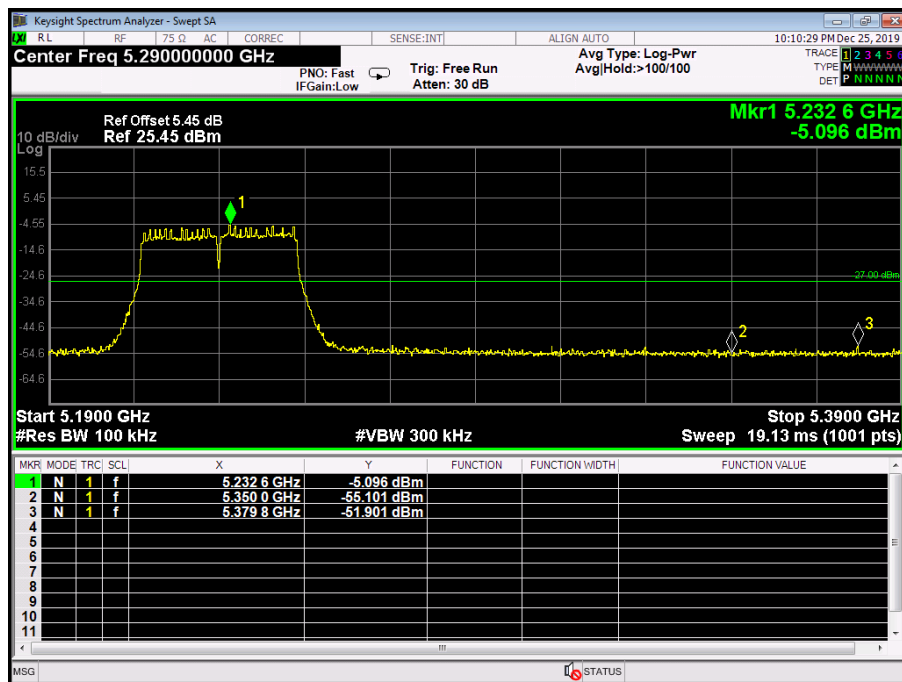
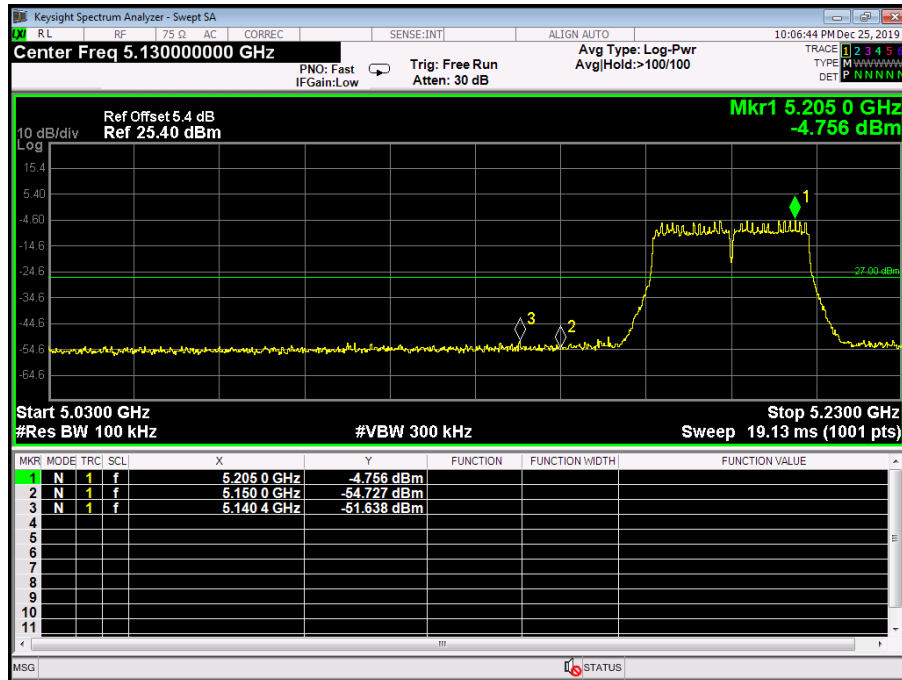
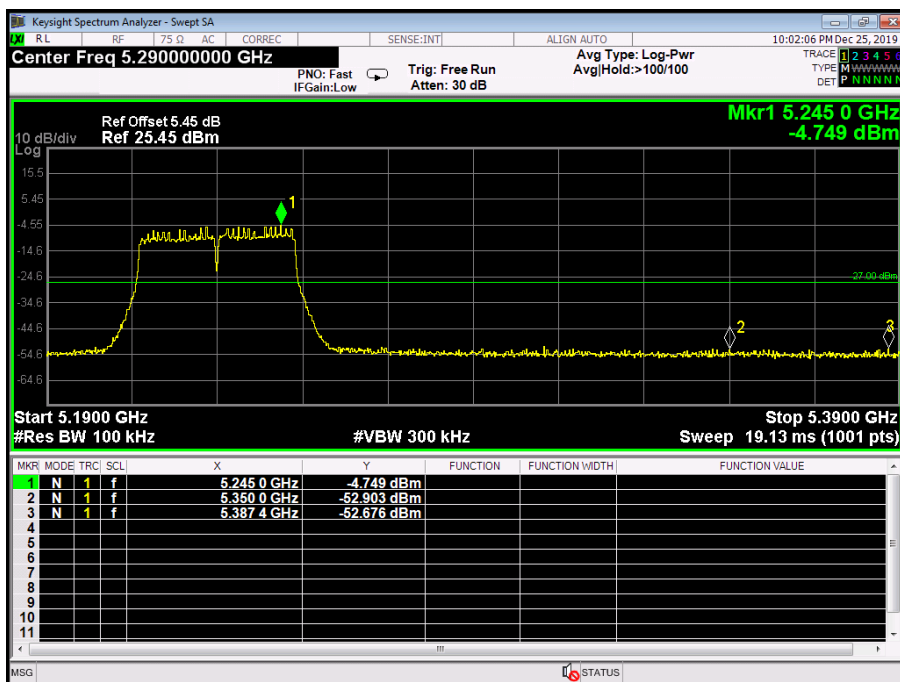
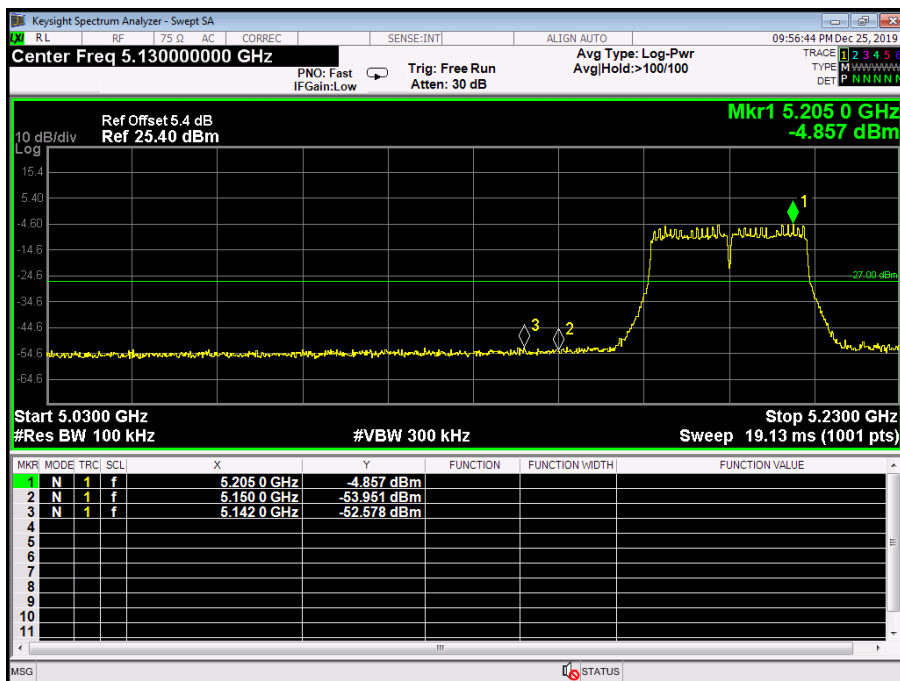


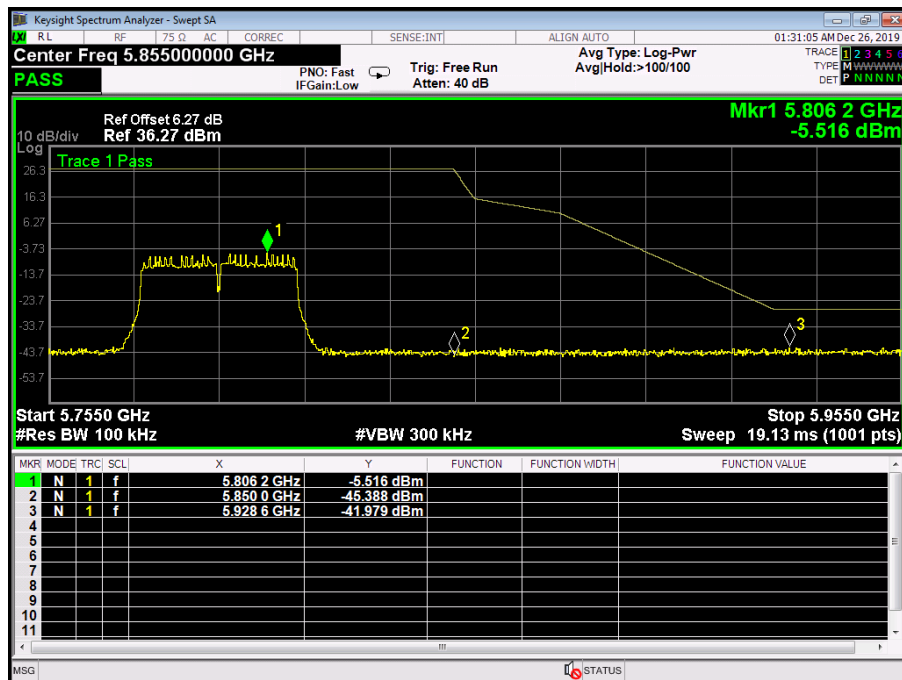
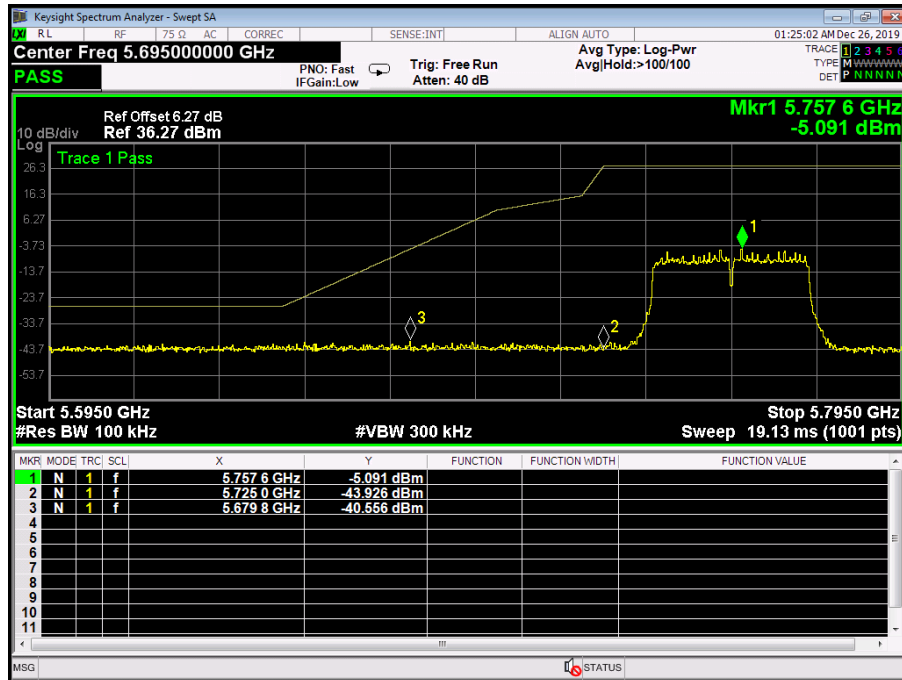
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11n(40) mode(U-NII-1) / 5190 ~ 5230MHz		
Remark:	The EUT is programed in continuously transmitting mode		



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11ac(VHT40) mode(U-NII-1) / 5190 ~ 5230MHz		
Remark:	The EUT is programed in continuously transmitting mode		

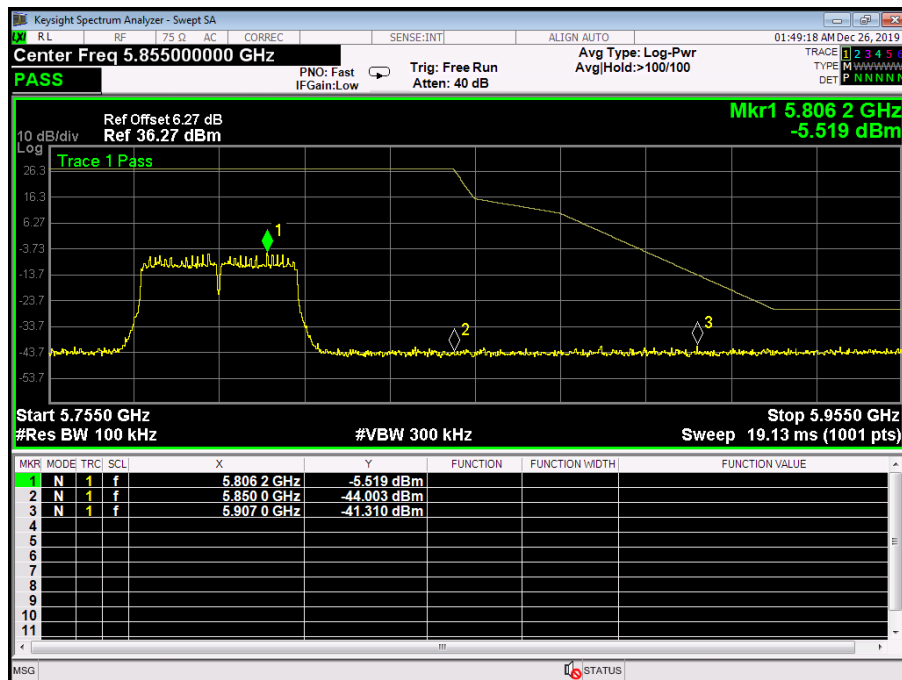
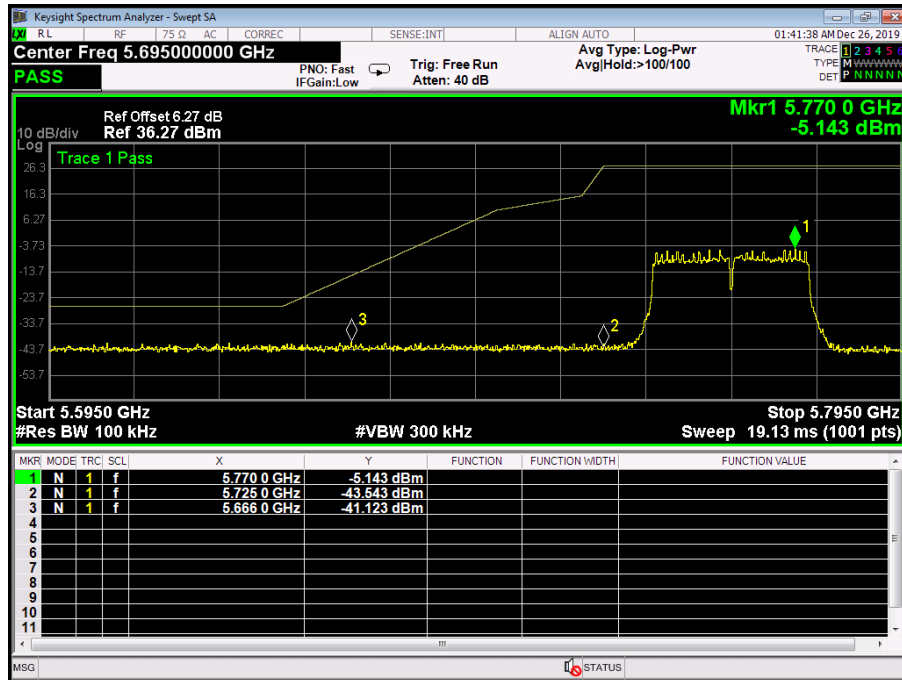


Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11 n(40) Mode 5755MHz/5795 (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		





Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11 ac(VHT40) Mode 5755MHz/5795 (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		



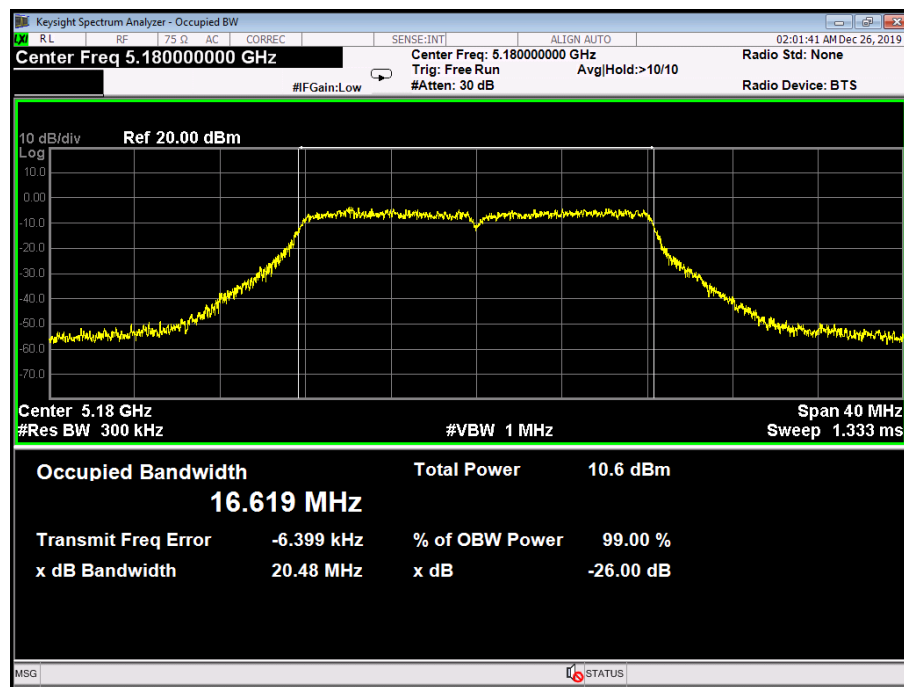
## Attachment D-- Bandwidth Test Data

ANT 0:

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11a Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	20.48	16.619
40	5200	20.15	16.575
48	5240	20.14	16.402

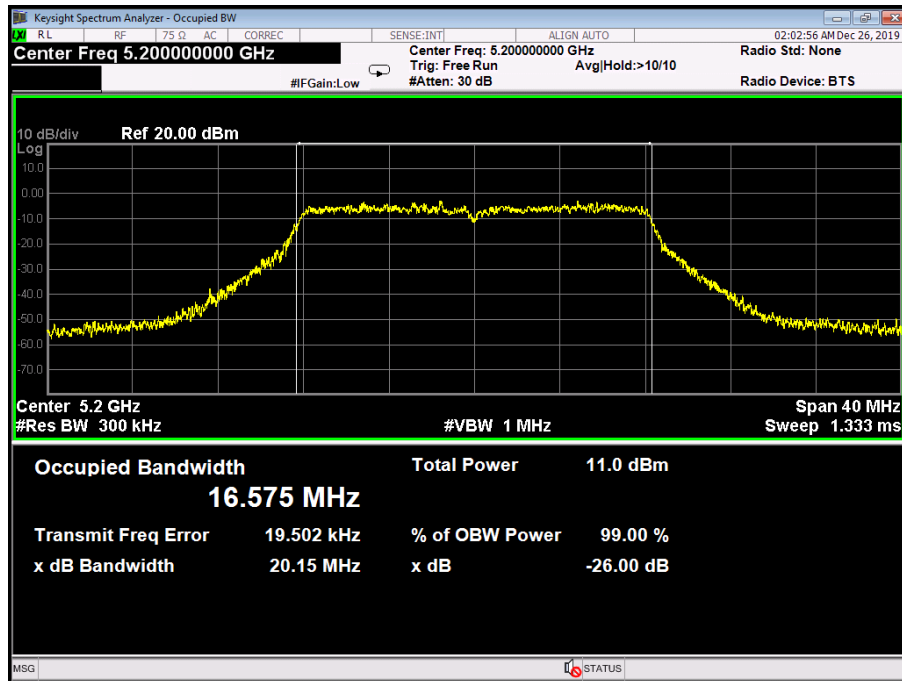
**802.11a Mode**

**5180 MHz**



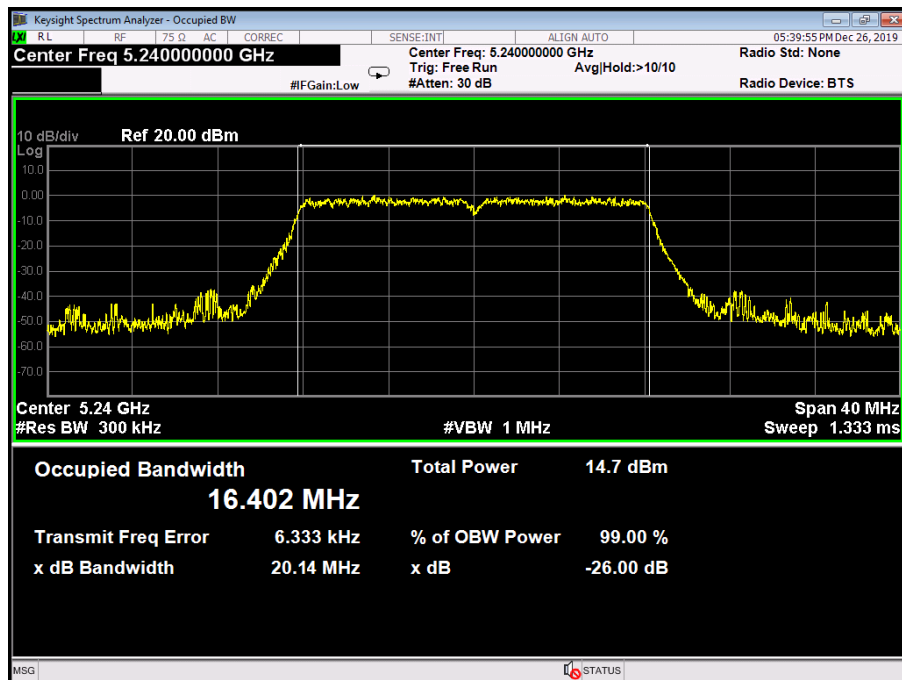
## 802.11a Mode

5200 MHz



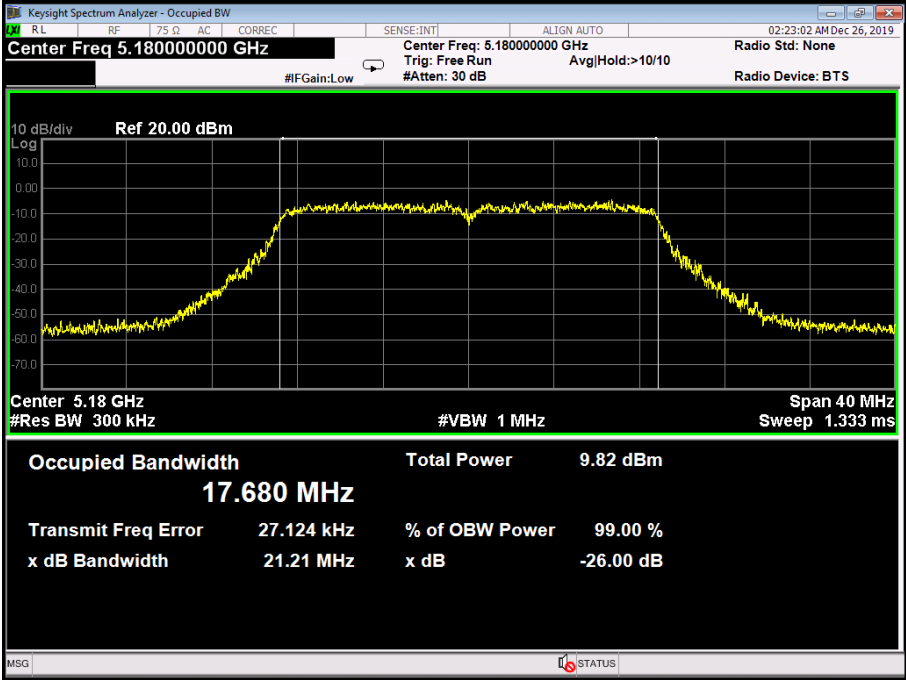
## 802.11a Mode

5240 MHz



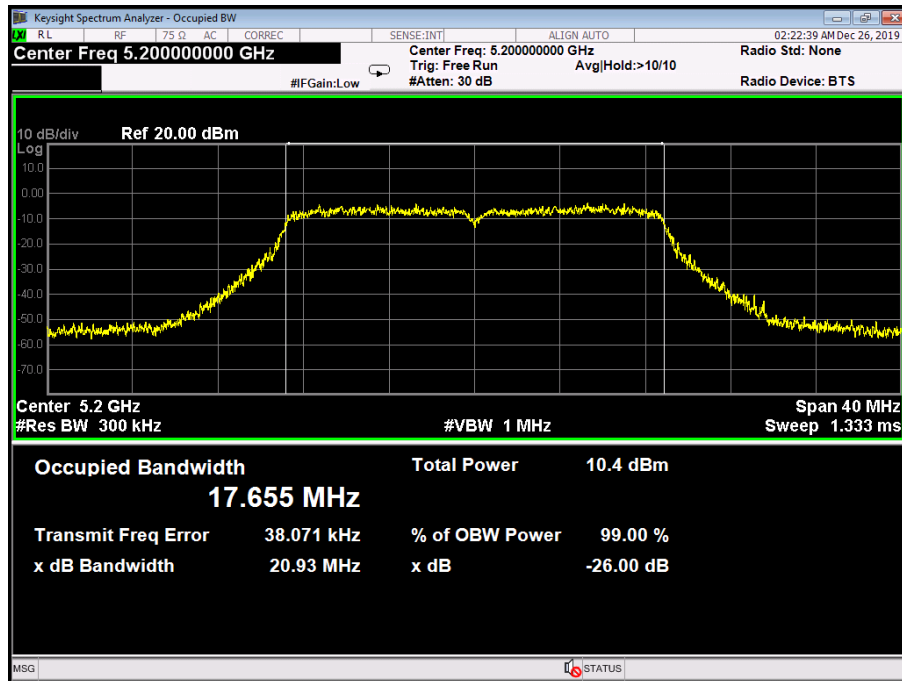


**ANT 0:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11n(HT20) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	21.21	17.680
40	5200	20.92	17.655
48	5240	21.48	17.646
<b>802.11n(HT20) Mode</b>			
<b>5180 MHz</b>			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.180000000 GHz</p> <p>Center Freq: 5.180000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 30 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.18 GHz</p> <p>#Res BW 300 kHz</p> <p>#VBW 1 MHz</p> <p>Span 40 MHz</p> <p>Sweep 1.333 ms</p> <p>Occupied Bandwidth 17.680 MHz</p> <p>Total Power 9.82 dBm</p> <p>Transmit Freq Error 27.124 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 21.21 MHz</p> <p>x dB -26.00 dB</p>			

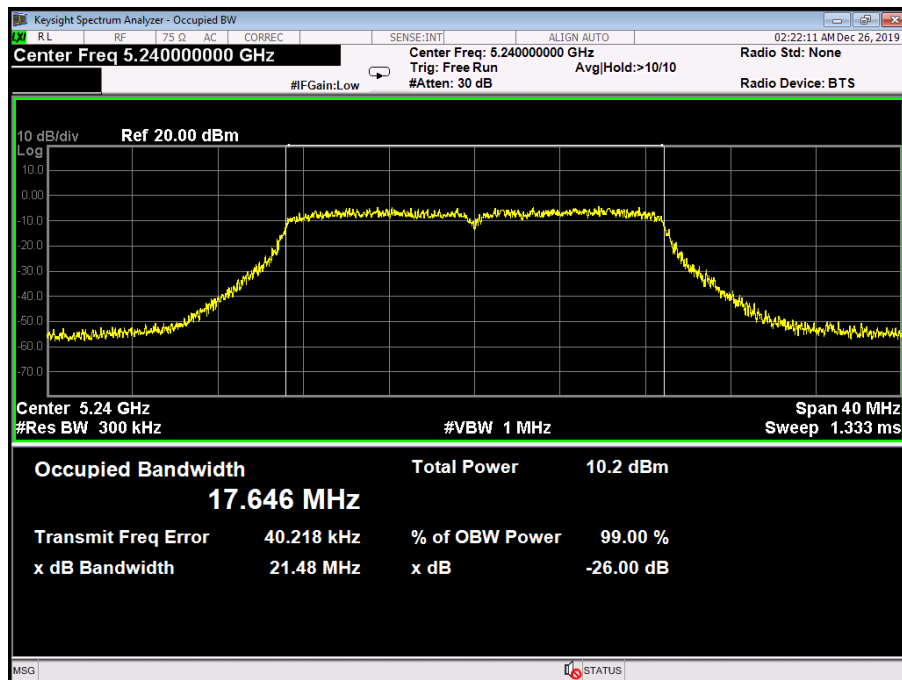
802.11n(HT20) Mode

5200 MHz



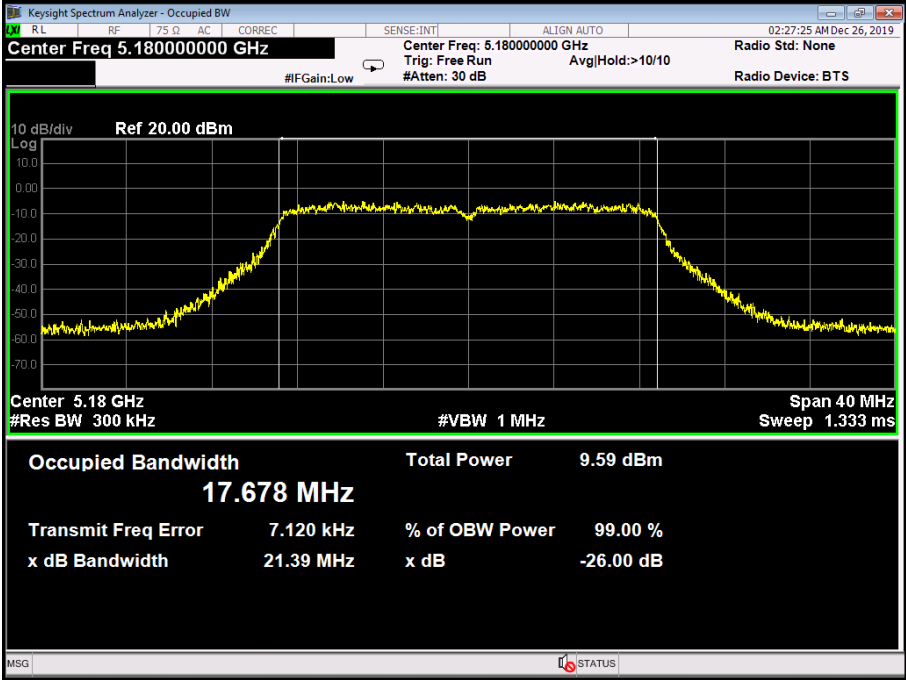
802.11n(HT20) Mode

5240 MHz



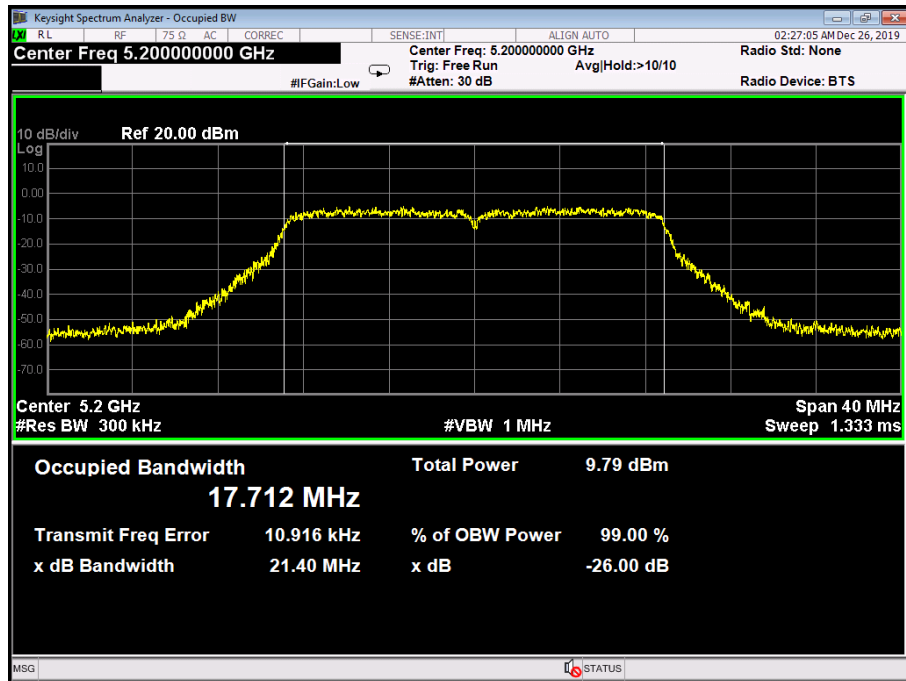


## ANT 0:

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11ac(VHT20) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	21.39	17.678
40	5200	21.40	17.712
48	5240	21.35	17.681
802.11ac(VHT20) Mode			
5180 MHz			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.180000000 GHz</p> <p>Center Freq: 5.180000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 30 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.18 GHz</p> <p>#Res BW 300 kHz</p> <p>#VBW 1 MHz</p> <p>Span 40 MHz</p> <p>Sweep 1.333 ms</p> <p>Occupied Bandwidth 17.678 MHz</p> <p>Total Power 9.59 dBm</p> <p>Transmit Freq Error 7.120 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 21.39 MHz</p> <p>x dB -26.00 dB</p>			

