



## 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.

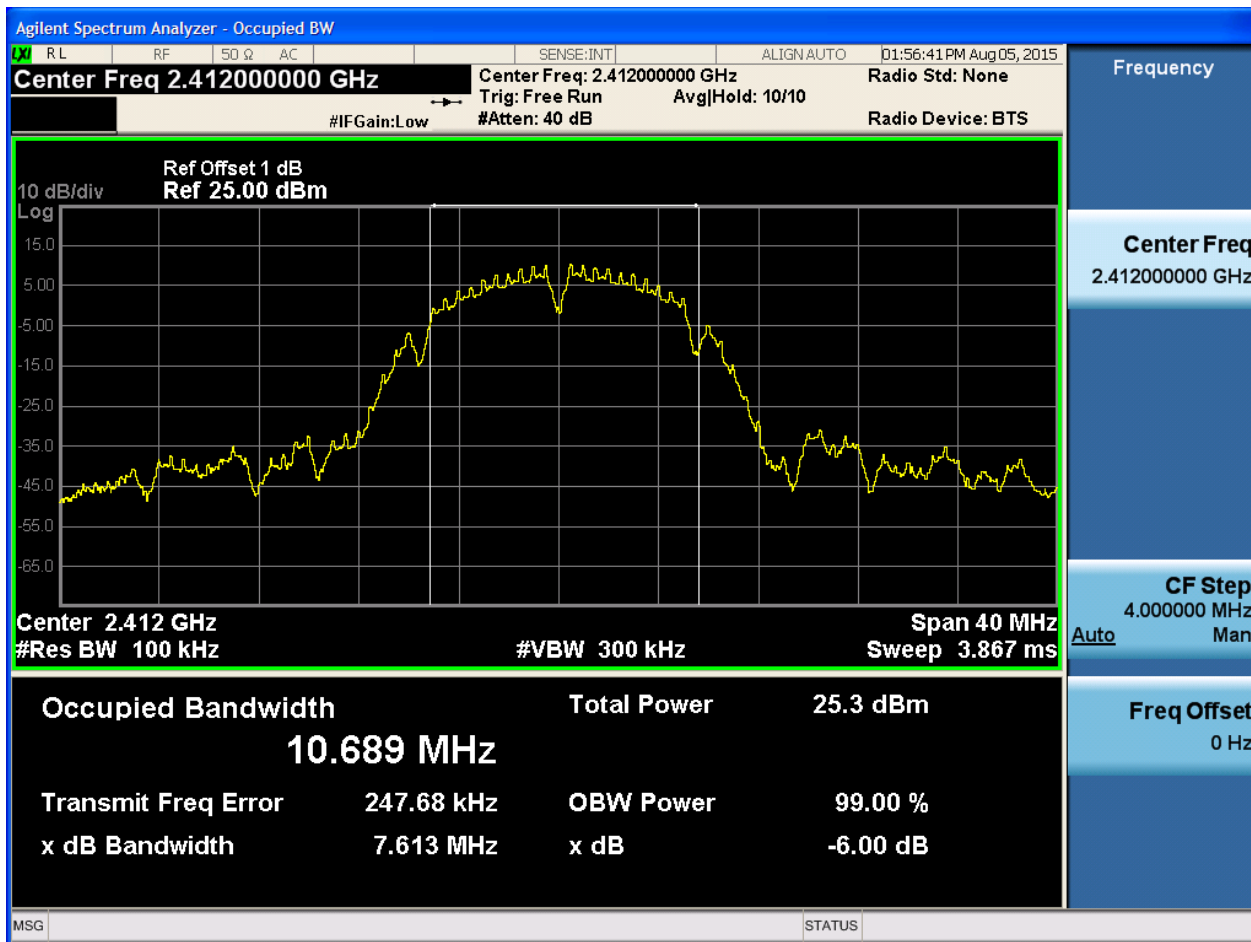
### Part I - Test Results

| Test Mode | Test Channel | Frequency[MHz] | Ant   | DTS6dBBW[MHz] | Verdict |
|-----------|--------------|----------------|-------|---------------|---------|
| 11B       | L            | 2412           | Ant 1 | 7.61          | pass    |
| 11B       | L            | 2412           | Ant 2 | 7.62          | pass    |
| 11B       | M            | 2437           | Ant 1 | 8.03          | pass    |
| 11B       | M            | 2437           | Ant 2 | 7.60          | pass    |
| 11B       | H            | 2462           | Ant 1 | 8.07          | pass    |
| 11B       | H            | 2462           | Ant 2 | 8.04          | pass    |
| 11G       | L            | 2412           | Ant 1 | 15.75         | pass    |
| 11G       | L            | 2412           | Ant 2 | 15.51         | pass    |
| 11G       | M            | 2437           | Ant 1 | 16.37         | pass    |
| 11G       | M            | 2437           | Ant 2 | 16.35         | pass    |
| 11G       | H            | 2462           | Ant 1 | 15.52         | pass    |
| 11G       | H            | 2462           | Ant 2 | 15.17         | pass    |
| 11N20     | L            | 2412           | Ant 1 | 16.01         | pass    |
| 11N20     | L            | 2412           | Ant 2 | 15.31         | pass    |
| 11N20     | M            | 2437           | Ant 1 | 17.06         | pass    |
| 11N20     | M            | 2437           | Ant 2 | 17.01         | pass    |
| 11N20     | H            | 2462           | Ant 1 | 15.19         | pass    |
| 11N20     | H            | 2462           | Ant 2 | 15.48         | pass    |
| 11N20m    | L            | 2412           | Ant 2 | 15.76         | pass    |
| 11N20m    | L            | 2412           | Ant 1 | 15.99         | pass    |
| 11N20m    | M            | 2437           | Ant 2 | 17.06         | pass    |
| 11N20m    | M            | 2437           | Ant 1 | 17.09         | pass    |
| 11N20m    | H            | 2462           | Ant 2 | 15.17         | pass    |
| 11N20m    | H            | 2462           | Ant 1 | 15.70         | pass    |
| 11N40     | L            | 2422           | Ant 1 | 36.10         | pass    |
| 11N40     | L            | 2422           | Ant 2 | 36.14         | pass    |
| 11N40     | M            | 2437           | Ant 1 | 35.99         | pass    |
| 11N40     | M            | 2437           | Ant 2 | 36.02         | pass    |

| Test Mode | Test Channel | Frequency[MHz] | Ant   | DTS6dBBW[MHz] | Verdict |
|-----------|--------------|----------------|-------|---------------|---------|
| 11N40     | H            | 2452           | Ant 1 | 36.12         | pass    |
| 11N40     | H            | 2452           | Ant 2 | 36.17         | pass    |
| 11N40m    | L            | 2422           | Ant 2 | 36.11         | pass    |
| 11N40m    | L            | 2422           | Ant 1 | 36.08         | pass    |
| 11N40m    | M            | 2437           | Ant 2 | 36.39         | pass    |
| 11N40m    | M            | 2437           | Ant 1 | 36.01         | pass    |
| 11N40m    | H            | 2452           | Ant 2 | 36.14         | pass    |
| 11N40m    | H            | 2452           | Ant 1 | 36.16         | pass    |
| 11G CDD   | L            | 2412           | Ant 1 | 16.36         | pass    |
| 11G CDD   | L            | 2412           | Ant 2 | 16.32         | pass    |
| 11G CDD   | M            | 2437           | Ant 1 | 16.49         | pass    |
| 11G CDD   | M            | 2437           | Ant 2 | 16.44         | pass    |
| 11G CDD   | H            | 2462           | Ant 1 | 16.35         | pass    |
| 11G CDD   | H            | 2462           | Ant 2 | 16.31         | pass    |

