

3.2 Radiated Emission

LIMITS

LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)

FREQUENCY (MHz)	☐ Class A (at 10m)	☒ Class B (at 3m)
	dBuV/m	dBuV/m
30 ~ 88	39.0	40.0
88 ~ 216	43.5	43.5
216 ~ 960	46.5	46.0
Above 960	49.5	54.0

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (at 3m) dBuV/m		Class B (at 3m) dBuV/m	
	Peak	Avg	Peak	Avg
Above 1000	80	60	74	54

Notes:

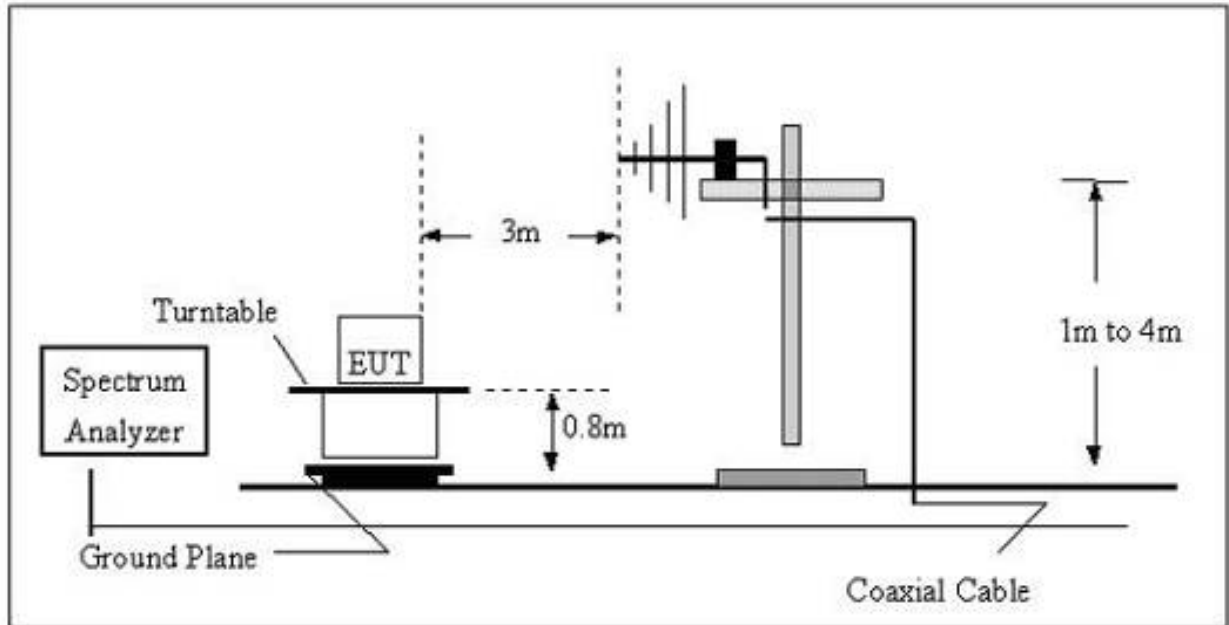
- 1) The limit for radiated test was performed according to as following:
CISPR 22/ FCC PART 15B /ICES-003.
- 2) The tighter limit applies at the band edges.
- 3) Emission level (dBuV/m)=20log Emission level (uV/m).

