



FCC SDoC Test Report

For

Applicant Name: DOKE COMMUNICATION (HK) LIMITED
Address: RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD
WANCHAI HK CHINA
EUT Name: Tablet PC
Brand Name: oscal
Model Number: Pad18

Issued By

Company Name: BTF Testing Lab (Shenzhen) Co., Ltd.
Address: F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park,
Tantou Community, Songgang Street, Bao'an District, Shenzhen,
China

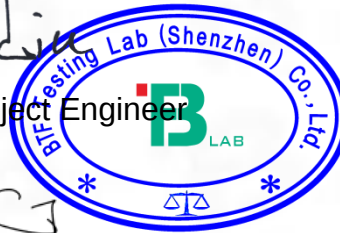
Report Number: BTF231008E00901
Test Standards: 47 CFR Part 15, Subpart B

Test Conclusion: Pass
FCC ID: 2A7DX-PAD18
Test Date: 2023-10-09 to 2023-10-30
Date of Issue: 2023-11-08

Prepared By:

Chris Liu

Chris Liu / Project Engineer
2023-11-08



Date:

Approved By:

Ryan.CJ

Ryan.CJ / EMC Manager
2023-11-08

Date:

Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.

Revision History		
Version	Issue Date	Revisions Content
R_V0	2023-11-08	Original
<i>Note: Once the revision has been made, then previous versions reports are invalid.</i>		

Table of Contents

1	INTRODUCTION	4
1.1	Identification of Testing Laboratory	4
1.2	Identification of the Responsible Testing Location	4
1.3	Announcement	4
2	PRODUCT INFORMATION.....	5
2.1	Application Information	5
2.2	Manufacturer Information.....	5
2.3	Factory Information	5
2.4	General Description of Equipment under Test (EUT)	5
2.5	Technical Information	5
3	SUMMARY OF TEST RESULTS	6
3.1	Test Standards.....	6
3.2	Uncertainty of Test	6
3.3	Summary of Test Result	6
4	TEST CONFIGURATION	7
4.1	Test Equipment List	7
4.2	Test Auxiliary Equipment	8
4.3	Test Modes.....	8
5	EMISSION TEST RESULTS (EMI)	9
5.1	Conducted emissions on AC mains	9
5.1.1	E.U.T. Operation:	9
5.1.2	Test Setup Diagram:	9
5.1.3	Test Data:	10
5.2	Radiated emissions (Below 1GHz)	12
5.2.1	E.U.T. Operation:	12
5.2.2	Test Setup Diagram:	12
5.2.3	Test Data:	13
5.3	Radiated emissions (Above 1GHz).....	15
5.3.1	E.U.T. Operation:	15
5.3.2	Test Setup Diagram:	15
5.3.3	Test Data:	16
6	TEST SETUP PHOTOS	17
7	EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)	19

1 Introduction

1.1 Identification of Testing Laboratory

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Phone Number:	+86-0755-23146130
Fax Number:	+86-0755-23146130

1.2 Identification of the Responsible Testing Location

Company Name:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, China
Phone Number:	+86-0755-23146130
Fax Number:	+86-0755-23146130
FCC Registration Number:	518915
Designation Number:	CN1330

1.3 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

2 Product Information

2.1 Application Information

Company Name:	DOKE COMMUNICATION (HK) LIMITED
Address:	RM 1902 EASEY COMM BLDG 253-261 HENNESSY ROAD WANCHAI HK CHINA

2.2 Manufacturer Information

Company Name:	Shenzhen DOKE Electronic Co., Ltd.
Address:	801, Building 3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China

2.3 Factory Information

Company Name:	Shenzhen DOKE Electronic Co., Ltd.
Address:	801, Building 3, 7th Industrial Zone, Yulv Community, Yutang Road, Guangming District, Shenzhen, China

2.4 General Description of Equipment under Test (EUT)

EUT Name:	Tablet PC
Test Model Number:	Pad18
Hardware Version:	T30-T616-V2.0
Software Version:	Pad18_NEU_T30_V1.0

2.5 Technical Information

Power Supply:	AC 120V 60Hz
Power Adaptor:	Model:HJ-FC001K7-US Input:100-240V~50/60Hz 0.6A Output:5.0V==3.0A 15.0W or 9.0V==2.0A 18.0W or 12.0V==1.5A 18.0W

3 Summary of Test Results

3.1 Test Standards

The tests were performed according to following standards:

47 CFR Part 15, Subpart B: Unintentional Radiators

3.2 Uncertainty of Test

Item	Measurement Uncertainty
Conducted Emission (150 kHz-30 MHz)	±2.64dB
Radiated Emissions (30M - 1GHz)	±4.12dB
Radiated Emissions (above 1GHz)	1-6GHz: ±3.94dB 6-18GHz: ±4.16dB
The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3.3 Summary of Test Result

Item	Standard	Requirement	Result
Conducted emissions on AC mains	47 CFR Part 15, Subpart B	15.107, Class B	Pass
Radiated emissions (Below 1GHz)	47 CFR Part 15, Subpart B	15.109, Class B	Pass
Radiated emissions (Above 1GHz)	47 CFR Part 15, Subpart B	15.109, Class B	Pass

4 Test Configuration

4.1 Test Equipment List

Conducted emissions on AC mains					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Pulse Limiter	SCHWARZBECK	VTSD 9561-F	00953	2022-11-24	2023-11-23
Coaxial Switcher	SCHWARZBECK	CX210	CX210	2022-11-24	2023-11-23
V-LISN	SCHWARZBECK	NSLK 8127	01073	2022-11-24	2023-11-23
LISN	AFJ	LS16/110VAC	16010020076	2023-02-23	2024-02-22
EMI Receiver	ROHDE&SCHWARZ	ESCI3	101422	2022-11-24	2023-11-23

Radiated emissions (Below 1GHz)					
Radiated emissions (Above 1GHz)					
Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
Coaxial cable Multiflex 141	Schwarzbeck	N/SMA 0.5m	517386	2023-03-24	2024-03-23
Preamplifier	SCHWARZBECK	BBV9744	00246	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMASMAM-10m	21101566	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-10m	21101570	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF1-SMASMAM-1m	21101568	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-1m	21101576	2022-11-24	2023-11-23
RE Cable	REBES Talent	UF2-NMNM-2.5m	21101573	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Horn Antenna	SCHWARZBECK	BBHA9170	01157	2021-11-28	2023-11-27
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI7	101032	2022-11-24	2023-11-23
SIGNAL ANALYZER	ROHDE&SCHWARZ	FSQ40	100010	2022-11-24	2023-11-23
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Broadband Preamplifier	SCHWARZBECK	BBV9718D	00008	2023-03-24	2024-03-23
Horn Antenna	SCHWARZBECK	BBHA9120D	2597	2022-05-22	2024-05-21
EZ EMC	Frad	FA-03A2 RE+	/	/	/
POSITIONAL CONTROLLER	SKET	PCI-GPIB	/	/	/
Log periodic antenna	SCHWARZBECK	VULB 9168	01328	2021-11-28	2023-11-27

4.2 Test Auxiliary Equipment

The EUT was tested as an independent device.

4.3 Test Modes

No.	Test Modes	Description
TM1	TM1	Data Transmission
TM2	TM2	Video Record
TM3	TM3	Video Playing

