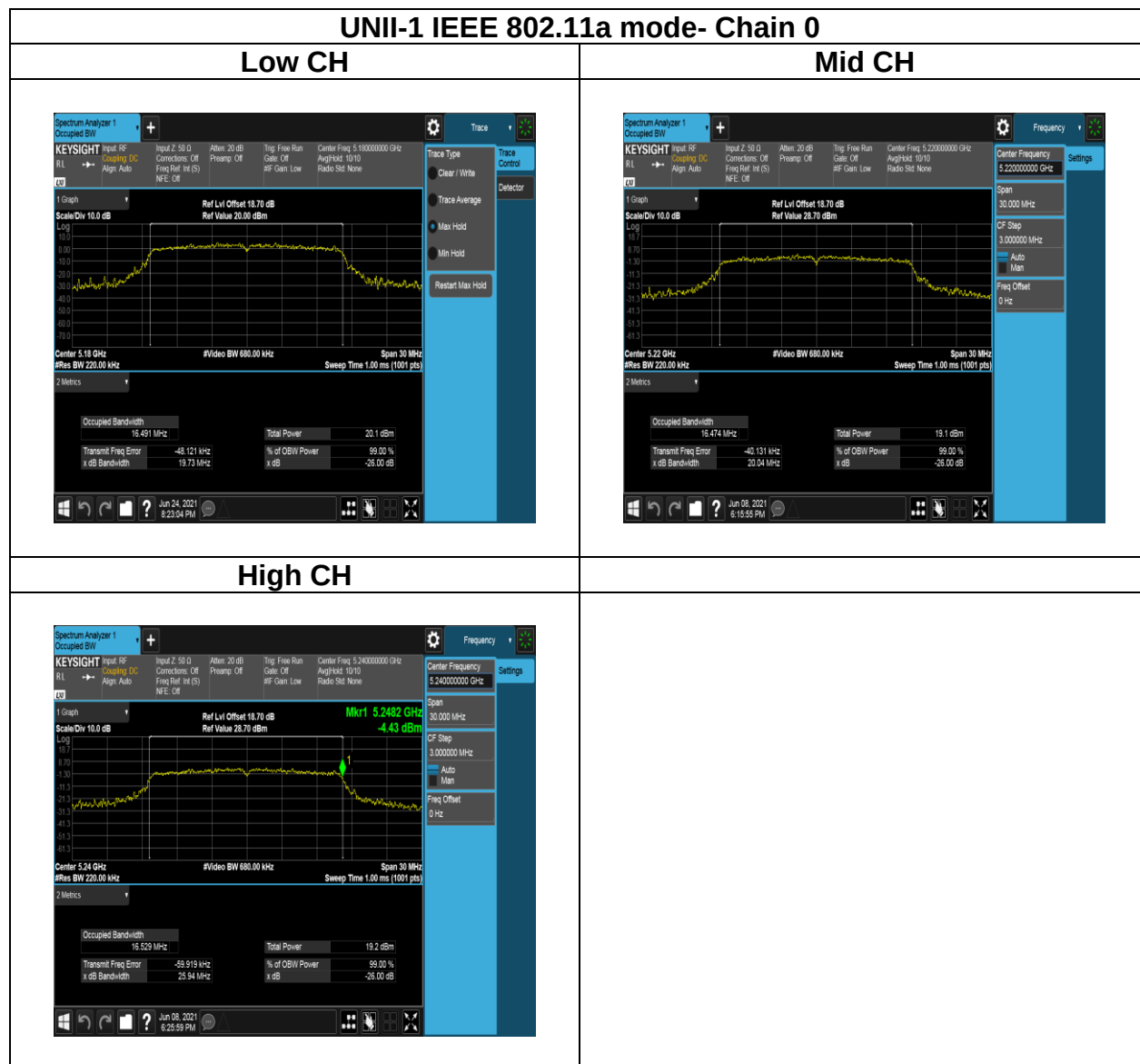


Report No.: T210429C13-RP4

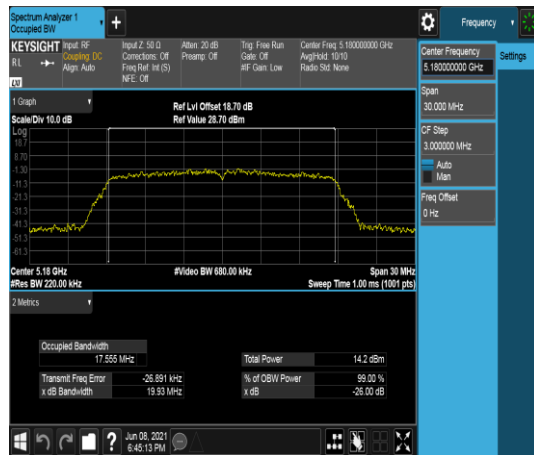
Test Data (26dB BANDWIDTH)



