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	Non Contact Infrared Body Thermometer Instructions for use	Rev. No.	A.5
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HeTaiDa

# Non Contact Infrared Body

## Thermometer

### User Manual



Model: HTD8808E

Software version : V31

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## Foreword

The non contact Infrared body thermometer operating Instructions intend to provide the necessary information for proper operation of HTD8808E thermometer model.

Only body mode was reviewed and certified by notified body.

General knowledge of Infrared thermometer and an understanding of the features and functions of the HTD8808E thermometer model are prerequisites for proper use.

The non contact infrared body thermometer is a medical device, and can be used repeatedly, which using life is 5 years.

Please read the manual first before using it, if not fully understand the usages, please stop using the thermometer.



**Do not operate any of the models HTD8808E thermometer without completely reading and understanding these instructions.**

## NOTICE

Purchase or possession of this device does not carry any express or implied license to use with replacement parts which would, alone or in combination with this device, fall within the scope of one of the relating patents.

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## About this manual edition

Current Updated Edition/Revision: A.5, July 10, 2020;

## Safety Information

This device may only be used for the purposes described in these instructions. The manufacturer cannot be held liable for damage caused by incorrect application.

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The non contact infrared body thermometer is designed to minimize the possibility of hazards from errors in the software program by following sound and light engineering design processes, Risk Analysis and Software Validation.

**Warning**



**Warnings are identified by the WARNING symbol shown above.**

- The Non Contact Infrared Body Thermometer is to be operated by consumers in the home setting and primary care setting as screening tool. This manual, accessories, Directions for Use, all precautionary information, and specifications should be read before use.
- This product is designed to measure human body temperature on the forehead. Do not use it for any other purpose.
- This product is intended in the home setting and primary care setting as screening tool.
- Do not use the thermometer if it malfunctions or has been damaged in any matter.
- When the ambient temperature of the thermometer changes too much, such as moving the Thermometer from one place of lower temperature to another place of higher temperature, Allow the thermometer to remain in a room for 30 minutes where the temperature is between 15°C to 40°C (59°F - 104°F).
- Remove primary batteries if equipment is not likely to be used for long time.
- This product is not waterproof, do not be immersed in water or other liquid; If cleaning and disinfection, please follow the "Care and Storage" section requirements.
- Do not touch the sensor of infrared detection with your fingers.
- If a cold compress on the forehead fever patients, or take other measures to cool down the temperature data will low, should be avoided in this case to measure body temperature.
- If measure human forehead temperature , please select "body" mode; for measure other objects, liquids, food and other temperature please select "surface" mode.
- This product must be operated in a stable environment, if the ambient environment was mutations, please should be note whether there is fog on the sensor, if any, before using accordance with the "Care and Storage" section to removing the fog.
- Do not near strong electrostatic field or strong magnetic fields, thus avoiding the impact on the accuracy of the measurement data.
- Do not mix the old and new batteries to avoid damage to the product.
- It may affect the accuracy of measurements when the forehead is covered by hair, perspiration, cap or scarf.
- The measuring result of this product is only for your reference. If you have any doubt, please measure the temperature in other methods.

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- ⚠ The device should be kept out of the reach of children/pets. When not in use, store the device in a dry room and protect it against extreme moisture, heat, lint, dust and direct sunlight. Never place any heavy objects on the storage case.
- ⚠ Do not throw batteries into fire.
- ⚠ Only use recommended batteries. Do not use rechargeable batteries.
- ⚠ This thermometer will irreplaceable the diagnostic in hospitals.
- ⚠ Do not fall, disassemble or modify the device.
- ⚠ Do not use this device if you think it is damaged or notice anything unusual.
- ⚠ This device comprises sensitive components and must be treated with caution. Observe the storage and operating conditions described in the 'Technical Specifications' section.
- ⚠ Not servicing/maintenance while the thermometer is in use.
- ⚠ When using, shall not touch battery and the patient simultaneously.
- ⚠ Do not use the device if it is damaged/ degraded/loosened in any way. The continuous use of a damaged unit may cause injury, improper results, or serious danger.
- ⚠ Based on the current science and technology, other potential allergic reactions are unknown.
- ⚠ This equipment needs to be installed and put into service in accordance with the information provided in the ACCOMPANYING DOCUMENTS.

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## Section 1- Overview

### Intended Use

The HeTaiDa Non Contact Infrared Body Thermometers are designed to be used for intermittent measurement and monitoring of human body temperature by consumers in the home setting and primary care setting as screening tool.

