



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.

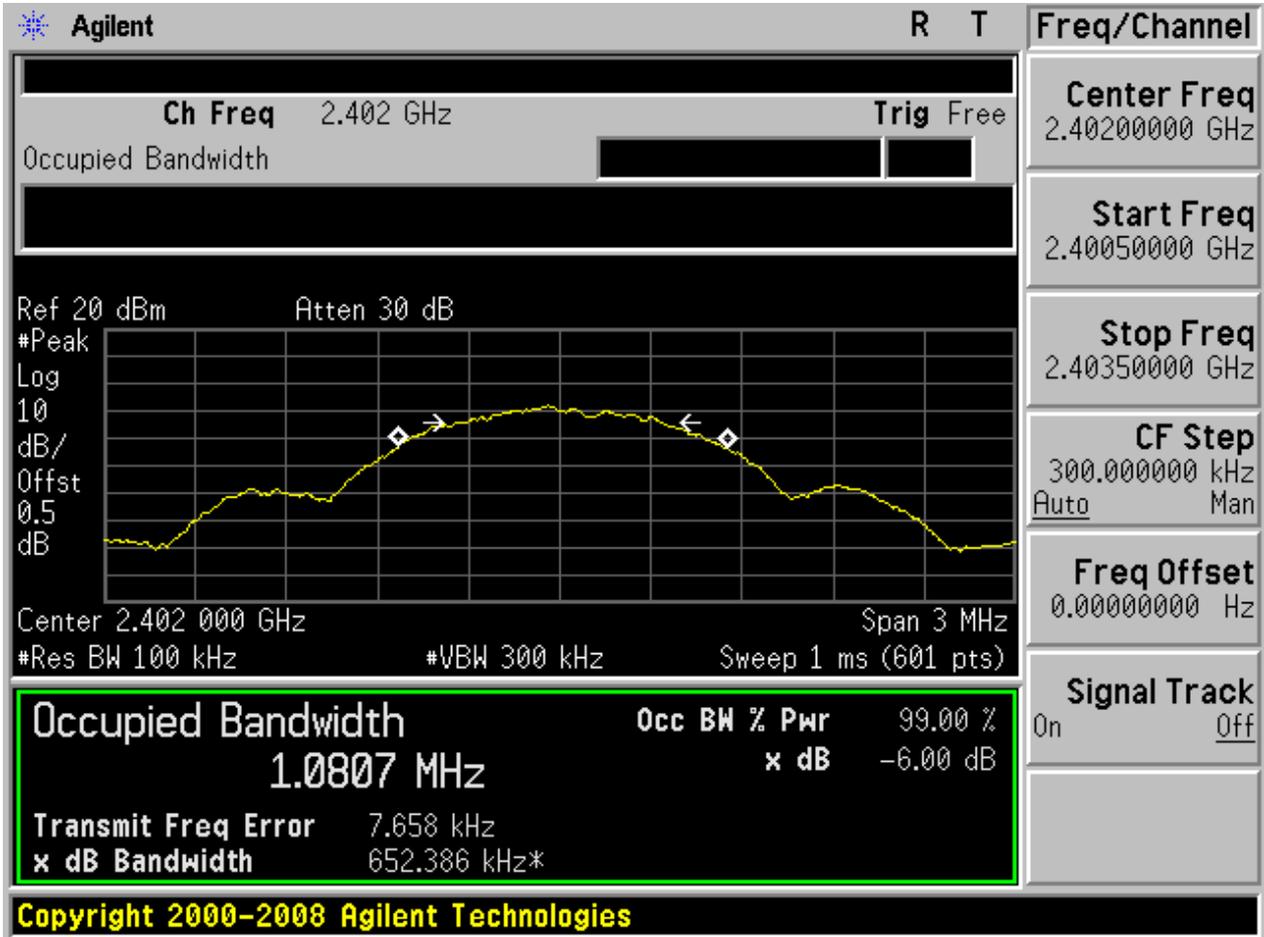
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	DTS6dBBW[MHz]	Verdict
TM1_Ch0	L	2402	0.65	pass
TM1_Ch19	M	2440	0.72	pass
TM1_Ch39	H	2480	0.68	pass

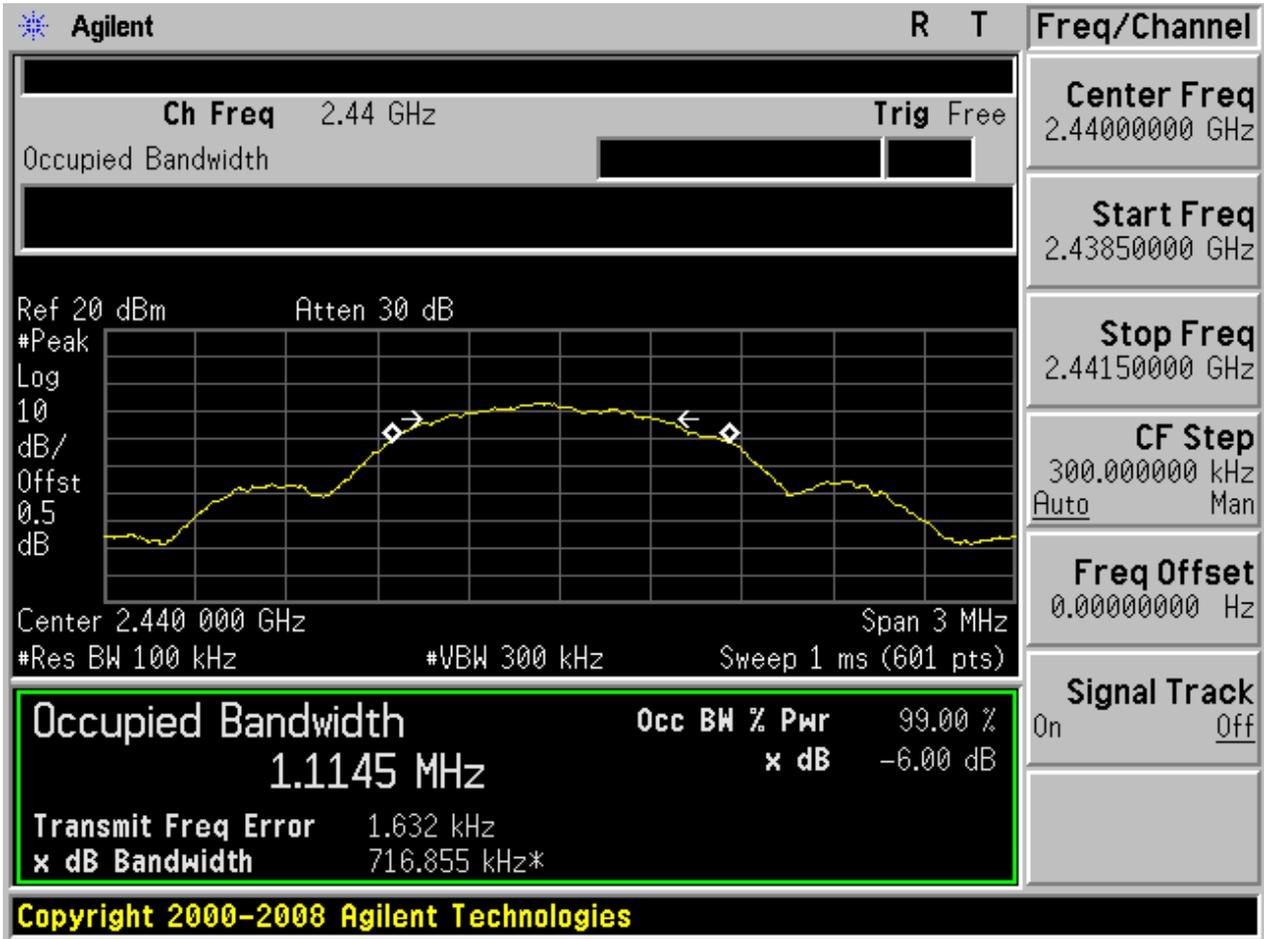
Part II - Test Plots

2.1 TM1_Ch0_L



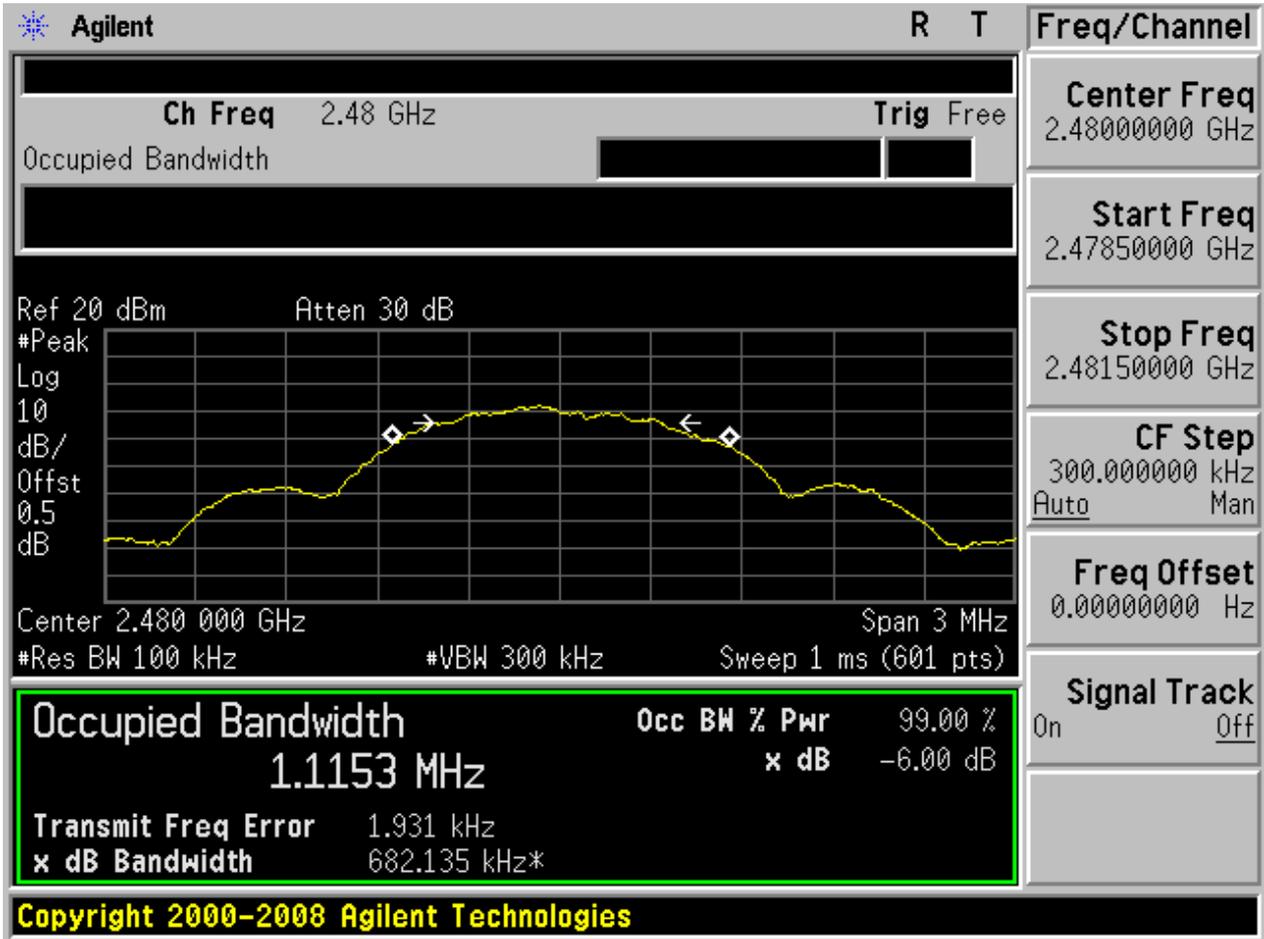


2.2 TM1_Ch19_M





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.

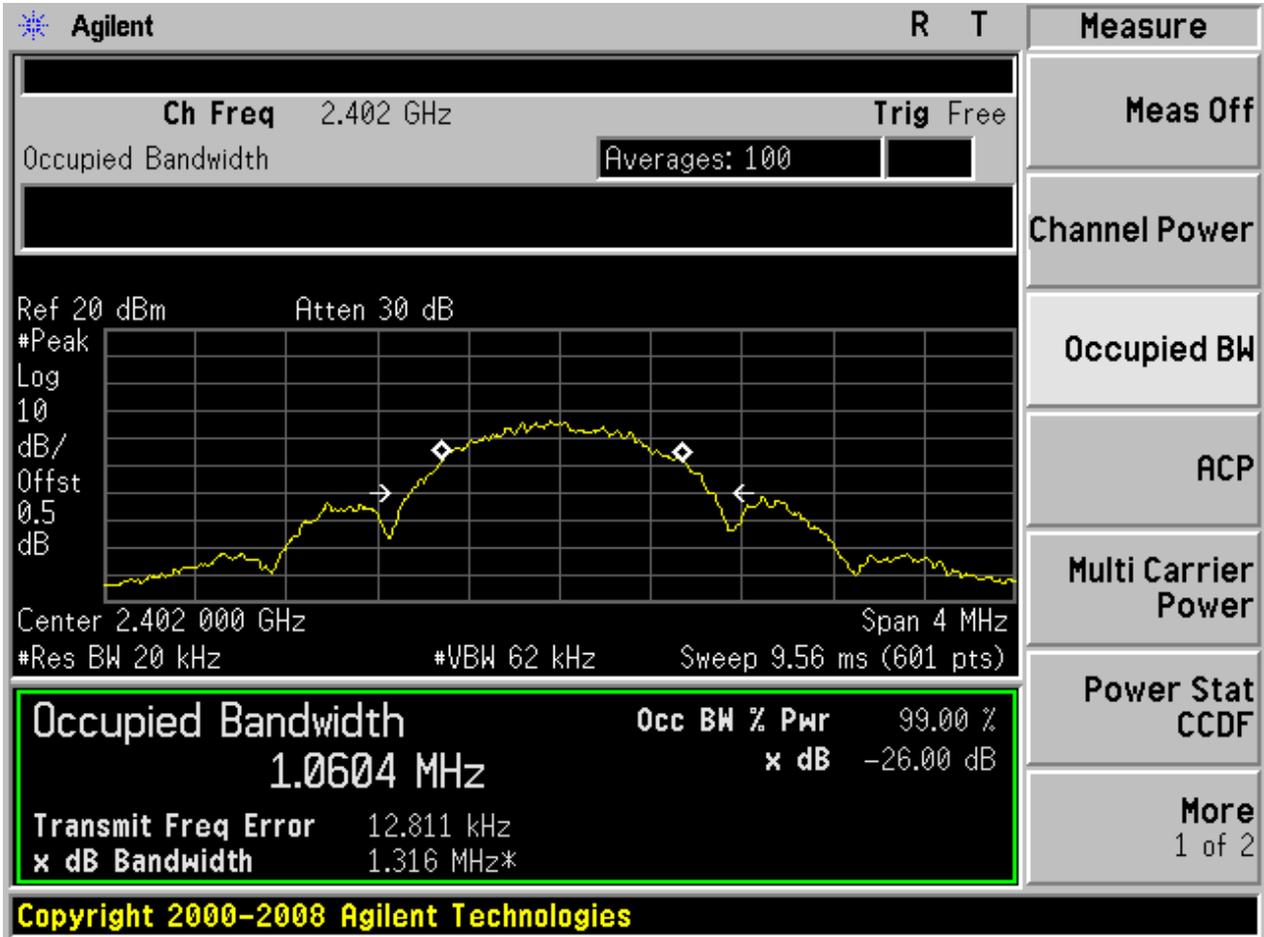
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Occupied Bandwidth [MHz]	Verdict
TM1_Ch0	L	2402	1.06	pass
TM1_Ch19	M	2440	1.07	pass
TM1_Ch39	H	2480	1.07	pass



