



# Appendix for Test Report

## 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.

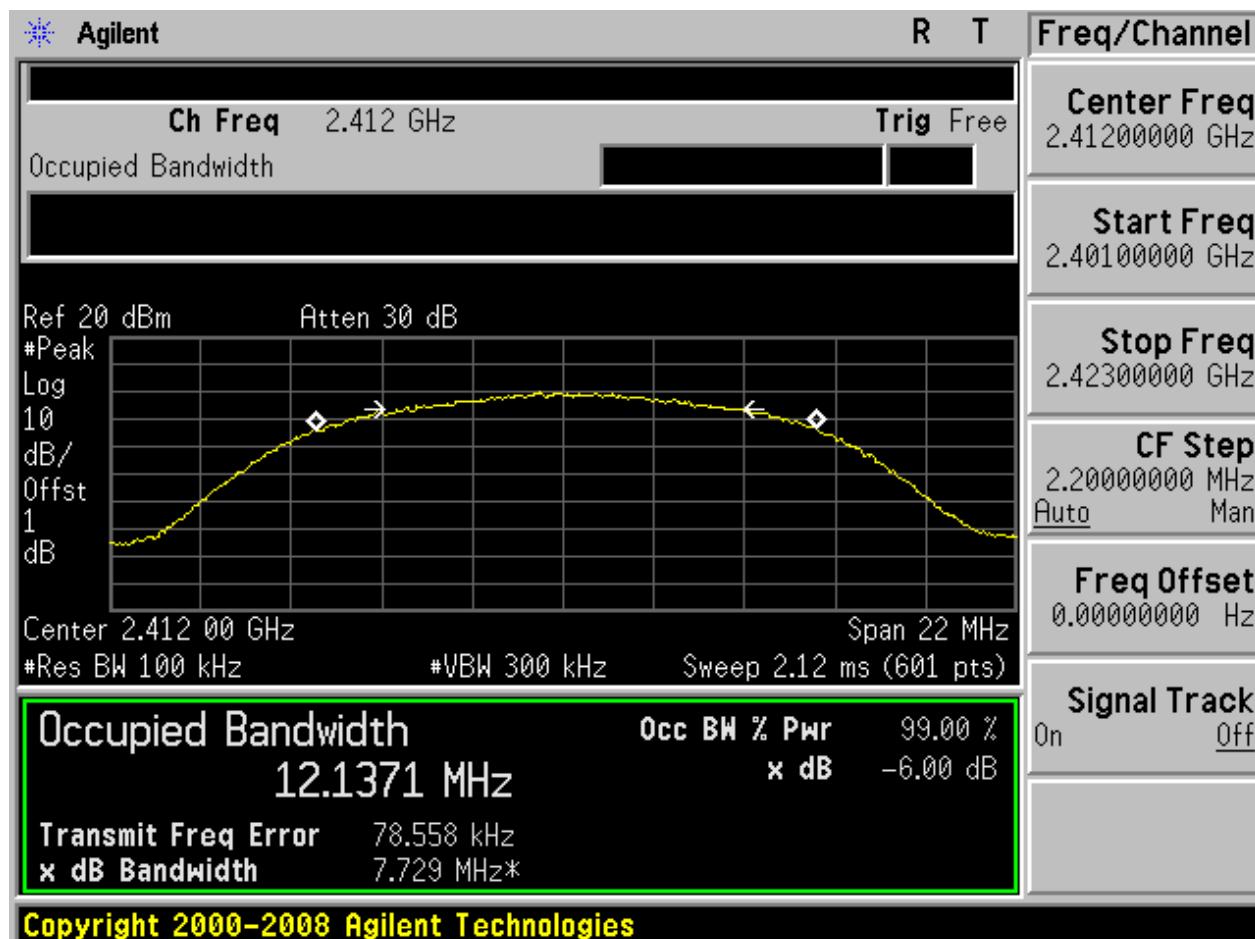
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

### Part I - Test Results

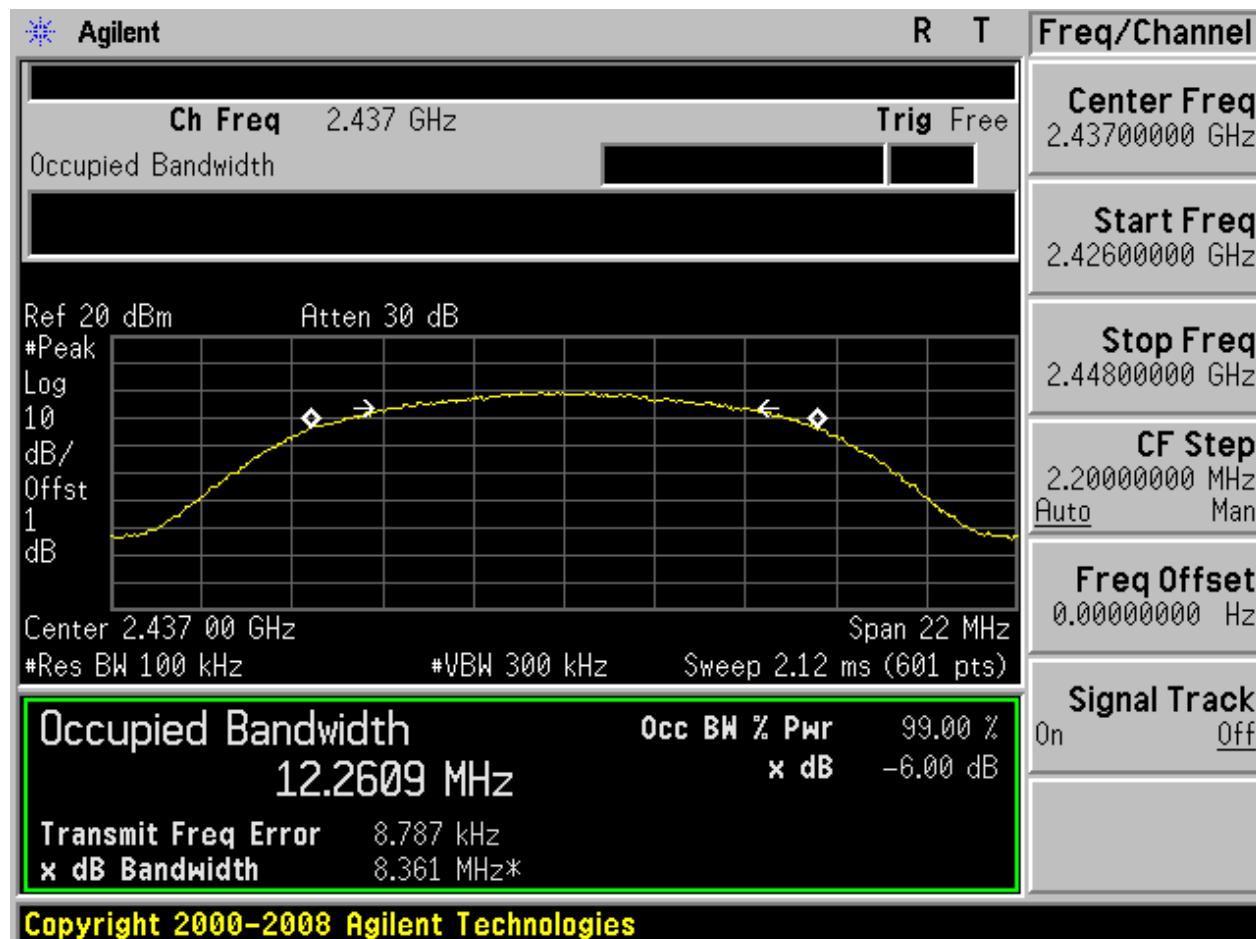
Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11B	L	2412	Ant 1	7.73	pass
11B	M	2437	Ant 1	8.36	pass
11B	H	2462	Ant 1	7.64	pass

## Part II - Test Plots

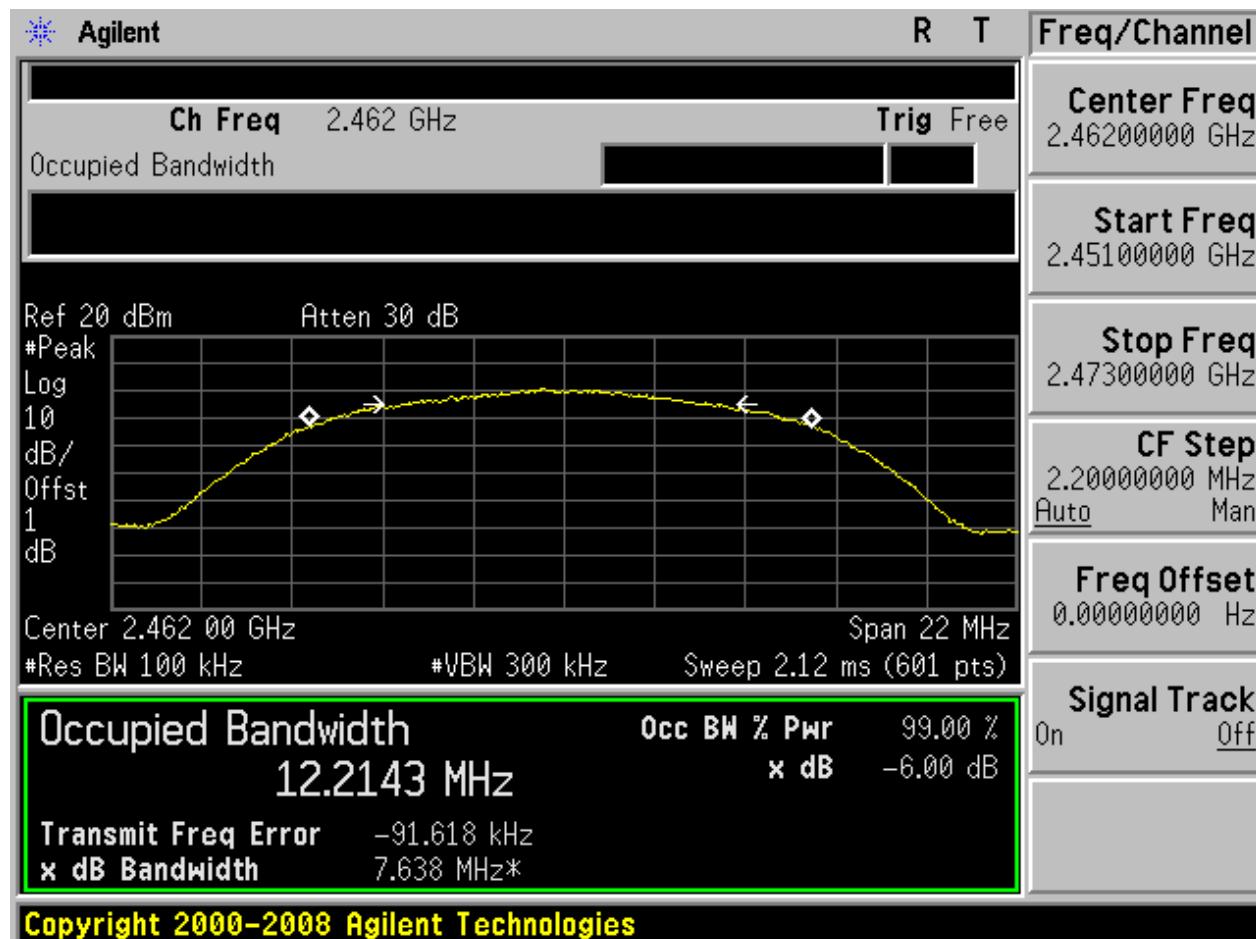
### 2.1 11B\_L



## 2.2 11B\_M



## 2.3 11B\_H



## Appendix B: Maximum Peak Conducted Output Power

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Meas. Level (Cond.) [dBm]	Verdict
11B	L	2412	21.16	pass
11B	M	2437	21.27	pass
11B	H	2462	20.91	pass

## Appendix C: Maximum Power Spectral Density Level

In this Appendix, the "PD" refers to the measured "Maximum Power Spectral Density" value with 100 kHz RBW. The final result "PD" within 3 kHz bandwidth, which is used to compare with the limit requirements, should be adjusted according to:  $PD[\text{dBm}/3 \text{ kHz}] = PD[\text{dBm}/100\text{kHz}] - 15.2[\text{dB}]$ .

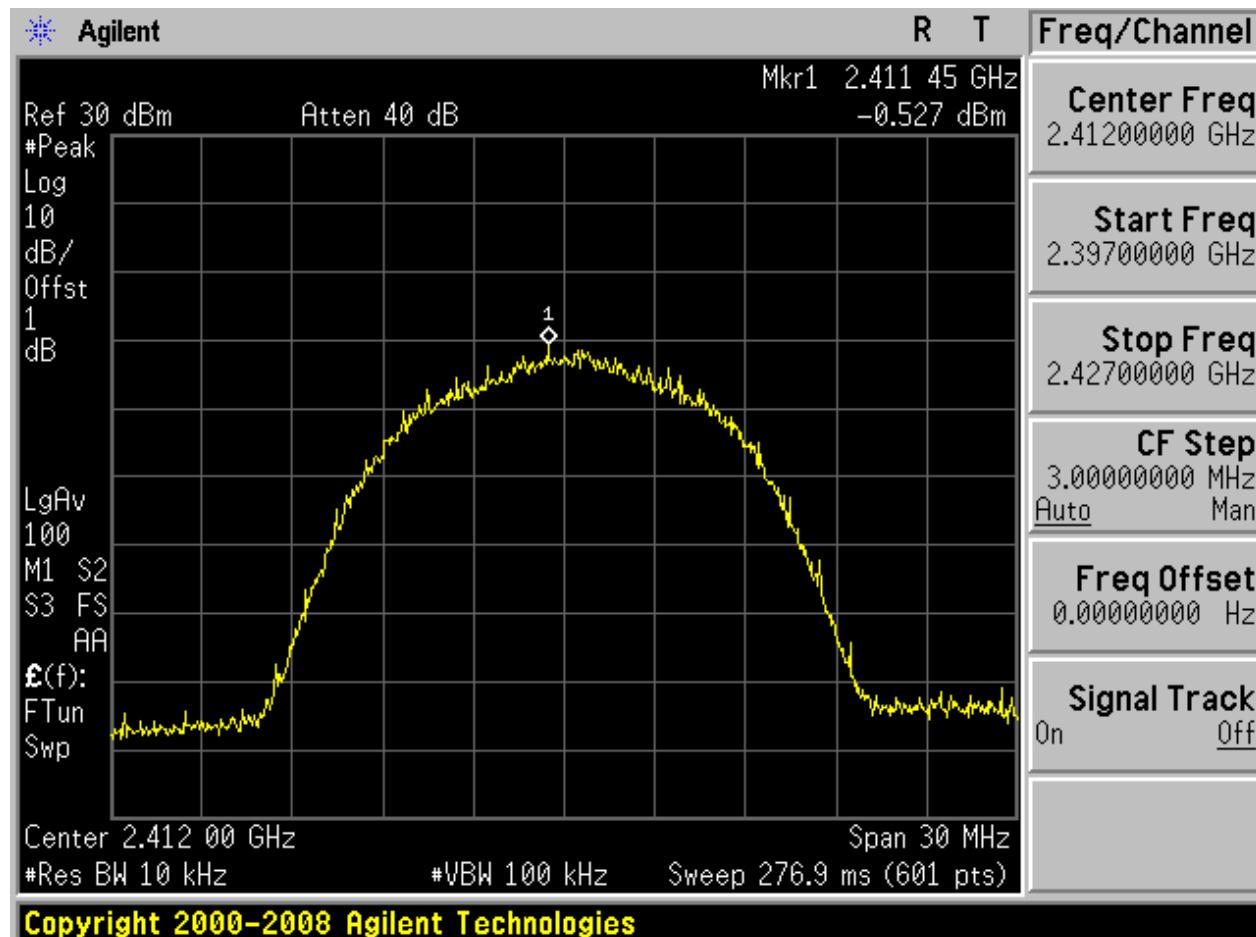
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain as "PD@i [dBm]", and then combined into the final result "PD [dBm]" to compare with the limit according to:  $PD [\text{dBm}] = 10 \times \lg(10^{\text{PD}@1 [\text{dBm}]/10} + \dots + 10^{\text{PD}@N [\text{dBm}]/10})$  (the N denotes the antenna chains used by smart antenna systems). NOTE that the method is a stringent but convenient consideration, because each "PD@i [dBm]" may be located at different frequency occurrence. For the final judgment, the combination of the final result "PD [dBm]" (Trace#sum) should be performed frequency-by-frequency on the measured spectrum trace for each antenna chain (Trace#i). Unless otherwise specified, the method for final judgment will not be used.

