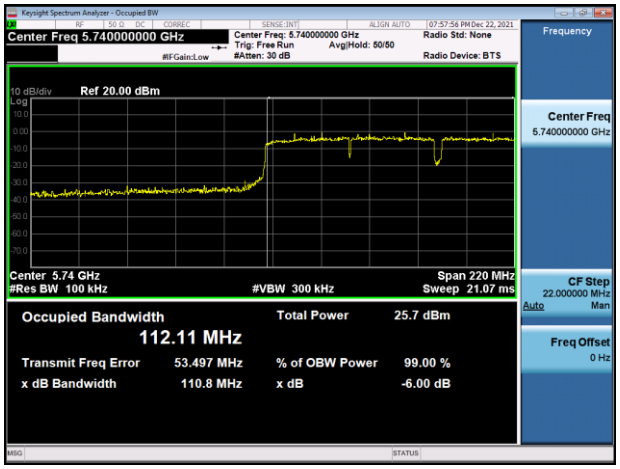
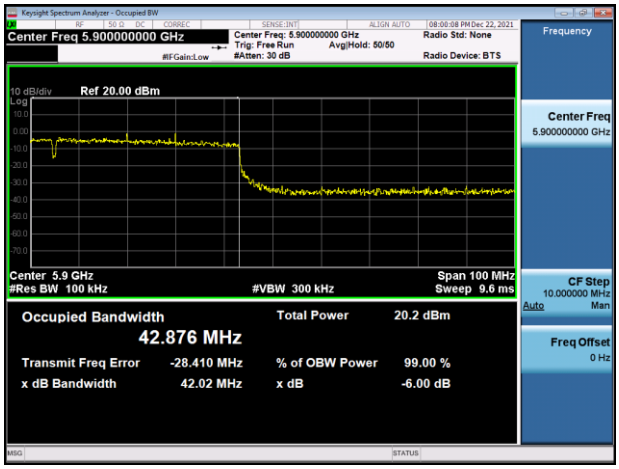
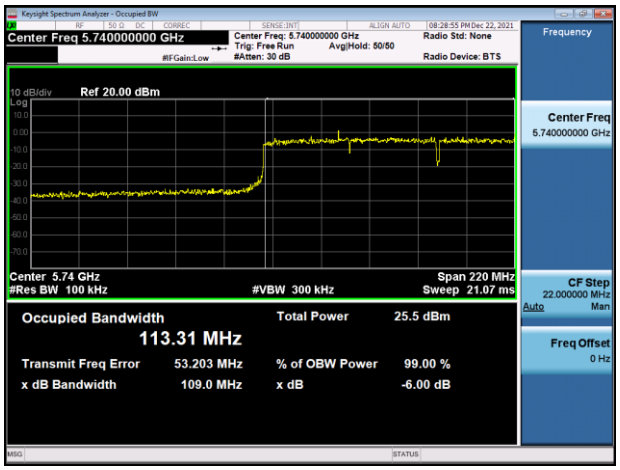
▣ TEST PLOTS

6 dB Bandwidth : U-NII 3/4 Band (Straddle Channels)	
802.11ax HE80 (CH 171 : 5855 MHz) in U-NII 3	**802.11ax HE80 (CH 171 : 5855 MHz) in U-NII 4**
	
802.11ac VHT160 (CH 163 : 5815 MHz) in U-NII 3	**802.11ac VHT160 (CH 163 : 5815 MHz) in U-NII 4**
	
802.11ax HE160 (CH 163 : 5815 MHz) in U-NII 3	**802.11ax HE160 (CH 163 : 5815 MHz) in U-NII 4**
	

Note :
The worst plots are reported for each bandwidth mode.

9.3 OUTPUT POWER

U-NII 4 Band (20 MHz)				Test Result					e.i.r.p. Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Measured Power (dBm)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. (dBm)	
				Chain 0	Chain 1			All Chain	
802.11a	5865	173	6 Mbps	18.98	19.79	0.72	4.36	27.50	36
	5885	177	6 Mbps	19.28	19.17	0.72	4.36	27.32	36
802.11n HT20	5865	173	MCS0	19.77	20.41	0.39	4.36	**27.86**	36
	5885	177	MCS0	19.46	19.22	0.39	4.36	27.10	36
802.11ax HE20	5865	173	MCS0	19.78	20.52	0.20	4.36	27.73	36
	5885	177	MCS0	19.51	19.39	0.20	4.36	27.02	36

U-NII 4 Band (40 MHz)				Test Result					e.i.r.p. Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Measured Power (dBm)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. (dBm)	
				Chain 0	Chain 1			All Chain	
802.11n HT40	5875	175	MCS0	21.28	21.50	0.37	4.36	**29.13**	36
802.11ax HE40	5875	175	MCS0	20.99	21.10	0.20	4.36	28.61	36

Note(s) :

1. The output power results in the table include the spectrum offset, which is a combination loss of the attenuator and the cable used for testing.

Straddle Channel : U-NII 3 / 4 Band (20 MHz)					Test Result					e.i.r.p. Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Band	Measured Power (dBm)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. (dBm)	
					Chain 0	Chain 1			All Chain	
802.11a	5845	169	6 Mbps	U-NII 3	18.44	19.16	0.72	4.36	26.91	36
	5845	169	6 Mbps	U-NII 4	12.02	12.34	0.72	4.36	20.28	36
	5845	169	Combined		19.34	19.98	0.72	4.36	**27.76**	-
802.11n HT20	5845	169	MCS0	U-NII 3	18.35	19.02	0.39	4.36	26.45	36
	5845	169	MCS0	U-NII 4	12.35	12.66	0.39	4.36	20.26	36
	5845	169	Combined		19.32	19.92	0.39	4.36	27.39	-
802.11ax HE20	5845	169	MCS0	U-NII 3	18.20	19.08	0.20	4.36	26.23	36
	5845	169	MCS0	U-NII 4	12.87	13.19	0.20	4.36	20.60	36
	5845	169	Combined		19.32	20.07	0.20	4.36	27.28	-

Straddle Channel : U-NII 3 / 4 Band (40 MHz)					Test Result					e.i.r.p. Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Band	Measured Power (dBm)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. (dBm)	
					Chain 0	Chain 1			All Chain	
802.11n HT40	5835	167	MCS0	U-NII 3	20.00	20.78	0.37	4.36	28.15	36
	5835	167	MCS0	U-NII 4	9.18	9.28	0.37	4.36	16.97	36
	5835	167	Combined		20.35	21.08	0.37	4.36	**28.47**	-
802.11ax HE40	5835	167	MCS0	U-NII 3	19.77	20.46	0.20	4.36	27.69	36
	5835	167	MCS0	U-NII 4	9.75	9.60	0.20	4.36	17.24	36
	5835	167	Combined		20.18	20.80	0.20	4.36	28.07	-

