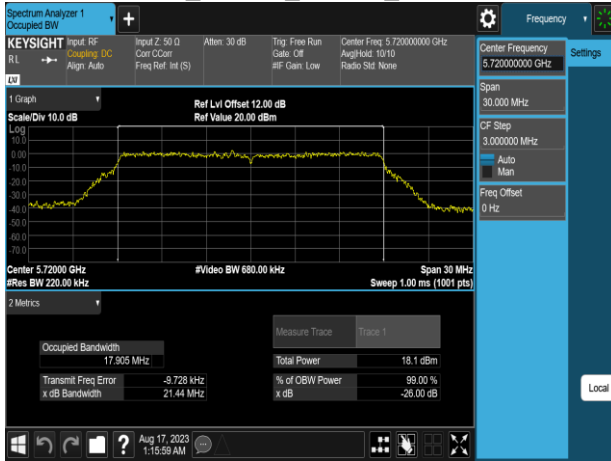
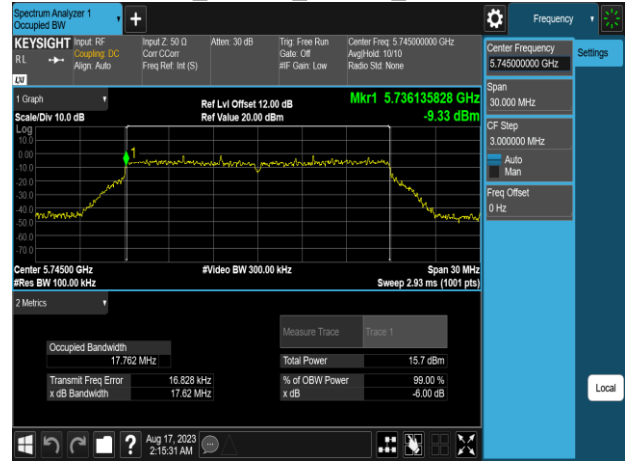


