Ch0	L	2402	60	-15.03	pass
TM1 _Ch19	M	2440	60	-14.35	pass
TM1 _Ch39	H	2480	60	-14.39	pass

**Part II - Test Plots**

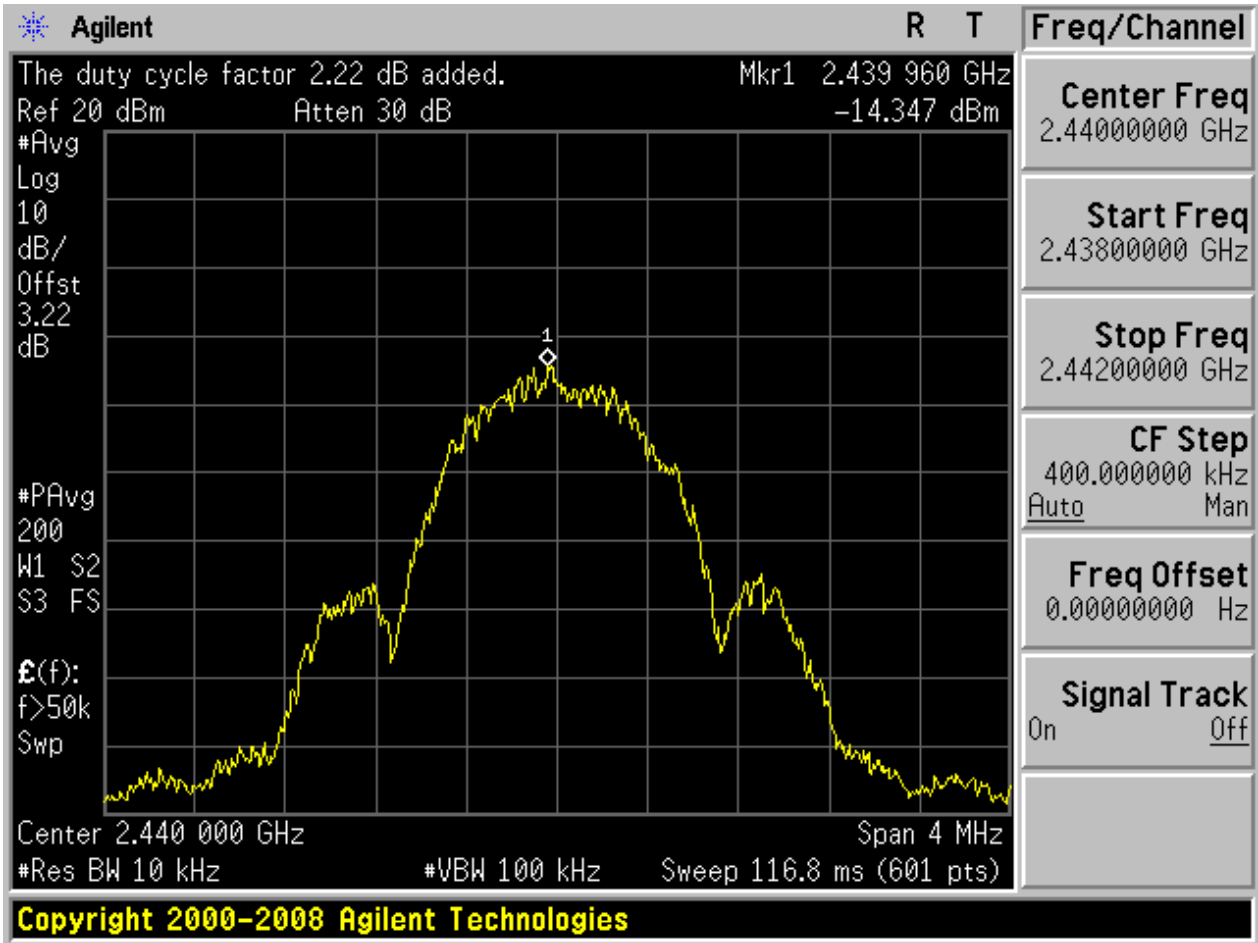
**2.1 TM1\_Ch0\_L**





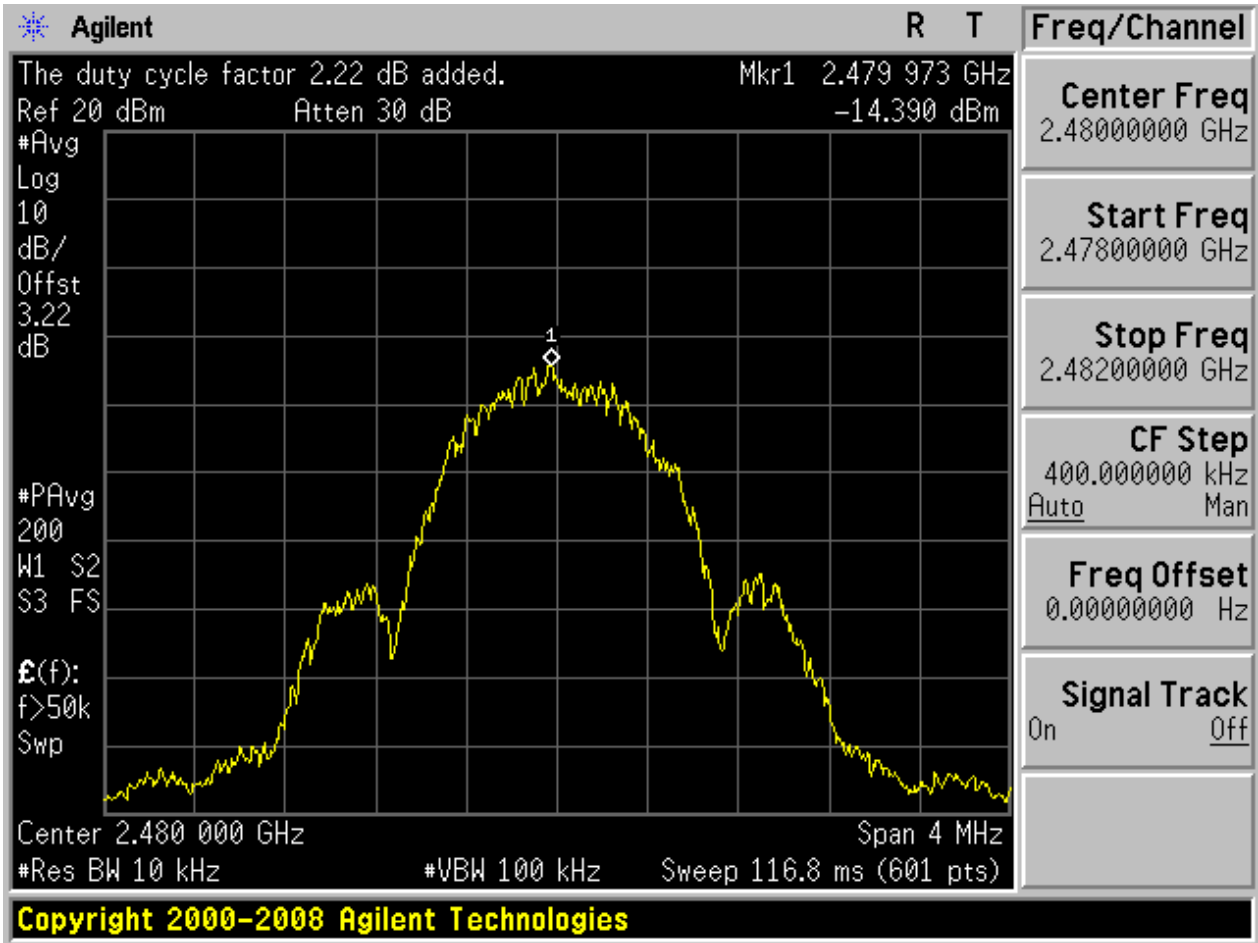


2.2 TM1\_Ch19\_M





2.3 TM1\_Ch39\_H





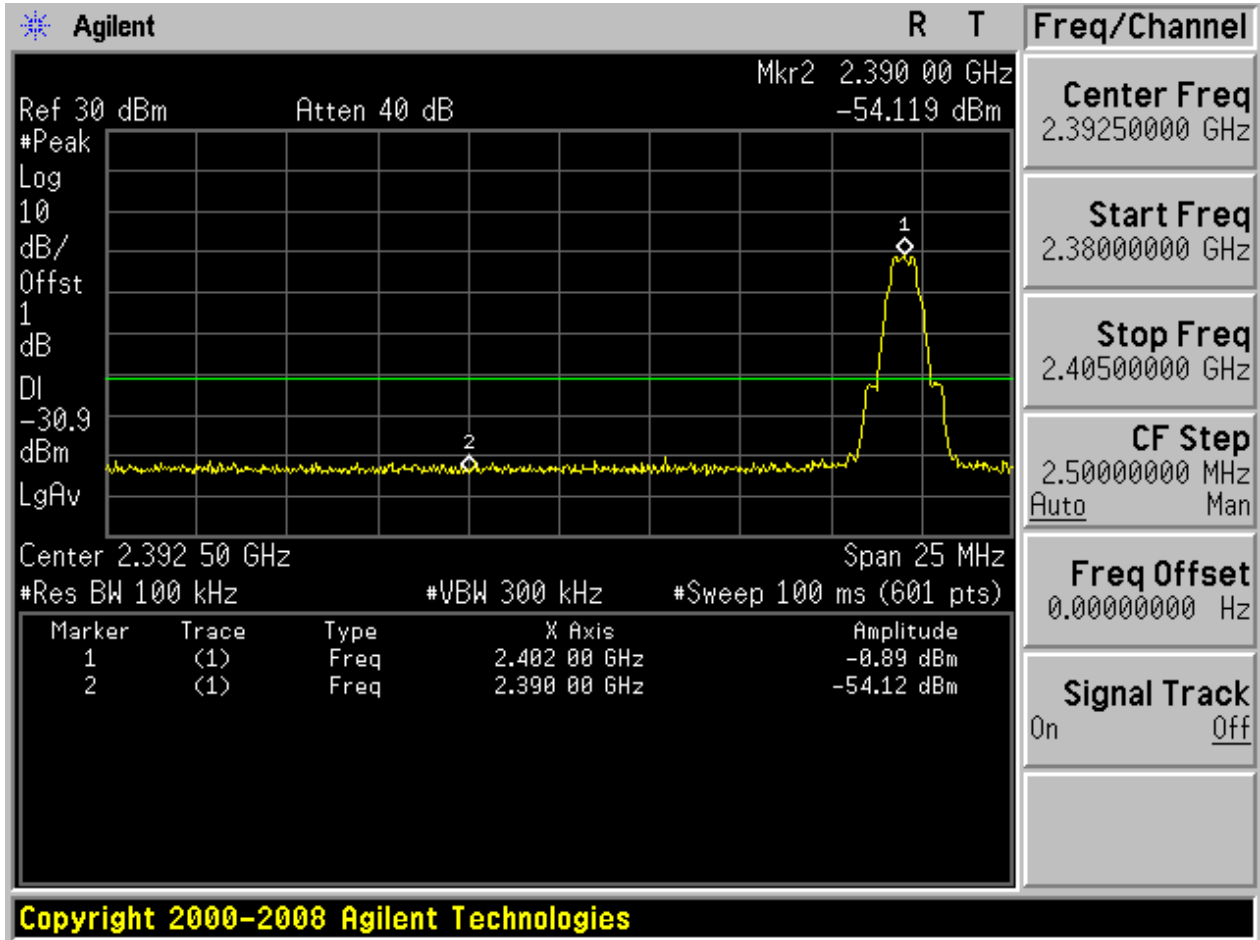
## Appendix F: Band Edges Compliance

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
TM1_Ch0	L	2402	-0.9	-54.12	pass
TM1_Ch39	H	2480	-0.26	-51.16	pass

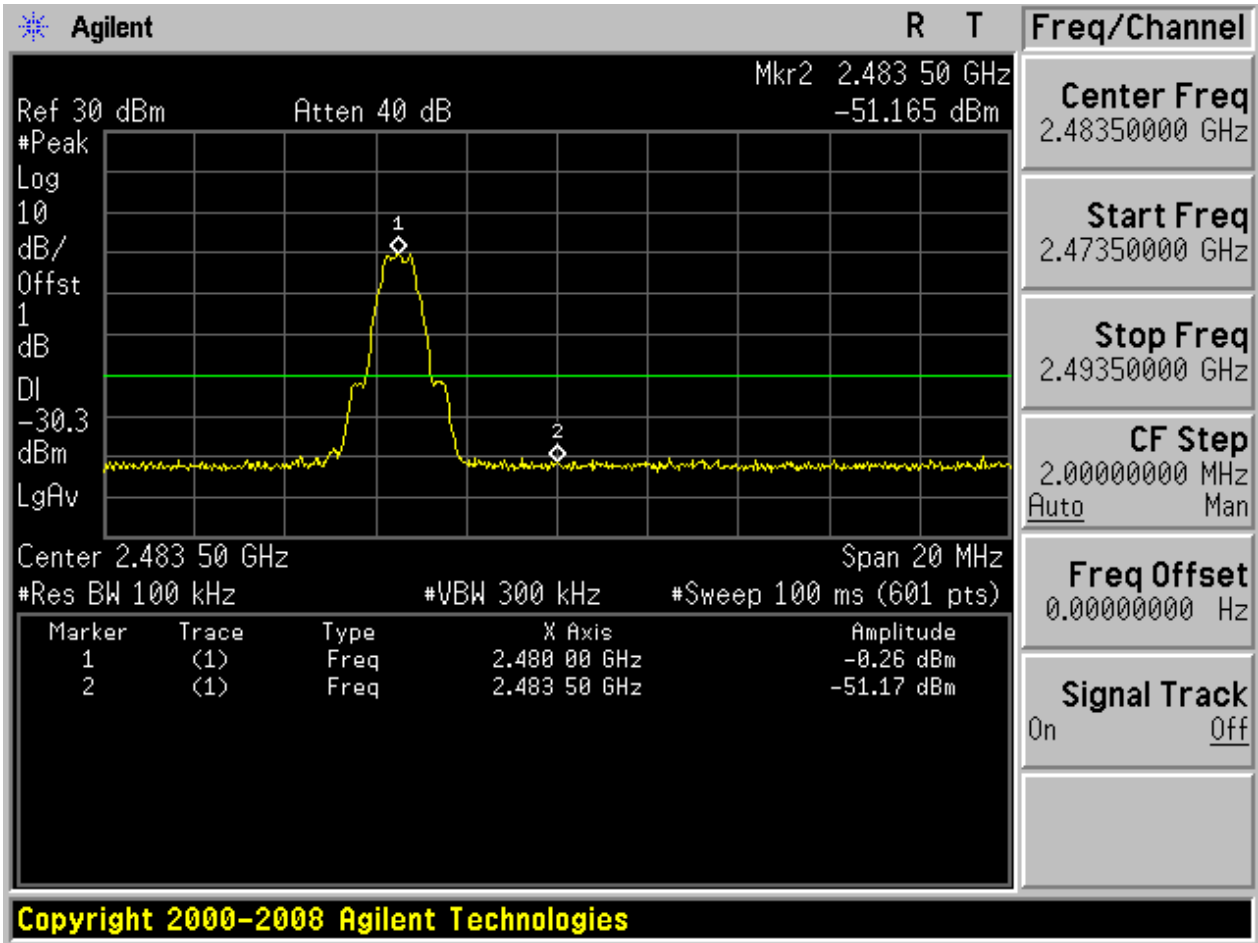
Part II - Test Plots

2.1 TM1\_Ch0\_L





2.2 TM1\_Ch39\_H



## Appendix G: Unwanted Emissions into Non-Restricted Frequency

### Bands

In this Appendix, the "Pref", which is used as the reference level, refers to the peak power level in any 100 kHz bandwidth within the fundamental emission, 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.

