# 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.

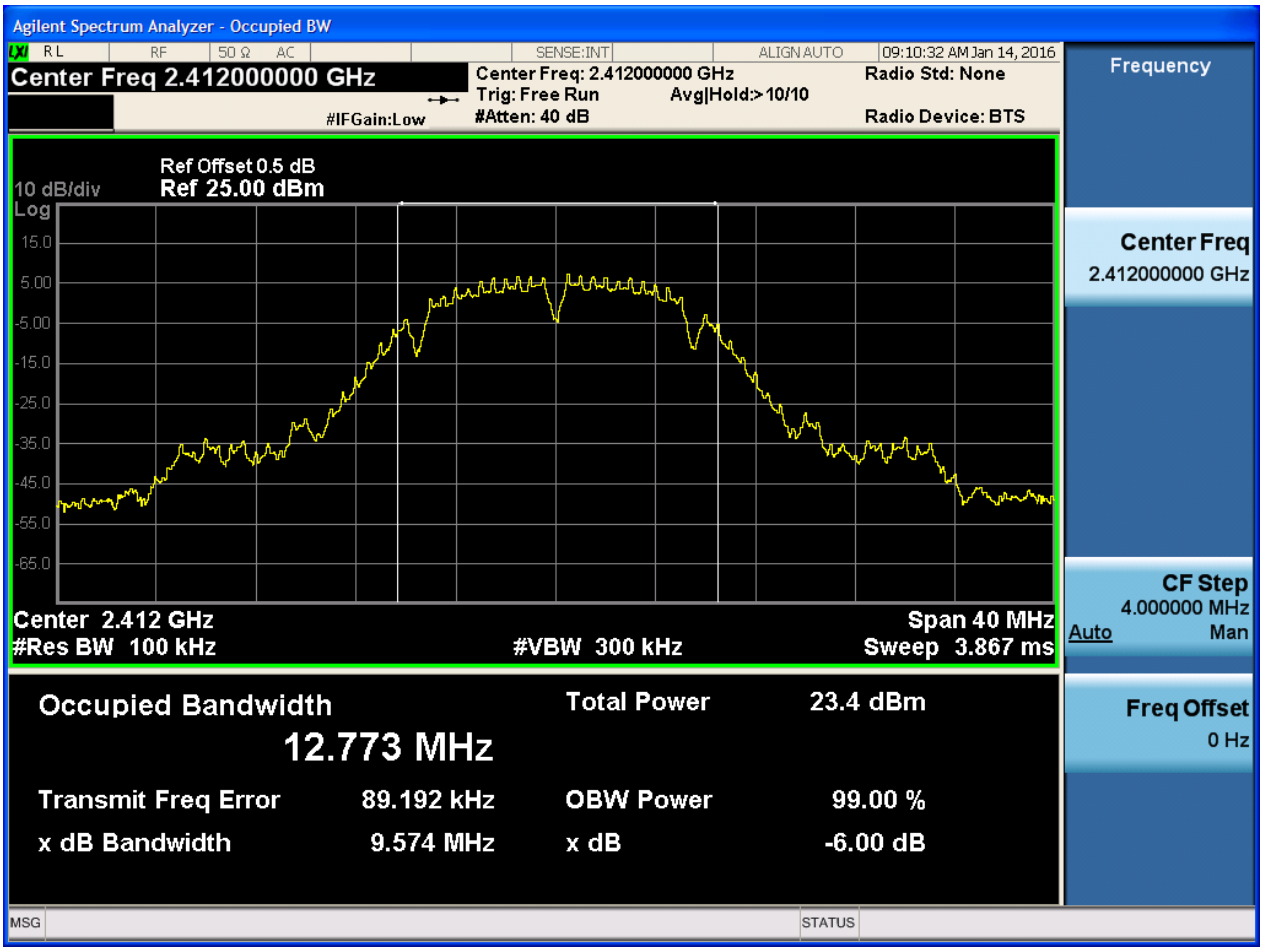
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

**Part I - Test Results**

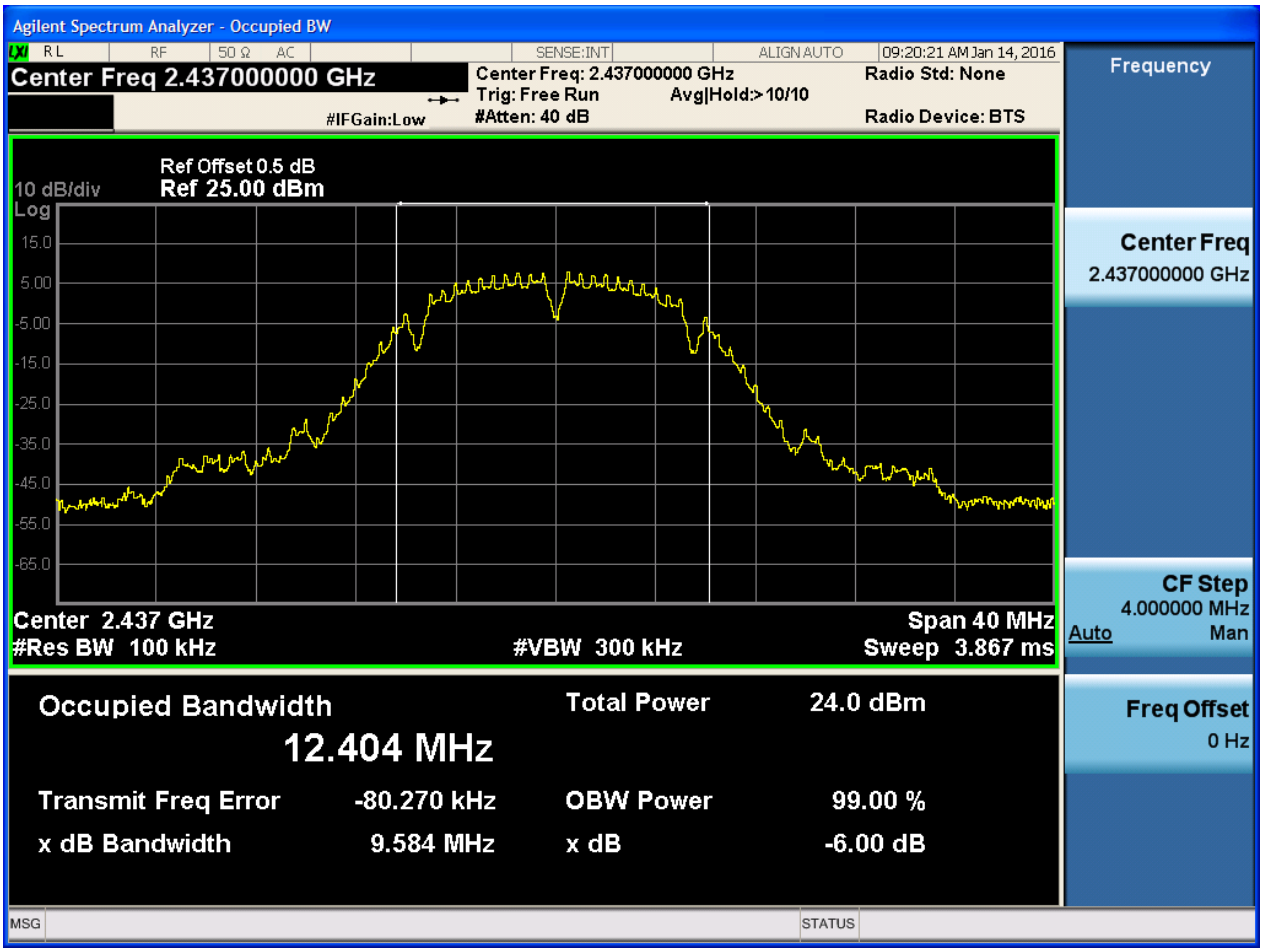
| Test Mode | Test Channel | Frequency[MHz] | Ant | DTS6dBBW[MHz] | Verdict |
|---|---|---|---|---|---|
| 11B | L | 2412 | Ant 1 | 9.57 | pass |
| 11B | M | 2437 | Ant 1 | 9.58 | pass |
| 11B | H | 2462 | Ant 1 | 9.59 | pass |
| 11G | L | 2412 | Ant 1 | 15.52 | pass |
| 11G | M | 2437 | Ant 1 | 15.48 | pass |
| 11G | H | 2462 | Ant 1 | 15.47 | pass |
| 11N20 | L | 2412 | Ant 1 | 16.36 | pass |
| 11N20 | M | 2437 | Ant 1 | 15.17 | pass |
| 11N20 | H | 2462 | Ant 1 | 15.31 | pass |
| 11N40 | L | 2422 | Ant 1 | 35.35 | pass |
| 11N40 | M | 2437 | Ant 1 | 35.12 | pass |
| 11N40 | H | 2452 | Ant 1 | 35.60 | pass |

**Part II - Test Plots**

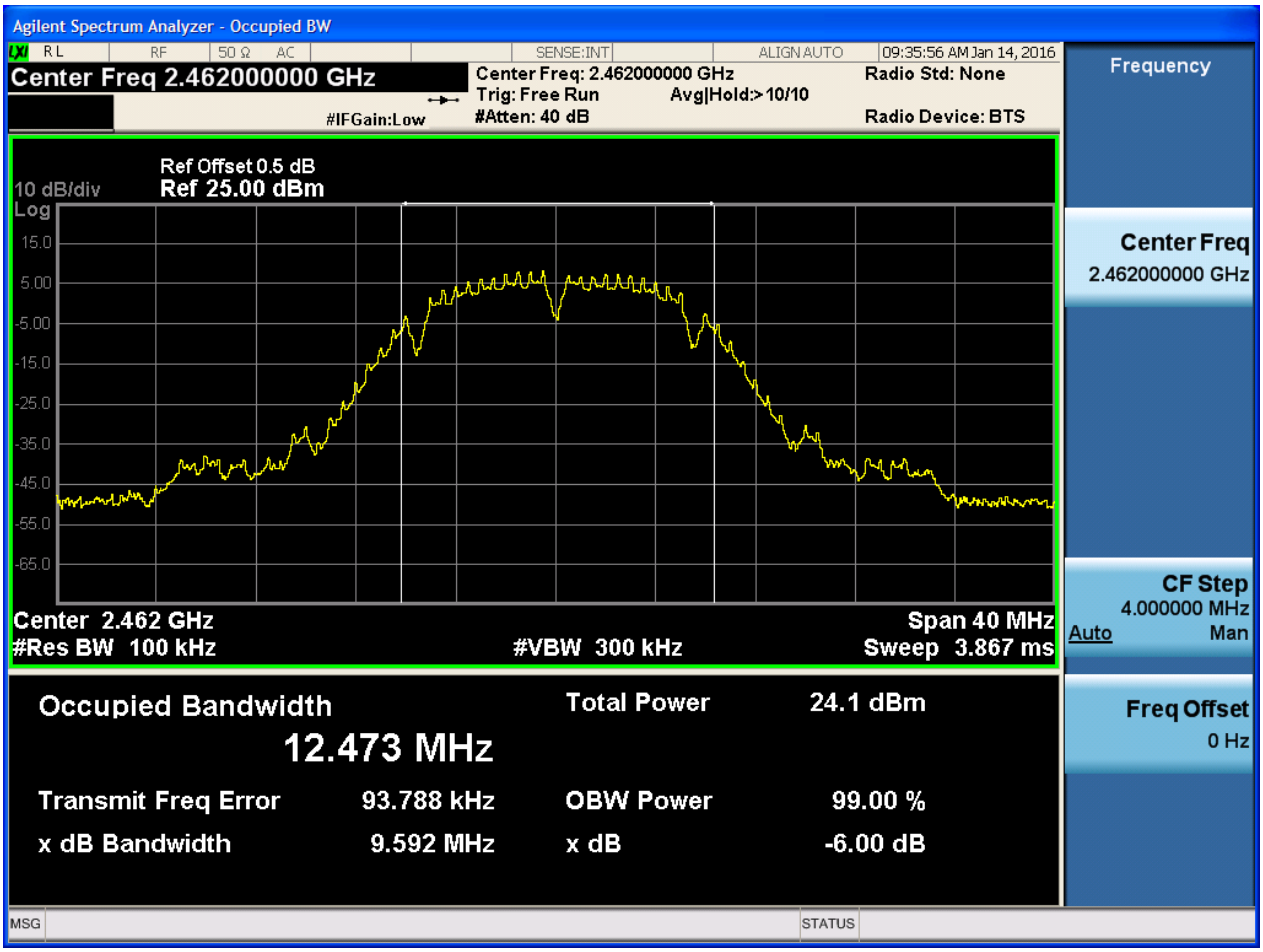
**2.1 11B_L@Ant 1**



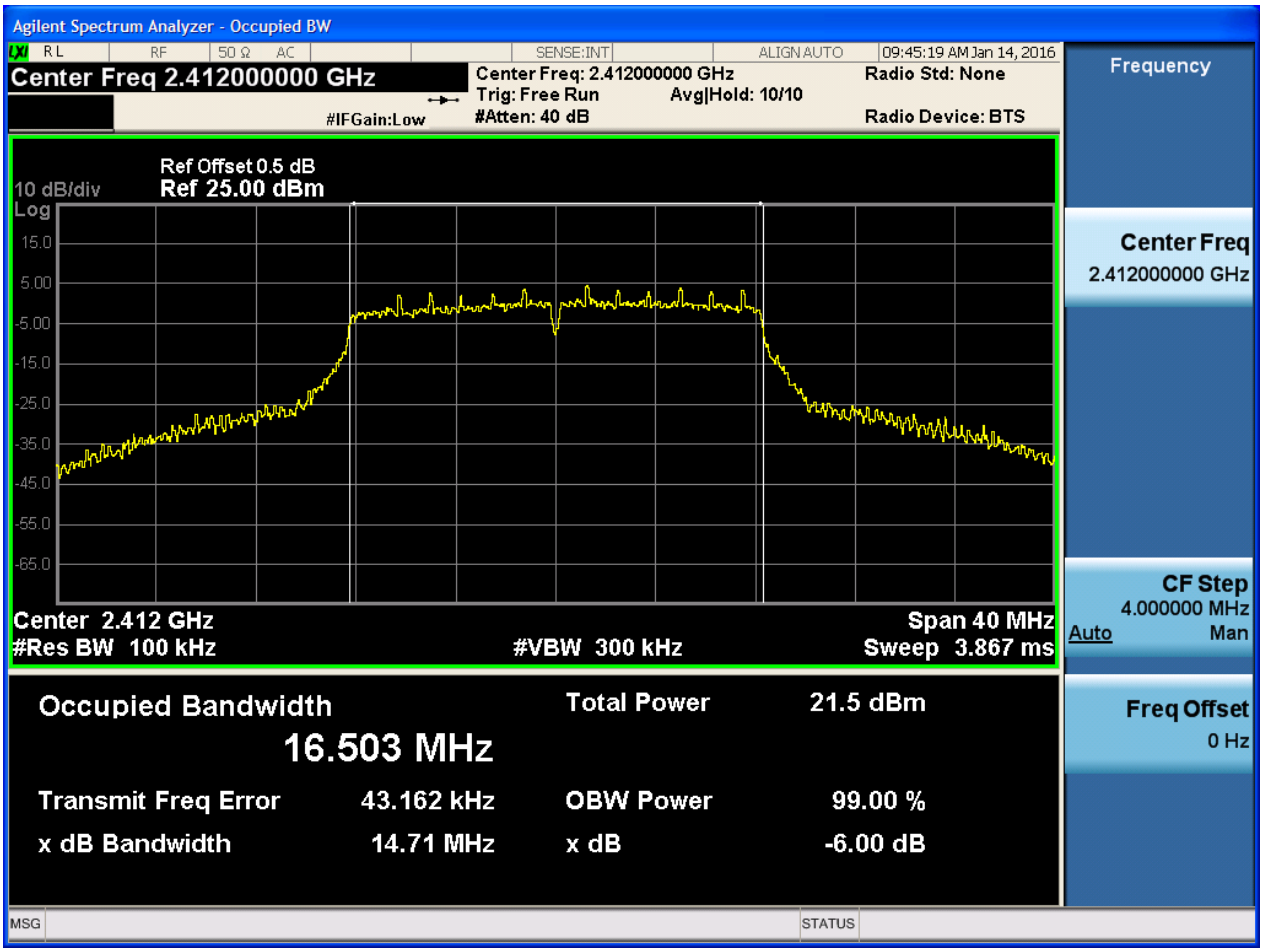
### 2.3 11B_M@Ant 1



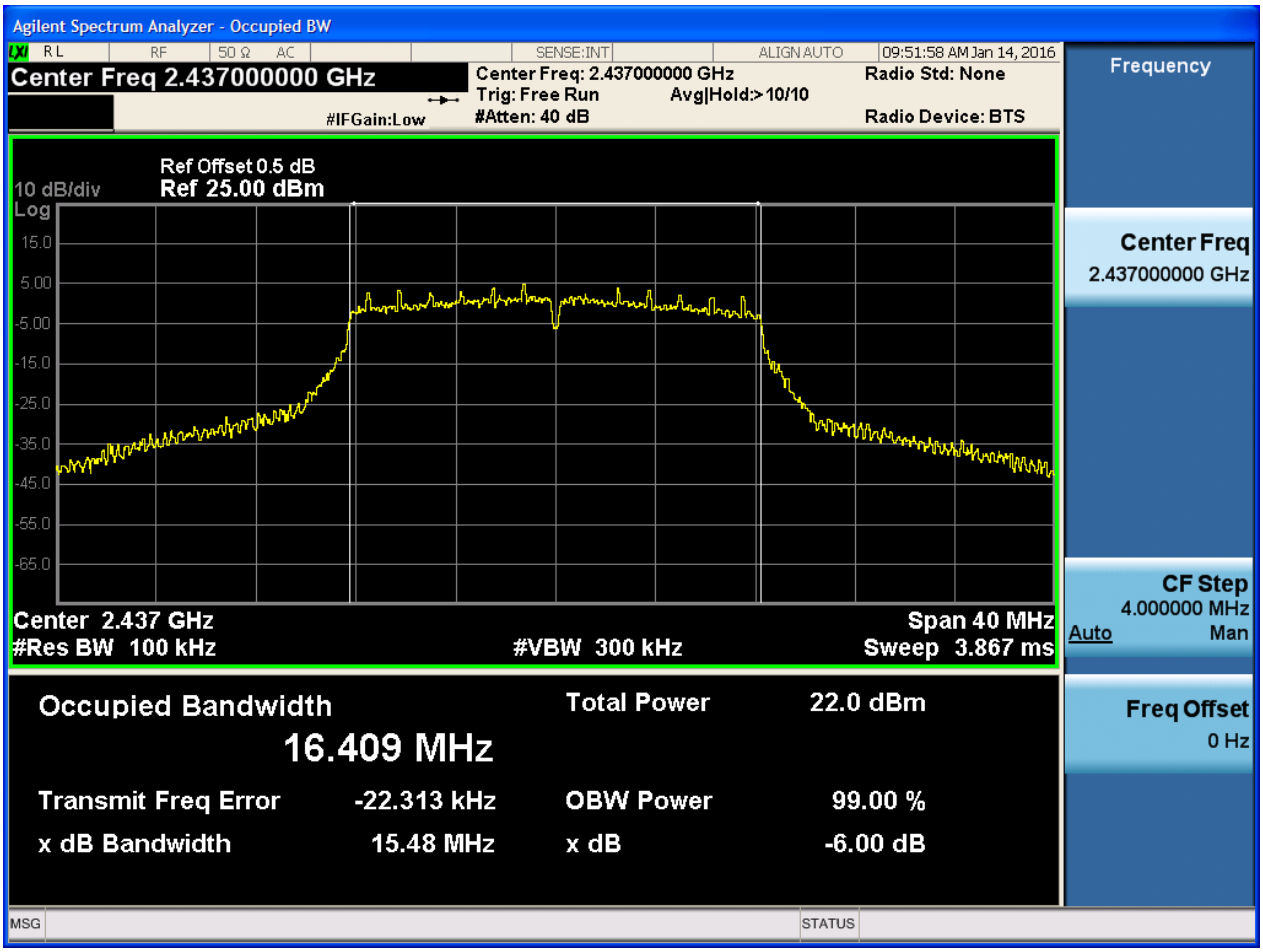
### 2.5 11B_H@Ant 1



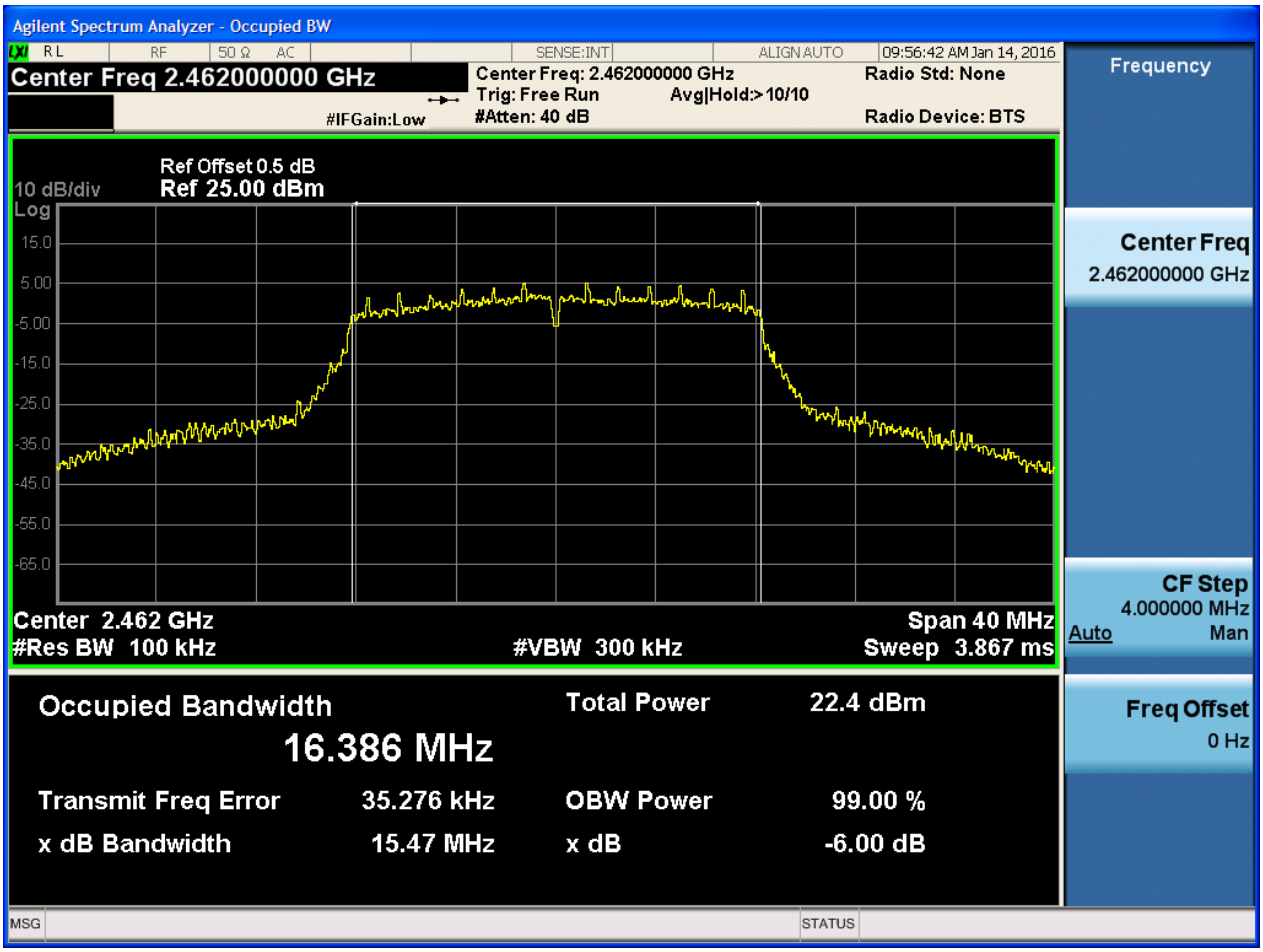
### 2.7 11G_L@Ant 1



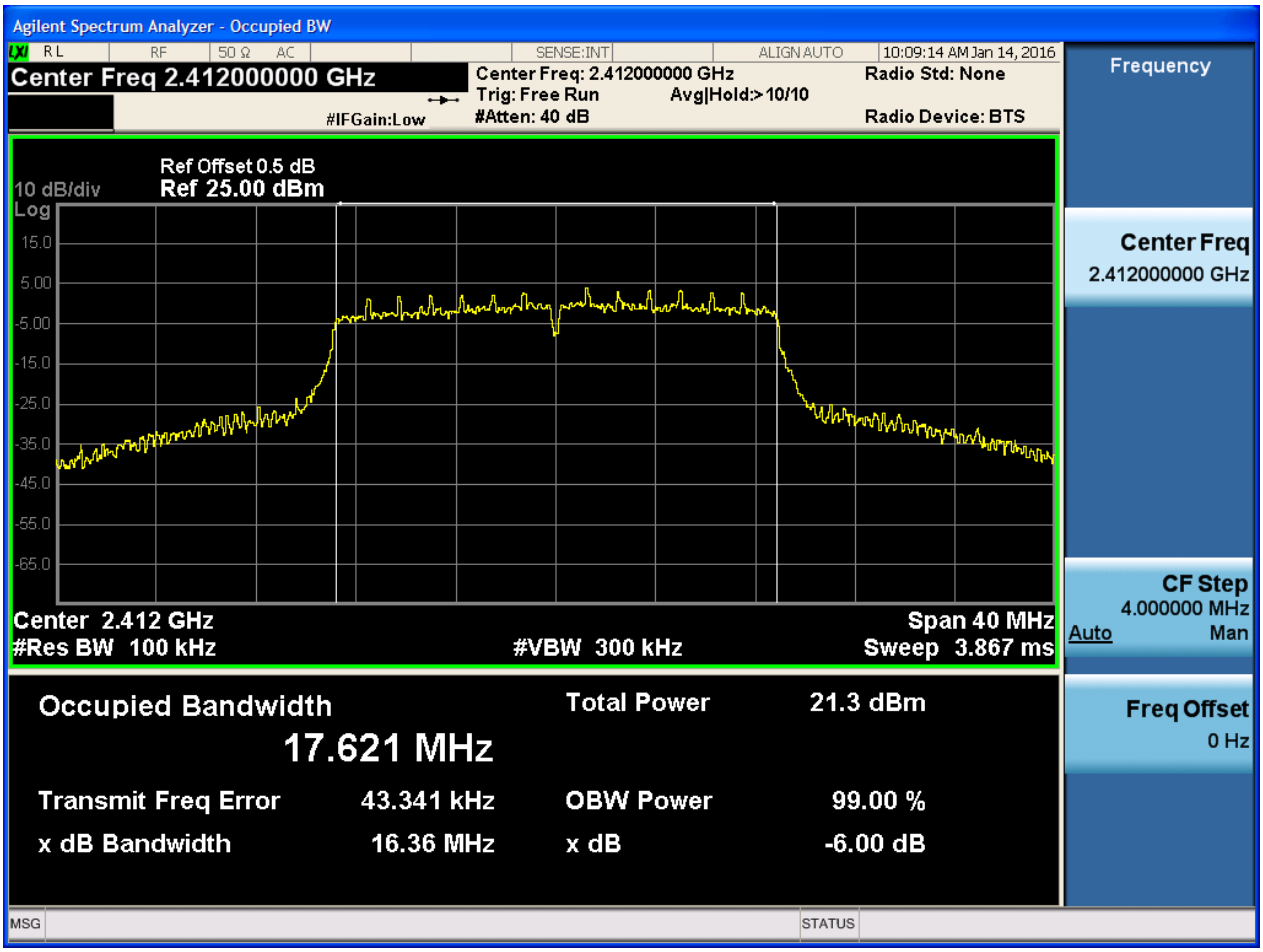
### 2.9 11G_M@Ant 1



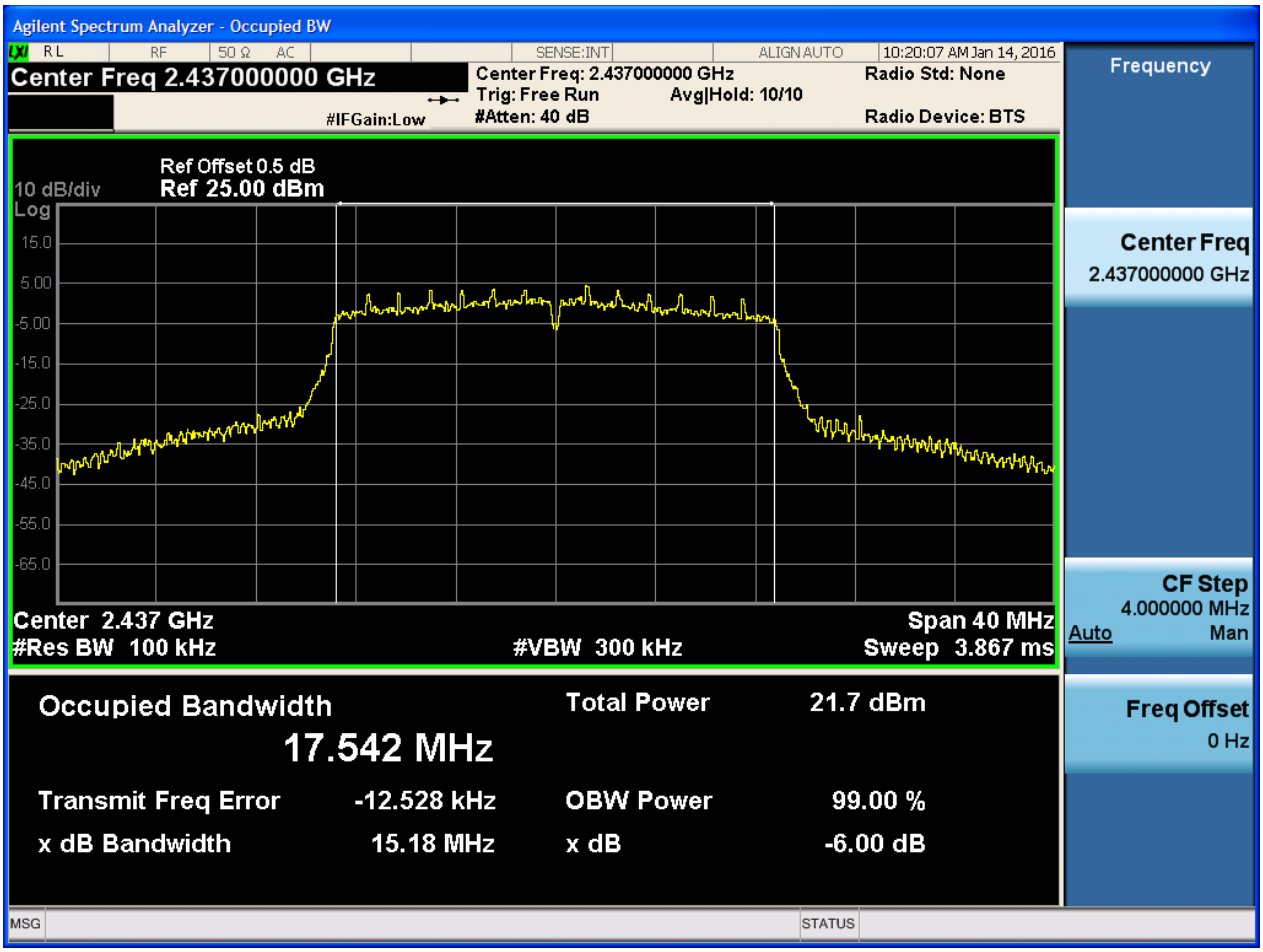
### 2.11 11G_H@Ant 1



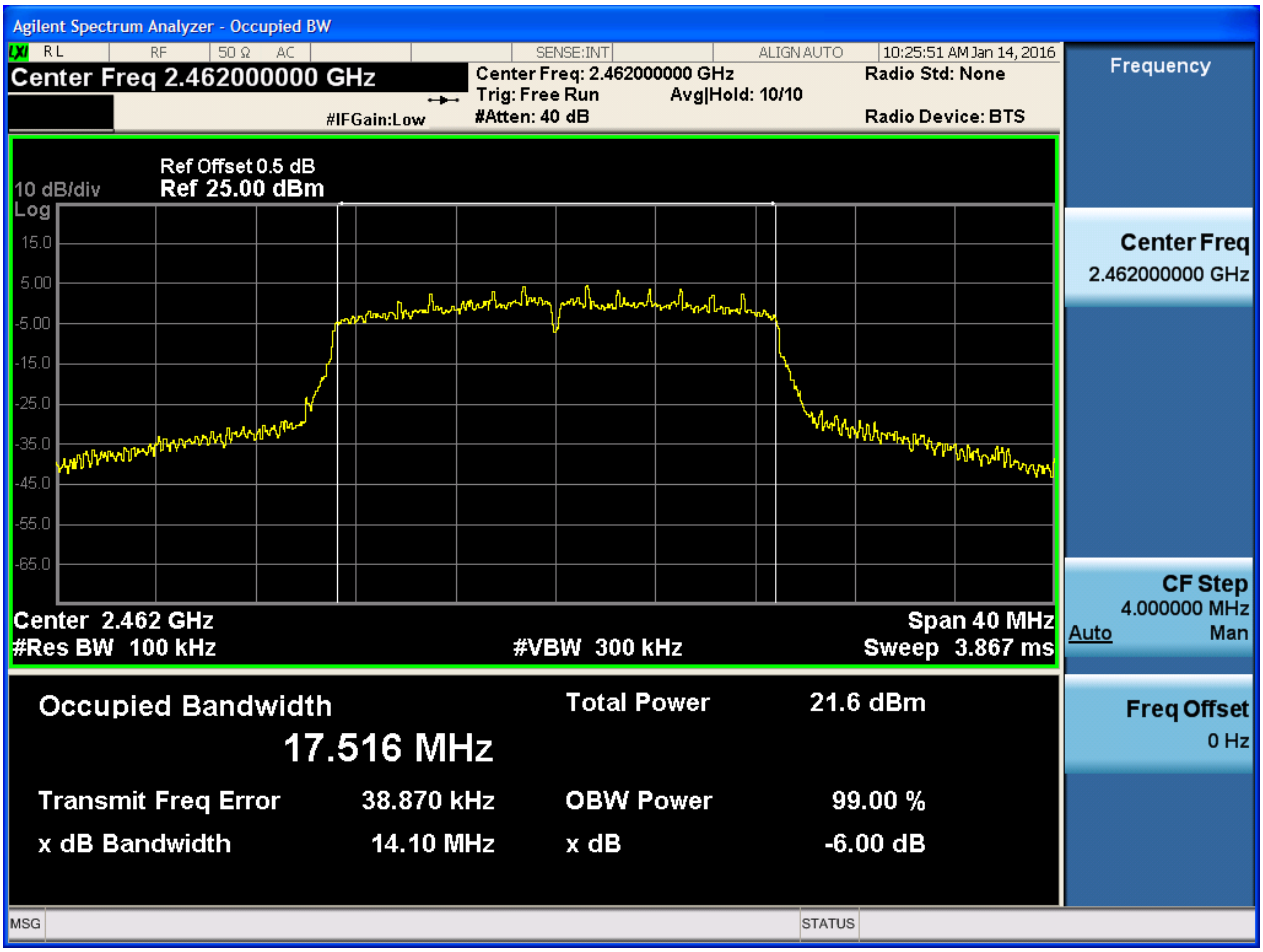
**2.13 11N20_L@Ant 1**



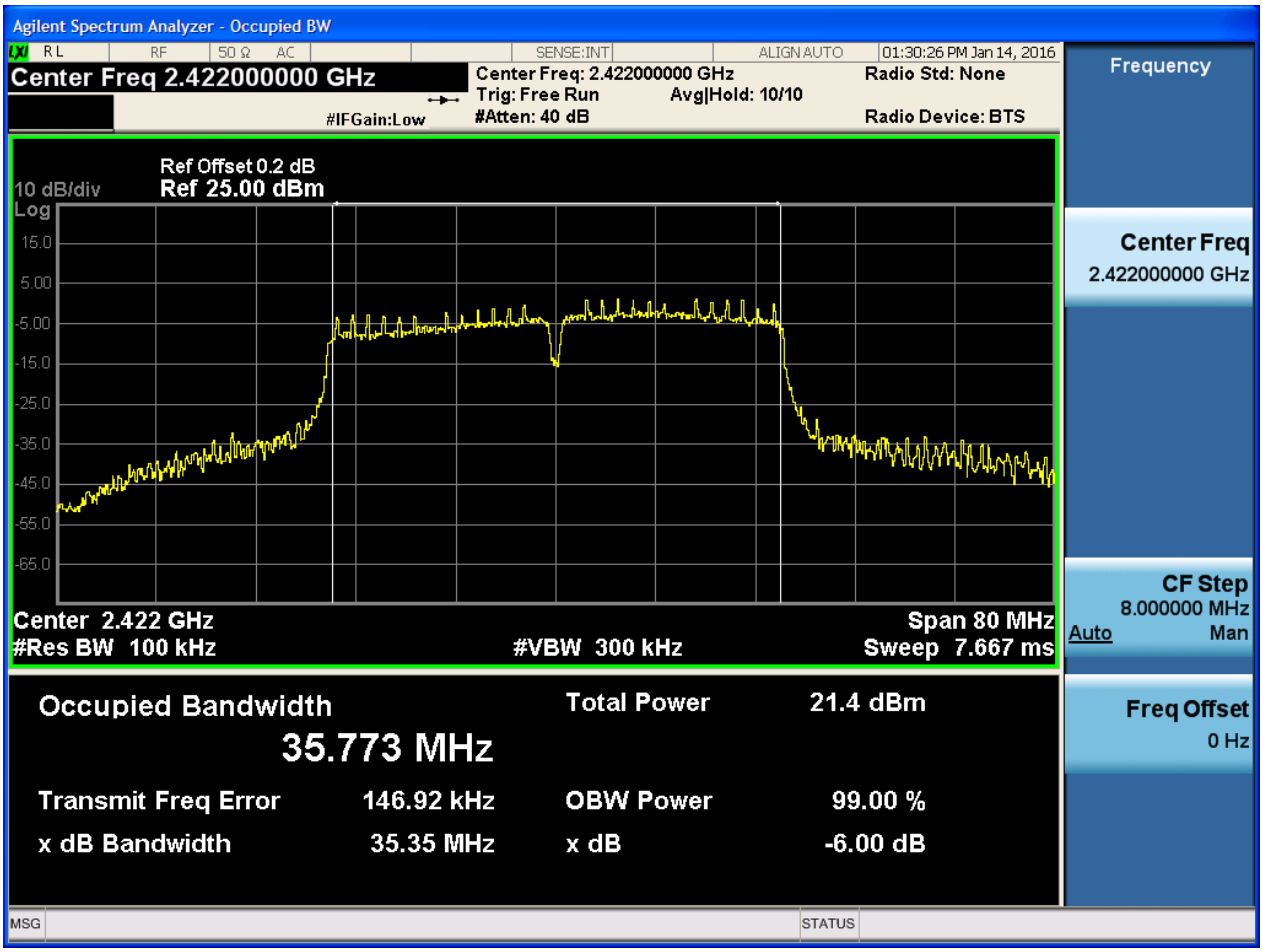
**2.15 11N20_M@Ant 1**



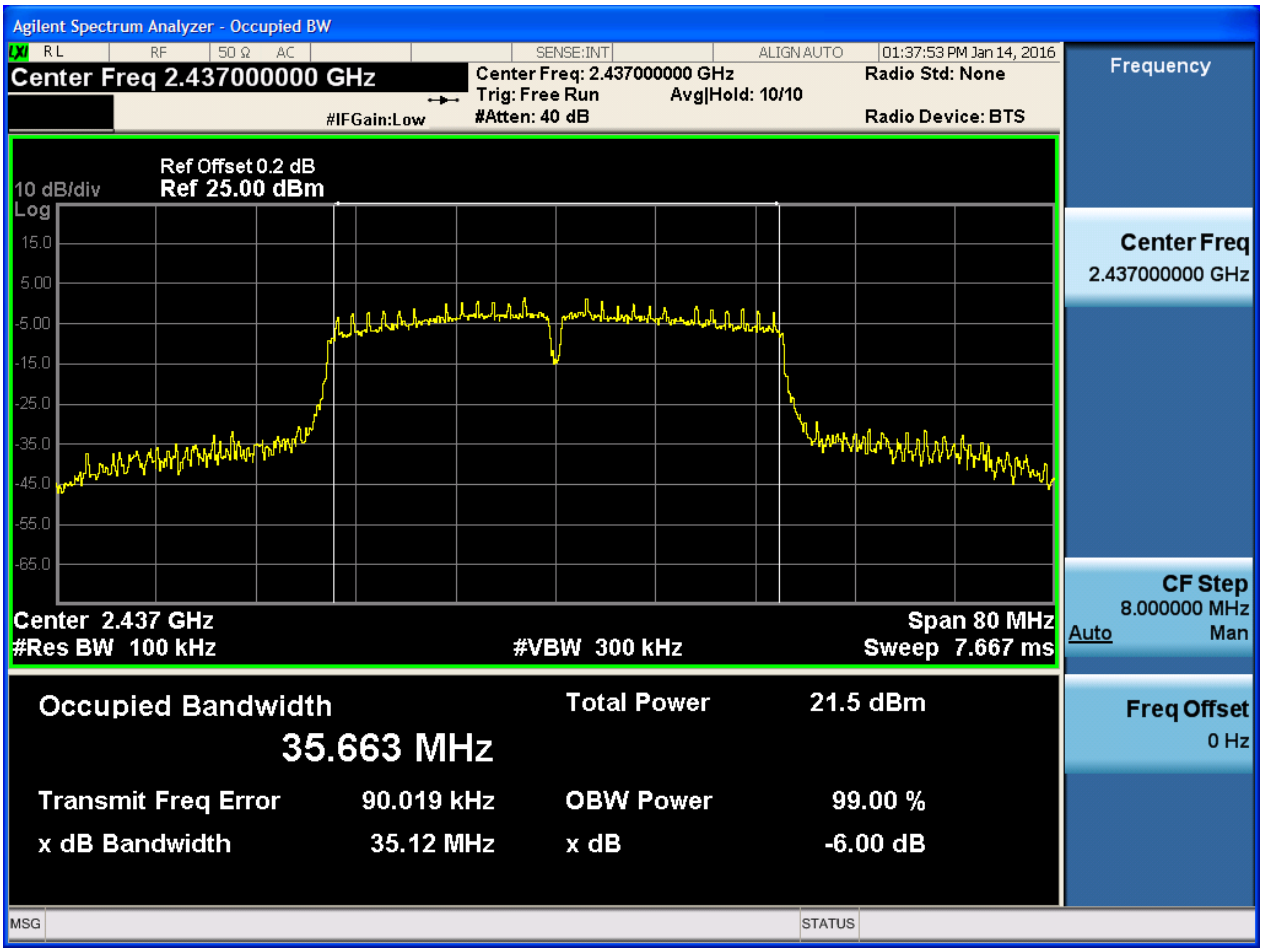
**2.17 11N20_H@Ant 1**



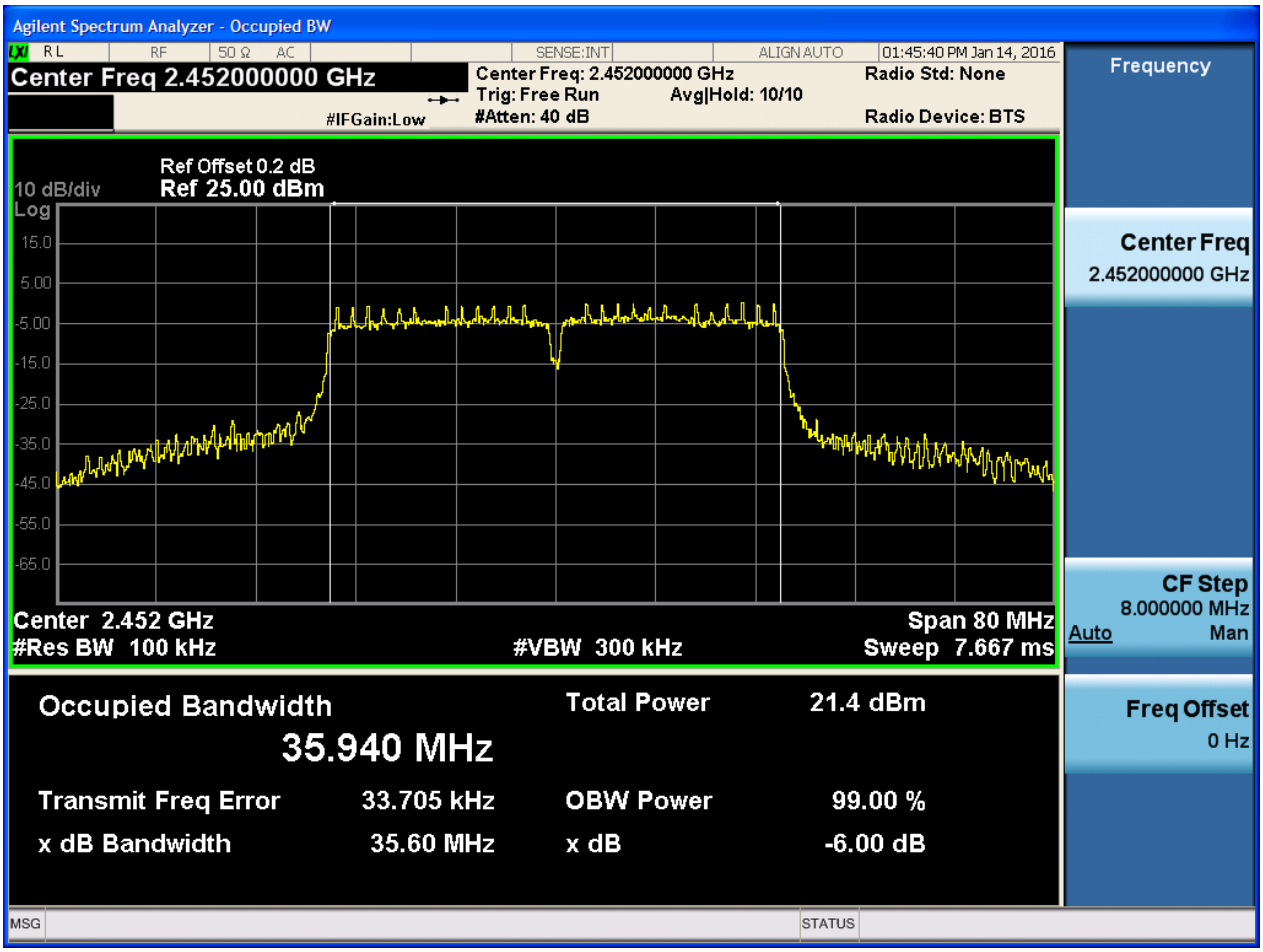
**2.19 11N40_L@Ant 1**



**2.21 11N40_M@Ant 1**



**2.23 11N40_H@Ant 1**



# Appendix B: Occupied Bandwidth

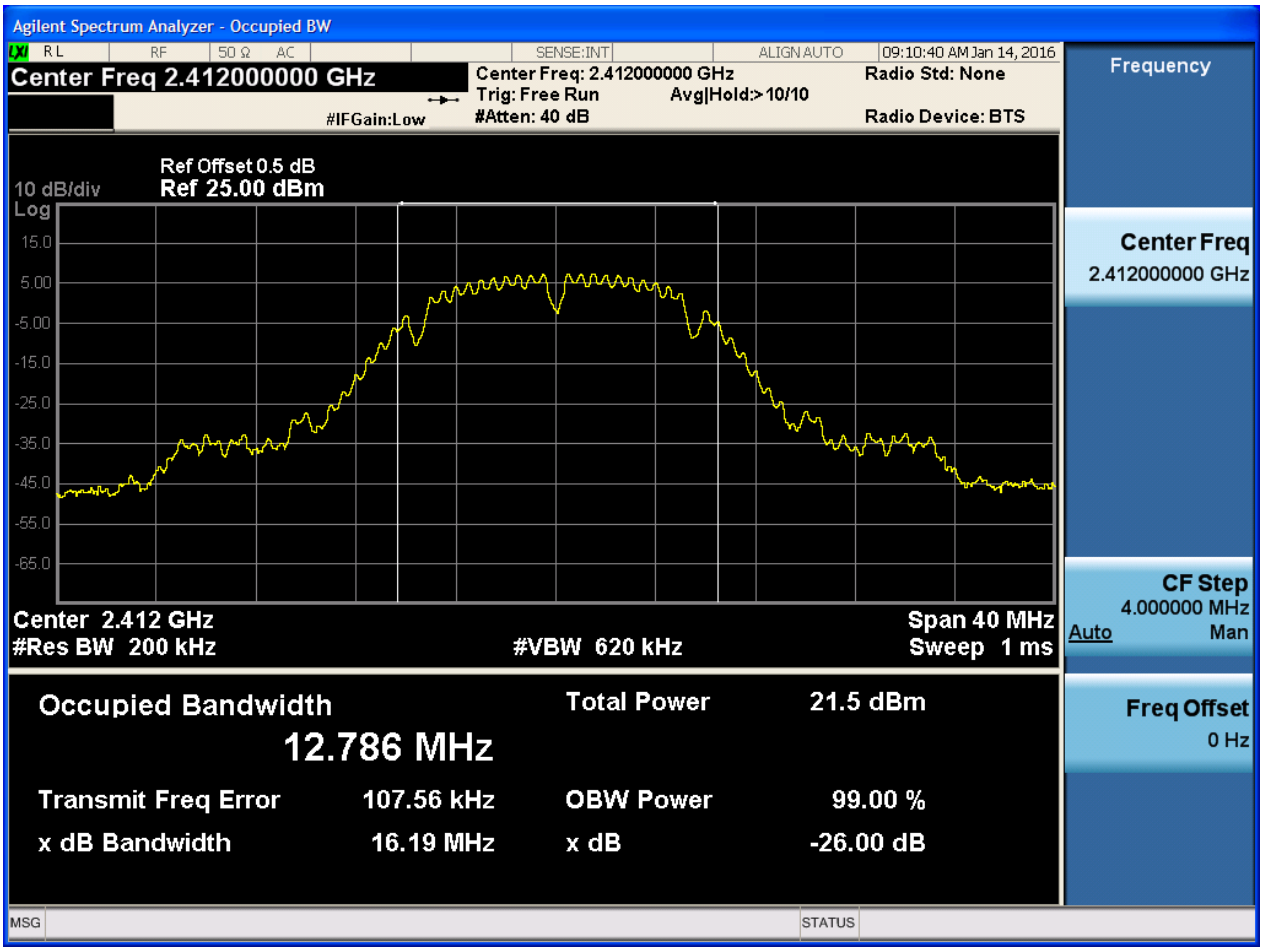
For measurements on smart antenna systems (devices with multiple transmit chains), the test is performed at each chain, and used as respective results for each chain.

