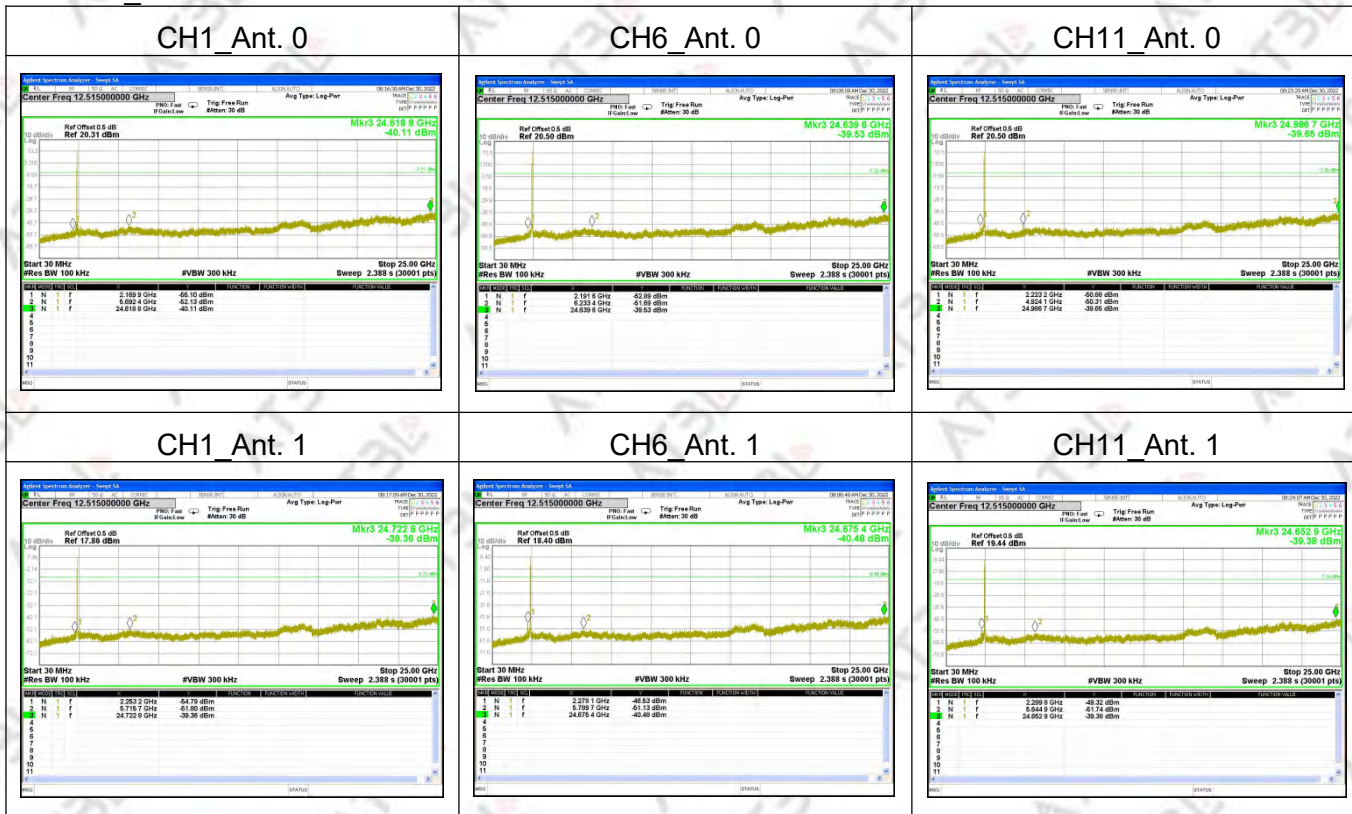


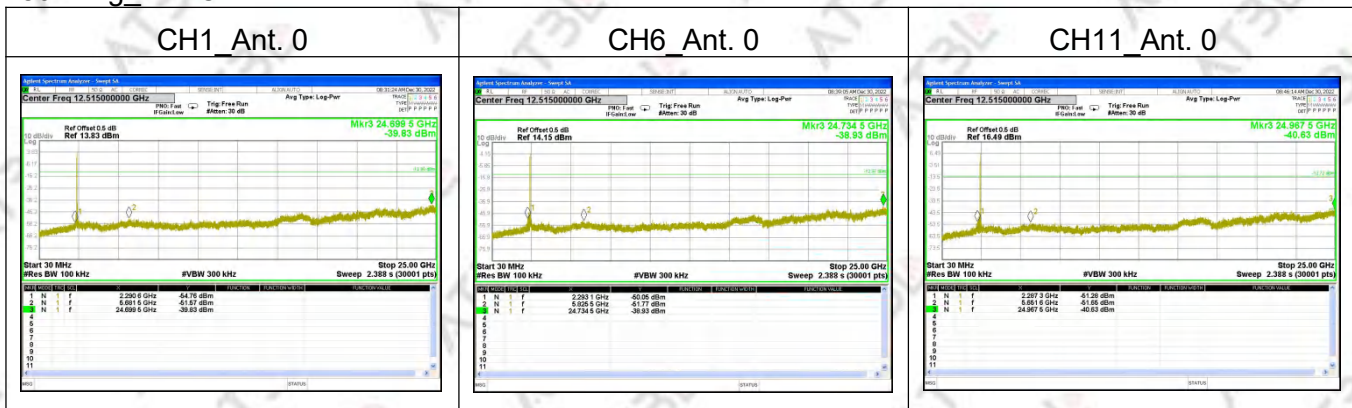
4.6 TEST RESULTS

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	DC 19V	Test Mode:	TX b/g/n20/n40/ax20/ax40

