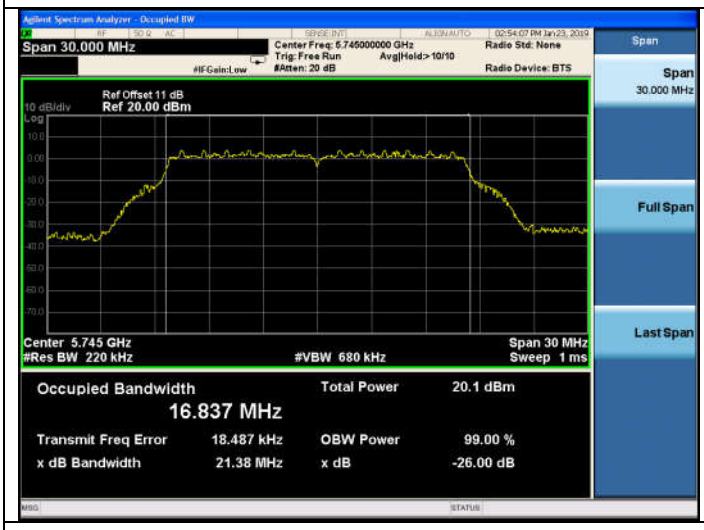
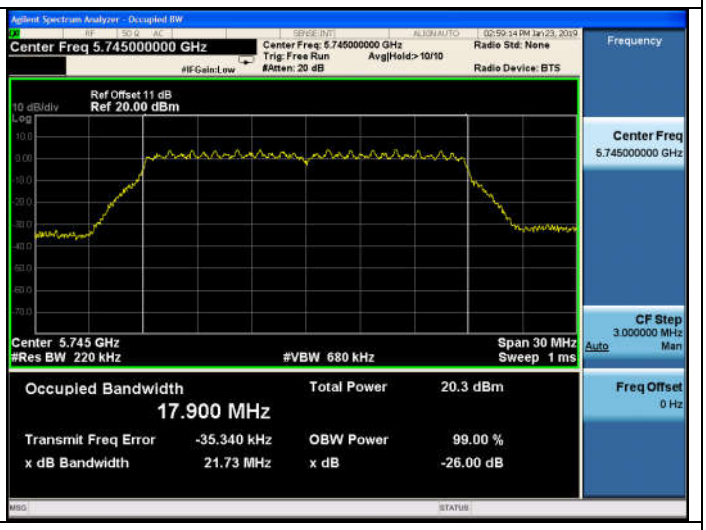
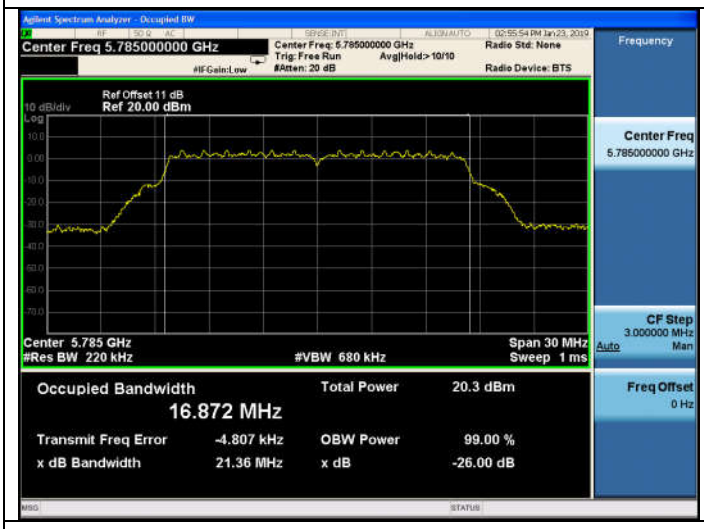
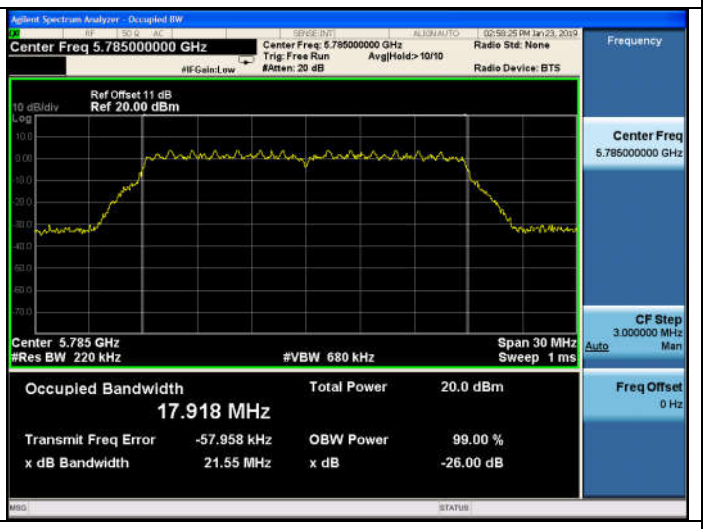
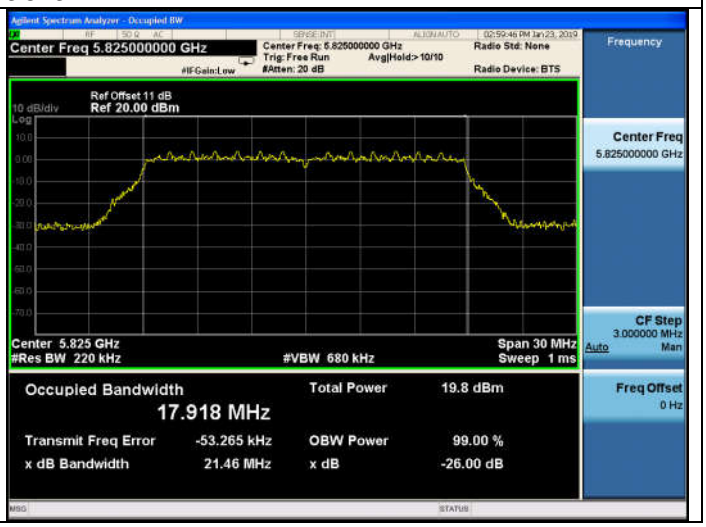
5745-5825MHz Band:

