



# 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 | 8.10          | pass    |
| 11B       | L            | 2412           | Ant 2 | 8.10          | pass    |
| 11B       | M            | 2437           | Ant 1 | 8.10          | pass    |
| 11B       | M            | 2437           | Ant 2 | 8.10          | pass    |
| 11B       | H            | 2462           | Ant 1 | 8.11          | pass    |
| 11B       | H            | 2462           | Ant 2 | 8.10          | pass    |
| 11G       | L            | 2412           | Ant 1 | 15.18         | pass    |
| 11G       | L            | 2412           | Ant 2 | 15.50         | pass    |
| 11G       | M            | 2437           | Ant 1 | 15.51         | pass    |
| 11G       | M            | 2437           | Ant 2 | 15.18         | pass    |
| 11G       | H            | 2462           | Ant 1 | 15.66         | pass    |
| 11G       | H            | 2462           | Ant 2 | 15.48         | pass    |
| 11N20     | L            | 2412           | Ant 1 | 16.46         | pass    |
| 11N20     | L            | 2412           | Ant 2 | 16.50         | pass    |
| 11N20     | M            | 2437           | Ant 1 | 16.46         | pass    |
| 11N20     | M            | 2437           | Ant 2 | 15.18         | pass    |
| 11N20     | H            | 2462           | Ant 1 | 16.53         | pass    |
| 11N20     | H            | 2462           | Ant 2 | 16.50         | pass    |
| 11N20m    | L            | 2412           | Ant 1 | 16.44         | pass    |
| 11N20m    | L            | 2412           | Ant 2 | 16.48         | pass    |
| 11N20m    | M            | 2437           | Ant 2 | 16.47         | pass    |
| 11N20m    | M            | 2437           | Ant 1 | 16.48         | pass    |
| 11N20m    | H            | 2462           | Ant 1 | 15.50         | pass    |
| 11N20m    | H            | 2462           | Ant 2 | 15.47         | pass    |
| 11N40     | L            | 2422           | Ant 1 | 35.22         | pass    |
| 11N40     | L            | 2422           | Ant 2 | 35.20         | pass    |
| 11N40     | M            | 2437           | Ant 1 | 35.14         | pass    |
| 11N40     | M            | 2437           | Ant 2 | 35.19         | pass    |



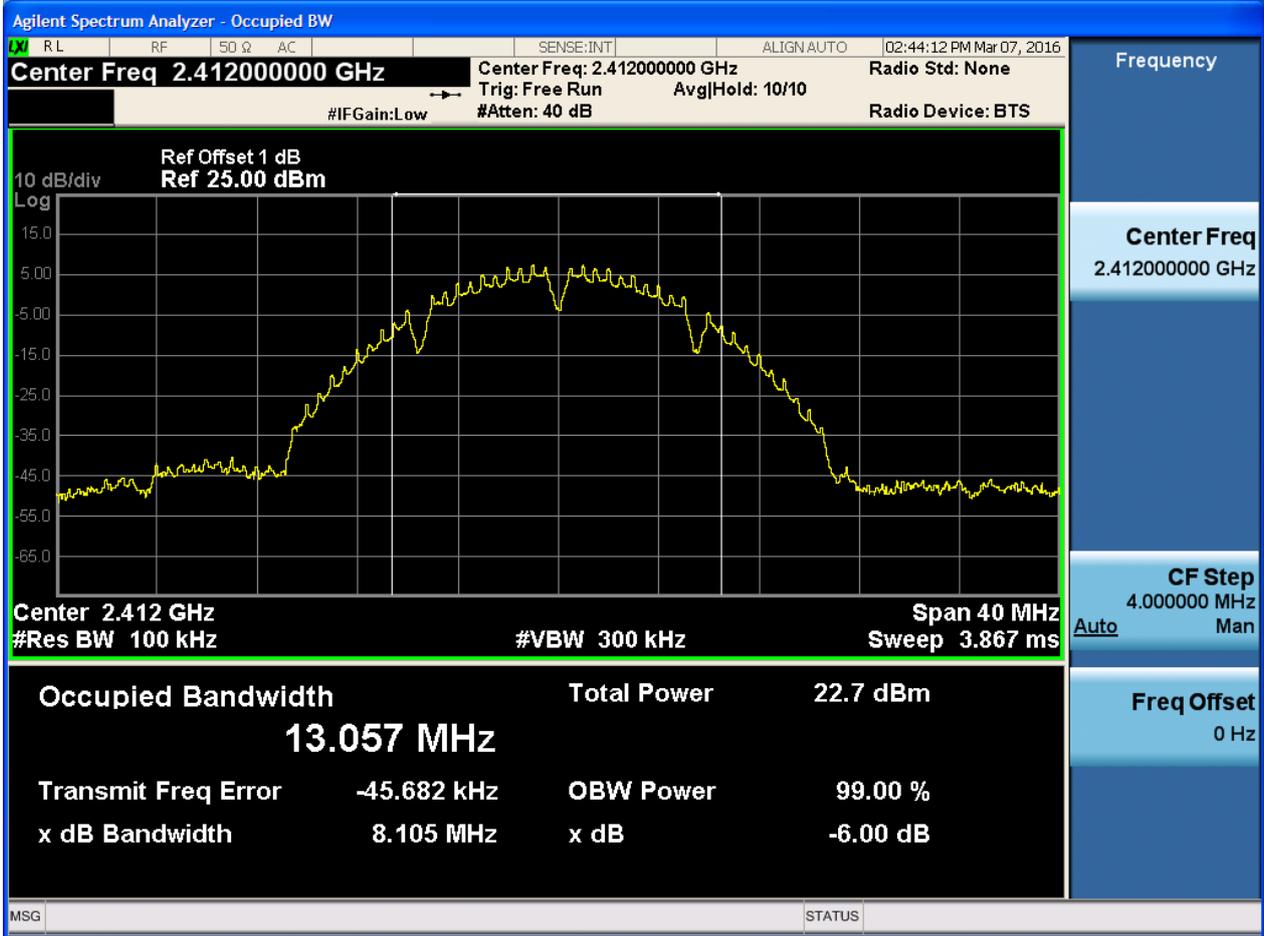
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| Test Mode | Test Channel | Frequency[MHz] | Ant   | DTS6dBBW[MHz] | Verdict |
|-----------|--------------|----------------|-------|---------------|---------|
| 11N40     | H            | 2452           | Ant 1 | 35.14         | pass    |
| 11N40     | H            | 2452           | Ant 2 | 35.16         | pass    |
| 11N40m    | L            | 2422           | Ant 1 | 35.19         | pass    |
| 11N40m    | L            | 2422           | Ant 2 | 35.17         | pass    |
| 11N40m    | M            | 2437           | Ant 1 | 35.15         | pass    |
| 11N40m    | M            | 2437           | Ant 2 | 35.16         | pass    |
| 11N40m    | H            | 2452           | Ant 1 | 35.14         | pass    |
| 11N40m    | H            | 2452           | Ant 2 | 35.15         | pass    |



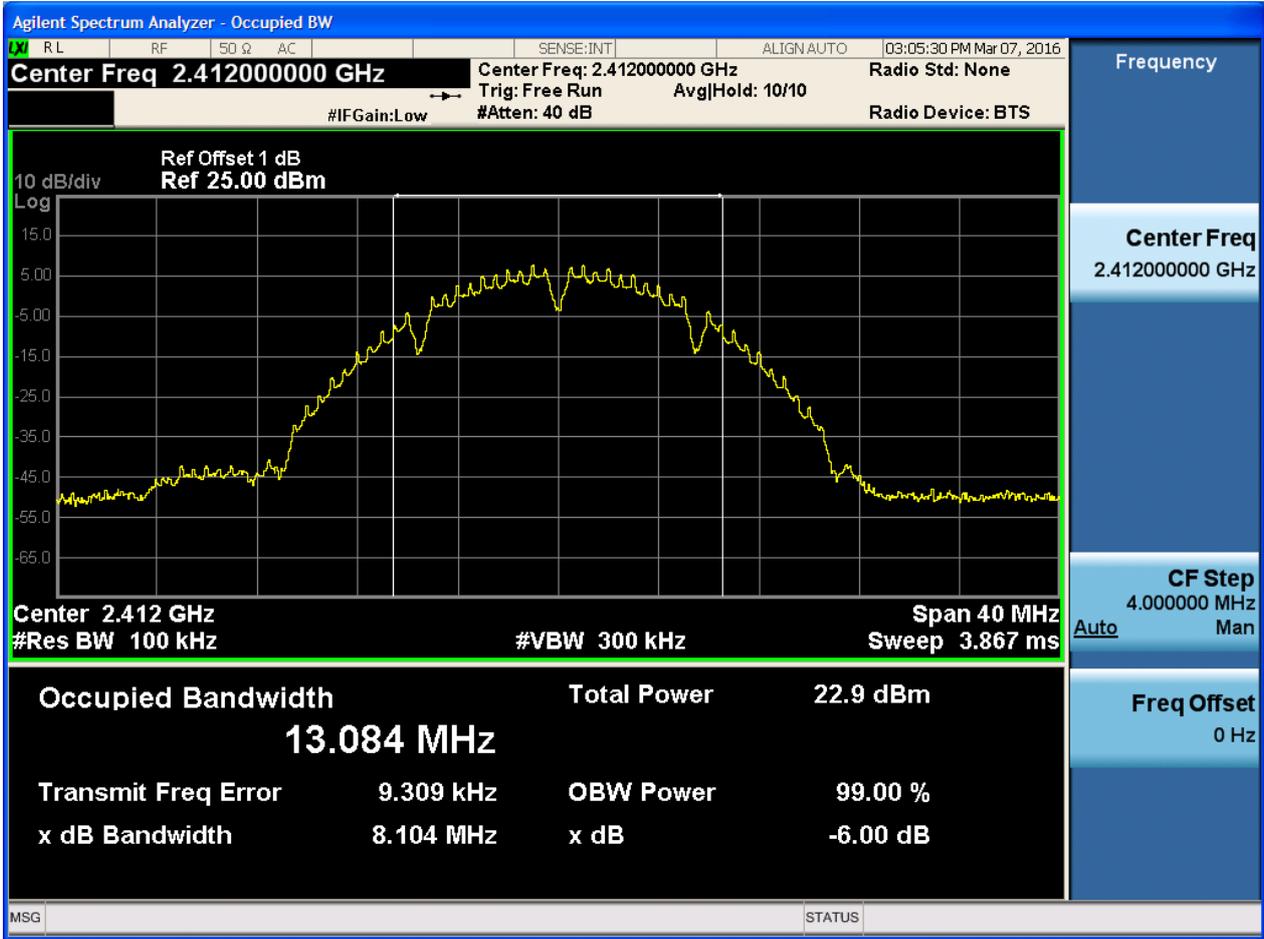
Part II - Test Plots

2.1 11B\_L@Ant 1



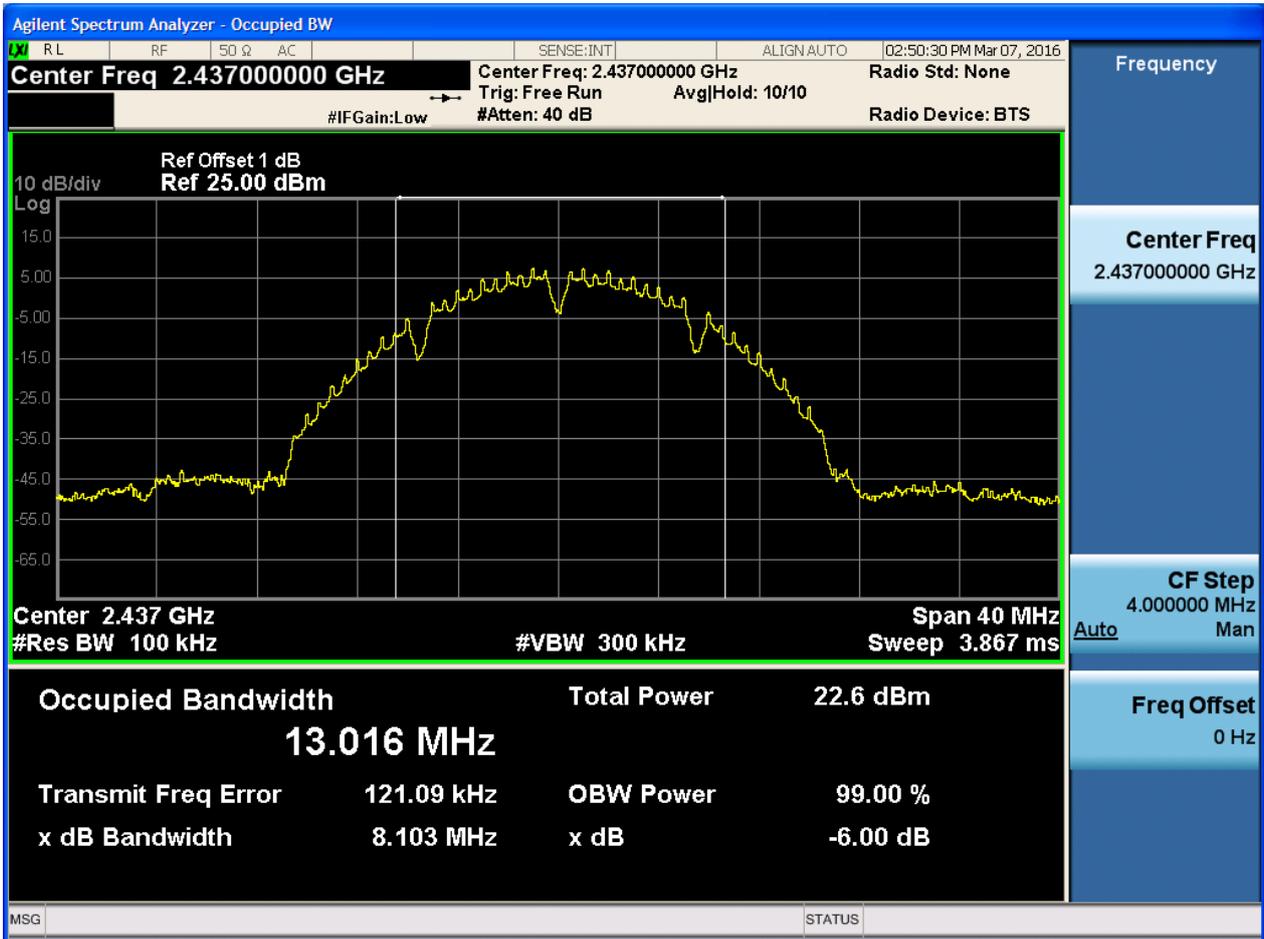


2.2 11B\_L@Ant 2



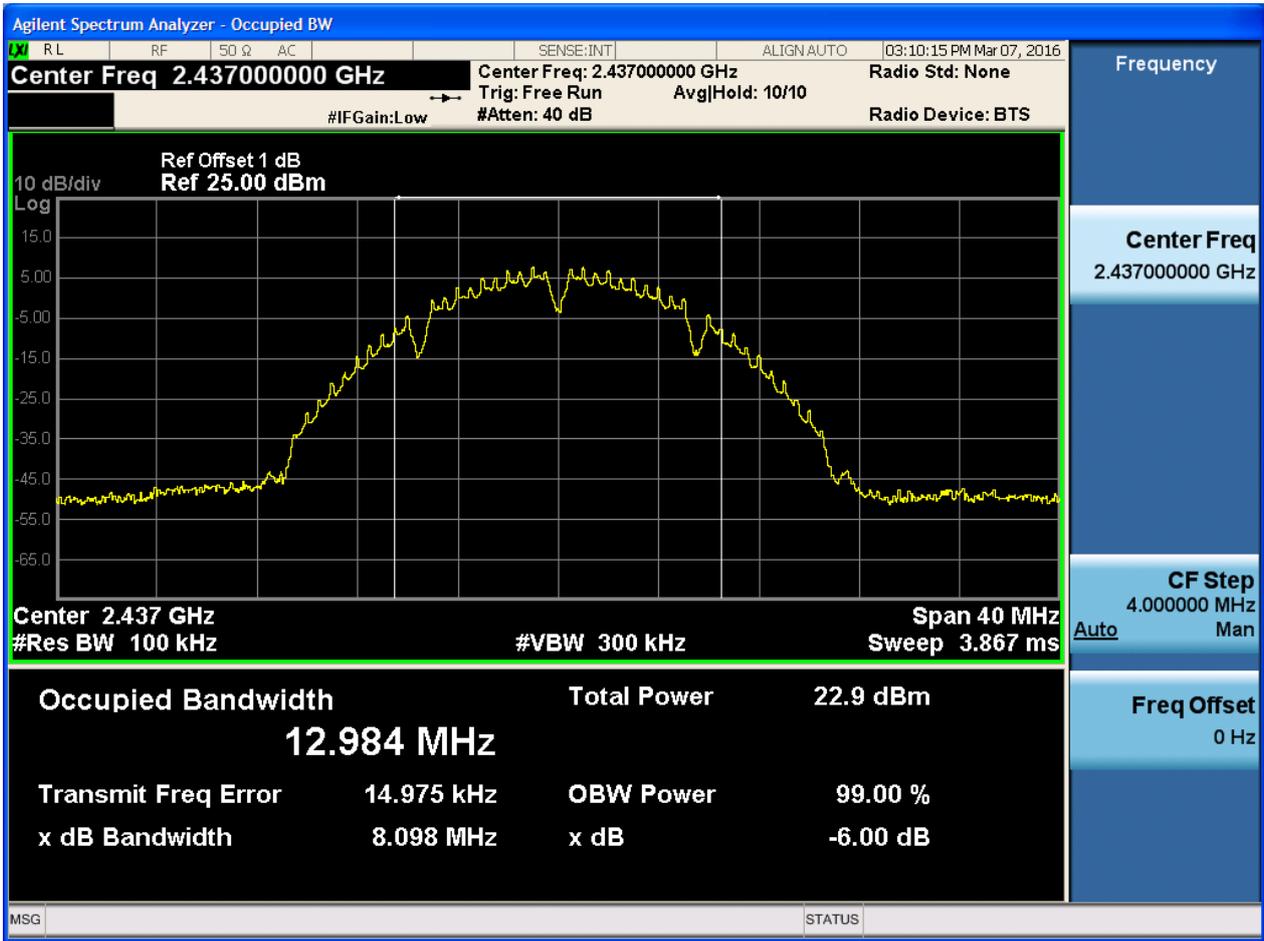


2.3 11B\_M@Ant 1



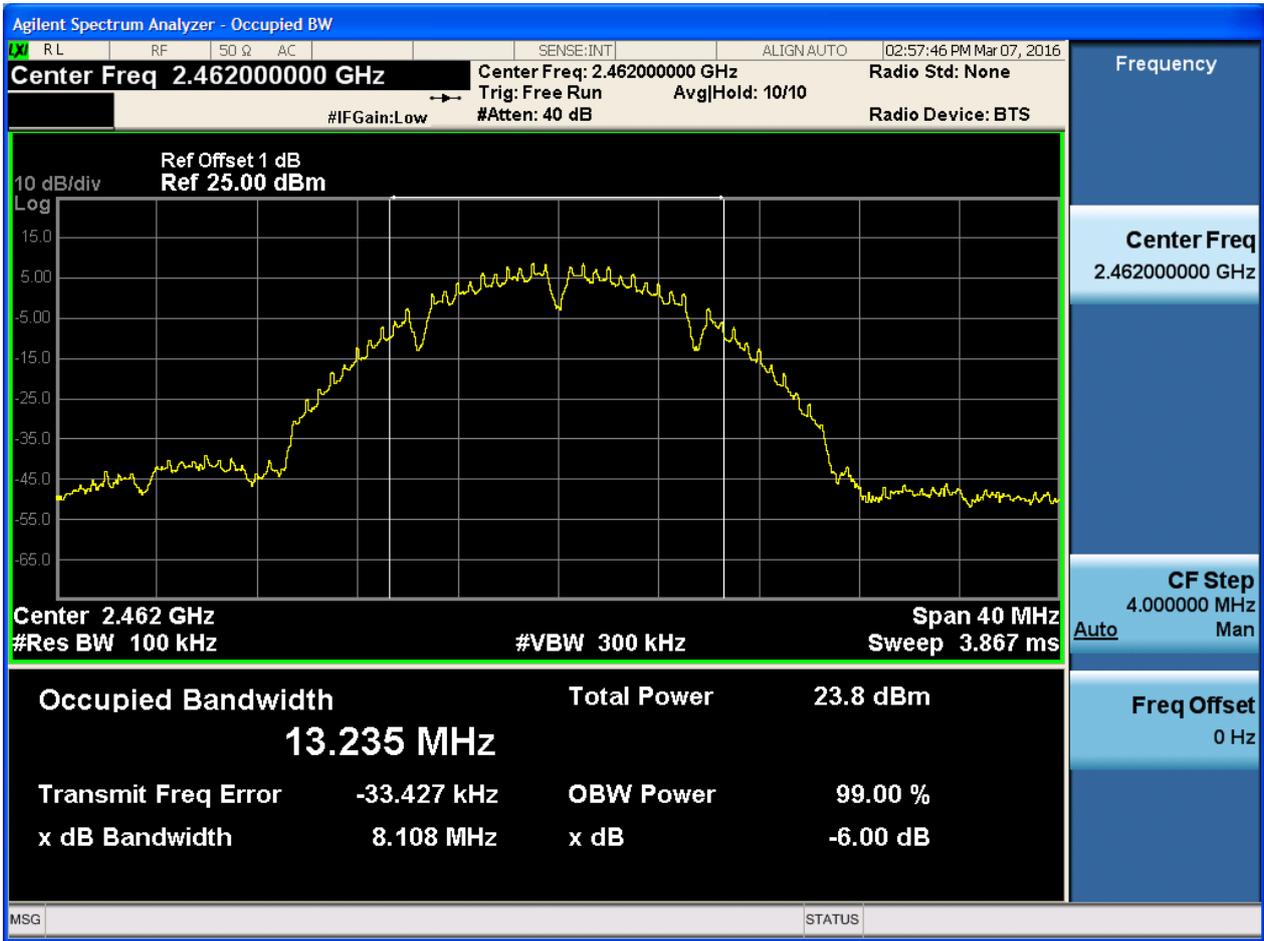


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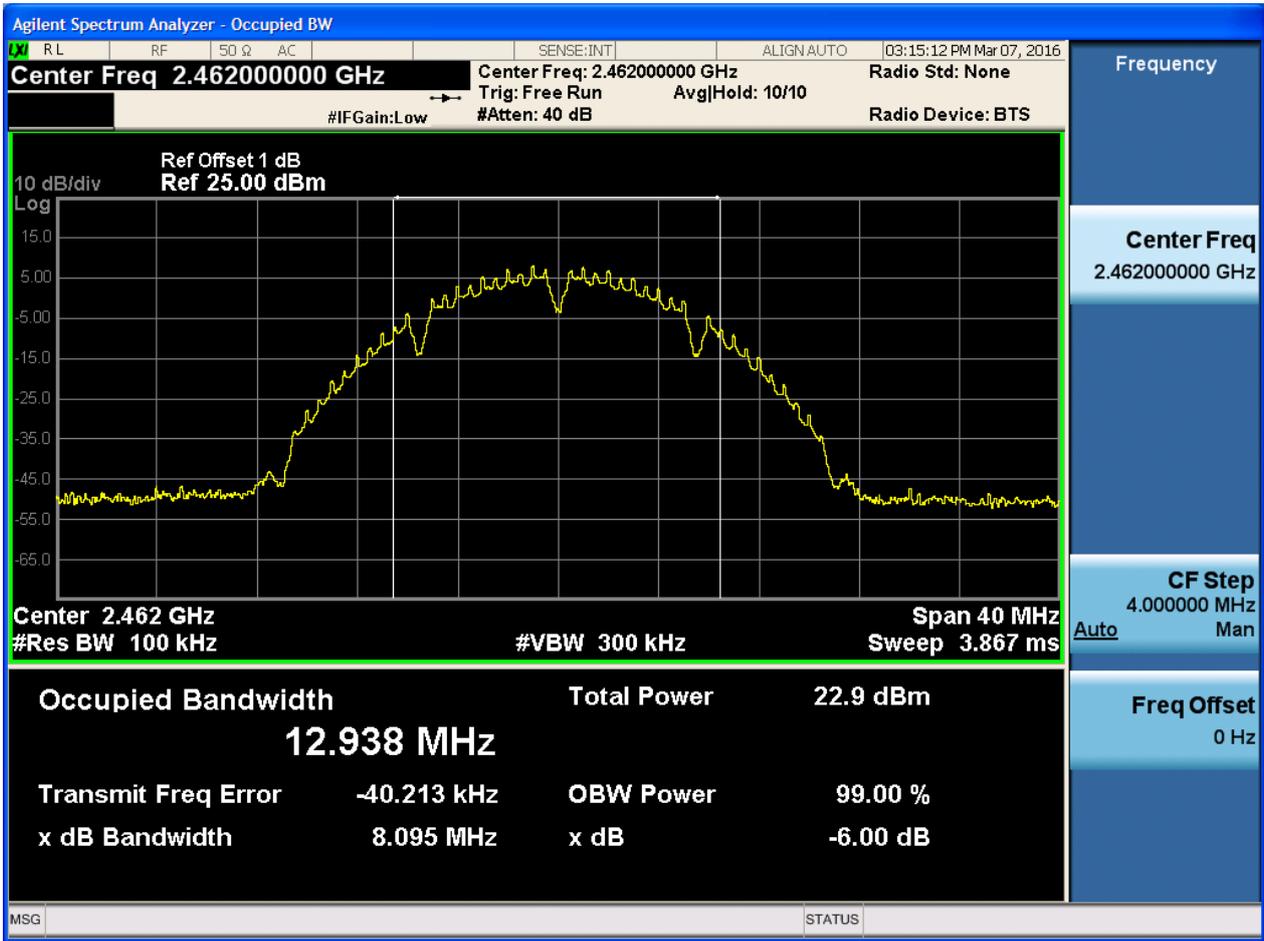


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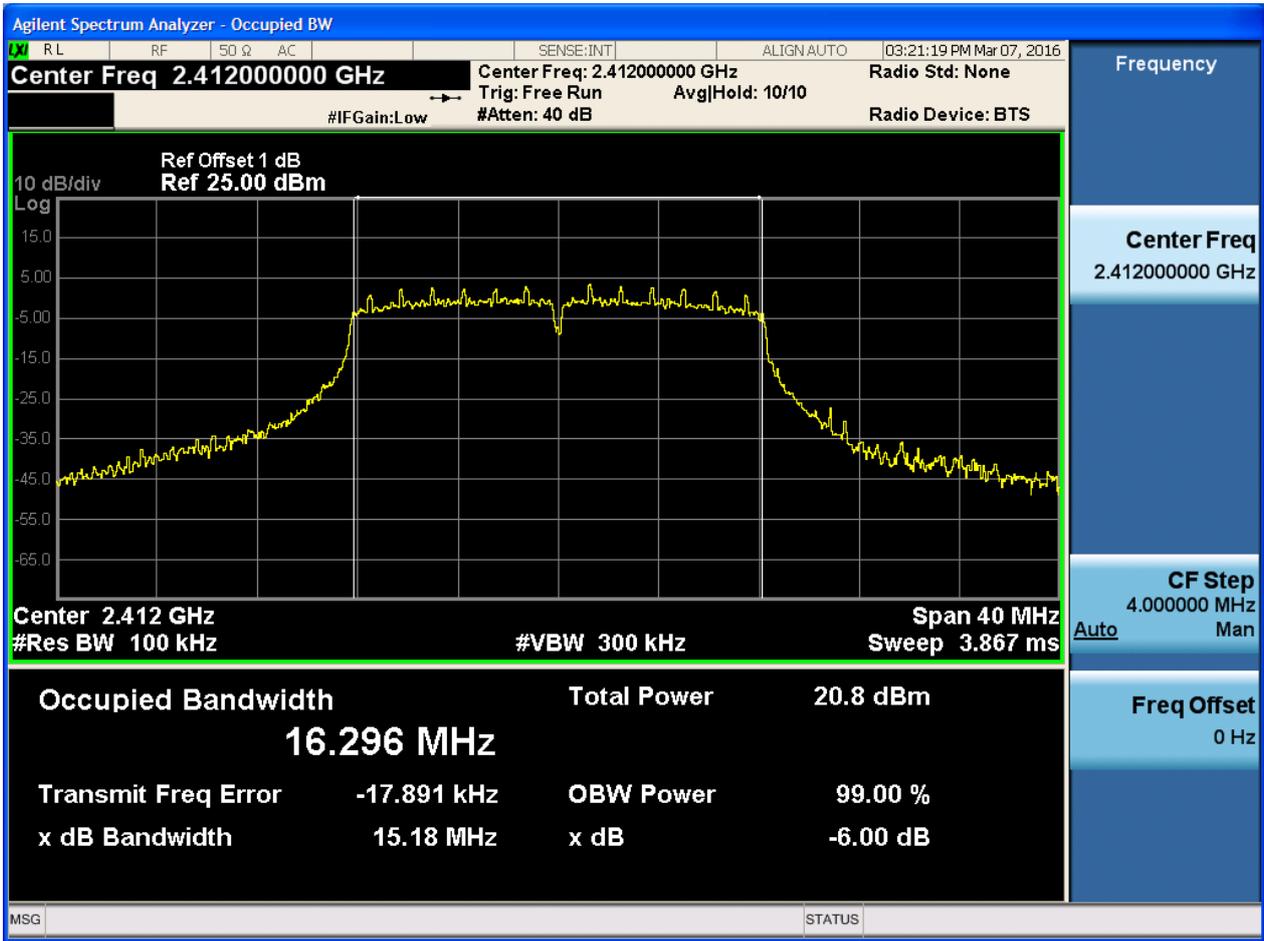


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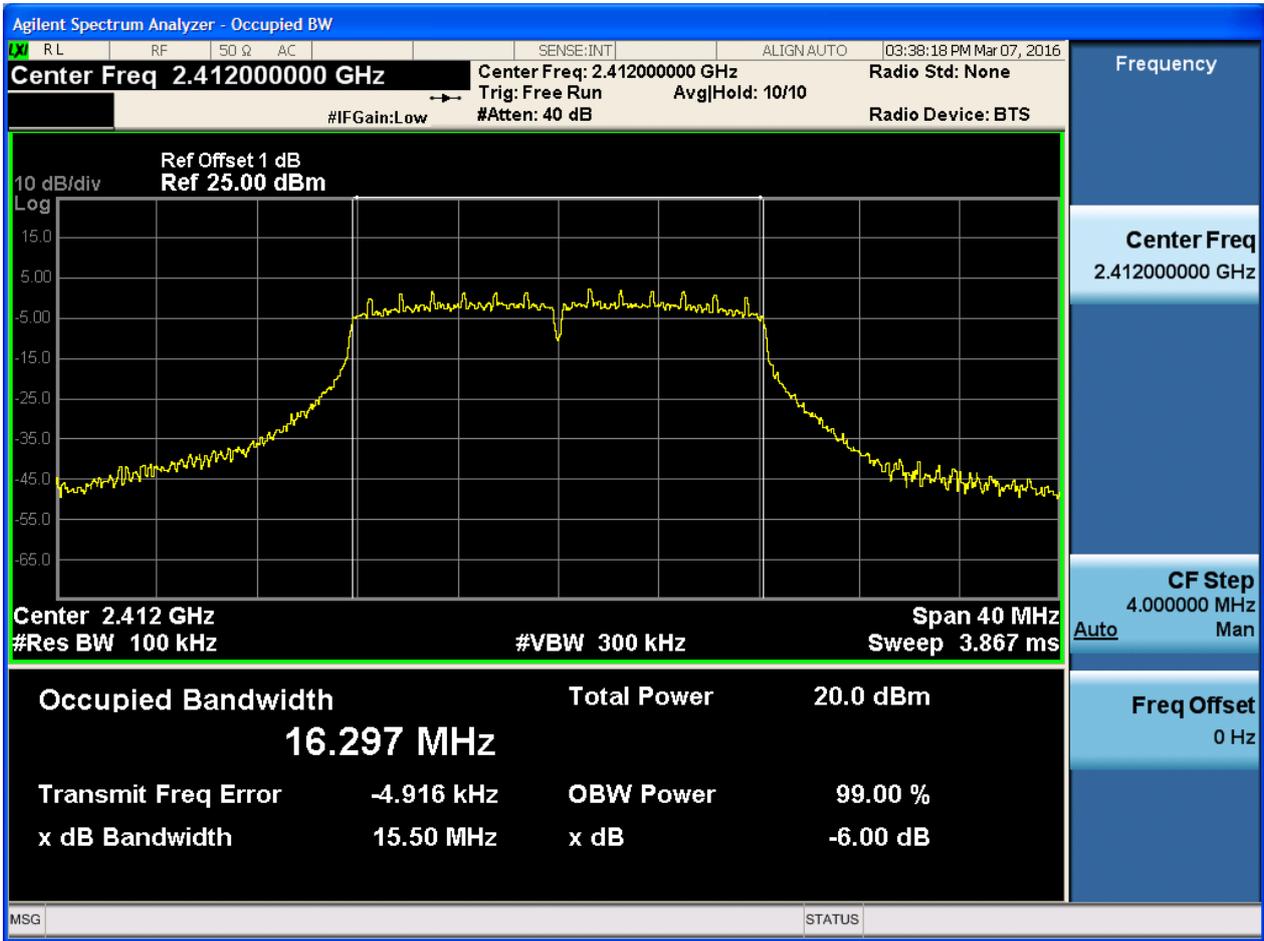


2.7 11G\_L@Ant 1





2.8 11G\_L@Ant 2



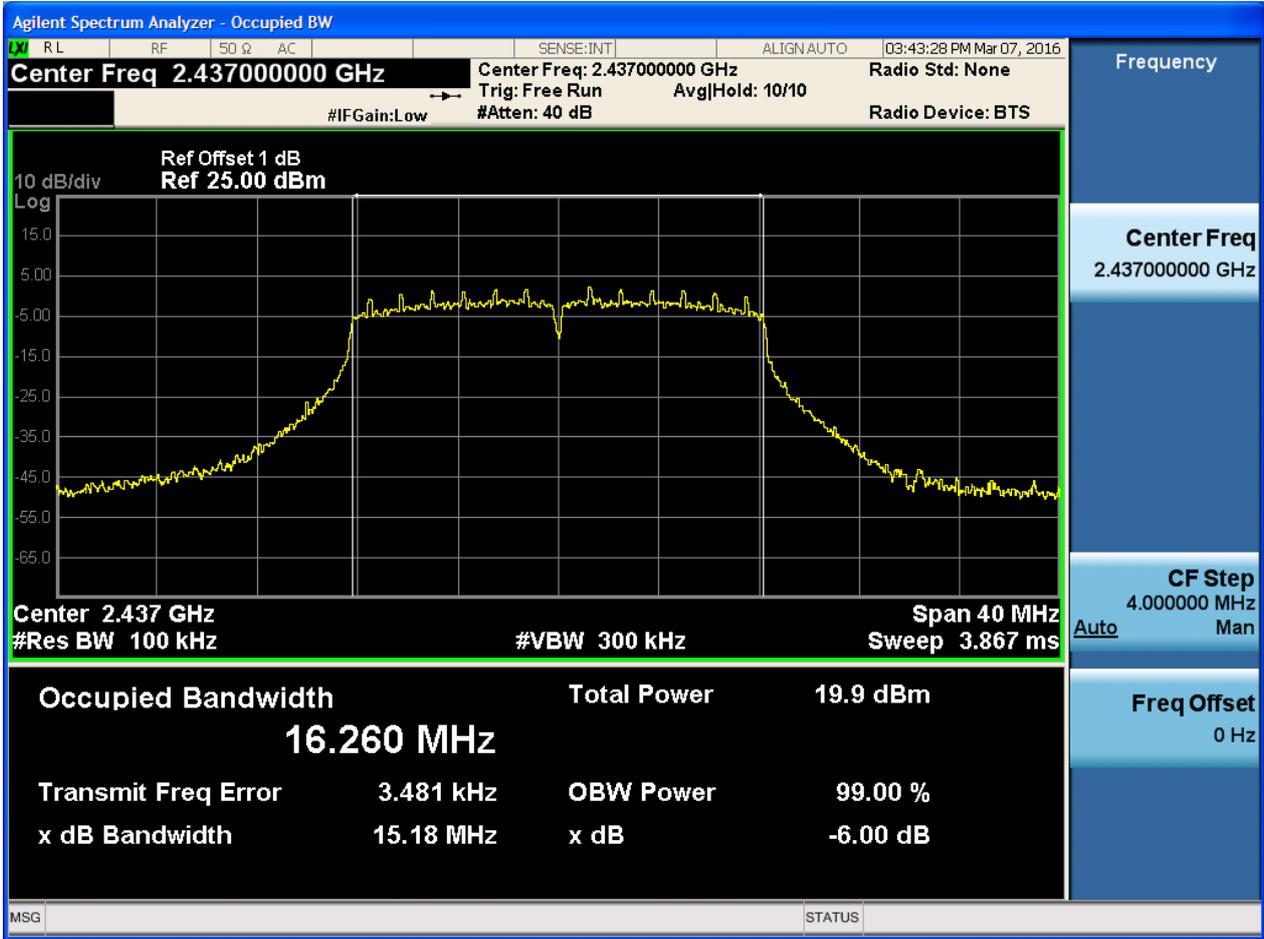


2.9 11G\_M@Ant 1



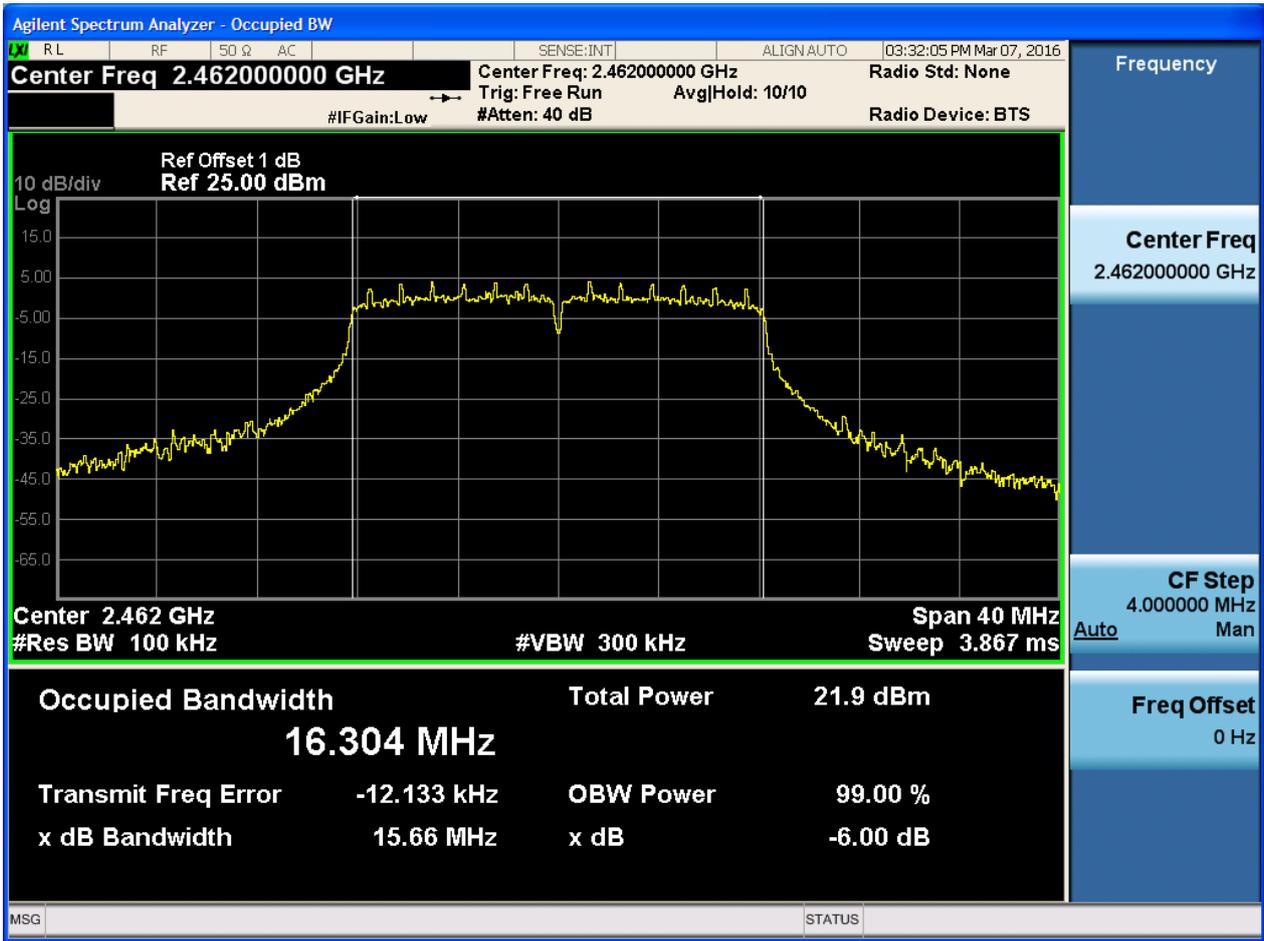


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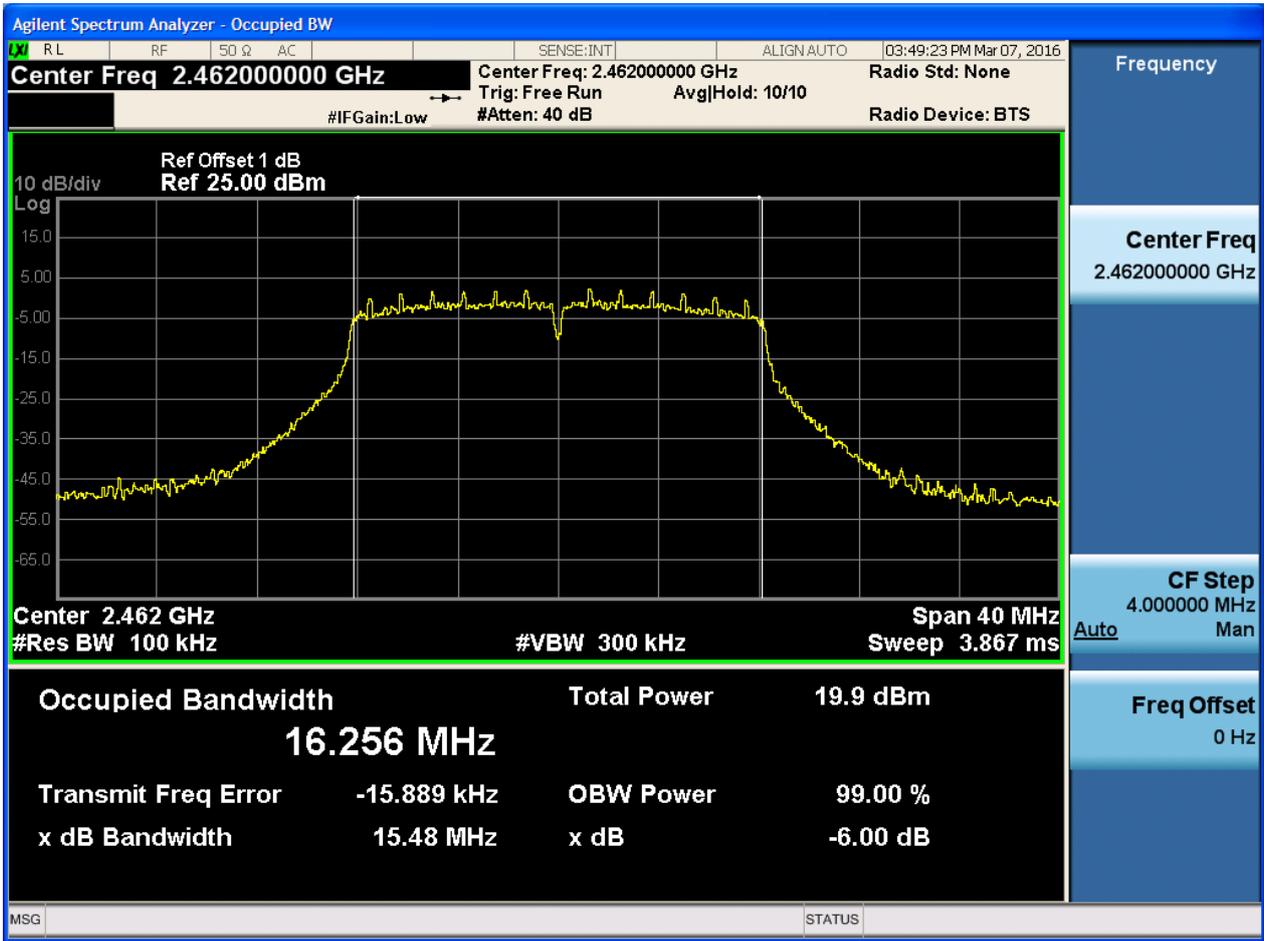