802.11b_MIMO



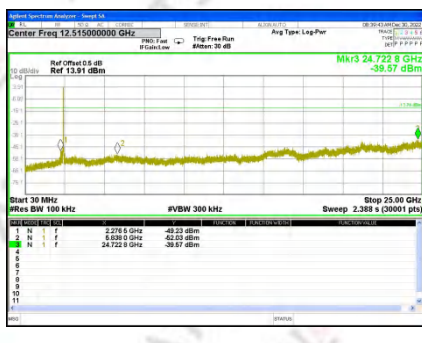
802.11g_MIMO



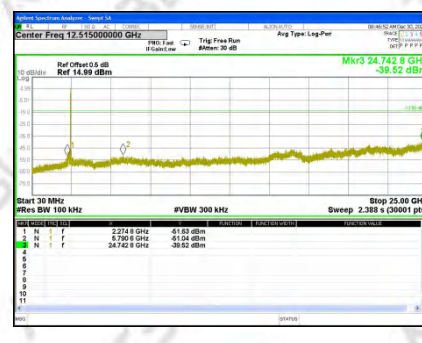
CH1_Ant. 1



CH6_Ant. 1

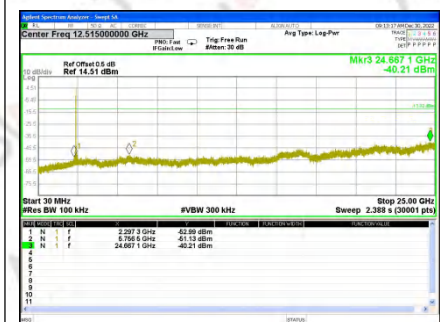


CH11_Ant. 1



802.11n20_MIMO

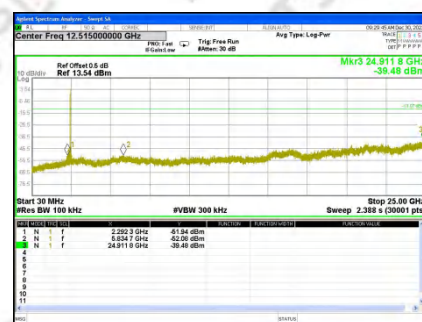
CH1_Ant. 0



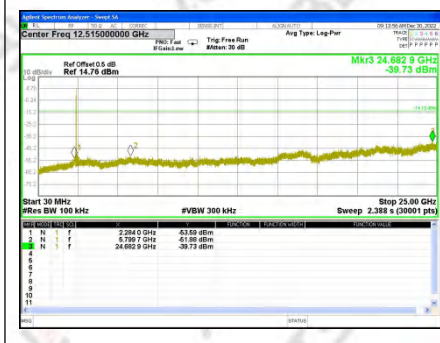
CH6_Ant. 0



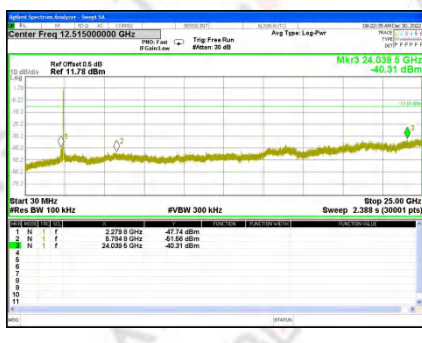
CH11_Ant. 0



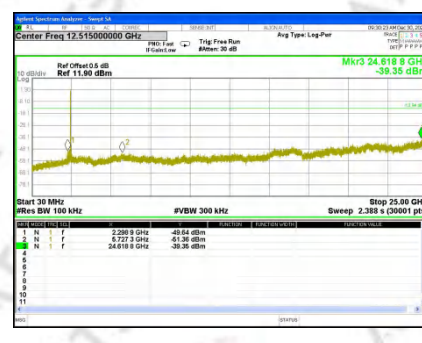
CH1_Ant. 1



CH6_Ant. 1



CH11_Ant. 1

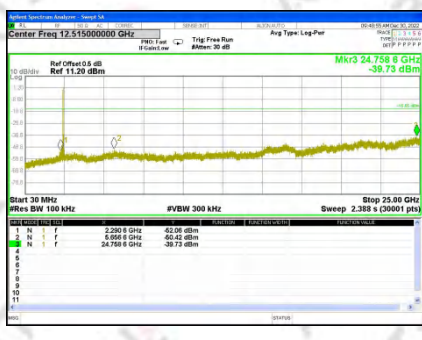


802.11n40_MIMO

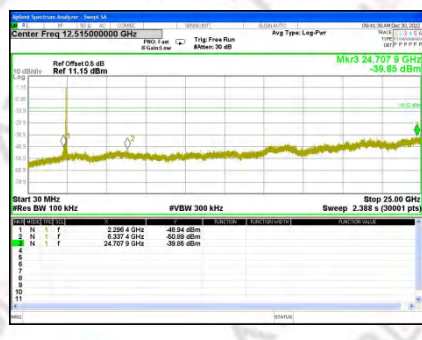
CH3_Ant. 0



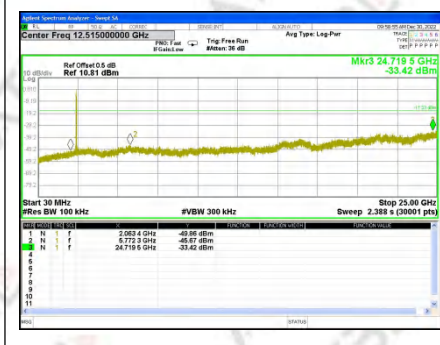
CH6_Ant. 0



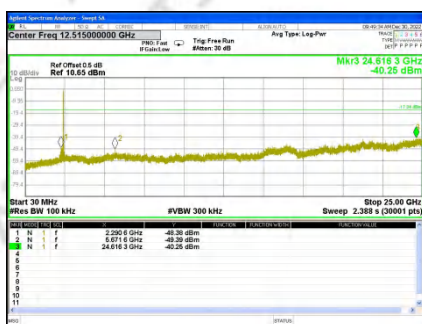
CH9_Ant. 0



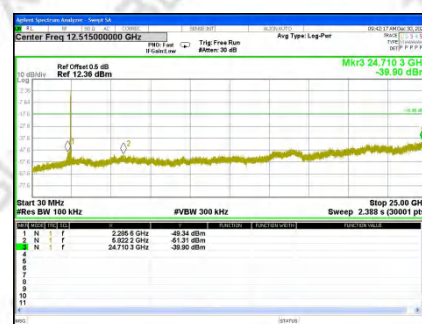
CH3_Ant. 1



CH6_Ant. 1

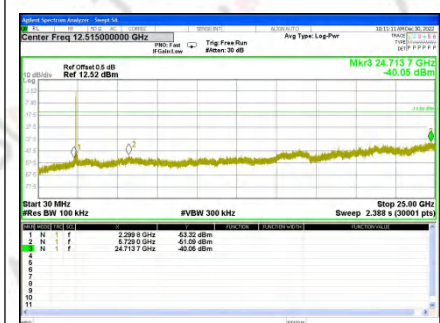


CH9_Ant. 1

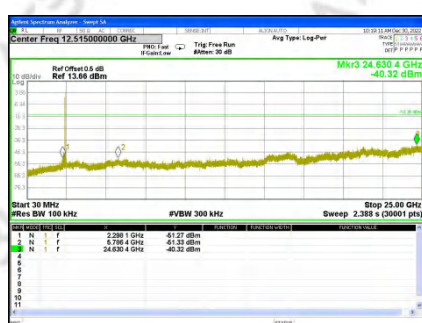


802.11ax20

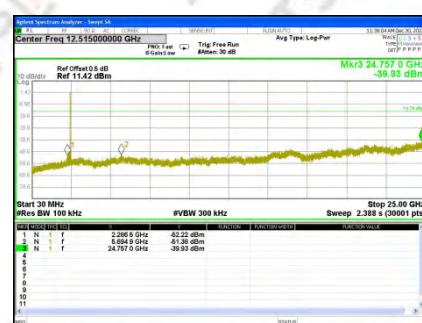
CH1_Ant. 0



CH6_Ant. 0



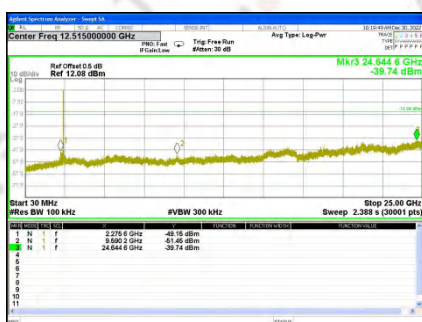
CH11_Ant. 0



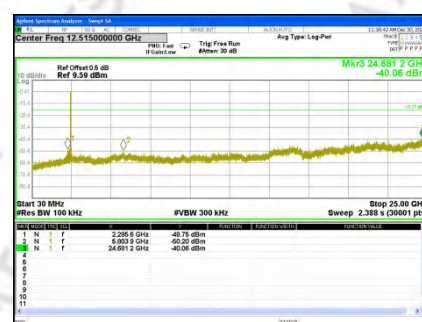
CH1_Ant. 1



CH6_Ant. 1

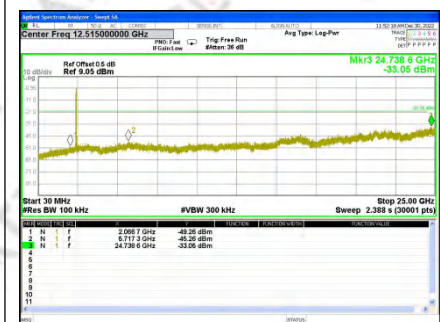


CH11Ant. 1



802.11ax40_MIMO

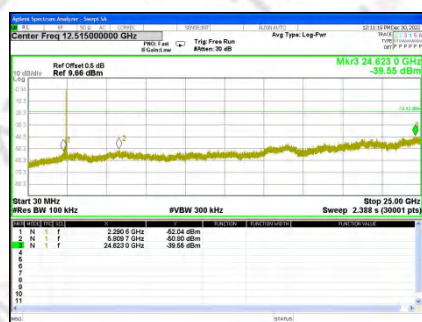
CH3_Ant. 0



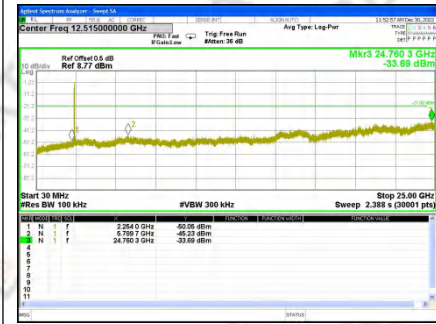
CH6_Ant. 0



CH9_Ant. 0



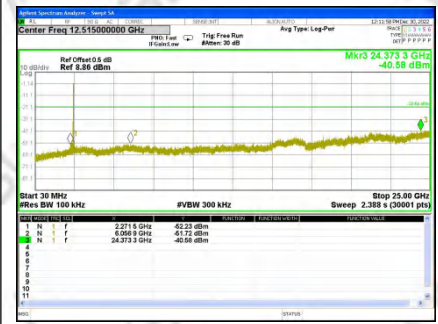
CH3_Ant. 1



CH6_Ant. 1

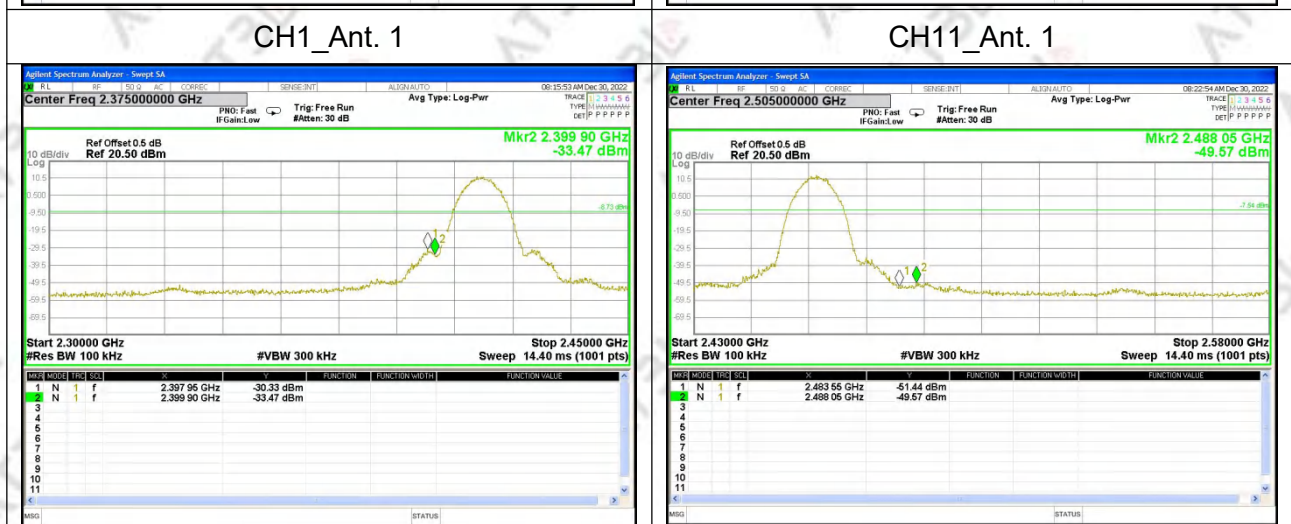
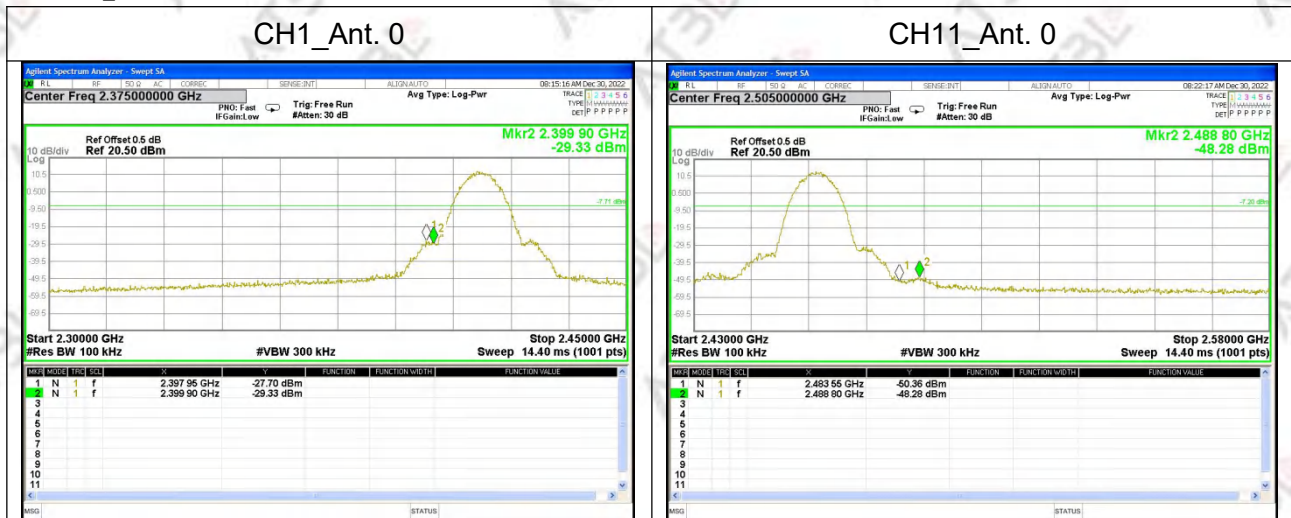


CH9_Ant. 1

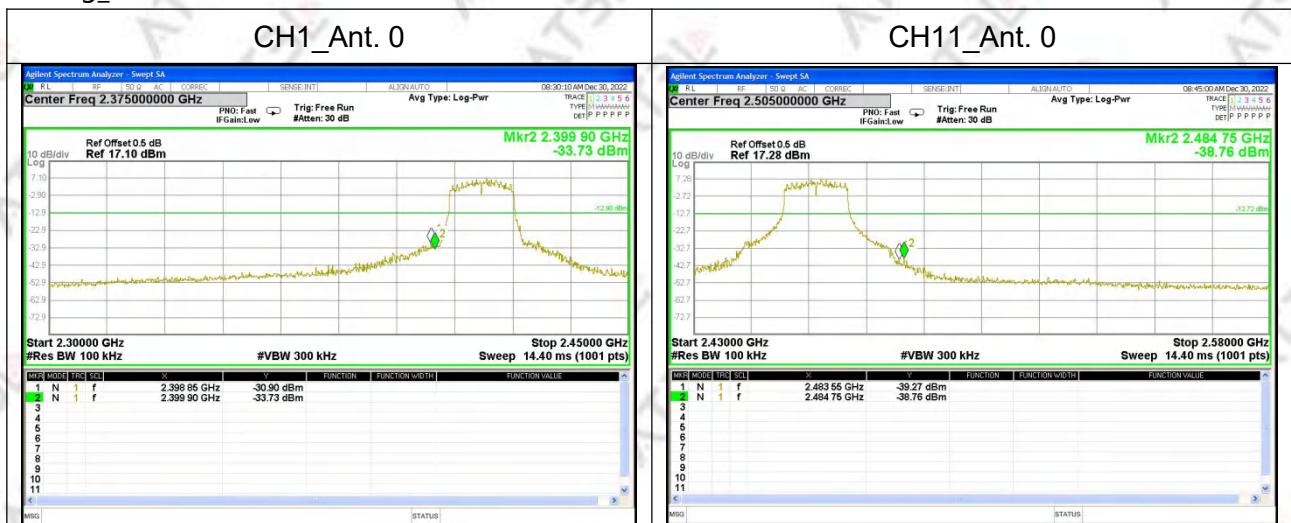


For Band edge(it's also the reference level for conducted spurious emission)

