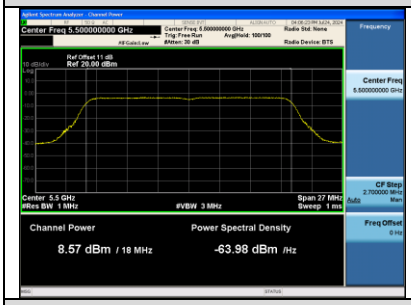
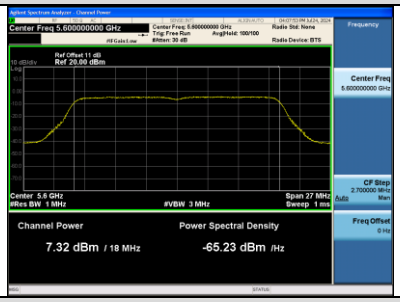
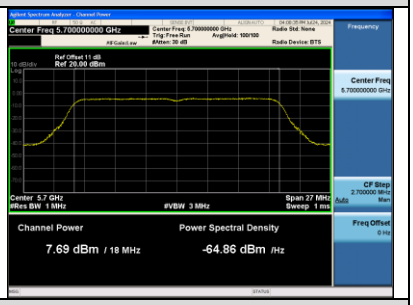
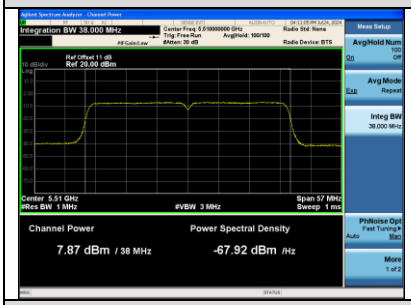
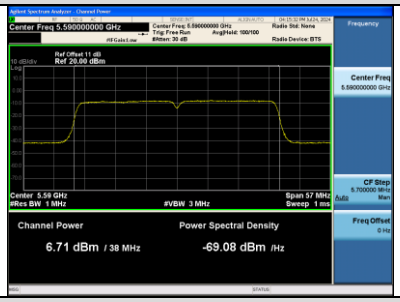
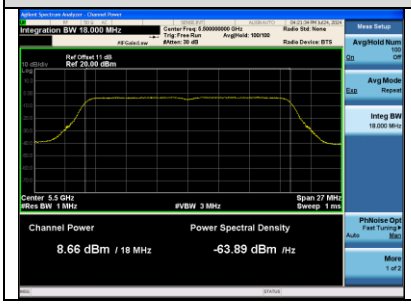
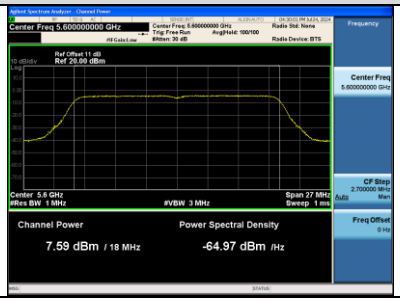
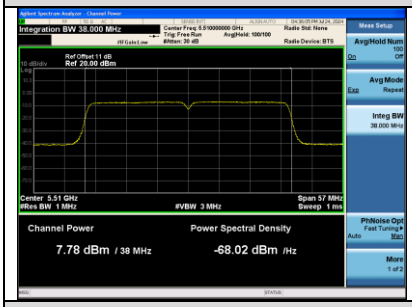
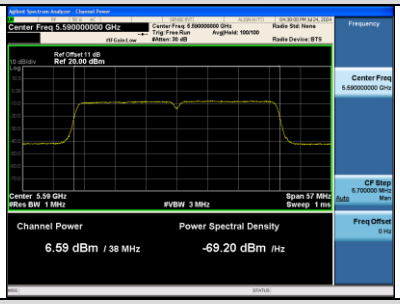
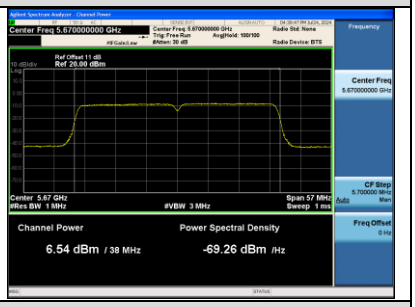
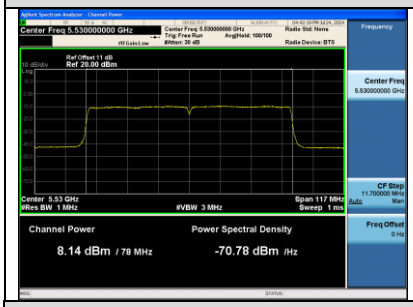
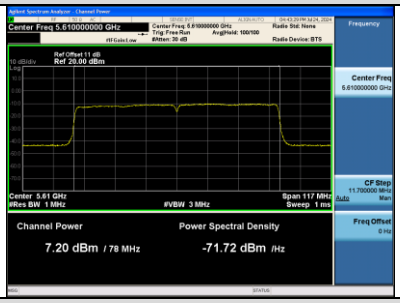
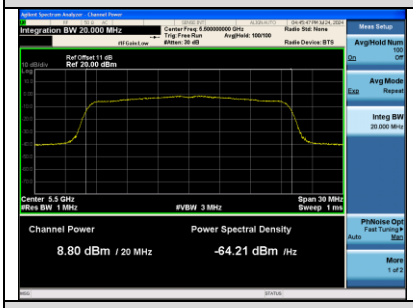
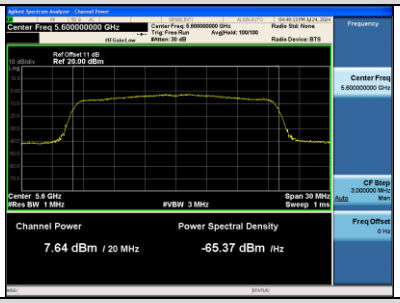
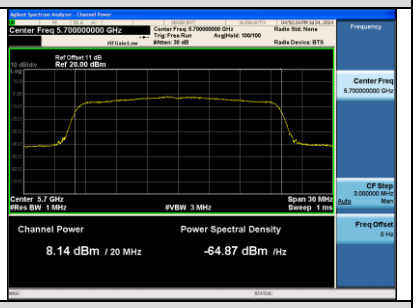
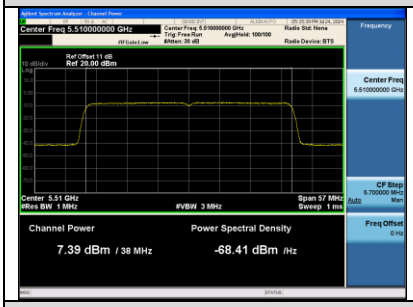
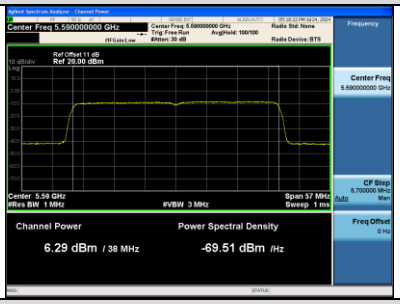
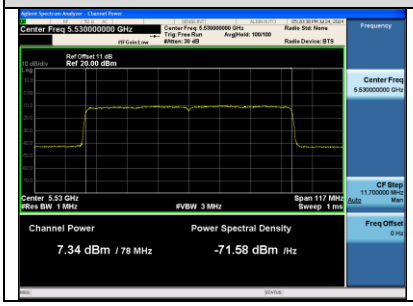
