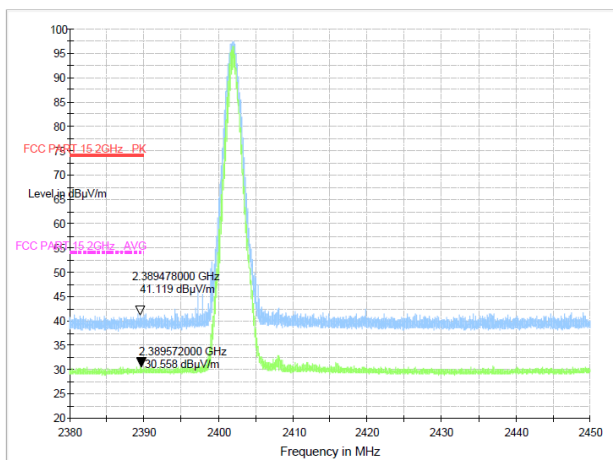
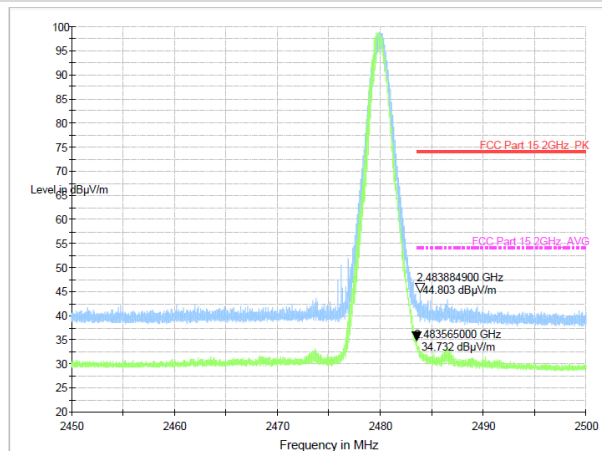


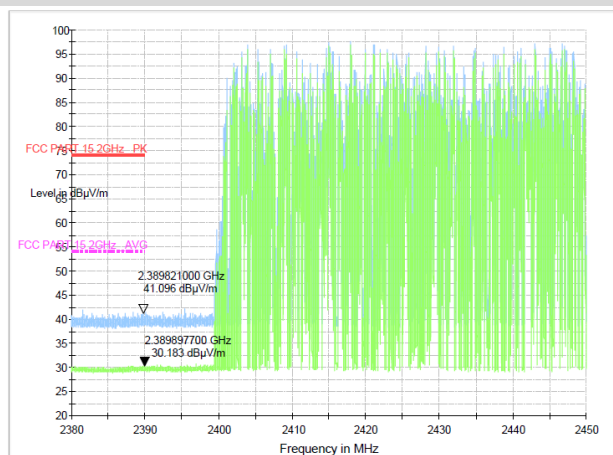
Test Mode: $\pi/4$ DQPSK-Low Hopping-off



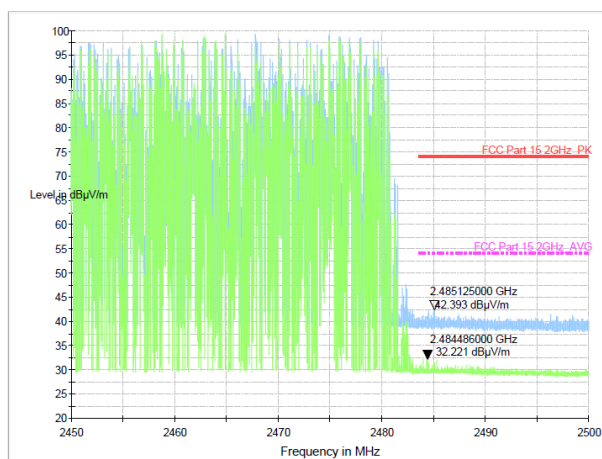
Test Mode: $\pi/4$ DQPSK-High Hopping-off



Test Mode: $\pi/4$ DQPSK-Low Hopping-on



Test Mode: $\pi/4$ DQPSK-High Hopping-on

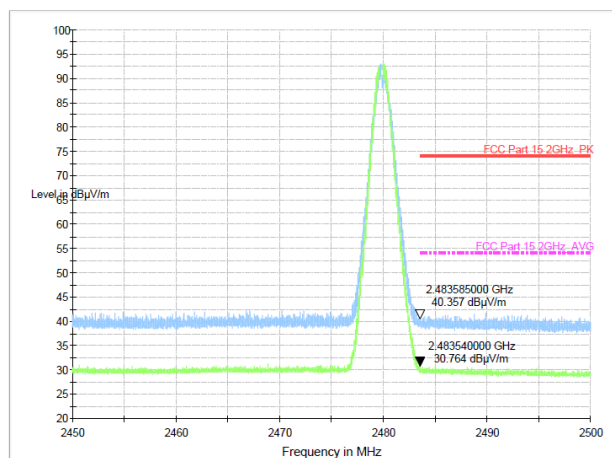
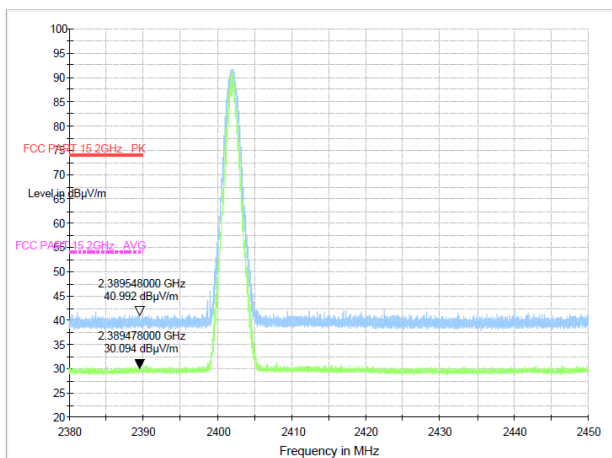


Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

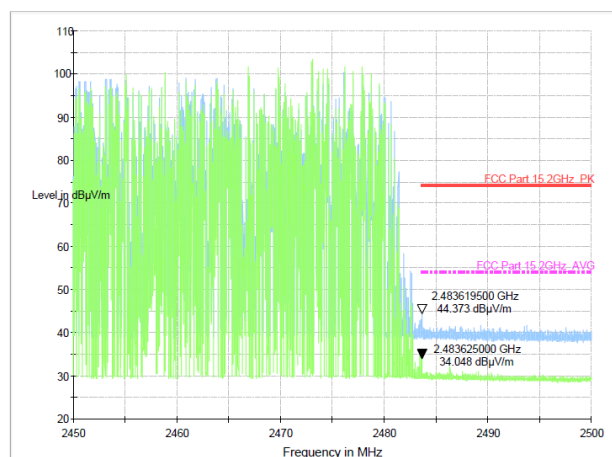
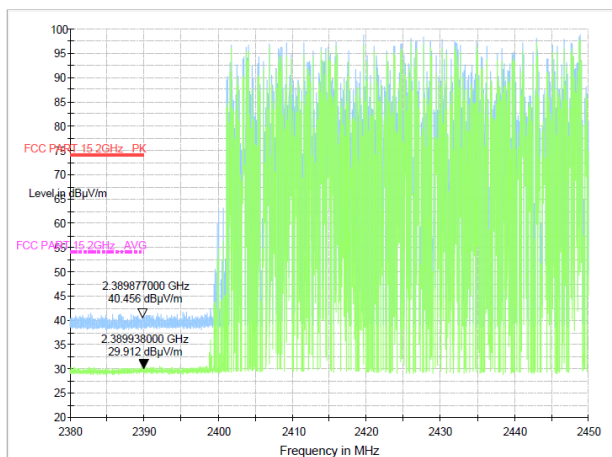
Test Mode: 8DPSK-Low Hopping-off

Test Mode: 8DPSK-High Hopping-off



Test Mode: 8DPSK-Low Hopping-on

Test Mode: 8DPSK-High Hopping-on



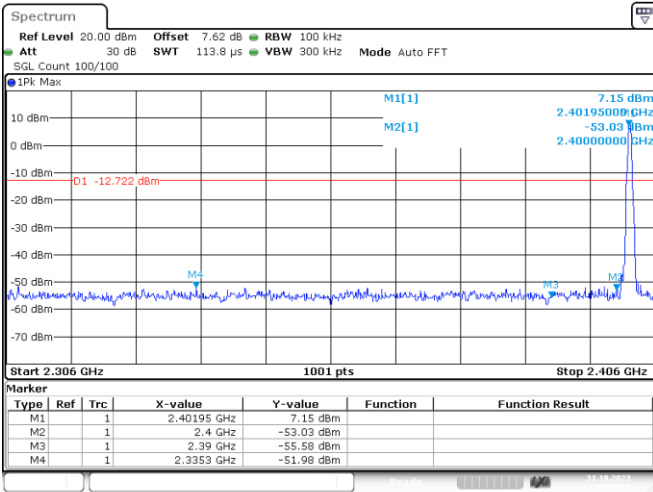
Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Conducted Method