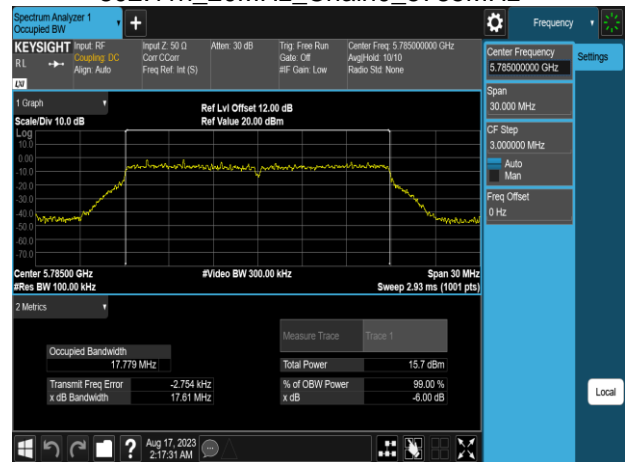
802.11n_20MHz_Chain0_5720MHz



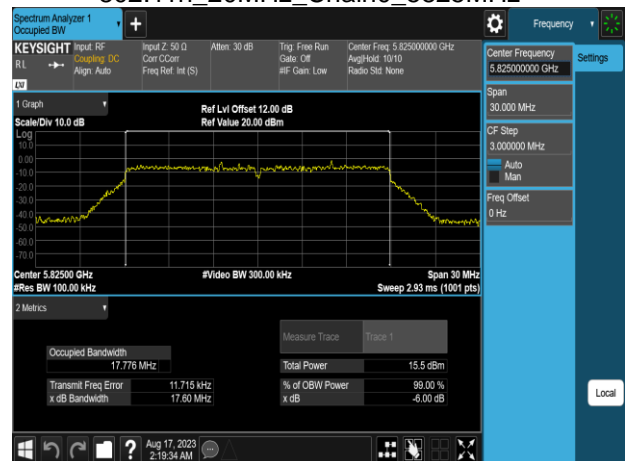
802.11n_20MHz_Chain0_5745MHz



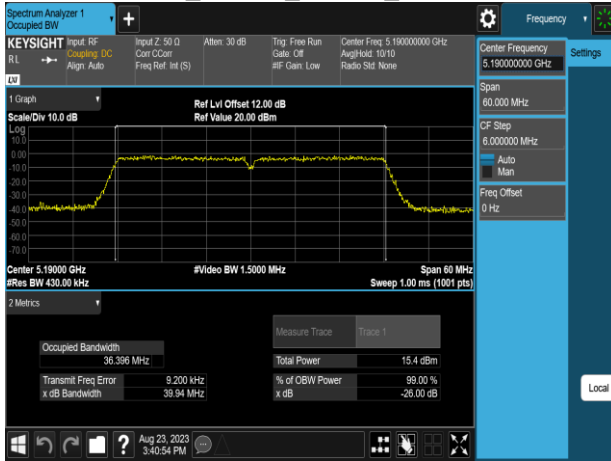
802.11n_20MHz_Chain0_5785MHz



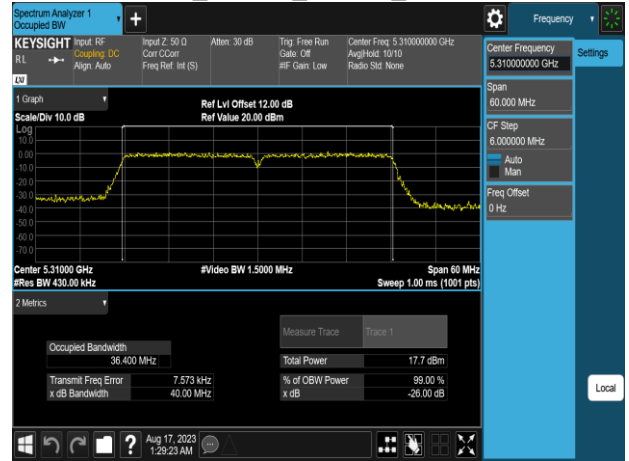
802.11n_20MHz_Chain0_5825MHz



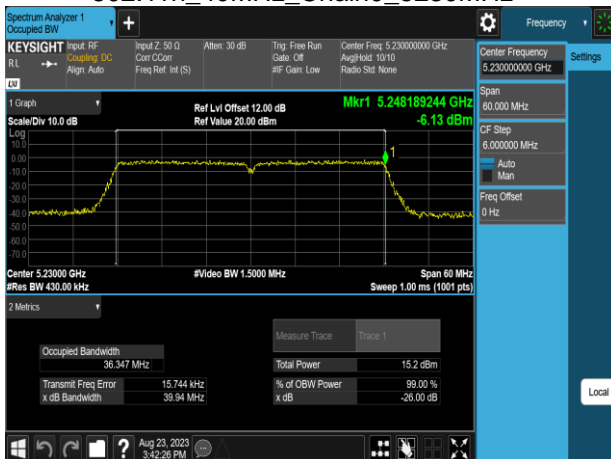
802.11n_40MHz_Chain0_5190MHz



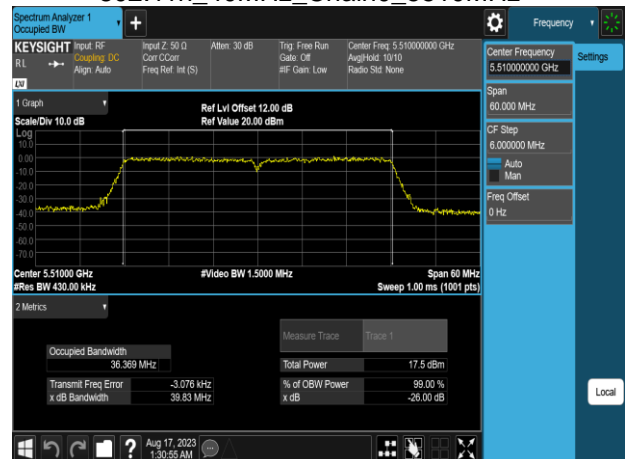
802.11n_40MHz_Chain0_5310MHz



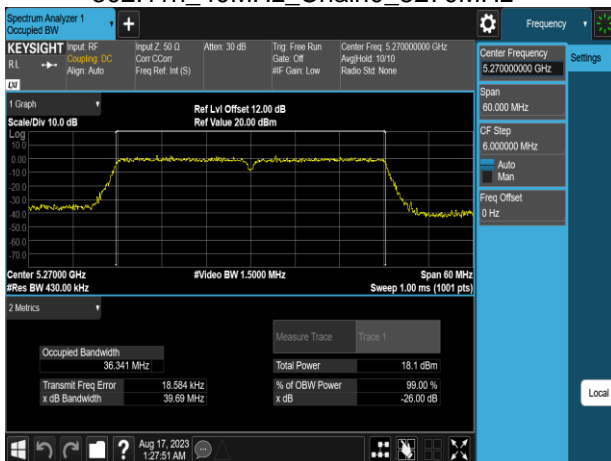
802.11n_40MHz_Chain0_5230MHz



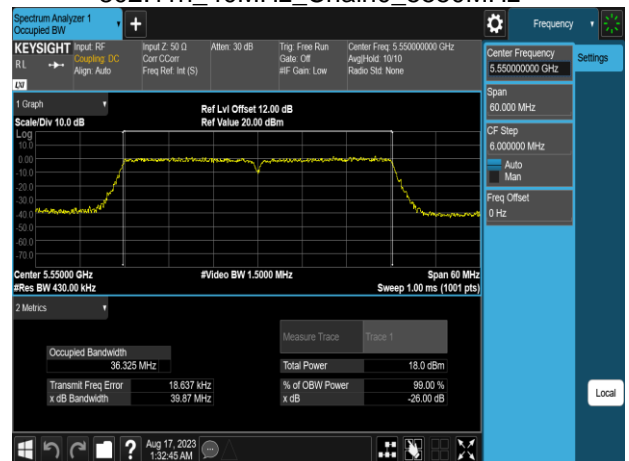
802.11n_40MHz_Chain0_5510MHz



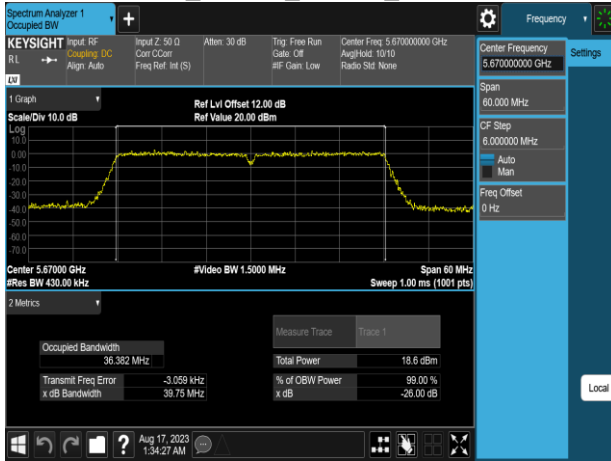
802.11n_40MHz_Chain0_5270MHz



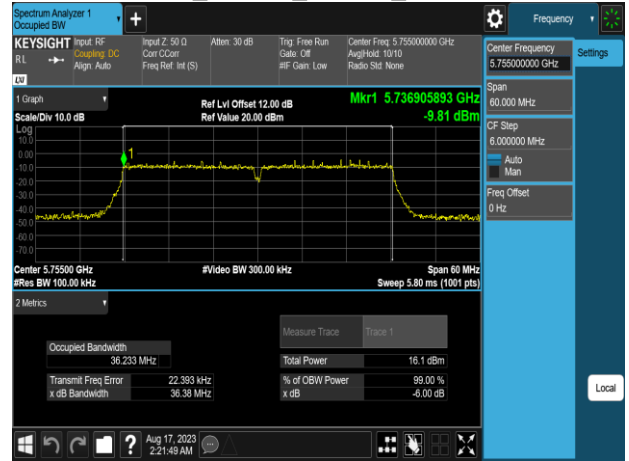
802.11n_40MHz_Chain0_5550MHz



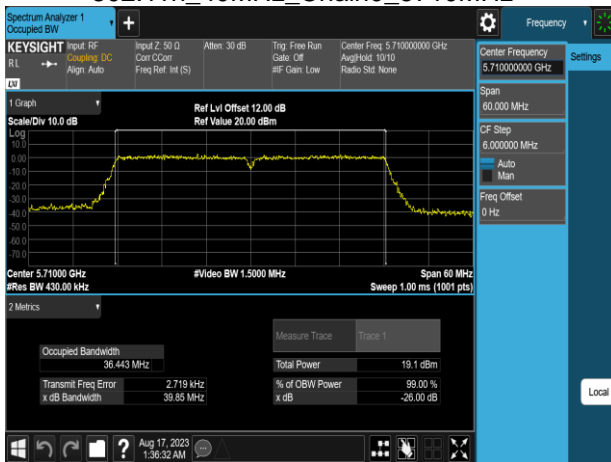
802.11n_40MHz_Chain0_5670MHz



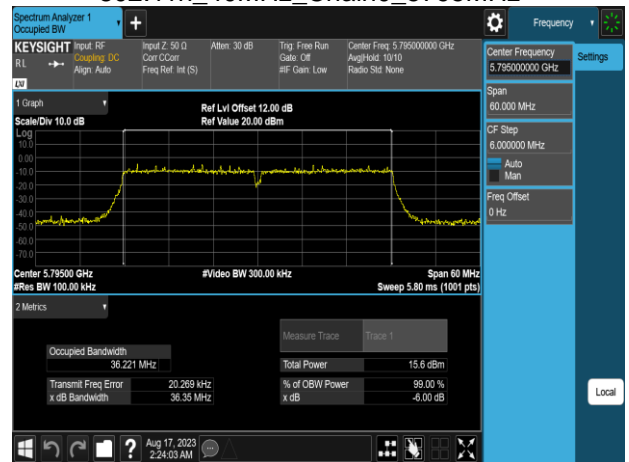
802.11n_40MHz_Chain0_5755MHz



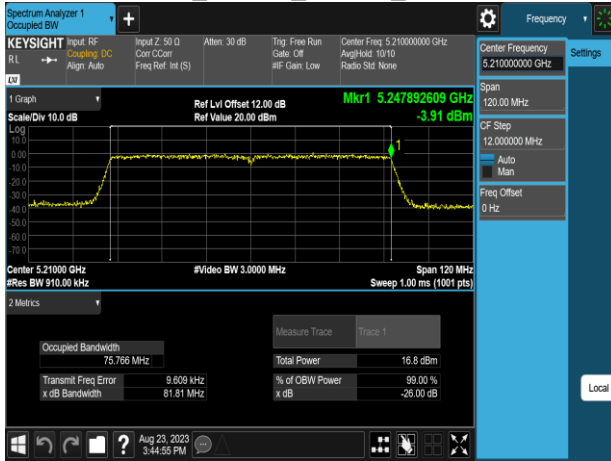
802.11n_40MHz_Chain0_5710MHz



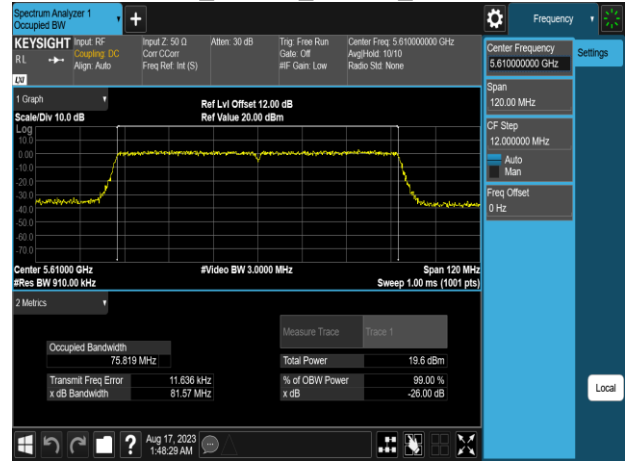
802.11n_40MHz_Chain0_5795MHz



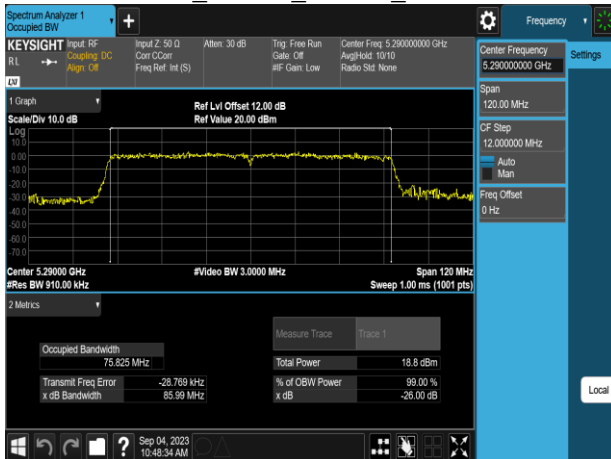
802.11ac_80MHz_Chain0_5210MHz



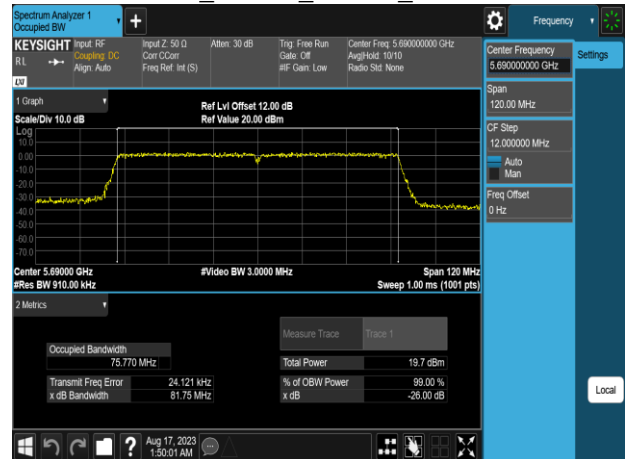
802.11ac_80MHz_Chain0_5610MHz



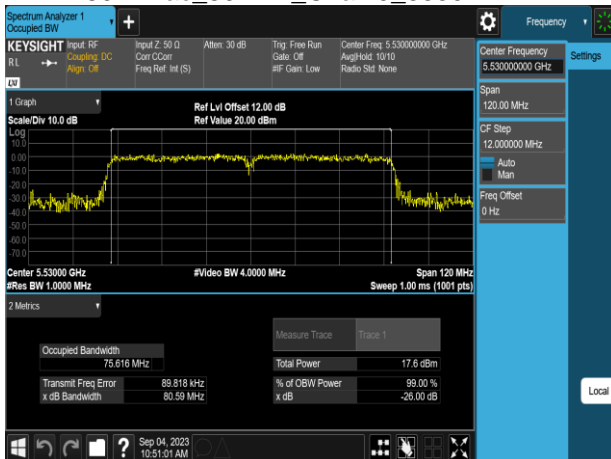
802.11ac_80MHz_Chain0_5290MHz



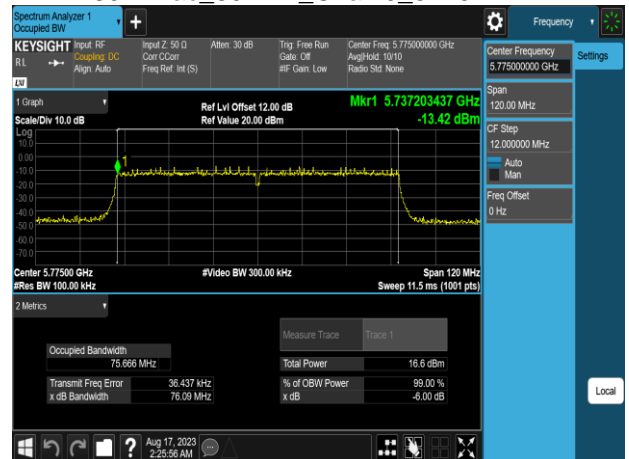
802.11ac_80MHz_Chain0_5690MHz



802.11ac_80MHz_Chain0_5530MHz



802.11ac_80MHz_Chain0_5775MHz



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 :

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(24 dBm) and The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz ,provided the maximum antenna gain does not exceed 6 dBi. 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-2a and 2c:

the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, 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.

