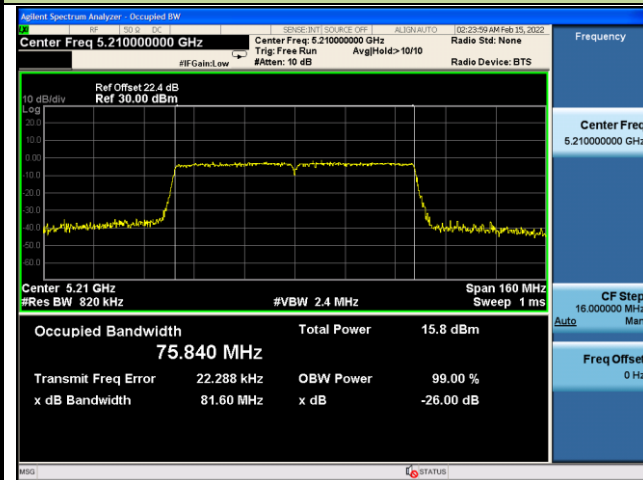
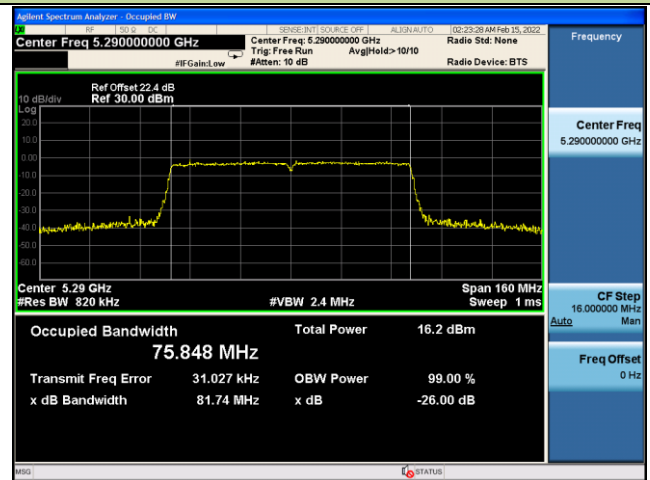


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth - Ant 1

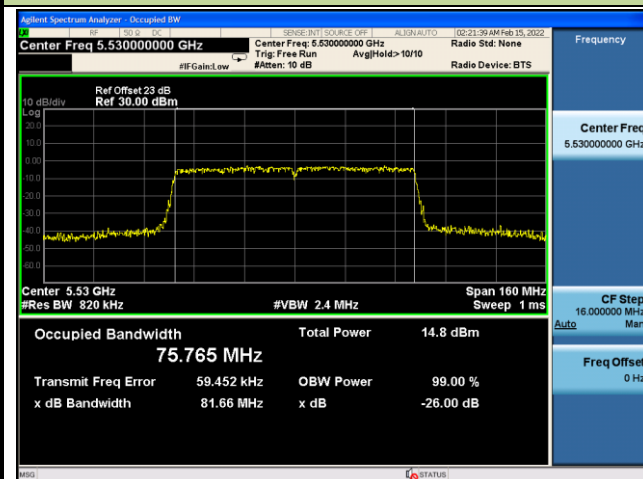
Channel 42 (5210MHz)



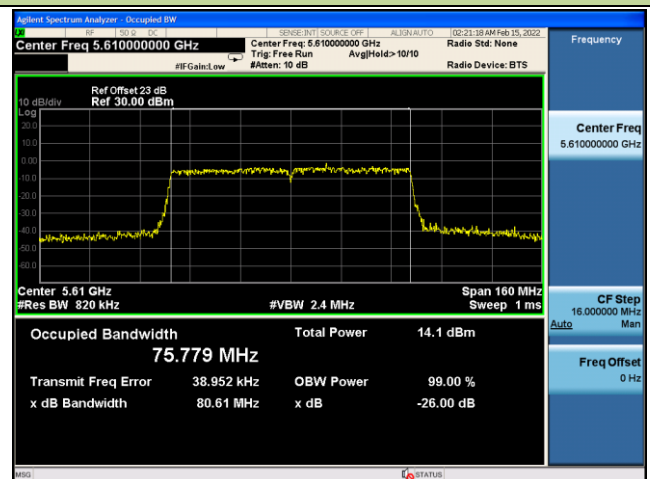
Channel 58 (5290MHz)



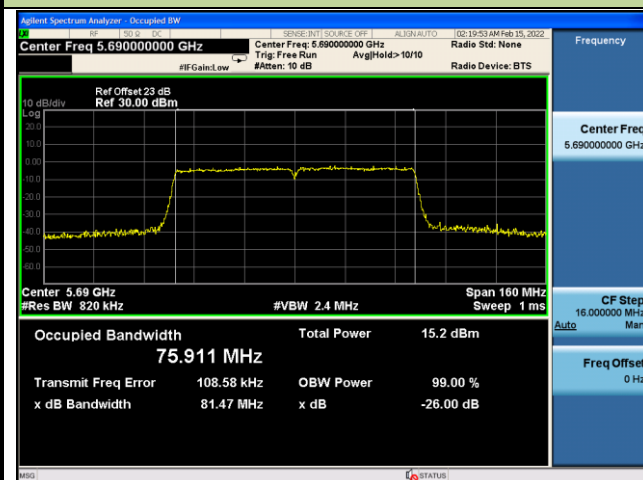
Channel 106 (5530MHz)



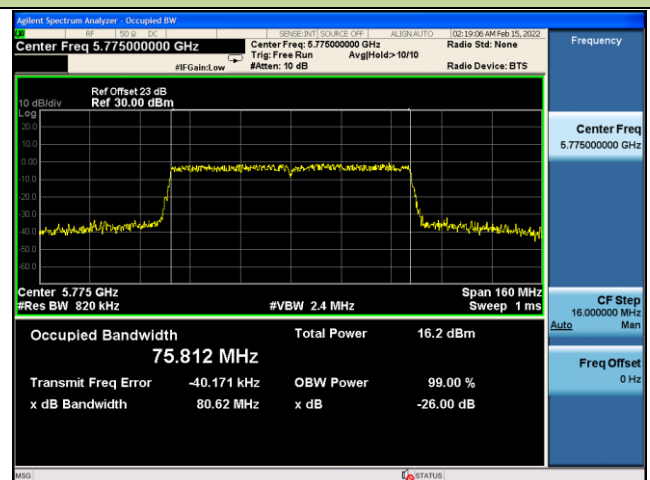
Channel 122 (5610MHz)



Channel 138 (5690MHz)



Channel 155 (5775MHz)



7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

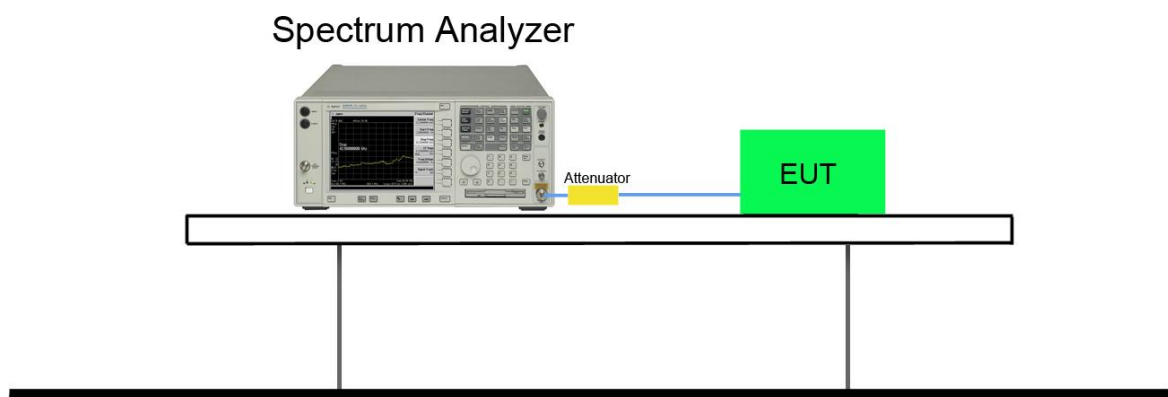
7.3.2. Test Procedure used

KDB 789033 D02v02r01 - Section C.2

7.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.4. Test Setup



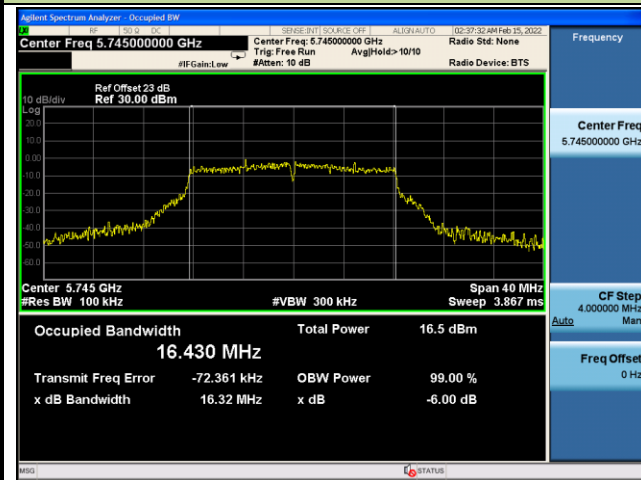
7.3.5. Test Result

Product	Module	Test Engineer	Peter
Test Site	SR5	Test Date	2022/2/15
Test Item	6dB Bandwidth		