Straddle Channel : U-NII 3 / 4 Band (80 MHz)					Test Result					e.i.r.p. Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Band	Measured Power (dBm)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. (dBm)	
					Chain 0	Chain 1			All Chain	
802.11ac VHT80	5855	171	MCS0	U-NII 3	17.29	18.23	0.40	4.36	25.55	36
	5855	171	MCS0	U-NII 4	18.79	18.53	0.40	4.36	26.43	36
	5855	171	Combined		21.11	21.39	0.40	4.36	**29.02**	-
802.11ax HE80	5855	171	MCS0	U-NII 3	17.29	18.27	0.25	4.36	25.43	36
	5855	171	MCS0	U-NII 4	18.82	18.42	0.25	4.36	26.25	36
	5855	171	Combined		21.13	21.35	0.25	4.36	28.87	-

Note(s) :

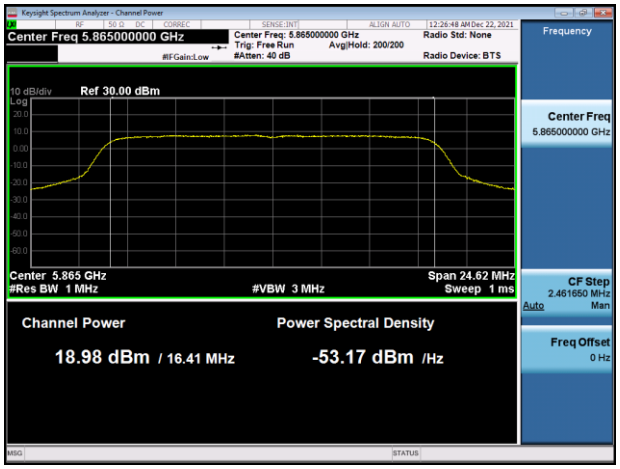
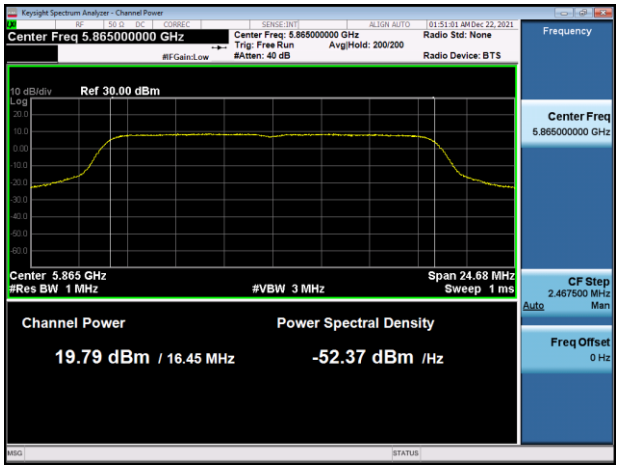
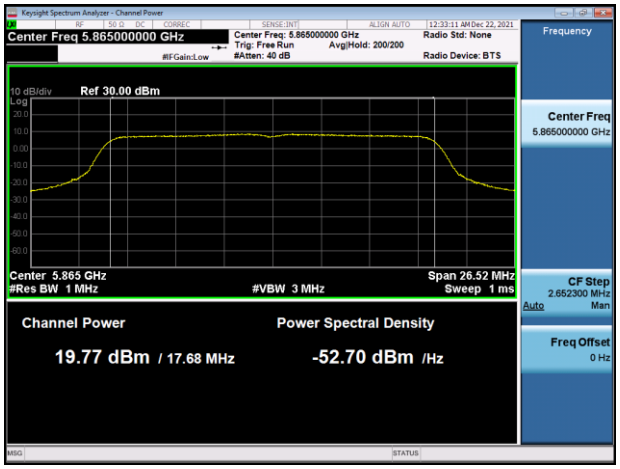
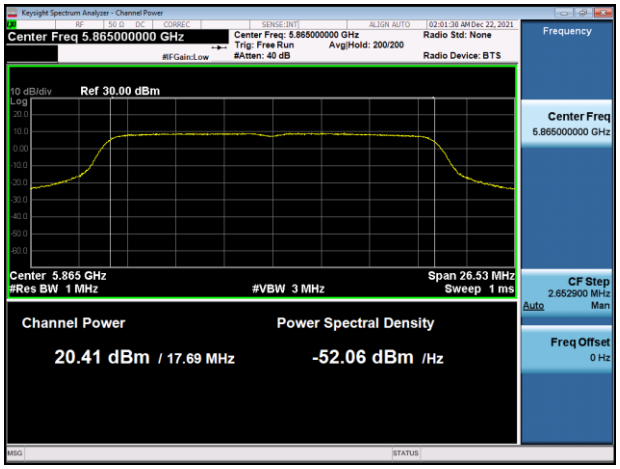
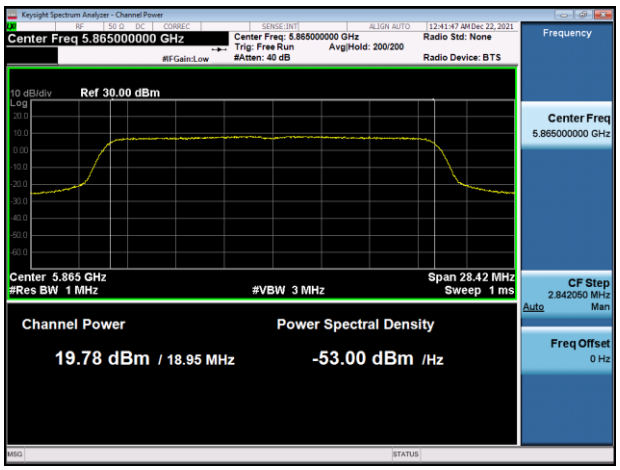
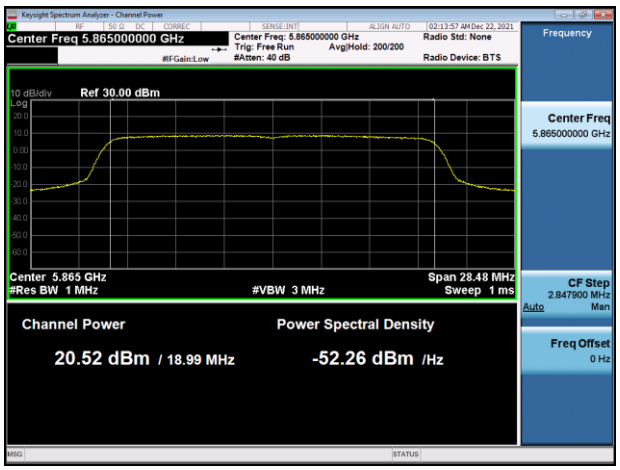
1. The output power results in the table include the spectrum offset, which is a combination loss of the attenuator and the cable used for testing.

