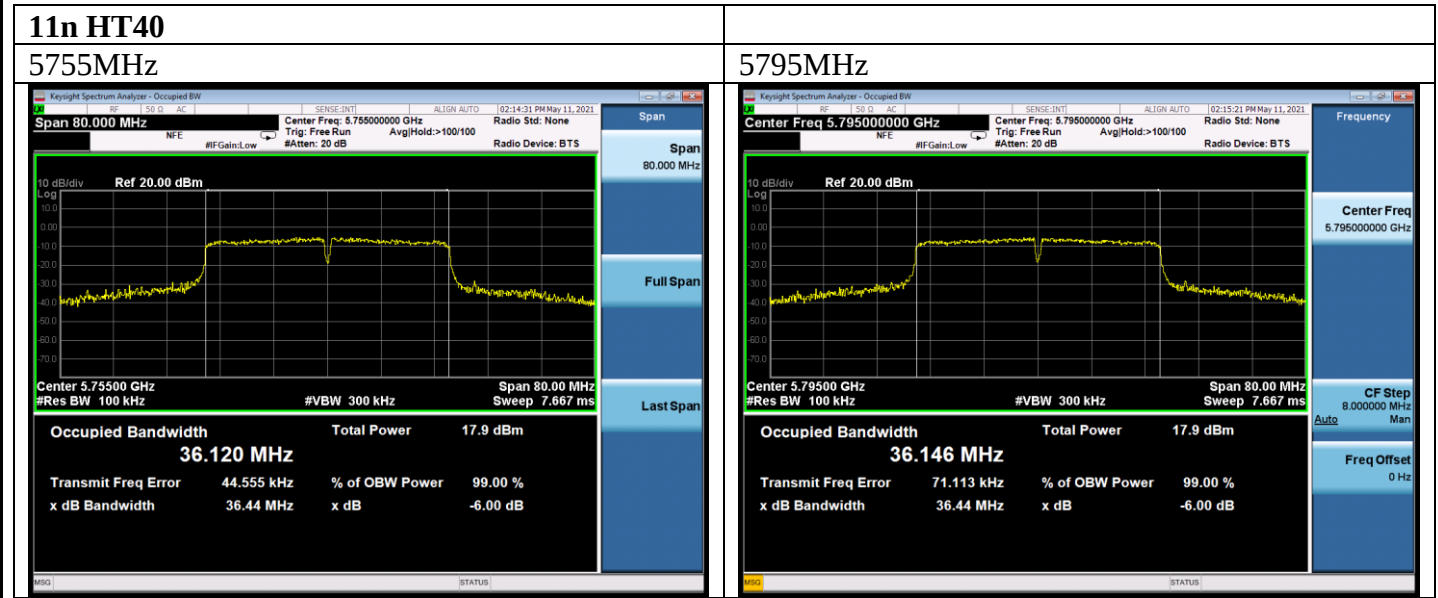




FCC ID: 2A23IBP5000

U-NII-3 Band:

6dB bandwidth

ANT2

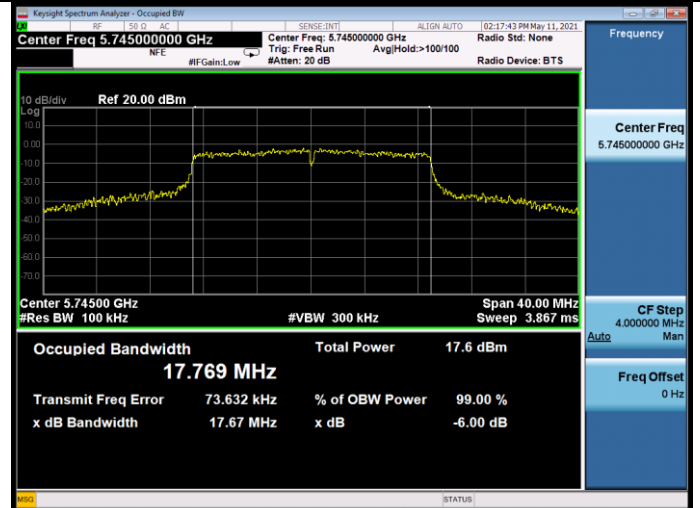
11a

5745MHz

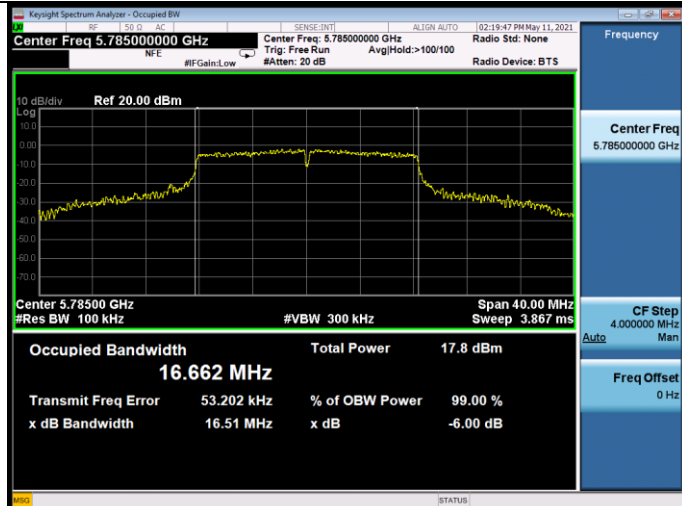


11n HT20

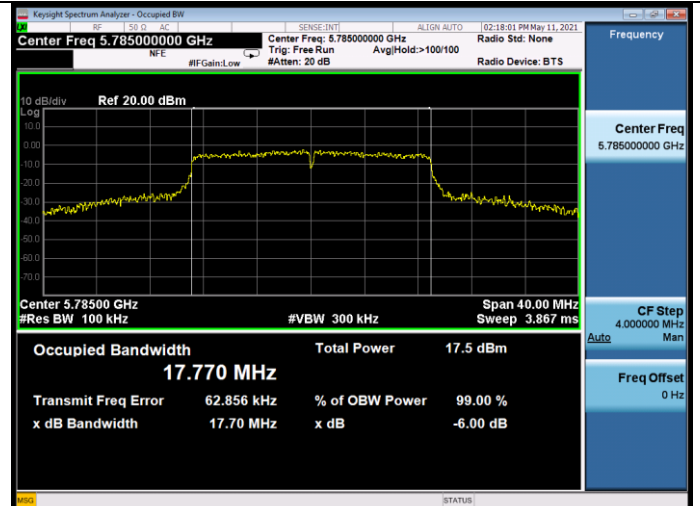
5745MHz



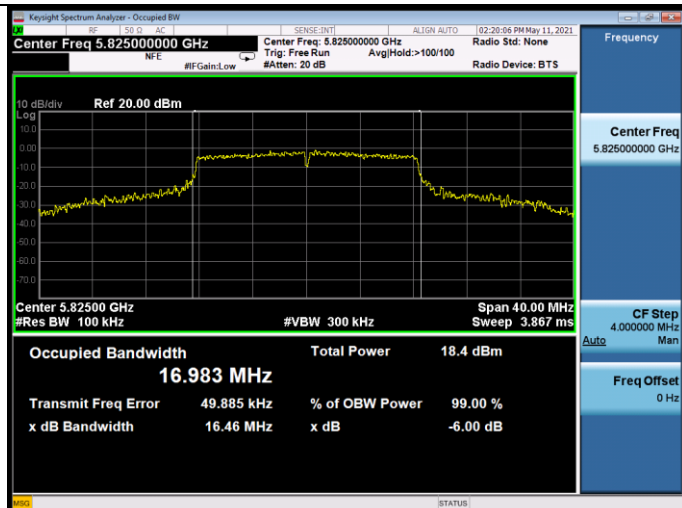
5785MHz



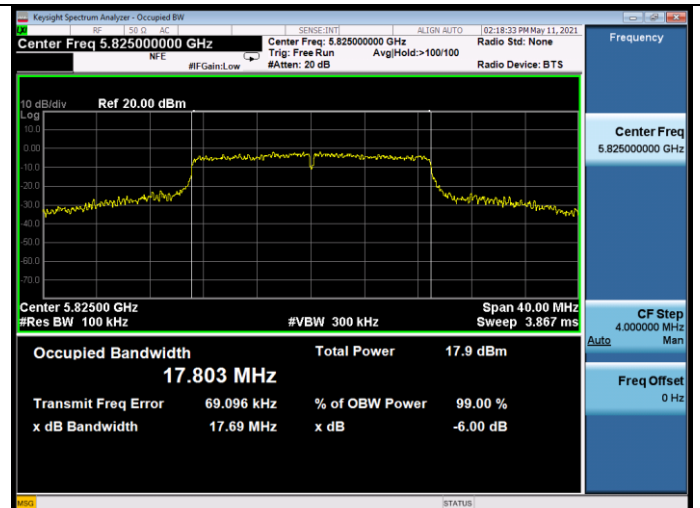
5785MHz



5825MHz



5825MHz



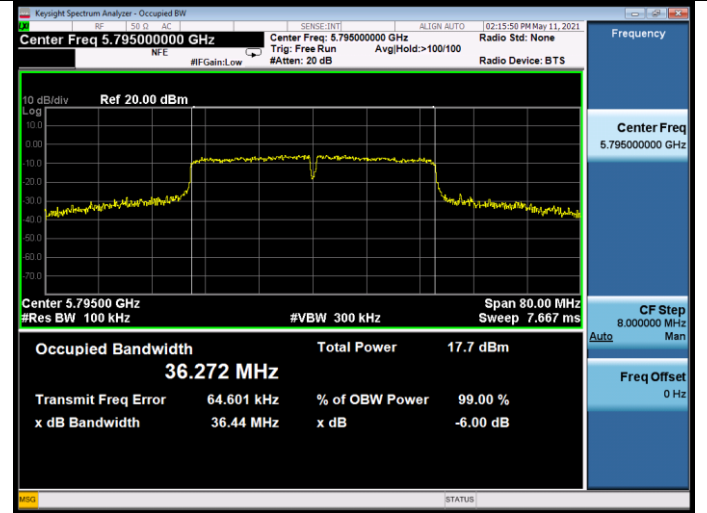
FCC ID: 2AZ3IBP5000

11n HT40

5755MHz



5795MHz



U-NII-3 Band:

26dB bandwidth

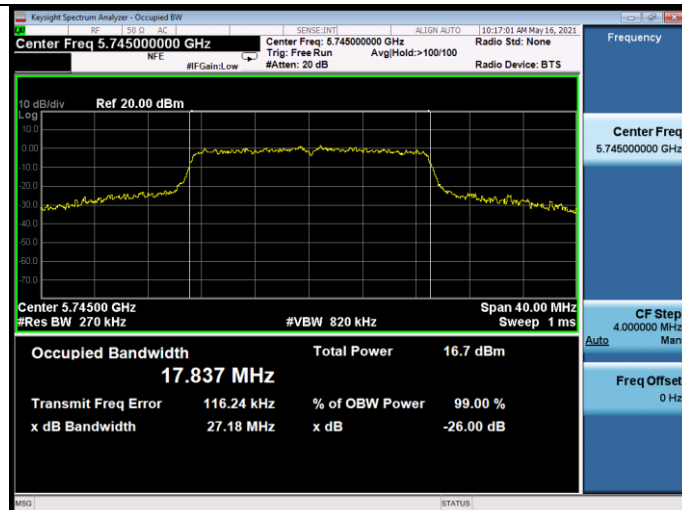
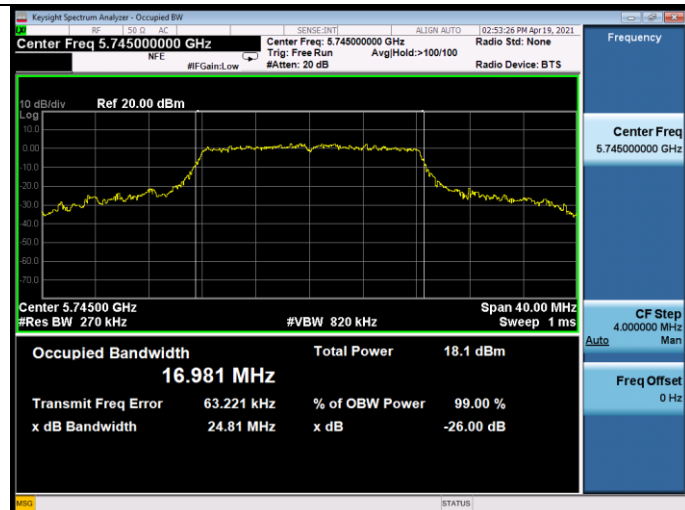
ANT1