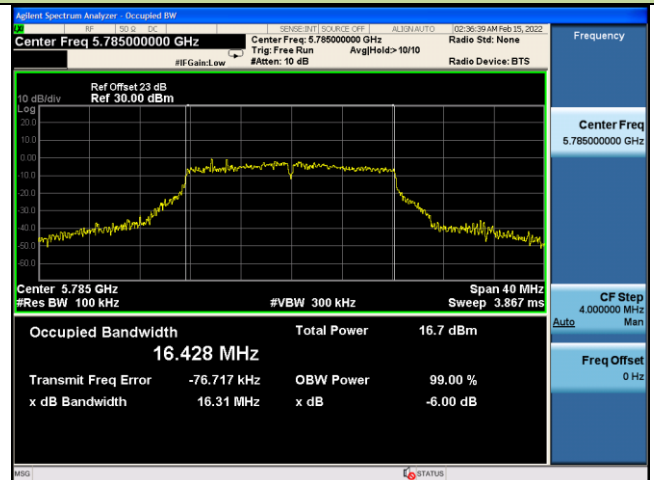
Test Mode	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Antenna 1					
802.11a	149	5745	16.320	≥ 0.5	Pass
802.11a	157	5785	16.310	≥ 0.5	Pass
802.11a	165	5825	16.290	≥ 0.5	Pass
802.11n-HT20	149	5745	17.310	≥ 0.5	Pass
802.11n-HT20	157	5785	17.580	≥ 0.5	Pass
802.11n-HT20	165	5825	17.280	≥ 0.5	Pass
802.11n-HT40	151	5755	36.400	≥ 0.5	Pass
802.11n-HT40	159	5795	36.340	≥ 0.5	Pass
802.11ac-VHT80	155	5775	76.460	≥ 0.5	Pass

802.11a 6dB Bandwidth - Ant 1

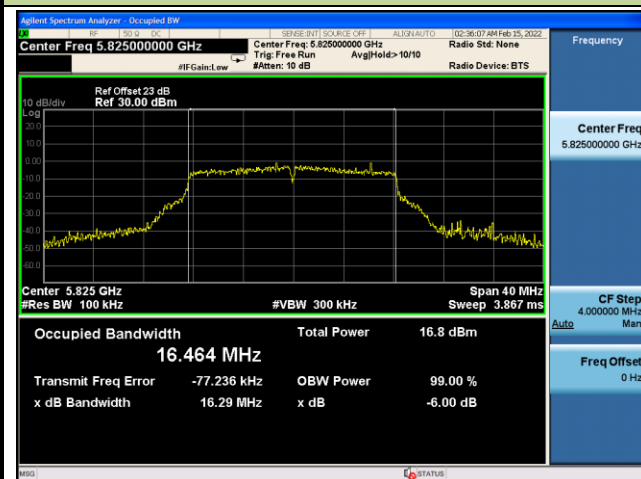
Channel 149 (5745MHz)



Channel 157 (5785MHz)

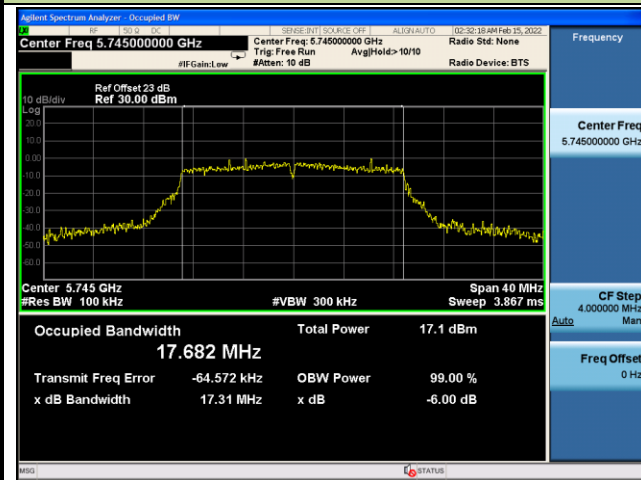


Channel 165 (5825MHz)

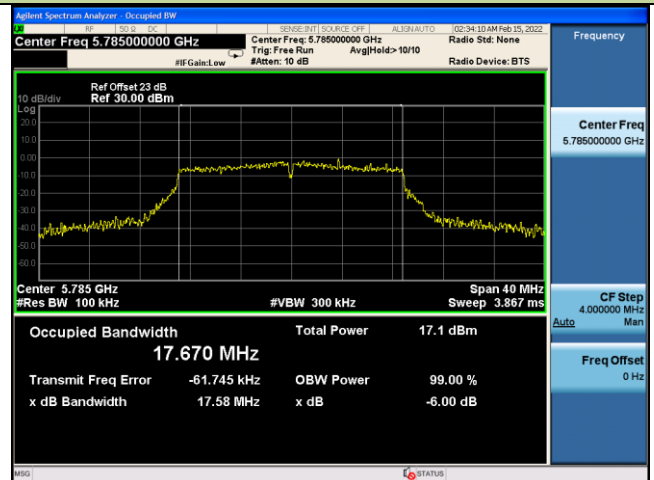


802.11n-HT20 6dB Bandwidth - Ant 1

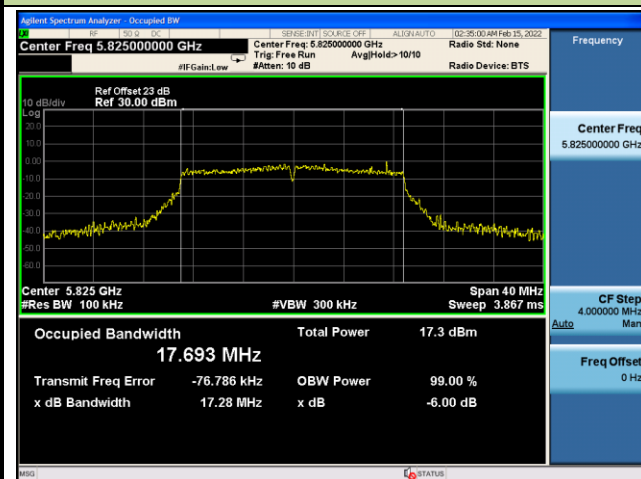
Channel 149 (5745MHz)



Channel 157 (5785MHz)

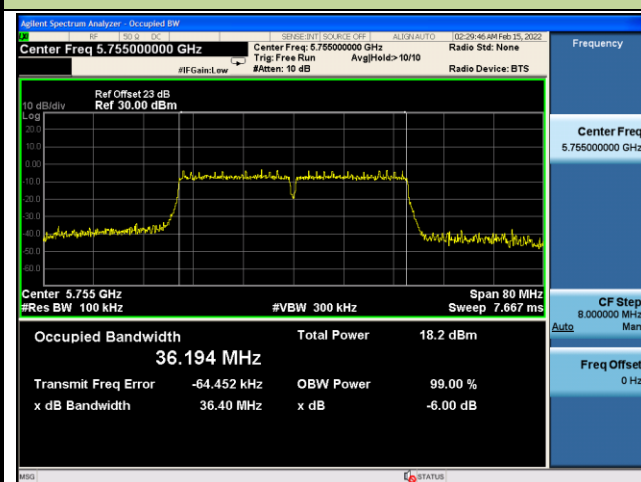


Channel 165 (5825MHz)

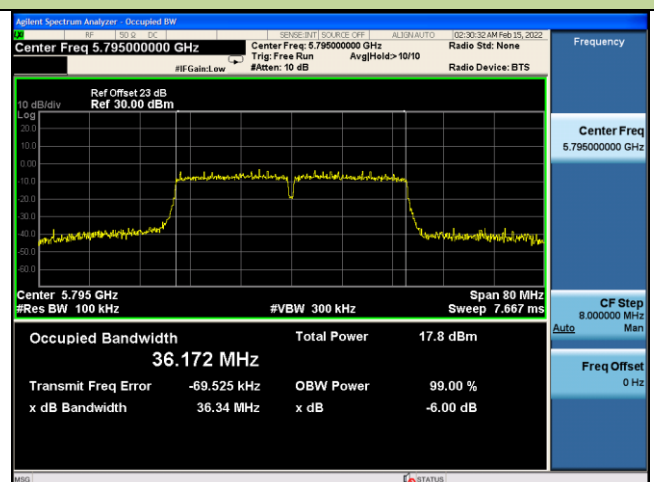


802.11n-HT40 6dB Bandwidth - Ant 1

Channel 151 (5755MHz)

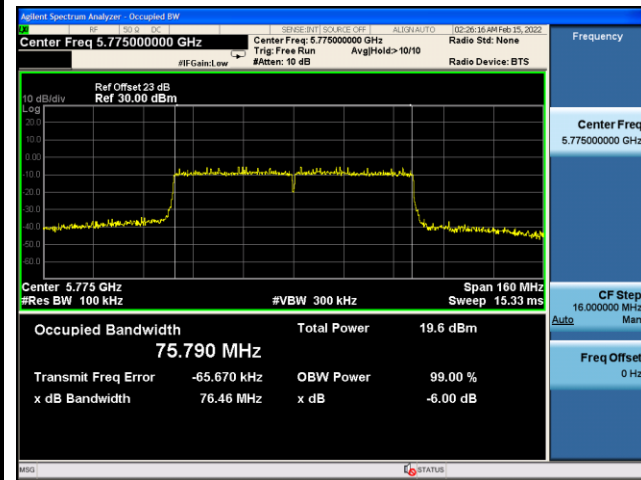


Channel 159 (5795MHz)



802.11ac-VHT80 6dB Bandwidth - Ant 1

Channel 155 (5775MHz)



7.4. Output Power Measurement

7.4.1. Test Limit

For FCC Power Measurement Limit

For client operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 250mW.

