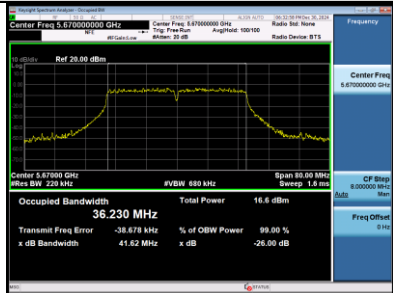
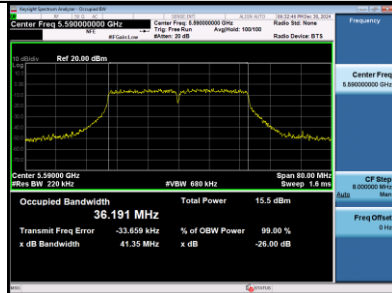
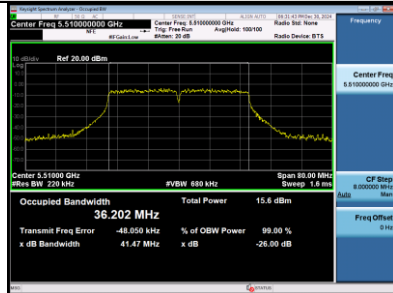
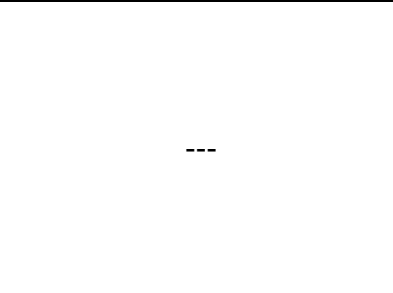
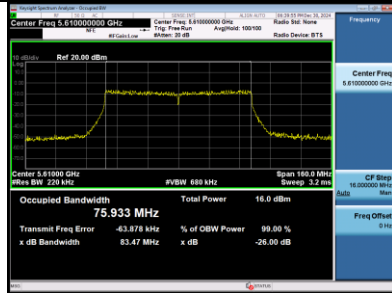
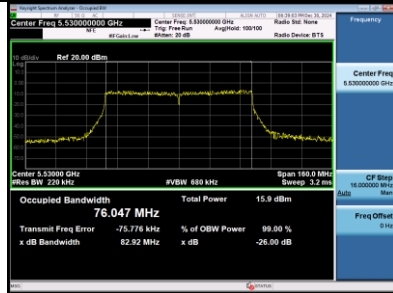


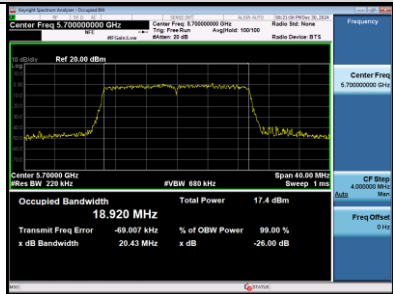
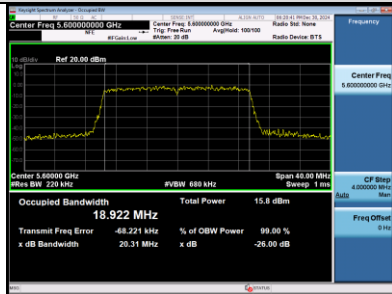
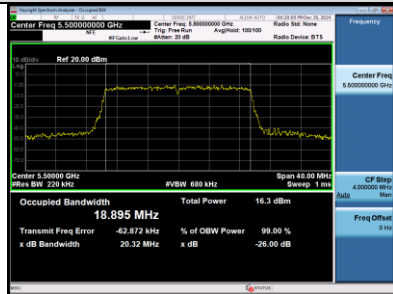
IEEE 802.11ac VHT40



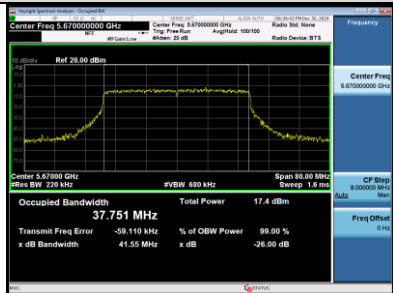
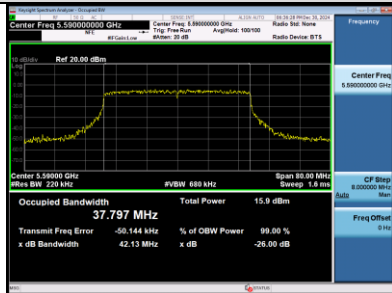
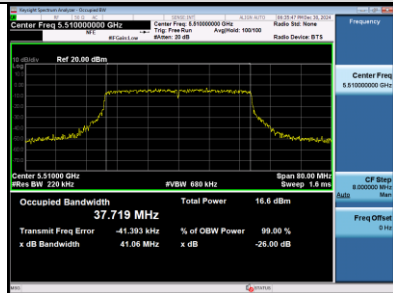
IEEE 802.11ac VHT80



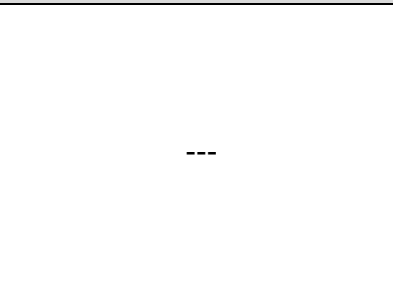
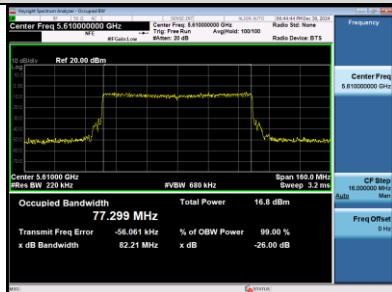
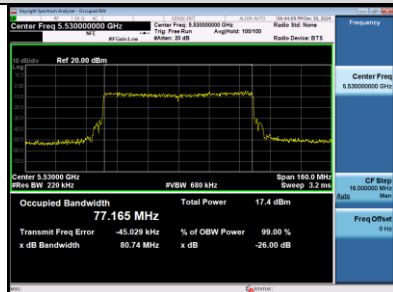
IEEE 802.11ax HE20



