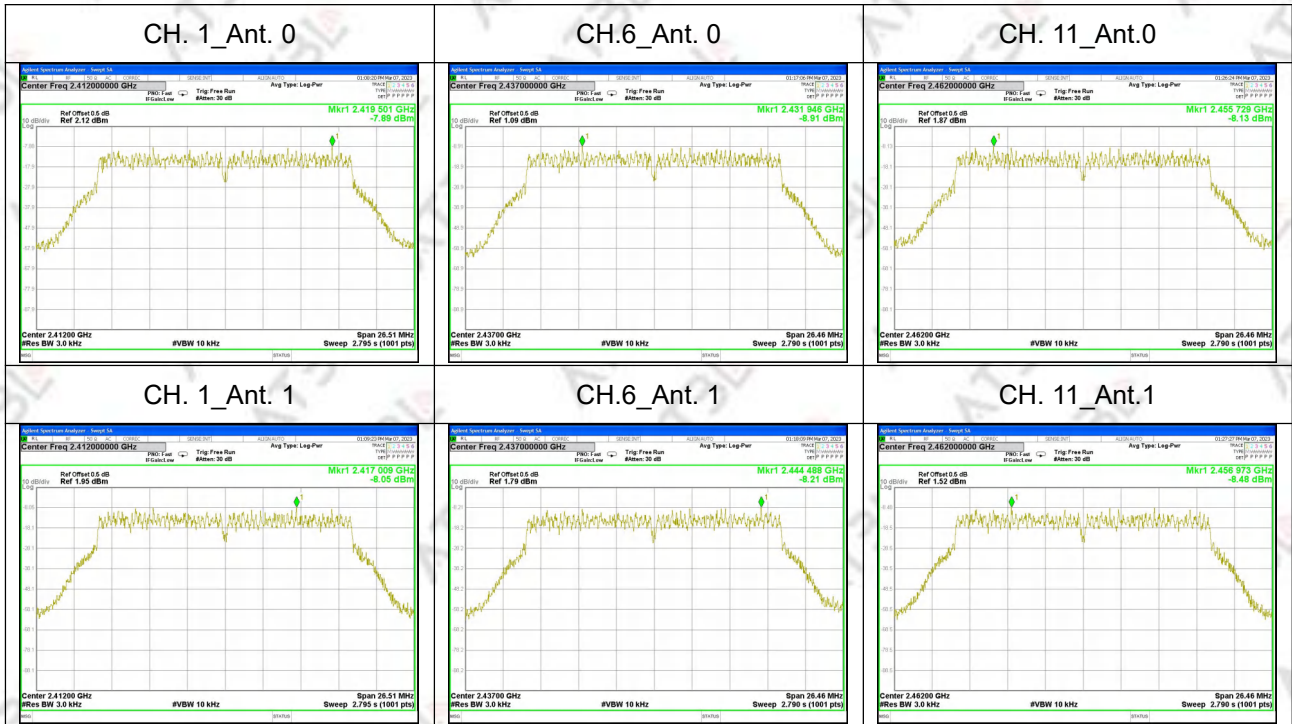
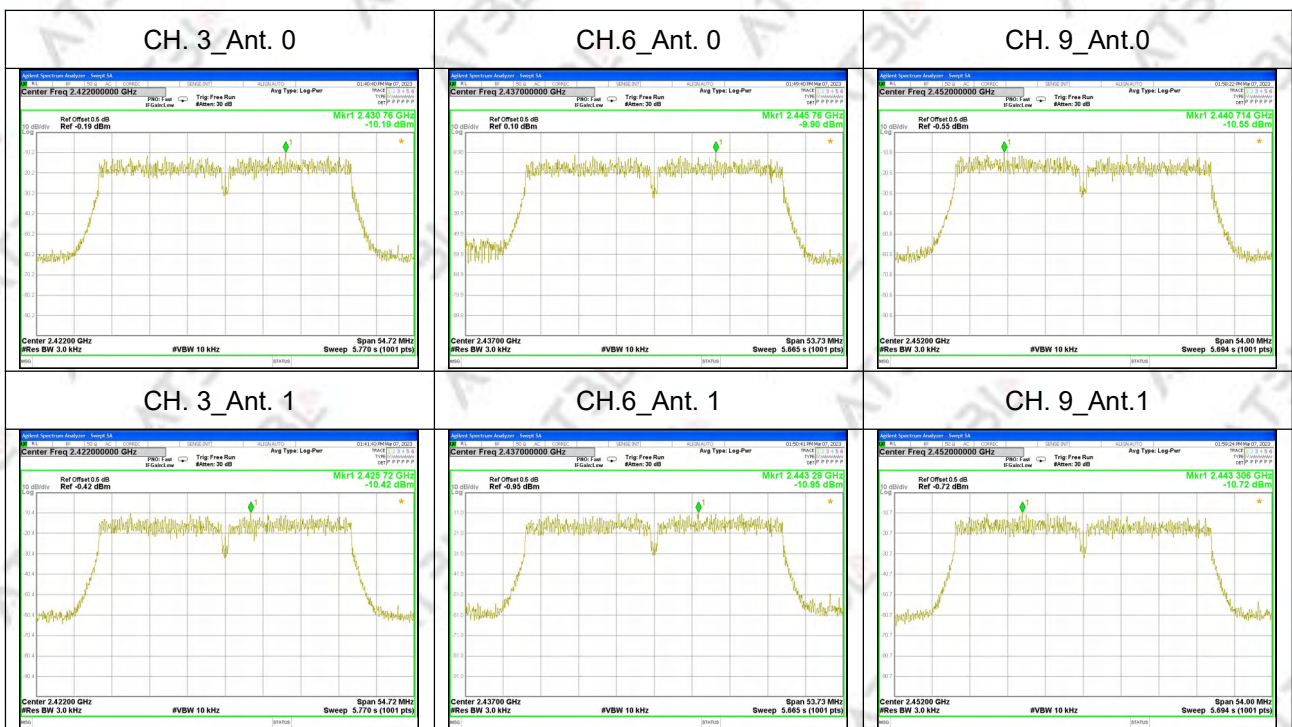


802.11ac20



802.11ac40



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 $\geq$ 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

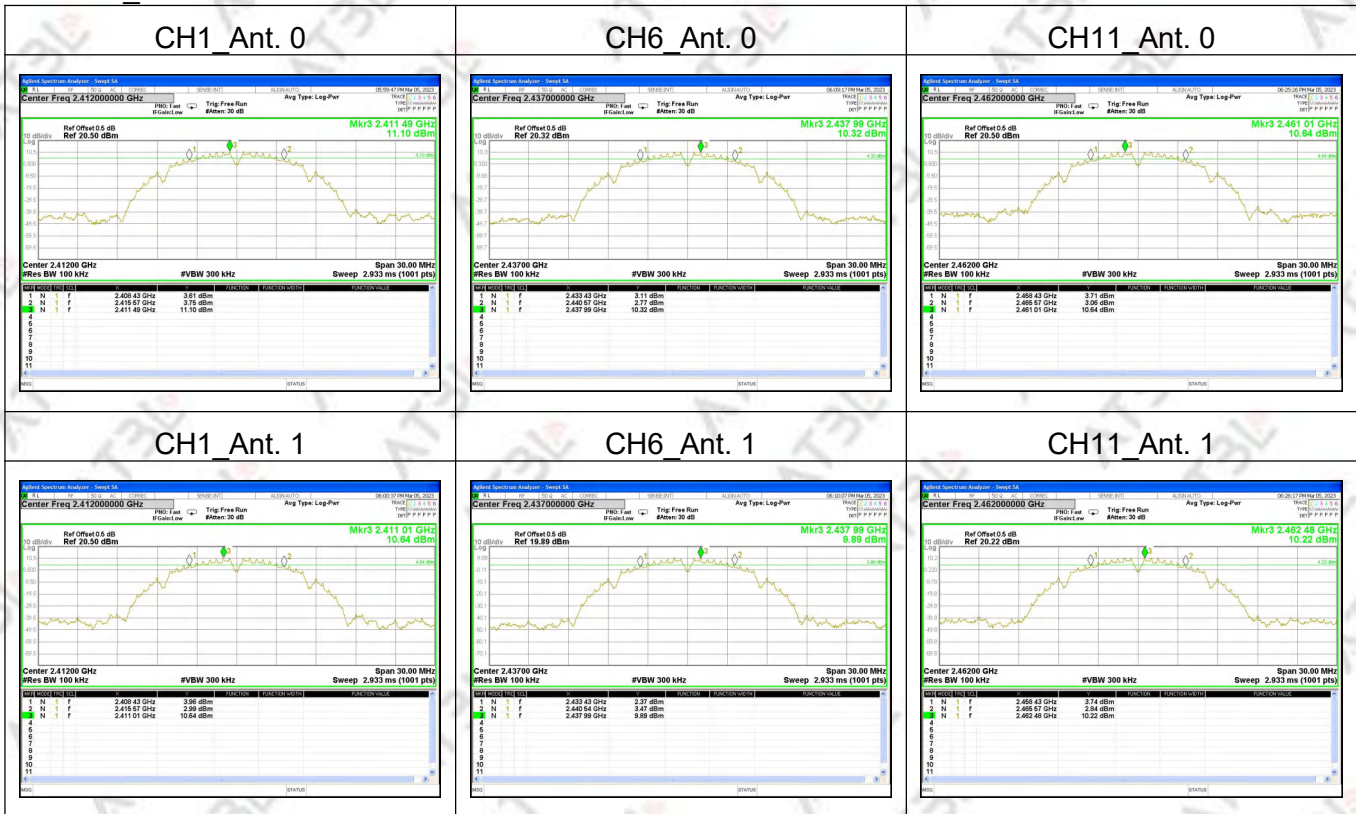
Temperature:	25°C	Relative Humidity:	60%RH
Test Voltage:	AC 120V/60Hz	Test Mode:	TX