According to RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

UNII-1 :

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dBm, whichever power is less. B is the 99% emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

UNII-2a and 2c:

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dBm, whichever is less. Devices shall implement TPC in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW. Devices, other than devices installed in vehicles, shall comply with the following:

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band;

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

UNII-2c (5470-5600 MHz and 5650-5725 MHz)

The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B$, dBm, whichever is less. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B$, dBm, whichever is less. B is the 99% emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

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.

UNII-1 Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 24dBm (EIRP: 200mW or $10 + 10 \log_{10} B$ for IC) <input type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = $24 - (DG - 6)$]
UNII-2a/2c Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 24dBm (EIRP : 30dBm) <input type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = $24 - (DG - 6)$]
UNII-3 Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 30dBm <input type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = $30 - (DG - 6)$]

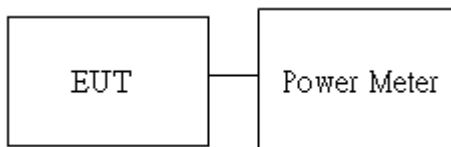
4.3.2 Test Procedure

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

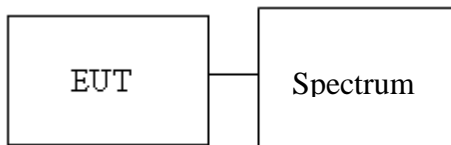
1. The EUT RF output connected to the power meter or spectrum by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

4.3.3 Test Setup

For BW 20MHz ,40MHz and 80MHz



For BW 160MHz



4.3.4 Test Result

Conducted output power :

Temperature: 23.8~26.7°C Test date: August 15~September 4, 2023
 Humidity: 50~60%RH Tested by: Marco Chan

FCC Output Power

802.11a_Ch0

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	56	12.99	19.890	23.98	PASS
44	5220	6	56	12.78	18.951	23.98	PASS
48	5240	6	57	12.98	19.844	23.98	PASS
52	5260	6	58	12.81	19.083	23.98	PASS
60	5300	6	59	12.92	19.572	23.98	PASS
64	5320	6	59	12.80	19.039	23.98	PASS
100	5500	6	55	12.83	19.171	23.98	PASS
116	5580	6	53	12.90	19.482	23.98	PASS
140	5700	6	50	12.87	19.348	23.98	PASS
144	5720(U-NII 2C)	6	50	11.55	14.28	22.93	PASS
144	5720 (U-NII 3)	6	50	7.09	5.11	30	PASS
149	5745	6	52	12.93	19.617	30	PASS
157	5785	6	51	12.81	19.083	30	PASS
165	5825	6	51	12.92	19.572	30	PASS

802.11n_HT20_Ch0

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	56	12.98	19.865	23.98	PASS
44	5220	MCS0	56	12.81	19.102	23.98	PASS
48	5240	MCS0	57	12.99	19.910	23.98	PASS
52	5260	MCS0	58	12.82	19.146	23.98	PASS
60	5300	MCS0	59	12.91	19.547	23.98	PASS
64	5320	MCS0	59	12.88	19.412	23.98	PASS
100	5500	MCS0	55	12.81	19.102	23.98	PASS
116	5580	MCS0	53	12.90	19.502	23.98	PASS
140	5700	MCS0	50	12.87	19.368	23.98	PASS
144	5720(U-NII 2C)	MCS0	50	11.59	14.43	23.98	PASS
144	5720 (U-NII 3)	MCS0	50	7.20	5.25	30	PASS
149	5745	MCS0	52	12.95	19.728	30	PASS
157	5785	MCS0	51	12.96	19.773	30	PASS
165	5825	MCS0	51	12.97	19.819	30	PASS

802.11n_HT40_Ch0

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	53	12.15	16.417	23.98	PASS
46	5230	MCS0	57	12.99	19.920	23.98	PASS
54	5270	MCS0	57	12.98	19.874	23.98	PASS
62	5310	MCS0	57	12.92	19.601	23.98	PASS
102	5510	MCS0	53	12.97	19.828	23.98	PASS
110	5550	MCS0	52	12.96	19.783	23.98	PASS
134	5670	MCS0	48	12.87	19.377	23.98	PASS
142	5710(U-NII 2C)	MCS0	48	12.42	17.46	23.98	PASS
142	5710 (U-NII 3)	MCS0	48	3.91	2.46	30	PASS
151	5755	MCS0	50	12.96	19.783	30	PASS
159	5795	MCS0	49	12.85	19.288	30	PASS

802.11ac_VHT20_Ch0

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	56	12.93	19.635	23.98	PASS
44	5220	MCS0	56	12.77	18.925	23.98	PASS
48	5240	MCS0	57	12.91	19.545	23.98	PASS
52	5260	MCS0	58	12.81	19.100	23.98	PASS
60	5300	MCS0	59	12.90	19.500	23.98	PASS
64	5320	MCS0	59	12.85	19.277	23.98	PASS
100	5500	MCS0	55	12.80	19.056	23.98	PASS
116	5580	MCS0	53	12.88	19.410	23.98	PASS
140	5700	MCS0	50	12.85	19.277	23.98	PASS
144	5720(U-NII 2C)	MCS0	49	11.41	13.84	23.98	PASS
144	5720 (U-NII 3)	MCS0	49	7.02	5.04	30	PASS
149	5745	MCS0	52	12.92	19.590	30	PASS
157	5785	MCS0	51	12.90	19.500	30	PASS
165	5825	MCS0	51	12.91	19.545	30	PASS

802.11ac_VHT40_Ch0

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	53	12.06	16.077	23.98	PASS
46	5230	MCS0	57	12.97	19.824	23.98	PASS
54	5270	MCS0	57	12.82	19.151	23.98	PASS
62	5310	MCS0	57	12.90	19.507	23.98	PASS
102	5510	MCS0	53	12.96	19.779	23.98	PASS
110	5550	MCS0	52	12.95	19.733	23.98	PASS
134	5670	MCS0	48	12.85	19.284	23.98	PASS
142	5710(U-NII 2C)	MCS0	48	12.41	17.41	23.98	PASS
142	5710 (U-NII 3)	MCS0	48	3.90	2.46	30	PASS
151	5755	MCS0	50	12.94	19.688	30	PASS
159	5795	MCS0	49	12.80	19.063	30	PASS

802.11ac_VHT80_Ch0

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	MCS0	58	12.85	19.272	23.98	PASS
58	5290	MCS0	55	11.66	14.653	23.98	PASS
106	5530	MCS0	51	11.12	12.940	23.98	PASS
122	5610	MCS0	52	12.86	19.317	23.98	PASS
138	5690(U-NII 2C)	MCS0	49	12.42	17.44	23.98	PASS
138	5690 (U-NII 3)	MCS0	49	1.30	1.35	30	PASS
155	5775	MCS0	51	12.79	19.008	30	PASS

IC_Output_Power

802.11a_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	12.81	19.083	23.24	PASS
60	5300	12.92	19.572	23.24	PASS
64	5320	12.80	19.039	23.24	PASS
100	5500	12.83	19.171	23.24	PASS
116	5580	12.90	19.482	23.25	PASS
140	5700	12.87	19.348	23.25	PASS
144	5720(U-NII 2C)	11.55	14.279	22.27	PASS
144	5720 (U-NII 3)	7.09	5.114	30	PASS
149	5745	10.41	10.981	30	PASS
157	5785	10.43	11.032	30	PASS
165	5825	10.48	11.159	30	PASS

802.11n_HT20_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	12.82	19.146	23.53	PASS
60	5300	12.91	19.547	23.53	PASS
64	5320	12.88	19.412	23.52	PASS
100	5500	12.81	19.102	23.53	PASS
116	5580	12.90	19.502	23.54	PASS
140	5700	12.87	19.368	23.54	PASS
144	5720(U-NII 2C)	11.59	14.431	22.45	PASS
144	5720 (U-NII 3)	7.20	5.251	30	PASS
149	5745	10.49	11.196	30	PASS
157	5785	10.42	11.017	30	PASS
165	5825	10.48	11.171	30	PASS

802.11n_HT40_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	12.98	19.874	23.98	PASS
62	5310	12.92	19.601	23.98	PASS
102	5510	12.97	19.828	23.98	PASS
110	5550	12.96	19.783	23.98	PASS
134	5670	12.87	19.377	23.98	PASS
142	5710(U-NII 2C)	12.42	17.458	23.98	PASS
142	5710 (U-NII 3)	3.91	2.462	30	PASS
151	5755	10.47	11.150	30	PASS
159	5795	10.42	11.023	30	PASS

802.11ac_VHT20_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	12.81	19.100	23.53	PASS
60	5300	12.90	19.500	23.53	PASS
64	5320	12.85	19.277	23.52	PASS
100	5500	12.80	19.056	23.53	PASS
116	5580	12.88	19.410	23.54	PASS
140	5700	12.85	19.277	23.54	PASS
144	5720(U-NII 2C)	11.41	13.844	22.45	PASS
144	5720 (U-NII 3)	7.02	5.037	30	PASS
149	5745	10.40	10.966	30	PASS
157	5785	10.41	10.991	30	PASS
165	5825	10.45	11.093	30	PASS

