



5. Band Edge

5.1 Limits

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

5.2 Test Procedure

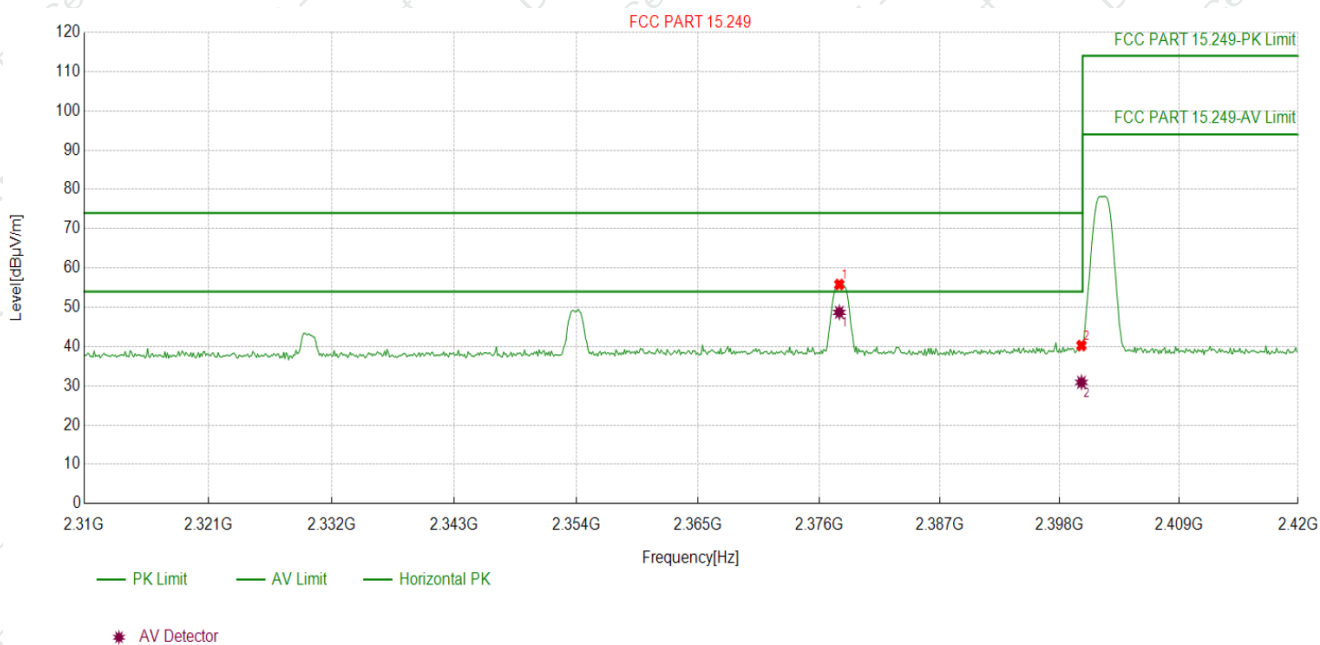
The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc.



5.3 Test Result

Operation Mode: TX CH Low (2402MHz)

Antenna polarity: Horizontal



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2377.828	70.29	55.80	-14.49	74.00	18.20	150	232	Horizontal
2	2400.000	54.59	40.26	-14.33	74.00	33.74	150	0	Horizontal