6dB & 99% Bandwidth							
Condition	Mode	Frequency (MHz)	99%OBW (MHz)	6BW(MHz)	Frequency Range(MHz)	Result	Remark
NVNT	11b	2412	10.21	7.14	2400-2483.5	Pass	Ant0
NVNT	11b	2412	10.176	7.14	2400-2483.5	Pass	Ant1
NVNT	11b	2437	10.189	7.14	2400-2483.5	Pass	Ant0
NVNT	11b	2437	10.207	7.11	2400-2483.5	Pass	Ant1
NVNT	11b	2462	10.155	7.14	2400-2483.5	Pass	Ant0
NVNT	11b	2462	10.228	7.14	2400-2483.5	Pass	Ant1
NVNT	11g	2412	16.876	16.41	2400-2483.5	Pass	Ant0
NVNT	11g	2412	16.561	16.38	2400-2483.5	Pass	Ant1
NVNT	11g	2437	16.782	16.17	2400-2483.5	Pass	Ant0
NVNT	11g	2437	16.51	16.14	2400-2483.5	Pass	Ant1
NVNT	11g	2462	16.871	16.44	2400-2483.5	Pass	Ant0
NVNT	11g	2462	16.585	16.38	2400-2483.5	Pass	Ant1
NVNT	11n20	2412	17.862	17.64	2400-2483.5	Pass	Ant0
NVNT	11n20	2412	17.779	17.67	2400-2483.5	Pass	Ant1
NVNT	11n20	2437	17.816	17.61	2400-2483.5	Pass	Ant0
NVNT	11n20	2437	17.736	17.61	2400-2483.5	Pass	Ant1
NVNT	11n20	2462	17.872	17.64	2400-2483.5	Pass	Ant0
NVNT	11n20	2462	17.799	17.67	2400-2483.5	Pass	Ant1
NVNT	11n40	2422	36.236	35.82	2400-2483.5	Pass	Ant0
NVNT	11n40	2422	36.298	36.48	2400-2483.5	Pass	Ant1
NVNT	11n40	2437	36.101	35.64	2400-2483.5	Pass	Ant0
NVNT	11n40	2437	36.234	35.82	2400-2483.5	Pass	Ant1
NVNT	11n40	2452	36.225	36.06	2400-2483.5	Pass	Ant0
NVNT	11n40	2452	36.19	35.82	2400-2483.5	Pass	Ant1
NVNT	11ac20	2412	17.901	17.67	2400-2483.5	Pass	Ant0
NVNT	11ac20	2412	17.824	17.67	2400-2483.5	Pass	Ant1
NVNT	11ac20	2437	17.825	17.64	2400-2483.5	Pass	Ant0
NVNT	11ac20	2437	17.766	17.64	2400-2483.5	Pass	Ant1
NVNT	11ac20	2462	17.892	17.67	2400-2483.5	Pass	Ant0
NVNT	11ac20	2462	17.807	17.64	2400-2483.5	Pass	Ant1
NVNT	11ac40	2422	36.274	36.42	2400-2483.5	Pass	Ant0
NVNT	11ac40	2422	36.299	36.48	2400-2483.5	Pass	Ant1
NVNT	11ac40	2437	36.219	35.82	2400-2483.5	Pass	Ant0
NVNT	11ac40	2437	36.201	35.82	2400-2483.5	Pass	Ant1
NVNT	11ac40	2452	36.312	36.18	2400-2483.5	Pass	Ant0
NVNT	11ac40	2452	36.213	36	2400-2483.5	Pass	Ant1
NVNT	11ax20	2412	19.045	18.96	2400-2483.5	Pass	Ant0
NVNT	11ax20	2412	19.037	18.87	2400-2483.5	Pass	Ant1
NVNT	11ax20	2437	19.016	18.84	2400-2483.5	Pass	Ant0
NVNT	11ax20	2437	18.984	18.93	2400-2483.5	Pass	Ant1
NVNT	11ax20	2462	19.094	18.93	2400-2483.5	Pass	Ant0
NVNT	11ax20	2462	19.019	18.96	2400-2483.5	Pass	Ant1
NVNT	11ax40	2422	37.601	37.74	2400-2483.5	Pass	Ant0
NVNT	11ax40	2422	37.596	37.68	2400-2483.5	Pass	Ant1
NVNT	11ax40	2437	37.465	36.48	2400-2483.5	Pass	Ant0

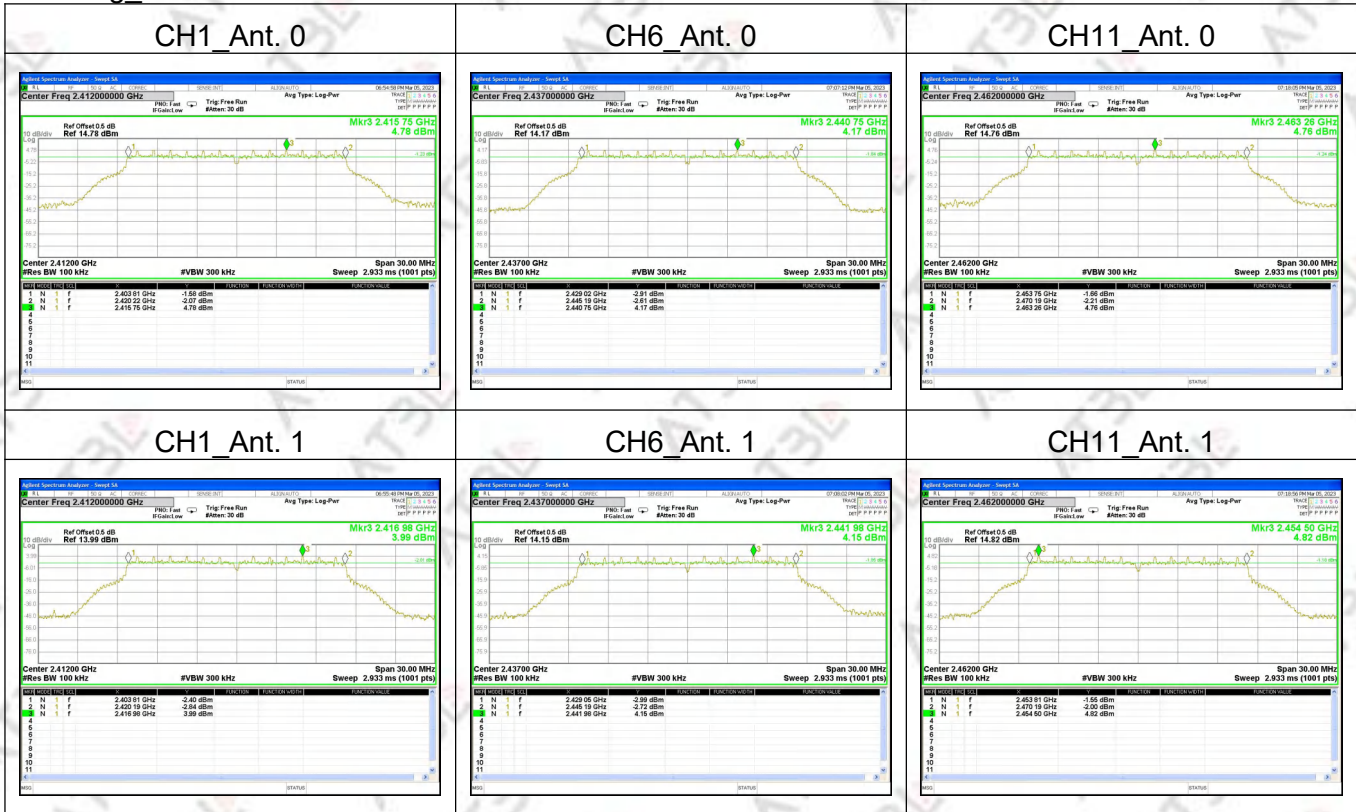
NVNT	11ax40	2437	37.484	36.66	2400-2483.5	Pass	Ant1
NVNT	11ax40	2452	37.583	37.5	2400-2483.5	Pass	Ant0
NVNT	11ax40	2452	37.536	37.38	2400-2483.5	Pass	Ant1

