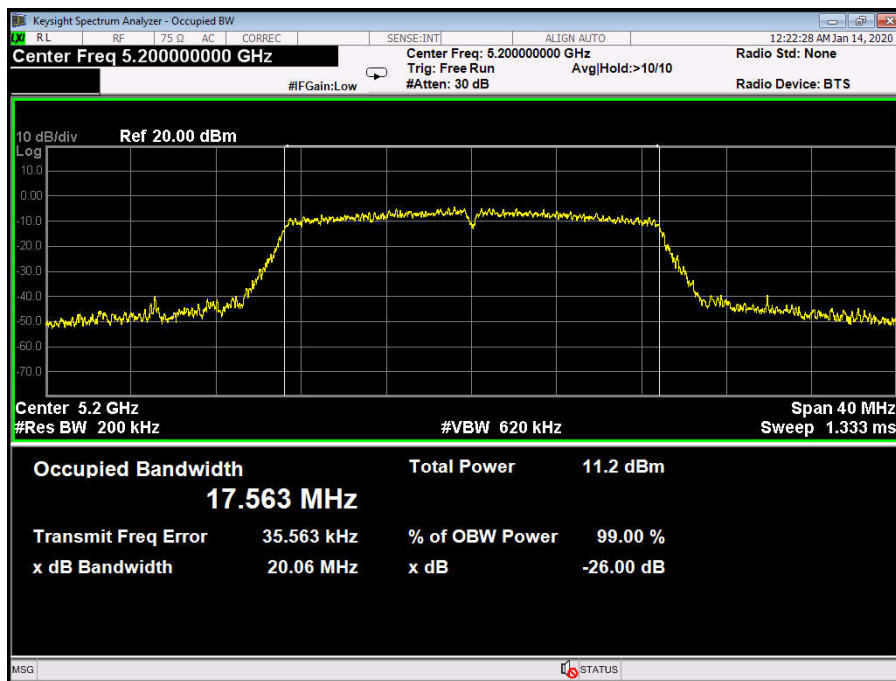


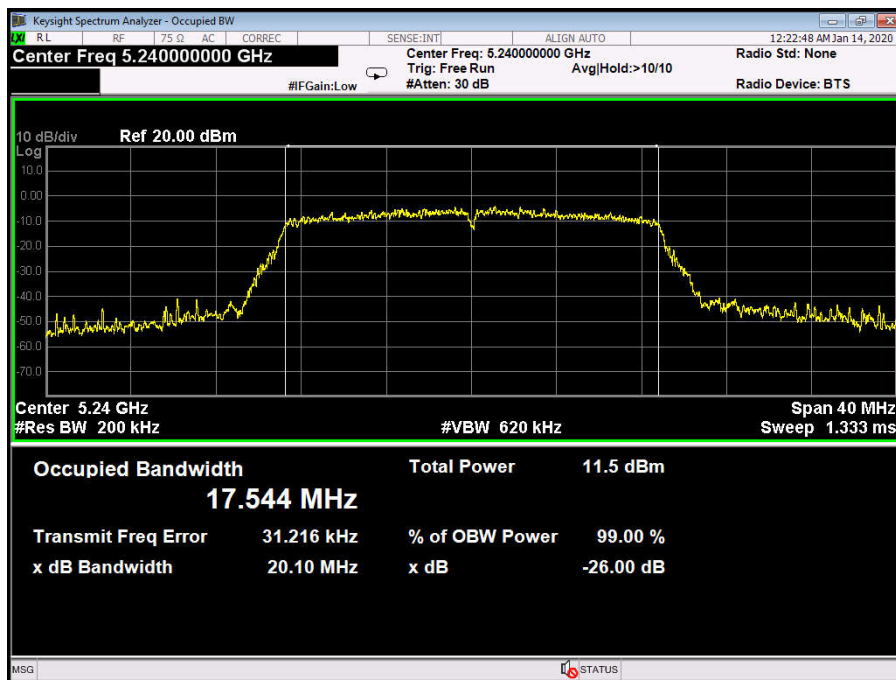
802.11n(HT20) Mode

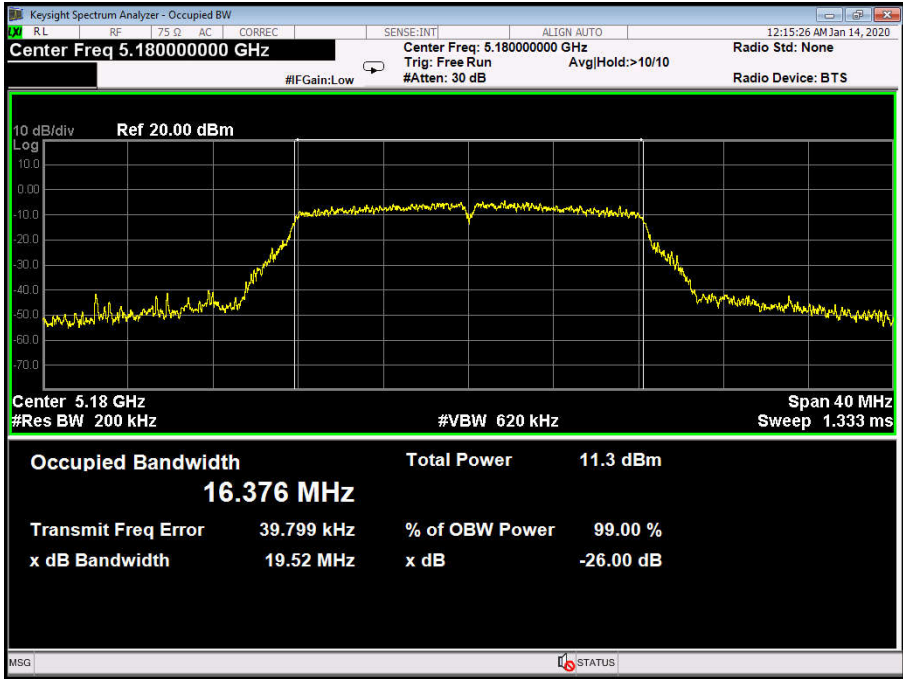
5200 MHz



802.11n(HT20) Mode

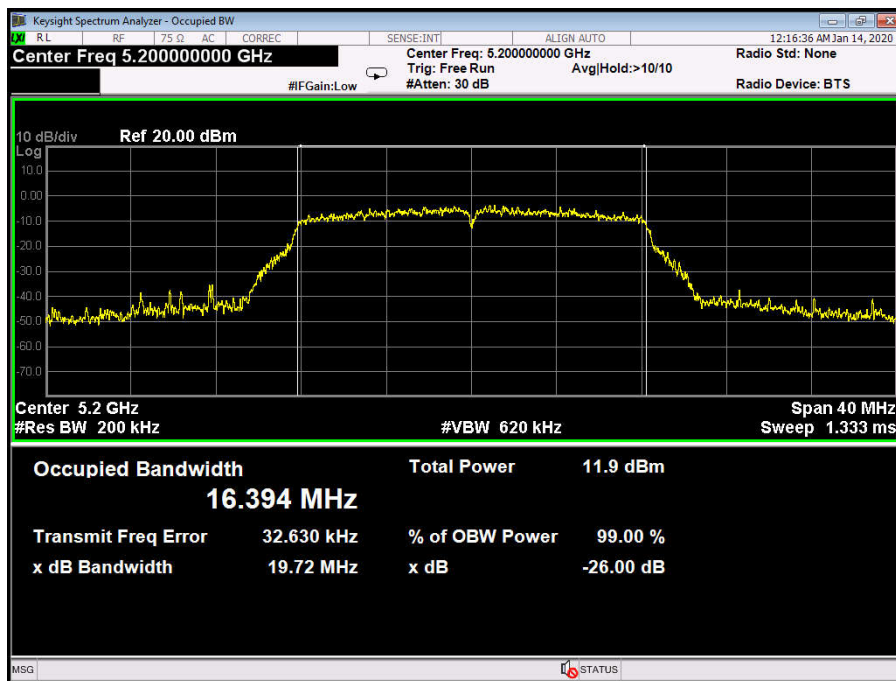
5240 MHz



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11ac(VHT20) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	19.52	16.376
40	5200	19.72	16.394
48	5240	19.69	16.413
802.11ac(VHT20) Mode			
5180 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq 5.180000000 GHz Center Freq: 5.180000000 GHz Trig: Free Run #Gain: Low #Atten: 30 dB Avg/Hold: >10/10 Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.18 GHz #Res BW 200 kHz #VBW 620 kHz Span 40 MHz Sweep 1.333 ms Occupied Bandwidth 16.376 MHz Total Power 11.3 dBm Transmit Freq Error 39.799 kHz % of OBW Power 99.00 % x dB Bandwidth 19.52 MHz x dB -26.00 dB			

