ICES-003 TEST REPORT

Report No.: ZYT230907006-06R

Issued for

Shantou Chenghai District Jinniu handicraft factory.
Guangfeng Industrial Zone, Dengfeng Road, Guangyi Street,
Chenghai District, Shantou City, Guangdong Province

Product Name	:	Hand warmer
Trade Mark	:	N/A
Model Name	:	PCX168138
Standard	:	ICES-003 Issue 7 ctober 2020

Test Report Certification

Applicant's Name .....:	Shantou Chenghai District Jinniu handicraft factory.
Addressadd .....:	Guangfeng Industrial Zone, Dengfeng Road, Guangyi Street, Chenghai District, Shantou City, Guangdong Province
Manufacturer's Name.....:	Shantou Chenghai District Jinniu handicraft factory.
Address.....:	Guangfeng Industrial Zone, Dengfeng Road, Guangyi Street, Chenghai District, Shantou City, Guangdong Province
Product Description.....:	N/A
Product Name.....:	Hand warmer
Model Name .....:	PCX168138、PCX168138A、PCX168138B、PCX168138C、PCX168138D、PCX168139、PCX168139A、PCX2022001、PCX2022002、PCX2022003、PCX2022004、PCX2022005、PCX2022006、PCX2022007、PCX2022008、PCX2022009、PCX2022010、PCX8001、PCX8002、PCX8003、PCX8004、PCX8005、PCX8006、PCX8007、PCX8008、PCX8009、PCX8010、PCX8011、PCX8012、PCX8013、PCX8014、PCX8015、PCX8016、PCX8017、PCX8018、PCX8019、PCX8020、PCX8021、PCX8022、PCX8023、PCX8024、PCX8034、PCX8035、PCX8036、PCX8037、PCX8038、PCX8039、PCX8040、PCX8041、PCX8042、PCX8043、PCX8044、PCX8045、PCX8046、PCX8047、PCX8048、PCX8049、PCX8050、PCX8051
Standards .....:	ICES-003 Issue 7 ctober 2020

The above-mentioned equipment has passed the Promise test, and the test results show that the equipment under test (EUT) complies with ICES requirements. And only applies to the test samples identified in the report.

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Date of Test..... :

Date (s) of Performance of Tests ..... : August 28-September 07,2023

Date of Issue ..... : September 07,2023

Test Result..... : Pass

Prepared by : Jack Yang

(Jack Yang)

Reviewed by : Chopin Xiao

(Chopin Xiao)

Approved by : (Kind yang)

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	September 07,2023	Valid	Original Report

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1. SUMMARY OF THE TEST RESULTS

Test procedures according to the technical standards:

EMISSION			
Standard	Item	Result	Remarks
ICES-003 Issue 7 ctober 2020	Conducted Emission	N/A	N/A
	Radiated Emission		Meet Class B limit

NOTE:

(1) " N/A" denotes test is not applicable in this Test Report

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Hand warmer
Trade Mark	N/A
Model Name	Hand warmer
Sampling model	PCX168138
Test Sample Number	ZYT-230907006-06R
Product Description	For a more detailed features description, please refer to the manufacturer'sspecifications or the User's Manual
Power Rating EUT Highest internal frequency:	Input: DC 3.7V ☒ Below 108MHz ☐ Above108MHz
Hardware Version Number	N/A
Software Version Number	N/A

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.2 DESCRIPTION OF THE TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

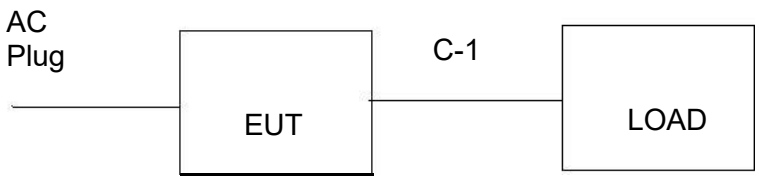
Pretest Mode	Description
Mode 1	Working (H+ Vibration)

For Radiated Test	
Final Test Mode	Description
Mode 1	Working (H+ Vibration)

Note:

1. For conducted emission test, test mode 1 was the worst case and only this mode was presented in this report.
2. For radiated emission test, test mode 1 was the worst case and only this mode was presented in this report.
3. We have be tested for all avaiable U.S. voltage and frequencies (For DC 3.7V) for which the device is capable of operation.