### Description of Non Contact Infrared Body Thermometer

- Device principle and introduction

The HeTaiDa Non contact infrared body thermometer are hand-held, reusable, battery operated devices, which can measure human body temperature on forehead, the skin temperature on one's forehead.

The operation principle is based on Infrared Sensor technology. The IR sensor can output different signal when measuring different object temperature or in different ambient temperature, and the ASIC can turn the signal from IR Sensor to a digital value and display it on the LCD.

- Description on Controls, Indicators, and Symbols

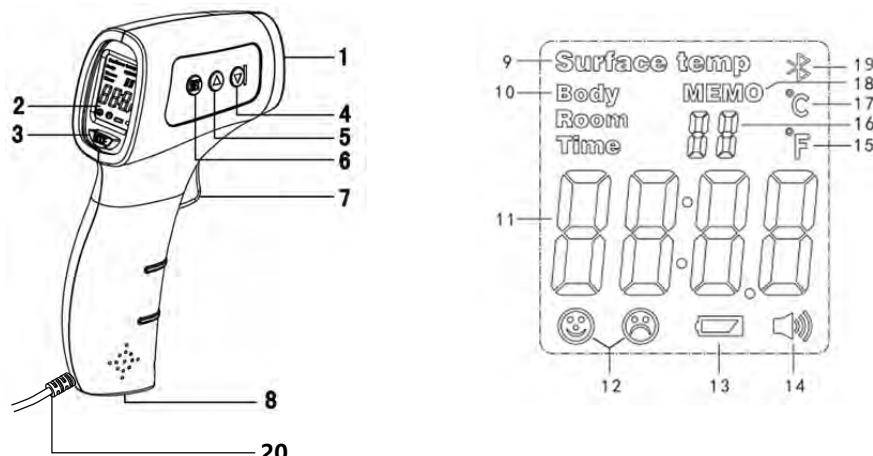


Figure 1: HTD8808E Infrared body thermometer

1. IR sensor
2. Liquid crystal display(LCD)
3. MODE button
4. Down Arrow button
5. Up Arrow button
6. Set button
7. ON/measure button
8. Battery Cover

9. Surface mode
10. Body mode
11. Data indicator
12. Indicator of measurement result
13. Low Battery indicator
14. Volume on/off indicator
15. Fahrenheit
16. Memory Number
17. Celsius
18. Memory indicator
19. Bluetooth indicator
20. Data transmission line

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### Thermometer Applications

Thermometer Model Number	Thermometer Style	Adult		Pediatric	
		Ear	Forehead	Ear	Forehead
HTD8808E	Non Contact Infrared Body Thermometers		✓		✓

### Equipment Symbols

	Warning		Operating atmospheric pressure
	Non sterile packaging		
	Refer to operating instructions		Compliance with WEEE Standard
	Operating Temperature		DO NOT THROW AWAY Intended for multiple use
	Operating Humidity		Indicates this device is in compliance with MDD 93/42/EEC. 0598 is the Notified Body Number
	This device complies with Part 15 of FCC( Federal Communications Commission) Rules.		Restriction of Hazardous Substances
	Manufacturer		Authorized Representative in the European community
	Recyclable		Serial number
IP22	IP22: The first number 2: Protected against solid foreign objects of $\Phi$ 12.5 mm and greater. The second number:		Batch code

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Protected against vertically falling water drops when enclosure titled up to 15°.		
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### Technical Specifications

