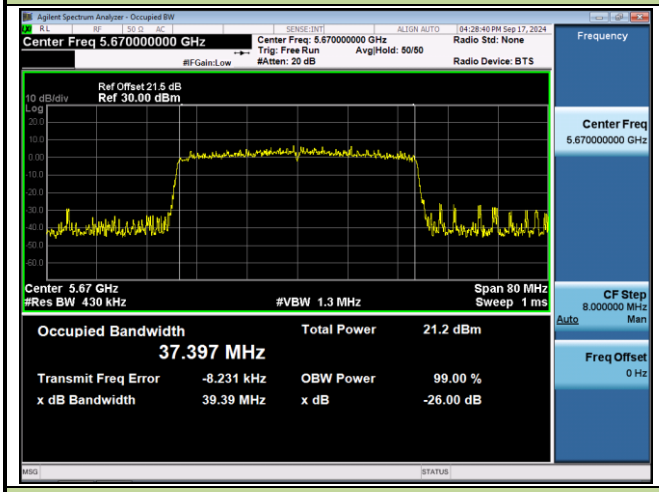
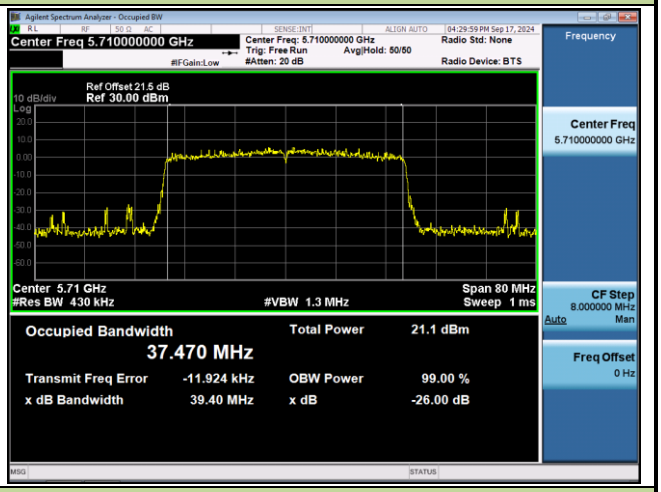
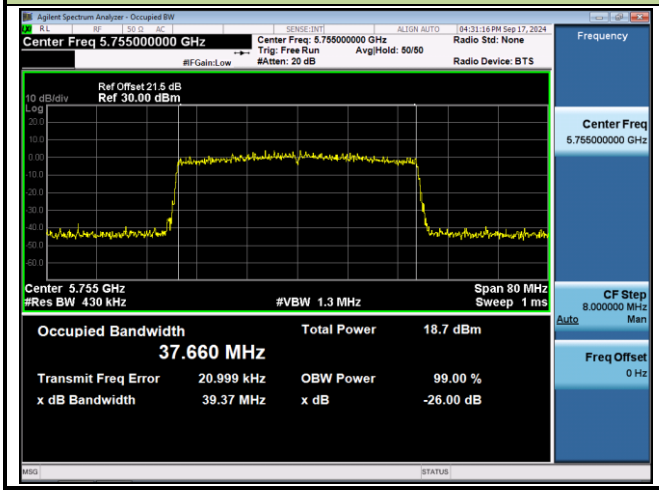
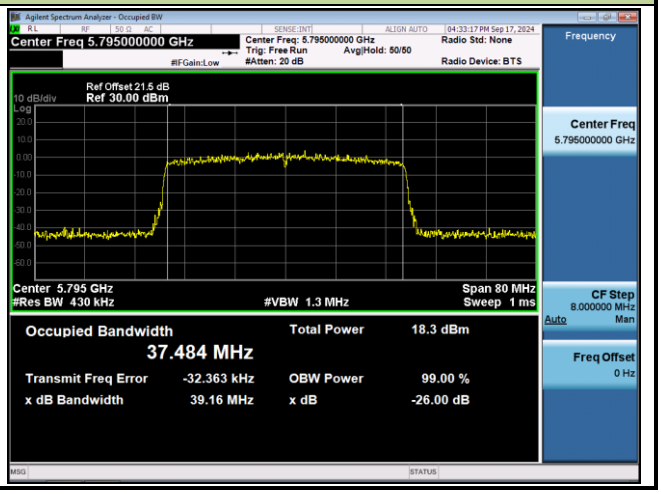
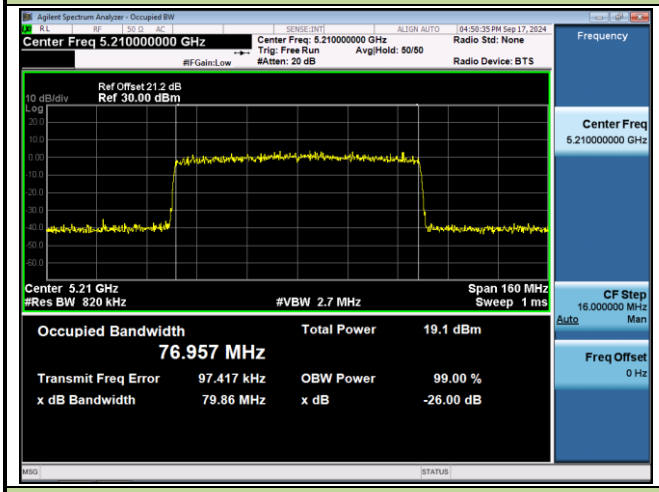
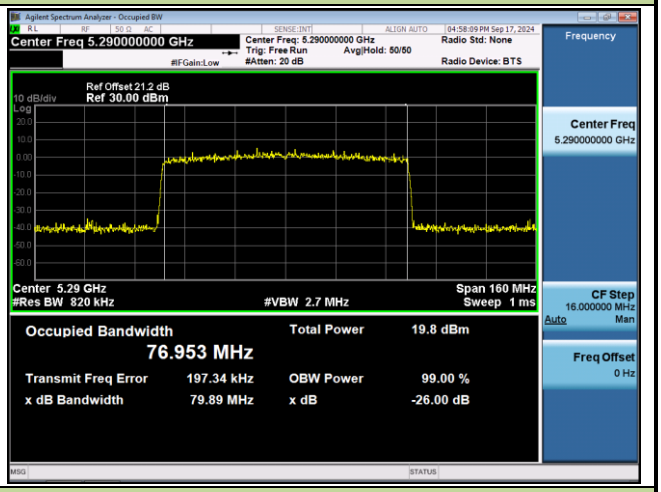
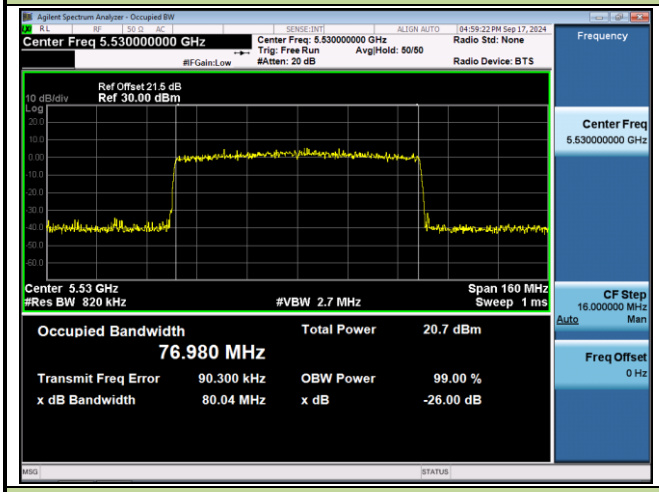
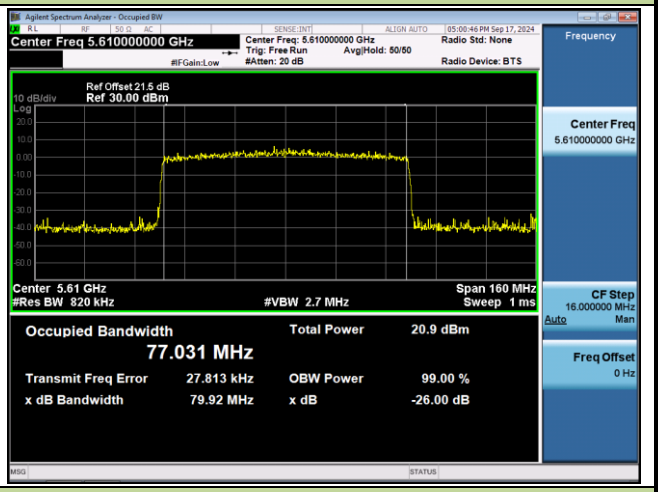
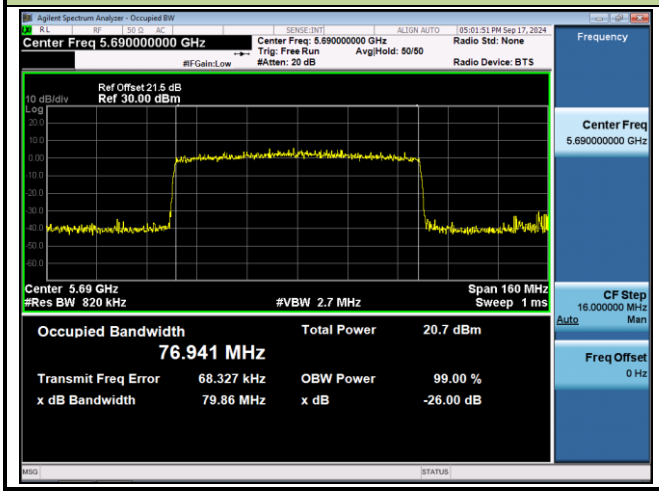
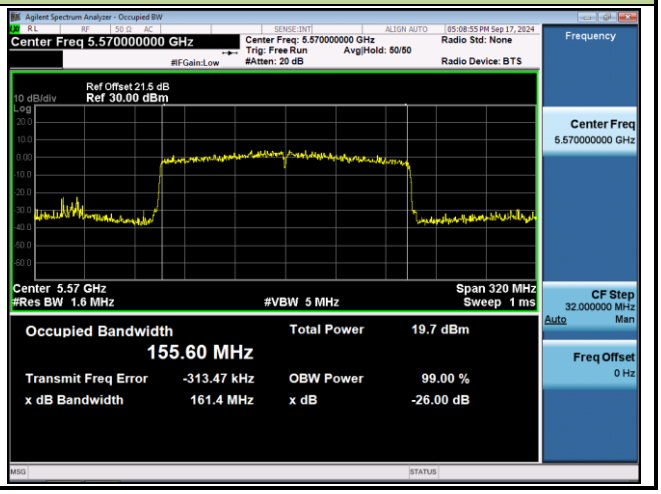
802.11be-EHT40 26dB Bandwidth & 99% Bandwidth	
Channel 134 (5670MHz)	Channel 142 (5710MHz)
	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

802.11be-EHT80 26dB Bandwidth & 99% Bandwidth	
Channel 42 (5210MHz)	Channel 58 (5290MHz)
	
Channel 106 (5530MHz)	Channel 122 (5610MHz)
	
Channel 138 (5690MHz)	Channel 155 (5775MHz)
	

802.11be-EHT160 26dB Bandwidth & 99% Bandwidth	
Channel 50 (5250MHz)	Channel 114 (5570MHz)
	

7.3. 6dB Bandwidth Measurement

7.3.1.Test Limit

The minimum 6dBbandwidth shall be at least 500 kHz.