2.3 TEST CONFIGURATION DIAGRAM



2.4 DESCRIPTION OF THE 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.

Accessories equipment

Item	Equipment	Manufacturer	ModelNo.	SerialNo.
N/A	N/A	N/A	N/A	N/A

Auxiliary equipment

Item	Equipment	Manufacturer	Model No.	SerialNo.
N/A	N/A	N/A	N/A	N/A

CableType

Item	Signal Cable Type	Shielded Type	Ferrite Core	Length
N/A	N/A	N/A	N/A	N/A

Note:

(1) The support equipment was authorized by Declaration of Confirmation.

(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

(3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

(4) PC is the ICES DOC is approved.

2.5 LABORATORY INFORMATION

Company Name:	Shenzhen Promise Test Technology Co., Ltd.
Address:	103, Building 1, Yibaolai Industrial City, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	N/A

2.6 MEASUREMENT UNCERTAINTY

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

A. Conducted Measurement:

Test Site	Method	MeasurementFrequencyRange	U，(dB)	NOTE
Conducted Emission	CISPR 16-4-2	9KHz ~ 30MHz	3.07	

B. Radiated Measurement:

Test Site	Method	MeasurementFrequencyRange	U，(dB)	NOTE
Radiated Emission	CISPR 16-4-2	30MHz ~ 1000MHz	5.51	

2.7 MEASUREMENT INSTRUMENTS LIST

Conducted Emission Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal**
843 Shielded Room	ChengYu	843 Room	843	May. 20, 2021	May. 19, 2024
EMI Receiver	R&S	ESCI3	100306	May. 08, 2023	May. 07, 2024
LISN	ETS-LINDGREN	3810/2	00045732	May. 08, 2023	May. 07, 2024
Attenuator	SUHNER	ESH3-Z2	100243	May. 08, 2023	May. 07, 2024
843 Cable 1#	FUJIKURA	843C1#	001	May. 08, 2023	May. 07, 2024
Test software	FALA	EZ-EMC	EMC-CON3A1.1		--

Radiation Emission Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
966 chamber	ChengYu	966 Room	966	May. 20, 2021	May. 19, 2024
Spectrum Analyzer	Agilent	N9020A	MY54440442	May. 08, 2023	May. 07, 2024
Amplifier	HP	8447D	2727A05439	May. 08, 2023	May. 07, 2024
Log-periodic Antenna	Dublin	JB6	A121411	May. 10, 2023	May. 19, 2024
EMI Receiver	R&S	ESCI3	100306	May. 08, 2023	May. 07, 2024
966 Cable 1#	CHENGYU	966	003	May. 08, 2023	May. 07, 2024
Test software	FALA	EZ-EMC	FA-03A2 RE+		--

3.EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	Conducted Emission Limits (dBuV)			
	Class A		Class B	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

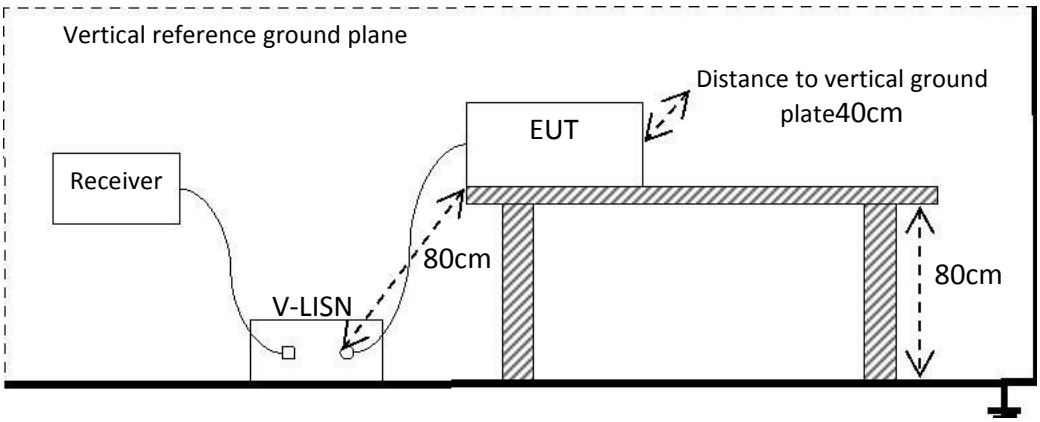
3.1.2 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



