Declaration of Conformity

Certificate Number:HX2112210045R-KH

RoHS Directive 2011/65/EU,(EU) 2015/863

Applicant	:	**ShenZhen KuHangXin Technology Co.,LTD**
Address	:	**3rd floor, East of 8th Building, TianFuAn Industry Park , LeZhuJiao, JiuWei, XiXiang, BaoAn, ShenZhen**
Manufacturer	:	**ShenZhen KuHangXin Technology Co.,LTD**
Address	:	**3rd floor, East of 8th Building, TianFuAn Industry Park , LeZhuJiao, JiuWei, XiXiang, BaoAn, ShenZhen**
Product	:	**Night vision**
Model	:	**R6, R1, R2, R3, R4, R5, R7, R8, R9, R10, R01, R02, R03, R04, R05, F06, R07, R08, R09, DV20, DV30, DV40, DV50, DV60, DV70, DV80, DV23, DV21, DV22, DV25, DV26, DV90, DV100, XJ03, XJ04, XJ05, XJ06, XJ01, XJ02, R2**
Brand Name	:	**N/A**
Test Report Number	:	**R12210012-KH**
Test Standard	:	**IEC 62321-4:2013 IEC 62321-5:2013 IEC 62321-6:2015 IEC 62321-7-2:2017 IEC 62321-8:2017**

The EUT described above has been tested by us with the listed standards and found in compliance with the council RoHS directive 2011/65/EU Annex II (EU) 2015/863 .This certificate is only valid in conjunction with the test report.

The certificate applies to the tested sample above mentioned only and shall not imply an assessment of the whole production. It is only valid in connection with the test report number:R12210012-KH.

RoHS

Huaxun testing (Shenzhen) Group Co., Ltd
APPROVED
Date:Dec 21,2021

Huaxun testing (Shenzhen) Group Co., Ltd
Address:Goldman Sachs building, No. 18, Shaqi Community Center Road, Xinqiao street, Bao'an District, Shenzhen, Guangdong, China
Web.Site:http://www.hx-lbt.org Tel：0755-27202251 E-mail:HX_jinace@163.com

TCT

Certificate of Compliance

Certificate No.	:	TCT220727E004C
Applicant	:	ShenZhen KuHangXin Technology Co., Ltd
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Manufacturer	:	ShenZhen KuHangXin Technology Co., Ltd
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Product	:	Night Vision
Model No.	:	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R01, R02, R03, R04, R05, R06, R07, R08, R09, R15, R16, R17, R18, R19, RH1, NVC100, NVC200, NVC300, NVC400, NVC500, NVC600, NVC700, NVC800, NVC900, NVC1000 XJ03, XJ05, XJ06, D90, D22, D23, D24, D25, D60, P1, P2 , P3, P4, P5, P6, P7, P8
Trade mark	:	N/A

The above products have been tested by us with listed standards and found in compliance with UK Electromagnetic Compatibility Regulations (SI 2016/1091). It is possible to use UKCA marking to demonstrate the compliance with this EMC.

Test standards:	Report(s) Number	Issued By	Issued Date
BS EN 55032:2015+A11:2020+A1:2020 BS EN 55035:2017+A11:2020 BS EN IEC 61000-3-2:2019+A1:2021 BS EN 61000-3-3:2013+A1:2019+A2:2021	**TCT220727E004**	**TCT**	**Aug. 02, 2022**

The statement is based on a single evaluation of one sample of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

UK CA

Tomsin

Tomsin/Senior Engineer

Aug. 02, 2022

SHENZHEN TCT TESTING TECHNOLOGY CO., LTD TCT

Shenzhen TCT Testing Technology Co.,Ltd.
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 Http://www.tct-lab.com

Supplier Declaration of Conformity

TCT220329E031C

This declaration that the following designated product

Night Vision

Model No: R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R01, R02, R03, R04, R05, R06, R07, R08, R09, R15, R16, R17, R18, R19, RH1

(Product Identification)

It is herewith confirmed and found to comply with the requirements set up by regulation for the evaluation of electromagnetic compatibility.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This declaration is the responsibility of the manufacturer/importer

ShenZhen KuHangXin Technology Co., Ltd

East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen

Identification of regulation: 47 CFR Part 15 Subpart B, Measurement Procedure: ANSI C63.4: 2014. It is only valid in connection with the test report number: **TCT220329E031**.

TEST LABORATORY

This is the results of test that was carried out from the submitted type-samples of a product in conformity with the specification of the respective standards.

Authorized Signer: Tomsin

Tomsin/Senior Engineer

Date: Apr. 08, 2022

This declaration is only valid for the equipment and configuration described, in conjunction with the test data detailed above.

TCT 通测检测 TESTING CENTRE TECHNOLOGY

EMC TEST REPORT

Radio Frequency Devices - Unintentional Radiators

Test Report No. .....:	TCT220823E014	
Date of issue .....:	Aug. 26, 2022	
Testing laboratory.....:	SHENZHEN TONGCE TESTING LAB	
Testing location/ address.....:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name .....:	ShenZhen KuHangXin Technology Co., Ltd	
Address.....:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen	
Manufacturer's name .....:	ShenZhen KuHangXin Technology Co., Ltd	
Address.....:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen	
Standard(s) .....:	FCC 47 CFR Part 15 Subpart B	
Test item description.....:	Night Vision	
Trade Mark.....:	N/A	
Model/Type reference.....:	R1, R2, R3 , R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, DV100, D90, D60, D40, D30, D20, D10, XJ03, XJ05, XJ06, XJ07, XJ08, XJ09, NVC100, NVC200, NVC300, NVC400, NVC500, NVC600, NVC700, NVC800, NVC900, NVC1000, NVC2000, NVC3000, NVC4000	
Rating(s) .....:	Battery: DC 7.5 V(1.5*AA*5)	
Date of receipt of test item.....:	Aug. 23, 2022	
Date (s) of performance of test:	Aug. 23, 2022 - Aug. 26, 2022	
Tested by (+signature).....:	Jack WANG	Jack Wang
Check by (+signature) .....:	Howie LYU	Howie Lyu
Approved by (+signature) .....:	Tomsin	Tomsin

General disclaimer:

This report shall not be reproduced except in full, without the written approval of SHENZHEN TONGCE TESTING LAB This document may be altered or revised by SHENZHEN TONGCE TESTING LAB personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

Table of Contents

1. General Product Information

1.1.EUT description

Test item description ..... :	Night Vision
Model/Type reference ..... :	R1
Rating(s) ..... :	Battery: DC 7.5 V(1.5*AA*5)
Highest internal frequency F_x..... :	☐ *Fx* ≤ 108 MHz ☐ 108 MHz < *Fx* ≤ 500 MHz ☒ 500 MHz < *Fx* ≤ 1 GHz ☐ *Fx* > 1 GHz
AC Line ..... :	☐Shielded ☐Unshielded ☐Detachable ☐Un-detachable ☒No applicable ☐Length:
DC Line ..... :	☐Shielded ☐Unshielded ☐Detachable ☐Un-detachable ☒No applicable ☐Length:

1.2.Model(s) list

No.	Model No.	Tested with
1	R1	☒
Other models	R2, R3 , R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, DV100, D90, D60, D40, D30, D20, D10, XJ03, XJ05, XJ06, XJ07, XJ08, XJ09, NVC100, NVC200, NVC300, NVC400, NVC500, NVC600, NVC700, NVC800, NVC900, NVC1000, NVC2000, NVC3000, NVC4000	☐
Note: R1 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of R1 can represent the remaining models.		

2. Test Information

2.1.EUT operation mode(s)

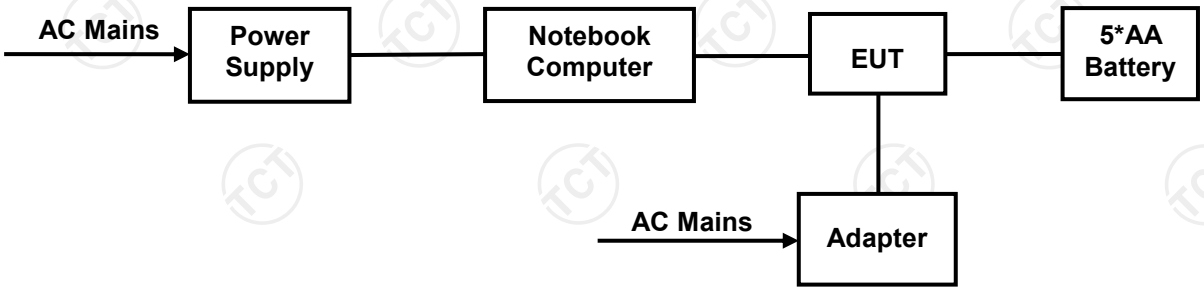
Mode #	Operating mode description	Test voltage
1	Data Transmitting	DC 5 V(Notebook Computer Input AC 120 V/60 Hz)
2	Camera Shooting Mode 1	DC 5 V(Adapter Input AC 120 V/60 Hz)
3	Camera Shooting Mode 2	DC 7.5 V

Test worst operating mode	
Disturbance voltage at mains terminals	Mode 1
Radiated emission(30 MHz to 1 GHz)	Mode 3
Radiated emission (above 1 GHz)	Mode 3
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.
Adapter	SAMSUNG	EP-TA200	R37R55T6KL2SE3
Notebook Computer	DELL	G3 3500	00342-36088-99832-AAOEM
Power supply	DELL	HA130PM190	CN-0CY0JM-CH200-0B6-7405-A01
SD Card	Kingston	SDCS2/32GB	2210B814822

2.3.Configuration of system under test



(EUT: Night Vision)

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 (☐A ☒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

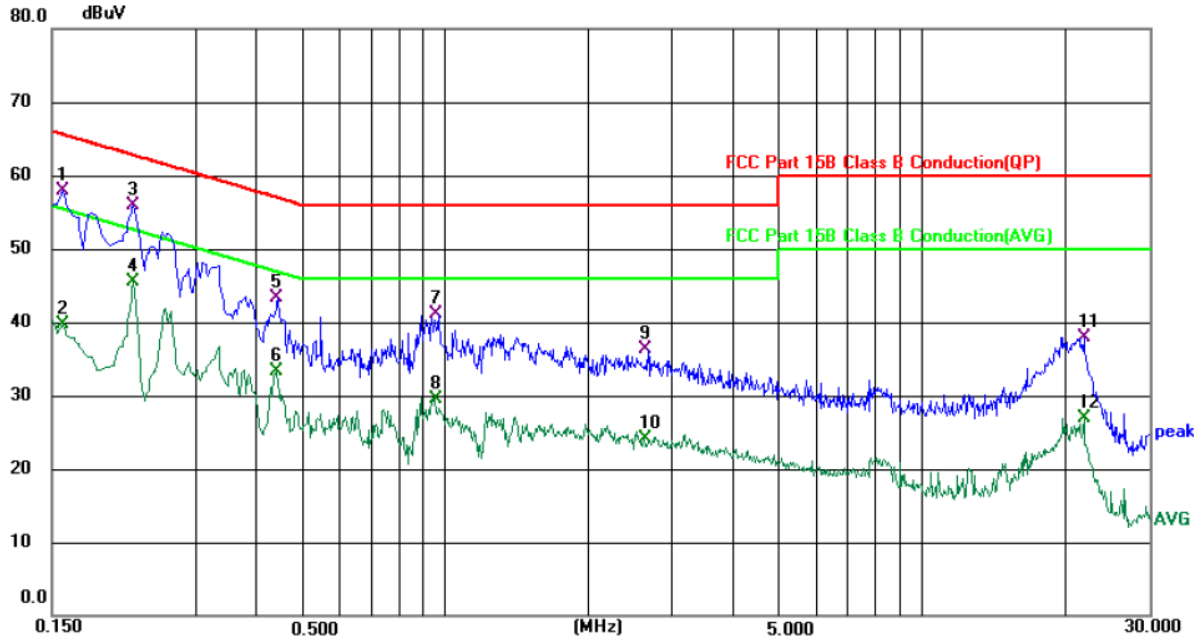
Equipment	Manufacturer	Model No.	Serial No.	Cal. Due
Disturbance voltage at mains terminals				
EMI Test Receiver	R&S	ESCI3	100898	2023/07/03
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	2023/02/24
Attenuator	N/A	10dB	164080	2023/07/03
844 Shielded room	SKET	8m*4m*4m	CR4	2023/03/02
Test software	EZ_EMC	EMEC-3A1	/	/
Radiated emission (30 MHz to 1 GHz)				
Broadband Antenna	Schwarzbeck	VULB 9168	01197	2023/03/06
EMI Test Receiver	R&S	ESCI7	100529	2023/02/24
Test software	EZ_EMC	FA-03A2 RE+	/	/
3m Anechoic Chamber	SKET	9m*6m*6m	SA01	2023/01/25
Radiated emission (above 1 GHz)				
Horn Antenna	Schwarzbeck	BBHA 9120 D	02372	2024/07/05
Horn Antenna	Schwarzbeck	BBHA 9170	00956	2024/07/05
Signal Analyzer	R&S	FSQ40	200061	2023/07/03
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	2023/02/24
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	2023/02/24
3m Anechoic Chamber	SKET	9m*6m*6m	SA03	2023/01/25
Test software	EZ_EMC	FA-03A2 RE+	/	/

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.:	25.3 °C		
Relative humidity .....:	56 %		
Test location .....:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China		
Test model(s) .....:	R1		
EUT operation mode..:	Mode 1		
Test results .....:	Pass		
Remark.....:	/		

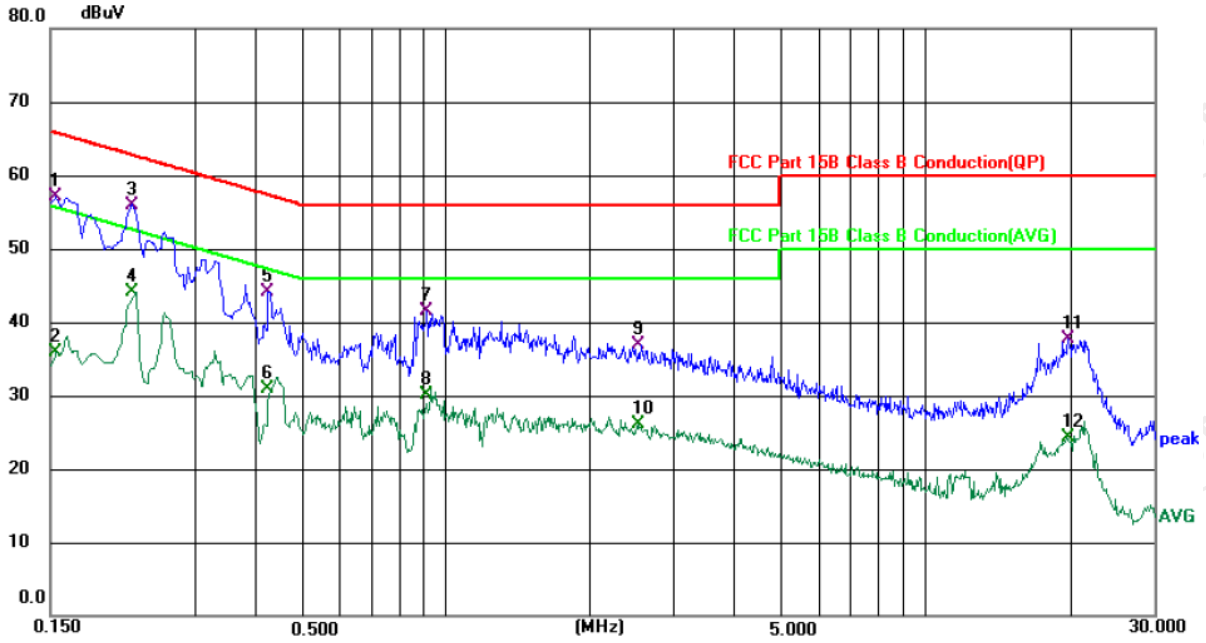
Measurement data and Graphical presentation of the result



Site 844 Shielding Room Phase: *L1* Temperature: 25.3 (℃) Humidity: 56 %

Limit: FCC Part 15B Class B Conduction(QP) Power: DC 5V(Notebook Computer Input AC 120V/60Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1580	47.38	10.53	57.91	65.57	-7.66	QP	
2		0.1580	29.19	10.53	39.72	55.57	-15.85	AVG	
3	*	0.2220	45.66	10.28	55.94	62.74	-6.80	QP	
4		0.2220	35.26	10.28	45.54	52.74	-7.20	AVG	
5		0.4420	33.16	10.18	43.34	57.02	-13.68	QP	
6		0.4420	23.16	10.18	33.34	47.02	-13.68	AVG	
7		0.9540	31.06	10.11	41.17	56.00	-14.83	QP	
8		0.9540	19.36	10.11	29.47	46.00	-16.53	AVG	
9		2.6180	26.20	10.02	36.22	56.00	-19.78	QP	
10		2.6180	14.12	10.02	24.14	46.00	-21.86	AVG	
11		21.9340	27.49	10.47	37.96	60.00	-22.04	QP	
12		21.9340	16.36	10.47	26.83	50.00	-23.17	AVG	



Site 844 Shielding Room Phase: N Temperature: 25.3 (℃) Humidity: 56 %

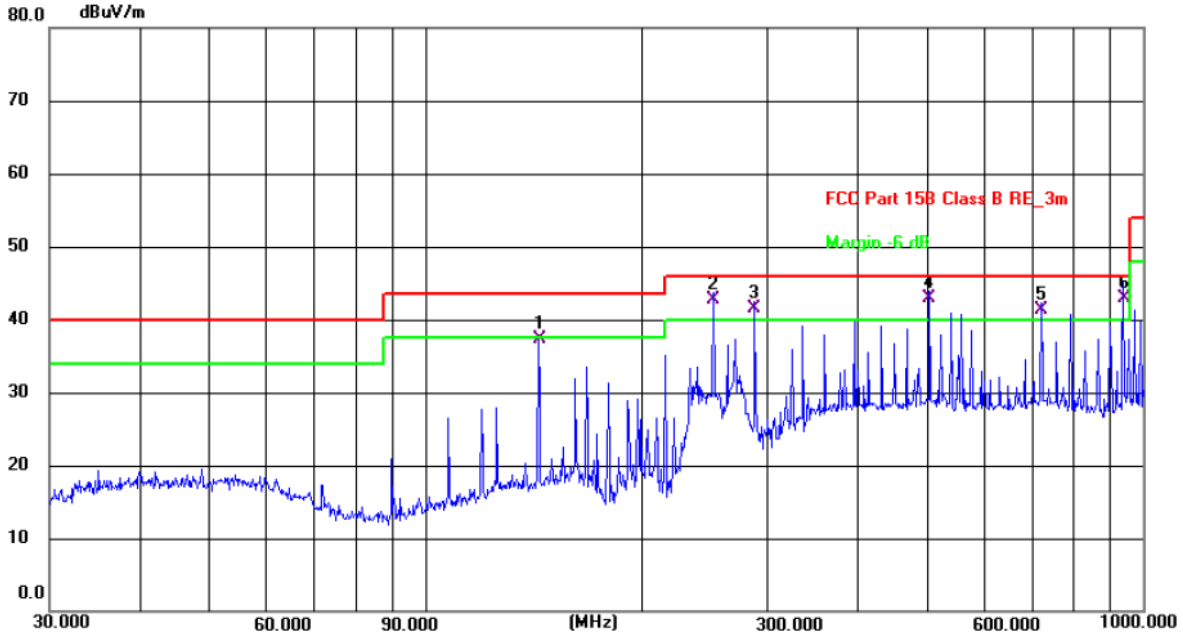
Limit: FCC Part 15B Class B Conduction(QP) Power: DC 5V(Notebook Computer Input AC 120V/60Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1539	46.57	10.44	57.01	65.79	-8.78	QP	
2		0.1539	25.40	10.44	35.84	55.79	-19.95	AVG	
3	*	0.2220	45.72	10.28	56.00	62.74	-6.74	QP	
4		0.2220	33.91	10.28	44.19	52.74	-8.55	AVG	
5		0.4259	33.96	10.19	44.15	57.33	-13.18	QP	
6		0.4259	20.62	10.19	30.81	47.33	-16.52	AVG	
7		0.9140	31.32	10.11	41.43	56.00	-14.57	QP	
8		0.9140	19.91	10.11	30.02	46.00	-15.98	AVG	
9		2.5219	26.85	10.12	36.97	56.00	-19.03	QP	
10		2.5219	16.07	10.12	26.19	46.00	-19.81	AVG	
11		19.8019	27.27	10.43	37.70	60.00	-22.30	QP	
12		19.8019	13.81	10.43	24.24	50.00	-25.76	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 (dBμV/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 (dBμV/m)	**Average (dBμV/m)**	**Peak (dBμV/m)**	**Average (dBμV/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.:	24.1 °C				
Relative humidity .....:	52 %				
Test location .....:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China				
Test model(s) .....:	R1				
EUT operation mode..:	Mode 3				
Test results .....:	Pass				
Remark.....:	/				

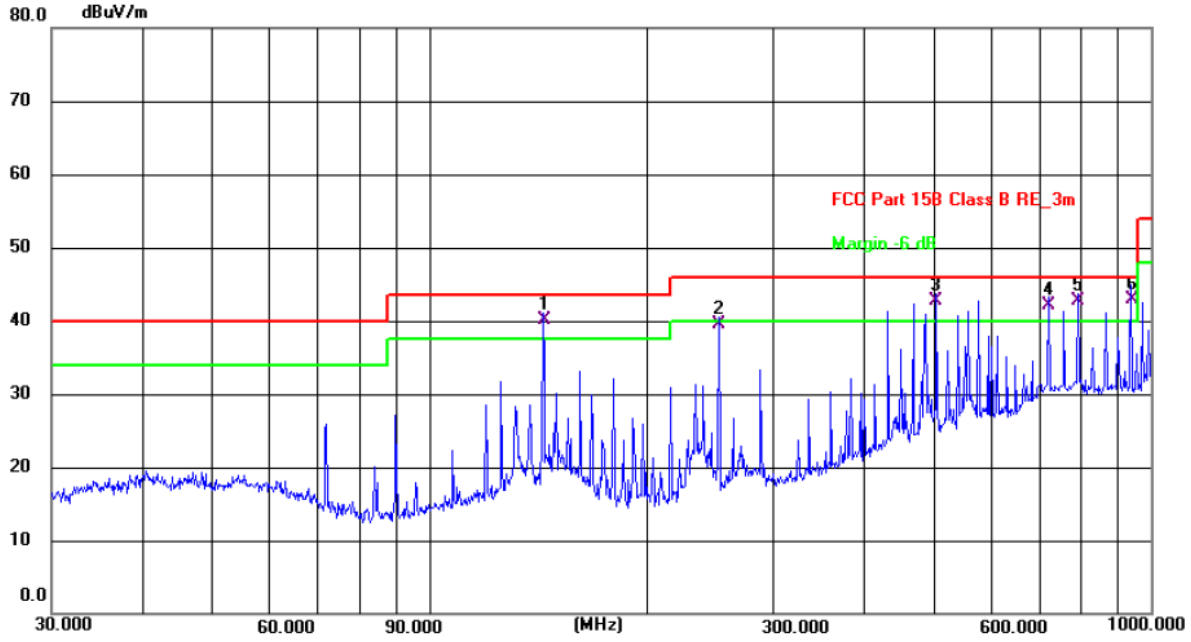
Measurement data and Graphical presentation of the result



Site #2 3m Anechoic Chamber Polarization: *Horizontal* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B RE_3m Power: DC 7.5V

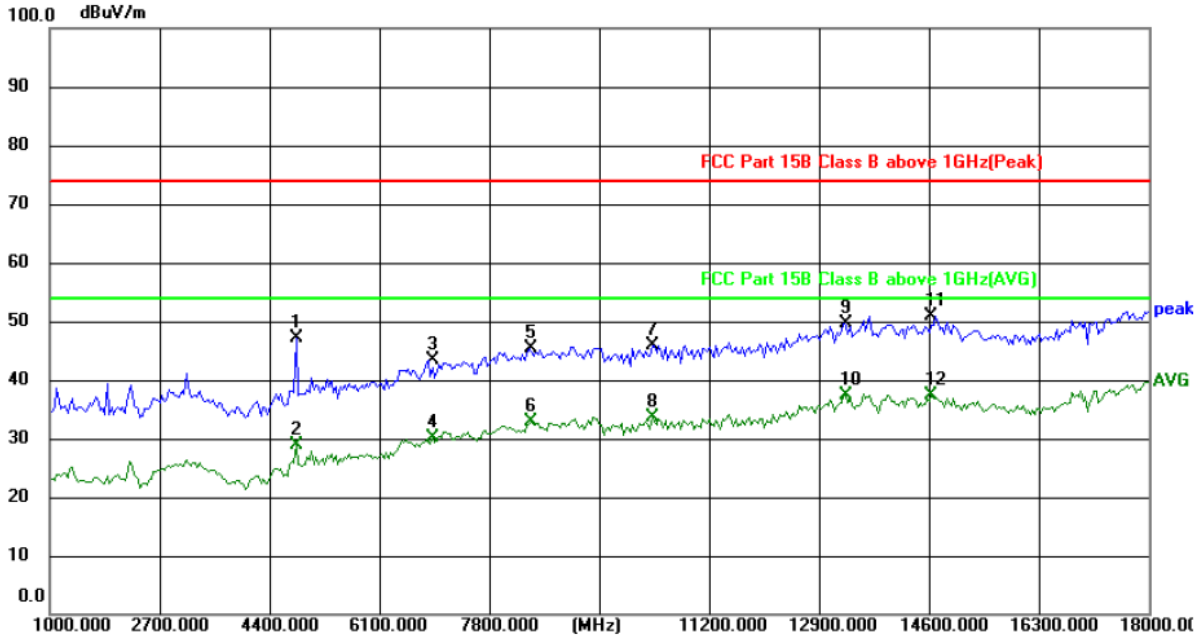
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	143.8294	23.95	13.28	37.23	43.50	-6.27	QP	P	
2 !	252.0627	30.16	12.60	42.76	46.00	-3.24	QP	P	
3 !	287.9904	27.56	13.97	41.53	46.00	-4.47	QP	P	
4 *	504.7062	23.51	19.48	42.99	46.00	-3.01	QP	P	
5 !	721.7258	18.03	23.36	41.39	46.00	-4.61	QP	P	
6 !	938.8325	16.00	26.84	42.84	46.00	-3.16	QP	P	