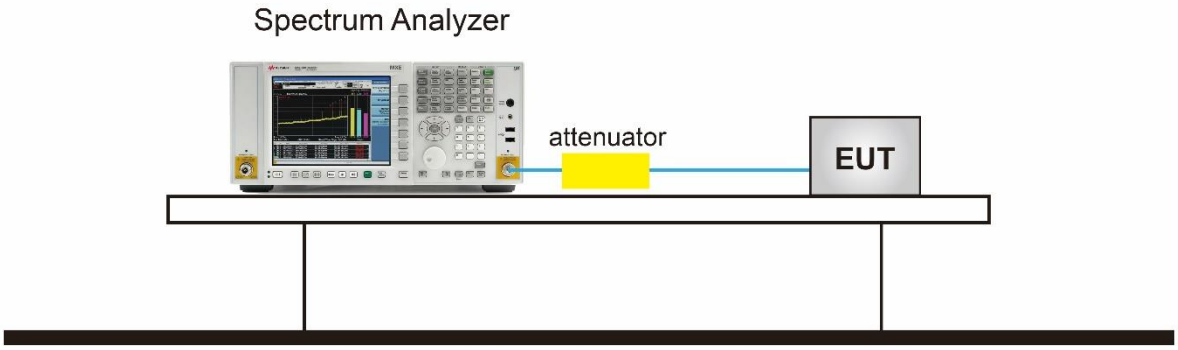
7.3.2.Test Procedure used

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 3 × 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.

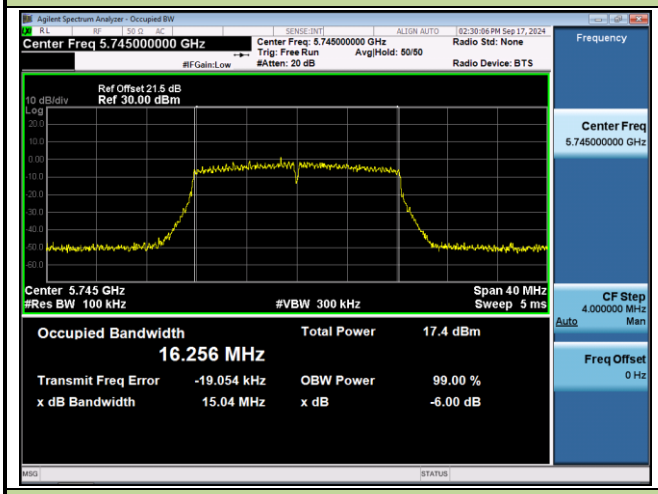
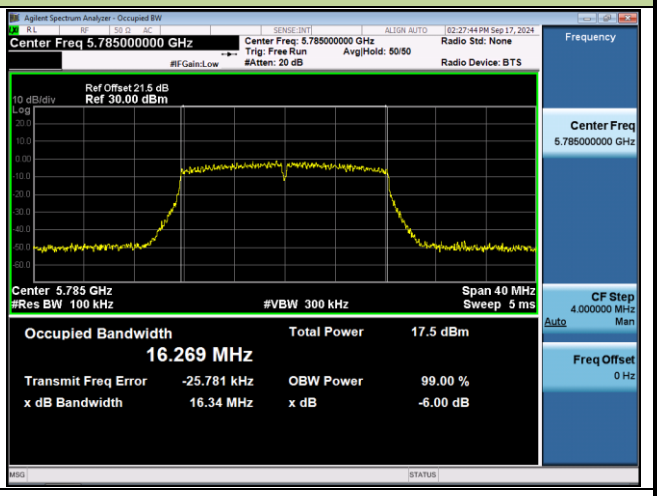
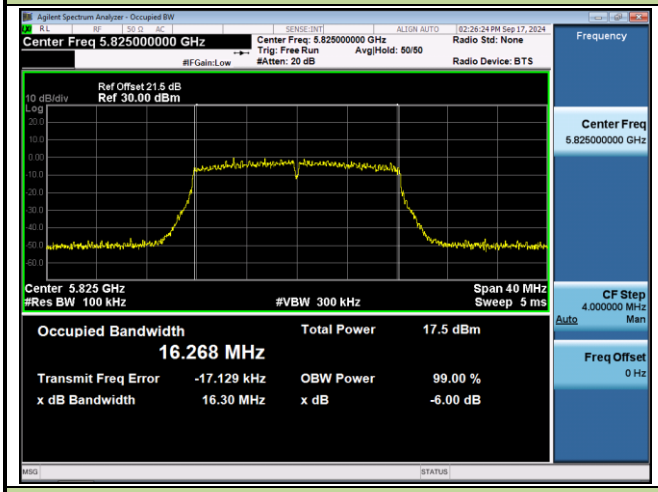
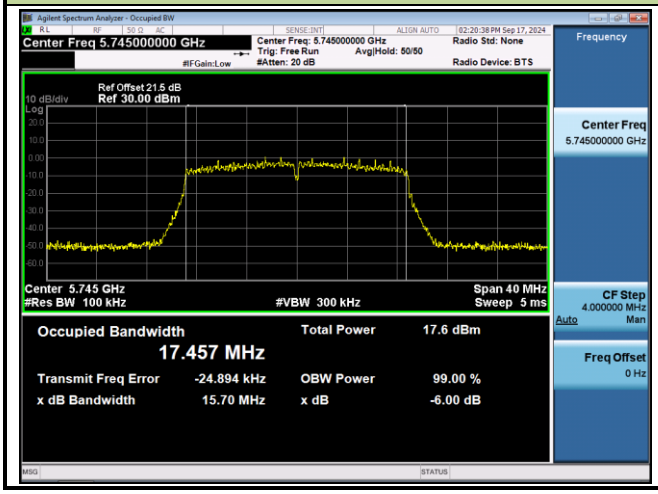
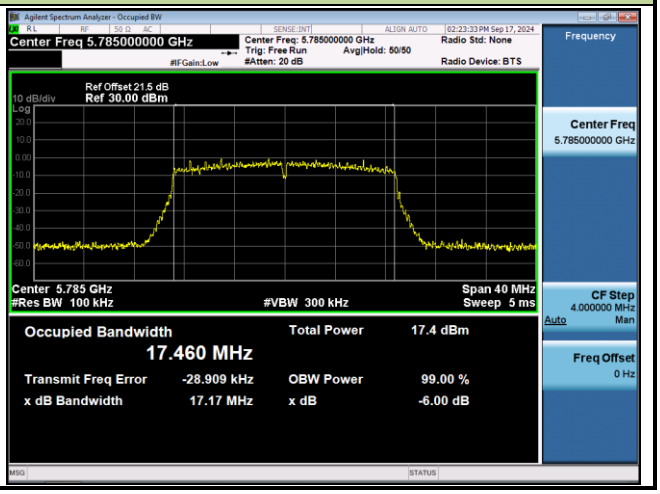
7.3.4.Test Setup

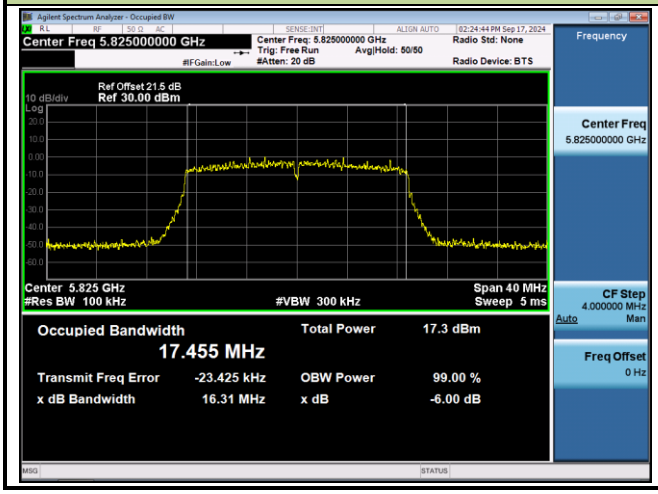


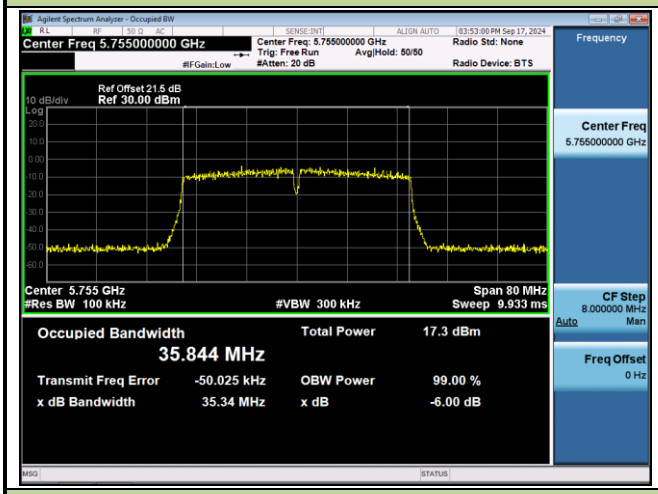
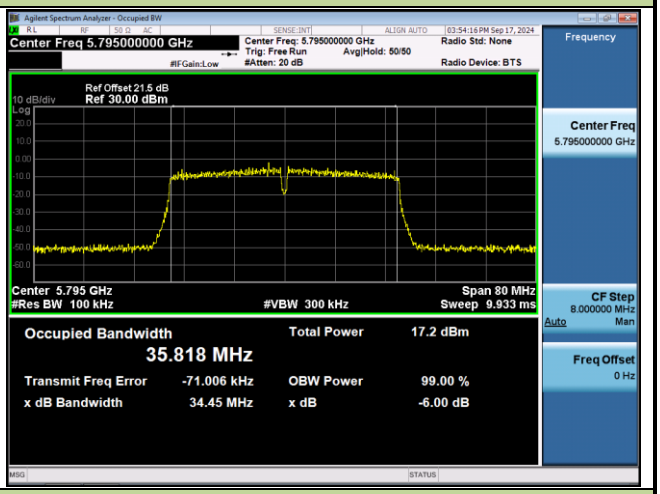
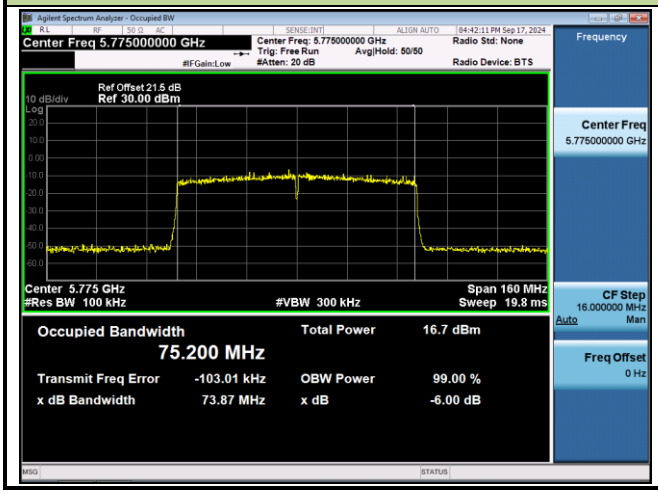
7.3.5.TestResult