6dB Bandwidth

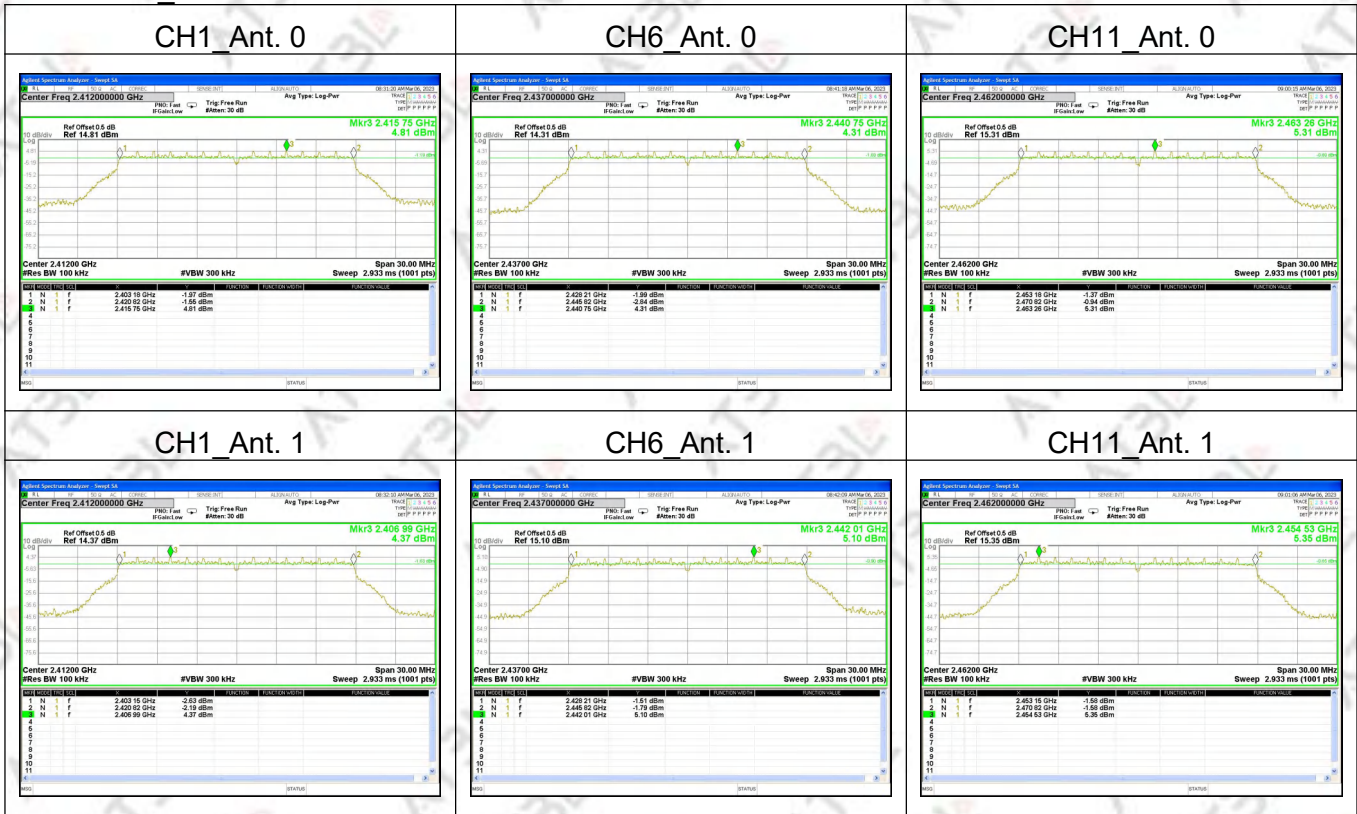
802.11b_MIMO



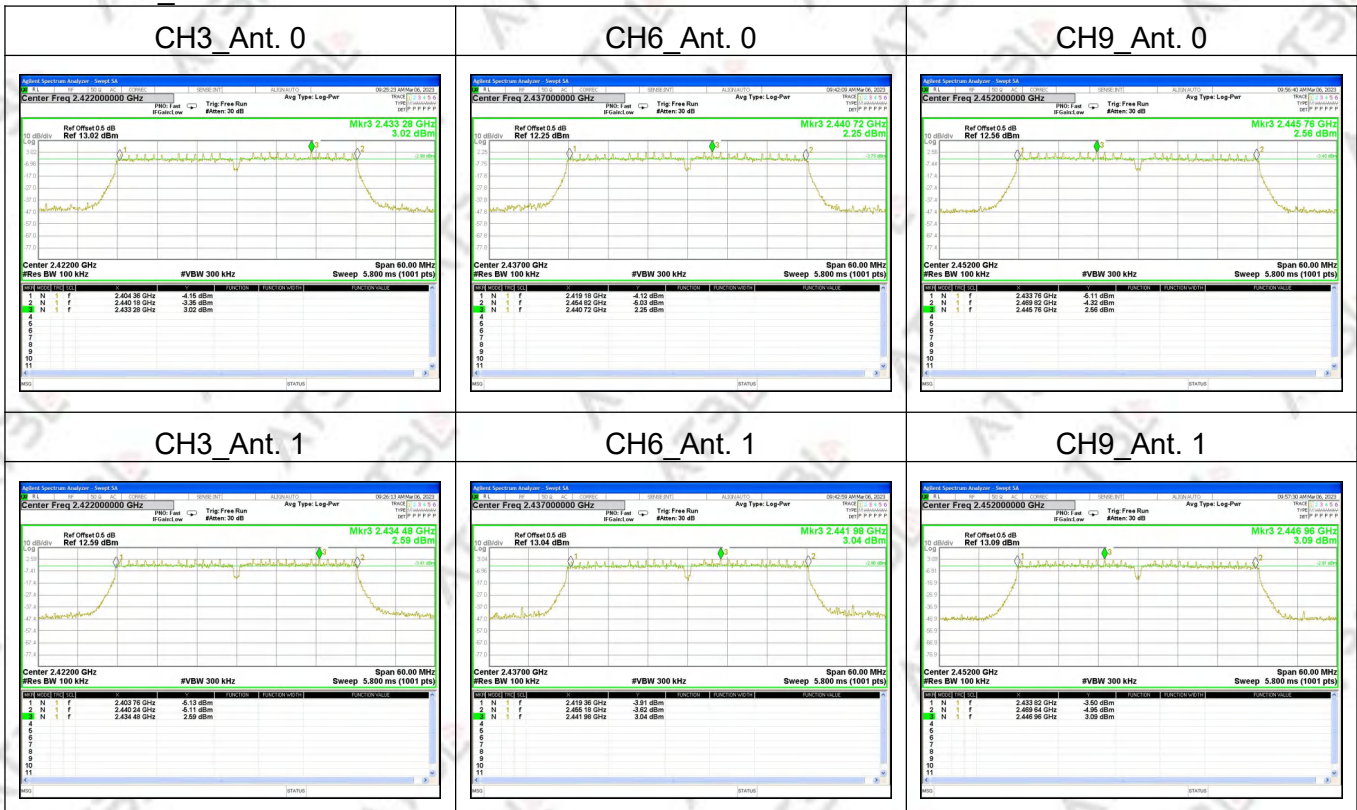
802.11g_MIMO



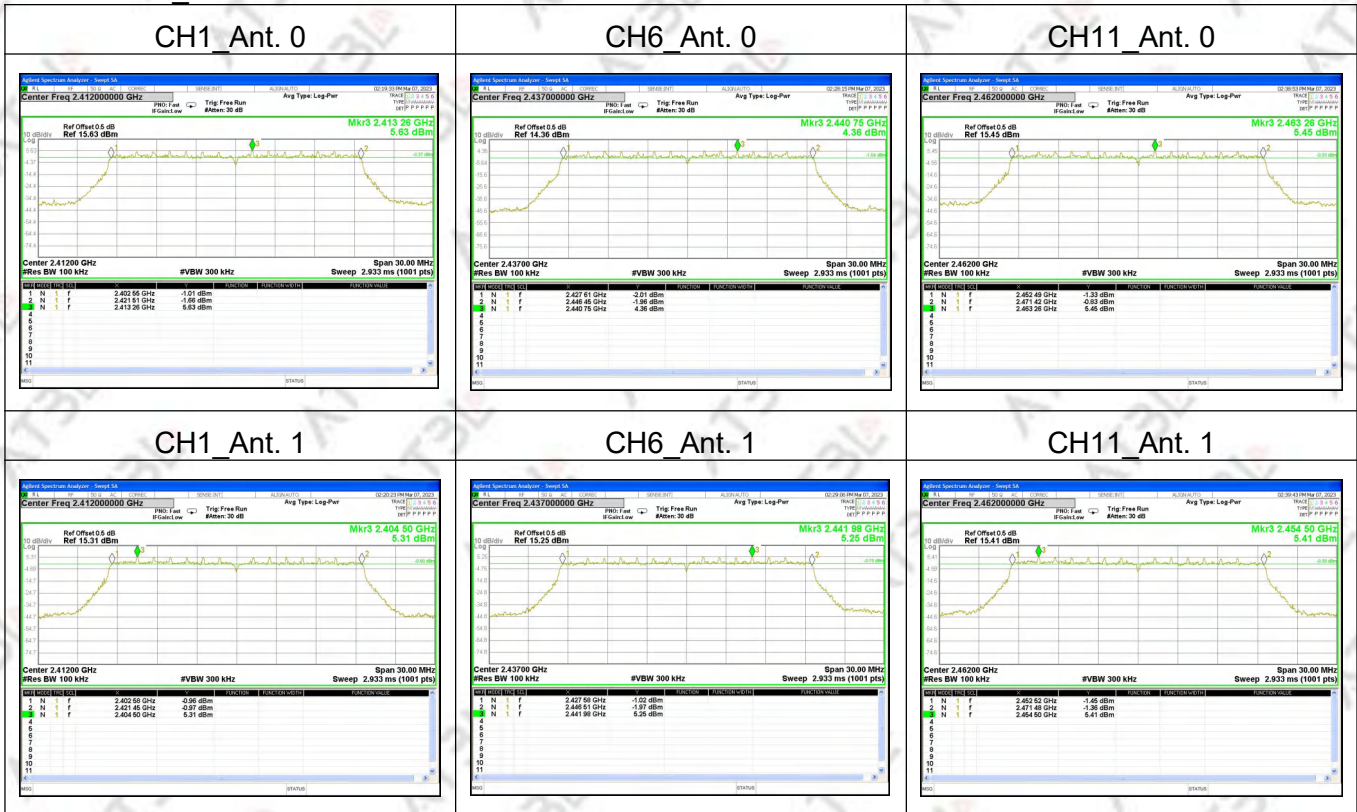