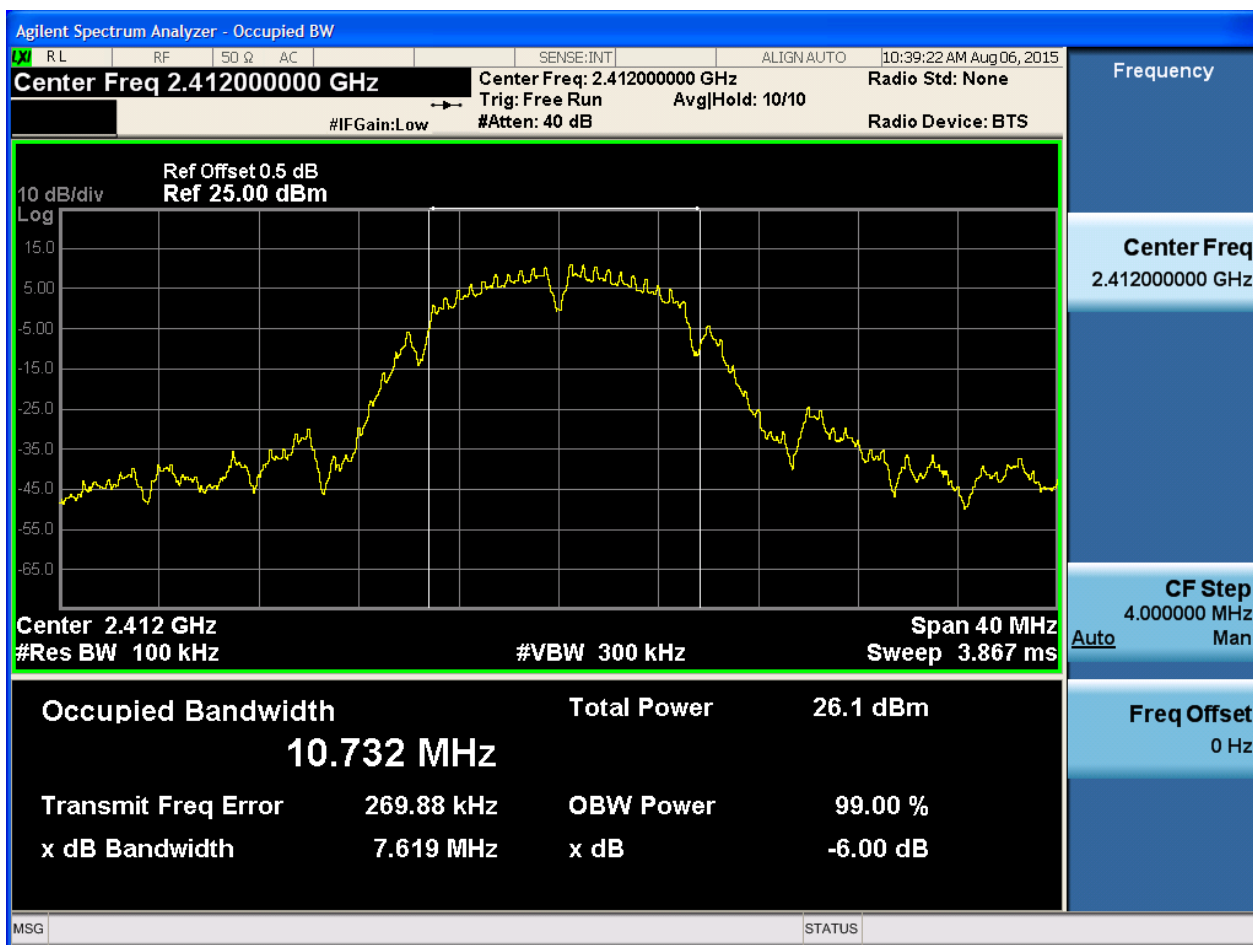
## Part II - Test Plots

### 2.1 11B\_L@Ant 1



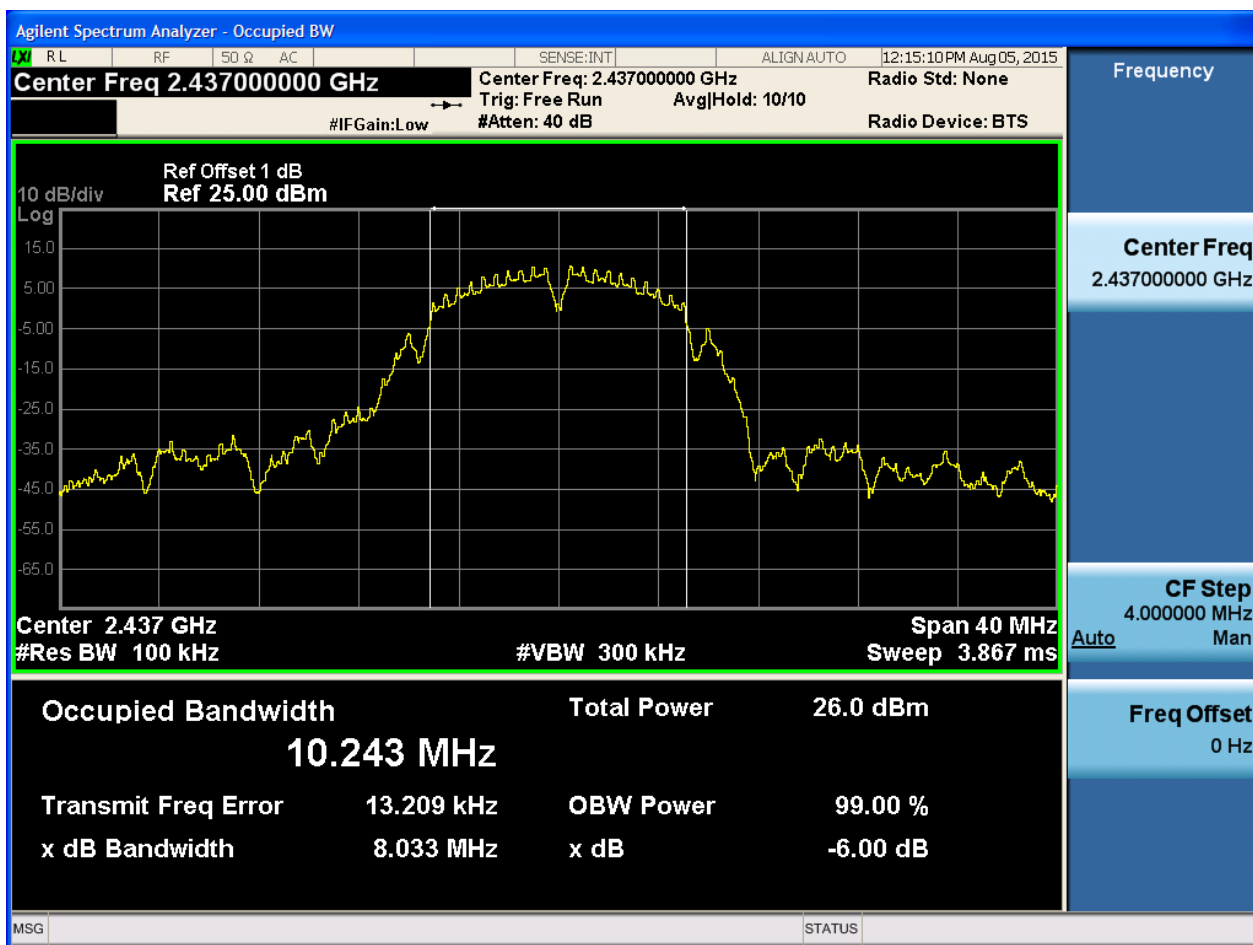


## 2.2 11B\_L@Ant 2



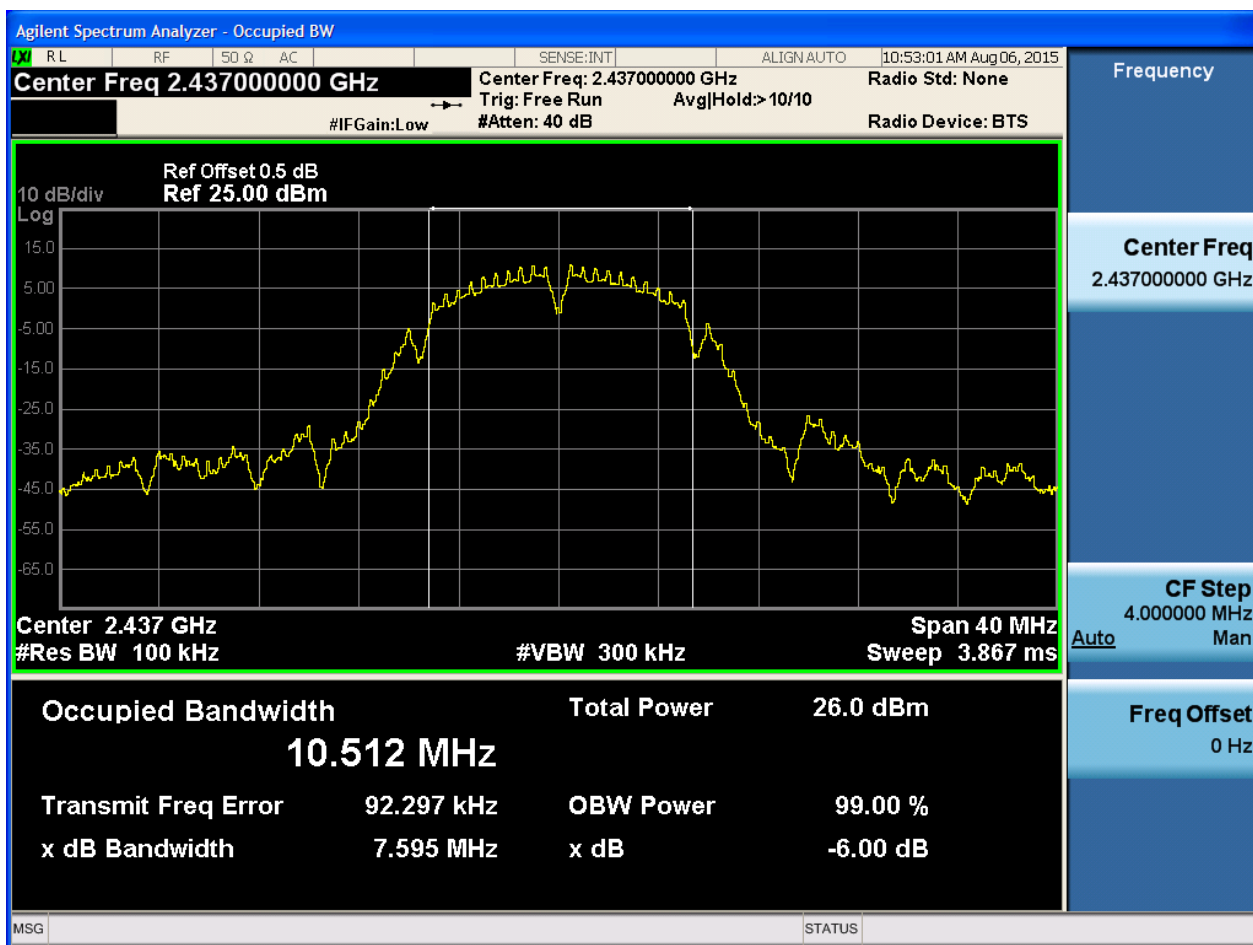


## 2.3 11B\_M@Ant 1



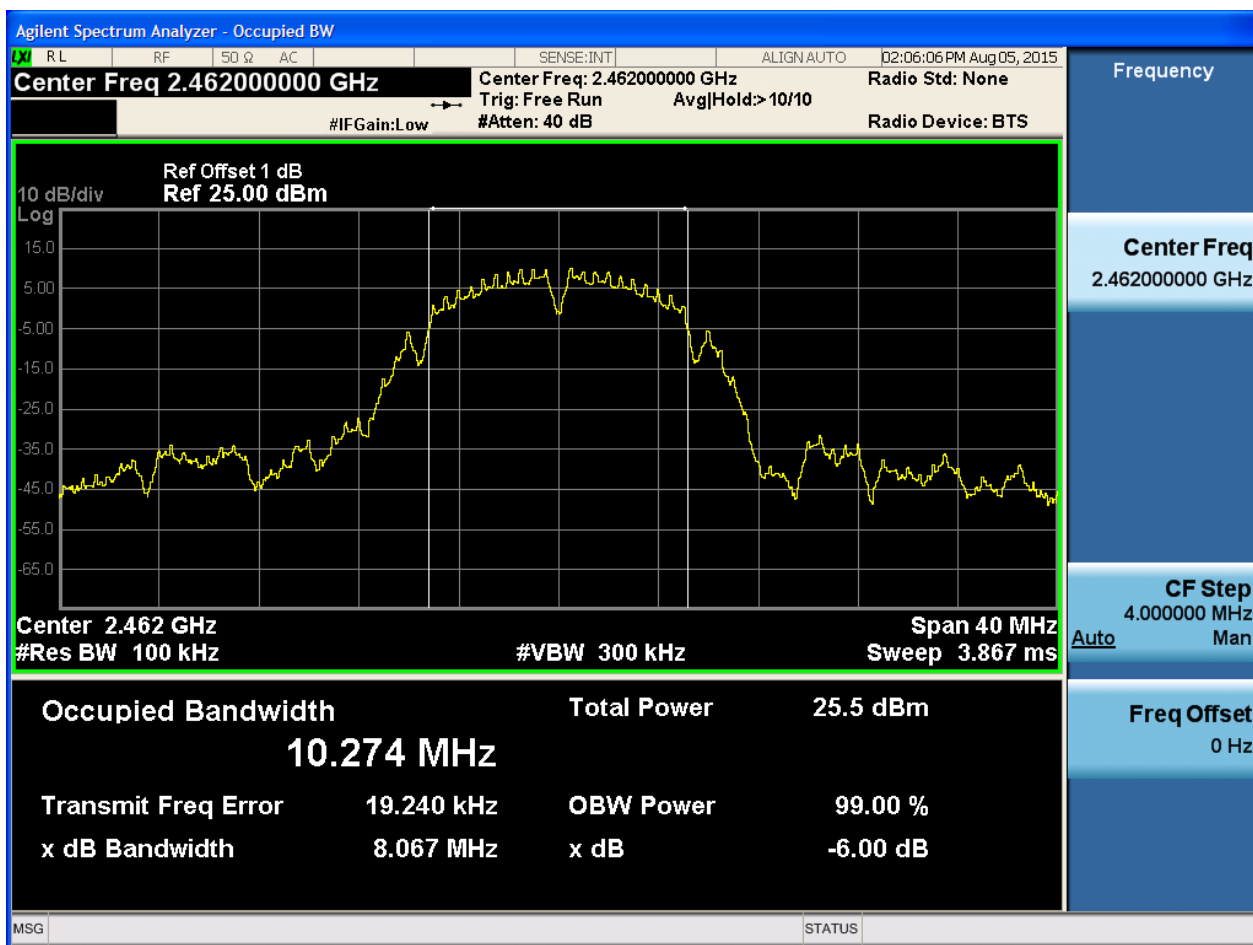


## 2.4 11B\_M@Ant 2



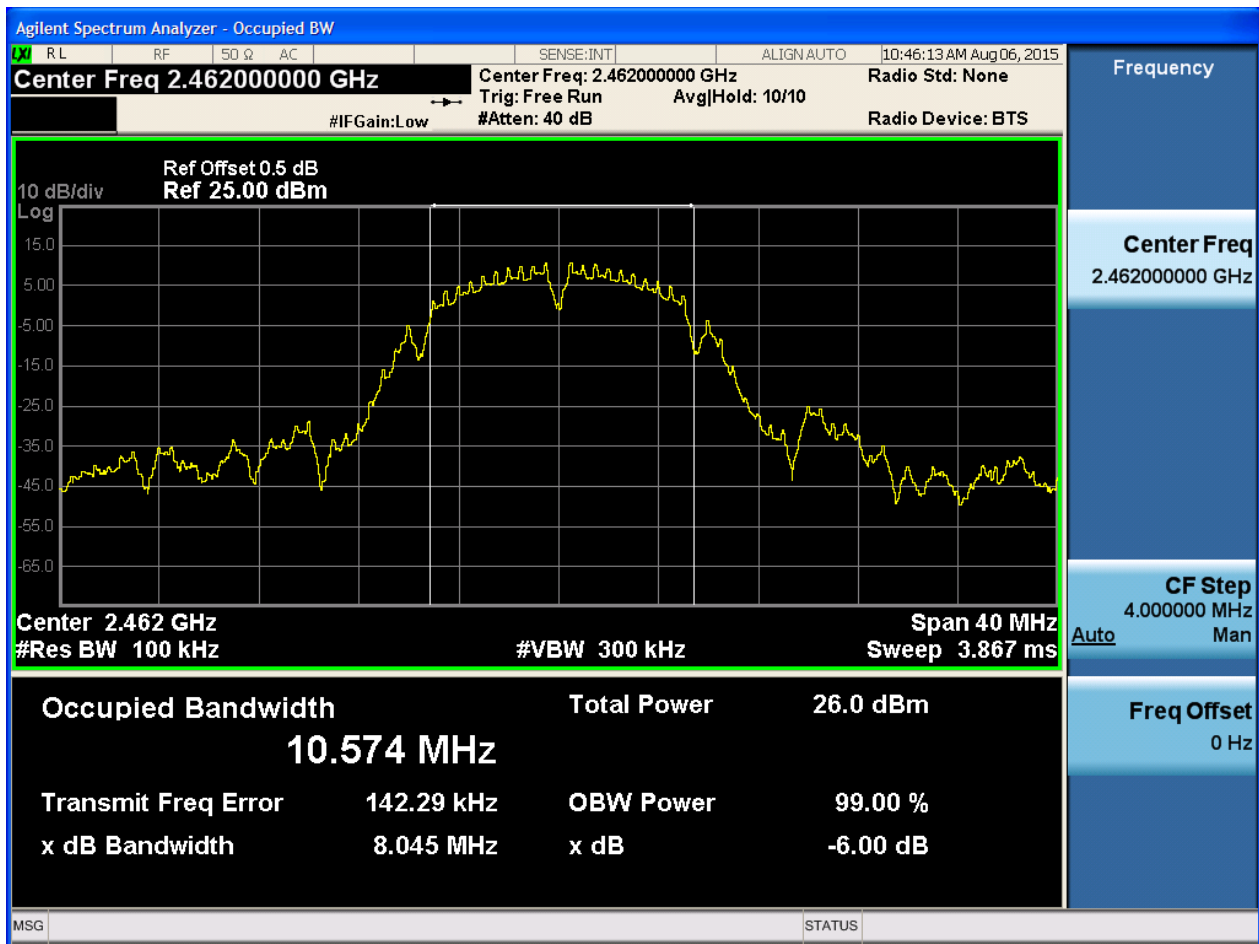


## 2.5 11B\_H@Ant 1



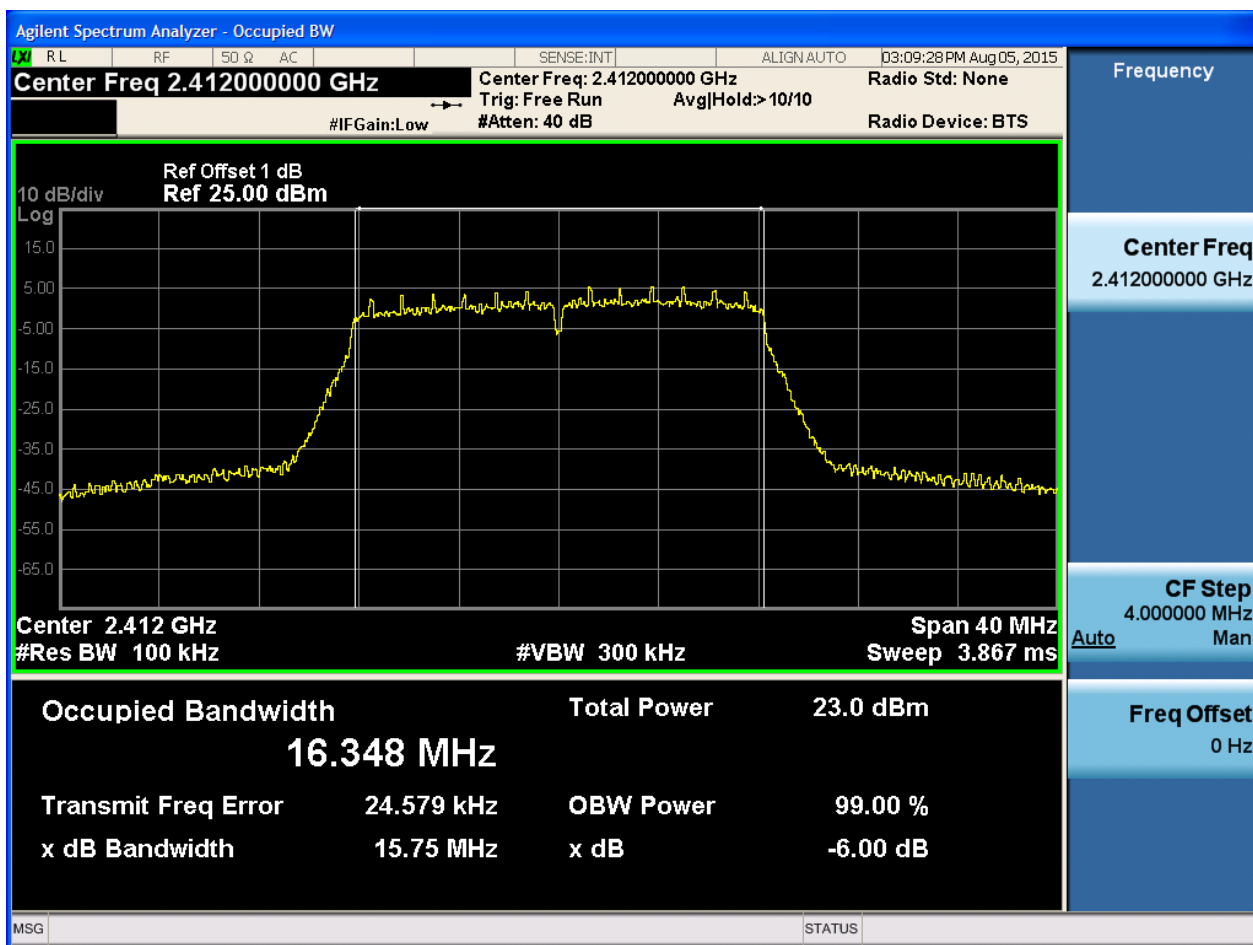


## 2.6 11B\_H@Ant 2



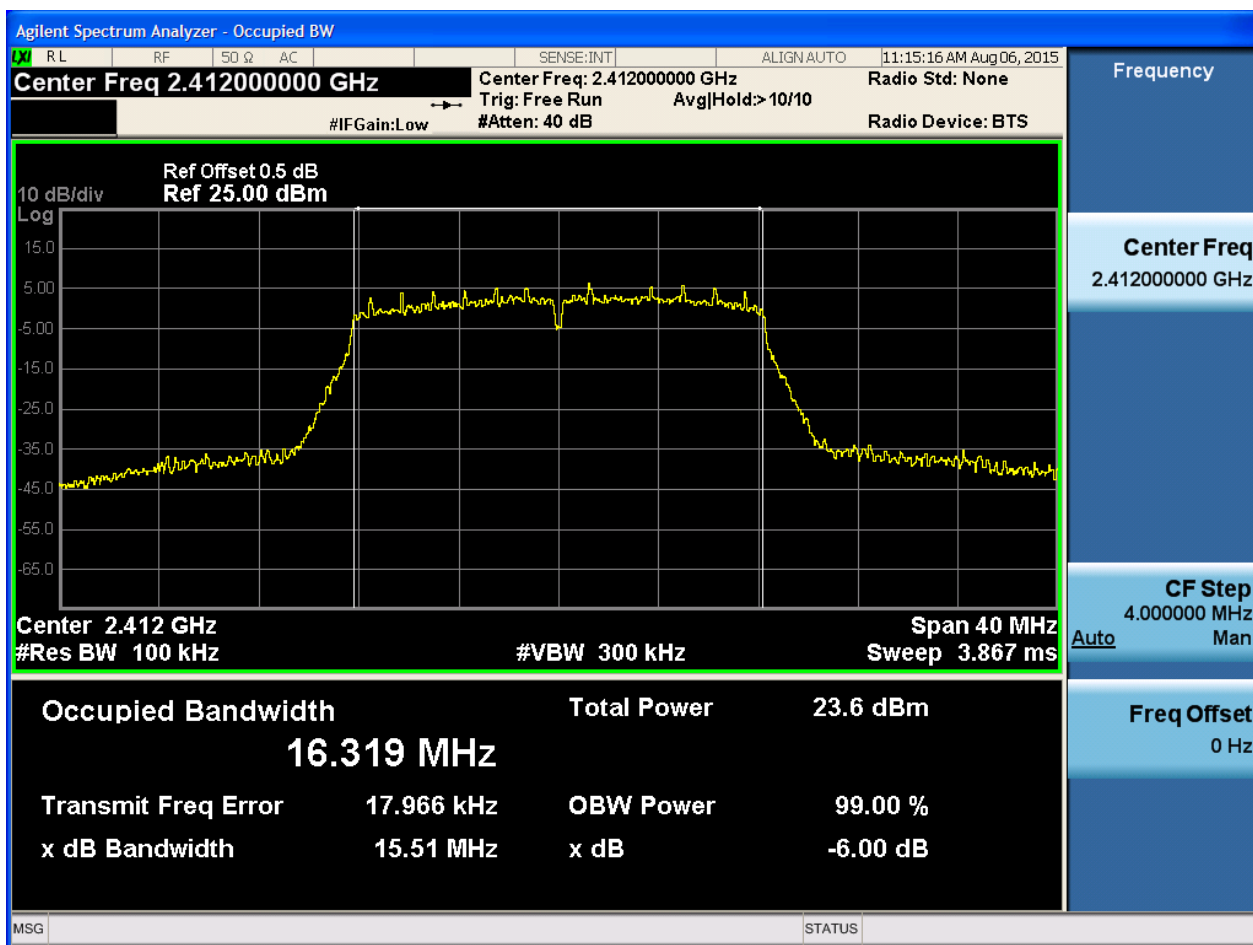


## 2.7 11G\_L@Ant 1



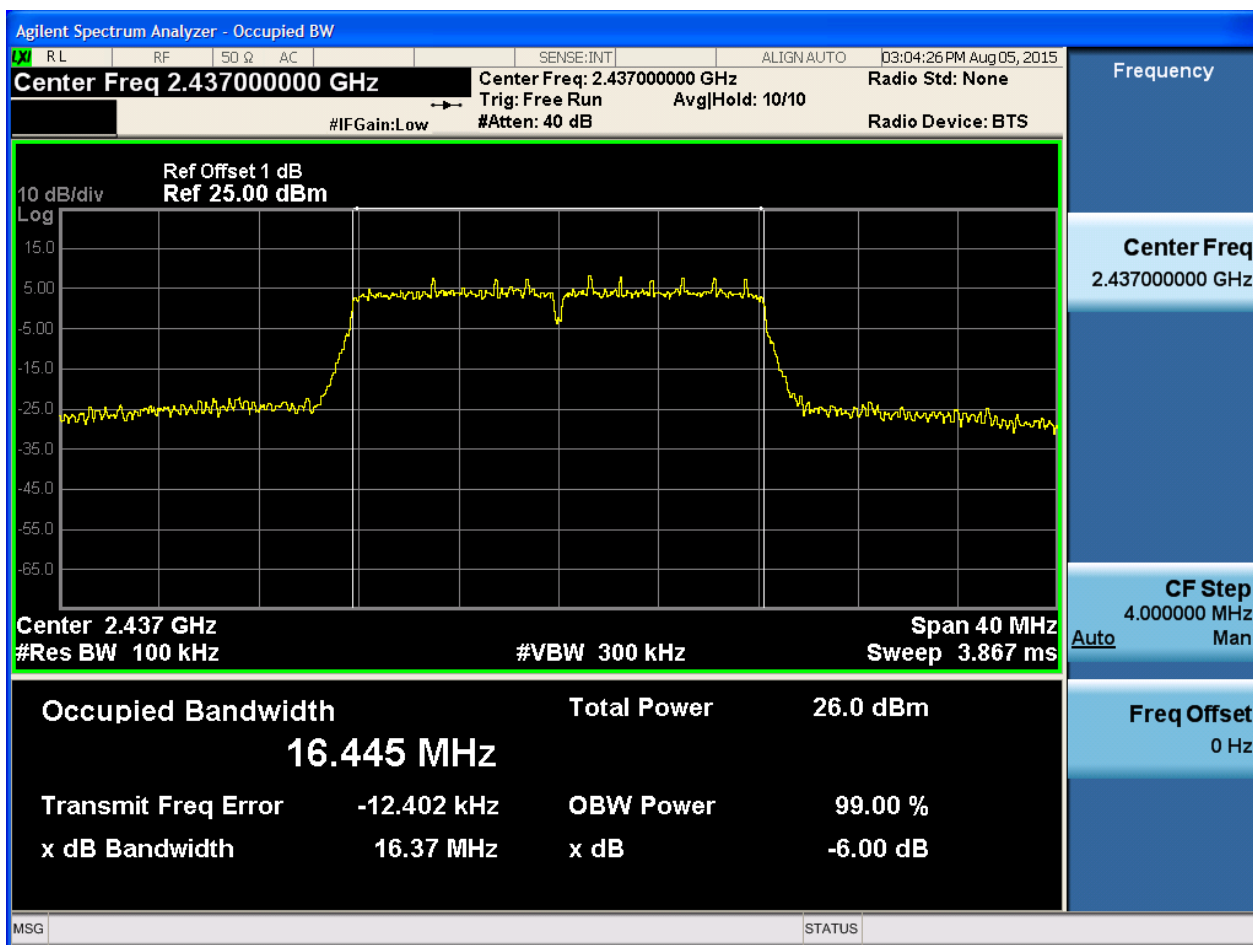


## 2.8 11G\_L@Ant 2



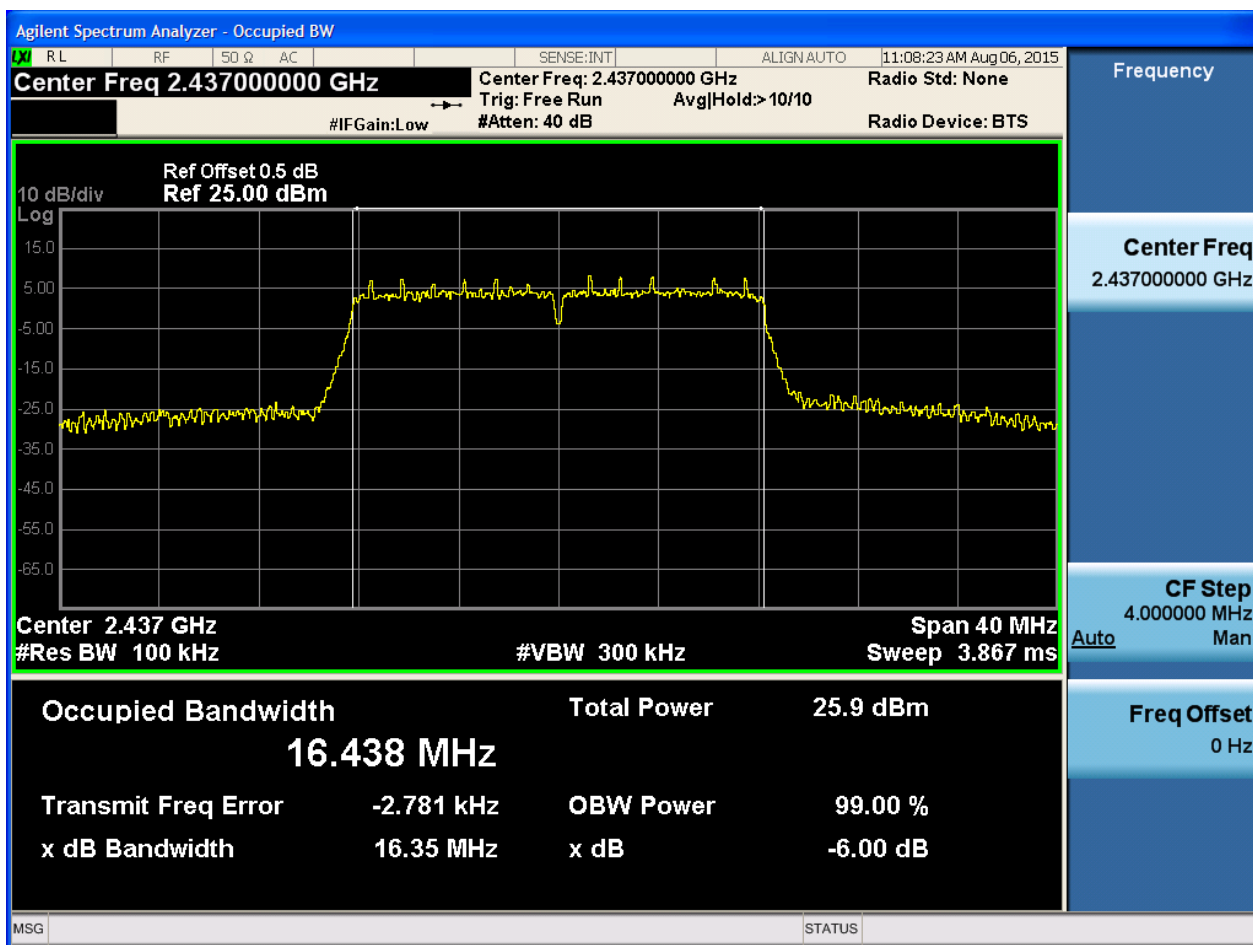


## 2.9 11G\_M@Ant 1



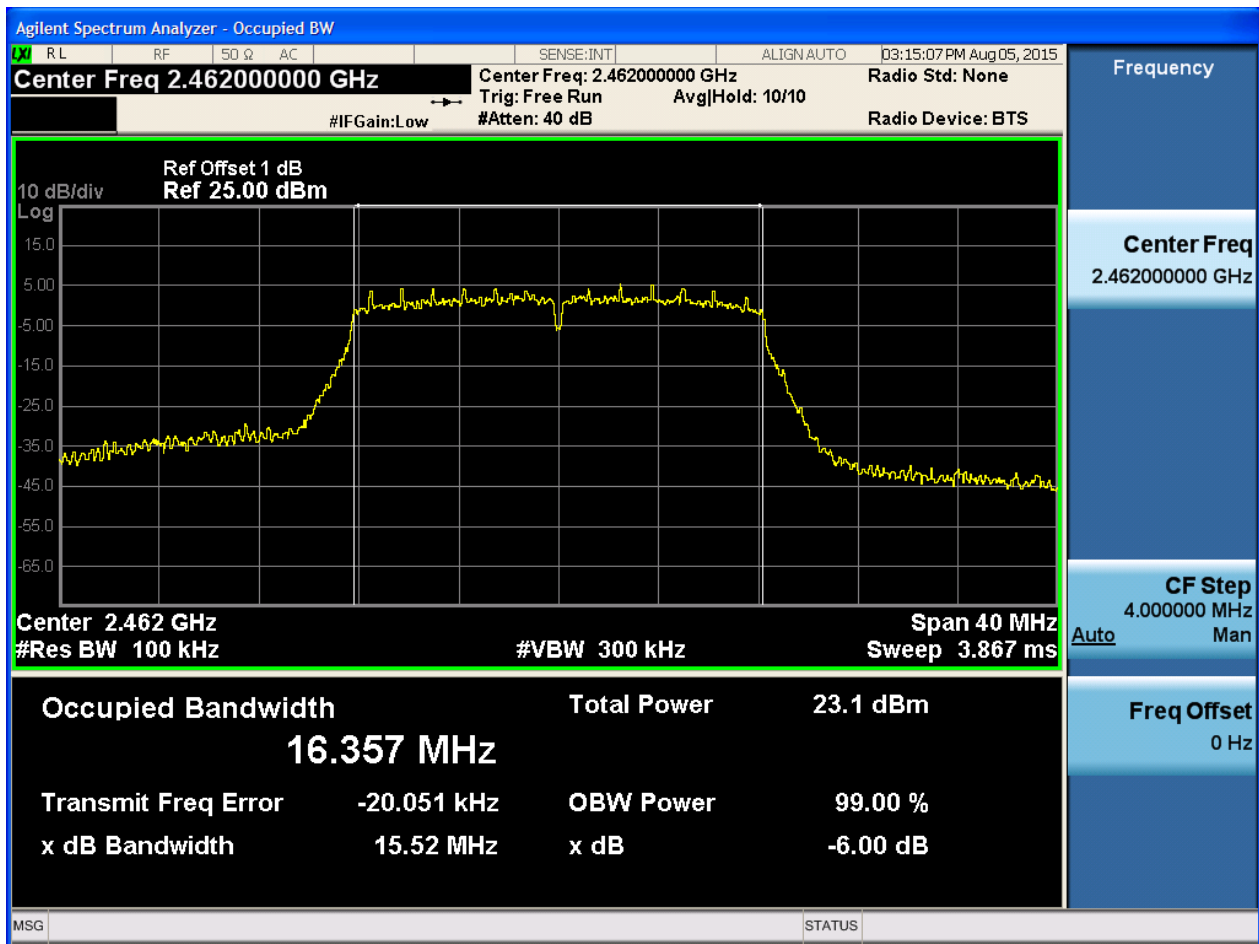


## 2.10 11G\_M@Ant 2



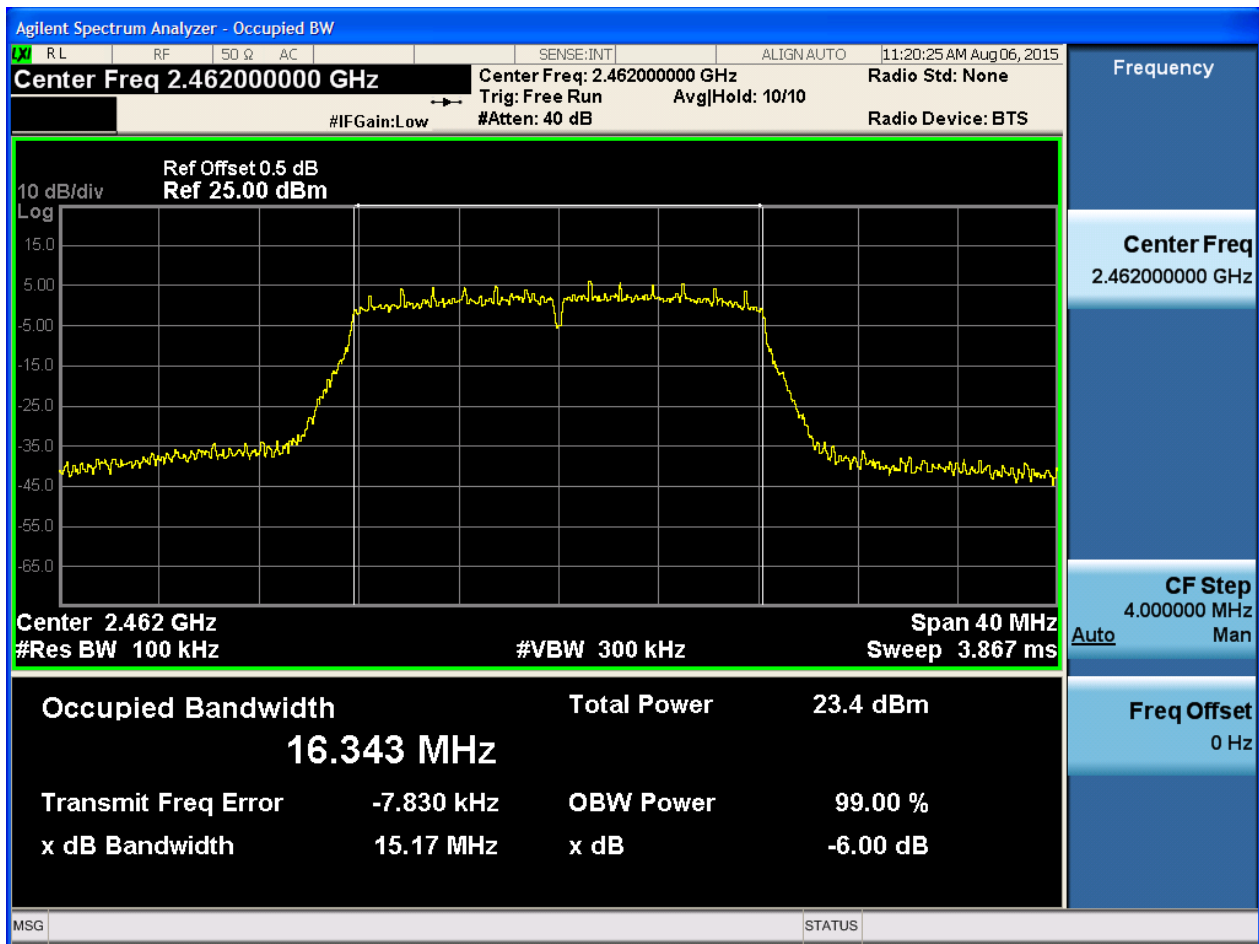


## 2.11 11G\_H@Ant 1



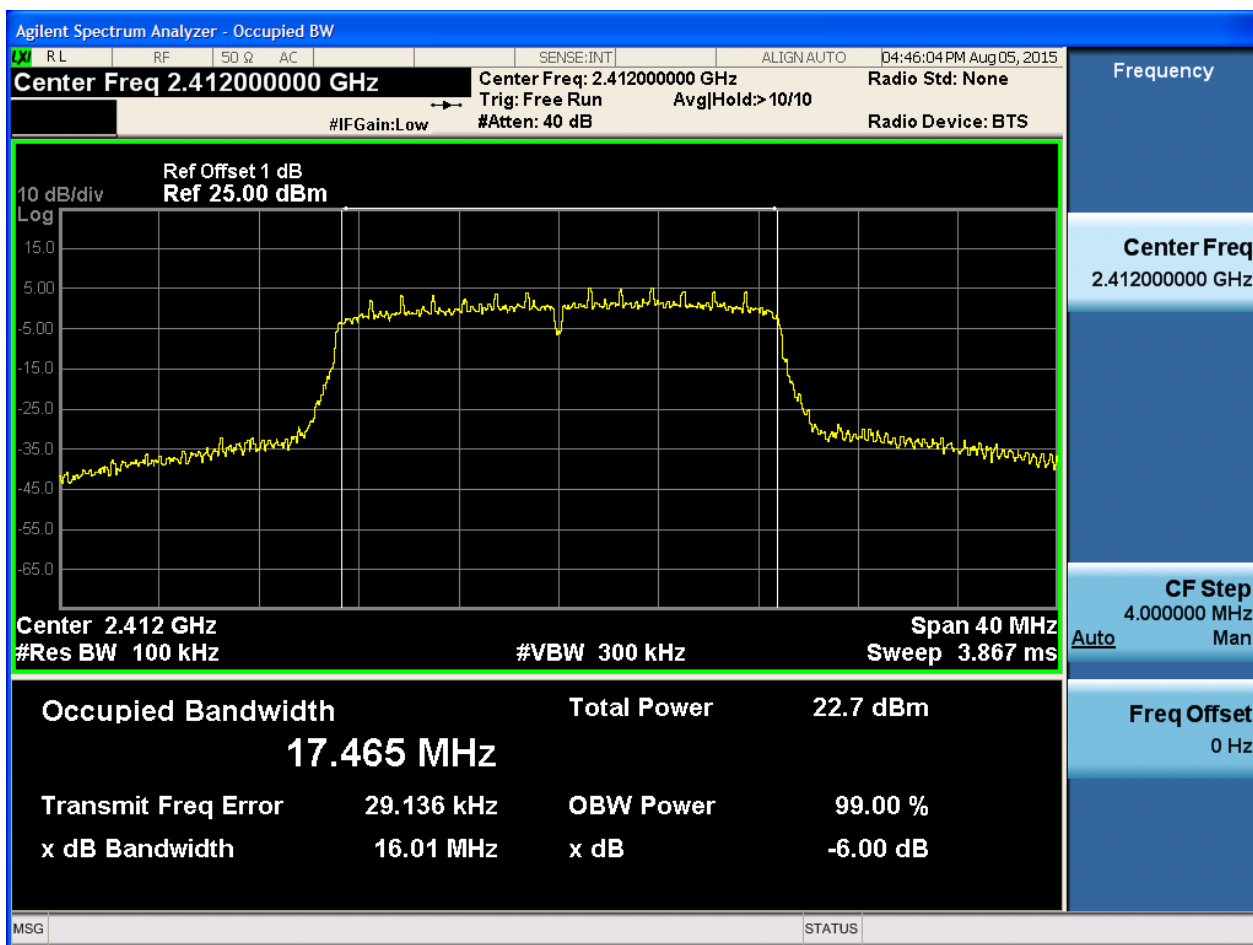


## 2.12 11G\_H@Ant 2



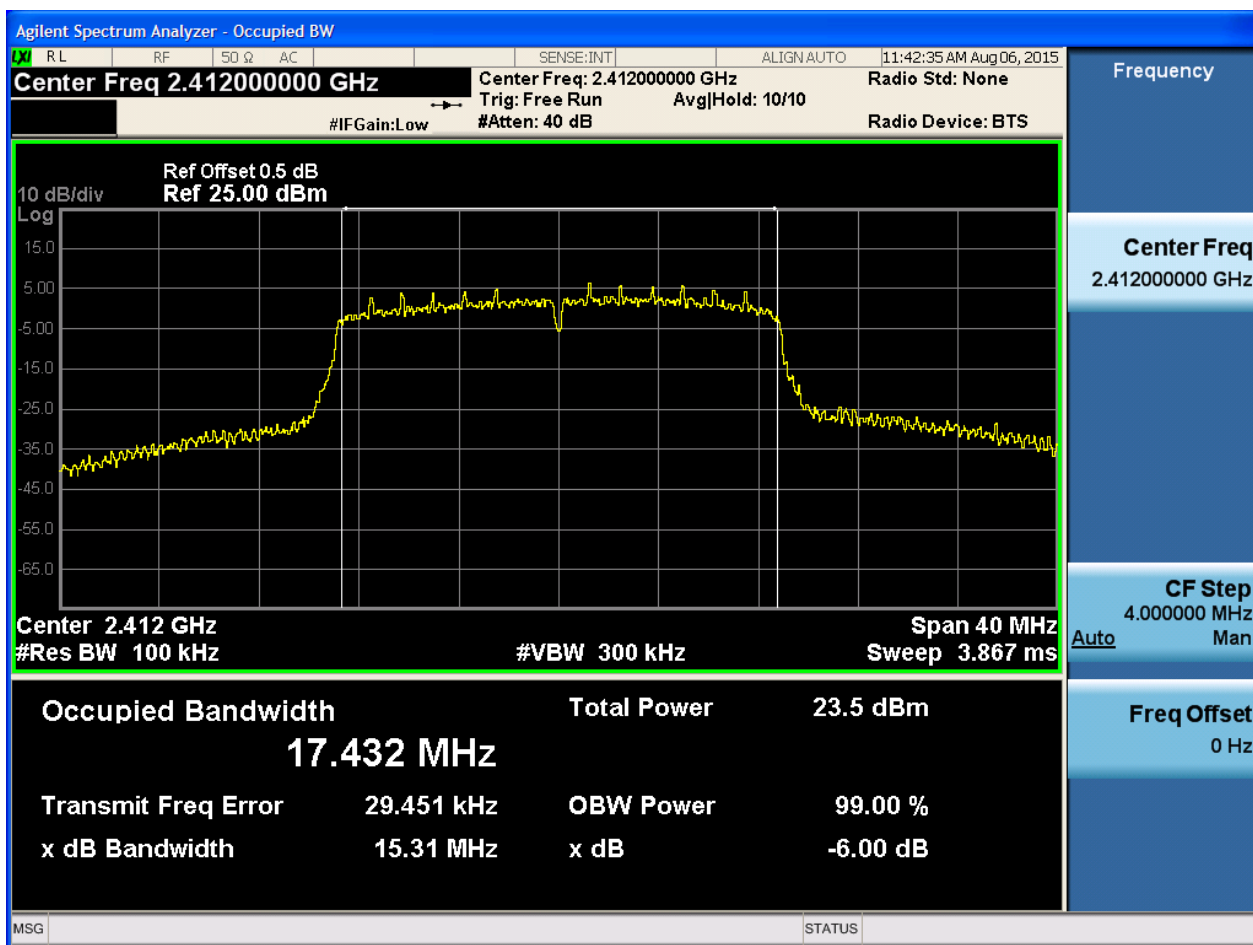


## 2.13 11N20\_L@Ant 1



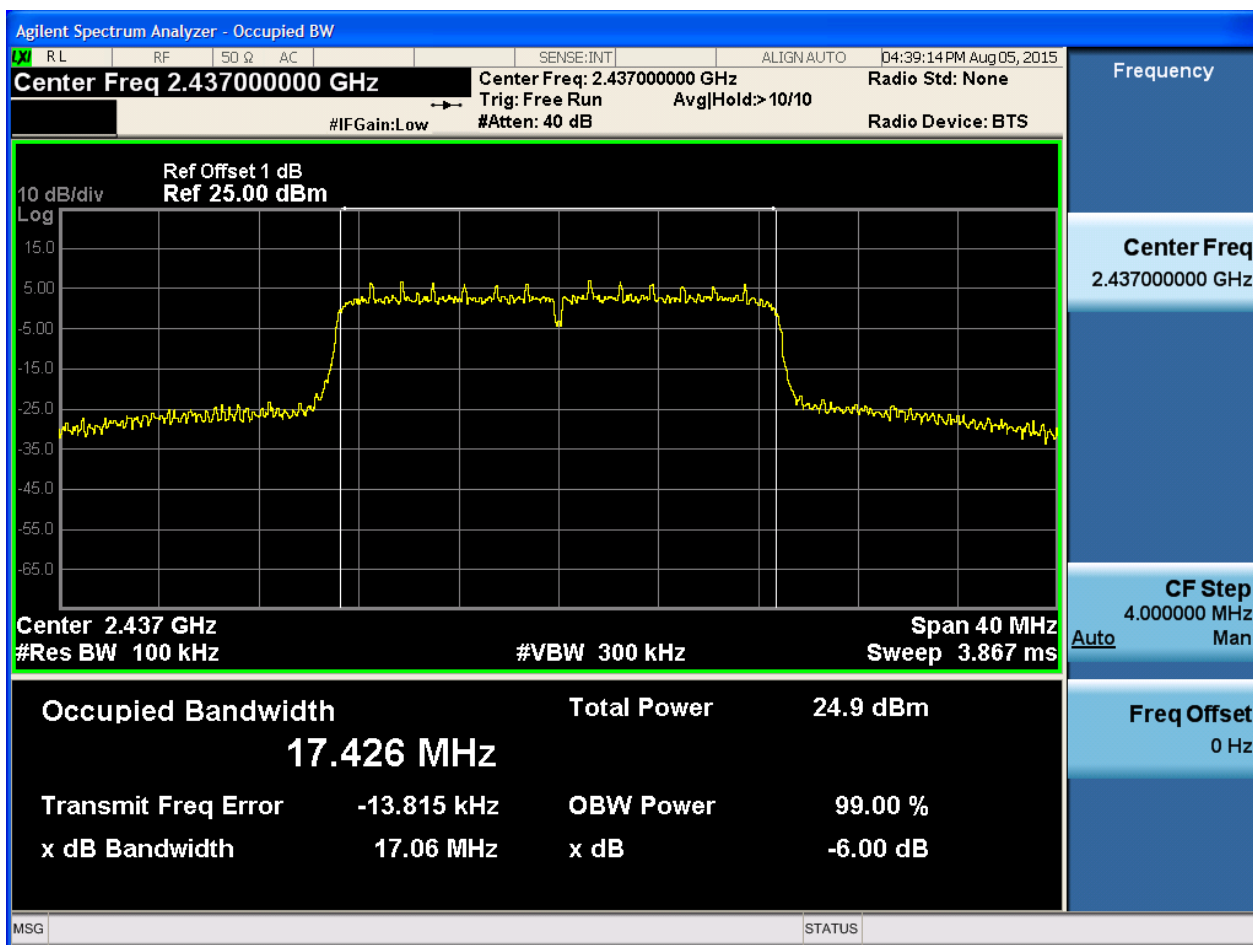


## 2.14 11N20\_L@Ant 2



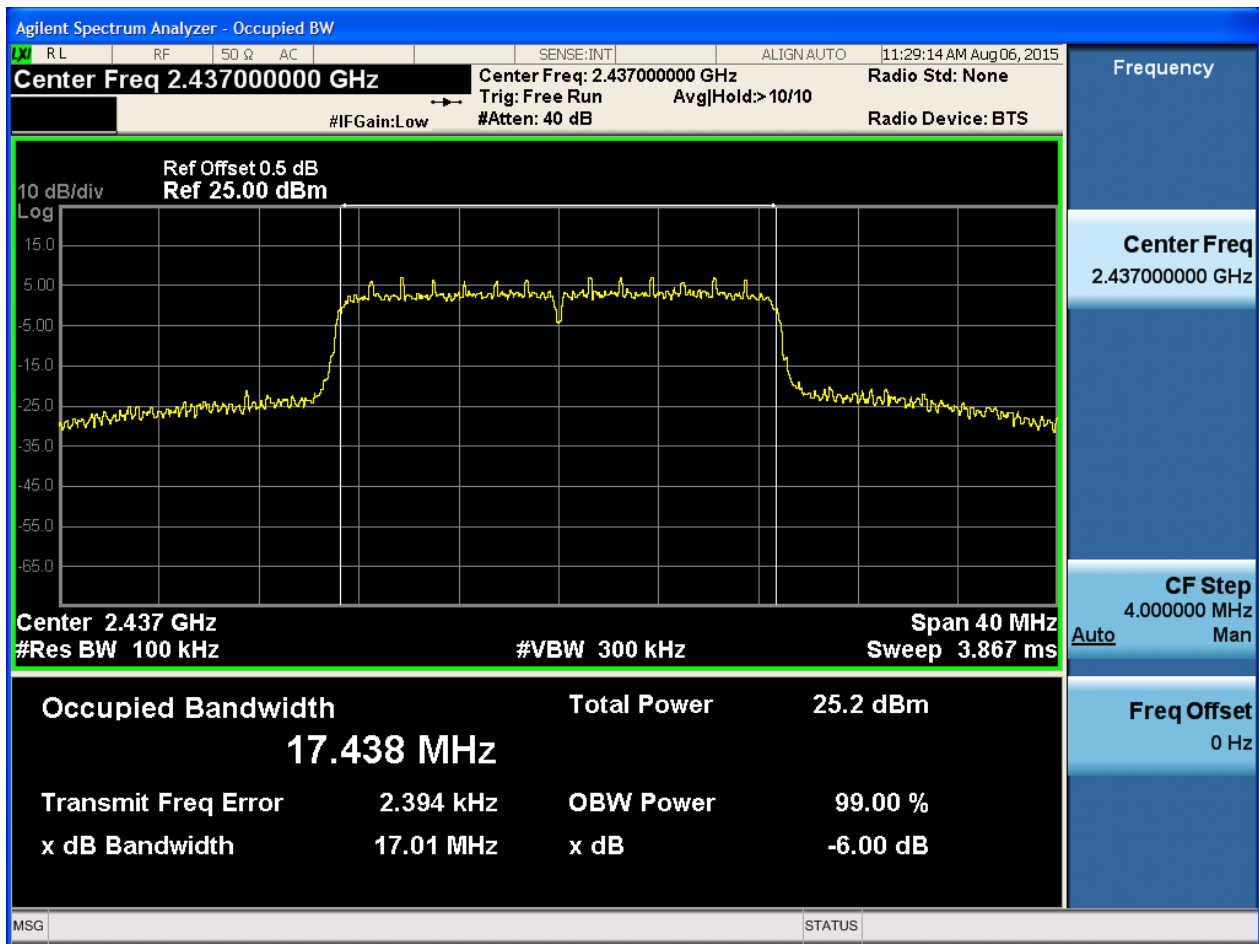


## 2.15 11N20\_M@Ant 1



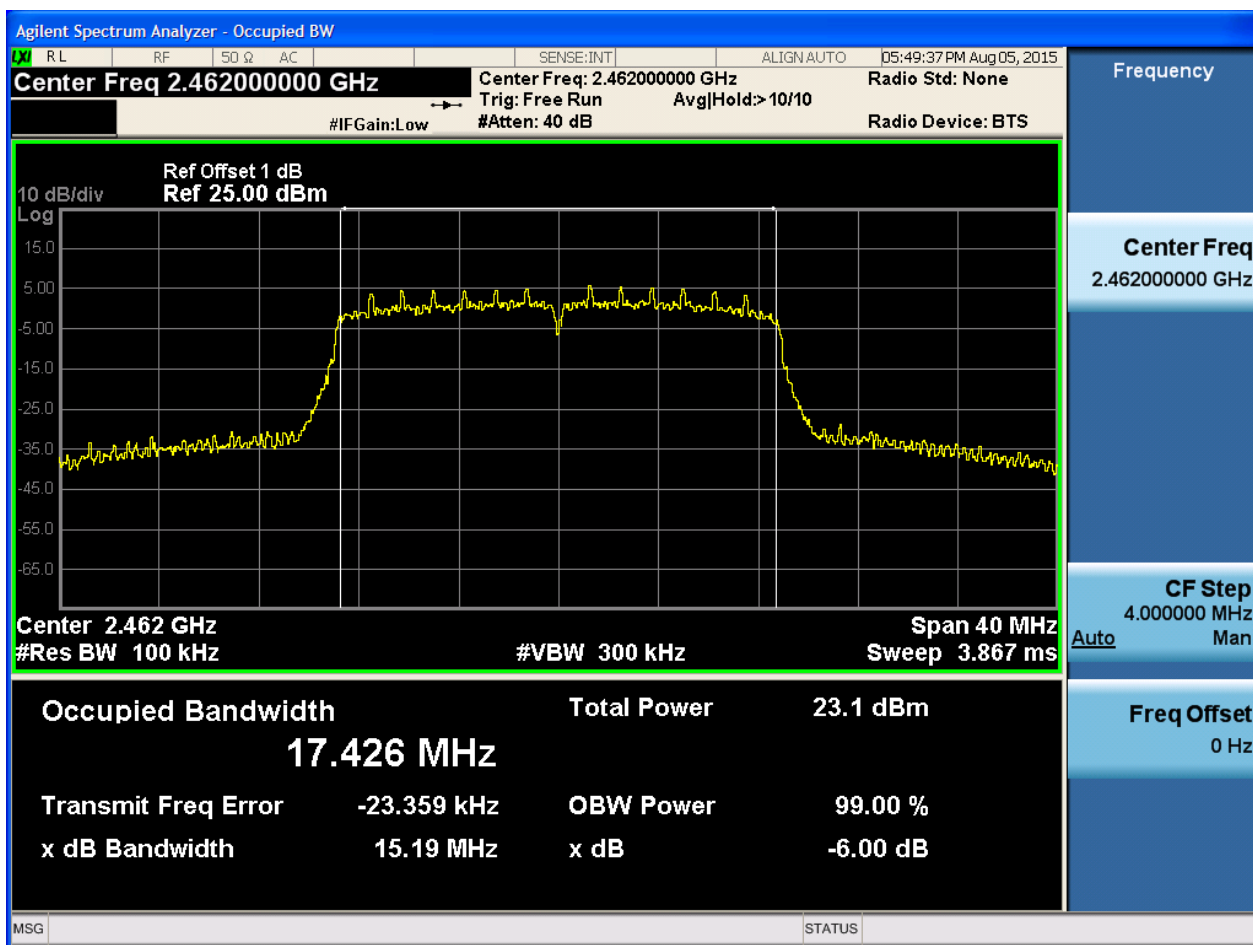


## 2.16 11N20\_M@Ant 2



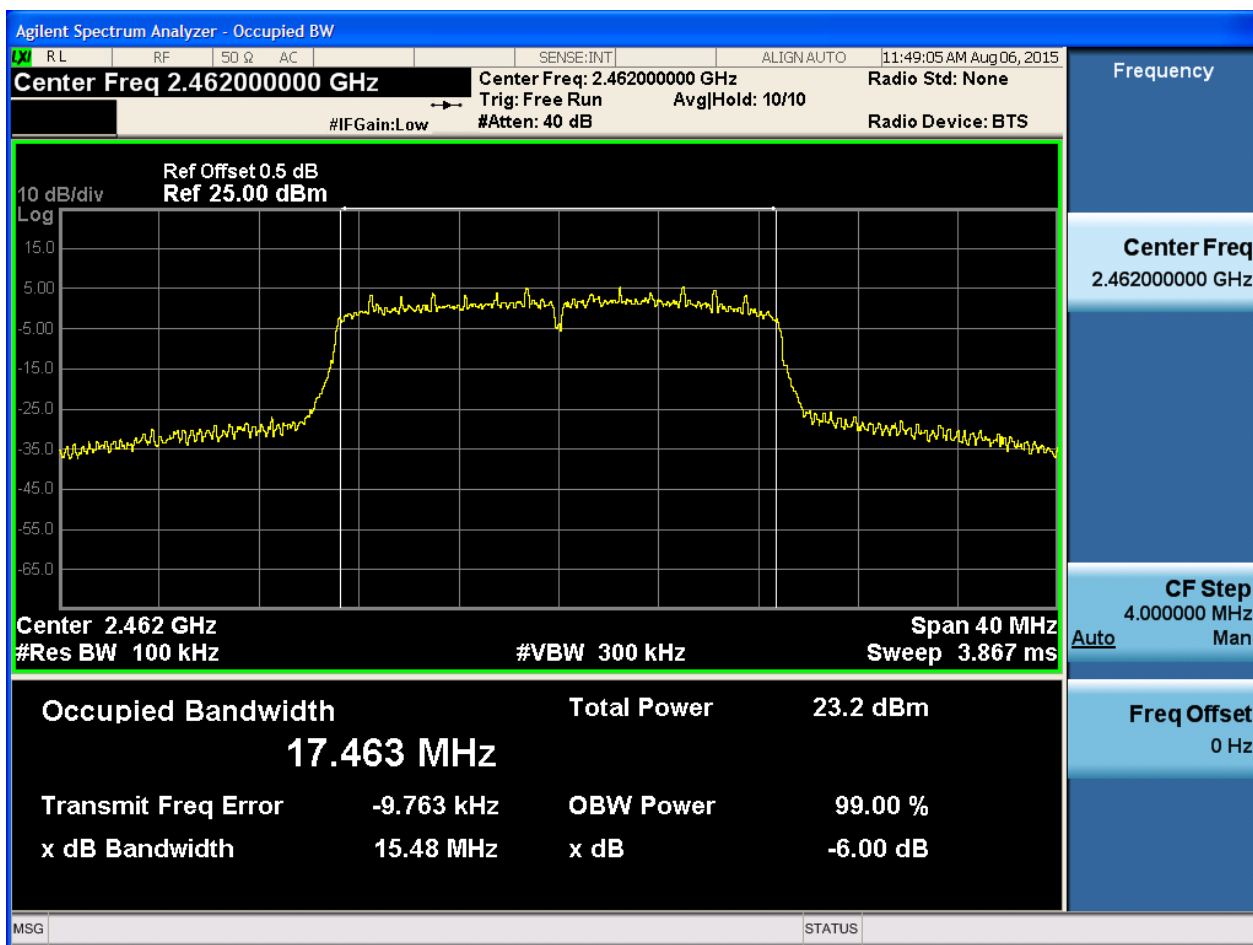


## 2.17 11N20\_H@Ant 1



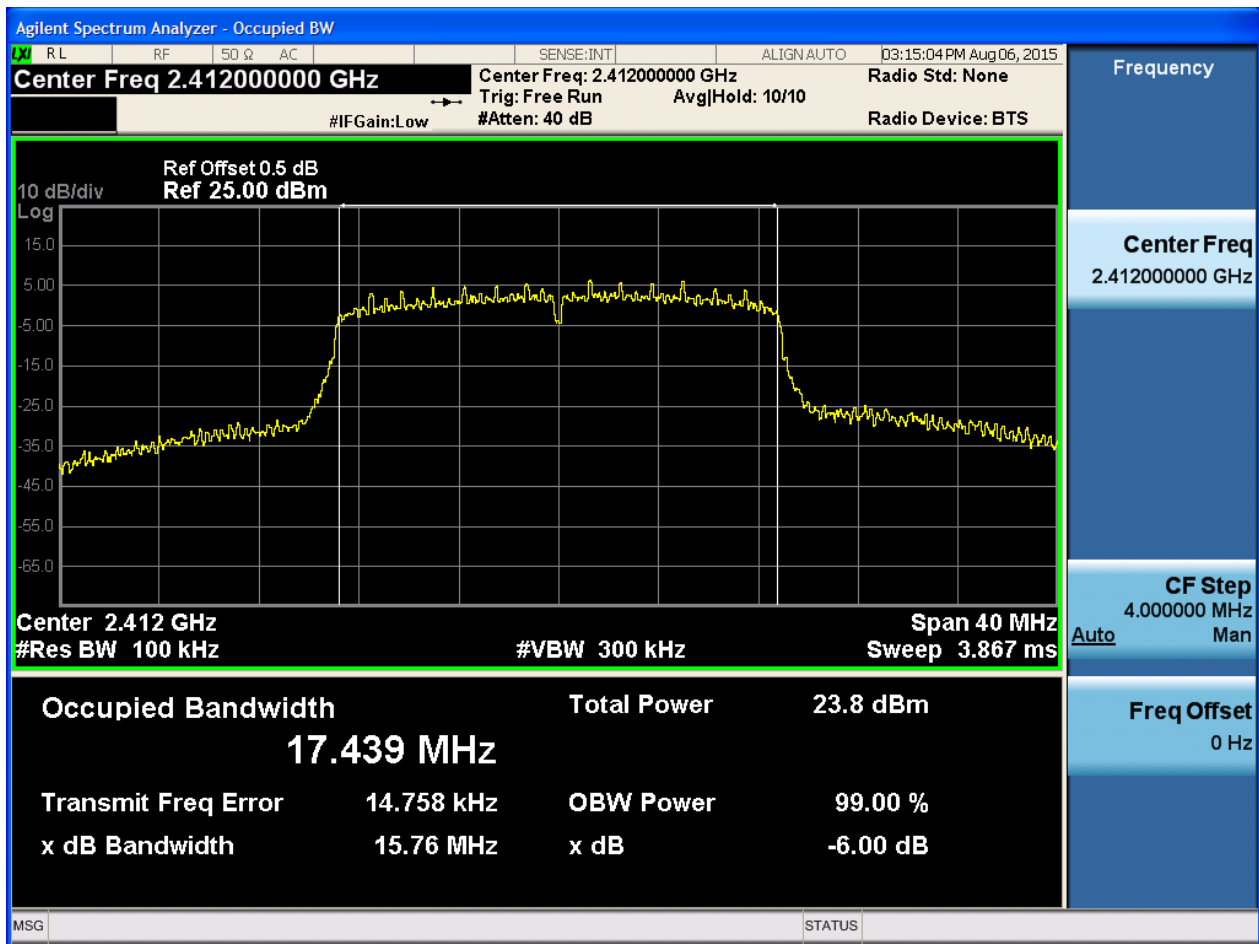


## 2.18 11N20\_H@Ant 2



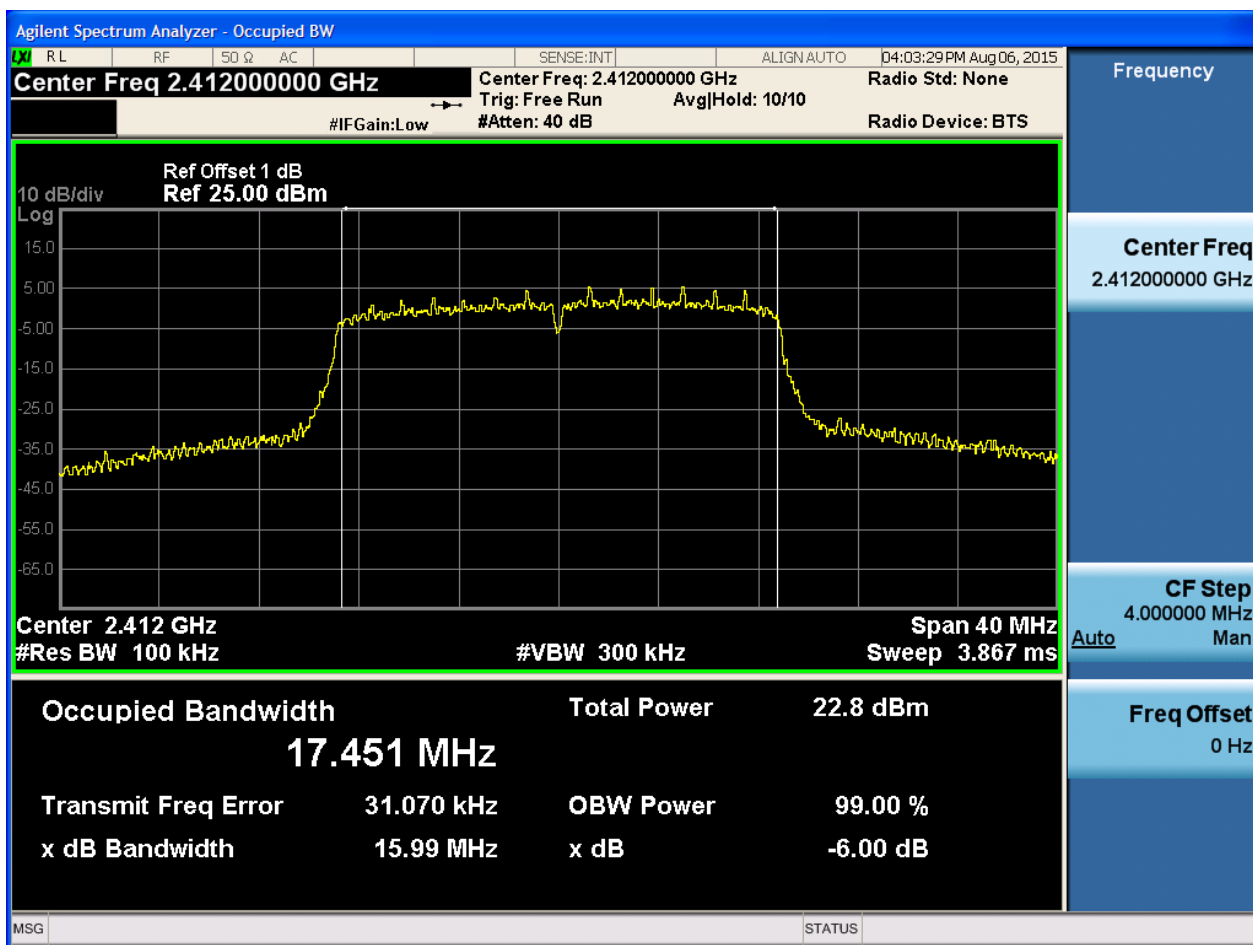


## 2.14 11N20m\_L@Ant 2



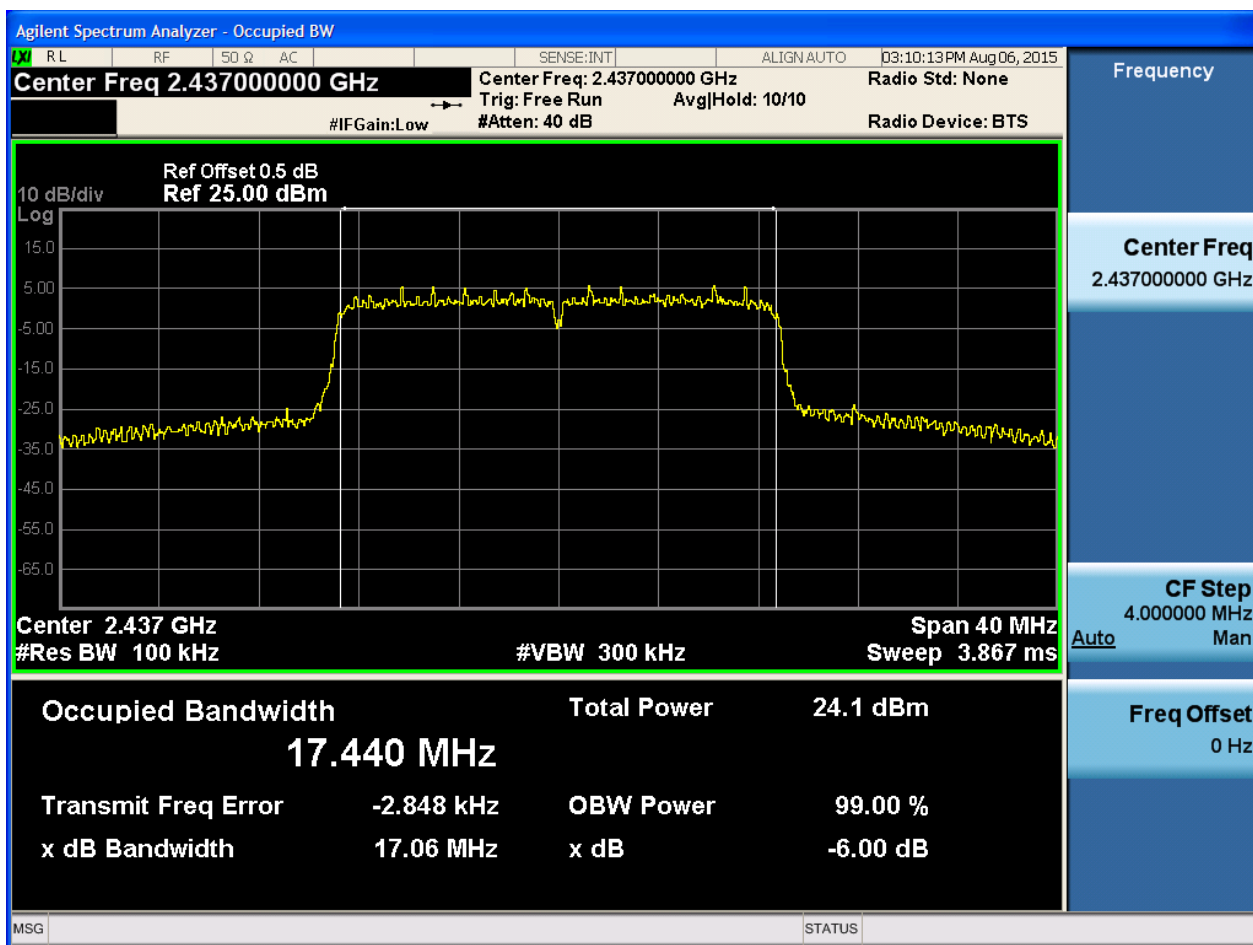


## 2.13 11N20m\_L@Ant 1



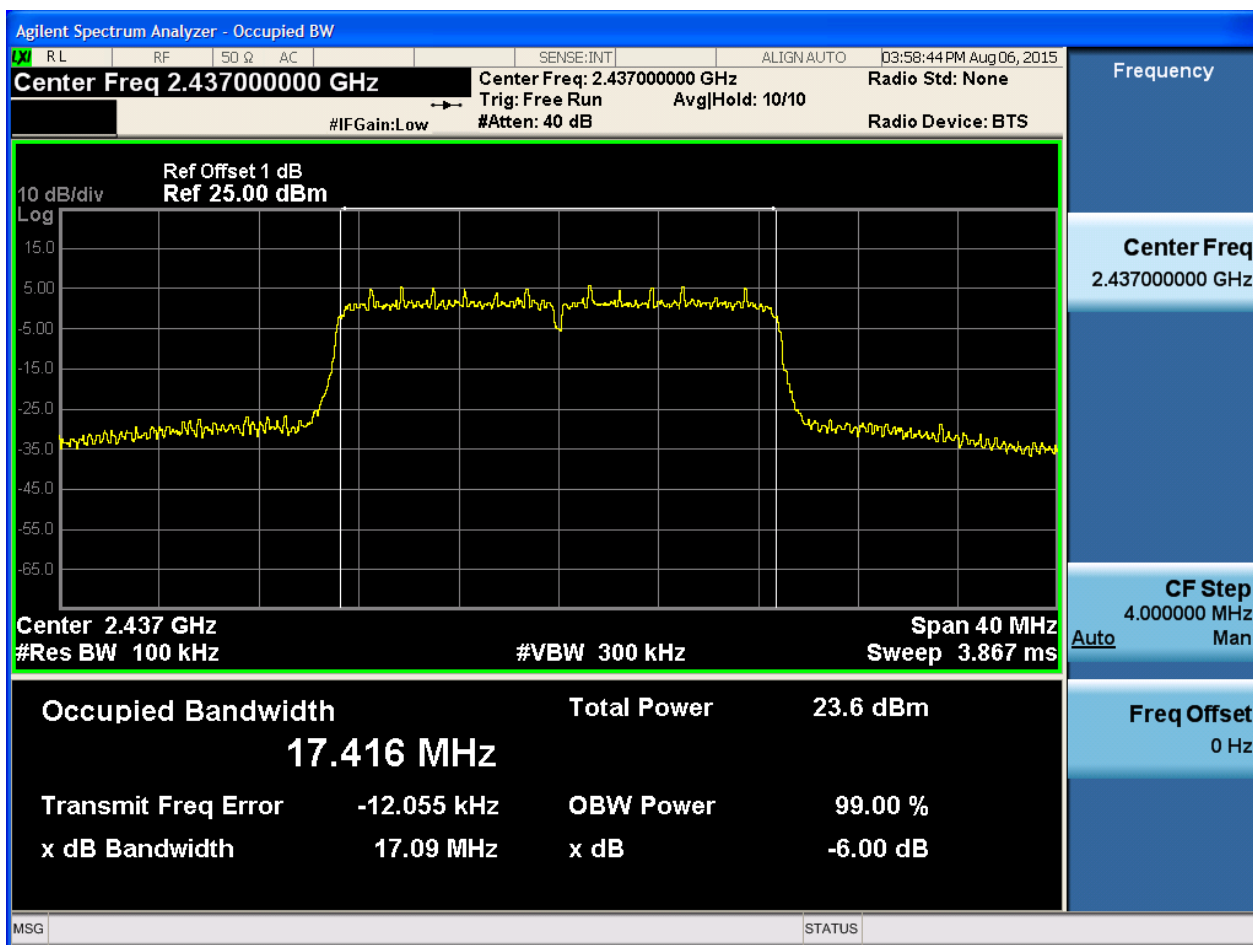


## 2.16 11N20m\_M@Ant 2



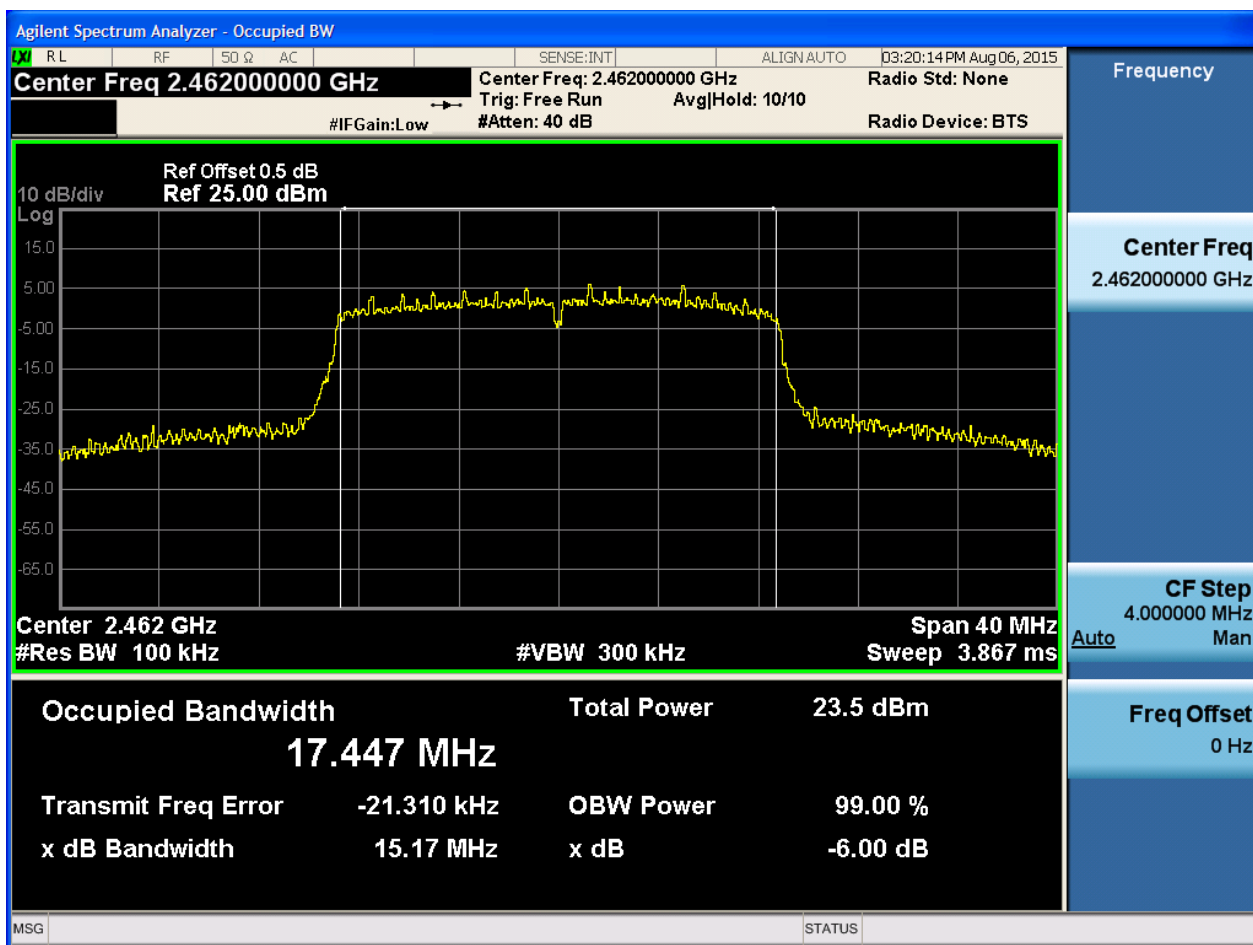


## 2.15 11N20m\_M@Ant 1



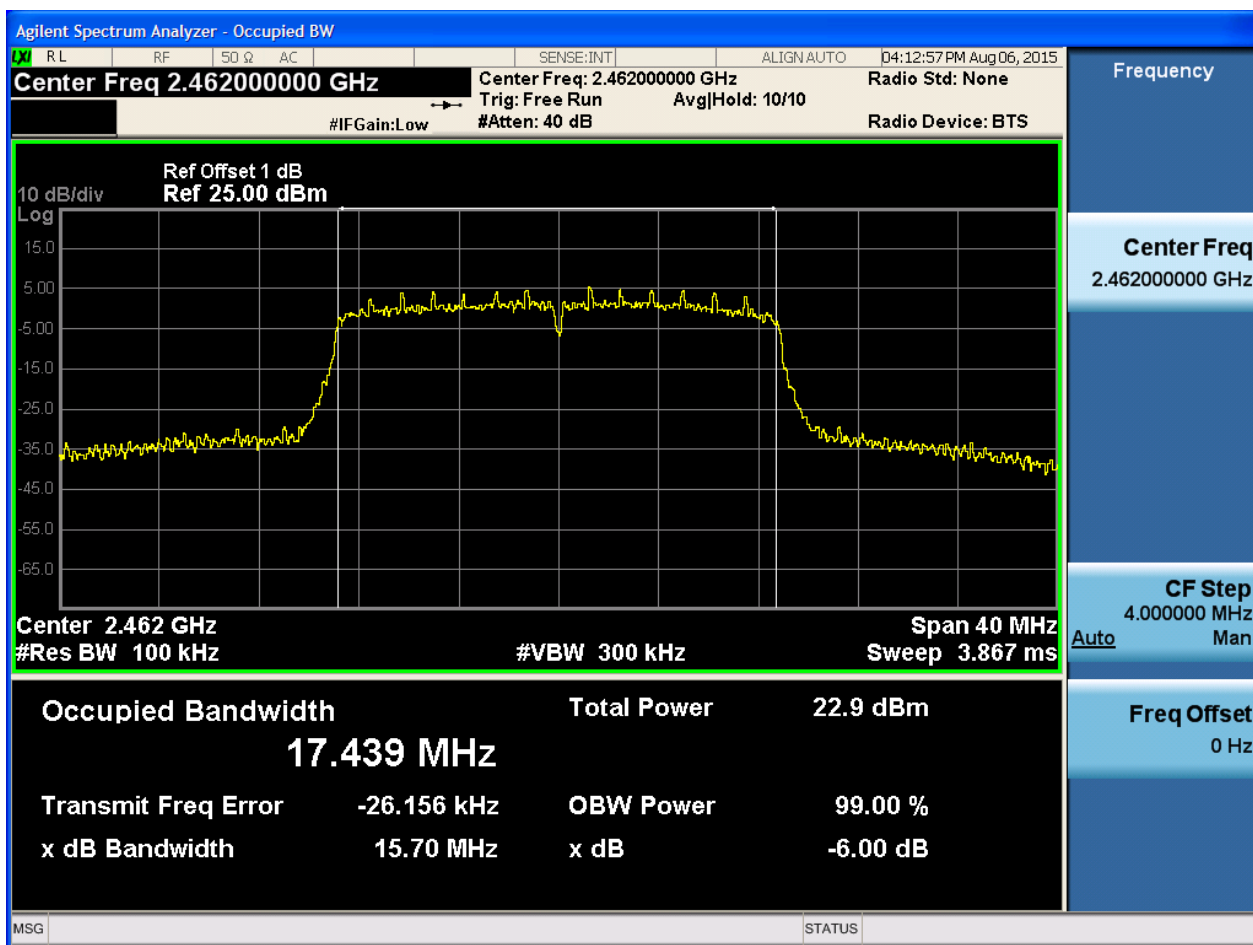


## 2.18 11N20m\_H@Ant 2



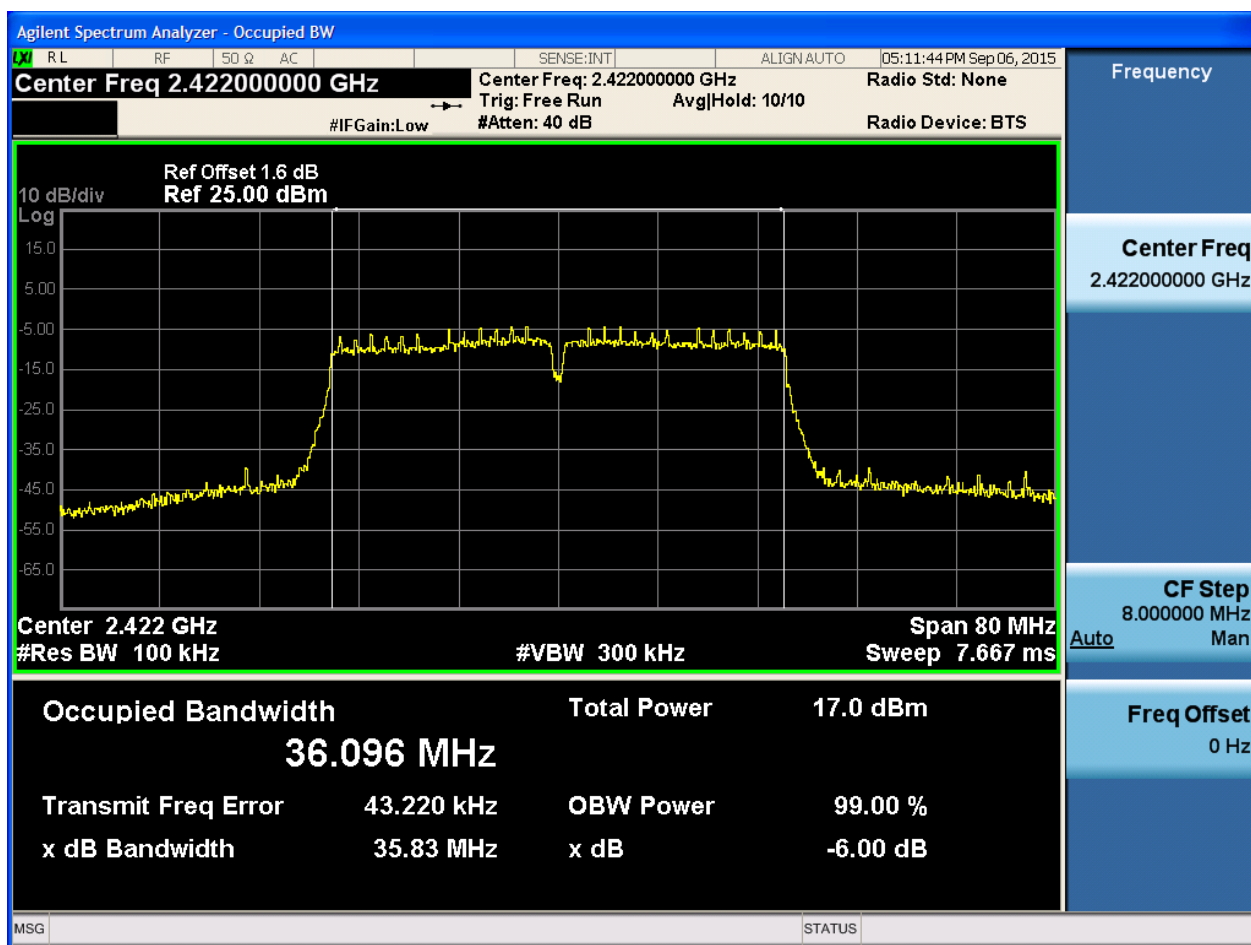


## 2.17 11N20m\_H@Ant 1



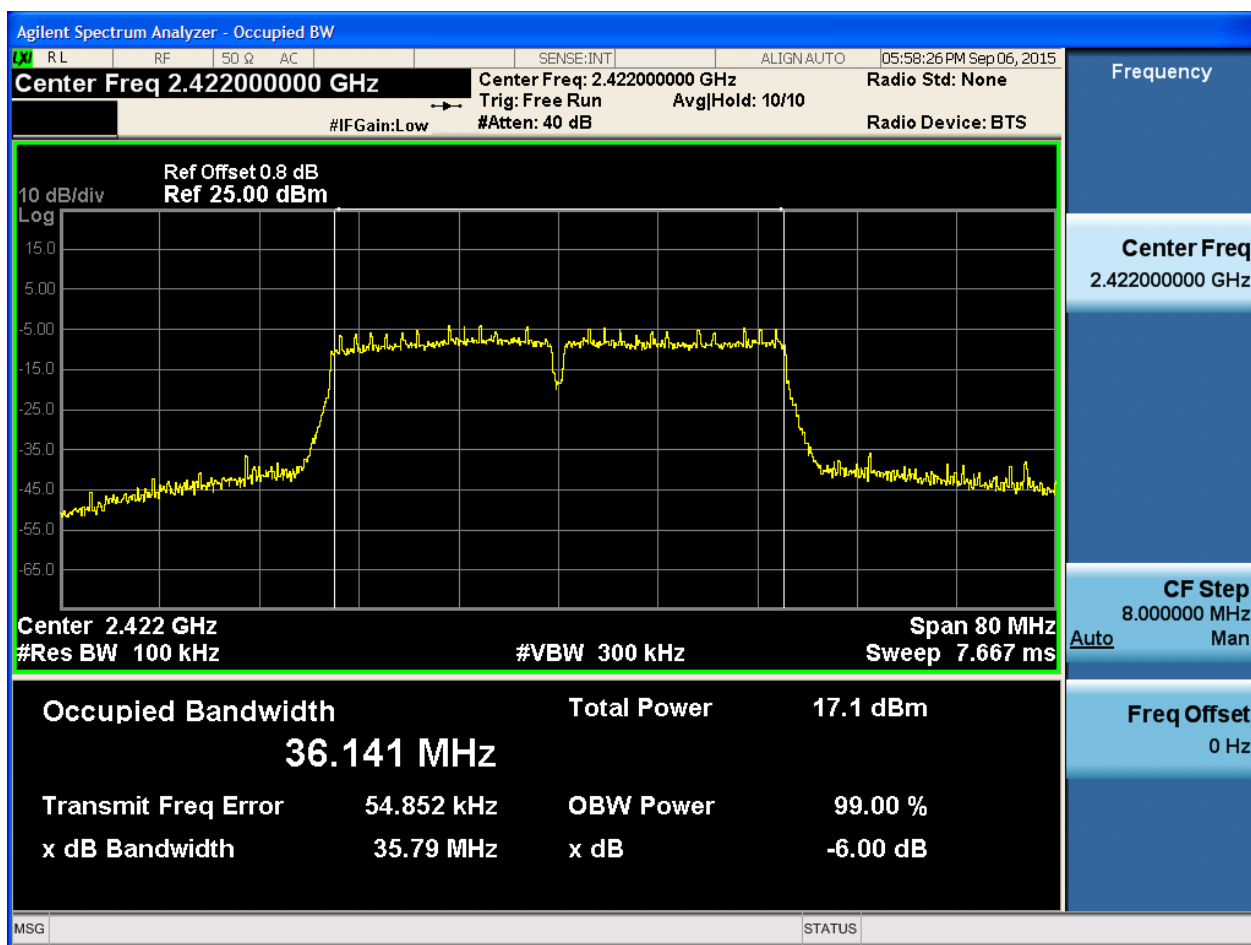


## 2.19 11N40\_L@Ant 1



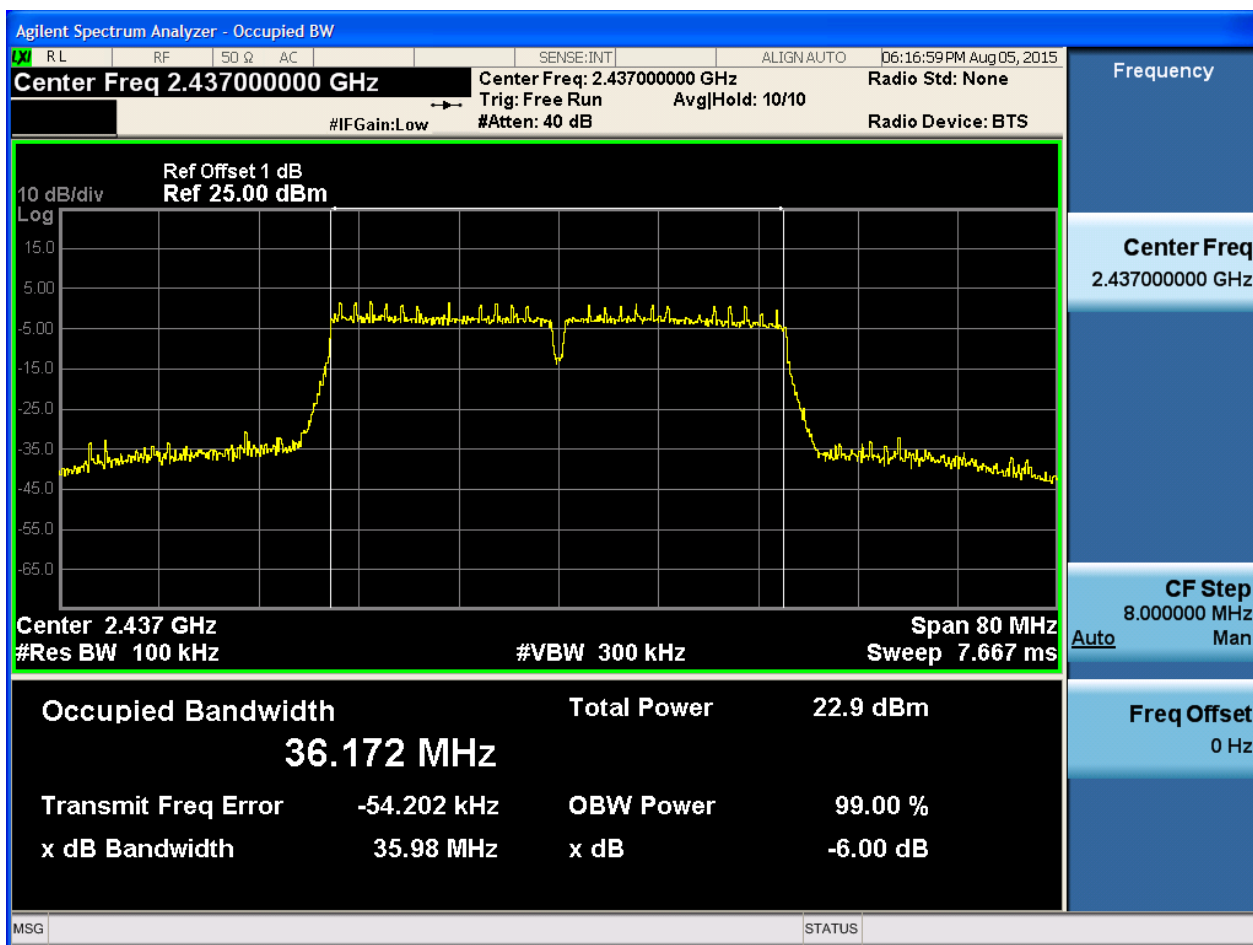


## 2.20 11N40\_L@Ant 2



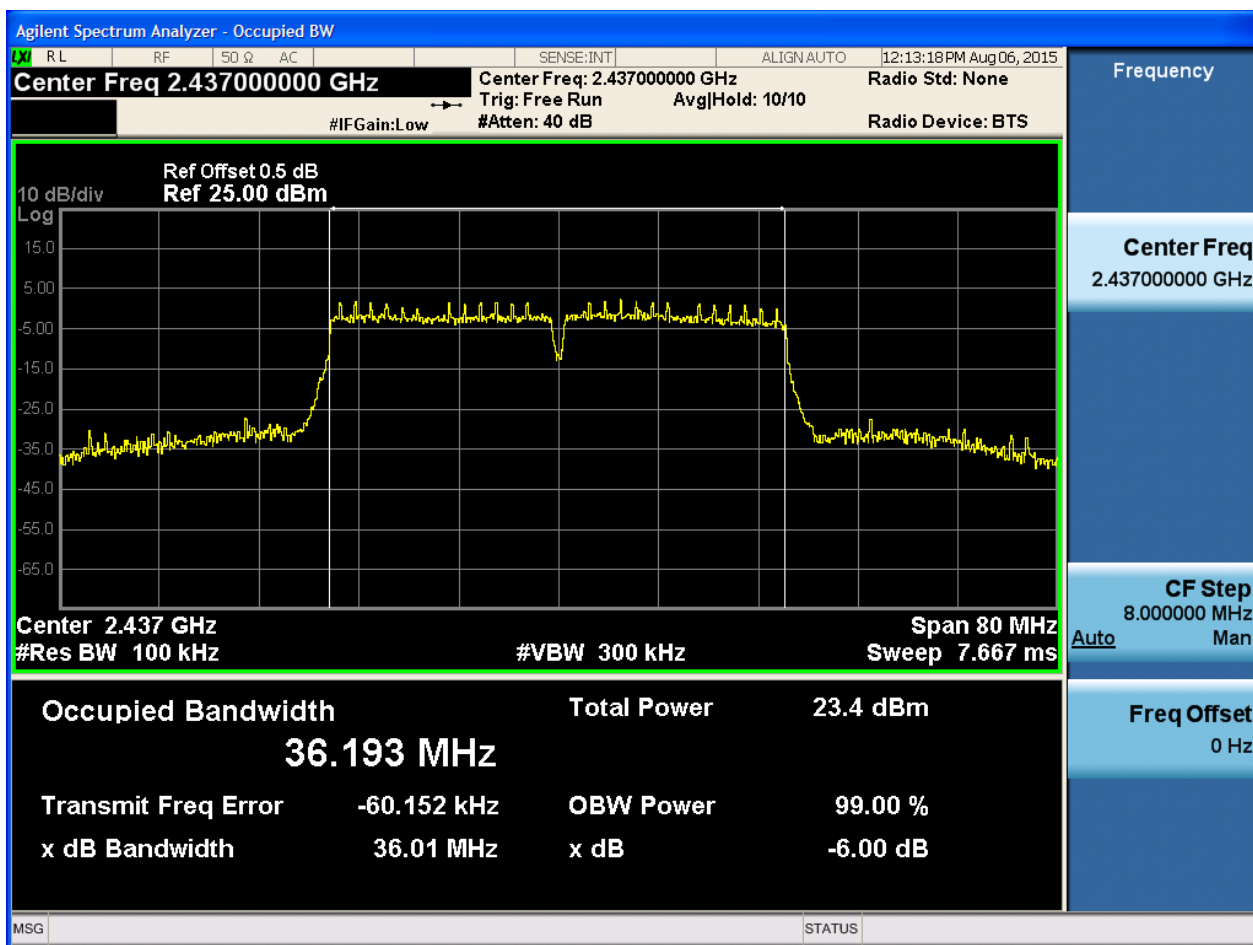


## 2.21 11N40\_M@Ant 1



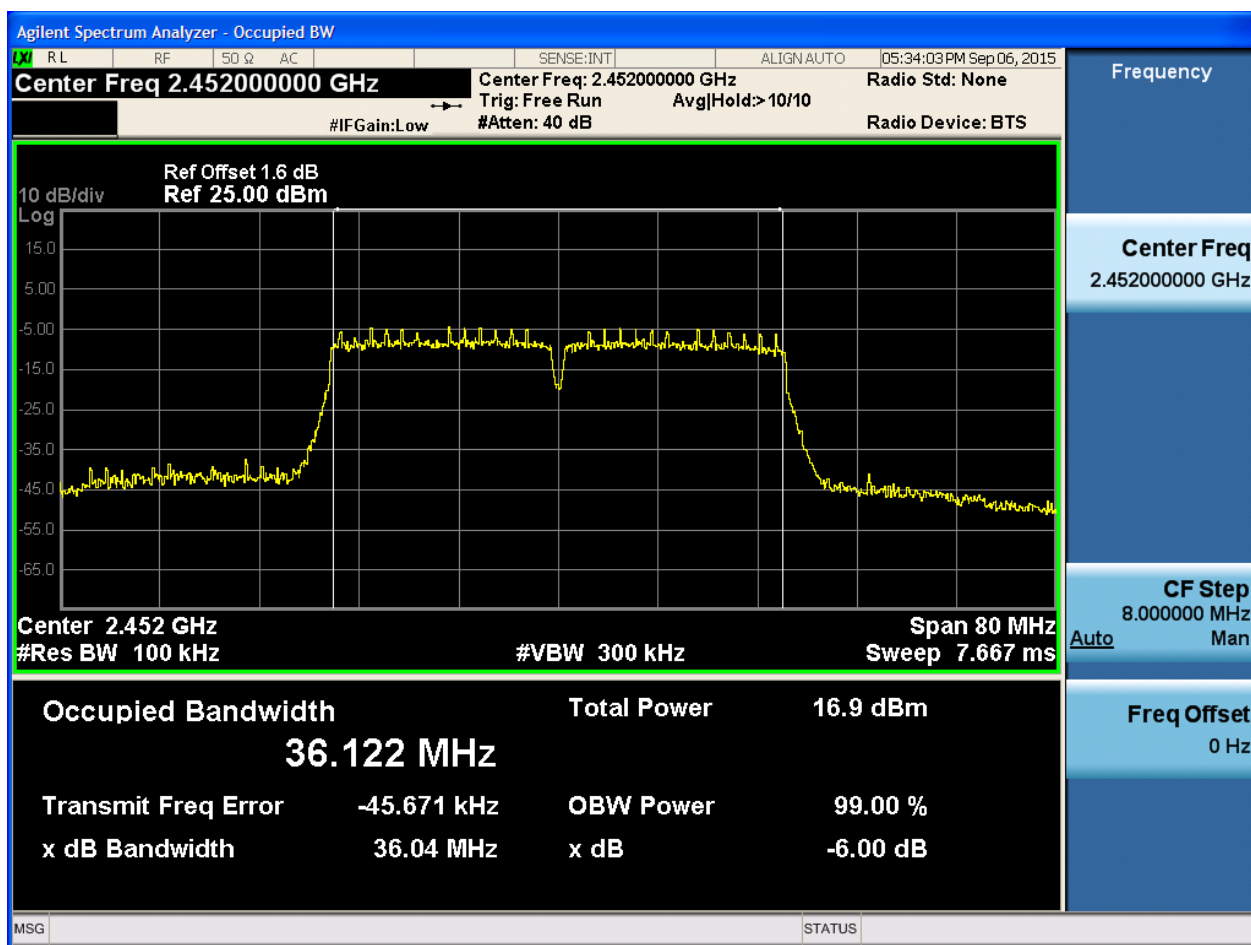


## 2.22 11N40\_M@Ant 2



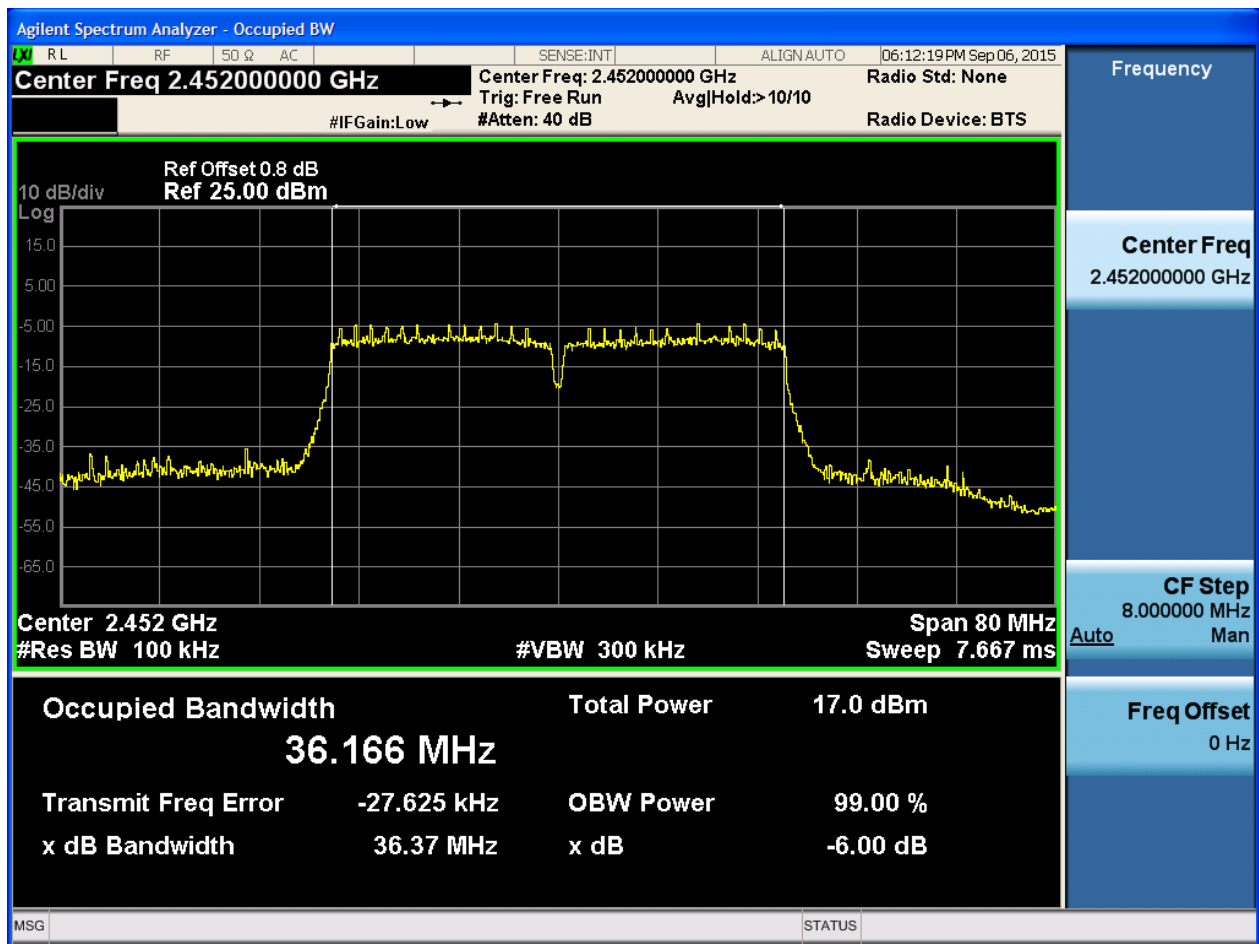


## 2.23 11N40\_H@Ant 1



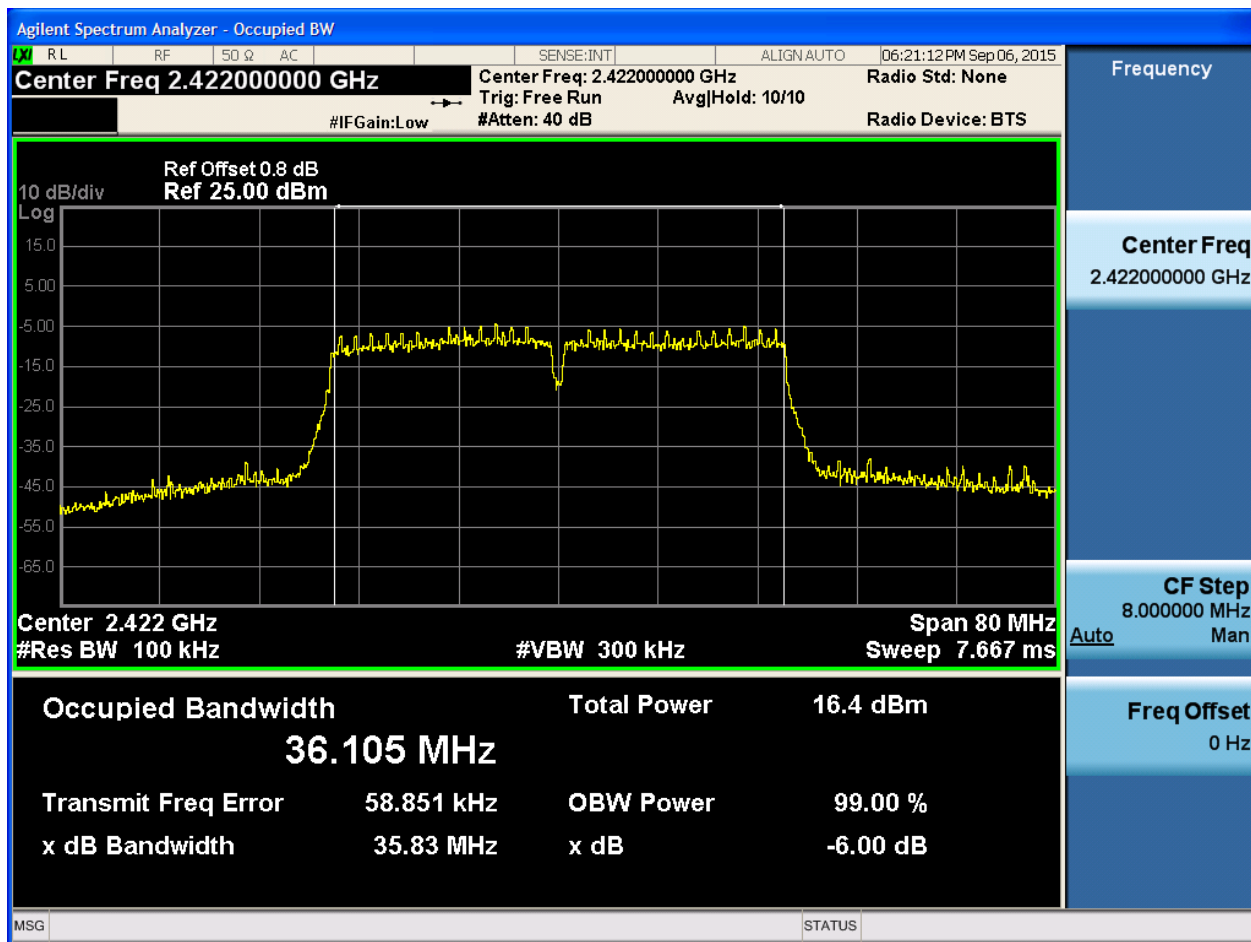


## 2.24 11N40\_H@Ant 2



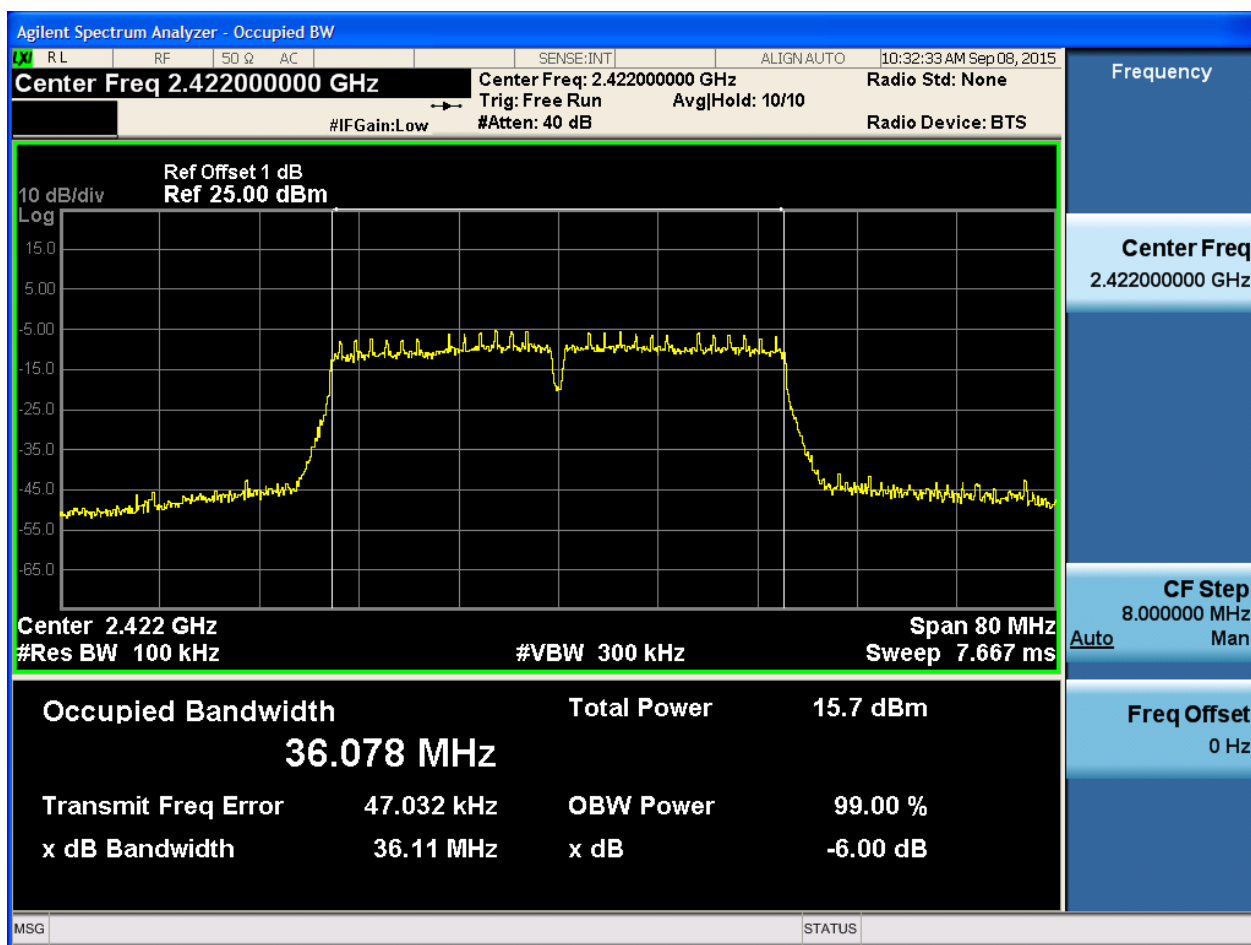


## 2.32 11N40m\_L@Ant 2



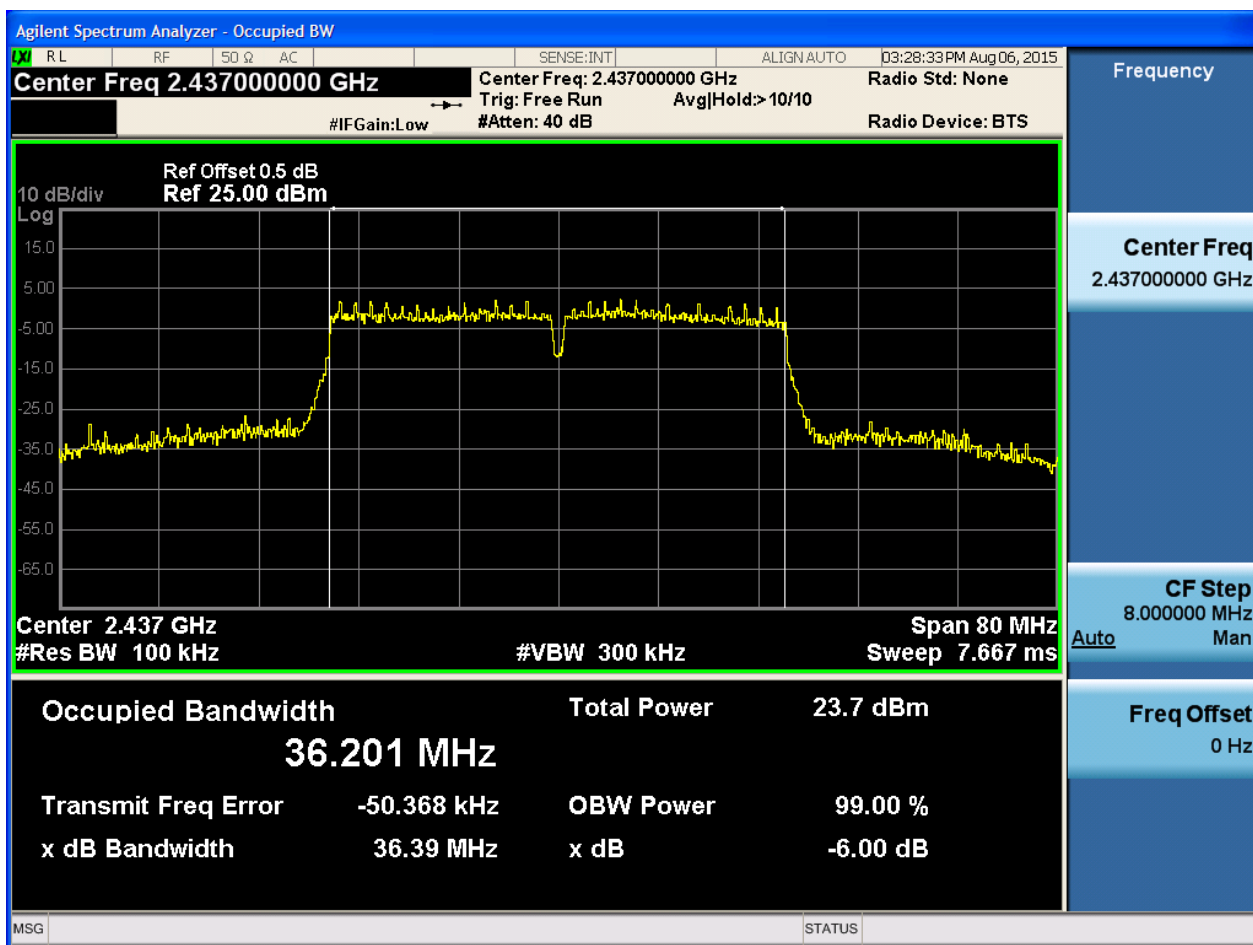


## 2.31 11N40m\_L@Ant 1



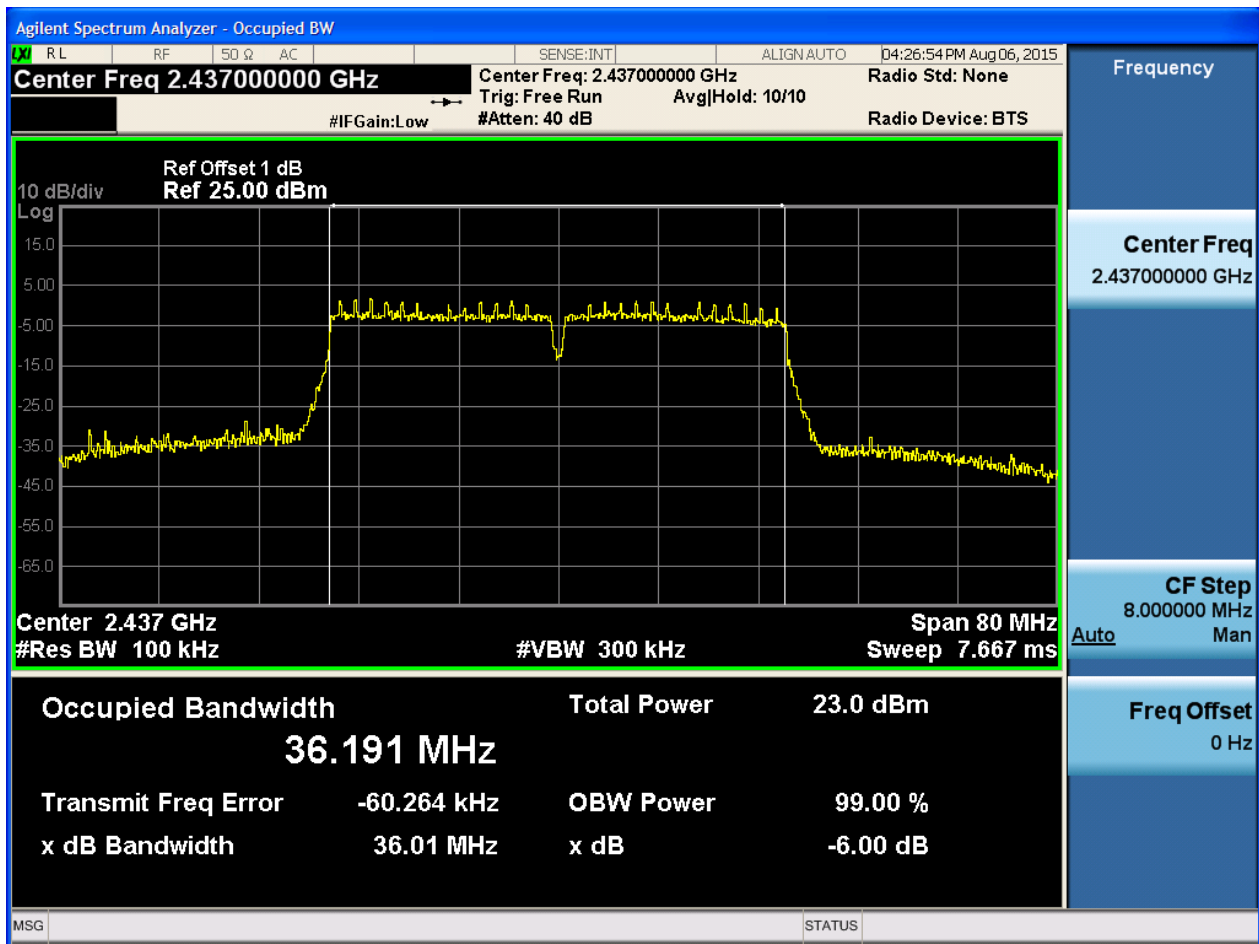


## 2.34 11N40m\_M@Ant 2



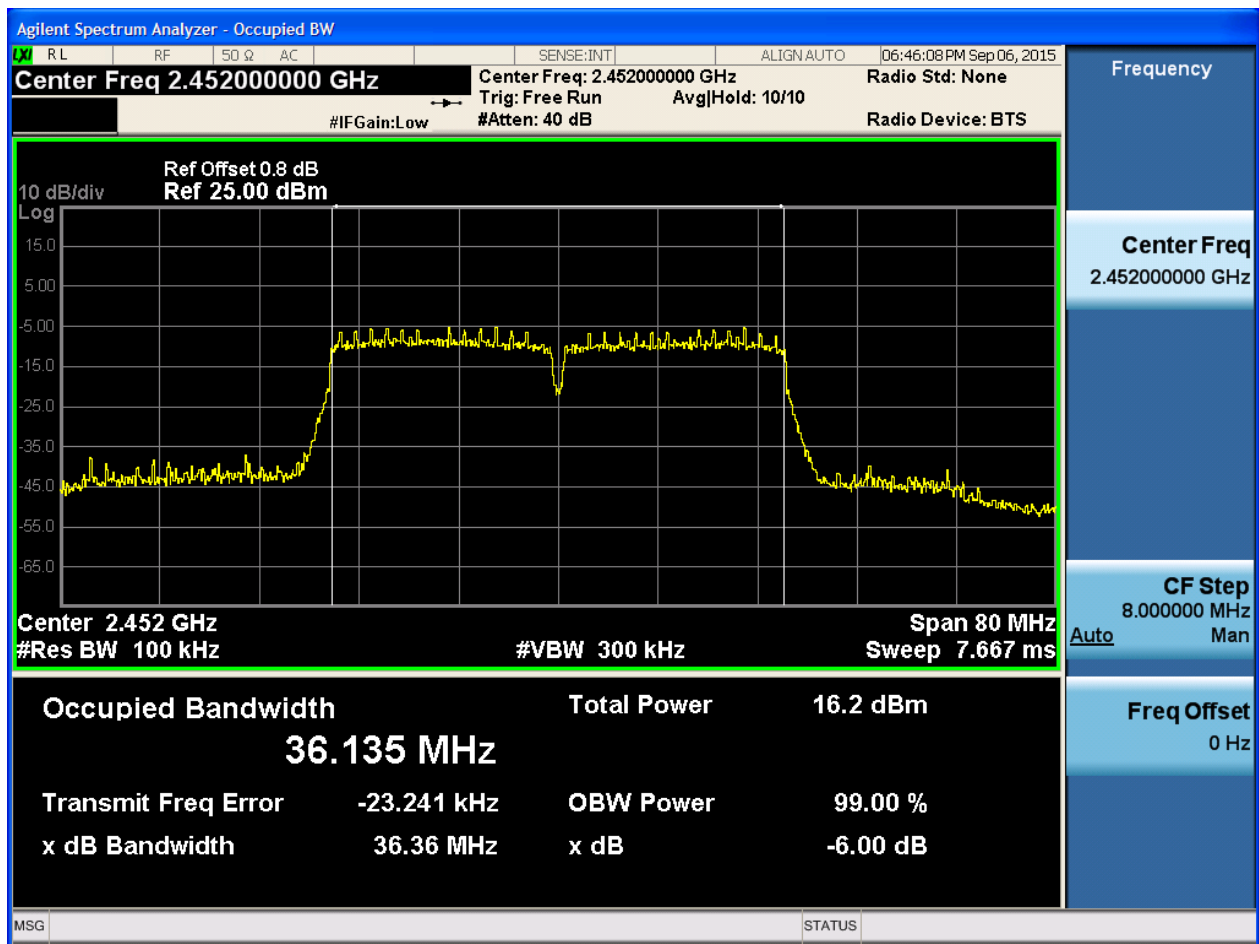


## 2.33 11N40m\_M@Ant 1



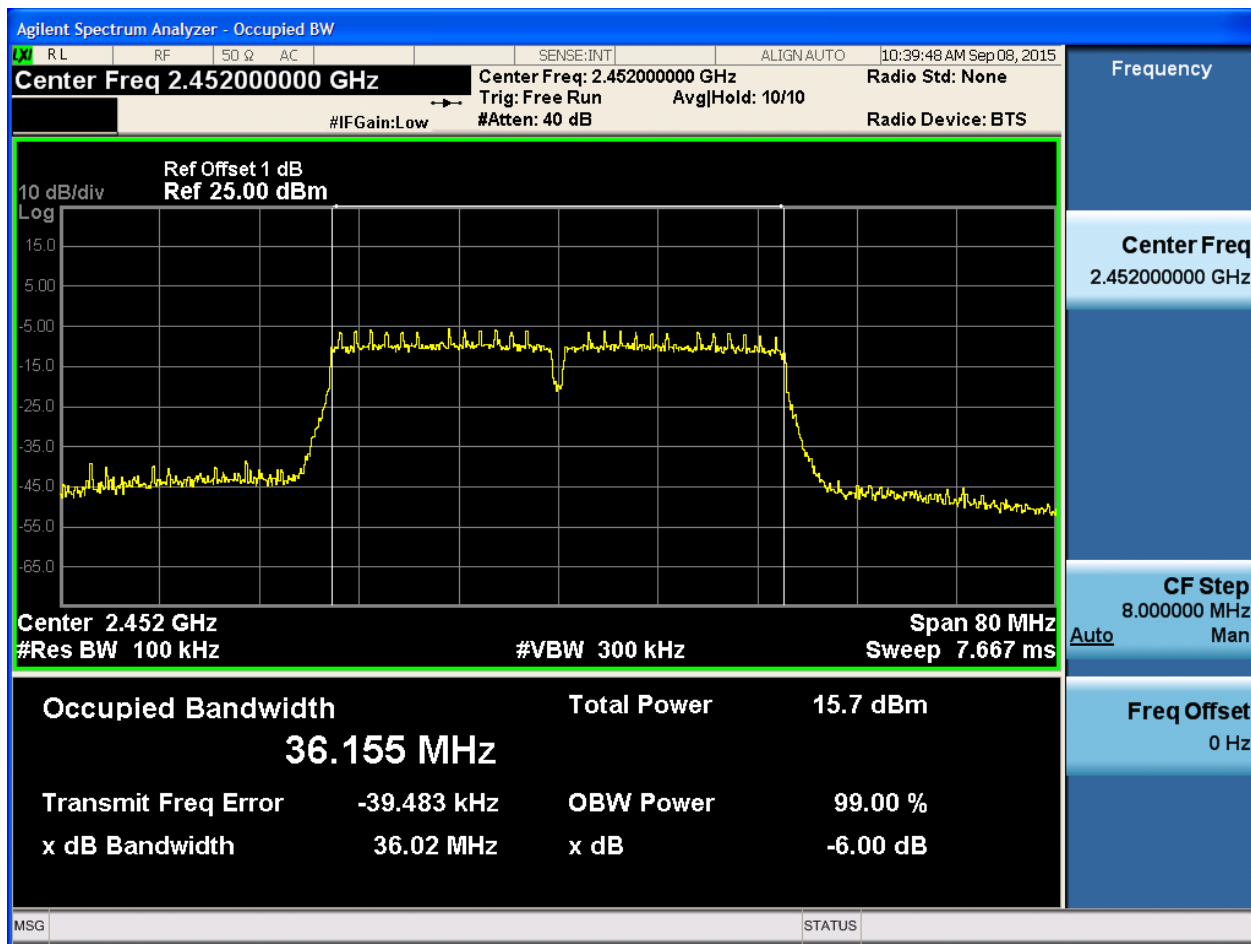


