

TEST REPORT

FCC ID.	2AGEB-5502	
Test Report No.	TCT210926E028	
Date of issue	Jan. 14, 2022	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name	Shenzhen ZKC Software Technology Co., Ltd	
Address	1st Floor, No. 1 Block, Zhongkenuo Industry Park, Beiqi Road, Xixiang Town, Bao'an District, Shenzhen, China	
Manufacturer's name ...	Shenzhen ZKC Software Technology Co., Ltd	
Address	1st Floor, No. 1 Block, Zhongkenuo Industry Park, Beiqi Road, Xixiang Town, Bao'an District, Shenzhen, China	
Standard(s)	FCC CFR Title 47 Part 15 Subpart C Section 15.225	
Test item description	Handheld integrated intelligent terminal	
Trade Mark	ZKC	
Model/Type reference	5502	
Rating(s)	Adapter Information: Model: GHSOU-090700 Input: AC 100-240V, 50/60Hz, 0.3A Output: DC 9V, 2000mA Rechargeable Li-ion Battery DC 7.4V	
Date of receipt of test item	Sep. 26, 2021	
Date (s) of performance of test	Sep. 26, 2021 - Jan. 14, 2022	
Tested by (+signature) ...	Aaron MO	
Check by (+signature)	Beryl ZHAO	
Approved by (+signature):	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.

Table of Contents

1. General Product Information	3
1.1. EUT description	3
1.2. Model(s) list.....	3
2. Test Result Summary	4
3. General Information.....	5
3.1. Test Environment and Mode.....	5
3.2. Description of Support Units	5
4. Facilities and Accreditations	6
4.1. Facilities	6
4.2. Location	6
4.3. Measurement Uncertainty.....	6
5. Test Results and Measurement Data	7
5.1. Antenna Requirement	7
5.2. Conducted Emission.....	8
5.3. Radiated Emission Measurement	12
5.4. Occupied Bandwidth.....	20
5.5. Frequency stability	22
Appendix A: Photographs of Test Setup	
Appendix B: Photographs of EUT	

1. General Product Information

1.1.EUT description

Test item description	Handheld integrated intelligent terminal
Model/Type reference.....	5502
Sample Number.....	TCT210926E008-0101
Operation Frequency	13.56MHz
Antenna Type.....	Internal Antenna
Antenna Gain.....	0.5dBi
Rating(s).....	Adapter Information: Model: GHSOU-090700 Input: AC 100-240V, 50/60Hz, 0.3A Output: DC 9V, 2000mA Rechargeable Li-ion Battery DC 7.4V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2.Model(s) list

None.

2. Test Result Summary

Requirement	CFR 47 Section IC Paragraph	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Spurious emissions	§15.225/ §15.209	PASS
Occupied Bandwidth	§15.215 (c)	PASS
Frequency stability	§15.225	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

3. General Information

3.1. Test Environment and Mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	27.4 °C	25.0°C
Humidity:	48% RH	55 % RH
Test Mode:		
Operation mode:	Keep the EUT in continuous transmitting with modulation	
<p>The sample was placed (0.8m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages.</p>		

3.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
IC Card	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4. Facilities and Accreditations

4.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4.3. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB

5. Test Results and Measurement Data

5.1. Antenna Requirement

Standard requirement:

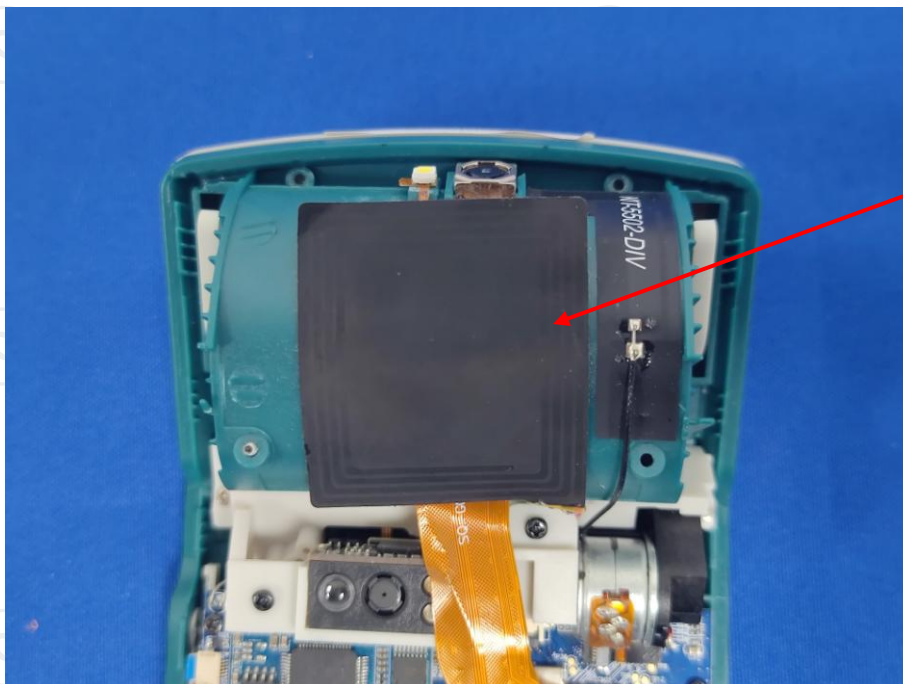
FCC Part15 C Section 15.203

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

E.U.T Antenna:

The NFC antenna is internal antenna which permanently attached, and the best case gain of the antenna is 0.5dBi.