2.11 11G\_H@Ant 1



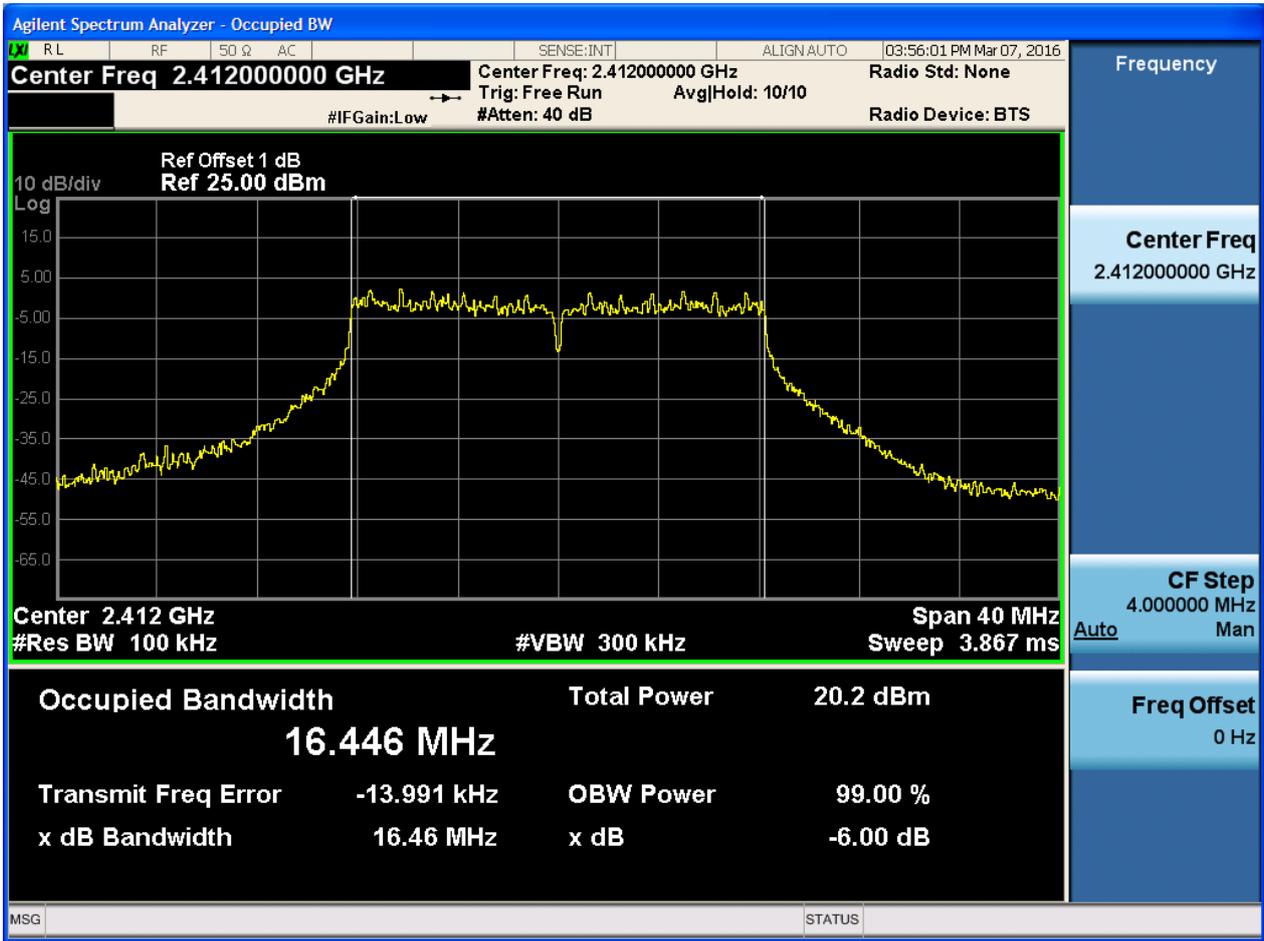


2.12 11G\_H@Ant 2



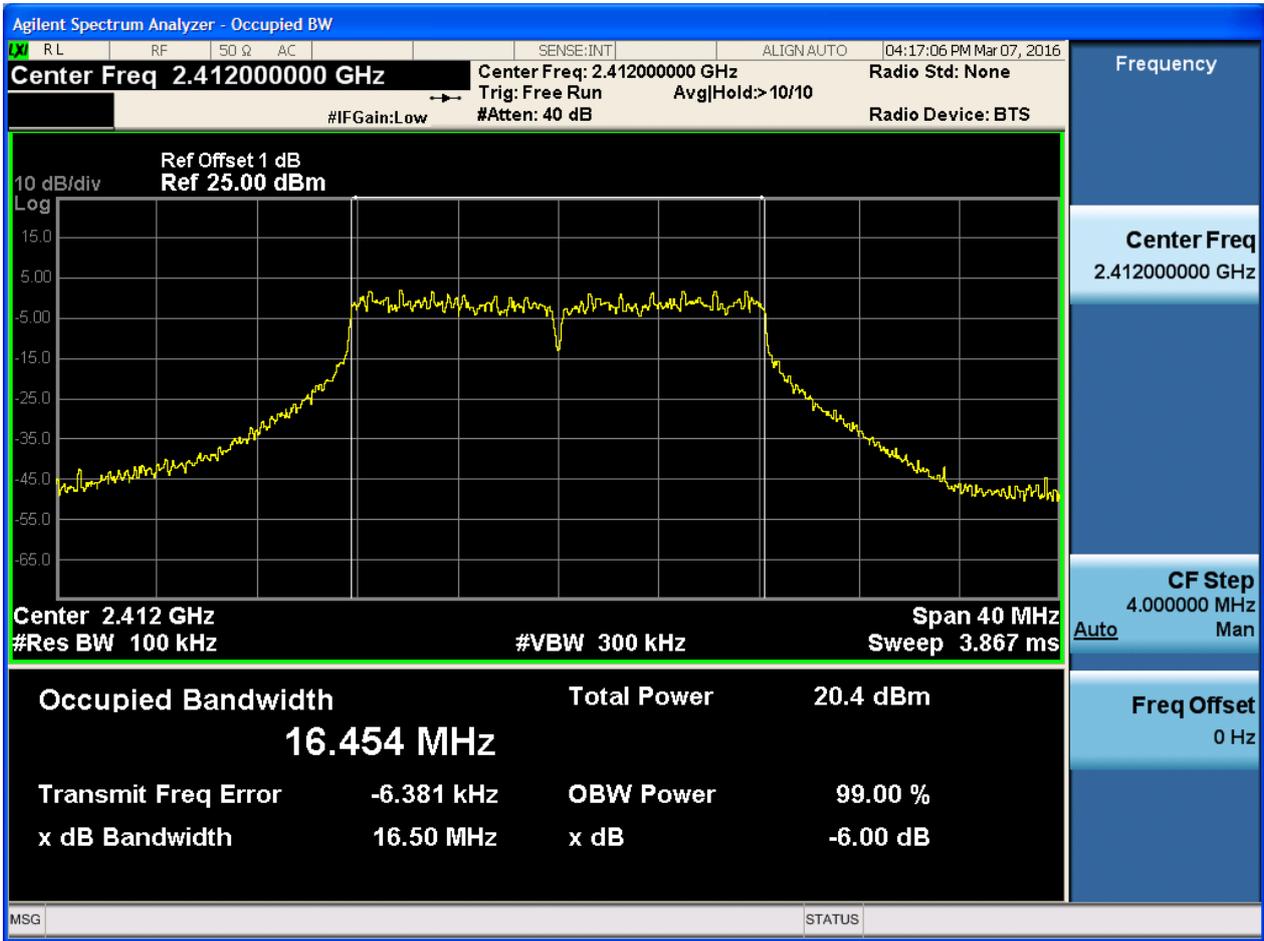


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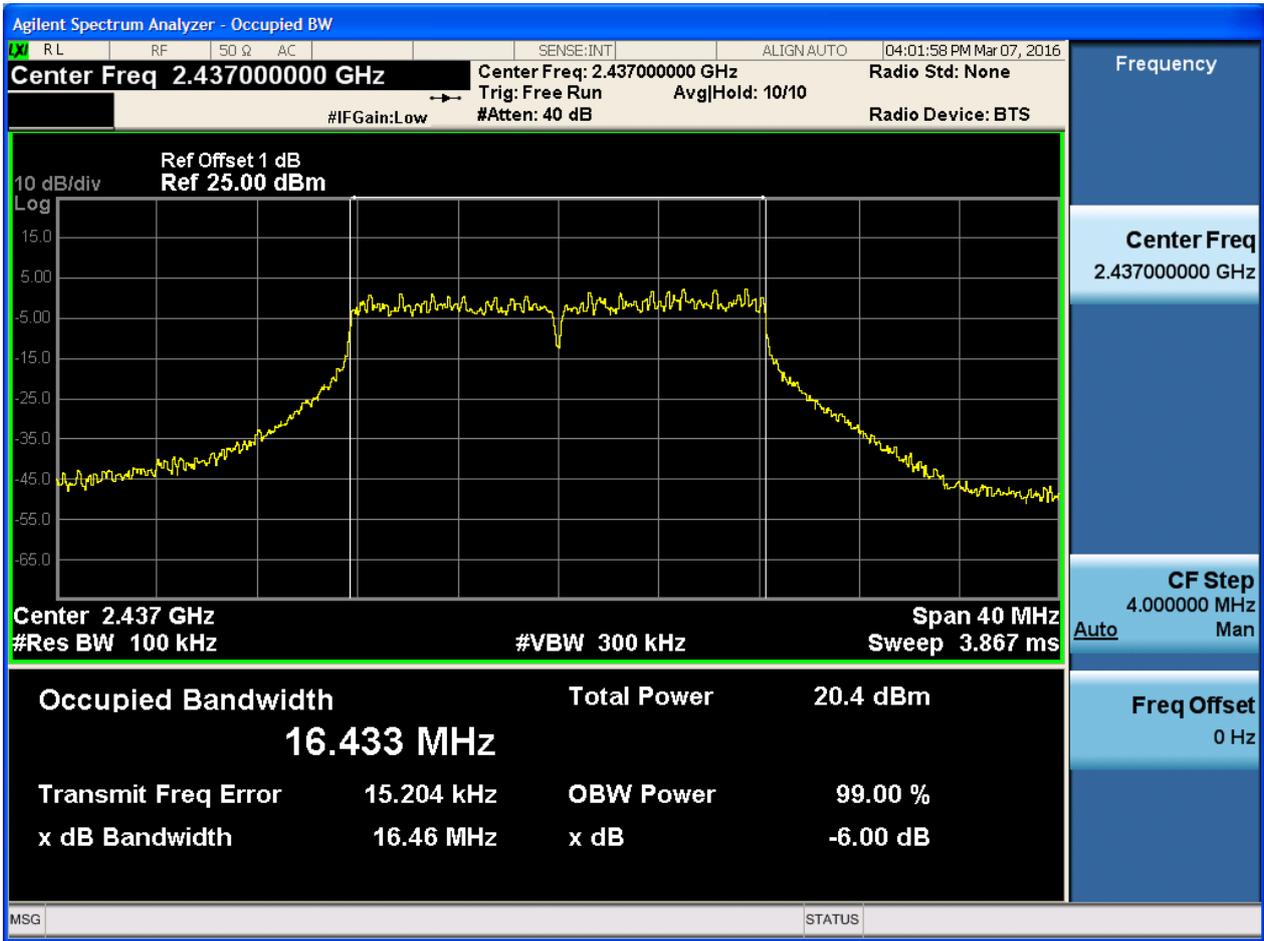


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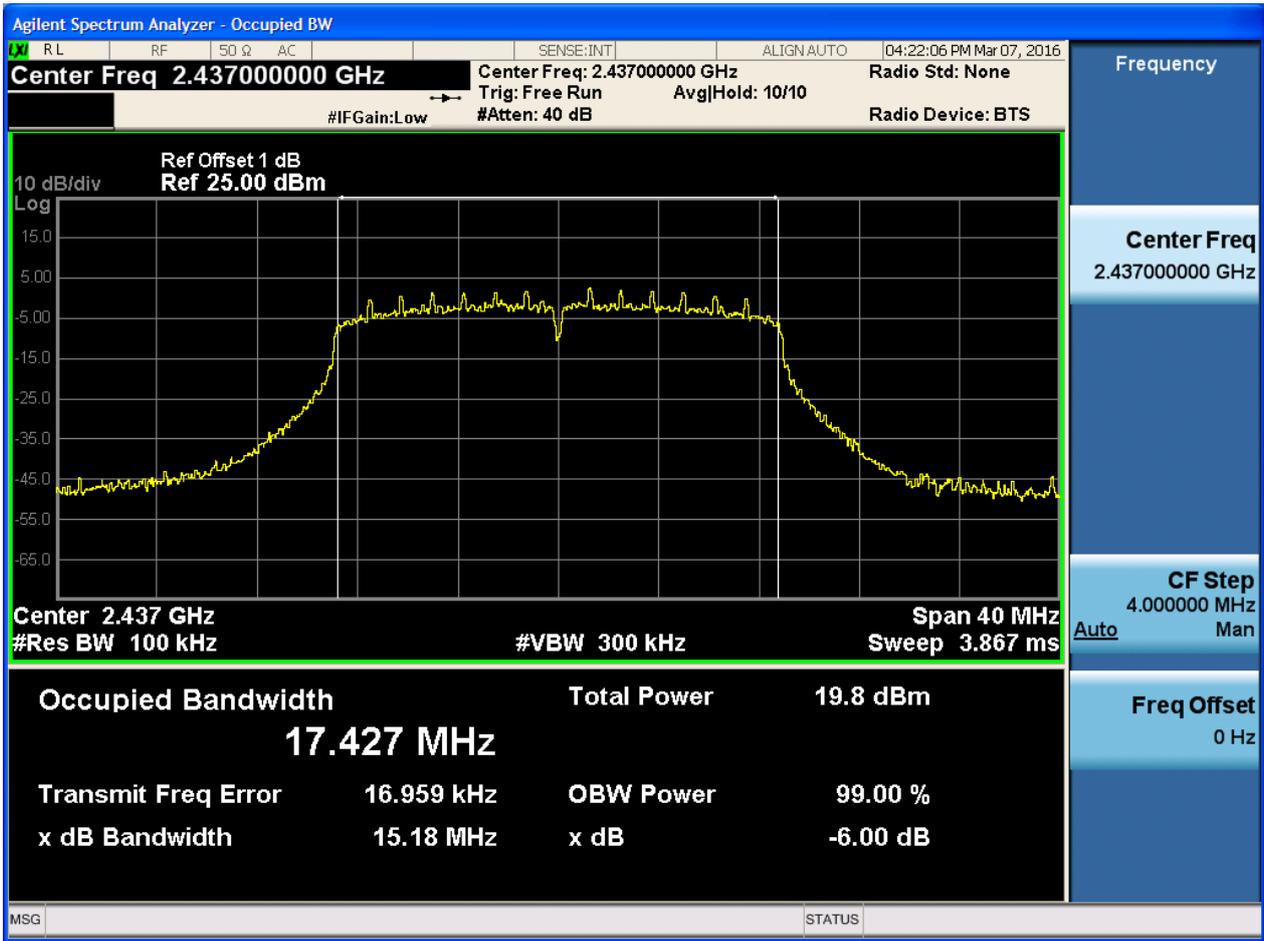


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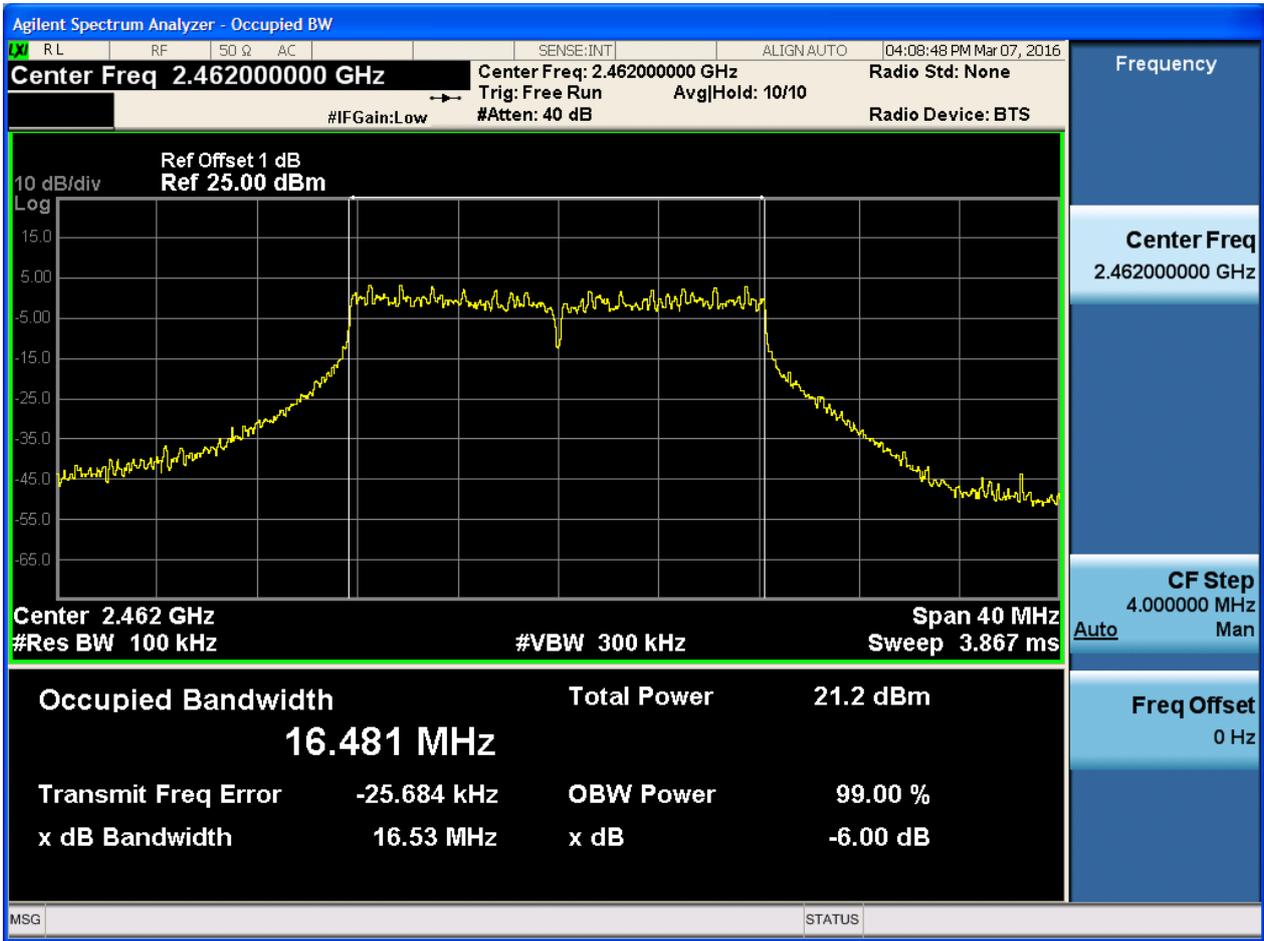


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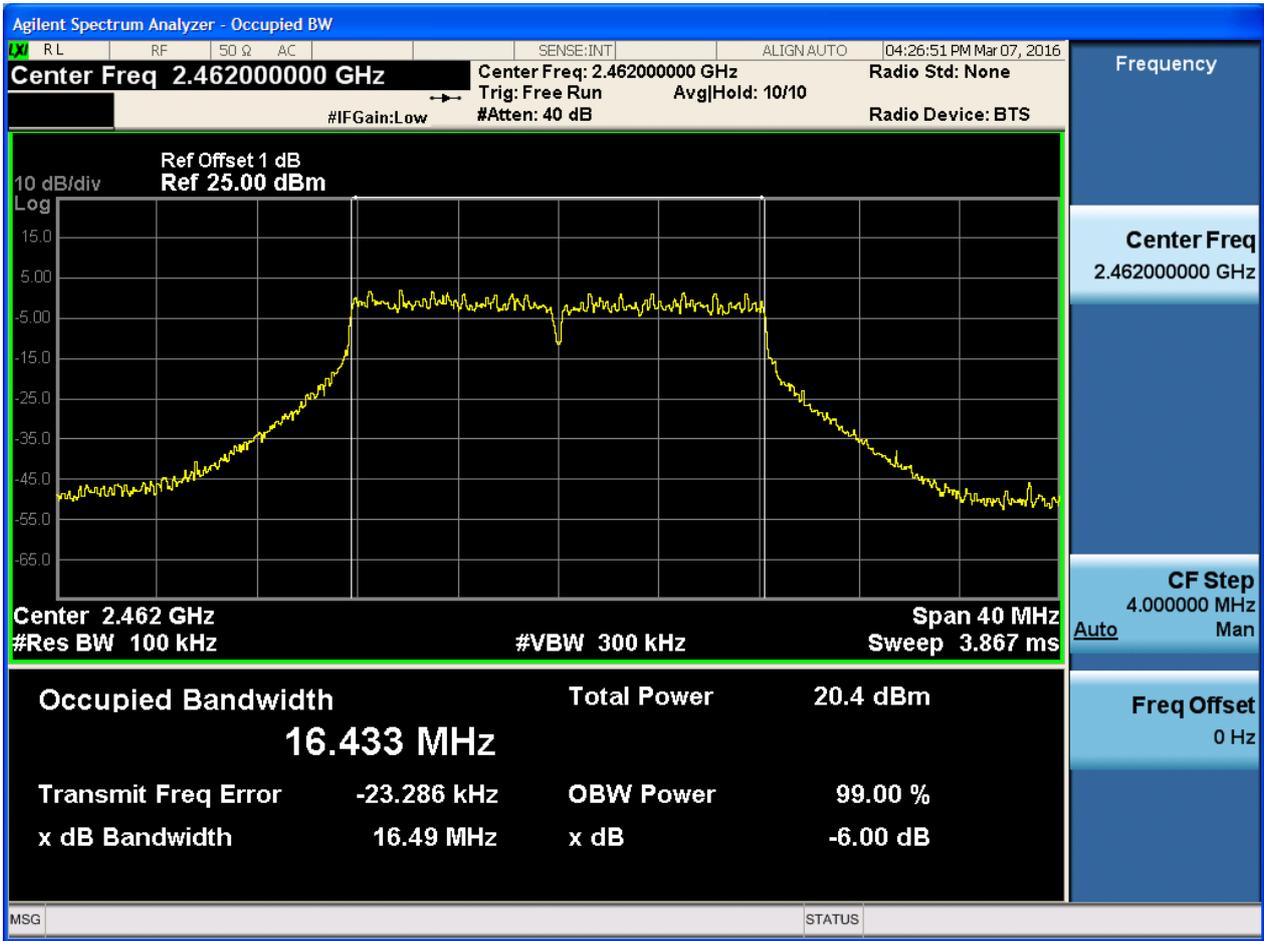


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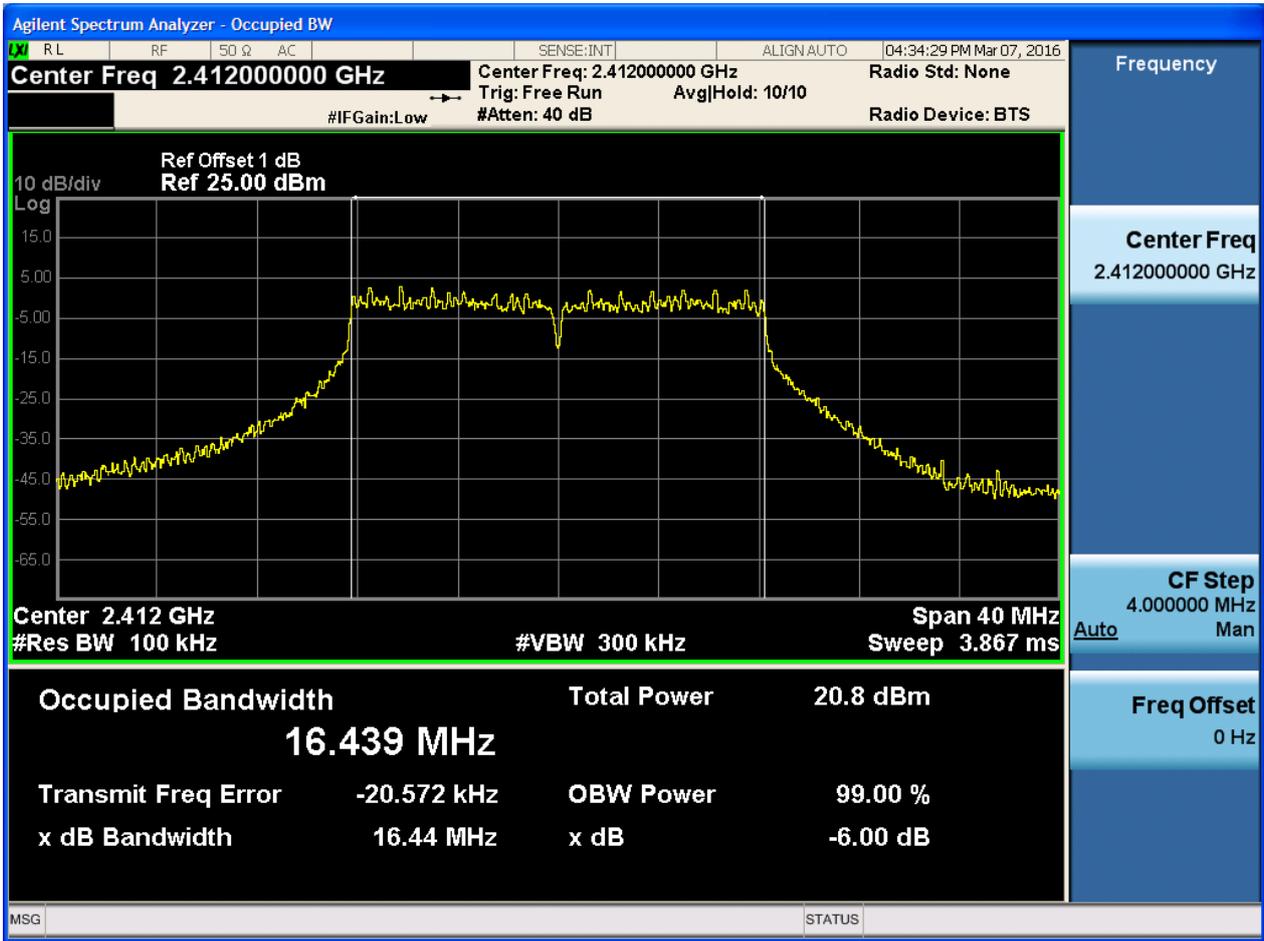


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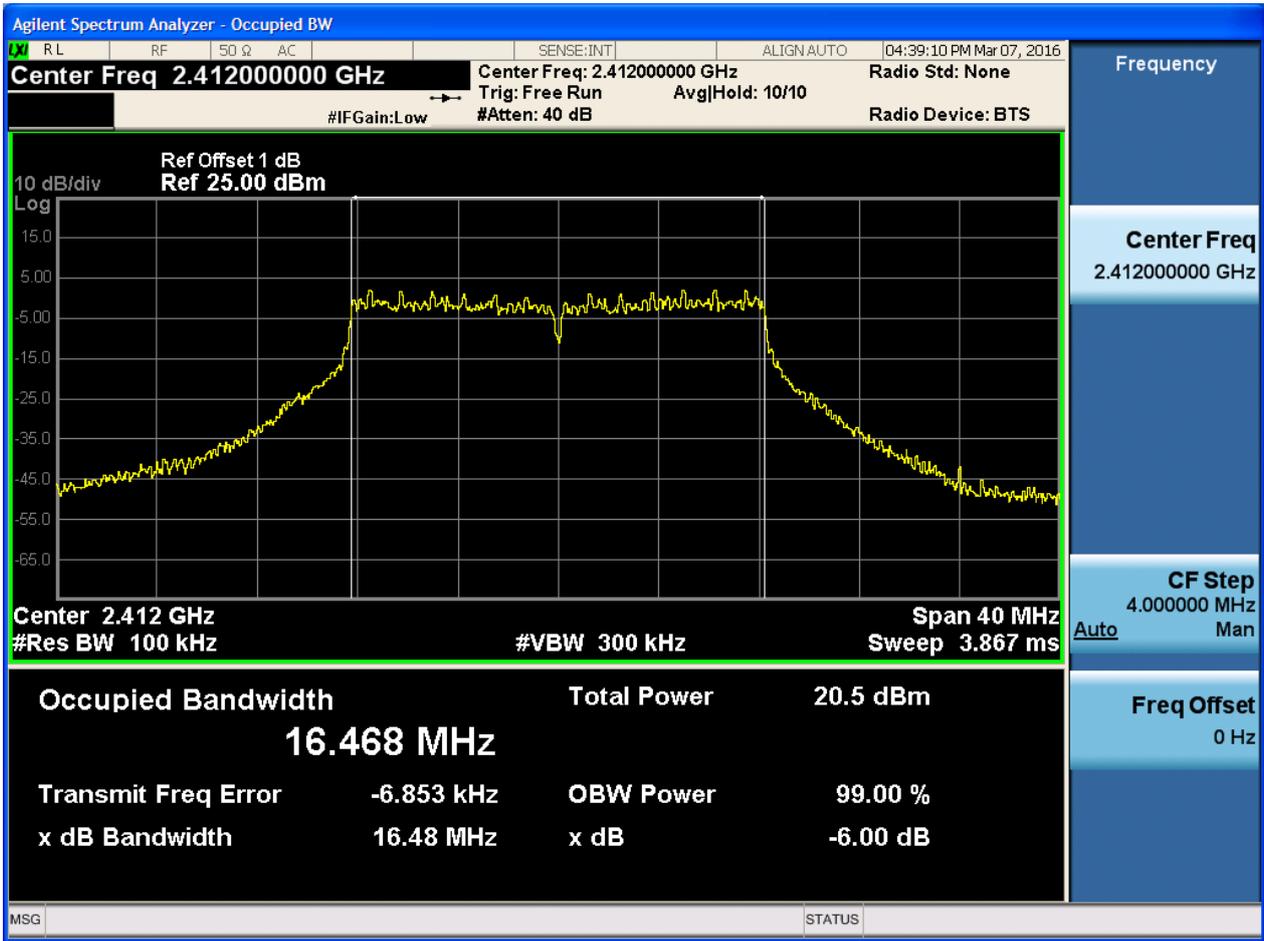


2.13 11N20m\_L@Ant 1



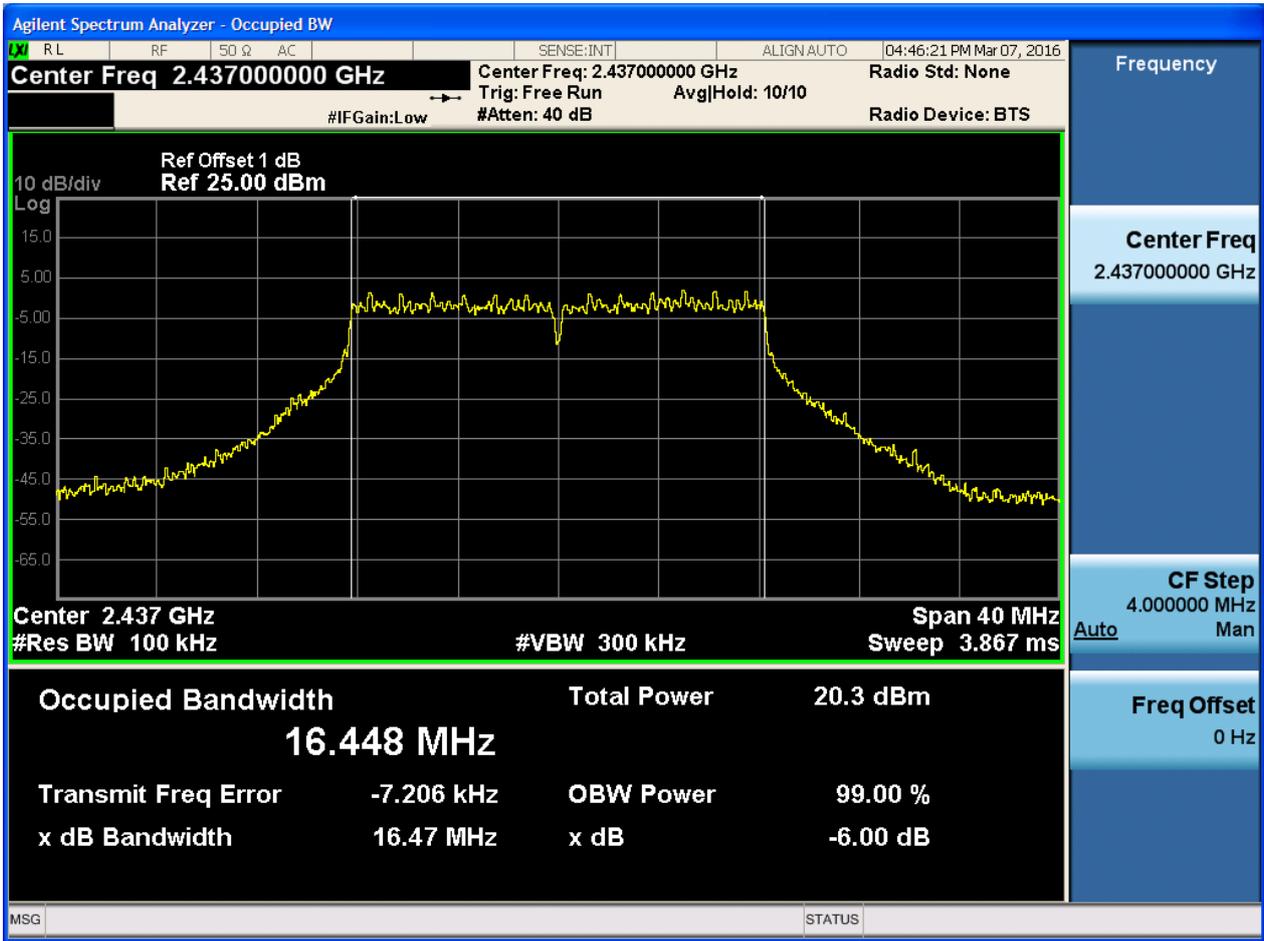


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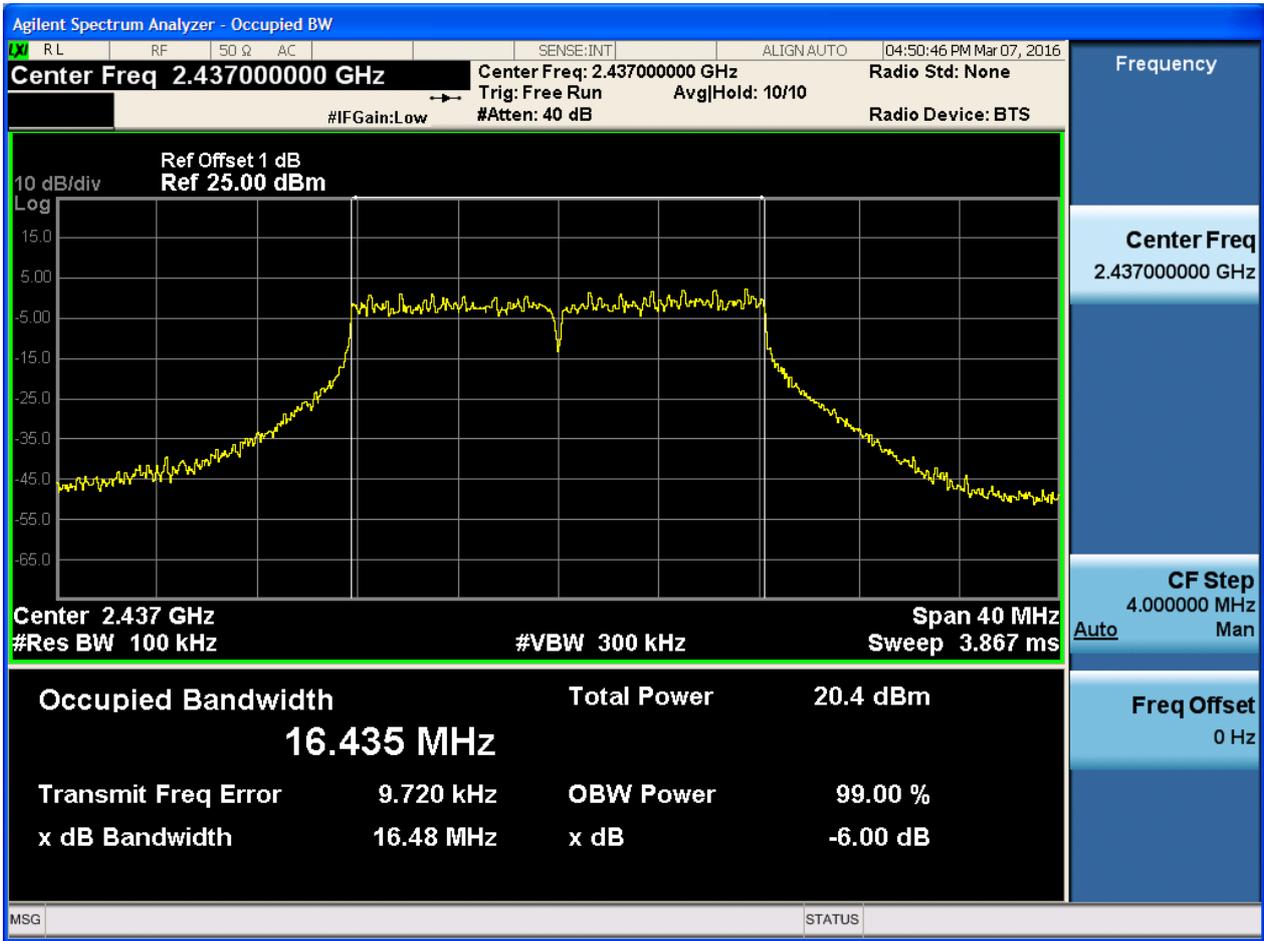


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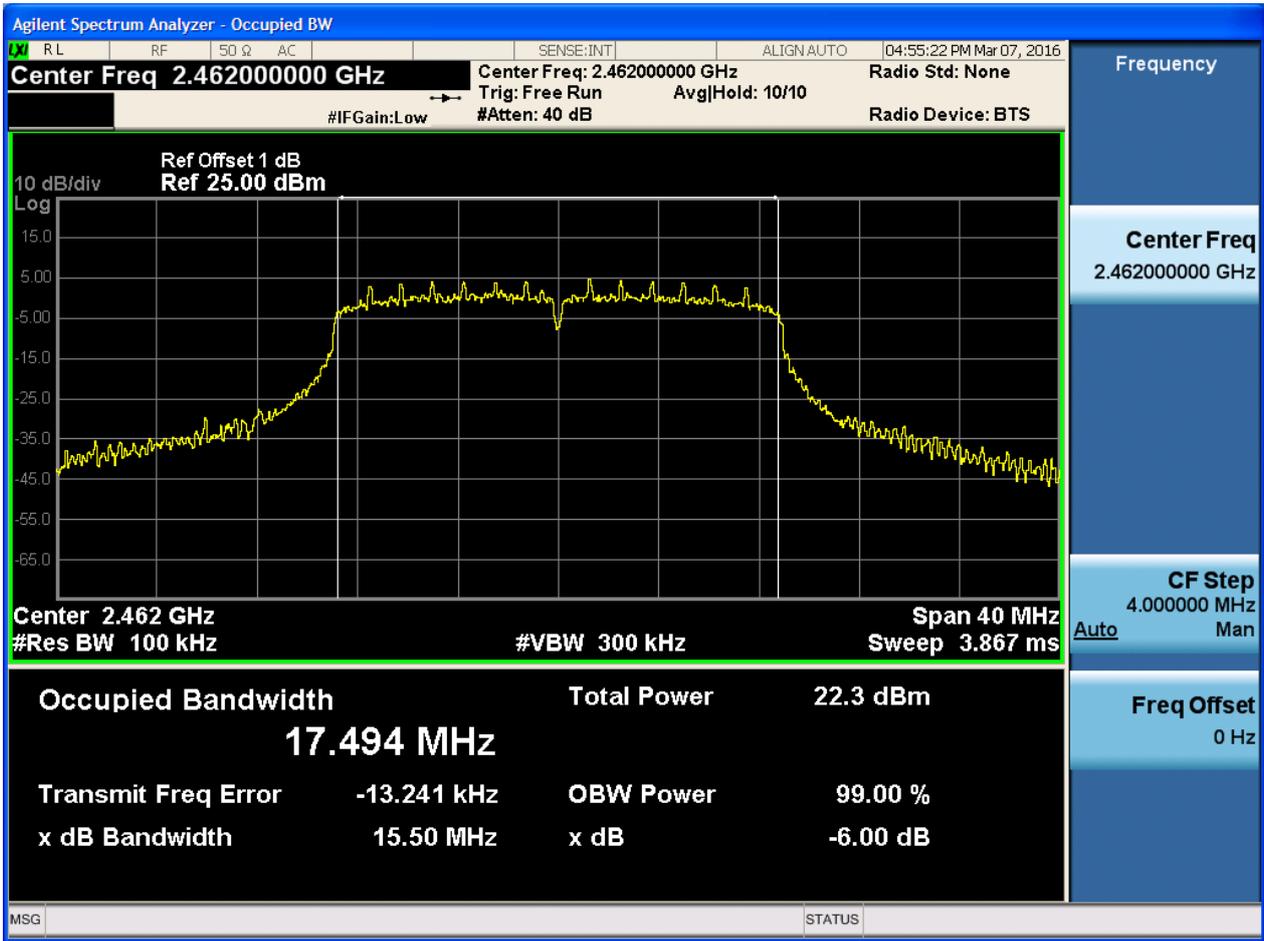


2.15 11N20m\_M@Ant 1



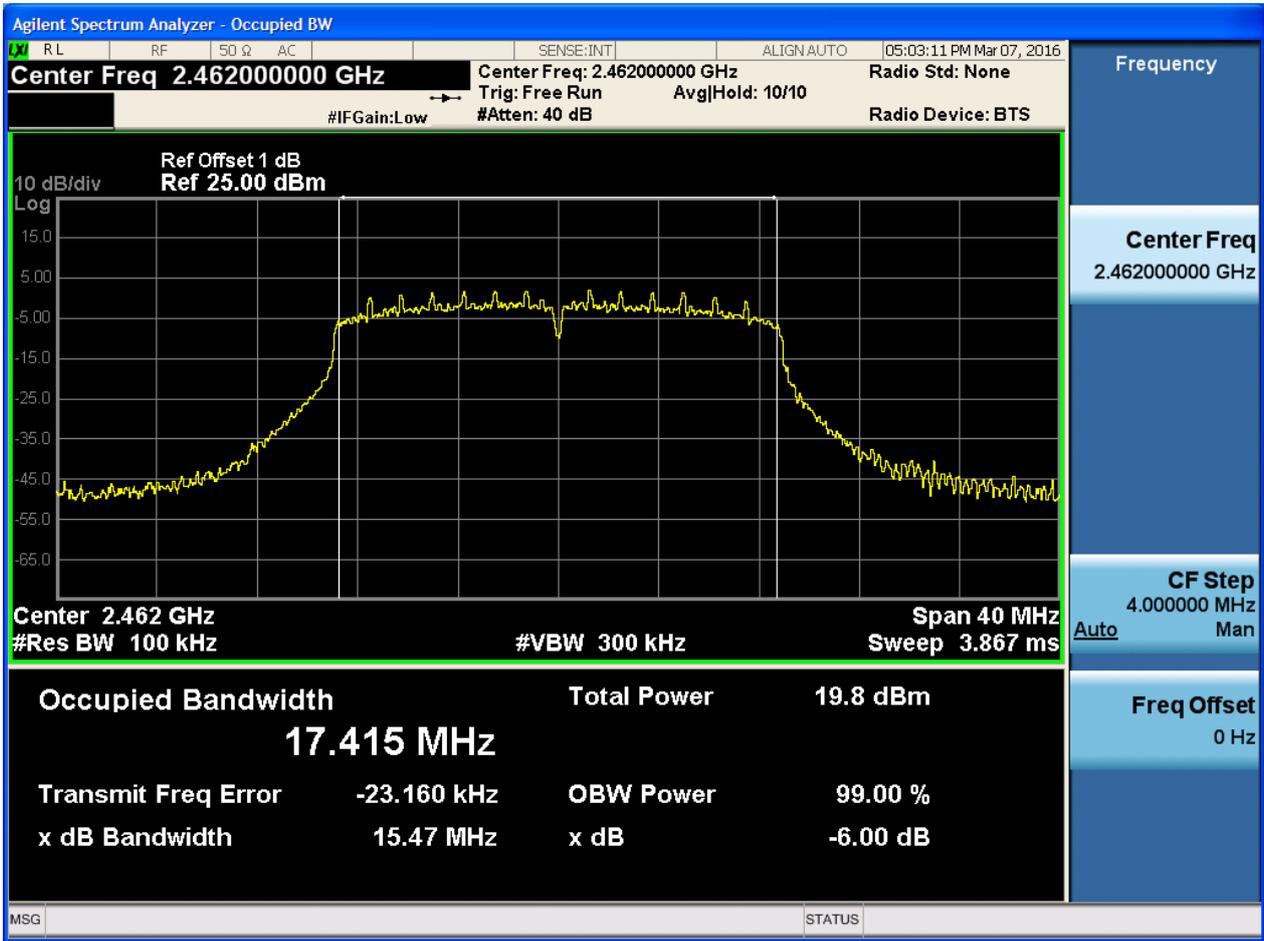


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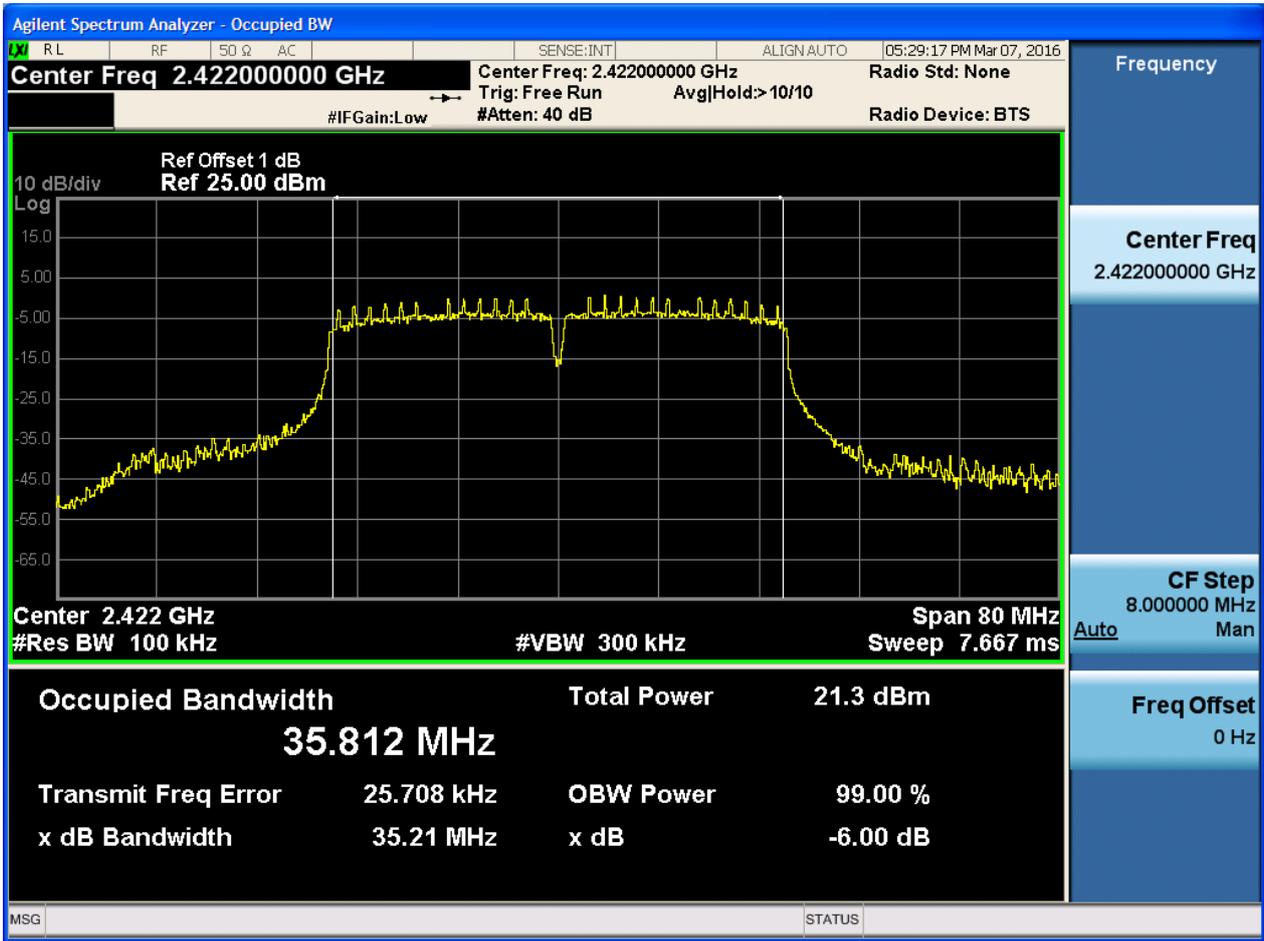


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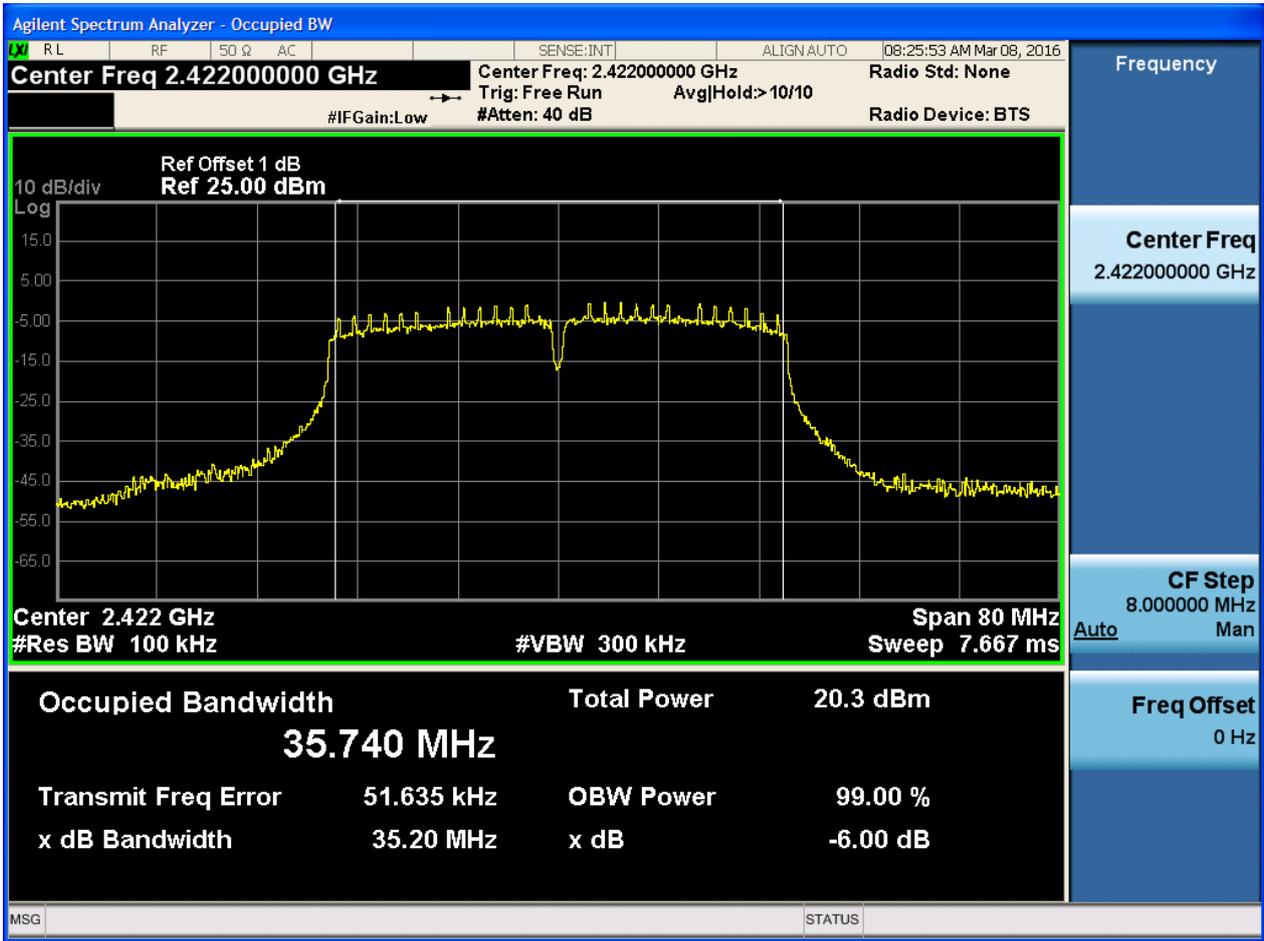


