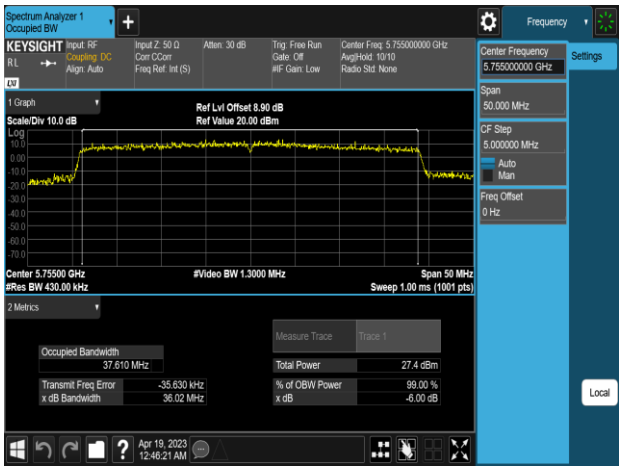
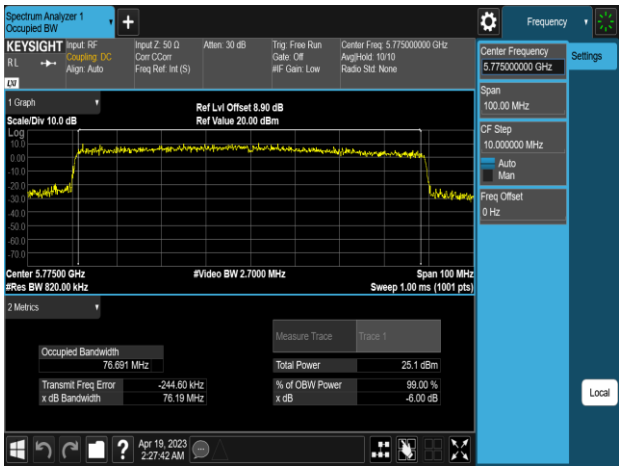
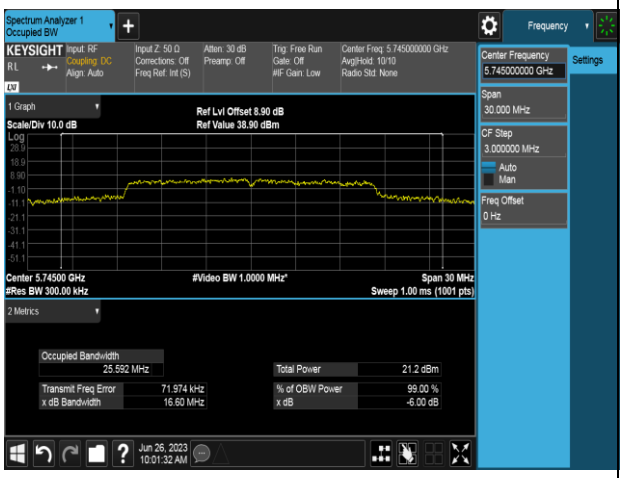
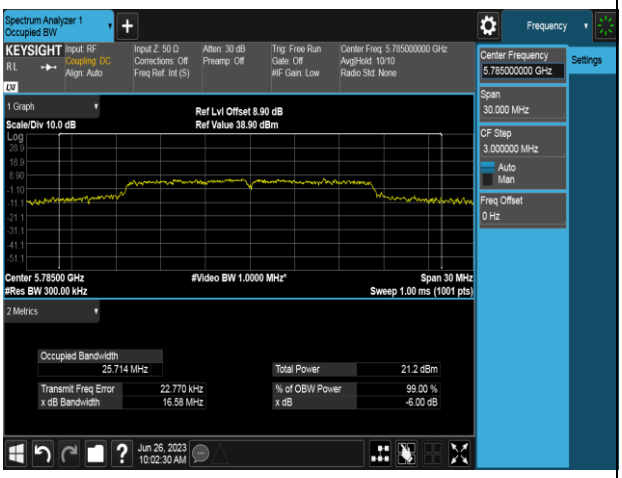
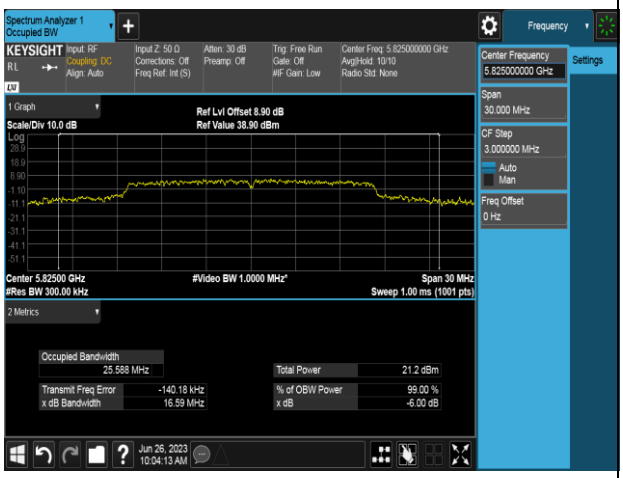
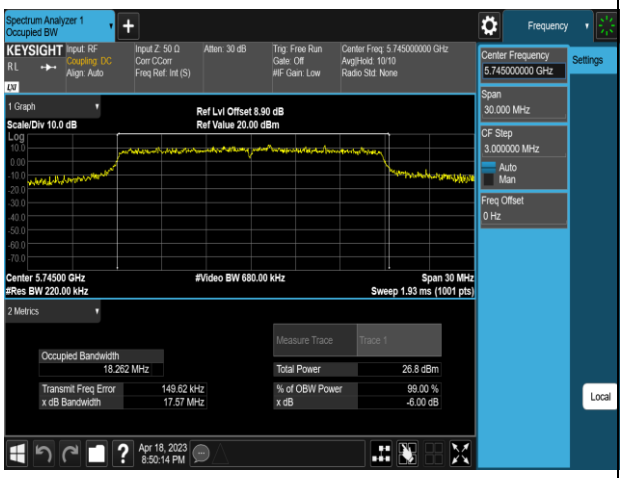
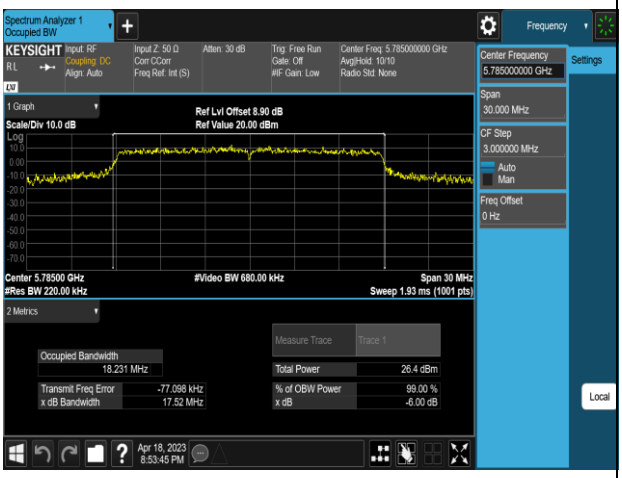
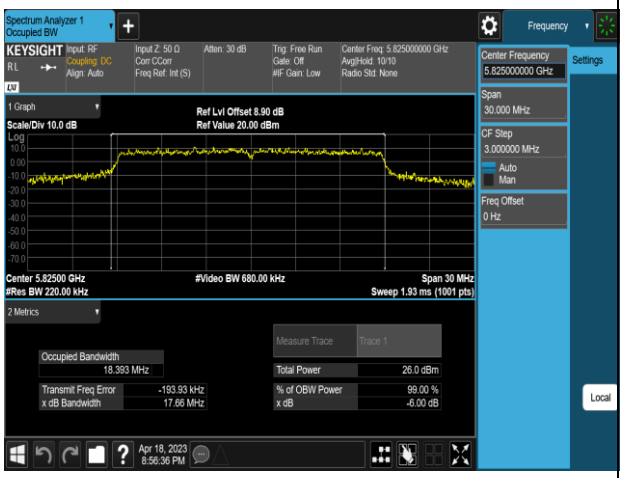
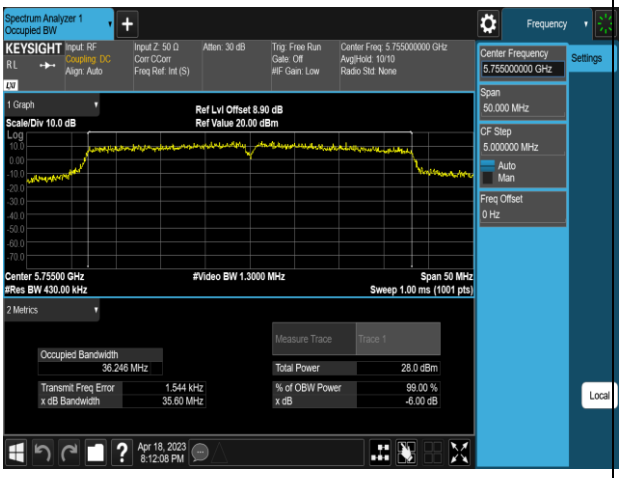
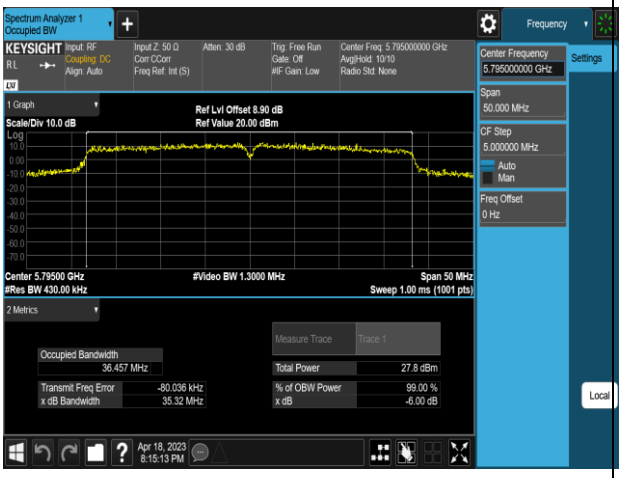
UNII-3 IEEE 802.11ax HE40 mode	
5755 MHz	**5795 MHz**
	