802.11n20_MIMO



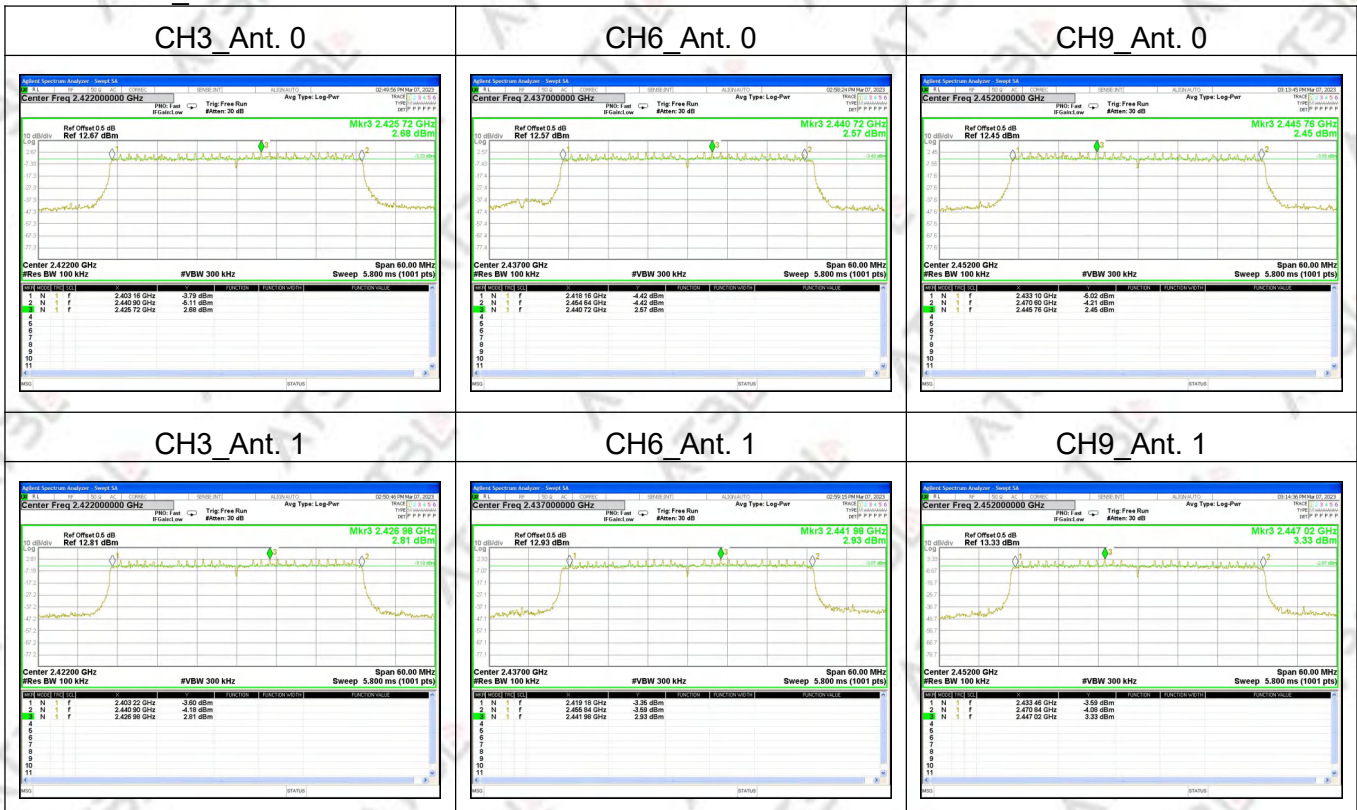
802.11n40_MIMO



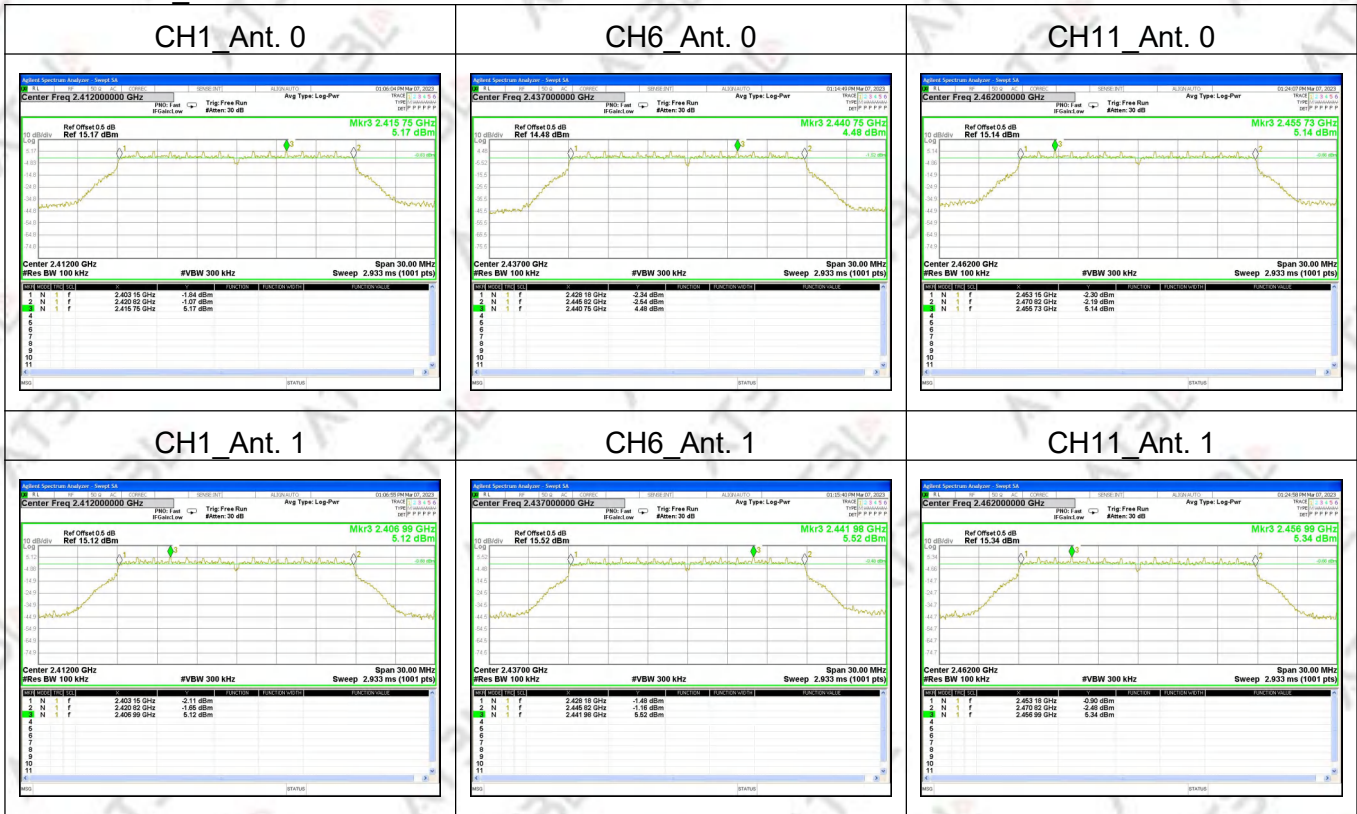
802.11ax20_MIMO



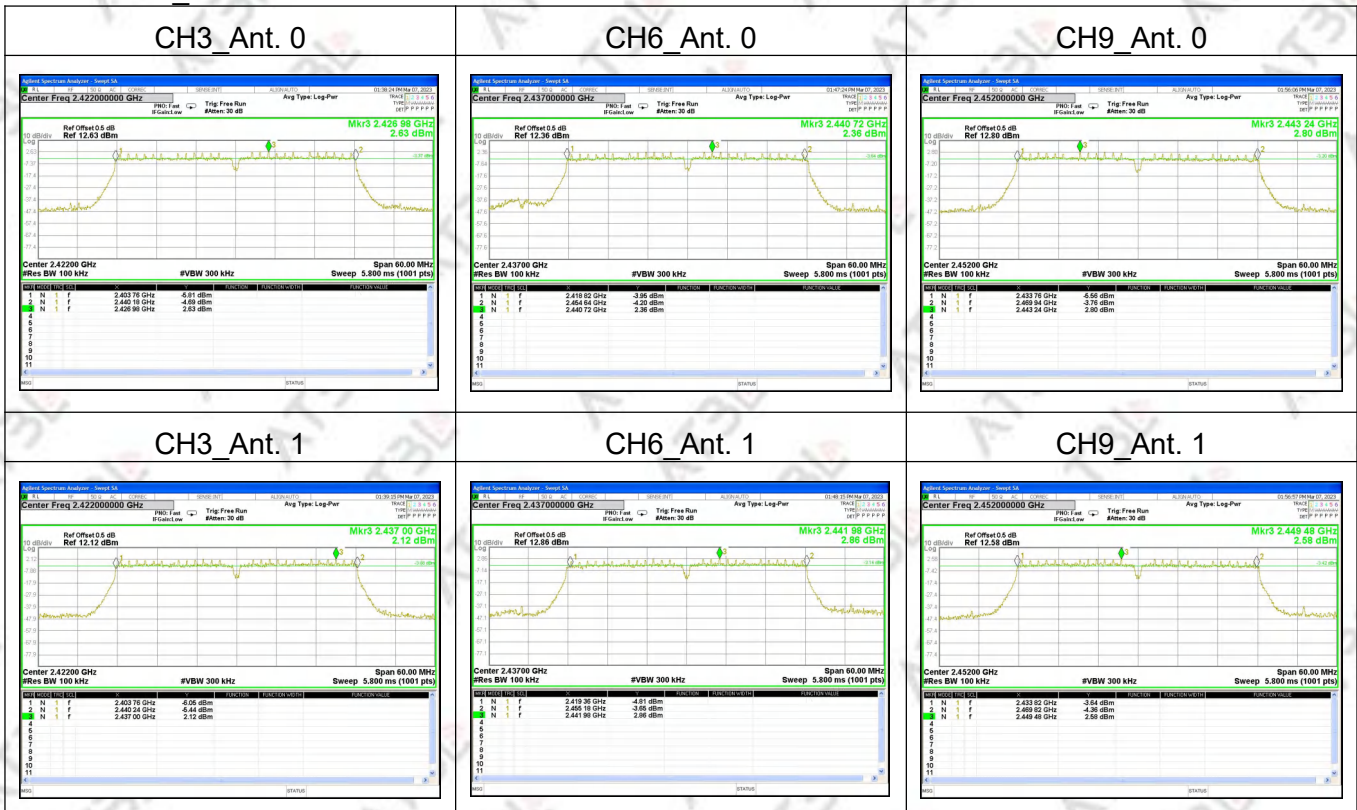