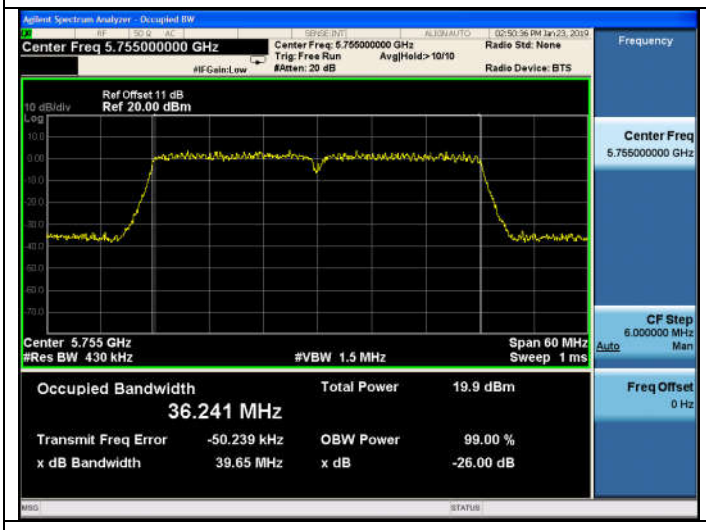
26dB bandwidth

ANT 0

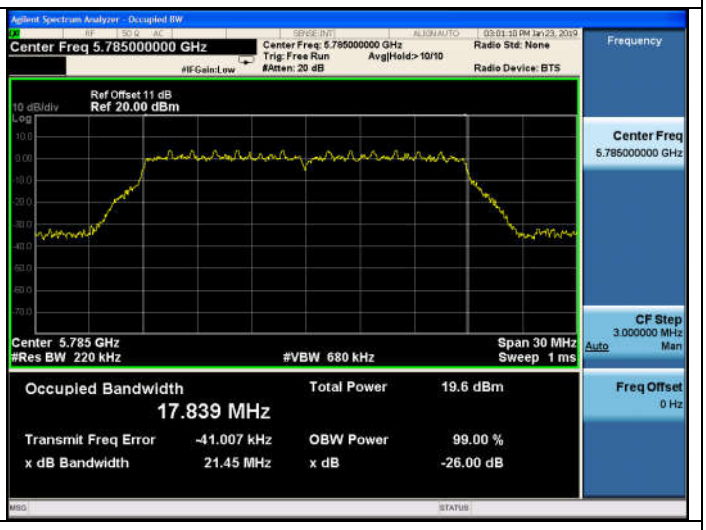
11a	**11n HT20**
5745MHz	5745MHz
	
5785MHz	5785MHz
	
5825MHz	5825MHz
	

11n HT40

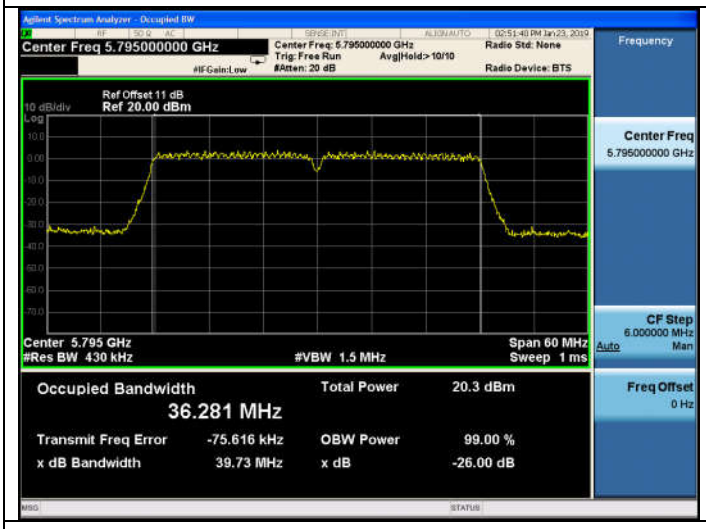
5755MHz



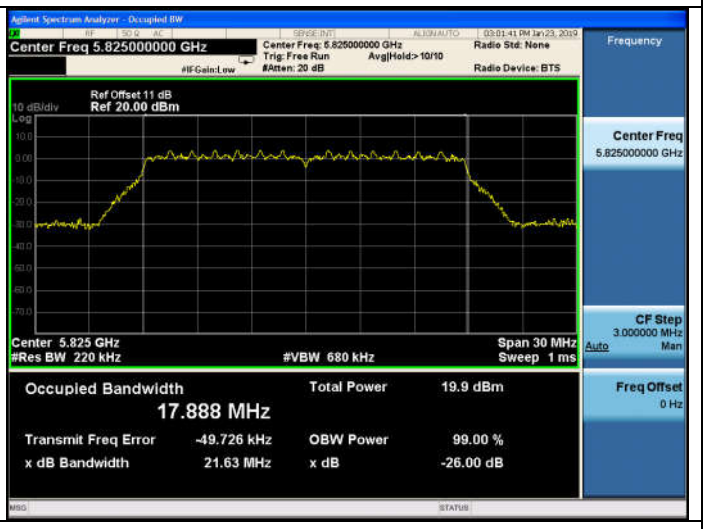
5785MHz



5795MHz

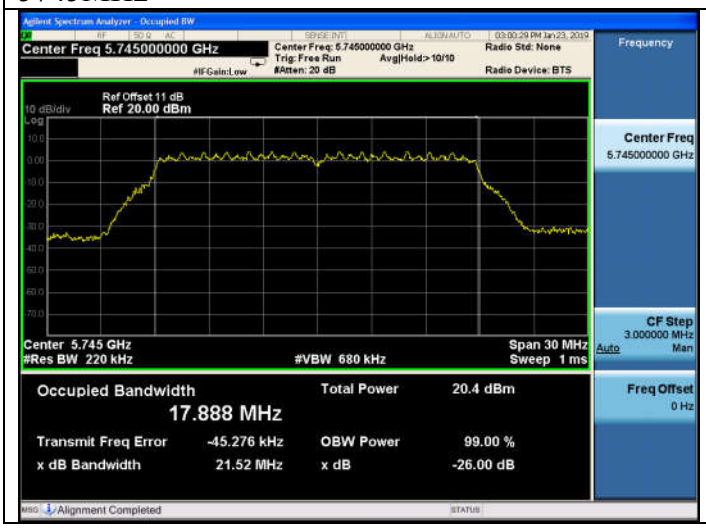


5825MHz



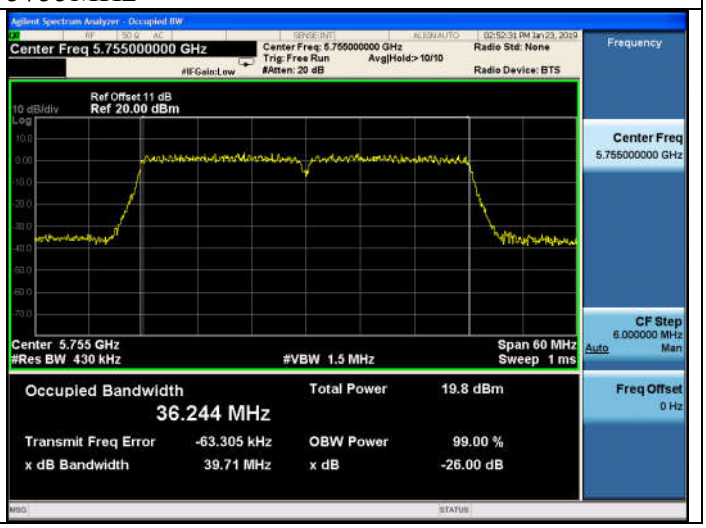
11ac VHT20

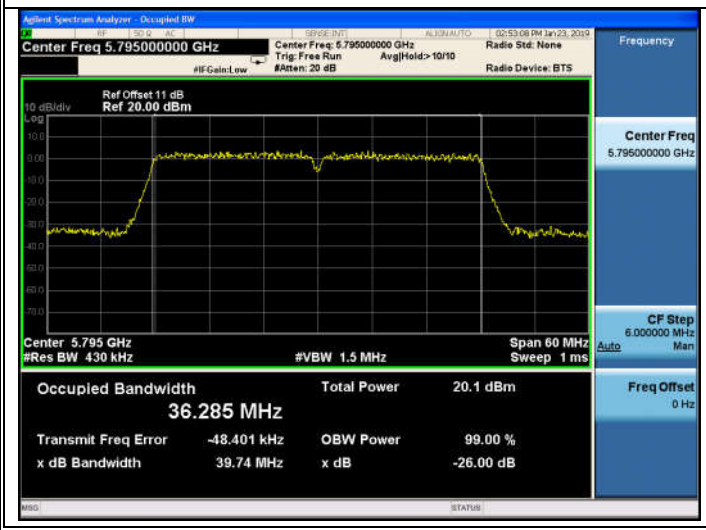
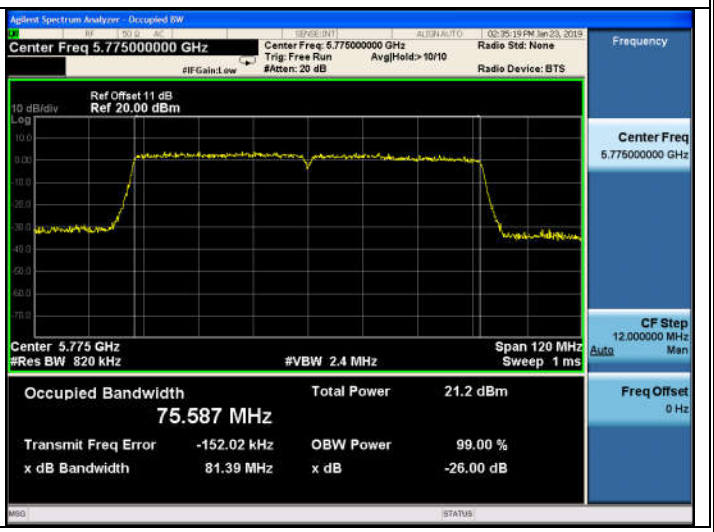
5745MHz



11ac VHT40

5755MHz

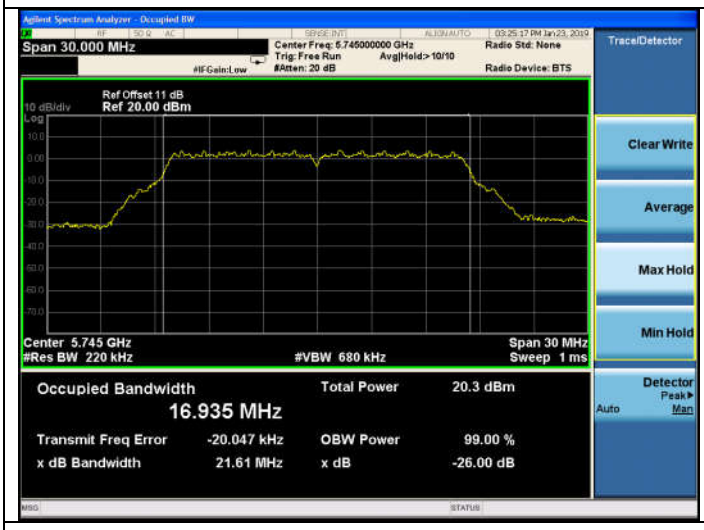
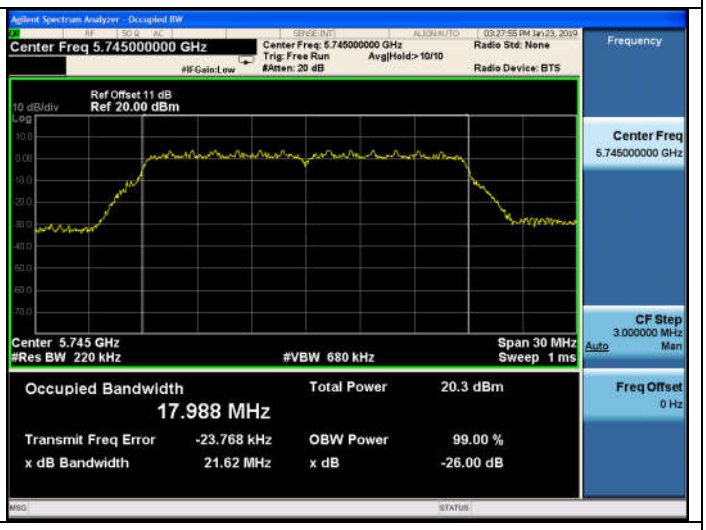
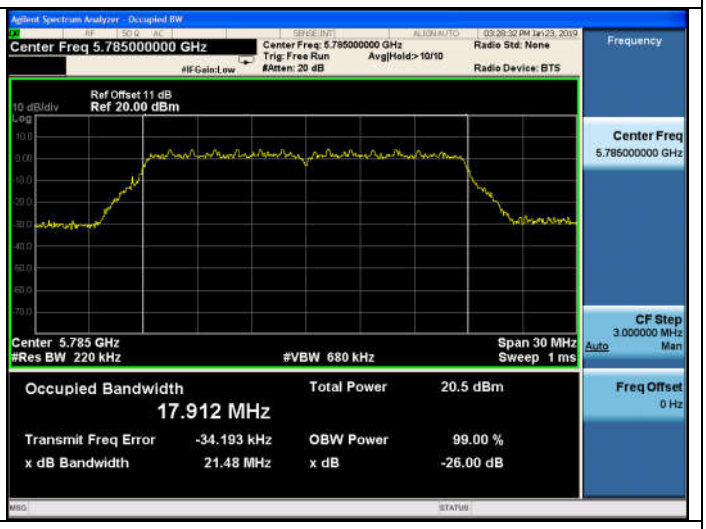
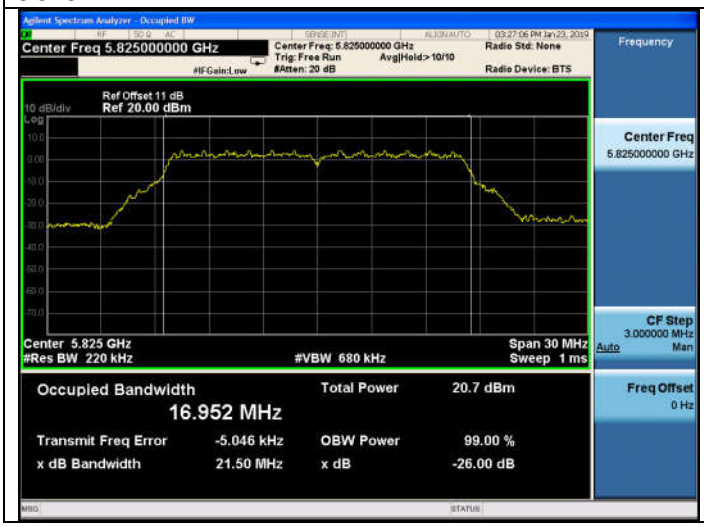
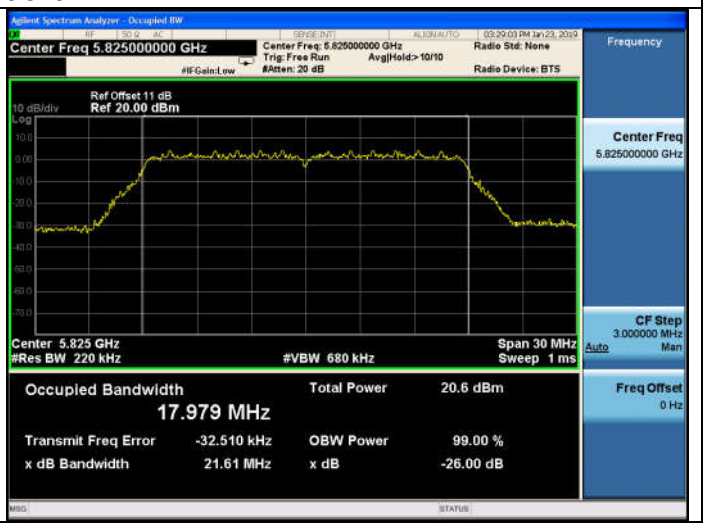