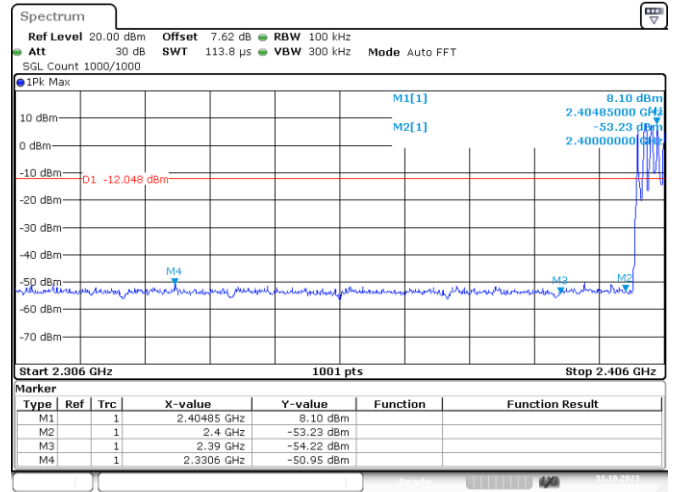
GFSK Mode:

Test channel: Lowest channel



Date: 31.OCT.2023 14:14:37

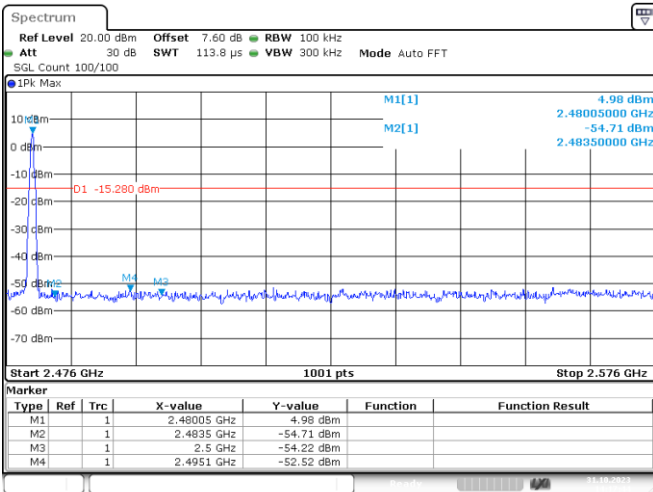
No-hopping mode



Date: 31.OCT.2023 14:20:02

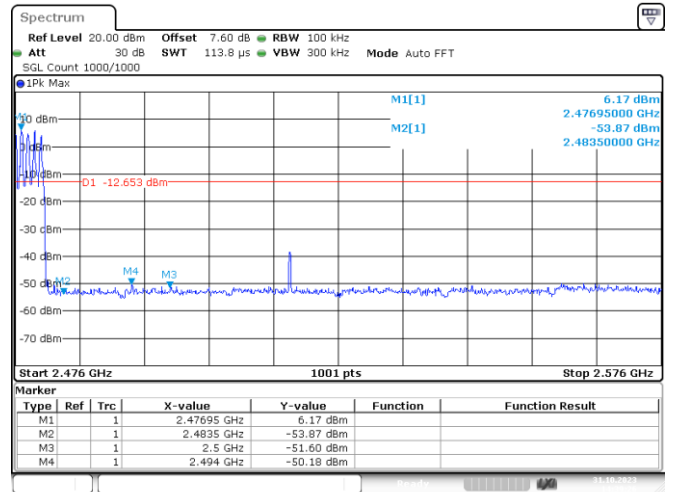
Hopping mode

Test channel: Highest channel



Date: 31.OCT.2023 14:17:44

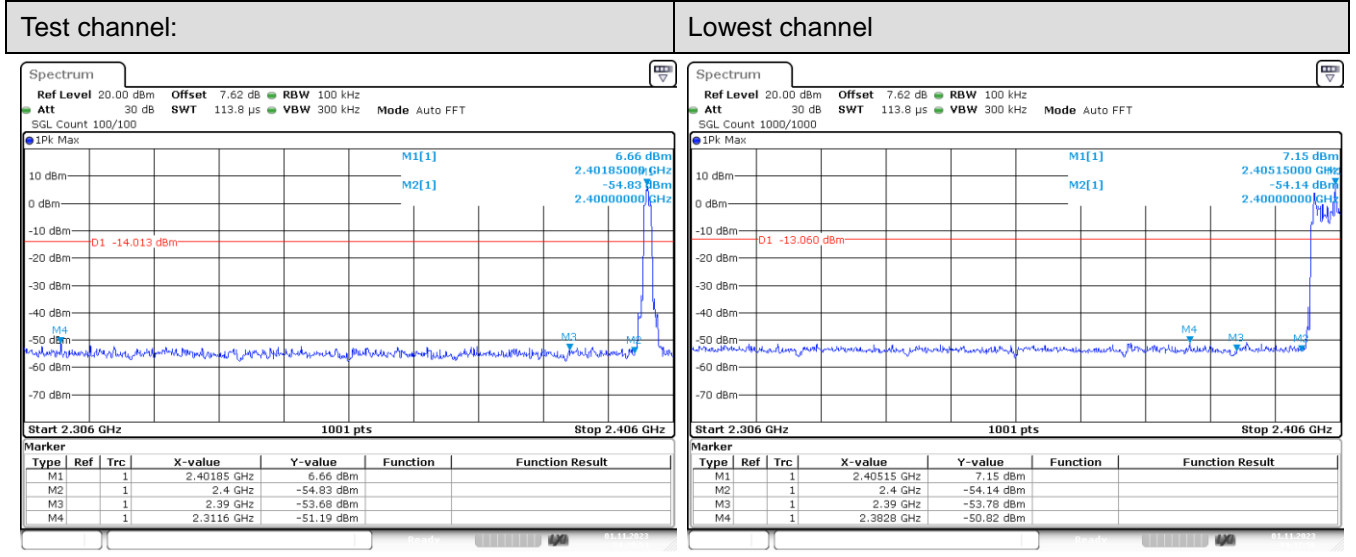
No-hopping mode



Date: 31.OCT.2023 14:39:26

Hopping mode

π/4DQPSK Mode:

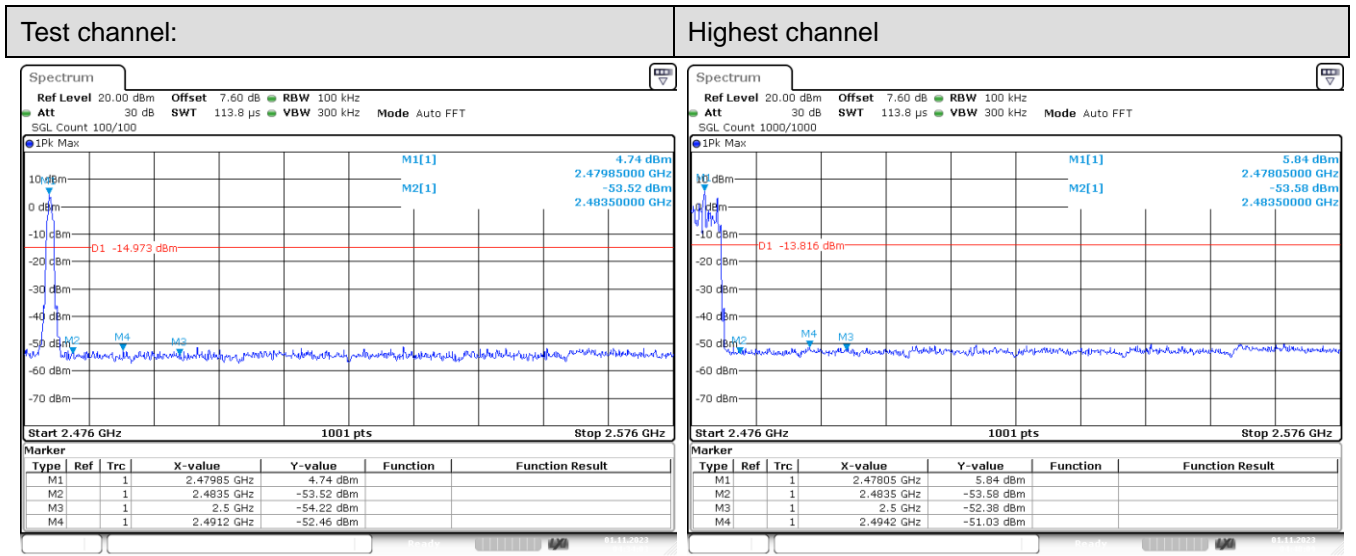


Date: 1.NOV.2023 04:29:54

Date: 1.NOV.2023 04:37:56

No-hopping mode

Hopping mode



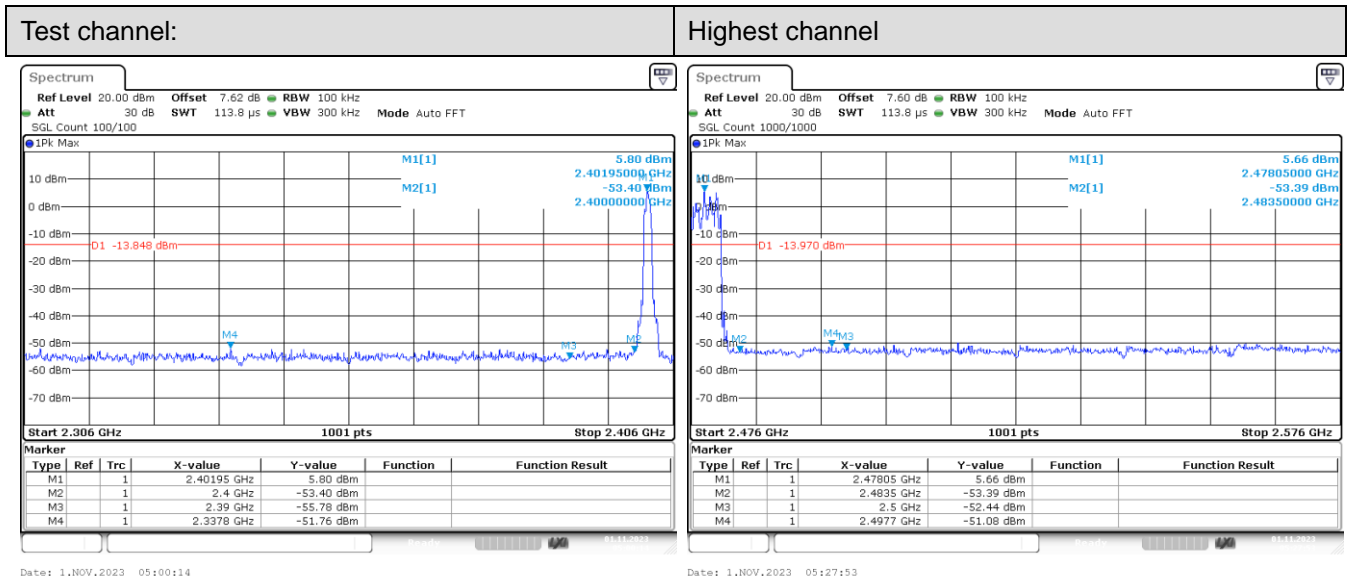
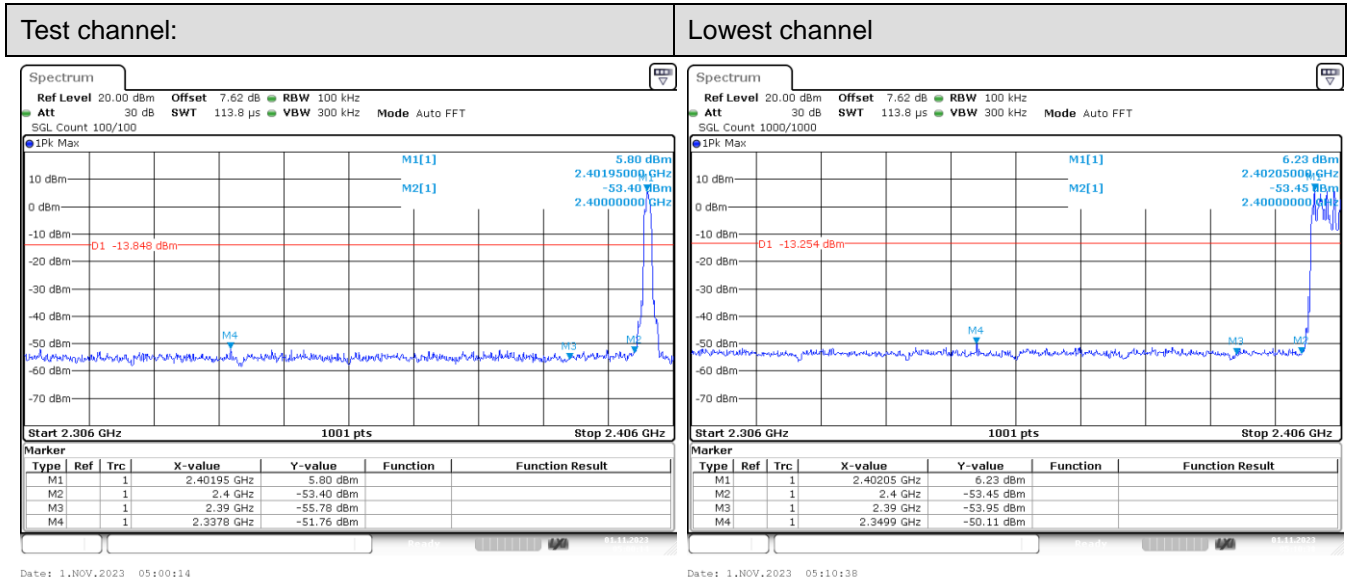
Date: 1.NOV.2023 04:34:03

Date: 1.NOV.2023 04:48:10

No-hopping mode

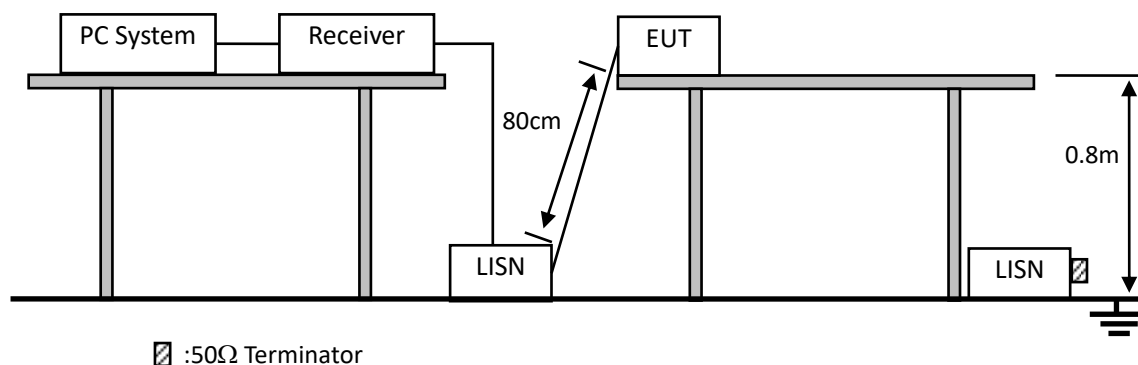
Hopping mode

8DPSK Mode:



10. POWER LINE CONDUCTED EMISSIONS

10.1. Block Diagram of Test Setup



10.2. Limit

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

10.3. Test Procedure

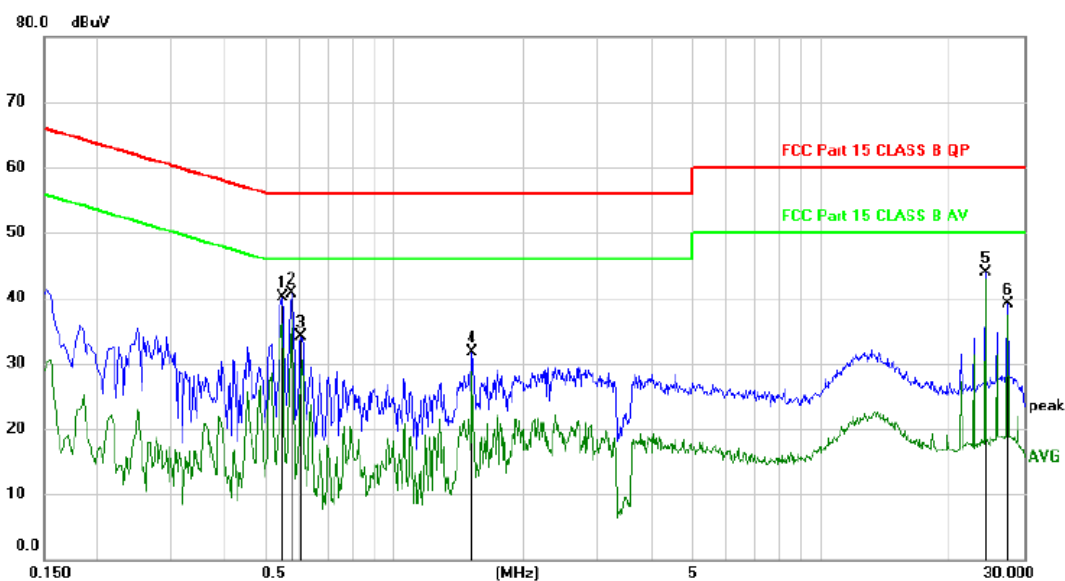
- (1) The EUT was placed on a non-metallic table, 80cm above the ground plane.
- (2) Setup the EUT and simulator as shown in 10.1
- (3) The EUT Power connected to the power mains through a power adapter and a line impedance stabilization network (L.I.S.N1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N2), this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 :2013on conducted Emission test.
- (4) The bandwidth of test receiver is set at 10KHz.
- (5) The frequency range from 150 KHz to 30MHz is checked.