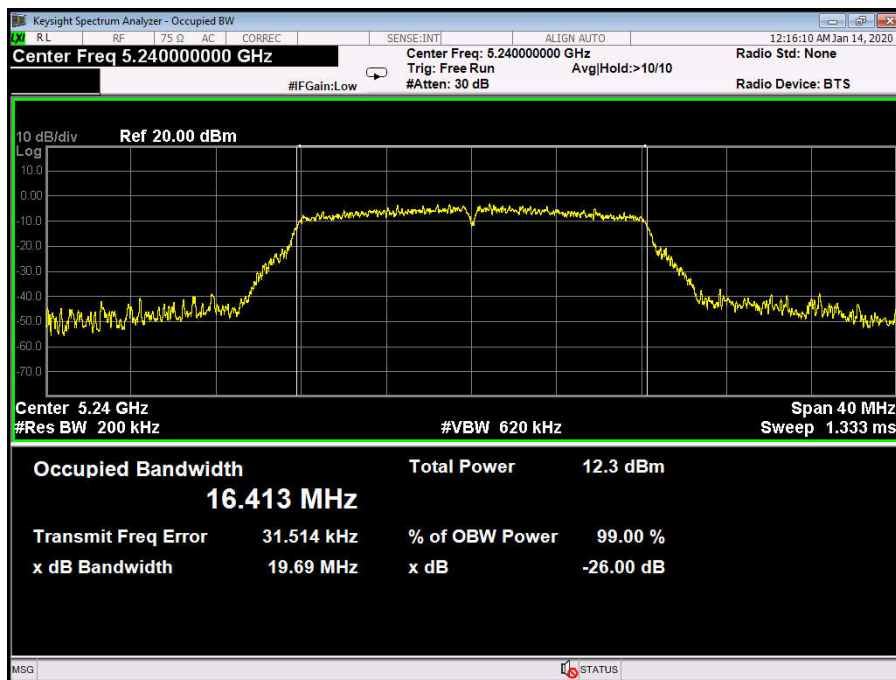
802.11ac(VHT20) Mode

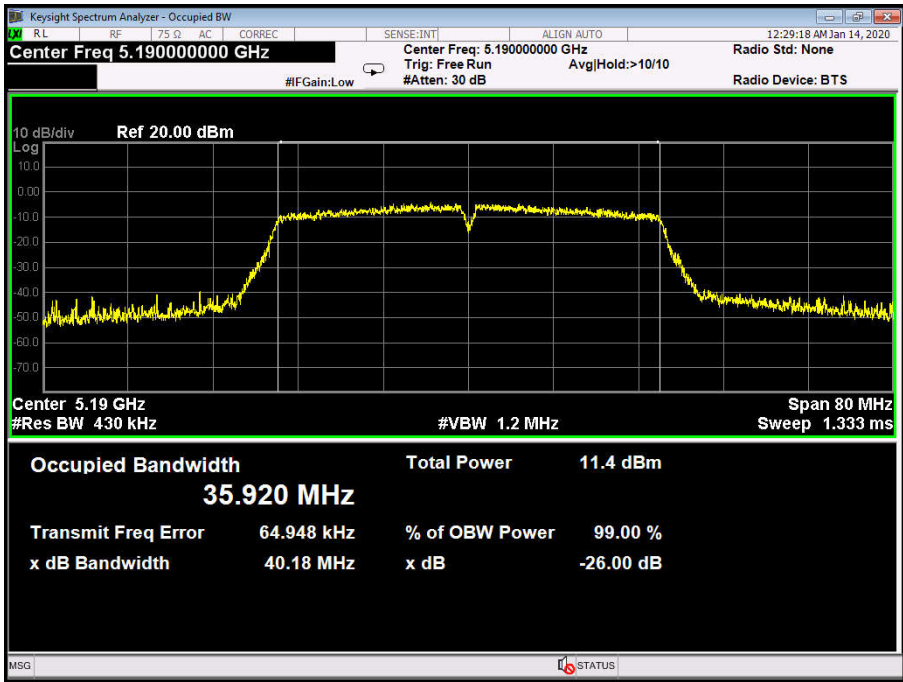
5200 MHz



802.11ac(VHT20) Mode

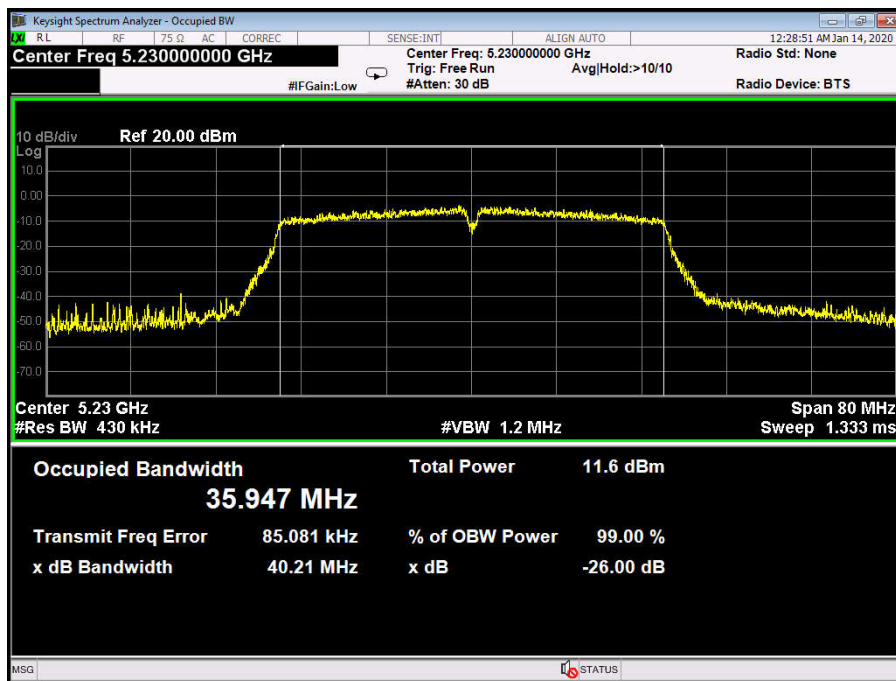
5240 MHz

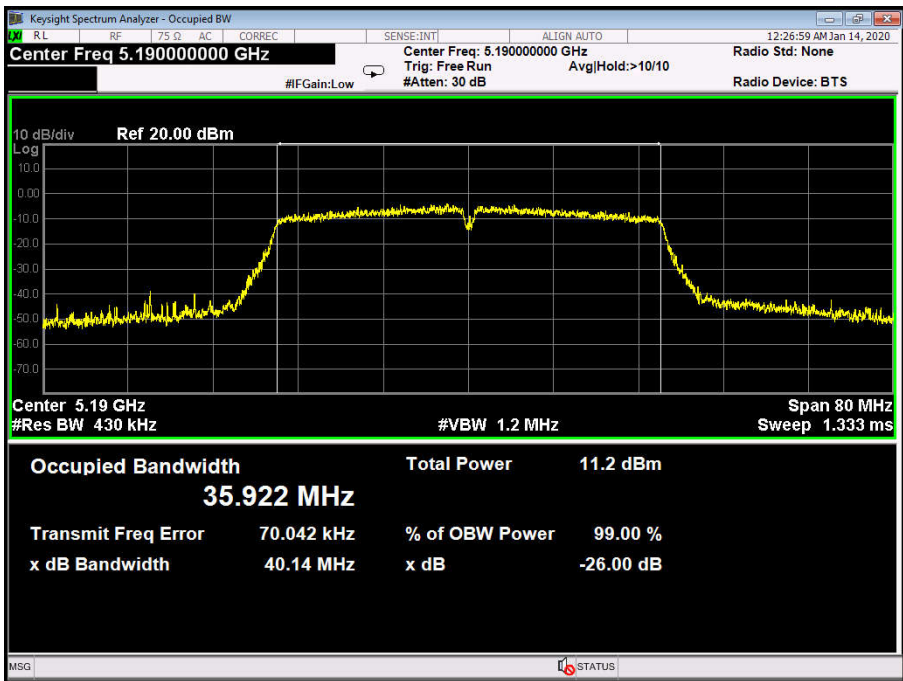


Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11N(HT40) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	40.18	35.920
46	5230	40.21	35.947
802.11N(HT40) Mode			
5190 MHz			
			