**Part I - Test Results**

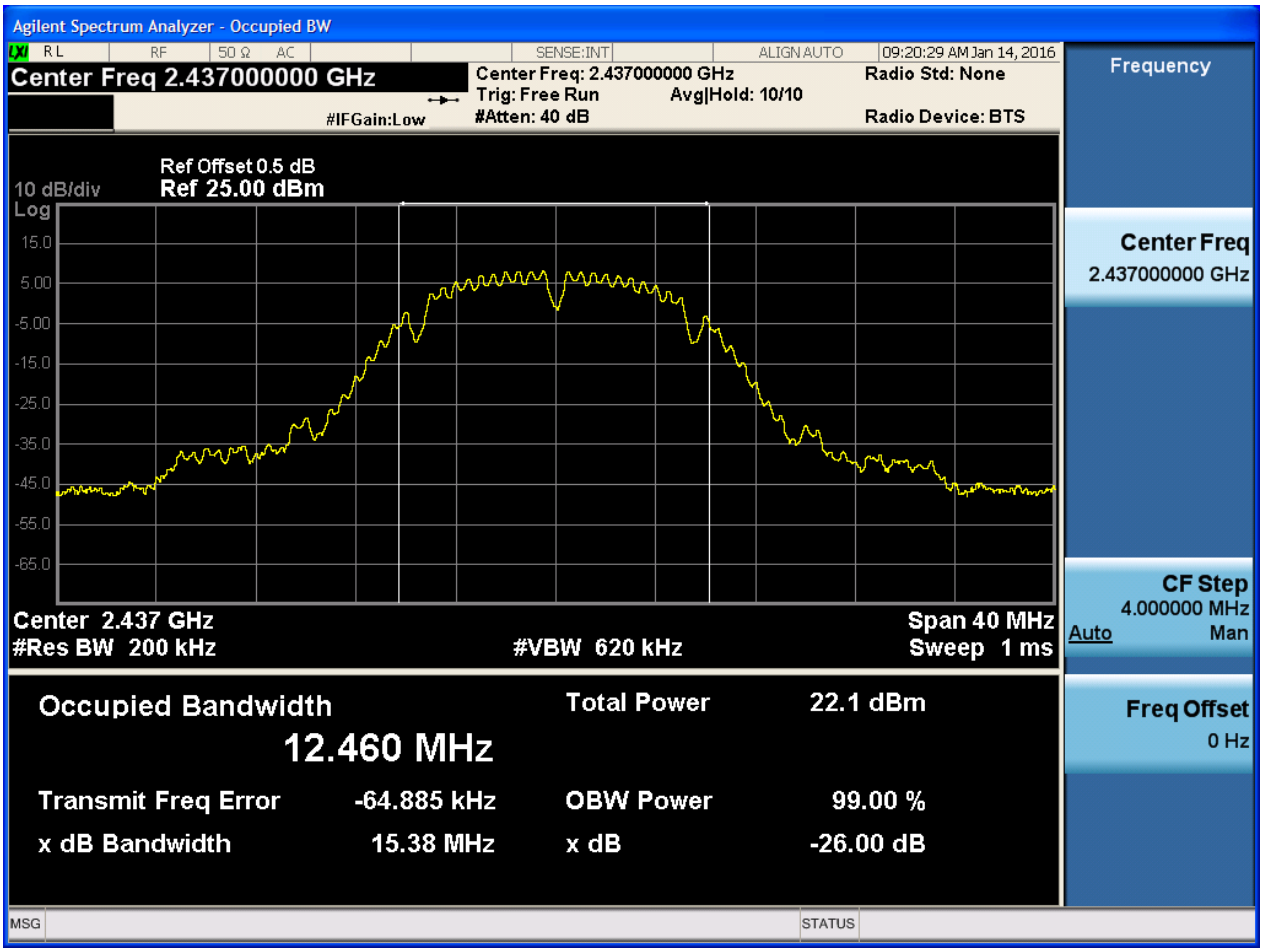
| Test Mode | Test Channel | Frequency[MHz] | Ant | Occupied Bandwidth [MHz] | Verdict |
|---|---|---|---|---|---|
| 11B | L | 2412 | Ant 1 | 12.79 | pass |
| 11B | M | 2437 | Ant 1 | 12.46 | pass |
| 11B | H | 2462 | Ant 1 | 12.46 | pass |
| 11G | L | 2412 | Ant 1 | 16.70 | pass |
| 11G | M | 2437 | Ant 1 | 16.52 | pass |
| 11G | H | 2462 | Ant 1 | 16.50 | pass |
| 11N20 | L | 2412 | Ant 1 | 17.73 | pass |
| 11N20 | M | 2437 | Ant 1 | 17.59 | pass |
| 11N20 | H | 2462 | Ant 1 | 17.56 | pass |
| 11N40 | L | 2422 | Ant 1 | 35.97 | pass |
| 11N40 | M | 2437 | Ant 1 | 35.81 | pass |
| 11N40 | H | 2452 | Ant 1 | 36.14 | pass |