5.2. Conducted Emission

5.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207														
Test Method:	ANSI C63.10:2013														
Frequency Range:	150 kHz to 30 MHz														
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
Limits:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Limit (dBuV)</th></tr><tr><th>Quasi-peak</th><th>Average</th></tr><tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr><tr><td>0.5-5</td><td>56</td><td>46</td></tr><tr><td>5-30</td><td>60</td><td>50</td></tr></table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
Frequency range (MHz)	Limit (dBuV)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
5-30	60	50													
Test Setup:	<div><p>Reference Plane</p><p>40cm</p><p>80cm</p><p>LISN</p><p>AUX Equipment</p><p>E.U.T</p><p>Filter</p><p>AC power</p><p>EMI Receiver</p><p>Test table/Insulation plane</p><p>Remark: E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p></div>														
Test Mode:	Refer to section 3.1 for details														
Test Procedure:	<div><div>1. The E.U.T is connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</div><div>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</div><div>3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.</div></div>														
Test Result:	PASS														

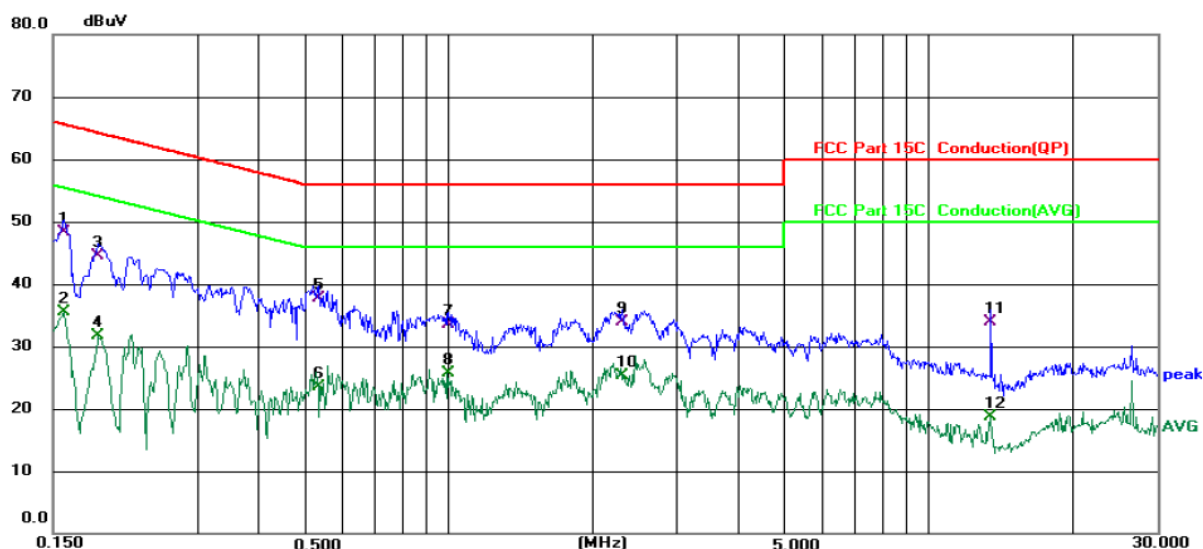
5.2.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESCI3	100898	Jul. 07, 2022
Line Impedance Stabilisation Newtork(LISN)	Schwarzbeck	NSLK 8126	8126453	Mar. 11, 2022
Line-5	TCT	CE-05	N/A	Jul. 07, 2022
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

5.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: L1

Temperature: 27.4 (°C)

Humidity: 48 %

Limit: FCC Part 15C Conduction(QP)

Power: AC 120 V/60 Hz

No.	Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measure- ment dBμV	Limit dBμV	Over dB	Detector	Comment
1	*	0.1580	38.76	9.60	48.36	65.57	-17.21	QP	
2		0.1580	25.81	9.60	35.41	55.57	-20.16	AVG	
3		0.1859	34.87	9.59	44.46	64.22	-19.76	QP	
4		0.1859	22.11	9.59	31.70	54.22	-22.52	AVG	
5		0.5340	28.60	9.20	37.80	56.00	-18.20	QP	
6		0.5340	14.36	9.20	23.56	46.00	-22.44	AVG	
7		1.0020	24.10	9.32	33.42	56.00	-22.58	QP	
8		1.0020	16.35	9.32	25.67	46.00	-20.33	AVG	
9		2.2980	24.44	9.46	33.90	56.00	-22.10	QP	
10		2.2980	15.82	9.46	25.28	46.00	-20.72	AVG	
11		13.5340	24.36	9.64	34.00	60.00	-26.00	QP	
12		13.5340	9.04	9.64	18.68	50.00	-31.32	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