Straddle Channel : U-NII 3 / 4 Band (160 MHz)					Test Result					e.i.r.p. Limit (dBm)
Mode	Frequency (MHz)	Channel	Date Rate	Band	Measured Power (dBm)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. (dBm)	
					Chain 0	Chain 1			All Chain	
802.11ac VHT160	5815	163	MCS0	U-NII 3	18.55	18.54	0.31	4.36	26.23	36
	5815	163	MCS0	U-NII 4	13.32	11.89	0.31	4.36	20.35	36
	5815	163	Combined		19.69	19.39	0.31	4.36	**27.22**	-
802.11ax HE160	5815	163	MCS0	U-NII 3	18.43	18.40	0.23	4.36	26.02	36
	5815	163	MCS0	U-NII 4	13.35	11.92	0.23	4.36	20.30	36
	5815	163	Combined		19.60	19.28	0.23	4.36	27.05	-

Note(s) :

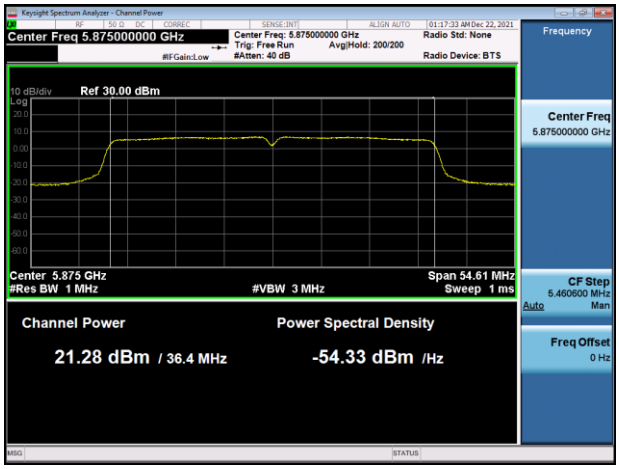
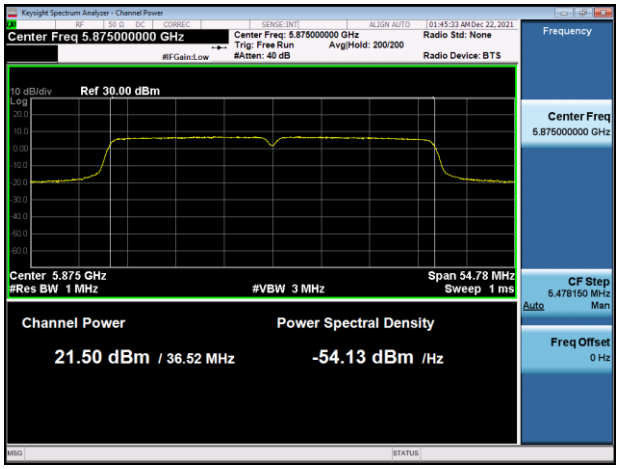
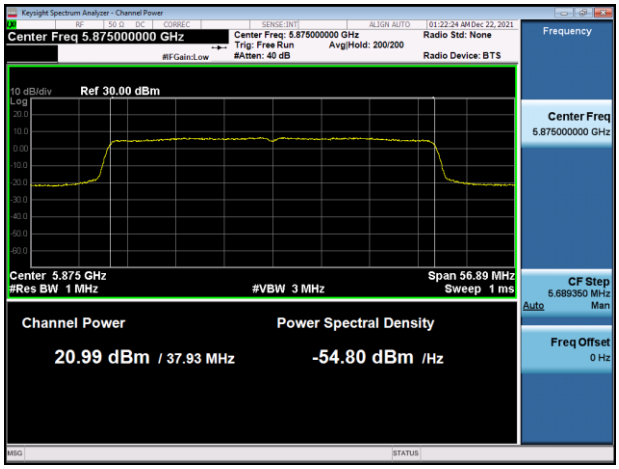
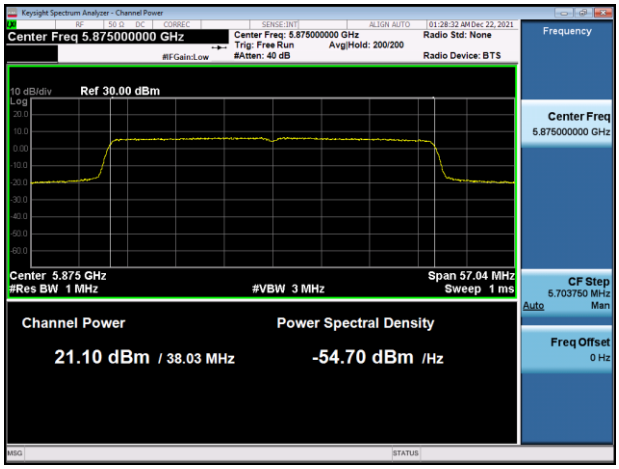
1. The output power results in the table include the spectrum offset, which is a combination loss of the attenuator and the cable used for testing.

▣ TEST PLOTS

Output Power : U-NII 4 Band	
802.11a (CH 173 : 5865 MHz) – Chain 0	**802.11a (CH 173 : 5865 MHz) – Chain 1**
	
802.11n HT20 (CH 173 : 5865 MHz) – Chain 0	**802.11n HT20 (CH 173 : 5865 MHz) – Chain 1**
	
802.11ax HE20 (CH 173 : 5865 MHz) – Chain 0	**802.11ax HE20 (CH 173 : 5865 MHz) – Chain 1**
	

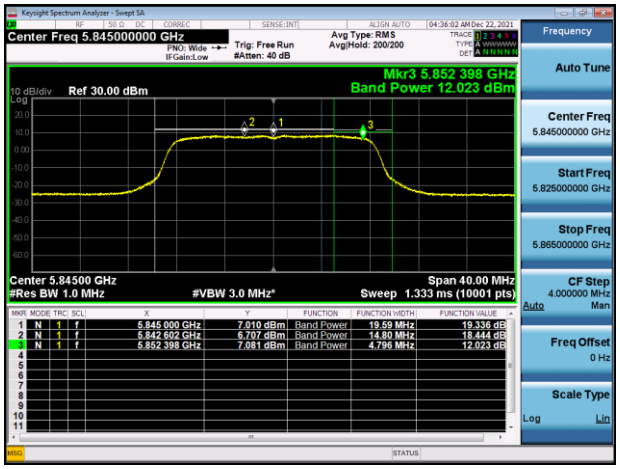
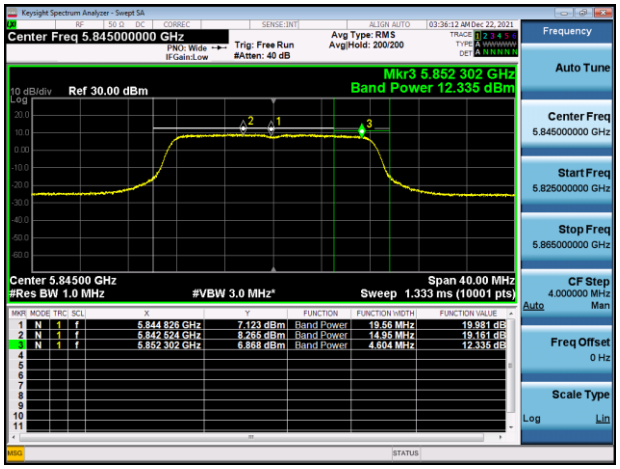
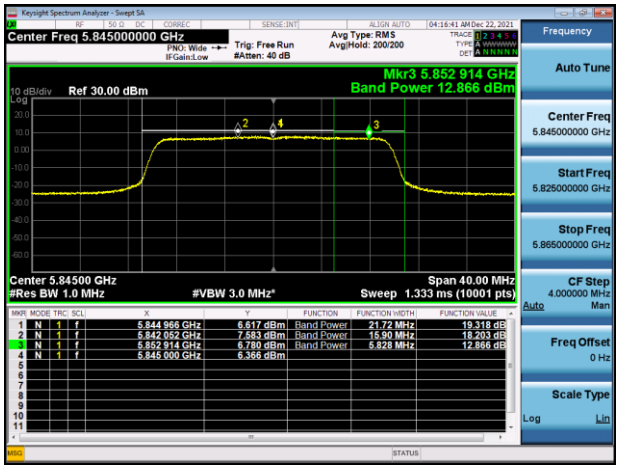
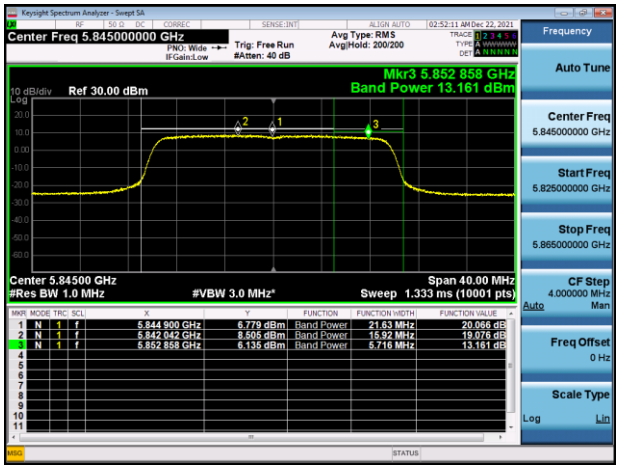
Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Output Power : U-NII 4 Band	
802.11n HT40 (CH 175 : 5875 MHz) – Chain 0	**802.11n HT40 (CH 175 : 5875 MHz) – Chain 1**
	