802.11ax40_MIMO



802.11ac20_MIMO

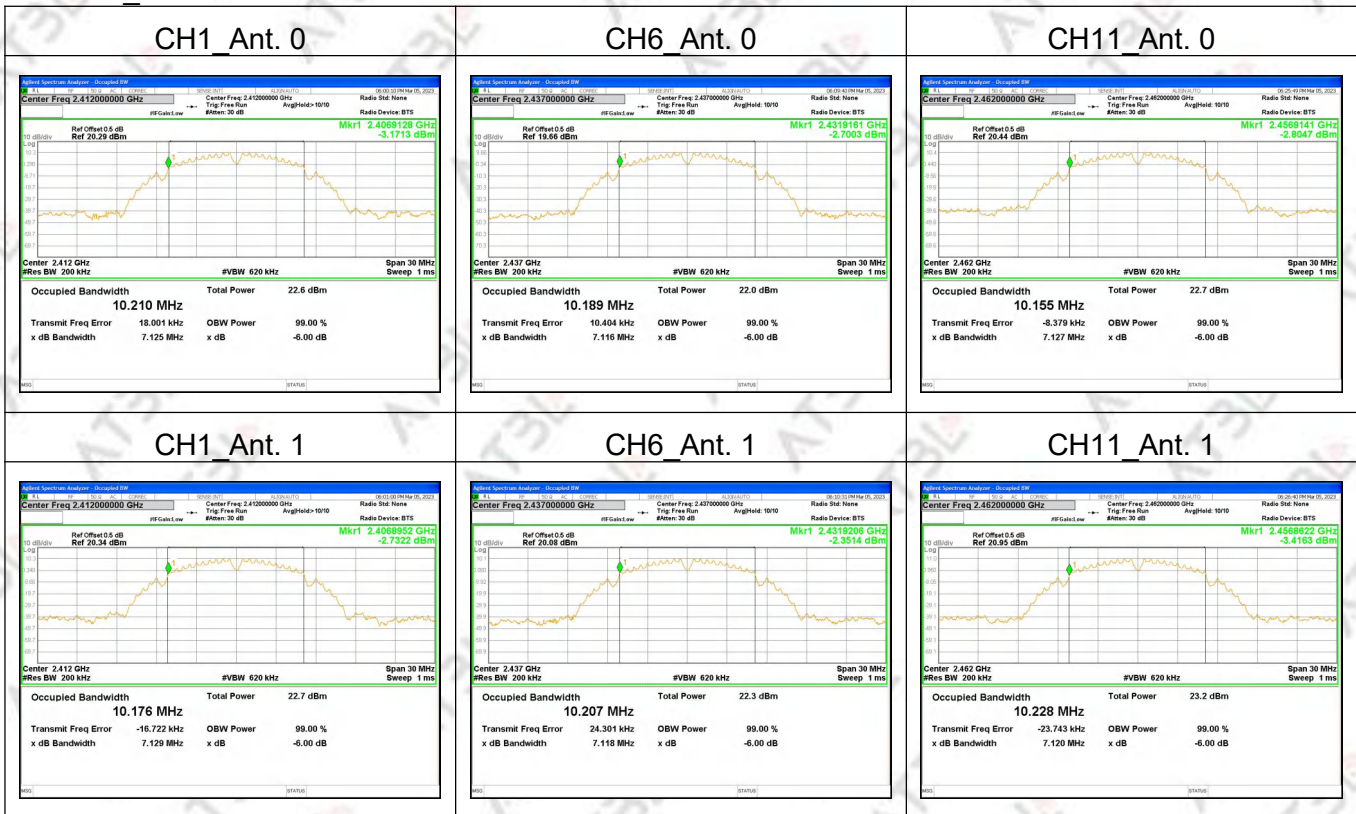


802.11ac40_MIMO

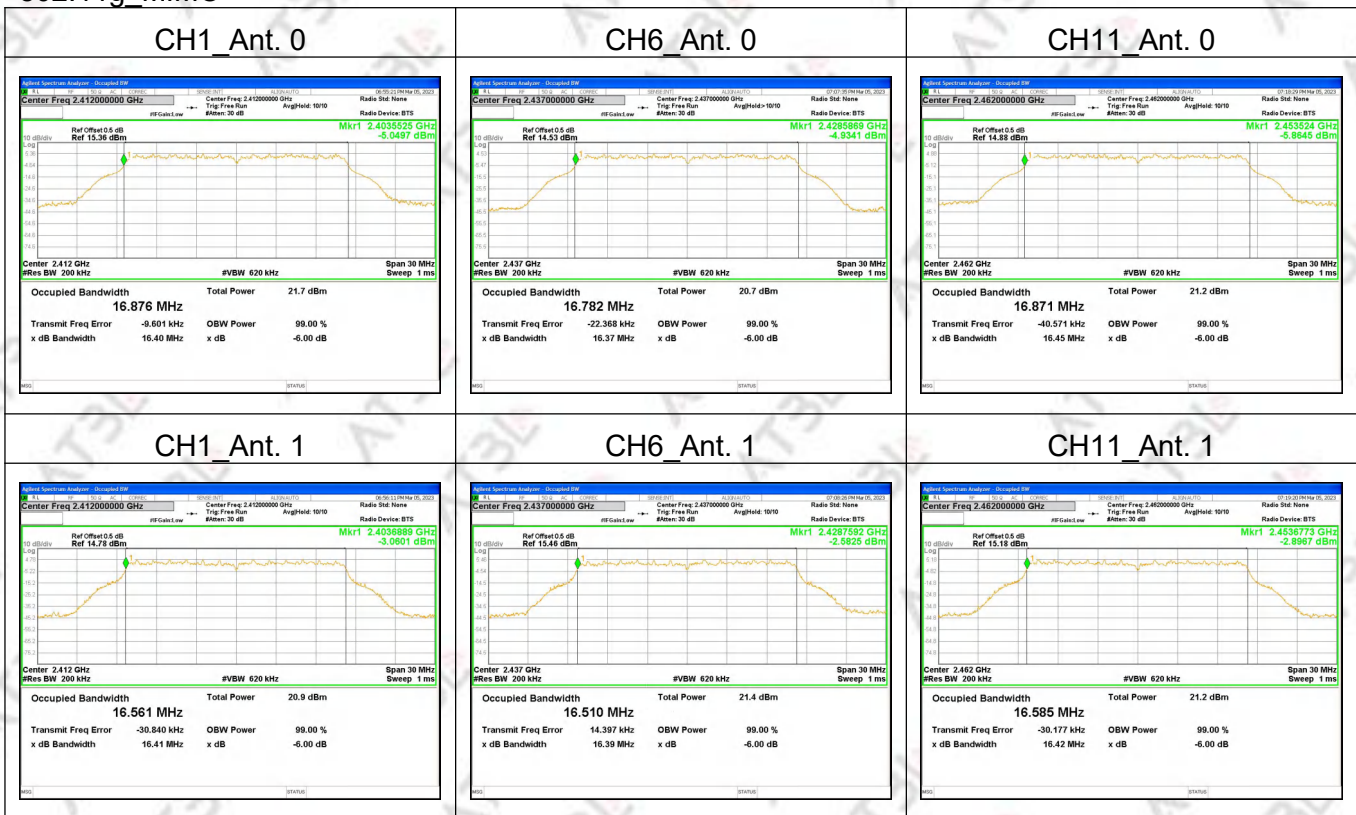


99% Bandwidth

802.11b_MIMO