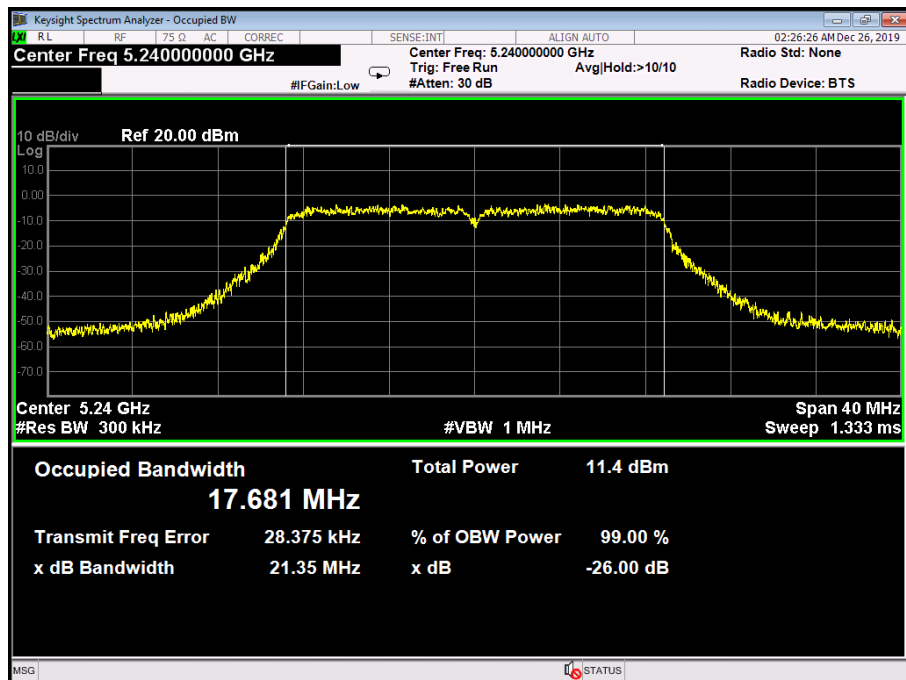
## 802.11ac(VHT20) Mode

5200 MHz

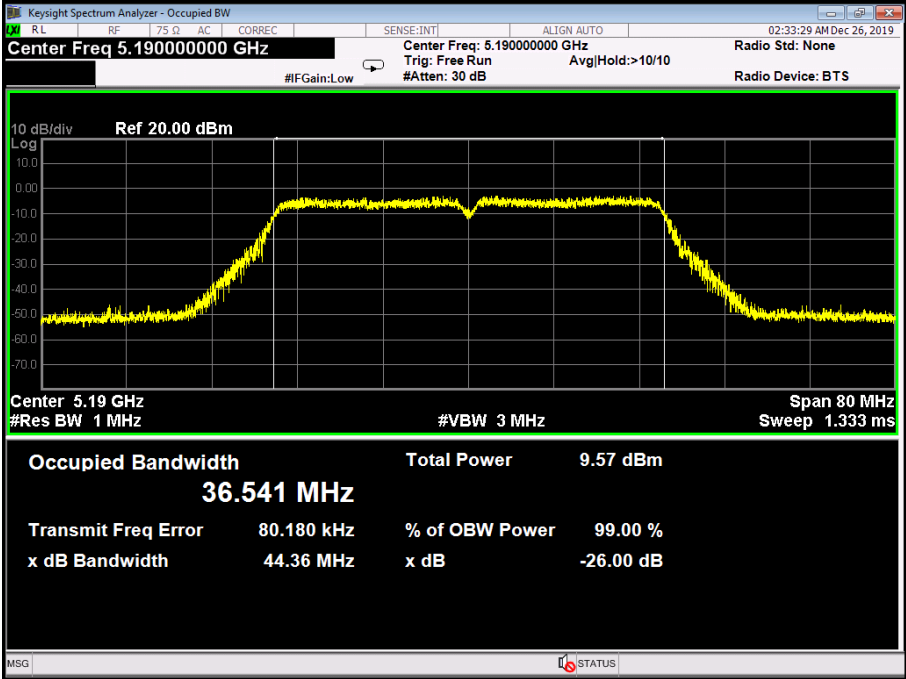


## 802.11ac(VHT20) Mode

5240 MHz



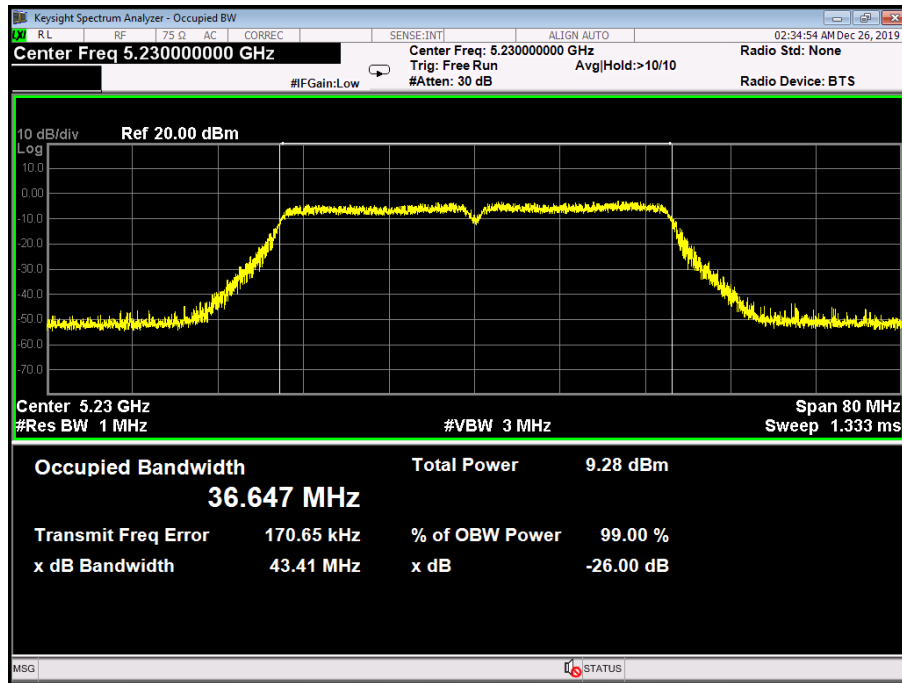
**ANT 0:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11N(HT40) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	44.36	36.541
46	5230	43.41	36.647
<b>802.11N(HT40) Mode</b>			
<b>5190 MHz</b>			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.190000000 GHz</p> <p>Center Freq: 5.190000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 30 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.19 GHz</p> <p>#Res BW 1 MHz</p> <p>#VBW 3 MHz</p> <p>Span 80 MHz</p> <p>Sweep 1.333 ms</p> <p><b>Occupied Bandwidth</b></p> <p><b>36.541 MHz</b></p> <p><b>Total Power</b></p> <p><b>9.57 dBm</b></p> <p><b>Transmit Freq Error</b></p> <p><b>80.180 kHz</b></p> <p><b>% of OBW Power</b></p> <p><b>99.00 %</b></p> <p><b>x dB Bandwidth</b></p> <p><b>44.36 MHz</b></p> <p><b>x dB</b></p> <p><b>-26.00 dB</b></p> <p>MSG</p> <p>STATUS</p>			



802.11N(HT40) Mode

5230 MHz

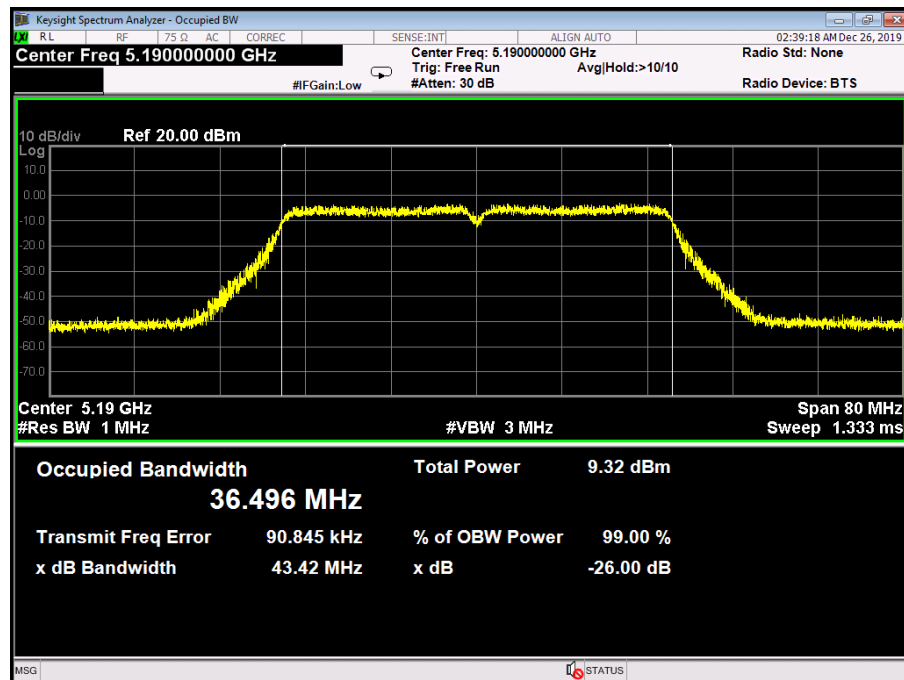


**ANT 0:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11ac(VHT40) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	43.42	36.496
46	5230	43.94	36.508

**802.11ac(VHT40) Mode**

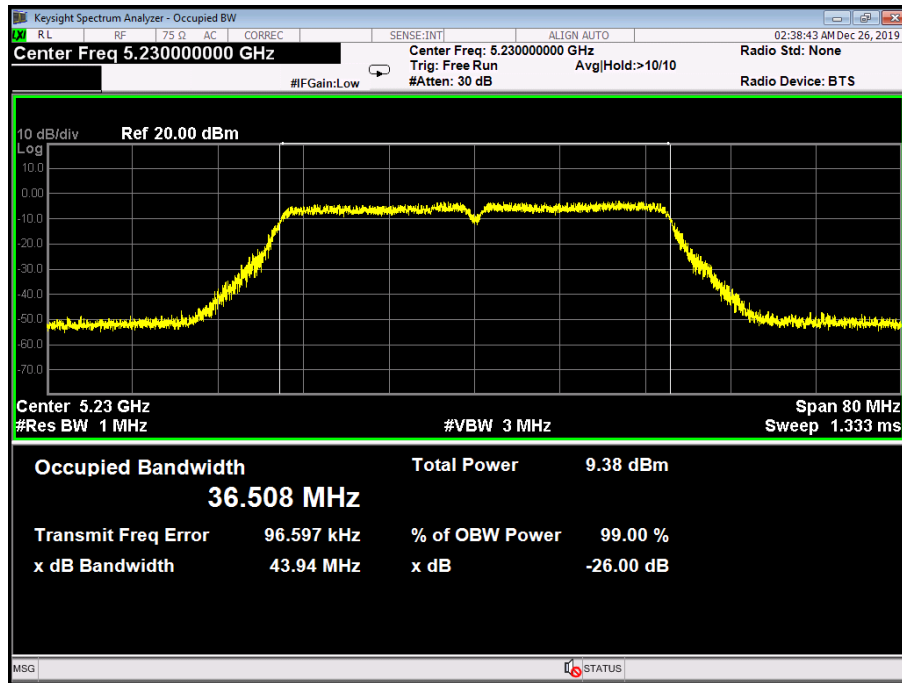
**5190 MHz**





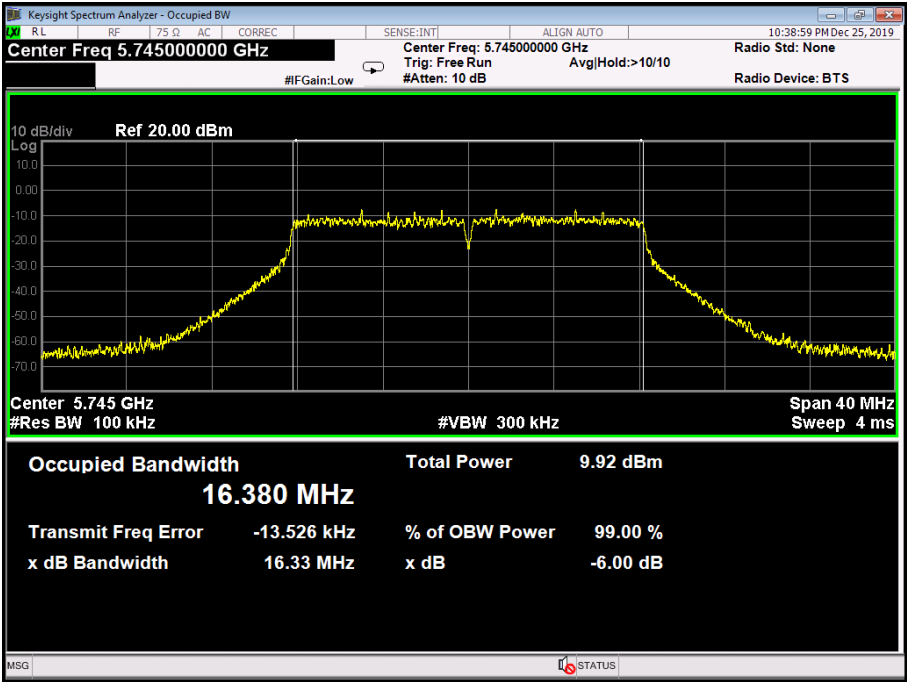
802.11ac(VHT40) Mode

5230 MHz



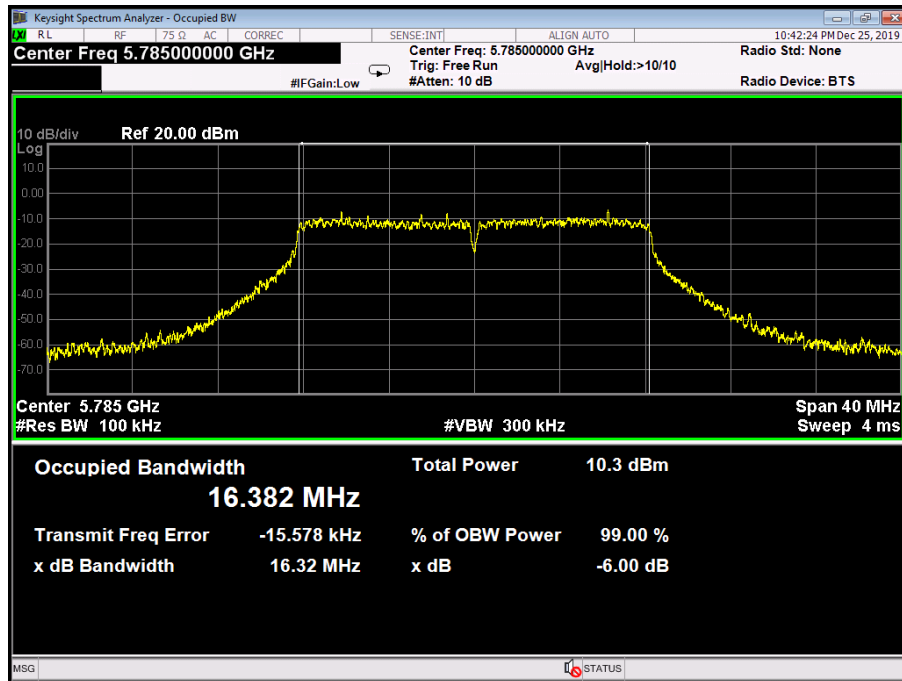


## ANT 0:

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11a Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	16.33	16.380
157	5785	16.32	16.382
165	5825	16.30	16.386
802.11a Mode			
5745 MHz			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.745000000 GHz</p> <p>Center Freq: 5.745000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>#FGain: Low</p> <p>#Atten: 10 dB</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.745 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 40 MHz</p> <p>Sweep 4 ms</p> <p>Occupied Bandwidth 16.380 MHz</p> <p>Total Power 9.92 dBm</p> <p>Transmit Freq Error -13.526 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 16.33 MHz</p> <p>x dB -6.00 dB</p>			

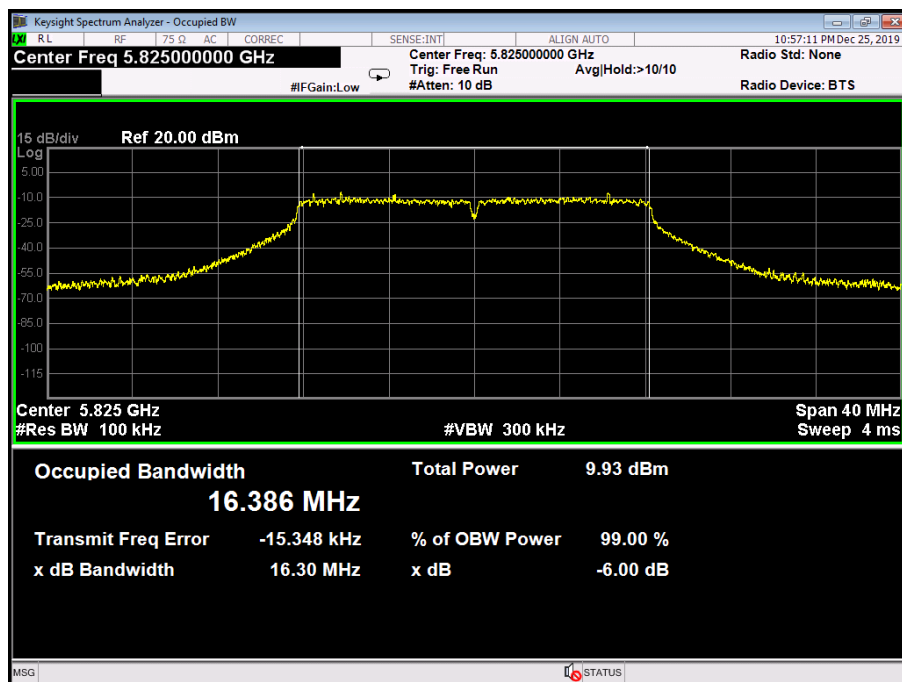
### 802.11a Mode

#### 5785 MHz

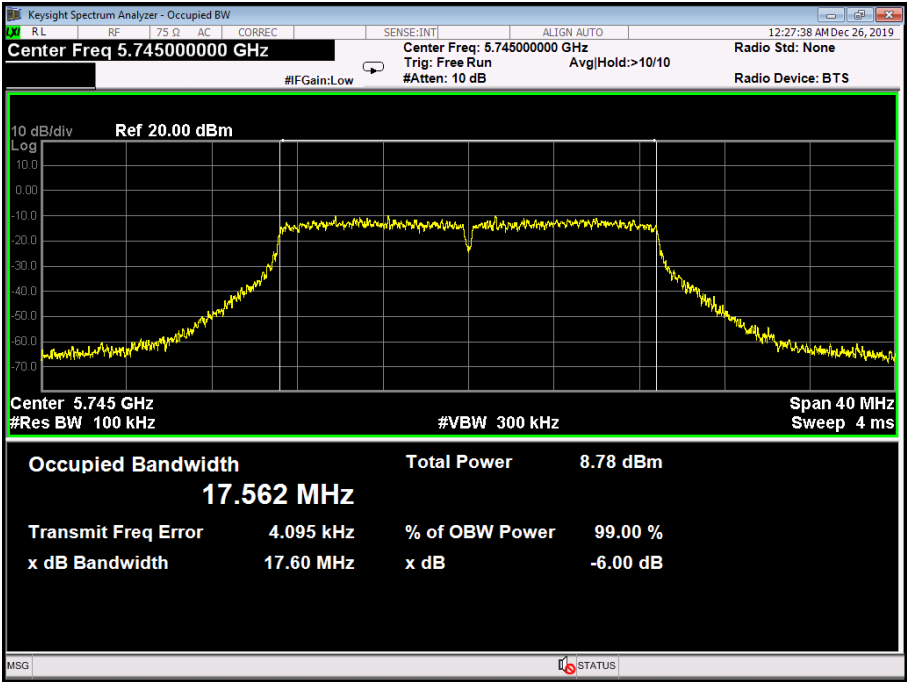


### 802.11a Mode

#### 5825 MHz



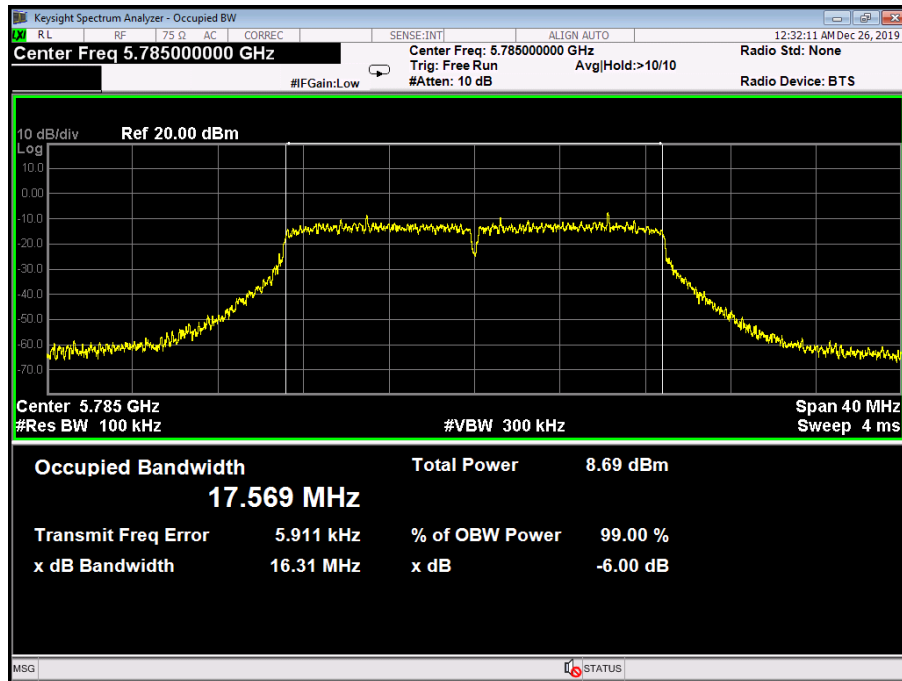
**ANT 0:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11n(20) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	17.60	17.562
157	5785	16.31	17.569
165	5825	16.92	17.563
<b>802.11n(HT20) Mode</b>			
<b>5745 MHz</b>			
			



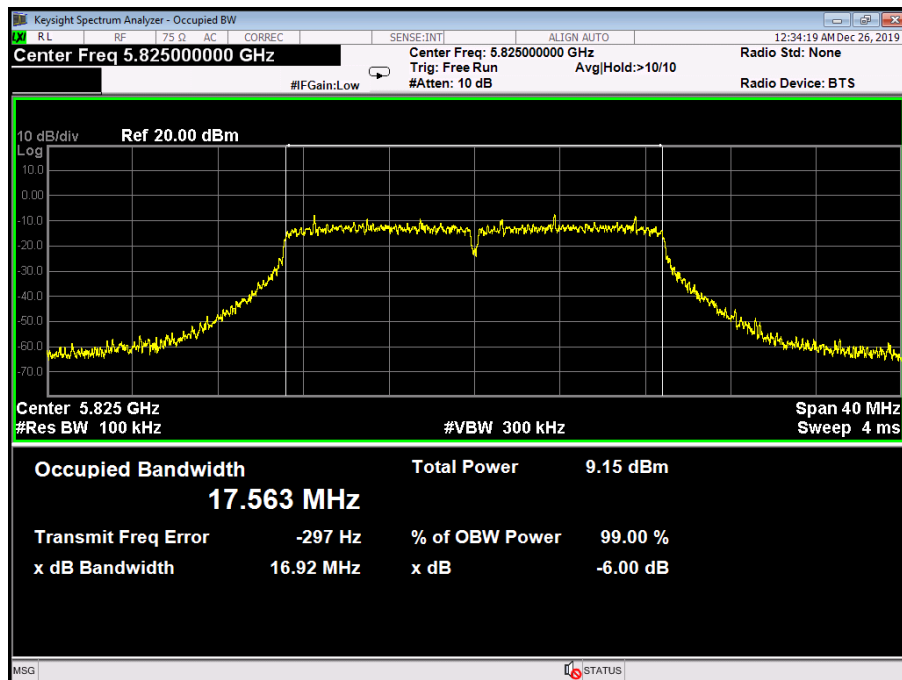
802.11n(HT20) Mode

5785 MHz

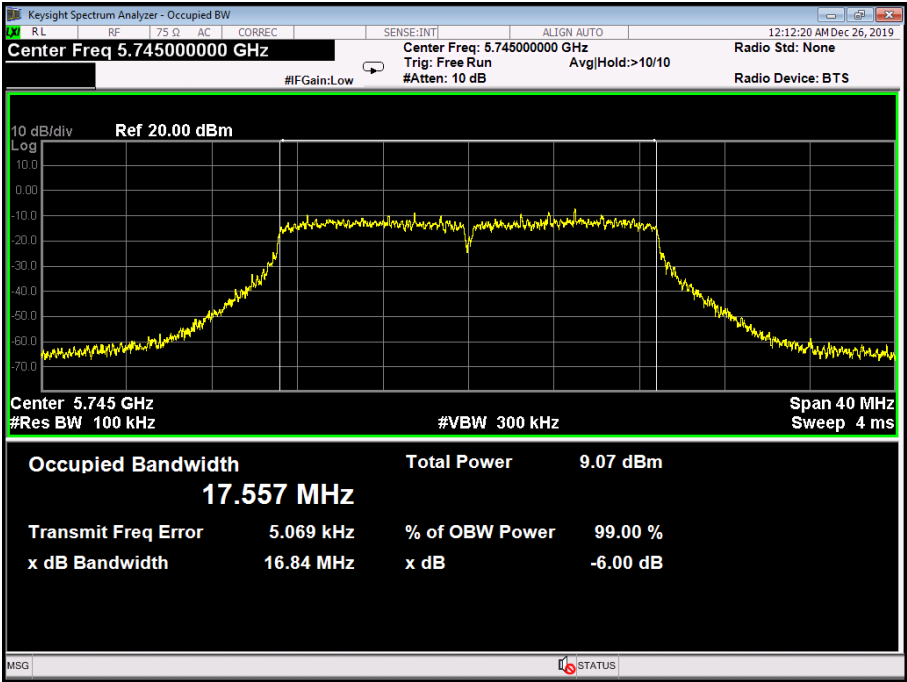


802.11n(HT20) Mode

5825 MHz

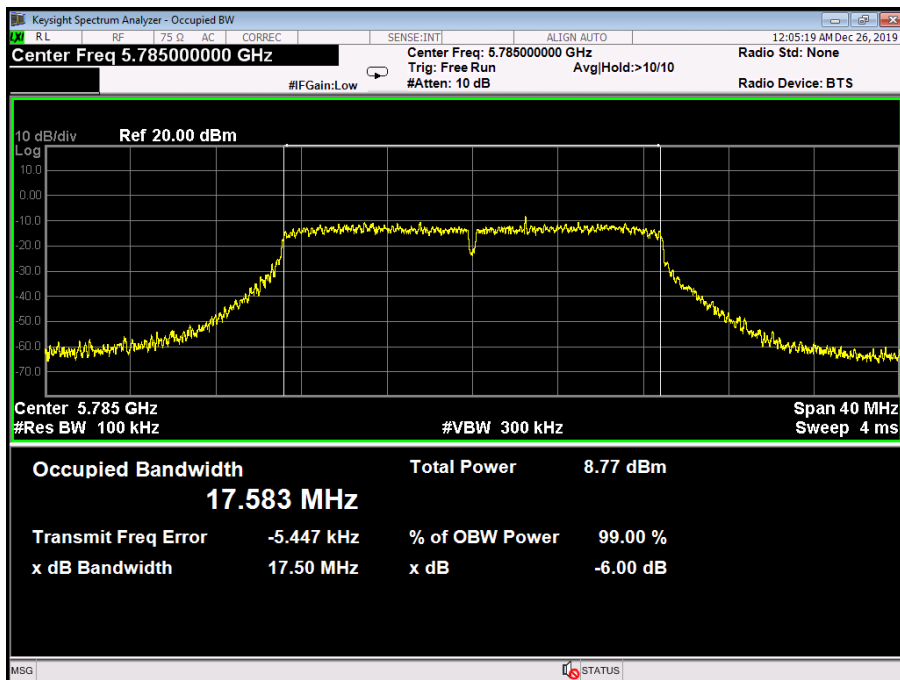


**ANT 0:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11ac(VHT20) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	16.84	17.557
157	5785	17.50	17.583
165	5825	17.34	17.571
<b>802.11ac(VHT20) Mode</b>			
<b>5745 MHz</b>			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.745000000 GHz</p> <p>Center Freq: 5.745000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 10 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.745 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 40 MHz</p> <p>Sweep 4 ms</p> <p>Occupied Bandwidth 17.557 MHz</p> <p>Total Power 9.07 dBm</p> <p>Transmit Freq Error 5.069 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 16.84 MHz</p> <p>x dB -6.00 dB</p> <p>MSG   STATUS</p>			

