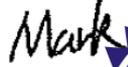


EMC TEST REPORT

Radio Frequency Devices - Unintentional Radiators

Test Report No.:	TCT220422E001	
Date of issue	Apr. 29, 2022	
Testing laboratory.....:	SHENZHEN TONGCE TESTING LAB	
Testing location/ address.....:	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name	Shenzhen Huafului Technology Co., Ltd	
Address.....:	Unit 1401 14/F, Jin qi zhi gu mansion Liu xian street, Xili, Nan shan district, Shenzhen, China	
Manufacturer's name	Shenzhen Huafului Technology Co., Ltd	
Address.....:	Unit 1401 14/F, Jin qi zhi gu mansion Liu xian street, Xili, Nan shan district, Shenzhen, China	
Standard(s)	FCC 47 CFR Part 15 Subpart B	
Test item description.....:	Tablet	
Trade Mark.....:	CUBOT	
Model/Type reference	TAB 30	
Rating(s)	Adapter Information: MODEL:HJ-FC001K7-US Input: AC 100-240 V, 50/ 60 Hz, 0.8 A Output: DC 5.0 V, 3.0 A/ DC 9.0 V, 2.0 A/ DC 12.0 V, 1.5 A, 18.0 W Battery Capacity: DC 3.8 V, 6580 mAh, 25.00 Wh	
Date of receipt of test item.....:	Apr. 22, 2022	
Date (s) of performance of test:	Apr. 22, 2022 ~ Apr. 29, 2022	
Tested by (+signature).....:	Mark ZHANG	
Check by (+signature)	Howie LYU	
Approved by (+signature)	Tomsin	



General disclaimer:

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1. General Product Information

1.1.EUT description

Test item description	Tablet
Model/Type reference	TAB 30
Rating(s)	Adapter Information: MODEL:HJ-FC001K7-US Input: AC 100–240 V, 50/ 60 Hz, 0.8 A Output: DC 5.0 V, 3.0 A/ DC 9.0 V, 2.0 A/ DC 12.0 V, 1.5 A, 18.0 W Battery Capacity: DC 3.8 V, 6580 mAh, 25.00 Wh
Highest internal frequency F_x	<input type="checkbox"/> $F_x \leq 108$ MHz <input type="checkbox"/> 108 MHz $< F_x \leq 500$ MHz <input type="checkbox"/> 500 MHz $< F_x \leq 1$ GHz <input checked="" type="checkbox"/> $F_x > 1$ GHz
USB-C Male to USB-C Male Cable :	<input type="checkbox"/> Shielded <input checked="" type="checkbox"/> Unshielded, <input checked="" type="checkbox"/> Detachable <input type="checkbox"/> Un-detachable <input type="checkbox"/> No applicable <input checked="" type="checkbox"/> Length: 1 m
USB-C Male to USB-A Female Cable	<input type="checkbox"/> Shielded <input checked="" type="checkbox"/> Unshielded, <input checked="" type="checkbox"/> Detachable <input type="checkbox"/> Un-detachable <input type="checkbox"/> No applicable <input checked="" type="checkbox"/> Length: 0.1 m

1.2.Model(s) list

None

2. Test Information

2.1.EUT operation mode(s)

Mode #	Operating mode description	Test voltage
1	Charging + Camera Shooting	AC 120 V/ 60 Hz
2	Charging + Memory Playing	AC 120 V/ 60 Hz
3	Data Transmitting	DC 5 V (Notebook Computer Input AC 120 V/ 60 Hz)
4	USB Playing	Supply Power by internal battery

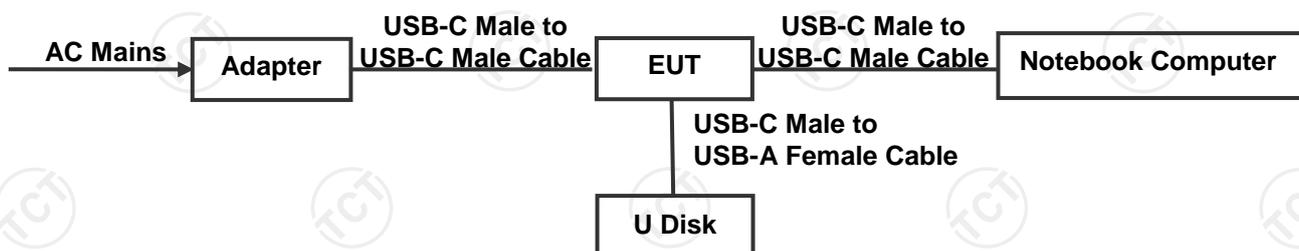
Test worst operating mode	
Disturbance voltage at mains terminals	Mode 2
Radiated emission (Below 1GHz)	Mode 2
Radiated emission (Above 1GHz)	Mode 1

Remark: The worst measurement data and graphical presentation show in this report.

2.2.Special accessories and auxiliary equipment

Product Type	Manufacturer	Model No.	Serial No.
Notebook Computer	DELL	G3 3500	00342-36088-99832-AAOE M
Adapter	DELL	HA130PM190	CN-0CY0JM-CH200-0B6-7 405-A01
U Disk	SanDisk	SDDDC2-016G-Z46	/

2.3.Configuration of system under test



(EUT: Tablet)

2.4. General test conditions

Environmental reference conditions

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment.

The climatic conditions during the tests were within the following limits:

Temperature	Humidity	Atmospheric pressure
15 °C – 35 °C	30 % - 60 %	86 kPa – 106 kPa

If explicitly required in the basic standard or applied product standard the climatic values are recorded and documented separately in this test report.

Measurement uncertainties

Test Item	Uncertainty
Uncertainty for Disturbance voltage at the mains terminals	3.10 dB
Uncertainty for Radiated emission (30 MHz to 1 GHz)	4.56 dB
Uncertainty for Radiated emission (above 1 GHz)	4.22 dB

The overall measurement uncertainty of a measurement is defined as the range of which can be supposed that it contains the true value with a specified probability.

This probability is 95 % for the generally specified measurement uncertainty (so-called expanded measurement uncertainty).

The limits for emission measurements and the Test levels for immunity tests in the applied standards were defined taking into consideration the accuracy limits for measurement and testing equipment required by the Basic standards.

All measurement and test results of the EMC laboratory of SHENZHEN TONGCE TESTING LAB fulfil the requirements for measurement uncertainties according to the standards applied.

Decision rule for statement(s) of conformity is based on accuracy method specified in Clause 4.4.3 in IEC Guide 115:2021.

3. Test Result Summary

FCC 47 CFR Part 15 Subpart B	
Requirement – Test case	Verdict
Classification Class (<input type="checkbox"/> A <input checked="" type="checkbox"/> B)	—
Disturbance voltage at the mains terminals	Pass
Radiated emission	Pass
Remark:---	

Test case verdicts	
- Test case does not apply to the test object	N/A
- Test object does meet the requirement.....	P (Pass)
- Test object does not meet the requirement	F (Fail)