## 2.36 11N40m\_H@Ant 2



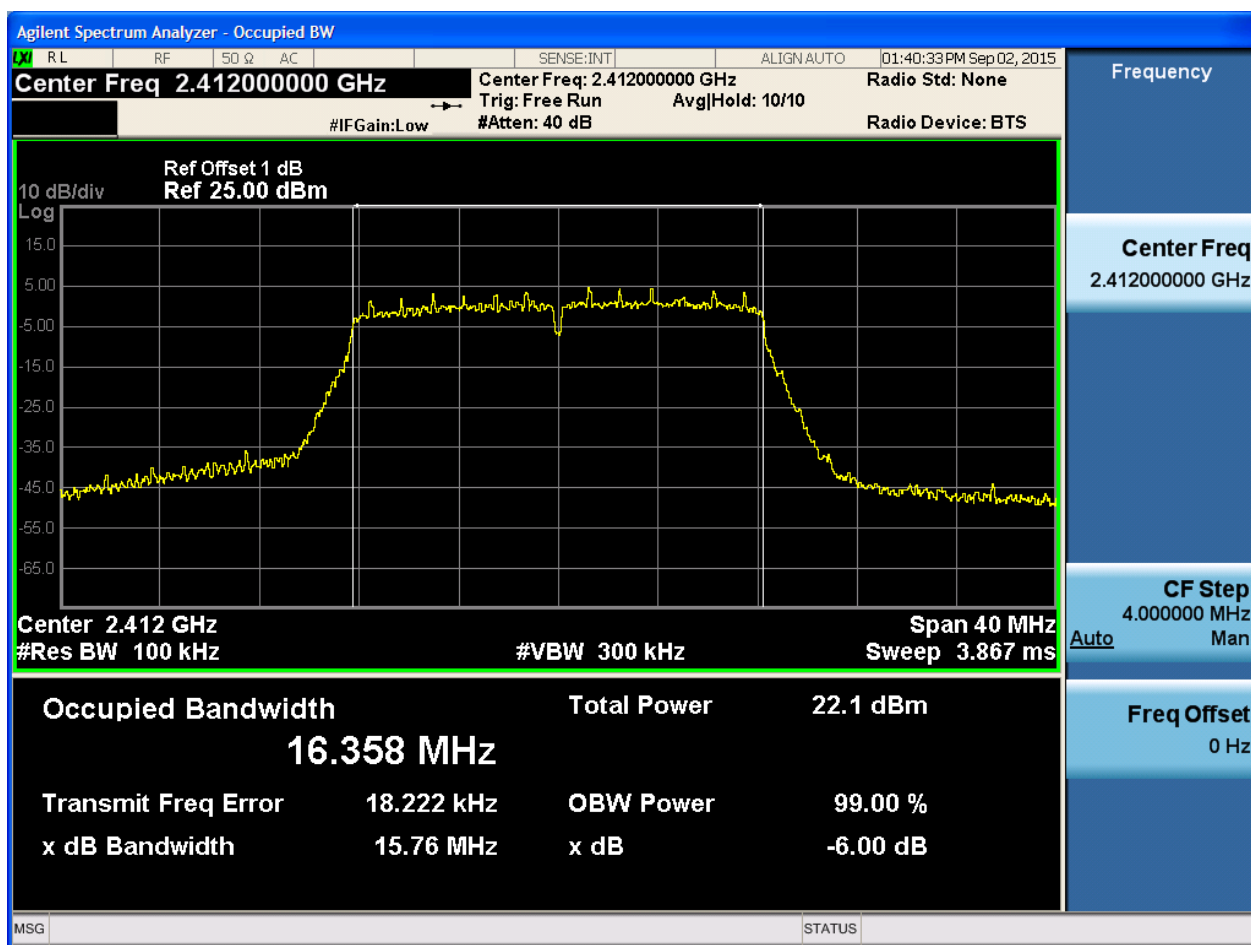


## 2.35 11N40m\_H@Ant 1



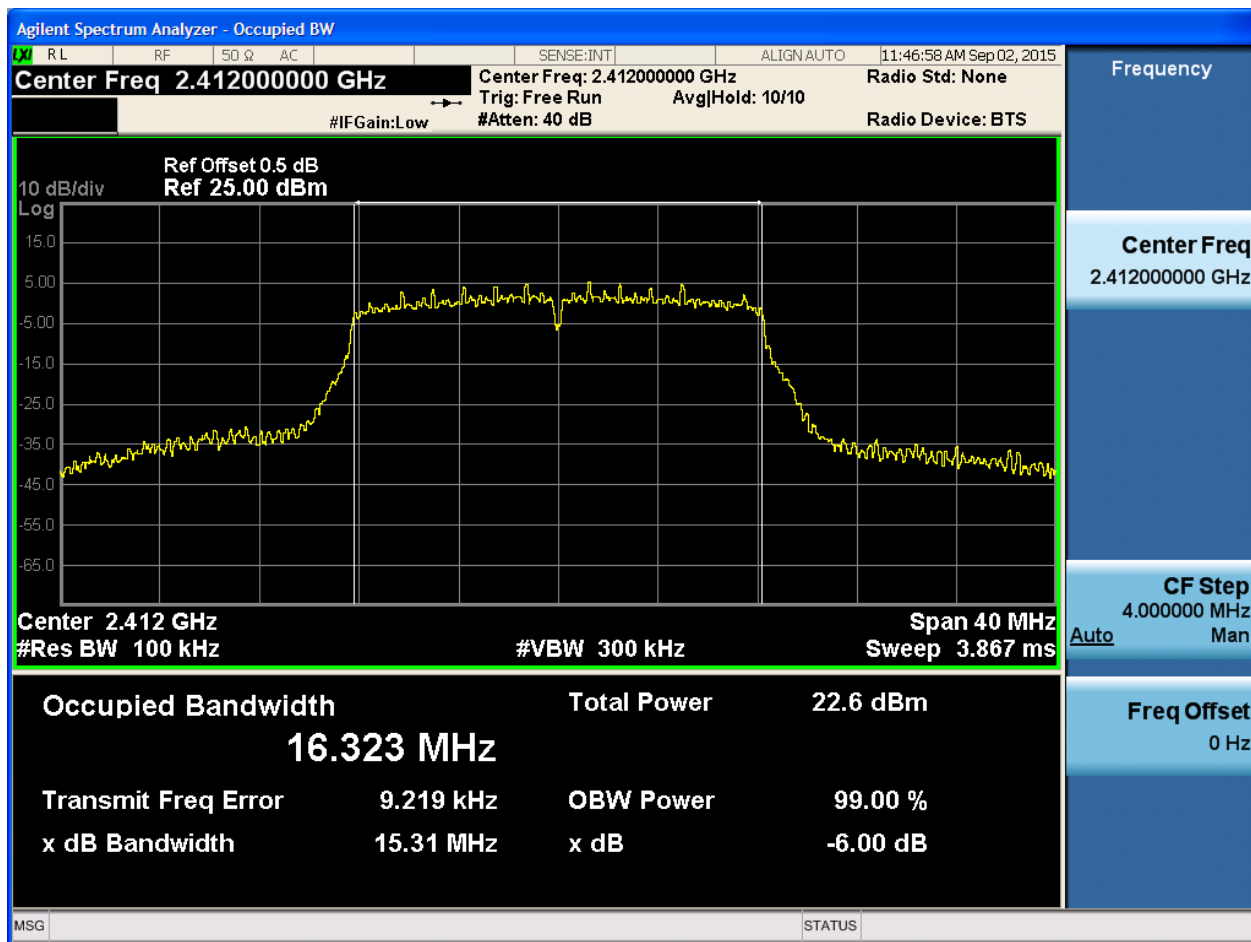


## 2.36 11G CDD\_L@Ant 1



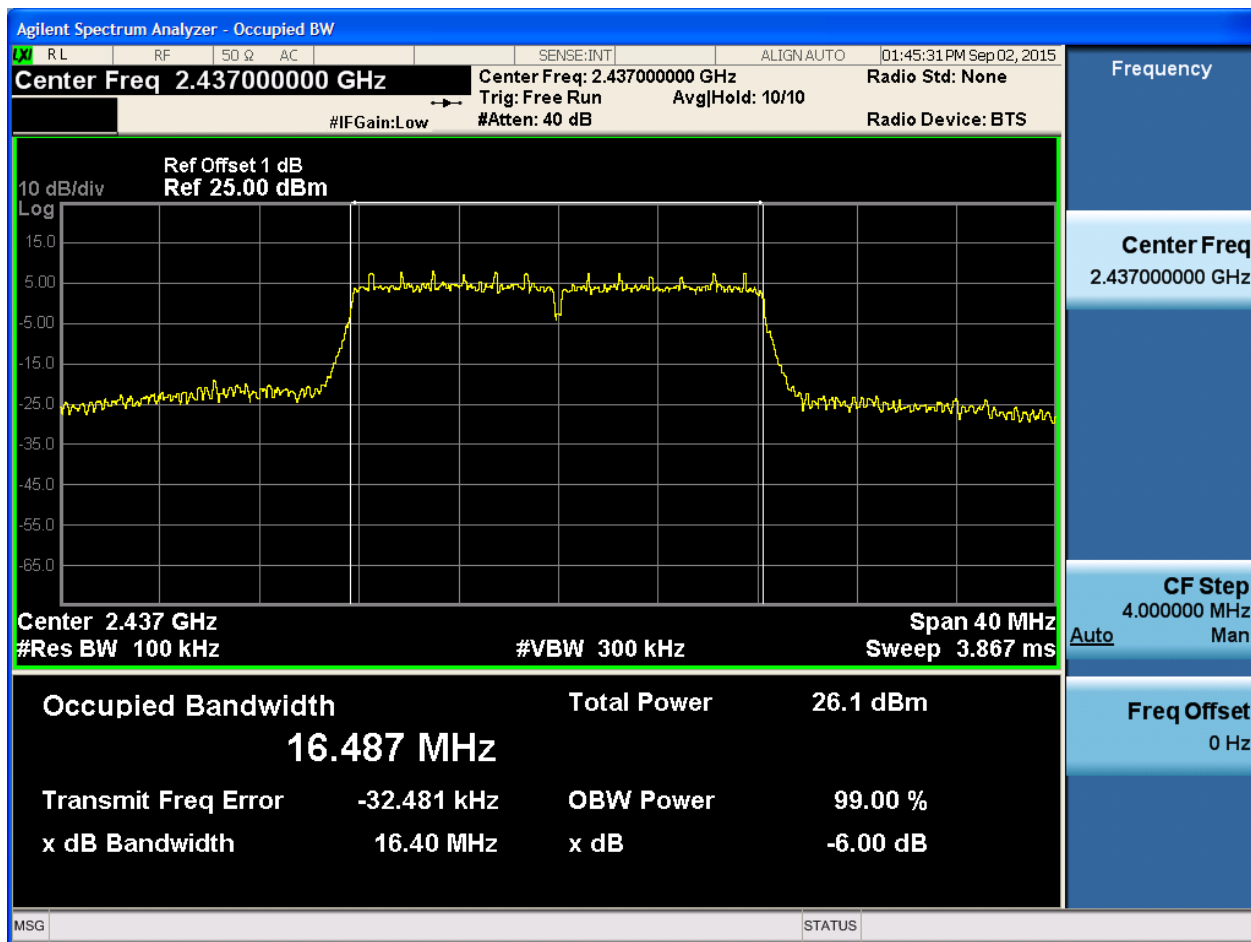


## 2.37 11G CDD\_L@Ant 2



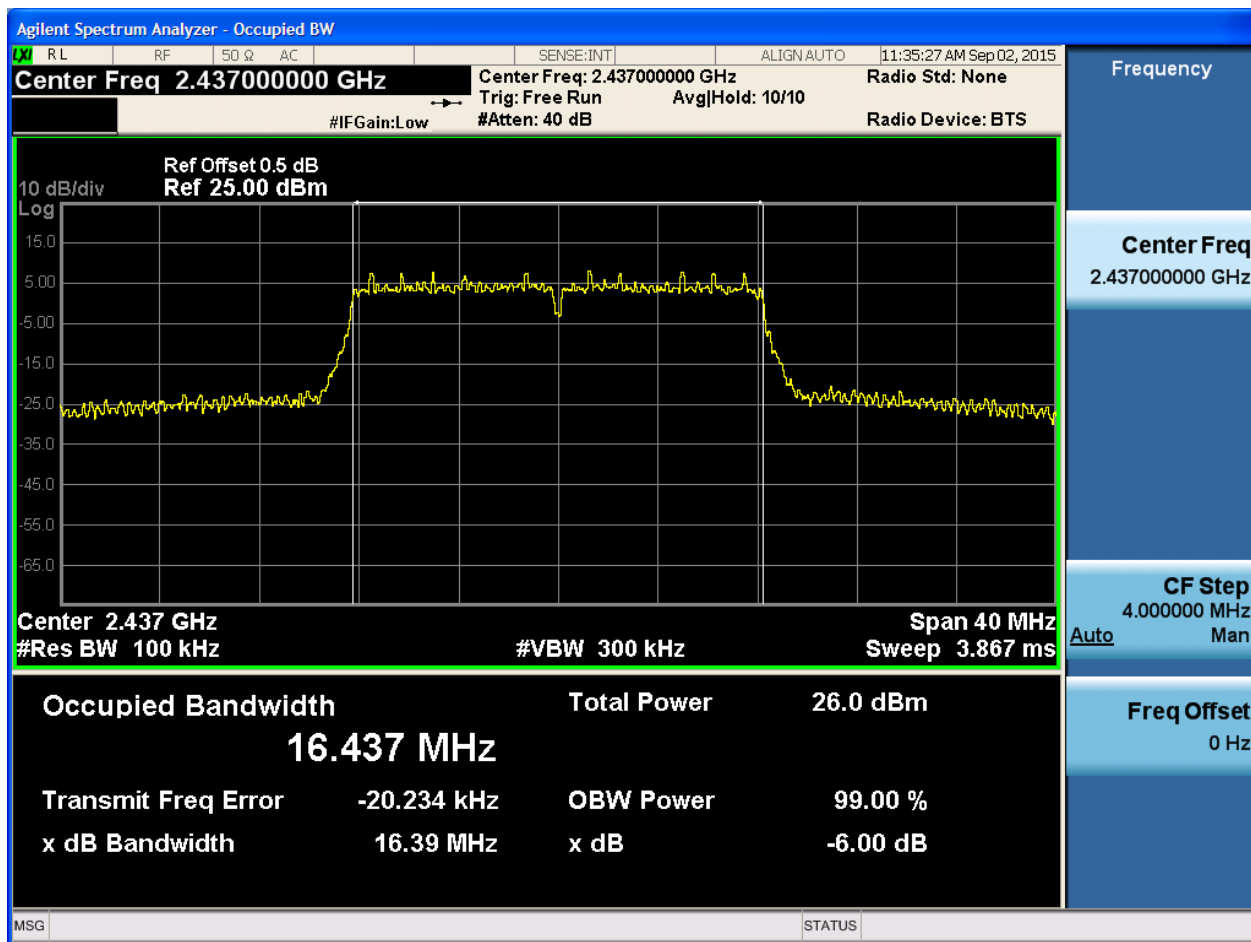


## 2.38 11G CDD\_M@Ant 1



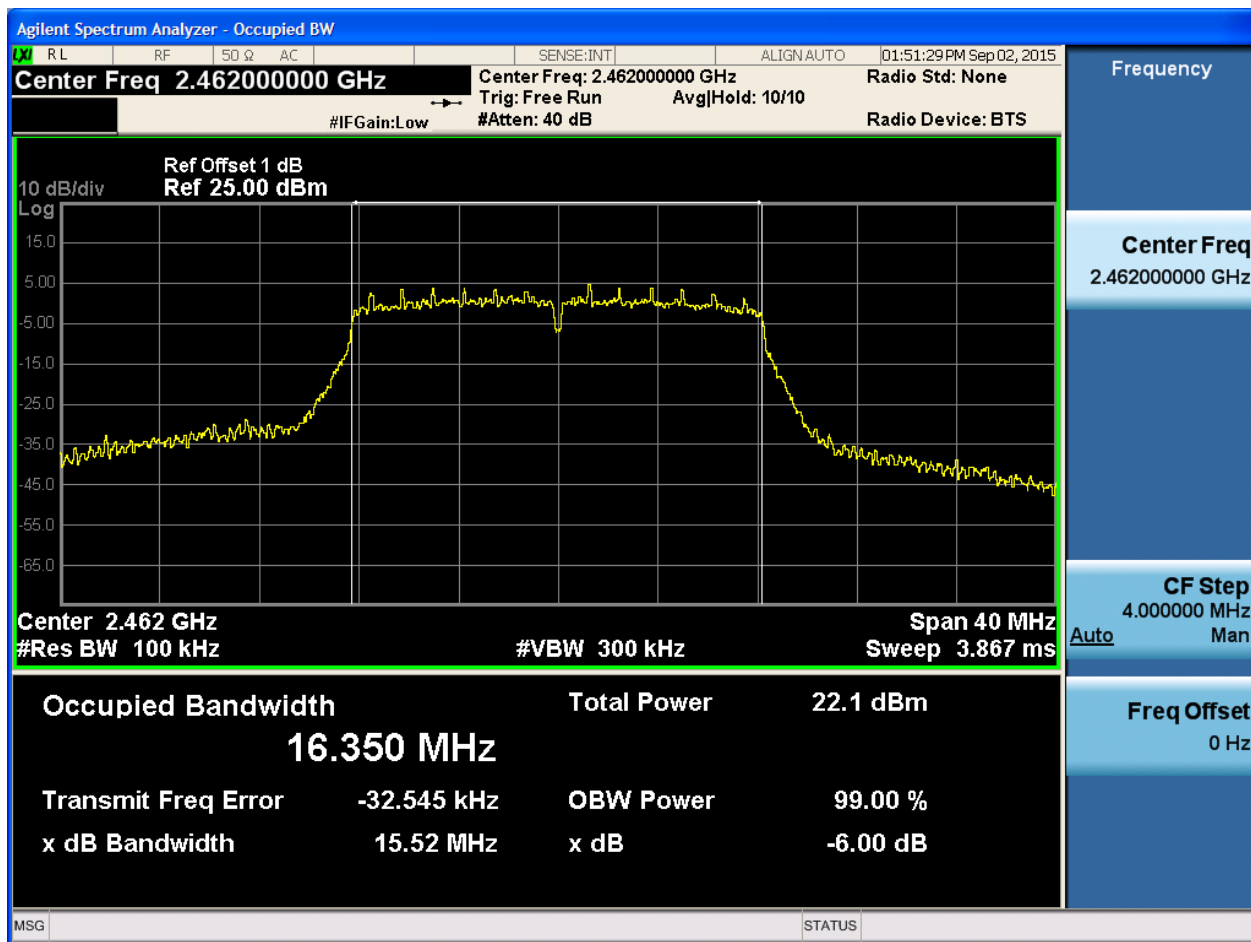


## 2.39 11G CDD\_M@Ant 2



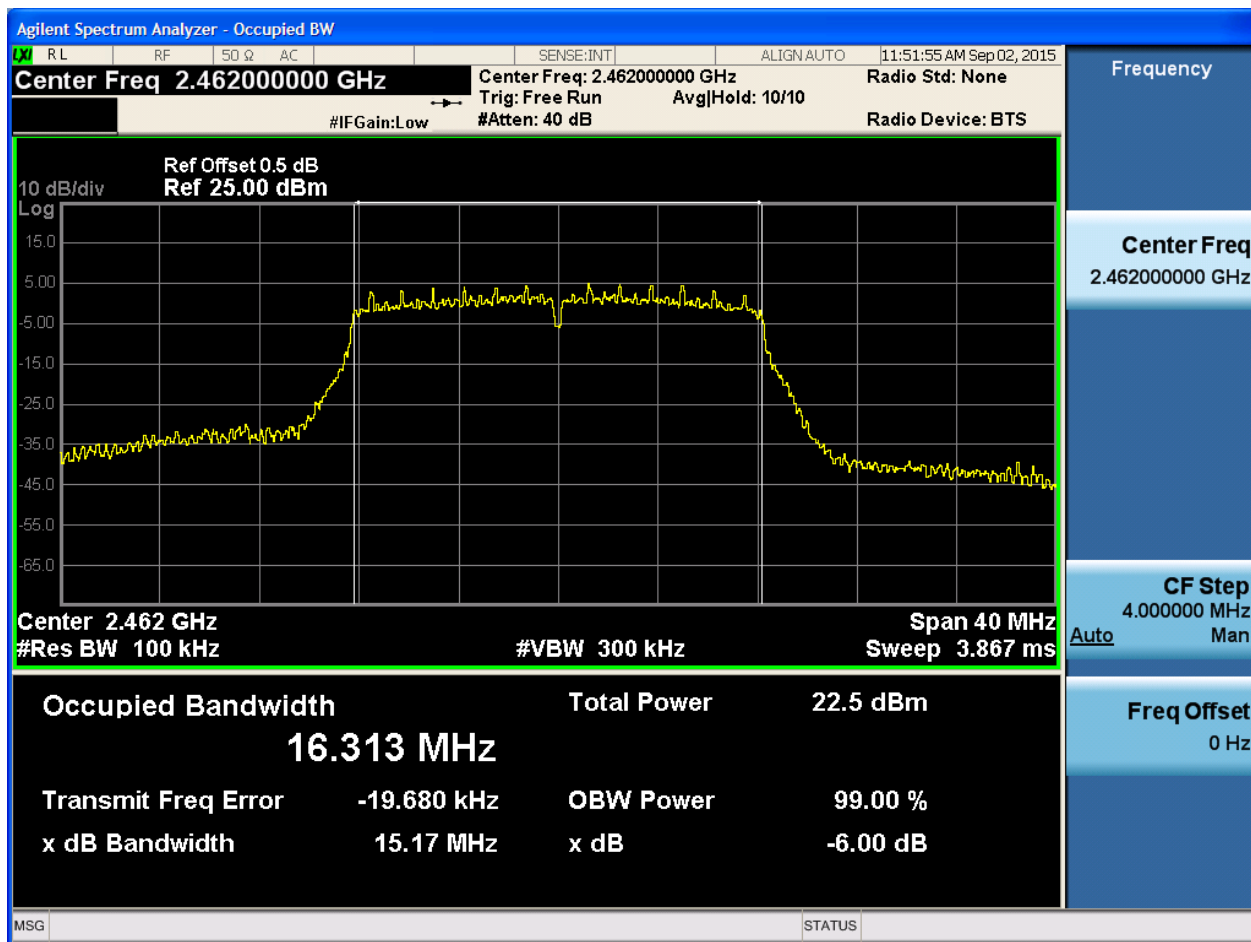


## 2.40 11G CDD\_H@Ant 1





## 2.41 11G CDD\_H@Ant 2



## 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.

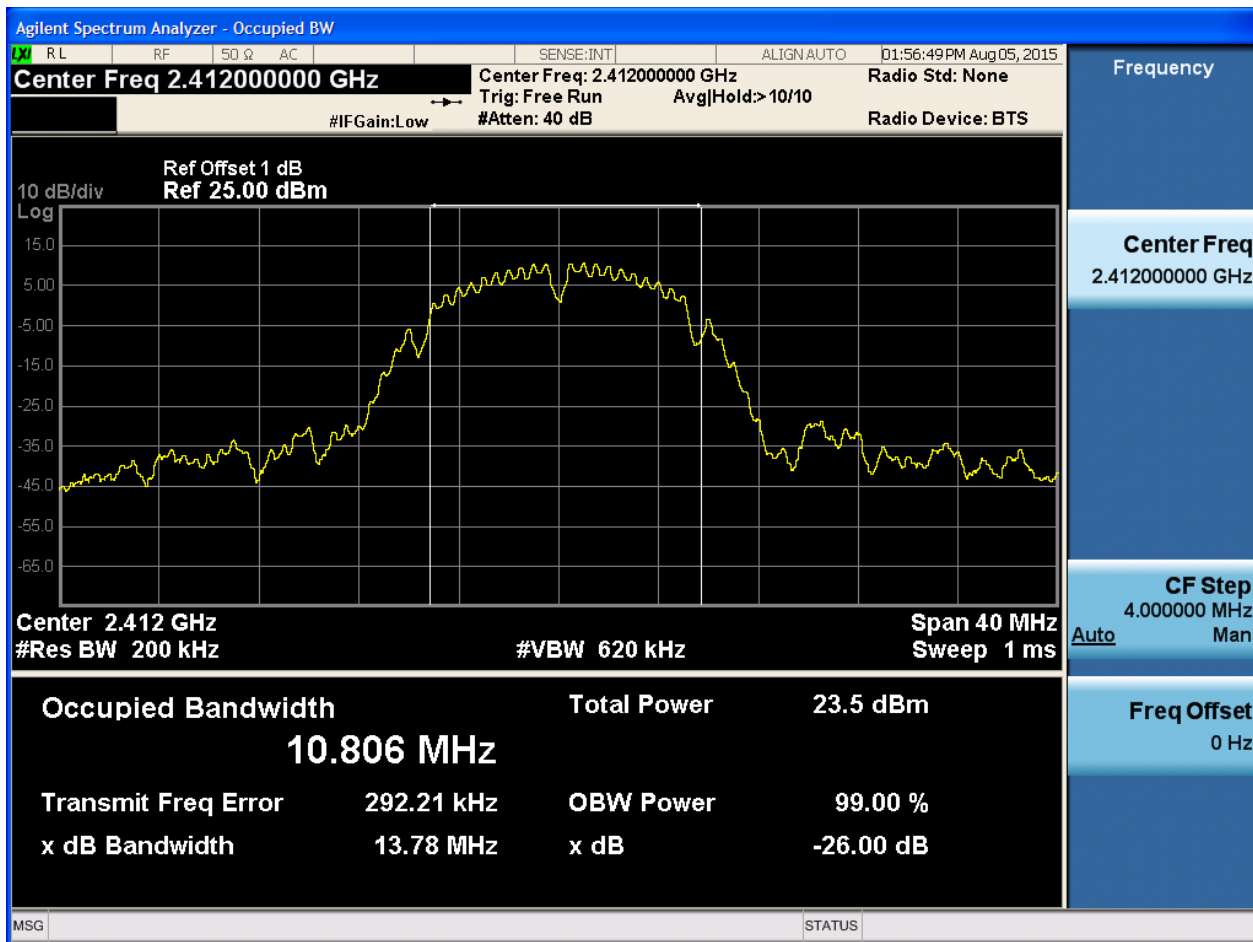
### Part I - Test Results

| Test Mode | Test Channel | Frequency[MHz] | Ant   | Occupied Bandwidth [MHz] | Verdict |
|-----------|--------------|----------------|-------|--------------------------|---------|
| 11B       | L            | 2412           | Ant 1 | 10.80                    | pass    |
| 11B       | L            | 2412           | Ant 2 | 10.85                    | pass    |
| 11B       | M            | 2437           | Ant 1 | 10.30                    | pass    |
| 11B       | M            | 2437           | Ant 2 | 10.59                    | pass    |
| 11B       | H            | 2462           | Ant 1 | 10.34                    | pass    |
| 11B       | H            | 2462           | Ant 2 | 10.70                    | pass    |
| 11G       | L            | 2412           | Ant 1 | 16.42                    | pass    |
| 11G       | L            | 2412           | Ant 2 | 16.37                    | pass    |
| 11G       | M            | 2437           | Ant 1 | 16.56                    | pass    |
| 11G       | M            | 2437           | Ant 2 | 16.53                    | pass    |
| 11G       | H            | 2462           | Ant 1 | 16.40                    | pass    |
| 11G       | H            | 2462           | Ant 2 | 16.39                    | pass    |
| 11N20     | L            | 2412           | Ant 1 | 17.47                    | pass    |
| 11N20     | L            | 2412           | Ant 2 | 17.40                    | pass    |
| 11N20     | M            | 2437           | Ant 1 | 17.41                    | pass    |
| 11N20     | M            | 2437           | Ant 2 | 17.42                    | pass    |
| 11N20     | H            | 2462           | Ant 1 | 17.44                    | pass    |
| 11N20     | H            | 2462           | Ant 2 | 17.41                    | pass    |