Site #2 3m Anechoic Chamber Polarization: *Vertical* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B RE_3m Power: DC 7.5V

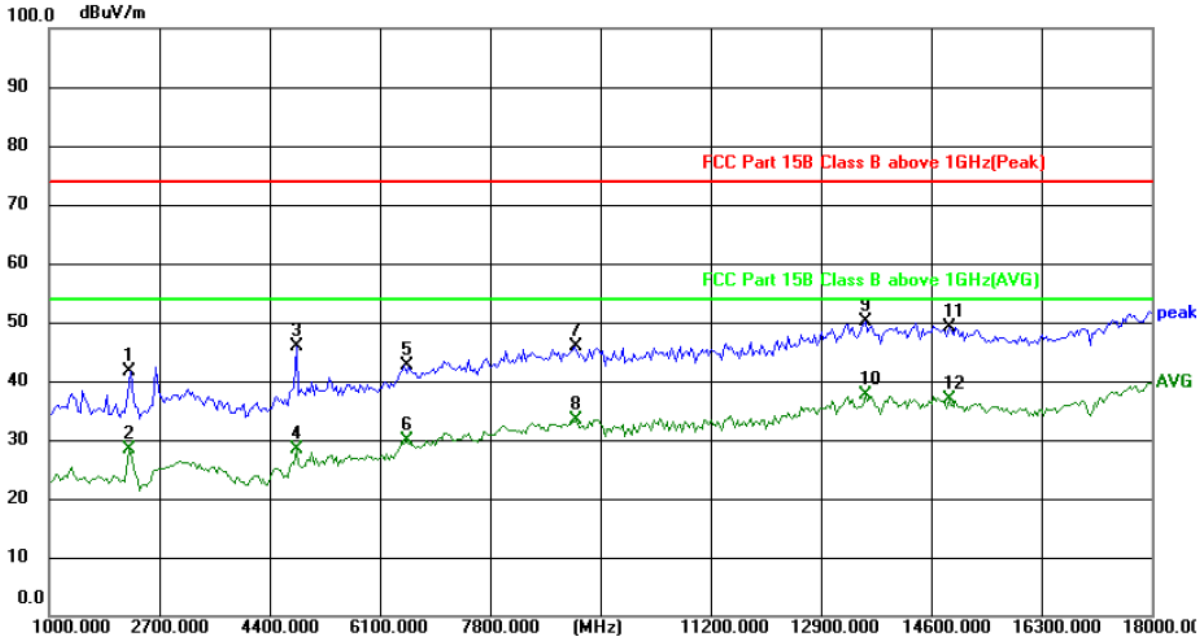
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 !	143.8294	26.75	13.28	40.03	43.50	-3.47	QP	P	
2	252.0627	26.95	12.60	39.55	46.00	-6.45	QP	P	
3 !	504.7062	23.25	19.48	42.73	46.00	-3.27	QP	P	
4 !	721.7258	18.84	23.36	42.20	46.00	-3.80	QP	P	
5 !	793.3958	17.78	24.94	42.72	46.00	-3.28	QP	P	
6 *	938.8325	16.16	26.84	43.00	46.00	-3.00	QP	P	



Site #2 3m Anechoic Chamber Polarization: *Horizontal* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B above 1GHz(Peak) Power: DC 7.5V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4808.000	57.09	-9.98	47.11	74.00	-26.89	peak	P	
2	4808.000	38.75	-9.98	28.77	54.00	-25.23	AVG	P	
3	6916.000	47.50	-4.16	43.34	74.00	-30.66	peak	P	
4	6916.000	34.17	-4.16	30.01	54.00	-23.99	AVG	P	
5	8446.000	47.51	-2.25	45.26	74.00	-28.74	peak	P	
6	8446.000	35.02	-2.25	32.77	54.00	-21.23	AVG	P	
7	10316.000	47.26	-1.27	45.99	74.00	-28.01	peak	P	
8	10316.000	34.91	-1.27	33.64	54.00	-20.36	AVG	P	
9	13308.000	46.99	2.61	49.60	74.00	-24.40	peak	P	
10 *	13308.000	34.87	2.61	37.48	54.00	-16.52	AVG	P	
11	14634.000	47.78	3.07	50.85	74.00	-23.15	peak	P	
12	14634.000	34.38	3.07	37.45	54.00	-16.55	AVG	P	



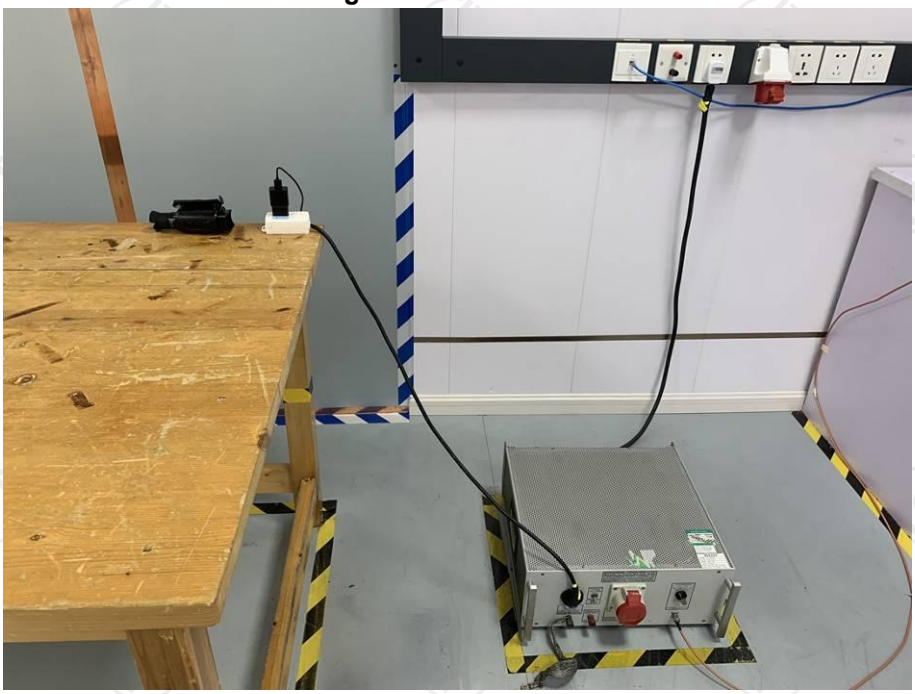
Site #2 3m Anechoic Chamber Polarization: *Vertical* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B above 1GHz(Peak) Power: DC 7.5V

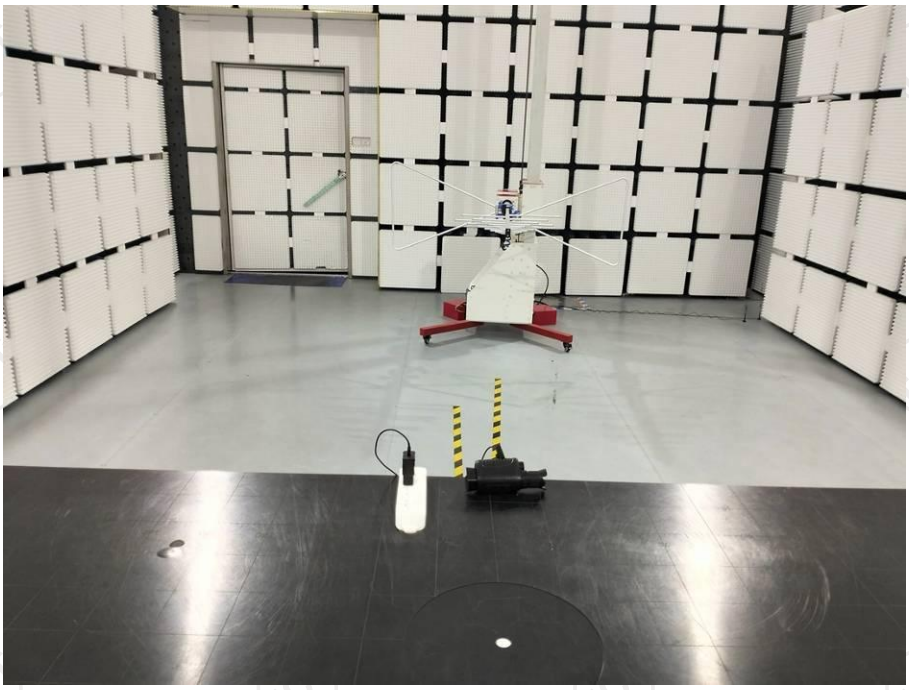
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2224.000	57.95	-16.37	41.58	74.00	-32.42	peak	P	
2	2224.000	44.77	-16.37	28.40	54.00	-25.60	AVG	P	
3	4808.000	55.96	-9.98	45.98	74.00	-28.02	peak	P	
4	4808.000	38.47	-9.98	28.49	54.00	-25.51	AVG	P	
5	6508.000	47.85	-5.14	42.71	74.00	-31.29	peak	P	
6	6508.000	34.90	-5.14	29.76	54.00	-24.24	AVG	P	
7	9126.000	47.32	-1.43	45.89	74.00	-28.11	peak	P	
8	9126.000	34.87	-1.43	33.44	54.00	-20.56	AVG	P	
9	13580.000	47.13	2.90	50.03	74.00	-23.97	peak	P	
10 *	13580.000	34.67	2.90	37.57	54.00	-16.43	AVG	P	
11	14872.000	46.06	2.96	49.02	74.00	-24.98	peak	P	
12	14872.000	33.99	2.96	36.95	54.00	-17.05	AVG	P	

6. Test set-up photo

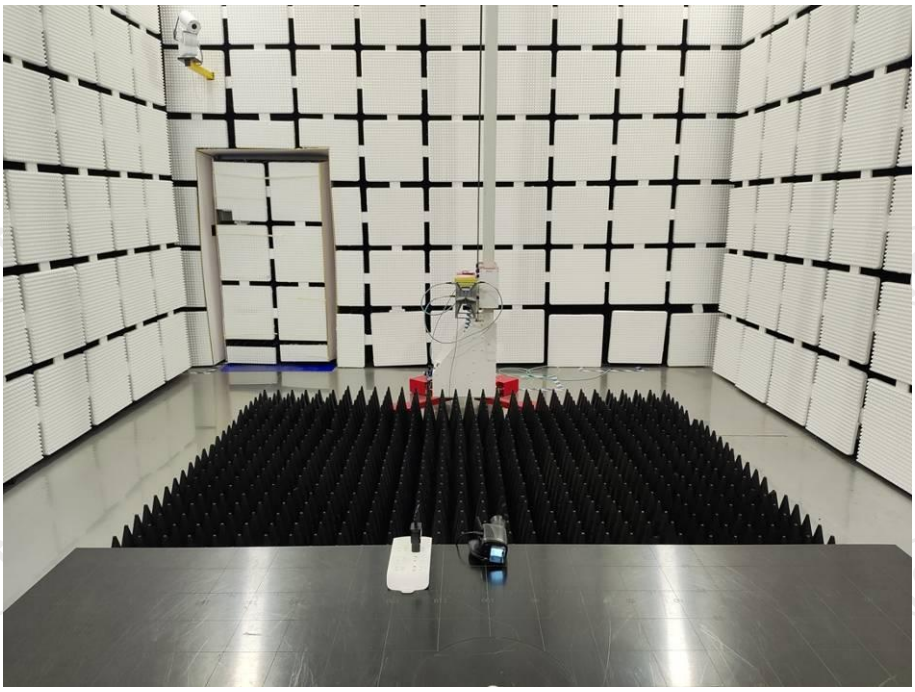
Disturbance voltage at the mains terminals Test View



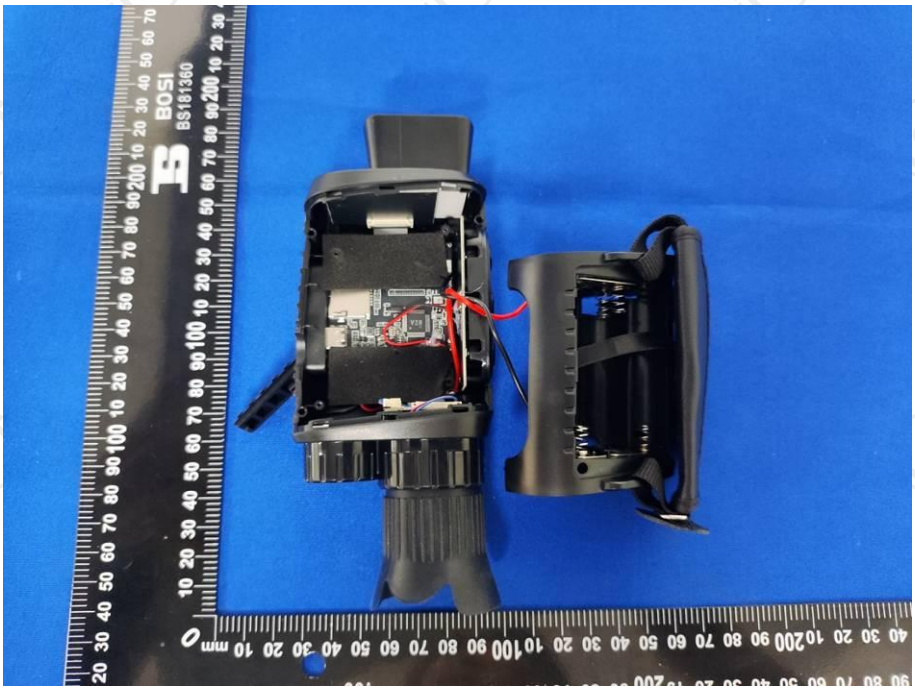
Radiated emission (30 MHz to 1 GHz) Test View



Radiated emission (above 1 GHz) Test View

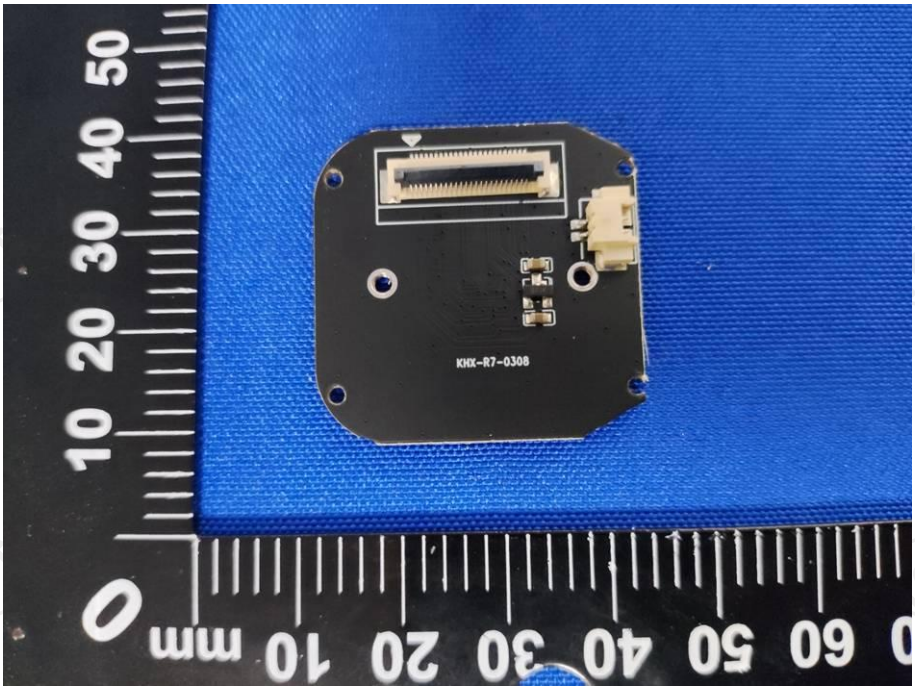


7. Photo of the EUT




BOSI
BS181380


20624 80C 60V VW-1
AWM 20624 80C 60V VW-1
AWM 20624 80C 60V VW-1
AWM 20624 80C 60V VW-1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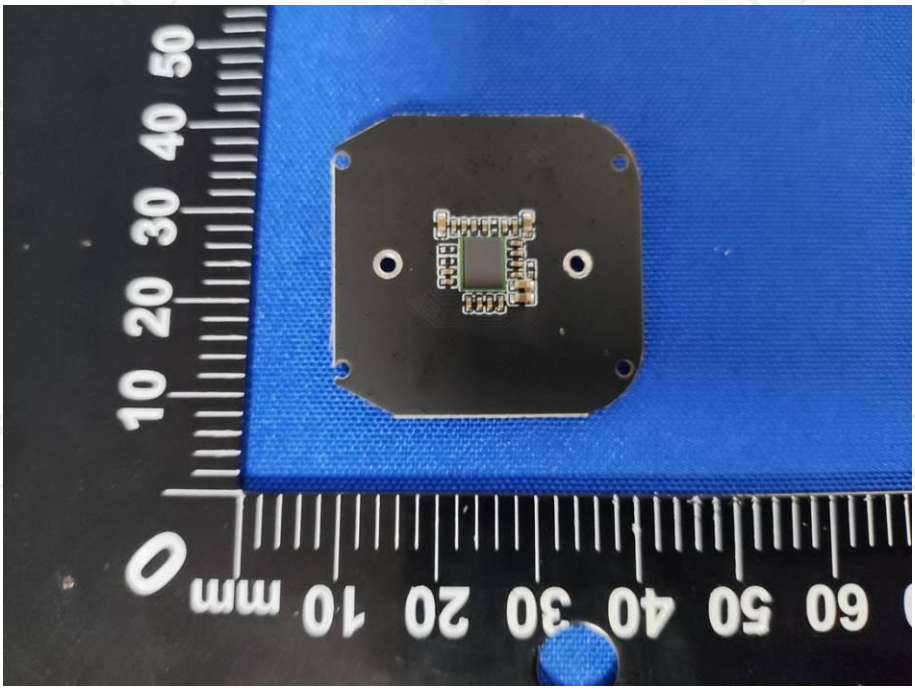

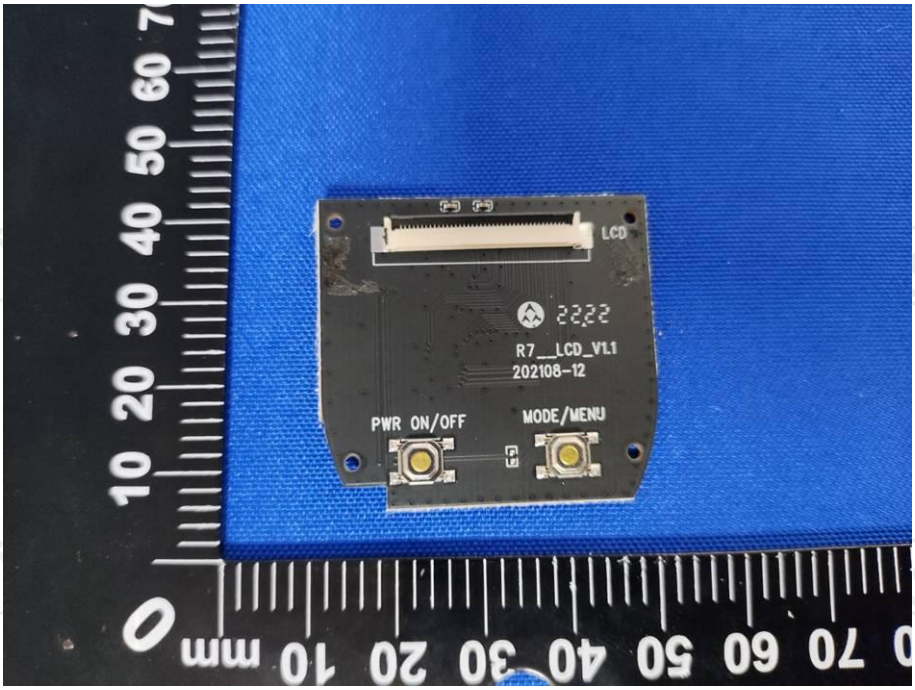
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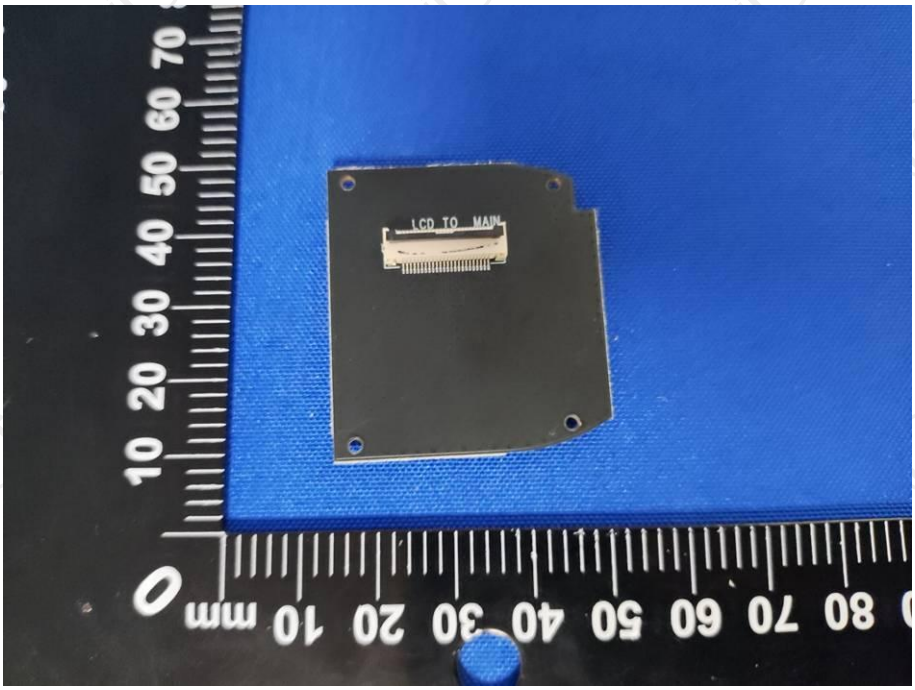
202108-12
PWR ON/OFF
MODE/MENU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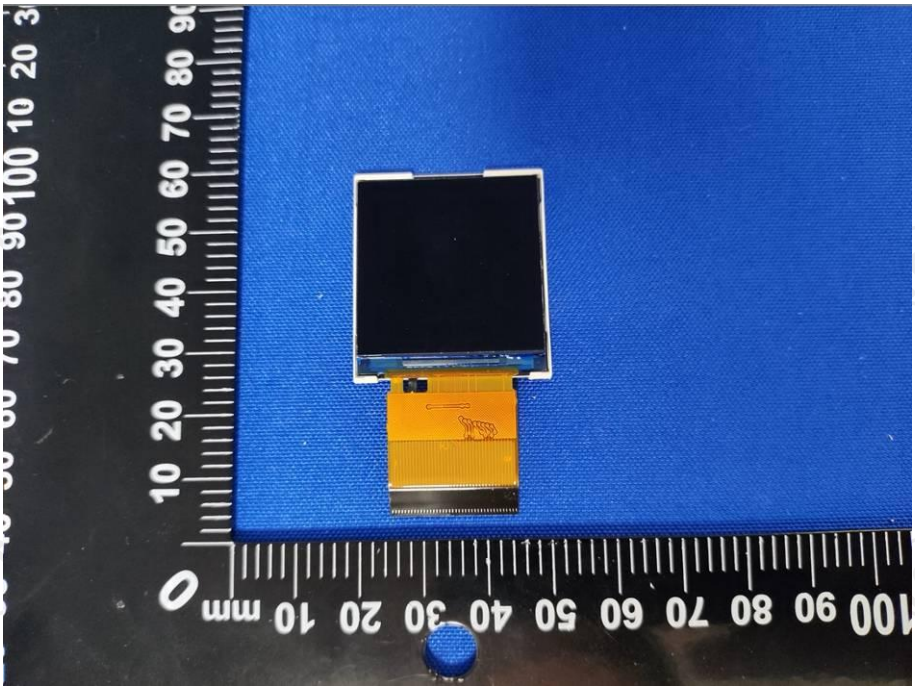