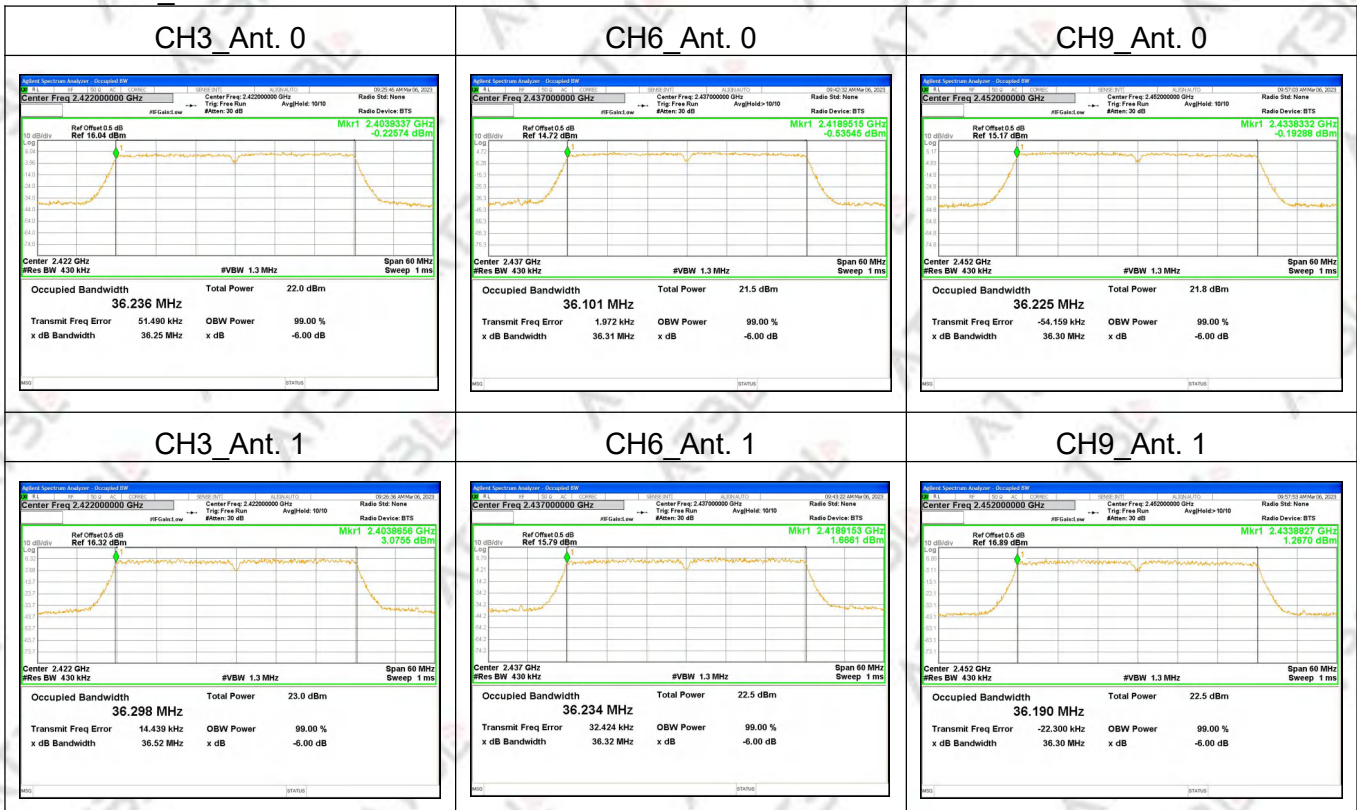
802.11g_MIMO



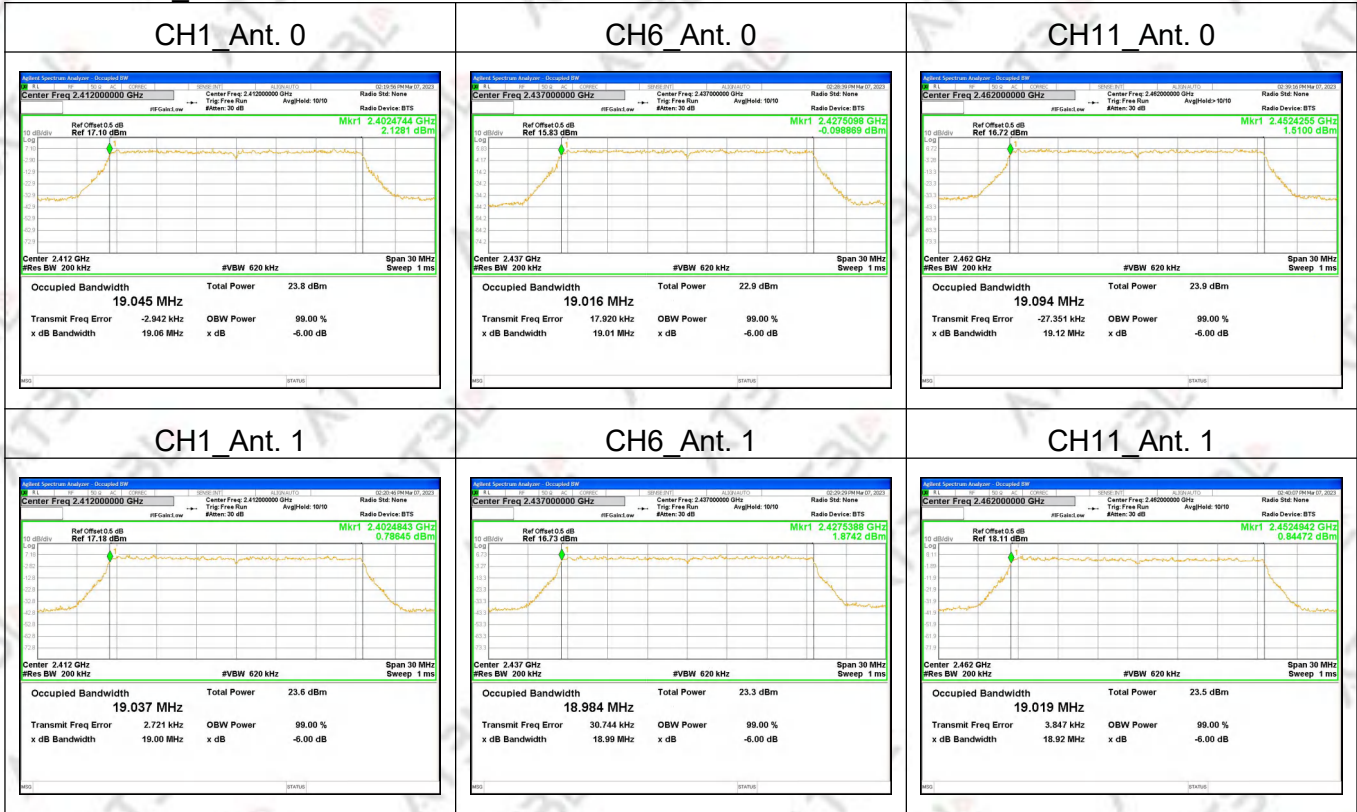
802.11n20_MIMO



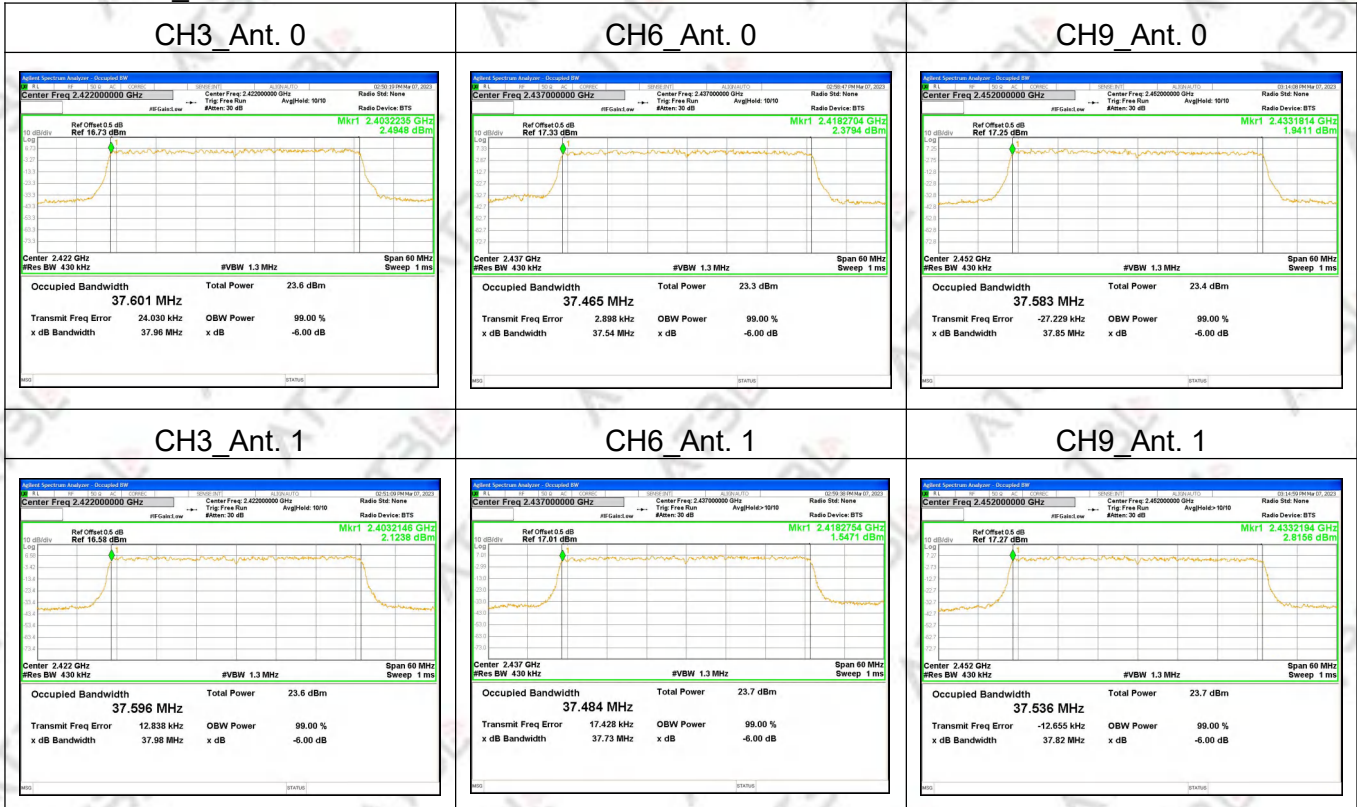
802.11n40_MIMO



802.11ax20_MIMO