802.11ax HE40 (CH 175 : 5875 MHz) – Chain 0	**802.11ax HE40 (CH 175 : 5875 MHz) – Chain 1**
	

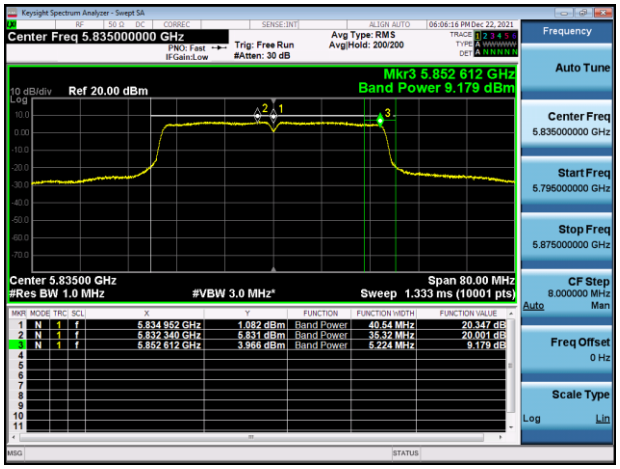
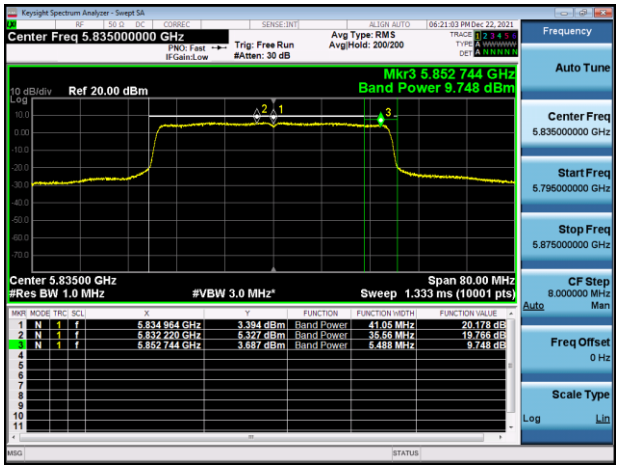
Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Output Power : U-NII 3/4 Band (Straddle Channels)	
802.11a (CH 169 : 5845 MHz) – Chain 0	**802.11a (CH 169 : 5845 MHz) – Chain 1**
	
802.11ax HE20 (CH 169 : 5845 MHz) – Chain 0	**802.11ax HE20 (CH 169 : 5845 MHz) – Chain 1**
	

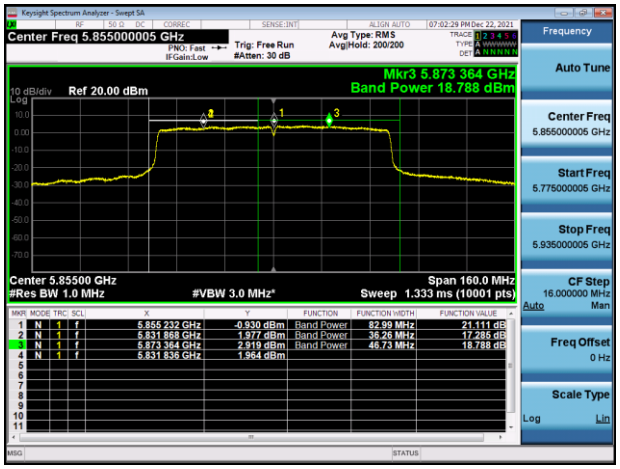
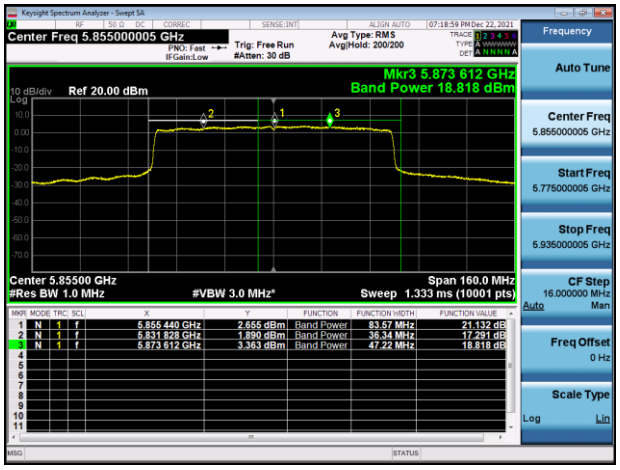
Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Output Power : U-NII 3/4 Band (Straddle Channels)	
802.11n HT40 (CH 167 : 5835 MHz) – Chain 0	**802.11n HT40 (CH 167 : 5835 MHz) – Chain 1**
	
802.11ax HE40 (CH 167 : 5835 MHz) – Chain 0	**802.11ax HE40 (CH 167 : 5835 MHz) – Chain 1**
	