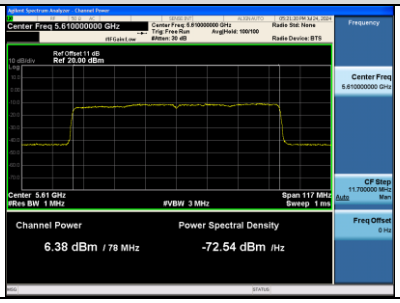
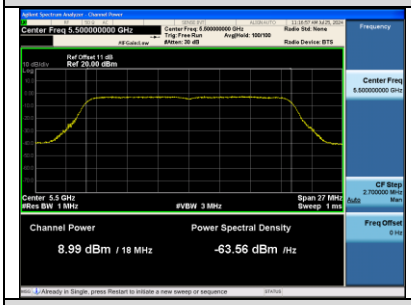
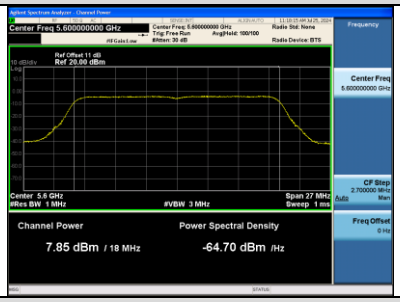
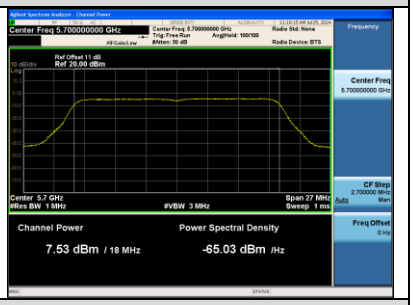
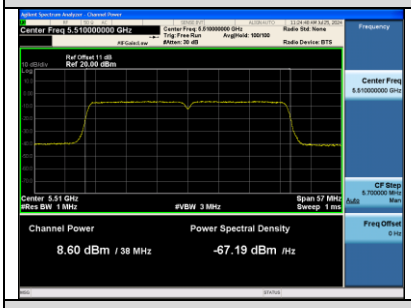
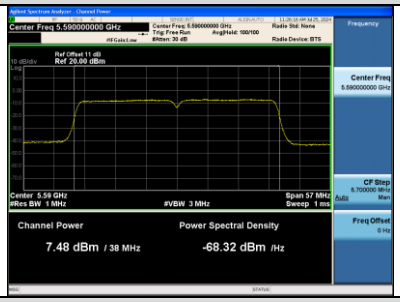
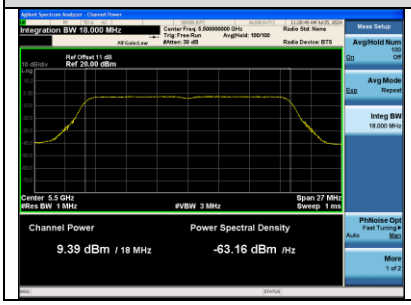
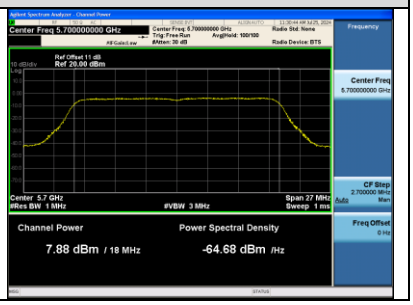
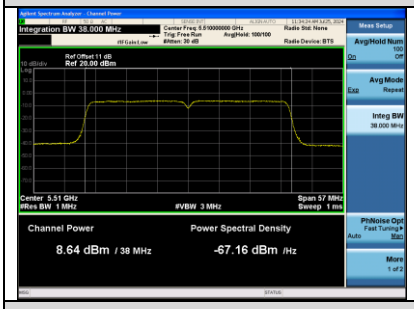
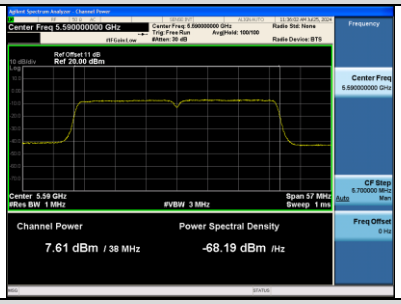
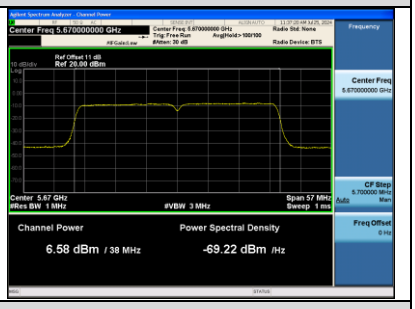
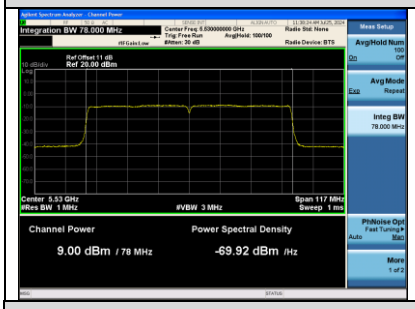
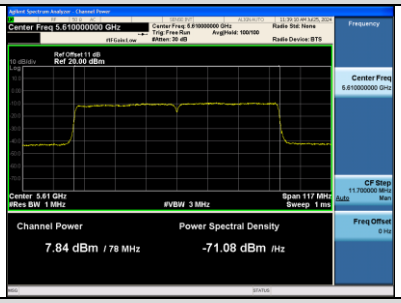
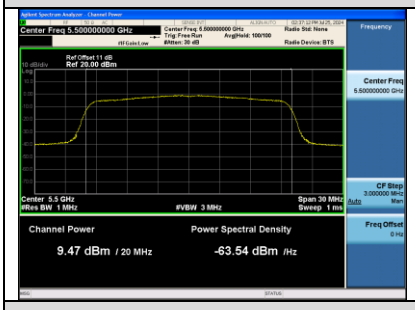
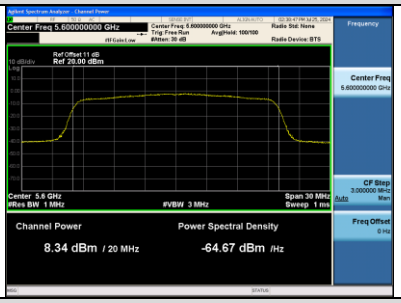
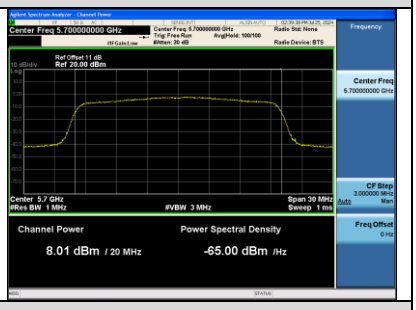
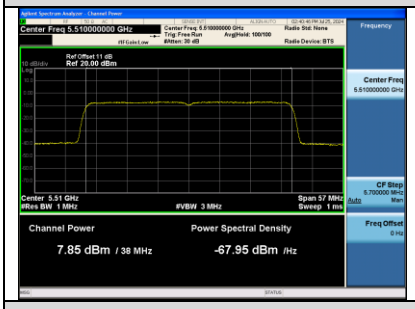
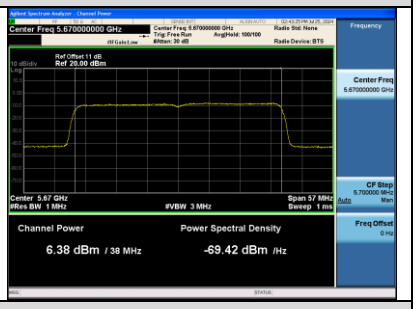