10.4. Test Result

PASS. (See below detailed test data)

Note: If peak Result comply with AV limit, QP and AV Result is deemed to comply with AV limit

Line:



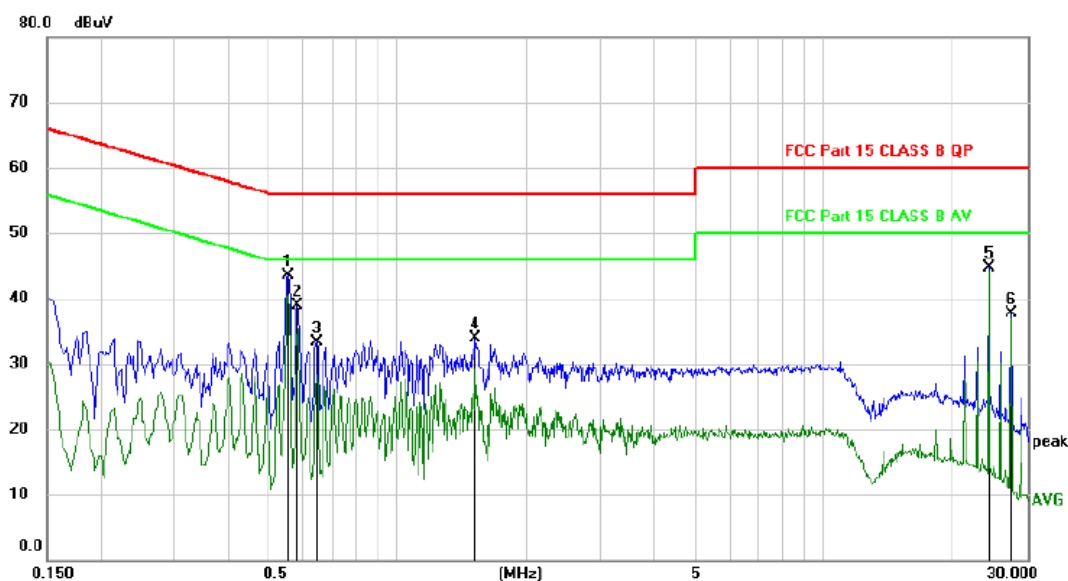
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.5460	30.23	9.94	40.17	56.00	-15.83	peak	
2 *	0.5729	30.75	9.93	40.68	56.00	-15.32	peak	
3	0.6029	24.10	9.92	34.02	56.00	-21.98	peak	
4	1.5239	21.81	9.90	31.71	56.00	-24.29	peak	
5	24.3870	33.43	10.44	43.87	60.00	-16.13	peak	
6	27.4379	28.60	10.55	39.15	60.00	-20.85	peak	

*:Maximum data x:Over limit !:over margin

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Neutral:



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.5550	33.50	9.94	43.44	56.00	-12.56	peak	
2		0.5819	28.88	9.93	38.81	56.00	-17.19	peak	
3		0.6450	23.45	9.92	33.37	56.00	-22.63	peak	
4		1.5239	24.04	9.90	33.94	56.00	-22.06	peak	
5		24.3870	34.36	10.44	44.80	60.00	-15.20	peak	
6		27.4349	27.08	10.55	37.63	60.00	-22.37	peak	

*:Maximum data x:Over limit !:over margin (Reference Only)
 Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

Note: All modes and channels have been tested and only the GFSK 2402MHz mode with the worst data is listed.

11.FREQUENCY STABILITY

11.1.Test limit

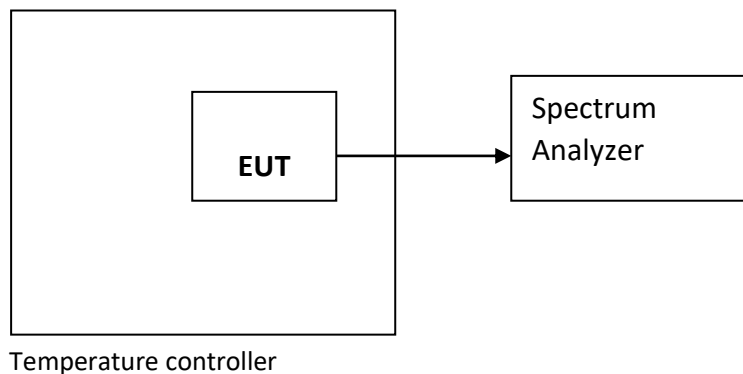
Please refer section RSS-Gen.

Regulation RSS-Gen If the frequency stability of the licence-exempt radio apparatus is not specified in the applicable RSS, the fundamental emissions of the radio apparatus should be kept within at least the central 80% of its permitted operating frequency band in order to minimize the possibility of out-of-band operation. In addition, its occupied bandwidth shall be entirely outside the restricted bands and the prohibited TV bands of 54-72 MHz, 76-88 MHz, 174-216 MHz, and 470-602 MHz, unless otherwise indicated.

11.2.Test Procedure

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.3.Test Setup



11.4.Test Results

PASS.

Detailed information please see the following page.

Assigned Frequency(MHz): 2402MHz(GFSK)				
Voltage	Temperature	Measured Frequency (MHz)	Frequency stability(MHz)	Limit(MHz)
Low DC 3.61V	+20°C	2401.992	-0.008	±0.020
Normal DC 3.8V	-10°C	2401.998	-0.002	±0.020
	-5°C	2402.003	0.003	±0.020
	0°C	2401.991	-0.009	±0.020
	+10°C	2402.001	0.001	±0.020
	+20°C	2401.994	-0.006	±0.020
	+30°C	2402.002	0.002	±0.020
	+40°C	2401.996	-0.004	±0.020
	+50°C	2402.000	0.000	±0.020
	+60°C	2401.999	-0.001	±0.020
High DC 4.18V	+20°C	2402.005	0.005	±0.020

12. ANTENNA REQUIREMENTS

12.1.Limit

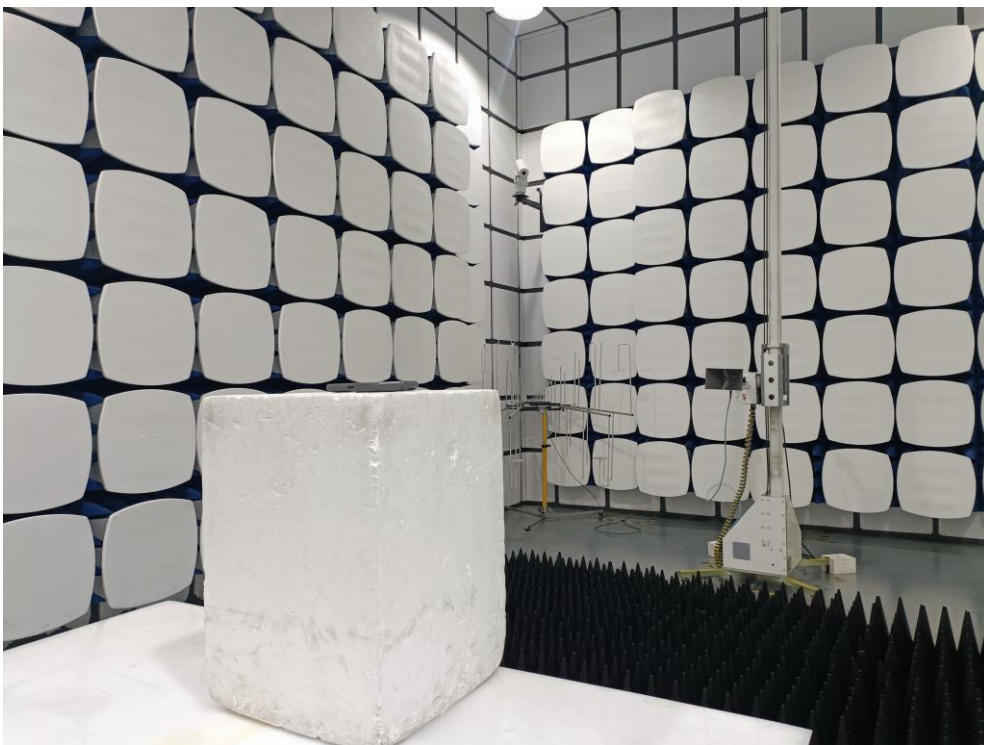
For intentional device, according to FCC 47 CFR Section 15.203 and RSS-GEN, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi..

12.2.Result

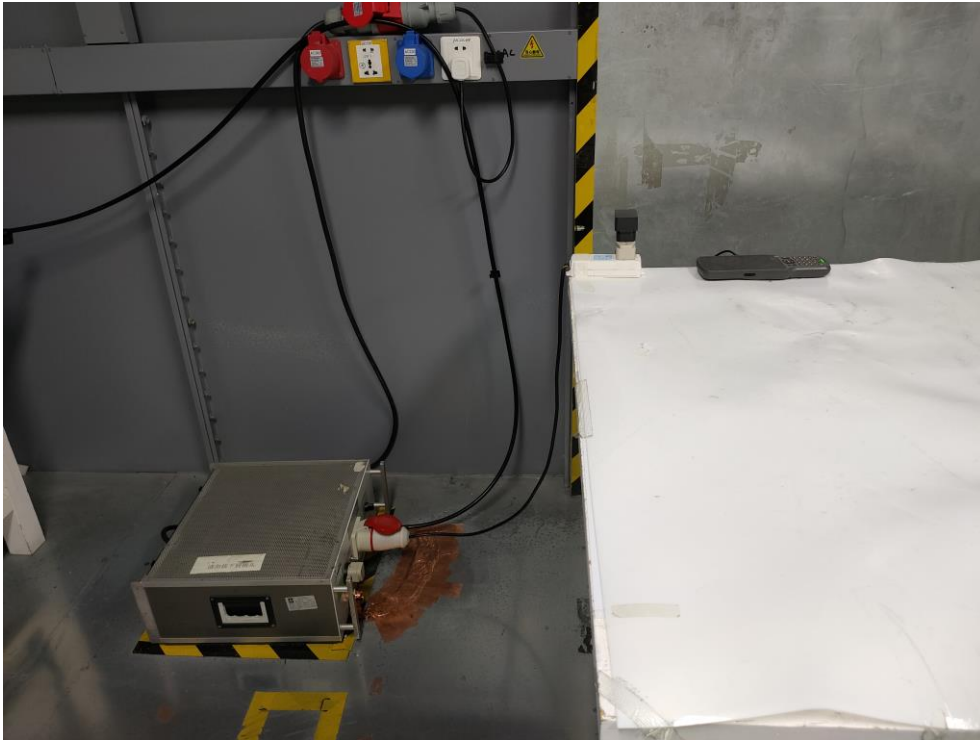
The EUT antenna is Internal Antenna. It complies with the standard requirement.