### Part I - Test Results

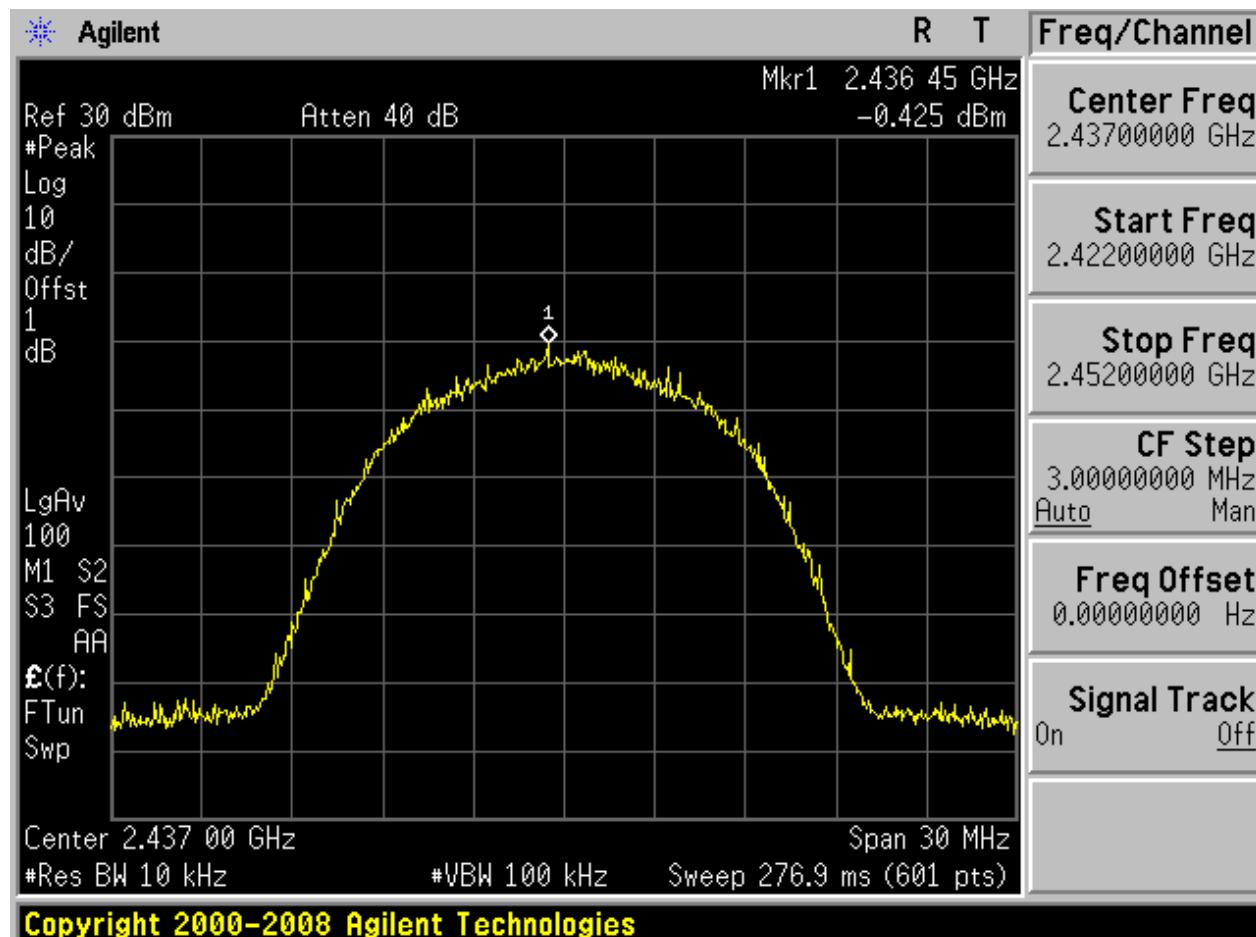
Test Mode	Test Channel	Frequency[MHz]	Ant	PD[MHz]	Verdict
11B	L	2412	Ant 1	-.53	pass
11B	M	2437	Ant 1	-.43	pass
11B	H	2462	Ant 1	-.15	pass

## Part II - Test Plots

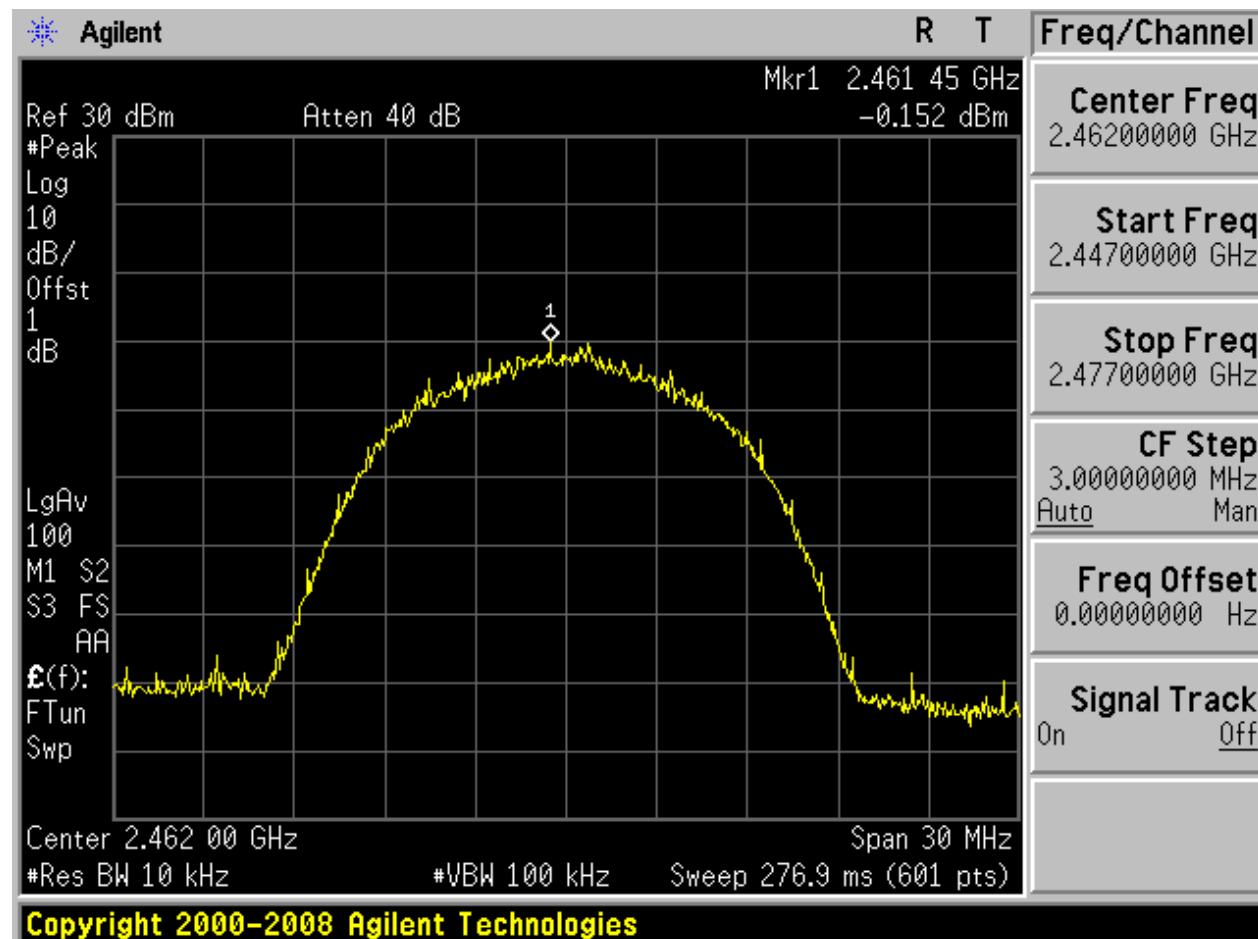
### 2.1 11B\_L



## 2.2 11B\_M



## 2.3 11B\_H



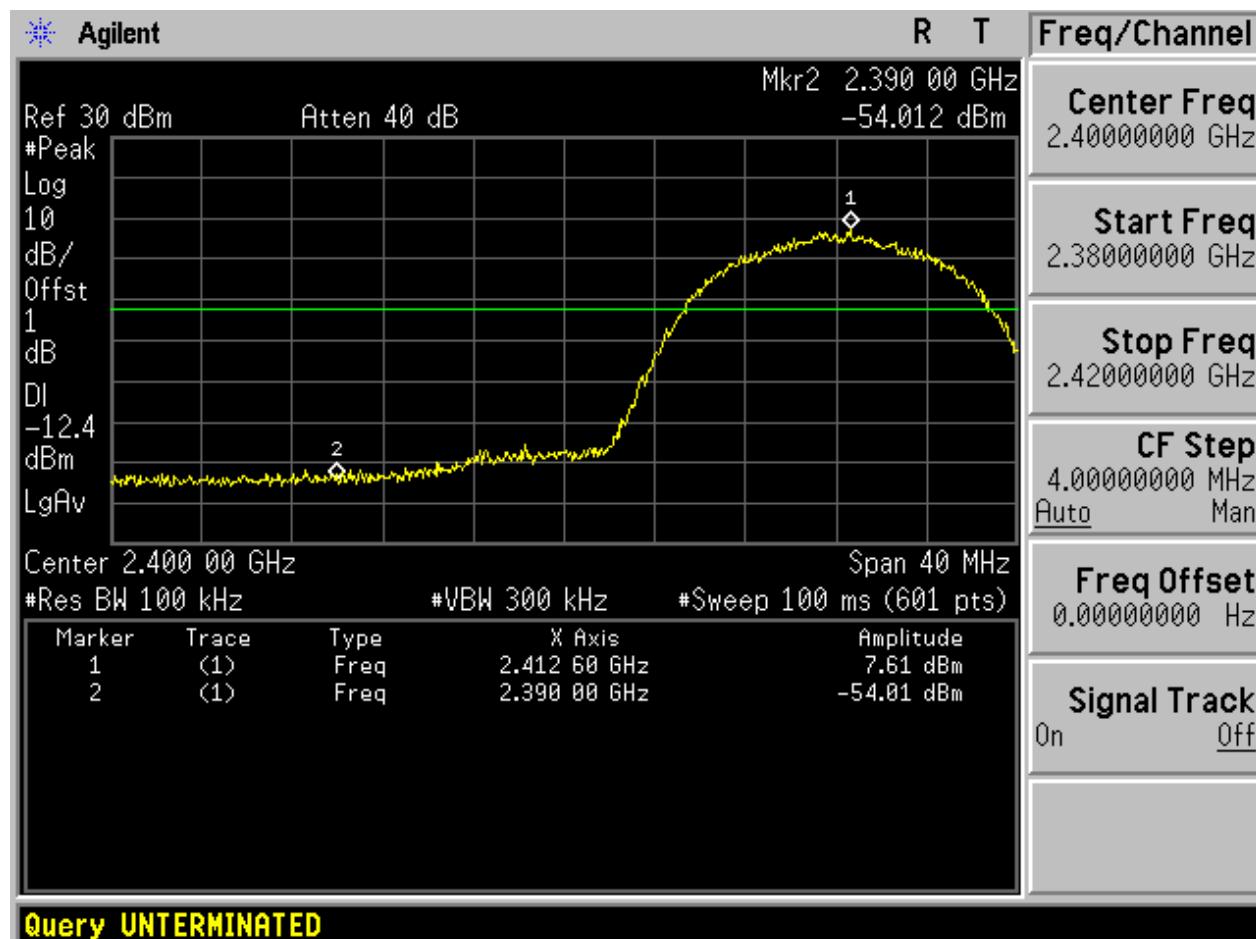
## Appendix D: Band Edges Compliance

### Part I - Test Results

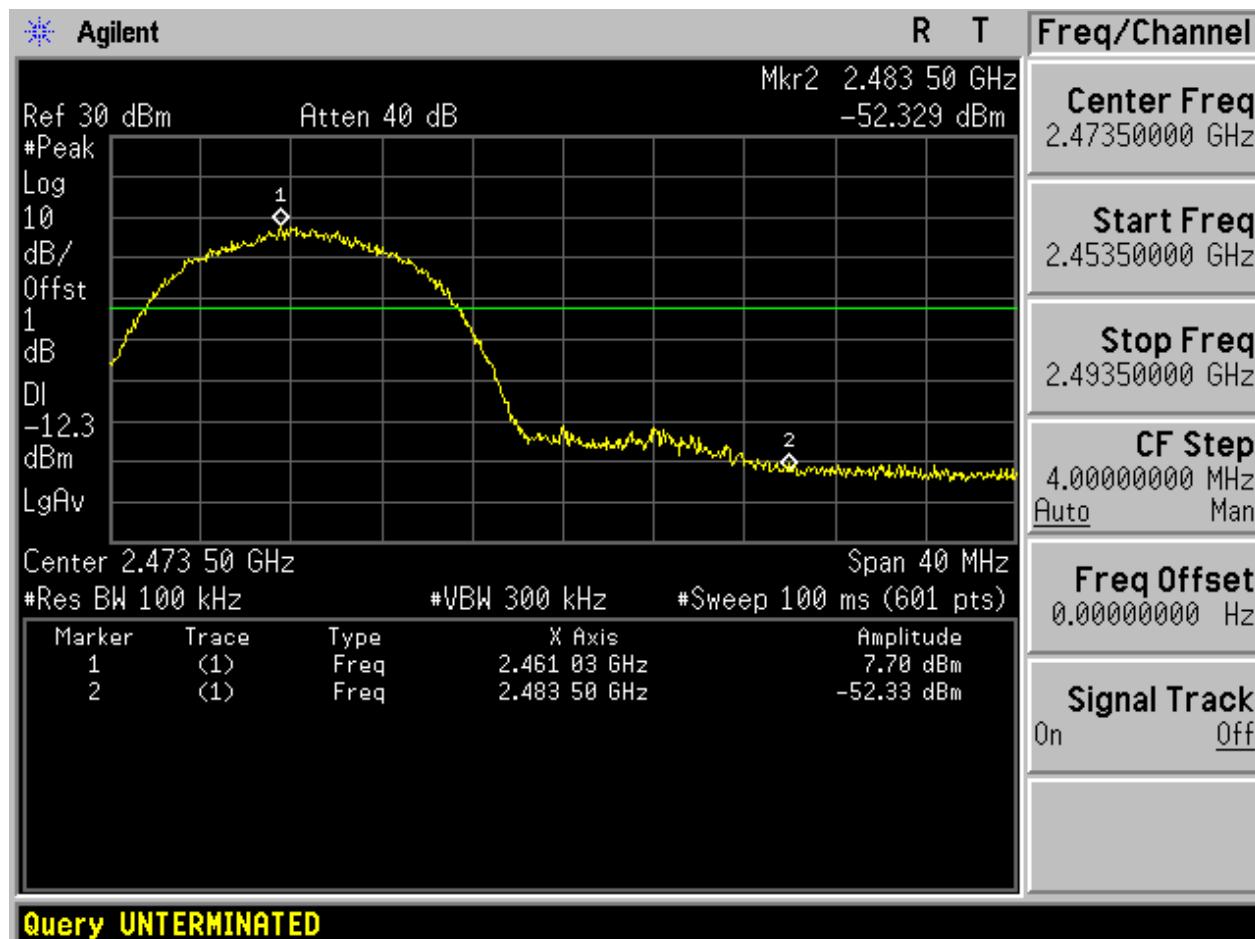
Test Mode	Test Channel	Frequency[MHz]	Ant	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
11B	L	2412	Ant 1	7.61	-54.01	pass
11B	H	2462	Ant 1	7.70	-52.33	pass

## Part II - Test Plots

### 2.1 11B\_L



## 2.2 11B\_H



## Appendix E: 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" referrs 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  $RBWCF [dB] = 10 \times \lg(100 [kHz]/narrower RBW [kHz])$ . 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".

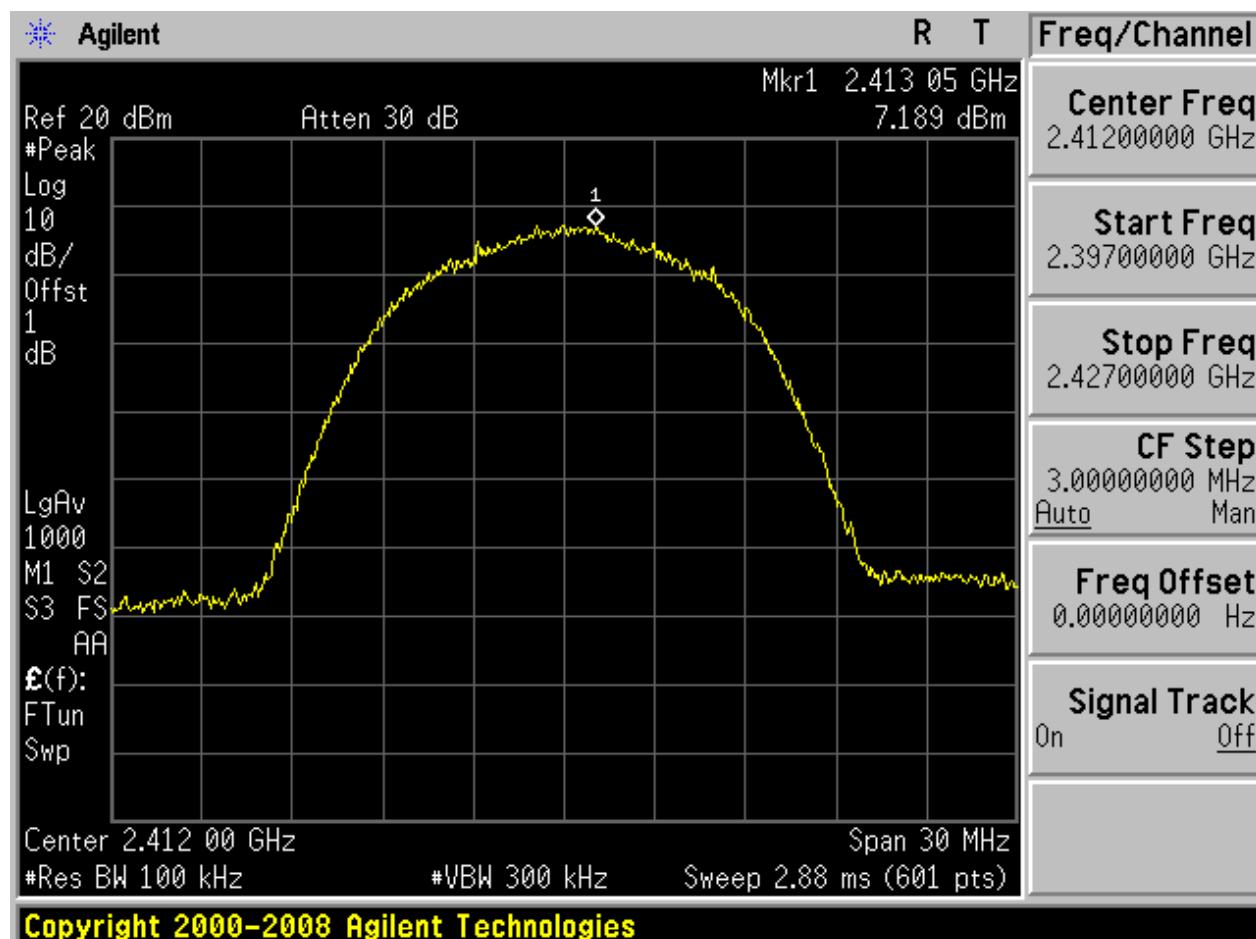
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Pref[dBm]	Puw[dBm]	Verdict
11B	L	2412	Ant 1	7.19	<limit	pass
11B	M	2437	Ant 1	8.09	<limit	pass
11B	H	2462	Ant 1	9.25	<limit	pass