5 Emission Test Results (EMI)

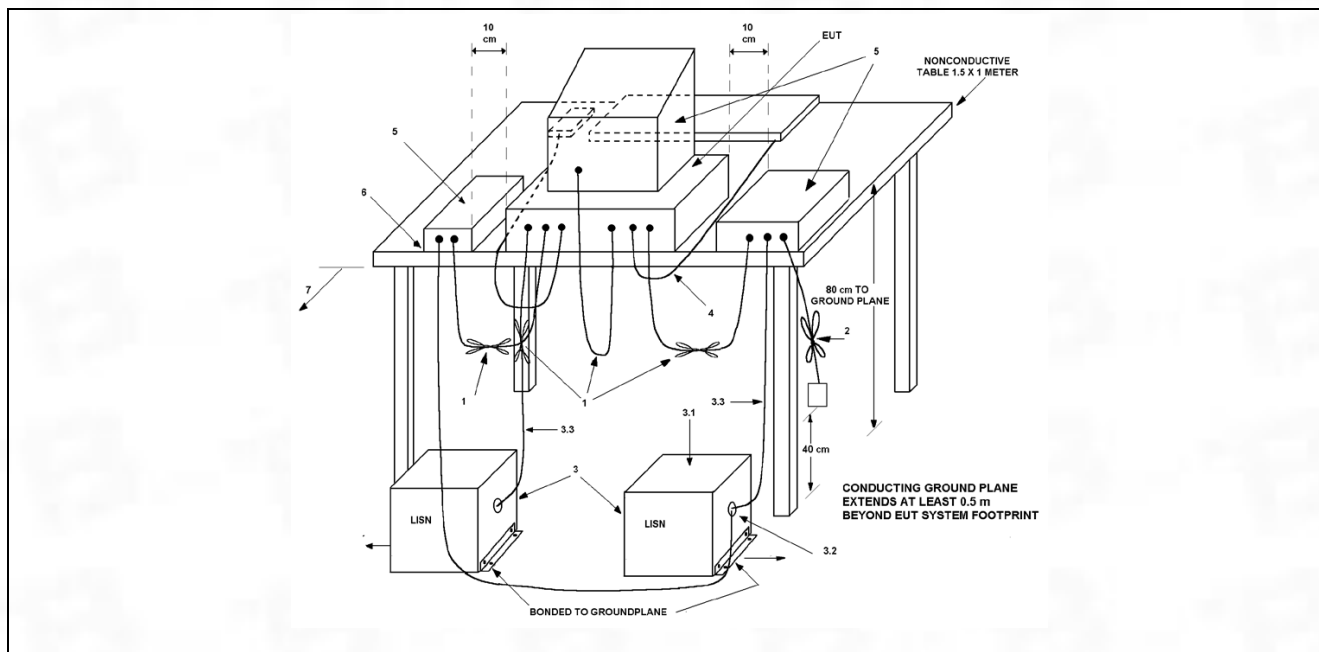
5.1 Conducted emissions on AC mains

Test Requirement:	15.107, Class B		
Test Method:	ANSI C63.4a-2017		
Test Limit:	Frequency of emission (MHz)	Conducted limit (dBμV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
*Decreases with the logarithm of the frequency.			
Procedure:	An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected. Remark: Level= Read Level+ Cable Loss+ LISN Factor		

5.1.1 E.U.T. Operation:

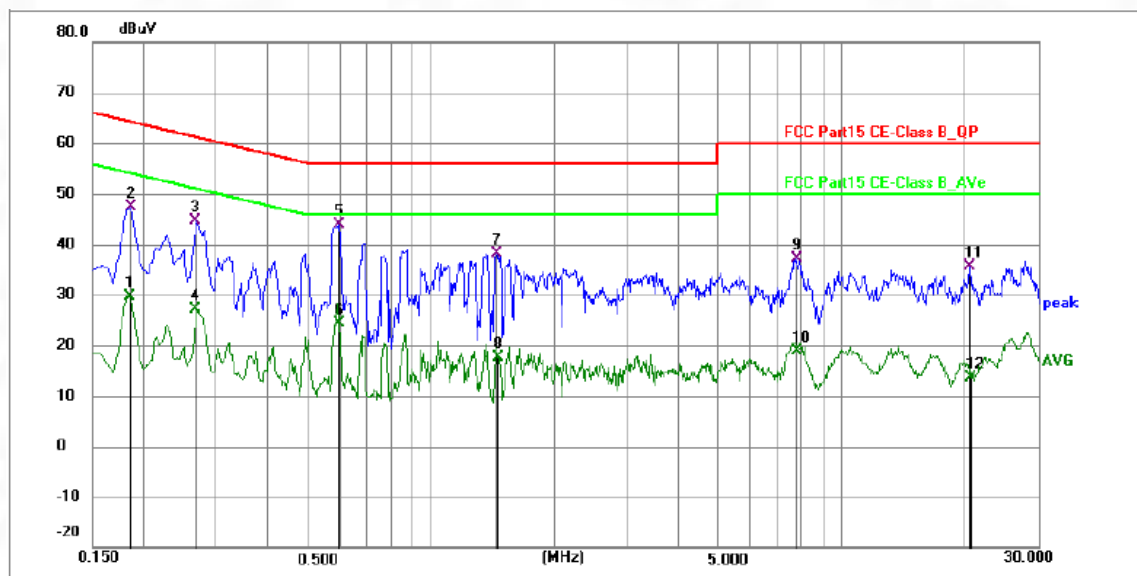
Operating Environment:	
Temperature:	24.6 °C
Humidity:	45.4 %
Atmospheric Pressure:	1010 mbar

5.1.2 Test Setup Diagram:



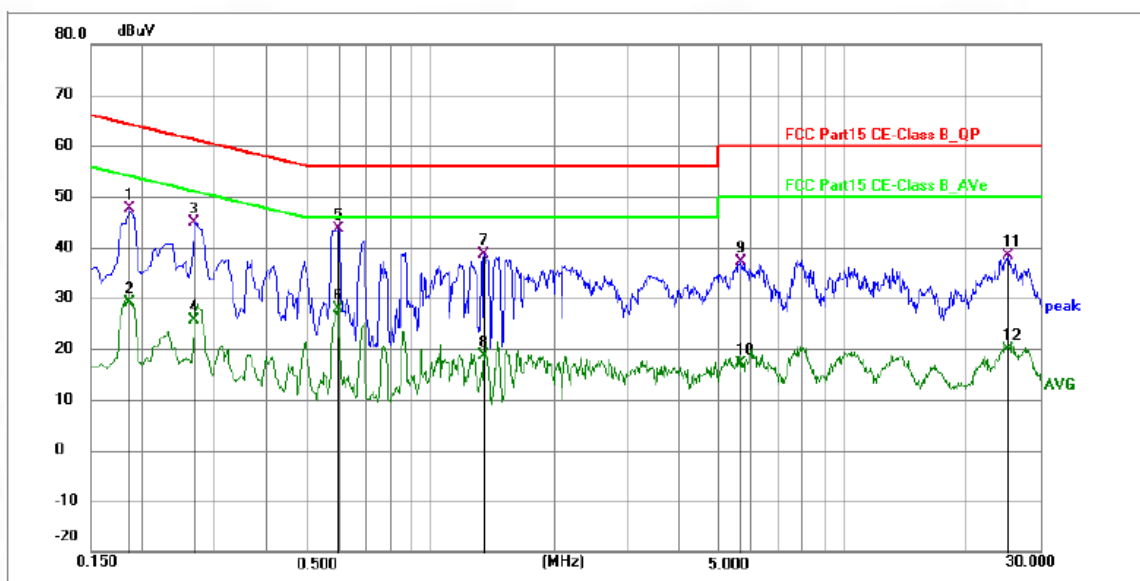
5.1.3 Test Data:

TM1 / Line: Line



No.	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Level (dBμV)	Limit (dBμV)	Margin (dB)	Detector	P/F	Remark
1	0.1853	19.17	10.57	29.74	54.24	-24.50	AVG	P	
2	0.1860	36.73	10.57	47.30	64.21	-16.91	QP	P	
3	0.2670	33.95	10.59	44.54	61.21	-16.67	QP	P	
4	0.2670	16.61	10.59	27.20	51.21	-24.01	AVG	P	
5 *	0.5955	33.17	10.67	43.84	56.00	-12.16	QP	P	
6	0.5955	13.73	10.67	24.40	46.00	-21.60	AVG	P	
7	1.4460	27.49	10.74	38.23	56.00	-17.77	QP	P	
8	1.4504	6.78	10.74	17.52	46.00	-28.48	AVG	P	
9	7.7504	26.31	10.79	37.10	60.00	-22.90	QP	P	
10	7.7820	8.17	10.80	18.97	50.00	-31.03	AVG	P	
11	20.4585	24.54	11.02	35.56	60.00	-24.44	QP	P	
12	20.5800	2.71	11.03	13.74	50.00	-36.26	AVG	P	

TM1 / Line: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1860	36.96	10.57	47.53	64.21	-16.68	QP	P	
2	0.1860	18.59	10.57	29.16	54.21	-25.05	AVG	P	
3	0.2670	34.18	10.59	44.77	61.21	-16.44	QP	P	
4	0.2670	15.04	10.59	25.63	51.21	-25.58	AVG	P	
5 *	0.5955	33.05	10.67	43.72	56.00	-12.28	QP	P	
6	0.5955	17.19	10.67	27.86	46.00	-18.14	AVG	P	
7	1.3470	27.93	10.75	38.68	56.00	-17.32	QP	P	
8	1.3470	7.86	10.75	18.61	46.00	-27.39	AVG	P	
9	5.6265	26.46	10.79	37.25	60.00	-22.75	QP	P	
10	5.6265	6.43	10.79	17.22	50.00	-32.78	AVG	P	
11	25.1790	27.21	11.05	38.26	60.00	-21.74	QP	P	
12	25.1790	8.95	11.05	20.00	50.00	-30.00	AVG	P	