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 (23.98dBm) or $11\text{dBm} + 10 \log(26\text{dB BW})$.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

For IC Power Measurement Limit

For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW (23.01dBm) or $10 + 10 \cdot \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed 250 mW (23.98dBm) or $11 + 10 \log_{10} B$, dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W (30dBm) or $17 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.

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

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

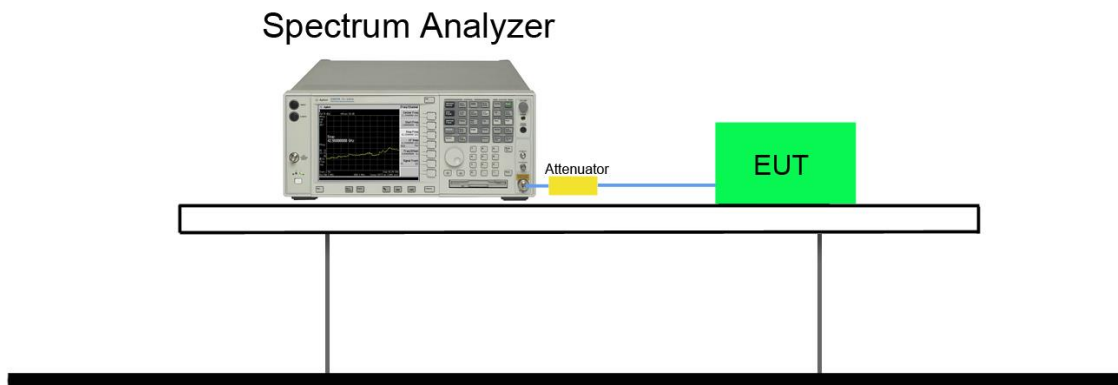
7.4.2. Test Procedure Used

KDB 789033 D02v02r01 - Section E) 2) Method SA

7.4.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.4.4. Test Setup



7.4.5. Test Result

Product	Module	Test Engineer	Peter
Test Site	SR5	Test Date	2022/2/11~2022/2/12
Test Item	Output Power		

FCC Power:

Model	Rate	Ch.	Freq. (MHz)	Ant 0 Power (dBm)	Ant 1 Power (dBm)	Ant 0+1 Power (dBm)	Power Limit (dBm)
802.11a Band1	6M	36	5180	12.72	13.76	16.37	≤ 23.98
	6M	44	5220	12.66	13.94	16.44	≤ 23.98
	6M	48	5240	12.86	14.03	16.58	≤ 23.98
802.11a Band2	6M	52	5260	13.53	15.10	17.48	≤ 23.98
	6M	60	5300	13.49	15.05	17.43	≤ 23.98
	6M	64	5320	13.42	14.90	17.32	≤ 23.98
802.11a Band3	6M	100	5500	9.65	11.26	13.62	≤ 23.98
	6M	116	5580	9.77	11.33	13.71	≤ 23.98
	6M	140	5700	9.92	11.56	13.91	≤ 23.98
	6M	144	5720	9.90	11.68	13.97	≤ 22.90
802.11a Band4	6M	149	5745	17.29	18.66	21.12	≤ 30.00
	6M	157	5785	17.37	19.05	21.38	≤ 30.00
	6M	165	5825	17.58	18.96	21.42	≤ 30.00
n-HT20 Band1	MCS0	36	5180	12.68	14.02	16.47	≤ 23.98
	MCS0	44	5220	12.93	14.21	16.68	≤ 23.98
	MCS0	48	5240	12.84	14.11	16.59	≤ 23.98
n-HT20 Band2	MCS0	52	5260	13.40	14.64	17.13	≤ 23.98
	MCS0	60	5300	13.17	14.76	17.10	≤ 23.98
	MCS0	64	5320	13.27	14.96	17.26	≤ 23.98
n-HT20 Band3	MCS0	100	5500	10.20	11.75	14.11	≤ 23.98
	MCS0	116	5600	10.03	11.52	13.90	≤ 23.98
	MCS0	140	5700	9.56	11.34	13.61	≤ 23.98
	MCS0	144	5720	10.24	11.75	14.13	≤ 22.91
n-HT20 Band4	MCS0	149	5745	17.69	19.11	21.52	≤ 30.00
	MCS0	157	5785	17.63	19.09	21.49	≤ 30.00
	MCS0	165	5825	17.28	19.38	21.52	≤ 30.00
ac-VHT20 Band1	MCS0	36	5180	12.57	13.77	16.27	≤ 23.98

	MCS0	44	5220	12.78	13.88	16.42	≤ 23.98
	MCS0	48	5240	12.70	13.96	16.43	≤ 23.98
ac-VHT20 Band2	MCS0	52	5260	13.04	14.84	17.09	≤ 23.98
	MCS0	60	5300	13.04	14.79	17.06	≤ 23.98
	MCS0	64	5320	13.12	14.72	17.05	≤ 23.98
ac-VHT20 Band3	MCS0	100	5500	10.10	11.73	14.05	≤ 23.98
	MCS0	116	5580	9.85	11.36	13.73	≤ 23.98
	MCS0	140	5700	9.44	10.96	13.32	≤ 23.98
	MCS0	144	5720	9.80	11.42	13.74	≤ 22.91
ac-VHT20 Band4	MCS0	149	5745	16.95	18.22	20.69	≤ 30.00
	MCS0	157	5785	17.38	18.62	21.10	≤ 30.00
	MCS0	165	5825	17.16	18.45	20.91	≤ 30.00
n-HT40 Band1	MCS0	38	5190	9.63	11.09	13.58	≤ 23.98
	MCS0	46	5230	9.62	11.18	13.63	≤ 23.98
n-HT40 Band2	MCS0	54	5270	9.47	11.07	13.50	≤ 23.98
	MCS0	62	5310	9.31	10.90	13.34	≤ 23.98
n-HT40 Band3	MCS0	102	5510	7.16	8.78	11.20	≤ 23.98
	MCS0	110	5550	7.13	8.67	11.13	≤ 23.98
	MCS0	134	5670	6.63	8.35	10.73	≤ 23.98
	MCS0	142	5710	6.94	8.61	11.01	≤ 23.98
n-HT40 Band4	MCS0	151	5755	16.80	17.52	20.33	≤ 30.00
	MCS0	159	5795	17.43	18.70	21.27	≤ 30.00
ac-VHT40 Band1	MCS0	38	5190	9.40	11.05	13.36	≤ 23.98
	MCS0	46	5230	9.55	11.07	13.43	≤ 23.98
ac-VHT40 Band2	MCS0	54	5270	9.44	11.02	13.35	≤ 23.98
	MCS0	62	5310	9.09	10.67	13.00	≤ 23.98
ac-VHT40 Band3	MCS0	102	5510	7.10	8.44	10.87	≤ 23.98
	MCS0	110	5550	6.74	8.46	10.74	≤ 23.98
	MCS0	134	5670	6.55	8.25	10.53	≤ 23.98
	MCS0	142	5710	6.93	8.44	10.80	≤ 23.98
ac-VHT40 Band4	MCS0	151	5755	16.60	17.38	20.06	≤ 30.00
	MCS0	159	5795	17.36	18.30	20.91	≤ 30.00
ac-VHT80 Band1	MCS0	42	5210	8.62	9.64	12.25	≤ 23.98
ac-VHT80 Band2	MCS0	58	5290	8.29	9.54	12.05	≤ 23.98
ac-VHT80 Band3	MCS0	106	5530	7.07	9.10	11.29	≤ 23.98

	MCS0	122	5610	6.93	8.65	10.97	≤ 23.98
	MCS0	138	5690	6.93	8.67	10.98	≤ 23.98
ac-VHT80 Band4	MCS0	155	5775	11.66	12.43	15.15	≤ 30.00

Note: The Total Power (dBm) = $10 \cdot \log \{10^{(\text{Ant 0 Power} / 10)} + 10^{(\text{Ant 1 Power} / 10)}\}$.