| 11N20m    | L            | 2412           | Ant 2 | 17.47                    | pass    |
| 11N20m    | L            | 2412           | Ant 1 | 17.43                    | pass    |
| 11N20m    | M            | 2437           | Ant 2 | 17.42                    | pass    |
| 11N20m    | M            | 2437           | Ant 1 | 17.38                    | pass    |
| 11N20m    | H            | 2462           | Ant 2 | 17.46                    | pass    |
| 11N20m    | H            | 2462           | Ant 1 | 17.42                    | pass    |
| 11N40     | L            | 2422           | Ant 1 | 36.27                    | pass    |
| 11N40     | L            | 2422           | Ant 2 | 36.37                    | pass    |
| 11N40     | M            | 2437           | Ant 1 | 36.36                    | pass    |
| 11N40     | M            | 2437           | Ant 2 | 36.38                    | pass    |
| 11N40     | H            | 2452           | Ant 1 | 36.30                    | pass    |
| 11N40     | H            | 2452           | Ant 2 | 36.29                    | pass    |
| 11N40m    | L            | 2422           | Ant 2 | 36.20                    | pass    |
| 11N40m    | L            | 2422           | Ant 1 | 36.26                    | pass    |
| 11N40m    | M            | 2437           | Ant 2 | 36.30                    | pass    |
| 11N40m    | M            | 2437           | Ant 1 | 36.34                    | pass    |

| Test Mode | Test Channel | Frequency[MHz] | Ant   | Occupied Bandwidth [MHz] | Verdict |
|-----------|--------------|----------------|-------|--------------------------|---------|
| 11N40m    | H            | 2452           | Ant 2 | 36.27                    | pass    |
| 11N40m    | H            | 2452           | Ant 1 | 36.33                    | pass    |
| 11G CDD   | L            | 2412           | Ant 1 | 16.44                    | pass    |
| 11G CDD   | L            | 2412           | Ant 2 | 16.38                    | pass    |
| 11G CDD   | M            | 2437           | Ant 1 | 16.60                    | pass    |
| 11G CDD   | M            | 2437           | Ant 2 | 16.56                    | pass    |
| 11G CDD   | H            | 2462           | Ant 1 | 16.43                    | pass    |
| 11G CDD   | H            | 2462           | Ant 2 | 16.37                    | pass    |