11a

5745MHz

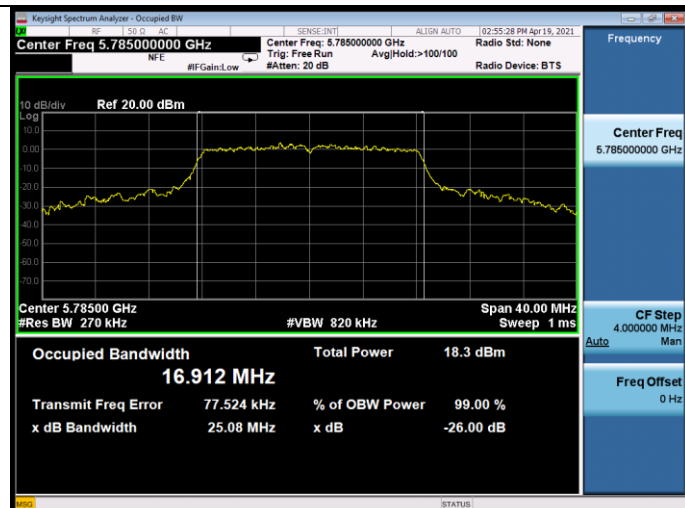
11n HT20

5745MHz



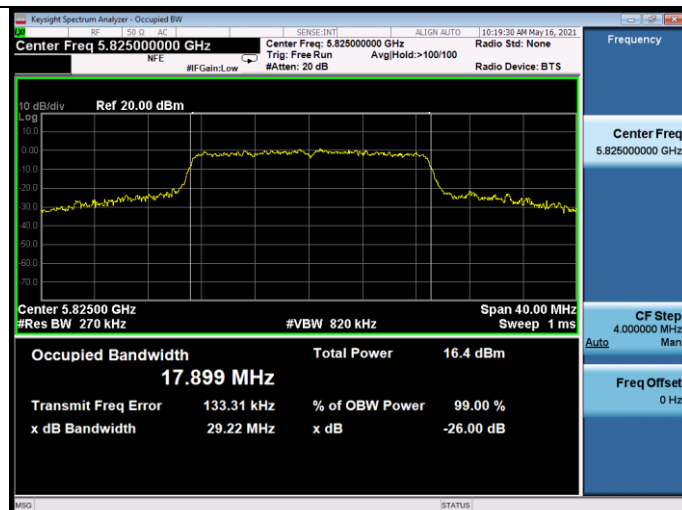
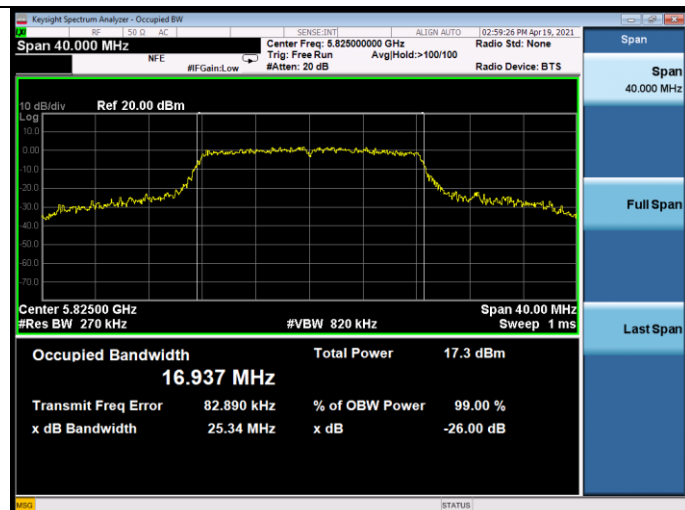
5785MHz

5785MHz

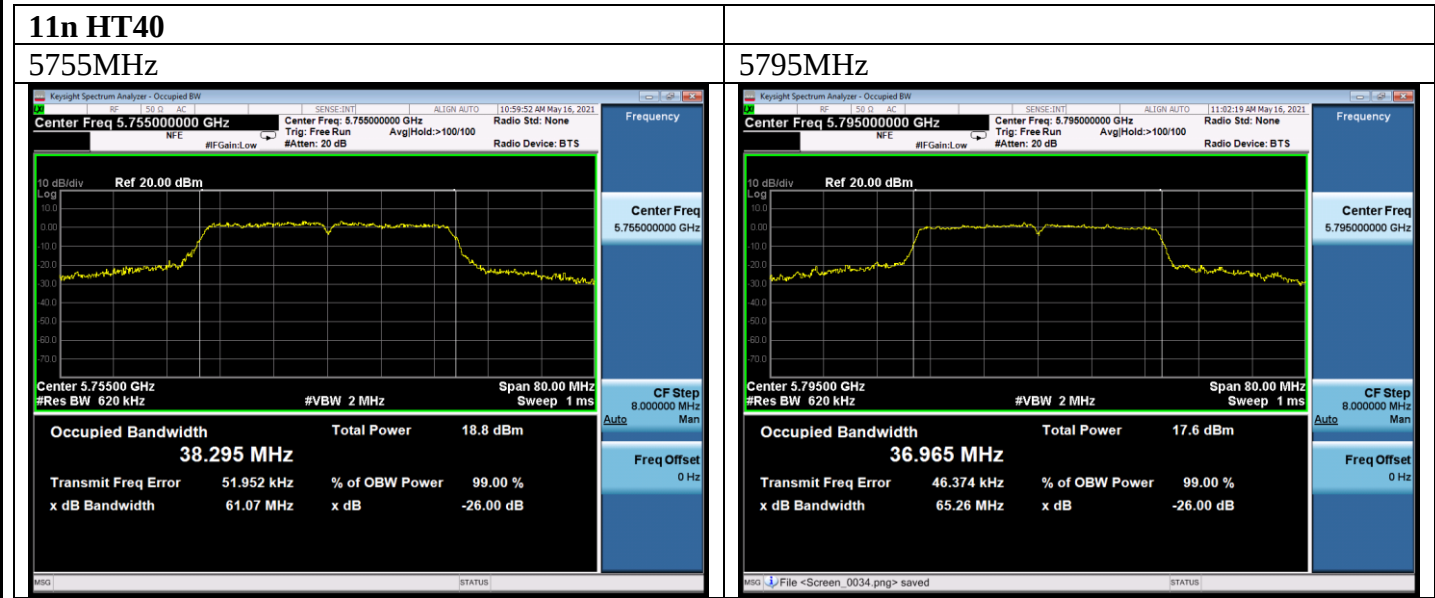


5825MHz

5825MHz



FCC ID: 2AZ3IBP5000



FCC ID: 2A23IBP5000

U-NII-3 Band:

26dB bandwidth

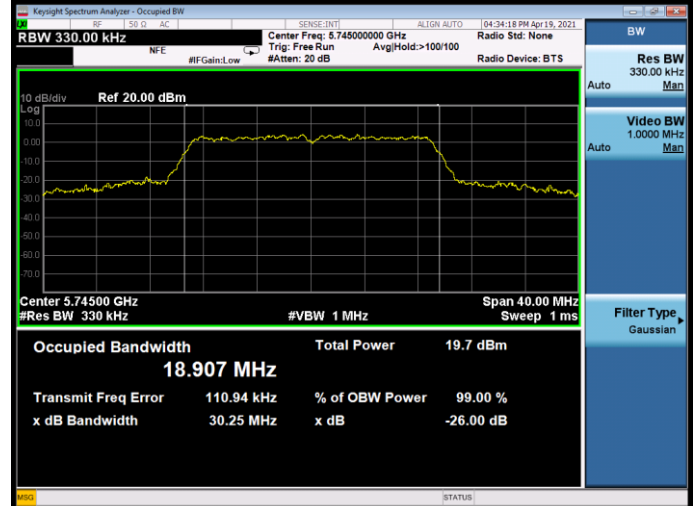
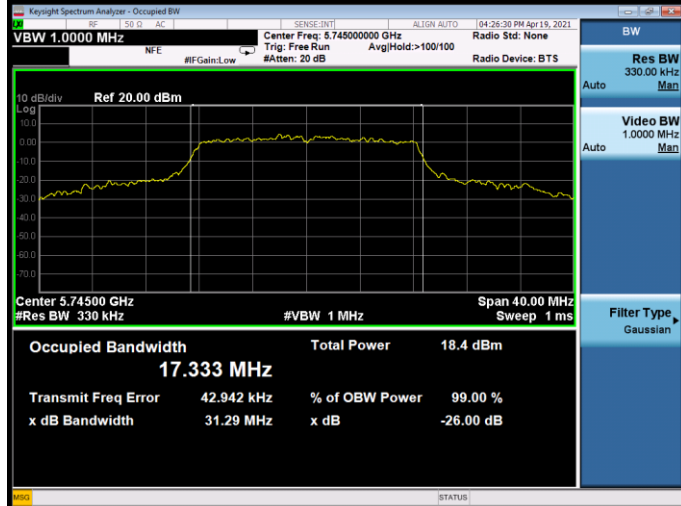
ANT2