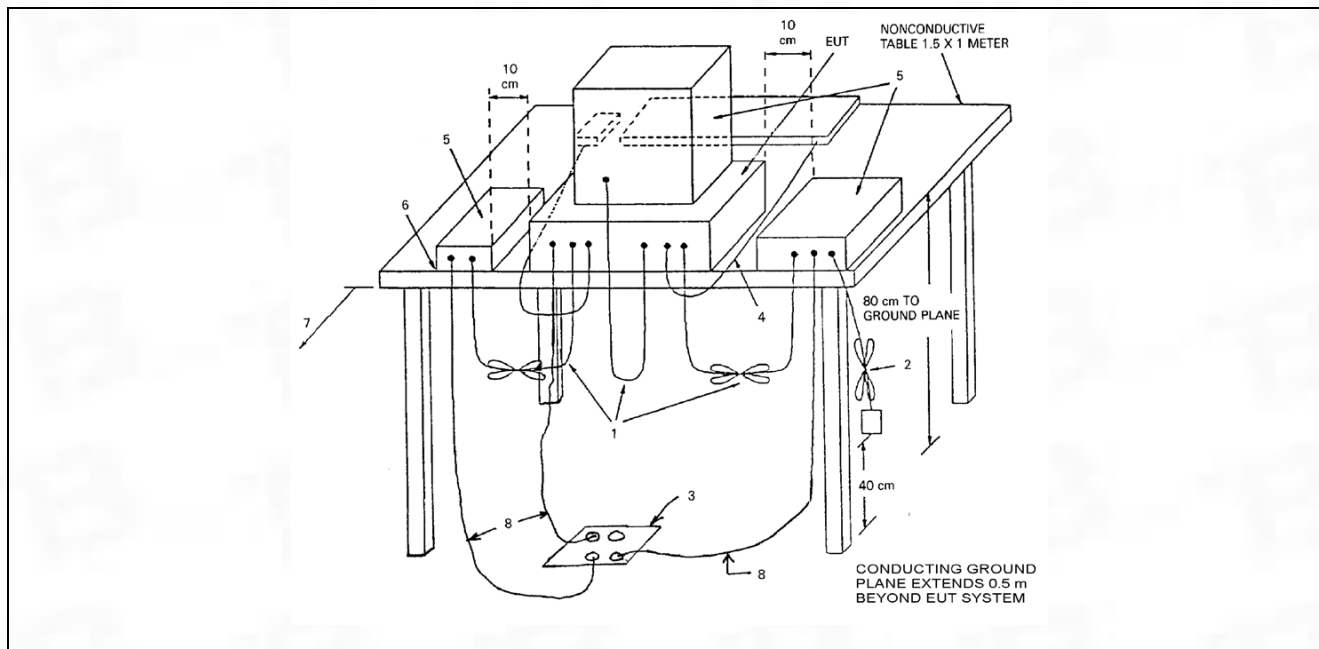
5.2 Radiated emissions (Below 1GHz)

Test Requirement:	15.109, Class B				
Test Method:	ANSI C63.4a-2017				
Test Limit:	Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:				
	Frequency of emission (MHz)	Field strength @3m		Field strength @10m	
		(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)
	30 – 88	100	40	30	29.5
	88 – 216	150	43.5	45	33.1
	216 – 960	200	46	60	35.6
	Above 960	500	54	150	43.5
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor				

5.2.1 E.U.T. Operation:

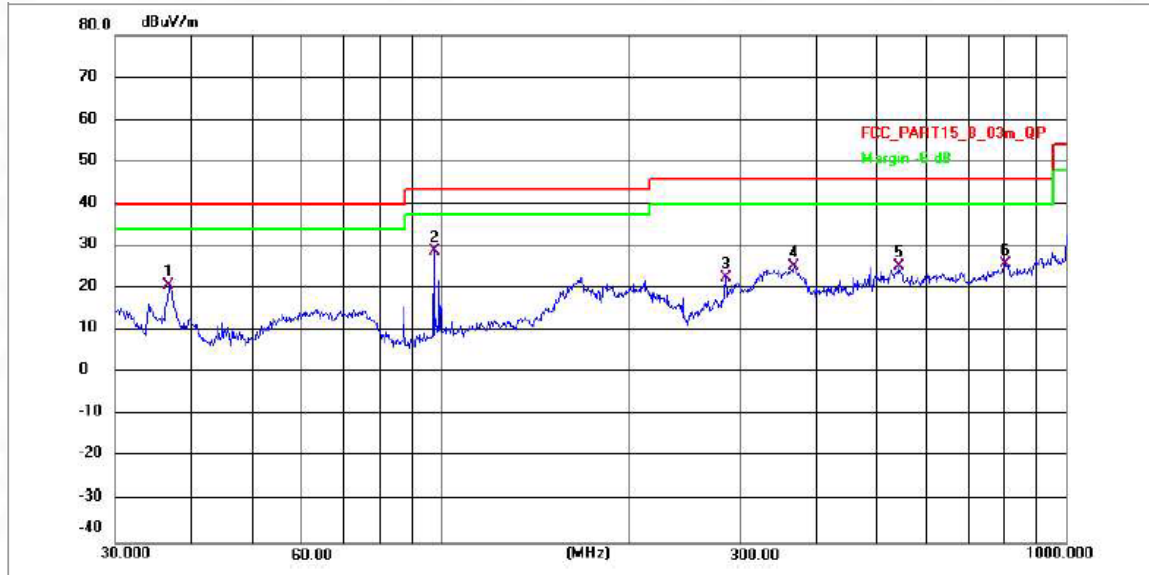
Operating Environment:	
Temperature:	24.1 °C
Humidity:	48.4 %
Atmospheric Pressure:	1010 mbar

5.2.2 Test Setup Diagram:



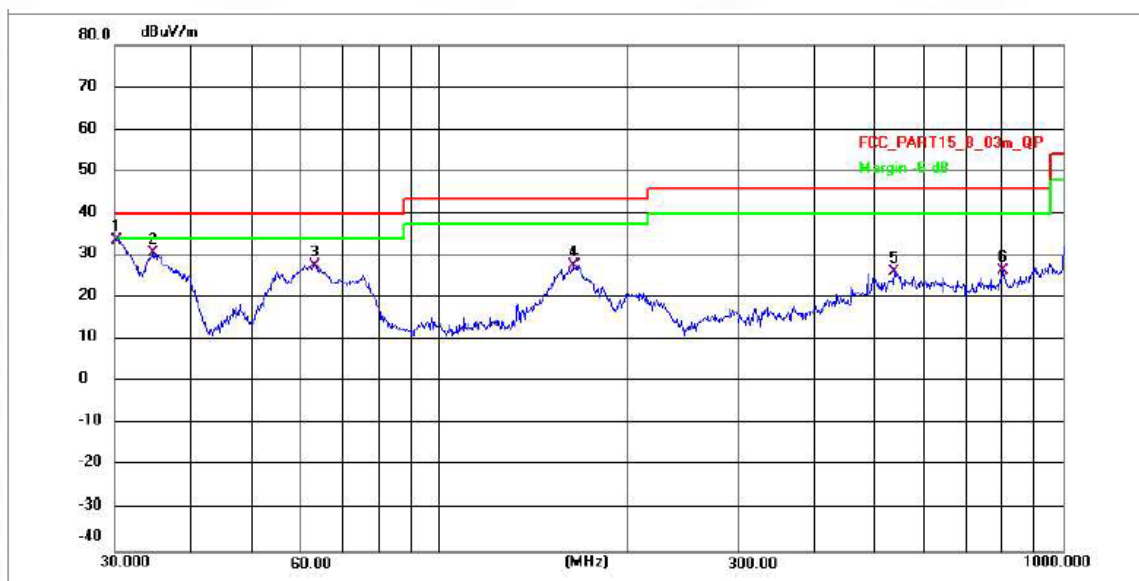
5.2.3 Test Data:

TM1 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	36.7661	39.14	-18.44	20.70	40.00	-19.30	QP	P
2 *	97.7983	57.44	-28.59	28.85	43.50	-14.65	QP	P
3	284.9767	48.26	-25.56	22.70	46.00	-23.30	QP	P
4	368.1116	49.99	-24.88	25.11	46.00	-20.89	QP	P
5	539.4775	46.72	-21.55	25.17	46.00	-20.83	QP	P
6	800.3817	49.56	-23.72	25.84	46.00	-20.16	QP	P

