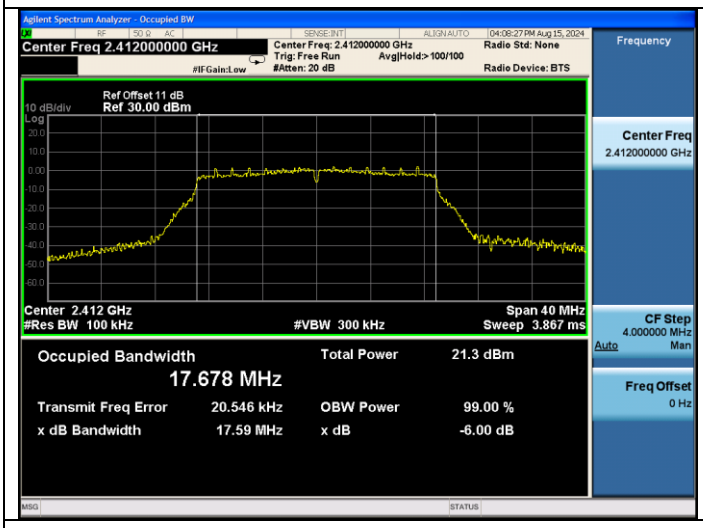
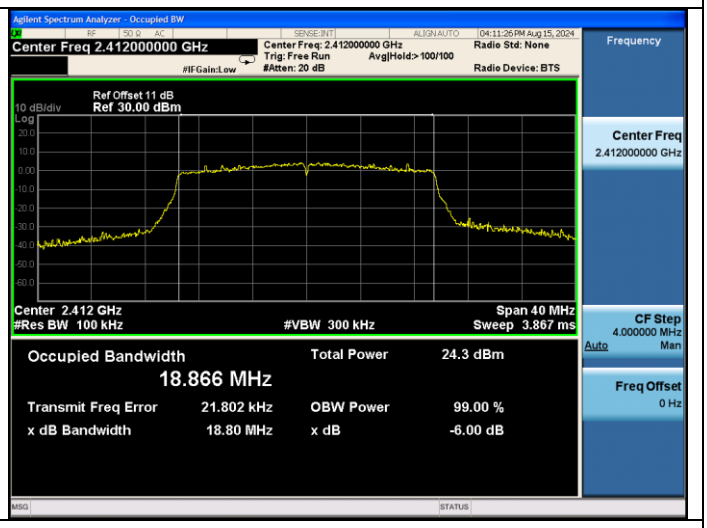
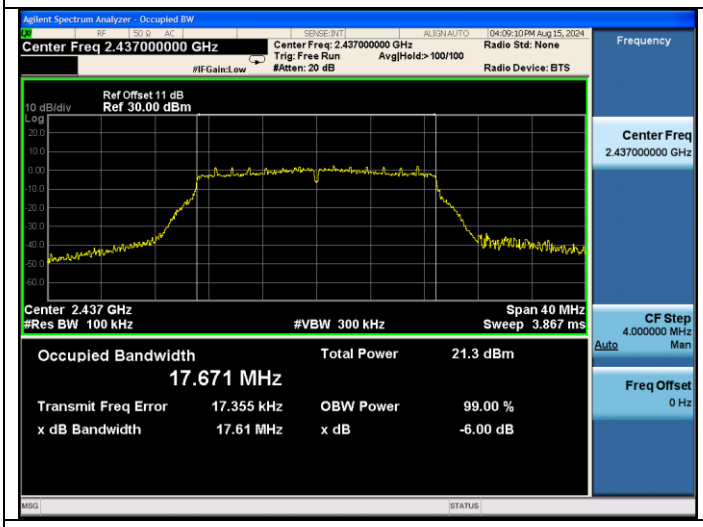
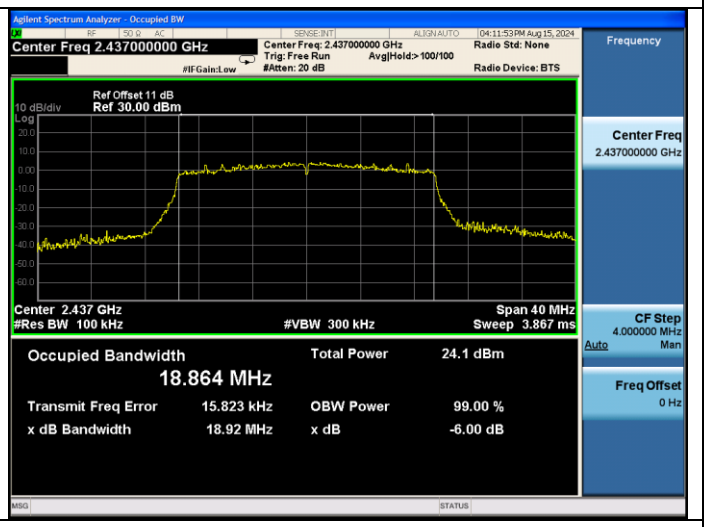
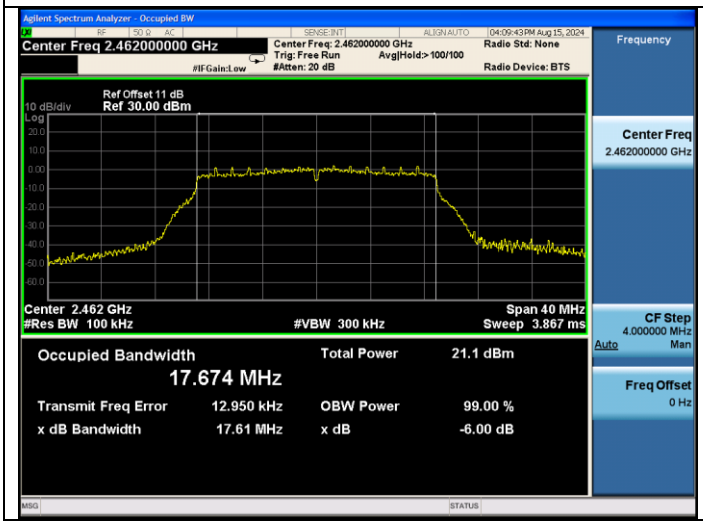
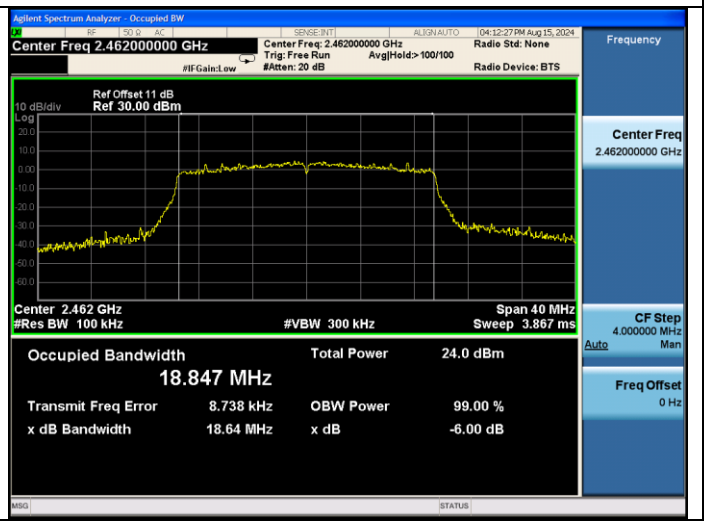
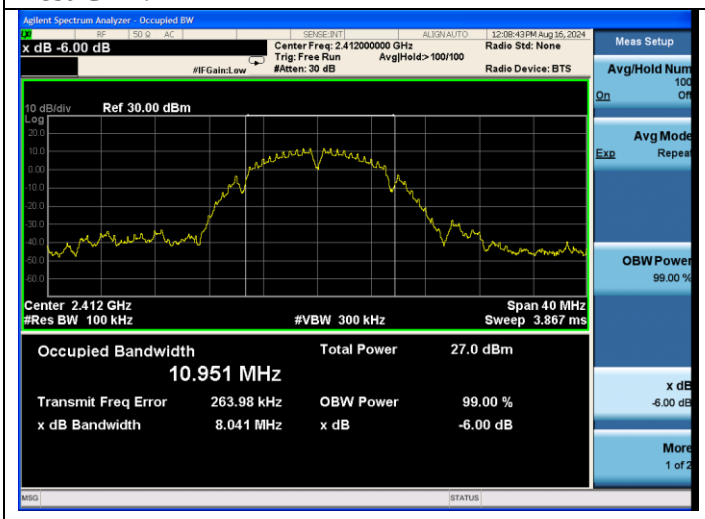
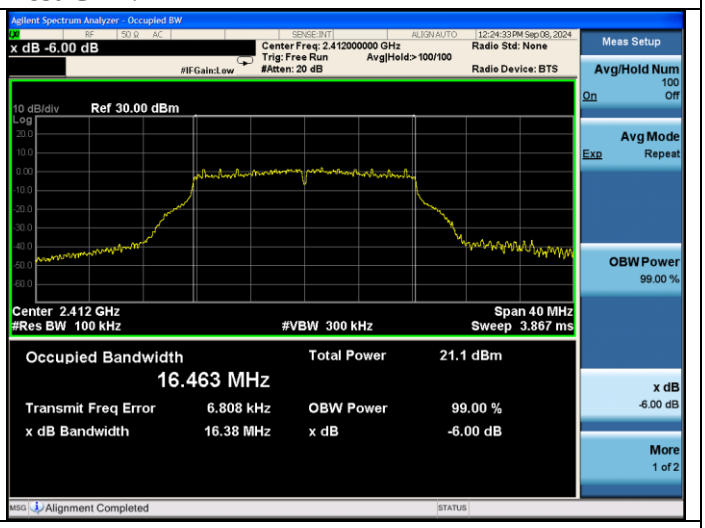
Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz	Test Mode: IEEE 802.11ax HE20 Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