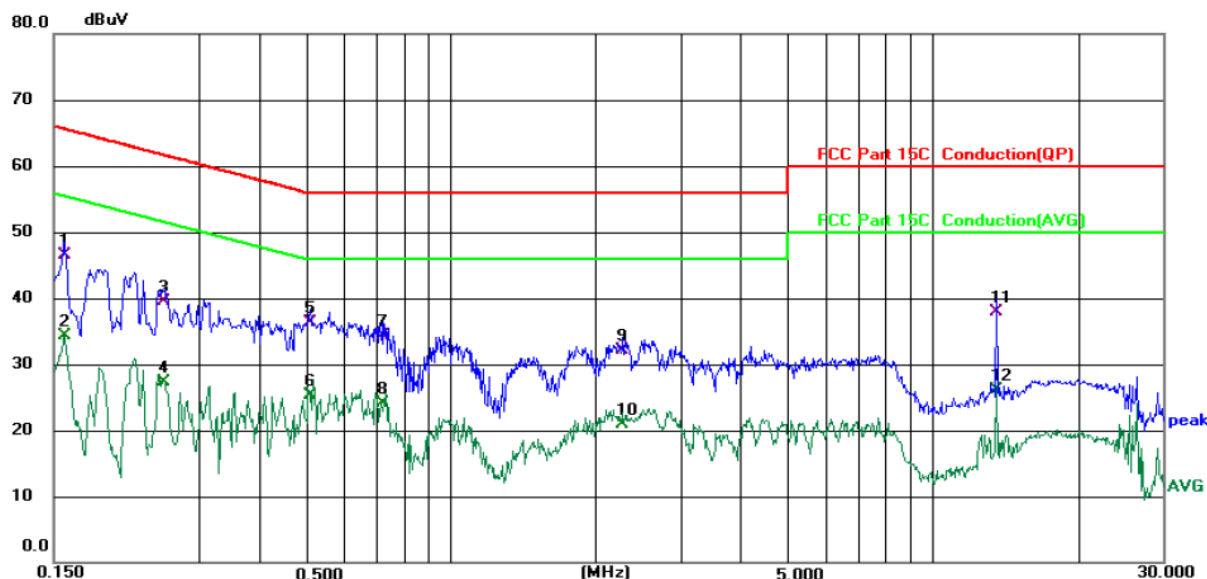
Limit (dBμV) = Limit stated in standard

Margin (dB) = Measurement (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak, AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room

Phase: N

Temperature: 27.4 (°C)

Humidity: 48 %

Limit: FCC Part 15C Conduction(QP)

Power: AC 120 V/60 Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1580	36.94	9.59	46.53	65.57	-19.04	QP	
2		0.1580	24.78	9.59	34.37	55.57	-21.20	AVG	
3		0.2534	30.24	9.33	39.57	61.64	-22.07	QP	
4		0.2534	18.06	9.33	27.39	51.64	-24.25	AVG	
5		0.5100	27.06	9.22	36.28	56.00	-19.72	QP	
6		0.5100	16.03	9.22	25.25	46.00	-20.75	AVG	
7		0.7217	25.11	9.22	34.33	56.00	-21.67	QP	
8		0.7217	14.93	9.22	24.15	46.00	-21.85	AVG	
9		2.2820	22.64	9.39	32.03	56.00	-23.97	QP	
10		2.2820	11.59	9.39	20.98	46.00	-25.02	AVG	
11		13.5579	28.25	9.65	37.90	60.00	-22.10	QP	
12		13.5579	16.42	9.65	26.07	50.00	-23.93	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBuV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBuV) = Reading level (dBuV) + Corr. Factor (dB)

Limit (dBuV) = Limit stated in standard

Margin (dB) = Measurement (dBuV) - Limits (dBuV)

Q.P. =Quasi-Peak

AVG =average

* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz

5.3. Radiated Emission Measurement

5.3.1. Test Specification

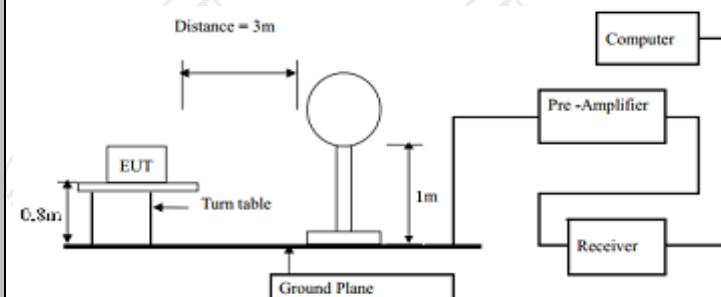
Test Requirement:	FCC Part15 C Section 15.225				
Test Method:	ANSI C63.10: 2013				
Frequency Range:	9 kHz to 1000 MHz				
Measurement Distance:	3 m				
Antenna Polarization:	Horizontal & Vertical				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	9kHz- 150kHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz- 30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
Limit:	FCC Part15 C Section 15.225				
	Frequency (MHz)		Limit (uV/m @30m)	Limit (dBuV/m @3m)	Detector
	13.110-13.410		106	80.5	QP
	13.410-13.553		334	90.5	QP
	13.553-13.567		15848	124.0	QP
	13.567-13.7110		224	90.5	QP
	13.710-14.010		106	80.5	QP
	Note: RF Voltage (dBuV) = 20 log RF Voltage (uV) Limit (dBuV/m @3m) = 20log(Limit (uV/m @30m)) + 40				
	FCC Part15 C Section 15.209				
	Frequency Range (MHz)	Distance (m)	Field strength (dBµ V/m)	Detector	
	0.009-0.490	3	20log 2400/F (kHz) + 80	QP	
	0.490-1.705	3	20log 24000/F (kHz) + 40	QP	
	1.705-30	3	20log 30 + 40	QP	
	30-88	3	40.0	QP	
	88-216	3	43.5	QP	
	216-960	3	46.0	QP	
	Above 960	3	54.0	QP	
	Note: 1. RF Voltage (dBuV) = 20 log RF Voltage (uV) 2. In the Above Table, the tighter limit applies at the band edges. 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT 4. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position. 5. If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula $Ld1 = Ld2 * (d2/d1)$				