4. List of Test Equipment

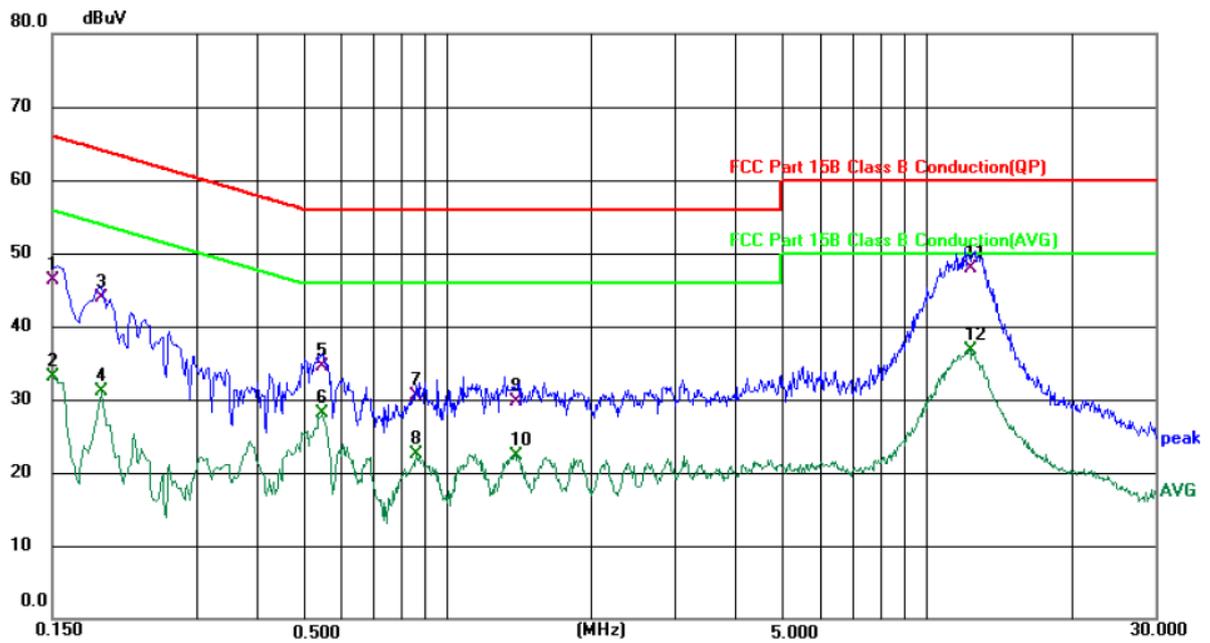
Equipment	Manufacturer	Model No.	Serial No.	Cal. Due
Disturbance voltage at mains terminals				
EMI Test Receiver	R&S	ESCI3	100898	2022/07/07
Line Impedance Stabilisation Network(LISN)	Schwarzbeck	NSLK 8126	8126453	2023/02/24
Attenuator	N/A	10dB	164080	2022/07/07
Radiated emission (30 MHz to 1 GHz)				
Broadband Antenna	Schwarzbeck	VULB9163	340	2022/09/04
EMI Test Receiver	R&S	ESIB7	100197	2022/07/07
Pre-amplifier	HP	8447D	2727A05017	2022/07/07
Radiated emission (above 1 GHz)				
Horn Antenna	Schwarzbeck	BBHA 9120 D	02372	2023/03/06
EMI Test Receiver	R&S	ESIB7	100197	2022/07/07
Pre-amplifier	SKET	LNPA_0118G-4 5	SK2021012102	2023/02/24

5. Test Conditions and Results

5.1. Disturbance voltage at mains terminals

Test requirement	FCC 47 CFR Part 15 Subpart B		
Basic standard	ANSI C63.4: 2014		
Test frequency range..	150 kHz to 30 MHz		
Limits.....	Limits for Class A		
	Frequency (MHz)	dBμV Quasi-peak	dBμV Average
	0.15 to 0.5	79	66
	0.5 to 30	73	60
	Limits for Class B		
	Frequency (MHz)	dBμV Quasi-peak	dBμV Average
	0.15 to 0.5	66 to 56	56 to 46
	0.5 to 5	56	46
	5 to 30	60	50
	Test method.....	The AMN placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane. This distance was between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment were at least 0.8 m from the AMN. All power was connected to the system through Artificial Mains Network (AMN).	
Ambient temperature..	24.1 °C		
Relative humidity	47 %		
Test location	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China		
Test model(s)	TAB 30		
EUT operation mode..	Mode 2		
Test results	Pass		
Remark.....	/		

Measurement data and Graphical presentation of the result



Site 844 Shielding Room

Phase: L1

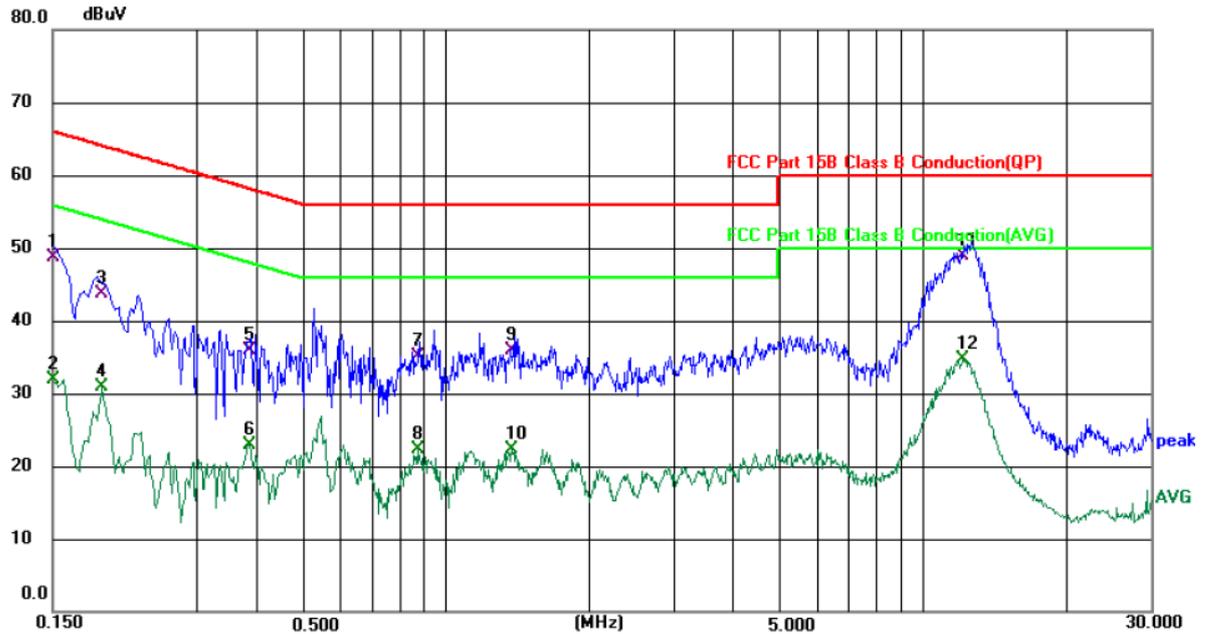
Temperature: 24.1 (°C)

Humidity: 47 %

Limit: FCC Part 15B Class B Conduction(QP)

Power: AC 120 V/60 Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1500	36.74	9.58	46.32	66.00	-19.68	QP	
2		0.1500	23.55	9.58	33.13	56.00	-22.87	AVG	
3		0.1900	34.10	9.71	43.81	64.04	-20.23	QP	
4		0.1900	21.45	9.71	31.16	54.04	-22.88	AVG	
5		0.5500	24.86	9.72	34.58	56.00	-21.42	QP	
6		0.5500	18.43	9.72	28.15	46.00	-17.85	AVG	
7		0.8659	20.75	9.74	30.49	56.00	-25.51	QP	
8		0.8659	12.84	9.74	22.58	46.00	-23.42	AVG	
9		1.3859	19.97	9.79	29.76	56.00	-26.24	QP	
10		1.3859	12.54	9.79	22.33	46.00	-23.67	AVG	
11	*	12.3780	38.10	9.79	47.89	60.00	-12.11	QP	
12		12.3780	26.92	9.79	36.71	50.00	-13.29	AVG	



Site 844 Shielding Room

Phase: *N*

Temperature: 24.1 (°C)

Humidity: 47 %

Limit: FCC Part 15B Class B Conduction(QP)