IEEE 802.11ax HE40



IEEE 802.11ax HE80



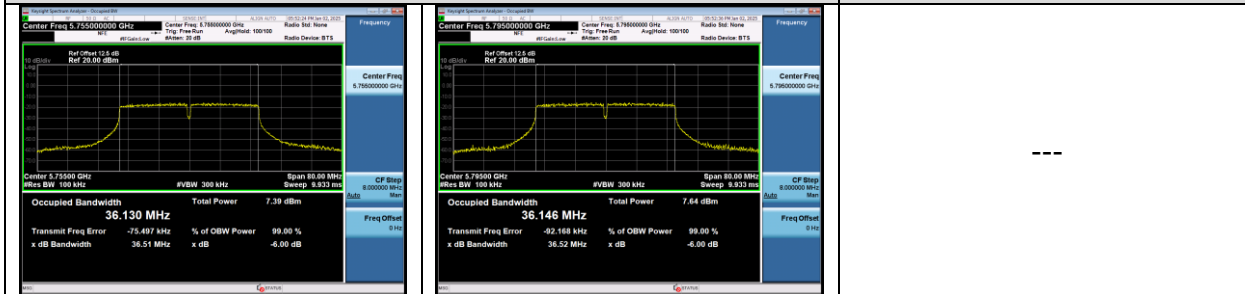
6dB bandwidth
U-NII-3 Band: ANT 0
IEEE 802.11a



IEEE 802.11n HT20



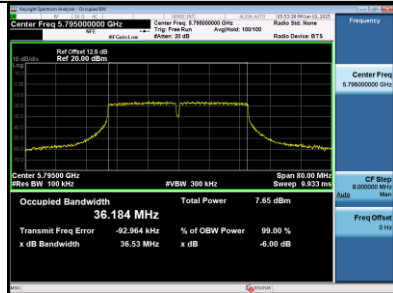
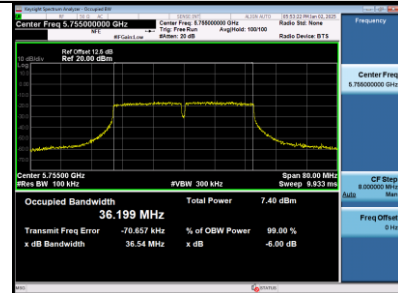
IEEE 802.11n HT40



IEEE 802.11ac VHT20



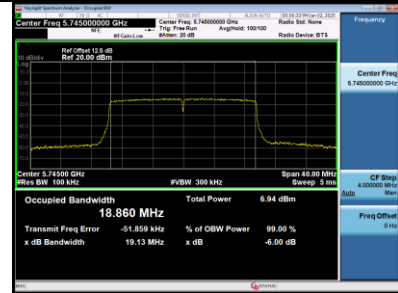
IEEE 802.11ac VHT40



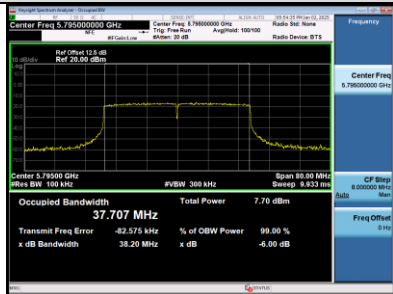
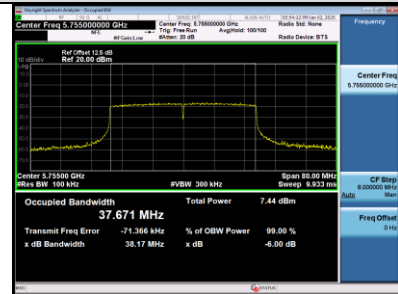
IEEE 802.11ac VHT80