802.11ac_VHT40_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	12.82	19.151	23.98	PASS
62	5310	12.90	19.507	23.98	PASS
102	5510	12.96	19.779	23.98	PASS
110	5550	12.95	19.733	23.98	PASS
134	5670	12.85	19.284	23.98	PASS
142	5710(U-NII 2C)	12.41	17.414	23.98	PASS
142	5710 (U-NII 3)	3.90	2.456	30	PASS
151	5755	10.40	10.970	30	PASS
159	5795	10.31	10.745	30	PASS

802.11ac_VHT80_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
58	5290	11.66	14.653	23.98	PASS
106	5530	11.12	12.940	23.98	PASS
122	5610	12.86	19.317	23.98	PASS
138	5690(U-NII 2C)	12.42	17.440	23.98	PASS
138	5690 (U-NII 3)	1.30	1.350	30	PASS
155	5775	10.29	10.689	30	PASS

IC_EIRP_Power

802.11a_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.98	1.70	11.68	14.723	22.24	PASS
44	5220	9.81	1.70	11.51	14.158	22.24	PASS
48	5240	9.96	1.70	11.66	14.655	22.26	PASS
52	5260	12.81	1.70	14.51	28.249	29.24	PASS
60	5300	12.92	1.70	14.62	28.973	29.24	PASS
64	5320	12.80	1.70	14.50	28.184	29.24	PASS
100	5500	12.83	1.70	14.53	28.379	29.24	PASS
116	5580	12.90	1.70	14.60	28.840	29.25	PASS
140	5700	12.87	1.70	14.57	28.642	29.25	PASS

802.11n_HT20_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.99	1.70	11.69	14.757	22.52	PASS
44	5220	9.91	1.70	11.61	14.488	22.53	PASS
48	5240	9.97	1.70	11.67	14.689	22.53	PASS
52	5260	12.82	1.70	14.52	28.314	29.53	PASS
60	5300	12.91	1.70	14.61	28.907	29.53	PASS
64	5320	12.88	1.70	14.58	28.708	29.52	PASS
100	5500	12.81	1.70	14.51	28.249	29.53	PASS
116	5580	12.90	1.70	14.60	28.840	29.54	PASS
140	5700	12.87	1.70	14.57	28.642	29.54	PASS

802.11n_HT40_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	9.98	1.70	11.68	14.723	23.01	PASS
46	5230	9.74	1.70	11.44	13.932	23.01	PASS
54	5270	12.98	1.70	14.68	29.376	30	PASS
62	5310	12.92	1.70	14.62	28.973	30	PASS
102	5510	12.97	1.70	14.67	29.309	30	PASS
110	5550	12.96	1.70	14.66	29.242	30	PASS
134	5670	12.87	1.70	14.57	28.642	30	PASS

802.11ac_VHT20_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	9.97	1.70	11.67	14.689	22.52	PASS
44	5220	9.84	1.70	11.54	14.256	22.53	PASS
48	5240	9.94	1.70	11.64	14.588	22.53	PASS
52	5260	12.81	1.70	14.51	28.249	29.53	PASS
60	5300	12.90	1.70	14.60	28.840	29.53	PASS
64	5320	12.85	1.70	14.55	28.510	29.52	PASS
100	5500	12.80	1.70	14.50	28.184	29.53	PASS
116	5580	12.88	1.70	14.58	28.708	29.54	PASS
140	5700	12.85	1.70	14.55	28.510	29.54	PASS

802.11ac_VHT40_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	9.96	1.70	11.66	14.655	23.01	PASS
46	5230	9.71	1.70	11.41	13.836	23.01	PASS
54	5270	12.82	1.70	14.52	28.314	30	PASS
62	5310	12.90	1.70	14.60	28.840	30	PASS
102	5510	12.96	1.70	14.66	29.242	30	PASS
110	5550	12.95	1.70	14.65	29.174	30	PASS
134	5670	12.85	1.70	14.55	28.510	30	PASS

802.11ac_VHT80_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	9.88	1.70	11.58	14.388	23.01	PASS
58	5290	11.66	1.70	13.36	21.677	30	PASS
106	5530	11.12	1.70	12.82	19.143	30	PASS

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)

According to RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

UNII-1 :

FCC

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

IC

The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz 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.

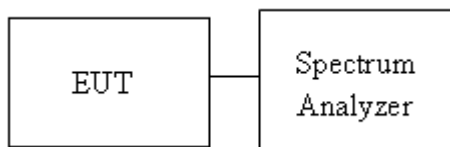
UNII-1 Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 17 dBm/MHz (EIRP: 10 dBm/MHz for IC) <input type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = 17 – (DG – 6) dBm/MHz]
UNII-2a/2c Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 11 dBm/MHz <input type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-3 Limit	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 30 dBm/500kHz <input type="checkbox"/> 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

Temperature: 23.8~26.7°C

Test date: August 15~September 4, 2023

Humidity: 50~60%RH

Tested by: Marco Chan

FCC Power_Density_1

POWER DENSITY 802.11a MODE					
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5180	2.280	2.28		11.00 dBm/MHz	-8.72
5220	1.852	1.85		11.00 dBm/MHz	-9.15
5240	1.703	1.70		11.00 dBm/MHz	-9.30
5260	1.163	1.16		11.00 dBm/MHz	-9.84
5300	1.282	1.28		11.00 dBm/MHz	-9.72
5320	1.105	1.11		11.00 dBm/MHz	-9.90
5500	0.640	0.64		11.00 dBm/MHz	-10.36
5580	1.279	1.28		11.00 dBm/MHz	-9.72
5700	2.273	2.27		11.00 dBm/MHz	-8.73
5720 (U-NII 2C)	2.399	2.40		11.00 dBm/MHz	-8.60
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5720 (U-NII 3)	-2.552	2.22	-0.33	30.00 dBm/500kHz	-30.33
5745	-2.653	2.22	-0.43	30.00 dBm/500kHz	-30.43
5785	-2.918	2.22	-0.70	30.00 dBm/500kHz	-30.70
5825	-2.979	2.22	-0.76	30.00 dBm/500kHz	-30.76

POWER DENSITY 802.11n HT20 MODE					
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5180	1.933	1.93		11.00 dBm/MHz	-9.07
5220	1.568	1.57		11.00 dBm/MHz	-9.43
5240	1.766	1.77		11.00 dBm/MHz	-9.23
5260	1.292	1.29		11.00 dBm/MHz	-9.71
5300	1.069	1.07		11.00 dBm/MHz	-9.93
5320	0.622	0.62		11.00 dBm/MHz	-10.38
5500	0.251	0.25		11.00 dBm/MHz	-10.75
5580	1.157	1.16		11.00 dBm/MHz	-9.84
5700	1.973	1.97		11.00 dBm/MHz	-9.03
5720 (U-NII 2C)	2.443	2.44		11.00 dBm/MHz	-8.56
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5720 (U-NII 3)	-2.450	2.22	-0.23	30.00 dBm/500kHz	-30.23
5745	-2.917	2.22	-0.70	30.00 dBm/500kHz	-30.70
5785	-3.318	2.22	-1.10	30.00 dBm/500kHz	-31.10
5825	-3.305	2.22	-1.09	30.00 dBm/500kHz	-31.09

POWER DENSITY 802.11n HT40 MODE						
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Duty Factor (dB)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5190	-1.376	0.12	-1.26		11.00 dBm/MHz	-12.26
5230	-1.974	0.12	-1.85		11.00 dBm/MHz	-12.85
5270	-2.112	0.12	-1.99		11.00 dBm/MHz	-12.99
5310	-2.439	0.12	-2.32		11.00 dBm/MHz	-13.32
5510	-2.501	0.12	-2.38		11.00 dBm/MHz	-13.38
5550	-1.978	0.12	-1.86		11.00 dBm/MHz	-12.86
5670	-1.445	0.12	-1.33		11.00 dBm/MHz	-12.33
5710 (U-NII 2C)	-1.057	0.12	-0.94		11.00 dBm/MHz	-11.94
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5710 (U-NII 3)	-6.318	0.12	2.22	-3.98	30.00 dBm/500kHz	-33.98
5755	-6.104	0.12	2.22	-3.76	30.00 dBm/500kHz	-33.76
5795	-6.619	0.12	2.22	-4.28	30.00 dBm/500kHz	-34.28

POWER DENSITY 802.11ac VHT80 MODE						
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Duty Factor (dB)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5210	-4.794	0.25	-4.54		11.00 dBm/MHz	-15.54
5290	-5.631	0.25	-5.38		11.00 dBm/MHz	-16.38
5530	-5.802	0.25	-5.55		11.00 dBm/MHz	-16.55
5610	-4.609	0.25	-4.36		11.00 dBm/MHz	-15.36
5690 (U-NII 2C)	-4.754	0.25	-4.50		11.00 dBm/MHz	-15.50
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5690 (U-NII 3)	-10.616	0.25	2.22	-8.15	30.00 dBm/500kHz	-38.15
5775	-9.495	0.25	2.22	-7.03	30.00 dBm/500kHz	-37.03

