



APPLICATION FOR ELECTROMAGNETIC COMPATIBILITY DIRECTIVE

On Behalf of

Shenzhen Yostand Technology Co., Ltd.

Infrared Thermometer

Model No.: ET05

Prepared for : Shenzhen Yostand Technology Co., Ltd.
10th Floor, Mingzhuo Building, MingzhuoXing Industrial Zone,
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Guangdong Province, China.

Prepared By : Shenzhen Alpha Product Testing Co., Ltd.
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Report Number : A2004328-C01-R03
Date of Receipt : March 26, 2020
Date of Test : March 27, 2020
Date of Report : May 11, 2020
Version Number : V0

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TEST REPORT DECLARATION

Applicant : Shenzhen Yostand Technology Co., Ltd.
 10th Floor, Mingzhuo Building, MingzhuoXing Industrial Zone,
 Address : Guangming Street, Guangming New District, Shenzhen, Guangdong
 Province, China.
 Manufacturer : Henan Bingzun Industrial Co., LTD.
 Address : 50 meters next to the south of Guihua Villa, Xin'an Industry Cluster District,
 Luoyang City, Henan Province, China
 EUT Description : Infrared Thermometer
 (A) Model No. : ET05
 (B) Trademark : 

Measurement Standard Used:

EN 60601-1-2:2015

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the EN 60601-1-2:2015 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name+ signature).....: Ben Sun
 Project Engineer

Approved by (name+ signature).....: Simple Guan
 Project Manager

Date of issue.....: May 11, 2020



Revision History

Revision	Issue Date	Revisions	Revised By
V0	May 11, 2020	Initial released Issue	Ben Sun

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

EMISSION			
Description of Test Item	Standard	Limits	Results
Radiated disturbance	CISPR 55011:2009 + A1:2010	Class B	P
IMMUNITY (EN 60601-1-2: 2015)			
Description of Test Item	Standard	Results	
Electrostatic discharge (ESD)	IEC 61000-4-2:2008	P	
Radio-frequency, Continuous radiated disturbance	IEC 61000-4-3:2006 + A1:2007 + A2:2010	P	
Power frequency magnetic field	IEC 61000-4-8:2009	P	
<p>Note:</p> <ol style="list-style-type: none"> 1. P is an abbreviation for Pass. 2. F is an abbreviation for Fail. 3. The test result PASS and /or FAIL has no relationship with the measurement uncertainty. 4. EUT is only powered by carbon dry battery, no have AC/DC power port, patient port and SIP/SOP port, so no need to test Conducted disturbance at mains terminals, Harmonic current emissions, Voltage fluctuations & flicker, Electrical fast transient (EFT), Surge, Radio-frequency, Continuous conducted disturbance and Voltage dips. 5. EUT not be classified group 2 equipment producing CW type and the highest frequency of the internal sources of the EUT is less than 400 MHz, So the frequency rang above 1GHz radiation test not applicable. 			

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Description : Infrared Thermometer
EM Environments : Home Healthcare Environment

Model Number : ET05
Diff : N/A

Test Voltage : DC 3V From battery
EUT Information : Input: 3V

Sampling Type : Provided by the manufacturer prototype

Trademark 

Software version : V1.0
Hardware version : V1.0

Note : The Co-license is based on report A2003250-C01-R01. The new model ET05 Co-license is the same as the original model YS-ET05 mentioned in the test report A2003250-C01-R01. Except for the manufacturer "Henan Bingzun Industrial Co., Ltd.", no further testing is required.

2.2. Accessories of Device (EUT)

Power Source : N/A

2.1. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number
1	N/A	N/A	N/A	N/A

2.3. Block Diagram of connection between EUT and simulators

For Test

For Working and Standby Mode



Signal Cable Description of the above Support Units					
No.	Port Name	Cable	Length	Shielded (Yes or No)	Detachable (Yes or No)
(a)	N/A	N/A	N/A	N/A	N/A

EUT: Infrared Thermometer

2.4. Test mode Description

No.	Test Mode	Test Voltage
1.	Working	DC 3V From battery
2.	Standby	DC 3V From battery

2.5. Test Facility

Shenzhen Alpha Product Testing Co., Ltd.

Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

2.6. Measurement Uncertainty

Test Item	Uncertainty
Uncertainty for Radiation Emission test (<1G)	3.77 dB (Distance: 3m Polarize: V)
	3.80 dB (Distance: 3m Polarize: H)

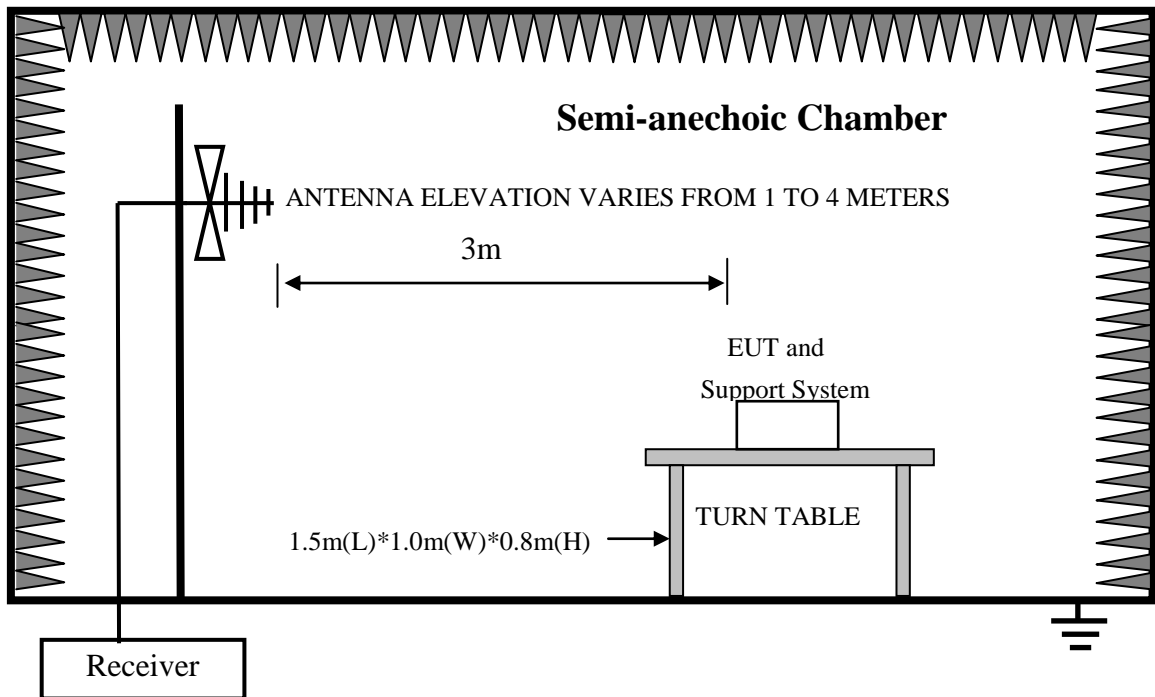
3. RADIATED DISTURBANCE TEST

3.1. Test Equipment

For frequency range 30MHz~1GHz (At Semi Anechoic Chamber)						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	Rohde& Schwarz	ESR	1316.3003K0 3-102082-Wa	2019.09.06	1 Year
2	Belong Antenna	Schwarz beck	VULB 9168	9168-438	2018.04.13	2 Year

3.2. Block Diagram of Test Setup

In Semi Anechoic Chamber (3m) Test Setup Diagram for 30MHz~1000MHz



3.3.Radiated Emission Limit

Frequency MHz	Distance (Meters)	Field Strengths Limits dB(μ V)/m
30 ~ 230	3	40
230 ~ 1000	3	47

- Notes:
1. Emission level= Read level+ Antenna Factor-Preamp Factor +Cable Loss
 2. The smaller limit shall apply at the cross point between two frequency bands.
 3. Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

3.4.Configuration of EUT on Test

The following equipment are installed on Radiated Emission Test to meet the CISPR11 requirements and operating regulations in a manner that tends to maximize its emission characteristics in normal application.

3.5.Operating Condition of EUT

- (1) Setup the EUT as shown as Section 3.2.
- (2) Turn on the power of all equipment.
- (3) Let the EUT work in test mode and 15 minutes before taking the test.

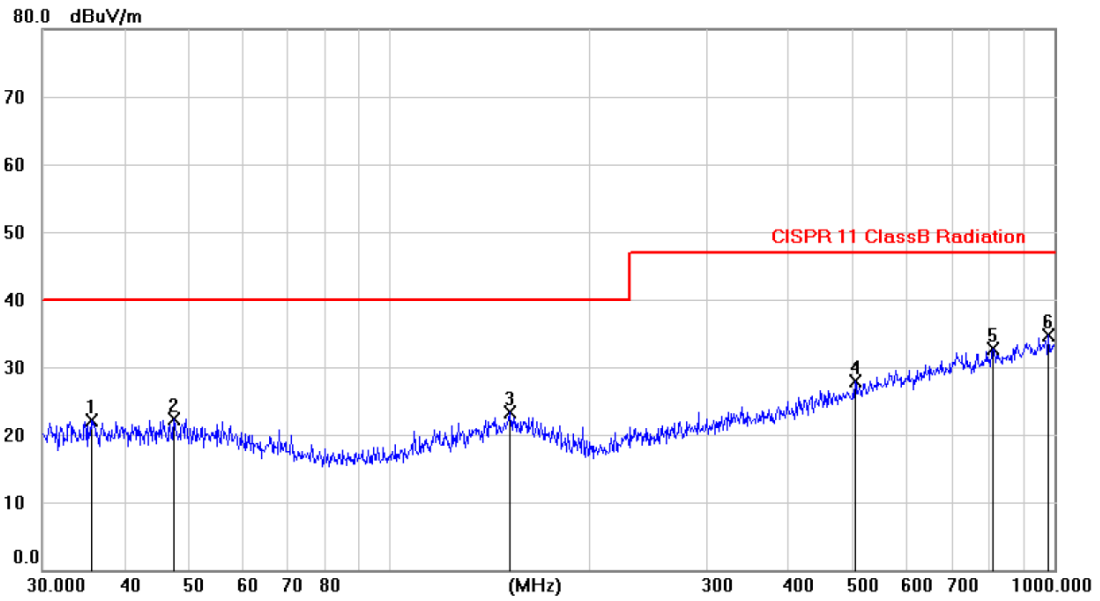
3.6.Test Procedure

- (1) The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. An antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipment and all the interface cables were changed according to CISPR on Radiated Disturbance test.
- (2) The frequency range from 30MHz to 1000MHz is checked, the bandwidth of test receiver (ESR) is set at 120kHz.
- (3) The frequency range from 30MHz to 1000MHz was pre-scanned with a peak detector and all final readings of measurement from Test Receiver are Quasi-Peak values, all measurement distance is 3m in 3m semi anechoic chamber.
- (5) The test results are reported on Section 3.7.