IEEE 802.11ax HE20



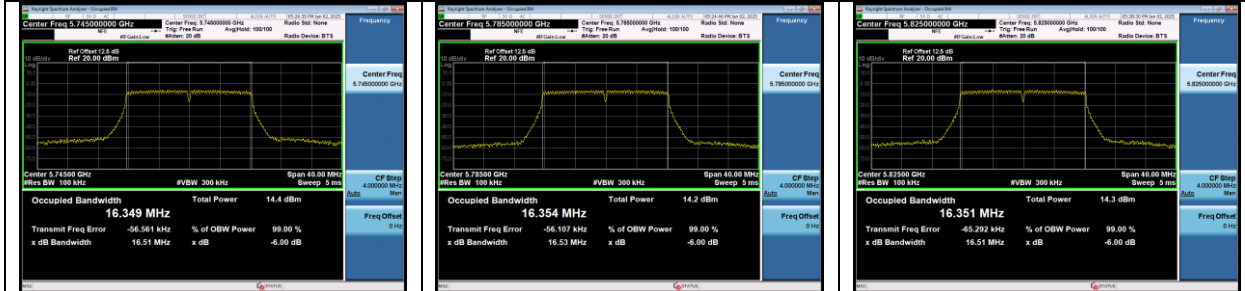
IEEE 802.11ax HE40



IEEE 802.11ax HE80



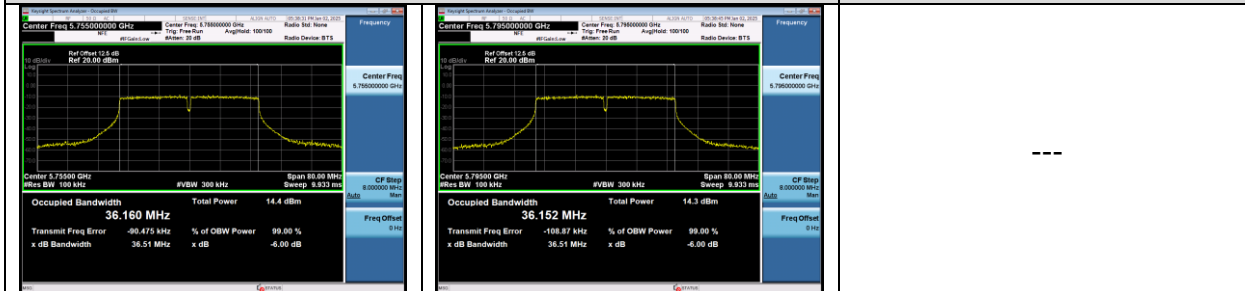
6dB bandwidth
U-NII-3 Band: ANT 1
IEEE 802.11a



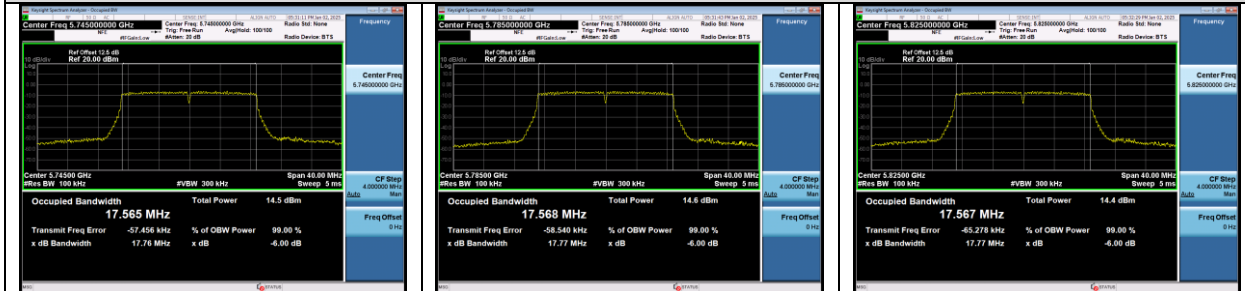
IEEE 802.11n HT20



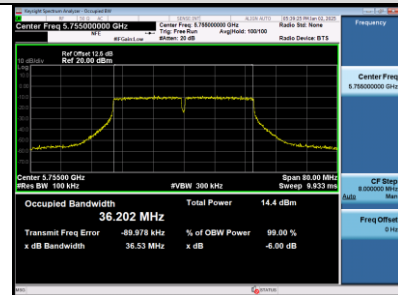
IEEE 802.11n HT40



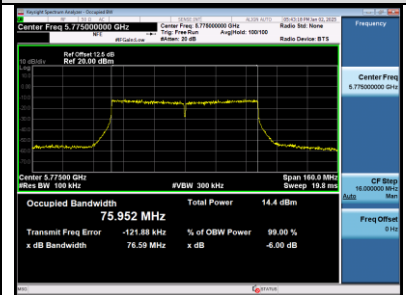
IEEE 802.11ac VHT20



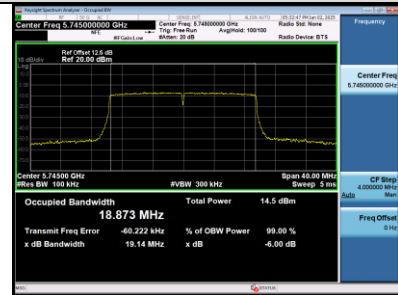
IEEE 802.11ac VHT40



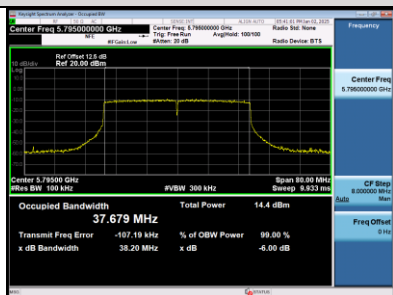
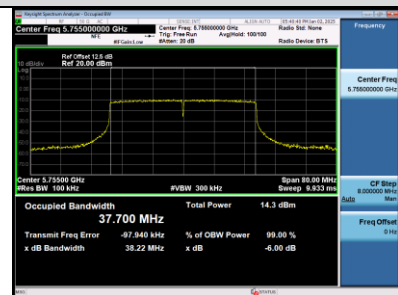
IEEE 802.11ac VHT80