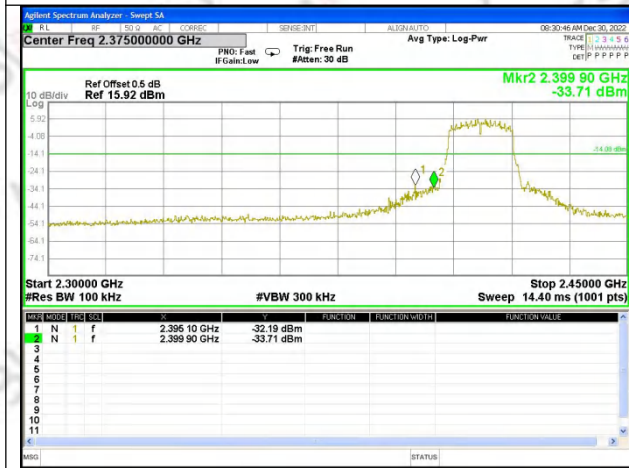
802.11b_MIMO



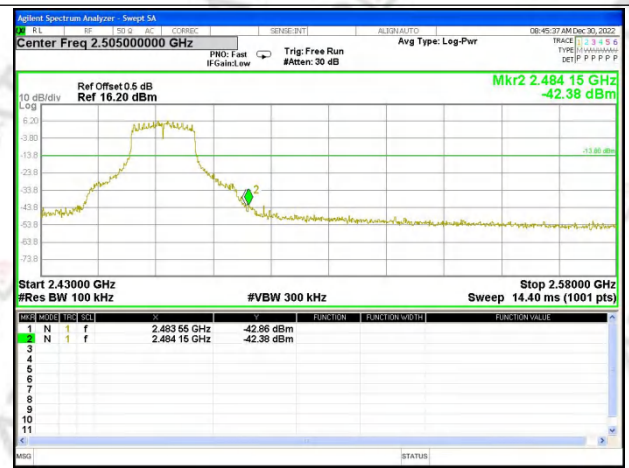
802.11g_MIMO



CH1_Ant. 1

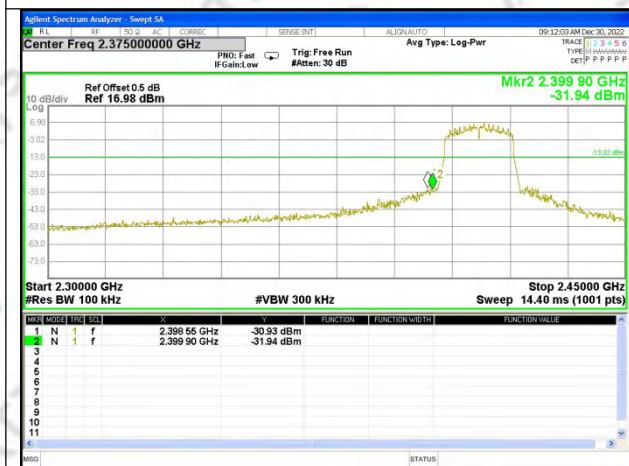


CH11_Ant.1

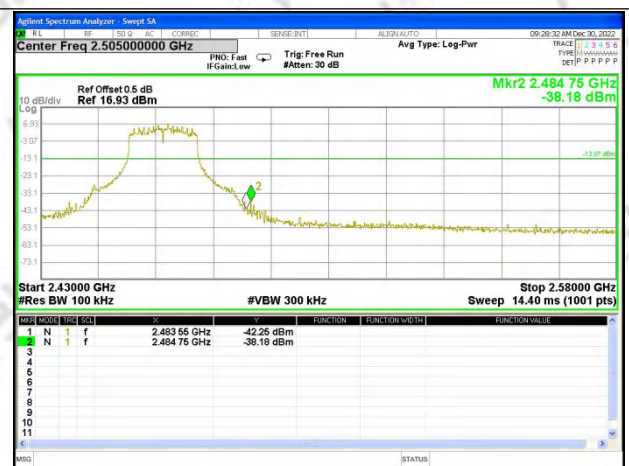


802.11n20_MIMO

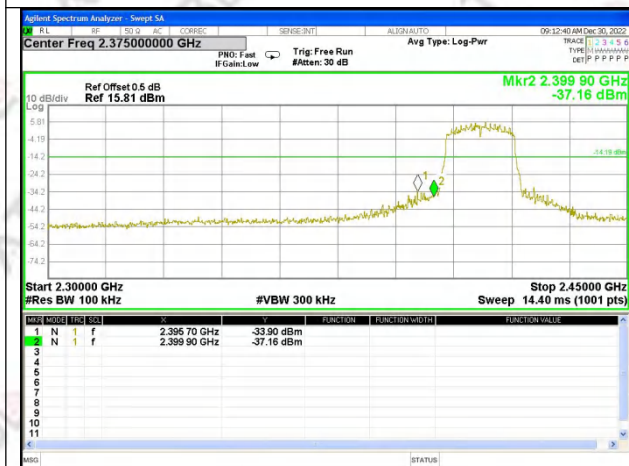
CH1_Ant. 0



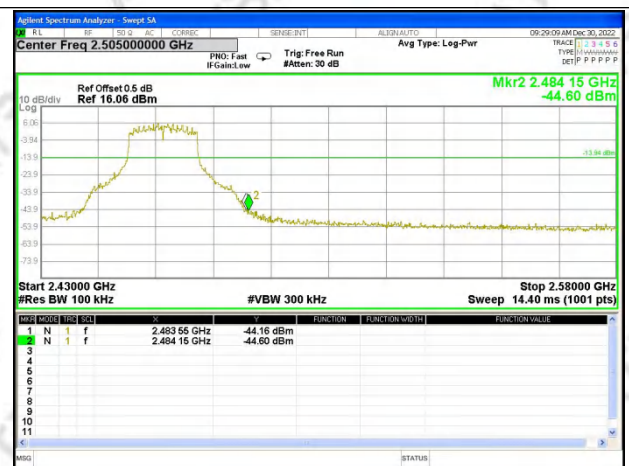
CH11_Ant. 0



CH1_Ant. 1



CH11_Ant. 1

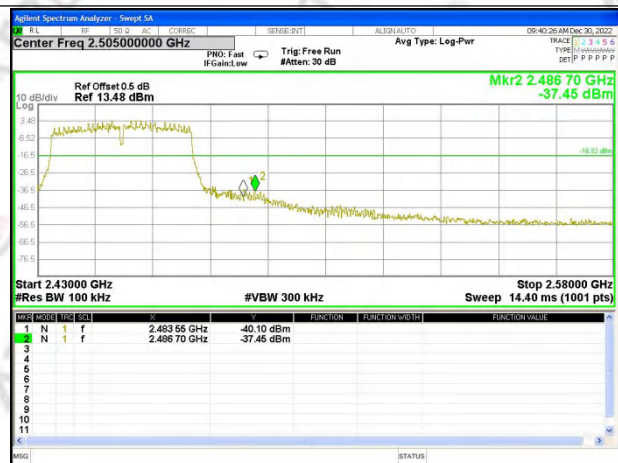


802.11n40_MIMO

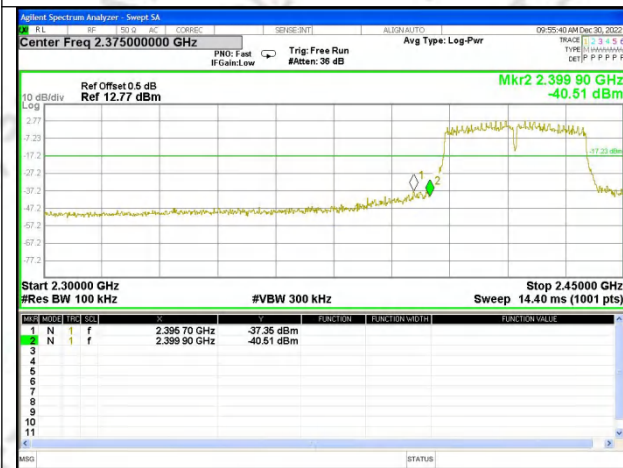
CH3_Ant. 0



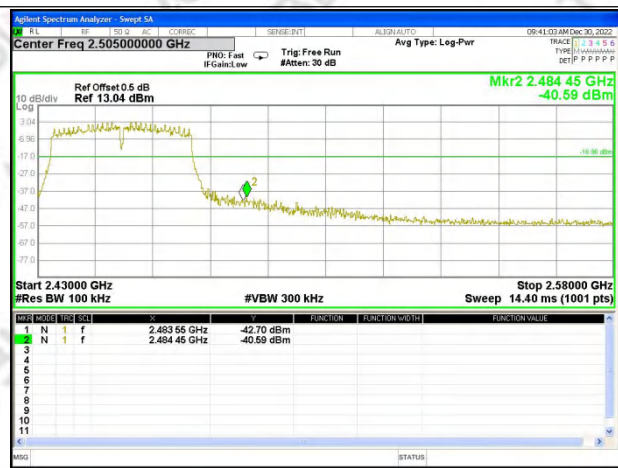
CH9_Ant. 0



CH3_Ant. 1

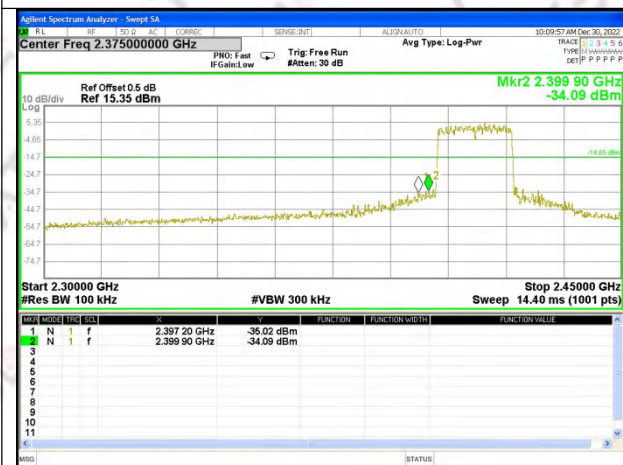


CH9_Ant. 1

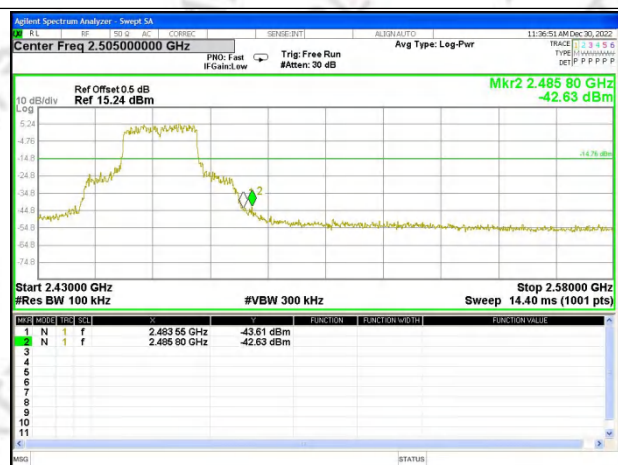


802.11ax20_MIMO

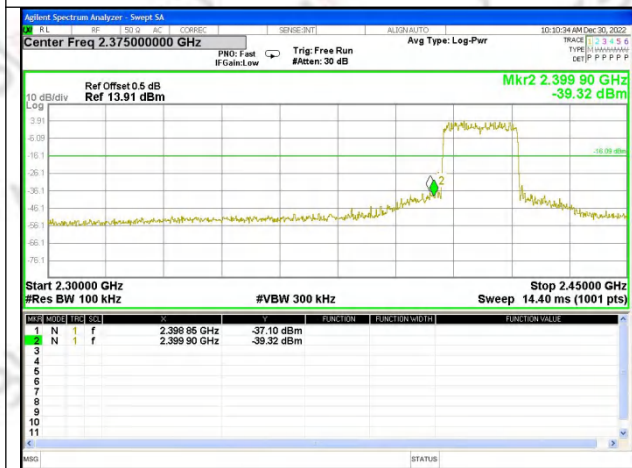
CH1_Ant. 0



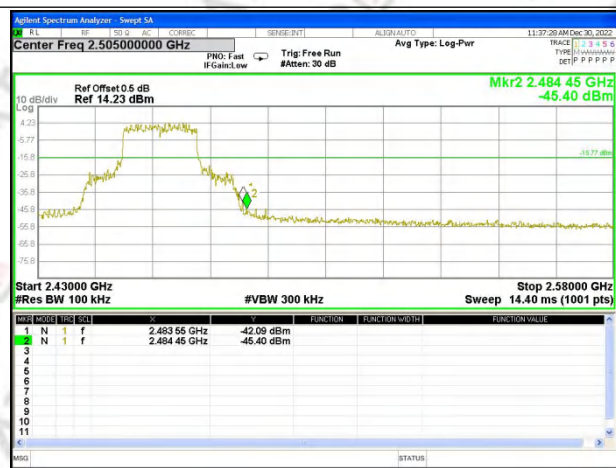
CH11_Ant. 0



CH1_Ant. 1

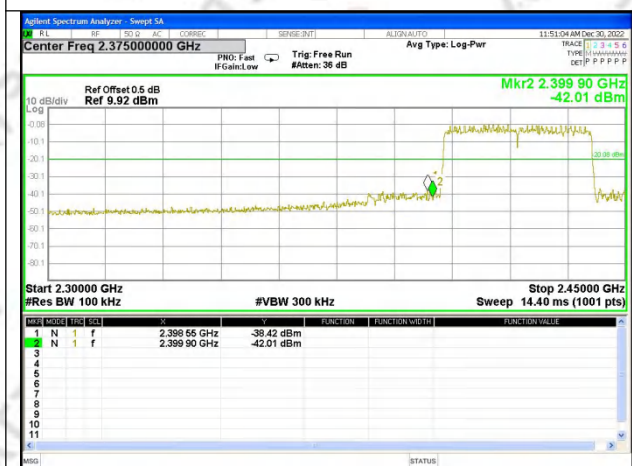


CH11_Ant. 1

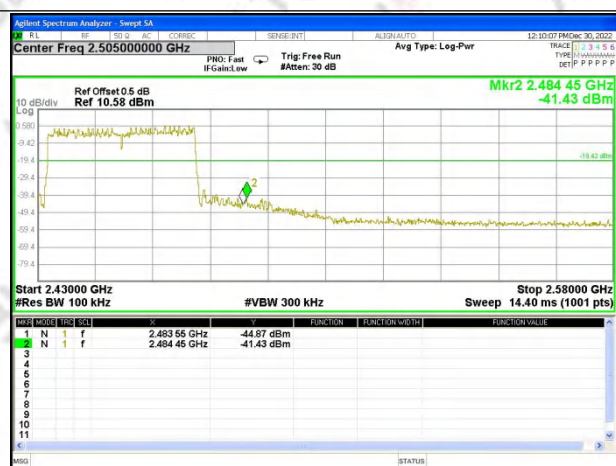


802.11ax40_MIMO

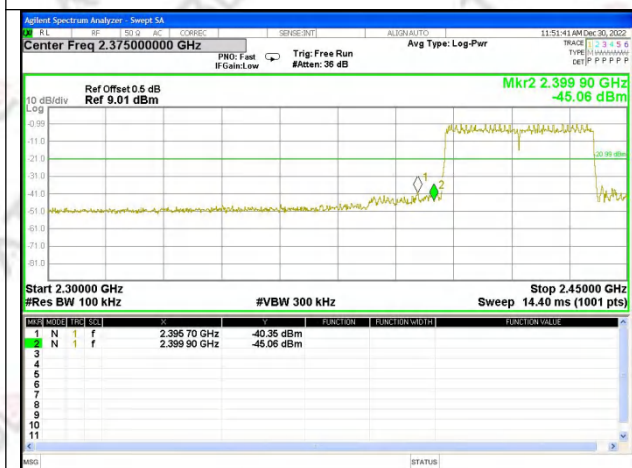
CH3_Ant. 0



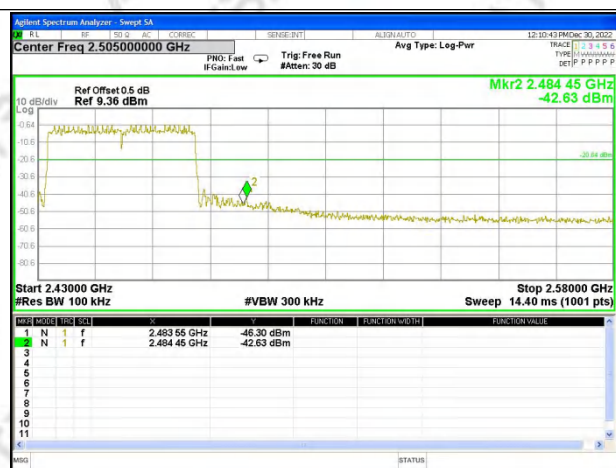
CH9_Ant. 0



CH3_Ant. 1



CH9_Ant. 1



5. POWER SPECTRAL DENSITY TEST

5.1 LIMIT

FCC Part15.247 , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(e) RSS-247 Clause 5.2(b)	Power Spectral Density	≤ 8 dBm (RBW ≥ 3 kHz)	2400-2483.5	PASS