TM1 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1 *	30.2111	52.08	-18.36	33.72	40.00	-6.28	QP	P
2	34.6993	51.20	-20.64	30.56	40.00	-9.44	QP	P
3	62.9811	47.80	-20.11	27.69	40.00	-12.31	QP	P
4	164.3301	55.33	-27.65	27.68	43.50	-15.82	QP	P
5	535.7073	47.59	-21.52	26.07	46.00	-19.93	QP	P
6	803.1933	50.01	-23.67	26.34	46.00	-19.66	QP	P

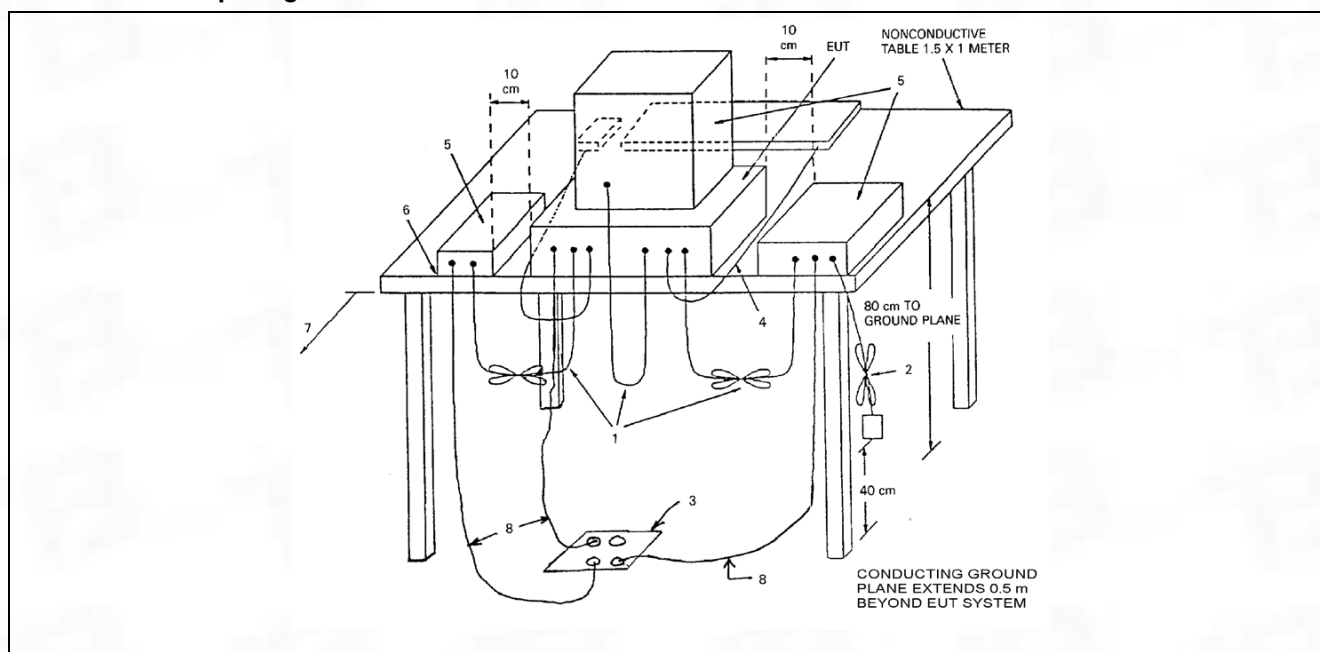
5.3 Radiated emissions (Above 1GHz)

Test Requirement:	15.109, Class B			
Test Method:	ANSI C63.4a-2017			
Test Limit:	Frequency of emission (MHz)	Field strength @3m		
		Average (uV/m)	Average(d BuV/m)	Peak (dBuV/m)
	Above 1GHz	500	54	74
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. For below 1GHz test, Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. For above 1GHz test, Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor			

5.3.1 E.U.T. Operation:

Operating Environment:	
Temperature:	25.2 °C
Humidity:	50.3 %
Atmospheric Pressure:	1010 mbar

5.3.2 Test Setup Diagram:



5.3.3 Test Data:

TM1 / Polarization: Horizontal

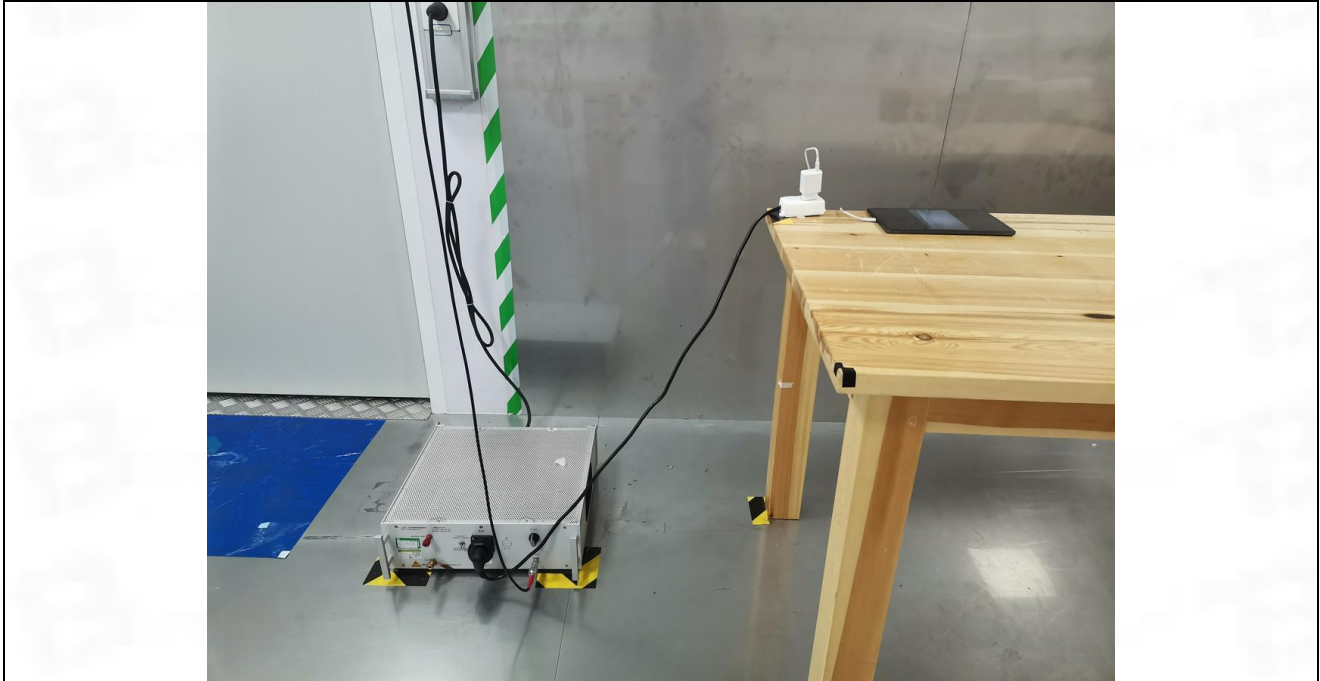
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	1323.687	79.85	-29.78	50.07	74.00	-23.93	peak	P
2	1474.716	81.64	-30.29	51.35	74.00	-22.65	peak	P
3	1694.042	83.30	-30.51	52.79	74.00	-21.21	peak	P
4	2674.312	79.87	-31.29	48.58	74.00	-25.42	peak	P
5	3807.982	81.90	-31.78	50.12	74.00	-23.88	peak	P
6	5098.712	84.31	-30.87	53.44	74.00	-20.56	peak	P

TM1 / Polarization: Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F
1	1734.650	80.02	-29.88	50.14	74.00	-23.86	peak	P
2	1885.679	81.81	-30.39	51.42	74.00	-22.58	peak	P
3	2105.005	83.47	-30.61	52.86	74.00	-21.14	peak	P
4	3085.275	80.04	-31.39	48.65	74.00	-25.35	peak	P
5	4218.945	82.07	-31.88	50.19	74.00	-23.81	peak	P
6	5509.675	84.48	-30.97	53.51	74.00	-20.49	peak	P