IEEE 802.11ax HE20



IEEE 802.11ax HE40



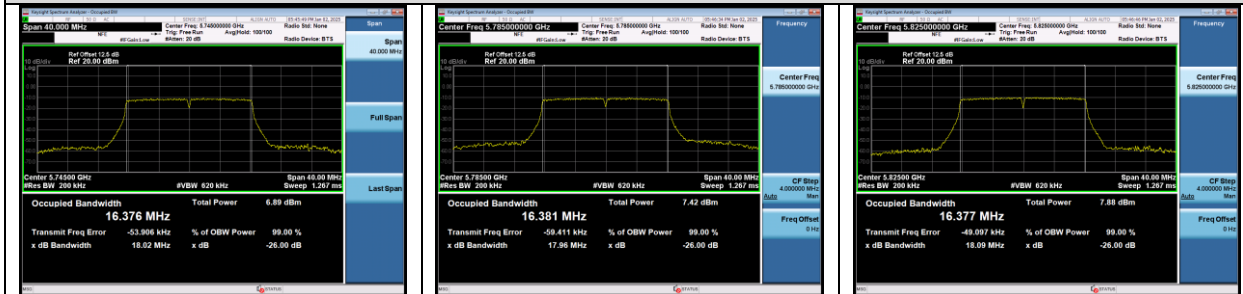
IEEE 802.11ax HE80



26dB bandwidth & 99% Occupied bandwidth

U-NII-3 Band: ANT 0

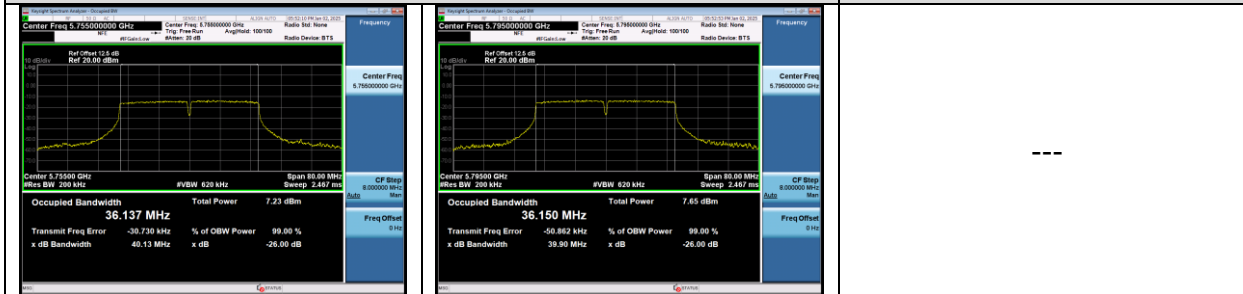
IEEE 802.11a



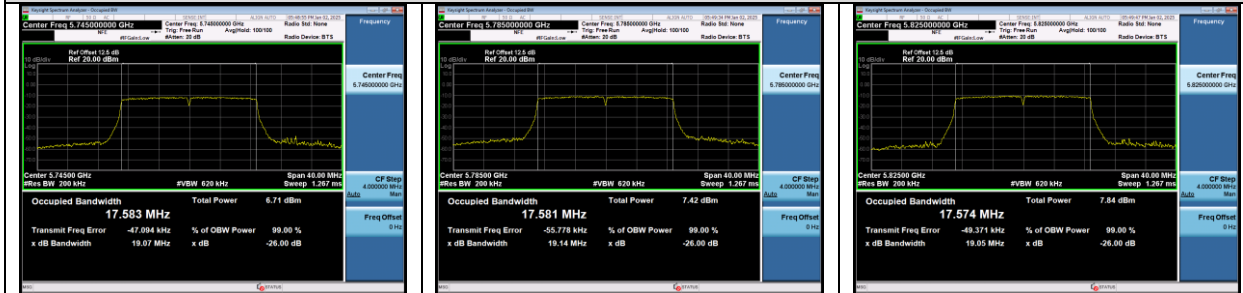
IEEE 802.11n HT20



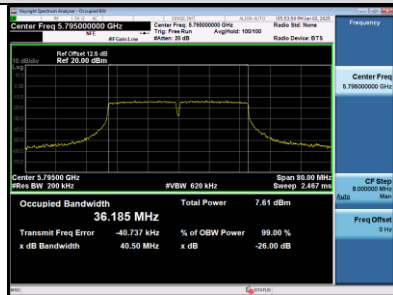
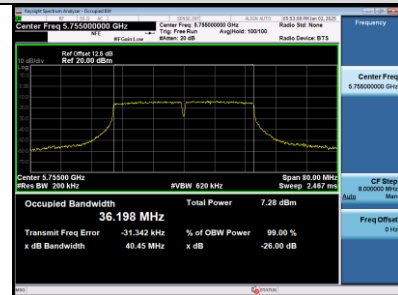
IEEE 802.11n HT40



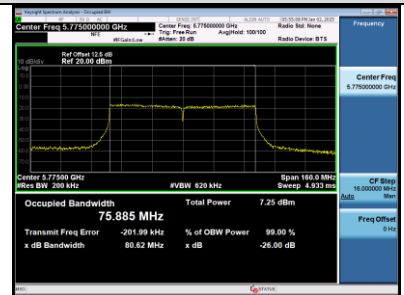
IEEE 802.11ac VHT20



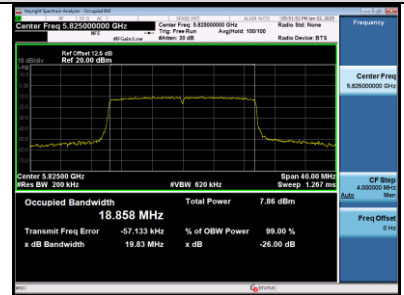
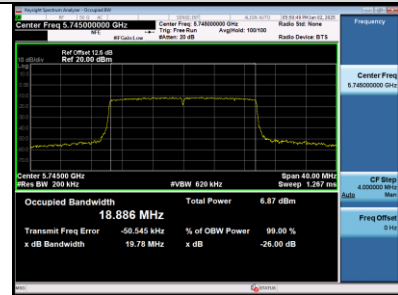
IEEE 802.11ac VHT40