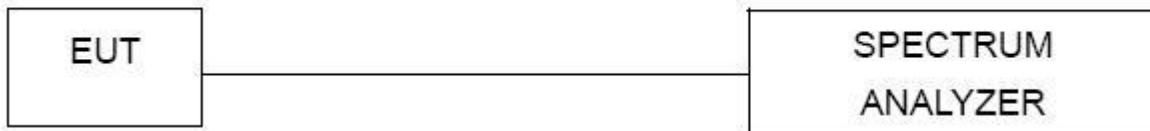
5.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the $100 \text{ kHz} \geq \text{RBW} \geq 3 \text{ kHz}$.
4. Set the $\text{VBW} \geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

5.6 TEST RESULTS

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	DC 19V	Test Mode:	TX b/g/n20/n40/ax20/ax40

802.11b_MIMO

CH.	Freq. (MHz)	Ant. No.	Power Density	Limit (3kHz/dBm)	Result
			(dBm/3kHz)		
CH 1	2412 MHz	0	-2.44	8	PASS
		1	-3.02		
		0+1	0.29		
CH 6	2437 MHz	0	-2.42	8	PASS
		1	-2.24		
		0+1	0.68		
CH 11	2462 MHz	0	-1.55	8	PASS
		1	-0.64		
		0+1	1.94		

802.11g_MIMO

CH.	Freq. (MHz)	Ant. No.	Power Density	Limit (3kHz/dBm)	Result
			(dBm/3kHz)		
CH 1	2412 MHz	0	-8.50	8	PASS
		1	-10.10		
		0+1	-6.22		
CH 6	2437 MHz	0	-8.43	8	PASS
		1	-9.51		
		0+1	-5.93		
CH 11	2462 MHz	0	-7.96	8	PASS
		1	-8.59		
		0+1	-5.25		

802.11n20_MIMO

CH.	Freq. (MHz)	Ant. No.	Power Density	Limit (3kHz/dBm)	Result
			(dBm/3kHz)		
CH 1	2412 MHz	0	-9.42	8	PASS
		1	-10.25		
		0+1	-6.80		
CH 6	2437 MHz	0	-8.37	8	PASS
		1	-9.98		
		0+1	-6.09		
CH 11	2462 MHz	0	-9.41	8	PASS
		1	-10.12		
		0+1	-6.74		

802.11n40_MIMO

CH.	Freq. (MHz)	Ant. No.	Power Density	Limit (3kHz/dBm)	Result
			(dBm/3kHz)		
CH 3	2422 MHz	0	-13.25	8	PASS
		1	-13.49		
		0+1	-10.36		
CH 6	2437 MHz	0	-13.91	8	PASS
		1	-14.34		
		0+1	-11.11		
CH 9	2452 MHz	0	-14.01	8	PASS
		1	-13.74		
		0+1	-10.86		

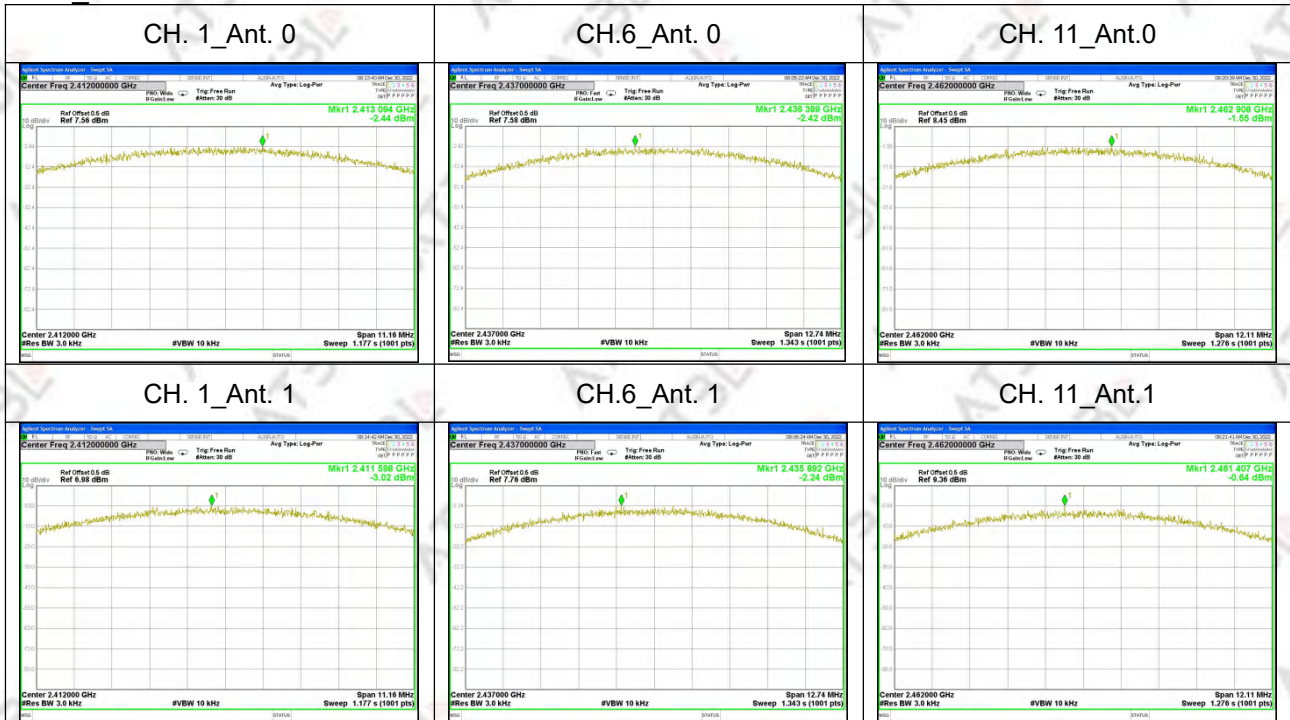
802.11ax20_MIMO

CH.	Freq. (MHz)	Ant. No.	Power Density	Limit (3kHz/dBm)	Result
			(dBm/3kHz)		
CH 1	2412 MHz	0	-11.91	8	PASS
		1	-13.12		
		0+1	-9.46		
CH 6	2437 MHz	0	-11.69	8	PASS
		1	-11.75		
		0+1	-8.71		
CH 11	2462 MHz	0	-11.39	8	PASS
		1	-11.40		
		0+1	-8.38		

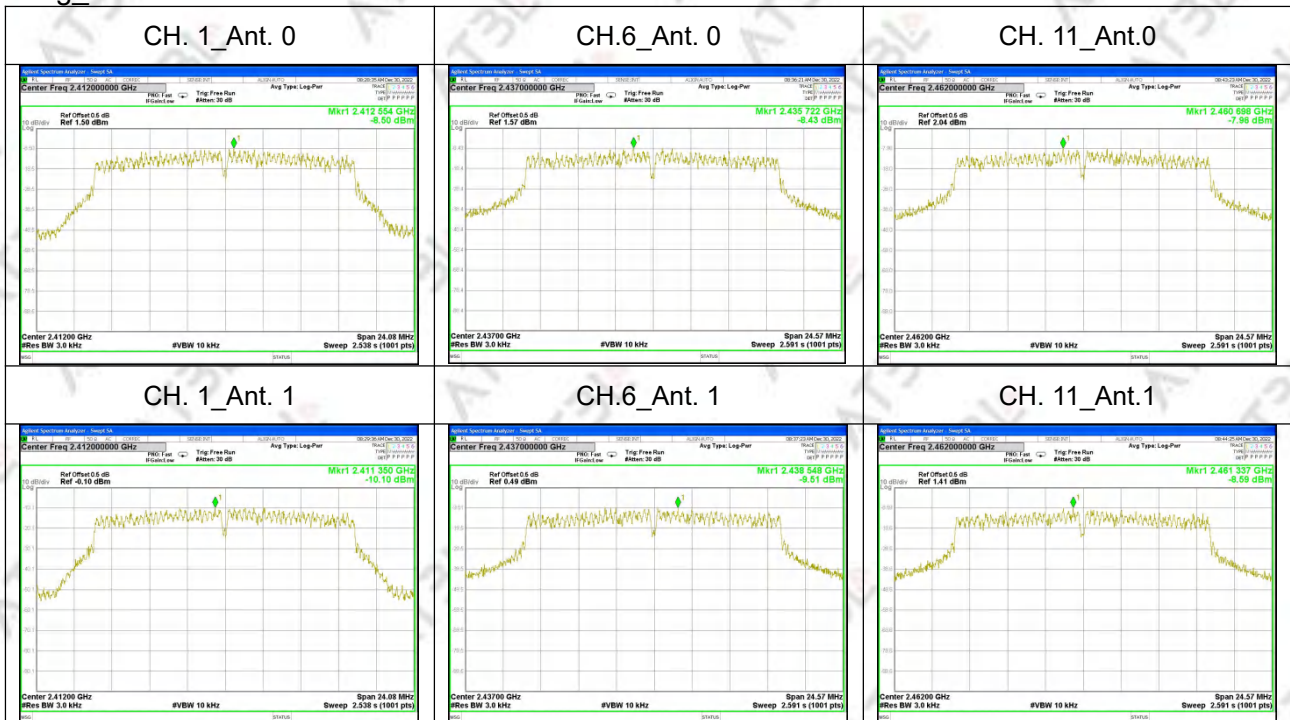
802.11ax40_MIMO

CH.	Freq. (MHz)	Ant. No.	Power Density	Limit (3kHz/dBm)	Result
			(dBm/3kHz)		
CH 3	2422 MHz	0	-16.94	8	PASS
		1	-18.45		
		0+1	-14.62		
CH 6	2437 MHz	0	-17.54	8	PASS
		1	-18.36		
		0+1	-14.92		
CH 9	2452 MHz	0	-16.66	8	PASS
		1	-17.30		
		0+1	-13.96		