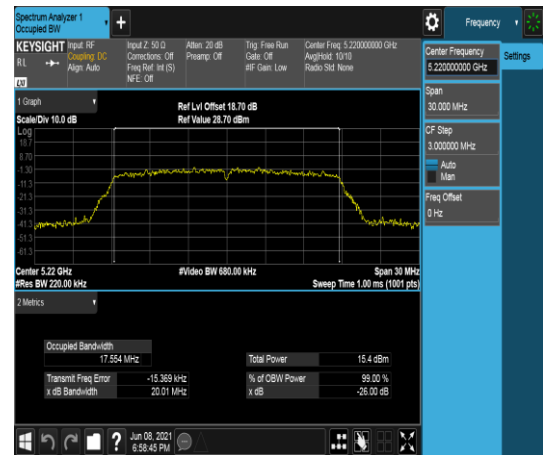
Report No.: T210429C13-RP4

UNII-1 IEEE 802.11n HT20 mode- Chain 0

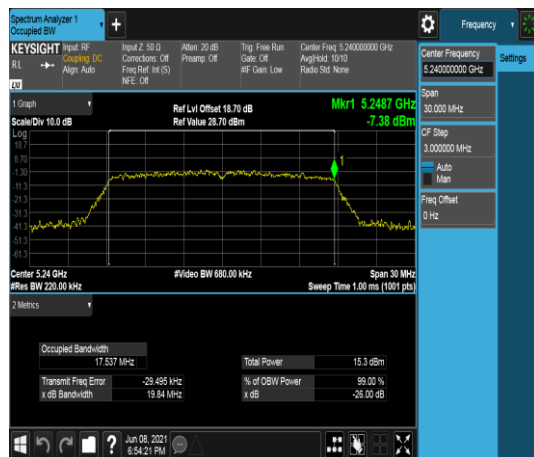
Low CH



Mid CH



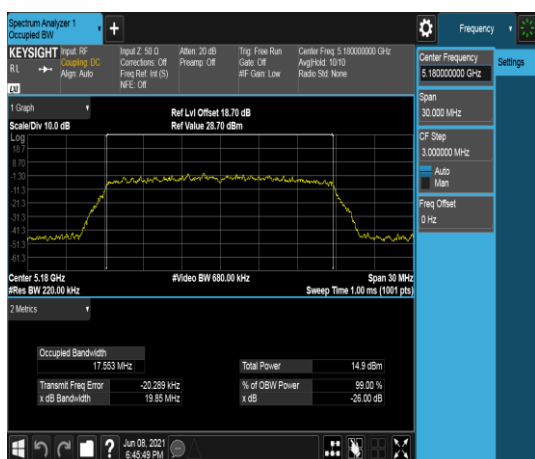
High CH



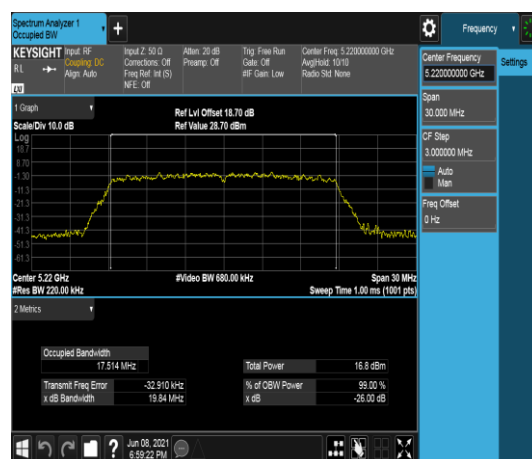
Report No.: T210429C13-RP4

UNII-1 IEEE 802.11n HT20 mode- Chain 1

Low CH



Mid CH



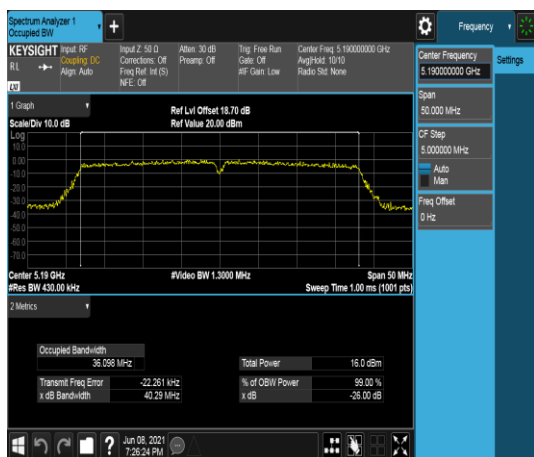
High CH



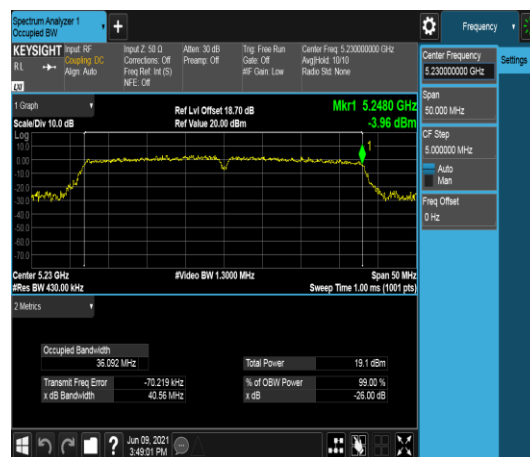
Report No.: T210429C13-RP4

UNII-1 IEEE 802.11n HT40 mode- Chain 0

Low CH

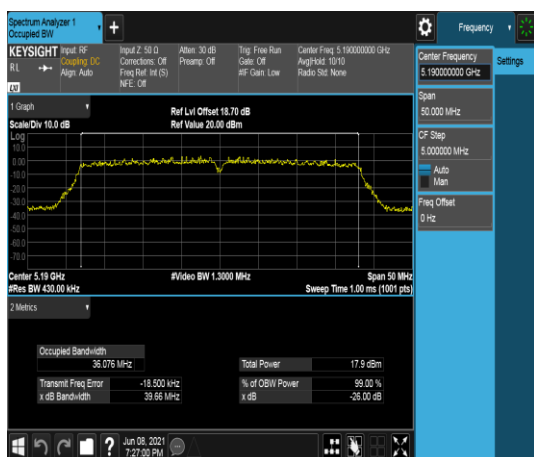


High CH

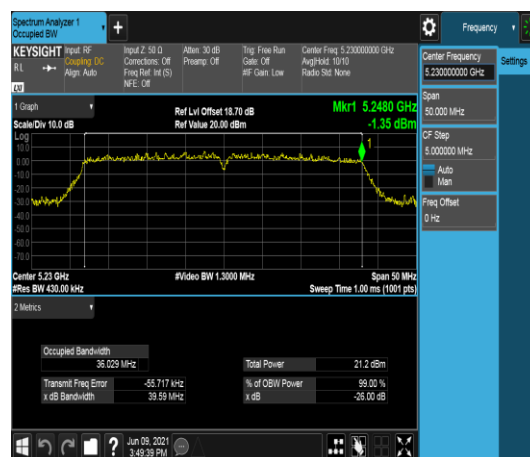


UNII-1 IEEE 802.11n HT40 mode- Chain 1

Low CH



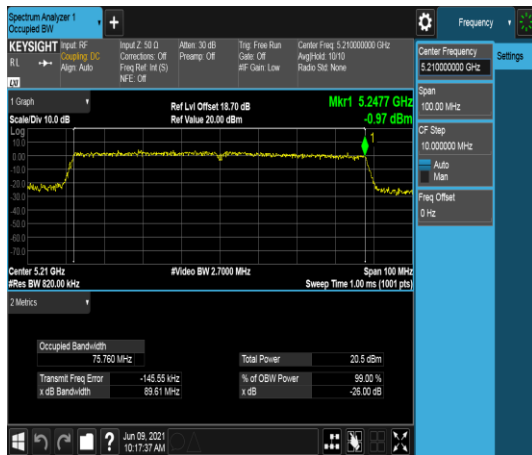
High CH



Report No.: T210429C13-RP4

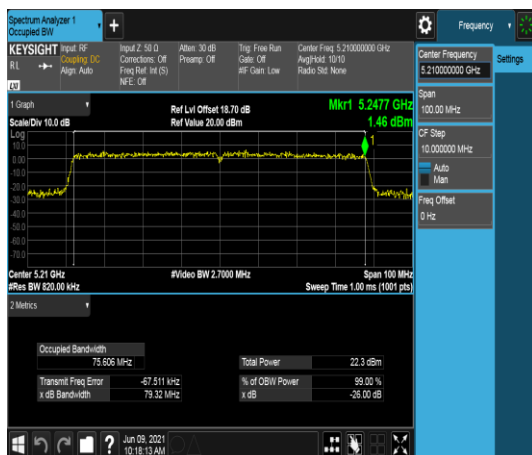
UNII-1 IEEE 802.11ac VHT80 mode- Chain 0

Low CH



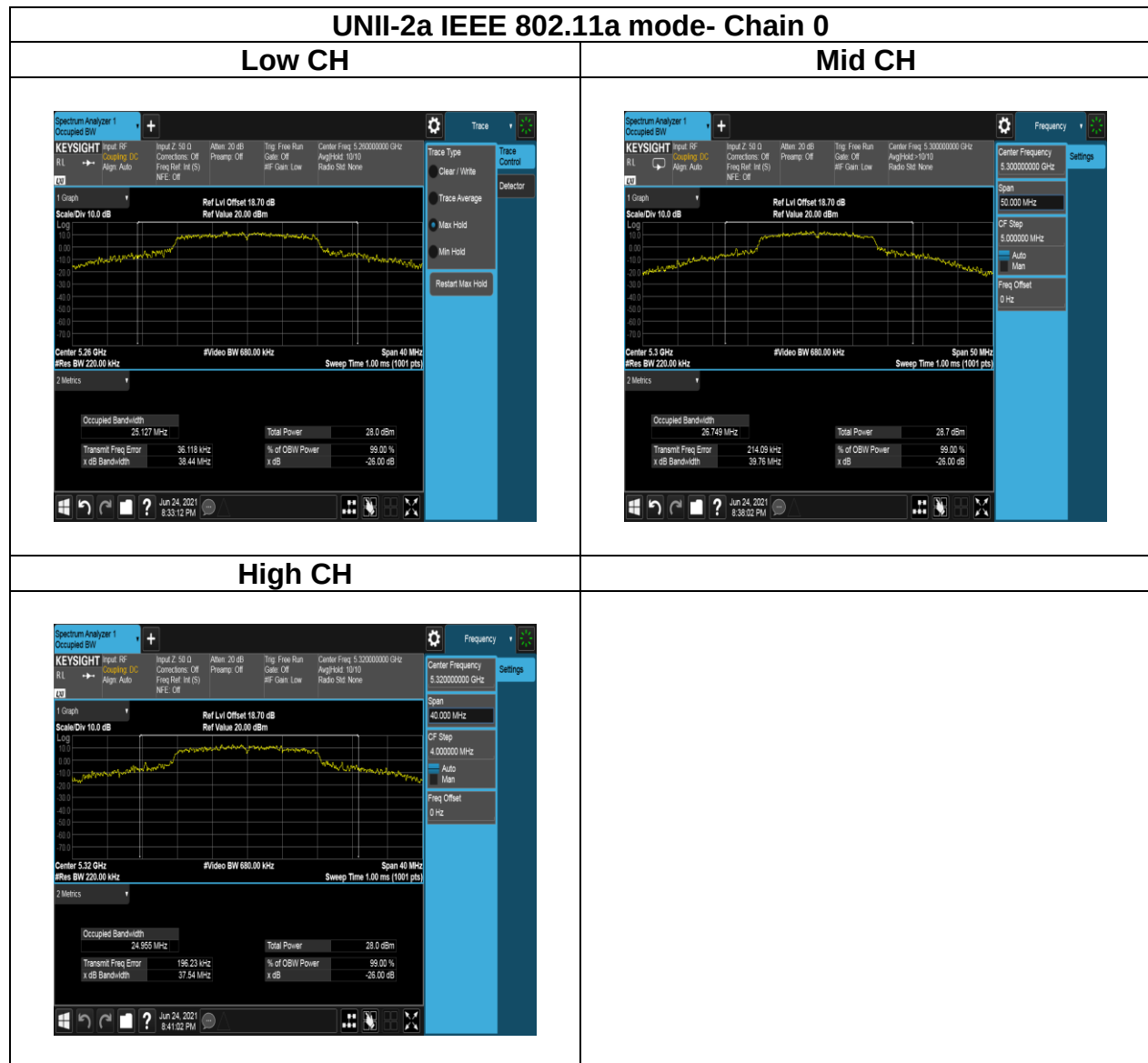
UNII-1 IEEE 802.11ac VHT80 mode- Chain 1