Power: AC 120 V/60 Hz

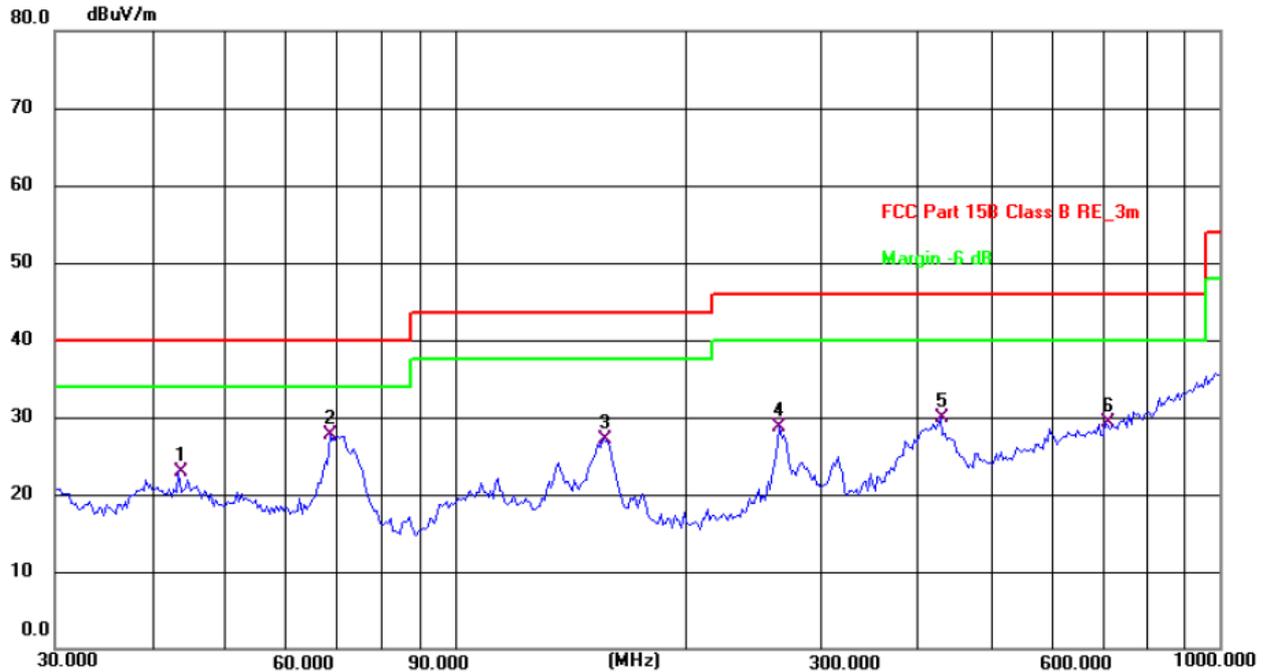
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1500	39.01	9.68	48.69	66.00	-17.31	QP	
2	0.1500	22.14	9.68	31.82	56.00	-24.18	AVG	
3	0.1900	33.99	9.73	43.72	64.04	-20.32	QP	
4	0.1900	21.12	9.73	30.85	54.04	-23.19	AVG	
5	0.3860	26.19	9.63	35.82	58.15	-22.33	QP	
6	0.3860	13.27	9.63	22.90	48.15	-25.25	AVG	
7	0.8739	25.36	9.74	35.10	56.00	-20.90	QP	
8	0.8739	12.65	9.74	22.39	46.00	-23.61	AVG	
9	1.3740	26.19	9.75	35.94	56.00	-20.06	QP	
10	1.3740	12.58	9.75	22.33	46.00	-23.67	AVG	
11 *	12.1340	39.29	9.70	48.99	60.00	-11.01	QP	
12	12.1340	25.05	9.70	34.75	50.00	-15.25	AVG	



5.2. Radiated emission

Test requirement	FCC 47 CFR Part 15 Subpart B				
Basic standard	ANSI C63.4: 2014				
Test frequency range.:	30 MHz to 40 GHz				
Limits.....	Frequency (MHz)	3 m measurement distance			
		Quasi-peak (dB μ V/m)			
		Class A	Class B		
	30 to 88	49	40		
	88 to 216	53.5	43.5		
	216 to 960	56.4	46		
	960 to 1000	59.5	54		
	Frequency (MHz)	3 m measurement distance			
		Class A		Class B	
		Peak (dB μ V/m)	Average (dB μ V/m)	Peak (dB μ V/m)	Average (dB μ V/m)
Above 1000		79.5	59.5	74	54
Test method.....	Measurements were made in a 3-meter semi-anechoic chamber that complies to CISPR 16. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3 meters with the receive antenna located at 1 to 4-meter height in both horizontal and vertical polarities. Final measurements (quasi-peak) were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4-meters. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.				
Ambient temperature.:	24.3 °C				
Relative humidity	45 %				
Test location	TCT Testing Industrial Park Fugiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China				
Test model(s)	TAB 30				
EUT operation mode..:	Mode 1, Mode 2				
Test results	Pass				
Remark.....	/				

Measurement data and Graphical presentation of the result



Site #1 3m Anechoic Chamber

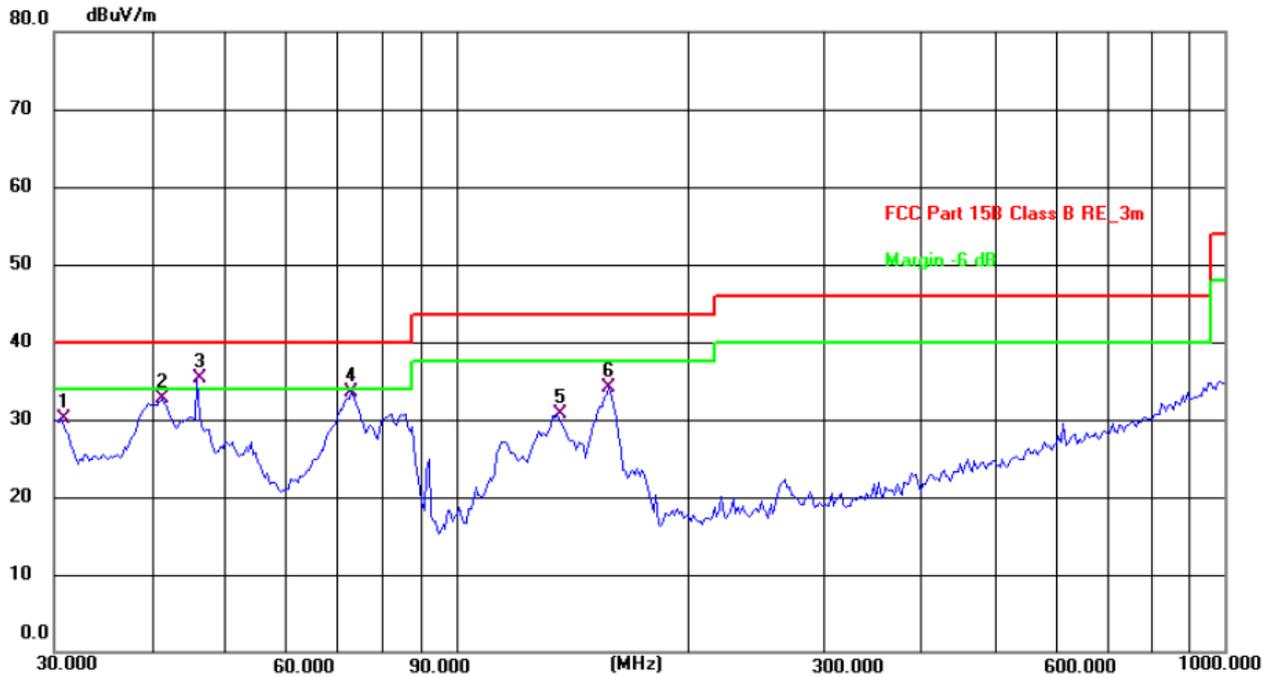
Polarization: **Horizontal**

Temperature: 24.3(C) Humidity: 45 %

Limit: FCC Part 15B Class B RE_3m

Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	43.5057	9.33	13.63	22.96	40.00	-17.04	QP	P	
2 *	68.6310	16.57	11.08	27.65	40.00	-12.35	QP	P	
3	155.9101	13.78	13.24	27.02	43.50	-16.48	QP	P	
4	265.6757	16.13	12.56	28.69	46.00	-17.31	QP	P	
5	431.0315	13.08	16.81	29.89	46.00	-16.11	QP	P	
6	709.1821	7.36	21.98	29.34	46.00	-16.66	QP	P	



