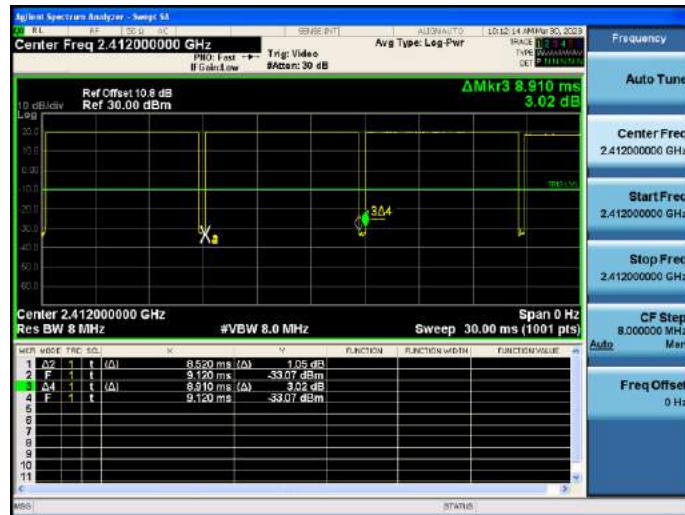


## Appendix B. Test Plots

### Duty cycle

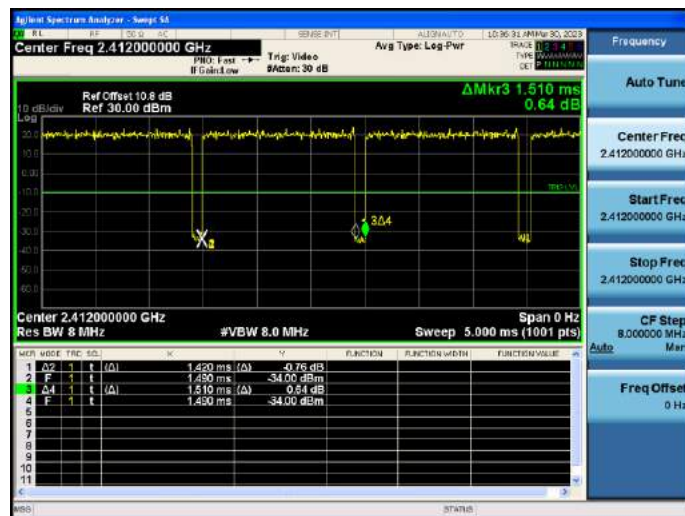
802.11b

On+off time



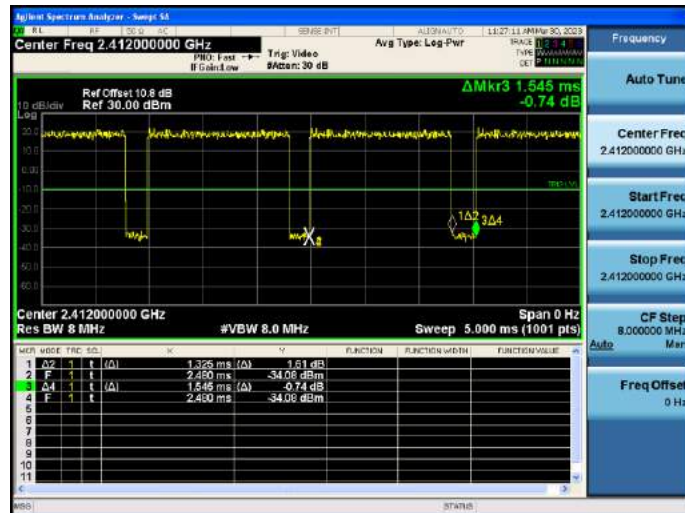
802.11g

On+off time



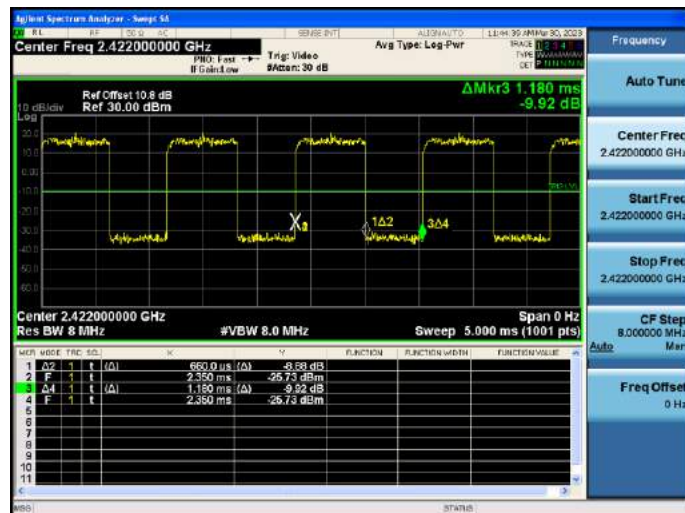
## 802.11n HT20

On+off time



## 802.11n HT40

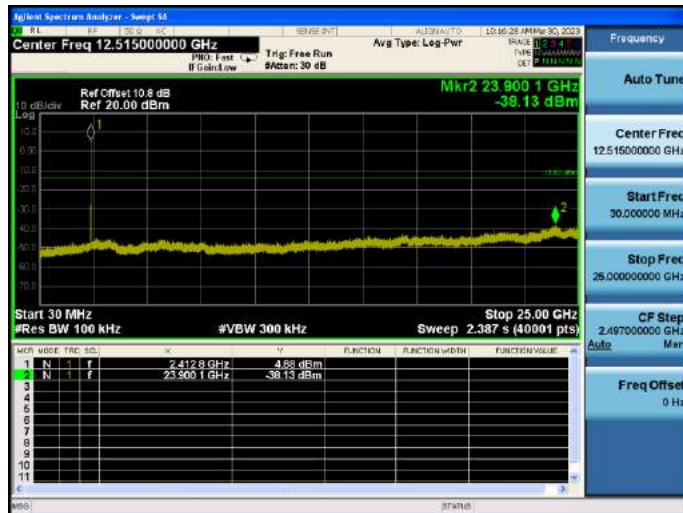
On+off time



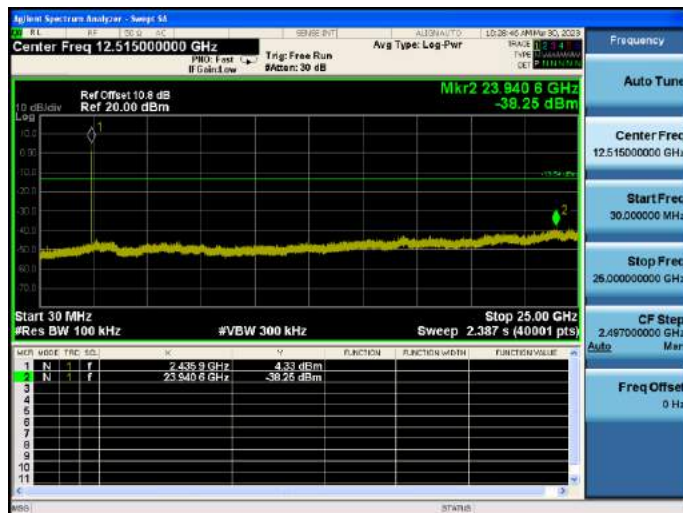
## Out of Band Conducted Spurious Emission