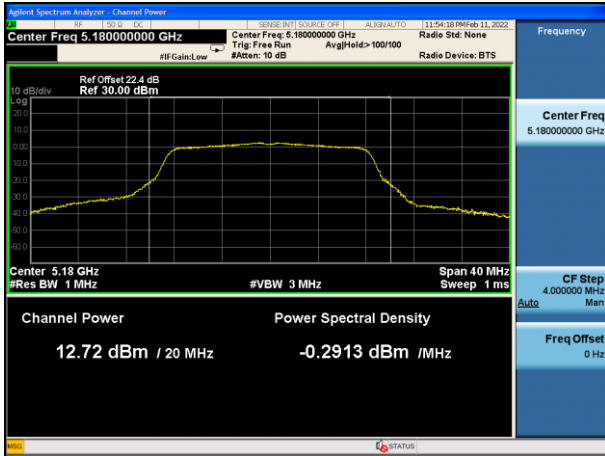
IC Power:

Model	Rate	Ch.	Freq. (MHz)	Ant 0 AV Power (dBm)	Ant 1 AV Power (dBm)	Total Power (dBm)	Power Limit (dBm)	Ant Gain (dBi)	E.I.R.P Power (dBm)	E.I.R.P Limit (dBm)
802.11a Band1	6M	36	5180	7.69	8.21	11.05	N/A	4.92	15.97	≤ 22.21
	6M	44	5220	7.85	8.24	11.14	N/A	4.92	16.06	≤ 22.21
	6M	48	5240	7.92	8.40	11.26	N/A	4.92	16.18	≤ 22.21
802.11a Band2	6M	52	5260	13.53	15.10	17.48	≤ 23.21	4.92	22.40	≤ 29.21
	6M	60	5300	13.49	15.05	17.43	≤ 23.21	4.92	22.35	≤ 29.21
	6M	64	5320	13.42	14.90	17.32	≤ 23.21	4.92	22.24	≤ 29.21
802.11a Band3	6M	100	5500	9.65	11.26	13.62	≤ 23.18	4.92	18.54	≤ 29.18
	6M	116	5580	9.77	11.33	13.71	≤ 23.18	4.92	18.63	≤ 29.18
	6M	140	5700	9.92	11.56	13.91	≤ 23.18	4.92	18.83	≤ 29.18
	6M	144	5720	9.90	11.68	13.97	≤ 17.99	4.92	18.89	≤ 23.99
802.11a Band4	6M	149	5745	17.29	18.66	21.12	≤ 30.00	N/A	N/A	N/A
	6M	157	5785	17.37	19.05	21.38	≤ 30.00	N/A	N/A	N/A
	6M	165	5825	17.58	18.96	21.42	≤ 30.00	N/A	N/A	N/A
n-HT20 Band1	MCS0	36	5180	7.70	8.11	10.98	N/A	4.92	15.90	≤ 22.49
	MCS0	44	5220	7.87	8.19	11.10	N/A	4.92	16.02	≤ 22.49
	MCS0	48	5240	7.69	8.18	11.01	N/A	4.92	15.93	≤ 22.49
n-HT20 Band2	MCS0	52	5260	13.40	14.64	17.13	≤ 23.49	4.92	22.05	≤ 29.49
	MCS0	60	5300	13.17	14.76	17.10	≤ 23.49	4.92	22.02	≤ 29.49
	MCS0	64	5320	13.27	14.96	17.26	≤ 23.49	4.92	22.18	≤ 29.49
n-HT20 Band3	MCS0	100	5500	10.20	11.75	14.11	≤ 23.49	4.92	19.03	≤ 29.49
	MCS0	116	5580	10.03	11.52	13.90	≤ 23.49	4.92	18.82	≤ 29.49
	MCS0	140	5700	9.56	11.34	13.61	≤ 23.49	4.92	18.53	≤ 29.49
	MCS0	144	5720	10.24	11.75	14.13	≤ 17.99	4.92	19.05	≤ 23.99
n-HT20 Band4	MCS0	149	5745	17.69	19.11	21.52	≤ 30.00	N/A	N/A	N/A
	MCS0	157	5785	17.63	19.09	21.49	≤ 30.00	N/A	N/A	N/A
	MCS0	165	5825	17.28	19.38	21.52	≤ 30.00	N/A	N/A	N/A
ac-VHT20 Band1	MCS0	36	5180	12.57	13.77	16.27	N/A	4.92	21.19	≤ 22.49
	MCS0	44	5220	12.78	13.88	16.42	N/A	4.92	21.34	≤ 22.49
	MCS0	48	5240	12.70	13.96	16.43	N/A	4.92	21.35	≤ 22.49
ac-VHT20 Band2	MCS0	52	5260	13.04	14.84	17.09	≤ 23.49	4.92	22.01	≤ 29.49
	MCS0	60	5300	13.04	14.79	17.06	≤ 23.49	4.92	21.98	≤ 29.49

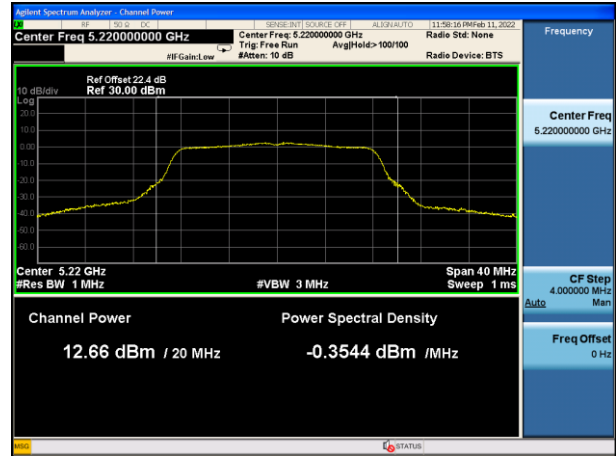
	MCS0	64	5320	13.12	14.72	17.05	≤ 23.49	4.92	21.97	≤ 29.49
ac-VHT20 Band3	MCS0	100	5500	10.10	11.73	14.05	≤ 23.49	4.92	18.97	≤ 29.49
	MCS0	116	5580	9.85	11.36	13.73	≤ 23.49	4.92	18.65	≤ 29.49
	MCS0	140	5700	9.44	10.96	13.32	≤ 23.49	4.92	18.24	≤ 29.49
	MCS0	144	5720	9.80	11.42	13.74	≤ 17.99	4.92	18.66	≤ 23.99
ac-VHT20 Band4	MCS0	149	5745	16.95	18.22	20.69	≤ 30.00	N/A	N/A	N/A
	MCS0	157	5785	17.38	18.62	21.10	≤ 30.00	N/A	N/A	N/A
	MCS0	165	5825	17.16	18.45	20.91	≤ 30.00	N/A	N/A	N/A
n-HT40 Band1	MCS0	38	5190	9.63	11.09	13.58	N/A	4.92	18.50	≤ 23.01
	MCS0	46	5230	9.62	11.18	13.63	N/A	4.92	18.55	≤ 23.01
n-HT40 Band2	MCS0	54	5270	9.47	11.07	13.50	≤ 23.98	4.92	18.42	≤ 29.98
	MCS0	62	5310	9.31	10.90	13.34	≤ 23.98	4.92	18.26	≤ 29.98
n-HT40 Band3	MCS0	102	5510	7.16	8.78	11.20	≤ 23.98	4.92	16.12	≤ 29.98
	MCS0	110	5550	7.13	8.67	11.13	≤ 23.98	4.92	16.05	≤ 29.98
	MCS0	134	5670	6.63	8.35	10.73	≤ 23.98	4.92	15.65	≤ 29.98
	MCS0	142	5710	6.94	8.61	11.01	≤ 23.98	4.92	15.93	≤ 29.98
n-HT40 Band4	MCS0	151	5755	16.80	17.52	20.33	≤ 30.00	N/A	N/A	N/A
	MCS0	159	5795	17.43	18.70	21.27	≤ 30.00	N/A	N/A	N/A
ac-VHT40 Band1	MCS0	38	5190	9.40	11.05	13.36	N/A	4.92	18.28	≤ 23.01
	MCS0	46	5230	9.55	11.07	13.43	N/A	4.92	18.35	≤ 23.01
ac-VHT40 Band2	MCS0	54	5270	9.44	11.02	13.35	≤ 23.98	4.92	18.27	≤ 29.98
	MCS0	62	5310	9.09	10.67	13.00	≤ 23.98	4.92	17.92	≤ 29.98
ac-VHT40 Band3	MCS0	102	5510	7.10	8.44	10.87	≤ 23.98	4.92	15.79	≤ 29.98
	MCS0	110	5550	6.74	8.46	10.74	≤ 23.98	4.92	15.66	≤ 29.98
	MCS0	134	5670	6.55	8.25	10.53	≤ 23.98	4.92	15.45	≤ 29.98
	MCS0	142	5710	6.93	8.44	10.80	≤ 23.98	4.92	15.72	≤ 29.98
ac-VHT40 Band4	MCS0	151	5755	16.60	17.38	20.06	≤ 30.00	N/A	N/A	N/A
	MCS0	159	5795	17.36	18.30	20.91	≤ 30.00	N/A	N/A	N/A
ac-VHT80 Band1	MCS0	42	5210	8.62	9.64	12.25	N/A	4.92	17.17	≤ 23.01
ac-VHT80 Band2	MCS0	58	5290	8.29	9.54	12.05	≤ 23.98	4.92	16.97	≤ 29.98
ac-VHT80 Band3	MCS0	106	5530	7.07	9.10	11.29	≤ 23.98	4.92	16.21	≤ 29.98
	MCS0	122	5610	6.93	8.65	10.97	≤ 23.98	4.92	15.89	≤ 29.98
	MCS0	138	5690	6.93	8.67	10.98	≤ 23.98	4.92	15.90	≤ 29.98
ac-VHT80 Band4	MCS0	155	5775	11.66	12.43	15.15	≤ 30.00	N/A	N/A	N/A