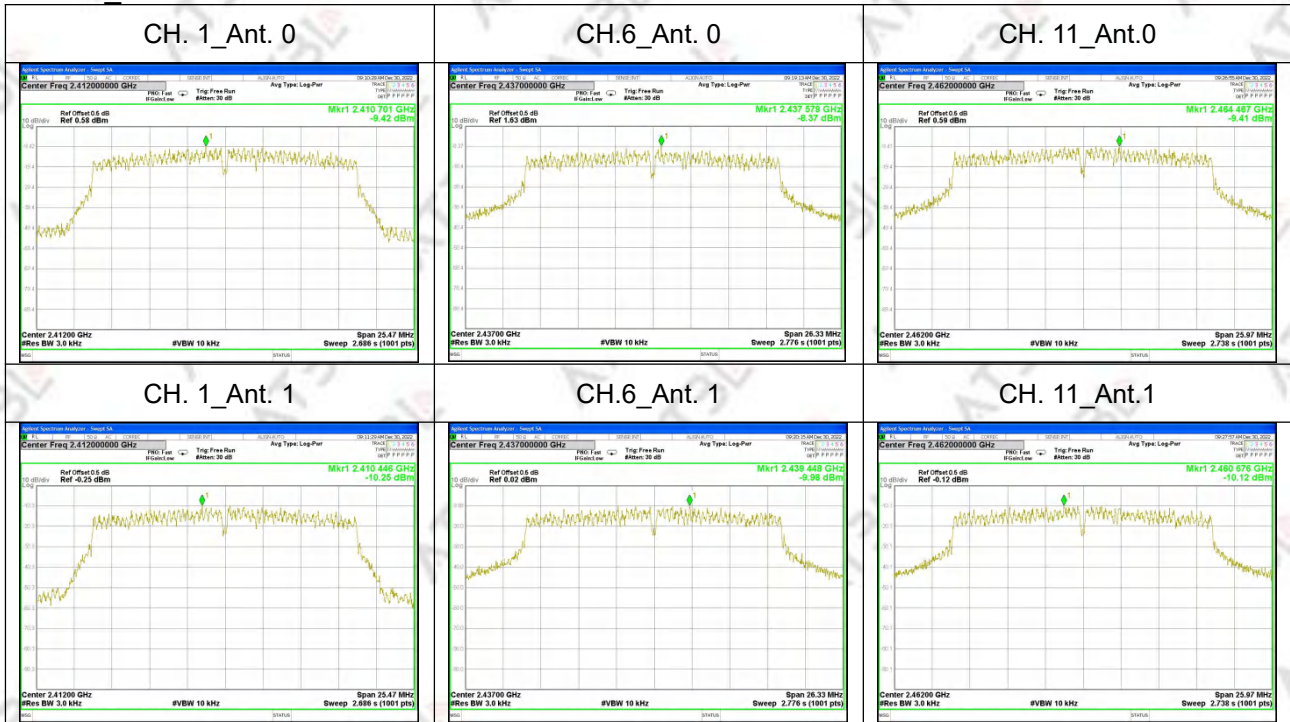
802.11b_MIMO



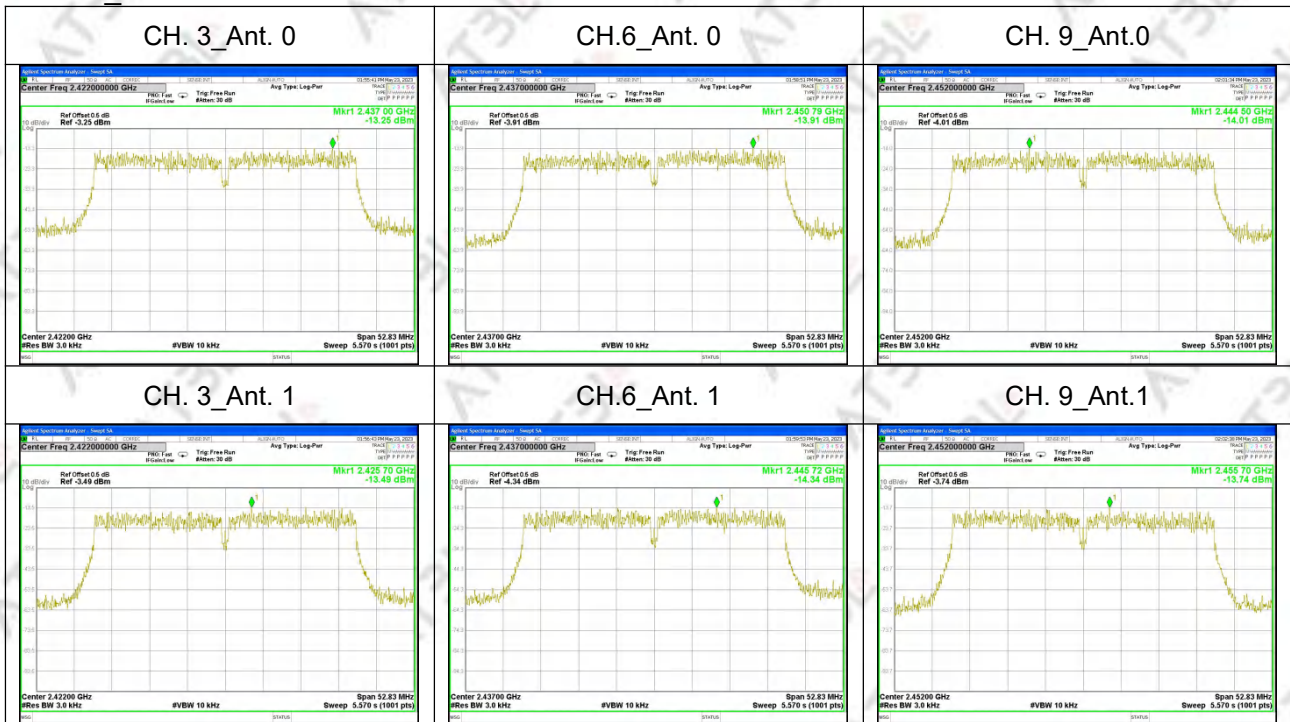
802.11g_MIMO



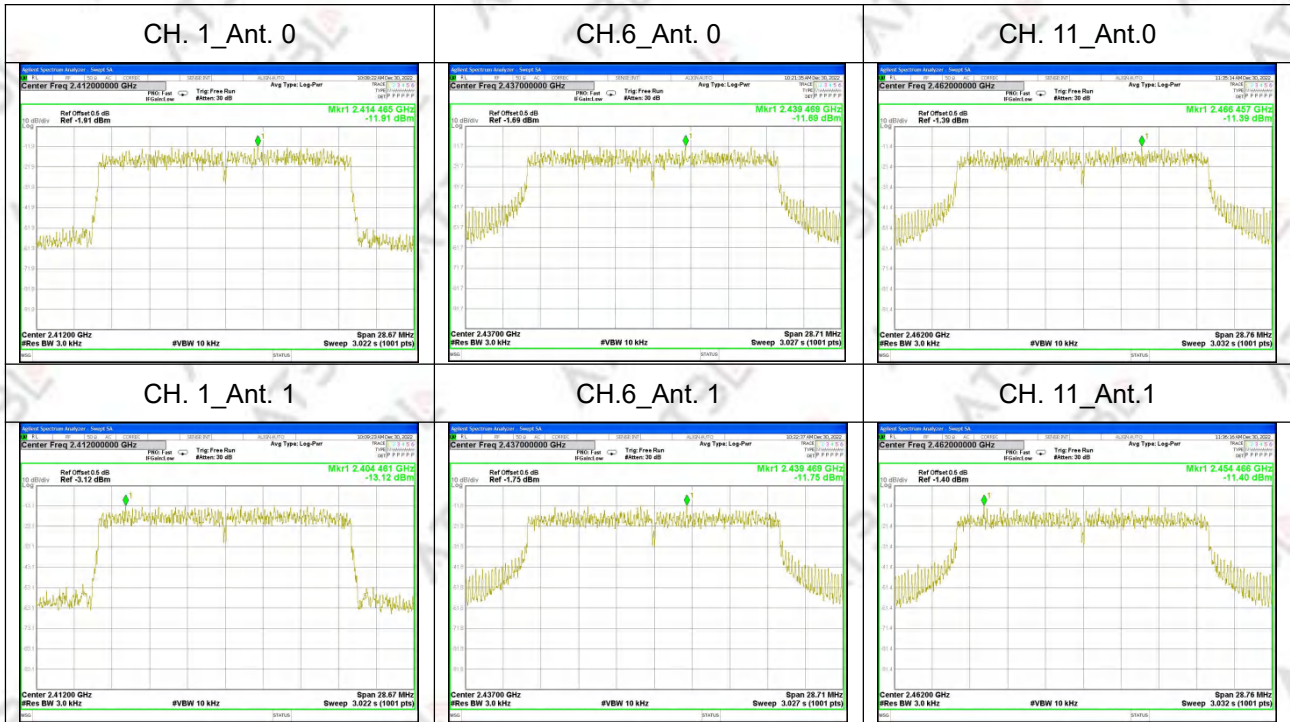
802.11n20_MIMO



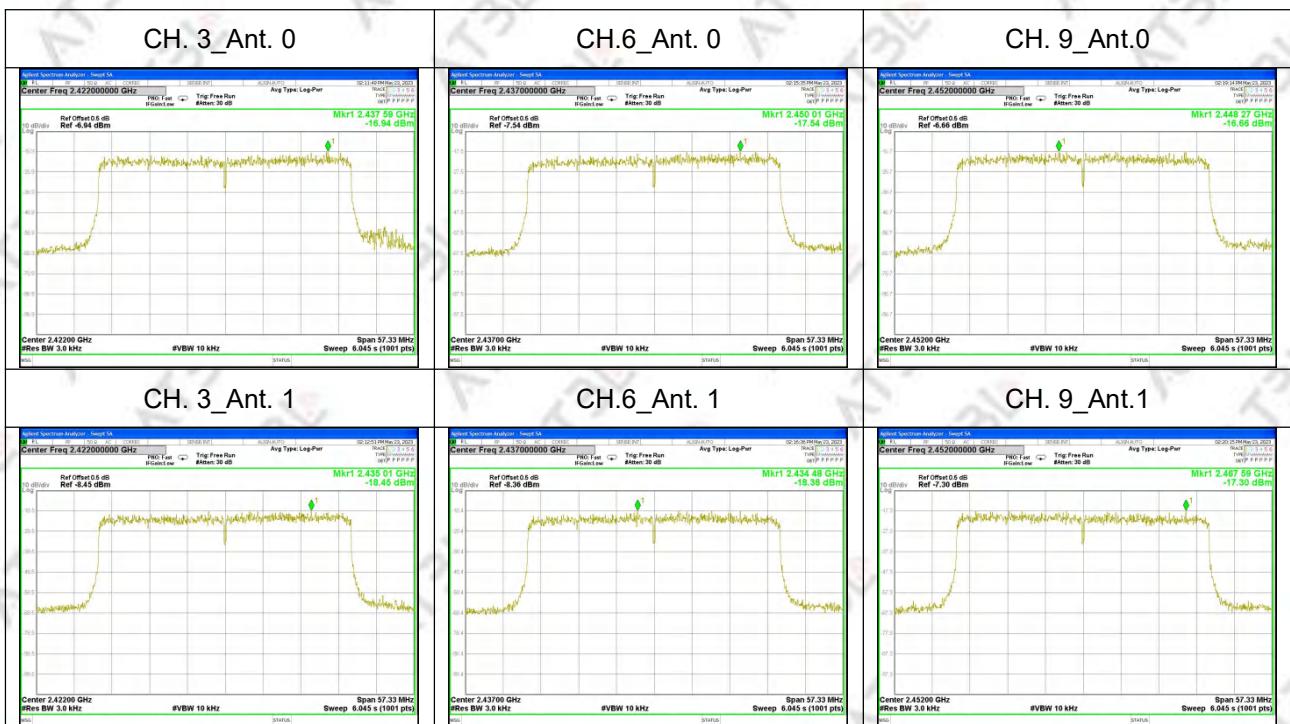
802.11n40_MIMO



802.11ax20



802.11ax40



6. BANDWIDTH TEST

6.1 LIMIT

FCC Part15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{kHz}$ (6dB bandwidth)	2400-2483.5	PASS
15.247	99% Bandwidth	For reporting purposes only.	2400-2483.5	PASS

6.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW $\geq$ 3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

6.6 TEST RESULTS

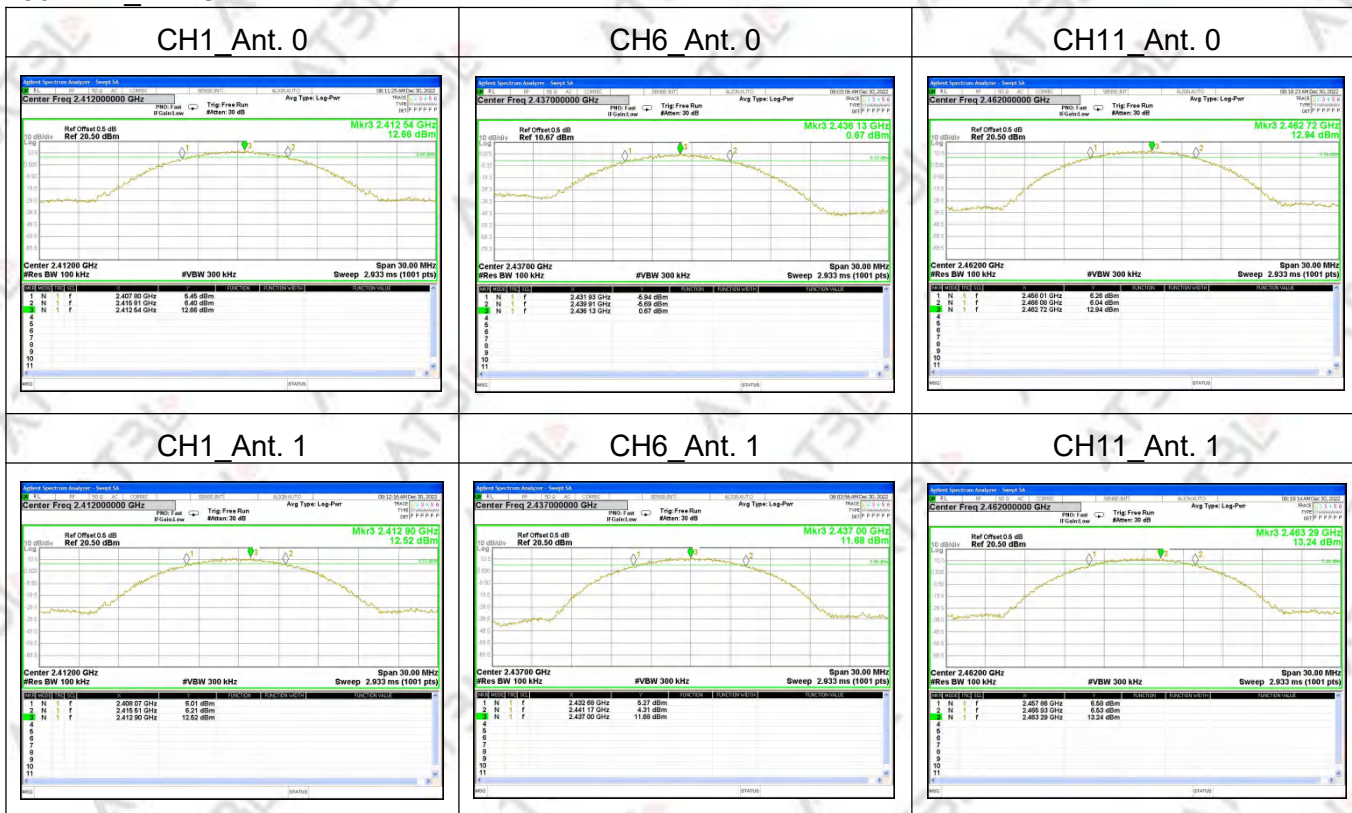
Temperature:	25°C	Relative Humidity:	60%RH
Test Voltage:	DC 19V	Test Mode:	TX b/g/n20/n40/ax20/ax40