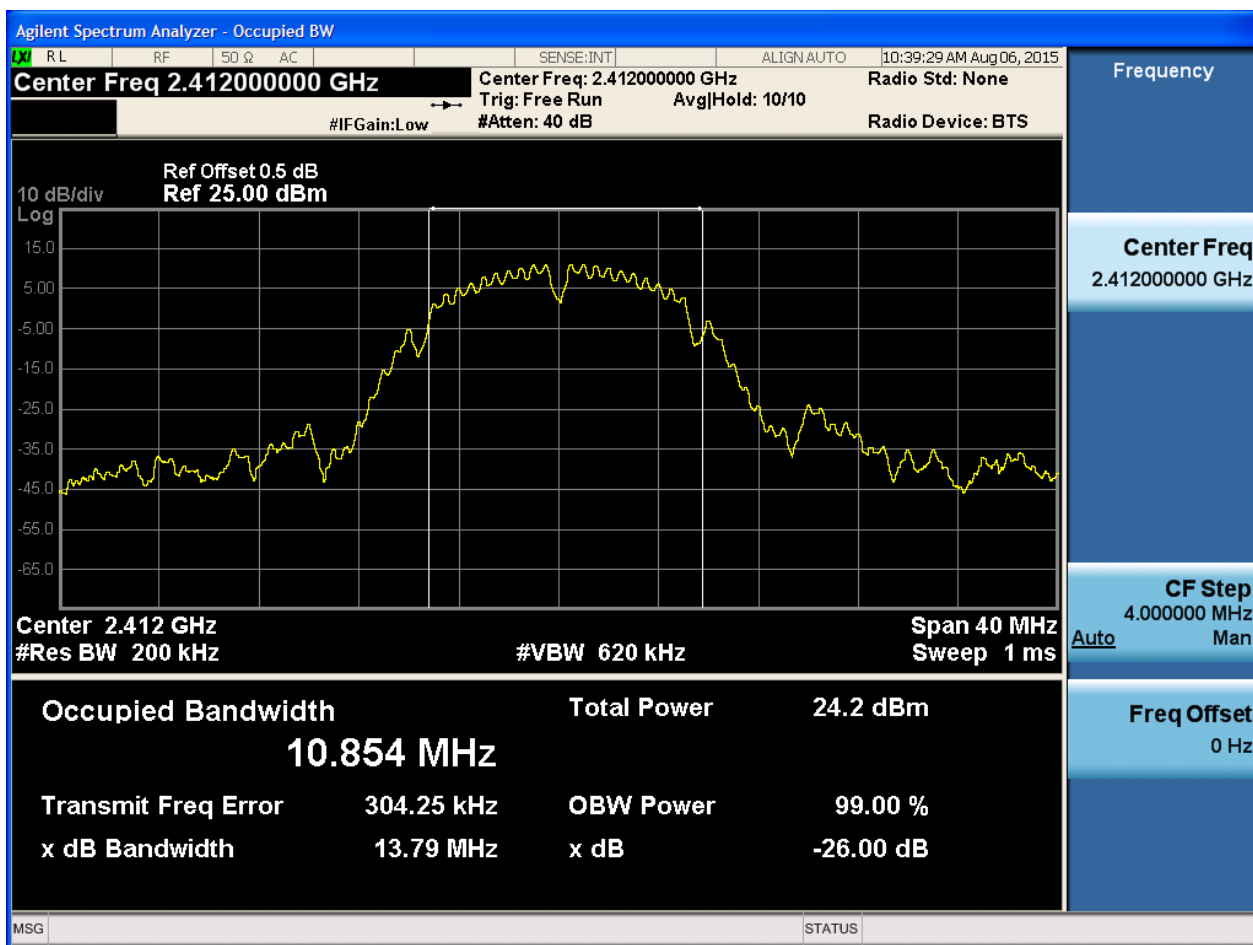
## Part II - Test Plots

### 2.1 11B\_L@Ant 1



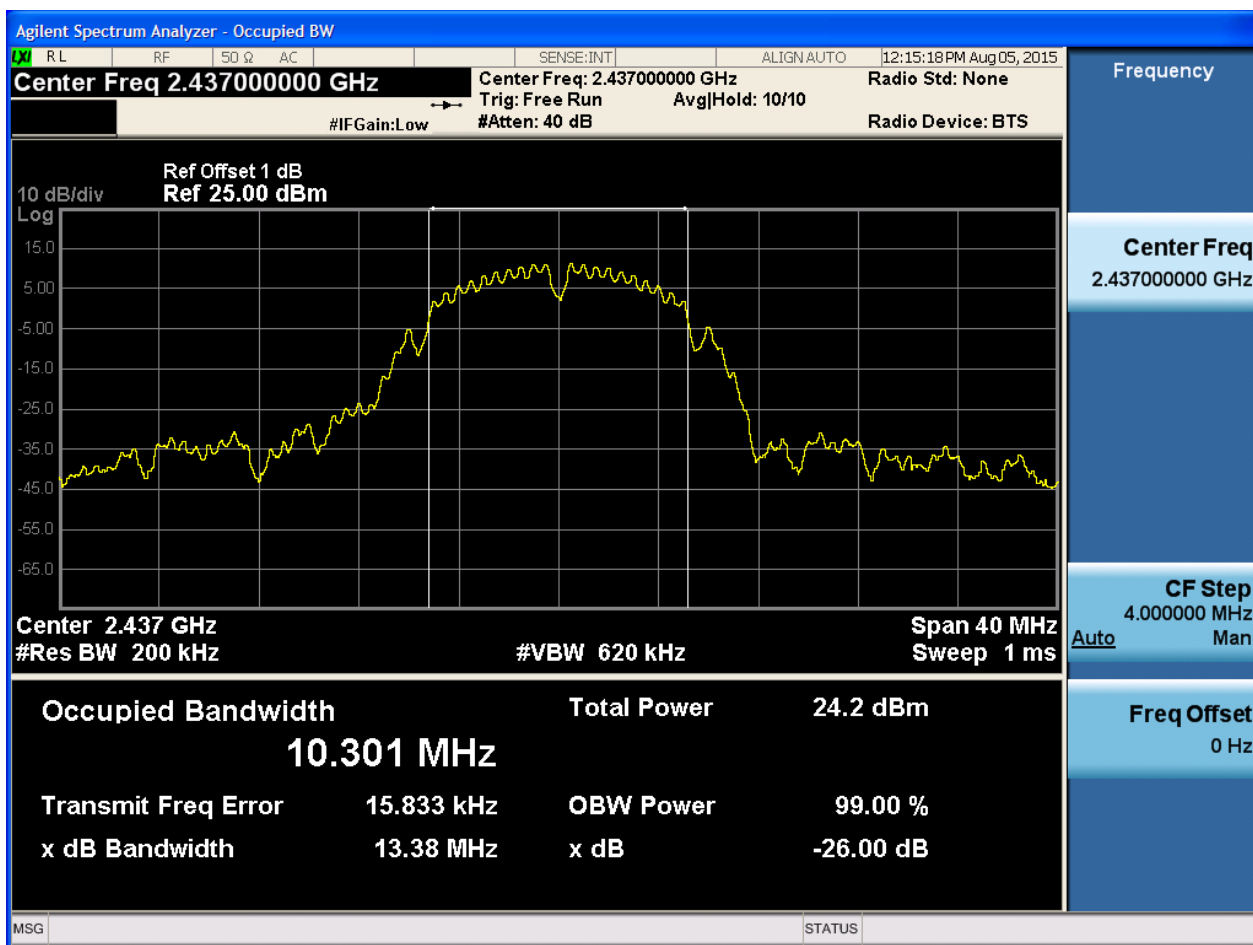


## 2.2 11B\_L@Ant 2



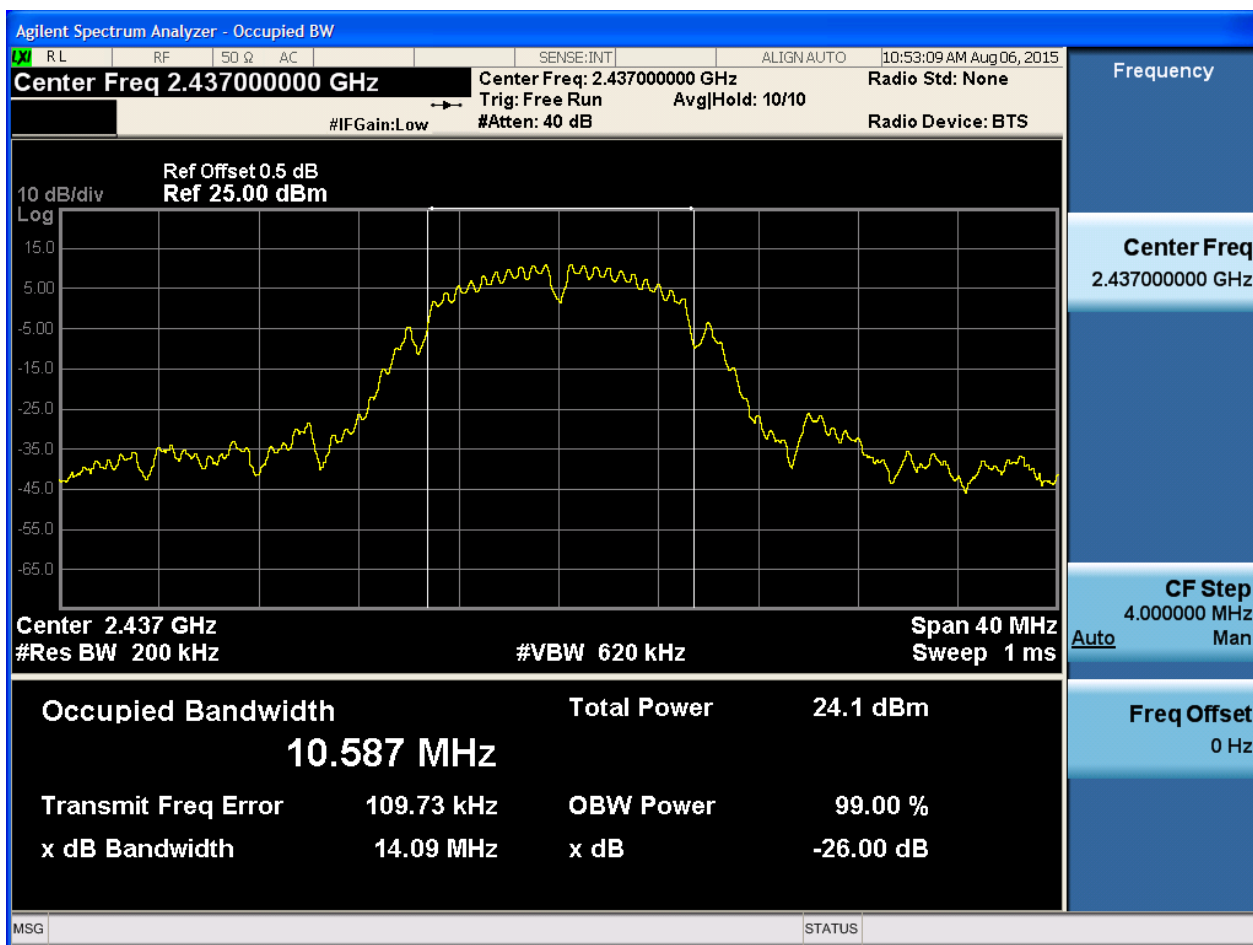


## 2.3 11B\_M@Ant 1



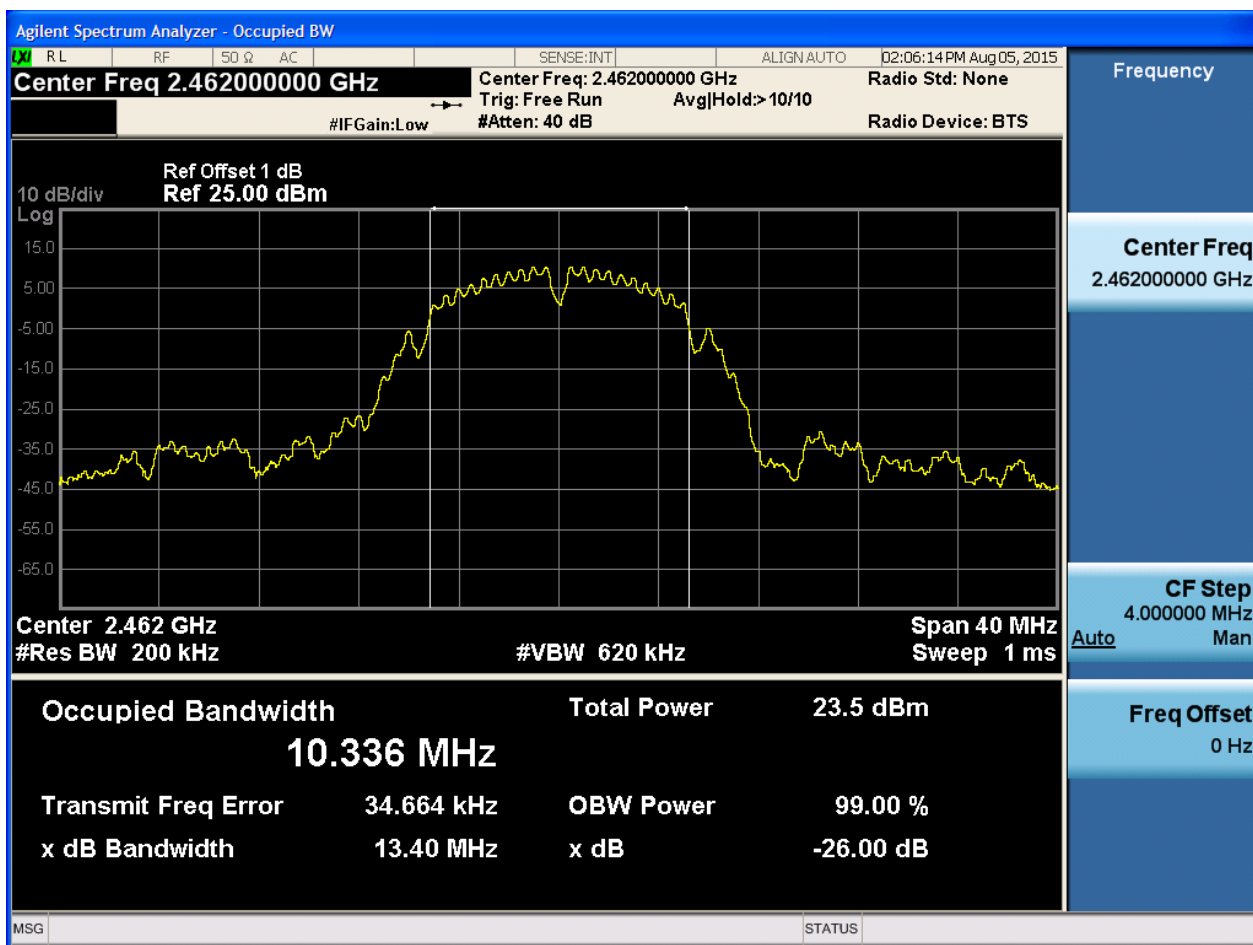


## 2.4 11B\_M@Ant 2



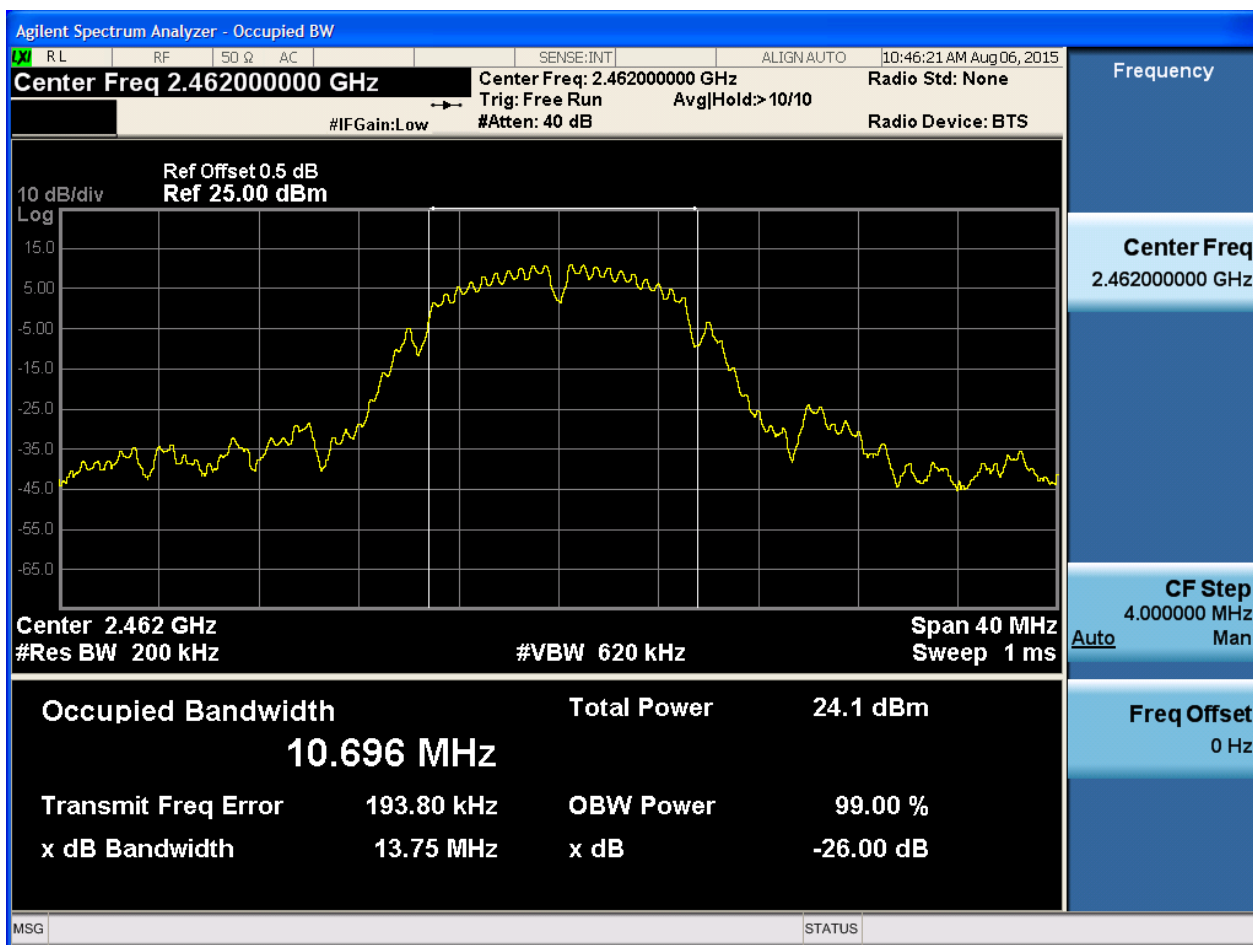


## 2.5 11B\_H@Ant 1



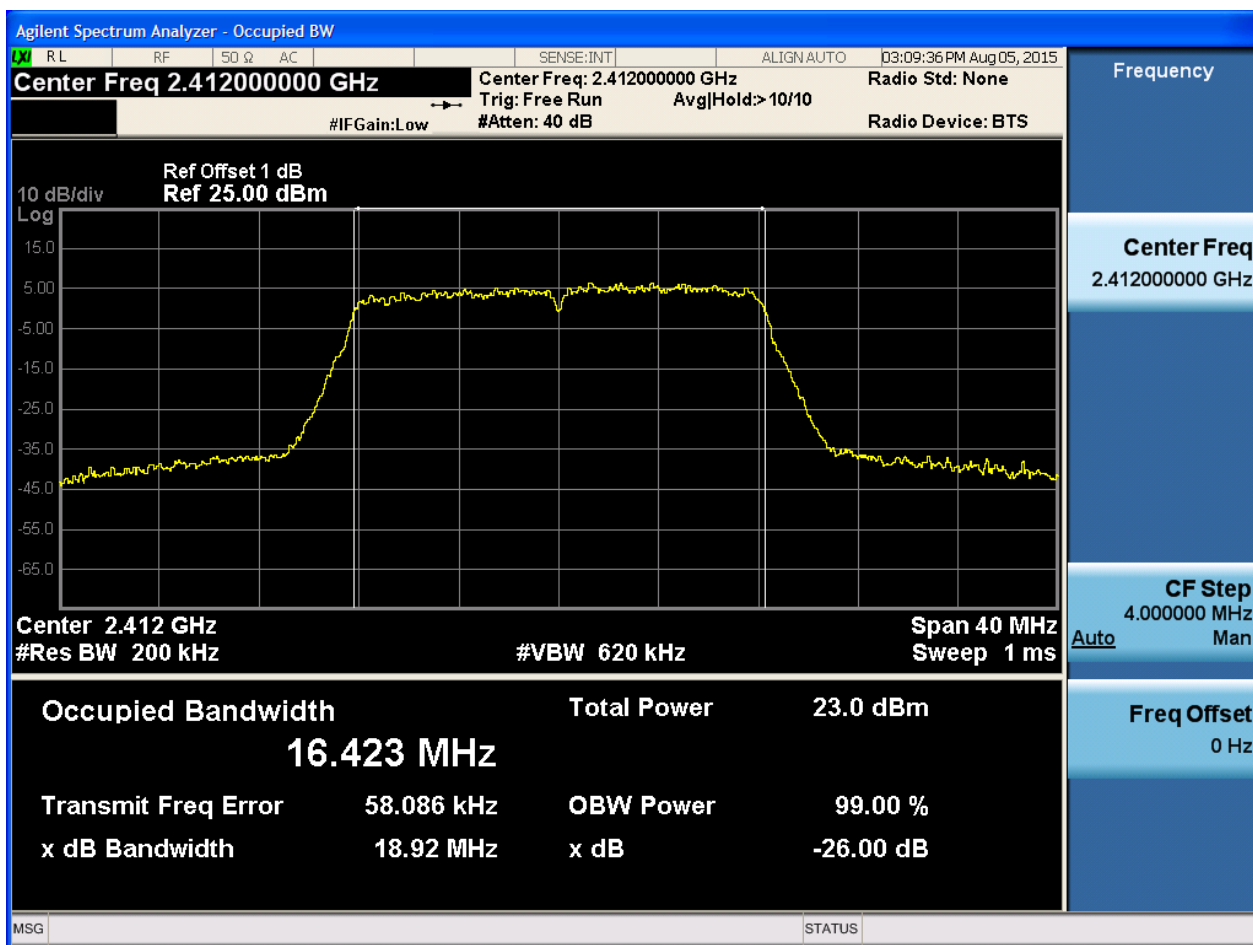


## 2.6 11B\_H@Ant 2



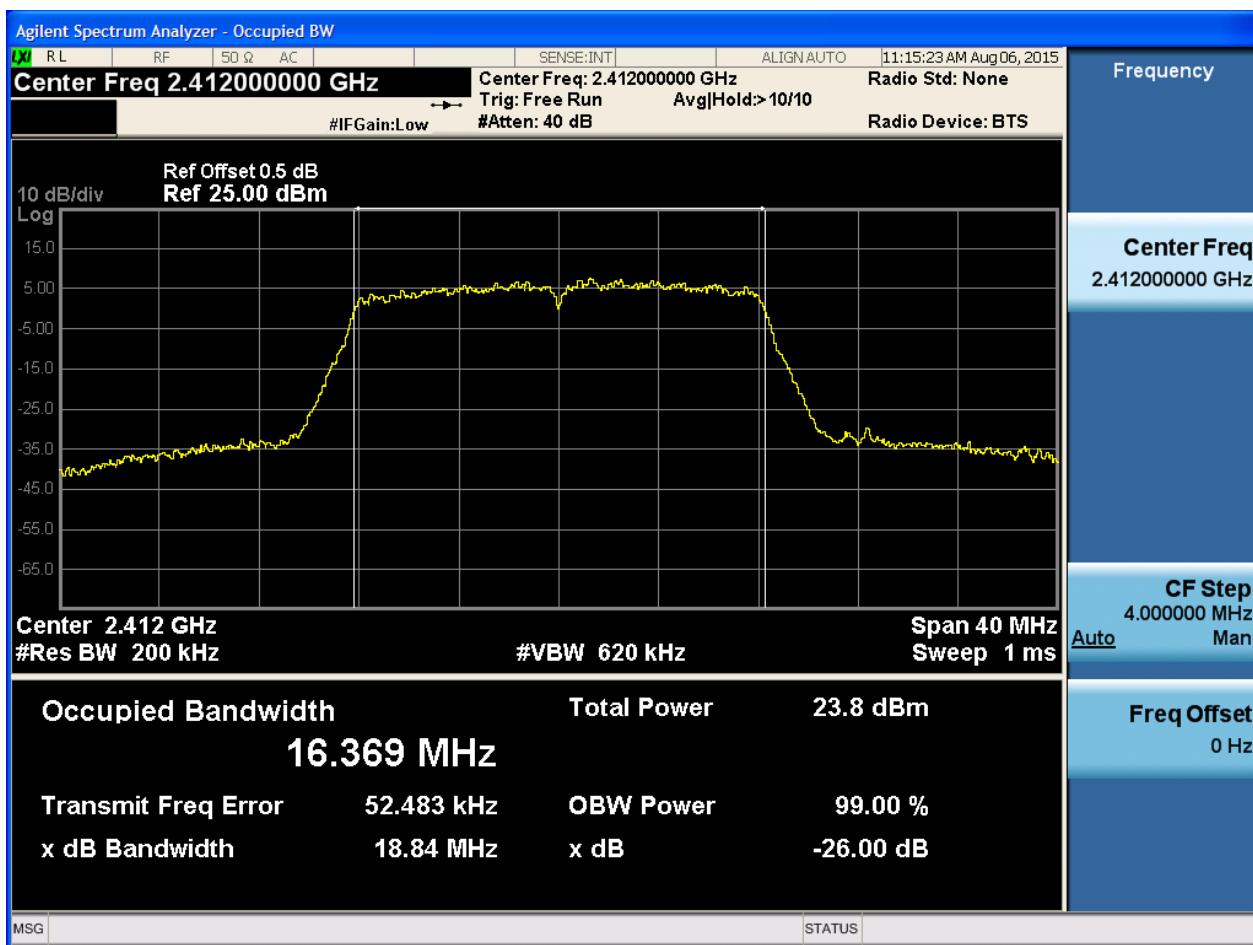


## 2.7 11G\_L@Ant 1



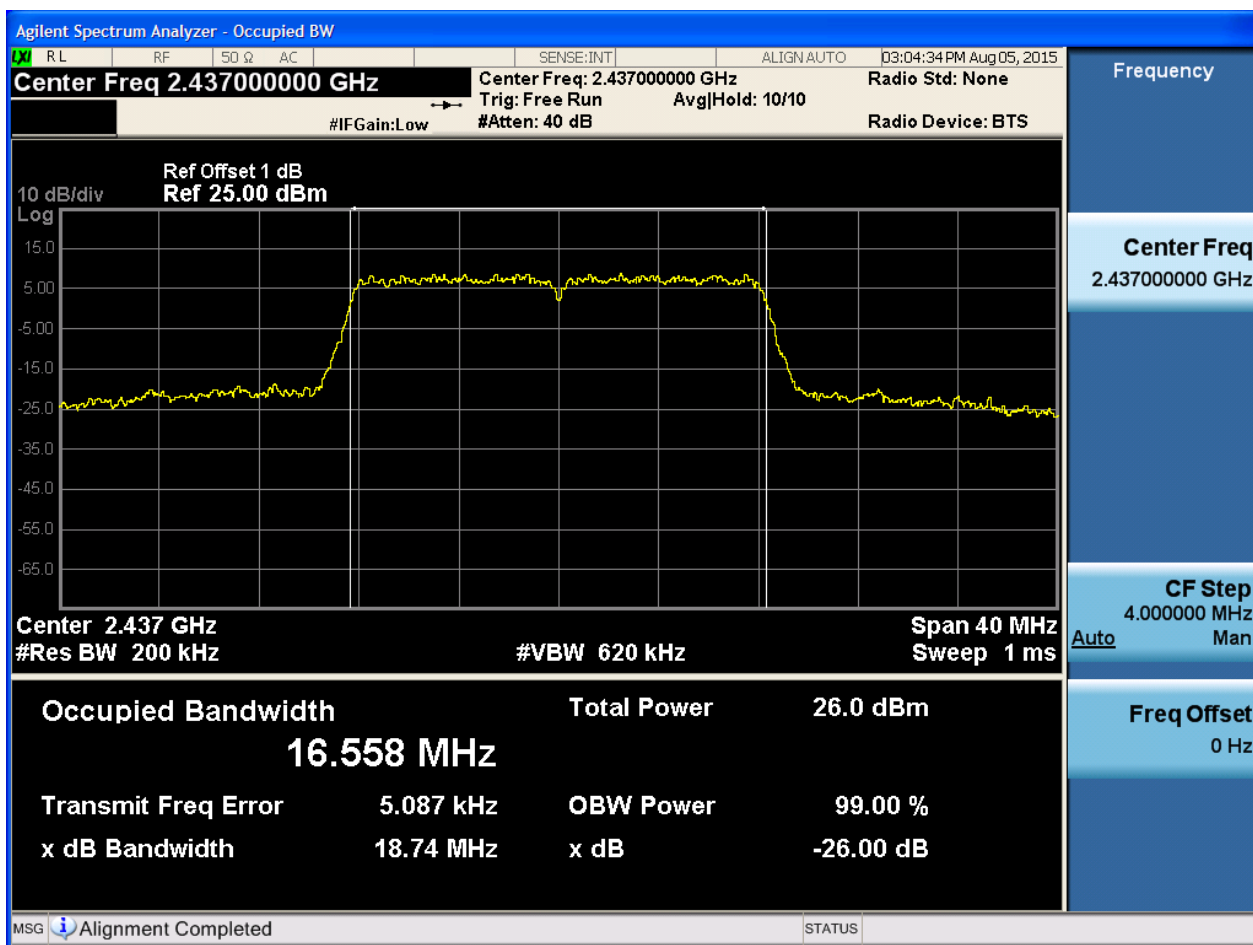


## 2.8 11G\_L@Ant 2



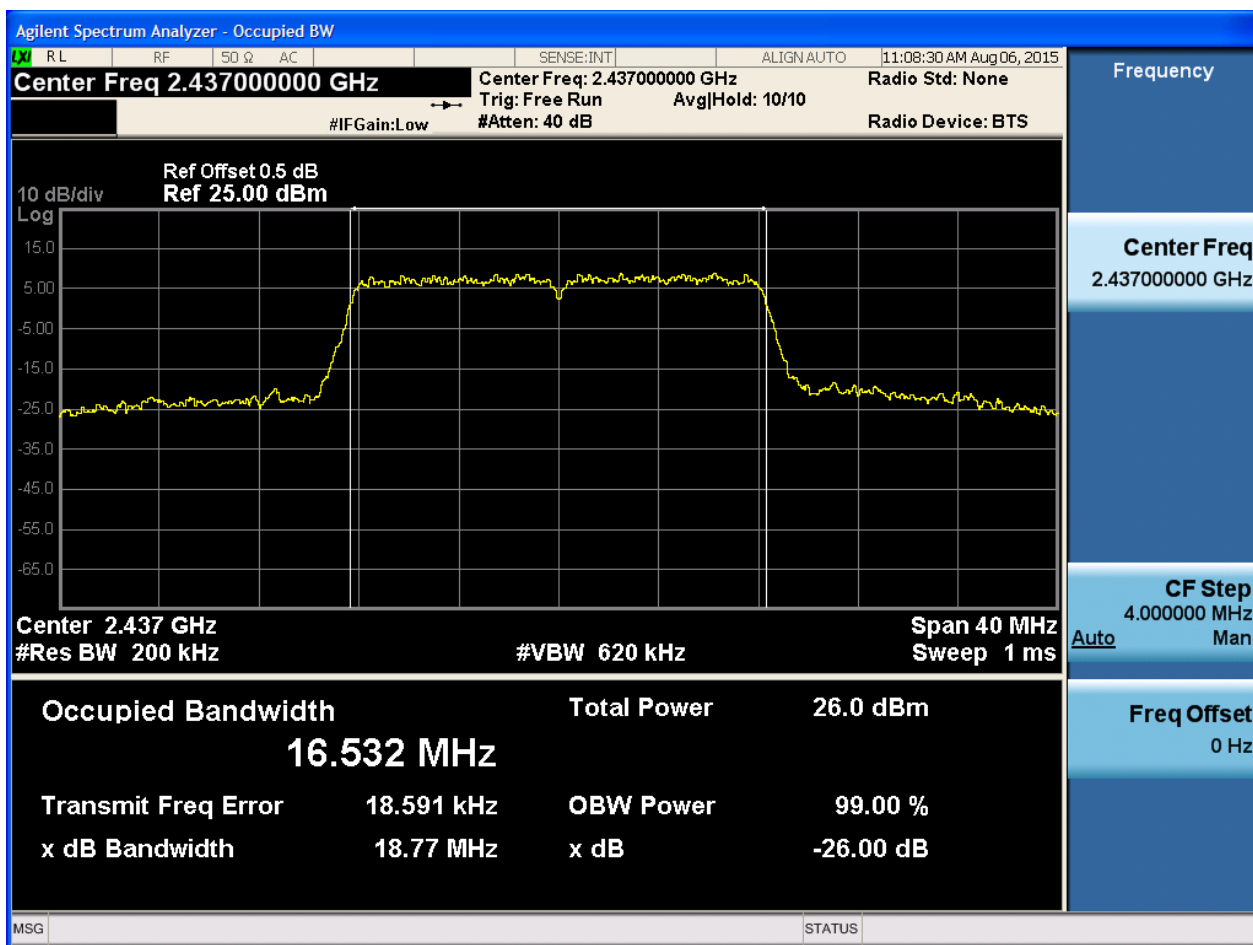


## 2.9 11G\_M@Ant 1



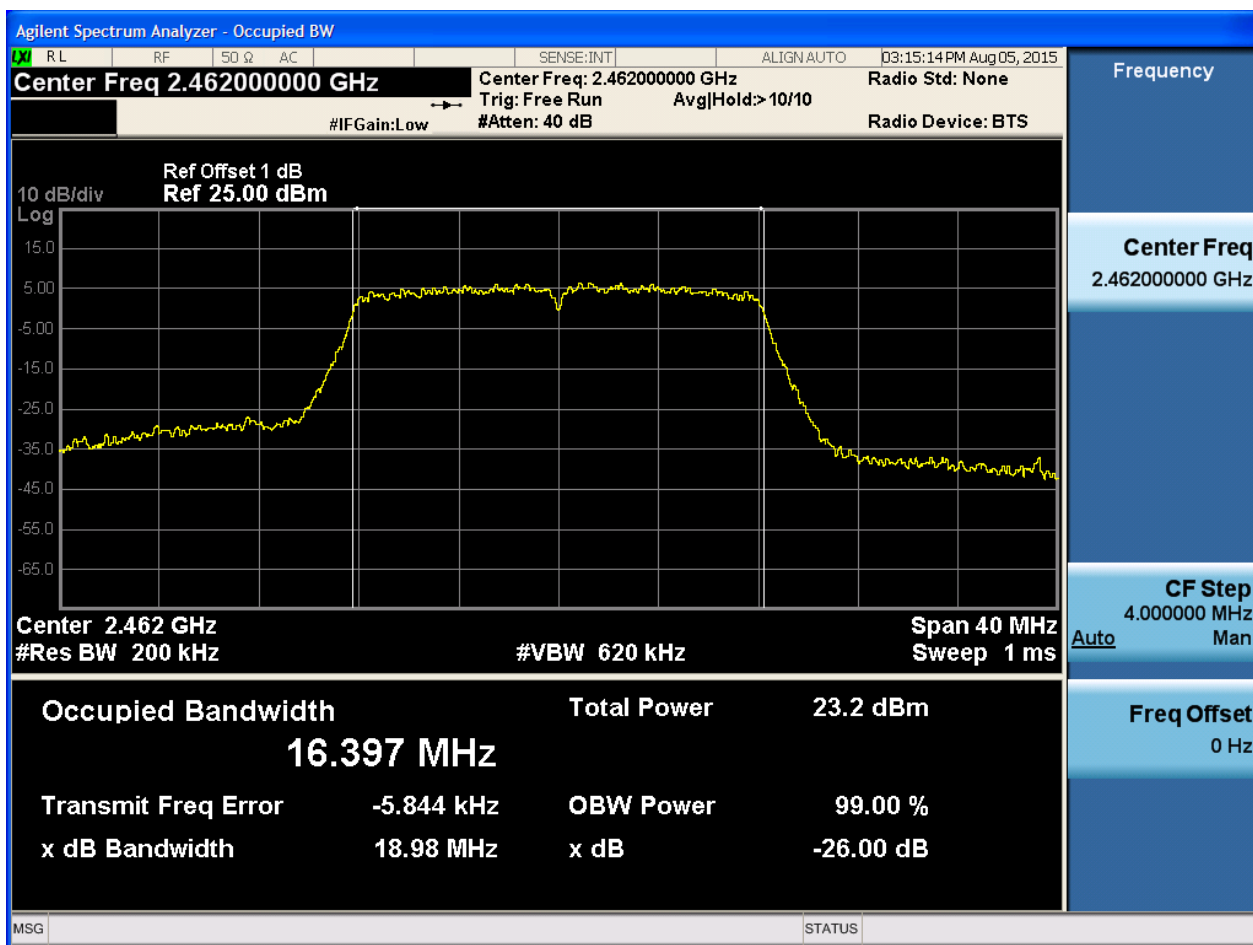


## 2.10 11G\_M@Ant 2



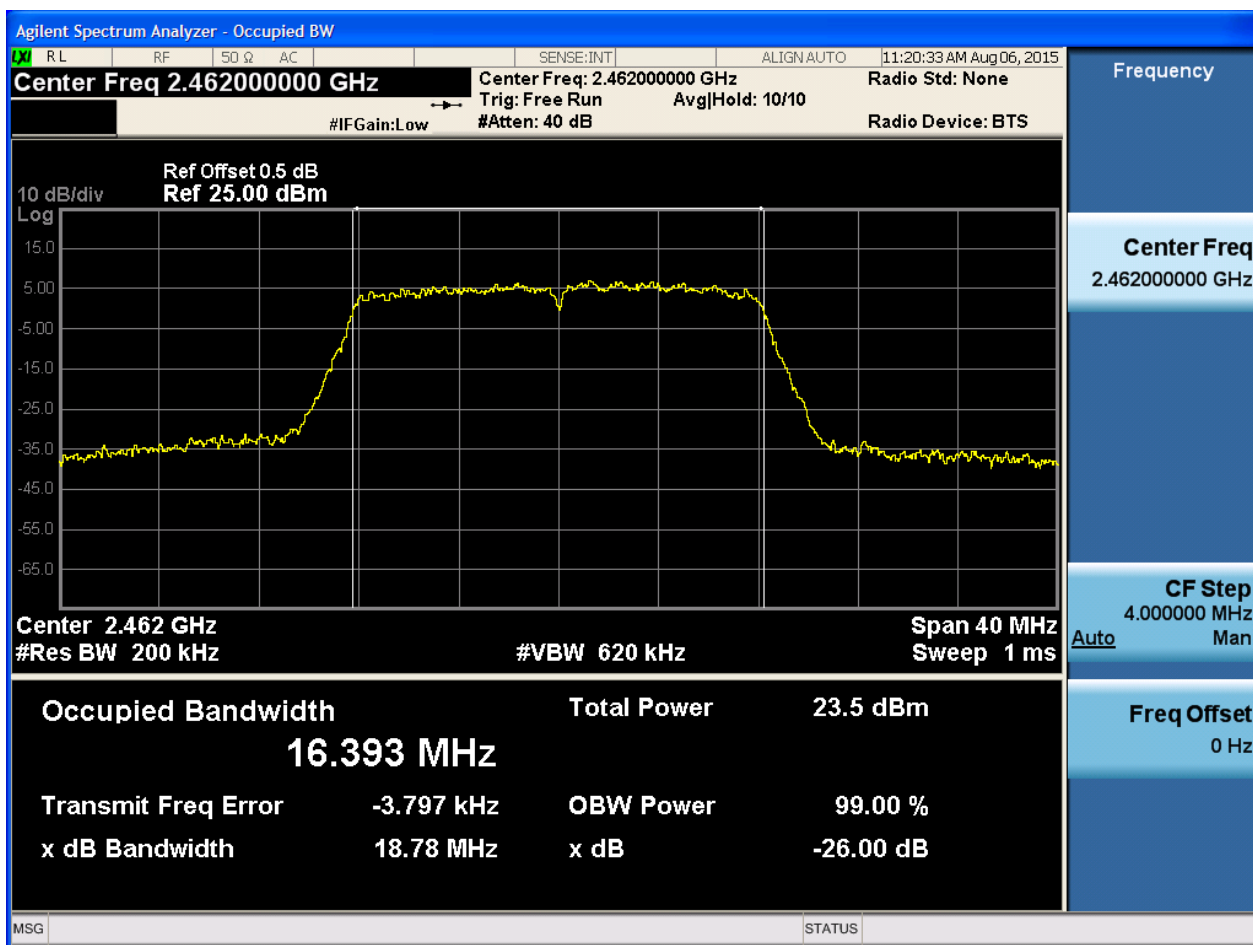


## 2.11 11G\_H@Ant 1



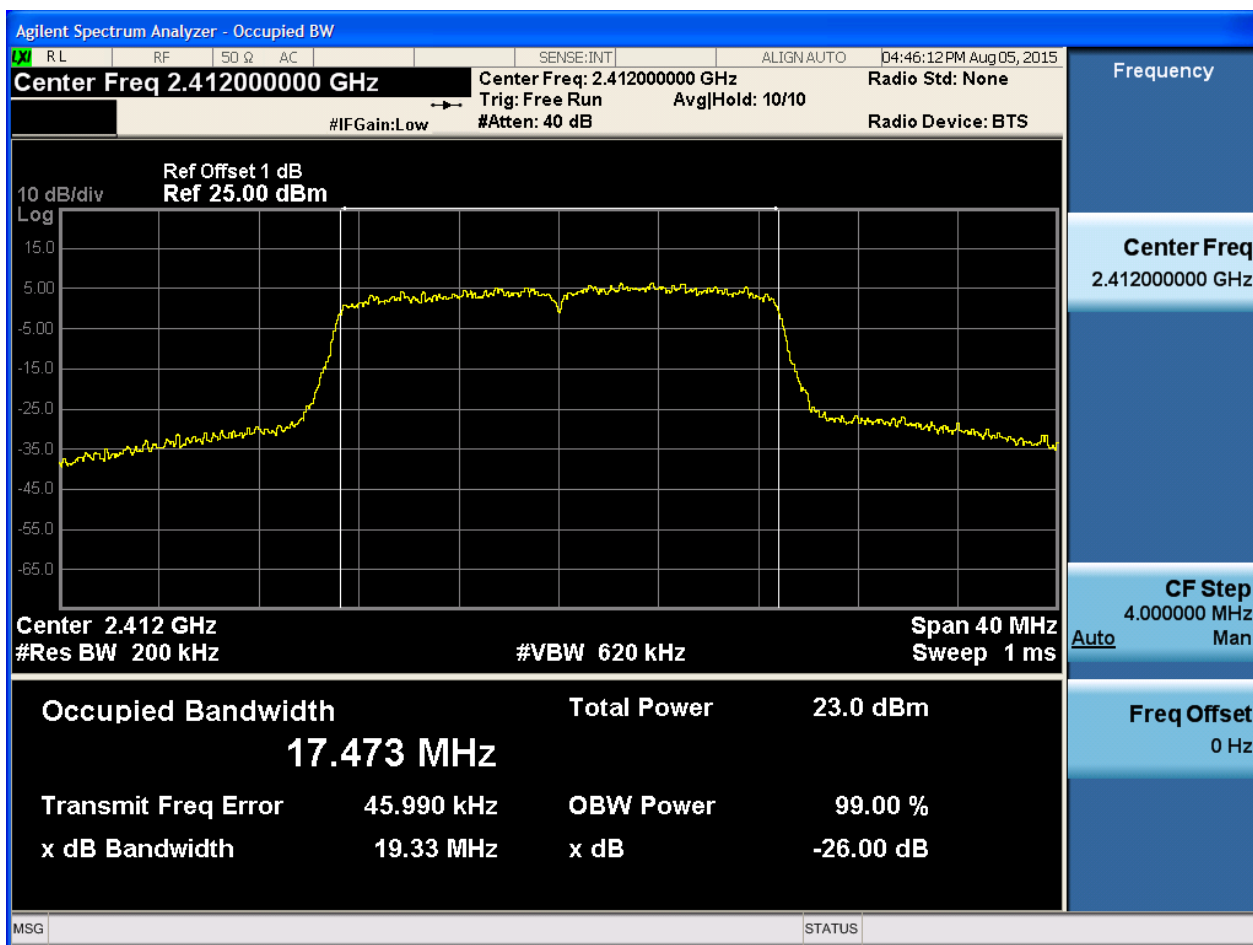


## 2.12 11G\_H@Ant 2



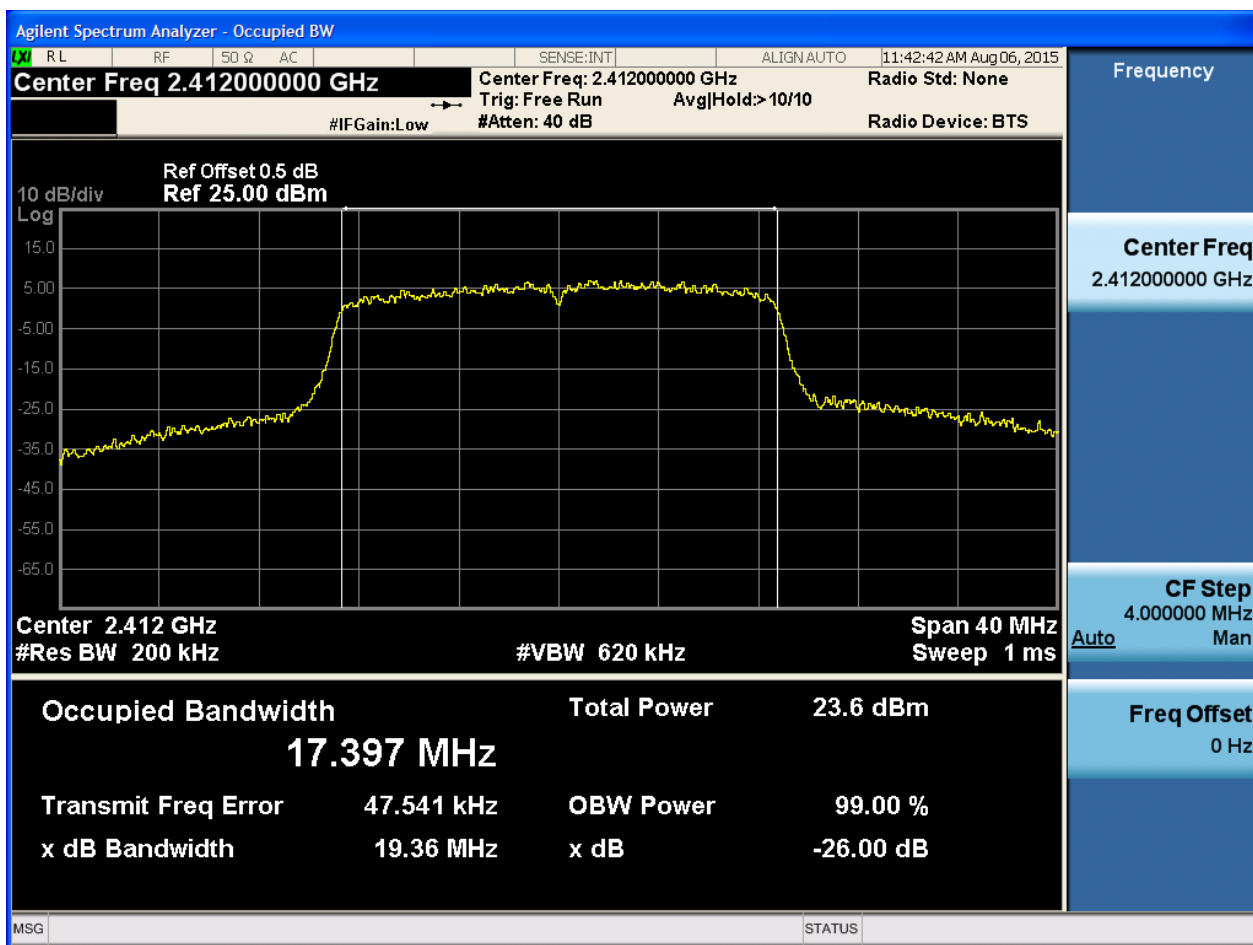


## 2.13 11N20\_L@Ant 1



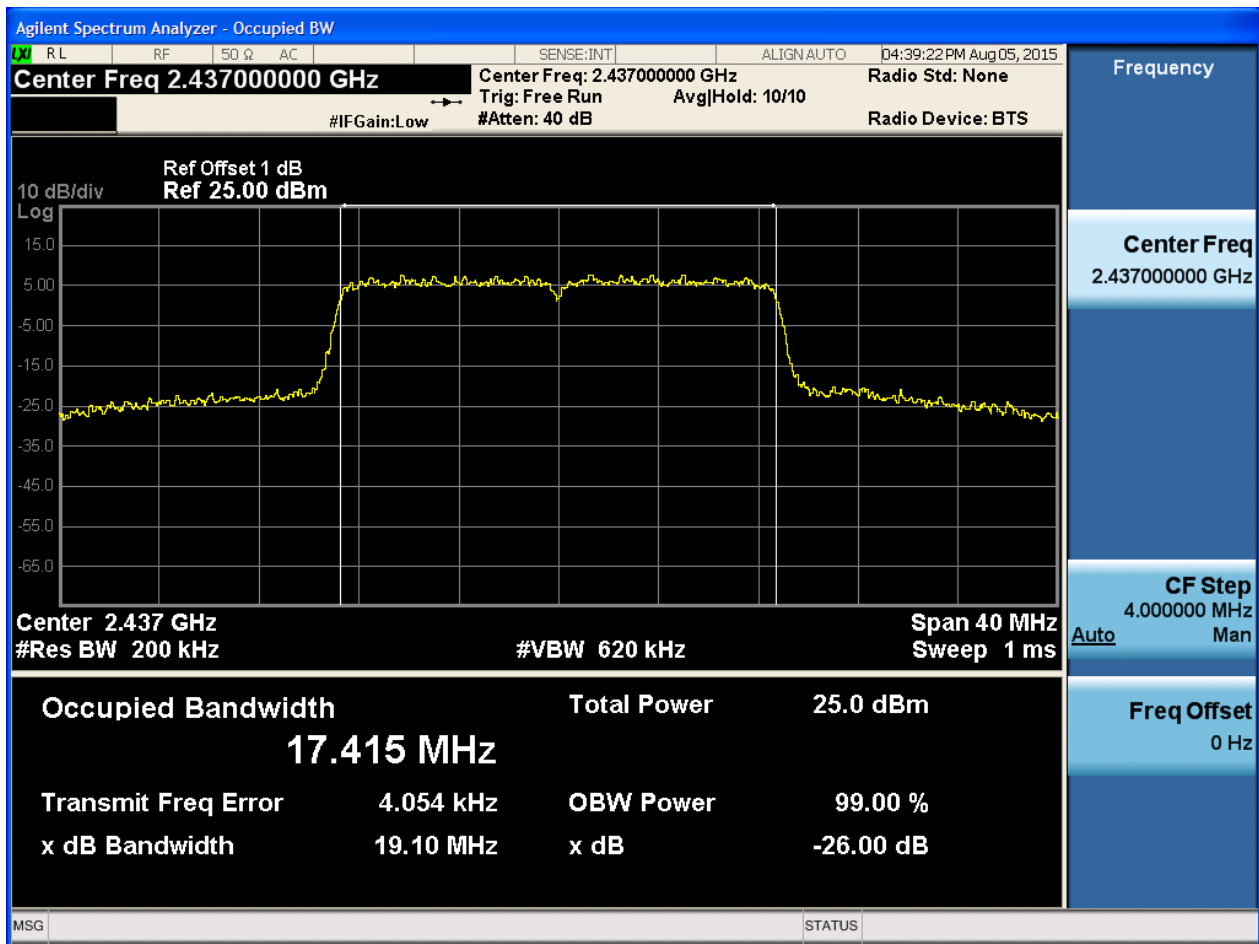


## 2.14 11N20\_L@Ant 2



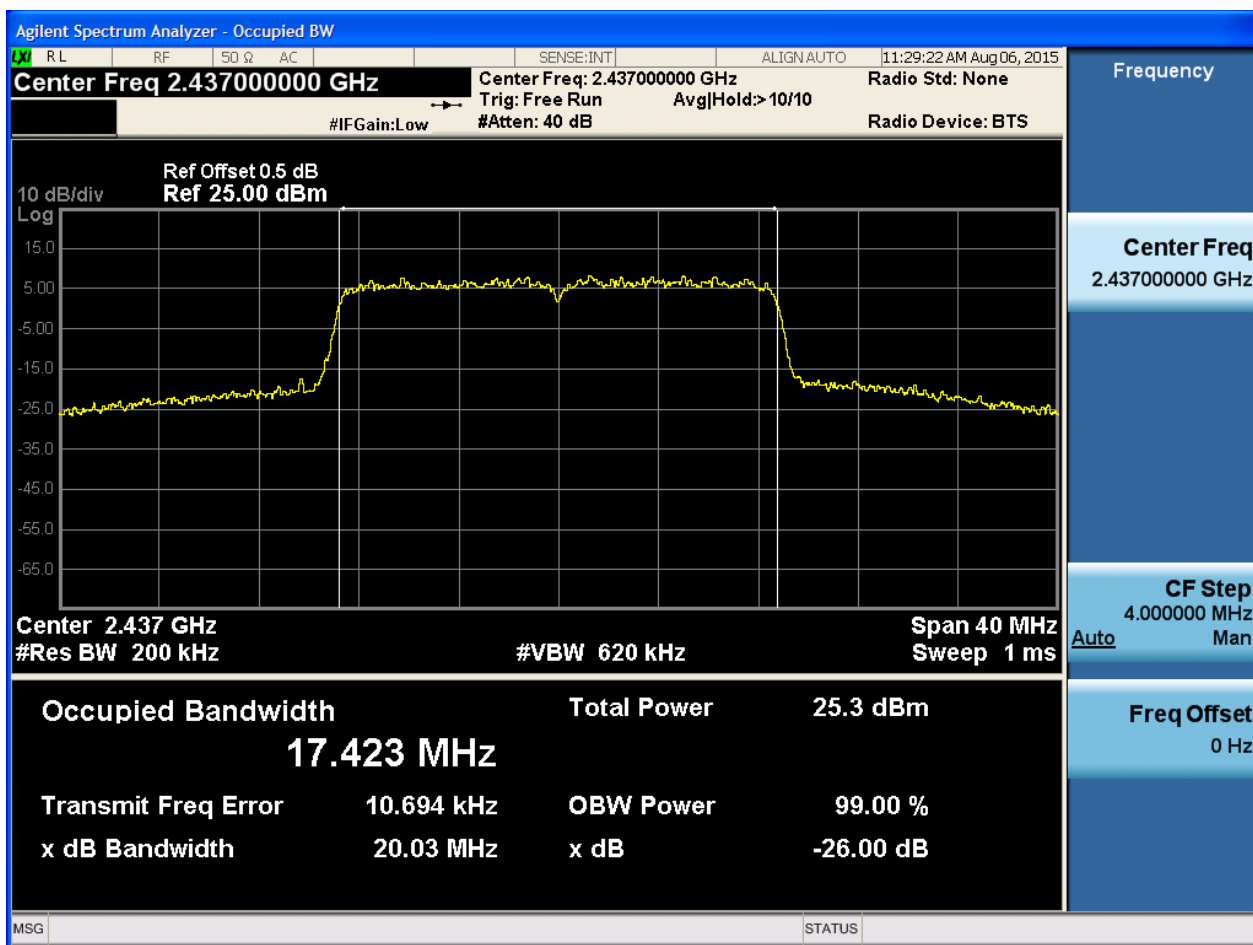


## 2.15 11N20\_M@Ant 1



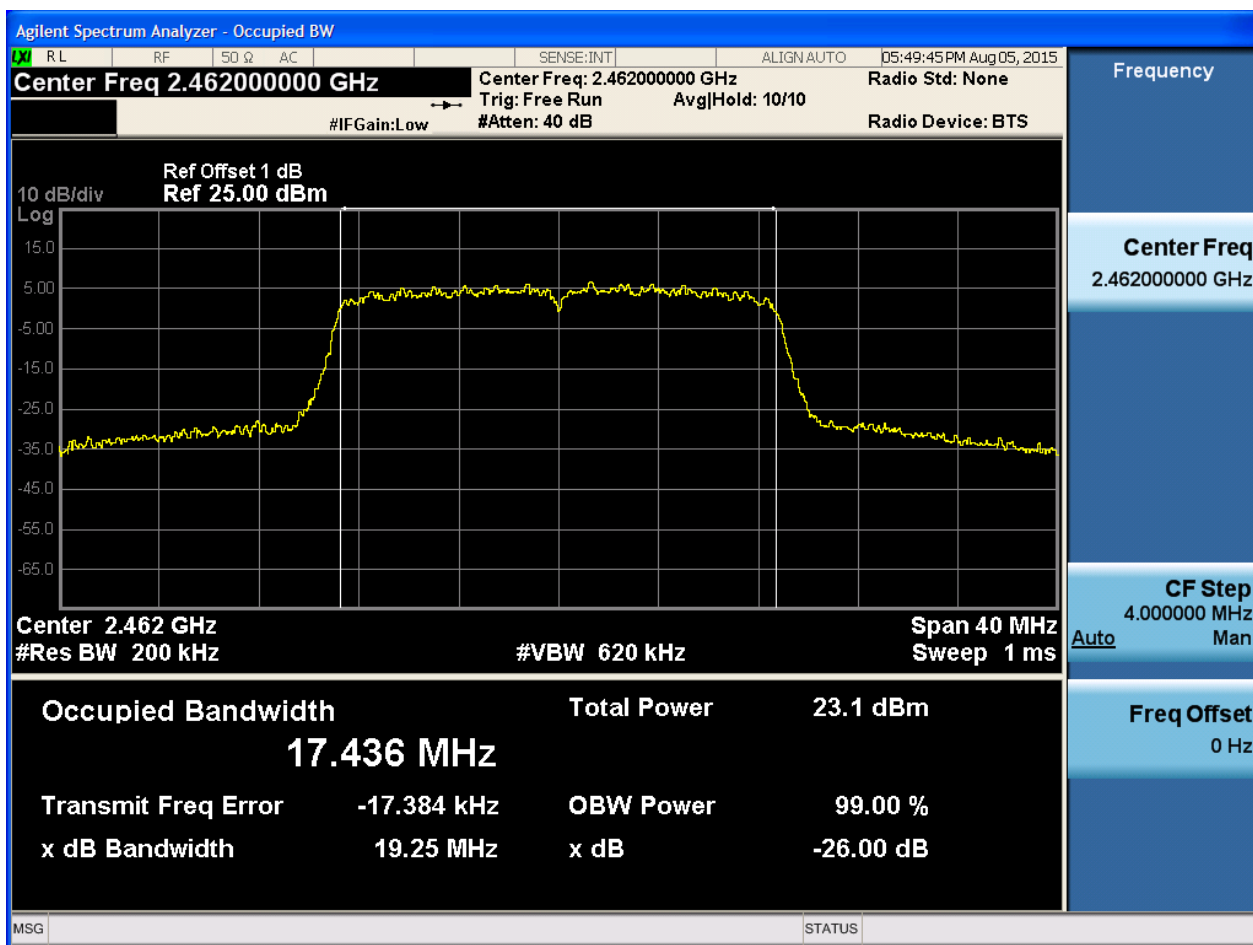


## 2.16 11N20\_M@Ant 2



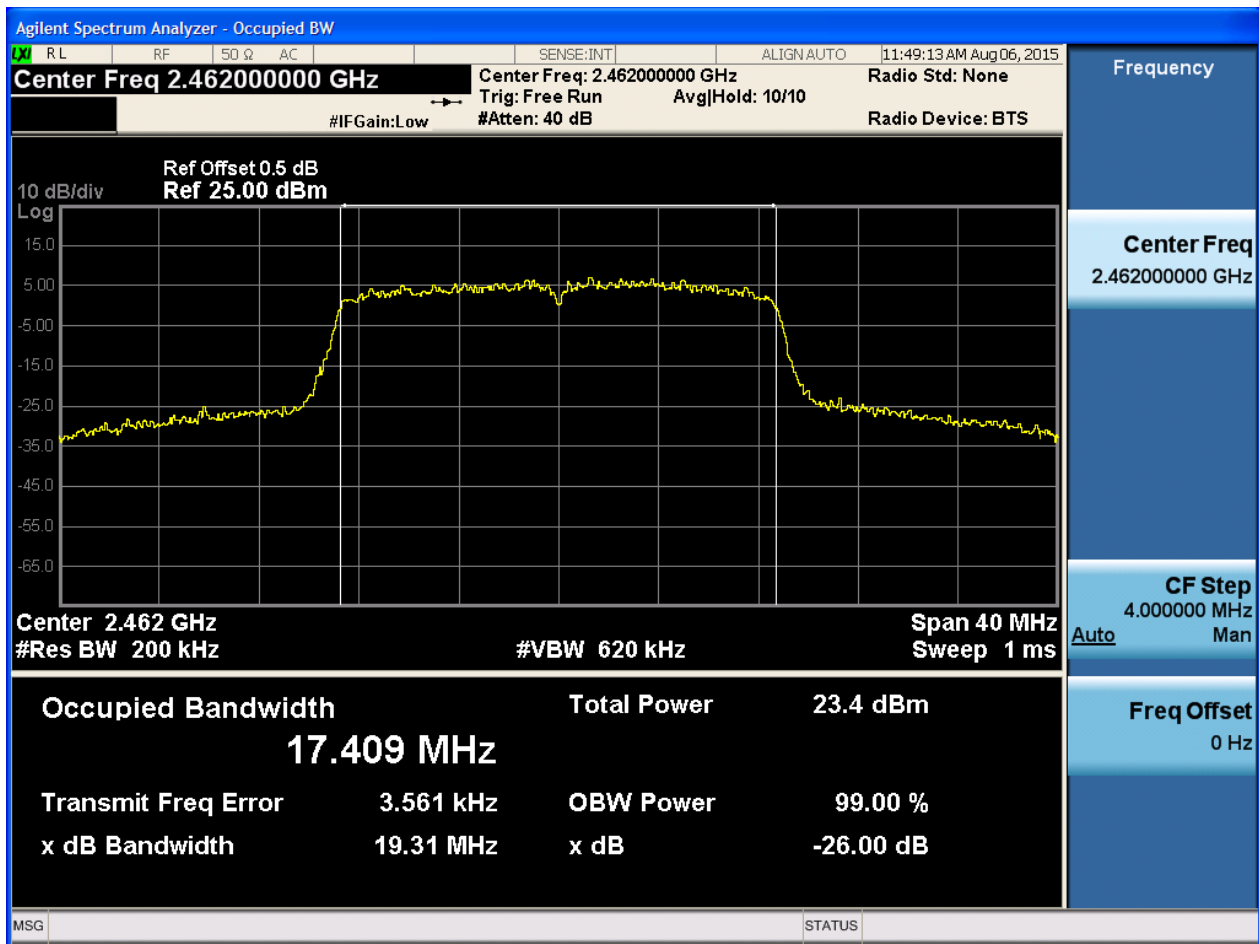


## 2.17 11N20\_H@Ant 1



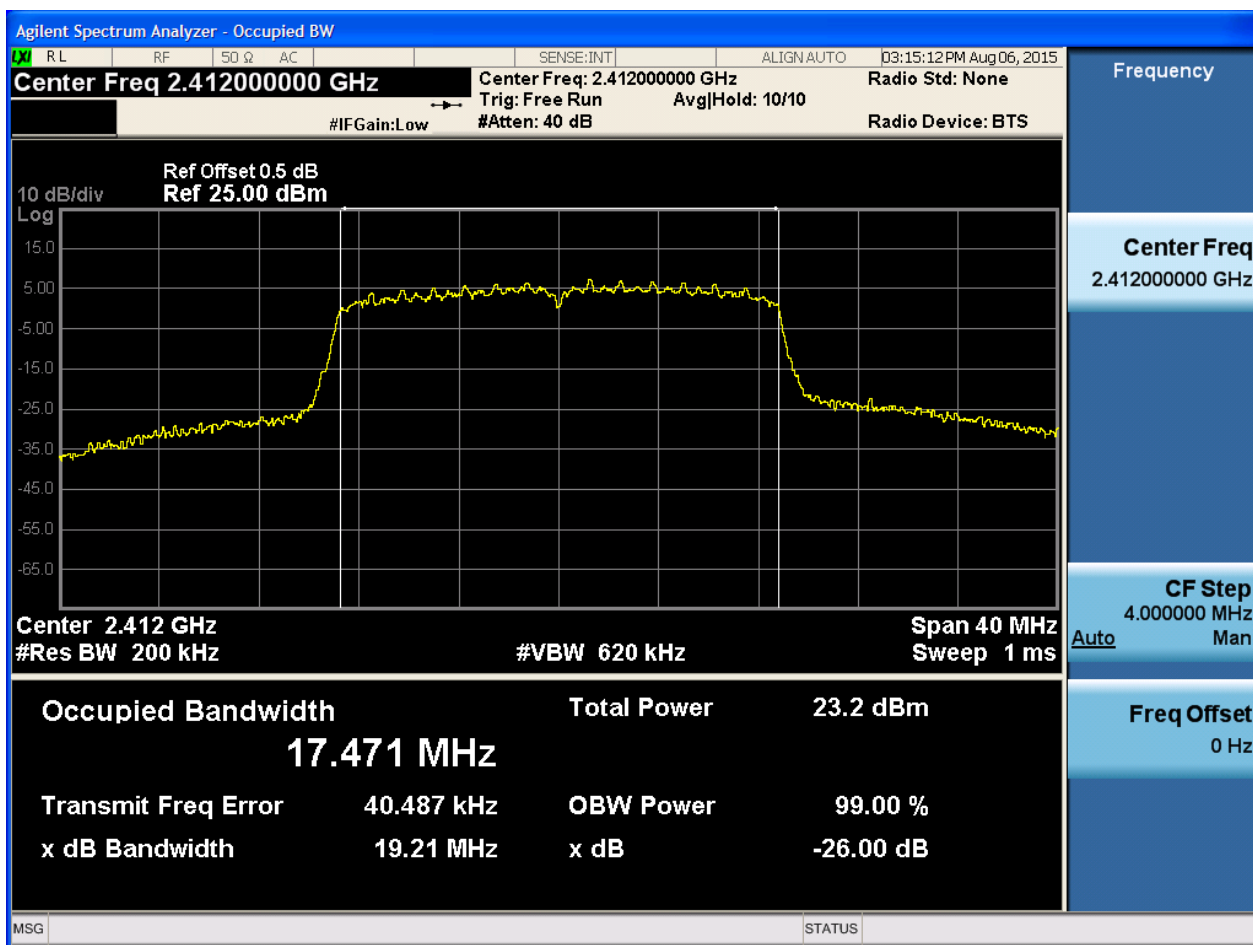


## 2.18 11N20\_H@Ant 2



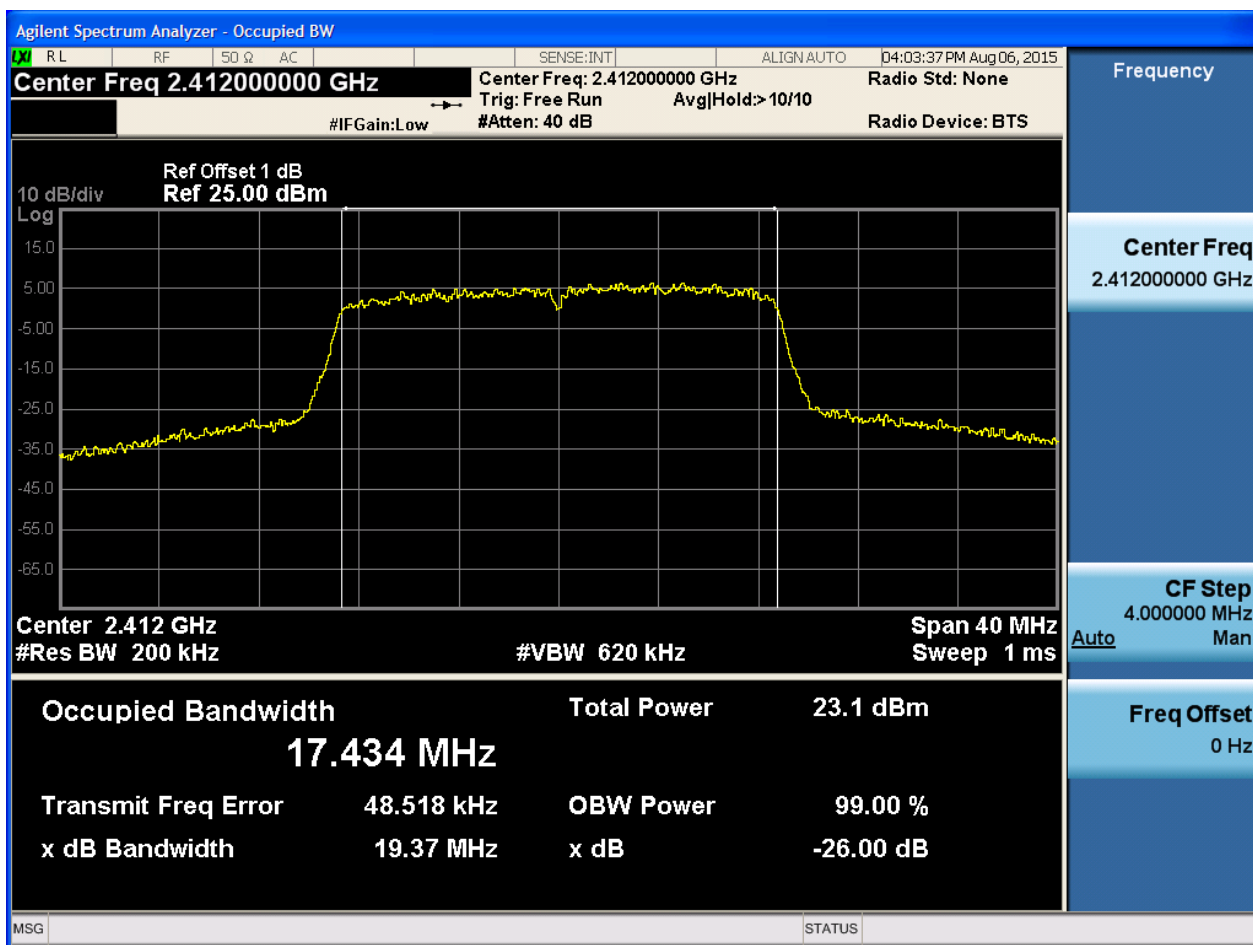


## 2.14 11N20m\_L@Ant 2



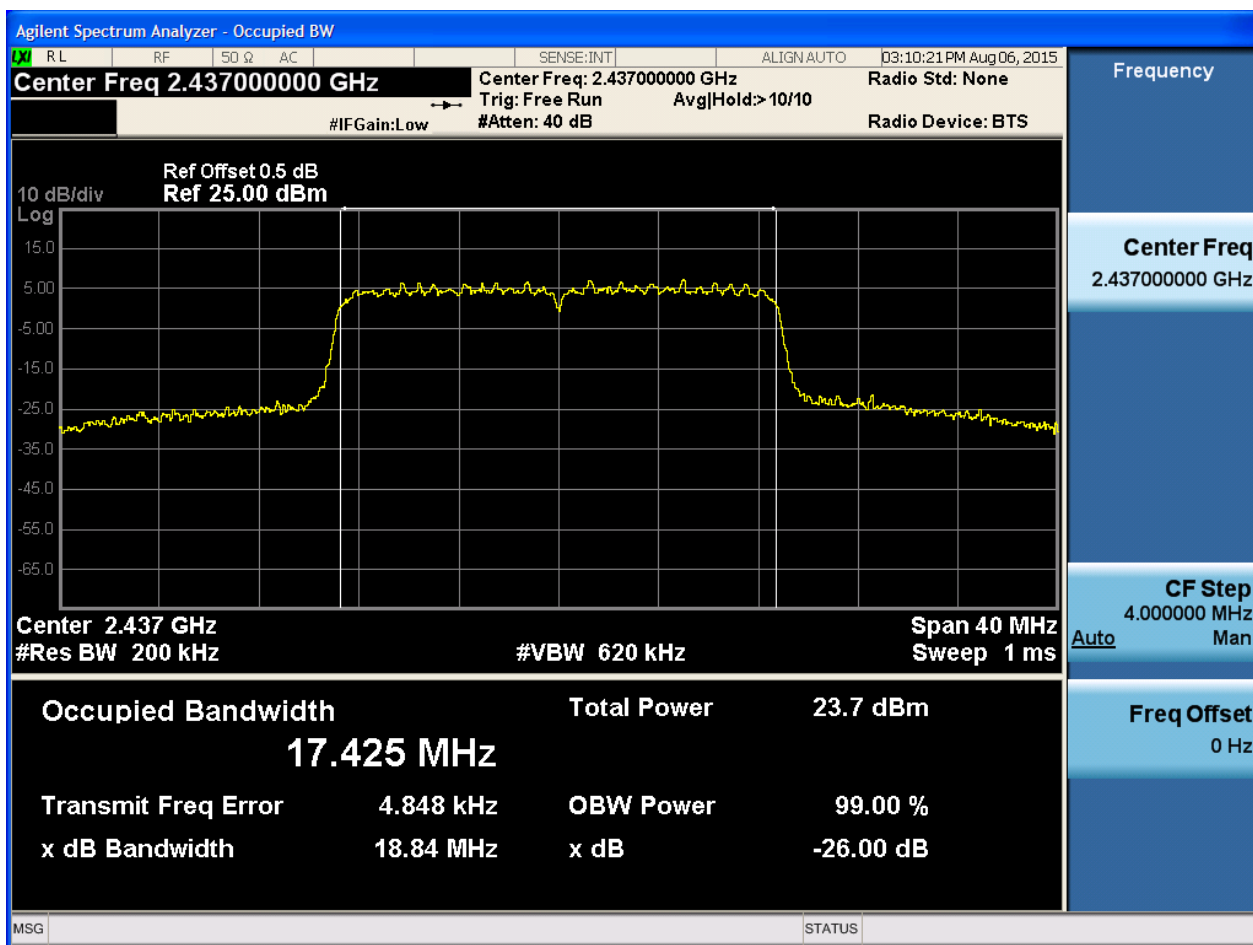


## 2.13 11N20m\_L@Ant 1



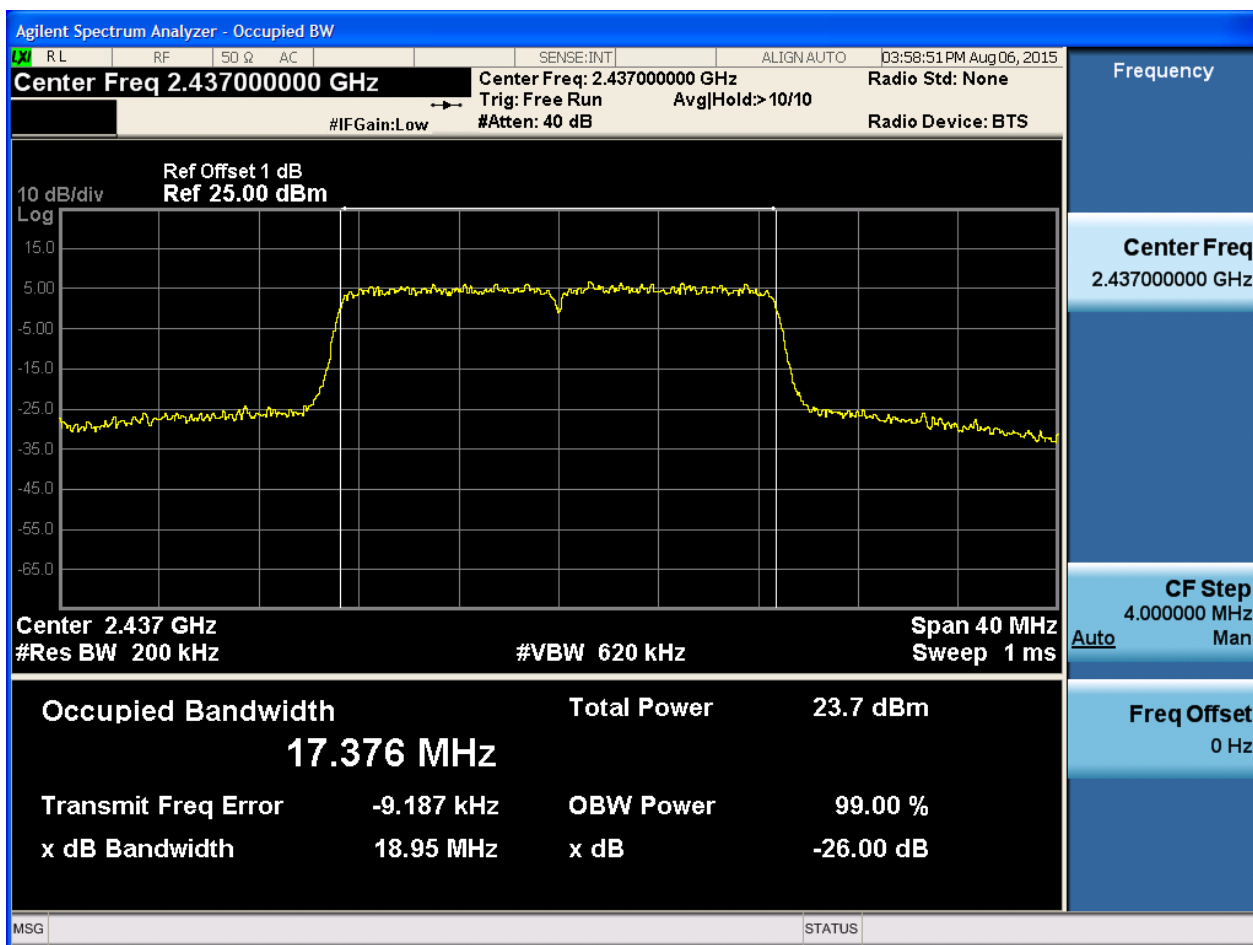


## 2.16 11N20m\_M@Ant 2



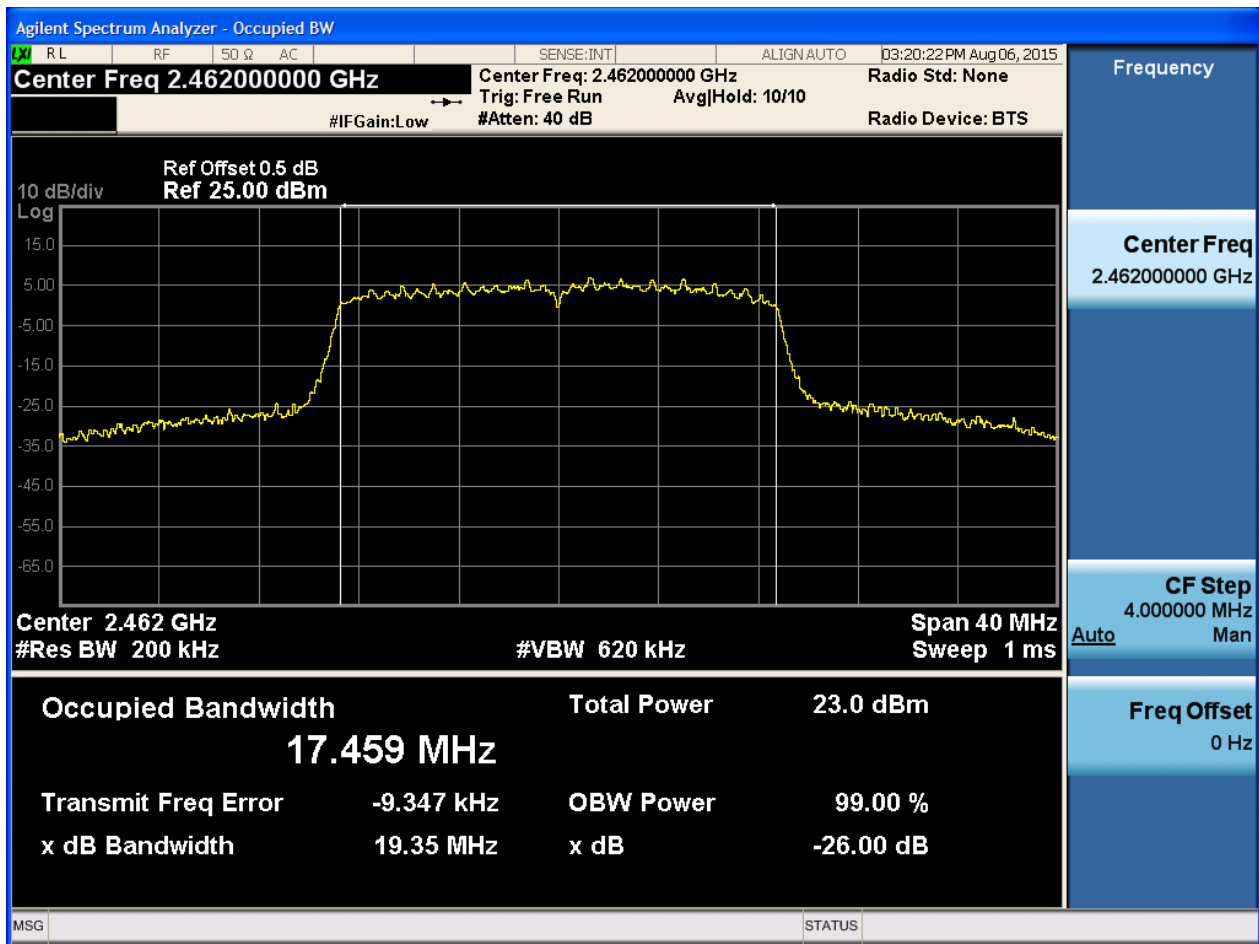


## 2.15 11N20m\_M@Ant 1



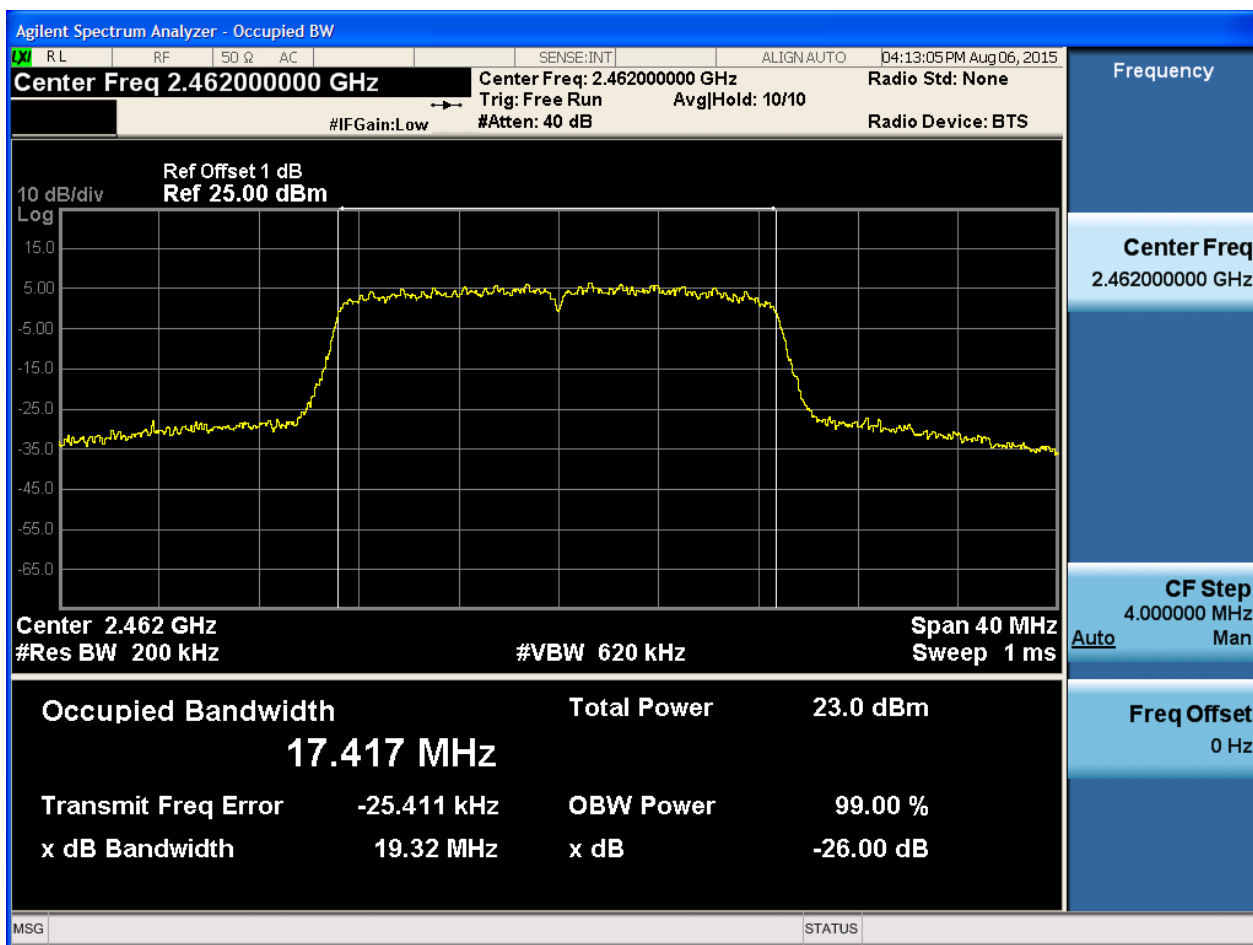


## 2.18 11N20m\_H@Ant 2



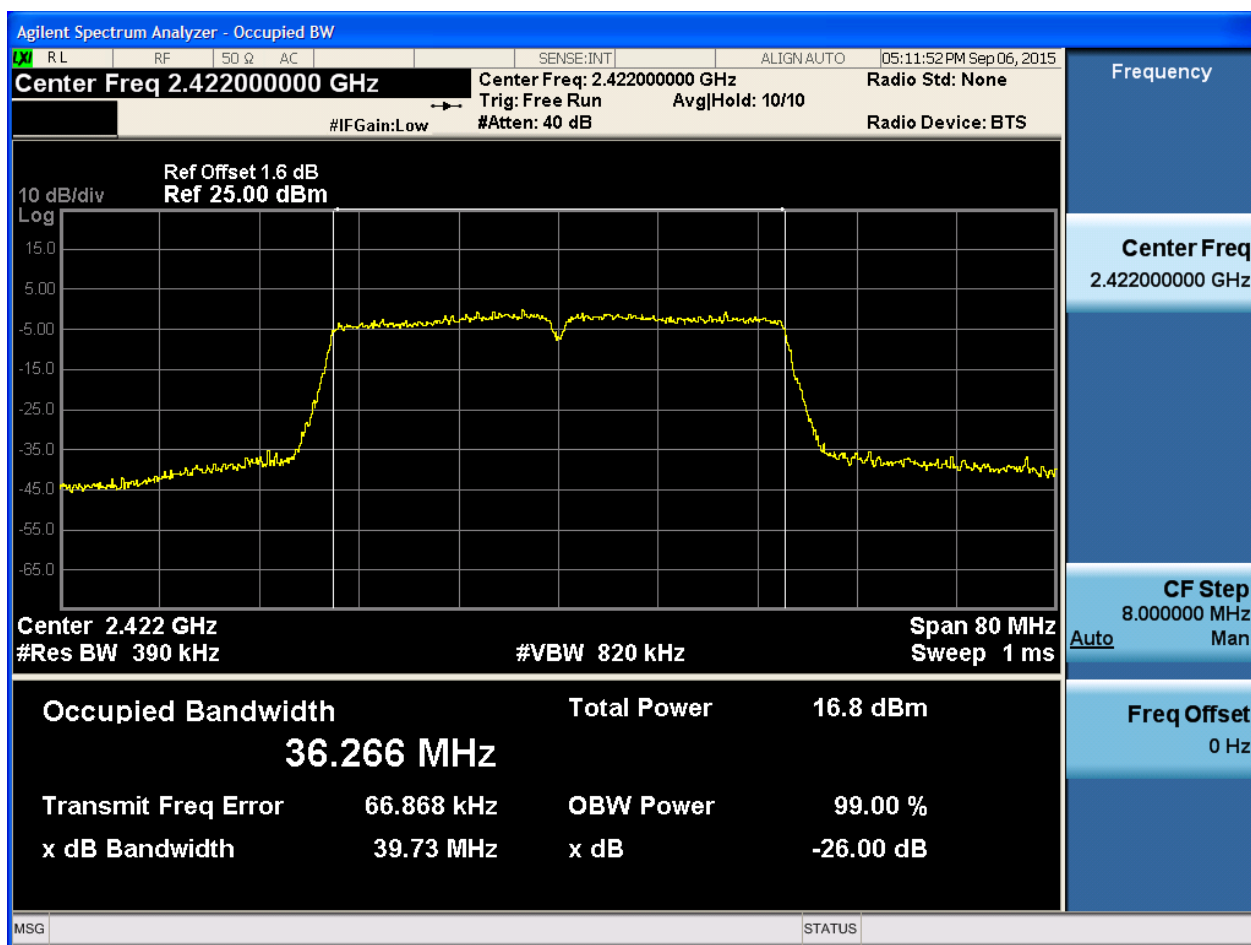


## 2.17 11N20m\_H@Ant 1



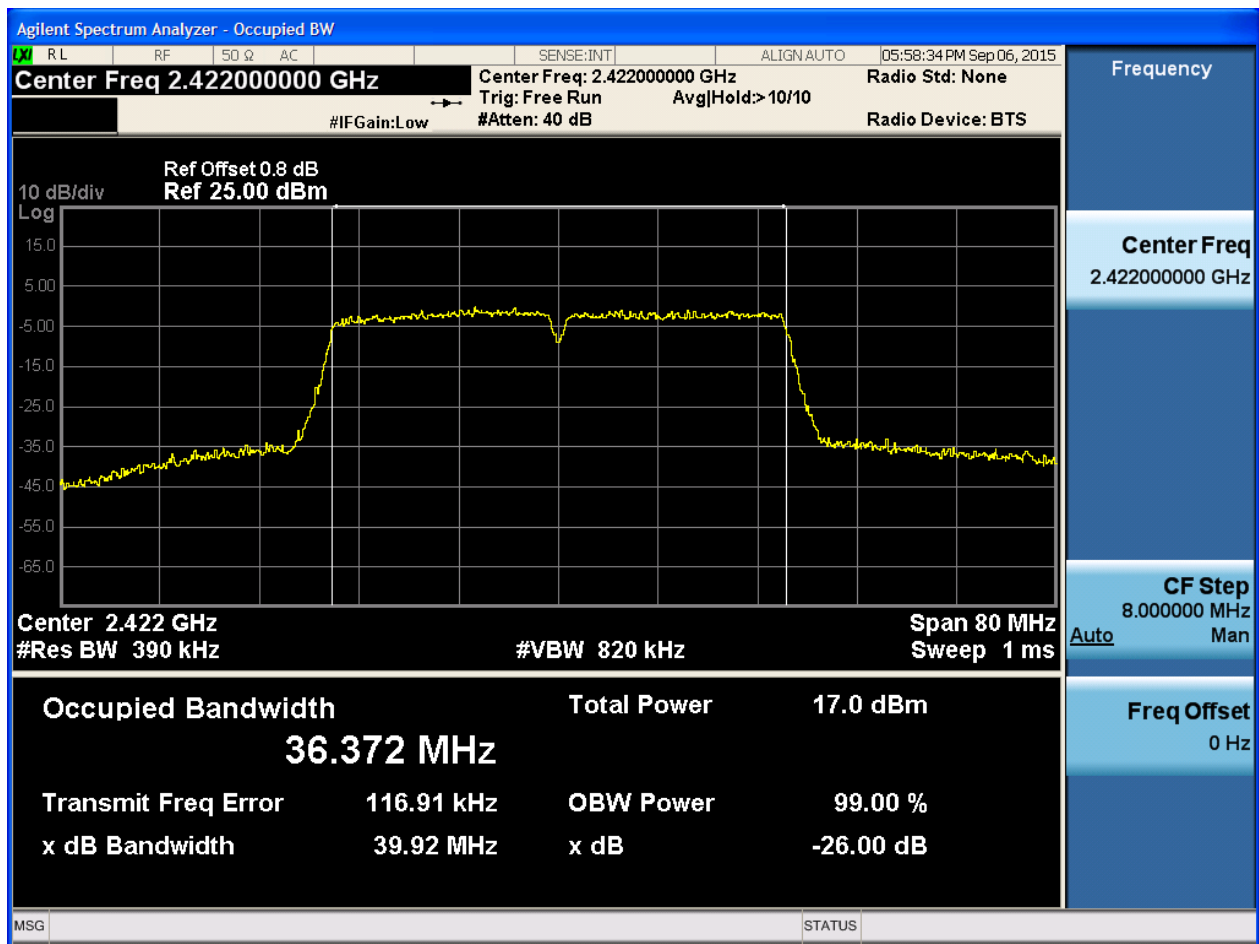


## 2.19 11N40\_L@Ant 1



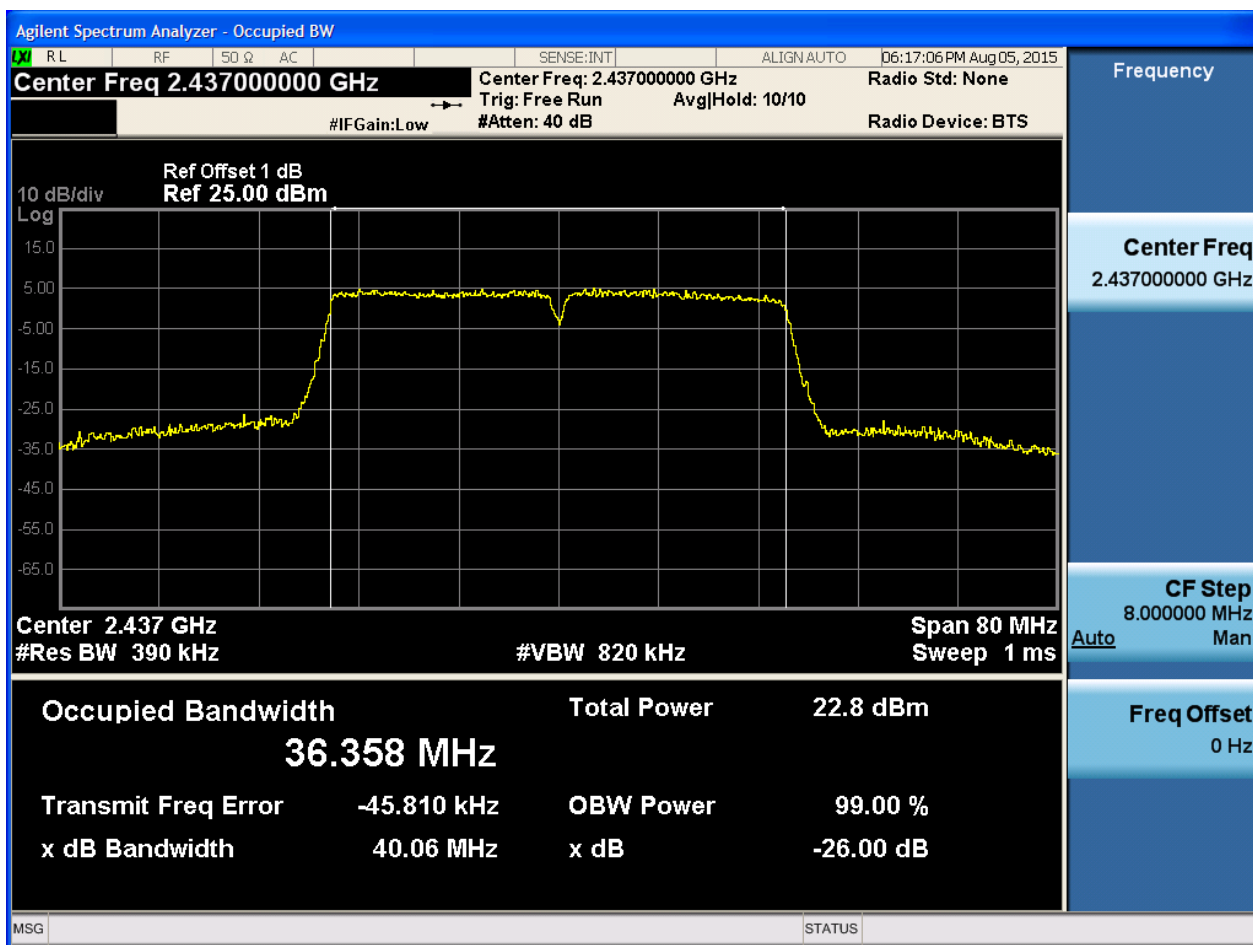


## 2.20 11N40\_L@Ant 2



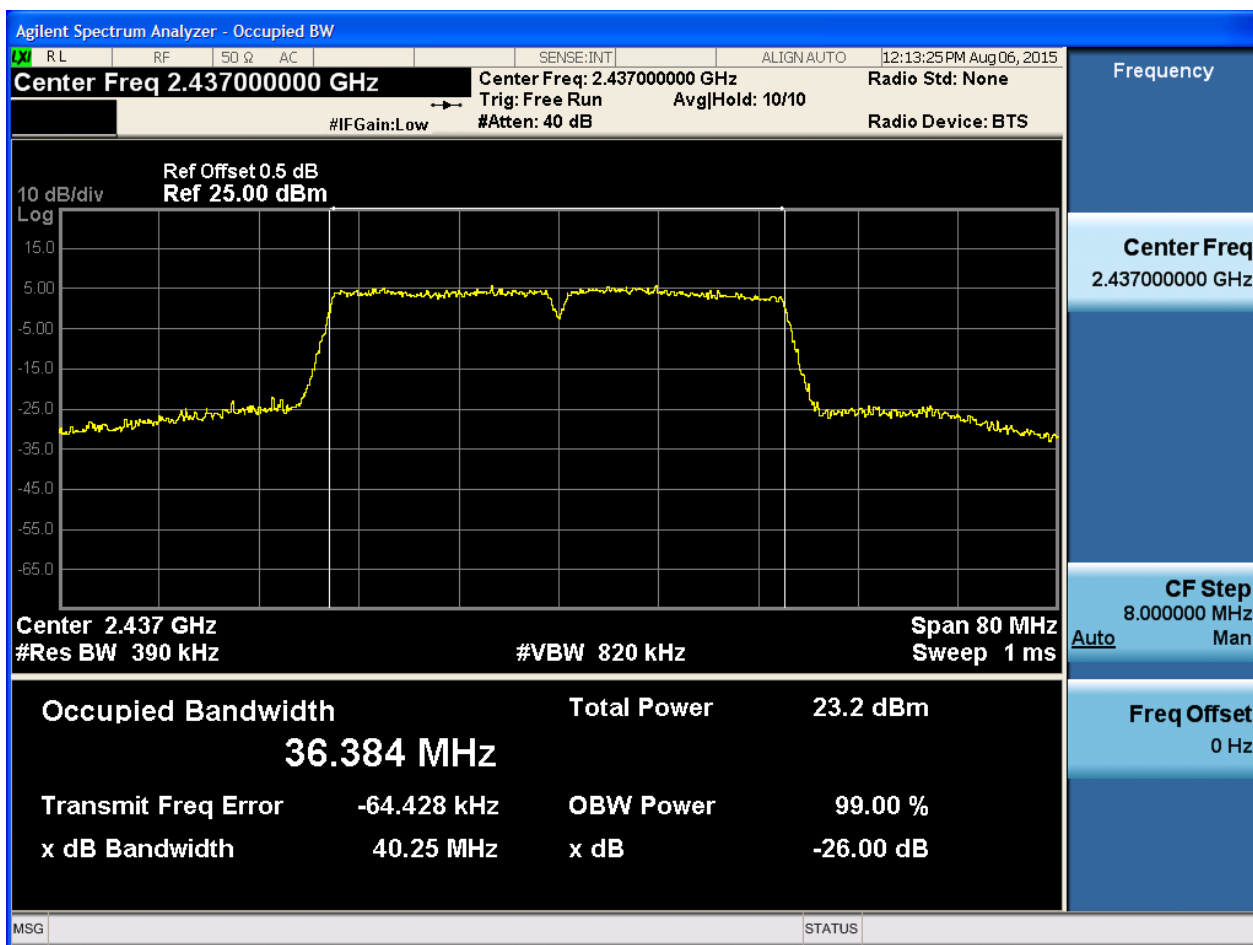


## 2.21 11N40\_M@Ant 1



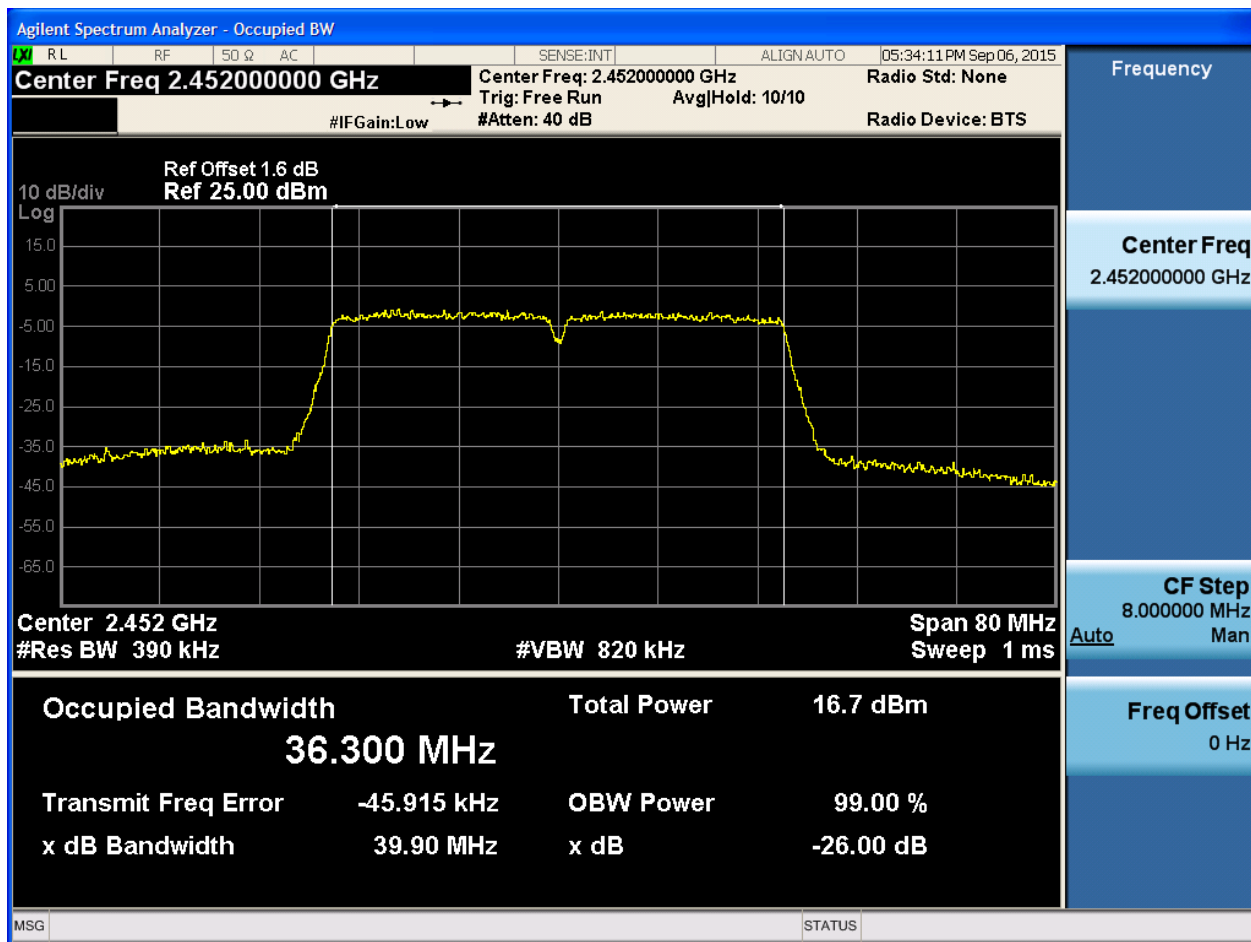