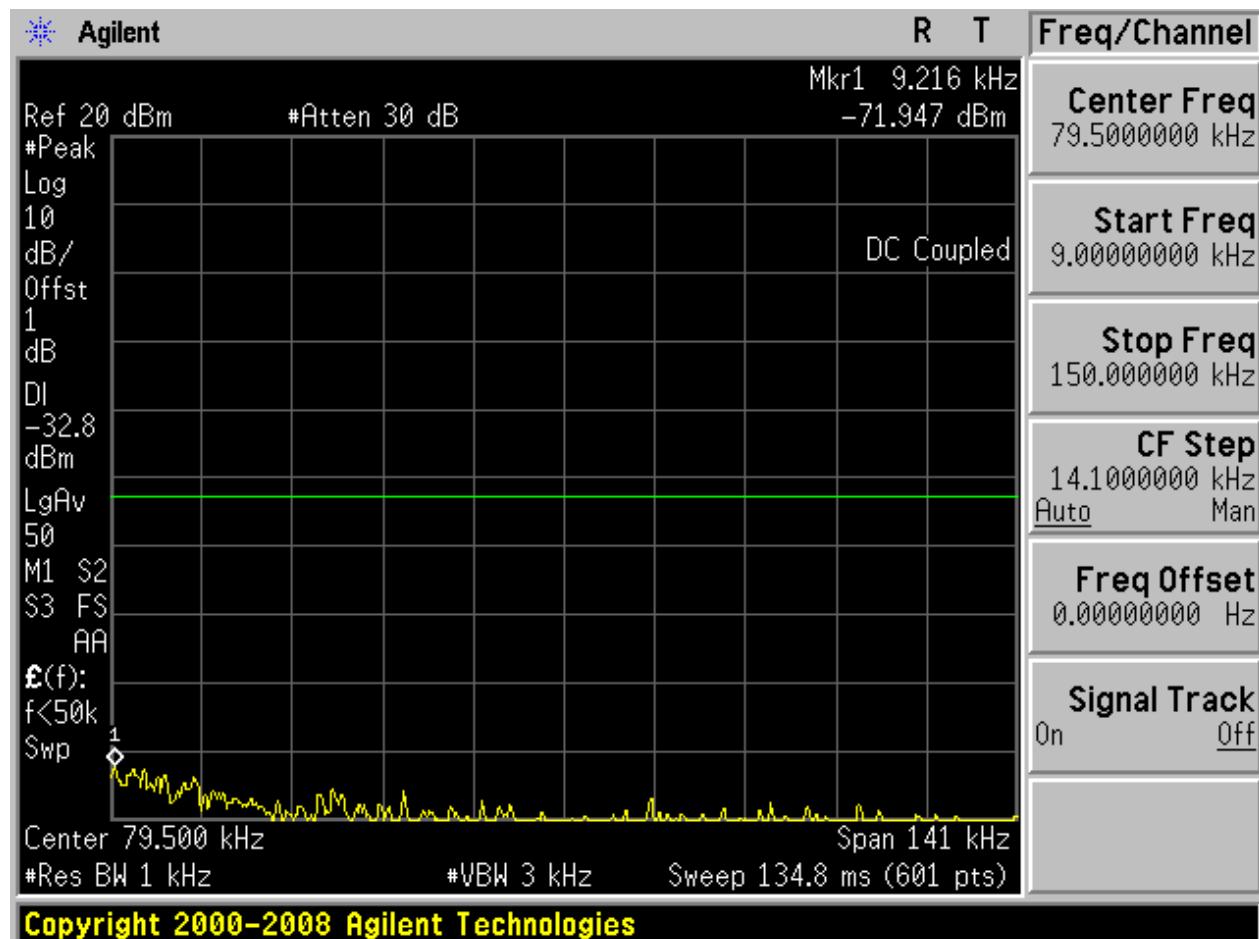
## Part II - Test Plots

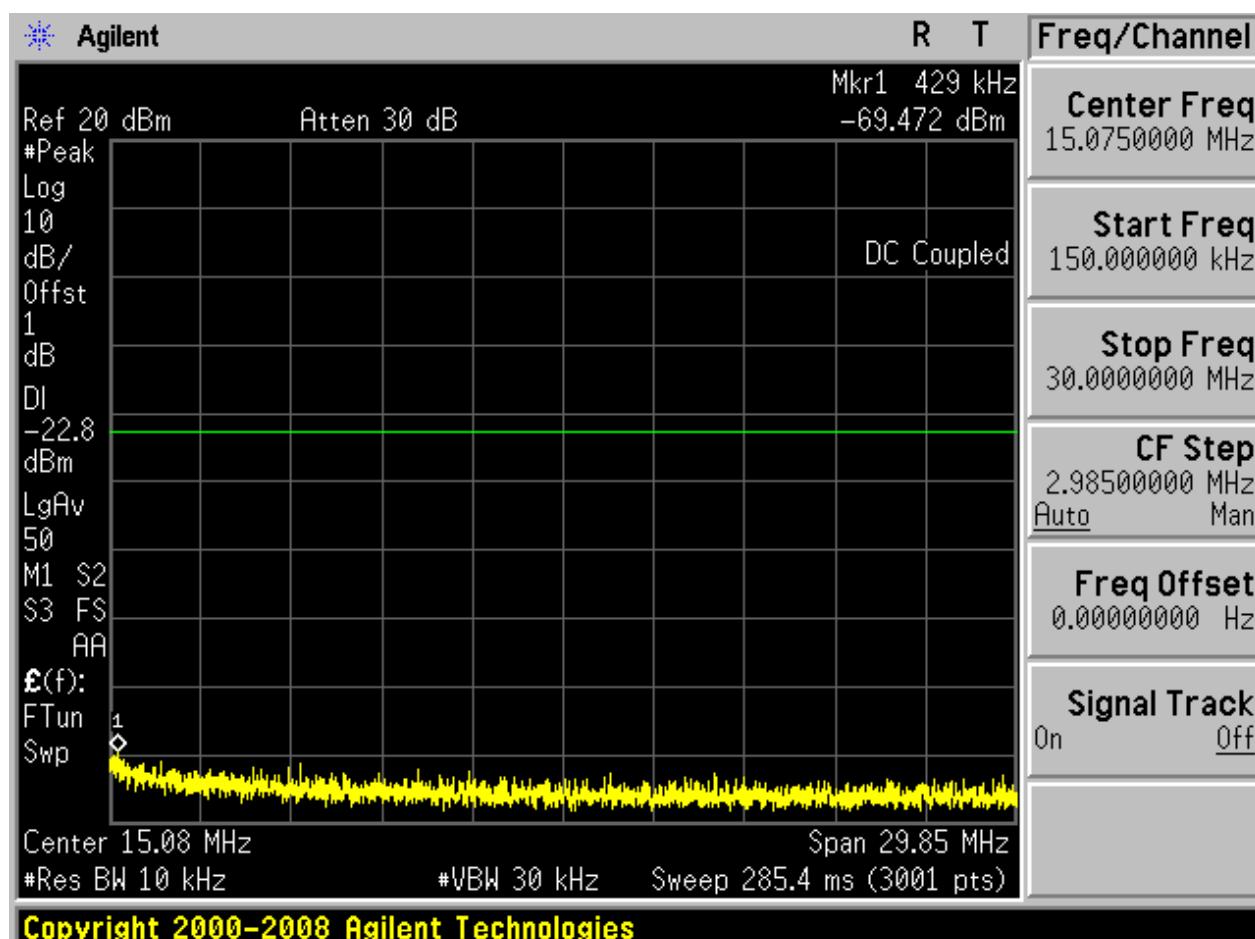
### 2.1 11B\_L

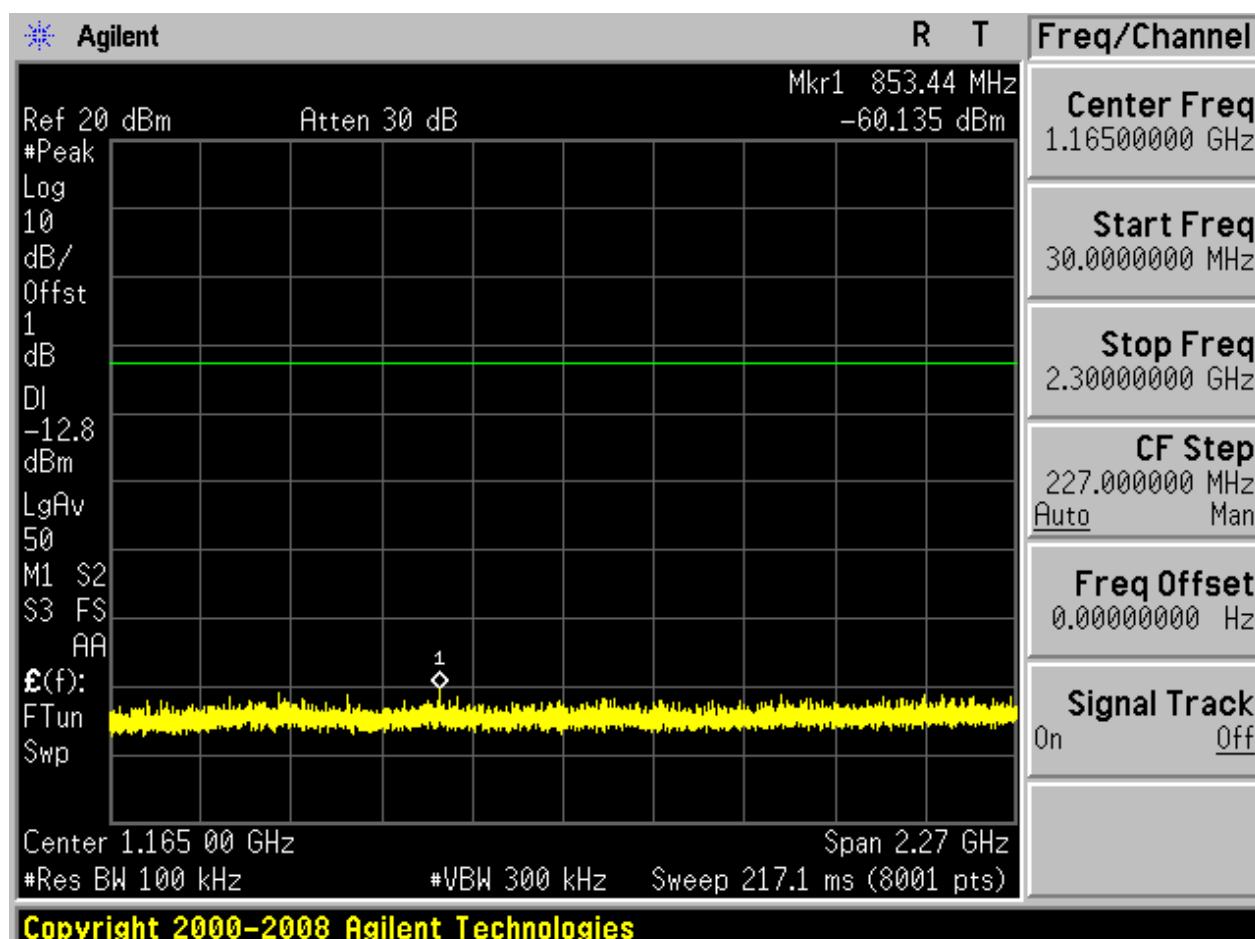
Pref:

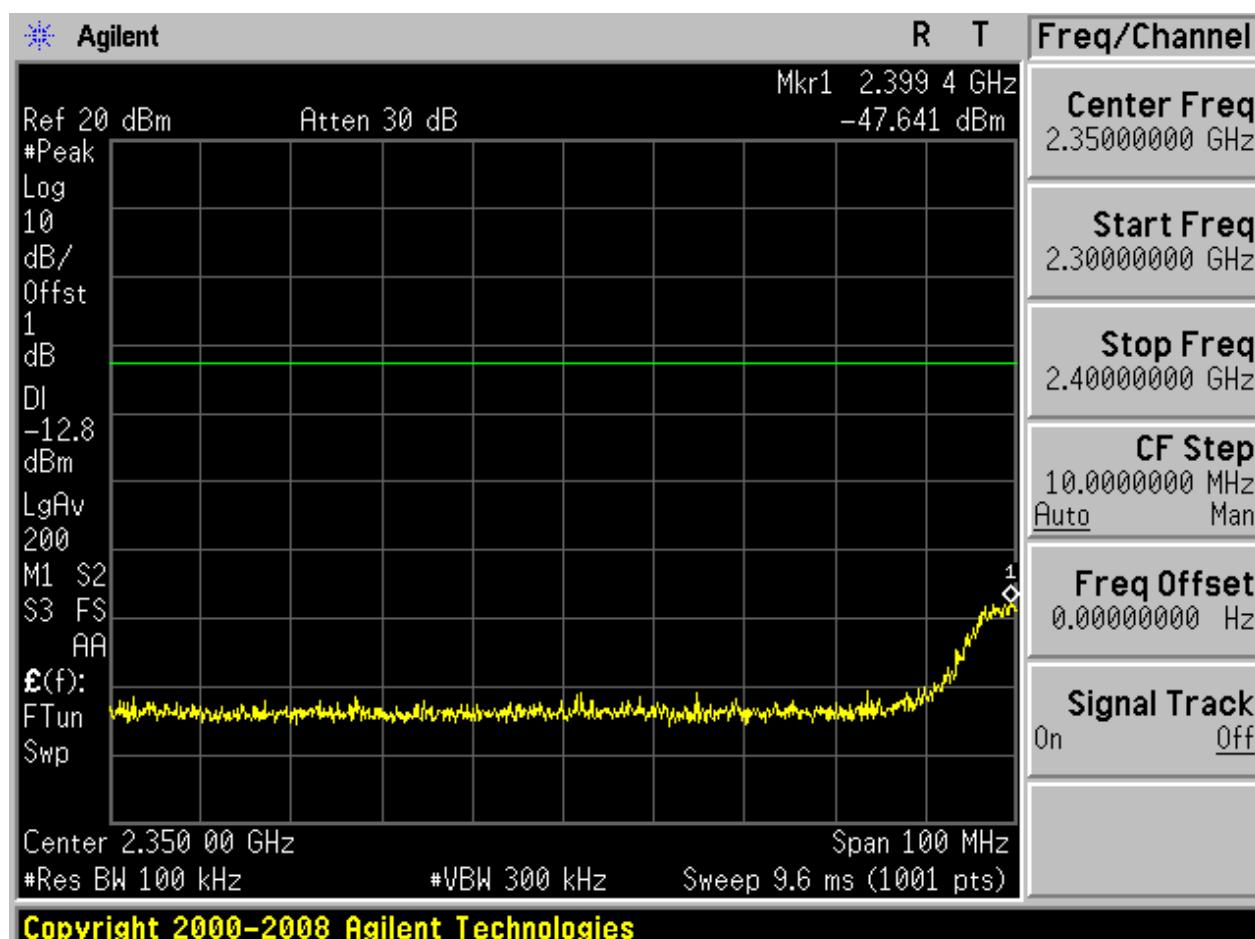


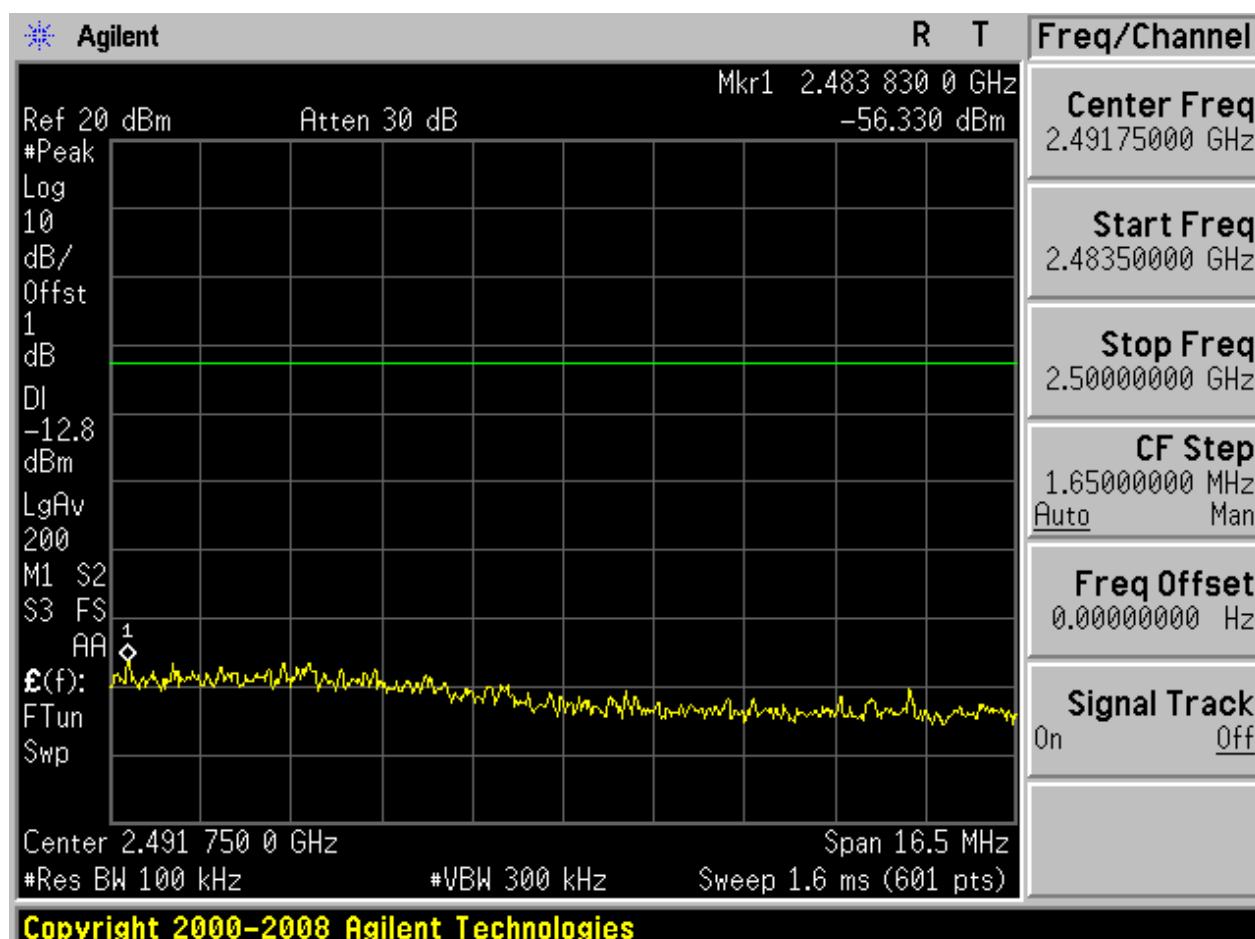
Puw:



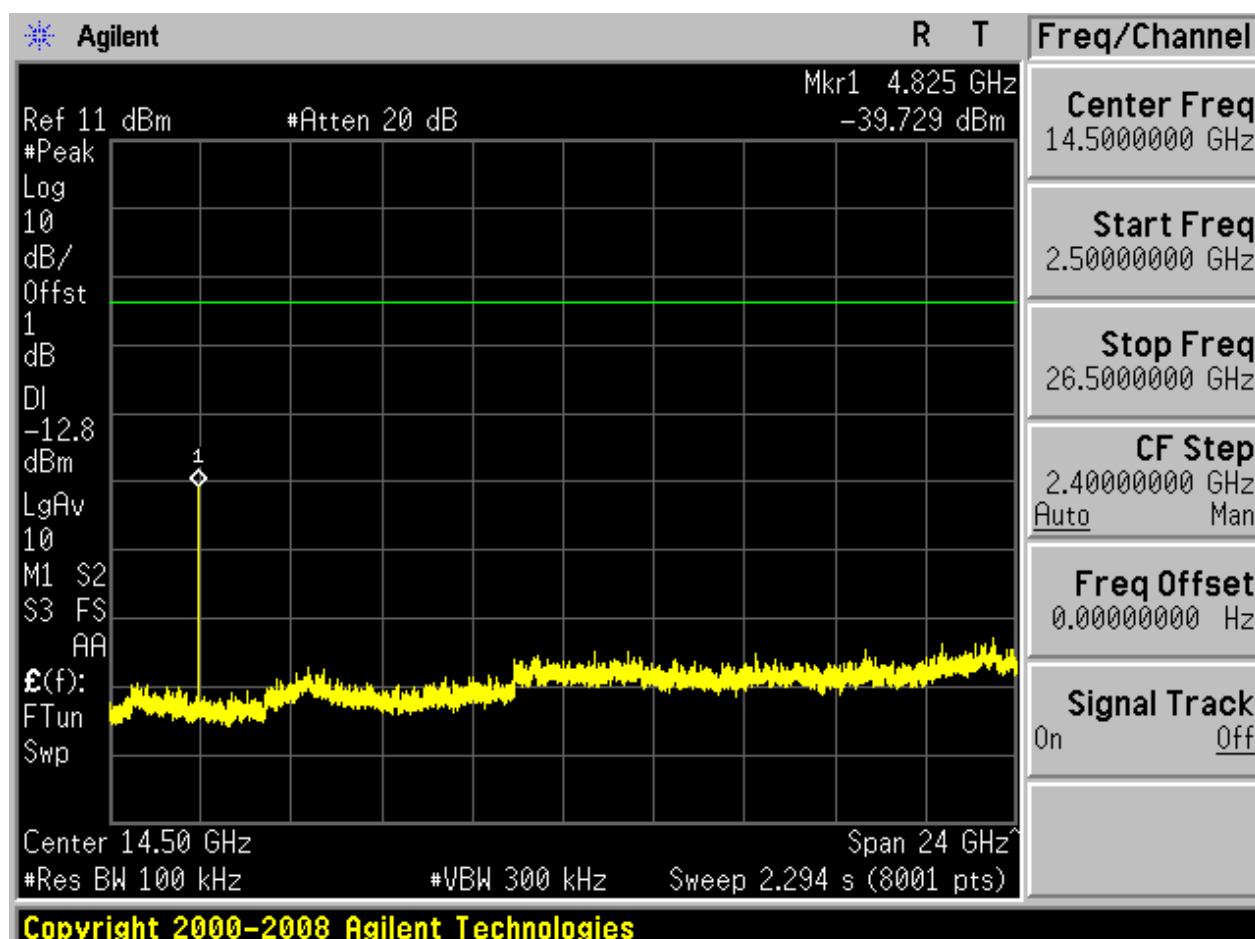






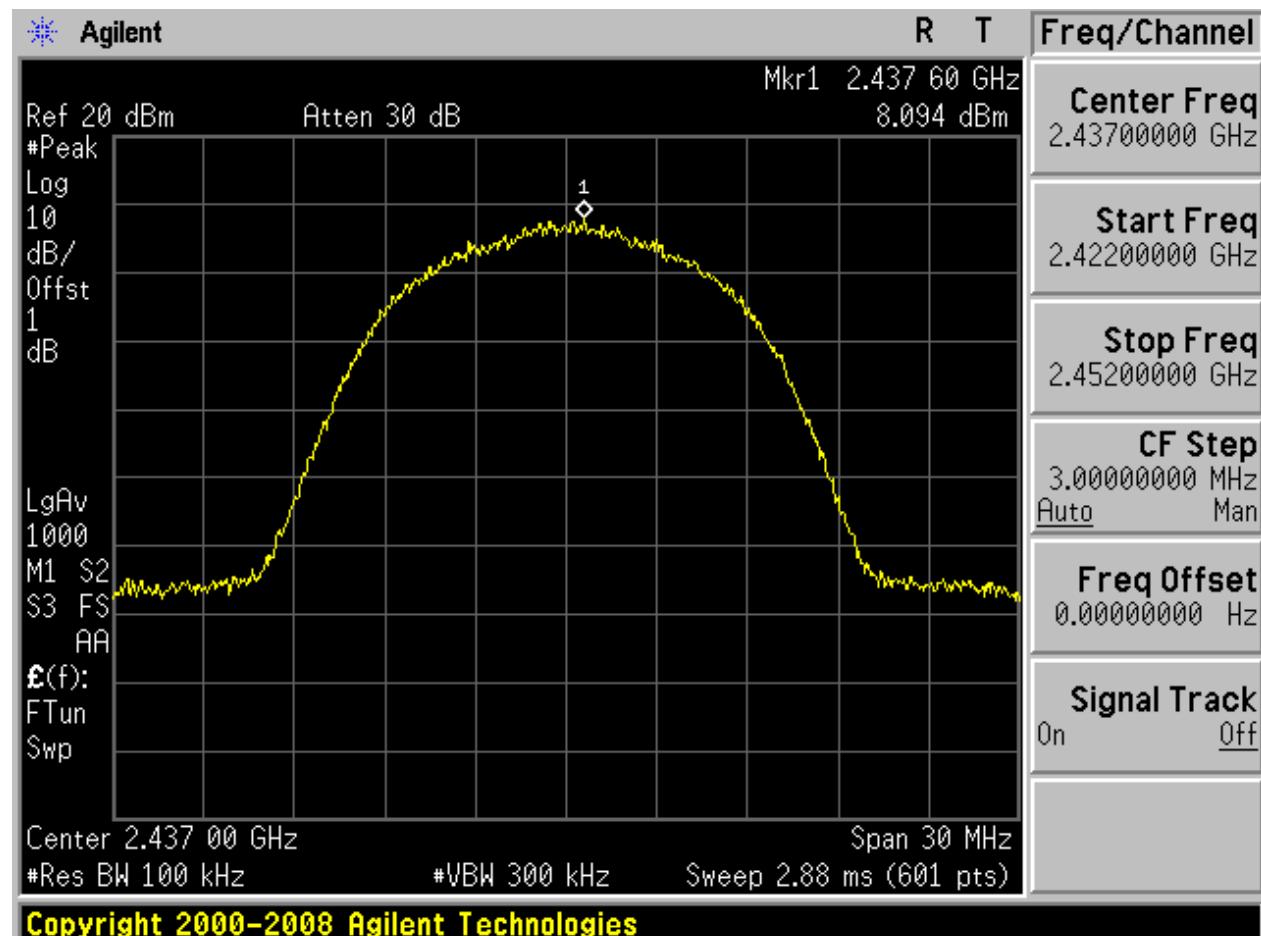


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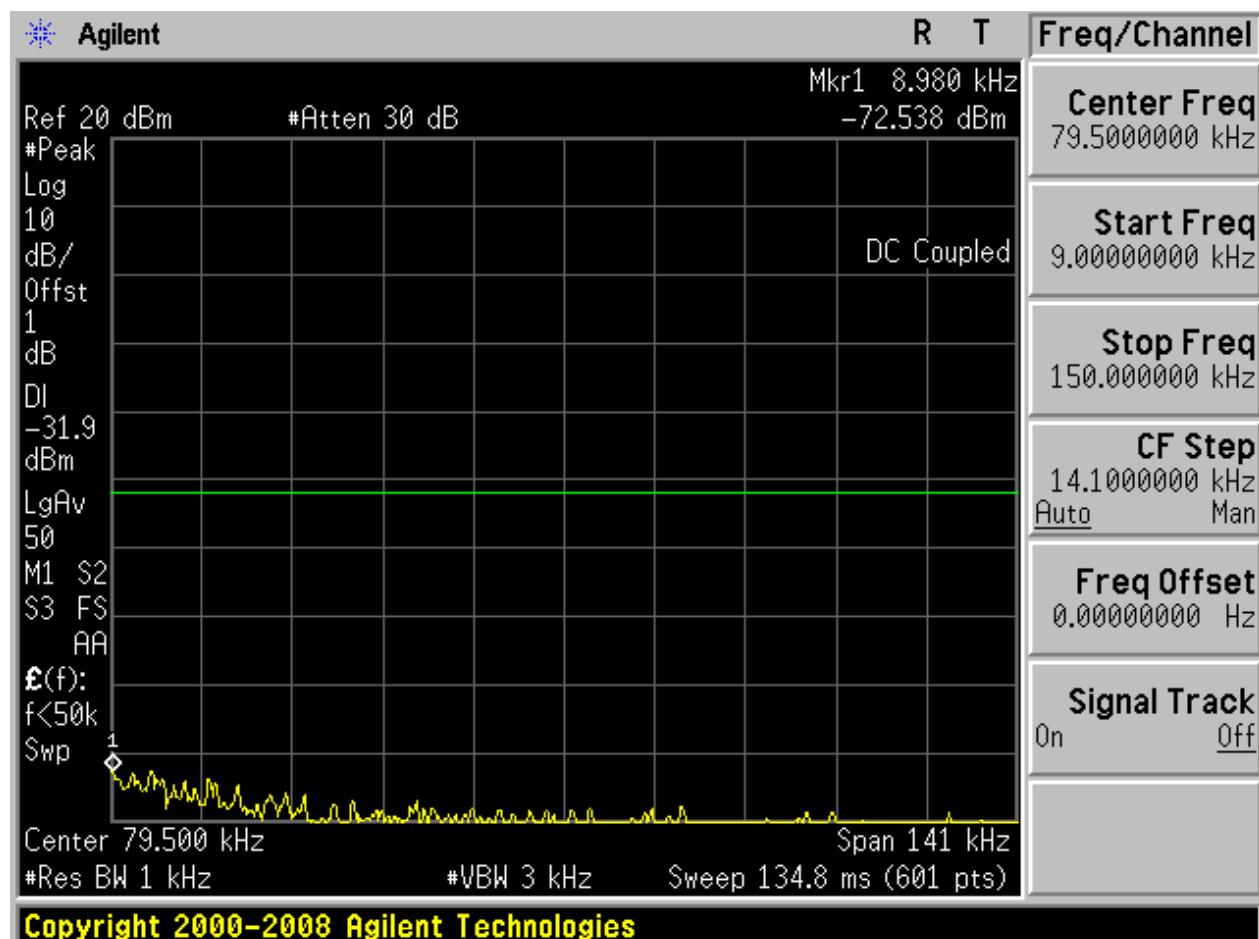


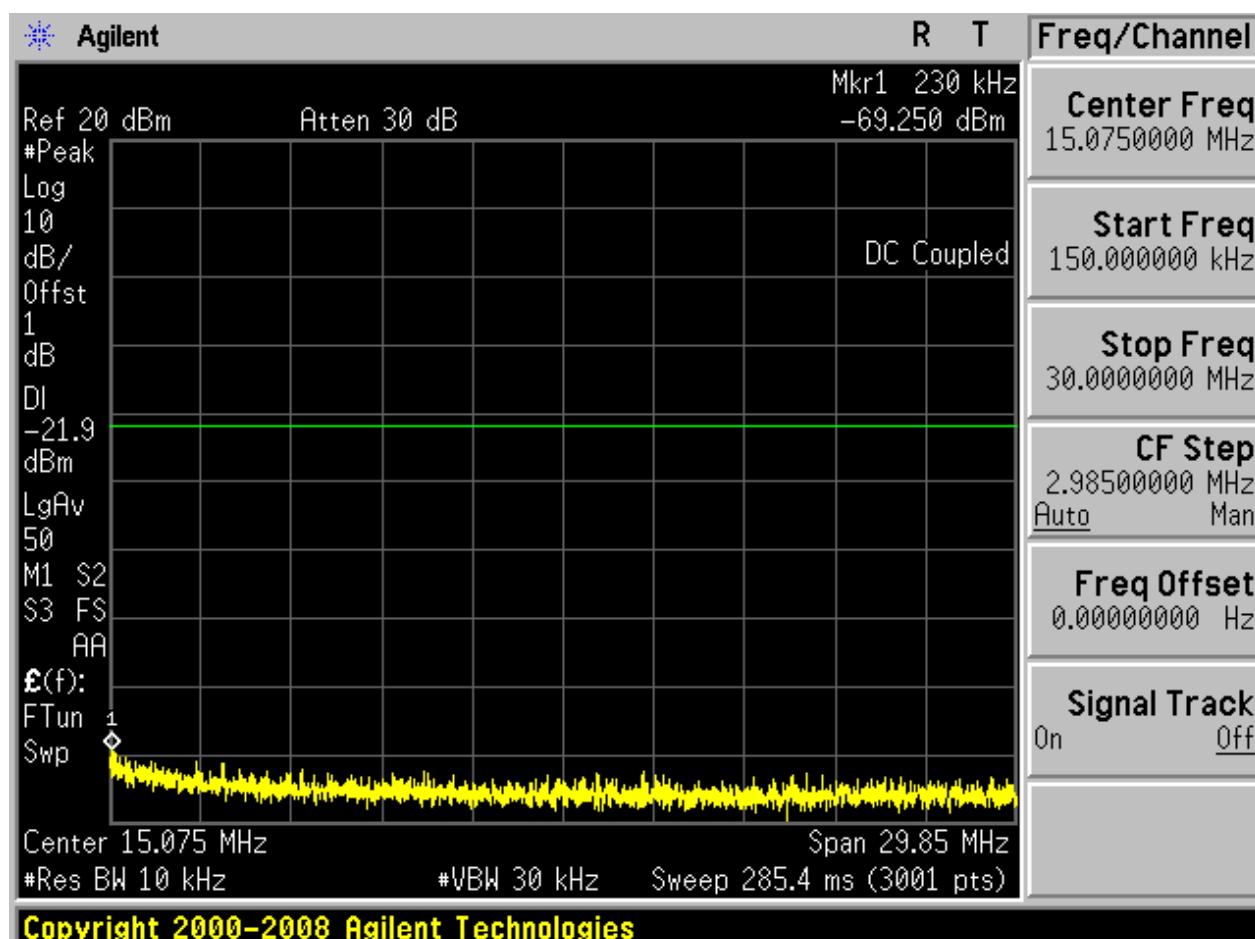
## 2.2 11B\_M

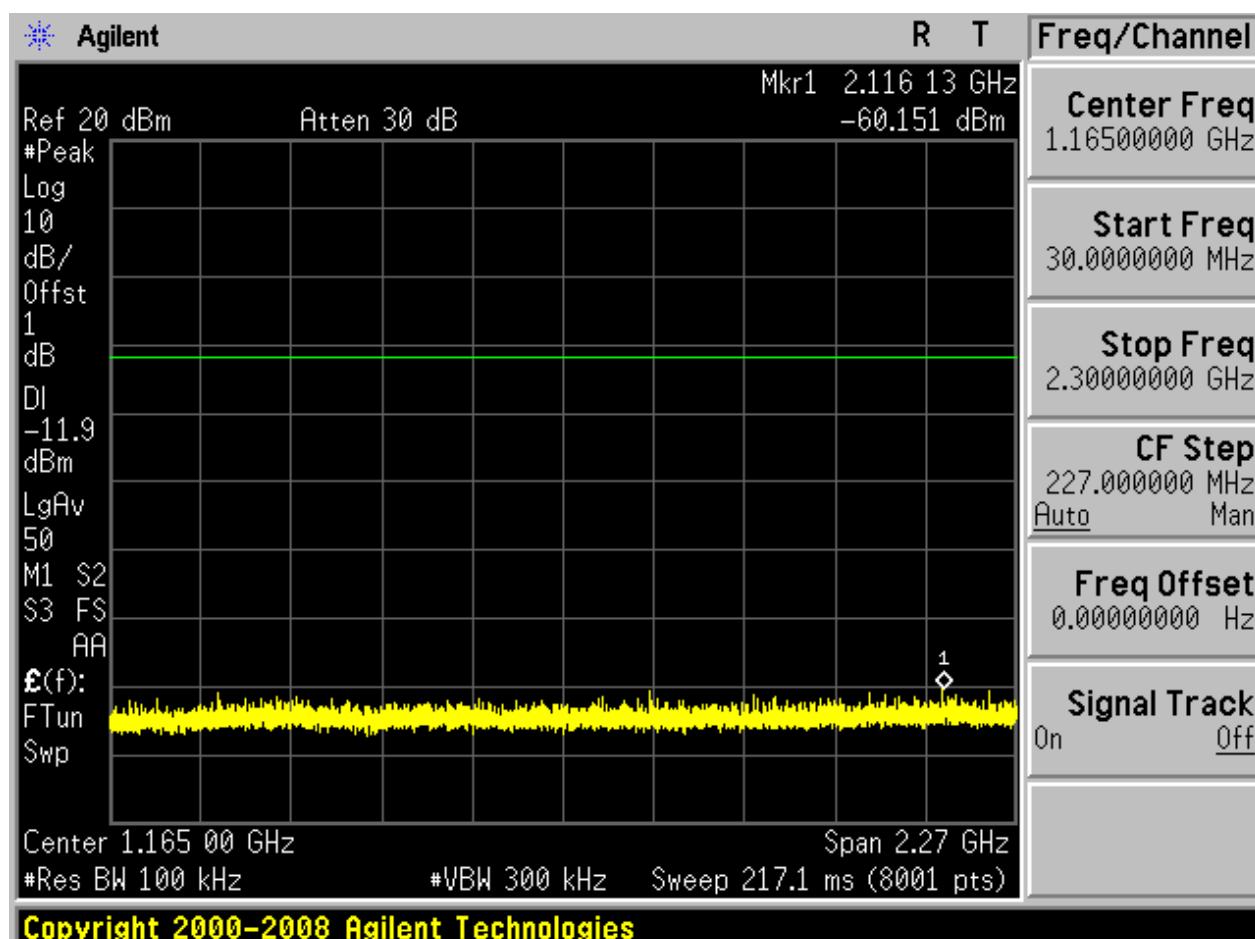
Pref:

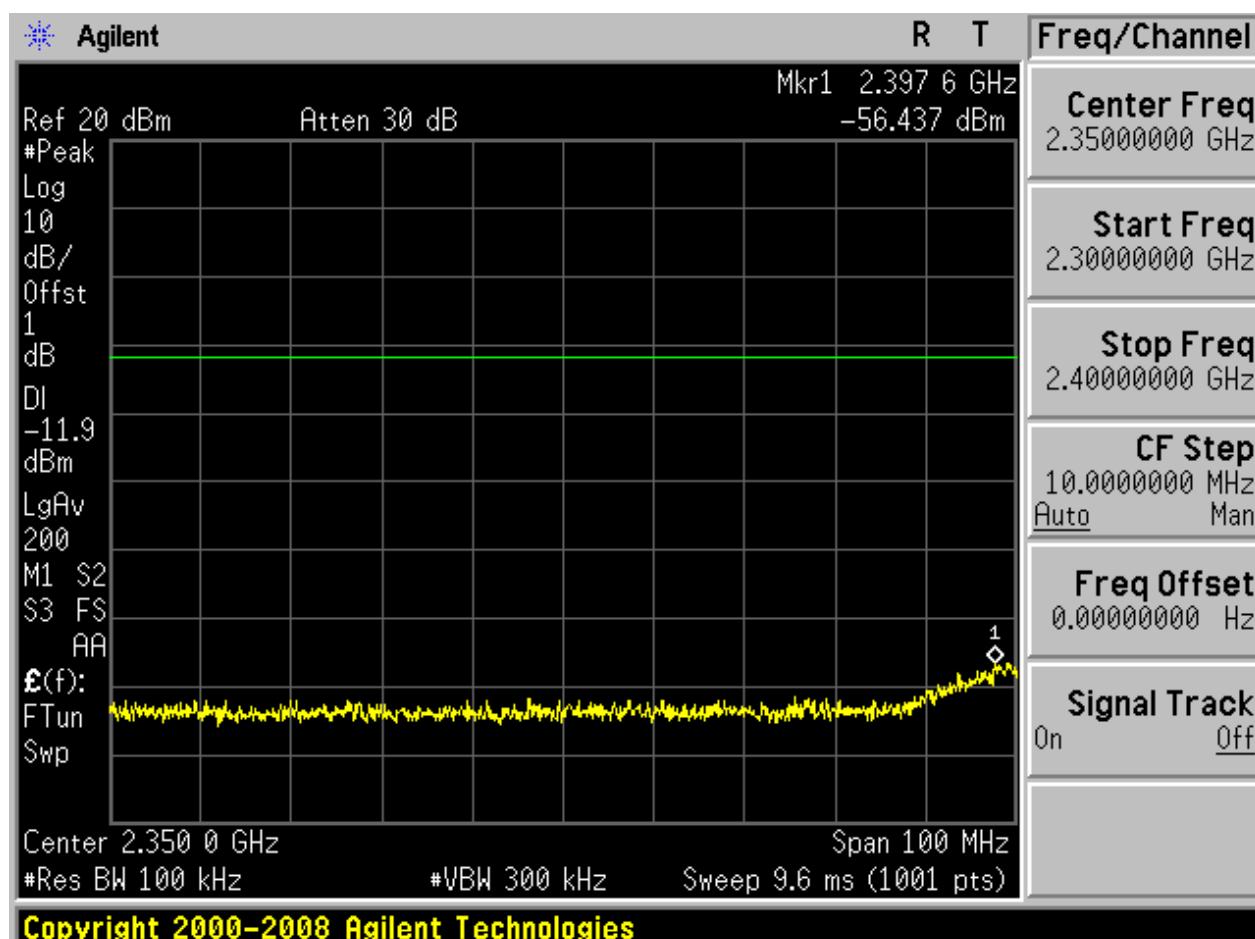


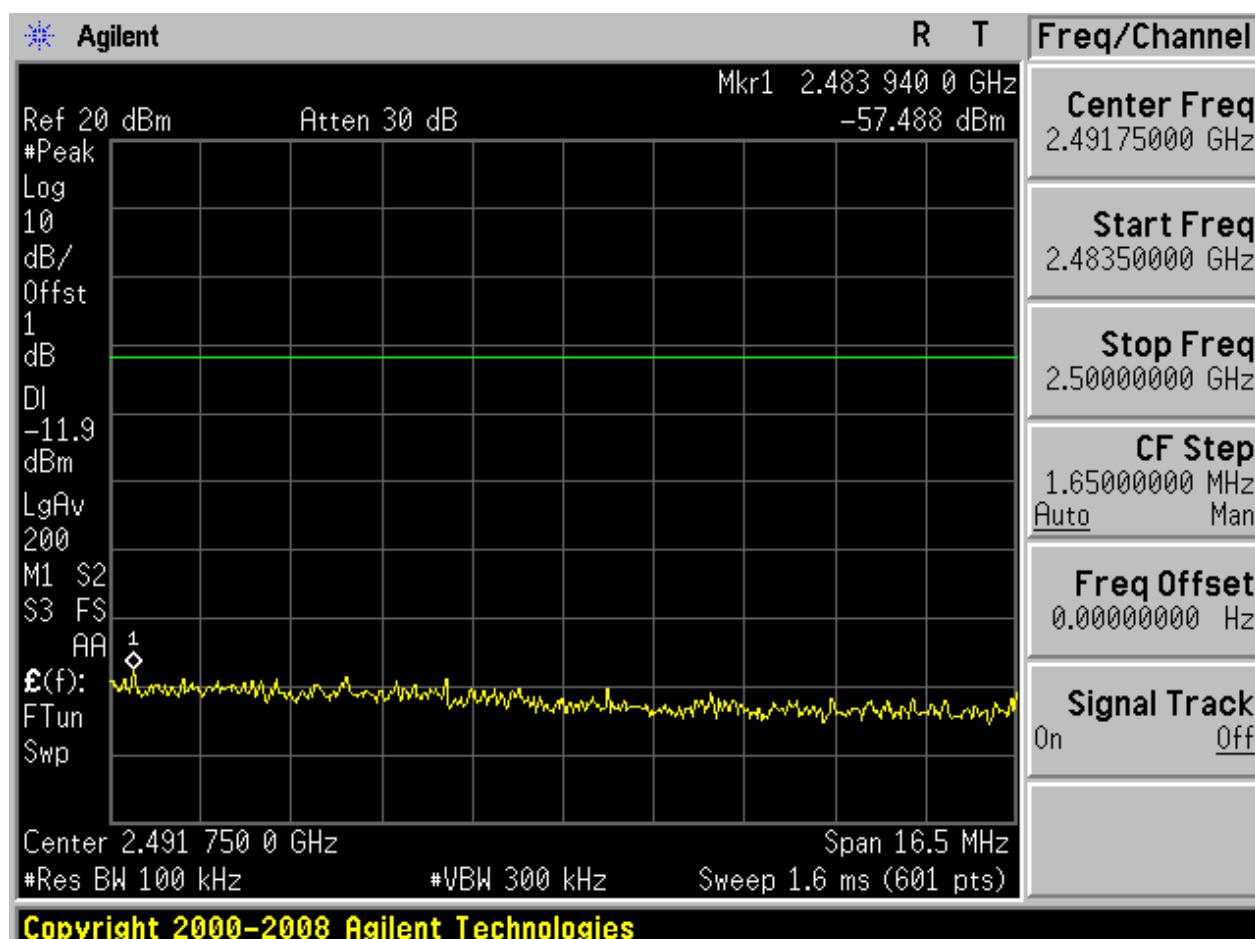
Puw:



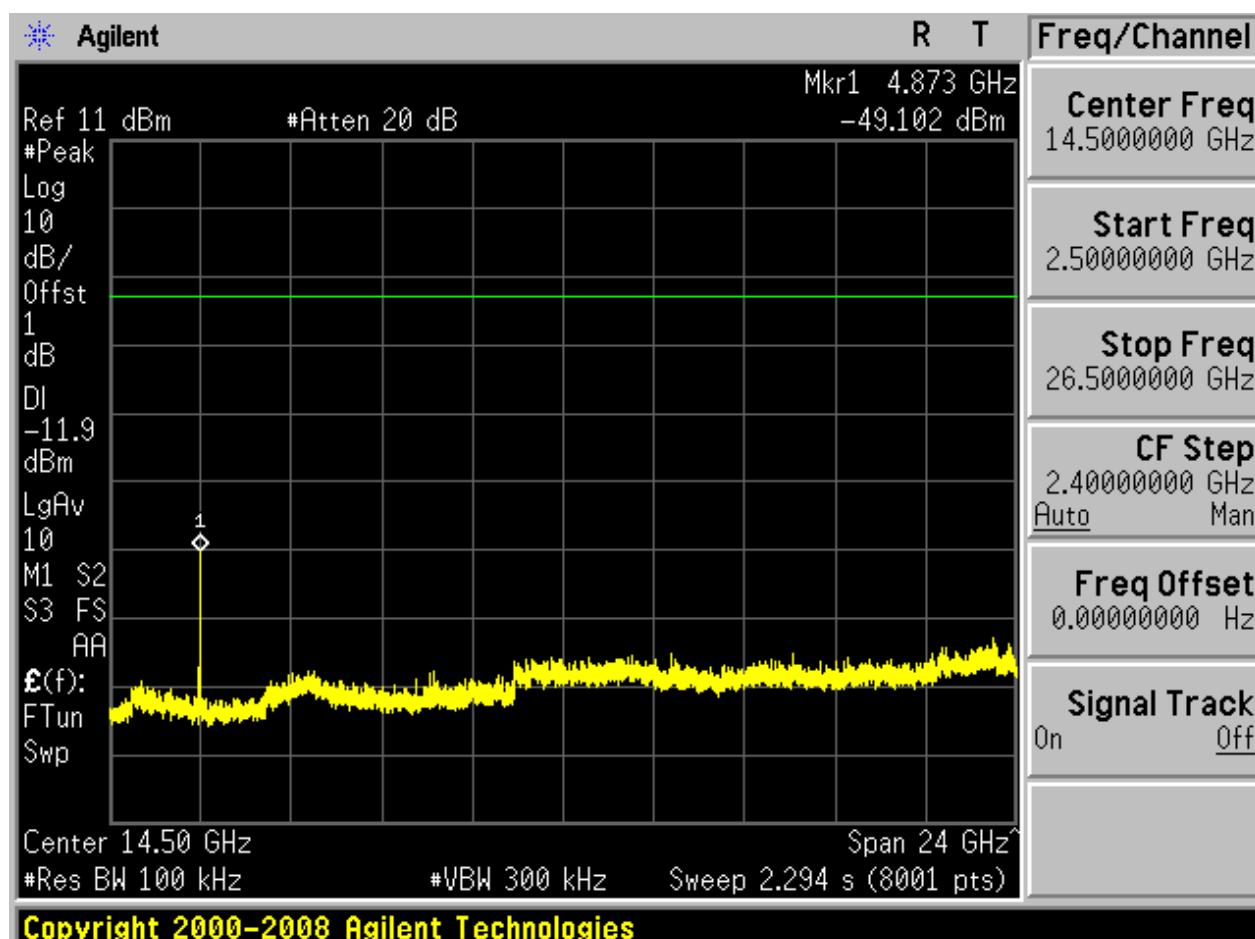






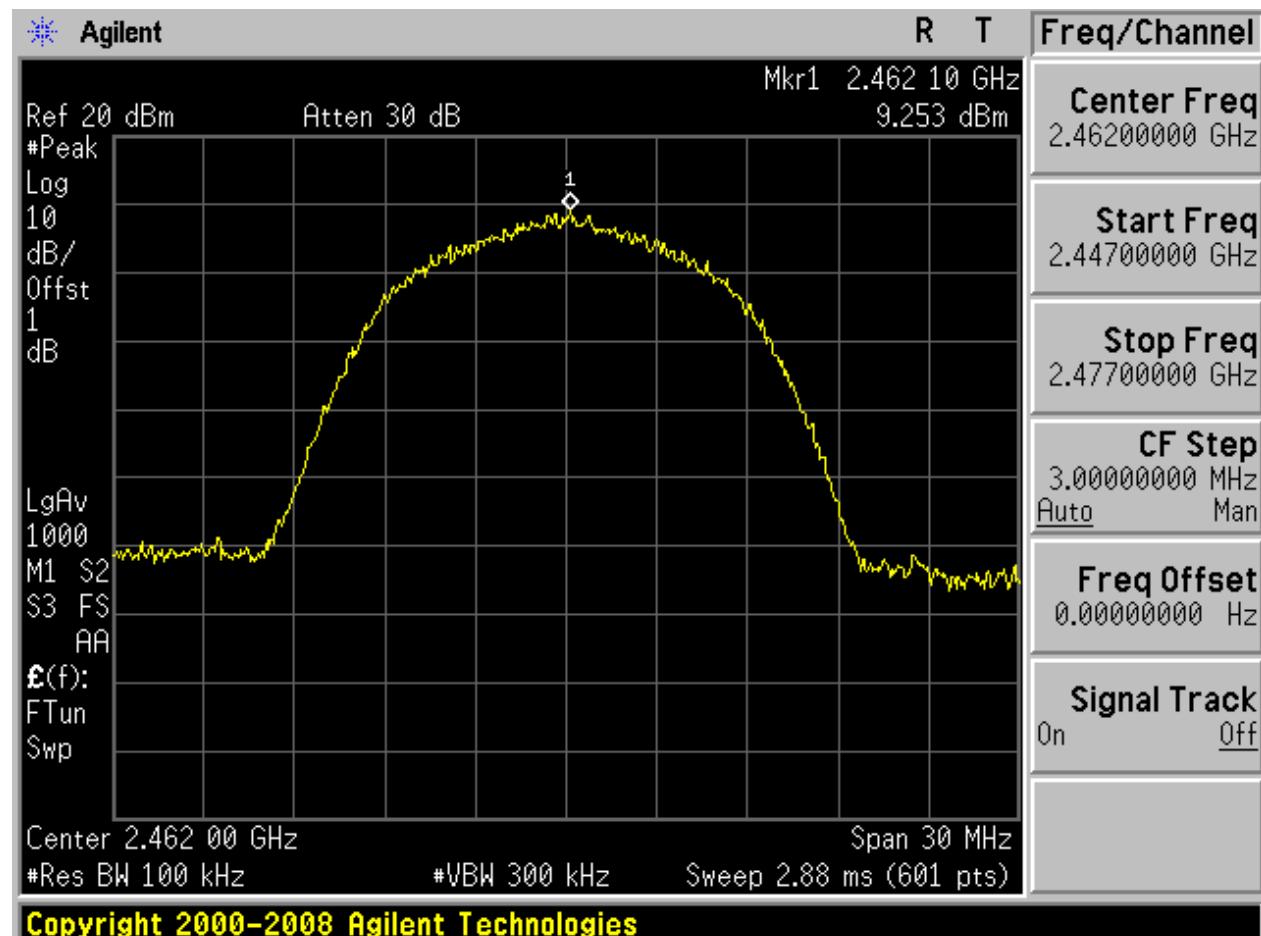


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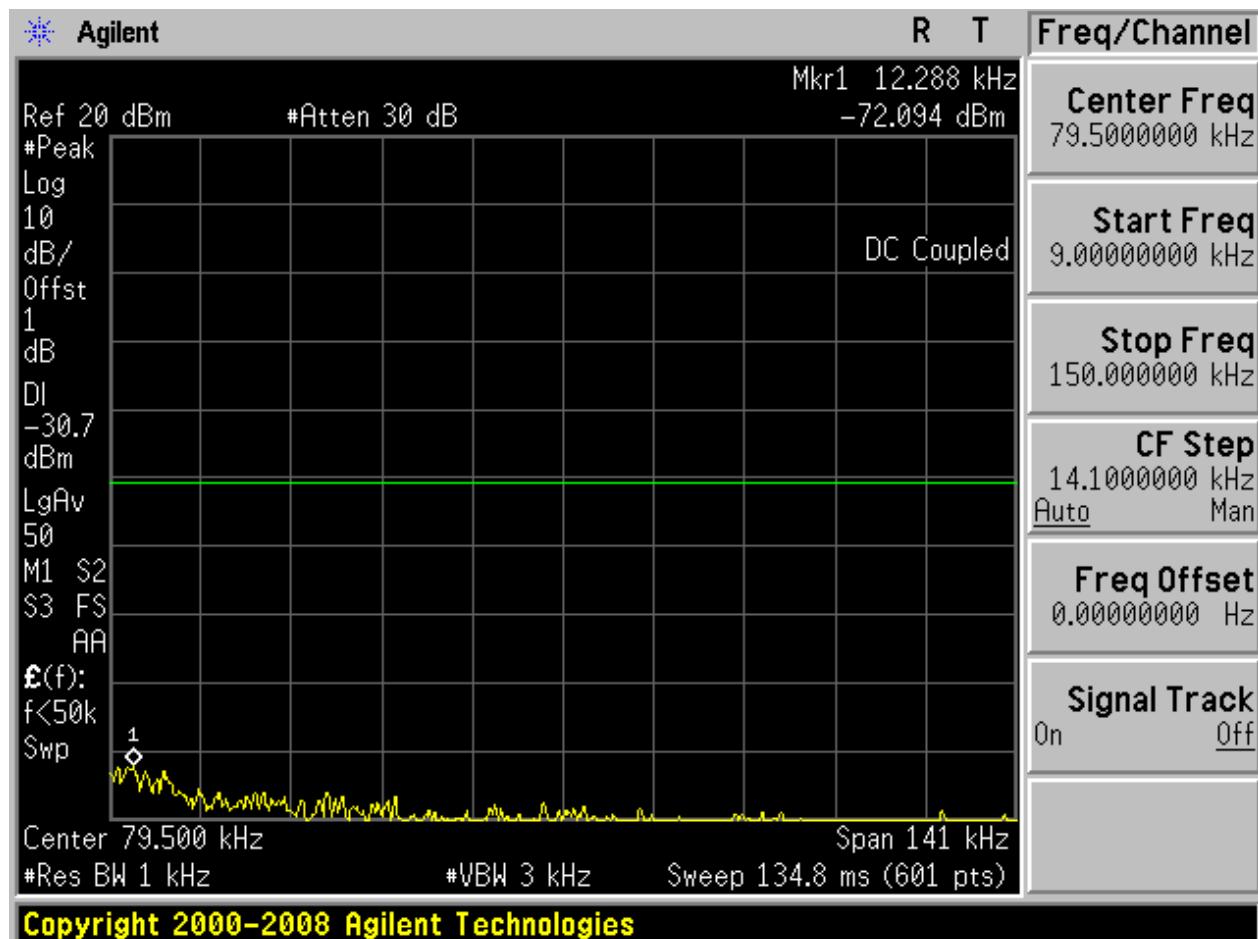