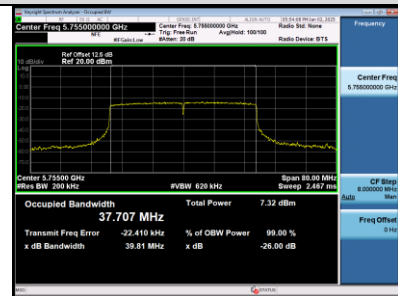
IEEE 802.11ac VHT80



IEEE 802.11ax HE20



IEEE 802.11ax HE40



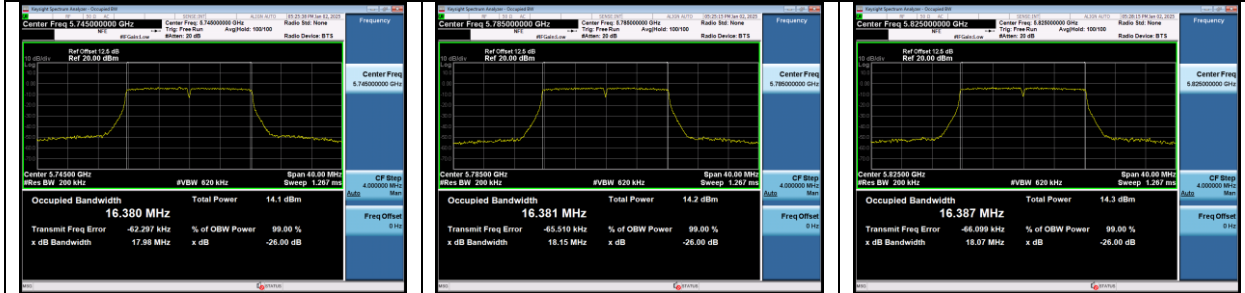
IEEE 802.11ax HE80



26dB bandwidth & 99% Occupied bandwidth

U-NII-3 Band: ANT 1

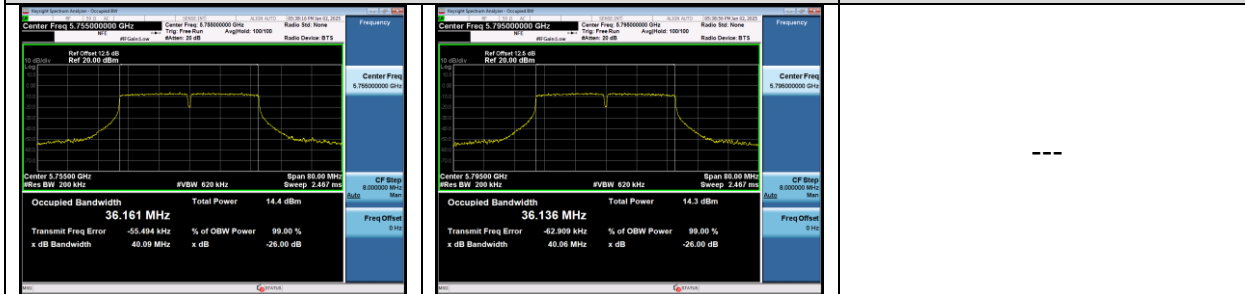
IEEE 802.11a



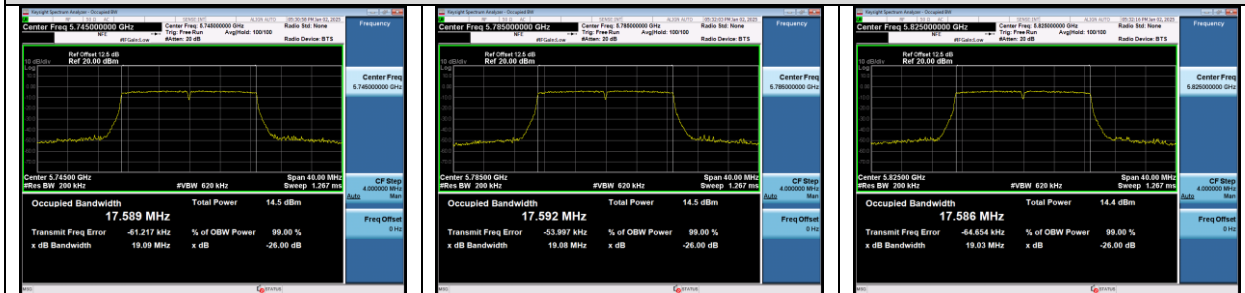
IEEE 802.11n HT20



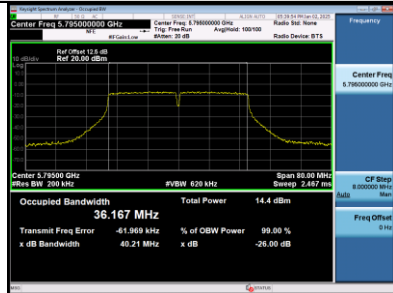
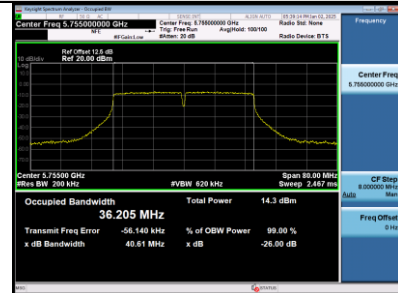
IEEE 802.11n HT40



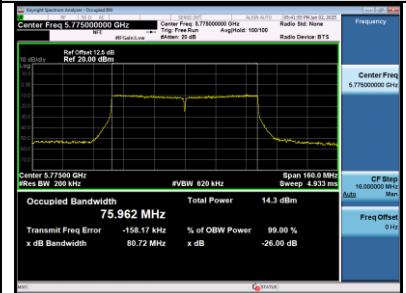
IEEE 802.11ac VHT20



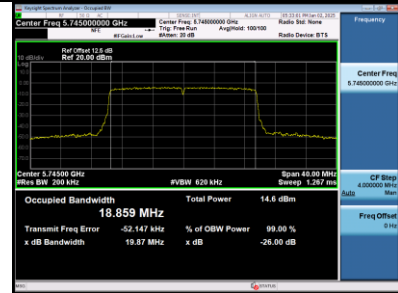
IEEE 802.11ac VHT40



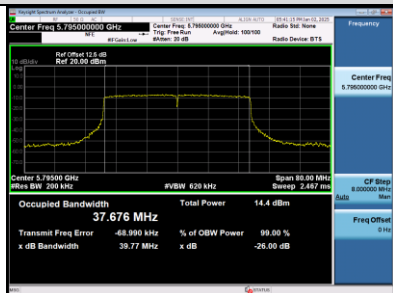
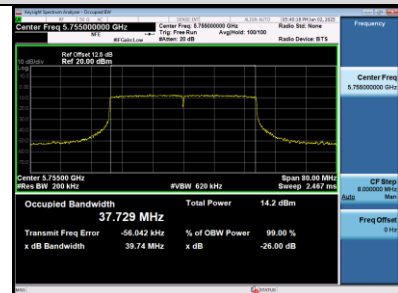
IEEE 802.11ac VHT80



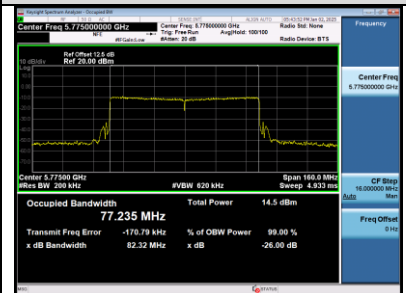
IEEE 802.11ax HE20



IEEE 802.11ax HE40



IEEE 802.11ax HE80



7. OUTPUT POWER TEST

7.1.Limit

For the band 5.15–5.25 GHz.