For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain and used as respective results for each chain, due to the relative-limit requirement.

In the result table, the "< Limit" denotes that "The Puw [dBm] is less than Pref[dBm]-30[dBm], see test plots for detailed".

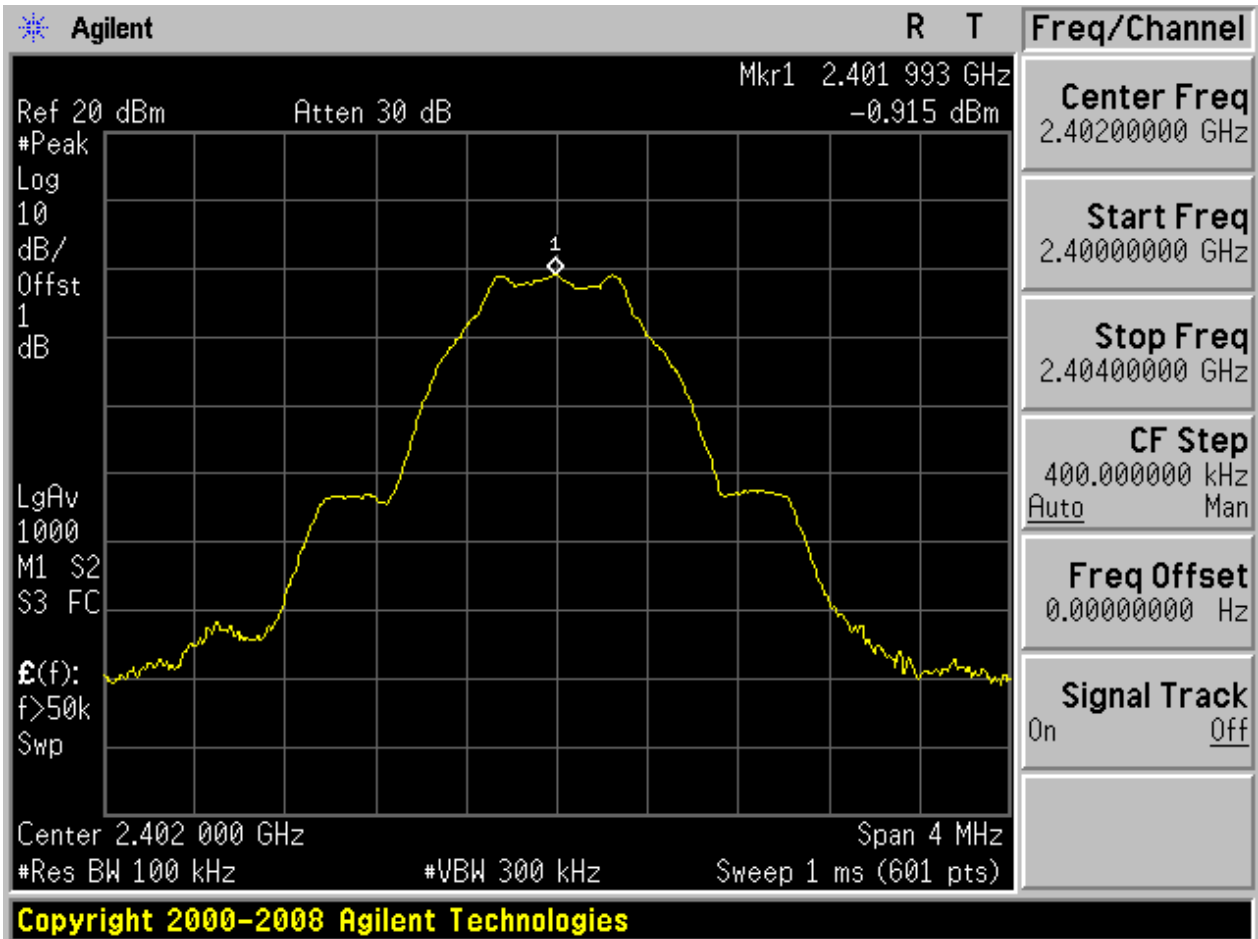
#### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Pref[dBm]	Puw[dBm]	Verdict
TM1_Ch0	L	2402	-0.92	<limit	pass
TM1_Ch19	M	2440	-0.41	<limit	pass
TM1_Ch39	H	2480	-0.2	<limit	pass

**Part II - Test Plots**

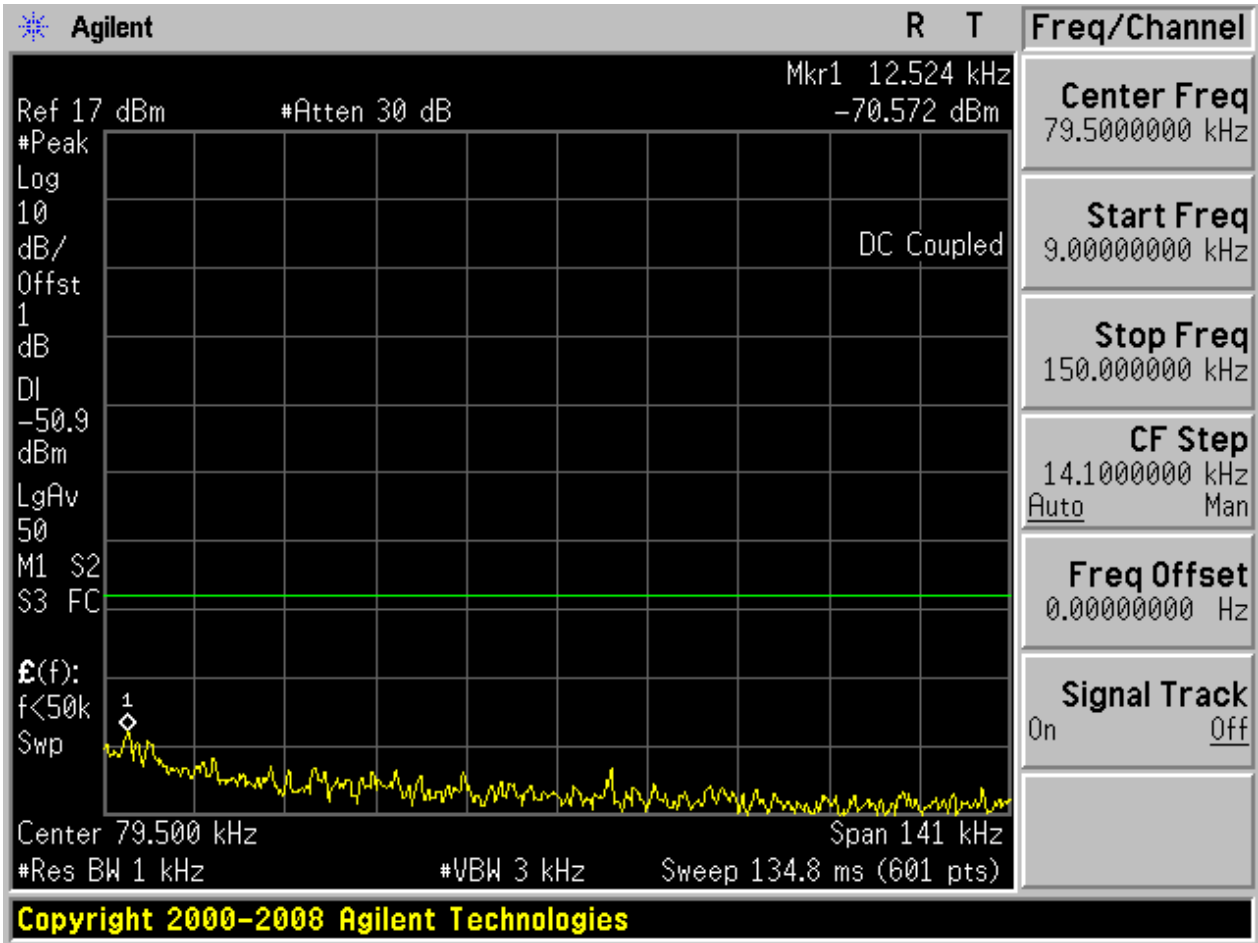
**2.1 TM1\_Ch0\_L**

Pref:

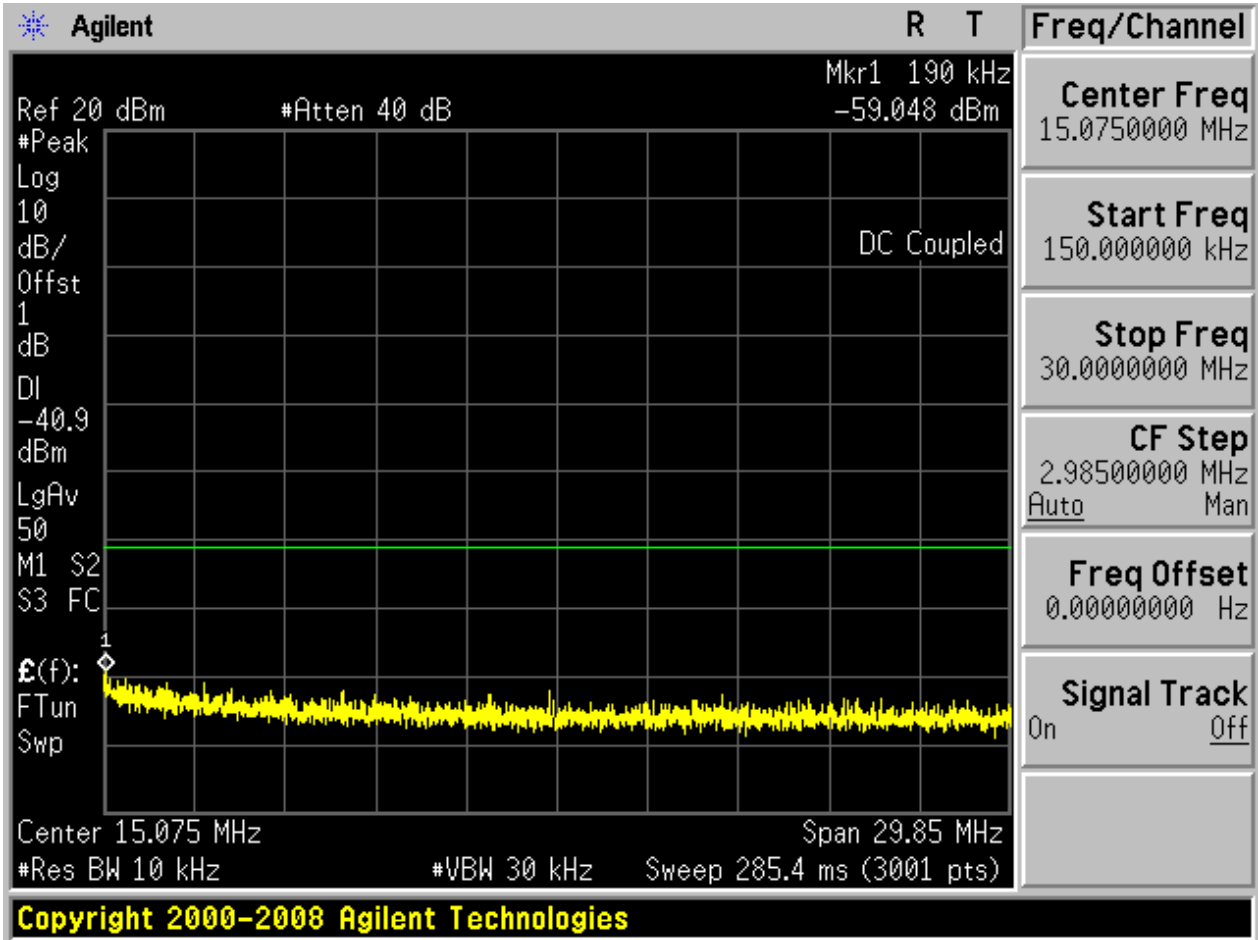


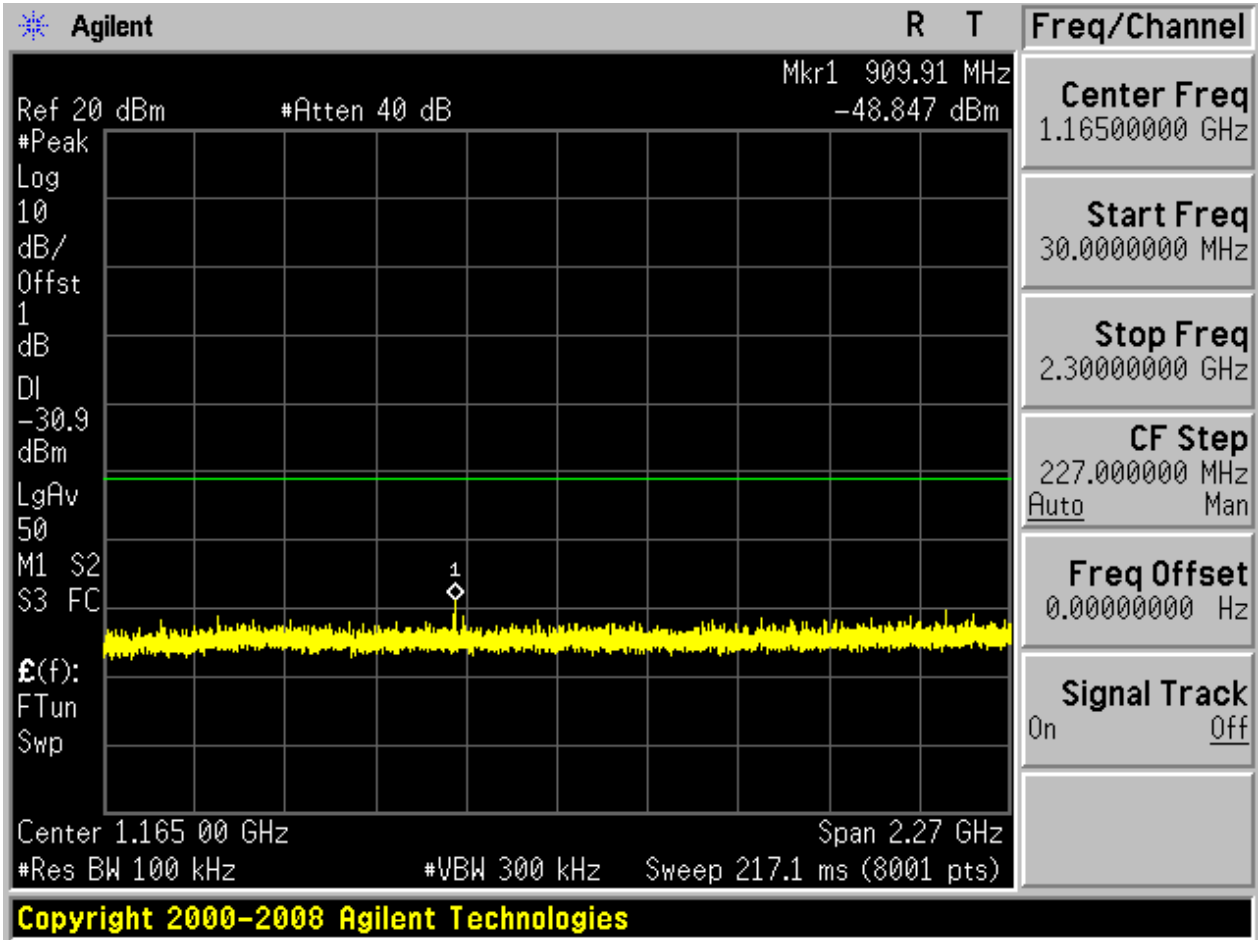


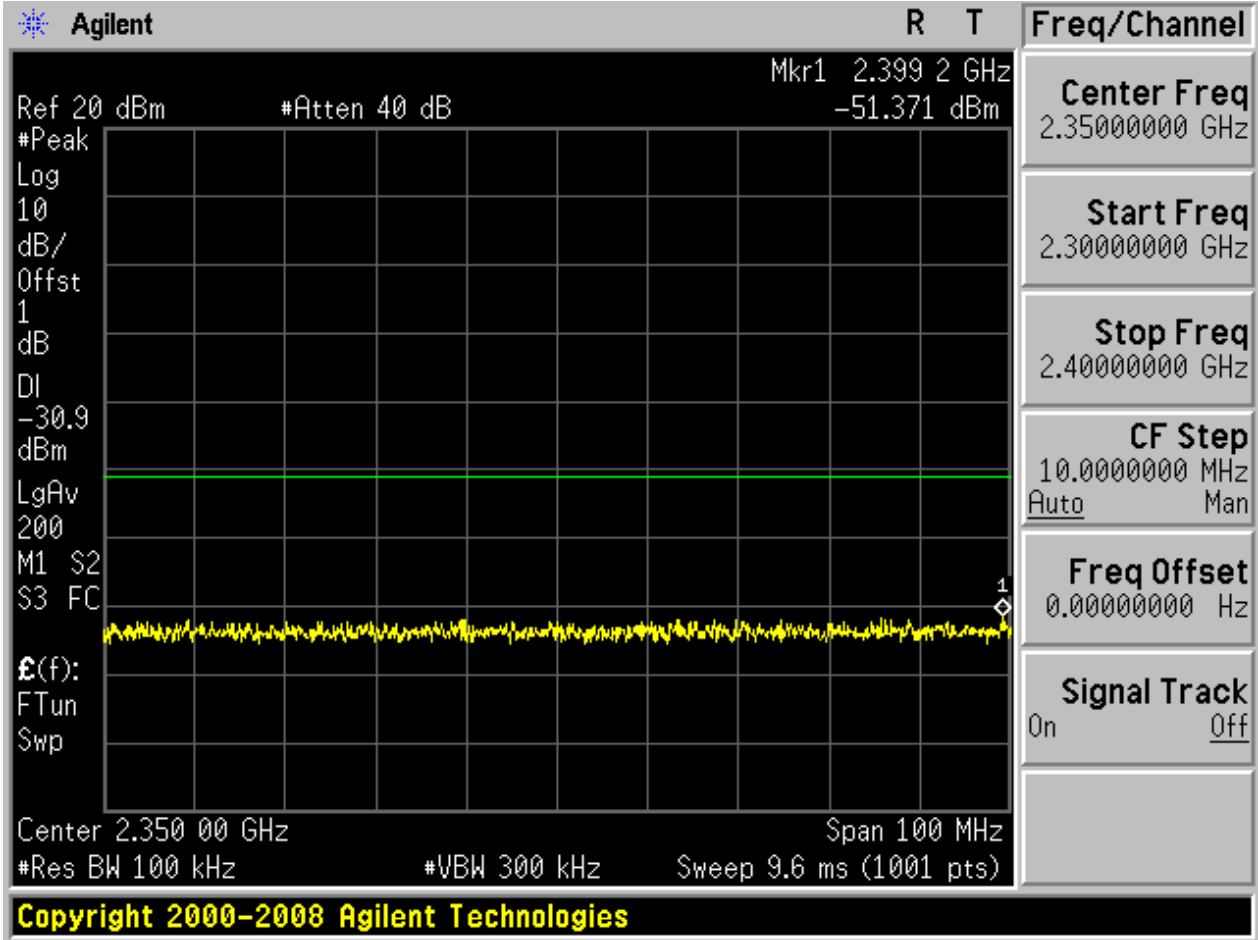
Puw:

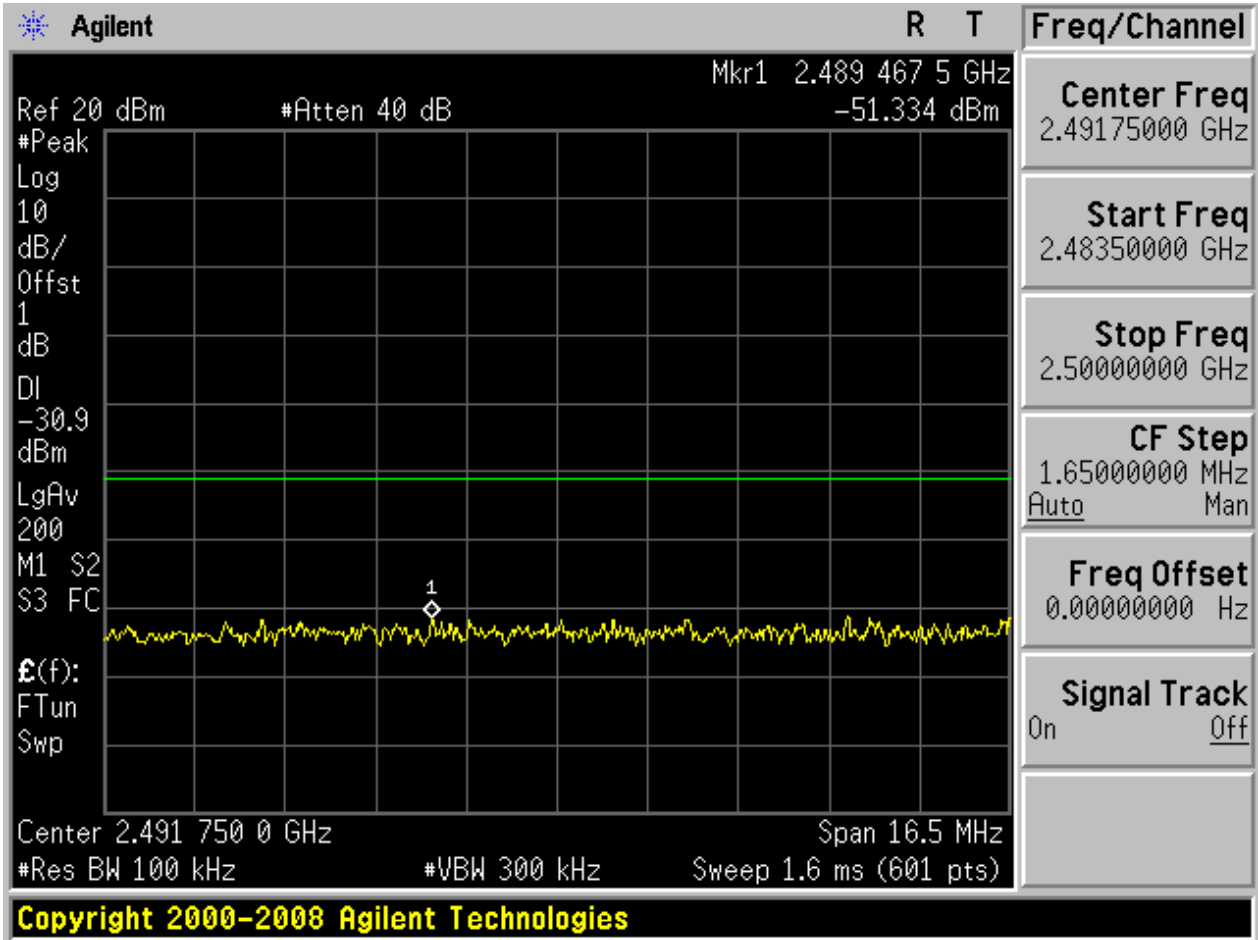


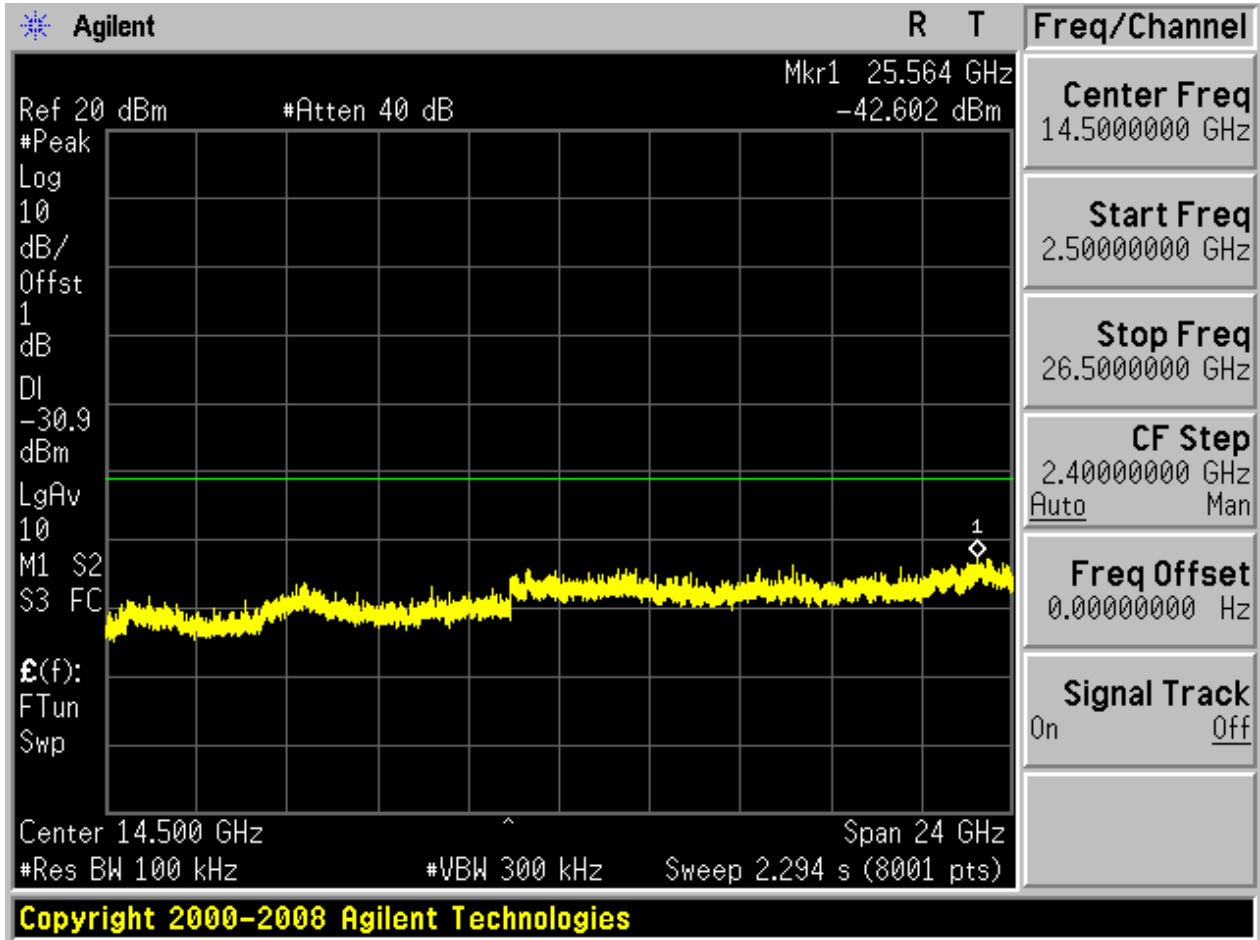






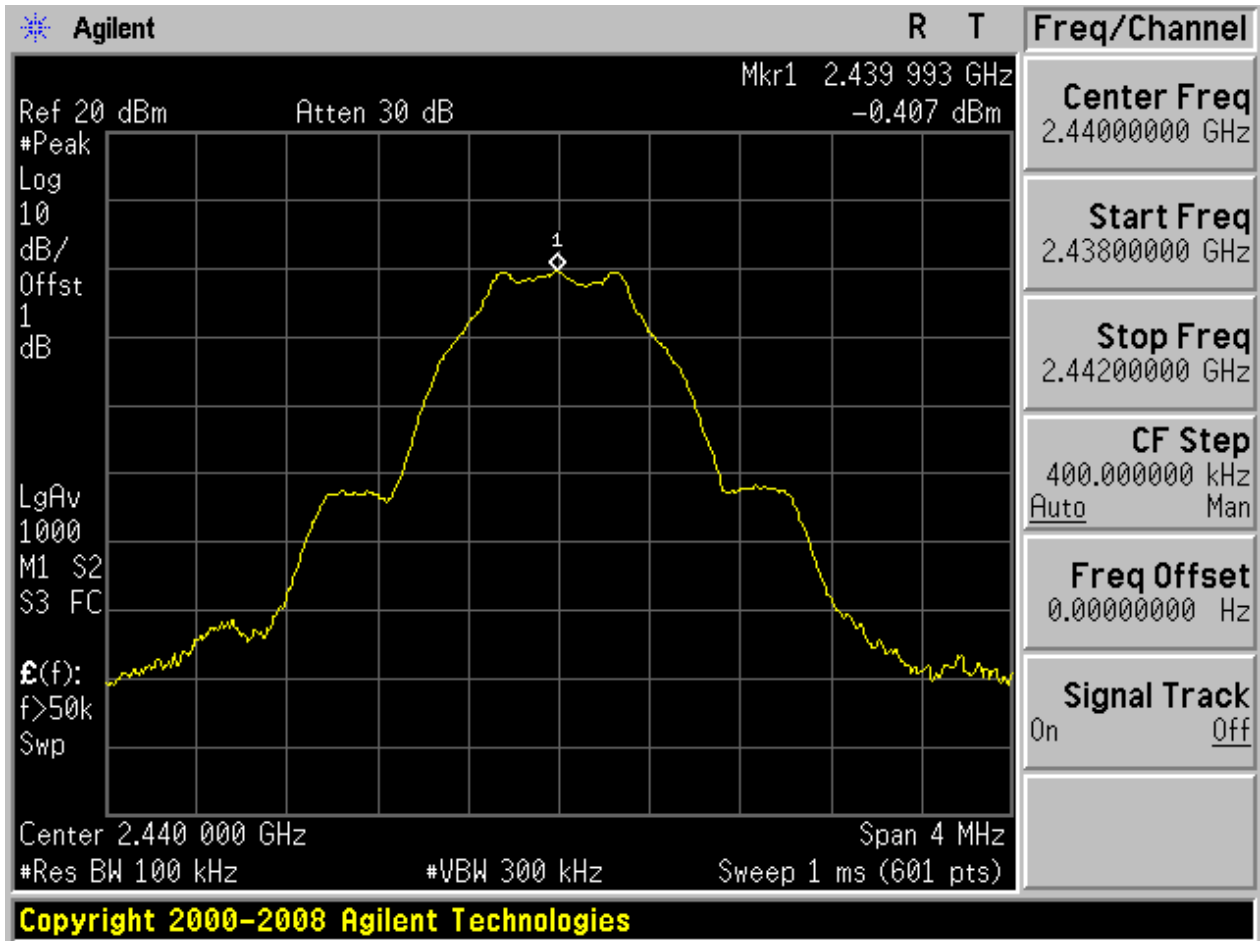






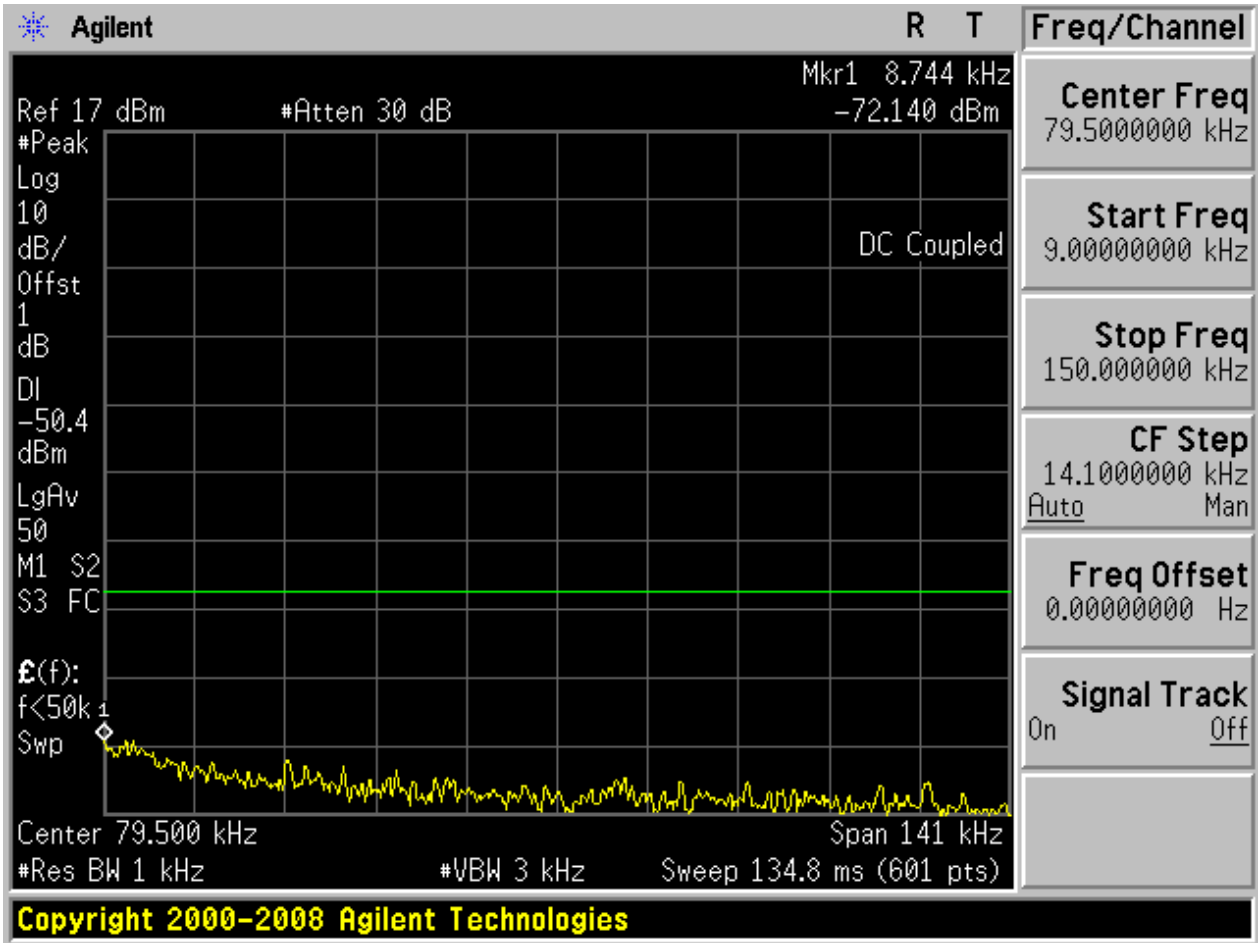
2.2 TM1\_Ch19\_M

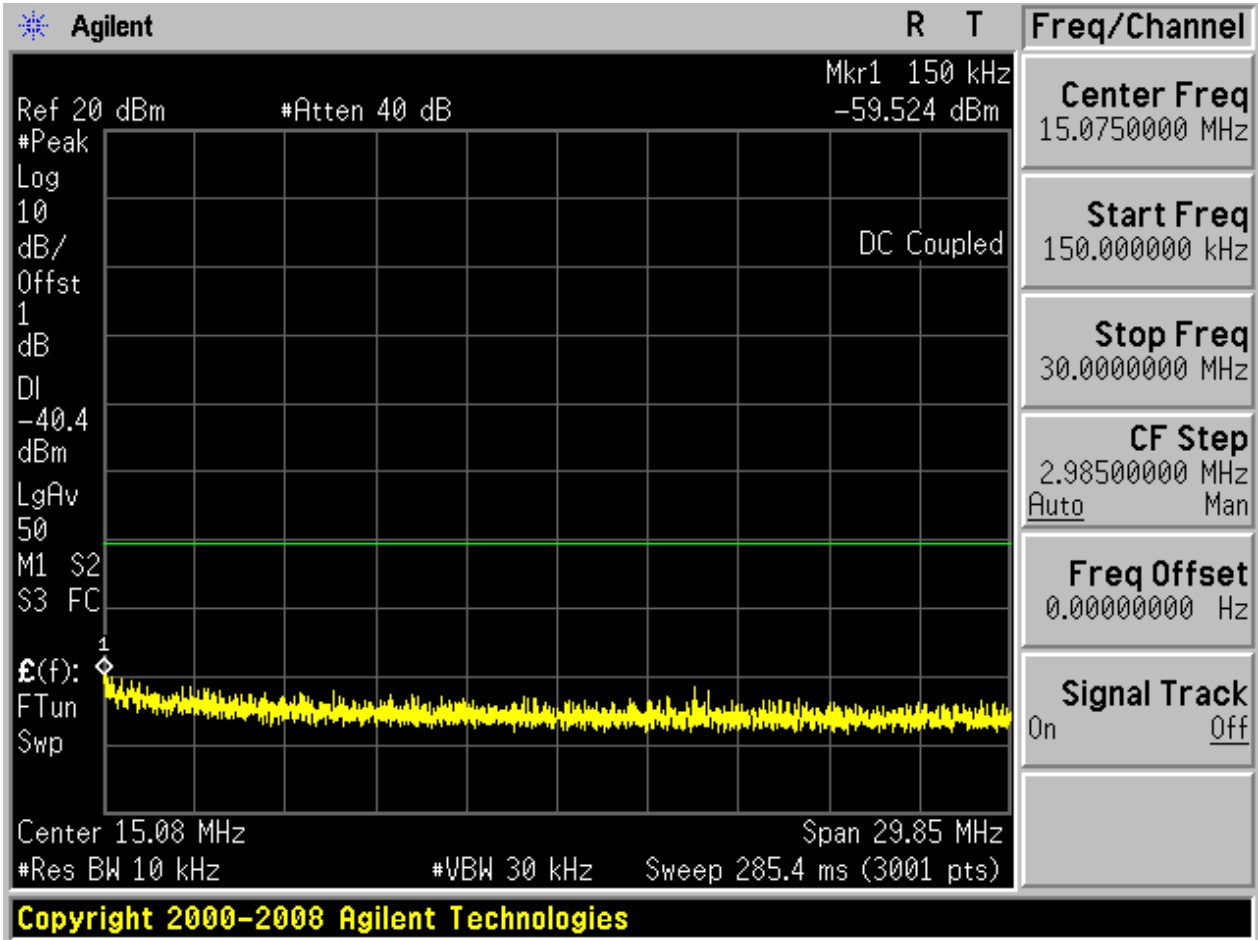
Pref:



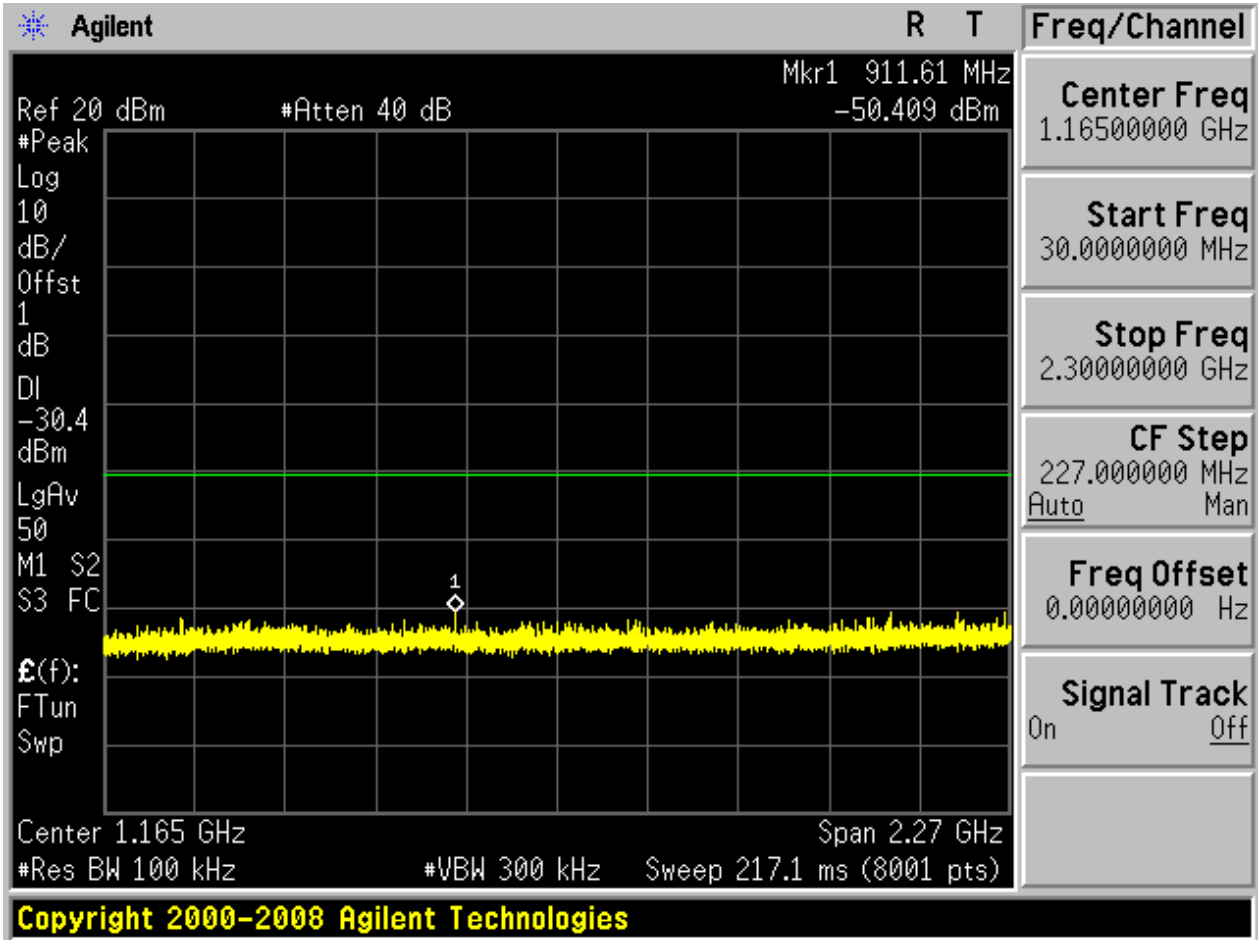


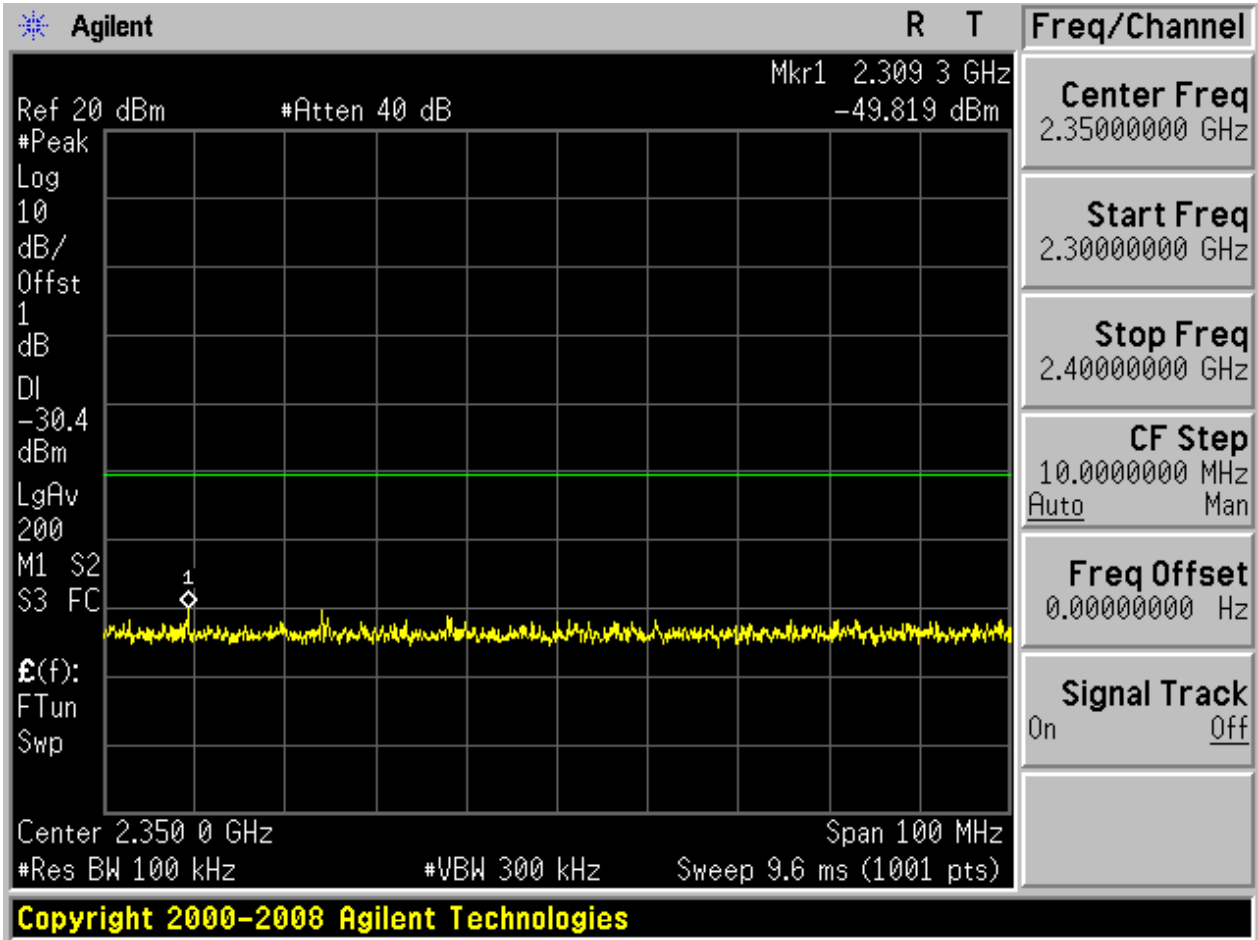
Puw:

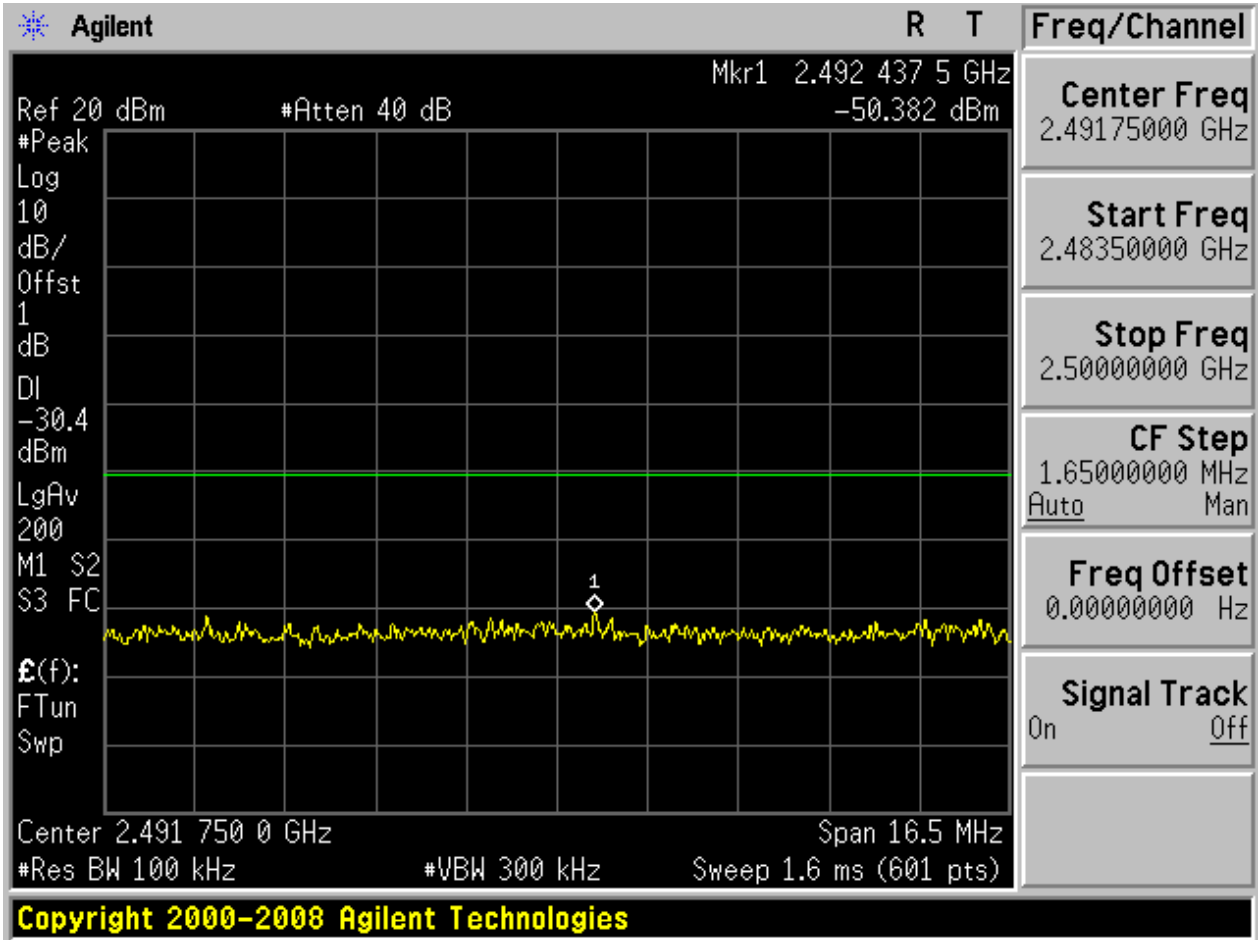


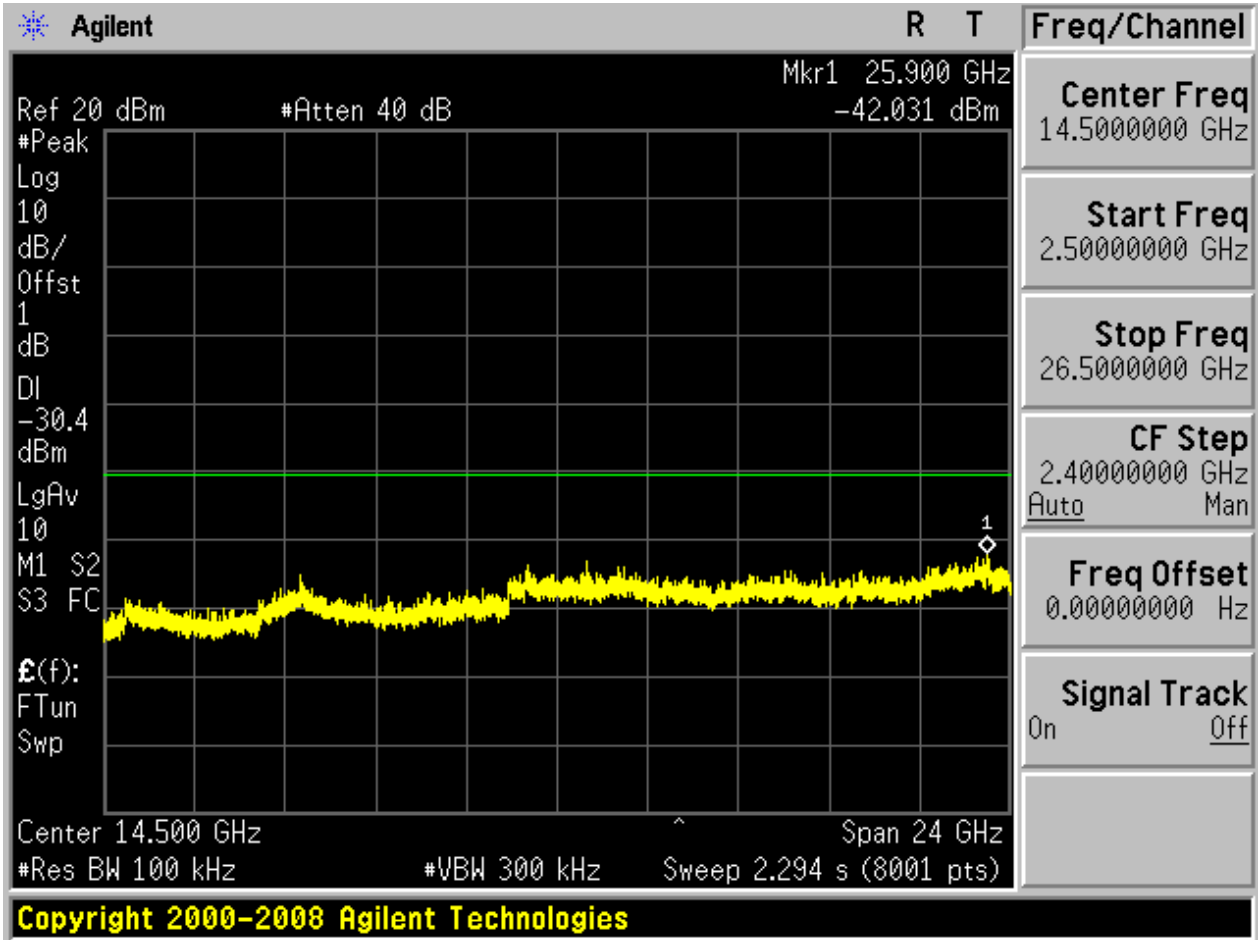








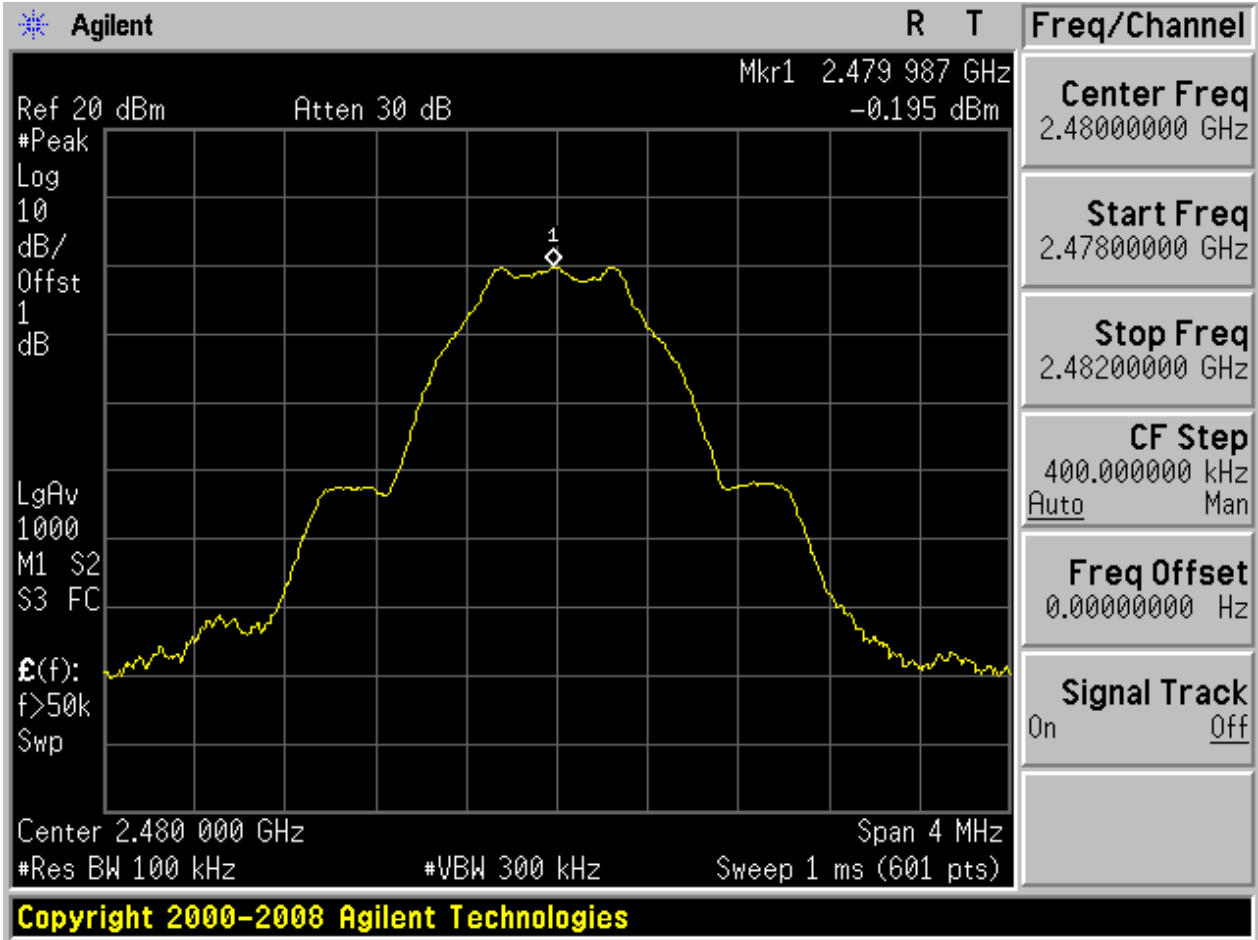






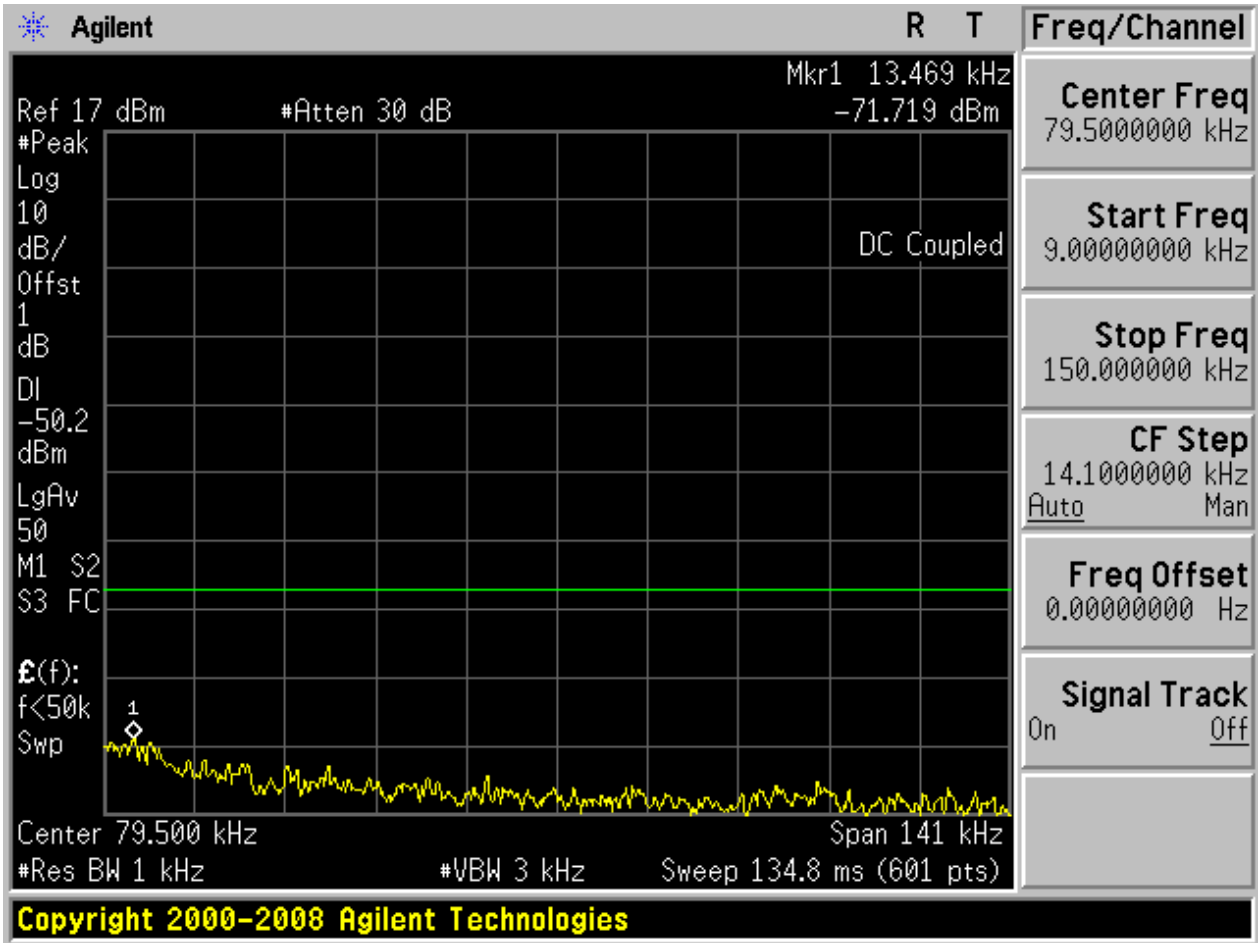
2.3 TM1\_Ch39\_H

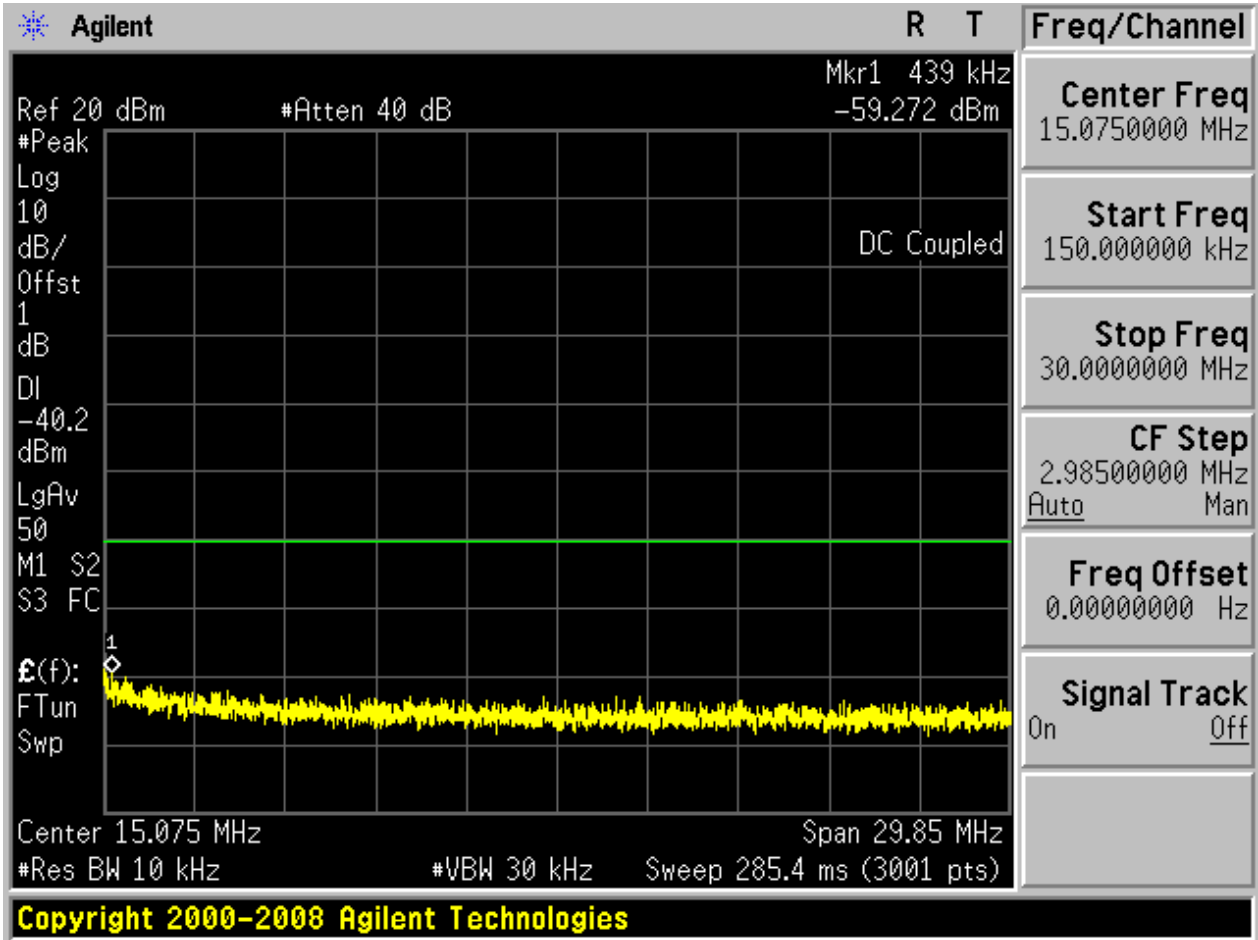
Pref:

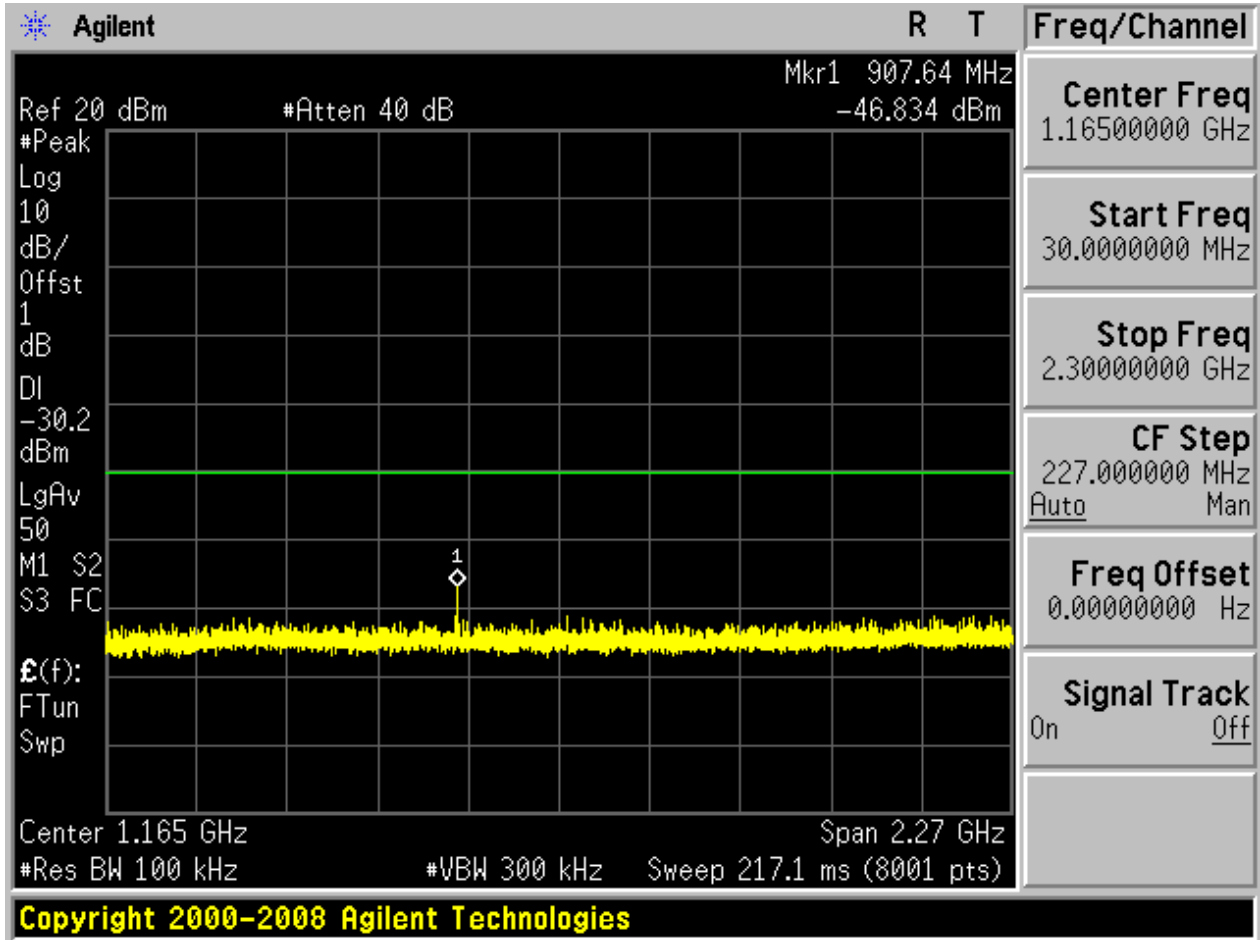




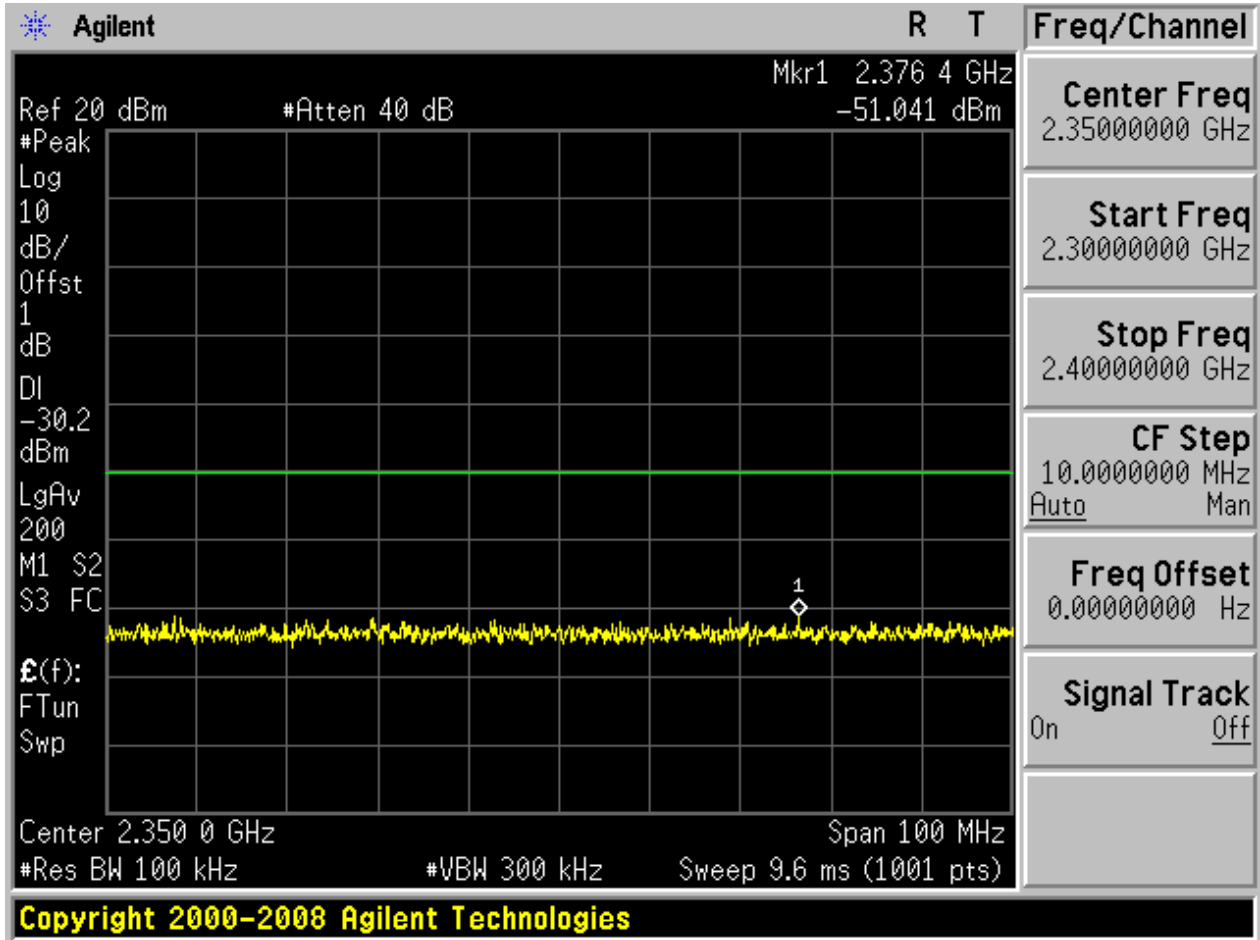
Puw:

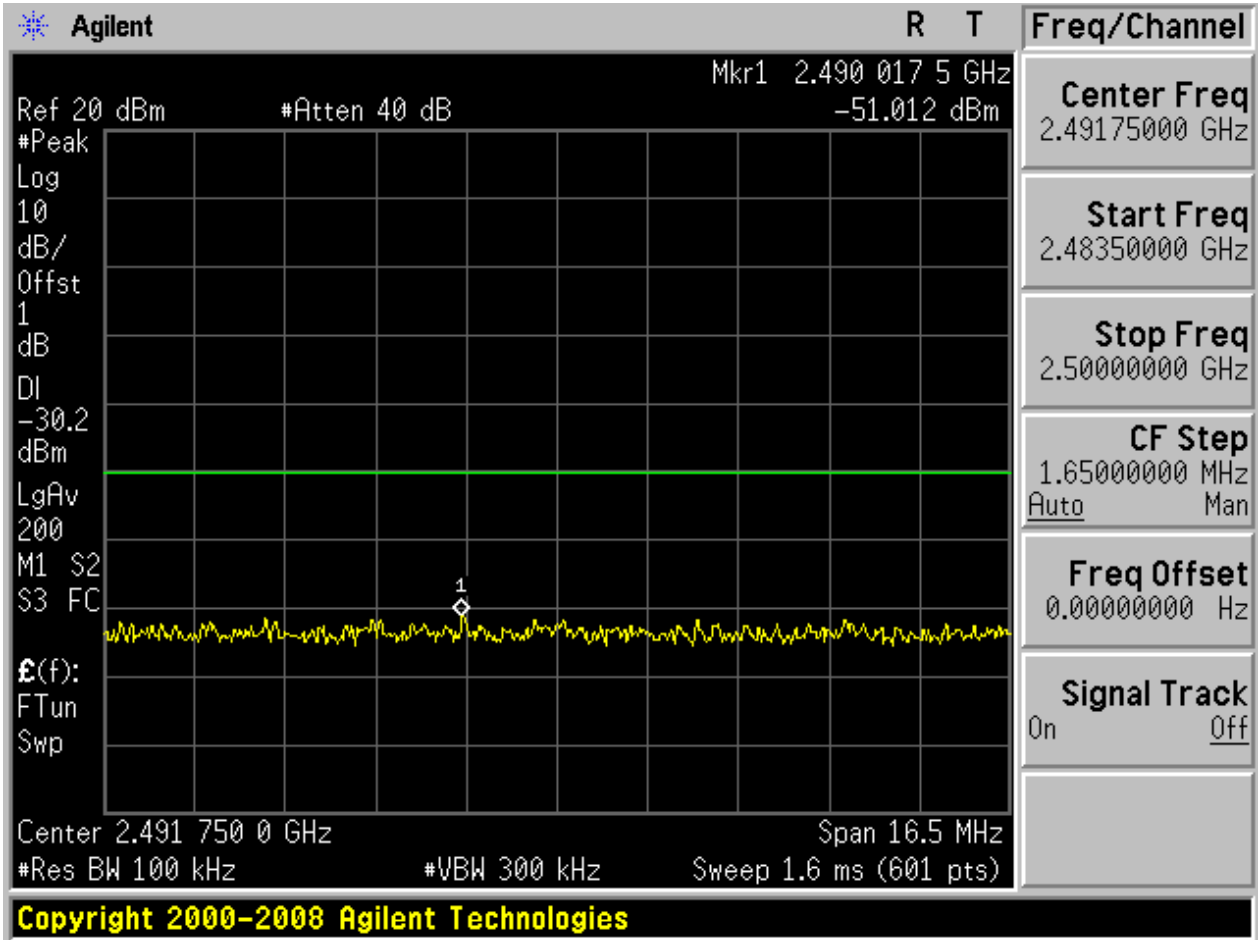


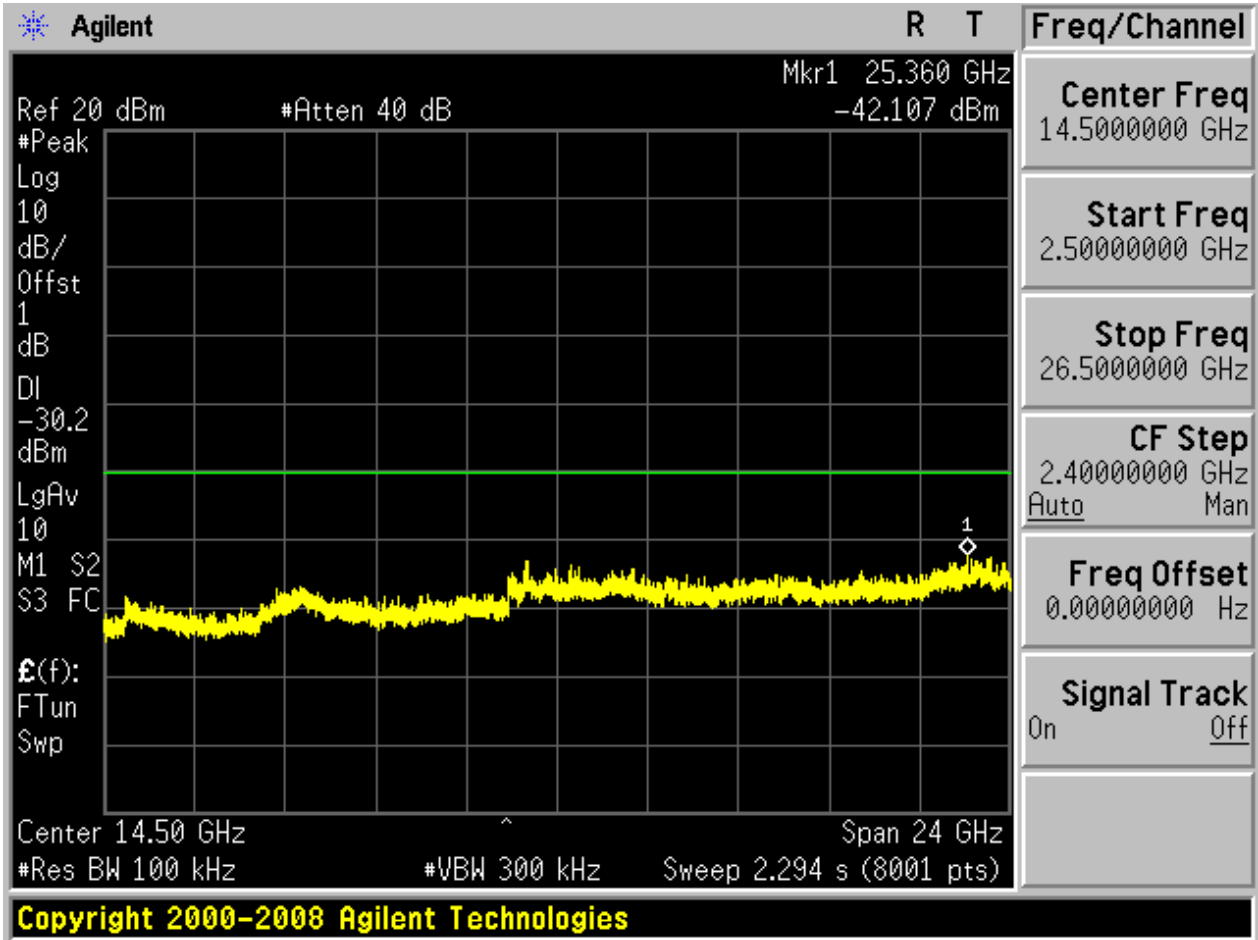














## **Appendix H: Radiated Spurious Emission & Spurious in Restricted Band**

Note: Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

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

The simultaneous transmission has been considered

We tested all modes, but the data presented below is the worst case. Below

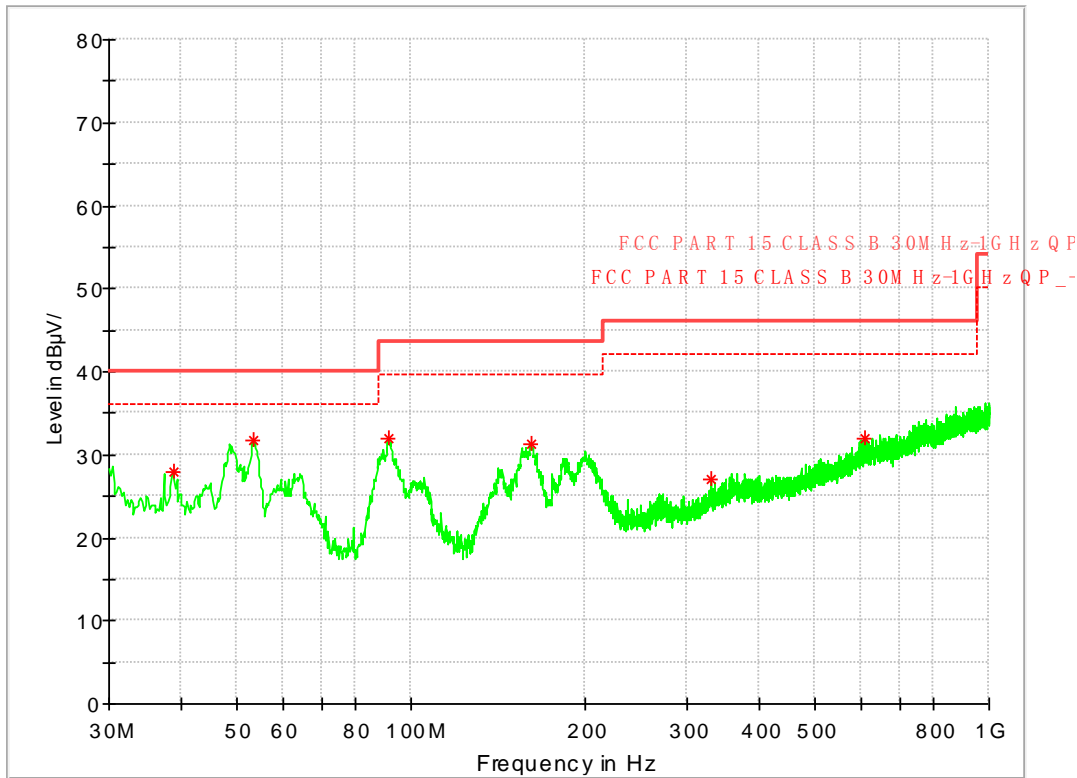
**Part 1: Testing Range of “9 kHz to 30MHz”**