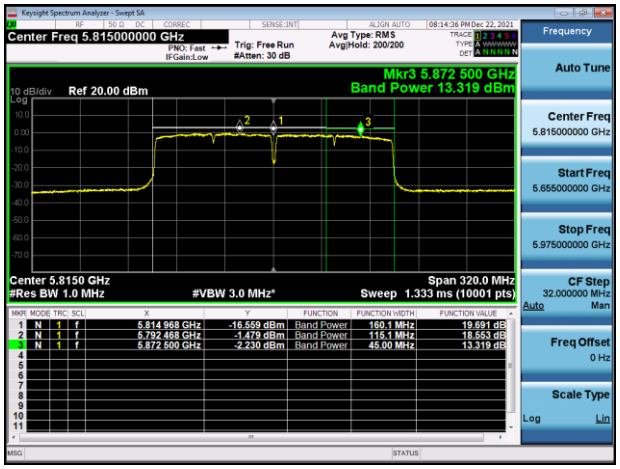
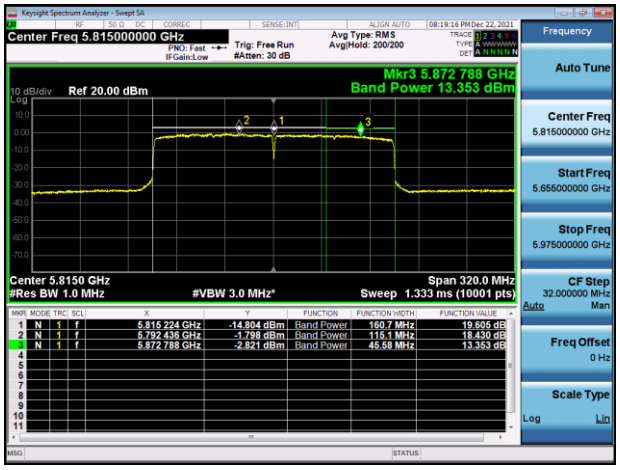
Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Output Power : U-NII 3/4 Band (Straddle Channels)	
802.11ac VHT80 (CH 171 : 5855 MHz) – Chain 0	**802.11ac VHT80 (CH 171 : 5855 MHz) – Chain 1**
	
802.11ax HE80 (CH 171 : 5855 MHz) – Chain 0	**802.11ax HE80 (CH 171 : 5855 MHz) – Chain 1**
	

Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Output Power : U-NII 3/4 Band (Straddle Channels)	
802.11ac VHT160 (CH 163 : 5815 MHz) – Chain 0	**802.11ac VHT160 (CH 163 : 5815 MHz) – Chain 1**
	
802.11ax HE160 (CH 163 : 5815 MHz) – Chain 0	**802.11ax HE160 (CH 163 : 5815 MHz) – Chain 1**
	

Note :
The worst plots are reported for each bandwidth mode.

9.4 POWER SPECTRAL DENSITY

U-NII 4 Band (20 MHz)				Test Result					e.i.r.p. PSD Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/MHz)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. PSD (dBm/MHz)	
				Chain 0	Chain 1			All Chain	
802.11a	5865	173	6 Mbps	7.97	8.52	0.72	7.37	19.36	20
	5885	177	6 Mbps	8.17	8.19	0.72	7.37	19.29	20
802.11n HT20	5865	173	MCS0	8.27	9.03	0.39	7.37	**19.43**	20
	5885	177	MCS0	8.20	8.02	0.39	7.37	18.88	20
802.11ax HE20	5865	173	MCS0	8.26	8.86	0.20	7.37	19.15	20
	5885	177	MCS0	7.73	7.93	0.20	7.37	18.41	20

U-NII 4 Band (40 MHz)				Test Result					e.i.r.p. PSD Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/MHz)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. PSD (dBm/MHz)	
				Chain 0	Chain 1			All Chain	
802.11n HT40	5875	175	MCS0	7.07	7.05	0.37	7.37	**17.81**	20
802.11ax HE40	5875	175	MCS0	6.57	6.79	0.20	7.37	17.26	20

Note :

1. The output power results in the table include the spectrum offset, which is a combination loss of the attenuator and the cable used for testing.

Straddle Channel : U-NII 3 Band (20 MHz)				Test Result				Limit [2] (dBm/500kHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/500kHz)		Duty Factor (dB)	Total PSD (dBm/500kHz)	
				Chain 0	Chain 1		All Chain	
802.11a	5845	169	6 Mbps	5.62	6.13	0.72	**9.61**	28.63
802.11n HT20	5845	169	MCS0	5.39	5.96	0.39	9.08	28.63
802.11ax HE20	5845	169	MCS0	5.21	5.61	0.20	8.62	28.63

Straddle Channel : U-NII 4 Band (20 MHz)				Test Result					e.i.r.p. PSD Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/MHz)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. PSD (dBm/MHz)	
				Chain 0	Chain 1			All Chain	
802.11a	5845	169	6 Mbps	8.10	8.44	0.72	7.37	**19.38**	20
802.11n HT20	5845	169	MCS0	7.34	7.88	0.39	7.37	18.39	20
802.11ax HE20	5845	169	MCS0	7.00	7.88	0.20	7.37	18.04	20

Straddle Channel : U-NII 3 Band (40 MHz)				Test Result				Limit [2] (dBm/500kHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/500kHz)		Duty Factor (dB)	Total PSD (dBm/500kHz)	
				Chain 0	Chain 1		All Chain	
802.11n HT40	5835	167	MCS0	3.52	3.86	0.37	**7.07**	28.63
802.11ax HE40	5835	167	MCS0	3.23	3.72	0.20	6.69	28.63

Straddle Channel : U-NII 4 Band (40 MHz)				Test Result					e.i.r.p. PSD Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/MHz)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. PSD (dBm/MHz)	
				Chain 0	Chain 1			All Chain	
802.11n HT40	5835	167	MCS0	5.39	5.27	0.37	7.37	**16.08**	20
802.11ax HE40	5835	167	MCS0	4.77	4.86	0.20	7.37	15.39	20

Straddle Channel : U-NII 3 Band (80 MHz)				Test Result				Limit [2] (dBm/500kHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/500kHz)		Duty Factor (dB)	Total PSD (dBm/500kHz)	
				Chain 0	Chain 1		All Chain	
802.11ac VHT80	5855	171	MCS0	0.82	1.45	0.40	**4.55**	28.63
802.11ax HE80	5855	171	MCS0	0.80	1.28	0.25	4.31	28.63

Straddle Channel : U-NII 4 Band (80 MHz)				Test Result					e.i.r.p. PSD Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/MHz)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. PSD (dBm/MHz)	
				Chain 0	Chain 1			All Chain	
802.11ac VHT80	5855	171	MCS0	3.12	3.51	0.40	7.37	**14.09**	20
802.11ax HE80	5855	171	MCS0	3.43	3.44	0.25	7.37	14.07	20

Note(s) :

1. The output power results in the table include the spectrum offset, which is a combination loss of the attenuator and the cable used for testing.
2. Conducted PSD limit (U-NII 3) = 30 dBm/500kHz – (7.37 dBi – 6 dBi) = 28.63 dBm/500kHz