	11ac VHT80
5795MHz	5775MHz
	

5745-5825MHz Band:

26dB bandwidth

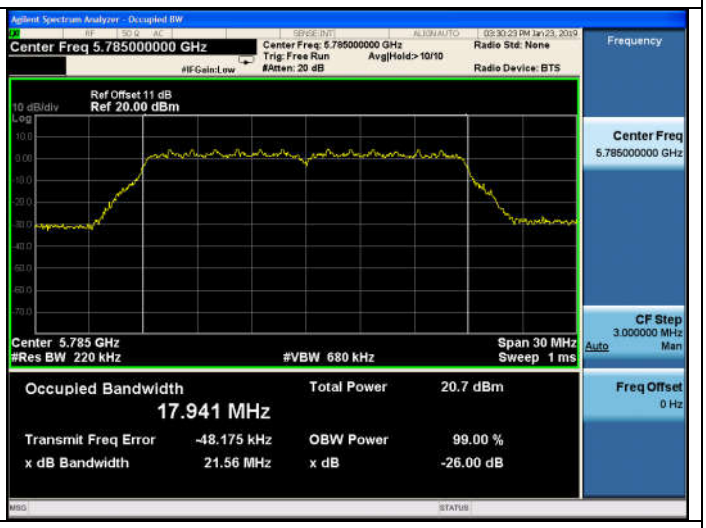
ANT 1

11a	**11n HT20**
5745MHz	5745MHz
	
5785MHz	5785MHz
	
5825MHz	5825MHz
	

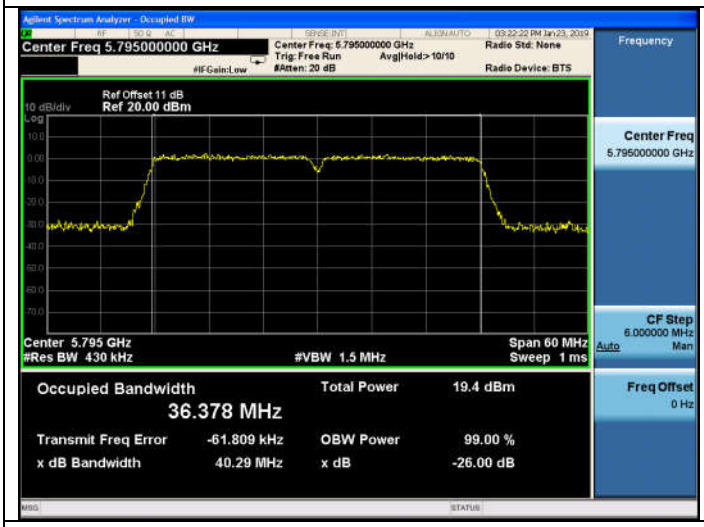
11n HT40

5755MHz

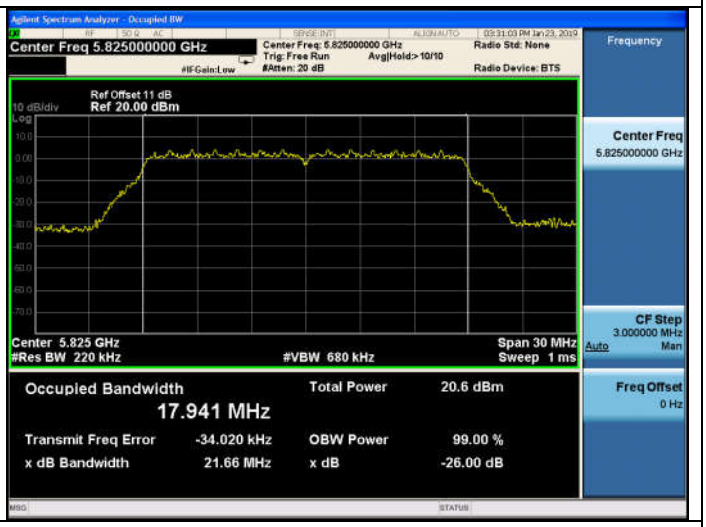
5785MHz



5795MHz

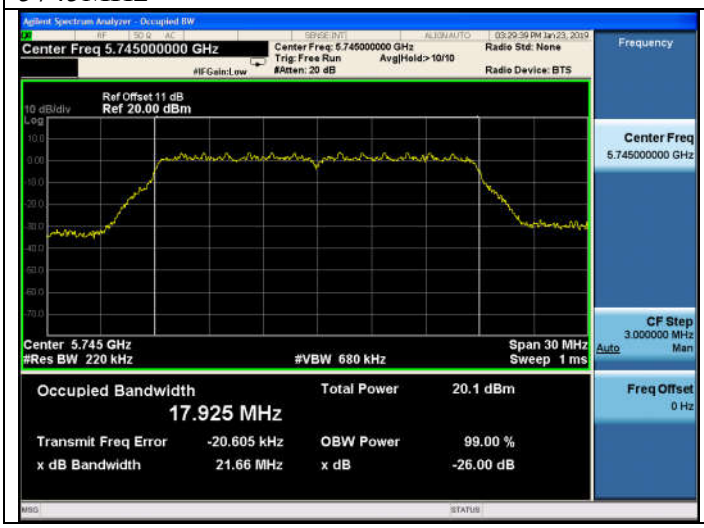


5825MHz



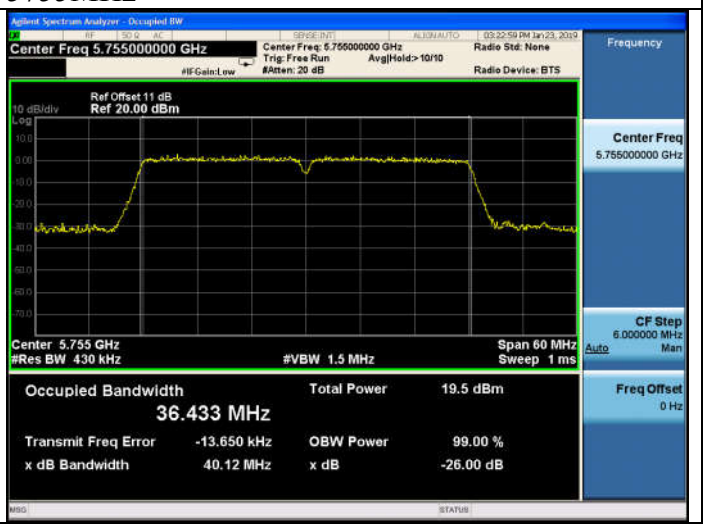
11ac VHT20

5745MHz



11ac VHT40

5755MHz



	11ac VHT80
5795MHz	5775MHz

7. OUTPUT POWER TEST

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	PXA Signal Analyzer	Agilent	N9030A	MY51380221	Sep.08,18	1Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Apr.23,18	1Year
3.	Power sensor	Anritsu	MA2491A	033005	Apr.23,18	1Year
4.	Attenuator	Agilent	8491B	MY39269170	Oct.14,18	1 Year
5.	RF Cable	Hubersuhner	SUCOFLE X106	505239/6	Apr.23,18	1 Year

7.2.Limit

For the band 5.15–5.25 GHz.
For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the max-imum antenna gain does not exceed 6 dBi.
For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