## 2.22 11N40\_M@Ant 2



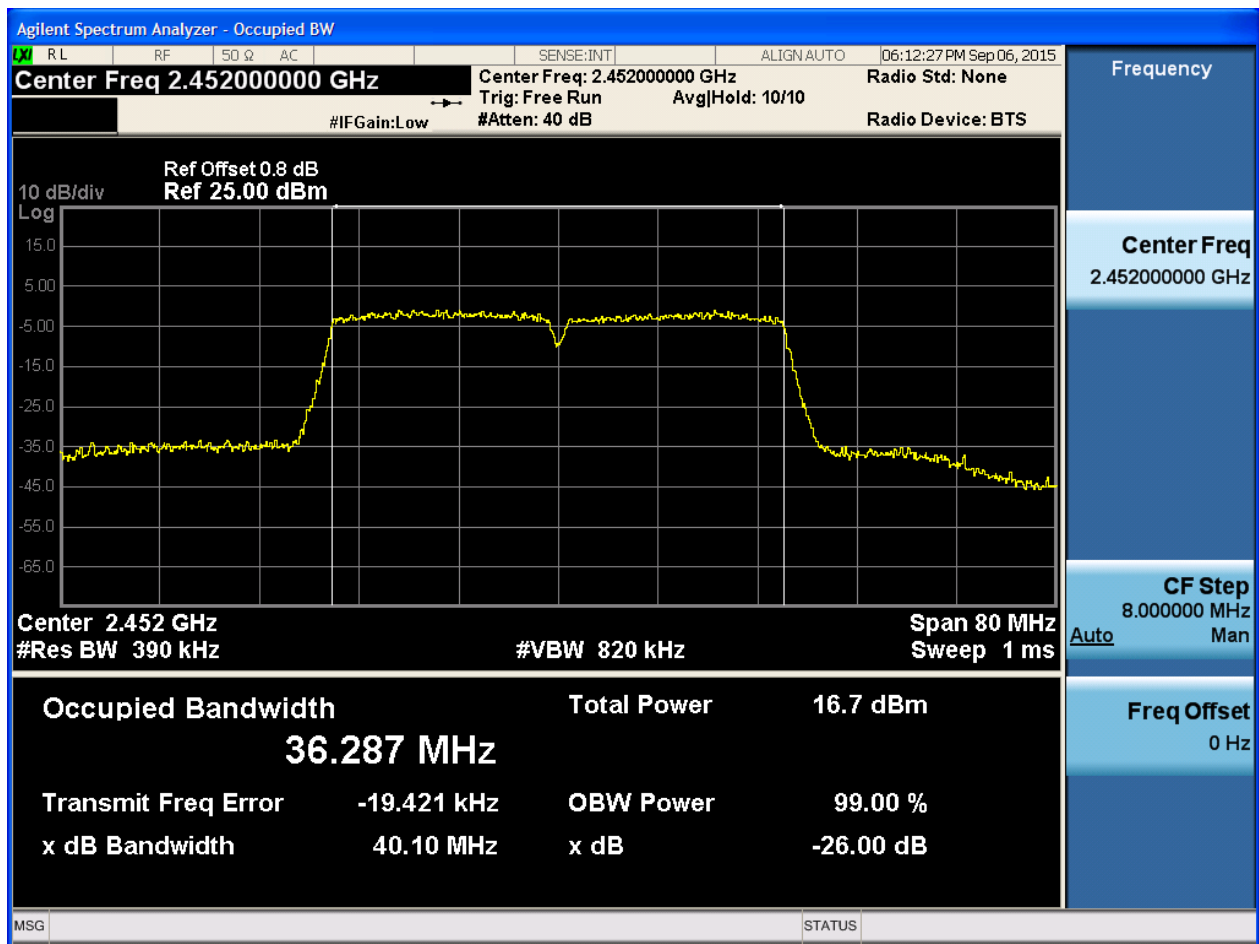


## 2.23 11N40\_H@Ant 1



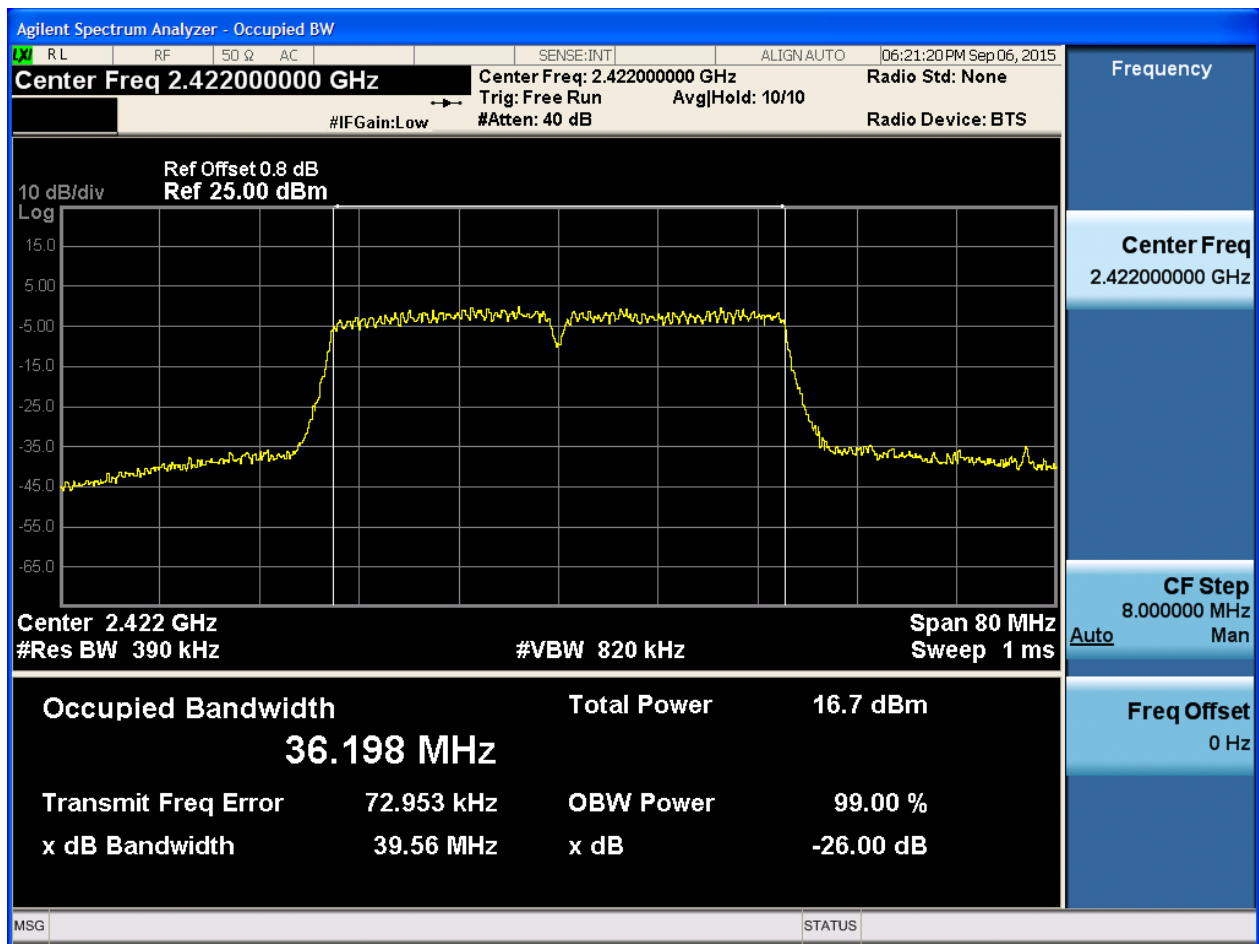


## 2.24 11N40\_H@Ant 2



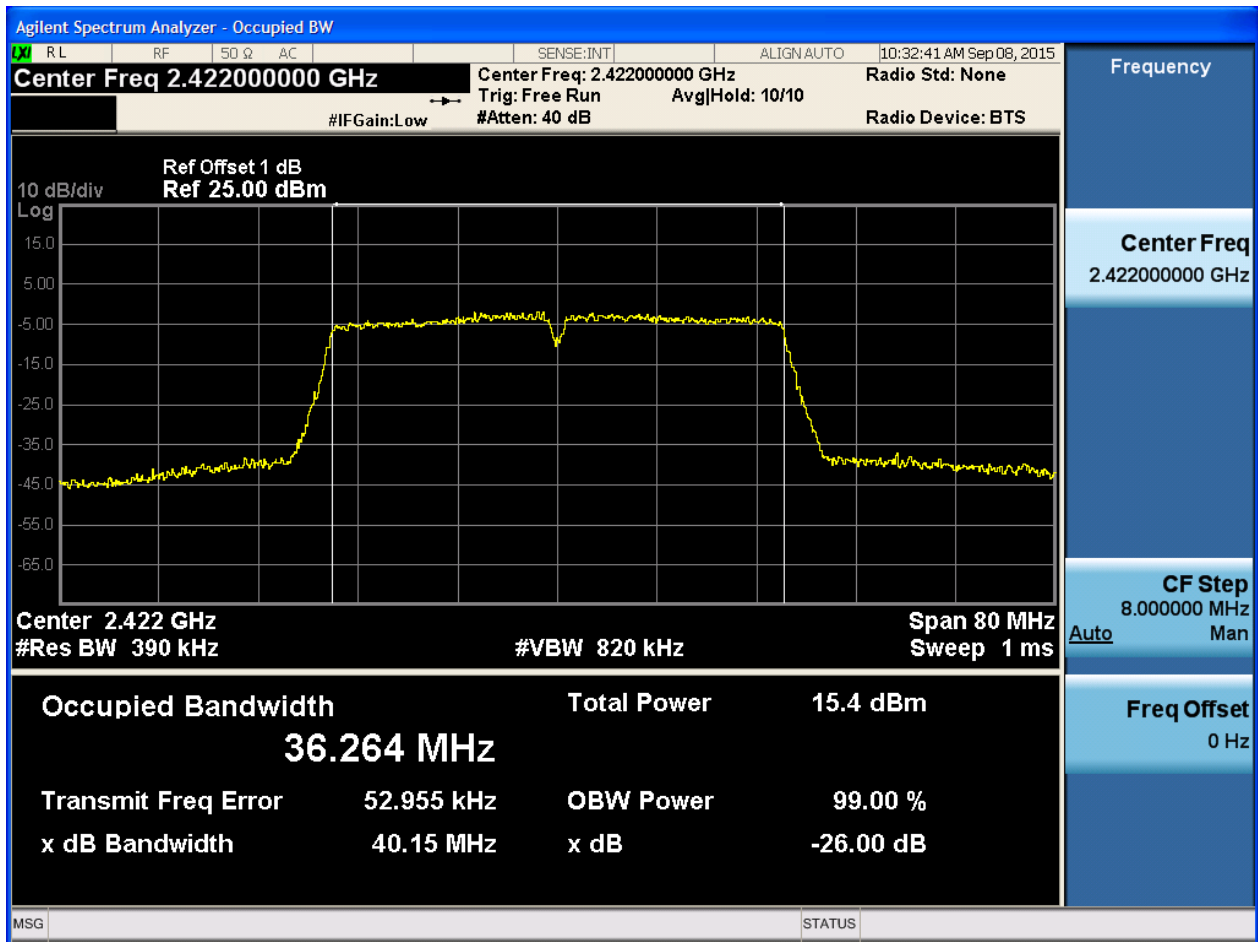


## 2.32 11N40m\_L@Ant 2



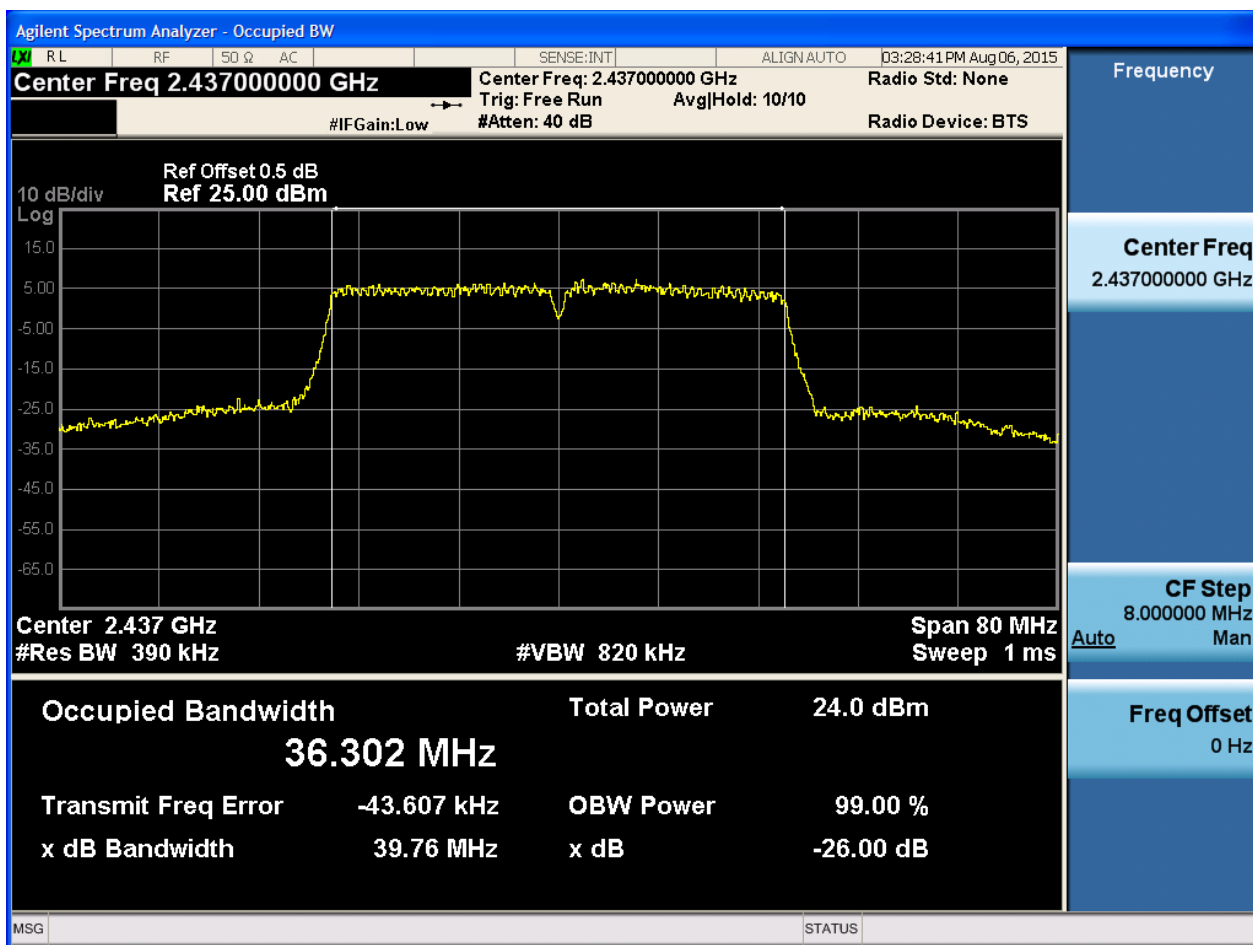


## 2.31 11N40m\_L@Ant 1



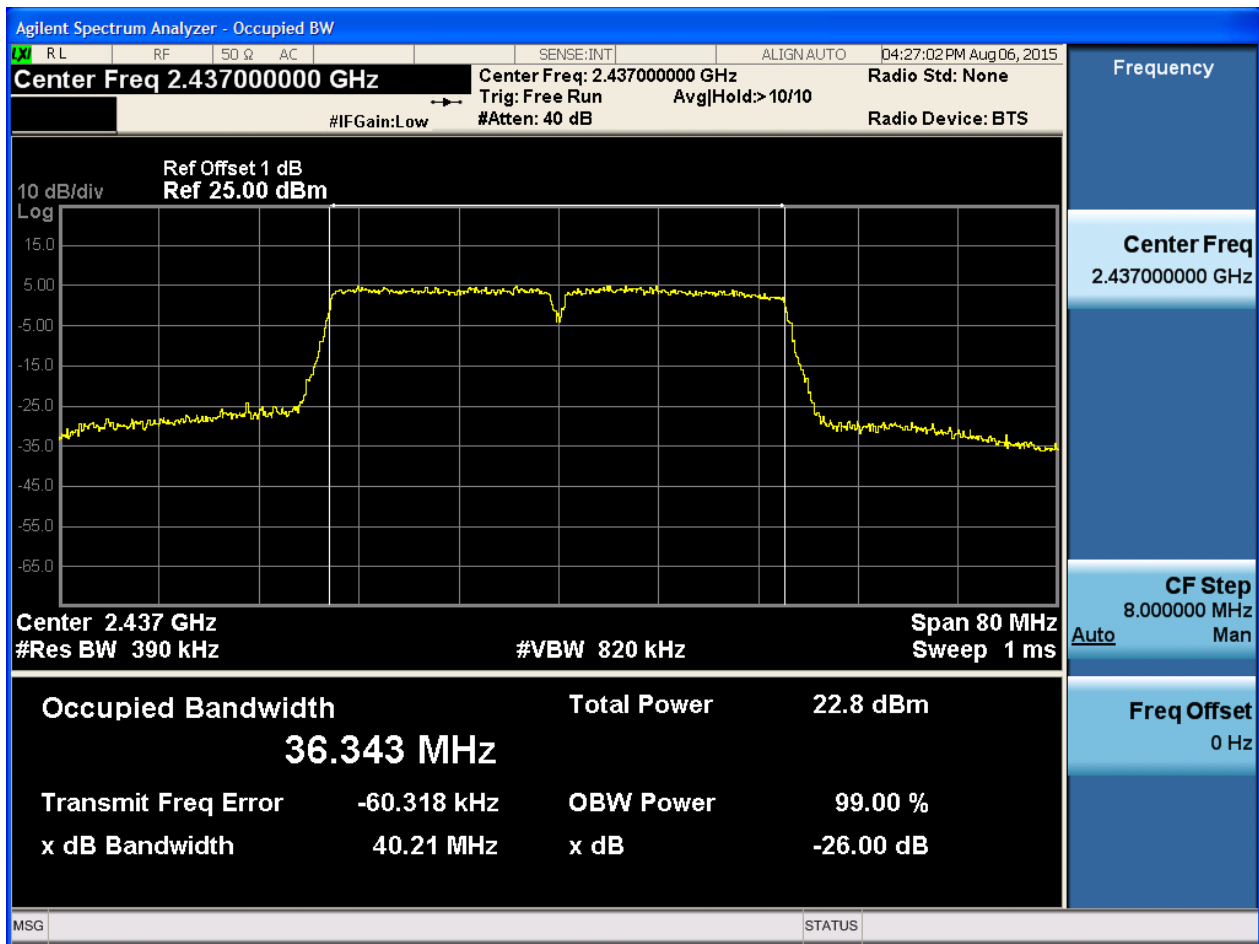


## 2.34 11N40m\_M@Ant 2



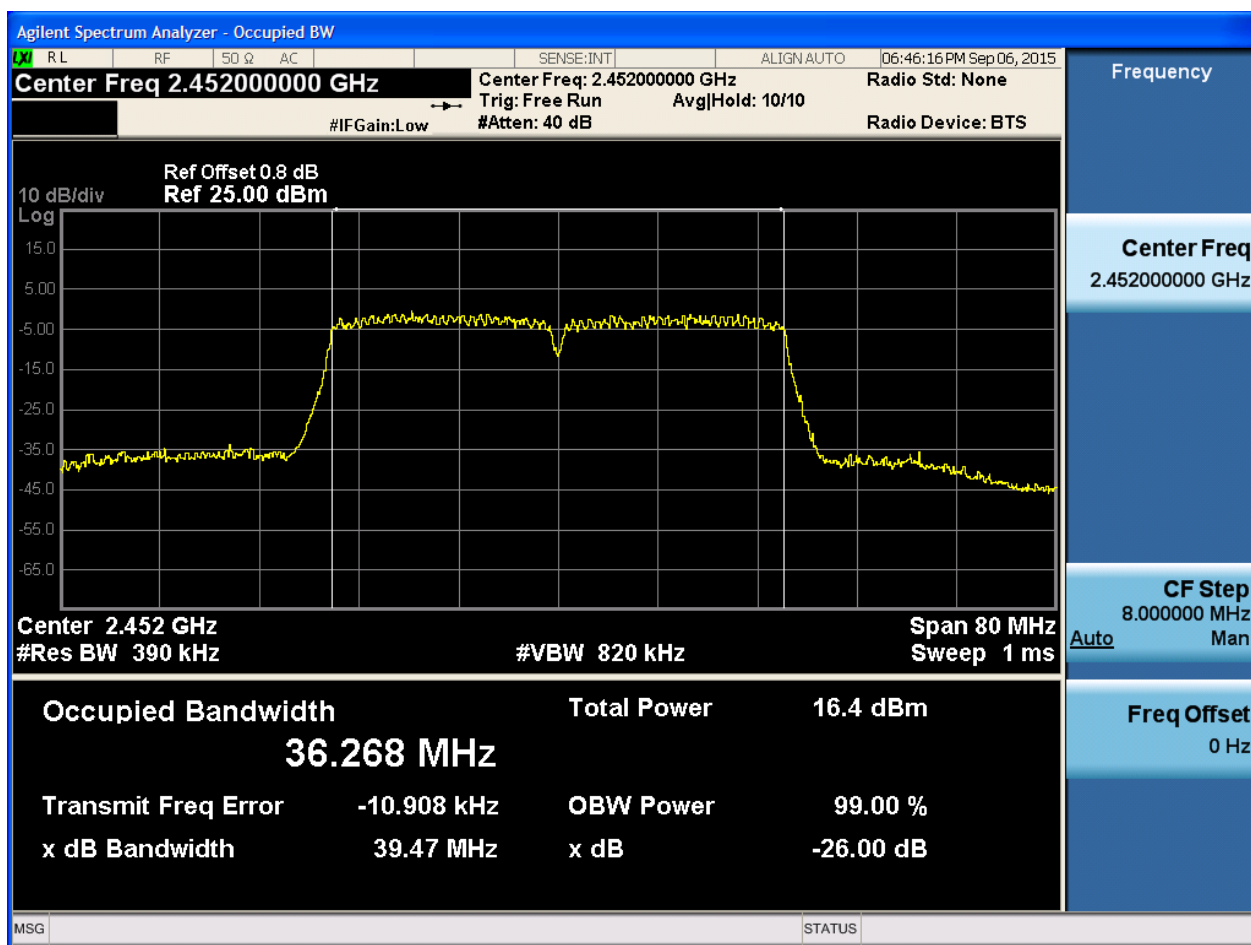


## 2.33 11N40m\_M@Ant 1



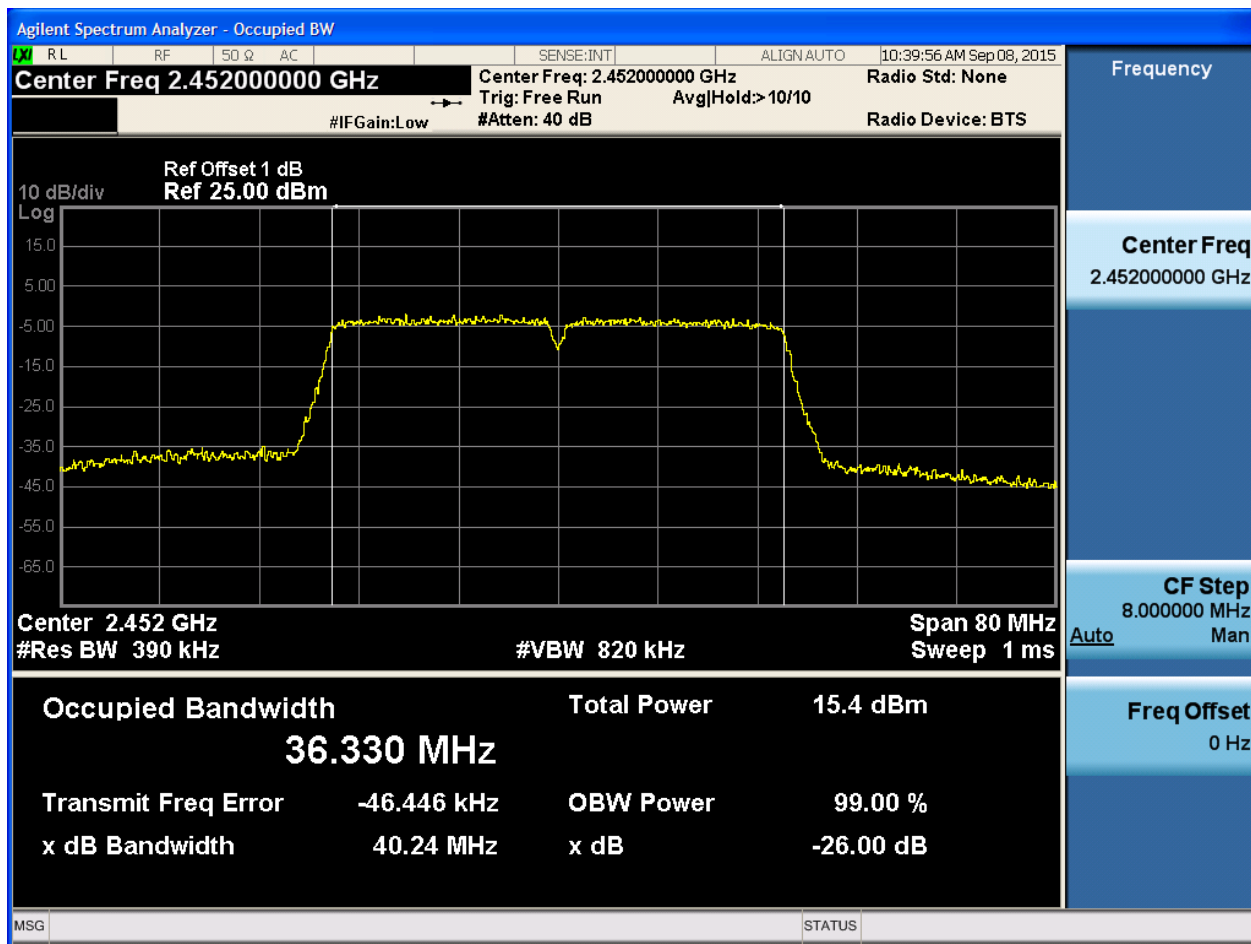


## 2.36 11N40m\_H@Ant 2



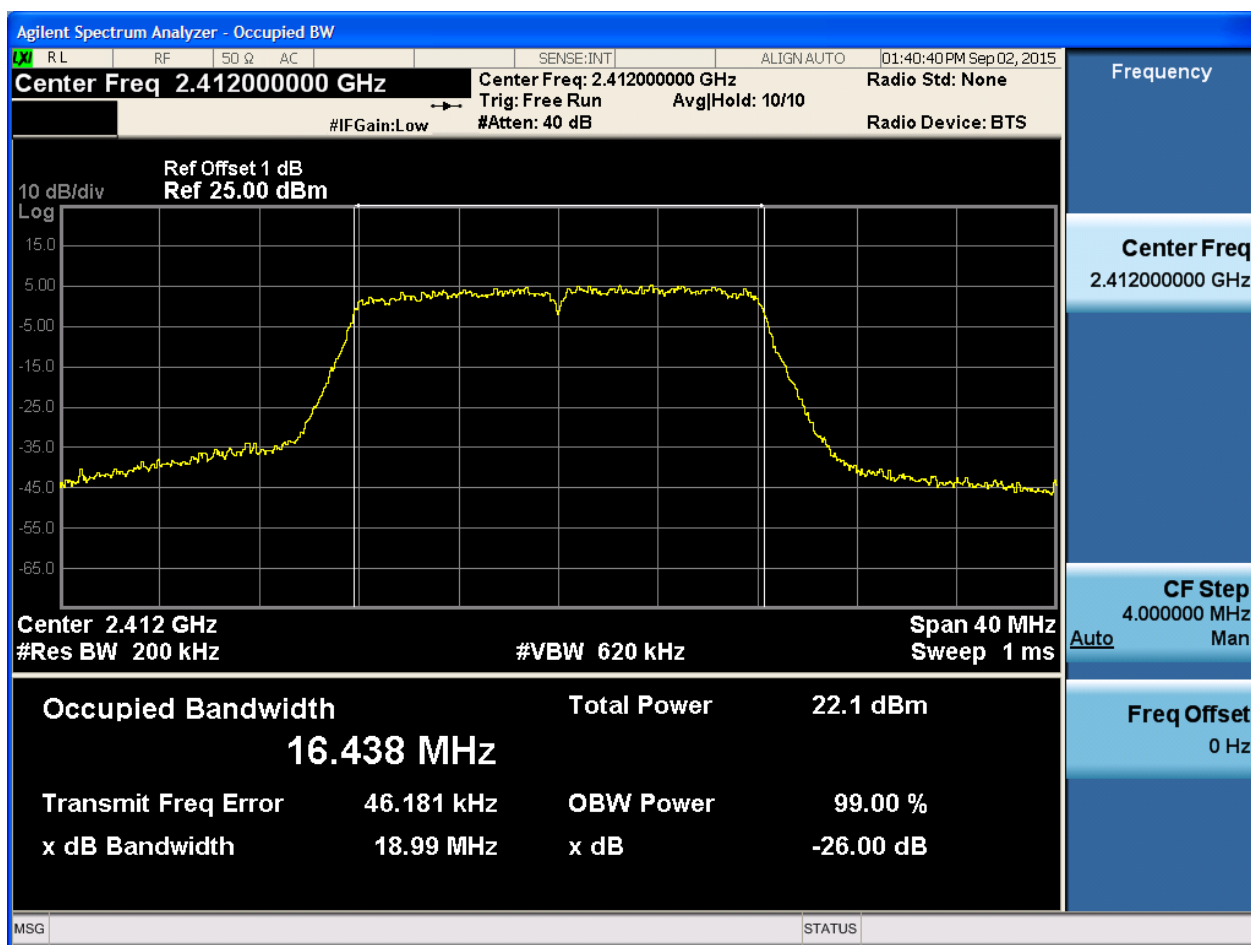


## 2.35 11N40m\_H@Ant 1



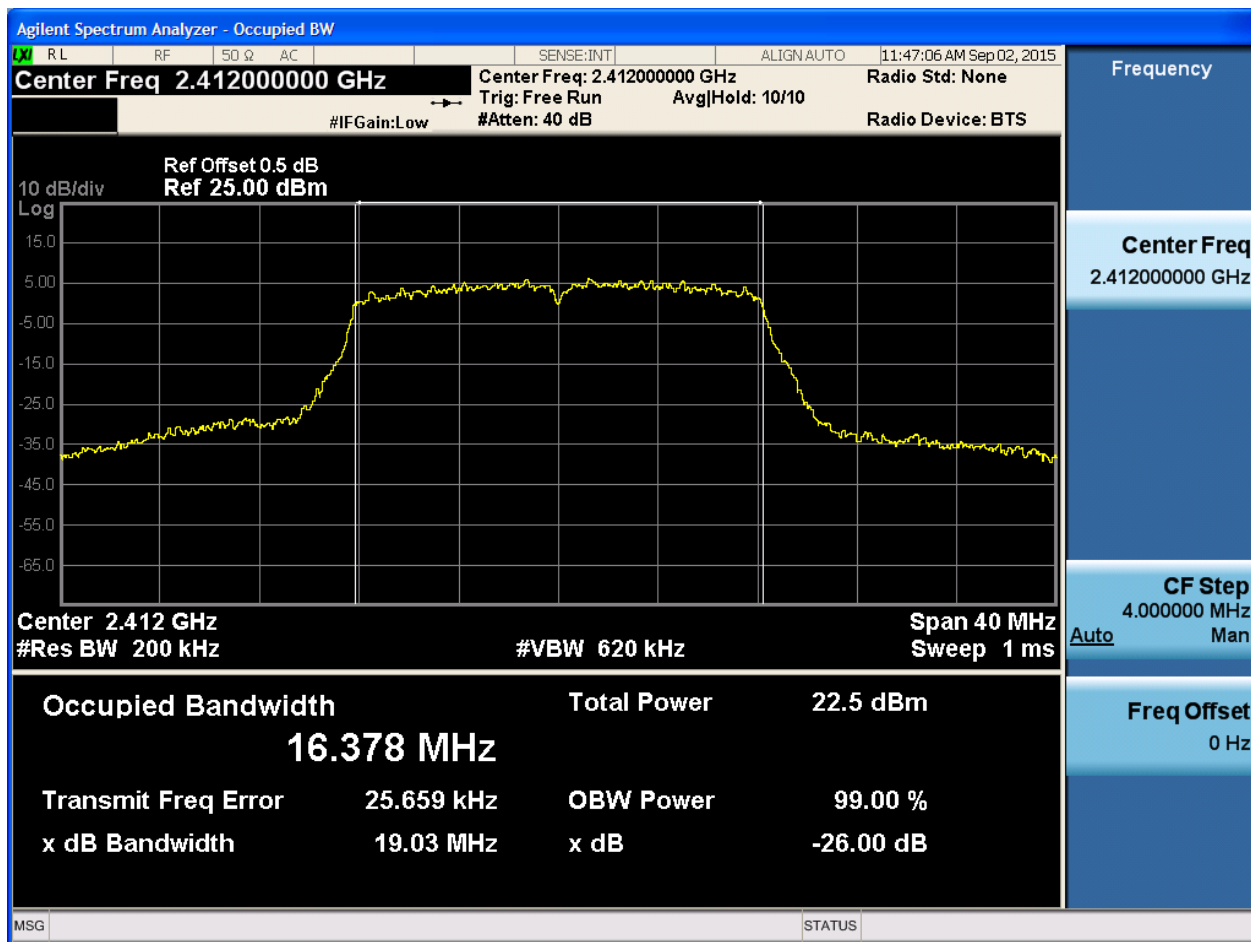


## 2.36 11G CDD\_L@Ant 1



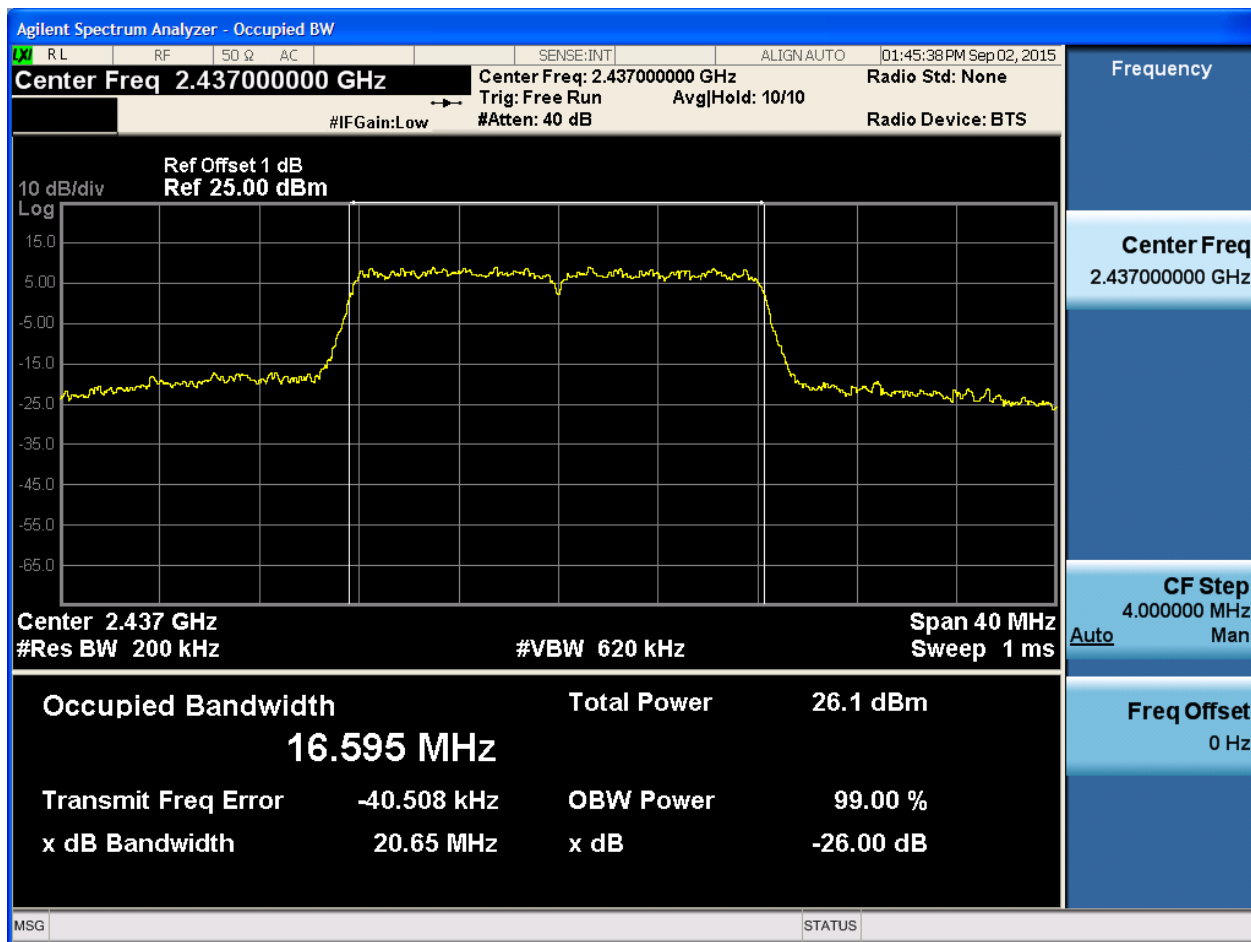


## 2.37 11G CDD\_L@Ant 2



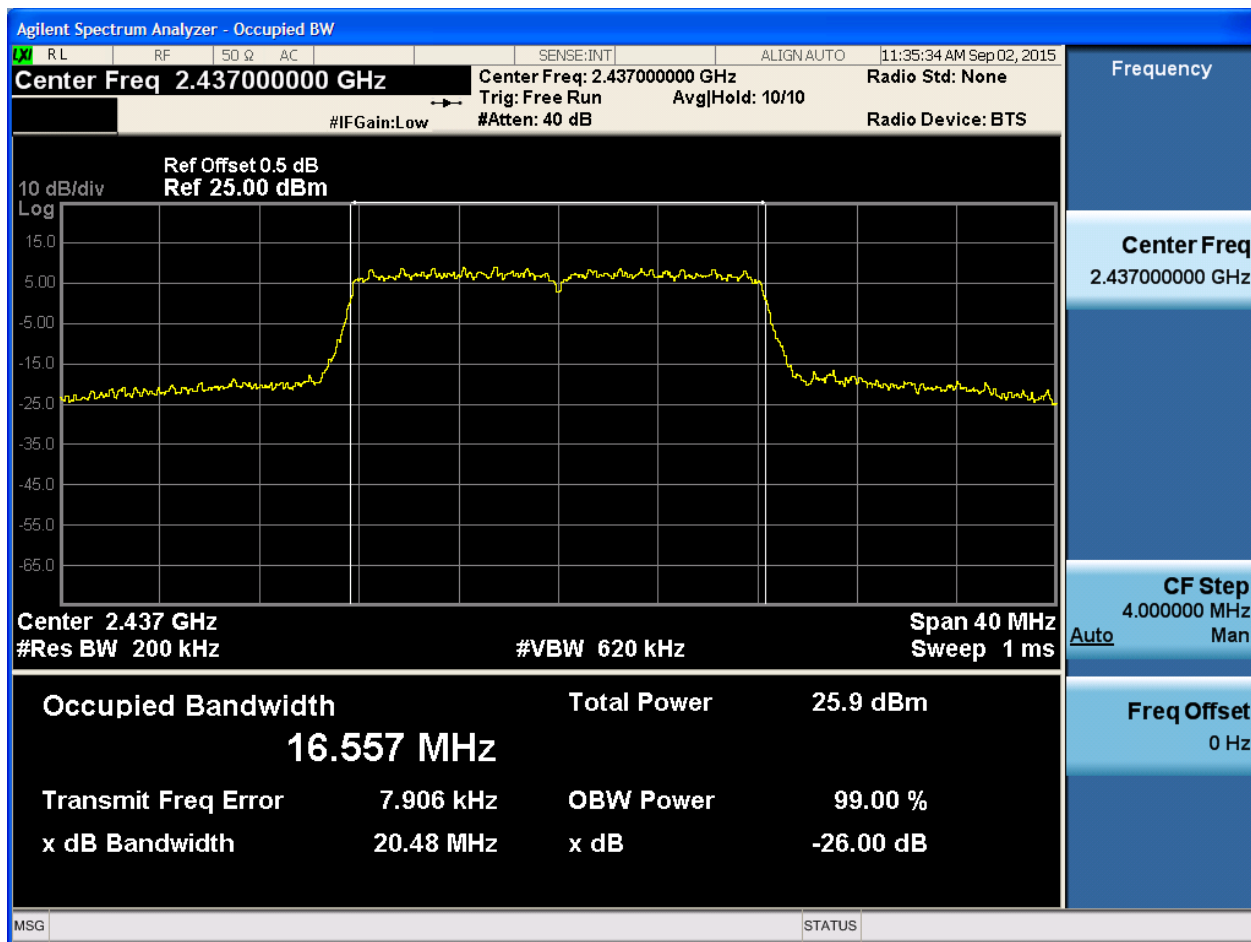


## 2.38 11G CDD\_M@Ant 1



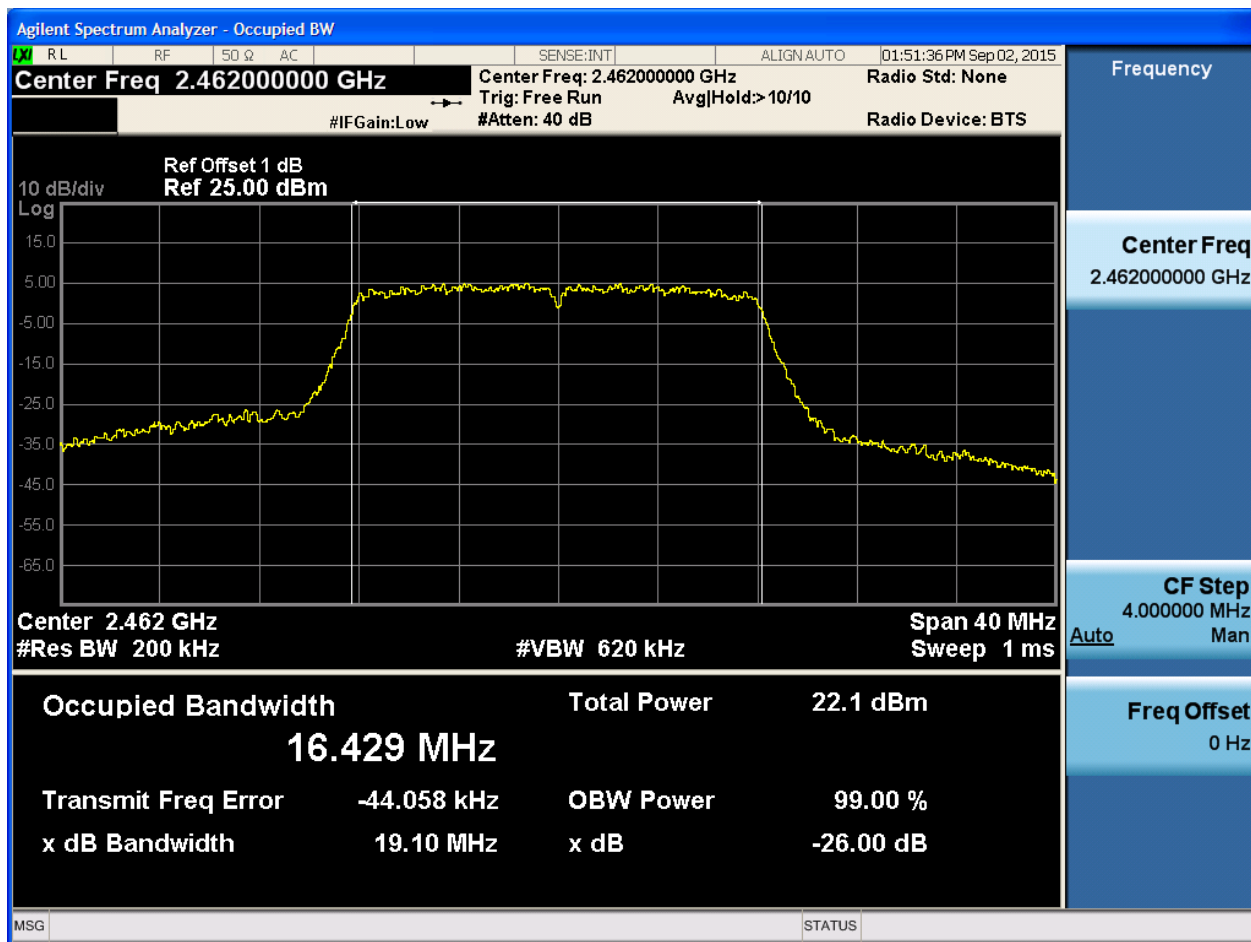


## 2.39 11G CDD\_M@Ant 2



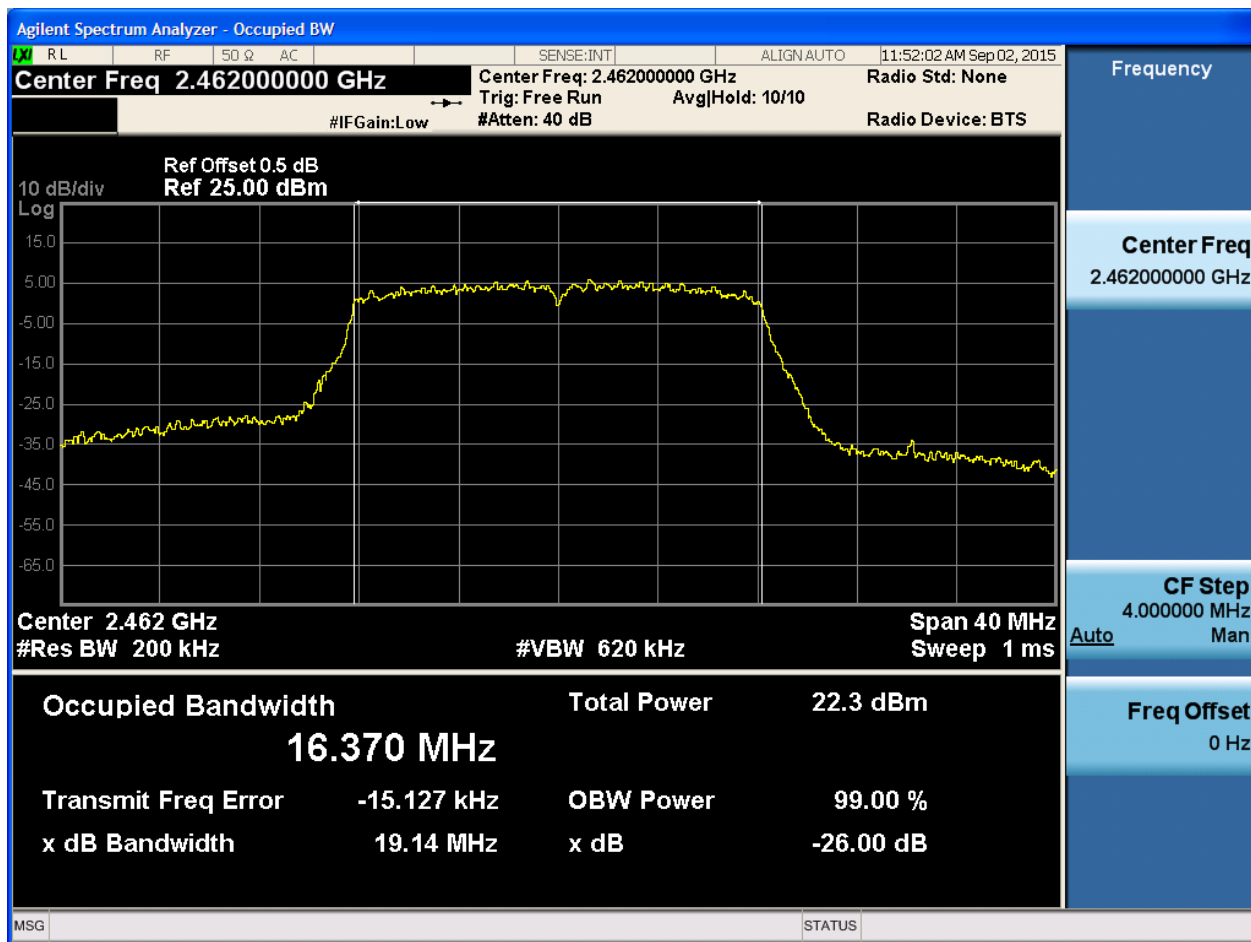


## 2.40 11G CDD\_H@Ant 1





## 2.41 11G CDD\_H@Ant 2



## Appendix C: Duty Cycle

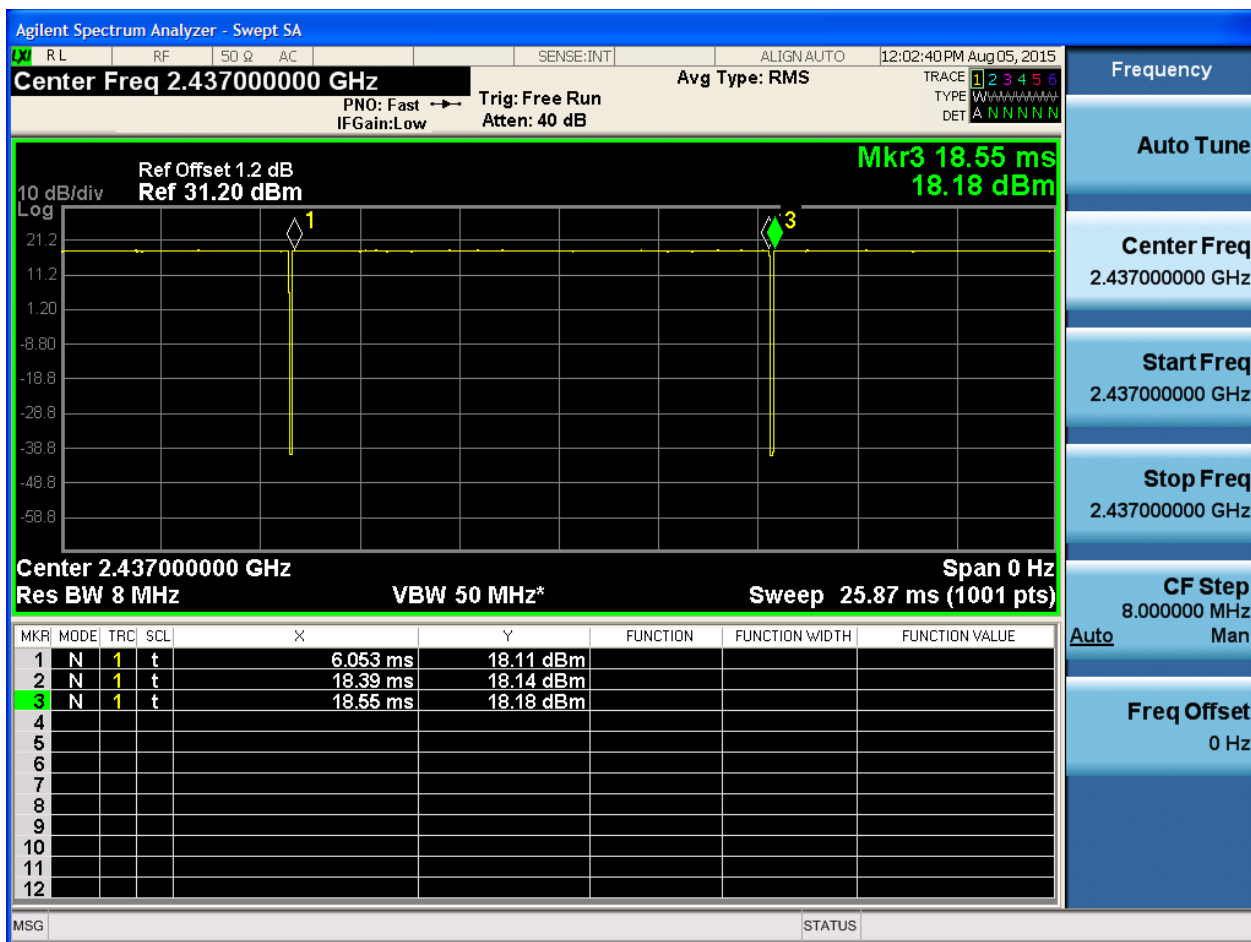
### Part I - Test Results

| Test Mode   | TX Freq. [MHz] | Ant   | Duty cycle [%] |
|-------------|----------------|-------|----------------|
| 11B         | CH1,CH6,CH11   | Ant 1 | 99             |
| 11B         | CH1,CH6,CH11   | Ant 2 | 99             |
| 11G/11G CDD | CH1,CH6,CH11   | Ant 1 | 95             |
| 11G/11G CDD | CH1,CH6,CH11   | Ant 2 | 95             |
| 11N20SISO   | CH1,CH6,CH11   | Ant 1 | 94             |
| 11N20SISO   | CH1,CH6,CH11   | Ant 2 | 94             |
| 11N40SISO   | CH3,CH6,CH9    | Ant 1 | 90             |
| 11N40SISO   | CH3,CH6,CH9    | Ant 2 | 89             |
| 11N20MIMO   | CH1,CH6,CH11   | Ant 1 | 94             |
| 11N20MIMO   | CH1,CH6,CH11   | Ant 2 | 94             |
| 11N40MIMO   | CH3,CH6,CH9    | Ant 1 | 89             |
| 11N40MIMO   | CH3,CH6,CH9    | Ant 2 | 89             |