TEST PROCEDURE

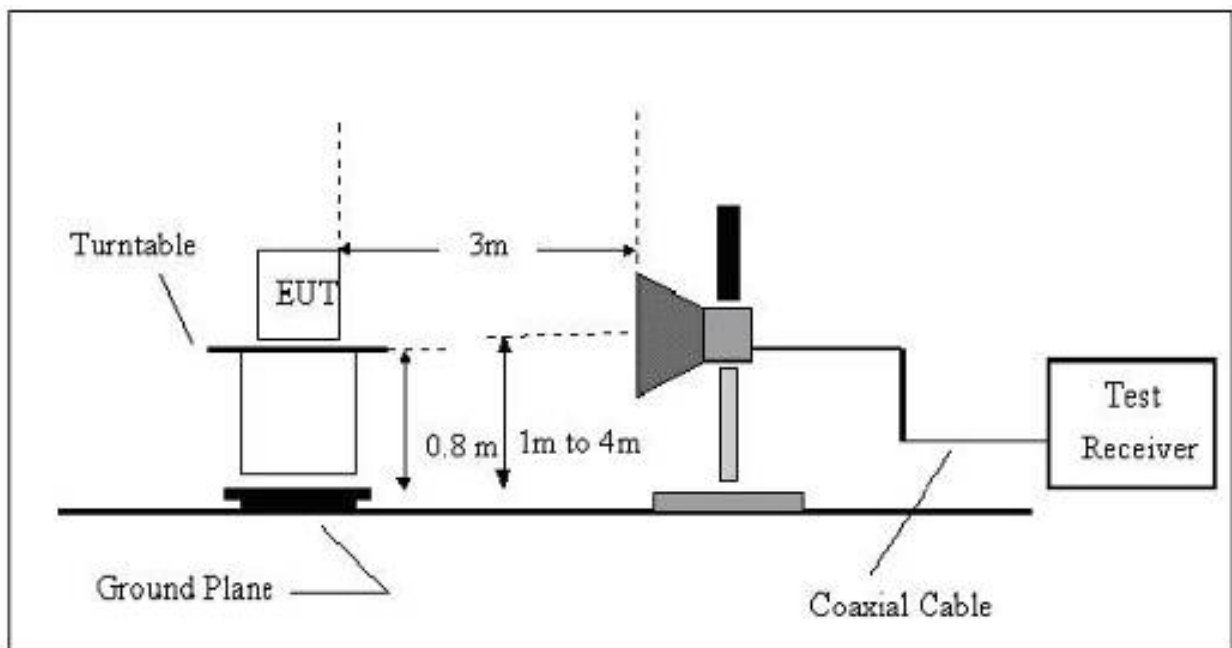
- a) The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b) The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c) The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
- e) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP (AV) Limits and then no additional QP Mode measurement performed.
- f) For the actual test configuration, please refer to the related Item –EUT Test Photos.

TEST SETUP

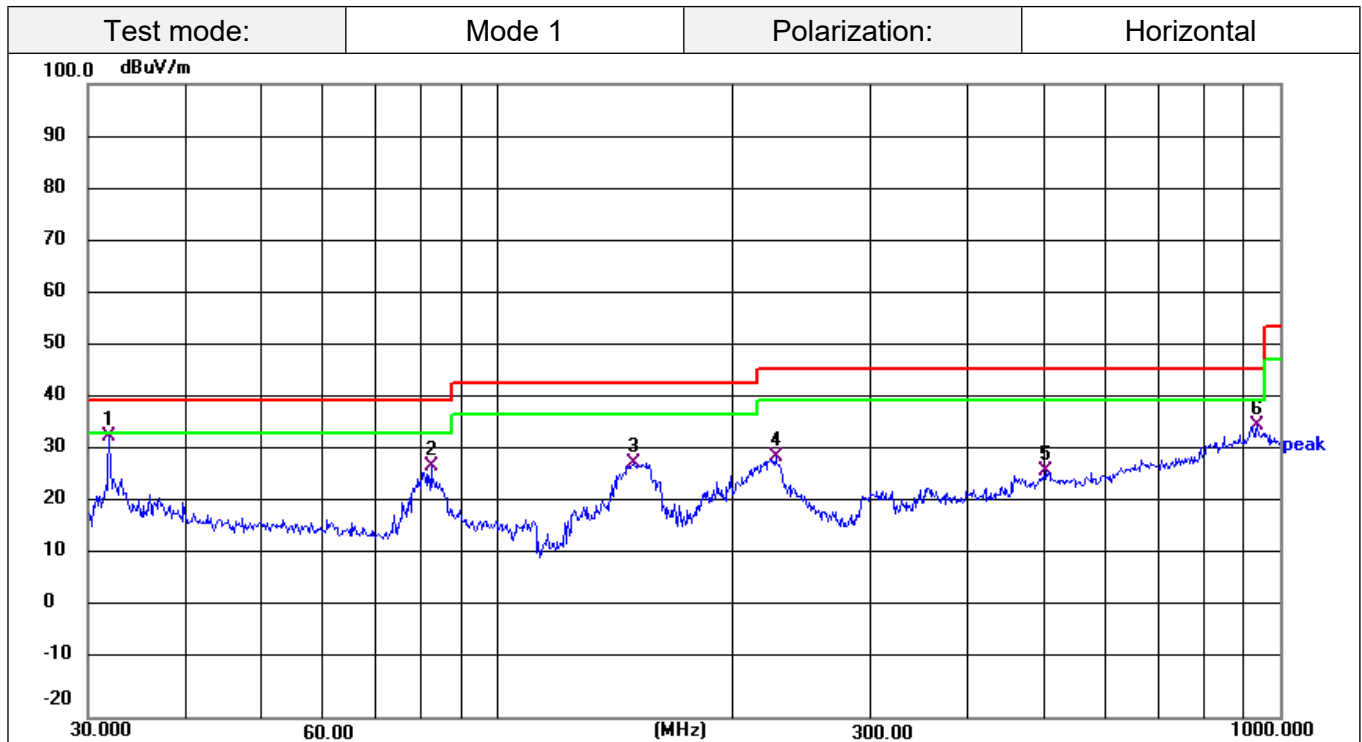
(A) Radiated Emission Test Set-Up Frequency Below 1 GHz