IC Power_Density_1

POWER DENSITY 802.11a MODE					
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5180	-0.586	-0.59		11.00 dBm/MHz	-11.59
5220	-1.451	-1.45		11.00 dBm/MHz	-12.45
5240	-1.214	-1.21		11.00 dBm/MHz	-12.21
5260	1.163	1.16		11.00 dBm/MHz	-9.84
5300	1.282	1.28		11.00 dBm/MHz	-9.72
5320	1.105	1.11		11.00 dBm/MHz	-9.90
5500	0.640	0.64		11.00 dBm/MHz	-10.36
5580	1.279	1.28		11.00 dBm/MHz	-9.72
5700	2.273	2.27		11.00 dBm/MHz	-8.73
5720 (U-NII 2C)	2.399	2.40		11.00 dBm/MHz	-8.60
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5720 (U-NII 3)	-2.552	2.22	-0.33	30.00 dBm/500kHz	-30.33
5745	-4.860	2.22	-2.64	30.00 dBm/500kHz	-32.64
5785	-5.302	2.22	-3.08	30.00 dBm/500kHz	-33.08
5825	-5.700	2.22	-3.48	30.00 dBm/500kHz	-33.48

POWER DENSITY 802.11n HT20 MODE					
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5180	-0.833	-0.83		11.00 dBm/MHz	-11.83
5220	-1.383	-1.38		11.00 dBm/MHz	-12.38
5240	-1.168	-1.17		11.00 dBm/MHz	-12.17
5260	1.292	1.29		11.00 dBm/MHz	-9.71
5300	1.069	1.07		11.00 dBm/MHz	-9.93
5320	0.622	0.62		11.00 dBm/MHz	-10.38
5500	0.251	0.25		11.00 dBm/MHz	-10.75
5580	1.157	1.16		11.00 dBm/MHz	-9.84
5700	1.973	1.97		11.00 dBm/MHz	-9.03
5720 (U-NII 2C)	2.443	2.44		11.00 dBm/MHz	-8.56
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5720 (U-NII 3)	-2.450	2.22	-0.23	30.00 dBm/500kHz	-30.23
5745	-5.387	2.22	-3.17	30.00 dBm/500kHz	-33.17
5785	-5.640	2.22	-3.42	30.00 dBm/500kHz	-33.42
5825	-5.953	2.22	-3.73	30.00 dBm/500kHz	-33.73

POWER DENSITY 802.11n HT40 MODE						
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Duty Factor (dB)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5190	-4.765	0.12			11.00 dBm/MHz	-15.65
5230	-5.078	0.12			11.00 dBm/MHz	-15.96
5270	-2.112	0.12			11.00 dBm/MHz	-12.99
5310	-2.439	0.12			11.00 dBm/MHz	-13.32
5510	-2.501	0.12			11.00 dBm/MHz	-13.38
5550	-1.978	0.12			11.00 dBm/MHz	-12.86
5670	-1.445	0.12			11.00 dBm/MHz	-12.33
5710 (U-NII 2C)	-1.057	0.12			11.00 dBm/MHz	-11.94
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5710 (U-NII 3)	-6.318	0.12	2.22	-3.98	30.00 dBm/500kHz	-33.98
5755	-8.569	0.12	2.22	-6.23	30.00 dBm/500kHz	-36.23
5795	-9.271	0.12	2.22	-6.93	30.00 dBm/500kHz	-36.93

POWER DENSITY 802.11ac VHT80 MODE						
Frequency (MHz)	Ch0 meas PSD (dBm/MHz)	Duty Factor (dB)	Maxmum Corr'd PSD(dBm/MHz)		Limit	Margin (dB)
5210	-7.638	0.25			11.00 dBm/MHz	-18.39
5290	-5.631	0.25			11.00 dBm/MHz	-16.38
5530	-5.802	0.25			11.00 dBm/MHz	-16.55
5610	-4.609	0.25			11.00 dBm/MHz	-15.36
5690 (U-NII 2C)	-4.754	0.25			11.00 dBm/MHz	-15.50
Frequency (MHz)	Ch0 meas PSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5690 (U-NII 3)	-10.616	0.25	2.22	-8.15	30.00 dBm/500kHz	-38.15
5775	-12.207	0.25	2.22	-9.74	30.00 dBm/500kHz	-39.74

EIRP spectral density 802.11a MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5180	-0.586	1.70	1.11	10	-8.89
5220	-1.451	1.70	0.25	10	-9.75
5240	-1.214	1.70	0.49	10	-9.51

EIRP spectral density 802.11n HT20 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5180	-0.833	1.70	0.87	10	-9.13
5220	-1.383	1.70	0.32	10	-9.68
5240	-1.168	1.70	0.53	10	-9.47

EIRP spectral density 802.11n HT40 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5190	-4.645	1.70	-2.95	10	-12.95
5230	-4.958	1.70	-3.26	10	-13.26

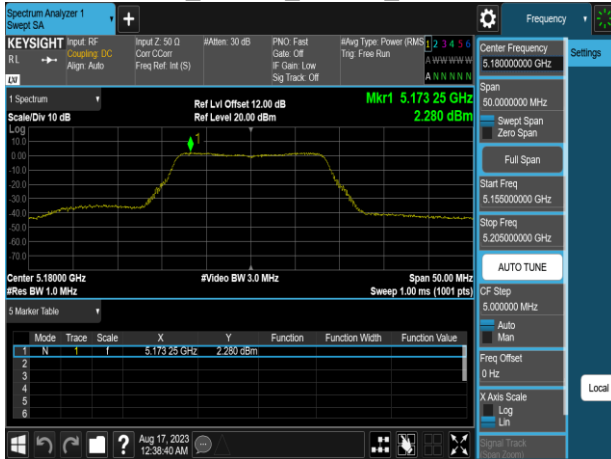
EIRP spectral density 802.11ac VHT80 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	Limit (dBm)	Margin (dB)
5210	-7.388	1.70	-5.69	10	-15.69

Report No.: TMWK2308002691KR

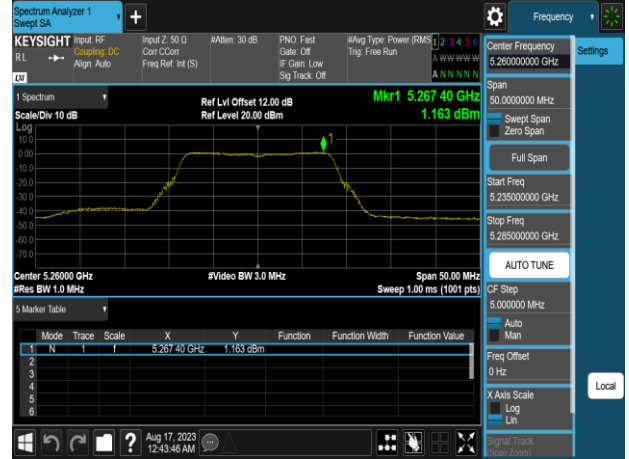
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Standard: FCC

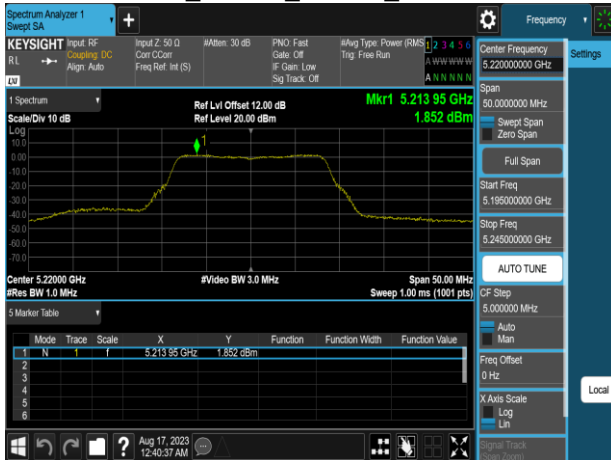
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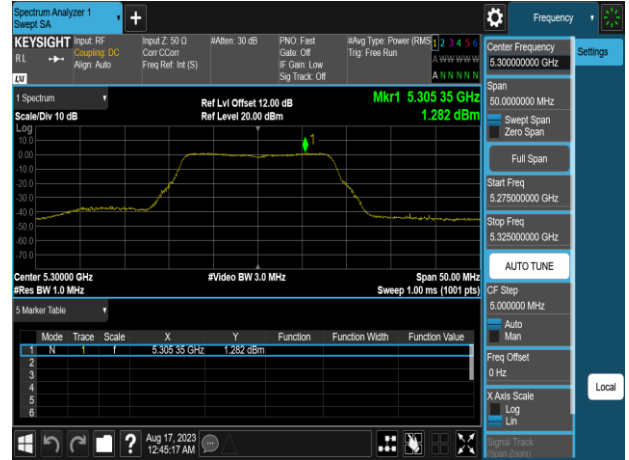
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802.11a_20MHz_Chain0_5220MHz