ANT1:

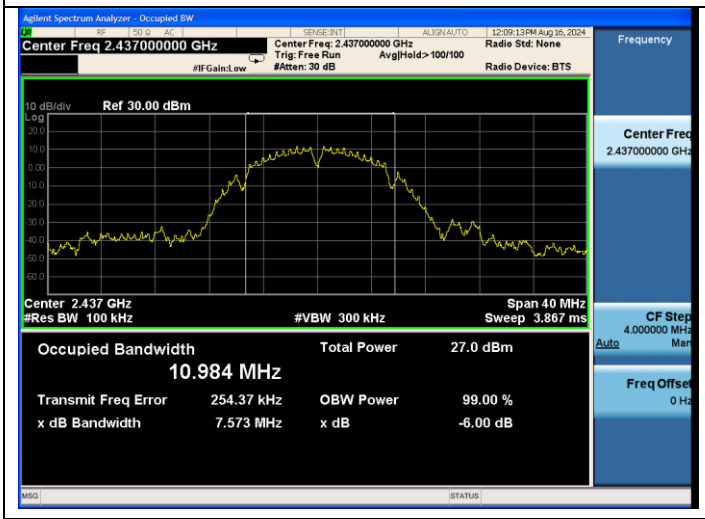
Test Mode: IEEE 802.11b
Test CH1: 2412MHz