(B) Radiated Emission Test Set-UP Frequency Above 1GHz



For 30MHz-1GHz



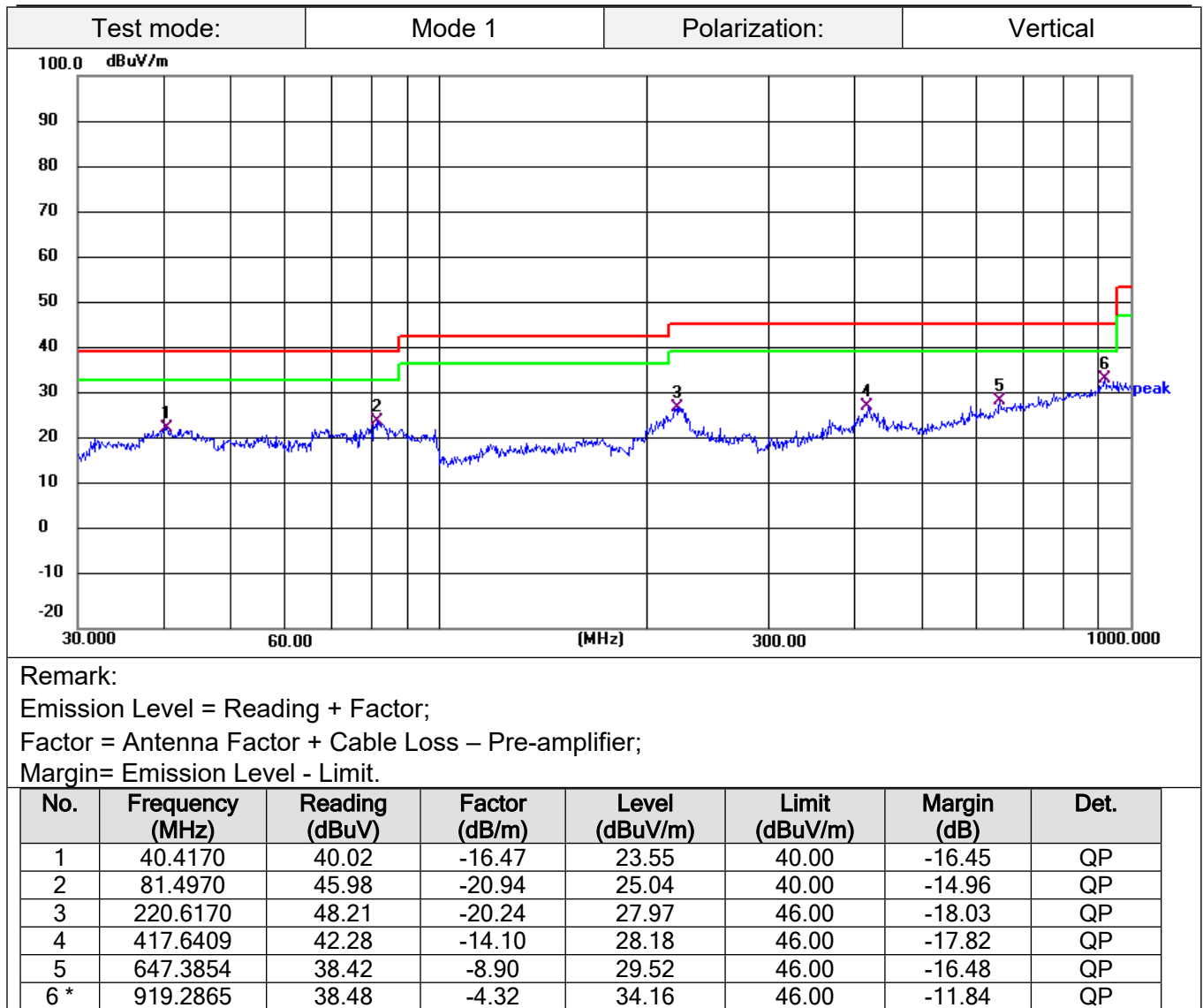
Remark:

Emission Level = Reading + Factor;

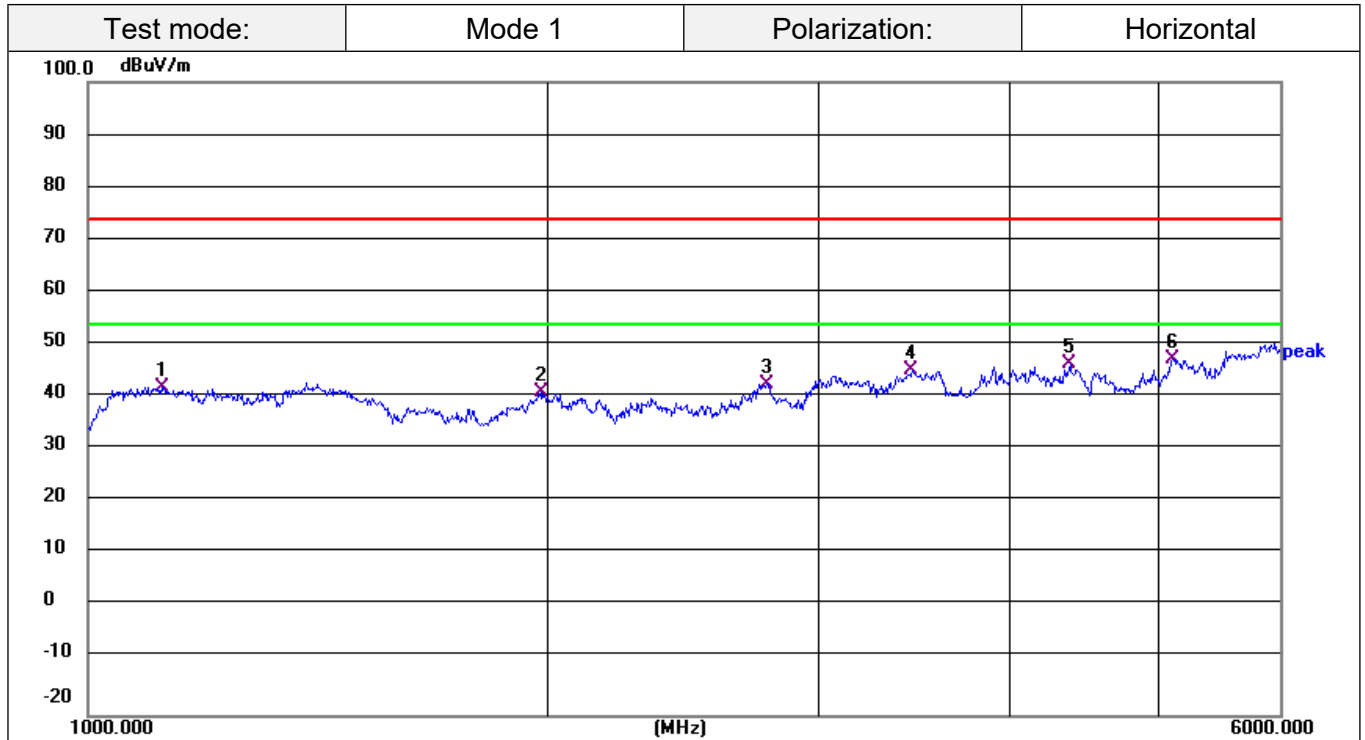
Factor = Antenna Factor + Cable Loss – Pre-amplifier;

Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	31.9542	50.61	-17.43	33.18	40.00	-6.82	QP
2	82.3588	48.58	-20.95	27.63	40.00	-12.37	QP
3	149.4857	44.83	-16.55	28.28	43.50	-15.22	QP
4	226.8934	49.31	-20.00	29.31	46.00	-16.69	QP
5	502.9395	39.24	-12.46	26.78	46.00	-19.22	QP
6 *	935.5461	39.19	-3.90	35.29	46.00	-10.71	QP



For 1GHz-6GHz



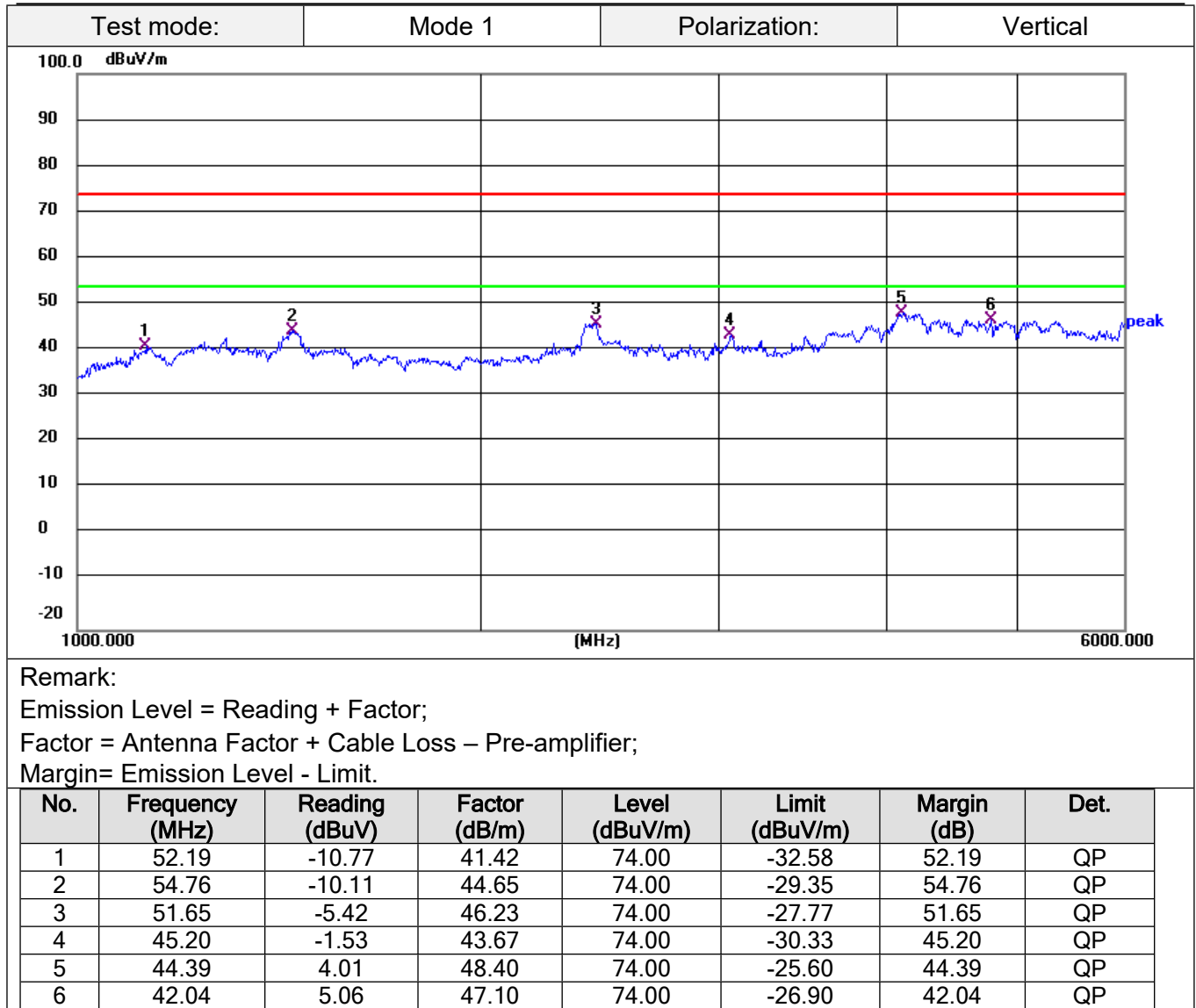
Remark:

Emission Level = Reading + Factor;

Factor = Antenna Factor + Cable Loss – Pre-amplifier;

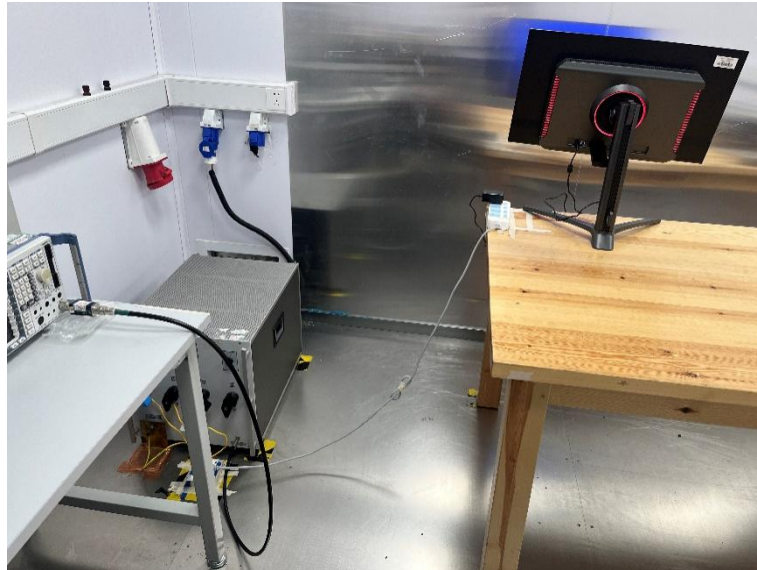
Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	1121.506	52.96	-10.77	42.19	74.00	-31.81	QP
2	1979.136	50.50	-9.17	41.33	74.00	-32.67	QP
3	2781.790	45.85	-2.98	42.87	74.00	-31.13	QP
4	3455.259	46.33	-0.69	45.64	74.00	-28.36	QP
5	4377.202	42.14	4.49	46.63	74.00	-27.37	QP
6	5106.433	42.63	4.92	47.55	74.00	-26.45	QP