Site #1 3m Anechoic Chamber

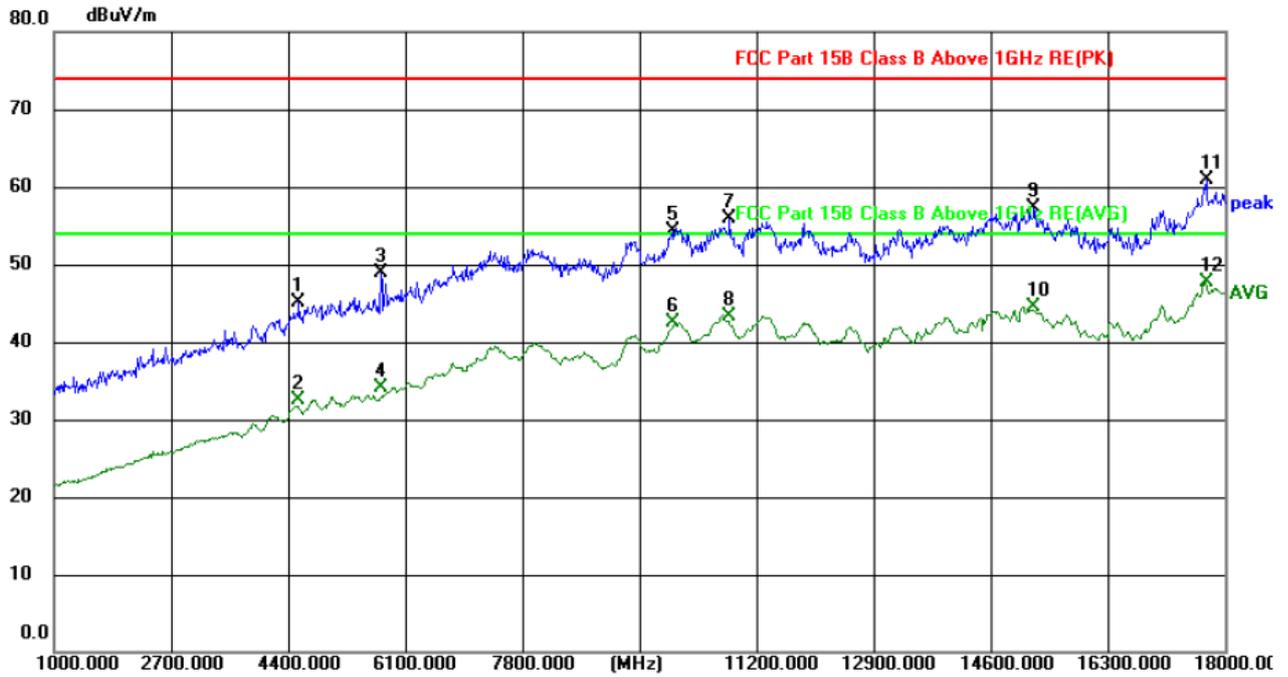
Polarization: **Vertical**

Temperature: 24.3(C) Humidity: 45 %

Limit: FCC Part 15B Class B RE_3m

Power: AC 120 V/60 Hz

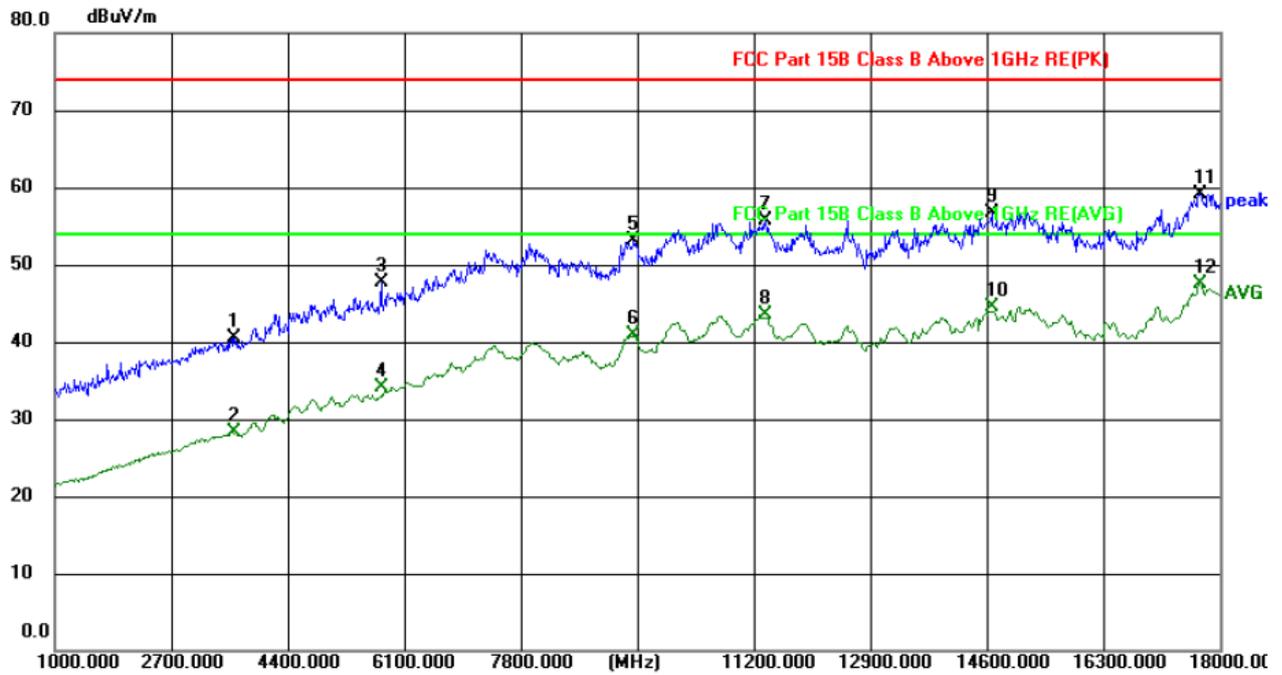
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	30.6379	17.61	12.50	30.11	40.00	-9.89	QP	P	
2	41.4215	19.10	13.69	32.79	40.00	-7.21	QP	P	
3 *	46.0164	21.71	13.57	35.28	40.00	-4.72	QP	P	
4	73.1025	23.34	10.26	33.60	40.00	-6.40	QP	P	
5	135.5062	18.25	12.42	30.67	43.50	-12.83	QP	P	
6	158.1123	20.76	13.31	34.07	43.50	-9.43	QP	P	