11a

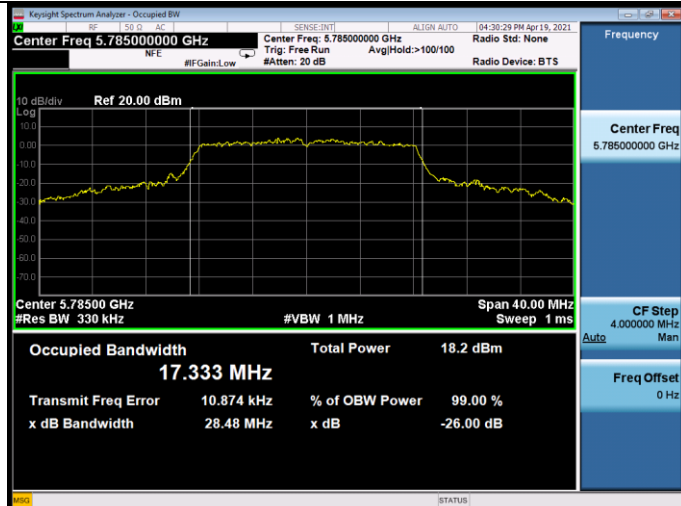
5745MHz

11n HT20

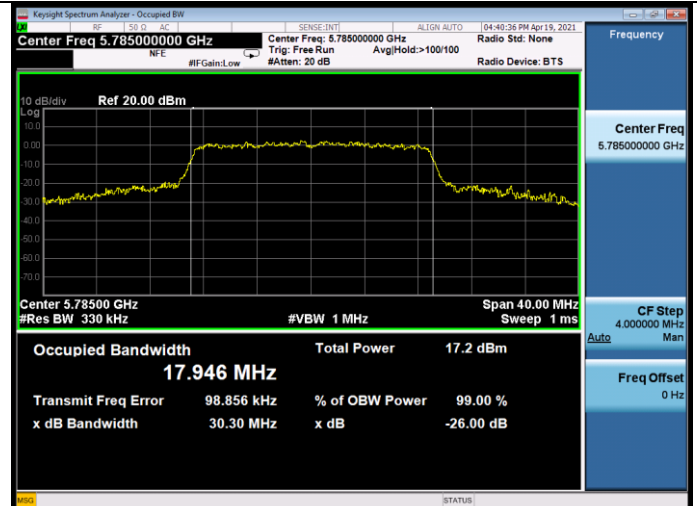
5745MHz



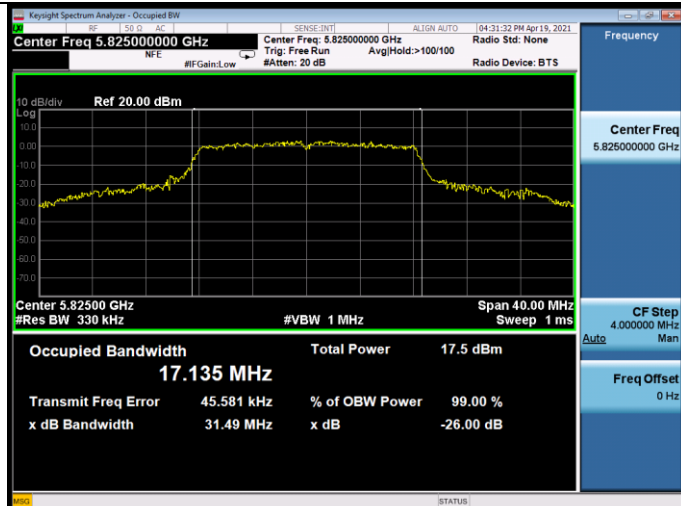
5785MHz



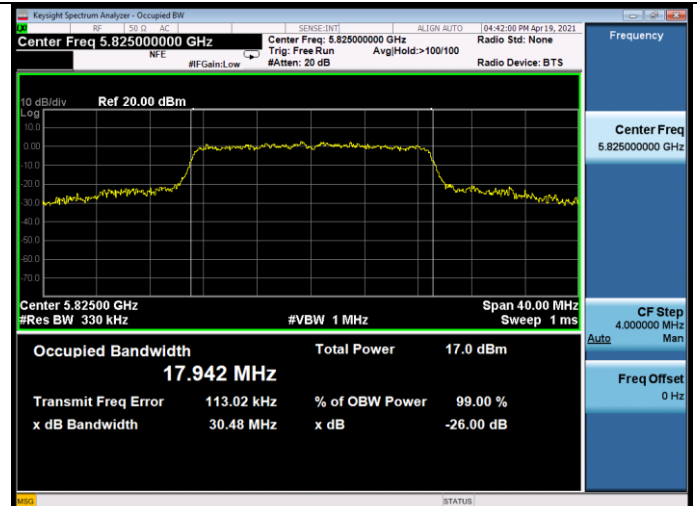
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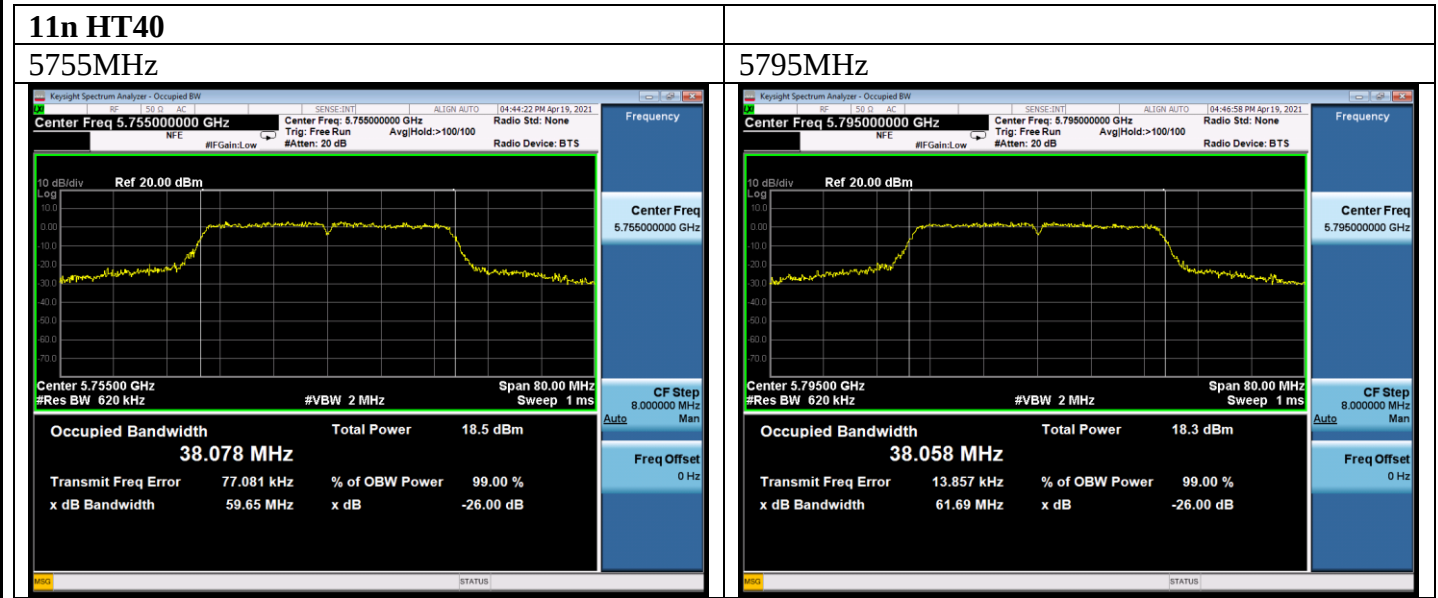
5825MHz