3.7.Radiated Disturbance Test Results

For below 1G radiated disturbance test result:	
EUT : Infrared Thermometer	Test Date : 2020.03.27
M/N : YS-ET05	Temperature : 24°C
Test Engineer : Tom Xiao	Humidity : 56%
Test Voltage : DC 3V From battery	Pressure : 101.3Kpa
Test Mode : Working	
Test Results : PASS	
<p>Note: 1. The test results are listed in next pages.</p> <p>2. If the limits for the measurement with the quasi-peak detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.</p>	

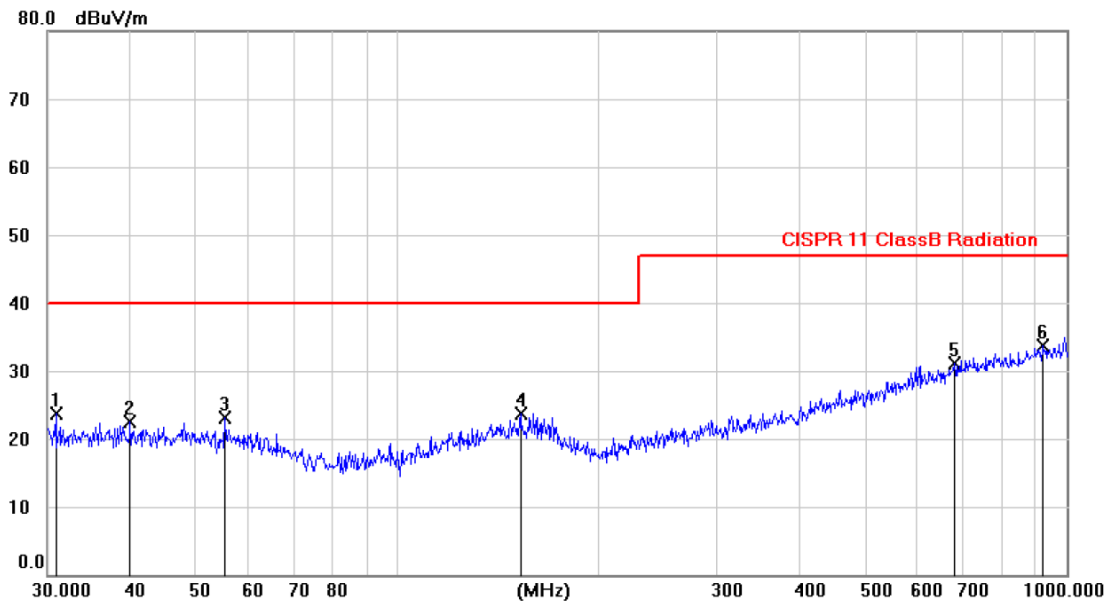
Antenna polarity: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		35.5460	8.36	13.75	22.11	40.00	-17.89			peak
2		47.4502	8.14	14.07	22.21	40.00	-17.79			peak
3		151.7967	8.19	15.06	23.25	40.00	-16.75			peak
4		501.3988	9.62	18.23	27.85	47.00	-19.15			peak
5		809.9103	9.69	23.07	32.76	47.00	-14.24			peak
6	*	981.7590	9.94	24.71	34.65	47.00	-12.35			peak

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Antenna polarity: Horizontal

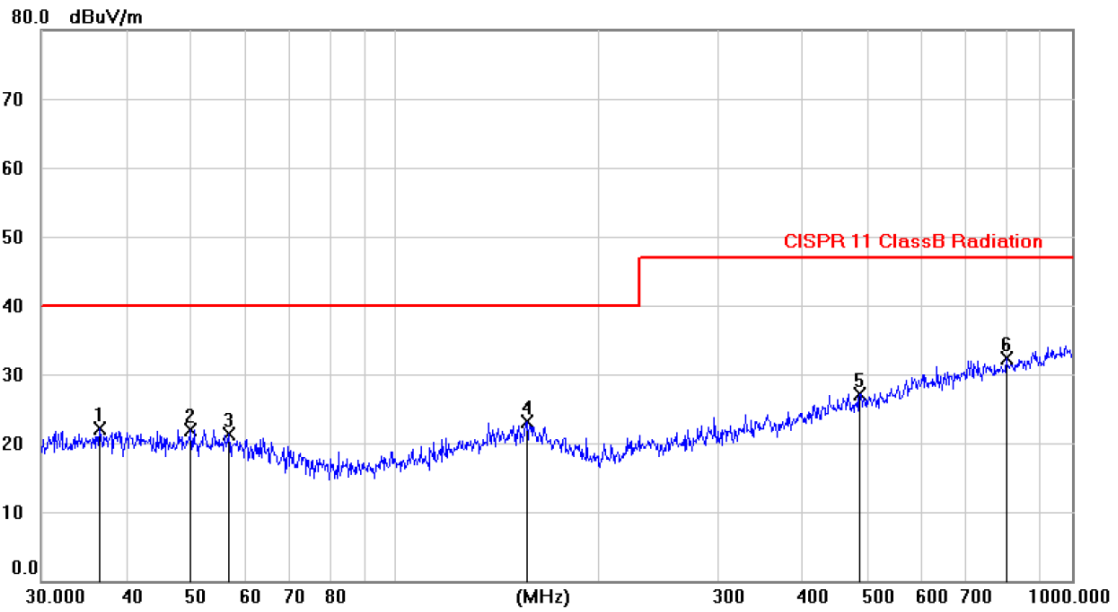
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		30.9347	10.03	13.59	23.62	40.00	-16.38			peak
2		39.9067	7.96	14.47	22.43	40.00	-17.57			peak
3		55.2207	9.58	13.57	23.15	40.00	-16.85			peak
4		152.9320	8.57	15.05	23.62	40.00	-16.38			peak
5		682.0494	9.59	21.46	31.05	47.00	-15.95			peak
6	*	922.5157	9.32	24.34	33.66	47.00	-13.34			peak

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

For below 1G radiated disturbance test result:			
EUT	: Infrared Thermometer	Test Date	: 2020.03.27
M/N	: YS-ET05	Temperature	: 24°C
Test Engineer	: Tom Xiao	Humidity	: 56%
Test Voltage	: DC 3V From battery	Pressure	: 101.3Kpa
Test Mode	: Standby		
Test Results	: PASS		
Note: 1. The test results are listed in next pages. 2. If the limits for the measurement with the quasi-peak detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the quasi-peak detector need not be carried out.			

Antenna polarity: Vertical

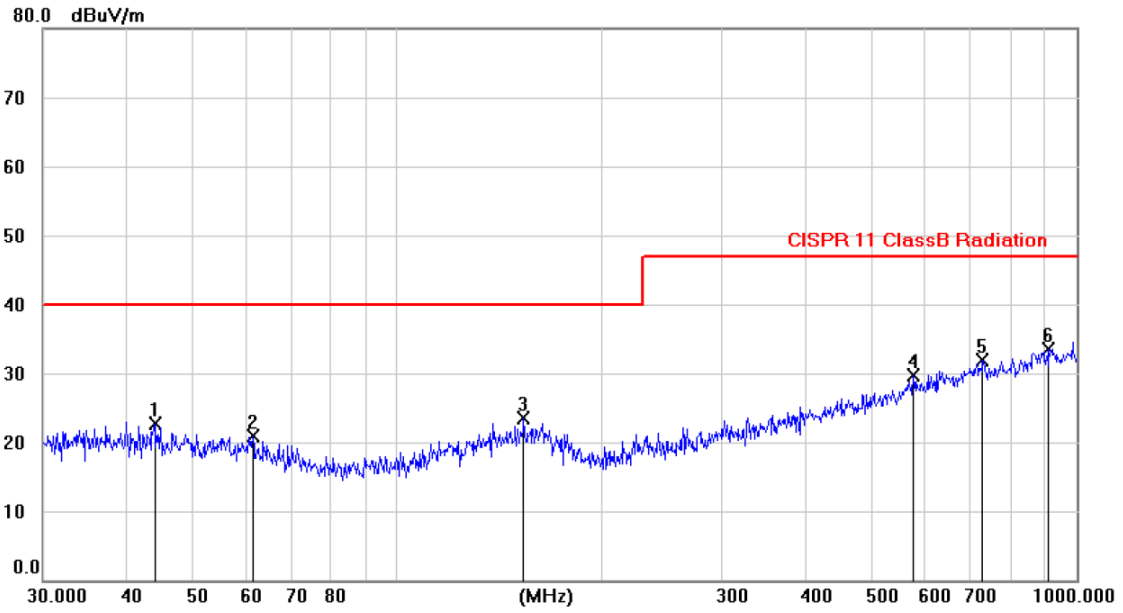


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Antenna Height cm	Table Degree	Comment
1		36.5733	8.14	13.95	22.09	40.00	-17.91			peak
2		50.0128	7.94	14.04	21.98	40.00	-18.02			peak
3		56.8665	7.83	13.43	21.26	40.00	-18.74			peak
4		156.8698	8.13	15.05	23.18	40.00	-16.82			peak
5		485.8222	9.15	18.03	27.18	47.00	-19.82			peak
6	*	800.7327	9.40	22.91	32.31	47.00	-14.69			peak

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Antenna polarity: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		43.8310	8.41	14.23	22.64	40.00	-17.36			peak
2		61.2926	8.03	12.87	20.90	40.00	-19.10			peak
3		153.2676	8.40	15.05	23.45	40.00	-16.55			peak
4		574.8778	9.99	19.68	29.67	47.00	-17.33			peak
5		726.8052	9.84	22.10	31.94	47.00	-15.06			peak
6	*	912.4620	9.32	24.21	33.53	47.00	-13.47			peak

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

4. IMMUNITY PERFORMANCE CRITERIA

Performance Level

The test results shall be classified in terms of the loss of function or degradation of performance of the equipment under test, relative to a performance level by its manufacturer or the requestor of the test, or the agreed between the manufacturer and the purchaser of the product.

Definition related to the performance level:

1. Based on the used product standard
2. Based on the declaration of the manufacturer, requestor or purchaser

Performance criterion A

When seen from the normal viewing distance, the EUT shall operate with no change beyond the manufacturer's specification, in flicker, cooler, focus and jitter (except for the power frequency magnetic field test).

Power frequency magnetic field test

For CRT monitors, the following also applies:

The jitter shall be measured using a measuring microscope as specified in 6.6.14 of ISO 9241-3.

The jitter (in mm) shall not exceed the value $\frac{(\text{character height in mm} + 0,3) \times 2,5}{33,3}$ when the CRT monitor is immersed in a continuous magnetic field of 1A/m (r.m.s.) at one of the power frequencies of 50Hz.

Alternatively, a field of 50A/m may be applied, and a transparent graduated mask used to assess the jitter. In that case, the jitter shall not exceed 50 times the value in the above formula.

NOTE-This test level is used to simplify the measurement of jitter. Lesser values of the test level may be used if non-linearity is experienced, due to, for example, saturation of screening material.

The EUT shall be tested in two positions, both perpendicular to the magnetic field.

Performance criterion B

Screen disturbances during the application of the test are permissible.

Performance criterion C

Failures which are not self-recovered after removal of the external disturbance, but which can be recovered to normal operation by reset or reboot are permissible.