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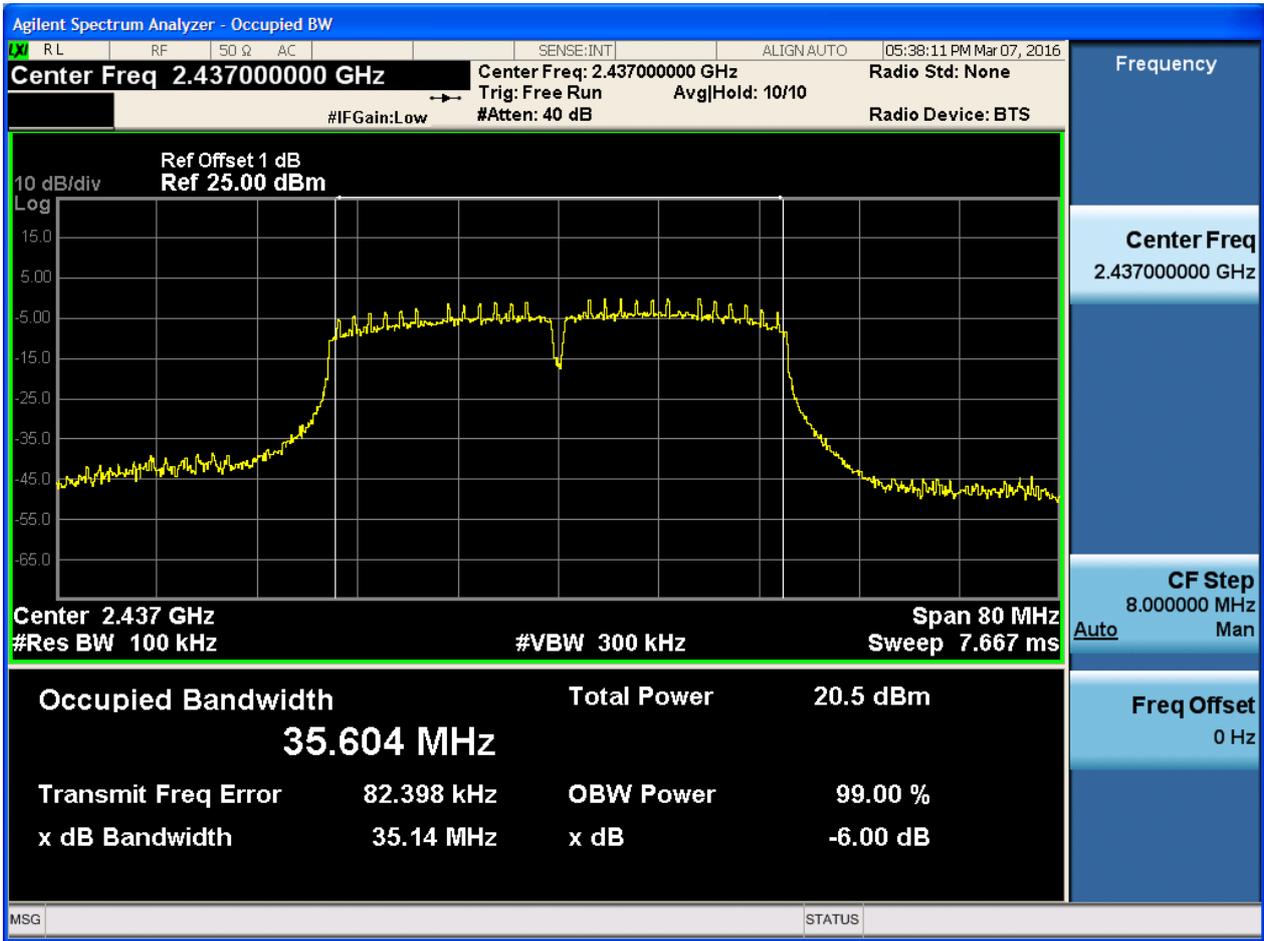


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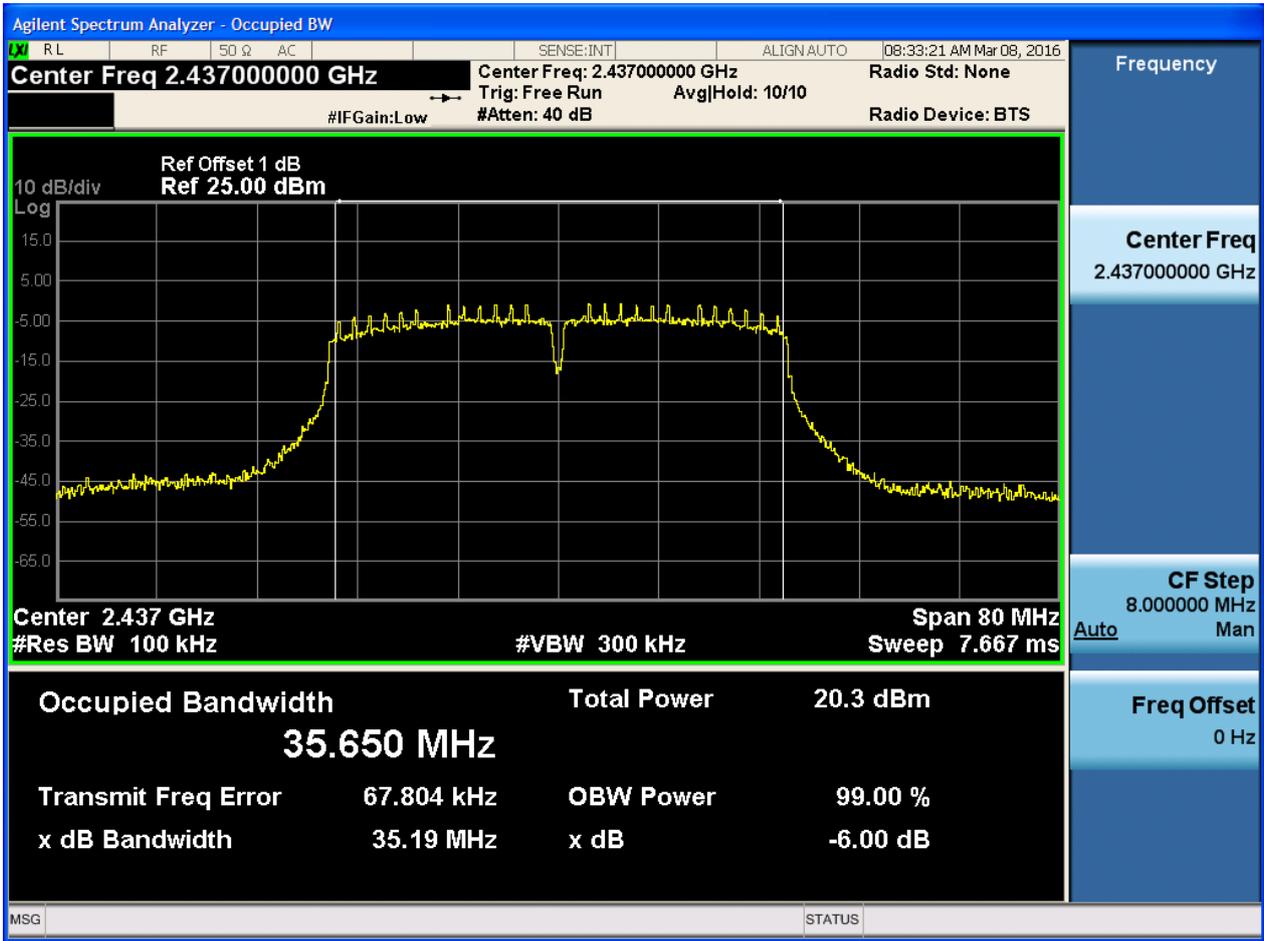


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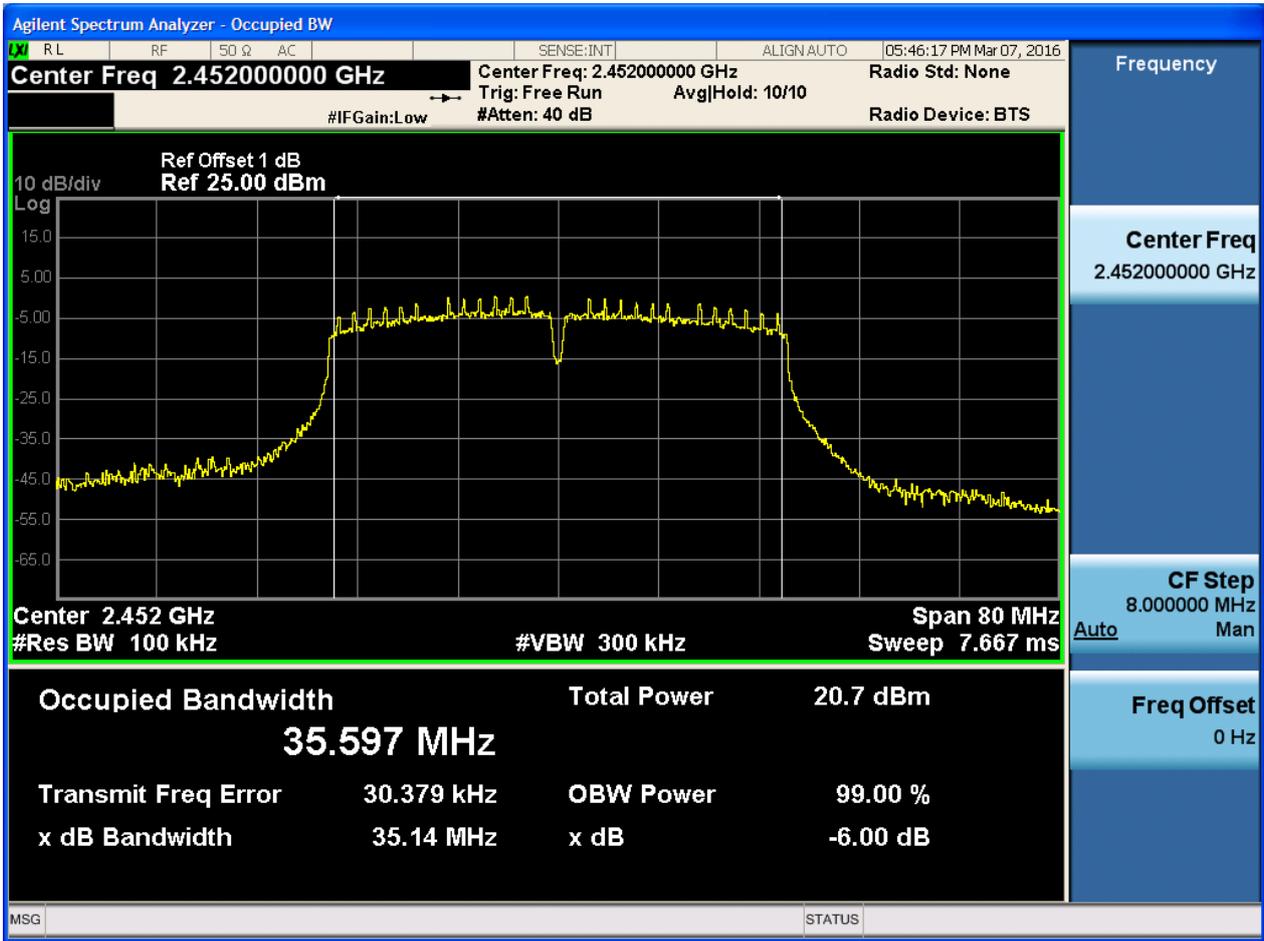


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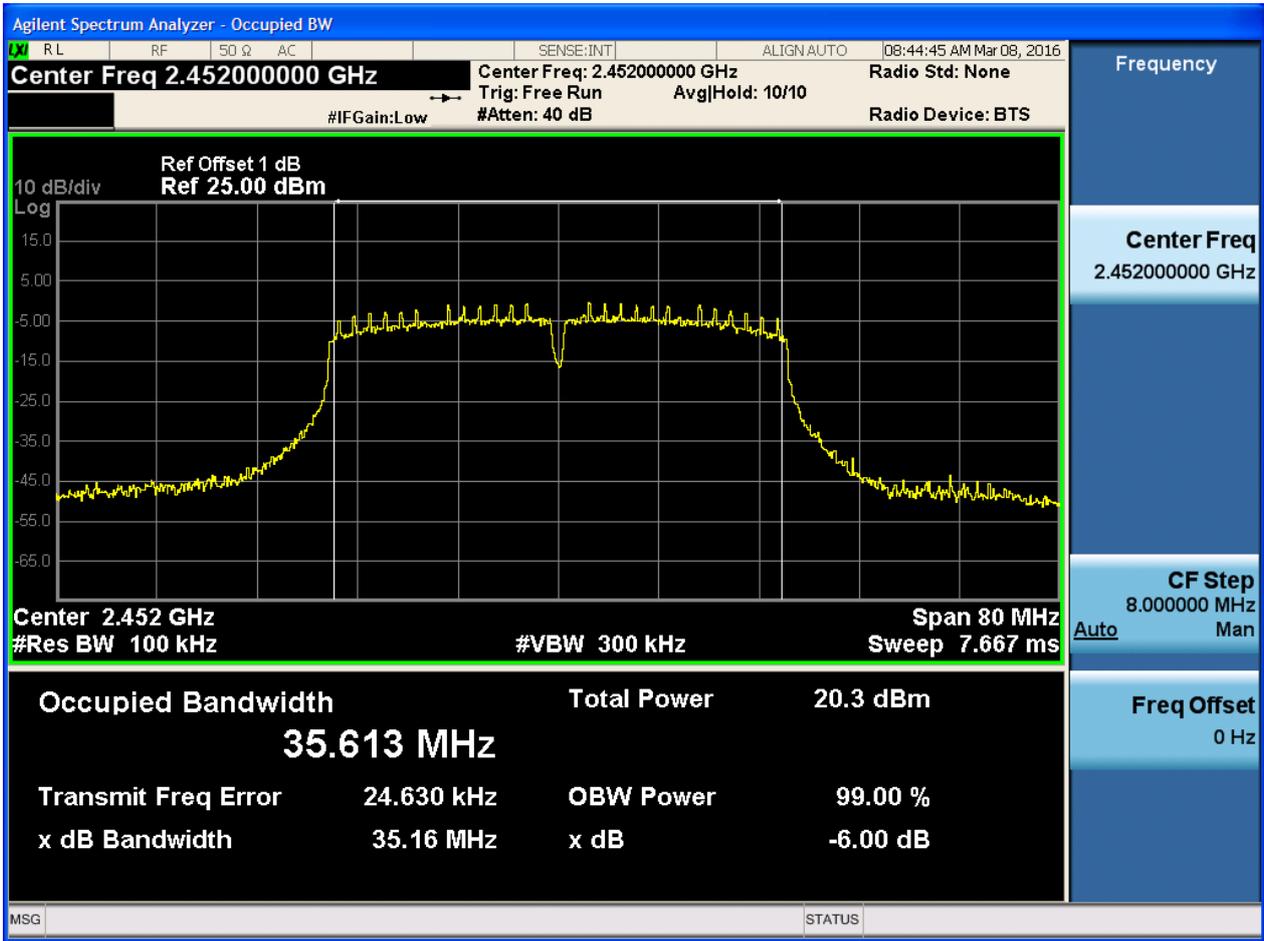


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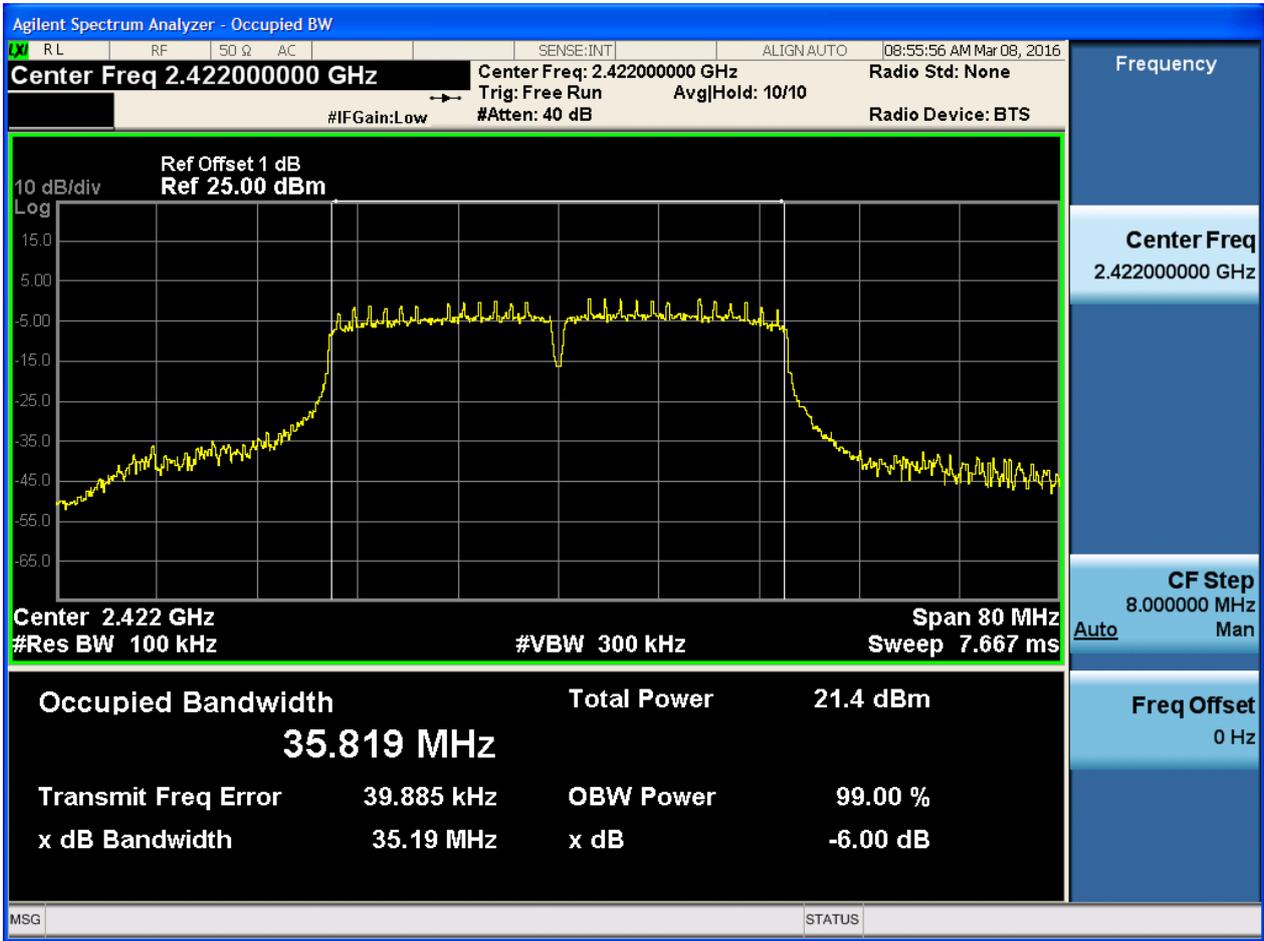


2.24 11N40\_H@Ant 2



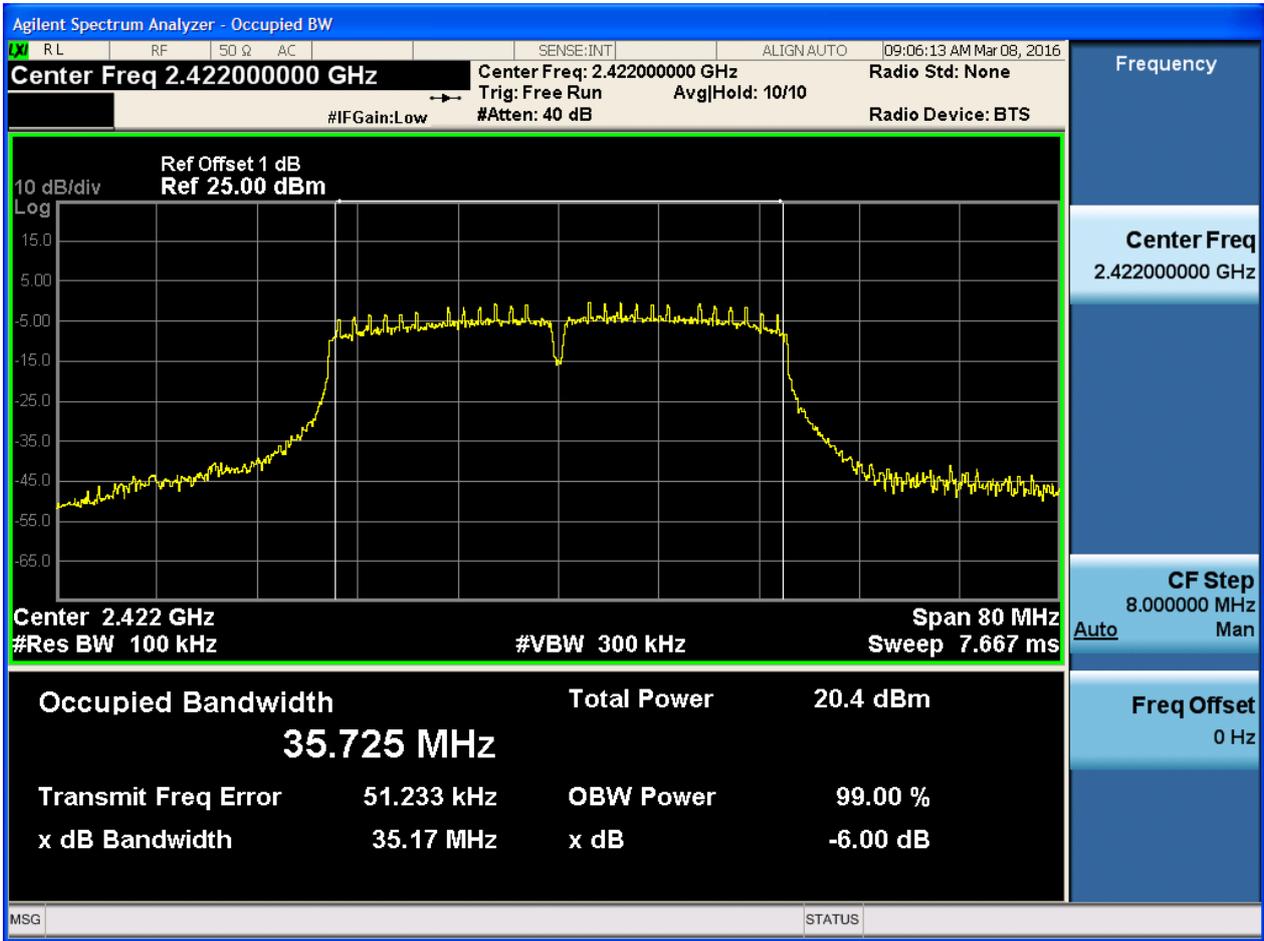


2.31 11N40m\_L@Ant 1



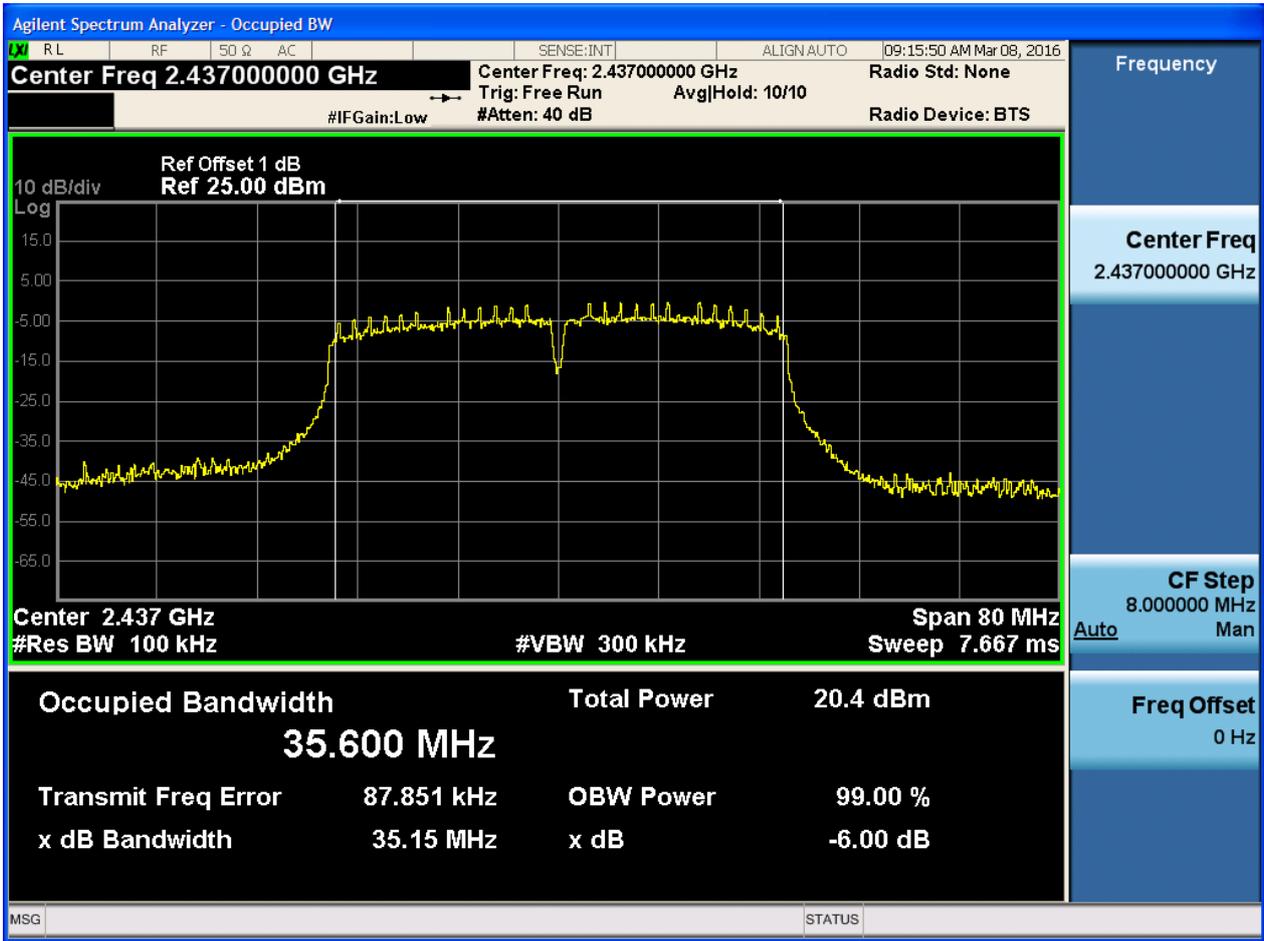


2.32 11N40m\_L@Ant 2



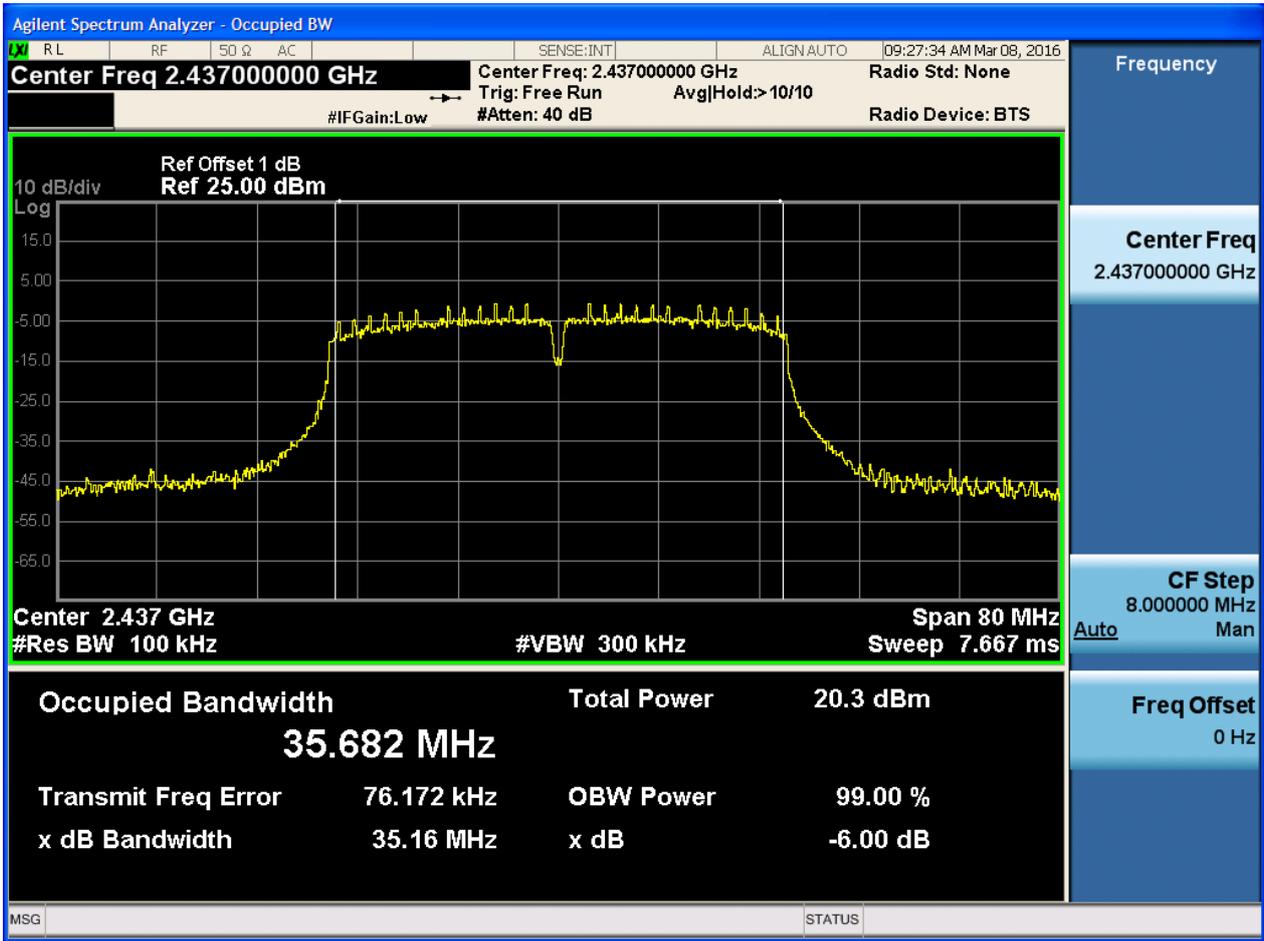


2.33 11N40m\_M@Ant 1



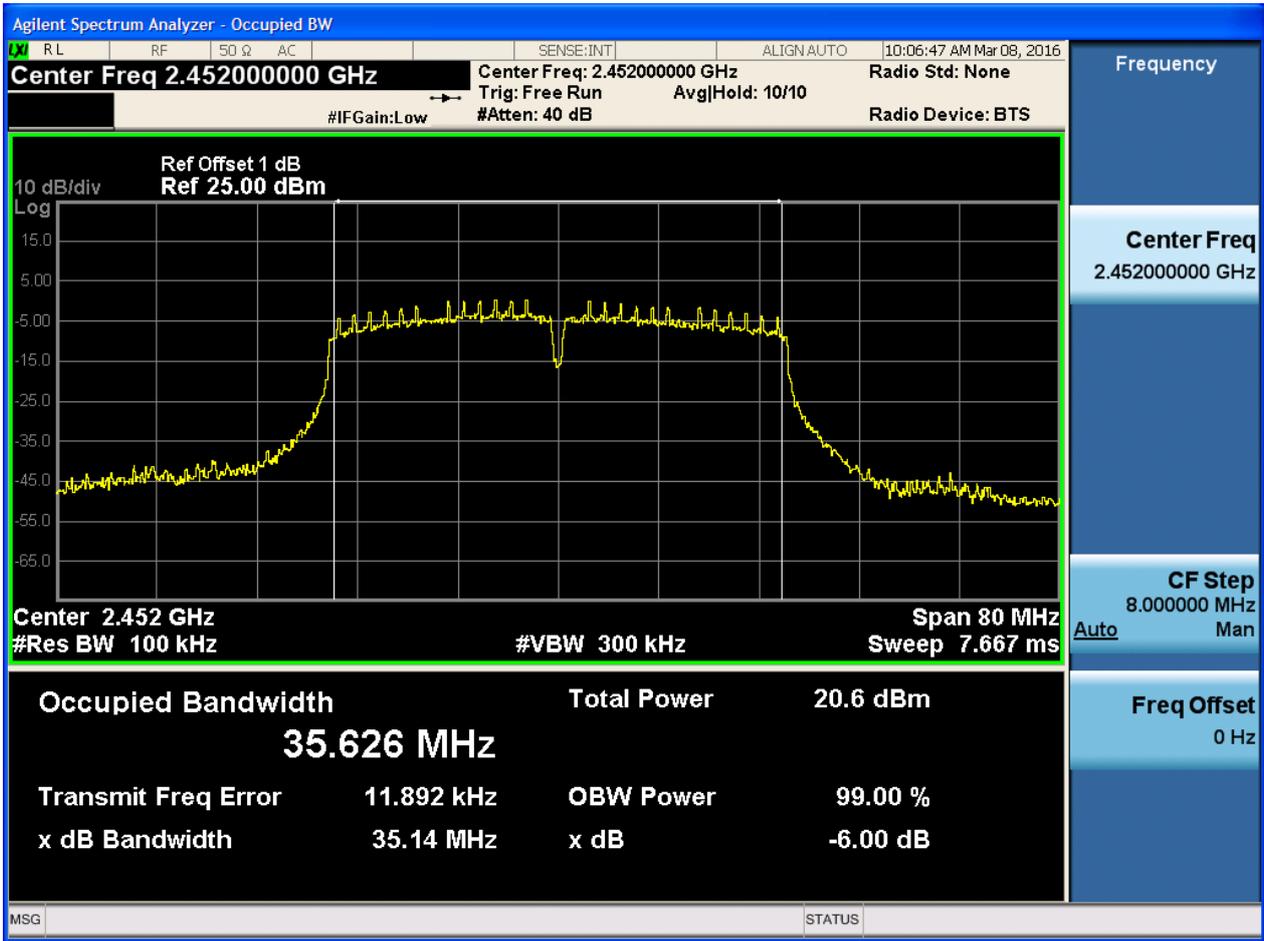


2.34 11N40m\_M@Ant 2



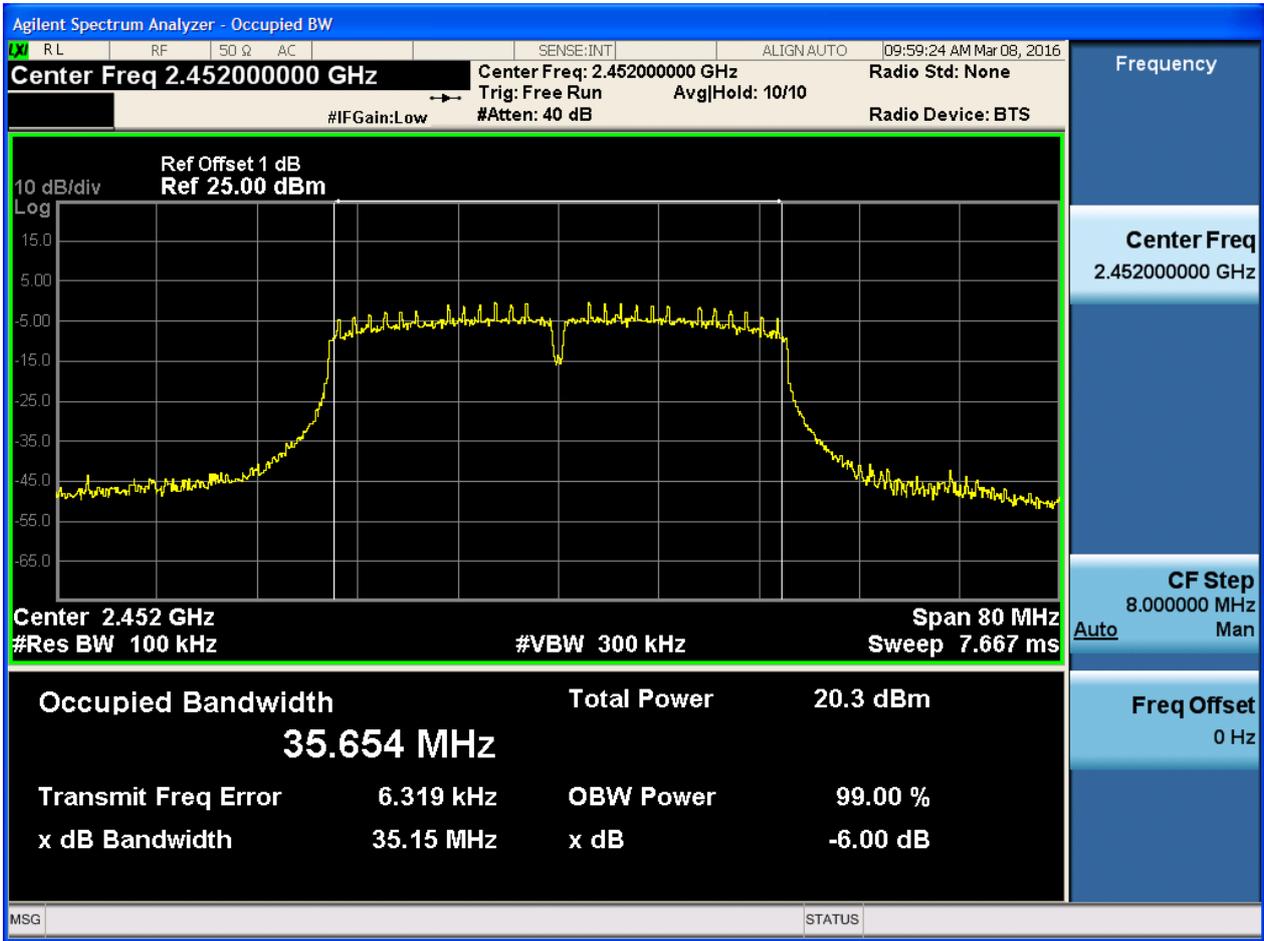


2.35 11N40m\_H@Ant 1





2.36 11N40m\_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 | 13.07                    | pass    |
| 11B       | L            | 2412           | Ant 2 | 13.10                    | pass    |
| 11B       | M            | 2437           | Ant 1 | 13.02                    | pass    |
| 11B       | M            | 2437           | Ant 2 | 12.99                    | pass    |
| 11B       | H            | 2462           | Ant 1 | 13.24                    | pass    |
| 11B       | H            | 2462           | Ant 2 | 12.96                    | pass    |
| 11G       | L            | 2412           | Ant 1 | 16.33                    | pass    |
| 11G       | L            | 2412           | Ant 2 | 16.35                    | pass    |
| 11G       | M            | 2437           | Ant 1 | 16.30                    | pass    |
| 11G       | M            | 2437           | Ant 2 | 16.31                    | pass    |
| 11G       | H            | 2462           | Ant 1 | 16.38                    | pass    |
| 11G       | H            | 2462           | Ant 2 | 16.29                    | pass    |
| 11N20     | L            | 2412           | Ant 1 | 16.60                    | pass    |
| 11N20     | L            | 2412           | Ant 2 | 16.62                    | pass    |
| 11N20     | M            | 2437           | Ant 1 | 16.62                    | pass    |
| 11N20     | M            | 2437           | Ant 2 | 17.43                    | pass    |
| 11N20     | H            | 2462           | Ant 1 | 16.65                    | pass    |
| 11N20     | H            | 2462           | Ant 2 | 16.58                    | pass    |
| 11N20m    | L            | 2412           | Ant 1 | 16.64                    | pass    |
| 11N20m    | L            | 2412           | Ant 2 | 16.64                    | pass    |
| 11N20m    | M            | 2437           | Ant 2 | 16.61                    | pass    |
| 11N20m    | M            | 2437           | Ant 1 | 16.58                    | pass    |
| 11N20m    | H            | 2462           | Ant 1 | 17.51                    | pass    |
| 11N20m    | H            | 2462           | Ant 2 | 17.42                    | pass    |
| 11N40     | L            | 2422           | Ant 1 | 36.07                    | pass    |
| 11N40     | L            | 2422           | Ant 2 | 35.90                    | pass    |
| 11N40     | M            | 2437           | Ant 1 | 35.78                    | pass    |
| 11N40     | M            | 2437           | Ant 2 | 35.84                    | pass    |
| 11N40     | H            | 2452           | Ant 1 | 35.79                    | pass    |
| 11N40     | H            | 2452           | Ant 2 | 35.82                    | pass    |
| 11N40m    | L            | 2422           | Ant 1 | 36.02                    | pass    |
| 11N40m    | L            | 2422           | Ant 2 | 35.89                    | pass    |
| 11N40m    | M            | 2437           | Ant 1 | 35.78                    | pass    |



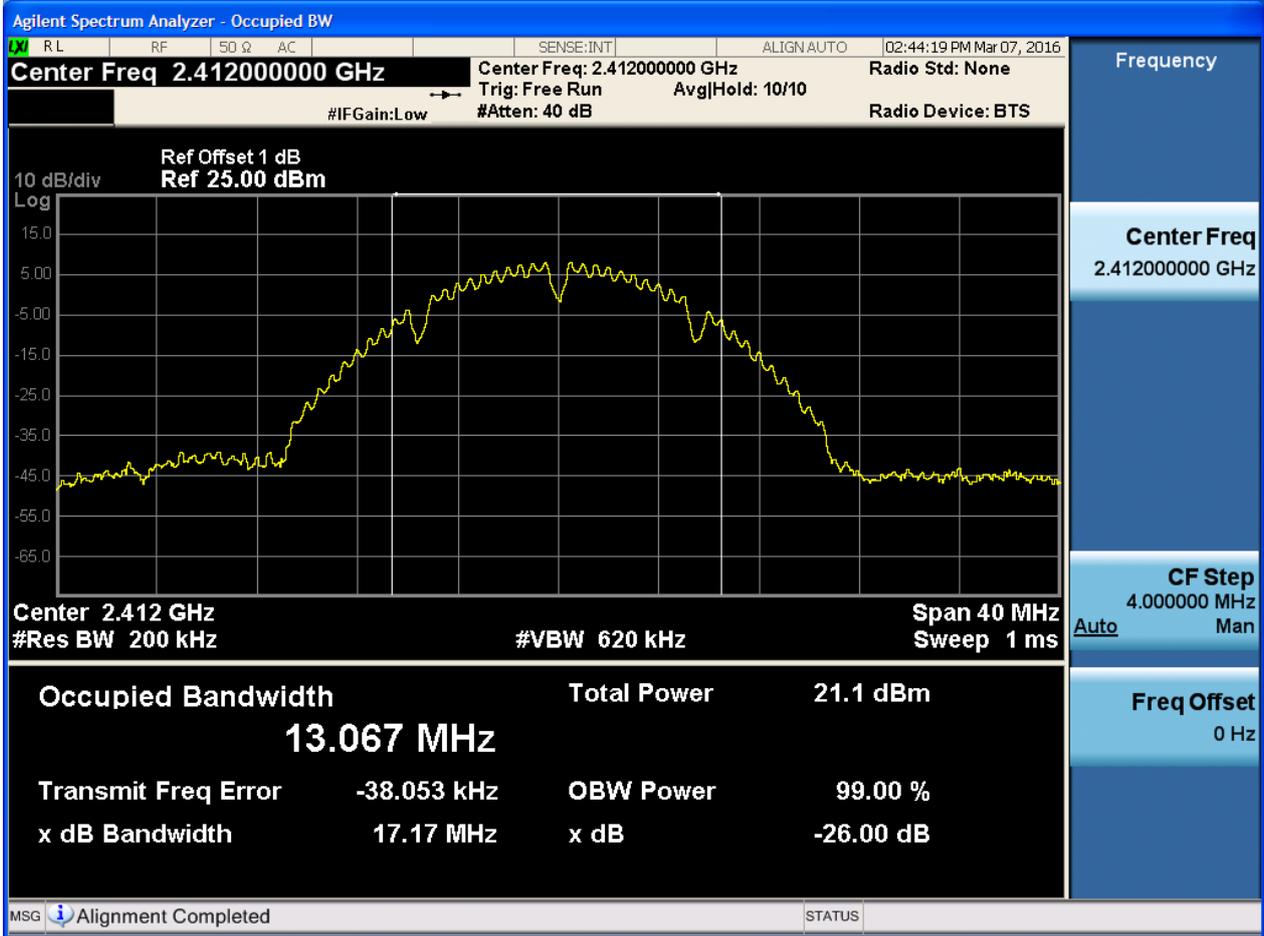
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| Test Mode | Test Channel | Frequency[MHz] | Ant   | Occupied Bandwidth [MHz] | Verdict |
|-----------|--------------|----------------|-------|--------------------------|---------|
| 11N40m    | M            | 2437           | Ant 2 | 35.80                    | pass    |
| 11N40m    | H            | 2452           | Ant 1 | 35.81                    | pass    |
| 11N40m    | H            | 2452           | Ant 2 | 35.79                    | pass    |