Test Mode: IEEE 802.11g
Test CH1: 2412MHz

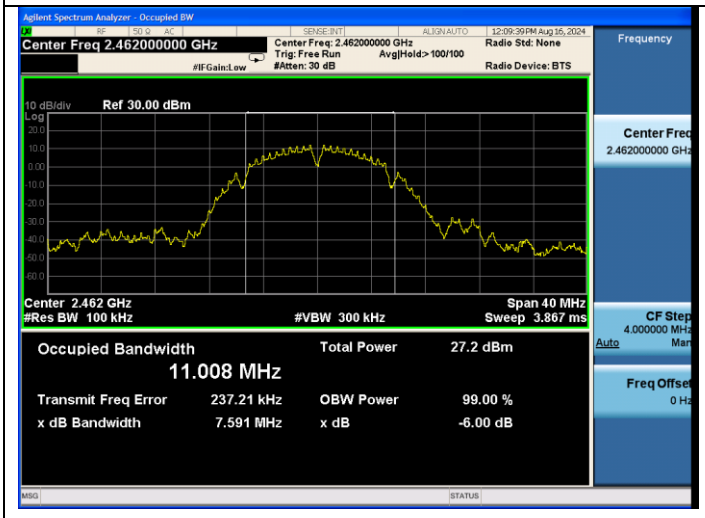


Test CH6: 2437MHz

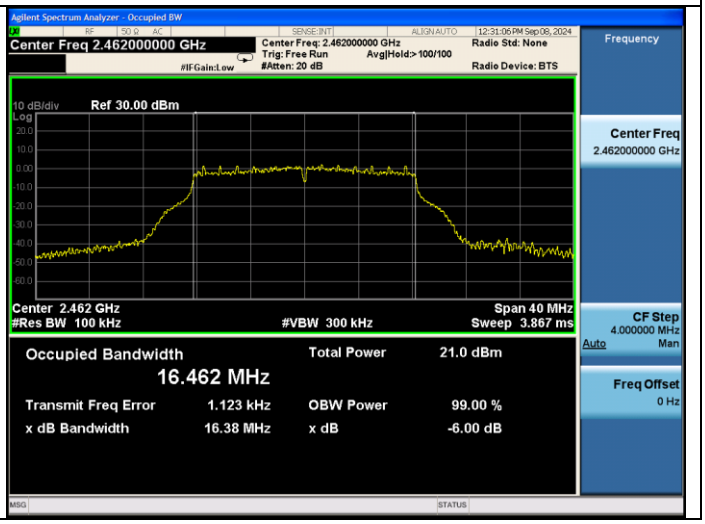


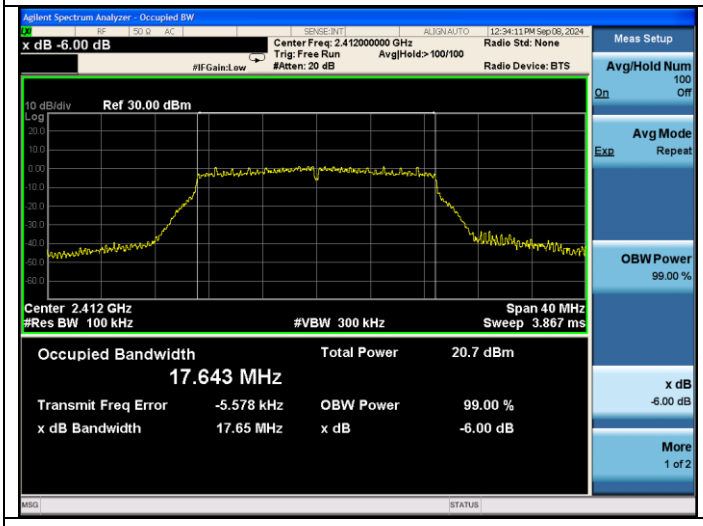
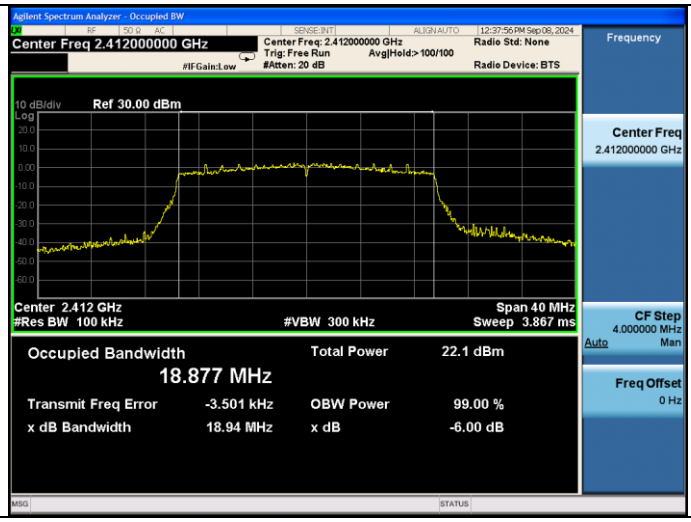
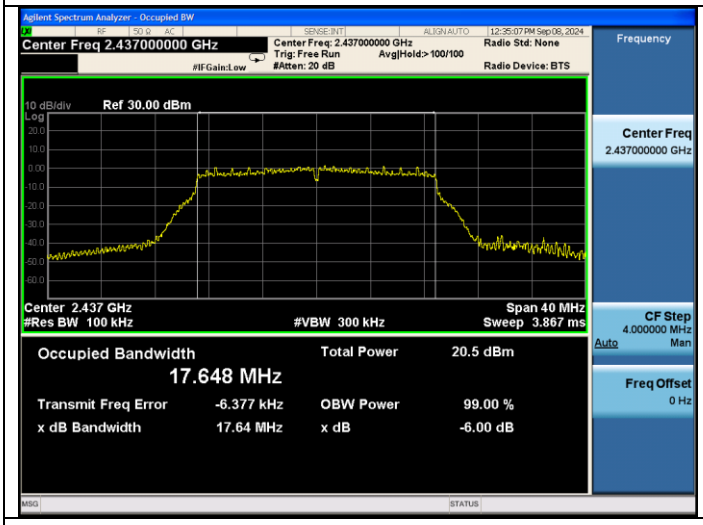
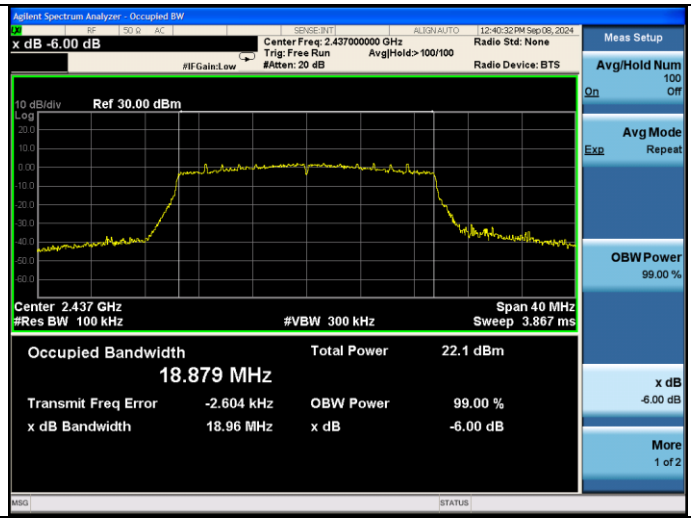
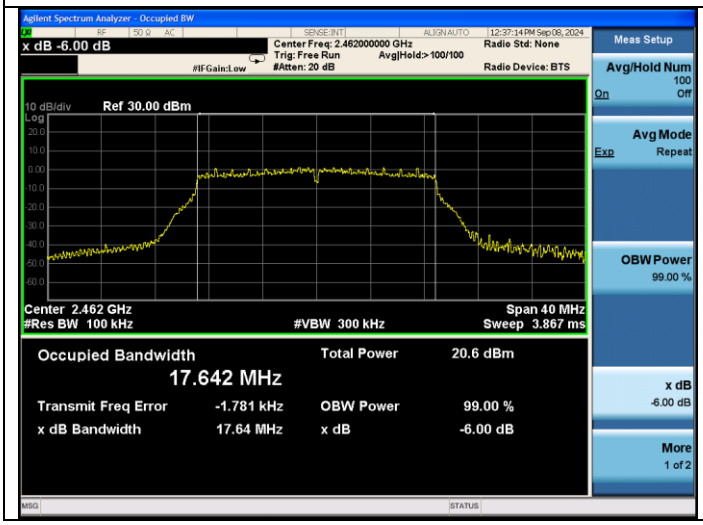
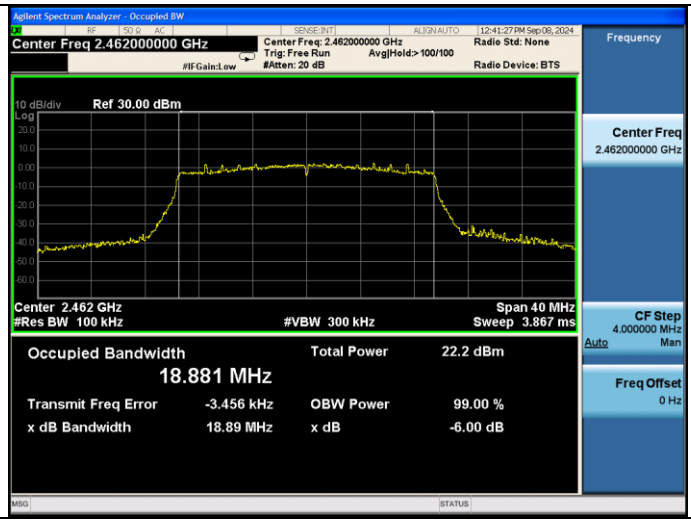
Test CH6: 2437MHz