802.11N(HT40) Mode

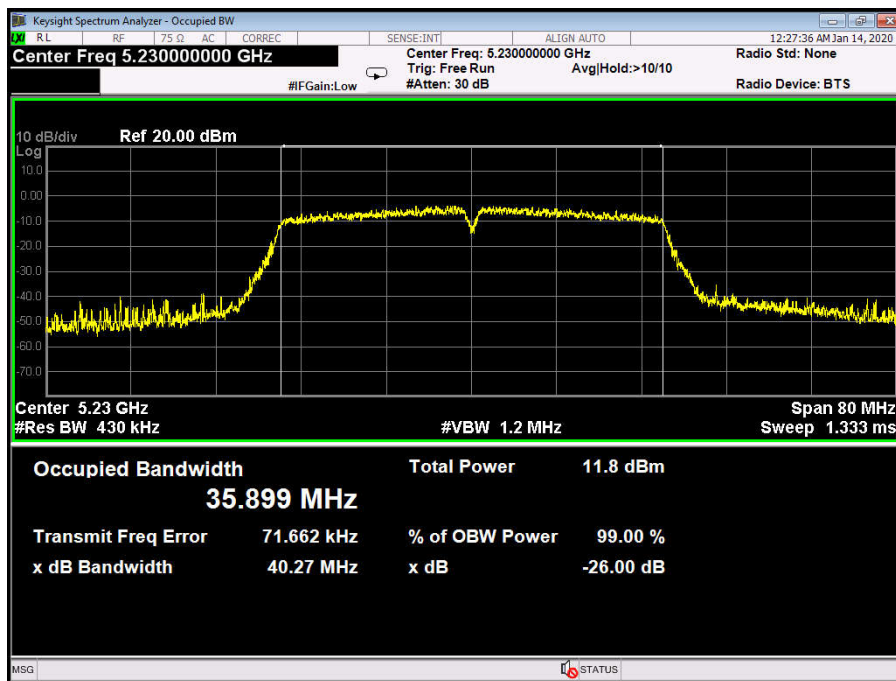
5230 MHz

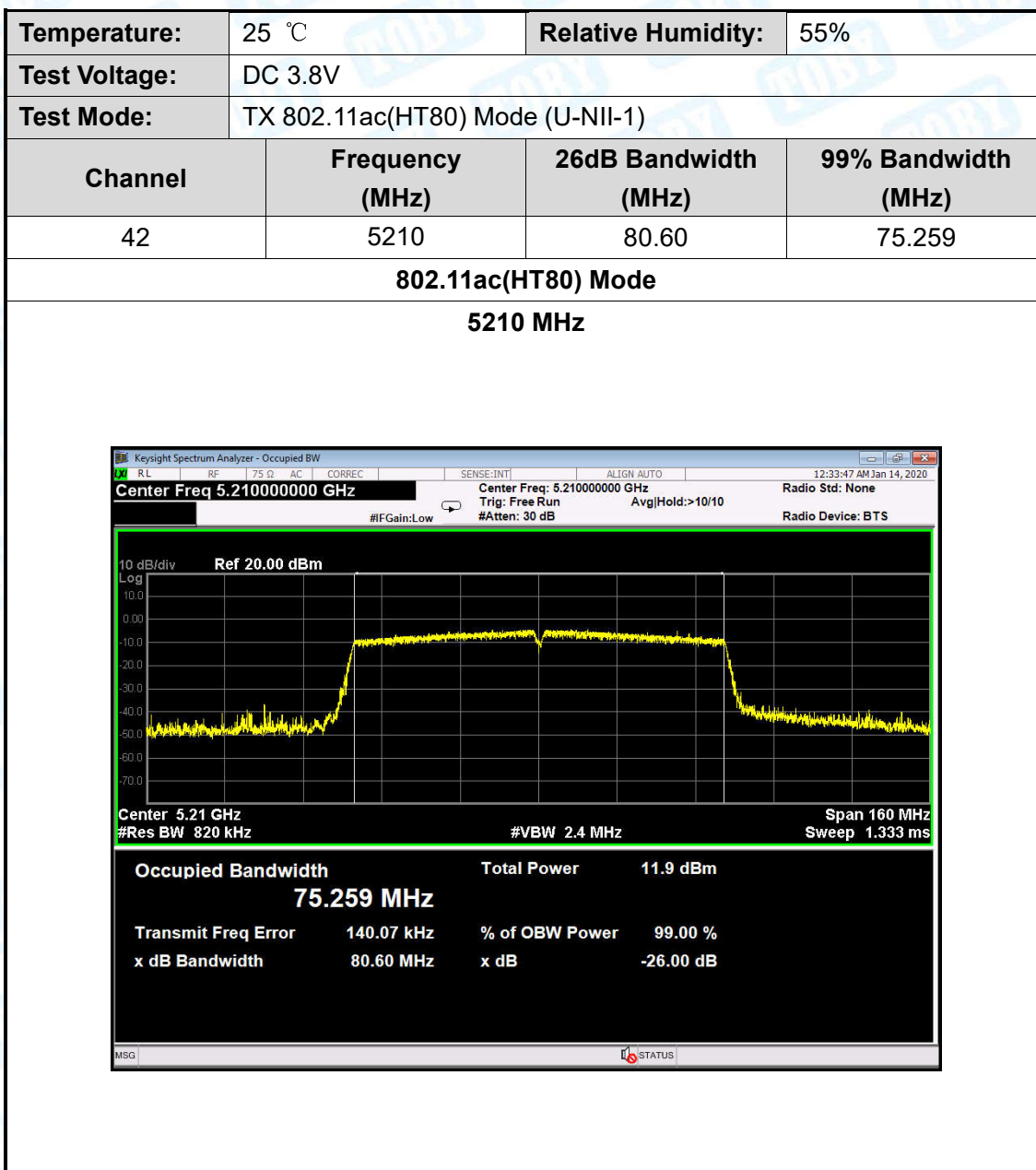


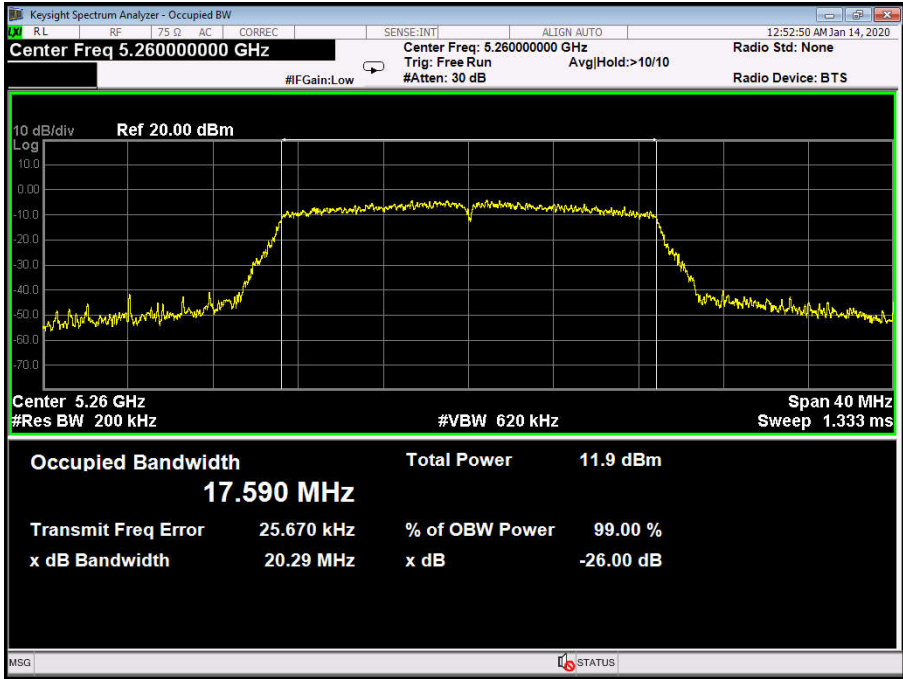
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11ac(VHT40) Mode (U-NII-1)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	40.14	35.922
46	5230	40.27	35.899
802.11ac(VHT40) Mode			
5190 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq: 5.190000000 GHz Trig: Free Run Avg/Hold: >10/10 Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.19 GHz #Res BW 430 kHz #VBW 1.2 MHz Span 80 MHz Sweep 1.333 ms Occupied Bandwidth 35.922 MHz Total Power 11.2 dBm Transmit Freq Error 70.042 kHz % of OBW Power 99.00 % x dB Bandwidth 40.14 MHz x dB -26.00 dB			

802.11ac(VHT40) Mode

5230 MHz

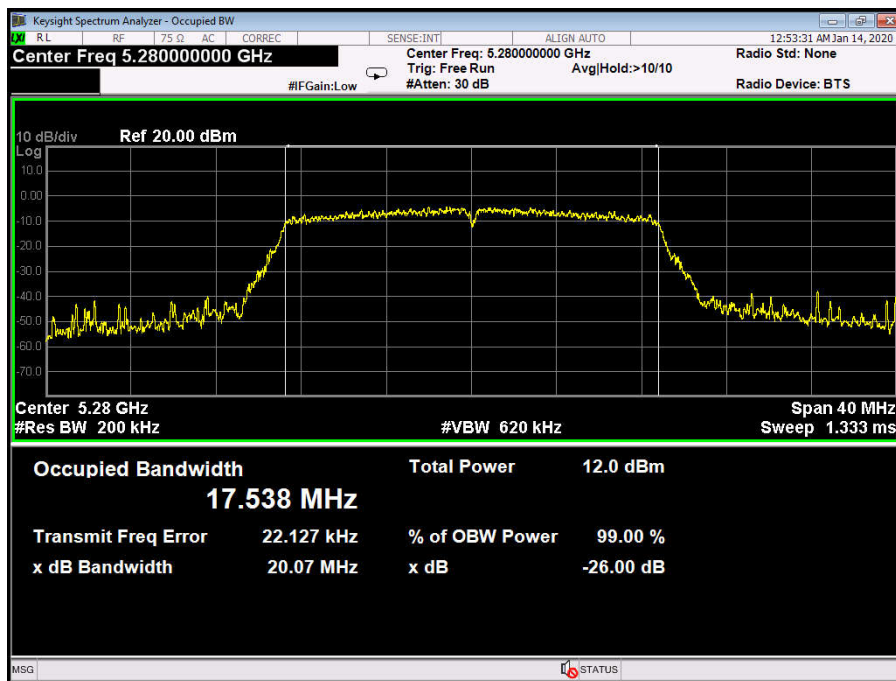




Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11a Mode (U-NII-2A)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
52	5260	20.29	17.590
56	5280	20.07	17.538
64	5320	19.98	17.559
802.11a Mode			
5260 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq 5.260000000 GHz Center Freq: 5.260000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: >10/10 Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.26 GHz #Res BW 200 kHz #VBW 620 kHz Span 40 MHz Sweep 1.333 ms Occupied Bandwidth 17.590 MHz Total Power 11.9 dBm Transmit Freq Error 25.670 kHz % of OBW Power 99.00 % x dB Bandwidth 20.29 MHz x dB -26.00 dB			