13. TEST SETUP PHOTO

13.1. Photo of Radiated Emission test



13.2.Photo of Conducted Emission test



14. EUT Photo

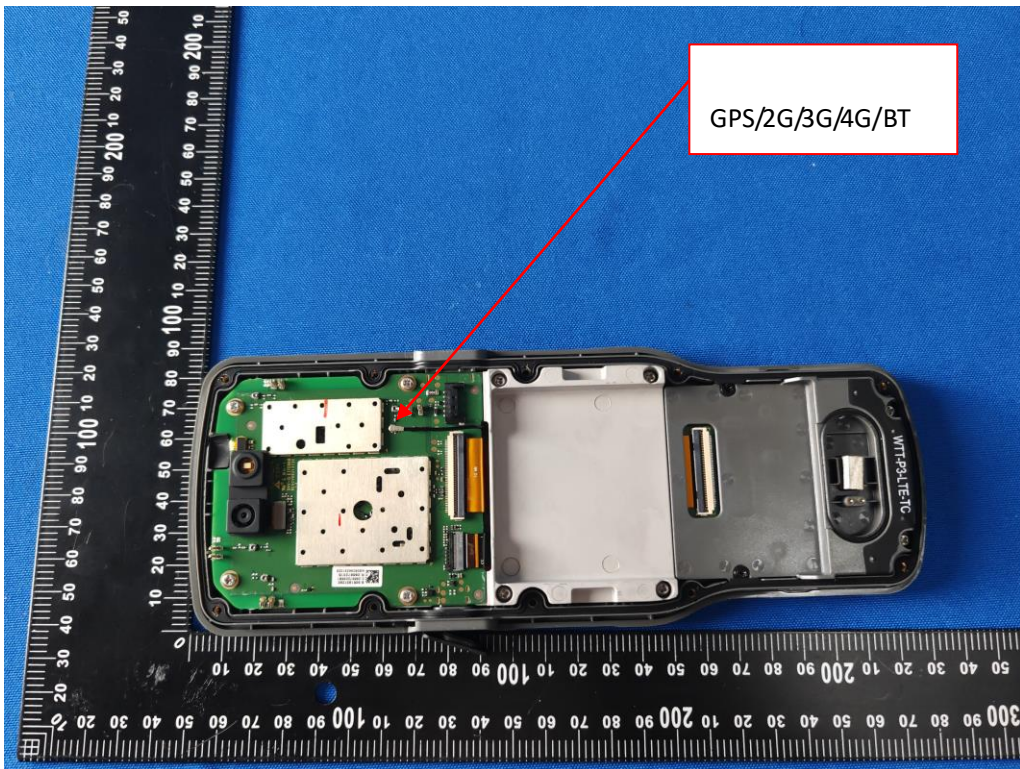
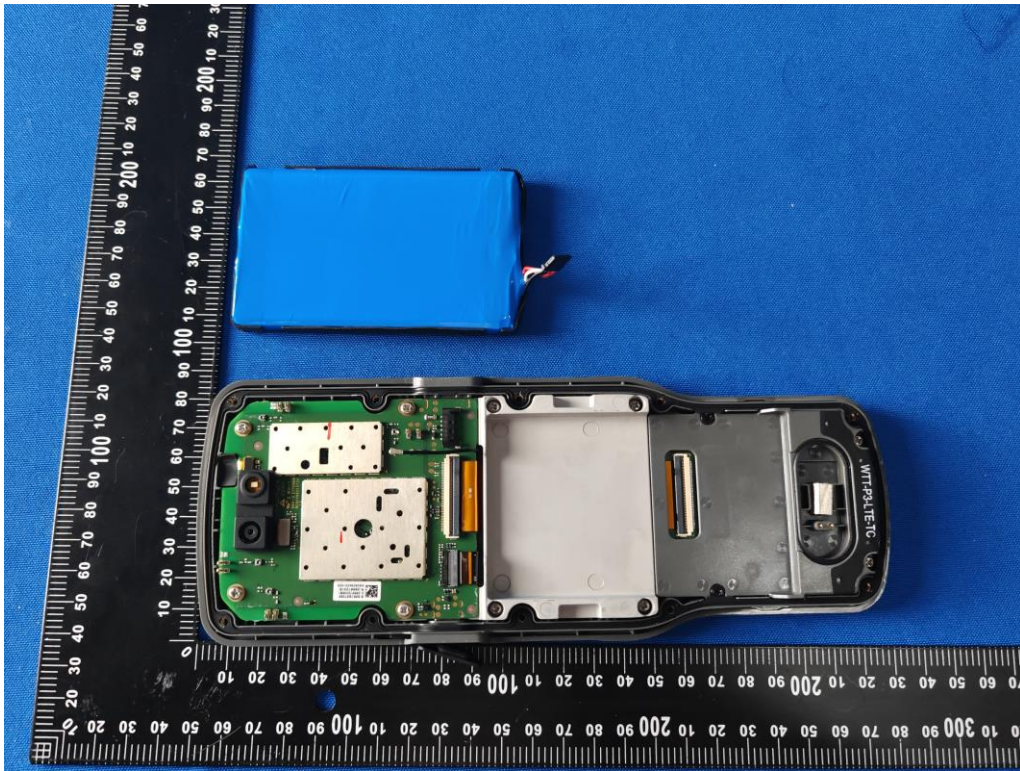