Measurement Unit	°C/°F
Operating mode	Adjusted mode(Body mode) Direct mode(surface mode)
Reference Body Site	Axillary
Rated output range	Body mode: 34.0 °C~43.0 °C/93.2°F -109.4°F Surface mode: 0 °C~100 °C/32°F~212°F
Output Range	Body mode:34.0 °C~43.0 °C/ 93.2°F -109.4°F Surface mode: 0 °C~100.0 °C/ 32°F -212°F
Laboratory Accuracy	Body mode: 34.0 °C~34.9 °C:±0.3 °C/ 93.2°F -94.8°F:±0.5°F; 35.0 °C~42.0 °C:±0.2 °C/95.0°F -107.6°F:±0.4°F; 42.1 °C~43.0 °C:±0.3 °C/107.8°F -109.4°F: ±0.5°F; Surface mode: ±2 °C/±3.6°F.
Display Resolution	0.1 °C/0.1 °F
Three-color Backlight (Color Alarm)	35.5-37.3°C / 95.9-99.1°F: Green (Normal Temperature); 37.4-38.0°C(Alarm point) / 99.3-100.4°F: Yellow (Slight Fever) 38.1-43.0°C / 100.6-109.4°F: Red(High Fever) Note: 1. Surface mode is always with Green backlight. 2. In body mode 34.0-35.4°C is with green backlight.
Auto Power Off Time	HTD8808E: ≤18s
Measuring Time	≤2S
Measuring Distance	HTD8808E: 0.1CM -15CM(0.04 in -5.9in)
Memories	HTD8808E: 50
<b>Power Supply Requirements</b>	
Power	1.5V (AAA) Alkaline batteryX2 (IEC Type LR03)or DC 5V(MicroUSB)
Adaptable Range	2.6V~3.6V
<b>Environmental</b>	

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Operating Condition	HTD8808E: Operating Temperature:15 °C~40 °C(59°F ~104°F), Relative Humidity≤85%,atmospheric pressure:70 Kpa -106Kpa
Transport and Storage Condition	HTD8808E Storage Temperature:-20°C -55°C / -4 °F - 131°F, Relative Humidity≤93%,atmospheric pressure:70 Kpa -106Kpa
<b>Dimension and Weighting</b>	
Weight (without batteries)	HTD8808E: 116g
Size	HTD8808E: L:150mm X W:95mm X H:44mm
<b>Compliance</b>	
<b>Item</b>	<b>Compliant with</b>
Equipment classification	Safety Standards: EN 60601-1: 2006+A1:2013, EN 60601-1-2: 2015
Type of protection	Internally powered equipment (on battery power)
Degree of protection	Non Applied part
Front panel and case labeling	EN ISO15223-1:2016
Temperature	EN ISO80601-2-56:2017
Home healthcare environment	EN 60601-1-11:2015

#### Calculated values of the indicators according to ISO 80601-2-56

Indicators	Calculated value
Clinical bias, $\Delta_{cb}$	-0.027
Standard deviation, $\sigma_j$	0.14
Limits of agreement, $L_A$	0.26
Clinical repeatability, $\sigma_r$	0.07

Note: the above value is calculated from clinical data of HTD8818A.

#### Safety classification of ME EQUIPMENT

Protection against electric shock	Internally powered equipment	ME
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Applied part	Non Applied part
Protection against harmful ingress of water or particulate matter	IP22
Mode of operation	Continuous operation

Note: Not intended to be sterilized. Not for use in an OXYGEN RICH ENVIRONMENT

## 2- Operation

### 2.1 Battery installation

**Caution:** The Non Contact Infrared Body Thermometer does not operate with dead batteries and does not input outer power. Install new batteries.

- 1) Pull the battery downward, toward the bottom of the Non Contact Infrared Body Thermometer, and remove the battery access door;
- 2) Insert two pieces AAA size batteries according to the "+" and "-";
- 3) Close the battery cover.

### 2.2 How to Operate

#### Before Applying the Thermometer

Be sure to read and understand all warnings listed of the instructions before use.

- The thermometer is aligned with the middle of the forehead to measure body temperature (between the eyebrows above) and keep the vertical distance, press the On/Scan button, temperature display immediately, see figure 2.



Figure2-Measuring position and distance

- When the ambient temperature of the thermometer changes too much, such as moving the Thermometer from one place of lower temperature to another place of higher temperature, Allow the thermometer to remain in a room for 30 minutes where the temperature is between 15°C to 40°C.
- The ambient temperature around the test person should be stable, should keep away from the larger flow fan, air-conditioning vents and so on.
- When people moving from one place of lower temperature to another place of higher temperature, should at least remain in the test environment more than 5

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minutes, to be consistent with the ambient temperature after the re-measurement.

- Wait at least 1 second for the next measurement. If the continuous measurement of five times, it is recommended to wait at least 30 seconds and then continue measurement.
- You cannot use the thermometer in place where the sun is strong.
- If for some reason the low forehead temperature measurement can try to align behind the ears. See figure 3.



Figure 3- Align behind the ears to measurement

### General Setup and Use

- **Start measuring**

1. Turn on the thermometer by pressing the On/Scan button. The thermometer will perform self-test with all segments displayed for 2 seconds.
2. Align staff forehead to keep the distance, and then press the On/Scan button to start the measurement, read the data.