**Part II - Test Plots**

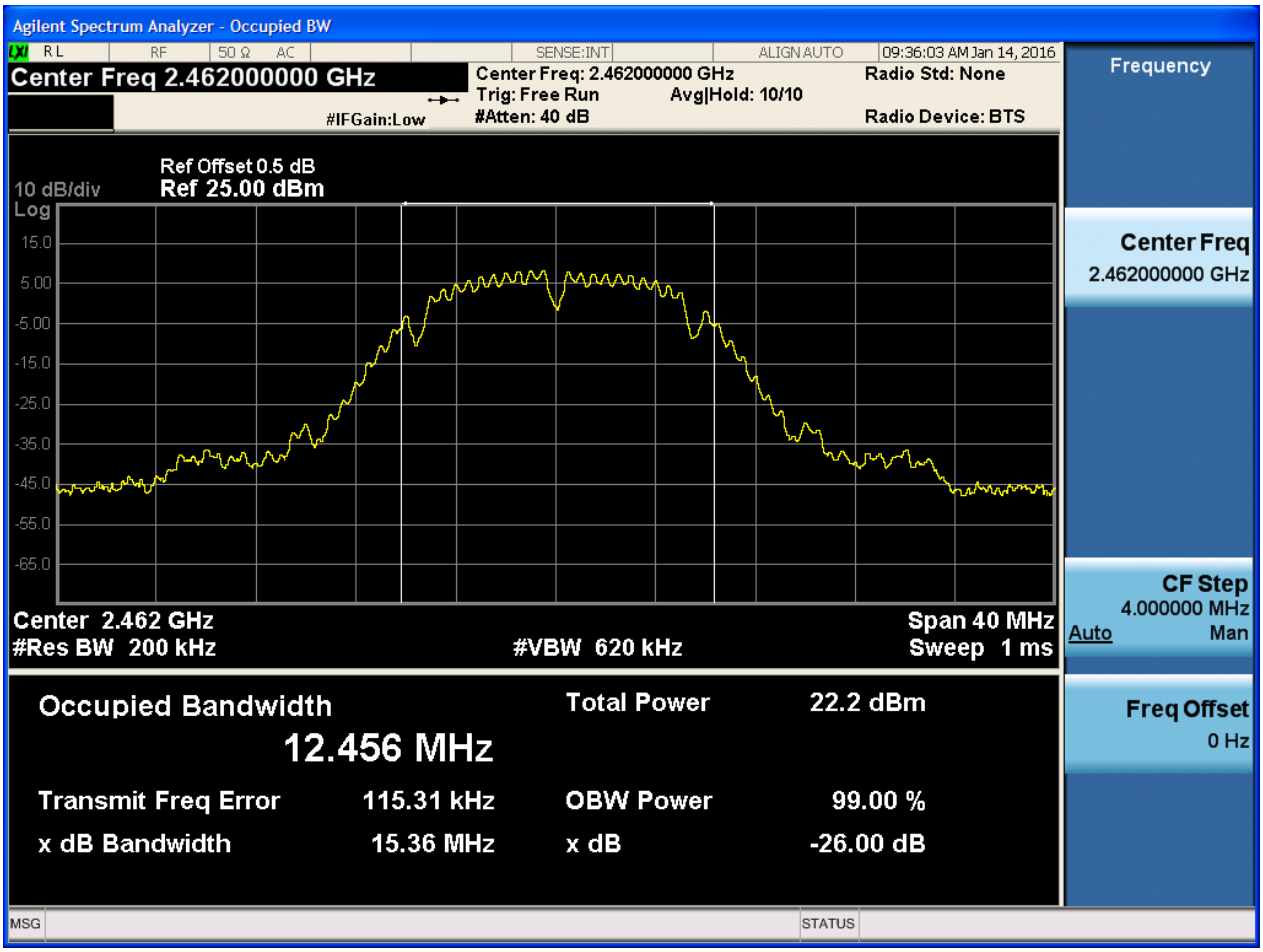
**2.1 11B_L@Ant 1**



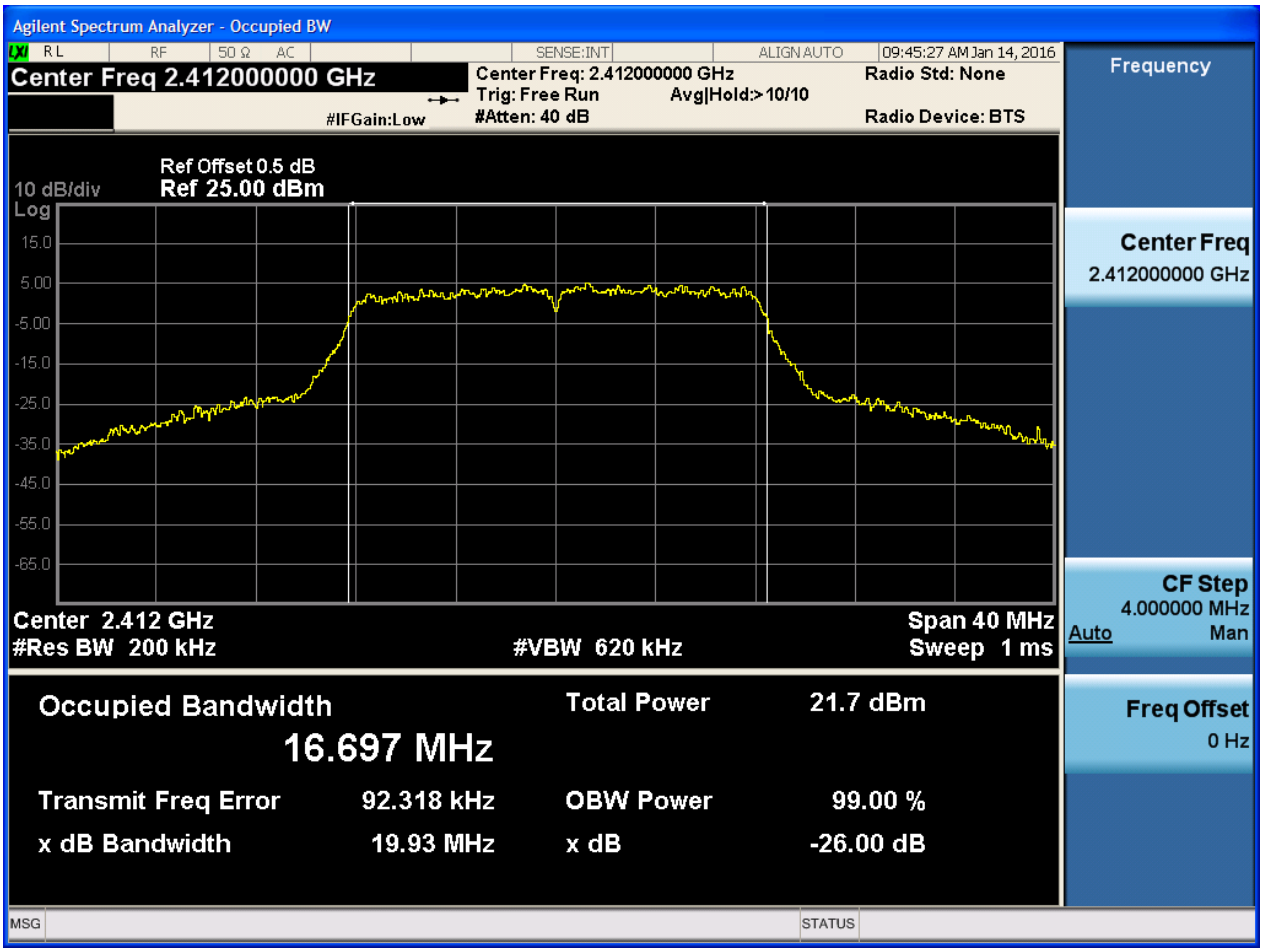
### 2.3 11B_M@Ant 1



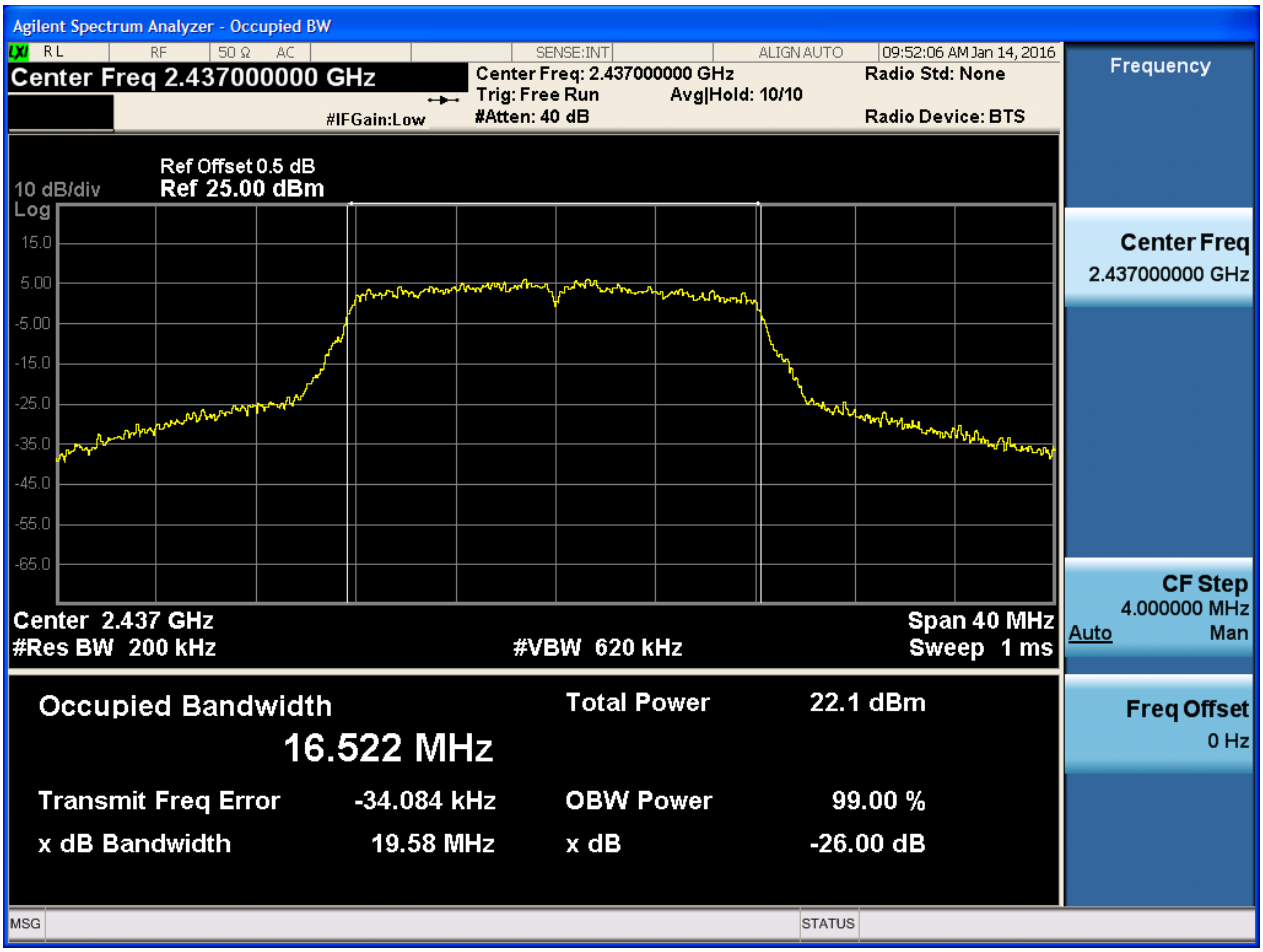
### 2.5 11B_H@Ant 1



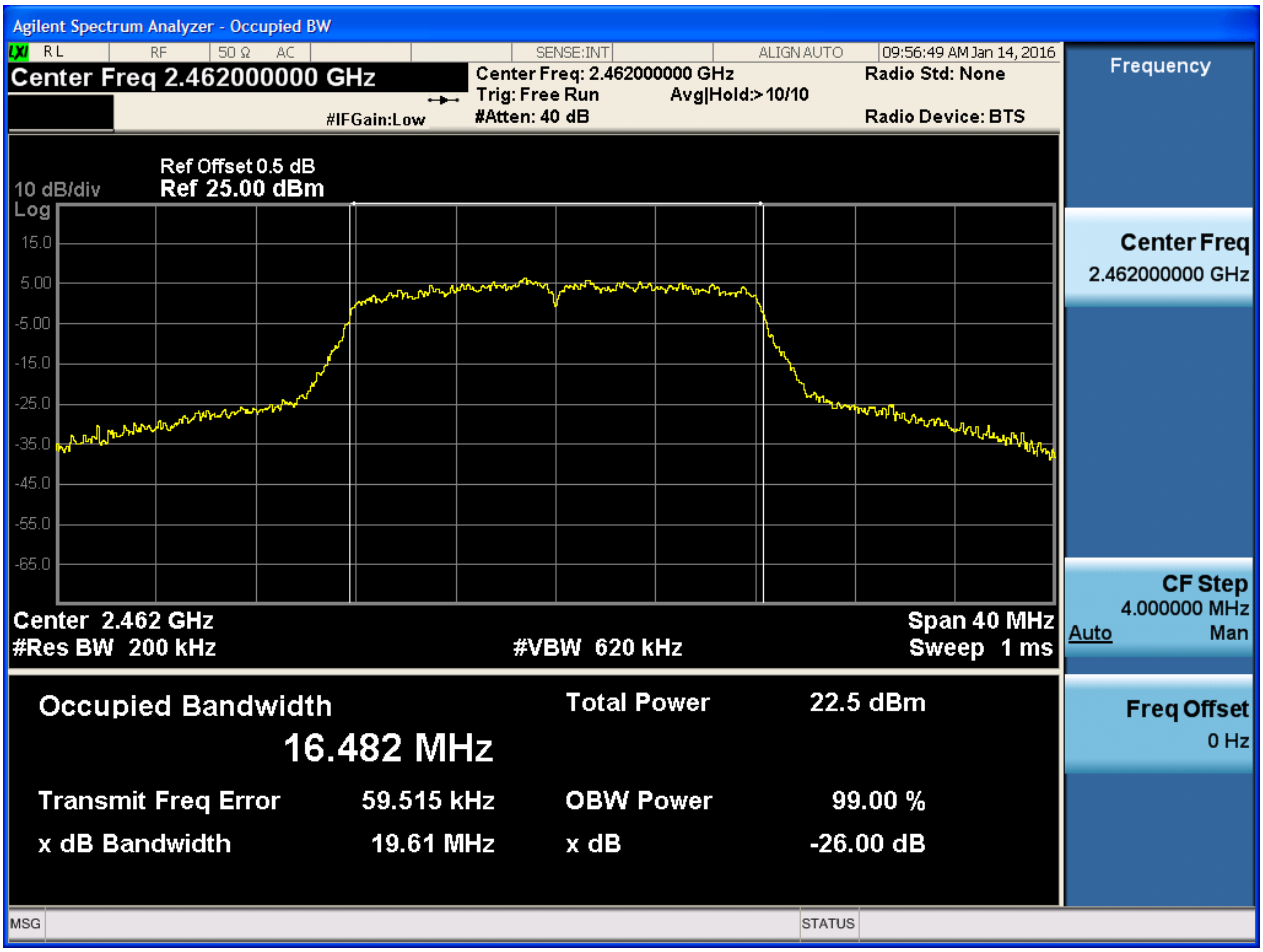
### 2.7 11G_L@Ant 1



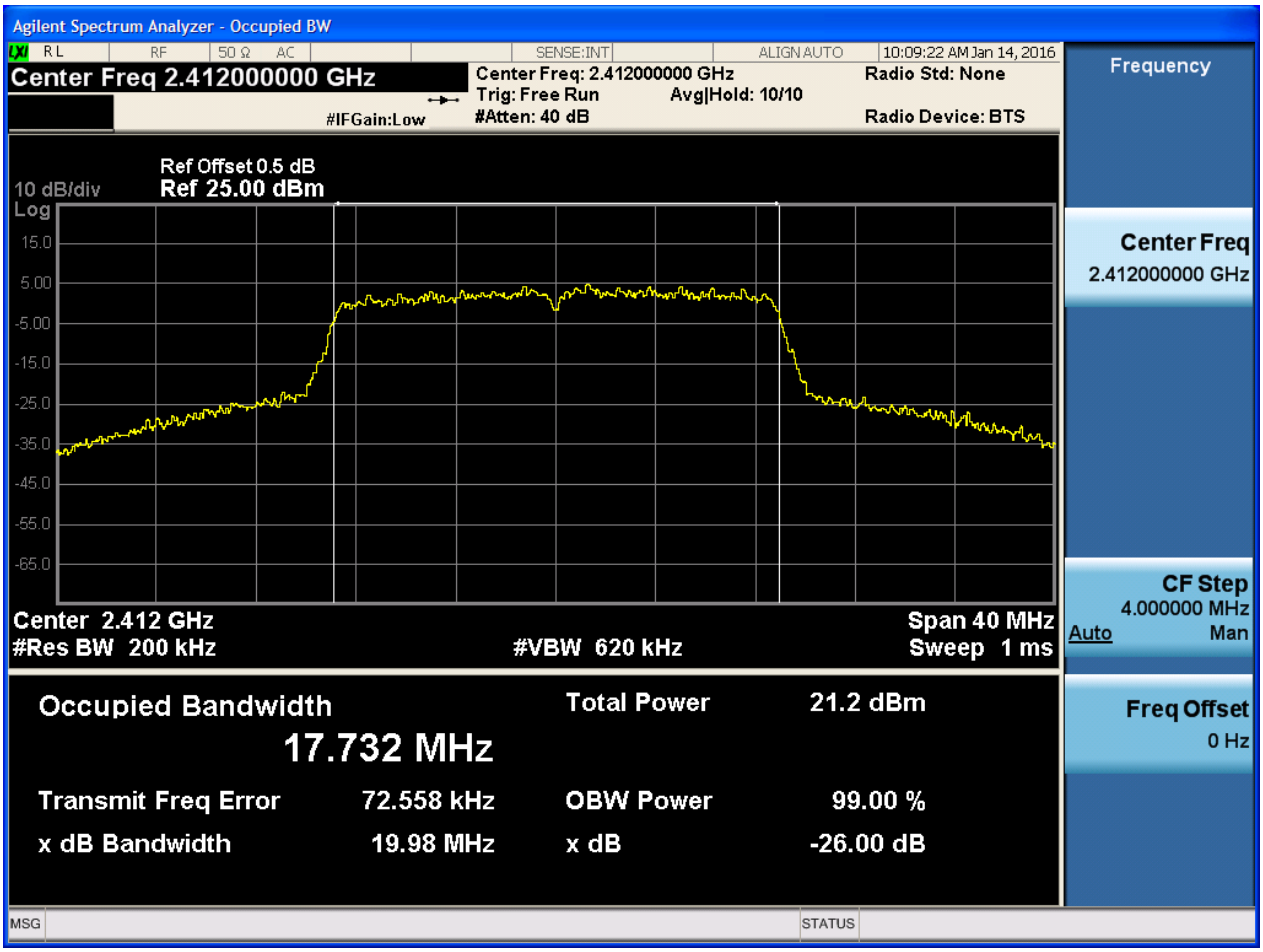
### 2.9 11G_M@Ant 1



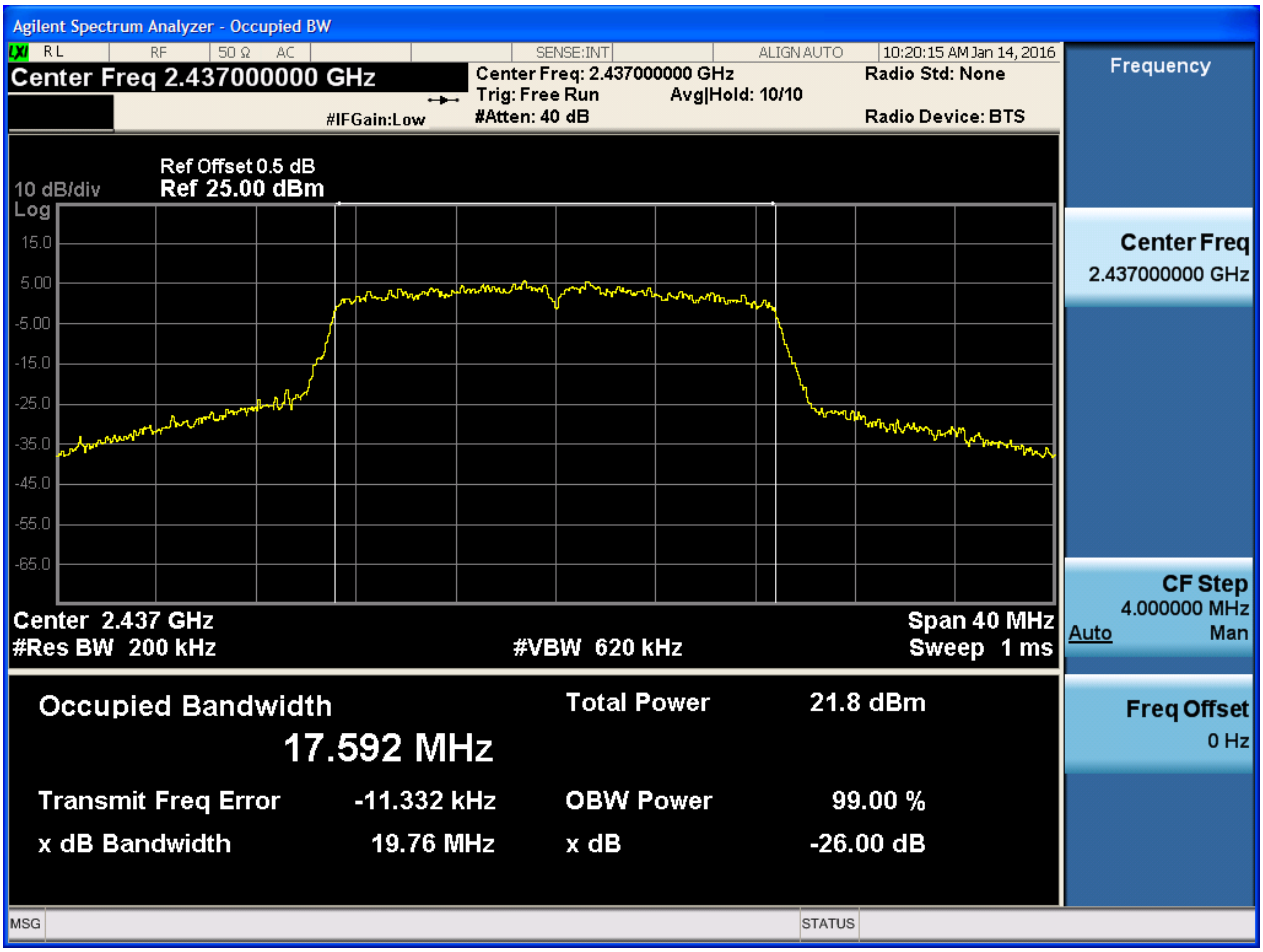
### 2.11 11G_H@Ant 1



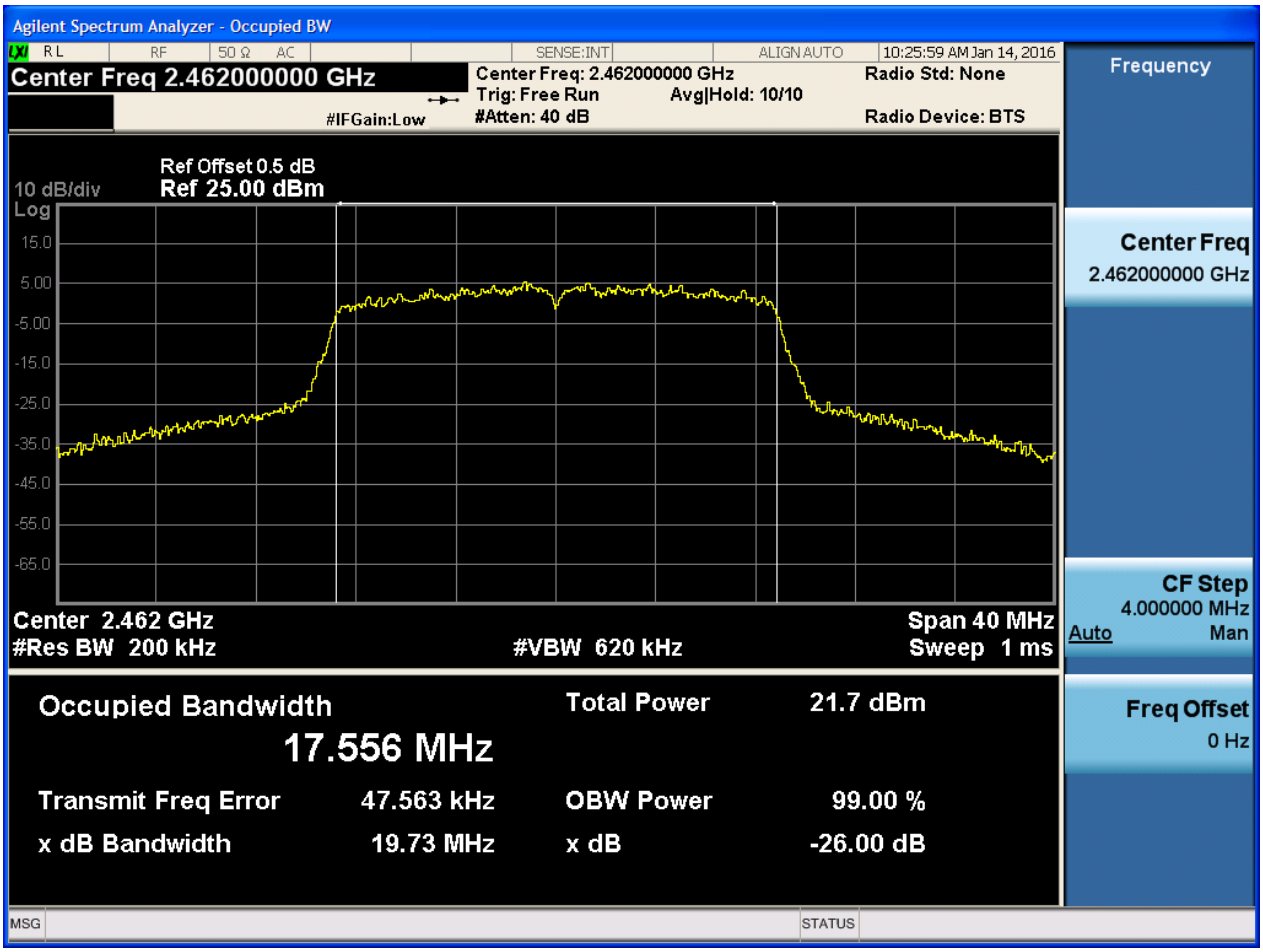
### 2.13 11N20_L@Ant 1



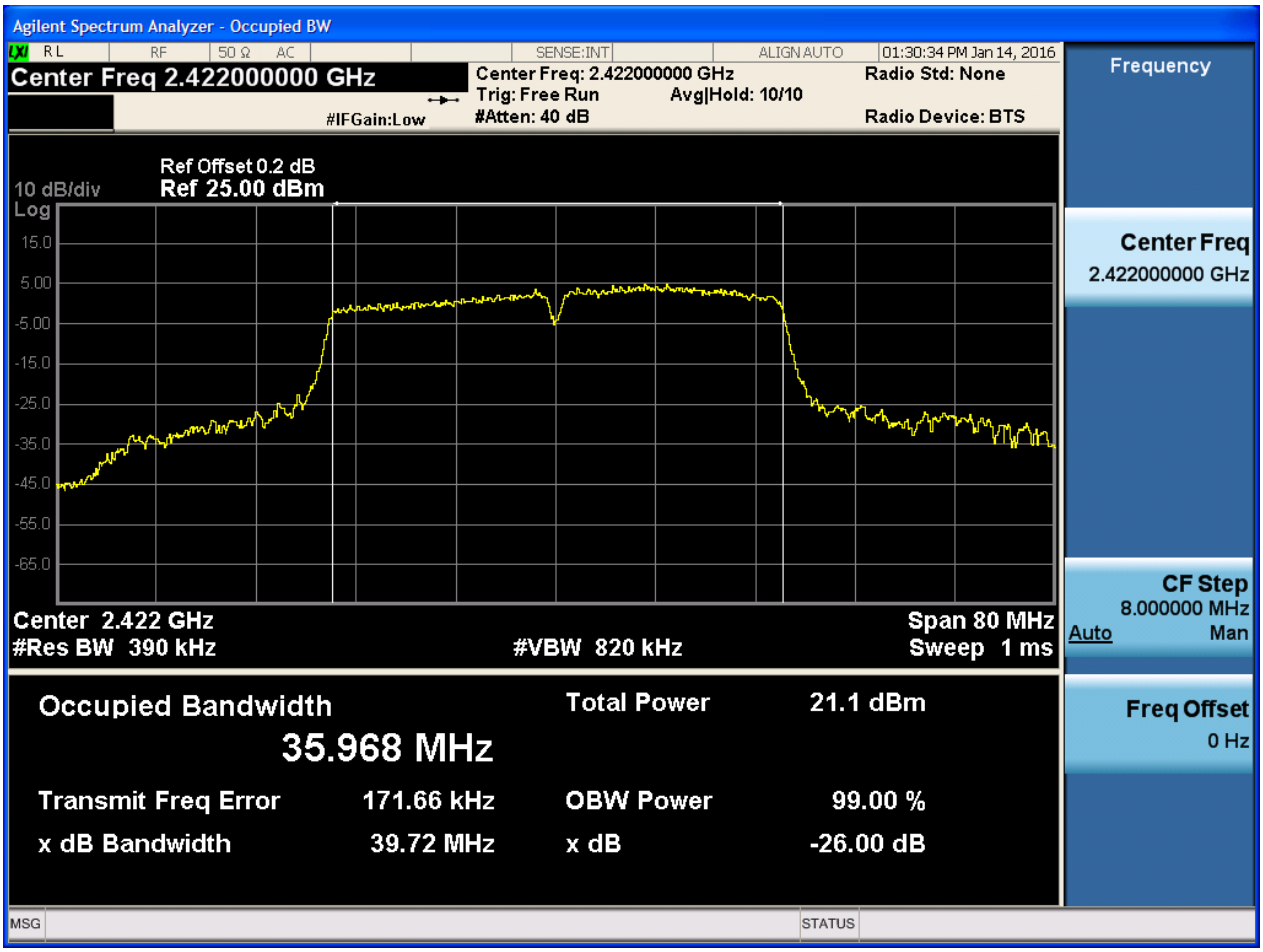
**2.15 11N20_M@Ant 1**



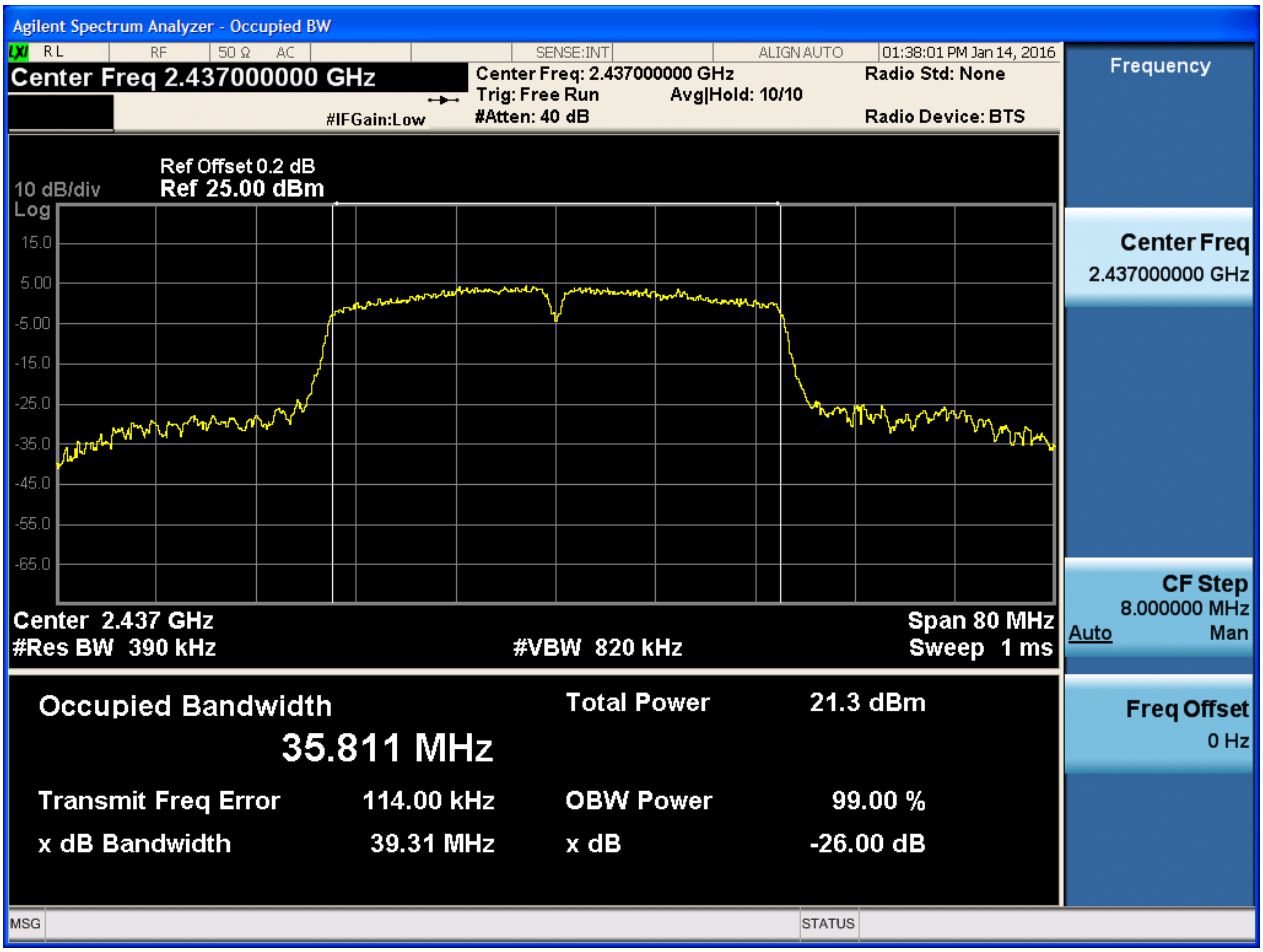
**2.17 11N20_H@Ant 1**



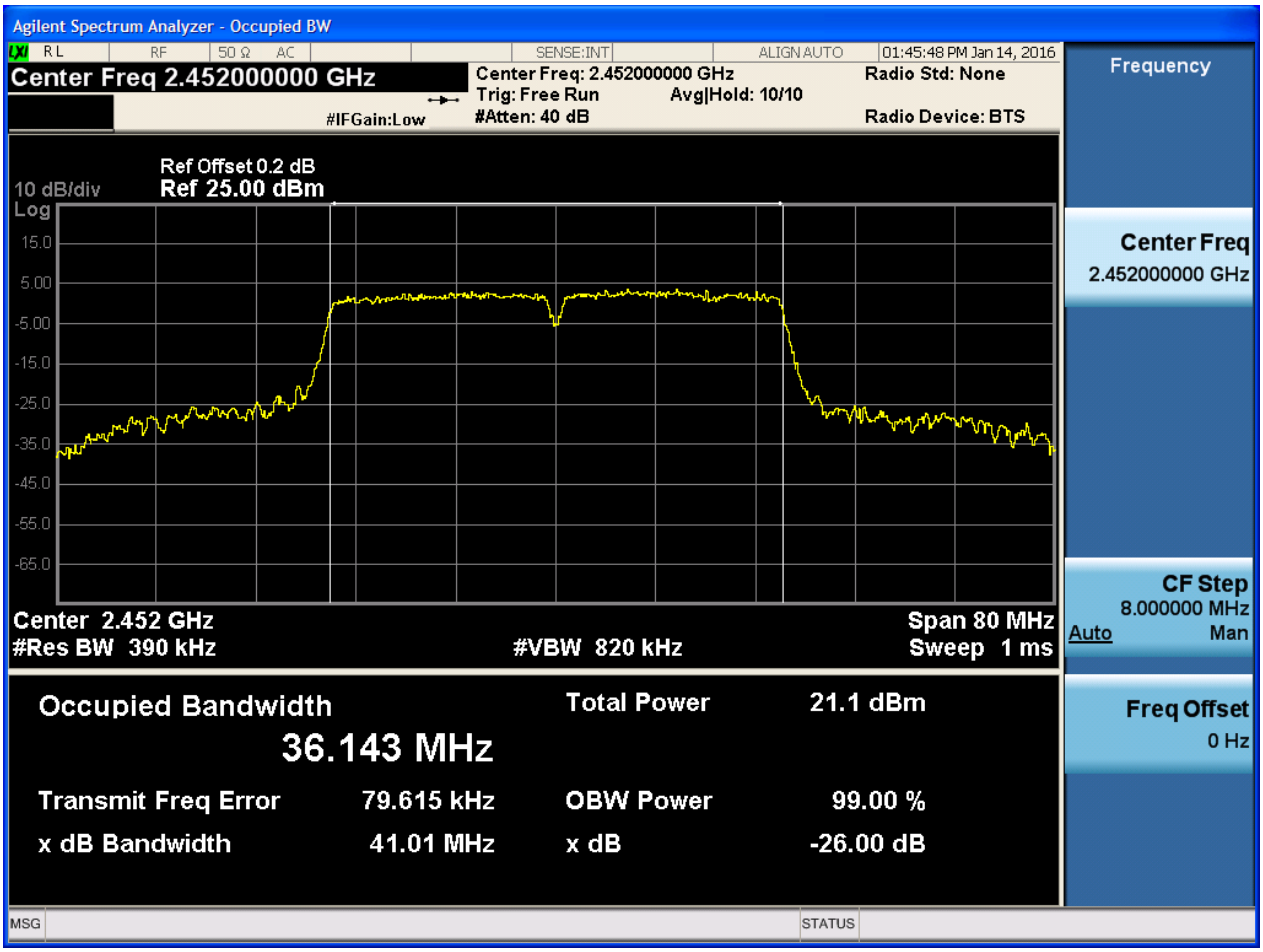
**2.19 11N40_L@Ant 1**



**2.21 11N40_M@Ant 1**



**2.23 11N40_H@Ant 1**



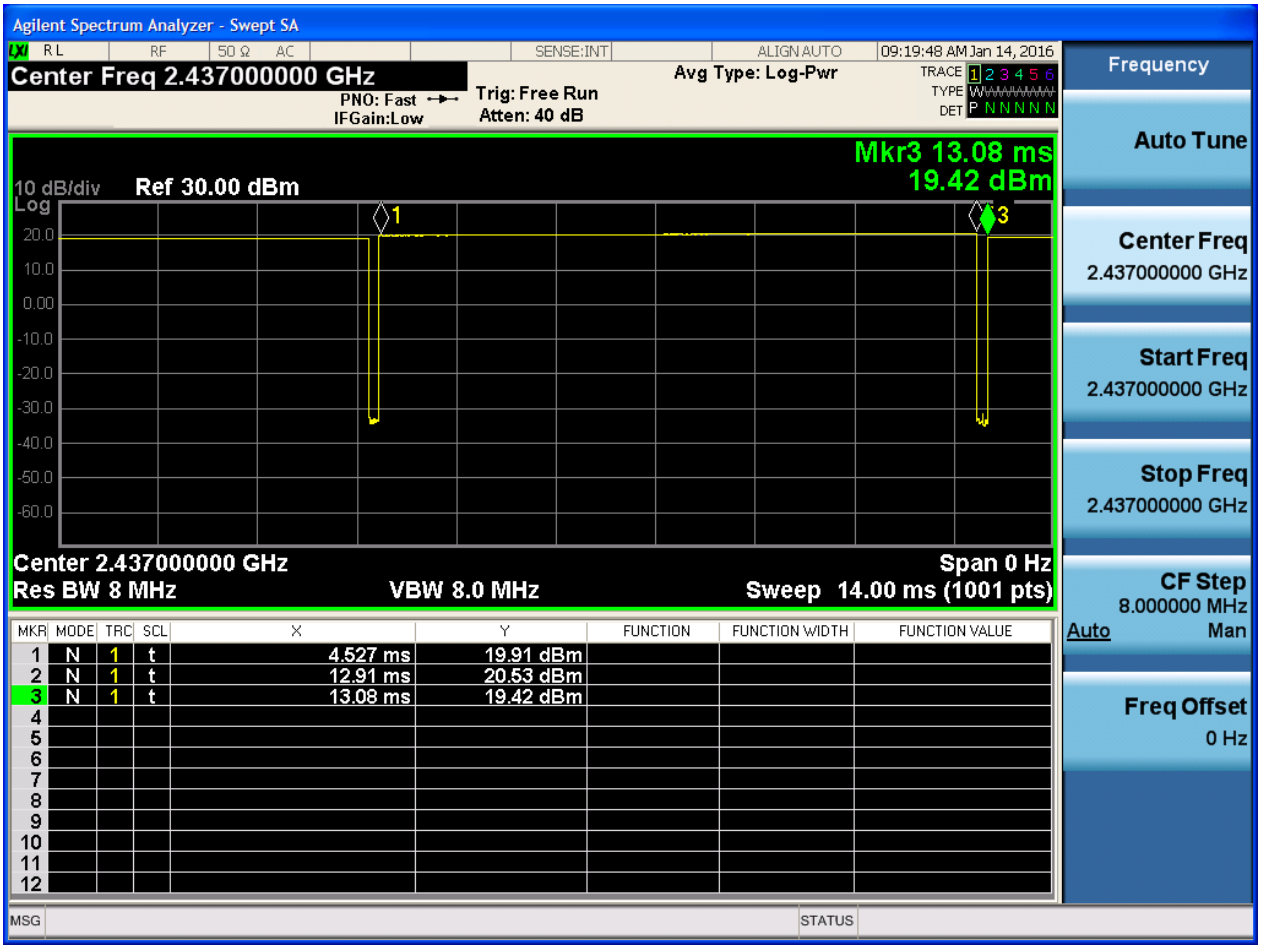
# Appendix C: Duty Cycle

**Part I - Test Results**

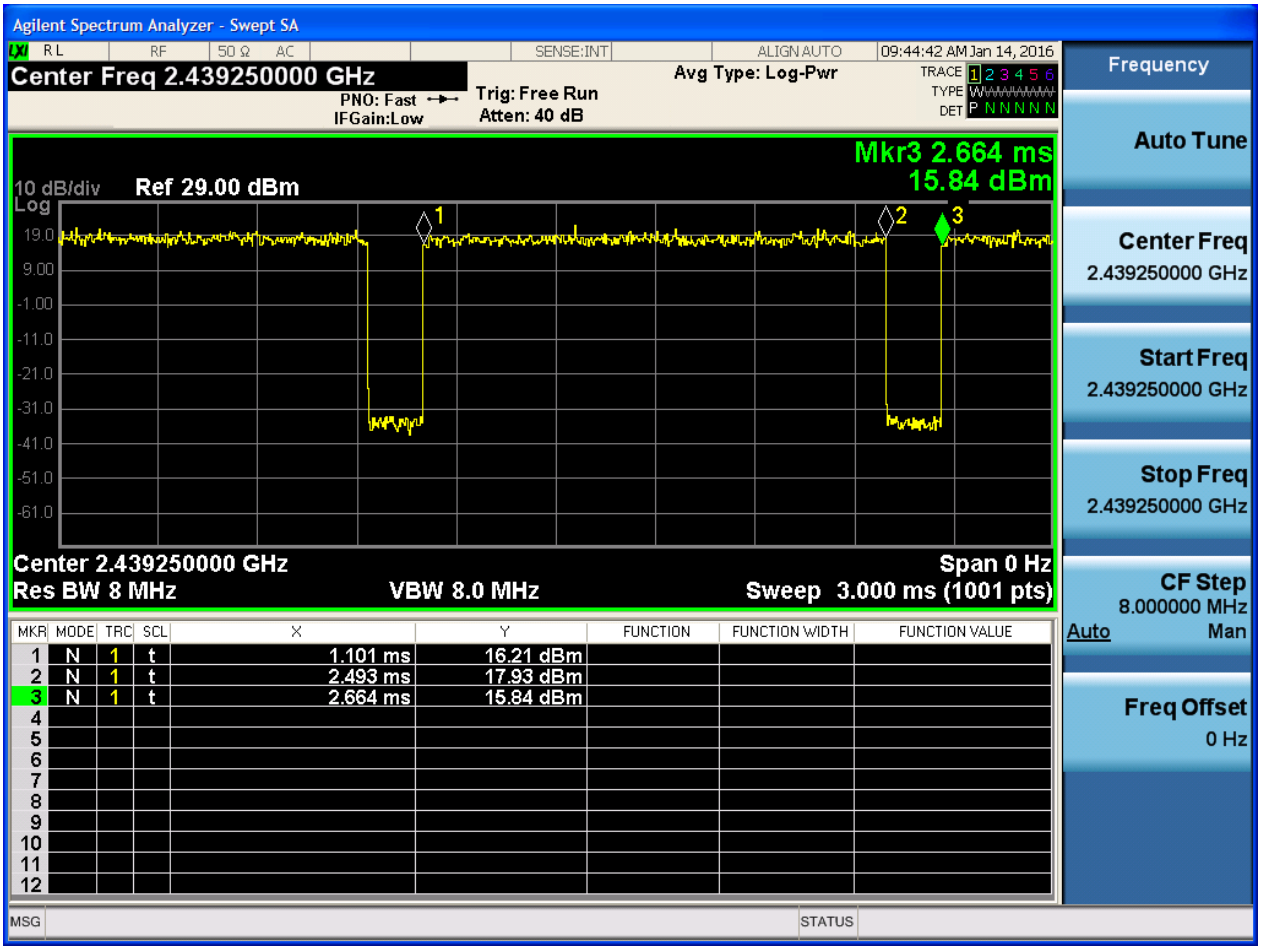
| Test Mode | TX Freq. [MHz] | Duty cycle [%] |
|---|---|---|
| 11B | Ant 1: CH1,CH6,CH11 | 98 |
| 11G | Ant 2: CH1,CH6,CH11 | 89 |
| 11N20 | Ant 1: CH1,CH6,CH11 | 89 |
| 11N40 | Ant 2: CH3,CH6,CH9 | 79 |

**Part II - Test Plots**

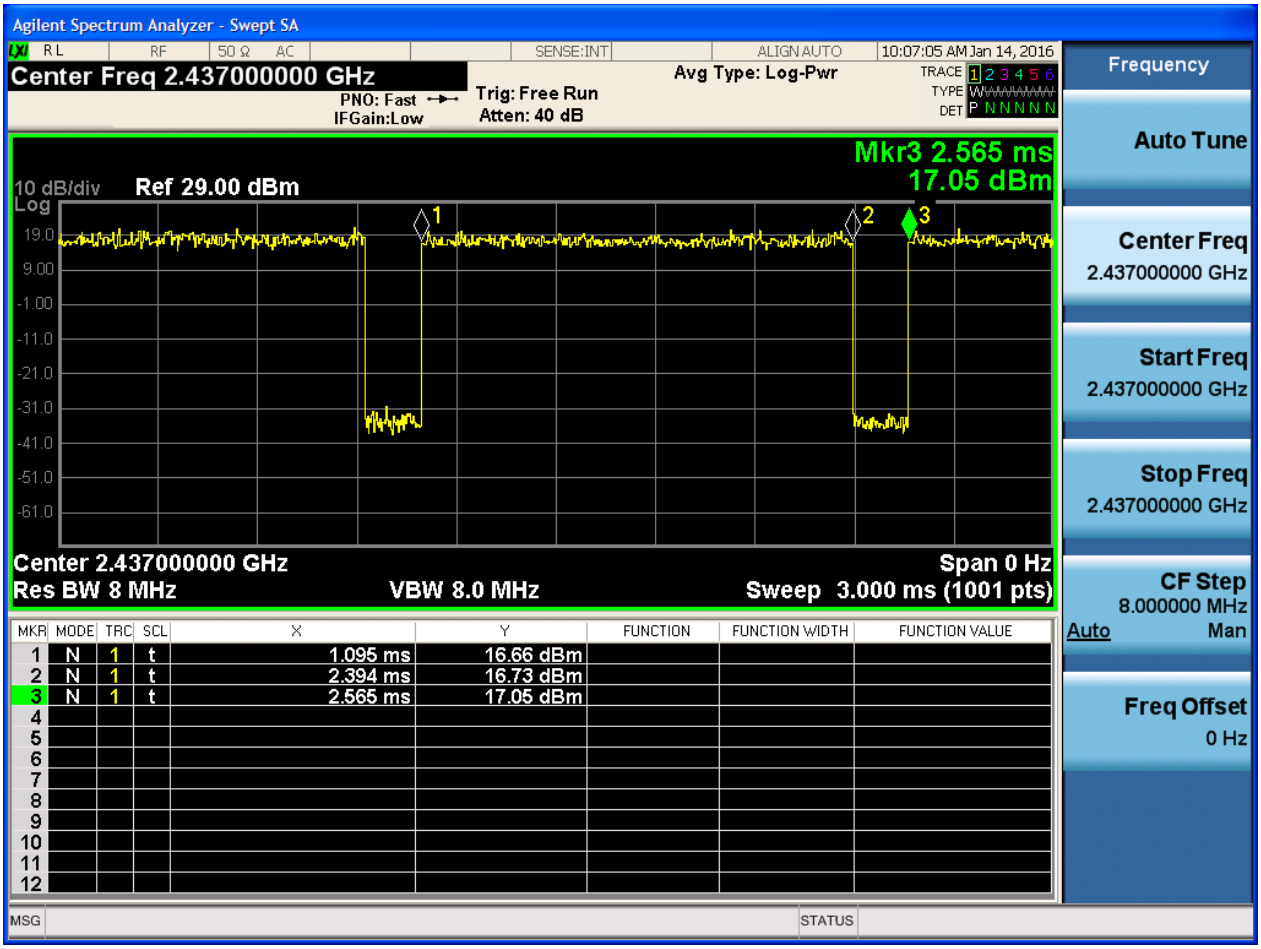
**2.1 11B**



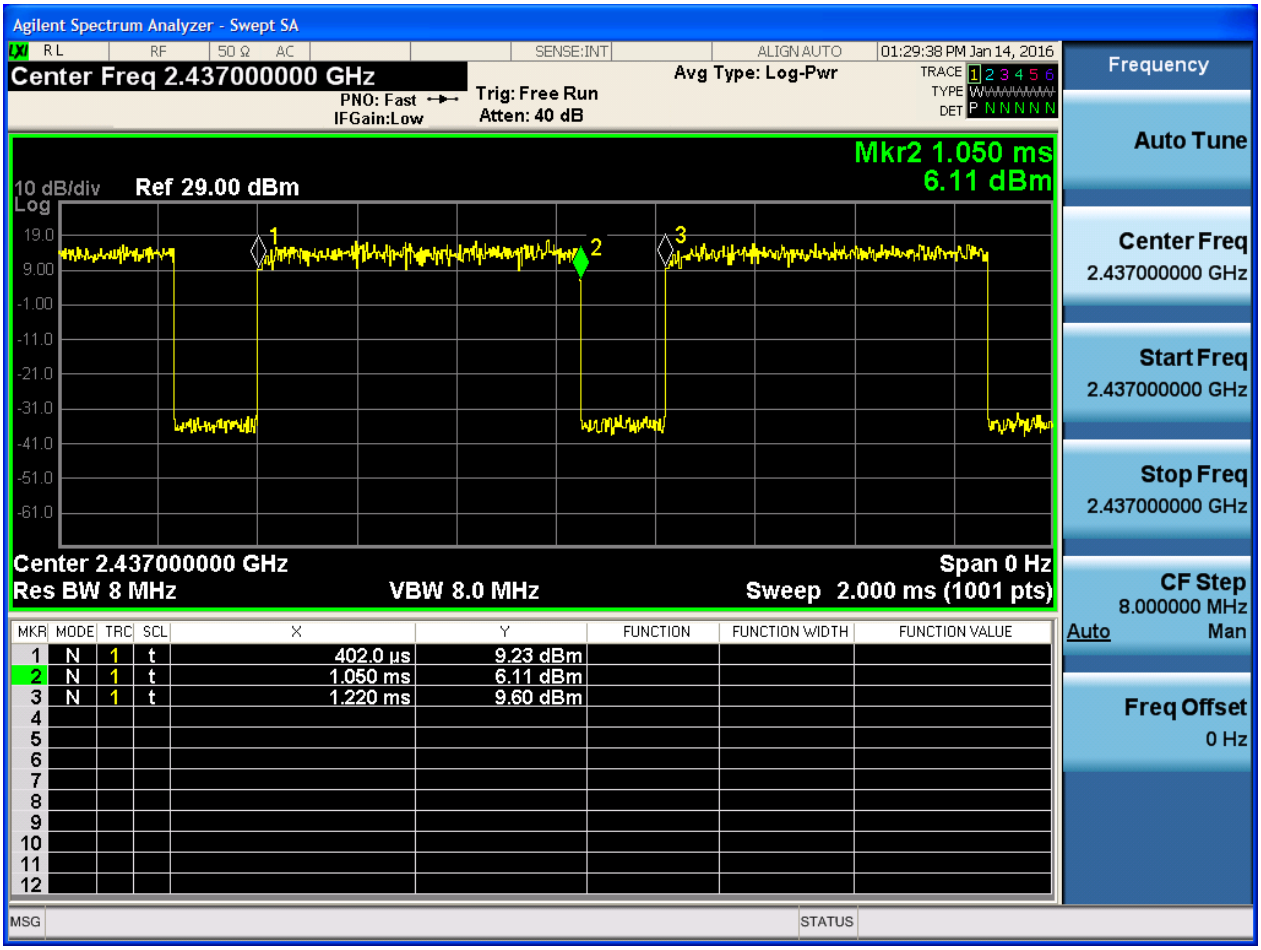
**2.2 11G**



**2.3 11N20**



**2.4 11N40**



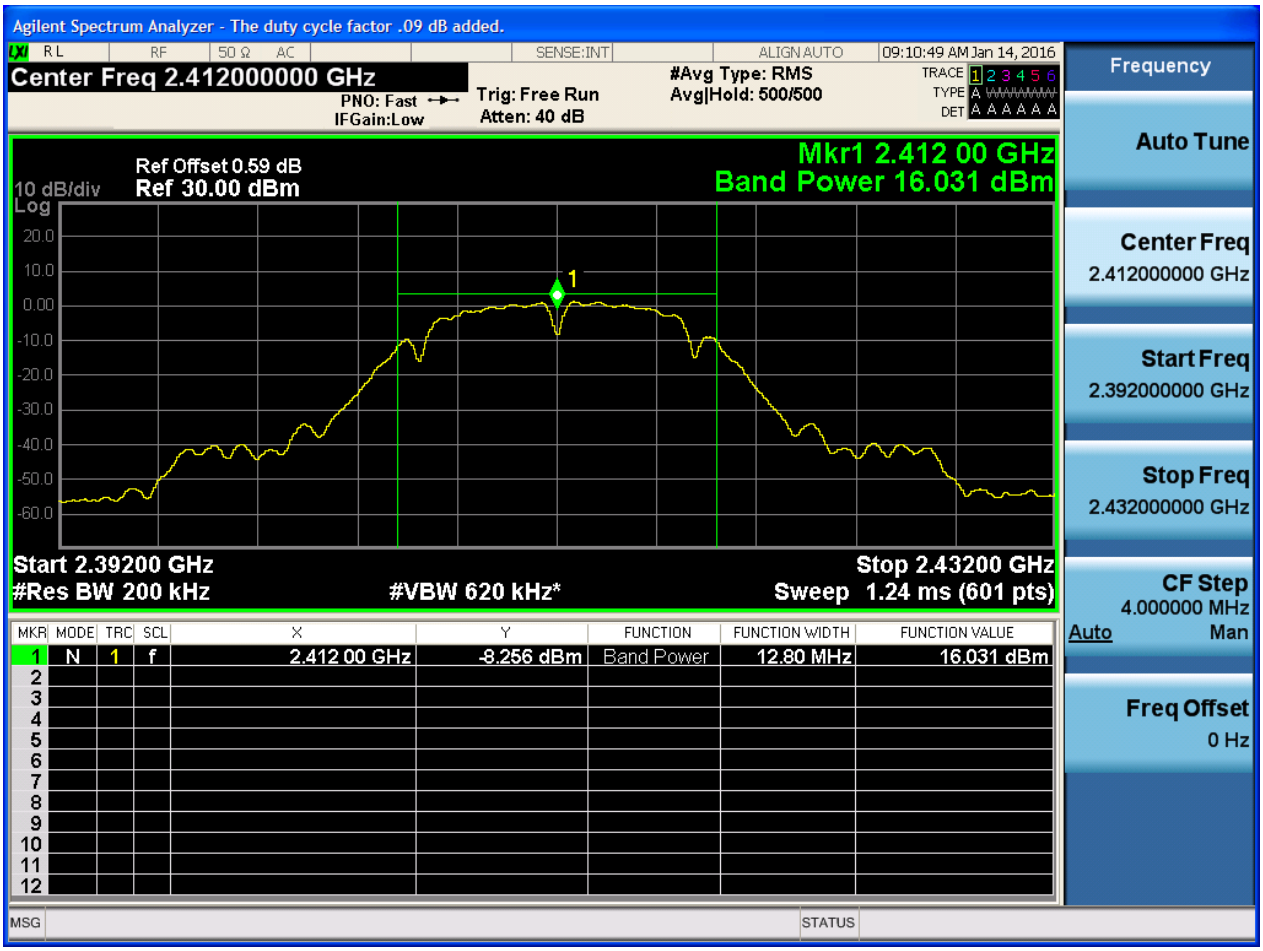
# Appendix D: Maximum Conducted Average Output Power

**Part I - Test Results**

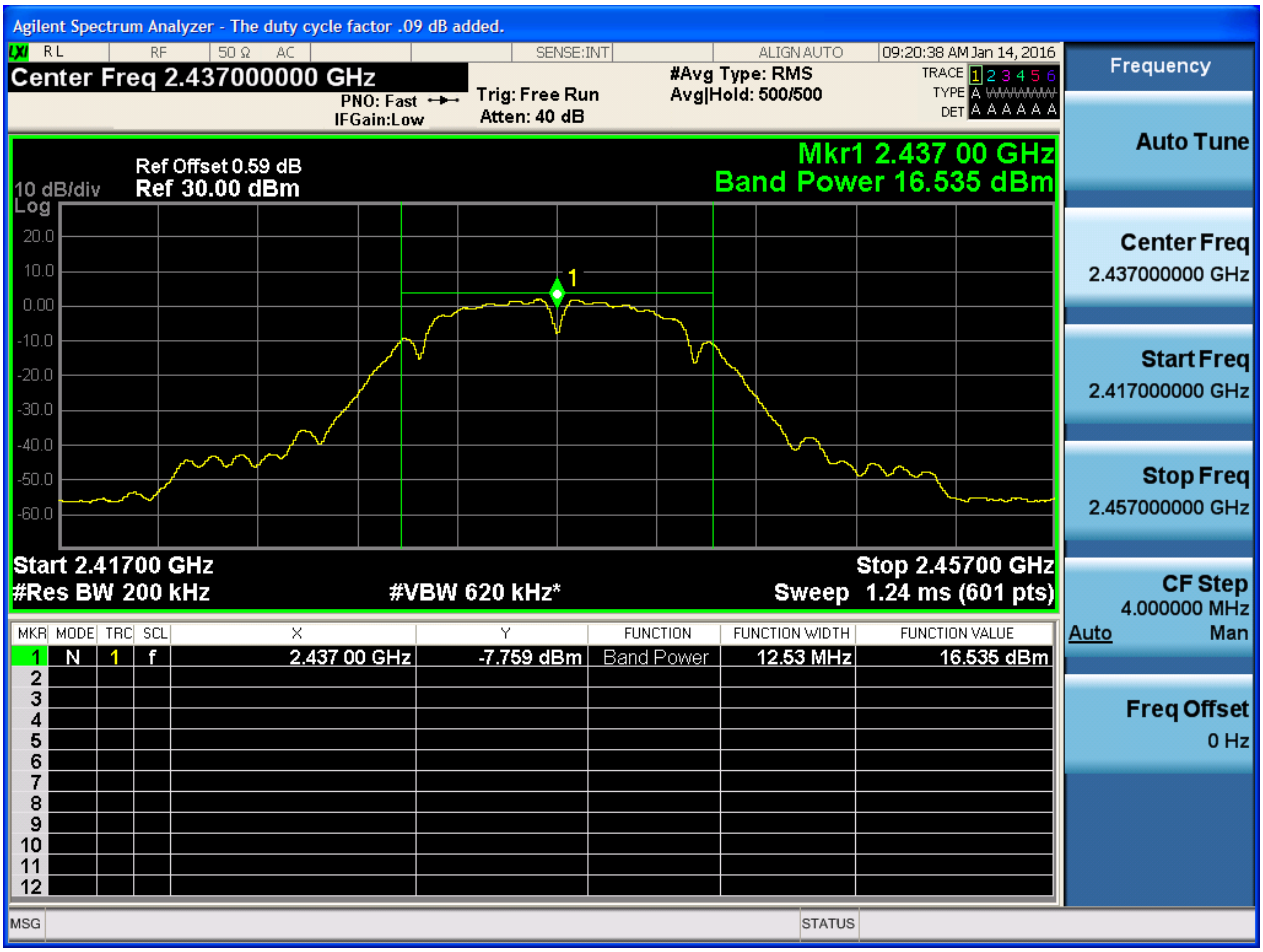
| Test Mode | Test Channel | Frequency[MHz] | Ant | Power[dBm] | Verdict |
|---|---|---|---|---|---|
| 11B | L | 2412 | Ant 1 | 16.03 | pass |
| 11B | M | 2437 | Ant 1 | 16.54 | pass |
| 11B | H | 2462 | Ant 1 | 16.62 | pass |
| 11G | L | 2412 | Ant 1 | 14.41 | pass |
| 11G | M | 2437 | Ant 1 | 14.97 | pass |
| 11G | H | 2462 | Ant 1 | 15.32 | pass |
| 11N20 | L | 2412 | Ant 1 | 14.05 | pass |
| 11N20 | M | 2437 | Ant 1 | 14.52 | pass |
| 11N20 | H | 2462 | Ant 1 | 14.46 | pass |
| 11N40 | L | 2422 | Ant 1 | 11.87 | pass |
| 11N40 | M | 2437 | Ant 1 | 12.05 | pass |
| 11N40 | H | 2452 | Ant 1 | 11.95 | pass |