Site #1 3m Anechoic Chamber Polarization: **Horizontal** Temperature: 24.3(C) Humidity: 45 %
 Limit: FCC Part 15B Class B Above 1GHz RE(PK) Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4553.000	51.79	-6.63	45.16	74.00	-28.84	peak	P	
2	4553.000	39.16	-6.63	32.53	54.00	-21.47	AVG	P	
3	5743.000	50.82	-1.92	48.90	74.00	-25.10	peak	P	
4	5743.000	35.95	-1.92	34.03	54.00	-19.97	AVG	P	
5	9976.000	47.25	7.02	54.27	74.00	-19.73	peak	P	
6	9976.000	35.46	7.02	42.48	54.00	-11.52	AVG	P	
7	10809.000	47.94	7.87	55.81	74.00	-18.19	peak	P	
8	10809.000	35.53	7.87	43.40	54.00	-10.60	AVG	P	
9	15229.000	48.63	8.75	57.38	74.00	-16.62	peak	P	
10	15229.000	35.77	8.75	44.52	54.00	-9.48	AVG	P	
11	17728.000	50.37	10.54	60.91	74.00	-13.09	peak	P	
12 *	17728.000	37.10	10.54	47.64	54.00	-6.36	AVG	P	





Site #1 3m Anechoic Chamber Polarization: **Vertical** Temperature: 24.3(C) Humidity: 45 %
 Limit: FCC Part 15B Class B Above 1GHz RE(PK) Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	3618.000	51.08	-10.49	40.59	74.00	-33.41	peak	P	
2	3618.000	38.76	-10.49	28.27	54.00	-25.73	AVG	P	
3	5760.000	49.59	-1.88	47.71	74.00	-26.29	peak	P	
4	5760.000	35.97	-1.88	34.09	54.00	-19.91	AVG	P	
5	9449.000	47.62	5.49	53.11	74.00	-20.89	peak	P	
6	9449.000	35.46	5.49	40.95	54.00	-13.05	AVG	P	
7	11370.000	47.55	8.06	55.61	74.00	-18.39	peak	P	
8	11370.000	35.36	8.06	43.42	54.00	-10.58	AVG	P	
9	14668.000	47.56	9.20	56.76	74.00	-17.24	peak	P	
10	14668.000	35.29	9.20	44.49	54.00	-9.51	AVG	P	
11	17711.000	48.69	10.50	59.19	74.00	-14.81	peak	P	
12 *	17711.000	37.10	10.50	47.60	54.00	-6.40	AVG	P	

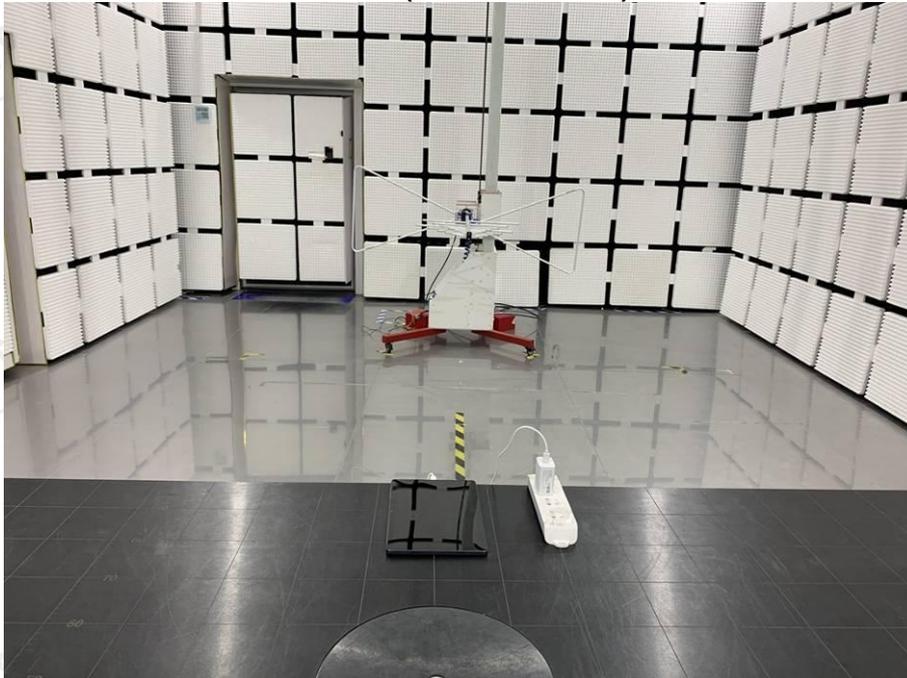


6. Test set-up photo

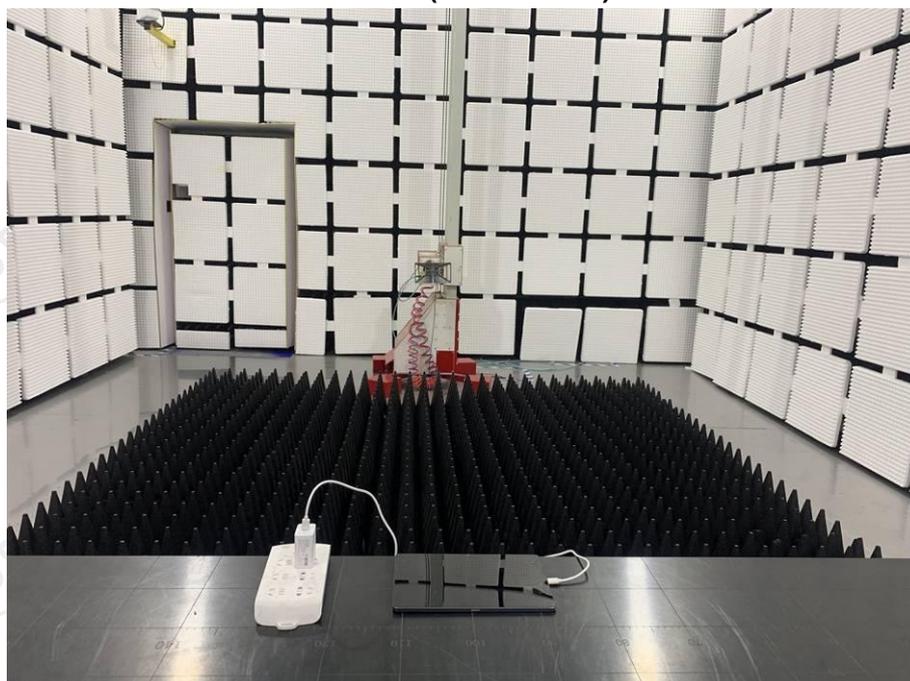
Disturbance voltage at the mains terminals Test View



Radiated emission (30 MHz to 1 GHz) Test View



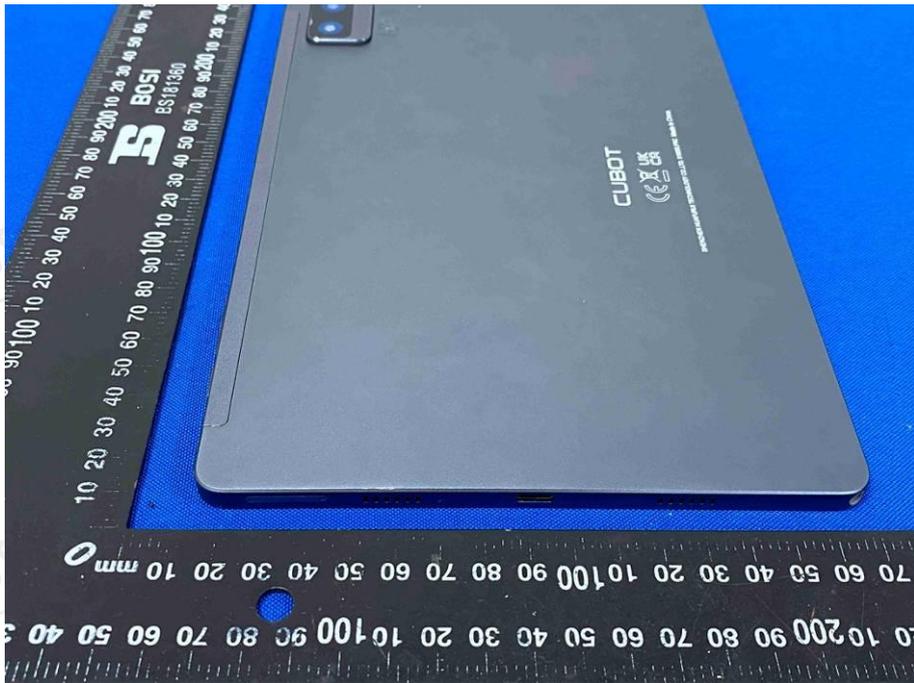
Radiated emission (Above 1 GHz) Test View