Low CH

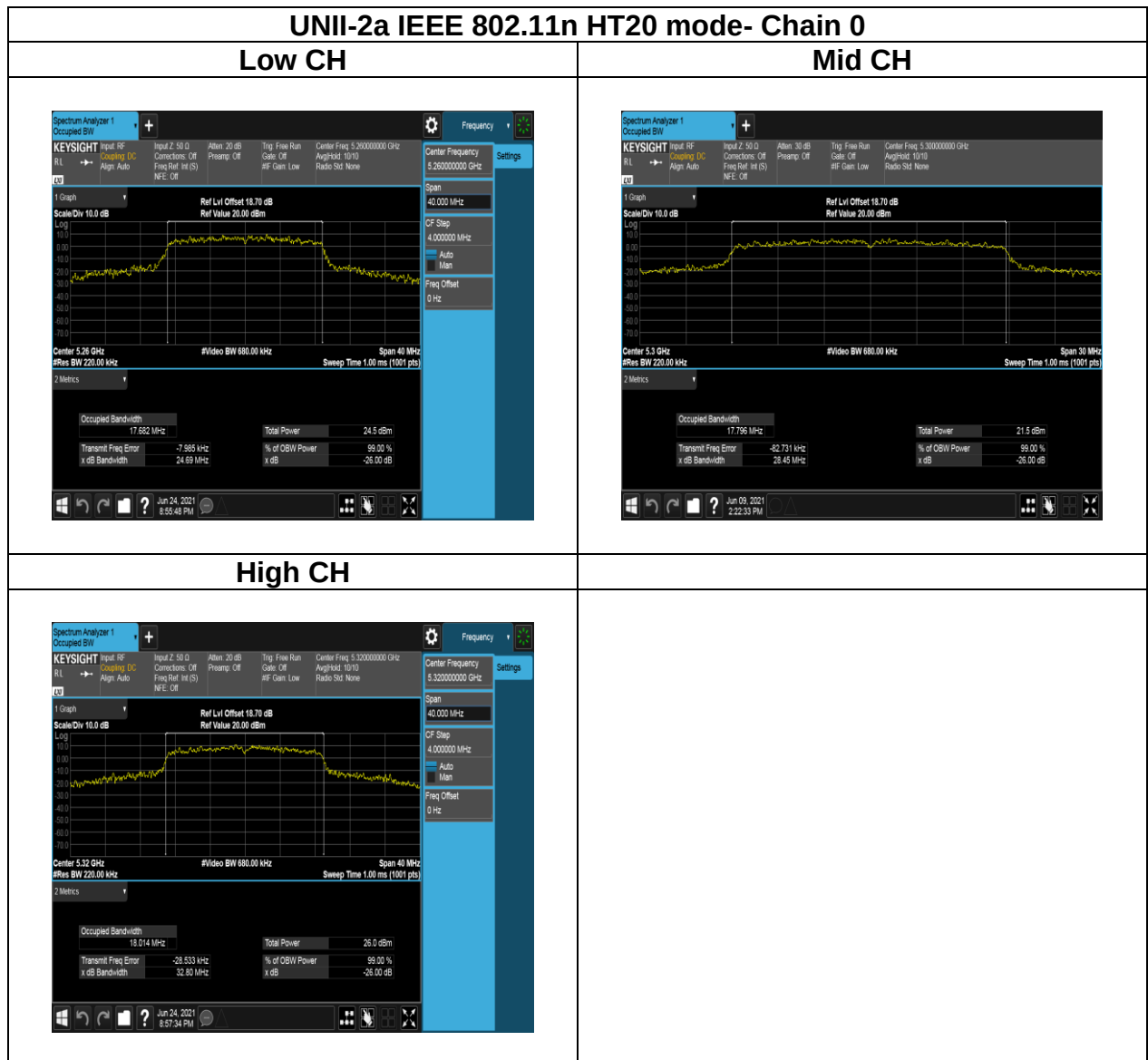


Report No.: T210429C13-RP4

Test Data (26dB BANDWIDTH)



Report No.: T210429C13-RP4



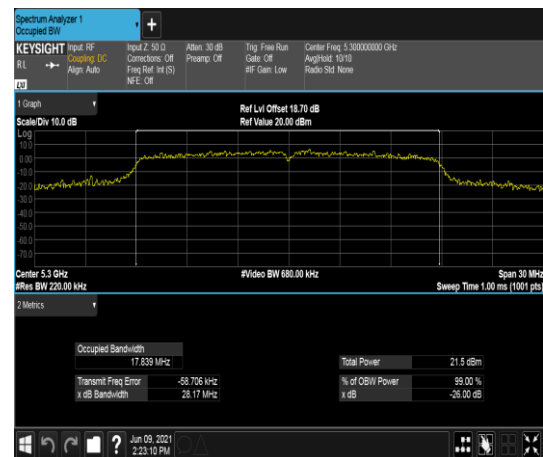
Report No.: T210429C13-RP4

UNII-2a IEEE 802.11n HT20 mode- Chain 1

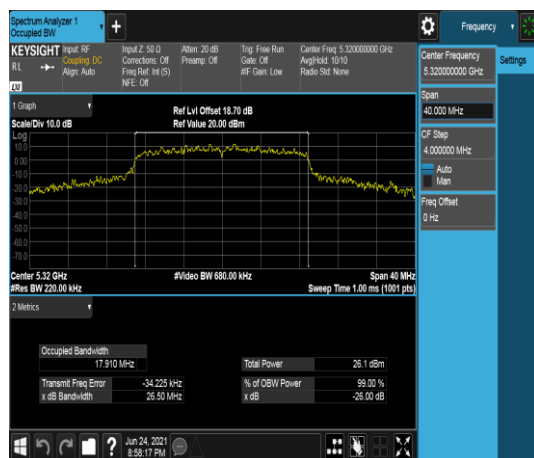
Low CH



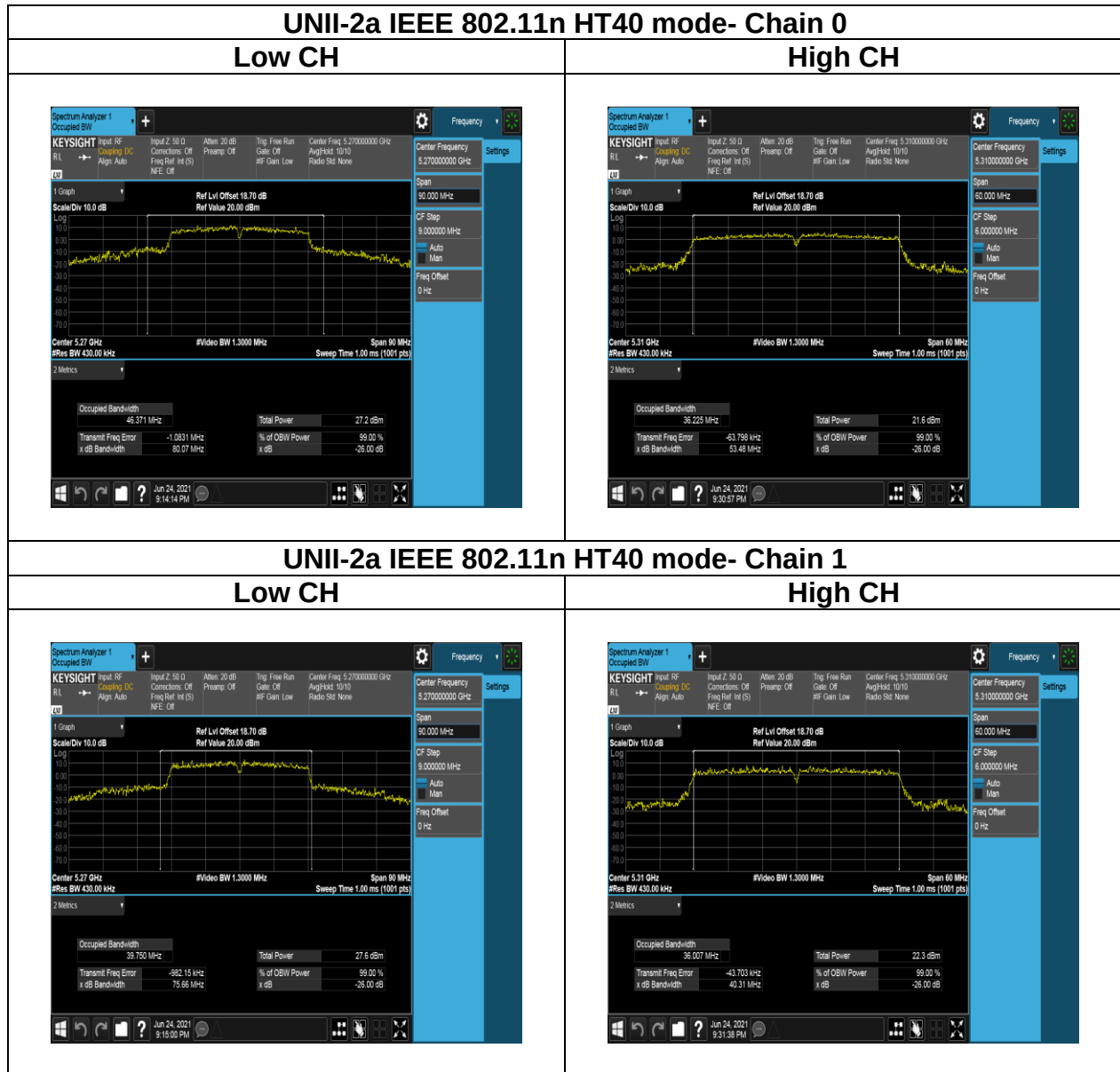
Mid CH



High CH



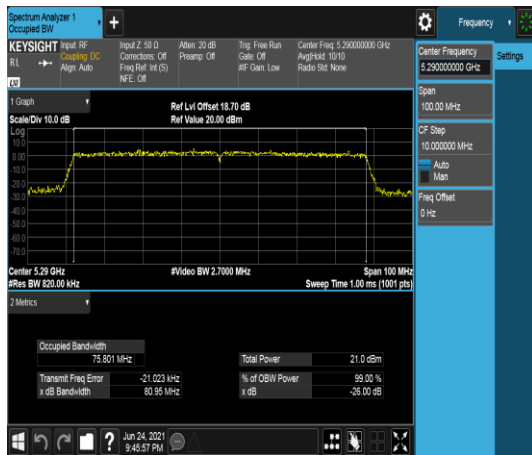
Report No.: T210429C13-RP4



Report No.: T210429C13-RP4

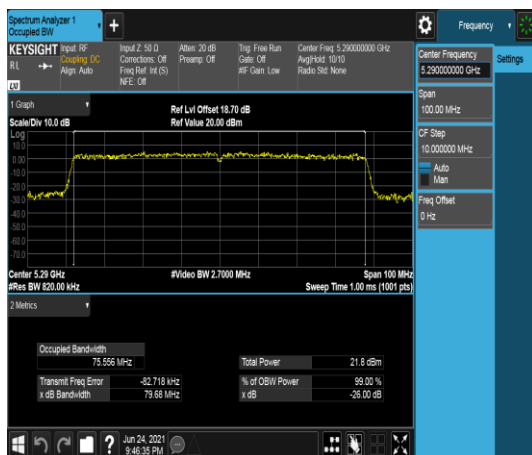
UNII-2a IEEE 802.11ac VHT80 mode- Chain 0