NOTE1: No peak found in the Test Range of “9 kHz to 30MHz”

**Part 2: Testing Range of “30 MHz to 1 GHz”**

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

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



Frequency	QuasiPeak	Limit	Margin	Height	Pol	Azimuth	Corr.
38.730000	27.85	40.00	-12.15	100.0	V	32.0	15.3
53.474000	31.76	40.00	-8.24	100.0	V	359.0	14.8
91.304000	31.94	43.50	-11.56	100.0	V	139.0	12.4
160.950000	31.18	43.50	-12.32	100.0	V	32.0	10.5
329.536000	26.93	46.00	-19.07	100.0	H	0.0	16.3
611.224000	31.97	46.00	-14.03	100.0	H	33.0	22.2



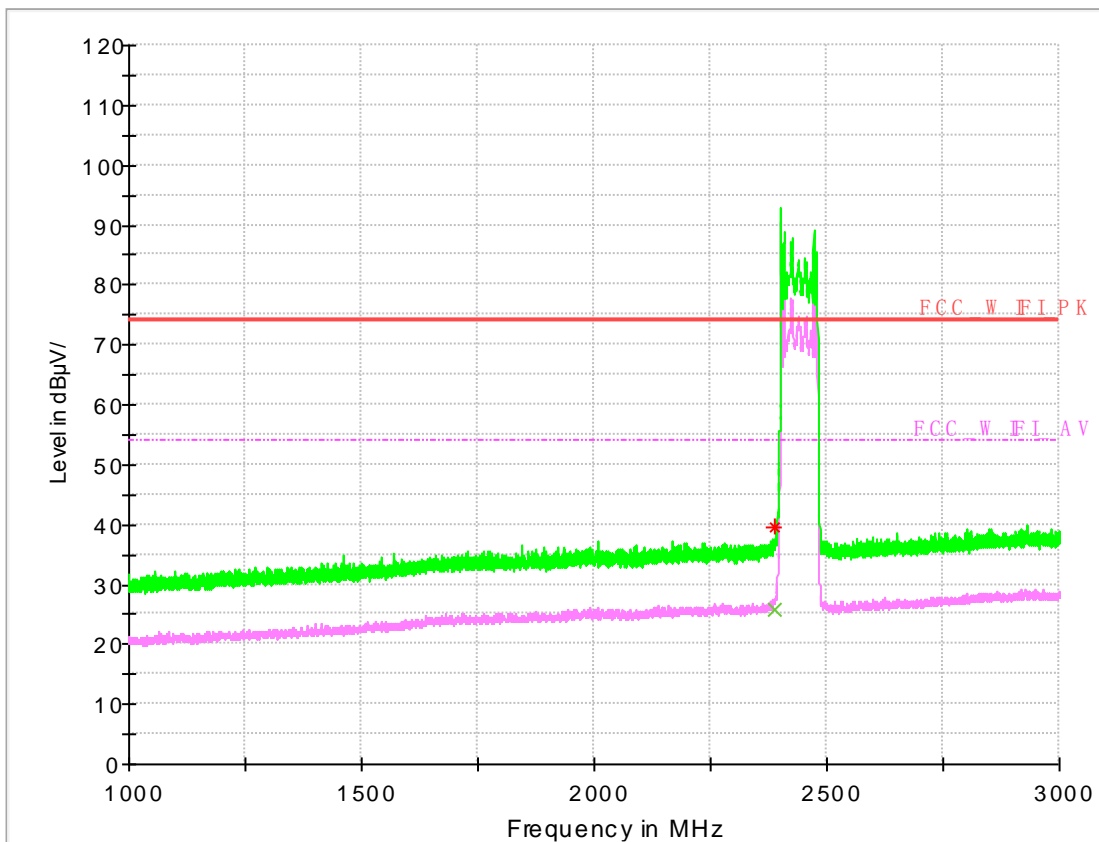
**Part 3: Testing Range of “18 GHz to 26.5 GHz”**

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

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

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

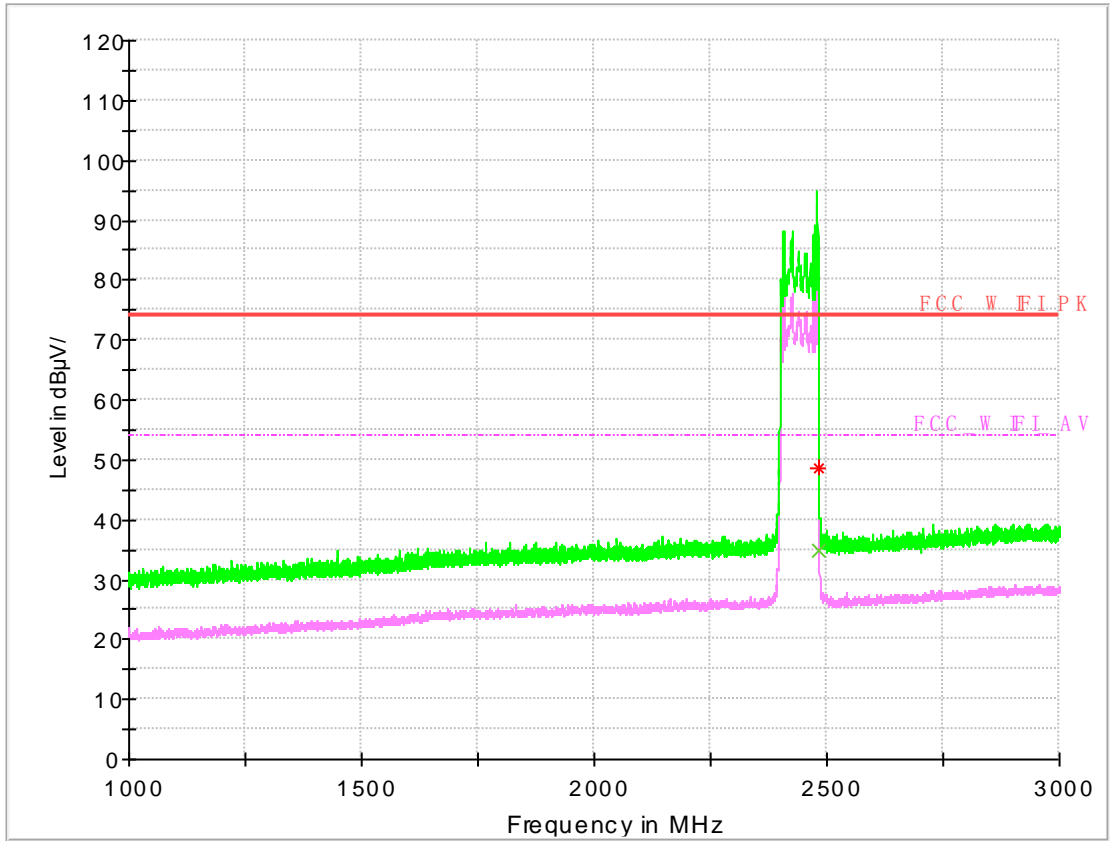
**Channel 0**



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

Frequency	MaxPeak	Average	Limit	Margin	Height	Pol	Azimuth	Corr.
2390.000000	---	25.81	54.00	-28.19	117.0	H	61.0	-8.0
2390.000000	39.60	---	74.00	-34.40	200.0	H	108.0	-8.0

**Channel 39**



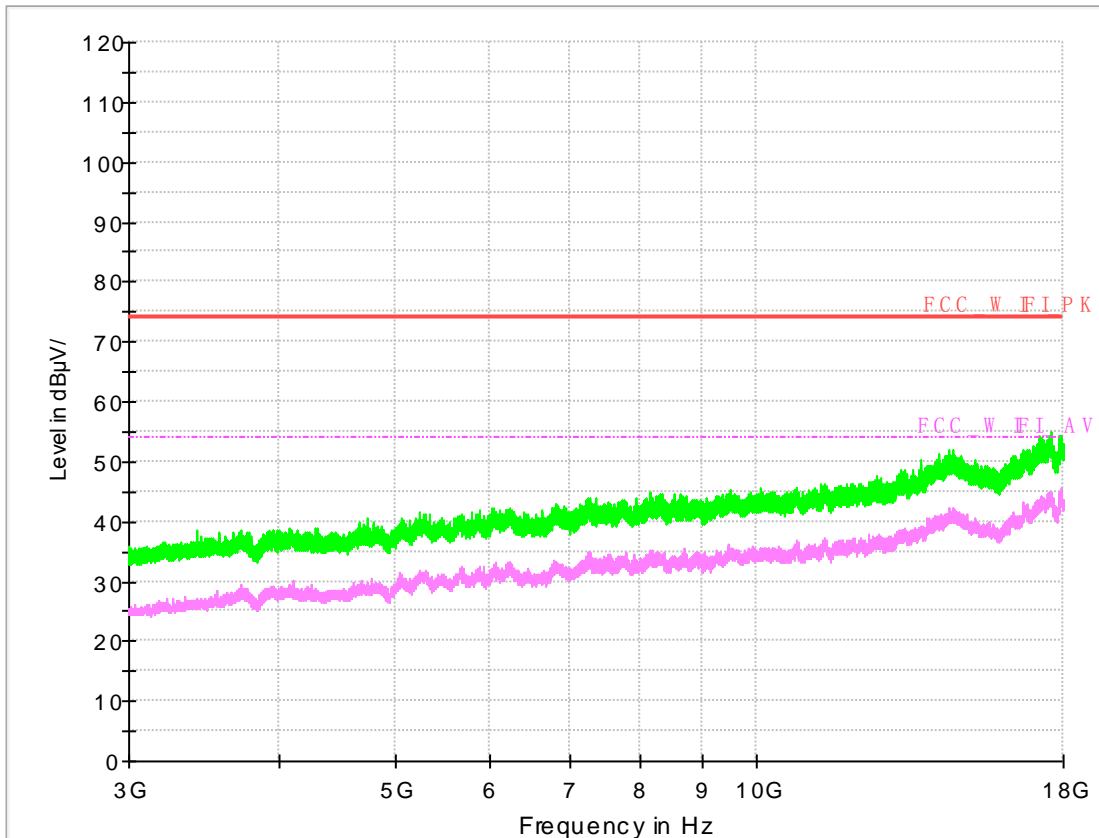
**Note: The peak exceeds the limit line is carrier frequency.**

Frequency	MaxPeak	Average	Limit	Margin	Height	Pol	Azimuth	Corr.
2483.500000	48.50	---	74.00	-25.50	142.0	H	165.0	2.0
2483.500000	---	34.89	54.00	-19.11	100.0	H	112.0	1.9



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

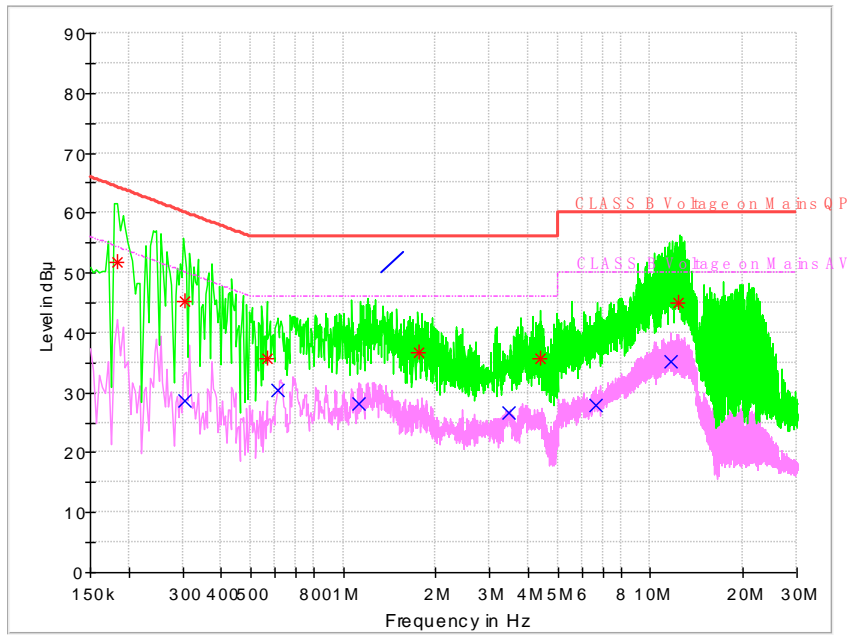
- Note 1: The test results and plot for testing range of “3 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “3 GHz to 18 GHz” is for checking radiated emissions located in restricted bands 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 I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 39



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Corr. (dB)	Line	Filter
0.183986	51.90	---	64.30	-12.40	9.7	L1	ON
0.305843	45.20	---	60.08	-14.89	9.7	L1	ON
0.565654	35.64	---	56.00	-20.36	9.7	L1	ON
1.762701	36.74	---	56.00	-19.26	9.8	N	ON
4.382790	35.76	---	56.00	-20.24	9.8	N	ON
12.401617	44.89	---	60.00	-15.11	10.1	N	ON
0.305947	---	28.75	50.08	-21.33	9.7	L1	ON
0.608661	---	30.44	46.00	-15.56	9.7	L1	ON
3.475444	---	26.55	46.00	-19.45	9.8	L1	ON
6.678232	---	27.89	50.00	-22.11	9.9	L1	ON
1.127320	---	28.25	46.00	-17.75	9.7	N	ON
11.634483	---	35.30	50.00	-14.70	10.1	N	ON

END