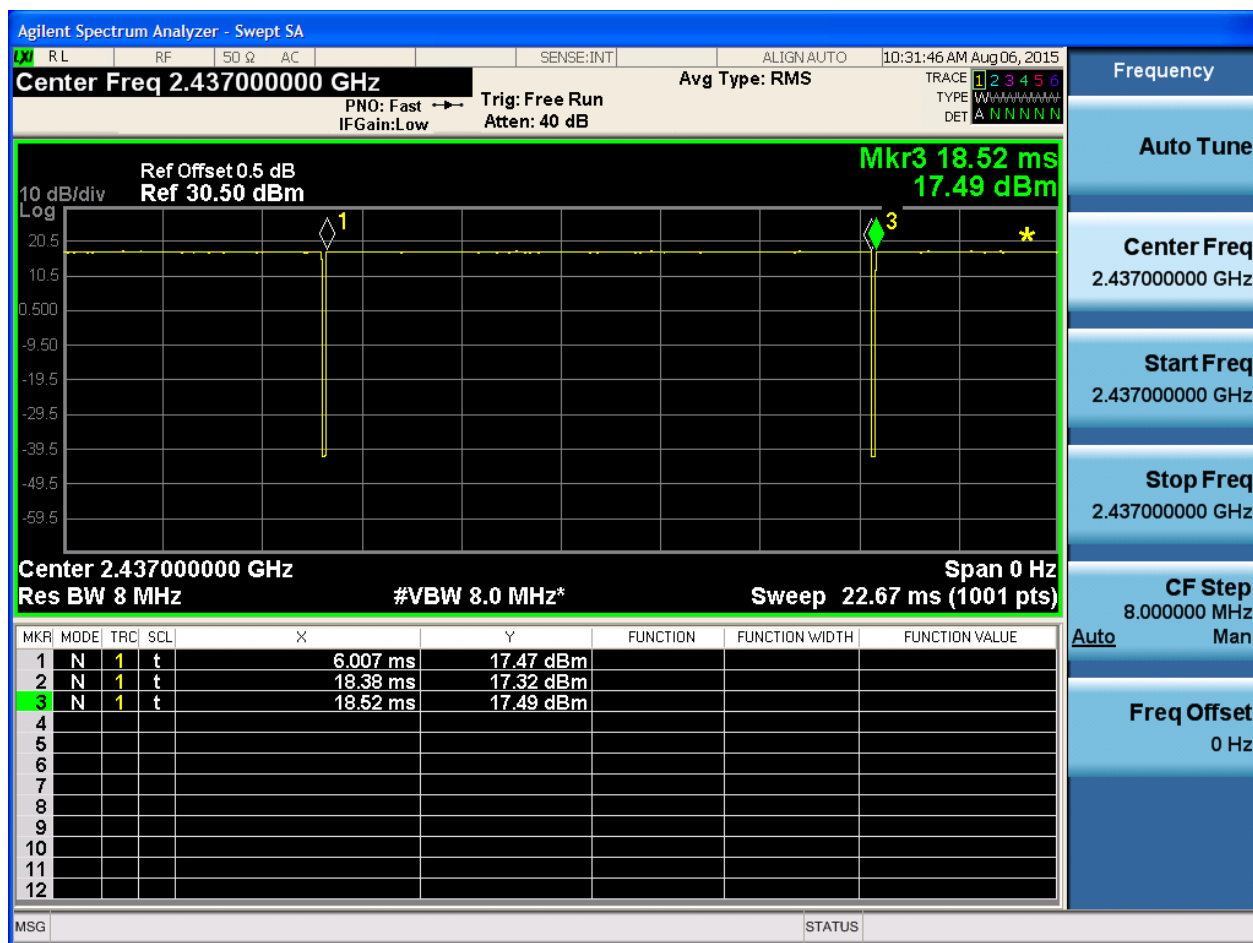
## Part II - Test Plots

## 11B\_ANT1



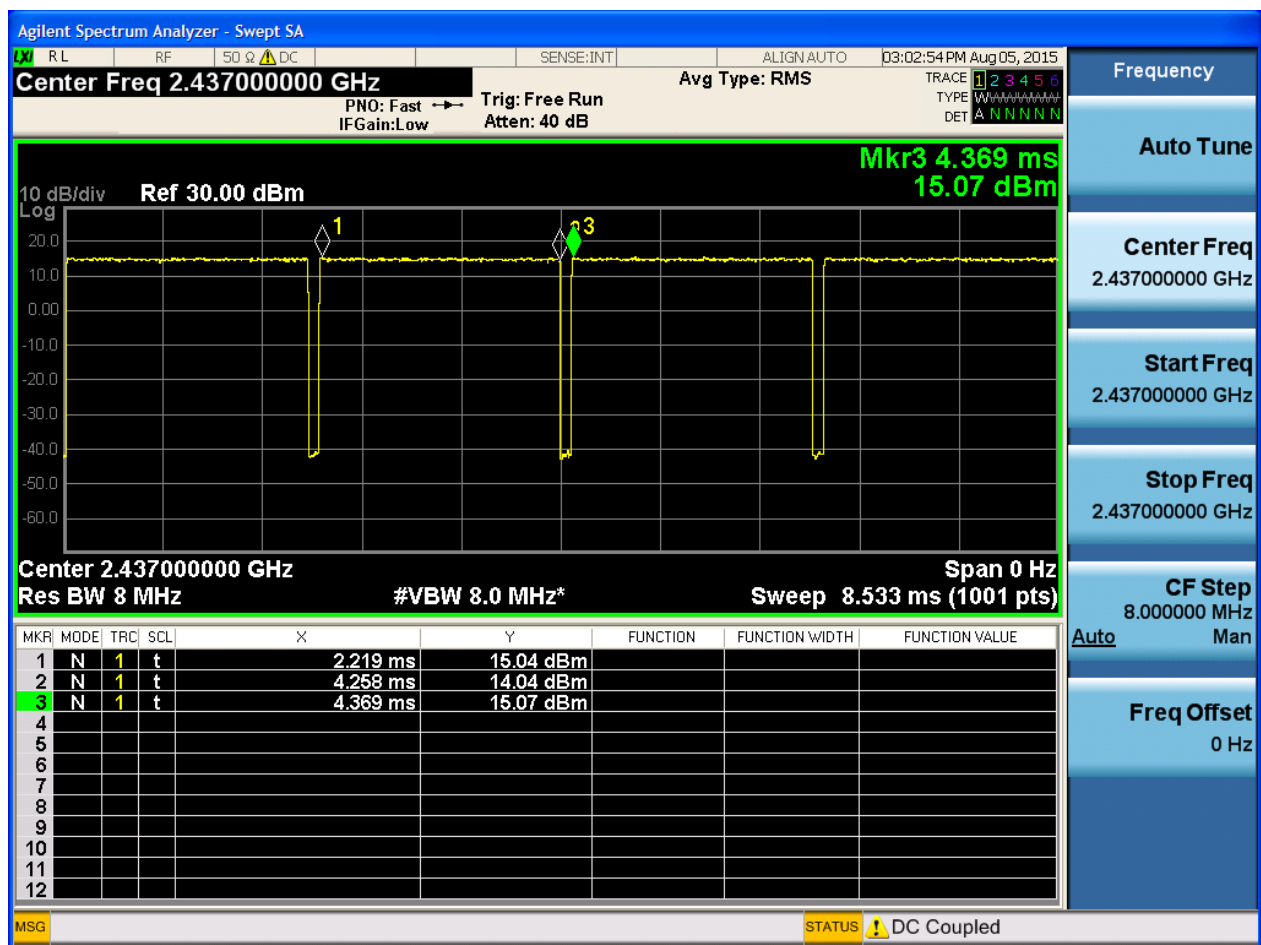


## 11B\_ANT2



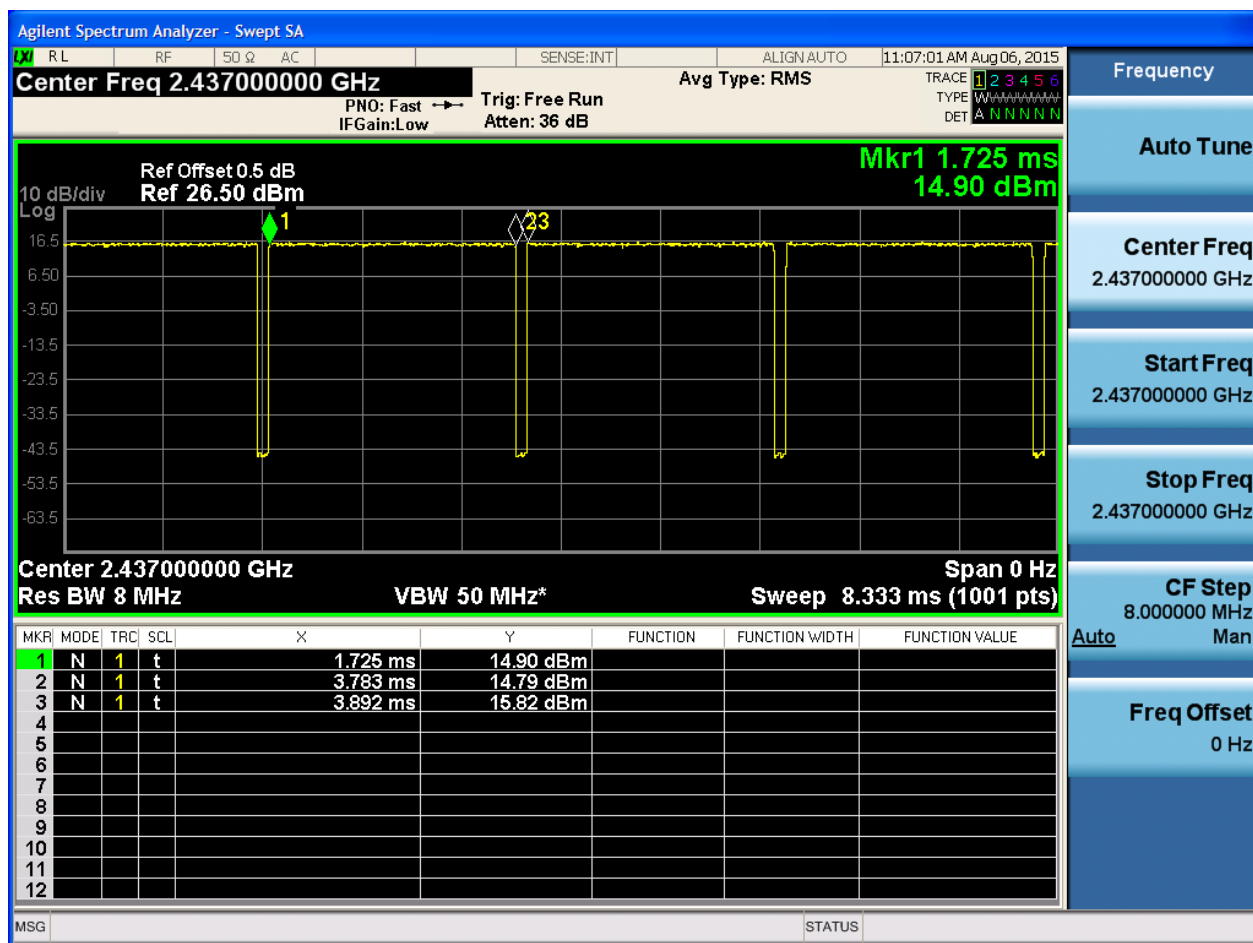


## 11G/11GCDD\_ANT1



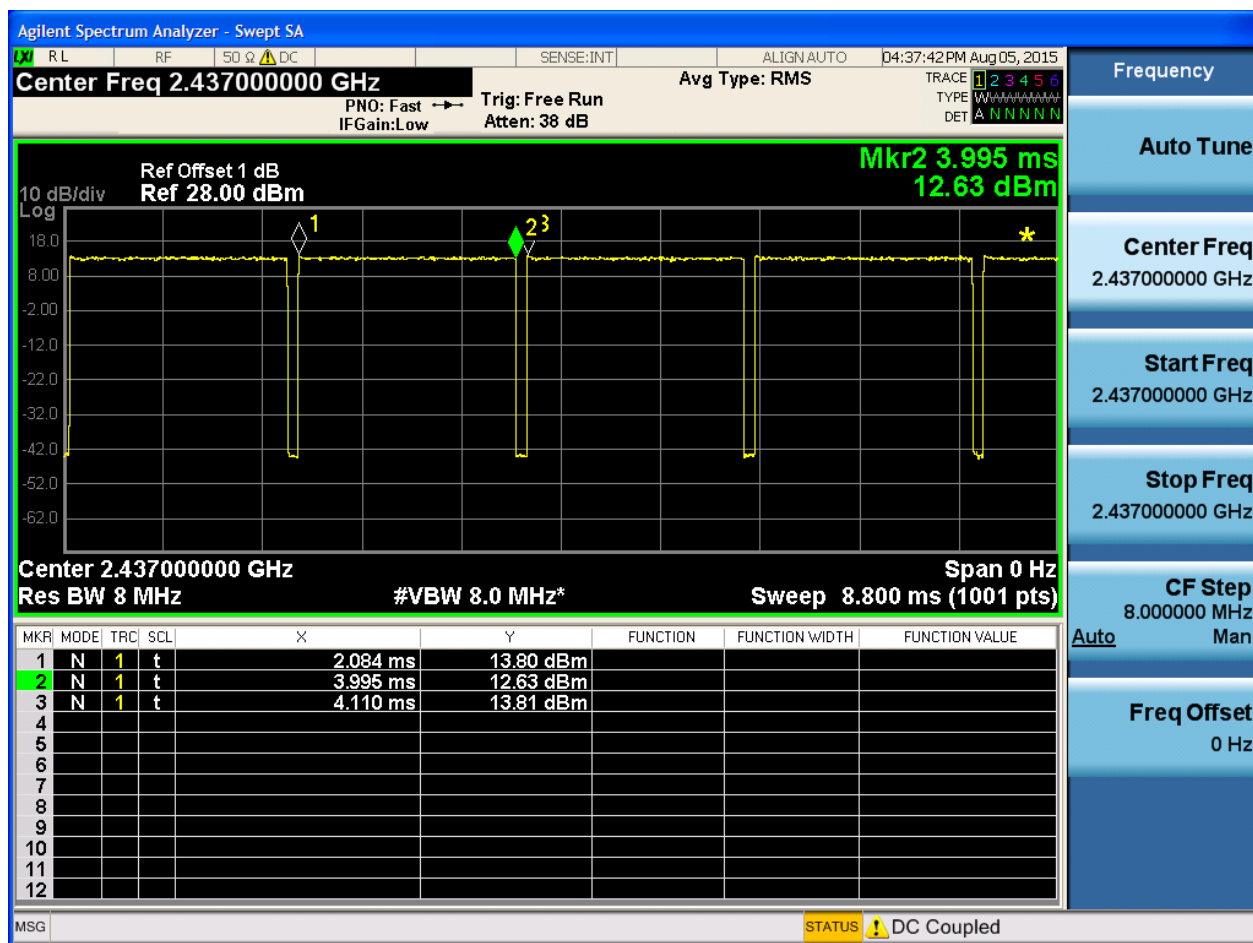


## 11G/11GCDD\_ANT2



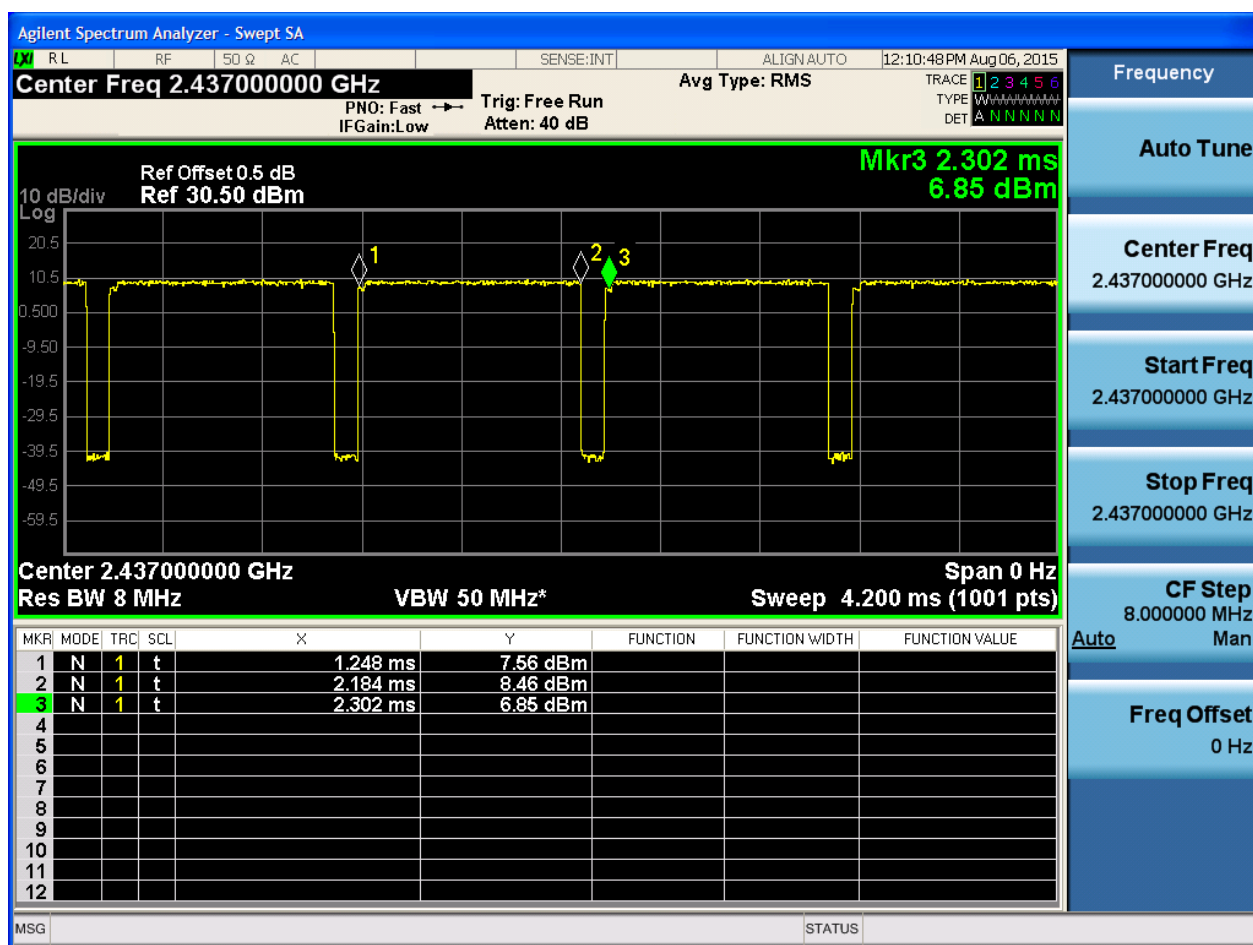


## 11N20SISO\_ANT1



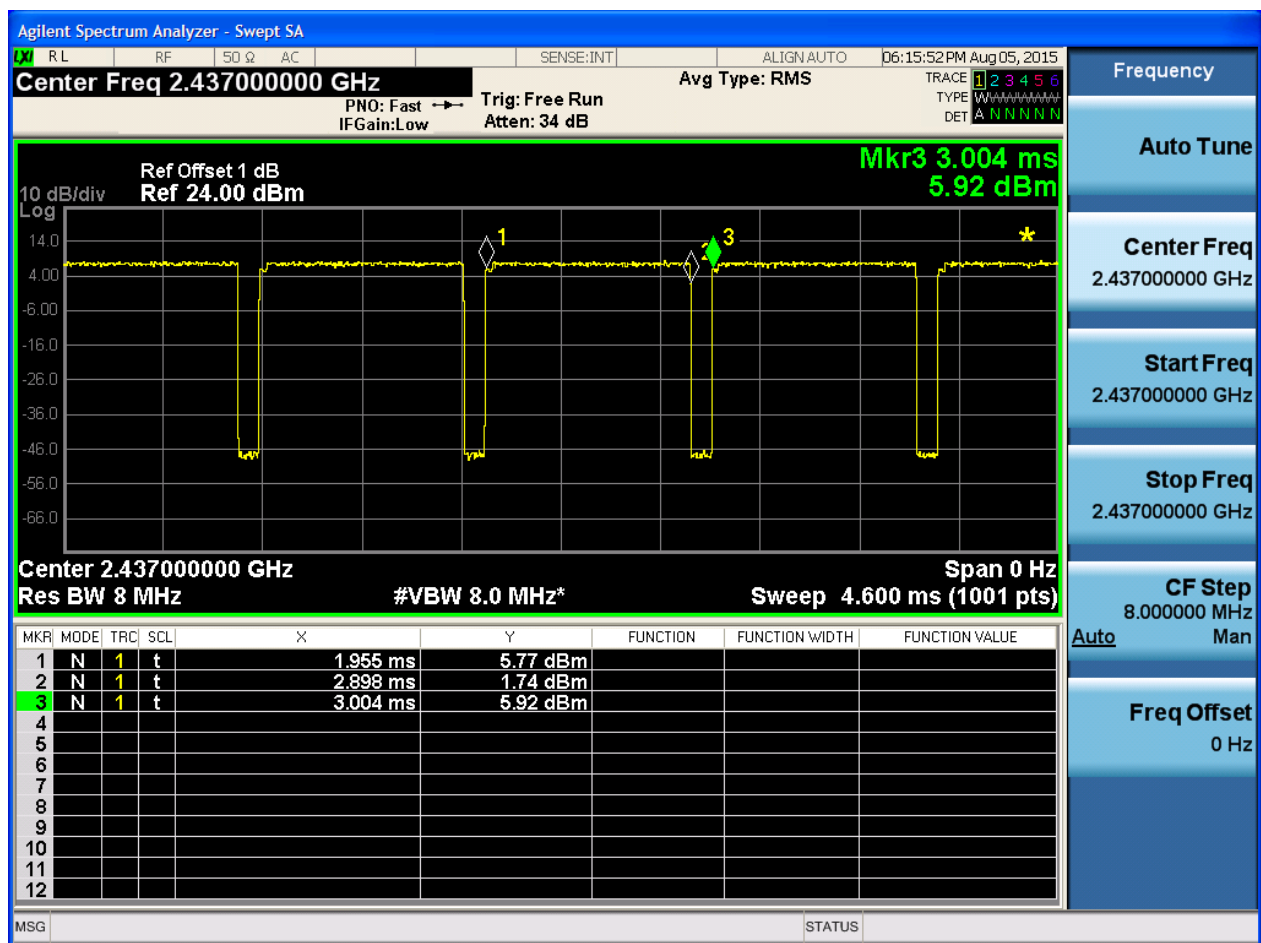


## 11N20SISO\_ANT2



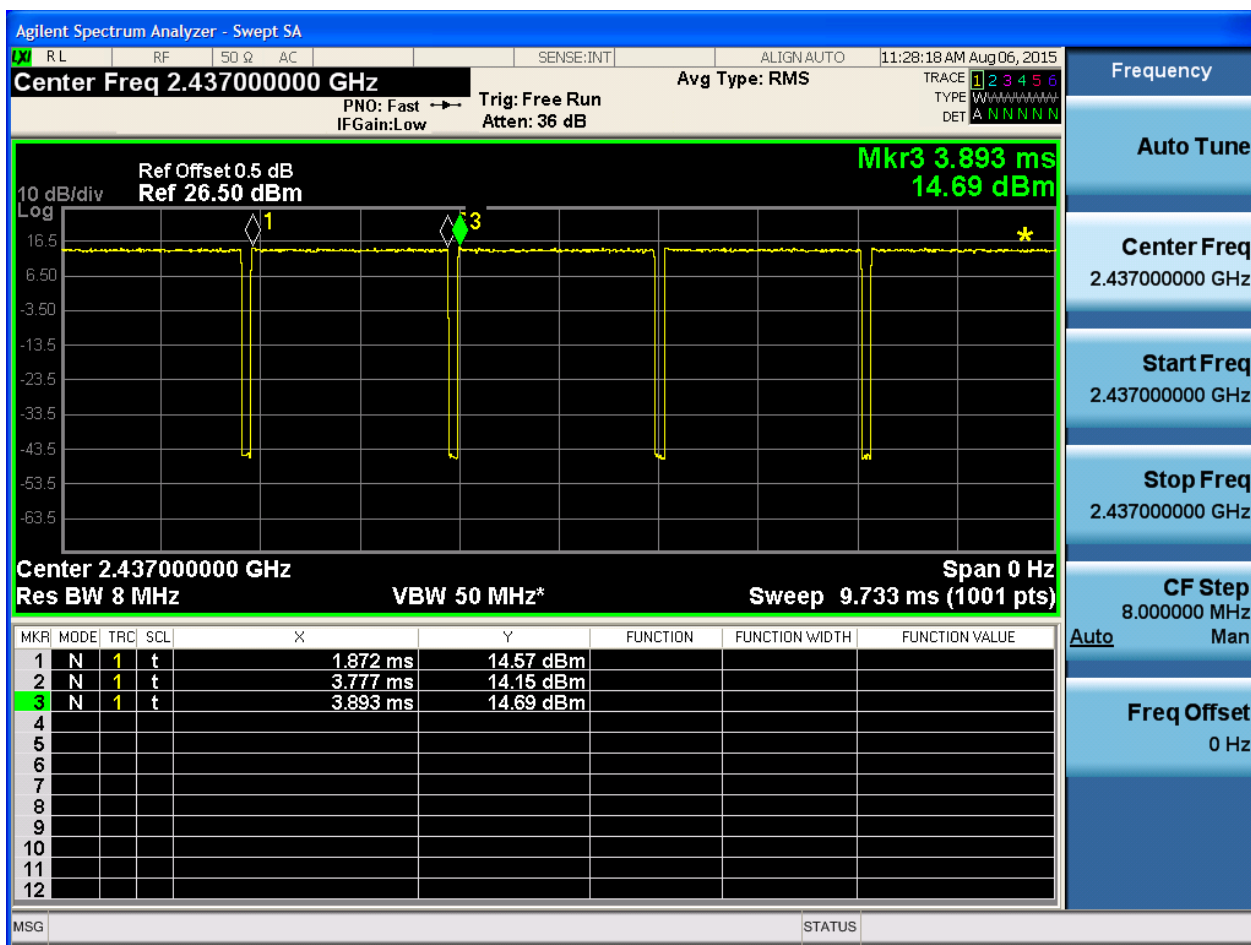


## 11N40SISO\_ANT1



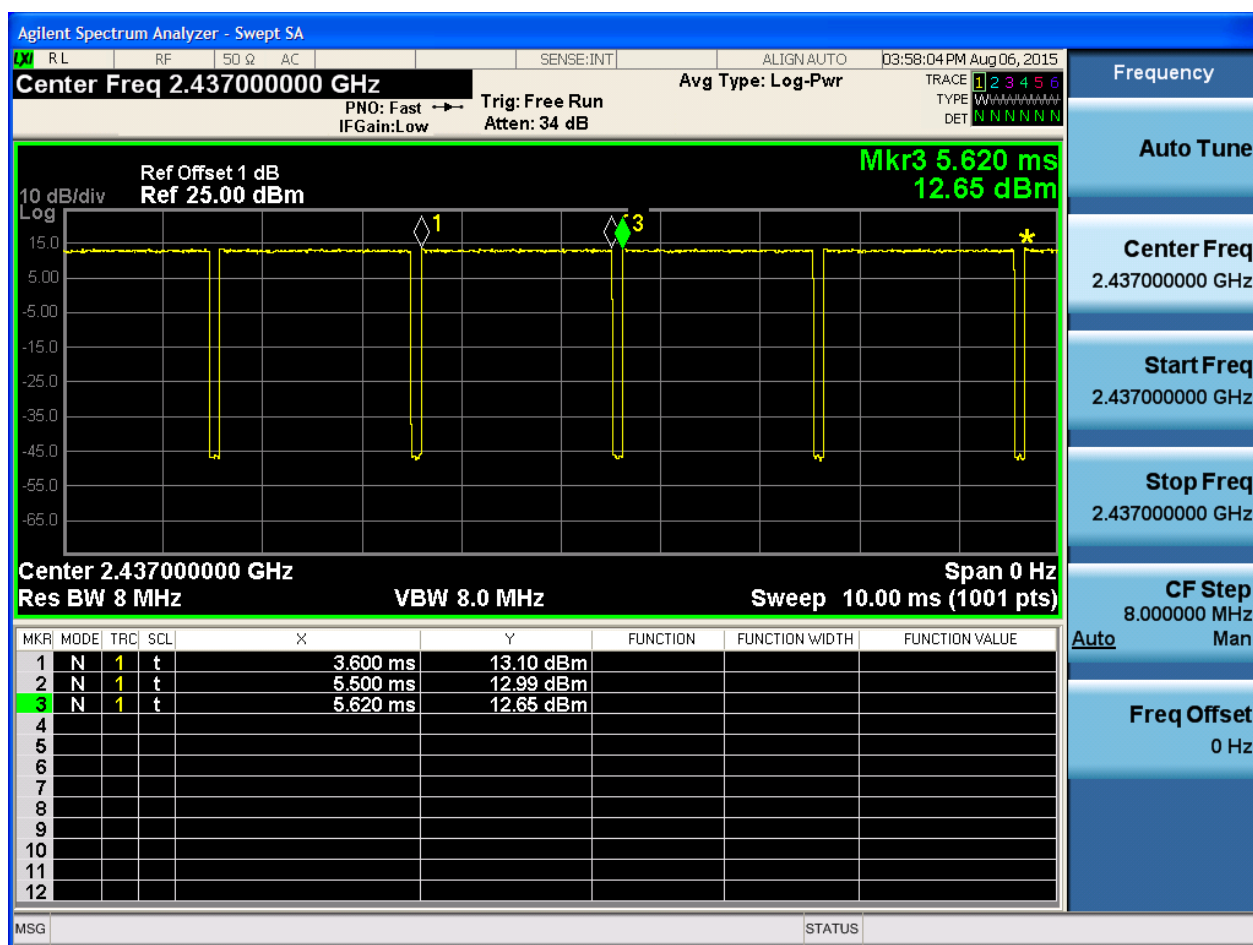


## 11N40SISO\_ANT2



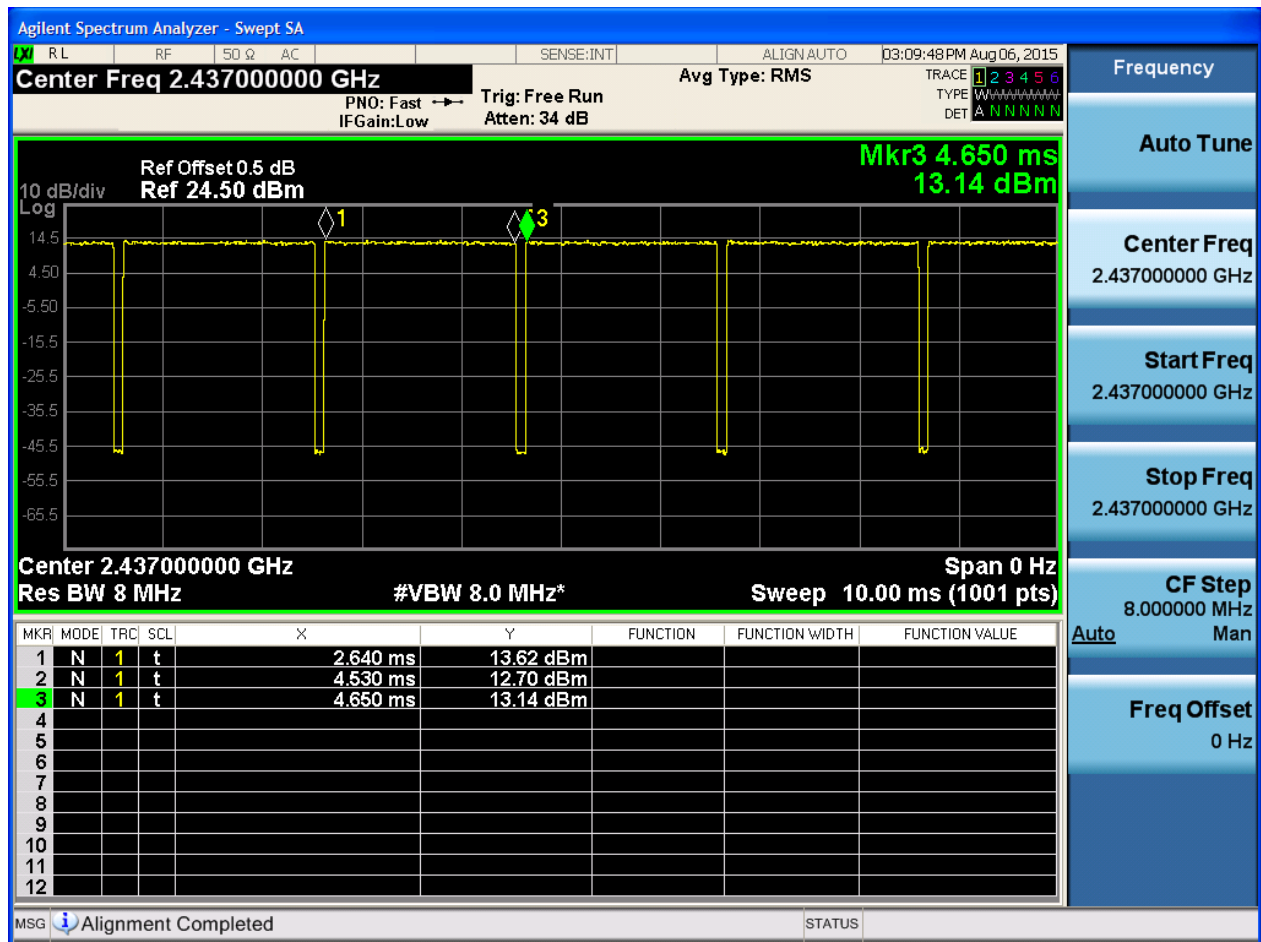


## 11N20MIMO\_ANT1



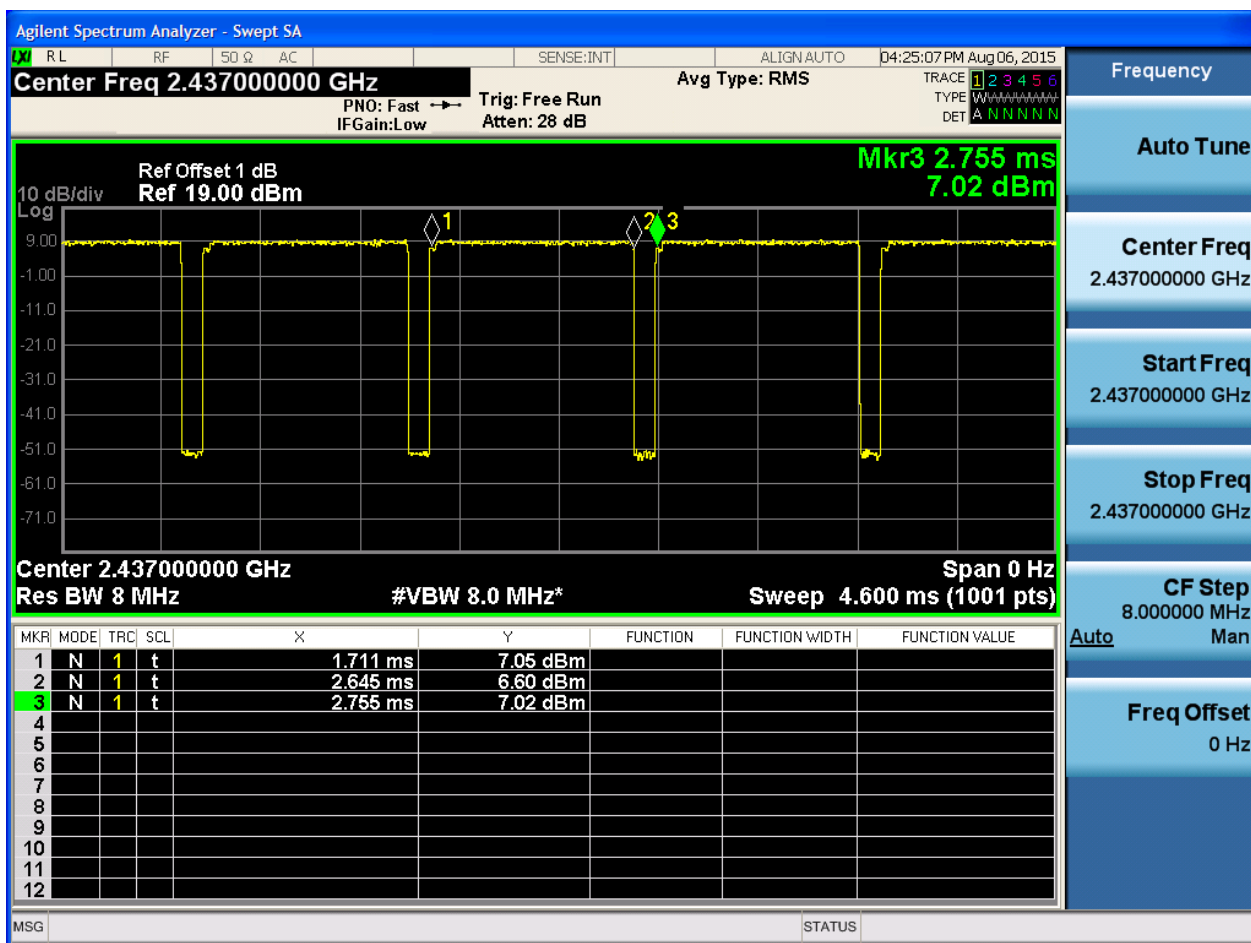


## 11N20MIMO\_ANT2



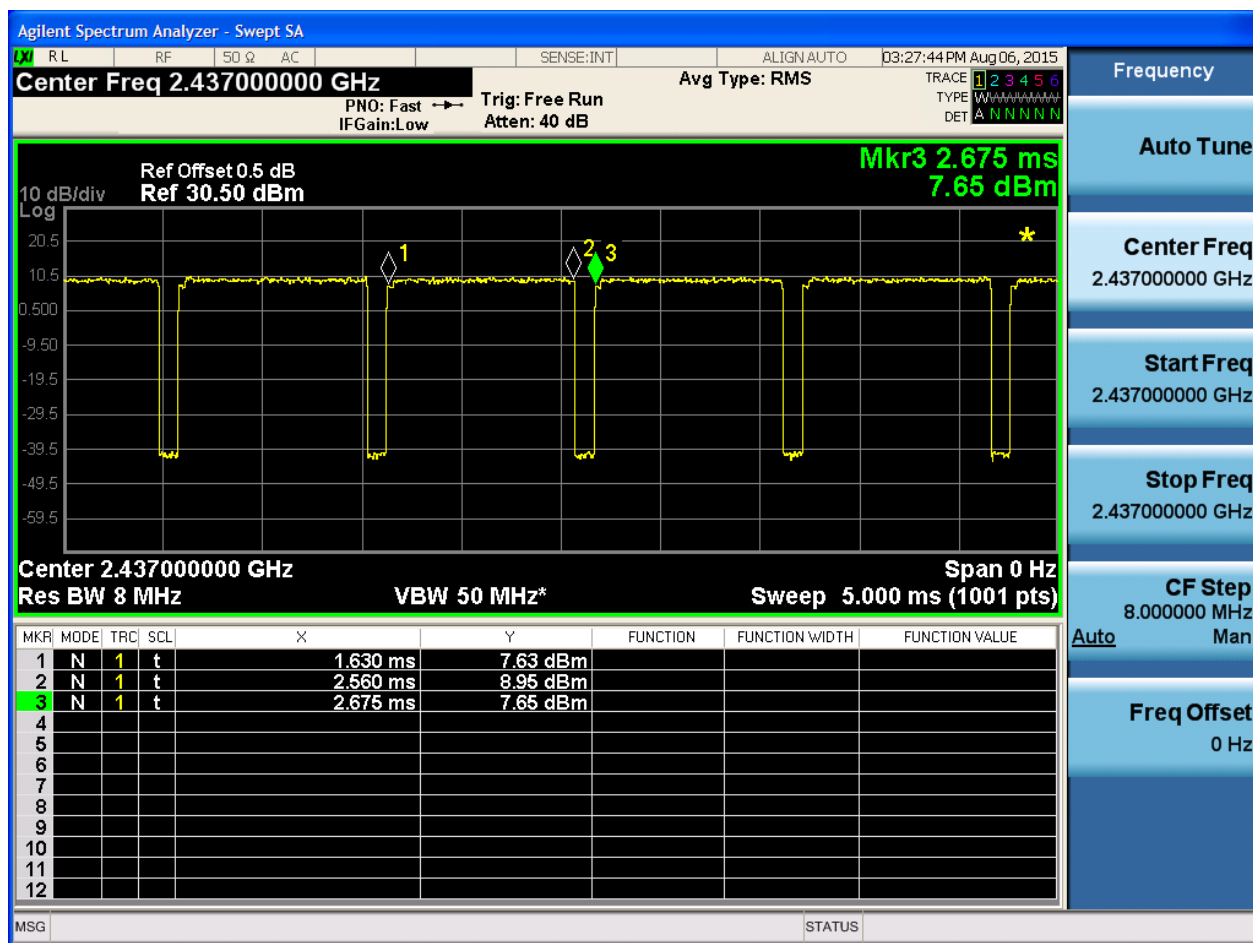


## 11N40MIMO\_ANT1





## 11N40MIMO\_ANT1



## Appendix D: Maximum Conducted Average Output Power

### Part I - Test Results

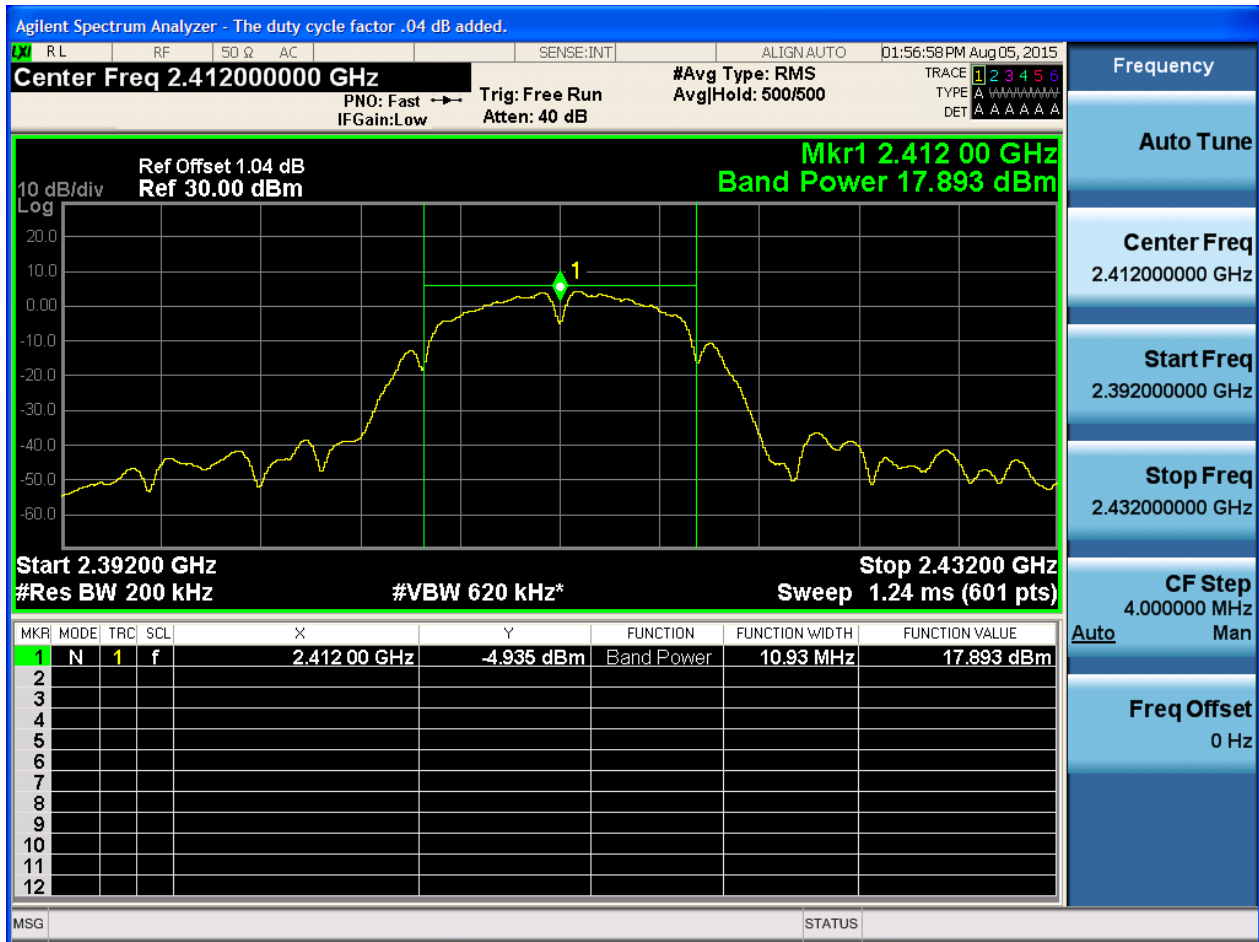
| Test Mode | Test Channel | Frequency[MHz] | Ant   | Power[dBm] | Verdict |
|-----------|--------------|----------------|-------|------------|---------|
| 11B       | L            | 2412           | Ant 1 | 17.89      | pass    |
| 11B       | L            | 2412           | Ant 2 | 18.65      | pass    |
| 11B       | M            | 2437           | Ant 1 | 18.65      | pass    |
| 11B       | M            | 2437           | Ant 2 | 18.60      | pass    |
| 11B       | H            | 2462           | Ant 1 | 17.96      | pass    |
| 11B       | H            | 2462           | Ant 2 | 18.53      | pass    |
| 11G       | L            | 2412           | Ant 1 | 15.88      | pass    |
| 11G       | L            | 2412           | Ant 2 | 16.64      | pass    |
| 11G       | M            | 2437           | Ant 1 | 18.87      | pass    |
| 11G       | M            | 2437           | Ant 2 | 18.84      | pass    |
| 11G       | H            | 2462           | Ant 1 | 16.10      | pass    |
| 11G       | H            | 2462           | Ant 2 | 16.38      | pass    |
| 11N20     | L            | 2412           | Ant 1 | 15.61      | pass    |
| 11N20     | L            | 2412           | Ant 2 | 16.21      | pass    |
| 11N20     | M            | 2437           | Ant 1 | 17.63      | pass    |
| 11N20     | M            | 2437           | Ant 2 | 17.89      | pass    |
| 11N20     | H            | 2462           | Ant 1 | 14.69      | pass    |
| 11N20     | H            | 2462           | Ant 2 | 15.99      | pass    |
| 11N20m    | L            | 2412           | Ant 2 | 16.18      | pass    |
| 11N20m    | L            | 2412           | Ant 1 | 15.70      | pass    |
| 11N20m    | L            | 2412           | SUM   | 18.96      | pass    |
| 11N20m    | M            | 2437           | Ant 2 | 16.65      | pass    |
| 11N20m    | M            | 2437           | Ant 1 | 16.36      | pass    |
| 11N20m    | M            | 2437           | SUM   | 19.52      | pass    |
| 11N20m    | H            | 2462           | Ant 2 | 15.94      | pass    |
| 11N20m    | H            | 2462           | Ant 1 | 15.66      | pass    |
| 11N20m    | H            | 2462           | SUM   | 18.81      | pass    |
| 11N40     | L            | 2422           | Ant 1 | 9.53       | pass    |
| 11N40     | L            | 2422           | Ant 2 | 9.82       | pass    |
| 11N40     | M            | 2437           | Ant 1 | 15.54      | pass    |
| 11N40     | M            | 2437           | Ant 2 | 16.00      | pass    |
| 11N40     | H            | 2452           | Ant 1 | 9.48       | pass    |
| 11N40     | H            | 2452           | Ant 2 | 9.48       | pass    |
| 11N40m    | L            | 2422           | Ant 2 | 8.40       | pass    |

| Test Mode | Test Channel | Frequency[MHz] | Ant   | Power[dBm] | Verdict |
|-----------|--------------|----------------|-------|------------|---------|
| 11N40m    | L            | 2422           | Ant 1 | 7.79       | pass    |
| 11N40m    | L            | 2422           | SUM   | 11.12      | pass    |
| 11N40m    | M            | 2437           | Ant 2 | 16.06      | pass    |
| 11N40m    | M            | 2437           | Ant 1 | 15.64      | pass    |
| 11N40m    | M            | 2437           | SUM   | 18.87      | pass    |
| 11N40m    | H            | 2452           | Ant 2 | 8.21       | pass    |
| 11N40m    | H            | 2452           | Ant 1 | 7.76       | pass    |
| 11N40m    | H            | 2452           | SUM   | 11.00      | pass    |
| 11G CDD   | L            | 2412           | Ant 1 | 15.00      | pass    |
| 11G CDD   | L            | 2412           | Ant 2 | 15.59      | pass    |
| 11G CDD   | M            | 2437           | Ant 1 | 18.95      | pass    |
| 11G CDD   | M            | 2437           | Ant 2 | 18.94      | pass    |
| 11G CDD   | H            | 2462           | Ant 1 | 15.07      | pass    |
| 11G CDD   | H            | 2462           | Ant 2 | 15.34      | pass    |