**Note:** 1) After full display over, you will hear a rattle or "beep beep beep" three times, which means that the measurements have been completed, while the target value of the measured temperature is displayed on the LCD, while backlit display according to the appropriate setting among the three colors red, green, yellow one of. And the Green means ready for next measurement. When  $37.4^{\circ}\text{C}$ - $38.0^{\circ}\text{C}$ , it's yellow, means slight fever warning. Please pay attention to body temperature. When the body temperature is above  $38.1^{\circ}\text{C}$ , it's red, means high fever. Please take action to cool down or go for a doctor.

- 2) To ensure the accuracy of the measurement, wait at least 30 seconds after 5 consecutive measurements.

- **Mode conversion**

When the device is running, pressing the MODE button to cycle conversion between "body" mode and "surface" mode.

"body" mode is used for measuring human body temperature, the "surface" mode is used to measure the surface temperature. (The factory default is "body" mode).

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- **Recalling and Erasing Memory Data**

The last temperature taken before the thermometer powers off is stored in memory, up to 50 for HTD8808E.

HTD8808E as below step:

- 1) In the boot or shutdown state, short press the down "▼" function key, or press the up "▲" function key to view the history of measured values.
- 2) An empty memory cell shows "--- °C" or "--- °F".
- 3) Temperature readings can be stored in memory. Up to 50 temperature readings can be stored into the memory cells and automatically overwrite historical data.
- 4) In boot mode, press the up "▲" or down "▼" button multifunction key until the LCD display "CLR", about two seconds after the long beep, which means that all stored data is cleared completely.

- **Parameter settings**

This product can be set according to the subjects of different colors and different environments data to meet the different characteristics of populations or individuals.

HTD8808E as below step:

- 1) Unit Set-F1  
Under the boot mode .Long press SET button to enter F1, press the up "▲" or down "▼" arrow keys to switch Celsius and Fahrenheit temperature units, press the SET button to confirm the unit settings (factory default is Celsius).
- 2) Fever alert set-F2  
Under F1 state ,Press SET key to enter the F2, press the down "▼" key to decrease 0.1 °C, press the up "▲" key plus 0.1 °C, long press to accelerate the speed of temperature regulation, and finally press the SET button to save. (The factory default is 38.1 °C)
- 3) Prompt sound settings-F3  
Under F2 state ,short press SET key to enter F3, press the down "▼" key or the voice Prompt to set up "▲" key switch, and press the SET button to confirm the settings. (The factory default is the voice Prompt to open).
- 4) Exit setting mode  
In the F3 mode, press the SET button will automatically turn off the screen, exit setting.

- **Prompt sound settings ON/OFF function**

HTD8808E

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Under the boot mode .Short press SET button to take on or take off the Prompt sound function.

- Restore to factory setting function

HTD8808E

Under the boot mode, long press MODE button until LCD display “rst”. Two seconds later ,former F1-F3 parameter back to factory setting.

- Data transfer function

Terminal equipment requirements:

- Android system: version 4.3 or above;
- IOS system: 8.0.0 or above;
- Computer system: Windows XP or above;
- Data receiving and processing software;
- hardware: support Bluetooth 4.0 BLE.

### 3- Troubleshooting

MESSAGE	SITUATION	SOLUTION
Body °C 	Temperature taken in not within Typical human temperature range. (34.0~43.0 °C or 93.2°F~109.4°F).	<ul style="list-style-type: none"> <li>● Make sure the forehead thermometer is for forehead measurement, not other human body site.</li> </ul>
Body °C 	<ul style="list-style-type: none"> <li>● Measured over the distance HTD8808E: 0.1-15cm (0.04-5.9in)</li> <li>● Incorrect test position.</li> <li>● Subjects forehead hair, Antipyretic stickers, head with sweat, etc.</li> <li>● Some people's body temperature is lower than the general population.</li> </ul>	<ul style="list-style-type: none"> <li>● Optimum measurement distance is 1cm.</li> <li>● See figure 5 Measuring position and distance.</li> <li>● Subjects sit quietly 5-10 minutes before the test.</li> <li>● The main concern fever temperature</li> </ul>
Body °C 	Operating temperature exceeds the range of specified temperature.	Move to a room within the operating range wait 30 minutes before taking temperature.