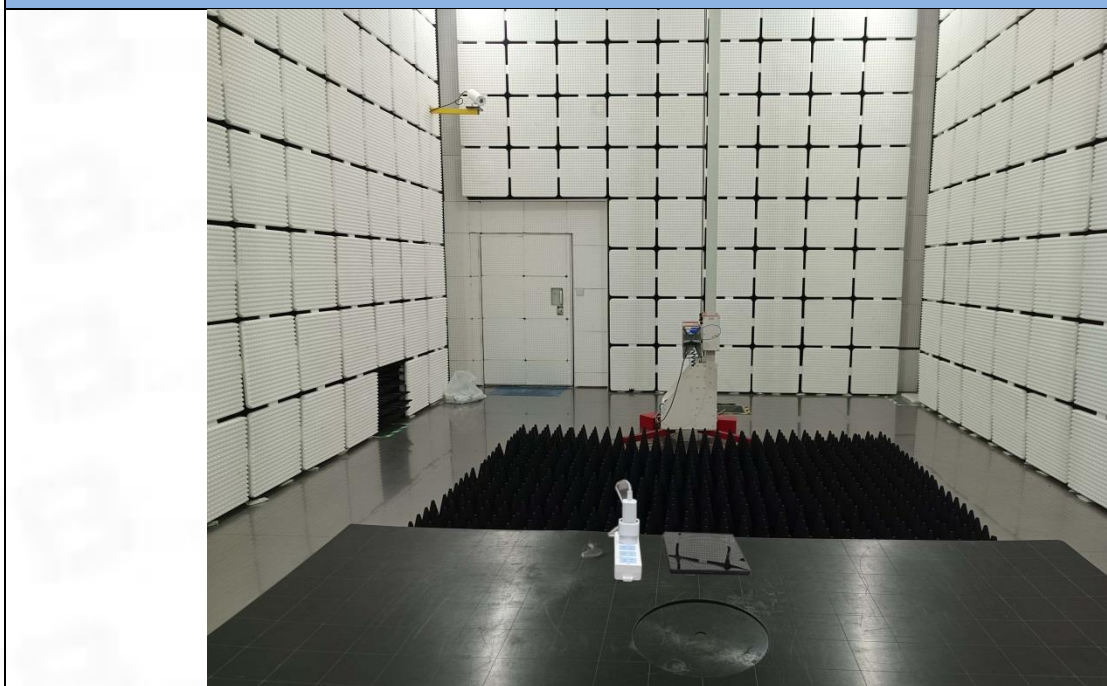
6 Test Setup Photos

Conducted emissions on AC mains



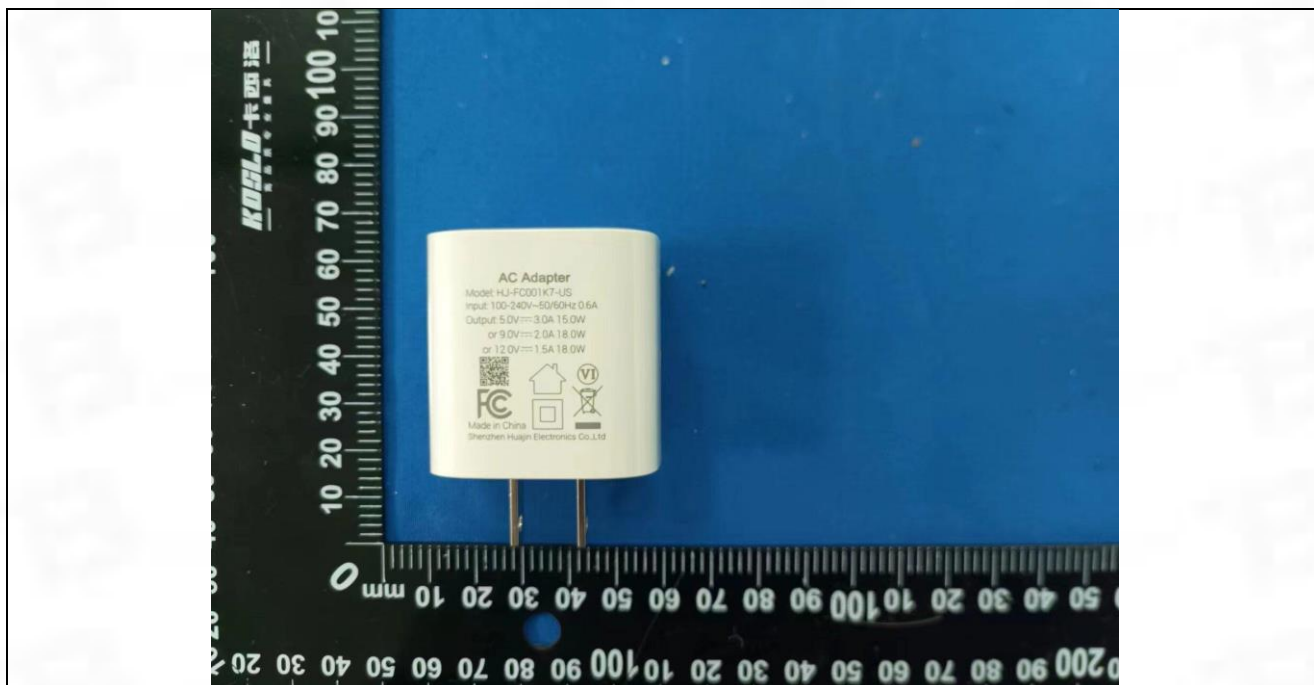
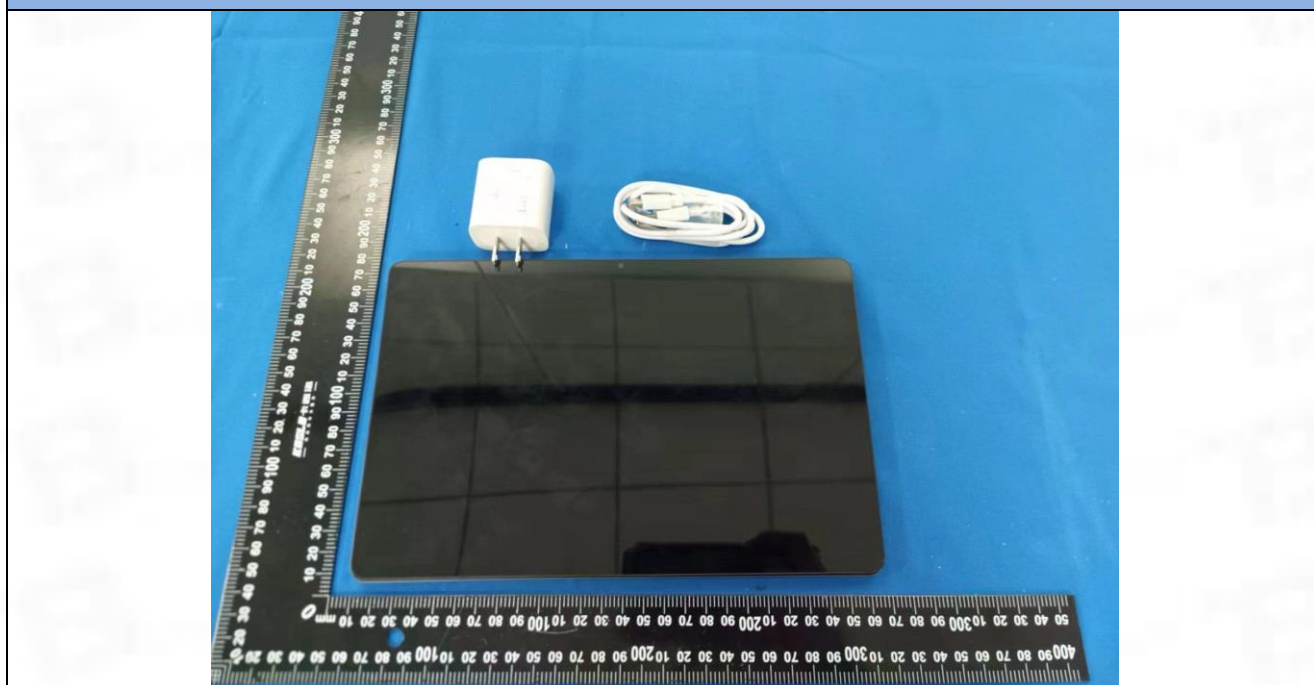
Radiated emissions (Below 1GHz)



Radiated emissions (Above 1GHz)