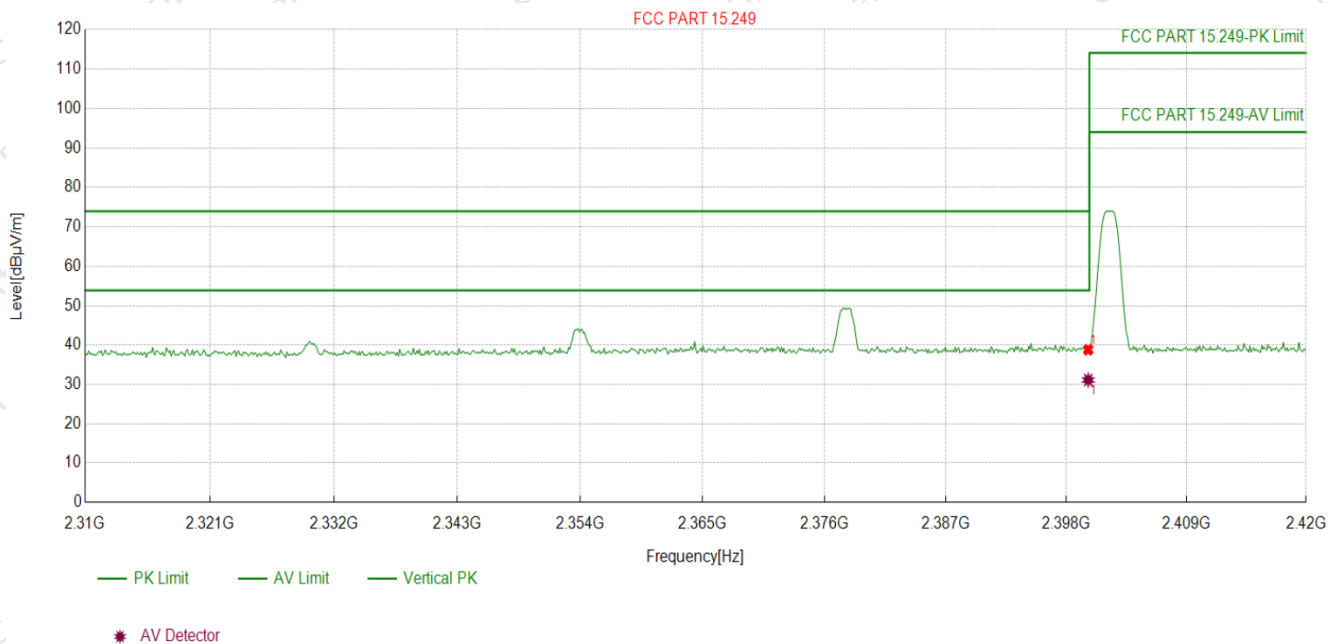
AV Final Data List

NO	Freq. [MHz]	Factor [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2377.828	-14.49	48.72	54.00	5.28	150	232	Horizontal
2	2400.000	-14.33	30.89	54.00	23.11	150	0	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor; Margin = Limit – Level



Antenna polarity: Vertical



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2400.000	53.05	38.72	-14.33	74.00	35.28	150	194	Vertical