Low CH



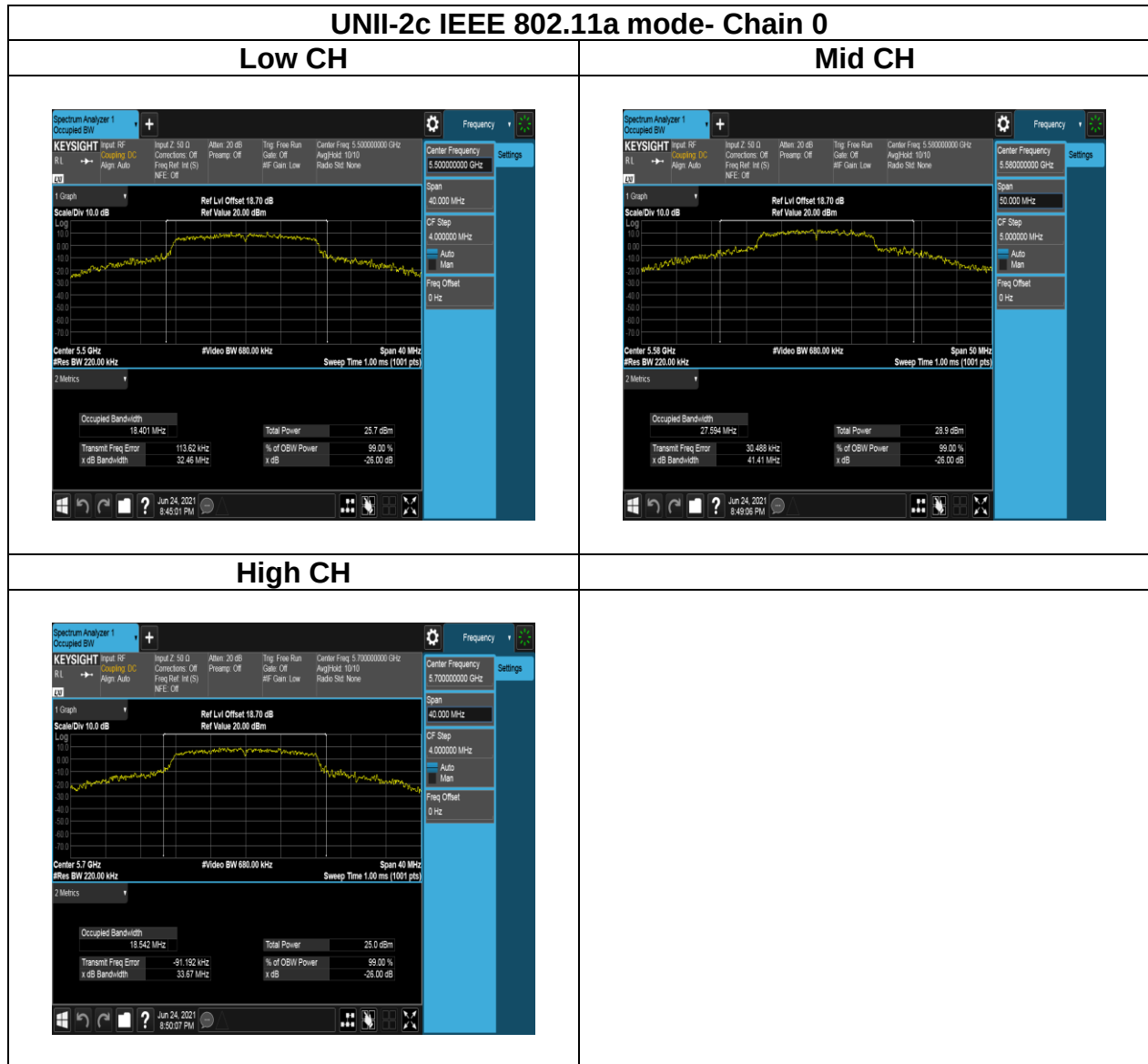
UNII-2a IEEE 802.11ac VHT80 mode- Chain 1

Low CH



Report No.: T210429C13-RP4

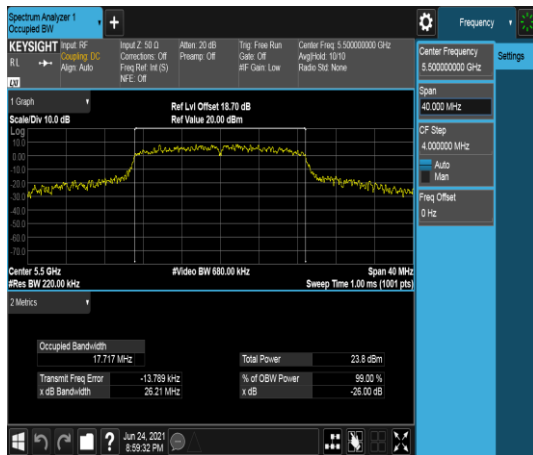
Test Data (26dB BANDWIDTH)