802.11b\_ANT-0

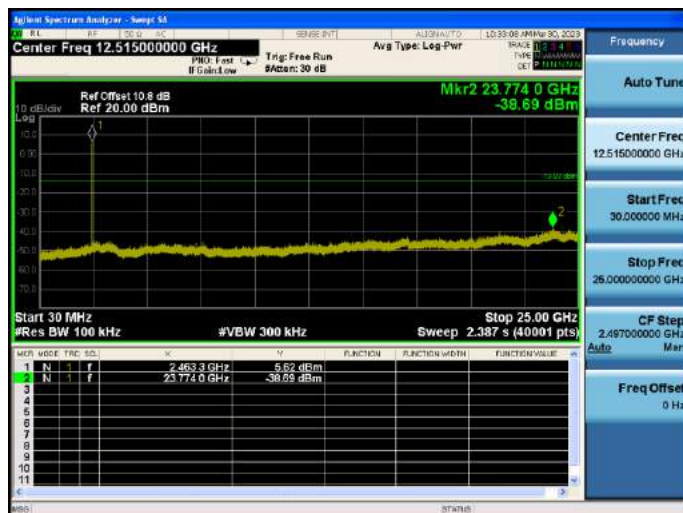
2412 MHz



2437 MHz



2462 MHz

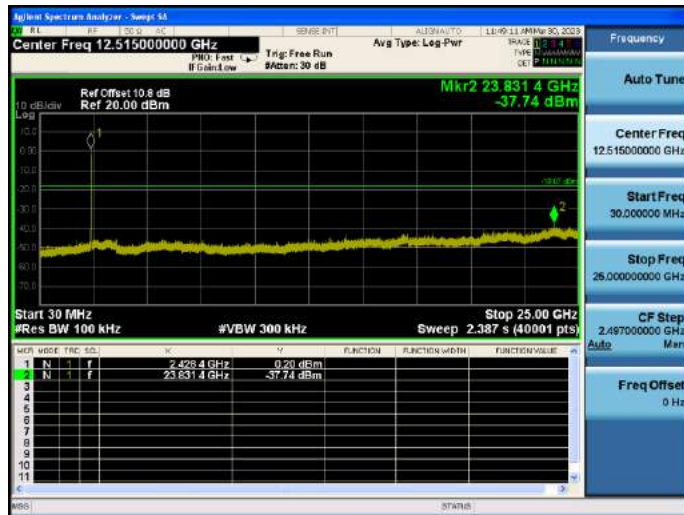


Report Number: 2304FR14  
Version: 00

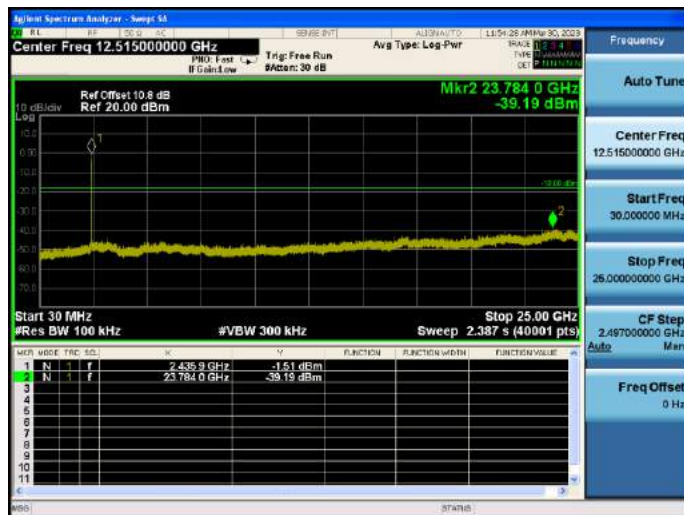
Report Number: 2304FR14  
Version: 00

802.11n HT40\_ANT-0

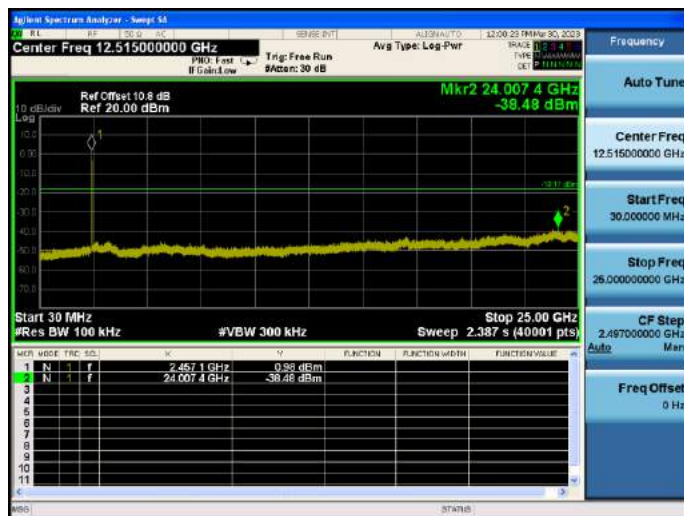
2422 MHz



2437 MHz

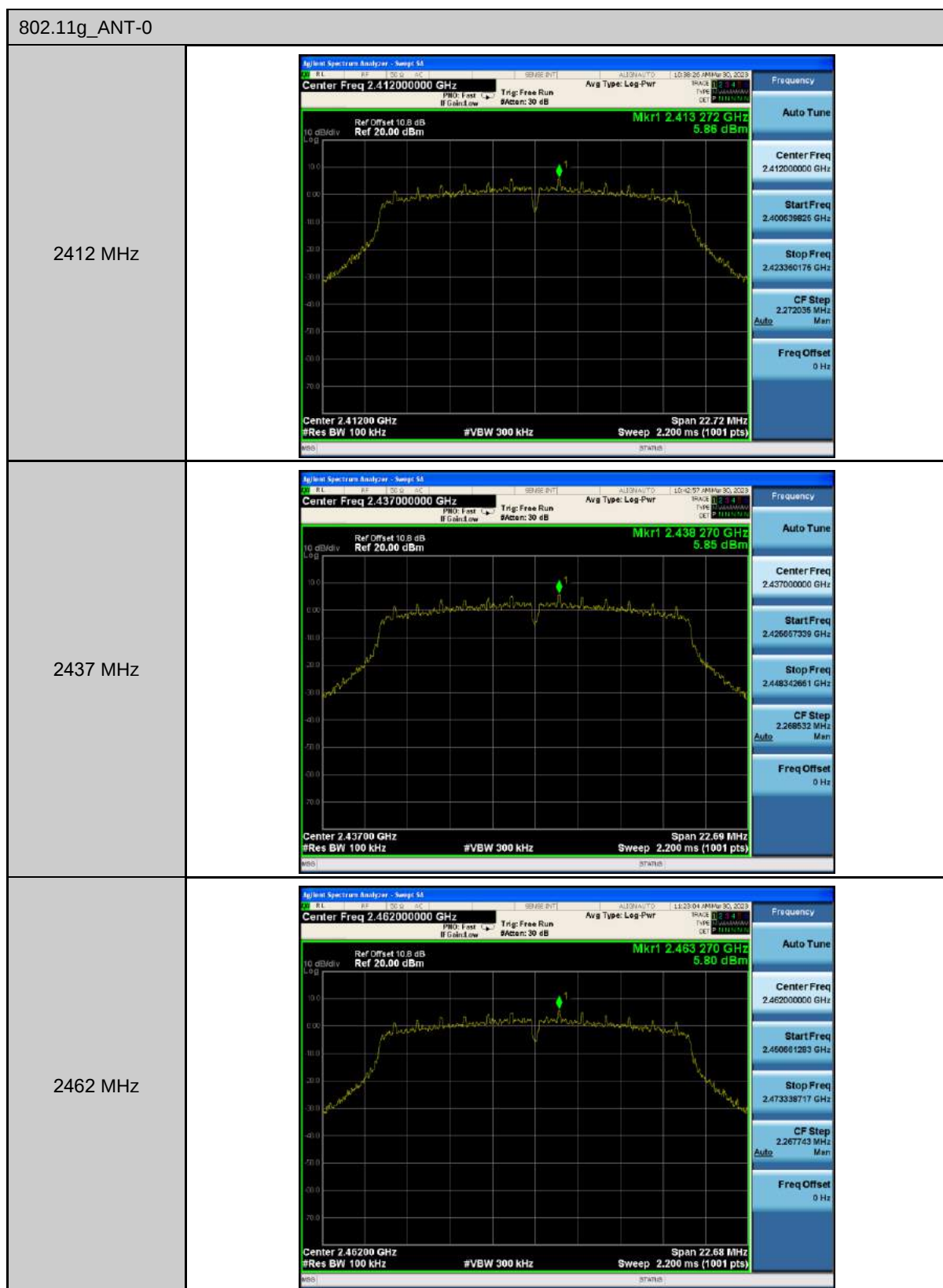


2452 MHz



Reference level

|                                      |                                                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------|
| <p>802.11b_ANT-0</p> <p>2412 MHz</p> |    |
| <p>2437 MHz</p>                      |   |
| <p>2462 MHz</p>                      |  |



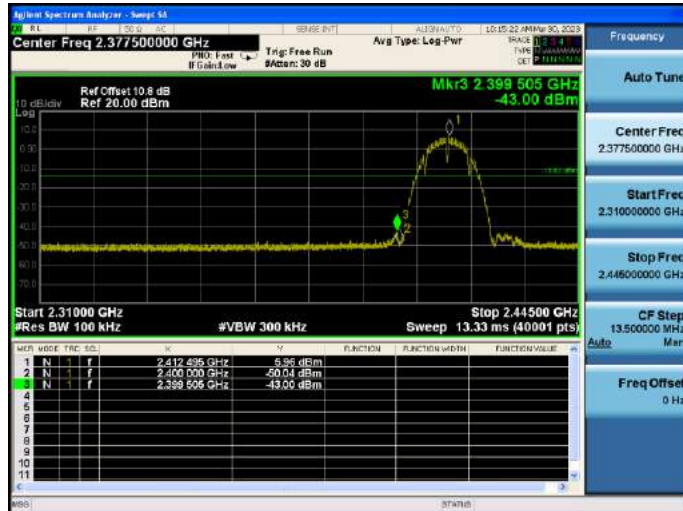
| 802.11n HT20_ANT-0 |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| 2412 MHz           |    |
| 2437 MHz           |   |
| 2462 MHz           |  |

| 802.11n HT40_ANT-0 |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| 2422 MHz           |    |
| 2437 MHz           |   |
| 2452 MHz           |  |