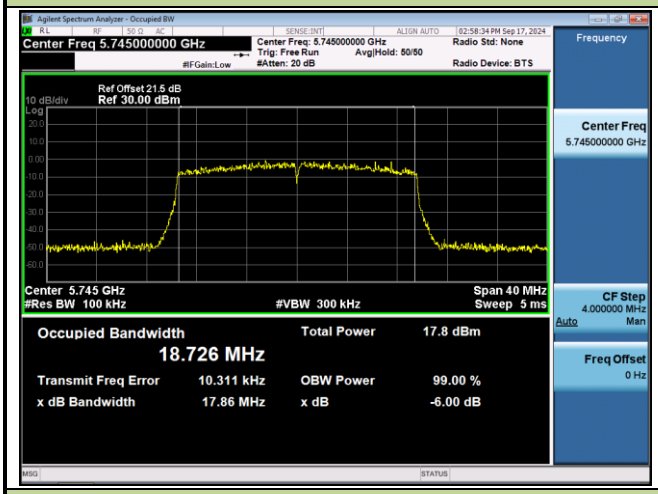
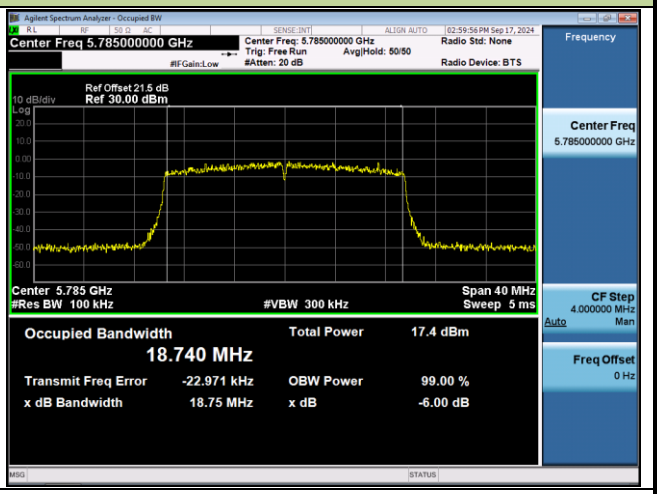
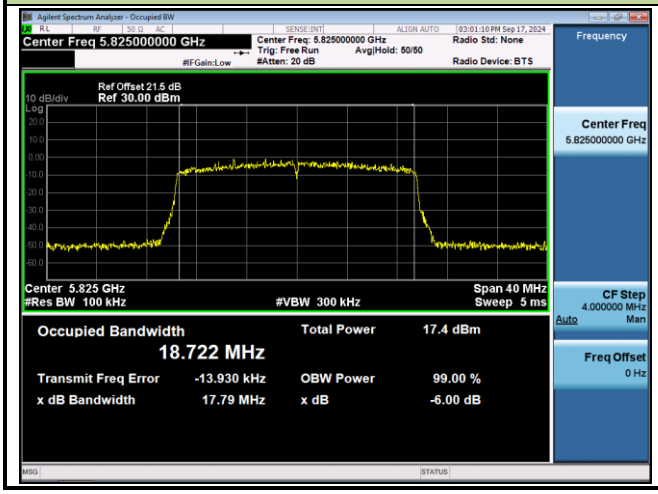
Product	BE6500 Wi-Fi 7 High Gain Wireless USB Adapter	Test Engineer	Wen
Test Site	SR6	Test Date	2024/9/17

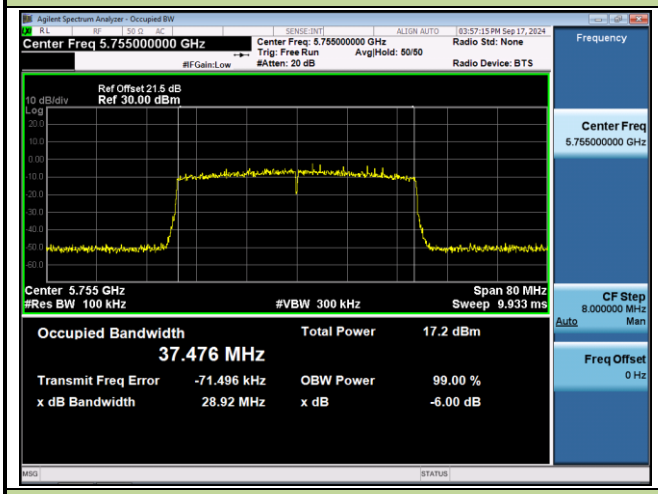
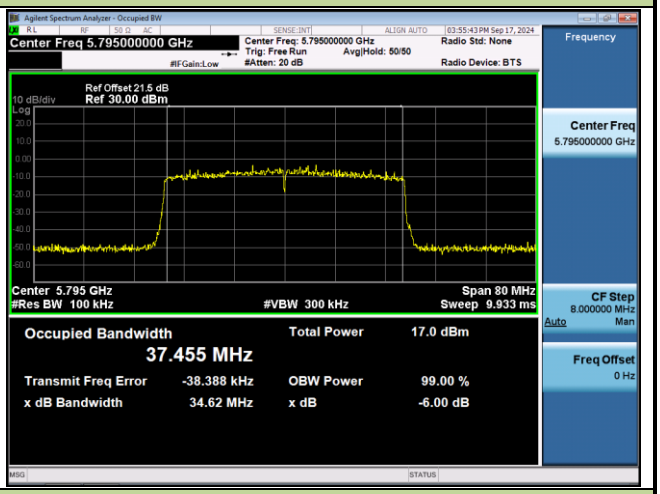
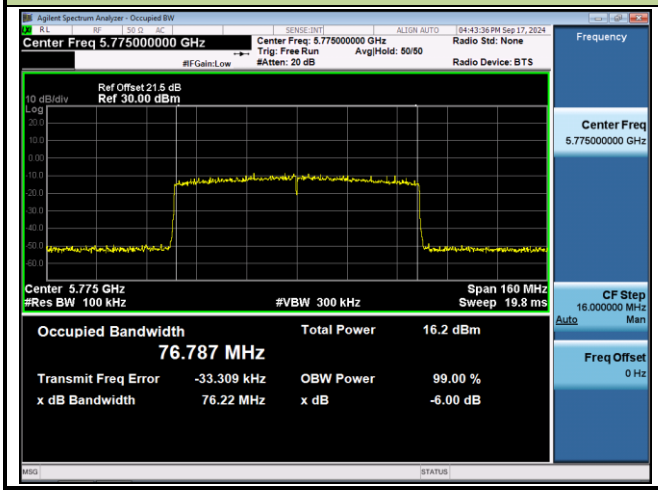
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
Ant 1						
802.11a	6Mbps	149	5745	15.04	≥ 0.5	Pass
802.11a	6Mbps	157	5785	16.34	≥ 0.5	Pass
802.11a	6Mbps	165	5825	16.30	≥ 0.5	Pass
802.11ac-VHT20	MCS0	149	5745	15.70	≥ 0.5	Pass
802.11ac-VHT20	MCS0	157	5785	17.17	≥ 0.5	Pass
802.11ac-VHT20	MCS0	165	5825	16.31	≥ 0.5	Pass
802.11ac-VHT40	MCS0	151	5755	35.34	≥ 0.5	Pass
802.11ac-VHT40	MCS0	159	5795	34.45	≥ 0.5	Pass
802.11ac-VHT80	MCS0	155	5775	73.87	≥ 0.5	Pass
802.11ax-HE20	MCS0	149	5745	17.86	≥ 0.5	Pass
802.11ax-HE20	MCS0	157	5785	18.75	≥ 0.5	Pass
802.11ax-HE20	MCS0	165	5825	17.79	≥ 0.5	Pass
802.11ax-HE40	MCS0	151	5755	28.92	≥ 0.5	Pass
802.11ax-HE40	MCS0	159	5795	34.62	≥ 0.5	Pass
802.11ax-HE80	MCS0	155	5775	76.22	≥ 0.5	Pass
802.11be-EHT20	MCS0	149	5745	18.31	≥ 0.5	Pass
802.11be-EHT20	MCS0	157	5785	18.77	≥ 0.5	Pass
802.11be-EHT20	MCS0	165	5825	18.80	≥ 0.5	Pass
802.11be-EHT40	MCS0	151	5755	36.51	≥ 0.5	Pass
802.11be-EHT40	MCS0	159	5795	37.57	≥ 0.5	Pass
802.11be-EHT80	MCS0	155	5775	77.27	≥ 0.5	Pass

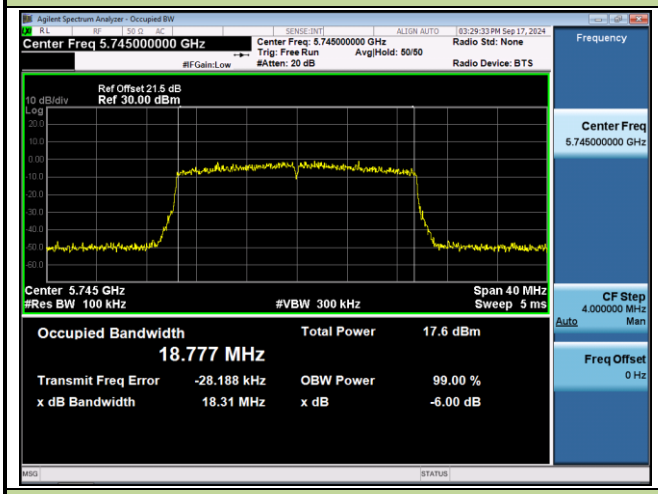
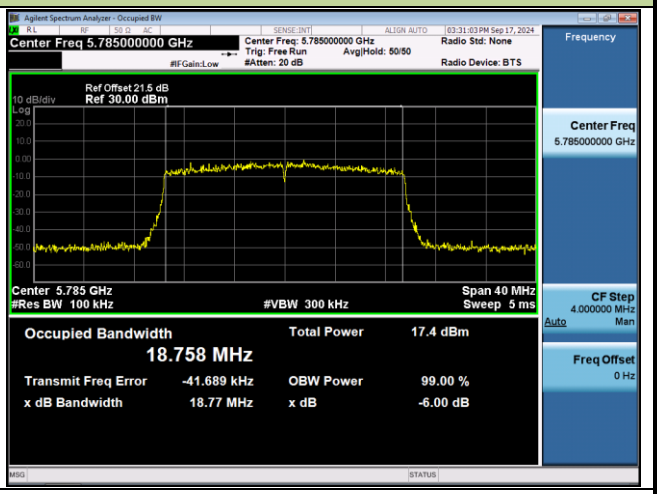
802.11a 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	
802.11ac-VHT20 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	