5825MHz



FCC ID: 2AZ3IBP5000



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	Apr.07,21	1Year
2.	Power meter	Anritsu	ML2487A	6K00002472	Apr.07,21	1Year
3.	Power Sensor	Anritsu	MA2491A	033005	Apr.06,21	1Year
4.	Attenuator	Agilent	8491B	MY39269201	Oct.12,20	1 Year
5.	RF Cable	Hubersuhner	SUCOFLE X-106	505238/6	Apr.07,21	1 Year

7.2. Limit

For the band 5.15–5.25GHz.

For mobile and portable client devices in the 5.15–5.25GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250mW provided the maximum antenna gain does not exceed 6dBi.

For the 5.25–5.35 GHz and 5.47–5.725GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250mW or 11dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1W.

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 = 1MHz.
- 4) Set VBW $\geq$ 3MHz.
- 5) Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This ensures that bin-to-bin spacing is $\leq \text{RBW}/2$, 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

U-NII-1 Band:

EUT: PROJECTOR		
M/N: BP5000		
Test date: 2021-04-19	Pressure: 102.8±1.0 kpa	Humidity: 53.1±3.0%
Tested by: Lynn	Test site: RF site	Temperature: 23.2±0.6 °C

Test Mode	Frequency (MHz)	Maximum Conducted output power (dBm)			Limit (dBm)
		ANT1	ANT2	Total	
11a	5180	13.19	13.39	16.30	23.98
	5200	13.64	13.18	16.43	
	5240	12.81	12.52	15.68	
11n HT20	5180	12.93	12.80	15.88	23.98
	5200	13.03	13.19	16.12	
	5240	12.49	12.44	15.48	
11n HT40	5190	12.80	12.73	15.78	23.98
	5230	12.82	12.33	15.59	

Conclusion: PASS

Note: 1. Directional Gain= $10 \lg[(10^{2.8/20} + 10^{2.8/20})^2 / 2]$ dBi

= 5.81 dBi > 6 dBi.

2. The transmit signals are correlated.

U-NII-3 Band:

EUT: PROJECTOR		
M/N: BP5000		
Test date: 2021-04-19	Pressure: 102.8±1.0 kpa	Humidity: 53.1±3.0%
Tested by: Lynn	Test site: RF site	Temperature: 23.2±0.6 °C

Test Mode	Frequency (MHz)	Maximum Conducted output power (dBm)			Limit (dBm)
		ANT1	ANT2	Total	
11a	5745	11.68	11.51	14.61	29.58
	5785	11.67	11.31	14.50	
	5825	11.16	11.11	14.15	
11n HT20	5745	11.07	11.34	14.22	29.58
	5785	10.76	11.10	13.94	
	5825	10.59	10.75	13.68	
11n HT40	5755	11.35	11.12	14.25	29.58
	5795	10.99	10.89	13.95	

Conclusion: PASS

Note: 1. Directional Gain= $10 \lg[(10^{3.7/20} + 10^{3.1/20})^2 / 2]$ dBi

= 6.42dBi > 6dBi.

2. The transmit signals are correlated.

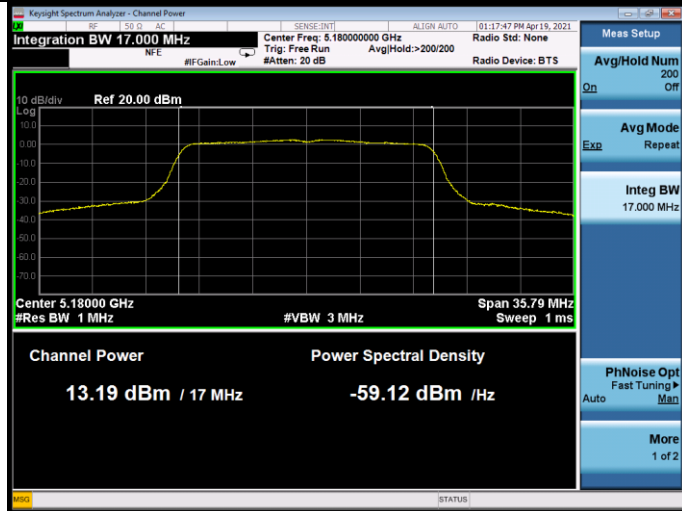
FCC ID: 2AZ3IBP5000

U-NII-1 Band:

ANT1

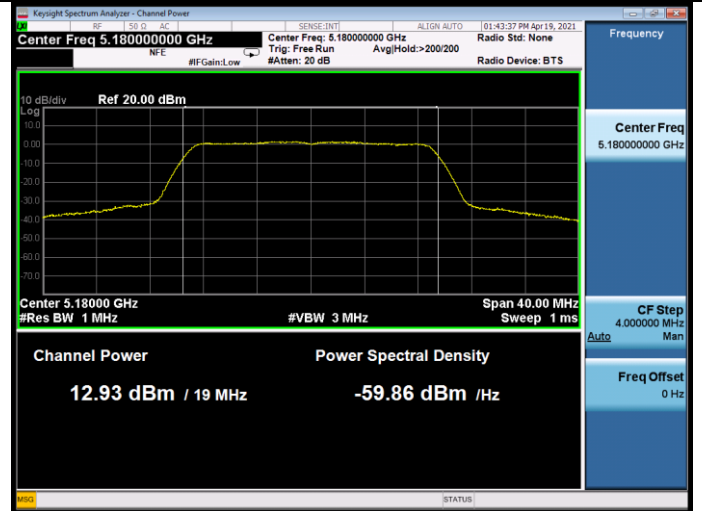
11a

5180MHz

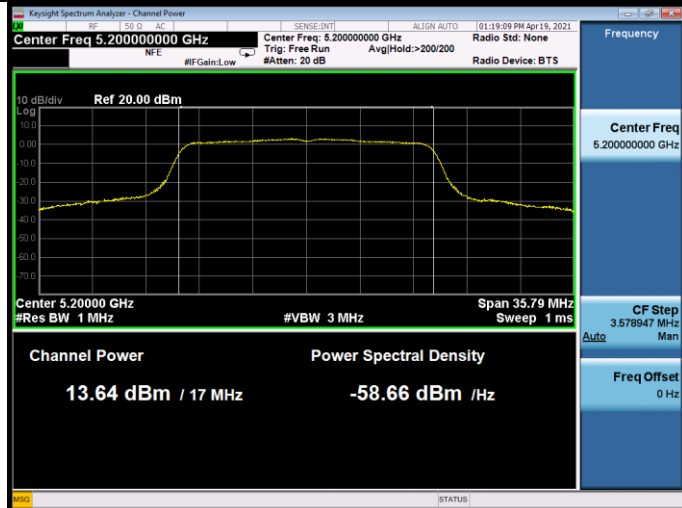


11n HT20

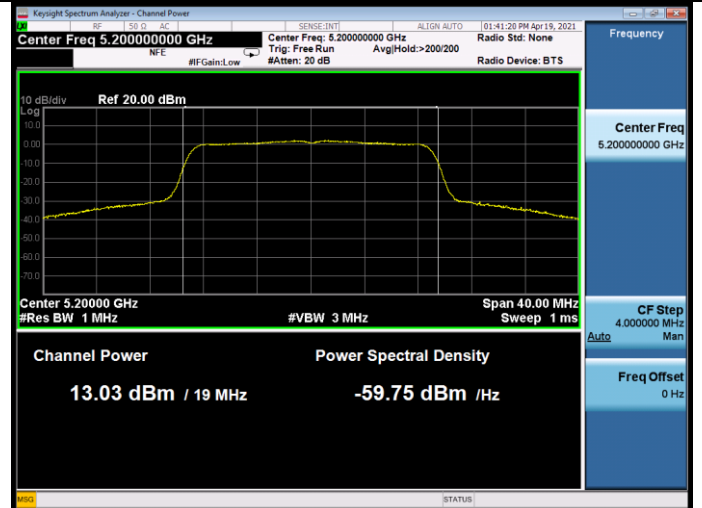
5180MHz



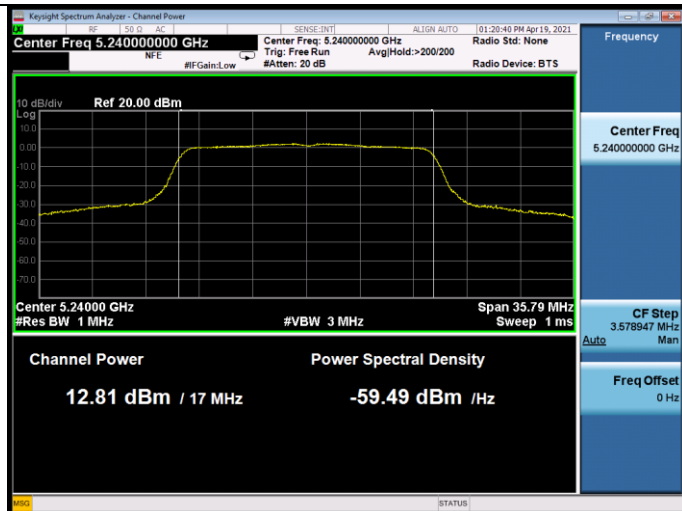
5200MHz



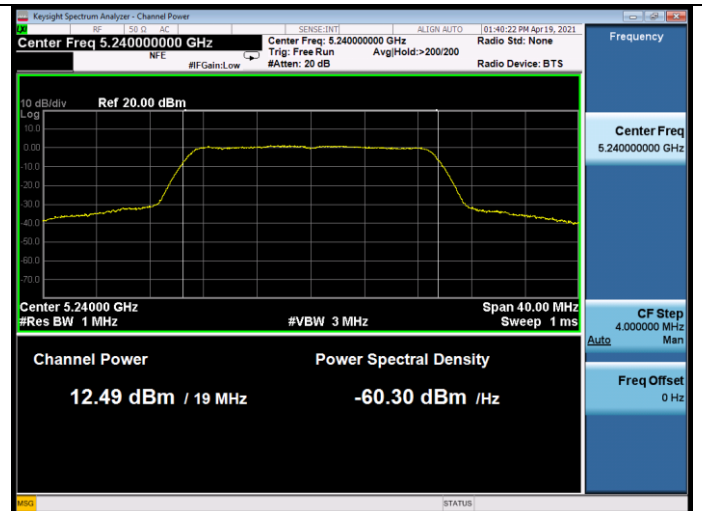
5200MHz



5240MHz



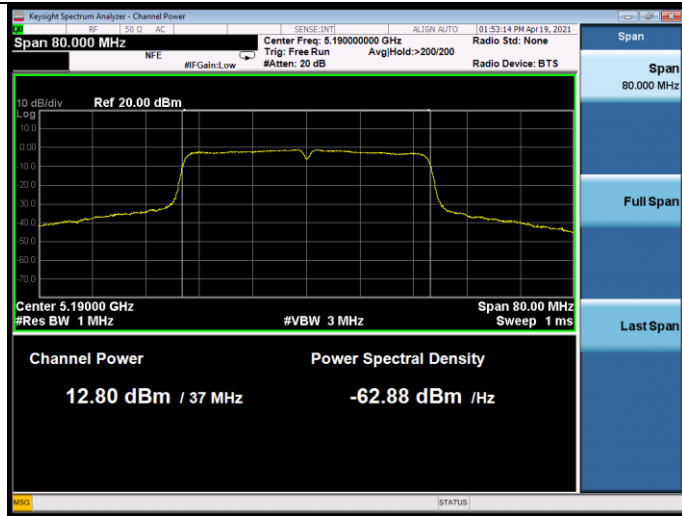
5240MHz



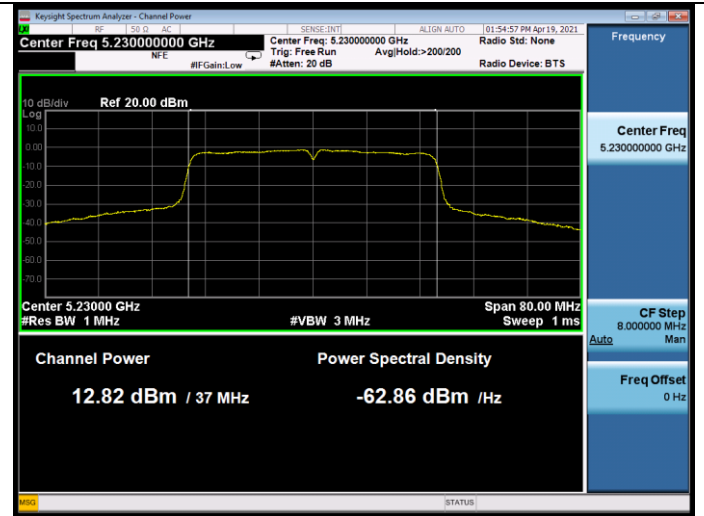
FCC ID: 2AZ3IBP5000

11n HT40

5190MHz



5230MHz



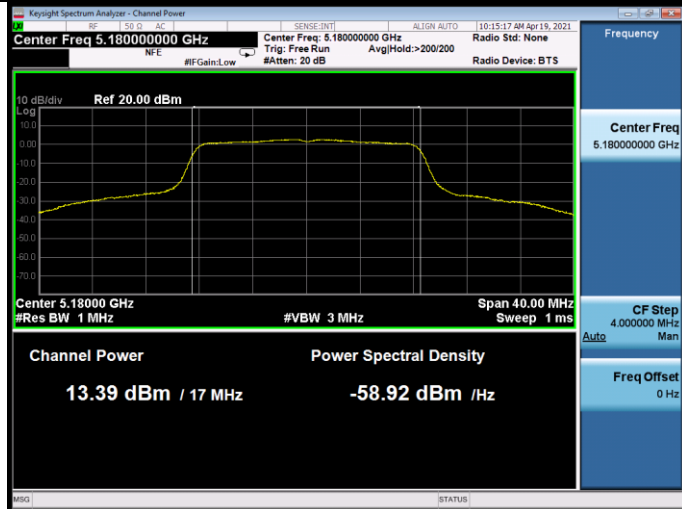
FCC ID: 2A3ZIBP5000

U-NII-1 Band:

ANT2

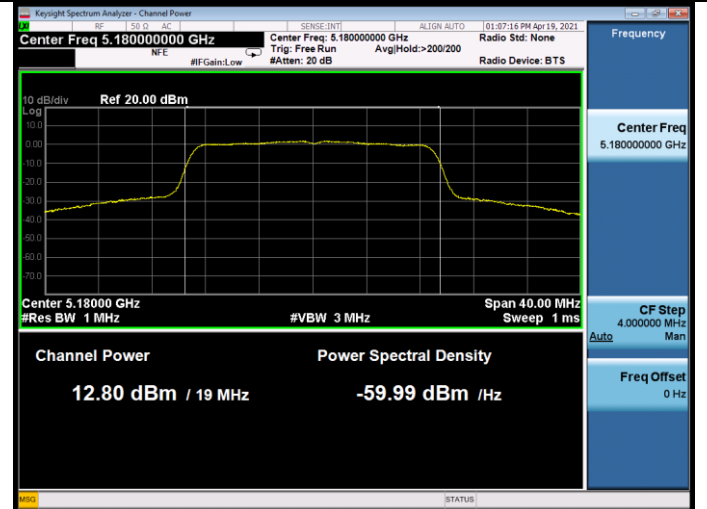
11a

5180MHz

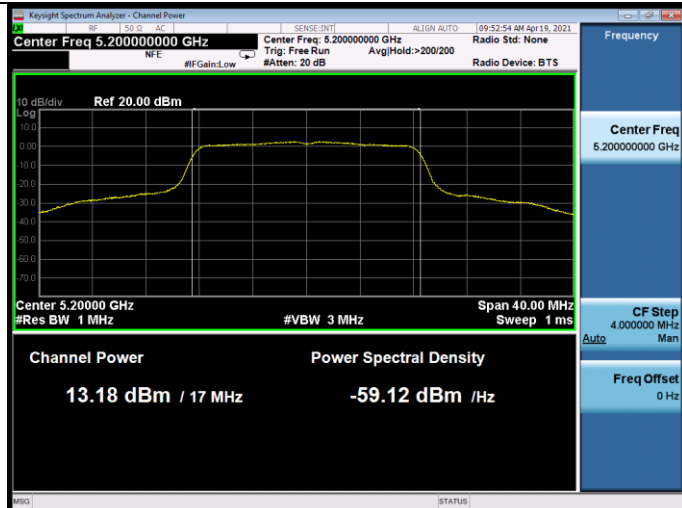


11n HT20

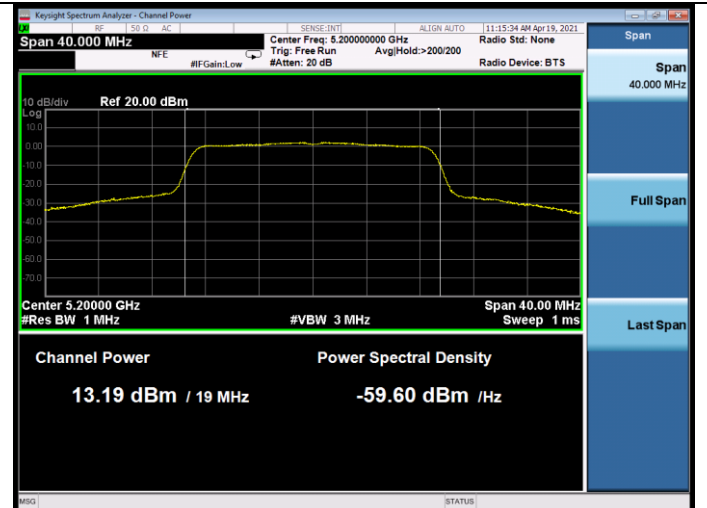
5180MHz



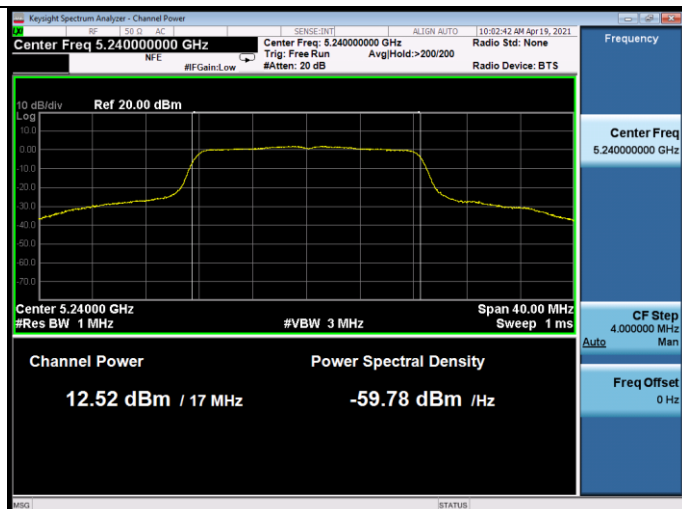
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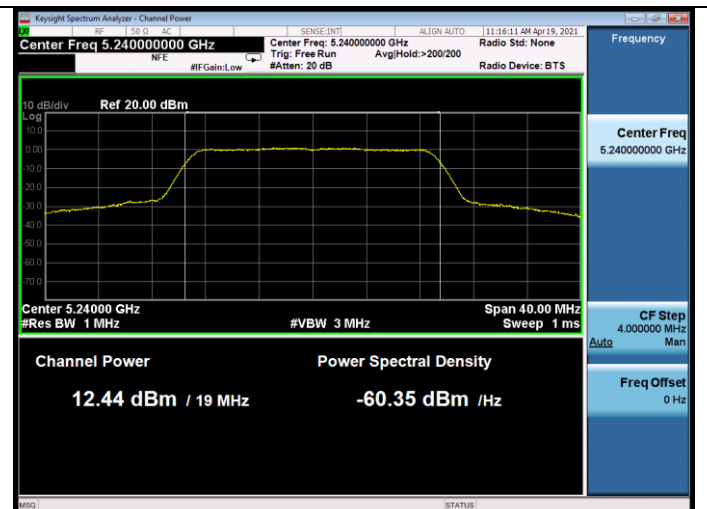
5200MHz