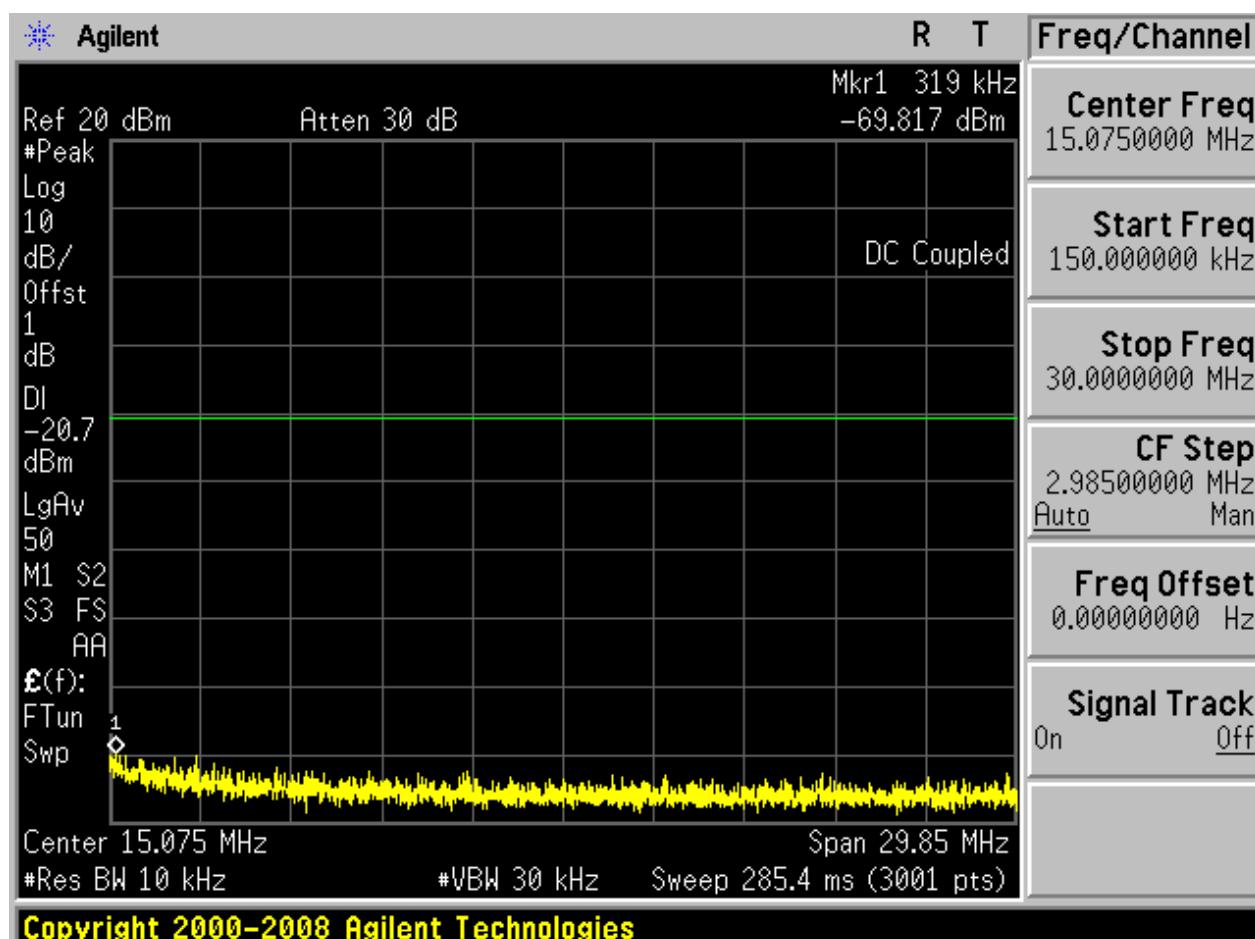
## 2.3 11B\_H

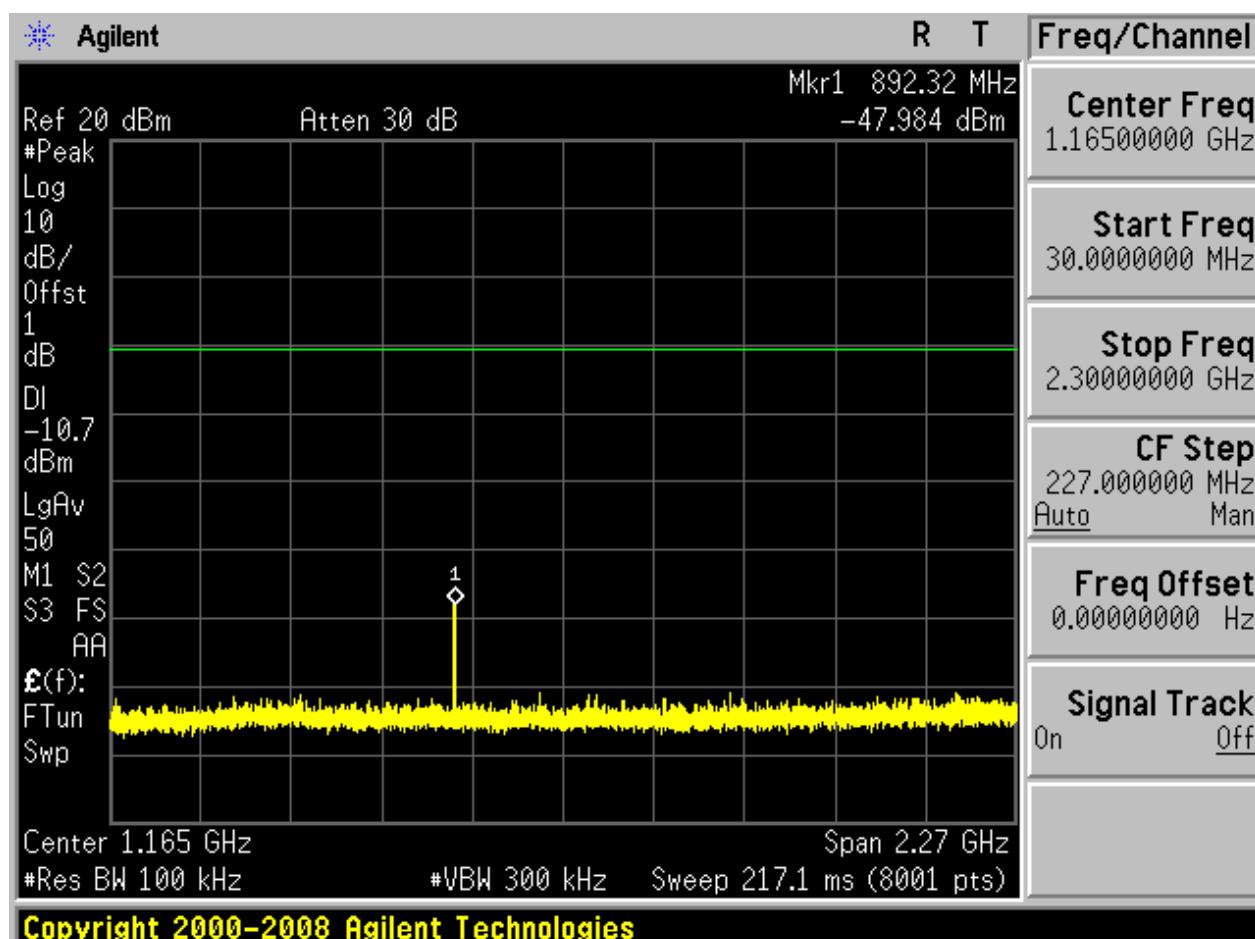
Pref:

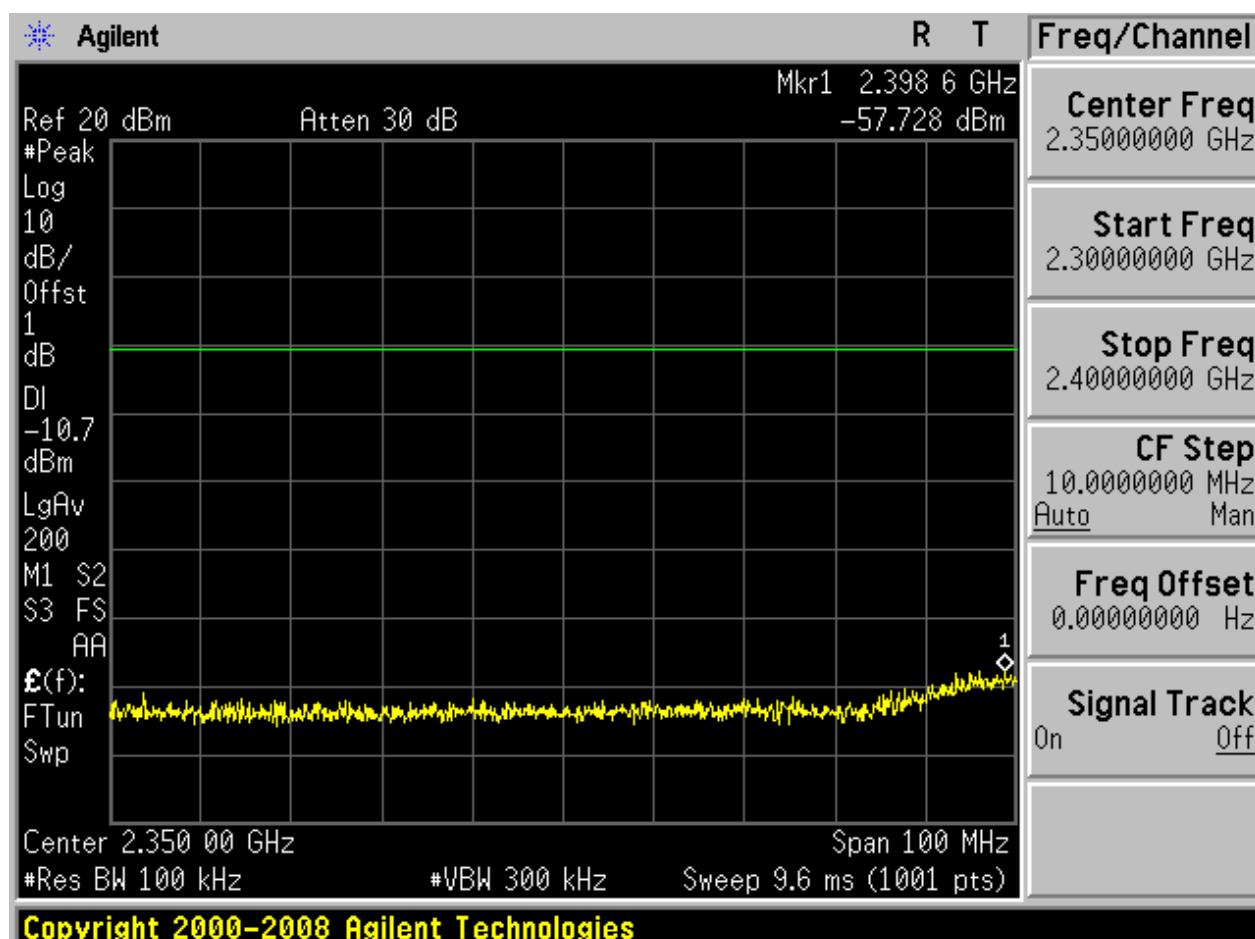


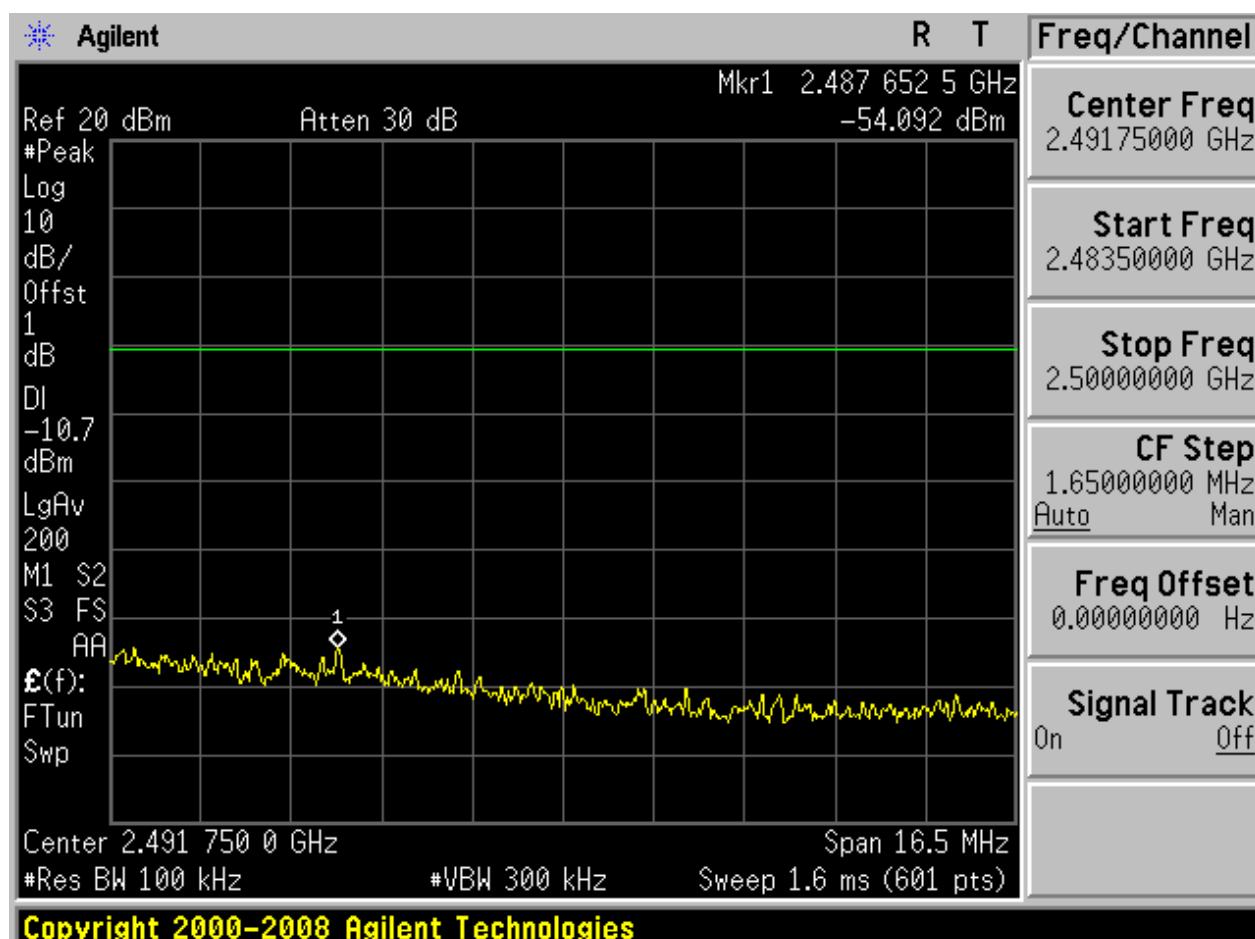
**Puw:**



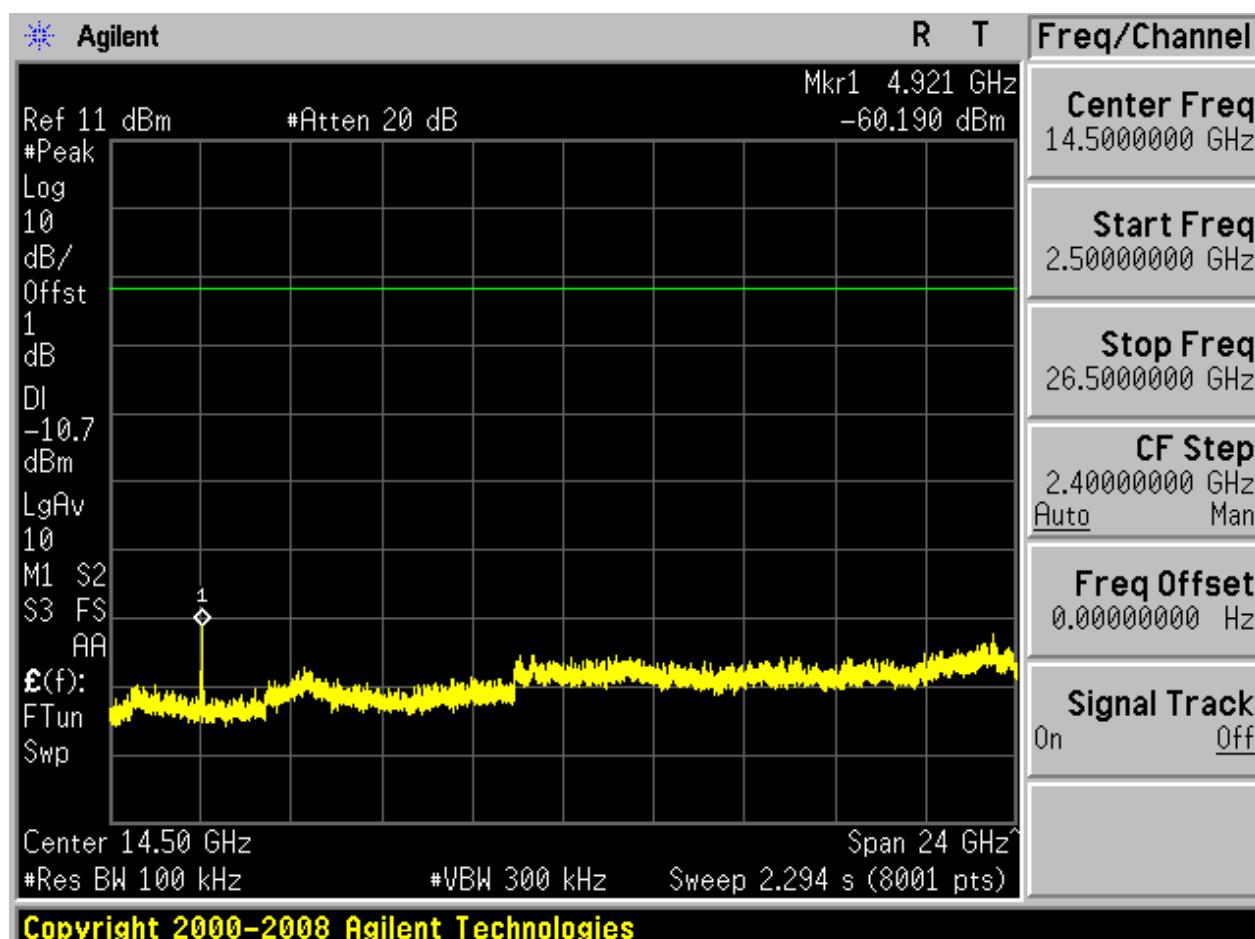








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## Appendix F: Radiated Spurious Emission & Spurious in Restricted Band