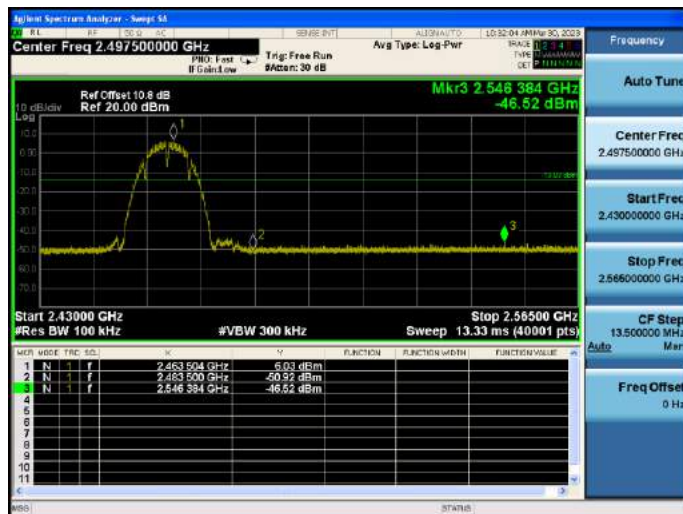
### Conducted Band Edge

802.11b\_ANT-0

2412 MHz

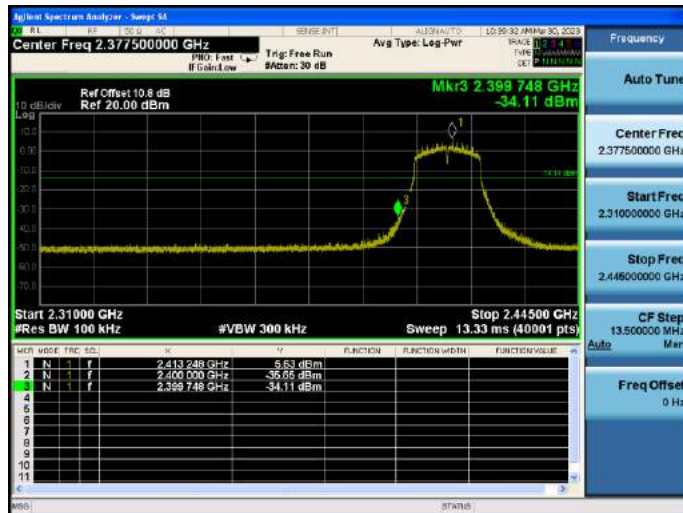


2462 MHz

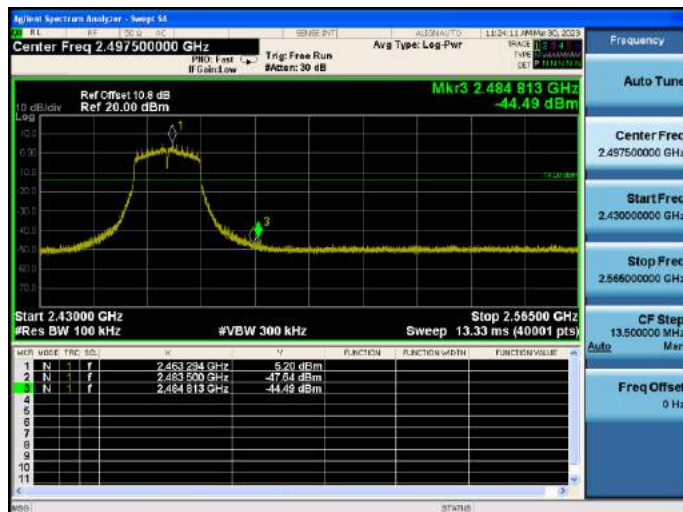


802.11g\_ANT-0

2412 MHz

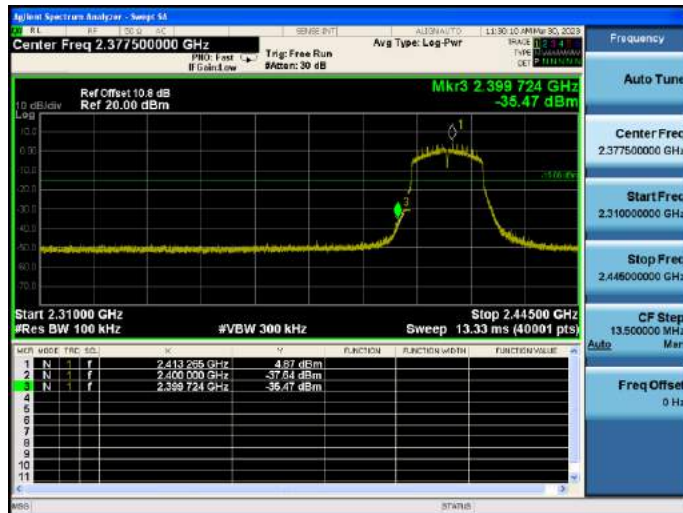


2462 MHz

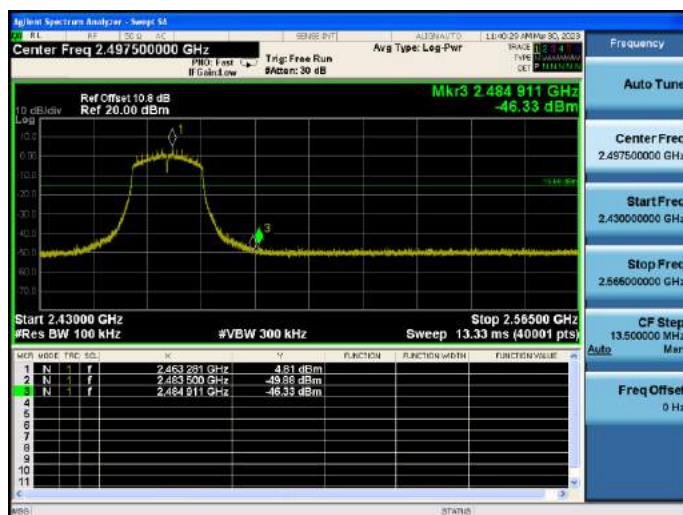


802.11n HT20\_ANT-0

2412 MHz

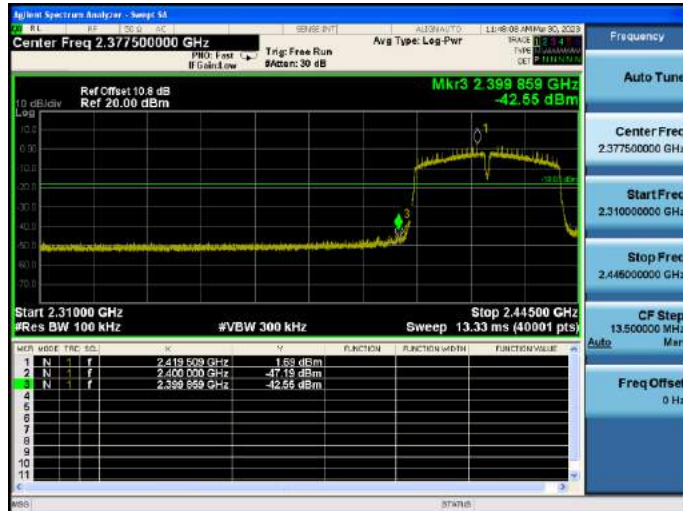


2462 MHz



802.11n HT40\_ANT-0

2422 MHz



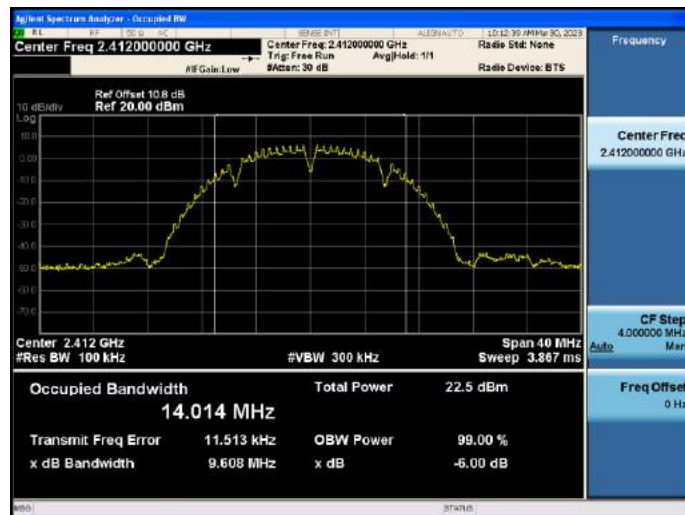
2452 MHz



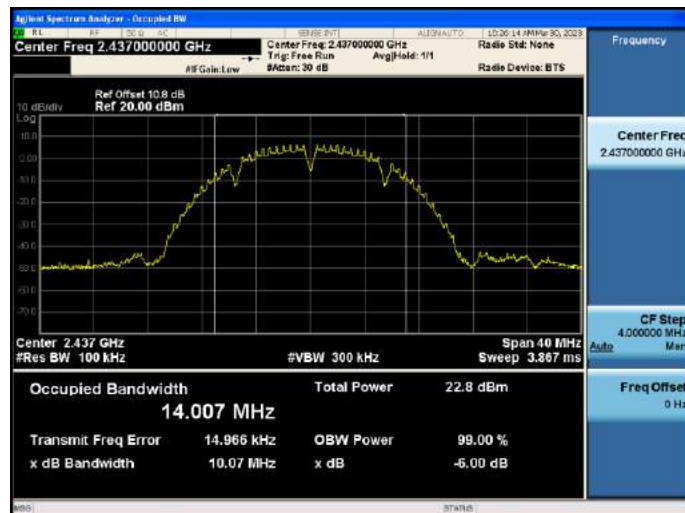
# 6 dB Bandwidth

802.11b\_ANT-0

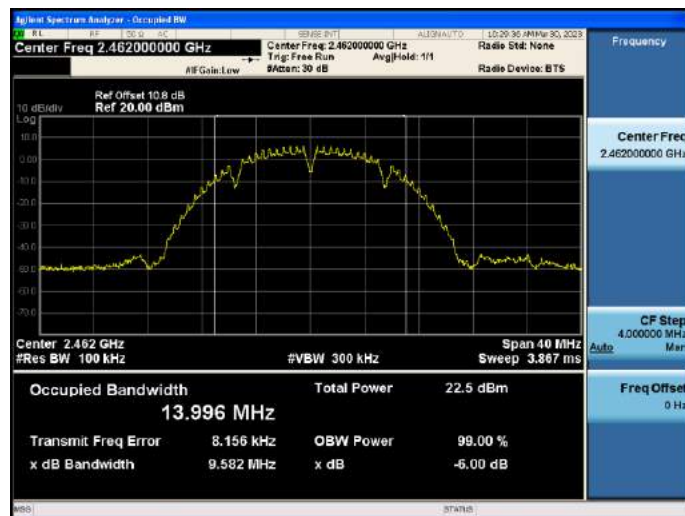
2412 MHz



2437 MHz

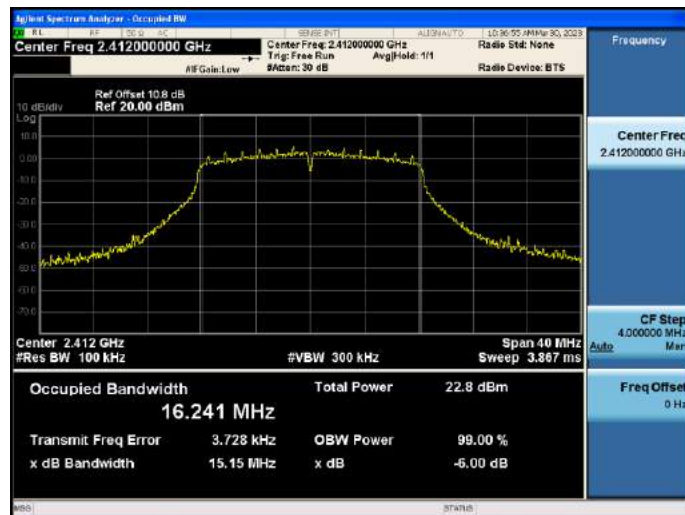


2462 MHz