Ant 0

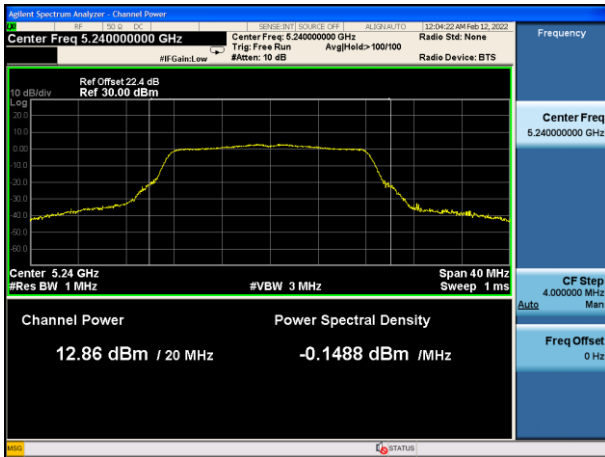
802.11 a CH36 (5180MHz)



802.11 a CH44 (5220MHz)



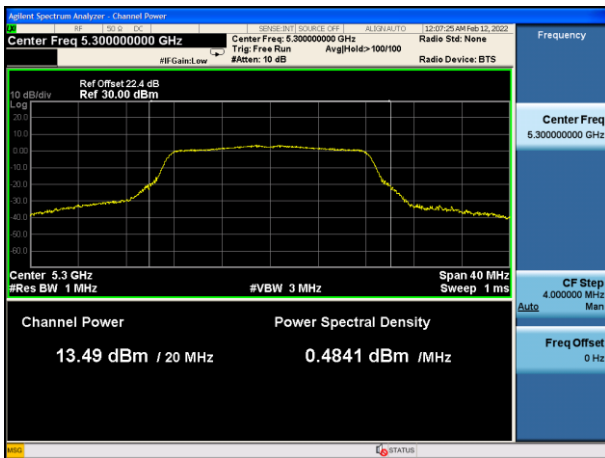
802.11 a CH48 (5240MHz)



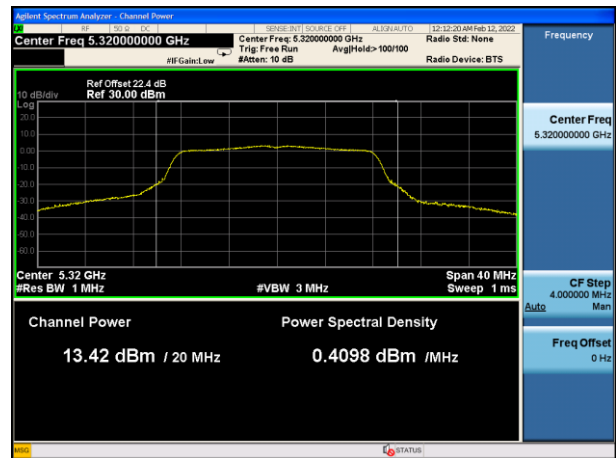
802.11 a CH52 (5260MHz)



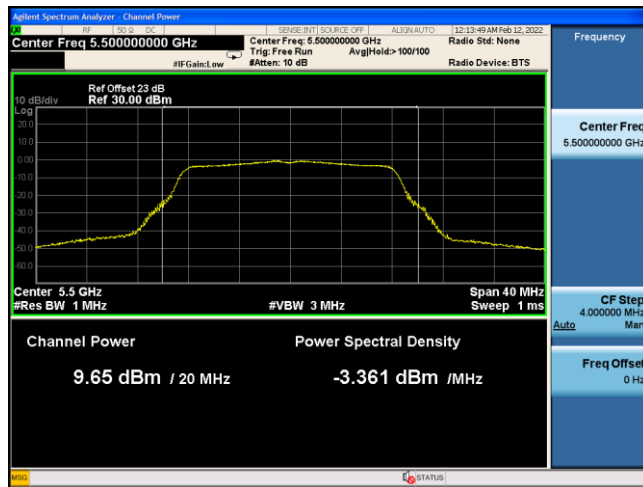
802.11 a CH60 (5300MHz)



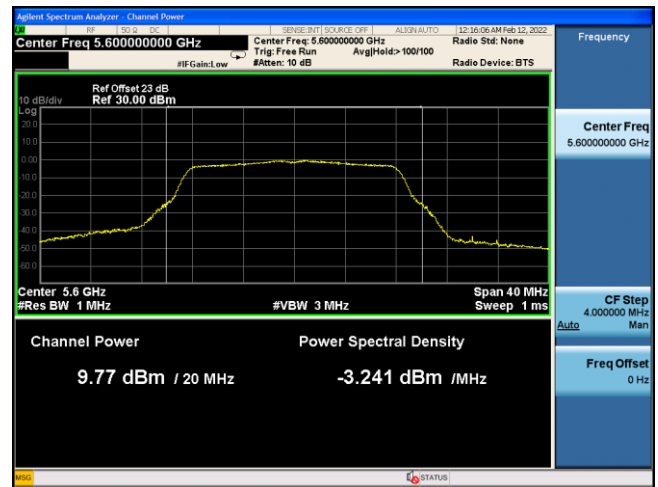
802.11 a CH64 (5320MHz)



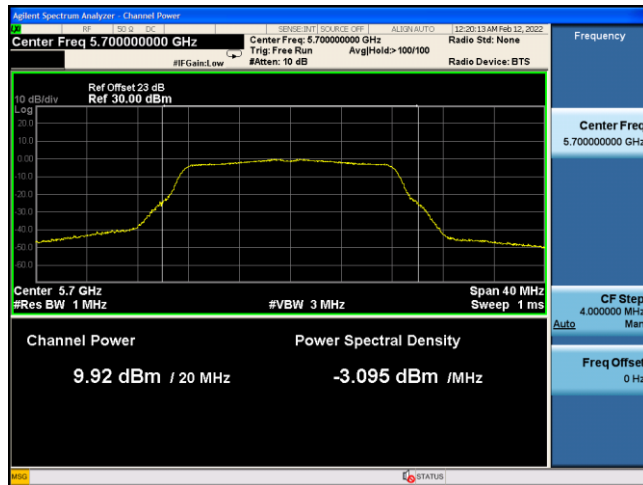
802.11 a CH100 (5500MHz)



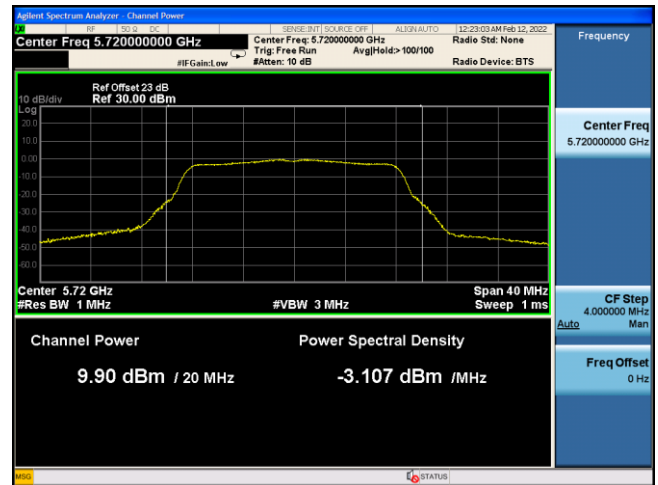
802.11 a CH120 (5600MHz)



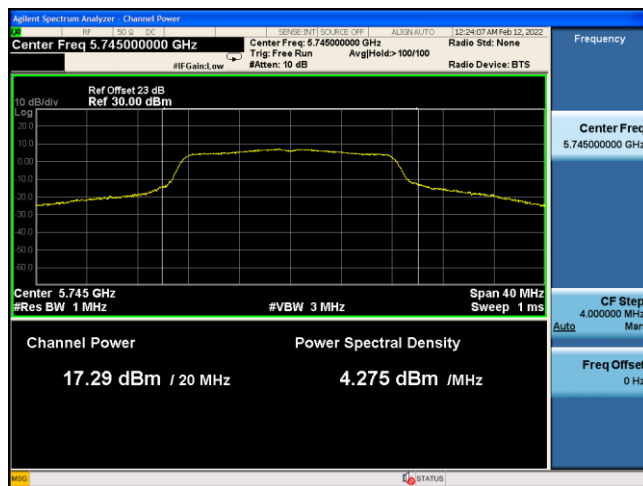
802.11 a CH140 (5700MHz)