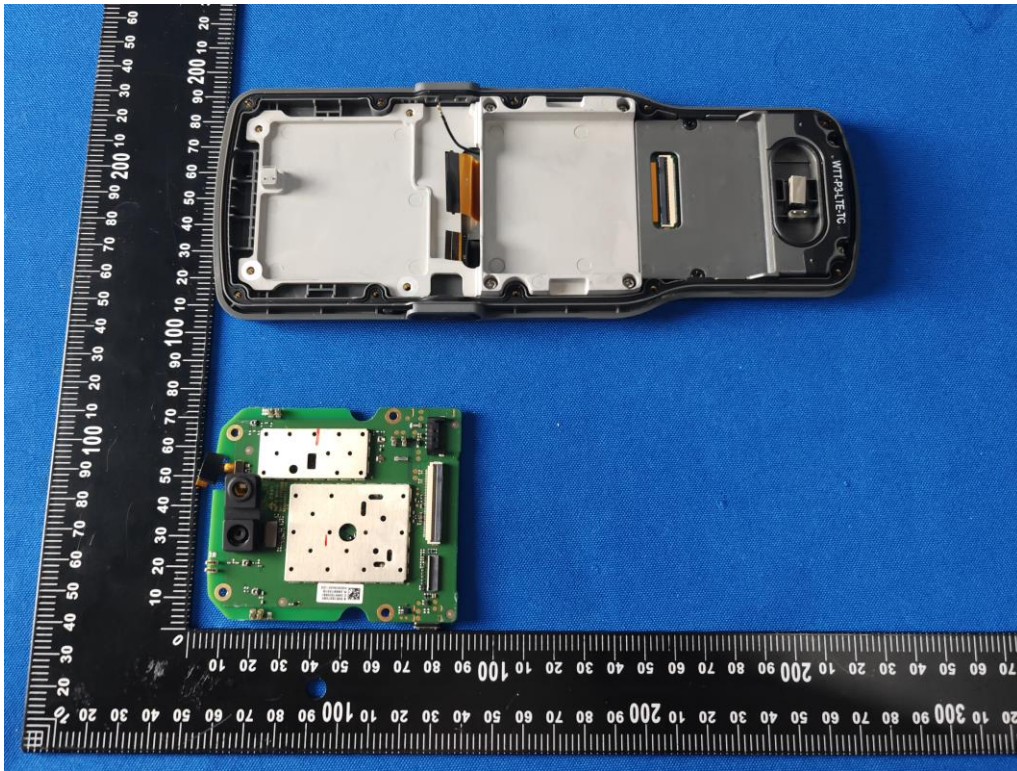


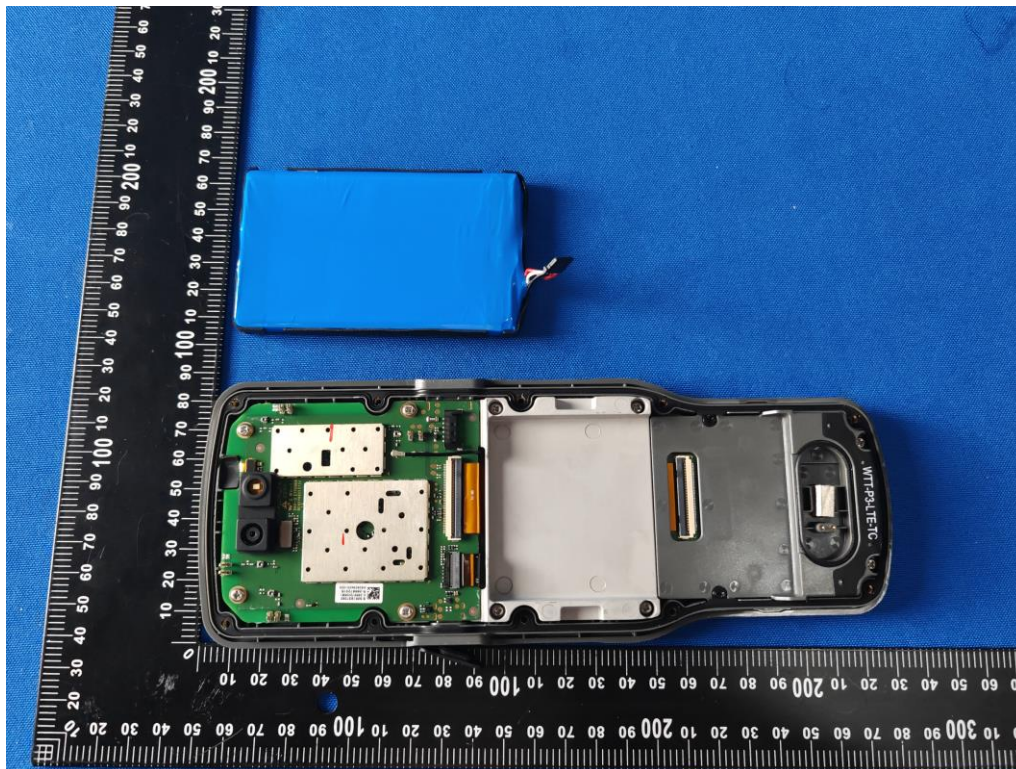


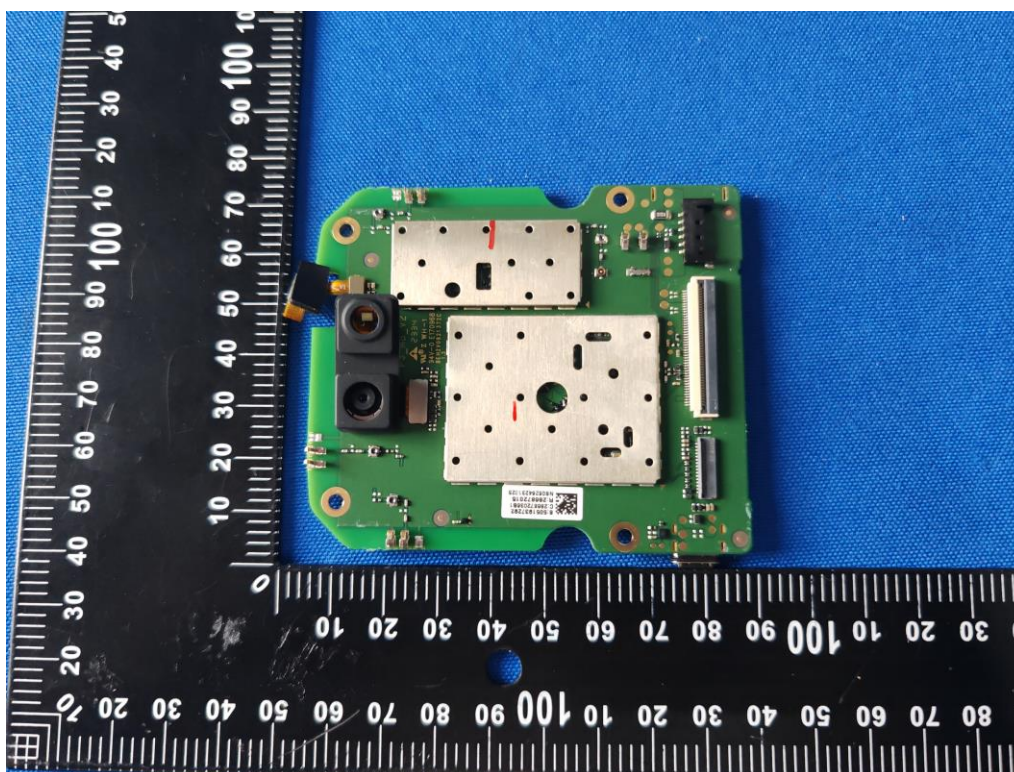
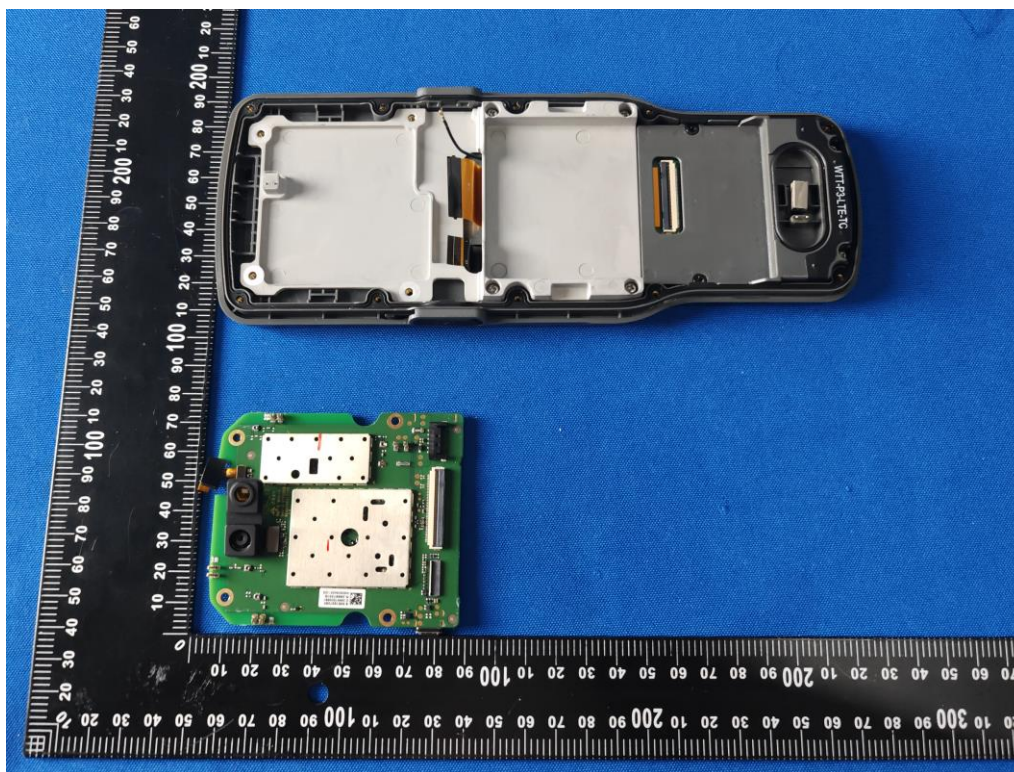