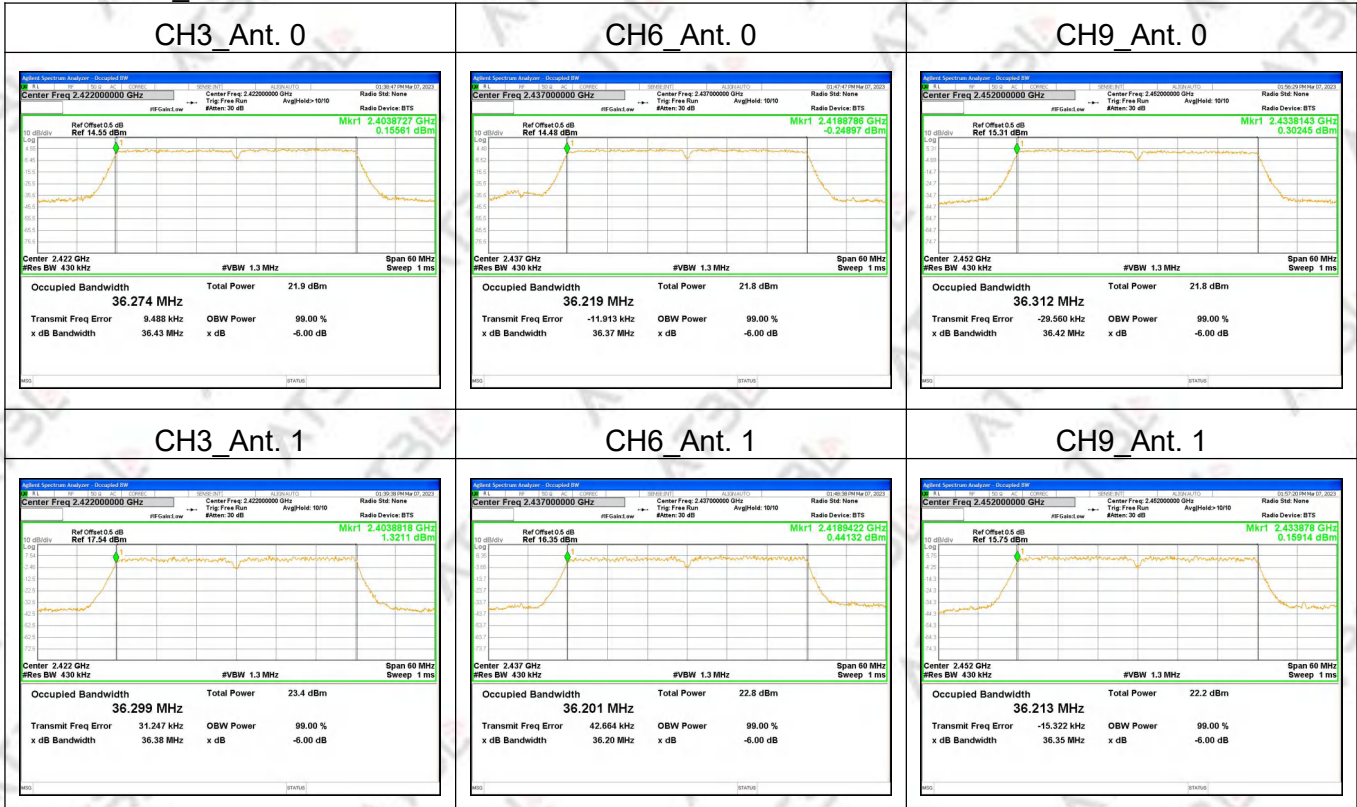
802.11ax40_MIMO



802.11ac20_MIMO



802.11ac40_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:	AC 120V/60Hz	Test Mode:	TX