AV Final Data List

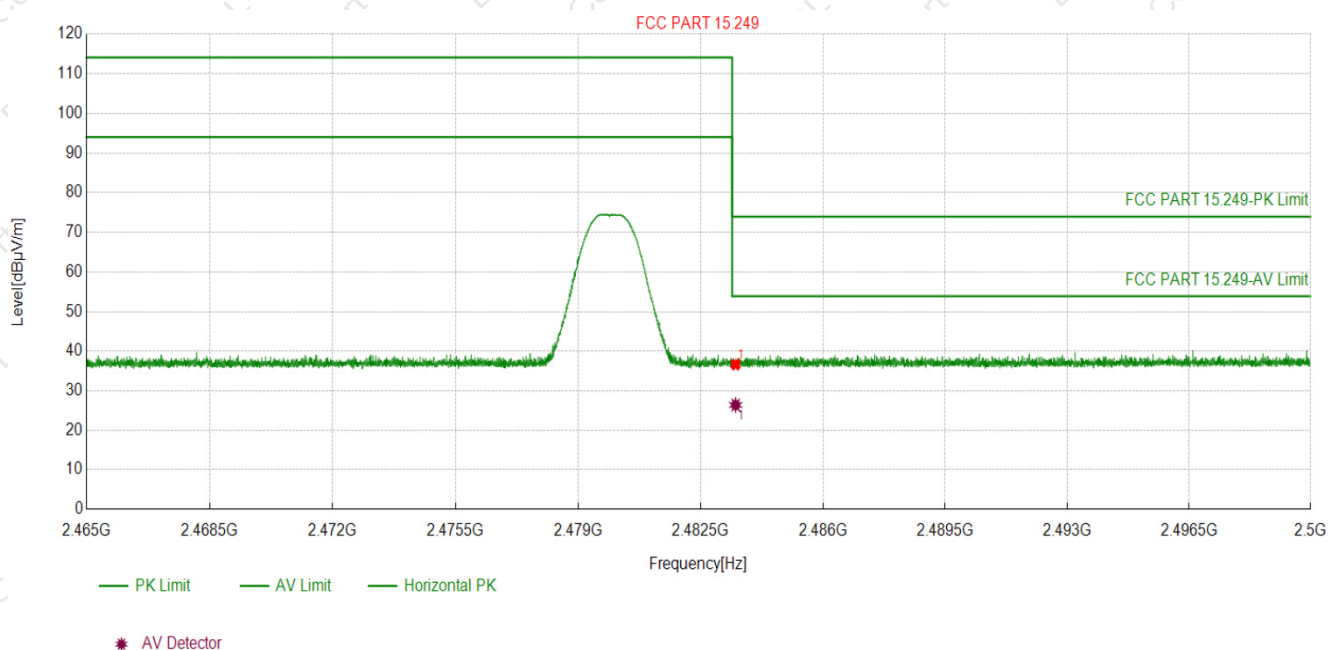
NO	Freq. [MHz]	Factor [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2400.000	-14.33	31.06	54.00	22.94	150	194	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor;
Margin = Limit – Level



Operation Mode: TX CH High (2480MHz)