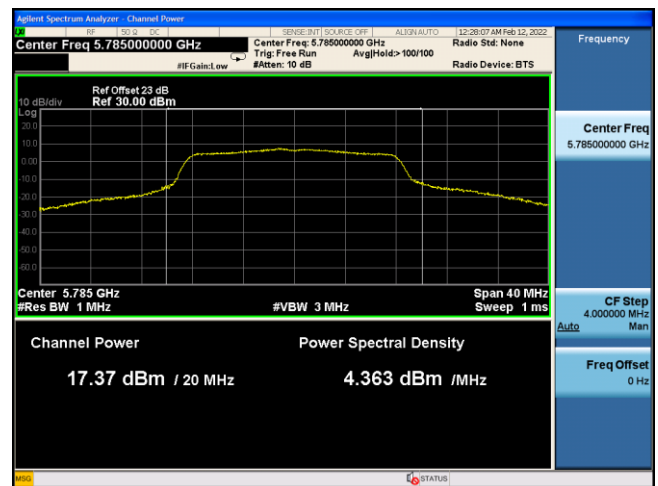
802.11 a CH144 (5720MHz)



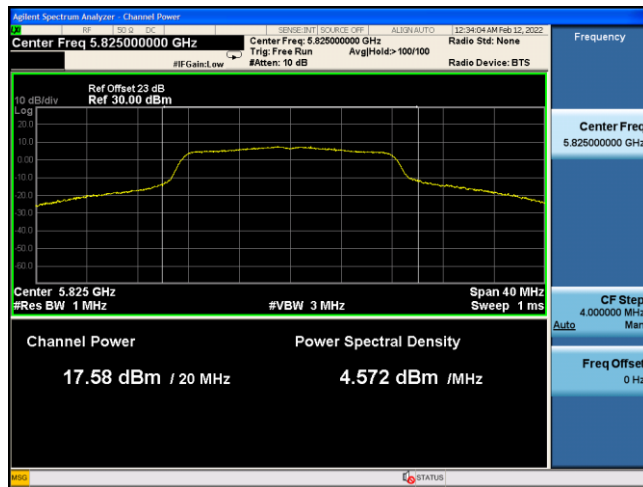
802.11 a CH149 (5745MHz)



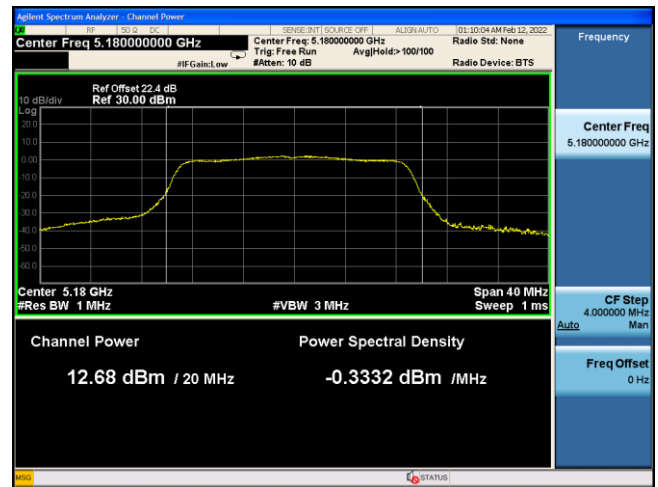
802.11 a CH157 (5785MHz)



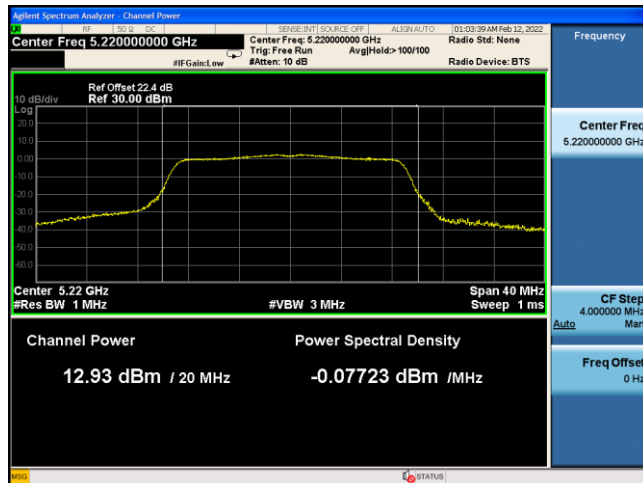
802.11 a CH165 (5825MHz)



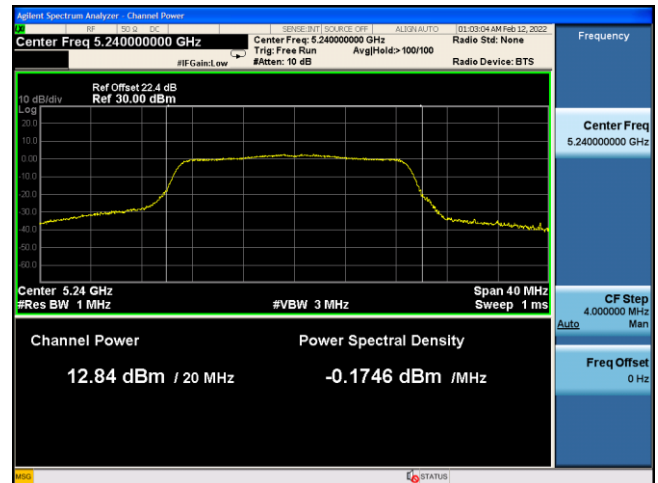
802.11 n-HT20 CH36 (5180MHz)



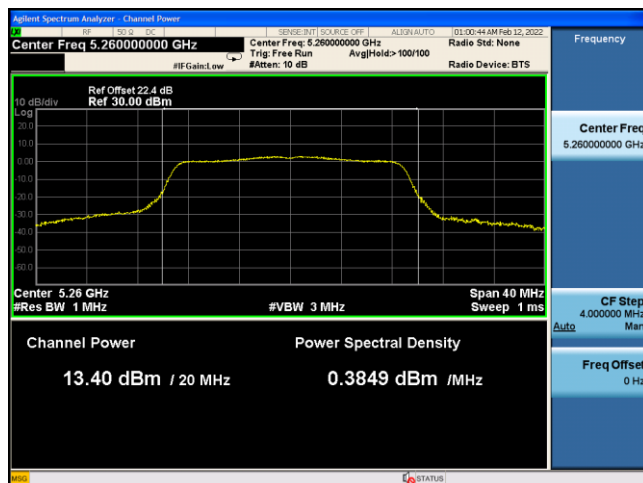
802.11 n-HT20 CH44 (5220MHz)



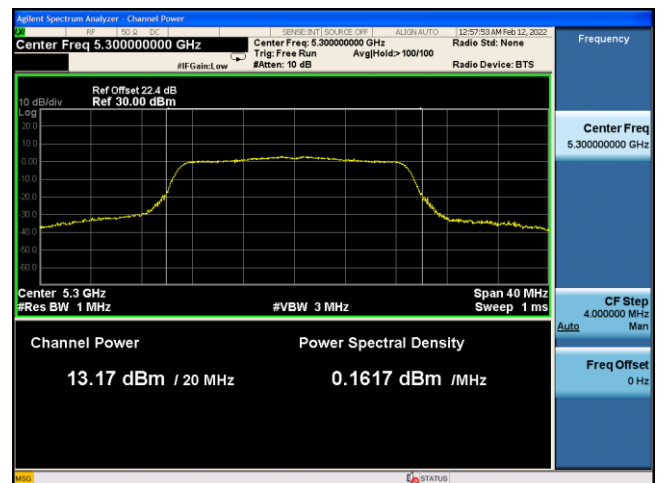
802.11 n-HT20 CH48 (5240MHz)



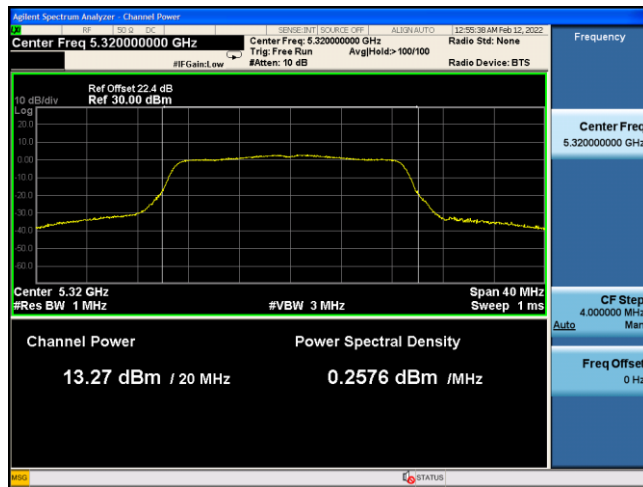
802.11 n-HT20 CH52 (5260MHz)