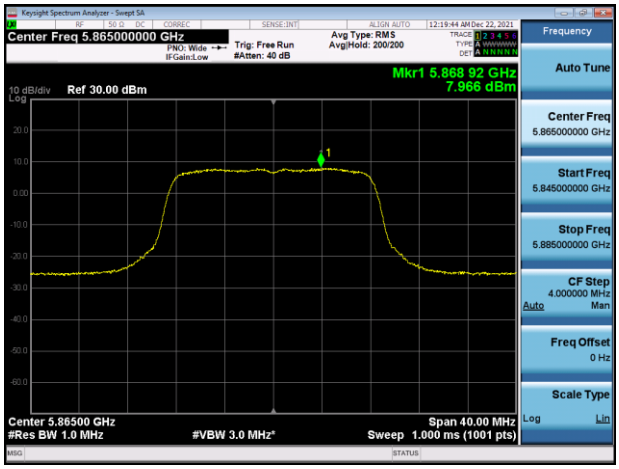
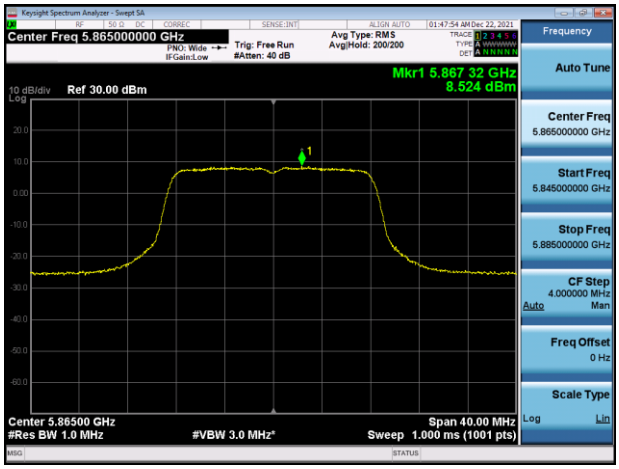
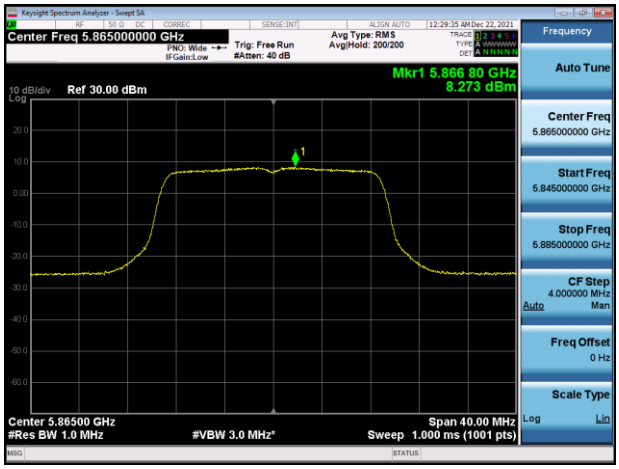
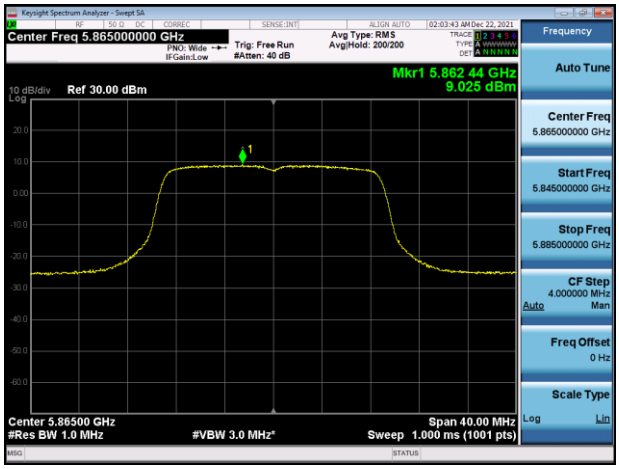
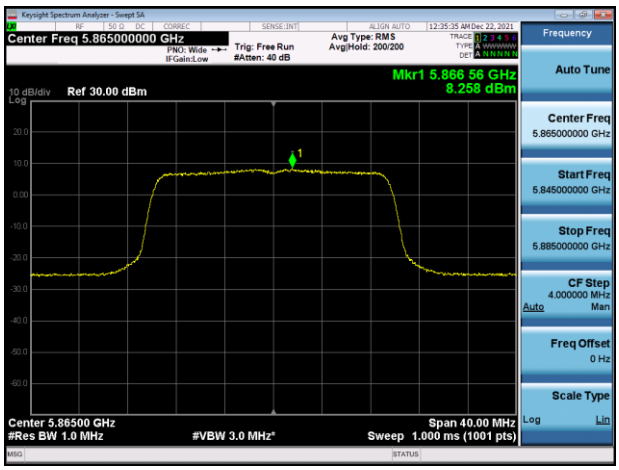
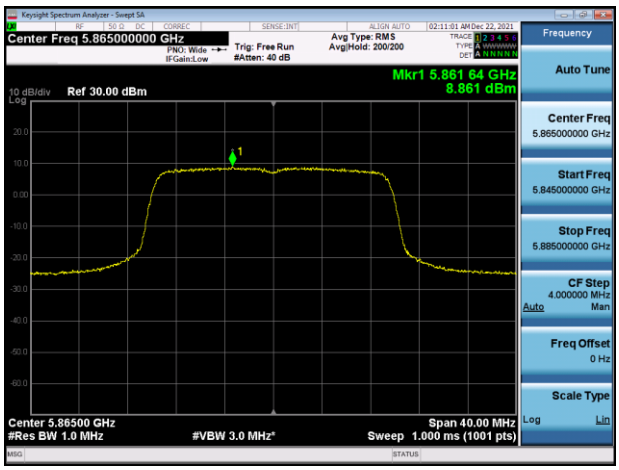
Straddle Channel : U-NII 3 Band (160 MHz)				Test Result				Limit [2] (dBm/500kHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/500kHz)		Duty Factor (dB)	Total PSD (dBm/500kHz)	
				Chain 0	Chain 1		All Chain	
802.11ac VHT160	5815	163	MCS0	-3.02	-3.77	0.31	**-0.06**	28.63
802.11ax HE160	5815	163	MCS0	-3.53	-3.59	0.23	-0.32	28.63

Straddle Channel : U-NII 4 Band (160 MHz)				Test Result					e.i.r.p. PSD Limit (dBm/MHz)
Mode	Frequency (MHz)	Channel	Date Rate	Measured PSD (dBm/MHz)		Duty Factor (dB)	G_{ANT} (dBi)	e.i.r.p. PSD (dBm/MHz)	
				Chain 0	Chain 1			All Chain	
802.11ac VHT160	5815	163	MCS0	-2.06	-2.57	0.31	7.37	8.39	20
802.11ax HE160	5815	163	MCS0	-1.80	-2.63	0.23	7.37	**8.42**	20

Note(s) :