EN 60601-1-2 Procedure for continuing to test ME EQUIPMENT or ME SYSTEMS that are damaged by an IMMUNITY test signal

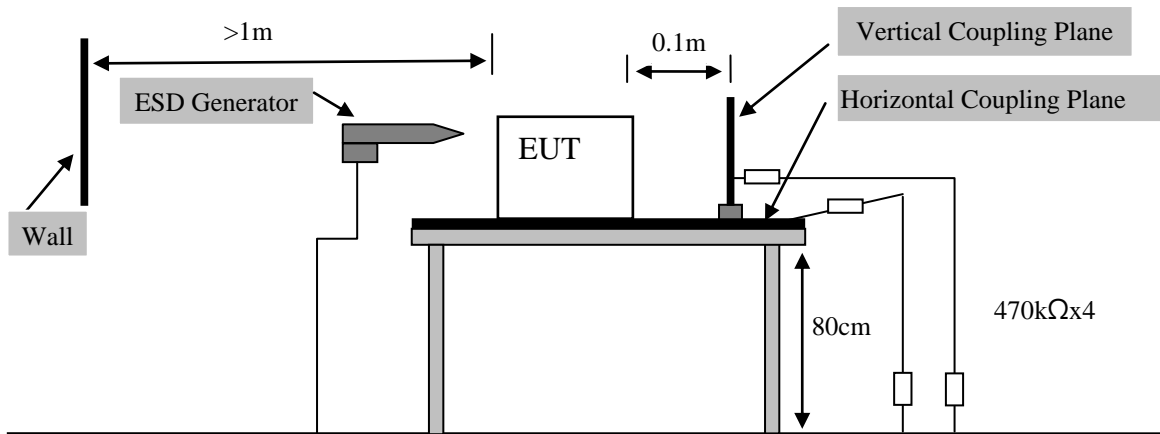
Type of test	Reaction of ME EQUIPMENT or ME SYSTEM during test	How to continue with testing
Transient ^{a)}	The ME EQUIPMENT or ME SYSTEM is permanently damaged. However, BASIC SAFETY and ESSENTIAL PERFORMANCE continue to be provided.	<p>The test sequence shall be repeated two times with this IMMUNITY TEST LEVEL and polarity. The ME EQUIPMENT or ME SYSTEM passes the test if it continues to provide its BASIC SAFETY and ESSENTIAL PERFORMANCE.</p> <p>If any equipment is damaged, it can continue to be used for the IMMUNITY test for this specific phenomenon, as long as it can be proven (e.g. by RISK MANAGEMENT, engineering analysis, experience, redundancy) that the ability of the ME EQUIPMENT or ME SYSTEM to provide its BASIC SAFETY and ESSENTIAL PERFORMANCE can still be determined while using the damaged equipment.</p> <p>If a PORT of the ME EQUIPMENT or ME SYSTEM is damaged and the ME EQUIPMENT or ME SYSTEM has multiple identical ports, the test shall not be repeated on any of the identical ports. To test the next non-identical PORT, the ME EQUIPMENT or ME SYSTEM shall be restored to normal operation.</p> <p>To continue with the IMMUNITY test of the next EM phenomenon, the ME EQUIPMENT or ME SYSTEM shall be restored to normal operation.</p>
	The ME EQUIPMENT or ME SYSTEM is permanently damaged. BASIC SAFETY or ESSENTIAL PERFORMANCE does not continue to be provided.	The ME EQUIPMENT or ME SYSTEM has failed the test.
Continuous ^{b)}	The ME EQUIPMENT or ME SYSTEM is permanently damaged. However, BASIC SAFETY and ESSENTIAL PERFORMANCE continue to be provided.	<p>The test sequence shall be repeated two times with this IMMUNITY TEST LEVEL and polarity or frequency. BASIC SAFETY and ESSENTIAL PERFORMANCE shall continue to be provided.</p> <p>To continue with the next frequency step the ME EQUIPMENT or ME SYSTEM shall be restored to normal operation.</p>
	The ME EQUIPMENT or ME SYSTEM is permanently damaged. BASIC SAFETY or ESSENTIAL PERFORMANCE does not continue to be provided.	The ME EQUIPMENT or ME SYSTEM has failed the test.
<p>^{a)} Tests according to IEC 61000-4-2, IEC 61000-4-4, IEC 61000-4-5 and IEC 61000-4-11</p>		
<p>^{b)} Tests according to IEC 61000-4-3, IEC 61000-4-6 and IEC 61000-4-8</p>		

5. ELECTROSTATIC DISCHARGE TEST

5.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	ESD Tester	HAEFELY	PESD1610	H310546	2019.09.12	1 Year

5.2. Block Diagram of Test Setup



5.3. Electrostatic Discharge Test Limits

Test Type	Test Level
Air Discharge	$\pm 2\text{KV}, \pm 4\text{KV}, \pm 8\text{KV}, \pm 15\text{KV}$
Contact Discharge	$\pm 8\text{KV}$

Notes: 1. Test set-up reference EN 60601-1-2:2015(IEC 61000-4-2:2008)

5.4. Configuration of EUT on Test

The following equipment are installed on Electrostatic Discharge Test to meet the IEC 61000-4-2 requirements and operating regulations in a manner that tends to maximize its emission characteristics in normal application.

5.5. Operating Condition of EUT

- (1) Setup the EUT as shown as Section 5.2.
- (2) Turn on the power of all equipment.
- (3) Let the EUT work in test mode and 15 minutes before taking the test.

5.6. Test Procedure

(1) Air Discharge:

The test was applied on non-conductive surfaces of EUT. The round discharge tip of the discharge electrode was approached as fast as possible to touch the EUT. After each discharge, the discharge electrode was removed from the EUT. The generator was re-triggered for a new single discharge and repeated 20 times (10 with positive and 10 negative with positive) for each pre-selected test point. This procedure was repeated until all the air discharge completed.

(2) Contact Discharge:

All the procedure was same as Section 5.6.1. Except that the generator was re-triggered for a new single discharge and repeated 20 times for each pre-selected test point. The tip of the discharge electrode was touching the EUT before the discharge switch was operated.

(3) Indirect discharge for horizontal coupling plane:

At least 20 single discharges (10 with positive and 10 negative with positive) were applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

(4) Indirect discharge for vertical coupling plane:

At least 20 single discharge (10 with positive and 10 negative with positive) were applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, was placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges were applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

5.7.Electrostatic Discharge Test Results

EUT	: Infrared Thermometer	Test Date	: 2020.03.27	
M/N	: YS-ET05	Temperature	: 24°C	
Test Engineer	: Tom Xiao	Humidity	: 56 %	
Test Voltage	DC 3V From battery	Pressure	: 101.3Kpa	
Test Mode	: Working			
Test Results	: PASS			
Discharge Voltage (kV)	Type Of Discharge	Dischargeable Points	Test Result	
			Observation	Result
±8	Contact	N/A	N/A	N/A
±2, ±4, ±8, ±15	Air	1, 2, 3	A	Pass
±6	HCP-Bottom	Edge of the HCP	A	Pass
±2, ±4	VCP-Front	Center of the VCP	A	Pass
±2, ±4	VCP-Left	Center of the VCP	A	Pass
±2, ±4	VCP-Back	Center of the VCP	A	Pass
±2, ±4	VCP-Right	Center of the VCP	A	Pass
Discharge Points Description				
<u>1</u>	LED Screen			
2	Button			
3	Gap			
Note:	<ol style="list-style-type: none"> 1. For the time interval between successive single discharges an initial value of one second. 2. For Air Discharge each Point Positive 10 times and negative 10 times discharge. 3. For Contact Discharge each point positive 10 times and negative 10 times discharge. 4. EUT is pure plastic shell, so is not apply to contact discharge. 5. Class A is no function loss. 6. Pass means that the EUT is working normally without exception. 			

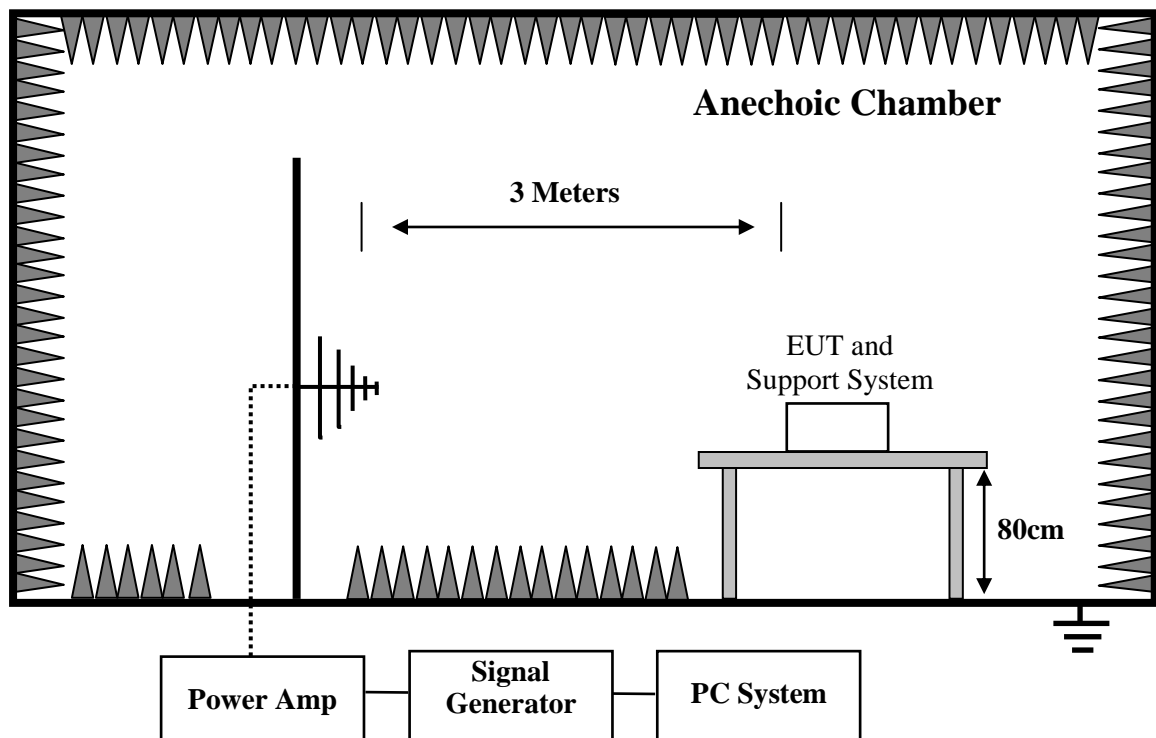
EUT	: Infrared Thermometer	Test Date	: 2020.03.27	
M/N	: YS-ET05	Temperature	: 24°C	
Test Engineer	: Tom Xiao	Humidity	: 56 %	
Test Voltage	DC 3V From battery	Pressure	: 101.3Kpa	
Test Mode	: Standby			
Test Results	: PASS			
Discharge Voltage (kV)	Type Of Discharge	Dischargeable Points	Test Result	
			Observation	Result
±8	Contact	N/A	N/A	N/A
±2, ±4, ±8, ±15	Air	1, 2, 3	A	Pass
±6	HCP-Bottom	Edge of the HCP	A	Pass
±2, ±4	VCP-Front	Center of the VCP	A	Pass
±2, ±4	VCP-Left	Center of the VCP	A	Pass
±2, ±4	VCP-Back	Center of the VCP	A	Pass
±2, ±4	VCP-Right	Center of the VCP	A	Pass
Discharge Points Description				
<u>1</u>	LED Screen			
2	Button			
3	Gap			
Note:	<ol style="list-style-type: none"> 1. For the time interval between successive single discharges an initial value of one second. 2. For Air Discharge each Point Positive 10 times and negative 10 times discharge. 3. For Contact Discharge each point positive 10 times and negative 10 times discharge. 4. EUT is pure plastic shell, so is not apply to contact discharge. 5. Class A is no function loss. 6. Pass means that the EUT is working normally without exception. 			