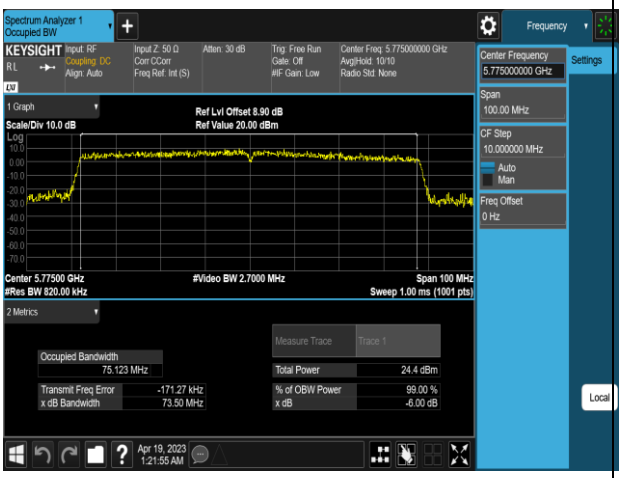
UNII-3 IEEE 802.11ax HE80 mode	
5775 MHz	
	

Non-Beamforming: UNII-3 Chain 1

UNII-3 IEEE 802.11 a mode	
5745 MHz	5785 MHz
	
5825 MHz	
	

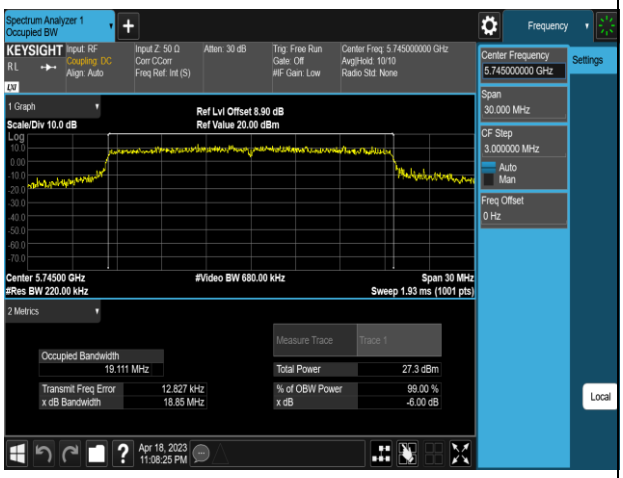
UNII-3 IEEE 802.11n HT20 mode	
5745 MHz	5785 MHz
	
5825 MHz	
	

UNII-3 IEEE 802.11n HT40 mode	
5755 MHz	5795 MHz
	

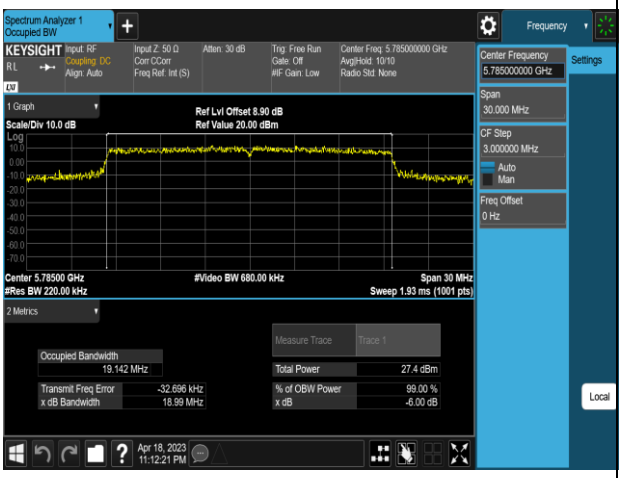
UNII-3 IEEE 802.11ac VHT80 mode
5775 MHz


UNII-3 IEEE 802.11ax HE20 mode

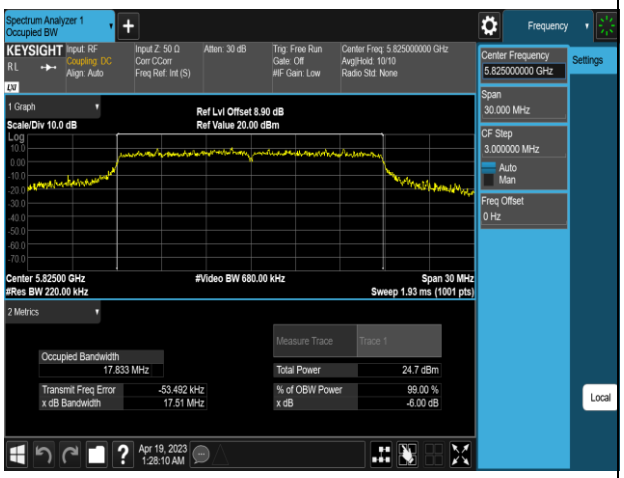
5745 MHz

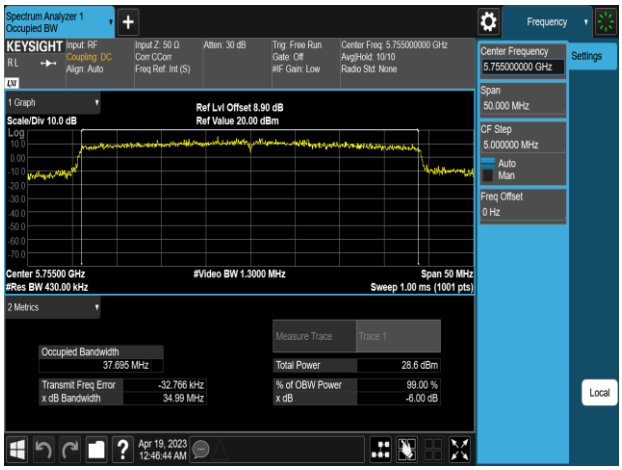
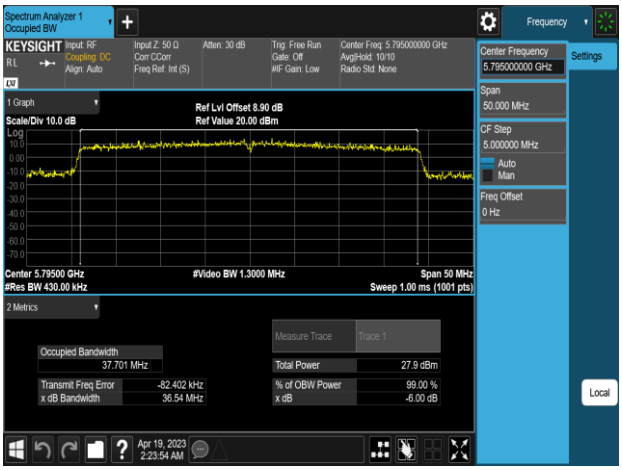


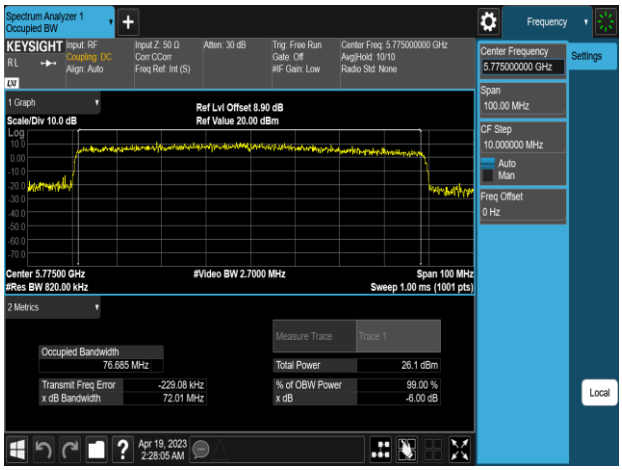
5785 MHz



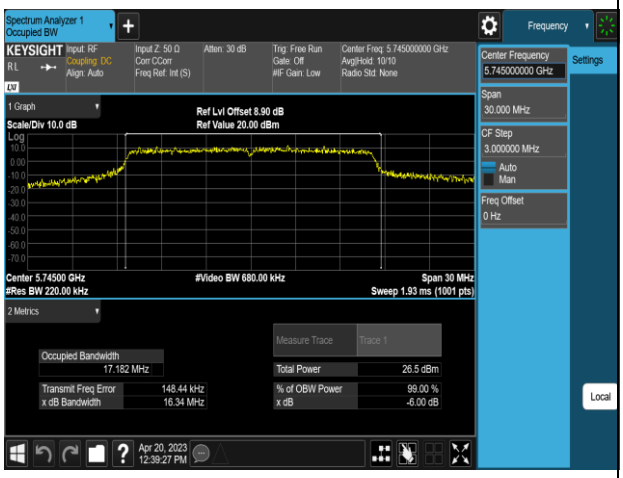
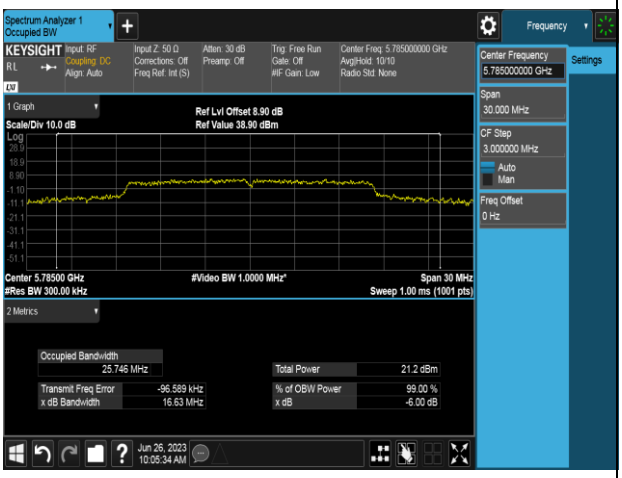
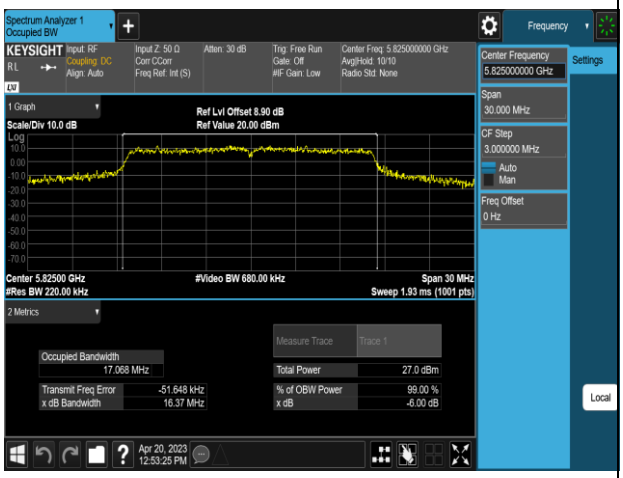
5825 MHz