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

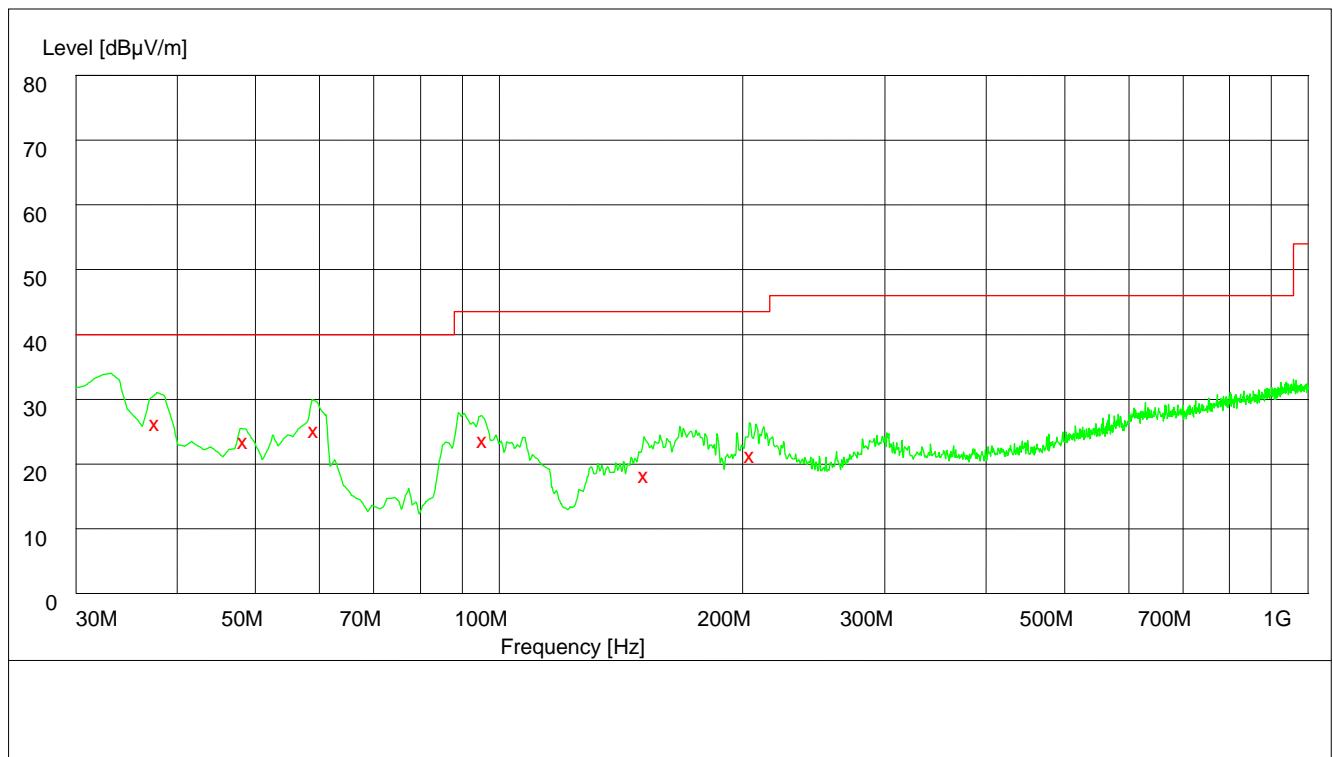
Above 1GHz, RBW = 1 MHz, VBW = 3 MHz.

The simultaneous transmission has been considered

### 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).**

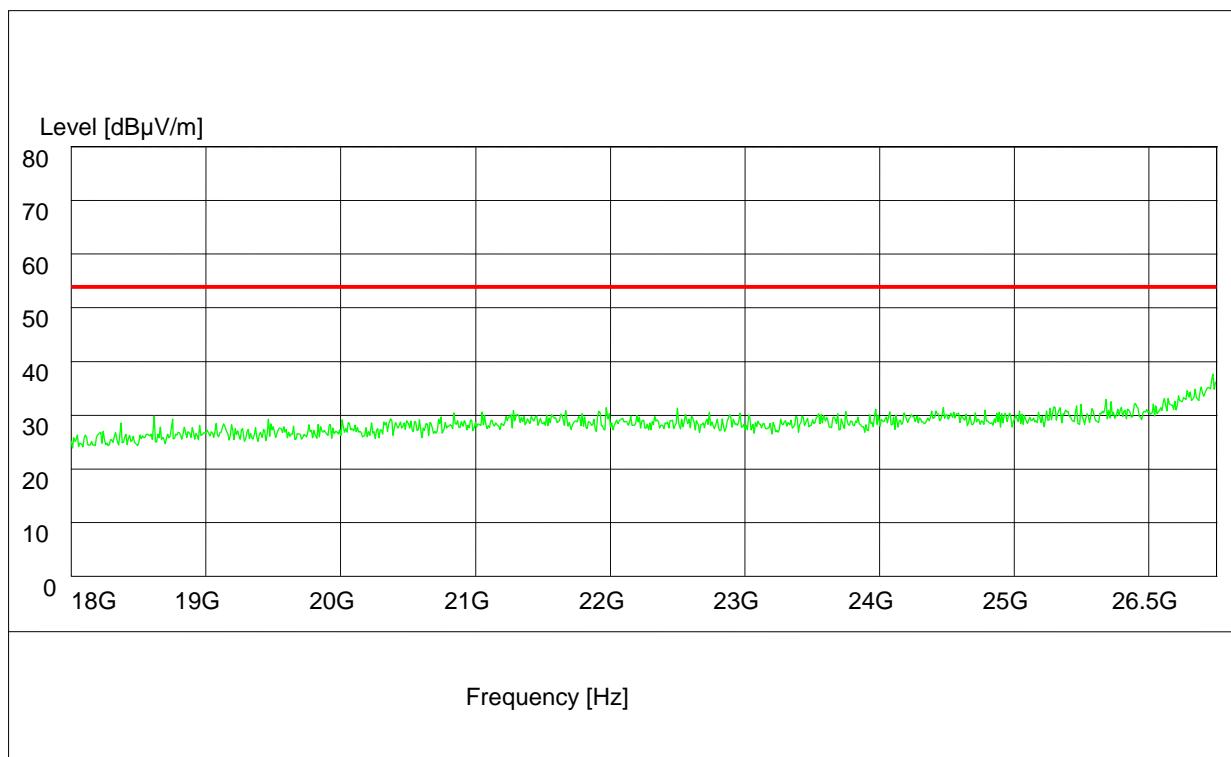




Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Plarization
37.800000	27.70	12.5	40.0	12.3	100.0	161.00	VERTICAL
48.540000	24.90	13.0	40.0	15.1	100.0	134.00	VERTICAL
59.400000	26.70	12.5	40.0	13.3	100.0	286.00	VERTICAL
96.000000	25.00	12.8	43.5	18.5	108.0	102.00	VERTICAL
151.860000	19.70	9.2	43.5	23.8	100.0	132.00	VERTICAL
205.320000	22.80	12.3	43.5	20.7	142.0	311.00	HORIZONTAL

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

Note: No peak found in pre- test.



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

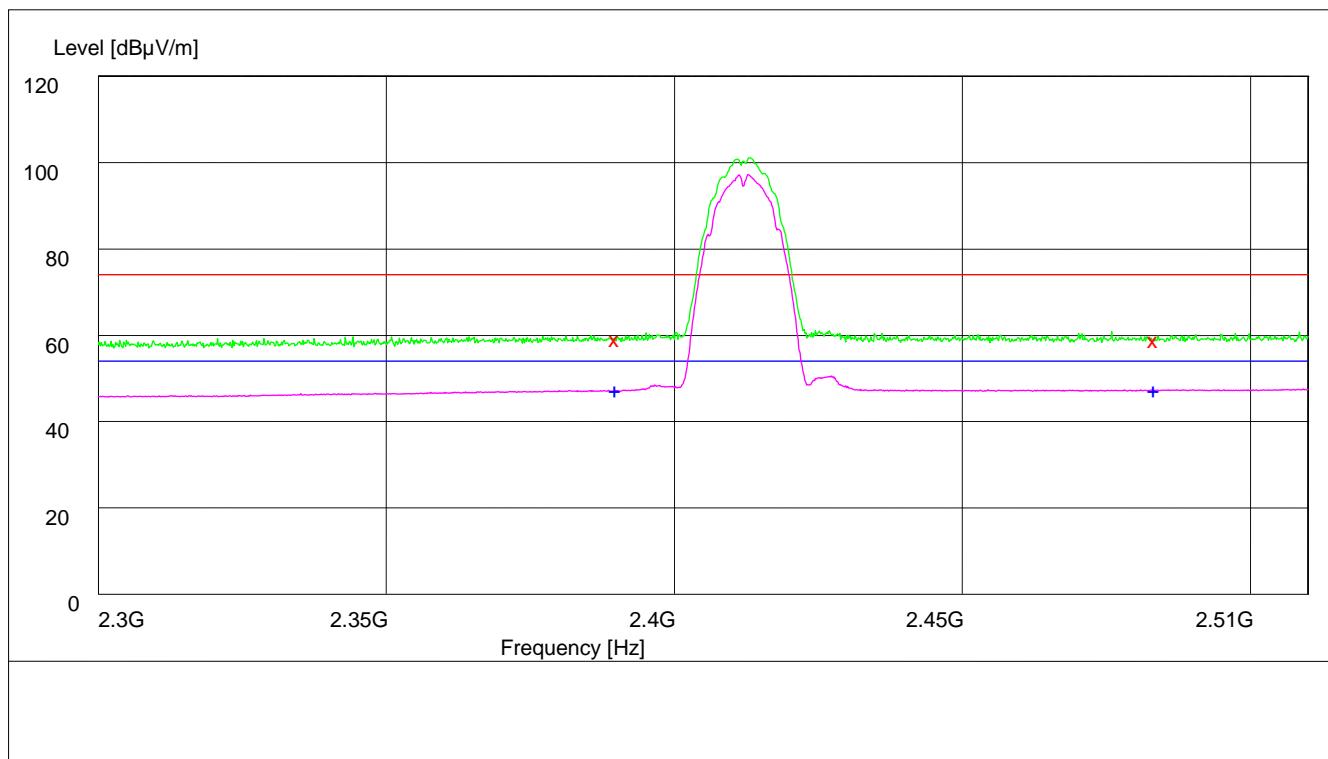
Note 1: The testing range of “2.3 GHz to 2.5 GHz” is for checking radiated emissions located in restricted bands near the EUT operating bands.

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

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

### Test Mode: 11b

#### Channel 01



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

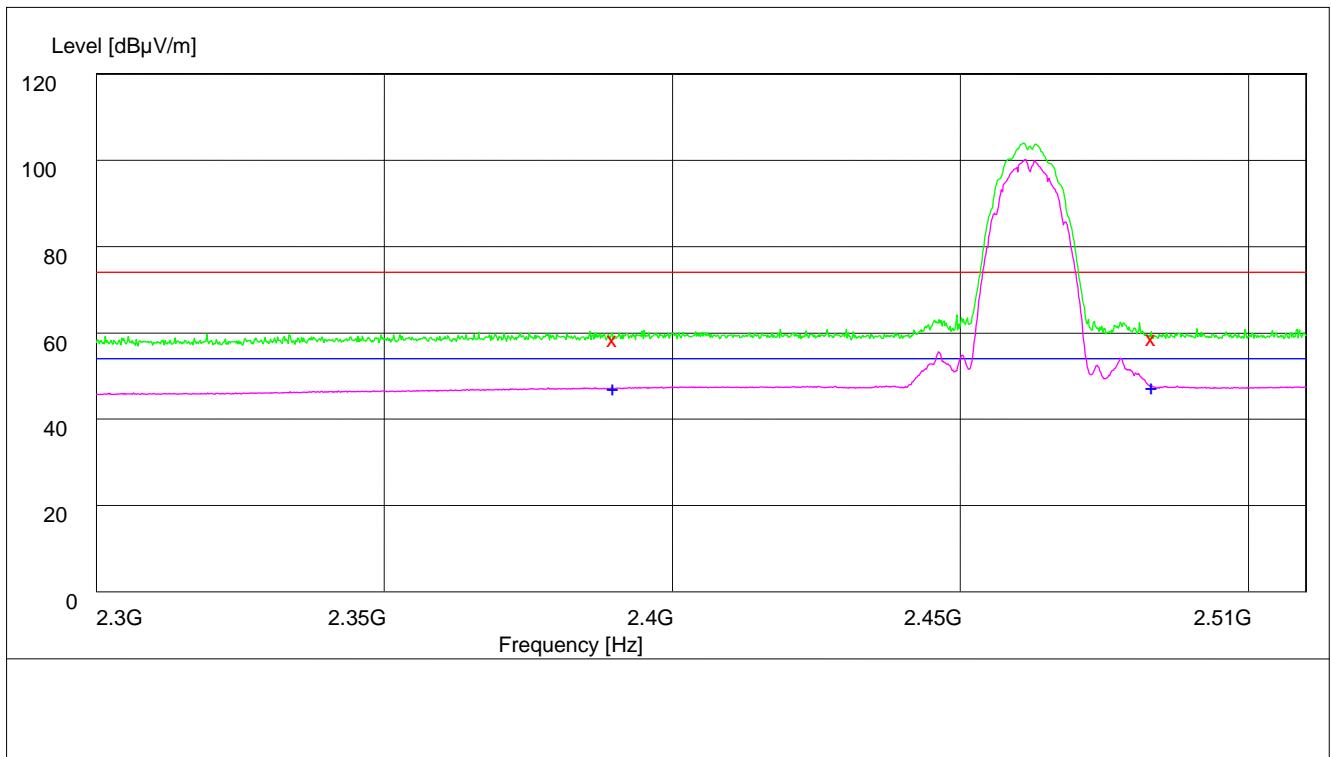
MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.60	34.7	74.0	14.4	106.0	271.00	VERTICAL
2483.500000	59.30	35.0	74.0	14.7	156.0	191.00	VERTICAL

MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.70	34.7	54.0	6.3	158.0	320.00	VERTICAL
2483.500000	47.60	35.0	54.0	6.4	129.0	70.00	HORIZONTAL

### Channel 11



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

#### MEASUREMENT RESULT: PK Detector

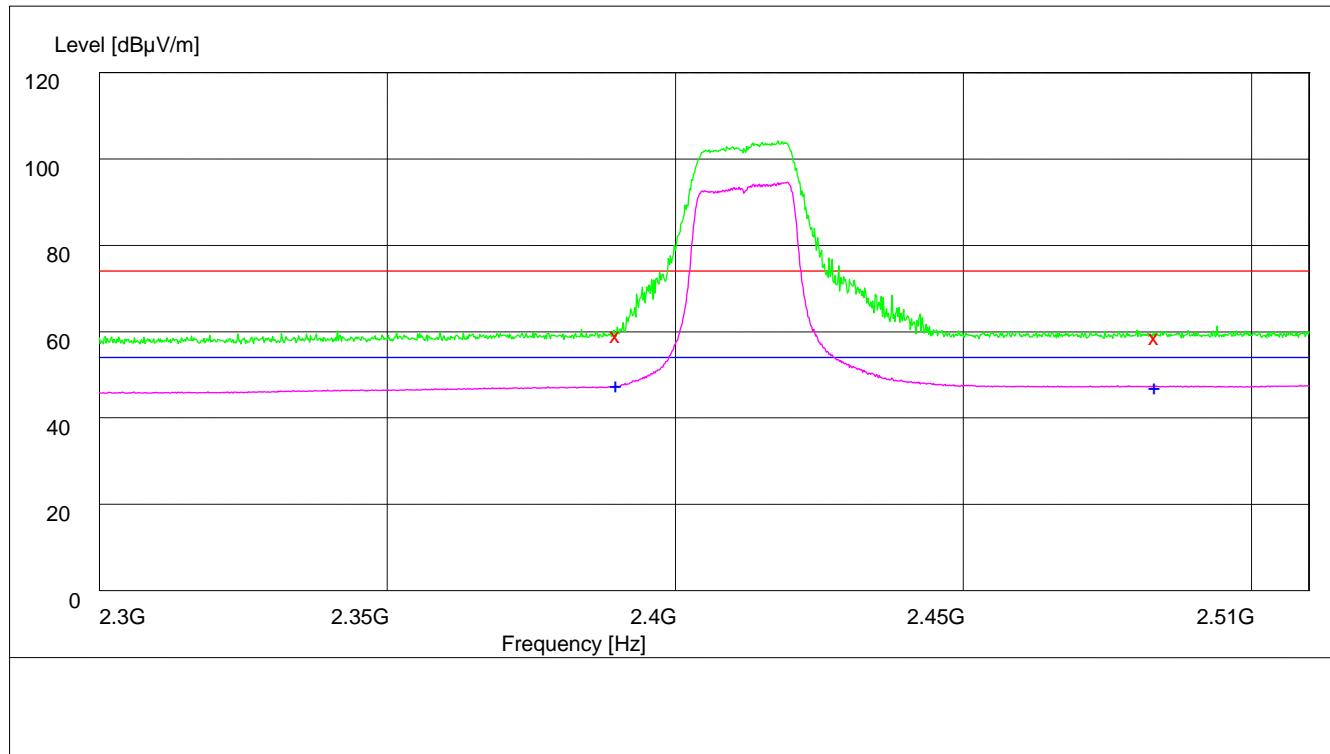
Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	58.80	34.7	74.0	15.2	113.0	359.00	VERTICAL
2483.500000	59.10	35.0	74.0	14.9	130.0	326.00	HORIZONTAL

#### MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.70	34.7	54.0	6.3	118.0	4.00	VERTICAL
2483.500000	47.90	35.0	54.0	6.1	100.0	141.00	HORIZONTAL

## Test Mode: 11g

### Channel 01



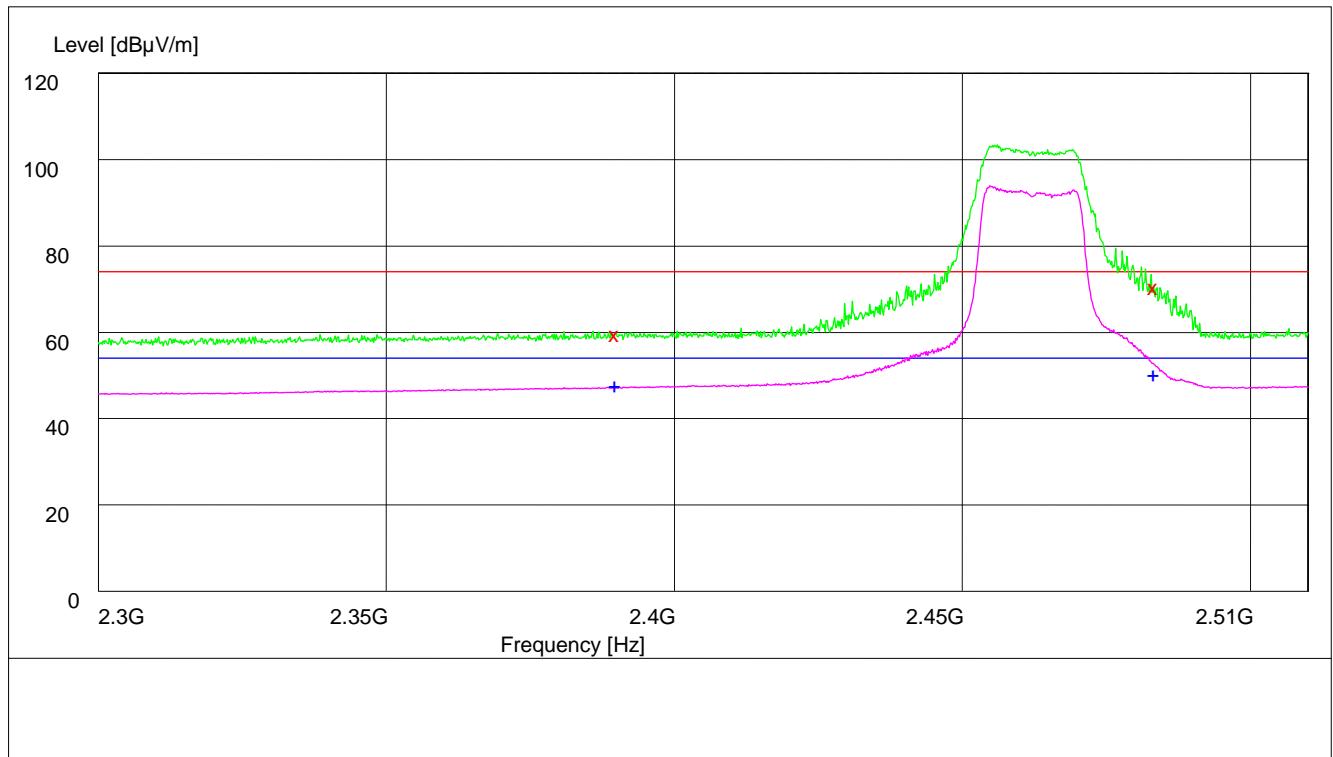
Note: The peak exceeds the limit line is carrier frequency.