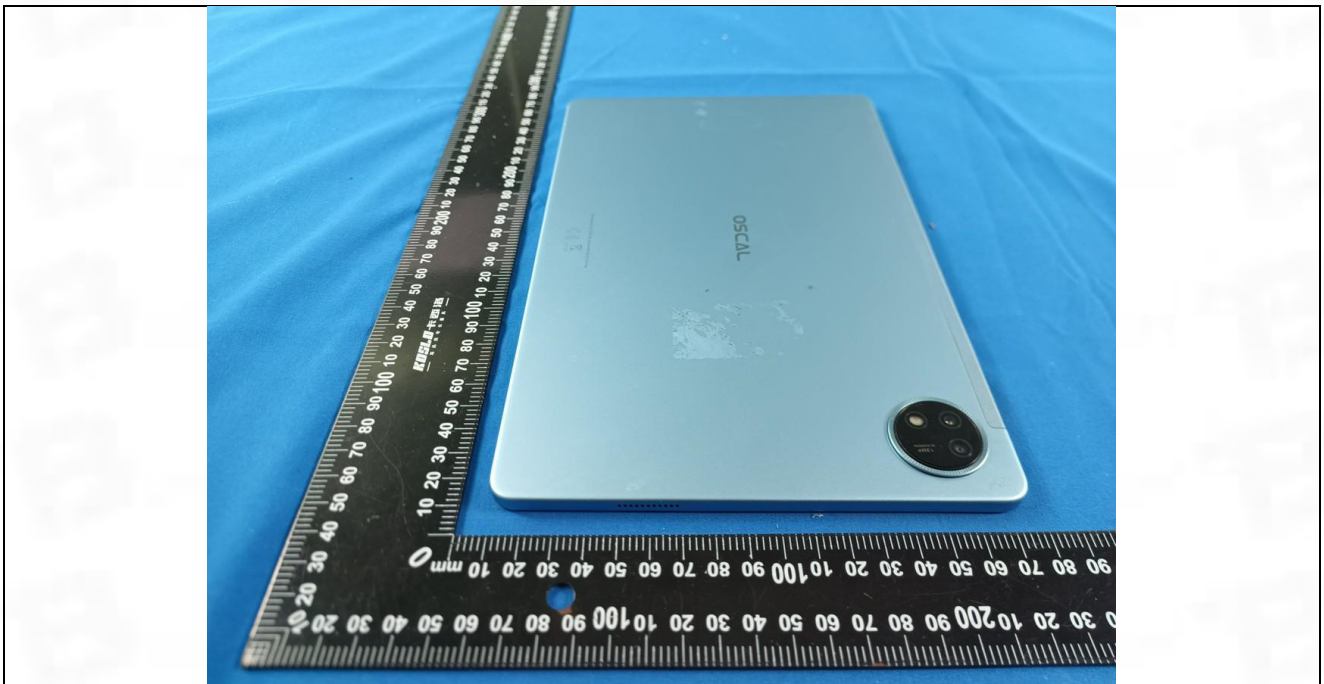
7 EUT Constructional Details (EUT Photos)