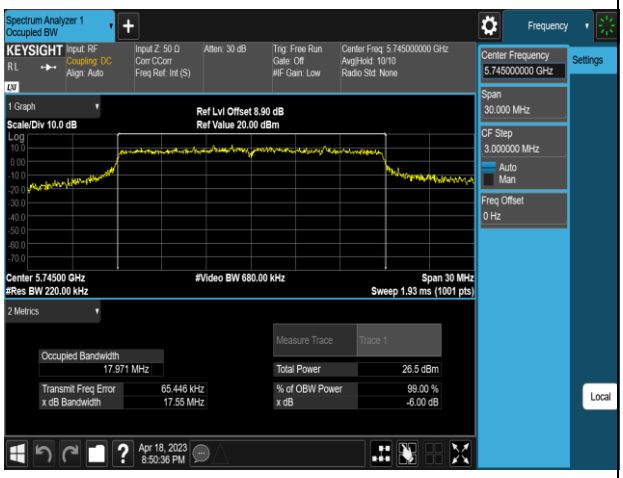
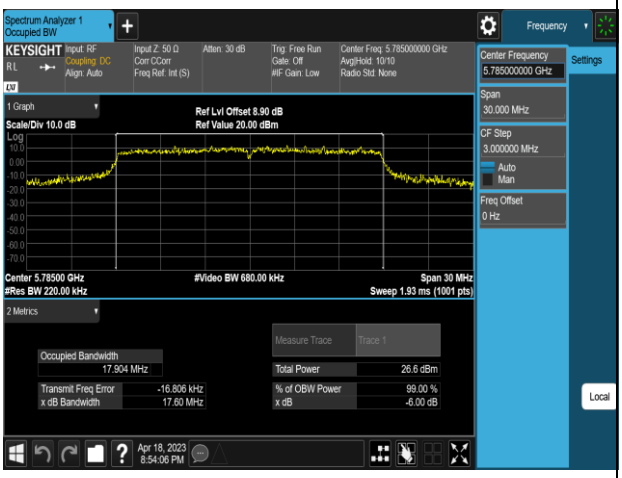
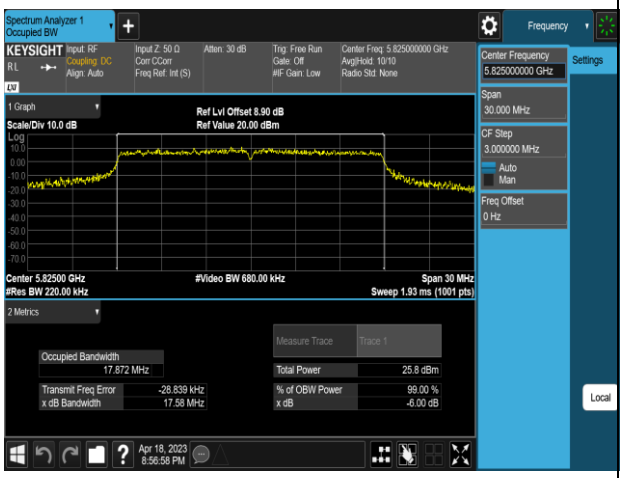


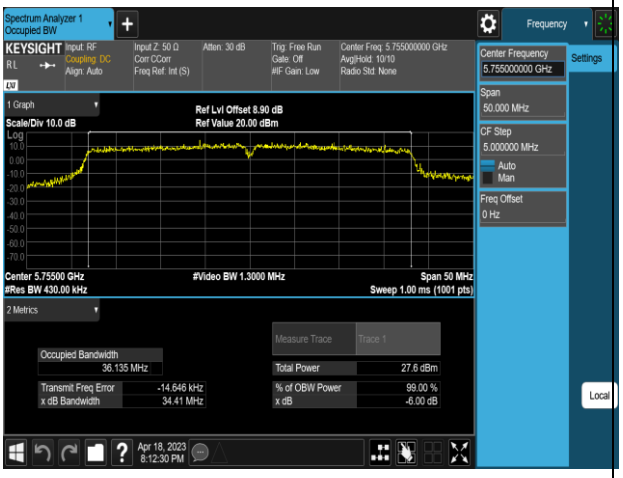
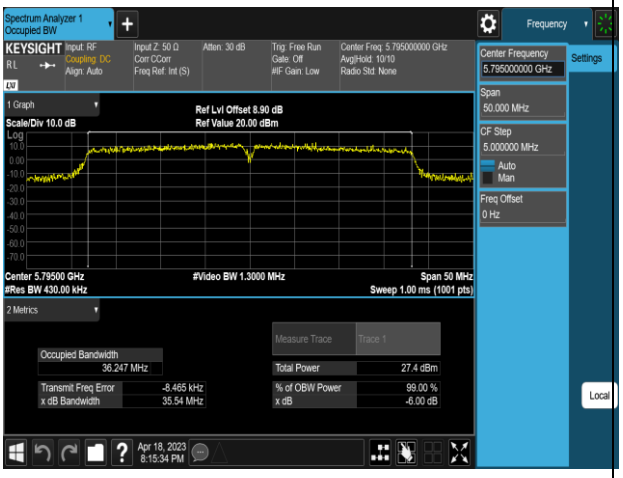
UNII-3 IEEE 802.11ax HE40 mode	
5755 MHz	**5795 MHz**
	

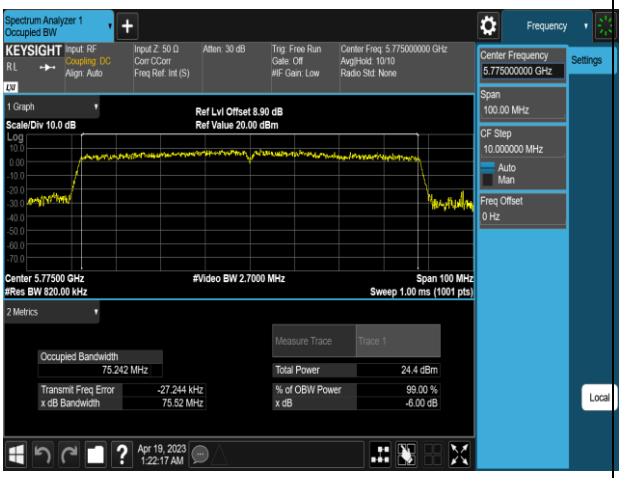
UNII-3 IEEE 802.11ax HE80 mode
5775 MHz


Non-Beamforming: UNII-3 Chain 2

UNII-3 IEEE 802.11 a mode	
5745 MHz	5785 MHz
	
5825 MHz	
	

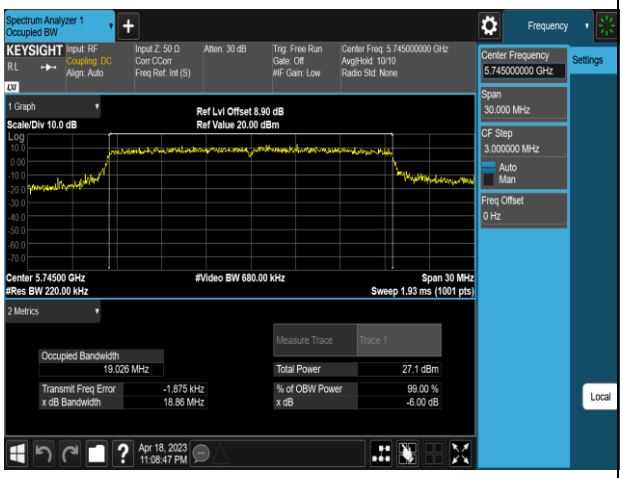
UNII-3 IEEE 802.11n HT20 mode	
5745 MHz	5785 MHz
	
5825 MHz	
	

UNII-3 IEEE 802.11n HT40 mode	
5755 MHz	5795 MHz
	

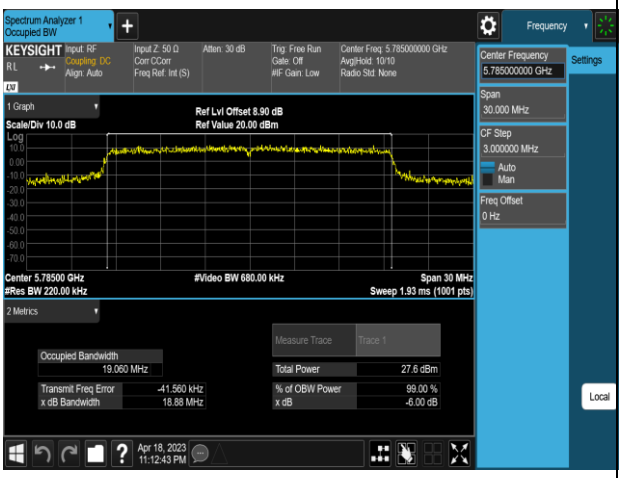
UNII-3 IEEE 802.11ac VHT80 mode
5775 MHz


UNII-3 IEEE 802.11ax HE20 mode

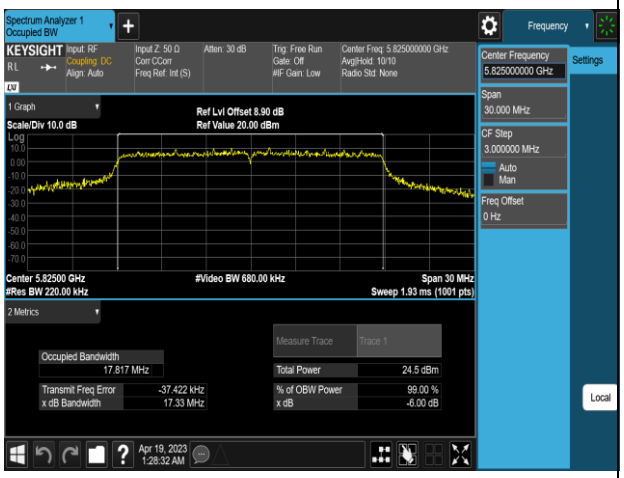
5745 MHz

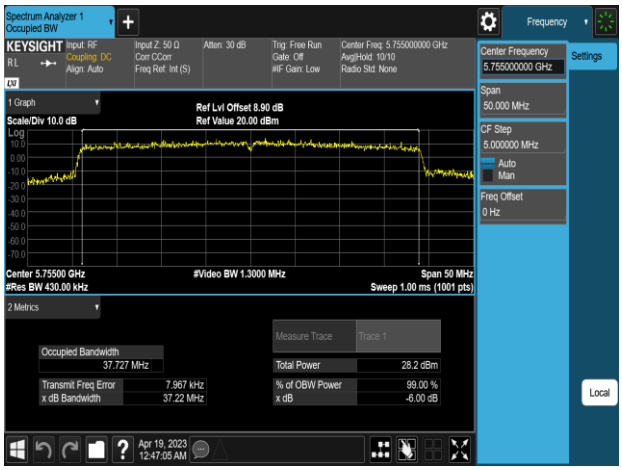
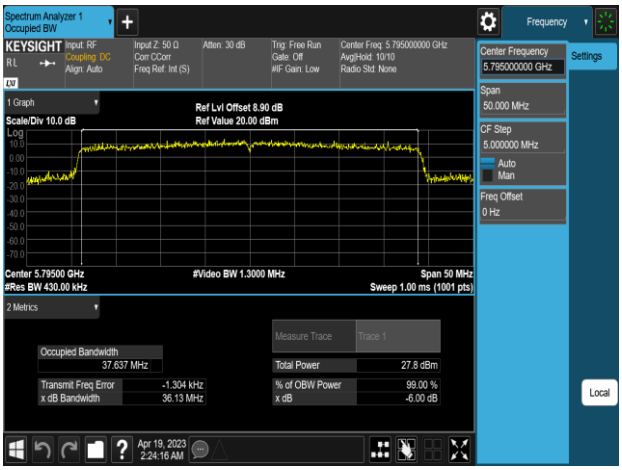