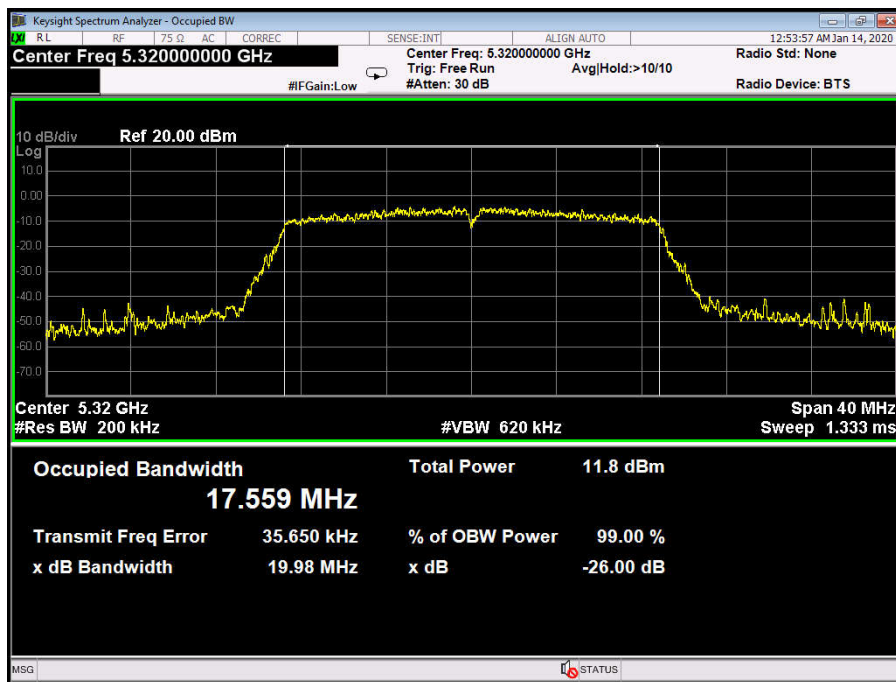
802.11a Mode

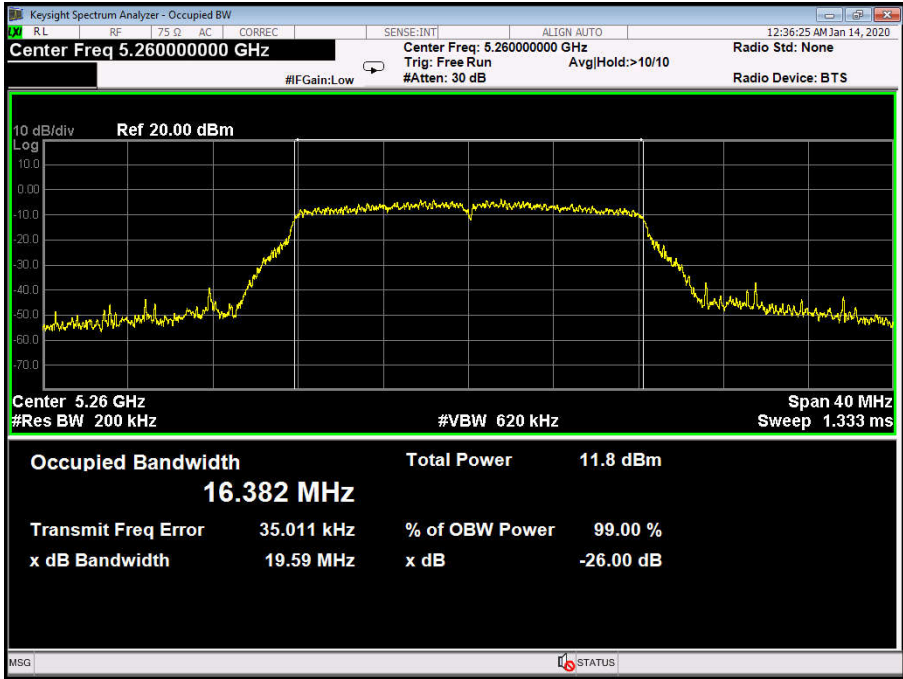
5280 MHz



802.11a Mode

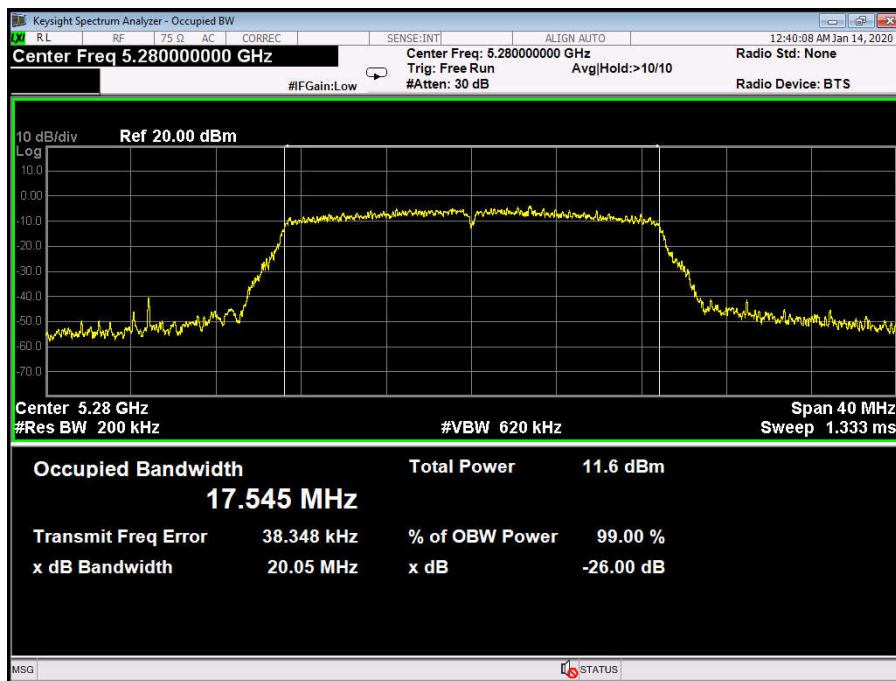
5320 MHz



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11n(HT20) Mode (U-NII-2A)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
52	5260	19.59	16.382
56	5280	20.05	17.545
64	5320	20.23	17.581
802.11n(HT20) Mode			
5260 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq 5.260000000 GHz Center Freq: 5.260000000 GHz Trig: Free Run #FGain: Low #Atten: 30 dB Avg/Hold: >10/10 Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.26 GHz #Res BW 200 kHz #VBW 620 kHz Span 40 MHz Sweep 1.333 ms Occupied Bandwidth 16.382 MHz Total Power 11.8 dBm Transmit Freq Error 35.011 kHz % of OBW Power 99.00 % x dB Bandwidth 19.59 MHz x dB -26.00 dB			

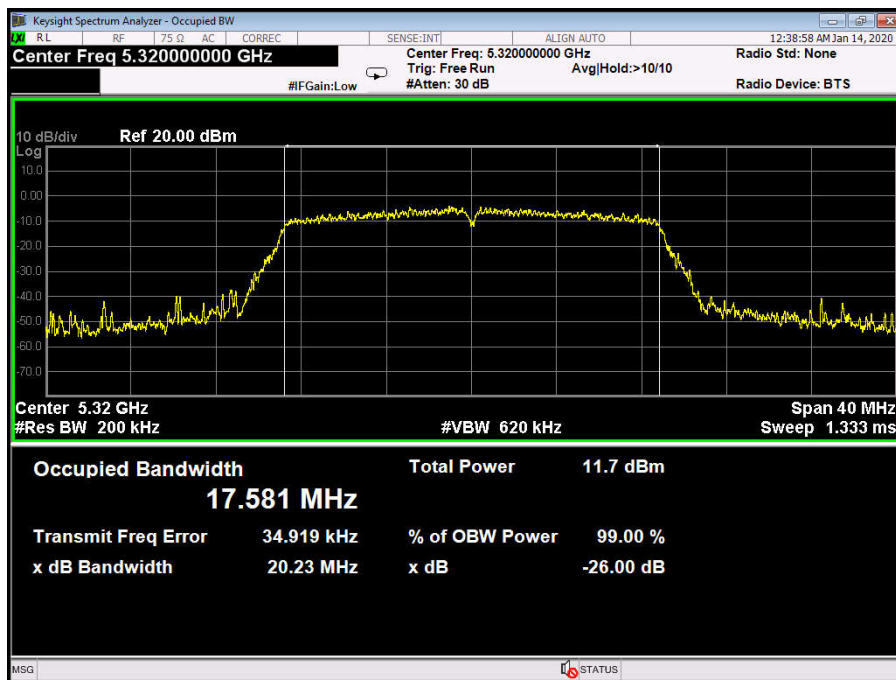
802.11n(HT20) Mode

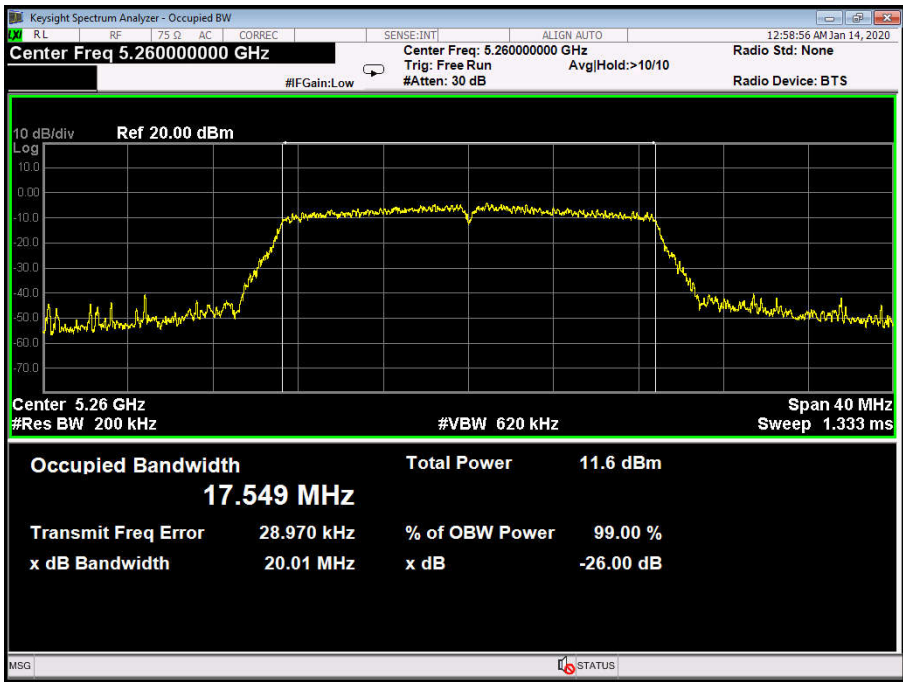
5280 MHz



802.11n(HT20) Mode

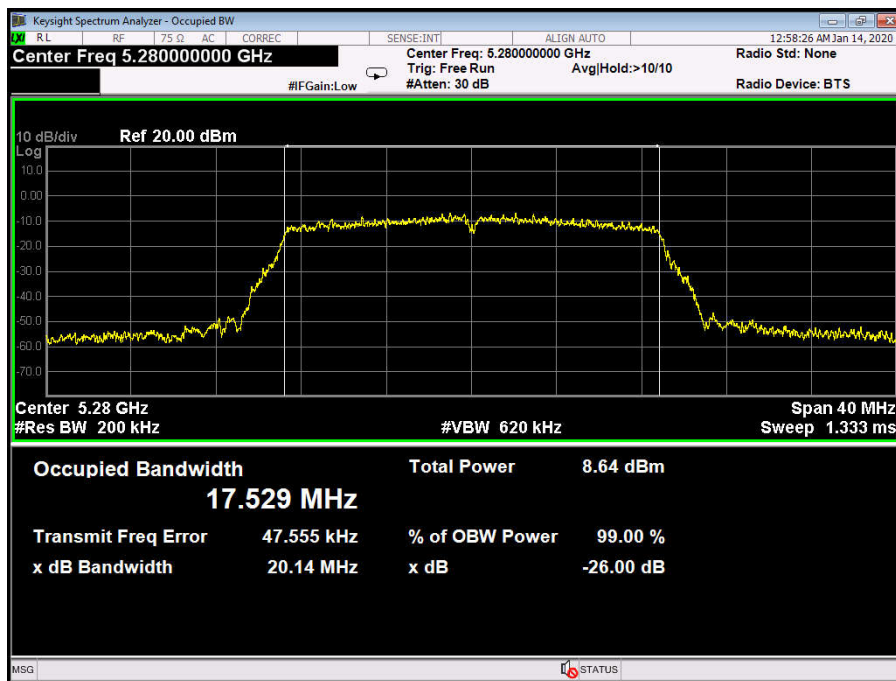
5320 MHz



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11ac(VHT20) Mode (U-NII-2A)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
52	5260	20.01	17.549
56	5280	20.14	17.529
64	5320	20.09	17.541
802.11ac(VHT20) Mode			
5260 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq 5.260000000 GHz Center Freq: 5.260000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: >10/10 Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.26 GHz #Res BW 200 kHz #VBW 620 kHz Span 40 MHz Sweep 1.333 ms Occupied Bandwidth 17.549 MHz Total Power 11.6 dBm Transmit Freq Error 28.970 kHz % of OBW Power 99.00 % x dB Bandwidth 20.01 MHz x dB -26.00 dB			