Test CH11: 2462MHz



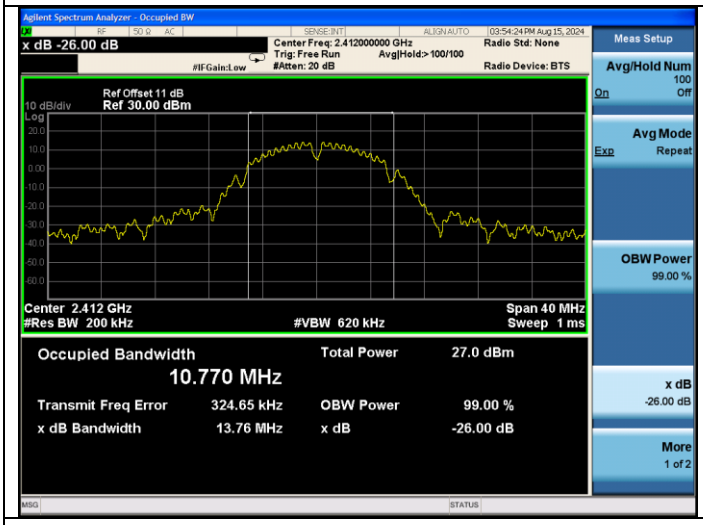
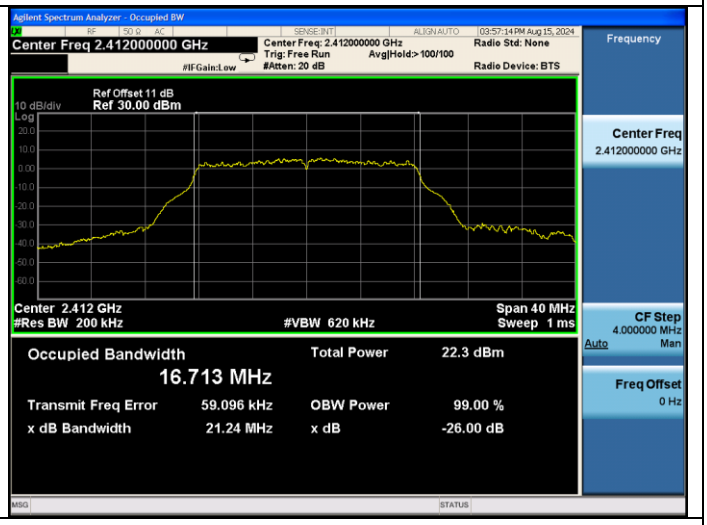
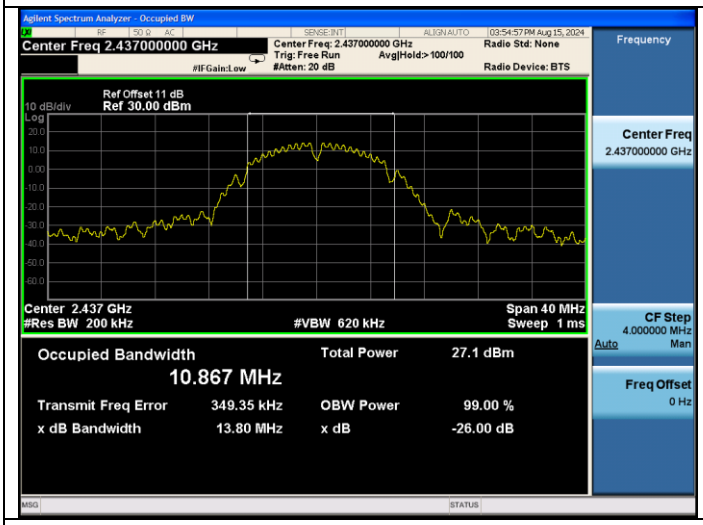
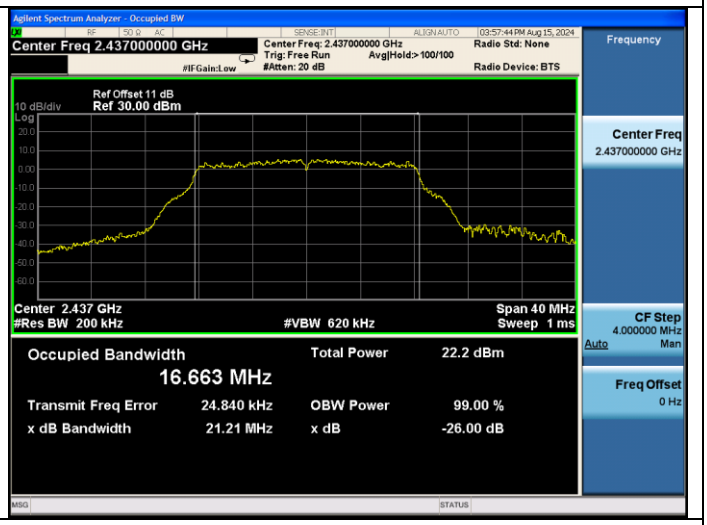
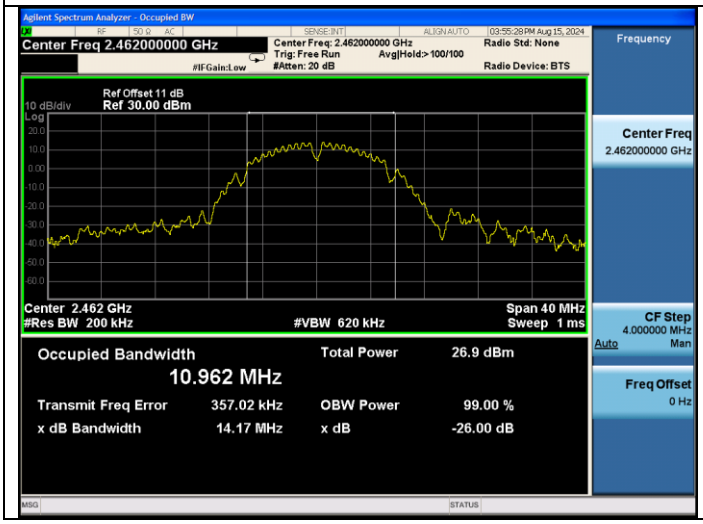
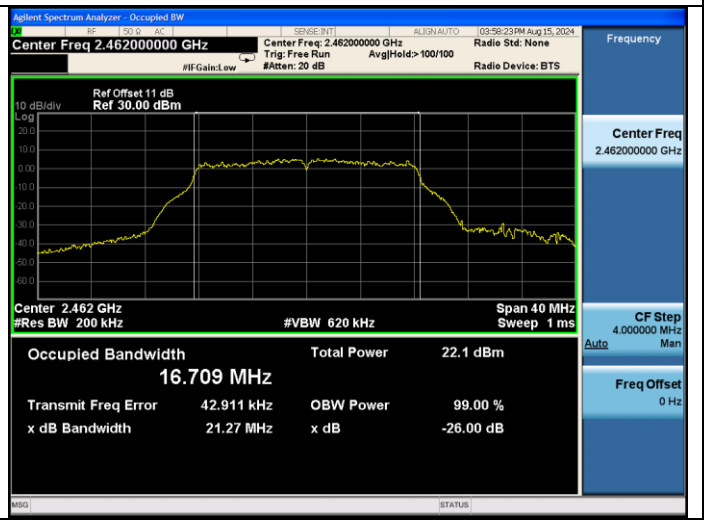
Test CH11: 2462MHz