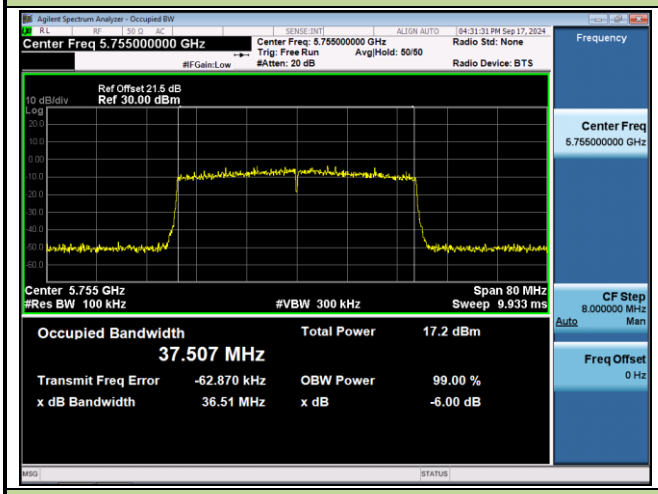
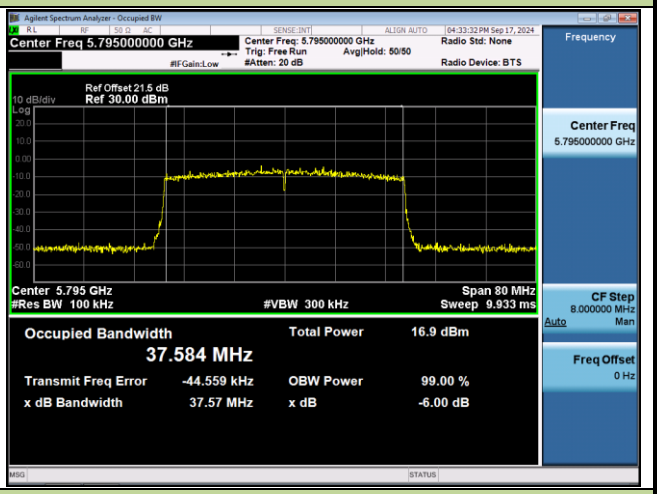
Channel 165 (5825MHz)	
	

802.11ac-VHT40 6dB Bandwidth	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	
802.11ac-VHT80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

802.11ax-HE20 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

802.11ax-HE40 6dB Bandwidth	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	
802.11ax-HE80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

802.11be-EHT20 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

802.11be-EHT 40 6dB Bandwidth	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	
802.11be-EHT 80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

7.4. Output Power Measurement

7.4.1.Test Limit

For 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 maximum 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 (30dBm).

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

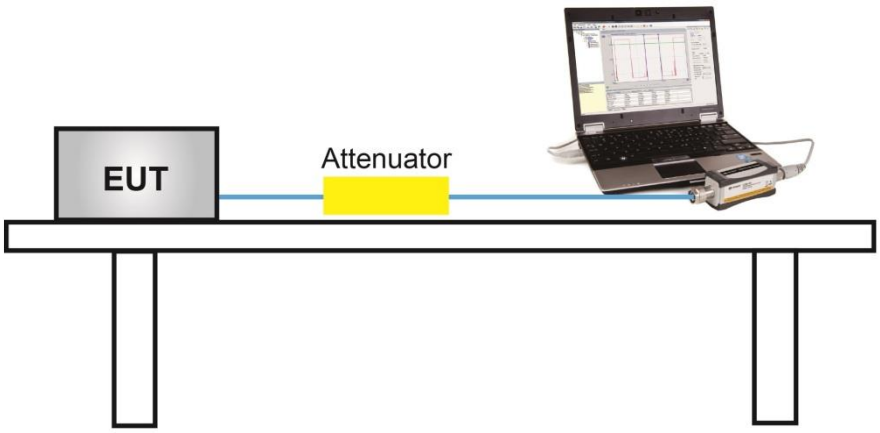
7.4.2.Test Procedure Used

KDB 789033D02v02r01- Section E)3)b) Method PM-G

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.

7.4.4.Test Setup



7.4.5.Test Result

Product	BE6500 Wi-Fi 7 High Gain Wireless USB Adapter	Test Engineer	Wen
Test Site	SR6	Test Date	2024/9/17~2024/9/25
Test Mode	CDD Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11a	6Mbps	36	5180	14.36	14.77	17.58	≤ 23.98	Pass
11a	6Mbps	40	5200	14.40	14.84	17.64	≤ 23.98	Pass
11a	6Mbps	48	5240	14.62	14.57	17.61	≤ 23.98	Pass
11a	6Mbps	52	5260	14.59	14.42	17.52	≤ 23.98	Pass
11a	6Mbps	60	5300	14.67	14.67	17.68	≤ 23.98	Pass
11a	6Mbps	64	5320	14.46	14.60	17.54	≤ 23.98	Pass
11a	6Mbps	100	5500	15.02	14.98	18.01	≤ 23.98	Pass
11a	6Mbps	116	5580	15.02	15.02	18.03	≤ 23.98	Pass
11a	6Mbps	140	5700	14.98	14.90	17.95	≤ 23.98	Pass
11a	6Mbps	144	5720	15.01	14.90	17.97	≤ 22.43	Pass
11a	6Mbps	149	5745	12.80	13.16	15.99	≤ 30.00	Pass
11a	6Mbps	157	5785	12.98	12.73	15.87	≤ 30.00	Pass
11a	6Mbps	165	5825	12.89	13.24	16.08	≤ 30.00	Pass
11ac-VHT20	MCS0	36	5180	14.54	14.90	17.73	≤ 23.98	Pass
11ac-VHT20	MCS0	40	5200	14.40	14.83	17.63	≤ 23.98	Pass
11ac-VHT20	MCS0	48	5240	14.53	14.41	17.48	≤ 23.98	Pass
11ac-VHT20	MCS0	52	5260	14.58	14.41	17.51	≤ 23.98	Pass
11ac-VHT20	MCS0	60	5300	14.62	14.54	17.59	≤ 23.98	Pass
11ac-VHT20	MCS0	64	5320	14.61	14.78	17.71	≤ 23.98	Pass
11ac-VHT20	MCS0	100	5500	15.09	14.78	17.95	≤ 23.98	Pass
11ac-VHT20	MCS0	116	5580	14.77	15.01	17.90	≤ 23.98	Pass
11ac-VHT20	MCS0	140	5700	15.03	14.83	17.94	≤ 23.98	Pass
11ac-VHT20	MCS0	144	5720	15.01	14.78	17.91	≤ 22.60	Pass
11ac-VHT20	MCS0	149	5745	12.90	13.20	16.06	≤ 30.00	Pass
11ac-VHT20	MCS0	157	5785	12.75	12.97	15.87	≤ 30.00	Pass
11ac-VHT20	MCS0	165	5825	12.86	13.17	16.03	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11ac-VHT40	MCS0	38	5190	14.32	14.80	17.58	≤ 23.98	Pass
11ac-VHT40	MCS0	46	5230	14.70	14.55	17.64	≤ 23.98	Pass
11ac-VHT40	MCS0	54	5270	14.49	14.55	17.53	≤ 23.98	Pass
11ac-VHT40	MCS0	62	5310	14.55	14.62	17.60	≤ 23.98	Pass
11ac-VHT40	MCS0	102	5510	15.10	14.93	18.03	≤ 23.98	Pass
11ac-VHT40	MCS0	110	5550	15.02	15.01	18.03	≤ 23.98	Pass
11ac-VHT40	MCS0	134	5670	15.02	14.99	18.02	≤ 23.98	Pass
11ac-VHT40	MCS0	142	5710	15.05	14.96	18.02	≤ 23.98	Pass
11ac-VHT40	MCS0	151	5755	12.83	13.12	15.99	≤ 30.00	Pass
11ac-VHT40	MCS0	159	5795	12.94	13.05	16.01	≤ 30.00	Pass
11ac-VHT80	MCS0	42	5210	14.49	14.78	17.65	≤ 23.98	Pass
11ac-VHT80	MCS0	58	5290	14.65	14.66	17.67	≤ 23.98	Pass
11ac-VHT80	MCS0	106	5530	15.02	15.33	18.19	≤ 23.98	Pass
11ac-VHT80	MCS0	122	5610	15.20	15.00	18.11	≤ 23.98	Pass
11ac-VHT80	MCS0	138	5690	15.10	15.16	18.14	≤ 23.98	Pass
11ac-VHT80	MCS0	155	5775	13.05	13.14	16.11	≤ 30.00	Pass
11ac-VHT160	MCS0	50	5250	14.80	14.66	17.74	≤ 23.98	Pass
11ac-VHT160	MCS0	114	5570	15.01	15.03	18.03	≤ 23.98	Pass
11ax-HE20	MCS0	36	5180	14.36	14.74	17.56	≤ 23.98	Pass
11ax-HE20	MCS0	40	5200	14.30	14.71	17.52	≤ 23.98	Pass
11ax-HE20	MCS0	48	5240	14.57	14.43	17.51	≤ 23.98	Pass
11ax-HE20	MCS0	52	5260	14.59	14.55	17.58	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	14.51	14.67	17.60	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	14.51	14.63	17.58	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	14.98	14.79	17.90	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	15.02	14.93	17.99	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	15.13	14.90	18.03	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	14.94	14.80	17.88	≤ 22.78	Pass
11ax-HE20	MCS0	149	5745	12.94	13.05	16.01	≤ 30.00	Pass
11ax-HE20	MCS0	157	5785	12.87	13.11	16.00	≤ 30.00	Pass
11ax-HE20	MCS0	165	5825	12.77	13.15	15.97	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11ax-HE40	MCS0	38	5190	14.32	14.82	17.59	≤ 23.98	Pass
11ax-HE40	MCS0	46	5230	14.61	14.49	17.56	≤ 23.98	Pass
11ax-HE40	MCS0	54	5270	14.78	14.63	17.72	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	14.37	14.51	17.45	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	14.93	14.77	17.86	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	14.80	14.92	17.87	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	14.88	14.92	17.91	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	15.01	14.89	17.96	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	12.82	13.16	16.00	≤ 30.00	Pass
11ax-HE40	MCS0	159	5795	12.75	13.00	15.89	≤ 30.00	Pass
11ax-HE80	MCS0	42	5210	14.37	14.75	17.57	≤ 23.98	Pass
11ax-HE80	MCS0	58	5290	14.53	14.77	17.66	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	15.03	14.87	17.96	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	14.86	15.06	17.97	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	14.97	14.96	17.98	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	12.92	13.22	16.08	≤ 30.00	Pass
11ax-HE160	MCS0	50	5250	14.56	14.82	17.70	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	14.96	15.01	18.00	≤ 23.98	Pass
11be-EHT20	MCS0	36	5180	14.40	14.76	17.59	≤ 30.00	Pass
11be-EHT20	MCS0	40	5200	14.55	14.83	17.70	≤ 30.00	Pass
11be-EHT20	MCS0	48	5240	14.57	14.45	17.52	≤ 30.00	Pass
11be-EHT20	MCS0	52	5260	14.45	14.31	17.39	≤ 23.98	Pass
11be-EHT20	MCS0	60	5300	14.69	14.62	17.67	≤ 23.98	Pass
11be-EHT20	MCS0	64	5320	14.51	14.52	17.53	≤ 23.98	Pass
11be-EHT20	MCS0	100	5500	15.02	14.76	17.90	≤ 23.98	Pass
11be-EHT20	MCS0	116	5580	15.04	15.00	18.03	≤ 23.98	Pass
11be-EHT20	MCS0	140	5700	15.02	14.91	17.98	≤ 23.98	Pass
11be-EHT20	MCS0	144	5720	14.98	15.02	18.01	≤ 22.74	Pass
11be-EHT20	MCS0	149	5745	12.60	13.15	15.89	≤ 30.00	Pass
11be-EHT20	MCS0	157	5785	12.83	12.99	15.92	≤ 30.00	Pass
11be-EHT20	MCS0	165	5825	12.80	13.11	15.97	≤ 30.00	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11be-EHT40	MCS0	38	5190	14.36	14.81	17.60	≤ 23.98	Pass
11be-EHT40	MCS0	46	5230	14.52	14.45	17.50	≤ 23.98	Pass
11be-EHT40	MCS0	54	5270	14.83	14.61	17.73	≤ 23.98	Pass
11be-EHT40	MCS0	62	5310	13.11	14.20	16.70	≤ 23.98	Pass
11be-EHT40	MCS0	102	5510	13.55	14.17	16.88	≤ 23.98	Pass
11be-EHT40	MCS0	110	5550	14.92	14.96	17.95	≤ 23.98	Pass
11be-EHT40	MCS0	134	5670	14.90	15.10	18.01	≤ 23.98	Pass
11be-EHT40	MCS0	142	5710	15.03	14.99	18.02	≤ 23.98	Pass
11be-EHT40	MCS0	151	5755	12.89	13.24	16.08	≤ 30.00	Pass
11be-EHT40	MCS0	159	5795	12.77	13.04	15.92	≤ 30.00	Pass
11be-EHT80	MCS0	42	5210	14.44	14.76	17.61	≤ 23.98	Pass
11be-EHT80	MCS0	58	5290	14.33	14.77	17.57	≤ 23.98	Pass
11be-EHT80	MCS0	106	5530	15.00	14.90	17.96	≤ 23.98	Pass
11be-EHT80	MCS0	122	5610	14.86	15.01	17.95	≤ 23.98	Pass
11be-EHT80	MCS0	138	5690	14.93	14.93	17.94	≤ 23.98	Pass
11be-EHT80	MCS0	155	5775	12.94	13.19	16.08	≤ 30.00	Pass
11be-EHT160	MCS0	50	5250	14.71	14.59	17.66	≤ 23.98	Pass
11be-EHT160	MCS0	114	5570	14.72	15.14	17.95	≤ 23.98	Pass