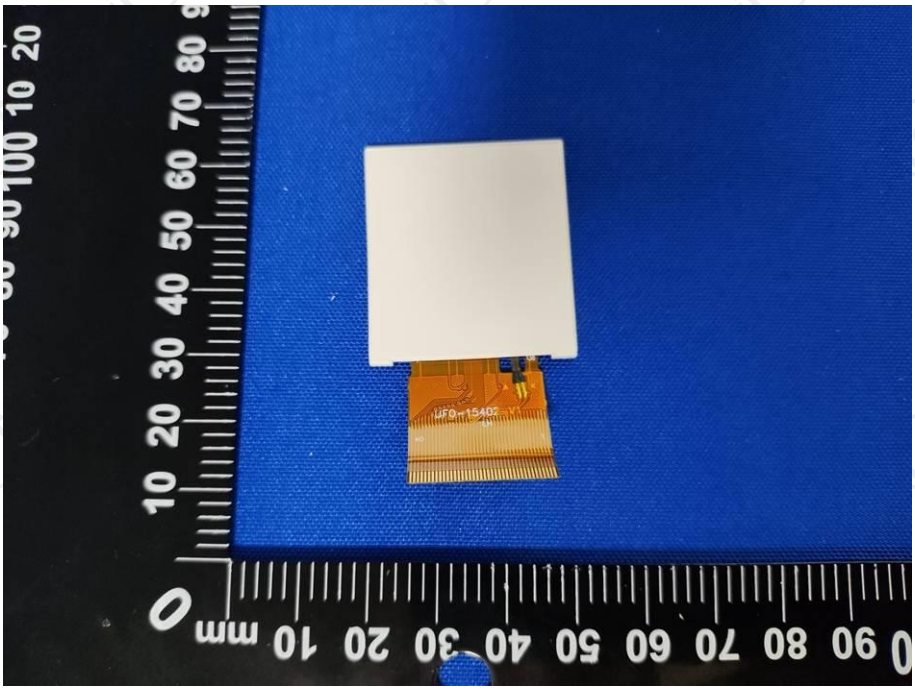

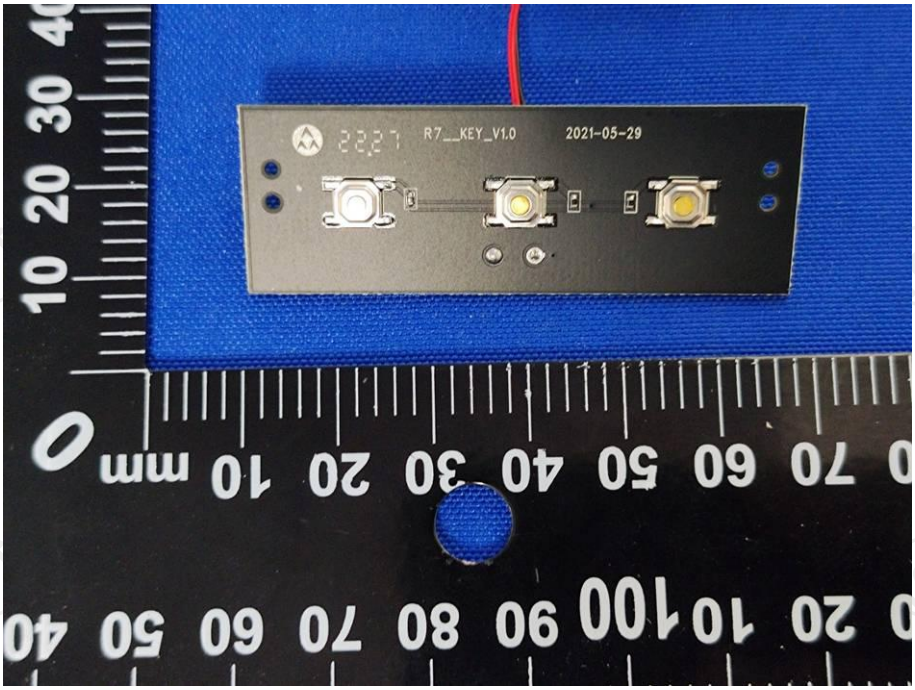
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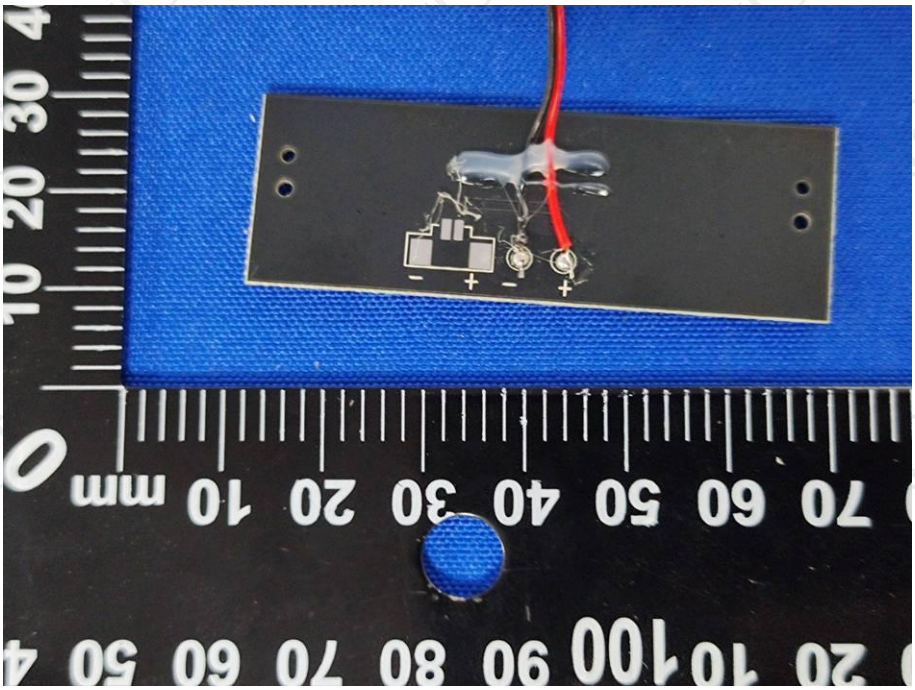
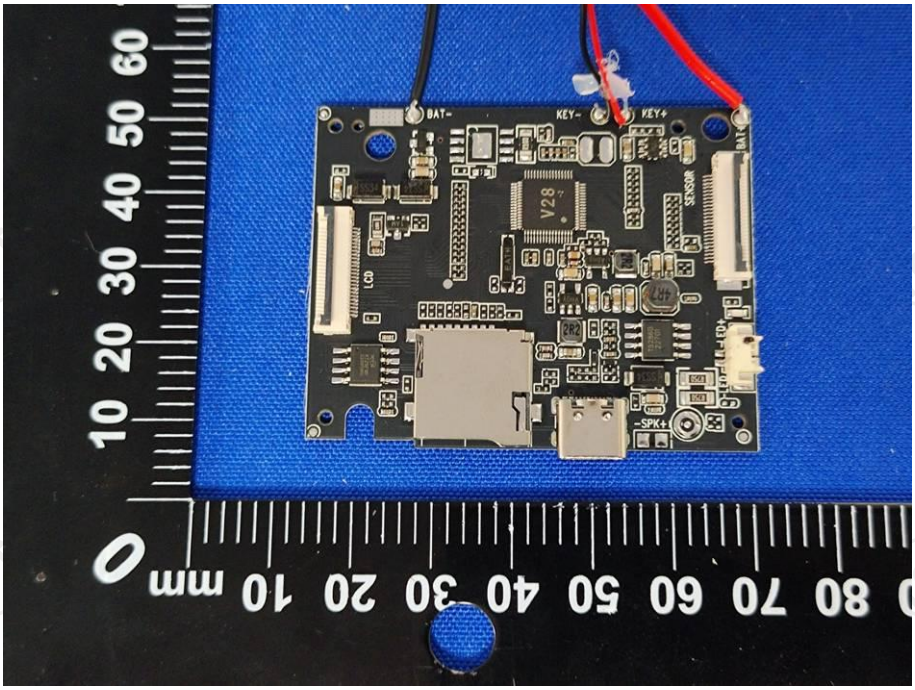
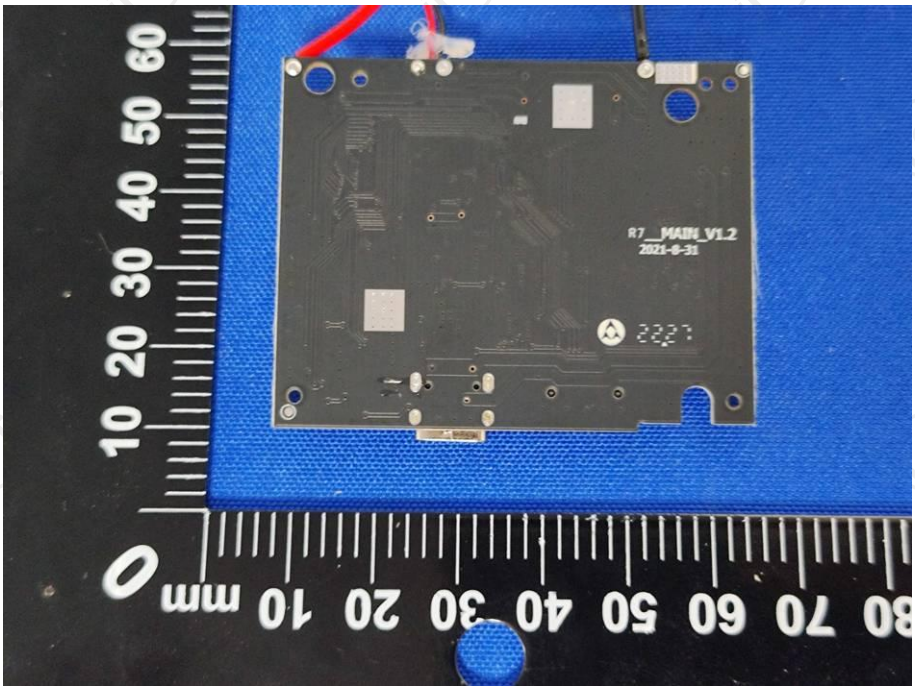
2021-05-29







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

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

TCT

Certificate of Compliance

Certificate No.	:	TCT240314E006C
Applicant	:	ShenZhen KuHangXin Technology Co., Ltd.
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Manufacturer	:	ShenZhen KuHangXin Technology Co., Ltd.
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Product	:	Night Vision
Model No.	:	R11
Trade mark	:	N/A

The above products have been tested by us with listed standards and found in compliance with the council EMC 2014/30/EU. It is possible to use CE marking to demonstrate the compliance with this EMC.

Test standards:	Report(s) Number	Issued By	Issued Date
EN 55032:2015+A11:2020+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021	TCT240314E006	TCT	Mar. 18, 2024

The statement is based on a single evaluation of one sample of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

Tomsin

Tomsin/Senior Engineer

Mar. 18, 2024

SHENZHEN TCT TESTING TECHNOLOGY CO., LTD. TCT

TCT

Certificate of Compliance

Certificate No.	:	TCT220727E004C
Applicant	:	ShenZhen KuHangXin Technology Co., Ltd
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Manufacturer	:	ShenZhen KuHangXin Technology Co., Ltd
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Product	:	Night Vision
Model No.	:	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R01, R02, R03, R04, R05, R06, R07, R08, R09, R15, R16, R17, R18, R19, RH1, NVC100, NVC200, NVC300, NVC400, NVC500, NVC600, NVC700, NVC800, NVC900, NVC1000 XJ03, XJ05, XJ06, D90, D22, D23, D24, D25, D60, P1, P2 , P3, P4, P5, P6, P7, P8
Trade mark	:	N/A

The above products have been tested by us with listed standards and found in compliance with UK Electromagnetic Compatibility Regulations (SI 2016/1091). It is possible to use UKCA marking to demonstrate the compliance with this EMC.

Test standards:	Report(s) Number	Issued By	Issued Date
BS EN 55032:2015+A11:2020+A1:2020 BS EN 55035:2017+A11:2020 BS EN IEC 61000-3-2:2019+A1:2021 BS EN 61000-3-3:2013+A1:2019+A2:2021	**TCT220727E004**	**TCT**	**Aug. 02, 2022**

The statement is based on a single evaluation of one sample of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

UK CA

Tomsin

Tomsin/Senior Engineer

Aug. 02, 2022

SHENZHEN TCT TESTING TECHNOLOGY CO., LTD TCT

Shenzhen TCT Testing Technology Co.,Ltd.
Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 Http://www.tct-lab.com

Supplier Declaration of Conformity

TCT220329E031C

This declaration that the following designated product

Night Vision

Model No: R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R01, R02, R03, R04, R05, R06, R07, R08, R09, R15, R16, R17, R18, R19, RH1

(Product Identification)

It is herewith confirmed and found to comply with the requirements set up by regulation for the evaluation of electromagnetic compatibility.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

This declaration is the responsibility of the manufacturer/importer

ShenZhen KuHangXin Technology Co., Ltd

East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen

Identification of regulation: 47 CFR Part 15 Subpart B, Measurement Procedure: ANSI C63.4: 2014. It is only valid in connection with the test report number: **TCT220329E031**.

TEST LABORATORY

This is the results of test that was carried out from the submitted type-samples of a product in conformity with the specification of the respective standards.

Authorized Signer: Tomsin

Tomsin/Senior Engineer

Date: Apr. 08, 2022

This declaration is only valid for the equipment and configuration described, in conjunction with the test data detailed above.

TCT 通测检测 TESTING CENTRE TECHNOLOGY

EMC TEST REPORT

Radio Frequency Devices - Unintentional Radiators

Test Report No. .....:	TCT220823E014	
Date of issue .....:	Aug. 26, 2022	
Testing laboratory.....:	SHENZHEN TONGCE TESTING LAB	
Testing location/ address.....:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name .....:	ShenZhen KuHangXin Technology Co., Ltd	
Address.....:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen	
Manufacturer's name .....:	ShenZhen KuHangXin Technology Co., Ltd	
Address.....:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen	
Standard(s) .....:	FCC 47 CFR Part 15 Subpart B	
Test item description.....:	Night Vision	
Trade Mark.....:	N/A	
Model/Type reference.....:	R1, R2, R3 , R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, DV100, D90, D60, D40, D30, D20, D10, XJ03, XJ05, XJ06, XJ07, XJ08, XJ09, NVC100, NVC200, NVC300, NVC400, NVC500, NVC600, NVC700, NVC800, NVC900, NVC1000, NVC2000, NVC3000, NVC4000	
Rating(s) .....:	Battery: DC 7.5 V(1.5*AA*5)	
Date of receipt of test item.....:	Aug. 23, 2022	
Date (s) of performance of test:	Aug. 23, 2022 - Aug. 26, 2022	
Tested by (+signature).....:	Jack WANG	Jack Wang
Check by (+signature) .....:	Howie LYU	Howie Lyu
Approved by (+signature) .....:	Tomsin	Tomsin

General disclaimer:

This report shall not be reproduced except in full, without the written approval of SHENZHEN TONGCE TESTING LAB This document may be altered or revised by SHENZHEN TONGCE TESTING LAB personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

Table of Contents

1. General Product Information

1.1.EUT description

Test item description ..... :	Night Vision
Model/Type reference ..... :	R1
Rating(s) ..... :	Battery: DC 7.5 V(1.5*AA*5)
Highest internal frequency F_x..... :	☐ *Fx* ≤ 108 MHz ☐ 108 MHz < *Fx* ≤ 500 MHz ☒ 500 MHz < *Fx* ≤ 1 GHz ☐ *Fx* > 1 GHz
AC Line ..... :	☐Shielded ☐Unshielded ☐Detachable ☐Un-detachable ☒No applicable ☐Length:
DC Line ..... :	☐Shielded ☐Unshielded ☐Detachable ☐Un-detachable ☒No applicable ☐Length:

1.2.Model(s) list

No.	Model No.	Tested with
1	R1	☒
Other models	R2, R3 , R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, DV100, D90, D60, D40, D30, D20, D10, XJ03, XJ05, XJ06, XJ07, XJ08, XJ09, NVC100, NVC200, NVC300, NVC400, NVC500, NVC600, NVC700, NVC800, NVC900, NVC1000, NVC2000, NVC3000, NVC4000	☐
Note: R1 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of R1 can represent the remaining models.		

2. Test Information

2.1.EUT operation mode(s)

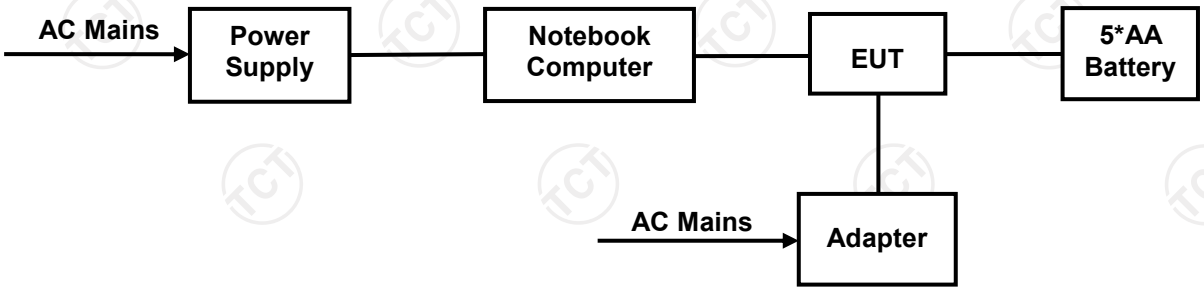
Mode #	Operating mode description	Test voltage
1	Data Transmitting	DC 5 V(Notebook Computer Input AC 120 V/60 Hz)
2	Camera Shooting Mode 1	DC 5 V(Adapter Input AC 120 V/60 Hz)
3	Camera Shooting Mode 2	DC 7.5 V

Test worst operating mode	
Disturbance voltage at mains terminals	Mode 1
Radiated emission(30 MHz to 1 GHz)	Mode 3
Radiated emission (above 1 GHz)	Mode 3
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.
Adapter	SAMSUNG	EP-TA200	R37R55T6KL2SE3
Notebook Computer	DELL	G3 3500	00342-36088-99832-AAOEM
Power supply	DELL	HA130PM190	CN-0CY0JM-CH200-0B6-7405-A01
SD Card	Kingston	SDCS2/32GB	2210B814822

2.3.Configuration of system under test



(EUT: Night Vision)

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 (☐A ☒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

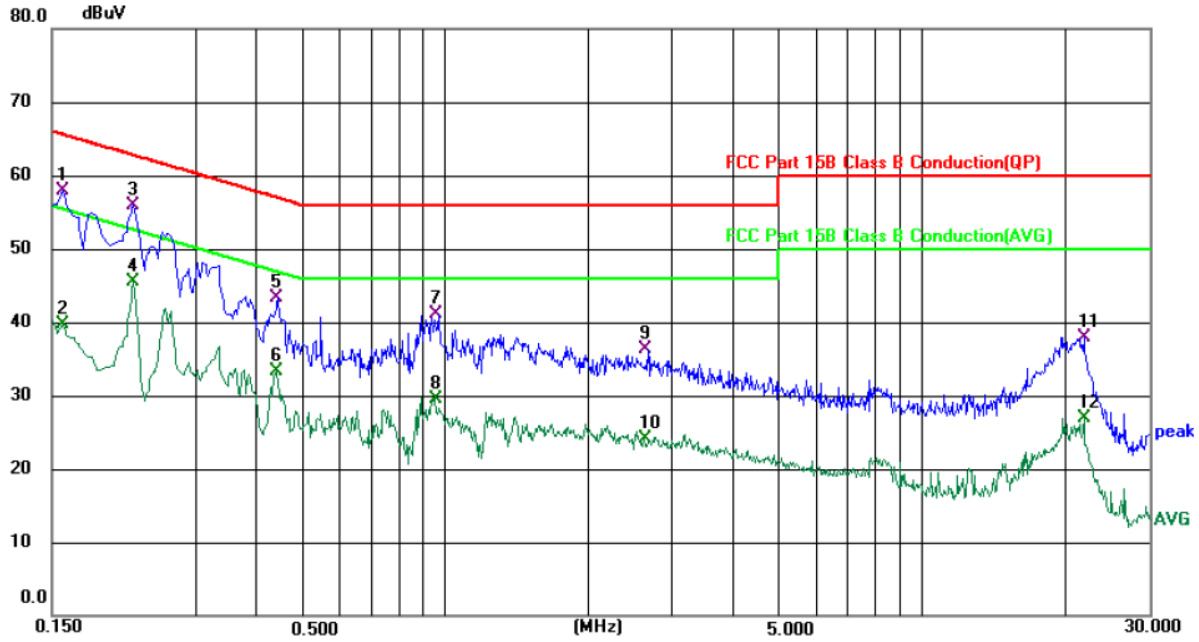
Equipment	Manufacturer	Model No.	Serial No.	Cal. Due
Disturbance voltage at mains terminals				
EMI Test Receiver	R&S	ESCI3	100898	2023/07/03
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	2023/02/24
Attenuator	N/A	10dB	164080	2023/07/03
844 Shielded room	SKET	8m*4m*4m	CR4	2023/03/02
Test software	EZ_EMC	EMEC-3A1	/	/
Radiated emission (30 MHz to 1 GHz)				
Broadband Antenna	Schwarzbeck	VULB 9168	01197	2023/03/06
EMI Test Receiver	R&S	ESCI7	100529	2023/02/24
Test software	EZ_EMC	FA-03A2 RE+	/	/
3m Anechoic Chamber	SKET	9m*6m*6m	SA01	2023/01/25
Radiated emission (above 1 GHz)				
Horn Antenna	Schwarzbeck	BBHA 9120 D	02372	2024/07/05
Horn Antenna	Schwarzbeck	BBHA 9170	00956	2024/07/05
Signal Analyzer	R&S	FSQ40	200061	2023/07/03
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	2023/02/24
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	2023/02/24
3m Anechoic Chamber	SKET	9m*6m*6m	SA03	2023/01/25
Test software	EZ_EMC	FA-03A2 RE+	/	/

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.:	25.3 °C		
Relative humidity .....:	56 %		
Test location .....:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China		
Test model(s) .....:	R1		
EUT operation mode..:	Mode 1		
Test results .....:	Pass		
Remark.....:	/		

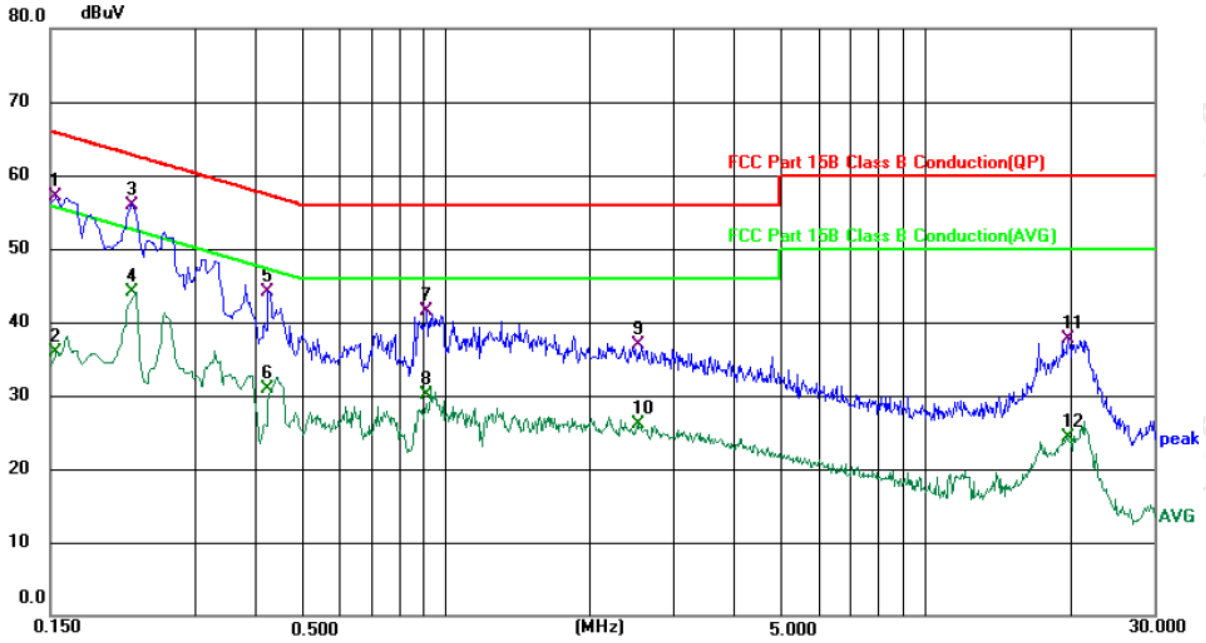
Measurement data and Graphical presentation of the result



Site 844 Shielding Room Phase: *L1* Temperature: 25.3 (℃) Humidity: 56 %

Limit: FCC Part 15B Class B Conduction(QP) Power: DC 5V(Notebook Computer Input AC 120V/60Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1580	47.38	10.53	57.91	65.57	-7.66	QP	
2		0.1580	29.19	10.53	39.72	55.57	-15.85	AVG	
3	*	0.2220	45.66	10.28	55.94	62.74	-6.80	QP	
4		0.2220	35.26	10.28	45.54	52.74	-7.20	AVG	
5		0.4420	33.16	10.18	43.34	57.02	-13.68	QP	
6		0.4420	23.16	10.18	33.34	47.02	-13.68	AVG	
7		0.9540	31.06	10.11	41.17	56.00	-14.83	QP	
8		0.9540	19.36	10.11	29.47	46.00	-16.53	AVG	
9		2.6180	26.20	10.02	36.22	56.00	-19.78	QP	
10		2.6180	14.12	10.02	24.14	46.00	-21.86	AVG	
11		21.9340	27.49	10.47	37.96	60.00	-22.04	QP	
12		21.9340	16.36	10.47	26.83	50.00	-23.17	AVG	