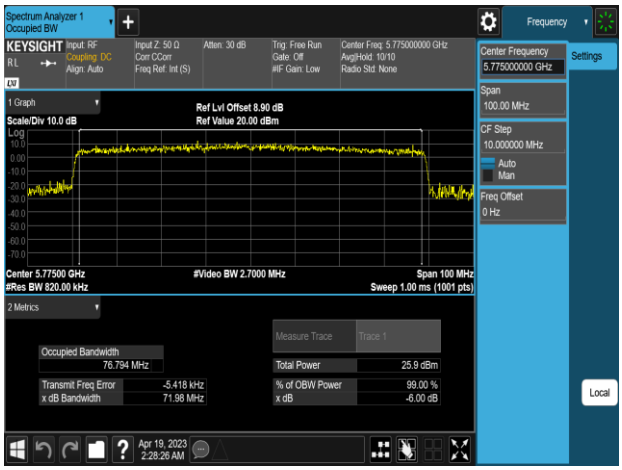
5785 MHz



5825 MHz



UNII-3 IEEE 802.11ax HE40 mode	
5755 MHz	**5795 MHz**
	

UNII-3 IEEE 802.11ax HE80 mode	
5775 MHz	
	

4.3 OUTPUT POWER MEASUREMENT

4.3.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3)

UNII-1 :

The maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-2a and 2c:

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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For 802.11a Mode: (chain 0&chain1)

UNII-1 Limit	☒ Antenna not exceed 6 dBi：30dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]
UNII-2a/2c Limit	☒ Antenna not exceed 6 dBi：24dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 24 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi：30dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]

For 802.11a Mode: (chain 2)

UNII-1 Limit	☐ Antenna not exceed 6 dBi：30dBm ☒ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]
UNII-2a Limit	☐ Antenna not exceed 6 dBi：24dBm ☒ Antenna with DG greater than 6 dBi： [Limit = 24 – (DG – 6)]
UNII-2c Limit	☒ Antenna not exceed 6 dBi：24dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 24 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi：30dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]

For 802.11n HT20/n HT40/ac VHT20/ac VHT40/ac VHT80/ac VHT160/ax HE20/ax HE40/ax HE80/ax HE160 Mode:

UNII-1 Limit	☐ Antenna not exceed 6 dBi：30dBm ☒ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]
UNII-2a/2c Limit	☐ Antenna not exceed 6 dBi：24dBm ☒ Antenna with DG greater than 6 dBi： [Limit = 24 – (DG – 6)]
UNII-3 Limit	☐ Antenna not exceed 6 dBi：30dBm ☒ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]

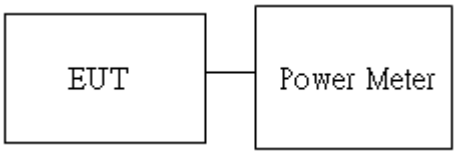
4.3.2 Test Procedure

Test method Refer as KDB 789033 D02, Section E.3.b for BW 20MHz, 40MHz and 80MHz, E.2.b for BW 160MHz.

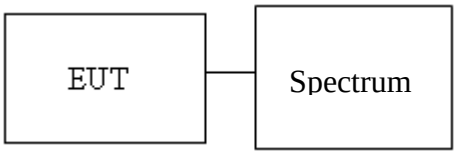
1. The EUT RF output connected to the power meter or spectrum by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

4.3.3 Test Setup

For BW 20MHz ,40MHz and 80MHz



For BW 160MHz



4.3.4 Test Result

Conducted output power：

Non-Beamforming

Temperature: 23.6~24.8℃ **Test date:** April 17~June 26, 2023

Humidity: 60~64% RH **Tested by:** Marco Chan

Test Mode: IEEE 802.11a mode

802.11a_Ch0							
CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	20	21.45	139.668	30	PASS
44	5220	6	21.5	21.78	150.694	30	PASS
48	5240	6	21.5	22.80	190.588	30	PASS
52	5260	6	19	21.14	130.046	23.98	PASS
60	5300	6	19	21.08	128.261	23.98	PASS
64	5320	6	19.5	**21.57**	143.581	23.98	PASS
100	5500	6	20	**21.89**	154.560	23.98	PASS
116	5580	6	20	21.20	131.855	23.98	PASS
140	5700	6	19.5	20.67	116.707	23.98	PASS
149	5745	6	24	**26.42**	438.628	30	PASS
157	5785	6	24	26.10	407.470	30	PASS
165	5825	6	23	26.01	399.113	30	PASS

802.11a_Ch1							
CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	18.5	19.95	98.877	30	PASS
44	5220	6	19.5	20.61	115.105	30	PASS
48	5240	6	21	**22.86**	193.239	30	PASS
52	5260	6	19	20.50	112.227	23.98	PASS
60	5300	6	19	20.28	106.683	23.98	PASS
64	5320	6	18.5	19.93	98.423	23.98	PASS
100	5500	6	19.5	20.74	118.603	23.98	PASS
116	5580	6	20	21.62	145.243	23.98	PASS
140	5700	6	18.5	20.89	122.771	23.98	PASS
149	5745	6	23	25.49	354.076	30	PASS
157	5785	6	23	25.15	327.413	30	PASS
165	5825	6	22	25.08	322.178	30	PASS

802.11a_Ch2							
CH	**Frequency (MHz)**	**Data Rate**	**Power set**	**TOTAL POWER (dBm)**	**TOTAL POWER (mW)**	**REQUIRED LIMIT (dBm)**	**RESULT**
36	5180	6	17	18.65	73.299	29.92	PASS
44	5220	6	21.5	22.49	177.458	29.92	PASS
48	5240	6	20.5	22.71	186.679	29.92	PASS
52	5260	6	19	21.29	134.616	23.91	PASS
60	5300	6	19	21.05	127.378	23.91	PASS
64	5320	6	16.5	18.70	74.147	23.91	PASS
100	5500	6	18	20.25	105.949	23.98	PASS
116	5580	6	20	21.54	142.592	23.98	PASS
140	5700	6	17.5	19.73	93.993	23.98	PASS
149	5745	6	20	21.62	145.243	30	PASS
157	5785	6	24	25.74	375.056	30	PASS
165	5825	6	20	22.20	165.995	30	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

Test Mode: IEEE 802.11n HT20 mode

802.11n_HT20_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
36	5180	MCS0	17	17.05	17.83	17.91	22.57	180.717	26.26	PASS
44	5220	MCS0	17.5	17.72	18.47	18.75	**23.29**	213.304	26.26	PASS
48	5240	MCS0	17.5	17.69	18.35	18.79	23.25	211.349	26.26	PASS
52	5260	MCS0	11.5	12.53	11.74	12.42	17.20	52.481	20.15	PASS
60	5300	MCS0	12.5	13.18	12.43	13.09	17.87	61.235	20.15	PASS
64	5320	MCS0	12.5	13.24	12.55	13.17	**17.95**	62.373	20.15	PASS
100	5500	MCS0	13	13.68	12.89	13.45	**18.31**	67.764	20.5	PASS
116	5580	MCS0	12.5	12.47	12.94	12.88	17.72	59.156	20.5	PASS
140	5700	MCS0	11.5	11.28	12.53	12.29	17.02	50.350	20.5	PASS
149	5745	MCS0	21.5	20.68	21.65	21.47	**26.24**	420.727	26.34	PASS
157	5785	MCS0	21.5	20.67	21.42	21.53	26.18	414.954	26.34	PASS
165	5825	MCS0	20.5	20.62	21.29	21.13	25.98	396.278	26.34	PASS

Test Mode: IEEE 802.11ac VHT20 mode

802.11ac_VHT20_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
36	5180	MCS0	17	17.01	17.72	17.85	22.49	177.419	26.26	PASS
44	5220	MCS0	17.5	17.68	18.43	18.71	**23.25**	211.349	26.26	PASS
48	5240	MCS0	17.5	17.62	18.27	18.71	23.17	207.491	26.26	PASS
52	5260	MCS0	11.5	12.45	11.65	12.38	17.13	51.642	20.15	PASS
60	5300	MCS0	12.5	13.16	12.37	13.04	17.82	60.534	20.15	PASS
64	5320	MCS0	12.5	13.21	12.49	13.13	**17.91**	61.802	20.15	PASS
100	5500	MCS0	13	13.65	12.83	13.37	**18.25**	66.834	20.5	PASS
116	5580	MCS0	12.5	12.43	12.89	12.82	17.67	58.479	20.5	PASS
140	5700	MCS0	11.5	11.21	12.46	12.23	16.95	49.545	20.5	PASS
149	5745	MCS0	21.5	20.63	21.59	21.44	**26.19**	415.911	26.34	PASS
157	5785	MCS0	21.5	20.58	21.39	21.45	26.11	408.319	26.34	PASS
165	5825	MCS0	20.5	20.57	21.21	21.06	25.91	389.942	26.34	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

Test Mode: IEEE 802.11n HT40 mode

802.11n_HT40_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
38	5190	MCS0	15.5	15.63	16.37	16.43	21.29	134.586	26.26	PASS
46	5230	MCS0	20	20.05	20.74	20.96	**25.73**	374.111	26.26	PASS
54	5270	MCS0	14.5	15.31	14.46	15.01	**20.07**	101.625	20.15	PASS
62	5310	MCS0	14.5	15.16	14.47	14.97	20.01	100.231	20.15	PASS
102	5510	MCS0	15	15.61	14.83	15.41	20.43	110.408	20.5	PASS
110	5550	MCS0	15	15.73	14.75	15.42	**20.45**	110.917	20.5	PASS
134	5670	MCS0	15	14.75	15.17	15.62	20.33	107.895	20.5	PASS
151	5755	MCS0	21	20.23	21.32	20.98	26.00	398.107	26.34	PASS
159	5795	MCS0	21.5	20.47	21.53	21.31	**26.26**	422.669	26.34	PASS