Note 1:

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

Note 2:

For Channel 144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$

Product	BE6500 Wi-Fi 7 High Gain Wireless USB Adapter	Test Engineer	Wen
Test Site	SR6	Test Date	2024/9/17~2024/9/25
Test Mode	Beamforming Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11ax-HE20	MCS0	36	5180	14.36	14.74	17.56	≤ 23.98	Pass
11ax-HE20	MCS0	40	5200	14.30	14.71	17.52	≤ 23.98	Pass
11ax-HE20	MCS0	48	5240	14.57	14.43	17.51	≤ 23.98	Pass
11ax-HE20	MCS0	52	5260	14.59	14.55	17.58	≤ 23.98	Pass
11ax-HE20	MCS0	60	5300	14.51	14.67	17.60	≤ 23.98	Pass
11ax-HE20	MCS0	64	5320	14.51	14.63	17.58	≤ 23.98	Pass
11ax-HE20	MCS0	100	5500	14.98	14.79	17.90	≤ 23.98	Pass
11ax-HE20	MCS0	116	5580	15.02	14.93	17.99	≤ 23.98	Pass
11ax-HE20	MCS0	140	5700	15.13	14.90	18.03	≤ 23.98	Pass
11ax-HE20	MCS0	144	5720	14.94	14.80	17.88	≤ 22.78	Pass
11ax-HE20	MCS0	149	5745	12.94	13.05	16.01	≤ 29.99	Pass
11ax-HE20	MCS0	157	5785	12.87	13.11	16.00	≤ 29.99	Pass
11ax-HE20	MCS0	165	5825	12.77	13.15	15.97	≤ 29.99	Pass
11ax-HE40	MCS0	38	5190	14.32	14.82	17.59	≤ 23.98	Pass
11ax-HE40	MCS0	46	5230	14.61	14.49	17.56	≤ 23.98	Pass
11ax-HE40	MCS0	54	5270	14.78	14.63	17.72	≤ 23.98	Pass
11ax-HE40	MCS0	62	5310	14.37	14.51	17.45	≤ 23.98	Pass
11ax-HE40	MCS0	102	5510	14.93	14.77	17.86	≤ 23.98	Pass
11ax-HE40	MCS0	110	5550	14.80	14.92	17.87	≤ 23.98	Pass
11ax-HE40	MCS0	134	5670	14.88	14.92	17.91	≤ 23.98	Pass
11ax-HE40	MCS0	142	5710	15.01	14.89	17.96	≤ 23.98	Pass
11ax-HE40	MCS0	151	5755	12.82	13.16	16.00	≤ 29.99	Pass
11ax-HE40	MCS0	159	5795	12.75	13.00	15.89	≤ 29.99	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11ax-HE80	MCS0	42	5210	14.37	14.75	17.57	≤ 23.98	Pass
11ax-HE80	MCS0	58	5290	14.53	14.77	17.66	≤ 23.98	Pass
11ax-HE80	MCS0	106	5530	15.03	14.87	17.96	≤ 23.98	Pass
11ax-HE80	MCS0	122	5610	14.86	15.06	17.97	≤ 23.98	Pass
11ax-HE80	MCS0	138	5690	14.97	14.96	17.98	≤ 23.98	Pass
11ax-HE80	MCS0	155	5775	12.92	13.22	16.08	≤ 29.99	Pass
11ax-HE160	MCS0	50	5250	14.56	14.82	17.70	≤ 23.98	Pass
11ax-HE160	MCS0	114	5570	14.96	15.01	18.00	≤ 23.98	Pass
11be-EHT20	MCS0	36	5180	14.40	14.76	17.59	≤ 30.00	Pass
11be-EHT20	MCS0	40	5200	14.55	14.83	17.70	≤ 30.00	Pass
11be-EHT20	MCS0	48	5240	14.57	14.45	17.52	≤ 30.00	Pass
11be-EHT20	MCS0	52	5260	14.45	14.31	17.39	≤ 23.98	Pass
11be-EHT20	MCS0	60	5300	14.69	14.62	17.67	≤ 23.98	Pass
11be-EHT20	MCS0	64	5320	14.51	14.52	17.53	≤ 23.98	Pass
11be-EHT20	MCS0	100	5500	15.02	14.76	17.90	≤ 23.98	Pass
11be-EHT20	MCS0	116	5580	15.04	15.00	18.03	≤ 23.98	Pass
11be-EHT20	MCS0	140	5700	15.02	14.91	17.98	≤ 23.98	Pass
11be-EHT20	MCS0	144	5720	14.98	15.02	18.01	≤ 22.74	Pass
11be-EHT20	MCS0	149	5745	12.60	13.15	15.89	≤ 29.99	Pass
11be-EHT20	MCS0	157	5785	12.83	12.99	15.92	≤ 29.99	Pass
11be-EHT20	MCS0	165	5825	12.80	13.11	15.97	≤ 29.99	Pass
11be-EHT40	MCS0	38	5190	14.36	14.81	17.60	≤ 23.98	Pass
11be-EHT40	MCS0	46	5230	14.52	14.45	17.50	≤ 23.98	Pass
11be-EHT40	MCS0	54	5270	14.83	14.61	17.73	≤ 23.98	Pass
11be-EHT40	MCS0	62	5310	13.11	14.20	16.70	≤ 23.98	Pass
11be-EHT40	MCS0	102	5510	13.55	14.17	16.88	≤ 23.98	Pass
11be-EHT40	MCS0	110	5550	14.92	14.96	17.95	≤ 23.98	Pass
11be-EHT40	MCS0	134	5670	14.90	15.10	18.01	≤ 23.98	Pass
11be-EHT40	MCS0	142	5710	15.03	14.99	18.02	≤ 23.98	Pass
11be-EHT40	MCS0	151	5755	12.89	13.24	16.08	≤ 29.99	Pass
11be-EHT40	MCS0	159	5795	12.77	13.04	15.92	≤ 29.99	Pass

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 Average Power (dBm)	Ant 1 Average Power (dBm)	Total Average Power (dBm)	Power Limit (dBm)	Result
11be-EHT80	MCS0	42	5210	14.44	14.76	17.61	≤ 23.98	Pass
11be-EHT80	MCS0	58	5290	14.33	14.77	17.57	≤ 23.98	Pass
11be-EHT80	MCS0	106	5530	15.00	14.90	17.96	≤ 23.98	Pass
11be-EHT80	MCS0	122	5610	14.86	15.01	17.95	≤ 23.98	Pass
11be-EHT80	MCS0	138	5690	14.93	14.93	17.94	≤ 23.98	Pass
11be-EHT80	MCS0	155	5775	12.94	13.19	16.08	≤ 29.99	Pass
11be-EHT160	MCS0	50	5250	14.71	14.59	17.66	≤ 23.98	Pass
11be-EHT160	MCS0	114	5570	14.72	15.14	17.95	≤ 23.98	Pass

Note 1:

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

Note 2:

For 5725 - 5850MHz Band: Average Power Limit (dBm) = 30 – (6.01-6) =29.99 dBm.

For Channel 144 (5720MHz), Average Power Limit (dBm) = $11+10*\log(5\text{MHz} + BW_{26dBc}/2)$

7.5. Transmit Power Control

7.5.1.Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

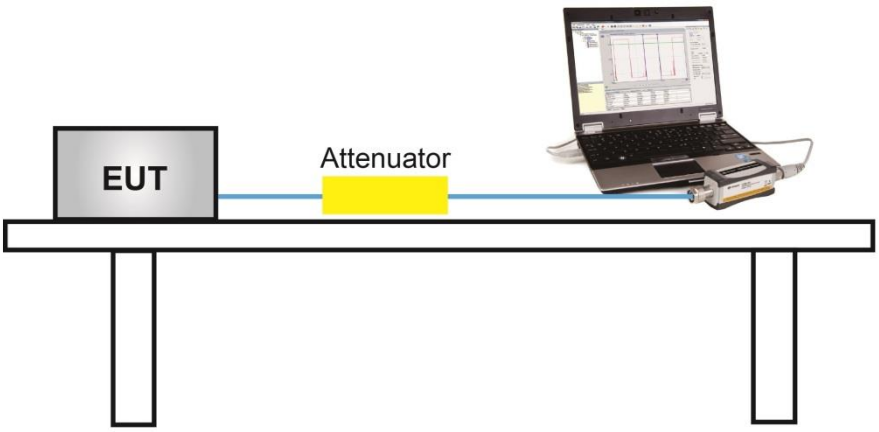
7.5.2.Test Procedure Used

KDB 789033 D02v02r01- Section E)3)b) Method PM-G

7.5.3.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.

7.5.4.Test Setup



7.5.5.Test Result

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

7.6. Power Spectral Density Measurement

7.6.1.Test Limit

For the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of theantenna exceeds 6dBi.