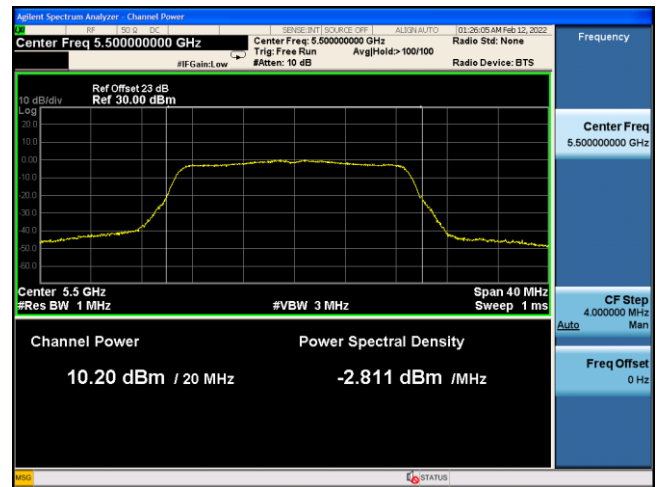
802.11 n-HT20 CH60 (5300MHz)



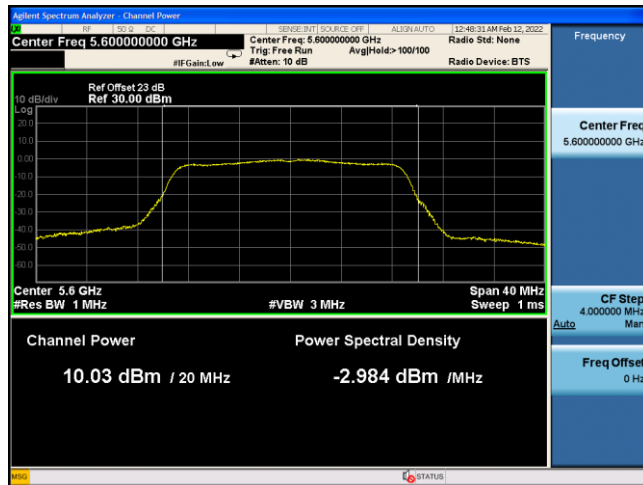
802.11 n-HT20 CH64 (5320MHz)



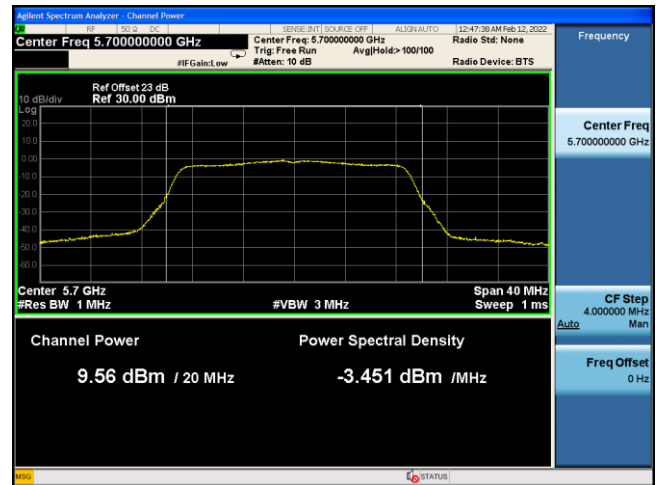
802.11 n-HT20 CH100 (5500MHz)



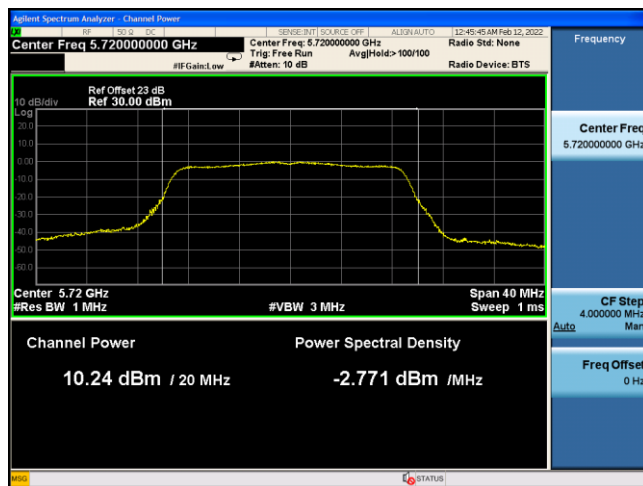
802.11 n-HT20 CH120 (5600MHz)



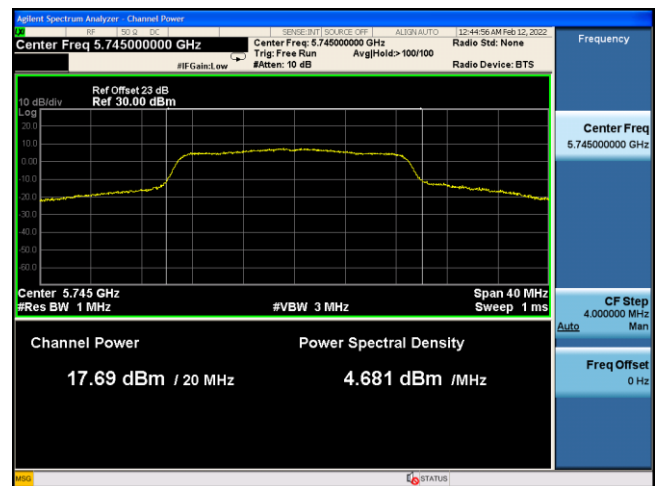
802.11 n-HT20 CH140 (5700MHz)



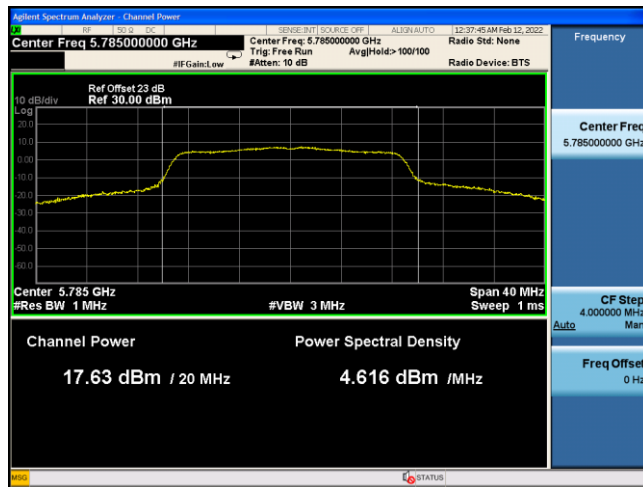
802.11 n-HT20 CH144 (5720MHz)



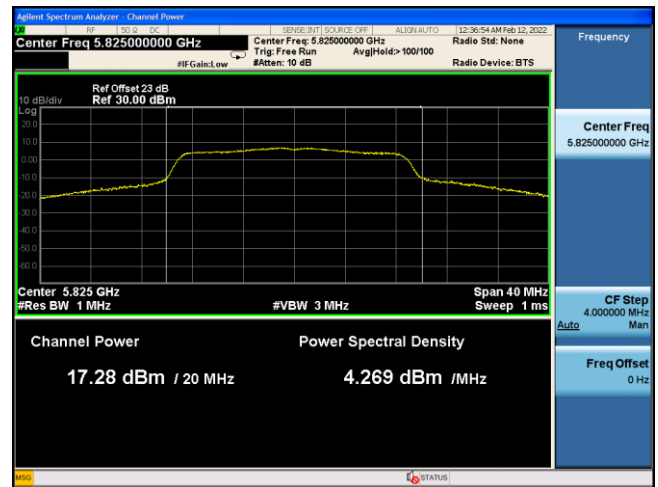
802.11 n-HT20 CH149 (5745MHz)



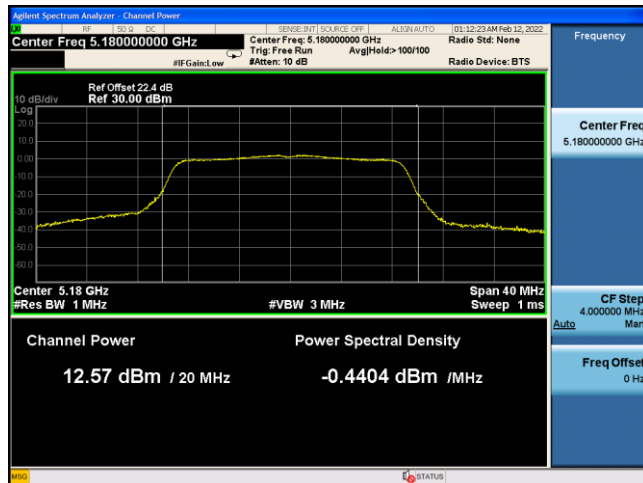
802.11 n-HT20 CH157 (5785MHz)