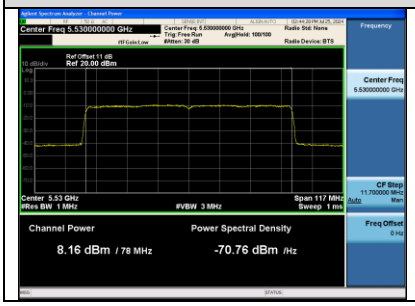
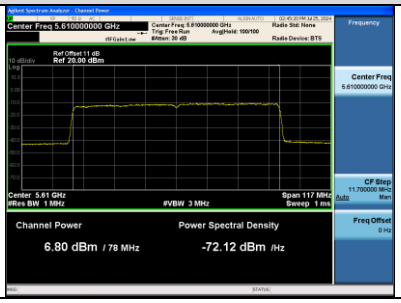
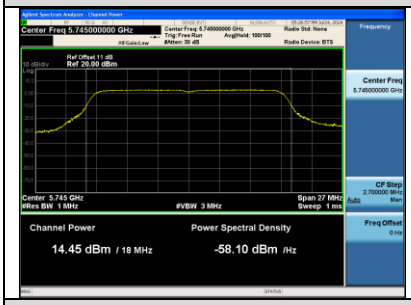
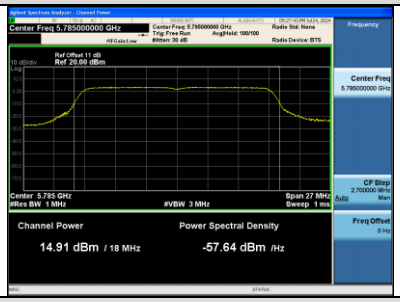
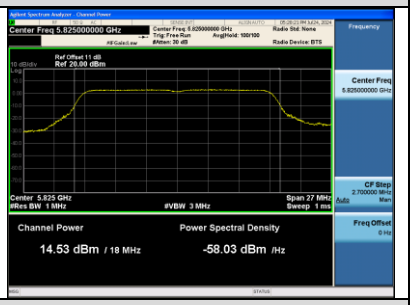
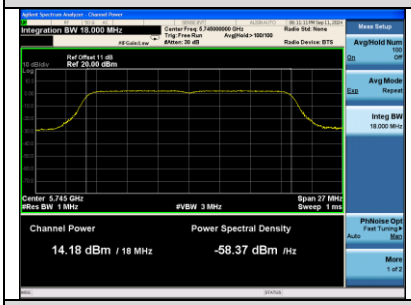
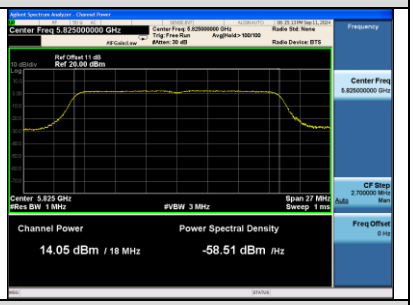
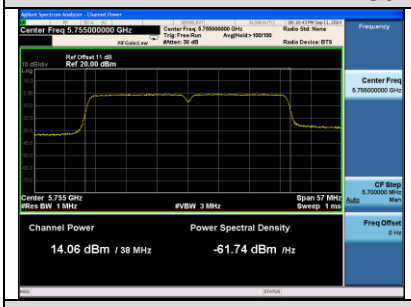
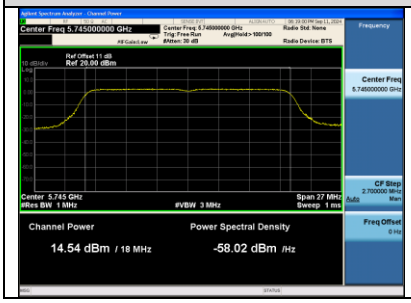
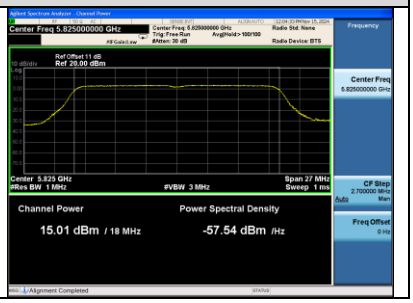
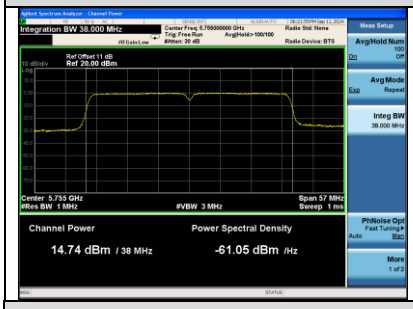
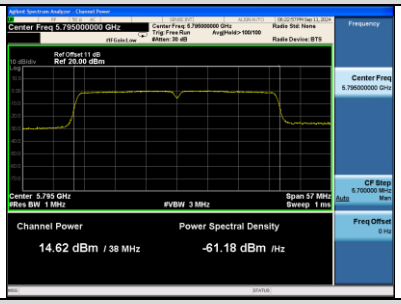
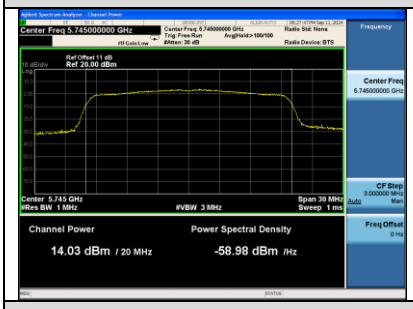
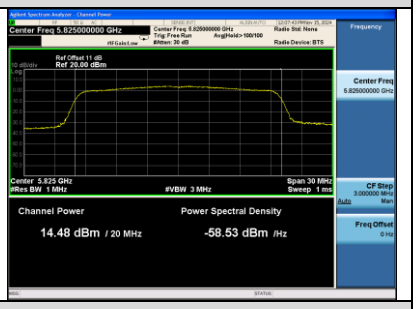
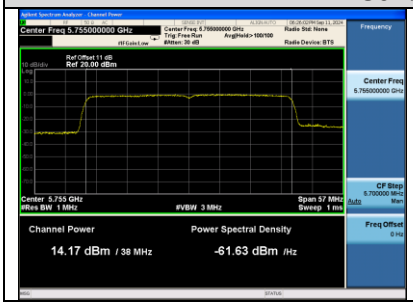
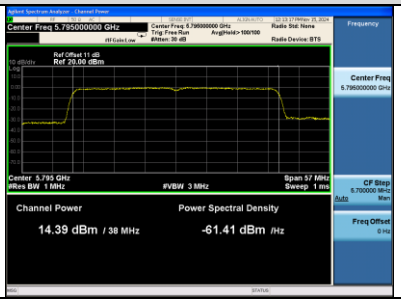
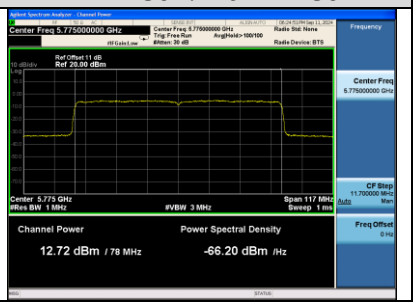
MIMO		
U-NII-2C Band: ANT 0		
IEEE 802.11n HT20		
		
