



# 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.

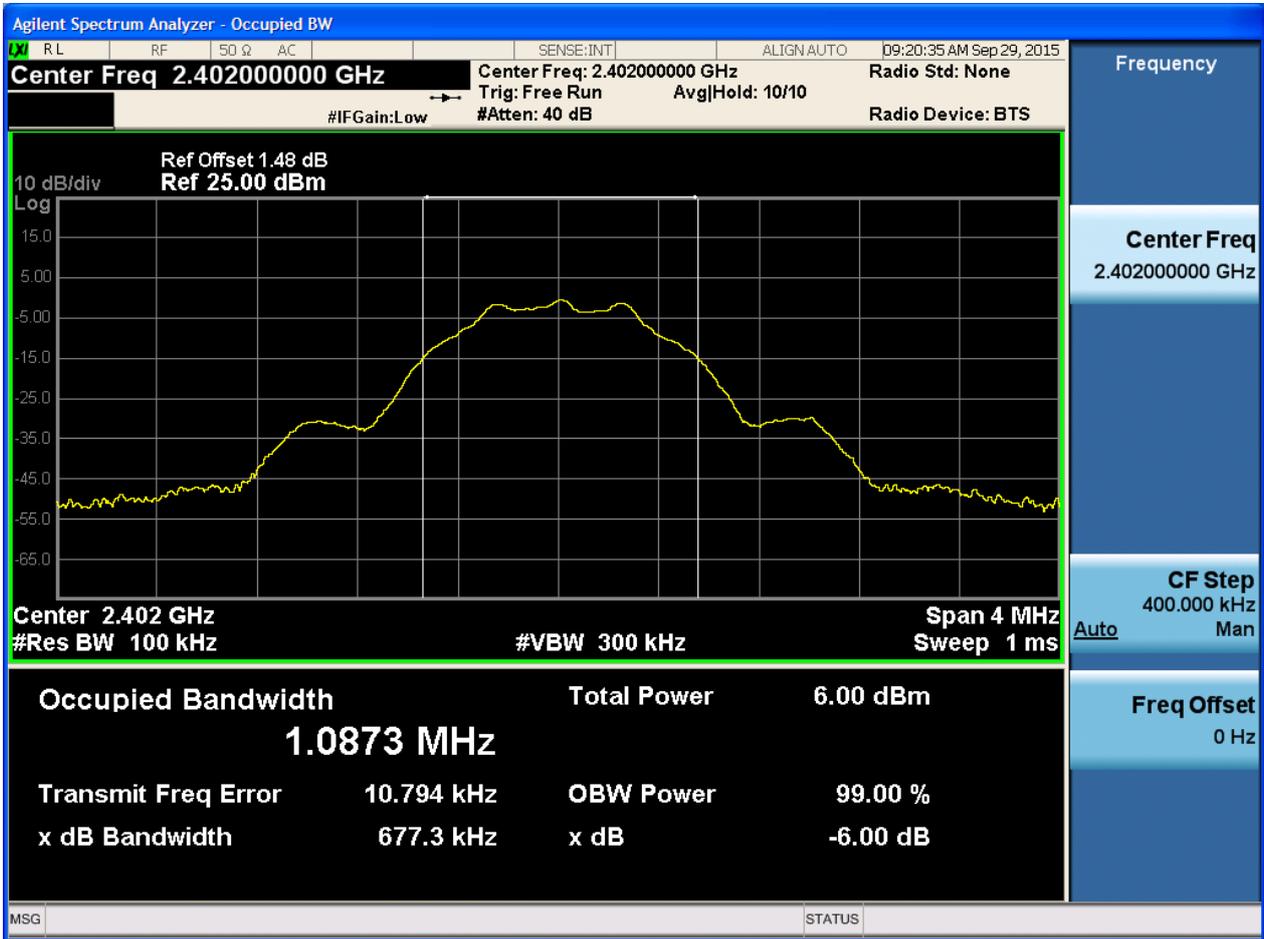
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	DTS6dBBW[MHz]	Verdict
11B	L	2402	Ant 1	.68	pass
11B	M	2440	Ant 1	.67	pass
11B	H	2480	Ant 1	.68	pass



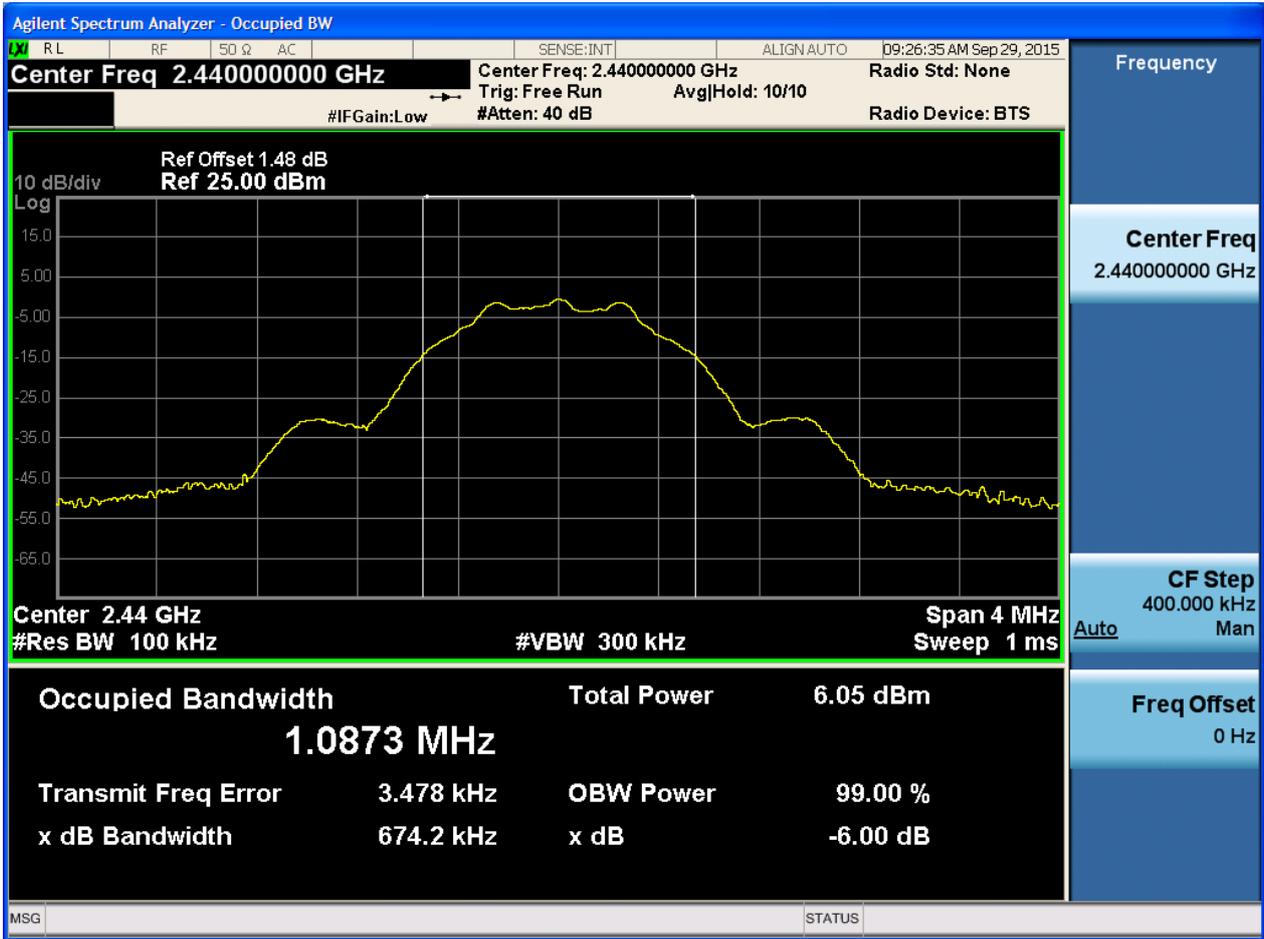
Part II - Test Plots

2.1 11B\_L@Ant 1



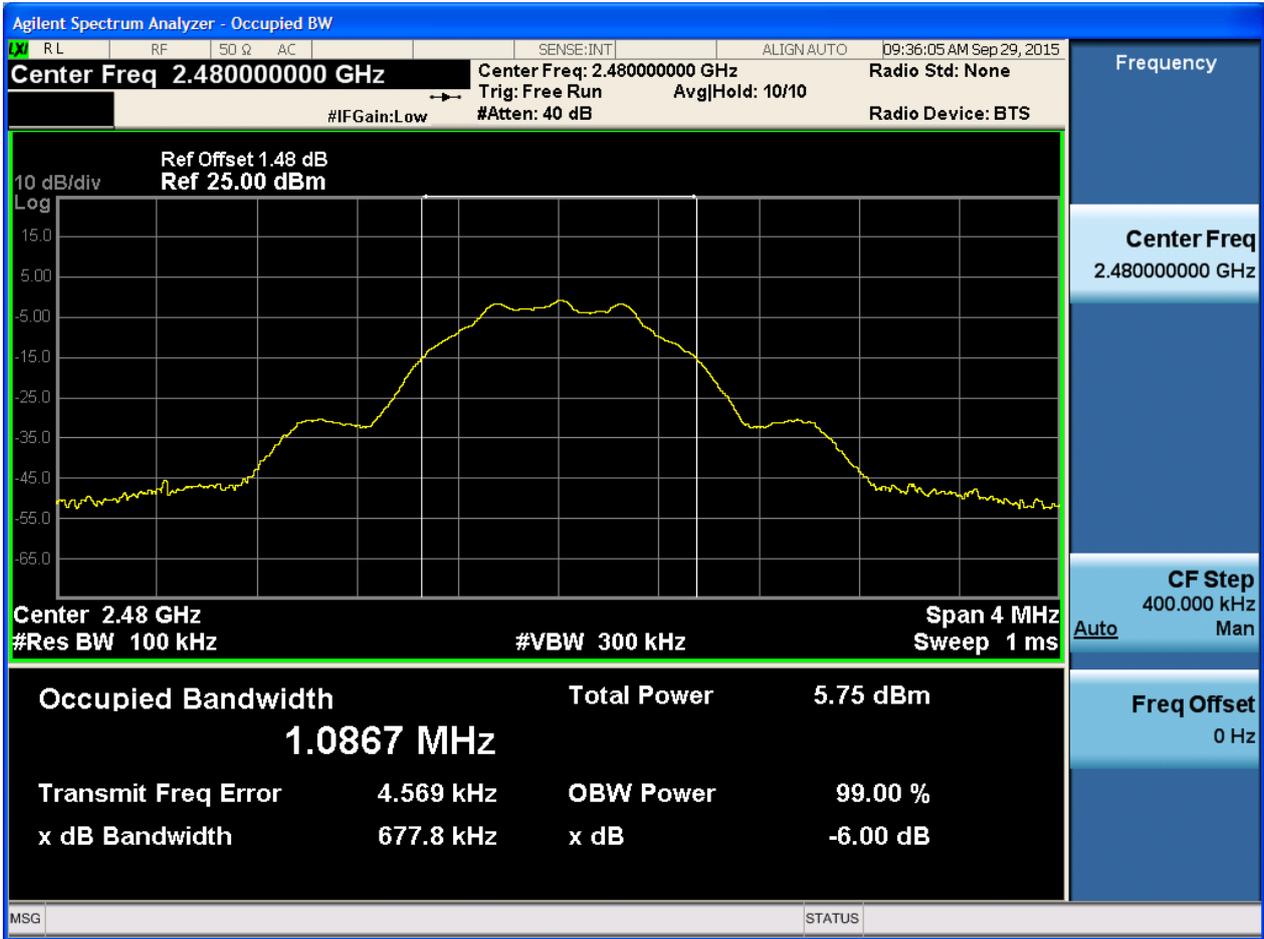


2.3 11B\_M@Ant 1





2.5 11B\_H@Ant 1





## 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.

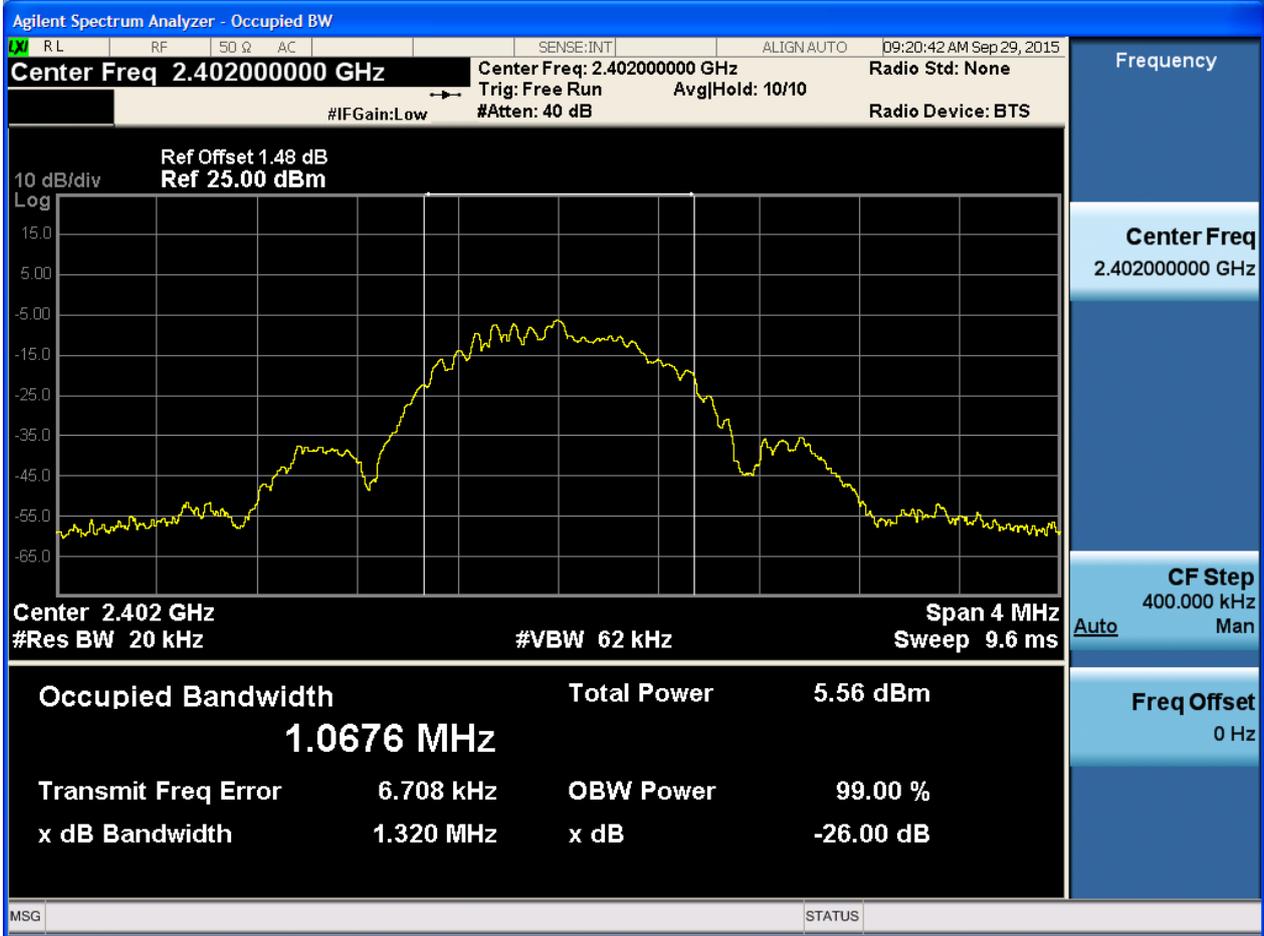
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Occupied Bandwidth [MHz]	Verdict
11B	L	2402	Ant 1	1.07	pass
11B	M	2440	Ant 1	1.07	pass
11B	H	2480	Ant 1	1.07	pass