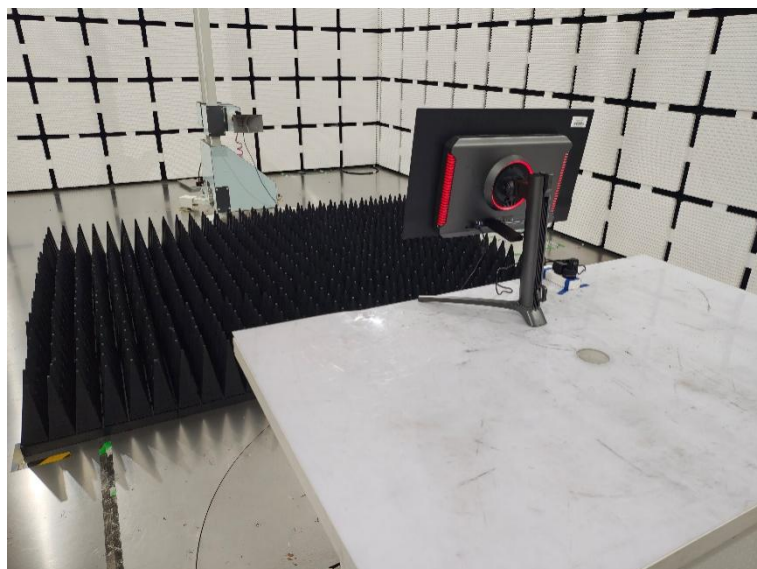
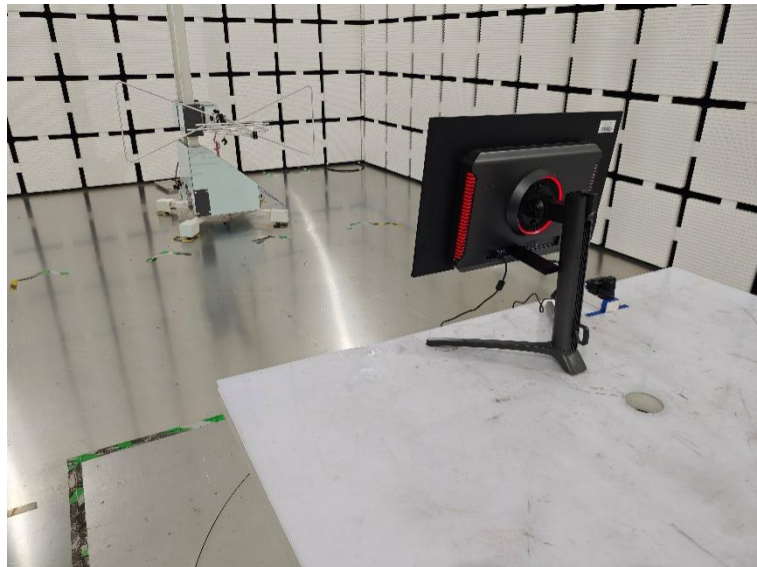