Test mode	Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	6dB Bandwidth Limit(kHz)	Result
b_Ant0	2412 MHz	8.010	12.766	≥500kHz	PASS
	2437 MHz	7.980	12.606	≥500kHz	PASS
	2462 MHz	8.070	12.540	≥500kHz	PASS
g_Ant0	2412 MHz	15.720	16.342	≥500kHz	PASS
	2437 MHz	16.410	16.571	≥500kHz	PASS
	2462 MHz	16.410	16.558	≥500kHz	PASS
n20_Ant0	2412 MHz	15.480	17.537	≥500kHz	PASS
	2437 MHz	17.670	17.753	≥500kHz	PASS
	2462 MHz	17.670	17.740	≥500kHz	PASS
N40_Ant0	2422 MHz	35.220	35.950	≥500kHz	PASS
	2437 MHz	35.640	36.091	≥500kHz	PASS
	2452 MHz	35.520	36.040	≥500kHz	PASS
ax20_Ant0	2412 MHz	18.870	18.921	≥500kHz	PASS
	2437 MHz	19.140	19.134	≥500kHz	PASS
	2462 MHz	19.170	19.063	≥500kHz	PASS
ax40_Ant0	2422 MHz	38.160	37.813	≥500kHz	PASS
	2437 MHz	38.220	37.922	≥500kHz	PASS
	2452 MHz	38.220	37.905	≥500kHz	PASS

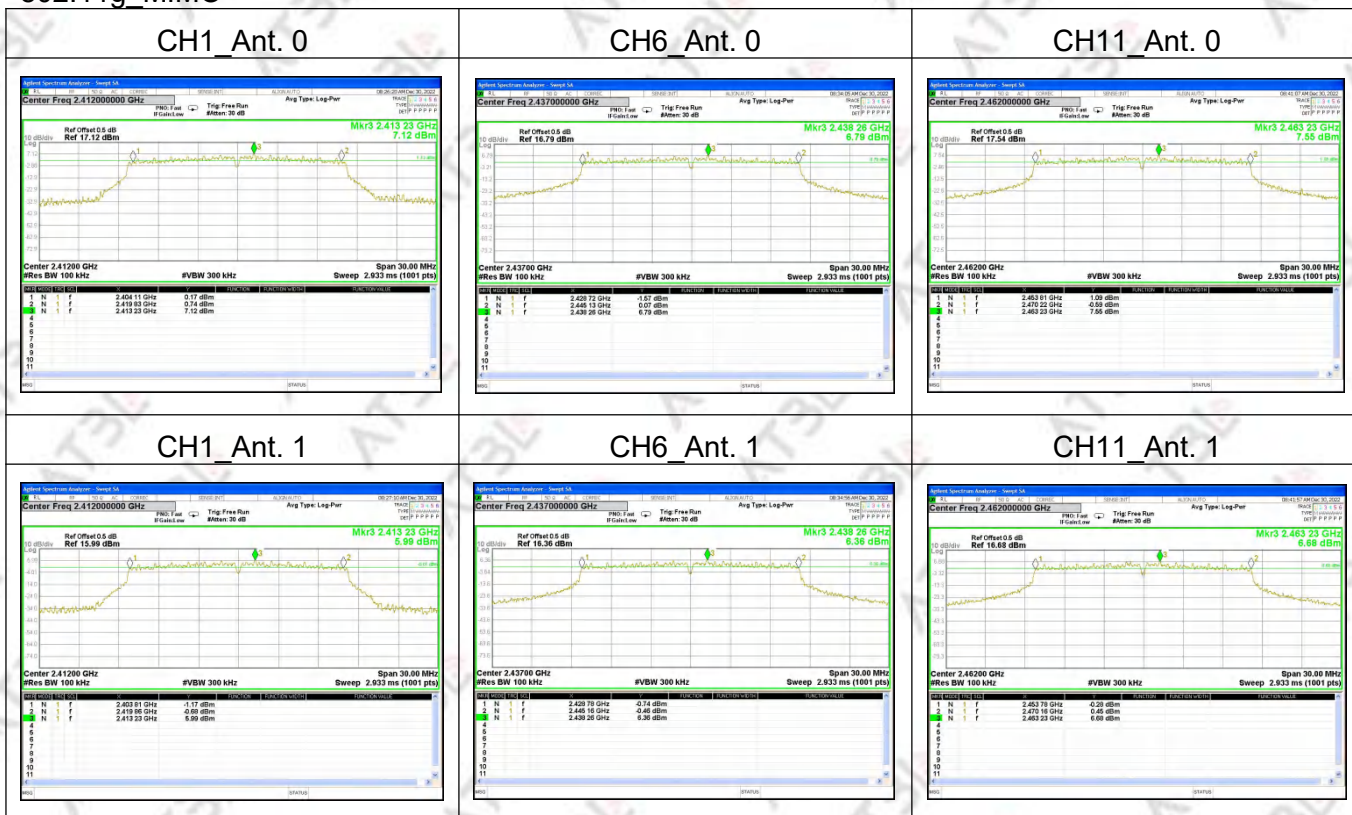
Test mode	Frequency	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	6dB Bandwidth Limit(kHz)	Result
b_Ant1	2412 MHz	7.440	12.614	≥500kHz	PASS
	2437 MHz	8.490	12.458	≥500kHz	PASS
	2462 MHz	8.070	12.573	≥500kHz	PASS
g_Ant1	2412 MHz	16.050	16.374	≥500kHz	PASS
	2437 MHz	16.380	16.558	≥500kHz	PASS
	2462 MHz	16.380	16.533	≥500kHz	PASS
n20_Ant1	2412 MHz	16.980	17.538	≥500kHz	PASS
	2437 MHz	17.550	17.763	≥500kHz	PASS
	2462 MHz	17.310	17.735	≥500kHz	PASS
N40_Ant1	2422 MHz	35.220	36.035	≥500kHz	PASS
	2437 MHz	35.220	35.971	≥500kHz	PASS
	2452 MHz	35.220	35.961	≥500kHz	PASS
ax20_Ant1	2412 MHz	19.110	18.983	≥500kHz	PASS
	2437 MHz	19.140	19.129	≥500kHz	PASS
	2462 MHz	19.170	19.088	≥500kHz	PASS
ax40_Ant1	2422 MHz	38.220	37.874	≥500kHz	PASS
	2437 MHz	38.220	37.879	≥500kHz	PASS
	2452 MHz	38.220	37.774	≥500kHz	PASS