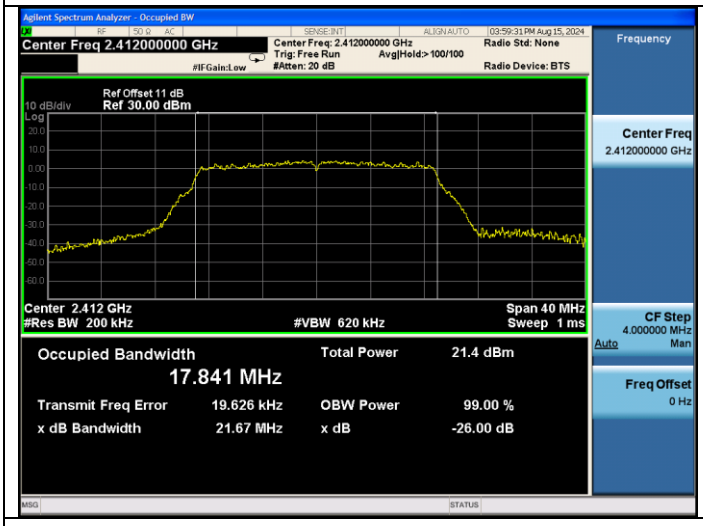
Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz	Test Mode: IEEE 802.11ax HE20 Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

EUT: STB		
M/N: H200W		
Test date: 2024-08-15~09-08	Pressure: 102.5±1.0 kpa	Humidity: 53.6±3.0%
Tested by: Epoch	Test site: RF site	Temperature: 22.4±0.6℃

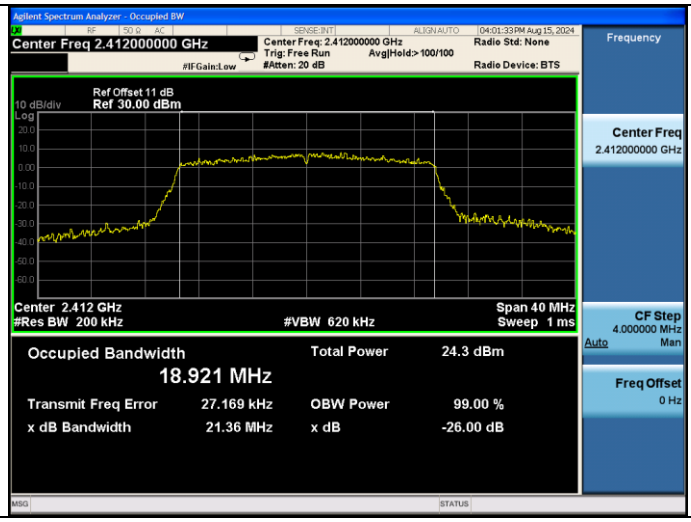
Test Mode	Frequency (MHz)	99%Bandwidth(MHz)		Limit (MHz)
		ANT0	ANT1	
11b	2412	10.770	11.000	N/A
	2437	10.867	11.018	
	2462	10.962	11.166	
11g	2412	16.713	16.702	N/A
	2437	16.663	16.699	
	2462	16.709	16.684	
11n HT20	2412	17.841	17.752	N/A
	2437	17.825	17.759	
	2462	17.848	17.754	
11ax HE20	2412	18.921	18.916	N/A
	2437	18.930	18.926	
	2462	18.927	18.906	
Conclusion:Pass				

ANT0	
Test Mode: IEEE 802.11b Test CH1: 2412MHz	Test Mode: IEEE 802.11g Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

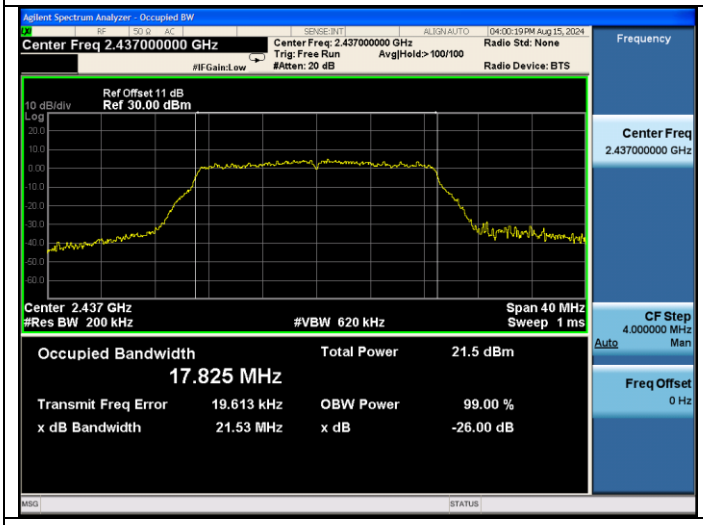
Test Mode: IEEE 802.11n HT20
Test CH1: 2412MHz



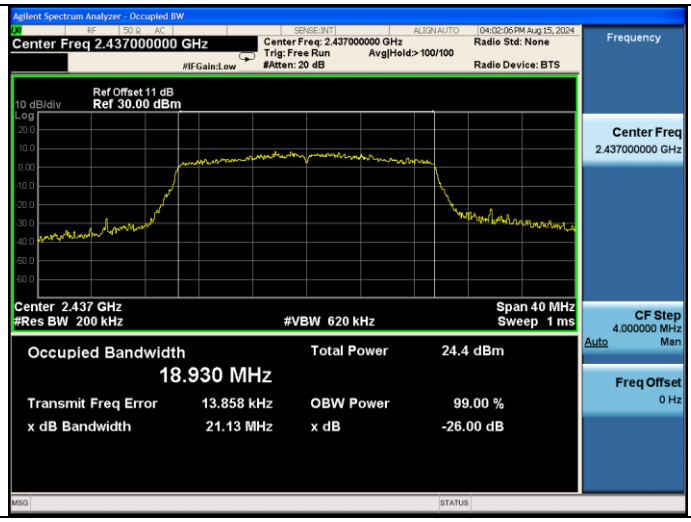
Test Mode: IEEE 802.11ax HE20
Test CH1: 2412MHz