**Part II - Test Plots**

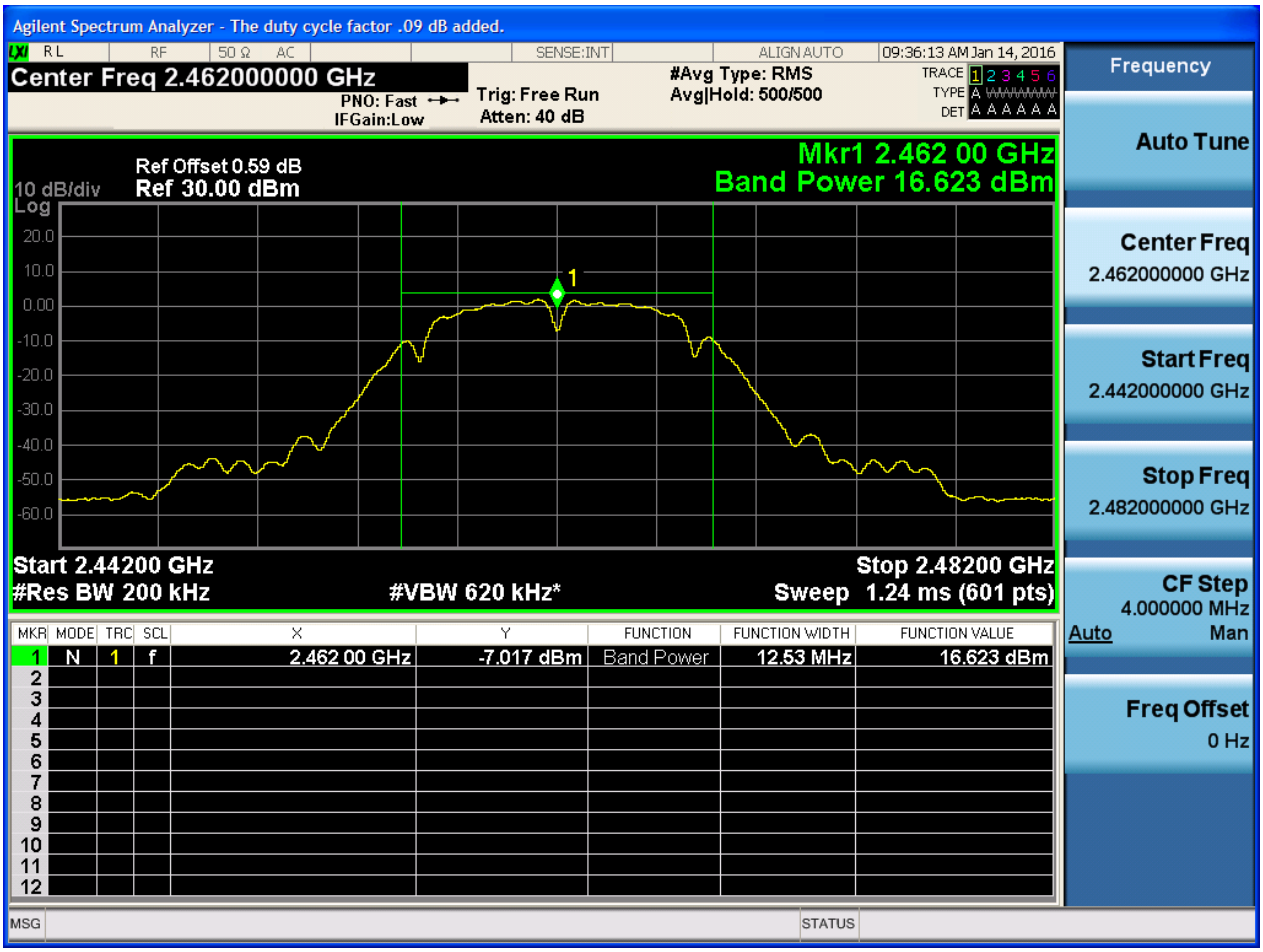
**2.1 11B_L@Ant 1**



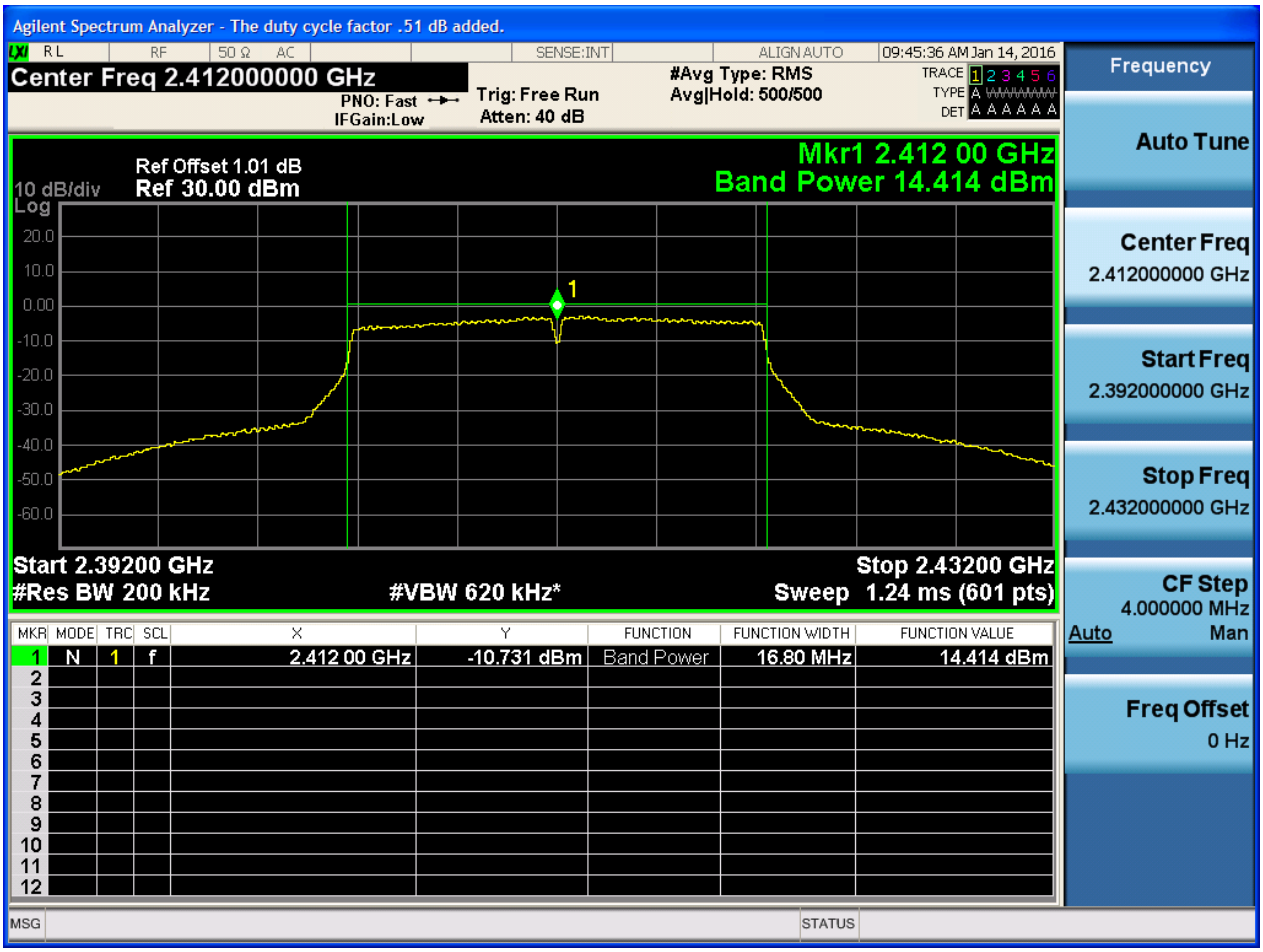
### 2.3 11B_M@Ant 1



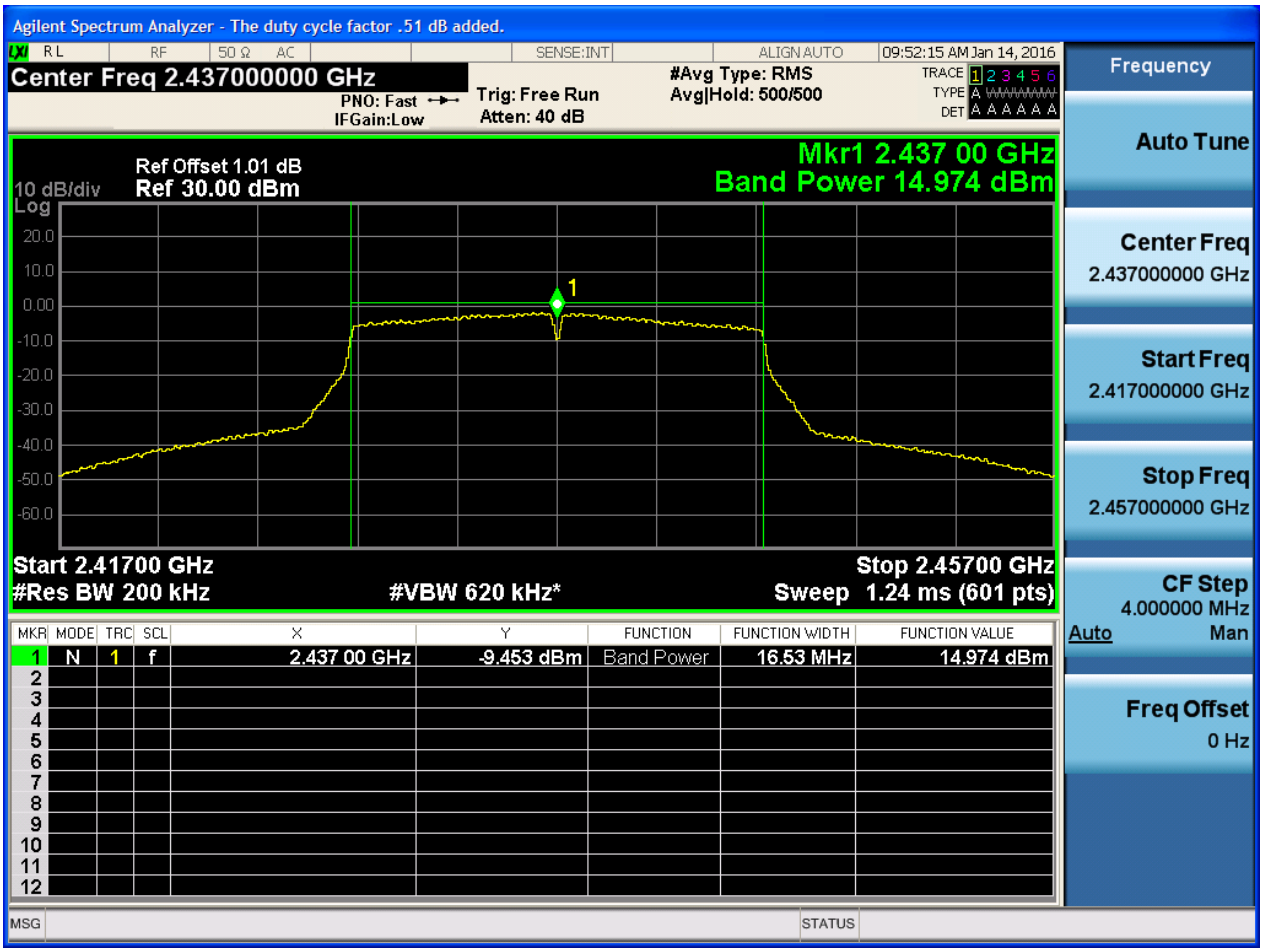
### 2.5 11B_H@Ant 1



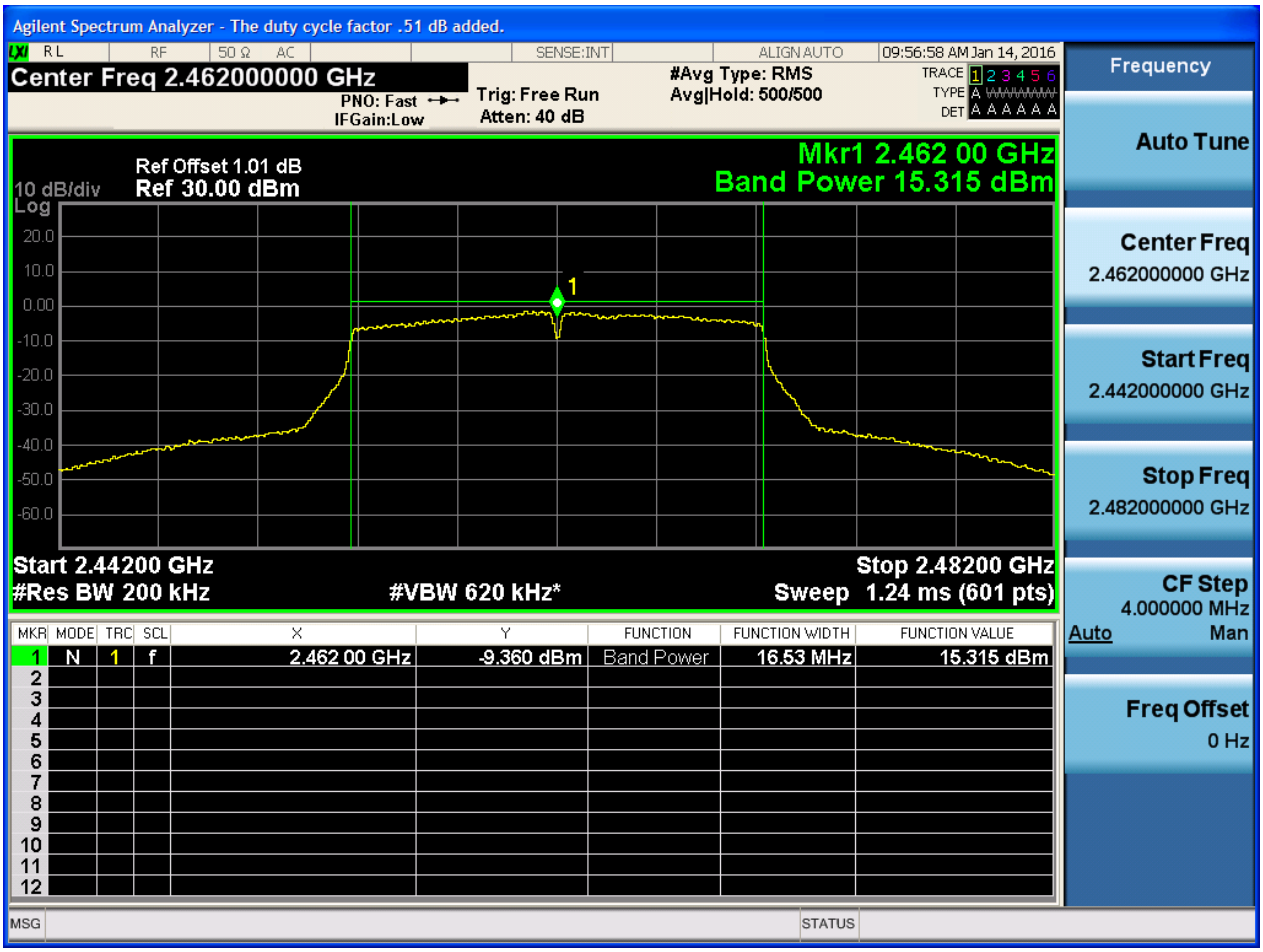
### 2.7 11G_L@Ant 1



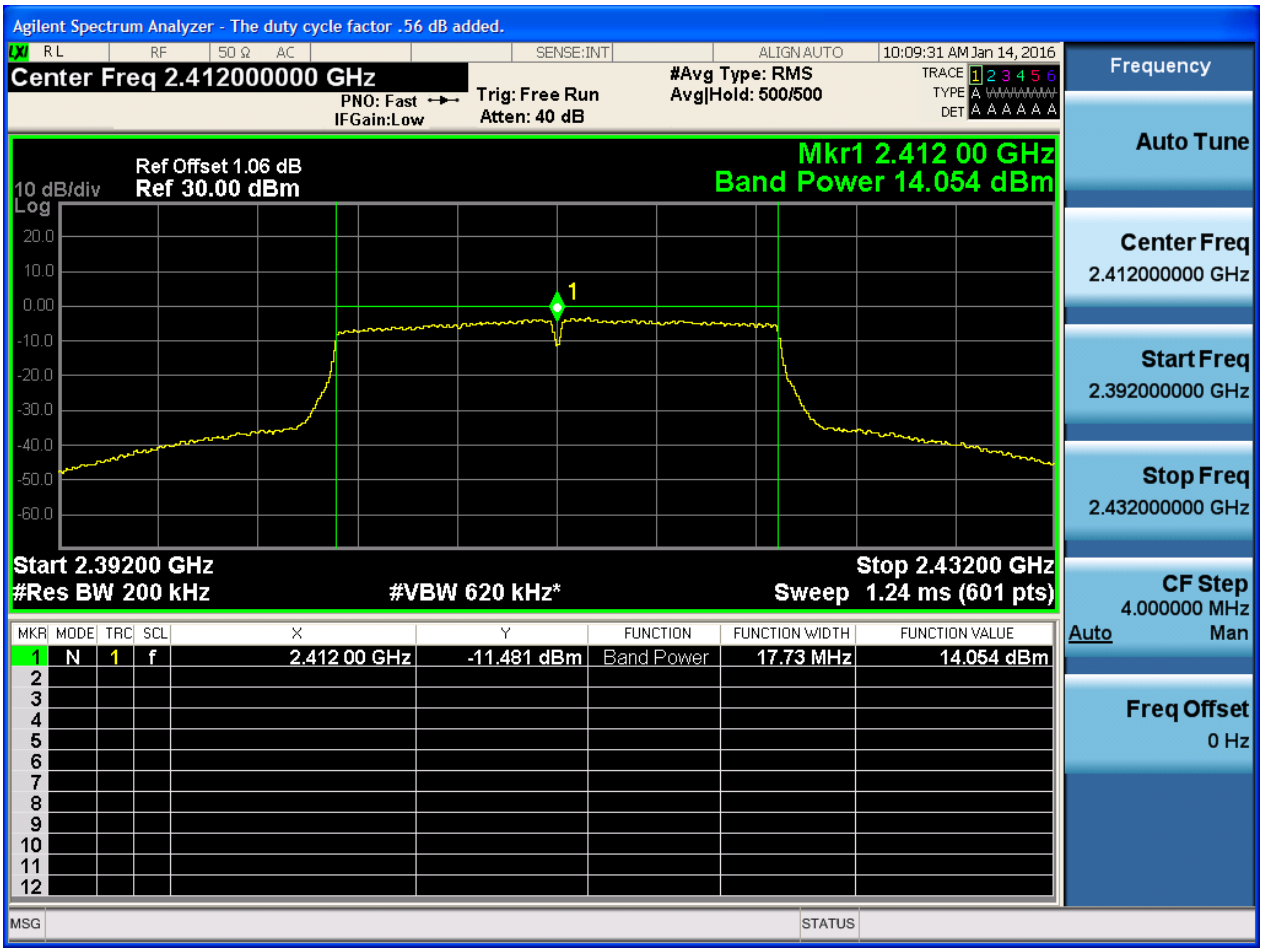
### 2.9 11G_M@Ant 1



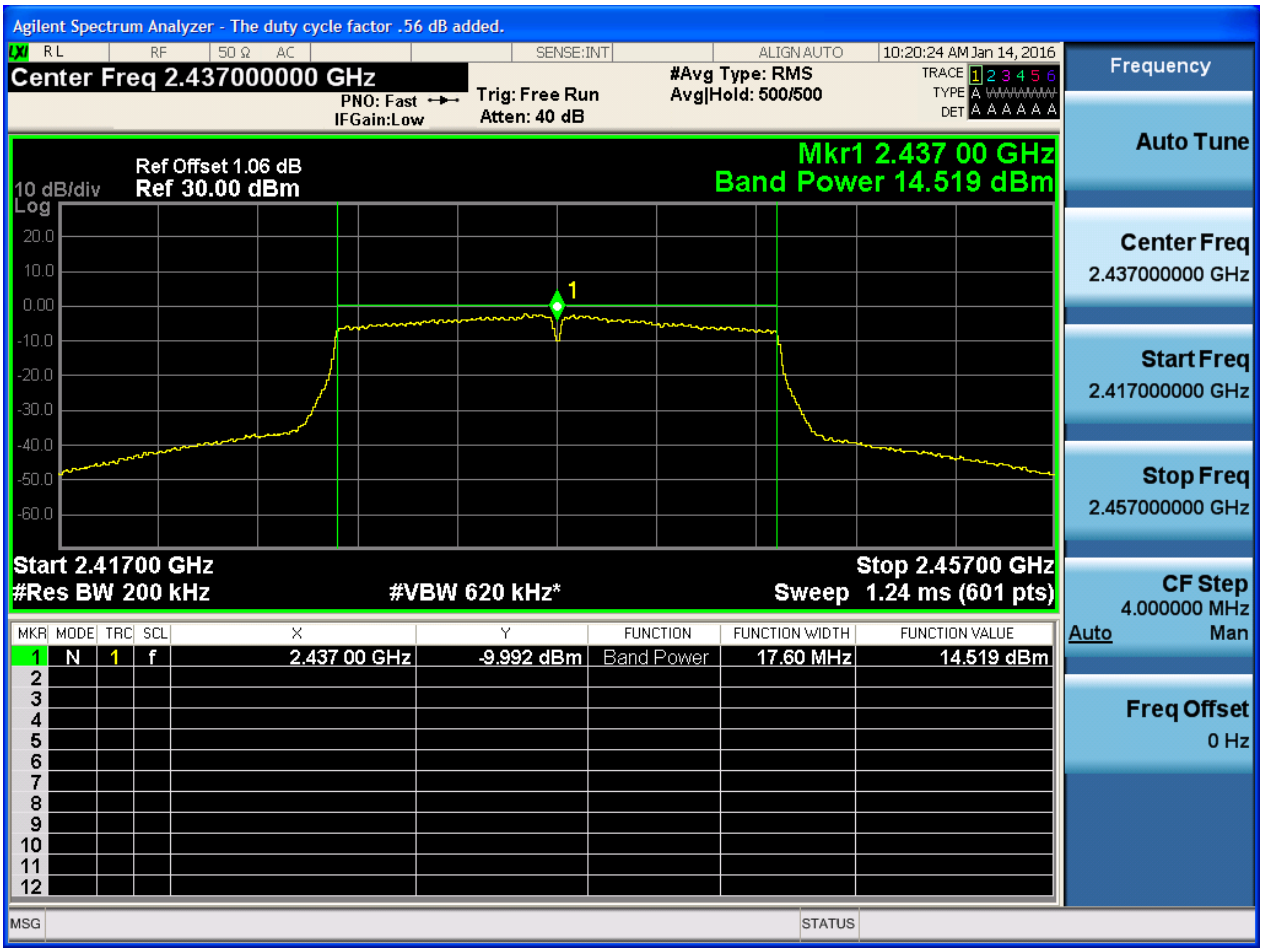
## 2.11 11G_H@Ant 1



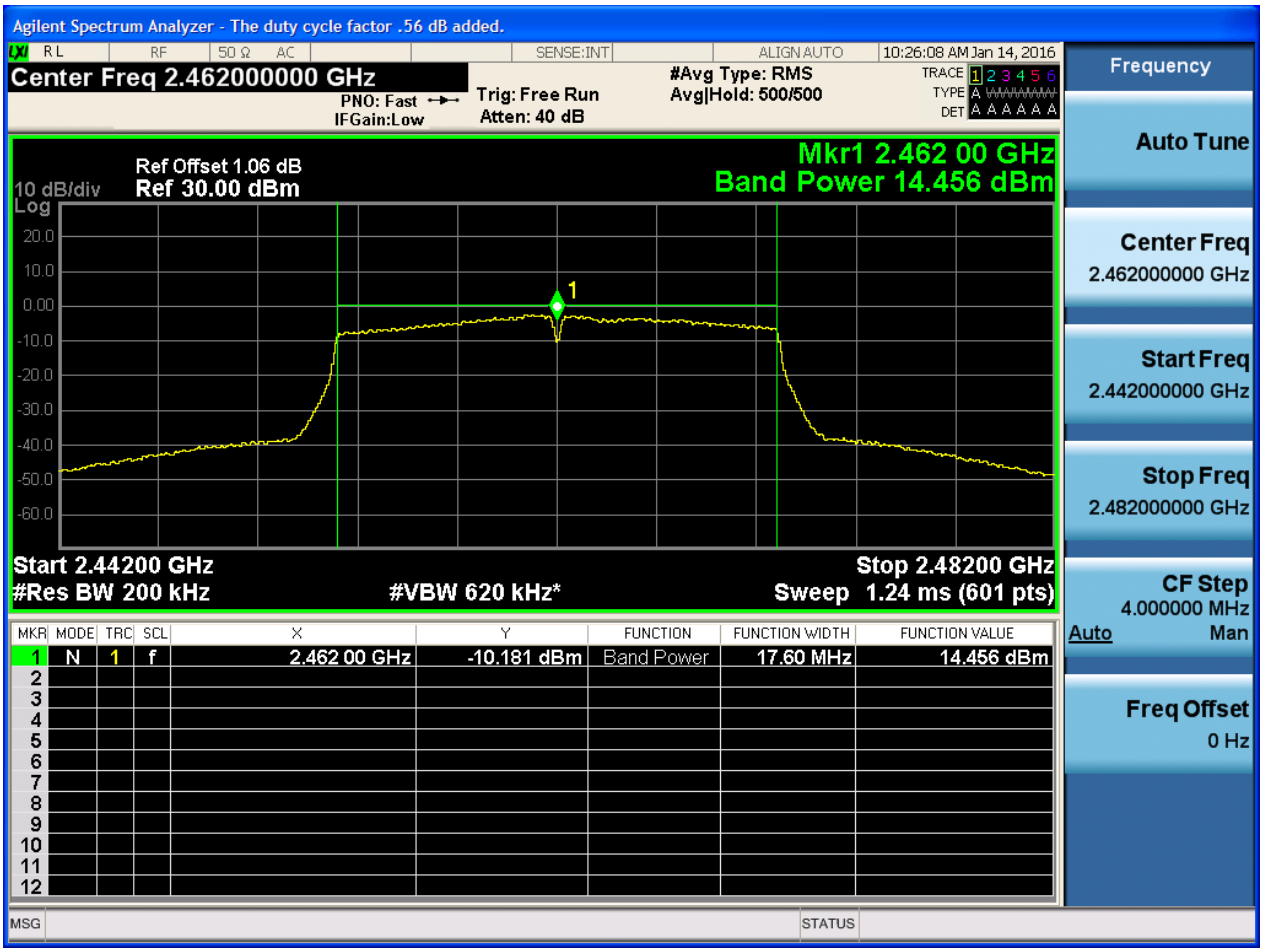
### 2.13 11N20_L@Ant 1



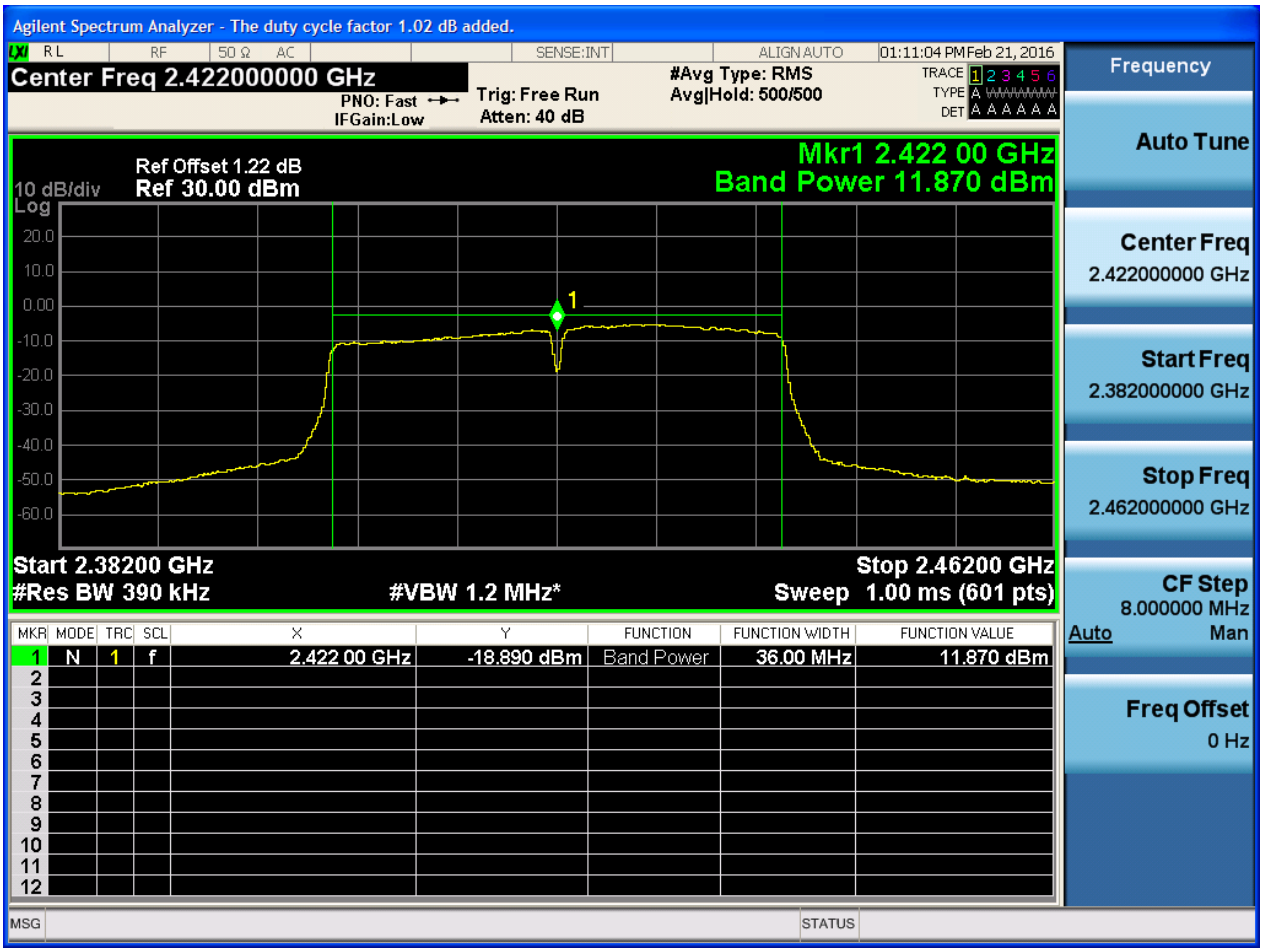
### 2.15 11N20_M@Ant 1



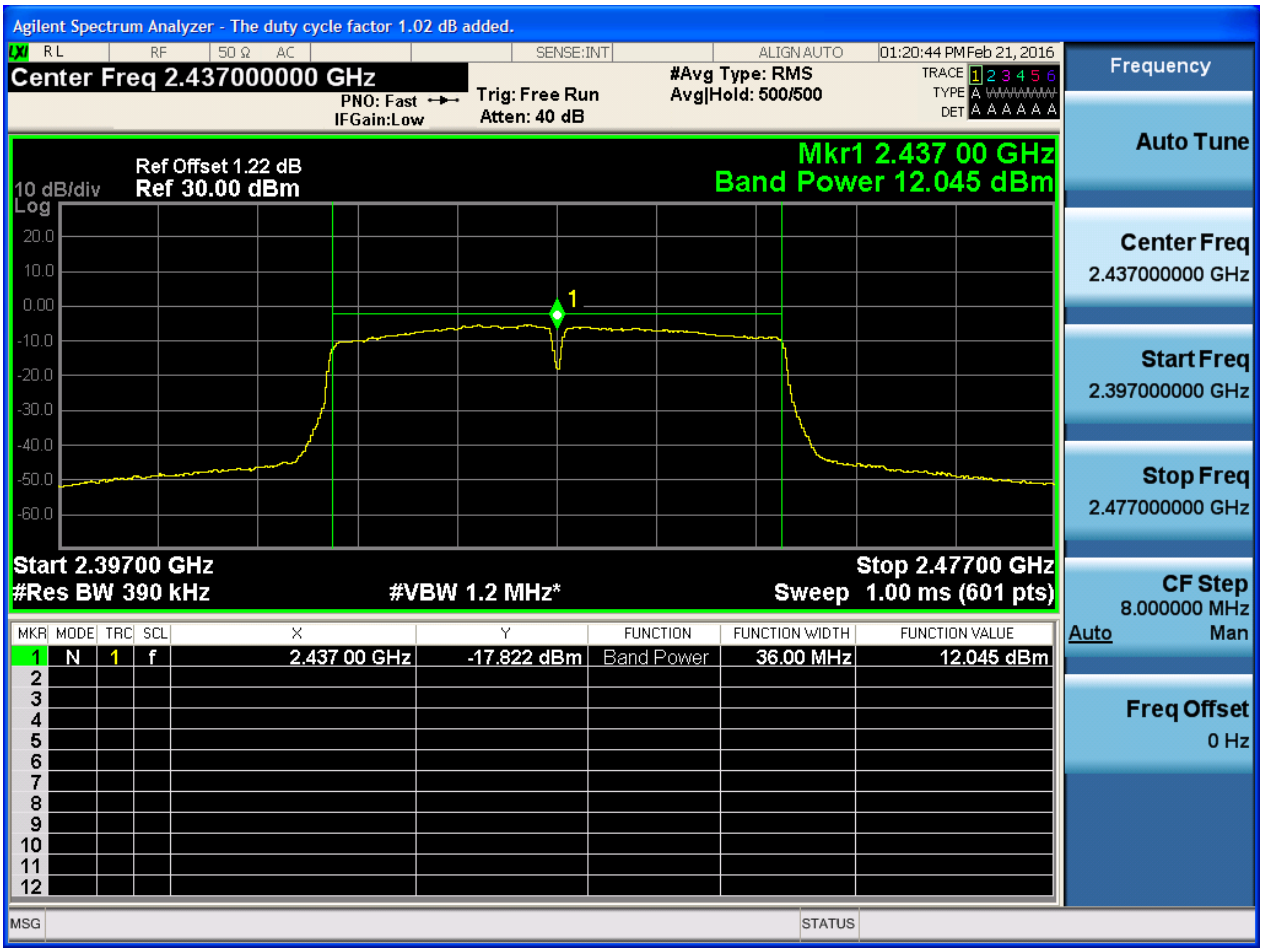
### 2.17 11N20_H@Ant 1



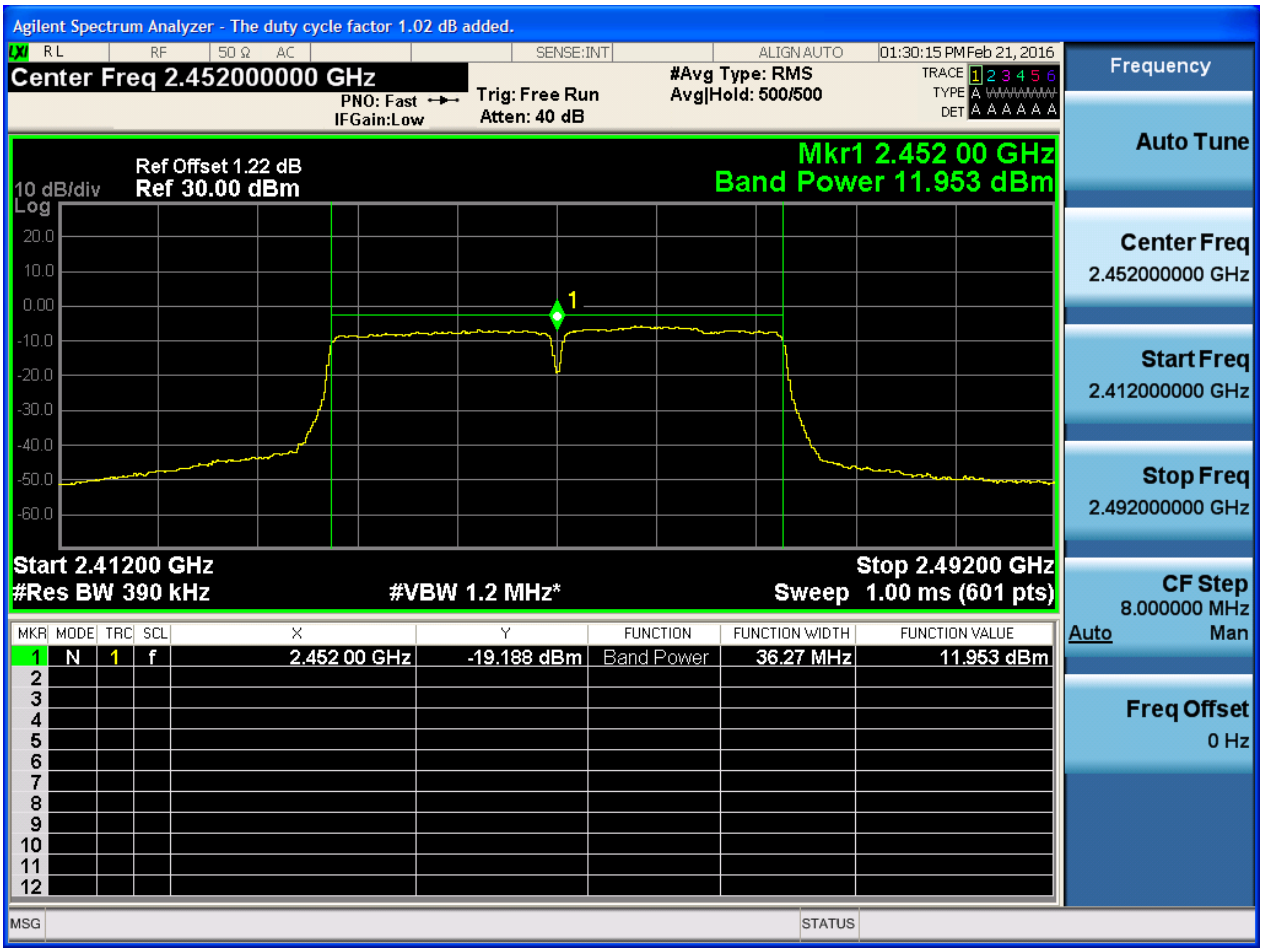
### 2.19 11N40_L@Ant 1



## 2.21 11N40_M@Ant 1



### 2.23 11N40_H@Ant 1



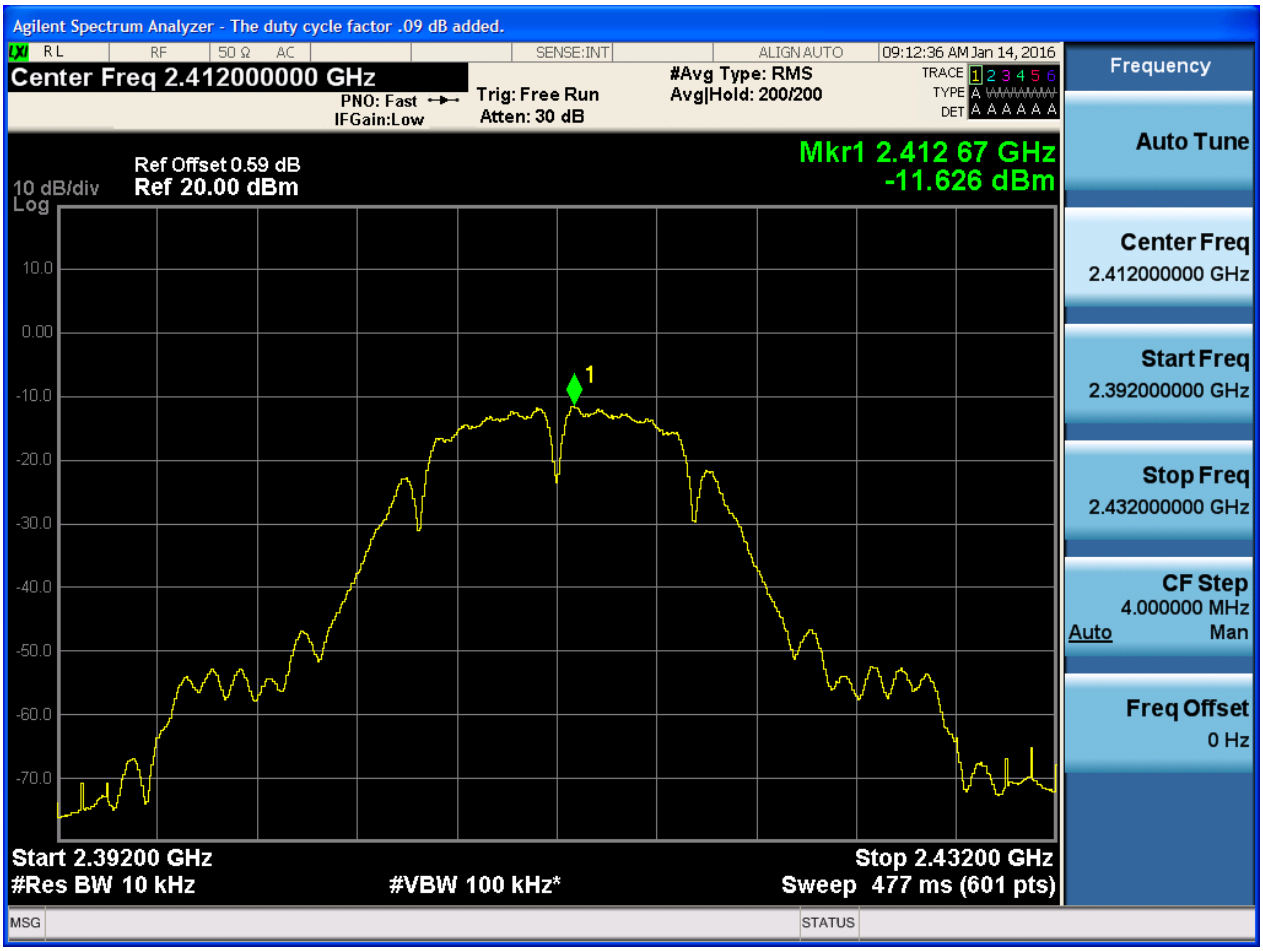
# Appendix E: Maximum Power Spectral Density Level

**Part I - Test Results**

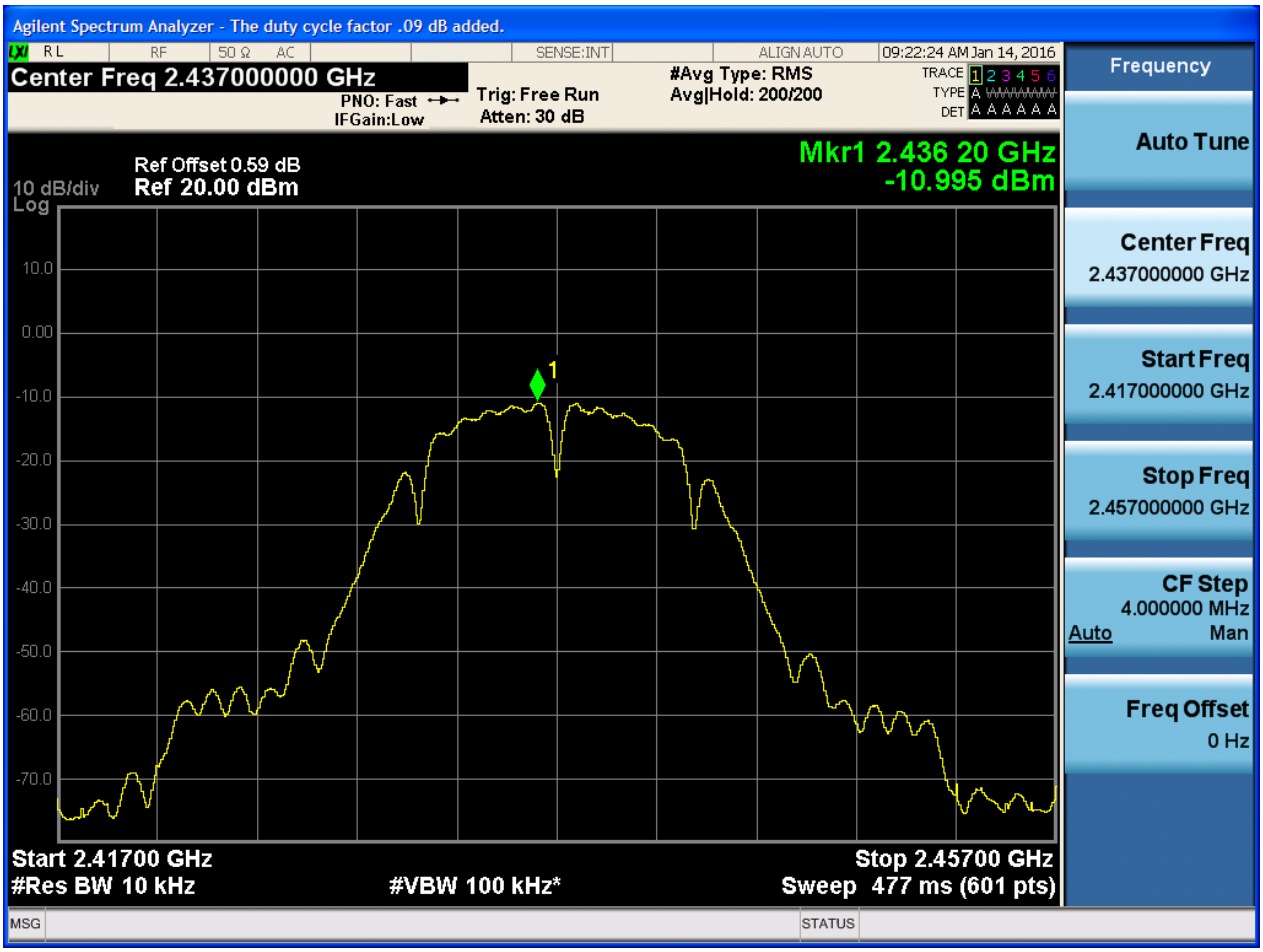
| Test Mode | Test Channel | Frequency[MHz] | Ant | PD[MHz] | Verdict |
|---|---|---|---|---|---|
| 11B | L | 2412 | Ant 1 | -11.63 | pass |
| 11B | M | 2437 | Ant 1 | -11.00 | pass |
| 11B | H | 2462 | Ant 1 | -10.78 | pass |
| 11G | L | 2412 | Ant 1 | -14.82 | pass |
| 11G | M | 2437 | Ant 1 | -13.79 | pass |
| 11G | H | 2462 | Ant 1 | -13.50 | pass |
| 11N20 | L | 2412 | Ant 1 | -15.38 | pass |
| 11N20 | M | 2437 | Ant 1 | -14.24 | pass |
| 11N20 | H | 2462 | Ant 1 | -14.30 | pass |
| 11N40 | L | 2422 | Ant 1 | -20.00 | pass |
| 11N40 | M | 2437 | Ant 1 | -20.20 | pass |
| 11N40 | H | 2452 | Ant 1 | -20.69 | pass |