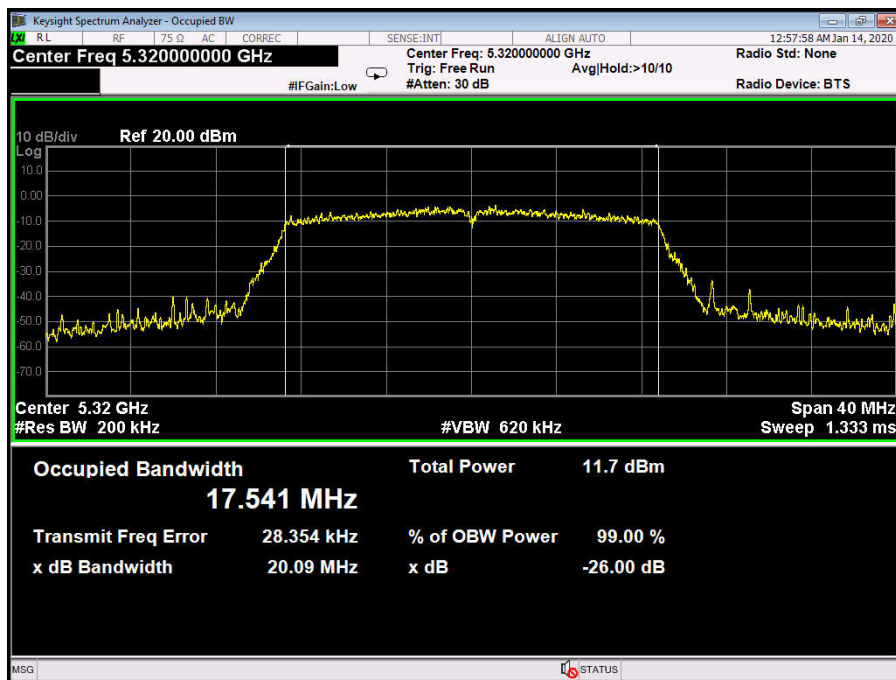
802.11ac(VHT20) Mode

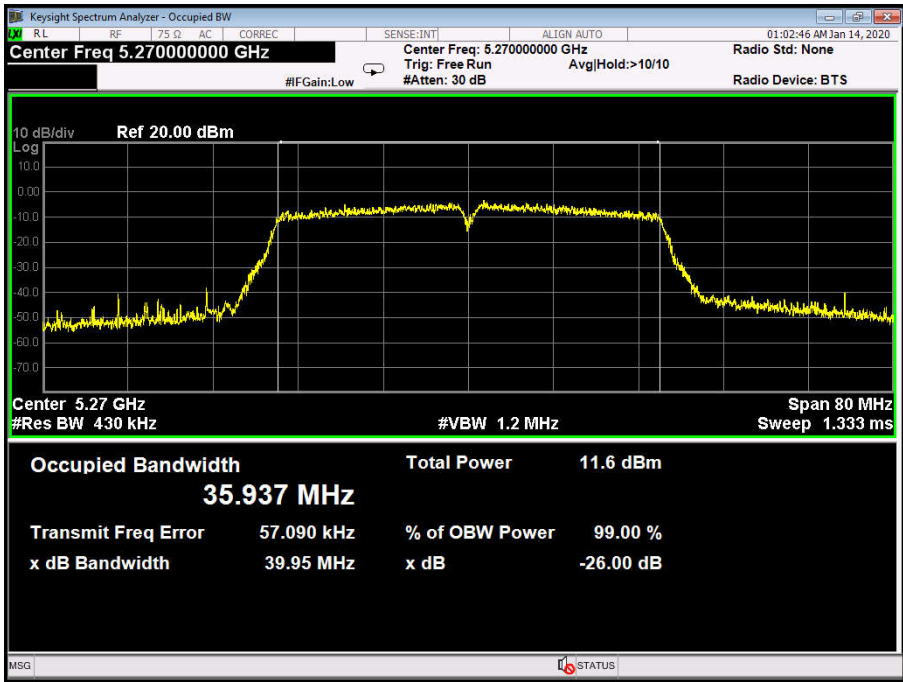
5280 MHz



802.11ac(VHT20) Mode

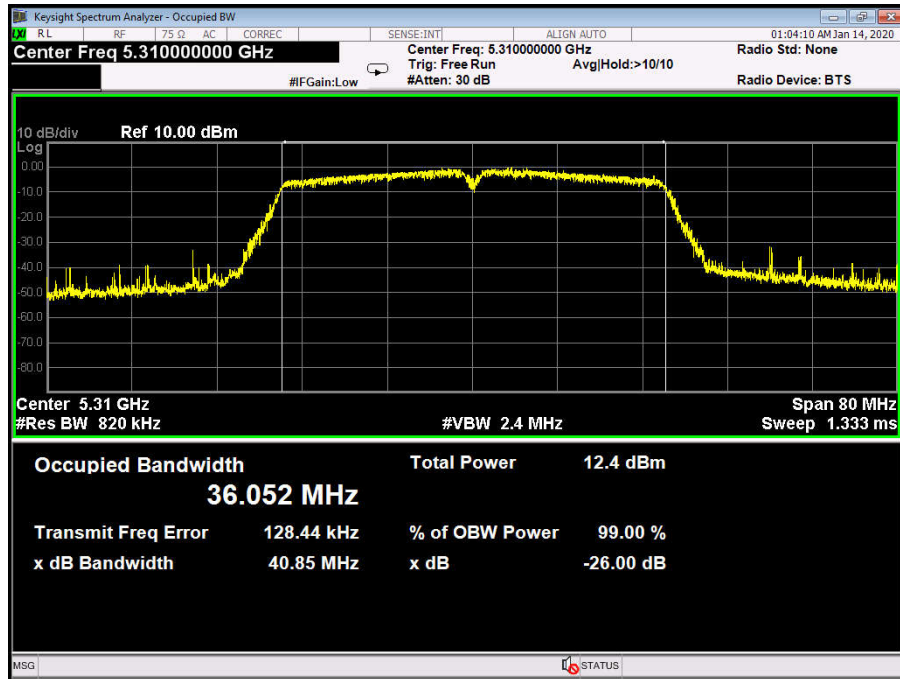
5320 MHz

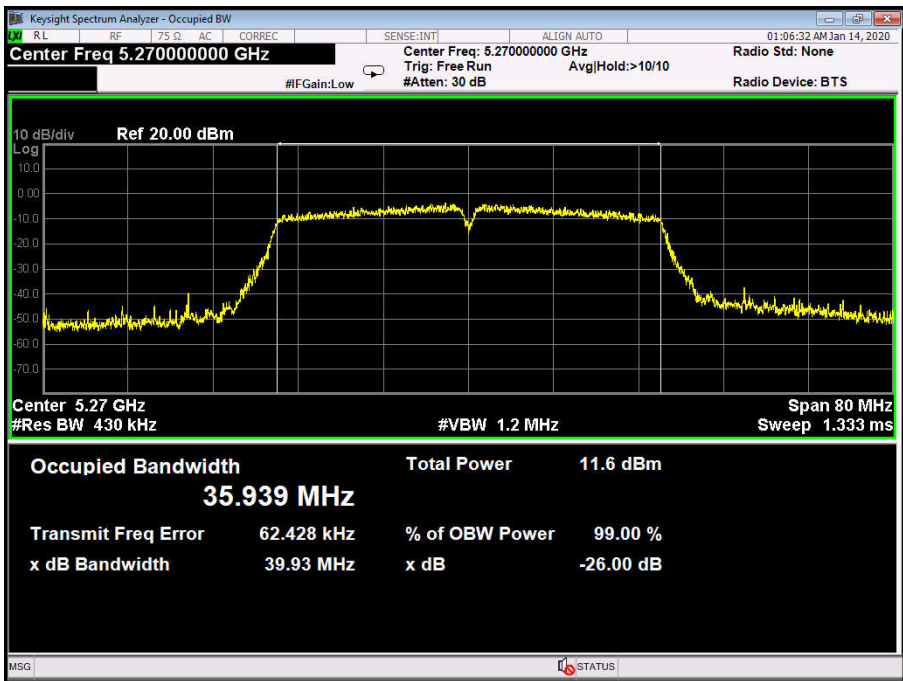


Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11N(HT40) Mode (U-NII-2A)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
54	5270	39.95	35.937
62	5310	40.85	36.052
802.11N(HT40) Mode			
5270 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq 5.270000000 GHz Center Freq: 5.270000000 GHz Trig: Free Run Avg Hold: >10/10 Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.27 GHz #Res BW 430 kHz #VBW 1.2 MHz Span 80 MHz Sweep 1.333 ms Occupied Bandwidth 35.937 MHz Total Power 11.6 dBm Transmit Freq Error 57.090 kHz % of OBW Power 99.00 % x dB Bandwidth 39.95 MHz x dB -26.00 dB			