Test Mode: IEEE 802.11ac VHT40 mode

802.11ac_VHT40_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
38	5190	MCS0	15.5	15.58	16.31	16.37	21.24	133.045	26.26	PASS
46	5230	MCS0	20	19.98	20.72	20.89	**25.69**	370.681	26.26	PASS
54	5270	MCS0	14.5	15.27	14.43	14.89	**20.02**	100.462	20.15	PASS
62	5310	MCS0	14.5	15.12	14.39	14.91	19.96	99.083	20.15	PASS
102	5510	MCS0	15	15.54	14.76	15.35	**20.37**	108.893	20.5	PASS
110	5550	MCS0	15	15.62	14.69	15.34	**20.37**	108.893	20.5	PASS
134	5670	MCS0	15	14.71	15.11	15.58	20.29	106.905	20.5	PASS
151	5755	MCS0	21	20.17	21.25	20.93	25.95	393.550	26.34	PASS
159	5795	MCS0	21.5	20.44	21.46	21.22	**26.20**	416.869	26.34	PASS

Test Mode: IEEE 802.11ac VHT80 mode

802.11ac_VHT80_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
42	5210	MCS0	10	8.93	9.72	9.75	**14.97**	31.405	26.26	PASS
58	5290	MCS0	11	10.23	9.41	10.06	**15.40**	34.674	20.15	PASS
106	5530	MCS0	14	13.78	12.73	13.36	18.80	75.858	20.5	PASS
122	5610	MCS0	15.5	14.67	15.09	15.08	**20.44**	110.662	20.5	PASS
155	5775	MCS0	18	17.43	18.45	18.35	**23.59**	228.560	26.34	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

Test Mode: IEEE 802.11ac VHT160 mode

802.11ac_VHT160_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
50	5250	MCS0	12	8.75	9.75	9.77	**15.37**	34.435	20.15	PASS
114	5570	MCS0	13	11.04	10.05	10.75	**16.56**	45.290	20.5	PASS

Test Mode: IEEE 802.11ax HE20 mode

802.11ax_HE20_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
36	5180	MCS0	full	17.5	17.33	18.22	18.07	23.38	217.771	26.26	PASS
44	5220	MCS0	full	17	17.28	17.91	18.16	23.29	213.304	26.26	PASS
48	5240	MCS0	full	17.5	17.8	18.48	18.66	**23.82**	240.991	26.26	PASS
52	5260	MCS0	full	11.5	12.57	11.71	12.41	17.73	59.293	20.15	PASS
60	5300	MCS0	full	12.5	13.11	12.21	12.98	18.27	67.143	20.15	PASS
64	5320	MCS0	full	12.5	13.17	12.28	12.87	**18.28**	67.298	20.15	PASS
100	5500	MCS0	full	13	13.82	12.79	13.37	**18.84**	76.560	20.5	PASS
116	5580	MCS0	full	12.5	12.71	13.1	13	18.43	69.663	20.5	PASS
140	5700	MCS0	full	11.5	11.43	12.4	12.24	17.53	56.624	20.5	PASS
149	5745	MCS0	full	21	19.88	20.83	20.75	26.00	398.107	26.34	PASS
157	5785	MCS0	full	21.5	20.27	21.02	21.13	**26.31**	427.563	26.34	PASS
165	5825	MCS0	full	19	19.11	19.85	19.58	25.01	316.957	26.34	PASS

Test Mode: IEEE 802.11ax HE40 mode

802.11ax_HE40_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
38	5190	MCS0	full	14	13.96	14.65	14.69	19.93	98.401	26.26	PASS
46	5230	MCS0	full	20.5	20.24	20.88	21.09	**26.24**	420.727	26.26	PASS
54	5270	MCS0	full	14.5	14.96	14.14	14.82	**20.14**	103.276	20.15	PASS
62	5310	MCS0	full	14	14.58	13.84	14.37	19.76	94.624	20.15	PASS
102	5510	MCS0	full	14.5	15.02	14.19	14.75	20.16	103.753	20.5	PASS
110	5550	MCS0	full	14.5	15.03	14.18	14.94	20.22	103.753	20.50	PASS
134	5670	MCS0	full	15	14.38	15.01	15.45	**20.46**	111.173	20.5	PASS
151	5755	MCS0	full	21	19.98	21.05	20.74	26.10	407.380	26.34	PASS
159	5795	MCS0	full	20.5	20.16	20.98	21.01	**26.22**	418.794	26.34	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

Test Mode: IEEE 802.11ax HE80 mode

802.11ax_HE80_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
42	5210	MCS0	full	11.5	10.74	11.52	11.55	**16.80**	47.863	26.26	PASS
58	5290	MCS0	full	13	12.54	11.75	12.34	**17.74**	59.429	20.15	PASS
106	5530	MCS0	full	13	12.95	11.94	12.56	18.02	63.387	20.5	PASS
122	5610	MCS0	full	15	14.55	14.91	14.91	**20.31**	107.399	20.5	PASS
155	5775	MCS0	full	18.5	18.06	19.08	18.87	**24.21**	263.633	26.34	PASS

Test Mode: IEEE 802.11ax HE160 mode

802.11ax_HE160_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
50	5250	MCS0	full	13	10.2	11.02	11.04	**16.29**	42.560	20.15	PASS
114	5570	MCS0	full	13	11.65	10.72	11.47	**16.82**	48.084	20.5	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

TPC

Temperature: 23.6~24.8℃ **Test date:** April 17~June 26, 2023

Humidity: 60~64% RH **Tested by:** Marco Chan

Test mode: IEEE 802.11a mode

802.11a_Ch0						
CH	**Frequency (MHz)**	**Max POWER (dBm)**	**TPC Power (dBm)**	**Antenna Gain (dBi)**	**Max EIRP (dBm)**	**TPC EIRP (dBm)**
52	5260	21.14	15.14	5.21	26.35	20.350
60	5300	21.08	15.08	5.21	26.29	20.290
64	5320	**21.57**	15.57	5.21	**26.78**	20.780
100	5500	**21.89**	15.89	4.49	**26.38**	20.380
116	5580	21.20	15.20	4.49	25.69	19.690
140	5700	**20.67**	14.67	4.49	**25.16**	19.160

802.11a_Ch1						
CH	**Frequency (MHz)**	**Max POWER (dBm)**	**TPC Power (dBm)**	**Antenna Gain (dBi)**	**Max EIRP (dBm)**	**TPC EIRP (dBm)**
52	5260	**20.50**	14.50	3.730	**24.23**	18.230
60	5300	20.28	14.28	3.730	24.01	18.010
64	5320	19.93	13.93	3.730	23.66	17.660
100	5500	20.74	14.74	3.700	24.44	18.440
116	5580	**21.62**	15.62	3.700	**25.32**	19.320
140	5700	**20.89**	14.89	3.700	**24.59**	18.590

802.11a_Ch2						
CH	**Frequency (MHz)**	**Max POWER (dBm)**	**TPC Power (dBm)**	**Antenna Gain (dBi)**	**Max EIRP (dBm)**	**TPC EIRP (dBm)**
52	5260	**21.29**	15.29	6.07	**27.36**	21.360
60	5300	21.05	15.05	6.07	27.12	21.120
64	5320	18.70	12.70	6.07	24.77	18.770
100	5500	20.25	14.25	5.80	26.05	20.050
116	5580	**21.54**	15.54	5.80	**27.34**	21.340
140	5700	**19.73**	13.73	5.80	**25.53**	21.530

Test mode: IEEE 802.11n HT20 mode

802.11n_HT20_3TX						
CH	Frequency (MHz)	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
52	5260	17.20	11.20	9.83	27.03	21.030
60	5300	17.87	11.87	9.83	27.70	21.700
64	5320	**17.95**	11.95	9.83	**27.78**	21.780
100	5500	**18.31**	12.31	9.48	**27.79**	21.790
116	5580	17.72	11.72	9.48	27.20	21.200
140	5700	**17.02**	11.02	9.48	**26.50**	20.500

Test mode: IEEE 802.11ac VHT20 mode

802.11ac_VHT20_3TX						
CH	Frequency (MHz)	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
52	5260	17.13	11.13	9.83	26.96	20.960
60	5300	17.82	11.82	9.83	27.65	21.650
64	5320	**17.91**	11.91	9.83	**27.74**	21.740
100	5500	**18.25**	12.25	9.48	**27.73**	21.730
116	5580	17.67	11.67	9.48	27.15	21.150
140	5700	**16.95**	10.95	9.48	**26.43**	20.430

Test mode: IEEE 802.11n HT40 mode

802.11n_HT40_3TX						
CH	Frequency (MHz)	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
54	5270	**20.07**	14.07	9.83	**29.90**	23.900
62	5310	20.01	14.01	9.83	29.84	23.840
102	5510	20.43	14.43	9.48	29.91	23.910
110	5550	**20.45**	14.45	9.48	**29.93**	23.930
134	5670	**20.33**	14.33	9.48	**29.81**	23.810

Test mode: IEEE 802.11ac VHT40 mode

802.11ac_VHT40_3TX						
CH	Frequency (MHz)	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
54	5270	**20.02**	14.02	9.83	**29.85**	23.850
62	5310	19.96	13.96	9.83	29.79	23.790
102	5510	**20.37**	14.37	9.48	**29.85**	23.850
110	5550	**20.37**	14.37	9.48	**29.85**	23.850
134	5670	**20.29**	14.29	9.48	**29.77**	23.770

Test mode: IEEE 802.11ac VHT80 mode

802.11ac_VHT80_3TX						
CH	Frequency (MHz)	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
58	5290	15.40	9.40	9.83	25.23	19.230
106	5530	**18.80**	12.80	9.48	**28.28**	22.280
122	5610	**20.44**	14.44	9.48	**29.92**	23.920

Test mode: IEEE 802.11ac VHT160 mode

802.11ac_VHT160_3TX						
CH	Frequency (MHz)	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
50	5250	15.37	9.37	**9.83**	25.20	19.200
114	5570	**16.56**	10.56	9.83	**26.39**	20.390

Test mode: IEEE 802.11ax HE20 mode

802.11ax_HE20_3TX							
CH	Frequency (MHz)	RU config.	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
52	5260	full	17.73	11.73	9.83	27.56	21.560
60	5300	full	18.27	12.27	9.83	28.10	22.100
64	5320	full	18.28	12.28	9.83	28.11	22.110
100	5500	full	**18.84**	12.84	9.48	**28.32**	22.320
116	5580	full	**18.43**	12.43	9.48	**27.91**	21.910
140	5700	full	17.53	11.53	9.48	27.01	21.010