6dB Bandwidth

802.11b_MIMO



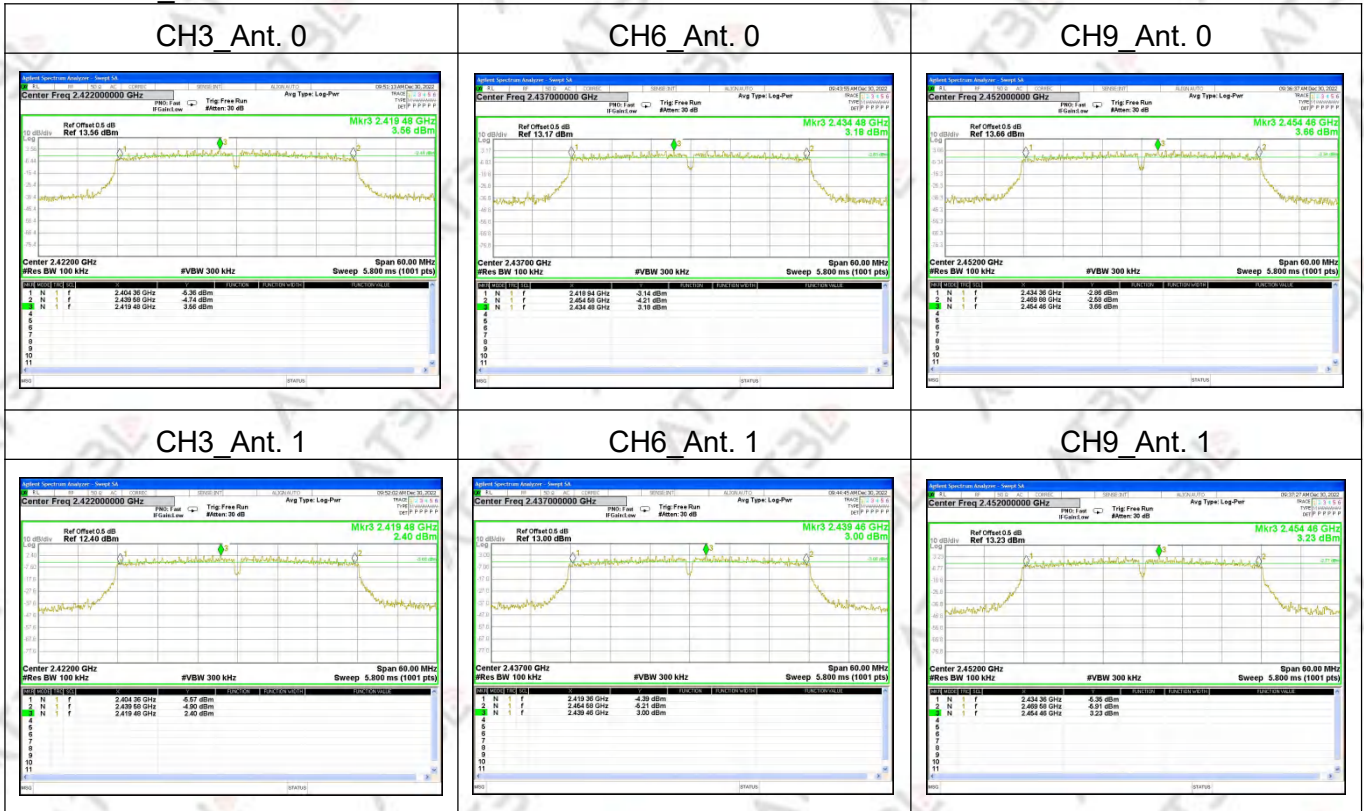
802.11g_MIMO



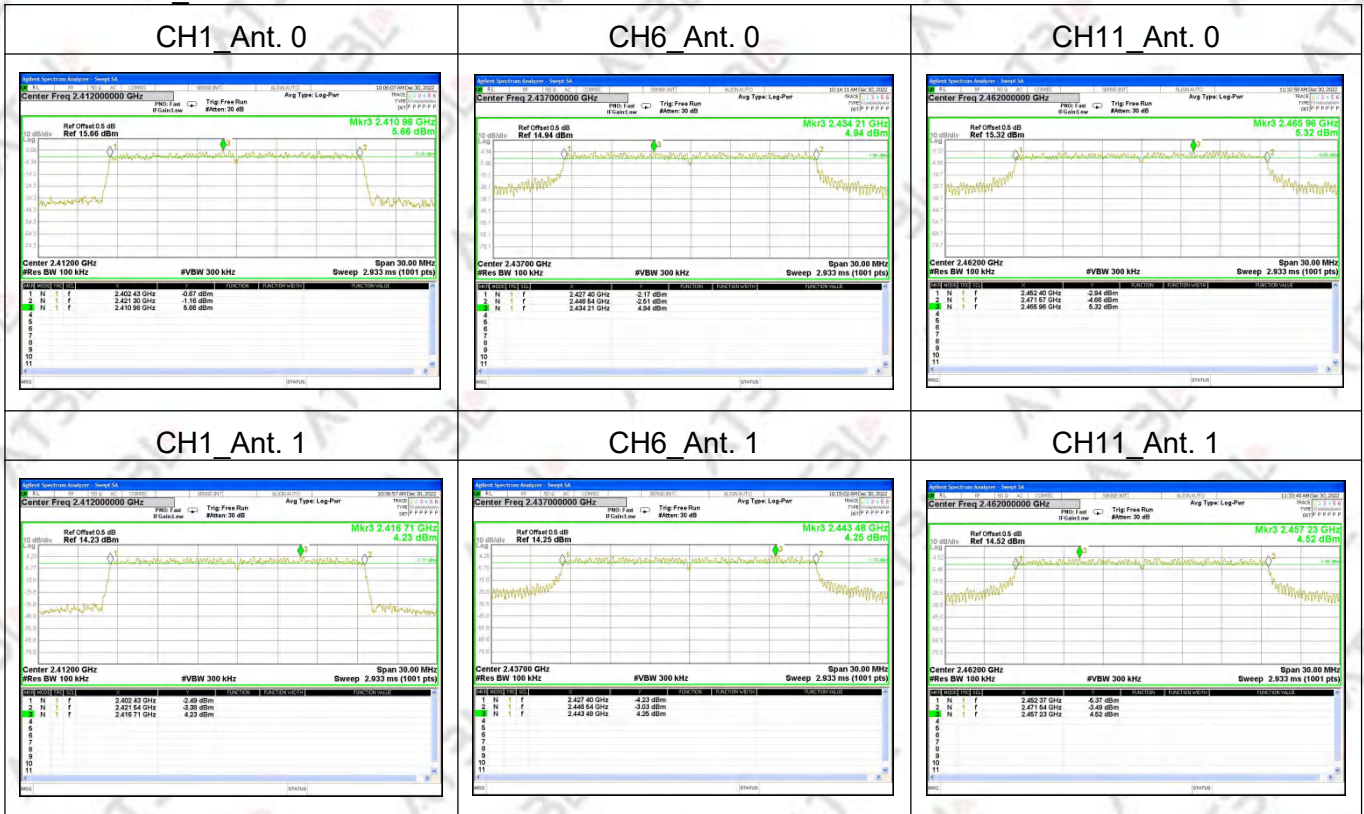
802.11n20_MIMO



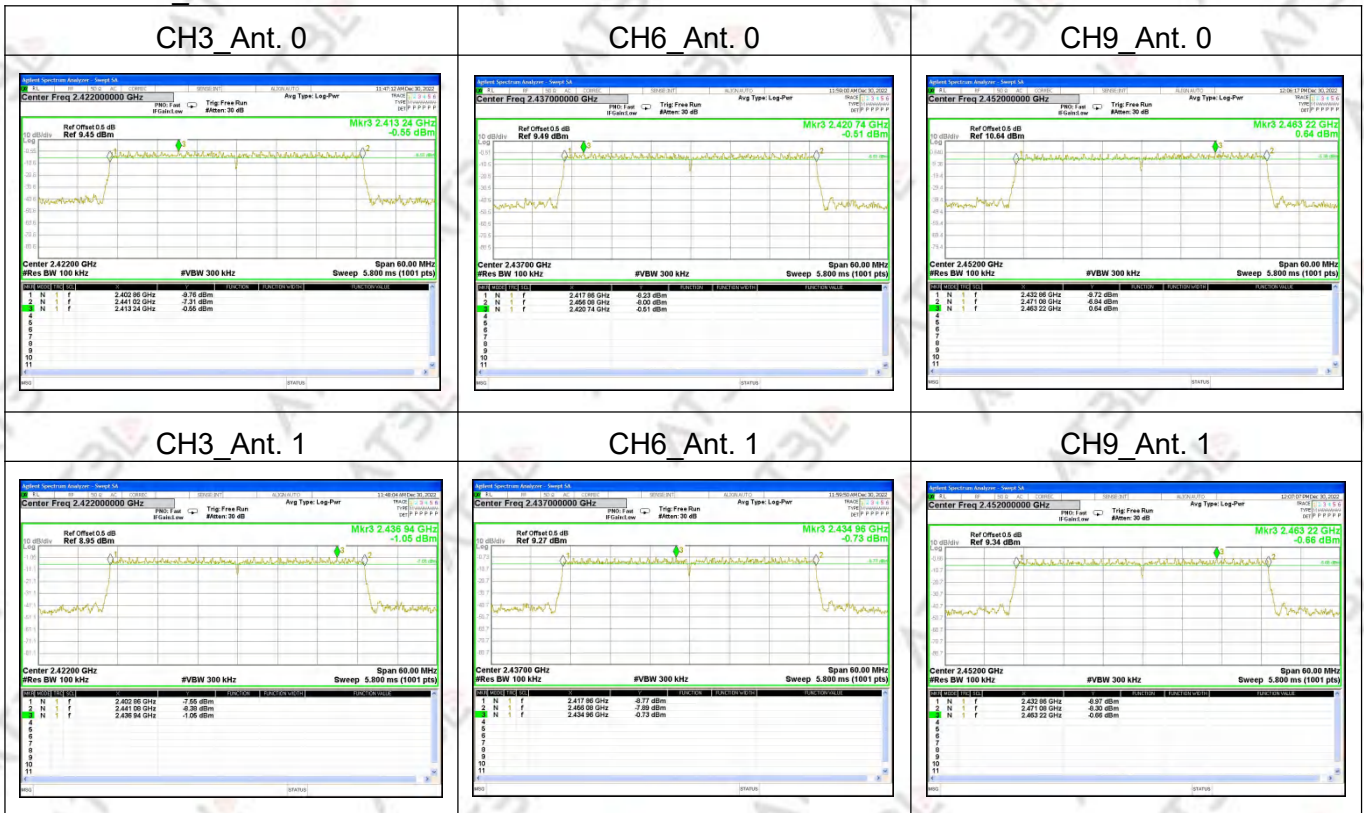
802.11n40_MIMO



802.11ax20_MIMO

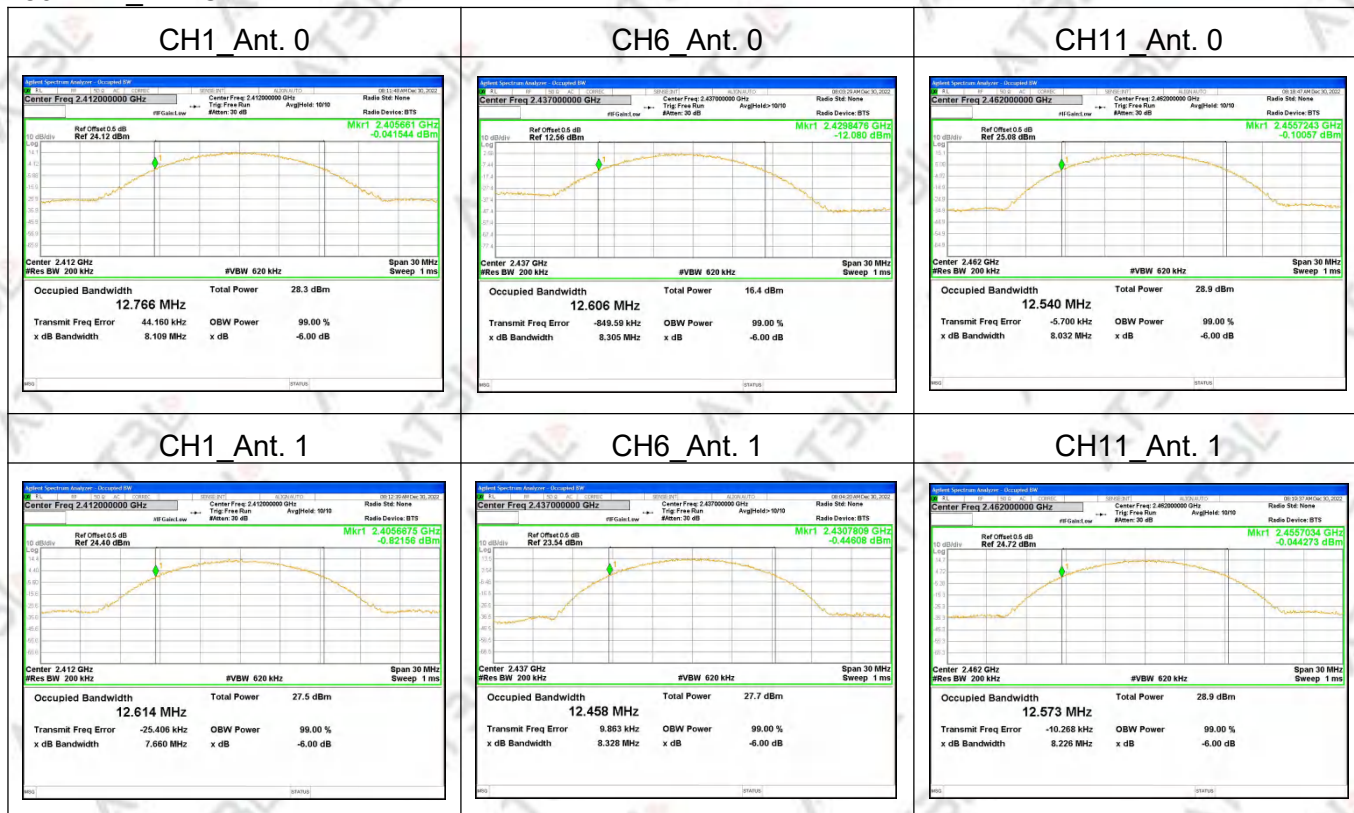


802.11ax40_MIMO

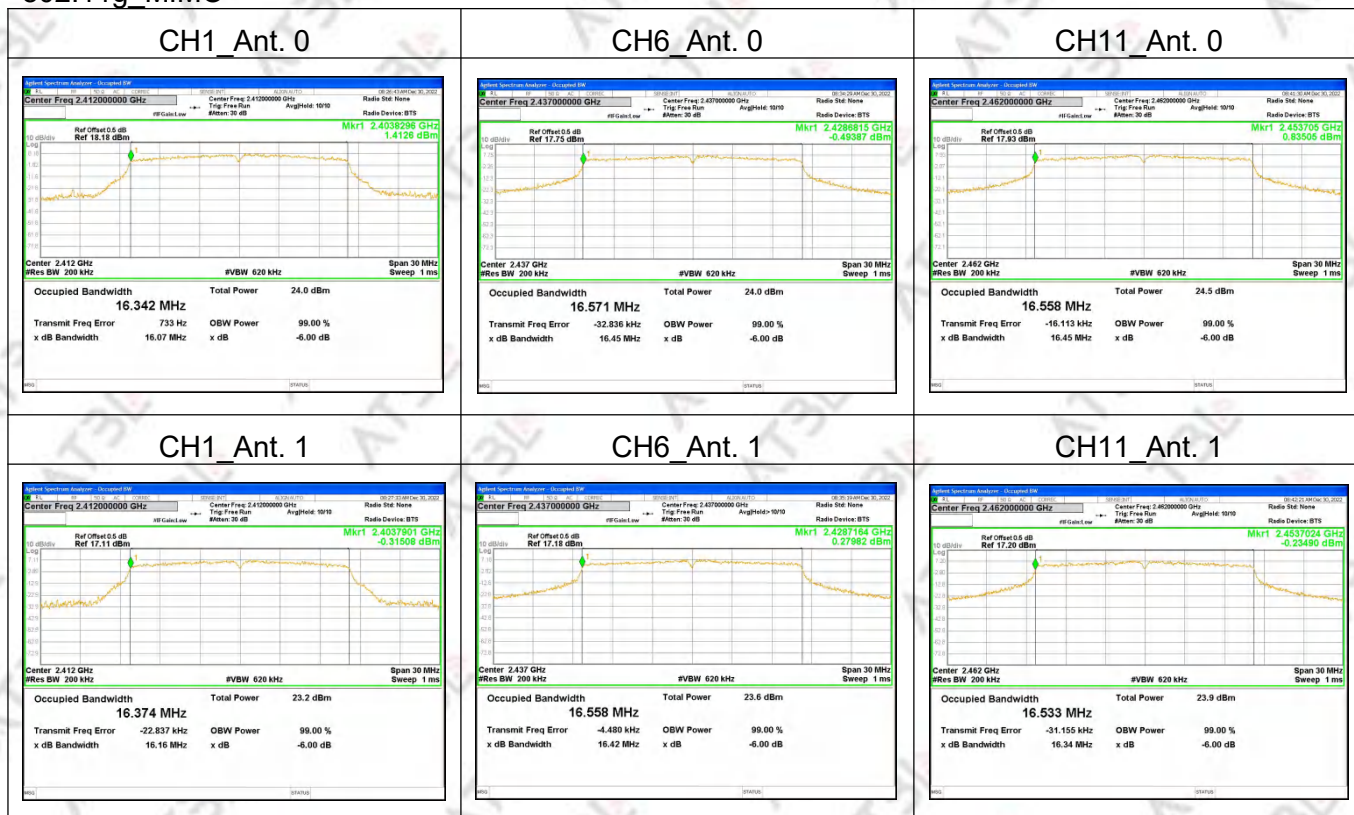


99% Bandwidth

802.11b_MIMO



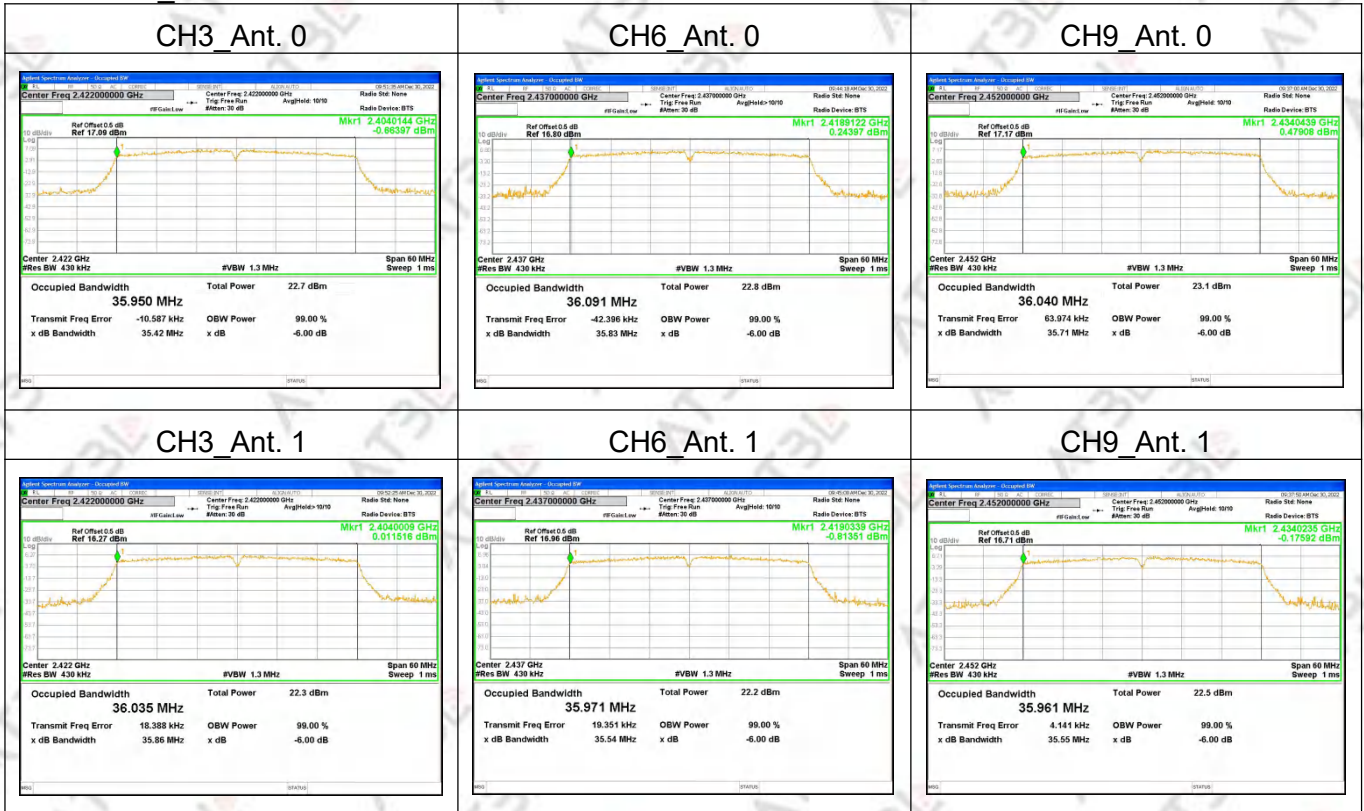
802.11g_MIMO



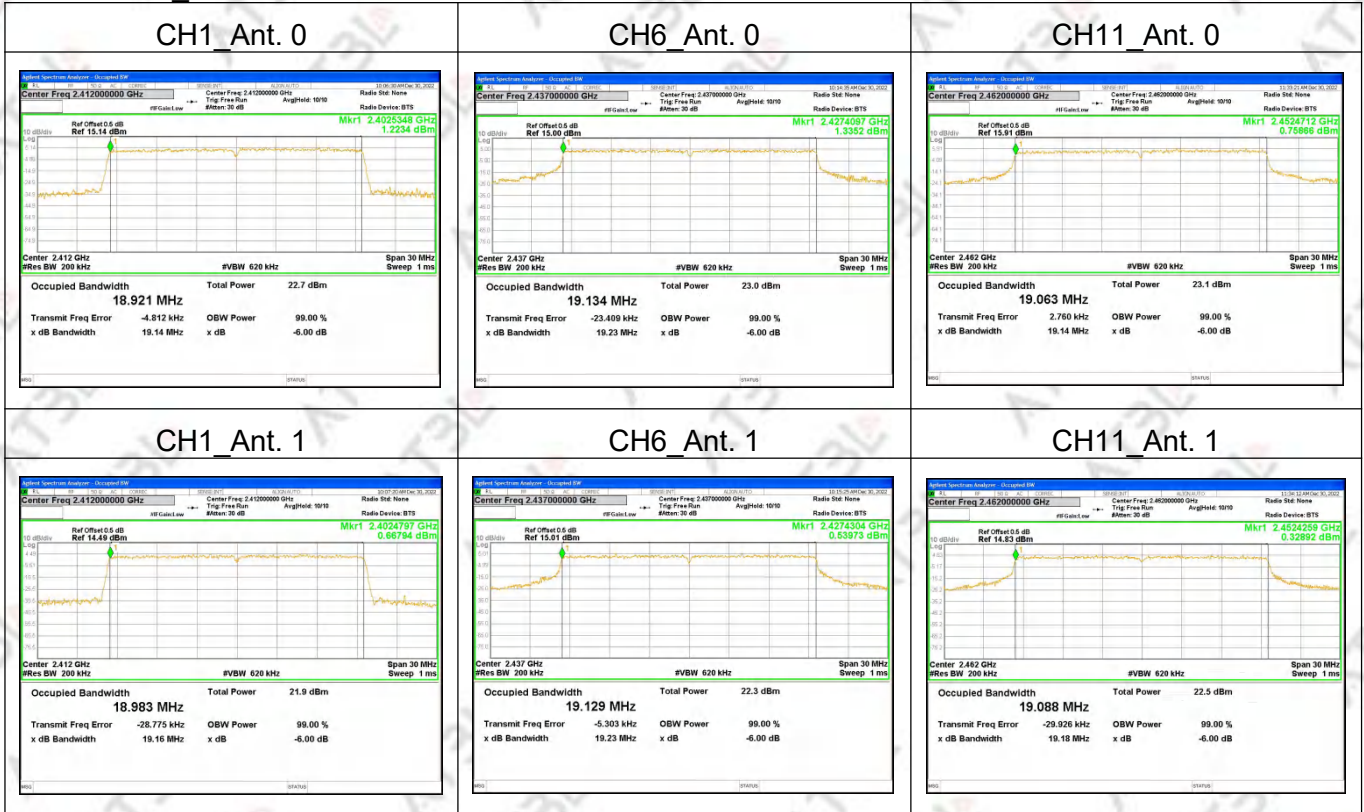
802.11n20_MIMO



802.11n40_MIMO



802.11ax20_MIMO



802.11ax40_MIMO



7. PEAK OUTPUT POWER TEST

7.1 LIMIT

FCC Part15.247				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3) RSS-247 Clause 5.4(d)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.2 TEST PROCEDURE

PKPM1 Peak power meter method:

The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast-responding diode detector.

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.

7.6 TEST RESULTS

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	DC 19V	Test Mode:	TX b/g/n20/n40/ax20/ax40

802.11b_MIMO

CH.	Freq. (MHz)	Ant. No.	Power(EIRP) (dBm)	Limit (dBm)	Result
CH 1	2412 MHz	0	23.27	36	PASS
		1	22.52		
		0+1	25.92		
CH 6	2437 MHz	0	23.40	36	PASS
		1	22.67		
		0+1	26.06		
CH 11	2462 MHz	0	23.62	36	PASS
		1	22.96		
		0+1	26.31		

802.11g_MIMO

CH.	Freq. (MHz)	Ant. No.	Power(EIRP) (dBm)	Limit (dBm)	Result
CH 1	2412 MHz	0	25.42	36	PASS
		1	25.42		
		0+1	28.43		
CH 6	2437 MHz	0	25.36	36	PASS
		1	25.40		
		0+1	28.39		
CH 11	2462 MHz	0	25.48	36	PASS
		1	25.28		
		0+1	28.39		

802.11n20_MIMO

CH.	Freq. (MHz)	Ant. No.	Power(EIRP) (dBm)	Limit (dBm)	Result
CH 1	2412 MHz	0	25.33	36	PASS
		1	25.43		
		0+1	28.39		
CH 6	2437 MHz	0	25.31	36	PASS