IEEE 802.11n HT40		
		
IEEE 802.11ac VHT20		
		

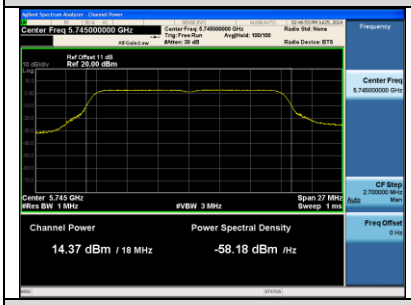
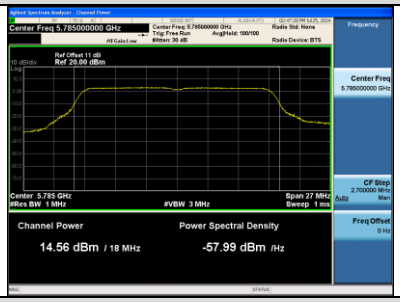
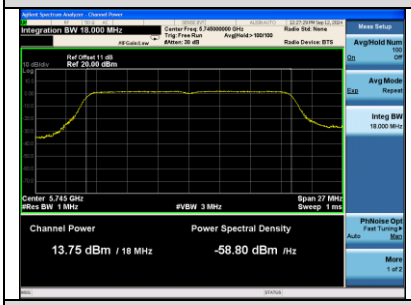
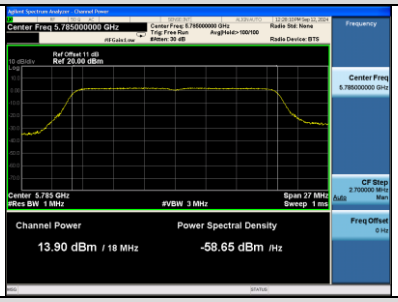
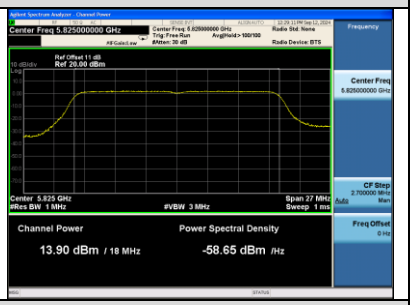
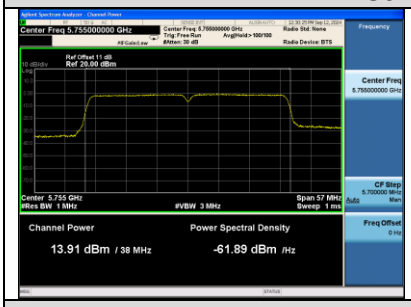
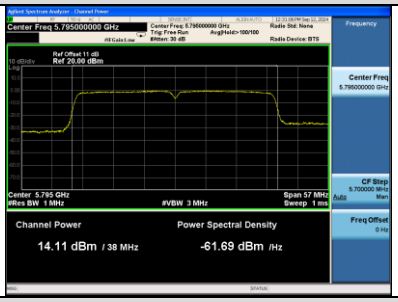
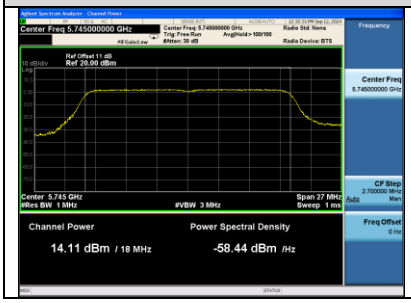
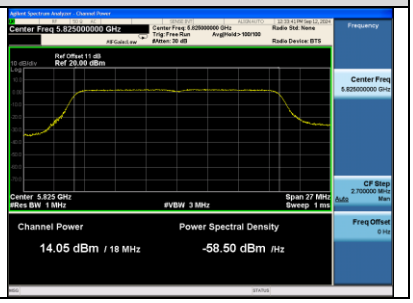
IEEE 802.11ac VHT40		
		