#### MEASUREMENT RESULT: PK Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.00	34.7	74.0	15.0	100.0	355.00	HORIZONTAL
2483.500000	58.70	35.0	74.0	15.3	175.0	192.00	HORIZONTAL

#### MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.50	34.7	54.0	6.5	100.0	116.00	HORIZONTAL
2483.500000	47.20	35.0	54.0	6.8	100.0	61.00	HORIZONTAL

**Channel 11**

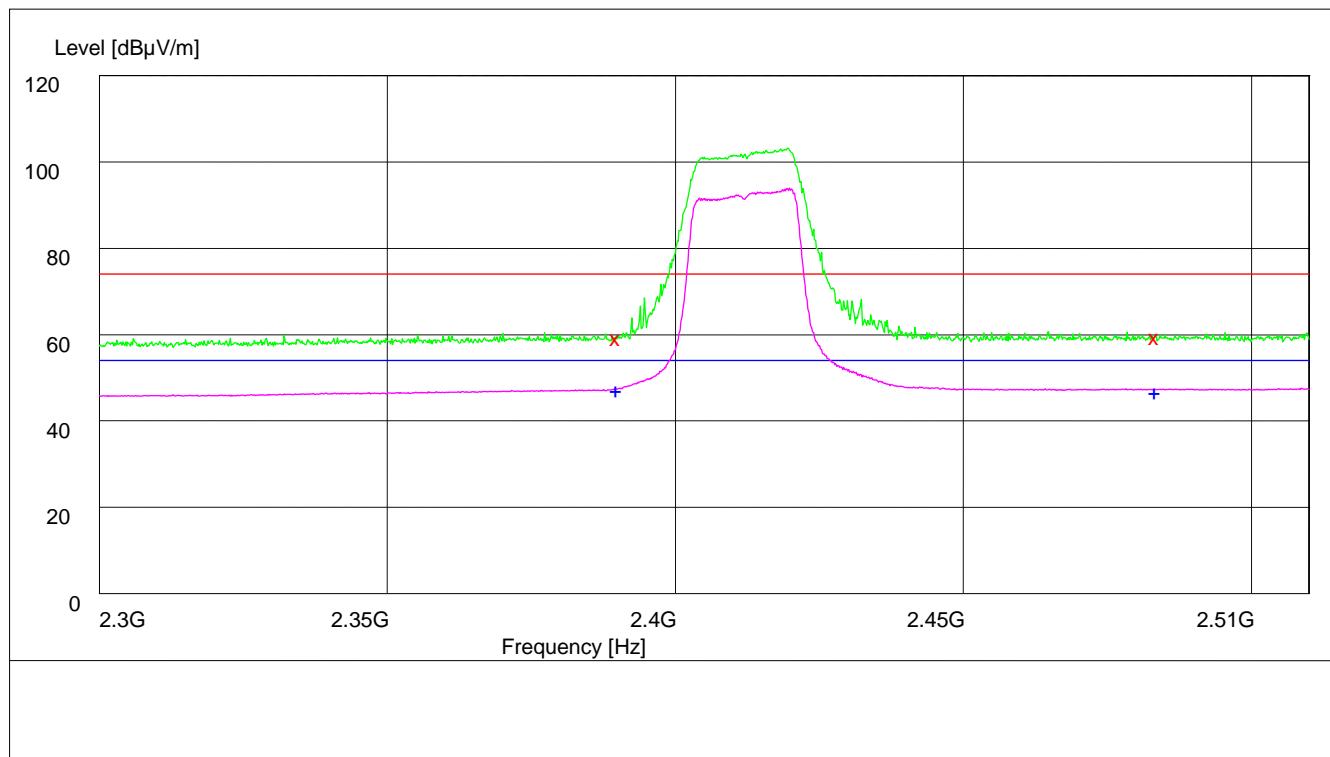
Note: The peak exceeds the limit line is carrier frequency.

**MEASUREMENT RESULT: PK Detector**

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.10	34.7	74.0	14.9	102.0	98.00	VERTICAL
2483.500000	70.00	35.0	74.0	4.0	100.0	138.00	HORIZONTAL

**MEASUREMENT RESULT: AV Detector**

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.20	34.7	54.0	6.8	101.0	317.00	HORIZONTAL
2483.500000	49.80	35.0	54.0	4.2	100.0	139.00	HORIZONTAL

**Test Mode: 11n****Channel 01**

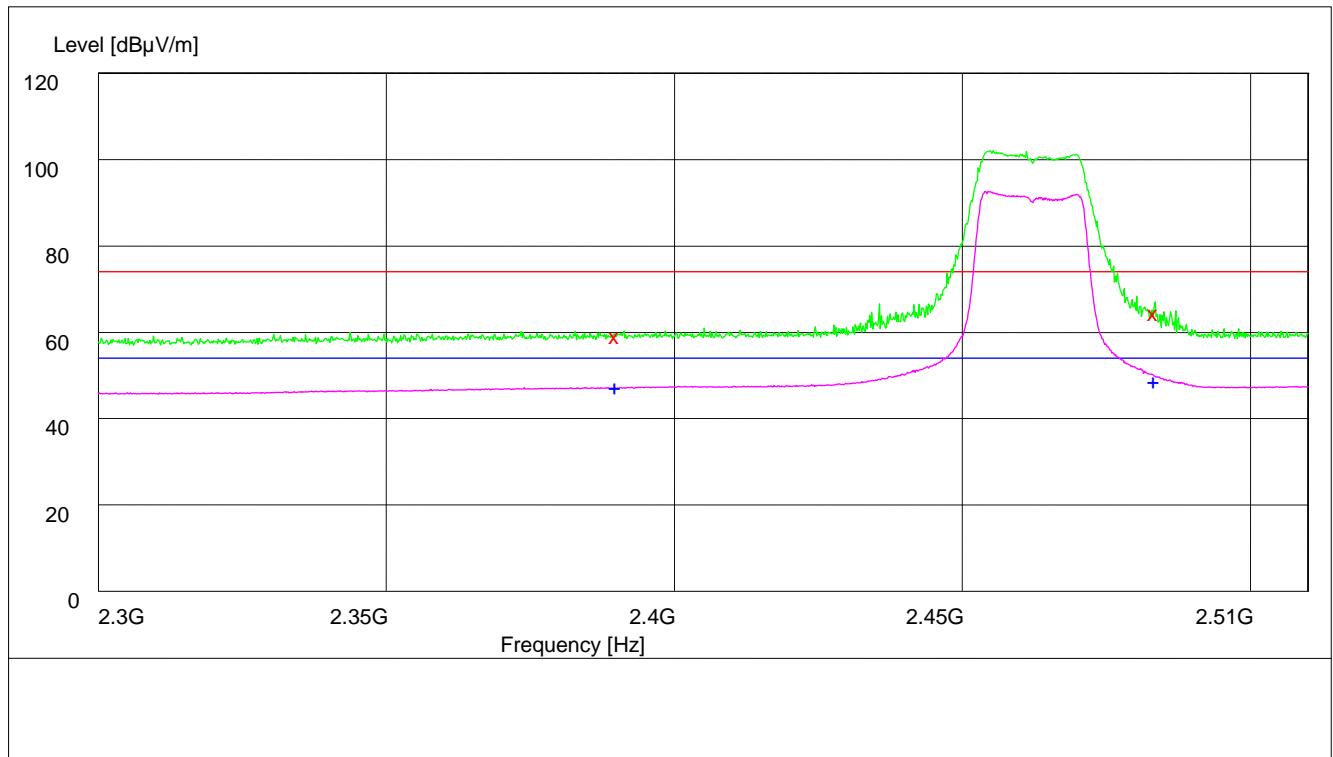
Note: The peak exceeds the limit line is carrier frequency.

**MEASUREMENT RESULT: PK Detector**

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.10	34.7	74.0	14.9	100.0	131.00	HORIZONTAL
2483.500000	59.30	35.0	74.0	14.7	100.0	55.00	VERTICAL

**MEASUREMENT RESULT: AV Detector**

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.20	34.7	54.0	6.8	125.0	39.00	HORIZONTAL
2483.500000	46.60	35.0	54.0	7.4	200.0	244.00	HORIZONTAL

**Channel 11**

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

**MEASUREMENT RESULT: PK Detector**

Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	59.40	34.7	74.0	14.6	187.0	47.00	VERTICAL
2483.500000	64.80	35.0	74.0	10.2	100.0	111.00	HORIZONTAL

**MEASUREMENT RESULT: AV Detector**

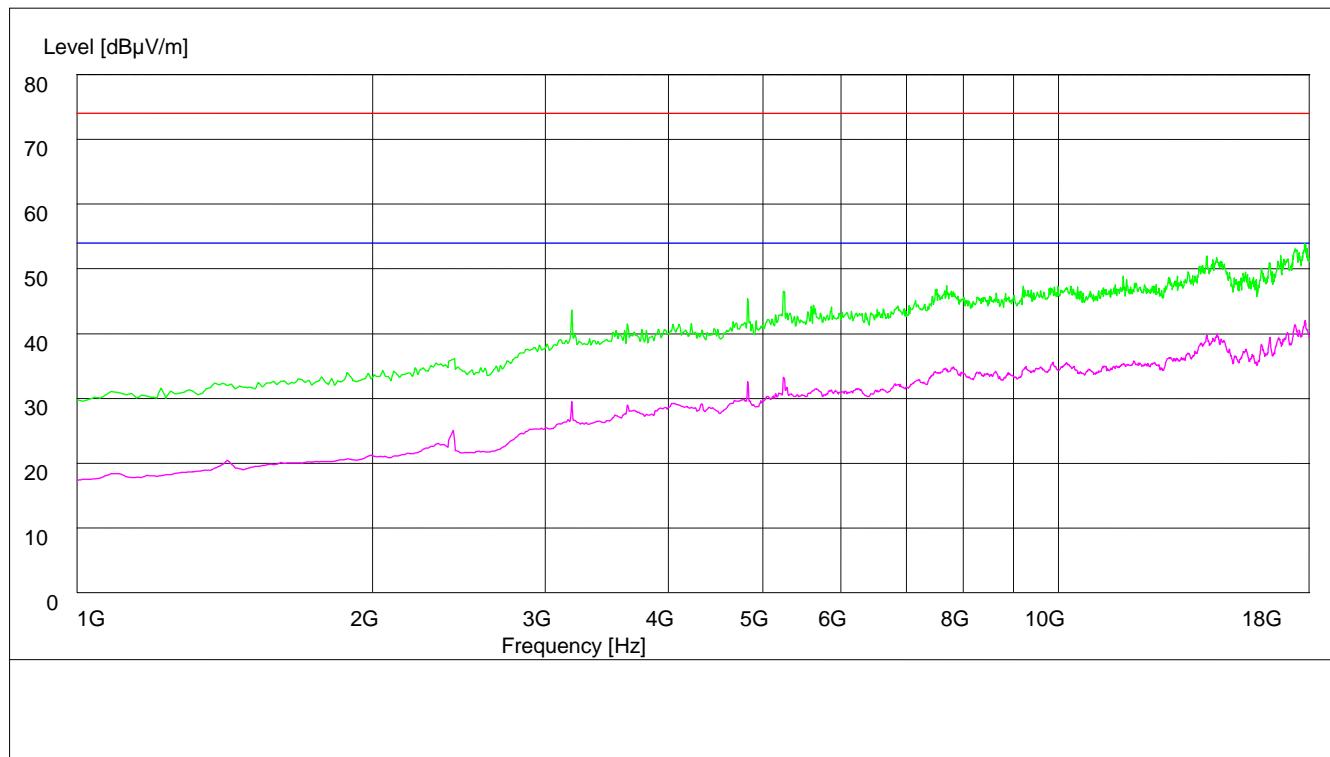
Frequency MHz	Level dB $\mu$ V/m	Transd dB	Limit dB $\mu$ V/m	Margin dB	Height cm	Azimuth deg	Polarization
2390.000000	47.70	34.7	54.0	6.3	197.0	288.00	VERTICAL
2483.500000	49.00	35.0	54.0	5.0	119.0	23.00	HORIZONTAL

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

Note 1: The test results and plot for testing range of “1 GHz to 18 GHz” showed as below is **the WORST case for all Test Modes and Channels**. This range will not be presented for each Test Mode and each Channel.

Note 2: The testing range of “1 GHz to 18 GHz” is for checking radiated emissions located in restricted bands faraway from the EUT operating bands.

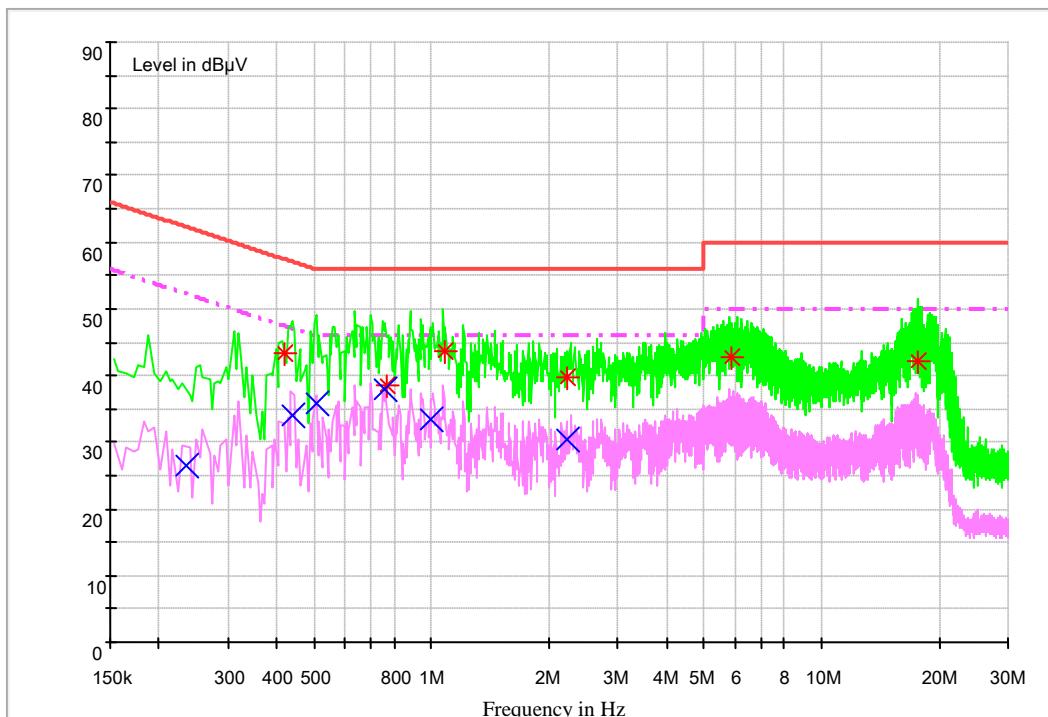
Note 3: Two limits are required in the testing range above 1 GHz, that is Peak limit (74 dB $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).



## Appendix G: Conducted Emission at Power Port

Note: RBW = 9 kHz, VBW = 30 kHz

### Channel 6



#### MEASUREMENT RESULT: QP Detector

Frequency MHz	Level dB $\mu$ V	Line	Transd dB	Margin dB	Limit dB $\mu$ V	PE
0.417439	43.3	N	9.7	14.2	57.5	FLO
0.770202	38.5	L1	9.7	17.5	56.0	FLO
1.074904	43.6	N	9.7	12.4	56.0	FLO
2.211814	39.7	N	9.7	16.3	56.0	FLO
5.835802	42.7	N	9.8	17.3	60.0	FLO
17.585010	42.1	N	10.1	17.9	60.0	FLO

## MEASUREMENT RESULT: AV Detector

Frequency MHz	Level dB $\mu$ V	Line	Transd dB	Margin dB	Limit dB $\mu$ V	PE
0.234364	26.5	N	9.7	25.8	52.3	FLO
0.441536	34.1	N	9.7	12.9	47.0	FLO
0.505774	35.9	N	9.7	10.1	46.0	FLO
0.760192	38.0	L1	9.7	8.0	46.0	FLO
0.992756	33.4	N	9.7	12.6	46.0	FLO
2.227361	30.5	N	9.7	15.5	46.0	FLO

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END



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END