**Part II - Test Plots**

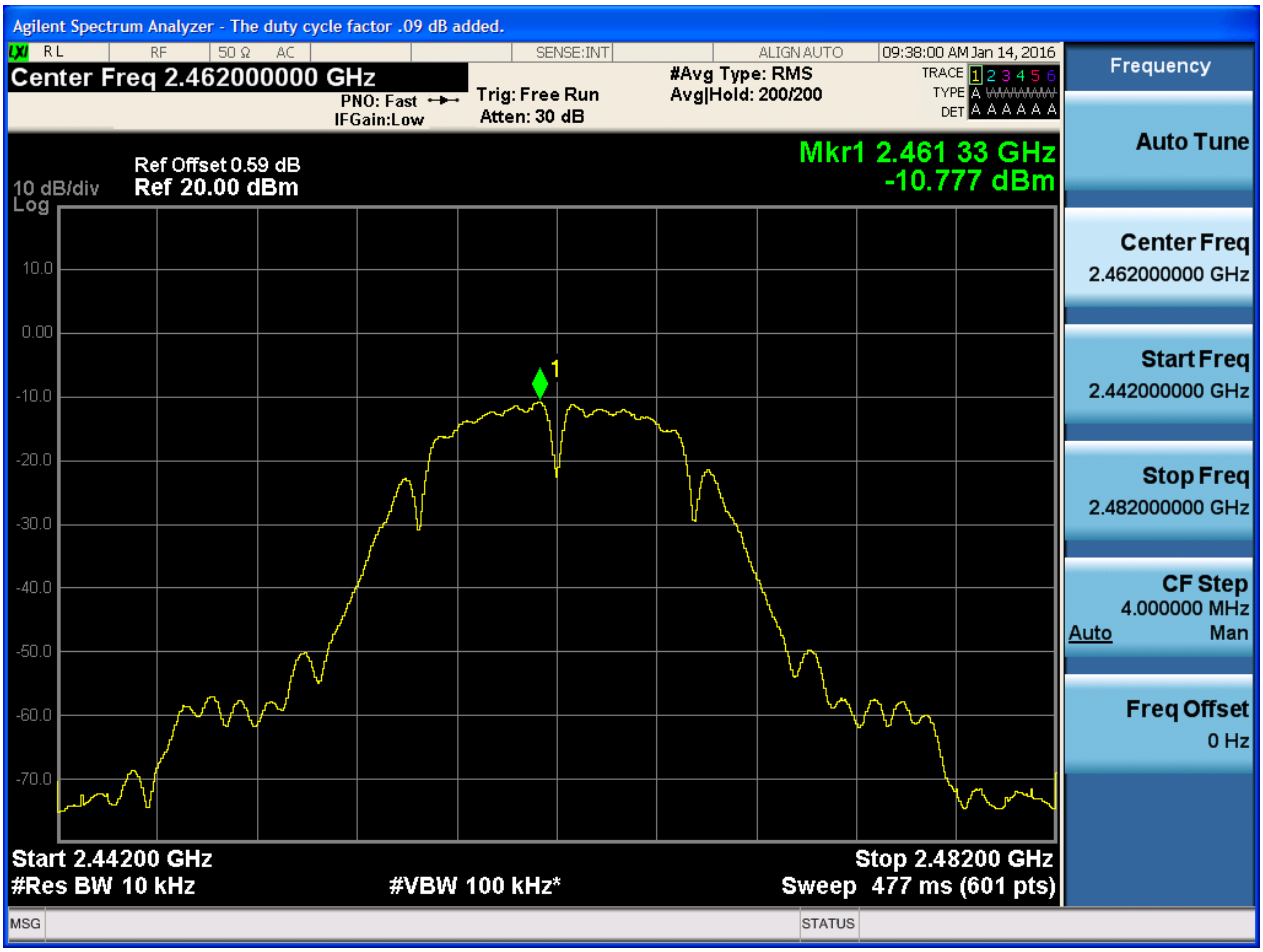
**2.1 11B_L@Ant 1**



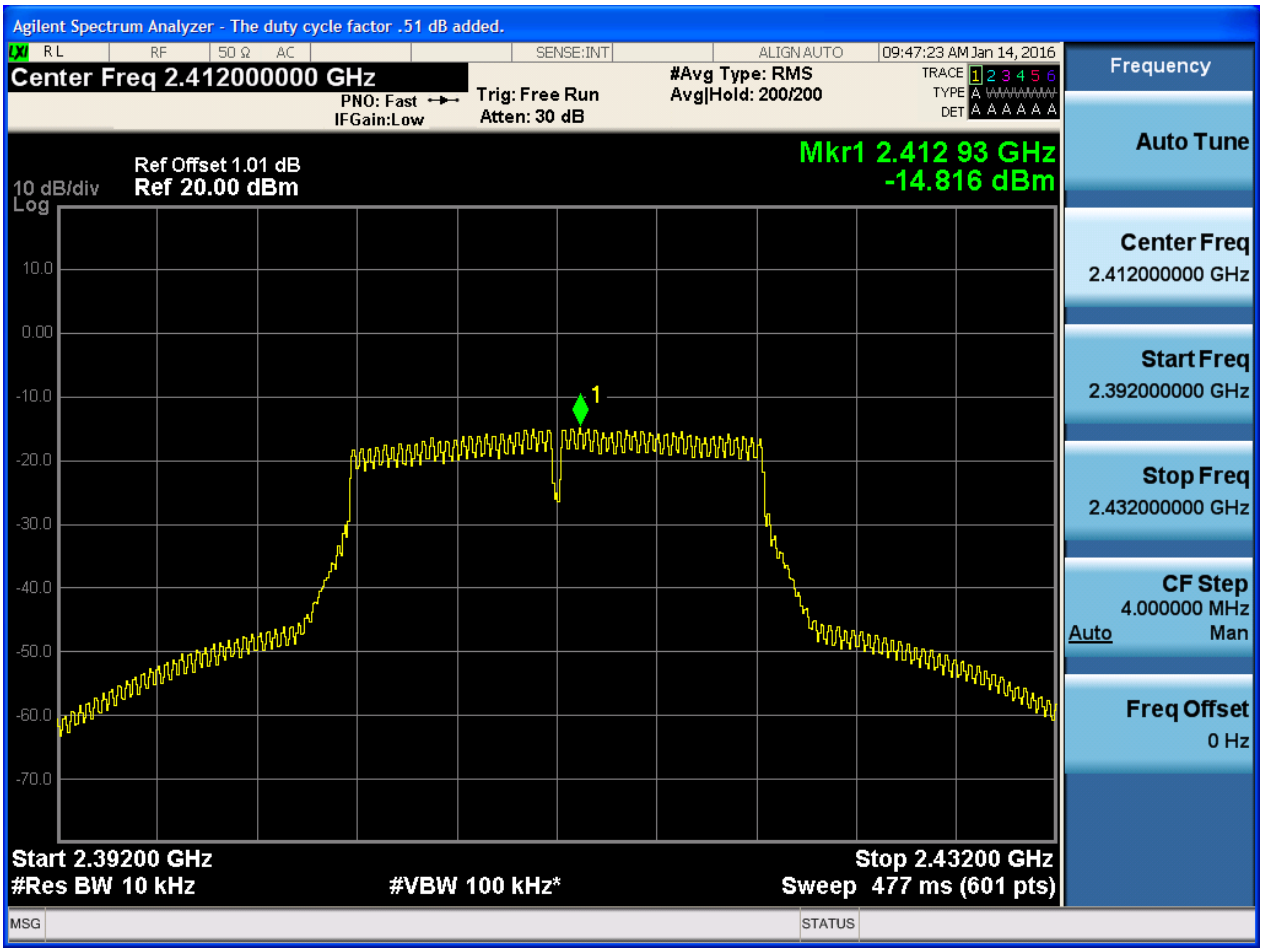
### 2.3 11B_M@Ant 1



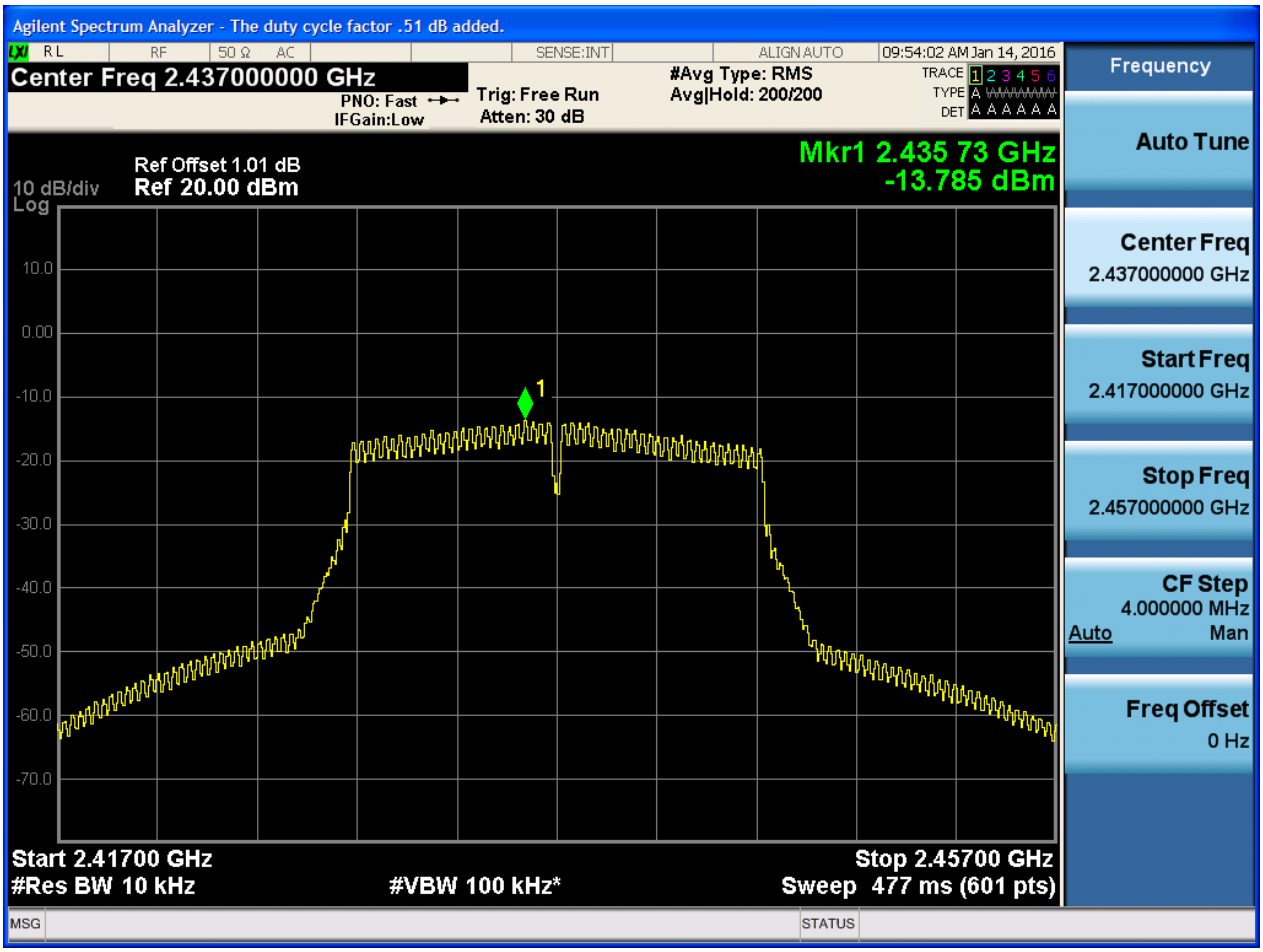
### 2.5 11B_H@Ant 1



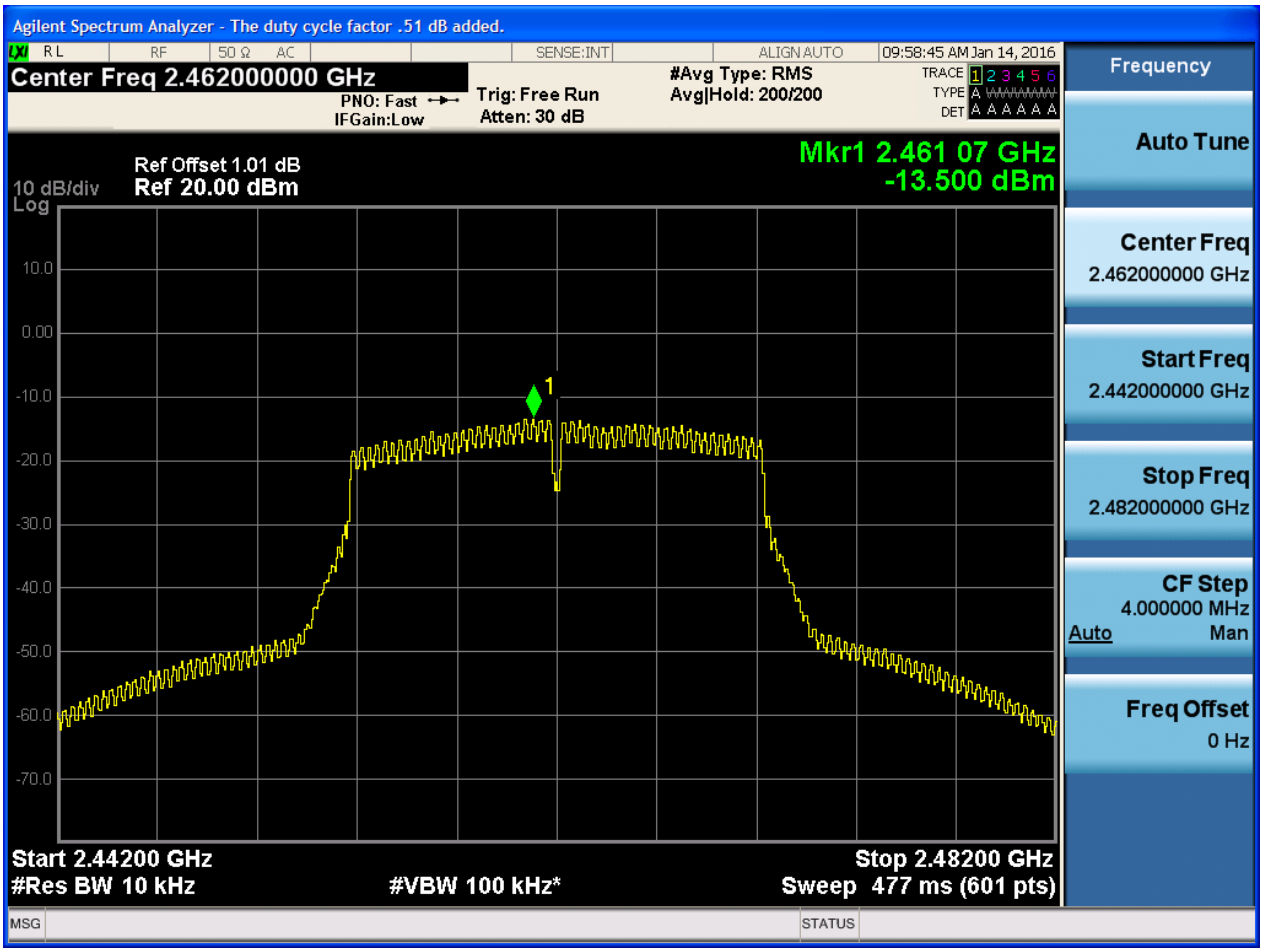
### 2.7 11G_L@Ant 1



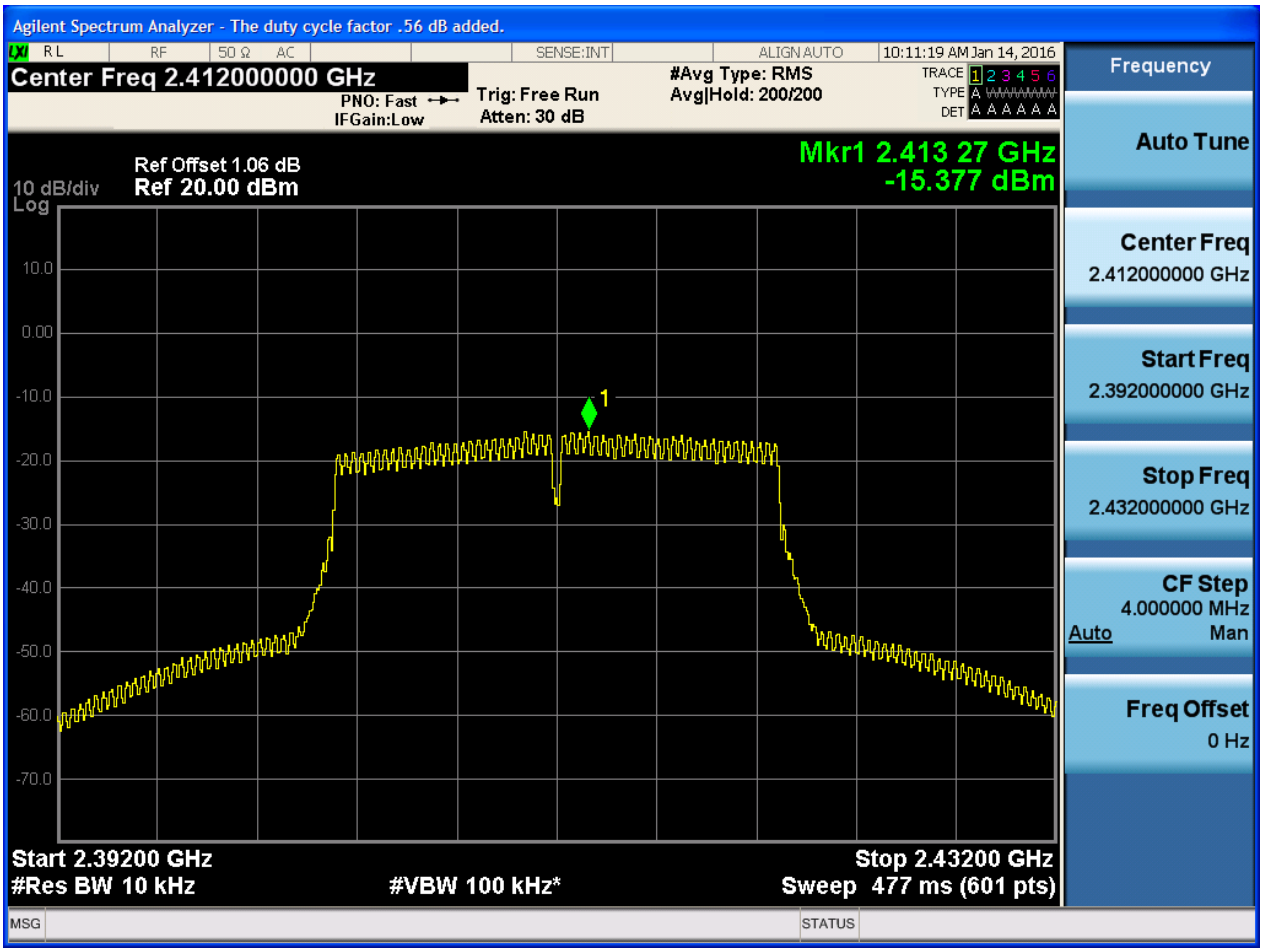
### 2.9 11G_M@Ant 1



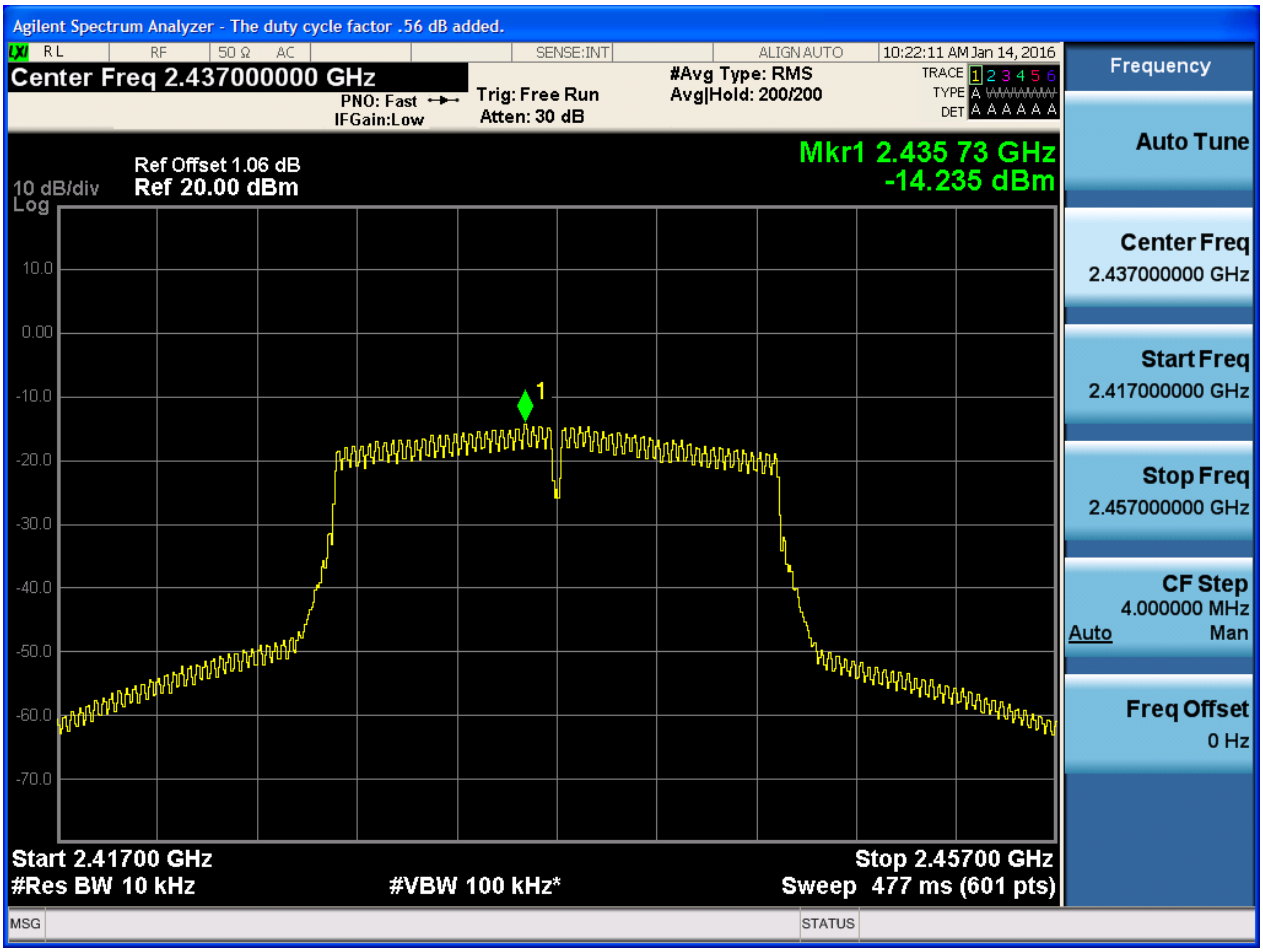
### 2.11 11G_H@Ant 1



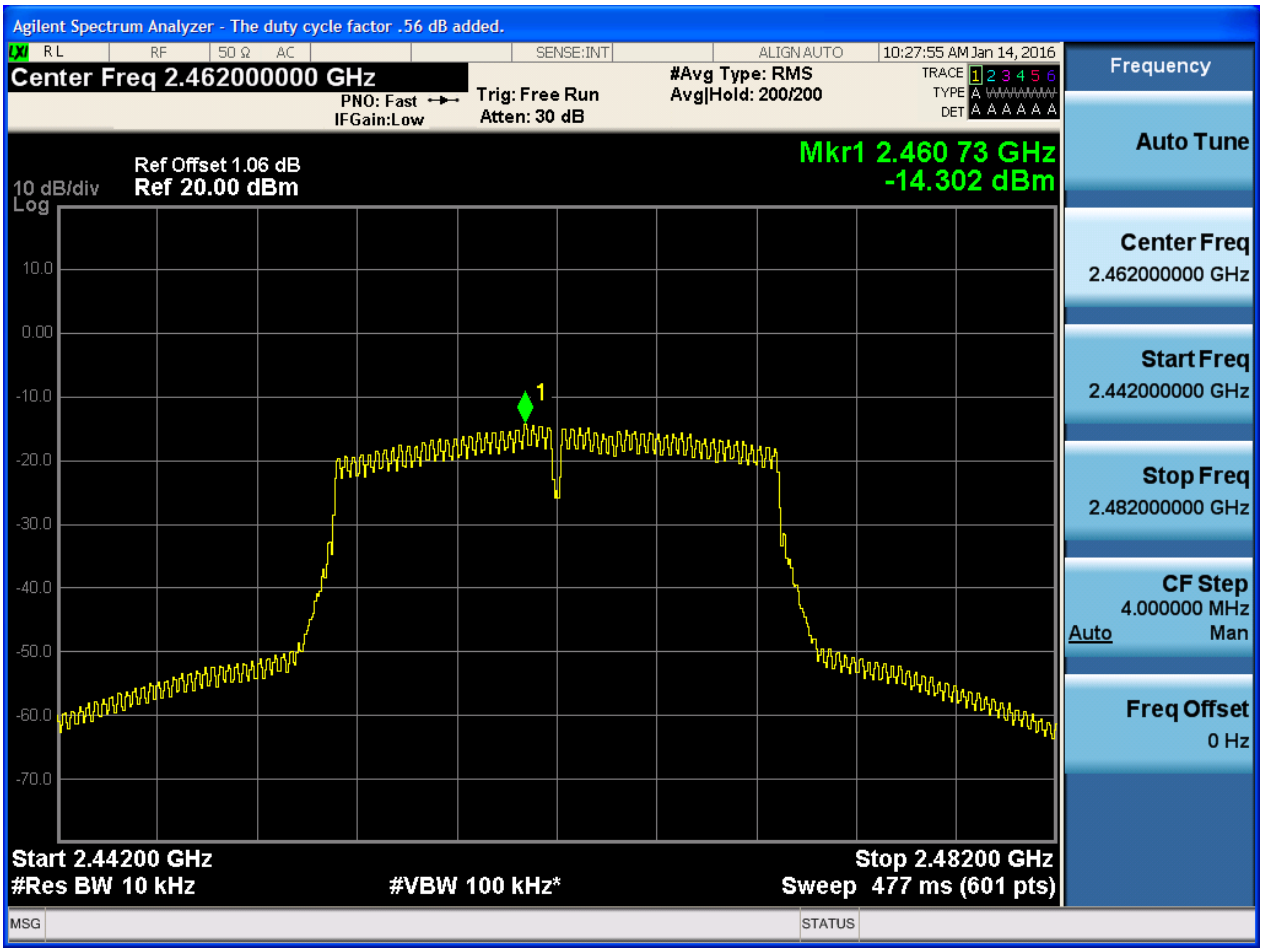
### 2.13 11N20_L@Ant 1



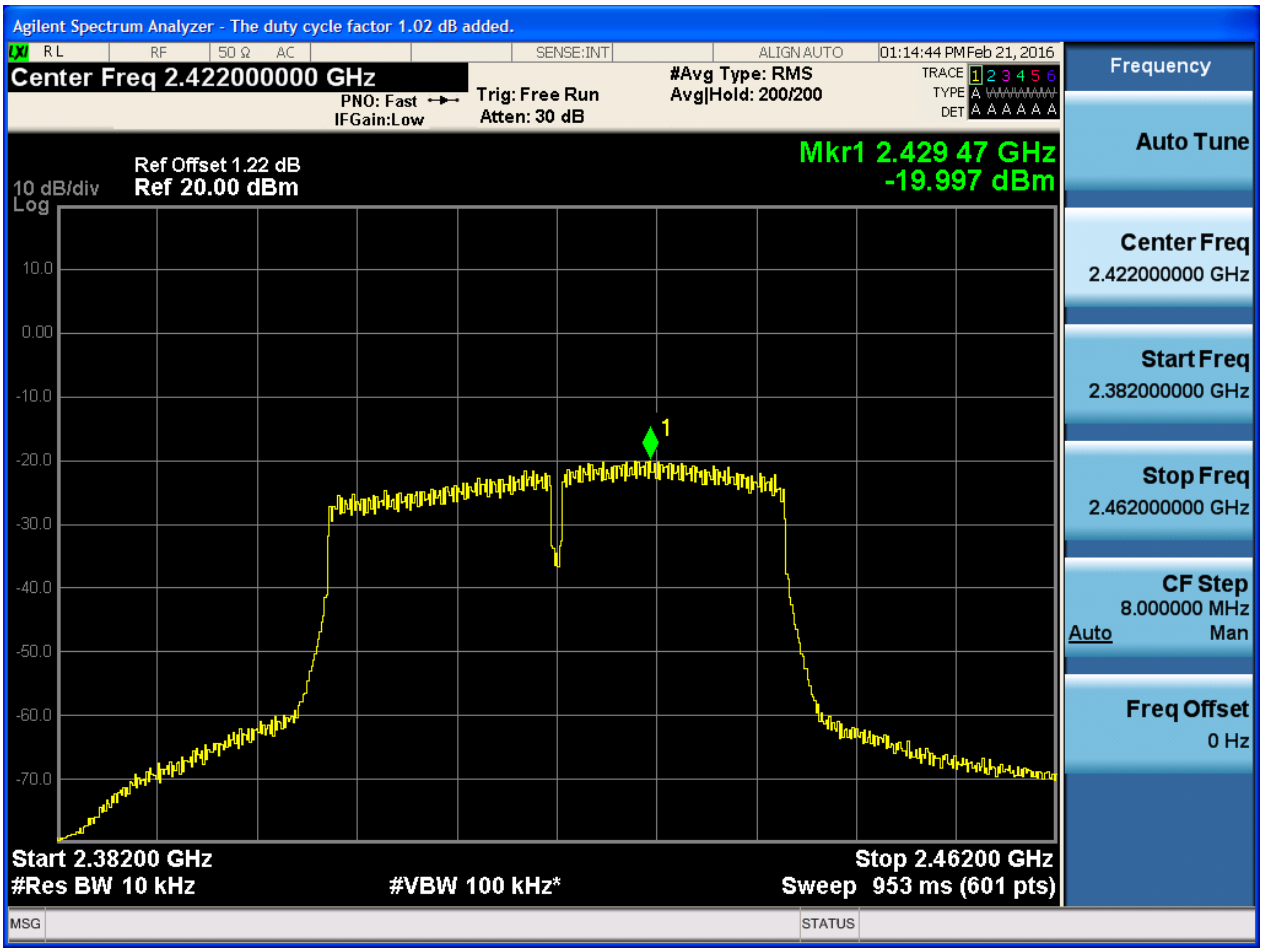
### 2.15 11N20_M@Ant 1



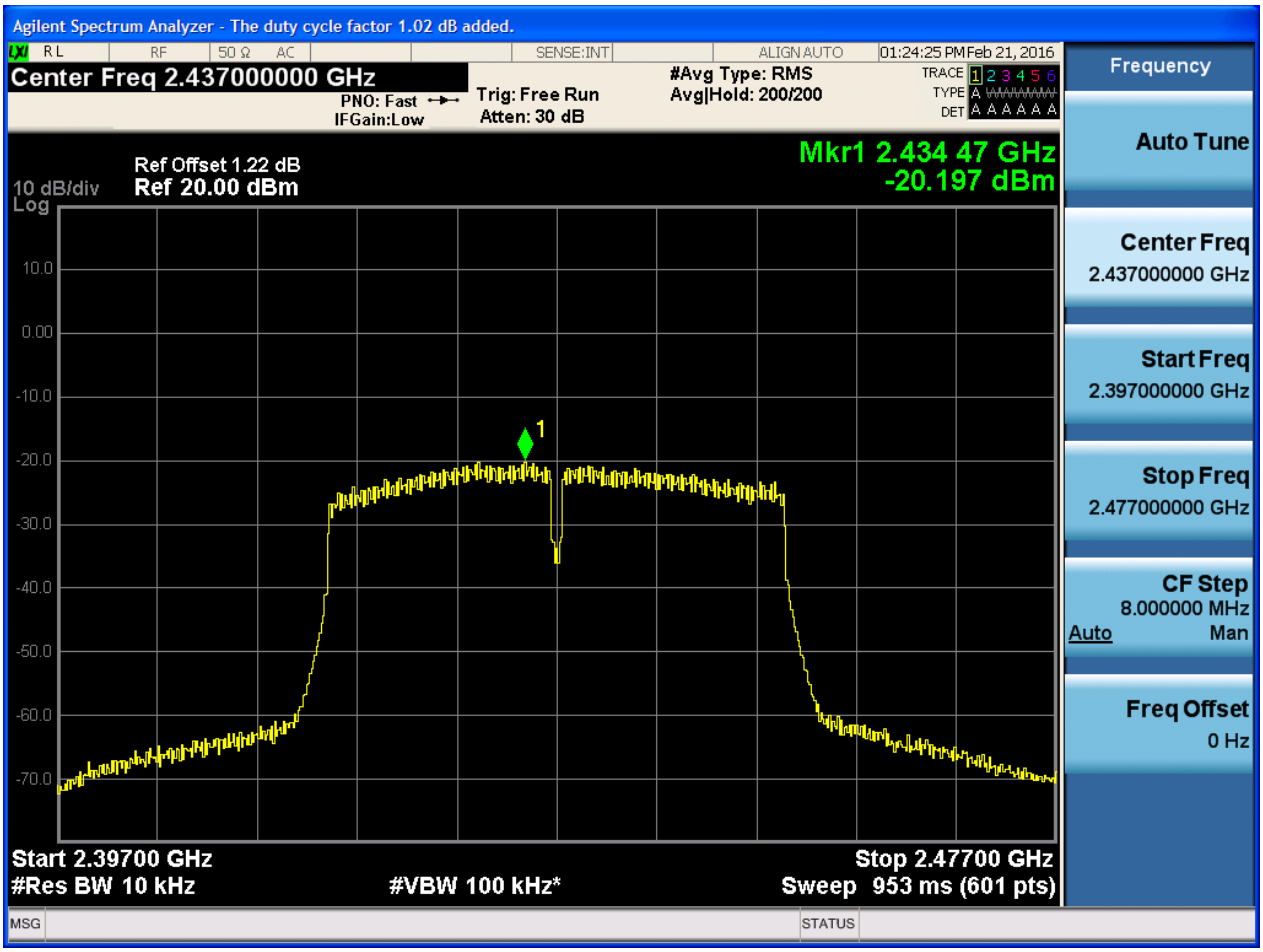
### 2.17 11N20_H@Ant 1



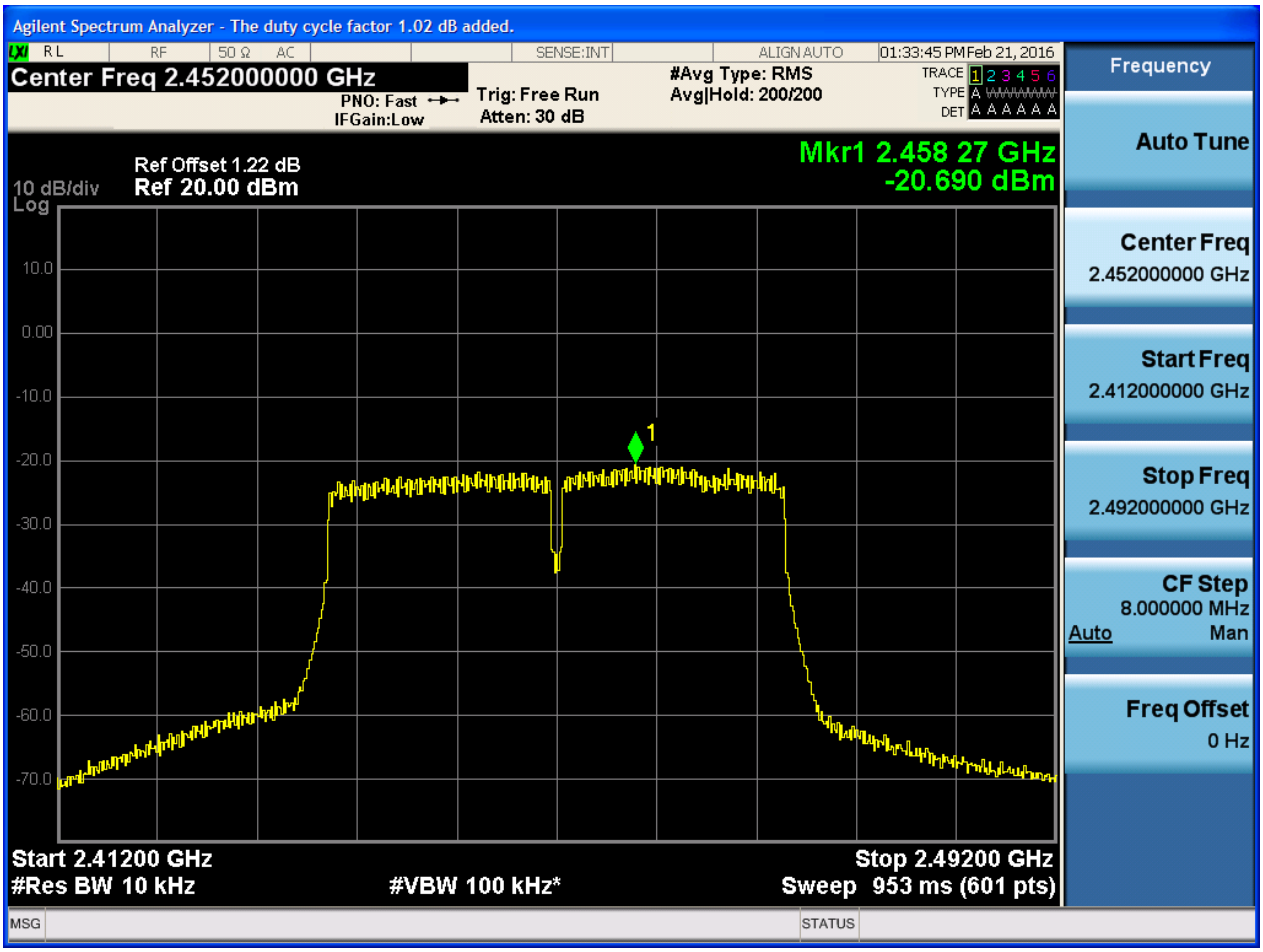
**2.19 11N40_L@Ant 1**



### 2.21 11N40_M@Ant 1



**2.23 11N40_H@Ant 1**



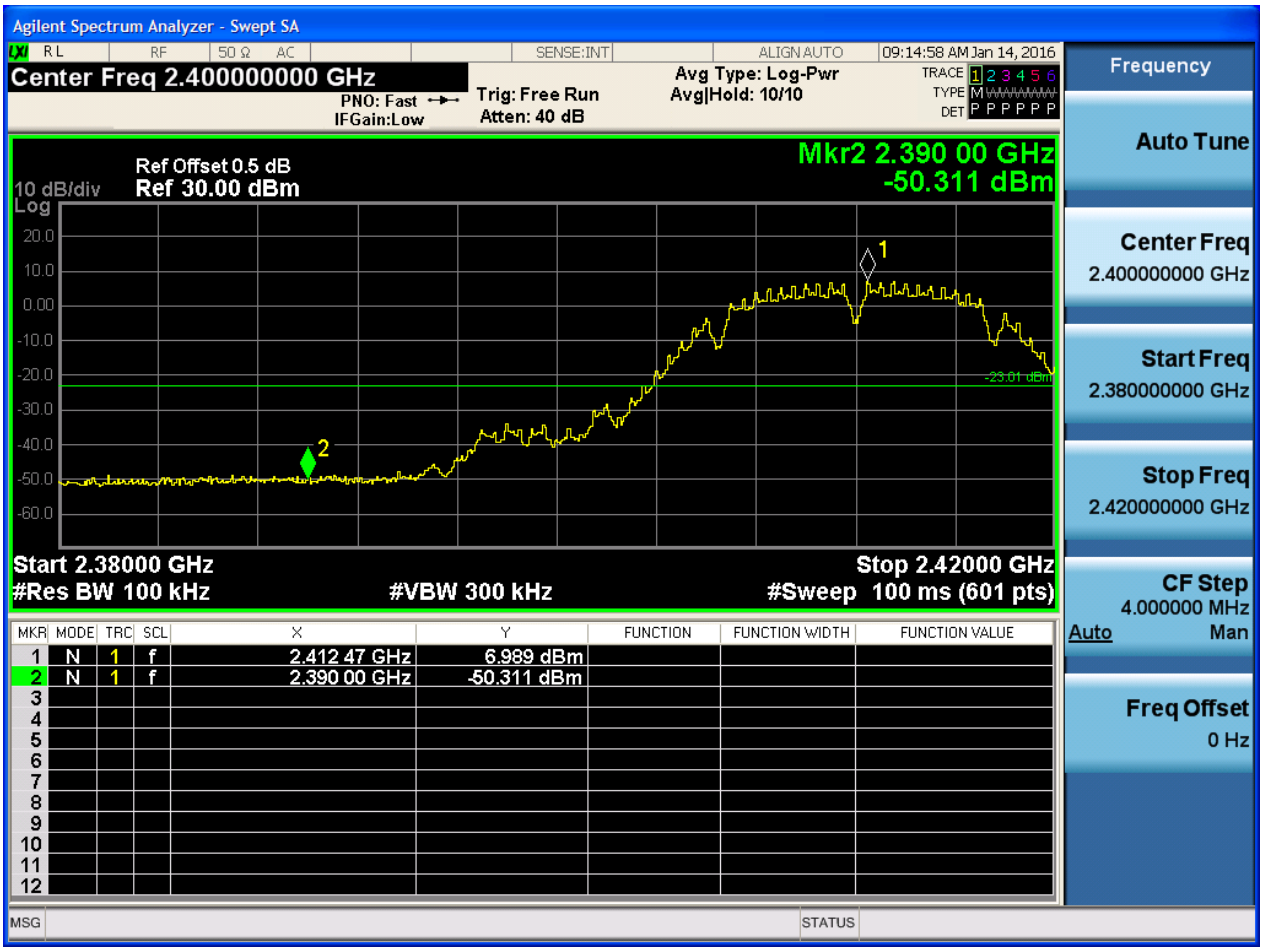
# Appendix F: Band Edges Compliance

**Part I - Test Results**

| Test Mode | Test Channel | Frequency[MHz] | Ant | Carrier Power[dBm] | Max.Spurious Level[dBm] | Verdict |
|---|---|---|---|---|---|---|
| 11B | L | 2412 | Ant 1 | 6.99 | -50.31 | pass |
| 11B | H | 2462 | Ant 1 | 8.31 | -48.92 | pass |
| 11G | L | 2412 | Ant 1 | 4.01 | -46.50 | pass |
| 11G | H | 2462 | Ant 1 | 5.08 | -43.48 | pass |
| 11N20 | L | 2412 | Ant 1 | 3.33 | -44.60 | pass |
| 11N20 | H | 2462 | Ant 1 | 4.22 | -42.63 | pass |
| 11N40 | L | 2422 | Ant 1 | -2.30 | -47.14 | pass |
| 11N40 | H | 2452 | Ant 1 | -1.89 | -43.55 | pass |

**Part II - Test Plots**

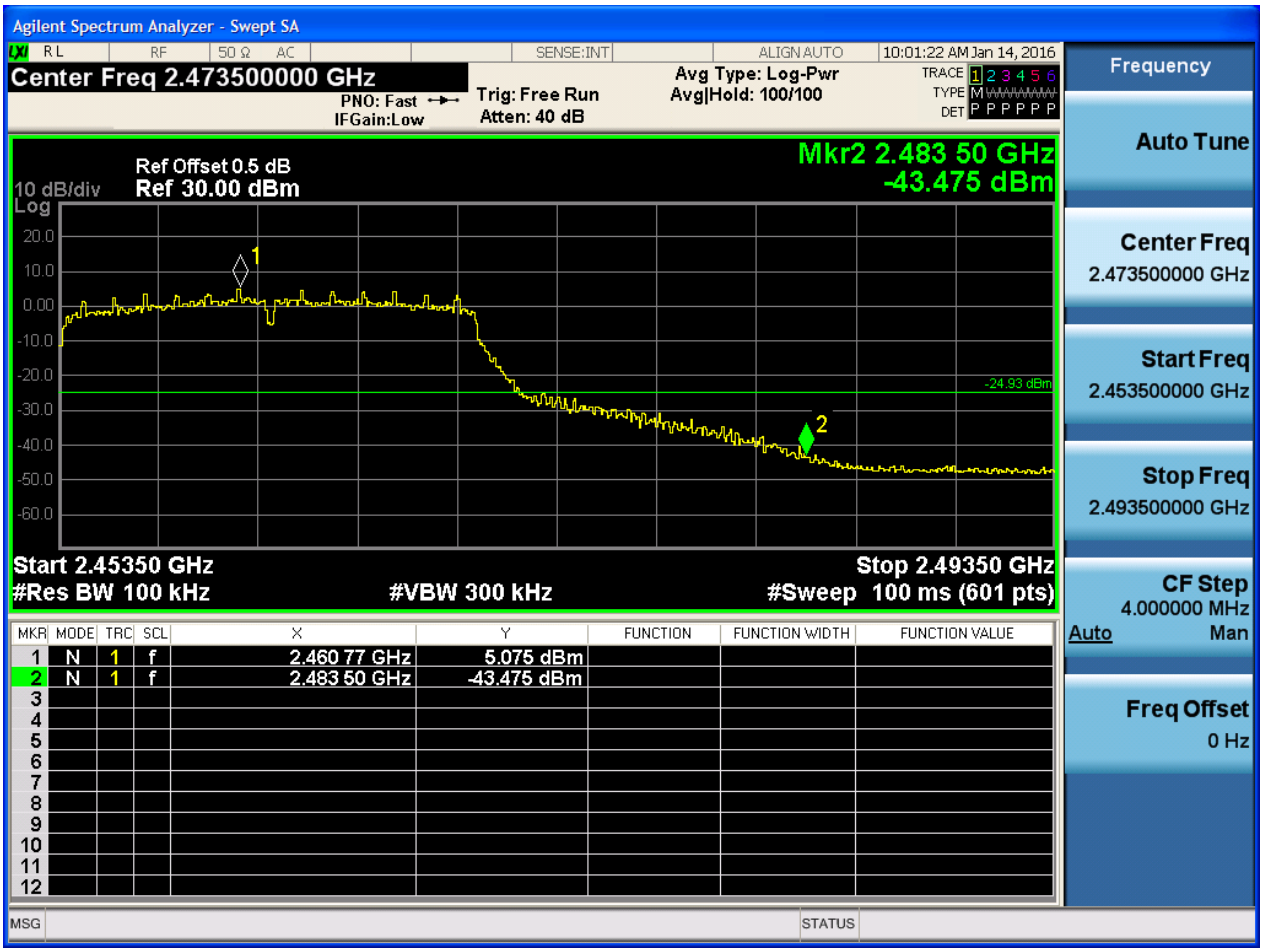
**2.1 11B_L@Ant 1**



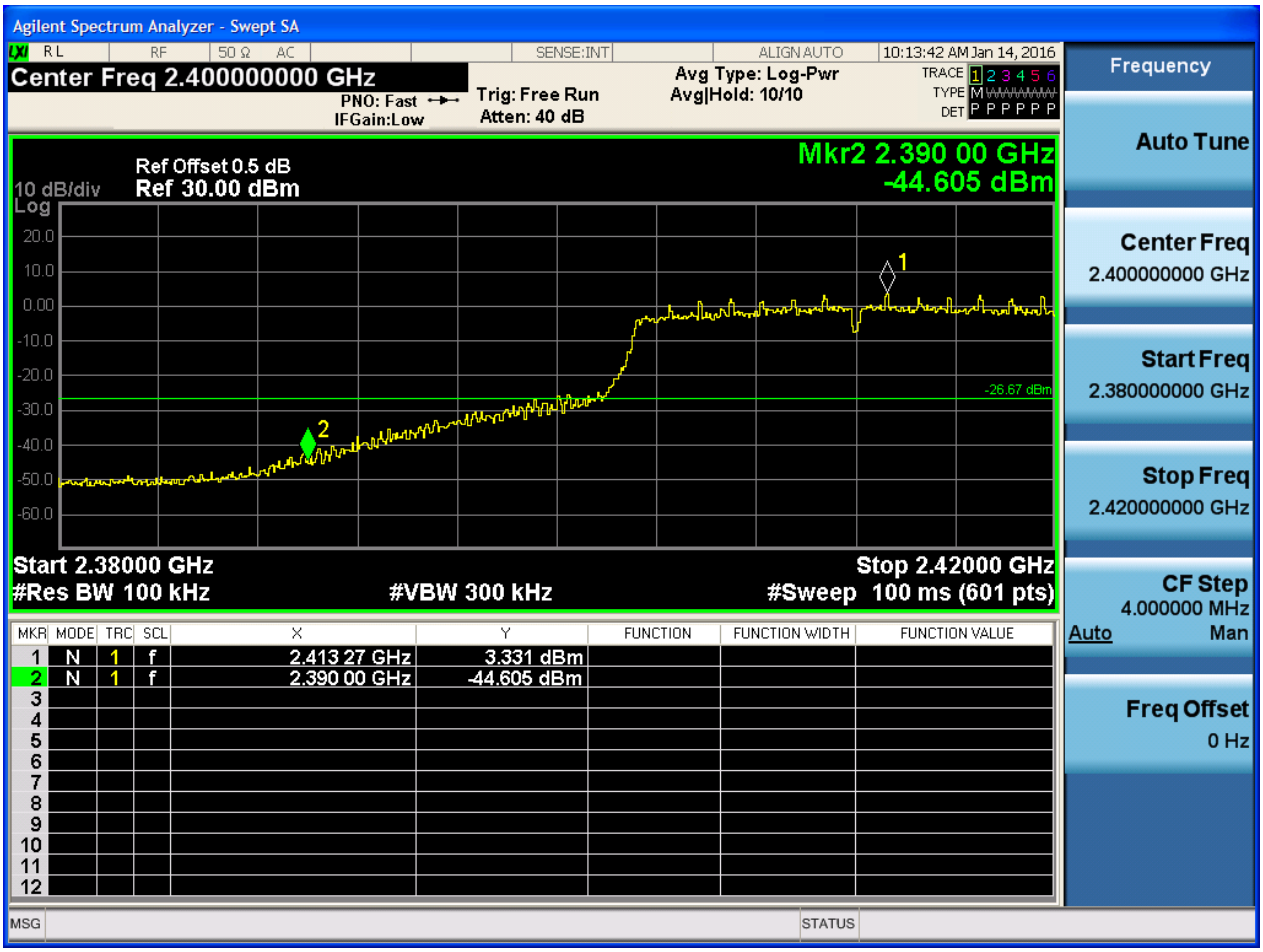
### 2.3 11B_H@Ant 1

### 2.5 11G_L@Ant 1

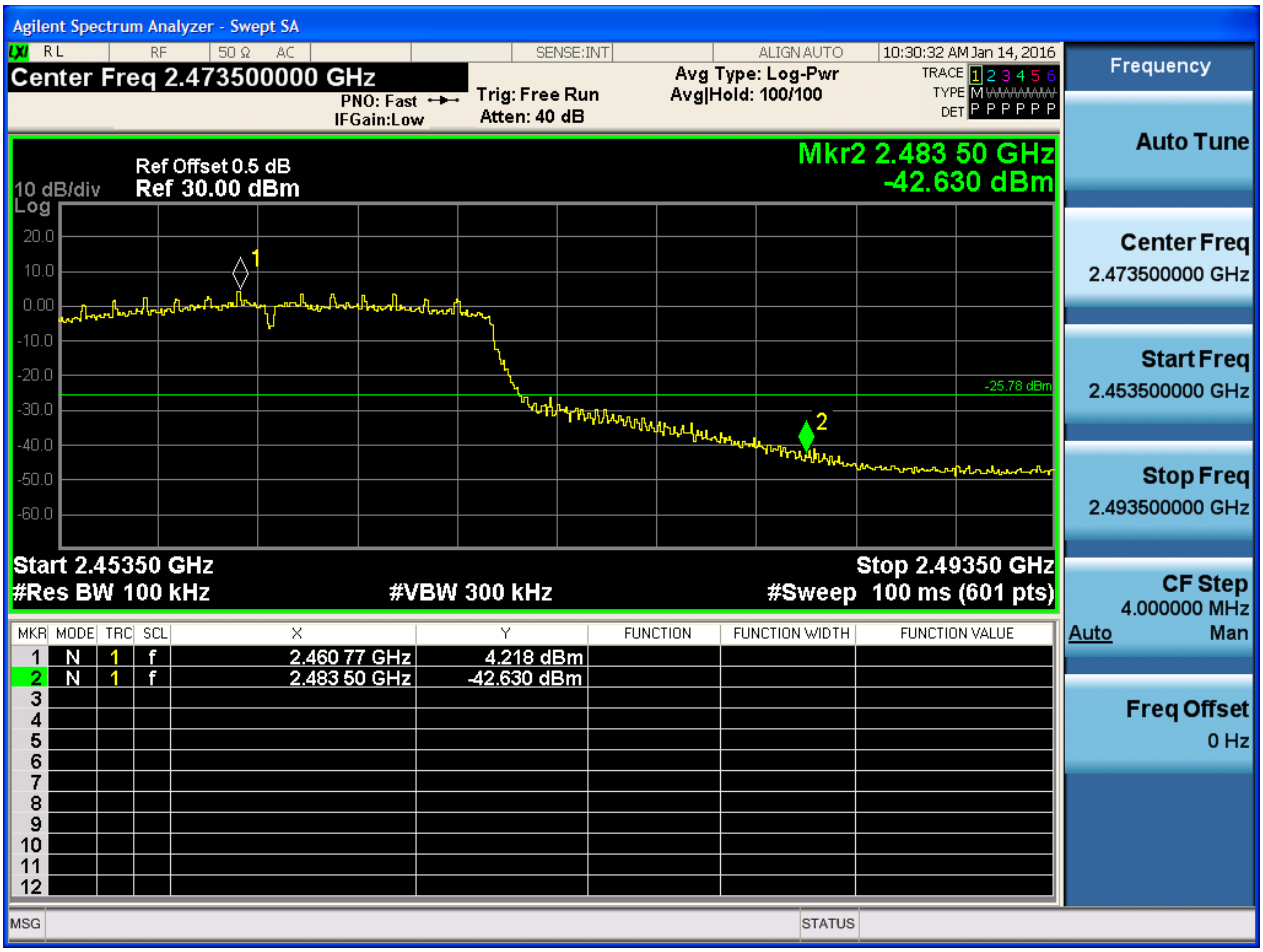
### 2.7 11G_H@Ant 1



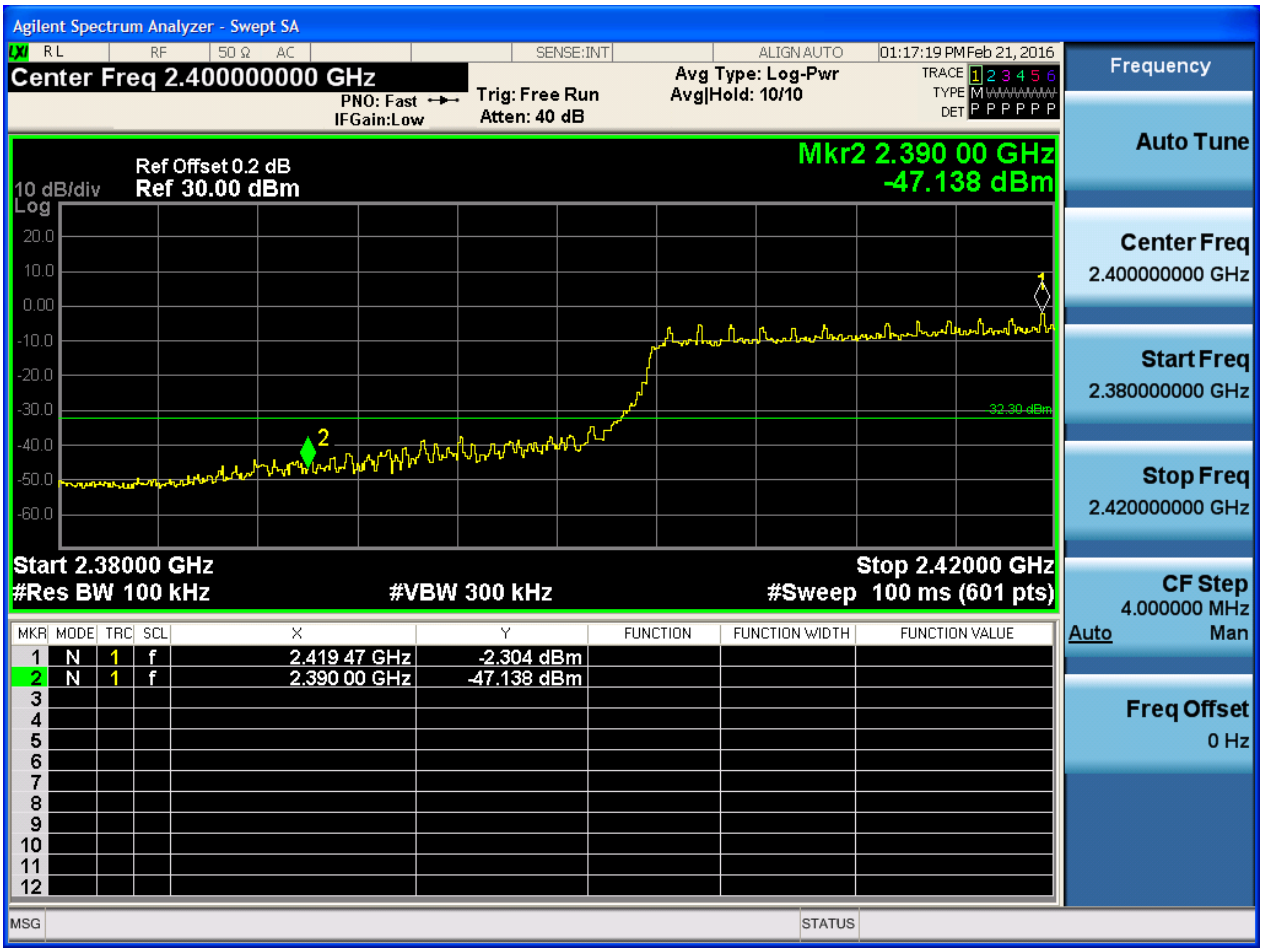
### 2.9 11N20_L@Ant 1



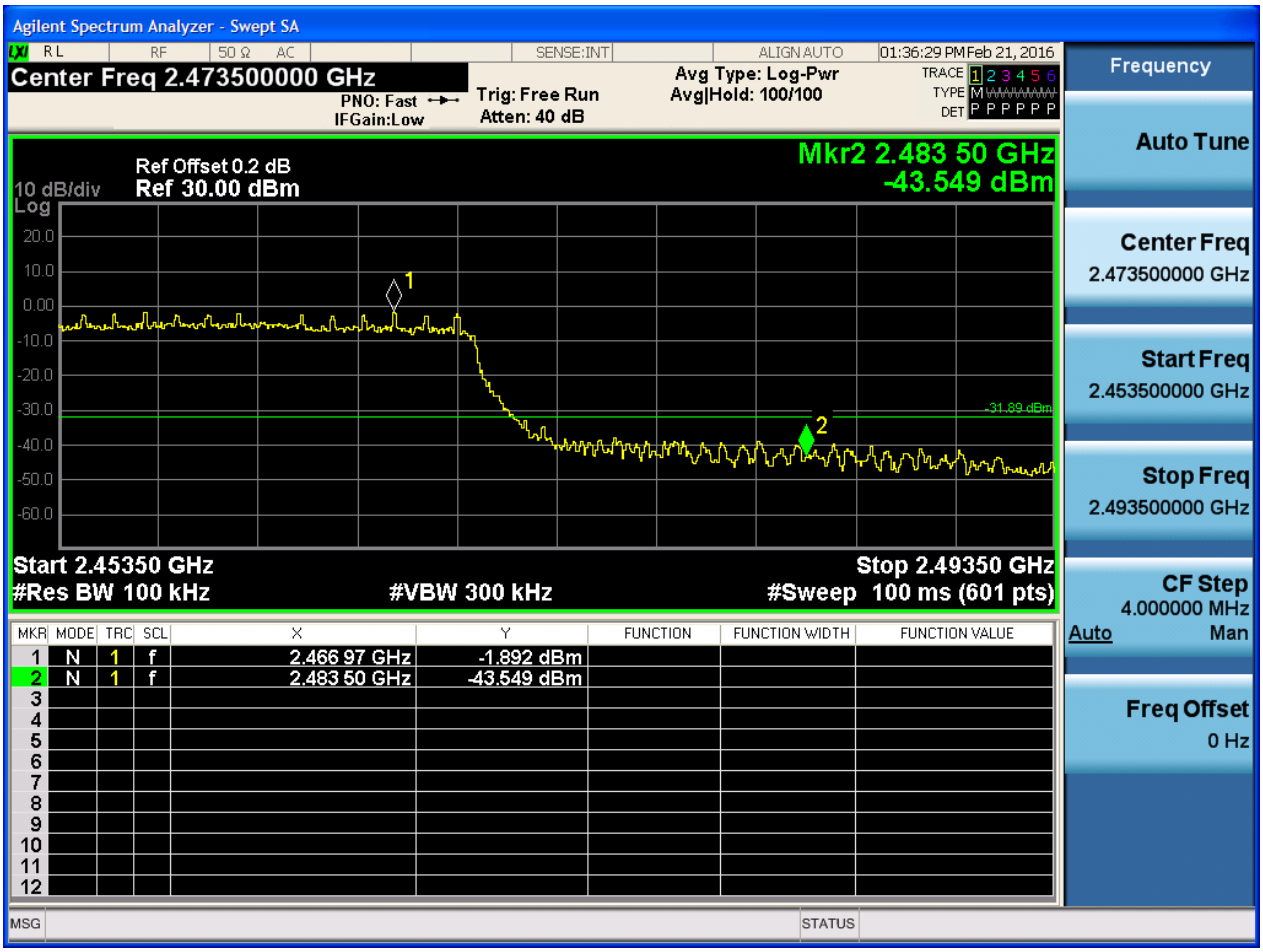
### 2.11 11N20_H@Ant 1



### 2.13 11N40_L@Ant 1



### 2.15 11N40_H@Ant 1



# 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" 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.

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".