Site 844 Shielding Room Phase: N Temperature: 25.3 (℃) Humidity: 56 %

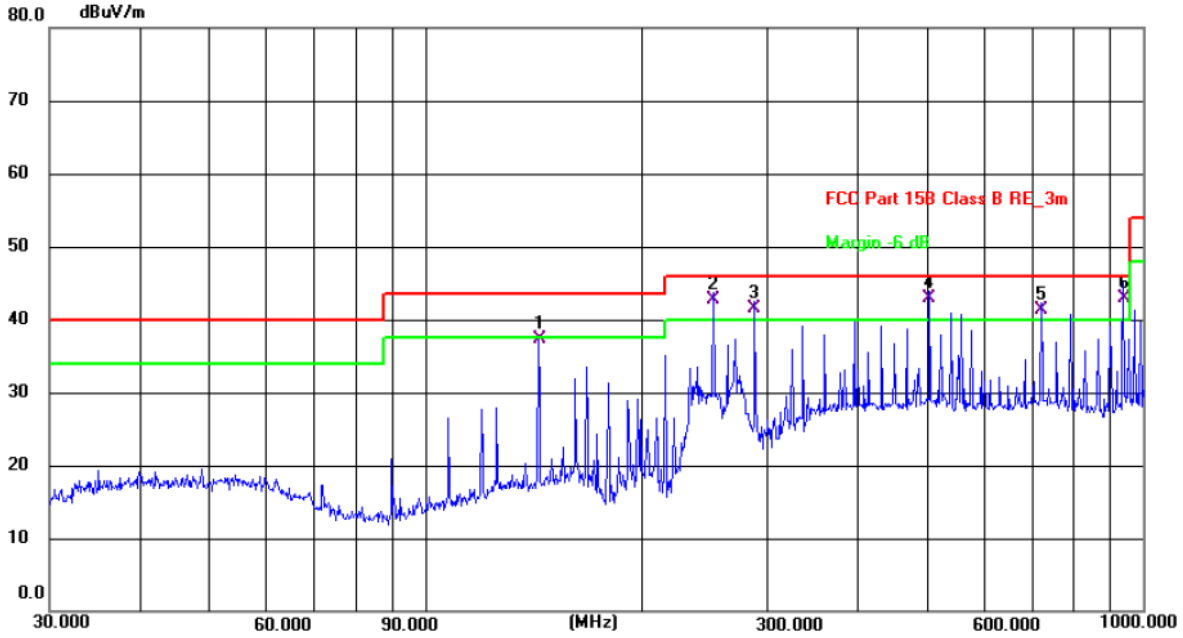
Limit: FCC Part 15B Class B Conduction(QP) Power: DC 5V(Notebook Computer Input AC 120V/60Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1539	46.57	10.44	57.01	65.79	-8.78	QP	
2		0.1539	25.40	10.44	35.84	55.79	-19.95	AVG	
3	*	0.2220	45.72	10.28	56.00	62.74	-6.74	QP	
4		0.2220	33.91	10.28	44.19	52.74	-8.55	AVG	
5		0.4259	33.96	10.19	44.15	57.33	-13.18	QP	
6		0.4259	20.62	10.19	30.81	47.33	-16.52	AVG	
7		0.9140	31.32	10.11	41.43	56.00	-14.57	QP	
8		0.9140	19.91	10.11	30.02	46.00	-15.98	AVG	
9		2.5219	26.85	10.12	36.97	56.00	-19.03	QP	
10		2.5219	16.07	10.12	26.19	46.00	-19.81	AVG	
11		19.8019	27.27	10.43	37.70	60.00	-22.30	QP	
12		19.8019	13.81	10.43	24.24	50.00	-25.76	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 (dBμV/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 (dBμV/m)	**Average (dBμV/m)**	**Peak (dBμV/m)**	**Average (dBμV/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.:	24.1 °C				
Relative humidity .....:	52 %				
Test location .....:	2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China				
Test model(s) .....:	R1				
EUT operation mode..:	Mode 3				
Test results .....:	Pass				
Remark.....:	/				

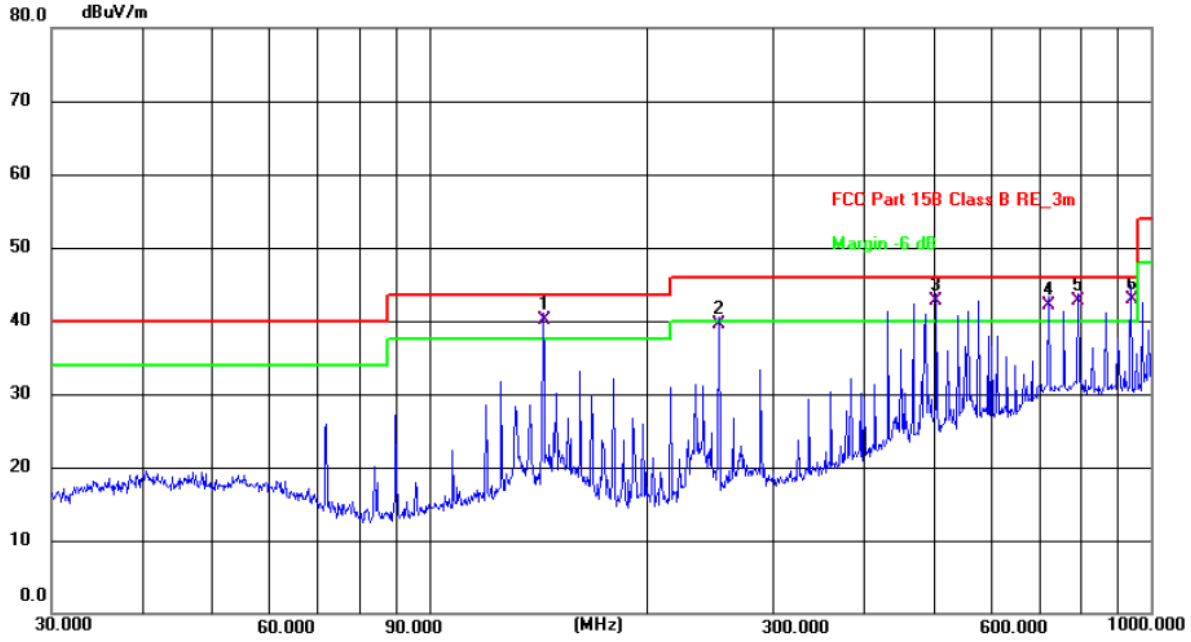
Measurement data and Graphical presentation of the result



Site #2 3m Anechoic Chamber Polarization: *Horizontal* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B RE_3m Power: DC 7.5V

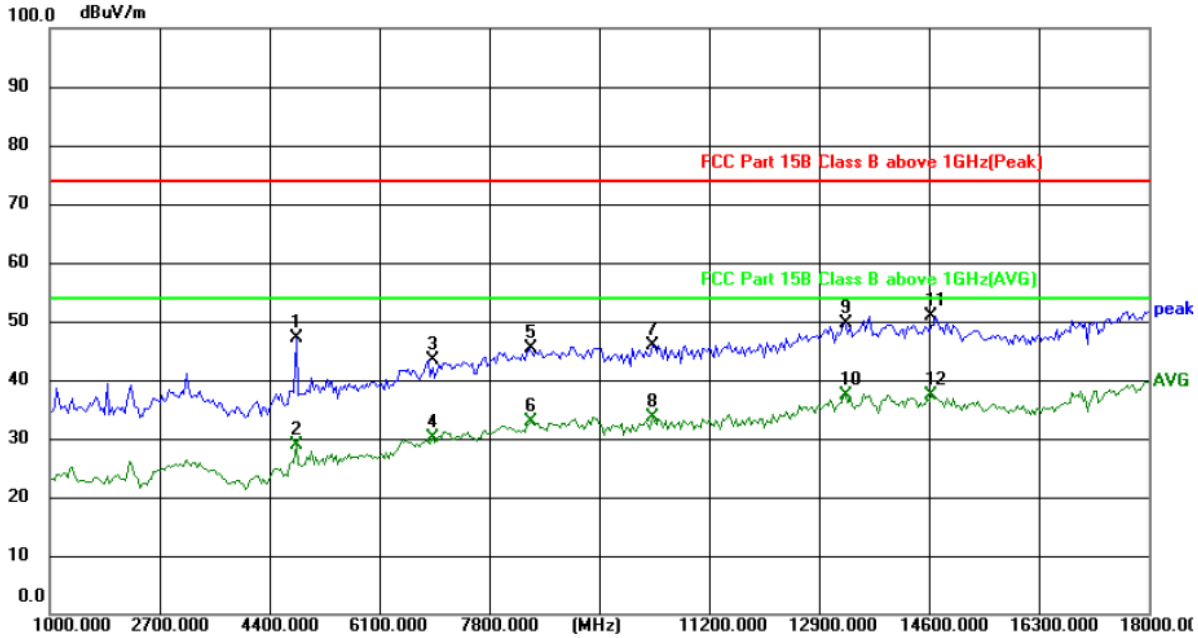
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	143.8294	23.95	13.28	37.23	43.50	-6.27	QP	P	
2 !	252.0627	30.16	12.60	42.76	46.00	-3.24	QP	P	
3 !	287.9904	27.56	13.97	41.53	46.00	-4.47	QP	P	
4 *	504.7062	23.51	19.48	42.99	46.00	-3.01	QP	P	
5 !	721.7258	18.03	23.36	41.39	46.00	-4.61	QP	P	
6 !	938.8325	16.00	26.84	42.84	46.00	-3.16	QP	P	



Site #2 3m Anechoic Chamber Polarization: *Vertical* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B RE_3m Power: DC 7.5V

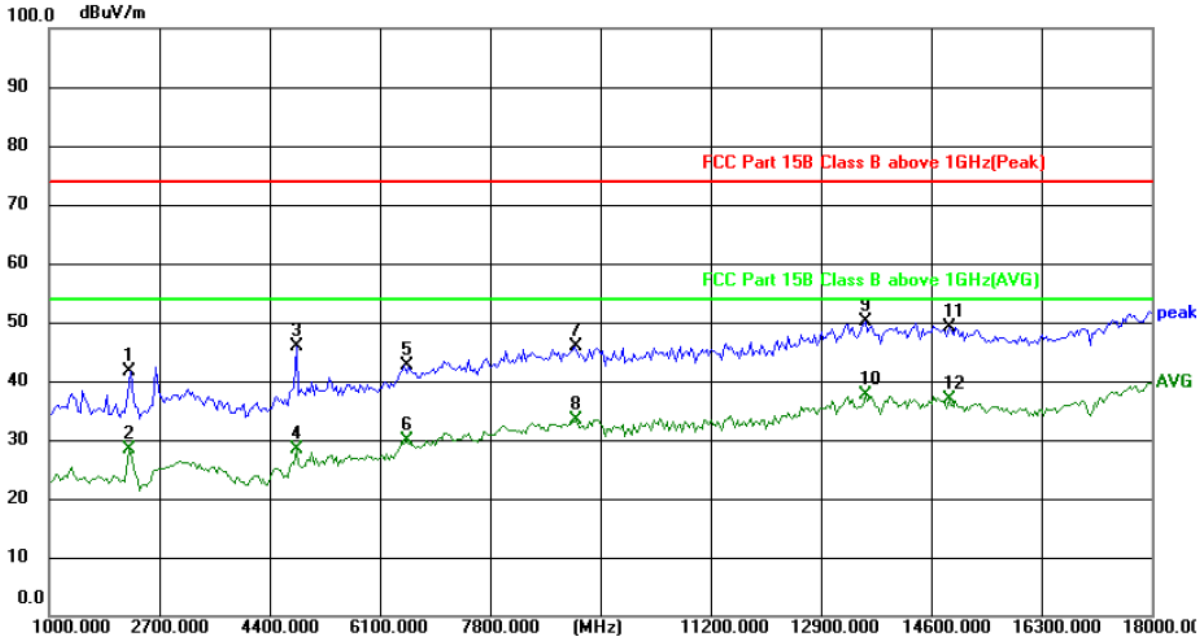
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 !	143.8294	26.75	13.28	40.03	43.50	-3.47	QP	P	
2	252.0627	26.95	12.60	39.55	46.00	-6.45	QP	P	
3 !	504.7062	23.25	19.48	42.73	46.00	-3.27	QP	P	
4 !	721.7258	18.84	23.36	42.20	46.00	-3.80	QP	P	
5 !	793.3958	17.78	24.94	42.72	46.00	-3.28	QP	P	
6 *	938.8325	16.16	26.84	43.00	46.00	-3.00	QP	P	



Site #2 3m Anechoic Chamber Polarization: *Horizontal* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B above 1GHz(Peak) Power: DC 7.5V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	4808.000	57.09	-9.98	47.11	74.00	-26.89	peak	P	
2	4808.000	38.75	-9.98	28.77	54.00	-25.23	AVG	P	
3	6916.000	47.50	-4.16	43.34	74.00	-30.66	peak	P	
4	6916.000	34.17	-4.16	30.01	54.00	-23.99	AVG	P	
5	8446.000	47.51	-2.25	45.26	74.00	-28.74	peak	P	
6	8446.000	35.02	-2.25	32.77	54.00	-21.23	AVG	P	
7	10316.000	47.26	-1.27	45.99	74.00	-28.01	peak	P	
8	10316.000	34.91	-1.27	33.64	54.00	-20.36	AVG	P	
9	13308.000	46.99	2.61	49.60	74.00	-24.40	peak	P	
10 *	13308.000	34.87	2.61	37.48	54.00	-16.52	AVG	P	
11	14634.000	47.78	3.07	50.85	74.00	-23.15	peak	P	
12	14634.000	34.38	3.07	37.45	54.00	-16.55	AVG	P	



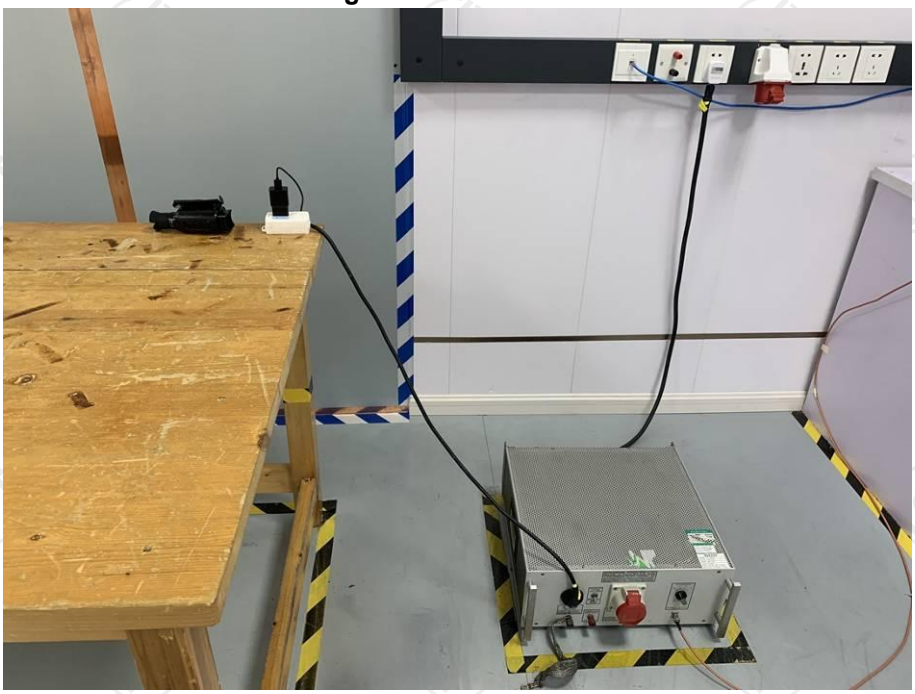
Site #2 3m Anechoic Chamber Polarization: *Vertical* Temperature: 24.1(C) Humidity: 52 %

Limit: FCC Part 15B Class B above 1GHz(Peak) Power: DC 7.5V

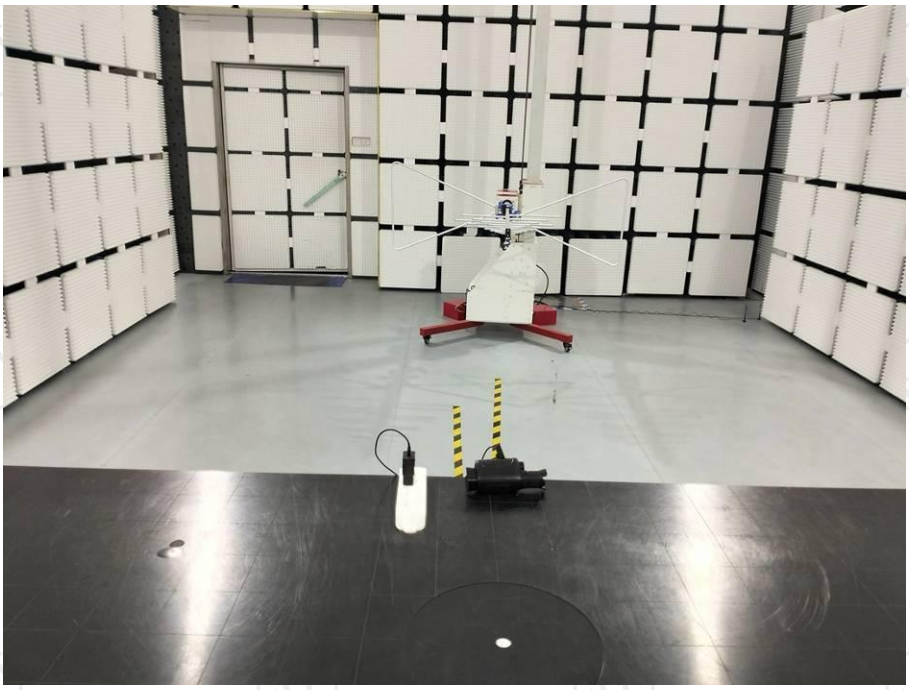
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	2224.000	57.95	-16.37	41.58	74.00	-32.42	peak	P	
2	2224.000	44.77	-16.37	28.40	54.00	-25.60	AVG	P	
3	4808.000	55.96	-9.98	45.98	74.00	-28.02	peak	P	
4	4808.000	38.47	-9.98	28.49	54.00	-25.51	AVG	P	
5	6508.000	47.85	-5.14	42.71	74.00	-31.29	peak	P	
6	6508.000	34.90	-5.14	29.76	54.00	-24.24	AVG	P	
7	9126.000	47.32	-1.43	45.89	74.00	-28.11	peak	P	
8	9126.000	34.87	-1.43	33.44	54.00	-20.56	AVG	P	
9	13580.000	47.13	2.90	50.03	74.00	-23.97	peak	P	
10 *	13580.000	34.67	2.90	37.57	54.00	-16.43	AVG	P	
11	14872.000	46.06	2.96	49.02	74.00	-24.98	peak	P	
12	14872.000	33.99	2.96	36.95	54.00	-17.05	AVG	P	

6. Test set-up photo

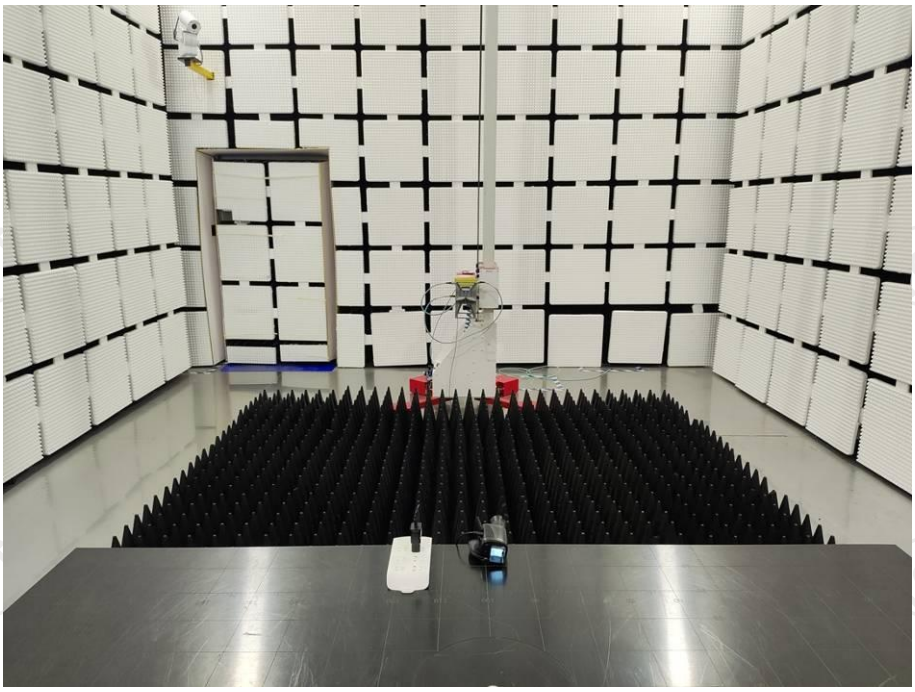
Disturbance voltage at the mains terminals Test View



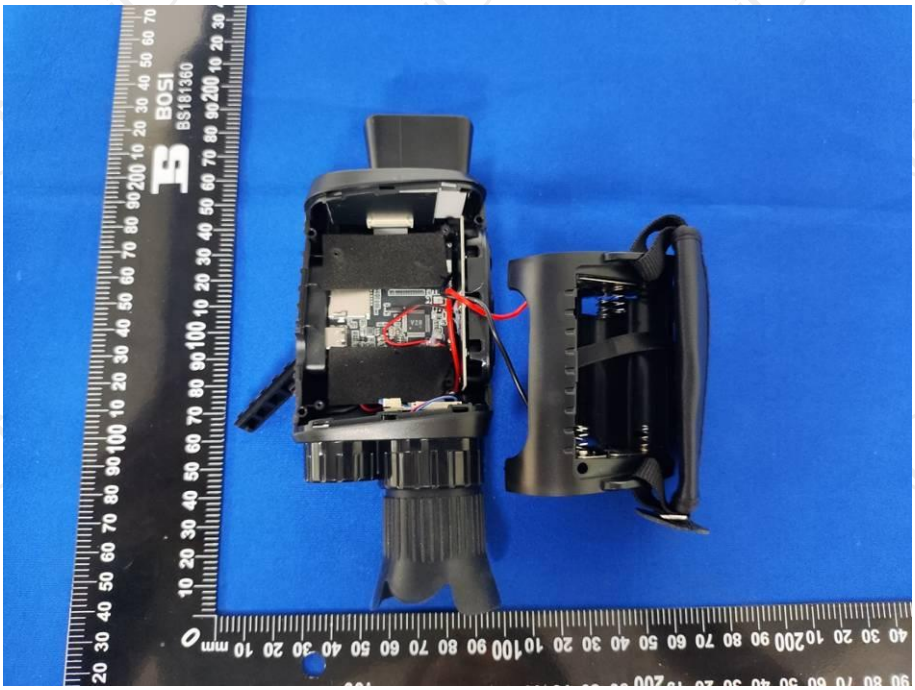
Radiated emission (30 MHz to 1 GHz) Test View



Radiated emission (above 1 GHz) Test View



7. Photo of the EUT




BOSI
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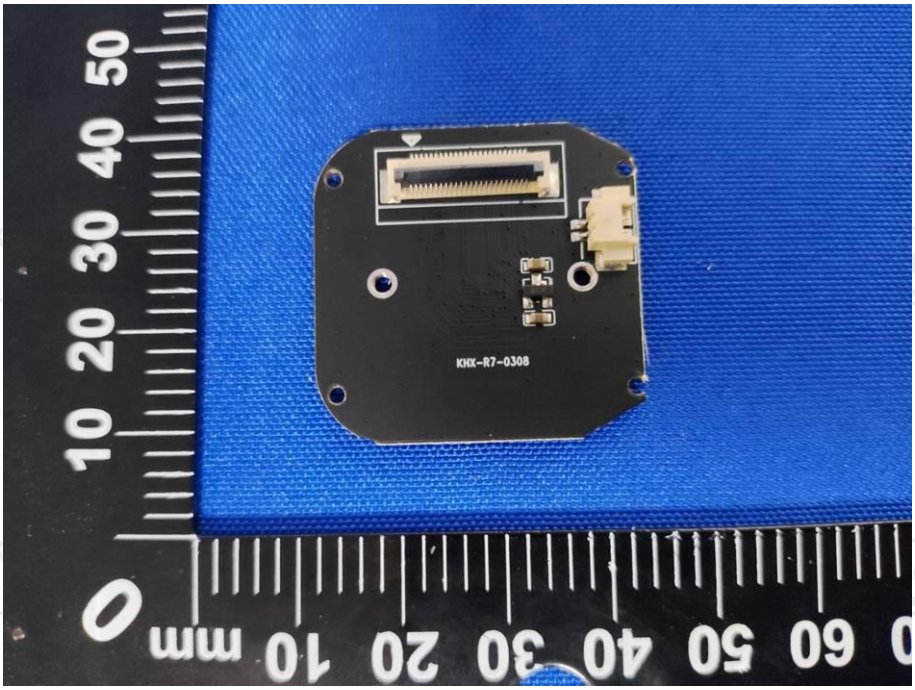
20624 80C 60V VW-1
AWM 20624 80C 60V VW-1
AWM 20624 80C 60V VW-1
AWM 20624 80C 60V VW-1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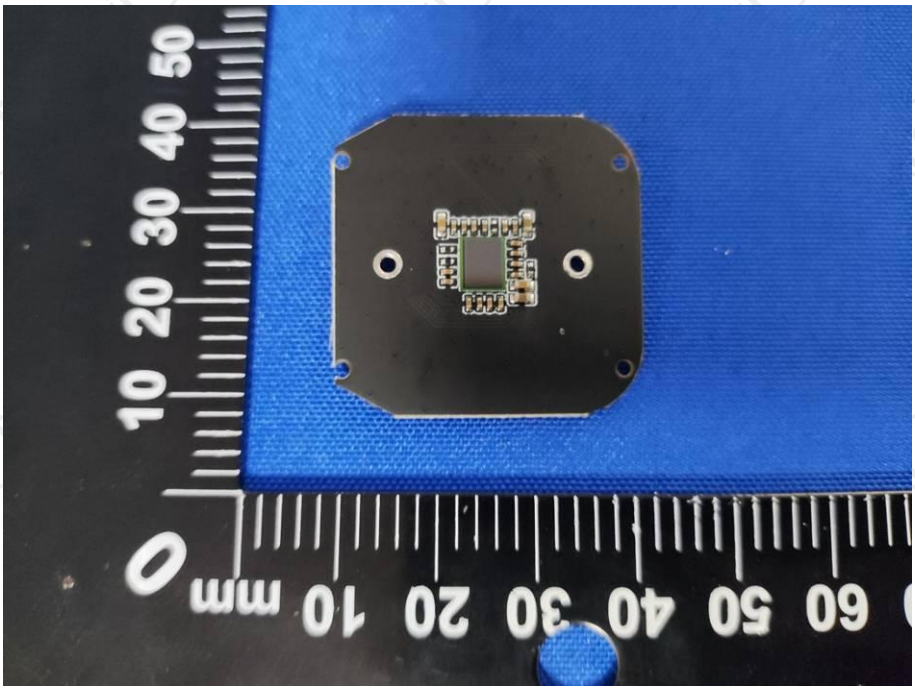