Test mode: IEEE 802.11ax HE40 mode

802.11ax_HE40_3TX							
CH	Frequency (MHz)	RU config.	Max POWER (dBm)	TPC Power (dBm)	Antenna Gain (dBi)	Max EIRP (dBm)	TPC EIRP (dBm)
54	5270	full	20.14	14.14	9.83	**29.97**	23.970
62	5310	full	19.76	13.76	9.83	29.59	23.590
102	5510	full	20.16	14.16	9.48	29.64	23.640
110	5550	full	20.22	14.22	9.48	29.70	23.700
134	5670	full	**20.46**	14.46	9.48	**29.94**	23.940

Test mode: IEEE 802.11ax HE80 mode

802.11ax_HE80_3TX							
CH	**Frequency (MHz)**	**RU config.**	**Max POWER (dBm)**	**TPC Power (dBm)**	**Antenna Gain (dBi)**	**Max EIRP (dBm)**	**TPC EIRP (dBm)**
58	5290	full	17.74	11.74	9.83	27.57	21.570
106	5530	full	18.02	12.02	9.48	27.50	21.500
122	5610	full	20.31	14.31	9.48	29.79	23.790

Test mode: IEEE 802.11ax HE160 mode

802.11ax_HE160_3TX							
CH	**Frequency (MHz)**	**RU config.**	**Max POWER (dBm)**	**TPC Power (dBm)**	**Antenna Gain (dBi)**	**Max EIRP (dBm)**	**TPC EIRP (dBm)**
50	**5250**	full	**16.29**	10.29	9.83	**26.12**	20.120
114	5570	full	16.82	10.82	9.83	26.65	20.65

Beamforming

Temperature: 22.1~25.4℃ **Test date:** May 3~June 14, 2023

Humidity: 57~60% RH **Tested by:** David Li

Test Mode: IEEE 802.11n HT20 mode

802.11n_HT20_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
36	5180	MCS0	12	12.16	12.93	12.69	17.38	54.684	26.26	PASS
44	5220	MCS0	12.5	12.90	13.63	13.67	18.19	65.881	26.26	PASS
48	5240	MCS0	12.5	12.96	13.61	13.71	**18.21**	66.262	26.26	PASS
52	5260	MCS0	6.5	7.67	6.88	7.41	12.11	16.240	20.15	PASS
60	5300	MCS0	7.5	8.19	7.60	8.08	12.74	18.783	20.15	PASS
64	5320	MCS0	7.5	8.20	7.70	8.14	**12.79**	19.022	20.15	PASS
100	5500	MCS0	8	8.81	7.88	8.52	**13.19**	20.864	20.5	PASS
116	5580	MCS0	7.5	7.59	8.09	8.12	12.71	18.679	20.5	PASS
140	5700	MCS0	7	6.67	7.76	7.56	12.13	16.326	20.5	PASS
149	5745	MCS0	16	15.62	16.74	16.53	21.10	128.727	26.34	PASS
157	5785	MCS0	16	15.66	16.72	16.62	**21.13**	129.790	26.34	PASS
165	5825	MCS0	15.5	15.88	16.71	16.43	21.13	129.629	26.34	PASS

Test Mode: IEEE 802.11ac VHT20 mode

802.11ac_VHT20_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
36	5180	MCS0	12	12.12	12.91	12.67	17.35	54.295	26.26	PASS
44	5220	MCS0	12.5	12.89	13.60	13.64	18.16	65.441	26.26	PASS
48	5240	MCS0	12.5	12.94	13.60	13.70	**18.19**	65.988	26.26	PASS
52	5260	MCS0	6.5	7.64	6.86	7.40	12.08	16.146	20.15	PASS
60	5300	MCS0	7.5	8.19	7.57	8.05	12.71	18.677	20.15	PASS
64	5320	MCS0	7.5	8.19	7.68	8.13	**12.77**	18.942	20.15	PASS
100	5500	MCS0	8	8.80	7.88	8.50	**13.18**	20.790	20.5	PASS
116	5580	MCS0	7.5	7.59	8.07	8.11	12.70	18.613	20.5	PASS
140	5700	MCS0	7	6.66	7.76	7.54	12.11	16.270	20.5	PASS
149	5745	MCS0	16	15.60	16.73	16.51	21.08	128.096	26.34	PASS
157	5785	MCS0	16	15.63	16.71	16.61	**21.11**	129.173	26.34	PASS
165	5825	MCS0	15.5	15.87	16.70	16.41	21.11	129.081	26.34	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

Test Mode: IEEE 802.11n HT40 mode

802.11n_HT40_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
38	5190	MCS0	10.5	11.14	11.79	11.64	16.31	42.715	26.26	PASS
46	5230	MCS0	15	15.55	16.24	16.28	**20.81**	120.497	26.26	PASS
54	5270	MCS0	9.5	10.88	9.98	10.60	**15.28**	33.701	20.15	PASS
62	5310	MCS0	9.5	10.71	9.83	10.39	15.10	32.351	20.15	PASS
102	5510	MCS0	10	11.26	10.16	10.95	15.59	36.207	20.5	PASS
110	5550	MCS0	10	11.34	10.19	11.03	**15.65**	36.759	20.5	PASS
134	5670	MCS0	10	10.14	10.67	10.97	15.38	34.518	20.5	PASS
151	5755	MCS0	15.5	15.39	16.44	16.28	20.83	121.182	26.34	PASS
159	5795	MCS0	16	15.88	16.71	16.77	**21.25**	133.218	26.34	PASS

Test Mode: IEEE 802.11ac VHT40 mode

802.11ac_VHT40_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
38	5190	MCS0	10.5	11.10	11.75	11.61	16.26	42.293	26.26	PASS
46	5230	MCS0	15	15.53	16.21	16.24	**20.77**	119.473	26.26	PASS
54	5270	MCS0	9.5	10.85	9.94	10.57	**15.24**	33.396	20.15	PASS
62	5310	MCS0	9.5	10.67	9.80	10.36	15.06	32.053	20.15	PASS
102	5510	MCS0	10	11.23	10.13	10.89	15.54	35.819	20.5	PASS
110	5550	MCS0	10	11.31	10.15	11.00	**15.61**	36.428	20.5	PASS
134	5670	MCS0	10	10.11	10.64	10.93	15.34	34.201	20.5	PASS
151	5755	MCS0	15.5	15.36	16.40	16.23	20.79	119.873	26.34	PASS
159	5795	MCS0	16	15.85	16.67	16.75	**21.21**	132.104	26.34	PASS

Test Mode: IEEE 802.11ac VHT80 mode

802.11ac_VHT80_3TX										
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
42	5210	MCS0	5	4.59	5.32	5.77	**10.03**	10.063	26.26	PASS
58	5290	MCS0	5.5	5.82	5.00	5.65	**10.28**	10.661	20.15	PASS
106	5530	MCS0	9	9.48	8.46	9.26	13.86	24.334	20.5	PASS
122	5610	MCS0	10	10.14	10.48	10.61	**15.19**	33.024	20.5	PASS
155	5775	MCS0	13	13.35	14.29	14.31	**18.78**	75.502	26.34	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

Test Mode: IEEE 802.11ac VHT160 mode

802.11ac_VHT160_3TX											
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				Ch0	Ch1	Ch2				
50	5250	MCS0	6.5	5.19	5.99	5.87	**10.47**	11.149	20.15	PASS
114	5570	MCS0	7.5	7.39	6.16	6.80	**11.59**	14.412	20.5	PASS

Test Mode: IEEE 802.11ax HE20 mode

802.11ax_HE20_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
36	5180	MCS0	full	12	13.03	13.73	13.61	18.24	66.632	26.26	PASS
44	5220	MCS0	full	12	13.26	14.00	13.92	18.51	70.936	26.26	PASS
48	5240	MCS0	full	12.5	13.78	14.30	14.51	**18.98**	79.013	26.26	PASS
52	5260	MCS0	full	6.5	8.22	7.63	8.44	12.88	19.407	20.15	PASS
60	5300	MCS0	full	7.5	8.93	8.35	8.84	13.48	22.303	20.15	PASS
64	5320	MCS0	full	7.5	8.92	8.45	8.80	**13.50**	22.374	20.15	PASS
100	5500	MCS0	full	8	9.58	8.50	9.31	**13.92**	24.679	20.5	PASS
116	5580	MCS0	full	7.5	8.37	8.92	8.67	13.43	22.023	20.5	PASS
140	5700	MCS0	full	6.5	6.88	7.95	7.86	12.36	17.216	20.5	PASS
149	5745	MCS0	full	15.5	15.81	16.87	16.56	21.21	131.987	26.34	PASS
157	5785	MCS0	full	15.5	15.93	16.85	16.79	**21.31**	135.293	26.34	PASS
165	5825	MCS0	full	13.5	14.70	15.40	15.26	19.90	97.723	26.34	PASS

Test Mode: IEEE 802.11ax HE40 mode

802.11ax_HE40_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
38	5190	MCS0	full	8.5	9.52	10.29	10.36	14.84	30.488	26.26	PASS
46	5230	MCS0	full	15	16.11	16.71	16.88	**21.35**	136.374	26.26	PASS
54	5270	MCS0	full	9	10.97	10.07	10.70	**15.36**	34.391	20.15	PASS
62	5310	MCS0	full	8.5	10.13	9.40	10.00	14.62	28.994	20.15	PASS
102	5510	MCS0	full	9	10.74	9.72	10.35	15.06	32.051	20.5	PASS
110	5550	MCS0	full	9	10.89	9.91	10.69	15.29	32.051	20.50	PASS
134	5670	MCS0	full	9.5	10.16	10.69	11.11	**15.44**	34.986	20.5	PASS
151	5755	MCS0	full	15	15.87	16.93	16.78	21.32	135.506	26.34	PASS
159	5795	MCS0	full	15.5	15.96	16.83	16.89	**21.35**	136.414	26.34	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

Test Mode: IEEE 802.11ax HE80 mode

802.11ax_HE80_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
42	5210	MCS0	full	6.5	6.38	7.25	7.35	**11.78**	15.079	26.26	PASS
58	5290	MCS0	full	8	8.24	7.66	8.15	**12.79**	19.025	20.15	PASS
106	5530	MCS0	full	8	8.57	7.53	8.26	12.91	19.546	20.5	PASS
122	5610	MCS0	full	10	10.45	10.78	10.93	**15.49**	35.430	20.5	PASS
155	5775	MCS0	full	13	13.66	14.65	14.57	**19.09**	81.004	26.34	PASS

Test Mode: IEEE 802.11ax HE160 mode

802.11ax_HE160_3TX											
CH	Frequency (MHz)	Data Rate	RU config.	Power set	Avg. POWER (dBm)			TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
					Ch0	Ch1	Ch2				
50	5250	MCS0	full	7.5	6.01	6.78	6.27	**11.13**	12.982	20.15	PASS
114	5570	MCS0	full	8	7.49	6.53	7.36	**11.92**	15.542	20.5	PASS

Note: Since DG>6dBi, there is need to modify the limit value.