Test Procedure:

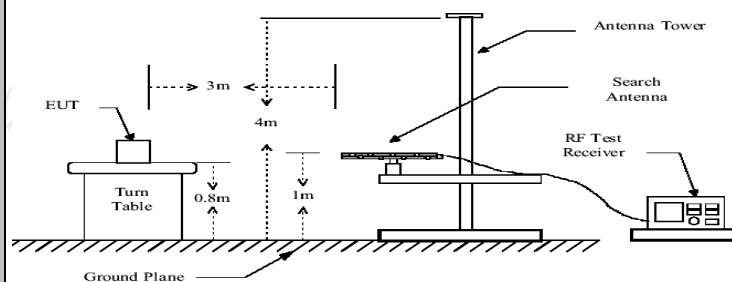
1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber in below 1GHz. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test setup:

For radiated emissions below 30MHz



30MHz to 1GHz



Test Mode:

Refer to section 3.1 for details

Test results:

PASS

5.3.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI Test Receiver	R&S	ESIB7	100197	Jul. 07, 2022
Spectrum Analyzer	R&S	FSQ40	200061	Jul. 07, 2022
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Mar. 11, 2022
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Apr. 08, 2022
Pre-amplifier	HP	8447D	2727A05017	Jul. 07, 2022
Loop antenna	ZHINAN	ZN30900A	12024	Sep. 05, 2022
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 04, 2022
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 04, 2022
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Apr. 10, 2023
Coaxial cable	SKET	RC_DC18G-N	N/A	Apr. 08, 2022
Coaxial cable	SKET	RC-DC18G-N	N/A	Apr. 08, 2022
Coaxial cable	SKET	RC-DC40G-N	N/A	Jul. 07, 2022
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

5.3.3. Test Data

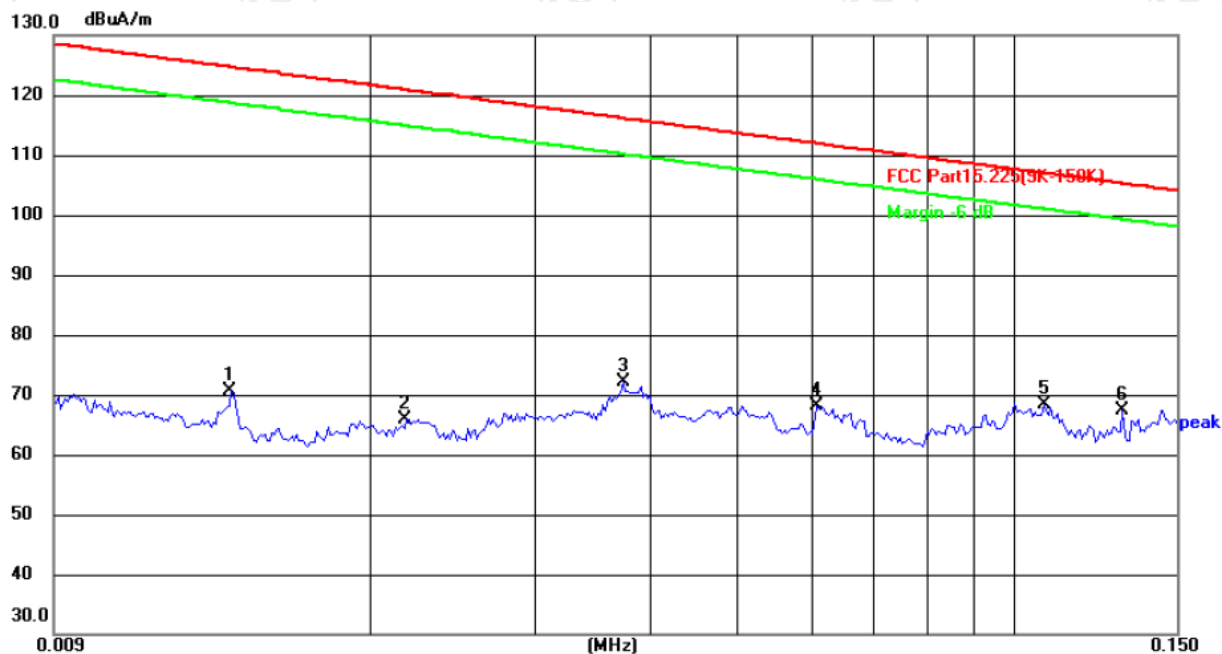
Field Strength of Fundamental

Frequency (MHz)	Emission (dBuV/m)	Limits (dBuV/m)	Detector	Margin (dB)
13.56	67.82	124.0	QP	-56.18