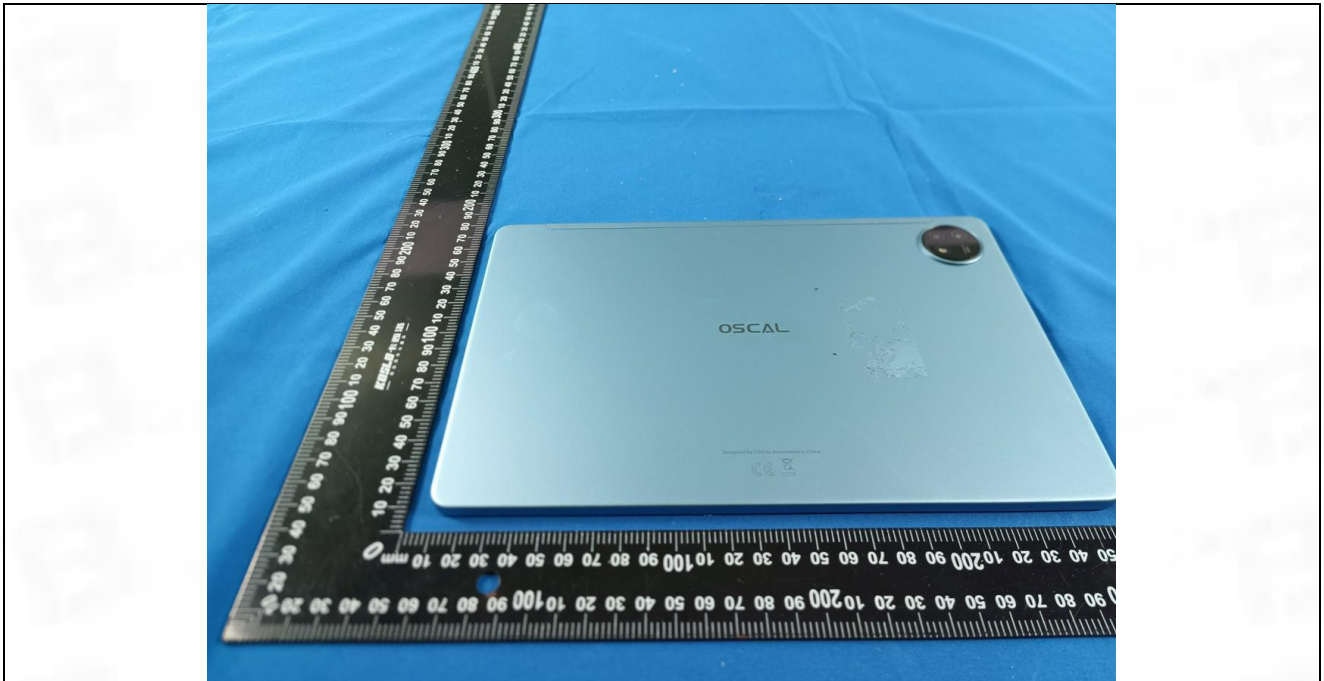
External



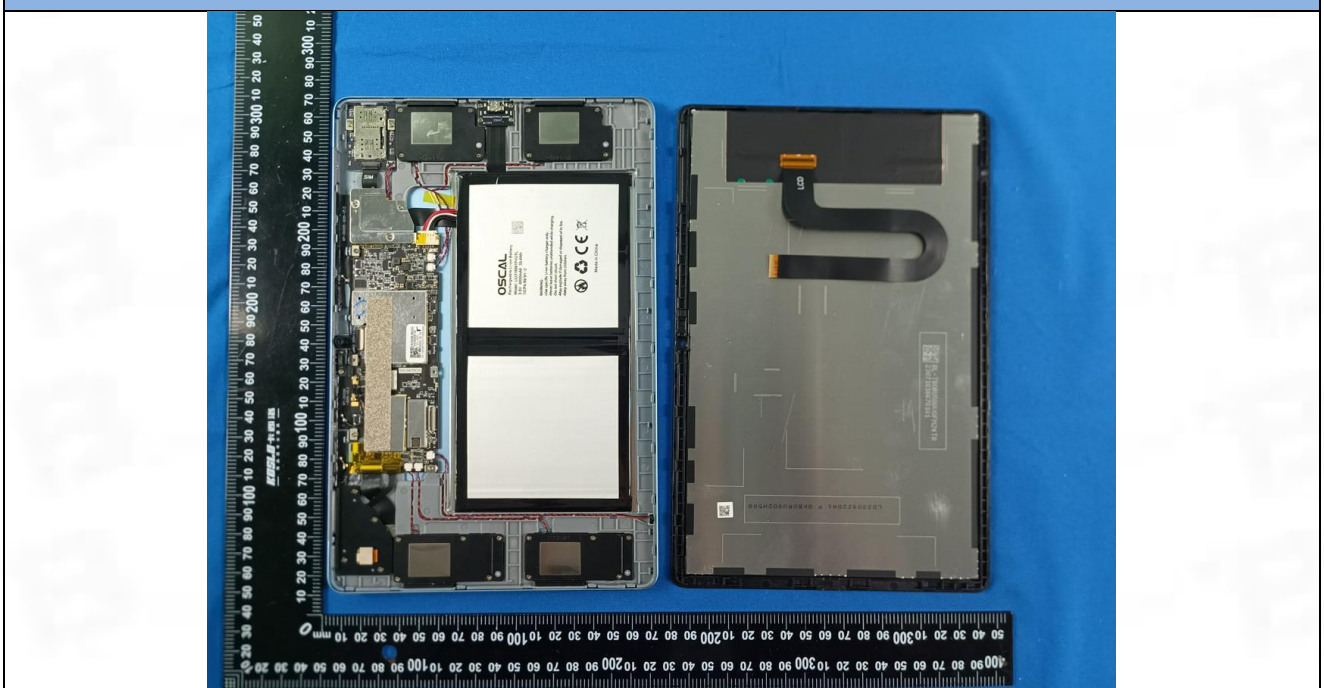


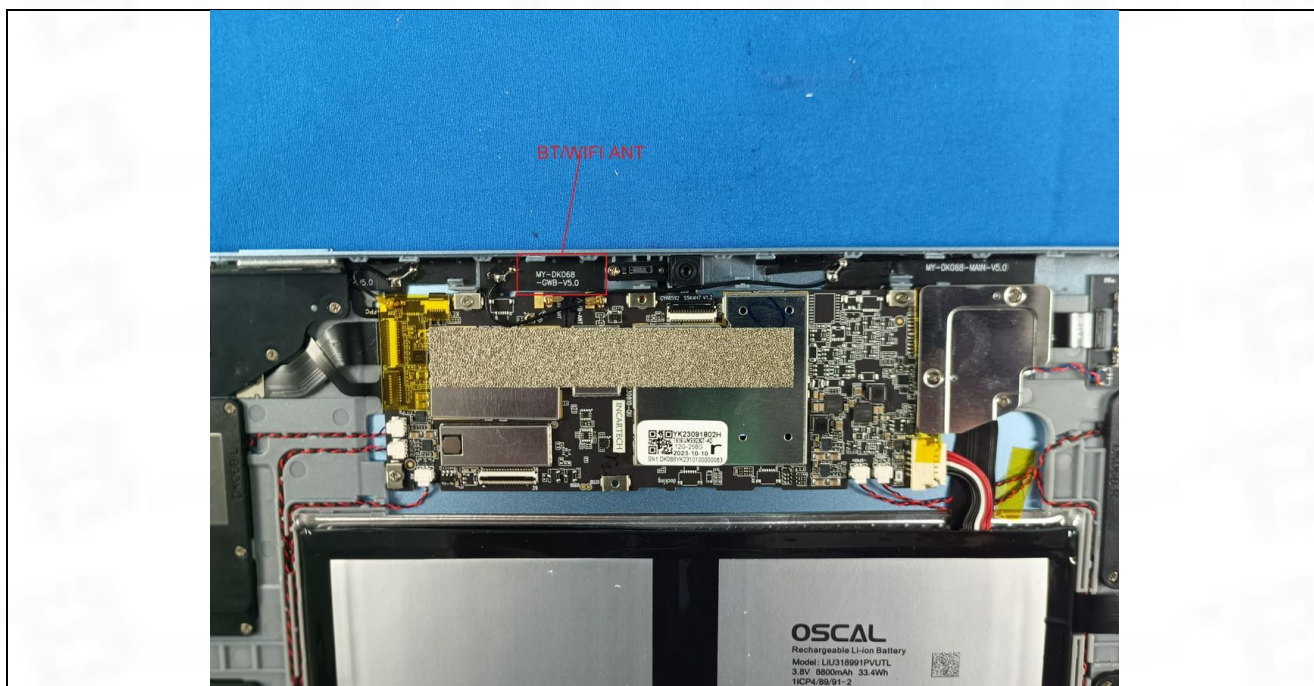
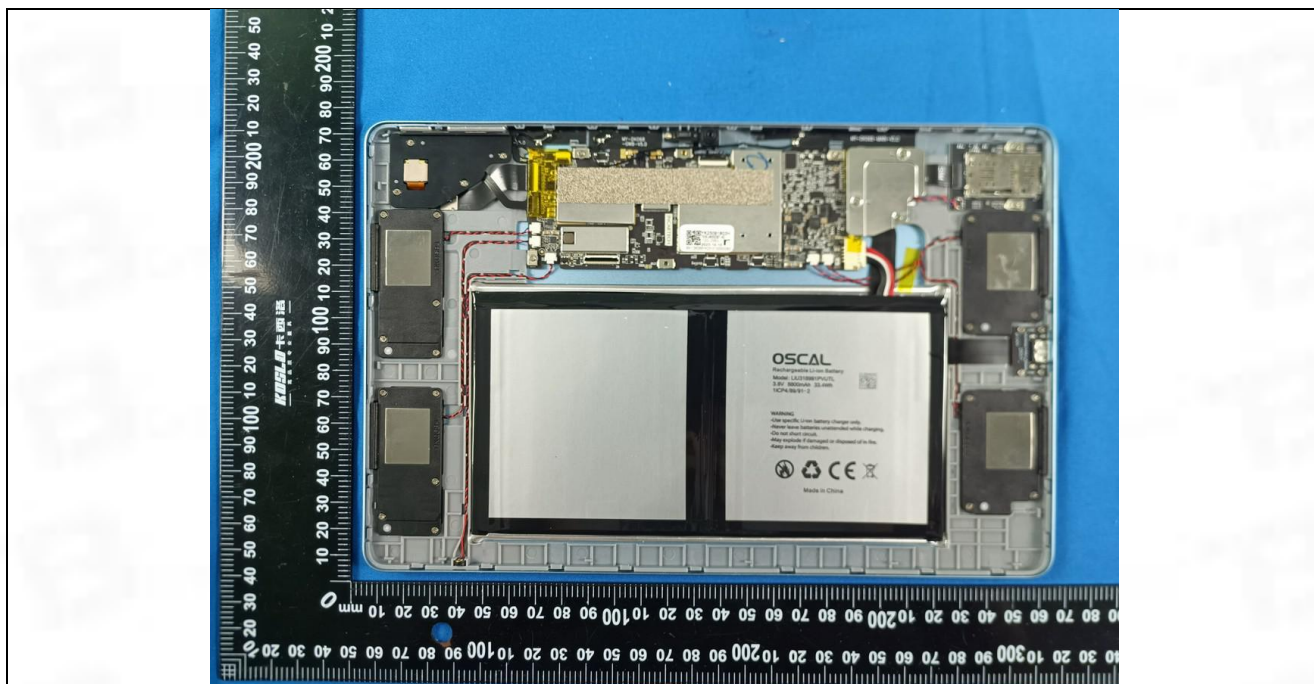