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	The screen flicker, automatic turn off.	Replace battery or the product has been damaged, needs repairs.
	Battery capacity is too low. Taking Temperature is not allowed.	Install a new battery
	Ambient temperature changes too fast	Wait until the ambient temperature is stably.
	(1) Power is off. (2) Improper battery installation. (3)The battery is exhausted. (4)Display remains blank.	(1)Press ON button again. (2)Check the battery polarity. (3)Replace with a new battery. (4)Contact the retailer or service center.

#### 4-Replacing the Battery

1. Open and release battery cover following indicator on the surface of battery cover. Before changing the battery be sure the system is already power off.
2. Remove the battery and replace with 2 new one, type AAA, Make sure align properly as indicated inside the battery cover .
4. Slide the battery cover back in until it snaps in place.  
Do not dispose of used batteries in household waste. Take them to special local collection sites.
5. In case, if system is latched up after changing battery. You may not follow up the process of rule one. Just take off battery, waiting 30 sec, then load battery again.



#### Warning

##### Do not recharge, disassemble or dispose of in fire.

- 1.The typical service life of the new and unused batteries is 2000 measurements for the operation time is 18s.
2. Only use the recommended batteries, do not recharge non-rechargeable batteries and do not burn them.
3. Remove the batteries if the thermometer is not to be used for a long period.

#### 5-Cleaning, Care and Storage

The lens is very delicate.

It is very important to protect the lens from dirt and damage.

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Use a clean, soft cloth to clean the surface of the device and LCD. Do not use solvents or immerse the device into water or other liquids.

Always keep the thermometer a within the storage temperature and humidity range as specified.

It is recommended to store the thermometer in a dry location free from dust.

Always keep the thermometer within the storage temperature range (- 20°C to 55°C or - 4°F to 131°F) and humidity range (≤93% non-condensing) for HTD8808E.

It is recommended to store the thermometer in a dry location free from dust. Do not expose the thermometer to direct sunlight, high temperature/ humidity or any extreme environment, otherwise the function will be reduced.

When the ambient temperature of the thermometer changes too much, such as moving the thermometer from one place of lower temperature to another place of higher temperature, allow the thermometer to remain in a room for 30 minutes where the temperature is between 15°C to 40°C.

## 6-Disposal

- 1) Used batteries should not be disposed of in the household rubbish. Used Batteries should be deposited at a collection point.
- 2) At the end of its life, the appliance should not be disposed of in household rubbish. Enquire about the options for environment-friendly and appropriate disposal. Take local regulations into account.

## 7-Warranty

Our company warrants Non Contact Infrared Body Thermometer at the time of its original purchase and for the subsequent time period of one year.

The warranty does not cover the following:

- The device series number label is torn off or cannot be recognized.
- Damage to the device resulting from misconnection with other devices.
- Damage to the device resulting from accidents.
- Changes performed by users without the prior written authorization of the company.
- Batteries and packaging are not covered under warranty

When asked to provide warranty service, you must have a purchase date and purchase stamp dealers (including dealers name and address) of the warranty card. Be sure to ask the dealer to purchase this product signature on the warranty card. When asked to provide warranty service, please put the product to get our distribution points for repair. Products outside the warranty expires, will be charged accordingly.

### Note:

1. If you have any problems with this device, such as setting up, maintaining or using, please contact with SERVICE PERSONNEL of HeTaiDa Technology Co., Ltd. Don't open or repair the device by yourself.
2. Please report to HeTaiDa Technology Co., Ltd. if any unexpected operation or events occur.

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3. The patient is an intended operator. The patient can measure and change battery. Under normal circumstances and maintain the device and its accessories according to the user manual.

## 8-Calibration

The thermometer is initially calibrated at the time of manufacture. If this thermometer is used according to the use instructions, periodic re-adjustment is not required. If at any time you question the accuracy of temperature measurements, please contact us timely.

### EMC Declaration

1) This equipment needs to be installed and put into service in accordance with the information provided in the ACCOMPANYING DOCUMENTS;

This product needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided, and this unit can be affected by portable and mobile RF communications equipment.

2)\* Caution: Do not use a mobile phone or other devices that emit electromagnetic fields, near the unit. This may result in incorrect operation of the unit.

3) \*Caution: This unit has been thoroughly tested and inspected to assure proper performance and operation!

4) \* Caution: this machine should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, this machine should be observed to verify normal operation in the configuration in which it will be used.