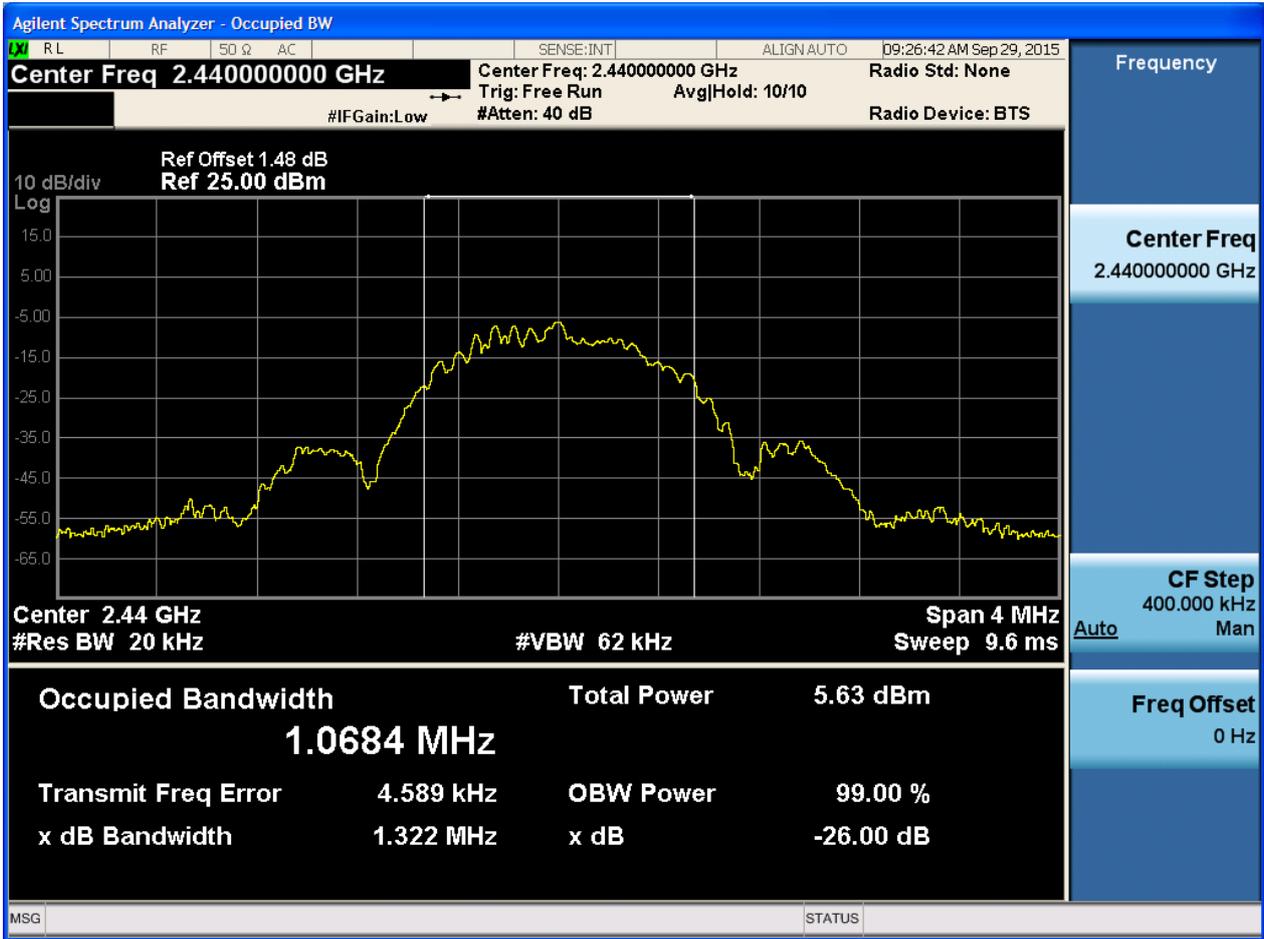
Part II - Test Plots

2.1 11B\_L@Ant 1



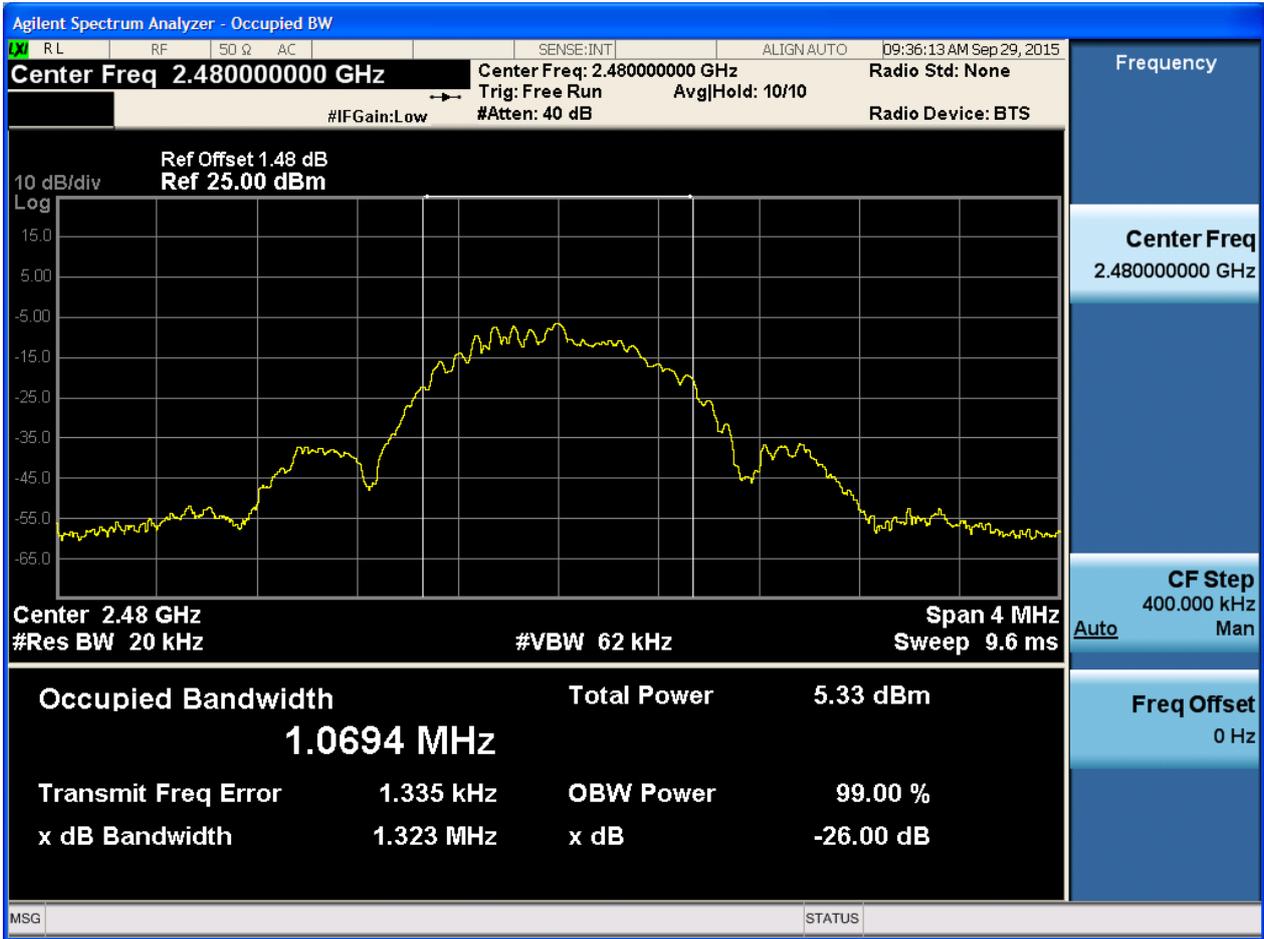


2.1 11B\_M@Ant 1





2.1 11B\_H@Ant 1





## Appendix C: Maximum Conducted Average Output Power

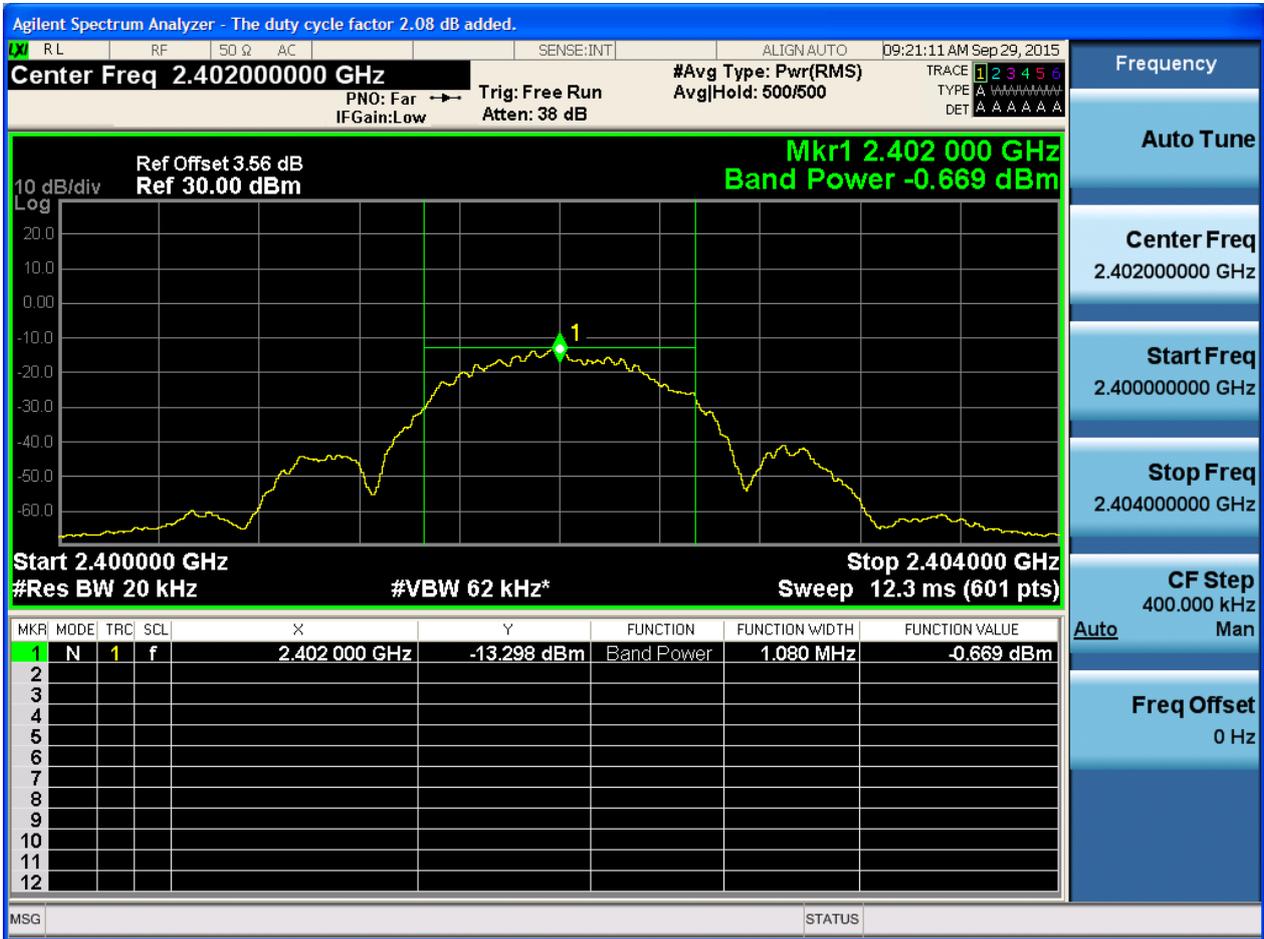
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Power[dBm]	Verdict
11B	L	2402	Ant 1	-.67	pass
11B	M	2440	Ant 1	-.54	pass
11B	H	2480	Ant 1	-.90	pass