5240MHz

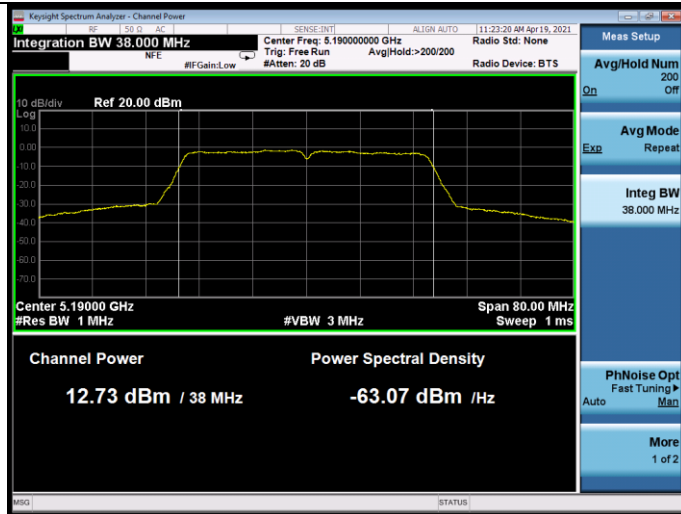


5240MHz

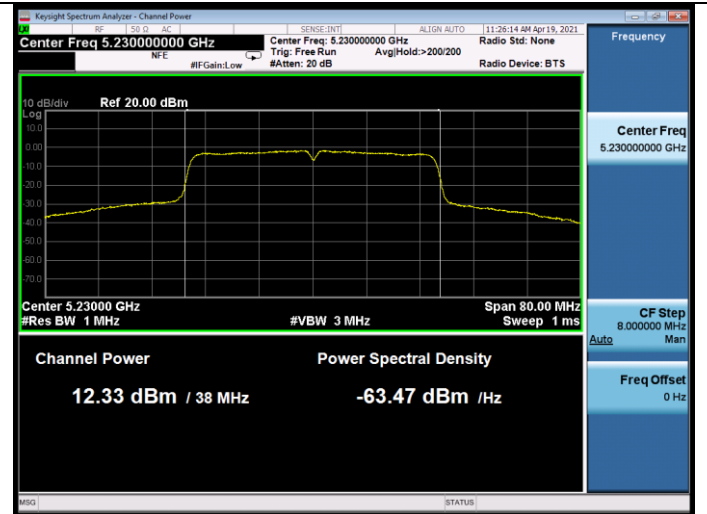


11n HT40

5190MHz



5230MHz



FCC ID: 2AZ3IBP5000

U-NII-3 Band:

ANT1

11a

5745MHz

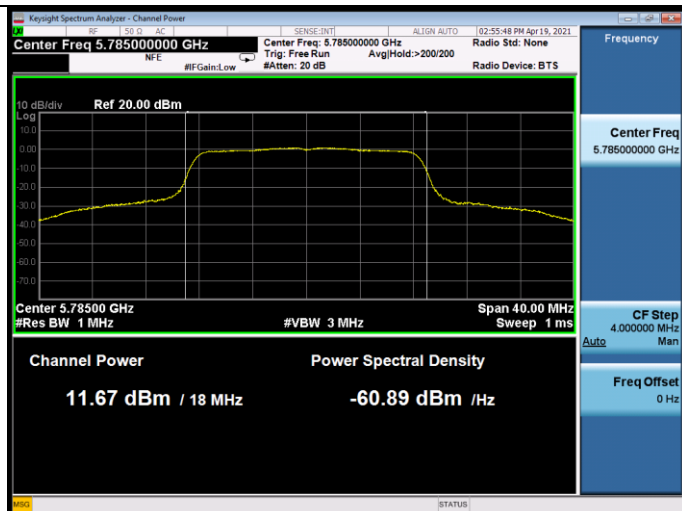


11n HT20

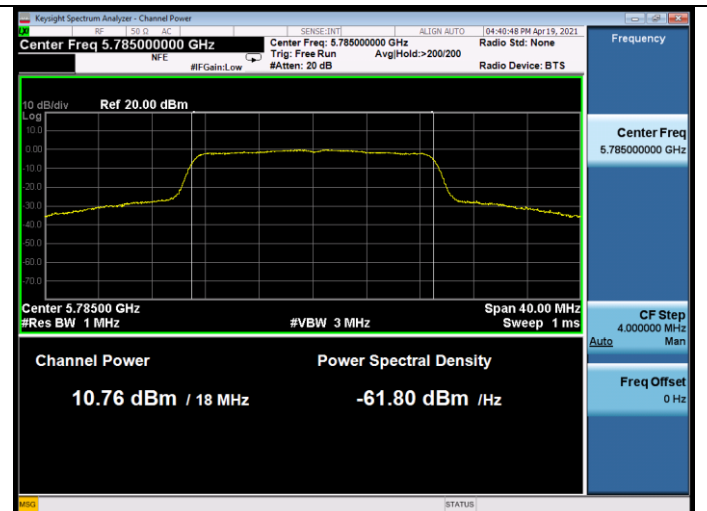
5745MHz



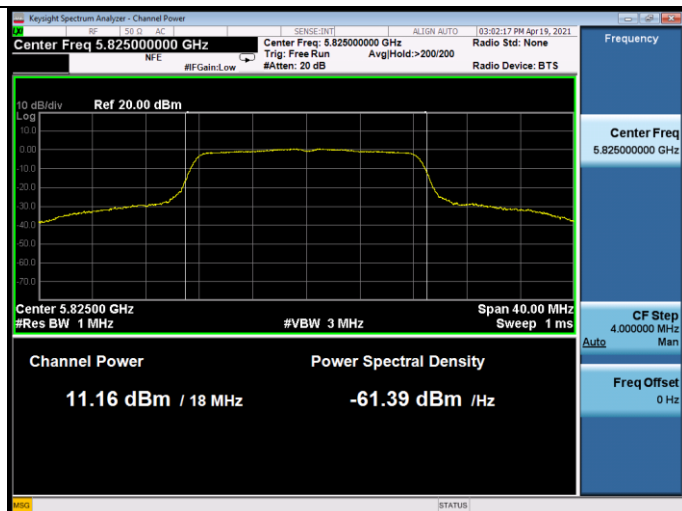
5785MHz



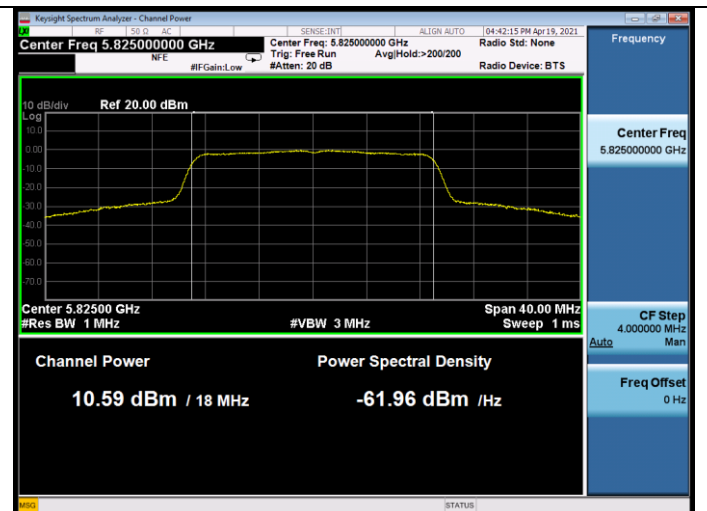
5785MHz



5825MHz



5825MHz



FCC ID: 2AZ3IBP5000