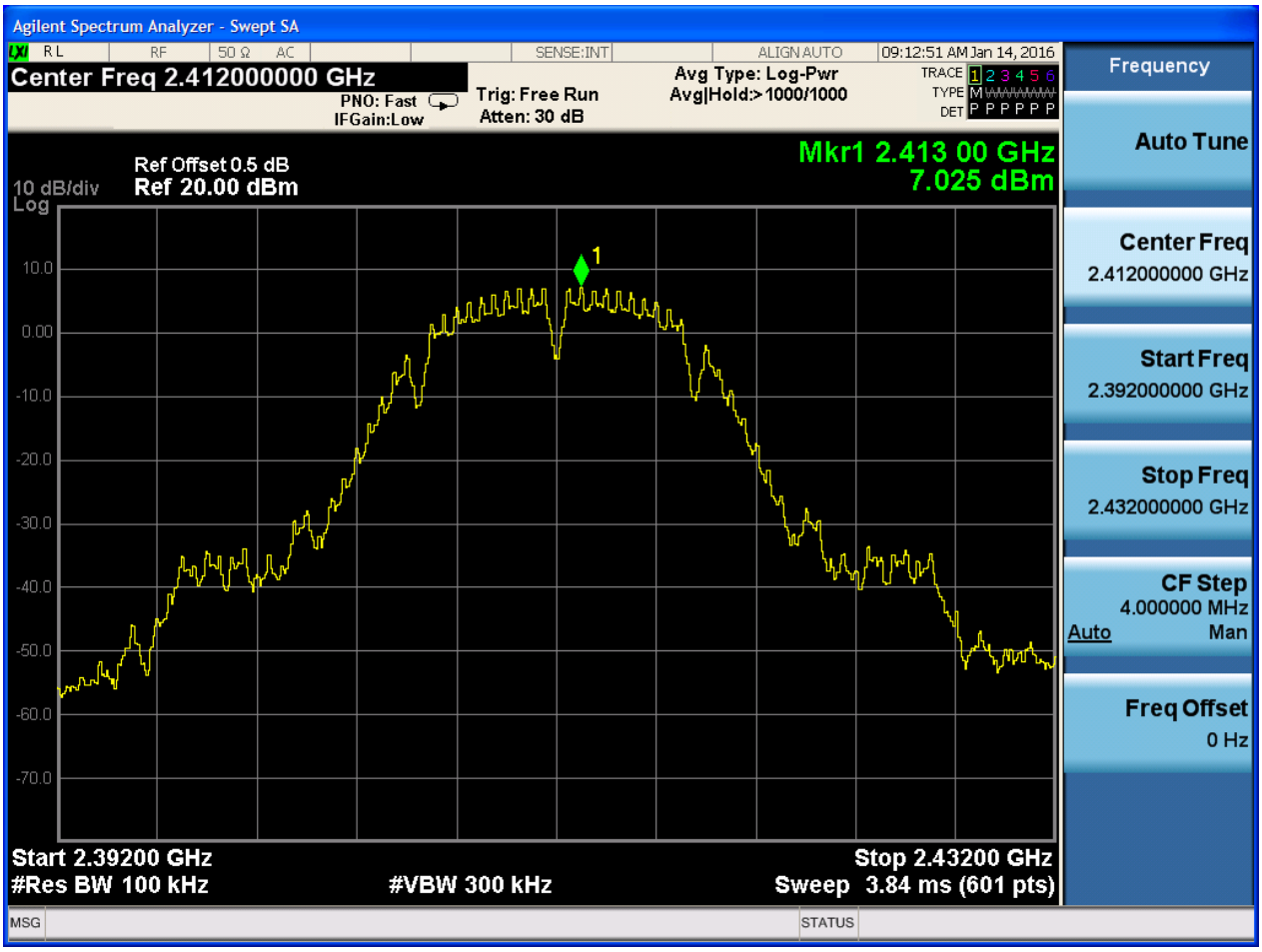
**Part I - Test Results**

| Test Mode | Test Channel | Frequency[MHz] | Ant | Pref[dBm] | Puw[dBm] | Verdict |
|---|---|---|---|---|---|---|
| 11B | L | 2412 | Ant 1 | 7.02 | <limit | pass |
| 11B | M | 2437 | Ant 1 | 7.93 | <limit | pass |
| 11B | H | 2462 | Ant 1 | 8.04 | <limit | pass |
| 11G | L | 2412 | Ant 1 | 4.46 | <limit | pass |
| 11G | M | 2437 | Ant 1 | 5.08 | <limit | pass |
| 11G | H | 2462 | Ant 1 | 5.18 | <limit | pass |
| 11N20 | L | 2412 | Ant 1 | 3.99 | <limit | pass |
| 11N20 | M | 2437 | Ant 1 | 4.75 | <limit | pass |
| 11N20 | H | 2462 | Ant 1 | 4.29 | <limit | pass |
| 11N40 | L | 2422 | Ant 1 | 1.32 | <limit | pass |
| 11N40 | M | 2437 | Ant 1 | 1.36 | <limit | pass |
| 11N40 | H | 2452 | Ant 1 | 0.31 | <limit | pass |