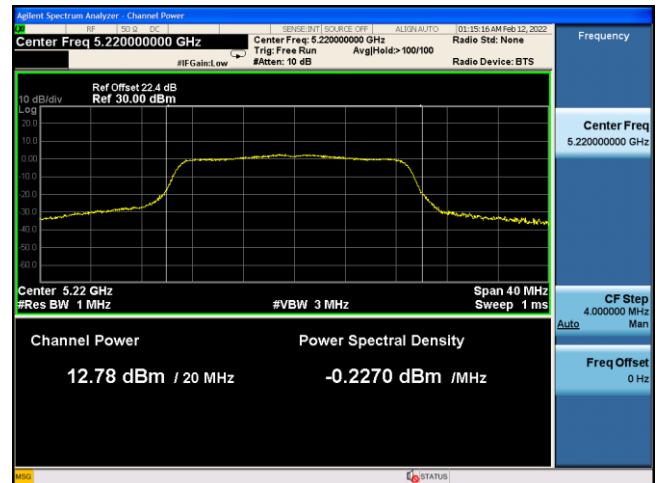
802.11 n-HT20 CH165 (5825MHz)



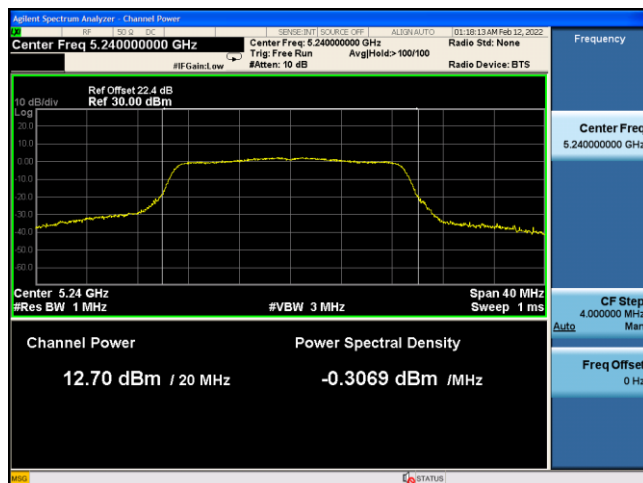
802.11ac-VHT20 CH36 (5180MHz)



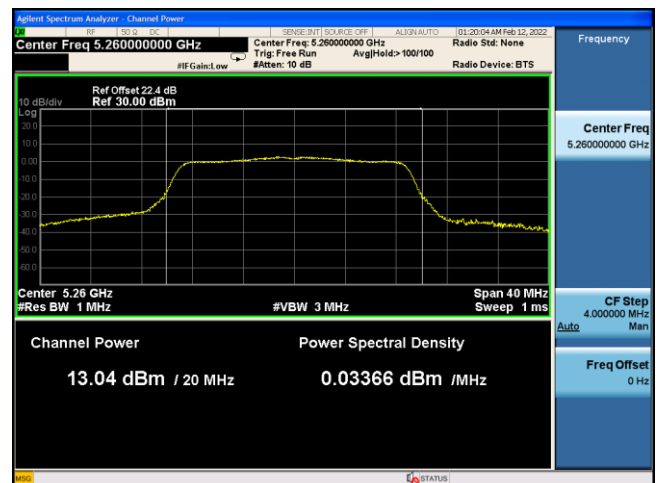
802.11ac-VHT20 CH44 (5220MHz)



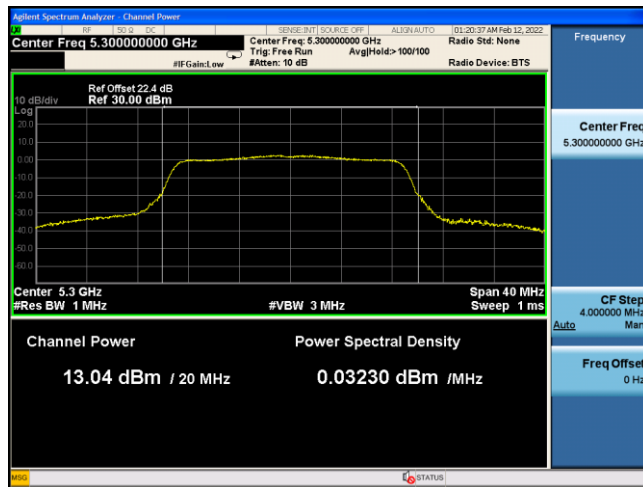
802.11ac-VHT20 CH48 (5240MHz)



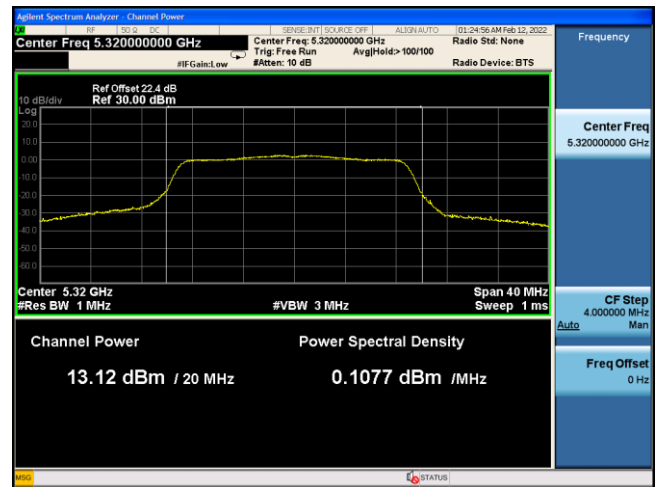
802.11ac-VHT20 CH52 (5260MHz)



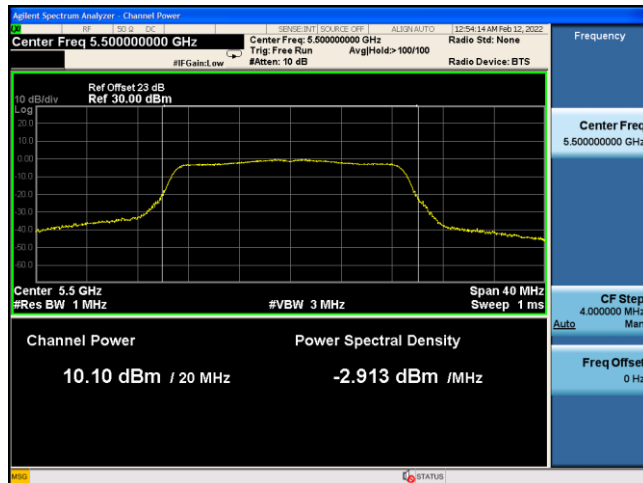
802.11ac-VHT20 CH60 (5300MHz)



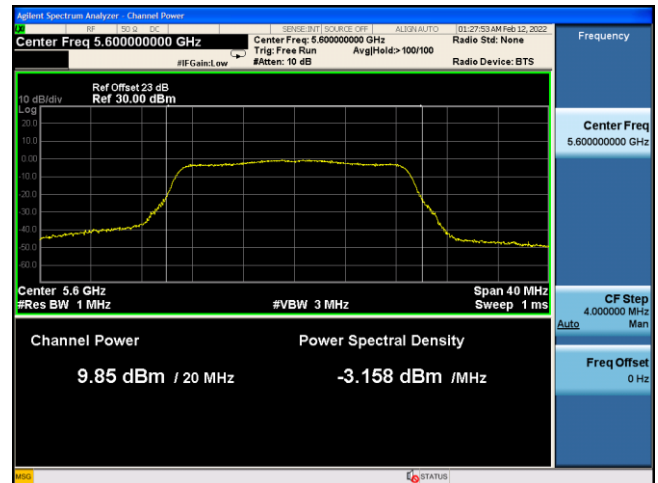
802.11ac-VHT20 CH64 (5320MHz)



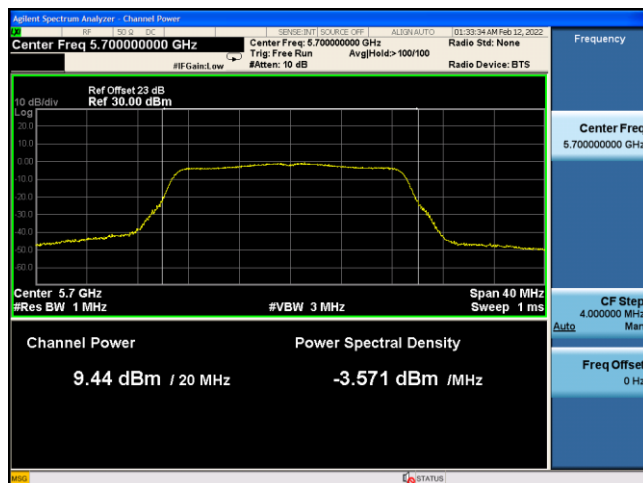
802.11ac-VHT20 CH100 (5500MHz)



802.11ac-VHT20 CH120 (5600MHz)



802.11ac-VHT20 CH140 (5700MHz)



802.11ac-VHT20 CH144 (5720MHz)