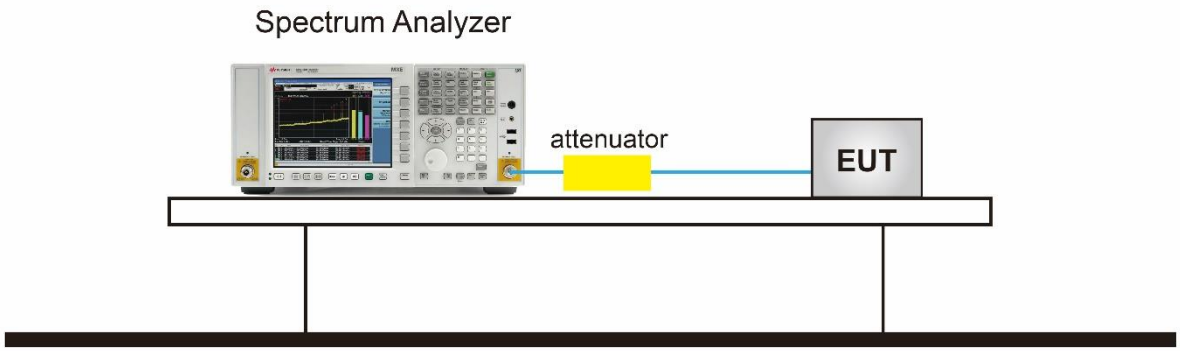
7.6.2.Test Procedure Used

KDB 789033 D02v02r01-SectionF

7.6.3.Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz, RBW = 510 kHz
4. VBW = 3MHz
5. Number of sweep points ≥ 2 × (span / RBW)
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
10. 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 (because the measurement represents an average over both the on and off times of the transmission). For example, add 10*log(1/0.25) = 6 dB if the duty cycle is 25 percent.

7.6.4.Test Setup



7.6.5.Test Result

Product	BE6500 Wi-Fi 7 High Gain Wireless USB Adapter	Test Engineer	Wen
Test Site	SR6	Test Date	2024/9/17
Mode	Power Spectral Density (U-NII- 1/-2a / -2c) CDD Mode		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11a	6Mbps	36	5180	3.549	3.990	98.72%	6.841	≤ 11.00	Pass
11a	6Mbps	40	5200	3.817	3.896	98.72%	6.923	≤ 11.00	Pass
11a	6Mbps	48	5240	3.942	3.347	98.72%	6.721	≤ 11.00	Pass
11a	6Mbps	52	5260	4.245	3.551	98.72%	6.978	≤ 11.00	Pass
11a	6Mbps	60	5300	3.617	4.853	98.72%	7.345	≤ 11.00	Pass
11a	6Mbps	64	5320	4.132	4.228	98.72%	7.247	≤ 11.00	Pass
11a	6Mbps	100	5500	5.865	5.401	98.72%	8.705	≤ 11.00	Pass
11a	6Mbps	116	5580	6.075	5.809	98.72%	9.010	≤ 11.00	Pass
11a	6Mbps	140	5700	6.017	5.583	98.72%	8.872	≤ 11.00	Pass
11a	6Mbps	144	5720	6.295	5.644	98.72%	9.048	≤ 11.00	Pass
11ac-VHT20	MCS0	36	5180	3.864	3.688	99.01%	6.830	≤ 11.00	Pass
11ac-VHT20	MCS0	40	5200	3.817	3.712	99.01%	6.818	≤ 11.00	Pass
11ac-VHT20	MCS0	48	5240	3.763	3.254	99.01%	6.569	≤ 11.00	Pass
11ac-VHT20	MCS0	52	5260	3.642	3.211	99.01%	6.485	≤ 11.00	Pass
11ac-VHT20	MCS0	60	5300	3.637	4.021	99.01%	6.887	≤ 11.00	Pass
11ac-VHT20	MCS0	64	5320	4.217	4.041	99.01%	7.183	≤ 11.00	Pass
11ac-VHT20	MCS0	100	5500	5.574	4.967	99.01%	8.335	≤ 11.00	Pass
11ac-VHT20	MCS0	116	5580	5.544	5.306	99.01%	8.480	≤ 11.00	Pass
11ac-VHT20	MCS0	140	5700	5.622	5.763	99.01%	8.747	≤ 11.00	Pass
11ac-VHT20	MCS0	144	5720	5.804	5.249	99.01%	8.589	≤ 11.00	Pass
11ac-VHT40	MCS0	38	5190	0.824	1.080	95.64%	4.158	≤ 11.00	Pass
11ac-VHT40	MCS0	46	5230	0.647	0.360	95.64%	3.710	≤ 11.00	Pass
11ac-VHT40	MCS0	54	5270	0.443	0.721	95.64%	3.788	≤ 11.00	Pass
11ac-VHT40	MCS0	62	5310	0.878	1.212	95.64%	4.252	≤ 11.00	Pass
11ac-VHT40	MCS0	102	5510	2.894	2.582	95.64%	5.945	≤ 11.00	Pass
11ac-VHT40	MCS0	110	5550	2.714	2.716	95.64%	5.919	≤ 11.00	Pass
11ac-VHT40	MCS0	134	5670	2.490	2.409	95.64%	5.654	≤ 11.00	Pass
11ac-VHT40	MCS0	142	5710	2.512	2.899	95.64%	5.914	≤ 11.00	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11ac-VHT80	MCS0	42	5210	-2.340	-2.142	95.72%	0.960	≤ 11.00	Pass
11ac-VHT80	MCS0	58	5290	-1.563	-1.689	95.72%	1.575	≤ 11.00	Pass
11ac-VHT80	MCS0	106	5530	-1.081	-1.337	95.72%	1.993	≤ 11.00	Pass
11ac-VHT80	MCS0	122	5610	-0.611	-0.361	95.72%	2.716	≤ 11.00	Pass
11ac-VHT80	MCS0	138	5690	-1.149	-0.705	95.72%	2.279	≤ 11.00	Pass
11ac-VHT160	MCS0	50	5250	-5.594	-4.569	97.76%	-1.943	≤ 11.00	Pass
11ac-VHT160	MCS0	114	5570	-3.822	-3.026	97.76%	-0.297	≤ 11.00	Pass
11ax-HE20	MCS0	36	5180	3.957	3.752	98.03%	6.952	≤ 11.00	Pass
11ax-HE20	MCS0	40	5200	3.266	3.222	98.03%	6.341	≤ 11.00	Pass
11ax-HE20	MCS0	48	5240	3.522	3.335	98.03%	6.526	≤ 11.00	Pass
11ax-HE20	MCS0	52	5260	3.711	3.841	98.03%	6.873	≤ 11.00	Pass
11ax-HE20	MCS0	60	5300	3.342	4.150	98.03%	6.861	≤ 11.00	Pass
11ax-HE20	MCS0	64	5320	3.693	4.039	98.03%	6.966	≤ 11.00	Pass
11ax-HE20	MCS0	100	5500	5.400	5.419	98.03%	8.506	≤ 11.00	Pass
11ax-HE20	MCS0	116	5580	5.573	5.726	98.03%	8.747	≤ 11.00	Pass
11ax-HE20	MCS0	140	5700	5.754	5.922	98.03%	8.936	≤ 11.00	Pass
11ax-HE20	MCS0	144	5720	6.427	5.967	98.03%	9.300	≤ 11.00	Pass
11ax-HE40	MCS0	38	5190	0.577	0.939	95.37%	3.978	≤ 11.00	Pass
11ax-HE40	MCS0	46	5230	0.761	0.521	95.37%	3.859	≤ 11.00	Pass
11ax-HE40	MCS0	54	5270	1.019	1.388	95.37%	4.424	≤ 11.00	Pass
11ax-HE40	MCS0	62	5310	0.807	1.159	95.37%	4.203	≤ 11.00	Pass
11ax-HE40	MCS0	102	5510	2.568	2.365	95.37%	5.684	≤ 11.00	Pass
11ax-HE40	MCS0	110	5550	2.109	2.544	95.37%	5.548	≤ 11.00	Pass
11ax-HE40	MCS0	134	5670	2.493	2.643	95.37%	5.785	≤ 11.00	Pass
11ax-HE40	MCS0	142	5710	2.530	2.330	95.37%	5.647	≤ 11.00	Pass
11ax-HE80	MCS0	42	5210	-2.461	-2.677	95.14%	0.659	≤ 11.00	Pass
11ax-HE80	MCS0	58	5290	-1.808	-1.907	95.14%	1.369	≤ 11.00	Pass
11ax-HE80	MCS0	106	5530	-0.542	-0.977	95.14%	2.473	≤ 11.00	Pass
11ax-HE80	MCS0	122	5610	-0.881	-0.470	95.14%	2.556	≤ 11.00	Pass
11ax-HE80	MCS0	138	5690	-0.866	-0.986	95.14%	2.301	≤ 11.00	Pass
11ax-HE160	MCS0	50	5250	-6.446	-4.137	95.80%	-1.943	≤ 11.00	Pass
11ax-HE160	MCS0	114	5570	-3.001	-2.945	95.80%	0.224	≤ 11.00	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)	Result
11be-EHT20	MCS0	36	5180	3.540	3.979	98.46%	6.843	≤ 11.00	Pass
11be-EHT20	MCS0	40	5200	3.503	3.524	98.46%	6.591	≤ 11.00	Pass
11be-EHT20	MCS0	48	5240	3.839	3.322	98.46%	6.666	≤ 11.00	Pass
11be-EHT20	MCS0	52	5260	3.580	3.753	98.46%	6.745	≤ 11.00	Pass
11be-EHT20	MCS0	60	5300	3.872	4.008	98.46%	7.018	≤ 11.00	Pass
11be-EHT20	MCS0	64	5320	4.022	4.032	98.46%	7.105	≤ 11.00	Pass
11be-EHT20	MCS0	100	5500	5.696	5.669	98.46%	8.760	≤ 11.00	Pass
11be-EHT20	MCS0	116	5580	5.611	5.584	98.46%	8.675	≤ 11.00	Pass
11be-EHT20	MCS0	140	5700	5.615	5.663	98.46%	8.717	≤ 11.00	Pass
11be-EHT20	MCS0	144	5720	7.197	5.726	98.46%	9.601	≤ 11.00	Pass
11be-EHT40	MCS0	38	5190	0.532	0.849	95.39%	3.909	≤ 11.00	Pass
11be-EHT40	MCS0	46	5230	0.569	0.388	95.39%	3.695	≤ 11.00	Pass
11be-EHT40	MCS0	54	5270	0.594	0.972	95.39%	4.002	≤ 11.00	Pass
11be-EHT40	MCS0	62	5310	0.060	0.294	95.39%	3.394	≤ 11.00	Pass
11be-EHT40	MCS0	102	5510	1.099	0.887	95.39%	4.210	≤ 11.00	Pass
11be-EHT40	MCS0	110	5550	2.292	2.300	95.39%	5.511	≤ 11.00	Pass
11be-EHT40	MCS0	134	5670	2.197	2.255	95.39%	5.441	≤ 11.00	Pass
11be-EHT40	MCS0	142	5710	2.504	2.495	95.39%	5.715	≤ 11.00	Pass
11be-EHT80	MCS0	42	5210	-2.430	-2.531	95.19%	0.744	≤ 11.00	Pass
11be-EHT80	MCS0	58	5290	-1.759	-1.728	95.19%	1.481	≤ 11.00	Pass
11be-EHT80	MCS0	106	5530	-0.535	-0.658	95.19%	2.628	≤ 11.00	Pass
11be-EHT80	MCS0	122	5610	-0.720	-0.757	95.19%	2.486	≤ 11.00	Pass
11be-EHT80	MCS0	138	5690	-0.839	-0.801	95.19%	2.404	≤ 11.00	Pass
11be-EHT160	MCS0	50	5250	-4.093	-3.805	96.18%	-0.767	≤ 11.00	Pass
11be-EHT160	MCS0	114	5570	-3.494	-3.915	96.18%	-0.520	≤ 11.00	Pass

Note 1: When EUT duty cycle ≥ 98%,

the total PSD (dBm/MHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/MHz).