4 Test Setup Photographs of EUT

Conducted Emission



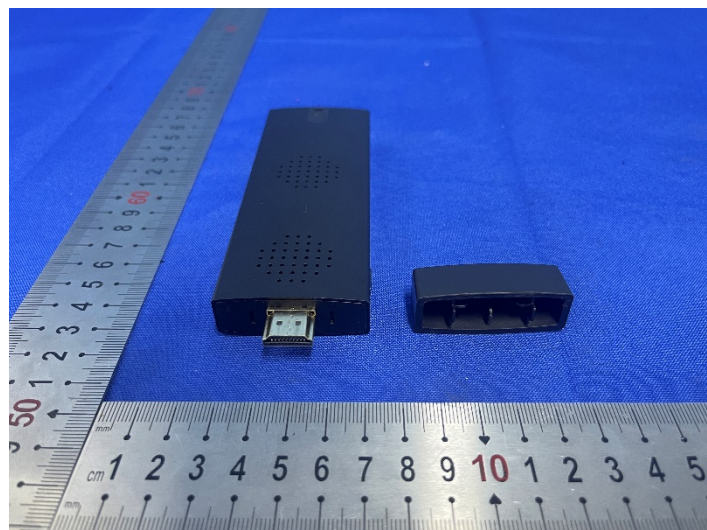
Radiated Emission



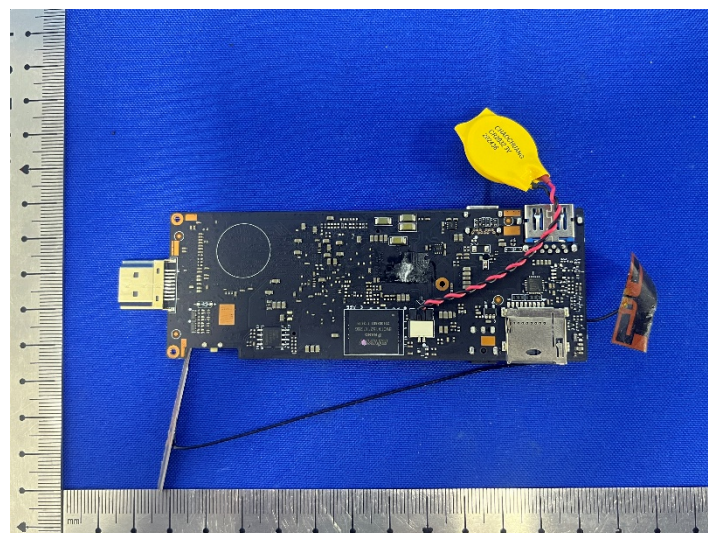
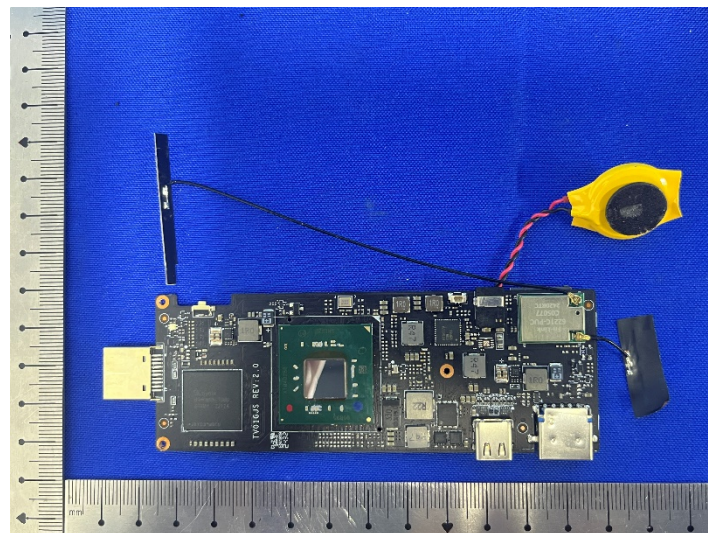
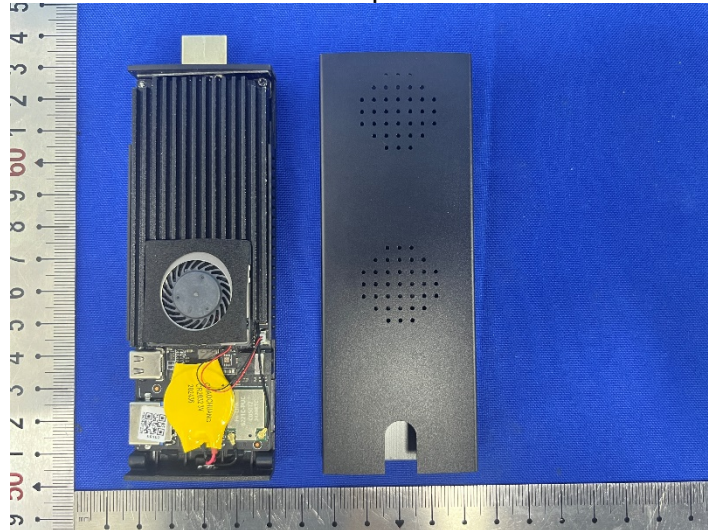
5 Photos of EUT

External Photos





Internal photos



***** End of Report *****