802.11N(HT40) Mode

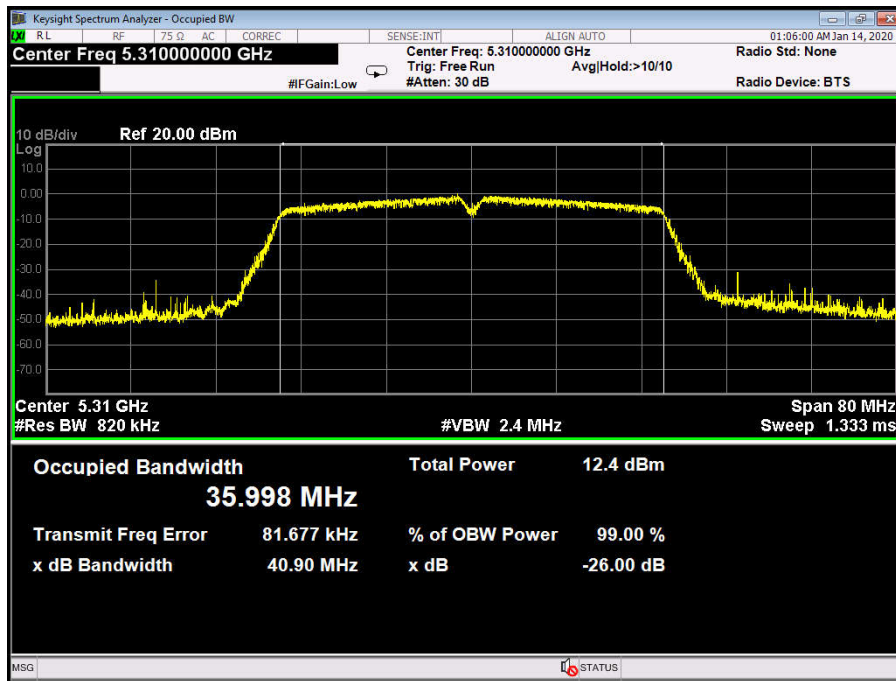
5310 MHz

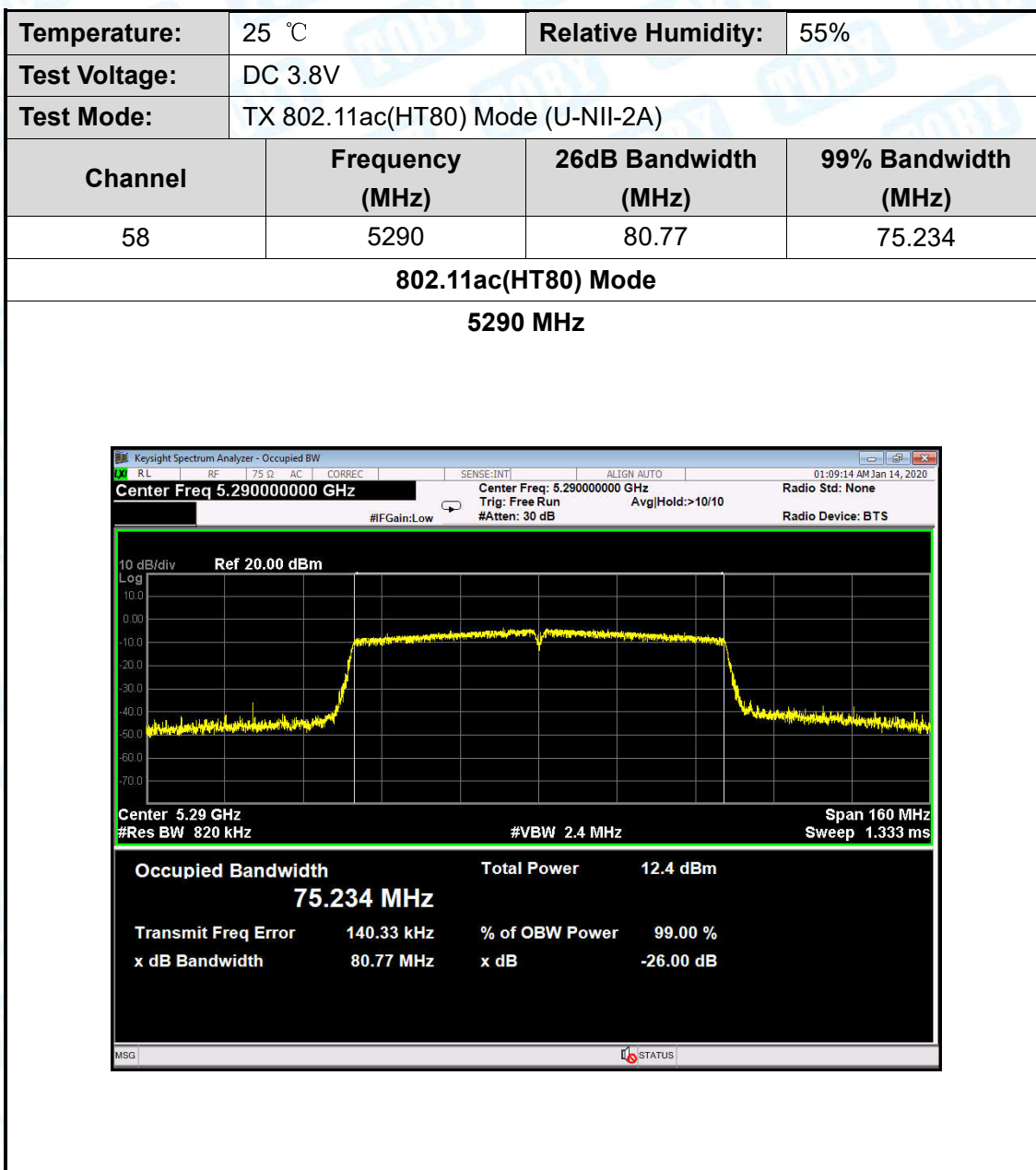


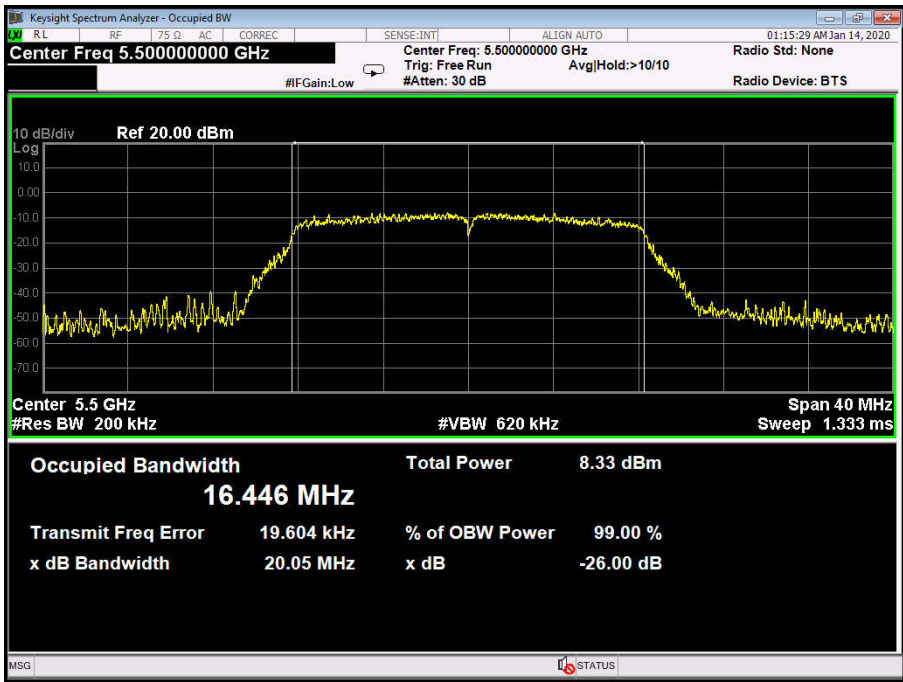
Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11ac(VHT40) Mode (U-NII-2A)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
54	5270	39.93	35.939
62	5310	40.90	35.998
802.11ac(VHT40) Mode			
5270 MHz			
			

802.11ac(VHT40) Mode

5310 MHz

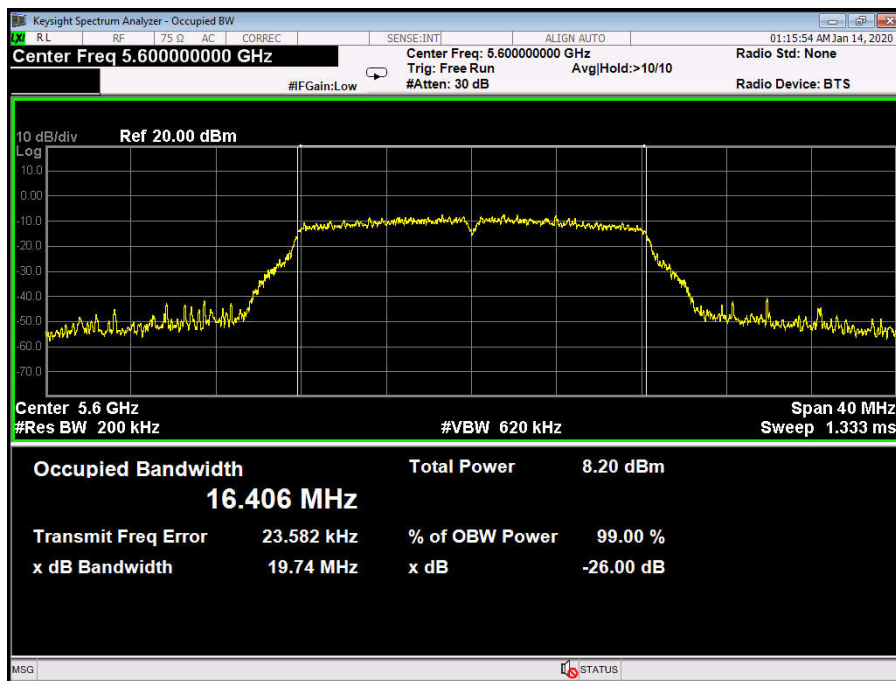




Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11a Mode (U-NII-2C)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
100	5500	20.05	16.446
116	5600	19.74	16.406
144	5700	19.65	16.403
802.11a Mode			
5500 MHz			
			

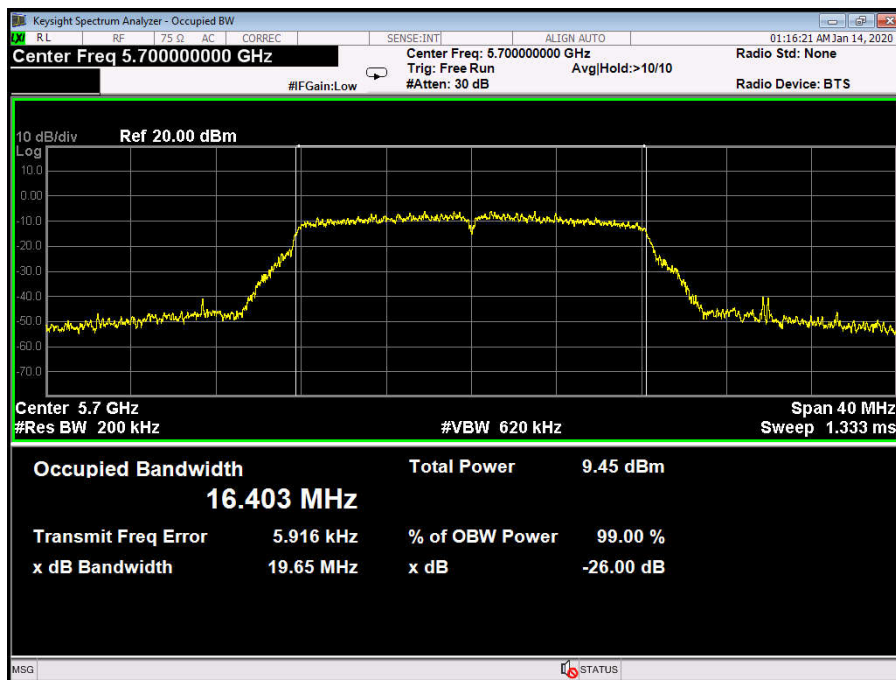
802.11a Mode

5600 MHz



802.11a Mode

5700 MHz



Temperature:	25 °C	Relative Humidity:	55%	
Test Voltage:	DC 3.8V			
Test Mode:	TX 802.11a Mode (U-NII-2C)			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
144	5720	14.92	----	13.337
		----	3.259	3.8732
802.11a Mode				
5720 MHz Straddle 5.47-5.725GHz				