		1	25.38		
		0+1	28.36		
CH 11	2462 MHz	0	25.45	36	PASS
		1	25.21		
		0+1	28.34		

802.11n40_MIMO

CH.	Freq. (MHz)	Ant. No.	Power(EIRP) (dBm)	Limit (dBm)	Result
CH 3	2422 MHz	0	24.89	36	PASS
		1	24.83		
		0+1	27.87		
CH 6	2437 MHz	0	25.10	36	PASS
		1	25.09		
		0+1	28.11		
CH 9	2452 MHz	0	25.19	36	PASS
		1	24.92		
		0+1	28.07		

802.11ax20_MIMO

CH.	Freq. (MHz)	Ant. No.	Power(EIRP) (dBm)	Limit (dBm)	Result
CH 1	2412 MHz	0	23.81	36	PASS
		1	24.76		
		0+1	27.32		
CH 6	2437 MHz	0	24.63	36	PASS
		1	24.74		
		0+1	27.70		
CH 11	2462 MHz	0	24.05	36	PASS
		1	24.12		
		0+1	27.10		

802.11ax40_MIMO

CH.	Freq. (MHz)	Ant. No.	Power(EIRP) (dBm)	Limit (dBm)	Result
CH 3	2422 MHz	0	23.29	36	PASS
		1	22.60		
		0+1	25.97		
CH 6	2437 MHz	0	23.63	36	PASS
		1	24.18		
		0+1	26.92		
CH 9	2452 MHz	0	24.60	36	PASS
		1	23.51		
		0+1	27.10		

Note:

Our power sensor test AVG power has no duty cycle display. The power sensor measures AVG power is Burst power. The software has considered the factor of the duty cycle factor, so it is unnecessary to add it again.

8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

8.2 EUT ANTENNA

The EUT antenna is PCB antenna. It comply with the standard requirement.

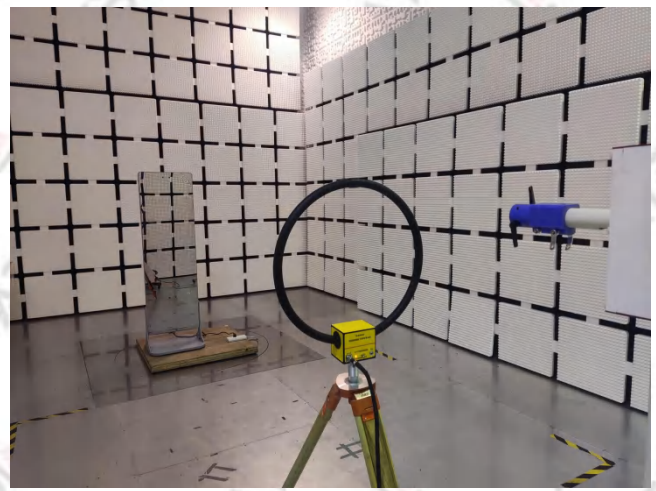
APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

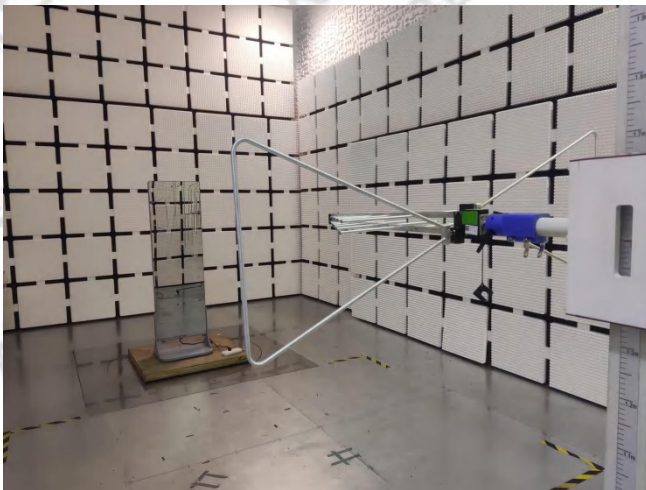
AC Power Line Conducted Emissions



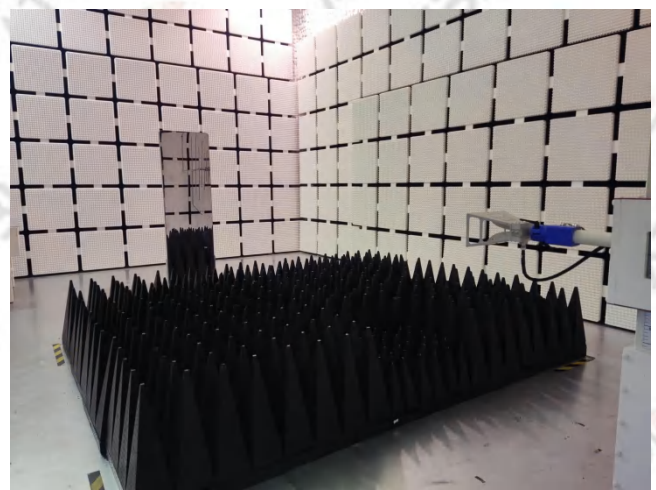
Radiated Emissions for 9kHz~30MHz



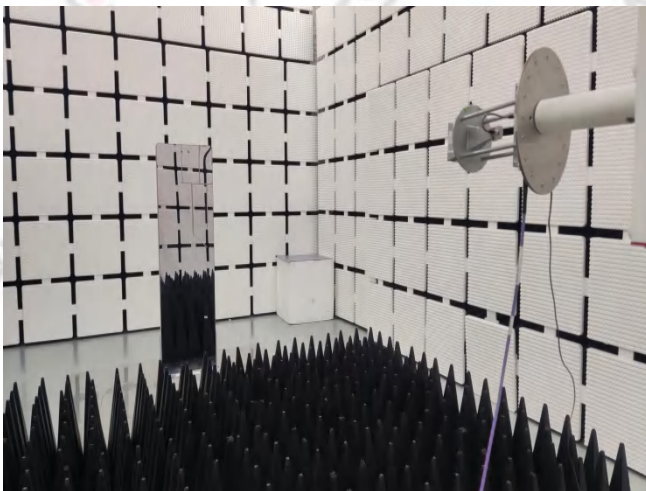
Radiated Emissions for 30MHz~1GHz



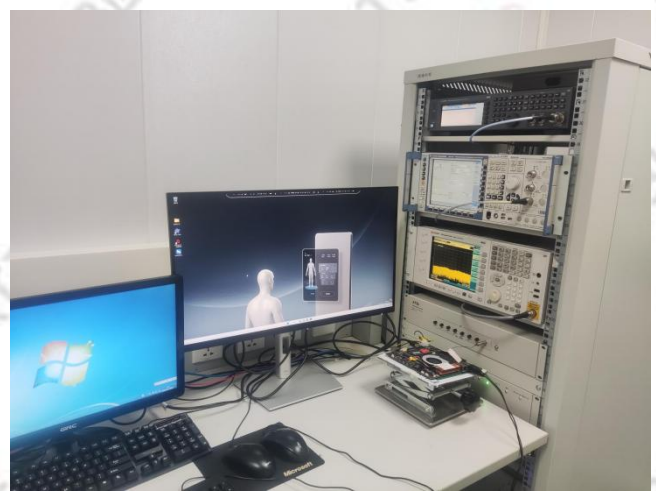
Radiated Emissions for 1GHz~18GHz



Radiated Emissions for above 18GHz



Conducted for RF



*****END OF THE REPORT*****