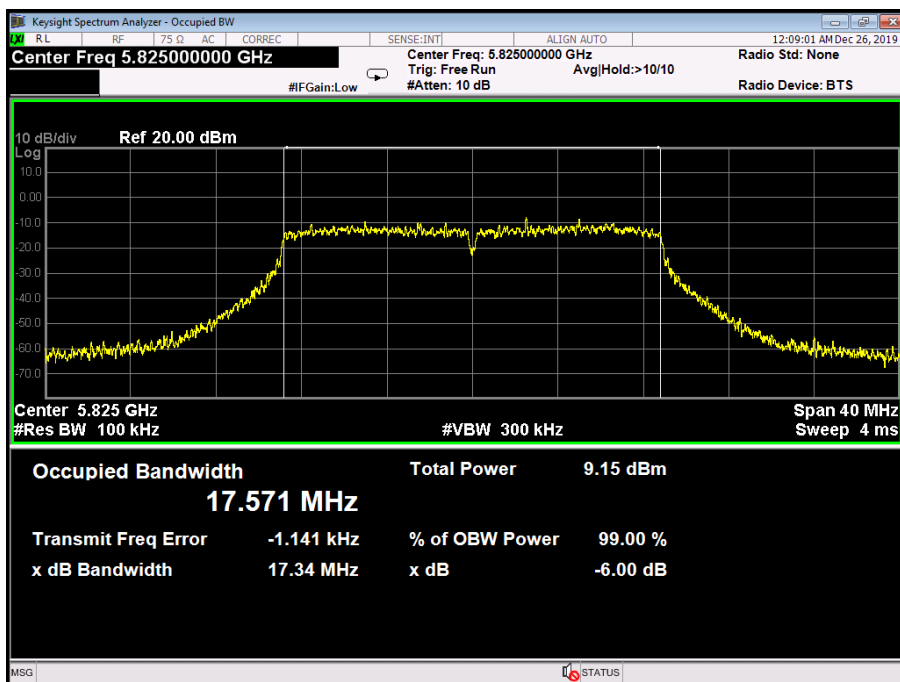
## 802.11ac(VHT20) Mode

5785 MHz



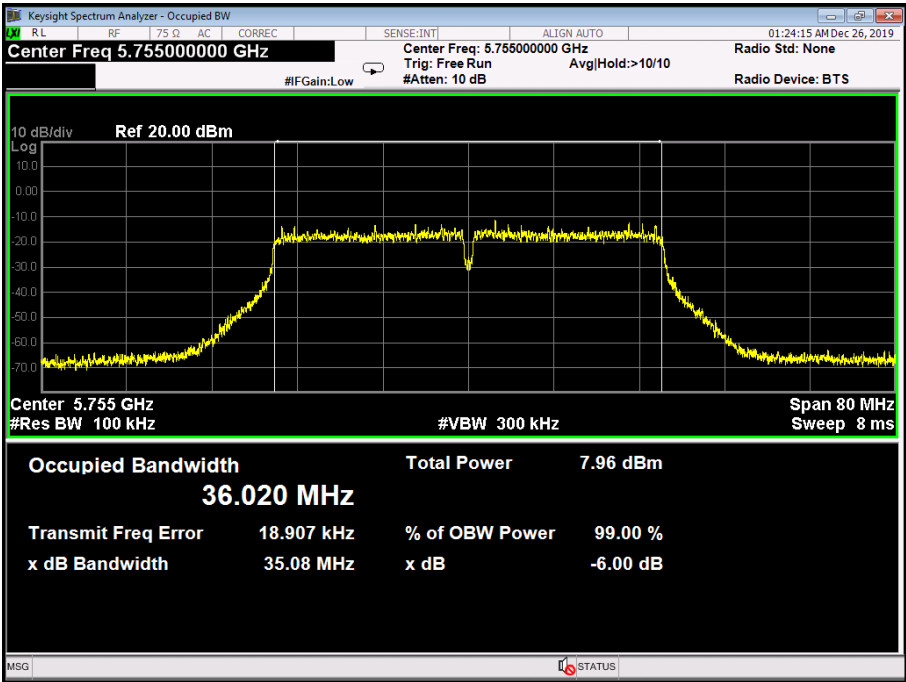
## 802.11ac(VHT20) Mode

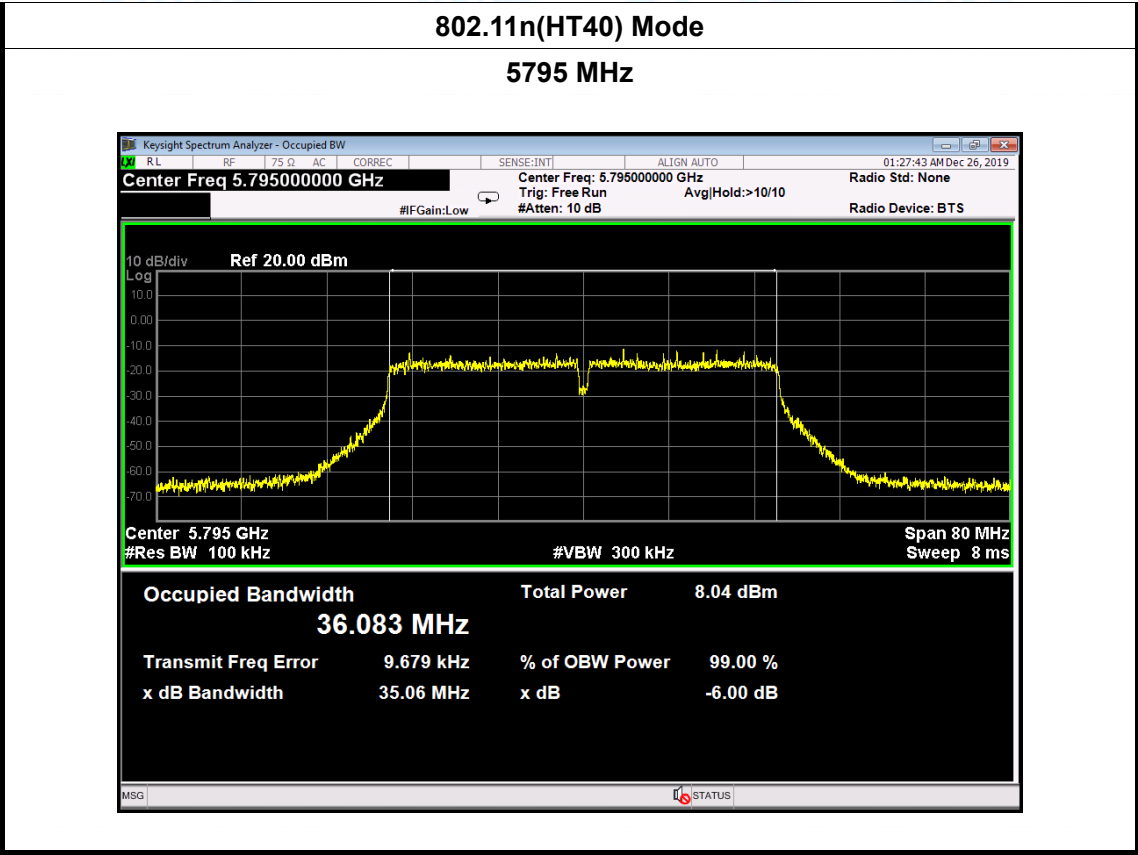
5825 MHz



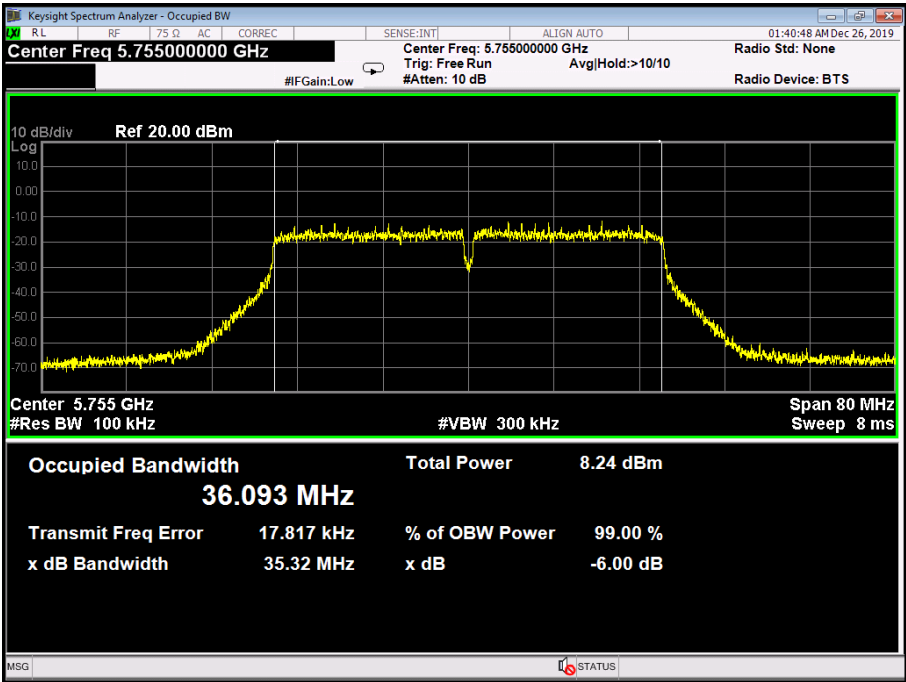


ANT 0:

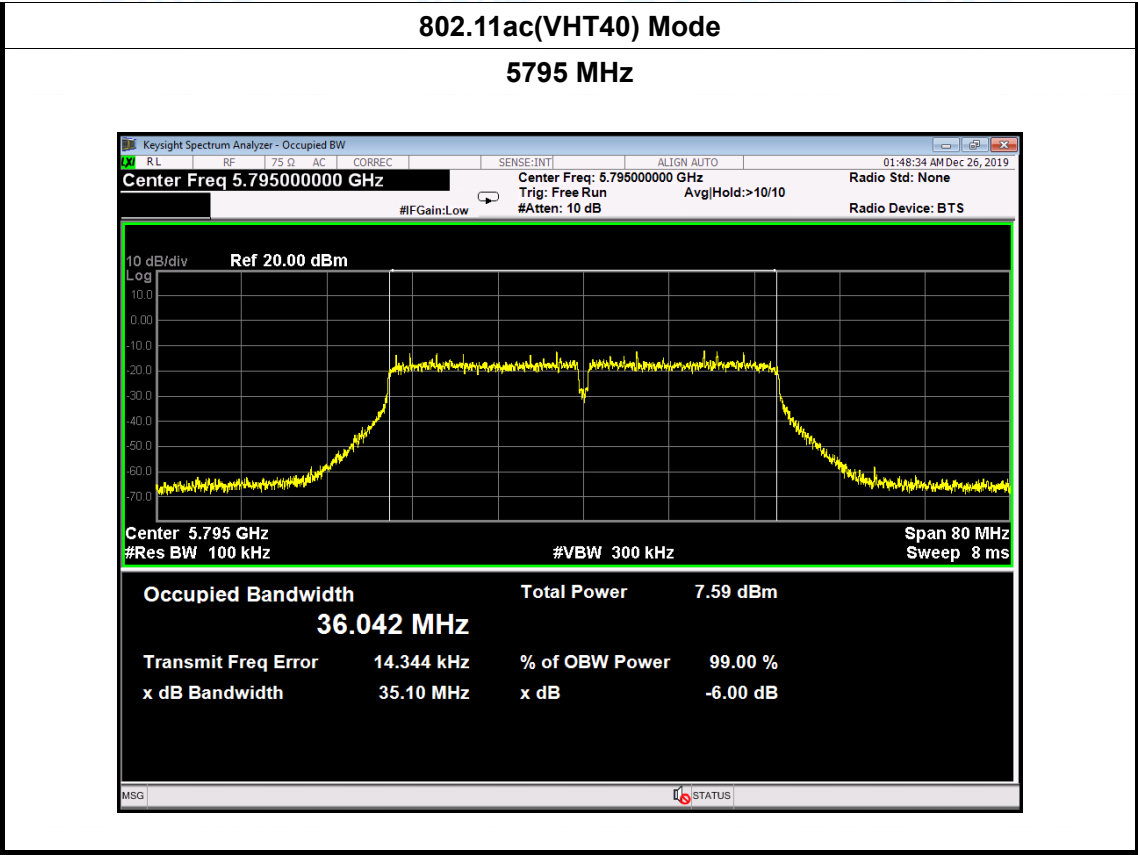
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11n(40) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
151	5755	35.08	36.020
159	5795	35.06	36.083
802.11n(HT40) Mode			
5755 MHz			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.755000000 GHz</p> <p>Center Freq: 5.755000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div Ref 20.00 dBm</p> <p>Center 5.755 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 80 MHz</p> <p>Sweep 8 ms</p> <p>Occupied Bandwidth 36.020 MHz</p> <p>Total Power 7.96 dBm</p> <p>Transmit Freq Error 18.907 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 35.08 MHz</p> <p>x dB -6.00 dB</p>			



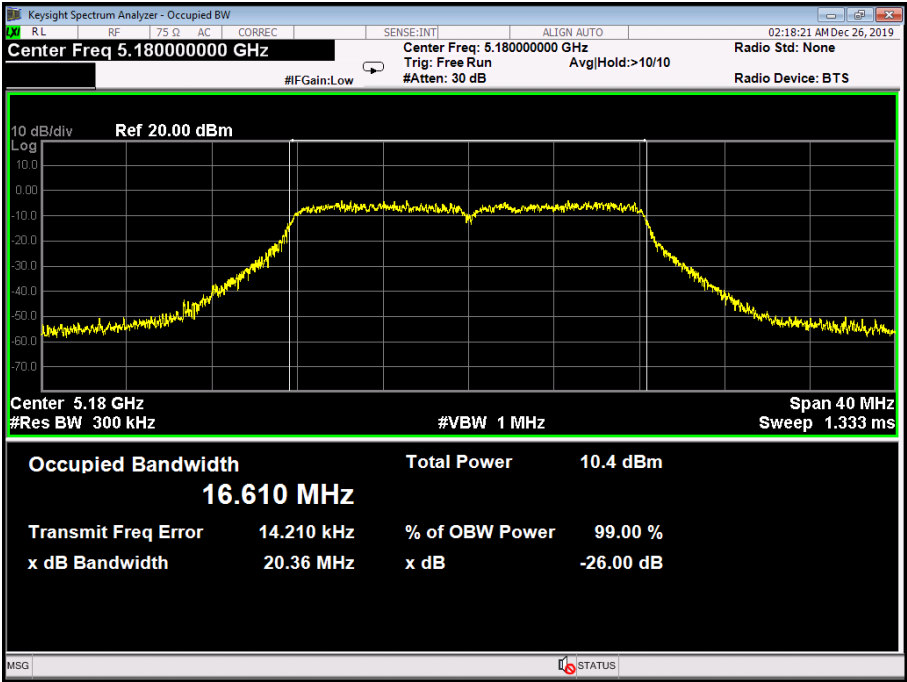
ANT 0:

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11ac(VHT40) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
151	5755	35.32	36.093
159	5795	35.10	36.042
802.11ac(VHT40) Mode			
5755 MHz			
			



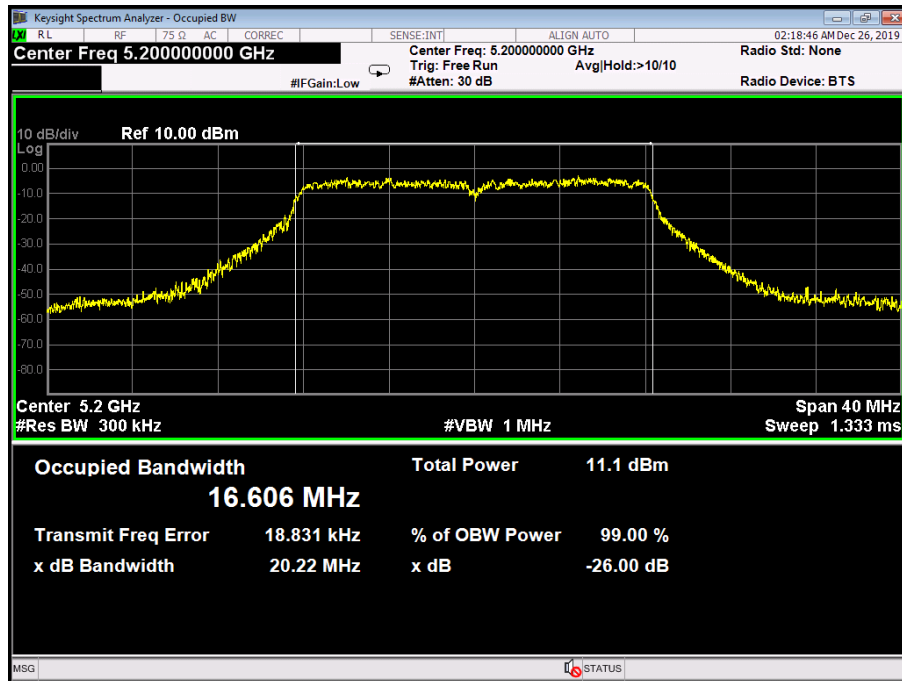


ANT 1:

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11a Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	20.36	16.610
40	5200	20.22	16.606
48	5240	20.55	16.570
802.11a Mode			
5180 MHz			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.180000000 GHz</p> <p>Center Freq: 5.180000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 30 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.18 GHz</p> <p>#Res BW 300 kHz</p> <p>#VBW 1 MHz</p> <p>Span 40 MHz</p> <p>Sweep 1.333 ms</p> <p>Occupied Bandwidth 16.610 MHz</p> <p>Total Power 10.4 dBm</p> <p>Transmit Freq Error 14.210 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 20.36 MHz</p> <p>x dB -26.00 dB</p>			

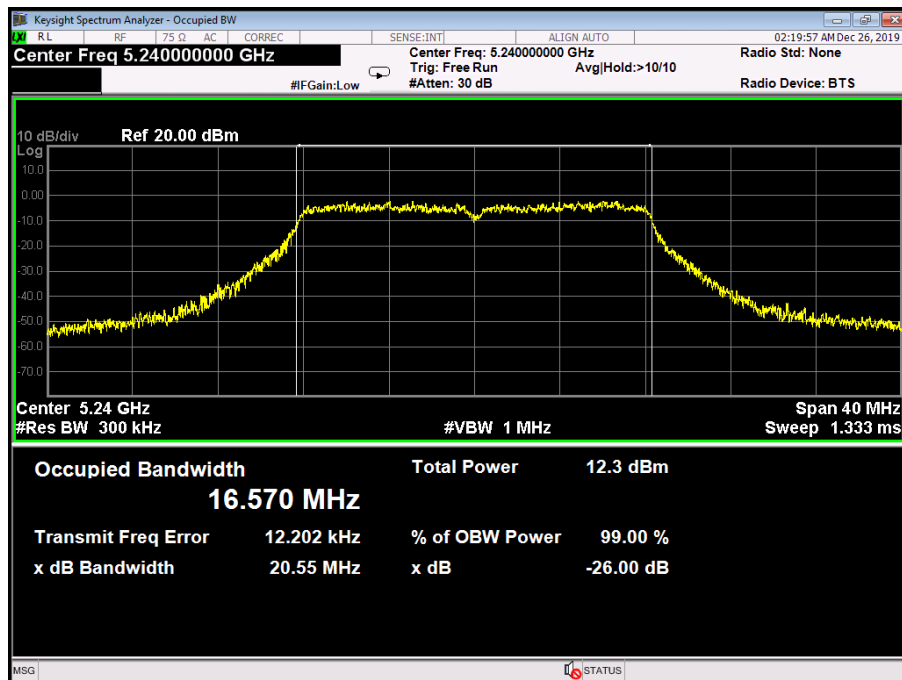
# 802.11a Mode

5200 MHz



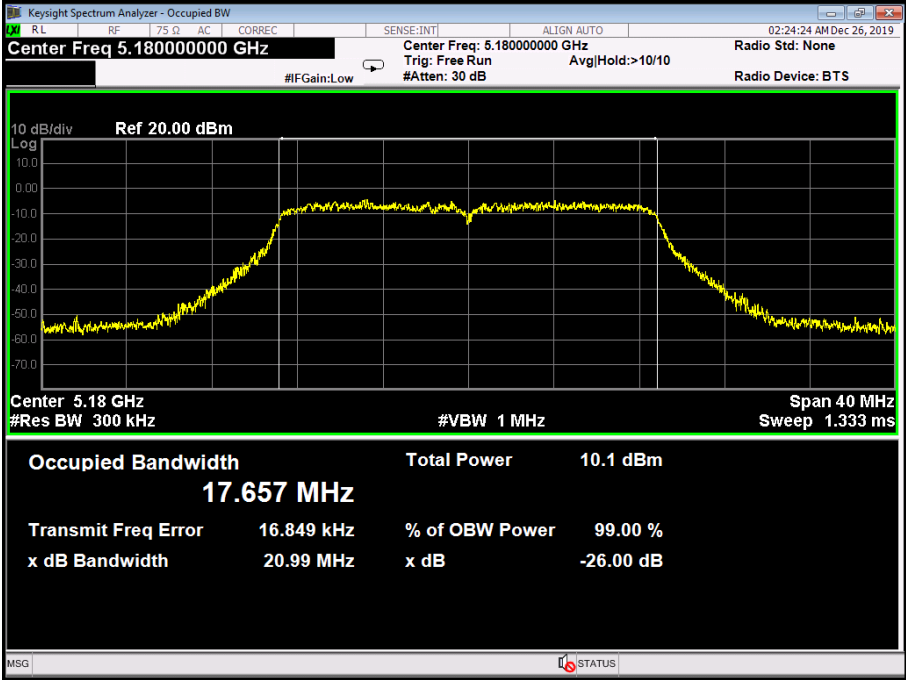
# 802.11a Mode

5240 MHz



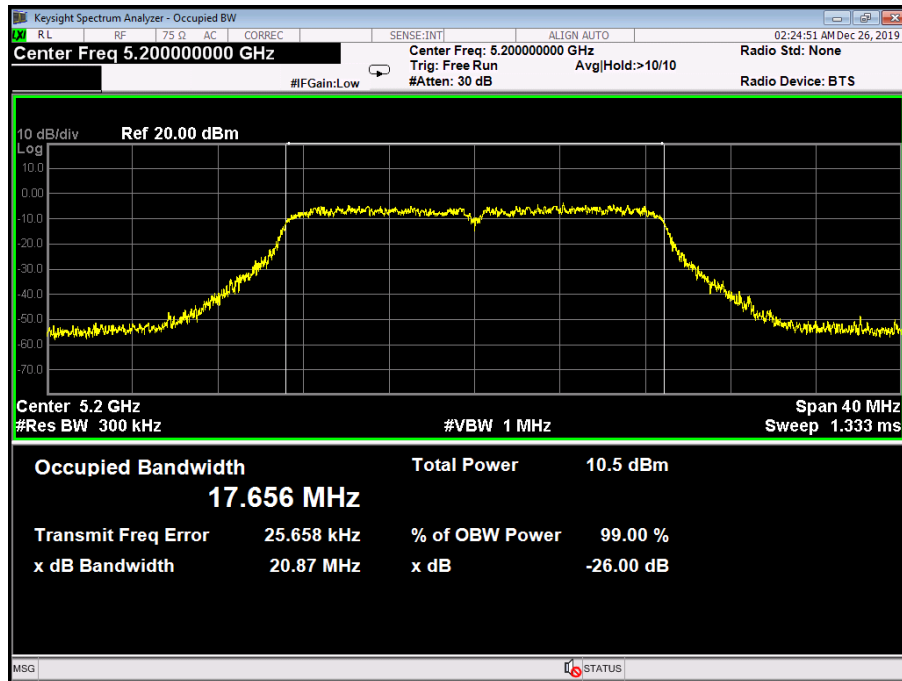


**ANT 1:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11n(HT20) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	20.99	17.657
40	5200	20.87	17.656
48	5240	21.10	17.646
<b>802.11n(HT20) Mode</b>			
<b>5180 MHz</b>			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.180000000 GHz</p> <p>Center Freq: 5.180000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 30 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.18 GHz</p> <p>#Res BW 300 kHz</p> <p>#VBW 1 MHz</p> <p>Span 40 MHz</p> <p>Sweep 1.333 ms</p> <p>Occupied Bandwidth 17.657 MHz</p> <p>Total Power 10.1 dBm</p> <p>Transmit Freq Error 16.849 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 20.99 MHz</p> <p>x dB -26.00 dB</p>			

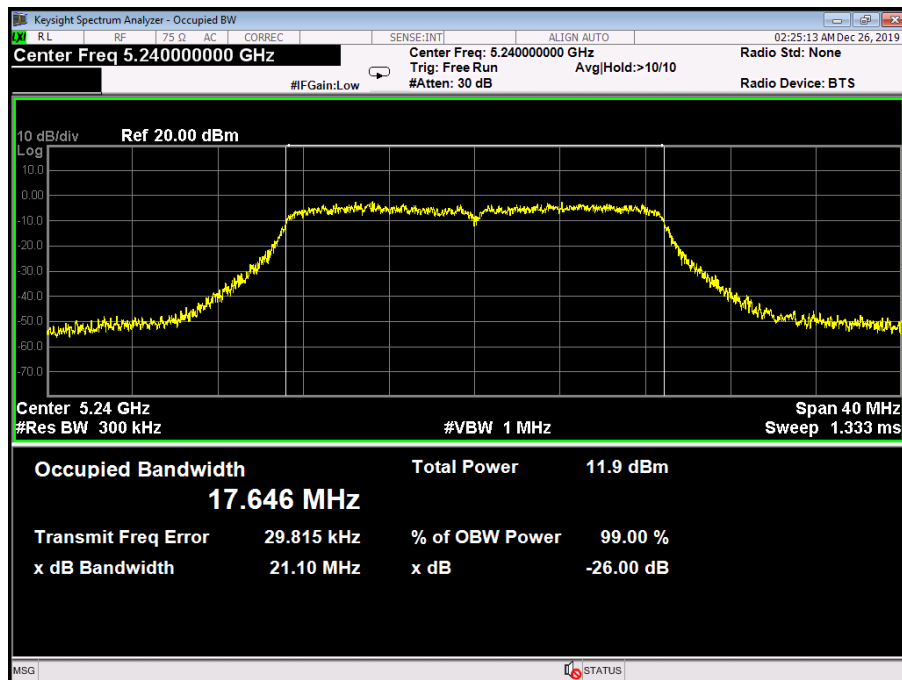
802.11n(HT20) Mode

5200 MHz

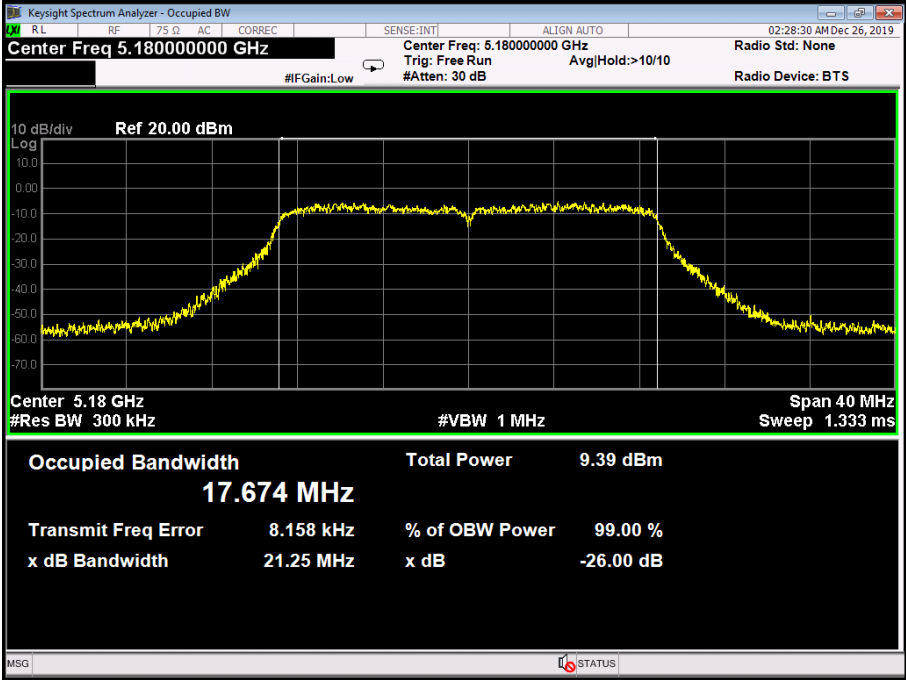


802.11n(HT20) Mode

5240 MHz



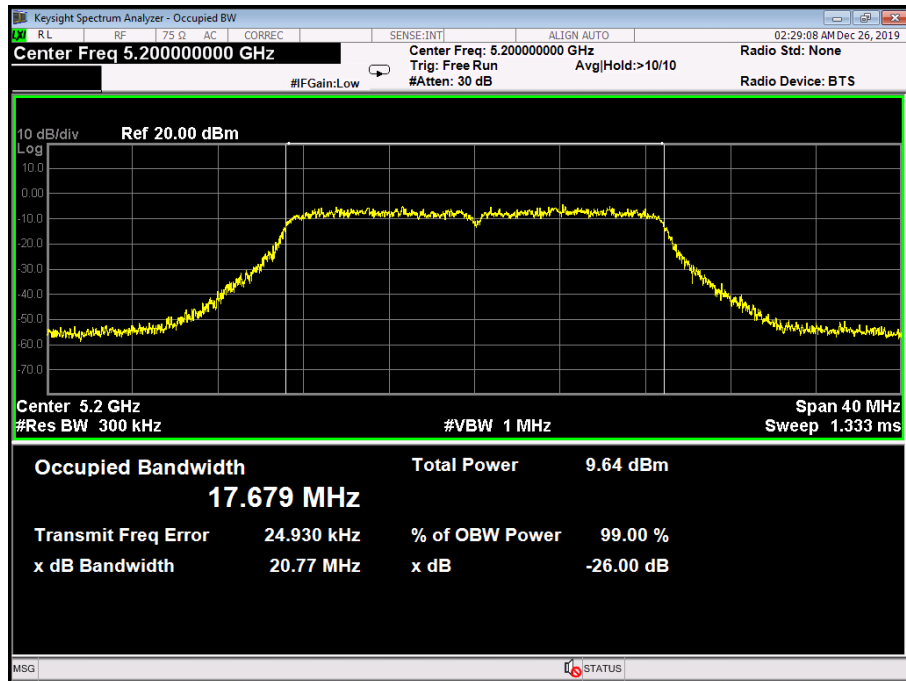
**ANT 1:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11ac(VHT20) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	21.25	17.674
40	5200	20.77	17.679
48	5240	21.32	17.703
<b>802.11ac(VHT20) Mode</b>			
<b>5180 MHz</b>			
			