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

7.2.Test Procedure

1. Connected the EUT's antenna port to measure device by 20dB attenuator.
2. Use the test method described in ANSI C63.10 clause 12.3 Method SA-1
 - 1) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
 - 2) Set RBW = 1 MHz.
 - 3) Set VBW $\geq$ 3 MHz.
 - 4) Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$.
 - 5) Sweep time = auto.
 - 6) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
 - 7) If transmit duty cycle $< 98\%$, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle $\geq 98\%$, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
 - 8) Trace average at least 100 traces in power averaging (rms) mode.
 - 9) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

7.3.Test Results

EUT: Notebook Computer		
M/N: N24B4		
Test date: 2024-12-12~15	Pressure: 103.1±1.0 kpa	Humidity: 51.5±3.0%
Tested by: Evan	Test site: RF site	Temperature: 22.5±0.6℃

U-NII-1 Band(SISO):

Test Mode	Frequency (MHz)	Channel Power	Duty Factor	Output Power (dBm)	Limit (dBm)
11a ANT0	5180	12.05	0.00	12.05	23.98
	5200	11.97		11.97	
	5240	12.85		12.85	
11a ANT1	5180	12.93	0.00	12.93	
	5200	12.60		12.60	
	5240	13.47		13.47	
11n20 ANT0	5180	11.86	0.00	11.86	
	5200	11.59		11.59	
	5240	12.60		12.60	
11n20 ANT1	5180	12.69	0.00	12.69	
	5200	12.40		12.40	
	5240	13.39		13.39	
11n40 ANT0	5190	11.80	0.00	11.80	
	5230	12.35		12.35	
11n40 ANT1	5190	12.37	0.00	12.37	
	5230	13.04		13.04	
11ac20 ANT0	5180	11.92	0.00	11.92	
	5200	11.65		11.65	
	5240	12.65		12.65	
11ac20 ANT1	5180	12.69	0.00	12.69	
	5200	12.45		12.45	
	5240	13.29		13.29	
11ac40 ANT0	5190	11.67	0.00	11.67	
	5230	12.27		12.27	
11ac40 ANT1	5190	12.25	0.00	12.25	
	5230	12.94		12.94	
11ac80 ANT0	5210	12.01	0.00	12.01	
11ac80 ANT1	5210	12.63	0.00	12.63	
11ax20 ANT0	5180	12.03	0.00	12.03	
	5200	11.76		11.76	
	5240	12.66		12.66	
11ax20 ANT1	5180	12.64	0.00	12.64	
	5200	12.32		12.32	
	5240	13.31		13.31	
11ax40 ANT0	5190	11.83	0.00	11.83	
	5230	12.37		12.37	
11ax40 ANT1	5190	12.35	0.00	12.35	
	5230	13.01		13.01	
11ax80 ANT0	5210	12.15	0.00	12.15	
11ax80 ANT1	5210	12.77	0.00	12.77	

U-NII-1 Band(MIMO):

Test Mode	Frequency (MHz)	Channel Power		Duty Factor		Output Power (dBm)	Limit (dBm)
		ANT0	ANT1	ANT0	ANT1	Total	
11n20 MIMO	5180	12.37	12.37	0.00	0.00	15.38	23.98
	5200	12.11	12.18			15.16	
	5240	13.26	13.05			16.17	
11n40 MIMO	5190	12.22	12.37	0.00	0.00	15.31	
	5230	12.98	13.01			16.01	
11ac20 MIMO	5180	12.34	12.43	0.00	0.00	15.40	
	5200	12.03	12.20			15.13	
	5240	13.18	13.14			16.17	
11ac40 MIMO	5190	12.28	12.36	0.00	0.00	15.33	
	5230	13.02	13.00			16.02	
11ac80 MIMO	5210	12.61	12.71	0.00	0.00	15.67	
11ax20 MIMO	5180	12.41	12.54	0.00	0.00	15.49	
	5200	12.13	12.31			15.23	
	5240	13.29	13.23			16.27	
11ax40 MIMO	5190	12.28	12.43	0.00	0.00	15.37	
	5230	13.09	13.07			16.09	
11ax80 MIMO	5210	12.84	12.88	0.00	0.00	15.87	

Notes: 1. Directional Gain= $10 \log[(10^{3.25/10} + 103.77^{10})/2]$ dBi =3.52dBi < 6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-2A Band(SISO):