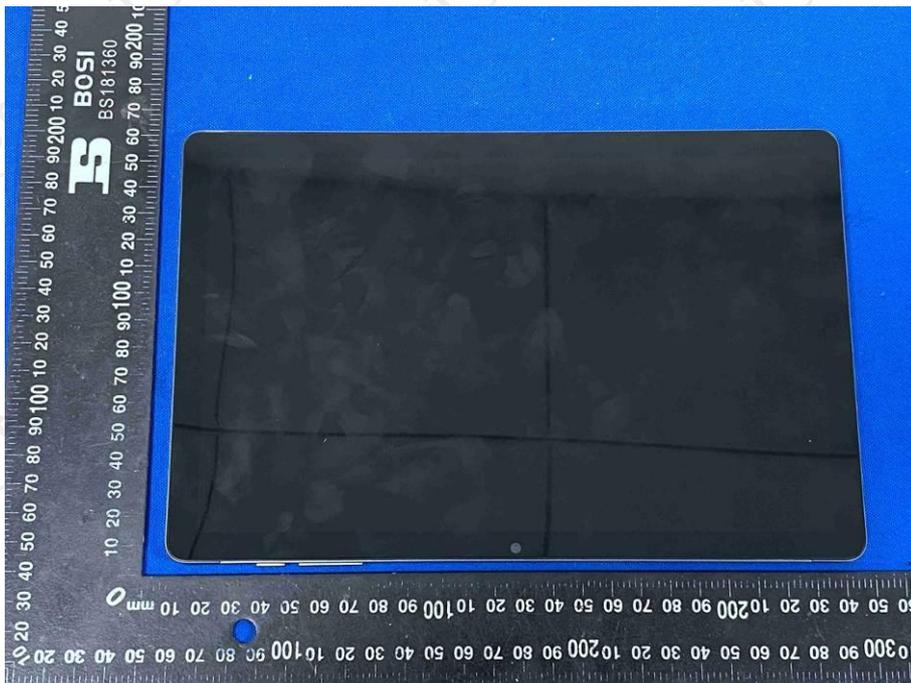
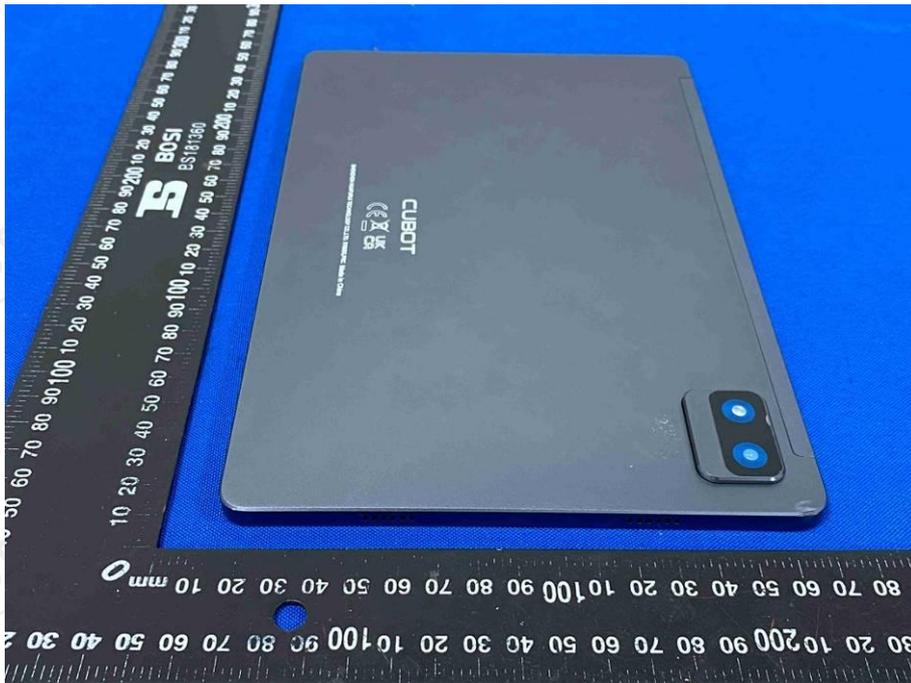