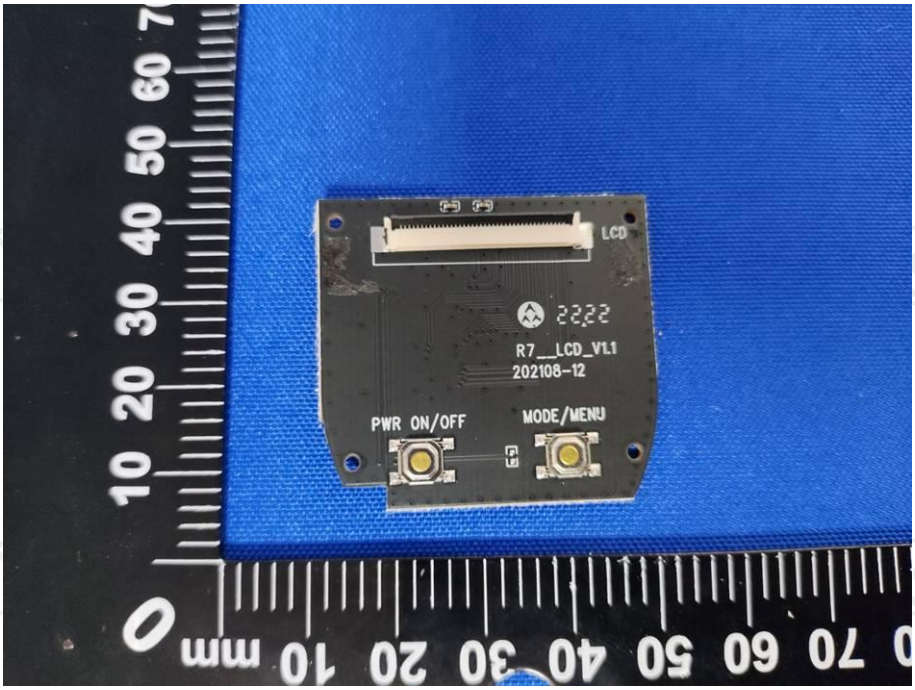
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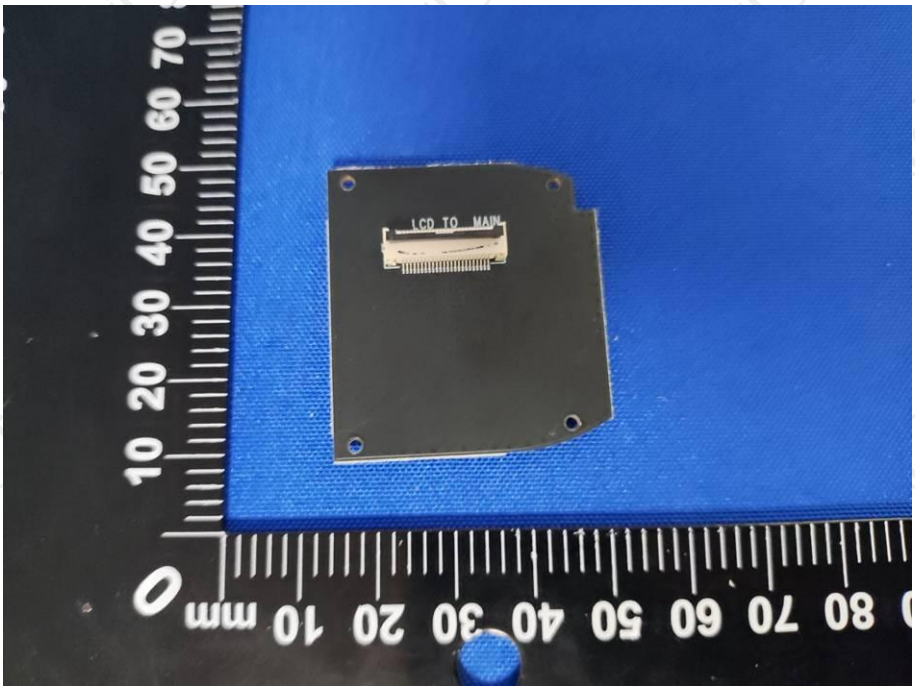
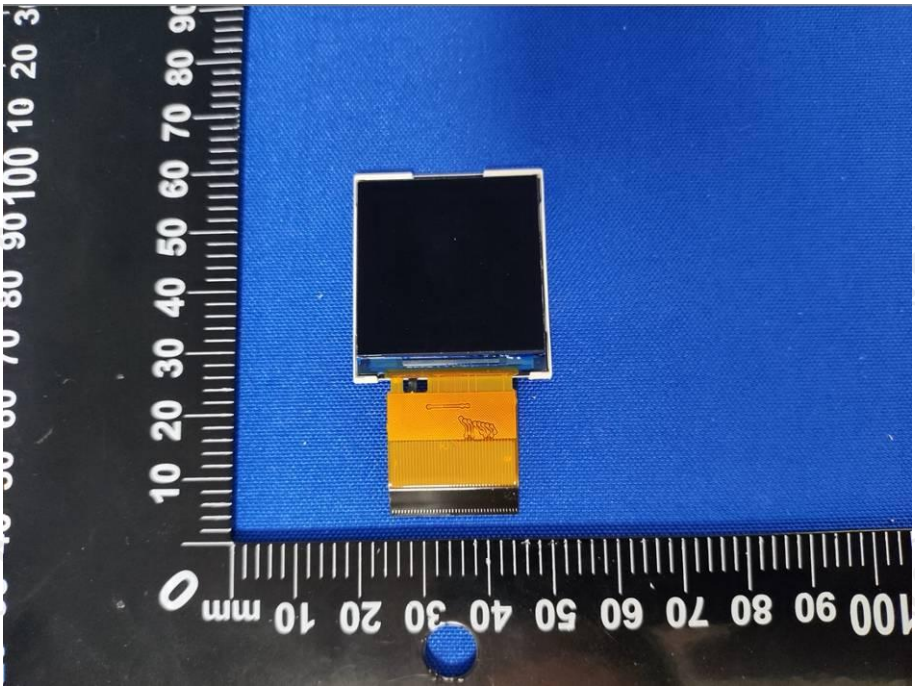
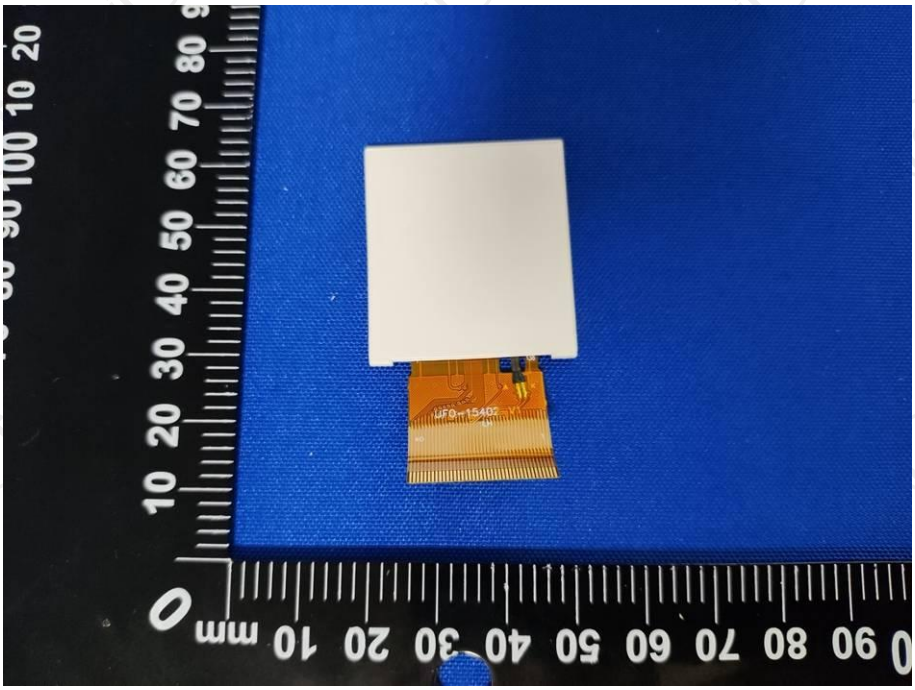
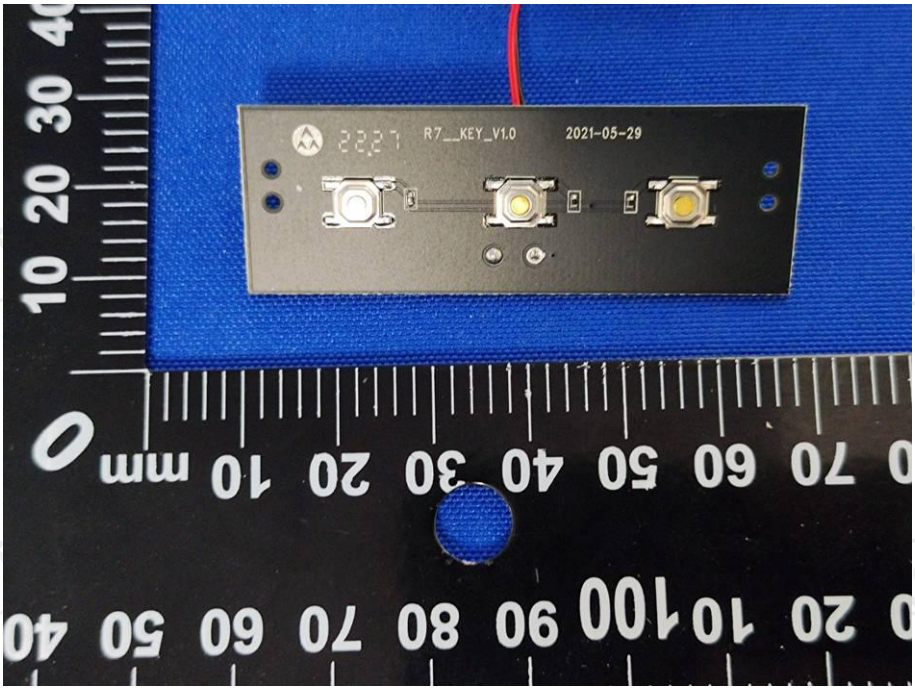
202108-12
PWR ON/OFF
MODE/MENU


LCD TO MAIN



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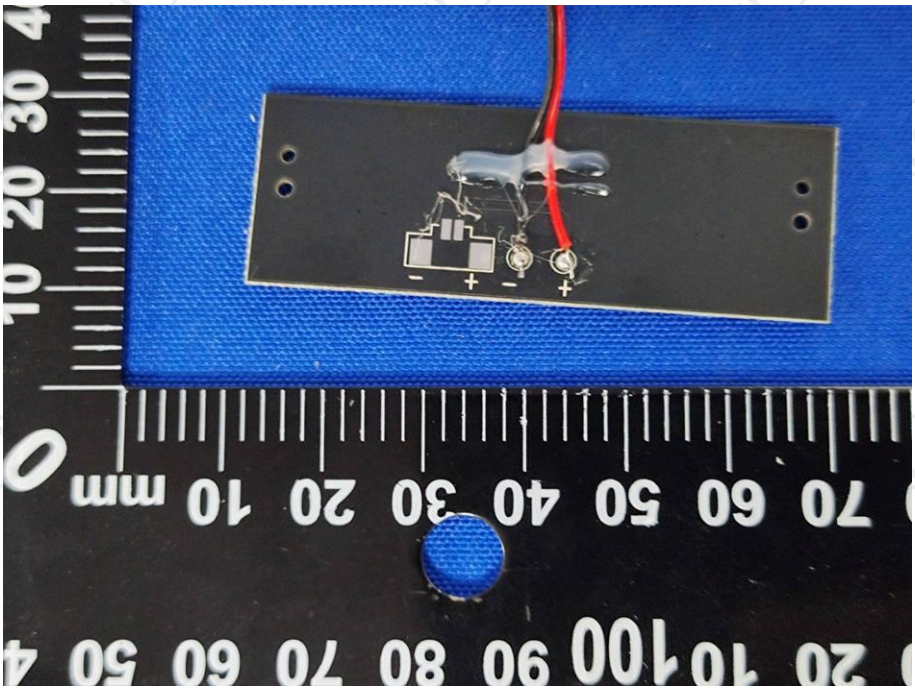
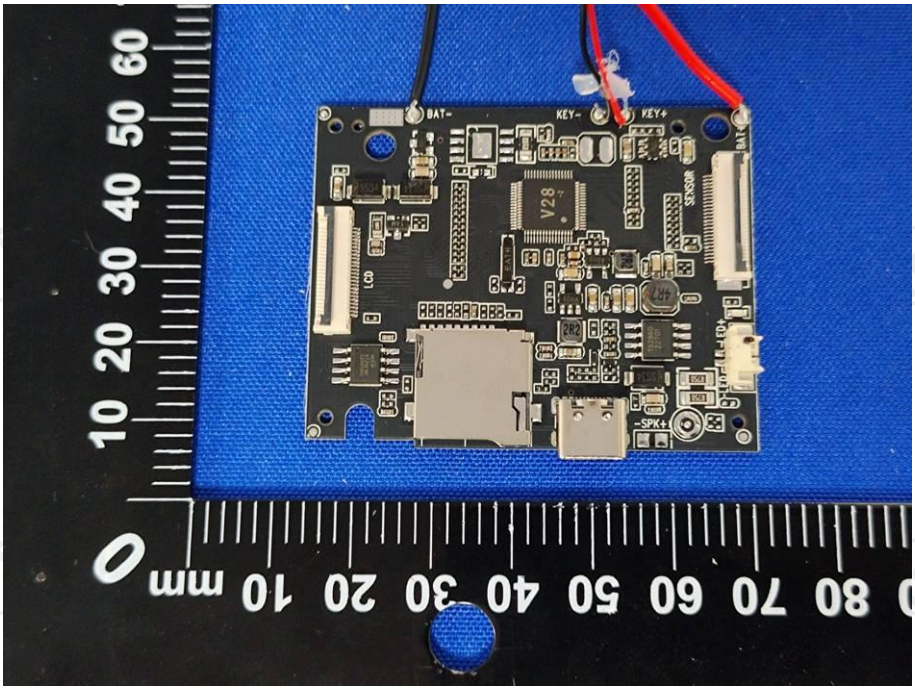
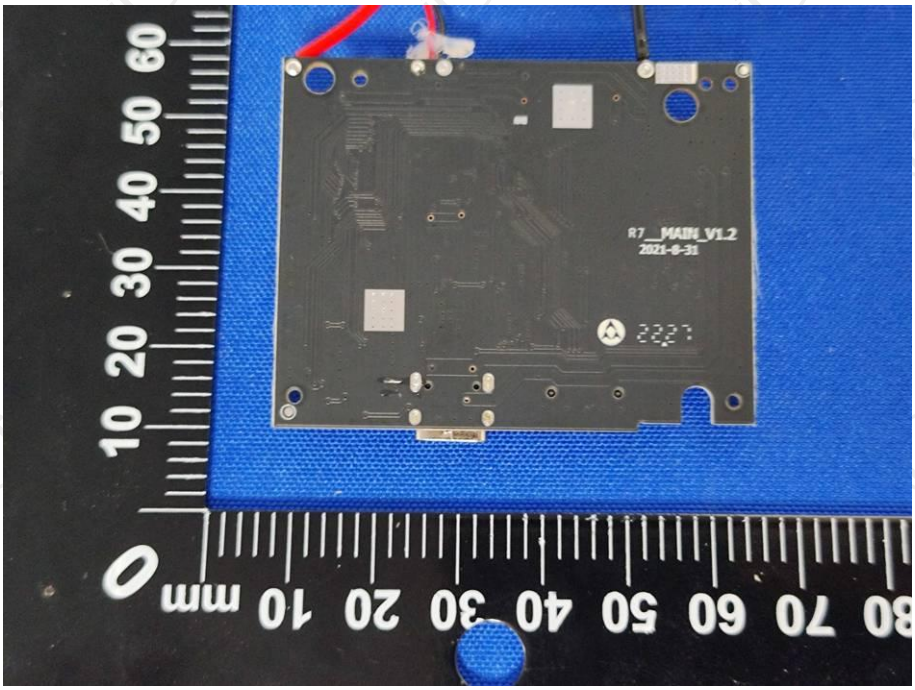






*****End of report*****

TCT

Certificate of Compliance

Certificate No.	:	TCT240314E006C
Applicant	:	ShenZhen KuHangXin Technology Co., Ltd.
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Manufacturer	:	ShenZhen KuHangXin Technology Co., Ltd.
Address	:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Product	:	Night Vision
Model No.	:	R11
Trade mark	:	N/A

The above products have been tested by us with listed standards and found in compliance with the council EMC 2014/30/EU. It is possible to use CE marking to demonstrate the compliance with this EMC.

Test standards:	Report(s) Number	Issued By	Issued Date
EN 55032:2015+A11:2020+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021	TCT240314E006	TCT	Mar. 18, 2024

The statement is based on a single evaluation of one sample of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

Tomsin

Tomsin/Senior Engineer

Mar. 18, 2024

SHENZHEN TCT TESTING TECHNOLOGY CO., LTD. TCT

TCT 通测检测 TESTING CENTRE TECHNOLOGY

EMC TEST REPORT

Multimedia equipment

Test Report No. .....:	TCT240314E006
Date of issue .....:	Mar. 18, 2024
Testing laboratory.....:	Shenzhen TCT Testing Technology Co., Ltd.
Testing location/ address.....:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Applicant's name .....:	ShenZhen KuHangXin Technology Co., Ltd.
Address.....:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Manufacturer's name .....:	ShenZhen KuHangXin Technology Co., Ltd.
Address.....:	East 3rd Floor, Building 8, TianfuAn Industrial Park, Lezhujiao, Baoan, Shenzhen
Standard(s) .....:	EN 55032:2015+A11:2020+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021
Test item description.....:	Night Vision
Trade Mark.....:	N/A
Model/Type reference .....:	R11
Rating(s) .....:	Battery: DC 3.7 V, 2000 mAh, 7.4 Wh
Date of receipt of test item.....:	Mar. 14, 2024
Date (s) of performance of test:	Mar. 14, 2024 ~ Mar. 18, 2024
Tested by (+signature).....:	Kyle ZHOU
Check by (+signature) .....:	Howie LYU
Approved by (+signature) .....:	Tomsin

General disclaimer:

This report shall not be reproduced except in full, without the written approval of Shenzhen TCT Testing Technology Co., Ltd. This document may be altered or revised by Shenzhen TCT Testing Technology Co., Ltd. personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

Table of Contents

1. General Product Information

1.1. EUT description

Test item description ..... :	Night Vision	
Model/Type reference ..... :	R11	
Rating(s) ..... :	Battery: DC 3.7 V, 2000 mAh, 7.4 Wh	
Highest internal frequency F_x..... :	☒	F_x ≤ 108 MHz
	☐	108 MHz < F_x ≤ 500 MHz
	☐	500 MHz < F_x ≤ 1 GHz
	☐	F_x > 1 GHz
USB Line ..... :	☐Shielded ☒Unshielded, ☒Detachable ☐Un-detachable ☐No applicable ☒Length 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	DC 5 V (Adapter Input AC 230 V/ 50 Hz)
2	Data Transmitting	DC 5 V (Notebook Computer Input AC 230 V/ 50 Hz)
3	Camera Shooting	DC 3.7 V

Test worst operating mode	
Disturbance voltage at mains terminals	Mode 1
Radiated emission (30 MHz to 1 GHz)	Mode 2
Remark: The worst measurement data and graphical presentation show in this report.	

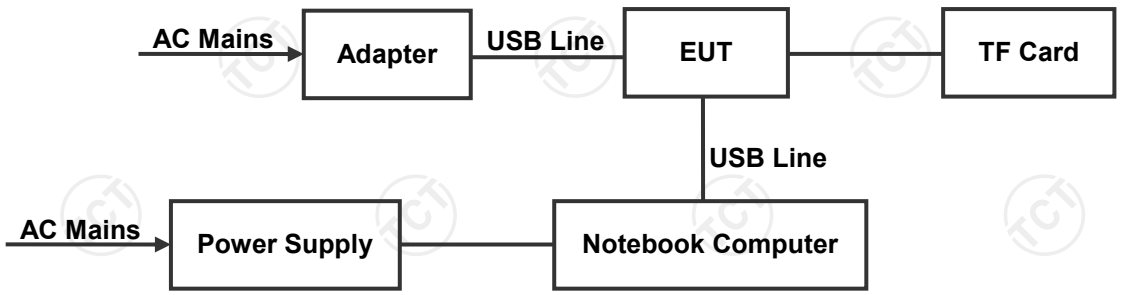
2.2.Special accessories and auxiliary equipment

Product Type	Manufacturer	Model No.	Serial No.
Notebook Computer	DELL	G3 3500	00342-36088-99832-AAOEM
Power Supply	DELL	HA130PM190	CN-0CY0JM-CH200-0B6-7405-A01
Adapter	SAMSUNG	EP-TA200	R37M4PR7QD4SE3
TF Card	Kingston	SDCS2/32GB	2210B814822

Auxiliary cable description

Port name	Specified length(m)	Shielded	Unshielded
/	/	/	/

2.3.Configuration of system under test



(EUT: Night Vision)

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 Disturbance voltage at the telecommunication terminals	4.06 dB
Uncertainty for Radiated emission (30 MHz to 1 GHz)	4.56 dB
Uncertainty for Radiated emission (1 GHz to 6 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 TCT Testing Technology Co., Ltd. fulfil the requirements for measurement uncertainties according to the standards applied.

Decision rule for statement(s) of conformity is based on simple acceptance specified in Clause 4.3.3 in IEC Guide 115:2023.