6. RF FIELD STRENGTH SUSCEPTIBILITY TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	vector Signal Generator	Agilent	E4438C	US44271917	2019.09.06	1 Year
2.	Power meter	Agilent	E4419B	GB40202122	2019.09.06	1 Year
3.	Power Sensor	Agilent	E9300A	MY41496625	2019.09.06	1 Year
4.	RF power Amplifier	OPHIR	5225R	1045	2019.09.06	1 Year
5.	RF power Amplifier	OPHIR	5273R	1018	2019.09.06	1 Year
6.	Antenna	SCHWARZBECK	STLP9128E-special	STLP9128E s#139	N/A	NCR
7.	Antenna	SCHWARZBECK	STLP9128E-special	STLP 9149 #456	N/A	NCR

6.2. Block Diagram of Test Setup



6.3.RF Field Strength susceptibility Test Limits

Test Specifications	Test Level
80MHz-2700MHz	10V/m (r.m.s.)

Notes: 1. Test set-up reference EN 60601-1-2:2015 (IEC 61000-4-3:2006 + A1:2007 + A2:2010)

6.4.Configuration of EUT on Test

The following equipment are installed on RF Field Strength Susceptibility Test to meet the IEC 61000-4-3 requirements and operating regulations in a manner that tends to maximize its emission characteristics in normal application.

6.5.Operating Condition of EUT

- (1) Setup the EUT as shown as Section 6.2.
- (2) Turn on the power of all equipment.
- (3) Let the EUT work in test mode and 15 minutes before taking the test.

6.6.Test Procedure

- (1) Testing was performed in a Fully anechoic chamber as recommended by IEC 61000-4-3. The EUT was placed on an 80 cm high non-conductive table located in the area of field uniformity. The radiating antenna was placed 3m in front of the EUT and Support system, and dwell time of the radiated interference was controlled by an automated, computer-controlled system.
- (2) The signal source was stepped through the applicable frequency range at a rate no faster than 1% of the fundamental. The signal was amplitude modulated 80% over the
- (3) frequency range 80 MHz to 1GHz at a level of 10V/m. The dwell time was set at 3 s. Field presence was monitored during testing via a field probe placed in close proximity to the EUT
- (4) Throughout testing, the EUT was closely monitored for signs of susceptibility. The test was performed with the antennae oriented in both a horizontal and vertical polarization.
- (5) All the scanning conditions are as follows:

Condition of Test	Require of Test
Test Fielded Strength	10V/m
Radiated Signal	80% amplitude modulated with a 1kHz sine wave
Scanning Frequency	80MHz-1000MHz, 1000MHz-2700MHz
Sweeping time of radiated	0.0015 decade/s
Dwell Time	3 Sec.

6.7.RF Field Strength Susceptibility Test Results

EUT	: Infrared Thermometer	Test Date	: 2020.03.27	
M/N	: YS-ET05	Temperature	: 24°C	
Test Engineer	: Tom Xiao	Humidity	: 56 %	
Test Voltage	DC 3V From battery	Pressure	: 101.3Kpa	
Frequency Range	: 80MHz-1000MHz	Field Strength	: 10V/m	
Test Mode	: Working			
Test Results	: PASS			
Modulation:	<input checked="" type="checkbox"/> AM	<input type="checkbox"/> Pulse	<input type="checkbox"/> none 1 kHz 80%	
Frequency Range	80 MHz -2700MHz			
Steps	1%			
	Horizontal		Vertical	
	Observation	Test Result	Observation	Test Result
Front	A	Pass	A	Pass
Right	A	Pass	A	Pass
Rear	A	Pass	A	Pass
Left	A	Pass	A	Pass
Note: 1.Class A is no function loss.				
2. Pass means that the EUT is working normally without exception.				

EUT	: Infrared Thermometer	Test Date	: 2020.03.27	
M/N	: YS-ET05	Temperature	: 24°C	
Test Engineer	: Tom Xiao	Humidity	: 56 %	
Test Voltage	DC 3V From battery	Pressure	: 101.3Kpa	
Frequency Range	: 1000MHz-2700MHz	Field Strength	: 10V/m	
Test Mode	: Working			
Test Results	: PASS			
Modulation:	<input checked="" type="checkbox"/> AM	<input type="checkbox"/> Pulse	<input type="checkbox"/> none 1 kHz 80%	
Frequency Range	80 MHz -2700MHz			
Steps	1%			
	Horizontal		Vertical	
	Observation	Test Result	Observation	Test Result
Front	A	Pass	A	Pass
Right	A	Pass	A	Pass
Rear	A	Pass	A	Pass
Left	A	Pass	A	Pass
Note: 1.Class A is no function loss.				
2. Pass means that the EUT is working normally without exception.				

EUT	: Infrared Thermometer	Test Date	: 2020.03.27	
M/N	: YS-ET05	Temperature	: 24°C	
Test Engineer	: Tom Xiao	Humidity	: 56 %	
Test Voltage	DC 3V From battery	Pressure	: 101.3Kpa	
Frequency Range	: 80 MHz -1000MHz	Field Strength	: 10V/m	
Test Mode	: Standby			
Test Results	: PASS			
Modulation:	<input checked="" type="checkbox"/> AM	<input type="checkbox"/> Pulse	<input type="checkbox"/> none 1 kHz 80%	
Frequency Range	80 MHz -2700MHz			
Steps	1%			
	Horizontal		Vertical	
	Observation	Test Result	Observation	Test Result
Front	A	Pass	A	Pass
Right	A	Pass	A	Pass
Rear	A	Pass	A	Pass
Left	A	Pass	A	Pass
Note: 1.Class A is no function loss.				
2. Pass means that the EUT is working normally without exception.				

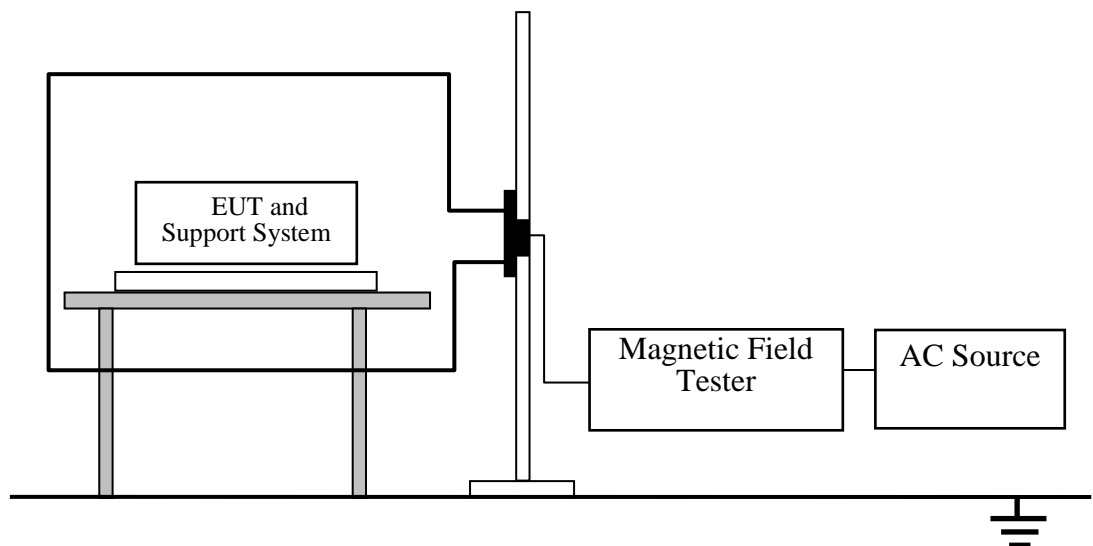
EUT	: Infrared Thermometer	Test Date	: 2020.03.27	
M/N	: YS-ET05	Temperature	: 24°C	
Test Engineer	: Tom Xiao	Humidity	: 56 %	
Test Voltage	DC 3V From battery	Pressure	: 101.3Kpa	
Frequency Range	: 1000MHz -2700MHz	Field Strength	: 10V/m	
Test Mode	: Standby			
Test Results	: PASS			
Modulation:	<input checked="" type="checkbox"/> AM	<input type="checkbox"/> Pulse	<input type="checkbox"/> none 1 kHz 80%	
Frequency Range	80 MHz -2700MHz			
Steps	1%			
	Horizontal		Vertical	
	Observation	Test Result	Observation	Test Result
Front	A	Pass	A	Pass
Right	A	Pass	A	Pass
Rear	A	Pass	A	Pass
Left	A	Pass	A	Pass
Note: 1.Class A is no function loss.				
2. Pass means that the EUT is working normally without exception.				

7. Magnetic Field Immunity Test

7.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Multifunctional Compact Immunity Test system	3ctest	CCS 600	ES0801655	2019.09.05	1 Year
2.	Surge& EFT Coupling Decoupling Network	3ctest	SEPN 3832T	ES0951601	2019.09.05	1 Year
3.	Voltage variation and PF magnetic field regulating device	3ctest	VMT2216S	ES0441601	2019.09.06	1 Year
4.	Capacitive Coupling Clamp	3ctest	CCC 100	EC0441660	2019.09.06	1 Year

7.2. Block Diagram of Test Setup



7.3.magnetic field Test Limits

Level	Magnetic Field Strength A/m
1	1
2	3
3	10
4	30
5	100
X	Special

Notes: 1. Test set-up reference EN 60601-1-2:2015 (IEC61000-4-8: 2009)

7.4.Configuration of EUT on Test

The following equipment are installed on Magnetic Field Immunity Test to meet the IEC 61000-4-8 requirements and operating regulations in a manner that tends to maximize its emission characteristics in normal application.

7.5.Operating Condition of EUT

- (1) Setup the EUT as shown as Section 7.2.
- (2) Turn on the power of all equipment.
- (3) Let the EUT work in test mode and 15 minutes before taking the test.