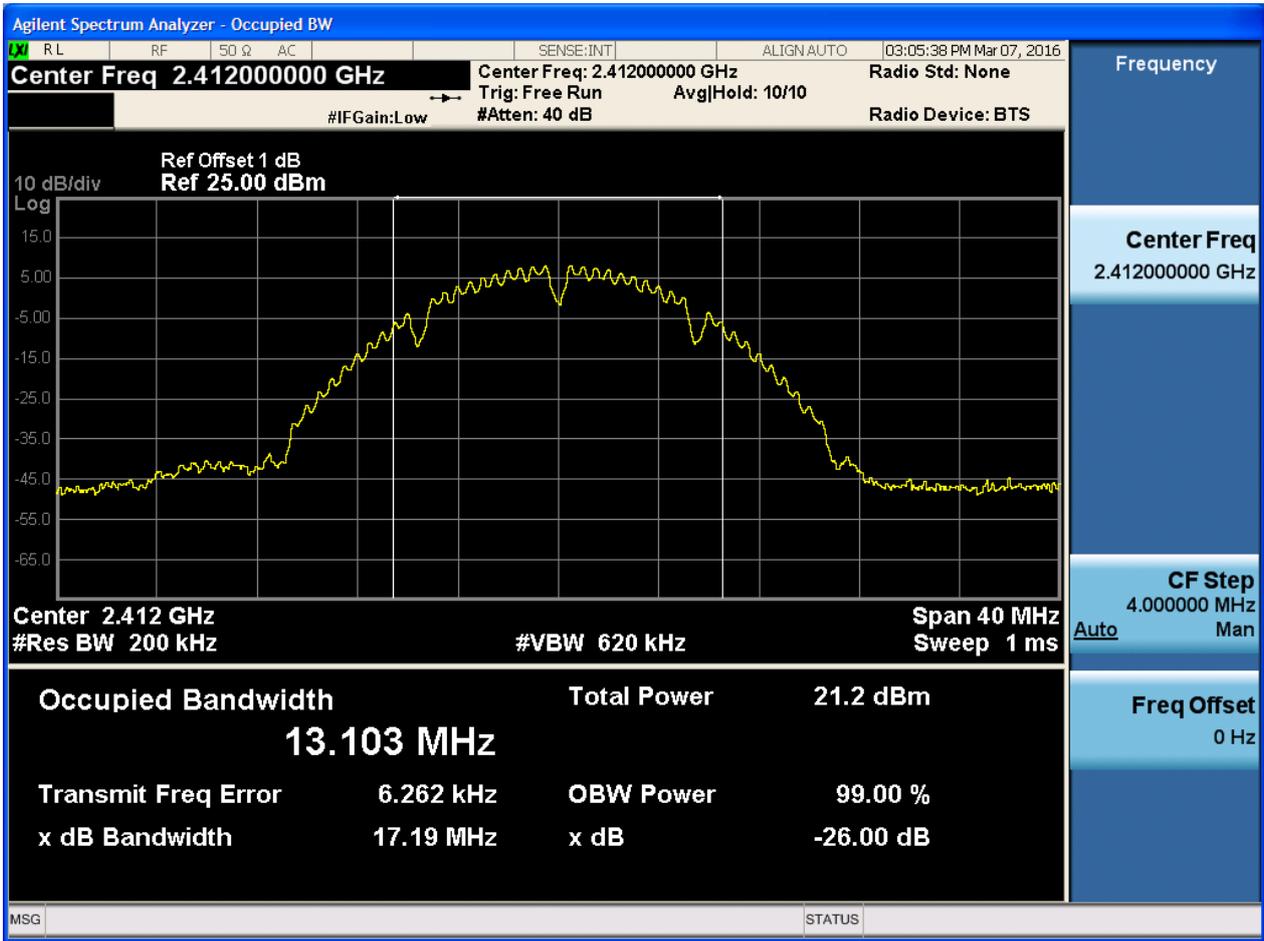
Part II - Test Plots

2.1 11B\_L@Ant 1



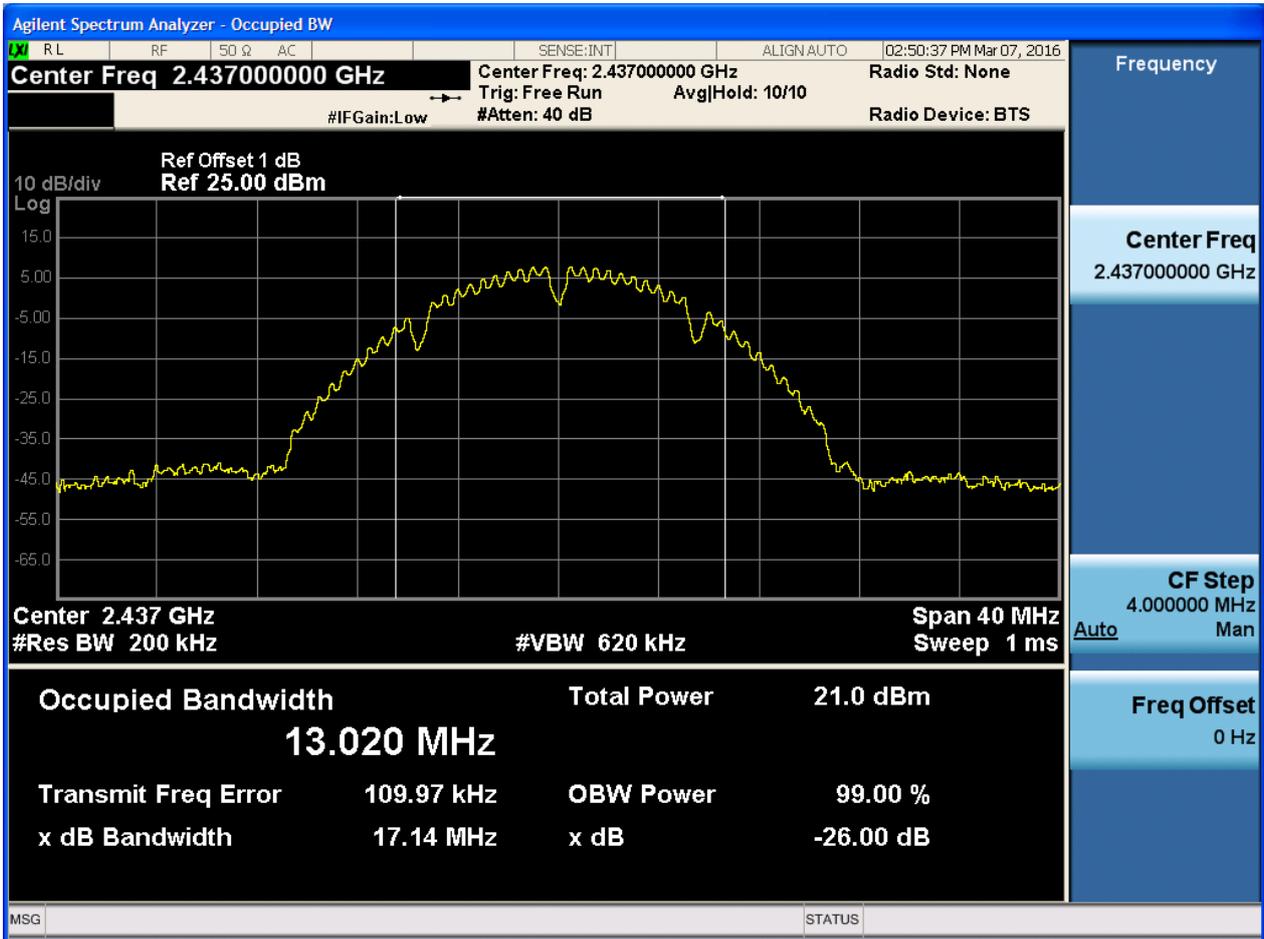


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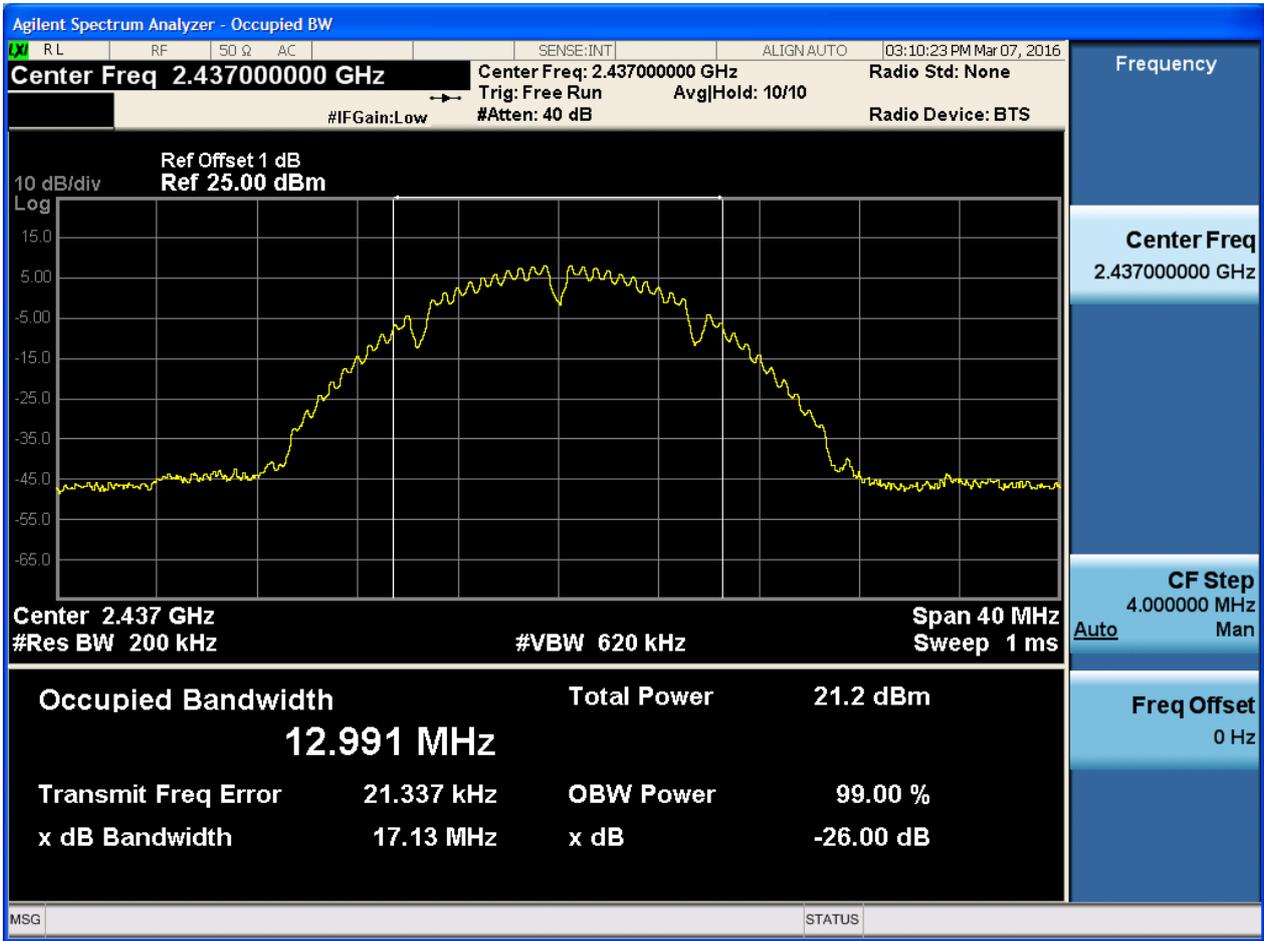


2.3 11B\_M@Ant 1



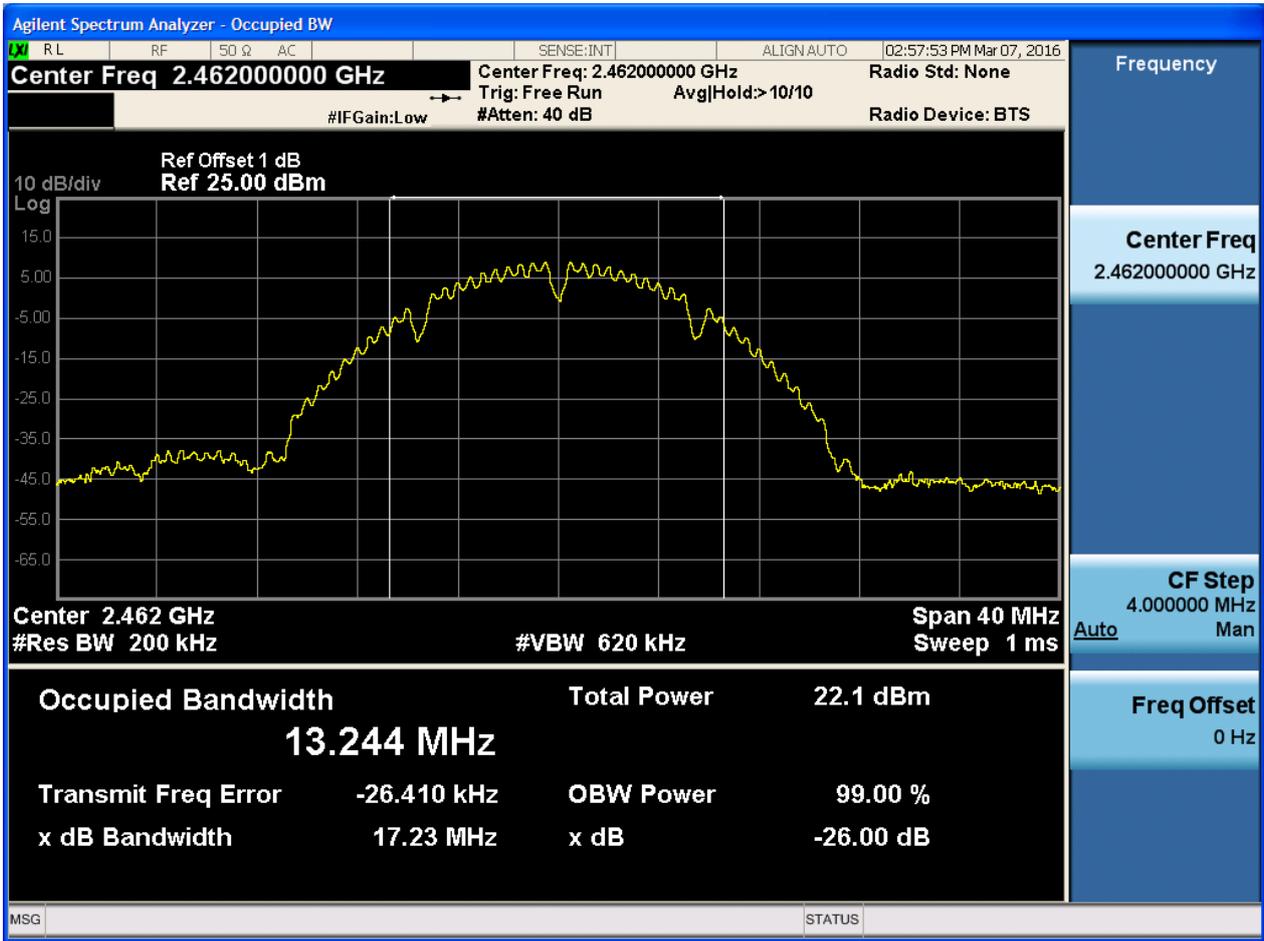


2.4 11B\_M@Ant 2



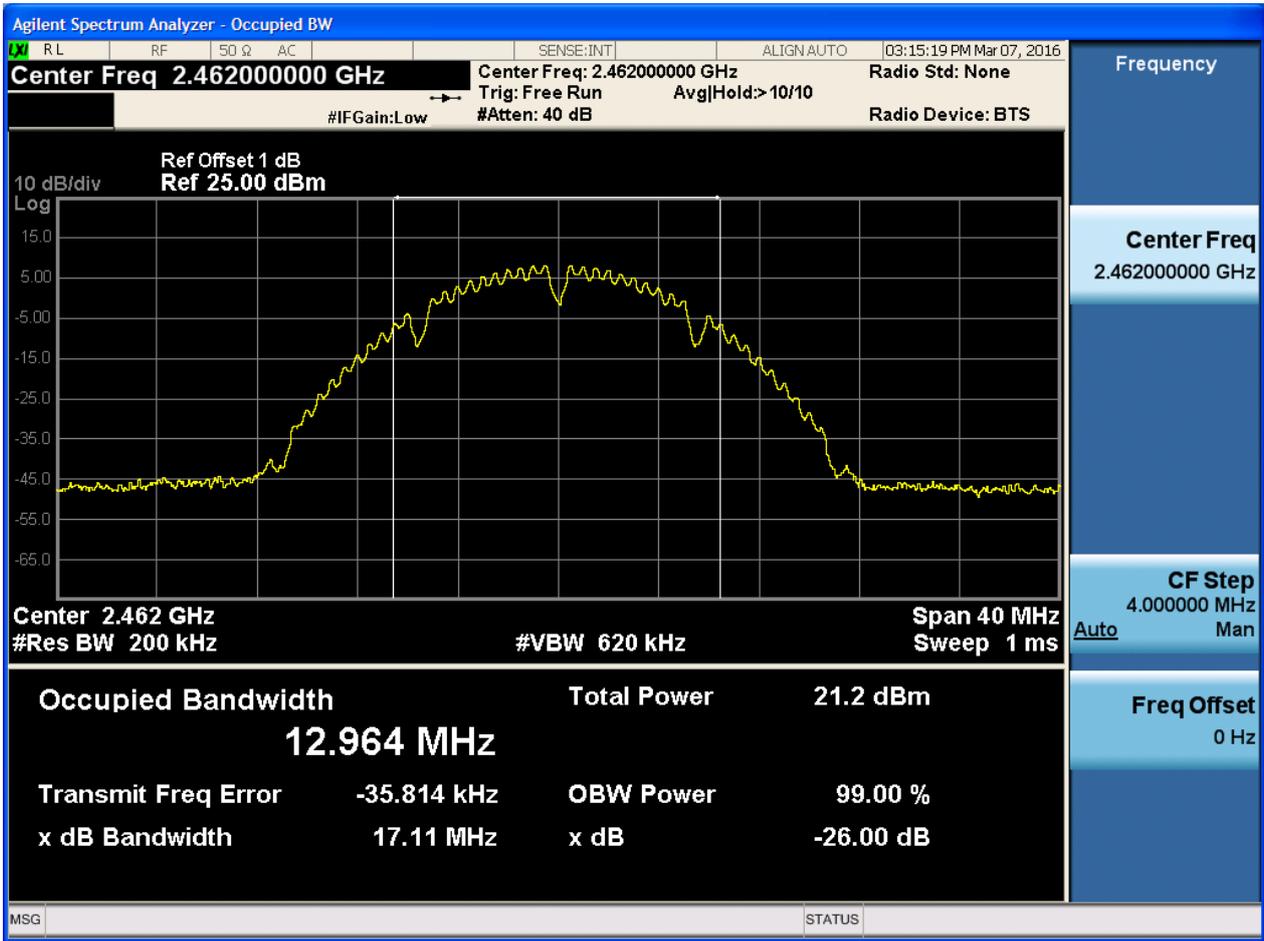


2.5 11B\_H@Ant 1



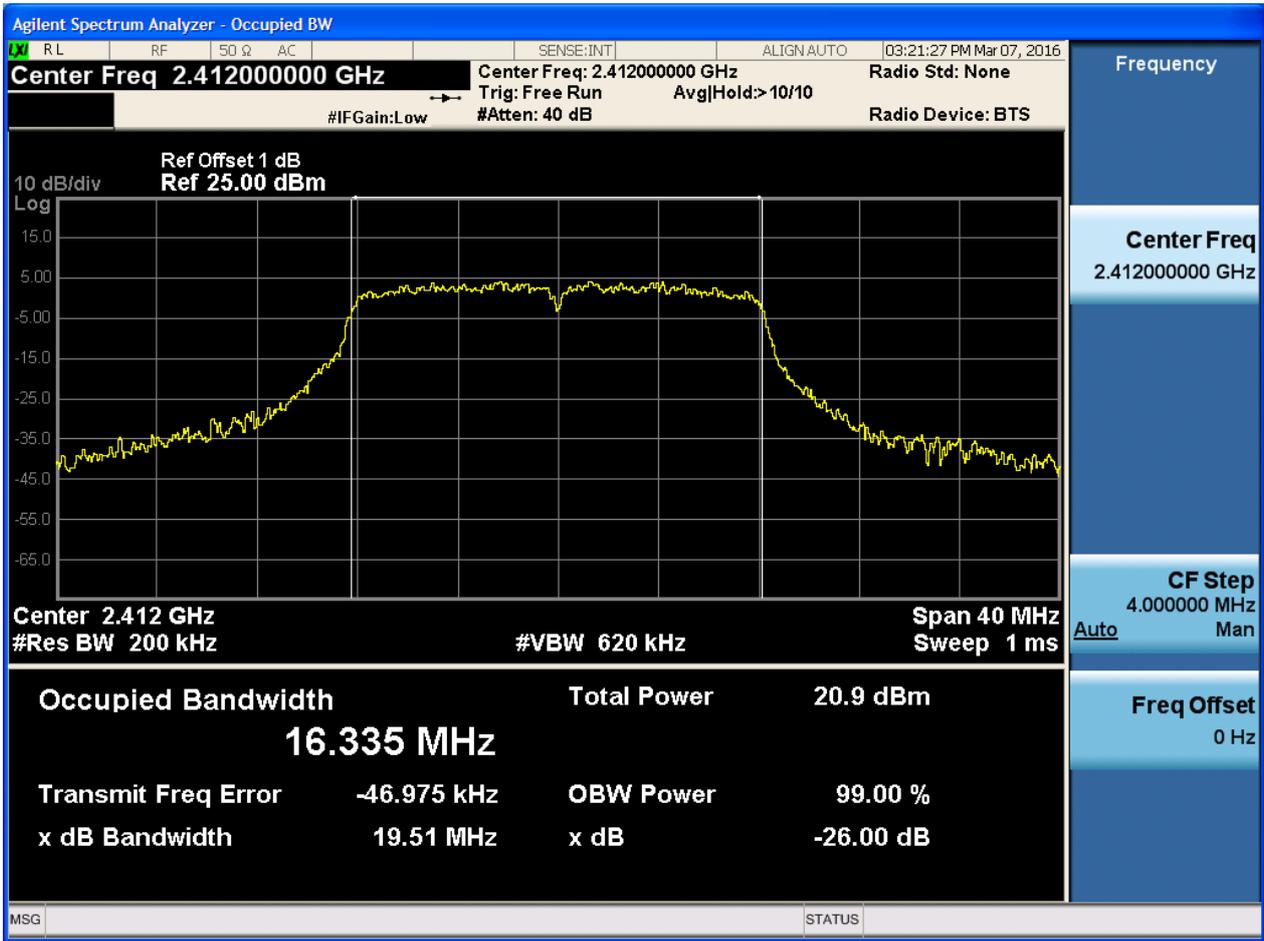


2.6 11B\_H@Ant 2



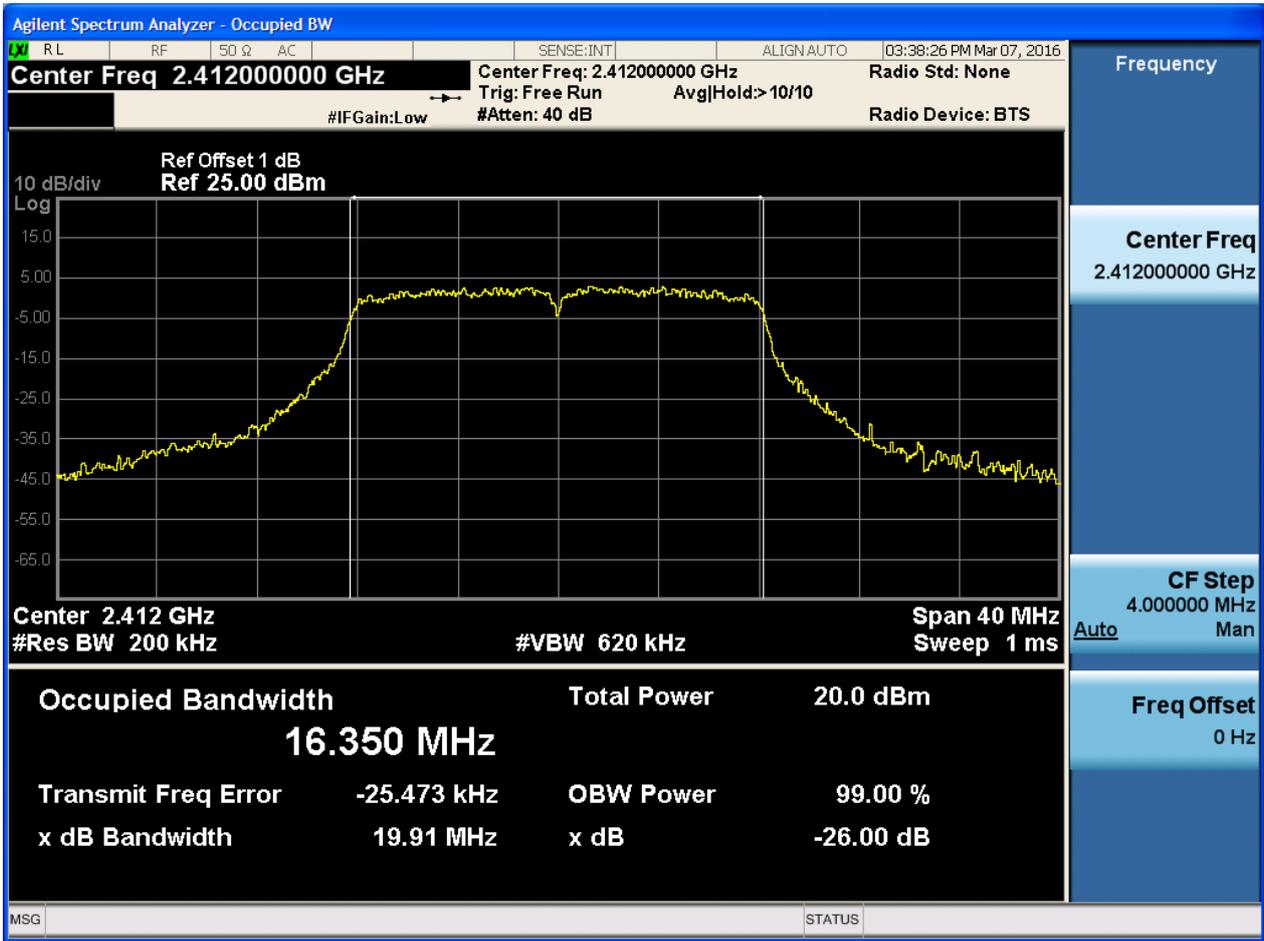


2.7 11G\_L@Ant 1



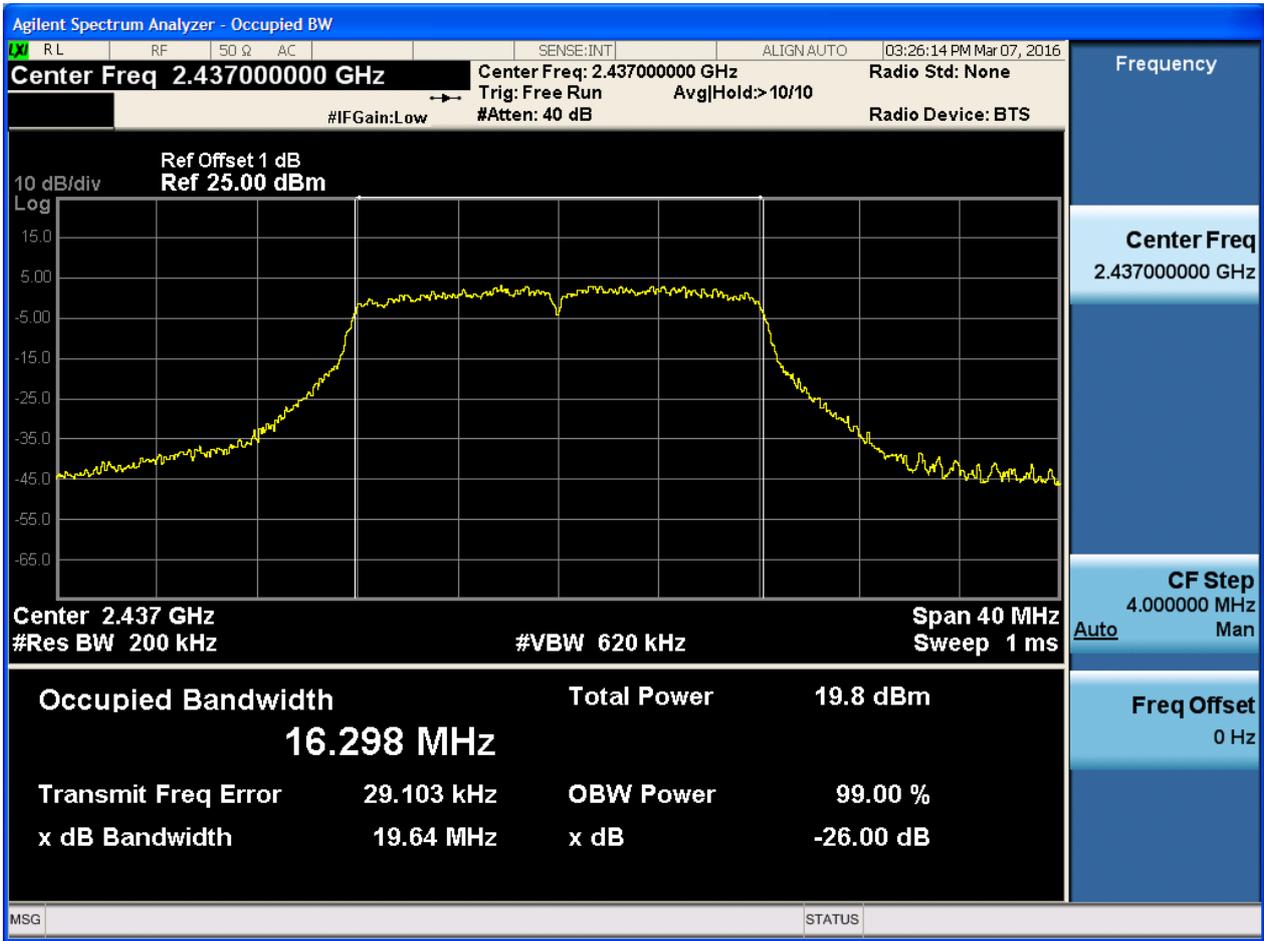


2.8 11G\_L@Ant 2



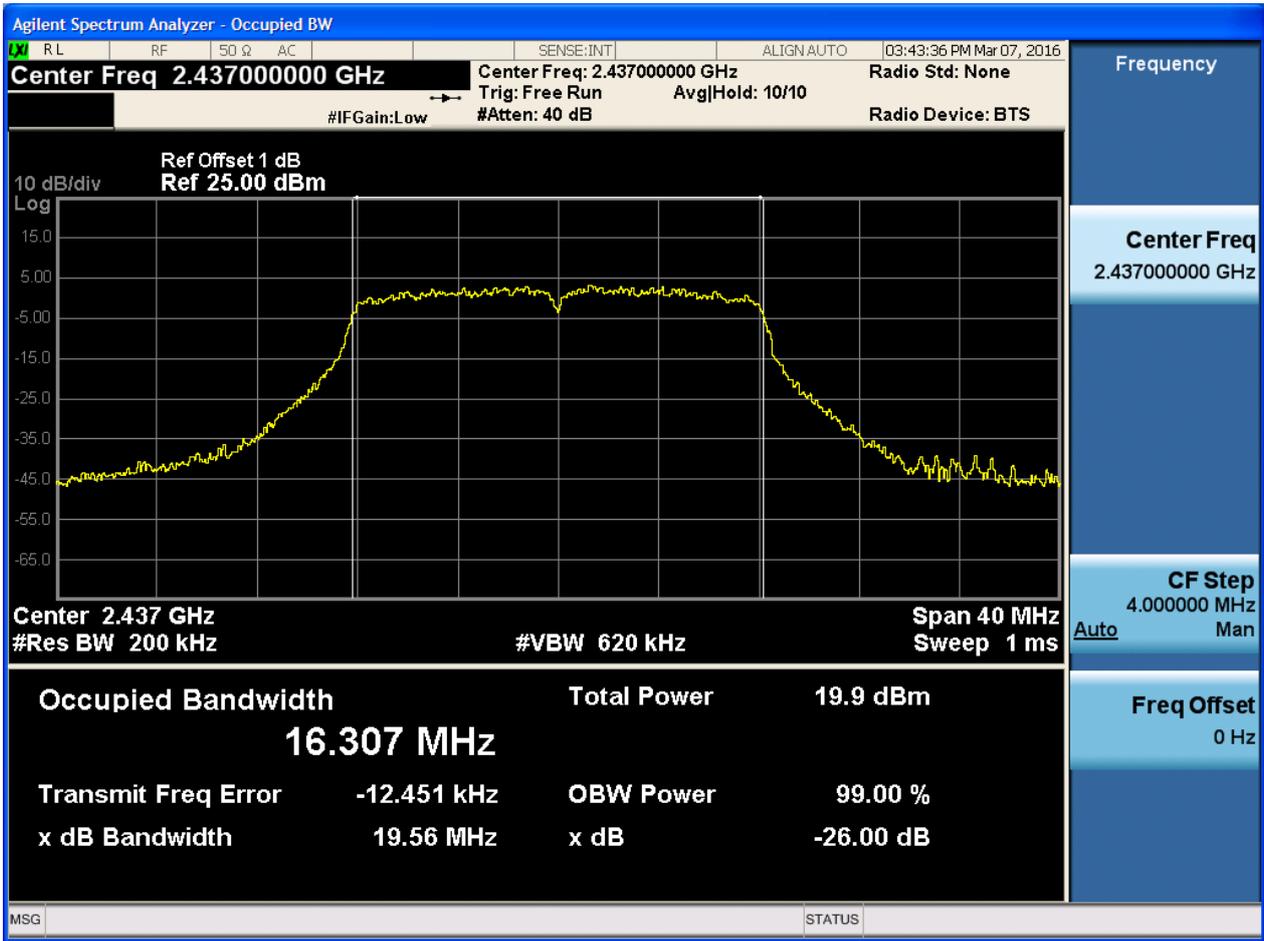


2.9 11G\_M@Ant 1



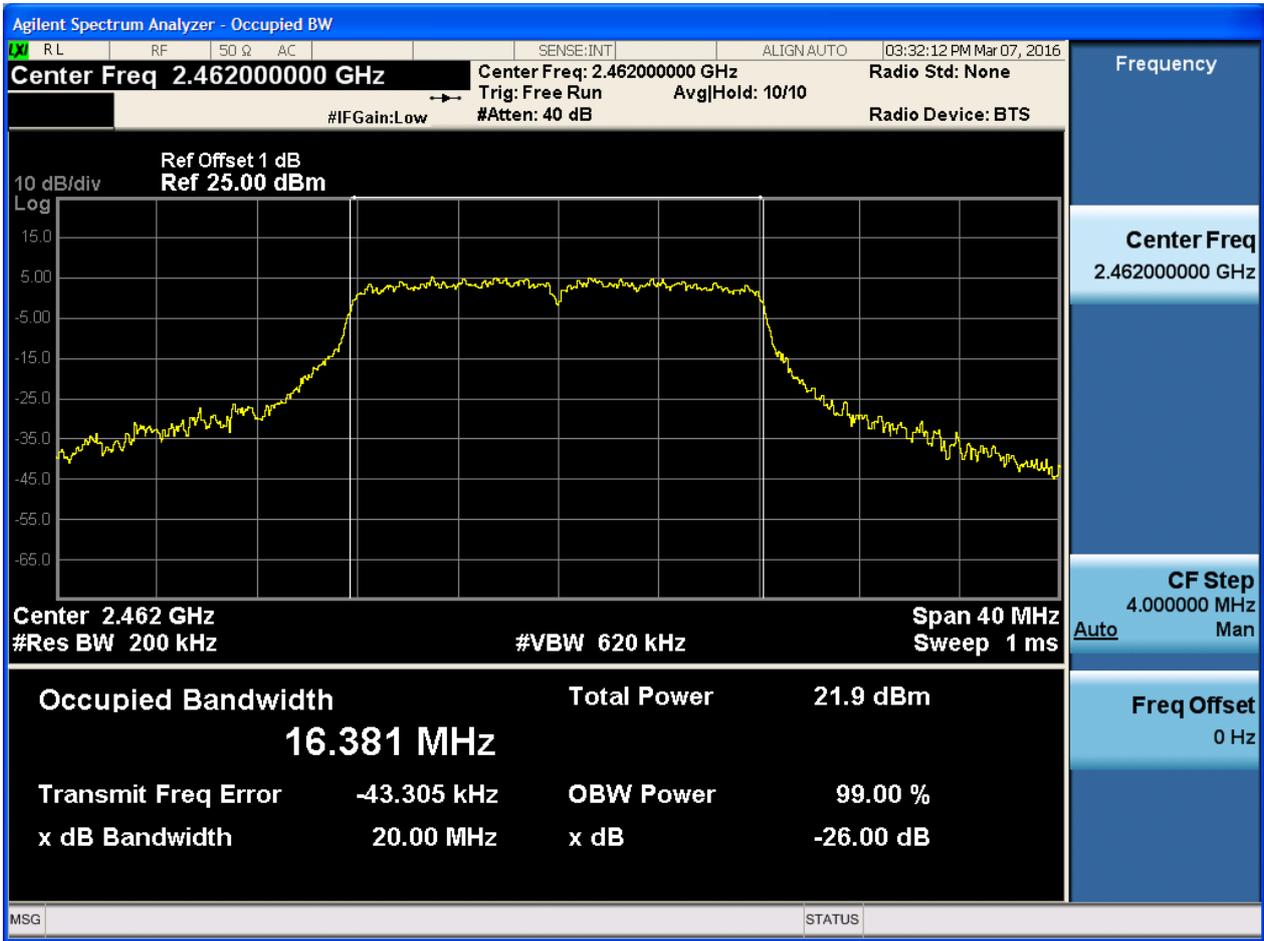


2.10 11G\_M@Ant 2



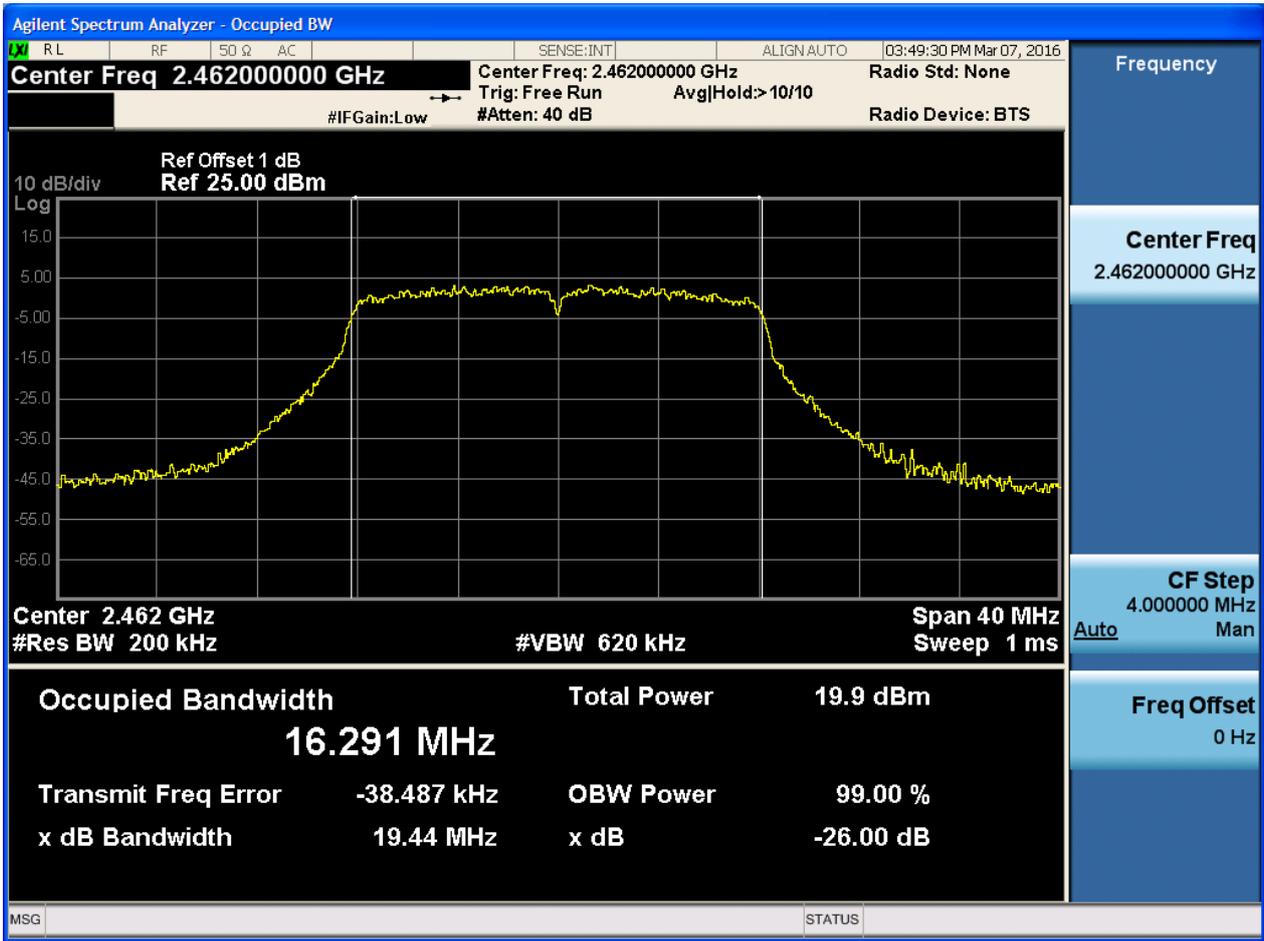


2.11 11G\_H@Ant 1



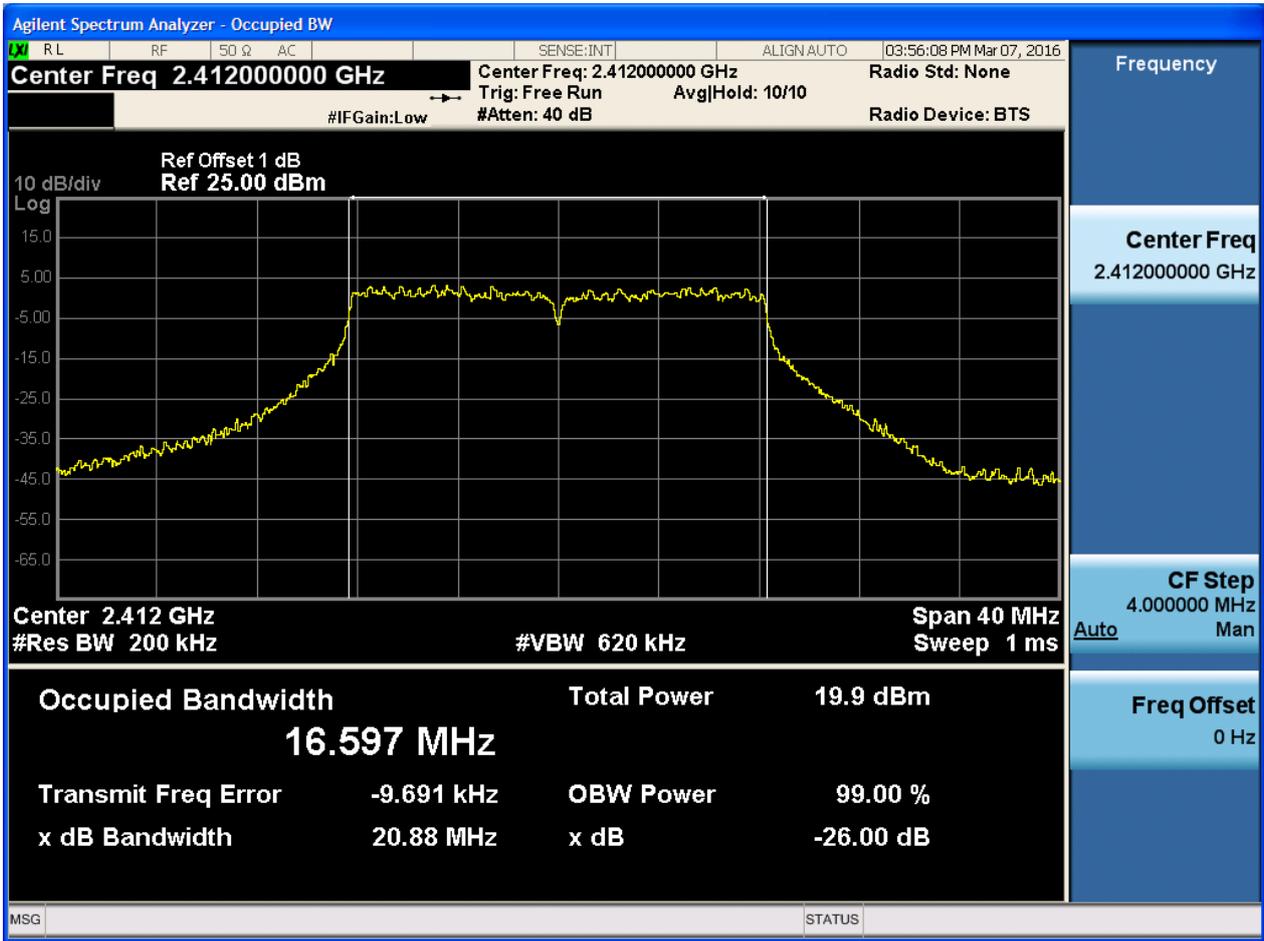


2.12 11G\_H@Ant 2



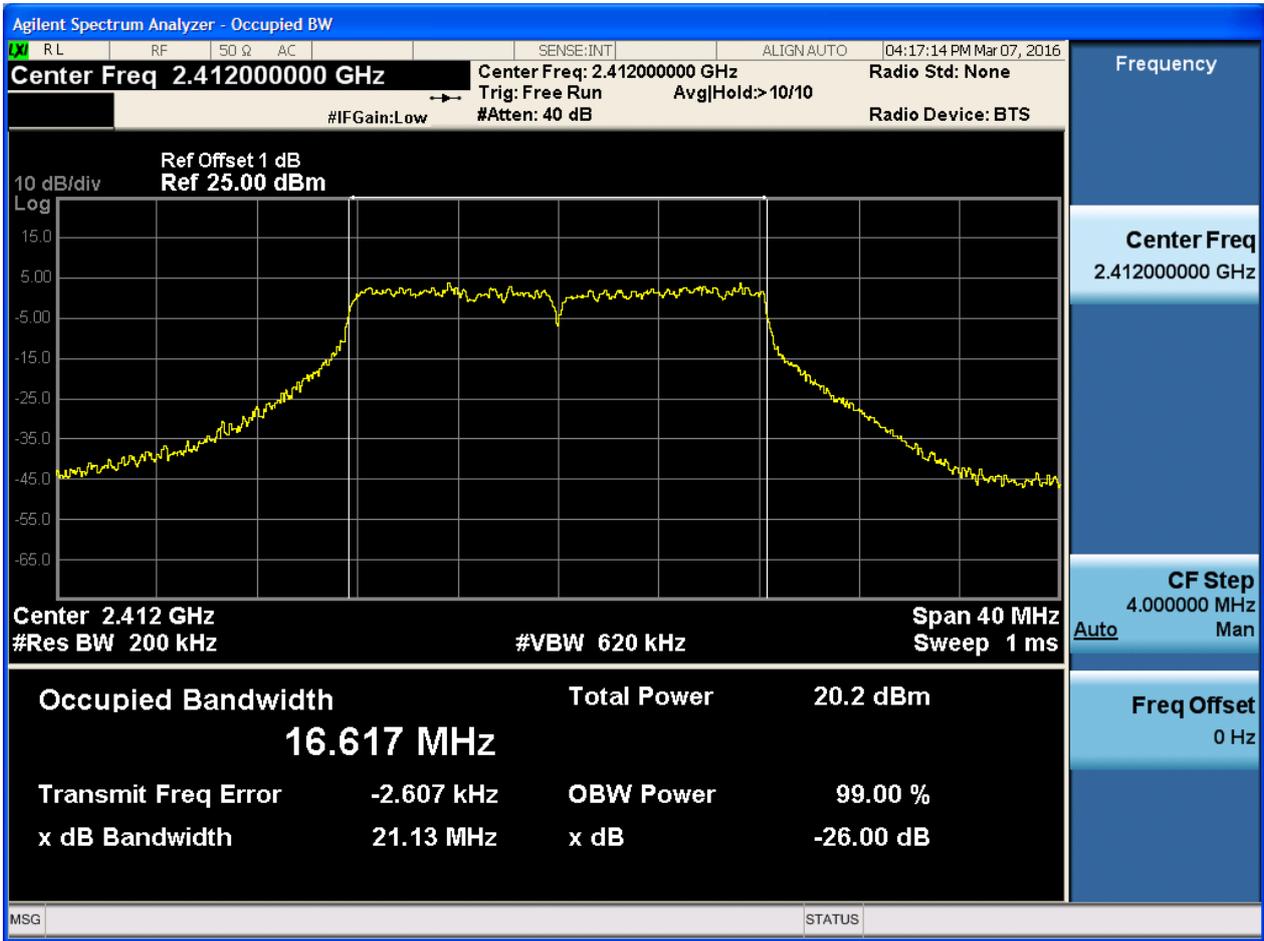


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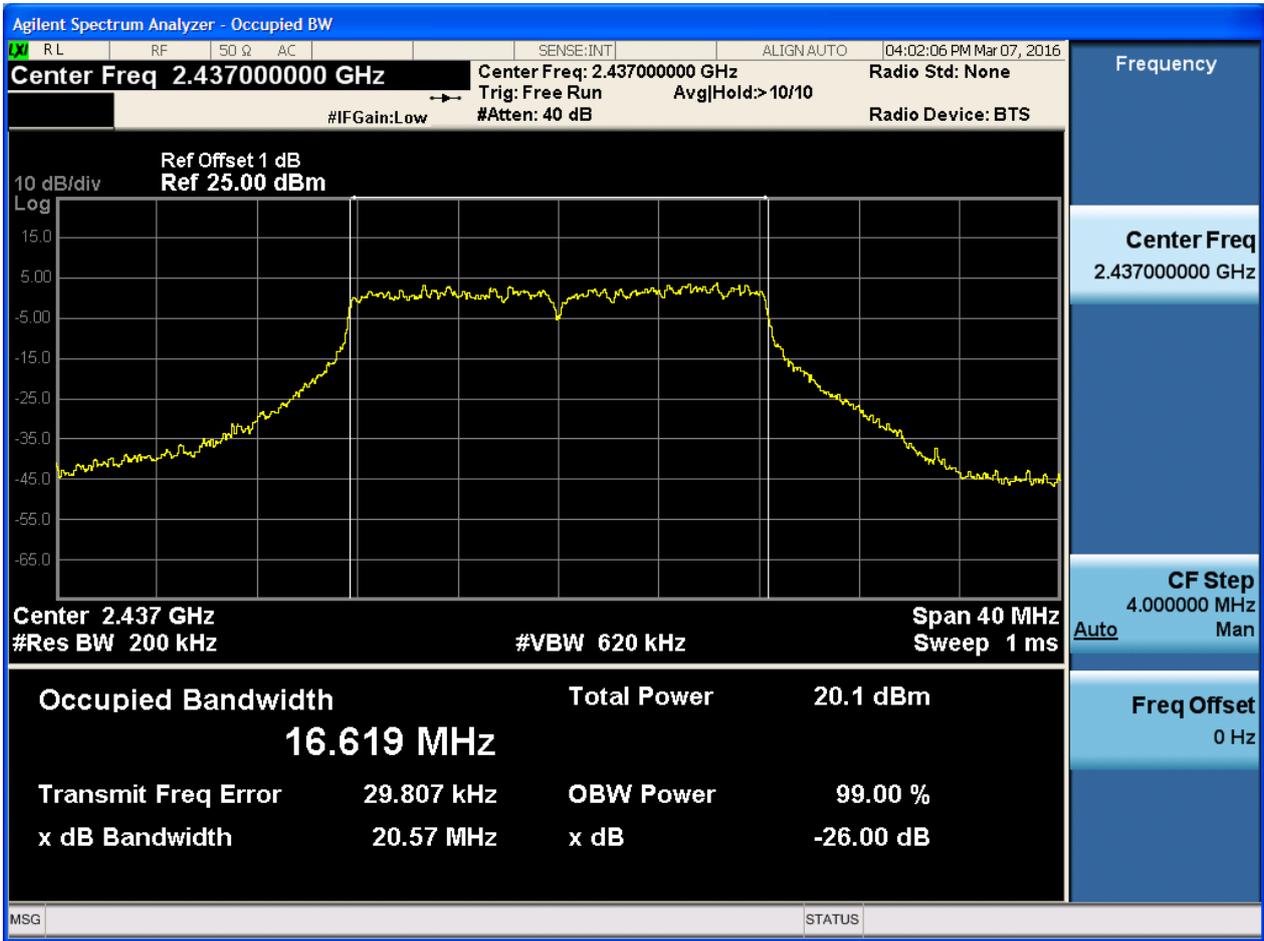