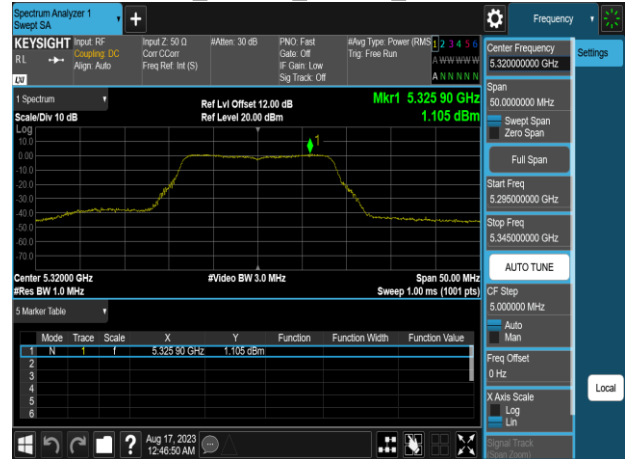
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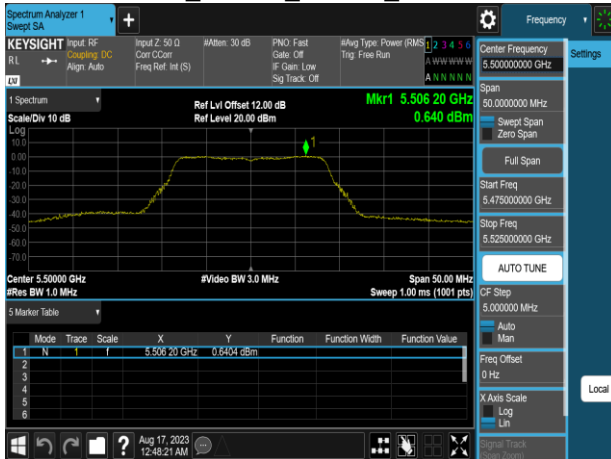
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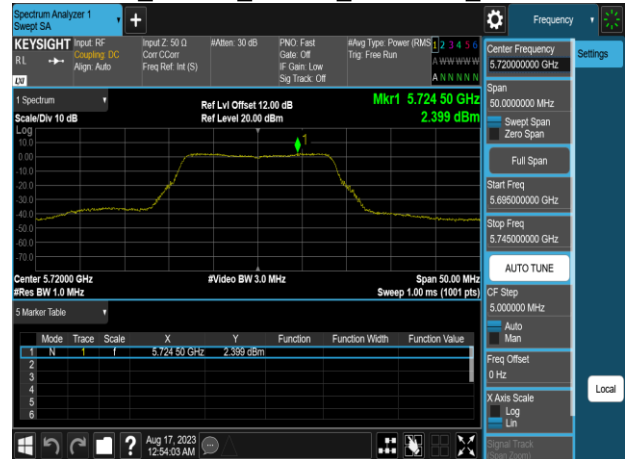
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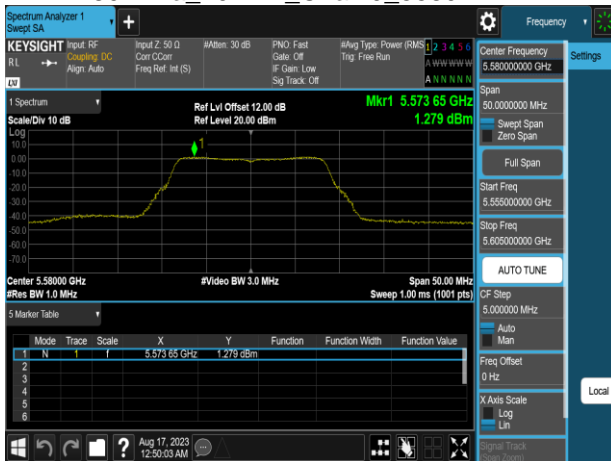
802.11a_20MHz_Chain0_5500MHz



802.11a_20MHz_Chain0_5720MHz_UNII 2C



802.11a_20MHz_Chain0_5580MHz



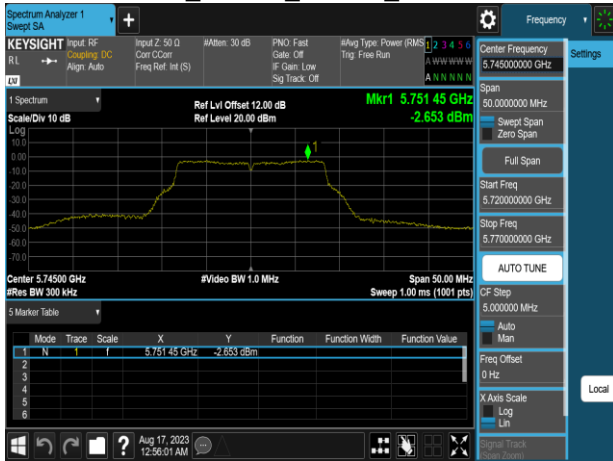
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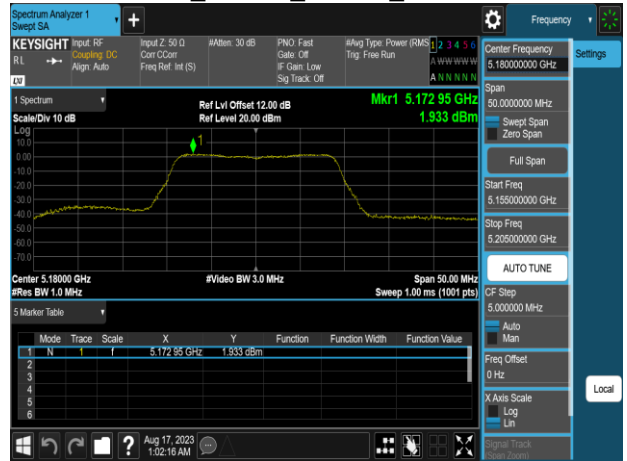
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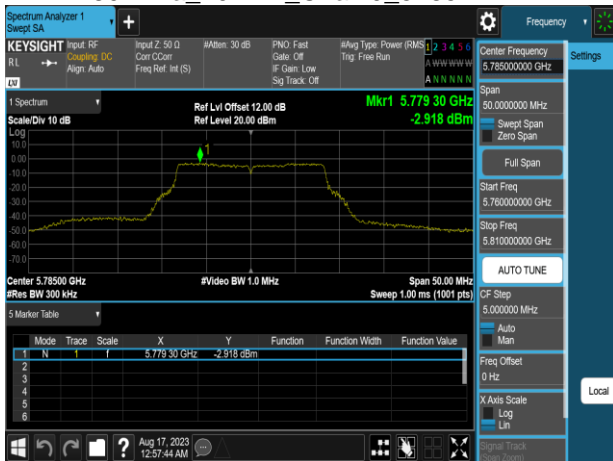
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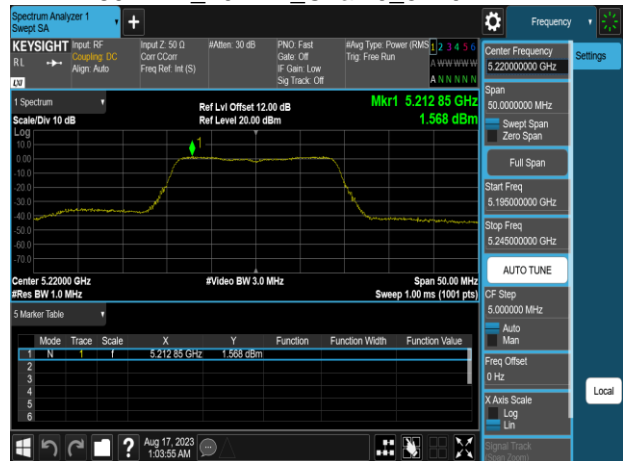
802.11n_20MHz_Chain0_5180MHz