Part II - Test Plots

2.1 11B\_L@Ant 1





### 2.3 11B\_M@Ant 1





2.5 11B\_H@Ant 1





## Appendix D: Maximum Power Spectral Density Level

### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	PD[MHz]	Verdict
11B	L	2402	Ant 1	-15.38	pass
11B	M	2440	Ant 1	-15.33	pass
11B	H	2480	Ant 1	-15.63	pass



## Part II - Test Plots

### 2.1 11B\_L@Ant 1





### 2.3 11B\_M@Ant 1





### 2.5 11B\_H@Ant 1





## Appendix E: Band Edges Compliance

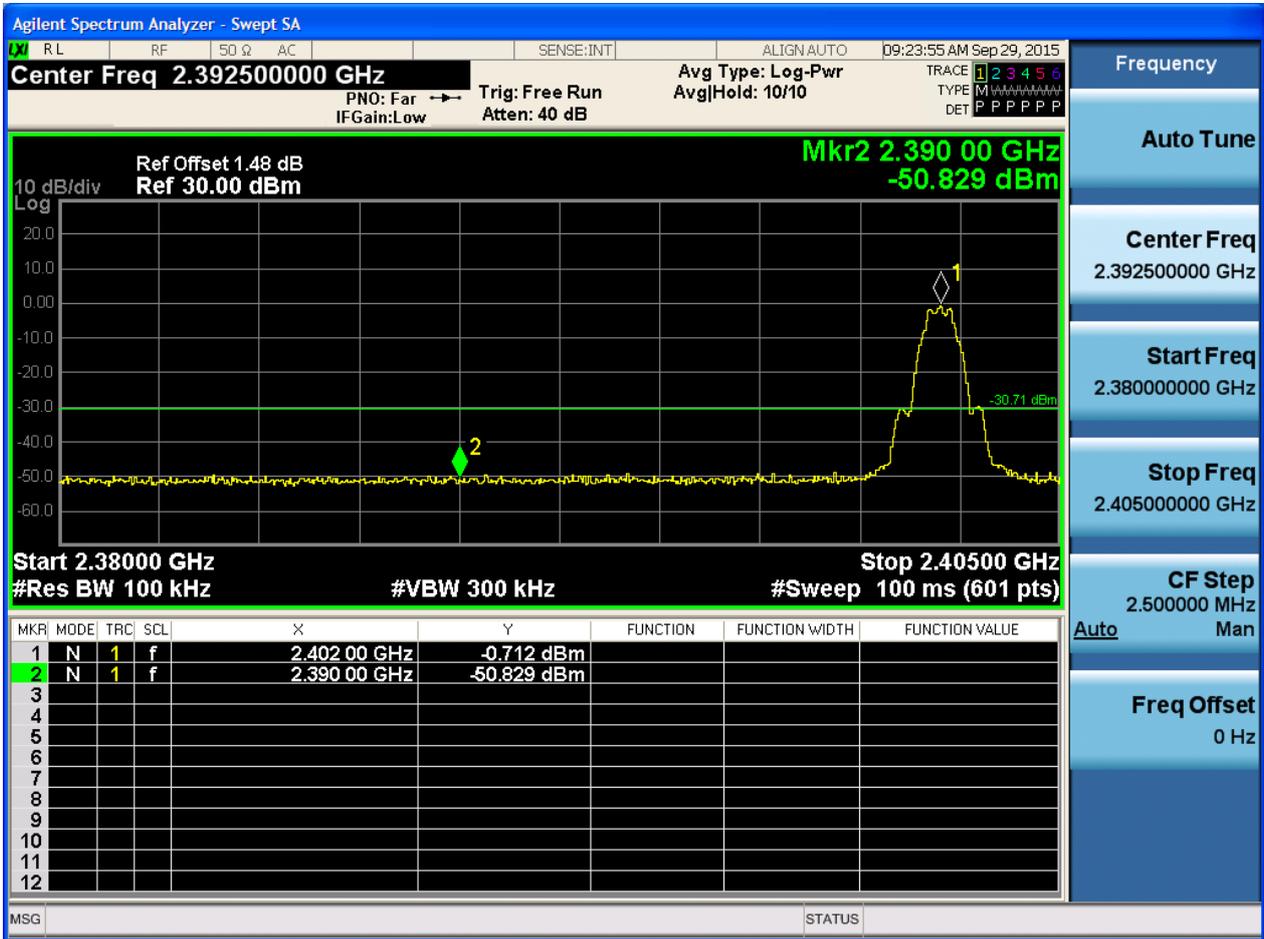
### Part I - Test Results

Test Mode	Test Channel	Frequency[MHz]	Ant	Carrier Power[dBm]	Max.Spurious Level[dBm]	Verdict
11B	L	2402	Ant 1	-.71	-50.83	pass
11B	H	2480	Ant 1	-.94	-50.79	pass



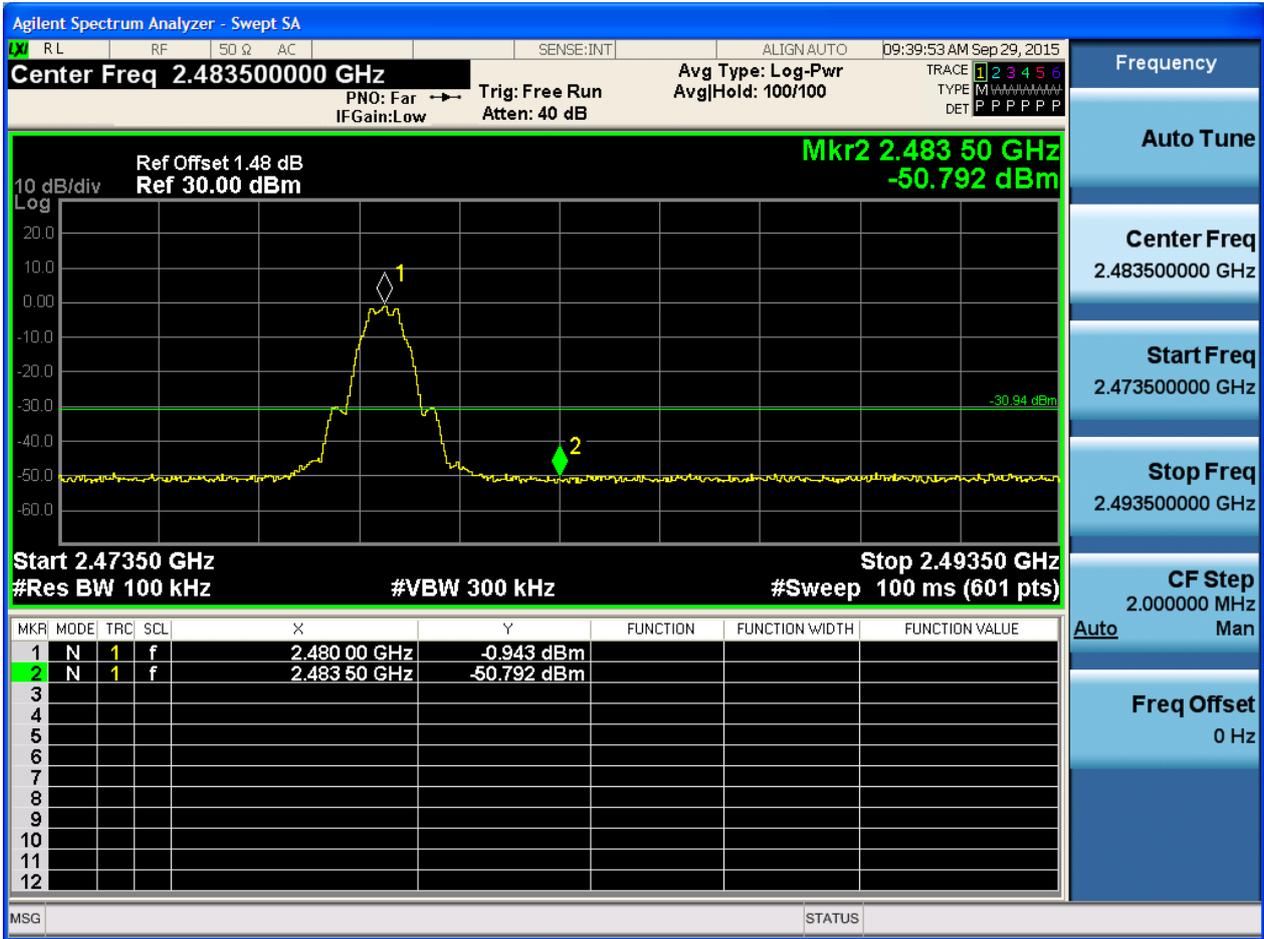
### Part II - Test Plots

#### 2.1 11B\_L@Ant 1





### 2.3 11B\_H@Ant 1



## Appendix F: 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]	Ant	Pref[dBm]	Puw[dBm]	Verdict
11B	L	2402	Ant 1	-.71	<limit	pass
11B	M	2440	Ant 1	-.62	<limit	pass
11B	H	2480	Ant 1	-.94	<limit	pass



## Part II - Test Plots

### 2.1 11B\_L@Ant 1

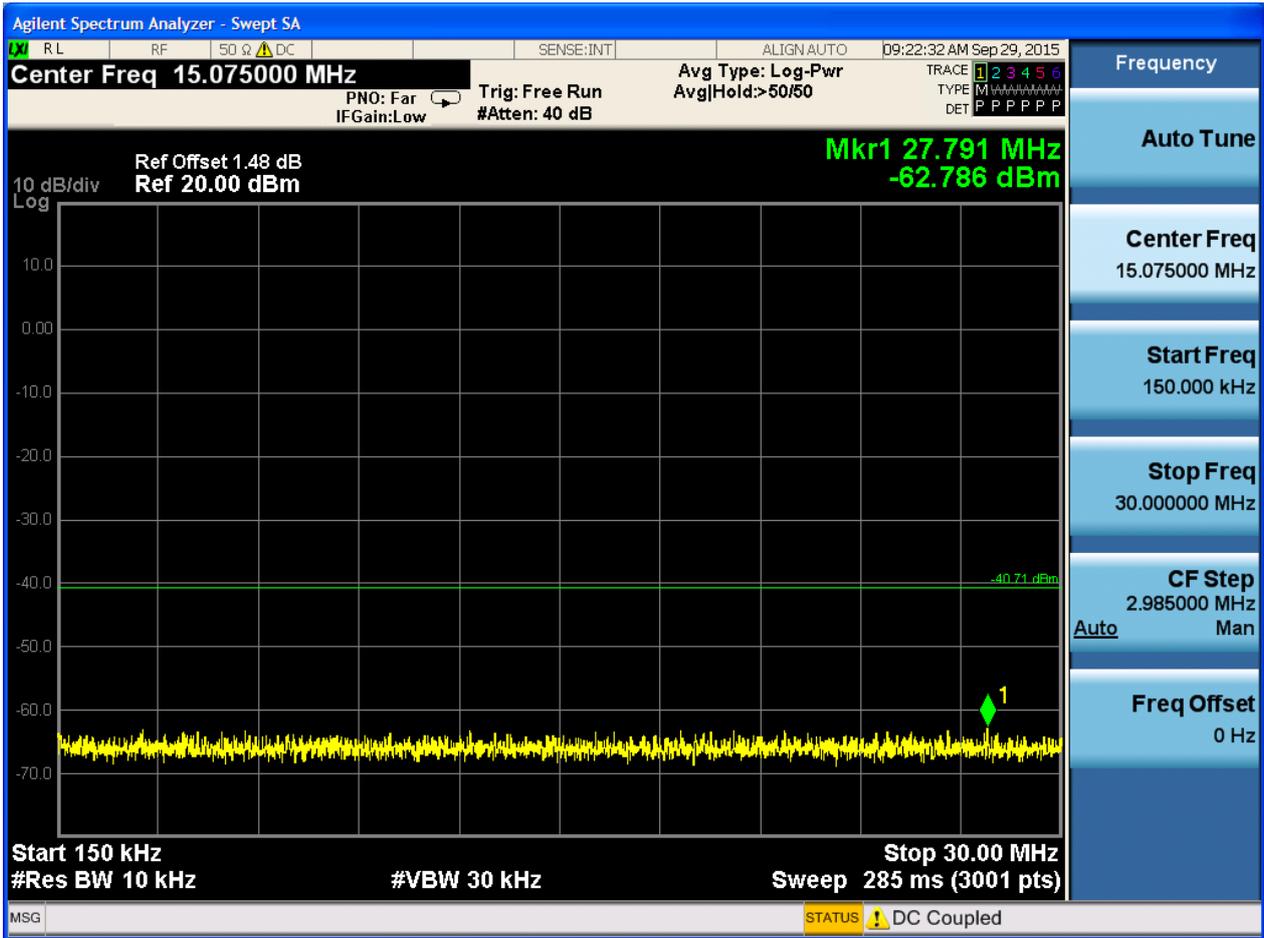
Pref:

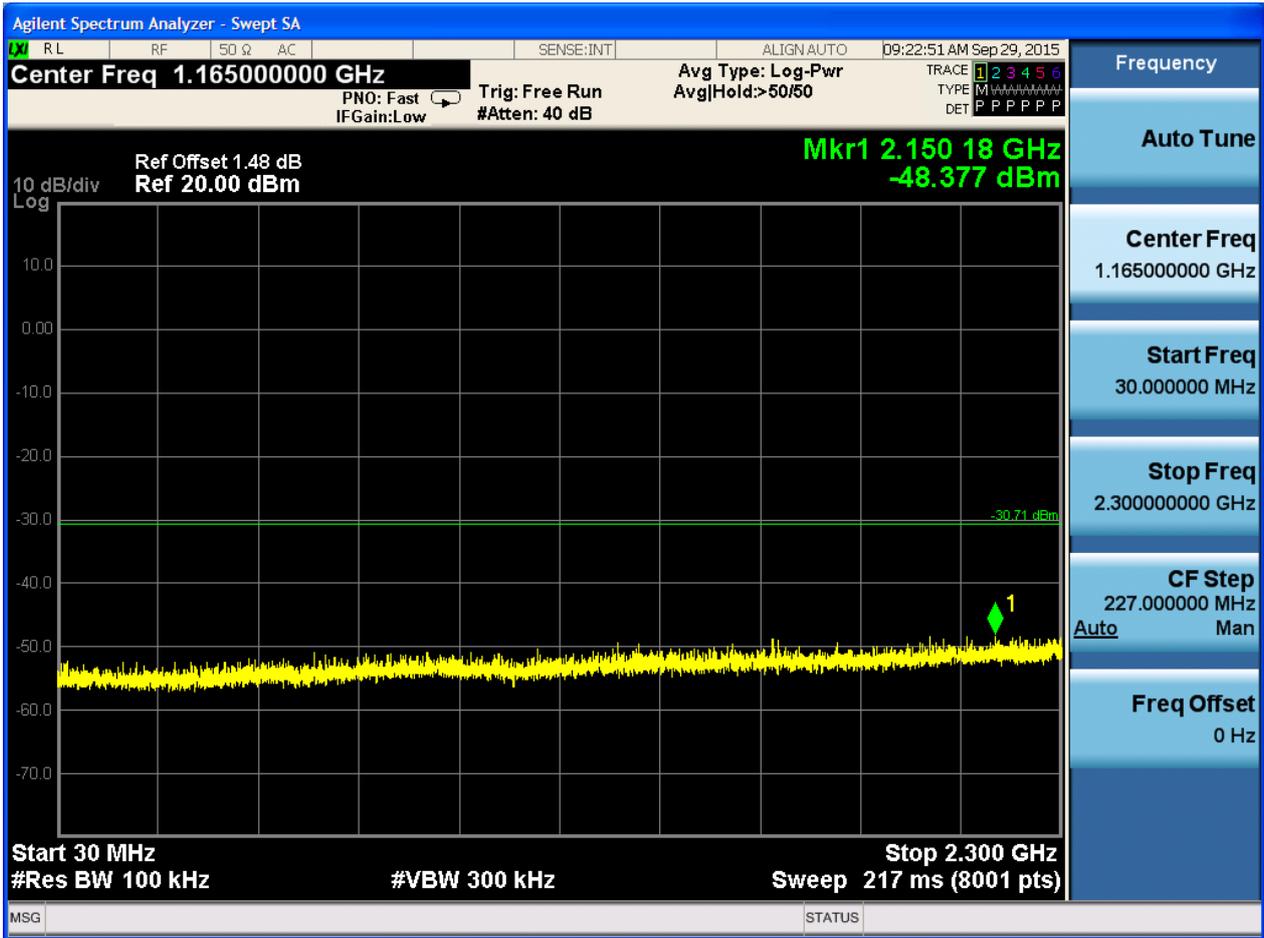


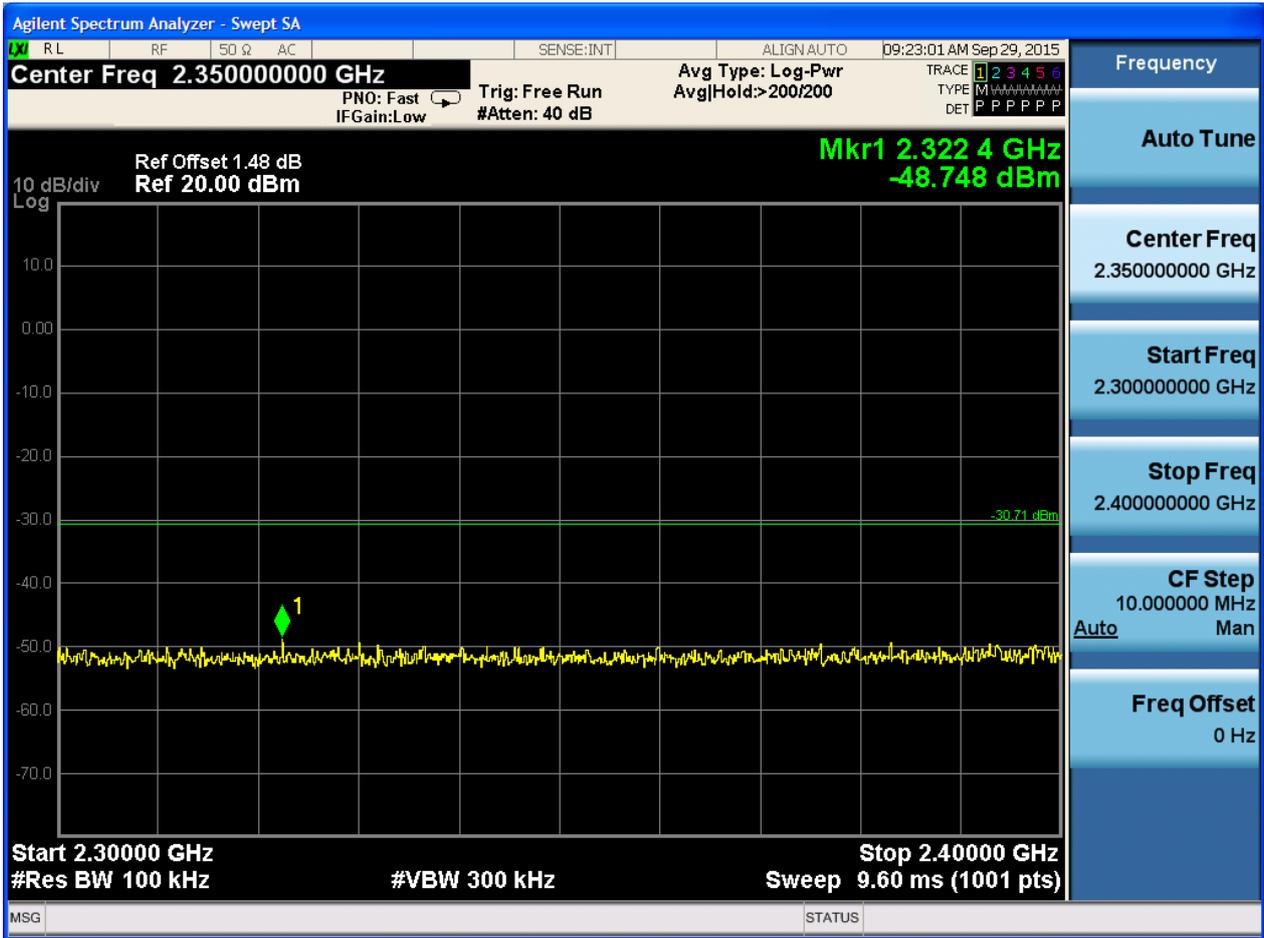


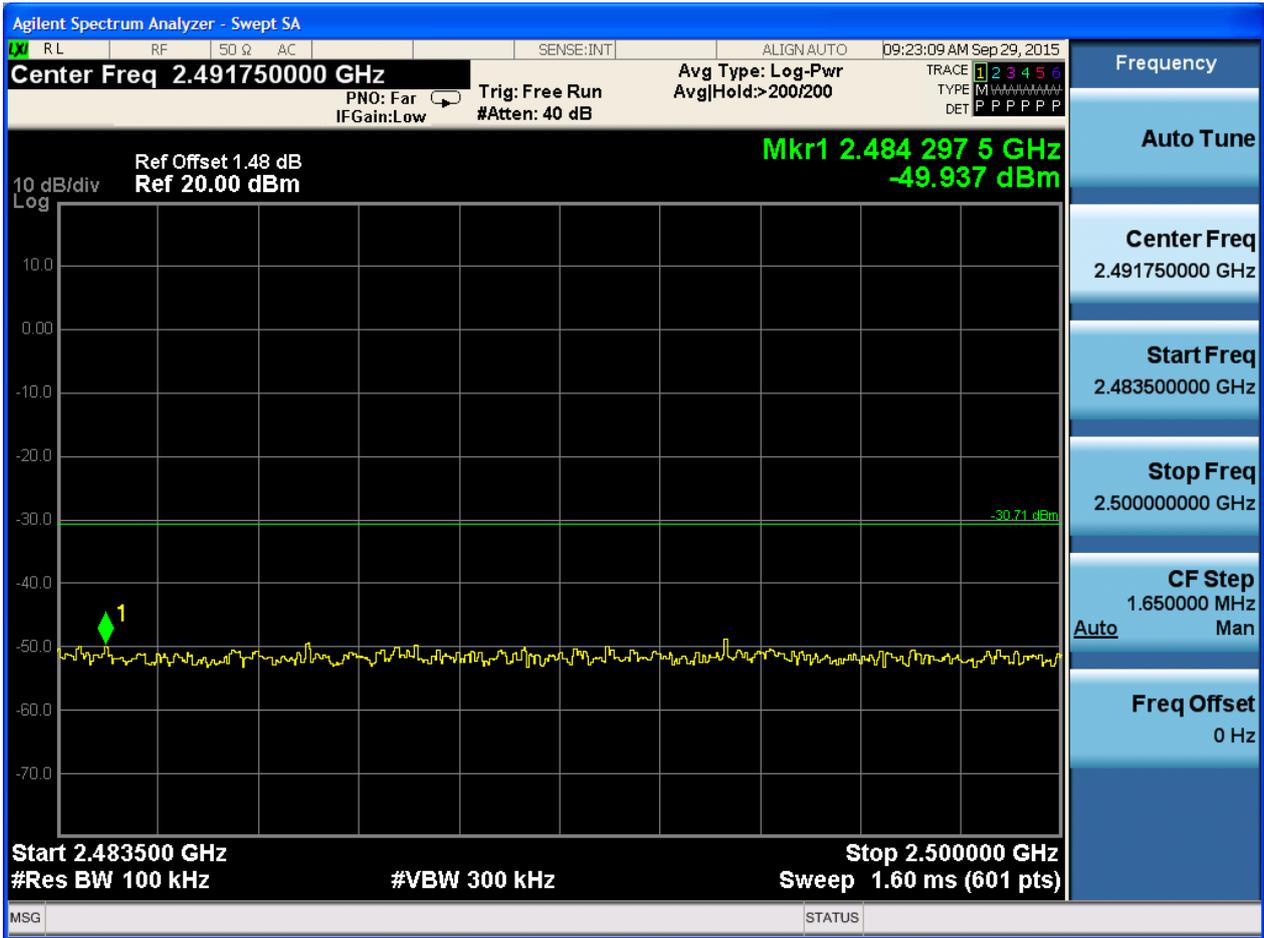
Puw:















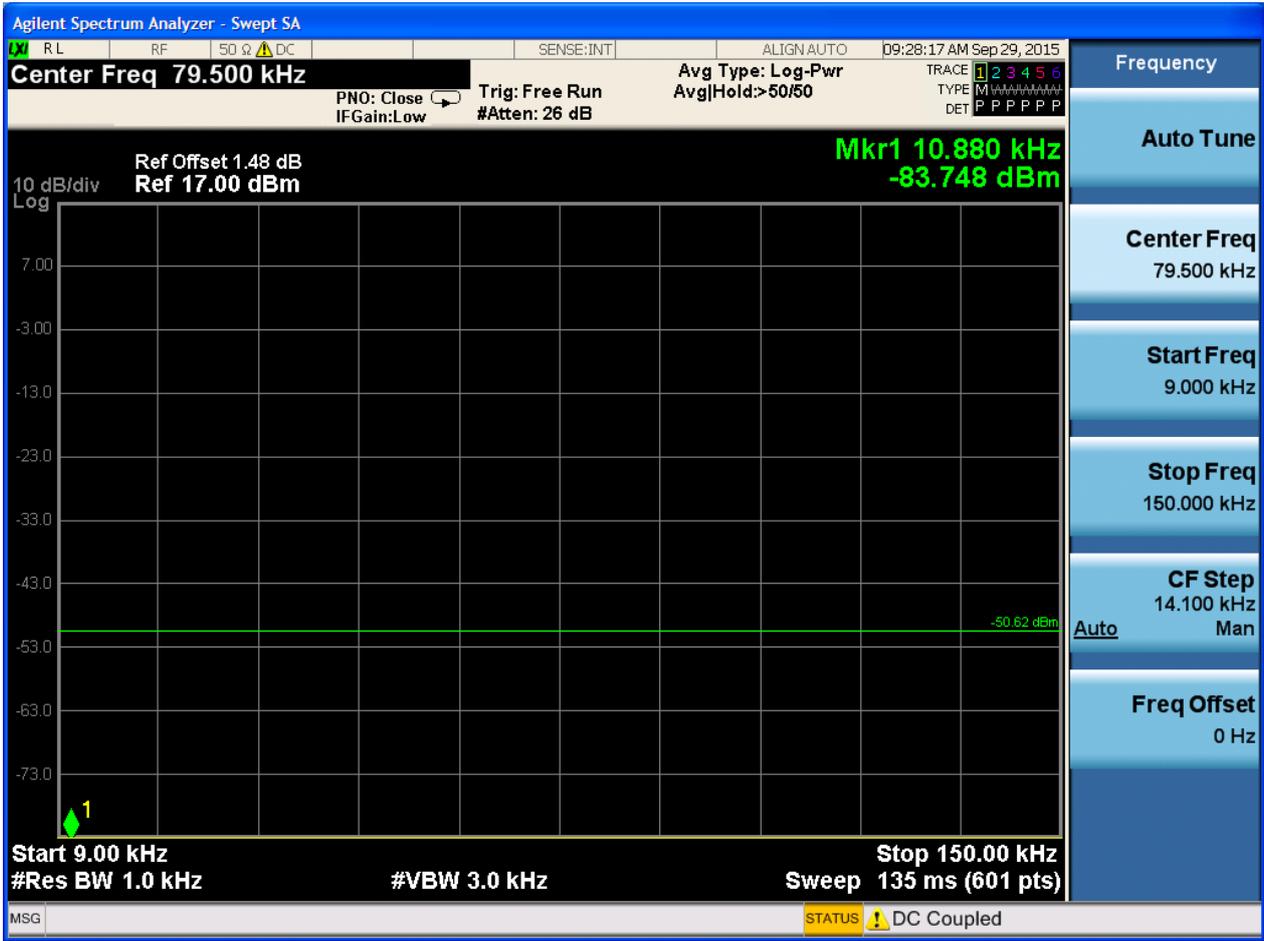
### 2.3 11B\_M@Ant 1

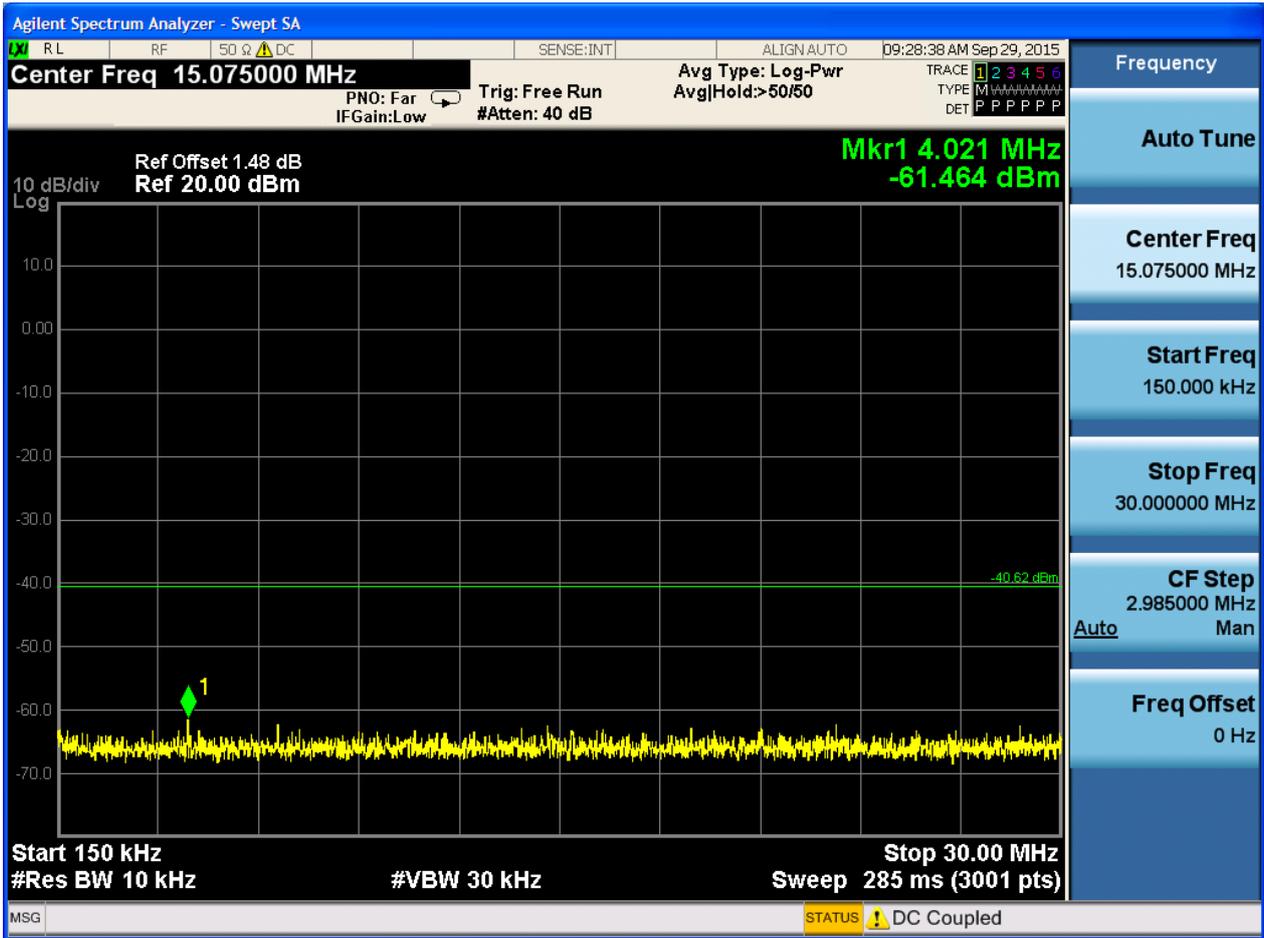
Pref:

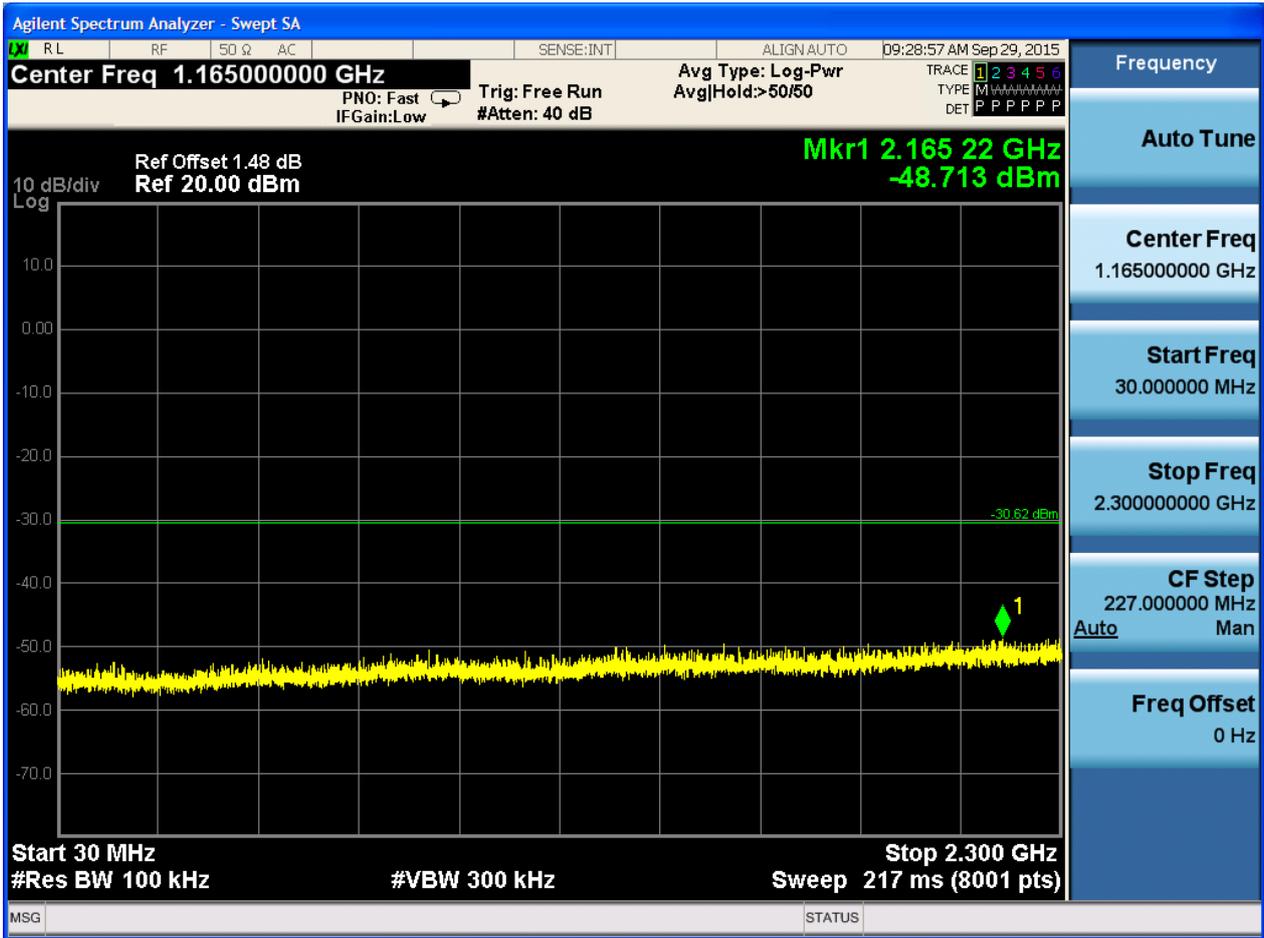


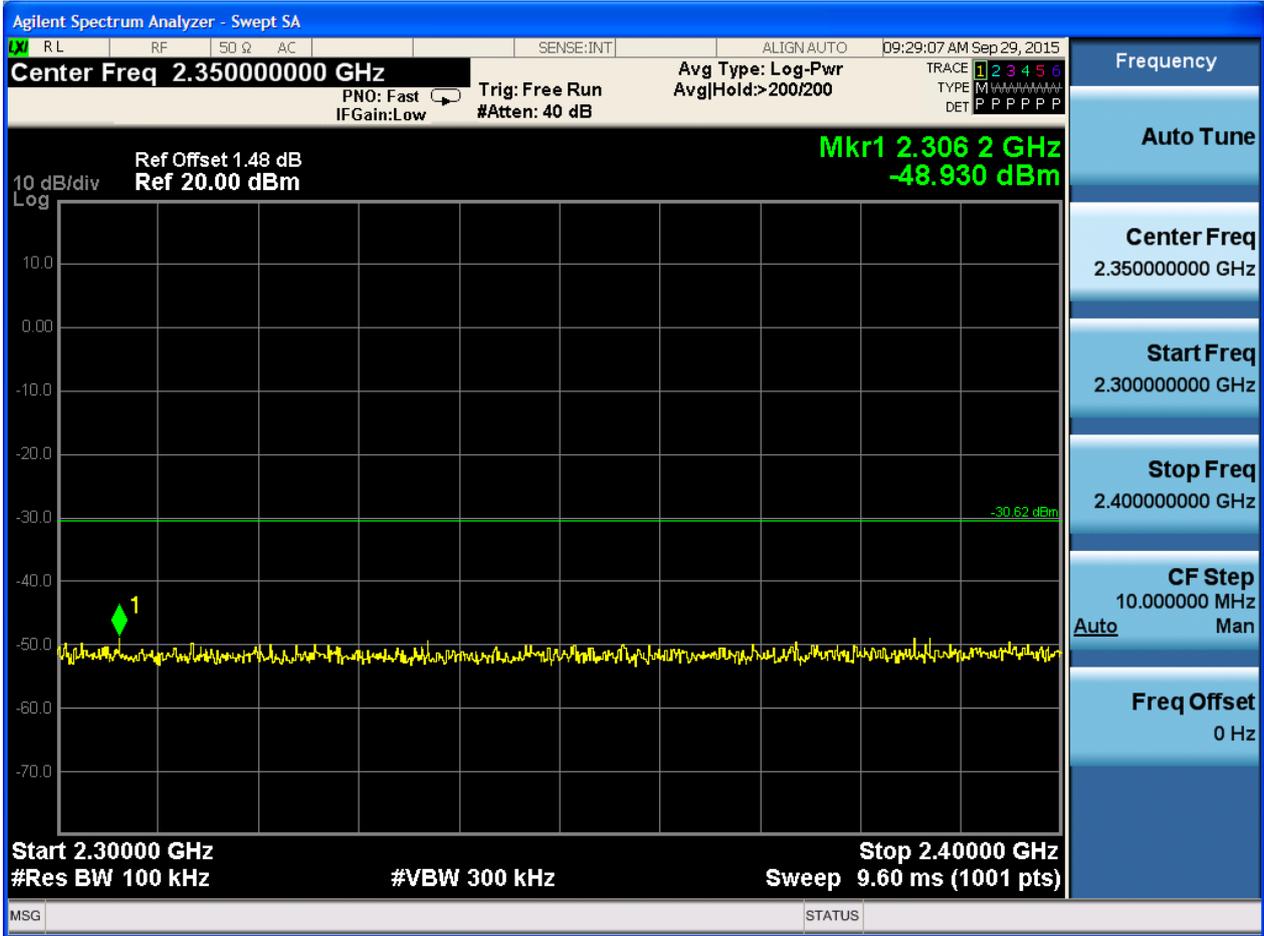


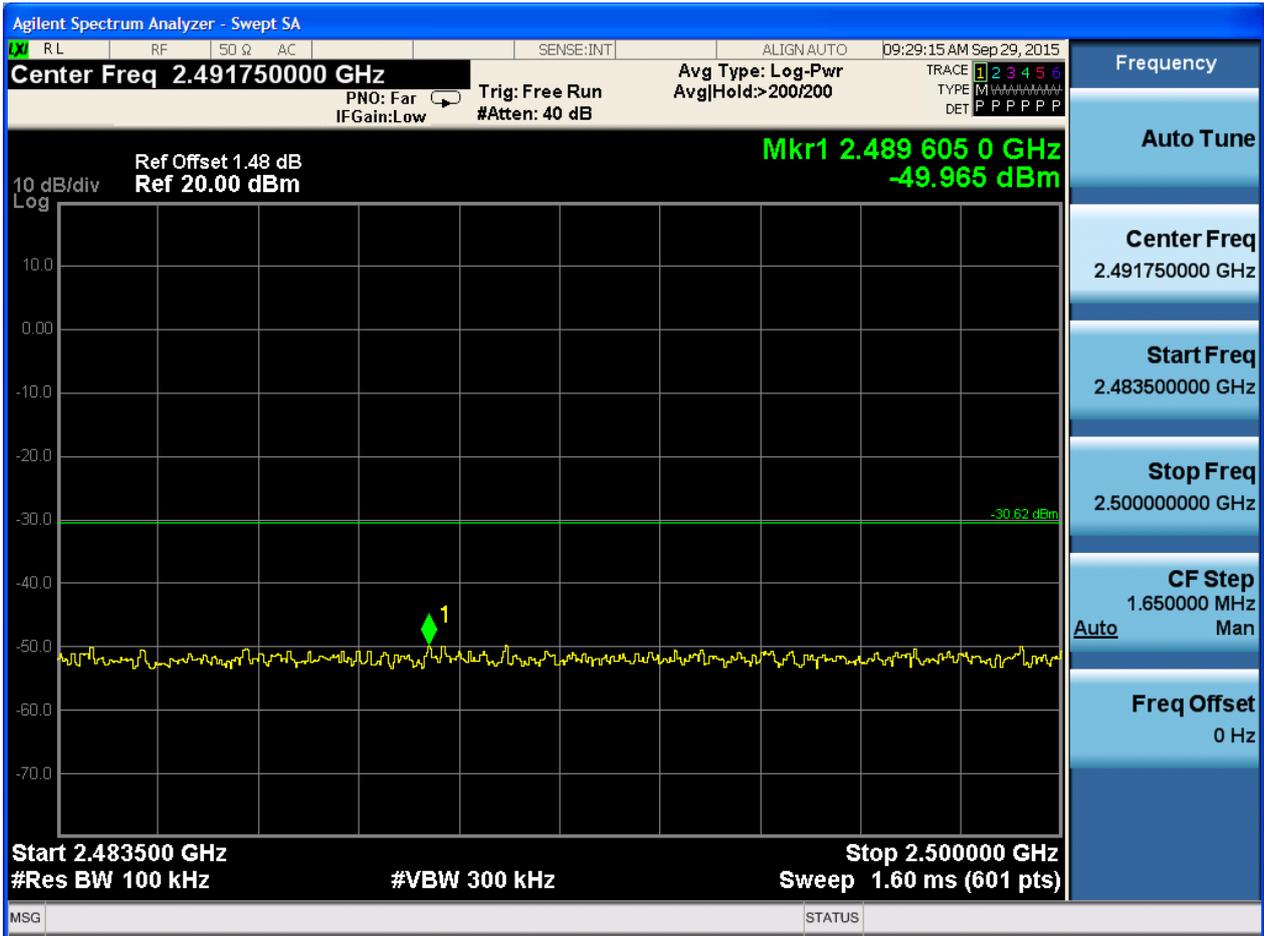
Puw:

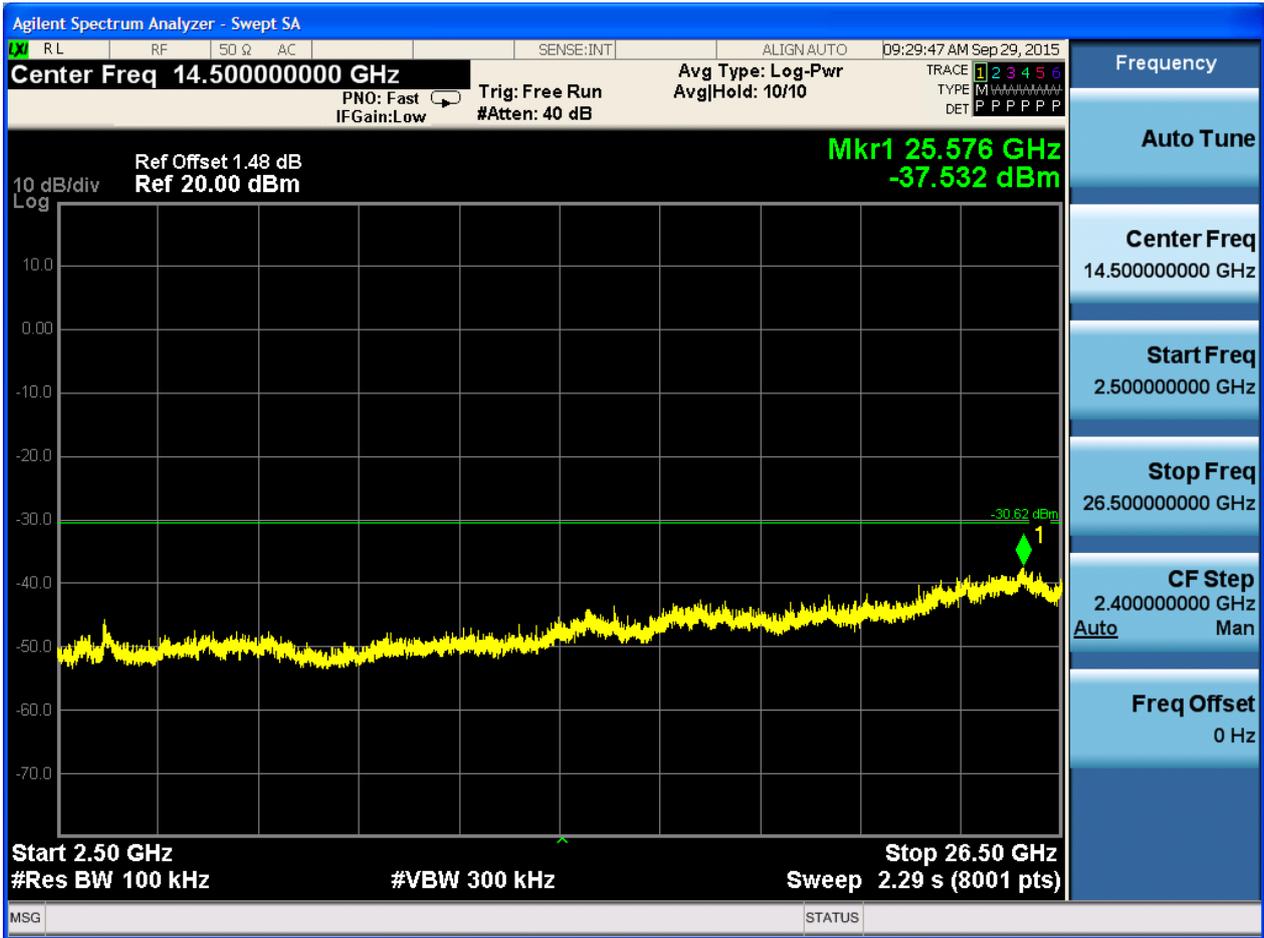














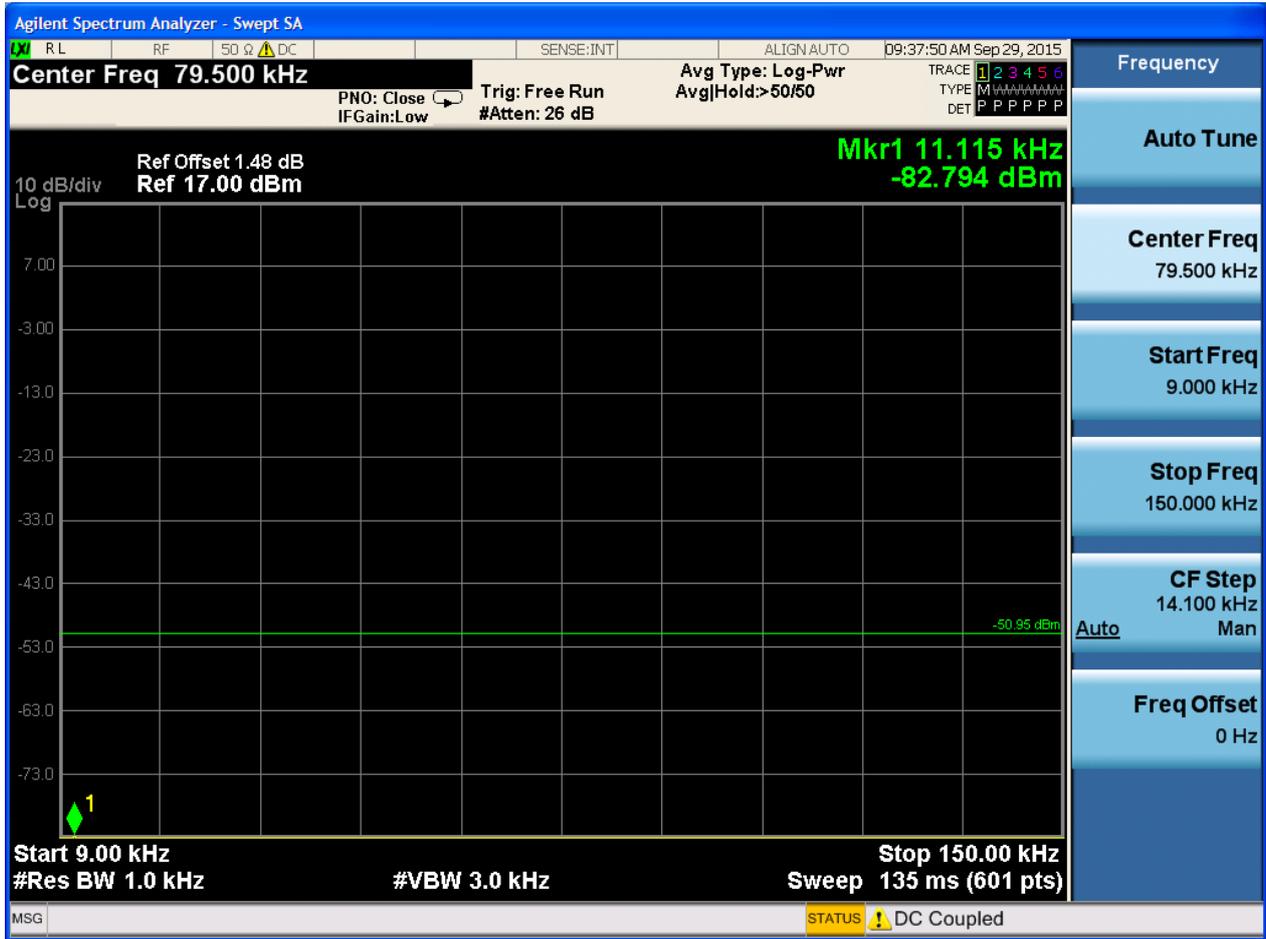
### 2.5 11B\_H@Ant 1

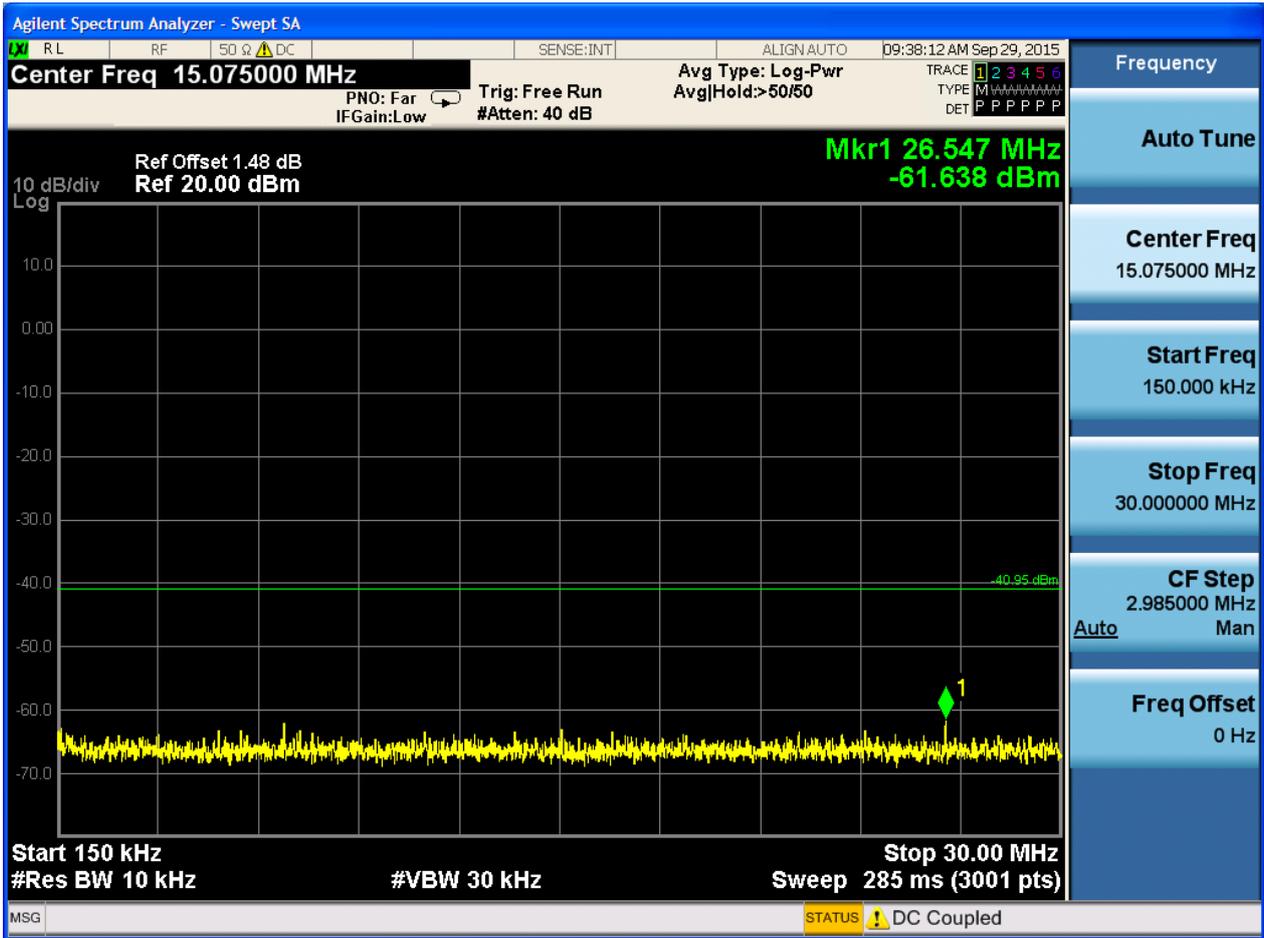
Pref:

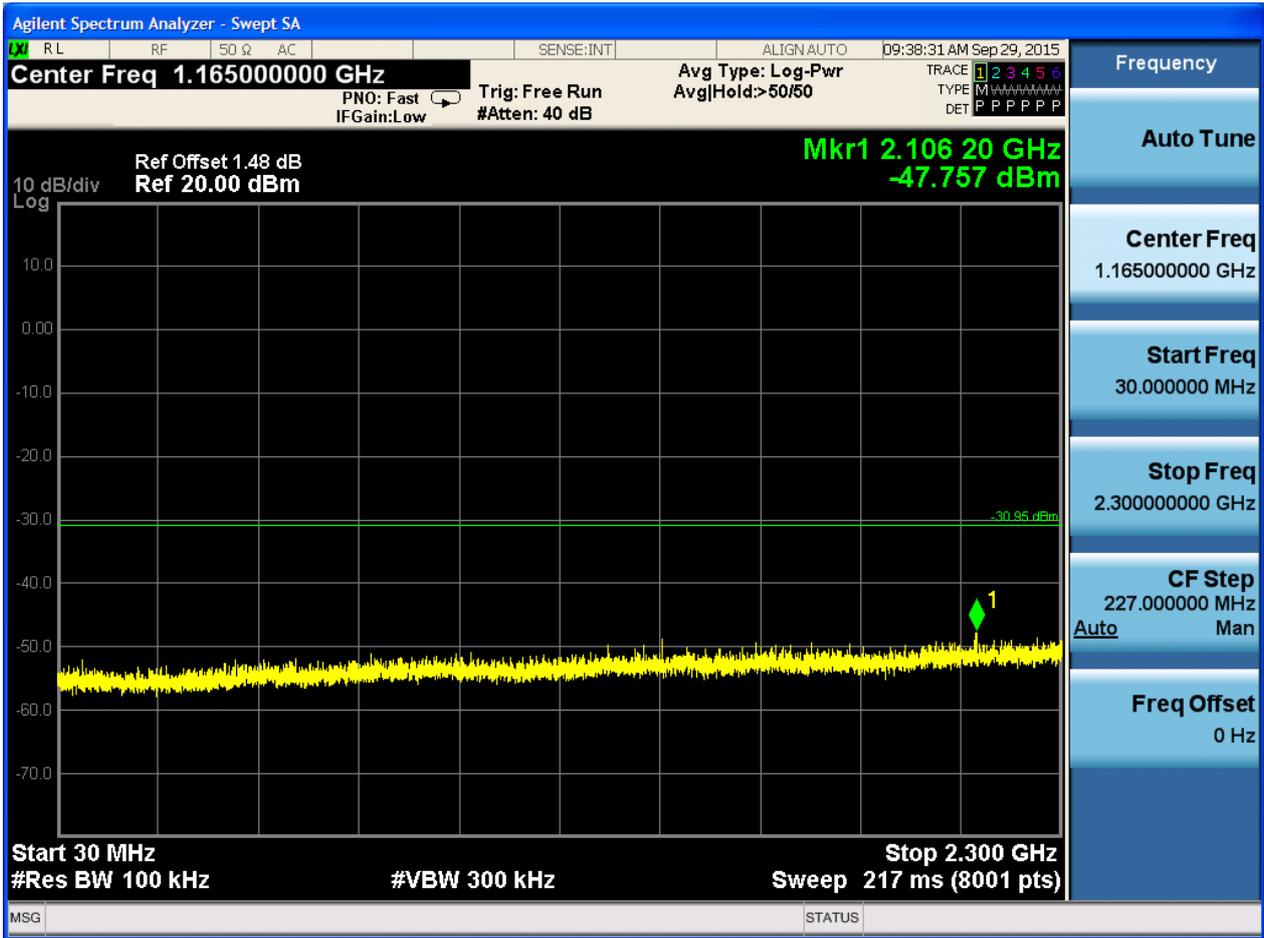


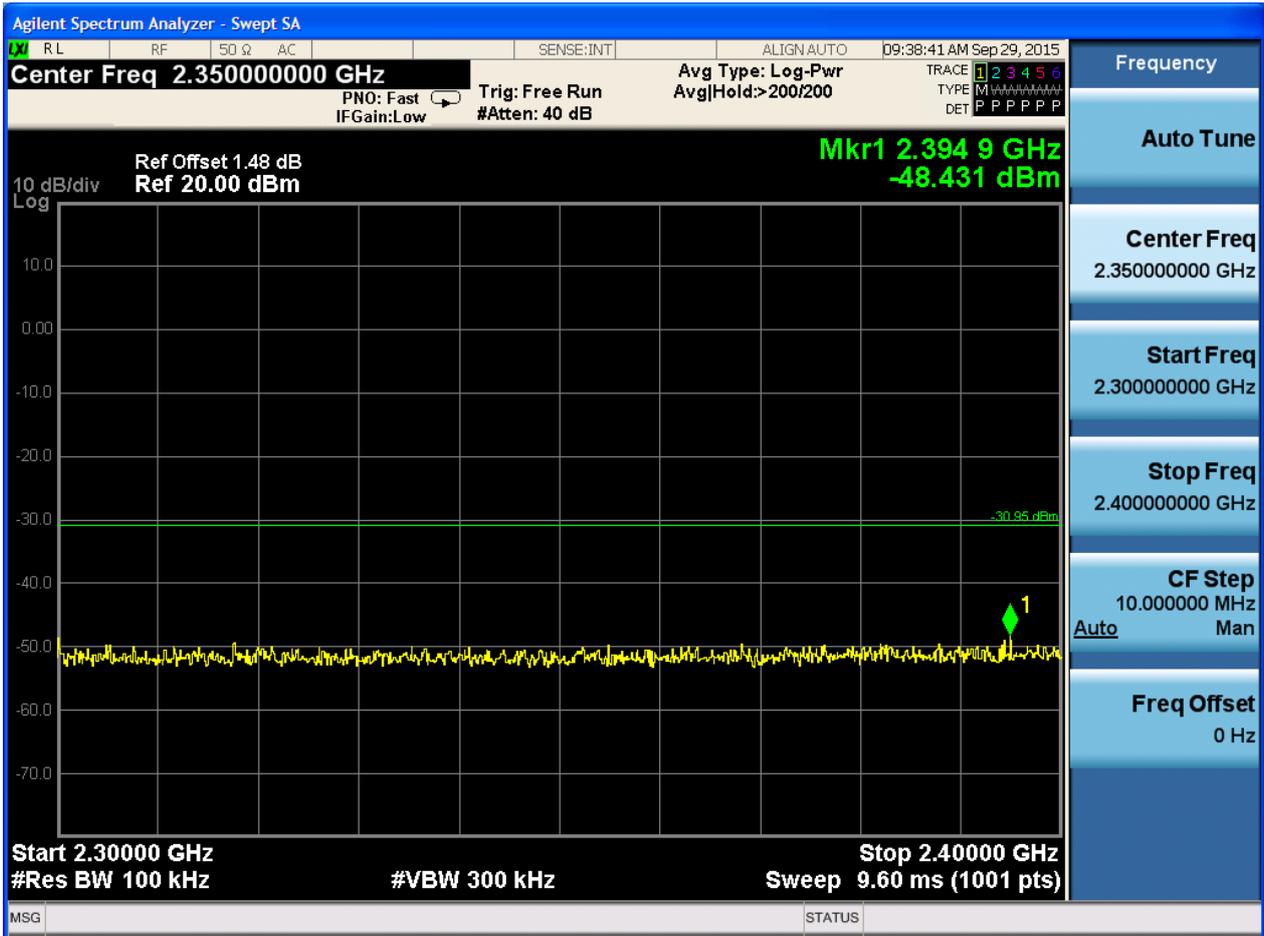


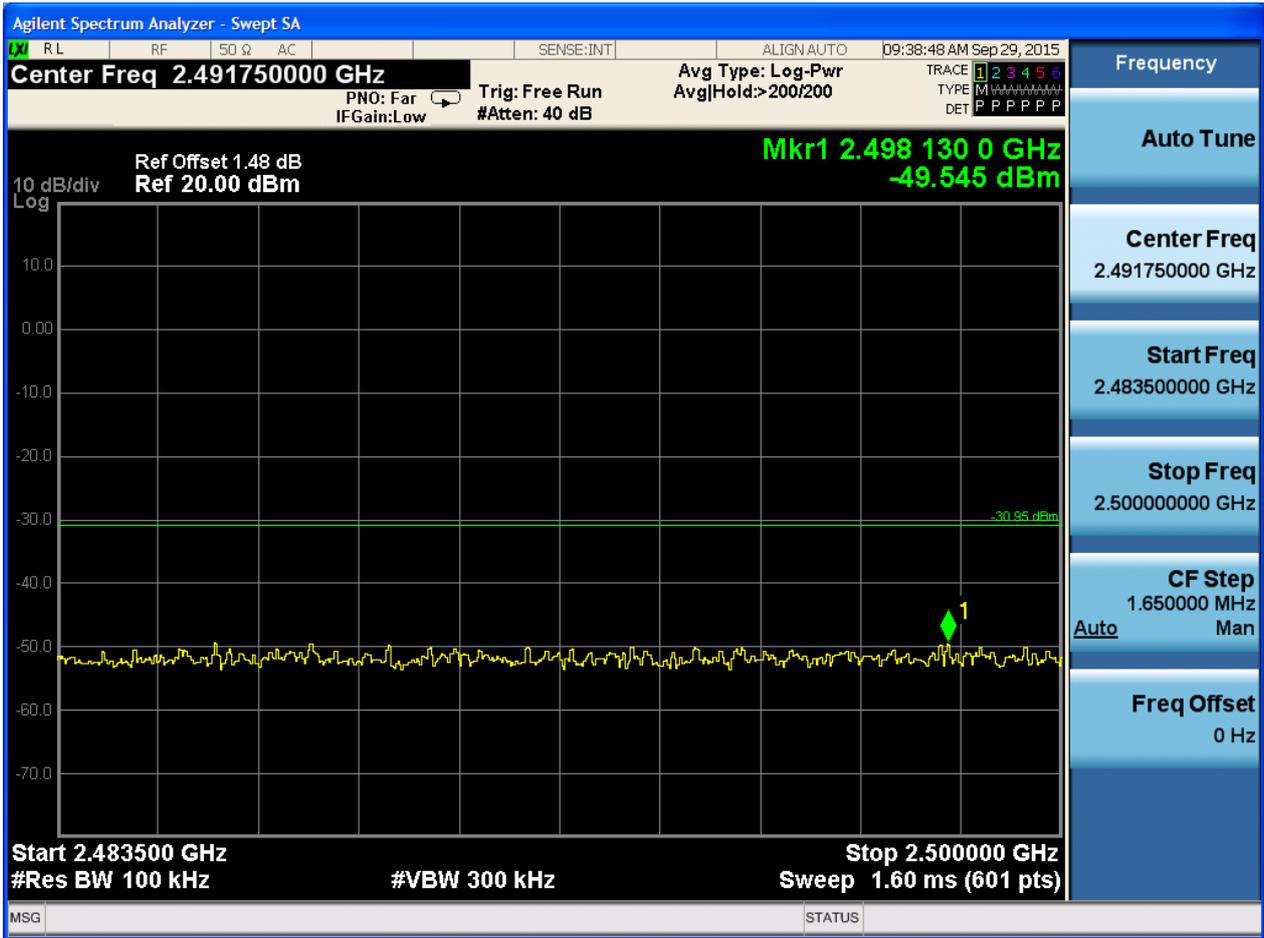
Puw:















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

Note: We tested all modes, but the data presented below is the worst case. Below 1GHz, RBW = 100 kHz, VBW = 300 kHz.

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”**

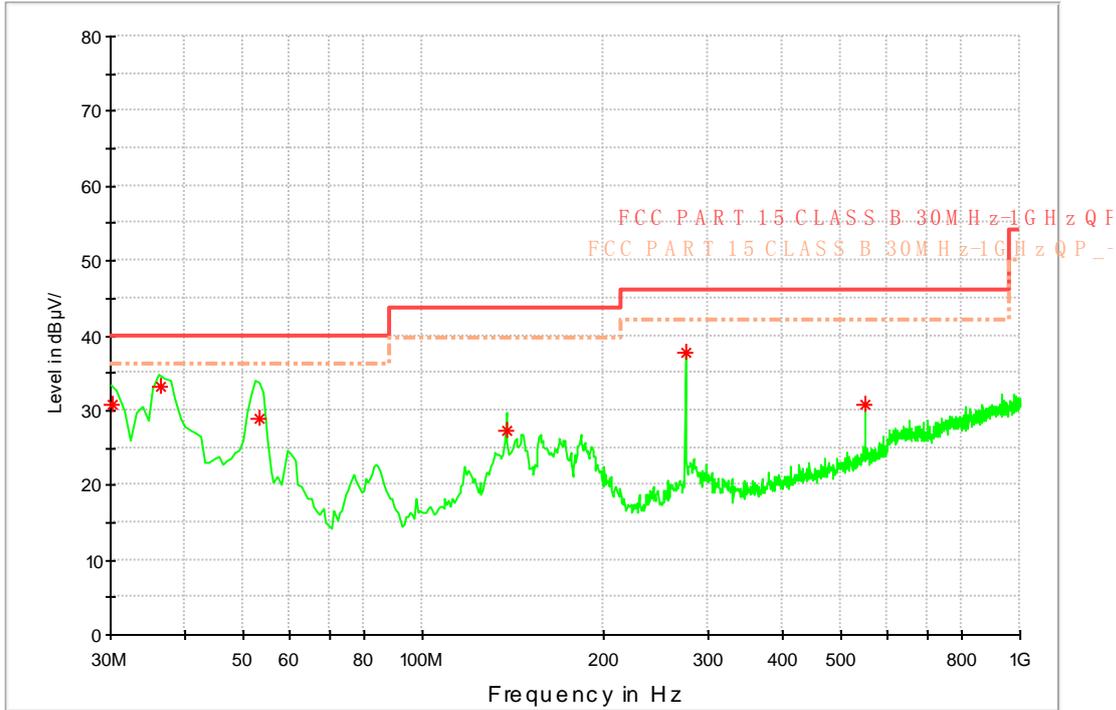
NOTE1: No peak found in the Test Range of “9 kHz to 30MHz”