3. Test Result Summary

EN 55032:2015+A11:2020+A1:2020	
Requirement – Test case	**Verdict**
Classification Class (☐A ☒B)	-
Disturbance voltage at mains terminals	Pass
Disturbance voltage at telecommunication terminals	N/A
Disturbance voltage at antenna terminals	N/A
Conducted disturbance between 1 GHz to 18 GHz	N/A
Radiated disturbance 30 MHz –6 GHz	Pass
OUTDOOR UNITS – Limits of radiated disturbance between 1 GHz to 18 GHz	N/A
EN IEC 61000-3-2:2019+A1:2021	
Requirement – Test case	**Verdict**
Harmonic current emissions	N/A
EN 61000-3-3:2013+A1:2019+A2:2021	
Requirement – Test case	**Verdict**
Voltage changes, voltage fluctuations and flicker	Pass
EN 55035:2017+A11:2020	
Requirement – Test case	**Verdict**
Electrostatic discharge immunity (ESD)	Pass
Radiated, radio-frequency, electromagnetic field immunity (RS)	Pass
Electrical fast transient/burst immunity (EFT/B)	Pass
Surge immunity	Pass
Immunity to conducted disturbances, induced by radio-frequency fields (CS)	Pass
Broadband impulse noise disturbances for xDSl ports	N/A
Power frequency magnetic field immunity (PFMF)	N/A
Voltage dips, short interruptions and voltage variations immunity (DIPS)	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	2024/06/29
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	2025/01/31
Attenuator	N/A	10dB	164080	2024/06/29
844 Shielded room	SKET	8m*4m*4m	CR4	2025/03/02
Test software	EZ_EMC	EMEC-3A1	1.1.4.2	/
Disturbance voltage at telecommunication terminals				
EMI Test Receiver	R&S	ESCI3	100898	2024/06/29
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	2025/01/31
ISN	Schwarzbeck	CAT5 8158	151	2025/01/31
ISN	Schwarzbeck	CAT3 8158	00191	2024/05/22
ISN	Schwarzbeck	NTFM 8158	00334	2024/05/22
844 Shielded room	SKET	8m*4m*4m	CR4	2025/03/02
Test software	EZ_EMC	EMEC-3A1+	1.1.4.2	/
Radiated emission (30 MHz to 1 GHz)				
Broadband Antenna	Schwarzbeck	VULB 9168	01197	2025/02/02
EMI Test Receiver	R&S	ESCI7	100529	2025/01/31
3m Anechoic Chamber	SKET	9m*6m*6m	SA01	2025/01/25
Test software	EZ_EMC	FA-03A2 RE+	1.1.4.2	/
Radiated emission (1 GHz to 6 GHz)				
Horn Antenna	Schwarzbeck	BBHA 9120 D	02372	2025/02/02
Signal Analyzer	R&S	FSQ40	200061	2024/06/29
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	2025/01/31
#3 3m Anechoic Chamber	SKET	9m*6m*6m	SA03	2025/01/25
Test software	EZ_EMC	FA-03A2 RE+	1.1.4.2	/
Harmonic current emissions & Voltage Fluctuations and Flicker				
AC Power Supply	KIKUSUI	PCR4000M	UC002552	2025/01/31
Harmonic/Flicker Analyzer	KIKUSUI	KHA1000	UD002324	2024/06/28
Line Impedance Network	KIKUSUI	LIN1020JF	UC001738	2024/06/28
Test software	KIKUSUI	HarmoCapture	V3.9.1.00	/
Electrostatic discharge immunity (ESD)				

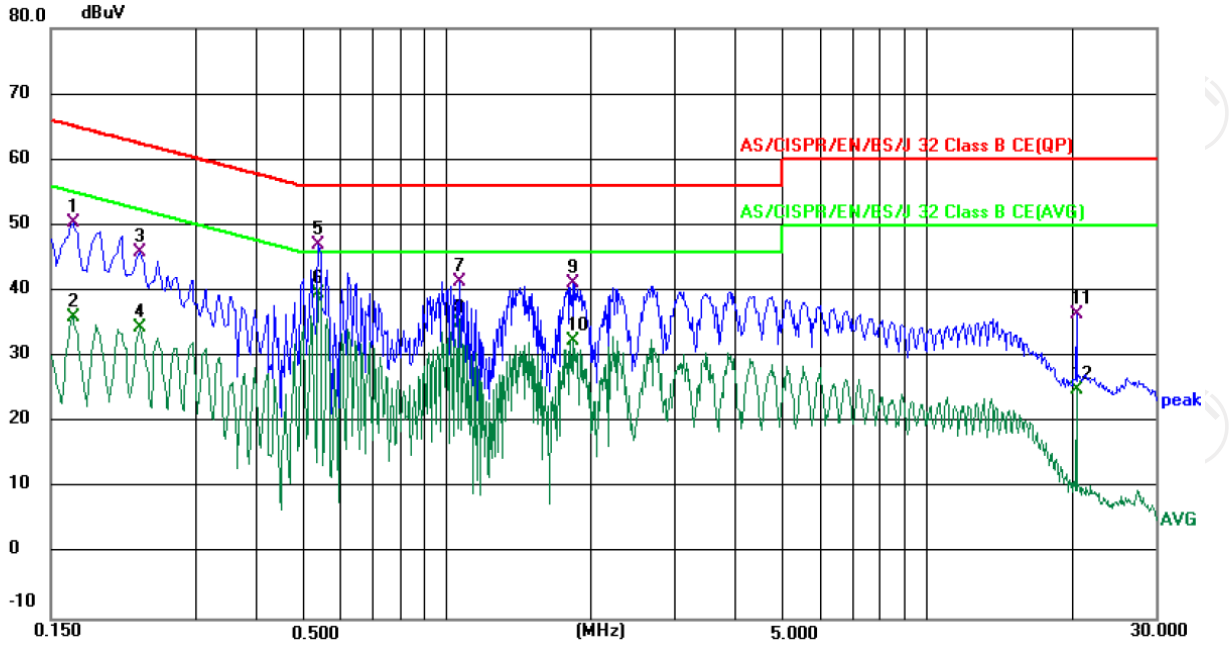
Electrostatic Discharge Generator	3ctest	EDS 30T	ES031000122077	2024/06/01
Radiated, radio-frequency, electromagnetic field immunity (RS)				
Antenna	SKET	STLP 9129_Plus	/	/
Signal Generator	Agilent	N5181A	MY50141997	2025/01/31
Amplifier	SKET	HAP_80M01G-250W	202105183	2024/06/29
Amplifier	SKET	HAP_01G06G-80W	202305501	2024/08/08
Field Probe	Narda	EP-601	811ZX01057	2024/07/02
USB Power Sensor	Agilent	U2000A	MY53410013	2025/01/31
USB Power Sensor	Agilent	U2001A	MZ54330012	2025/01/31
743 Anechoic Chamber	SKET	7m*4m*3m	SA04	2025/03/02
Test software	SKET	EMC-S	3.1.3.2	/
Electrical fast transient/burst immunity (EFT/B)				
Fast Transient Burst Simulator	Prima	EFT61004BG	PR12074375	2024/06/28
Capacitive Coupling folder	Prima	EFT-CLAMP	N/A	2024/07/04
Surge immunity				
Lightning Surge Generator	Prima	SUG61005BG	PR12125534	2024/06/28
Immunity to conducted disturbances, induced by radio-frequency fields (CS)				
Conducted Immunity Test System	Schloder	CDG-6000-75	126B1290/2014	2024/05/22
CDN	Schloder	CDN M2+M3-16	A2210281/2014	2024/06/28
EM-Clamp	Schloder	EMCL-20	PR230681112	2024/08/08
RF Attenuator	PE	75W 6dB	132A1194/2014	2024/06/29
543 Shielded room	SKET	5m*4m*3m	N/A	2024/06/28
Test software	HUBERT	IEC/EN61000-4-6	SR2	2025/01/25
Power frequency magnetic field immunity (PFMF)				
Power Frequency Magnetic Field Generator	EVERFINE	EMS61000-8K	G121941CS1341114	2024/06/28
Adjsutable Magnetic Field Coil	EVERFINE	MFC-4	G1242BBS1341114	2024/06/28
Voltage dips, short interruptions and voltage variations immunity (DIPS)				
Cycle Sag Simulator	Prima	DRP61011AG	PR12106201	2024/06/28

5. Test Conditions and Results (Emission)

5.1. Disturbance voltage at mains terminals

Test requirement.....:	EN 55032:2015+A11:2020+A1:2020		
Test frequency range.....:	150 kHz to 30 MHz		
Limits.....:	**Limits – Class A**		
	Frequency (MHz)	**dBµV Quasi-peak**	**dBµV Average**
	0.15 to 0.5	79	66
	0.5 to 30	73	60
	Limits – 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). Conducted voltage measurements on mains lines were made at the output of the AMN.		
Ambient temperature.....:	20.6 °C		
Relative humidity.....:	47 %		
Test location.....:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China		
Test model(s) .....:	R11		
EUT operation mode.....:	Mode 1		
Test results.....:	Pass		
Remark.....:	/		

Measurement data and Graphical presentation of the result

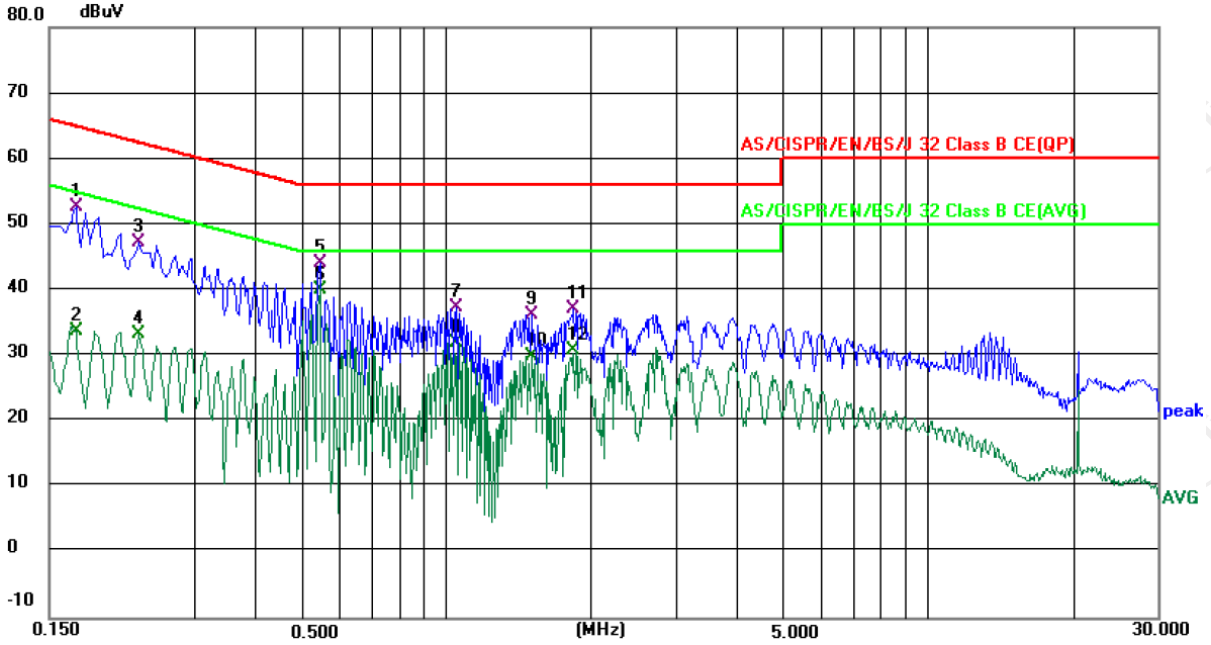


Site 844 Shielding Room | Phase: *L1* | Temperature: 20.6 (℃) | Humidity: 47 %

Limit: AS/CISPR/EN/BS/J 32 Class B CE(QP) | Power: DC 5V(Adapter Input AC 230V/50Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1660	40.30	10.03	50.33	65.16	-14.83	QP	
2		0.1660	26.09	10.03	36.12	55.16	-19.04	AVG	
3		0.2300	36.16	9.84	46.00	62.45	-16.45	QP	
4		0.2300	24.57	9.84	34.41	52.45	-18.04	AVG	
5		0.5420	37.71	9.30	47.01	56.00	-8.99	QP	
6	*	0.5420	30.24	9.30	39.54	46.00	-6.46	AVG	
7		1.0660	32.52	8.84	41.36	56.00	-14.64	QP	
8		1.0660	26.19	8.84	35.03	46.00	-10.97	AVG	
9		1.8380	31.12	10.02	41.14	56.00	-14.86	QP	
10		1.8380	22.45	10.02	32.47	46.00	-13.53	AVG	
11		20.5700	25.96	10.59	36.55	60.00	-23.45	QP	
12		20.5700	14.44	10.59	25.03	50.00	-24.97	AVG	

Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com



Site 844 Shielding Room Phase: *N* Temperature: 20.6 (℃) Humidity: 47 %

Limit: AS/CISPR/EN/BS/J 32 Class B CE(QP) Power: DC 5V(Adapter Input AC 230V/50Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1700	42.76	10.00	52.76	64.96	-12.20	QP	
2		0.1700	23.75	10.00	33.75	54.96	-21.21	AVG	
3		0.2300	37.45	9.82	47.27	62.45	-15.18	QP	
4		0.2300	23.57	9.82	33.39	52.45	-19.06	AVG	
5		0.5460	34.75	9.27	44.02	56.00	-11.98	QP	
6	*	0.5460	30.71	9.27	39.98	46.00	-6.02	AVG	
7		1.0500	28.46	8.81	37.27	56.00	-18.73	QP	
8		1.0500	23.08	8.81	31.89	46.00	-14.11	AVG	
9		1.5100	26.31	9.92	36.23	56.00	-19.77	QP	
10		1.5100	20.12	9.92	30.04	46.00	-15.96	AVG	
11		1.8420	27.10	9.97	37.07	56.00	-18.93	QP	
12		1.8420	20.85	9.97	30.82	46.00	-15.18	AVG	

5.2. Disturbance voltage at telecommunication terminals

Test requirement.....:	EN 55032:2015+A11:2020+A1:2020				
Test frequency range.....:	150 kHz to 30 MHz				
Limits.....:	**Limits – Class A**				
	Frequency	**Voltage Limits**		**Current Limits**	
	MHz	**dBµV Quasi-peak**	**dBµV Average**	**dBµV Quasi-peak**	**dBµV Average**
	0.15 to 0.5	97 to 87	84 to 74	53 to 43	40 to 30
	0.5 to 30	87	74	43	30
	Limits – Class B				
	Frequency	**Voltage Limits**		**Current Limits**	
	MHz	**dBµV Quasi-peak**	**dBµV Average**	**dBµV Quasi-peak**	**dBµV Average**
	0.15 to 0.5	84 to 74	74 to 64	40 to 30	30 to 20
	0.5 to 30	74	64	30	20
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). Conducted voltage measurements on mains lines were made at the output of the AMN.				
Ambient temperature.....:	/				
Relative humidity.....:	/				
Test location.....:	/				
Test model(s) .....:	/				
EUT operation mode.....:	/				
Test results.....:	N/A				
Remark.....:	According to the electrical construction of the EUT, there is no AC terminal incorporated. Therefore this test is not applicable for this EUT.				

5.3. Disturbance voltage at antenna terminals

Test requirement ..... :	EN 55032:2015+A11:2020+A1:2020					
Test frequency range... :	30 MHz to 2150 MHz					
Limits..... :	**Table clause**	**Frequency range (MHz)**	**Detector type/ bandwidth**	**Class B limits dBµV 75 Ω**		
				Other	**Local Oscillator Fundamental**	**Local Oscillator Harmonics**
	a	30 to 950	For frequencies ≥1 GHz QP/120 kHz For frequencies ≥1 GHz Peak/1 MHz	46	46	46
		950 to 2150		46	54	54
	b	950 to 2150		46	54	54
	c	30 to 300		46	54	50
		300 to 1000				52
	d	30 to 300		46	66	59
		300 to 1000				52
	e	30 to 950		46	76	46
		950 to 2150			n/a	54
	a Television receivers (analogue or digital), video recorders and PC TV broadcast receiver tuner cards working in channels between 30 MHz and 1 GHz, and digital audio receivers. b Tuner units (not the LNB) for satellite signal reception. c Frequency modulation audio receivers and PC tuner cards. d Frequency modulation car radios. e Applicable to EUTs with RF modulator output ports (for example DVD equipment, video recorders, camcorders and decoders etc.) designed to connect to TV broadcast receiver tuner ports. Limits specified for the LO are for the RF modulator carrier signal and harmonics.					
Test method..... :	The measurement was performed in accordance with the requirement set in clause 5.4. The antenna terminal of the sample and the signal generator were connected to the EMI receiver by means of coaxial cables and a resistive combining network having a minimum attenuation of 6dB. The following results were those measured accordingly.					
Ambient temperature... :	/					
Relative humidity ..... :	/					
Test location ..... :	/					
Test model(s) ..... :	/					
EUT operation mode.... :	/					
Test results ..... :	N/A					
Remark..... :	This test isn't applicable because the EUT doesn't have relative function.					

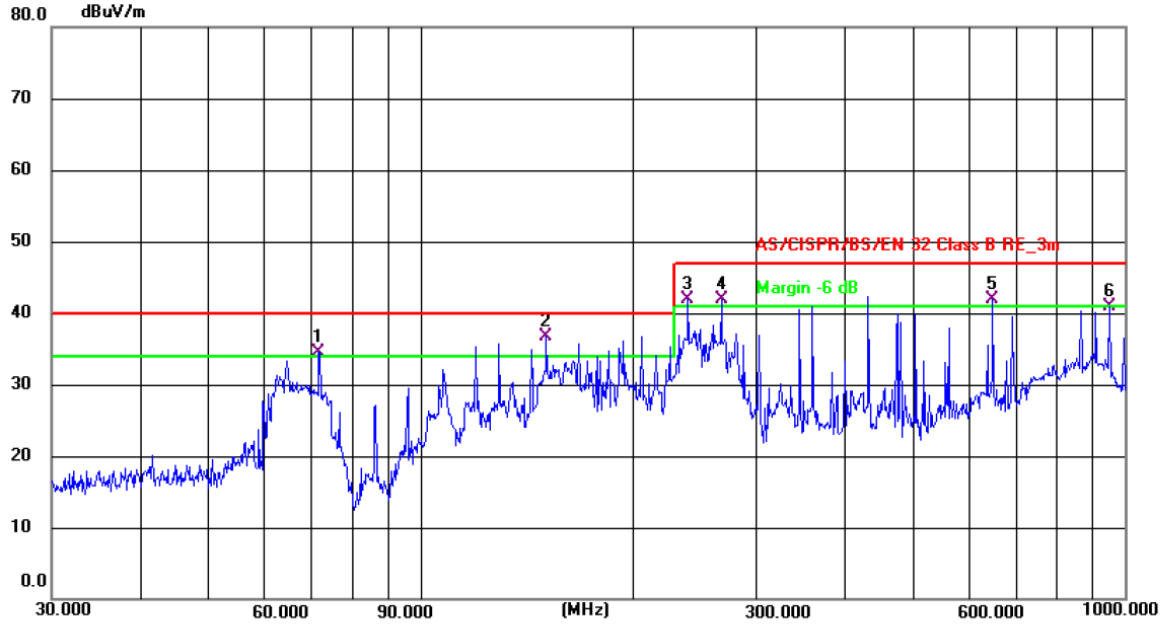
5.4. Conducted disturbance between 1 GHz to 18 GHz

Test requirement.....:	EN 55032:2015+A11:2020+A1:2020	
Test frequency range.....:	1 GHz to 18 GHz	
Limits.....:	**Frequency (GHz)**	**Power Limits (dBpW)**
		Average
	1 to 18	30
Test method.....:	In the case of a detachable feed horn, the radiated emission of the LO leakage within 7° of the main beam axis can be measured directly by a power measurement at the feed horn interface. If a suitable interface (typically types R120, C120) is available, a power meter or spectrum analyzer can be connected to the LNB via a suitable adapter. Due allowance shall be made for the feed losses between the available interface and the antenna flange.	
Ambient temperature.....:	/	
Relative humidity.....:	/	
Test location.....:	/	
Test model(s) .....:	/	
EUT operation mode.....:	/	
Test results.....:	N/A	
Remark.....:	This test isn't applicable because the EUT doesn't have relative function.	

5.5. Radiated emission

Test requirement.....:	EN 55032:2015+A11:2020+A1:2020		
Test frequency range..:	30 MHz to 6 GHz		
Limits.....:	**Limits – Class A (OATS or SAC)**		
	Frequency (MHz)	**10 m measurement distance**	**3 m measurement distance**
		dBµV/m	
	30 to 230	40 Quasi-peak	50 Quasi-peak
	230 to 1000	47 Quasi-peak	57 Quasi-peak
	Limits – Class B (OATS or SAC)		
	Frequency (MHz)	**10 m measurement distance**	**3 m measurement distance**
		dBµV/m	
	30 to 230	30 Quasi-peak	40 Quasi-peak
	230 to 1000	37 Quasi-peak	47 Quasi-peak
	Limits – Class A (FSOATS)		
	Frequency (MHz)	**Peak**	**Average**
		dBµV/m	
	1000 to 6000	80	60
	Limits – Class B (FSOATS)		
	Frequency (MHz)	**Peak**	**Average**
		dBµV/m	
	1000 to 6000	74	54
Test method.....:	Measurements were made in a 3/10-meter semi-anechoic chamber that complies to CISPR 16. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3/10 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..:	25.3 °C		
Relative humidity.....:	49 %		
Test location.....:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China		
Test model(s) .....:	R11		
EUT operation mode..:	Mode 2		
Test results .....:	Pass		
Remark.....:	The EUT highest internal frequency less 108 MHz, So don't need to test above 1GHz.		

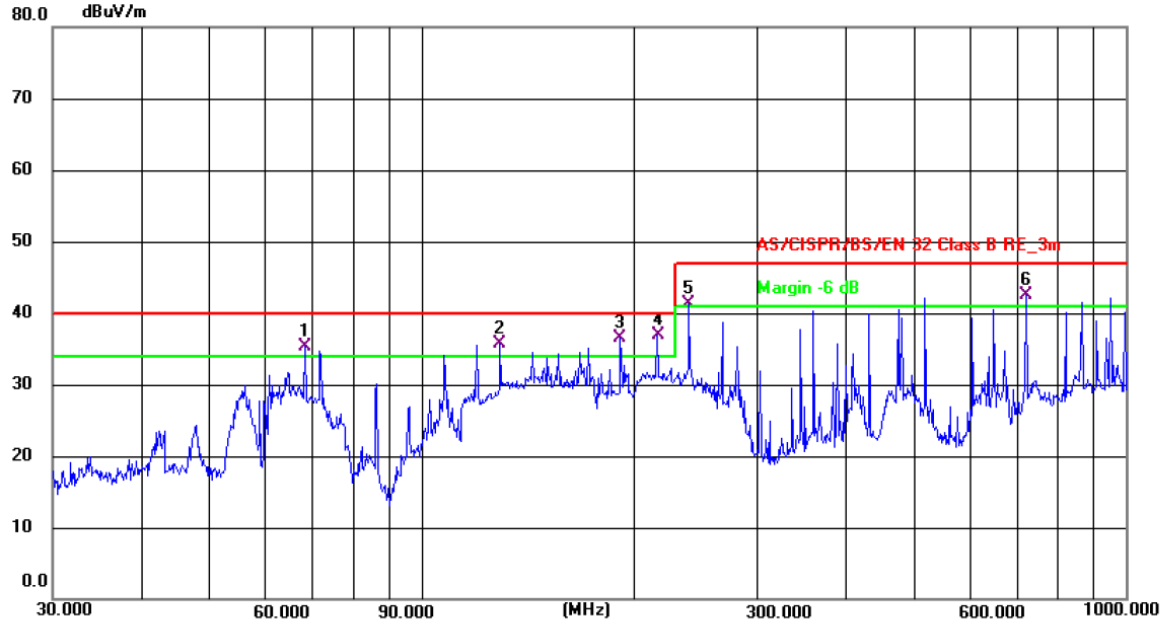
Measurement data and Graphical presentation of the result



Site #2 3m Anechoic Chamber Polarization: ***Horizontal*** Temperature: 25.3(C) Humidity: 49 %

Limit: AS/CISPR/BS/EN 32 Class B RE_3m Power: DC 5 V(Notebook Computer Input AC 230V/50Hz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 !	71.8319	22.70	11.87	34.57	40.00	-5.43	QP	P	
2 *	151.0663	21.67	14.96	36.63	40.00	-3.37	QP	P	
3 !	239.9873	29.42	12.44	41.86	47.00	-5.14	QP	P	
4 !	267.5453	28.27	13.68	41.95	47.00	-5.05	QP	P	
5 !	649.6594	19.25	22.75	42.00	47.00	-5.00	QP	P	
6	952.0937	14.54	26.33	40.87	47.00	-6.13	QP	P	



Site #2 3m Anechoic Chamber Polarization: ***Vertical*** Temperature: 25.3(C) Humidity: 49 %

Limit: AS/CISPR/BS/EN 32 Class B RE_3m Power: DC 5 V(Notebook Computer Input AC 230V/50Hz)

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 !	68.3906	23.06	12.17	35.23	40.00	-4.77	QP	P	
2 !	129.4677	21.89	13.74	35.63	40.00	-4.37	QP	P	
3 !	191.7450	25.02	11.49	36.51	40.00	-3.49	QP	P	
4 *	216.0238	25.44	11.41	36.85	40.00	-3.15	QP	P	
5 !	239.9873	28.82	12.44	41.26	47.00	-5.74	QP	P	
6 !	721.7258	19.40	23.16	42.56	47.00	-4.44	QP	P	

5.6. OUTDOOR UNITS – Limits of radiated disturbance between 1 GHz to 18 GHz

<table>
<tr><td>Test requirement.....:</td><td colspan="2">EN 55032:2015+A11:2020+A1:2020</td></tr>
<tr><td>Test frequency range..:</td><td colspan="2">1 GHz to 18 GHz</td></tr>
<tr><td rowspan="6">Limits.....:</td><td colspan="2">Limits – LO leakage and spurious radiated emissions from the EUT, in the region outside +/- 7° of the main beam axis.</td></tr>
<tr><td rowspan="2">Frequency (GHz)</td><td>Class B limits (dBµV/m)</td></tr>
<tr><td>Average</td></tr>
<tr><td>1 to 2.5</td><td>50</td></tr>
<tr><td>2.5 to 18</td><td>64</td></tr>
<tr><td colspan="2">Limits – LO leakage from the EUT, in the region within +/- 7° of the main beam axis.</td></tr>
<tr><td rowspan="2">Frequency (GHz)</td><td>Class B limits (dBµV/m)</td></tr>
<tr><td>Average</td></tr>
<tr><td>1 to 18</td><td>70</td></tr>
<tr><td>Test method.....:</td><td colspan="2">Measurements were made in a 3-meter Open Area Test Site that complies to CISPR 16. Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 3 meter above 1GHz. The EUT was rotated 360° with the receive antenna located in horizontal and vertical polarities. Final measurements (average detector above 1GHz) were then performed by rotating the EUT 360°. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable.</td></tr>
<tr><td>Ambient temperature..:</td><td colspan="2">/</td></tr>
<tr><td>Relative humidity.....:</td><td colspan="2">/</td></tr>
<tr><td>Test location.....:</td><td colspan="2">/</td></tr>
<tr><td>Test model(s) .....:</td><td colspan="2">/</td></tr>
<tr><td>EUT operation mode..:</td><td colspan="2">/</td></tr>
<tr><td>Test results.....:</td><td colspan="2">N/A</td></tr>
<tr><td>Remark.....:</td><td colspan="2">This test isn’t applicable because the EUT doesn’t have relative function.</td></tr>
</table>