3.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.6 TEST RESULTS

Temperature:	N/A	Relative Humidity:	N/A
Phase:	N/A	Test Mode:	N/A
Test Voltage:	N/A	Test Date:	N/A

Note: This test isn't applicable because the EUT doesn't have relative function.

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 Radiated Emission Limits

Class A: ITE that meets the conditions for Class A operation defined in Section 2.2 shall comply with the Class A radiated limits set out in Table 4 determined at a distance of 3metres.

Class A Radiated Limits Below 1 GHz:

Frequencies (MHz)	Class A (dBμV/m)
	Quasi-peak
30~88	49.5
88~216	53.9
216~960	56.9
960~1000	60

Class B: ITE that does not meet the conditions for Class A operation shall comply with the Class B radiated limits set out in Table 5 determined at a distance of 3 metres.

Class B Radiated Limits Below 1 GHz:

Frequencies (MHz)	Class B (dBμV/m)
	Quasi-peak
30~88	40
88~216	43.5
216~960	46
960~1000	54

In case the emission 109(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	Class A (dBuV/m) (at 3M)		Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Note:

(1) The limit for radiated test was performed in the following:FCC PART 15B.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

FREQUENCY RANGE OF THE RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency RB / VB (emission in restricted band)	5th harmonic (Peak/AV) 30MHz to 1000MHz:100 KHz / 300 KHz Above 1000MHz: 1 MHz / 3 MHz

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	30MHz to 1000MHz: 100 KHz / 300 KHz Above 1000MHz: 1 MHz / 3 MHz

3.2.2 TEST PROCEDURE

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
b. EUT as the center to the edge of the auxiliary device, the distance from the maximum edge to the center of the antenna is 3 meters.
c. The height of antenna is varied from 1 meter to 4 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.
d. 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.
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

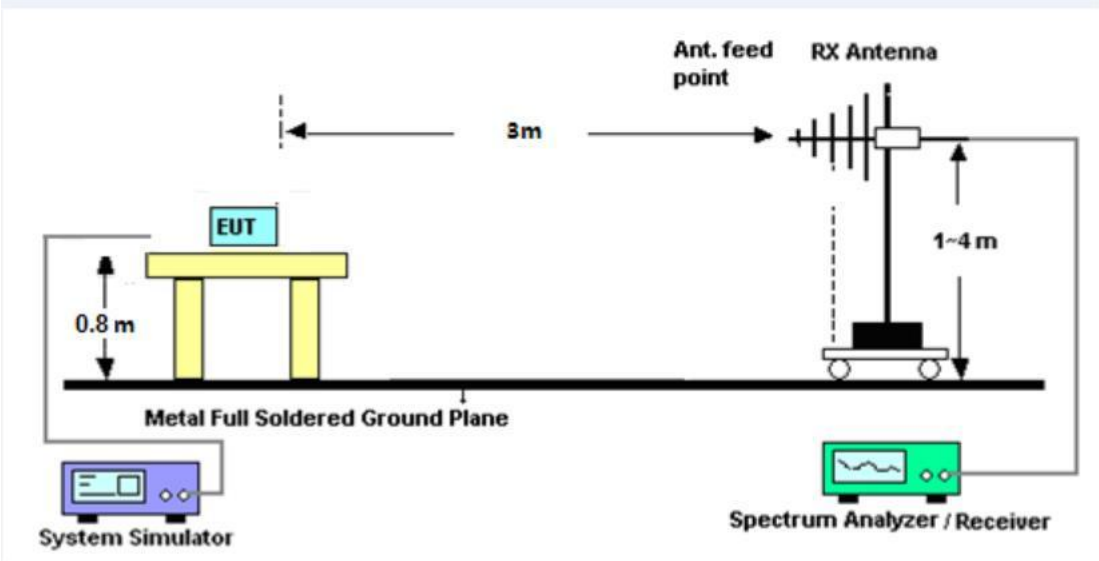
Note: Both horizontal and vertical antenna polarities were testedand performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