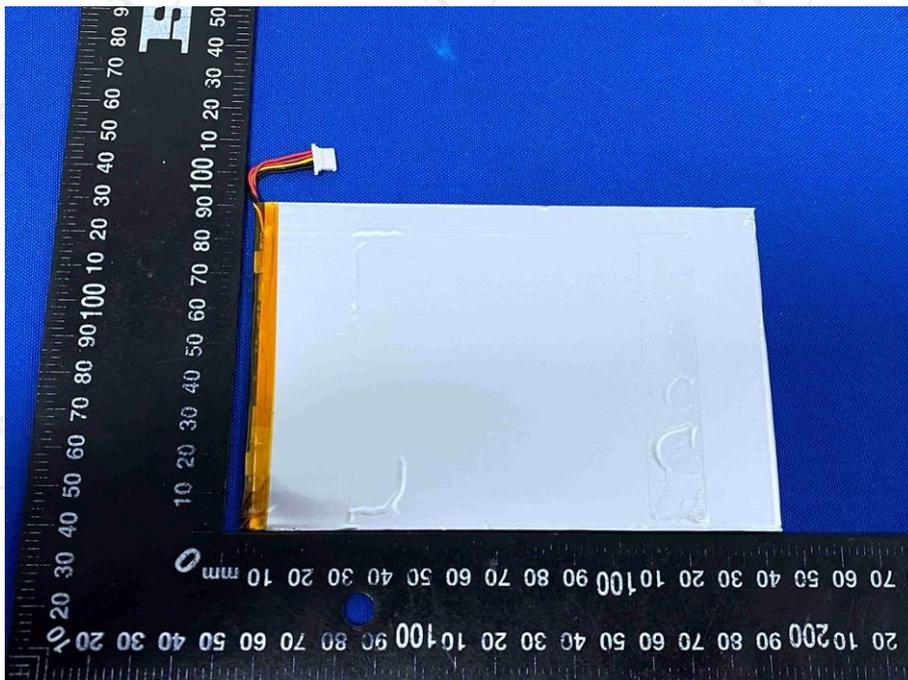
7. Photo of the EUT

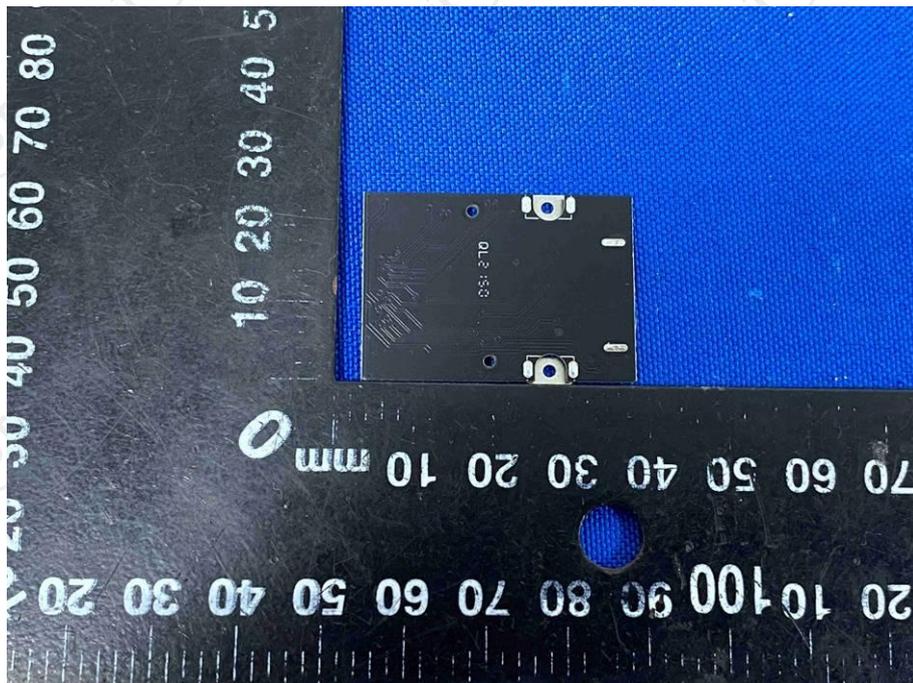
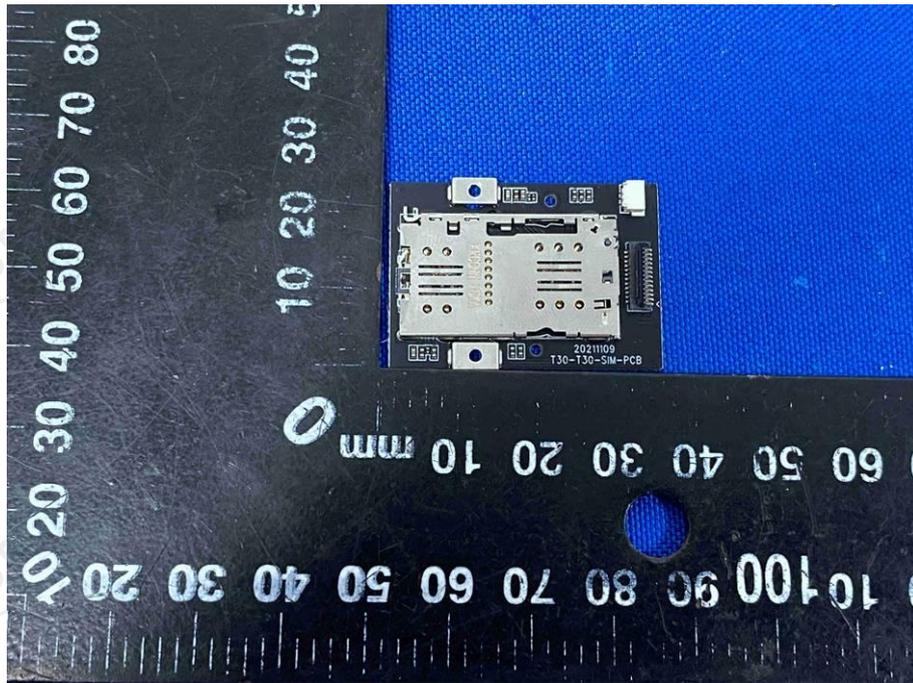


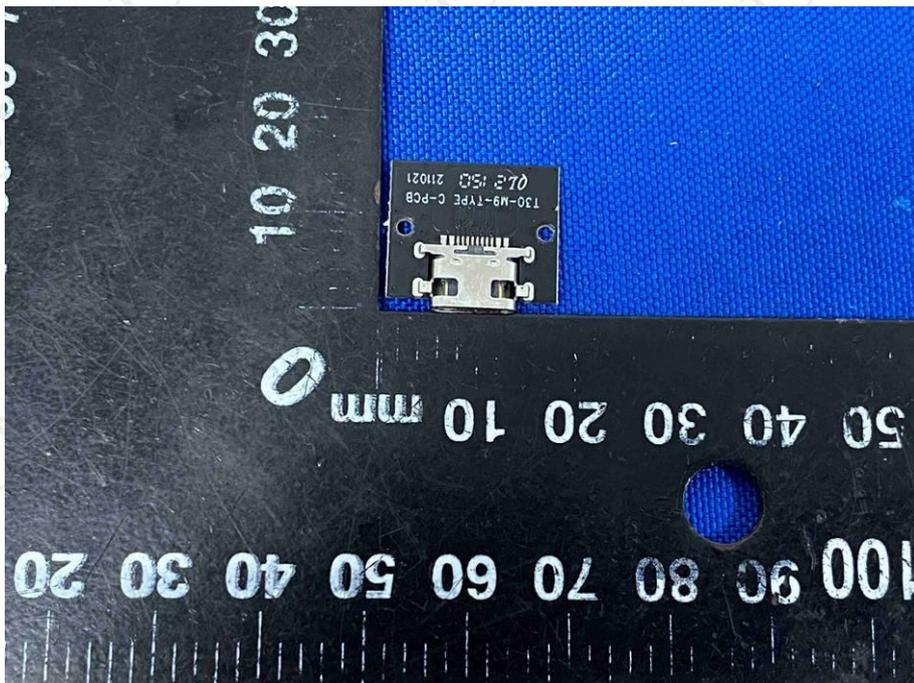
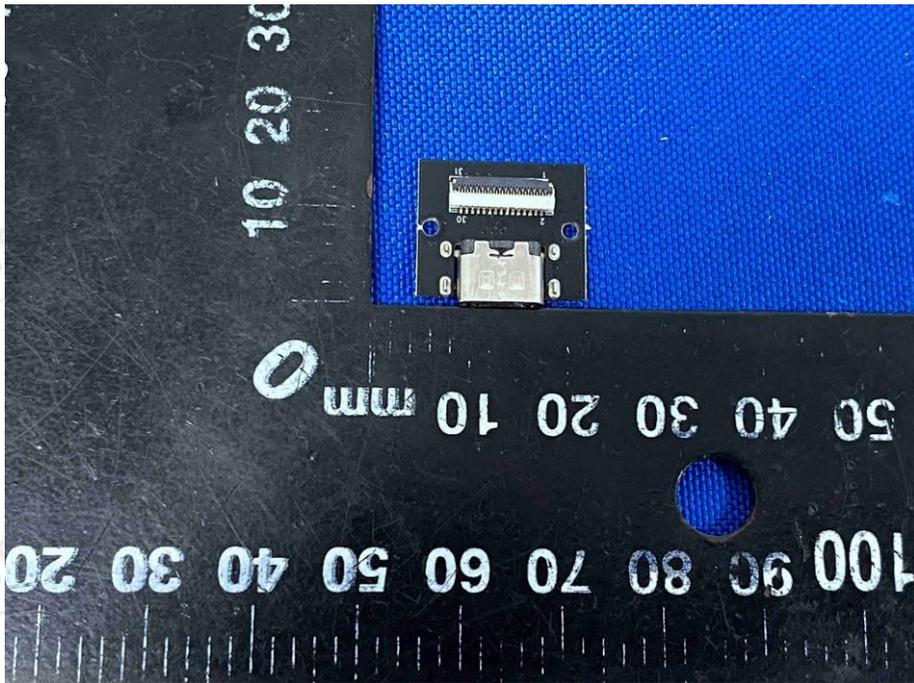