4.4 POWER SPECTRAL DENSITY

4.4.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3)

UNII-1 :

The maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. For client devices, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

UNII-2a and 2c:

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

UNII-3:

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For 802.11a Mode: (chain 0&chain 1)

UNII-1 Limit	☒ Antenna not exceed 6 dBi：17 dBm/MHz ☐ Antenna with DG greater than 6 dBi： [Limit = 17 – (DG – 6) dBm/MHz]
UNII-2a/2c Limit	☒ Antenna not exceed 6 dBi：11 dBm/MHz ☐ Antenna with DG greater than 6 dBi： [Limit = 11 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi：30 dBm/500kHz ☐ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6) dBm/500kHz]

For 802.11a Mode: (chain 2)

UNII-1 Limit	☐ Antenna not exceed 6 dBi：17 dBm/MHz ☒ Antenna with DG greater than 6 dBi： [Limit = 17 – (DG – 6) dBm/MHz]
UNII-2a Limit	☐ Antenna not exceed 6 dBi：11 dBm/MHz ☒ Antenna with DG greater than 6 dBi： [Limit = 11 – (DG – 6)]
UNII-2c Limit	☒ Antenna not exceed 6 dBi：11 dBm/MHz ☐ Antenna with DG greater than 6 dBi： [Limit = 11 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi：30 dBm/500kHz ☐ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6) dBm/500kHz]

For 802.11n HT20/n HT40/ac VHT20/ac VHT40/ac VHT80/ac VHT160/ax HE20/ax HE40/ax HE80/ax HE160 Mode:

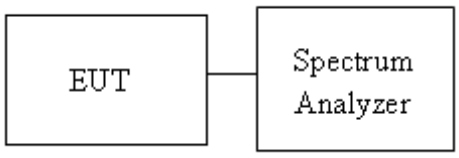
UNII-1 Limit	☐ Antenna not exceed 6 dBi：17 dBm/MHz ☒ Antenna with DG greater than 6 dBi： [Limit = 17 – (DG – 6) dBm/MHz]
UNII-2a/2c Limit	☐ Antenna not exceed 6 dBi：11 dBm/MHz ☒ Antenna with DG greater than 6 dBi： [Limit = 11 – (DG – 6)]
UNII-3 Limit	☐ Antenna not exceed 6 dBi：30 dBm/500kHz ☒ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6) dBm/500kHz]

4.4.2 Test Procedure

Test method Refer as KDB 789033 D02

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. UNII-1, UNII-2a and UNII-2c, SA set RBW = 1MHz, VBW = 3MHz and Detector = RMS, to measurement Power Density.
4. UNII-3, SA set RBW = 500kHz, VBW = 2MHz and Detector = RMS, to measurement Power Density
5. The path loss and Duty Factor were compensated to the results for each measurement by SA.
6. Mark the maximum level.
7. Measure and record the result of power spectral density. in the test report.

4.4.3 Test Setup



4.4.4 Test Result

Non-Beamforming

Temperature: 23.6~24.8℃ **Test date:** April 17~June 26, 2023

Humidity: 57% RH **Tested by:** Marco Chan

POWER DENSITY 802.11a MODE								
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5180	11.596	10.171	8.665	0.17	11.77		16.92	-5.15
5220	12.879	11.600	13.348	0.17	13.52		16.92	-3.40
5240	12.072	12.182	11.750	0.17	12.35		16.92	-4.57
5260	10.402	10.071	10.671	0.17	10.84		10.93	-0.09
5300	9.712	8.938	10.242	0.17	10.41		10.93	-0.52
5320	10.089	8.546	7.546	0.17	10.26		10.93	-0.67
5500	10.678	9.688	8.861	0.17	10.85		11.00	-0.15
5580	10.390	10.726	10.816	0.17	10.99		11.00	-0.01
5700	10.817	10.324	9.571	0.17	10.99		11.00	-0.01
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5745	10.446	9.989	7.177	0.17	2.22	12.84	30.00	-17.16
5785	9.534	9.660	10.131	0.17	2.22	12.52	30.00	-17.48
5825	9.635	9.264	6.850	0.17	2.22	12.03	30.00	-17.98

Note: Since DG>6dBi, there is need to modify the limit value.

POWER DENSITY 802.11n HT20 MODE								
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5180	6.878	7.528	7.601	0.18	12.30		13.26	-0.96
5220	7.377	8.332	8.642	0.18	13.10		13.26	-0.16
5240	7.123	8.094	8.126	0.18	12.76		13.26	-0.50
5260	1.825	1.248	1.693	0.18	6.55		7.17	-0.62
5300	2.175	1.321	2.094	0.18	6.83		7.17	-0.34
5320	2.254	1.373	1.881	0.18	6.80		7.17	-0.37
5500	2.633	2.115	2.448	0.18	7.36		7.52	-0.16
5580	1.999	2.730	2.636	0.18	7.42		7.52	-0.10
5700	1.242	2.711	2.343	0.18	7.09		7.52	-0.43
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5745	6.038	7.281	6.589	0.18	2.22	13.84	26.34	-12.50
5785	6.224	6.465	6.887	0.18	2.22	13.71	26.34	-12.63
5825	5.647	6.077	5.888	0.18	2.22	13.05	26.34	-13.29

POWER DENSITY 802.11n HT40 MODE								
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5190	2.909	3.693	3.787	0.36	8.61		13.26	-4.65
5230	7.089	7.861	8.090	0.36	12.83		13.26	-0.43
5270	1.604	0.870	1.876	0.36	6.60		7.17	-0.57
5310	1.373	0.597	1.114	0.36	6.17		7.17	-1.00
5510	2.460	1.349	1.803	0.36	7.03		7.52	-0.49
5550	2.455	1.561	2.822	0.36	7.44		7.52	-0.08
5670	1.828	2.417	2.774	0.36	7.49		7.52	-0.03
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5755	3.729	3.984	3.901	0.36	2.22	11.22	26.34	-15.12
5795	3.244	4.213	4.135	0.36	2.22	11.24	26.34	-15.10

Note: Since DG>6dBi, there is need to modify the limit value.

POWER DENSITY 802.11ac VHT80 MODE								
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5210	-5.749	-5.948	-6.224	0.72	-0.48		13.26	-13.74
5290	-5.164	-6.304	-6.296	0.72	-0.40		7.17	-7.57
5530	-2.284	-2.738	-2.141	0.72	3.11		7.52	-4.41
5610	-1.786	-0.677	-0.515	0.72	4.53		7.52	-2.99
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5775	-3.781	-3.007	-2.726	0.72	2.22	4.56	26.34	-21.78

POWER DENSITY 802.11ac VHT160 MODE							
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)	(dBm/MHz)	(dB)
5250	-9.120	-8.240	-8.800	1.15	-2.78	7.17	-9.95
5570	-7.037	-7.553	-7.608	1.15	-1.47	7.52	-8.99

Note: Since DG>6dBi, there is need to modify the limit value.

POWER DENSITY 802.11ax HE20 MODE									
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5180	full	6.988	7.864	7.851	0.72	13.08		13.26	-0.18
5220	full	6.895	7.499	7.518	0.72	12.80		13.26	-0.46
5240	full	6.957	7.906	8.017	0.72	13.14		13.26	-0.12
5260	full	1.634	0.814	1.534	0.72	6.83		7.17	-0.34
5300	full	1.806	0.849	1.747	0.72	6.98		7.17	-0.19
5320	full	1.774	0.826	1.443	0.72	6.86		7.17	-0.31
5500	full	2.173	1.391	2.101	0.72	7.39		7.52	-0.13
5580	full	1.595	2.107	2.038	0.72	7.41		7.52	-0.11
5700	full	1.515	2.407	2.058	0.72	7.50		7.52	-0.02
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5745	full	5.270	6.286	6.194	0.72	2.22	13.65	26.34	-12.69
5785	full	5.357	6.140	6.438	0.72	2.22	13.71	26.34	-12.63
5825	full	3.587	4.200	4.212	0.72	2.22	11.72	26.34	-14.62

POWER DENSITY 802.11ax HE40 MODE									
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5190	full	0.451	1.662	1.104	0.72	6.59		13.26	-6.67
5230	full	6.808	7.946	7.912	0.72	13.08		13.26	-0.18
5270	full	1.298	0.608	1.499	0.72	6.64		7.17	-0.53
5310	full	0.825	-0.180	0.662	0.72	5.95		7.17	-1.22
5510	full	1.399	0.560	1.485	0.72	6.66		7.52	-0.86
5550	full	2.069	1.100	1.812	0.72	7.17		7.52	-0.35
5670	full	1.180	1.813	2.733	0.72	7.45		7.52	-0.07
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5755	full	2.848	3.971	3.357	0.72	2.22	11.13	26.34	-15.21
5795	full	2.541	3.171	3.372	0.72	2.22	10.75	26.34	-15.59

Note: Since DG>6dBi, there is need to modify the limit value.

POWER DENSITY 802.11ax HE80 MODE									
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5210	full	-5.558	-3.421	-4.391	0.75	1.15		13.26	-12.11
5290	full	-3.291	-3.810	-4.120	0.75	1.79		7.17	-5.38
5530	full	-2.388	-3.359	-3.121	0.75	2.59		7.52	-4.93
5610	full	-1.308	-0.630	-1.029	0.75	4.54		7.52	-2.98
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5775	full	-2.614	-1.269	-1.526	0.75	2.22	5.98	26.34	-20.36

POWER DENSITY 802.11ax HE160 MODE								
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)	(dBm/MHz)	(dB)
5250	full	-8.333	-7.561	-7.957	0.75	-2.42	7.17	-9.59
5570	full	-6.574	-7.633	-7.493	0.75	-1.69	7.52	-9.21

Note: Since DG>6dBi, there is need to modify the limit value.