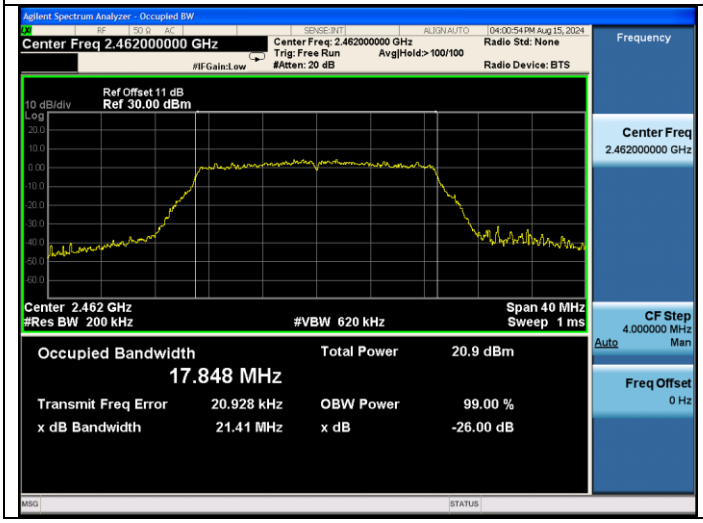
Test CH6: 2437MHz



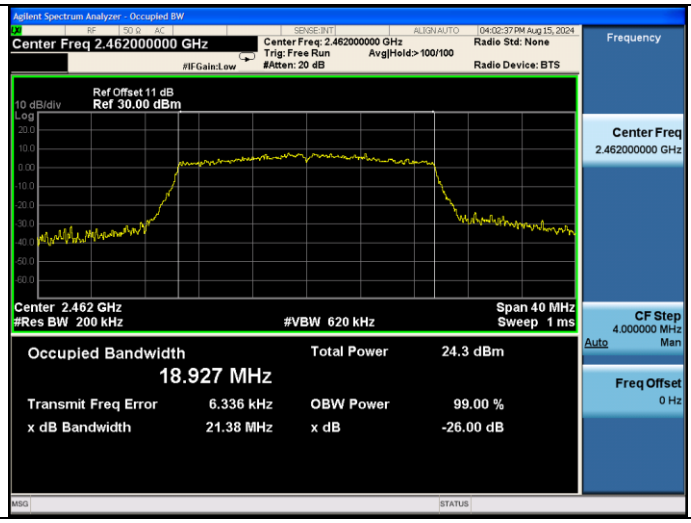
Test CH6: 2437MHz

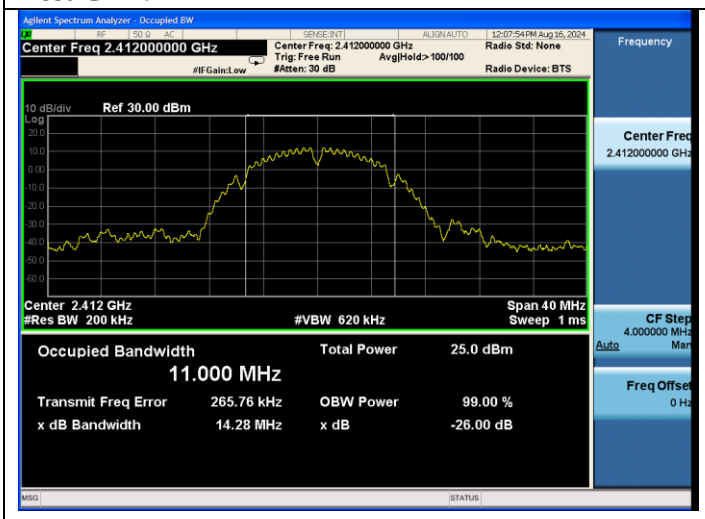
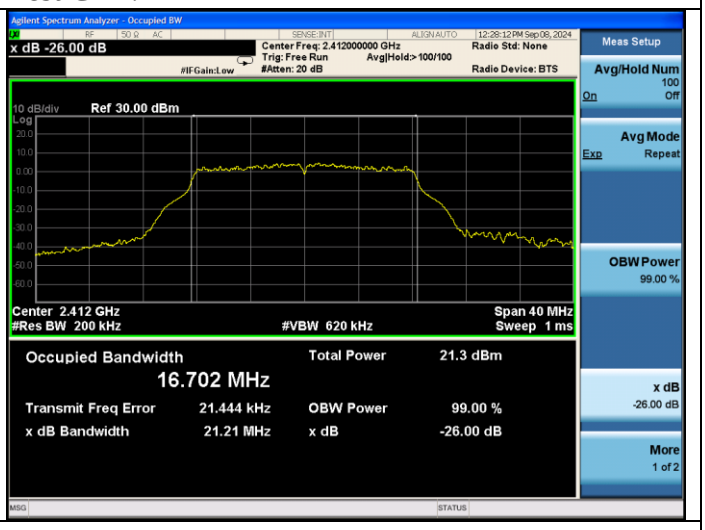
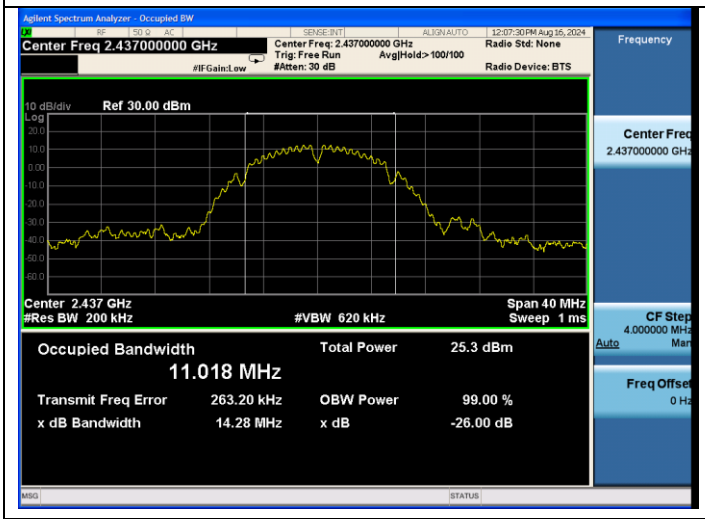
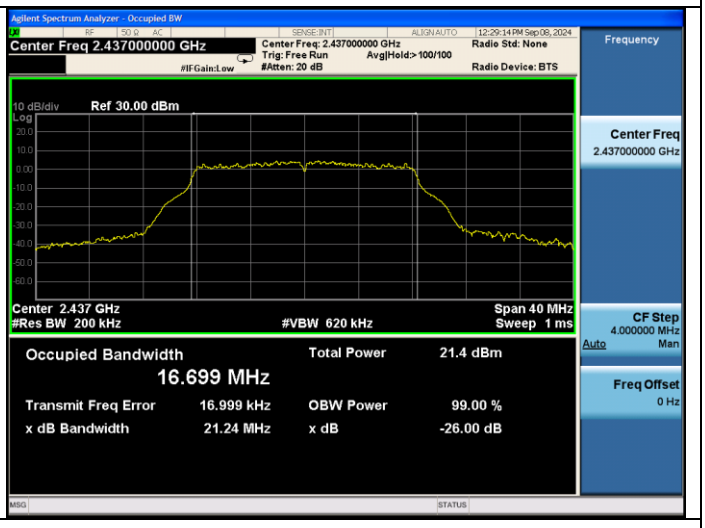
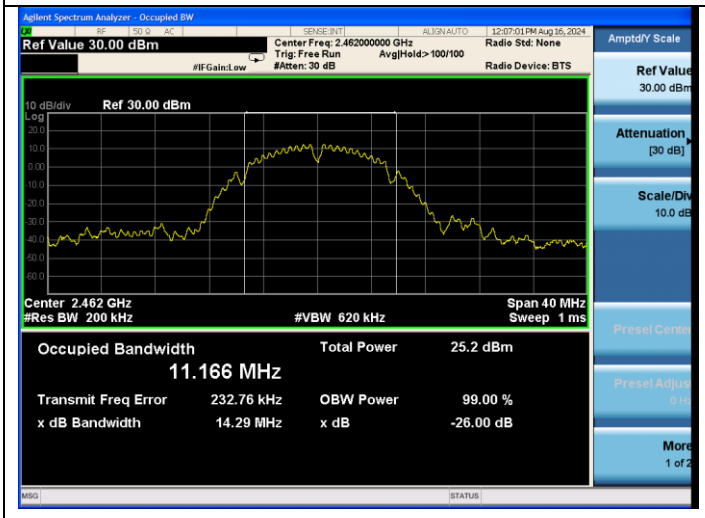
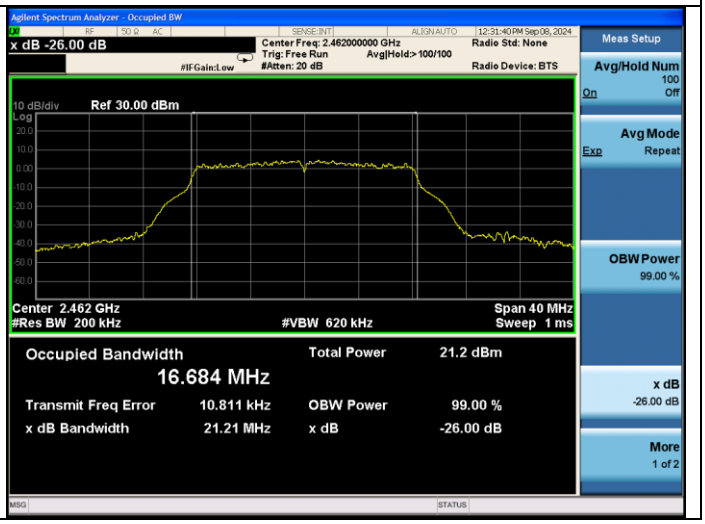