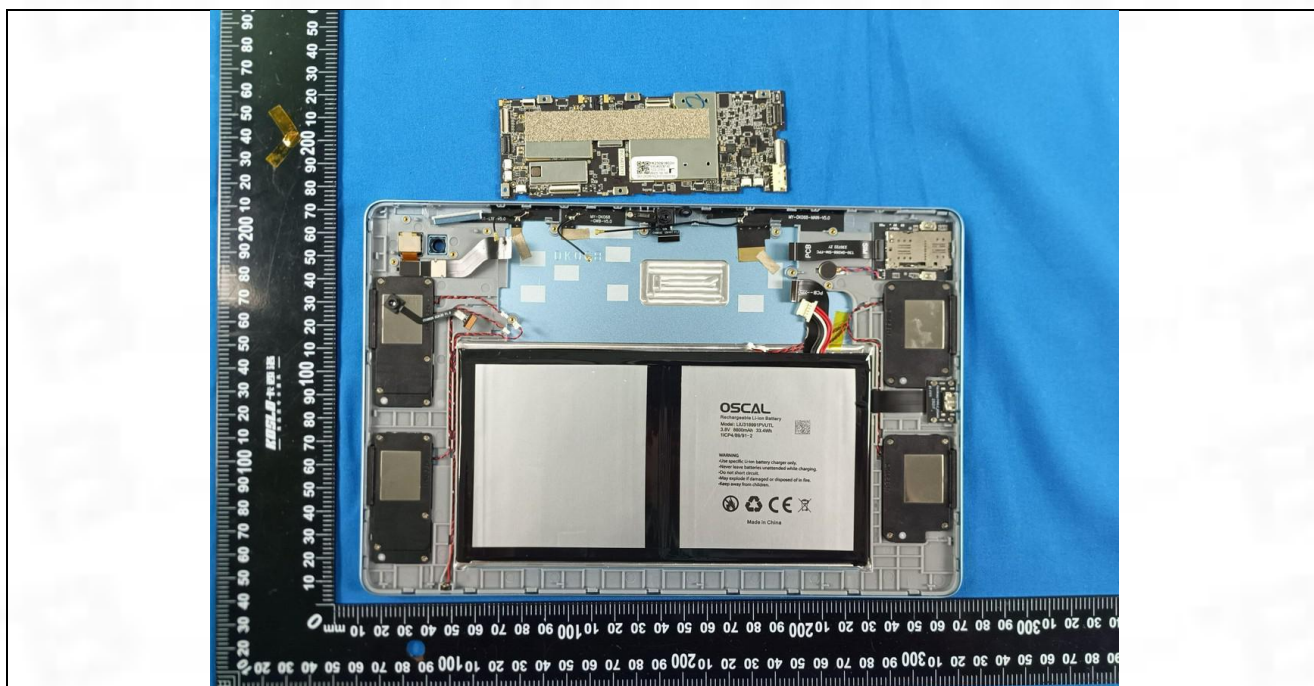


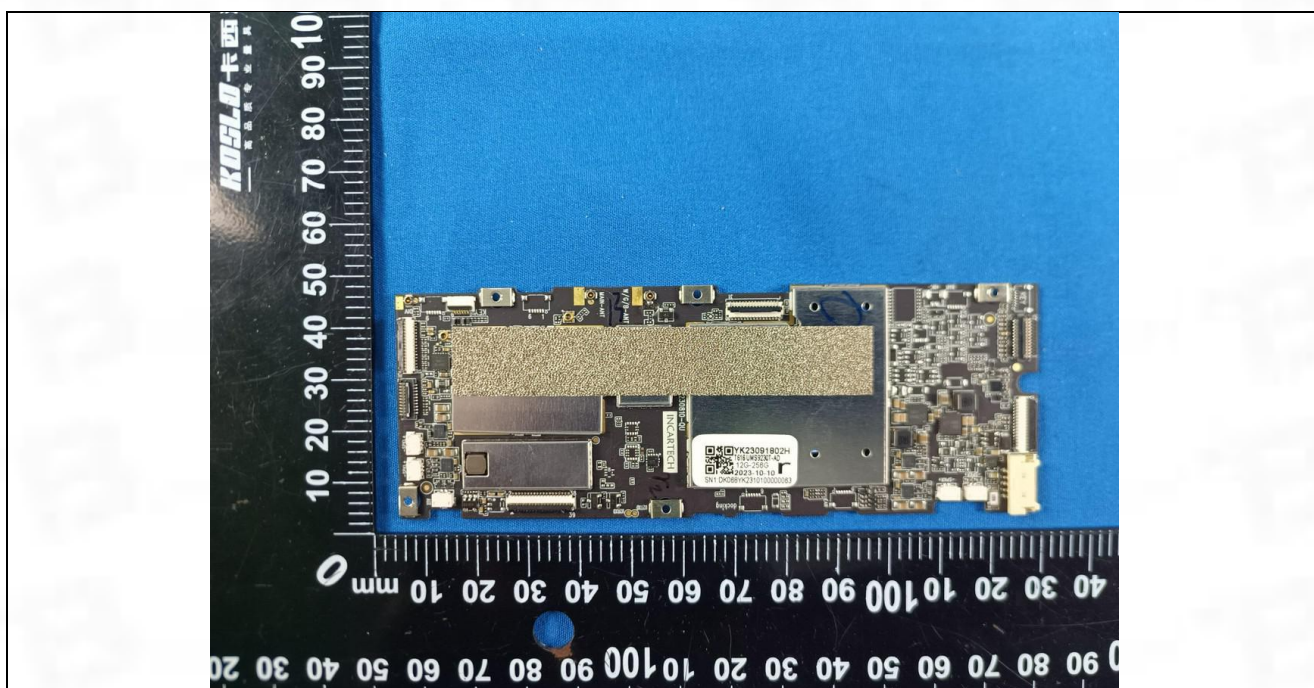
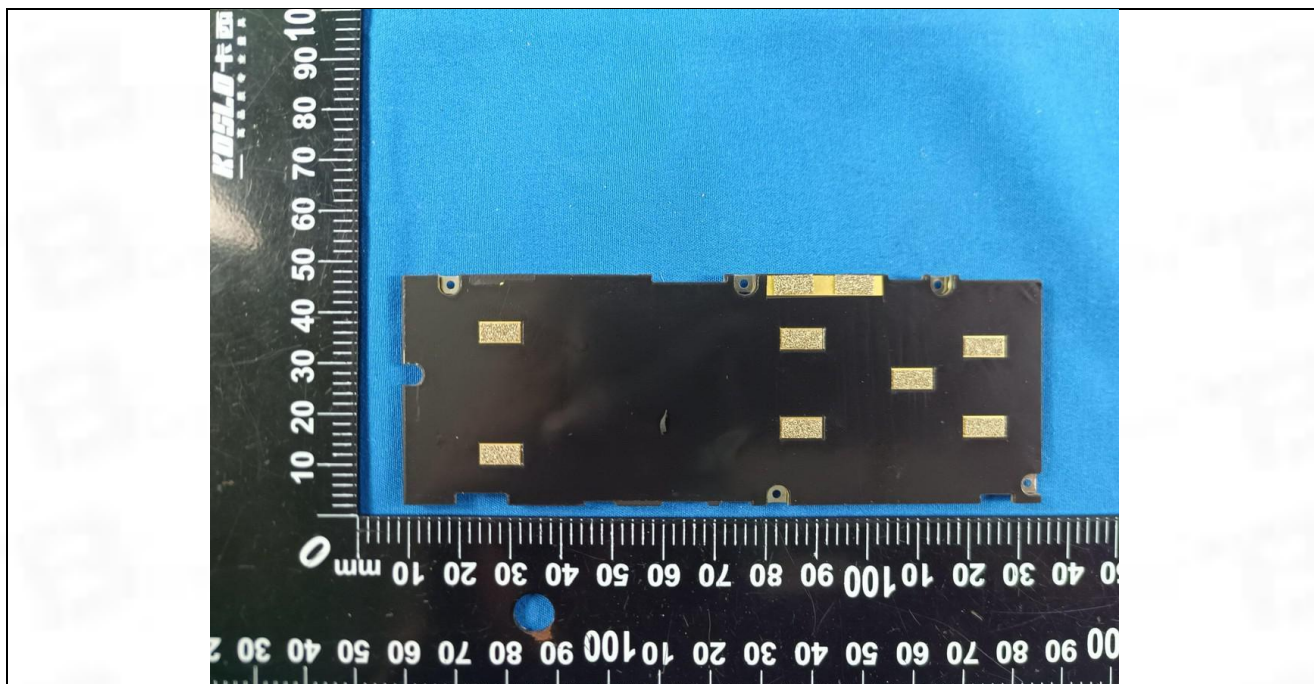


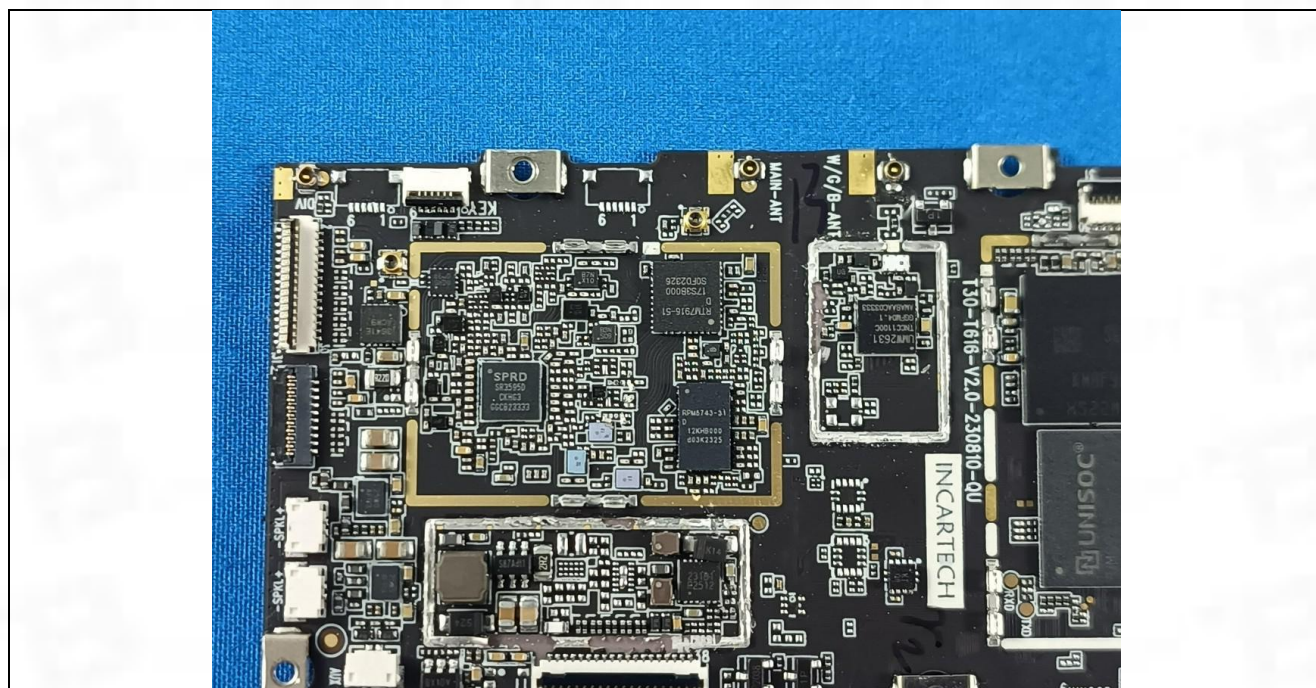
Internal













Test Report Number: BTF231008E00901



BTF Testing Lab (Shenzhen) Co., Ltd.

F101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street,
Bao'an District, Shenzhen, China

www.btf-lab.com

-- END OF REPORT --