802.11a_20MHz_Chain0_5785MHz



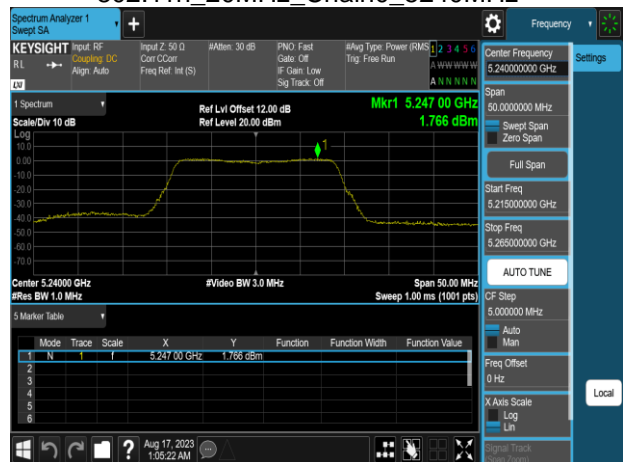
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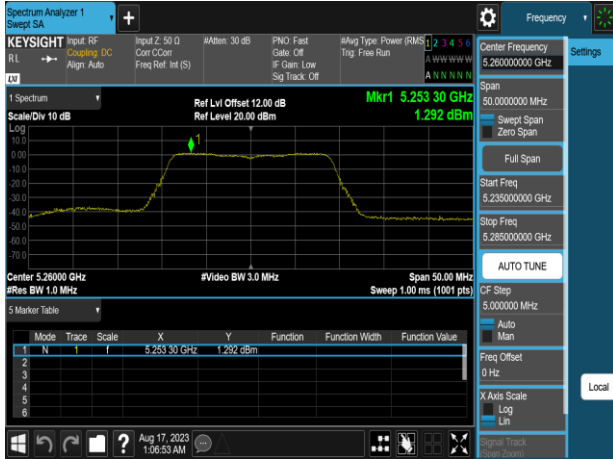
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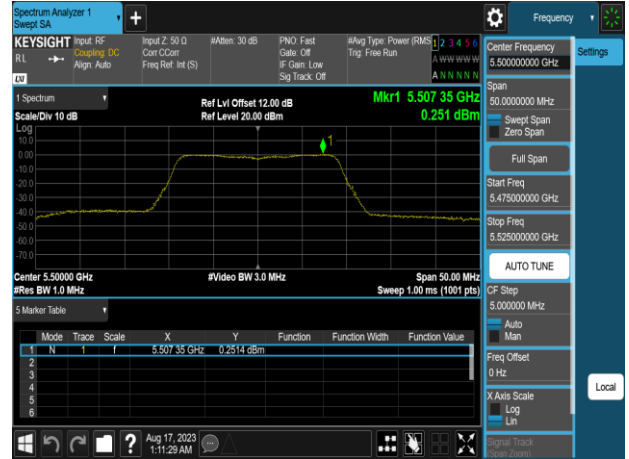
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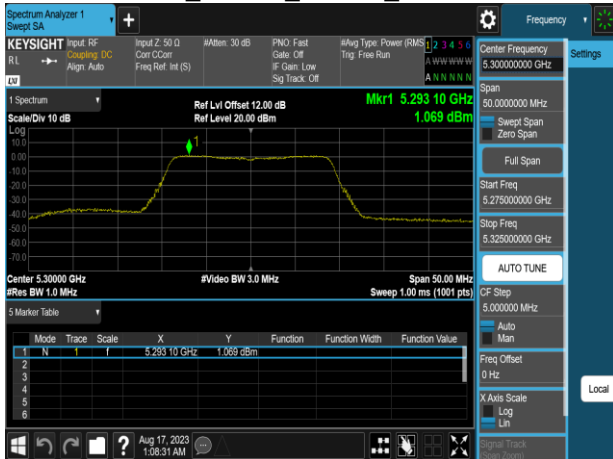
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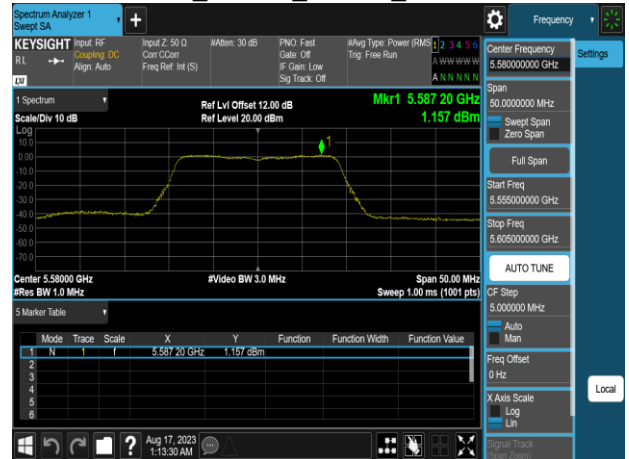
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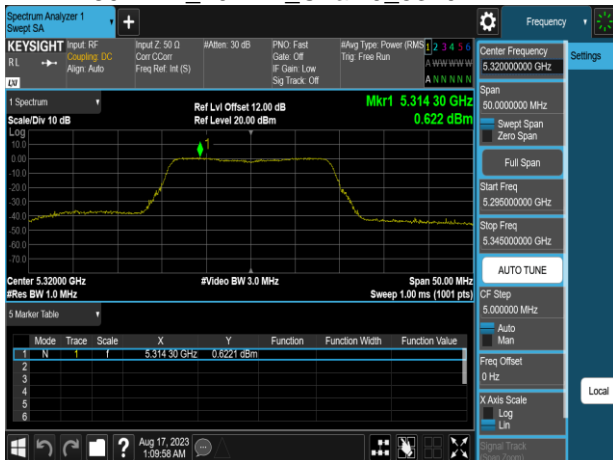
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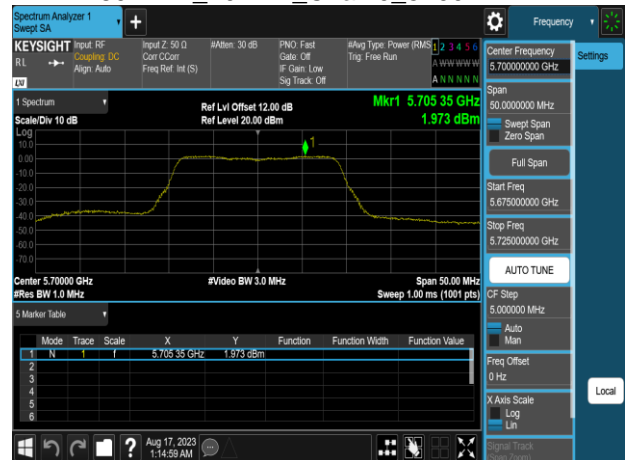
802.11n_20MHz_Chain0_5580MHz