Spurious Emissions

9KHz-30MHz

9KHz-150KHz:



Site

Polarization:

Temperature: 25(°C)

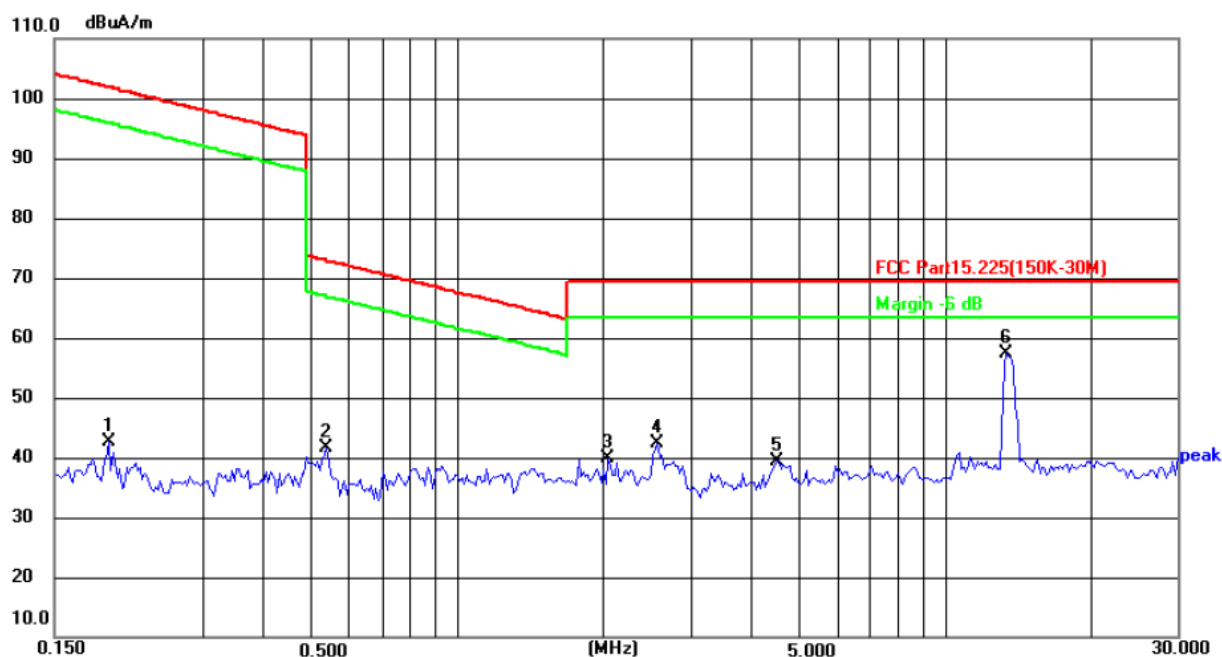
Limit: FCC Part15.225(9K-150K)

Power:

Humidity: 55 %

No.	Frequency (MHz)	Reading (dBuA)	Factor (dB/m)	Level (dBuA/m)	Limit (dBuA/m)	Margin (dB)	Detector	P/F	Remark
1	0.0140	48.83	21.72	70.55	124.68	-54.13	peak	P	
2	0.0217	47.26	18.65	65.91	120.88	-54.97	peak	P	
3	0.0374	52.37	19.71	72.08	116.15	-44.07	peak	P	
4	0.0609	46.78	21.29	68.07	111.92	-43.85	peak	P	
5	0.1076	44.00	24.33	68.33	106.98	-38.65	peak	P	
6 *	0.1310	41.97	25.46	67.43	105.28	-37.85	peak	P	

150KHz-30MHz:

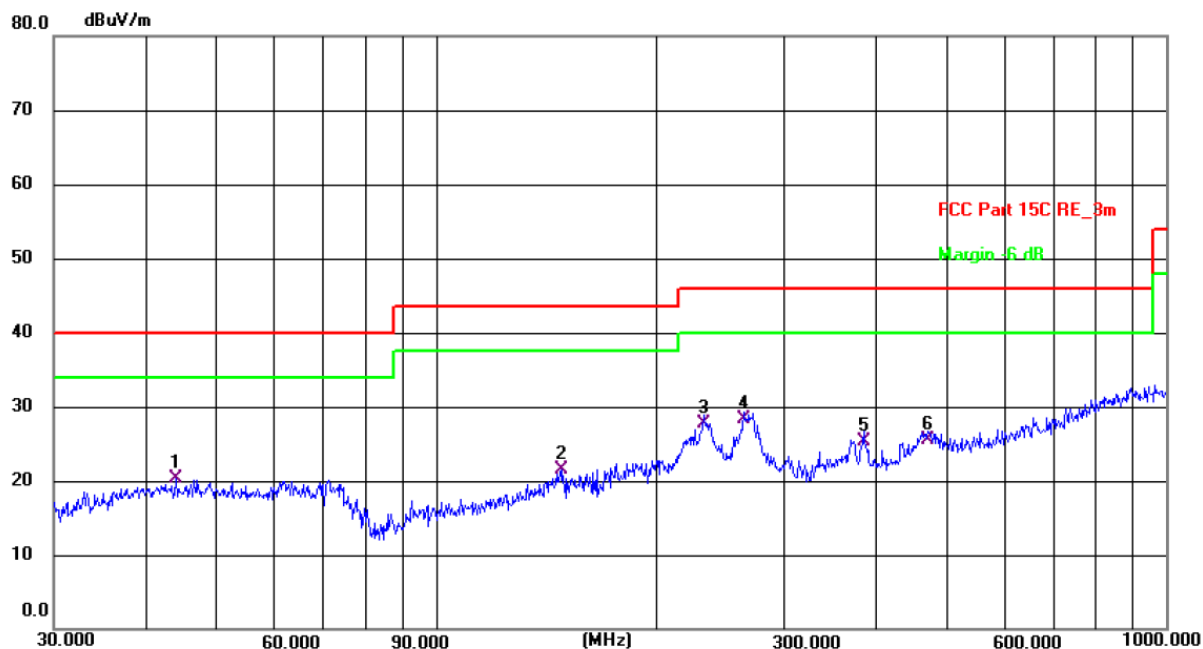


Site: Polarization: **Horizontal** Temperature: 25(°C)
 Limit: FCC Part15.225(150K-30M) Power: Humidity: 55 %

No.	Frequency (MHz)	Reading (dBuA)	Factor (dB/m)	Level (dBuA/m)	Limit (dBuA/m)	Margin (dB)	Detector	P/F	Remark
1	0.1935	16.31	26.41	42.72	101.88	-59.16	peak	P	
2	0.5421	15.01	26.52	41.53	72.92	-31.39	peak	P	
3	2.0438	10.58	29.24	39.82	69.50	-29.68	peak	P	
4	2.5817	12.21	30.28	42.49	69.50	-27.01	peak	P	
5	4.5319	5.33	34.06	39.39	69.50	-30.11	peak	P	
6 *	13.3864	31.97	25.48	57.45	69.50	-12.05	peak	P	

Note : 1) Emission Level=Peak Reading + Correction Factor;
 Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

Horizontal:



Site #2 3m Anechoic Chamber

Polarization: **Horizontal**

Temperature: 25(C)

Humidity: 55 %

Limit: FCC Part 15C RE_3m

Power: DC 7.4 V

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	44.1200	6.31	13.91	20.22	40.00	-19.78	QP	P	
2	148.9624	8.24	13.32	21.56	43.50	-21.94	QP	P	
3	232.5318	15.53	12.27	27.80	46.00	-18.20	QP	P	
4 *	263.8190	15.54	12.86	28.40	46.00	-17.60	QP	P	
5	385.2803	8.66	16.74	25.40	46.00	-20.60	QP	P	
6	472.1759	6.80	18.80	25.60	46.00	-20.40	QP	P	

Vertical:



Site #2 3m Anechoic Chamber

Polarization: **Vertical**

Temperature: 25(C)

Humidity: 55 %

Limit: FCC Part 15C RE_3m

Power: DC 7.4 V

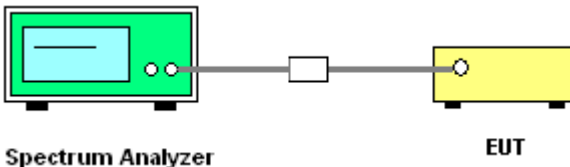
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	40.9879	20.41	13.99	34.40	40.00	-5.60	QP	P	
2	60.4917	17.16	13.04	30.20	40.00	-9.80	QP	P	
3	71.3300	17.74	10.86	28.60	40.00	-11.40	QP	P	
4	148.4410	15.49	13.31	28.80	43.50	-14.70	QP	P	
5	180.6484	19.04	11.26	30.30	43.50	-13.20	QP	P	
6	207.1225	22.01	10.69	32.70	43.50	-10.80	QP	P	

Note : 1) Emission Level=Peak Reading + Correction Factor;

Correction Factor= Antenna Factor + Cable loss – Pre-amplifier

5.4. Occupied Bandwidth

5.4.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.215(c)
Test Method:	ANSI C63.10: 2013
Limit:	N/A
Test Procedure:	<ol style="list-style-type: none"> 1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Use the following spectrum analyzer settings for 20dB Bandwidth measurement. Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel; RBW\geq1% of the 20 dB bandwidth; VBW\geqRBW; Sweep = auto; Detector function = peak; Trace = max hold. 4. Measure and record the results in the test report.
Test setup:	 <p>The diagram illustrates the test setup. On the left is a green Spectrum Analyzer with a blue screen. A black cable connects it to a yellow rectangular box on the right, which is labeled 'EUT'. A small white square is located on the cable between the two devices.</p>
Test Mode:	Refer to section 3.1 for details
Test results:	PASS