IEEE 802.11ac VHT80		---
		---
IEEE 802.11ax HE20		
		
IEEE 802.11ax HE40		
		
IEEE 802.11ax HE80		---
		---

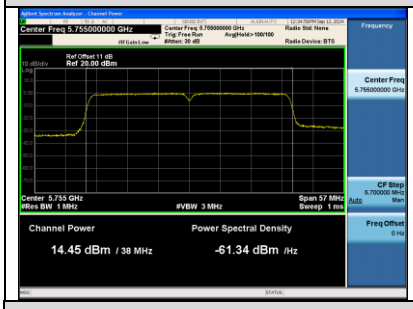
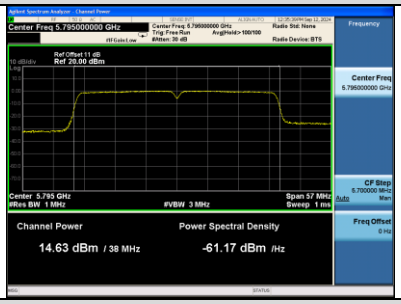
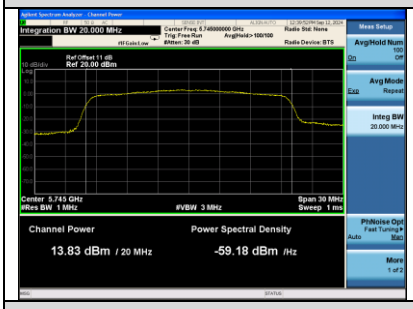
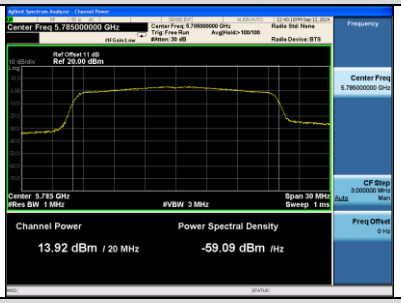
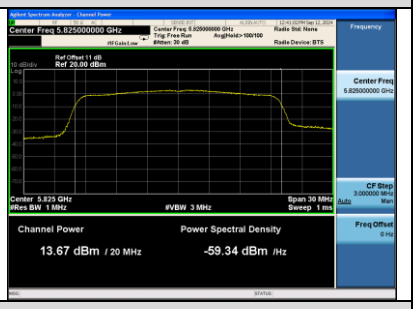
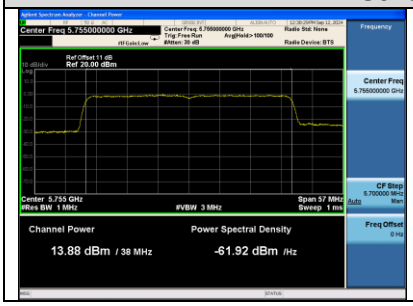
MIMO		
U-NII-2C Band: ANT 1		
IEEE 802.11n HT20		
		
IEEE 802.11n HT40		
		
IEEE 802.11ac VHT20		
		

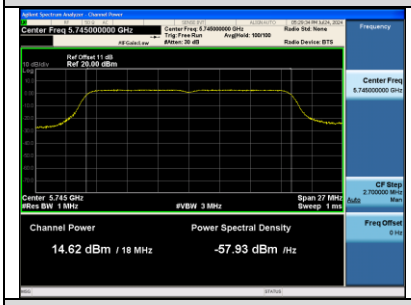
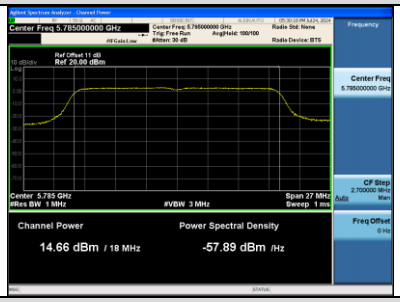
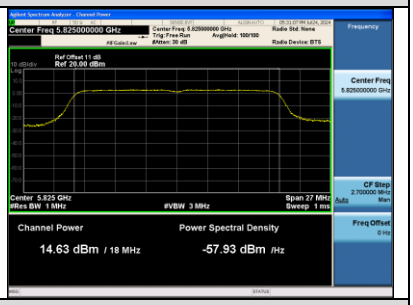
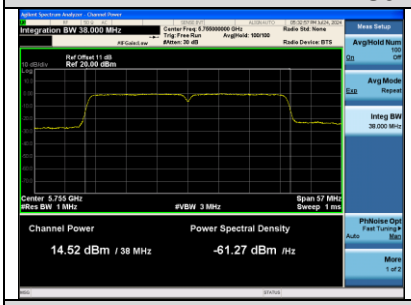
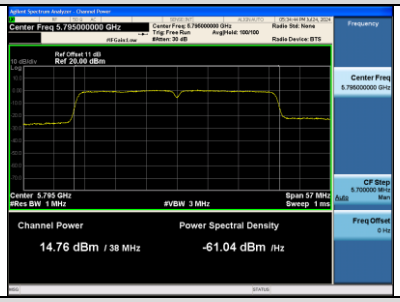
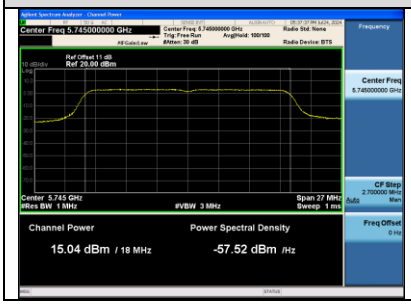
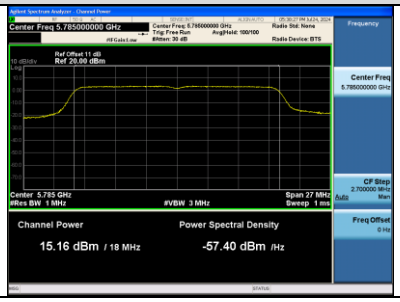
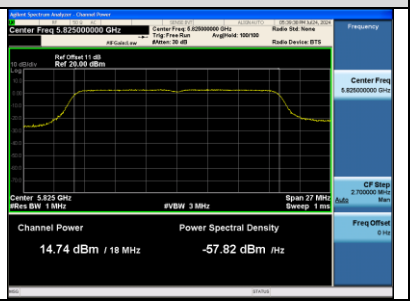
IEEE 802.11ac VHT40		
		