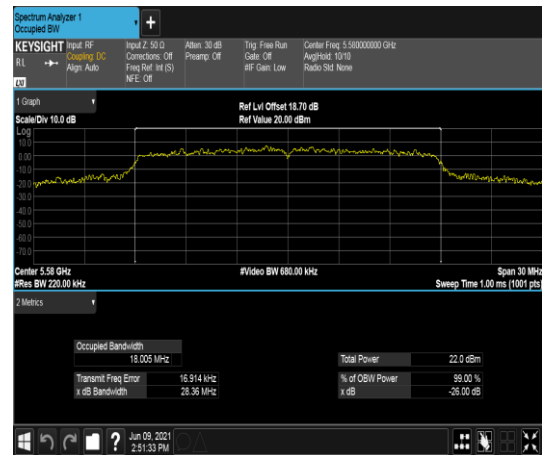
Report No.: T210429C13-RP4

UNII-2c IEEE 802.11n HT20 mode- Chain 0

Low CH



Mid CH

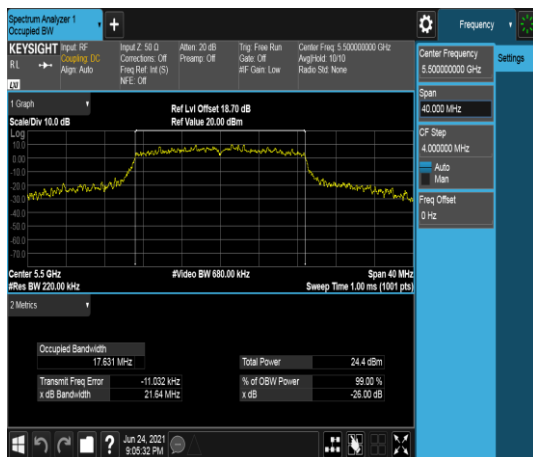


High CH

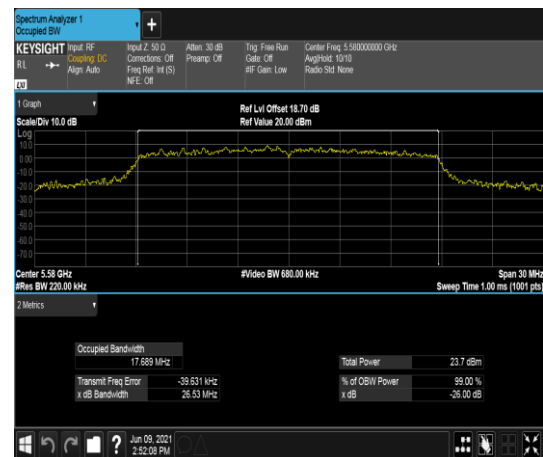


UNII-2c IEEE 802.11n HT20 mode- Chain 1

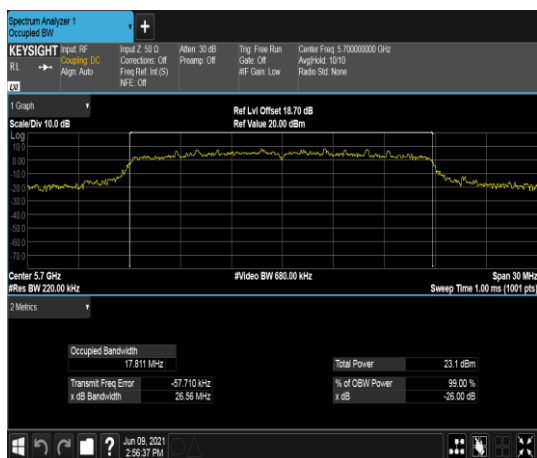
Low CH



Mid CH



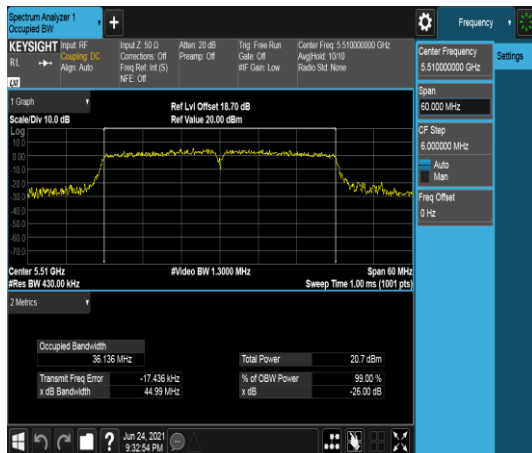
High CH



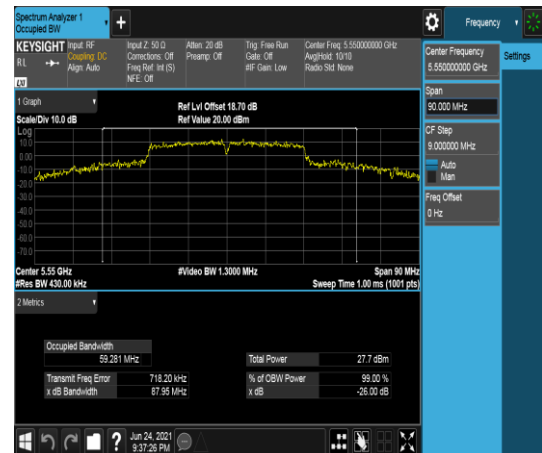
Report No.: T210429C13-RP4

UNII-2c IEEE 802.11n HT40 mode- Chain 0

Low CH



Mid CH



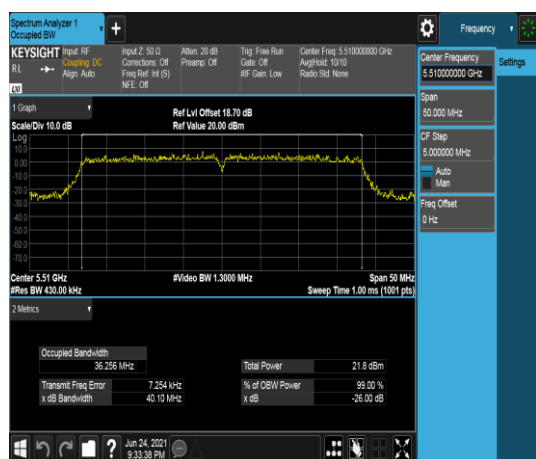
High CH



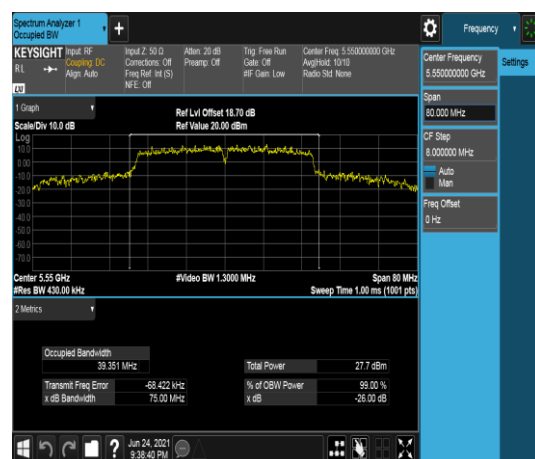
Report No.: T210429C13-RP4

UNII-2c IEEE 802.11n HT40 mode- Chain 1

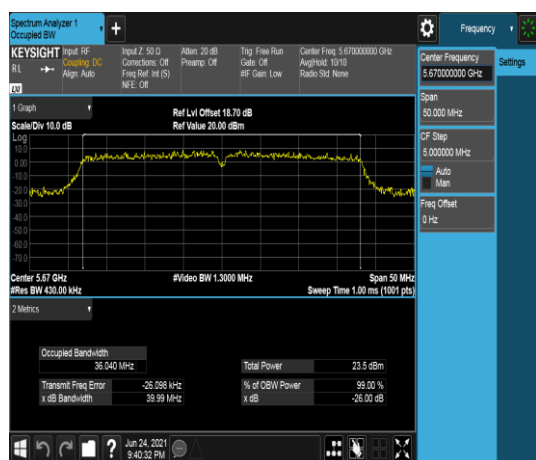
Low CH



Mid CH



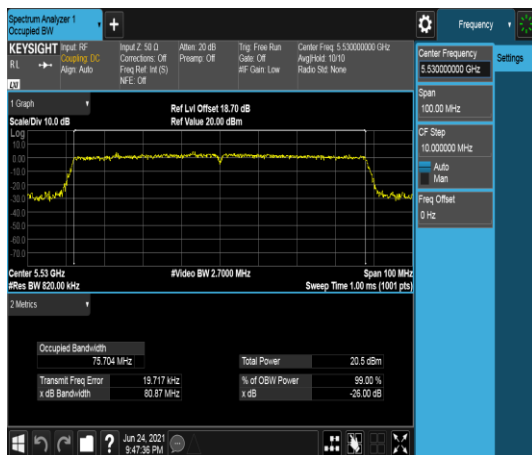
High CH



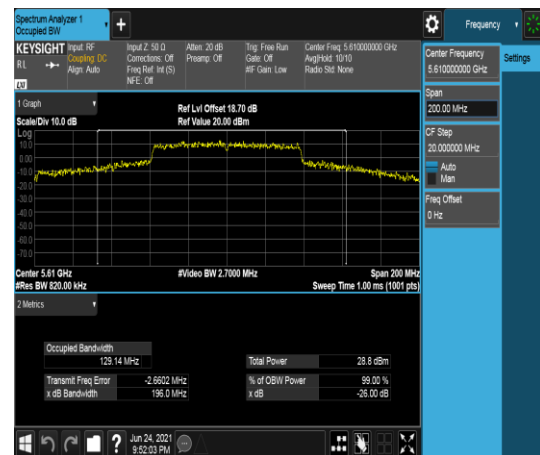
Report No.: T210429C13-RP4

UNII-2c IEEE 802.11ac VHT80 mode- Chain 0

Low CH

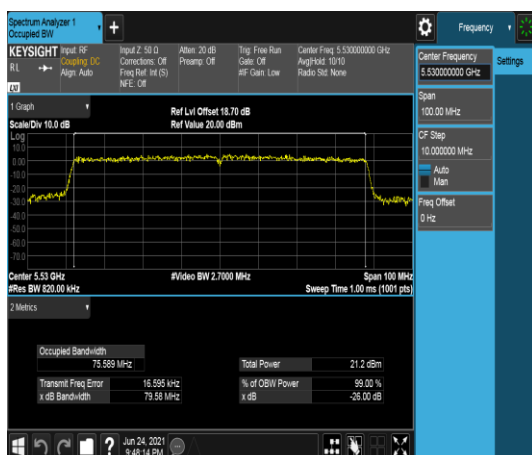


High CH

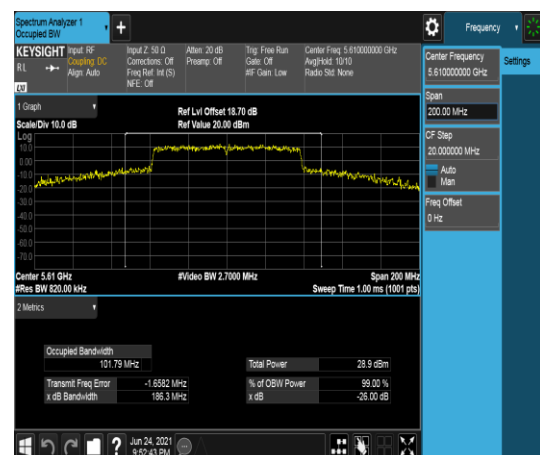


UNII-2c IEEE 802.11ac VHT80 mode- Chain 1

Low CH



High CH



Report No.: T210429C13-RP4

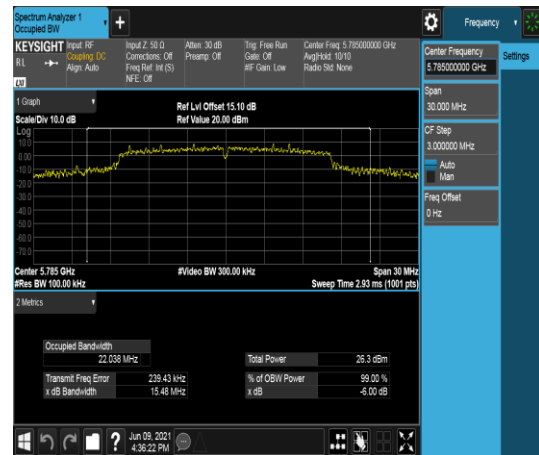
Test Data (6dB BANDWIDTH)