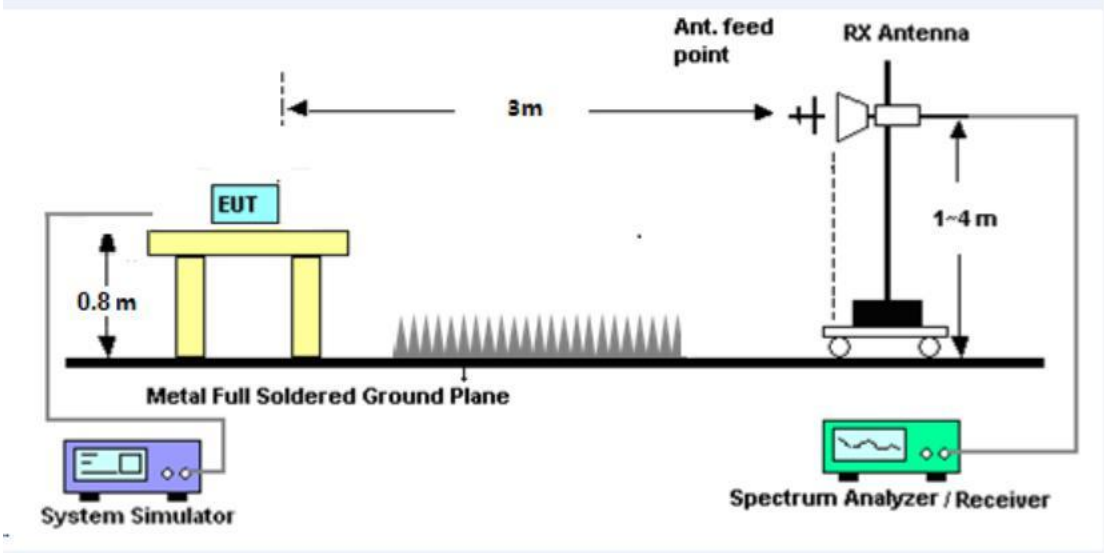
No deviation

3.2.4 TESTSETUP

（A）Radiated Emission Test-Up Frequency Below 1 GHz



（B）Radiated Emission Test-Up Frequency Above 1GHz



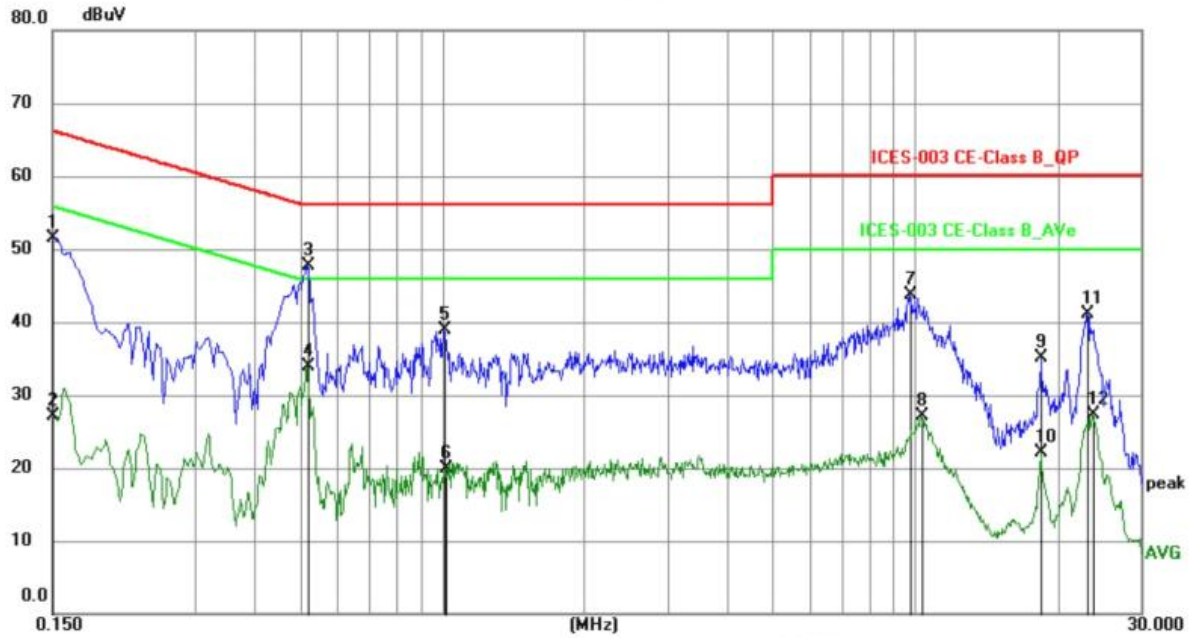
3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the following during the testing.