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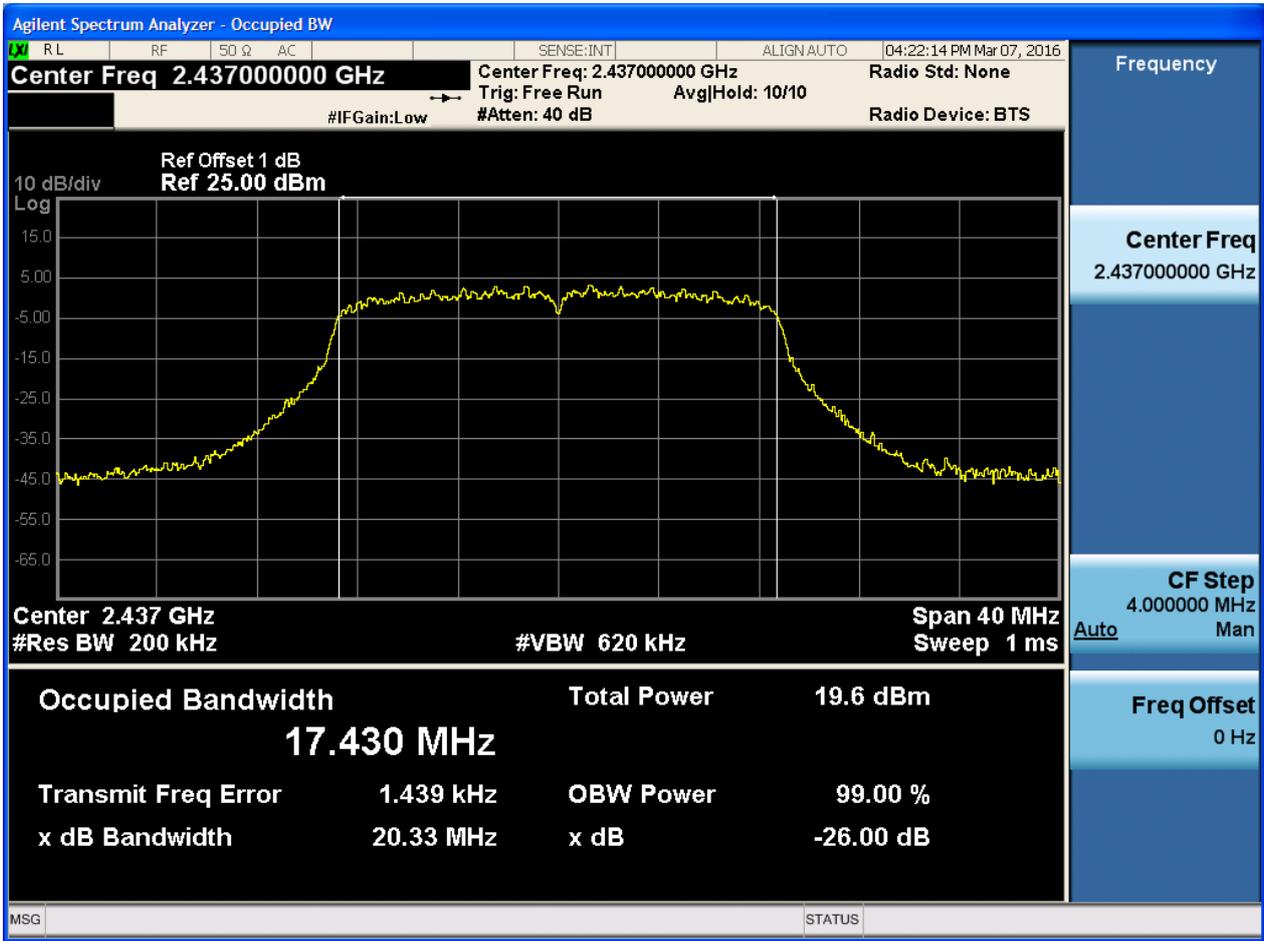


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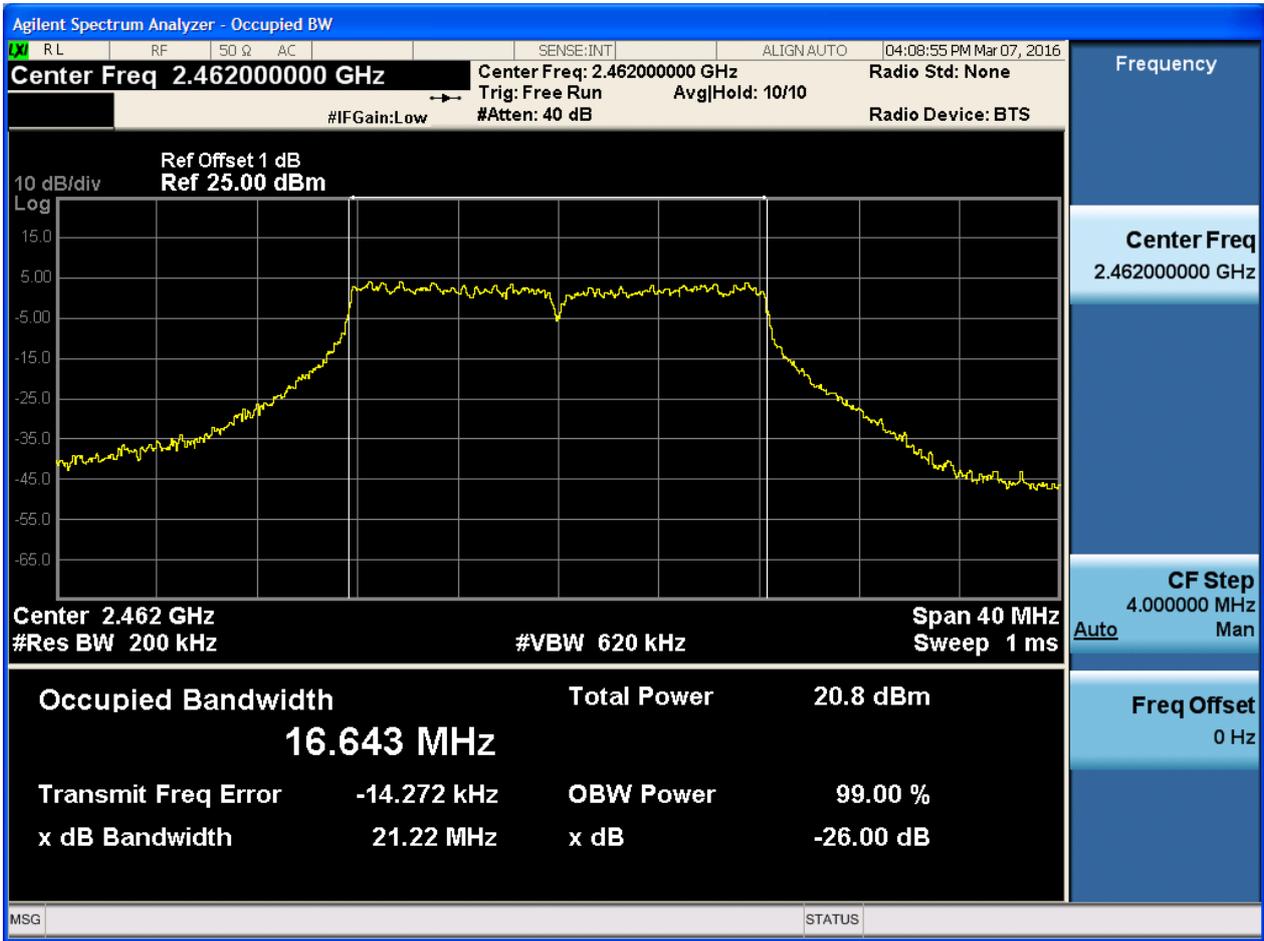


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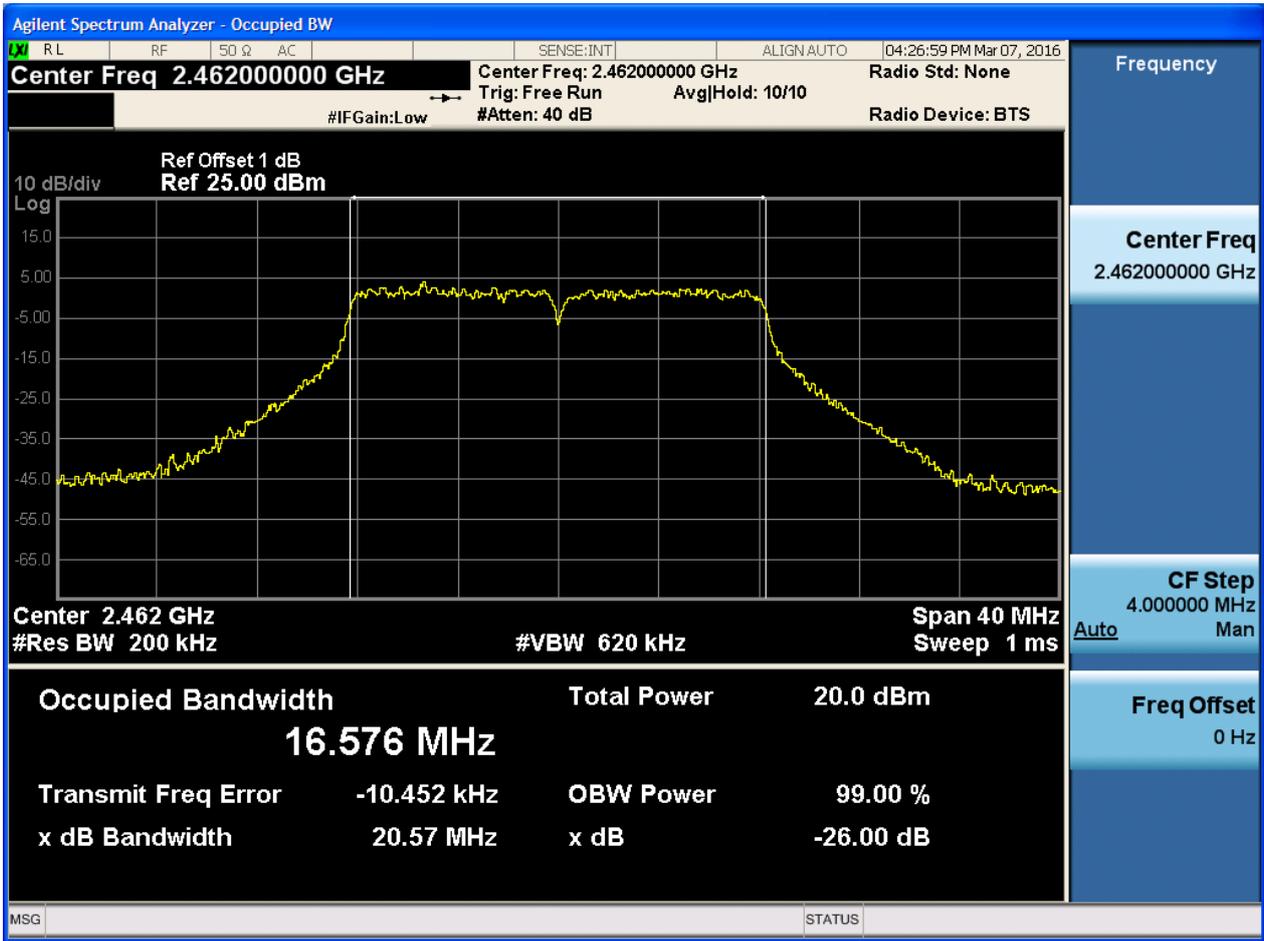