Antenna polarity: Horizontal

**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2483.500	51.26	36.54	-14.72	74.00	37.46	150	12	Horizontal

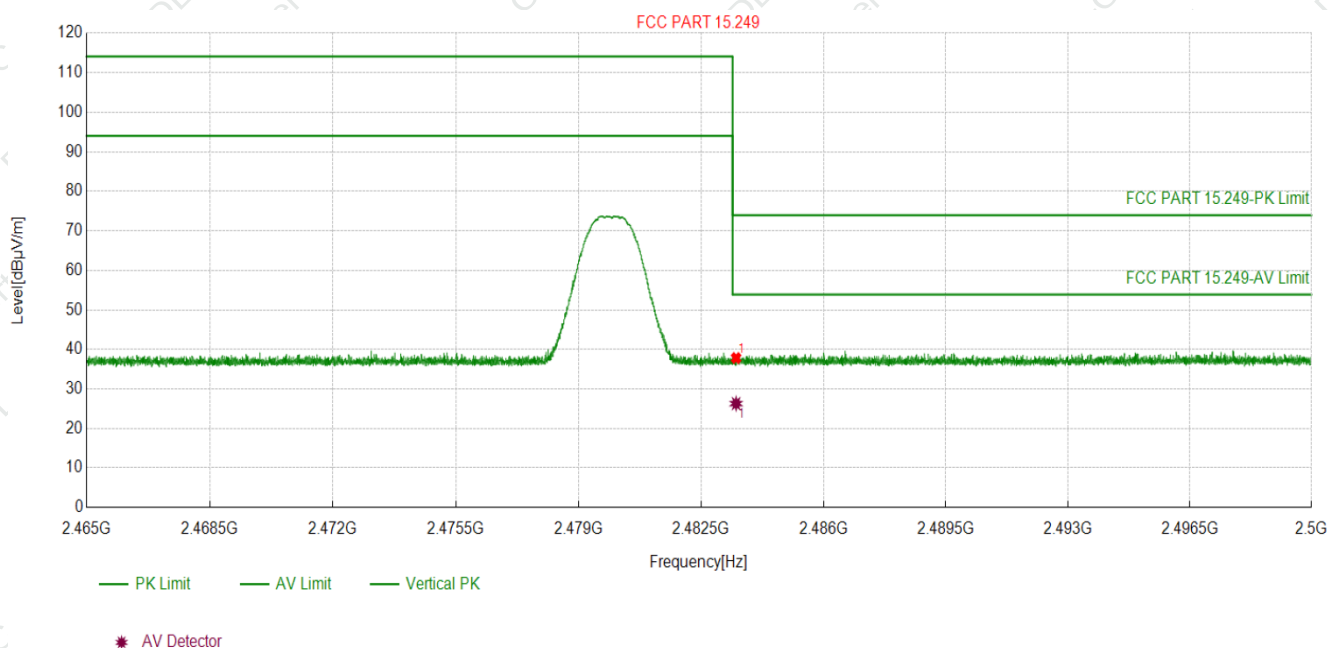
AV Final Data List

NO	Freq. [MHz]	Factor [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2483.500	-14.72	26.34	54.00	27.66	150	12	Horizontal

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor;
Margin = Limit – Level



Antenna polarity: Vertical

**Suspected Data List**

NO.	Freq. [MHz]	Reading [dBμV/m]	PK Level [dBμV/m]	Factor [dB]	PK Limit [dBμV/m]	PK Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2483.500	52.45	37.73	-14.72	74.00	36.27	150	298	Vertical

AV Final Data List

NO	Freq. [MHz]	Factor [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2483.500	-14.72	26.24	54.00	27.76	150	298	Vertical

Remark: Factor = Cable loss + Antenna factor + Attenuator – Preamplifier; Level = Reading + Factor;

Margin = Limit – Level

Note: When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.



6. Occupied Bandwidth Measurement

6.1 Test Setup



6.2 Test Procedure

1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT.
2. Set to the maximum power setting and enable the EUT transmit continuously.
3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement.
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a Transmitting channel;
RBW = 1% to 5% of the Occupied Bandwidth; VBW = 3RBW; Sweep = auto; Detector function = peak;
Trace = max hold.
4. Measure and record the results in the test report.

6.3 Test Result

PASS

Test Rate	Frequency	20dB Bandwidth (MHz)	Result
1M	2402 MHz	1.118	PASS
	2440 MHz	1.112	PASS
	2480 MHz	1.125	PASS
2M	2402 MHz	2.106	PASS
	2440 MHz	2.104	PASS
	2480 MHz	2.099	PASS