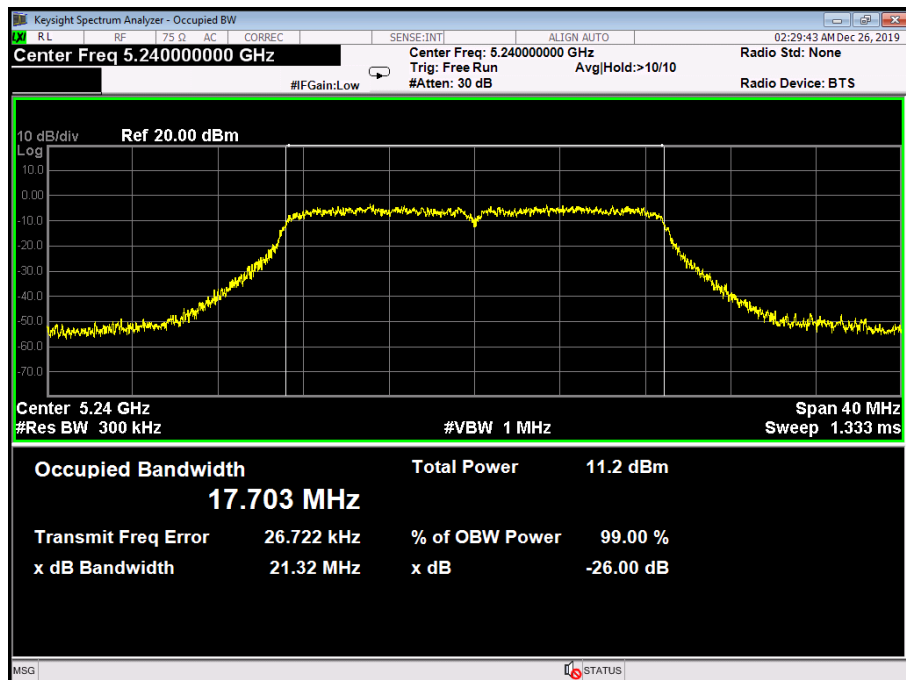
## 802.11ac(VHT20) Mode

5200 MHz

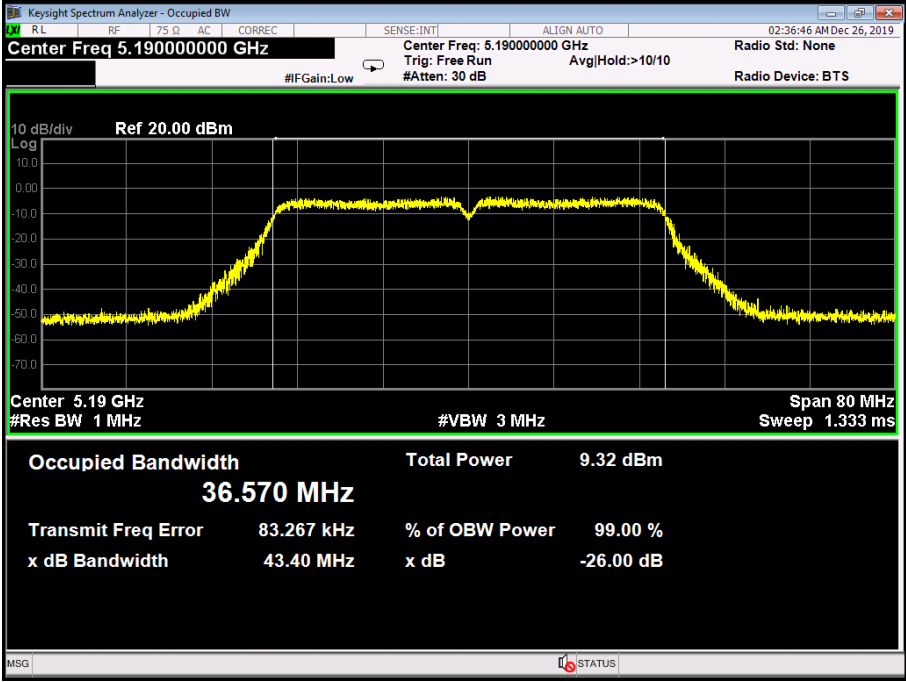


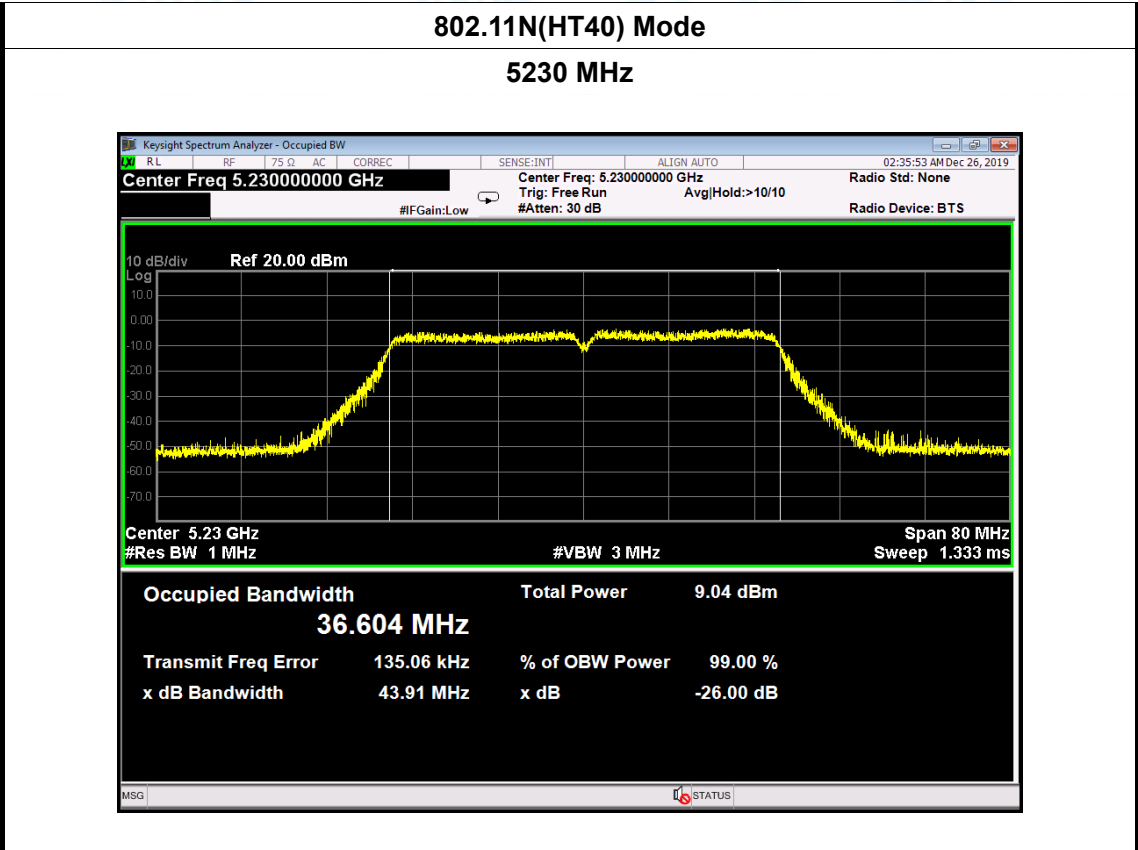
## 802.11ac(VHT20) Mode

5240 MHz



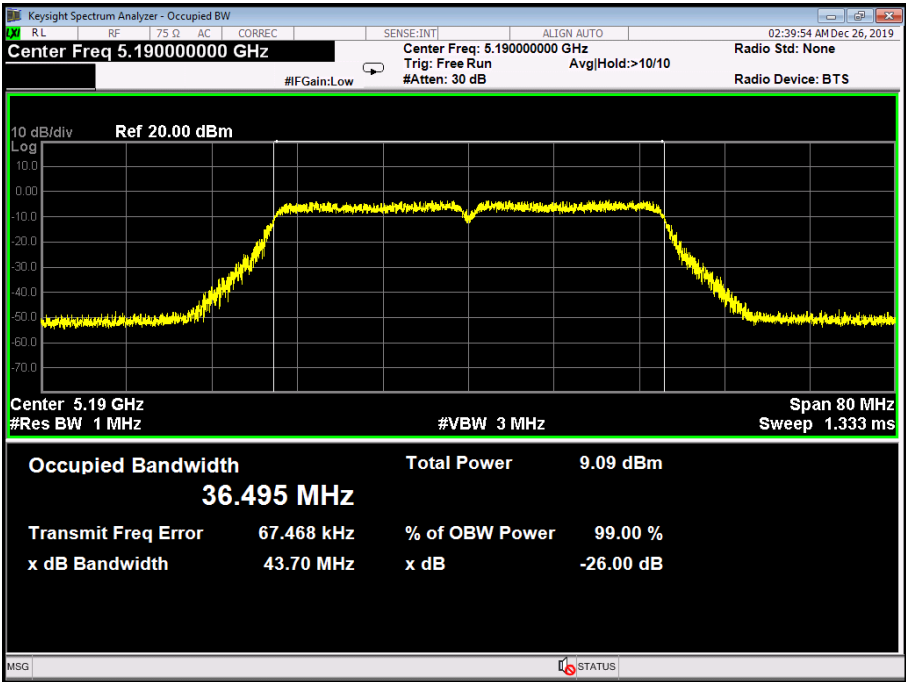
**ANT 1:**

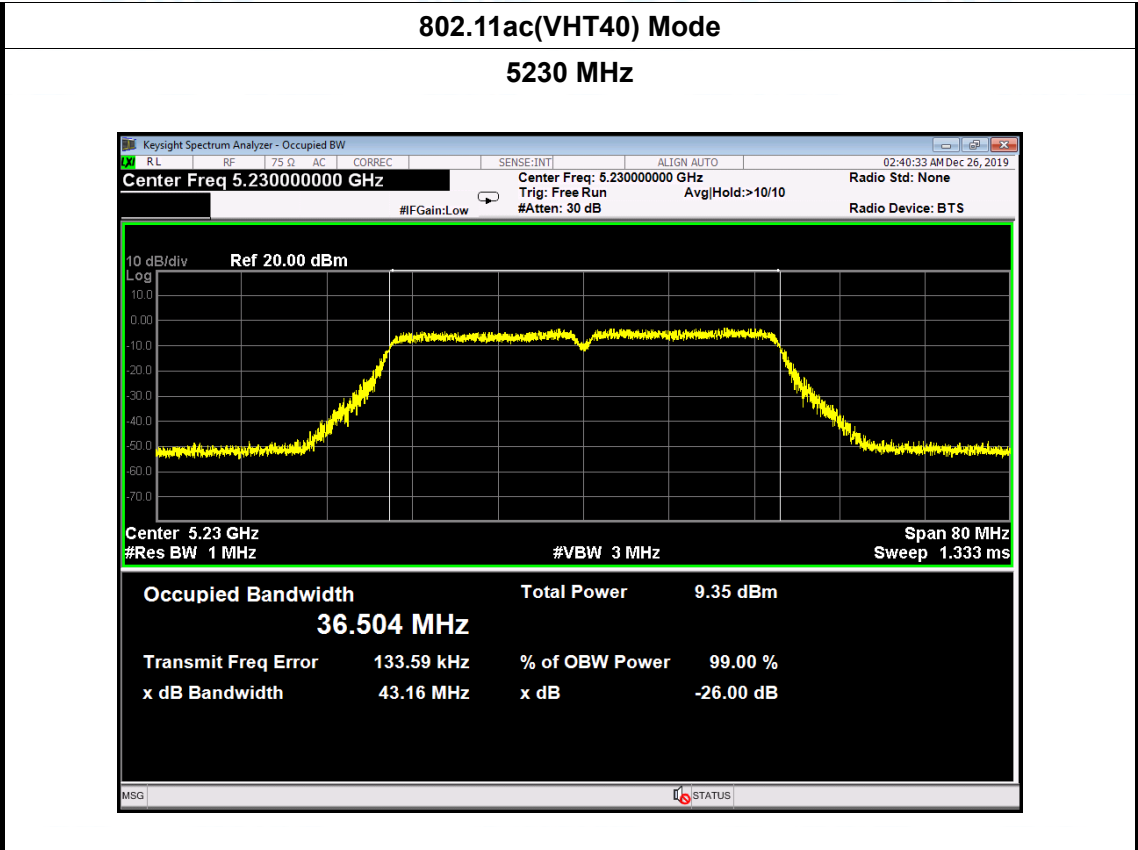
<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11N(HT40) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	43.40	36.570
46	5230	43.91	36.604
<b>802.11N(HT40) Mode</b>			
<b>5190 MHz</b>			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.190000000 GHz</p> <p>Center Freq: 5.190000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 30 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.19 GHz</p> <p>#Res BW 1 MHz</p> <p>#VBW 3 MHz</p> <p>Span 80 MHz</p> <p>Sweep 1.333 ms</p> <p><b>Occupied Bandwidth 36.570 MHz</b></p> <p>Total Power 9.32 dBm</p> <p>Transmit Freq Error 83.267 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 43.40 MHz</p> <p>x dB -26.00 dB</p> <p>MSG STATUS</p>			





**ANT 1:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11ac(VHT40) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	43.70	36.495
46	5230	43.16	36.504
<b>802.11ac(VHT40) Mode</b>			
<b>5190 MHz</b>			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.190000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref 20.00 dBm</p> <p>Center 5.19 GHz</p> <p>#Res BW 1 MHz</p> <p>#VBW 3 MHz</p> <p>Span 80 MHz</p> <p>Sweep 1.333 ms</p> <p>Occupied Bandwidth 36.495 MHz</p> <p>Total Power 9.09 dBm</p> <p>Transmit Freq Error 67.468 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 43.70 MHz</p> <p>x dB -26.00 dB</p>			



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11a Mode (U-NII-3)		

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	16.52	16.400
157	5785	15.92	16.391
165	5825	16.31	16.393

**802.11a Mode**

**5745 MHz**

Keysight Spectrum Analyzer - Occupied BW

Center Freq 5.745000000 GHz

Center Freq: 5.745000000 GHz

Trig: Free Run

#Atten: 10 dB

Avg/Hold: >10/10

Radio Std: None

Radio Device: BTS

#IFGain: Low

10 dB/div

Ref 20.00 dBm

Center 5.745 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 40 MHz

Sweep 4 ms

Occupied Bandwidth

**16.400 MHz**

Total Power

9.99 dBm

Transmit Freq Error

-7.686 kHz

% of OBW Power

99.00 %

x dB Bandwidth

16.52 MHz

x dB

-6.00 dB

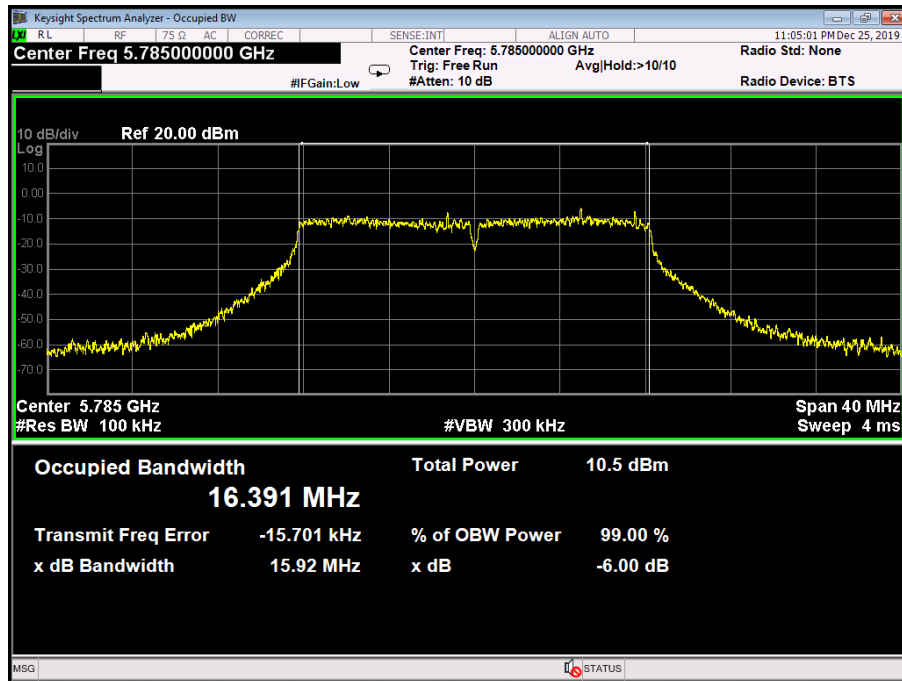
MSG

STATUS



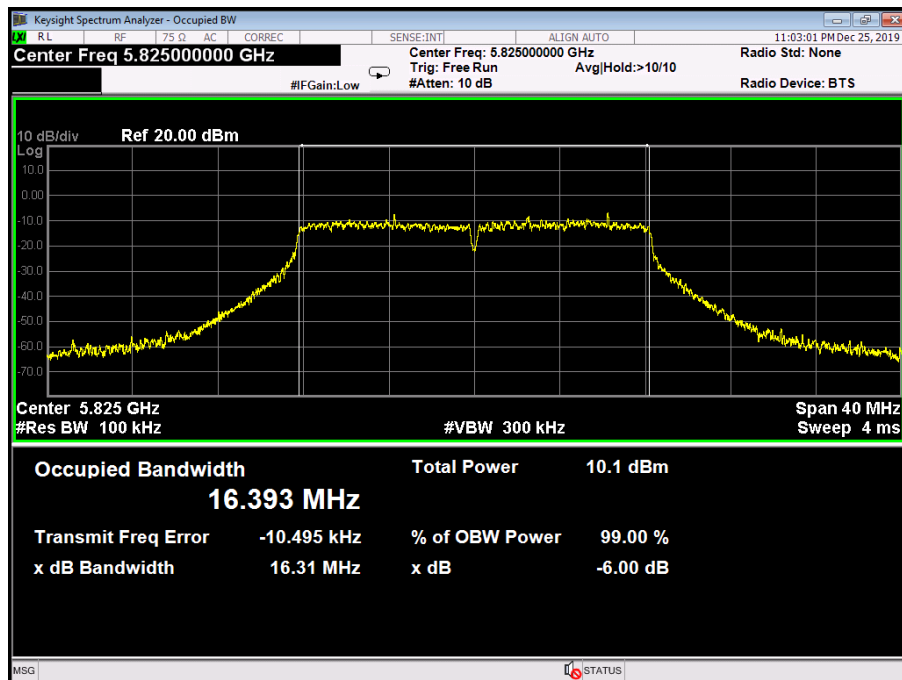
# 802.11a Mode

## 5785 MHz

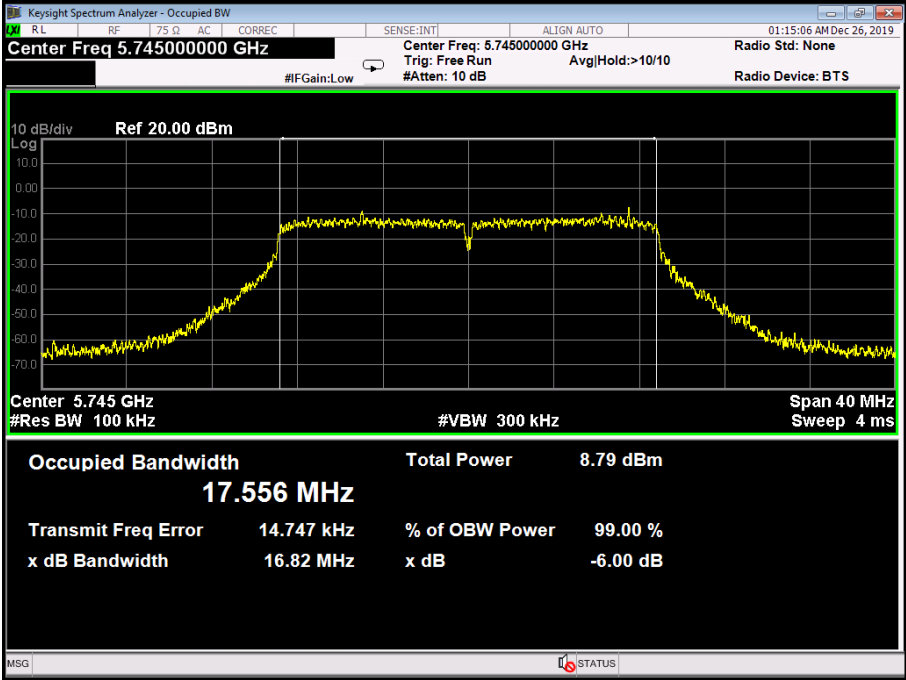


# 802.11a Mode

## 5825 MHz

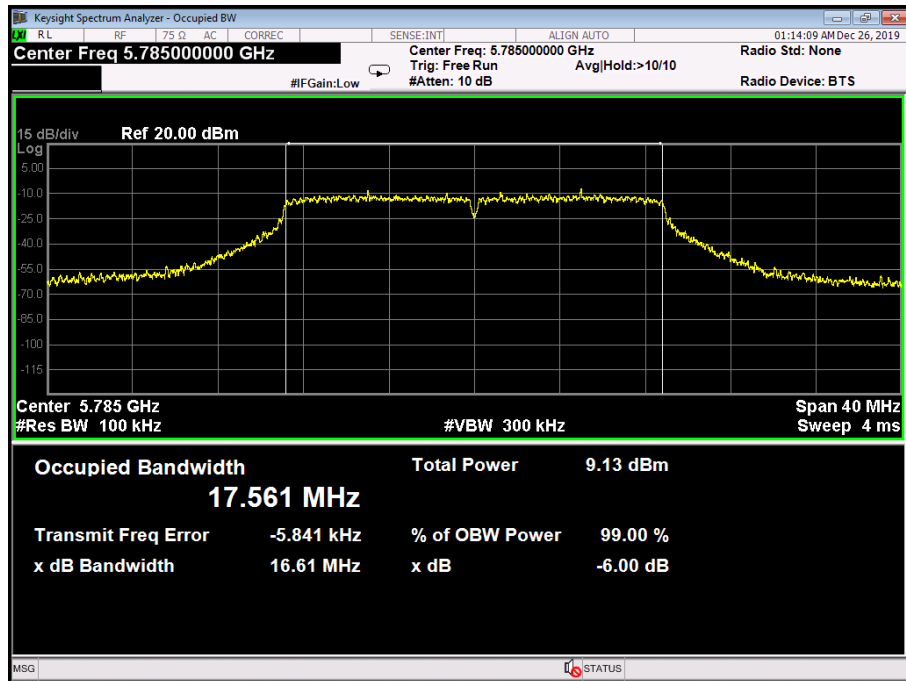


**ANT 1:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11n(20) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	16.82	17.556
157	5785	16.61	17.561
165	5825	17.61	17.581
<b>802.11n(HT20) Mode</b>			
<b>5745 MHz</b>			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq 5.745000000 GHz</p> <p>Center Freq: 5.745000000 GHz</p> <p>Trig: Free Run</p> <p>#Gain: Low</p> <p>#Atten: 10 dB</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>10 dB/div</p> <p>Ref 20.00 dBm</p> <p>Center 5.745 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 40 MHz</p> <p>Sweep 4 ms</p> <p>Occupied Bandwidth 17.556 MHz</p> <p>Total Power 8.79 dBm</p> <p>Transmit Freq Error 14.747 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 16.82 MHz</p> <p>x dB -6.00 dB</p> <p>MSG   STATUS</p>			

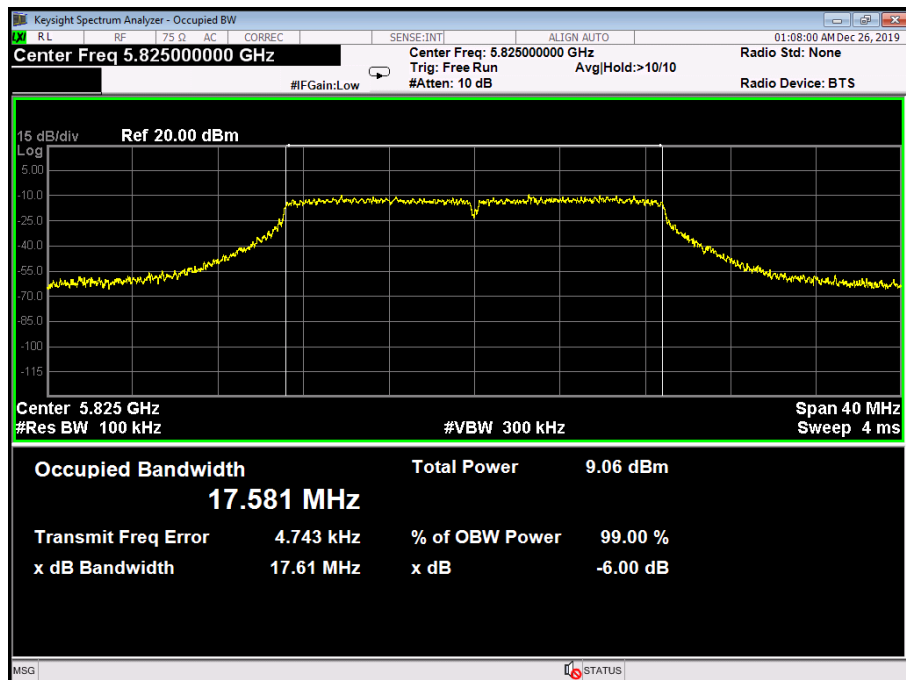
## 802.11n(HT20) Mode

5785 MHz



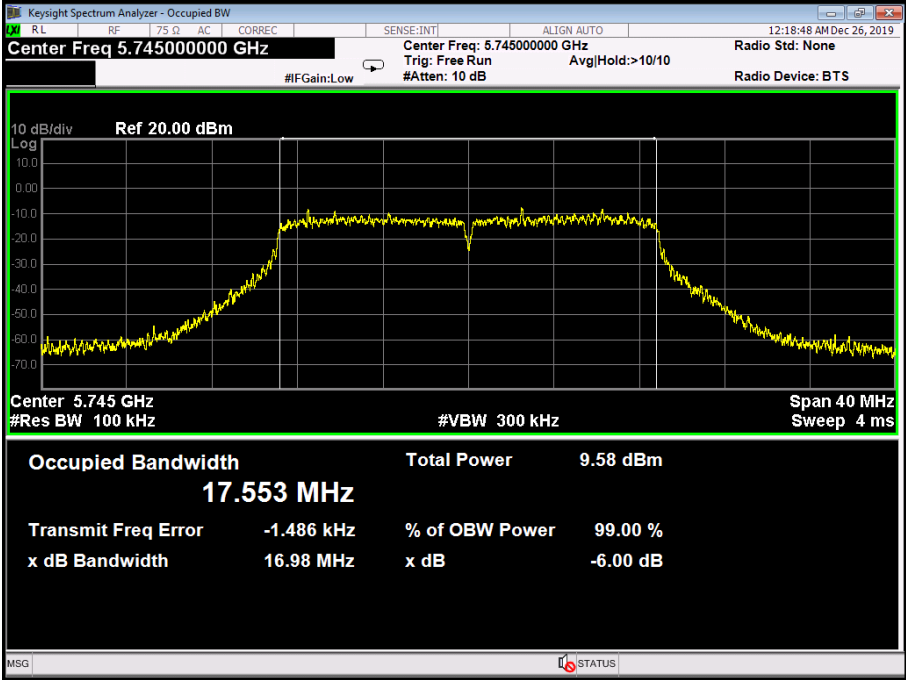
## 802.11n(HT20) Mode

5825 MHz



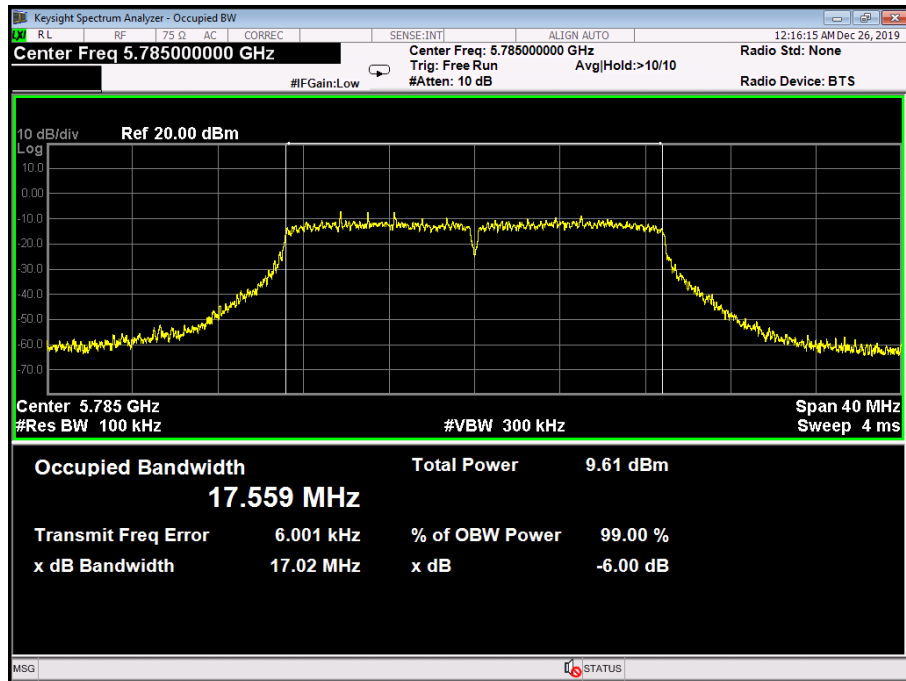


**ANT 1:**

<b>Temperature:</b>	25 °C	<b>Relative Humidity:</b>	55%
<b>Test Voltage:</b>	AC 120V/60Hz		
<b>Test Mode:</b>	TX 802.11ac(VHT20) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	16.98	17.553
157	5785	17.02	17.559
165	5825	16.65	17.557
<b>802.11ac(VHT20) Mode</b>			
<b>5745 MHz</b>			
			