UNII-3 IEEE 802.11a mode- Chain 0

Low CH



Mid CH



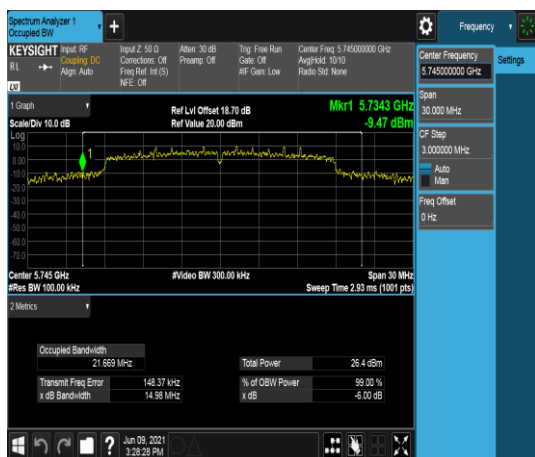
High CH



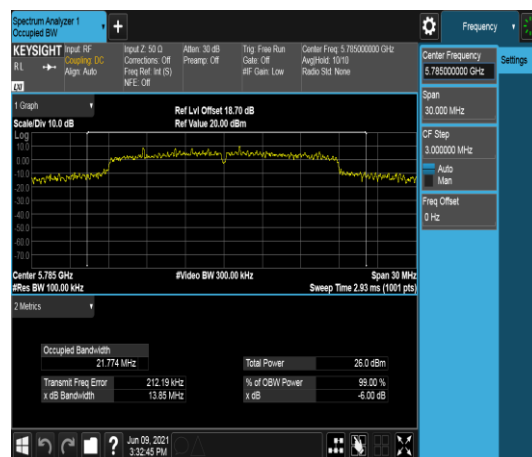
Report No.: T210429C13-RP4

UNII-3 IEEE 802.11n HT20 mode- Chain 0

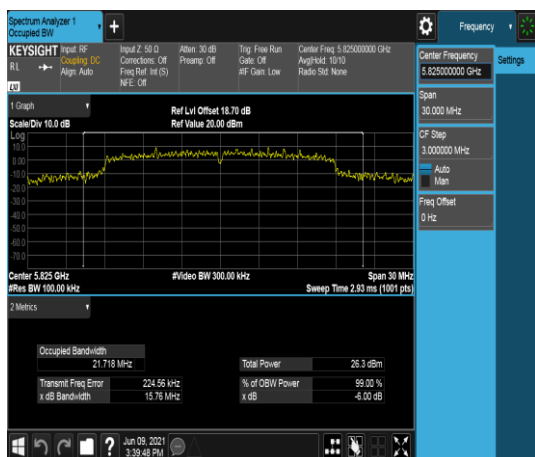
Low CH



Mid CH



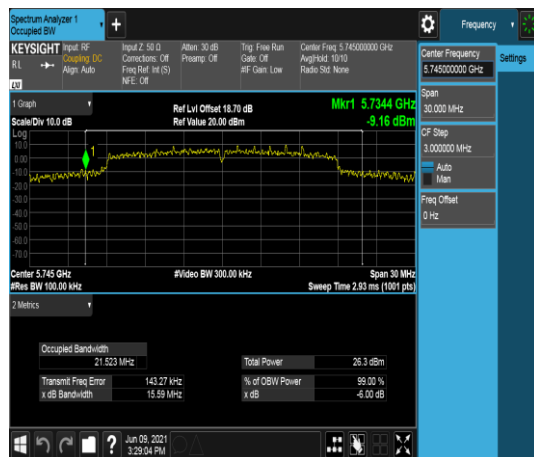
High CH



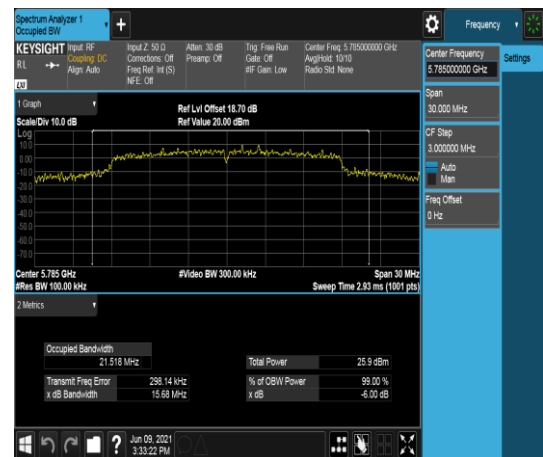
Report No.: T210429C13-RP4

UNII-3 IEEE 802.11n HT20 mode- Chain 1

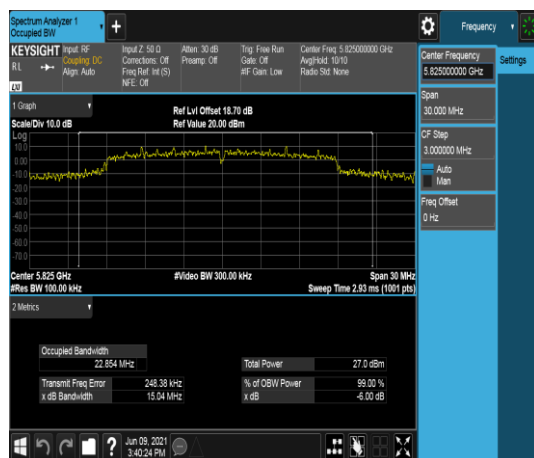
Low CH



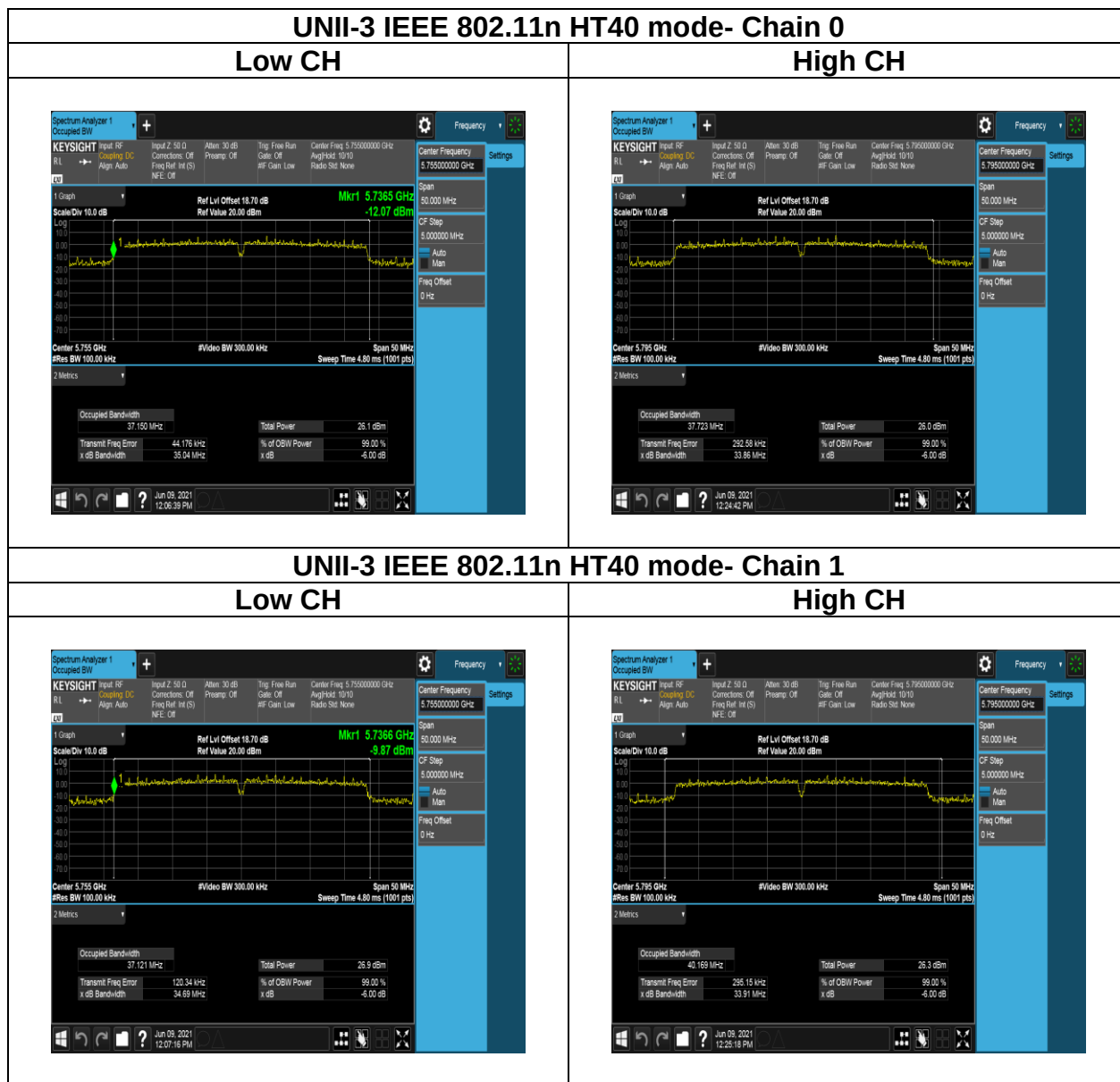
Mid CH



High CH



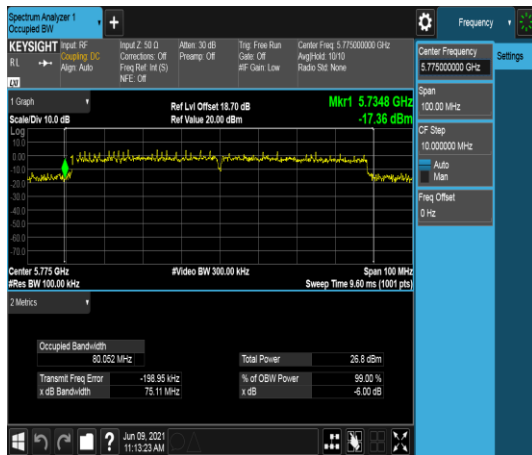
Report No.: T210429C13-RP4



Report No.: T210429C13-RP4

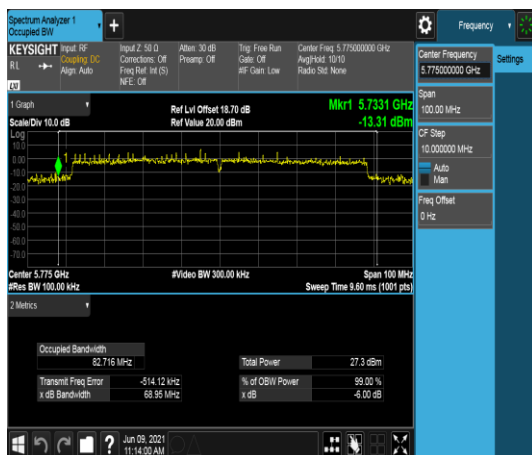
UNII-3 IEEE 802.11ac VHT80 mode- Chain 0

Low CH



UNII-3 IEEE 802.11ac VHT80 mode- Chain 1

Low CH



4.2.5 OUTPUT POWER MEASUREMENT

4.2.6 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3), and RSS-247 section 6.2.1.1, section 6.2.2.1, section 6.2.3.1 and section 6.2.4.1

FCC:

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), 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.