7.6.Test Procedure

- The EUT was subjected to the test magnetic field by using the induction coil of standard dimensions (1m*1m) and shown in Section 13.2. The induction coil was then rotated by 90° in order to expose the EUT to the test field with different orientations.
- (1)

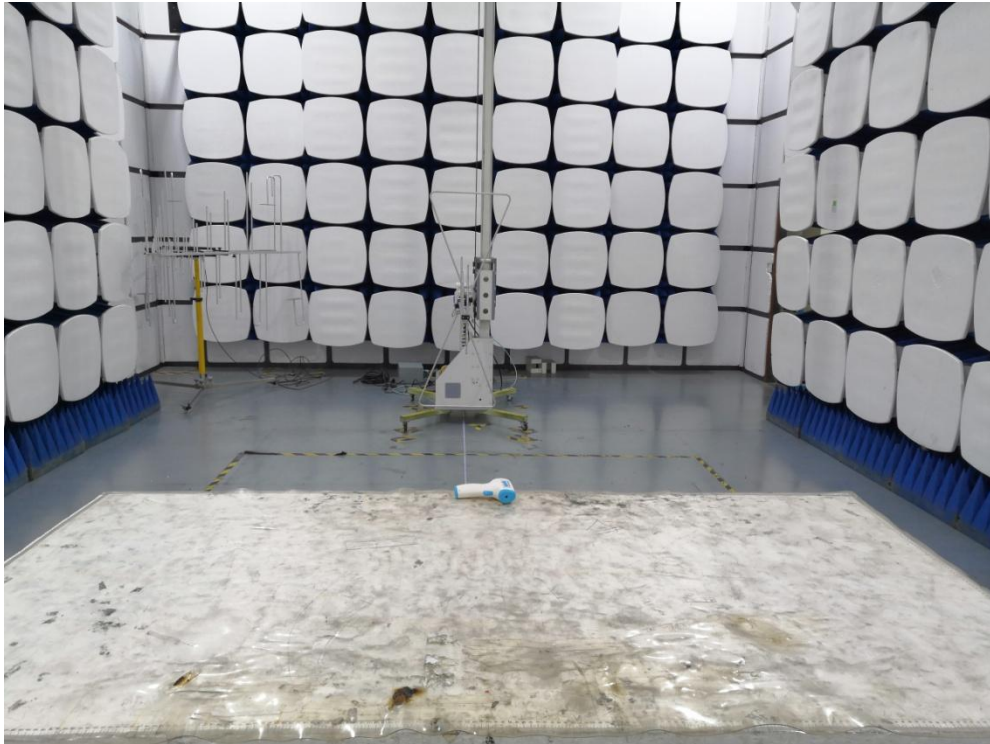
7.7.Magnetic field immunity Test Results

EUT : Infrared Thermometer		Test Date : 2020.03.27		
M/N : YS-ET05		Temperature : 24°C		
Test Engineer : Tom Xiao		Humidity : 56%		
Test Voltage : DC 3V From battery		Pressure : 101.3KPa		
Test Mode : Working				
Test Results : Pass				
Test Level	Testing Duration	Coil Orientation	Test Result	
			Observation	Result
30A/m	5 min / coil	X	B	PASS
30A/m	5 min / coil	Y	B	PASS
30A/m	5 min / coil	Z	B	PASS
Note: 1. Class B is no function loss. 2. Pass means that the EUT is working normally without exception.				

EUT : Infrared Thermometer		Test Date : 2020.03.27		
M/N : YS-ET05		Temperature : 24°C		
Test Engineer : Tom Xiao		Humidity : 56%		
Test Voltage : DC 3V From battery		Pressure : 101.3KPa		
Test Mode : Standby				
Test Results : Pass				
Test Level	Testing Duration	Coil Orientation	Test Result	
			Observation	Result
30A/m	5 min / coil	X	B	PASS
30A/m	5 min / coil	Y	B	PASS
30A/m	5 min / coil	Z	B	PASS
Note: 1. Class B is no function loss. 2. Pass means that the EUT is working normally without exception.				

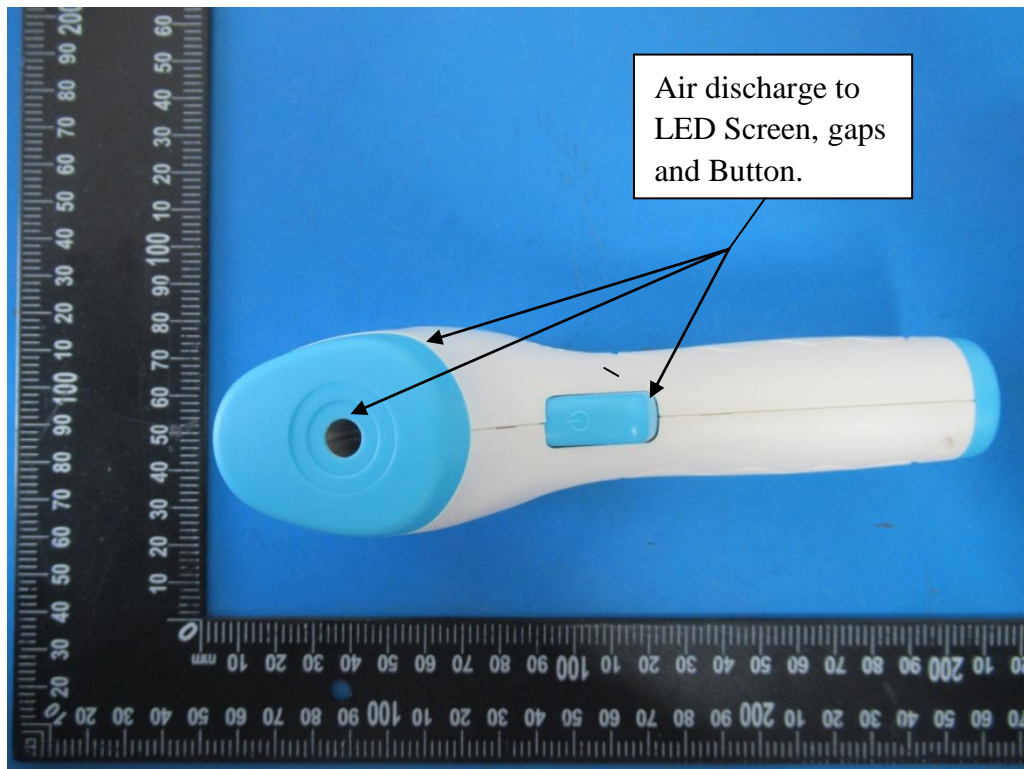
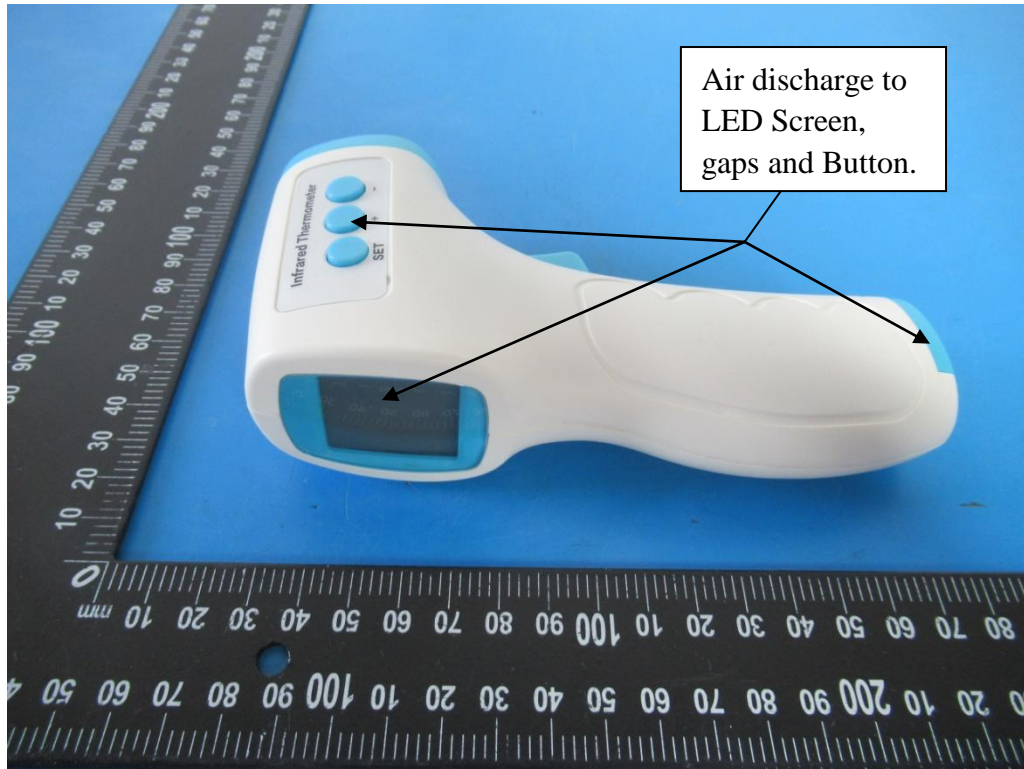
8. PHOTOGRAPH

8.1.Photos of Radiated Disturbance Test (In Semi Anechoic Chamber)



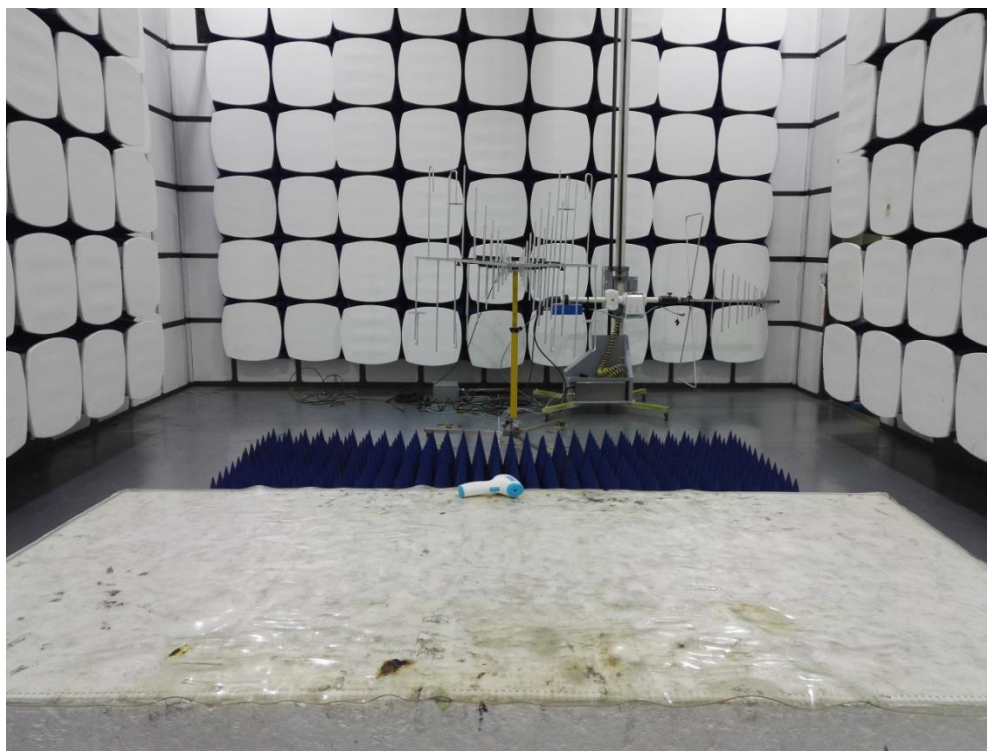
8.2.Photos of Electrostatic Discharge Test