Beamforming

Temperature: 22.1~25.4℃ **Test date:** May 3~June 14, 2023

Humidity: 57~60% RH **Tested by:** David Li

POWER DENSITY 802.11n HT20 MODE								
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5180	1.69	2.50	2.28	0.18	7.12		13.26	-6.14
5220	2.20	2.83	2.82	0.18	7.58		13.26	-5.68
5240	2.46	2.78	2.70	0.18	7.60		13.26	-5.66
5260	-3.52	-4.31	-3.54	0.18	1.18		7.17	-5.99
5300	-3.56	-3.87	-3.35	0.18	1.36		7.17	-5.81
5320	-3.32	-3.90	-3.45	0.18	1.40		7.17	-5.77
5500	-2.75	-3.79	-3.05	0.18	1.78		7.52	-5.74
5580	-3.32	-2.68	-2.77	0.18	2.04		7.52	-5.48
5700	-3.12	-2.21	-2.44	0.18	2.38		7.52	-5.14
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5745	0.63	1.81	1.27	0.18	2.22	8.44	26.34	-17.90
5785	0.71	1.68	1.31	0.18	2.22	8.42	26.34	-17.92
5825	0.62	1.19	1.13	0.18	2.22	8.16	26.34	-18.18

POWER DENSITY 802.11n HT40 MODE								
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5190	-2.30	-1.27	-1.63	0.36	3.42		13.26	-9.84
5230	1.85	2.76	2.79	0.36	7.62		13.26	-5.64
5270	-2.62	-3.60	-2.51	0.36	2.25		7.17	-4.92
5310	-3.60	-4.40	-3.36	0.36	1.37		7.17	-5.80
5510	-2.95	-4.33	-3.47	0.36	1.59		7.52	-5.93
5550	-2.31	-3.55	-2.46	0.36	2.39		7.52	-5.13
5670	-2.94	-2.61	-2.11	0.36	2.59		7.52	-4.93
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5755	-2.52	-1.34	-1.56	0.36	2.22	5.57	26.34	-20.77
5795	-2.48	-1.26	-1.33	0.36	2.22	5.70	26.34	-20.64

Note: Since DG>6dBi, there is need to modify the limit value.

POWER DENSITY 802.11ac VHT80 MODE								
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5210	-12.28	-11.35	-11.38	0.72	-6.15		13.26	-19.41
5290	-10.02	-11.94	-11.37	0.72	-5.54		7.17	-12.71
5530	-6.89	-8.28	-7.76	0.72	-2.12		7.52	-9.64
5610	-6.53	-6.50	-5.82	0.72	-0.78		7.52	-8.30
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5775	-8.81	-7.85	-7.65	0.72	2.22	-0.36	26.34	-26.70

POWER DENSITY 802.11ac VHT160 MODE							
Frequency	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD	Limit	Margin
(MHz)	(dBm/MHz)			(dB)	(dBm/MHz)	(dBm/MHz)	(dB)
5250	-14.04	-13.24	-13.79	1.15	-7.76	7.17	-14.93
5570	-11.54	-12.70	-12.64	1.15	-6.34	7.52	-13.86

Note: Since DG>6dBi, there is need to modify the limit value.

POWER DENSITY 802.11ax HE20 MODE									
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5180	full	1.69	2.45	2.56	0.72	7.74		13.26	-5.52
5220	full	1.76	2.83	2.85	0.72	8.00		13.26	-5.26
5240	full	2.39	3.24	3.26	0.72	8.47		13.26	-4.79
5260	full	-3.13	-4.00	-3.36	0.72	2.01		7.17	-5.16
5300	full	-3.40	-3.49	-3.84	0.72	1.92		7.17	-5.25
5320	full	-3.51	-3.97	-3.29	0.72	1.91		7.17	-5.26
5500	full	-2.87	-3.77	-2.96	0.72	2.31		7.52	-5.21
5580	full	-3.42	-2.92	-3.22	0.72	2.31		7.52	-5.21
5700	full	-4.27	-2.93	-2.89	0.72	2.18		7.52	-5.34
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5745	full	0.42	1.27	0.99	0.72	2.22	8.62	26.34	-17.72
5785	full	0.24	0.95	0.91	0.72	2.22	8.42	26.34	-17.92
5825	full	-1.65	-1.00	-1.09	0.72	2.22	6.48	26.34	-19.86

POWER DENSITY 802.11ax HE40 MODE									
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5190	full	-4.35	-3.07	-3.77	0.72	1.80		13.26	-11.46
5230	full	2.51	3.18	3.17	0.72	8.46		13.26	-4.80
5270	full	-3.10	-3.99	-3.44	0.72	2.00		7.17	-5.17
5310	full	-4.07	-5.30	-4.42	0.72	0.93		7.17	-6.24
5510	full	-3.48	-4.49	-3.69	0.72	1.62		7.52	-5.90
5550	full	-3.11	-4.01	-3.24	0.72	2.06		7.52	-5.46
5670	full	-2.90	-2.78	-2.07	0.72	2.93		7.52	-4.59
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5755	full	-2.04	-0.60	-1.38	0.72	2.22	6.41	26.34	-19.93
5795	full	-2.86	-2.06	-1.82	0.72	2.22	5.49	26.34	-20.85

Note: Since DG>6dBi, there is need to modify the limit value.

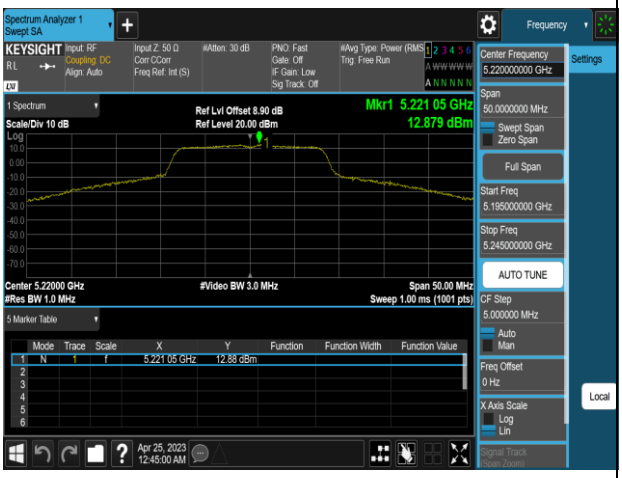
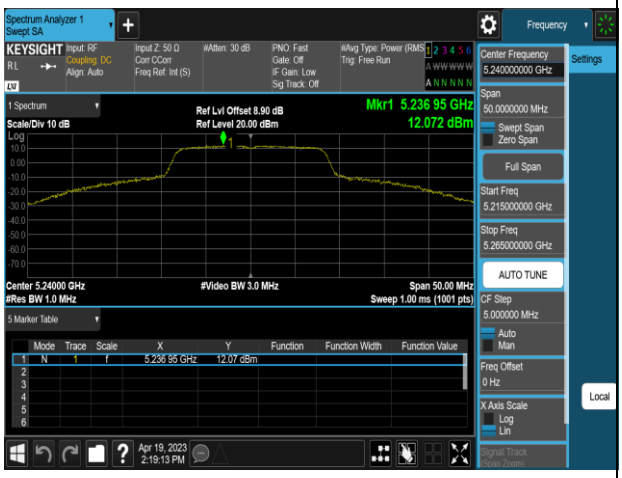
POWER DENSITY 802.11ax HE80 MODE									
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD		Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)		(dBm/MHz)	(dB)
5210	full	-10.84	-9.12	-9.54	0.75	-4.25		13.26	-17.51
5290	full	-8.90	-9.48	-8.17	0.75	-3.30		7.17	-10.47
5530	full	-8.40	-8.71	-8.68	0.75	-3.07		7.52	-10.59
5610	full	-6.52	-5.90	-7.16	0.75	-0.98		7.52	-8.50
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	10log Factor(dB)	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/300MHz)			(dB)	(500kHz/RBW)	(dBm/500kHz)	(dBm/500kHz)	(dB)
5775	full	-8.15	-7.38	-7.63	0.75	2.22	0.03	26.34	-26.31

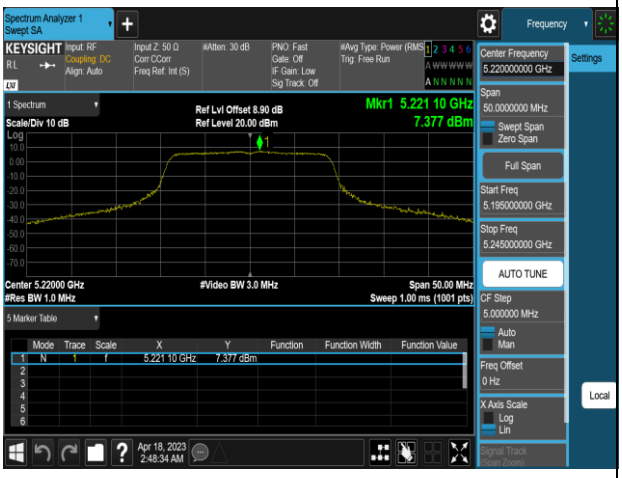
POWER DENSITY 802.11ax HE160 MODE								
Frequency	RU config.	Ch0 meas PSD	Ch1 meas PSD	Ch2 meas PSD	Duty Factor	Maxmum Corr'd PSD	Limit	Margin
(MHz)	--	(dBm/MHz)			(dB)	(dBm/MHz)	(dBm/MHz)	(dB)
5250	full	-12.71	-11.96	-12.56	0.75	-6.88	7.17	-14.05
5570	full	-11.08	-12.13	-11.86	0.75	-6.15	7.52	-13.67

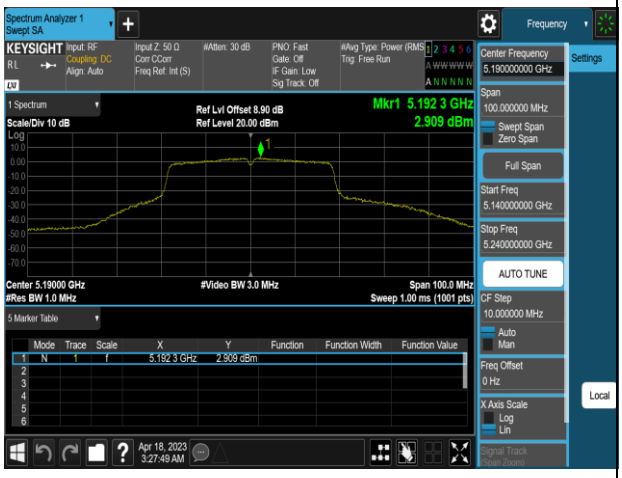
Note: Since DG>6dBi, there is need to modify the limit value.

Test Plots: Non-Beamforming

UNII-1 Chain 0

UNII-1 IEEE 802.11a mode	
5180 MHz	5220 MHz
	
5240 MHz	
	

UNII-1 IEEE 802.11n HT20 mode	
5180 MHz	**5220 MHz**
	
5240 MHz	
	

UNII-1 IEEE 802.11n HT40 mode	
5190 MHz	**5230 MHz**
	

UNII-1 IEEE 802.11ac VHT80 mode	
5210 MHz	
	

UNII-1 IEEE 802.11ax HE20 mode	
5180 MHz	**5220 MHz**
	
5240 MHz