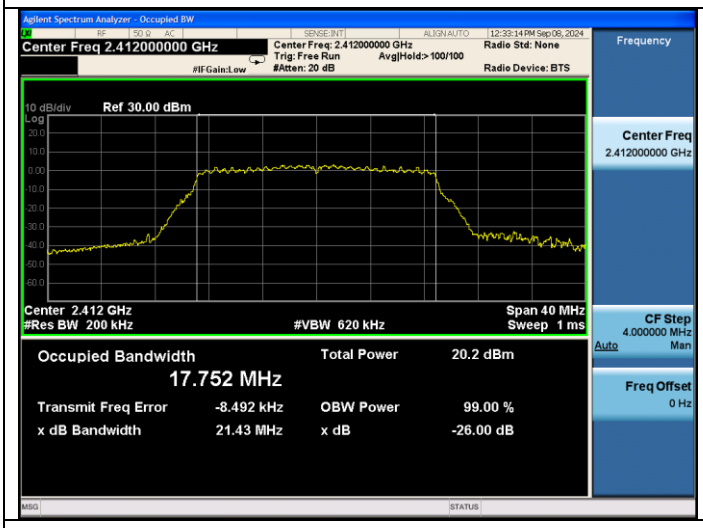
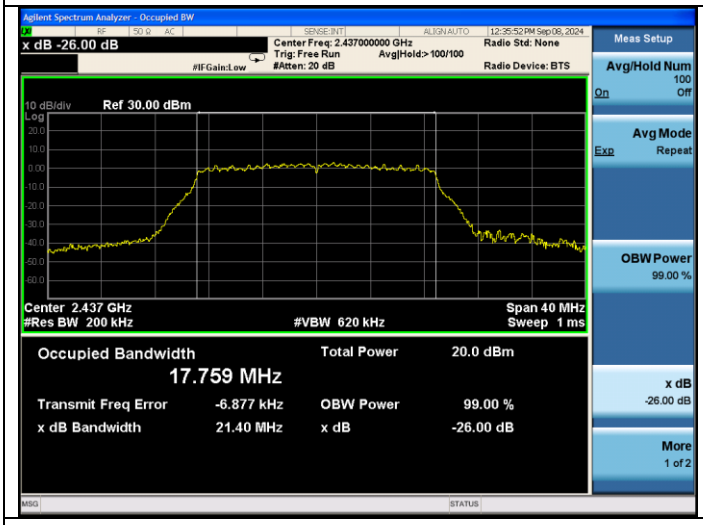
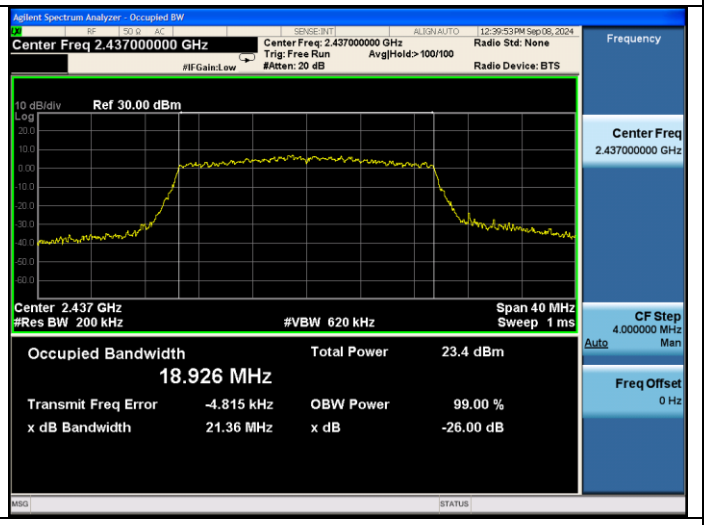
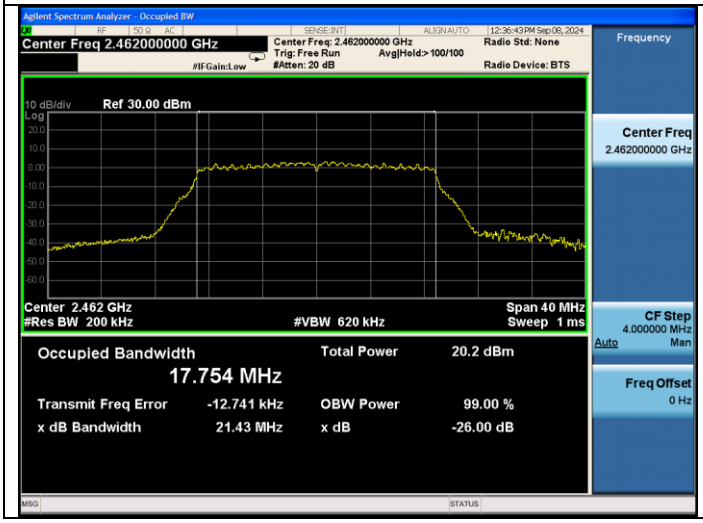
Test CH11: 2462MHz