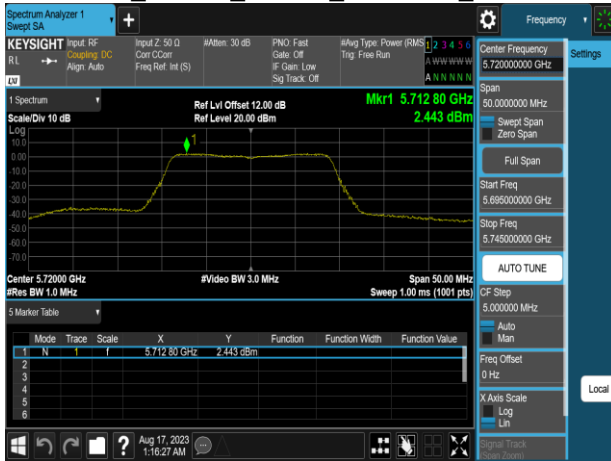
802.11n_20MHz_Chain0_5320MHz



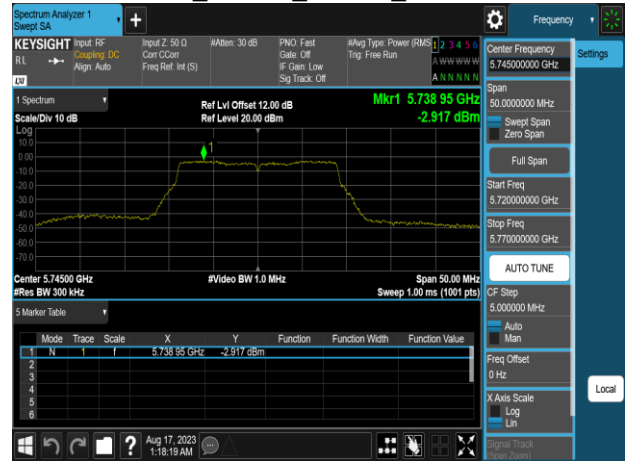
802.11n_20MHz_Chain0_5700MHz



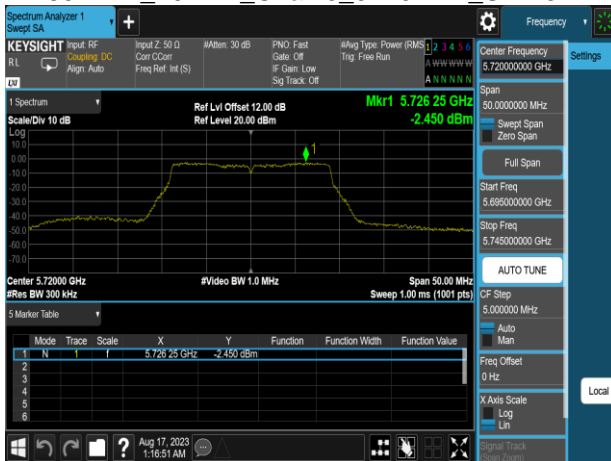
802.11n_20MHz_Chain0_5720MHz_UNII 2C



802.11n_20MHz_Chain0_5745MHz



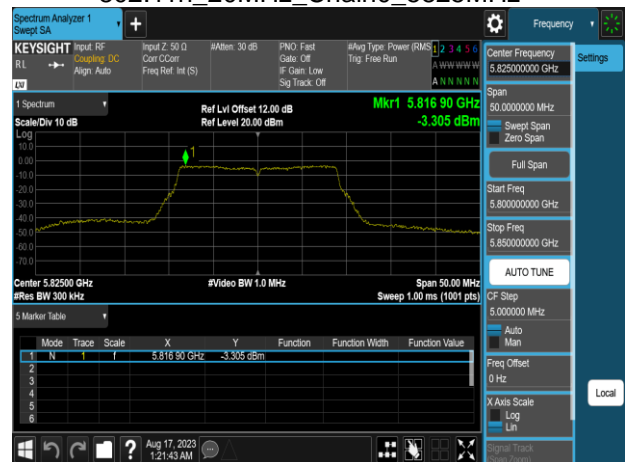
802.11n_20MHz_Chain0_5720MHz_UNII 3



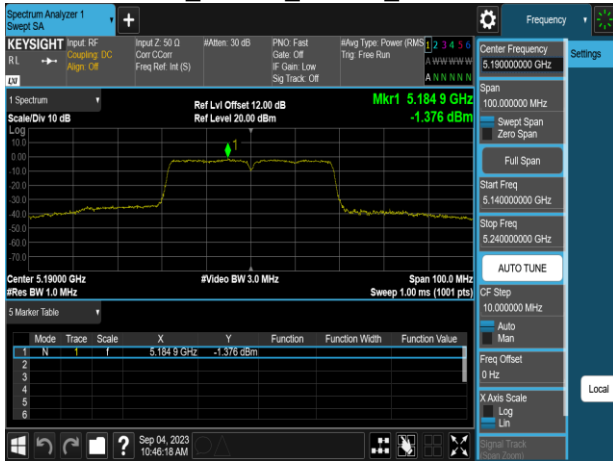
802.11n_20MHz_Chain0_5785MHz



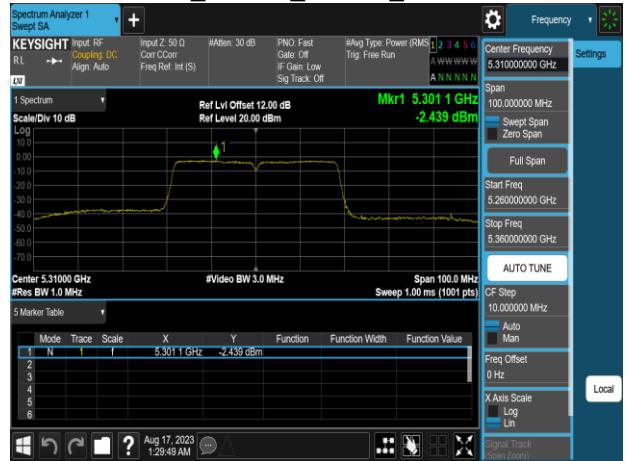
802.11n_20MHz_Chain0_5825MHz



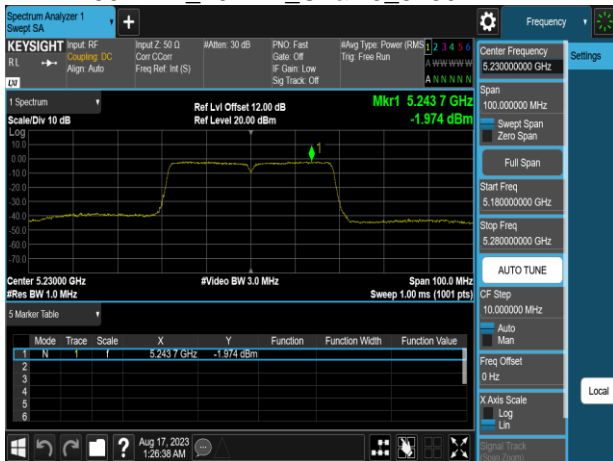
802.11n_40MHz_Chain0_5190MHz



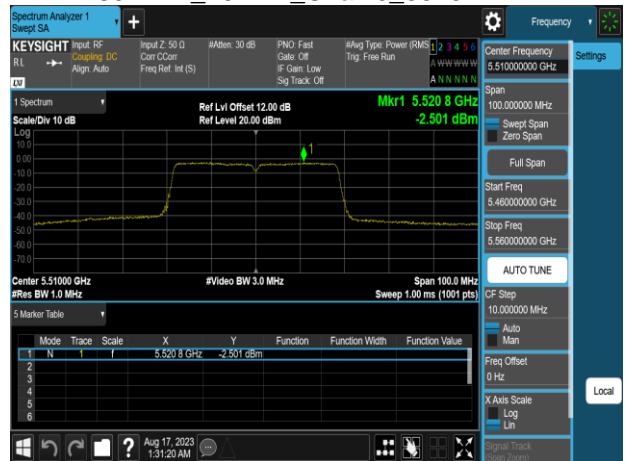
802.11n_40MHz_Chain0_5310MHz



802.11n_40MHz_Chain0_5230MHz



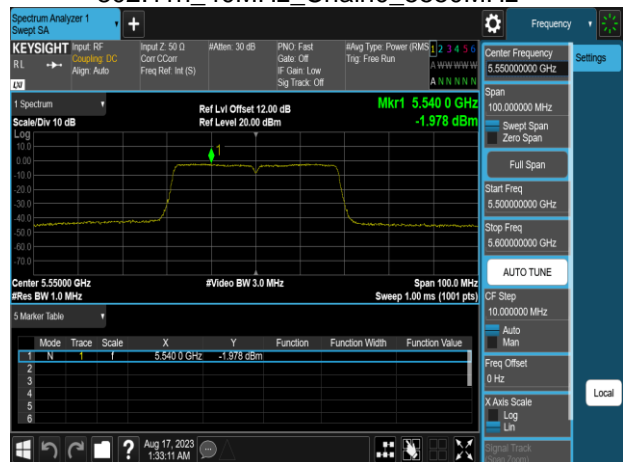
802.11n_40MHz_Chain0_5510MHz



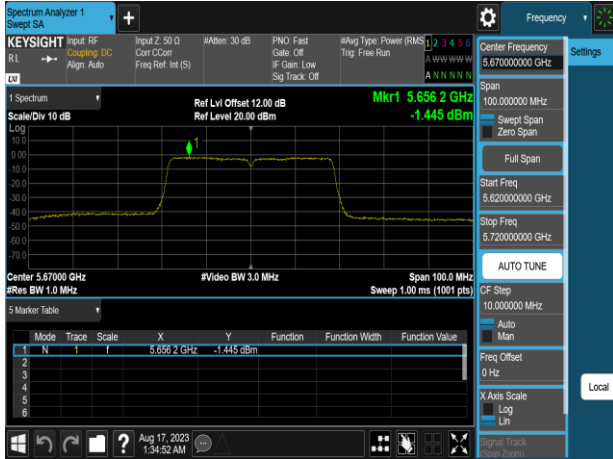
802.11n_40MHz_Chain0_5270MHz



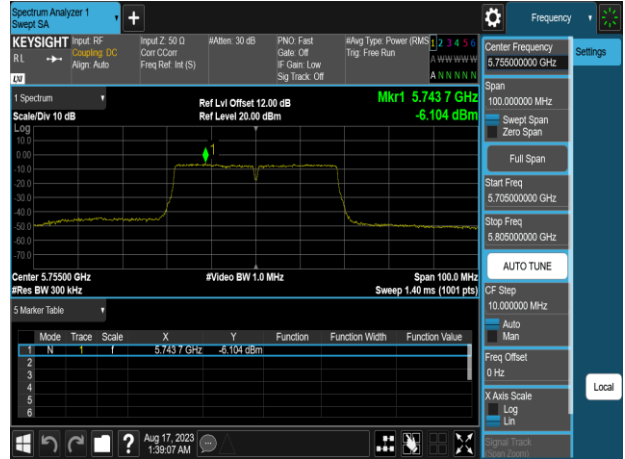
802.11n_40MHz_Chain0_5550MHz



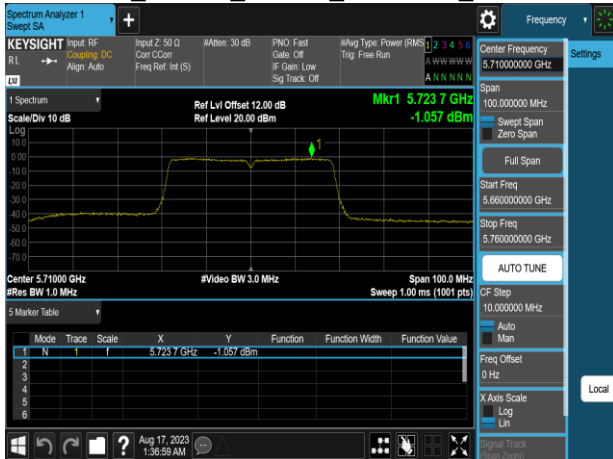
802.11n_40MHz_Chain0_5670MHz



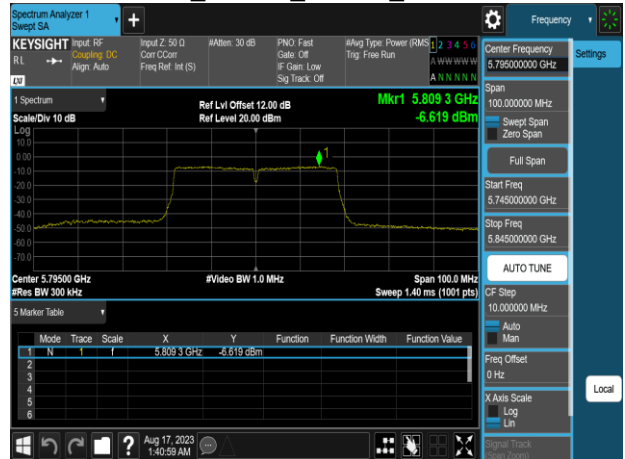
802.11n_40MHz_Chain0_5755MHz



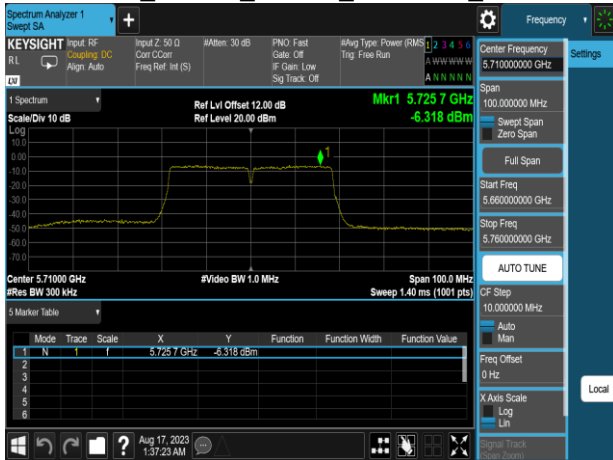
802.11n_40MHz_Chain0_5710MHz_UNII 2C



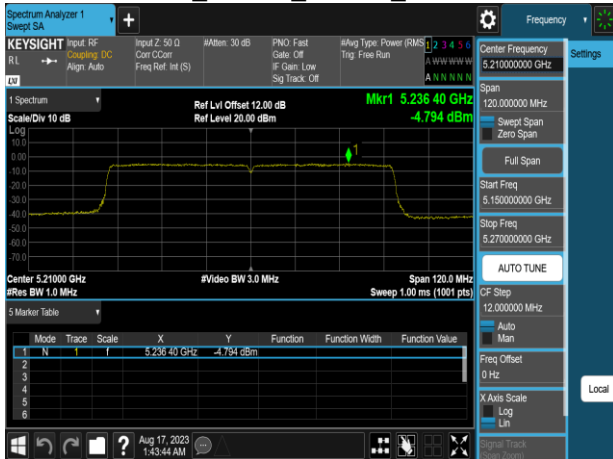
802.11n_40MHz_Chain0_5795MHz



802.11n_40MHz_Chain0_5710MHz_UNII 3



802.11ac_80MHz_Chain0_5210MHz



802.11ac_80MHz_Chain0_5610MHz



802.11ac_80MHz_Chain0_5290MHz



802.11ac_80MHz_Chain0_5690MHz UNII 2C



802.11ac_80MHz_Chain0_5530MHz



802.11ac_80MHz_Chain0_5690MHz UNII 3



802.11ac_80MHz_Chain0_5775MHz