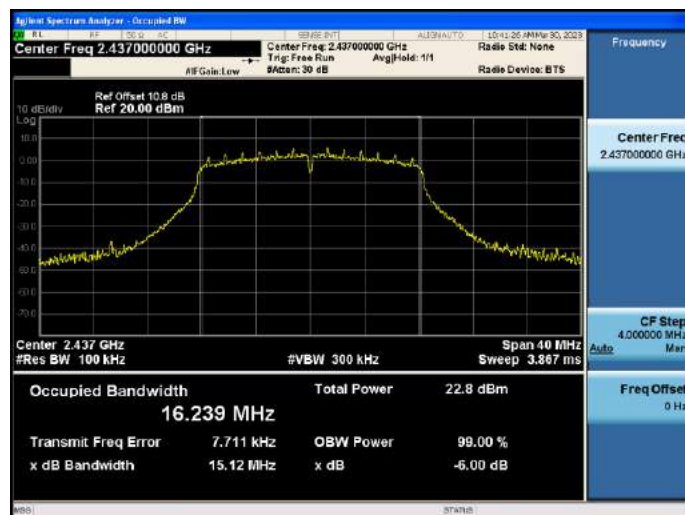


802.11g\_ANT-0

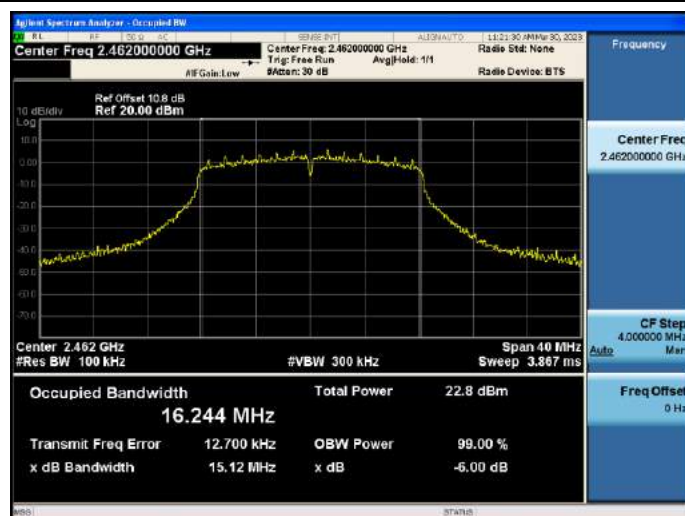
2412 MHz



2437 MHz

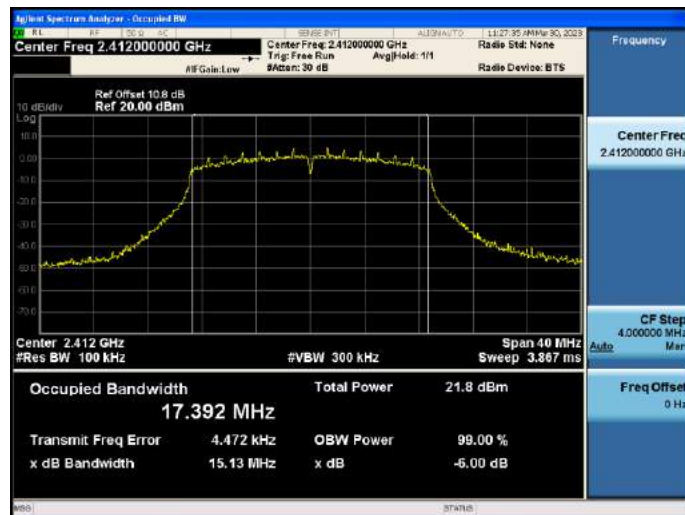


2462 MHz

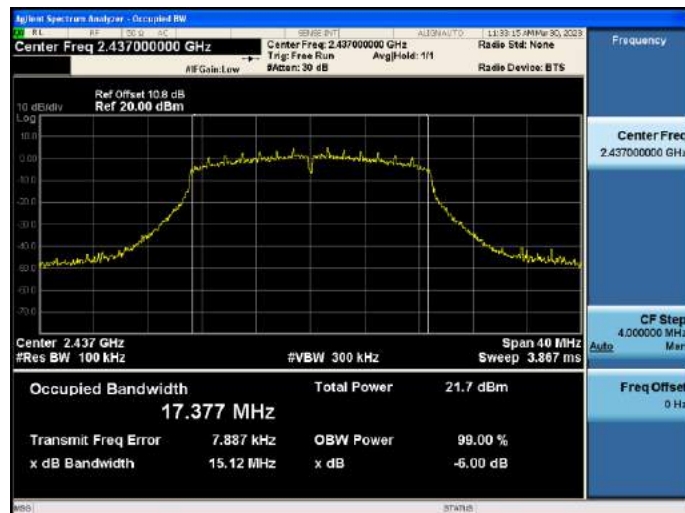


802.11n HT20\_ANT-0

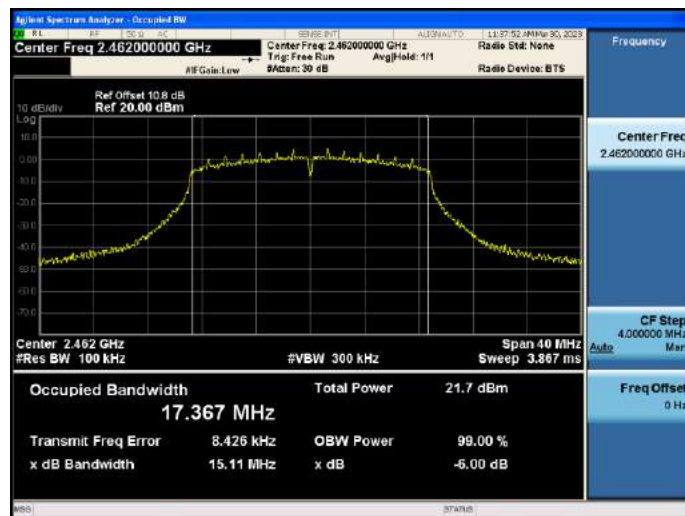
2412 MHz

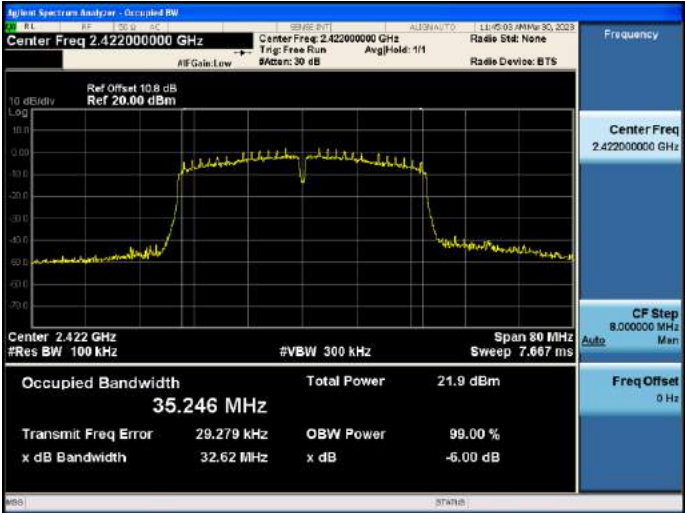
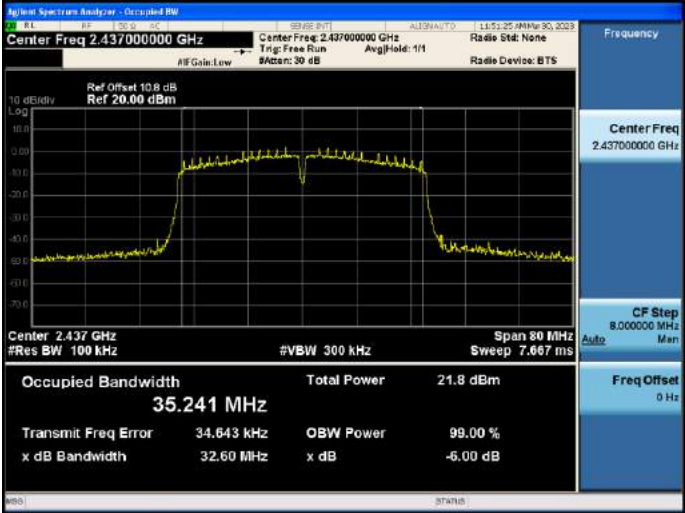
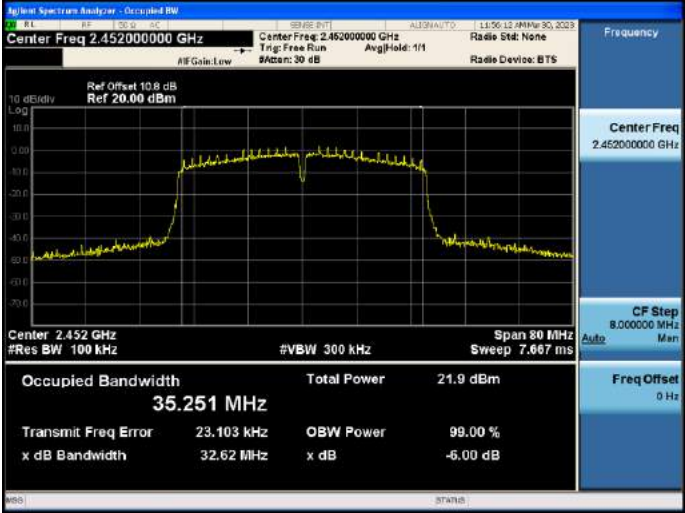


2437 MHz

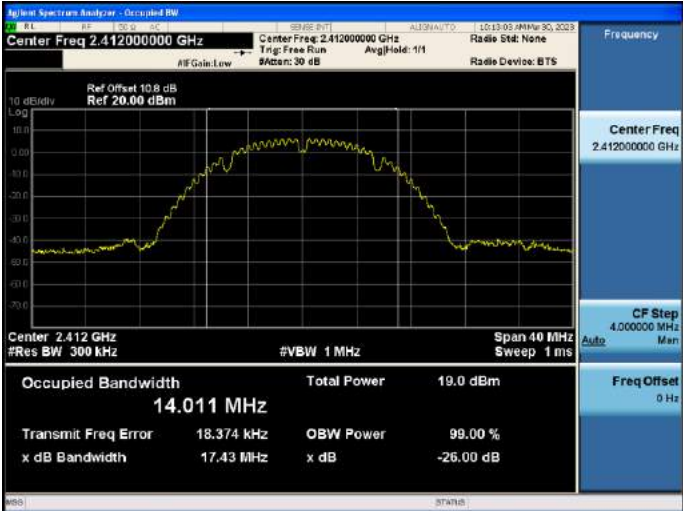
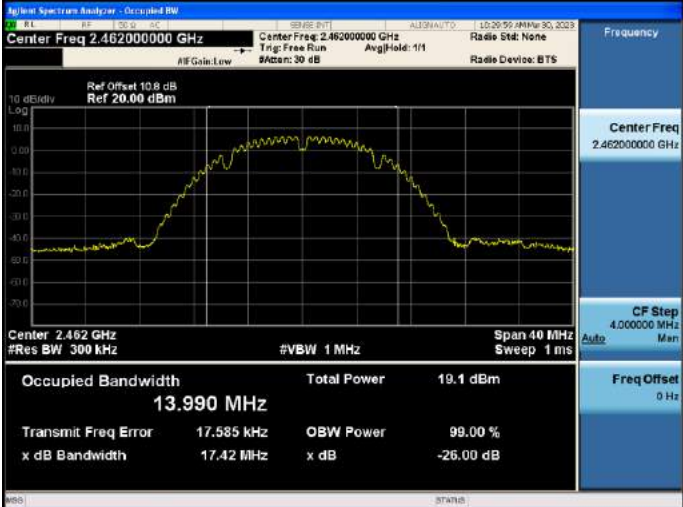


2462 MHz



| 802.11n HT40_ANT-0 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2422 MHz           |  <p> <b>Center Freq 2.422000000 GHz</b><br/> <b>Center Freq 2.422000000 