When EUT duty cycle < 98%,

the total PSD (dBm/MHz) = $10*\log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\} + 10*\log$ (1/Duty Cycle)(dBm/MHz).

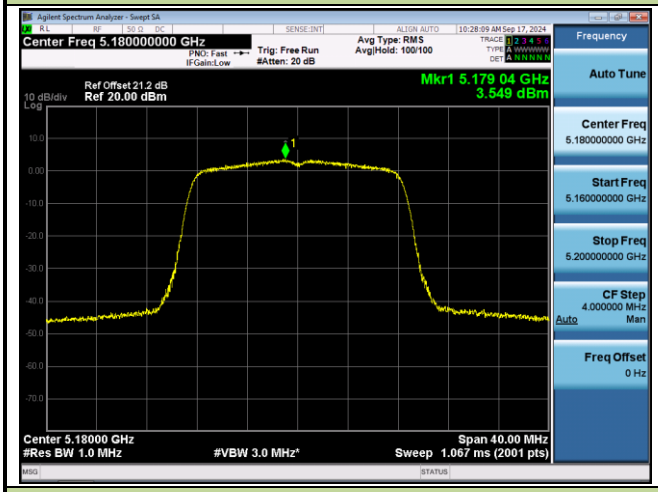
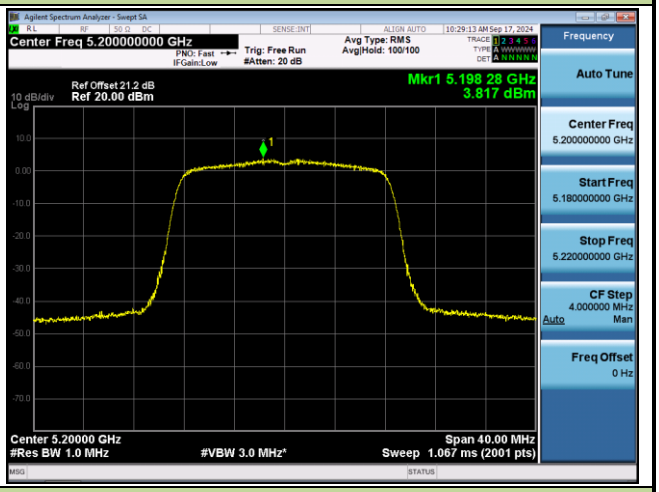
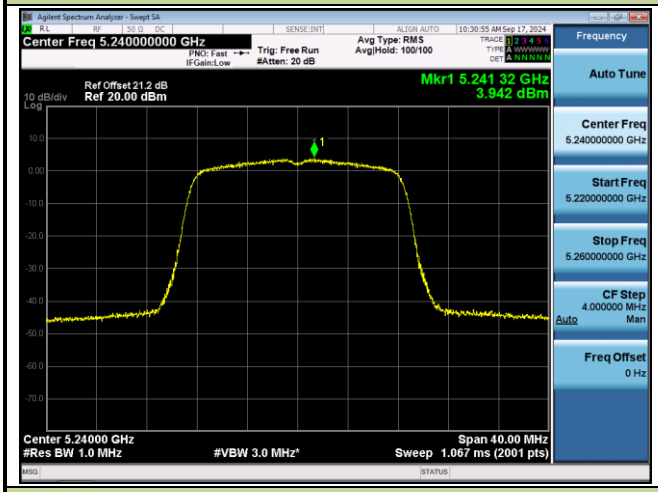
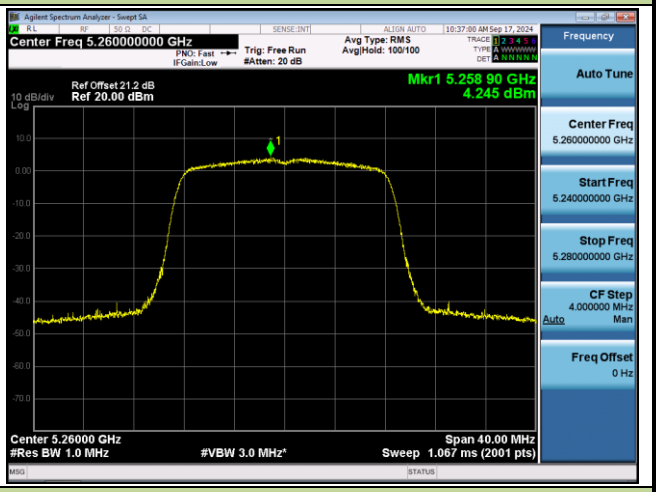
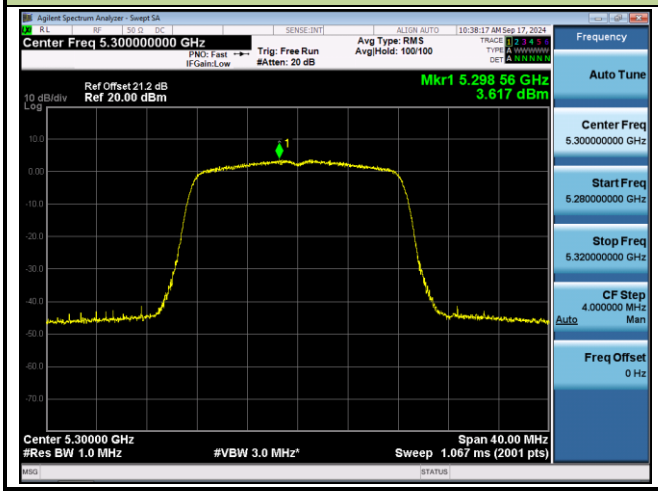
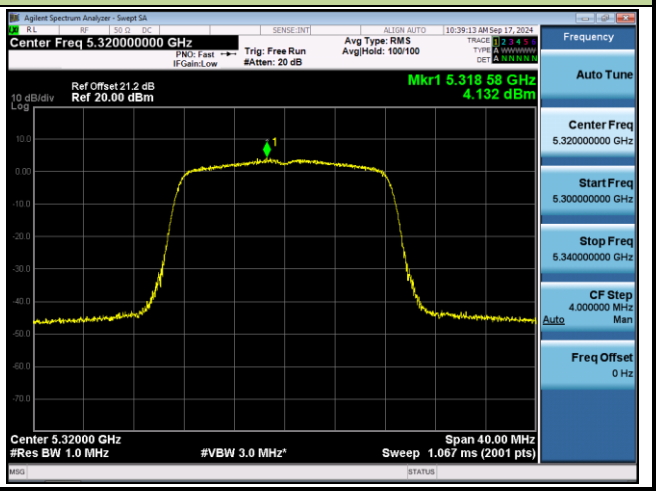
Product	BE6500 Wi-Fi 7 High Gain Wireless USB Adapter	Test Engineer	Wen
Test Site	SR6	Test Date	2024/9/17
Test Item	Power Spectral Density (U-NII-3) CDD Mode		