1M CH:2402MHz



1M CH:2440MHz





1M CH:2480MHz



2M CH:2402MHz





2M CH:2440MHz



2M CH:2480MHz





7. Antenna Requirement

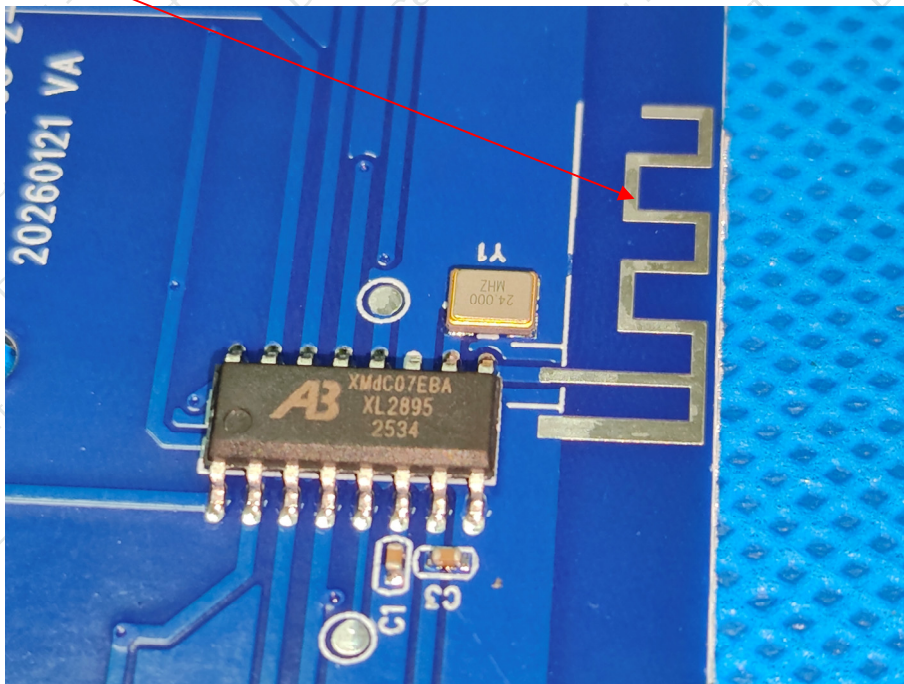
Standard Applicable

For intentional device, according to FCC 47 CFR Section 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.

Antenna Connected Construction

The antenna used in this product is a PCB Antenna, is a permanently attached antenna on the PCB. It conforms to the standard requirements. The directional gains of antenna used for transmitting is -0.58dBi.

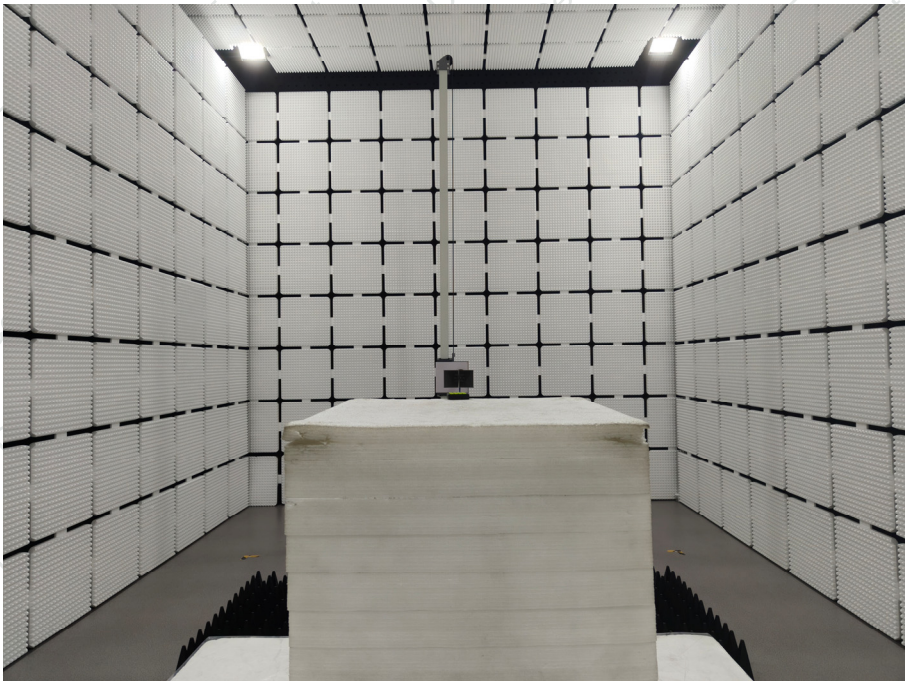
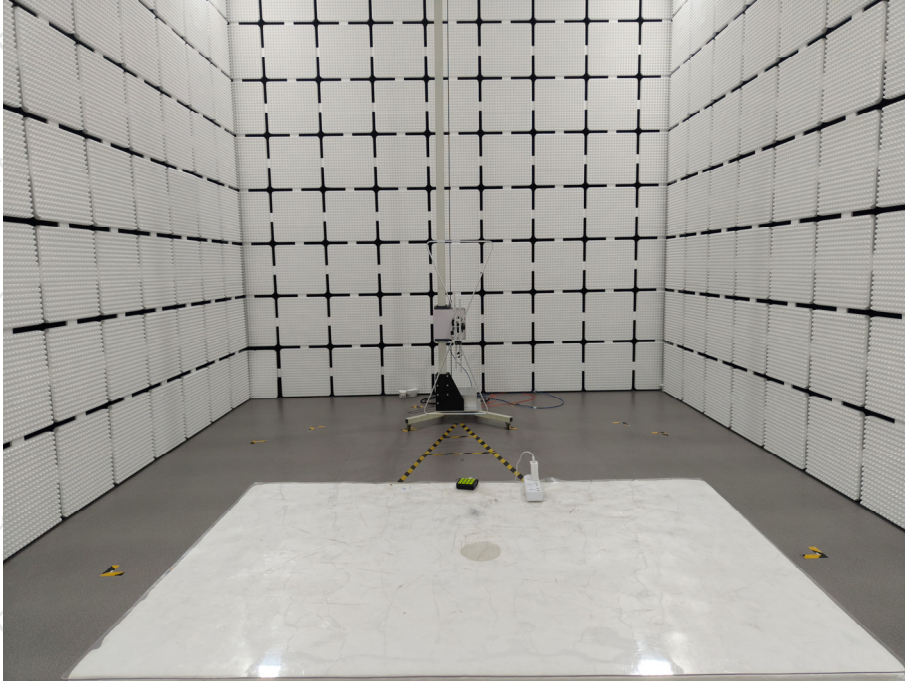
Antenna