3.2.6 TEST RESULTS

30MHz -1000MHz

Temperature:	26℃	Relative Humidity:	54%
Phase:	Horizontal	Test Mode:	Mode 1
Test Voltage:	DC 3.7V	Test Date:	2023.08.30

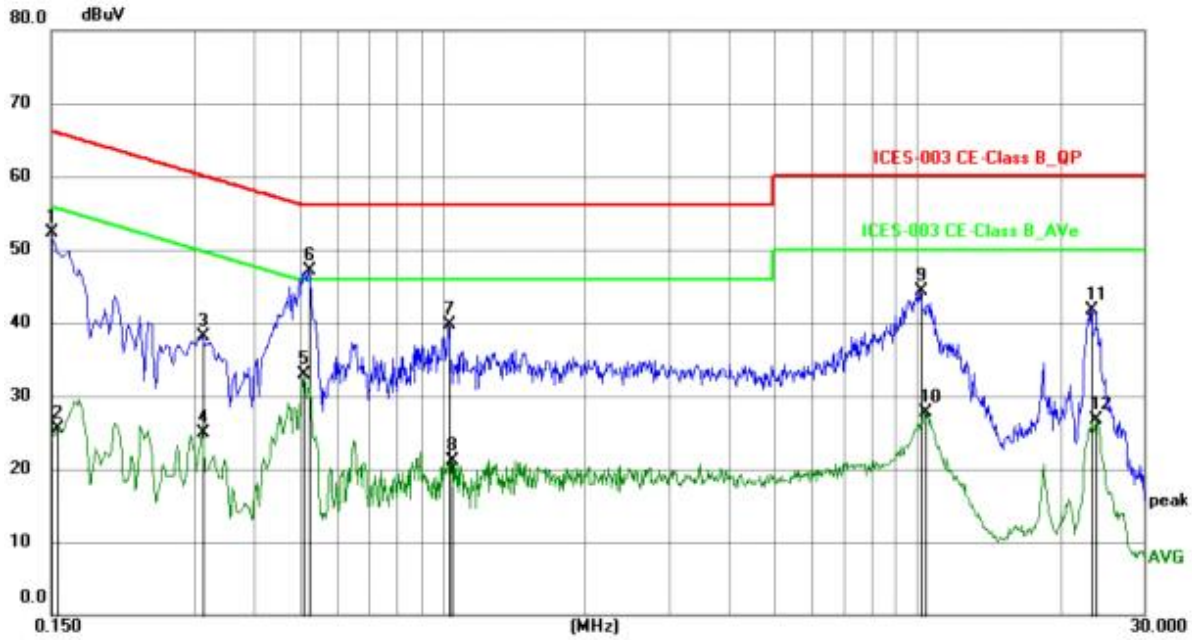


No.	Mk.	Freq.	Level	Factor	ment	Limit	Margin	
		MHz					dB	Detector
1		0.1500	38.59	13.01	51.60	66.00	-14.40	QP
2		0.1500	14.19	13.01	27.20	56.00	-28.80	AVG
3	*	0.5190	37.26	10.54	47.80	56.00	-8.20	QP
4		0.5190	23.45	10.54	33.99	46.00	-12.01	AVG
5		1.0094	28.43	10.44	38.87	56.00	-17.13	QP
6		1.0183	9.48	10.44	19.92	46.00	-26.08	AVG
7		9.7438	35.18	8.47	43.65	60.00	-16.35	QP
8		10.3063	18.53	8.50	27.03	50.00	-22.97	AVG
9		18.5055	25.41	9.65	35.06	60.00	-24.94	QP
10		18.5055	12.42	9.65	22.07	50.00	-27.93	AVG
11		23.1269	31.25	9.89	41.14	60.00	-18.86	QP
12		23.7525	17.46	9.90	27.36	50.00	-22.64	AVG

Remark:

1. All readings are Quasi-Peak
2. Margin = Level (Level=Reading + Factor)–Limit
3.Factor= Cable Loss +Antenna Factor-Amplifier Gain

Temperature:	26℃	Relative Humidity:	54%