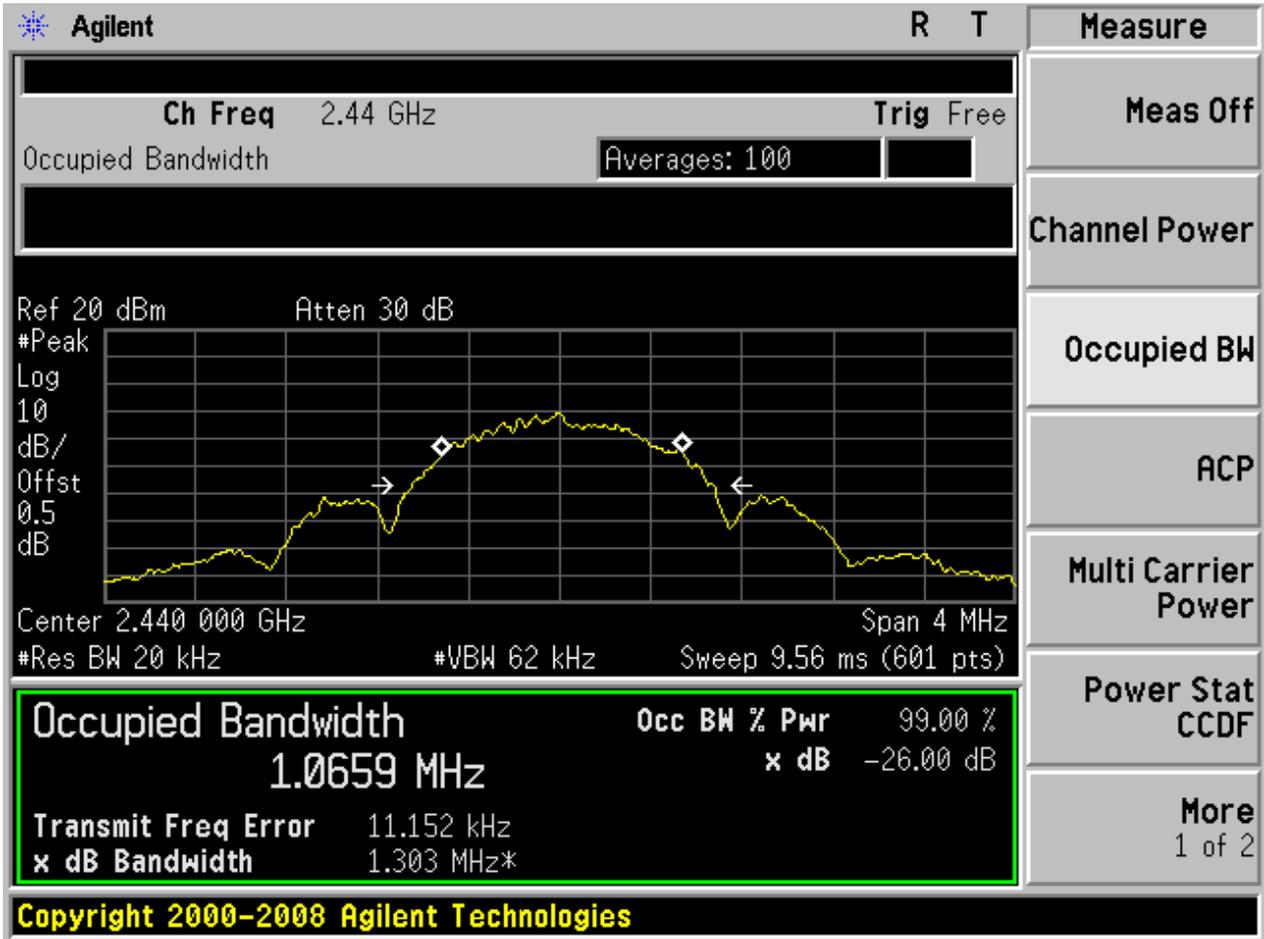
Part II - Test Plots

2.1 TM1_Ch0_L

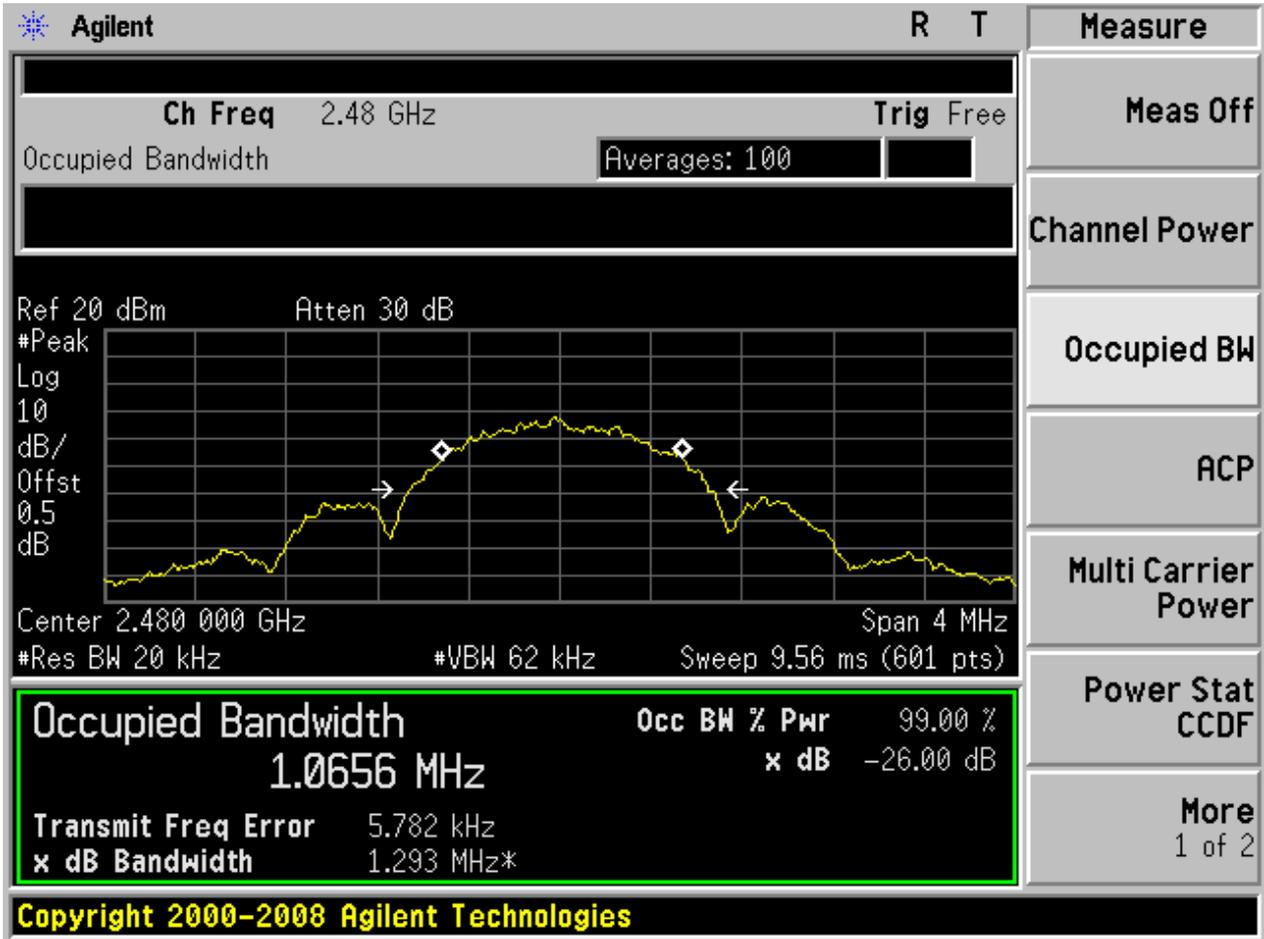




2.2 TM1_Ch19_M



2.3 TM1_Ch39_H





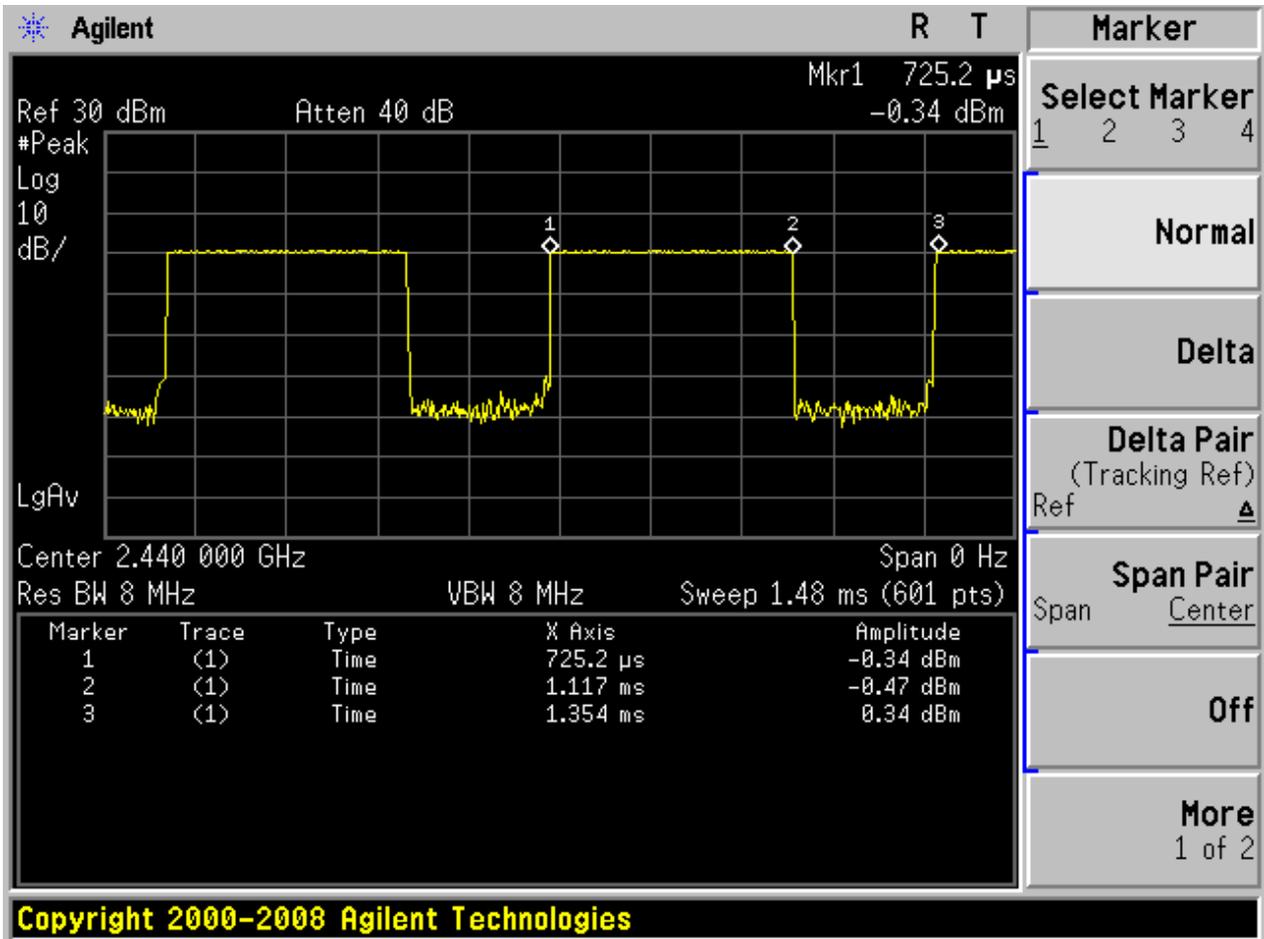
Appendix C: Duty Cycle

Part I - Test Results

Test Mode	TX Freq. [MHz]	Duty cycle [%]
TM1	CH0,CH19,CH39	62

Part II - Test Plots

2.1 TM1



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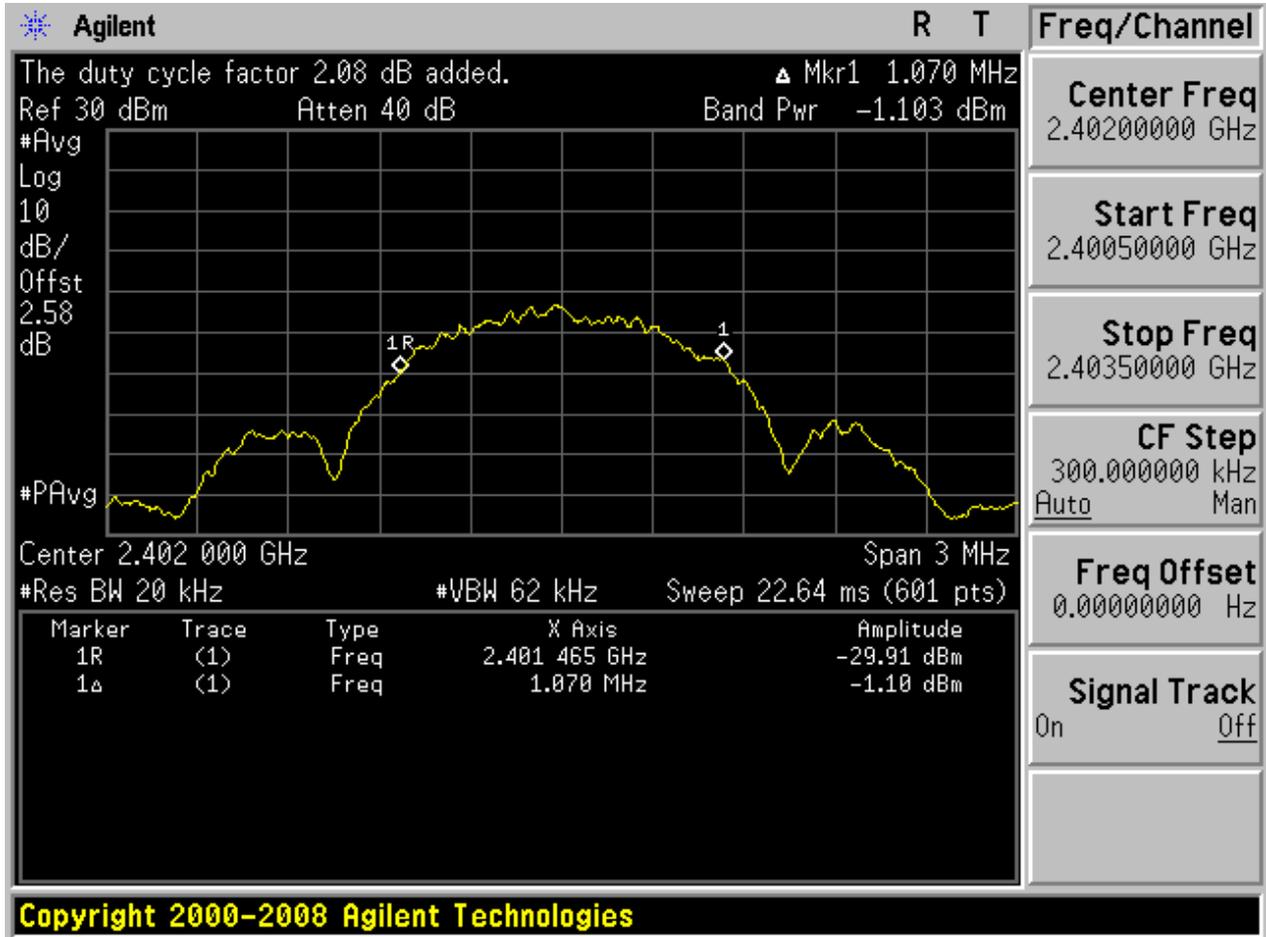
Appendix D: Maximum Conducted Average Output Power

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	Power[dBm]	Verdict
TM1_Ch0	L	2402	62	-1.10	pass
TM1_Ch19	M	2440	62	0.77	pass
TM1_Ch39	H	2480	62	-0.45	pass