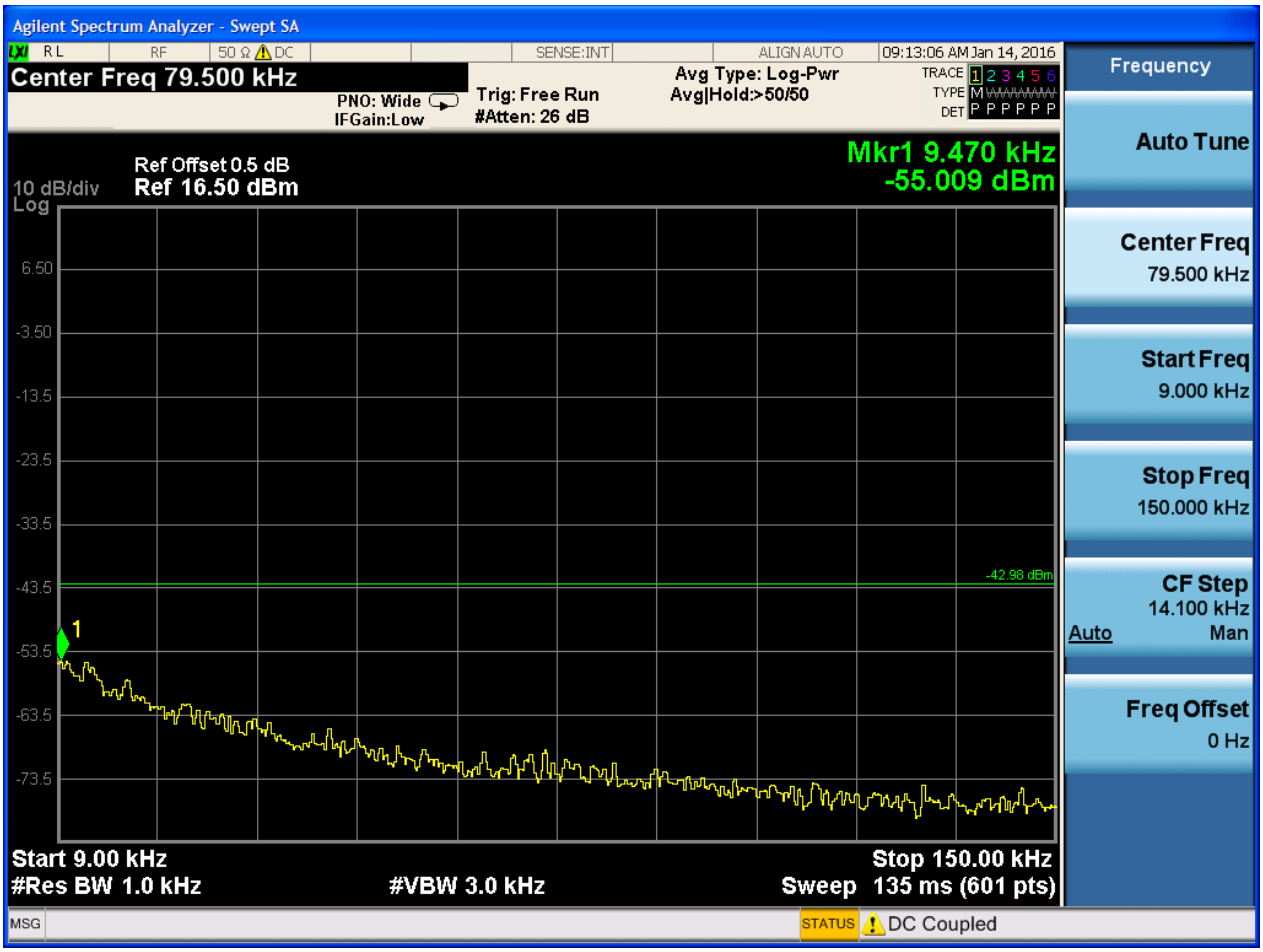
**Part II - Test Plots**

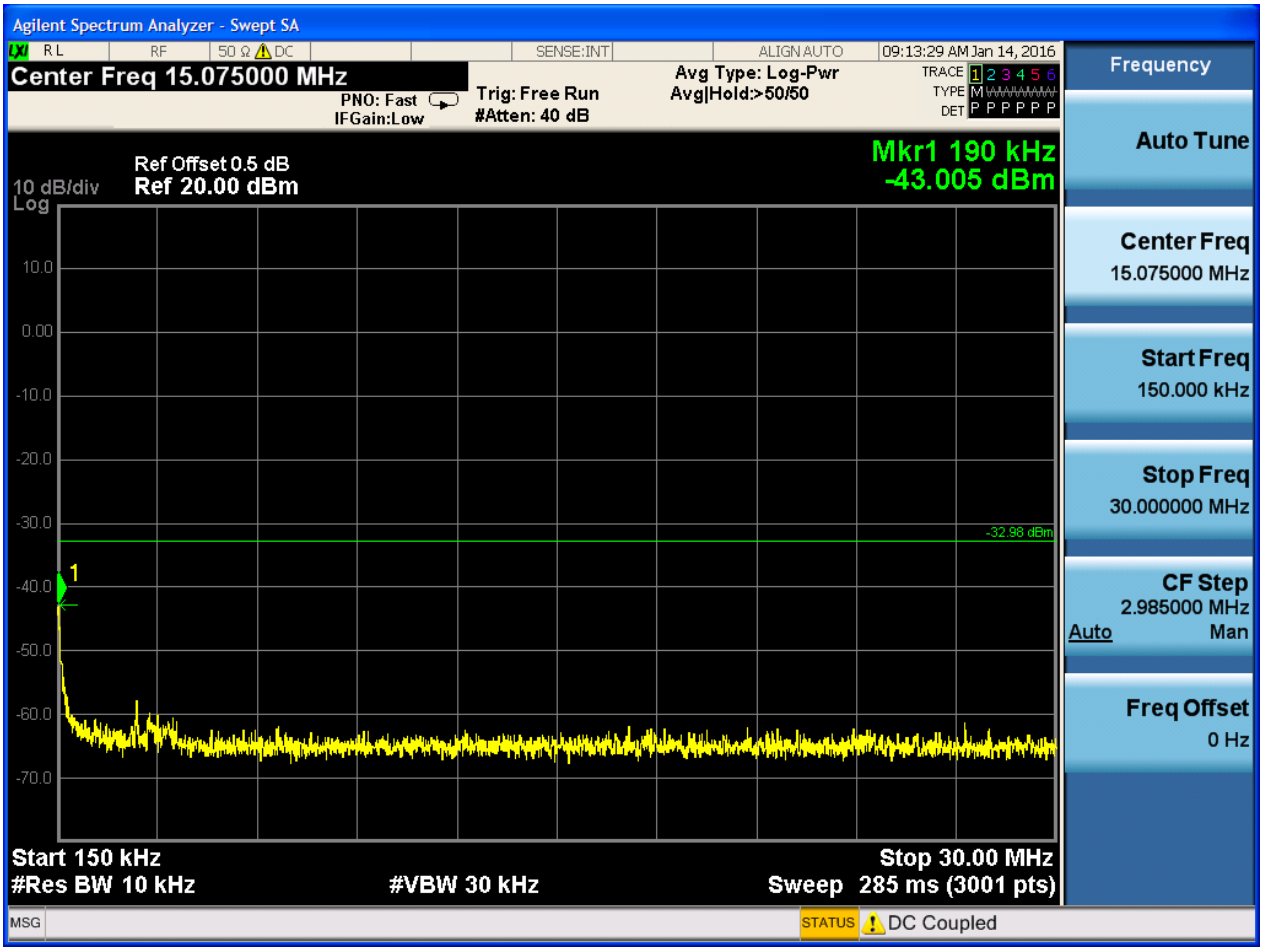
**2.1 11B_L@Ant 1**

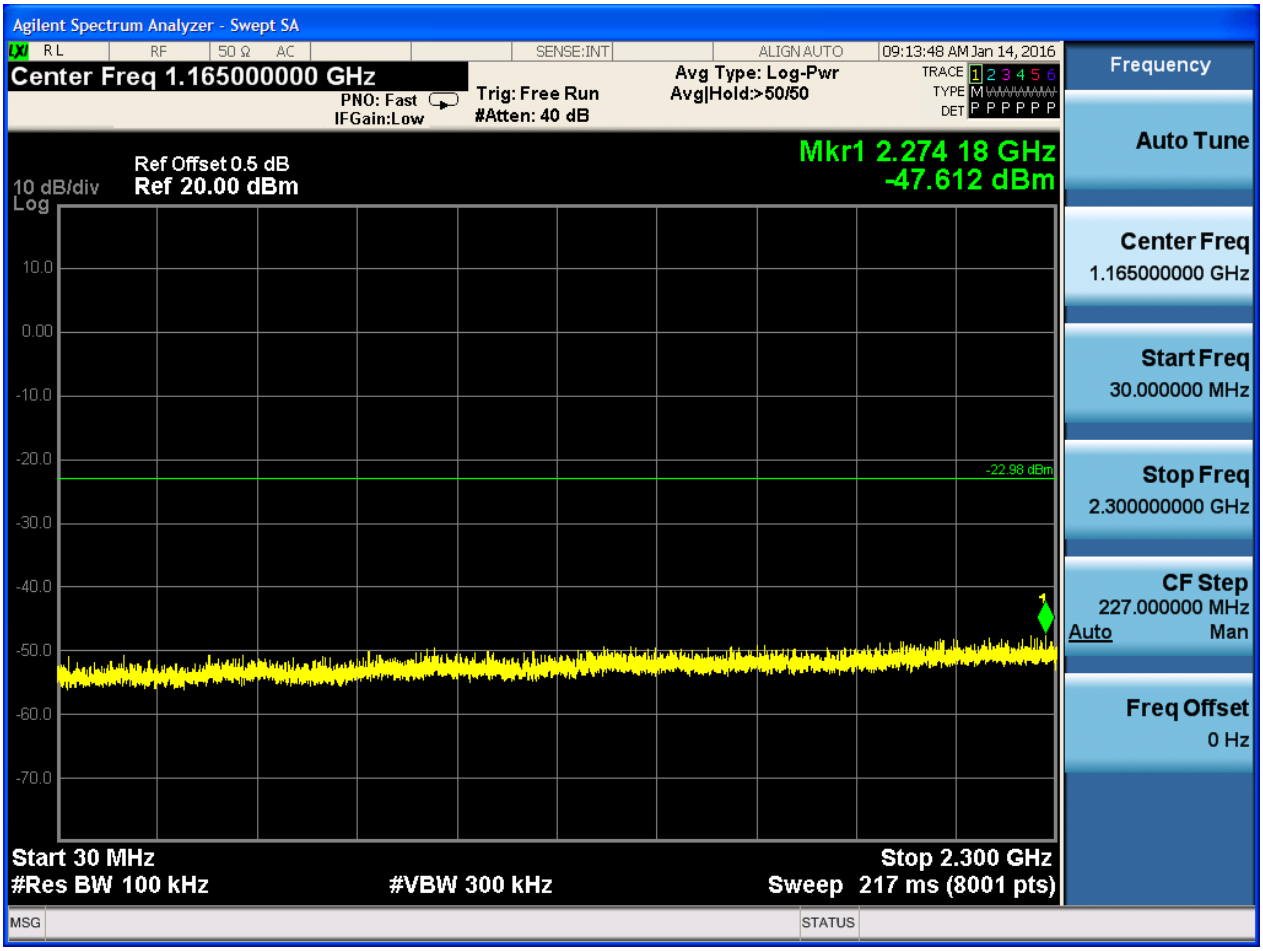
**Pref:**

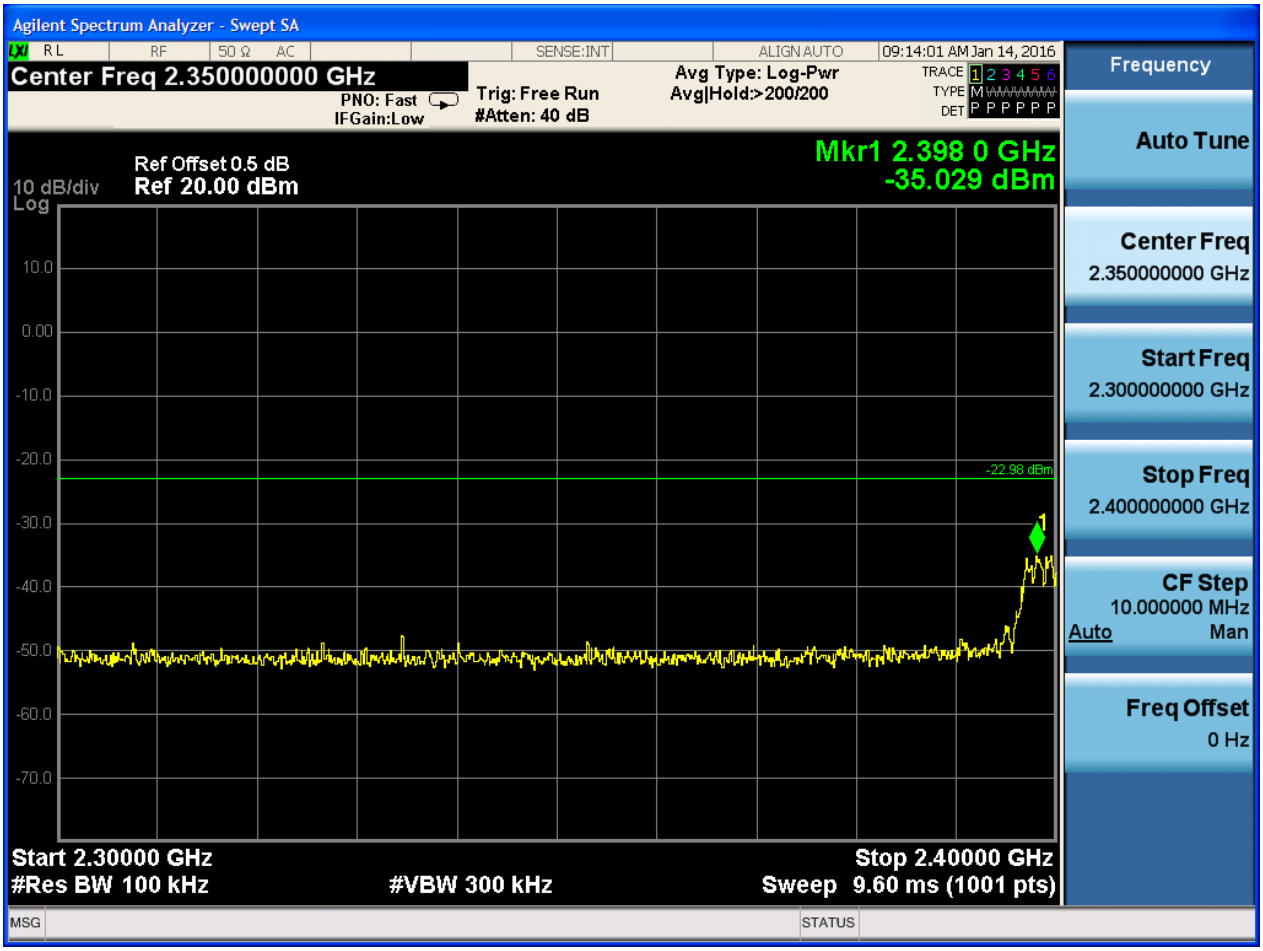


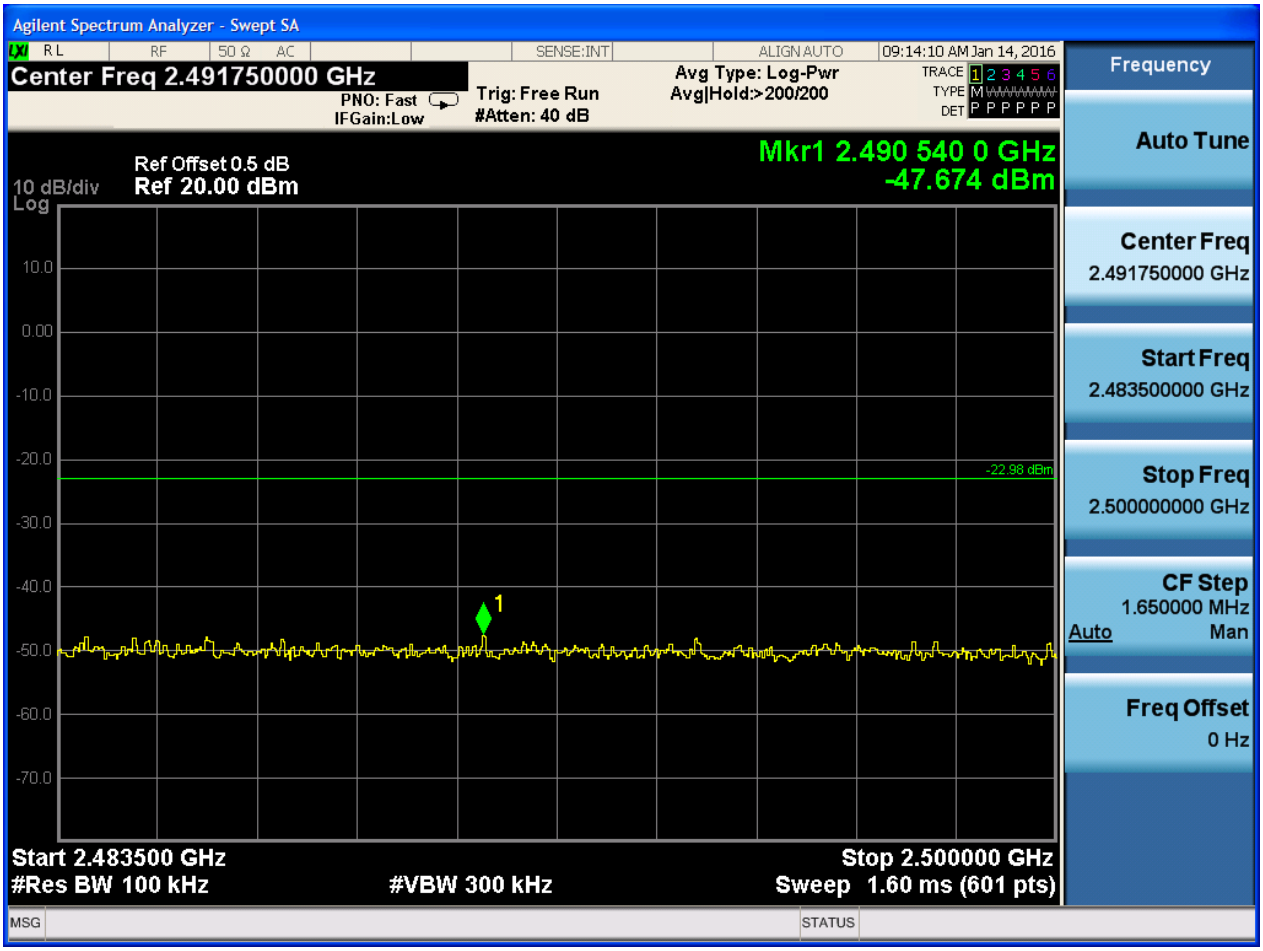
**Puw:**

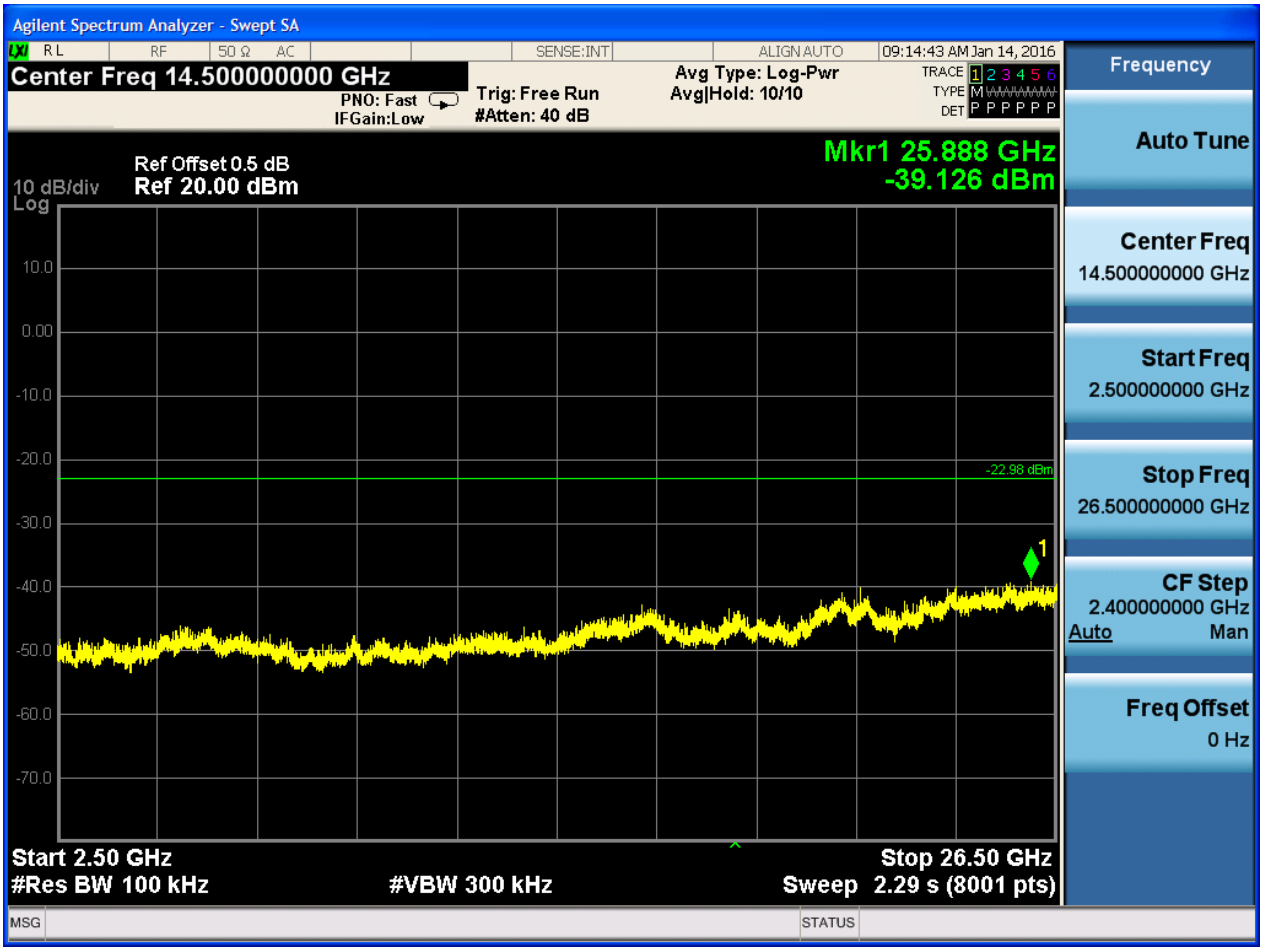






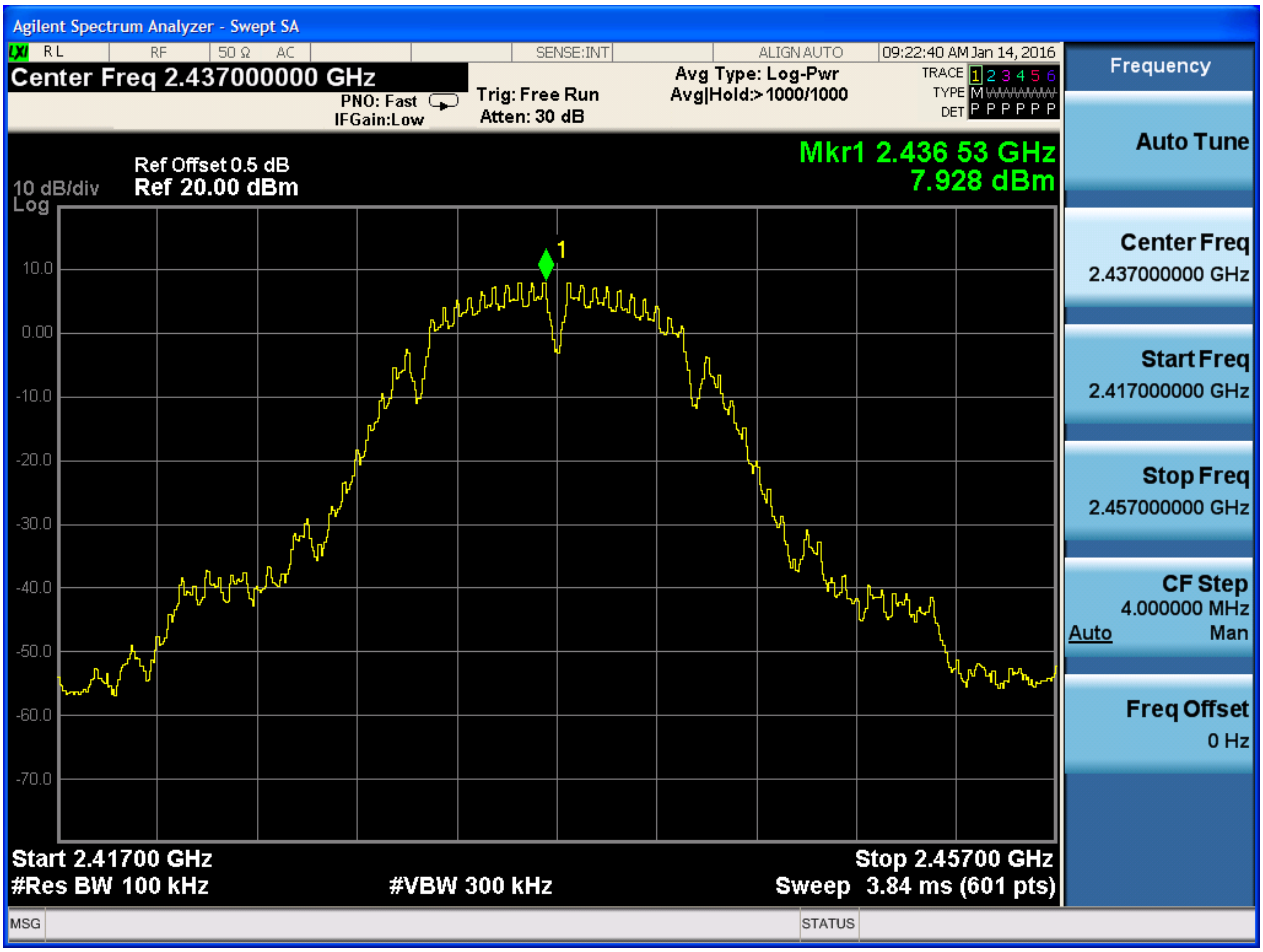




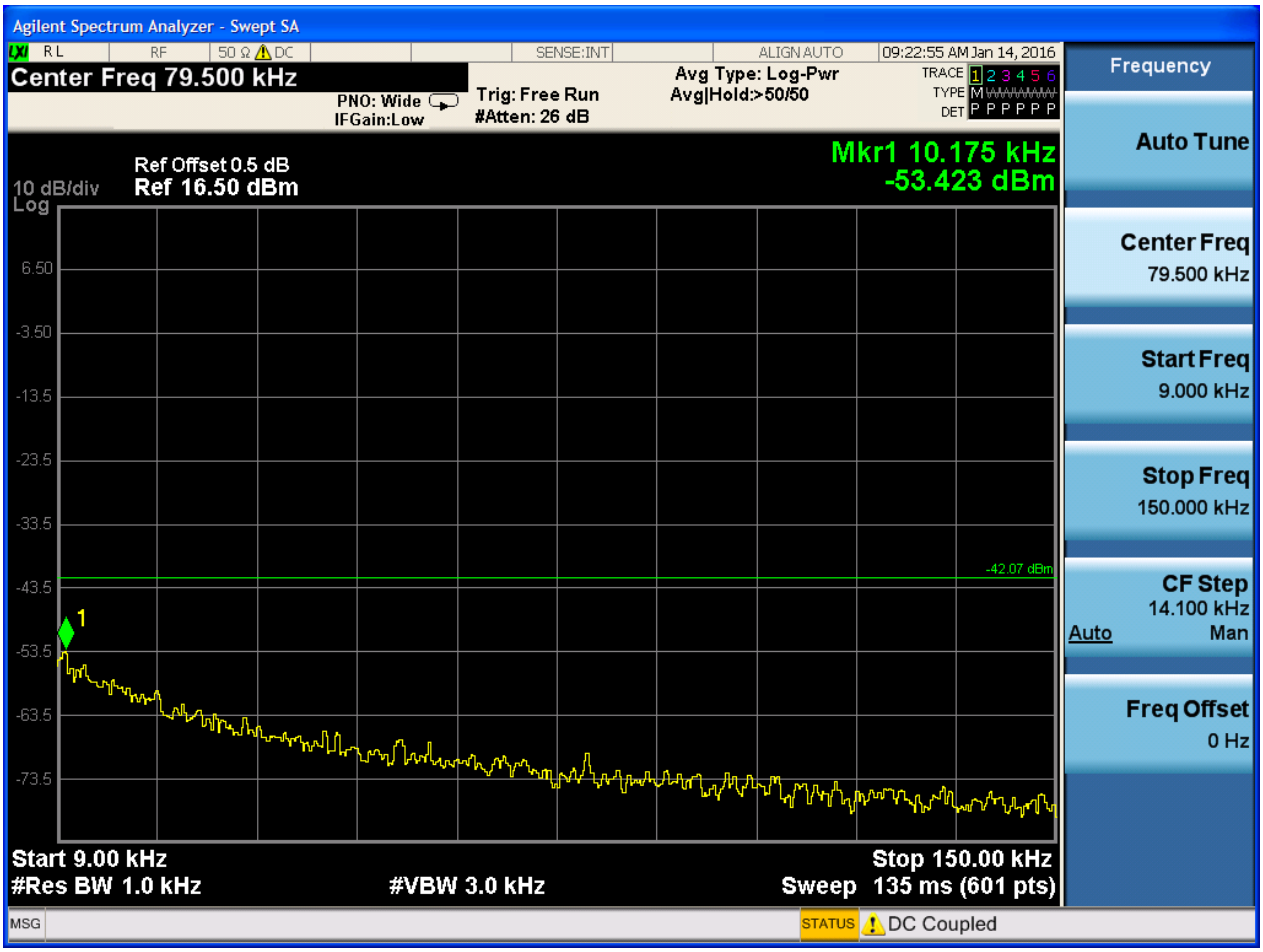


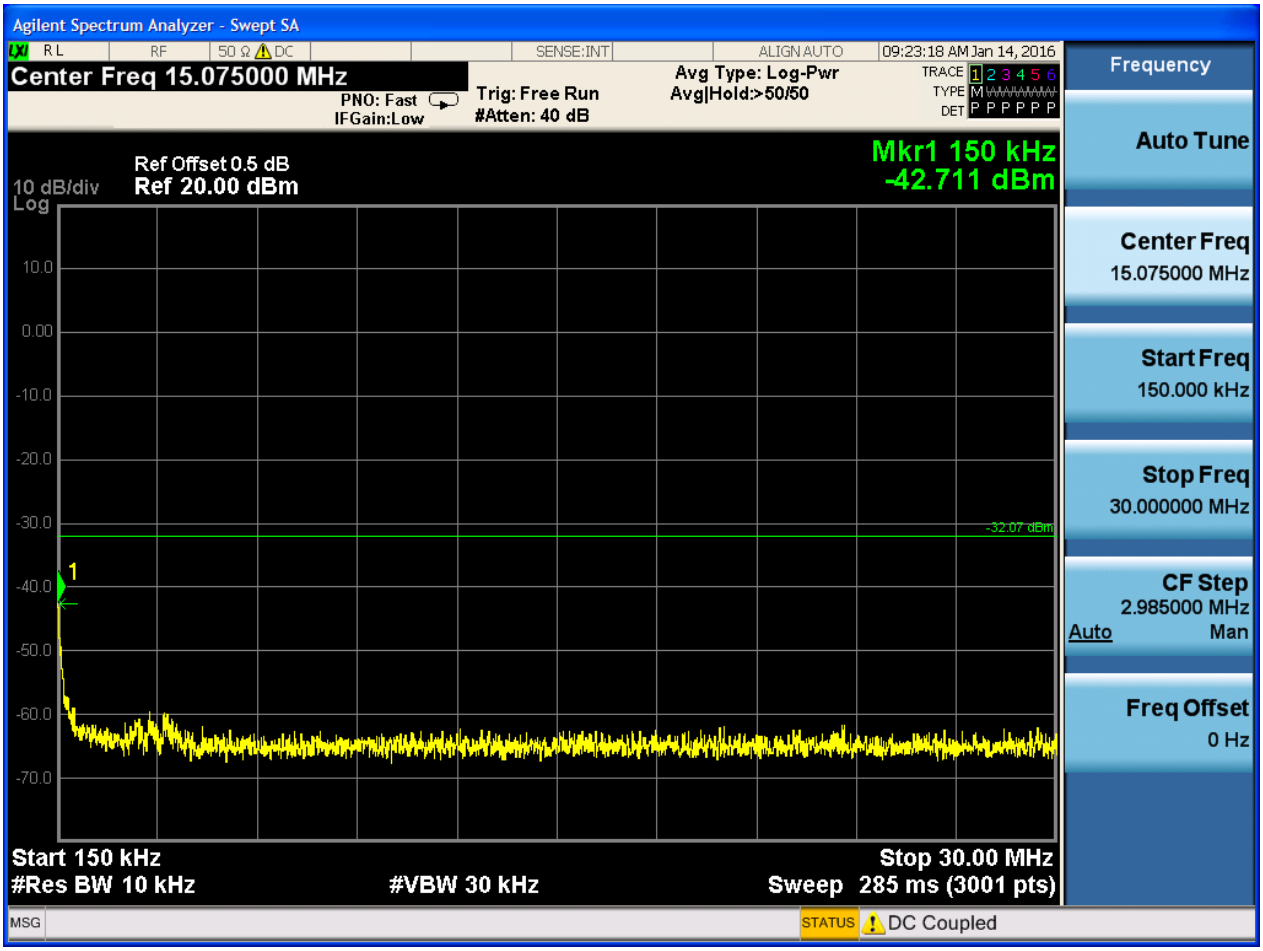
### 2.3 11B_M@Ant 1

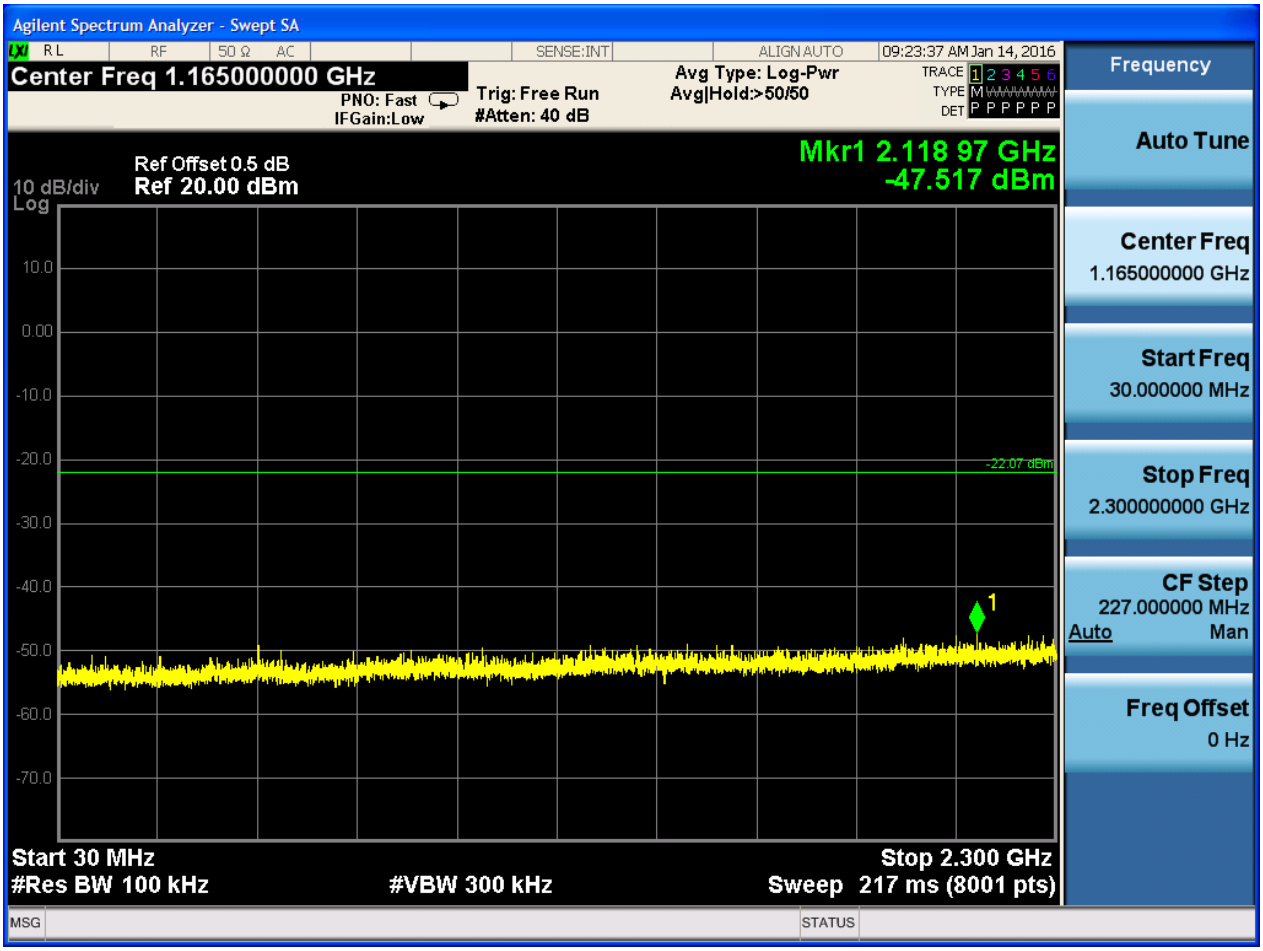
**Pref:**

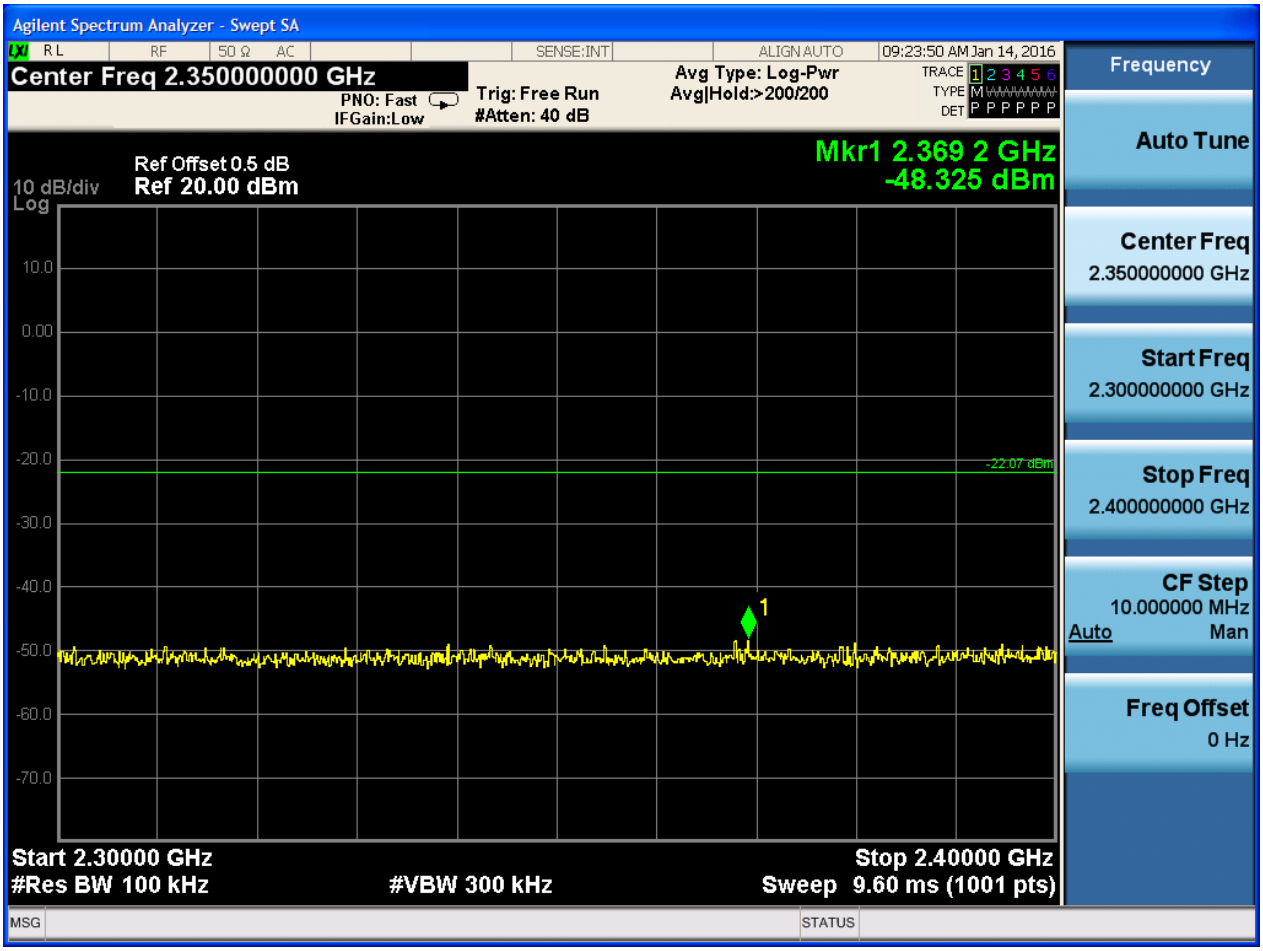


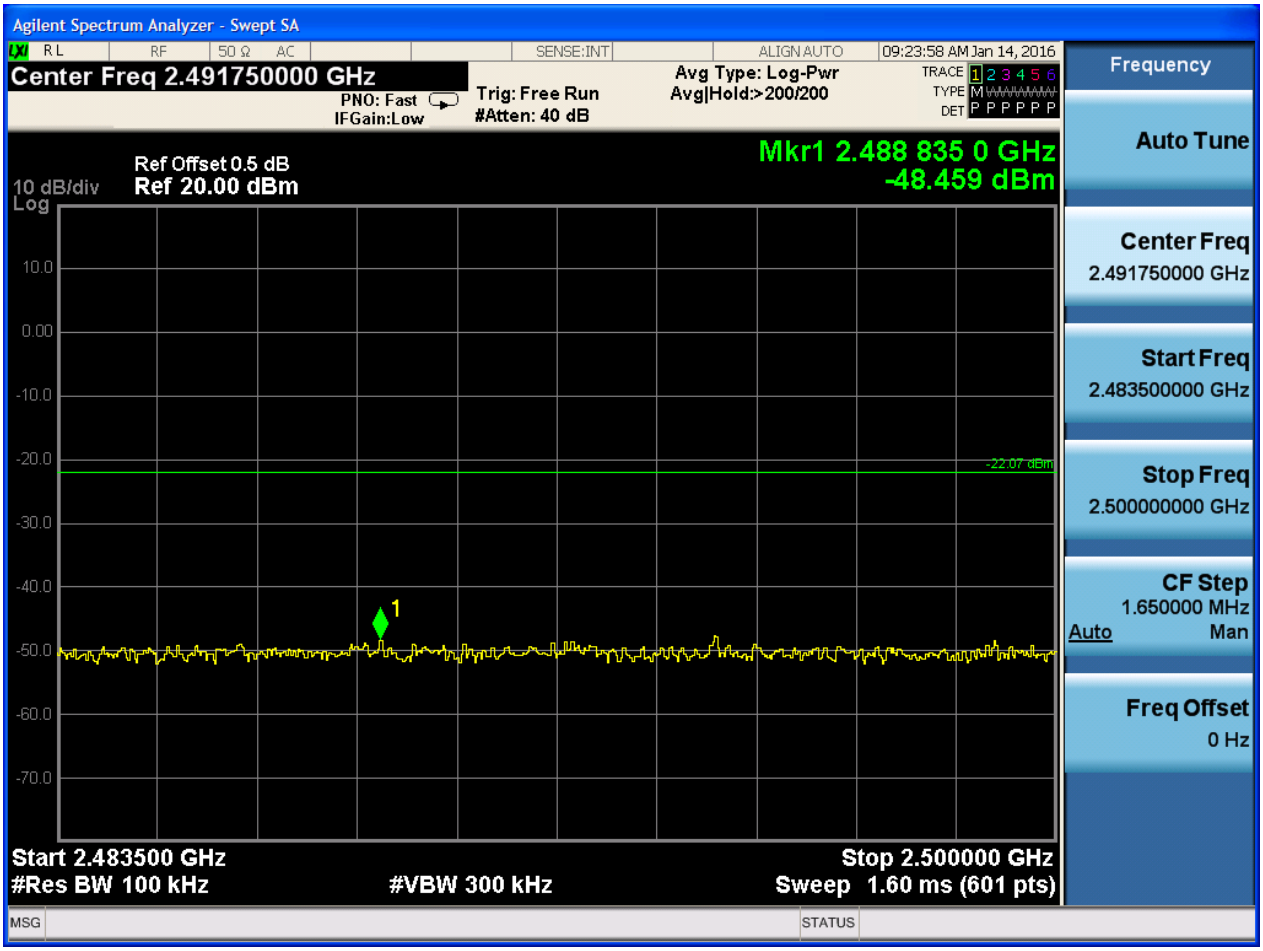
**Puw:**

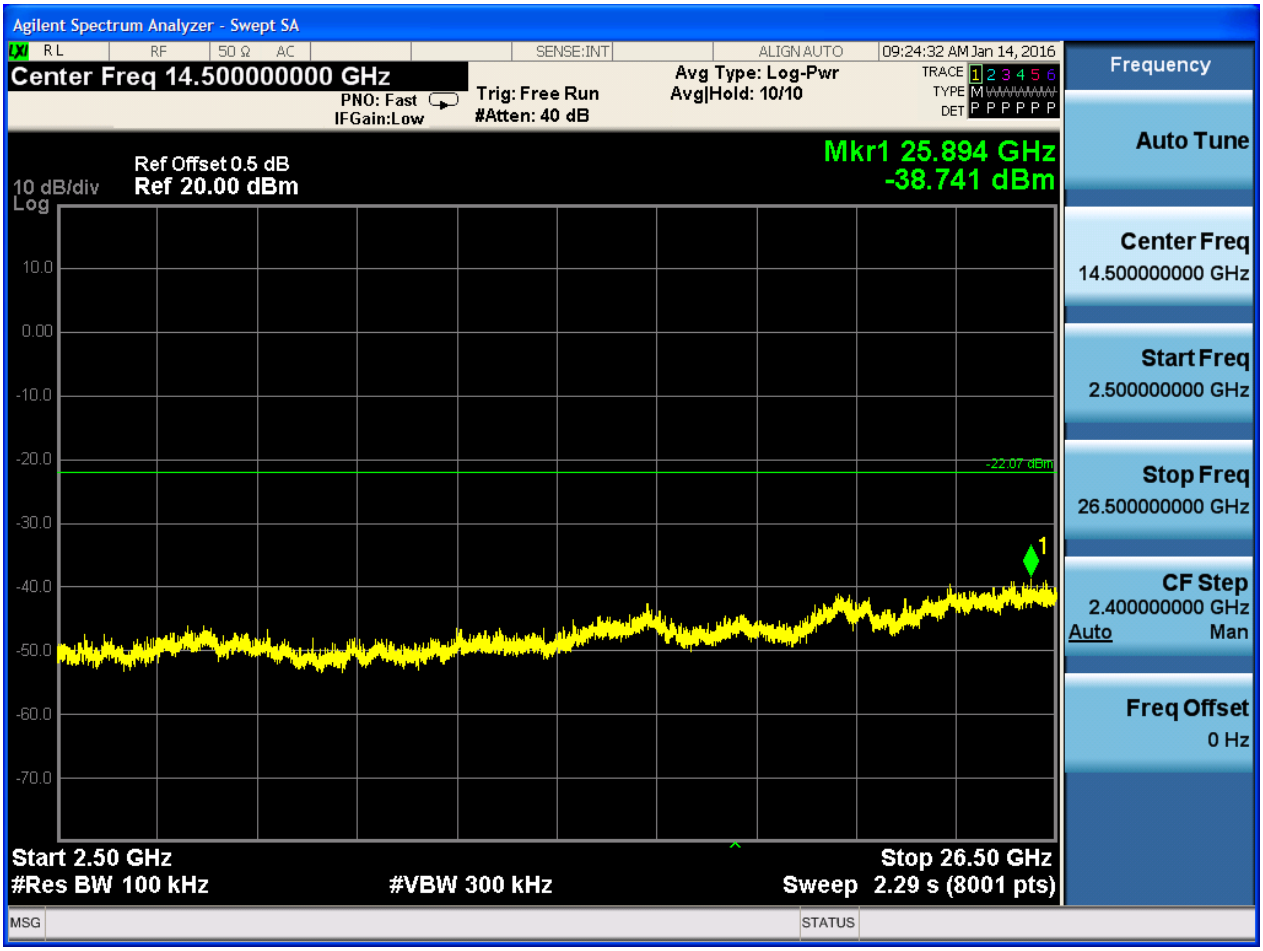






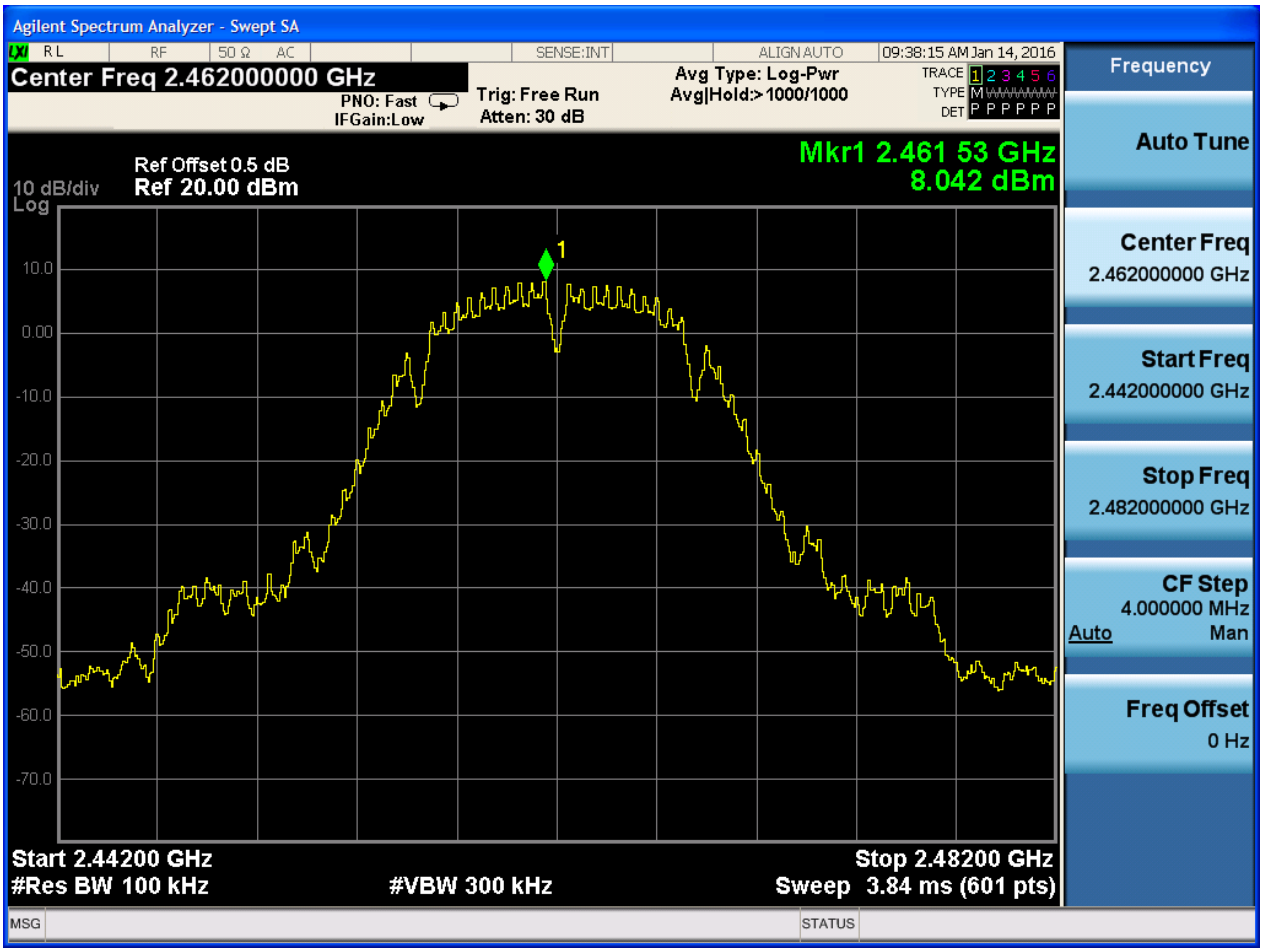




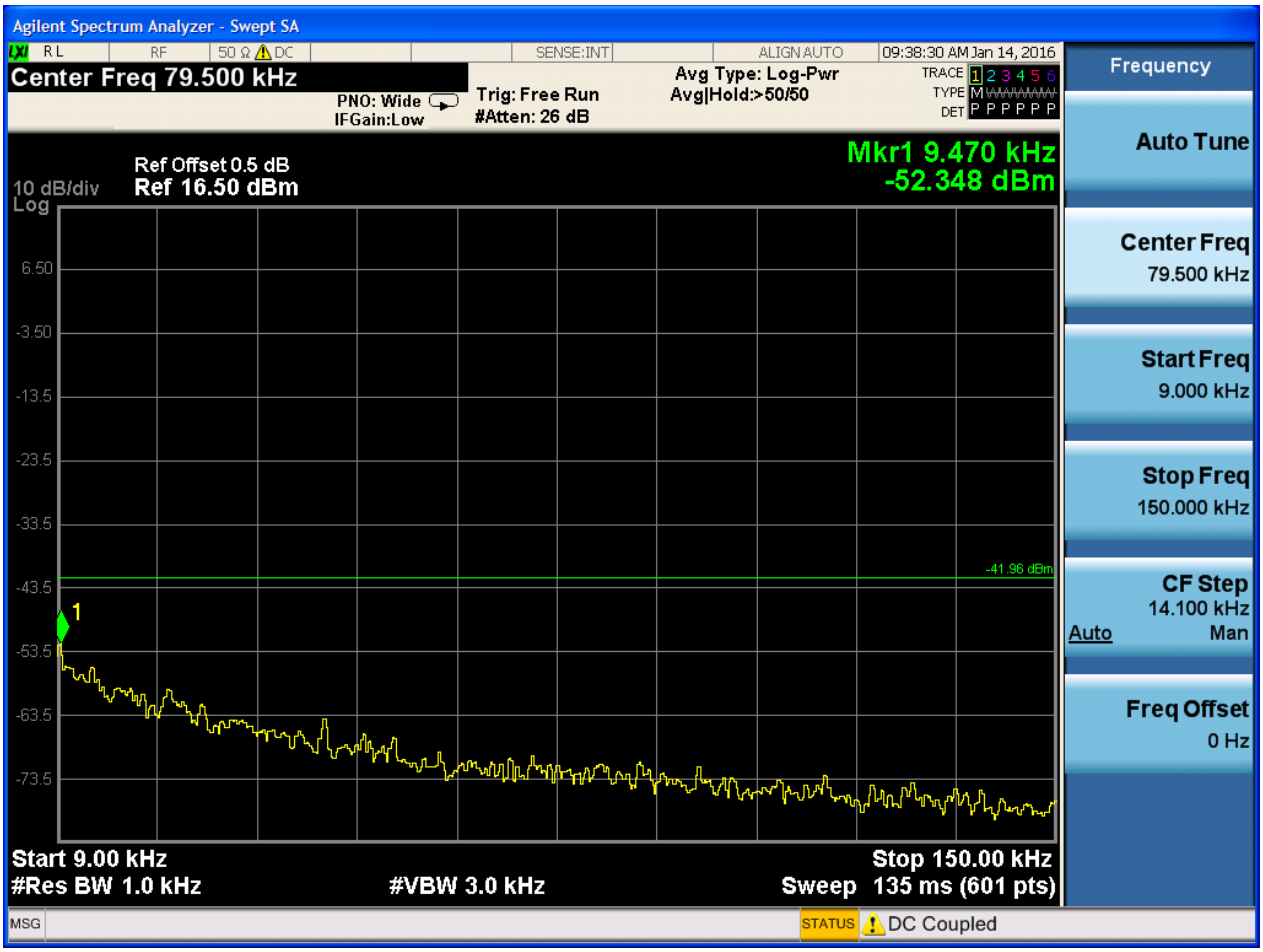


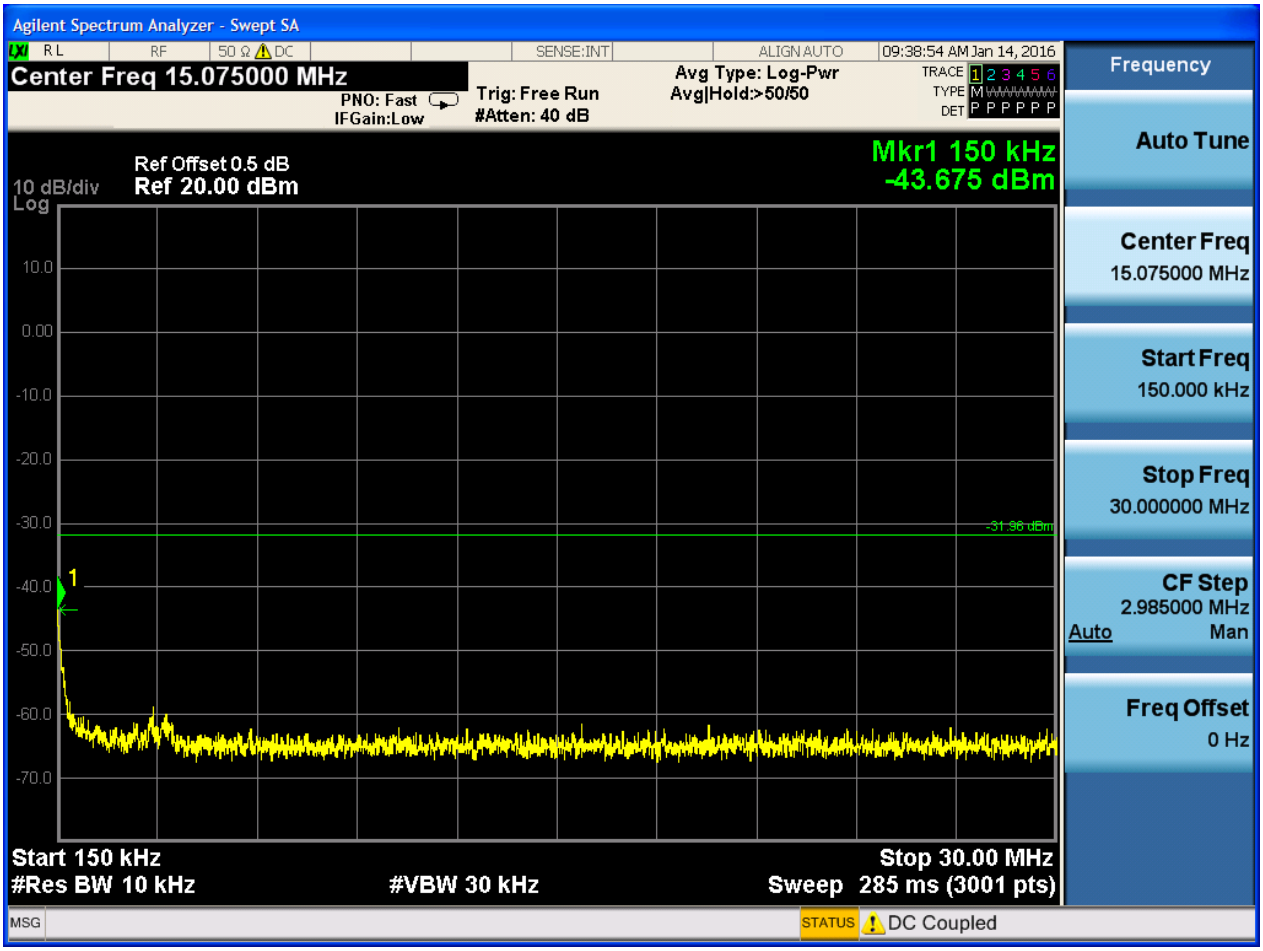
**2.5 11B_H@Ant 1**

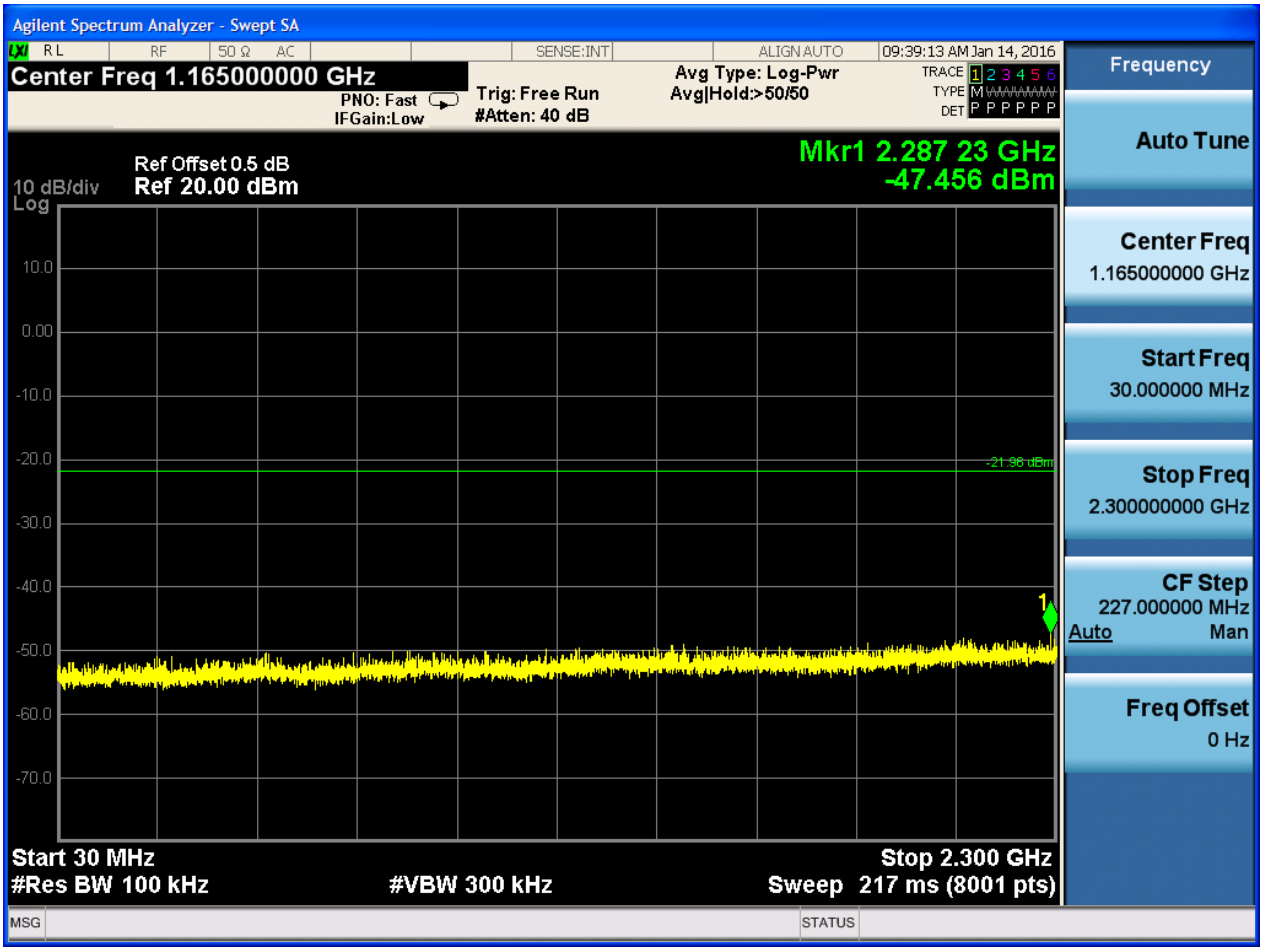
**Pref:**

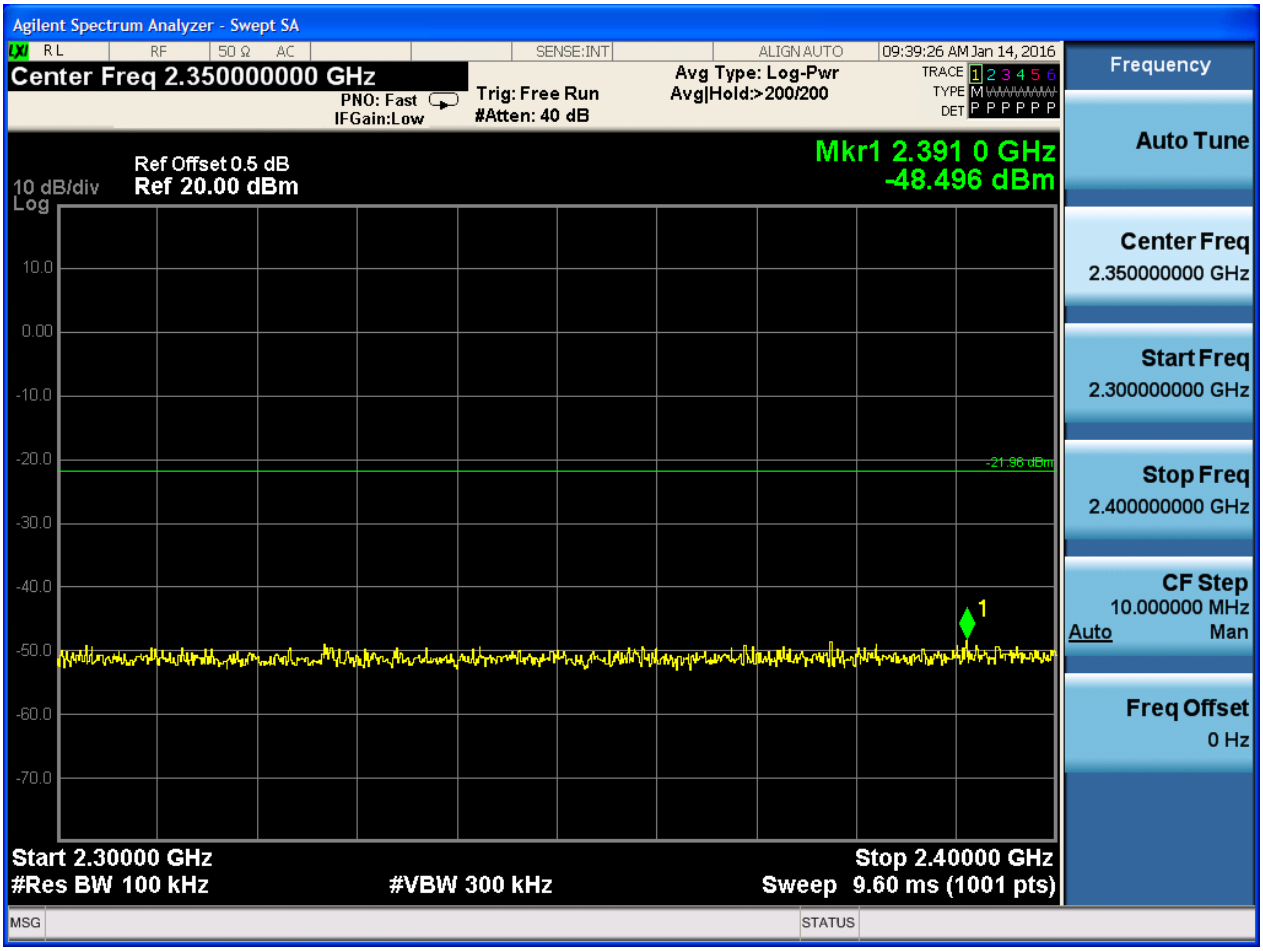