2.17 11N20\_H@Ant 1



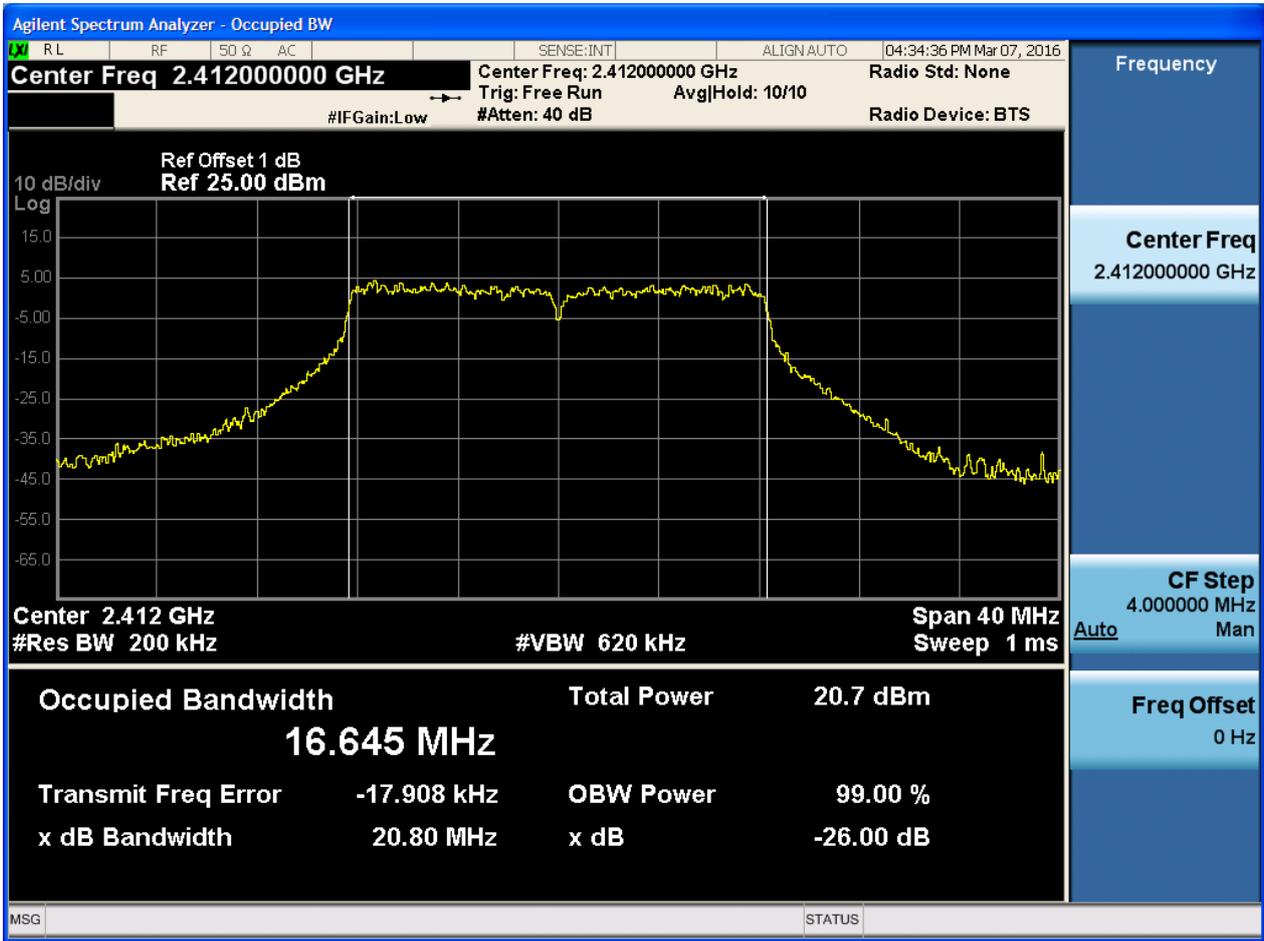


2.18 11N20\_H@Ant 2



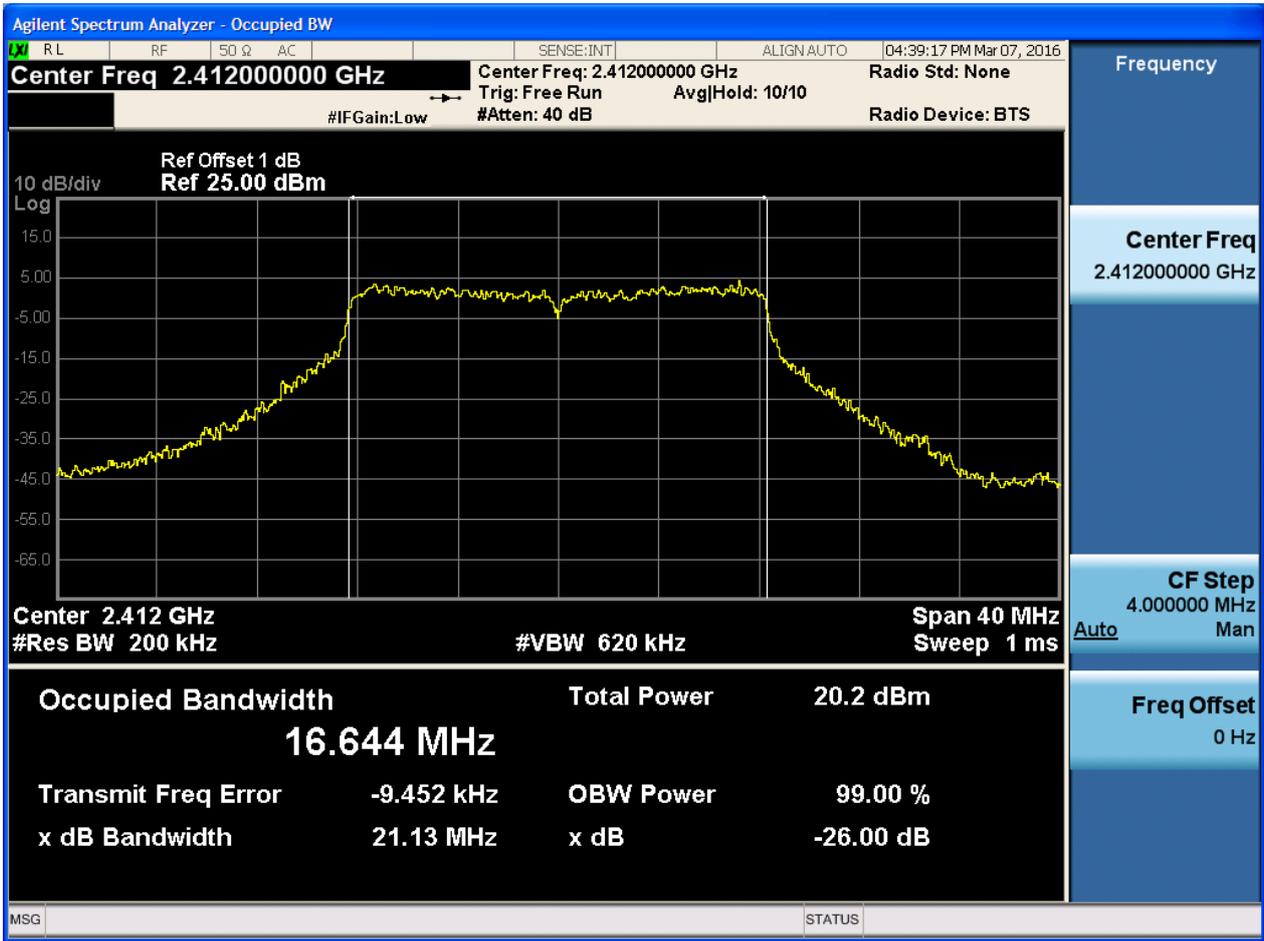


2.13 11N20m\_L@Ant 1



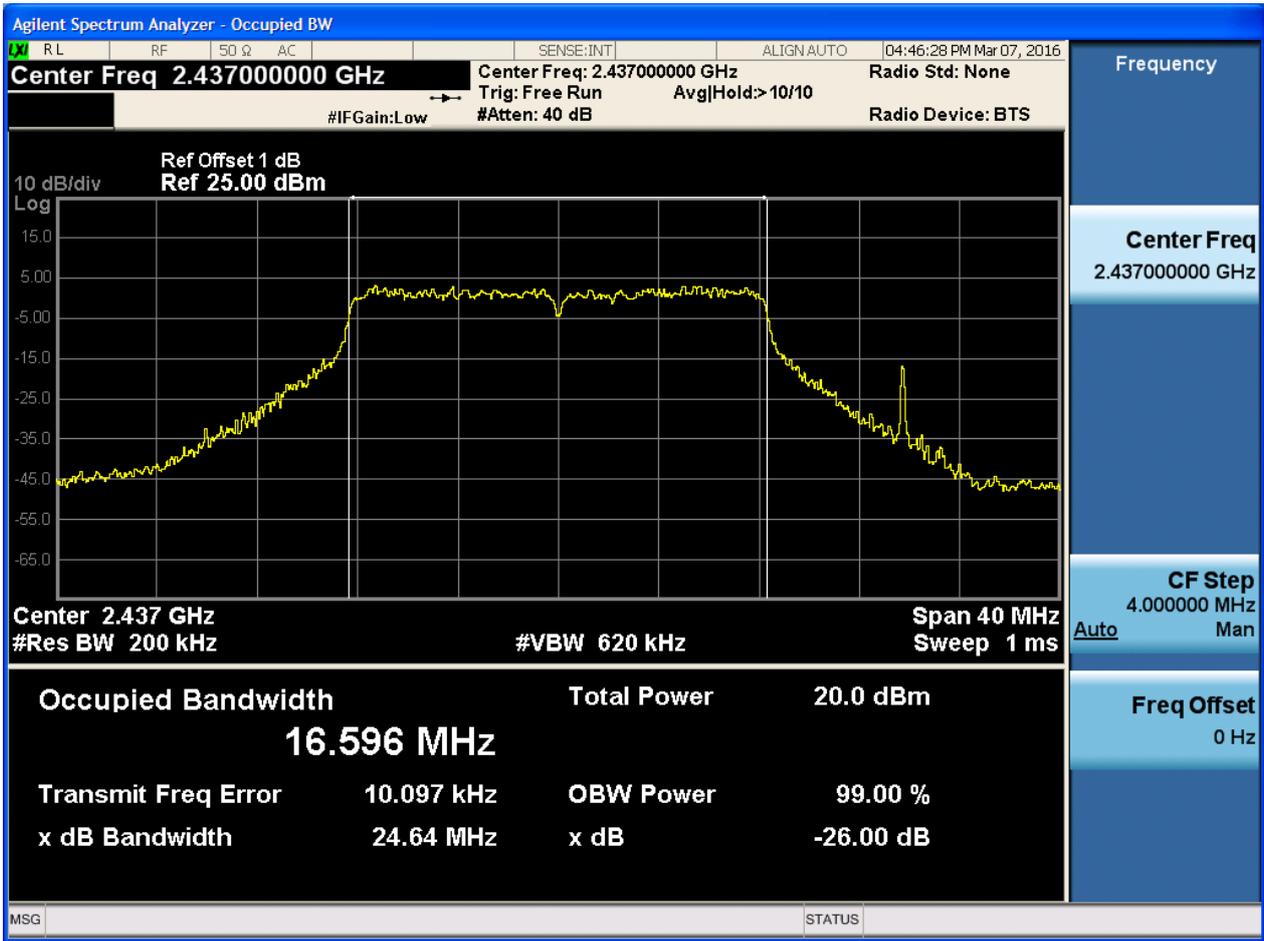


2.14 11N20m\_L@Ant 2



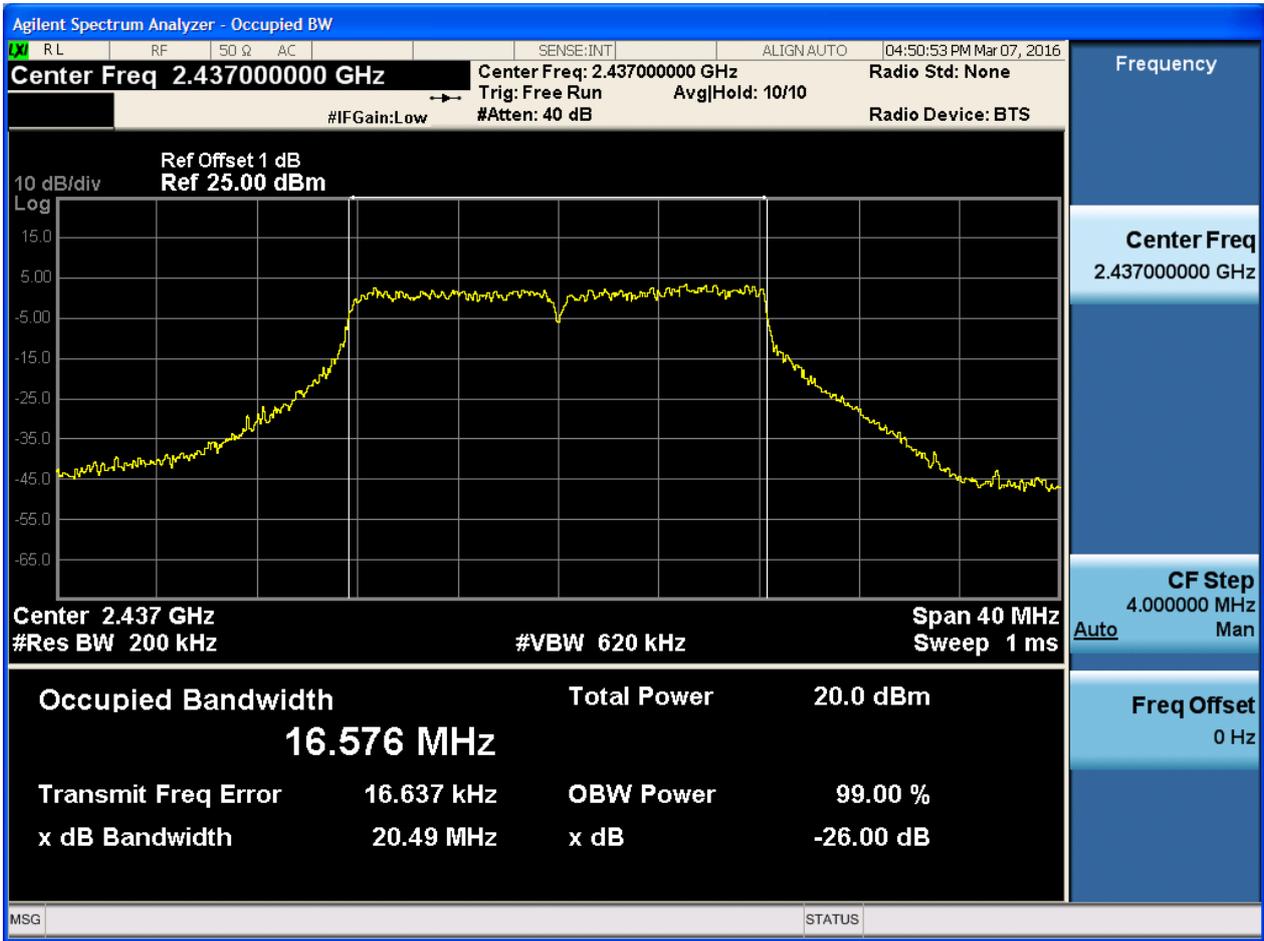


2.16 11N20m\_M@Ant 2



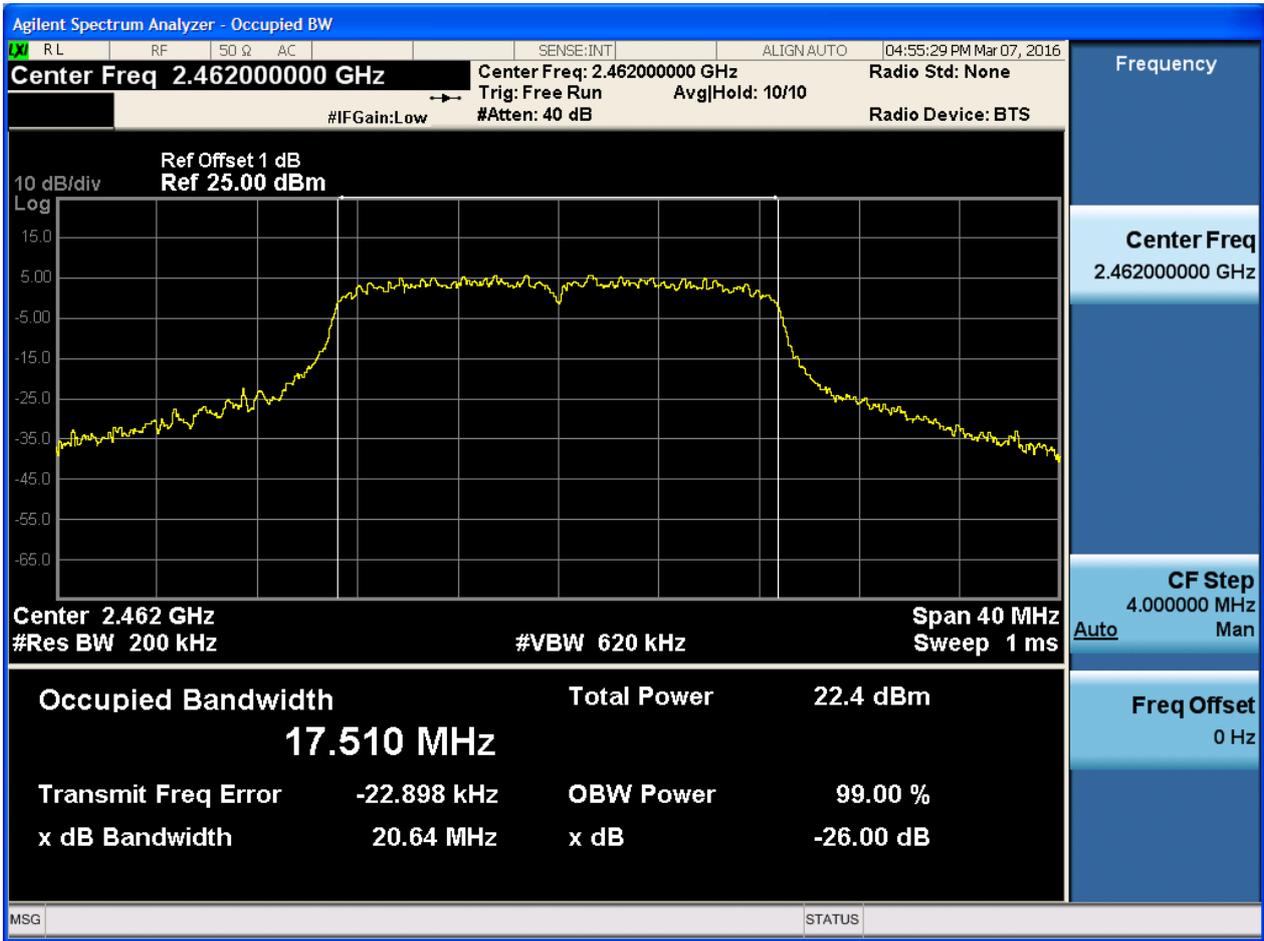


2.15 11N20m\_M@Ant 1



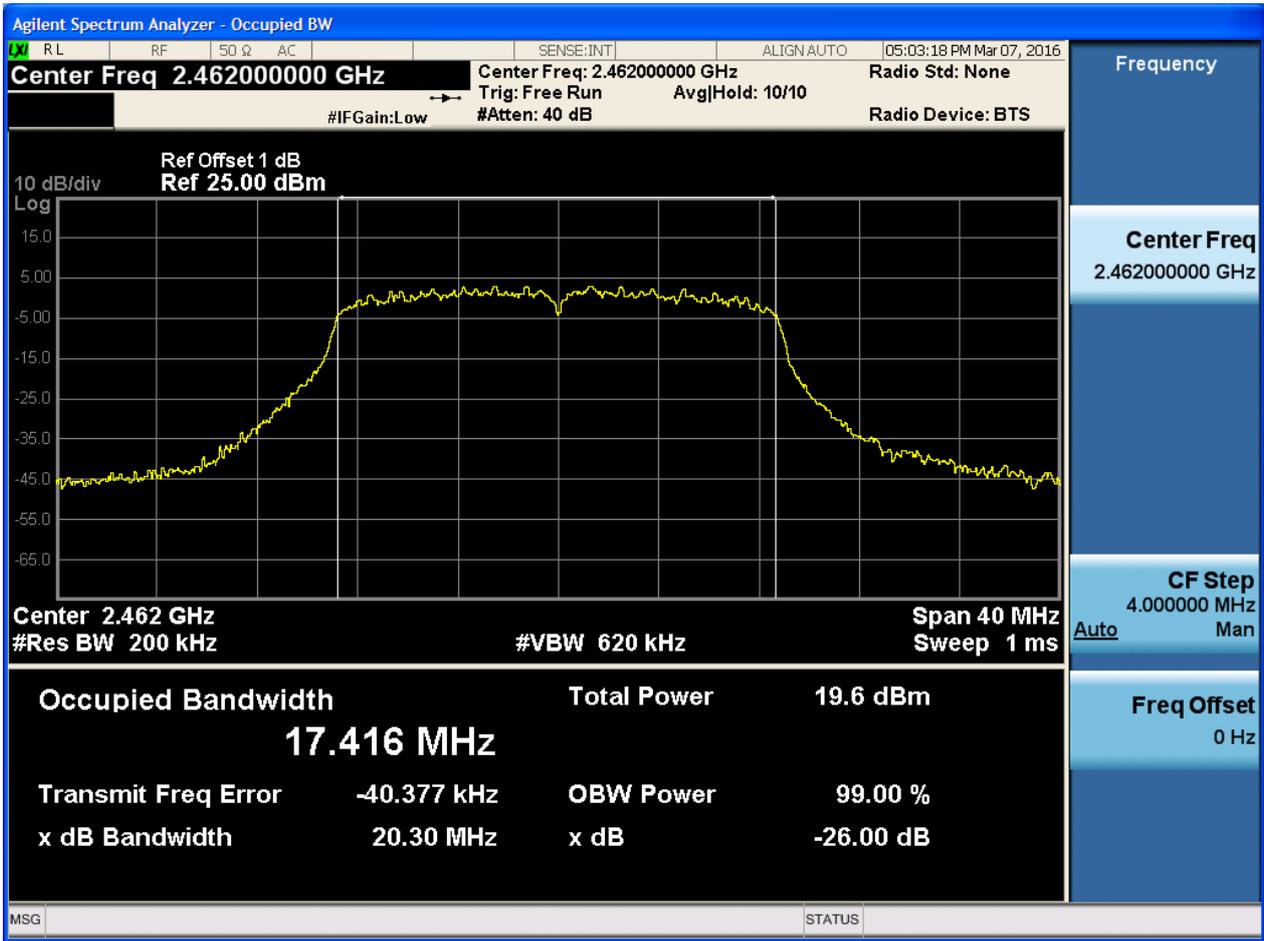


2.17 11N20m\_H@Ant 1



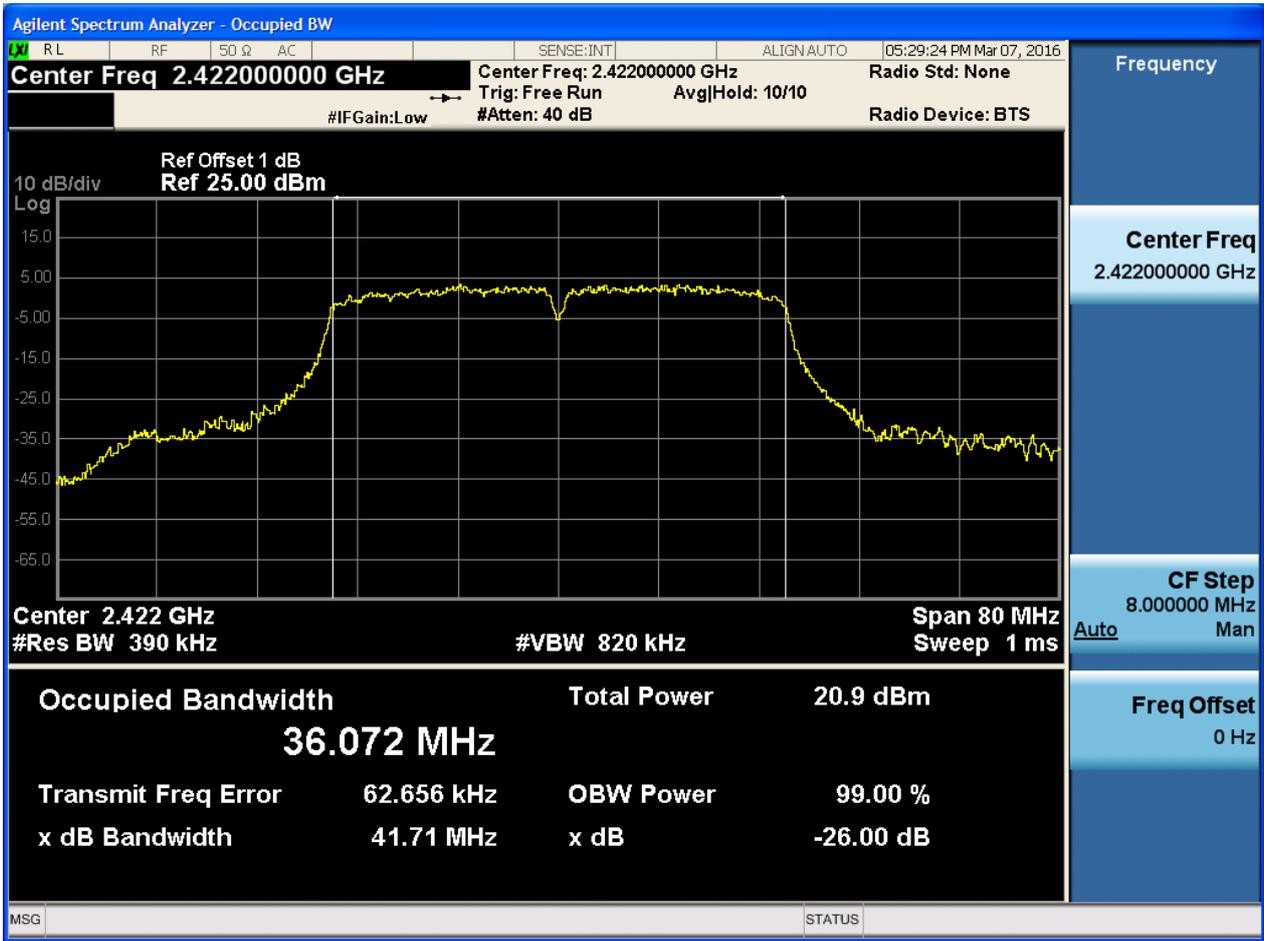


2.18 11N20m\_H@Ant 2



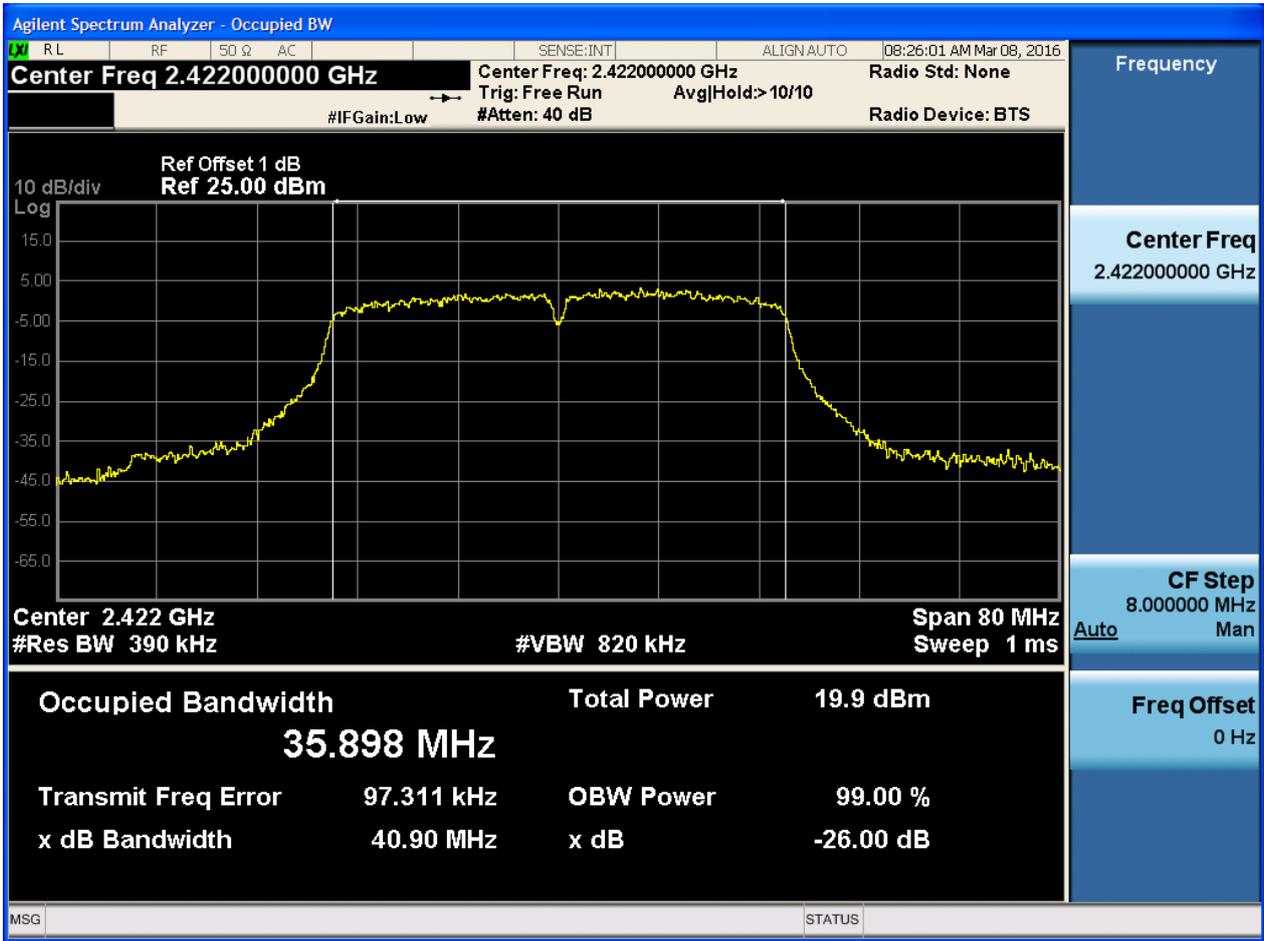


2.19 11N40\_L@Ant 1



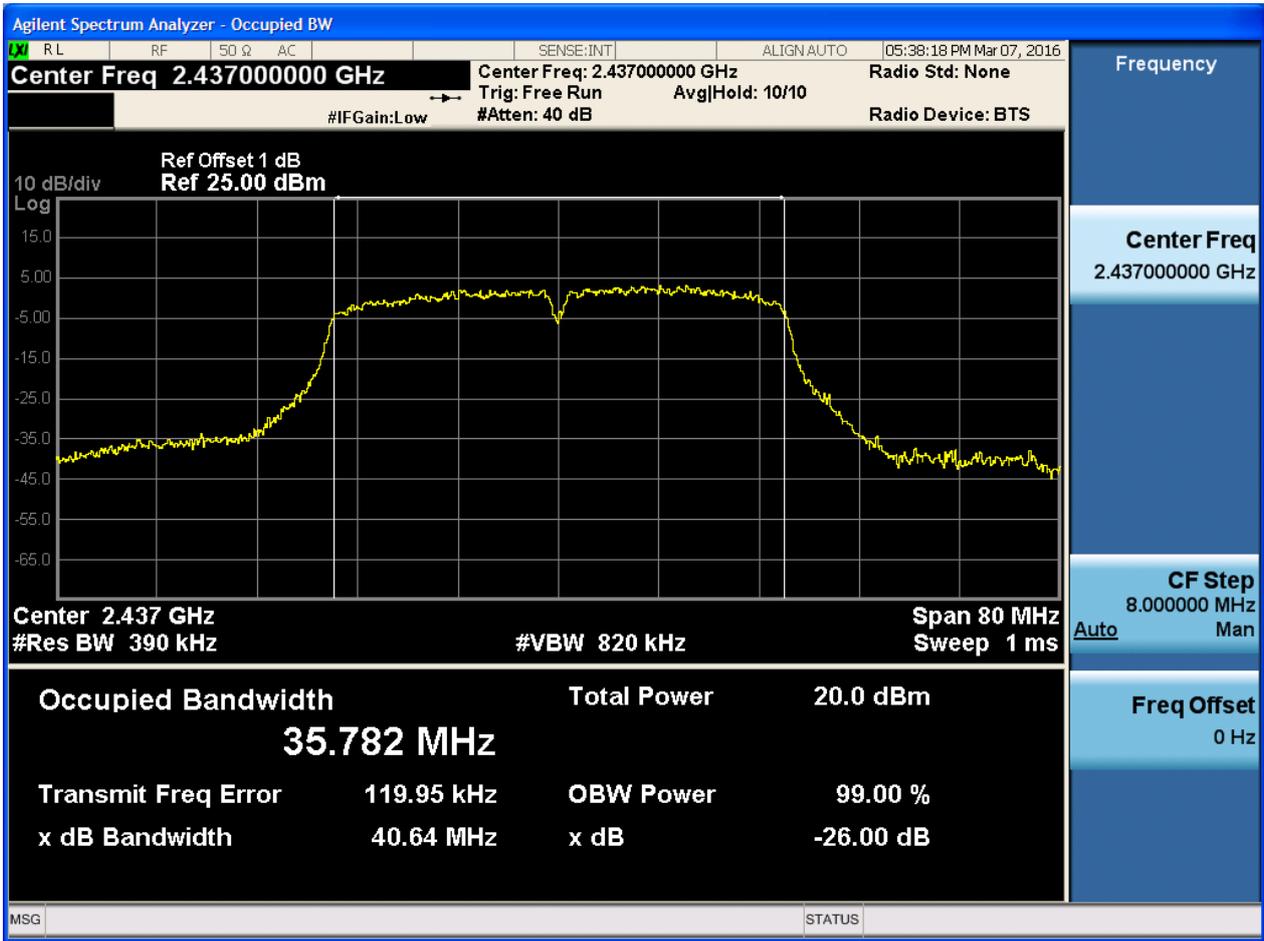


2.20 11N40\_L@Ant 2



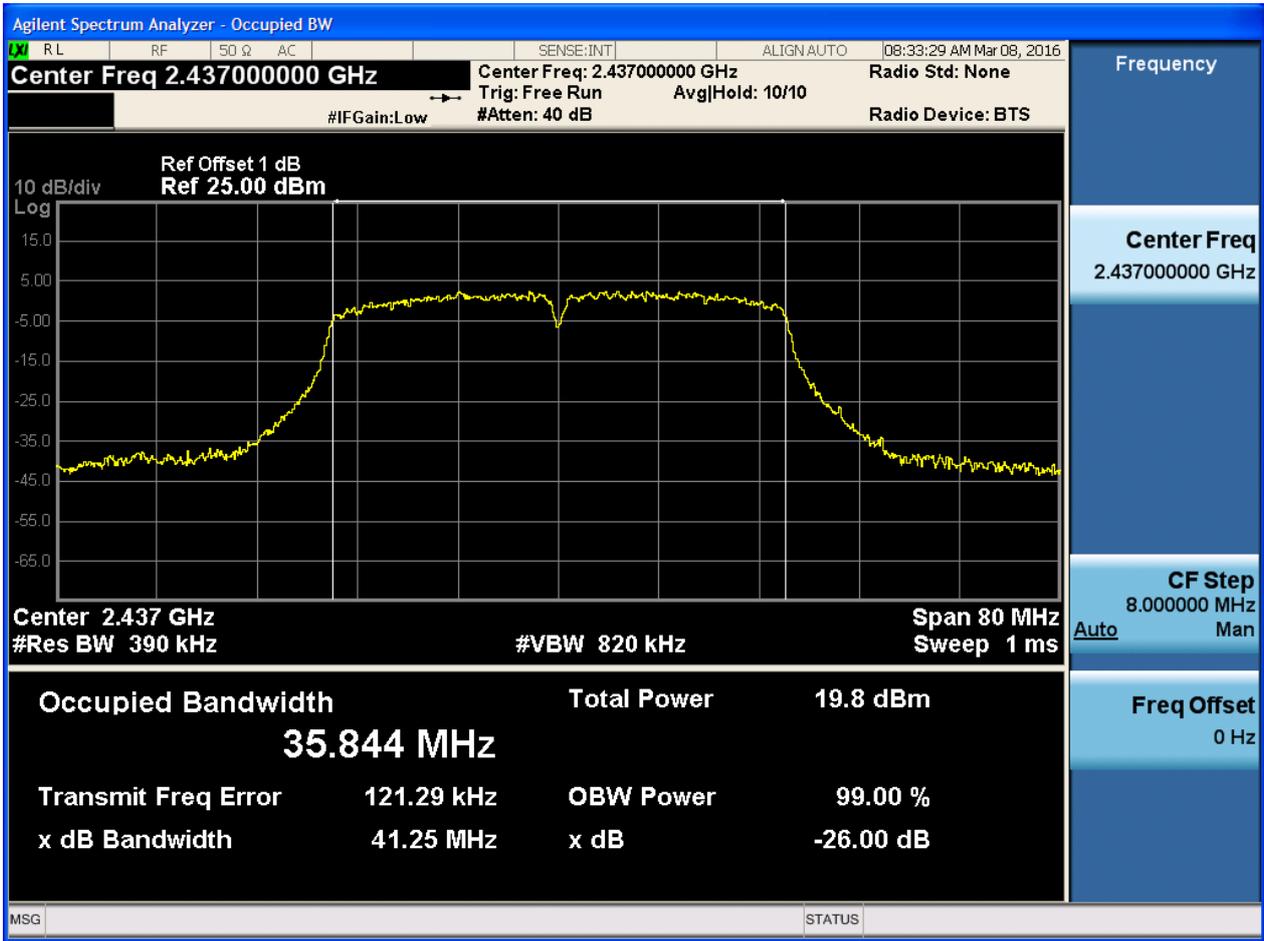


2.21 11N40\_M@Ant 1



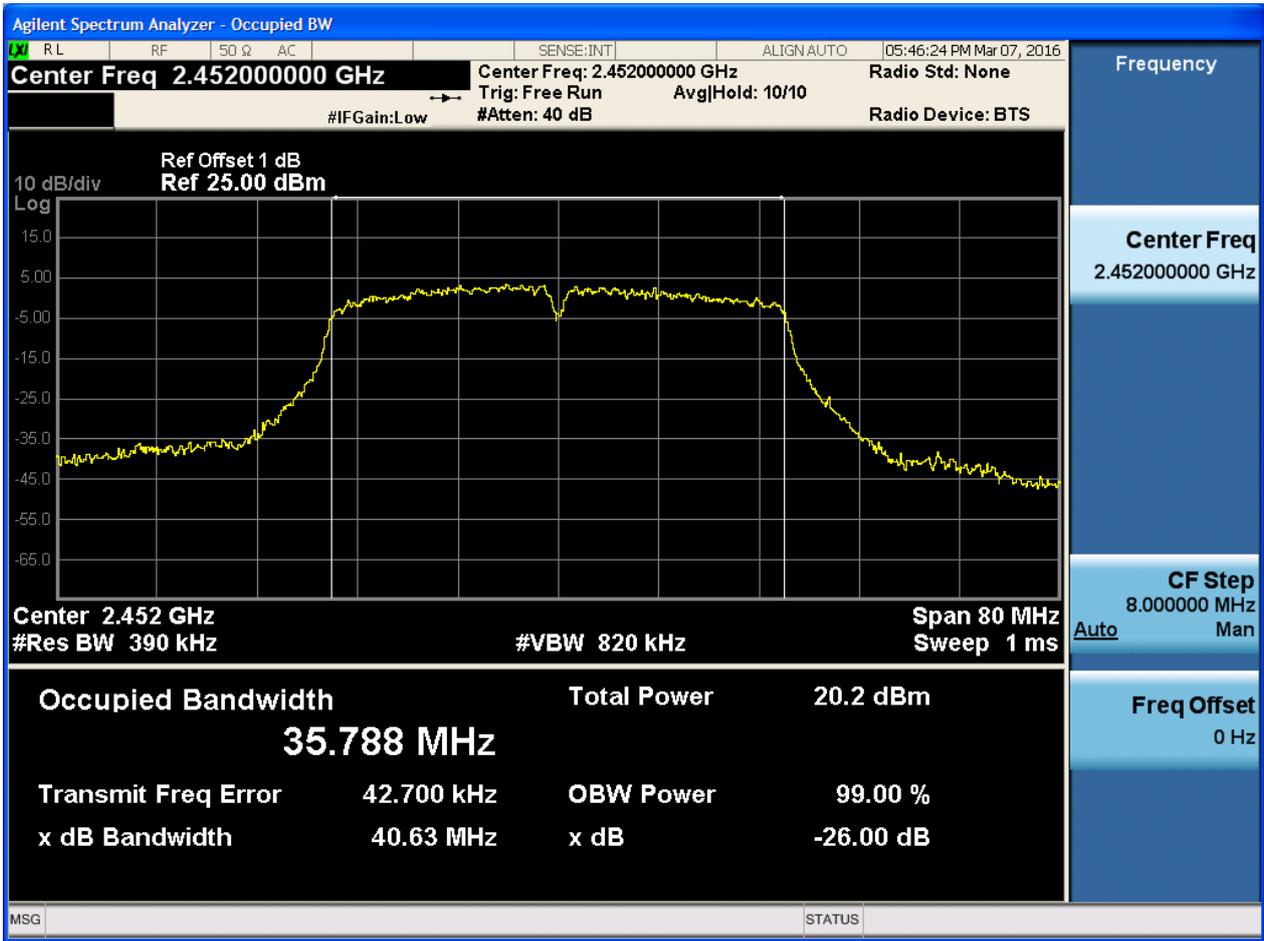


2.22 11N40\_M@Ant 2



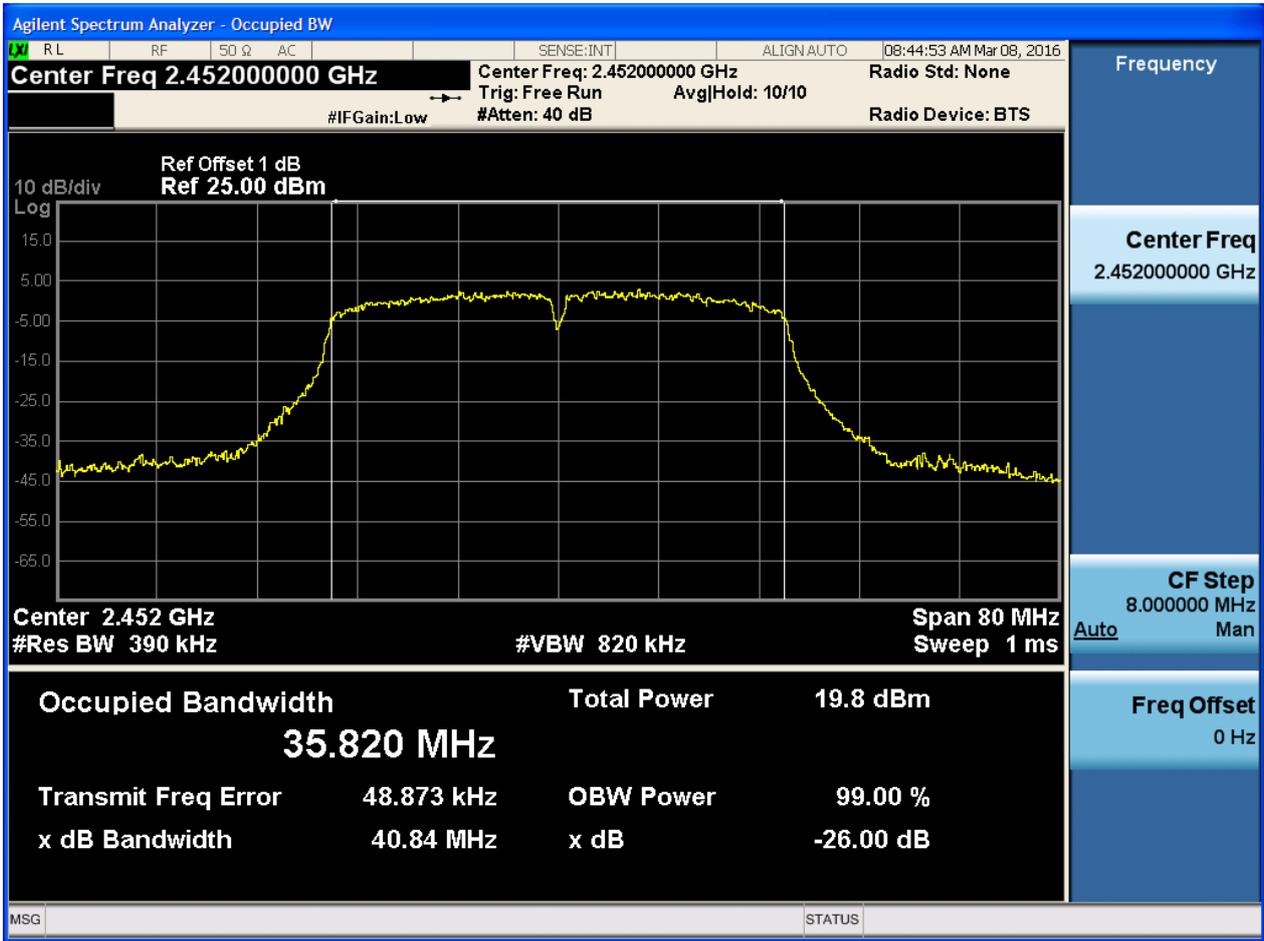


2.23 11N40\_H@Ant 1



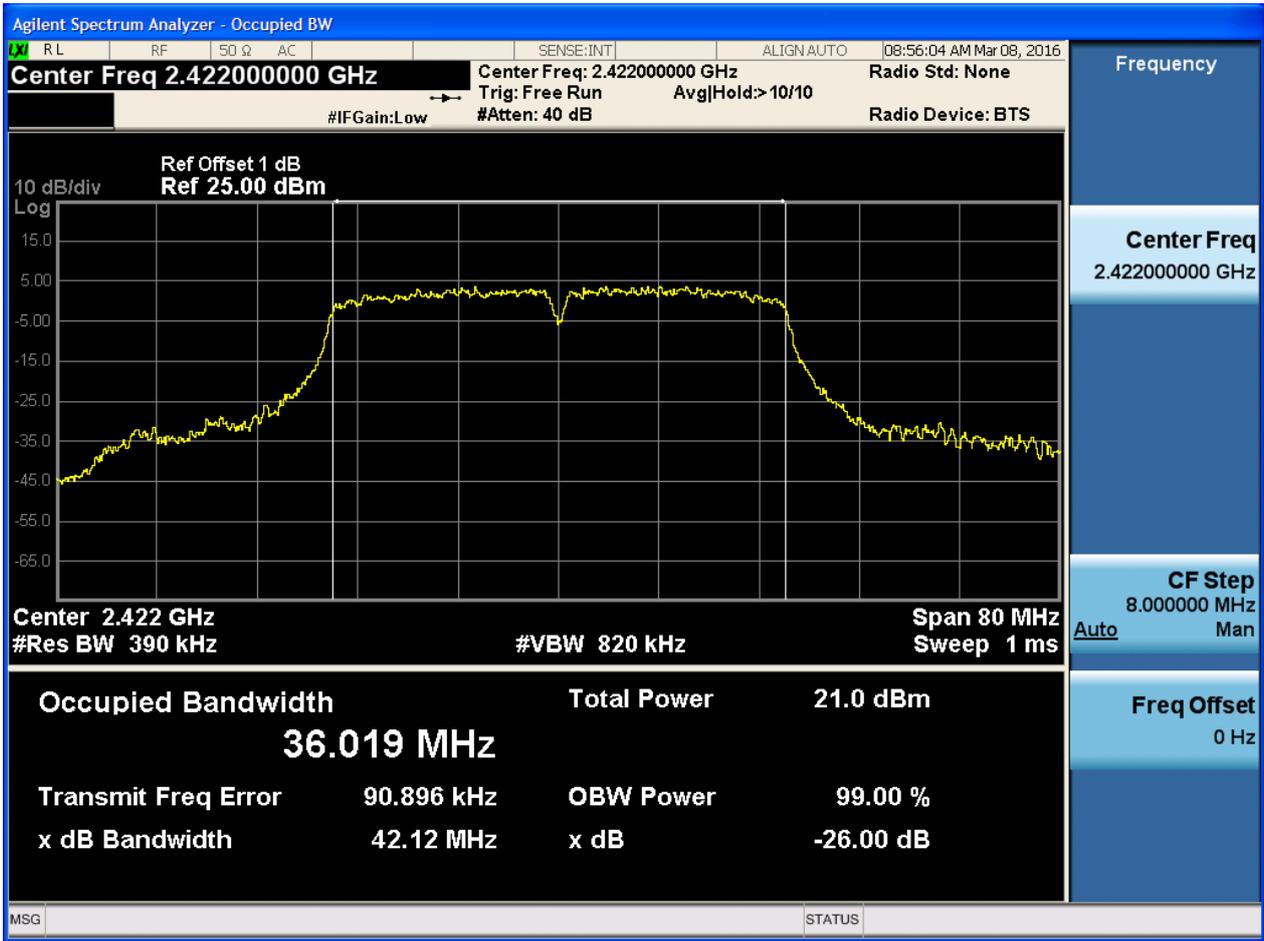


2.24 11N40\_H@Ant 2



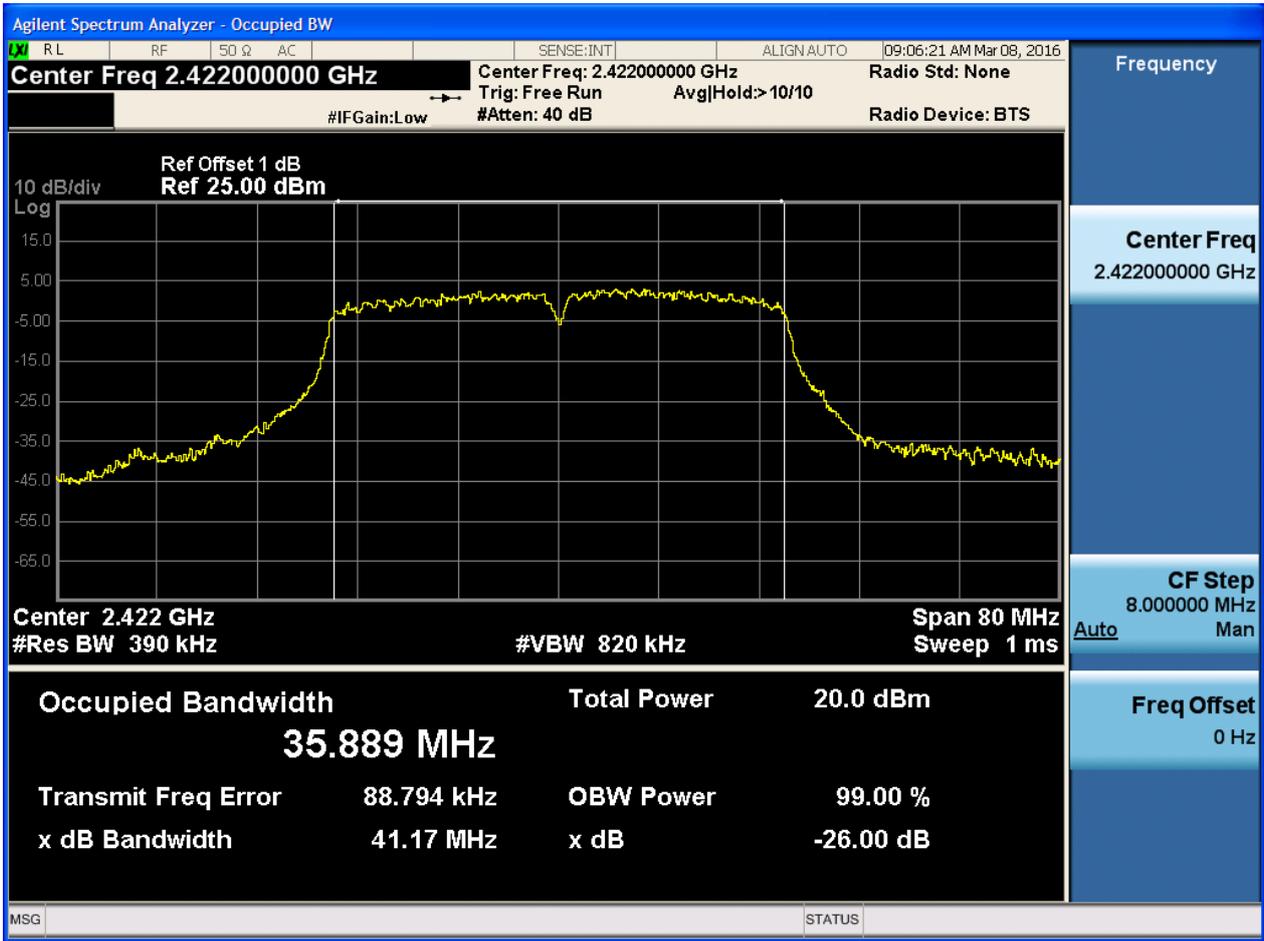


2.31 11N40m\_L@Ant 1



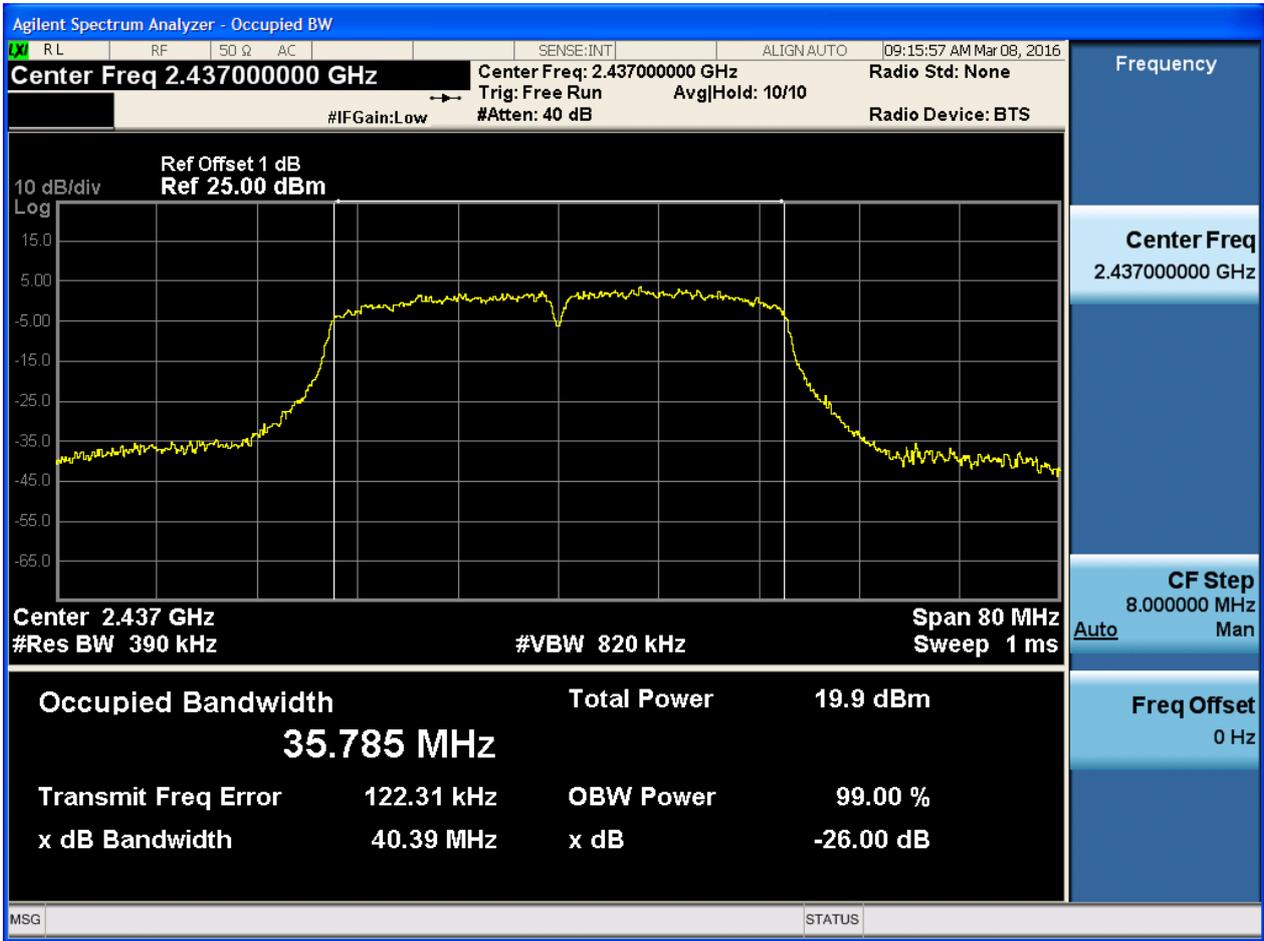


2.32 11N40m\_L@Ant 2



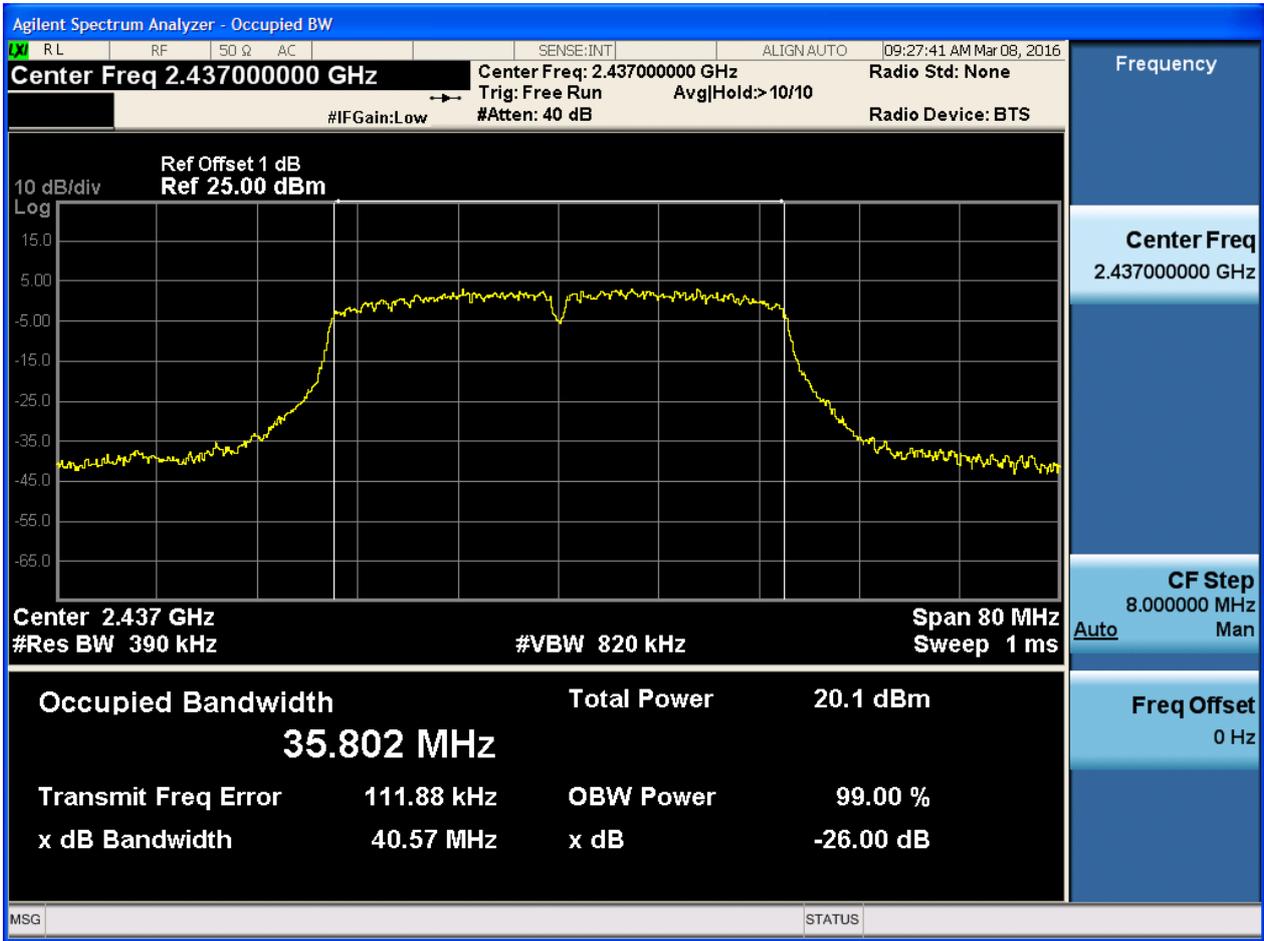


2.33 11N40m\_M@Ant 1



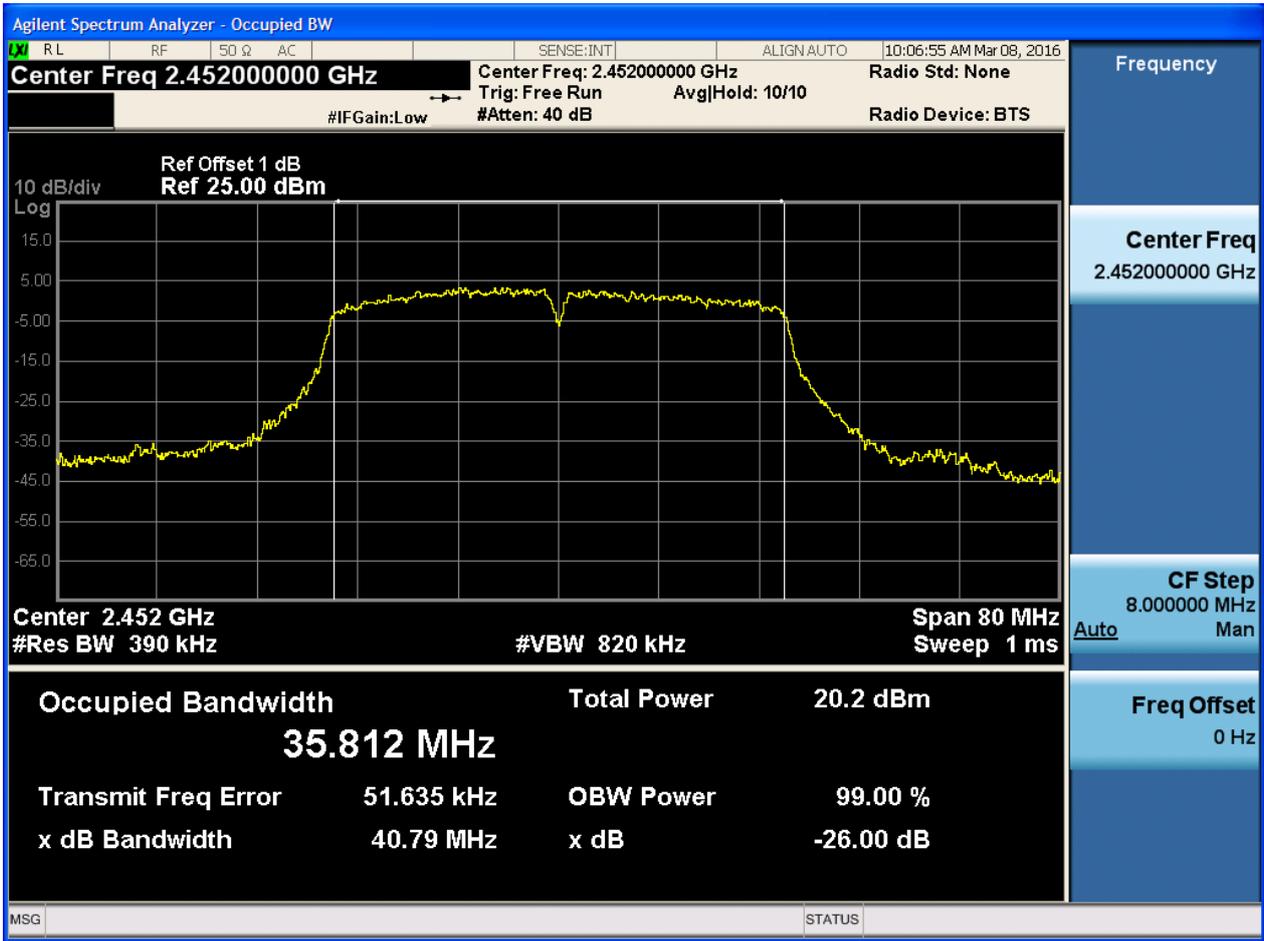


2.34 11N40m\_M@Ant 2



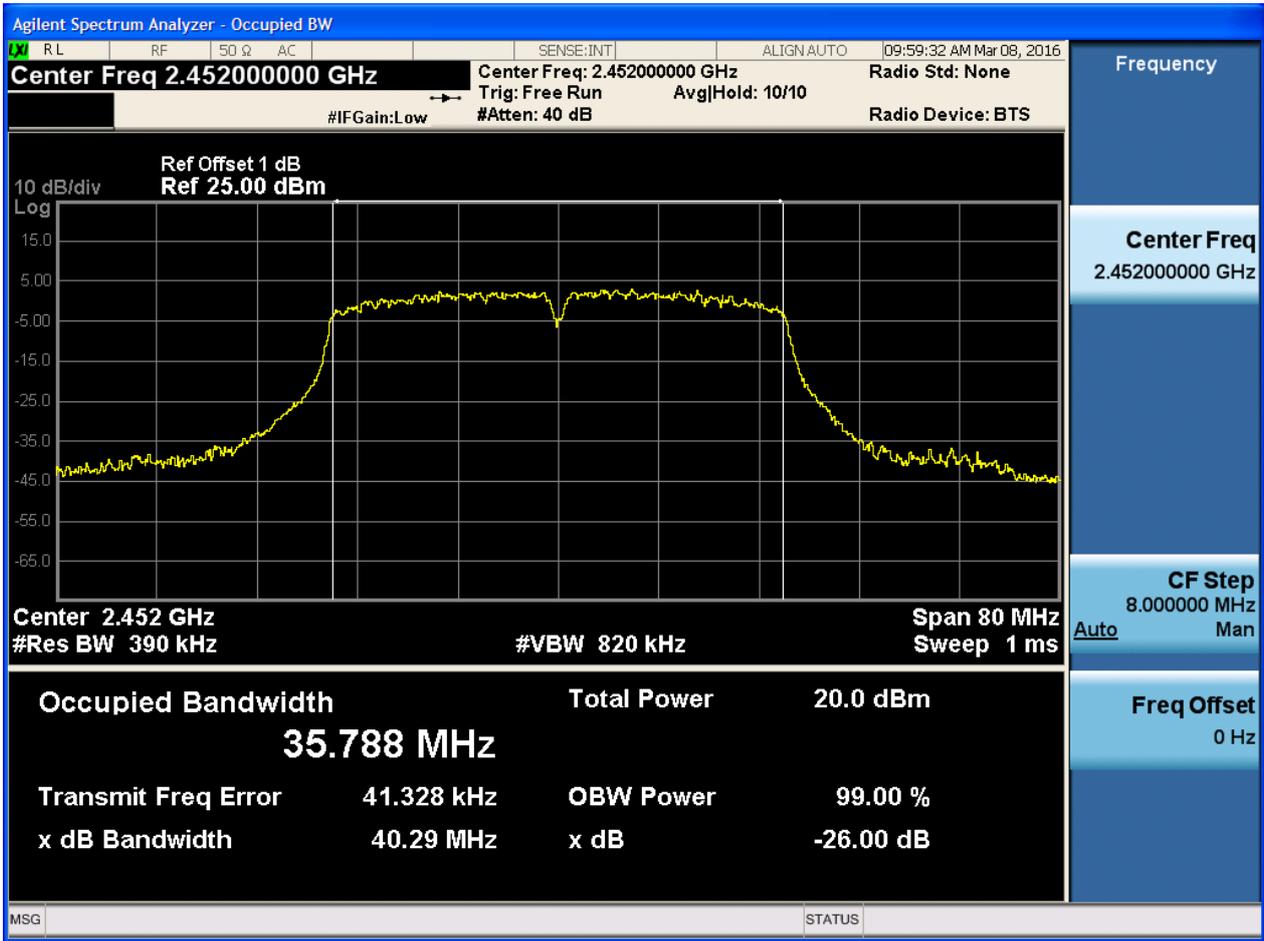


2.35 11N40m\_H@Ant 1





2.36 11N40m\_H@Ant 2



## Appendix C: Duty Cycle

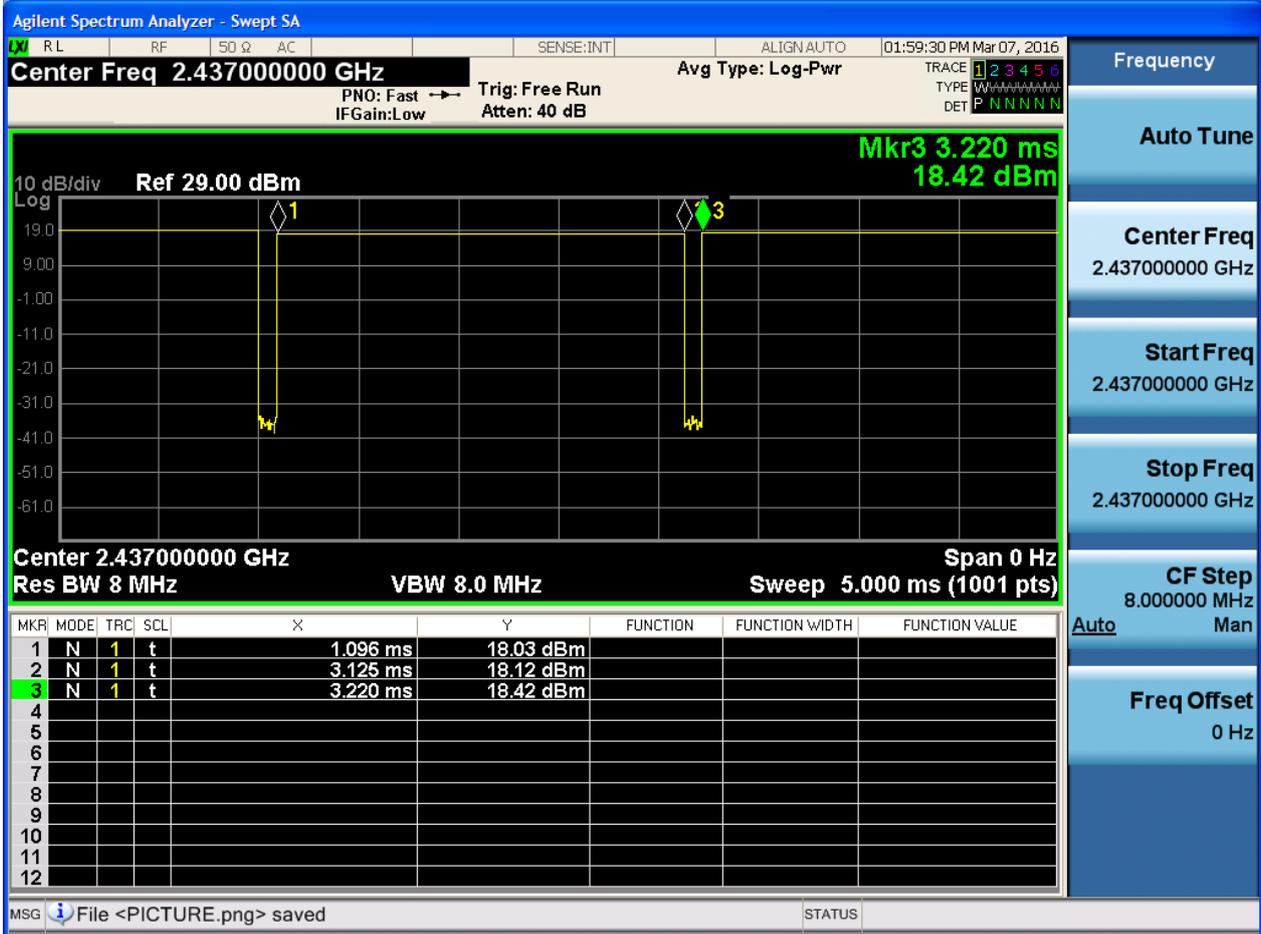
### Part I - Test Results

| Test Mode | TX Freq. [MHz] | Ant         | Duty cycle [%] |
|-----------|----------------|-------------|----------------|
| 11B       | CH1,CH6,CH11   | Ant 1       | 95             |
| 11B       | CH1,CH6,CH11   | Ant 2       | 95             |
| 11G       | CH1,CH6,CH11   | Ant 1       | 77             |
| 11G       | CH1,CH6,CH11   | Ant 2       | 77             |
| 11N20SISO | CH1,CH6,CH11   | Ant 1       | 76             |
| 11N20SISO | CH1,CH6,CH11   | Ant 2       | 76             |
| 11N20MIMO | CH1,CH6,CH11   | Ant 1&Ant 2 | 76             |
| 11N40SISO | CH3,CH6,CH9    | Ant 1       | 63             |
| 11N40SISO | CH3,CH6,CH9    | Ant 2       | 63             |
| 11N40MIMO | CH3,CH6,CH9    | Ant 1&Ant 2 | 63             |