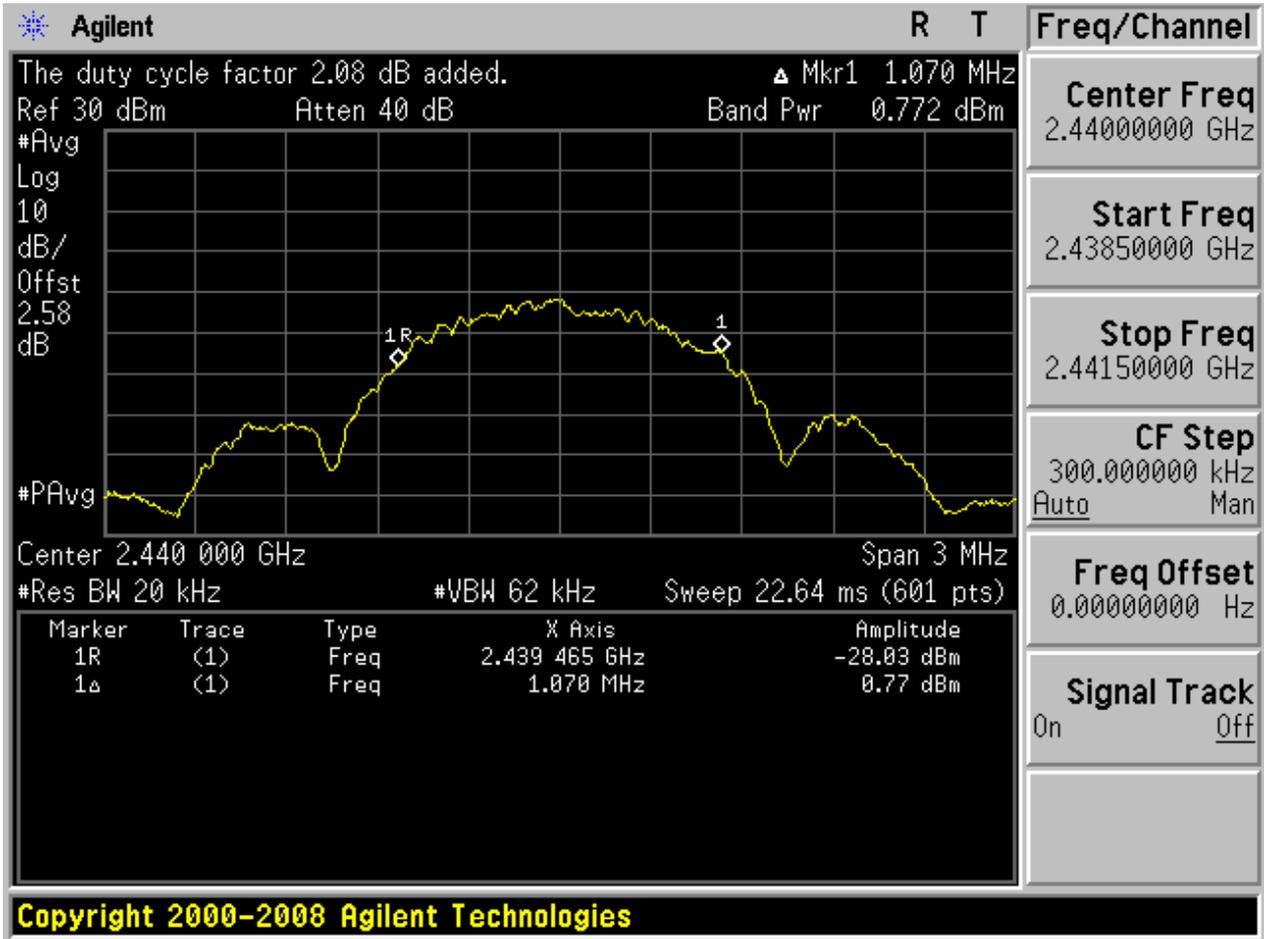
Part II - Test Plots

2.1 TM1_Ch0_L





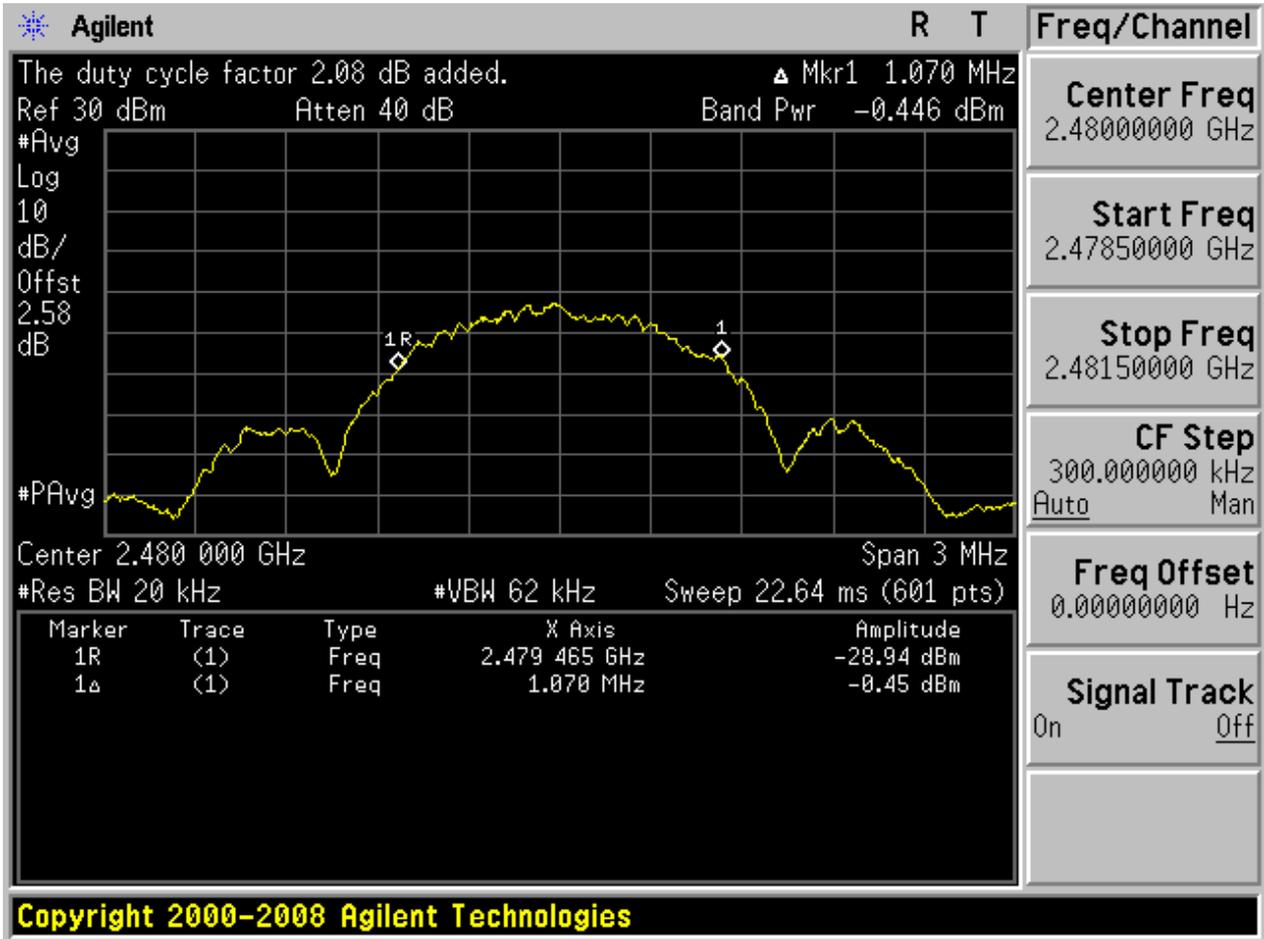
2.2 TM1_Ch19_M



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2.3 TM1_Ch39_H



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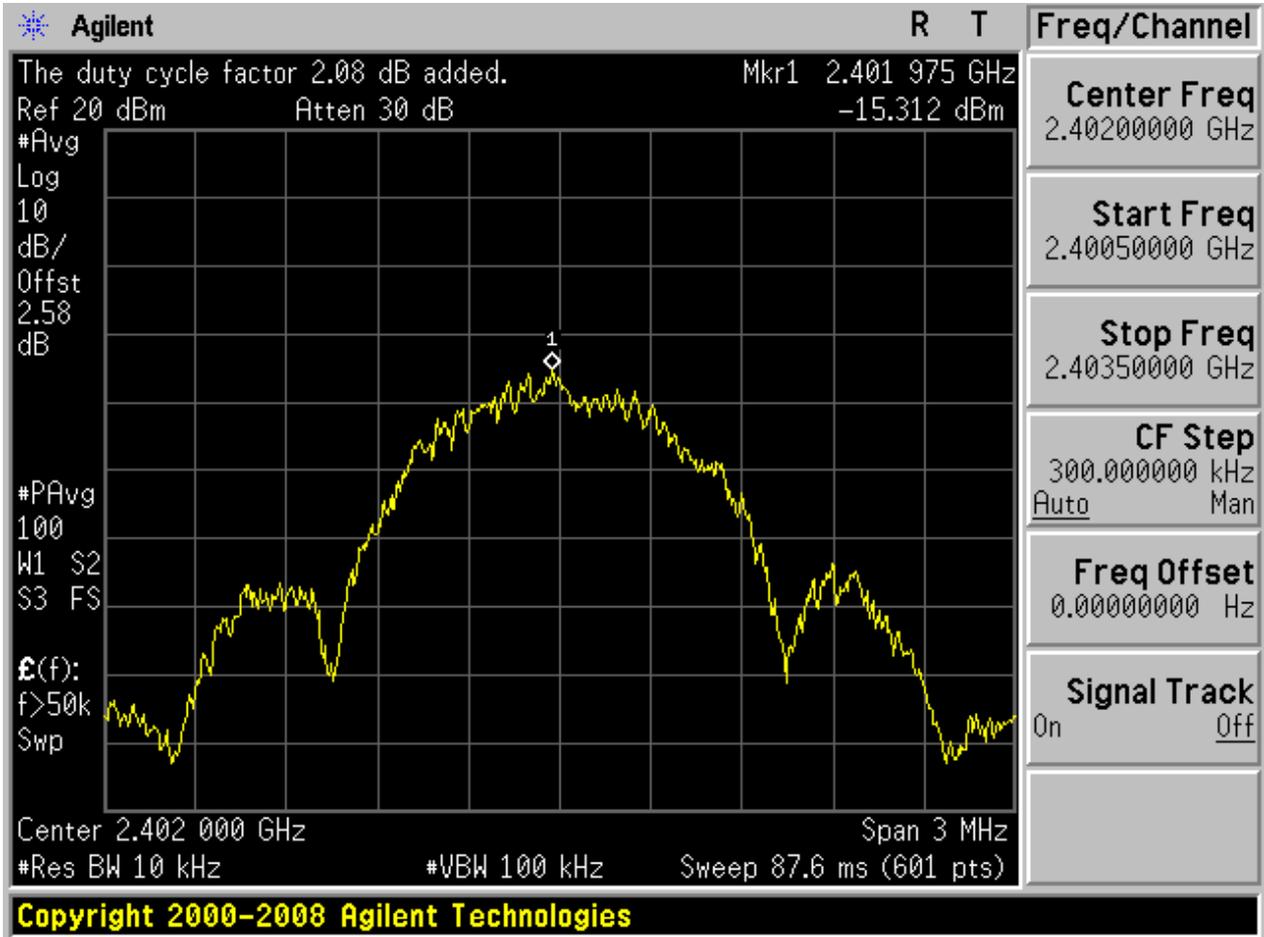
Appendix E: Maximum Power Spectral Density Level

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Duty Cycle [%]	PD[MHz]	Verdict
TM1 _Ch0	L	2402	62	-15.31	pass
TM1 _Ch19	M	2440	62	-13.34	pass
TM1 _Ch39	H	2480	62	-14.42	pass

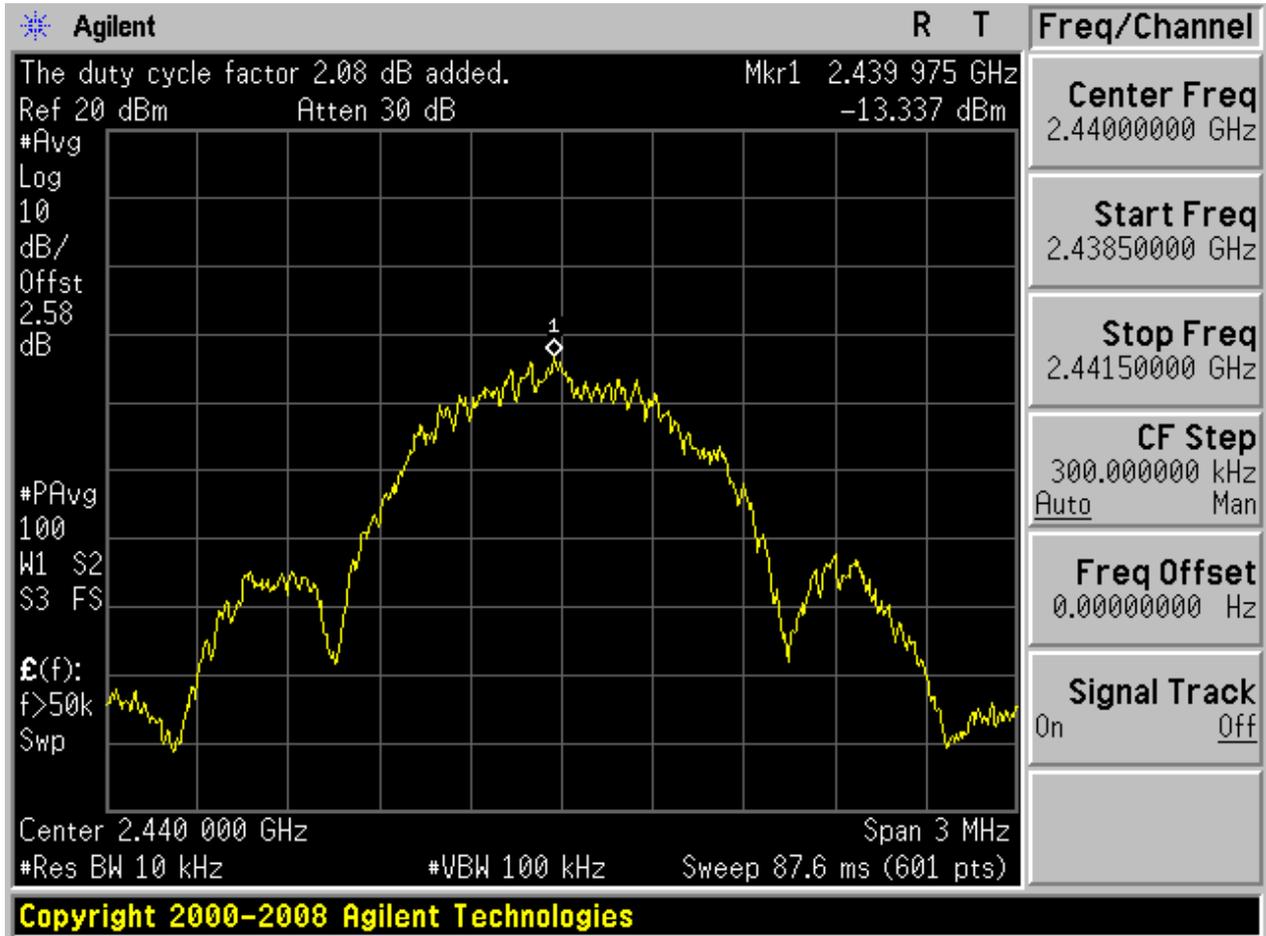
Part II - Test Plots

2.1 TM1_Ch0_L



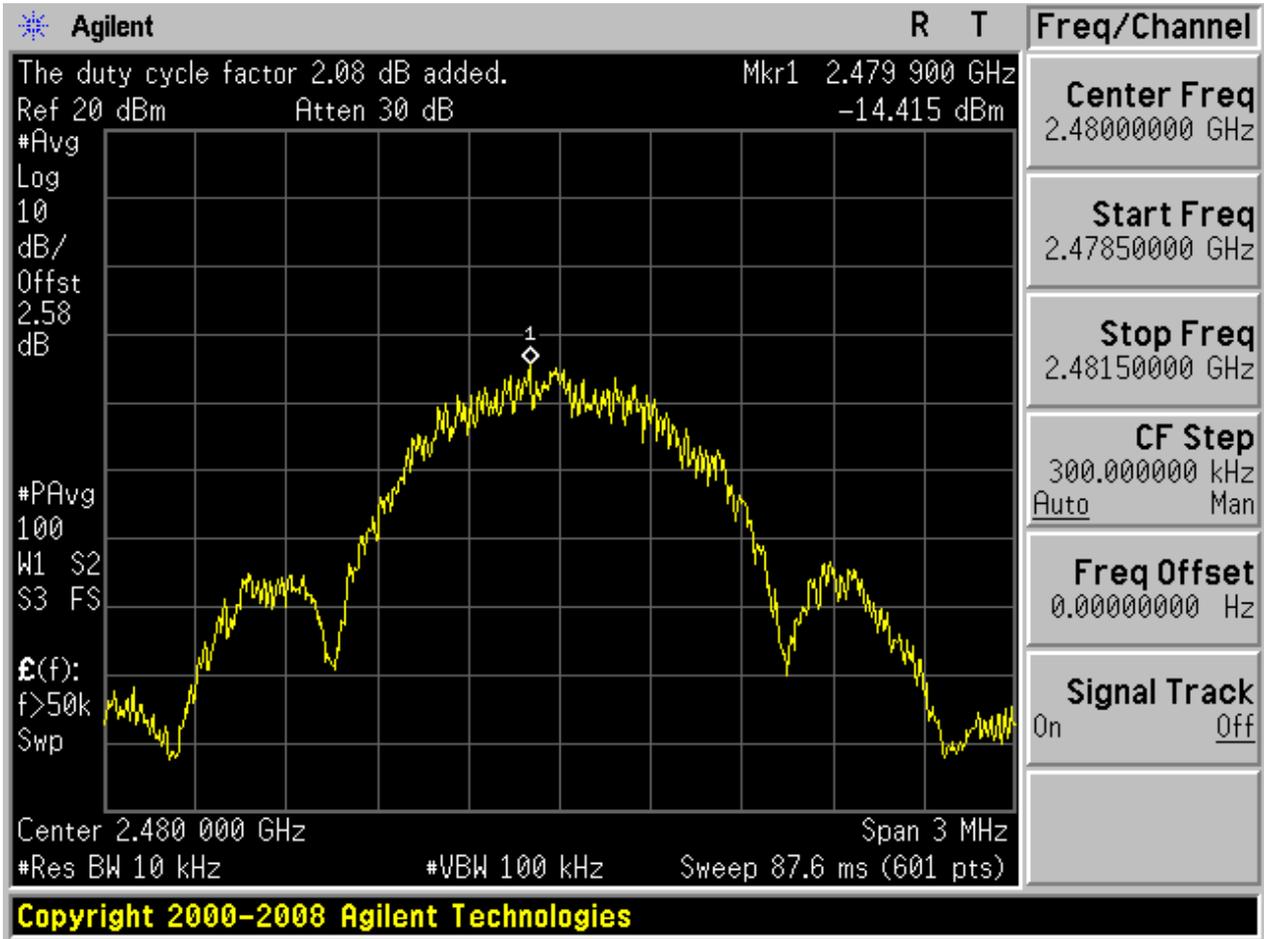


2.2 TM1_Ch19_M





2.3 TM1_Ch39_H



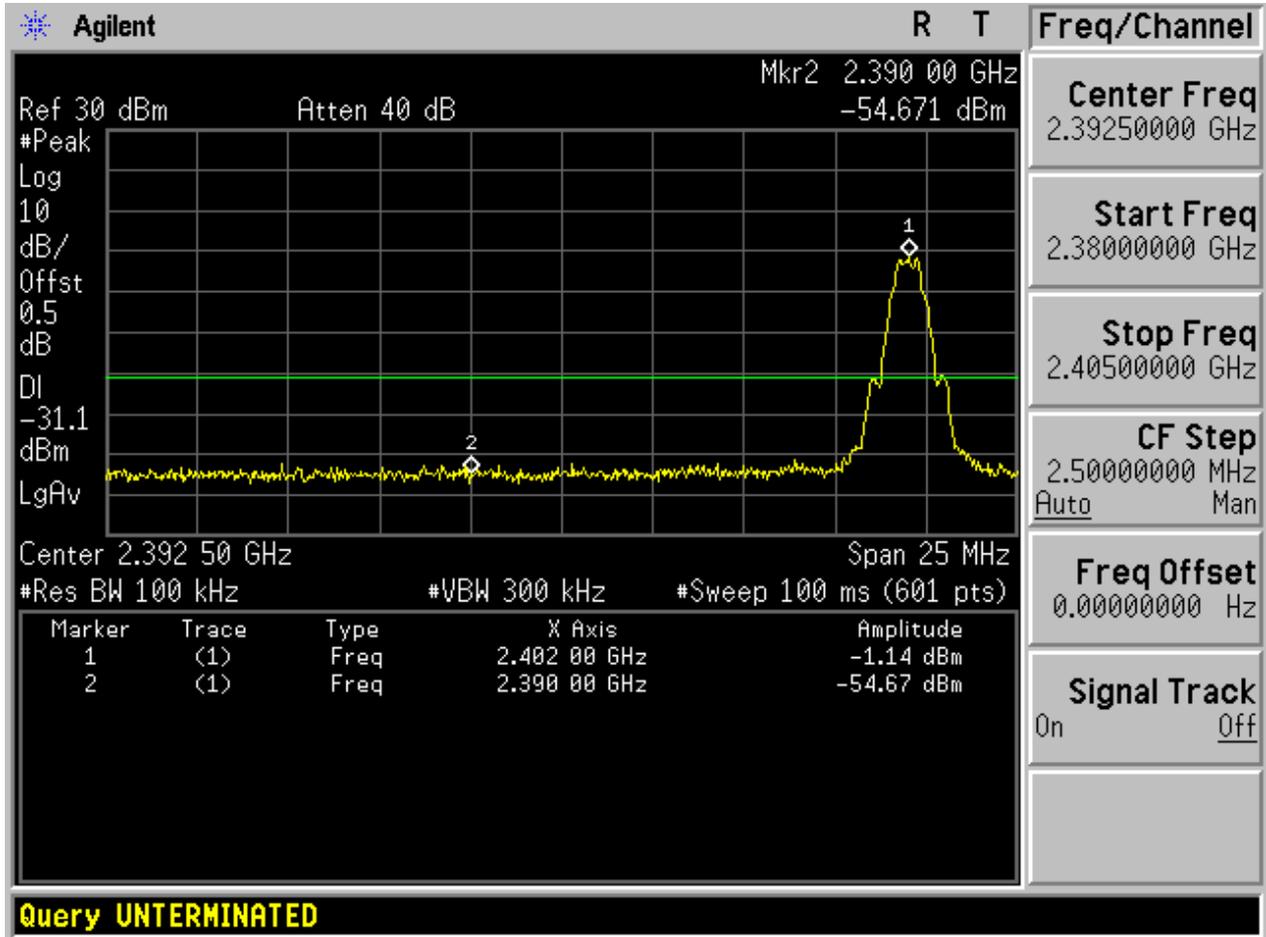
Appendix F: Band Edges Compliance

Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
TM1_Ch 0	L	2402	-1.14	-54.67	pass
TM1_Ch 39	H	2480	-0.55	-52.76	pass

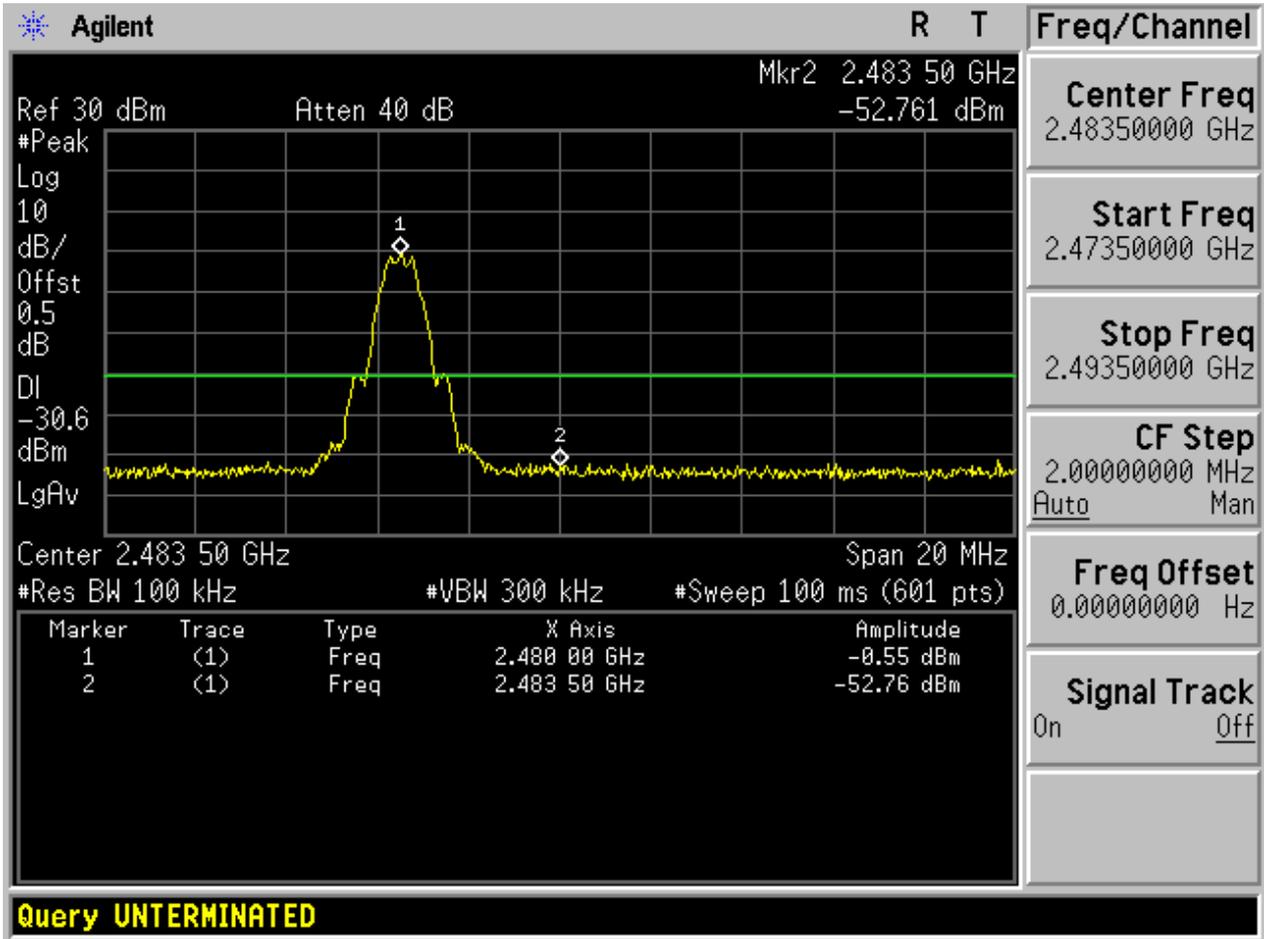
Part II - Test Plots

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]-20[dBm], see test plots for detailed".