Test CH11: 2462MHz



ANT1	
Test Mode: IEEE 802.11b Test CH1: 2412MHz	Test Mode: IEEE 802.11g Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

Test Mode: IEEE 802.11n HT20 Test CH1: 2412MHz	Test Mode: IEEE 802.11ax HE20 Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz
	

8. OUTPUT POWER TEST

8.1.Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 2400—2483.5MHz, The Peak output Power shall not exceed 1W(30dBm), As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level.

8.2.Test Procedure

1, Connected the EUT's antenna port to measure device by 10dB attenuator.

2, Use the test method descried in ANSI C63.10 clause 11.9.2.2.2 Method AVGSA-1.

1) Set span to at least 1.5 times the OBW.
2) Set RBW = 1% to 5% of the OBW, not to exceed 1 MHz.
3) Set VBW ≥ [3 × RBW].
4) Number of points in sweep ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
5) Sweep time = auto.
6) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
7) If transmit duty cycle < 98%, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the 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 ≥ 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 OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

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

8.3.Test Results

EUT: STB		
M/N: H200W		
Test date: 2024-07-23~11-15	Pressure: 103.1±1.0 kpa	Humidity: 51.5±3.0%
Tested by: Epoch	Test site: RF site	Temperature: 22.5±0.6℃

SISO:

Test Mode	Frequency (MHz)	Power Set	Channel Power	Duty Factor	Output Power (dBm)	Limit (dBm)
11b ANT0	2412	Default	20.88	0.04	20.92	30
	2437		21.52		21.56	
	2462		21.62		21.66	
11b ANT1	2412	70	18.29	0.04	18.33	30
	2437		18.42		18.46	
	2462		18.46		18.50	
11g ANT0	2412	48	14.80	0.24	15.04	30
	2437		14.98		15.22	
	2462		15.28		15.52	
11g ANT1	2412	48	13.72	0.25	13.97	30
	2437		13.77		14.02	
	2462		13.95		14.20	
11n20 ANT0	2412	44	12.62	0.29	12.91	30
	2437		12.90		13.19	
	2462		12.87		13.16	
11n20 ANT1	2412	44	12.12	0.28	12.40	30
	2437		12.21		12.49	
	2462		12.22		12.50	
11ax20 ANT0	2412	50	14.40	0.35	14.75	30
	2437		14.76		15.11	
	2462		14.61		14.96	
11ax20 ANT1	2412	50	13.95	0.37	14.32	30
	2437		14.24		14.61	
	2462		14.28		14.65	
Conclusion：PASS						

Note: 1. Directional Gain= 10 log[$(10^{3/10}+10^{3.3/10})/2$]dBi =3.15dBi < 6dBi.

2. The transmit signals are uncorrelated.

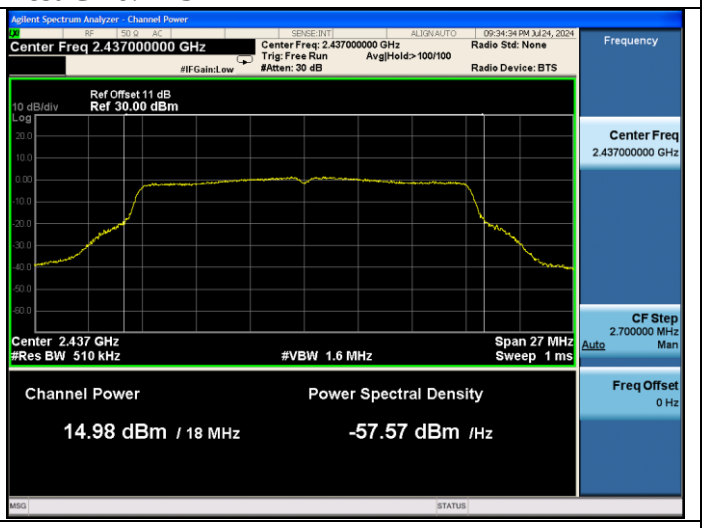
MIMO:

Test Mode	Frequency (MHz)	Power Setting		Channel Power		Duty Factor		Output Power (dBm)	Limit (dBm)
		ANT0	ANT1	ANT0	ANT1	ANT0	ANT1	Total	
11n20 MIMO	2412	44	44	13.56	12.30	0.29	0.28	16.272	30
	2437			13.80	12.39			16.448	
	2462			13.71	12.58			16.478	
11ax20 MIMO	2412	50	50	15.33	14.50	0.35	0.37	18.304	30
	2437			15.60	14.39			18.406	
	2462			15.45	14.63			18.429	
Conclusion：PASS									

Note: 1. Directional Gain= 10 log[($10^{3/10}$+$10^{3.3/10}$)/2]dBi =3.15dBi < 6dBi.

2. The transmit signals are uncorrelated.

SISO:

ANT0	
Test Mode: IEEE 802.11b Test CH1: 2412MHz	Test Mode: IEEE 802.11g Test CH1: 2412MHz
	
Test CH6: 2437MHz	Test CH6: 2437MHz
	
Test CH11: 2462MHz	Test CH11: 2462MHz