Keysight Spectrum Analyzer - Occupied BW

✓

RL

RF

75 Ω

AC

CORREC

SENSE:INT

ALIGN AUTO

02:21:35 AM Jan 09, 2020

Center Freq 5.705000000 GHz

Center Freq: 5.705000000 GHz

Trig: Free Run

Avg/Hold: >10/10

Radio Std: None

#IFGain: Low

#Atten: 20 dB

Radio Device: BTS

10 dB/div

Ref 20.00 dBm

Log

10.0

0.00

-10.0

-20.0

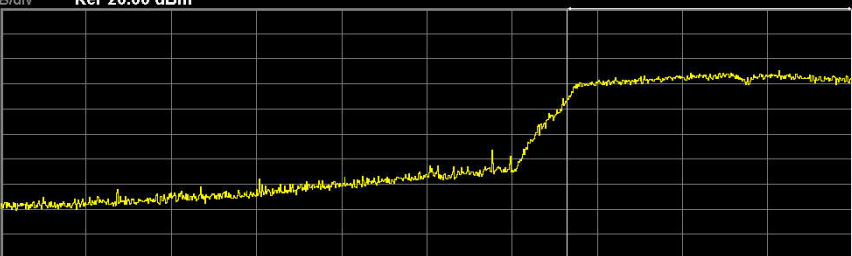
-30.0

-40.0

-50.0

-60.0

-70.0



Center 5.705 GHz

#Res BW 200 kHz

#VBW 620 kHz

Span 40 MHz

Sweep 1 ms

Occupied Bandwidth

13.337 MHz

Total Power

6.75 dBm

Transmit Freq Error

13.268 MHz

% of OBW Power

99.00 %

x dB Bandwidth

14.92 MHz

x dB

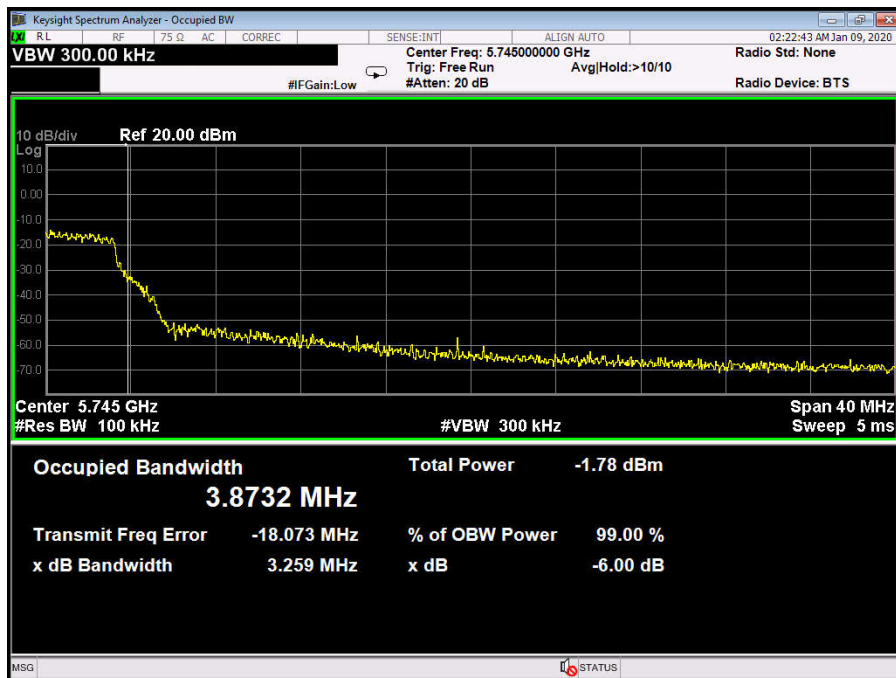
-26.00 dB

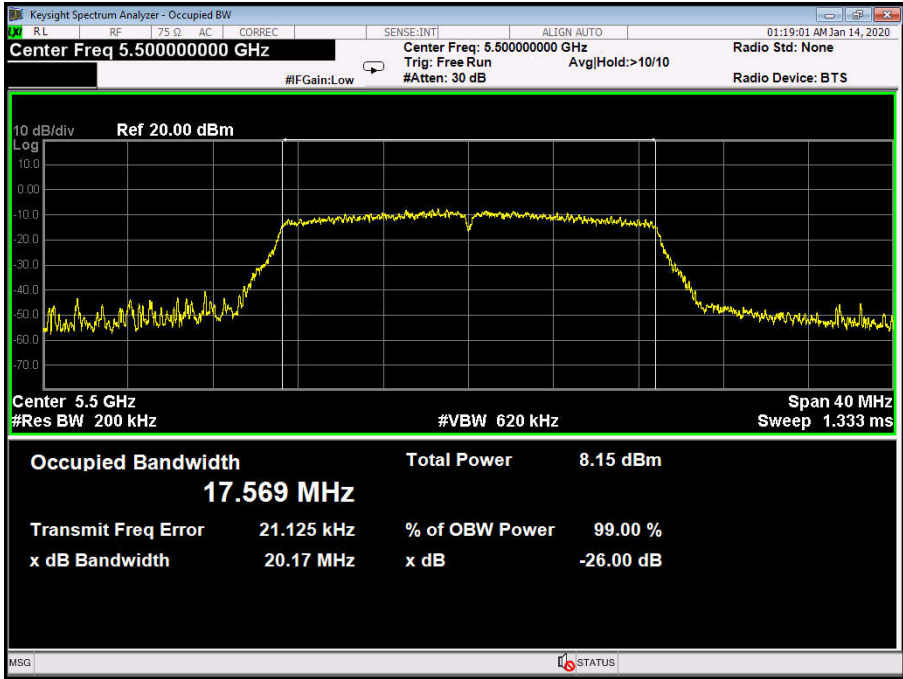
MSG

STATUS

802.11a Mode

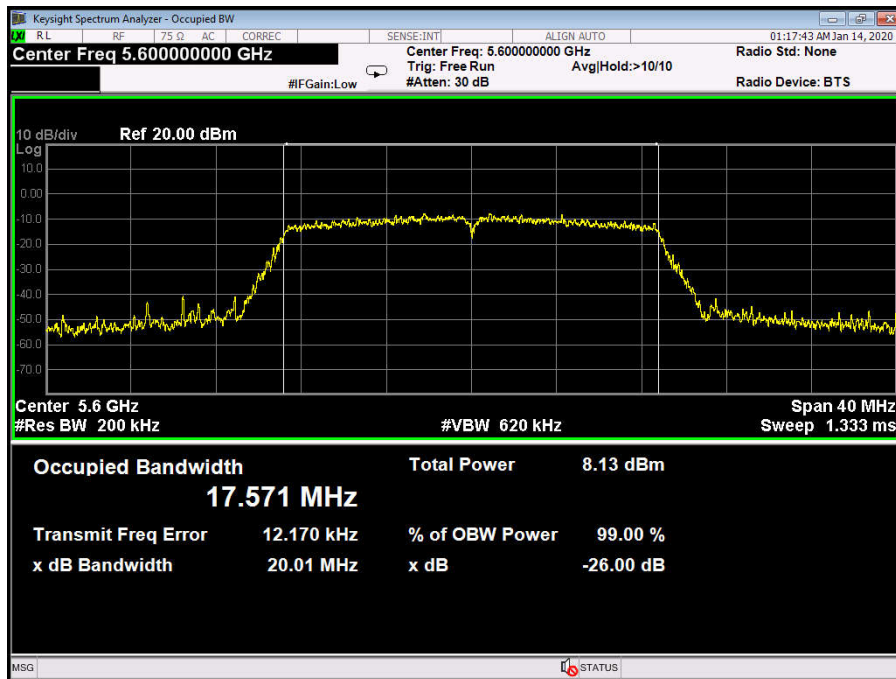
5720 MHz Straddle 5.725-5.85GHz



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11n(HT20) Mode (U-NII-2C)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
100	5500	20.17	17.569
116	5600	20.01	17.571
144	5700	20.27	17.559
802.11n(HT20) Mode			
5500 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq 5.500000000 GHz Center Freq: 5.500000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: >10/10 Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.5 GHz #Res BW 200 kHz #VBW 620 kHz Span 40 MHz Sweep 1.333 ms Occupied Bandwidth 17.569 MHz Total Power 8.15 dBm Transmit Freq Error 21.125 kHz % of OBW Power 99.00 % x dB Bandwidth 20.17 MHz x dB -26.00 dB			

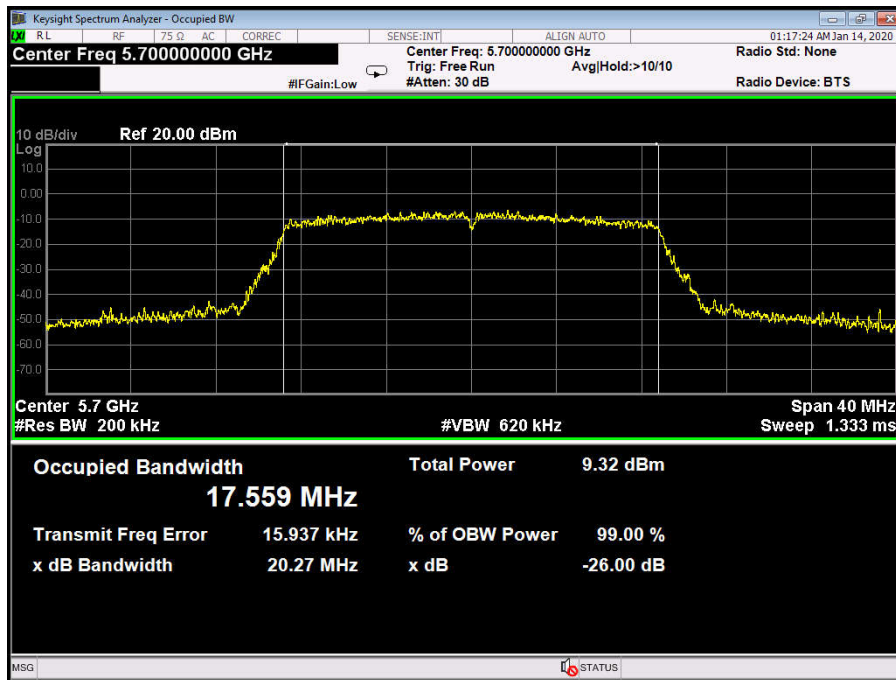
802.11n(HT20) Mode

5600 MHz



802.11n(HT20) Mode

5700 MHz



Temperature:	25 °C	Relative Humidity:	55%	
Test Voltage:	DC 3.8V			
Test Mode:	TX 802.11n(HT20) Mode (U-NII-2C)			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
144	5720	15.28	----	13.853
		----	3.882	4.1598
802.11n(HT20) Mode				
5720 MHz Straddle 5.47-5.725GHz				