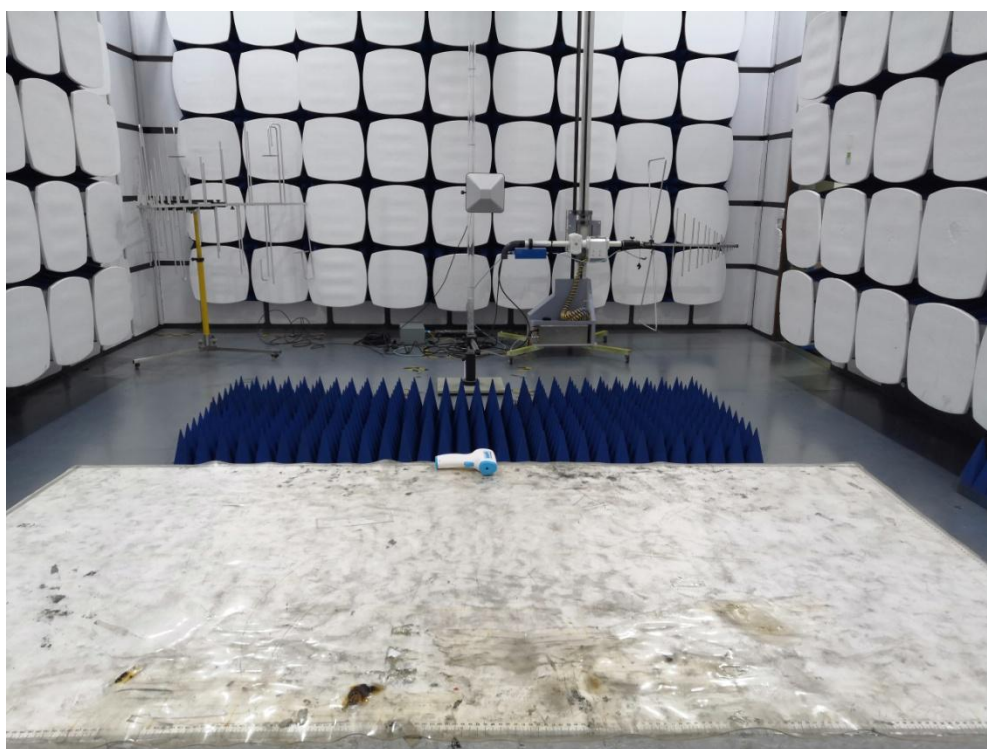


8.3.Photo of RF Field Strength Susceptibility test

80-1000MHz



1000-2700MHz



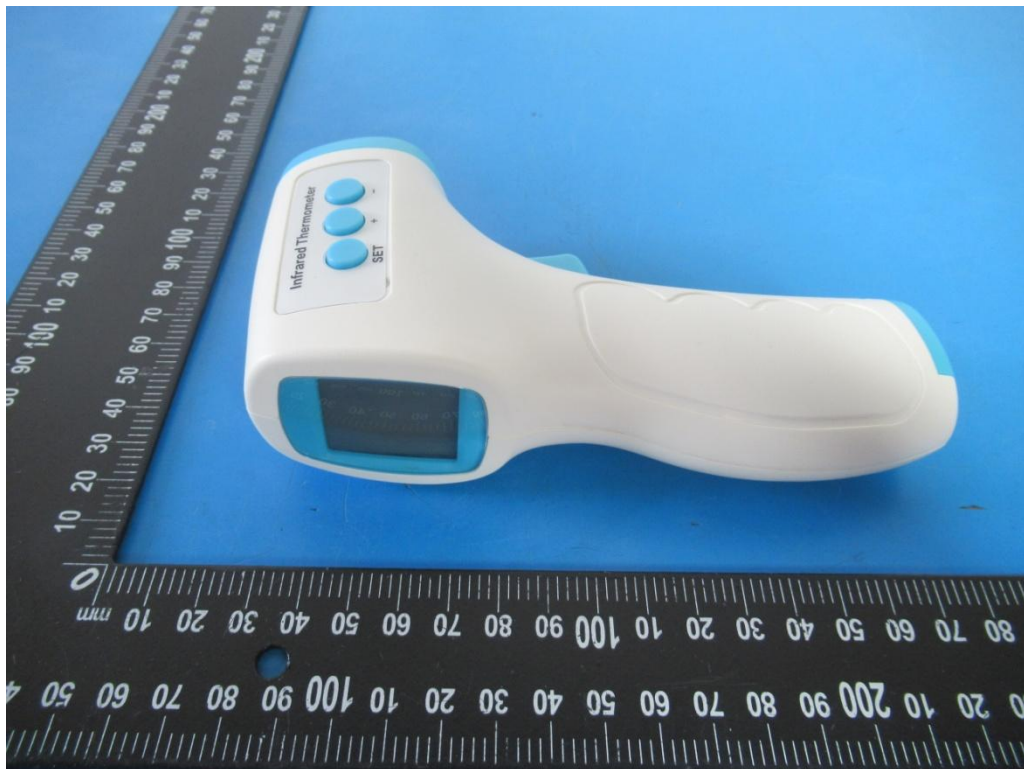
8.4.Photos of Magnetic field immunity Test



9. PHOTOS OF THE EUT



EUT View



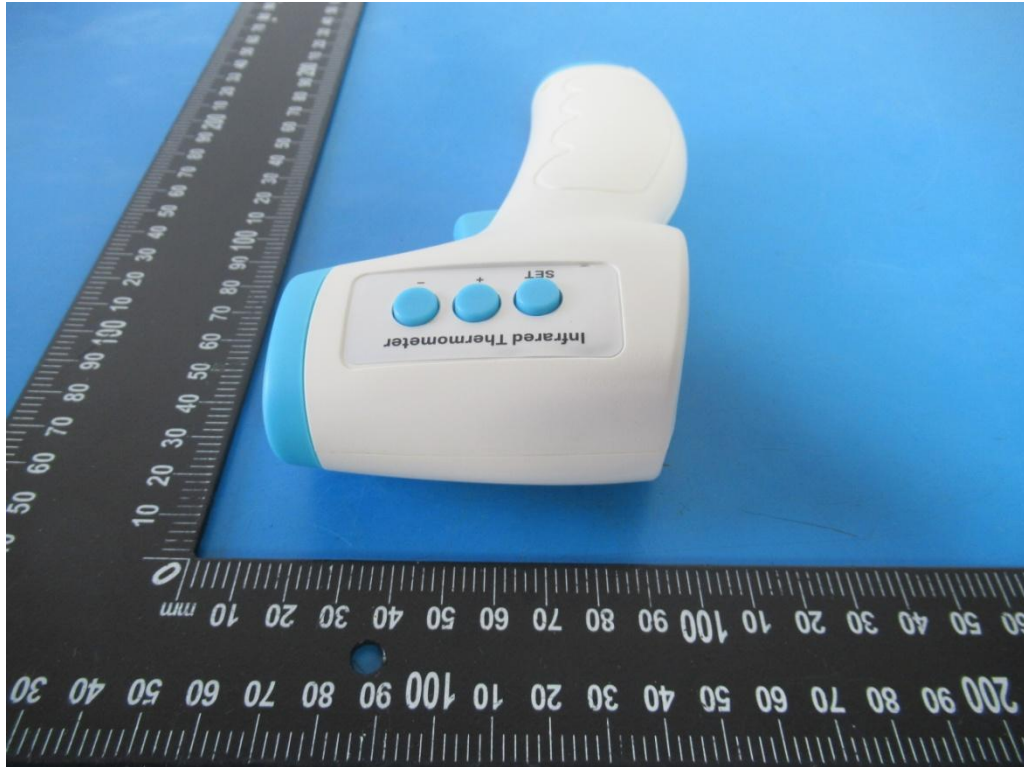
EUT View



EUT View



EUT View



EUT View



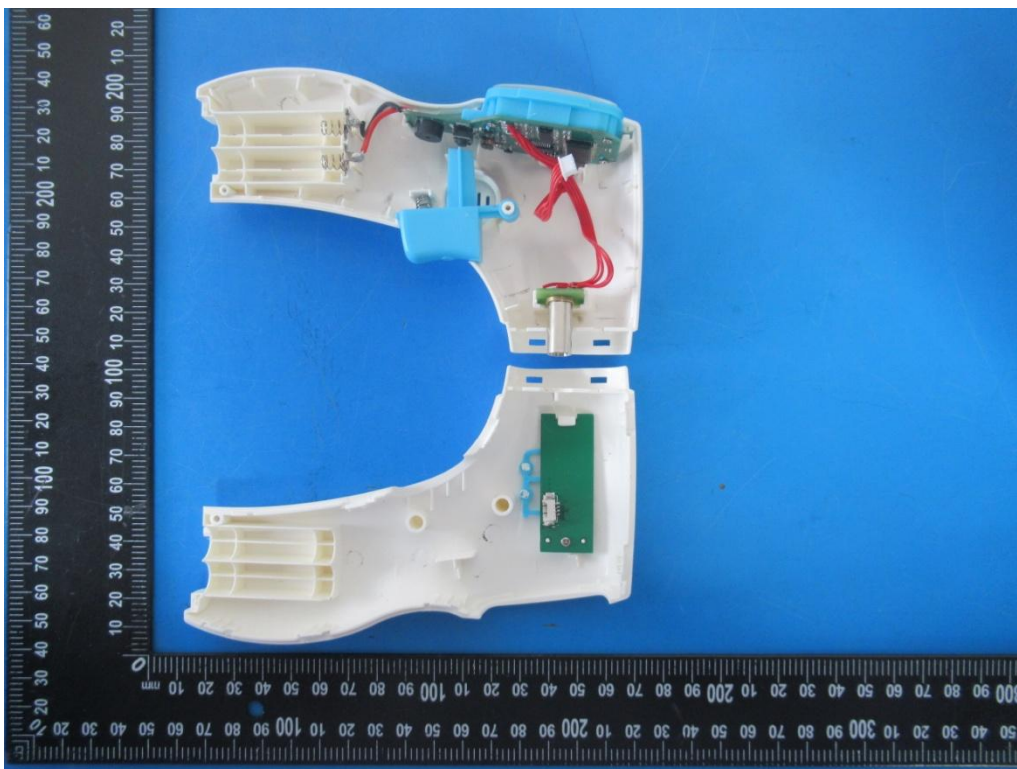
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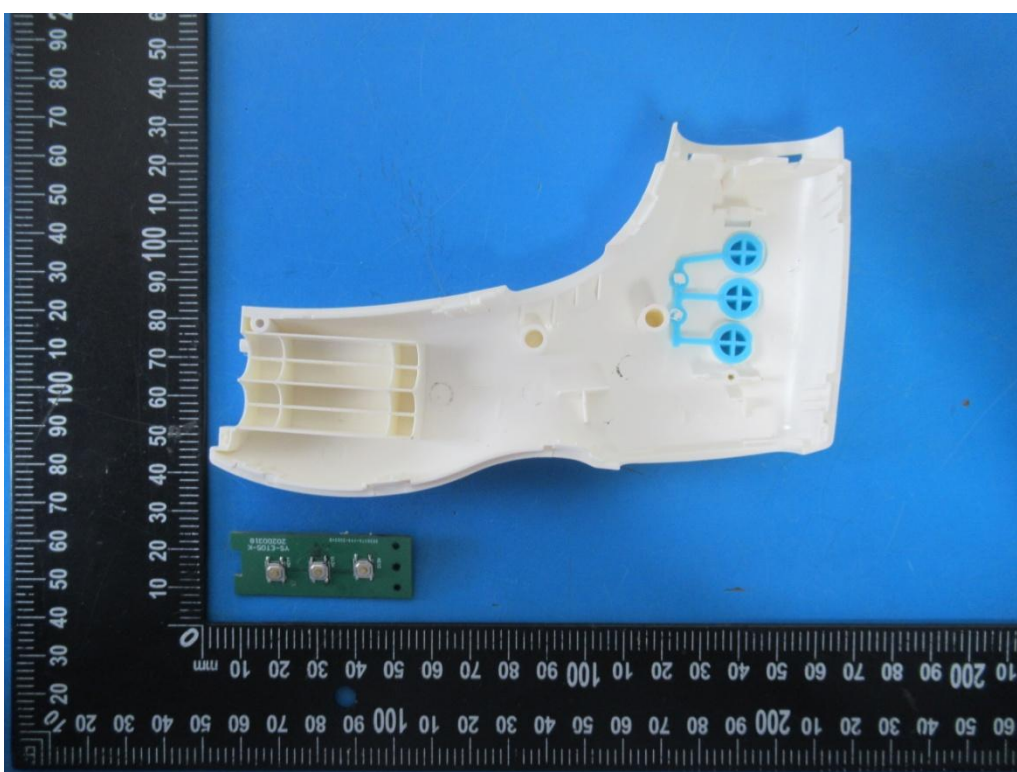
EUT View