IEEE 802.11ac VHT80		---
		---
IEEE 802.11ax HE20		
		
IEEE 802.11ax HE40		
		
IEEE 802.11ax HE80		---
		---

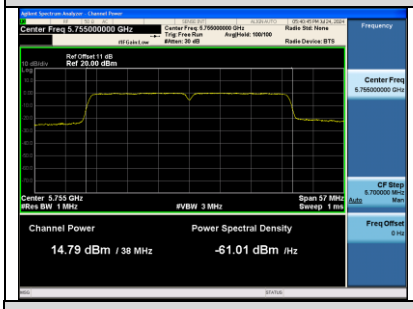
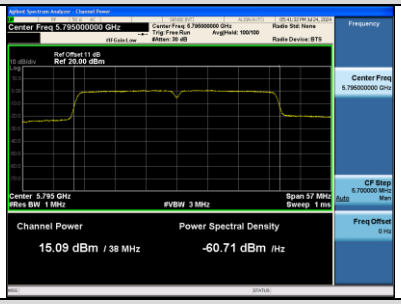
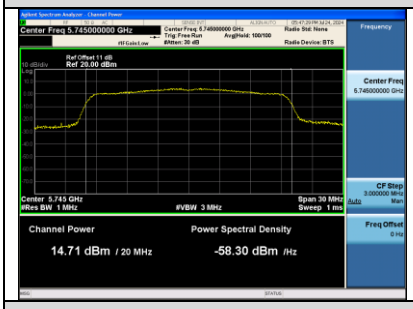
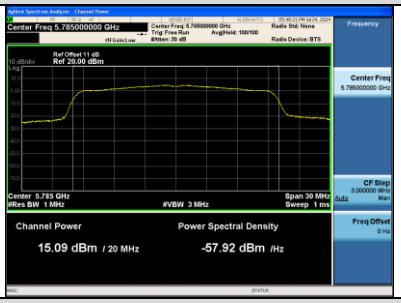
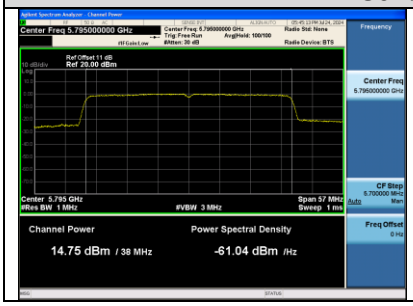
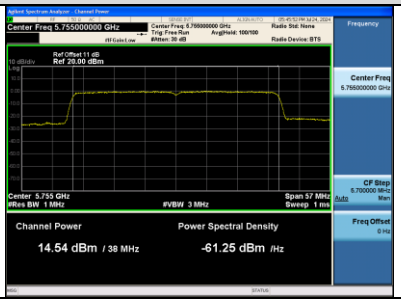
SISO		
U-NII-3 Band: ANT 0		
IEEE 802.11a		
		
IEEE 802.11n HT20		
		
IEEE 802.11n HT40		---
		---
IEEE 802.11ac VHT20		
		

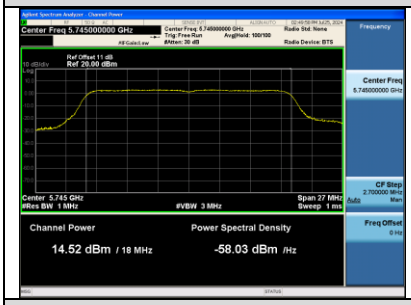
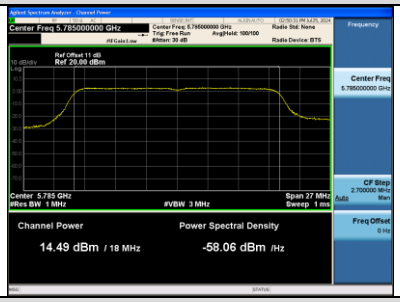
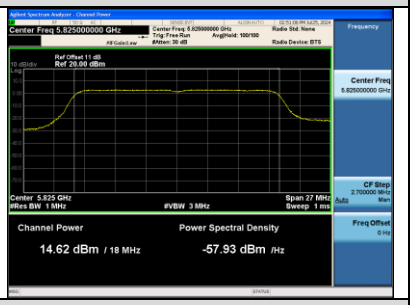
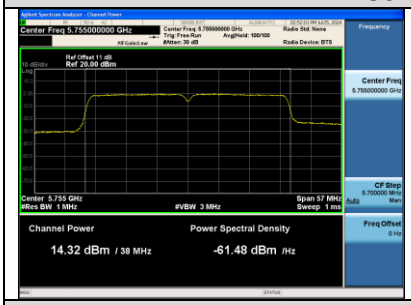
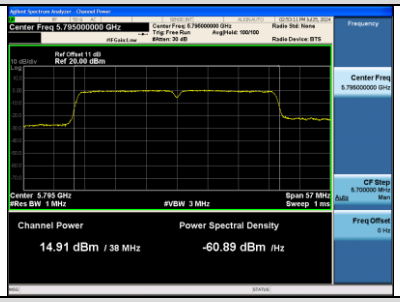
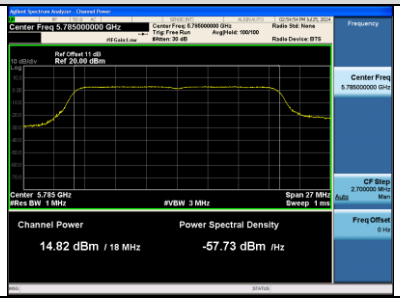
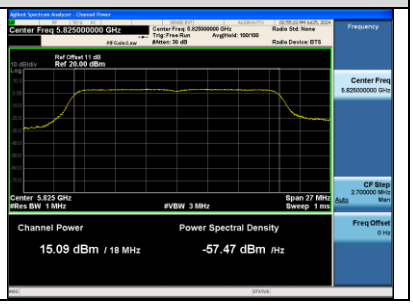
IEEE 802.11ac VHT40		IEEE 802.11ac VHT80
		
Channel Power: 14.74 dBm / 38 MHz Power Spectral Density: -61.05 dBm /Hz	Channel Power: 14.62 dBm / 38 MHz Power Spectral Density: -61.18 dBm /Hz	Channel Power: 13.31 dBm / 78 MHz Power Spectral Density: -65.61 dBm /Hz
IEEE 802.11ax HE20		
		
Channel Power: 14.03 dBm / 20 MHz Power Spectral Density: -58.98 dBm /Hz	Channel Power: 14.29 dBm / 20 MHz Power Spectral Density: -58.72 dBm /Hz	Channel Power: 14.48 dBm / 20 MHz Power Spectral Density: -58.53 dBm /Hz
IEEE 802.11ax HE40		**IEEE 802.11ax HE80**
		
Channel Power: 14.17 dBm / 38 MHz Power Spectral Density: -61.63 dBm /Hz	Channel Power: 14.39 dBm / 38 MHz Power Spectral Density: -61.41 dBm /Hz	Channel Power: 12.72 dBm / 78 MHz Power Spectral Density: -66.20 dBm /Hz