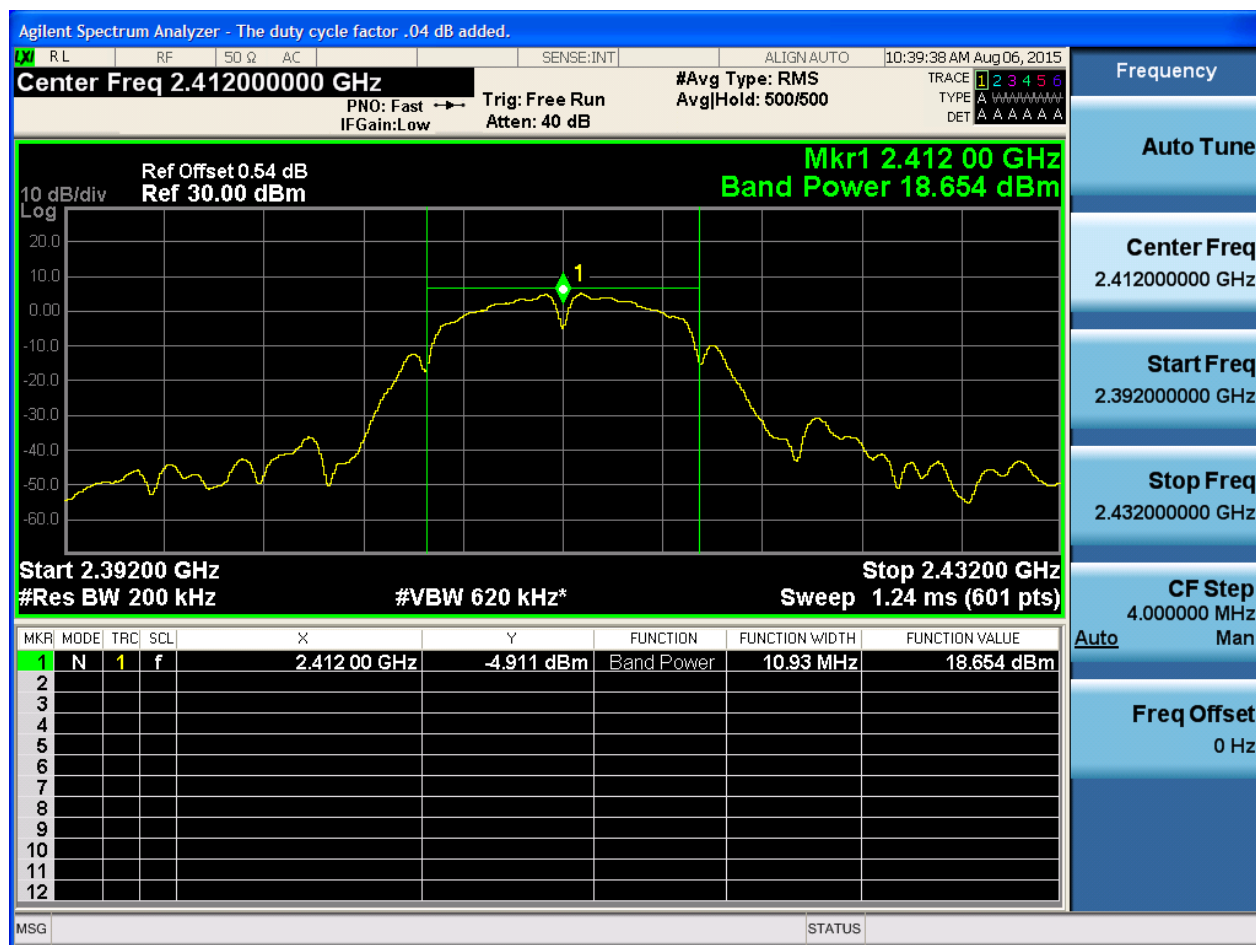
## Part II - Test Plots

## 2.1 11B\_L@Ant 1



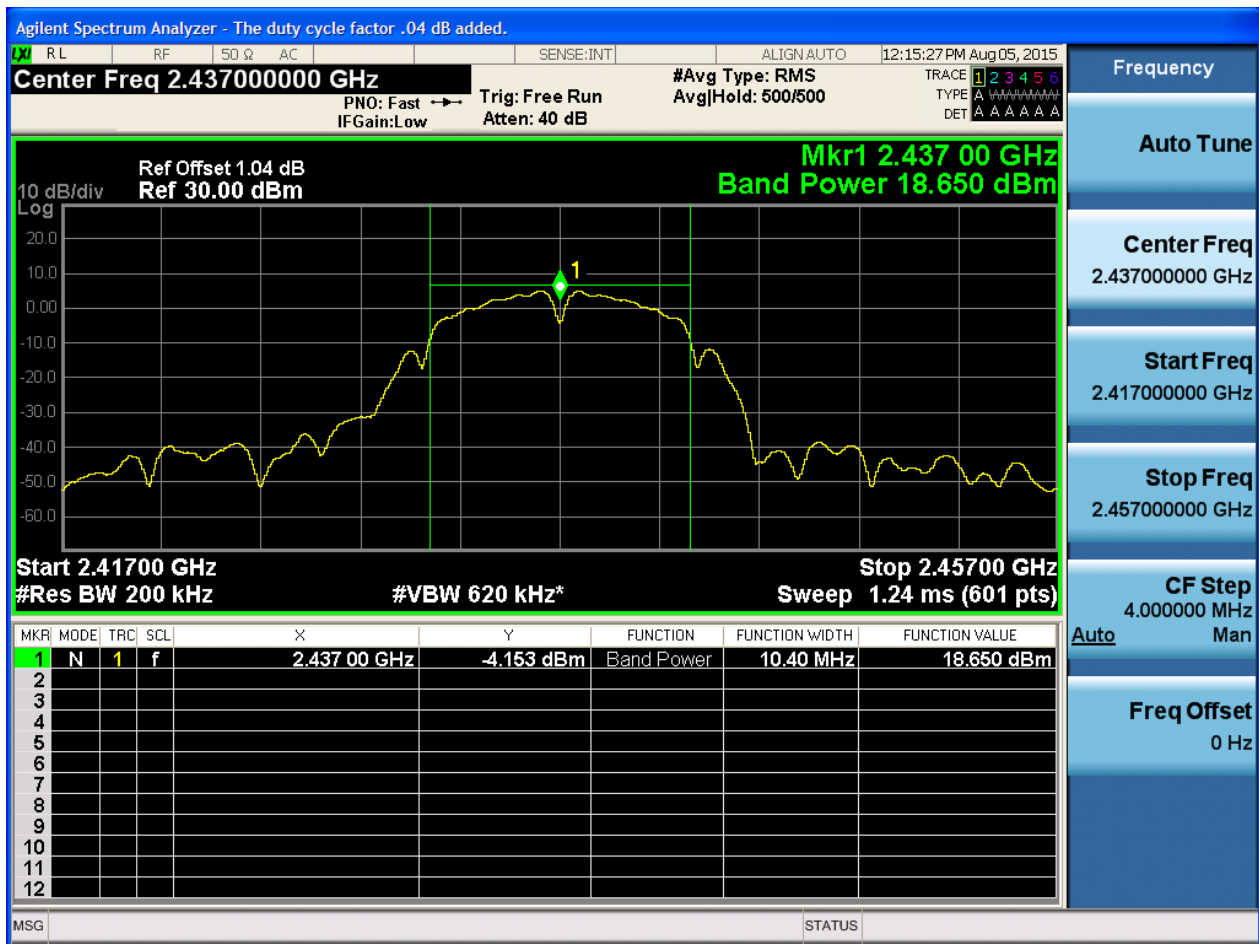


## 2.2 11B\_L@Ant 2



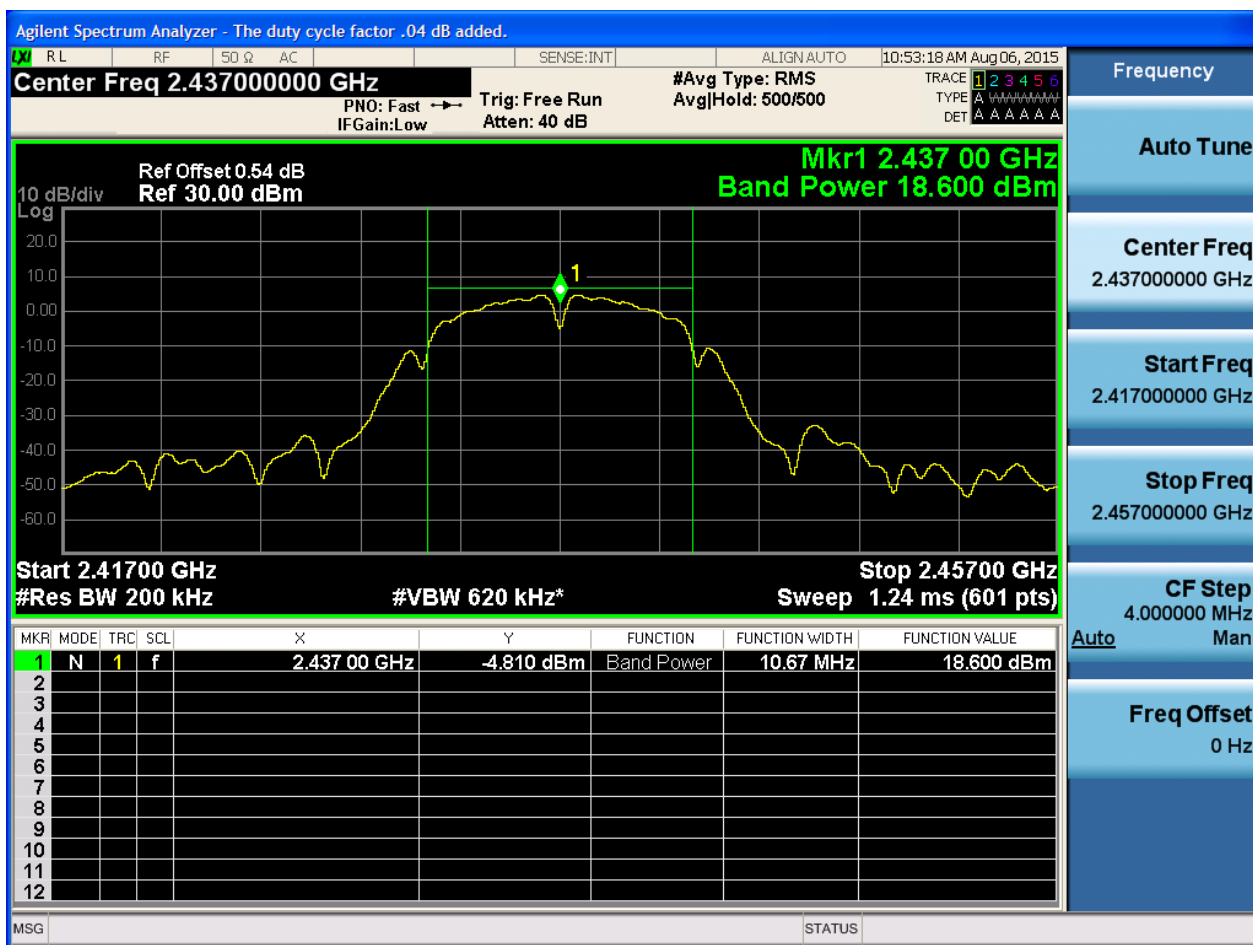


## 2.3 11B\_M@Ant 1



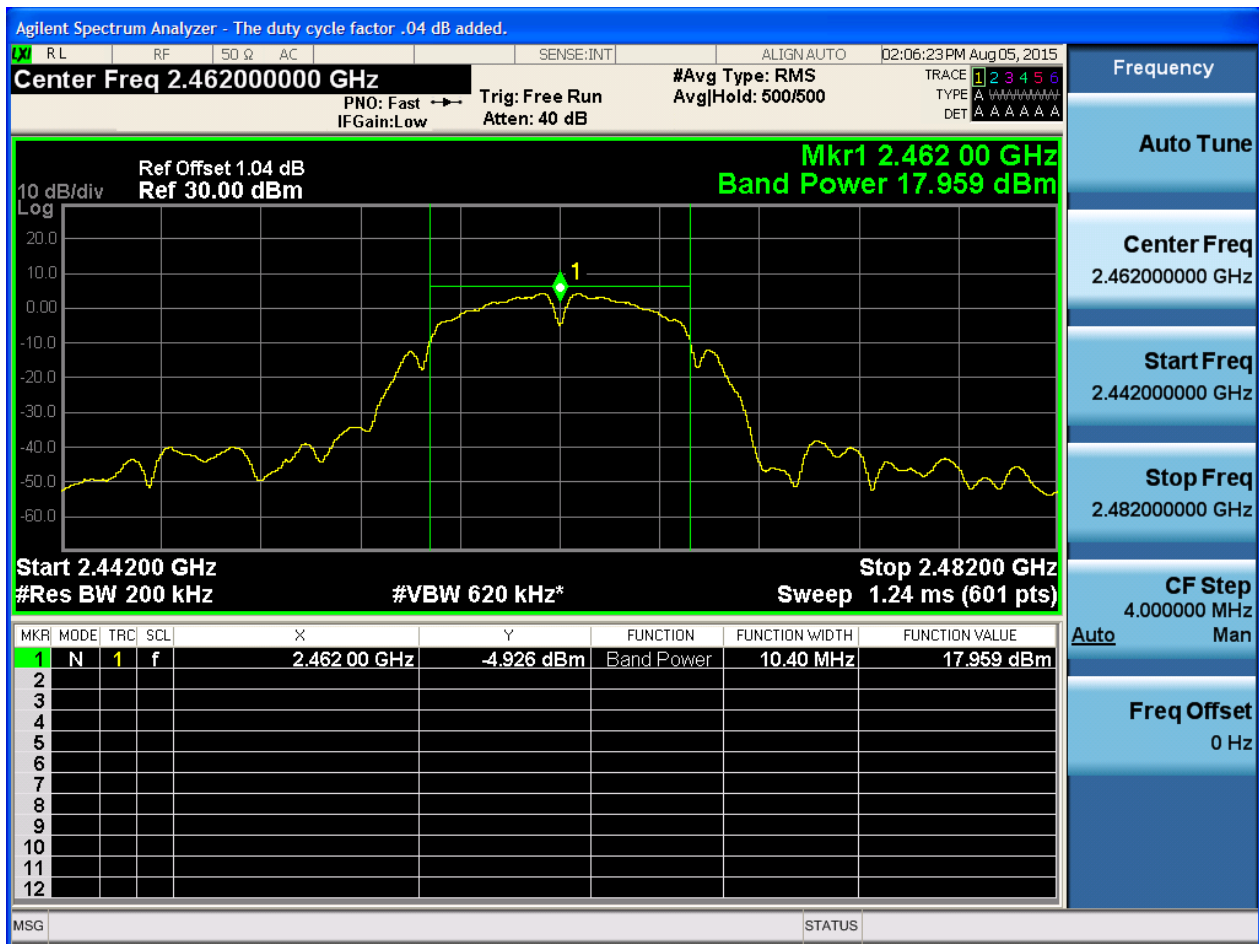


## 2.4 11B\_M@Ant 2



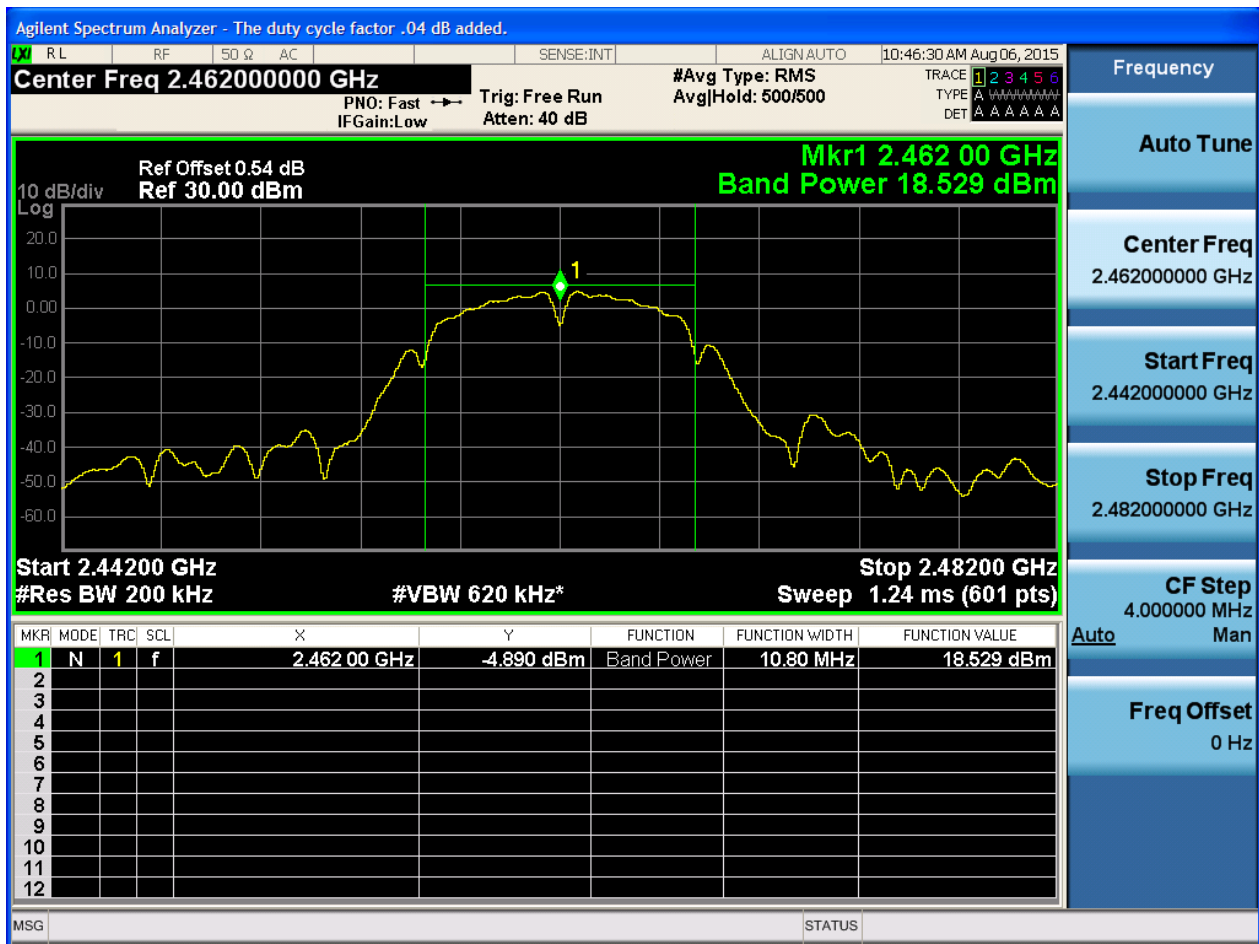


## 2.5 11B\_H@Ant 1



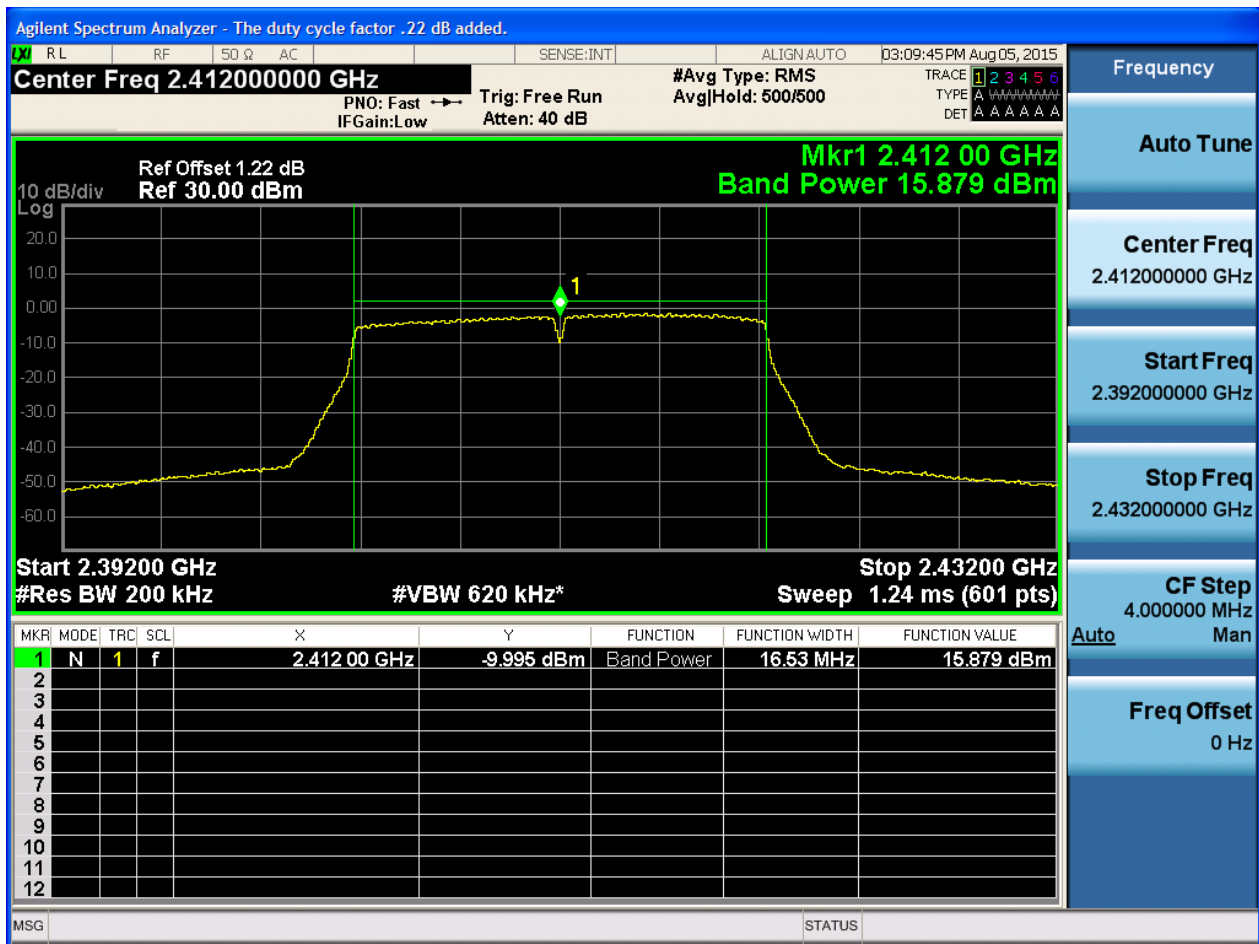


## 2.6 11B\_H@Ant 2



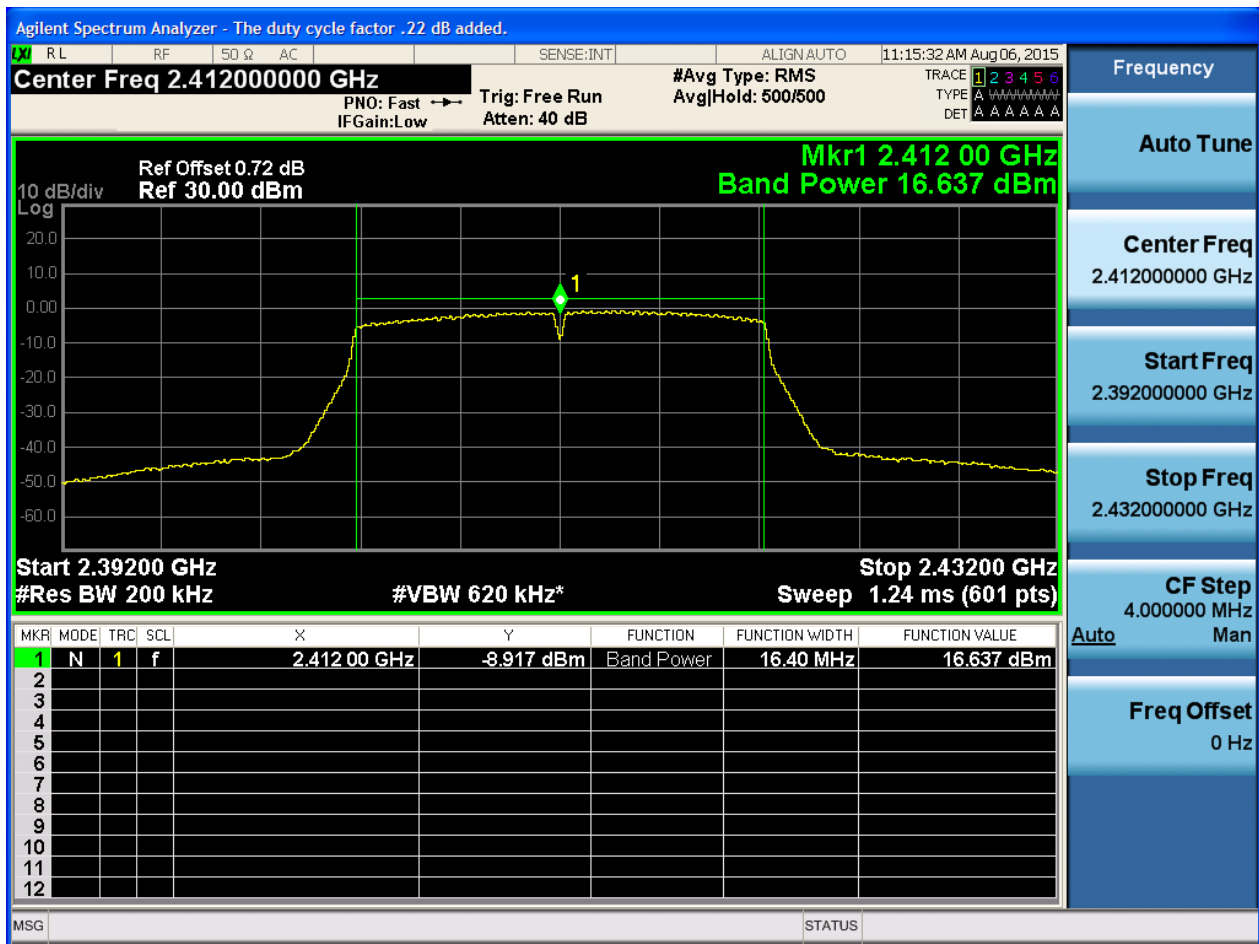


## 2.7 11G\_L@Ant 1



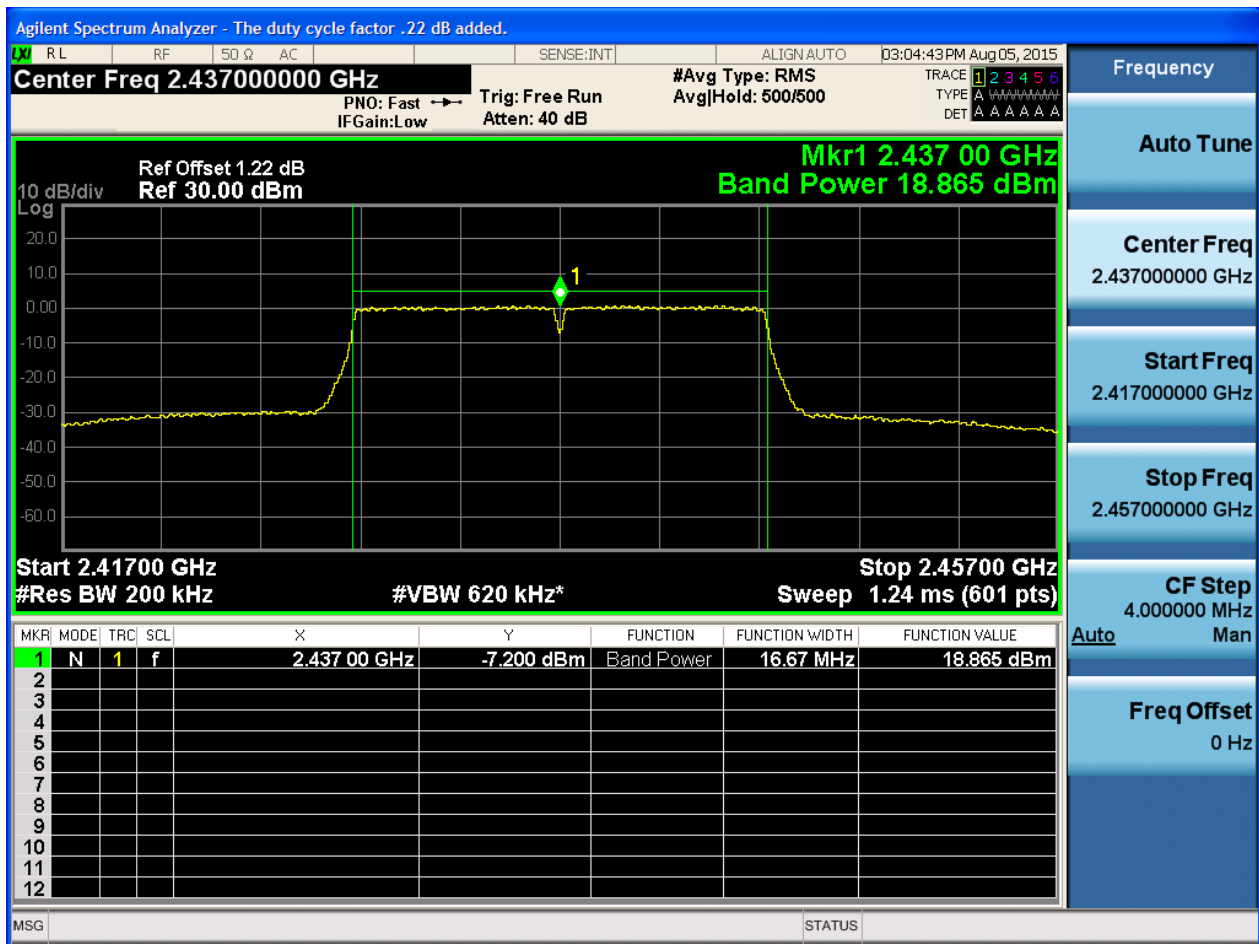


## 2.8 11G\_L@Ant 2



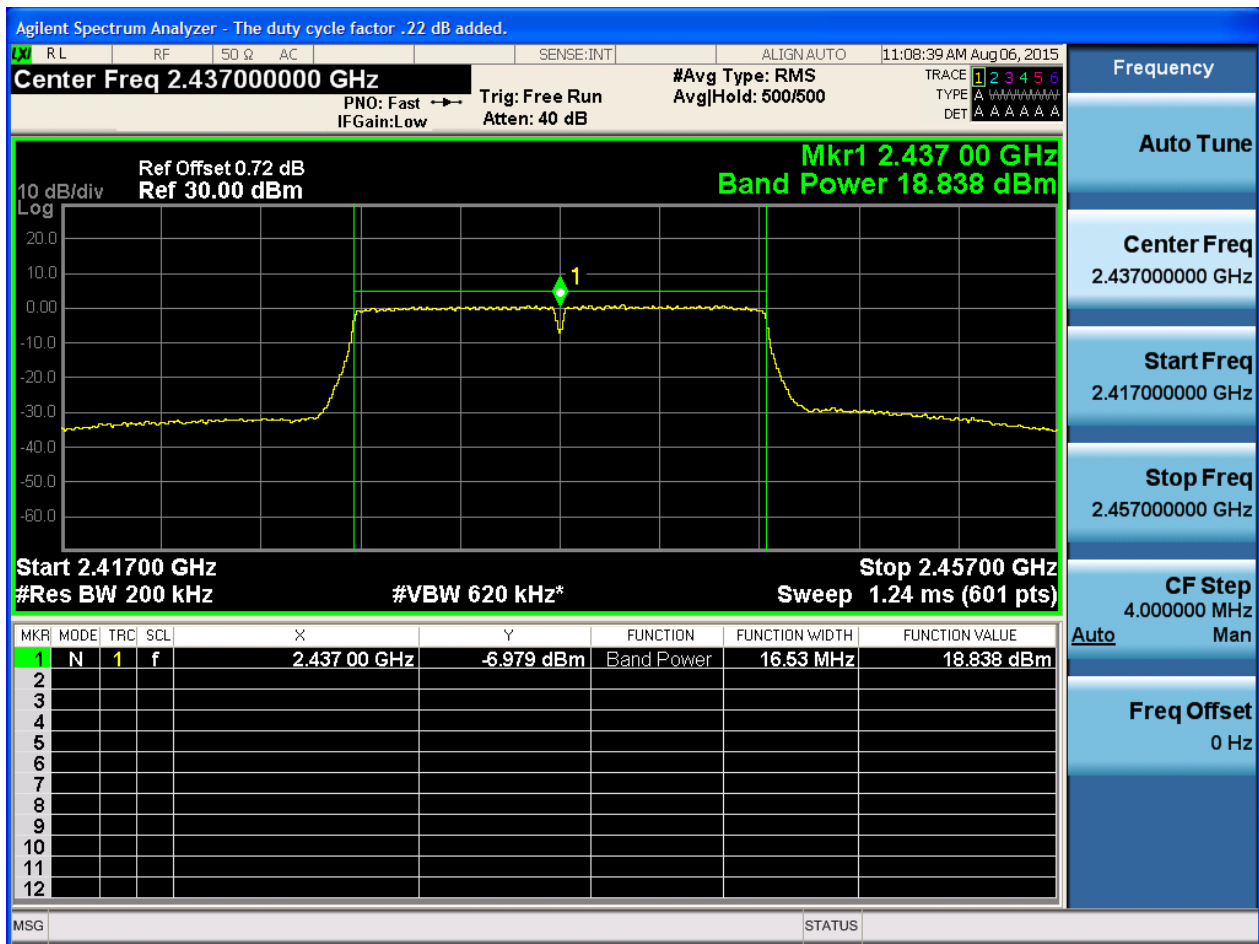


## 2.9 11G\_M@Ant 1



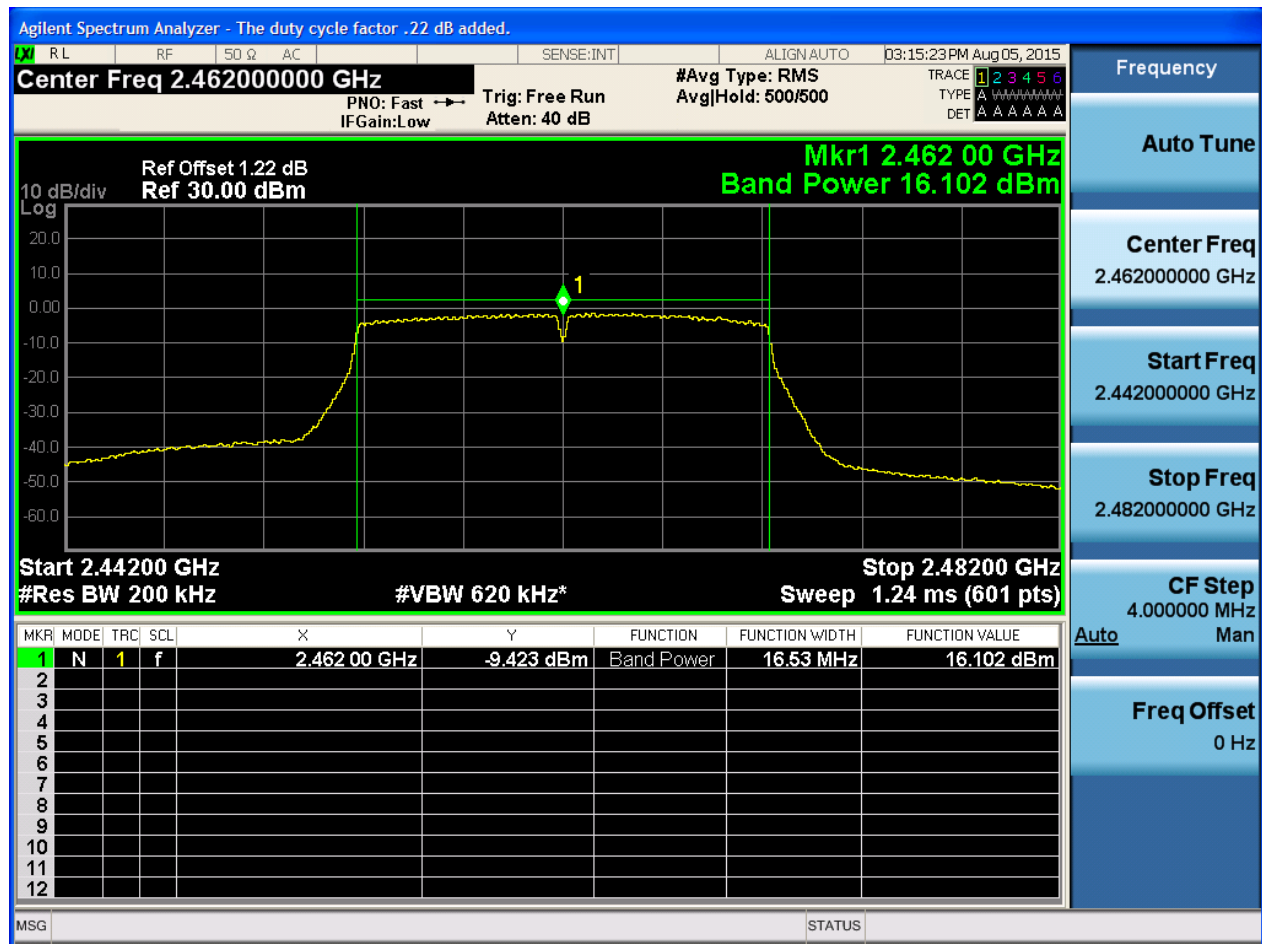


## 2.10 11G\_M@Ant 2



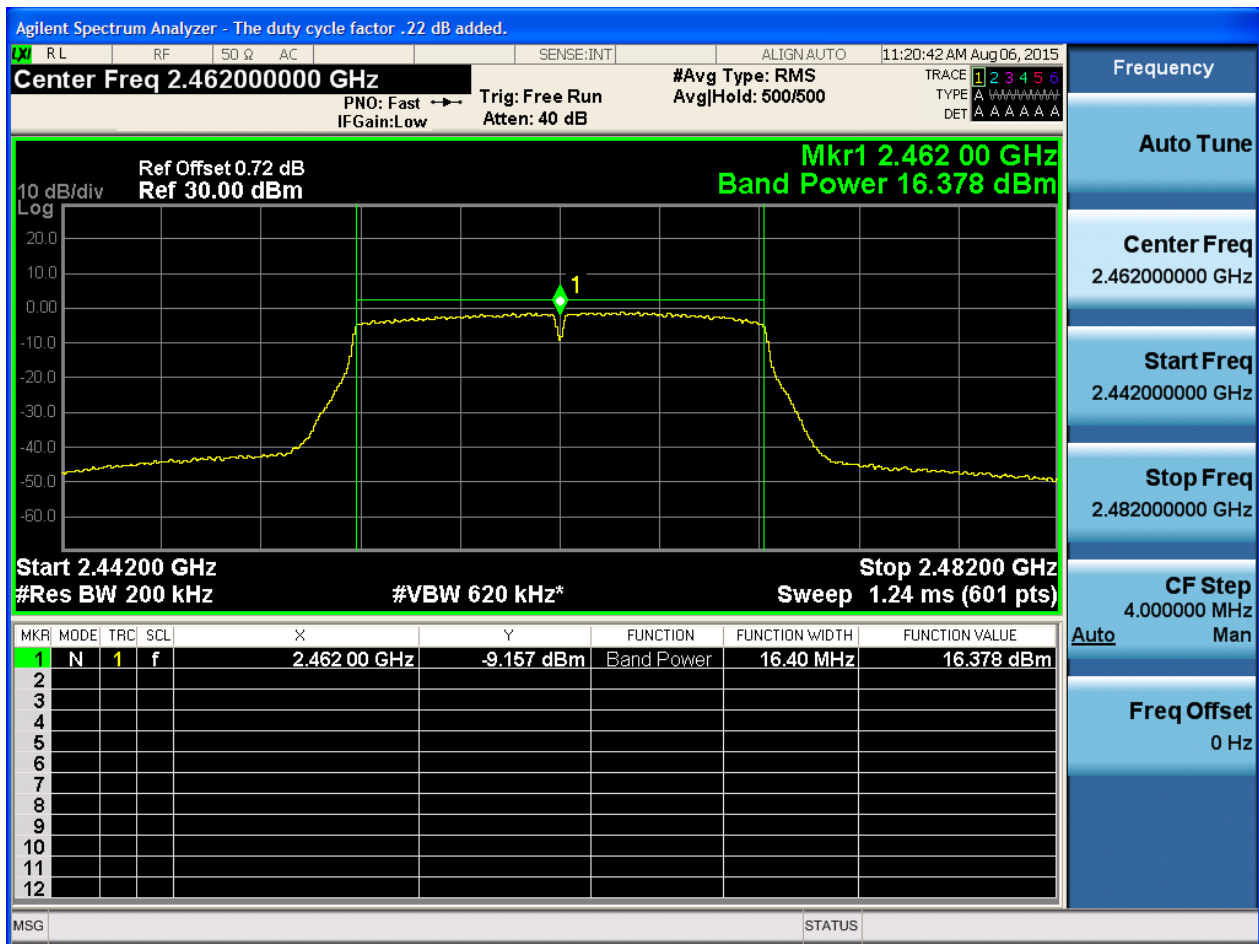


## 2.11 11G\_H@Ant 1



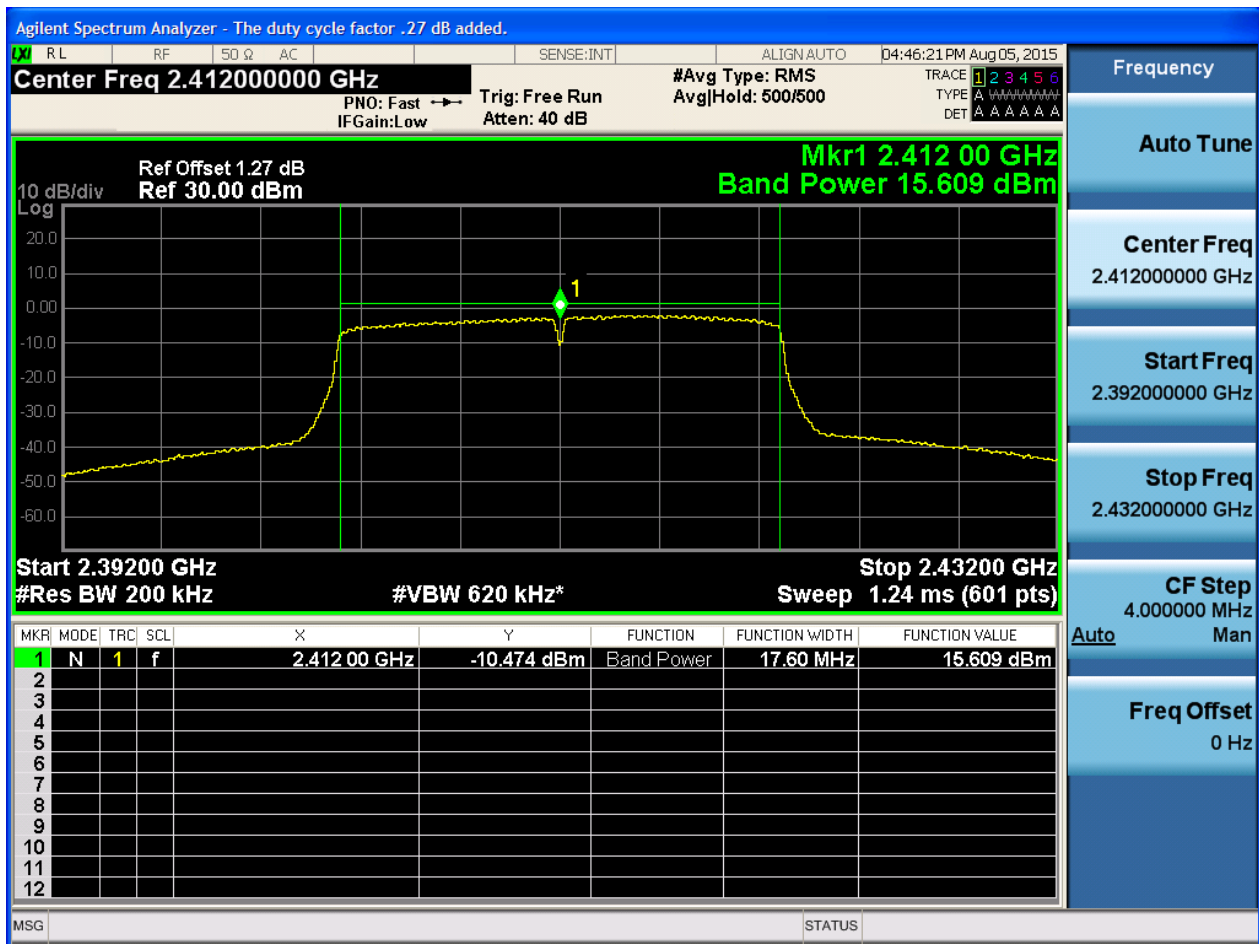


## 2.12 11G\_H@Ant 2



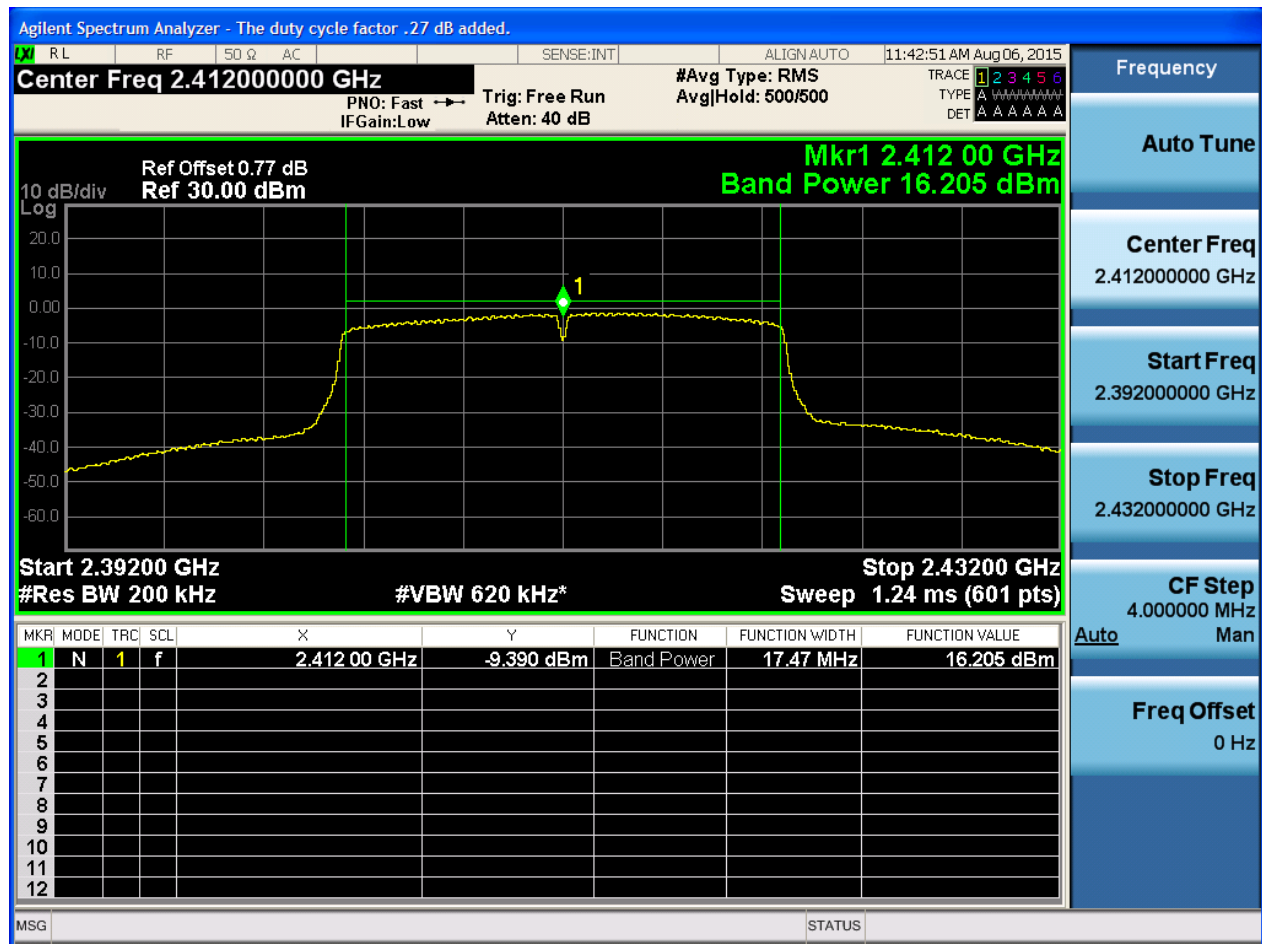


## 2.13 11N20\_L@Ant 1



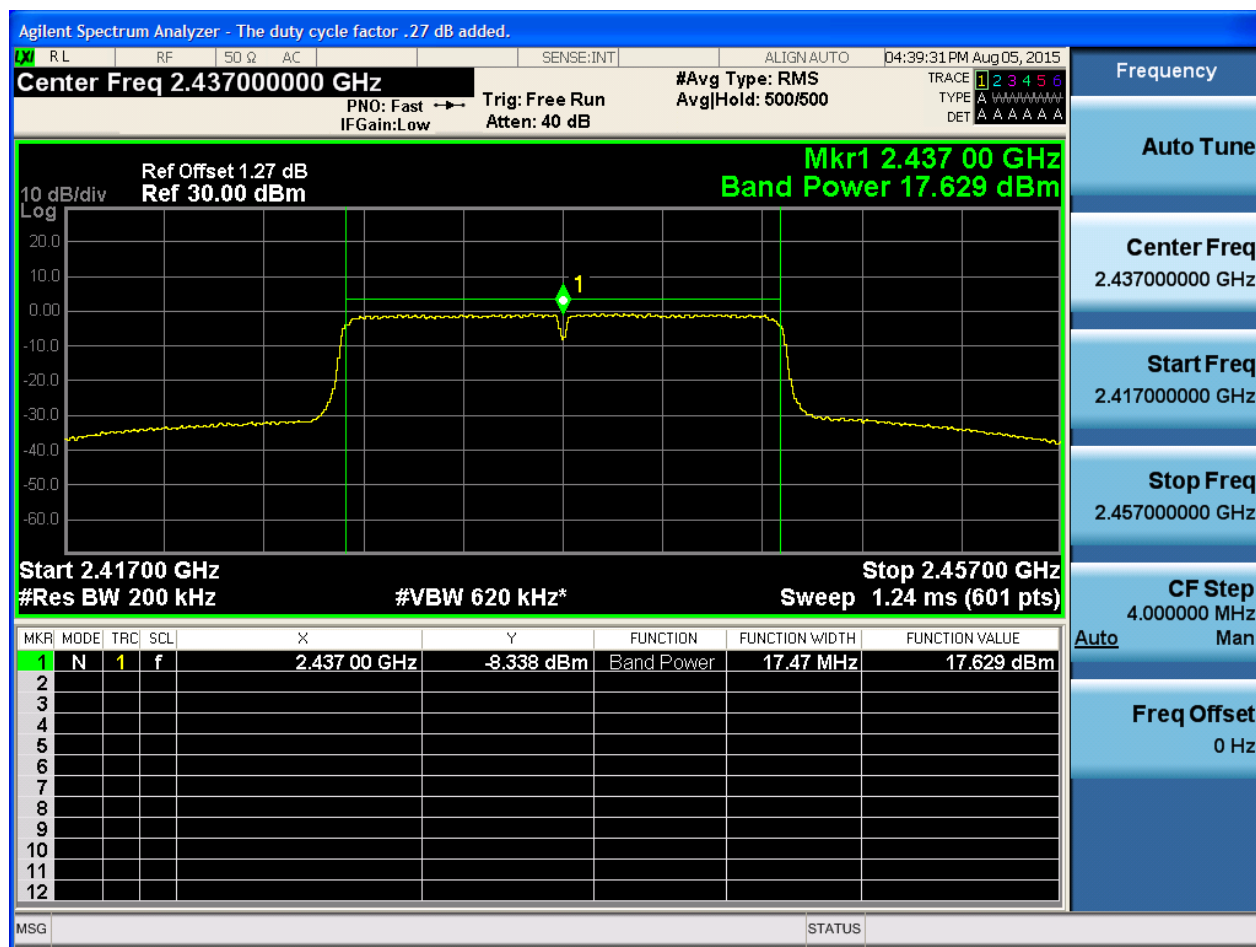


## 2.14 11N20\_L@Ant 2



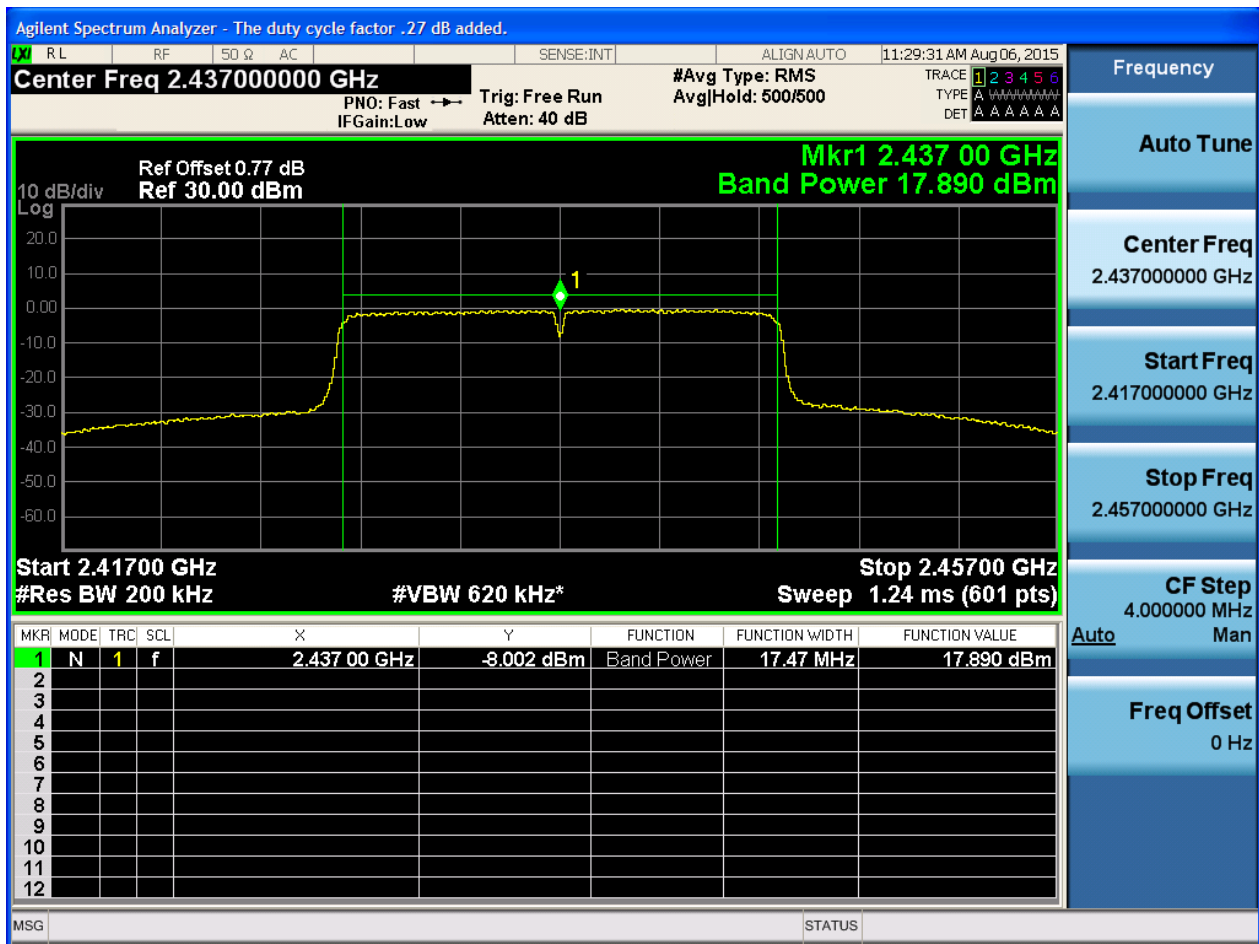


## 2.15 11N20\_M@Ant 1



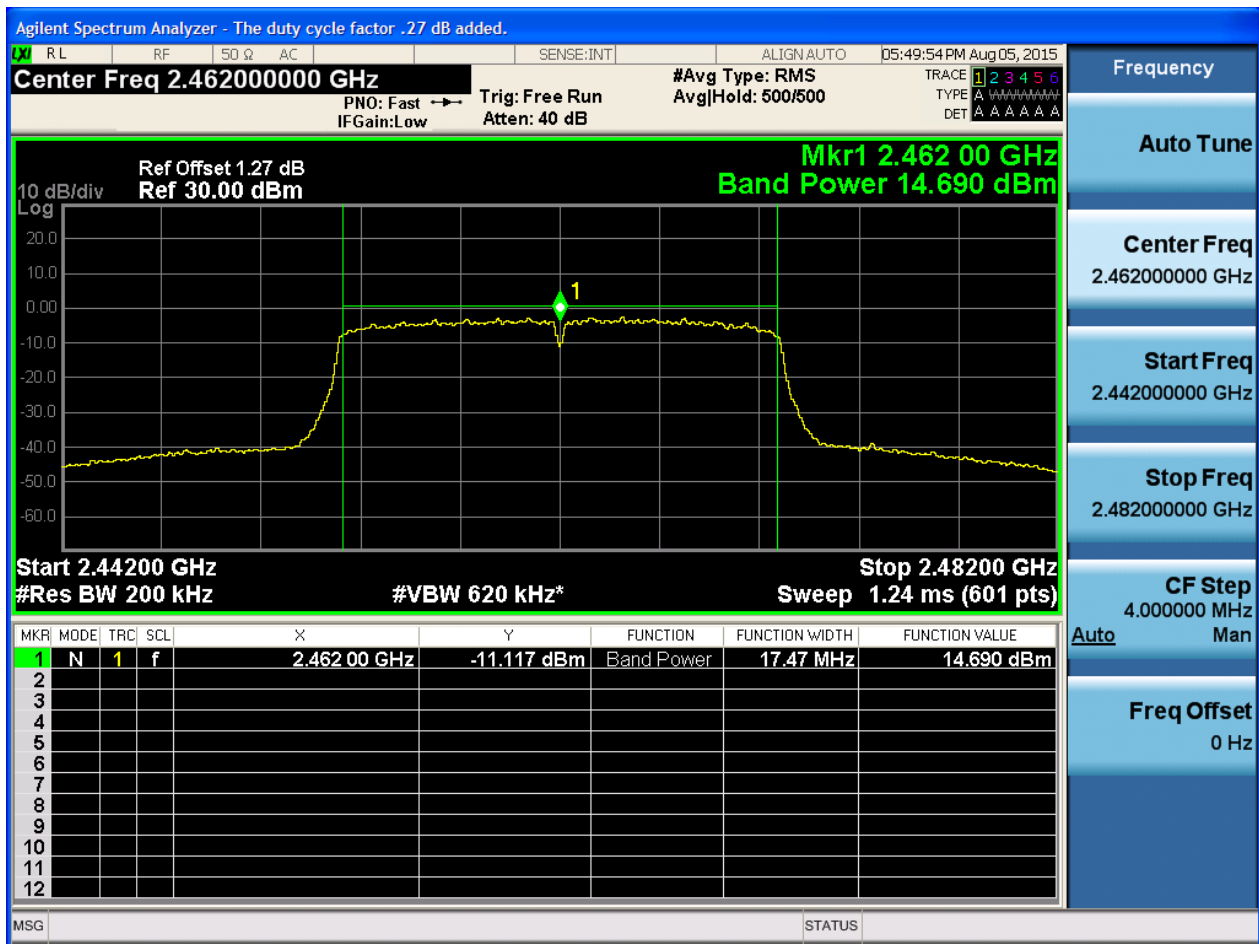


## 2.16 11N20\_M@Ant 2



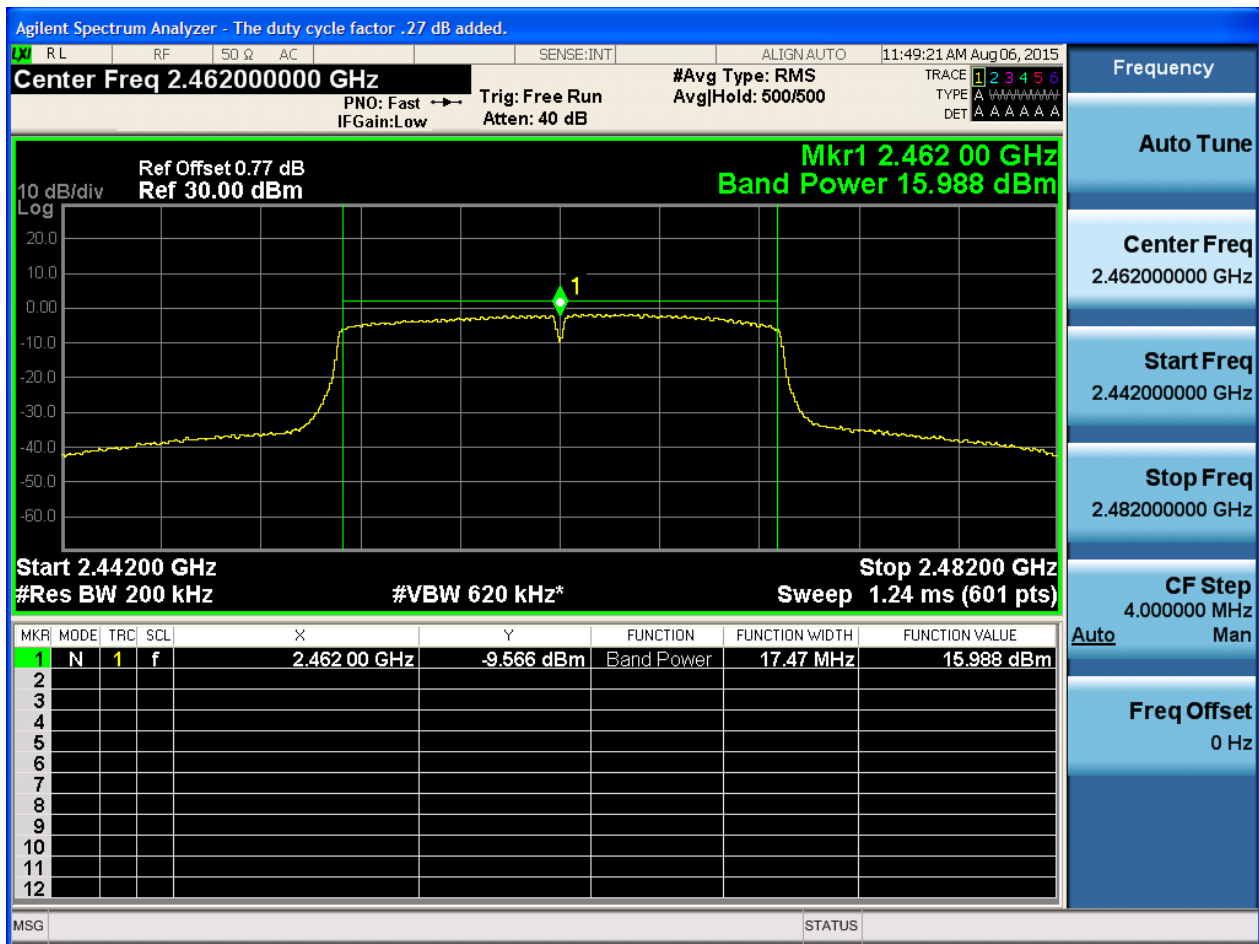


## 2.17 11N20\_H@Ant 1



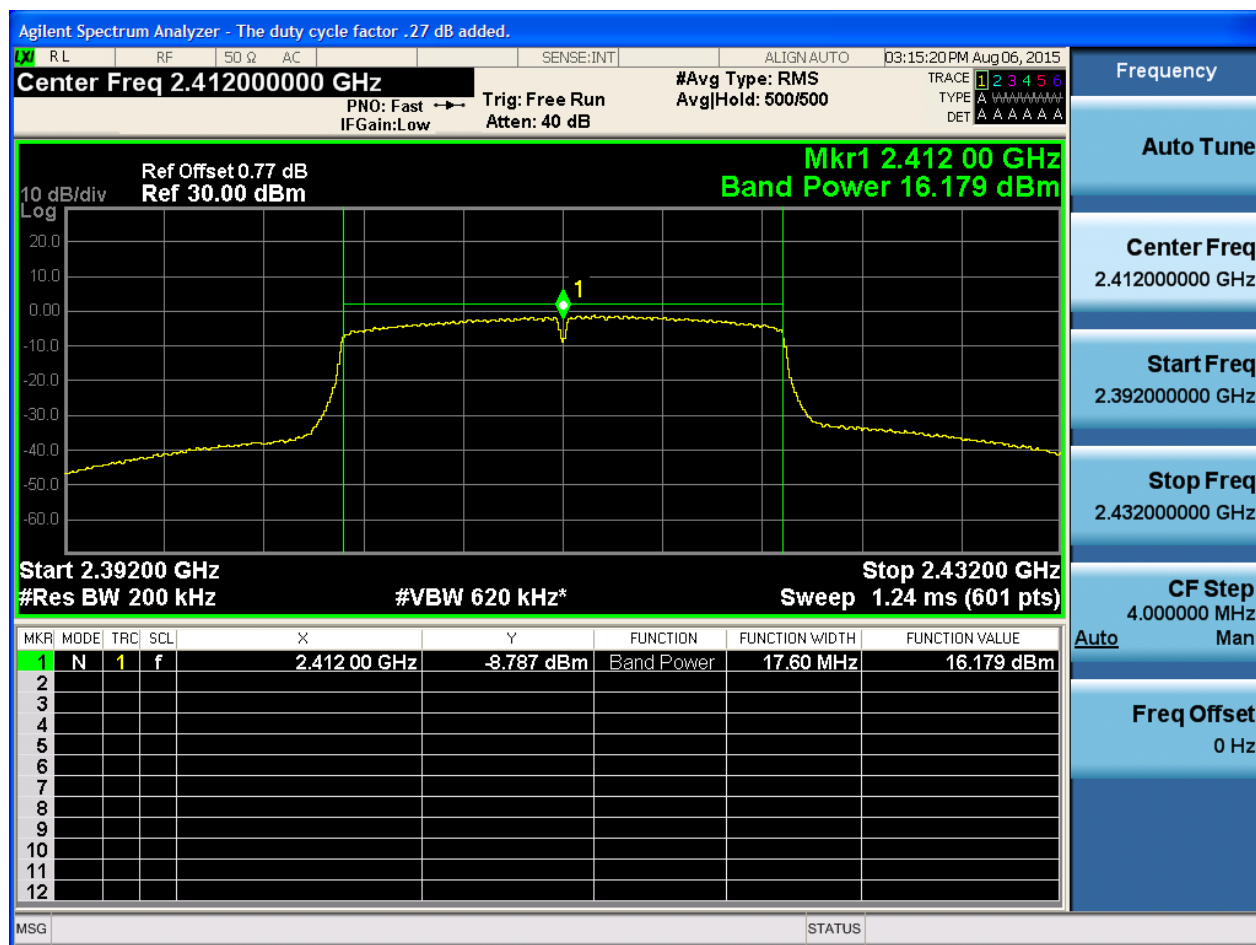


## 2.18 11N20\_H@Ant 2





## 2.14 11N20m\_L@Ant 2





## 2.13 11N20m\_L@Ant 1