5.7.Harmonic current emissions

<table>
<tr><td>Test requirement ..... :</td><td colspan="3">EN IEC 61000-3-2:2019+A1:2021</td></tr>
<tr><td rowspan="20">Limit classification in accordance with the standard ..... :</td><td colspan="3">Limits - Class A equipment</td></tr>
<tr><td colspan="3">Odd harmonics</td></tr>
<tr><td>Harmonic order (n)</td><td colspan="2">Maximum permissible harmonic current (A)</td></tr>
<tr><td>3</td><td colspan="2">2.30</td></tr>
<tr><td>5</td><td colspan="2">1.14</td></tr>
<tr><td>7</td><td colspan="2">0.77</td></tr>
<tr><td>9</td><td colspan="2">0.40</td></tr>
<tr><td>11</td><td colspan="2">0.33</td></tr>
<tr><td>13</td><td colspan="2">0.21</td></tr>
<tr><td>15 ≤ n ≤ 39</td><td colspan="2">0.15 x 15/n</td></tr>
<tr><td colspan="3">Even harmonics</td></tr>
<tr><td>2</td><td colspan="2">1.08</td></tr>
<tr><td>4</td><td colspan="2">0.43</td></tr>
<tr><td>6</td><td colspan="2">0.30</td></tr>
<tr><td>8 ≤ n ≤ 40</td><td colspan="2">0.23 x 8/n</td></tr>
<tr><td colspan="3">Limits – Class D equipment</td></tr>
<tr><td>Harmonic order (n)</td><td>Maximum permissible harmonic current per watt Ma/W</td><td>Maximum permissible harmonic current A</td></tr>
<tr><td>3</td><td>3.4</td><td>2.30</td></tr>
<tr><td>5</td><td>1.9</td><td>1.14</td></tr>
<tr><td>7</td><td>1.0</td><td>0.77</td></tr>
<tr><td>9</td><td>0.5</td><td>0.40</td></tr>
<tr><td>11</td><td>0.35</td><td>0.33</td></tr>
<tr><td>13 ≤ n ≤ 39</td><td>3.85/n</td><td>See Class A limits</td></tr>
<tr><td>Test method ..... :</td><td colspan="3">This test consists on the measurement of harmonics components of the input current which may be produced by equipment having an input current up to and including 16 A per phase, and intended to be connected to public low-voltage distribution systems. The equipment is tested under specified conditions of operation.</td></tr>
<tr><td>Ambient temperature ..... :</td><td colspan="3">/</td></tr>
<tr><td>Relative humidity ..... :</td><td colspan="3">/</td></tr>
<tr><td>Test location ..... :</td><td colspan="3">/</td></tr>
<tr><td>Test model(s) ..... :</td><td colspan="3">/</td></tr>
<tr><td>EUT operation mode ..... :</td><td colspan="3">/</td></tr>
<tr><td>Test results ..... :</td><td colspan="3">N/A</td></tr>
<tr><td>Remark ..... :</td><td colspan="3">According to the electrical construction of the EUT, there is no AC terminal incorporated. Therefore this test is not applicable for this EUT.</td></tr>
</table>

5.8. Voltage changes, voltage fluctuations and flicker

Test requirement ..... :	EN 61000-3-3:2013+A1:2019+A2:2021
Applied limit ..... :	The value of P_{st} shall be not greater than 1.0 The value of P_{lt} shall be not greater than 0.65 The value of d(t) during a voltage change shall not exceed 3.3 % for more than 500 ms The relative steady-state voltage change, dc shall not exceed 3.3 % The maximum relative voltage change d_{max} shall not exceed: a) 4 % without additional conditions b) 6 % for equipment which is: - switched manually, or - switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption c) 7 % for equipment which is - attended whilst in use (for example : hair dryers, vacuum cleaners, kitchen equipment such as mixers, garden equipment such as mowers, portable tools such as electric drills), or - switched on automatically, or is intended to be switched on manually, no more than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds) or manual restart, after a power supply interruption.
Test method ..... :	This test consists on the measurement of voltage changes, voltage fluctuations and flicker which may be produced by equipment having an input current ≤ 16 A per phase, and intended to be connected to public low-voltage distribution systems. The equipment is tested under specified conditions of operation.
Observation time ..... :	10 Minutes
	120 Minutes
	24 times switching according to Annex B
Ambient temperature..... :	22.5 °C
Relative humidity ..... :	48 %
Test location ..... :	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Test model(s) ..... :	R11
EUT operation mode..... :	Mode 1
Test results ..... :	Pass
Remark..... :	/

Measurement data of the result

Test Data of Voltage Fluctuation and Flicker

Final Test Result	Pass
Nominal Voltage	230 V
Nominal Frequency	50 Hz
Plt Test Duration	600 s
Flicker Margin	100 %
d Measurement Margin	100 %

Segment	Pst	dmax(%)	dc(%)	Tmax(ms)	Judge
Limit	1.000	4.000	3.300	500	
Seg. 1	0.009	0.042	0.004	0	Pass

Plt	Value	Judge
Limit	0.650	
Measurement	0.004	Pass

6. Test Conditions and Results (Immunity)

6.1. General information

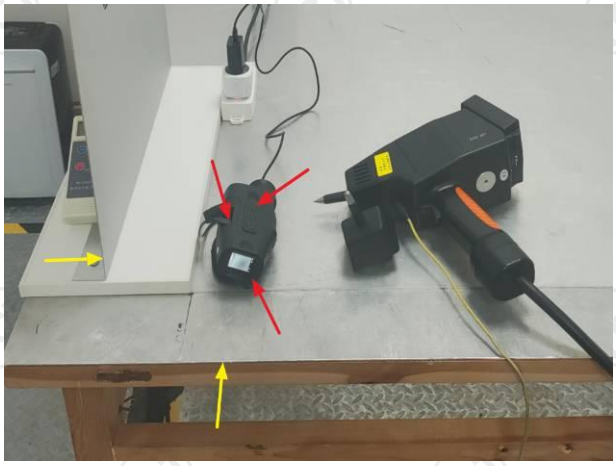
Performance criteria as defined by the standard	
Criterion	**Description from standard**
A	The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.
B	During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test. After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.
C	Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.

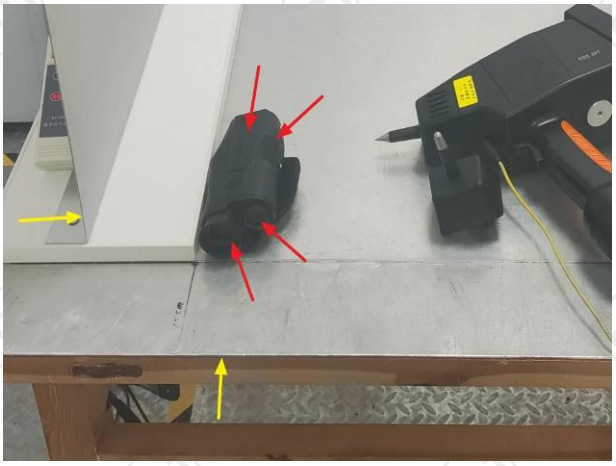
6.2.Electrostatic discharge immunity

Test requirement ..... :	EN 55035:2017+A11:2020	
Basic standard ..... :	EN 61000-4-2:2009	
Test level ..... :	**Discharge type**	**Discharge voltage**
	Contact discharge voltage	±4 kV
	Air discharge voltage	±8 kV
Storage capacitor ..... :	150 pF	
Discharge resistor ..... :	330 Ω	
Horizontal coupling plate ..... :	1.6 x 0.8 m	
Vertical coupling plate ..... :	0.5 x 0.5 m	
Number of discharges ..... :	Min. 10 per discharge location	
Discharge interval ..... :	1 second	
Performance criteria ..... :	B	
Test method ..... :	The table-top equipment under test is placed on a wooden table, 0.8 m high, standing on the ground reference plane. A horizontal coupling plane (HCP), 1.6 x 0.8 m, is placed on the table. The EUT and the cables are isolated from the coupling plane by an insulating support 0.5 mm thick. The floor standing equipment is isolated from the ground reference plane by an insulating support about 0.1 m thick. The vertical coupling plane (VCP) of dimensions 0.5 m x 0.5 m is placed parallel to, and positioned at a distance of 0.1 m from, the EUT.	
Ambient temperature ..... :	23.0 °C	
Relative humidity ..... :	53 %	
Air pressure ..... :	100.8 kPa	
Test location ..... :	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China	
Test model(s) ..... :	R11	
EUT operation mode ..... :	Mode 1, Mode 2, Mode 3	
Test results ..... :	Pass	
Remark ..... :	/	

6.2.1. Test results for electrostatic discharges

Photos of selected test points:
(Air Discharge)
(Contact Discharge)





Contact discharges			
Test point	Positive polarity	Negative polarity	Observations
	4 kV	4 kV	
VCP- Four Sides	Pass	Pass	☒1 ☐2 ☐3
HCP- Four Sides	Pass	Pass	☒1 ☐2 ☐3

Air discharges			
Test point	Positive polarity	Negative polarity	Observations
	8 kV	8 kV	
Points on non-conductive surface as indicated in the picture above	Pass	Pass	☒1 ☐2 ☐3

6.2.2. Test results of observations description

/ - Not performed or not required.
1 –No obvious change of function was found after the test.
2 –The function stopped during the test, but can be recoverable by itself operation after the test.
3 –The function stopped during the test, but can be recoverable manually after the test.

6.3. Radiated, radio-frequency, electromagnetic field immunity

Test requirement ..... :	EN 55035:2017+A11:2020		
Basic standard ..... :	EN IEC 61000-4-3:2020		
Test level ..... :	**Frequency (MHz)**	**Field strength**	**Modulation**
	80 to1000	3 V/m (r.m.s.) (unmodulated)	80% AM (1 kHz)
	1800	3 V/m (r.m.s.) (unmodulated)	80% AM (1 kHz)
	2600	3 V/m (r.m.s.) (unmodulated)	80% AM (1 kHz)
	3500	3 V/m (r.m.s.) (unmodulated)	80% AM (1 kHz)
	5000	3 V/m (r.m.s.) (unmodulated)	80% AM (1 kHz)
Dwell time ..... :	2; 5 second		
Step size ..... :	1 %		
Distance antenna to EUT..... :	3 m		
Performance criteria..... :	A		
Test method..... :	Measurements were made in a fully anechoic chamber and the indicated field strength was pre-calibrated prior to placement of the system under test. Tests were performed in both the horizontal and vertical polarities, where applicable. The antenna was placed 3 meters from the product under test. All sides of the EUT were investigated for anomalies.		
Ambient temperature..... :	22.6 °C		
Relative humidity ..... :	51 %		
Air pressure..... :	100.8 kPa		
Test location ..... :	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China		
Test model(s) ..... :	R11		
EUT operation mode..... :	Mode 1, Mode 2, Mode 3		
Test results ..... :	Pass		
Remark..... :	/		

6.3.1. Test results for radio-frequency electromagnetic field

Frequency	EUT side	Antenna polarity	Field strength	Observation	Results
☒ 80 MHz to 1 GHz ☒ 1.8 GHz ☒ 2.6 GHz ☒ 3.5 GHz ☒ 5 GHz	Front	Horizontal	3 V/m	☒1 ☐2 ☐3	Pass
	Left Side	Horizontal	3 V/m	☒1 ☐2 ☐3	Pass
	Right Side	Horizontal	3 V/m	☒1 ☐2 ☐3	Pass
	Rear	Horizontal	3 V/m	☒1 ☐2 ☐3	Pass
	Front	Vertical	3 V/m	☒1 ☐2 ☐3	Pass
	Left Side	Vertical	3 V/m	☒1 ☐2 ☐3	Pass
	Right Side	Vertical	3 V/m	☒1 ☐2 ☐3	Pass
	Rear	Vertical	3 V/m	☒1 ☐2 ☐3	Pass

6.3.2. Test results of observations description

/ - Not performed or not required.
1 –No obvious change of function was found after the test.
2 –The function stopped during the test, but can be recoverable by itself operation after the test.
3 –The function stopped during the test, but can be recoverable manually after the test.

6.4. Electrical fast transient/burst immunity

Test requirement ..... :	EN 55035:2017+A11:2020	
Basic standard ..... :	EN 61000-4-4:2012	
Test level ..... :	**Measurement port**	**Voltage**
	Input a.c. power ports	±1 kV
	Input d.c. power ports	±0.5 kV
	Analogue/digital data ports	±0.5 kV
	xDSl	±0.5 kV
Burst duration ..... :	15 ms	
Burst period ..... :	300 ms	
Repetition frequency ..... :	5 kHz or 100 kHz	
Test time ..... :	2 minutes per level & polarity	
Performance criteria ..... :	B	
Test method ..... :	Measurements were made on a ground plane that extends 0.5-meter minimum beyond all sides of the system under test. Mains power tests were conducted with the product connected to a Coupling/Decoupling Network (CDN). One of each unique interface was tested for a period of 2 minute per polarity. The bursts are applied on the mains supply port by using a coupling decoupling network and on signal and control lines ports by using a capacitive clamp.	
Ambient temperature ..... :	22.5 °C	
Relative humidity ..... :	48 %	
Air pressure ..... :	100.8 kPa	
Test location ..... :	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China	
Test model(s) ..... :	R11	
EUT operation mode ..... :	Mode 1, Mode 2	
Test results ..... :	Pass	
Remark ..... :	/	

6.4.1. Test results for electrical fast transient/burst

Measurement port	Level	Polarity	Observation	Results
AC power port	1 kV	Positive & Negative	☒1 ☐2 ☐3	Pass

6.4.2. Test results of observations description

/ - Not performed or not required.
1 –No obvious change of function was found after the test.
2 –The function stopped during the test, but can be recoverable by itself operation after the test.
3 –The function stopped during the test, but can be recoverable manually after the test.

6.5.Surge immunity

Test requirement ..... :	EN 55035:2017+A11:2020		
Basic standard ..... :	EN 61000-4-5:2014+A1:2017		
Test level ..... :	**Measurement port**	**Coupling point**	**Open-circuit peak voltage**
	Input a.c. power ports	Line to line	±1 kV
		Line to earth	±2 kV
	Input d.c. power ports	Line to earth	±0.5 kV
	Analogue/digital data ports (a), (b)	Line to earth	±1 kV and ±4 kV Apply when primary protection is intended
	Analogue/digital data ports (b)	Line to earth	±1 kV Apply when primary protection is not intended
	Analogue/digital data ports coaxial or shielded (c)	Line to earth	±0.5 kV
	Supplementary information: (a): Surges are applied with primary protection fitted. Where possible, use the actual primary protector intended to be used in the installation. (b): Where the surge coupling network for the 10/700 (5/320) μ s waveform affects the functioning of high speed data ports, the test shall be carried out using a 1.2/50 (8/20) μ s waveform and appropriate coupling network. (c) Surges are applicable to ports which satisfy all the following conditions: -may connect directly to cables that leave the building structure, -defined as an antenna port (3.1.3), a wired network port (3.1.34), or a broadcast receiver tuner port (3.1.8).		
Repetition rate ..... :	1/min		
Phase angles ..... :	Positive pulses are applied 90° and negative pulses are applied 270°		
Number of pulses for each coupling ..... :	5		
Performance criteria ..... :	B		
Test method ..... :	Mains power tests were conducted with the product connected to a Coupling/Decoupling Network (CDN). The test voltage was increased from the lowest indicated level up to the maximum level. Five positive polarity pulses at the 90º phase angle, five negative polarity pulses at the 270º phase angle. Each surge was applied 60 seconds after the previous surge. Signal and Telecommunications ports were subject to five (5) positive and five (negative) surges applied through the appropriate Coupling/Decoupling Network (CDN).		
Ambient temperature ..... :	22.9 °C		
Relative humidity ..... :	52 %		
Air pressure ..... :	100.8 kPa		
Test location ..... :	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China		
Test model(s) ..... :	R11		
EUT operation mode ..... :	Mode 1, Mode 2		
Test results ..... :	Pass		
Remark ..... :	/		

6.5.1. Test results for surge

Measurement port		Level	Polarity	Observation	Results
AC power port	L-N	1 kV	Positive	☒1 ☐2 ☐3	Pass
			Negative	☒1 ☐2 ☐3	Pass

6.5.2. Test results of observations description

/ - Not performed or not required.
1 –No obvious change of function was found after the test.
2 –The function stopped during the test, but can be recoverable by itself operation after the test.
3 –The function stopped during the test, but can be recoverable manually after the test.

6.6.Immunity to conducted disturbances, induced by radio-frequency fields

Test requirement ..... :	EN 55035:2017+A11:2020	
Basic standard ..... :	EN 61000-4-6:2014	
Frequency range ..... :	150 kHz to 80 MHz	
Test level ..... :	**Measurement port**	**Frequency range / discrete frequencies**
	Input a.c. power ports	0.15 MHz to 10 MHz; 3 V 10 MHz to 30 MHz; 3 V to 1 V 30 MHz to 80 MHz; 1 V
	Input d.c. power ports	
	Analogue/digital data ports	
	xDSl	
Dwell time ..... :	1 second	
Step size ..... :	1 %	
Modulation ..... :	80% AM (1kHz)	
Performance criteria ..... :	A	
Test method ..... :	The test allows estimating of the conducted immunity of electrical and electronic equipment to electromagnetic disturbances coming from intended radio-frequency (RF) transmitters in the frequency range 150 kHz to 80 MHz. The interference is applied on mains supply, signal line and earth connection ports by using coupling decoupling networks or a clamp.	
Ambient temperature ..... :	23.4 °C	
Relative humidity ..... :	50 %	
Air pressure ..... :	100.8 kPa	
Test location ..... :	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China	
Test model(s) ..... :	R11	
EUT operation mode ..... :	Mode 1, Mode 2	
Test results ..... :	Pass	
Remark ..... :	/	

6.6.1. Test results for Immunity to injected currents

Measurement port	Frequency	Coupling type	Level	Observation	Results
AC power port	0.15 MHz to 10 MHz	CDN	3 V	☒1 ☐2 ☐3	Pass
	10 MHz to 30 MHz		3 V to 1 V	☒1 ☐2 ☐3	Pass
	30 MHz to 80 MHz		1 V	☒1 ☐2 ☐3	Pass

6.6.2. Test results of observations description

/ - Not performed or not required.
1 –No obvious change of function was found after the test.
2 –The function stopped during the test, but can be recoverable by itself operation after the test.
3 –The function stopped during the test, but can be recoverable manually after the test.

6.7.Broadband impulse noise disturbances for xDSI ports

<table>
<tr><td>Test requirement ..... :</td><td colspan="4">EN 55035:2017+A11:2020</td></tr>
<tr><td>Basic standard ..... :</td><td colspan="4">EN 61000-4-6:2014</td></tr>
<tr><td>Frequency range ..... :</td><td colspan="4">150 kHz to 80 MHz</td></tr>
<tr><td rowspan="8">Test level ..... :</td><td colspan="4">Broadband impulse noise disturbances, repetitive</td></tr>
<tr><td>Frequency (MHz)</td><td>(dBuV)</td><td>Burst duration</td><td>Burst period</td></tr>
<tr><td>0.150 – 5</td><td>107</td><td rowspan="3">0.7 ms</td><td rowspan="3">8.3 (for 60 Hz)
10 (for 50 Hz)</td></tr>
<tr><td>5 – 10</td><td>107 to 36</td></tr>
<tr><td>10 – 30</td><td>36 to 30</td></tr>
<tr><td colspan="4">Broadband impulse noise disturbances, isolated</td></tr>
<tr><td>Frequency (MHz)</td><td>(dBuV)</td><td>Burst duration</td><td>Burst period</td></tr>
<tr><td>0.150 – 30</td><td>107</td><td>0.24 ms
10 ms
300 ms</td><td>/</td></tr>
<tr><td>Performance criteria ..... :</td><td colspan="4">A(repetitive)
B(isolated)</td></tr>
<tr><td>Test set up description ..... :</td><td colspan="4">Measurements were made on a ground plane that extends 0.5-meter minimum beyond all sides of the system under test. The EUT was located 10cm above the reference ground plane and any associated I/O cables attached to the EUT were located between 30mm and 50mm above the ground plane. The indicated field was pre-calibrated prior to placement of the system under test.
For the repetitive impulse test the disturbance shall be applied for a period of at least 2 min for each port under test.
For the isolated impulse test a minimum of 5 isolated impulses shall be applied with an interval of at least 60 s between successive impulses.</td></tr>
<tr><td>Ambient temperature ..... :</td><td colspan="4">/</td></tr>
<tr><td>Relative humidity ..... :</td><td colspan="4">/</td></tr>
<tr><td>Air pressure ..... :</td><td colspan="4">/</td></tr>
<tr><td>Test location ..... :</td><td colspan="4">/</td></tr>
<tr><td>Test model(s) ..... :</td><td colspan="4">/</td></tr>
<tr><td>EUT operation mode ..... :</td><td colspan="4">/</td></tr>
<tr><td>Test results ..... :</td><td colspan="4">N/A</td></tr>
<tr><td>Remark ..... :</td><td colspan="4">This test isn’t applicable because the EUT doesn’t have relative function.</td></tr>
</table>

6.8.Power frequency magnetic field immunity (PFMF)

Test requirement ..... :	EN 55035:2017+A11:2020	
Basic standard ..... :	EN 61000-4-8:2010	
Test level ..... :	**Frequency**	**A/m**
	50/60 Hz	1
Performance criteria ..... :	A	
Test method ..... :	Measurements were made on a ground plane that extends 1-meter minimum beyond all sides of the system under test. The EUT was located 80cm above the reference ground plane and the indicated field was pre-calibrated prior to placement of the system under test.	
Ambient temperature ..... :	/	
Relative humidity ..... :	/	
Air pressure ..... :	/	
Test location ..... :	/	
Test model(s) ..... :	/	
EUT operation mode ..... :	/	
Test results ..... :	N/A	
Remark ..... :	The EUT does not contain components susceptible to magnetic fields, therefore this test is not applicable for this EUT.	

6.9.Voltage dips, short interruptions and voltage variations immunity

Test requirement ..... :	EN 55035:2017+A11:2020		
Basic standard ..... :	EN IEC 61000-4-11:2020		
Test level ..... :	**Voltage Dips**		
	Frequency	**Test level in % U_T**	**Duration**
	50 Hz	0	0.5 cycle
	50 Hz	70	25 cycles
	60 Hz	70	30 cycles
	Voltage interruptions		
	Frequency	**Test level in % U_T**	**Duration**
	50 Hz	0	250 cycles
	60 Hz	0	300 cycles
	U_T is the rated voltage of the equipment under test.		
Repetition rate ..... :	10 seconds		
Number of dips or interruptions ..... :	3		
Performance criteria ..... :	B & C		
Test method ..... :	The test allows estimating of the conducted immunity of electrical and electronic equipment connected to low-voltage power supply networks for voltage dips and short interruptions. The interference is applied on mains supply port by using a testing generator.		
Ambient temperature ..... :	22.7 °C		
Relative humidity ..... :	49 %		
Air pressure ..... :	100.8 kPa		
Test location ..... :	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China		
Test model(s) ..... :	R11		
EUT operation mode ..... :	Mode 1, Mode 2		
Test results ..... :	Pass		
Remark ..... :	/		

6.9.1. Test results for Voltage dips

% of U_T	Frequency	Duration in cycles	Sync Angle	Observation	Results
0	50 Hz	0.5	0°	☒1 ☐2 ☐3	Pass
70	50 Hz	25	0°	☐1 ☒2 ☐3	Pass

6.9.2. Test results for Voltage interruptions

% of U_T	Frequency	Duration in cycles	Sync Angle	Observation	Results
0	50 Hz	250	0°	☐1 ☒2 ☐3	Pass

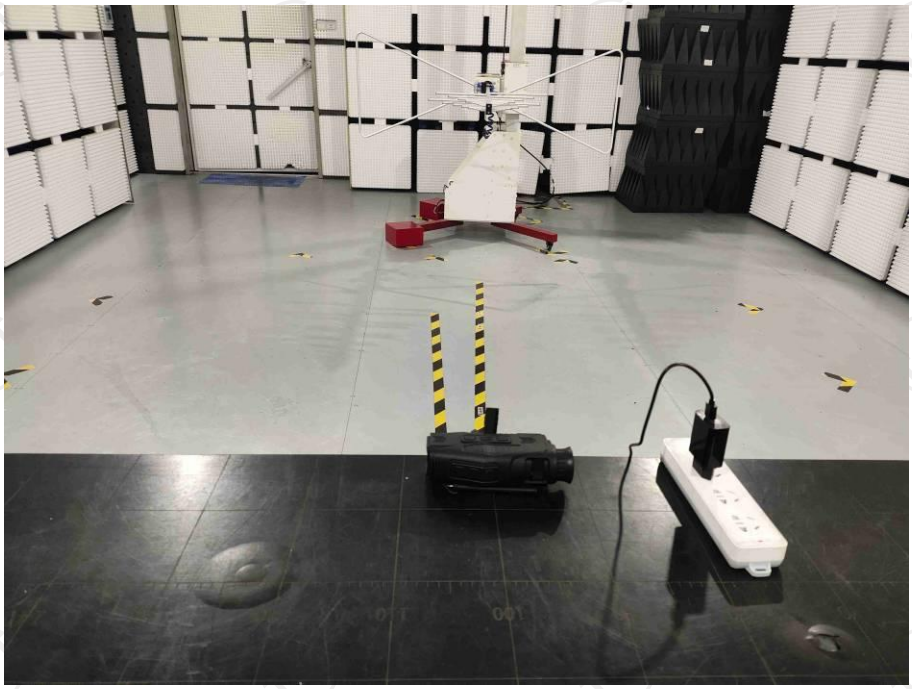
6.9.3. Test results of observations description

/ - Not performed or not required.
1 –No obvious change of function was found after the test.
2 –The function stopped during the test, but can be recoverable by itself operation after the test.
3 –The function stopped during the test, but can be recoverable manually after the test.