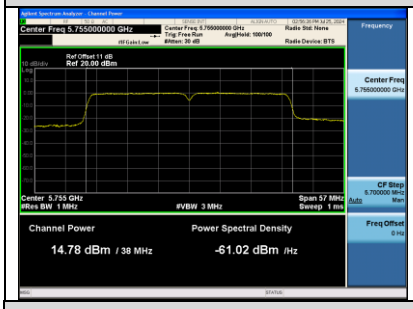
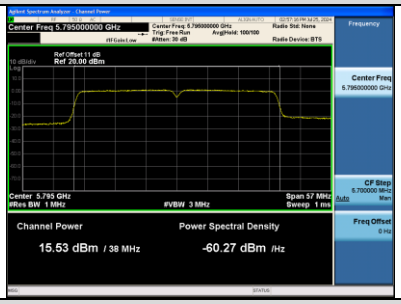
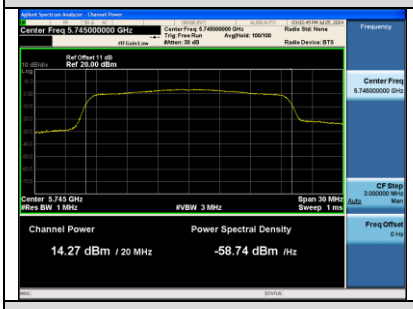
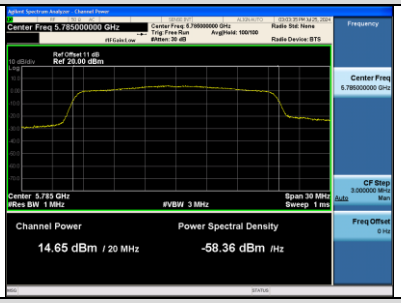
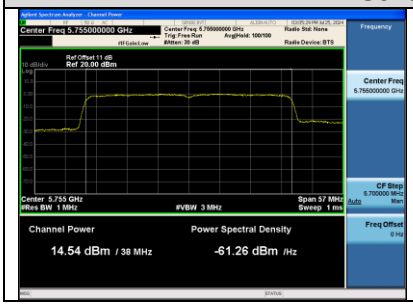
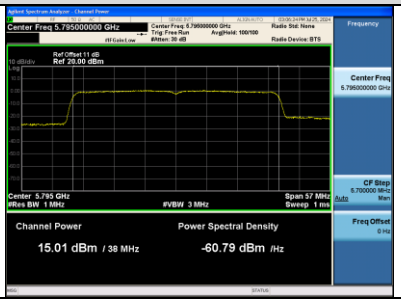
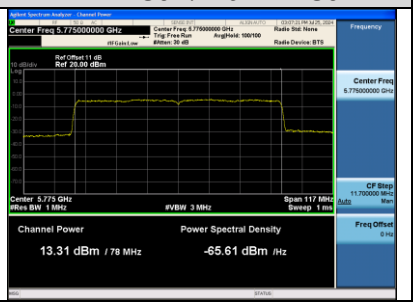
SISO		
U-NII-3 Band: ANT 1		
IEEE 802.11a		
		
IEEE 802.11n HT20		
		
IEEE 802.11n HT40		---
		---
IEEE 802.11ac VHT20		
		

IEEE 802.11ac VHT40		IEEE 802.11ac VHT80
		
IEEE 802.11ax HE20		
		
IEEE 802.11ax HE40		IEEE 802.11ax HE80
		

MIMO		
U-NII-3 Band: ANT 0		
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
		

MIMO		
U-NII-3 Band: ANT 1		
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
		

8. SPECTRAL DENSITY TEST

8.1.Limit

Band 5150-5250 MHz:
The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
Band 5250-5350 MHz:
The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
Band 5470-5725 MHz:
The power spectral density shall not exceed 11 dBm in any 1.0 MHz band.
Band 5725-5850 MHz:
The power spectral density shall not exceed 30 dBm in any 500 KHz band.

8.2.Test Procedure

Use the test method described in ANSI C63.10 clause 12.5:
For the Band 5.15-5.35GHz; 5.47-5.725 GHz:
The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW; Detector: RMS mode.

For the band 5.725-5.85 GHz:
The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW,RMS Detector.
So use the test method described in KDB789033 clause E

1) Set the RBW=100kHz and VBW =300kHz
2) Number of points in sweep ≥ 2 Span / RBW.(This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
3) Sweep time = auto
4) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
5) Use the “peak search” function of spectrum analyzer find the max value, then add 10log (500kHz/RBW) to the measured result.

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: 2024-08-16~20	Pressure: 103.1±1.0 kpa	Humidity: 51.5±3.0%
Tested by: Epoch	Test site: RF site	Temperature: 22.5±0.6℃

U-NII-1 Band(SISO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/3KHz)	Limit (dBm/3KHz)
11a ANT0	5180	4.354	11
	5200	4.347	
	5240	4.269	
11a ANT1	5180	5.103	11
	5200	5.118	
	5240	5.770	
Conclusion：PASS			

Notes: 1. Directional Gain= 10 log[$(10^{3.1/10})$+ $(10^{2.8/10})$/2]dBi =2.95dBi＜6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-1 Band(MIMO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/3KHz)			Limit (dBm/3KHz)
		ANT0	ANT1	Total	
11n20	5180	4.296	1.116	6.001	11
	5200	3.485	1.273	5.529	
	5240	3.358	1.151	5.404	
11n40	5190	-1.454	-3.975	0.476	11
	5230	-1.233	-2.949	1.004	
11ac20	5180	3.761	1.023	5.615	11
	5200	3.933	1.480	5.888	
	5240	3.674	2.053	5.949	
11ac40	5190	-1.514	-4.442	0.275	11
	5230	-1.545	-4.132	0.362	
11ac80	5210	-5.167	-7.667	-3.229	11
11ax20	5180	4.608	2.492	6.688	11
	5200	4.817	2.653	6.879	
	5240	4.563	2.619	6.709	
11ax40	5190	-1.318	-3.848	0.609	11
	5230	-0.933	-3.447	1.000	
11ax80	5210	-6.445	-9.394	-4.664	11
Conclusion：PASS					

Notes: 1. Directional Gain= 10 log[$(10^{3.1/10})$+ $(10^{2.8/10})$/2]dBi =2.95dBi＜6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-2A Band(SISO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/3KHz)	Limit (dBm/3KHz)
11a (ANT0)	5260	4.806	11
	5300	3.888	
	5320	3.643	
11a (ANT1)	5260	4.429	
	5300	4.670	
	5320	4.471	
Conclusion：PASS			

Notes: 1. Directional Gain= 10 log[($10^{3.2/10}$)+ ($10^{3.2/10}$)/2]dBi =3.2dBi＜6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-2A Band(MIMO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/3KHz)			Limit (dBm/3KHz)
		ANT0	ANT1	Total	
11n20	5260	3.204	2.066	5.682	11
	5300	3.465	2.436	5.991	
	5320	3.819	2.588	6.257	
11n40	5270	0.033	-1.622	2.294	11
	5310	-0.292	-1.781	2.037	
11ac20	5260	3.871	1.874	5.997	11
	5300	3.562	1.617	5.708	
	5320	3.991	1.901	6.081	
11ac40	5270	-3.210	-0.750	1.202	11
	5310	-3.325	-1.223	0.862	
11ac80	5290	-7.509	-9.463	-5.367	11
11ax20	5260	4.543	2.684	6.723	11
	5300	4.418	3.221	6.871	
	5320	4.410	2.606	6.611	
11ax40	5270	-5.653	-7.622	-3.517	11
	5310	-5.960	-7.874	-3.802	
11ax80	5290	-8.645	-11.833	-6.943	11
Conclusion：PASS					