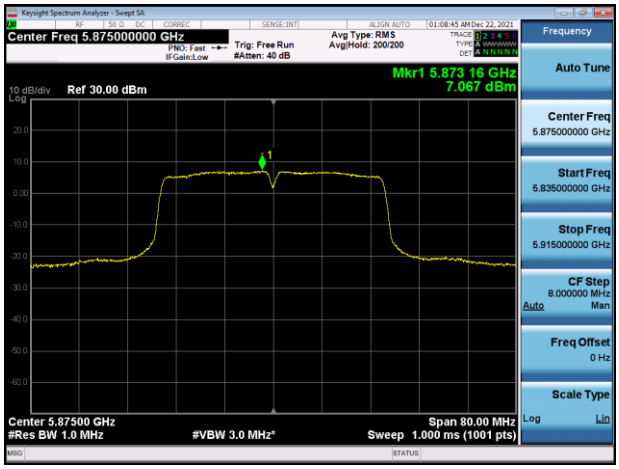
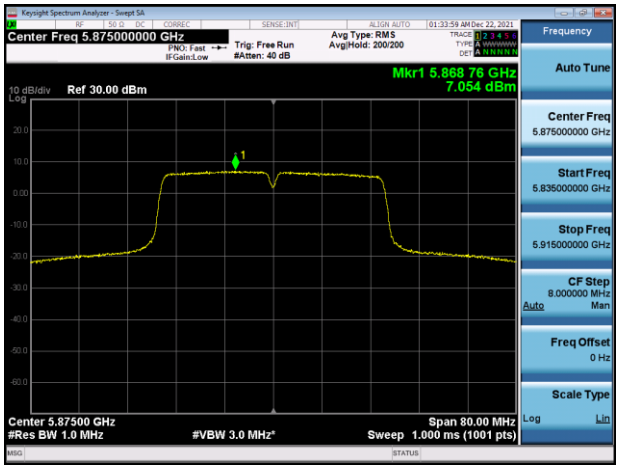
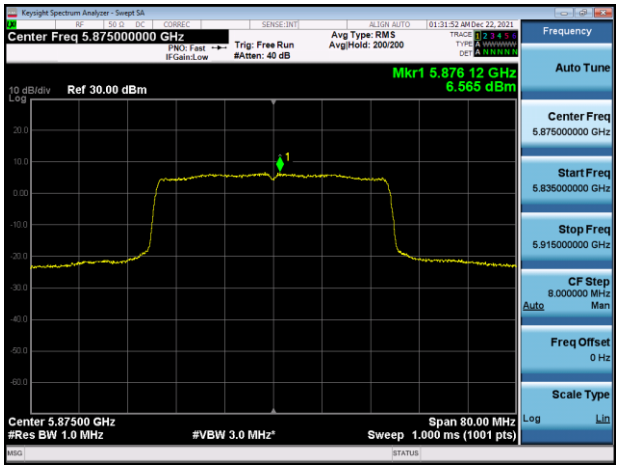
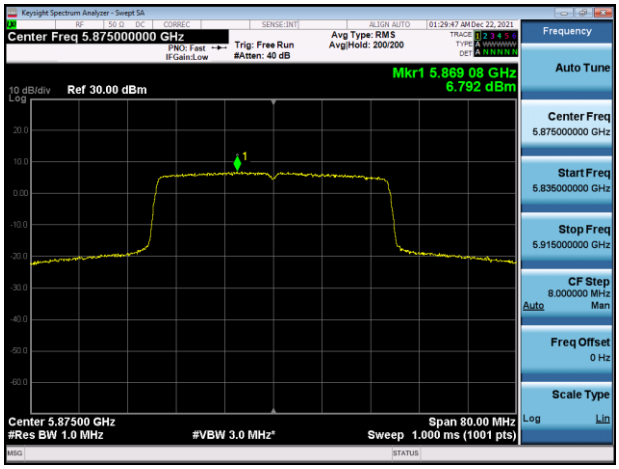
1. The output power results in the table include the spectrum offset, which is a combination loss of the attenuator and the cable used for testing.
2. Conducted PSD limit (U-NII 3) = 30 dBm/500kHz – (7.37 dBi – 6 dBi) = 28.63 dBm/500kHz

▣ TEST PLOTS

Power Spectral Density : U-NII 4 Band	
802.11a (CH 173 : 5865 MHz) – Chain 0	**802.11a (CH 173 : 5865 MHz) – Chain 1**
	
802.11n HT20 (CH 173 : 5865 MHz) – Chain 0	**802.11n HT20 (CH 173 : 5865 MHz) – Chain 1**
	
802.11ax HE20 (CH 173 : 5865 MHz) – Chain 0	**802.11ax HE20 (CH 173 : 5865 MHz) – Chain 1**
	

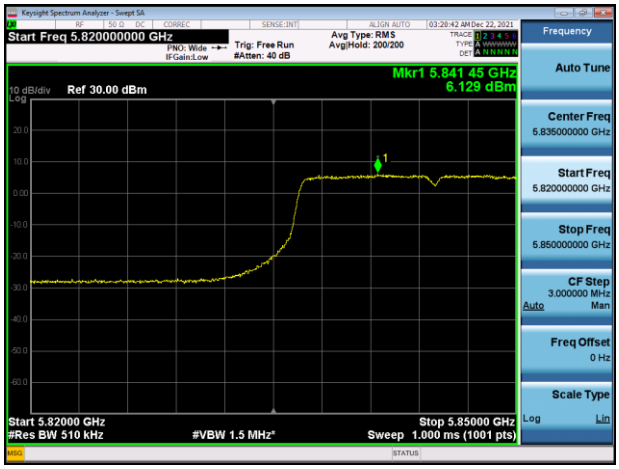
Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Power Spectral Density : U-NII 4 Band	
802.11n HT40 (CH 175 : 5875 MHz) – Chain 0	**802.11n HT40 (CH 175 : 5875 MHz) – Chain 1**
	
802.11ax HE40 (CH 175 : 5875 MHz) – Chain 0	**802.11ax HE40 (CH 175 : 5875 MHz) – Chain 1**
	

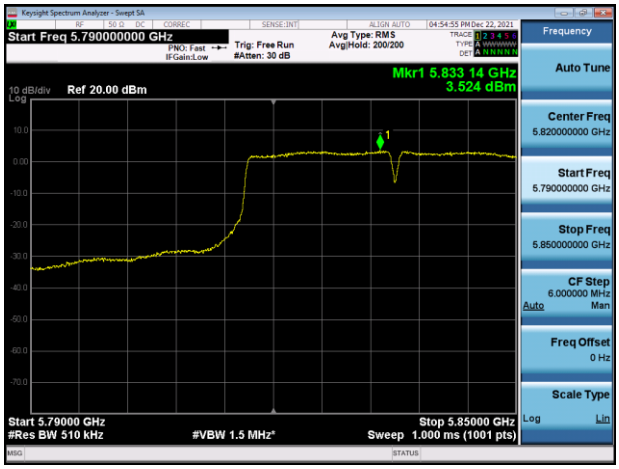
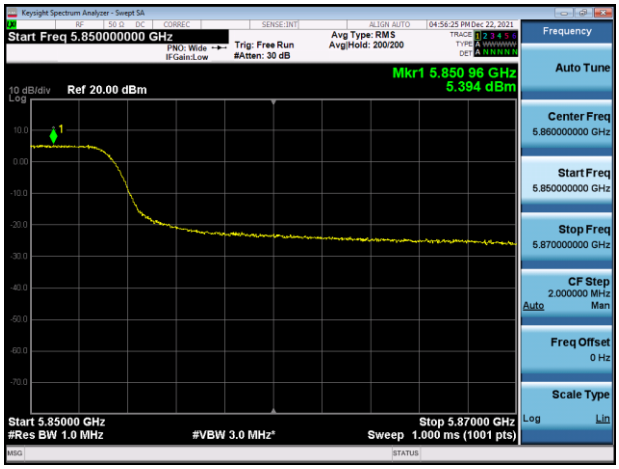
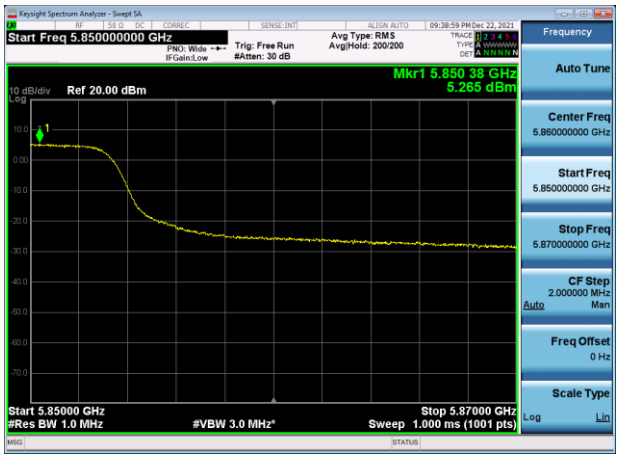
Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Power Spectral Density : U-NII 3/4 Band (Straddle Channels)	
802.11a (CH 175 : 5845 MHz) in U-NII 3 – Chain 0	**802.11a (CH 175 : 5845 MHz) in U-NII 4 – Chain 0**
	