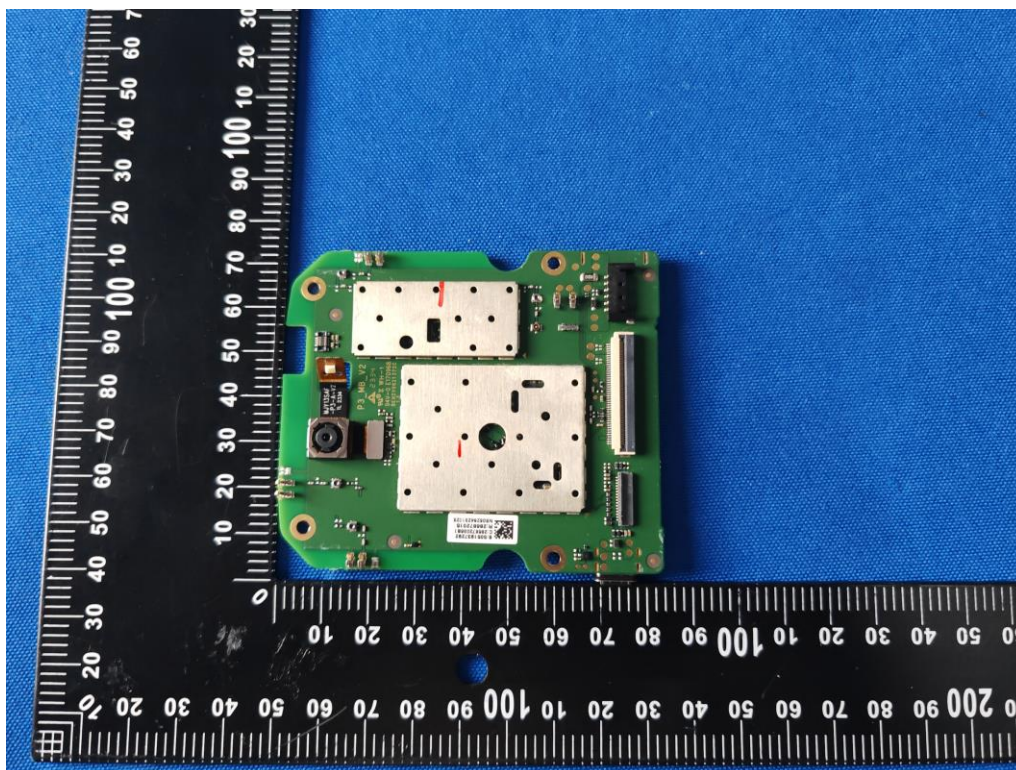
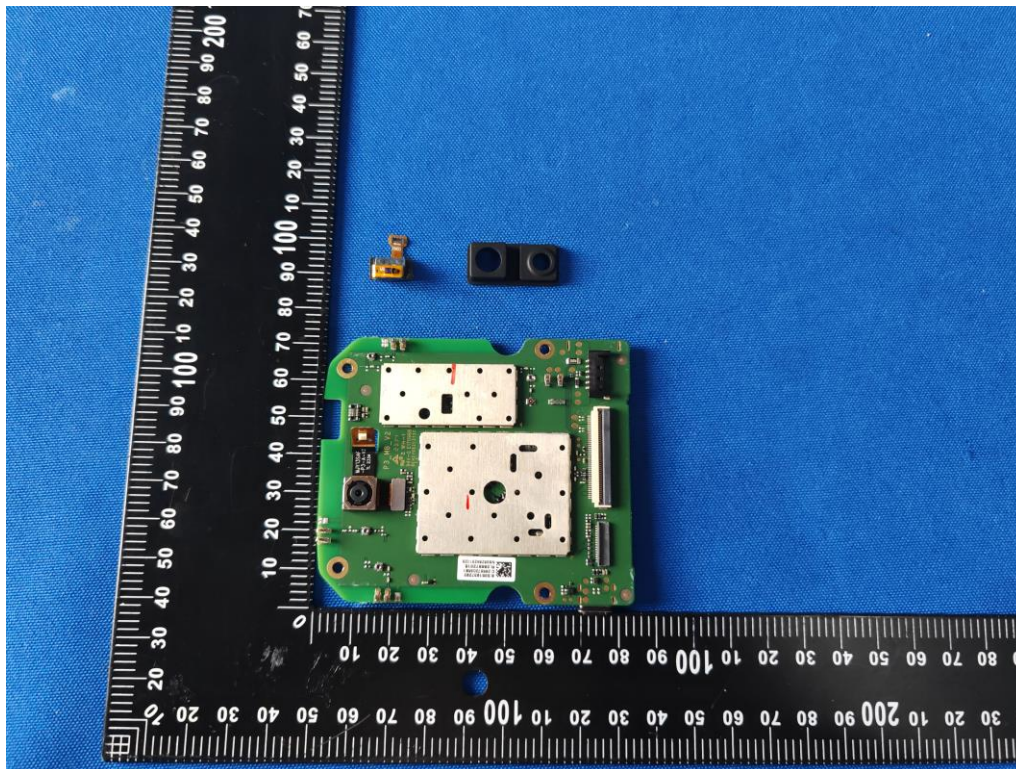


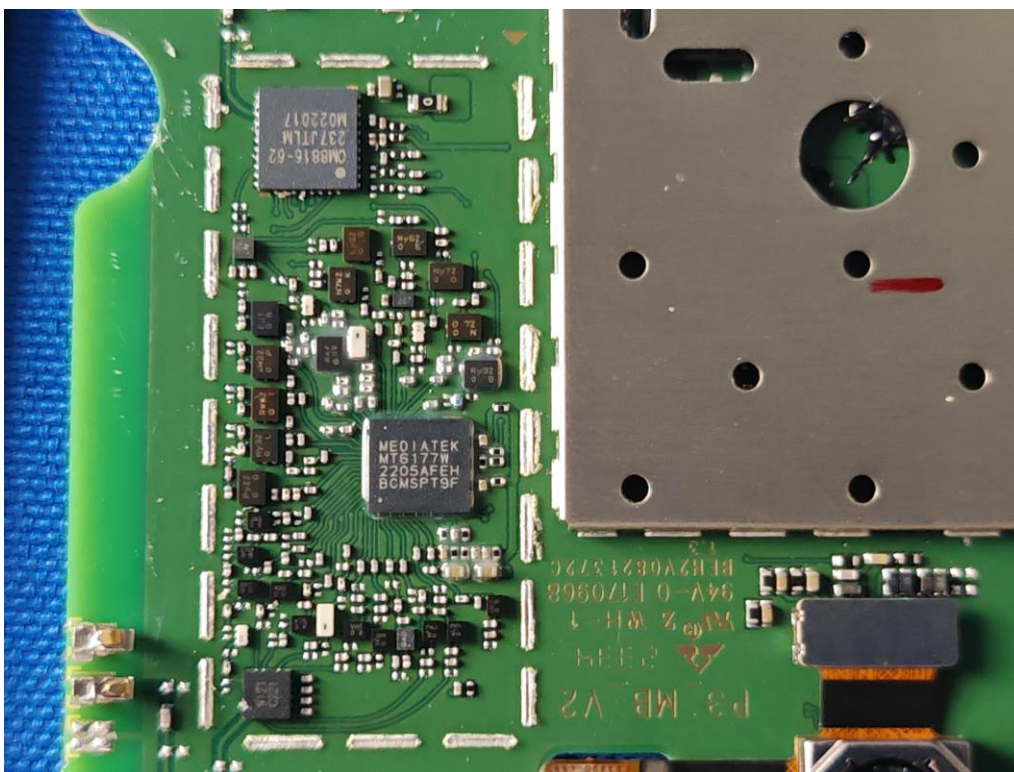
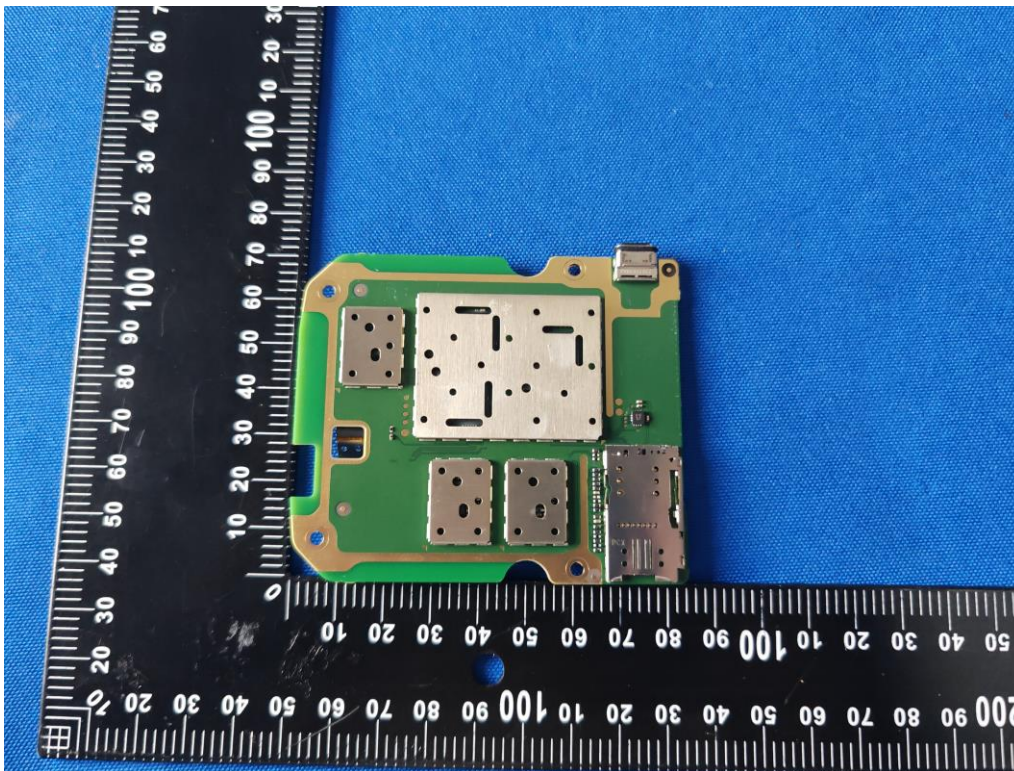