Conducted Power

802.11b

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
01	2412	0	4.57	20.40	30	PASS
		1	4.17	20.95	30	PASS
		0+1	7.38	23.69	28.62	PASS
06	2437	0	4.57	20.35	30	PASS
		1	4.17	21.01	30	PASS
		0+1	7.38	23.70	28.62	PASS
11	2462	0	4.57	20.70	30	PASS
		1	4.17	21.18	30	PASS
		0+1	7.38	23.96	28.62	PASS

802.11g

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
01	2412	0	4.57	21.79	30	PASS
		1	4.17	22.22	30	PASS
		0+1	7.38	25.02	28.62	PASS
06	2437	0	4.57	21.78	30	PASS
		1	4.17	22.33	30	PASS
		0+1	7.38	25.07	28.62	PASS
11	2462	0	4.57	20.76	30	PASS
		1	4.17	22.47	30	PASS
		0+1	7.38	24.71	28.62	PASS

802.11n20

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
01	2412	0	4.57	21.95	30	PASS
		1	4.17	22.31	30	PASS
		0+1	7.38	25.14	28.62	PASS
06	2437	0	4.57	21.76	30	PASS
		1	4.17	22.24	30	PASS
		0+1	7.38	25.02	28.62	PASS
11	2462	0	4.57	22.33	30	PASS
		1	4.17	22.38	30	PASS
		0+1	7.38	25.37	28.62	PASS

802.11n40

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
03	2422	0	4.57	22.58	30	PASS
		1	4.17	22.94	30	PASS
		0+1	7.38	25.77	28.62	PASS
06	2437	0	4.57	22.46	30	PASS
		1	4.17	22.87	30	PASS
		0+1	7.38	25.68	28.62	PASS
09	2452	0	4.57	22.54	30	PASS
		1	4.17	23.03	30	PASS
		0+1	7.38	25.80	28.62	PASS

802.11ac20

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
01	2412	0	4.57	22.45	30	PASS
		1	4.17	22.35	30	PASS
		0+1	7.38	25.41	28.62	PASS
06	2437	0	4.57	22.33	30	PASS
		1	4.17	22.33	30	PASS
		0+1	7.38	25.34	28.62	PASS
11	2462	0	4.57	22.26	30	PASS
		1	4.17	21.96	30	PASS
		0+1	7.38	25.12	28.62	PASS

802.11ac40

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
03	2422	0	4.57	22.06	30	PASS
		1	4.17	22.20	30	PASS
		0+1	7.38	25.14	28.62	PASS
06	2437	0	4.57	22.18	30	PASS
		1	4.17	22.34	30	PASS
		0+1	7.38	25.27	28.62	PASS
09	2452	0	4.57	22.33	30	PASS
		1	4.17	22.39	30	PASS
		0+1	7.38	25.37	28.62	PASS

802.11ax20

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
01	2412	0	4.57	22.80	30	PASS
		1	4.17	22.15	30	PASS
		0+1	7.38	25.50	28.62	PASS
06	2437	0	4.57	22.48	30	PASS
		1	4.17	22.84	30	PASS
		0+1	7.38	25.67	28.62	PASS
11	2462	0	4.57	22.59	30	PASS
		1	4.17	22.70	30	PASS
		0+1	7.38	25.66	28.62	PASS

802.11ax40

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Peak Power (dBm)	Power Limit (dBm)	Result
03	2422	0	4.57	22.33	30	PASS
		1	4.17	22.38	30	PASS
		0+1	7.38	25.37	28.62	PASS
06	2437	0	4.57	22.32	30	PASS
		1	4.17	22.59	30	PASS
		0+1	7.38	25.47	28.62	PASS
09	2452	0	4.57	22.40	30	PASS
		1	4.17	22.67	30	PASS
		0+1	7.38	25.55	28.62	PASS

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.

EIRP

802.11b

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
01	2412	0+1	7.38	23.69	31.07	36	PASS
06	2437	0+1	7.38	23.70	31.08	36	PASS
11	2462	0+1	7.38	23.96	31.34	36	PASS

802.11g

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
01	2412	0+1	7.38	25.02	32.40	36	PASS
06	2437	0+1	7.38	25.07	32.45	36	PASS
11	2462	0+1	7.38	24.71	32.09	36	PASS

802.11n20

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
01	2412	0+1	7.38	25.14	32.52	36	PASS
06	2437	0+1	7.38	25.02	32.40	36	PASS
11	2462	0+1	7.38	25.37	32.75	36	PASS

802.11n40

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
03	2422	0+1	7.38	25.77	33.15	36	PASS
06	2437	0+1	7.38	25.68	33.06	36	PASS
09	2452	0+1	7.38	25.80	33.18	36	PASS

802.11ac20

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
01	2412	0+1	7.38	25.41	32.79	36	PASS
06	2437	0+1	7.38	25.34	32.72	36	PASS
11	2462	0+1	7.38	25.12	32.50	36	PASS

802.11ac40

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
03	2422	0+1	7.38	25.14	32.52	36	PASS
06	2437	0+1	7.38	25.27	32.65	36	PASS
09	2452	0+1	7.38	25.37	32.75	36	PASS

802.11ax20

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
01	2412	0+1	7.38	25.50	32.88	36	PASS
06	2437	0+1	7.38	25.67	33.05	36	PASS
11	2462	0+1	7.38	25.66	33.04	36	PASS

802.11ax40

CH.	Freq. MHz	Ant. No.	Ant. Gain (dBi)	Conducted Power (dBm)	EIRP(dBm)	Power Limit (dBm)	Result
03	2422	0+1	7.38	25.37	32.75	36	PASS
06	2437	0+1	7.38	25.47	32.85	36	PASS
09	2452	0+1	7.38	25.55	32.93	36	PASS

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 2x2 internal antenna. It comply with the standard requirement.

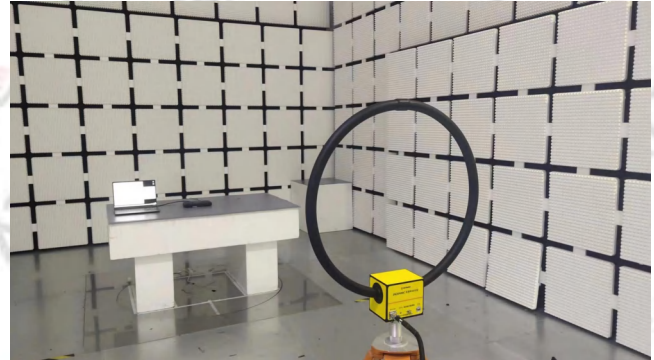
APPENDIX-PHOTOS OF TEST SETUP

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

AC Power Line Conducted Emissions



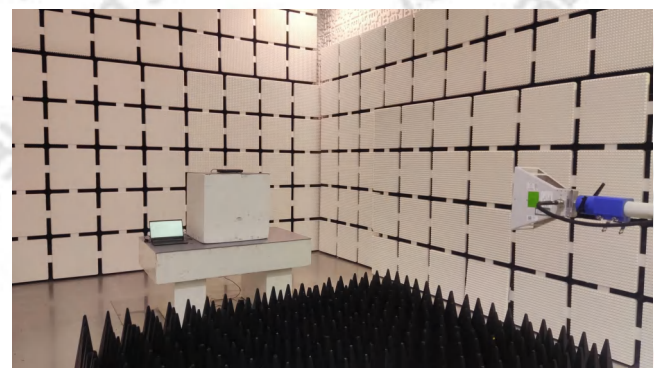
Radiated Emissions for 9kHz~30MHz



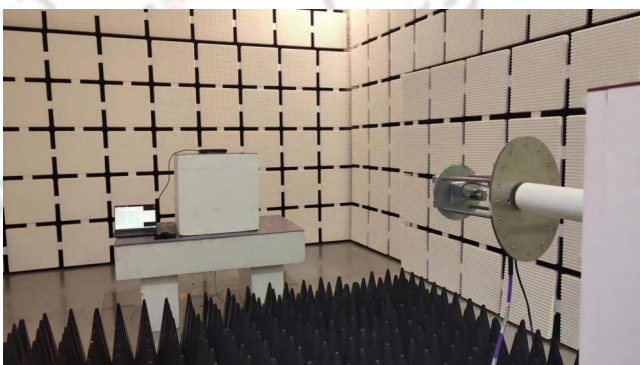
Radiated Emissions for 30MHz~1GHz



Radiated Emissions for 1GHz~18GHz



Radiated Emissions for above 18GHz



Conducted for RF



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