Keysight Spectrum Analyzer - Occupied BW

RL

RF

75 Ω

AC

CORREC

SENSE:INT

ALIGN AUTO

02:17:56 AM Jan 09, 2020

RBW 430.00 kHz

#FGain:Low

Center Freq: 5.705000000 GHz

Trig: Free Run

Avg1Hold:>10/10

Radio Std: None

Radio Device: BTS

#Atten: 20 dB

10 dB/div

Ref 20.00 dBm

Log

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

-70.0

Center 5.705 GHz

#Res BW 200 kHz

#VBW 620 kHz

Span 40 MHz

Sweep 1 ms

Occupied Bandwidth

13.853 MHz

Total Power

6.62 dBm

Transmit Freq Error

13.021 MHz

% of OBW Power

99.00 %

x dB Bandwidth

15.28 MHz

x dB

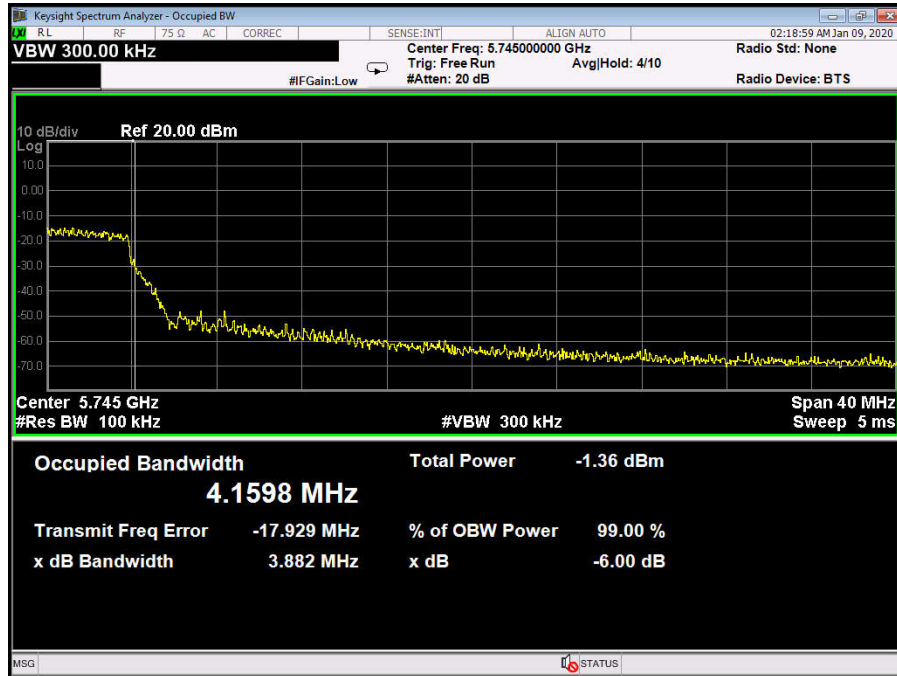
-26.00 dB

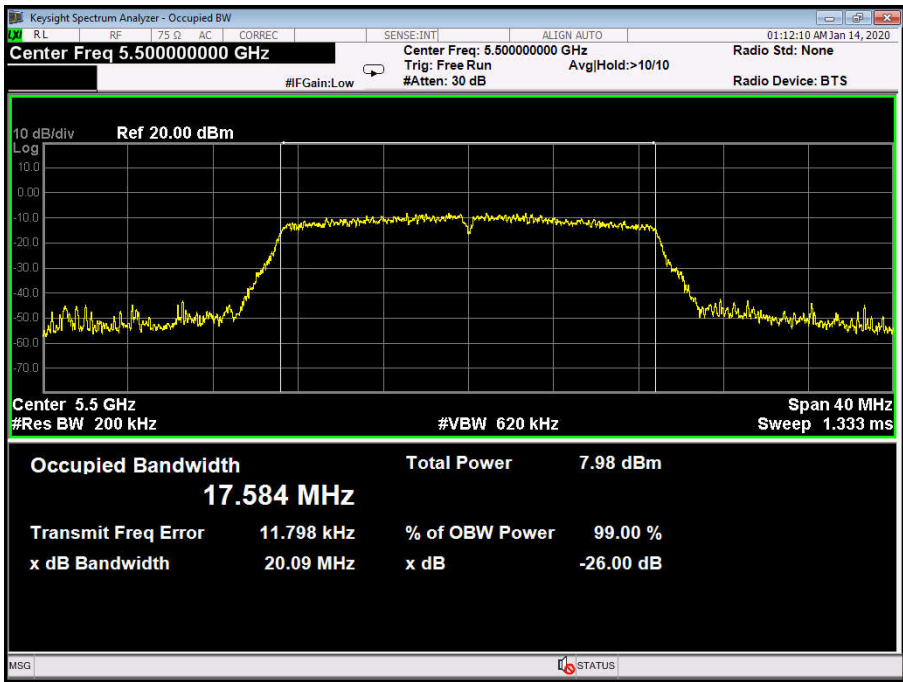
MSG

STATUS

802.11n(HT20) Mode

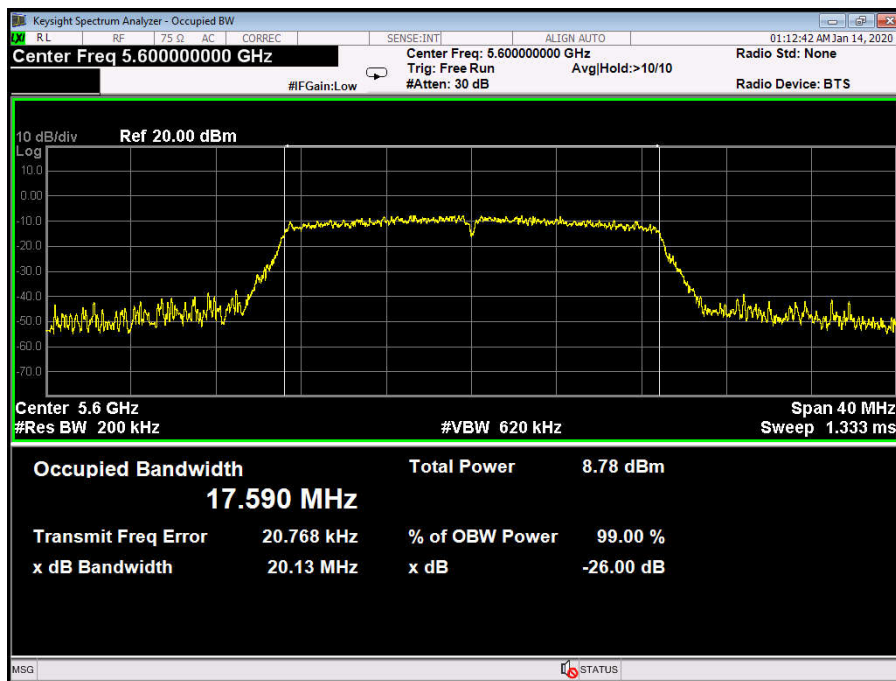
5720 MHz Straddle 5.725-5.85GHz



Temperature:	25 °C	Relative Humidity:	55%
Test Voltage:	DC 3.8V		
Test Mode:	TX 802.11ac(VHT20) Mode (U-NII-2C)		
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
100	5500	20.09	17.584
116	5600	20.13	17.590
144	5700	20.13	17.552
802.11ac(VHT20) Mode			
5500 MHz			
 Keysight Spectrum Analyzer - Occupied BW Center Freq: 5.500000000 GHz Trig: Free Run Radio Std: None Radio Device: BTS 10 dB/div Ref 20.00 dBm Center 5.5 GHz #Res BW 200 kHz #VBW 620 kHz Span 40 MHz Sweep 1.333 ms Occupied Bandwidth 17.584 MHz Total Power 7.98 dBm Transmit Freq Error 11.798 kHz % of OBW Power 99.00 % x dB Bandwidth 20.09 MHz x dB -26.00 dB			

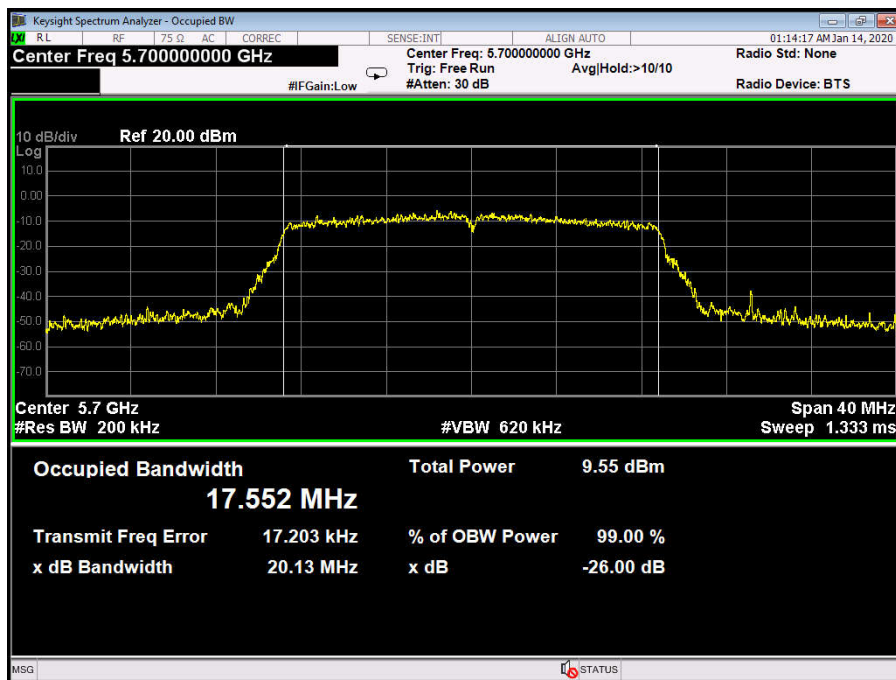
802.11ac(VHT20) Mode

5600 MHz



802.11ac(VHT20) Mode

5700 MHz



Temperature:	25 °C	Relative Humidity:	55%	
Test Voltage:	DC 3.8V			
Test Mode:	TX 802.11ac(VHT20) Mode (U-NII-2C)			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
144	5720	15.35	----	13.892
		----	3.921	4.1455
802.11ac(VHT20) Mode				
5720 MHz Straddle 5.47-5.725GHz				

Keysight Spectrum Analyzer - Occupied BW

RL

RF

75 Ω

AC

CORREC

SENSE:INT

ALIGN: AUTO

02:20:51 AM Jan 09, 2020

Center Freq 5.705000000 GHz

Center Freq: 5.705000000 GHz

Trig: Free Run

Avg|Hold:>10/10

Radio Std: None

#FGain:Low

#Atten: 20 dB

Radio Device: BTS

10 dB/div

Ref 20.00 dBm

Log

10.0

0.00

-10.0

-20.0

-30.0

-40.0

-50.0

-60.0

-70.0

Center 5.705 GHz

#Res BW 200 kHz

#VBW 620 kHz

Span 40 MHz

Sweep 1 ms

Occupied Bandwidth

13.892 MHz

Total Power

7.54 dBm

Transmit Freq Error

12.985 MHz

% of OBW Power

99.00 %

x dB Bandwidth

15.35 MHz

x dB

-26.00 dB

MSG

STATUS