8. Test Setup Photos of the EUT

Radiated Emission

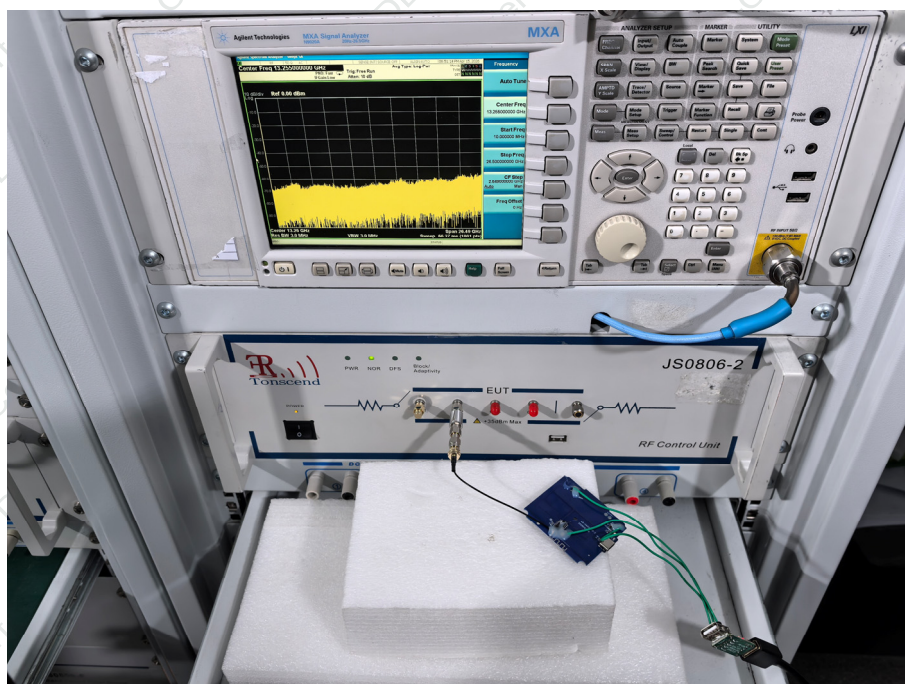




AC Conducted Emission



RF Conducted Emission





9. Photos of the EUT

Reference to the report: ANNEX A of external photos and ANNEX B of internal photos.

-----End of test report-----