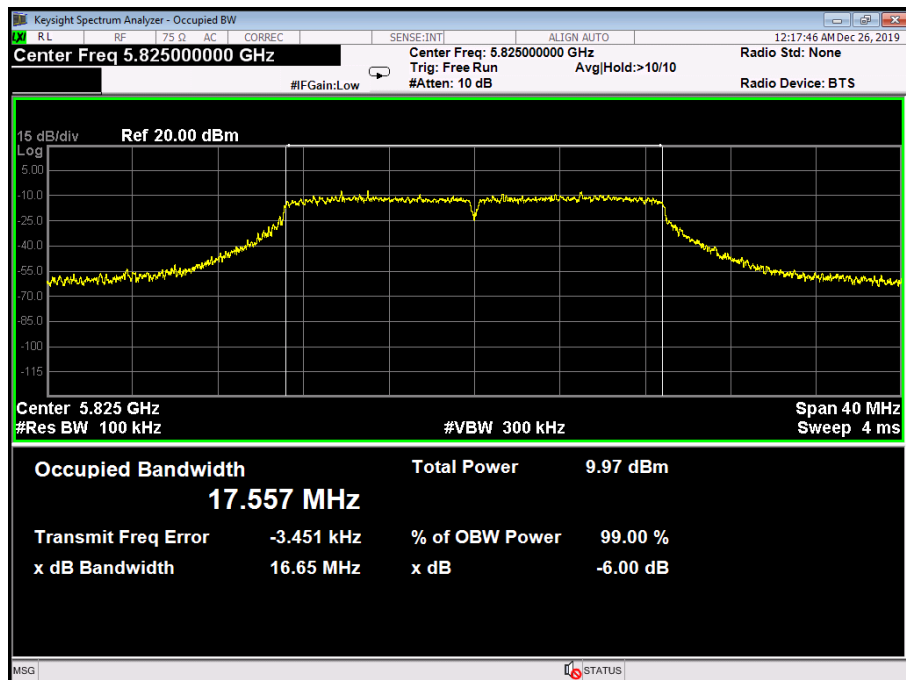
## 802.11ac(VHT20) Mode

5785 MHz

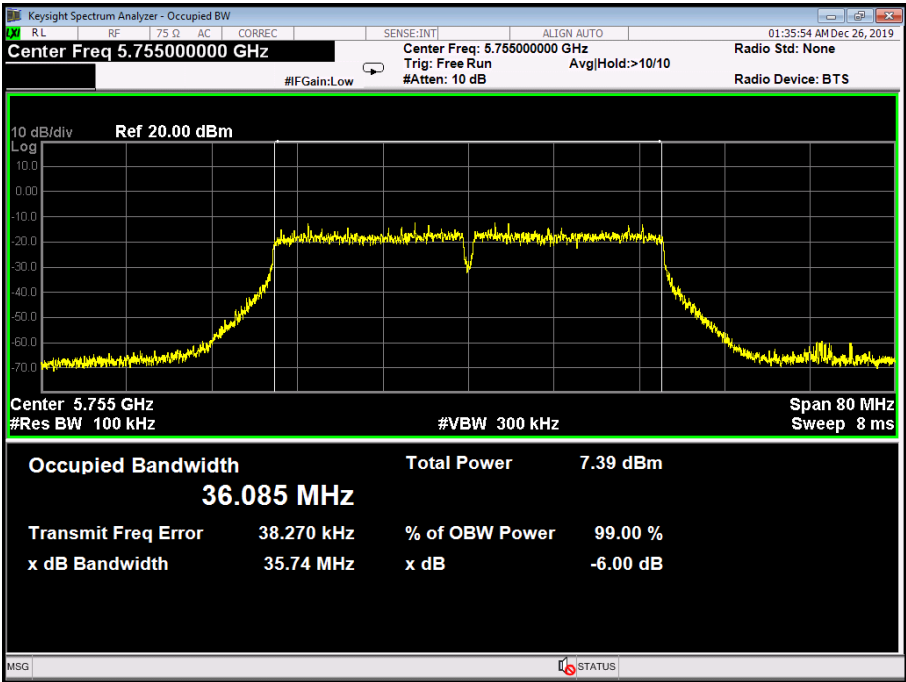


## 802.11ac(VHT20) Mode

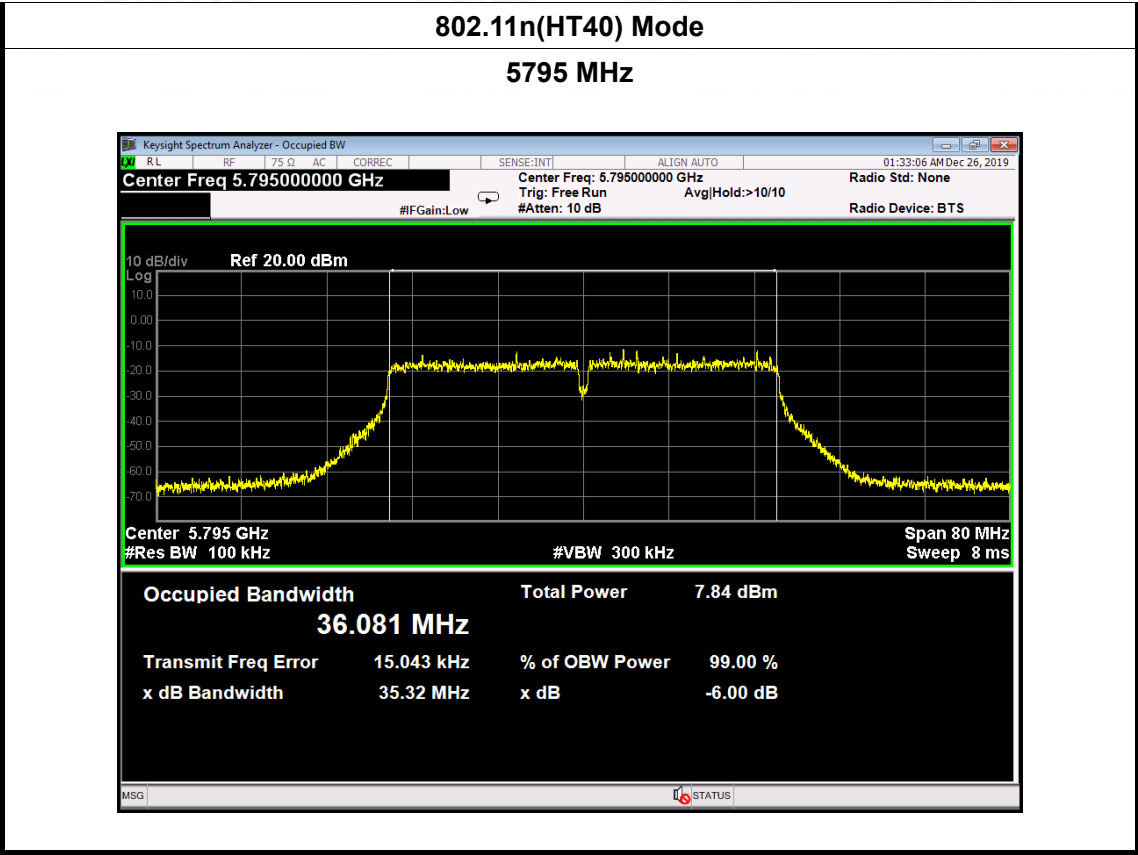
5825 MHz



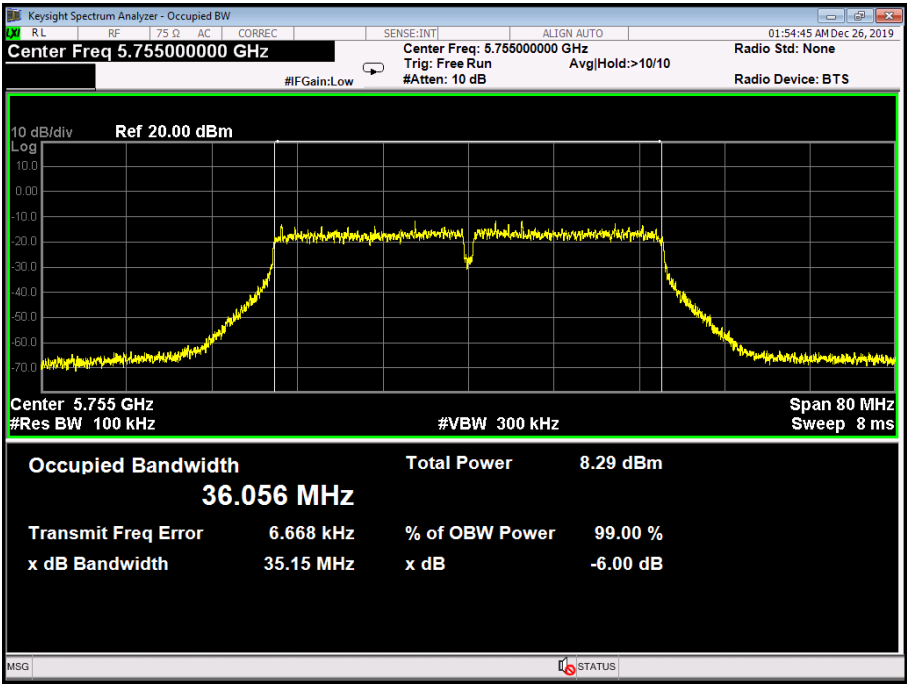
## ANT 1:

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11n(40) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
151	5755	35.74	36.085
159	5795	35.32	36.081
802.11n(HT40) Mode			
5755 MHz			
			

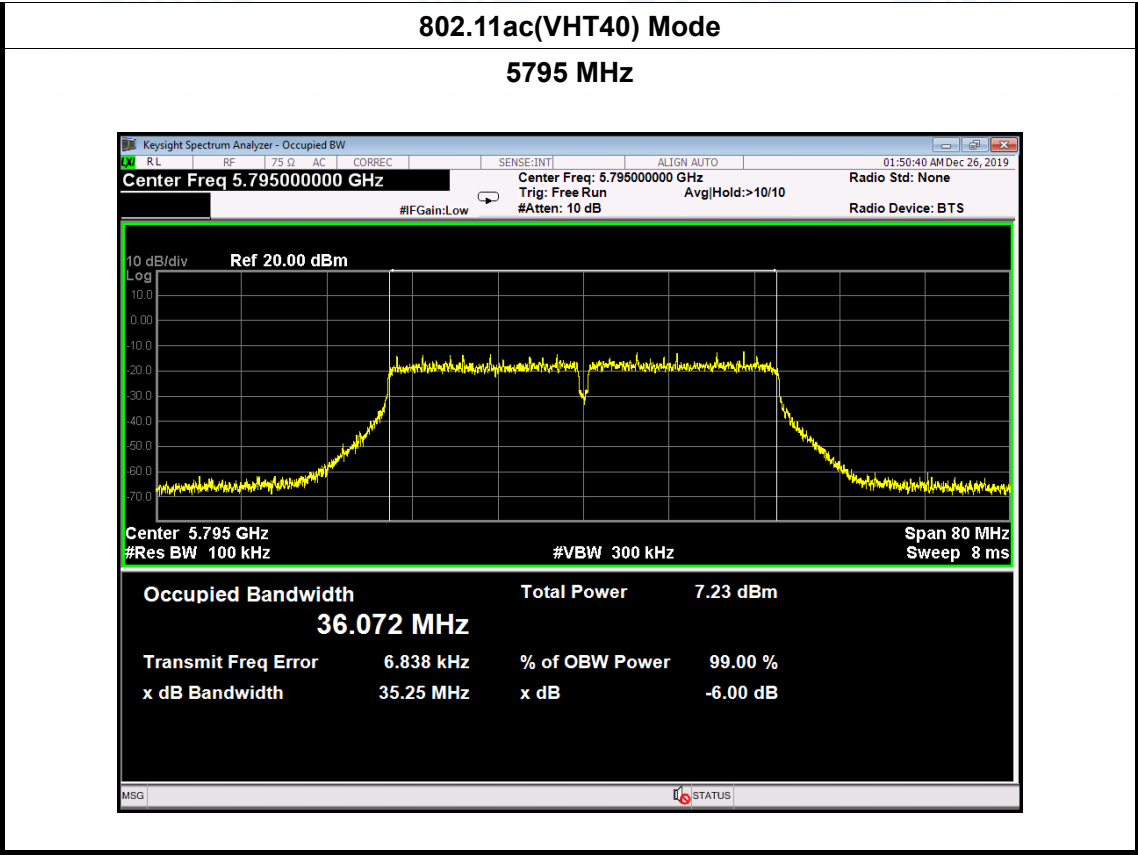




## ANT 1:

Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11ac(VHT40) Mode (U-NII-3)		
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
151	5755	35.15	36.056
159	5795	35.25	36.072
802.11ac(VHT40) Mode			
5755 MHz			
 <p>Keysight Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 5.75500000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: &gt;10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref 20.00 dBm</p> <p>Center 5.755 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 80 MHz</p> <p>Sweep 8 ms</p> <p>Occupied Bandwidth 36.056 MHz</p> <p>Total Power 8.29 dBm</p> <p>Transmit Freq Error 6.668 kHz</p> <p>% of OBW Power 99.00 %</p> <p>x dB Bandwidth 35.15 MHz</p> <p>x dB -6.00 dB</p>			







## Attachment E-- Output Power Test Data

**Note :** GANT =6dBi, Array Gain=10log(NANT/NSS)=3.01dBi, Directional Gain=GANT + Array Gain=8.01dBi, 8.01dBi >6dBi

so limit=24-(8.01-6)=21.99dBm for U-NII 1MIMO ,30-(8.01-6)=27.99dBm for U-NII 3 MIMO

Type	Bands	Channel	Output power Ant 0 (dBm)	Output power Ant 1 (dBm)	Output power Total (dBm)	Limit (dBm)	Result
802.11a	U-NII 1	36	15.431	15.473	/	24	Pass
		40	15.733	15.268	/		
		48	15.109	15.742	/		
	U-NII 3	149	15.555	15.430	/	30	
		157	15.91	15.202	/		
		165	15.278	15.519	/		
802.11n(HT20) MIMO	U-NII 1	36	14.449	14.566	17.518	21.99	Pass
		40	14.688	14.761	17.734		
		48	14.729	14.495	17.623		
	U-NII 3	149	14.640	14.665	17.662	27.99	
		157	14.355	14.393	17.384		
		165	14.517	14.622	17.580		
802.11n(HT40) MIMO	U-NII 1	38	13.881	13.928	16.914	21.99	Pass
		46	13.533	13.428	16.491		
	U-NII 3	151	13.494	13.301	16.408	27.99	
		159	13.587	13.407	16.508		
802.11ac(HT20) MIMO	U-NII 1	36	14.454	14.603	17.539	21.99	Pass
		40	14.704	14.654	17.689		
		48	14.749	14.679	17.724		
	U-NII 3	149	14.681	14.785	17.743	27.99	
		157	14.358	14.408	17.393		
		165	14.466	14.626	17.557		
802.11ac(HT40) MIMO	U-NII 1	38	13.571	13.603	16.657	21.99	Pass
		46	13.626	13.472	16.559		
	U-NII 3	151	13.899	13.182	16.565	27.99	
		159	13.163	13.250	16.217		

Test Mode		Duty cycle
U-NII-1	802.11 a	>98%
	802.11 n(HT20)	
	802.11 ac(HT20)	
	802.11 n(HT40)	
	802.11 ac(HT40)	
U-NII-3	802.11 a	
	802.11 n(HT20)	
	802.11 ac(HT20)	
	802.11 n(HT40)	
	802.11 ac(HT40)	



## Attachment F-- Power Spectral Density Test Data

**Note :** GANT =6dBi, Array Gain=10log(NANT/NSS)=3.01dBi, Directional Gain=GANT + Array Gain=8.01dBi, 8.01dBi >6dBi so limit=11-(8.01-6)=8.99dBm for U-NII 1 MIMO

Type	Bands	Channel	Power Spectral Density Ant 0 (dBm/MHz)	Power Spectral Density Ant 1 (dBm/MHz)	Power Spectral Density Total (dBm/ 1MHz)	Limit (dBm/MHz)	Result
802.11a SISO	U-NII 1	36	3.272	2.924	/	11.00	Pass
		40	3.924	5.033	/		
		48	3.063	4.383	/		
802.11n (HT20) MIMO	U-NII 1	36	4.309	4.488	7.409	8.99	
		40	3.444	4.536	7.034		
		48	3.915	5.278	7.66		
802.11n (HT40) MIMO	U-NII 1	38	2.736	4.545	6.744		
		46	2.582	4.134	6.437		
802.11ac (VHT20) MIMO	U-NII 1	36	3.320	3.870	6.614		
		40	3.799	4.579	7.216		
		48	4.985	4.526	7.771		
802.11ac (VHT40) MIMO	U-NII 1	38	3.235	3.331	6.293		
		46	2.889	2.635	5.774		

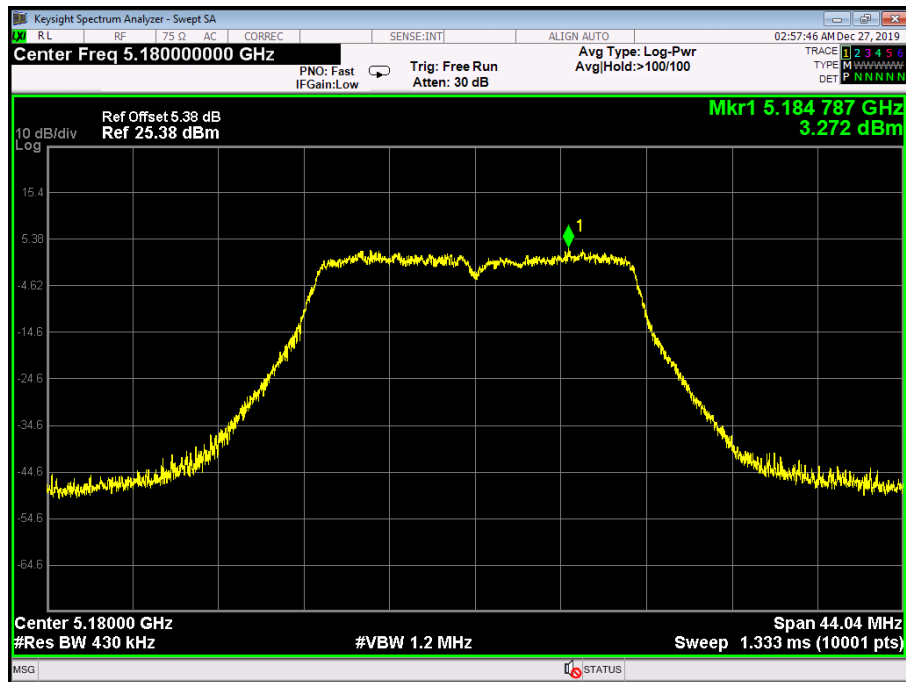


Type	Bands	Channel	Power Spectral Density Ant 0 (dBm/500KHz)	Power Spectral Density Ant 1 (dBm/500KHz)	Power Spectral Density Total (dBm/ 500KHz)	Limit (dBm/500KHz)	Result
802.11a SISO	U-NII 3	149	3.933	4.057	/	30.00	Pass
		157	4.784	4.20	/		
		165	4.072	4.212	/		
802.11n (HT20) MIMO	U-NII 3	149	2.904	3.118	6.022	27.99	
		157	3.057	3.295	6.187		
		165	3.123	3.184	6.163		
802.11n (HT40) MIMO	U-NII 3	151	-1.155	-1.01	1.928		
		159	-0.373	0.878	2.292		
802.11ac (HT20) MIMO	U-NII 3	149	3.77	4.649	7.242		
		157	3.739	4.582	7.191		
		165	4.088	4.277	7.193		
802.11ac (HT40) MIMO	U-NII 3	151	-0.094	-0.395	2.768		
		159	-1.323	-0.536	2.098		

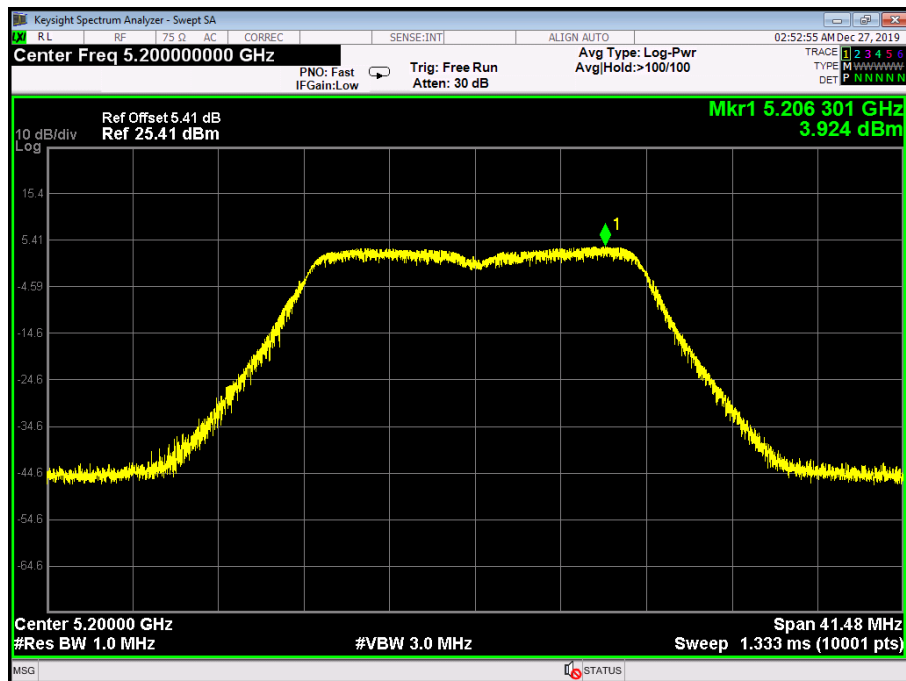
**Note :** GANT =6dBi, Array Gain=10log(NANT/NSS)=3.01dBi, Directional Gain=GANT + Array Gain=8.01dBi, 8.01dBi >6dBi so limit=30-(8.01-6)=27.99dBm for U-NII 3 MIMO

ANT 0:

802.11 a 5180 MHz

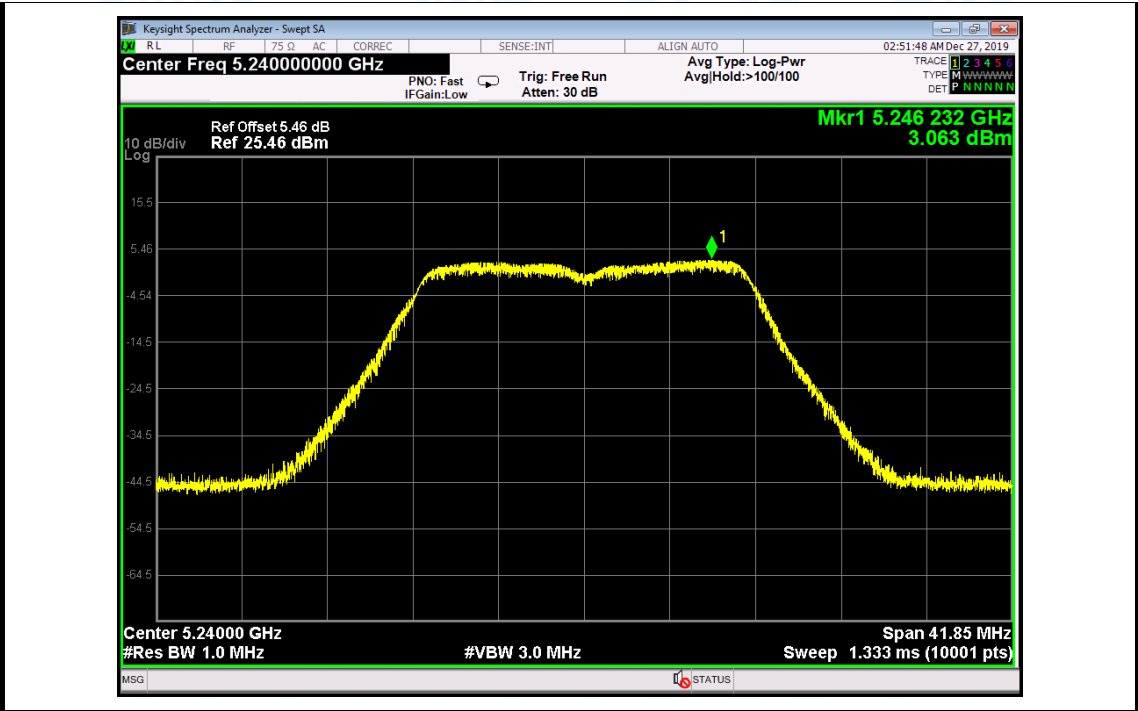


802.11 a 5200 MHz



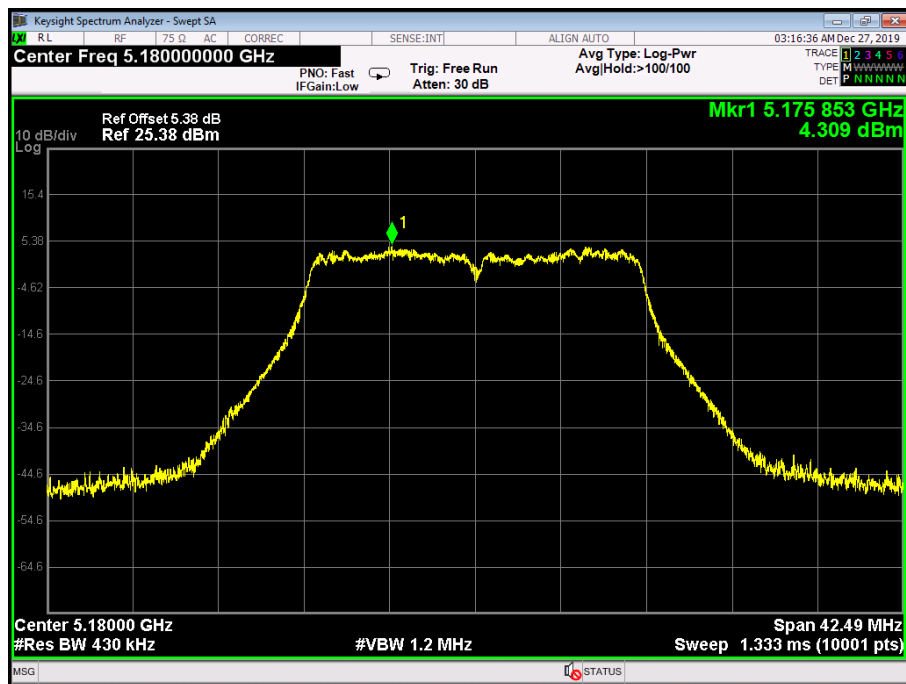
802.11 a 5240 MHz



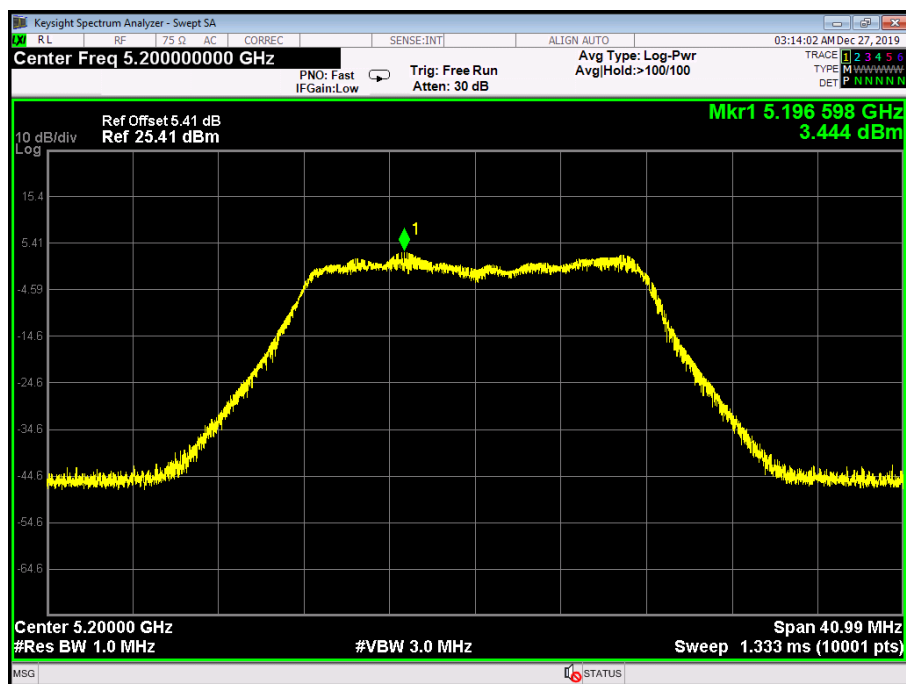




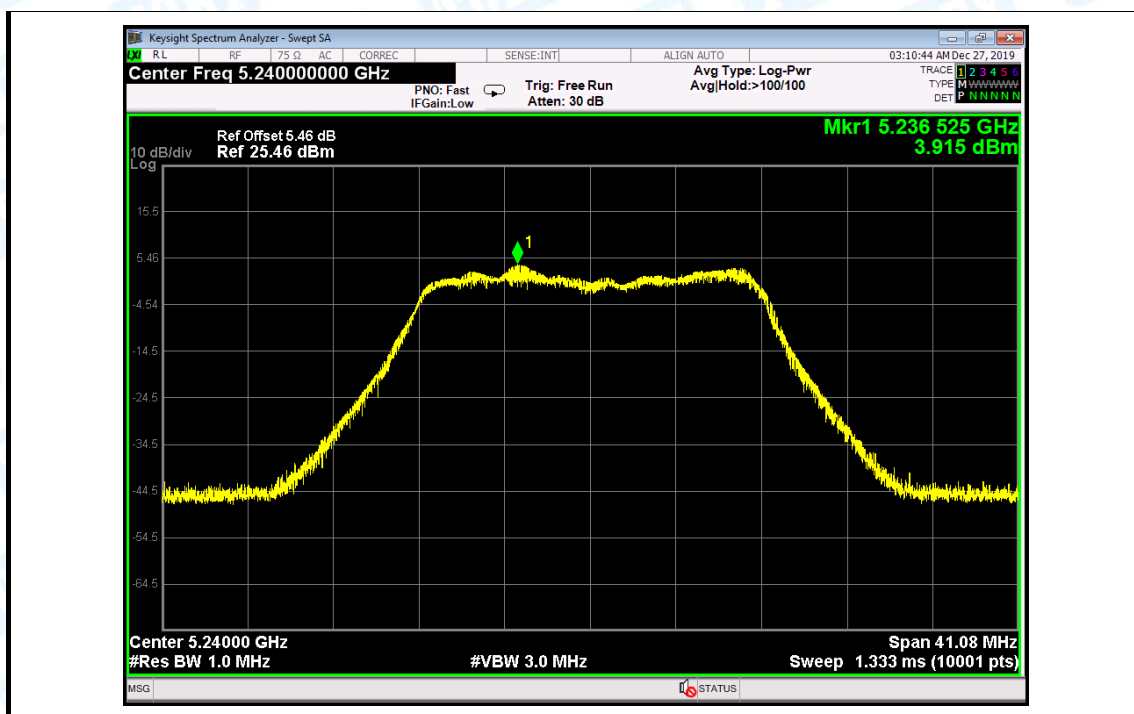
802.11 n(20) 5180 MHz



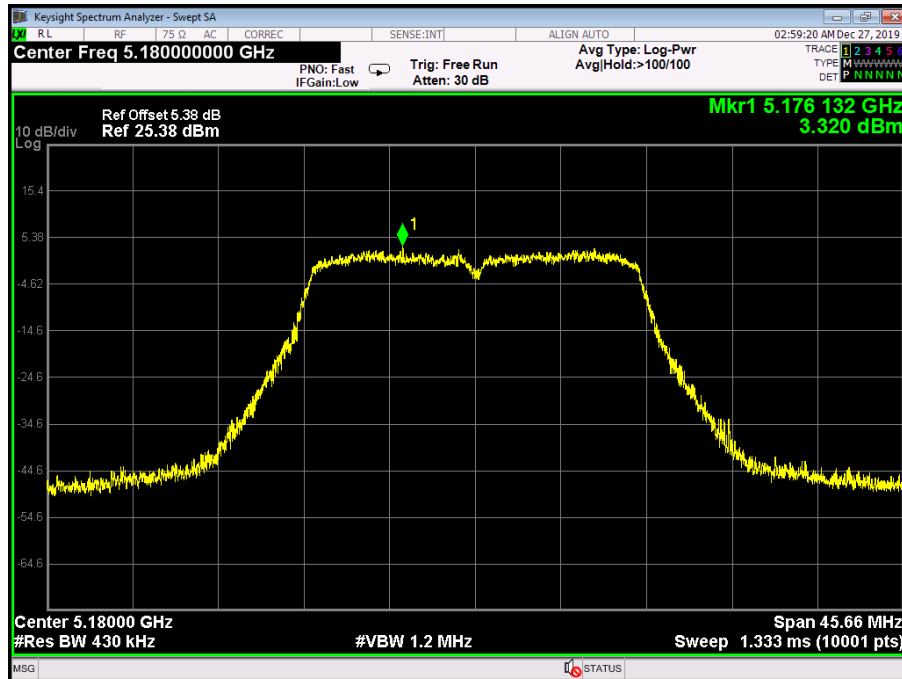
802.11 n(20) 5200 MHz



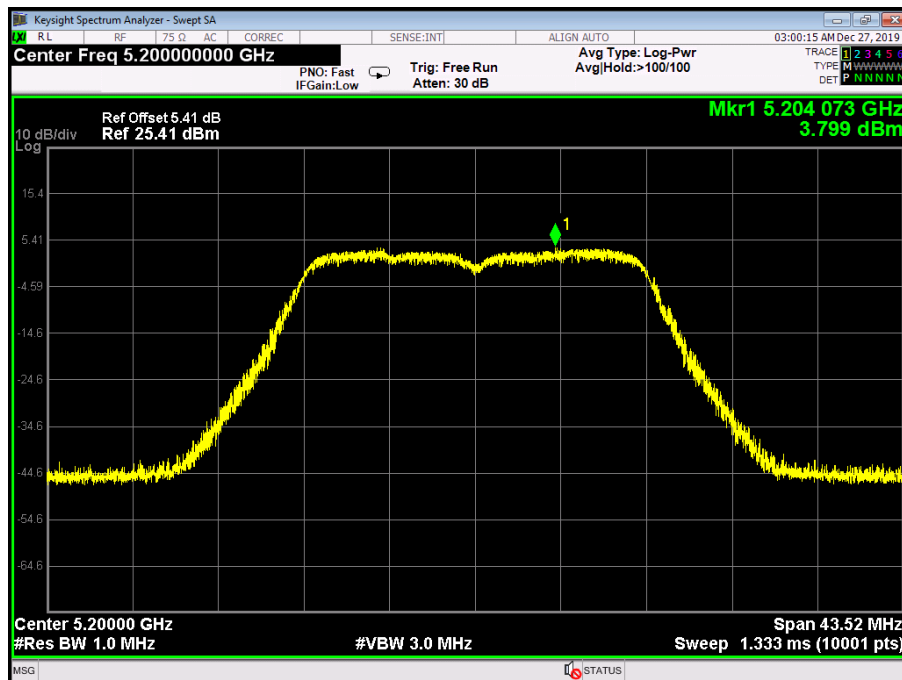
802.11 n(20) 5240 MHz



802.11 ac(VHT20) 5180 MHz

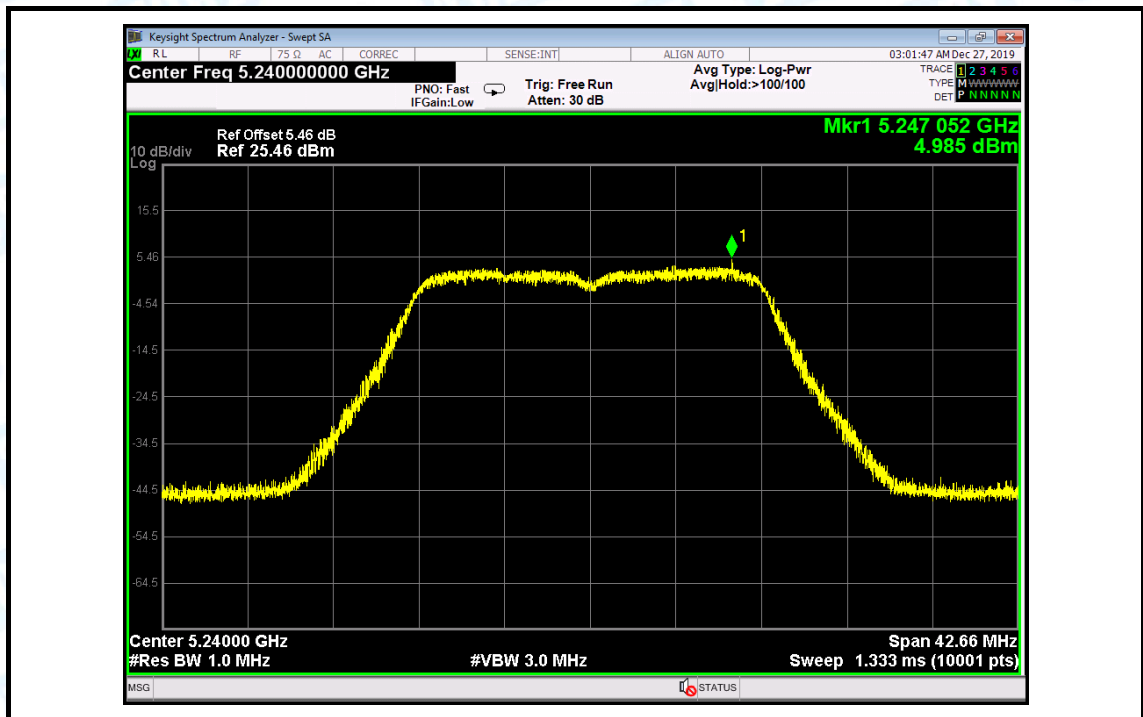


802.11 ac(VHT20) 5200 MHz

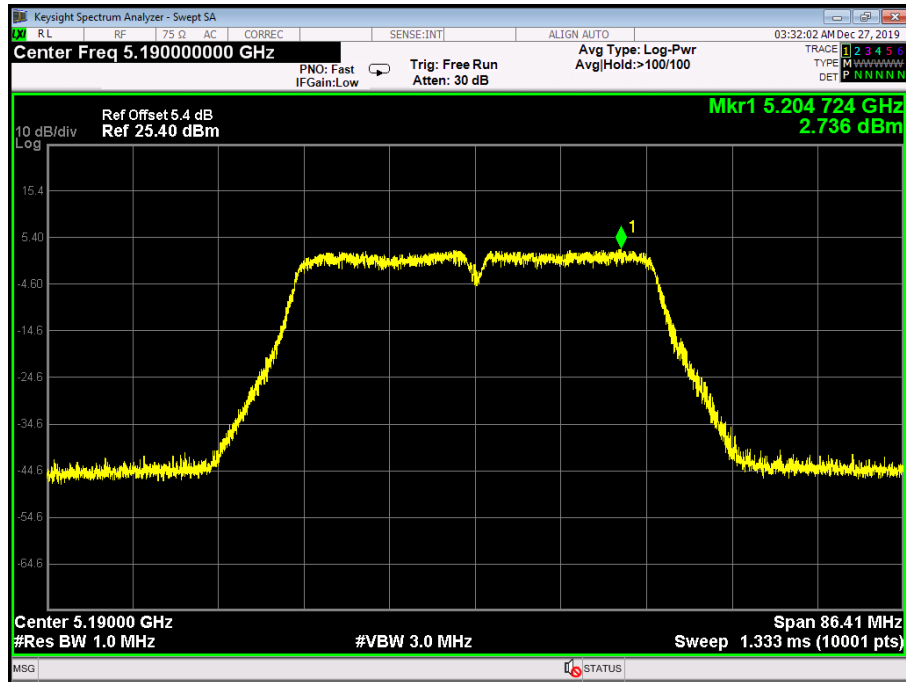


802.11 ac(VHT20) 5240 MHz

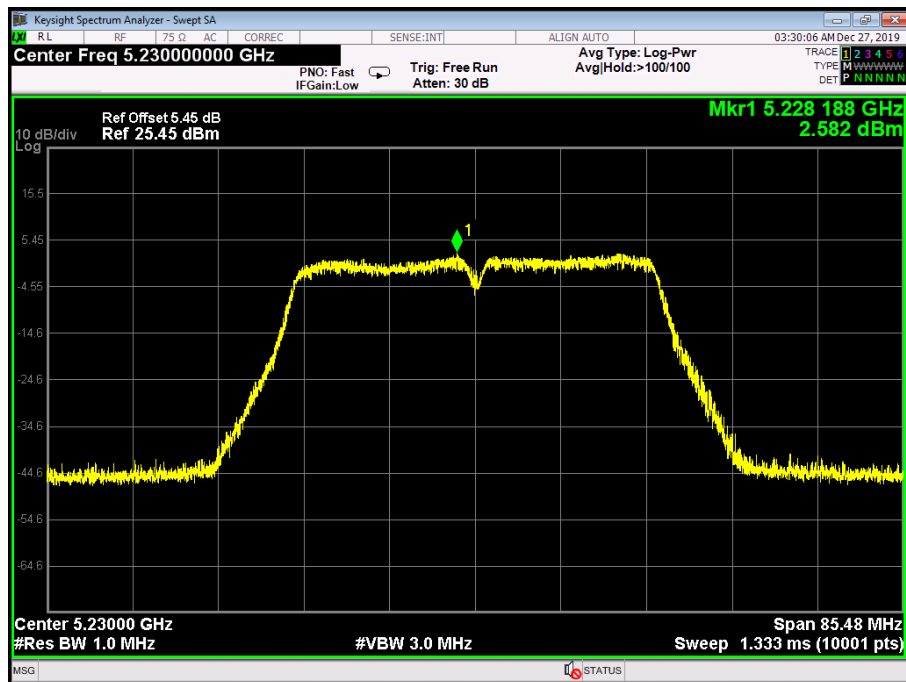




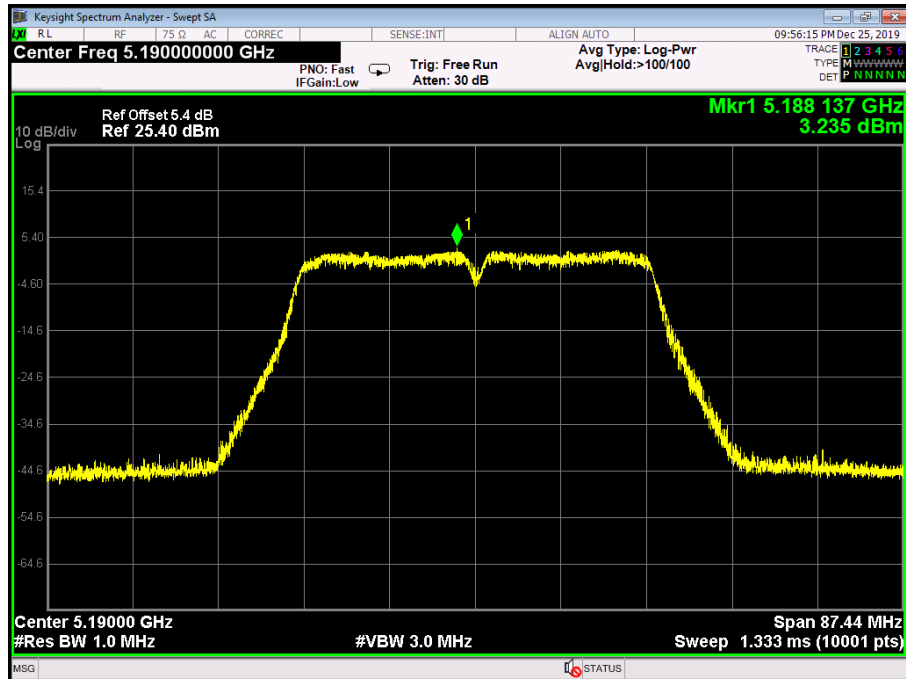
802.11 n(40) 5190 MHz



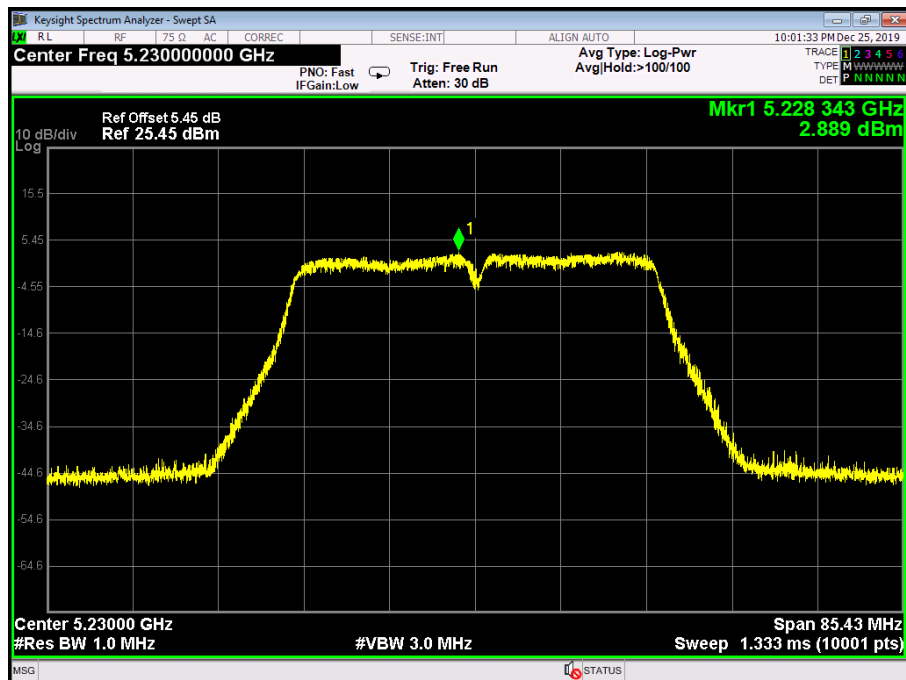
802.11 n(40) 5230 MHz



## 802.11 ac(VHT40) 5190 MHz

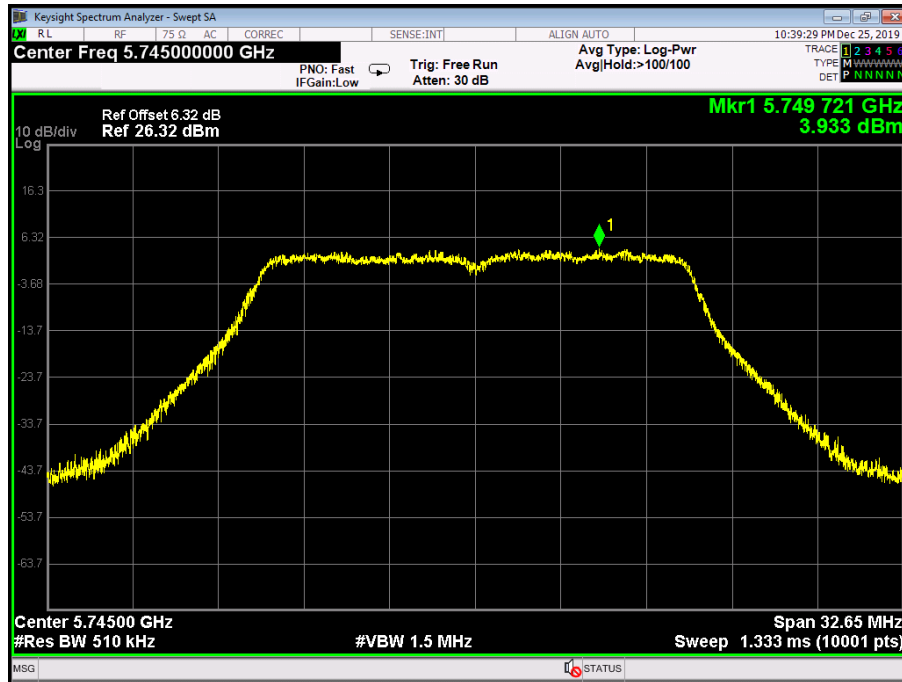


## 802.11 ac(VHT40) 5230 MHz

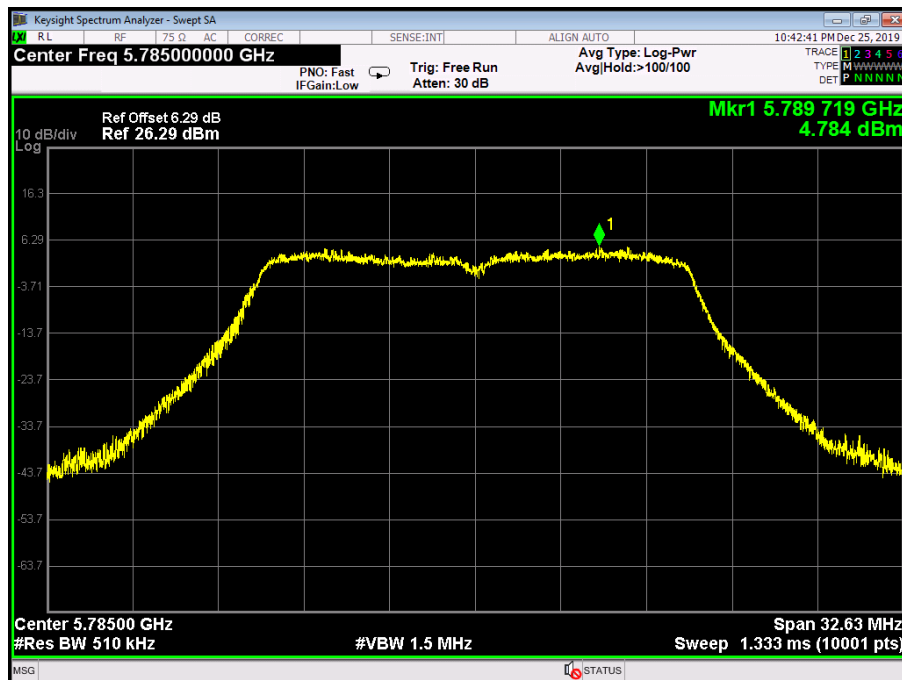




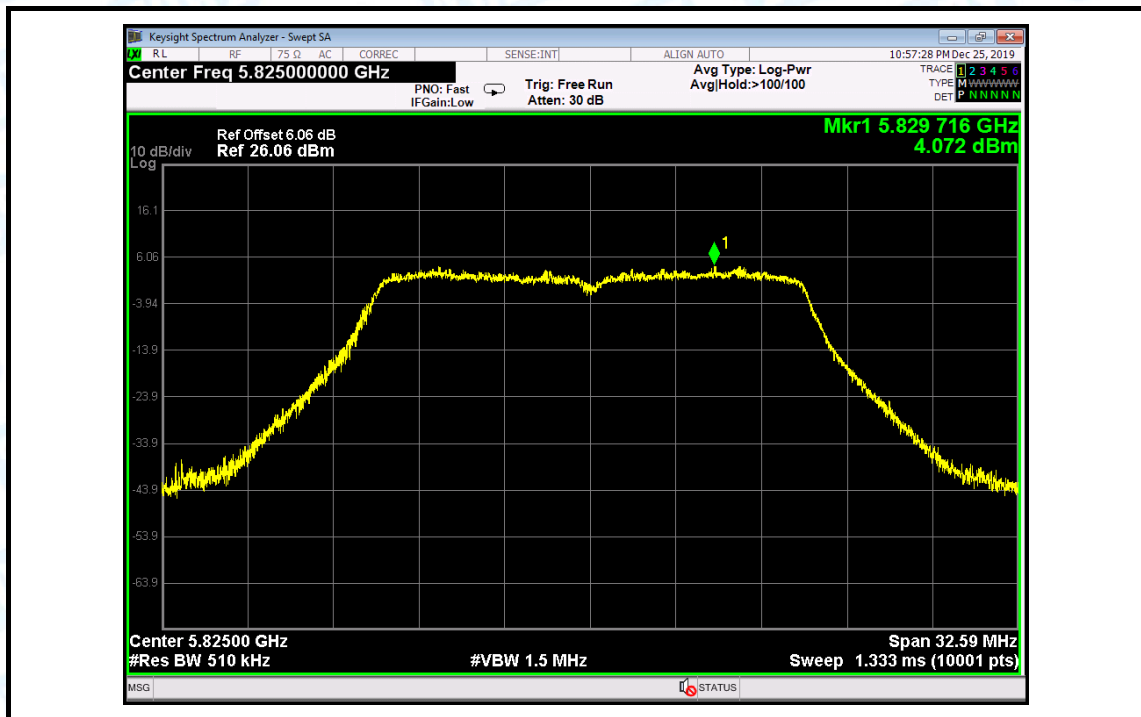
### 802.11 a 5745 MHz



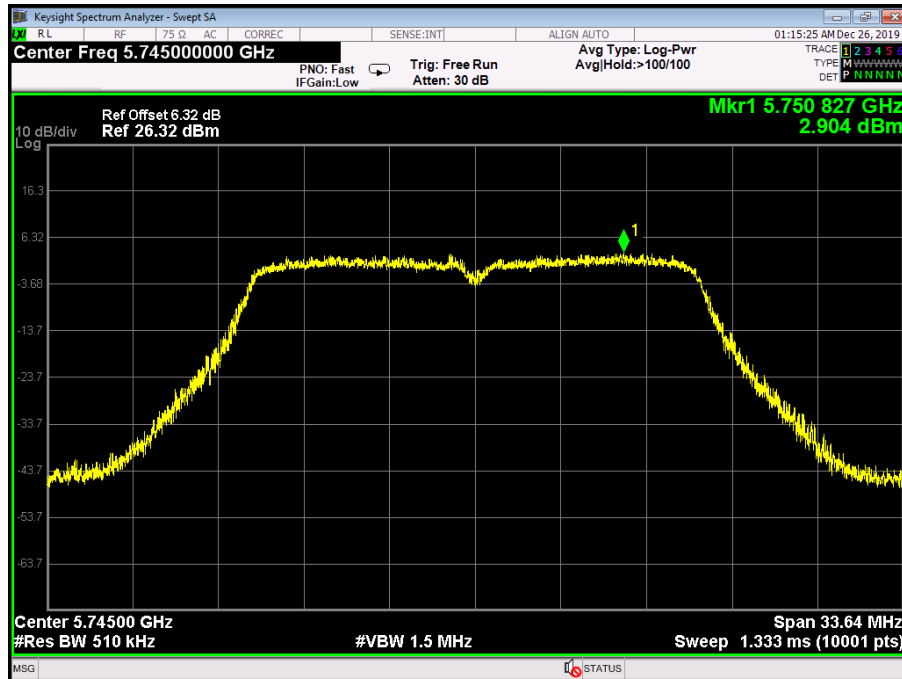
### 802.11 a 5785 MHz



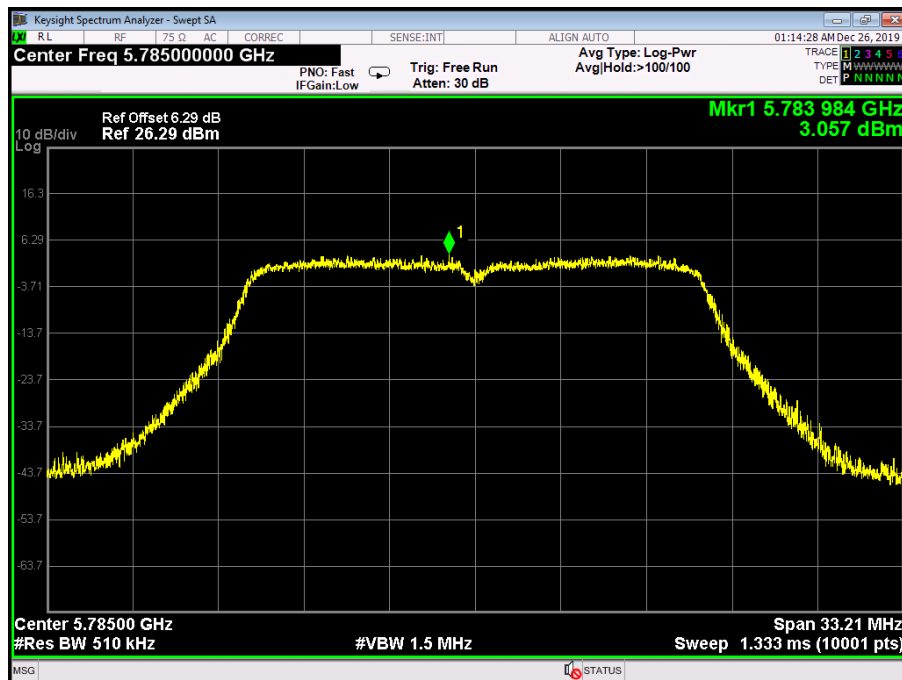
### 802.11 a 5825 MHz



802.11 n(20) 5745 MHz

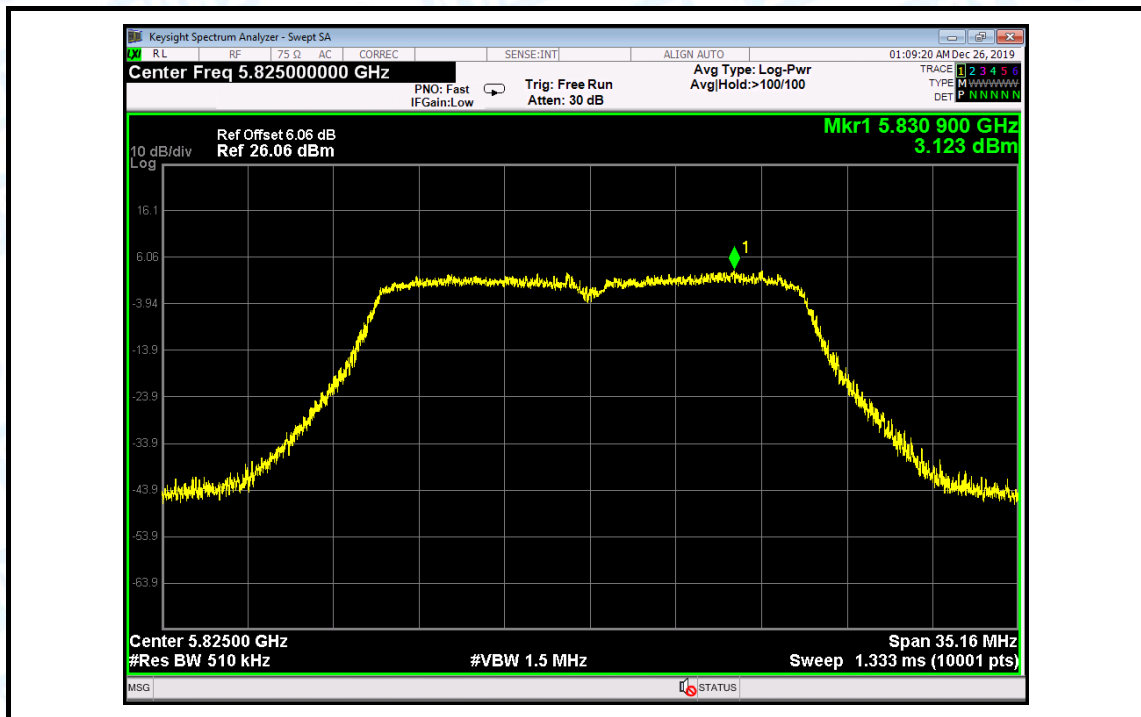


802.11 n(20) 5785 MHz

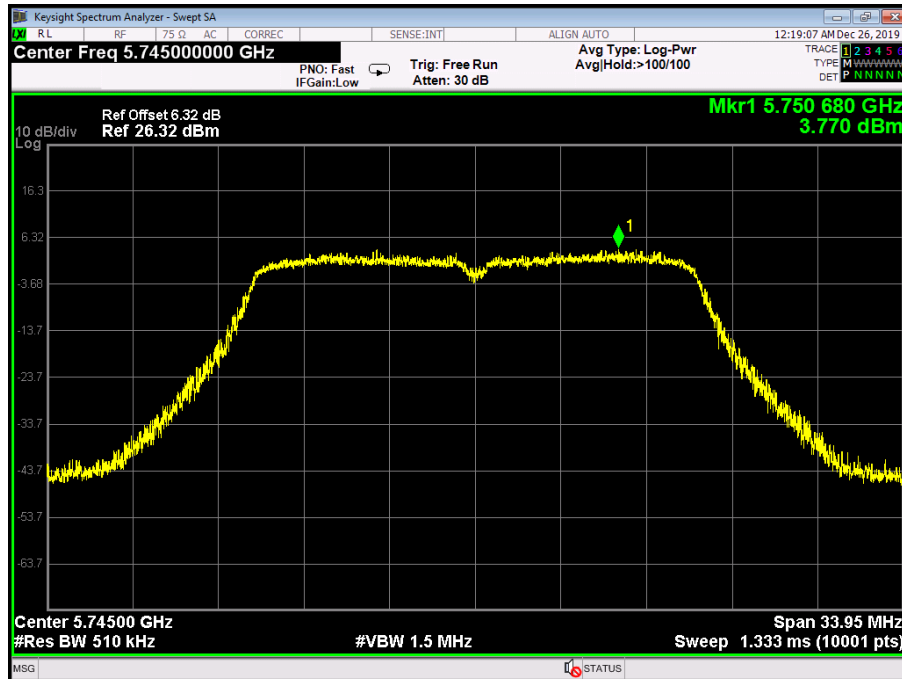


802.11 n(20) 5825 MHz

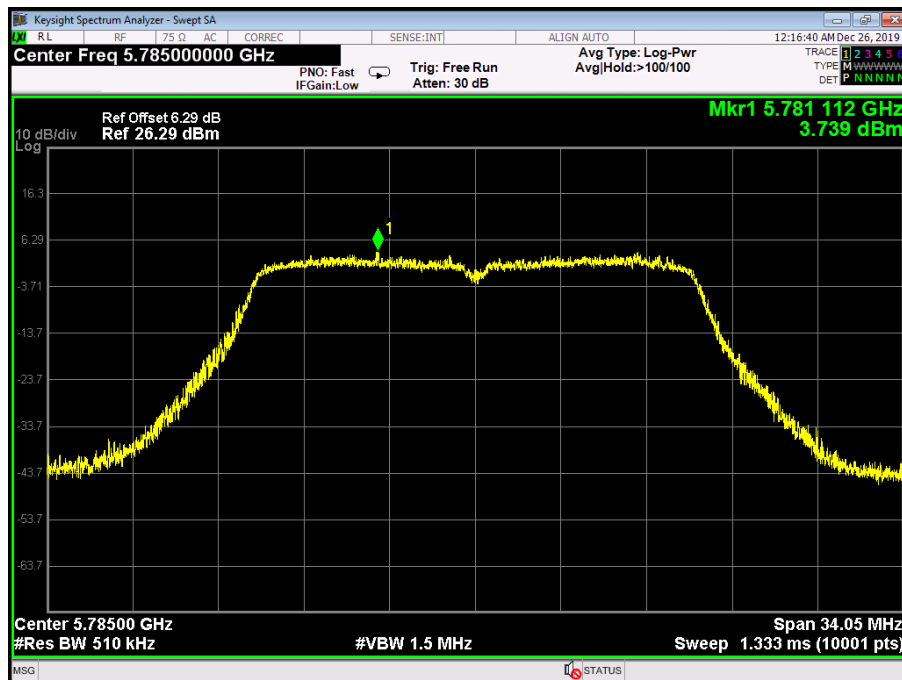




802.11 ac(VHT20) 5745 MHz



802.11 ac(VHT20) 5785 MHz

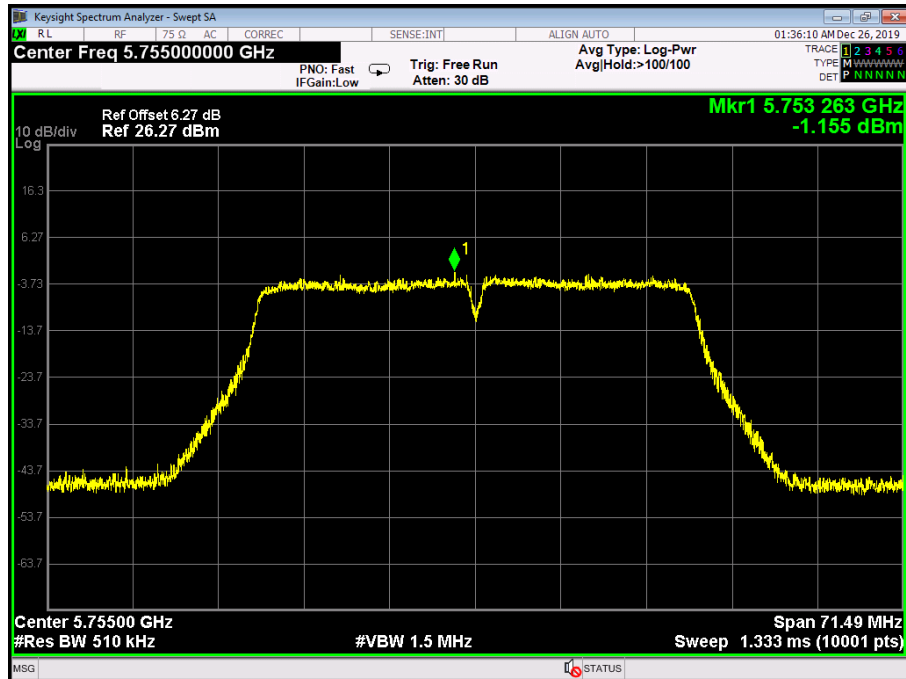


802.11 ac(VHT20) 5825 MHz

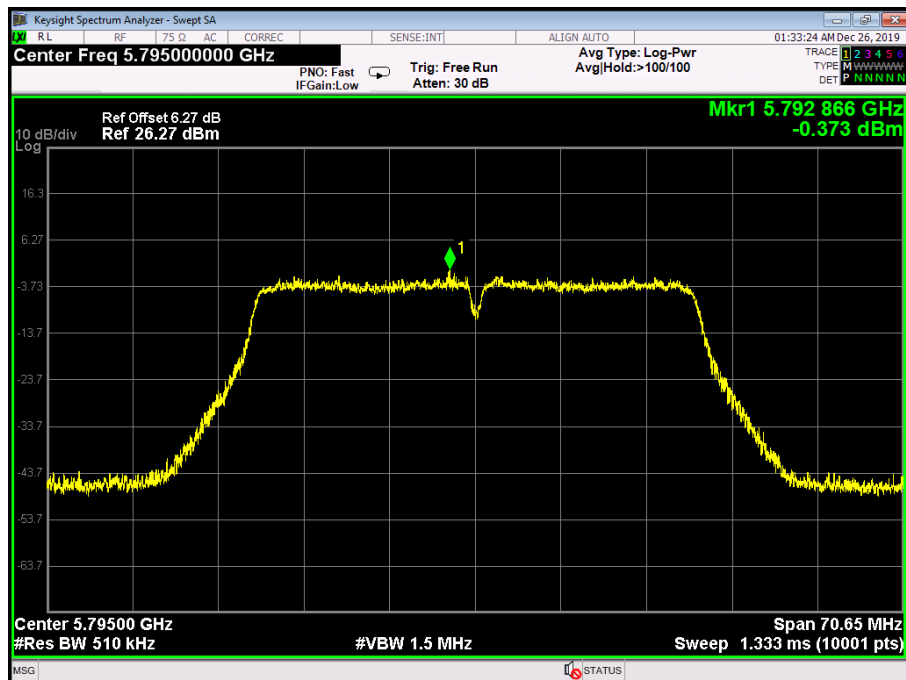




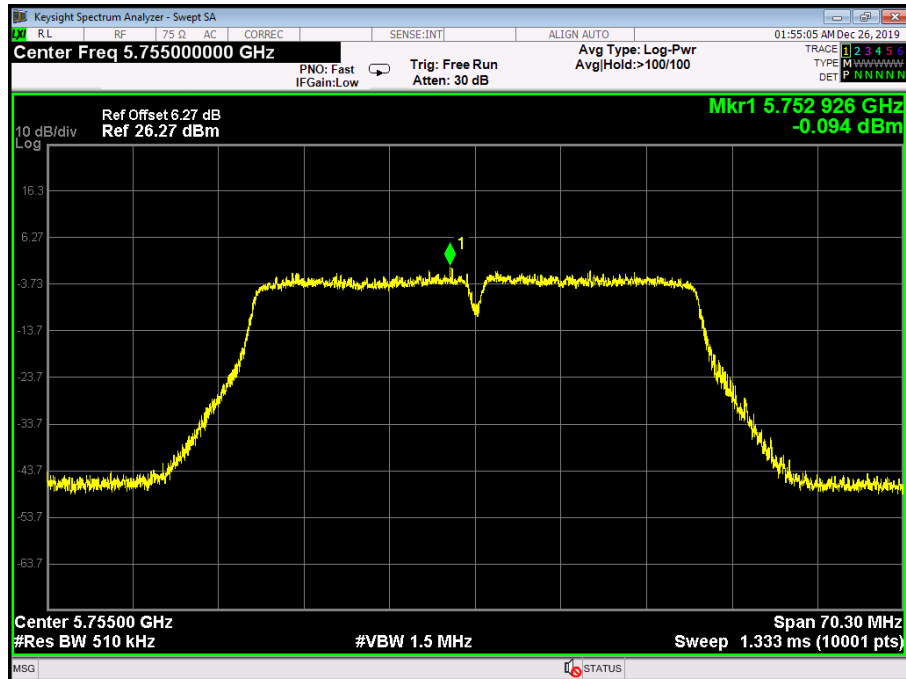
## 802.11 n(40) 5755 MHz



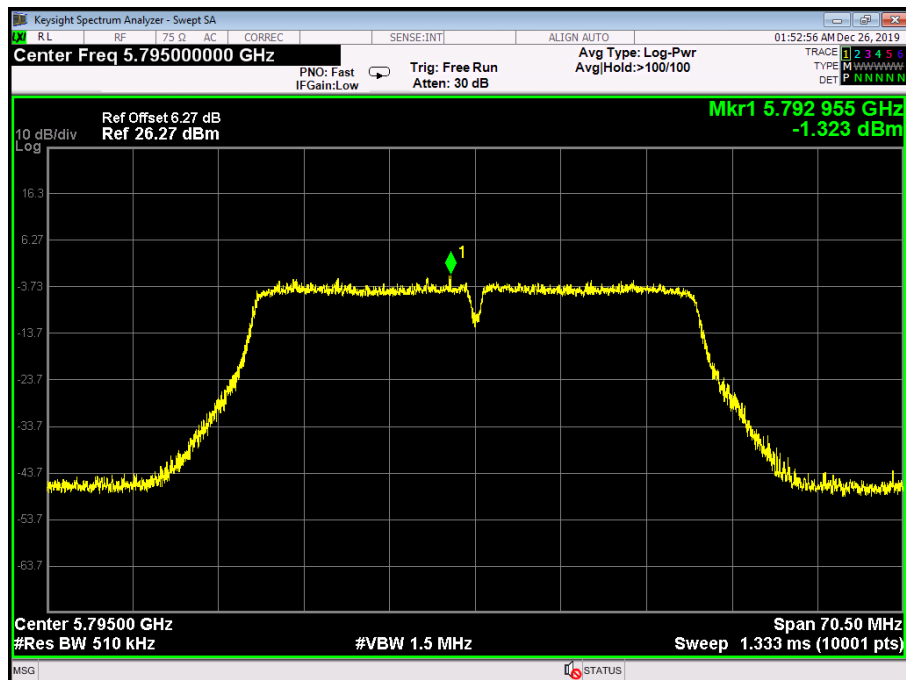
## 802.11 n(40) 5795 MHz



802.11 ac(VHT40) 5755 MHz

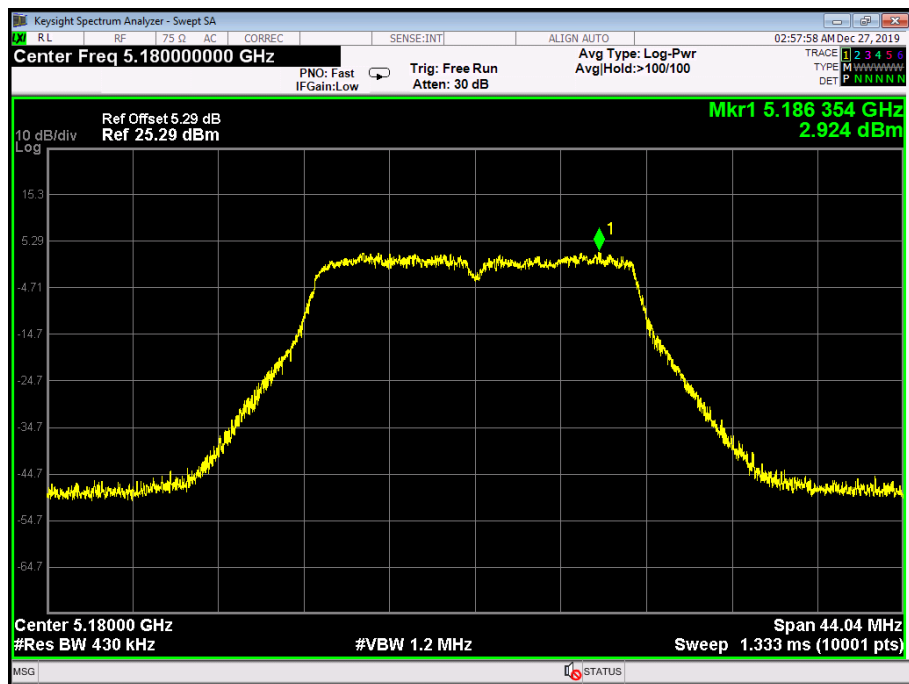


802.11 ac(VHT40) 5795 MHz

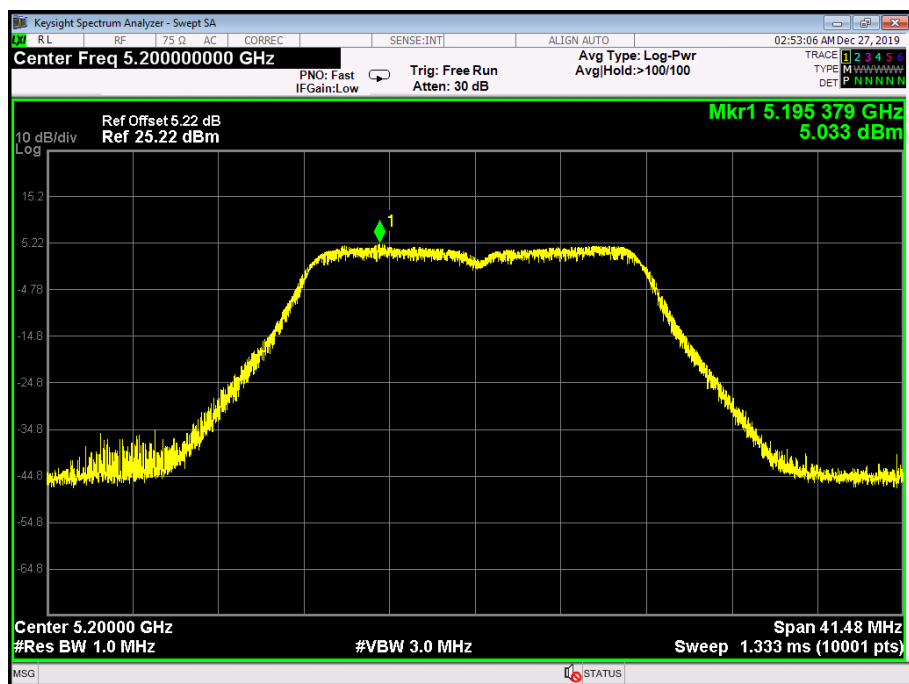


ANT 1:

## 802.11 a 5180 MHz

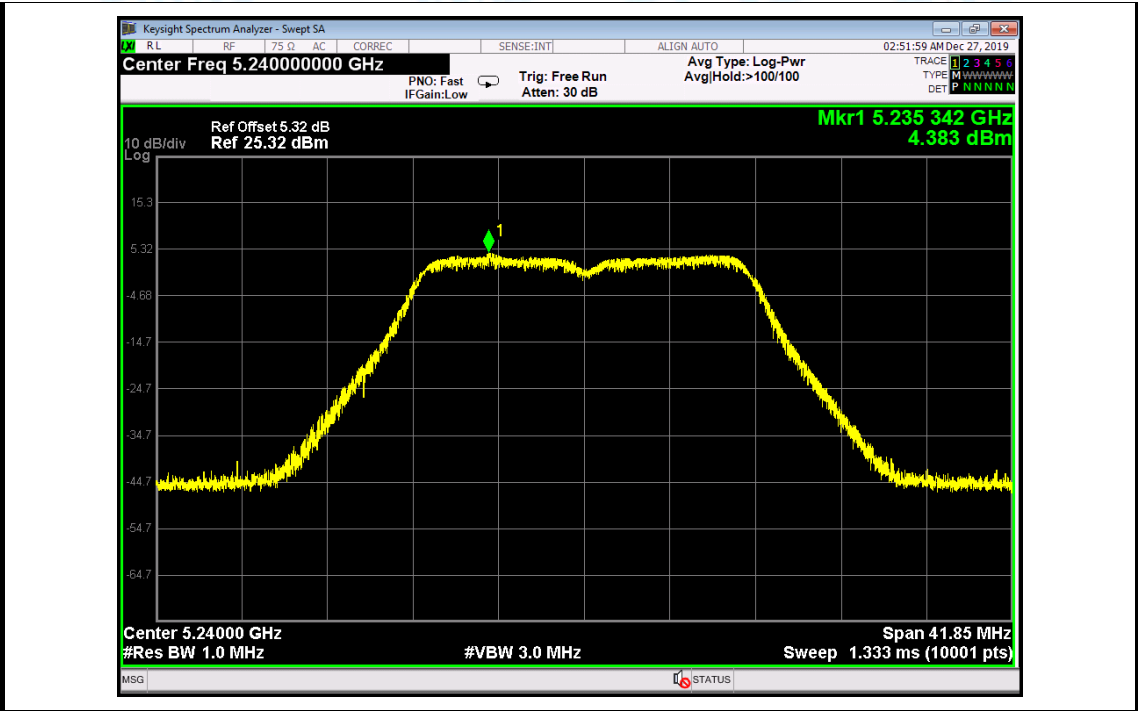


## 802.11 a 5200 MHz

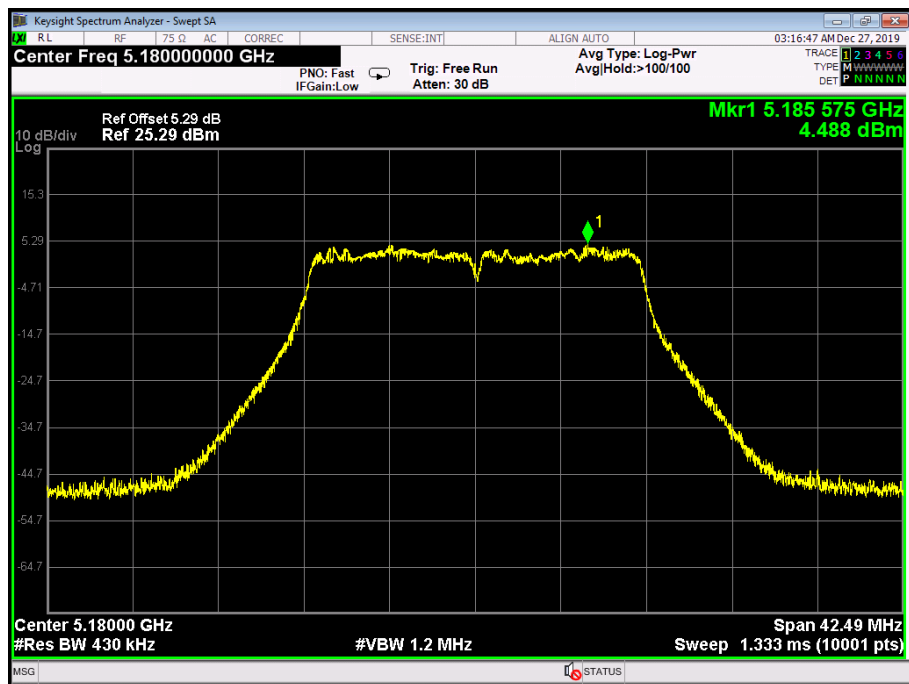


## 802.11 a 5240 MHz

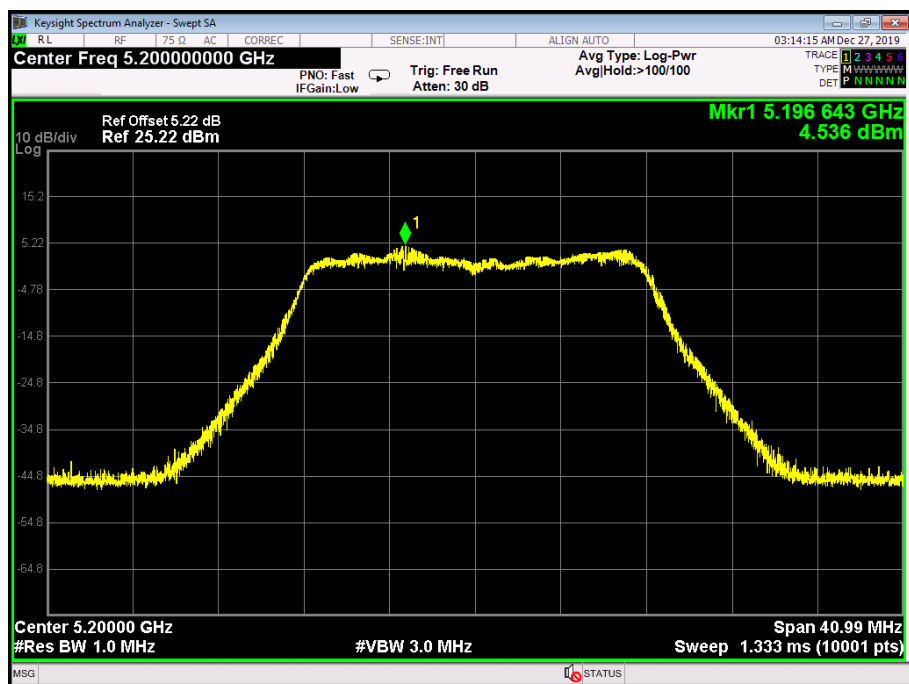




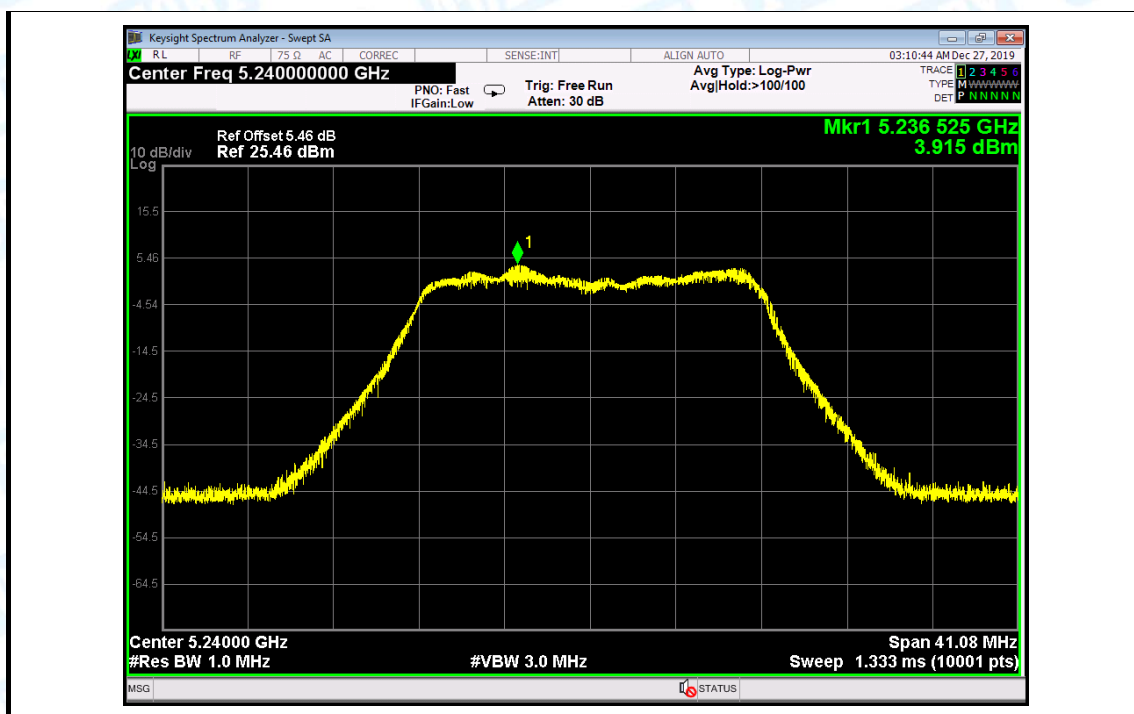
## 802.11 n(20) 5180 MHz



## 802.11 n(20) 5200 MHz

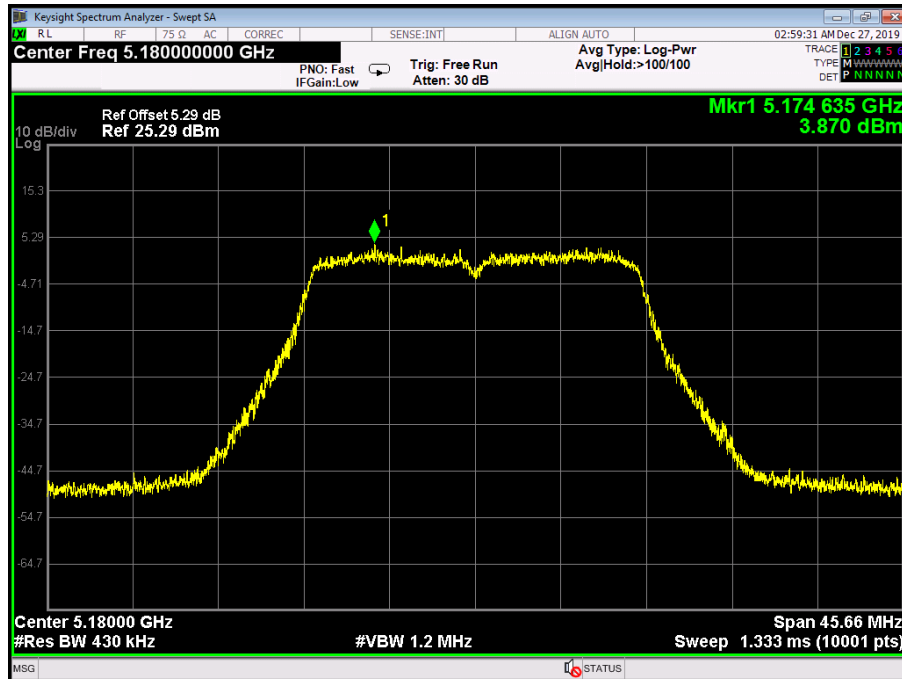


## 802.11 n(20) 5240 MHz

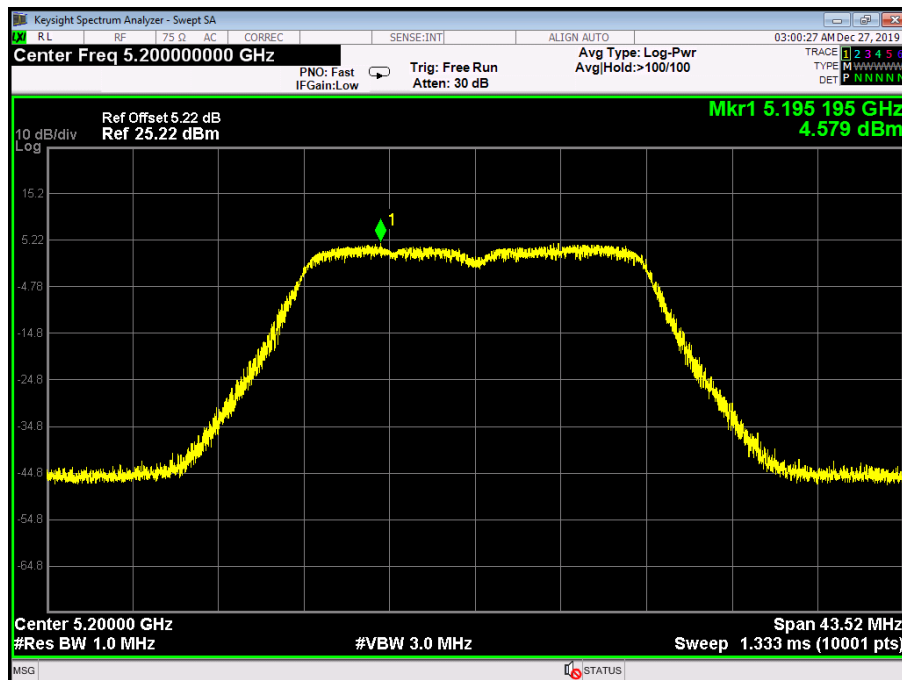




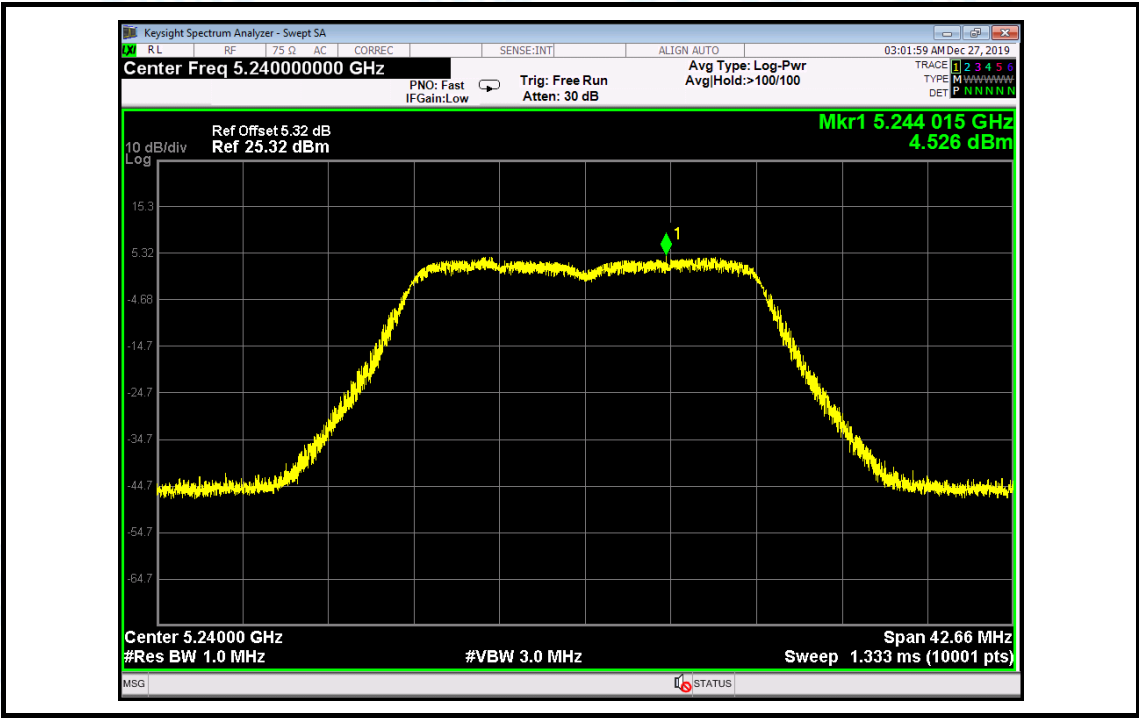
802.11 ac(VHT20) 5180 MHz



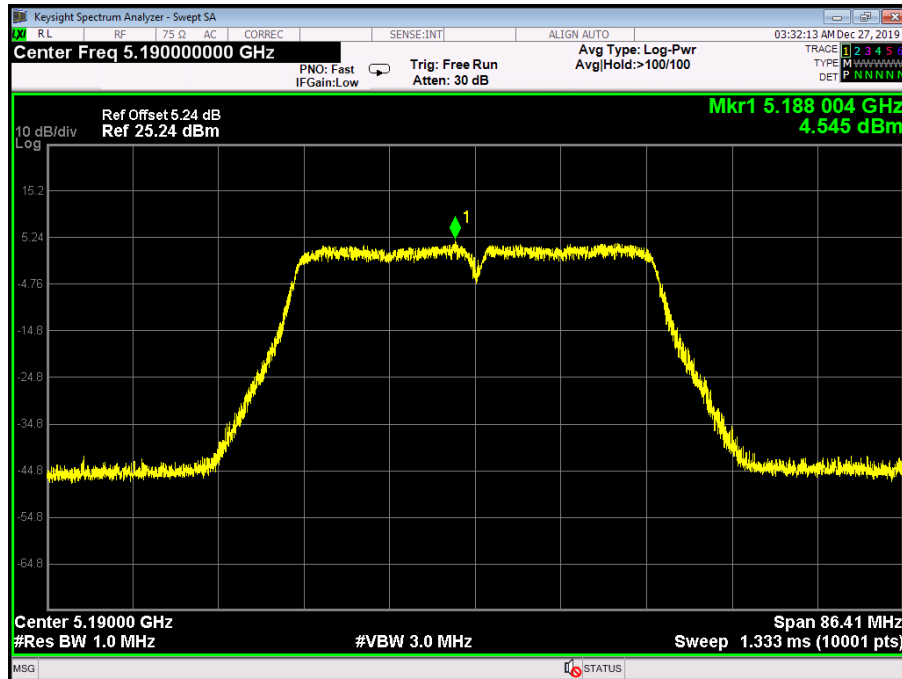
802.11 ac(VHT20) 5200 MHz



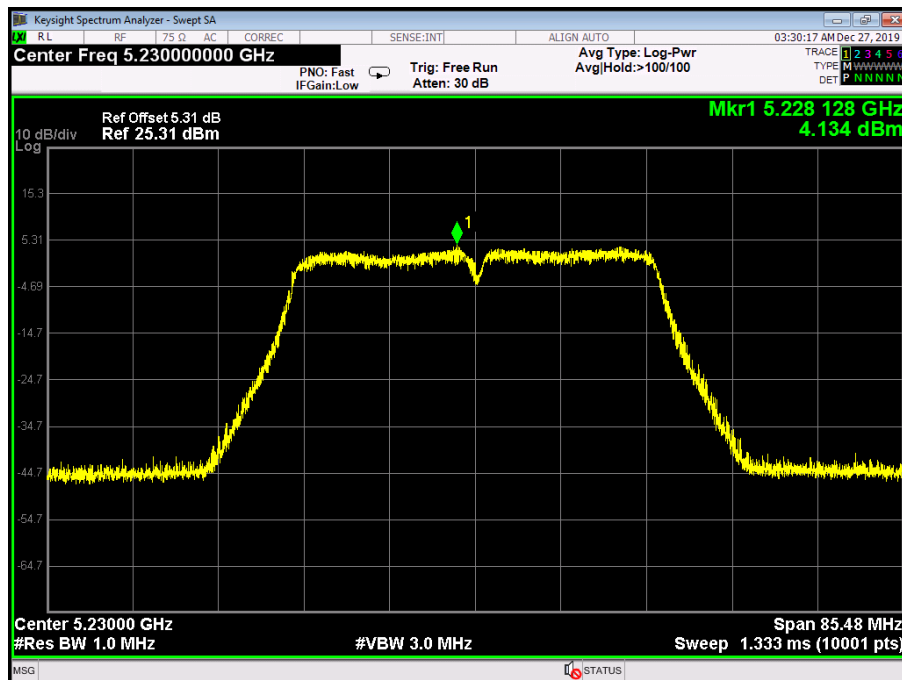
802.11 ac(VHT20) 5240 MHz



802.11 n(40) 5190 MHz

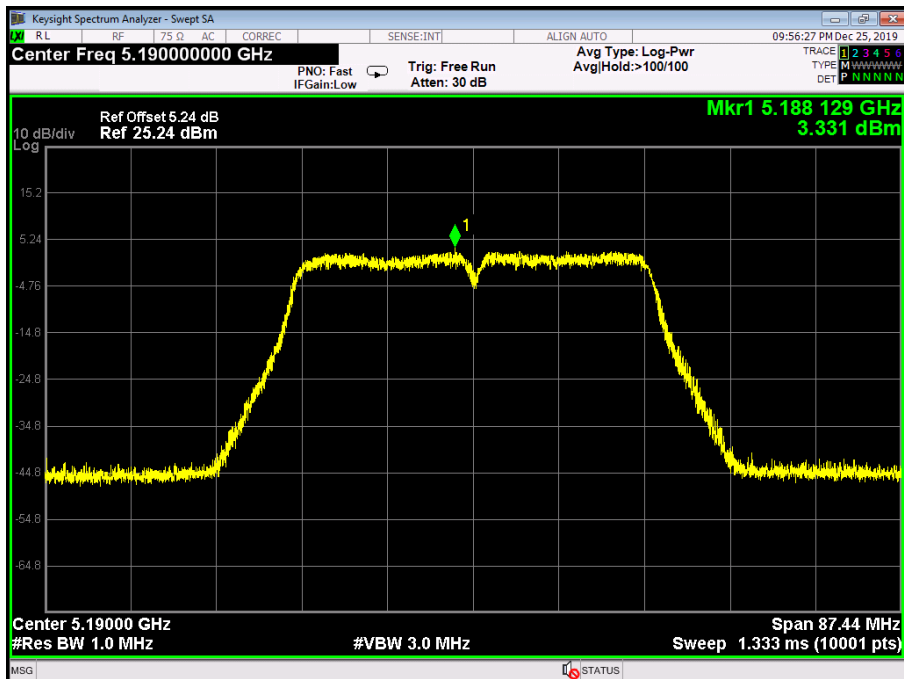


802.11 n(40) 5230 MHz

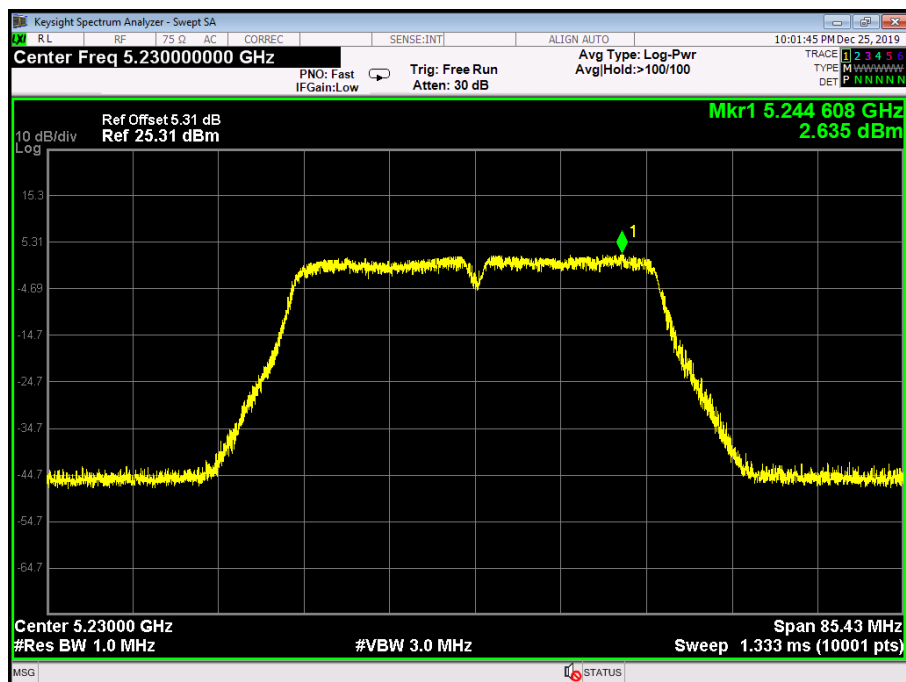




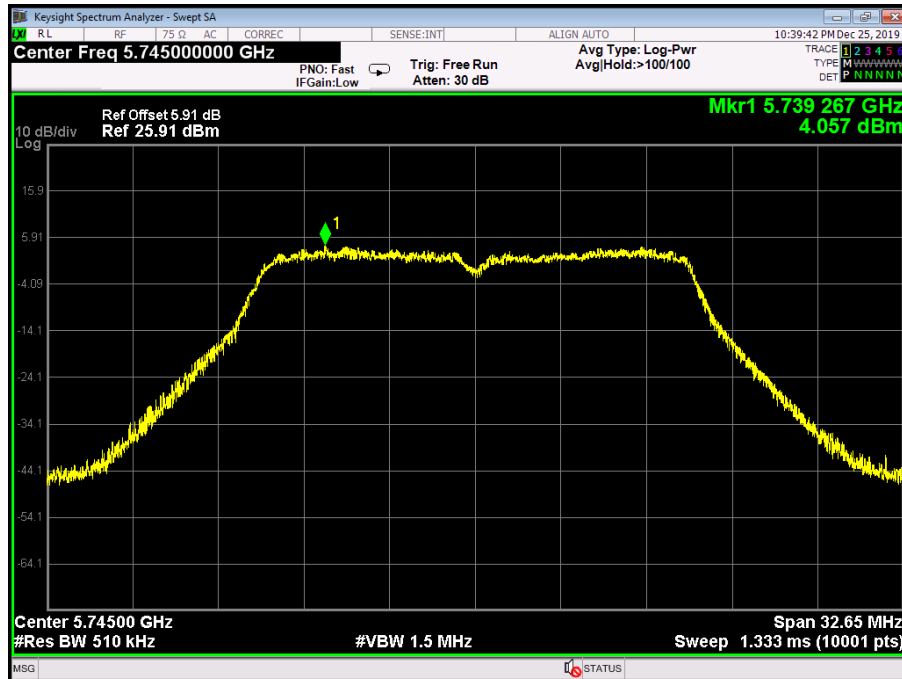
## 802.11 ac(VHT40) 5190 MHz



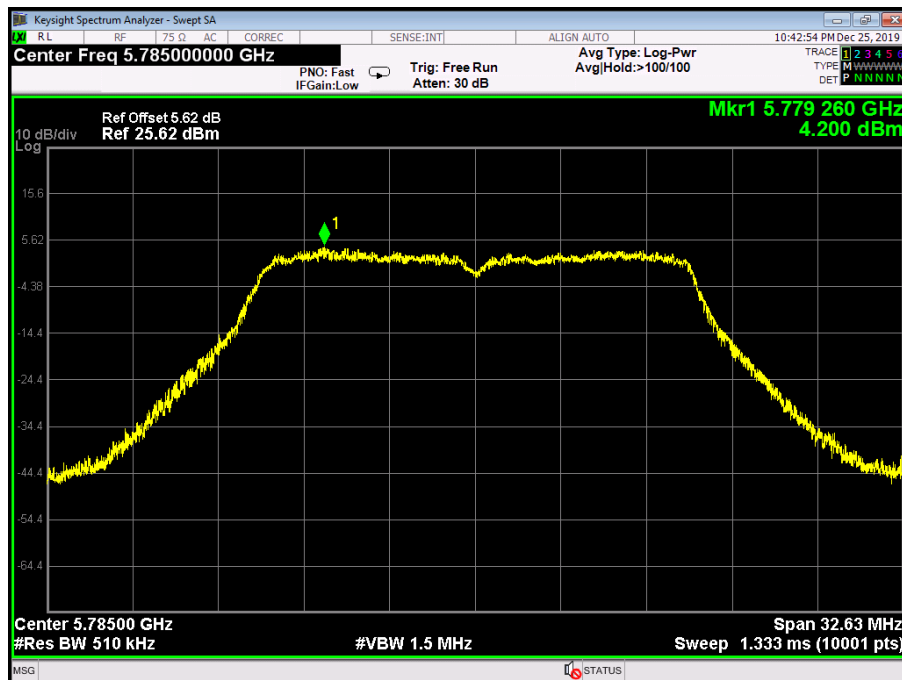
## 802.11 ac(VHT40) 5230 MHz



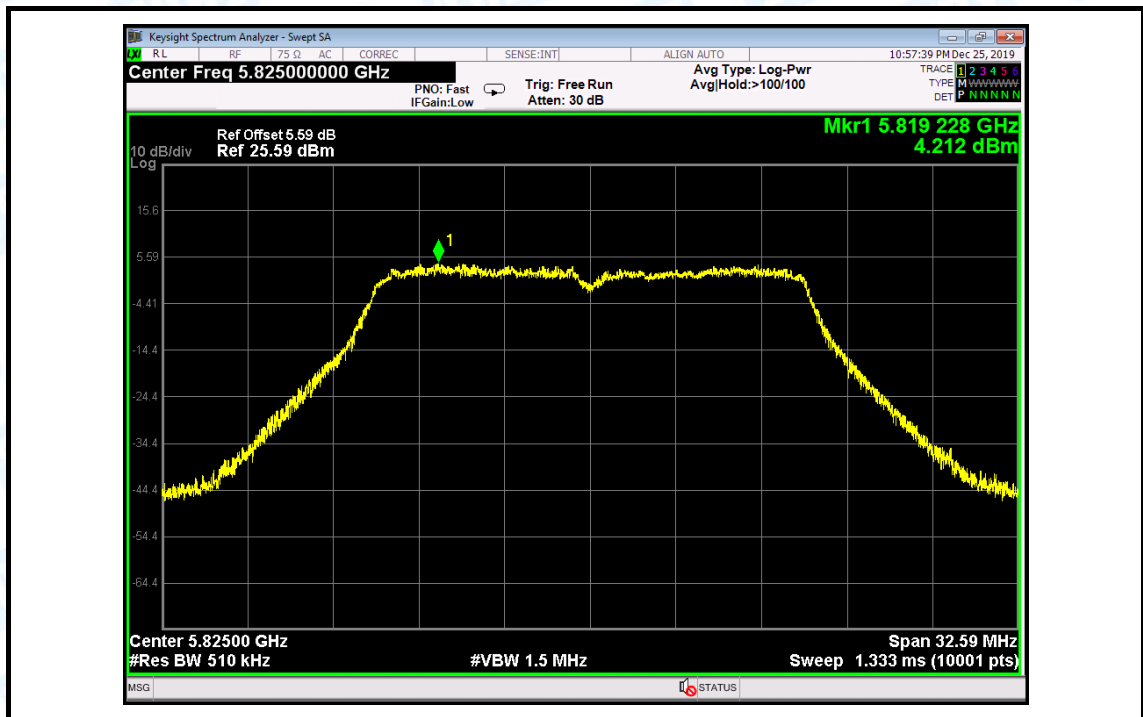
802.11 a 5745 MHz



802.11 a 5785 MHz

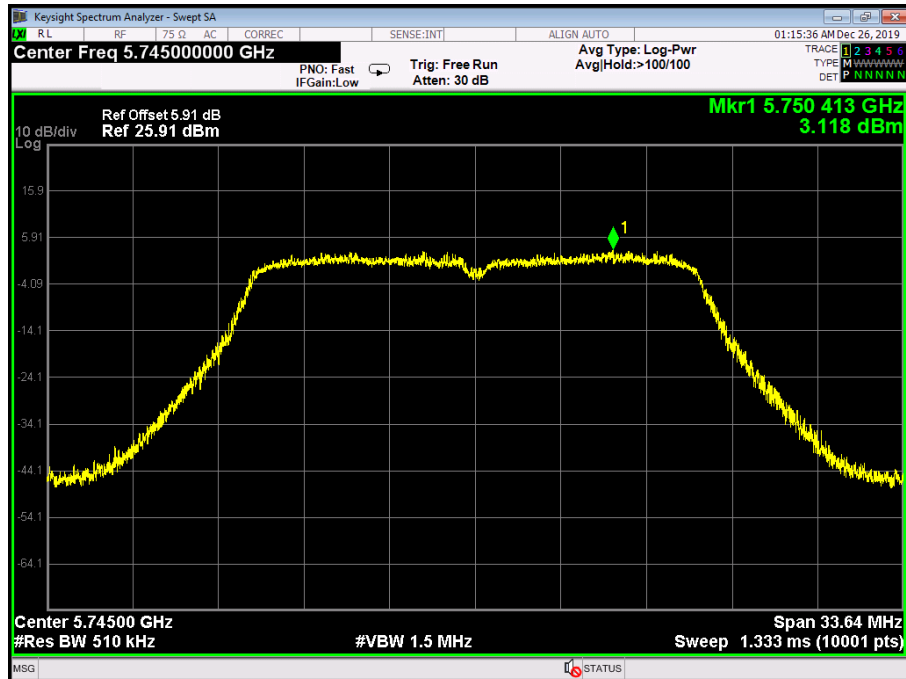


802.11 a 5825 MHz

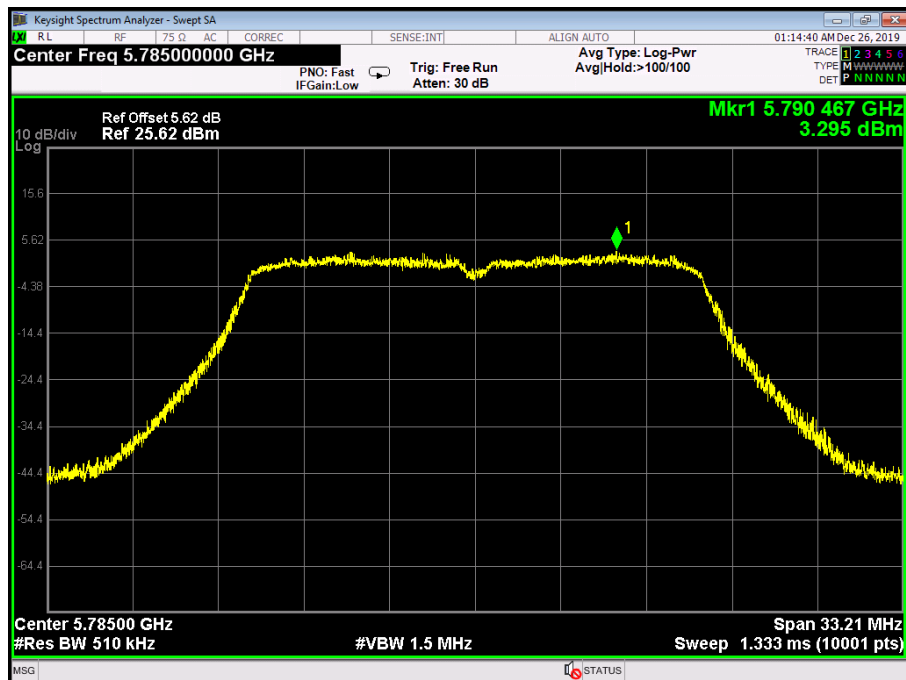




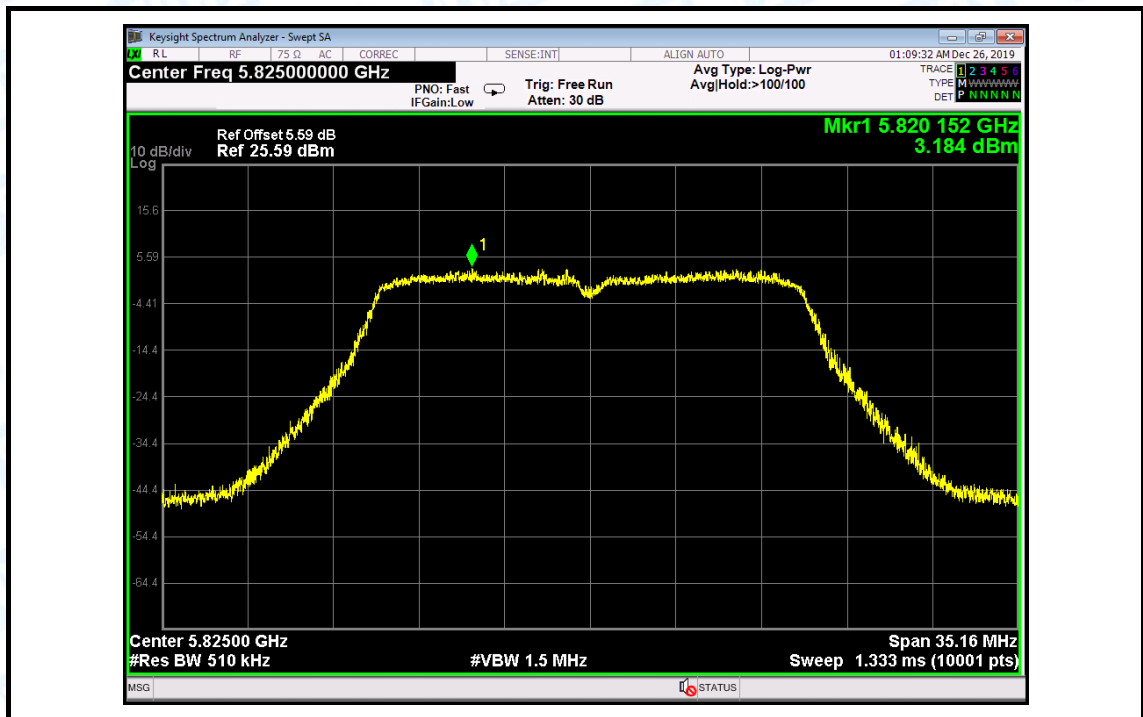
## 802.11 n(20) 5745 MHz



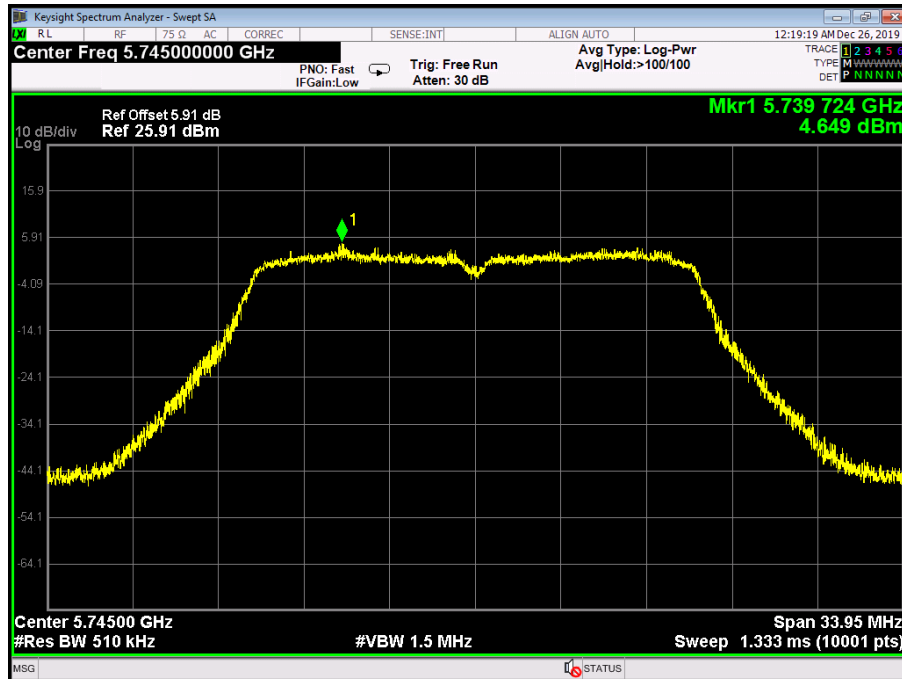
## 802.11 n(20) 5785 MHz



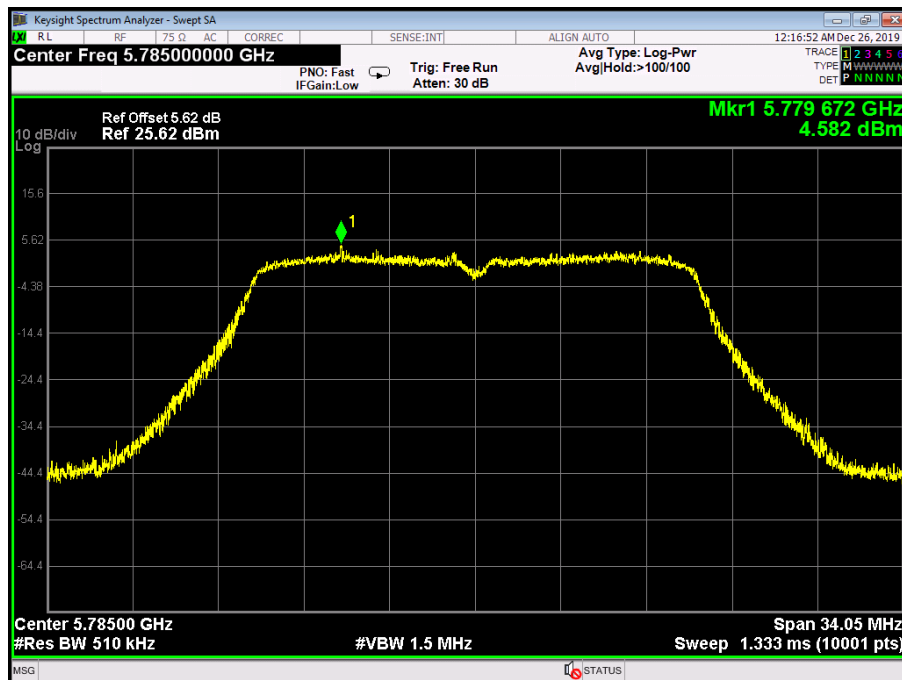
## 802.11 n(20) 5825 MHz



802.11 ac(VHT20) 5745 MHz

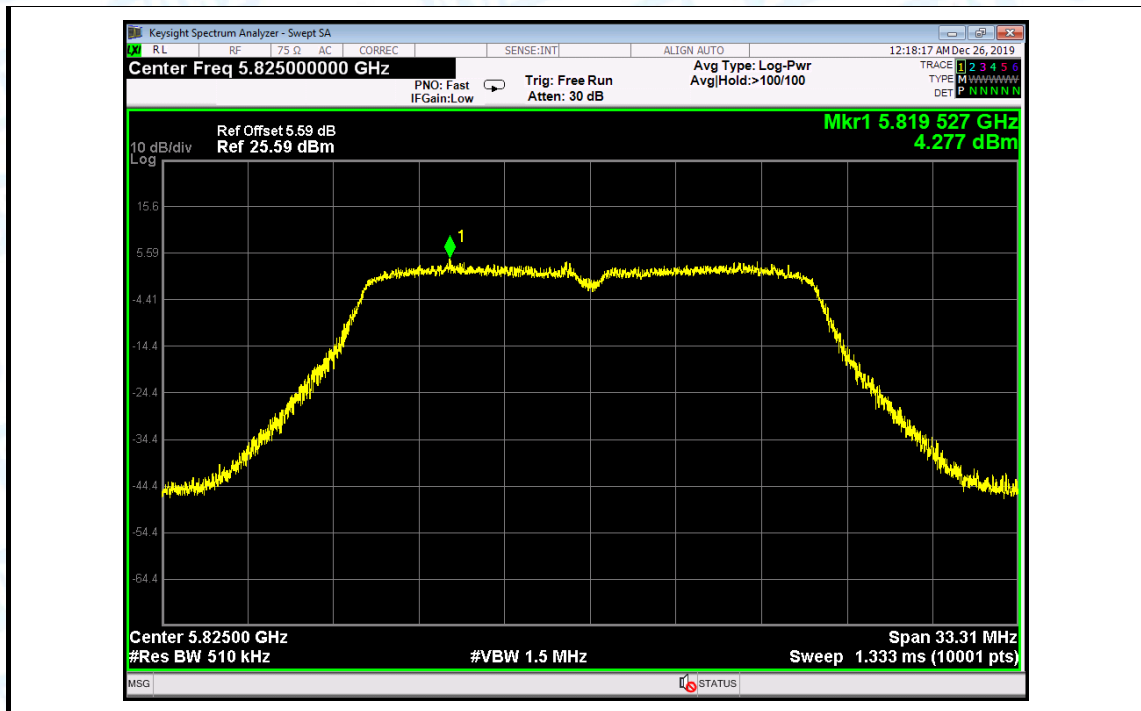


802.11 ac(VHT20) 5785 MHz