7.3.Test Procedure

1. Connected the EUT's antenna port to measure device by 20dB attenuator.
   1) Measure the duty cycle, x, of the transmitter output signal as described in II.B.
   2) Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
   3) Set RBW = 1 MHz.
   4) Set VBW ≥ 3 MHz.
   5) Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
   6) Sweep time = auto.
   7) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
   8) Do not use sweep triggering. Allow the sweep to "free run."
   9) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
   10) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
   11) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

7.4.Test Results

5180-5240MHz Band:

EUT: BCM dual band 2*2 WiFi		
M/N: 50-0102-BC-22		
Test date: 2019-01-18	Pressure: 102.1±1.0 kpa	Humidity: 51.1±3.0%
Tested by: Garry	Test site: RF site	Temperature:22.8±0.6 ℃

Test Mode	Frequency (MHz)	Maximum Conducted output power (dBm)			Limit (dBm)
		ANT0	ANT1	Total	
11a	5180	13.79	13.49	16.65	23.02
	5200	13.93	13.72	16.84	
	5240	14.56	14.43	17.51	
11n HT20	5180	13.35	13.07	16.22	23.02
	5200	13.49	13.20	16.36	
	5240	14.17	13.97	17.08	
11n HT40	5190	12.81	12.34	15.59	23.02
	5230	13.33	12.96	16.16	
11ac VHT20	5180	13.42	13.23	16.34	23.02
	5200	13.57	13.28	16.44	
	5240	14.18	14.01	17.11	
11ac VHT40	5190	12.85	12.34	15.61	23.02
	5230	13.34	13.01	16.19	
11ac VHT80	5210	13.12	12.82	15.98	23.02
Conclusion: PASS					

Note: 1. Directional Gain= $10 \log[(10^{4.1/20}+10^{3.8/20})^2/2]$dBi
= 6.96dBi>6dBi.
2. The transmit signals are correlated.

5260-5320MHz Band:

EUT: BCM dual band 2*2 WiFi		
M/N: 50-0102-BC-22		
Test date: 2019-01-18	Pressure: 102.1±1.0 kpa	Humidity: 51.1±3.0%
Tested by: Garry	Test site: RF site	Temperature:22.8±0.6 ℃

Test Mode	Frequency (MHz)	Maximum Conducted output power (dBm)			Limit (dBm)
		ANT0	ANT1	Total	
11a	5260	15.11	14.20	17.69	23.02
	5300	15.29	14.22	17.80	
	5320	15.43	14.33	17.93	
11n HT20	5260	14.46	13.58	17.05	23.02
	5300	14.83	13.77	17.34	
	5320	14.79	13.82	17.34	
11n HT40	5270	14.04	13.36	16.72	23.02
	5310	14.09	13.45	16.79	
11ac VHT20	5260	14.81	14.10	17.48	23.02
	5300	14.77	14.24	17.52	
	5320	14.89	14.19	17.56	
11ac VHT40	5270	14.04	13.41	16.75	23.02
	5310	14.32	13.40	16.90	
11ac VHT80	5290	14.28	12.71	16.58	23.02
Conclusion: PASS					

Note: 1. Directional Gain= $10 \log[(10^{4.1/20}+10^{3.8/20})^2/2]$dBi
= 6.96dBi>6dBi.
2. The transmit signals are correlated.

5500-5700MHz Band:

EUT: BCM dual band 2*2 WiFi		
M/N: 50-0102-BC-22		
Test date: 2019-01-18	Pressure: 102.1±1.0 kpa	Humidity: 51.1±3.0%
Tested by: Garry	Test site: RF site	Temperature:22.8±0.6 ℃

Test Mode	Frequency (MHz)	Maximum Conducted output power (dBm)			Limit (dBm)
		ANT0	ANT1	Total	
11a	5500	14.06	14.53	17.31	23.02
	5600	14.16	13.57	16.89	
	5700	14.19	13.21	16.74	
11n HT20	5500	13.49	13.97	16.75	23.02
	5600	13.67	13.05	16.38	
	5700	13.73	12.86	16.33	
11n HT40	5510	12.94	13.43	16.20	23.02
	5590	13.10	12.68	15.91	
	5670	12.96	11.92	15.48	
11ac VHT20	5500	13.51	14.38	16.98	23.02
	5600	13.76	13.30	16.55	
	5700	13.77	12.97	16.40	
11ac VHT40	5510	12.92	13.48	16.22	23.02
	5590	13.10	12.84	15.98	
	5670	12.99	12.19	15.62	
11ac VHT80	5530	13.00	13.23	16.13	23.02
	5610	13.15	12.35	15.78	
Conclusion: PASS					

Note: 1. Directional Gain= $10 \log[(10^{4.1/20}+10^{3.8/20})^2/2]$dBi

= 6.96dBi>6dBi.

2. The transmit signals are correlated.

5745-5825MHz Band:

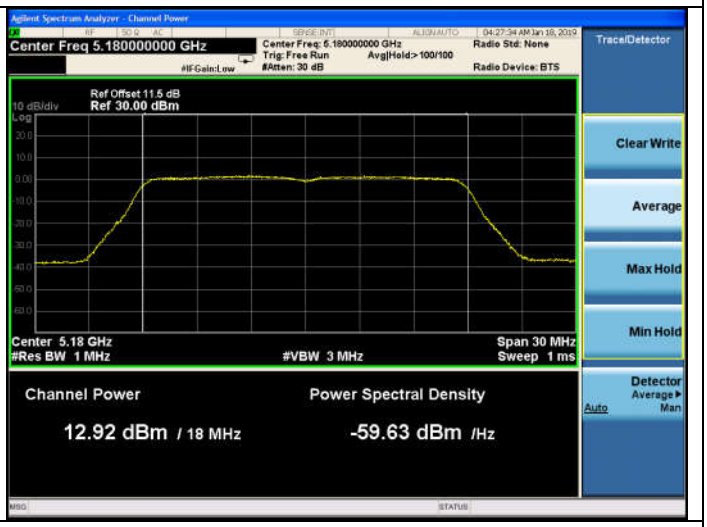
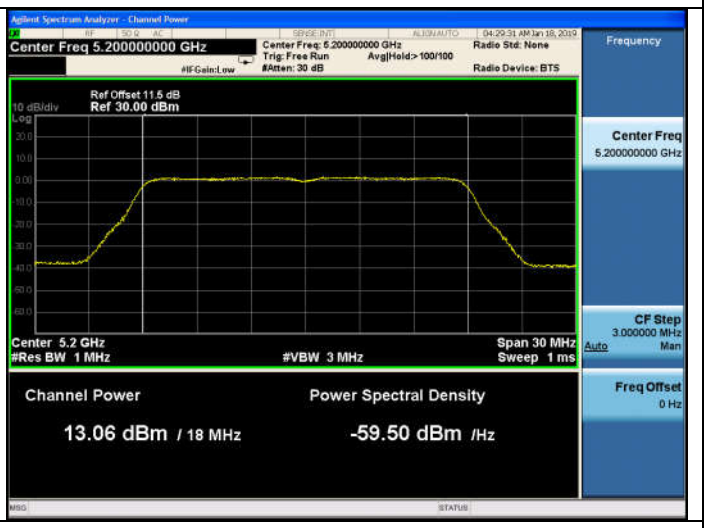
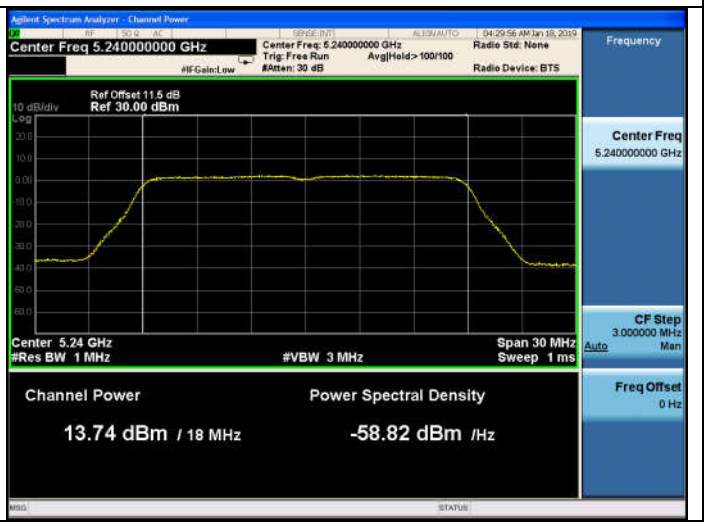
EUT: BCM dual band 2*2 WiFi		
M/N: 50-0102-BC-22		
Test date: 2019-01-18	Pressure: 102.1±1.0 kpa	Humidity: 51.1±3.0%
Tested by: Garry	Test site: RF site	Temperature:22.8±0.6 ℃

Test Mode	Frequency (MHz)	Maximum Conducted output power (dBm)			Limit (dBm)
		ANT0	ANT1	Total	
11a	5745	14.43	14.24	17.35	29.04
	5785	14.33	14.50	17.43	
	5825	14.07	14.75	17.43	
11n HT20	5745	14.06	13.88	16.98	29.04
	5785	13.90	14.16	17.04	
	5825	13.73	14.32	17.05	
11n HT40	5755	13.25	13.05	16.16	29.04
	5795	13.19	13.64	16.43	
11ac VHT20	5745	14.14	13.77	16.97	29.04
	5785	14.03	14.18	17.12	
	5825	13.79	14.23	17.03	
11ac VHT40	5755	13.27	13.32	16.31	29.04
	5795	13.23	13.53	16.39	
11ac VHT80	5775	13.42	13.47	16.46	29.04
Conclusion: PASS					

Note: 1. Directional Gain= $10 \log[(10^{4.1/20}+10^{3.8/20})^2/2]$dBi
= 6.96dBi>6dBi.
2. The transmit signals are correlated.