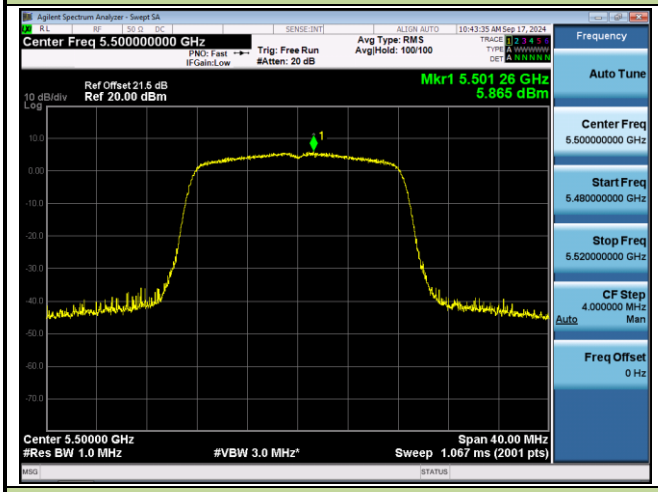
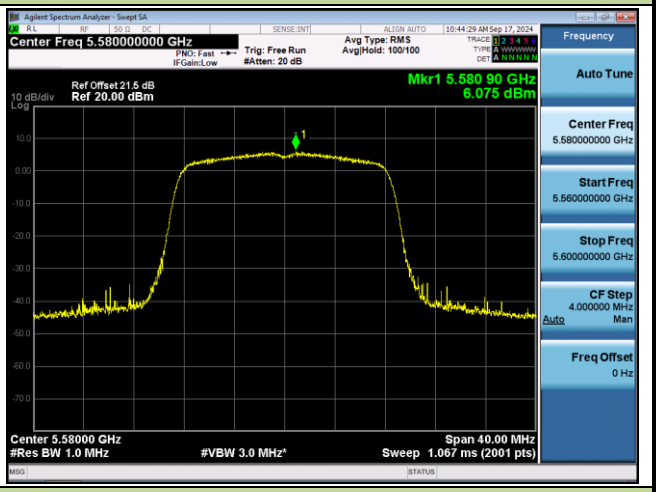
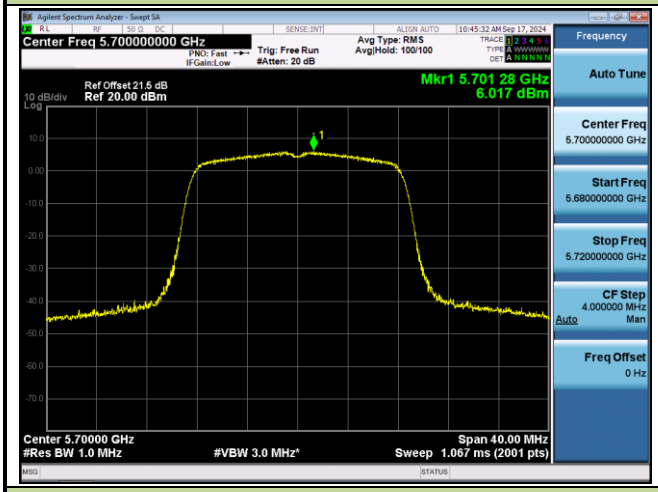
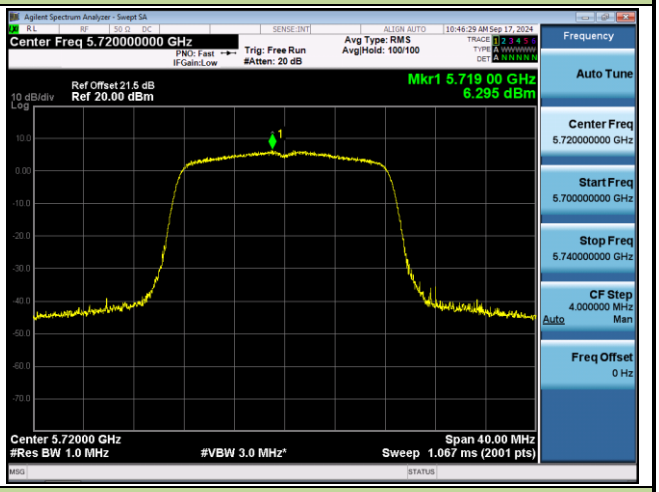
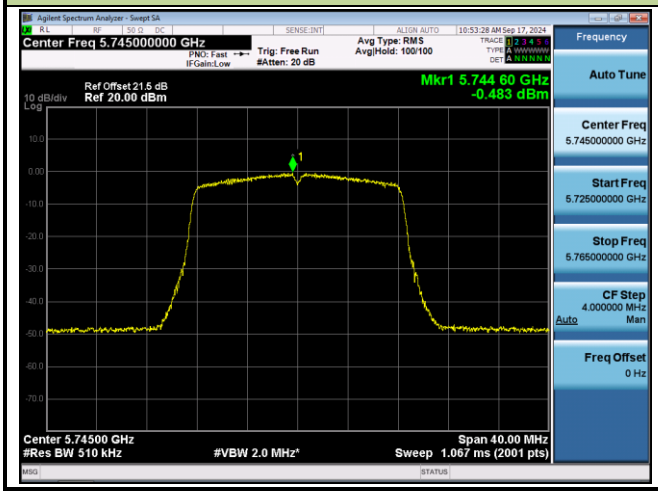
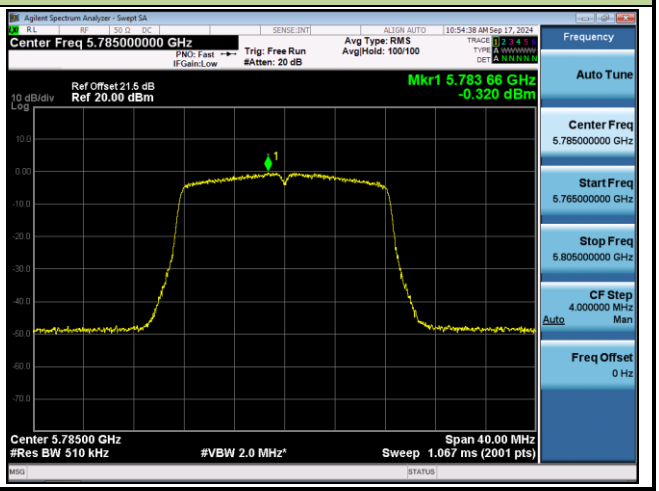
Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	Ant 0 PSD (dBm/510 KHz)	Ant 1 PSD (dBm/510 KHz)	Duty Cycle (%)	Total PSD (dBm/ 510kHz)	Limit (dBm/ 500kHz)	Result
11a	6Mbps	149	5745	-0.483	0.354	98.72%	3.022	≤ 29.99	Pass
11a	6Mbps	157	5785	-0.320	0.276	98.72%	3.054	≤ 29.99	Pass
11a	6Mbps	165	5825	-0.029	0.547	98.72%	3.335	≤ 29.99	Pass
11ac-VHT20	MCS0	149	5745	-0.302	0.272	99.01%	3.048	≤ 29.99	Pass
11ac-VHT20	MCS0	157	5785	-0.436	-0.174	99.01%	2.750	≤ 29.99	Pass
11ac-VHT20	MCS0	165	5825	-0.731	-0.369	99.01%	2.507	≤ 29.99	Pass
11ac-VHT40	MCS0	151	5755	-3.602	-3.076	95.64%	-0.127	≤ 29.99	Pass
11ac-VHT40	MCS0	159	5795	-3.626	-2.990	95.64%	-0.092	≤ 29.99	Pass
11ac-VHT80	MCS0	155	5775	-6.698	-6.439	95.72%	-3.366	≤ 29.99	Pass
11ax-HE20	MCS0	149	5745	-0.093	0.159	98.03%	3.132	≤ 29.99	Pass
11ax-HE20	MCS0	157	5785	-0.315	0.055	98.03%	2.971	≤ 29.99	Pass
11ax-HE20	MCS0	165	5825	-0.489	0.559	98.03%	3.163	≤ 29.99	Pass
11ax-HE40	MCS0	151	5755	-3.475	-2.852	95.37%	0.064	≤ 29.99	Pass
11ax-HE40	MCS0	159	5795	-3.683	-3.532	95.37%	-0.391	≤ 29.99	Pass
11ax-HE80	MCS0	155	5775	-6.403	-6.208	95.14%	-3.078	≤ 29.99	Pass
11be-EHT20	MCS0	149	5745	0.044	0.034	98.46%	3.117	≤ 29.99	Pass
11be-EHT20	MCS0	157	5785	-0.330	0.108	98.46%	2.972	≤ 29.99	Pass
11be-EHT20	MCS0	165	5825	-0.373	-0.141	98.46%	2.822	≤ 29.99	Pass
11be-EHT40	MCS0	151	5755	-3.351	-3.059	95.39%	0.013	≤ 29.99	Pass
11be-EHT40	MCS0	159	5795	-3.465	-3.163	95.39%	-0.096	≤ 29.99	Pass
11be-EHT80	MCS0	155	5775	-6.436	-5.990	95.19%	-2.983	≤ 29.99	Pass

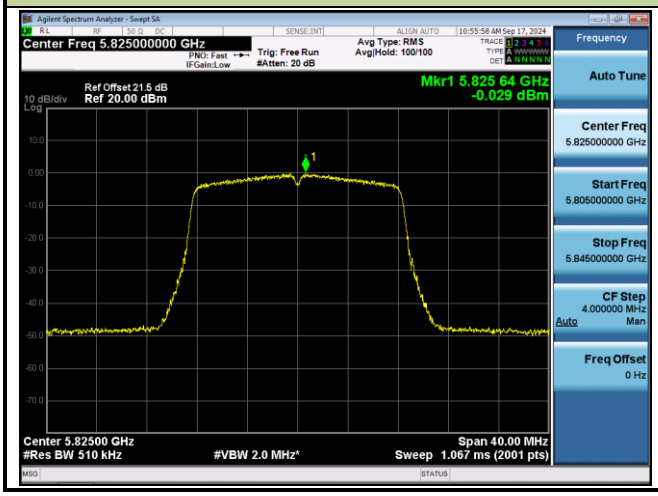
Note 1: When EUT duty cycle ≥ 98%, the total PSD (dBm/510kHz) = 10*log {$10^{(\text{Ant 0 PSD}/10)}$ + $10^{(\text{Ant 1 PSD}/10)}$} (dBm/510kHz).

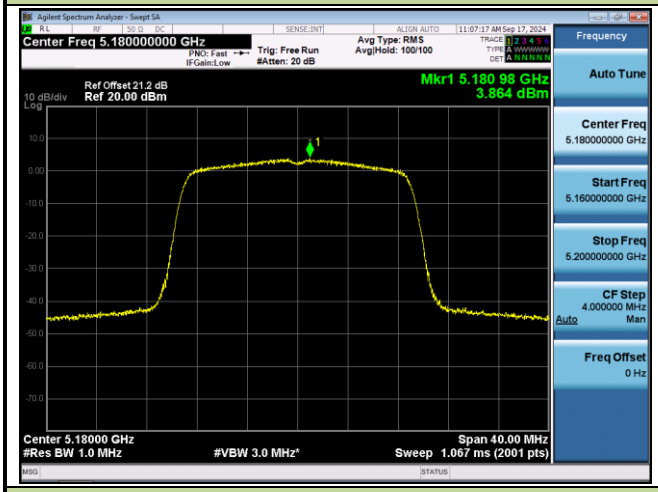
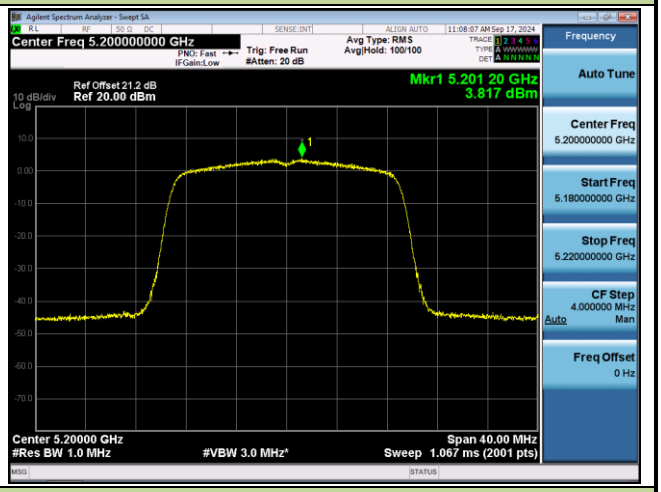
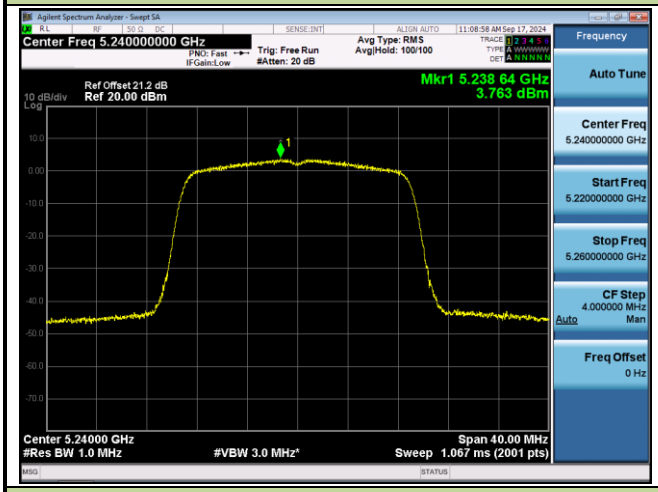
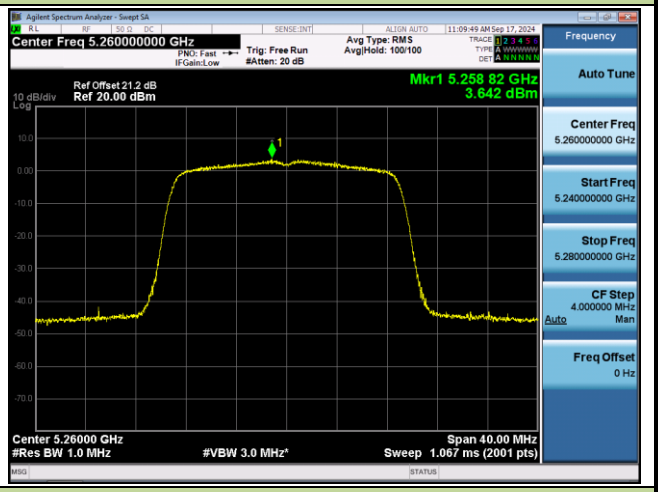
When EUT duty cycle < 98%, the total PSD (dBm/510kHz) = 10*log {$10^{(\text{Ant 0 PSD}/10)}$ + $10^{(\text{Ant 1 PSD}/10)}$} (dBm/510kHz) + 10*log (1/Duty Cycle).

Note 2: PSD Limit (dBm/500kHz) = 30 - (6.01 - 6) = 29.99 (dBm/500kHz).

802.11a Power Spectral Density - Ant 0	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

802.11a Power Spectral Density - Ant 0	
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 140 (5700MHz)	Channel 144 (5720MHz)
	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	

802.11a Power Spectral Density - Ant 0	
Channel 165 (5825MHz)	
	

802.11ac-VHT20 Power Spectral Density - Ant 0	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)