Test Mode	Frequency (MHz)	Channel Power	Duty Factor	Output Power (dBm)	Limit (dBm)	
11a (ANT0)	5260	13.18	0.00	13.18	23.98	
	5300	12.18		12.18		
	5320	12.81		12.81		
11a (ANT1)	5260	13.09	0.00	13.09		
	5300	11.95		11.95		
	5320	12.35		12.35		
11n20 (ANT0)	5260	13.09	0.00	13.09		
	5300	12.38		12.38		
	5320	12.80		12.80		
11n20 (ANT1)	5260	12.94	0.00	12.94		
	5300	11.86		11.86		
	5320	12.26		12.26		
11n40 (ANT0)	5270	12.68	0.00	12.68		
	5310	12.45		12.45		
11n40 (ANT1)	5270	12.72	0.00	12.72		
	5310	12.08		12.08		
11ac20 (ANT0)	5260	13.09	0.00	13.09		
	5300	12.41		12.41		
	5320	12.83		12.83		
11ac20 (ANT1)	5260	12.94	0.00	12.94		
	5300	11.82		11.82		
	5320	12.31		12.31		
11ac40 (ANT0)	5270	12.68	0.00	12.68		
	5310	12.45		12.45		
11ac40 (ANT1)	5270	12.66	0.00	12.66		
	5310	11.98		11.98		
11ac80 (ANT0)	5290	12.27	0.00	12.27		
11ac80 (ANT1)	5290	12.20	0.00	12.20		
11ax20 (ANT0)	5260	13.06	0.00	13.06		
	5300	12.39		12.39		
	5320	12.77		12.77		
11ax20 (ANT1)	5260	13.09	0.00	13.09		
	5300	11.95		11.95		
	5320	12.31		12.31		
11ax40 (ANT0)	5270	12.77	0.00	12.77		
	5310	12.52		12.52		
11ax40 (ANT1)	5270	12.69	0.00	12.69		
	5310	12.02		12.02		
11ax80 (ANT0)	5290	12.45	0.00	12.45		
11ax80 (ANT1)	5290	12.33	0.00	12.33		
Conclusion:PASS						

U-NII-2A Band(MIMO):

Test Mode	Frequency (MHz)	Channel Power		Duty Factor		Output Power (dBm)	Limit (dBm)
		ANT0	ANT1	ANT0	ANT1	Total	
11n20	5260	13.07	12.94	0.00	0.00	16.02	23.98
	5300	12.32	11.90			15.13	
	5320	12.70	12.26			15.50	
11n40	5270	12.76	12.64	0.00	0.00	15.71	
	5310	12.52	12.06			15.31	
11ac20	5260	13.00	12.94	0.00	0.00	15.98	
	5300	12.30	11.89			15.11	
	5320	12.76	12.28			15.54	
11ac40	5270	12.76	12.65	0.00	0.00	15.72	
	5310	12.52	12.07			15.31	
11ac80	5290	12.36	12.24	0.00	0.00	15.31	
11ax20	5260	13.07	13.02	0.00	0.00	16.06	
	5300	12.41	11.96			15.20	
	5320	12.82	12.32			15.59	
11ax40	5270	12.83	12.76	0.00	0.00	15.81	
	5310	12.58	12.10			15.36	
11ax80	5290	12.49	12.45	0.00	0.00	15.48	

Notes: 1. Directional Gain= $10 \log[(10^{3.25/10} + 103.77^{/10})/2]$ dBi =3.52dBi < 6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-2C Band(SISO):

Test Mode	Frequency (MHz)	Channel Power	Duty Factor	Output Power (dBm)	Limit (dBm)
11a ANT0	5500	12.33	0.00	12.33	23.98
	5600	12.57		12.57	
	5700	12.80		12.80	
11a ANT1	5500	12.39	0.00	12.39	
	5600	12.43		12.43	
	5700	13.39		13.39	
11n20 ANT0	5500	12.28	0.00	12.28	
	5600	12.58		12.58	
	5700	12.77		12.77	
11n20 ANT1	5500	12.40	0.00	12.40	
	5600	12.39		12.39	
	5700	13.44		13.44	
11n40 ANT0	5510	12.44	0.00	12.44	
	5590	12.41		12.41	
	5670	12.30		12.30	
11n40 ANT1	5510	12.28	0.00	12.28	
	5590	12.34		12.34	
	5670	12.86		12.86	
11ac20 ANT0	5500	12.29	0.00	12.29	
	5600	12.60		12.60	
	5700	12.67		12.67	
11ac20 ANT1	5500	12.41	0.00	12.41	
	5600	12.42		12.42	
	5700	13.41		13.41	
11ac40 ANT0	5510	12.44	0.00	12.44	
	5590	12.42		12.42	
	5670	12.32		12.32	
11ac40 ANT1	5510	12.38	0.00	12.38	
	5590	12.43		12.43	
	5670	12.84		12.84	
11ac80 ANT0	5530	11.97	0.00	11.97	
	5610	11.98		11.98	
11ac80 ANT1	5530	12.14	0.00	12.14	
	5610	12.00		12.00	
11ax20 ANT0	5500	12.37	0.00	12.37	
	5600	12.63		12.63	
	5700	12.78		12.78	
11ax20 ANT1	5500	12.47	0.00	12.47	
	5600	12.36		12.36	
	5700	13.38		13.38	
11ax40 ANT0	5510	12.44	0.00	12.44	
	5590	12.42		12.42	
	5670	12.32		12.32	
11ax40 ANT1	5510	12.43	0.00	12.43	
	5590	12.47		12.47	
	5670	13.02		13.02	
11ax80 ANT0	5530	12.14	0.00	12.14	
	5610	12.15		12.15	
11ax80 ANT1	5530	12.37	0.00	12.37	
	5610	12.40		12.40	
Conclusion : PASS					

U-NII-2C Band(MIMO):