Report No.: T210429C13-RP4**IC:****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	☒ Antenna not exceed 6 dBi : 24dBm ☒ 200mW or $10 + 10 \log_{10} B$ for IC ☐ Antenna with DG greater than 6 dBi : [Limit = $24 - (DG - 6)$]
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 = $30 - (DG - 6)$]

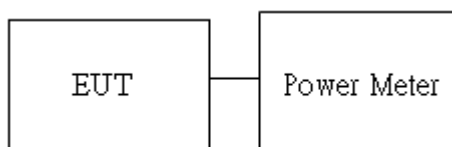
4.2.7 Test Procedure

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

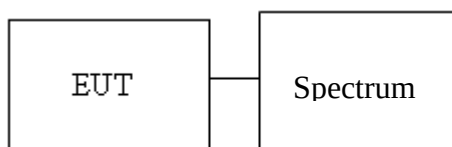
1. The EUT RF output connected to the power meter or spectrum by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

4.2.8 Test Setup

For BW 20MHz and 40MHz



For BW 80MHz



Report No.: T210429C13-RP4

4.2.9 Test Result

Temperature: 24.6 ~ 25.1°C

Humidity: 51.7 ~ 53.9% RH

Tested by: Lance Chen

Test date: June 8 ~ 9, 2021

FCC AVG Power :**802.11a_Ch0**

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	13.5	13.36	21.653	23.98	PASS
44	5220	6	14.5	14.38	27.385	23.98	PASS
48	5240	6	14.5	14.27	26.700	23.98	PASS
52	5260	6	18	20.57	113.898	23.98	PASS
60	5300	6	18	19.57	90.473	23.98	PASS
64	5320	6	18	19.44	87.805	23.98	PASS
100	5500	6	16.5	17.39	54.767	23.98	PASS
116	5580	6	18	20.37	108.772	23.98	PASS
140	5700	6	17	17.85	60.886	23.98	PASS
149	5745	6	18	20.17	103.876	30	PASS
157	5785	6	18	20.58	114.161	30	PASS
165	5825	6	18	20.88	122.326	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	12	13.26	21.160	23.98	PASS
44	5220	6	12.5	14.07	25.499	23.98	PASS
48	5240	6	12.5	14.00	25.091	23.98	PASS
52	5260	6	16	20.25	105.808	23.98	PASS
60	5300	6	15	19.39	86.799	23.98	PASS
64	5320	6	15	19.30	85.019	23.98	PASS
100	5500	6	14.5	16.21	41.737	23.98	PASS
116	5580	6	17	20.59	114.424	23.98	PASS
140	5700	6	14	16.63	45.975	23.98	PASS
149	5745	6	17	19.73	93.868	30	PASS
157	5785	6	18	20.44	110.539	30	PASS
165	5825	6	18	20.06	101.278	30	PASS

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802.11n_HT20_MIMO

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				CH 0	CH 1				
36	5180	MCS8	11.5	9.73	10.82	13.92	24.684	23.98	PASS
44	5220	MCS8	11.5	8.95	10.74	13.55	22.655	23.98	PASS
48	5240	MCS8	11.5	8.81	10.71	13.48	22.275	23.98	PASS
52	5260	MCS8	16	16.31	18.8	21.35	136.338	23.98	PASS
60	5300	MCS8	17	17.11	19.9	22.34	171.412	23.98	PASS
64	5320	MCS8	17	16.61	20.03	22.26	168.399	23.98	PASS
100	5500	MCS8	16	14.93	18.68	20.81	120.583	23.98	PASS
116	5580	MCS8	16	16.18	17.82	20.69	117.275	23.98	PASS
140	5700	MCS8	15.5	12.36	16.91	18.82	76.218	23.98	PASS
149	5745	MCS8	20	19.56	20.15	23.48	222.850	30	PASS
157	5785	MCS8	20	19.71	20.08	23.51	224.597	30	PASS
165	5825	MCS8	20	19.8	20.09	23.56	227.119	30	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				CH 0	CH 1				
38	5190	MCS8	15	12.09	13.24	17.29	53.614	23.98	PASS
46	5230	MCS8	15	11.68	13.39	17.21	52.583	23.98	PASS
54	5270	MCS8	18	17.96	20.15	23.78	238.860	23.98	PASS
62	5310	MCS8	16	10.85	15.35	18.25	66.809	23.98	PASS
102	5510	MCS8	15.5	11.08	14.75	17.88	61.397	23.98	PASS
110	5550	MCS8	18.5	17.62	20.21	23.70	234.159	23.98	PASS
134	5670	MCS8	16	14.17	16.03	19.79	95.250	23.98	PASS
151	5755	MCS8	20	18.95	19.79	23.98	250.041	30	PASS
159	5795	MCS8	20	19.16	19.4	23.87	243.864	30	PASS

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Rev.: 01

802.11ac_VHT80_MIMO

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				CH 0	CH 1				
42	5210	MCS0	15	11.94	13.28	17.34	54.180	23.98	PASS
58	5290	MCS0	14.5	8.96	13.51	16.48	44.487	23.98	PASS
106	5530	MCS0	14	9.57	13.05	16.33	42.919	23.98	PASS
122	5610	MCS0	18.5	18.85	19.45	23.84	241.951	23.98	PASS
155	5775	MCS0	18	16.54	19.74	23.11	204.419	30	PASS

Report No.: T210429C13-RP4

IC AVG Power:**802.11a_Ch0**

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	20.57	113.898	23.98	PASS
60	5300	19.57	90.473	23.98	PASS
64	5320	19.44	87.805	23.98	PASS
100	5500	17.39	54.767	23.98	PASS
116	5580	20.37	108.772	23.98	PASS
140	5700	17.85	60.886	23.98	PASS
149	5745	20.17	103.876	30	PASS
157	5785	20.58	114.161	30	PASS
165	5825	20.88	122.326	30	PASS

802.11a_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	20.25	105.808	23.98	PASS
60	5300	19.39	86.799	23.98	PASS
64	5320	19.30	85.019	23.98	PASS
100	5500	16.21	41.737	23.98	PASS
116	5580	20.59	114.424	23.98	PASS
140	5700	16.63	45.975	23.98	PASS
149	5745	19.73	93.868	30	PASS
157	5785	20.44	110.539	30	PASS
165	5825	20.06	101.278	30	PASS

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802.11n_HT20_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
52	5260	16.31	18.8	21.35	136.338	23.65	PASS
60	5300	17.11	19.9	22.34	171.412	23.5	PASS
64	5320	16.61	20.03	22.26	168.399	23.69	PASS
100	5500	14.93	18.68	20.81	120.583	23.58	PASS
116	5580	16.18	17.82	20.69	117.275	23.47	PASS
140	5700	12.36	16.91	18.82	76.218	23.48	PASS
149	5745	19.56	20.15	23.48	222.850	30	PASS
157	5785	19.71	20.08	23.51	224.597	30	PASS
165	5825	19.8	20.09	23.56	227.119	30	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
54	5270	17.96	20.15	23.78	238.860	23.98	PASS
62	5310	10.85	15.35	18.25	66.809	23.98	PASS
102	5510	11.08	14.75	17.88	61.397	23.98	PASS
110	5550	17.62	20.21	23.70	234.159	23.98	PASS
134	5670	14.17	16.03	19.79	95.250	23.98	PASS
151	5755	18.95	19.79	23.98	250.041	30	PASS
159	5795	19.16	19.4	23.87	243.864	30	PASS

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802.11ac_VHT80_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
58	5290	8.96	13.51	16.48	44.487	23.98	PASS
106	5530	9.57	13.05	16.33	42.919	23.98	PASS
155	5775	16.54	19.74	23.11	204.419	30	PASS

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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	13.36	2.60	15.96	39.402	23.01	PASS
44	5220	14.38	2.60	16.98	49.833	22.16	PASS
48	5240	14.27	2.60	16.87	48.587	22.17	PASS
52	5260	20.57	2.60	23.17	207.261	30	PASS
60	5300	19.57	2.60	22.17	164.633	30	PASS
64	5320	19.44	2.60	22.04	159.778	30	PASS
100	5500	17.39	2.60	19.99	99.659	30	PASS
116	5580	20.37	2.60	22.97	197.932	30	PASS
140	5700	17.85	2.60	20.45	110.794	30	PASS