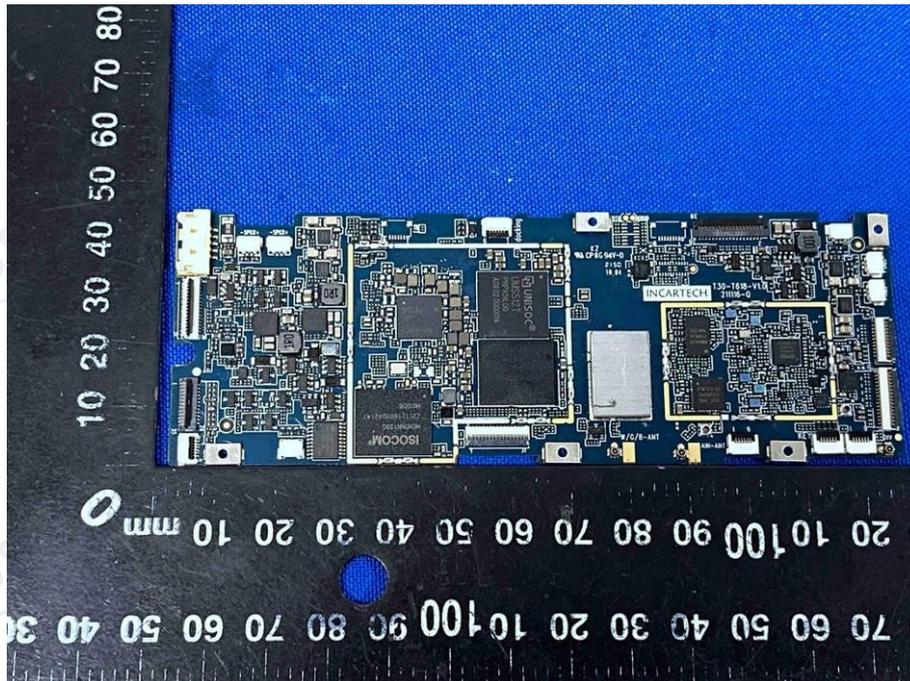


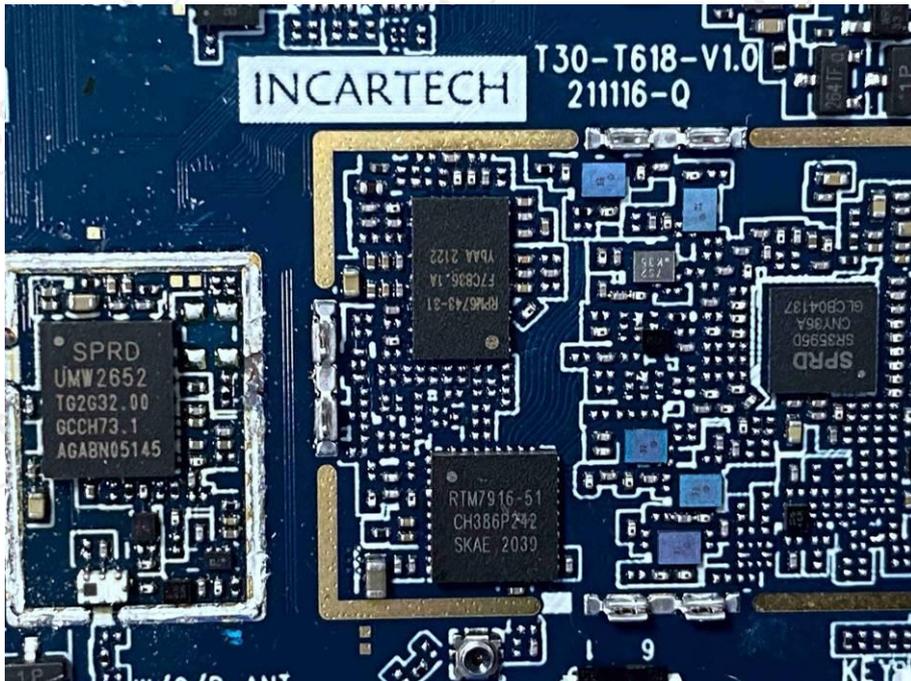


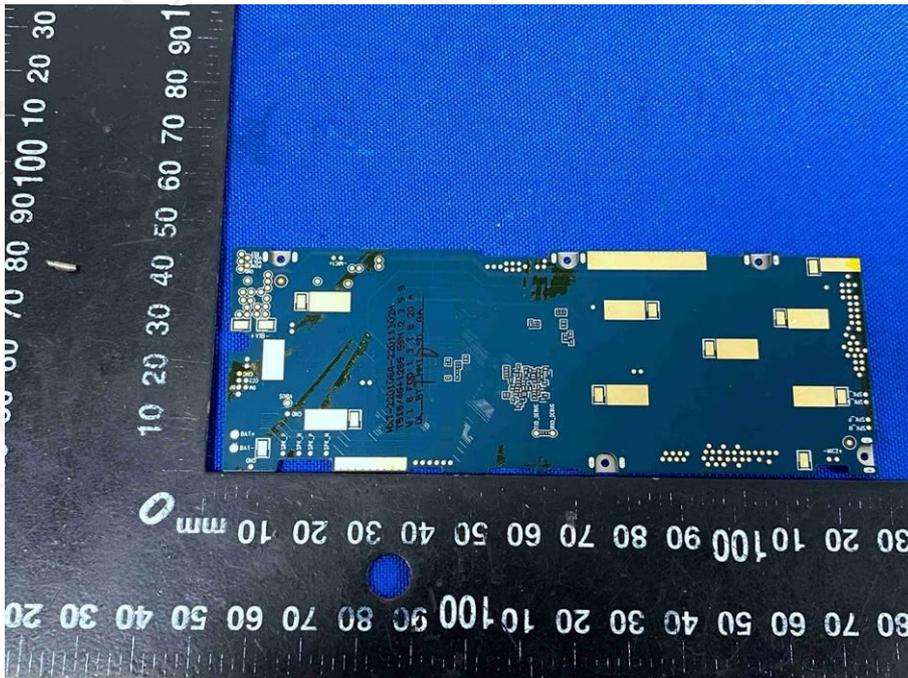
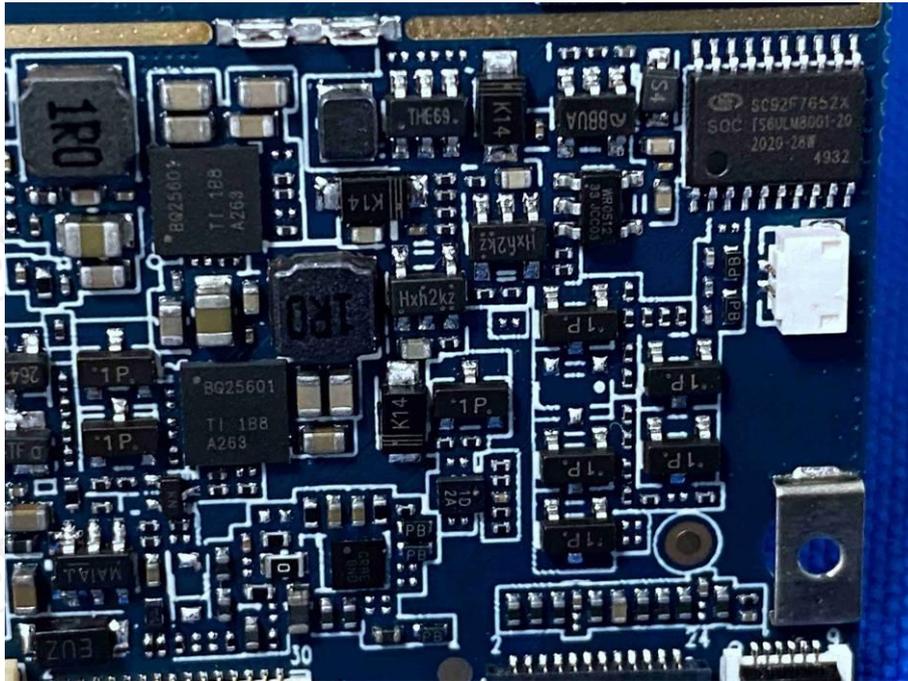












*******End of report*******