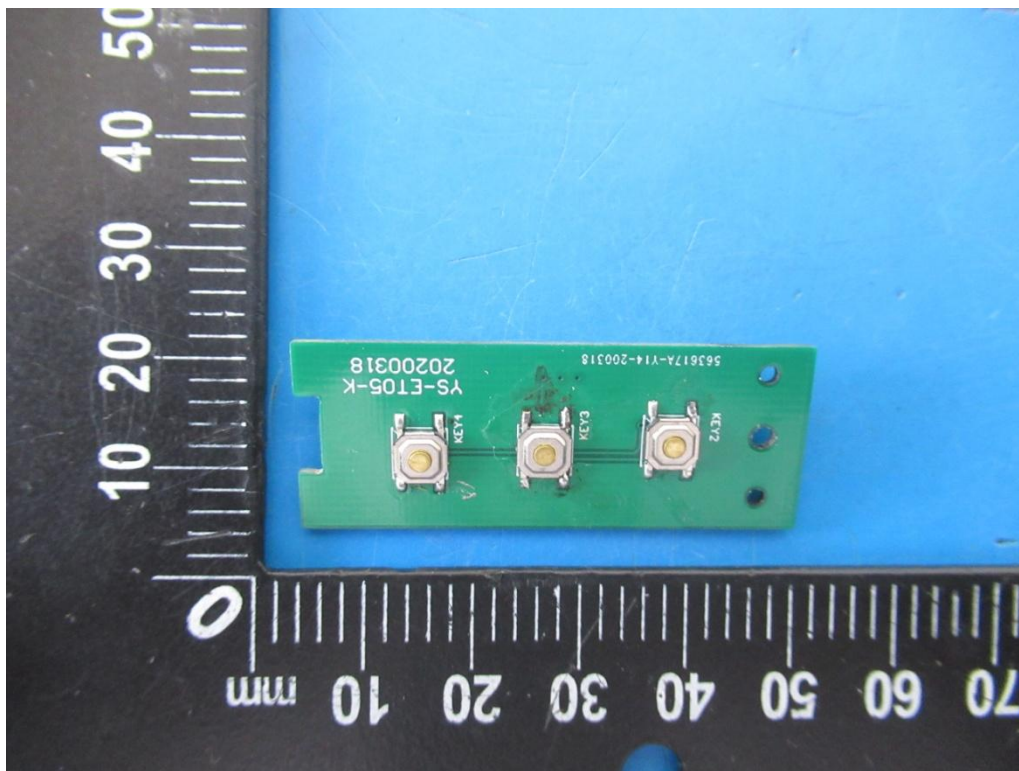
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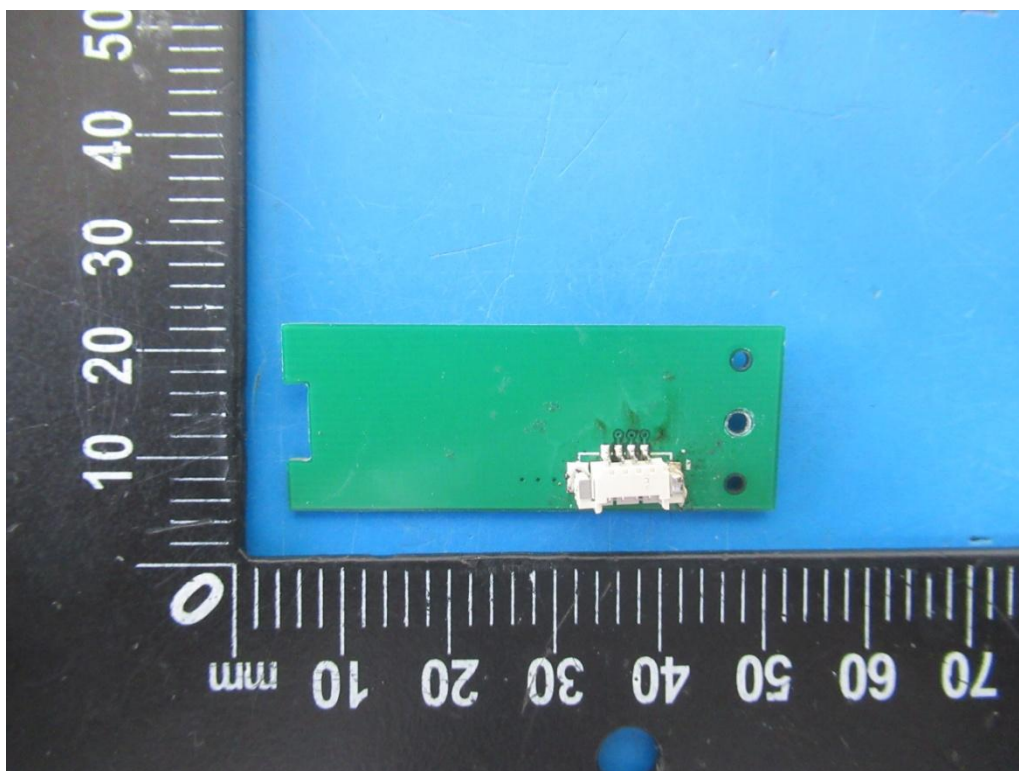
EUT View