802.11a_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	13.26	2.600	15.86	38.505	23.01	PASS
44	5220	14.07	2.600	16.67	46.400	22.16	PASS
48	5240	14.00	2.600	16.60	45.658	22.17	PASS
52	5260	20.25	2.600	22.85	192.538	30	PASS
60	5300	19.39	2.600	21.99	157.949	30	PASS
64	5320	19.30	2.600	21.90	154.710	30	PASS
100	5500	16.21	2.600	18.81	75.948	30	PASS
116	5580	20.59	2.600	23.19	208.217	30	PASS
140	5700	16.63	2.600	19.23	83.660	30	PASS

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802.11n_HT20_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	13.92	5.61	19.53	89.830	22.44	PASS
44	5220	13.55	5.61	19.16	82.446	22.44	PASS
48	5240	13.48	5.61	19.09	81.062	22.44	PASS
52	5260	21.35	5.61	26.96	496.154	29.65	PASS
60	5300	22.34	5.61	27.95	623.793	29.5	PASS
64	5320	22.26	5.61	27.87	612.830	29.69	PASS
100	5500	20.81	5.61	26.42	438.821	29.58	PASS
116	5580	20.69	5.61	26.30	426.782	29.47	PASS
140	5700	18.82	5.61	24.43	277.368	29.48	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	17.29	5.61	22.90	195.109	23.01	PASS
46	5230	17.21	5.61	22.82	191.357	23.01	PASS
54	5270	23.78	5.61	29.39	869.247	30	PASS
62	5310	18.25	5.61	23.86	243.126	30	PASS
102	5510	17.88	5.61	23.49	223.433	30	PASS
110	5550	23.70	5.61	29.31	852.139	30	PASS
134	5670	19.79	5.61	25.40	346.629	30	PASS

802.11ac_VHT80_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	17.34	5.61	22.95	197.169	23.01	PASS
58	5290	16.48	5.61	22.09	161.896	30	PASS
106	5530	16.33	5.61	21.94	156.190	30	PASS

4.3 POWER SPECTRAL DENSITY

4.3.1 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.

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 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	☒ Antenna not exceed 6 dBi : 11 dBm/MHz ☒ Antenna not exceed 6 dBi : 10 dBm/MHz for IC ☐ Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
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)]

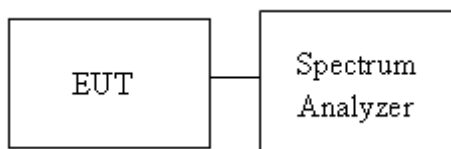
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4.3.2 Test Procedure

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 = 300kHz, VBW = 1MHz 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.

4.3.3 Test Setup



4.3.4 Test Result

Temperature: 24.6 ~ 25.1°C**Humidity:** 51.7 ~ 53.9% RH**Tested by:** Lance Chen**Test date:** June 8 ~ 9, 2021

UNII-1 5150-5250 MHz						
POWER DENSITY 802.11a MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5180	3.40	-	0.32	3.72	11.00 dBm/MHz	-7.28
5220	3.76	-	0.32	4.08	11.00 dBm/MHz	-6.92
5240	3.73	-	0.32	4.05	11.00 dBm/MHz	-6.95

POWER DENSITY 802.11n HT20 MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5180	0.11	0.70	0.60	4.03	11.00 dBm/MHz	-6.97
5220	-0.61	1.14	0.60	3.96	11.00 dBm/MHz	-7.04
5240	-0.45	1.38	0.60	4.17	11.00 dBm/MHz	-6.83

POWER DENSITY 802.11n HT40 MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5190	-1.62	0.23	1.58	3.99	11.00 dBm/MHz	-7.01
5230	-1.79	0.57	1.58	4.14	11.00 dBm/MHz	-6.86

POWER DENSITY 802.11ac VHT80 MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5210	-3.76	-2.53	1.67	1.58	11.00 dBm/MHz	-9.42

UNII-1 5150-5250 MHz					
EIRP spectral density 802.11a MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP PSD (dBm)	IC Limit (dBm)	Margin (dB)
5180	3.72	5.61	9.33	10	-0.67
5220	4.08	5.61	9.69	10	-0.31
5240	4.05	5.61	9.66	10	-0.34

EIRP spectral density 802.11n HT20 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	IC Limit (dBm)	Margin (dB)
5180	4.03	5.61	9.64	10	-0.36
5220	3.96	5.61	9.57	10	-0.43
5240	4.17	5.61	9.78	10	-0.22

EIRP spectral density 802.11n HT40 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	IC Limit (dBm)	Margin (dB)
5190	3.99	5.61	9.60	10	-0.40
5230	4.14	5.61	9.75	10	-0.25

EIRP spectral density 802.11ac VHT80 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	IC Limit (dBm)	Margin (dB)
5210	1.58	5.61	7.19	10	-2.81

UNII-2a 5250-5350 MHz						
POWER DENSITY 802.11a MODE						
Frequency (MHz)	Chain 0 PPSD (dBm/MHz)	Chain 1 PPSD (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5260	10.51	-	0.32	10.83	11.00 dBm/MHz	-0.17
5300	9.11	-	0.32	9.43	11.00 dBm/MHz	-1.57
5320	8.38	-	0.32	8.70	11.00 dBm/MHz	-2.30

POWER DENSITY 802.11n HT20 MODE						
Frequency (MHz)	Chain 0 PPSD (dBm/MHz)	Chain 1 PPSD (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5260	5.96	8.36	0.60	10.93	11.00 dBm/MHz	-0.07
5300	6.40	6.59	0.60	10.11	11.00 dBm/MHz	-0.89
5320	6.19	6.09	0.60	9.75	11.00 dBm/MHz	-1.25

POWER DENSITY 802.11n HT40 MODE						
Frequency (MHz)	Chain 0 PPSD (dBm/MHz)	Chain 1 PPSD (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5270	3.97	5.68	1.58	9.50	11.00 dBm/MHz	-1.50
5310	3.56	7.48	1.58	10.54	11.00 dBm/MHz	-0.46

POWER DENSITY 802.11ac VHT80 MODE						
Frequency (MHz)	Chain 0 PPSD (dBm/MHz)	Chain 1 PPSD (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5290	-0.35	2.40	1.67	5.92	11.00 dBm/MHz	-5.08

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UNII-2c 5470-5725 MHz						
POWER DENSITY 802.11a MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5500	8.15	-	0.32	8.47	11.00 dBm/MHz	-2.53
5580	10.16	-	0.32	10.48	11.00 dBm/MHz	-0.52
5700	9.31	-	0.32	9.63	11.00 dBm/MHz	-1.37

POWER DENSITY 802.11n HT20 MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5500	4.14	8.09	0.60	10.16	11.00 dBm/MHz	-0.84
5580	6.05	7.85	0.60	10.65	11.00 dBm/MHz	-0.35
5700	5.78	8.02	0.60	10.65	11.00 dBm/MHz	-0.35

POWER DENSITY 802.11n HT40 MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5510	3.24	6.88	1.58	10.02	11.00 dBm/MHz	-0.98
5550	4.31	6.57	1.58	10.18	11.00 dBm/MHz	-0.82
5670	5.27	5.96	1.58	10.22	11.00 dBm/MHz	-0.78

POWER DENSITY 802.11ac VHT80 MODE						
Frequency (MHz)	Chain 0 PPSP (dBm/MHz)	Chain 1 PPSP (dBm/MHz)	Duty Factor (dB)	Maximum Corr'd PSD(dBm/MHz)	Limit	Margin (dB)
5530	-0.61	2.41	1.67	5.84	11.00 dBm/MHz	-5.16
5610	1.00	2.06	1.67	6.24	11.00 dBm/MHz	-4.76

UNII-3 5725-5825 MHz							
POWER DENSITY 802.11a MODE							
Frequency (MHz)	Chain 0 PPSP (dBm/300kHz)	Chain 1 PPSP (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5745	5.42	-	0.32	2.22	7.96	30.00 dBm/500kHz	-22.04
5785	5.75	-	0.32	2.22	8.29	30.00 dBm/500kHz	-21.71
5825	5.54	-	0.32	2.22	8.08	30.00 dBm/500kHz	-21.92

POWER DENSITY 802.11n HT20 MODE							
Frequency (MHz)	Chain 0 PPSP (dBm/300kHz)	Chain 1 PPSP (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD(dBm/500kHz)	Limit	Margin (dB)
5745	4.62	4.54	0.60	2.22	10.41	30.00 dBm/500kHz	-19.59
5785	4.36	4.63	0.60	2.22	10.33	30.00 dBm/500kHz	-19.67
5825	4.94	5.05	0.60	2.22	10.83	30.00 dBm/500kHz	-19.17

POWER DENSITY 802.11n HT40 MODE							
Frequency (MHz)	Chain 0 PPSP (dBm/300kHz)	Chain 1 PPSP (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD(dBm/500kHz)	Limit	Margin (dB)
5755	0.08	1.02	1.58	2.22	7.39	30.00 dBm/500kHz	-22.61
5795	0.16	0.52	1.58	2.22	7.15	30.00 dBm/500kHz	-22.85

POWER DENSITY 802.11ac VHT80 MODE							
Frequency (MHz)	Chain 0 PPSP (dBm/300kHz)	Chain 1 PPSP (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Maxmum Corr'd PSD(dBm/500kHz)	Limit	Margin (dB)
5775	-3.66	-2.32	1.67	2.22	3.96	30.00 dBm/500kHz	-26.04

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Test Data

UNII-1 IEEE 802.11a mode- chain 0

Low CH



Mid CH



High CH