GHz</b><br/> <b>Ref Offset 10.0 dB</b><br/> <b>Ref 20.00 dBm</b><br/> <b>Span 80 MHz</b><br/> <b>#Res BW 100 kHz</b><br/> <b>#VBW 300 kHz</b><br/> <b>Sweep 7.667 ms</b><br/> <b>Occupied Bandwidth 35.246 MHz</b><br/> <b>Total Power 21.9 dBm</b><br/> <b>Transmit Freq Error 29.279 kHz</b><br/> <b>OBW Power 99.00 %</b><br/> <b>x dB Bandwidth 32.62 MHz</b><br/> <b>x dB -6.00 dB</b> </p>   |
| 2437 MHz           |  <p> <b>Center Freq 2.437000000 GHz</b><br/> <b>Center Freq 2.437000000 GHz</b><br/> <b>Ref Offset 10.0 dB</b><br/> <b>Ref 20.00 dBm</b><br/> <b>Span 80 MHz</b><br/> <b>#Res BW 100 kHz</b><br/> <b>#VBW 300 kHz</b><br/> <b>Sweep 7.667 ms</b><br/> <b>Occupied Bandwidth 35.241 MHz</b><br/> <b>Total Power 21.8 dBm</b><br/> <b>Transmit Freq Error 34.643 kHz</b><br/> <b>OBW Power 99.00 %</b><br/> <b>x dB Bandwidth 32.60 MHz</b><br/> <b>x dB -6.00 dB</b> </p>  |
| 2452 MHz           |  <p> <b>Center Freq 2.452000000 GHz</b><br/> <b>Center Freq 2.452000000 GHz</b><br/> <b>Ref Offset 10.0 dB</b><br/> <b>Ref 20.00 dBm</b><br/> <b>Span 80 MHz</b><br/> <b>#Res BW 100 kHz</b><br/> <b>#VBW 300 kHz</b><br/> <b>Sweep 7.667 ms</b><br/> <b>Occupied Bandwidth 35.251 MHz</b><br/> <b>Total Power 21.9 dBm</b><br/> <b>Transmit Freq Error 23.103 kHz</b><br/> <b>OBW Power 99.00 %</b><br/> <b>x dB Bandwidth 32.62 MHz</b><br/> <b>x dB -6.00 dB</b> </p> |