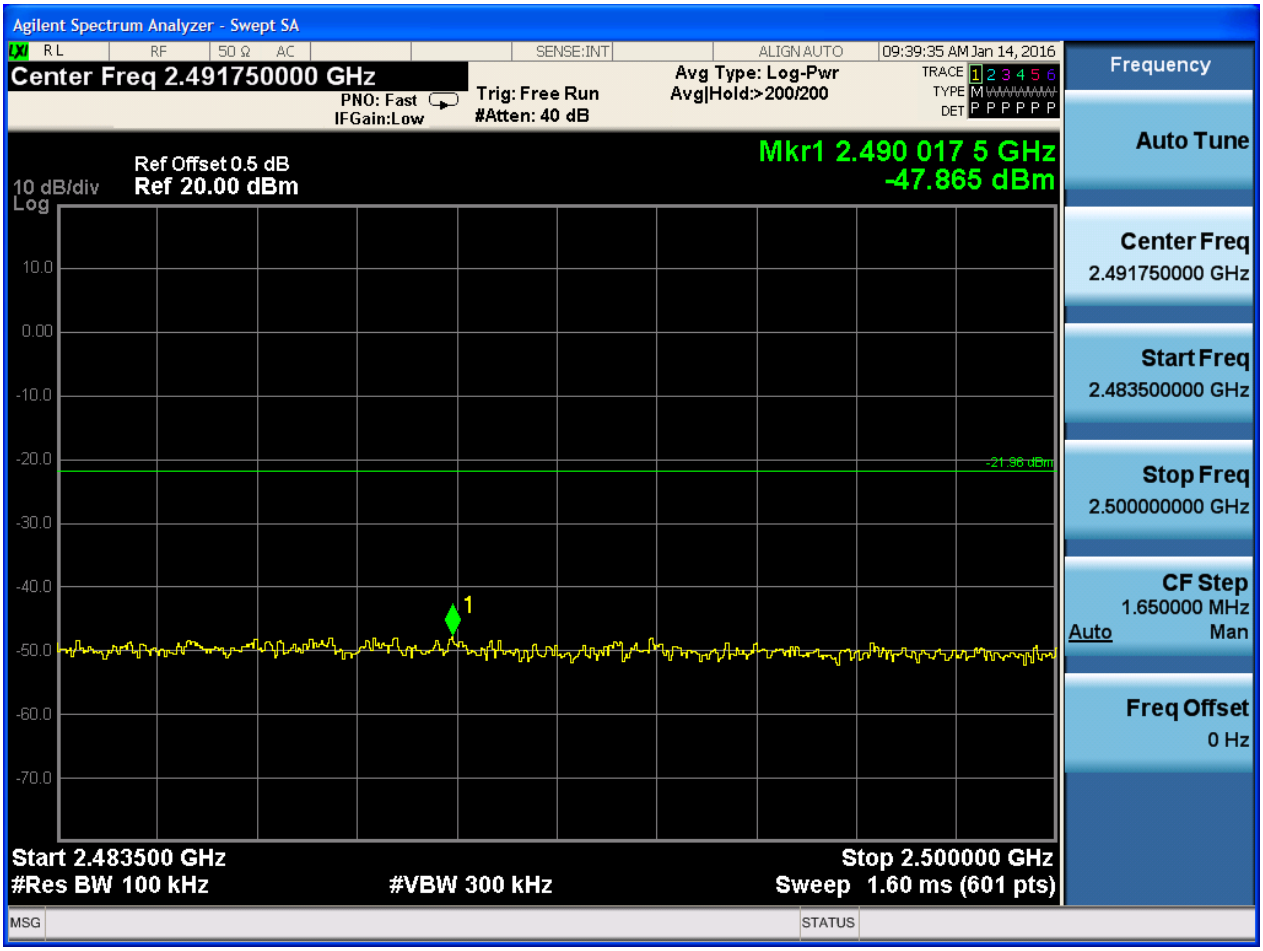
**Puw:**

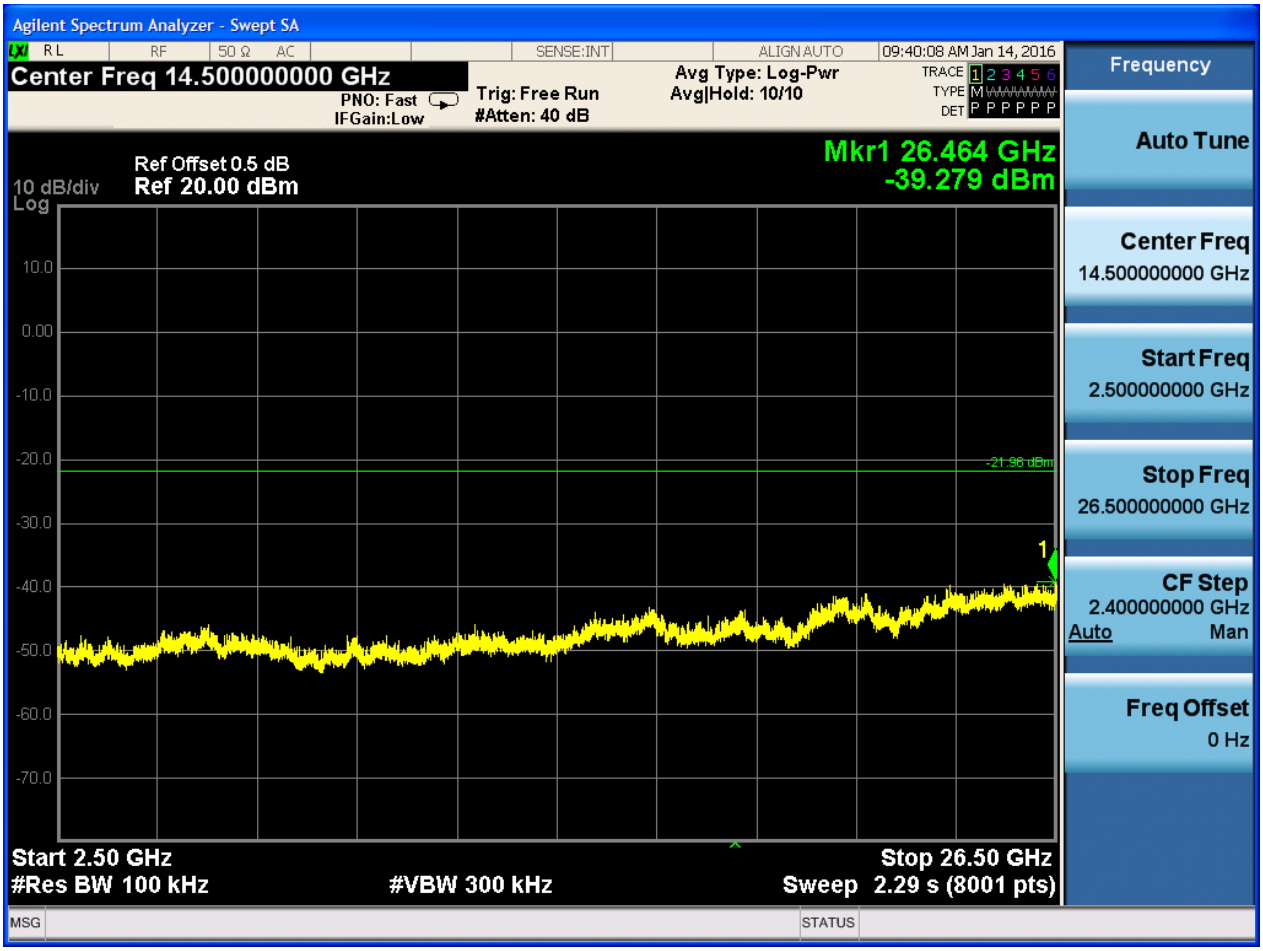






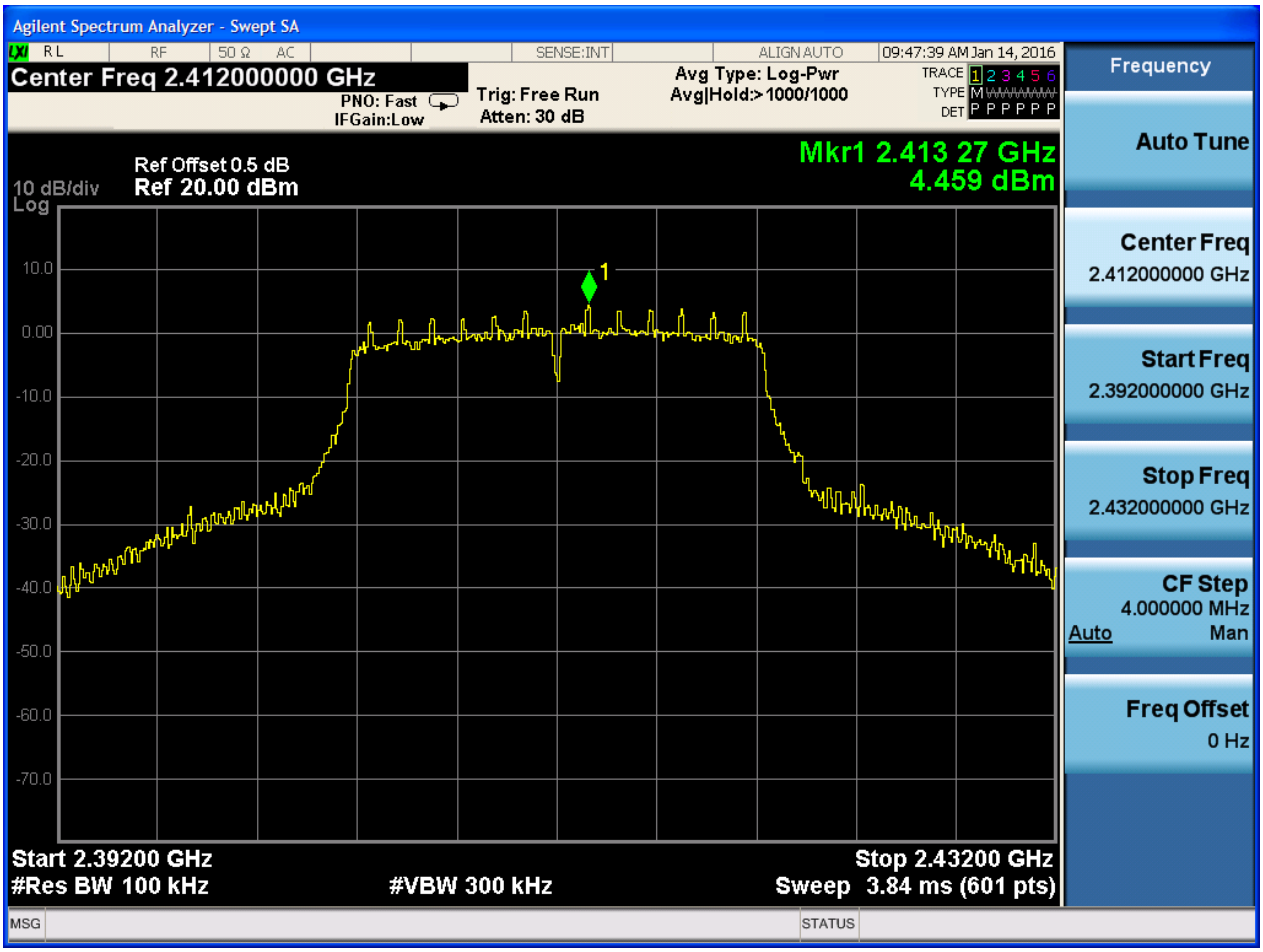




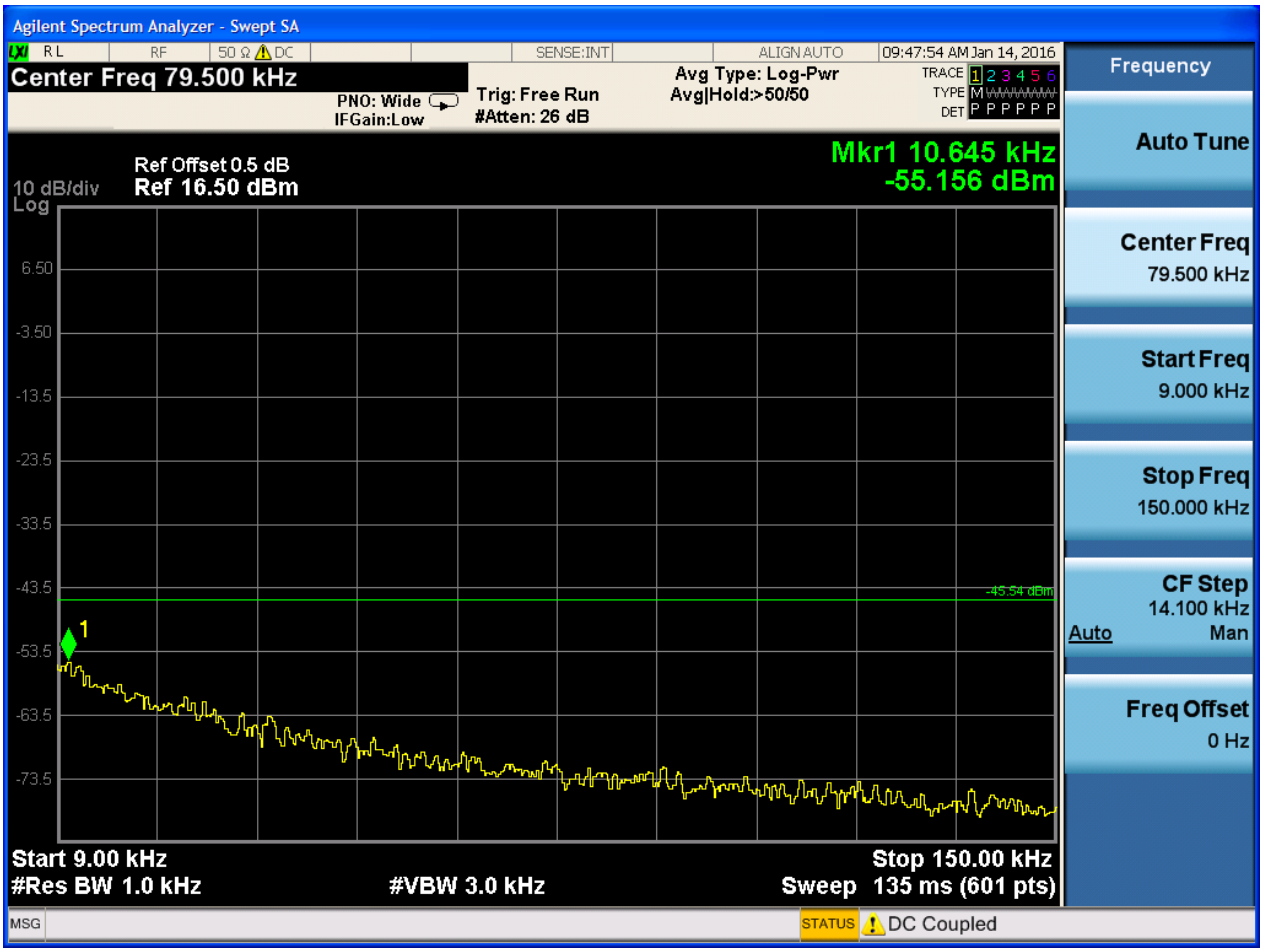


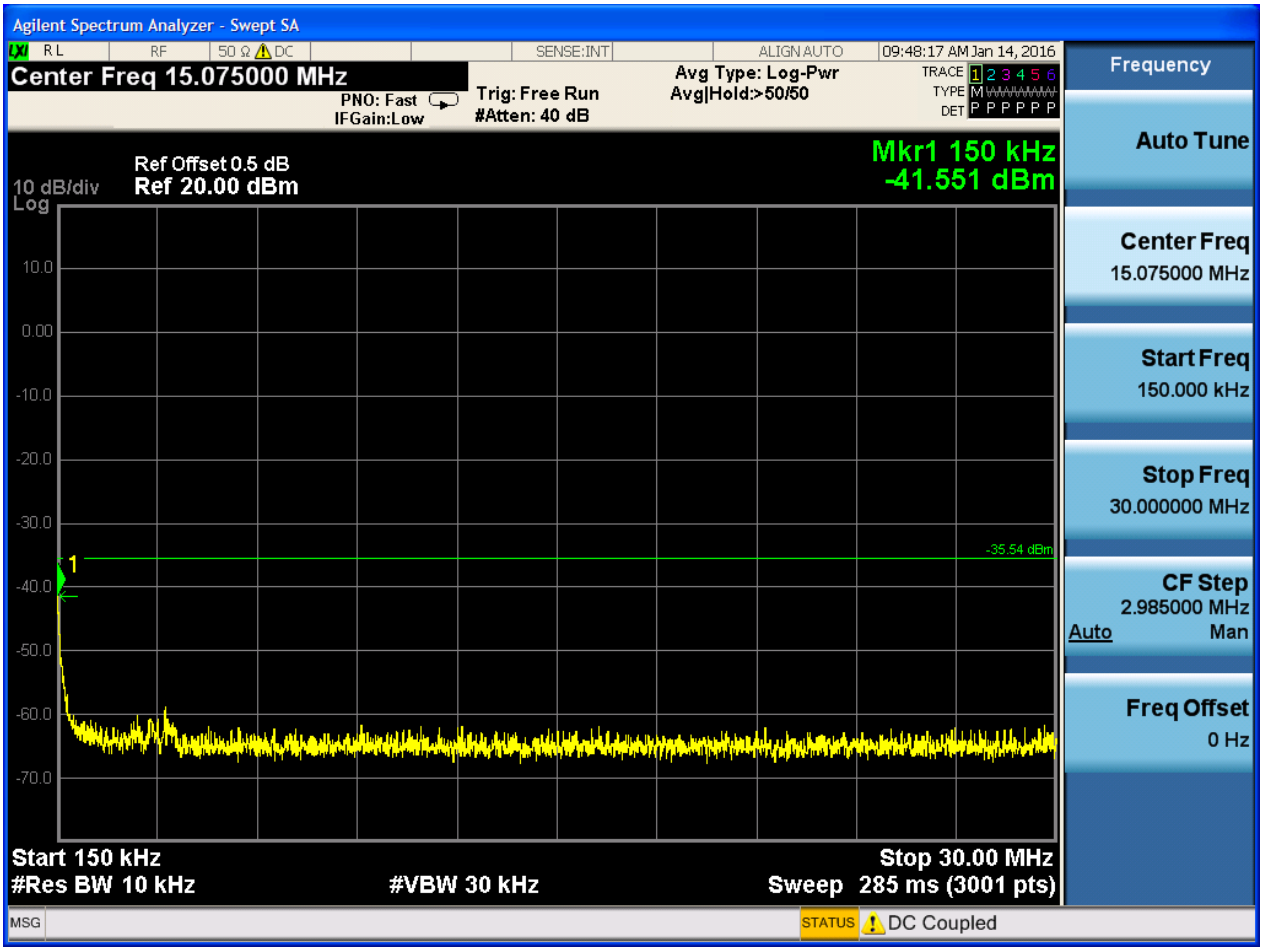
**2.7 11G_L@Ant 1**

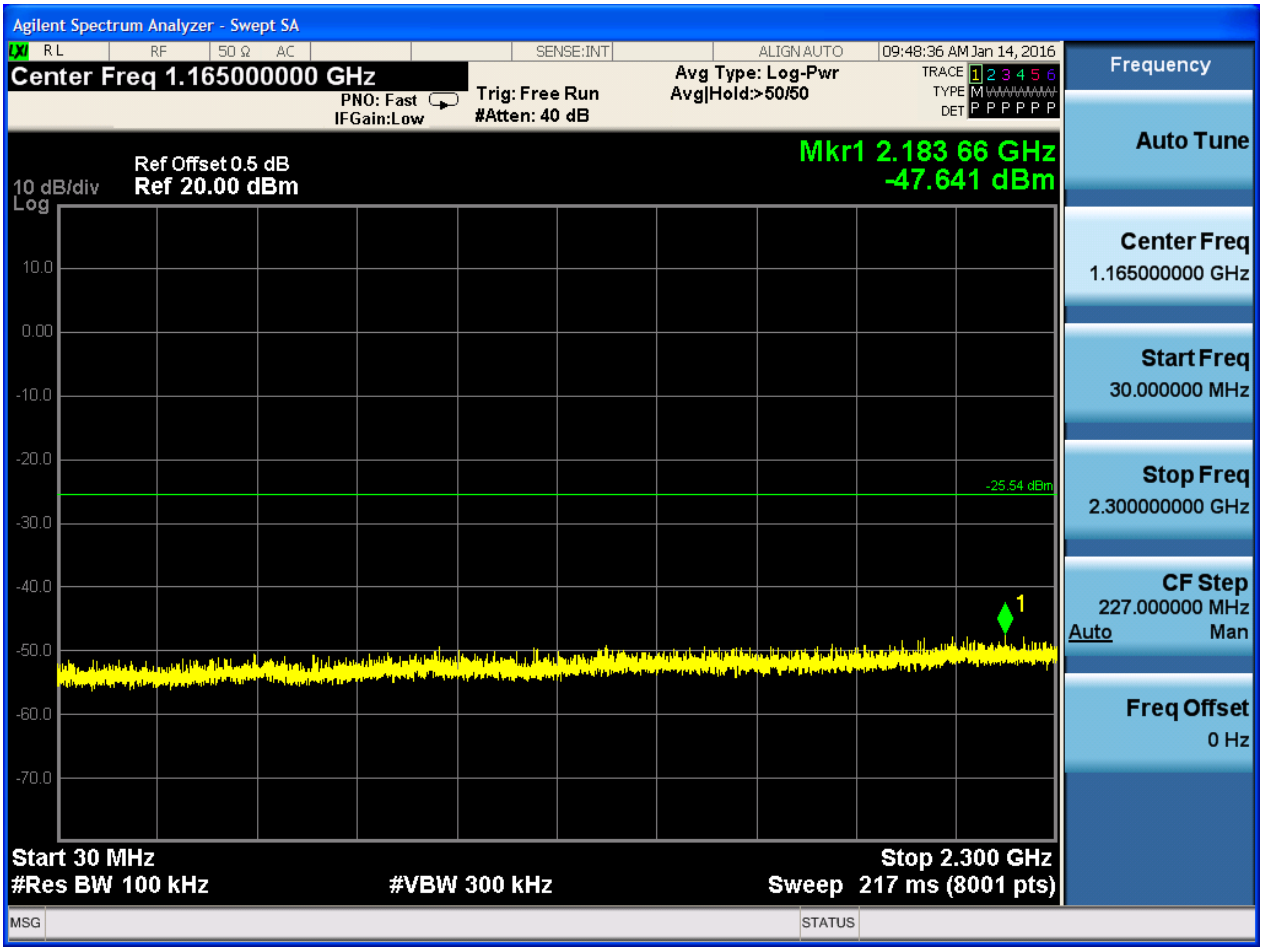
**Pref:**

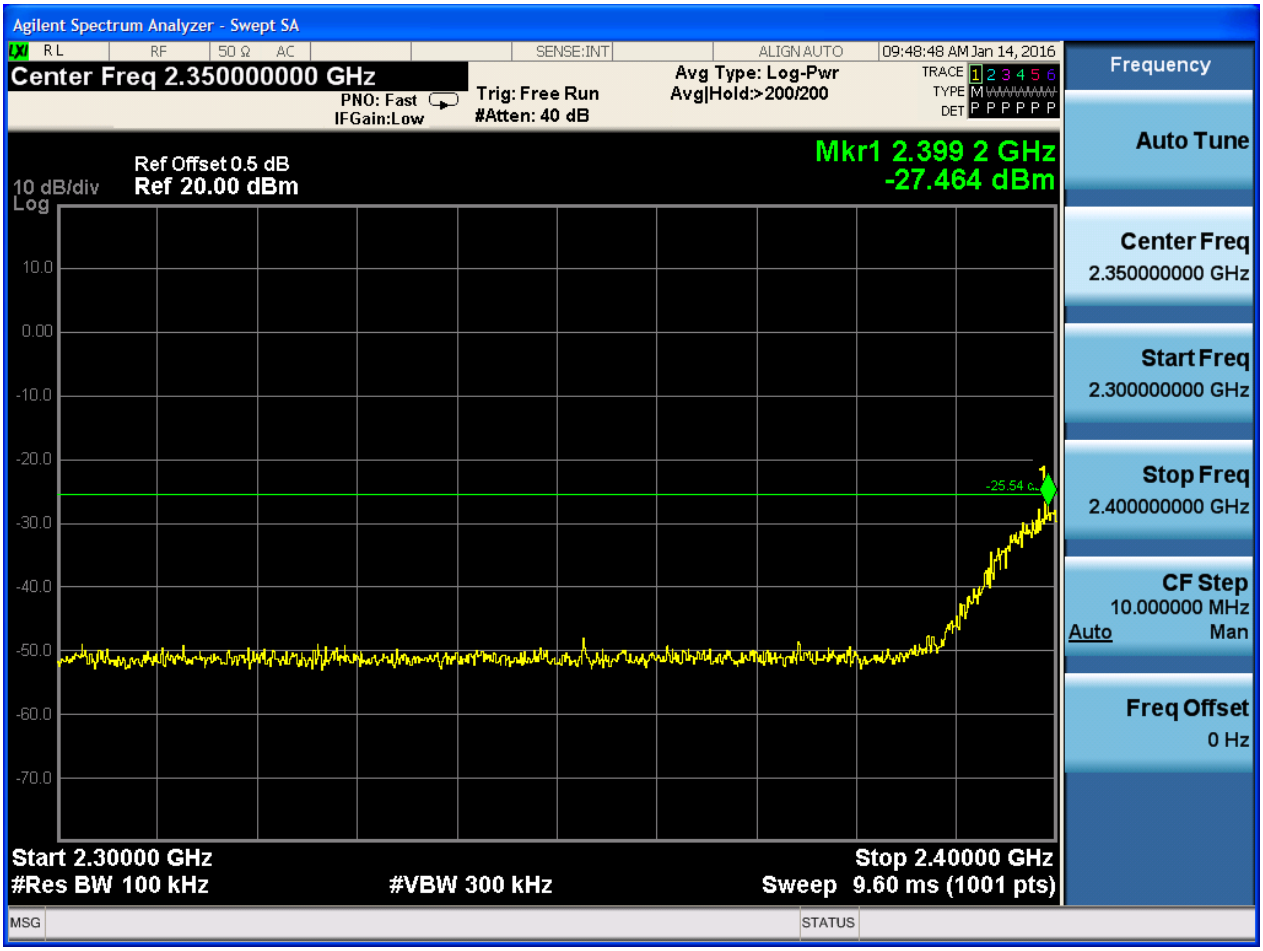


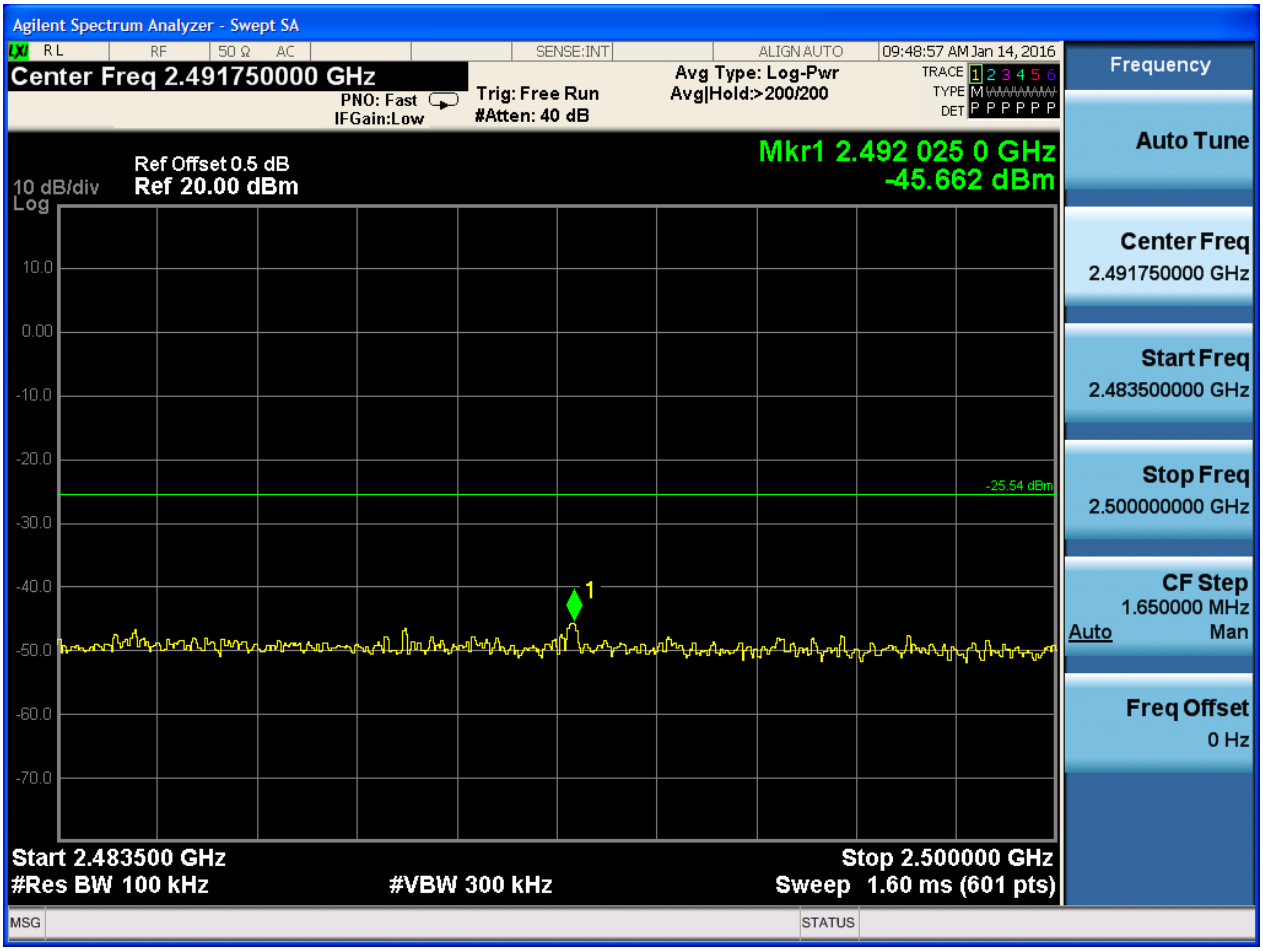
**Puw:**

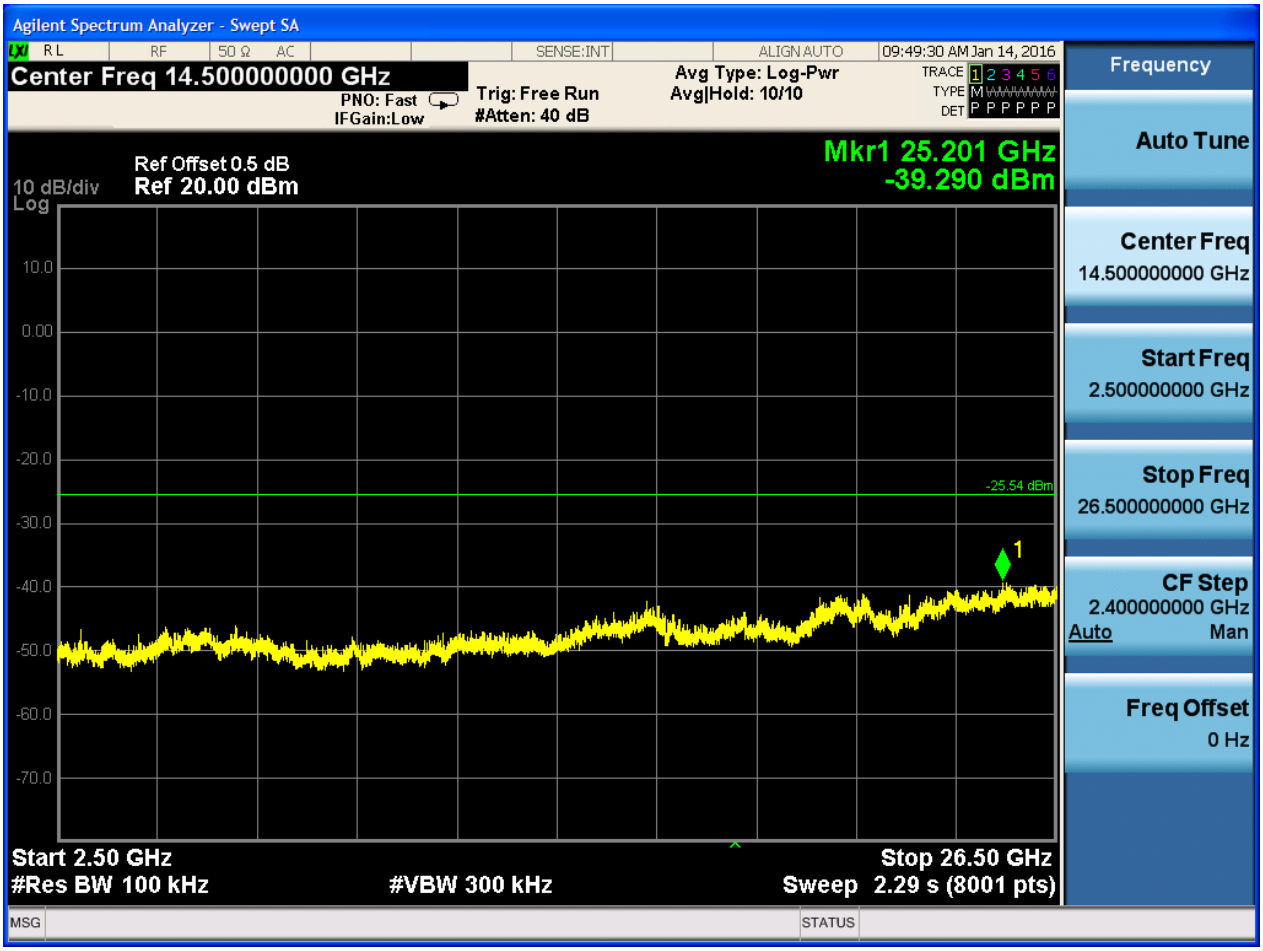






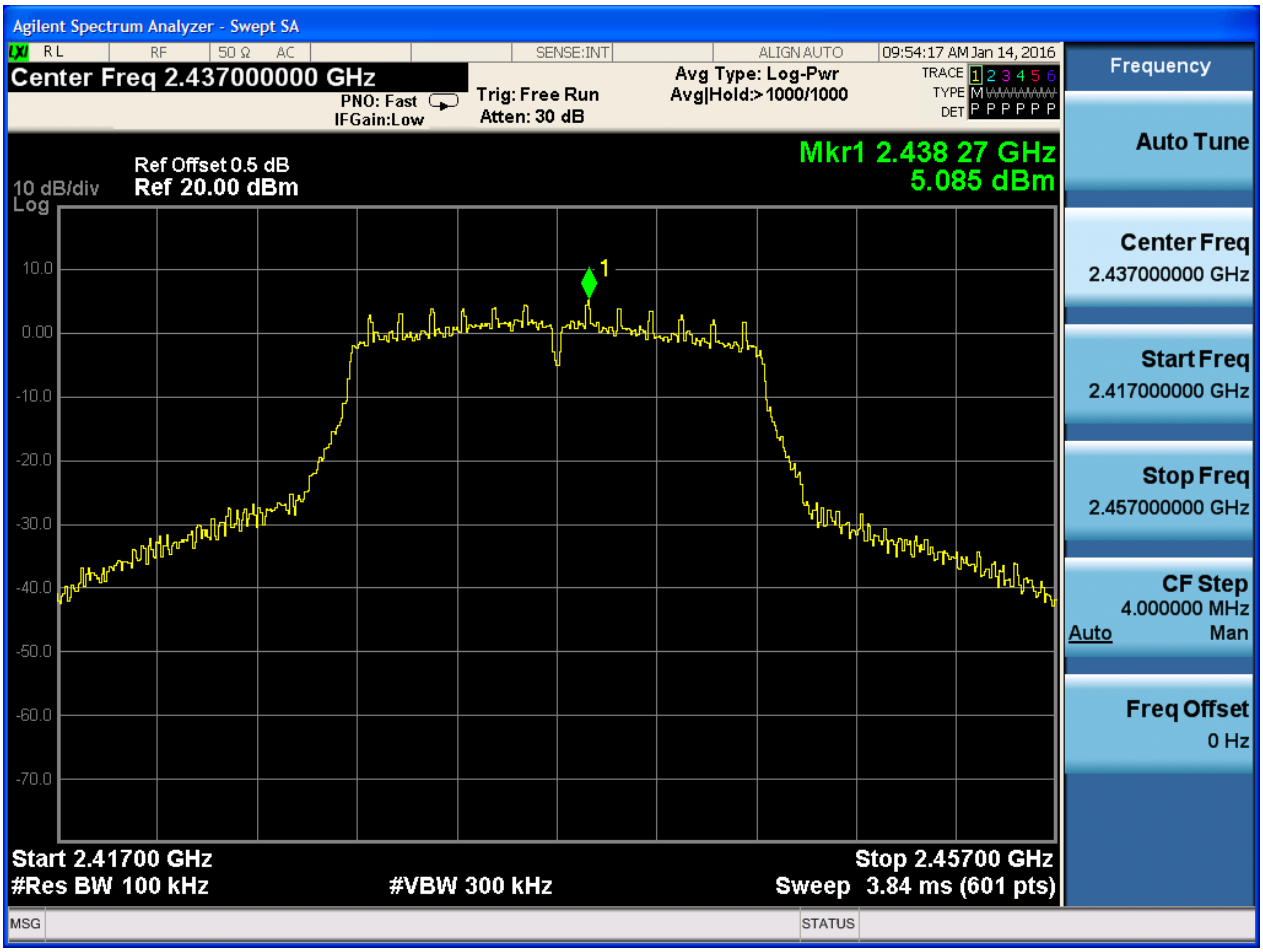




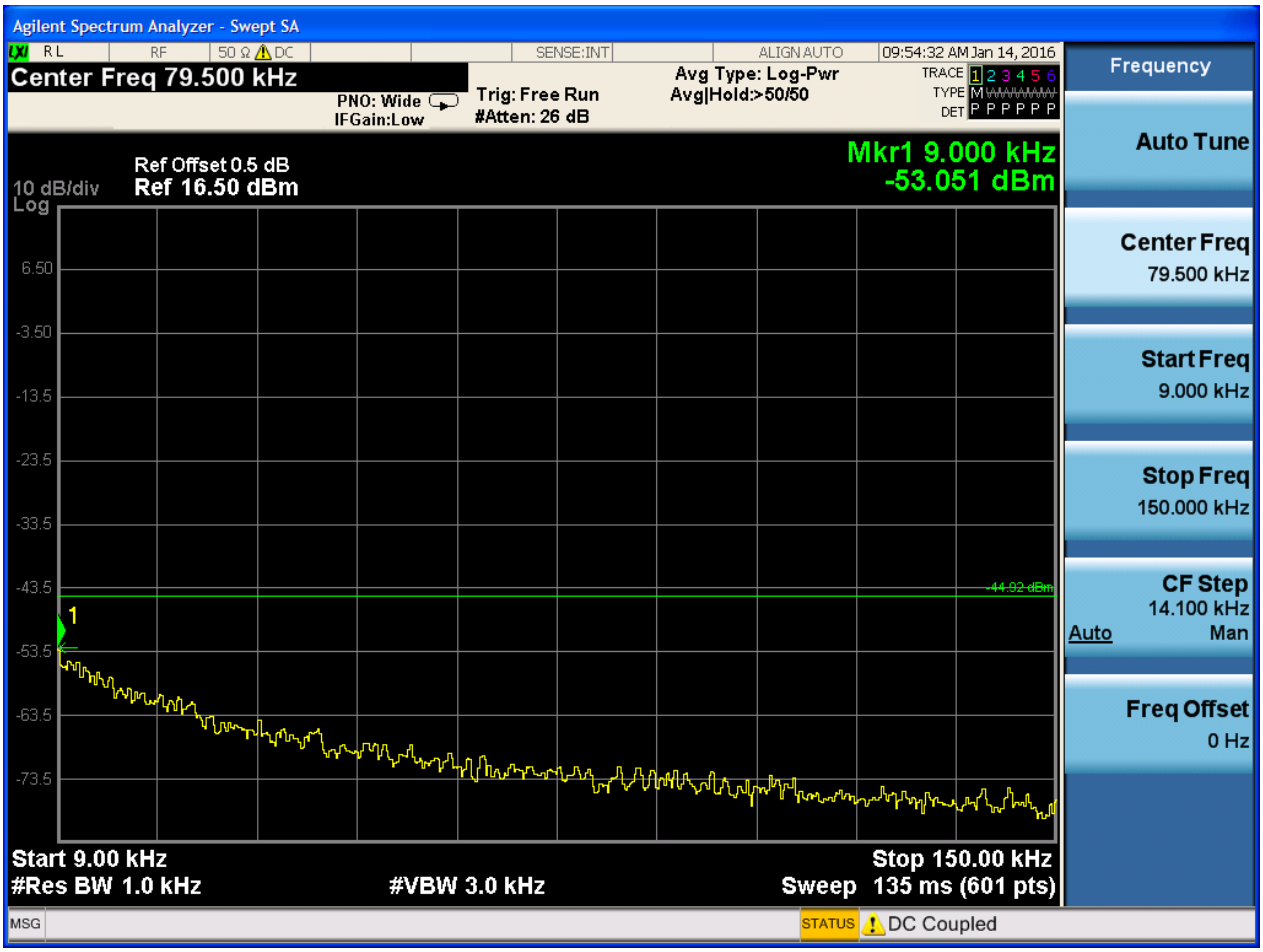


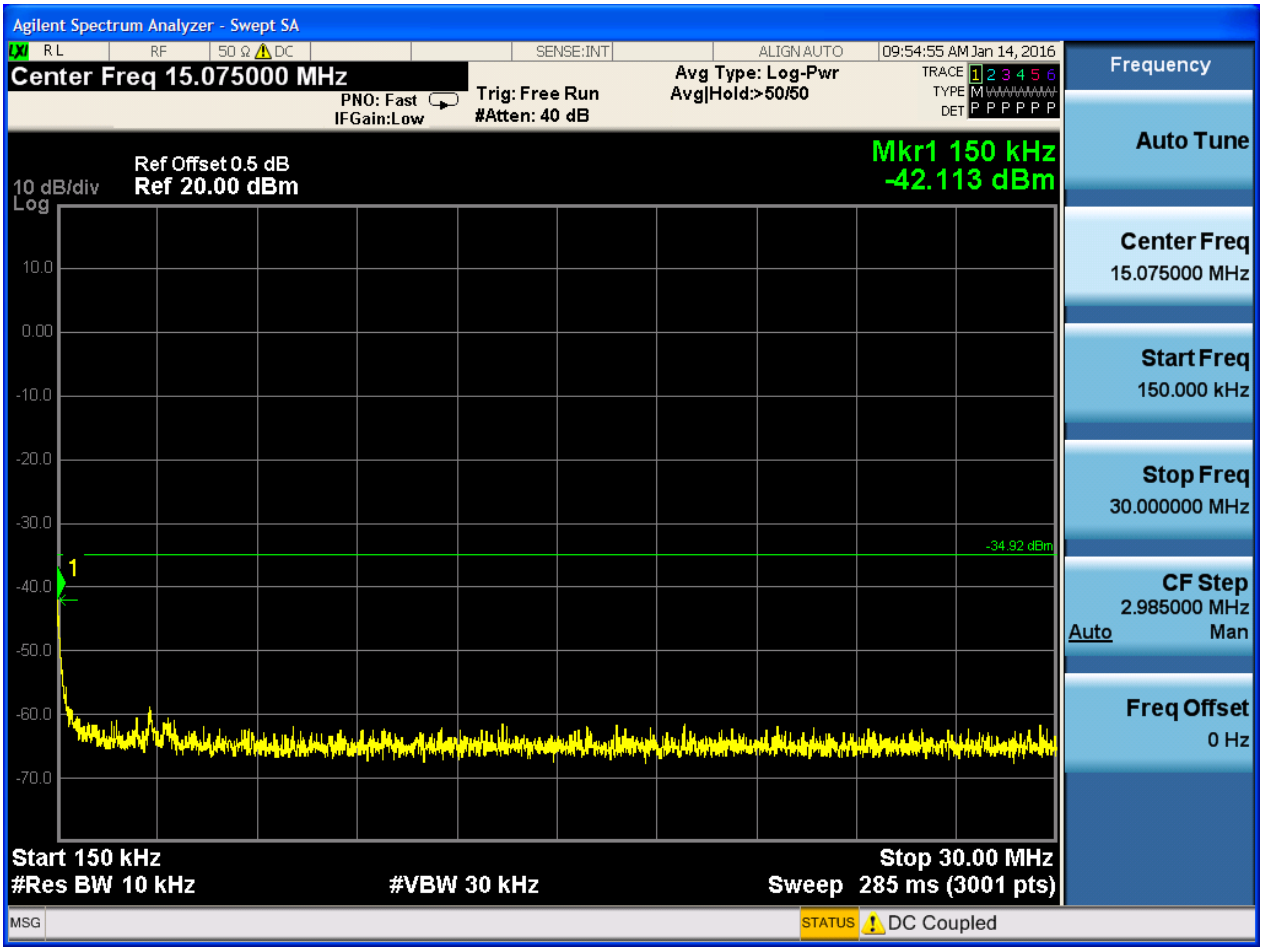
**2.9 11G_M@Ant 1**

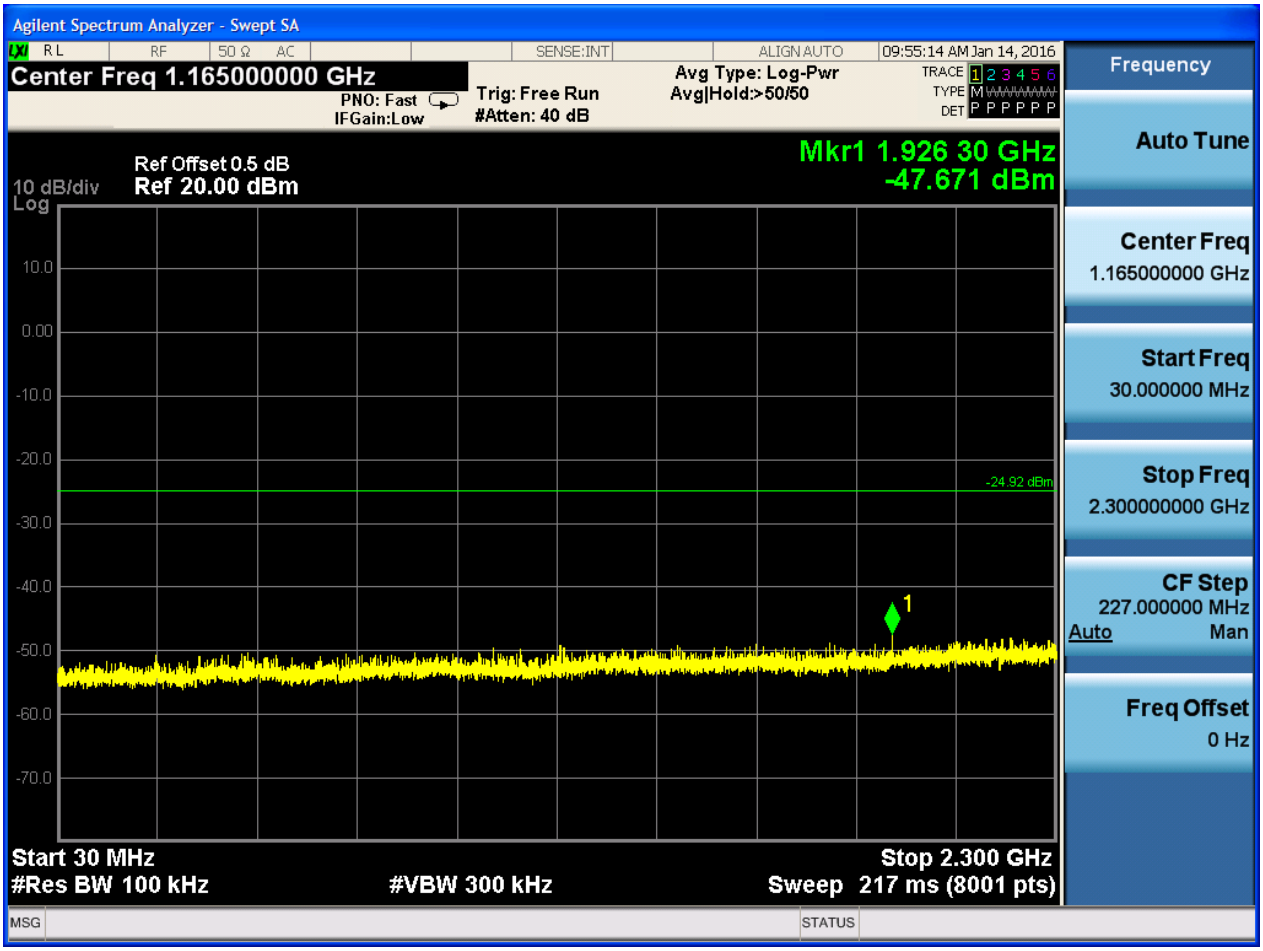
**Pref:**

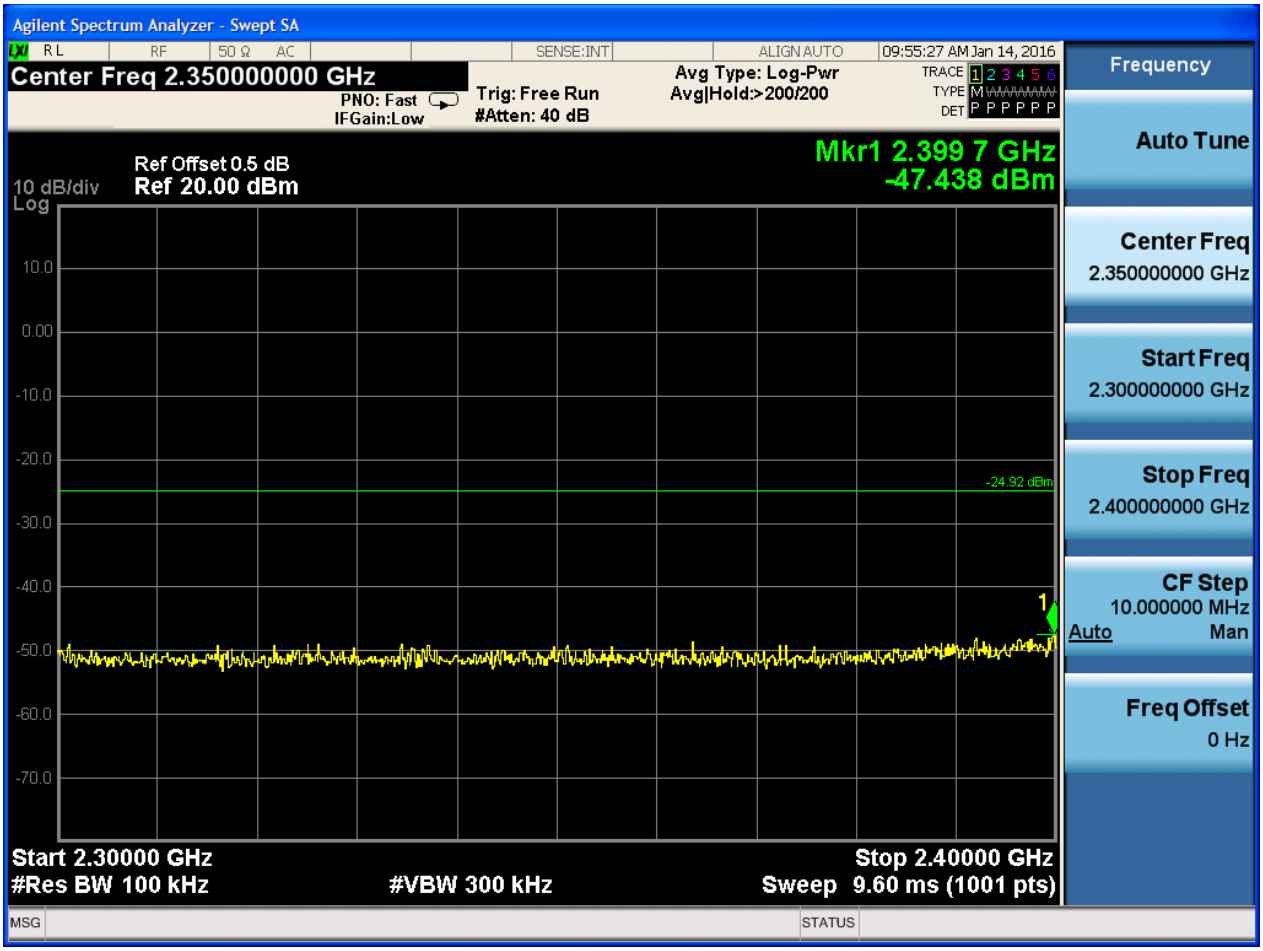


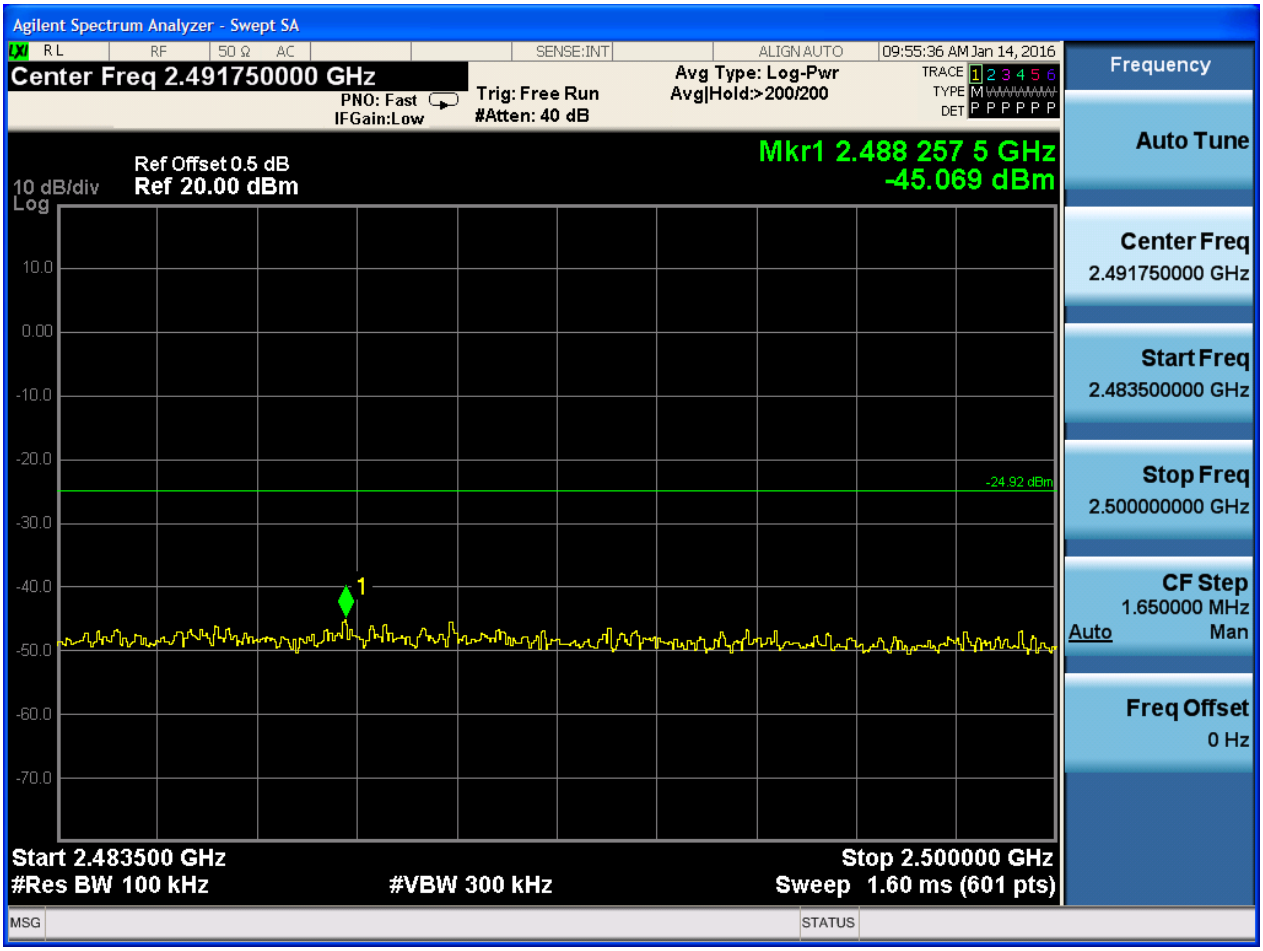
**Puw:**

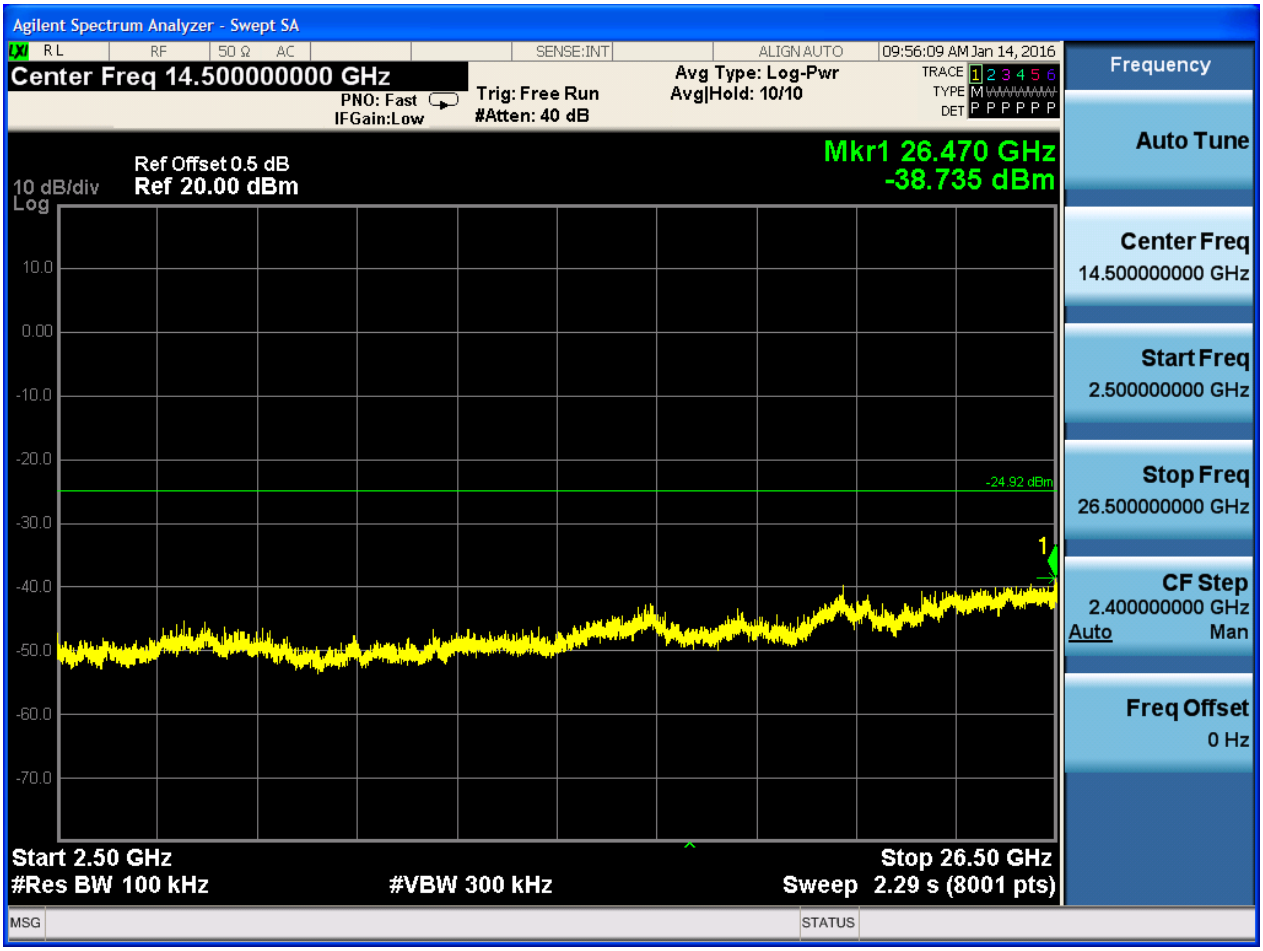






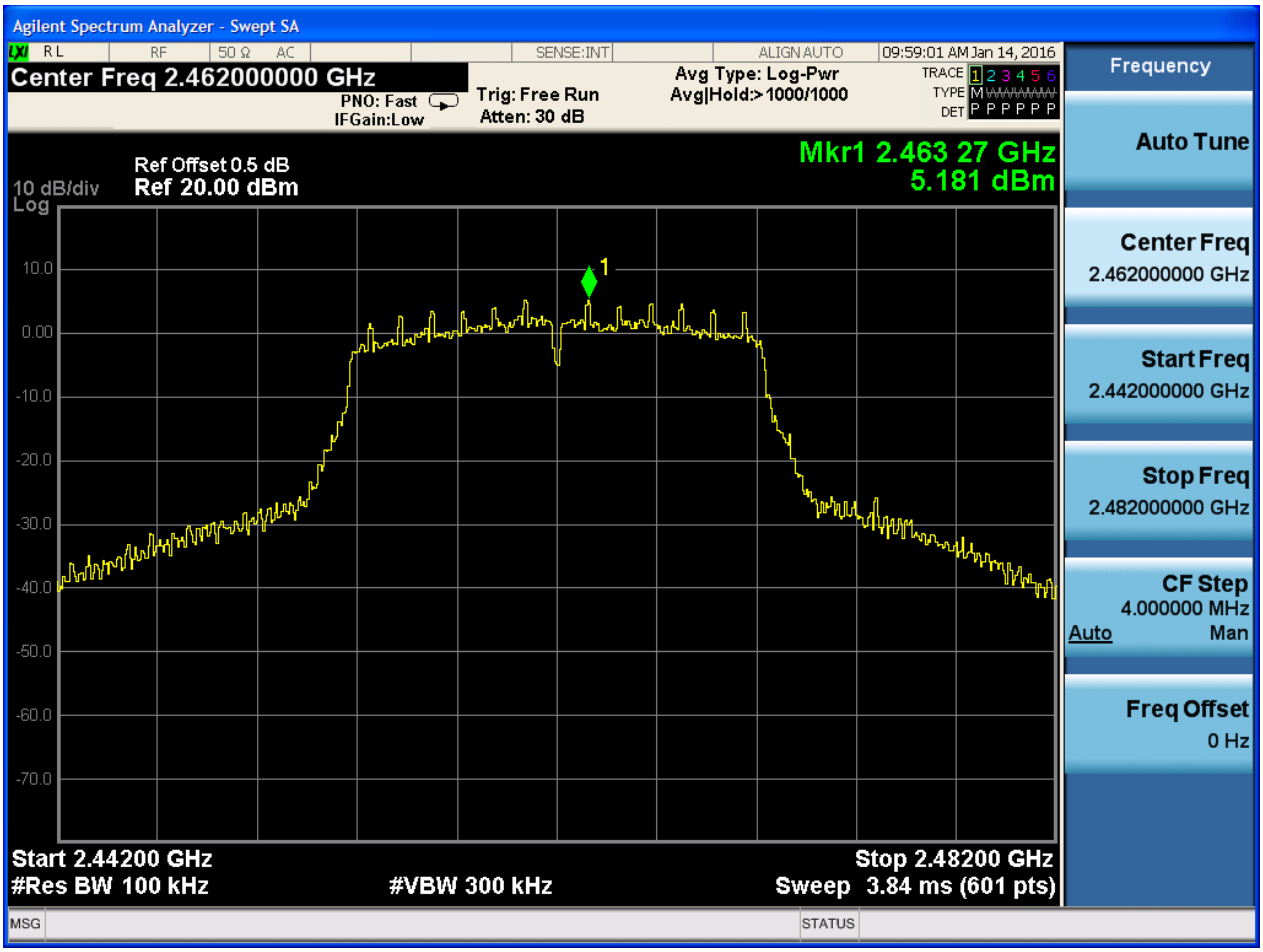






**2.11 11G_H@Ant 1**

**Pref:**



**Puw:**