Test Mode	Frequency (MHz)	Channel Power		Duty Factor		Output Power (dBm)	Limit (dBm)
		ANT0	ANT1	ANT0	ANT1	Total	
11n20 MIMO	5500	12.13	12.35	0.00	0.00	15.25	23.98
	5600	12.51	12.40			15.47	
	5700	12.74	13.41			16.10	
11n40 MIMO	5510	12.38	12.38	0.00	0.00	15.39	
	5590	12.33	12.51			15.43	
	5670	12.25	12.93			15.61	
11ac20 MIMO	5500	12.11	12.38	0.00	0.00	15.26	
	5600	12.44	12.42			15.44	
	5700	12.77	13.37			16.09	
11ac40 MIMO	5510	12.27	12.39	0.00	0.00	15.34	
	5590	12.41	12.49			15.46	
	5670	12.37	12.93			15.67	
11ac80 MIMO	5530	11.91	12.28	0.00	0.00	15.11	
	5610	11.95	12.35			15.17	
11ax20 MIMO	5500	12.17	12.49	0.00	0.00	15.34	
	5600	12.49	12.48			15.50	
	5700	12.80	13.47			16.16	
11ax40 MIMO	5510	12.30	12.45	0.00	0.00	15.39	
	5590	12.29	12.57			15.44	
	5670	12.25	13.00			15.65	
11ax80 MIMO	5530	12.07	12.43	0.00	0.00	15.26	
	5610	12.09	12.51			15.32	

Notes: 1. Directional Gain= $10 \log[(10^{3.25/10} + 103.77^{10})/2]$ dBi =3.52dBi < 6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-3 Band(SISO):

Test Mode	Frequency (MHz)	Channel Power	Duty Factor	Output Power (dBm)	Limit (dBm)
11a ANT0	5745	12.16	0.26	12.16	30
	5785	12.86		12.86	
	5825	12.04		12.04	
11a ANT1	5745	12.75	0.26	12.75	
	5785	12.70		12.70	
	5825	12.44		12.44	
11n20 ANT0	5745	12.07	0.28	12.07	
	5785	12.70		12.70	
	5825	11.89		11.89	
11n20 ANT1	5745	12.38	0.25	12.38	
	5785	12.62		12.62	
	5825	12.37		12.37	
11n40 ANT0	5755	12.41	0.57	12.41	
	5795	12.72		12.72	
11n40 ANT1	5755	12.37	0.57	12.37	
	5795	12.70		12.70	
11ac20 ANT0	5745	12.06	0.01	12.06	
	5785	12.74		12.74	
	5825	11.94		11.94	
11ac20 ANT1	5745	12.40	0.01	12.40	
	5785	12.63		12.63	
	5825	12.31		12.31	
11ac40 ANT0	5755	12.41	0.03	12.41	
	5795	12.72		12.72	
11ac40 ANT1	5755	12.38	0.03	12.38	
	5795	12.71		12.71	
11ac80 ANT0	5775	12.31	0.15	12.31	
11ac80 ANT1	5775	12.32	0.09	12.32	
11ax20 ANT0	5745	12.12	0.34	12.12	
	5785	12.78		12.78	
	5825	11.83		11.83	
11ax20 ANT1	5745	12.46	0.34	12.46	
	5785	12.67		12.67	
	5825	12.41		12.41	
11ax40 ANT0	5755	12.45	0.64	12.45	
	5795	12.76		12.76	
11ax40 ANT1	5755	12.44	0.59	12.44	
	5795	12.75		12.75	
11ax80 ANT0	5775	12.53	1.18	12.53	
11ax80 ANT1	5775	12.49	1.20	12.49	

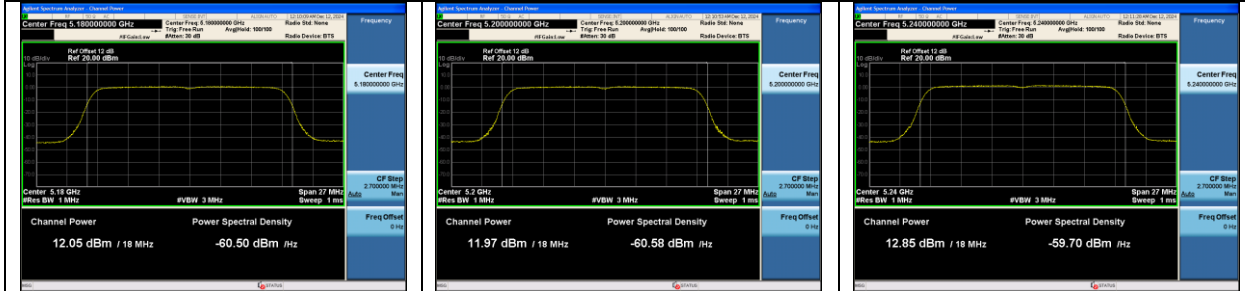
U-NII-3 Band(MIMO):

Test Mode	Frequency (MHz)	Channel Power		Duty Factor		Output Power (dBm)	Limit (dBm)
		ANT0	ANT1	ANT0	ANT1	Total	
11n20 MIMO	5745	12.03	12.48	0.00	0.00	15.27	30
	5785	12.84	12.66			15.76	
	5825	12.01	12.39			15.21	
11n40 MIMO	5755	12.49	12.39	0.00	0.00	15.45	
	5795	12.83	12.73			15.79	
11ac20 MIMO	5745	12.14	12.38	0.00	0.00	15.27	
	5785	12.82	12.67			15.76	
	5825	11.99	12.38			15.20	
11ac40 MIMO	5755	12.46	12.41	0.00	0.00	15.45	
	5795	12.79	12.79			15.80	
11ac80 MIMO	5775	12.36	12.35	0.00	0.00	15.37	
11ax20 MIMO	5745	12.22	12.44	0.00	0.00	15.34	
	5785	12.82	12.62			15.73	
	5825	12.04	12.45			15.26	
11ax40 MIMO	5755	12.50	12.42	0.00	0.00	15.47	
	5795	12.80	12.70			15.76	
11ax80 MIMO	5775	12.52	12.56	0.00	0.00	15.55	

Notes: 1. 1. Directional Gain= $10 \log[(10^{3.25/10} + 103.77^{/10})/2]$ dBi =3.52dBi < 6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-1 Band
SISO Mode ANT 0
IEEE 802.11a



IEEE 802.11n HT20



IEEE 802.11n HT40



IEEE 802.11ac VHT20