99% Occupied Bandwidth

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>802.11b_ANT-0</p> <p>2412 MHz</p> |  <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.412000000 GHz</p> <p>Ref Offset 10.0 dB<br/>Ref 20.00 dBm</p> <p>Center 2.412 GHz<br/>#Res BW 300 kHz</p> <p>Span 40 MHz<br/>Sweep 1 ms</p> <p>Occupied Bandwidth<br/><b>14.011 MHz</b></p> <p>Total Power<br/>19.0 dBm</p> <p>Transmit Freq Error<br/>18.374 kHz</p> <p>OBW Power<br/>99.00 %</p> <p>x dB Bandwidth<br/>17.43 MHz</p> <p>x dB<br/>-26.00 dB</p>   |
| <p>2437 MHz</p>                      |  <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.437000000 GHz</p> <p>Ref Offset 10.0 dB<br/>Ref 20.00 dBm</p> <p>Center 2.437 GHz<br/>#Res BW 300 kHz</p> <p>Span 40 MHz<br/>Sweep 1 ms</p> <p>Occupied Bandwidth<br/><b>13.998 MHz</b></p> <p>Total Power<br/>19.4 dBm</p> <p>Transmit Freq Error<br/>20.608 kHz</p> <p>OBW Power<br/>99.00 %</p> <p>x dB Bandwidth<br/>17.41 MHz</p> <p>x dB<br/>-26.00 dB</p>  |
| <p>2462 MHz</p>                      |  <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.462000000 GHz</p> <p>Ref Offset 10.0 dB<br/>Ref 20.00 dBm</p> <p>Center 2.462 GHz<br/>#Res BW 300 kHz</p> <p>Span 40 MHz<br/>Sweep 1 ms</p> <p>Occupied Bandwidth<br/><b>13.990 MHz</b></p> <p>Total Power<br/>19.1 dBm</p> <p>Transmit Freq Error<br/>17.585 kHz</p> <p>OBW Power<br/>99.00 %</p> <p>x dB Bandwidth<br/>17.42 MHz</p> <p>x dB<br/>-26.00 dB</p> |

802.11g\_ANT-0

2412 MHz

**Agilent Spectrum Analyzer - Occupied BW**

Center Freq: 2.412000000 GHz  
 Ref Offset: 10.8 dB  
 Ref: 20.00 dBm

Occupied Bandwidth: **16.403 MHz**  
 Total Power: 22.7 dBm  
 Transmit Freq Error: 7.027 kHz  
 OBW Power: 99.00 %  
 x dB Bandwidth: 20.04 MHz  
 x dB: -26.00 dB

Center: 2412 GHz  
 #Res BW: 300 kHz  
 #VBW: 1 MHz  
 Span: 40 MHz  
 Sweep: 1 ms

Frequency: 2.41200000 GHz  
 CF Step: 4.000000 MHz  
 Freq Offset: 0 Hz

2437 MHz

**Agilent Spectrum Analyzer - Occupied BW**

Center Freq: 2.437000000 GHz  
 Ref Offset: 10.8 dB  
 Ref: 20.00 dBm

Occupied Bandwidth: **16.377 MHz**  
 Total Power: 22.7 dBm  
 Transmit Freq Error: 16.436 kHz  
 OBW Power: 99.00 %  
 x dB Bandwidth: 20.08 MHz  
 x dB: -26.00 dB

Center: 2437 GHz  
 #Res BW: 300 kHz  
 #VBW: 1 MHz  
 Span: 40 MHz  
 Sweep: 1 ms

Frequency: 2.43700000 GHz  
 CF Step: 4.000000 MHz  
 Freq Offset: 0 Hz

2462 MHz

**Agilent Spectrum Analyzer - Occupied BW**

Center Freq: 2.462000000 GHz  
 Ref Offset: 10.8 dB  
 Ref: 20.00 dBm

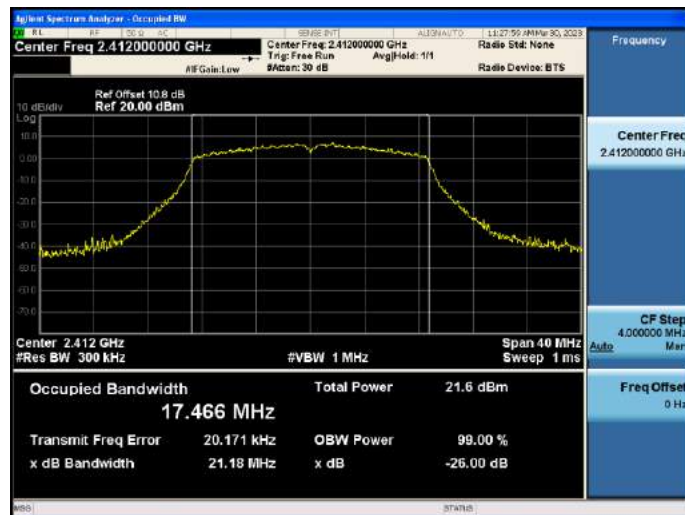
Occupied Bandwidth: **16.406 MHz**  
 Total Power: 22.6 dBm  
 Transmit Freq Error: 17.781 kHz  
 OBW Power: 99.00 %  
 x dB Bandwidth: 20.59 MHz  
 x dB: -26.00 dB

Center: 2462 GHz  
 #Res BW: 300 kHz  
 #VBW: 1 MHz  
 Span: 40 MHz  
 Sweep: 1 ms

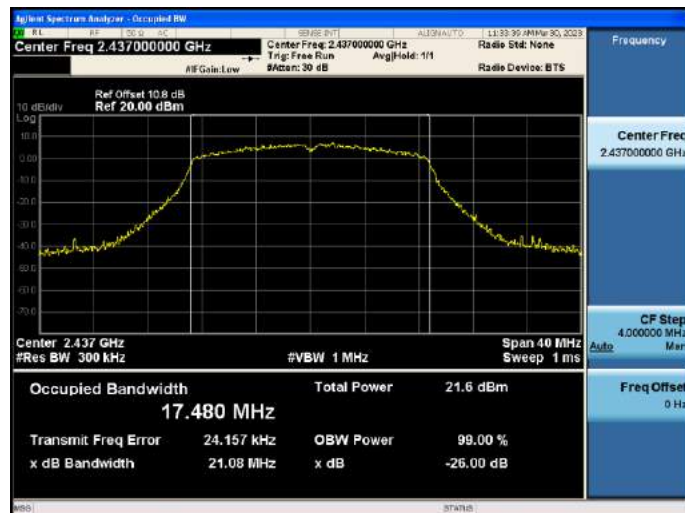
Frequency: 2.46200000 GHz  
 CF Step: 4.000000 MHz  
 Freq Offset: 0 Hz