Part II - Test Plots

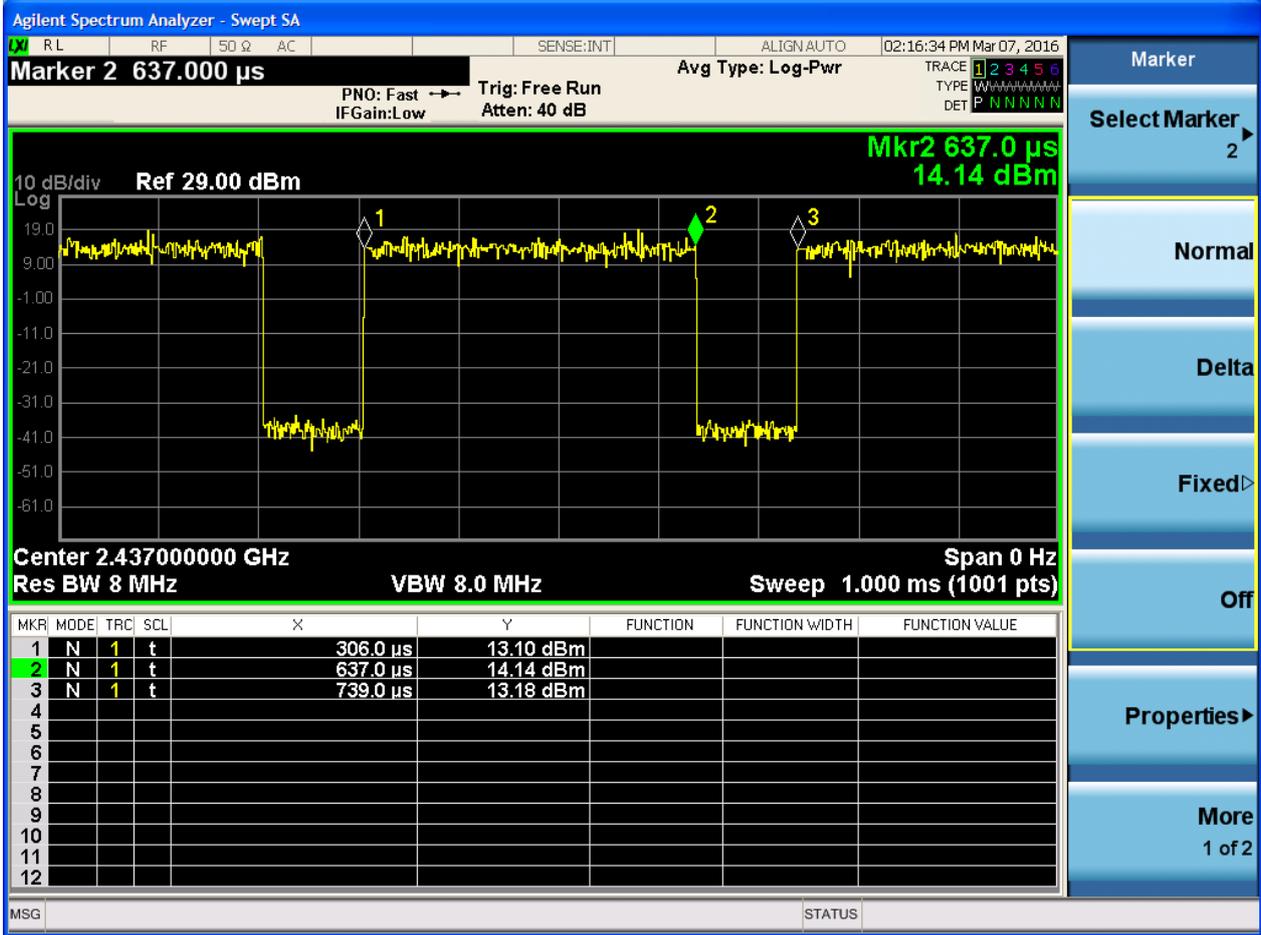
11B\_ANT1





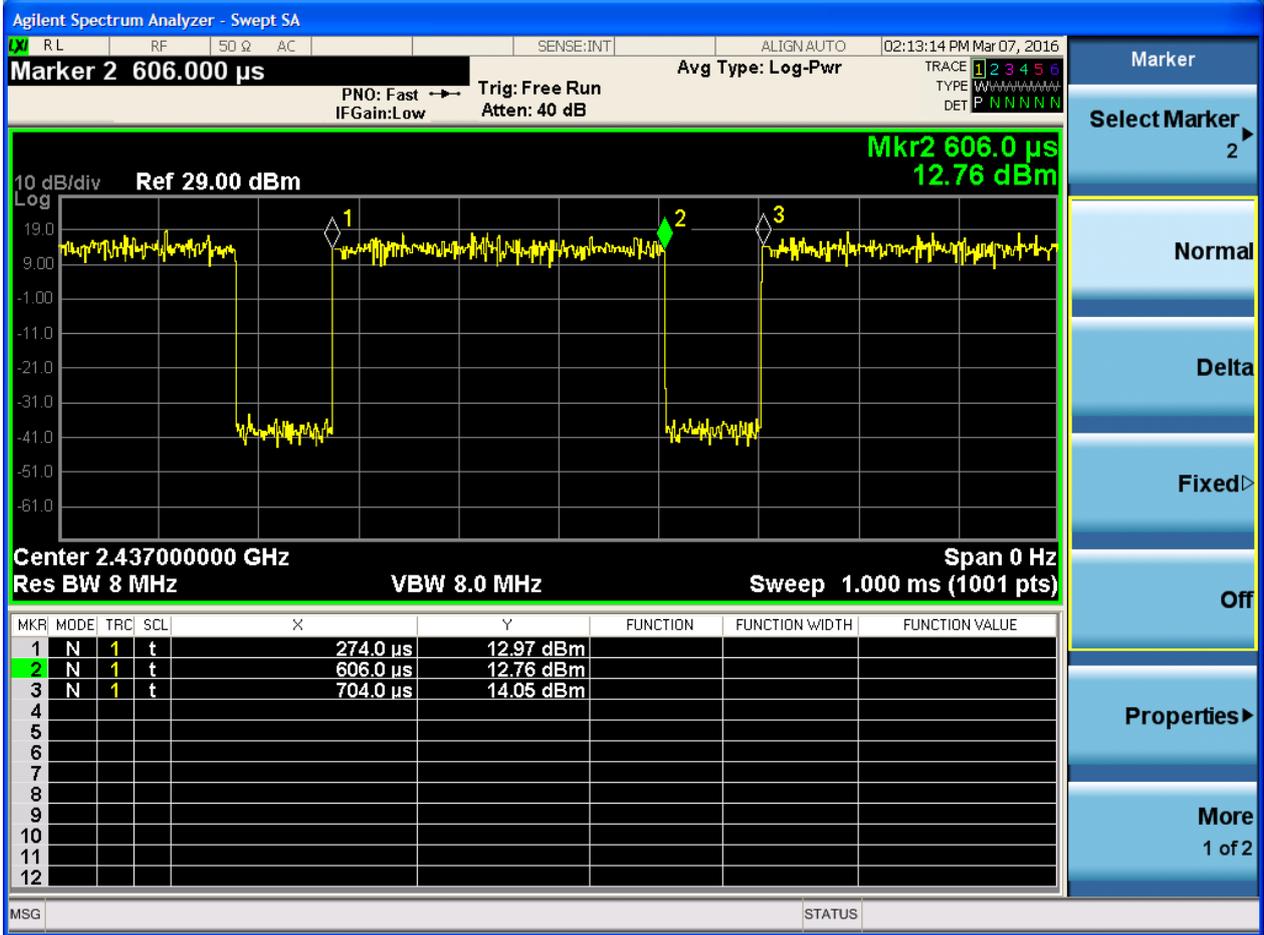


11G\_ANT1



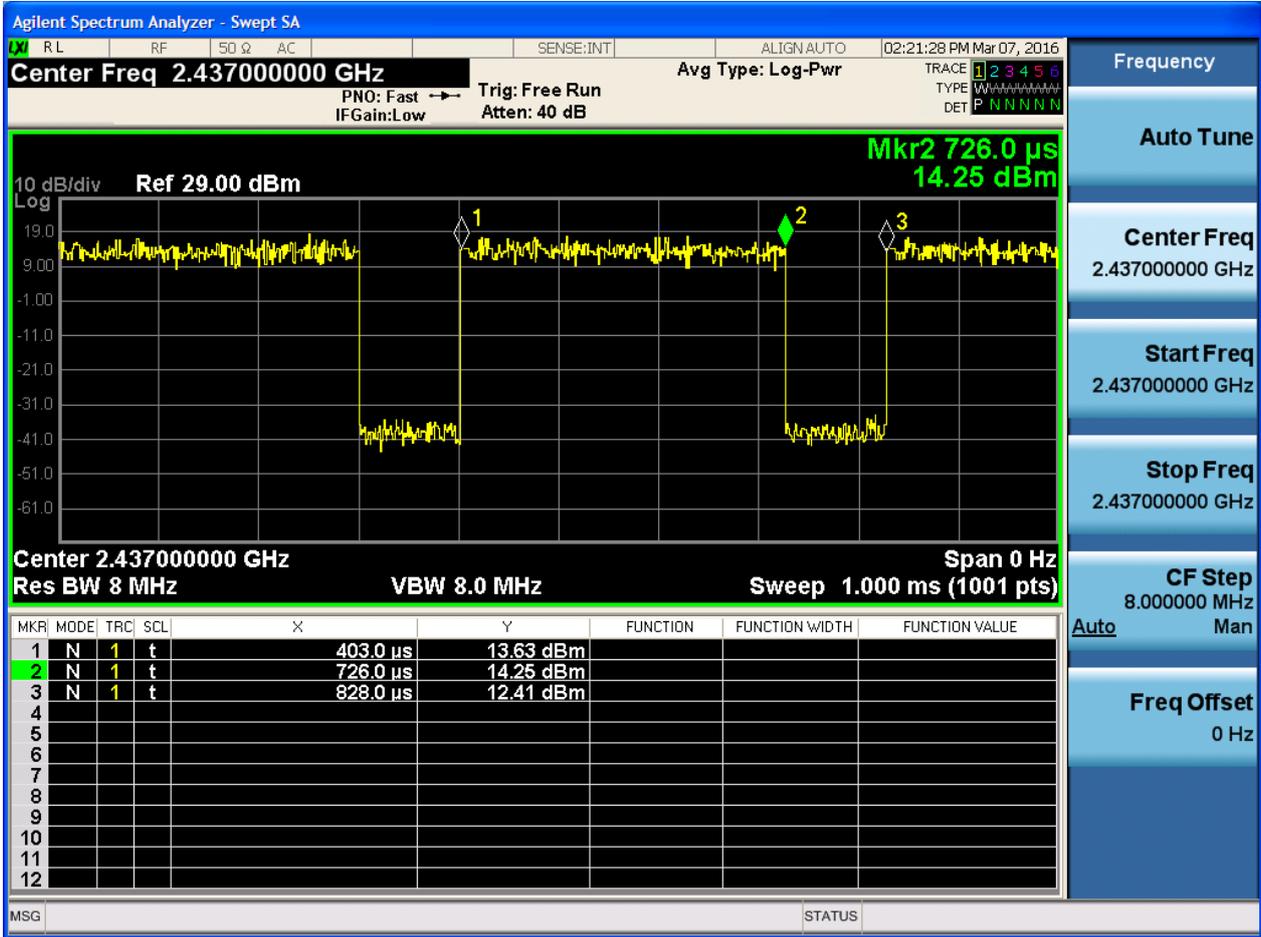


11G\_ANT2



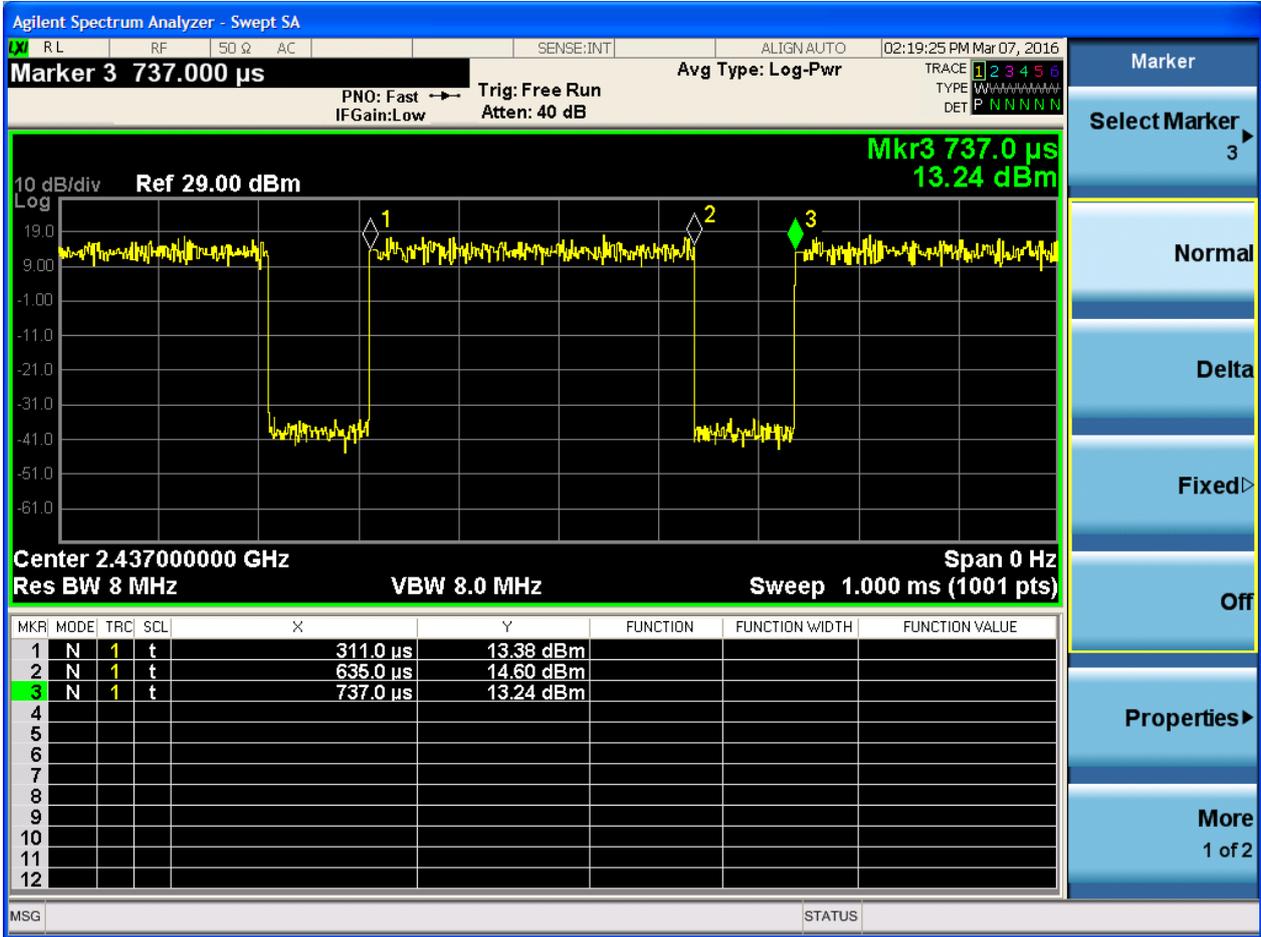


11N20SISO\_ANT1



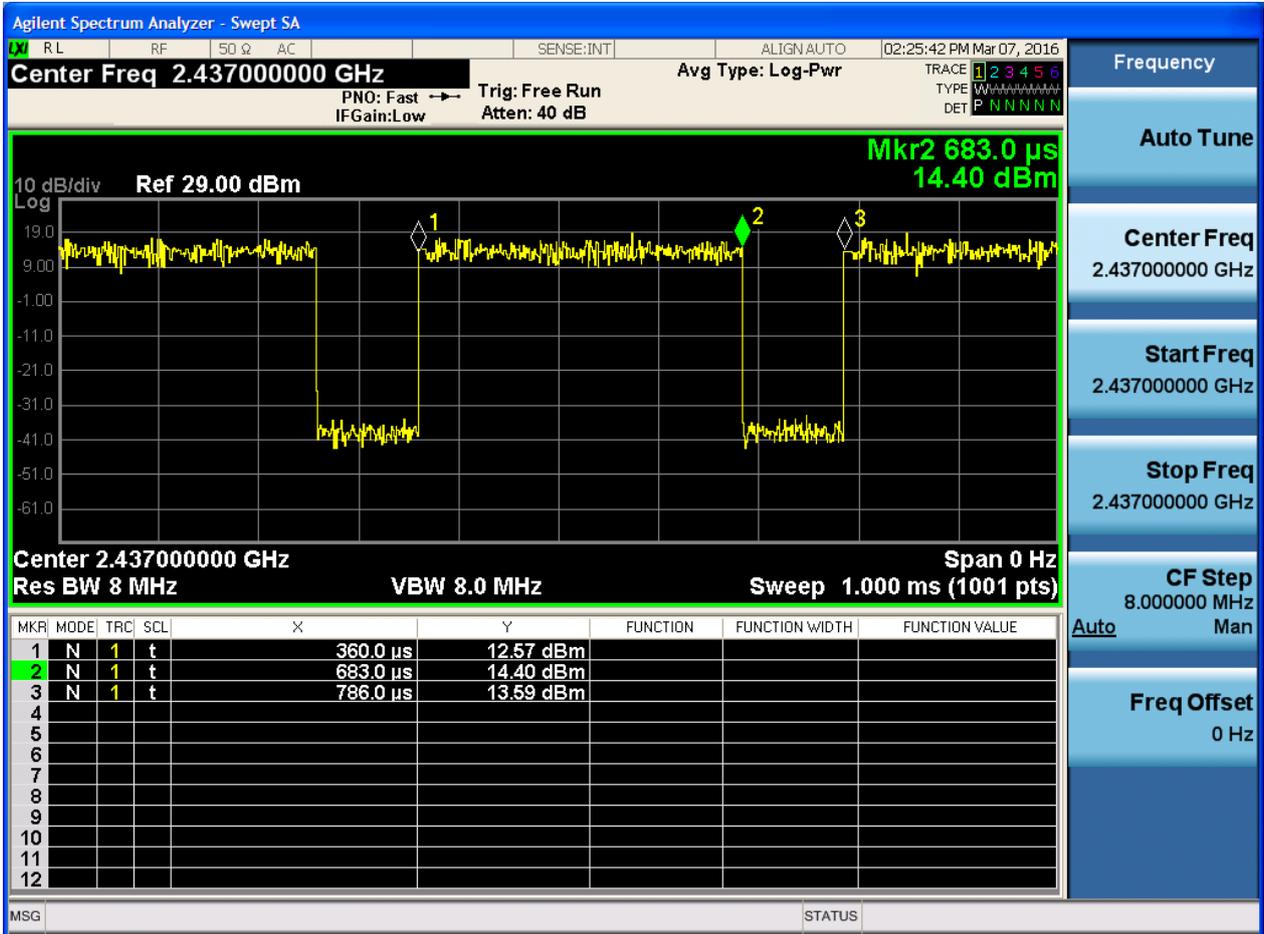


11N20SISO\_ANT2



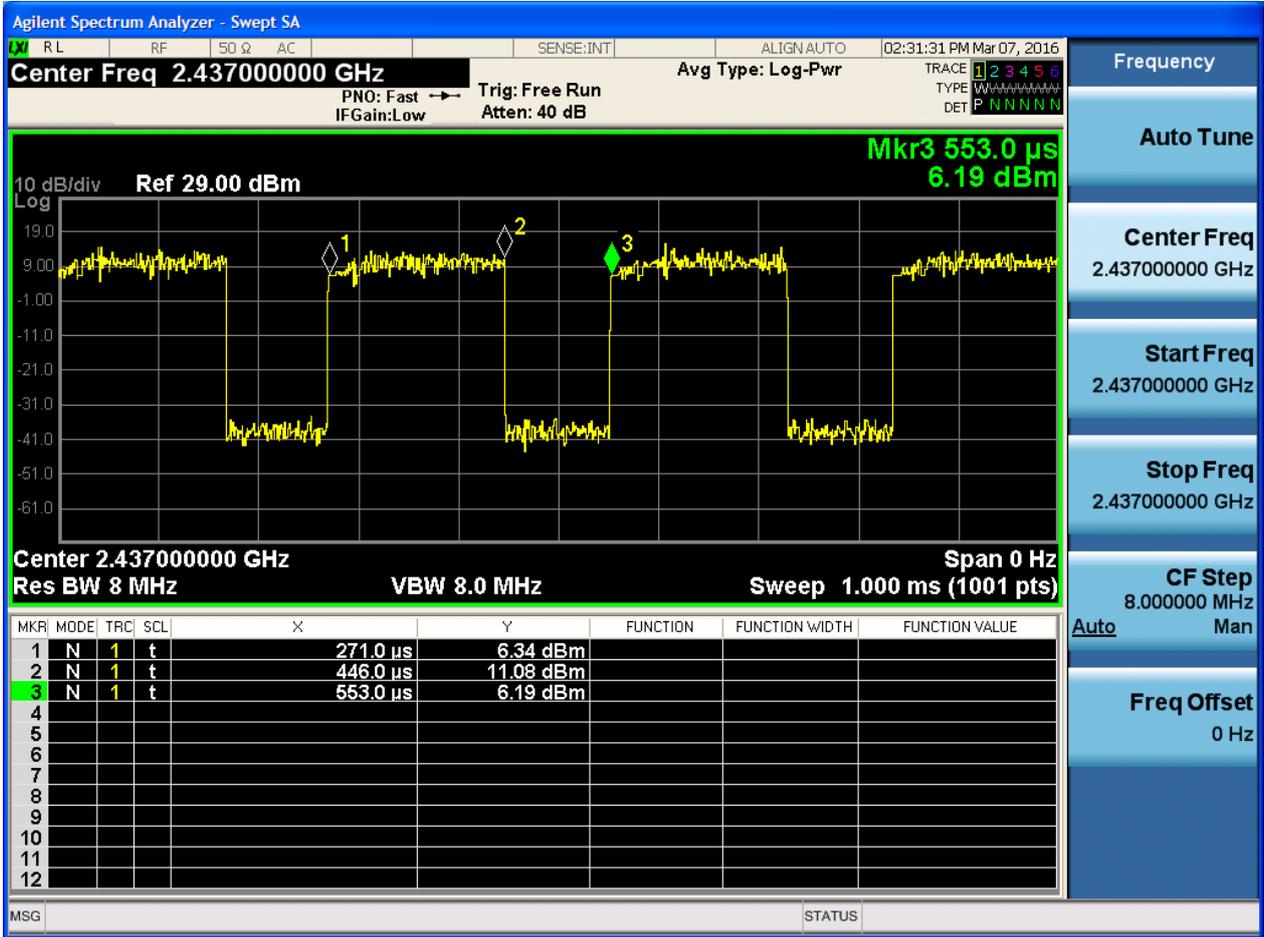


11N20MIMO\_ANT1& ANT2



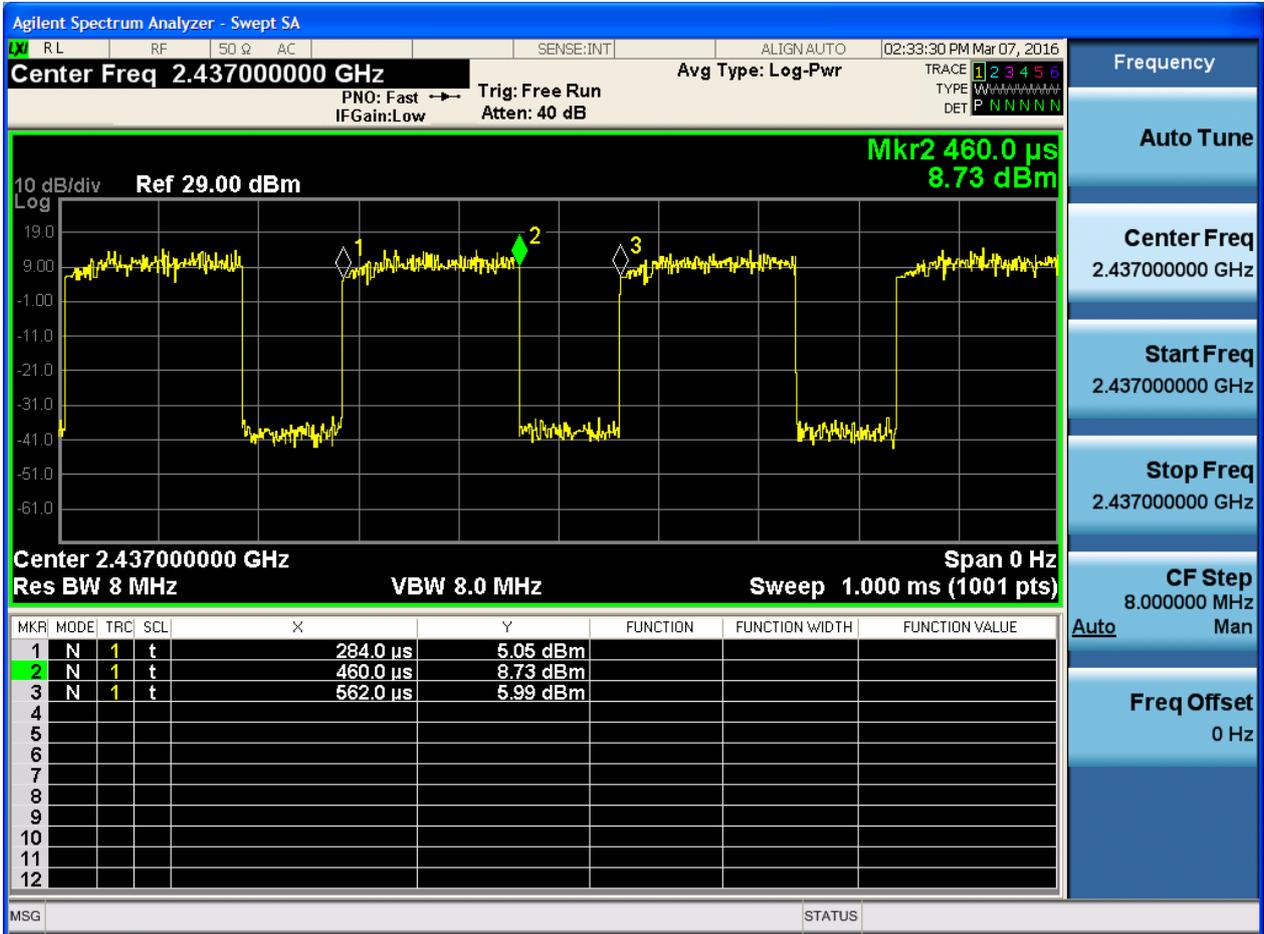


11N40SISO\_ANT1

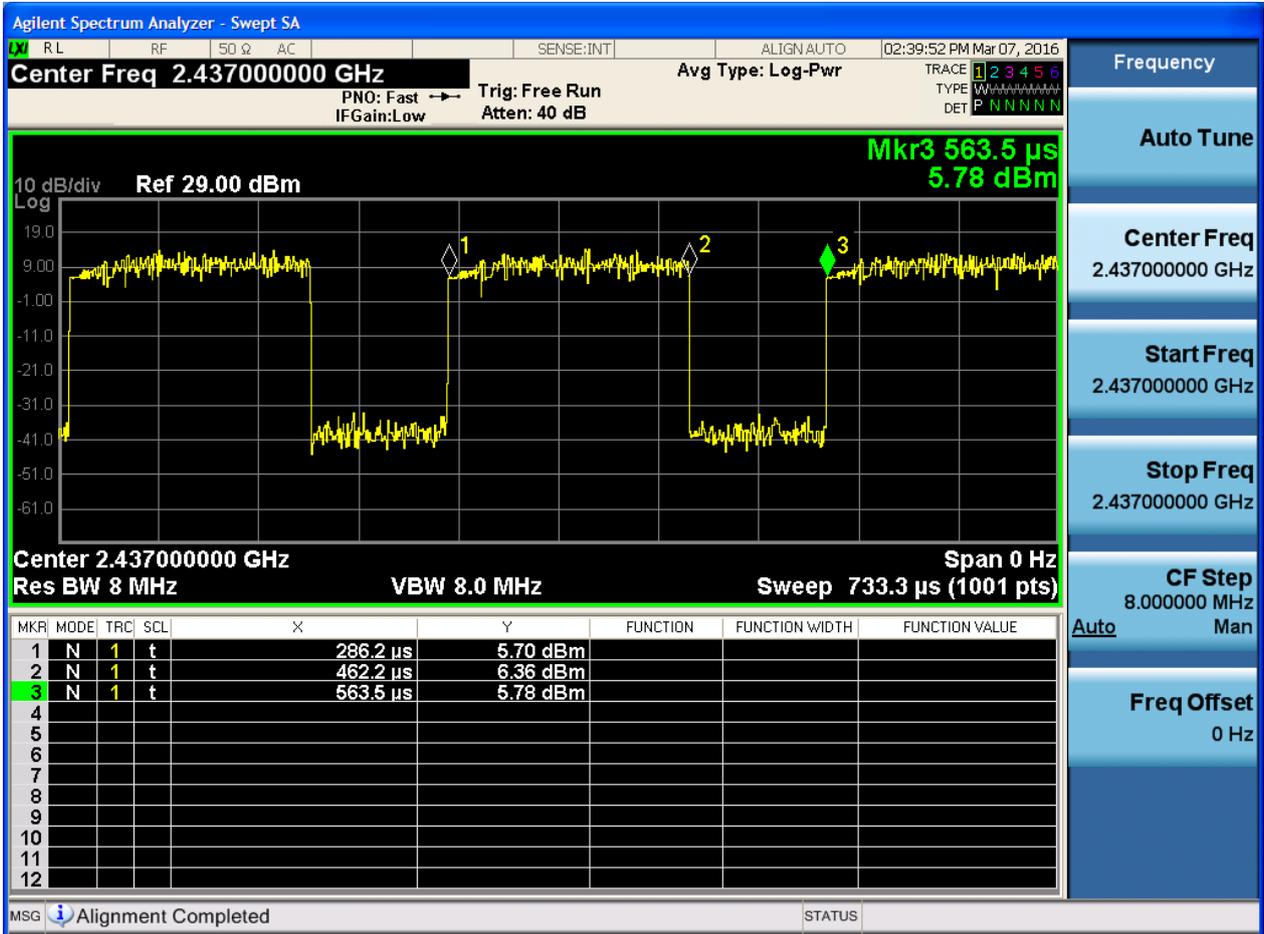




11N40SISO\_ANT2



11N40MIMO\_ ANT1& ANT2





## 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 | 15.52      | pass    |
| 11B       | L            | 2412           | Ant 2 | 15.69      | pass    |
| 11B       | M            | 2437           | Ant 1 | 15.42      | pass    |
| 11B       | M            | 2437           | Ant 2 | 15.64      | pass    |
| 11B       | H            | 2462           | Ant 1 | 16.47      | pass    |
| 11B       | H            | 2462           | Ant 2 | 15.70      | pass    |
| 11G       | L            | 2412           | Ant 1 | 13.74      | pass    |
| 11G       | L            | 2412           | Ant 2 | 12.92      | pass    |
| 11G       | M            | 2437           | Ant 1 | 12.87      | pass    |
| 11G       | M            | 2437           | Ant 2 | 12.95      | pass    |
| 11G       | H            | 2462           | Ant 1 | 14.90      | pass    |
| 11G       | H            | 2462           | Ant 2 | 12.96      | pass    |
| 11N20     | L            | 2412           | Ant 1 | 13.98      | pass    |
| 11N20     | L            | 2412           | Ant 2 | 12.82      | pass    |
| 11N20     | M            | 2437           | Ant 1 | 12.64      | pass    |
| 11N20     | M            | 2437           | Ant 2 | 12.77      | pass    |
| 11N20     | H            | 2462           | Ant 1 | 14.05      | pass    |
| 11N20     | H            | 2462           | Ant 2 | 12.77      | pass    |
| 11N20m    | L            | 2412           | Ant 1 | 14.52      | pass    |
| 11N20m    | L            | 2412           | Ant 2 | 12.90      | pass    |
| 11N20m    | L            | 2412           | sum   | 16.68      | pass    |
| 11N20m    | M            | 2437           | Ant 2 | 12.64      | pass    |
| 11N20m    | M            | 2437           | Ant 1 | 12.80      | pass    |
| 11N20m    | M            | 2437           | sum   | 15.73      | pass    |
| 11N20m    | H            | 2462           | Ant 1 | 13.64      | pass    |
| 11N20m    | H            | 2462           | Ant 2 | 12.68      | pass    |
| 11N20m    | H            | 2462           | sum   | 16.20      | pass    |
| 11N40     | L            | 2422           | Ant 1 | 13.97      | pass    |
| 11N40     | L            | 2422           | Ant 2 | 13.05      | pass    |
| 11N40     | M            | 2437           | Ant 1 | 12.93      | pass    |
| 11N40     | M            | 2437           | Ant 2 | 13.12      | pass    |
| 11N40     | H            | 2452           | Ant 1 | 12.68      | pass    |
| 11N40     | H            | 2452           | Ant 2 | 13.07      | pass    |
| 11N40m    | L            | 2422           | Ant 1 | 14.21      | pass    |
| 11N40m    | L            | 2422           | Ant 2 | 13.06      | pass    |
| 11N40m    | L            | 2422           | sum   | 16.68      | pass    |



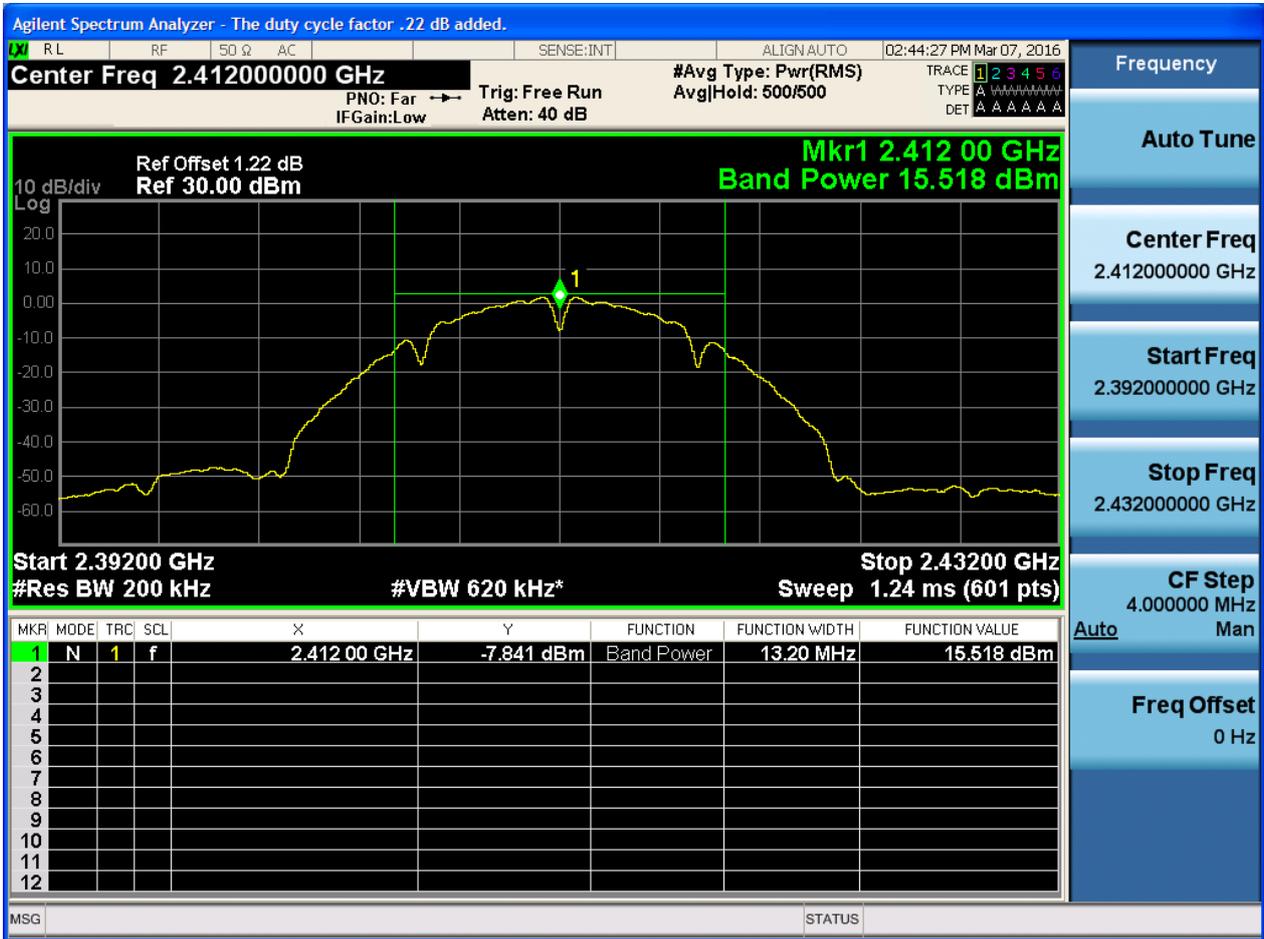
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| Test Mode | Test Channel | Frequency[MHz] | Ant        | Power[dBm] | Verdict |
|-----------|--------------|----------------|------------|------------|---------|
| 11N40m    | M            | 2437           | Ant 1      | 13.03      | pass    |
| 11N40m    | M            | 2437           | Ant 2      | 13.08      | pass    |
| 11N40m    | M            | 2437           | <b>sum</b> | 16.07      | pass    |
| 11N40m    | H            | 2452           | Ant 1      | 13.38      | pass    |
| 11N40m    | H            | 2452           | Ant 2      | 13.07      | pass    |
| 11N40m    | H            | 2452           | <b>sum</b> | 16.24      | pass    |