5180-5240MHz Band:

ANT 0

11a	11n HT20
5180MHz	5180MHz
	
5200MHz	5200MHz
	
5240MHz	5240MHz
	

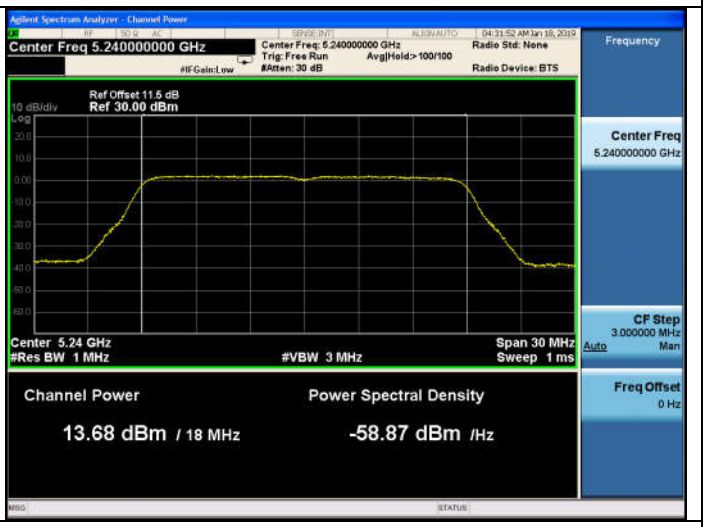
11n HT40

5190MHz

5200MHz

5230MHz

5240MHz

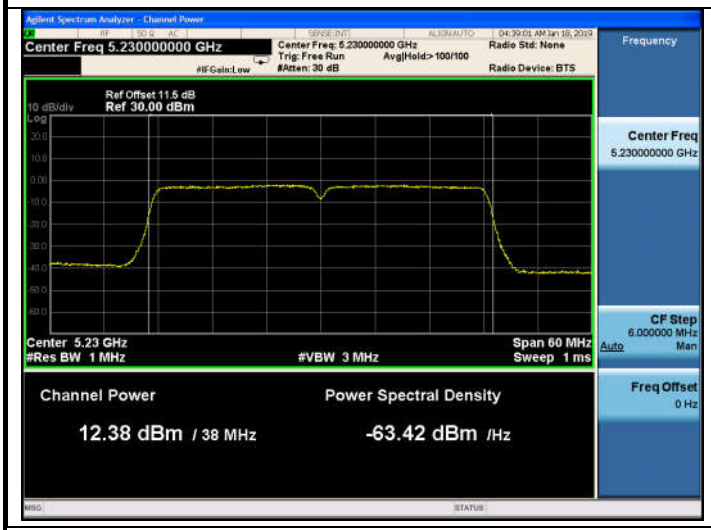


11ac VHT20

5180MHz

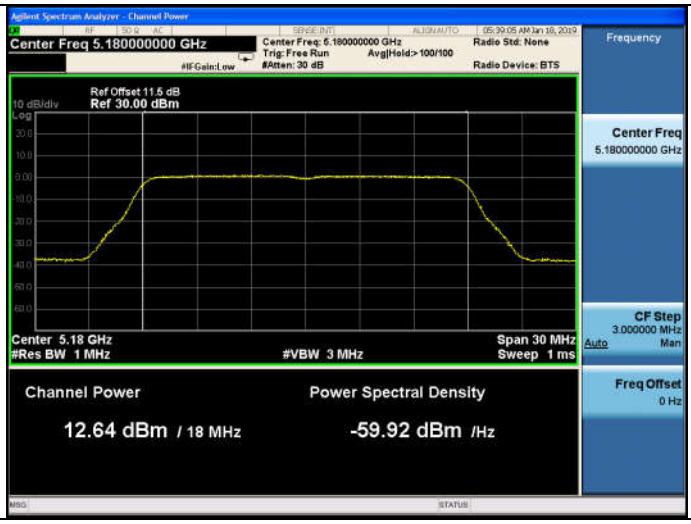
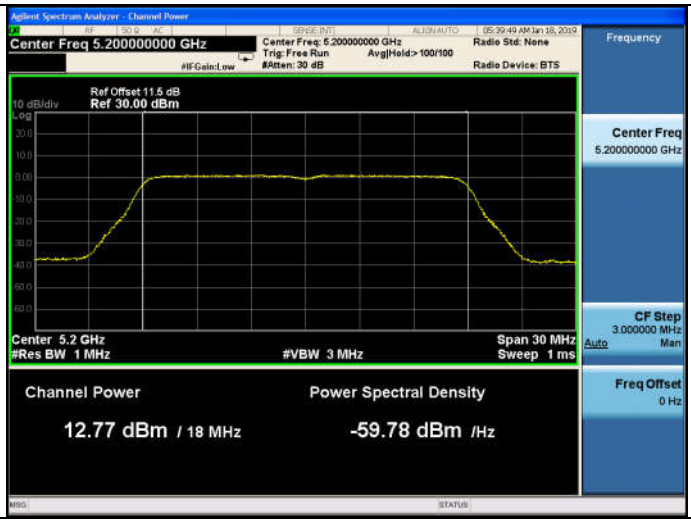
11ac VHT40

5190MHz

	11ac VHT80
5230MHz	5210MHz
	

5180-5240MHz Band:

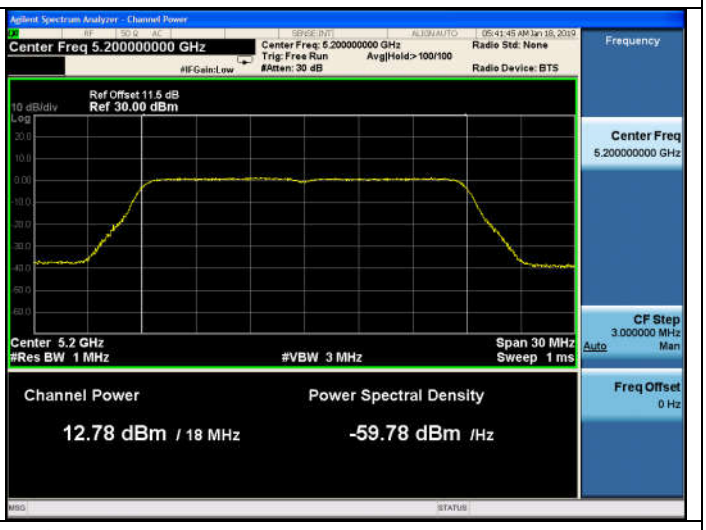
ANT 1

11a	11n HT20
5180MHz	5180MHz
	
5200MHz	5200MHz
	
5240MHz	5240MHz

11n HT40

5190MHz

5200MHz



5230MHz

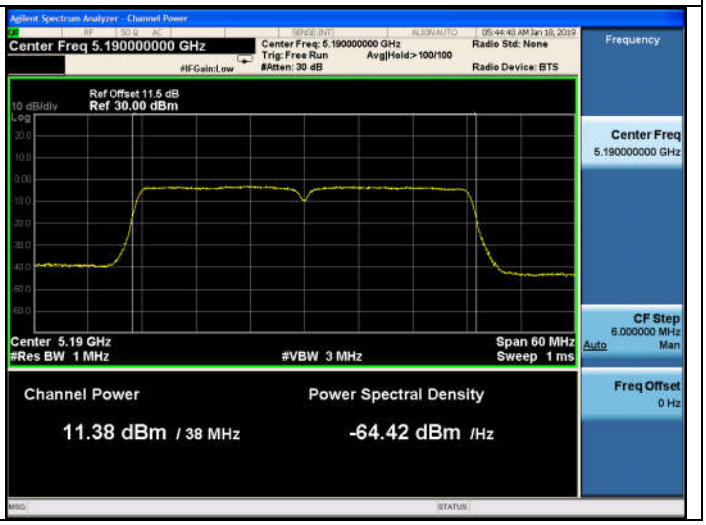
5240MHz

11ac VHT20

5180MHz

11ac VHT40

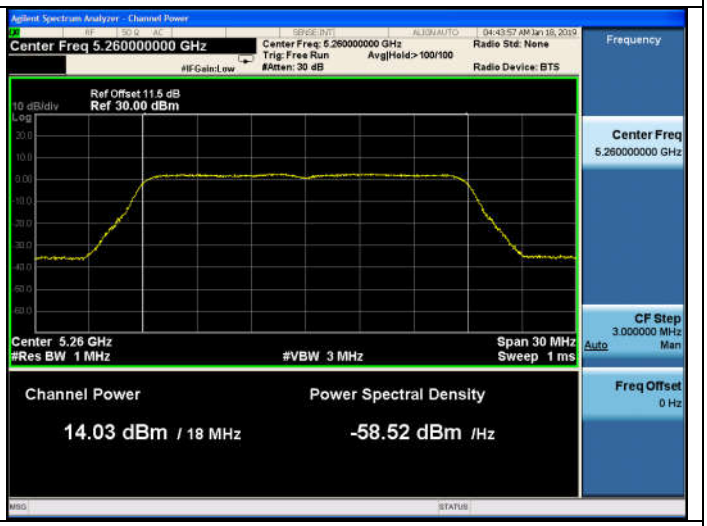
5190MHz



	11ac VHT80
5230MHz	5210MHz

5260-5320MHz Band:

ANT 0

11a	11n HT20
5260MHz	5260MHz
	
5300MHz	5300MHz
5320MHz	5320MHz

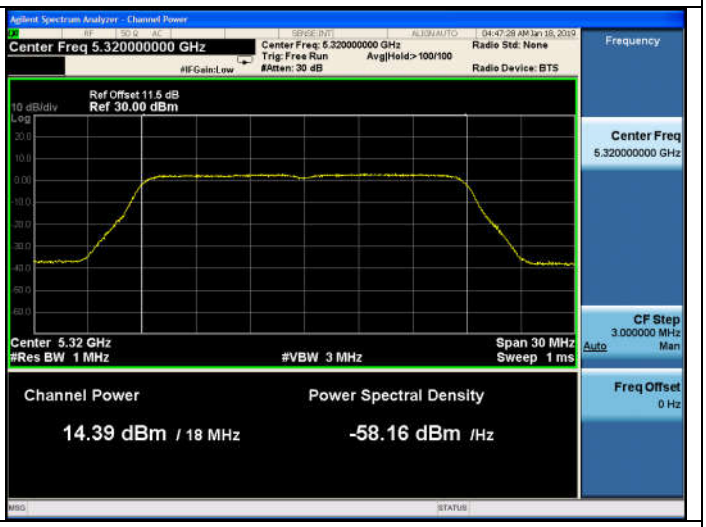
11n HT40

5270MHz

5300MHz

5310MHz

5320MHz

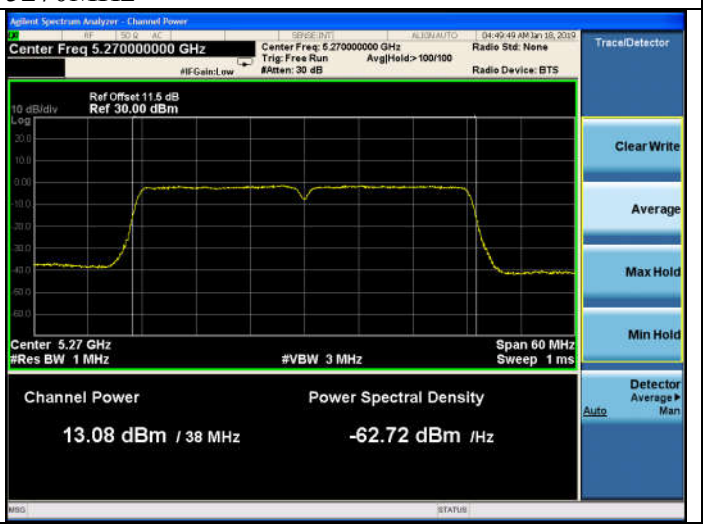


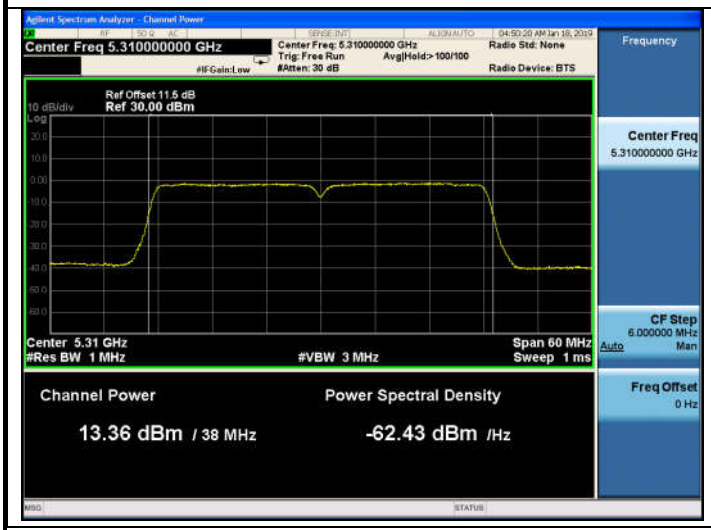
11ac VHT20

5260MHz

11ac VHT40

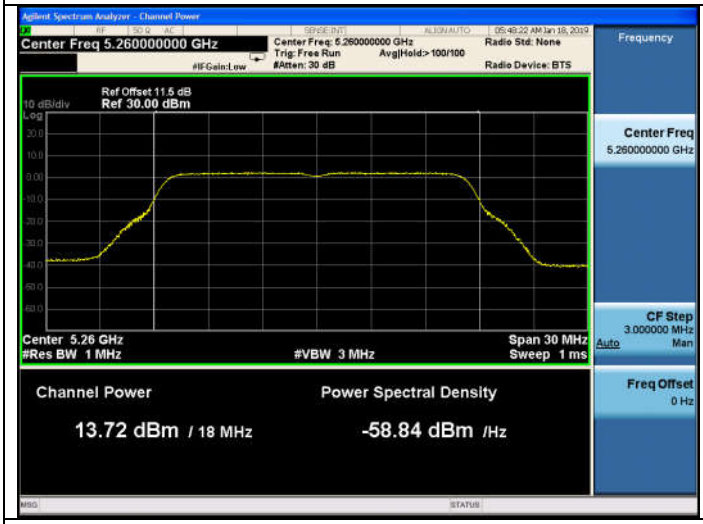
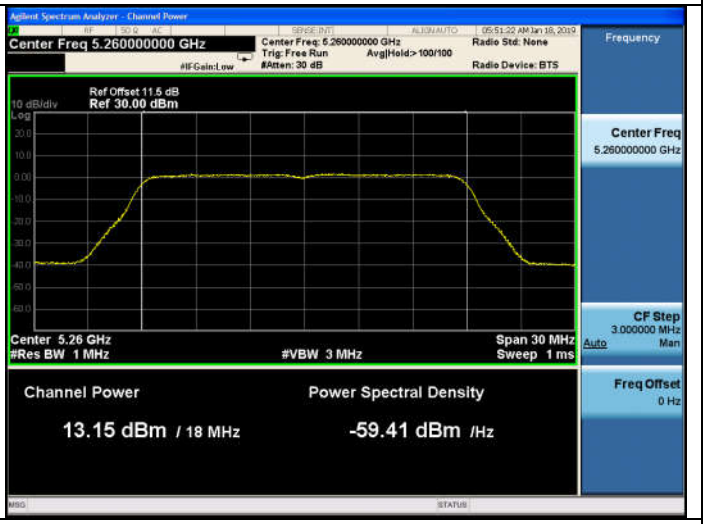
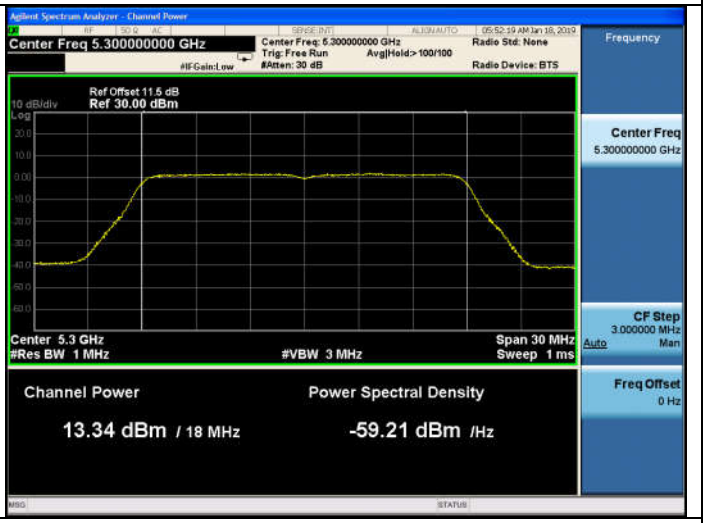
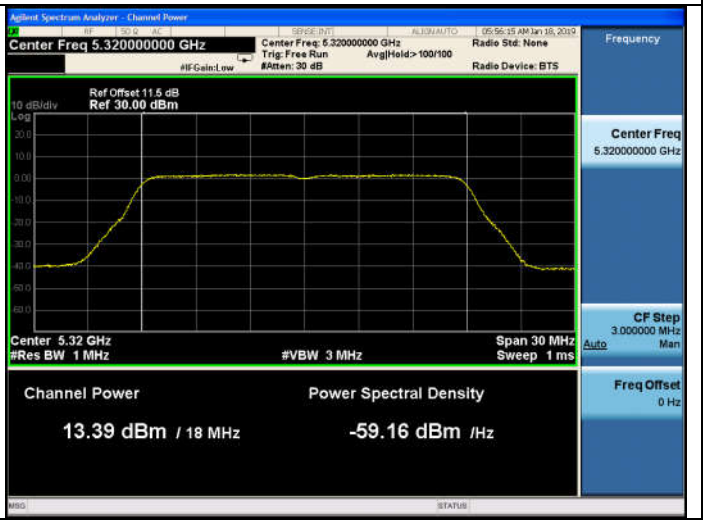
5270MHz



	11ac VHT80
5310MHz	5290MHz
	

5260-5320MHz Band:

ANT 1

11a	11n HT20
5260MHz	5260MHz
	
5300MHz	5300MHz
	
5320MHz	5320MHz
	

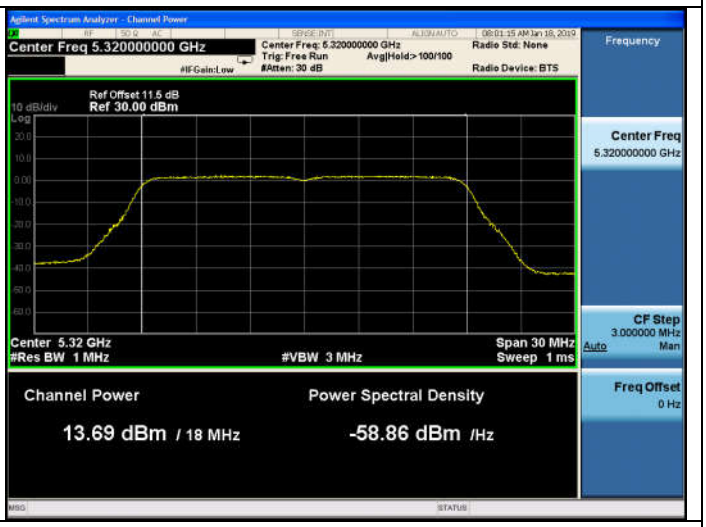
11n HT40

5270MHz

5300MHz

5310MHz

5320MHz

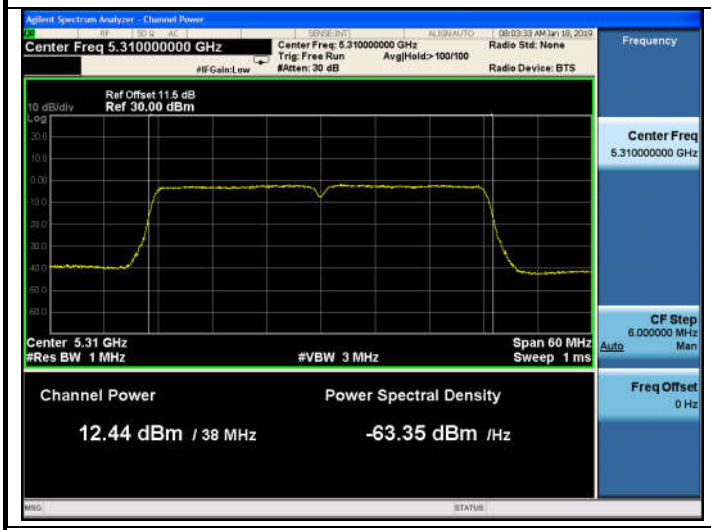


11ac VHT20

5260MHz

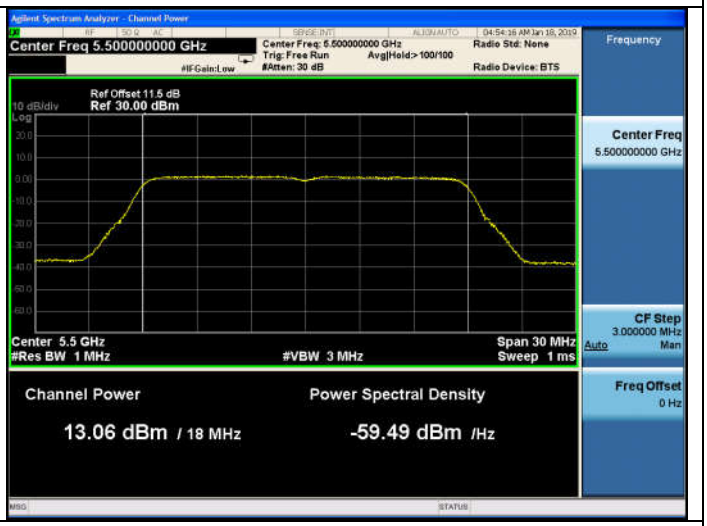
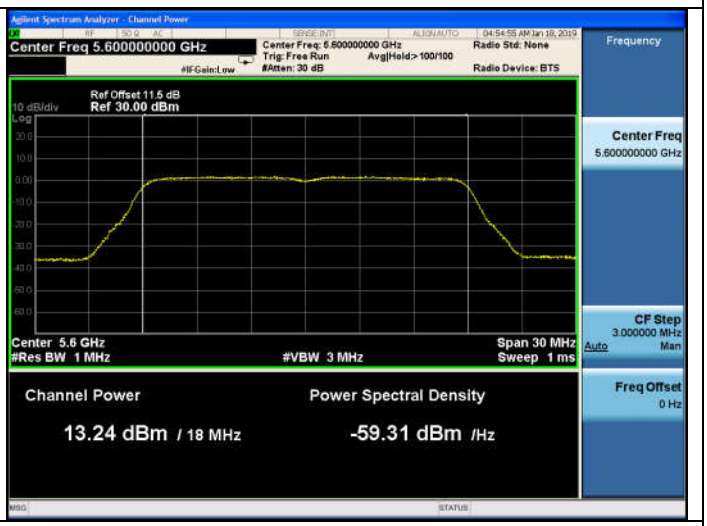
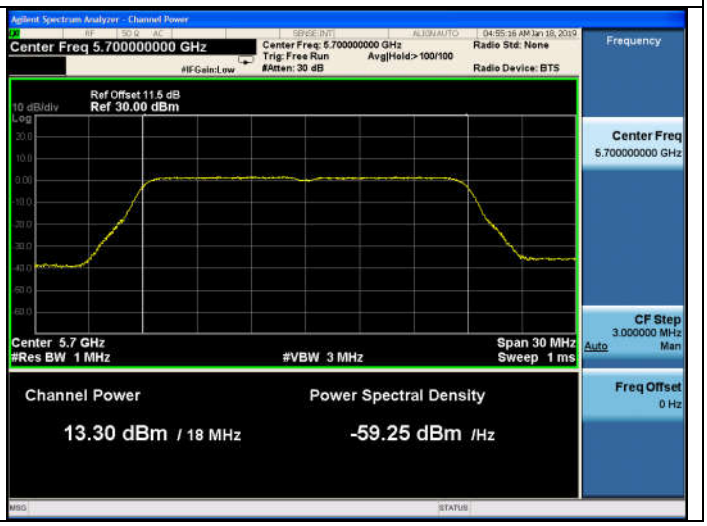
11ac VHT40

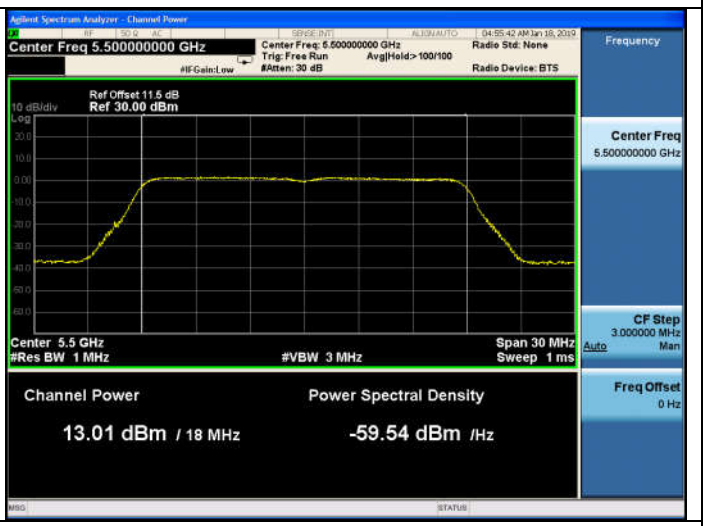
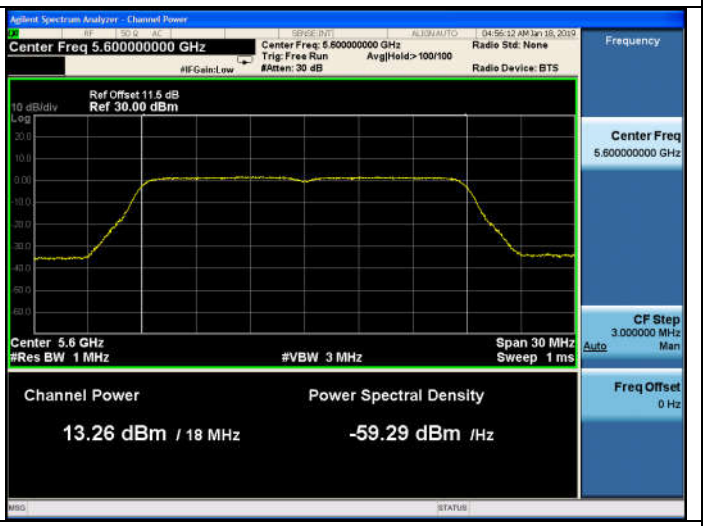
5270MHz

	11ac VHT80
5310MHz	5290MHz
	

5500-5700MHz Band:

ANT 0

11a	11n HT20
5500MHz	5500MHz
	
5600MHz	5600MHz
	
5700MHz	5700MHz
	

11n HT40	11ac VHT20
5510MHz	5500MHz
	
5590MHz	5600MHz
	
5670MHz	5700MHz

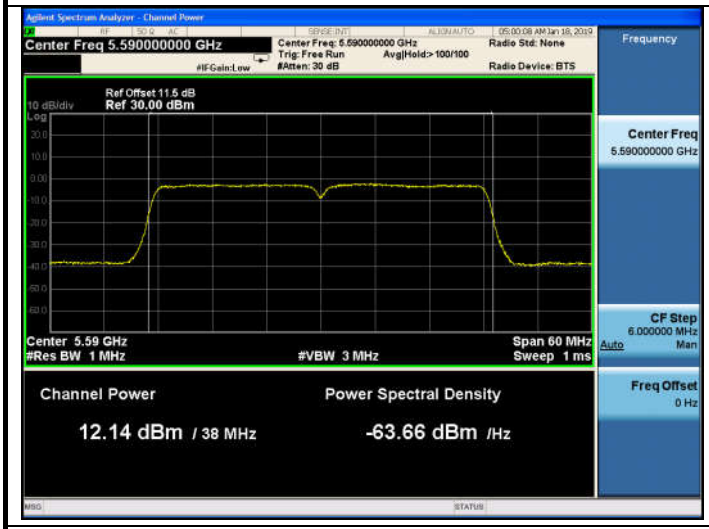
11ac VHT40

5510MHz

11ac VHT80

5530MHz

5590MHz



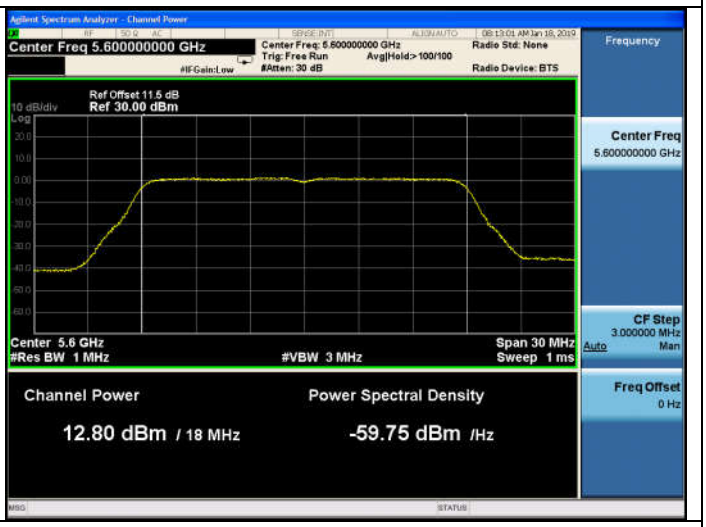
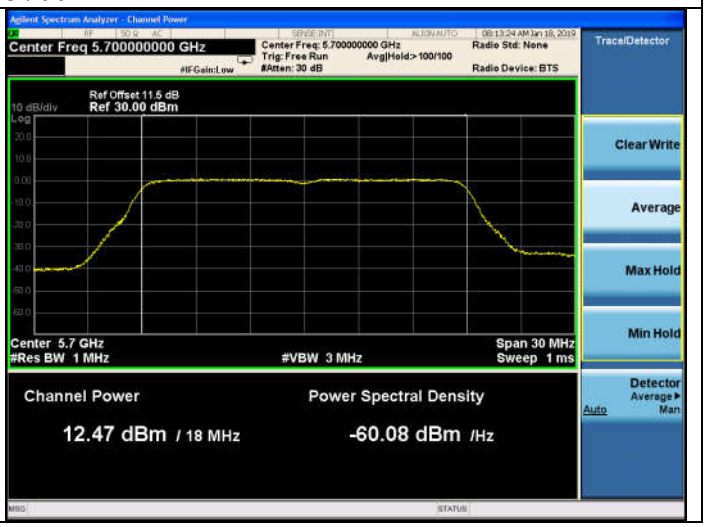
5610MHz

5670MHz

5500-5700MHz Band:

ANT 1

11a	11n HT20
5500MHz	5500MHz
5600MHz	5600MHz
5700MHz	5700MHz

11n HT40	11ac VHT20
5510MHz	5500MHz
5590MHz	5600MHz
	
5670MHz	5700MHz
	

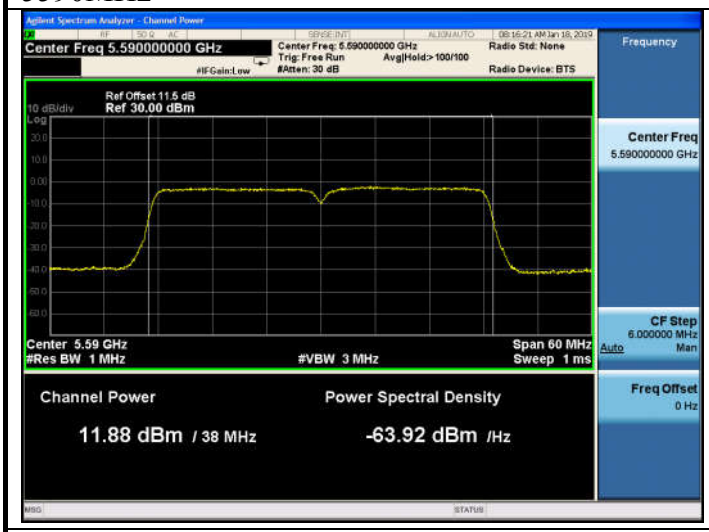
11ac VHT40

5510MHz

11ac VHT80

5530MHz

5590MHz

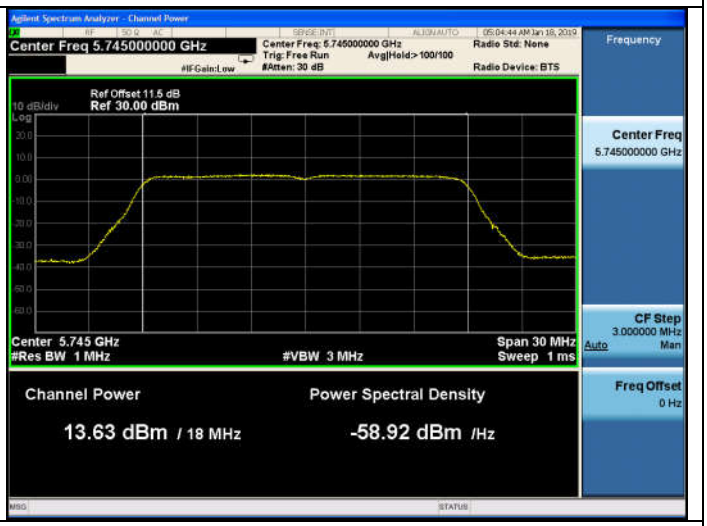
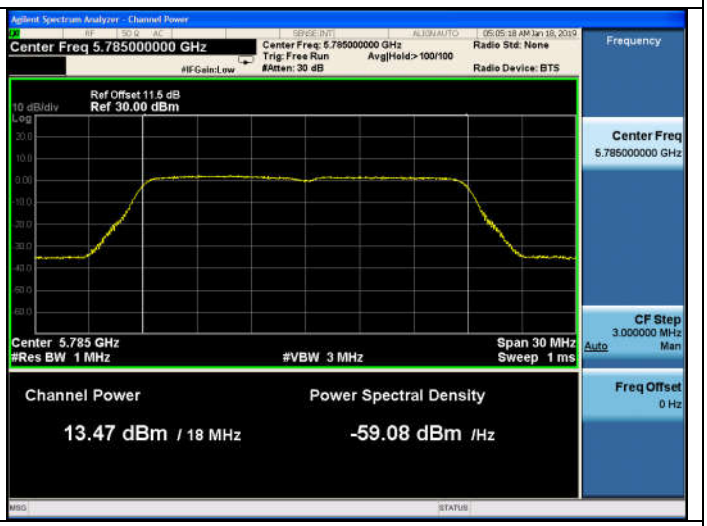


5610MHz

5670MHz

5745-5825MHz Band:

ANT 0

11a	11n HT20
5745MHz	5745MHz
	
5785MHz	5785MHz
	
5825MHz	5825MHz

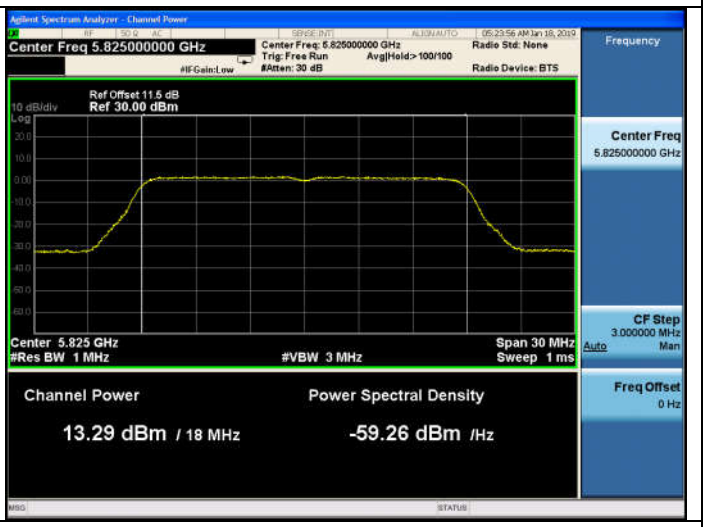
11n HT40

5755MHz

5785MHz

5795MHz

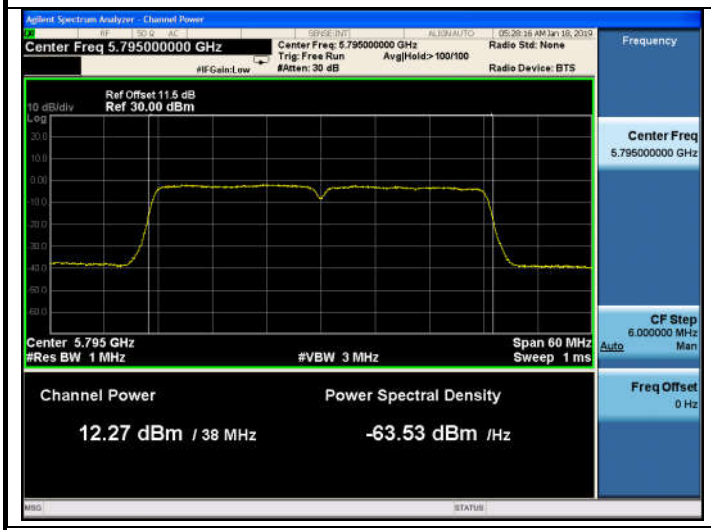
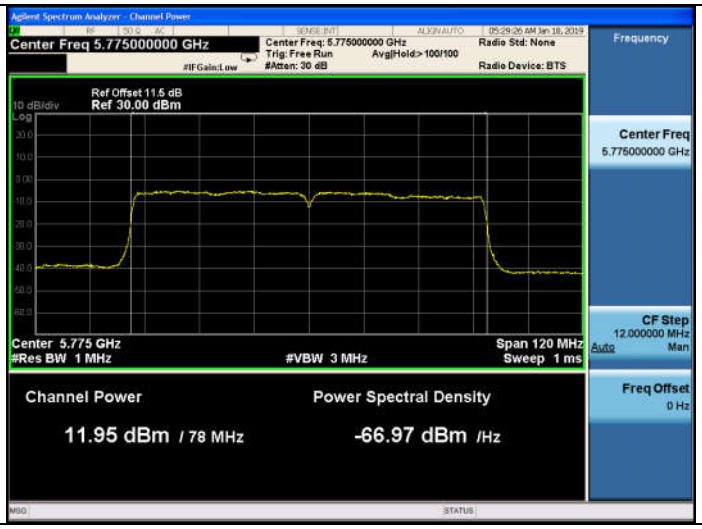
5825MHz



11ac VHT20

5745MHz

11ac VHT40

5755MHz

	11ac VHT80
5795MHz	5775MHz