802.11n HT20\_ANT-0

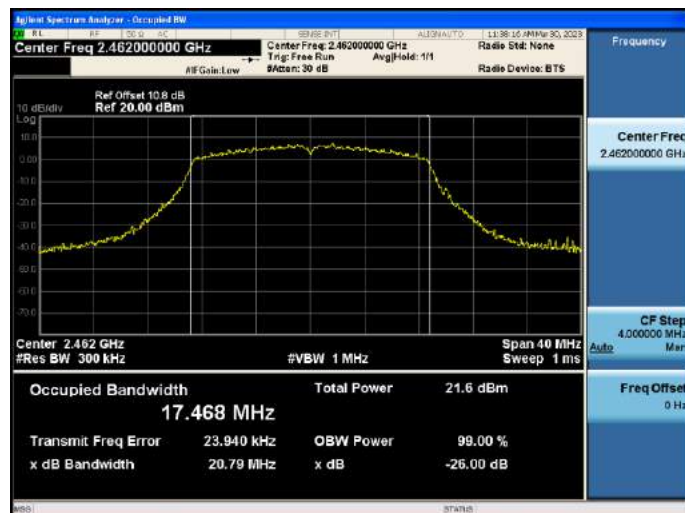
2412 MHz

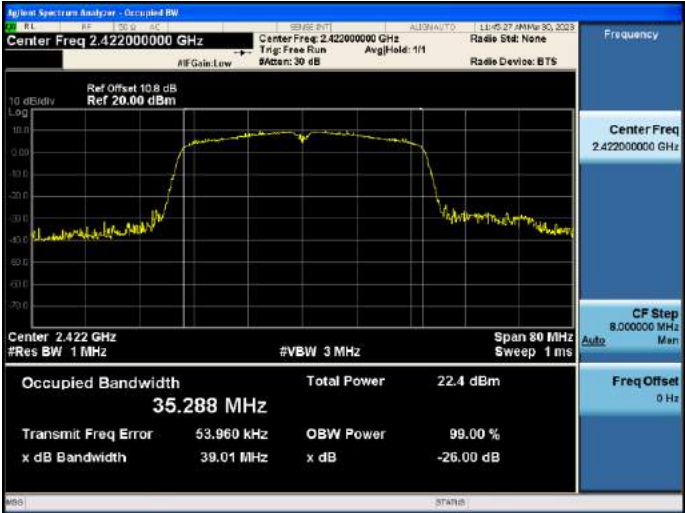
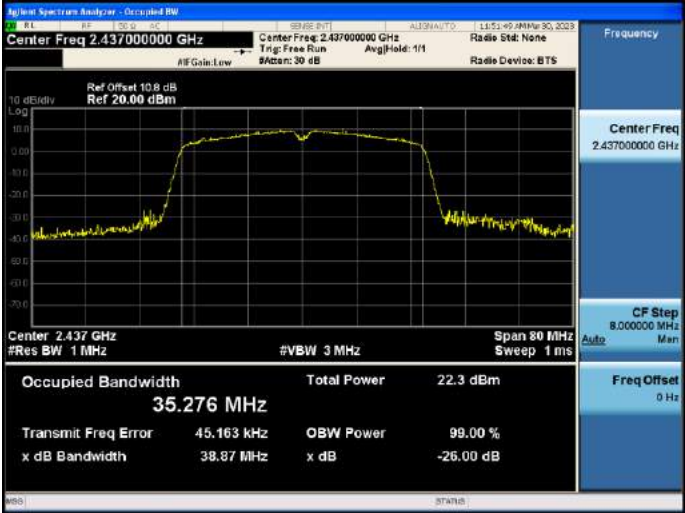
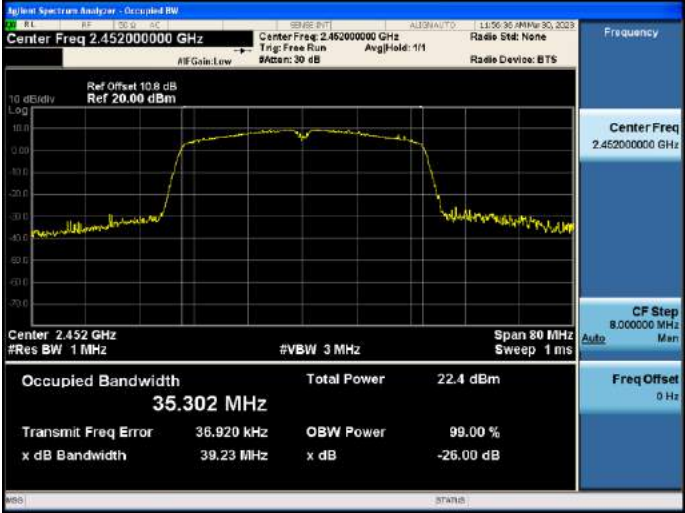


2437 MHz



2462 MHz



| 802.11n HT40_ANT-0 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2422 MHz           |  <p> <b>Agilent Spectrum Analyzer - Occupied BW</b><br/> <b>Center Freq 2.422000000 GHz</b><br/> <b>Ref Offset 10.0 dB</b><br/> <b>Ref 20.00 dBm</b><br/> <b>Center 2.422 GHz</b><br/> <b>#Res BW 1 MHz</b><br/> <b>#VBW 3 MHz</b><br/> <b>Span 80 MHz</b><br/> <b>Sweep 1 ms</b><br/> <b>Occupied Bandwidth 35.288 MHz</b><br/> <b>Total Power 22.4 dBm</b><br/> <b>Transmit Freq Error 53.960 kHz</b><br/> <b>OBW Power 99.00 %</b><br/> <b>x dB Bandwidth 39.01 MHz</b><br/> <b>x dB -26.00 dB</b> </p>   |
| 2437 MHz           |  <p> <b>Agilent Spectrum Analyzer - Occupied BW</b><br/> <b>Center Freq 2.437000000 GHz</b><br/> <b>Ref Offset 10.0 dB</b><br/> <b>Ref 20.00 dBm</b><br/> <b>Center 2.437 GHz</b><br/> <b>#Res BW 1 MHz</b><br/> <b>#VBW 3 MHz</b><br/> <b>Span 80 MHz</b><br/> <b>Sweep 1 ms</b><br/> <b>Occupied Bandwidth 35.276 MHz</b><br/> <b>Total Power 22.3 dBm</b><br/> <b>Transmit Freq Error 45.163 kHz</b><br/> <b>OBW Power 99.00 %</b><br/> <b>x dB Bandwidth 38.87 MHz</b><br/> <b>x dB -26.00 dB</b> </p>  |
| 2452 MHz           |  <p> <b>Agilent Spectrum Analyzer - Occupied BW</b><br/> <b>Center Freq 2.452000000 GHz</b><br/> <b>Ref Offset 10.0 dB</b><br/> <b>Ref 20.00 dBm</b><br/> <b>Center 2.452 GHz</b><br/> <b>#Res BW 1 MHz</b><br/> <b>#VBW 3 MHz</b><br/> <b>Span 80 MHz</b><br/> <b>Sweep 1 ms</b><br/> <b>Occupied Bandwidth 35.302 MHz</b><br/> <b>Total Power 22.4 dBm</b><br/> <b>Transmit Freq Error 36.920 kHz</b><br/> <b>OBW Power 99.00 %</b><br/> <b>x dB Bandwidth 39.23 MHz</b><br/> <b>x dB -26.00 dB</b> </p> |

# Maximum Power Spectral Density

| 802.11b_ANT-0 |                                                                                      |
|---------------|--------------------------------------------------------------------------------------|
| 2412 MHz      |    |
| 2437 MHz      |   |
| 2462 MHz      |  |

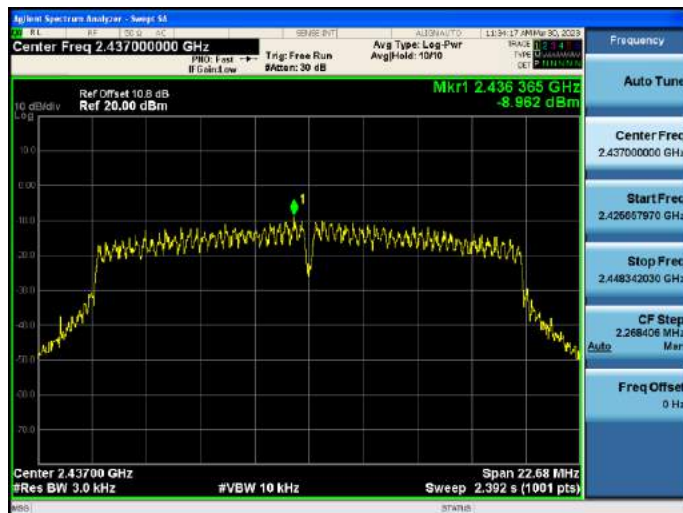
|               |                                                                                      |
|---------------|--------------------------------------------------------------------------------------|
| 802.11g_ANT-0 |                                                                                      |
| 2412 MHz      |    |
| 2437 MHz      |   |
| 2462 MHz      |  |

802.11n HT20\_ANT-0

2412 MHz



2437 MHz



2462 MHz



| 802.11n HT40_ANT-0 |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| 2422 MHz           |    |
| 2437 MHz           |   |
| 2452 MHz           |  |