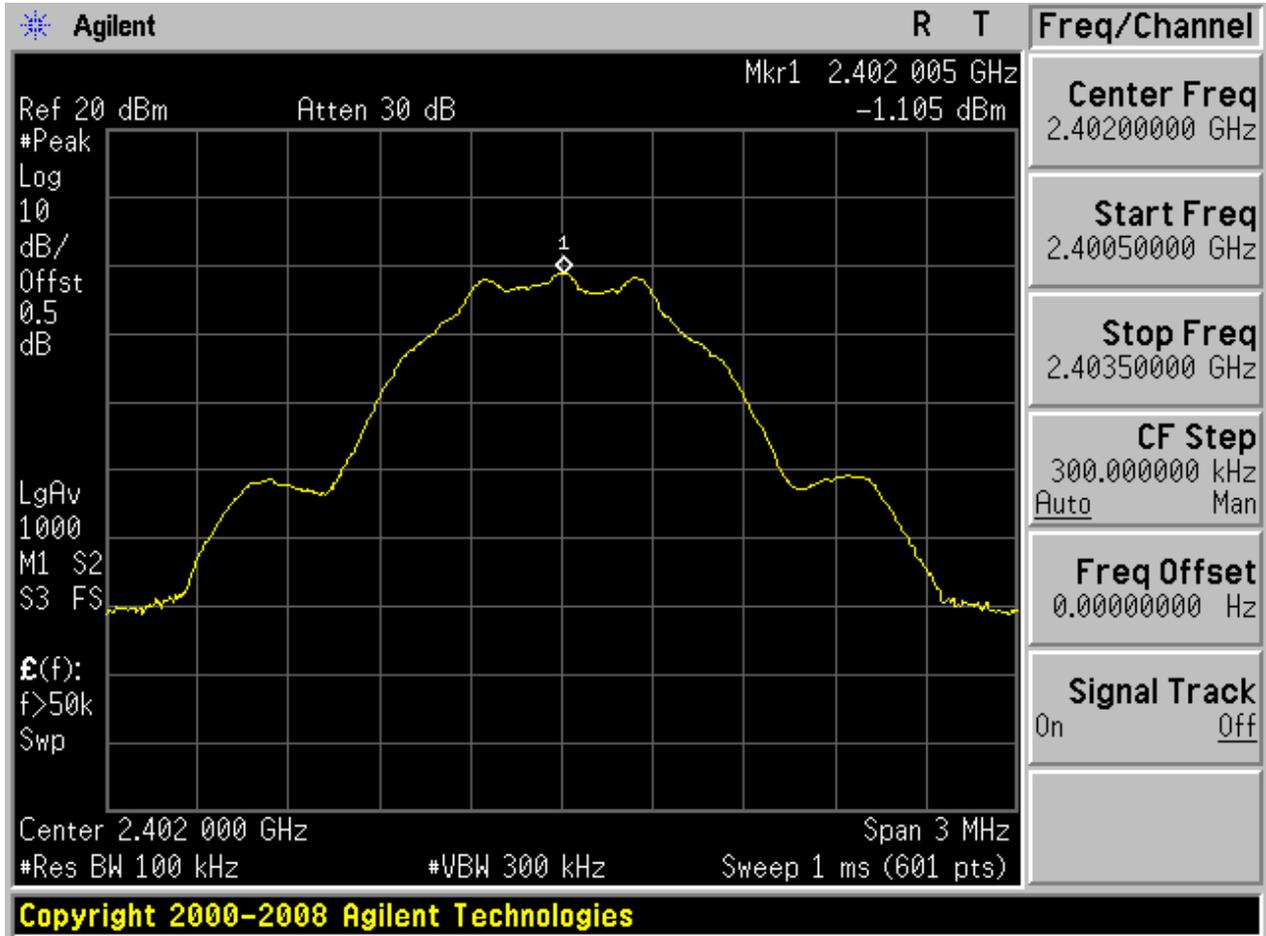
Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Pref[dBm]	Puw[dBm]	Verdict
TM1_Ch0	L	2402	Ant 1	-1.10	<limit	pass
TM1_Ch19	M	2440	Ant 1	0.80	<limit	pass
TM1_Ch39	H	2480	Ant 1	-0.40	<limit	pass

Part II - Test Plots

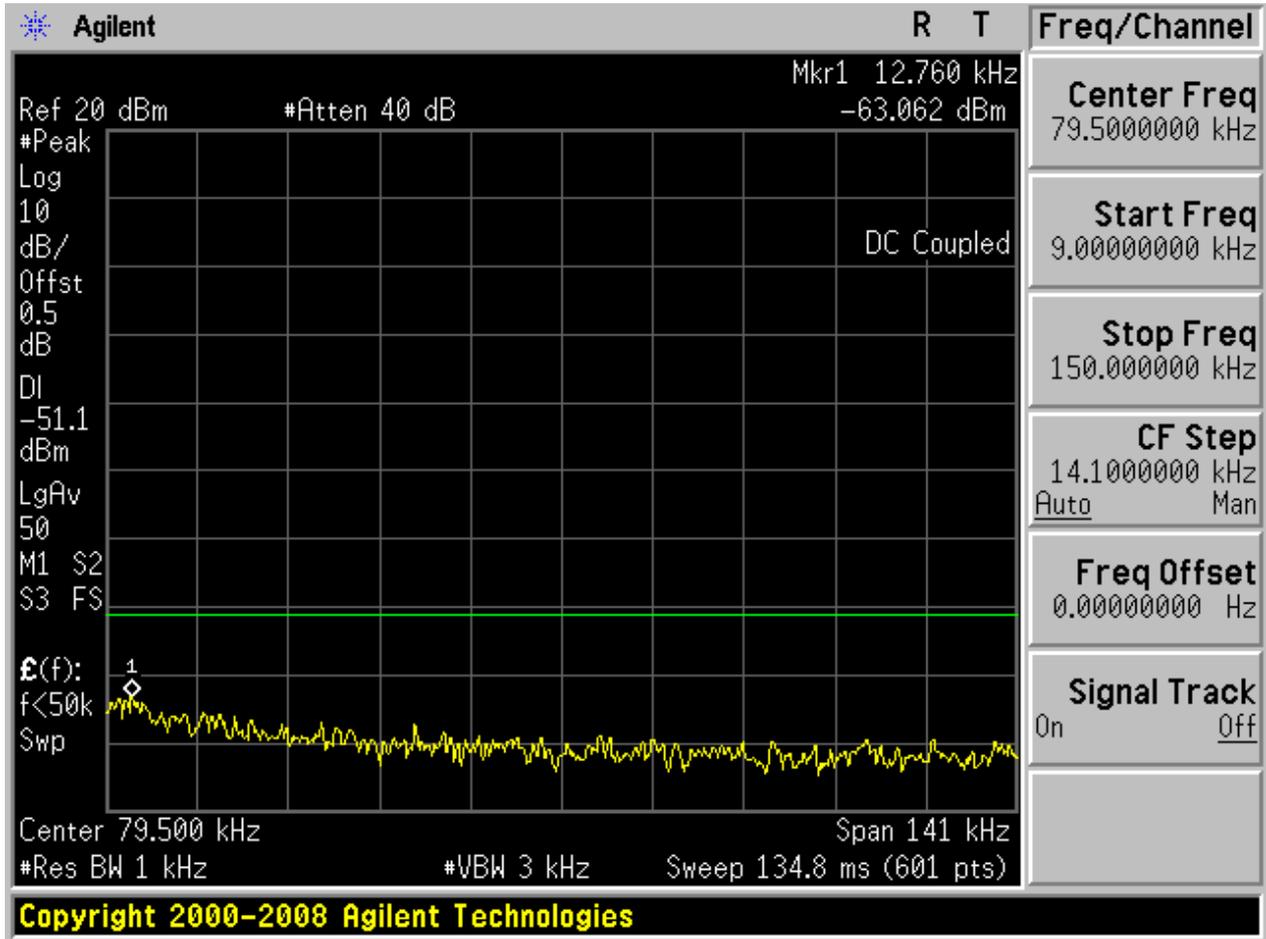
2.1 TM1_Ch0_L

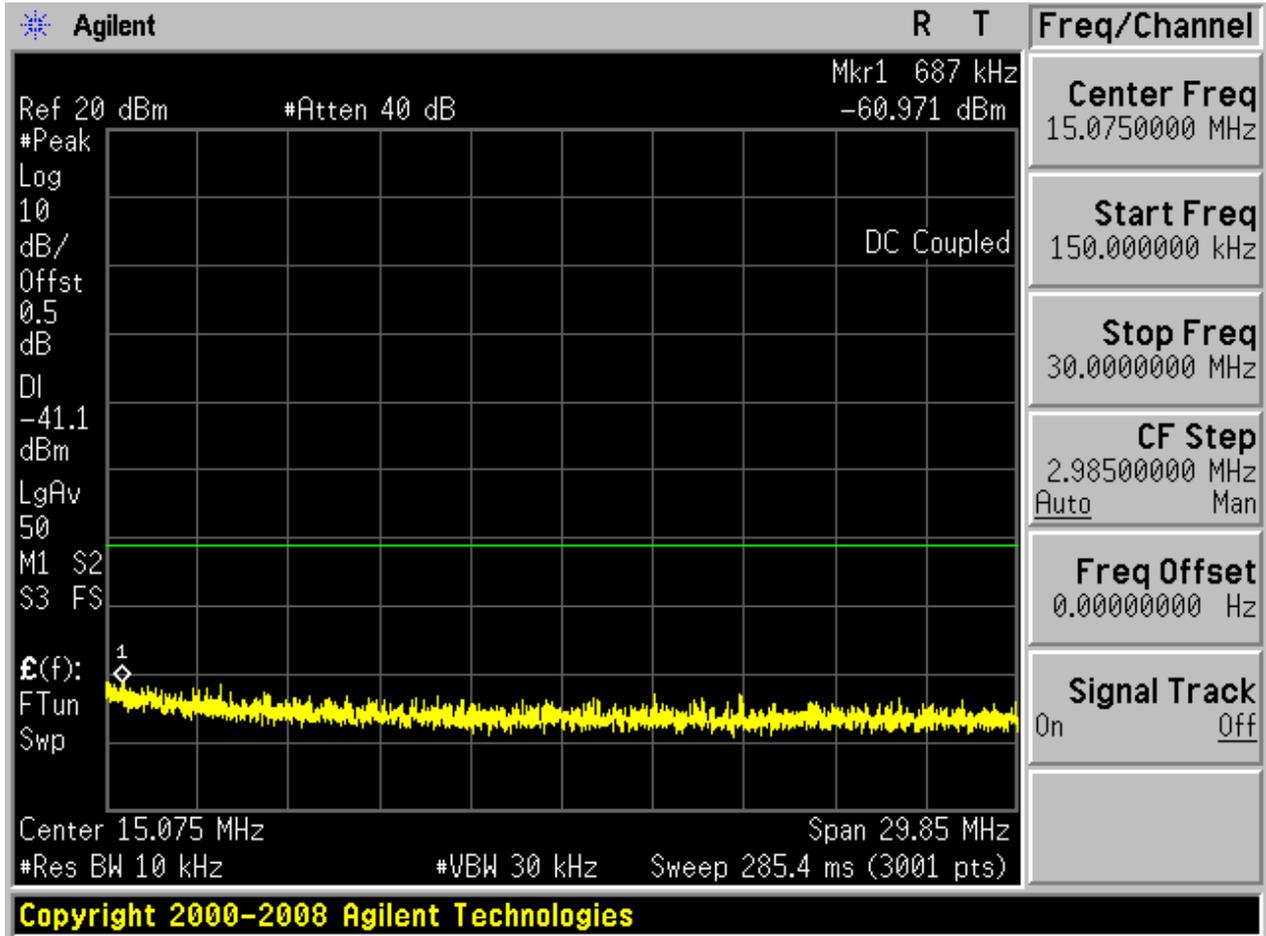
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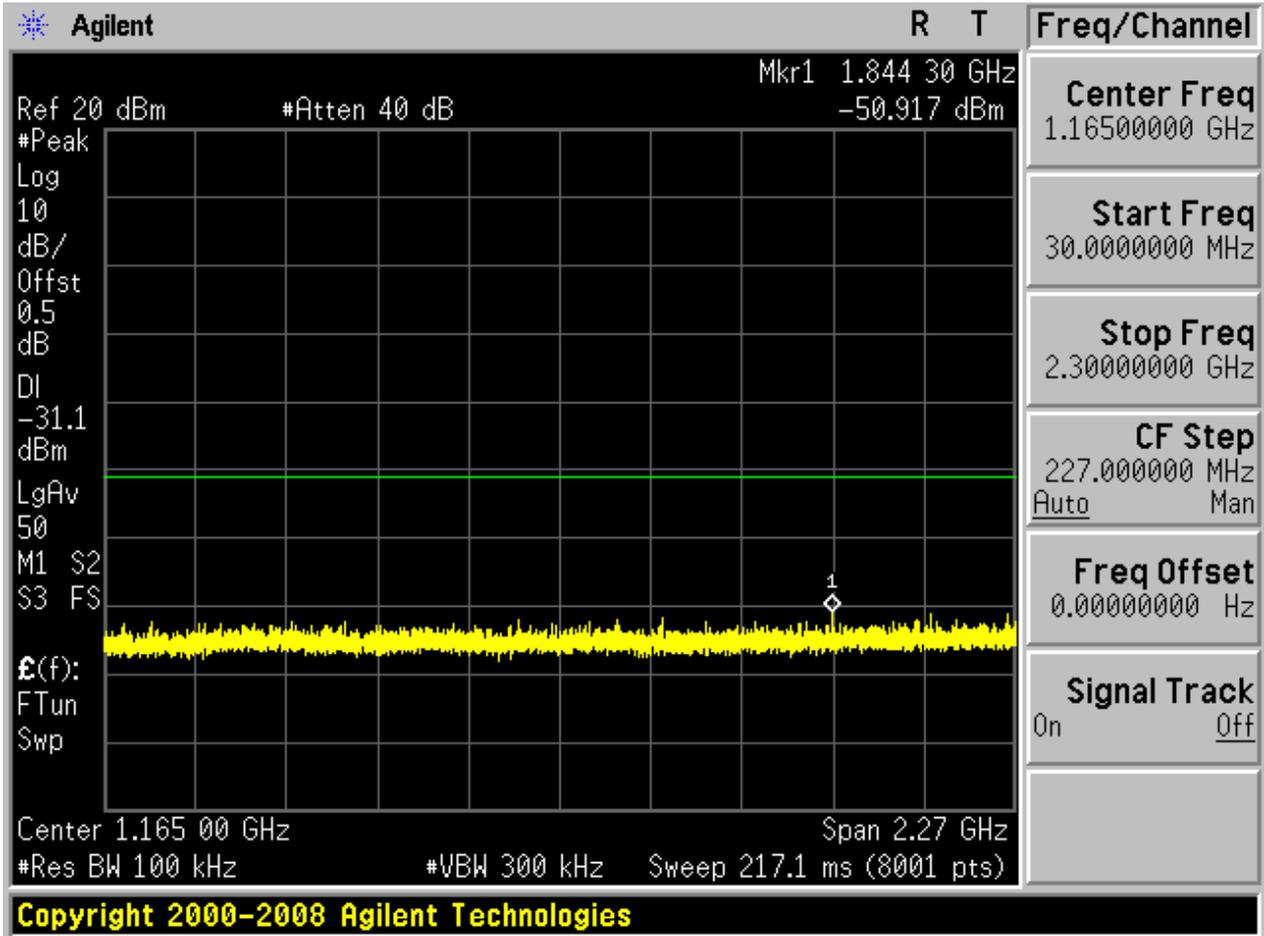


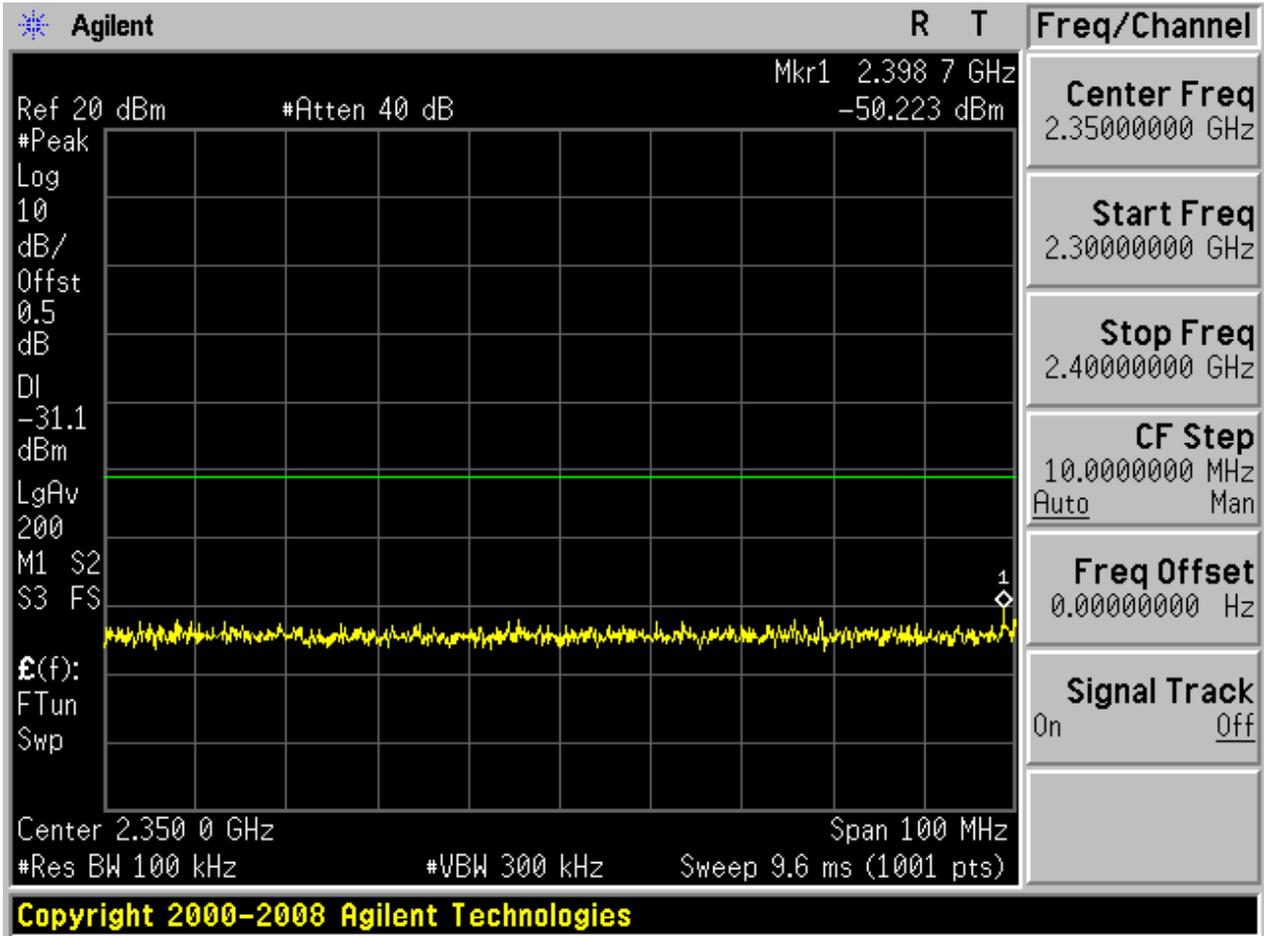


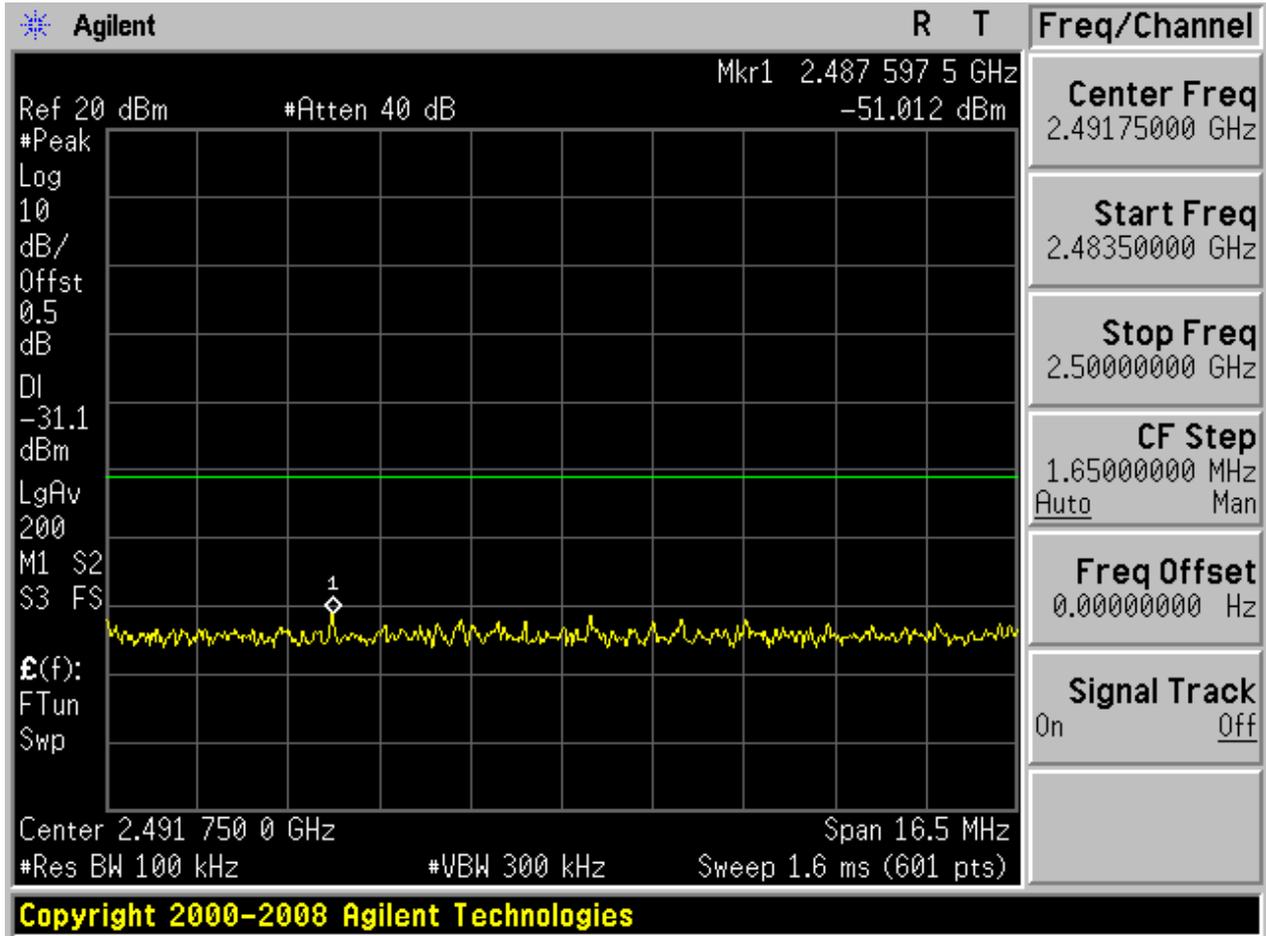
Puw:

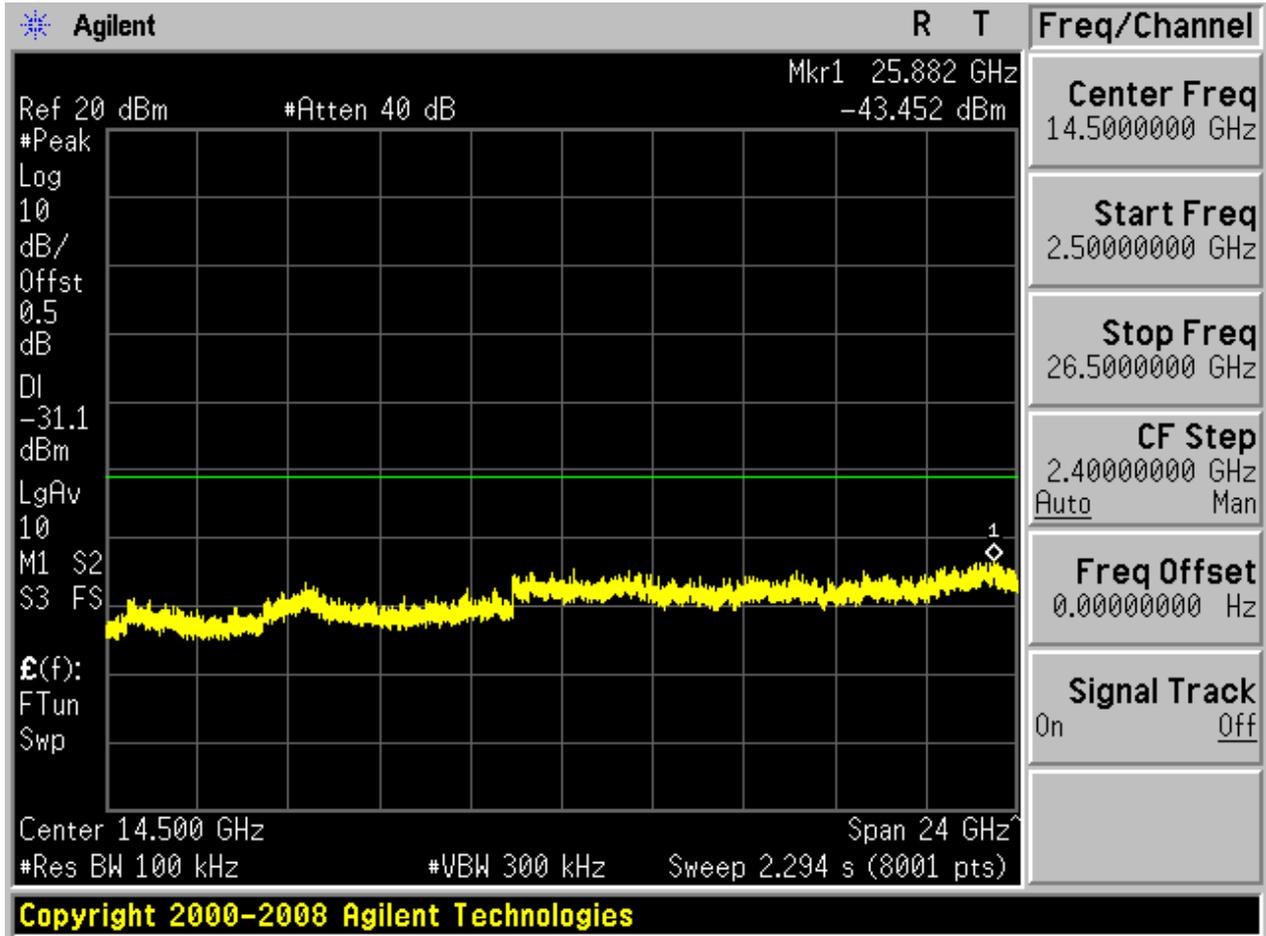






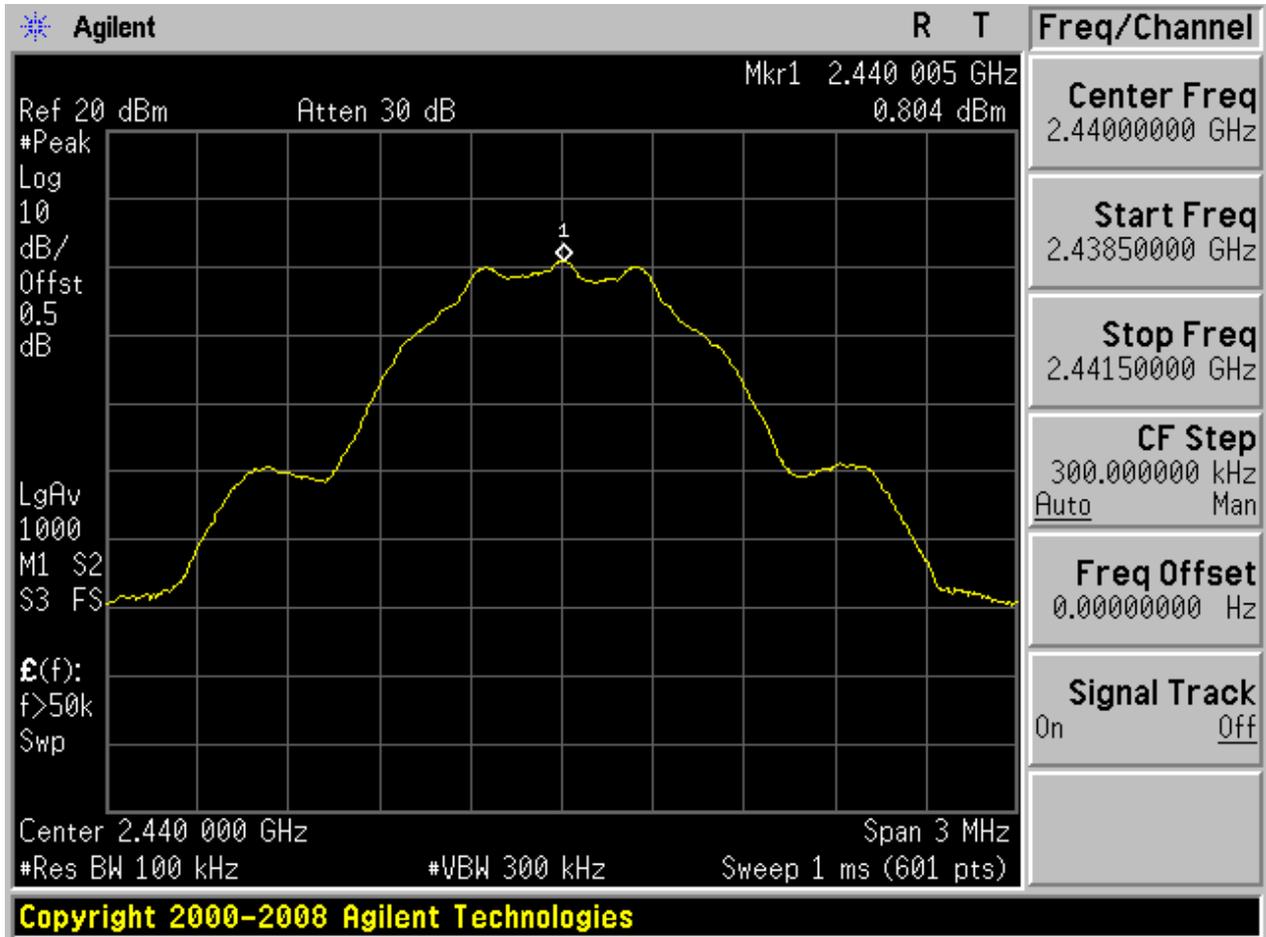






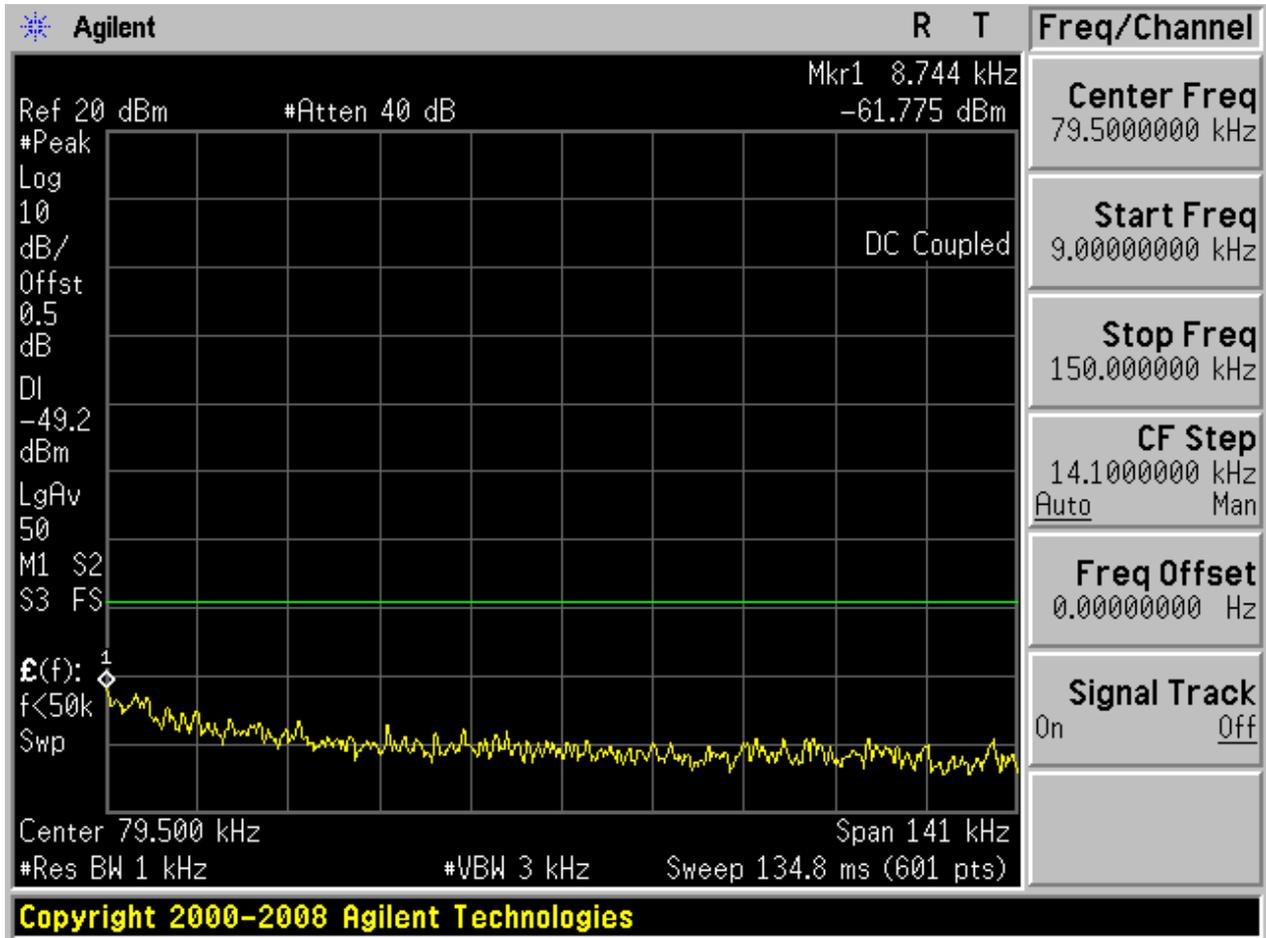
2.2 TM1_Ch19_M

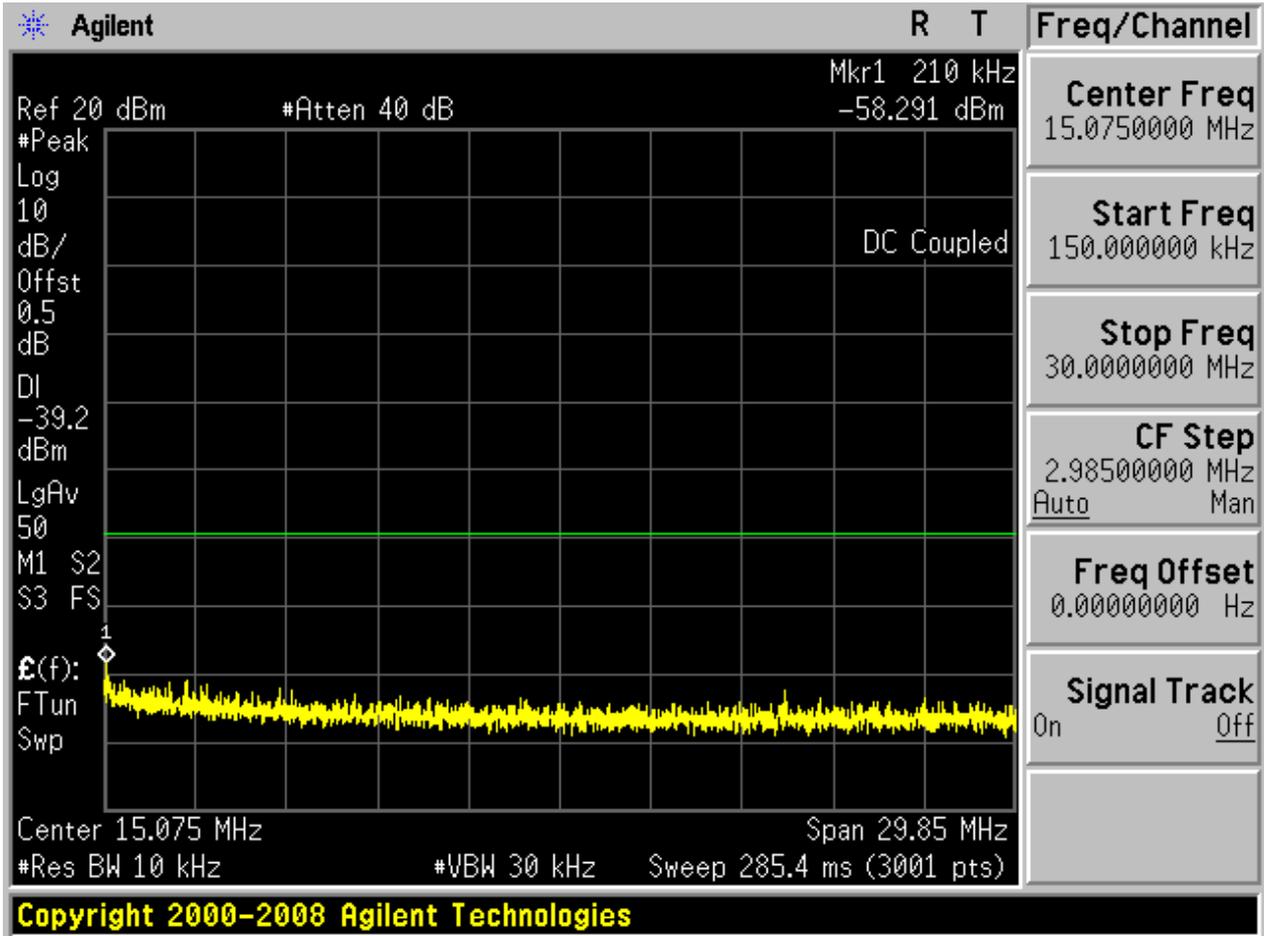
Pref:

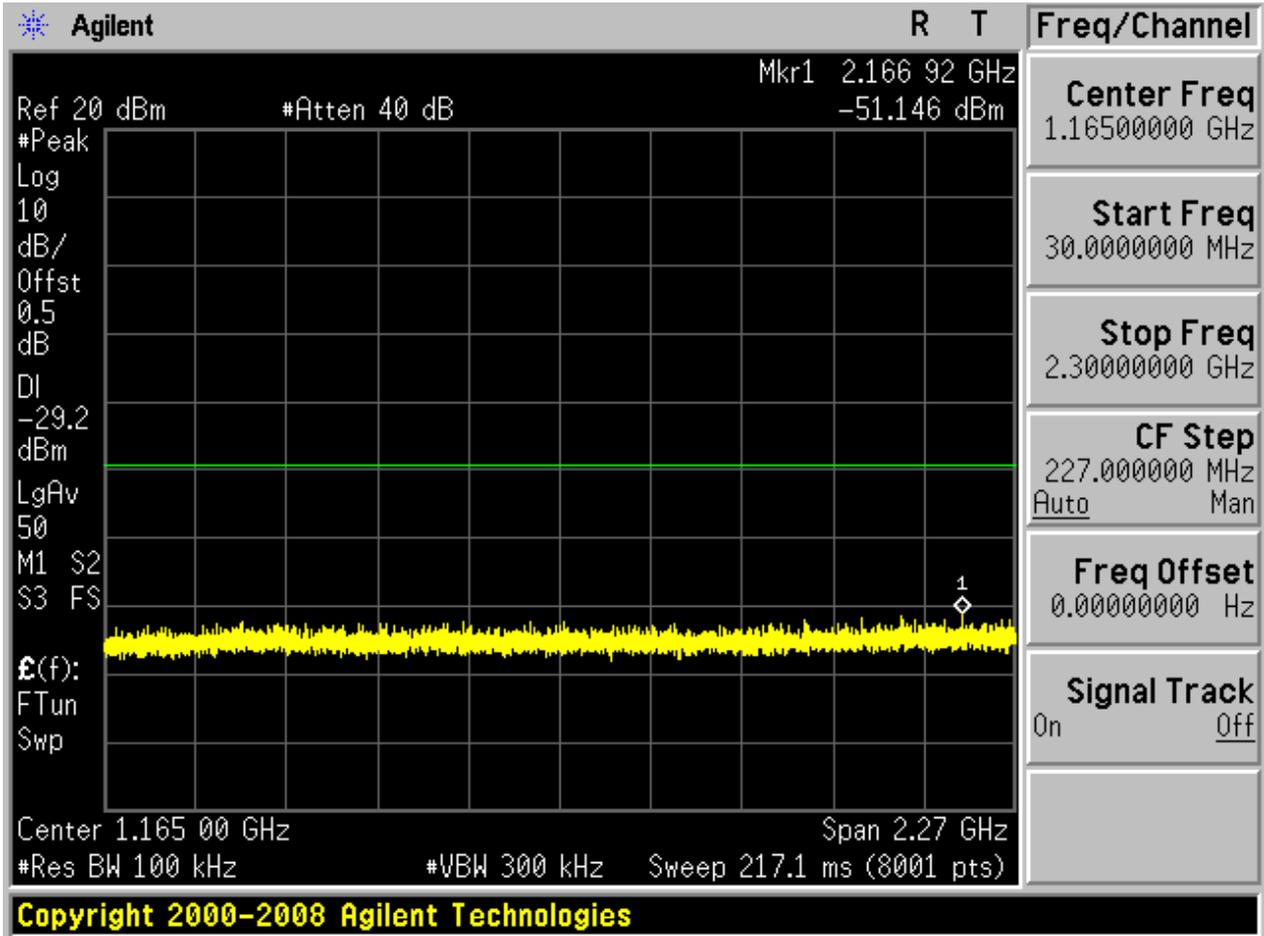


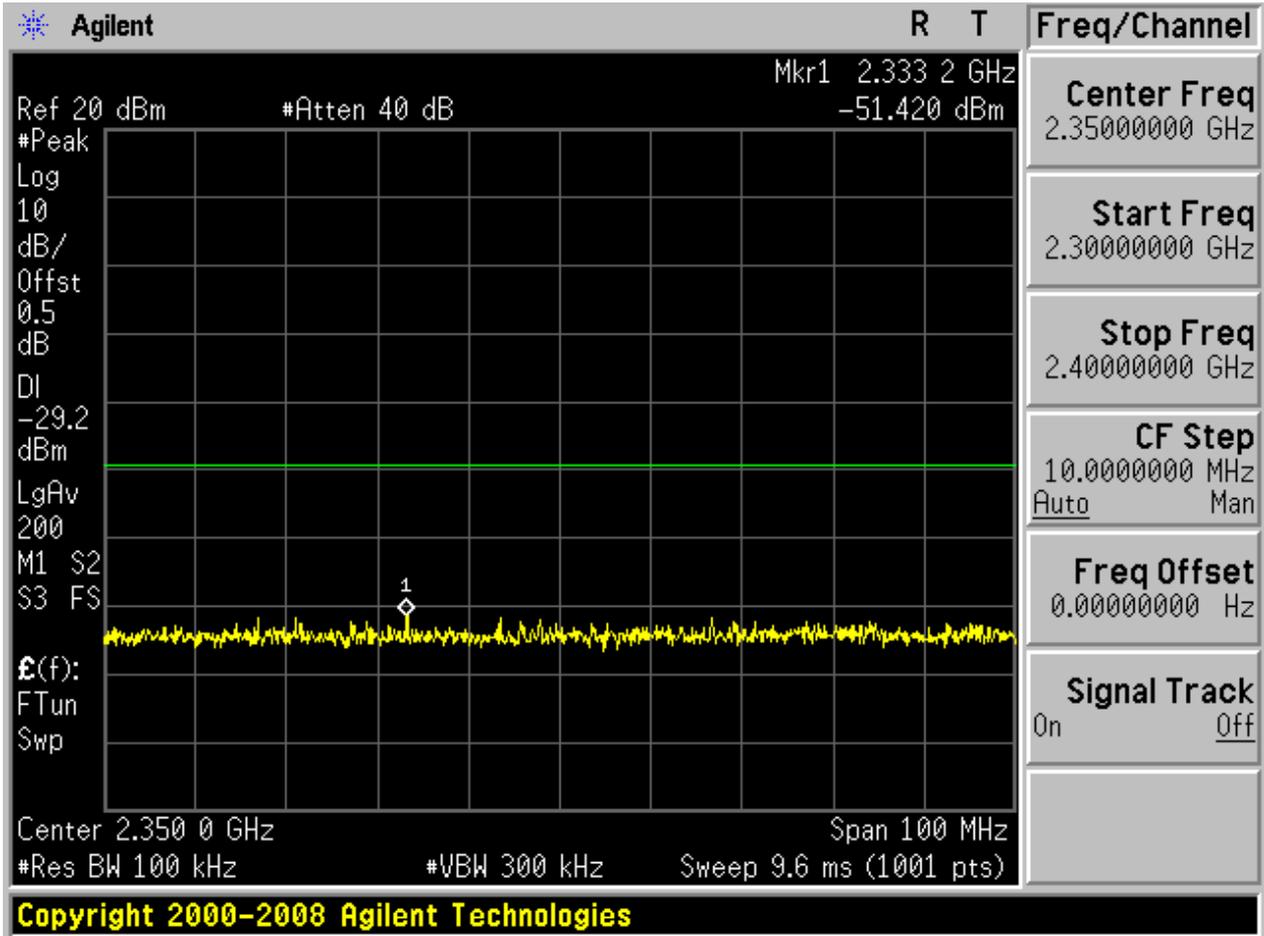


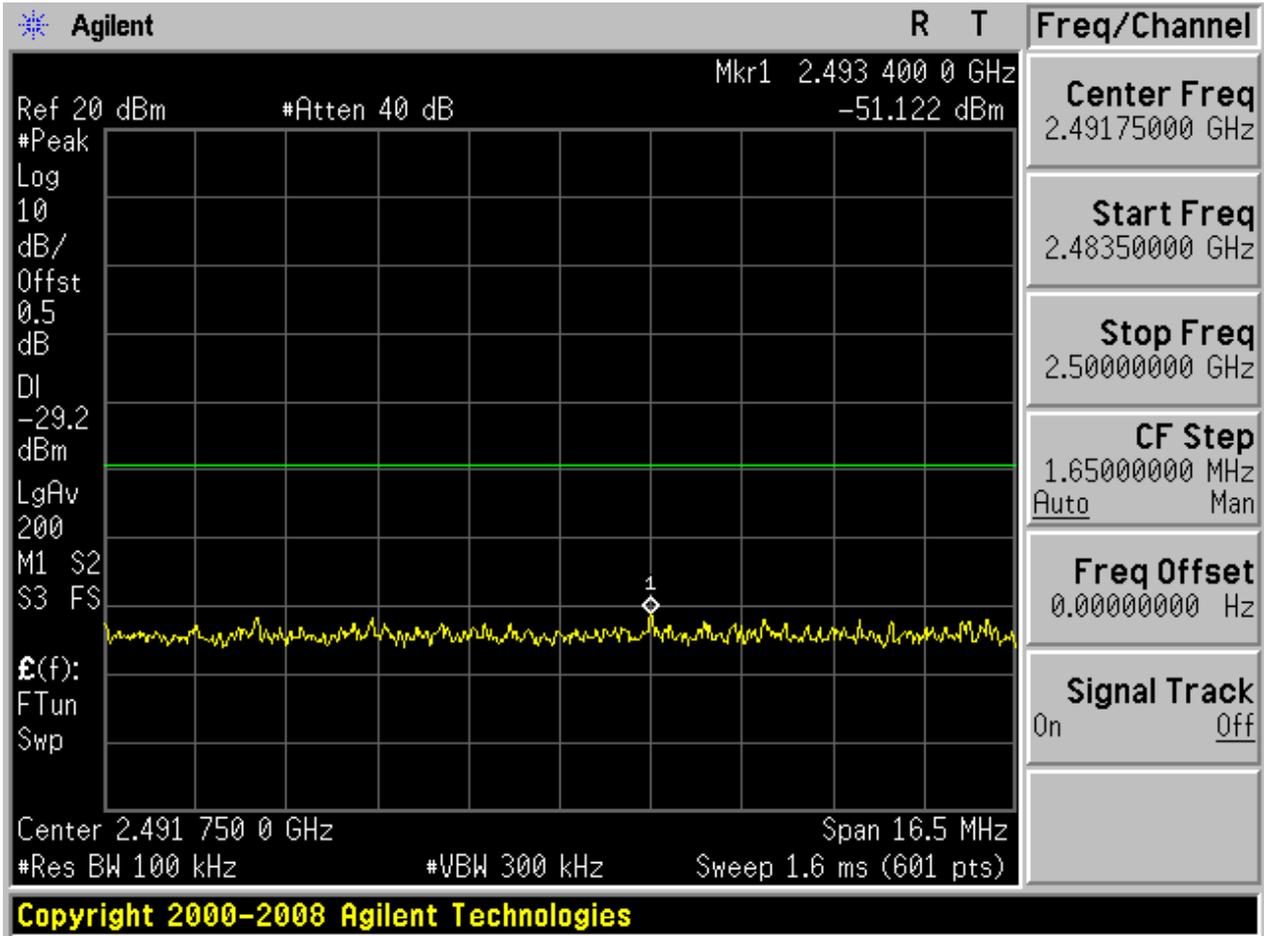
P_{uw}:

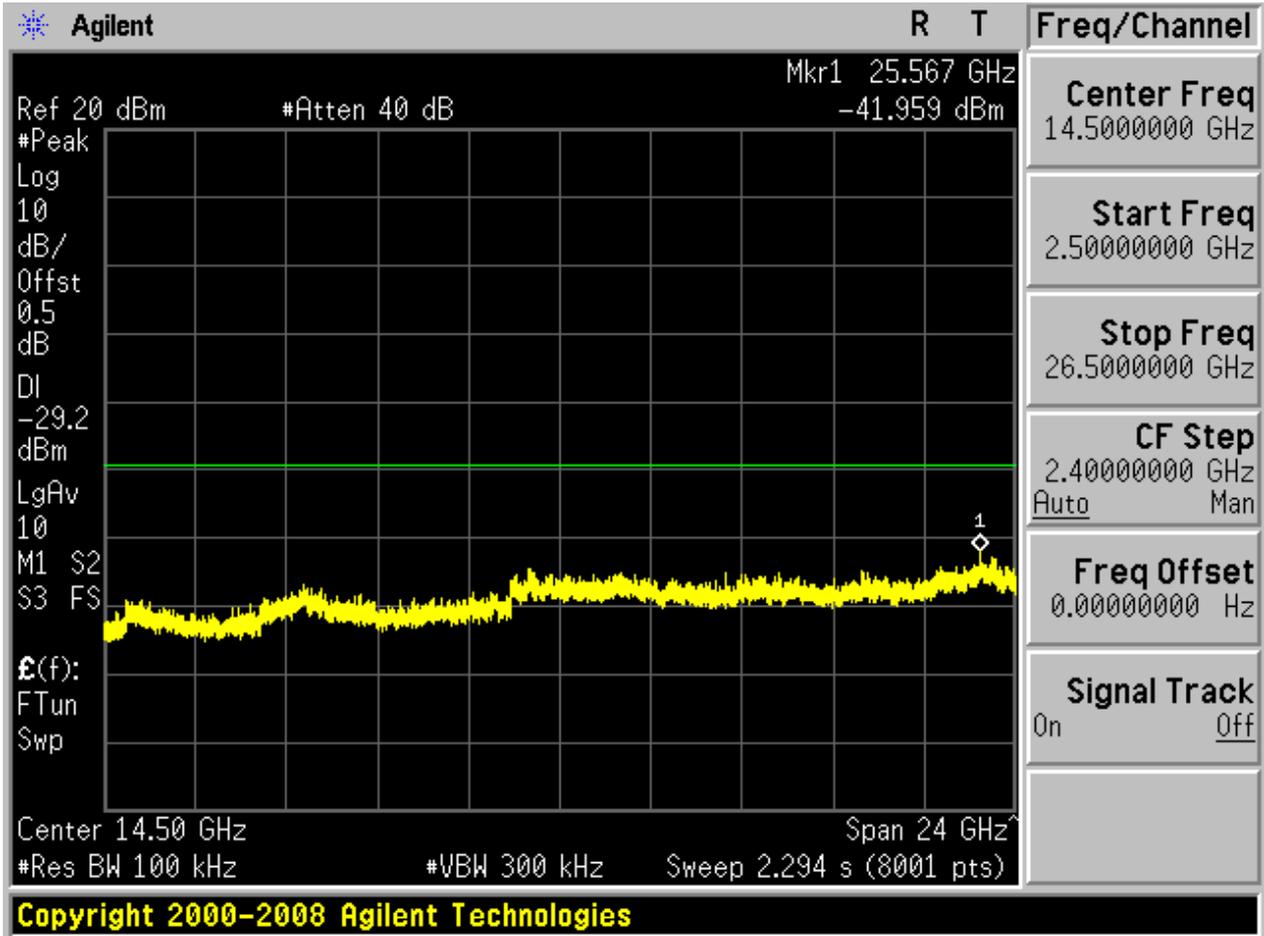






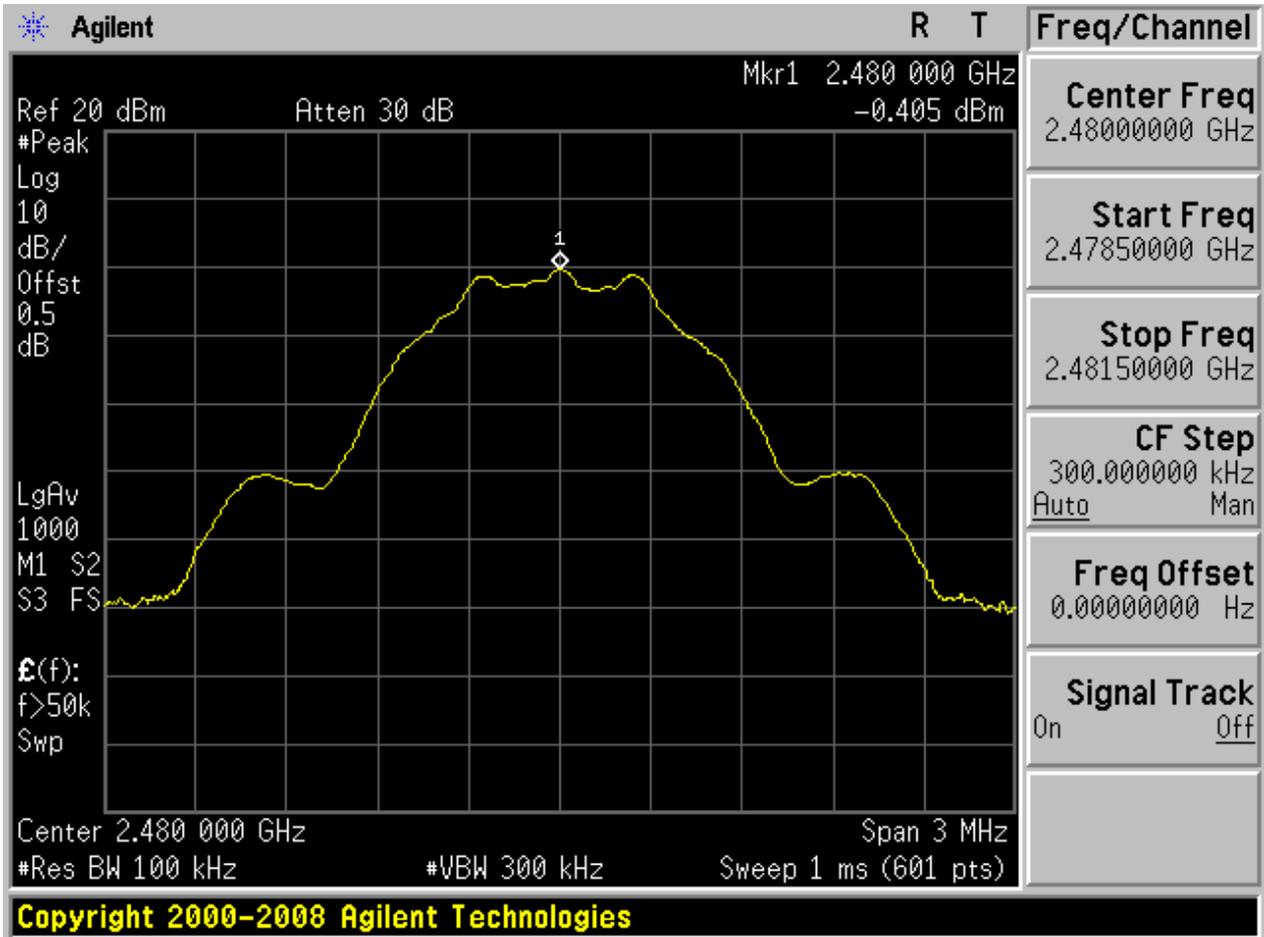






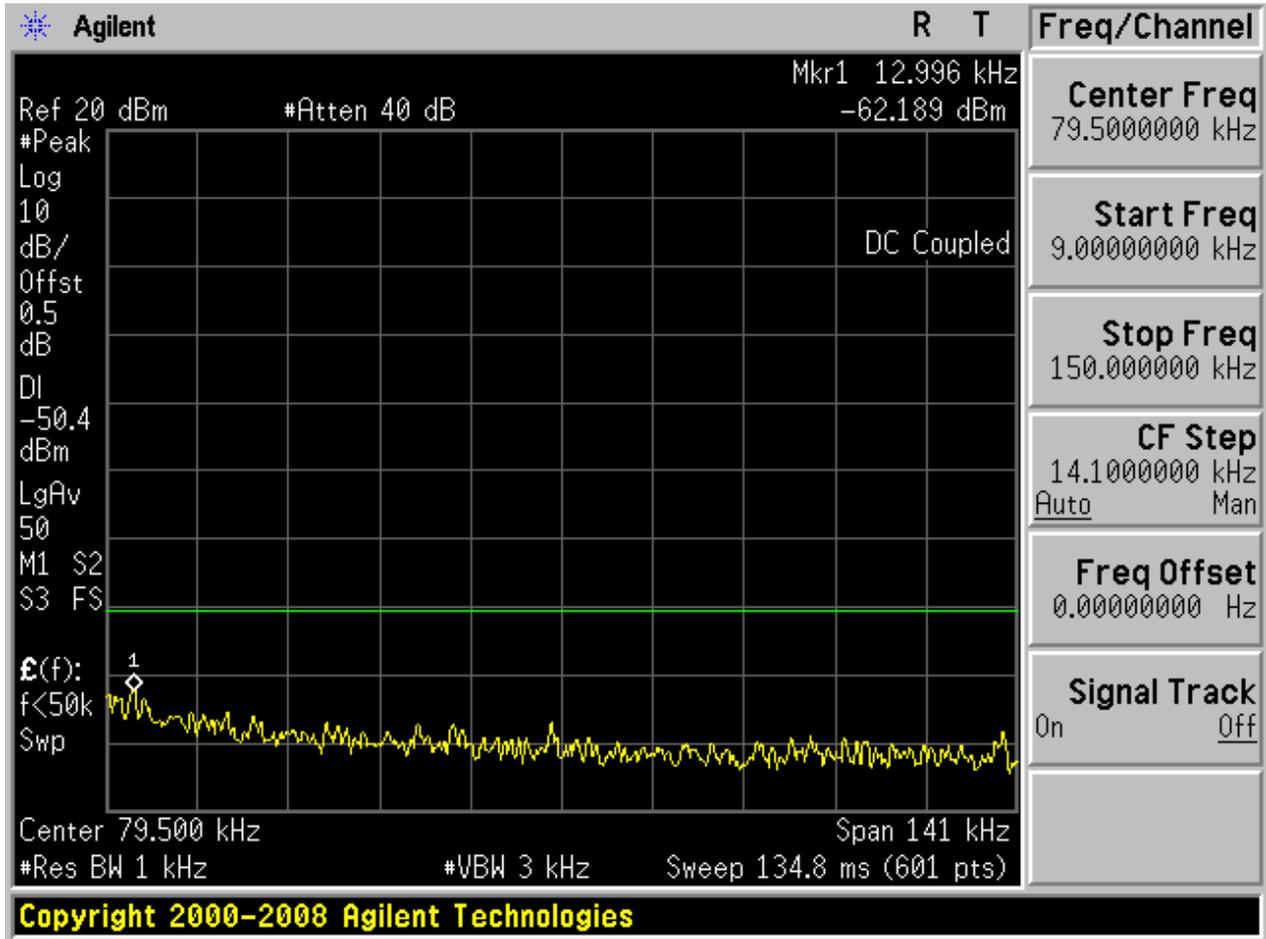
2.3 TM1_Ch39_H

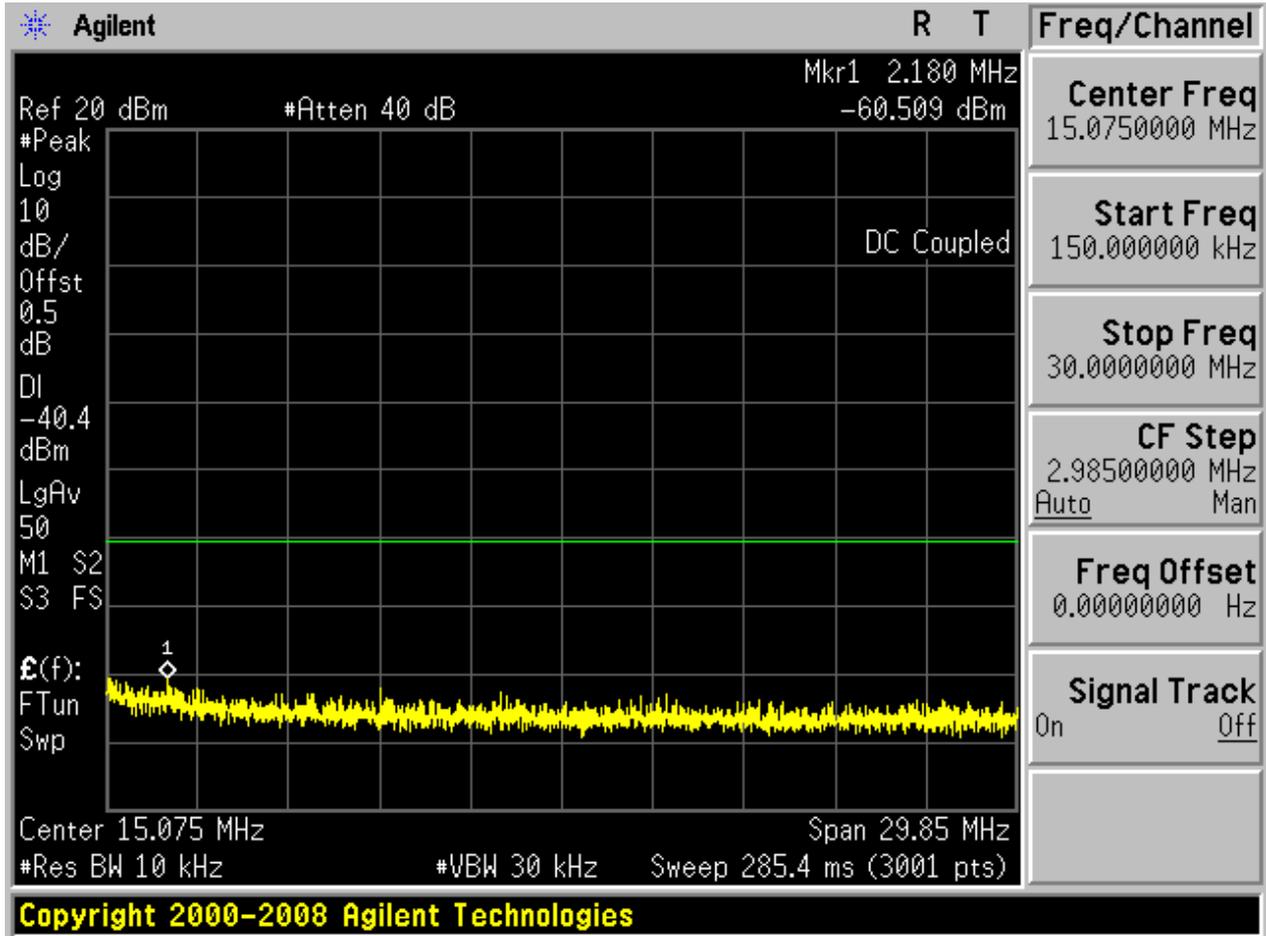
Pref:

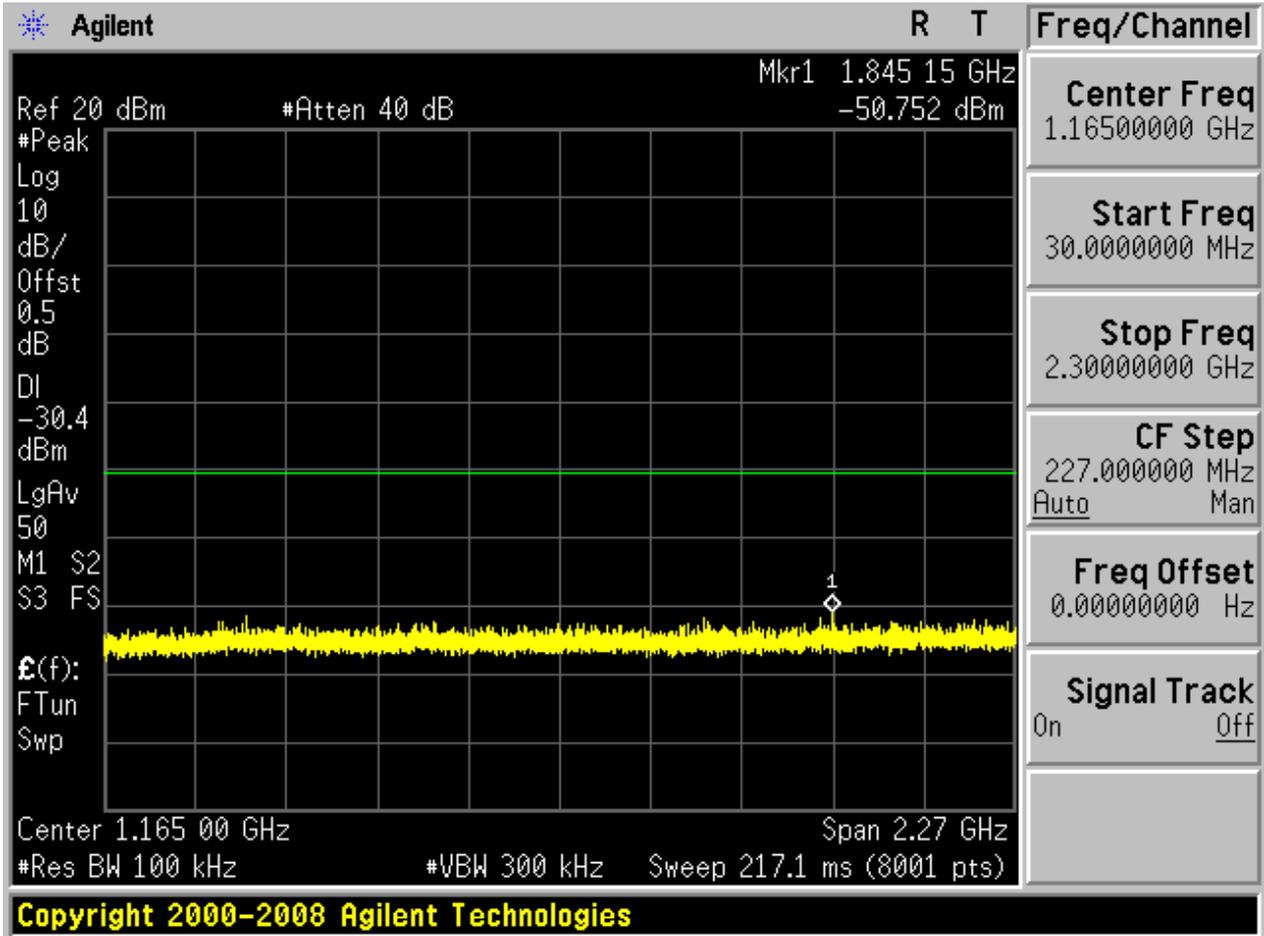


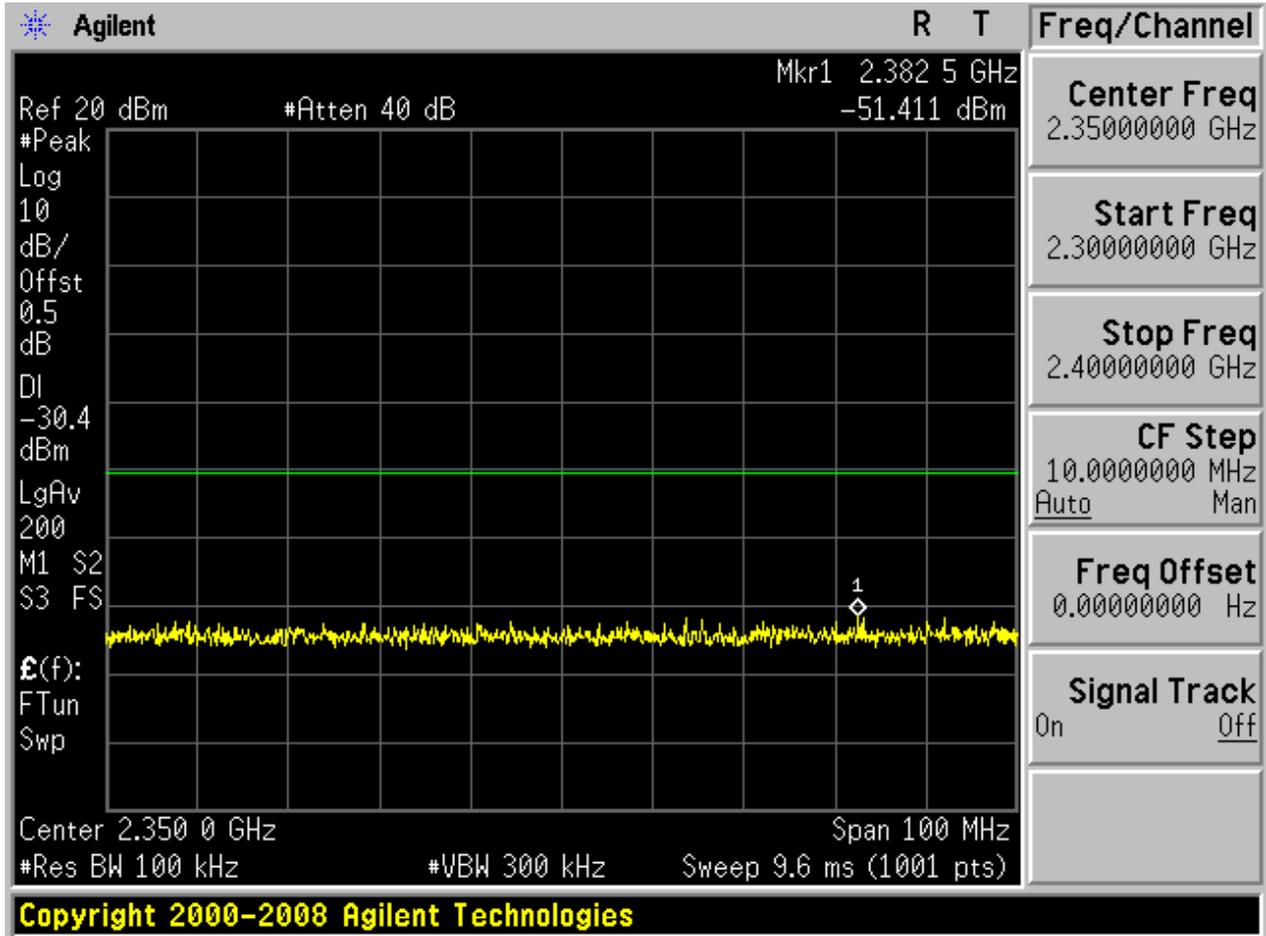


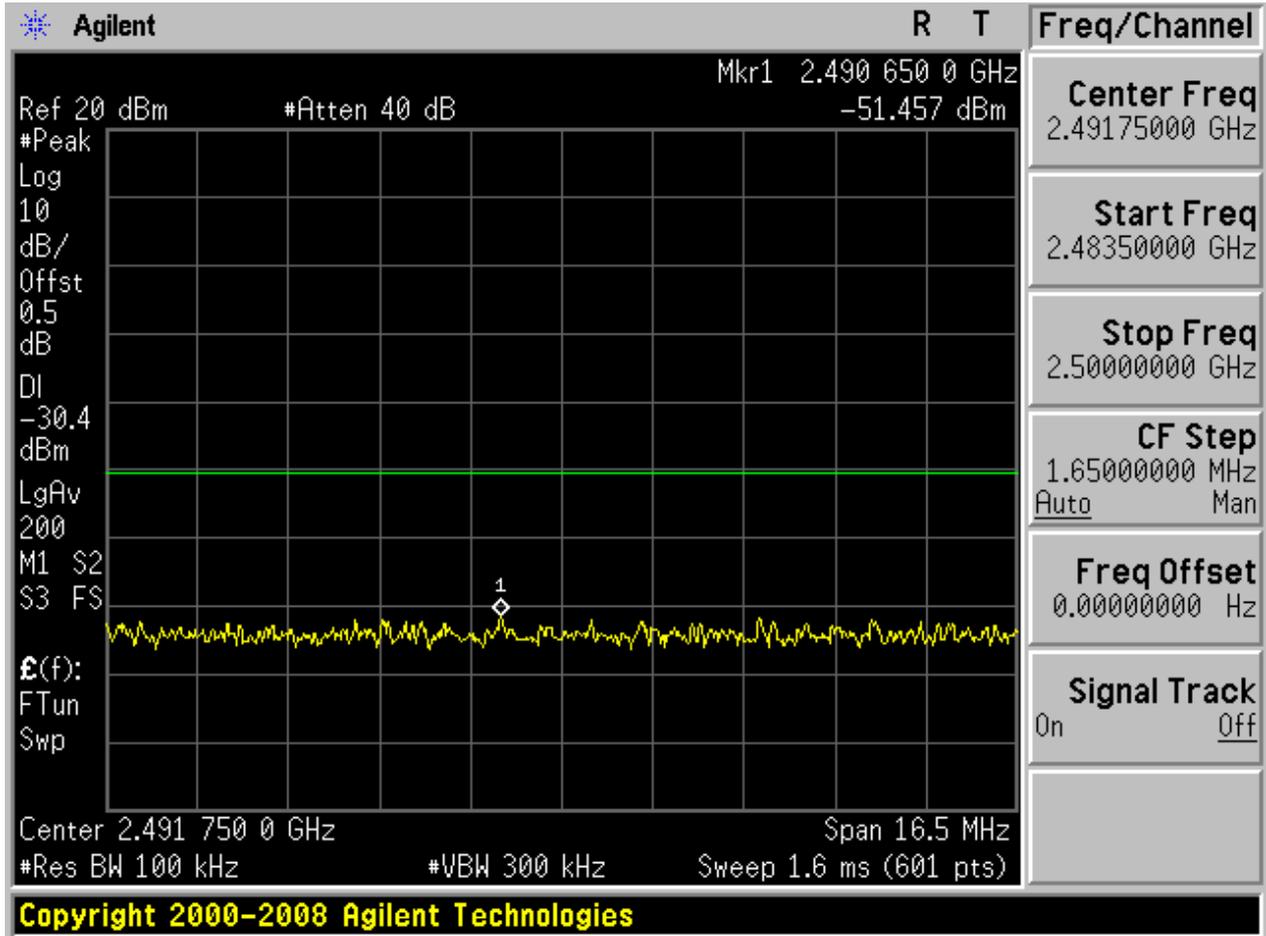
Puw:

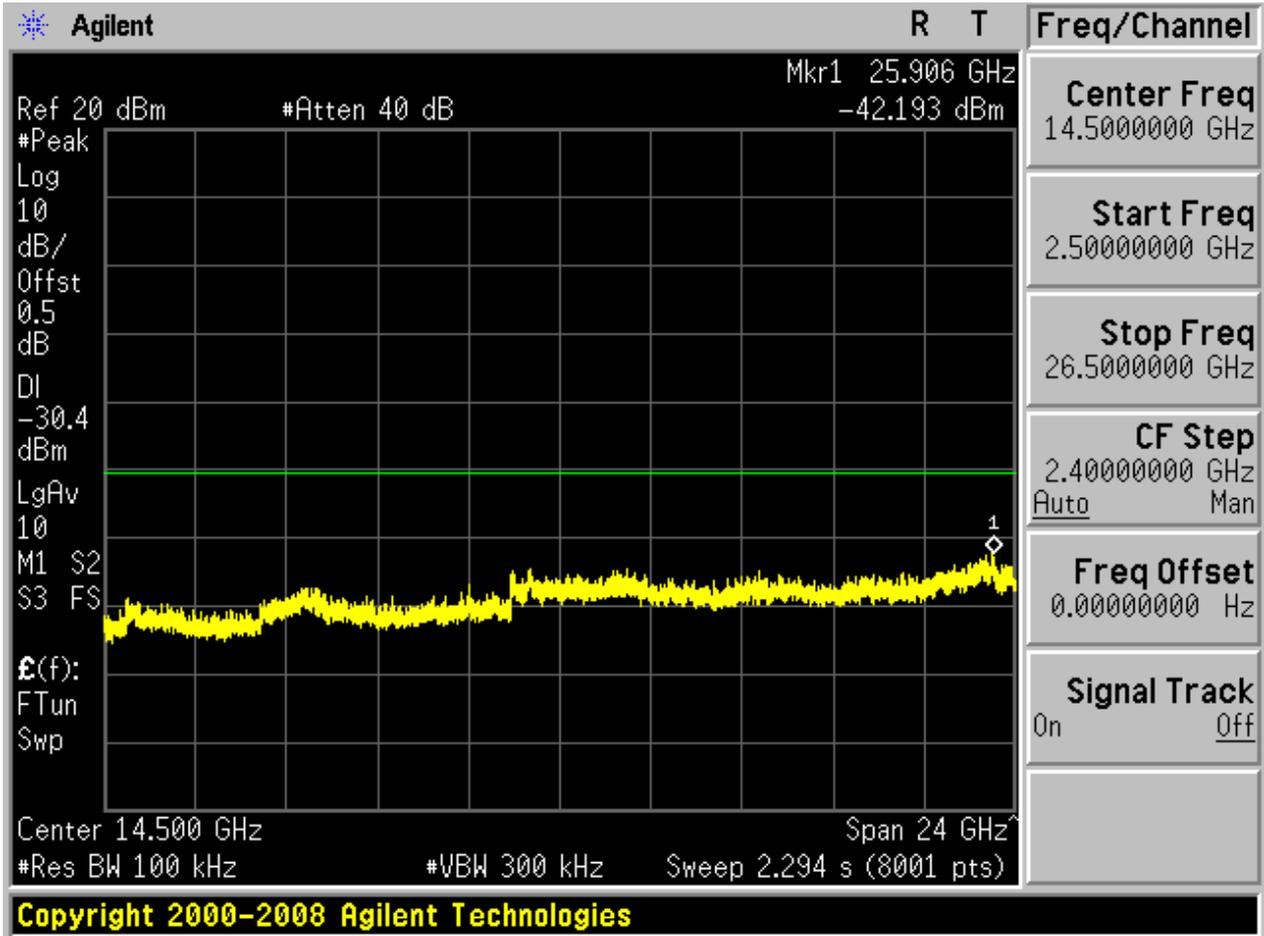














Appendix H: Radiated Spurious Emission & Spurious in Restricted Band

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

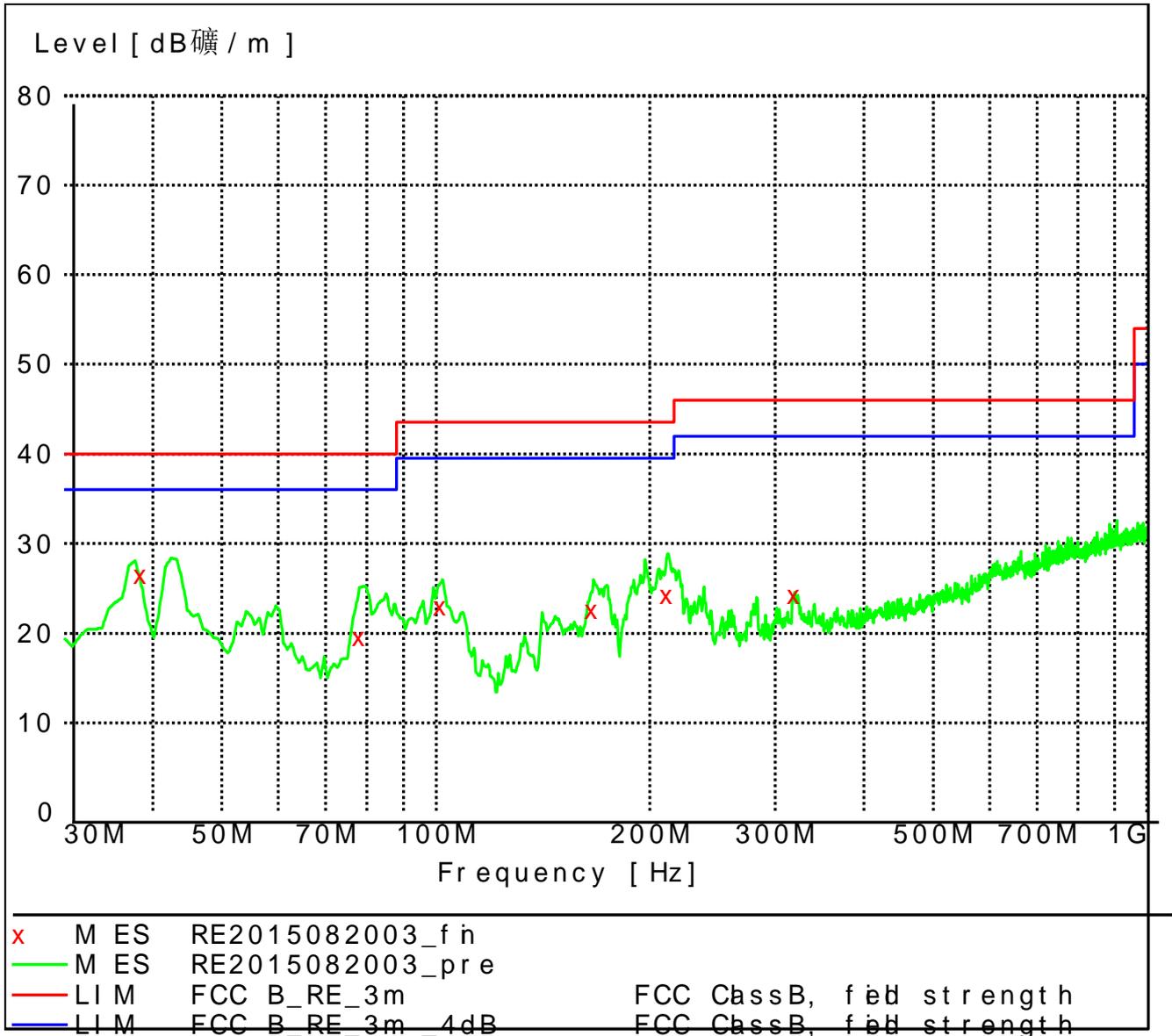
Part 1: Testing Range of “9 kHz to 30MHz”

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 MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Height cm	Azimuth deg	Plarization
38.480000	26.50	15.3	40.0	13.5	100.0	0.00	VERTICAL
77.992000	19.60	10.5	40.0	20.4	129.0	133.00	VERTICAL
101.328000	23.00	13.5	43.5	20.5	123.0	28.00	VERTICAL
165.736000	22.60	10.3	43.5	20.9	100.0	294.00	VERTICAL
211.284000	24.20	12.5	43.5	19.3	100.0	0.00	VERTICAL
318.968000	24.20	15.6	46.0	21.8	100.0	274.00	HORIZONTAL



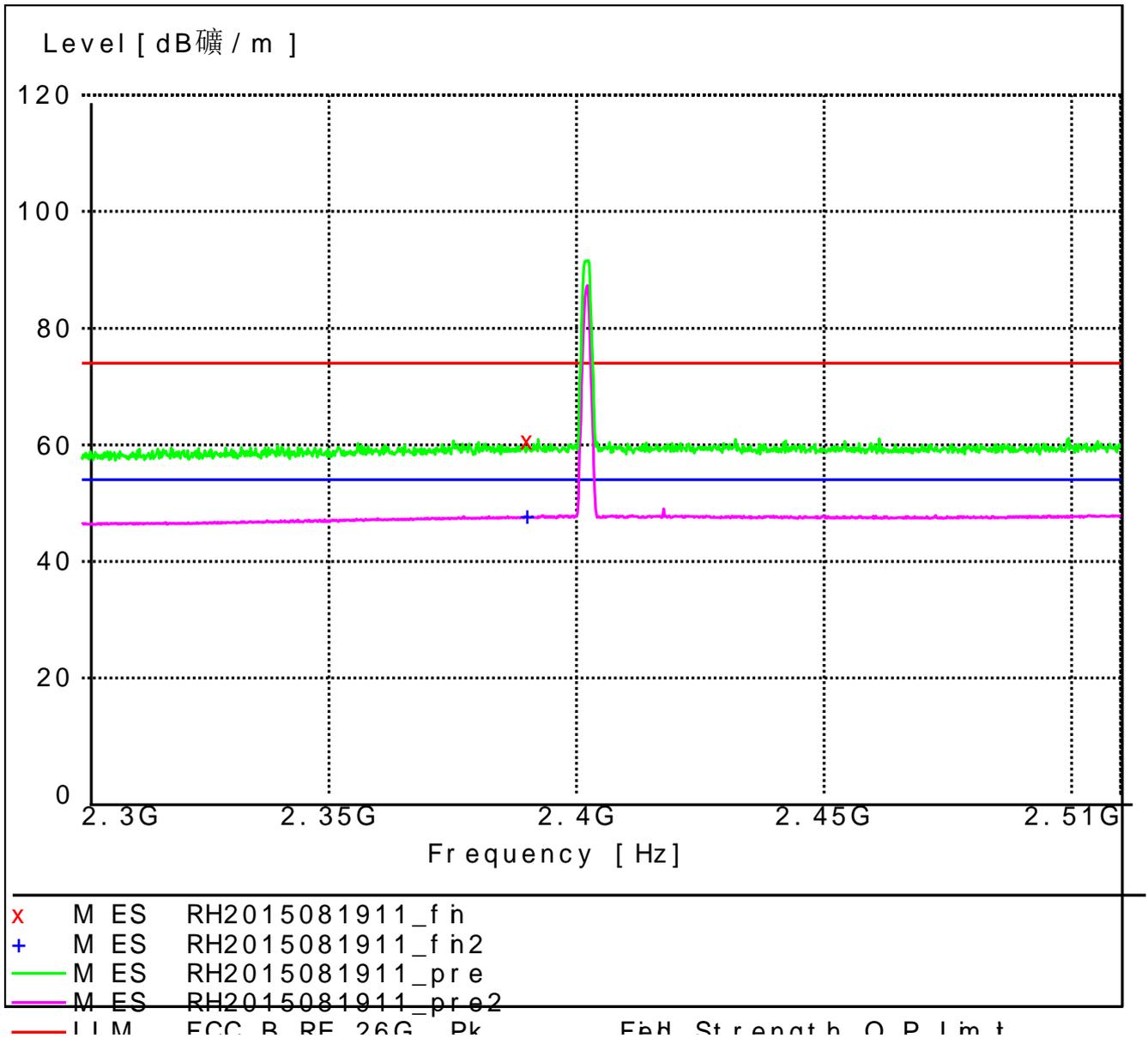
Part 3: Testing Range of “18 GHz to 26.5 GHz”

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

Part 4: Testing Range of “2.3GHz to 2.5GHz”

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



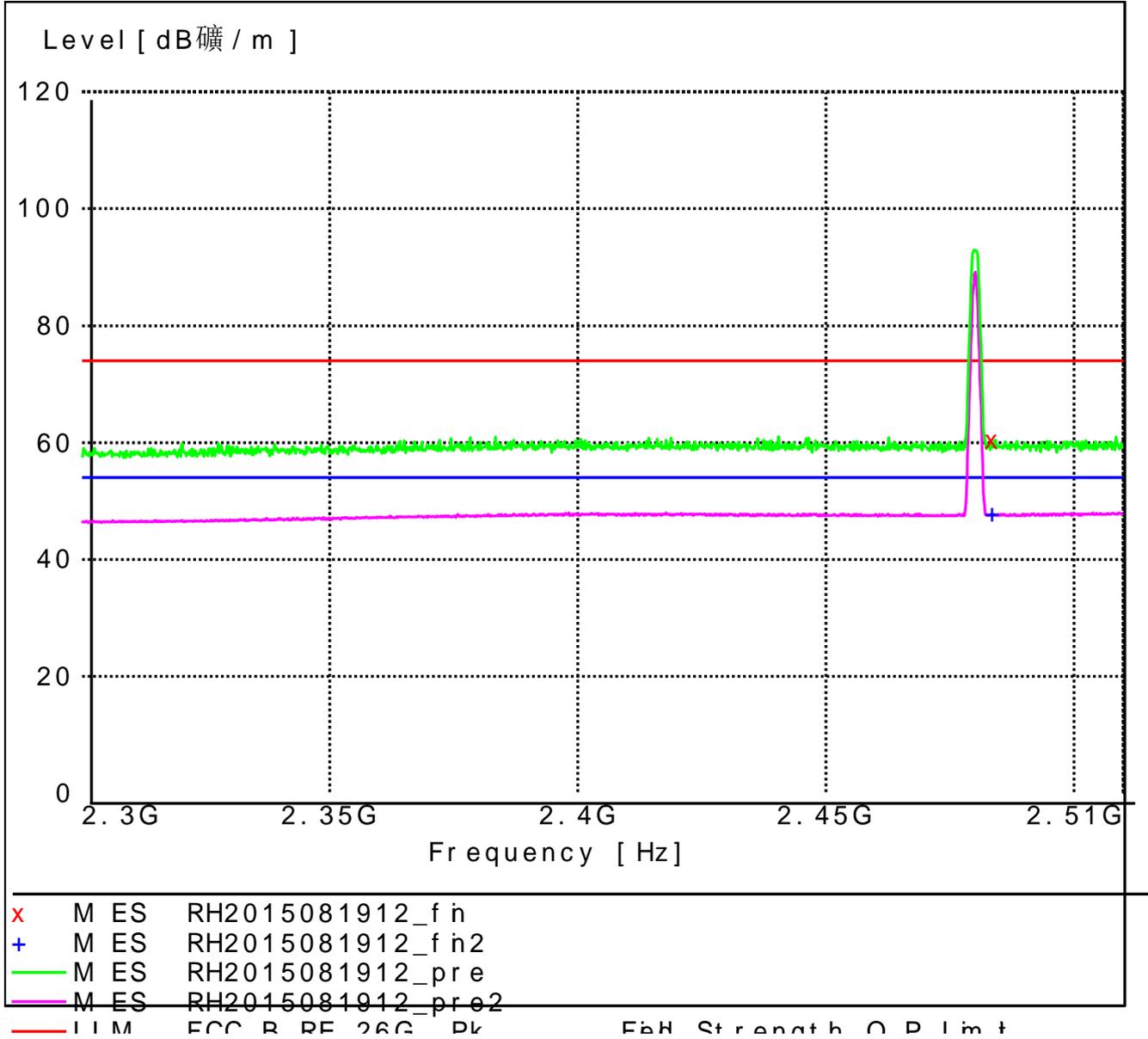
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
2390.000000	60.80	34.8	74.0	13.2	PK	100.0	163.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB μ V/m	Transd dB	Limit dB μ V/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
2390.000000	47.80	34.8	54.0	6.2	AV	100.0	124.00	VERTICAL

Channel 39



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

MEASUREMENT RESULT: PK Detector

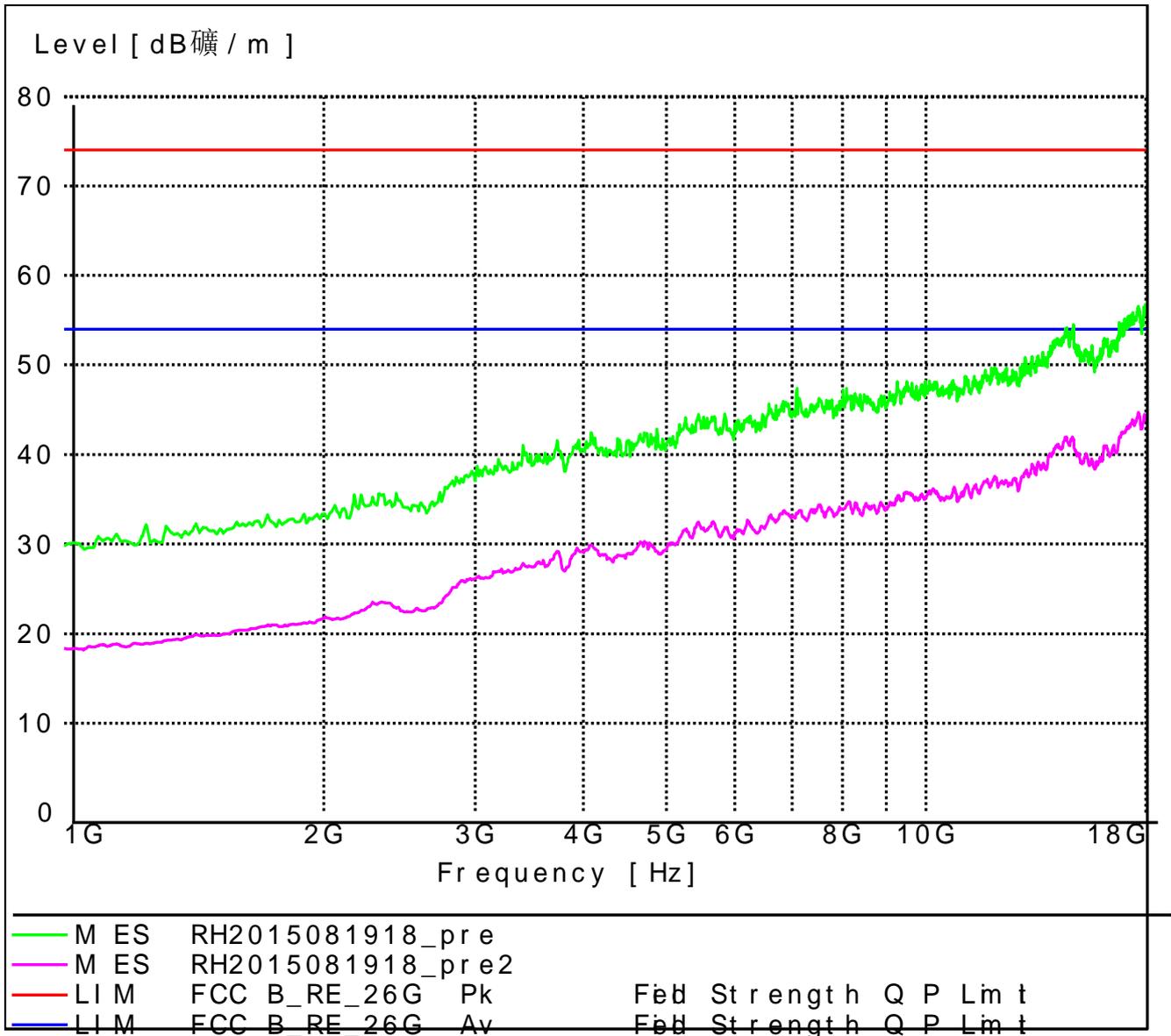
Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
2483.500000	60.50	35.1	74.0	13.5	PK	100.0	221.00	HORIZONTAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
2483.500000	47.80	35.1	54.0	6.2	AV	100.0	35.00	VERTICAL

Part 5: Testing Range of “1 GHz to 18 GHz”

- Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is the WORST case for all Test Modes and Channels. This range will not be presented for each Test Mode and each Channel.
- Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.
- Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB μ V/m) and Average Limit (54 dB μ V/m).

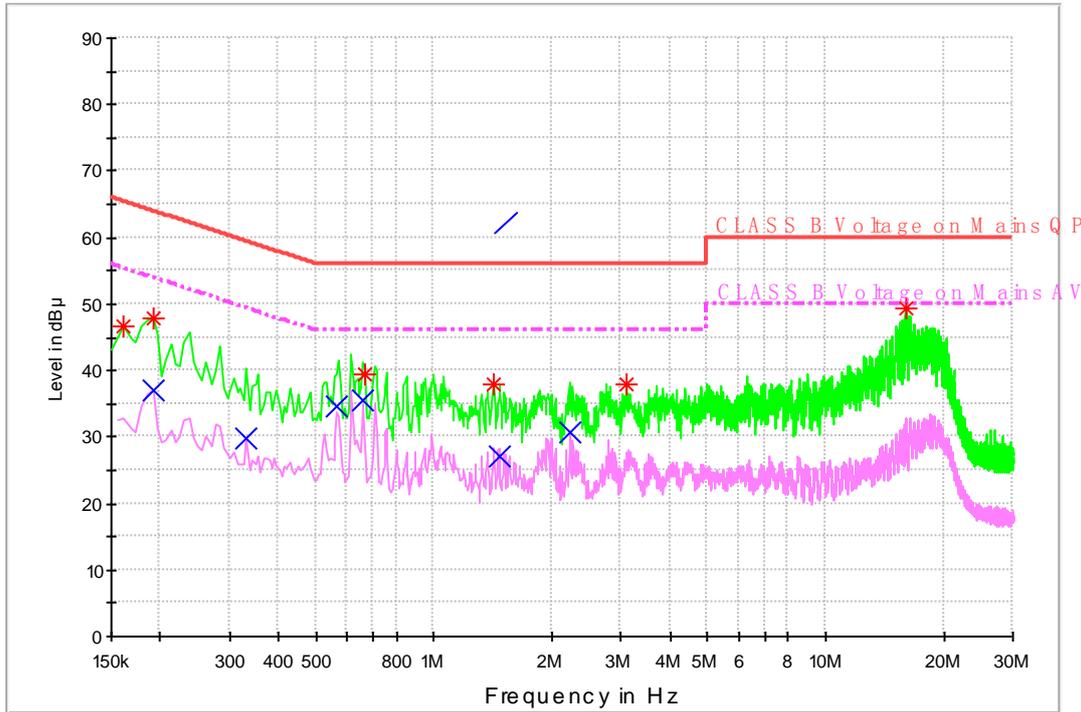


Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

Channel 39

CLASS B Voltage with ENV216



MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.161940	46.8	9.8	65.7	18.9	N	FLO
0.191790	47.7	9.8	65.4	17.7	L1	FLO
0.663939	39.5	9.8	56.0	16.5	N	FLO
1.412655	38.0	9.8	56.0	18.0	L1	FLO
3.105150	38.0	9.8	56.0	18.0	N	FLO
15.937665	49.3	10.2	60.0	10.7	L1	FLO

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.191790	36.9	9.8	55.3	27.1	L1	FLO
0.332085	29.7	9.8	48.2	24.7	N	FLO



0.564360	34.7	9.8	46.0	11.3	L1	FLO
0.658839	35.5	9.8	46.0	10.5	N	FLO
1.465965	27.1	9.8	46.0	18.9	N	FLO
2.221590	30.7	9.8	46.0	21.6	L1	FLO

END