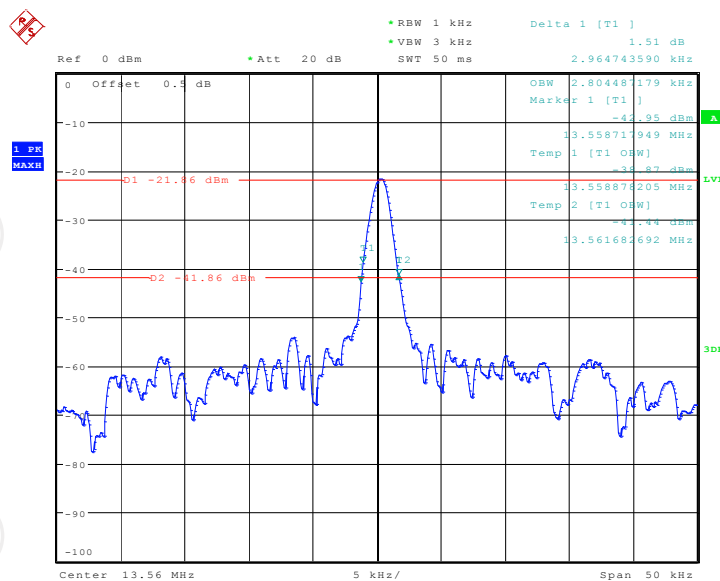
5.4.2. Test Instruments

RF Test Room				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022

5.4.3. Test data

Frequency(MHz)	20dB Occupy Bandwidth (kHz)	Limit (kHz)	Conclusion
13.56	2.96	---	PASS

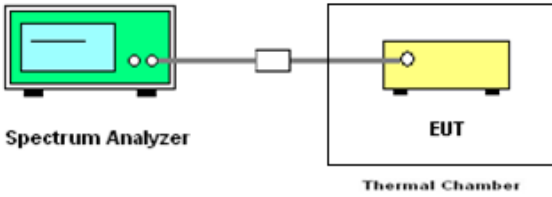
Test plots as follows:



Date: 13 JAN 2022 15:17:26

5.5. Frequency stability

5.5.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.225
Test Method:	ANSI C63.10 : 2013
Operation mode:	Refer to item 3.1
Limit:	+/-0.01%
Test Setup:	 <p>Spectrum Analyzer</p> <p>EUT</p> <p>Thermal Chamber</p>
Test Procedure:	<ol style="list-style-type: none"> 1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a spectrum analyzer. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to -20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +55°C reached. 7. Repeat step measure with a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C
Test Result:	PASS

5.5.2. Test Instruments

RF Test Room				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Jul. 18, 2022
DC power supply	Kingrang	KR3005K	N/A	Jul. 18, 2022

5.5.3. Test Data

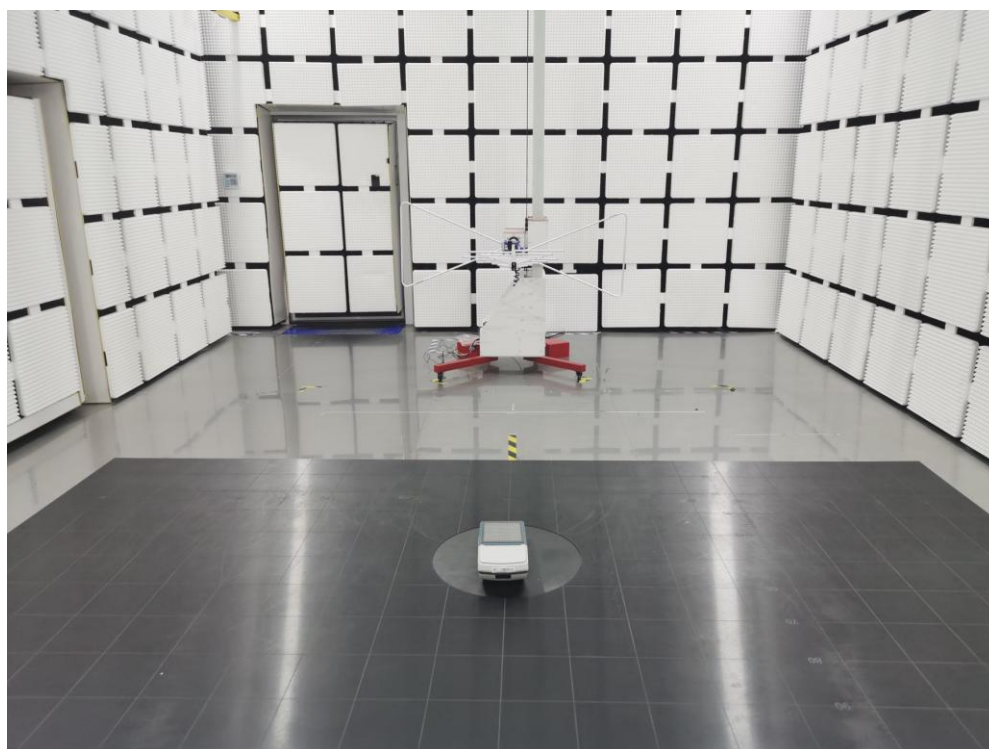
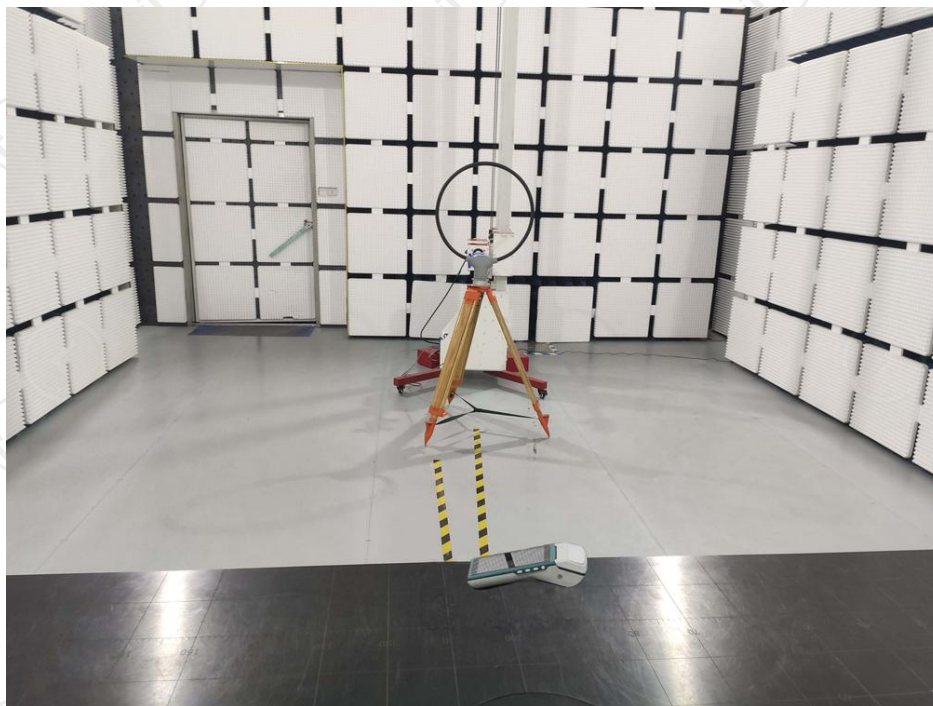
Voltage (Vdc)	Temperature (°C)	Frequency (MHz)	Deviation (%)	Limit (%)
7.4	-20	13.560258	0.00190	+/-0.01%
7.4	-10	13.560215	0.00159	
7.4	0	13.560138	0.00102	
7.4	10	13.560266	0.00196	
7.4	20	13.560159	0.00117	
7.4	30	13.560280	0.00206	
7.4	40	13.560204	0.00150	
7.4	50	13.560212	0.00156	
7.4	55	13.560206	0.00152	
8.4	20	13.560167	0.00123	
6.6	20	13.560158	0.00117	