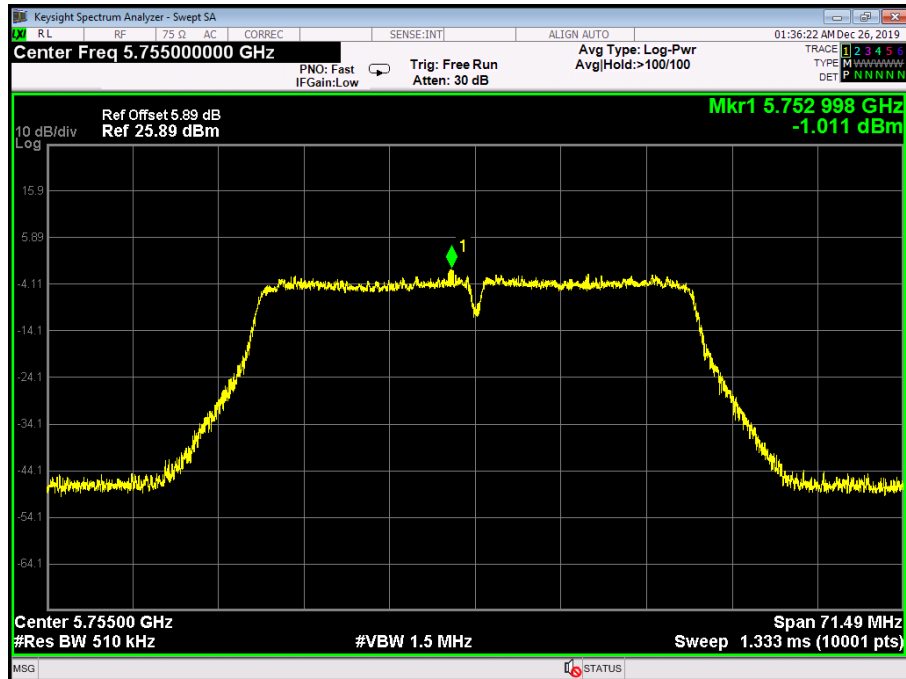


802.11 ac(VHT20) 5825 MHz

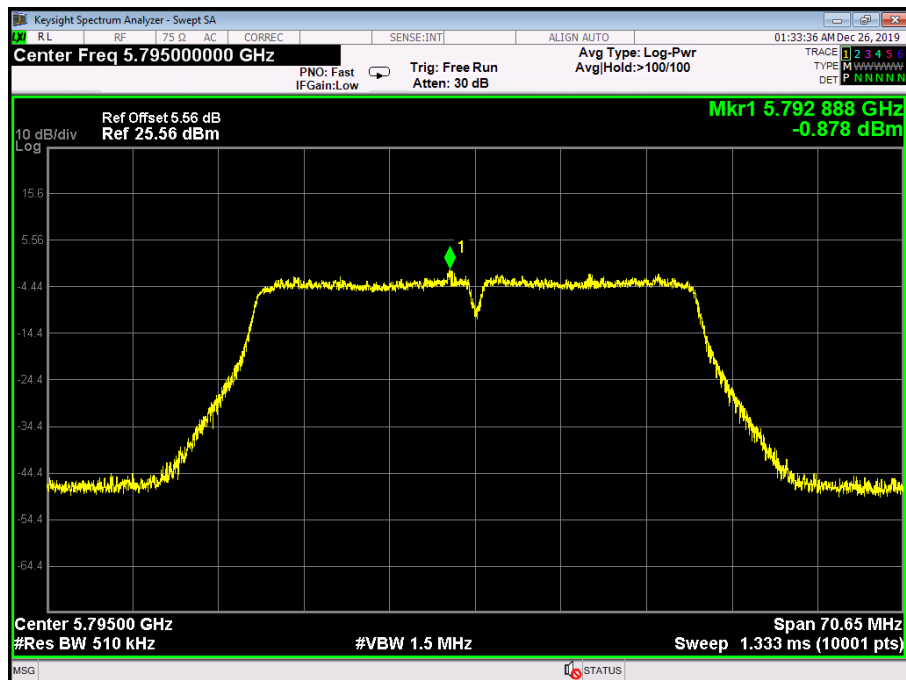




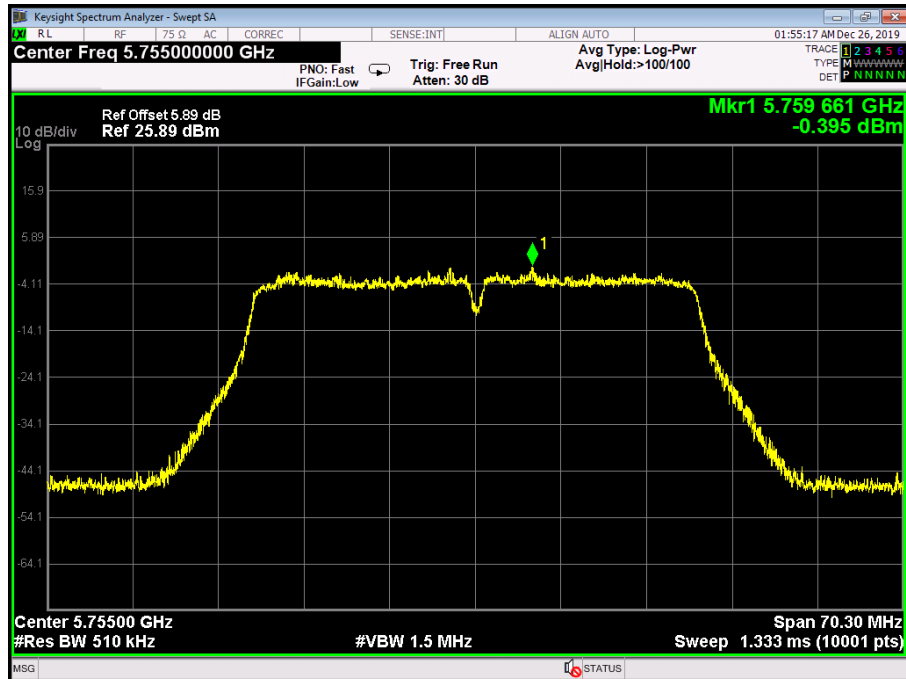
## 802.11 n(40) 5755 MHz



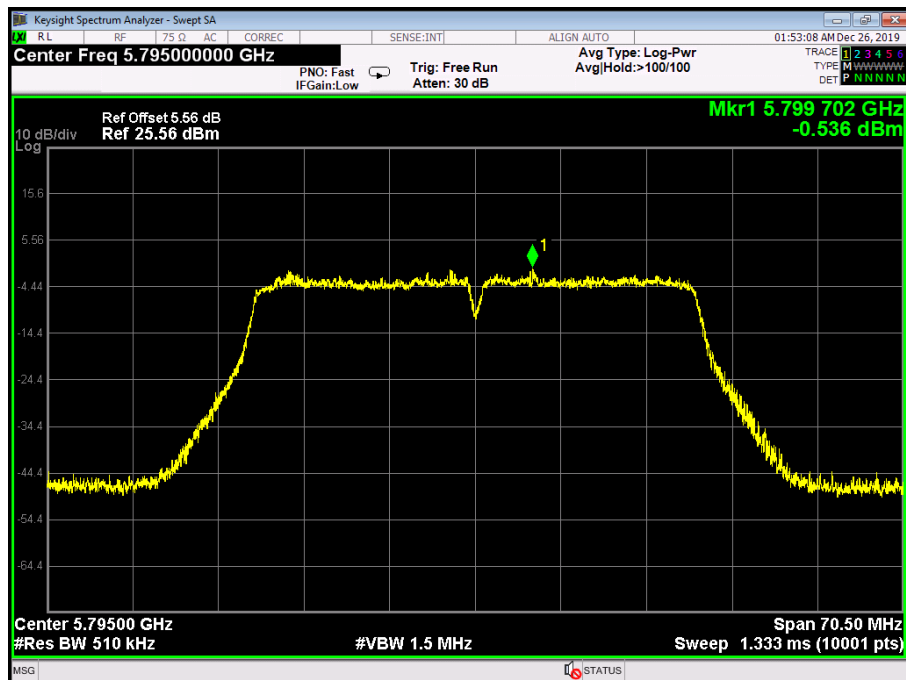
## 802.11 n(40) 5795 MHz



802.11 ac(VHT40) 5755 MHz



802.11 ac(VHT40) 5795 MHz





## Attachment G-- Frequency Stability Measurement Test Data

Only show the worst case 802.11 a Mode 5180MHz.

801.11a U-NII-1: 5180 MHz	
Voltage vs. Frequency Stability	
Voltage (V)	Measurement Frequency (MHz)
132	5179.9642
120	5180.0000
118	5179.9585
Max. Deviation (MHz)	0.0415
Max. Deviation (ppm)	8.01
Temperature vs. Frequency Stability	
Temperature (°C)	Measurement Frequency (MHz)
0	5179.9752
10	5179.9743
20	5179.9725
30	5179.9765
40	5179.9735
50	5179.9785
Max. Deviation (MHz)	0.0275
Max. Deviation (ppm)	5.31
Limit (ppm)	20
Result	Pass

Only show the worst case 802.11 a Mode 5745MHz.

801.11a U-NII-3: 5745 MHz	
Voltage vs. Frequency Stability	
Voltage (V)	Measurement Frequency (MHz)
132	5744.9658
120	5745.0000
118	5744.9523
Max. Deviation (MHz)	0.0477
Max. Deviation (ppm)	8.30
Temperature vs. Frequency Stability	
Temperature (°C)	Measurement Frequency (MHz)
0	5744.9632
10	5744.9724
20	5744.9569
30	5744.9658
40	5744.9515
50	5744.9768
Max. Deviation (MHz)	0.0485
Max. Deviation (ppm)	8.44
Limit (ppm)	20
Result	Pass

-----END OF REPORT-----