Notes: 1. Directional Gain= 10 log[($10^{3.2/10}$)+ ($10^{3.2/10}$)/2]dBi =3.2dBi＜6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-2C Band(SISO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/3KHz)	Limit (dBm/3KHz)
11a ANT0	5500	0.366	11
	5600	0.264	11
	5700	0.053	11
11a ANT1	5500	1.558	11
	5600	1.346	11
	5700	0.314	11
Conclusion：PASS			

Notes: 1. Directional Gain= 10 log[($10^{3.4/10}$)+ ($10^{3.4/10}$)/2]dBi =3.4dBi＜6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-2C Band(MIMO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/3KHz)			Limit (dBm/3KHz)
		ANT0	ANT1	Total	
11n20	5500	0.289	-1.723	2.409	11
	5600	-1.017	-2.892	1.156	11
	5700	-0.908	-3.022	1.173	11
11n40	5510	-3.867	-6.302	-1.906	11
	5590	-4.317	-7.213	-2.518	11
	5670	-4.347	-7.516	-2.638	11
11ac20	5500	-0.492	-2.362	1.683	11
	5600	-0.732	-3.563	1.090	11
	5700	-0.704	-3.541	1.115	11
11ac40	5510	-4.088	-5.881	-1.882	11
	5590	-4.345	-6.554	-2.300	11
	5670	-4.282	-7.151	-2.473	11
11ac80	5530	-6.491	-8.895	-4.518	11
	5610	-7.202	-9.755	-5.283	11
11ax20	5500	0.552	-0.830	2.926	11
	5600	0.705	-2.017	2.564	11
	5700	0.901	-2.697	2.475	11
11ax40	5510	-3.441	-6.743	-1.775	11
	5590	-3.886	-7.529	-2.326	11
	5670	-3.808	-8.269	-2.479	11
11ax80	5530	-7.141	-9.411	-5.119	11
	5610	-7.116	-10.741	-5.550	11
Conclusion：PASS					

Notes: 1. Directional Gain= 10 log[($10^{3.4/10}$)+ ($10^{3.4/10}$)/2]dBi =3.4dBi＜6dBi.

2. The transmit signals are completely uncorrelated.

U-NII-3 Band(SISO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/500KHz)	Limit (dBm/500KHz)
11a ANT0	5745	3.468	30
	5785	3.575	
	5825	3.095	
11a ANT1	5745	3.730	
	5785	3.720	
	5825	3.515	
Conclusion：PASS			

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

2. The transmit signals are completely uncorrelated.

3. The result = Reading + 10log(500kHz/100kHz).

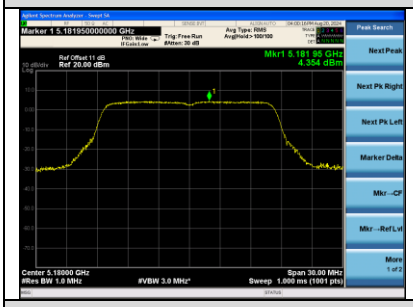
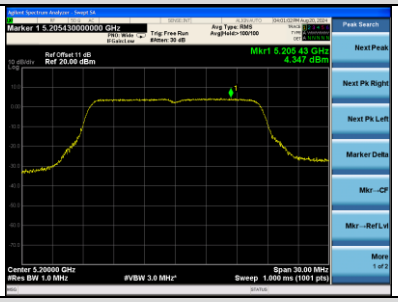
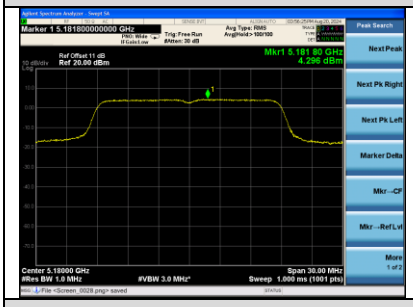
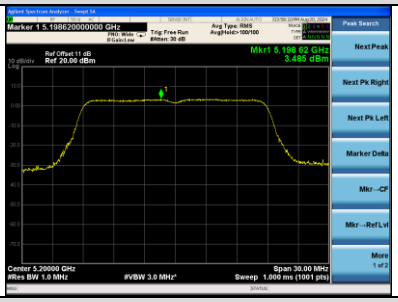
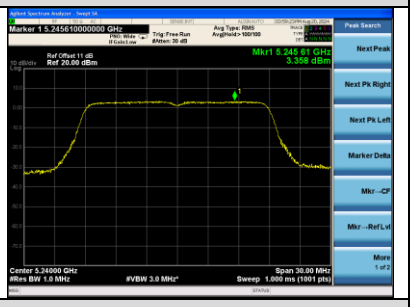
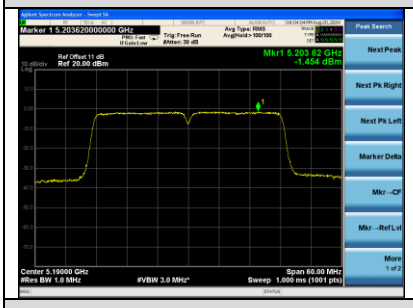
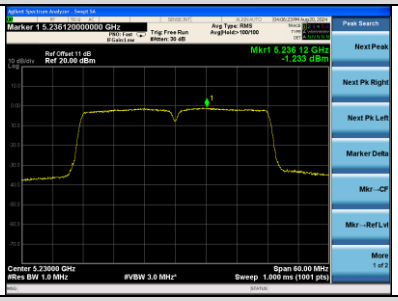
U-NII-3 Band(MIMO):

Test Mode	Frequency (MHz)	Power Spectral Density (dBm/500KHz)			Limit (dBm/500KHz)
		ANT0	ANT1	Total	
11n20	5745	-3.547	-4.230	6.125	30
	5785	-3.864	-4.206	5.969	
	5825	-3.766	-4.561	5.855	
11n40	5755	-7.114	-7.559	2.669	
	5795	-6.860	-7.013	3.064	
11ac20	5745	-3.644	-4.011	6.177	30
	5785	-3.434	-4.589	6.027	
	5825	-3.912	-4.062	6.014	
11ac40	5755	-6.743	-6.894	3.182	
	5795	-6.709	-6.613	3.340	
11ac80	5775	-10.590	-11.458	-1.002	
11ax20	5745	-3.010	-3.792	6.617	30
	5785	-4.256	-3.690	6.037	
	5825	-4.054	-3.825	6.062	
11ax40	5755	-7.723	-8.015	2.134	30
	5795	-7.932	-7.813	2.128	
11ax80	5775	-11.899	-11.252	-1.563	30
Conclusion：PASS					

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

2. The transmit signals are completely uncorrelated.

3. The result = Reading + 10log(500kHz/100kHz).

U-NII-1 Band: ANT 0		
IEEE 802.11a		
		
IEEE 802.11n HT20		
		
IEEE 802.11n HT40		---
		---
IEEE 802.11ac VHT20