802.11a (CH 175 : 5845 MHz) in U-NII 3 – Chain 1	**802.11a (CH 175 : 5845 MHz) in U-NII 4 – Chain 1**
	

Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Power Spectral Density : U-NII 3/4 Band (Straddle Channels)	
802.11n HT40 (CH 167 : 5835 MHz) in U-NII 3 – Chain 0	**802.11n HT40 (CH 167 : 5835 MHz) in U-NII 4 – Chain 0**
	
802.11n HT40 (CH 167 : 5835 MHz) in U-NII 3 – Chain 1	**802.11n HT40 (CH 167 : 5835 MHz) in U-NII 4 – Chain 1**
	

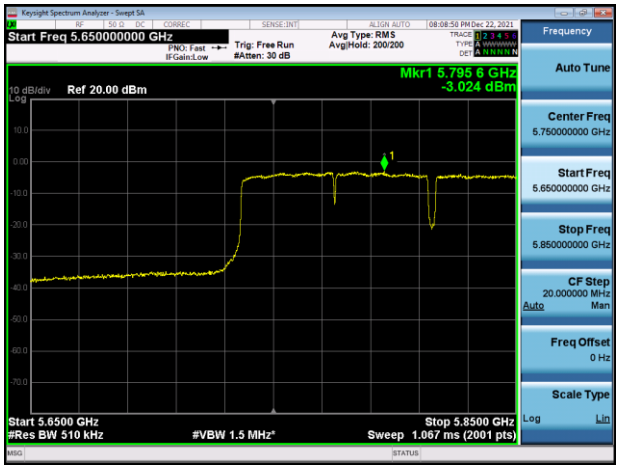
Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Power Spectral Density : U-NII 3/4 Band (Straddle Channels)	
802.11ac VHT80 (CH 171 : 5855 MHz) in U-NII 3 – Chain 0	**802.11ac VHT80 (CH 171 : 5855 MHz) in U-NII 4 – Chain 0**
	
802.11ac VHT80 (CH 171 : 5855 MHz) in U-NII 3 – Chain 1	**802.11ac VHT80 (CH 171 : 5855 MHz) in U-NII 4 – Chain 1**
	

Note :
The worst plots are reported for each bandwidth mode.

▣ TEST PLOTS

Power Spectral Density : U-NII 3/4 Band (Straddle Channels)	
802.11ac VHT160 (CH 163 : 5815 MHz) in U-NII 3 – Chain 0	**802.11ac HE160 (CH 163 : 5815 MHz) in U-NII 4 – Chain 0**
	
802.11ac VHT160 (CH 163 : 5815 MHz) in U-NII 3 – Chain 1	**802.11ax HE160 (CH 163 : 5815 MHz) in U-NII 4 – Chain 1**
	

Note :
The worst plots are reported for each bandwidth mode.

9.5 FREQUENCY STABILITY

Operating Band : U-NII Band 4
Operating Frequency : 5,865,000,000 Hz (CH 173)
Reference Voltage : 5 V d.c.

Voltage (%)	Power (V d.c.)	Temp (°C)	Frequency error (ppm)			
			0 minutes	2 minutes	5 minutes	10 minutes
100%	5.0	+20 (Ref)	5.32	6.46	7.24	7.60
100%		-30	13.93	13.71	13.59	13.57
100%		-20	15.87	16.19	16.37	16.44
100%		-10	16.96	16.88	16.84	16.77
100%		0	15.71	15.35	15.07	14.93
100%		+10	13.12	12.45	12.01	11.70
100%		+30	6.65	4.97	4.44	4.06
100%		+40	1.94	1.23	0.90	0.65
100%		+50	-0.62	-1.38	-1.64	-1.81
115%	5.8	+20	7.62	7.68	7.72	7.75
85%	4.3	+20	7.75	7.77	7.79	7.79

Note:
According to the results of the frequency stability test above, the frequency deviation measured are very small. The channels at the band edge should remain in-band when the maximum measured frequency error noted during the frequency stability tests is applied. Therefore, the Radio frequency should remain in-band during operation over the temperature and voltage range as tested.

9.6 RADIATED SPURIOUS EMISSIONS

Frequency Range : Below 1 GHz

Test Mode 802.11a : TX mode

Operating Frequency 5845 MHz (CH 169)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
42.314	V	39.6	-8.8	30.8	40	9.2	QP
55.144	V	49.8	-13.5	36.3	40	3.7	QP
108.401	V	42.3	-7.5	34.8	43.5	8.7	QP
160.378	V	35.7	-7.1	28.6	43.5	14.9	QP
249.987	H	34.2	-7.9	26.3	46	19.7	QP
250.008	V	39.1	-7.9	31.2	46	14.8	QP
500.006	H	28.6	-2.2	26.4	46	19.6	QP

Test Mode 802.11a : TX mode

Operating Frequency 5865 MHz (CH 173)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
40.141	V	38.5	-7.1	31.4	40	8.6	QP
55.053	V	49.3	-13.5	35.8	40	4.2	QP
107.962	V	43.0	-7.5	35.5	43.5	8.0	QP
161.691	V	32.1	-7.1	25.0	43.5	18.5	QP
249.999	H	36.0	-7.9	28.1	46	17.9	QP
249.999	V	36.8	-7.9	28.9	46	17.1	QP

Test Mode 802.11a : TX mode

Operating Frequency 5885 MHz (CH 177)

Frequency (MHz)	Polarization	Reading (dBuV)	Corr. [1] (dB)	Total (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Measurement Type
40.014	V	39.0	-7.0	32.0	40	8.0	QP
55.513	V	49.3	-13.4	35.9	40	4.1	QP
87.204	V	42.6	-12.7	29.9	40	10.1	QP
108.252	V	42.8	-7.5	35.3	43.5	8.2	QP
249.990	H	35.4	-7.9	27.5	46	18.5	QP
250.011	V	39.0	-7.9	31.1	46	14.9	QP
836.721	V	24.1	3.3	27.4	46	18.6	QP

Note(s) :

1. Correction Factor: Antenna Factor + Cable loss + Preamplifier Gain