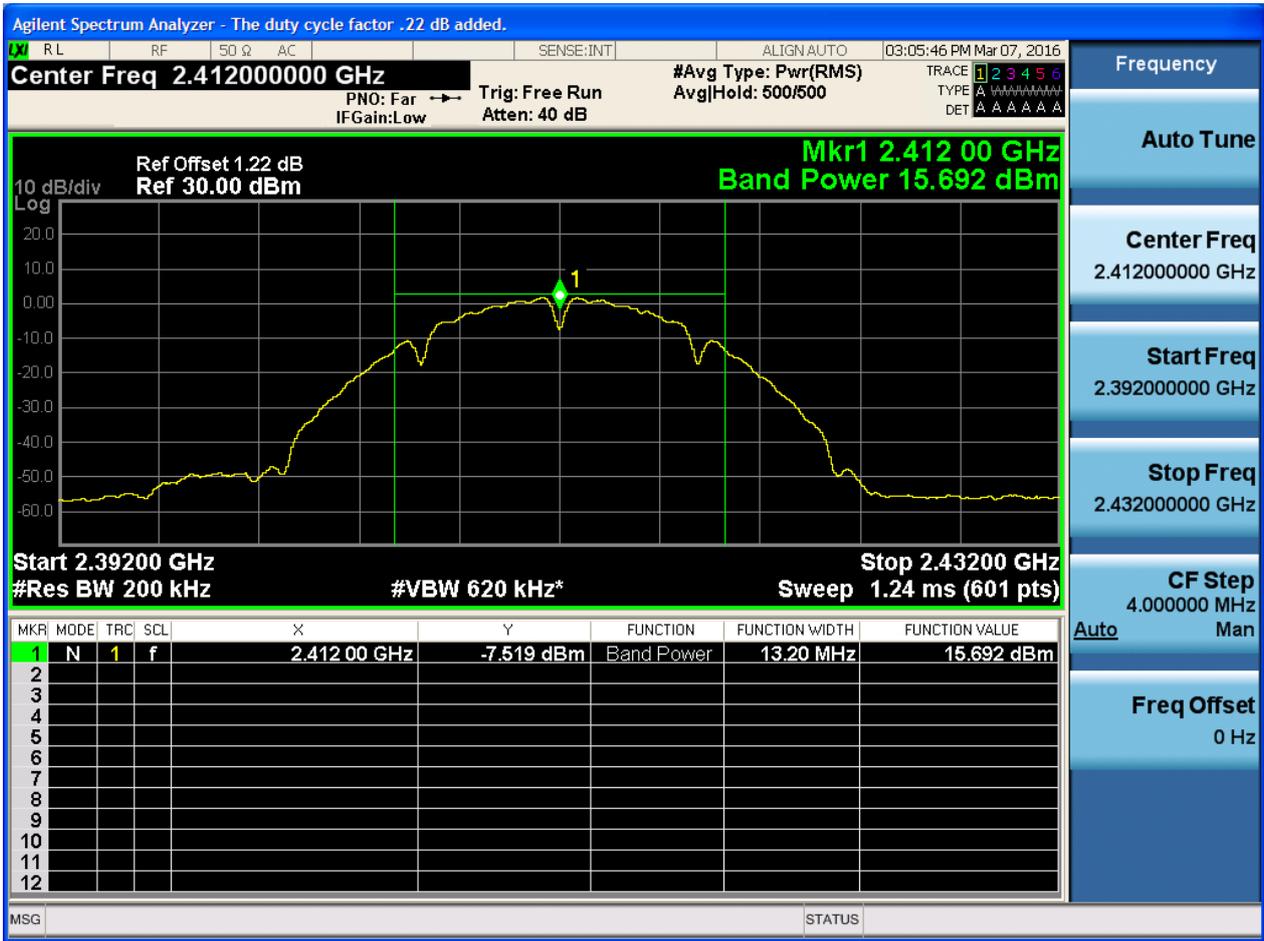
Part II - Test Plots

2.1 11B\_L@Ant 1



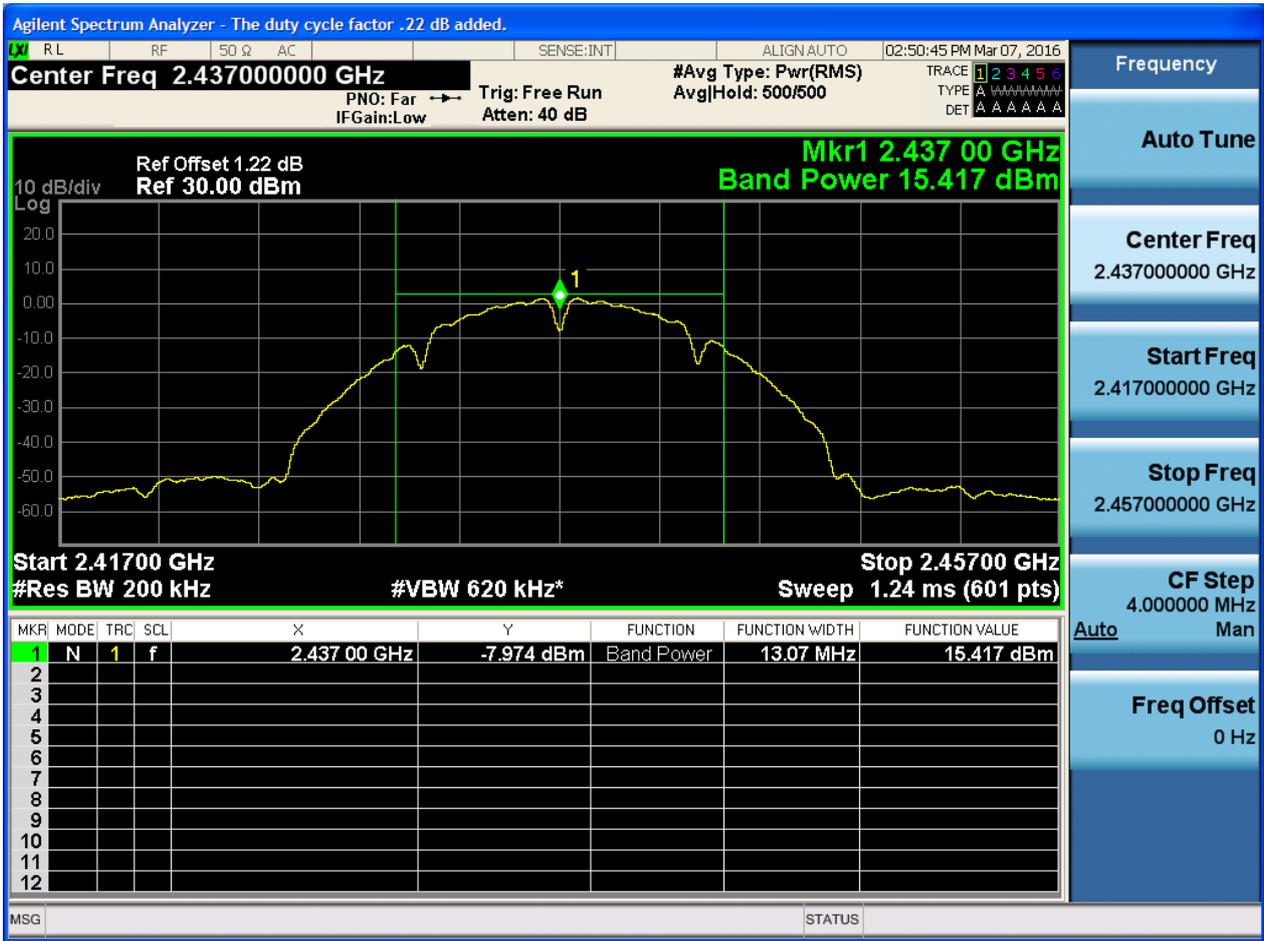


2.2 11B\_L@Ant 2



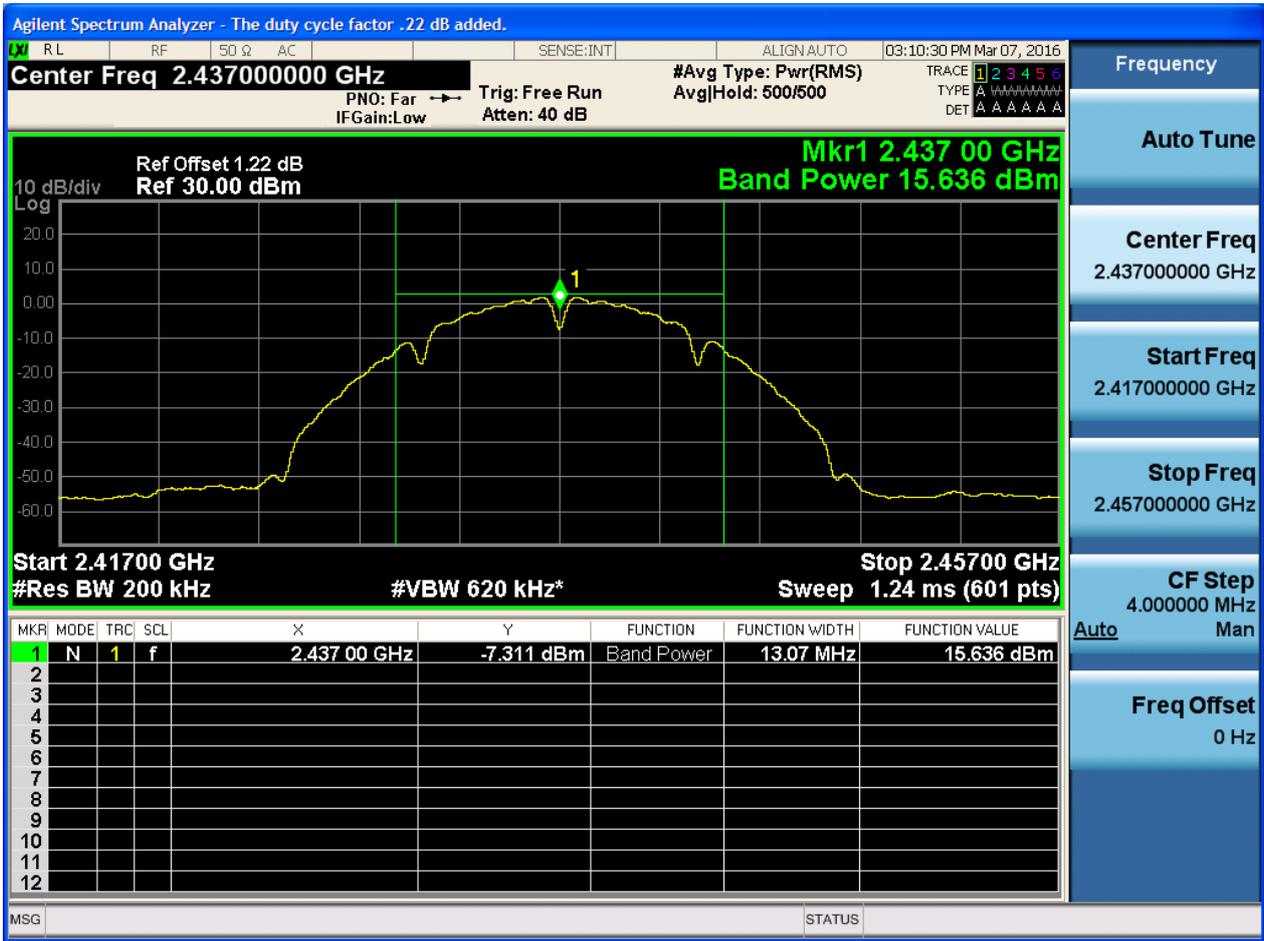


2.3 11B\_M@Ant 1



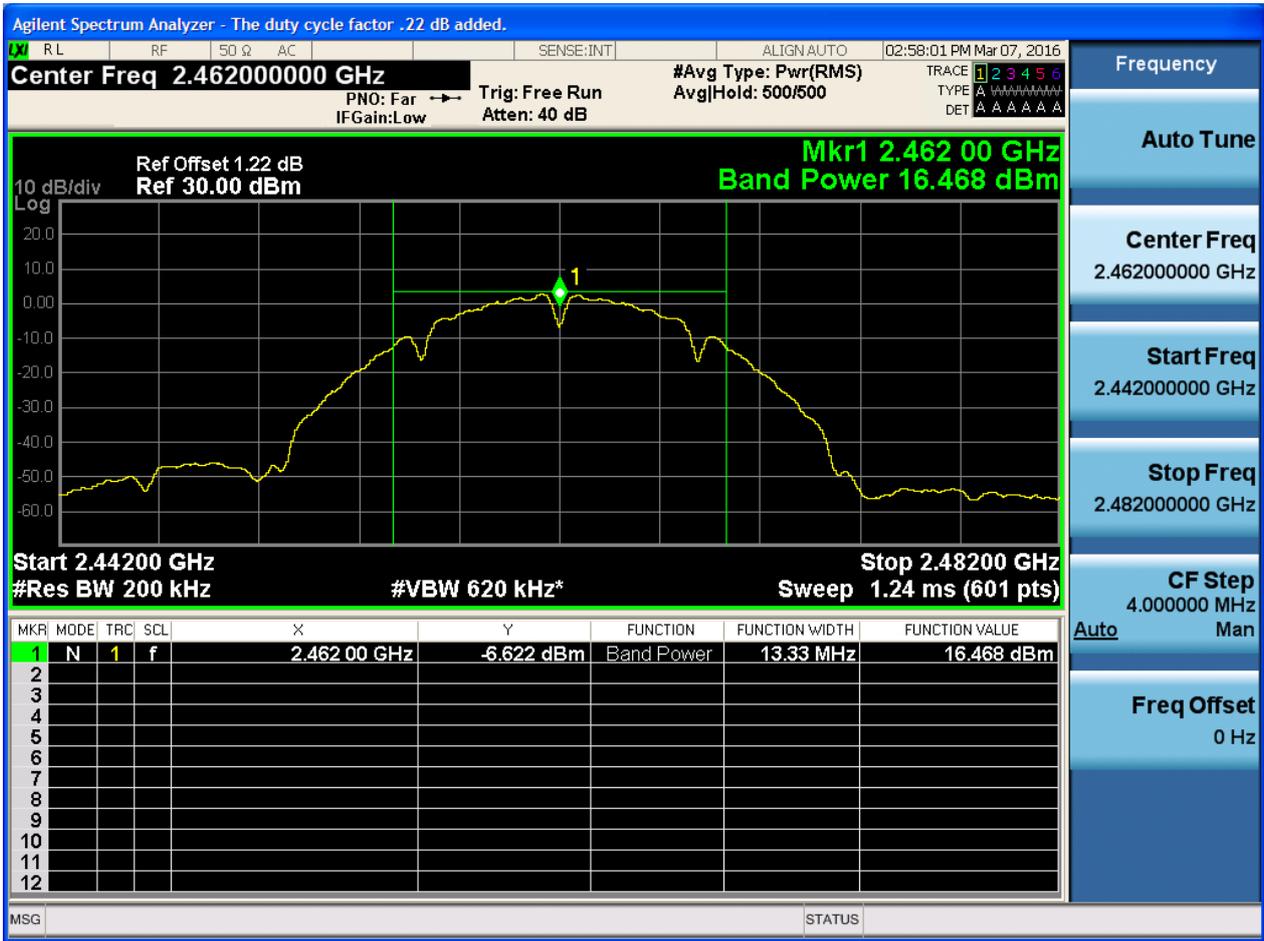


2.4 11B\_M@Ant 2



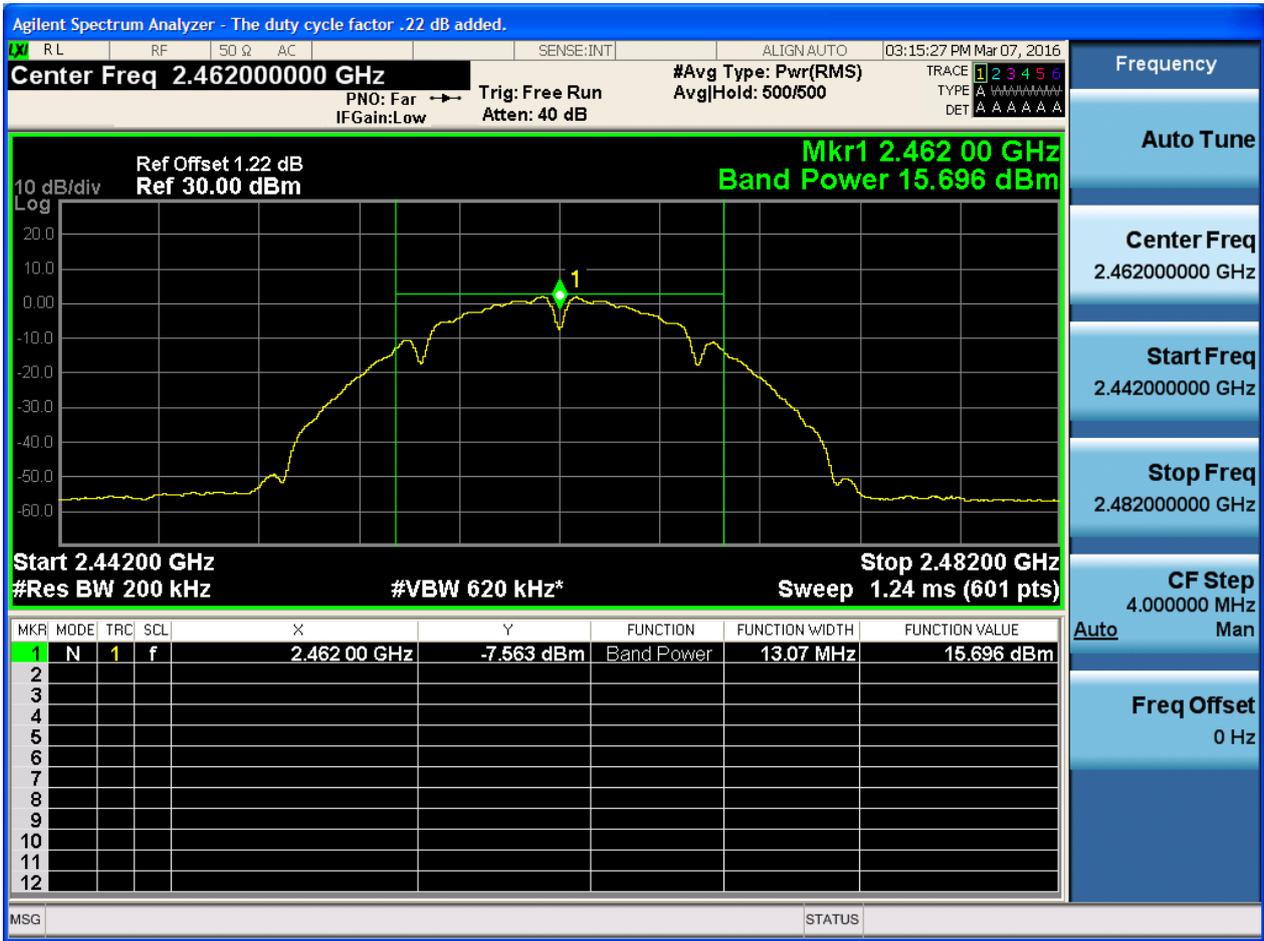


2.5 11B\_H@Ant 1



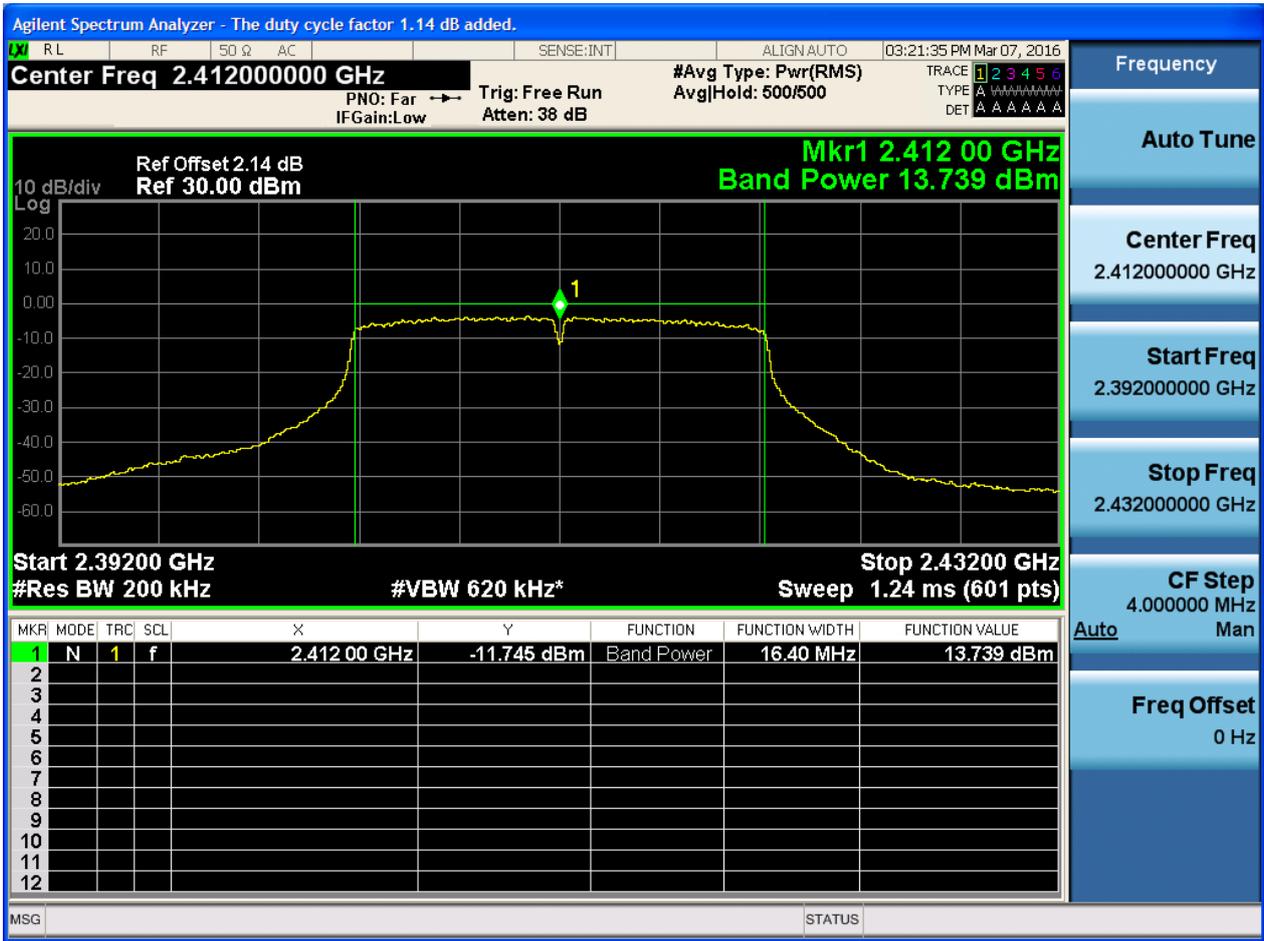


2.6 11B\_H@Ant 2



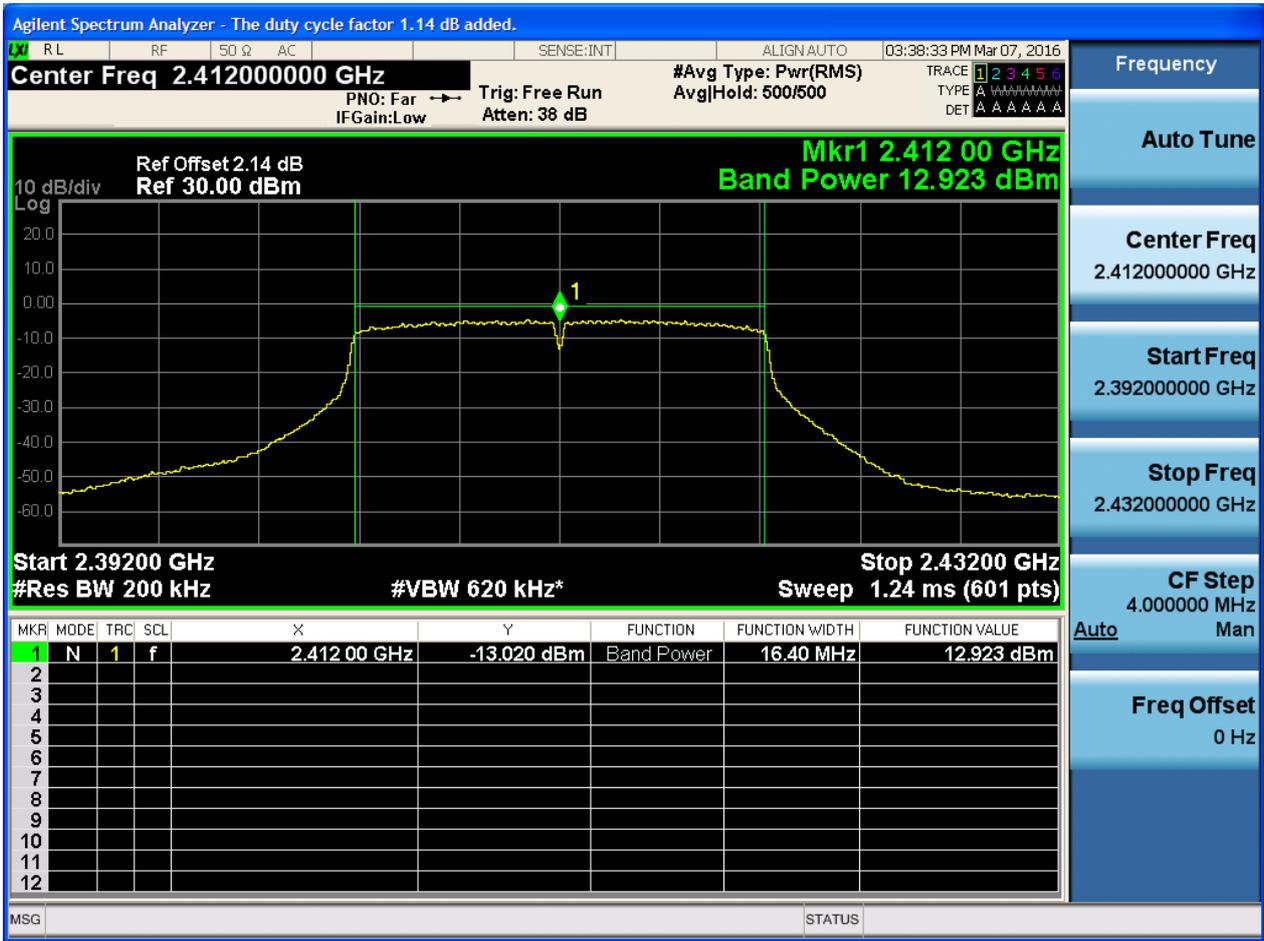


2.7 11G\_L@Ant 1



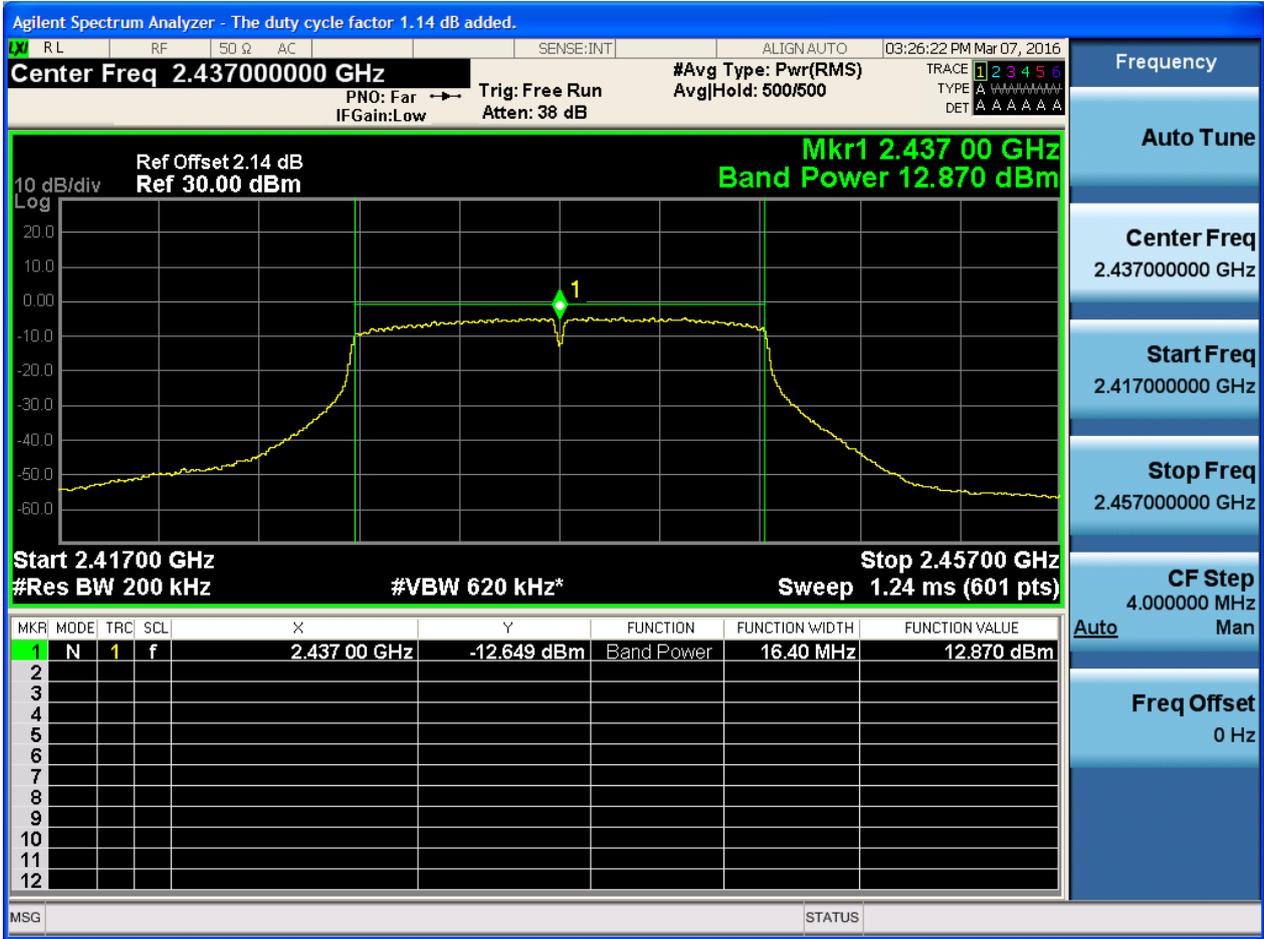


2.8 11G\_L@Ant 2



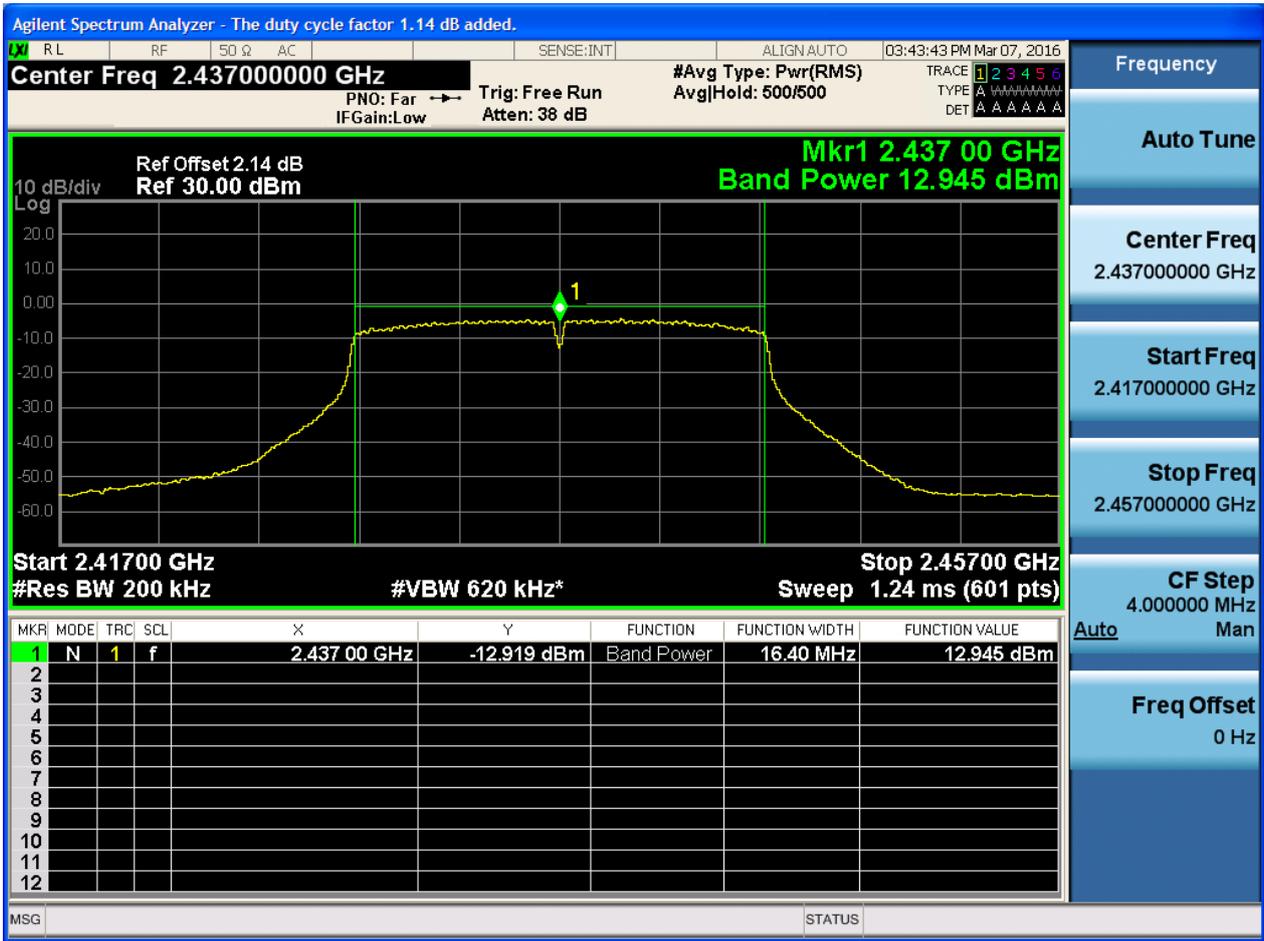


2.9 11G\_M@Ant 1



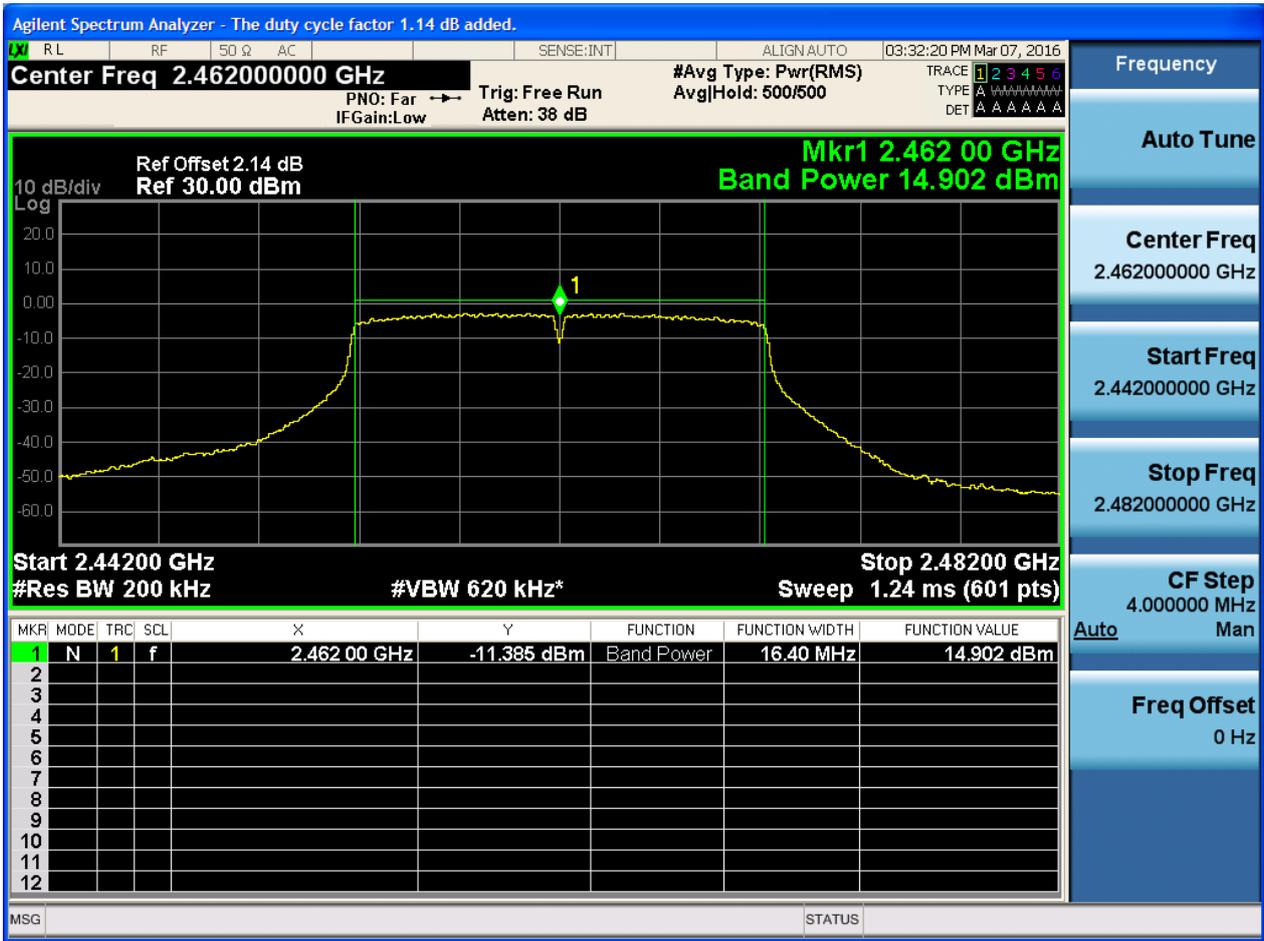


2.10 11G\_M@Ant 2



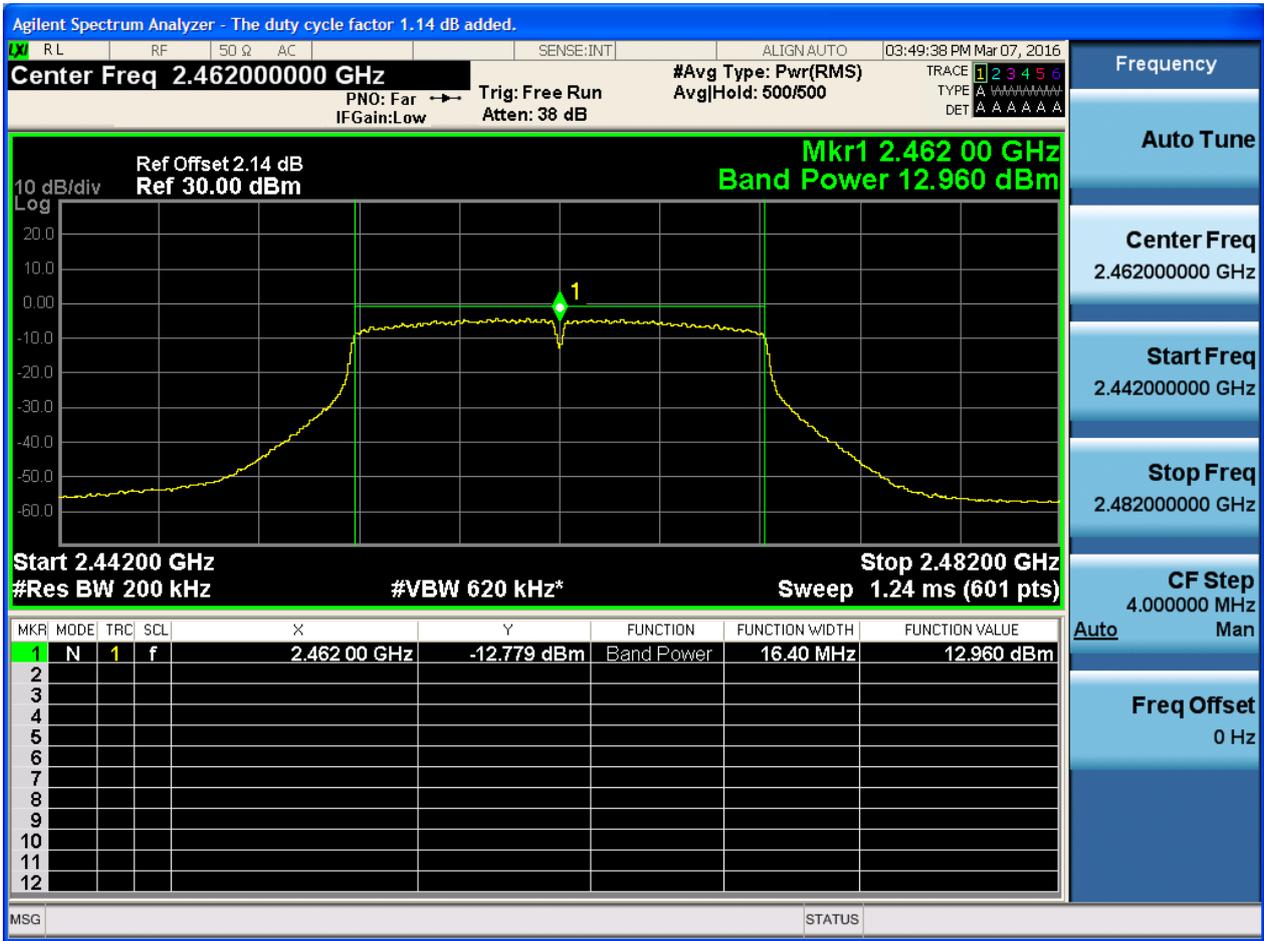


2.11 11G\_H@Ant 1



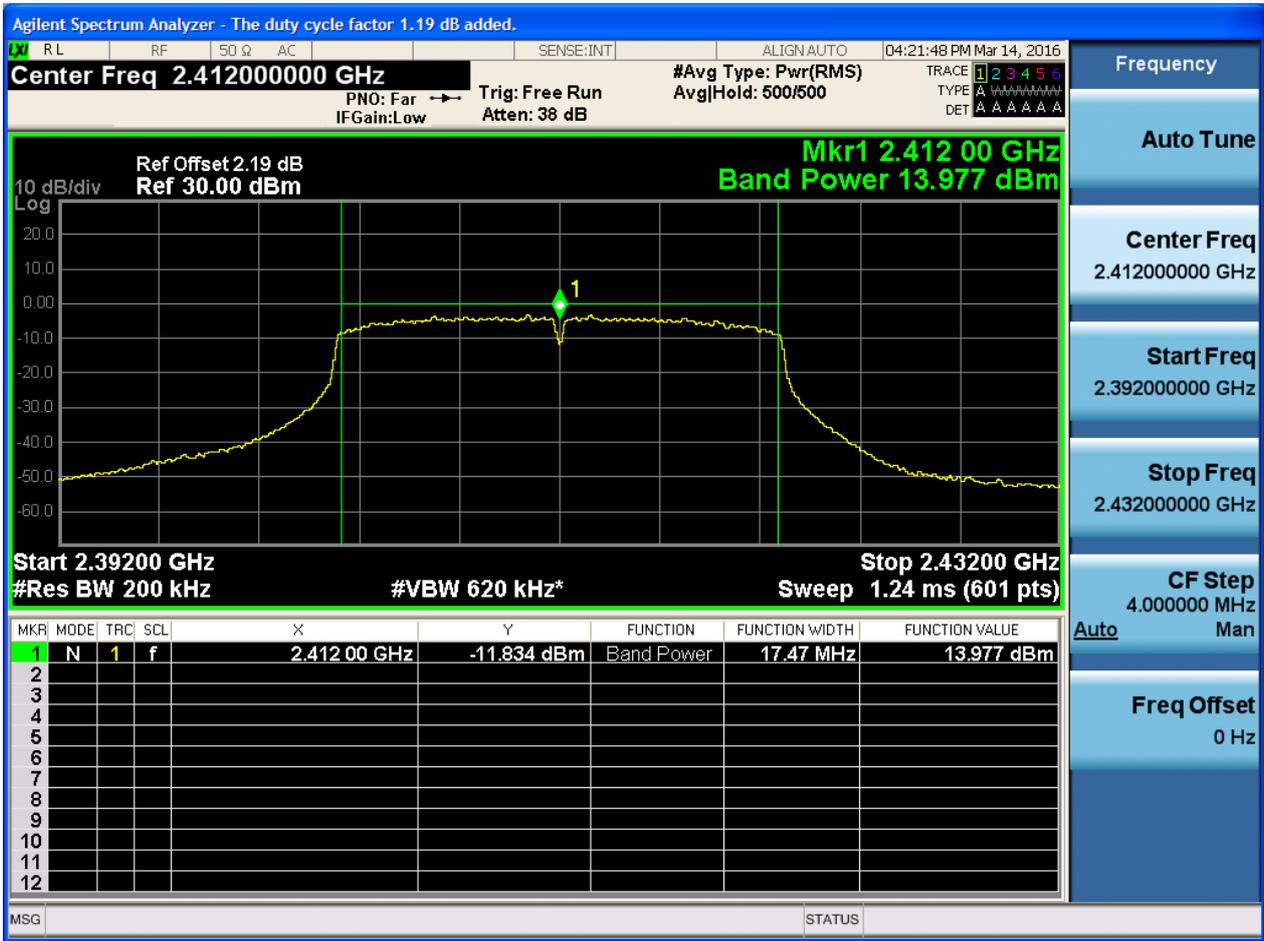


2.12 11G\_H@Ant 2



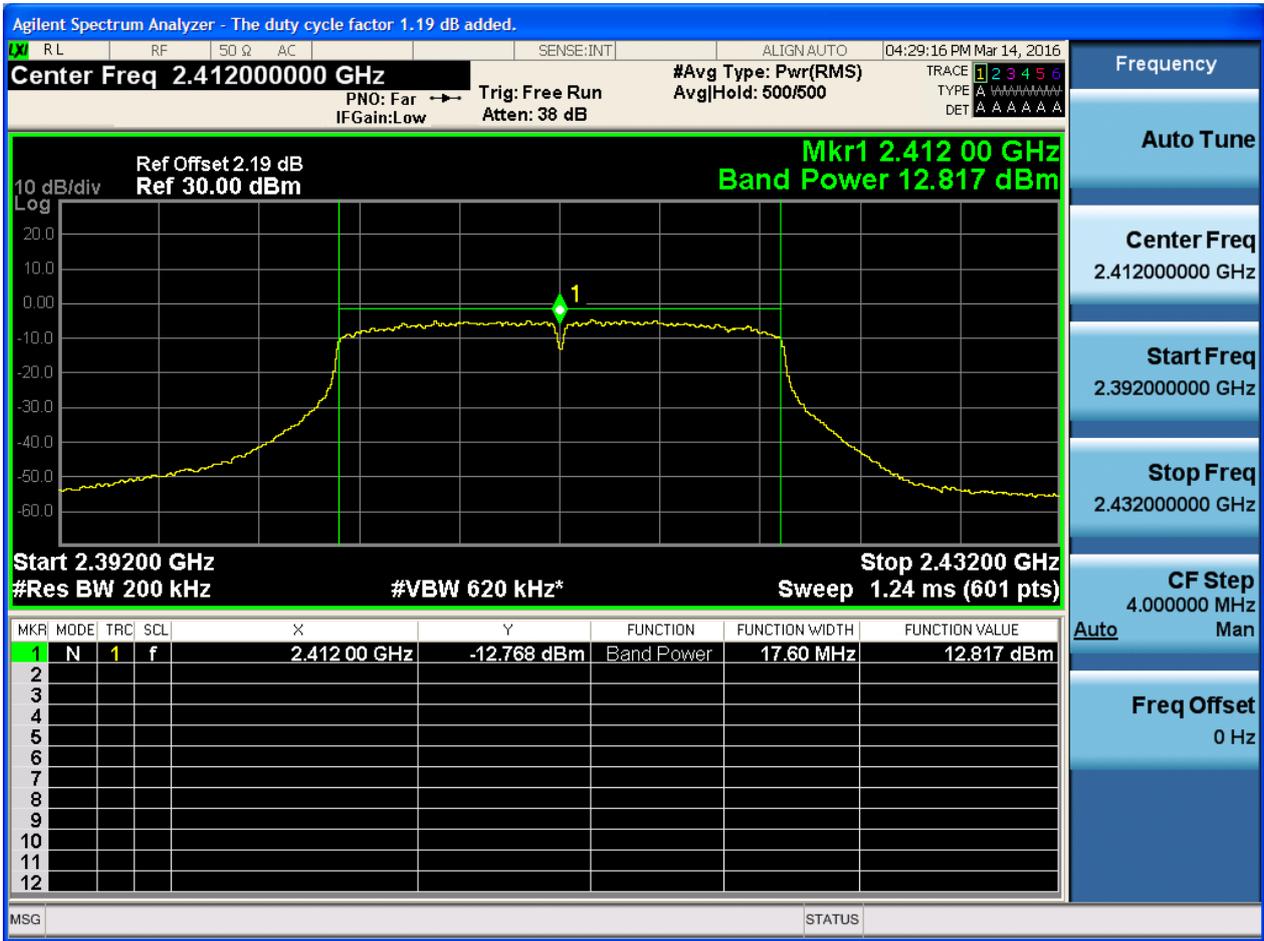


2.13 11N20\_L@Ant 1



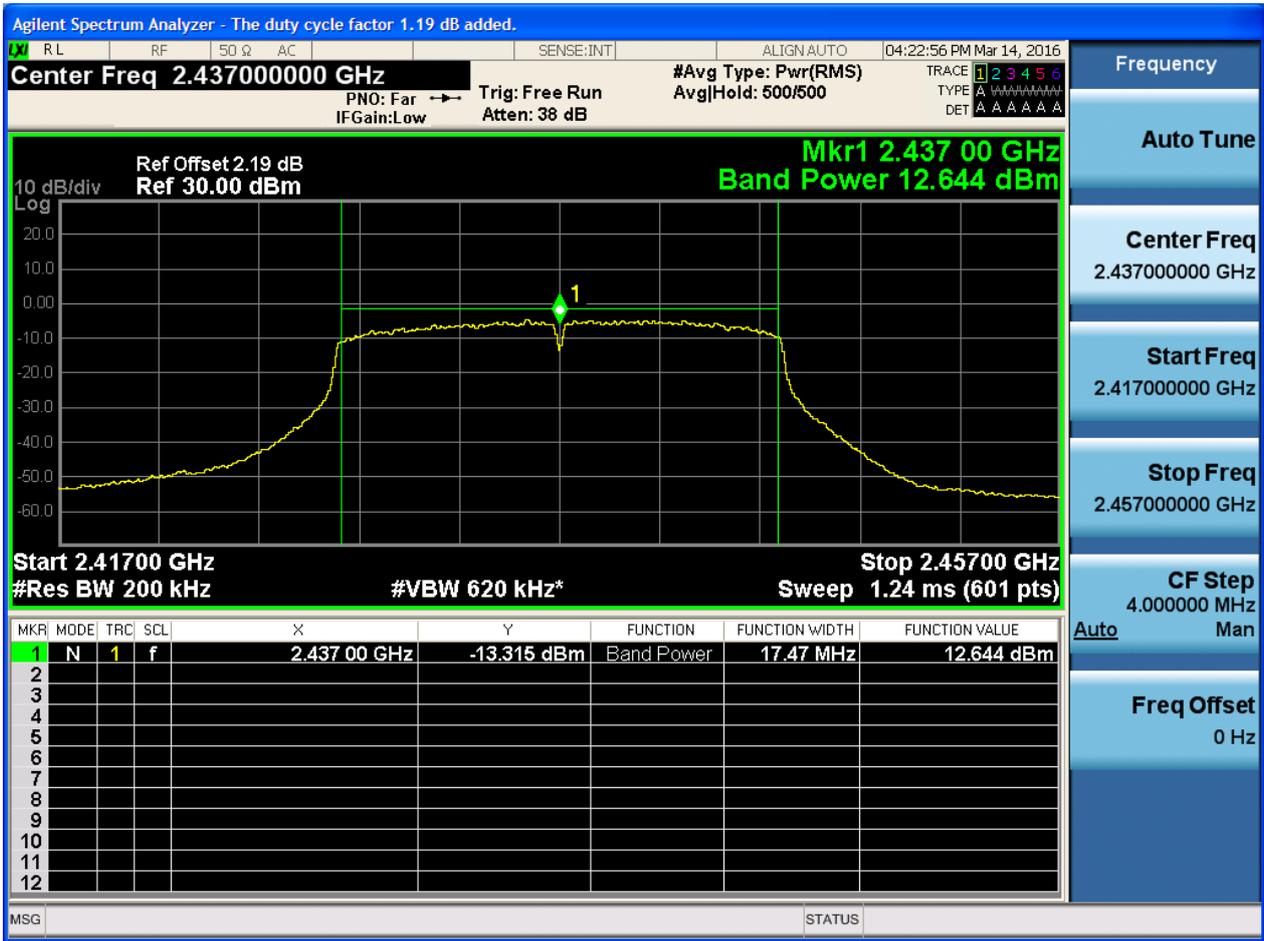


2.14 11N20\_L@Ant 2



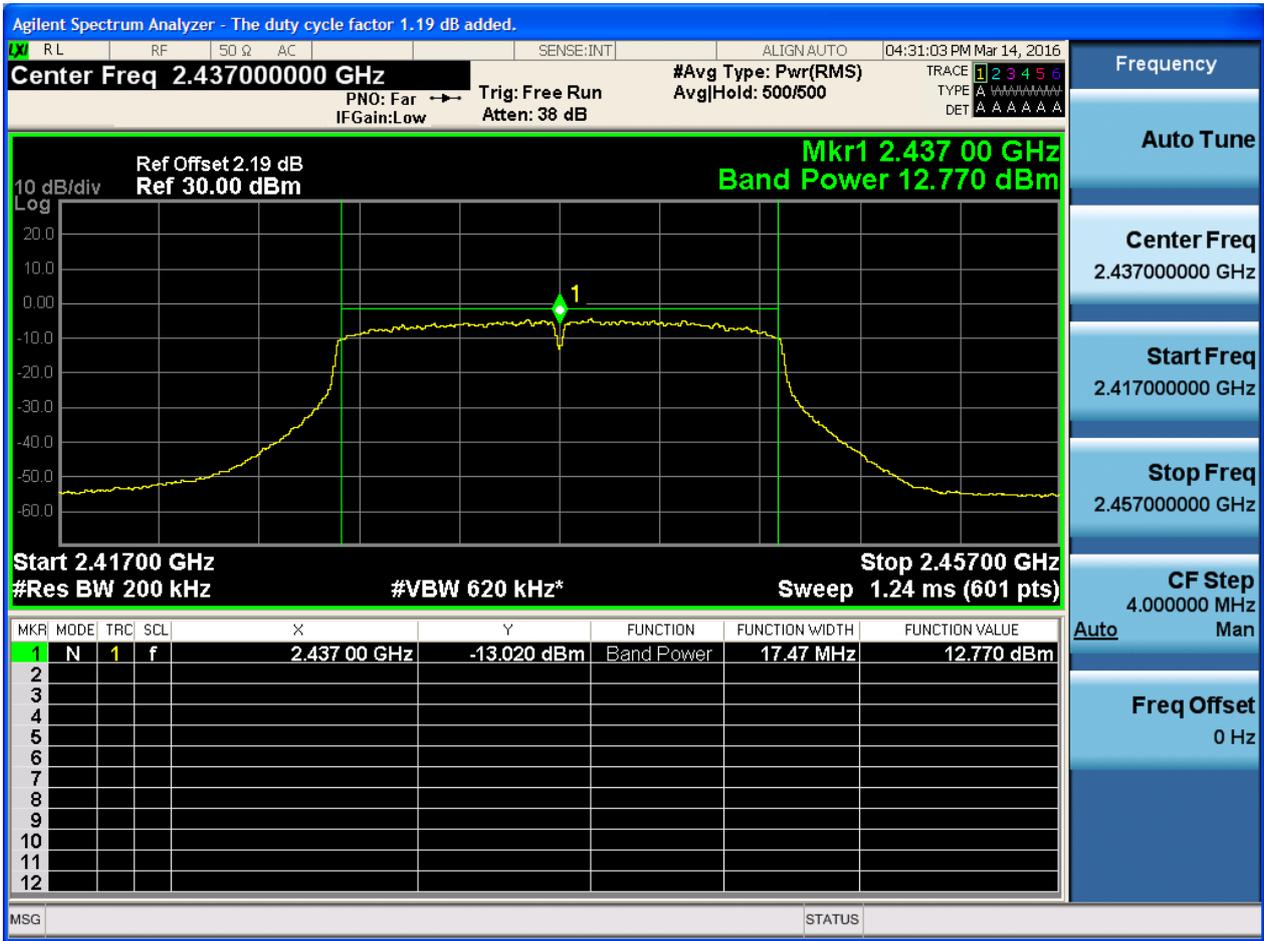


2.15 11N20\_M@Ant 1



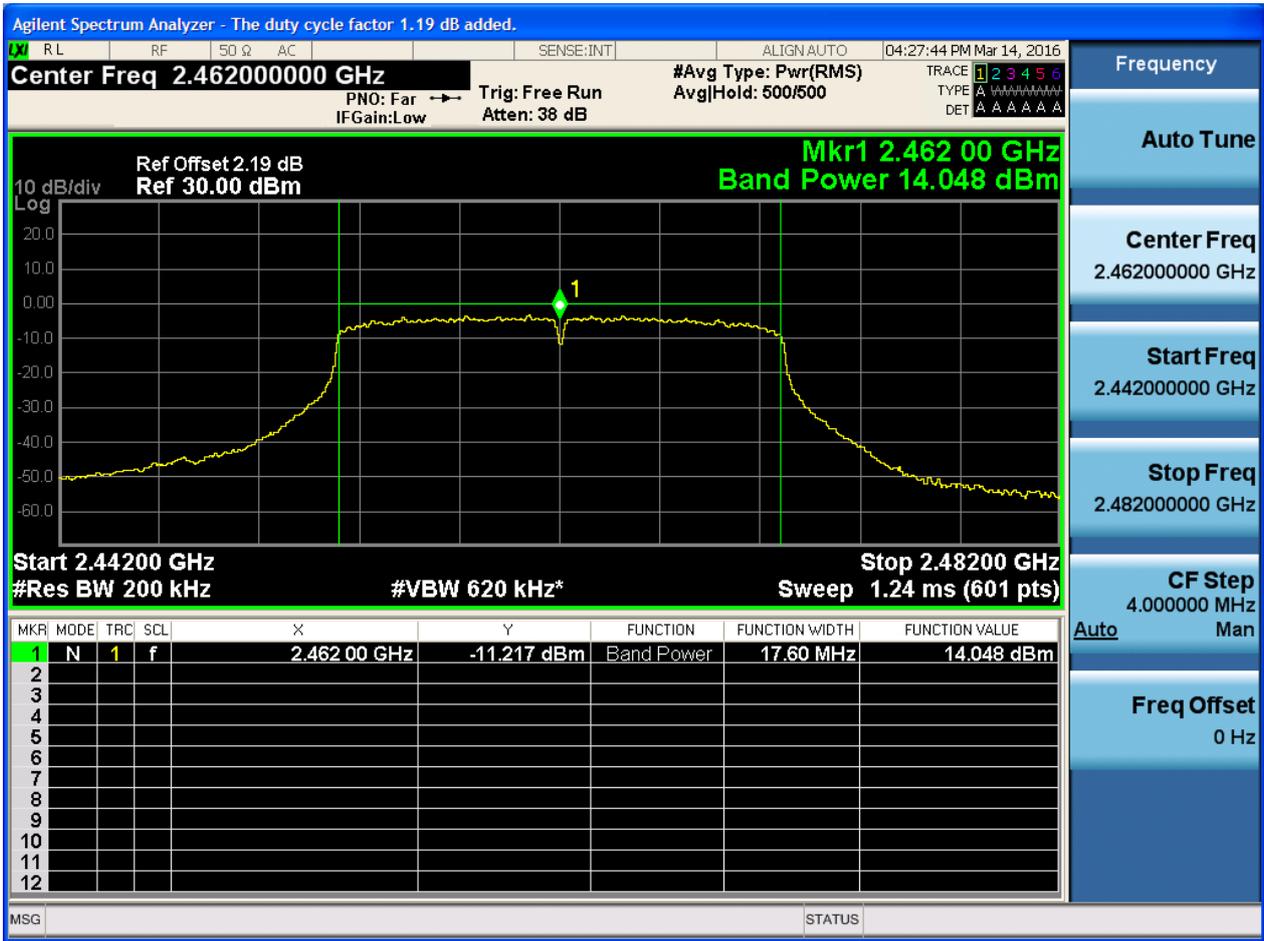


2.16 11N20\_M@Ant 2



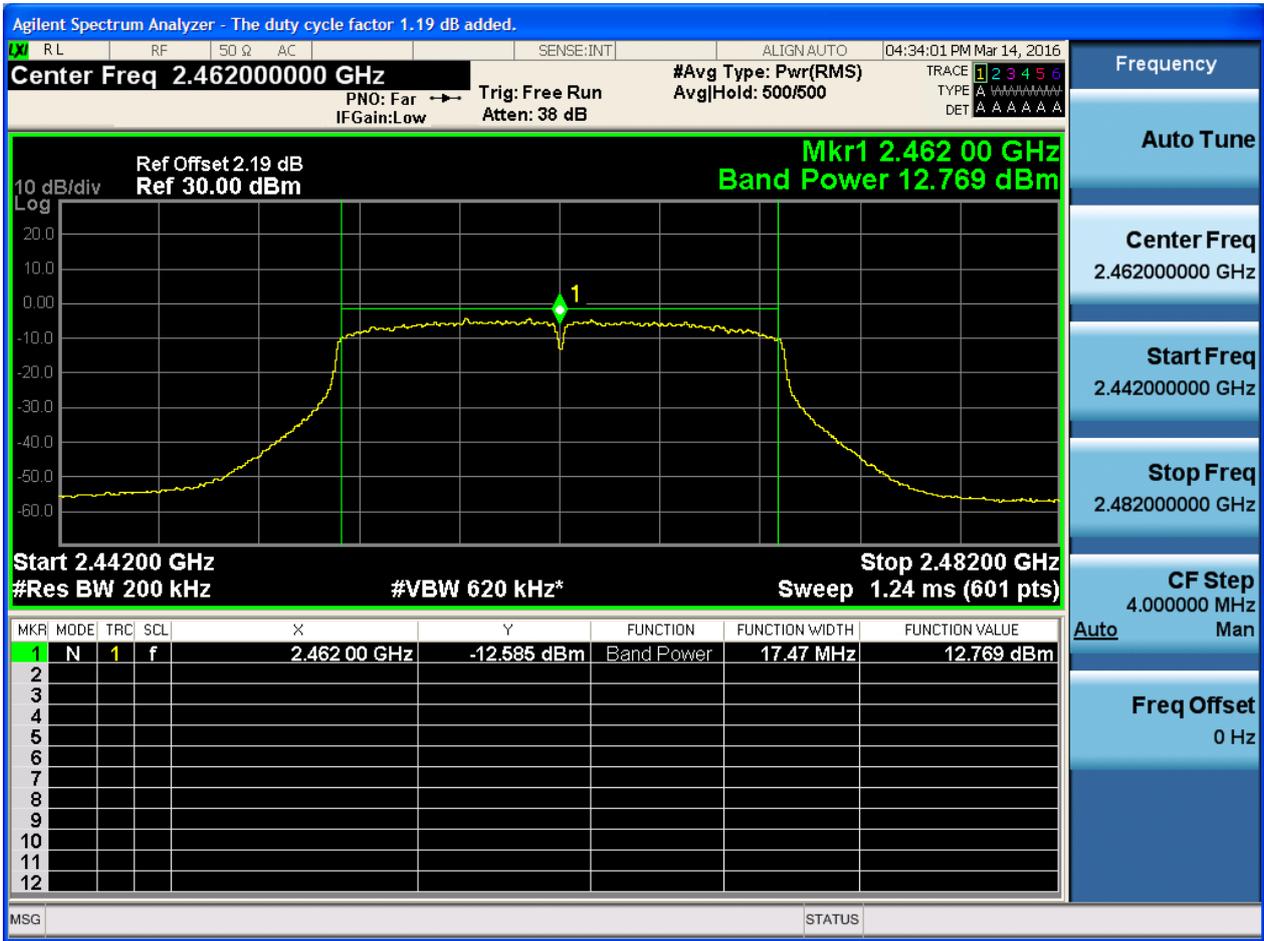


2.17 11N20\_H@Ant 1





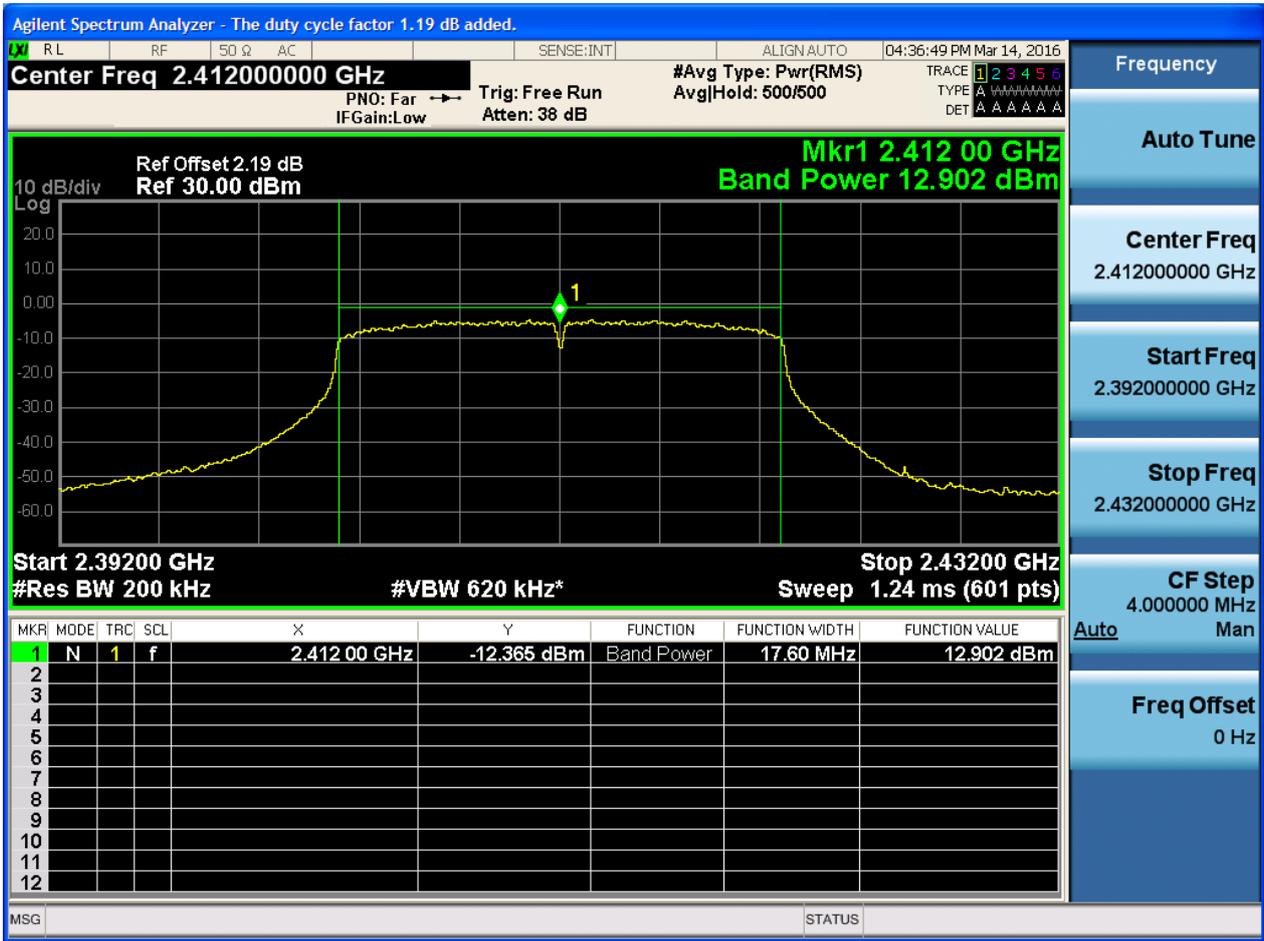
2.18 11N20\_H@Ant 2







2.14 11N20m\_L@Ant 2





2.16 11N20m\_M@Ant 1