Appendix A: Photographs of Test Setup

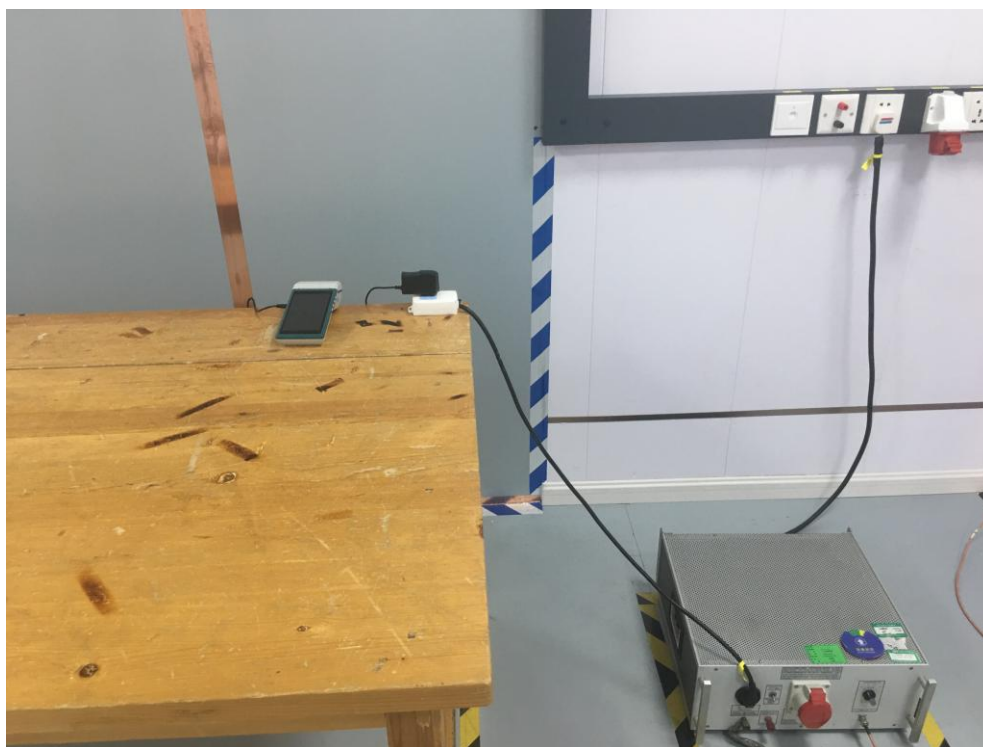
Product: Handheld integrated intelligent terminal

Model: 5502

Radiated Emission



Conducted Emission



Appendix B: Photographs of EUT

Refer to the test report No. TCT210926E008

*******END OF REPORT*******