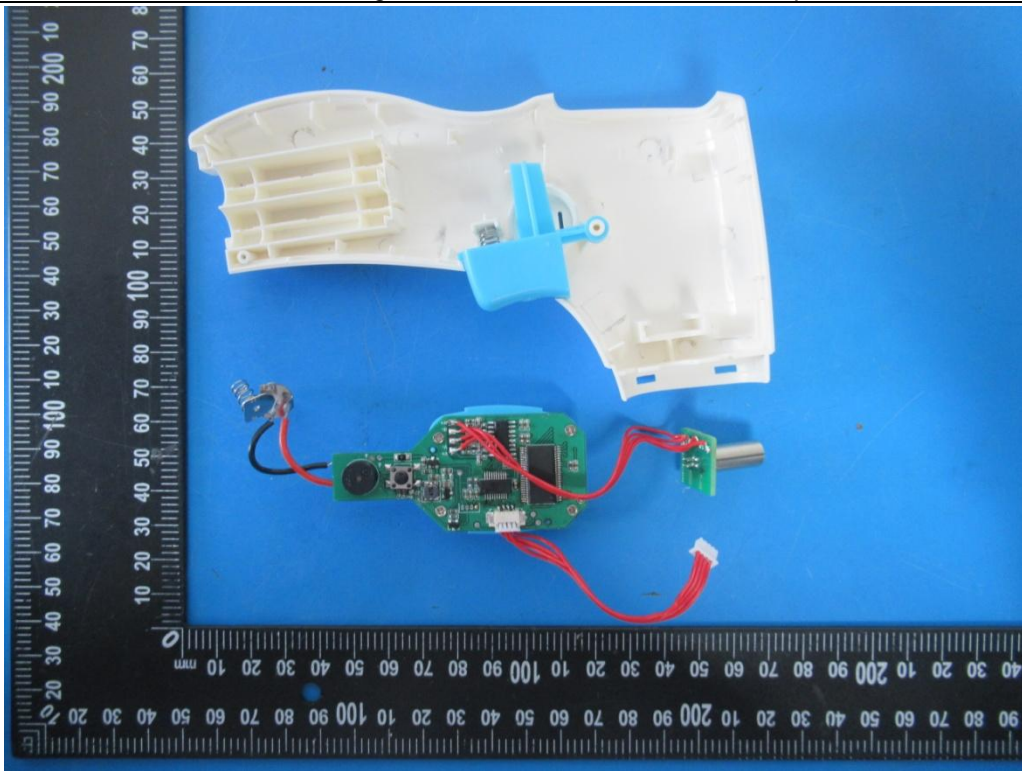
EUT View



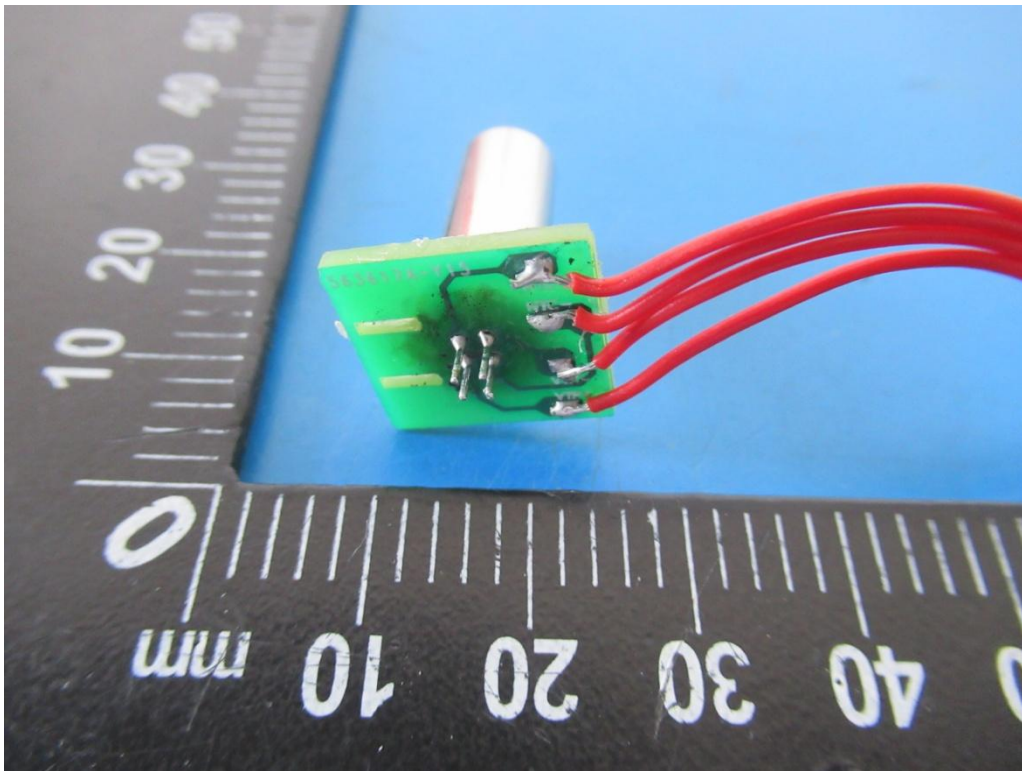
EUT View



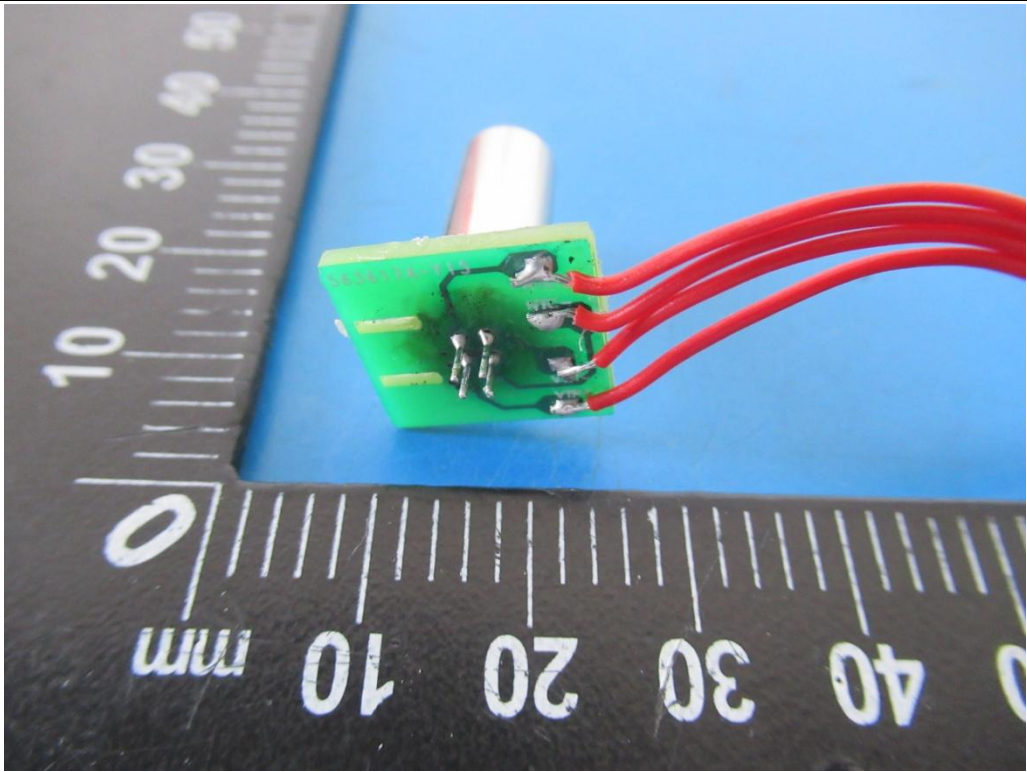
EUT View



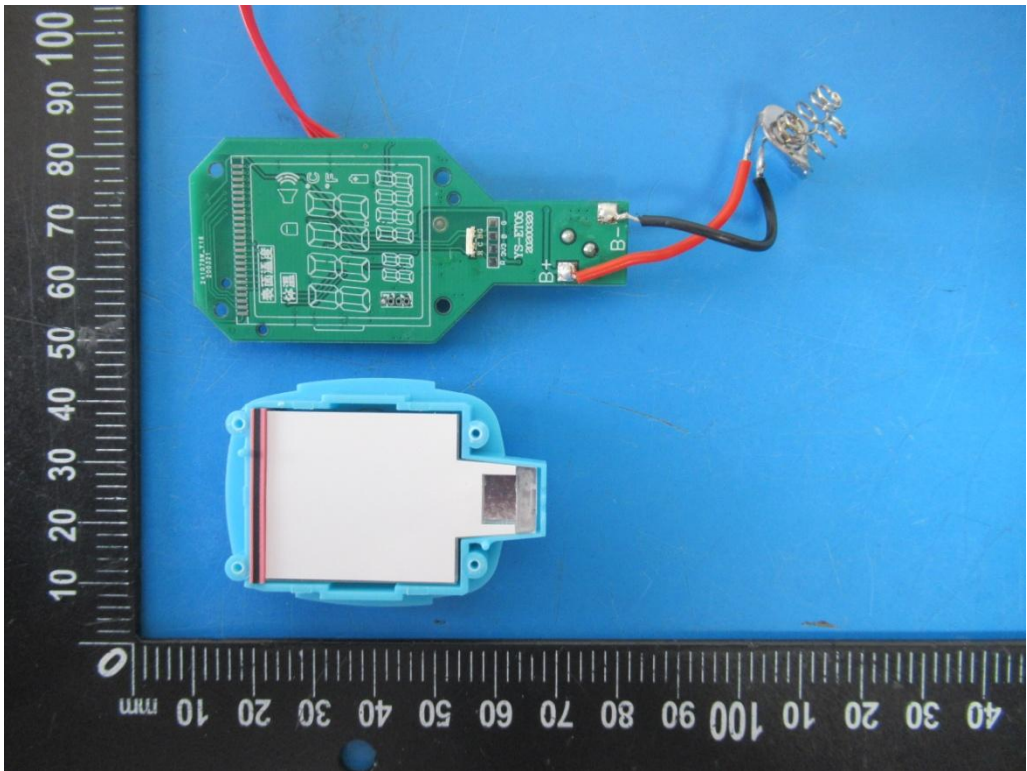
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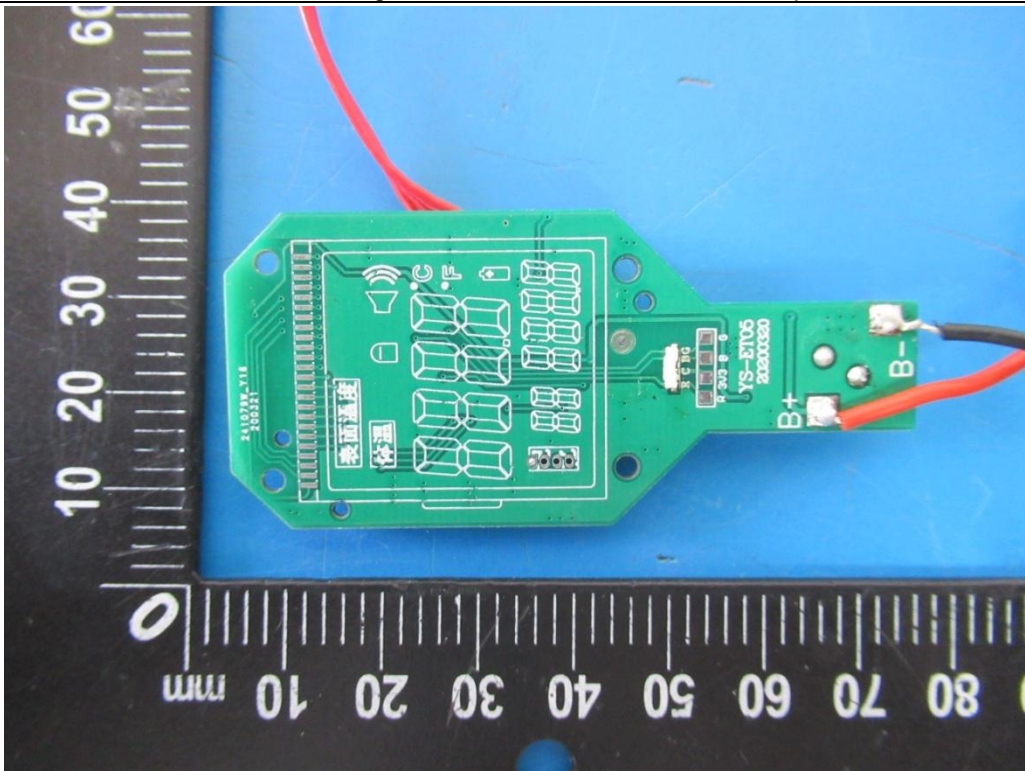
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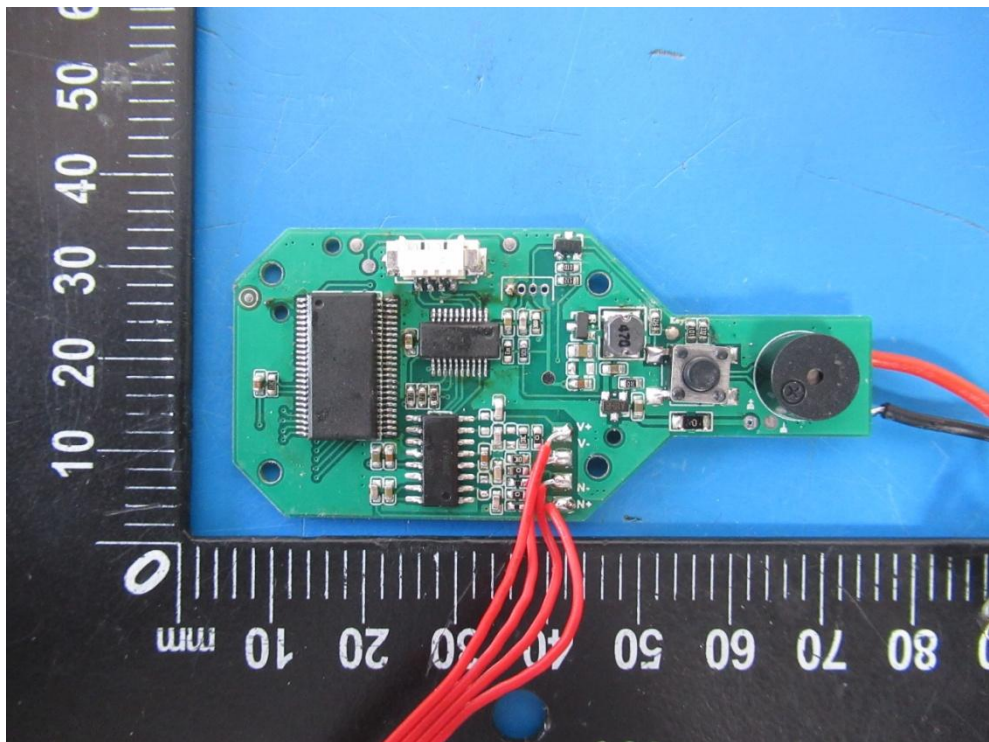
EUT View



EUT View



EUT View



EUT View

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