Phase:	Vertical	Test Mode:	Mode 1
Test Voltage:	DC 3.7V	Test Date:	2023.08.30



No.	Mk.	Freq.	Level	Factor	ment	Limit	Margin	
		MHz					dB	Detector
1		0.1500	39.28	13.01	52.29	66.00	-13.71	QP
2		0.1544	12.66	12.91	25.57	55.76	-30.19	AVG
3		0.3119	26.78	11.41	38.19	59.92	-21.73	QP
4		0.3119	13.48	11.41	24.89	49.92	-25.03	AVG
5		0.5100	22.41	10.54	32.95	46.00	-13.05	AVG
6	*	0.5231	36.60	10.54	47.14	56.00	-8.86	QP
7		1.0274	29.21	10.43	39.64	56.00	-16.36	QP
8		1.0454	10.66	10.43	21.09	46.00	-24.91	AVG
9		10.1310	35.73	8.48	44.21	60.00	-15.79	QP
10		10.3873	19.24	8.51	27.75	50.00	-22.25	AVG
11		23.2483	31.81	9.89	41.70	60.00	-18.30	QP
12		23.8647	16.80	9.90	26.70	50.00	-23.30	AVG

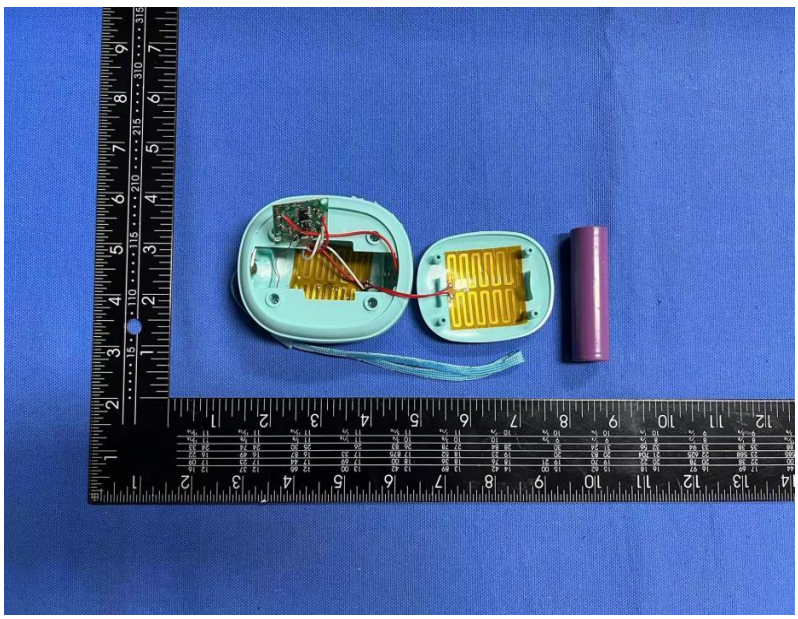
Remark:

1. All readings are Quasi-Peak
2. Margin = Level (Level=Reading + Factor)–Limit
3.Factor= Cable Loss +Antenna Factor-Amplifier Gain

5.PHOTOGRAPHS OF THE EUT CONSTRUCTIONAL DETAILS

Photo 1

Photo 2



※※※※※END OF THE REPORT※※※※※