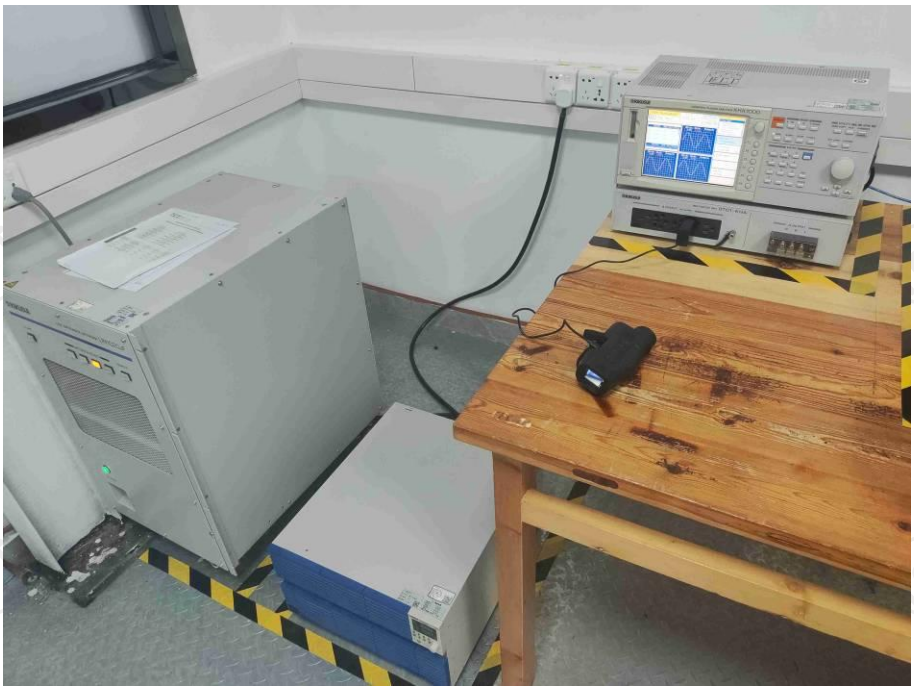
7. Test set-up photo

Disturbance voltage at mains terminals test view

Radiated emission (30 MHz-1 GHz) test view



Voltage changes, voltage fluctuations and flicker test view



Electrostatic discharge immunity (ESD) test view

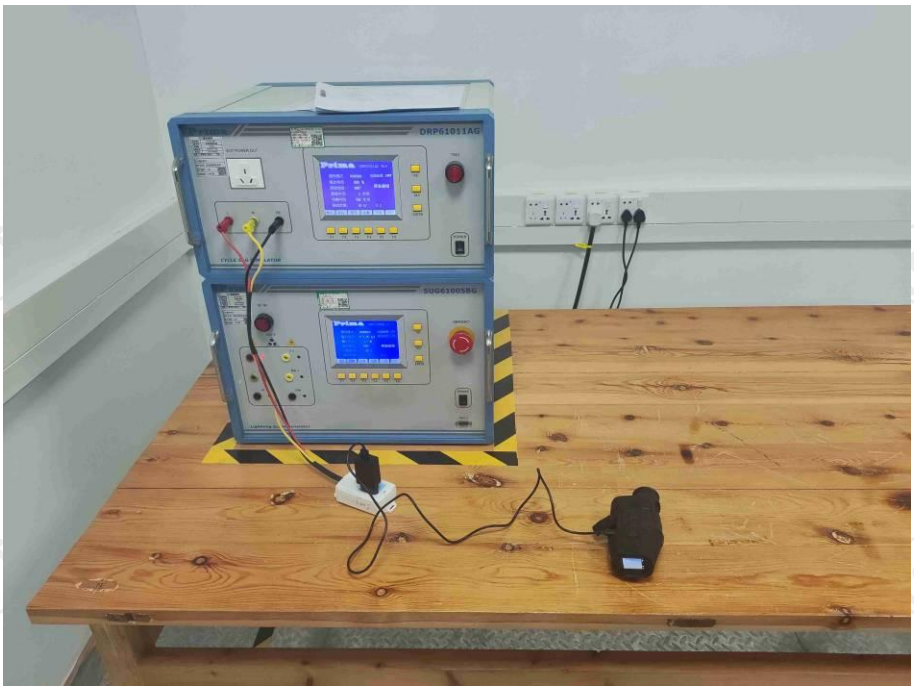
Radiated, radio-frequency, electromagnetic field immunity (RS) test view

Electrical fast transient/burst immunity (EFT/B) test view

Surge immunity test view

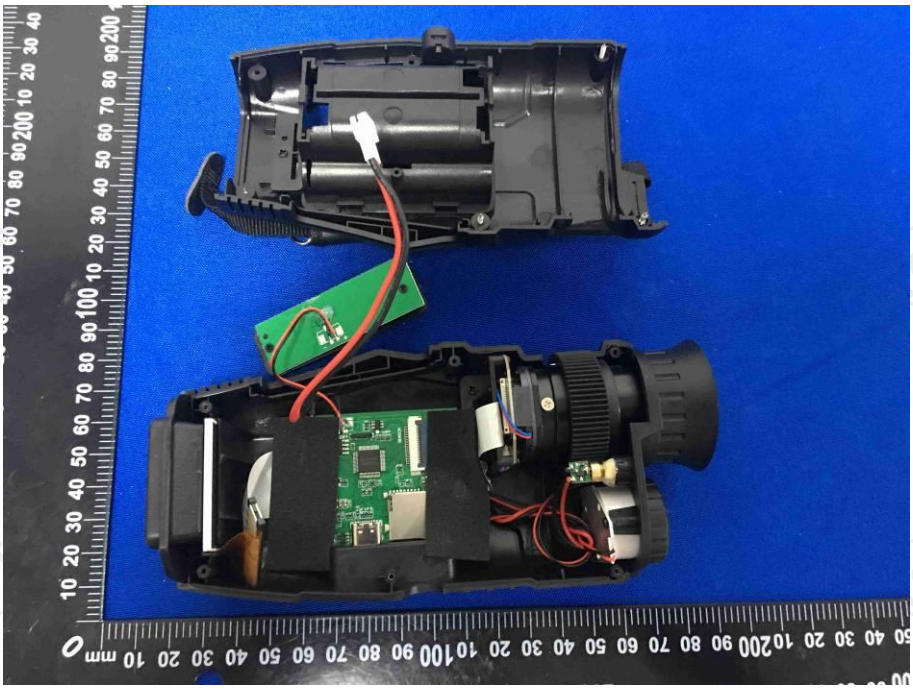
Immunity to conducted disturbances, induced by radio-frequency fields (CS) test view

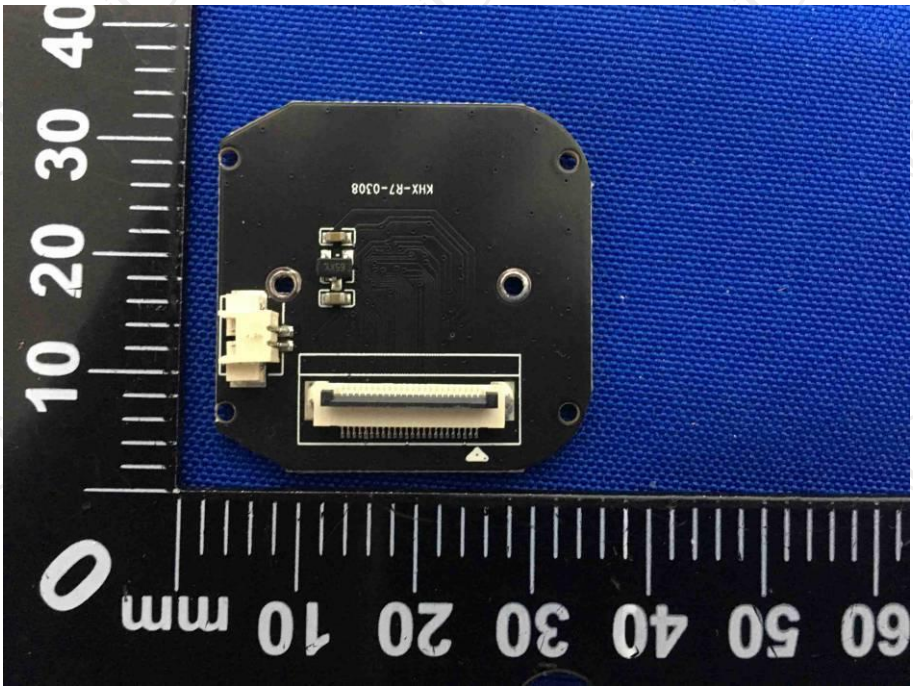
Voltage dips, short interruptions and voltage variations immunity (DIPS) test view



8. Photo of the EUT


MODE
MENU

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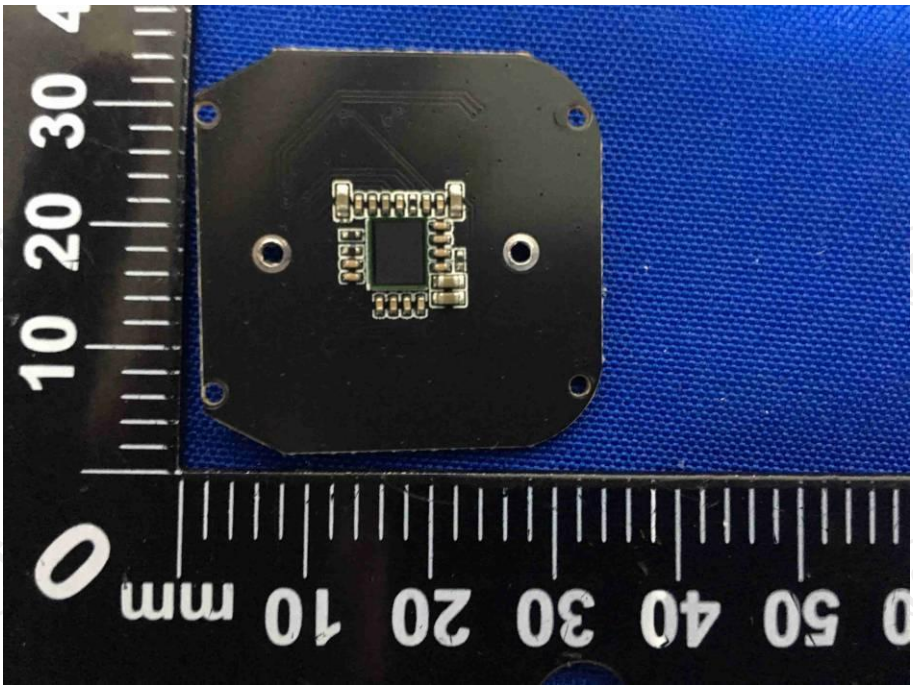

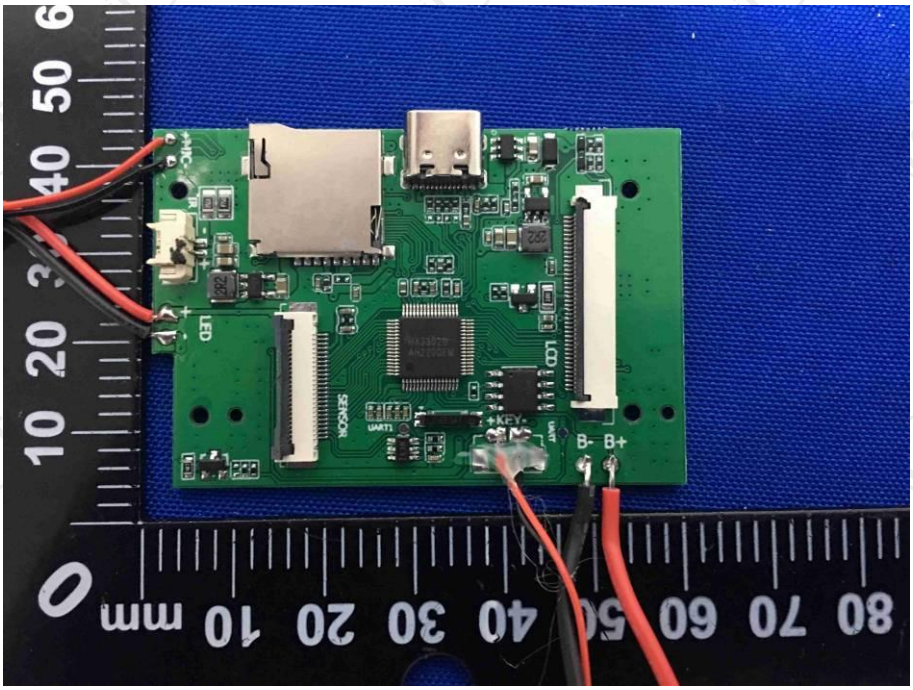
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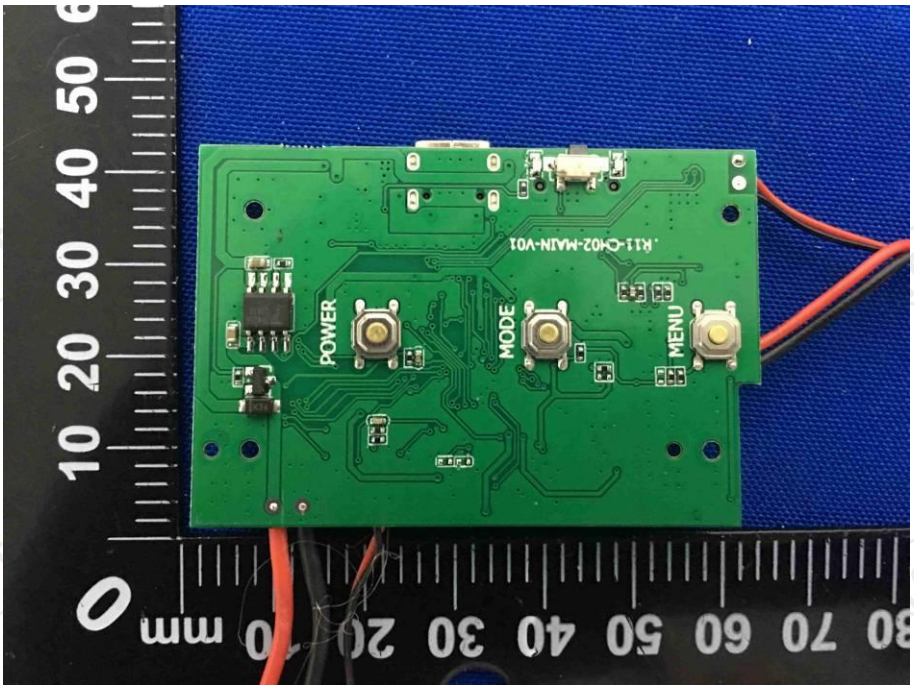
SENSOR
+KEY-
B- B+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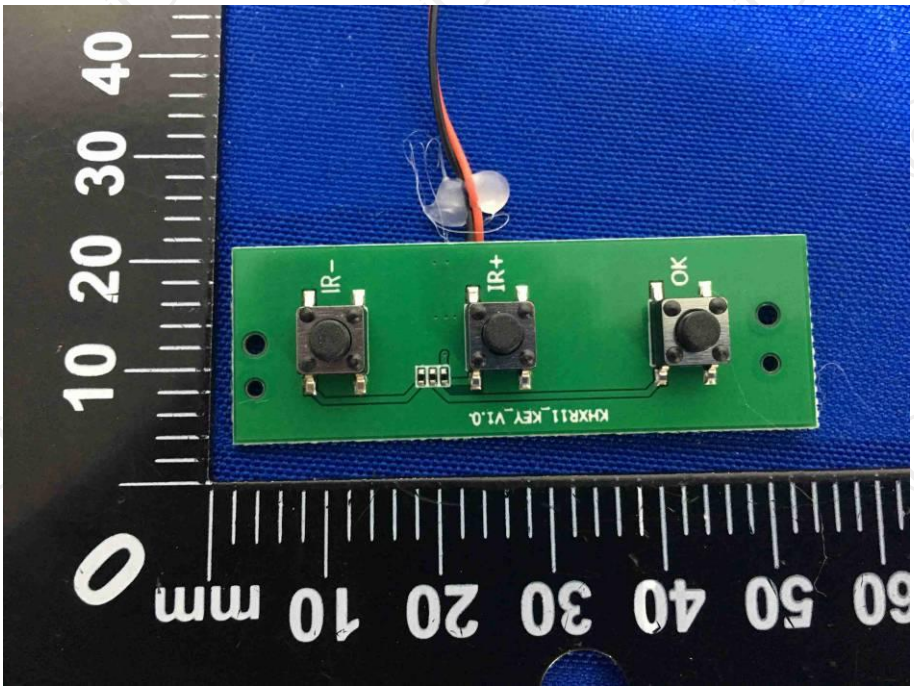
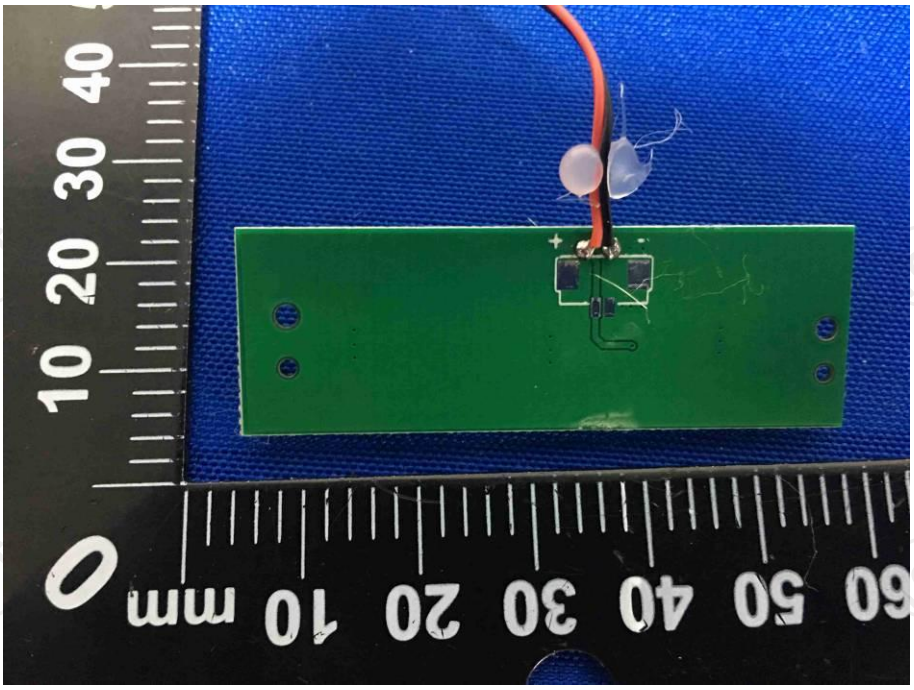
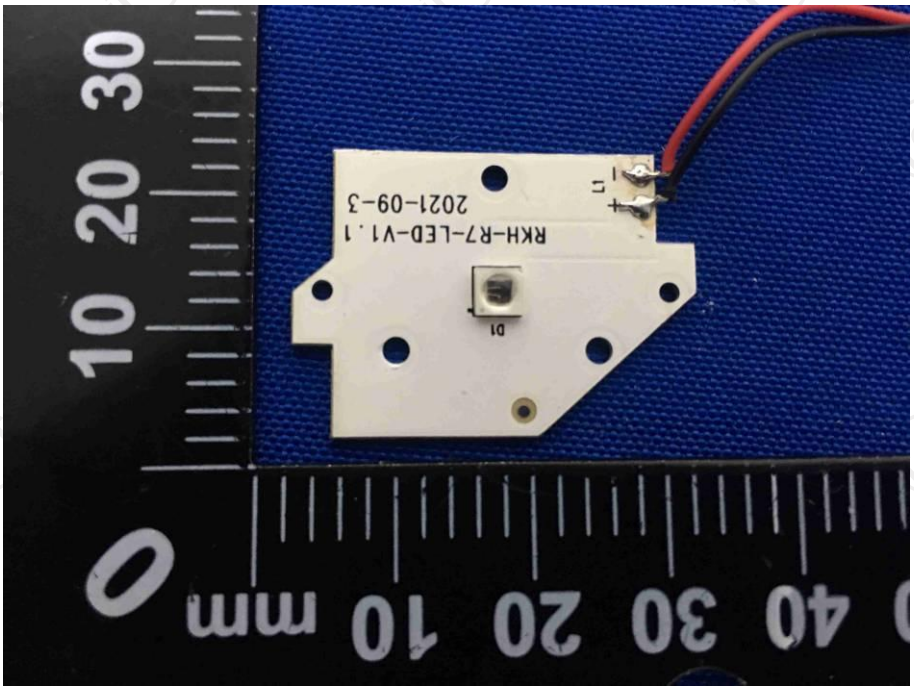
MENU


IR-
IR+
OK

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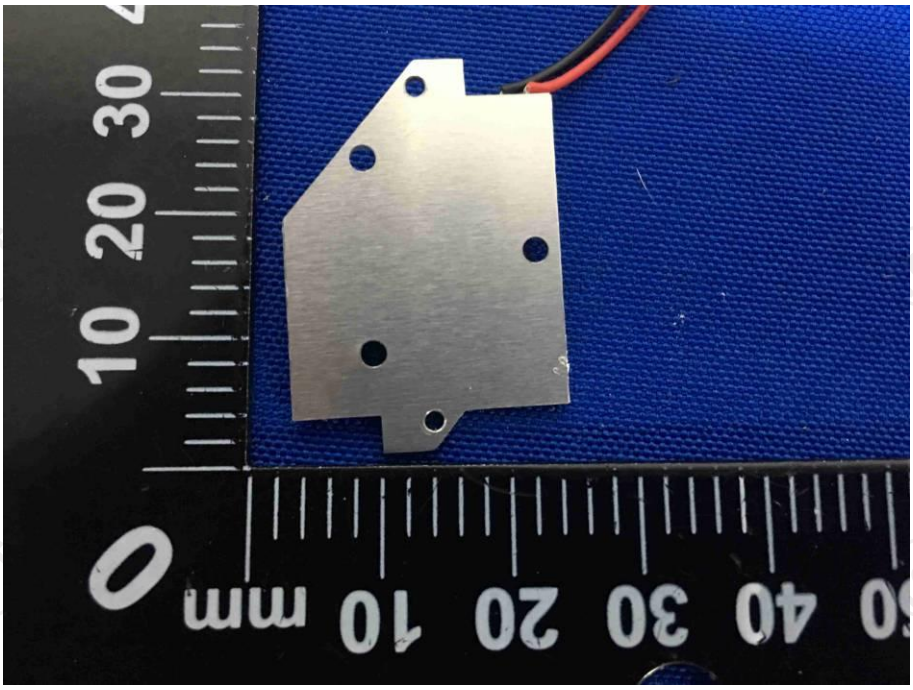
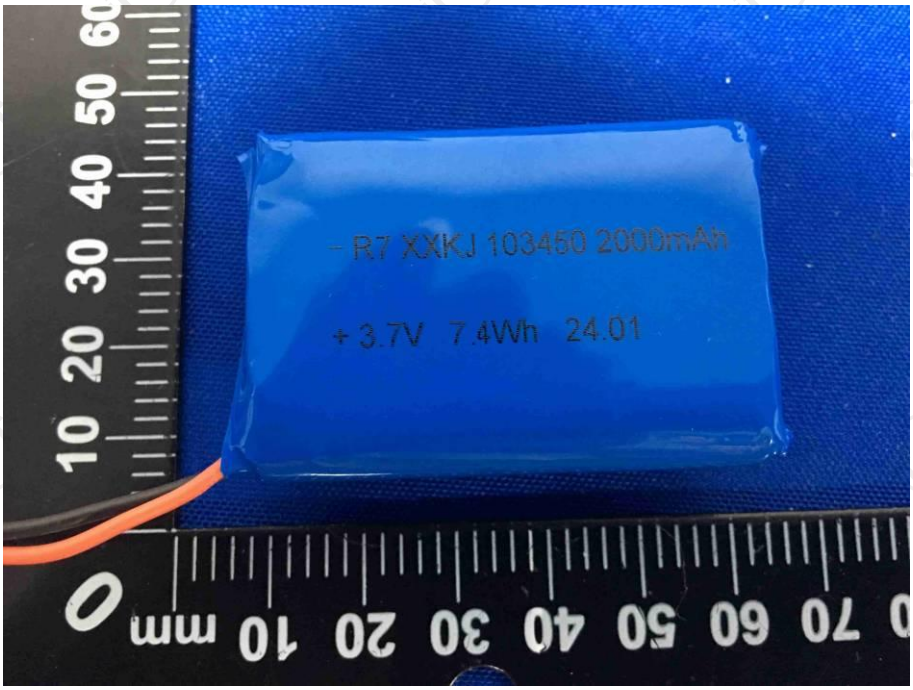
2021-09-3
D1
L1





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