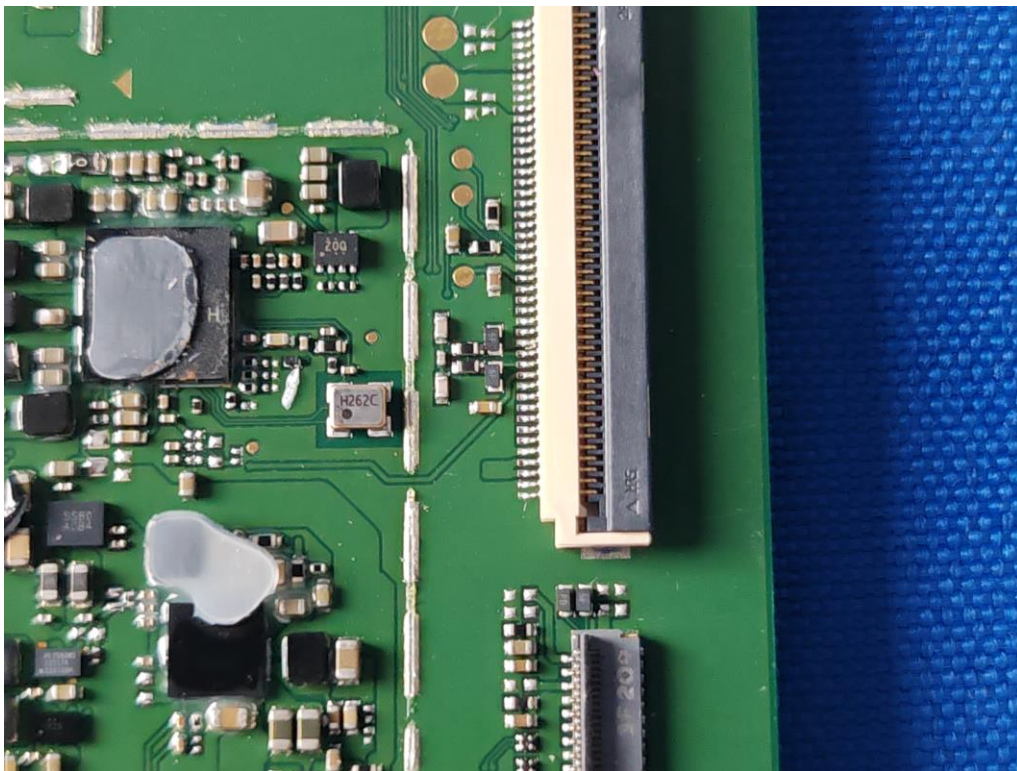
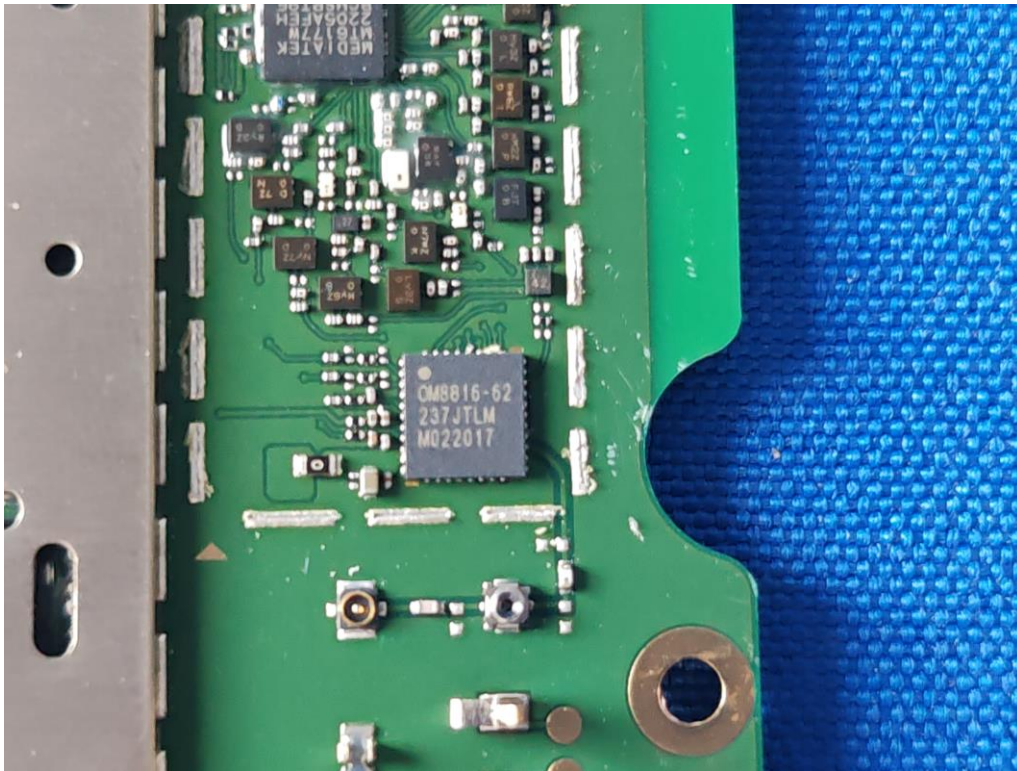


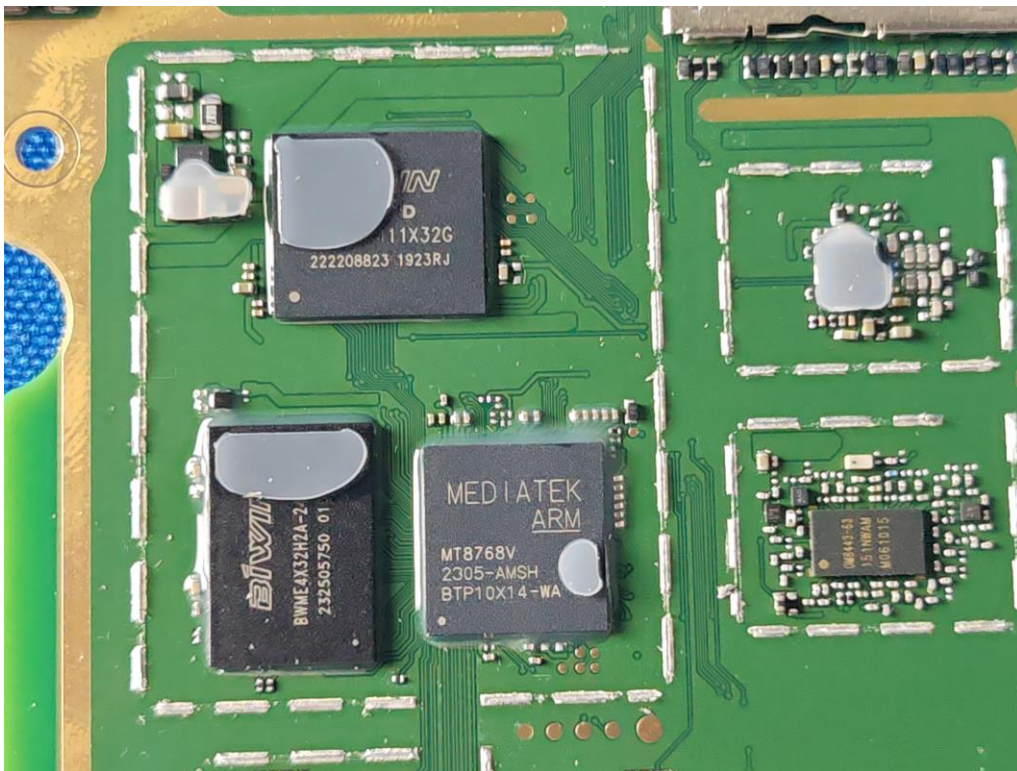
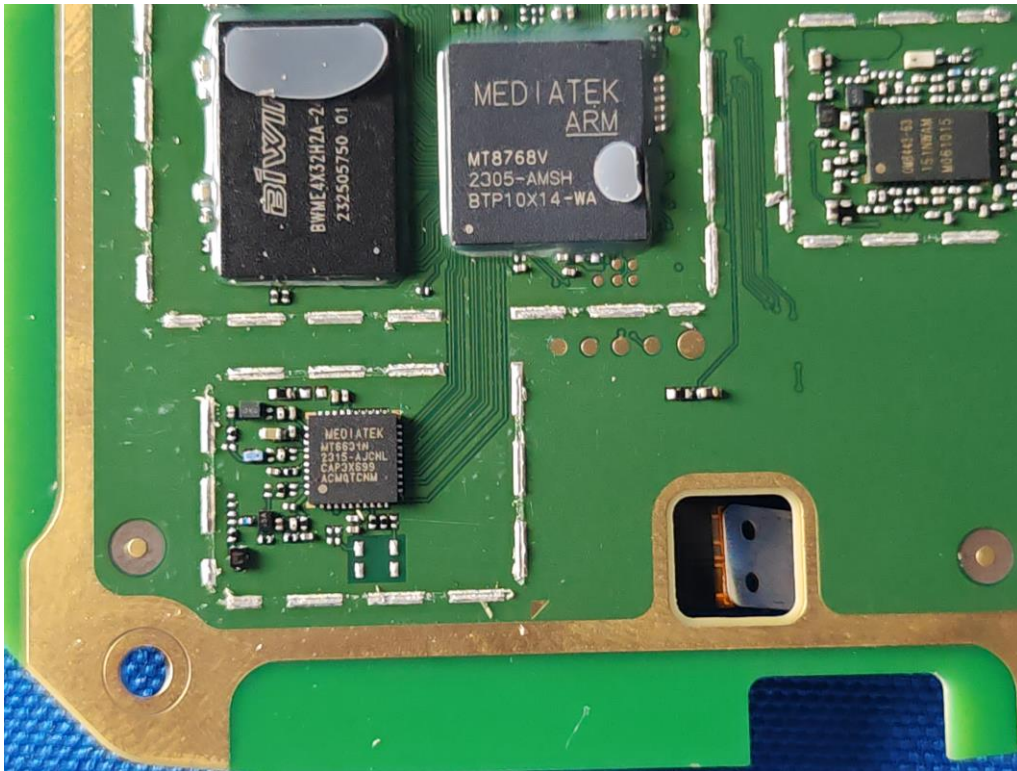














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