**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).

FCC CLASS B RE 30MHz-1GHz



Frequency (MHz)	QuasiPeak (dBµ V/m)	Bandwidth (Hz)	Height (cm)	Polarization	Azimuth (deg)	Corr (dB)	Margi (dB)	Limit (dBµ V/m)
30.139110	30.9	120.000	100.0	V	99.0	13.7	14.1	40.0
36.346240	33.2	120.000	100.0	V	40.0	14.8	6.8	40.0
53.099200	28.9	120.000	100.0	V	340.0	14.8	11.1	40.0
137.839040	27.2	120.000	100.0	V	183.0	10.3	16.3	43.5
275.617600	37.8	120.000	124.0	H	303.0	15.1	8.2	46.0
551.212800	30.9	120.000	100.0	V	41.0	21.0	15.1	46.0



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

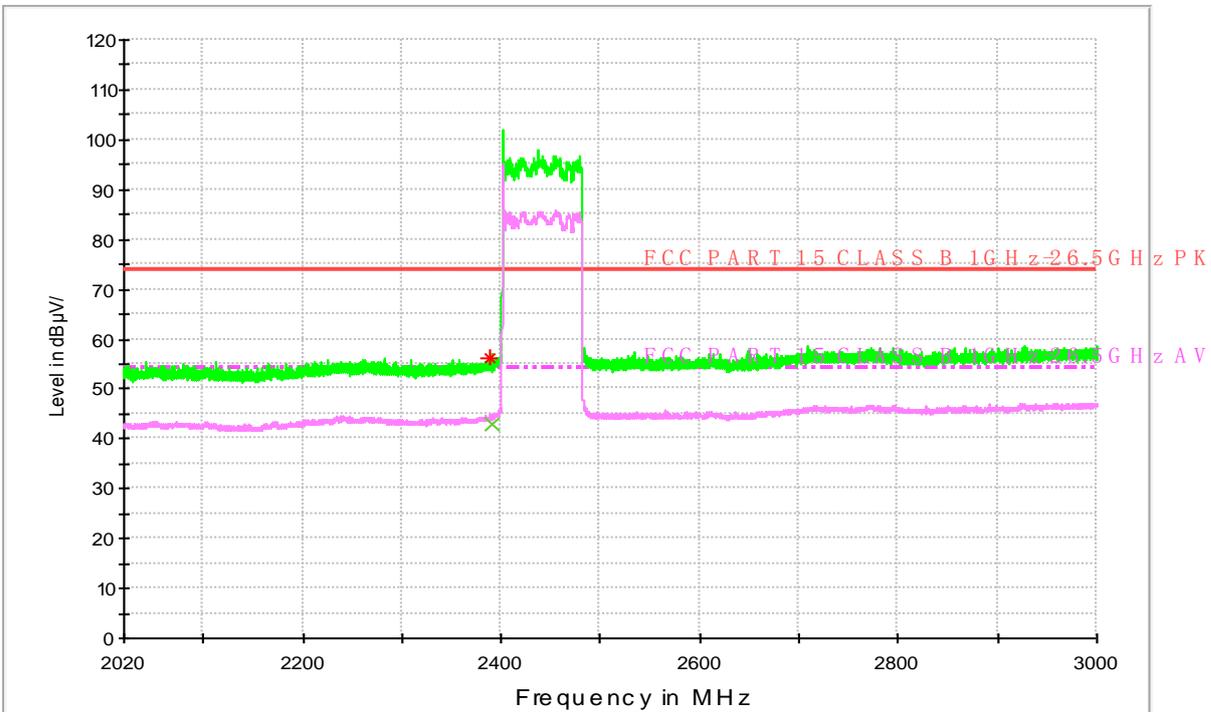
NOTE1: No peak found in the Test Range of “18 GHz to 26.5GHz”

**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 dBμV/m) and Average Limit (54 dBμV/m).
- Note 3: The peak spike exceeds the limit line is EUT’s operating frequency.

**Channel 0**

FCC CLASS B WIFI 1GHz-3GHz



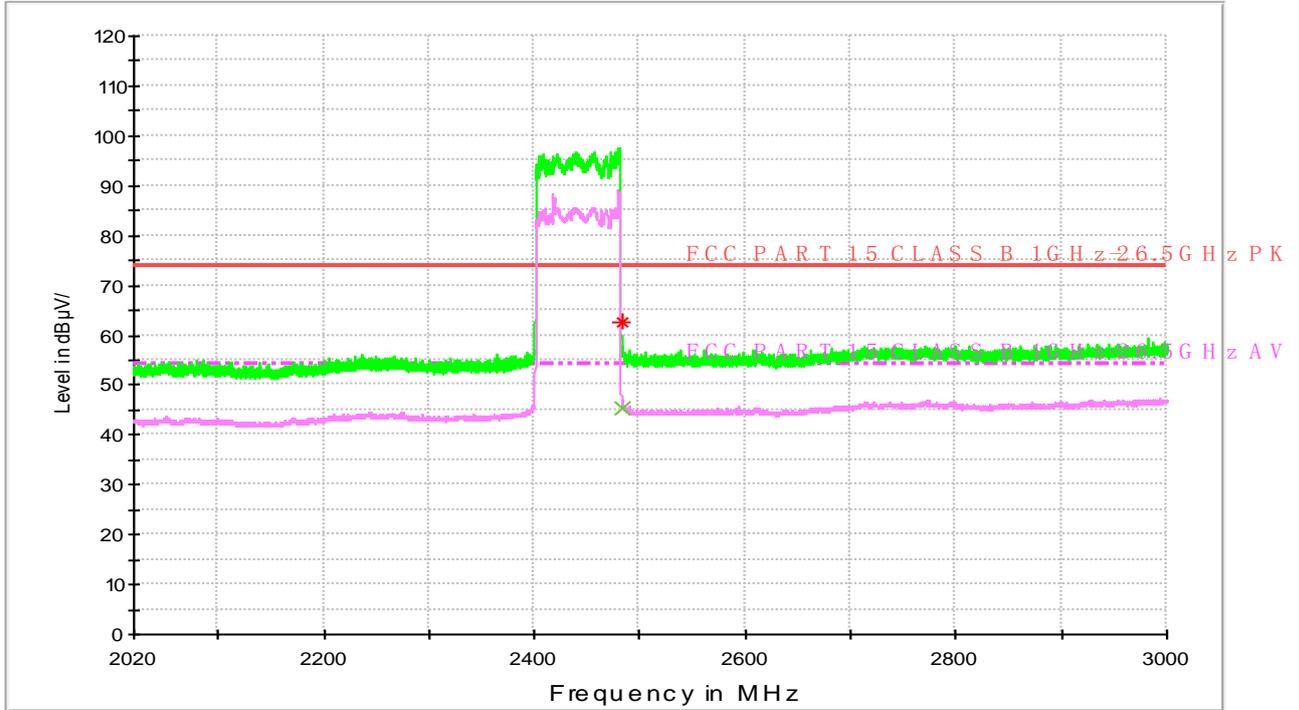
**Note: The peak exceeds the limit line is carrier frequency.**

MEASUREMENT RESULT: PK/ AV Detector

Frequency (MHz)	MaxPeak (dBμ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)
2389.627300	56.3	15000.0	1000.000	100.0	V	109.0	38.3	17.7
Frequency	Average	Meas.	Bandwidth	Height	Polarization	Azimuth	Corr.	Margin
2389.756400	43.0	15000.0	1000.000	100.0	V	146.0	38.3	11.0

Channel 39

FCC CLASS B WIFI 1GHz-3GHz



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

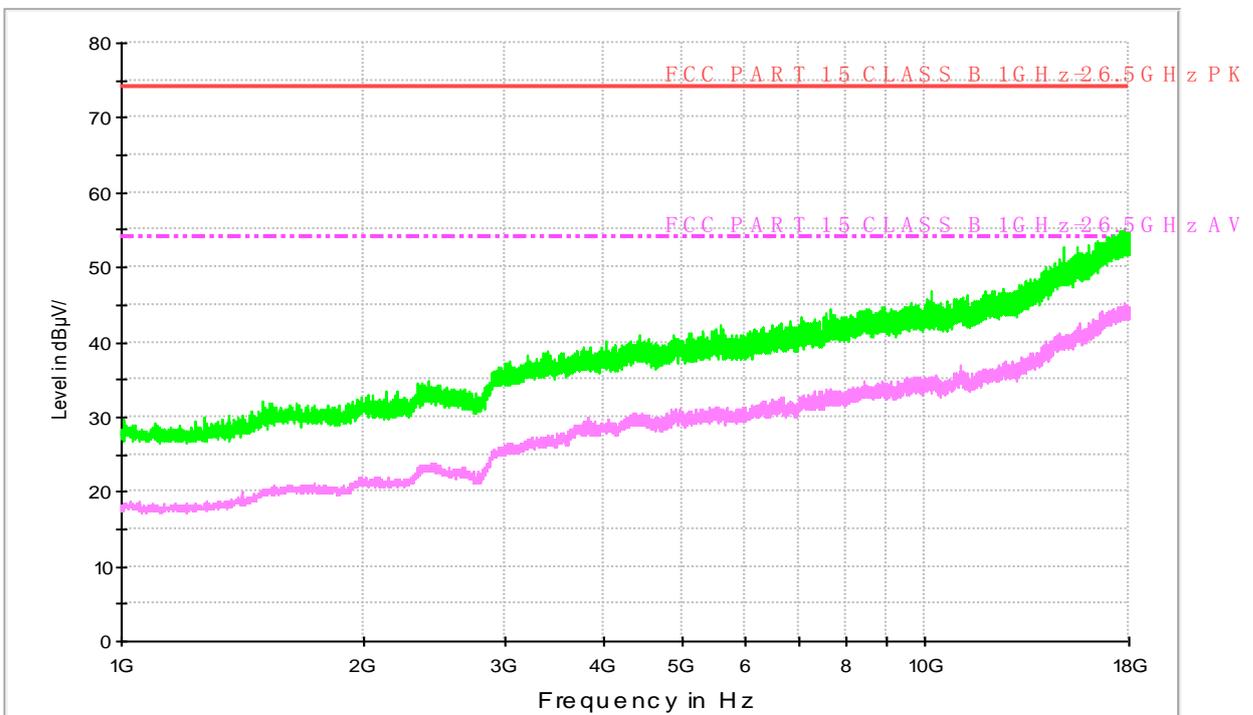
MEASUREMENT RESULT: PK/ AV Detector

Frequency (MHz)	MaxPeak (dBµ V/m)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)
2483.119500	62.6	15000.0	1000.000	100.0	V	137.0	41.2	11.4
Frequency	Average	Meas.	Bandwidth	Height	Polarization	Azimuth	Corr.	Margin
2483.260900	45.2	15000.0	1000.000	100.0	H	246.0	41.0	8.8

## 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 $\mu$ V/m) and Average Limit (54 dB $\mu$ V/m).

FCC CLASS B RE 1GHz-18GHz

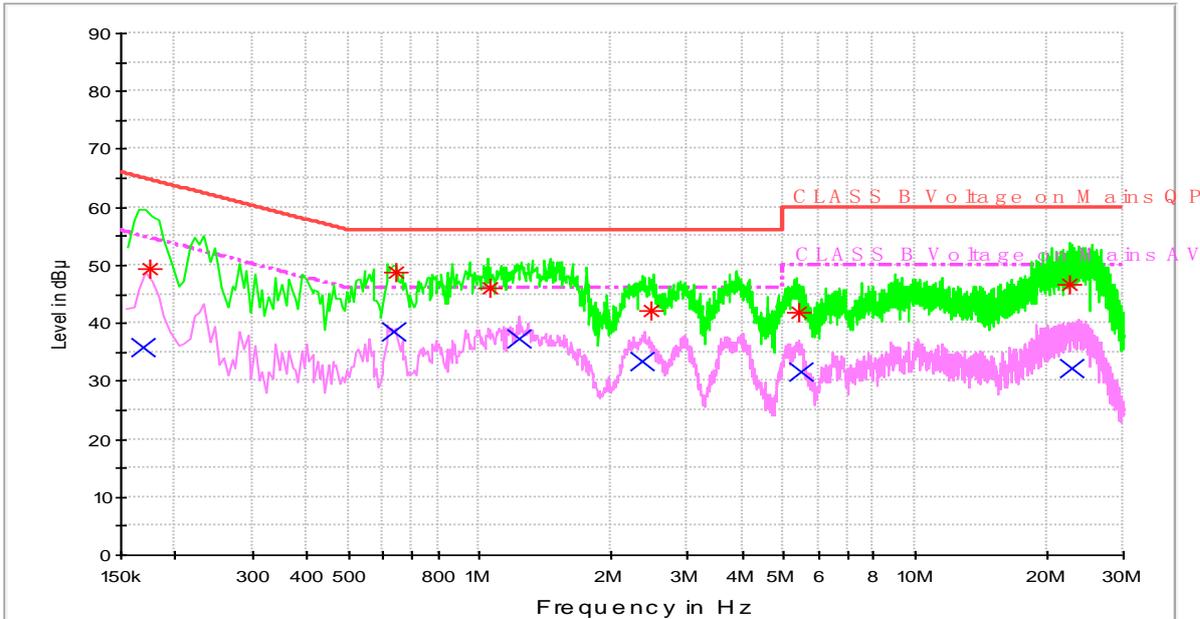


## Appendix I: Conducted Emission at Power Port

Note: RBW =9 kHz, VBW = 30 kHz

### Channel 39

CLASS B Voltage with ENV216



#### Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.174696	49.3	L1	9.8	15.4	64.7
0.639090	48.7	L1	9.8	7.3	56.0
1.049679	46.1	L1	9.8	9.9	56.0
2.463924	42.0	L1	9.8	14.0	56.0
5.379648	42.0	L1	10.0	18.0	60.0
22.564509	46.7	L1	10.2	13.3	60.0

#### Final Result 2

Frequency (MHz)	Average (dBuV)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.169773	35.9	L1	9.8	19.1	55.0
0.637248	38.5	L1	9.8	7.5	46.0
1.224384	37.5	L1	9.8	8.5	46.0
2.349390	33.5	L1	9.8	12.5	46.0
5.449902	31.7	L1	10.0	18.3	50.0
22.851609	32.3	N	10.2	17.7	50.0

END