<b>Guidance and manufacture's declaration – electromagnetic emission</b>	
The Infrared Body Thermometer is intended for use in the electromagnetic environment specified below. The customer of the user of the Infrared Body Thermometer should assure that it is used in such an environment.	
Emission test	Compliance
RF emissions CISPR 11	Group 1
RF emission CISPR 11	Class B
Harmonic emissions IEC 61000-3-2	Not applicable
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable

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<b>Guidance and manufacture's declaration – electromagnetic immunity</b>		
The Infrared Body Thermometer is intended for use in the electromagnetic environment specified below. The customer or the user of Infrared Body Thermometer should assure that it is used in such an environment.		
Anti-interference detection	IEC 60601-1 test level	Compliance level
Electrostatic discharge (ESD) IEC 61000-4-2	Contact: +8 KV Air: +2,+4,+8,+15 KV	Same as the left
Electrical fast transient/burst IEC 61000-4-4	The input a.c. power ports: $\pm 2$ KV The input d.c. power ports: $\pm 2$ KV Signal input/output ports: $\pm 1$ KV	Not applicable
Surge IEC 61000-4-5	Input power ports: +0.5, +1.0 KV Signal input/output: +2.0 KV	Not applicable
Voltage dips IEC 61000-4-11	0.5 cycles for > 95% (sync angle (degrees):0, 45, 90, 135, 180, 225, 270, 315)  1 cycles for >95% UT (sync angle (degrees):0)  25 (50Hz)/30 (60Hz) cycles for 30% U T (sync angle (degrees):0)	Not applicable
Voltage interruption IEC 61000-4-11	250 (50Hz)/300 (60Hz) cycles for >95% UT (sync angle (degrees):0)	
Power frequency (50Hz/60Hz) magnetic field IEC 61000-4-8	30A/m	Same as the left
NOTE U <sub>T</sub> is the a.c. mains voltage prior to application of the test level.		

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### **Guidance and manufacture's declaration – electromagnetic immunity**

The Infrared Body Thermometer is intended for use in the electromagnetic environment specified below.

The customer or the user of the Infrared Body Thermometer should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level
Conducted RF IEC 61000-4-6	3 V <sub>rms</sub> 150 kHz to 80 MHz	Not applicable
Radiated RF IEC 61000-4-3	Professional healthcare environment: 3 V/m Home healthcare environment: 10 Vm 80 MHz to 2700 MHz	Same as the left.  
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.		
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.		
a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and landmobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Infrared Body Thermometer is used exceeds the applicable RF compliance level above, the Infrared Body Thermometer should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Infrared Body Thermometer.		
b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.		

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Guidance and manufacturer's declaration - RF wireless communication equipment immunity						
Test frequency (MHz)	Band <sup>a)</sup> (MHz)	Service <sup>a)</sup>	Modulation <sup>b)</sup>	Maximum power (W)	Distance (m)	IMMUNITY TEST LEVEL (V/m)
385	380 - 390	TETRA 400	Pulse modulation <sup>b)</sup> 18 Hz	1,8	0,3	27
450	430 - 470	GMRS 480, FRS 460	FM <sup>c)</sup> ± 5 kHz deviation 1 kHz sine	2	0,3	28
710						
745	704 - 787	LTE Band 13, 17	Pulse modulation <sup>b)</sup> 217 Hz	0,2	0,3	9
780						
810	800 - 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation <sup>b)</sup> 18 Hz	2	0,3	28
870						
930						
1720	1700 - 1900	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation <sup>b)</sup> 217 Hz	2	0,3	28
1845						
1970						
2450	2400 - 2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation <sup>b)</sup> 217 Hz	2	0,3	28
5240	5100 - 5800	WLAN 802.11 a/n	Pulse modulation <sup>b)</sup> 217 Hz	0,2	0,3	9
5500						
5785						

<sup>a)</sup> For some services, only the uplink frequencies are included.  
<sup>b)</sup> The carrier shall be modulated using a 50 % duty cycle square wave signal.  
<sup>c)</sup> As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.

## 9- Body temperature

- Body temperature varies from person to person and fluctuates during the course of the day. For this reason, it is suggested to know one's normal, healthy forehead temperature to correctly determine the temperature.
- Body temperature runs approximately from 35.5°C to 37.8°C(95.9°F-100°F). To determine if one has a fever, compare the temperature detected with the person's normal temperature. A rise over the reference body temperature of 1°C(1°F) or more is generally indication of fever.
- Different measurement sites (rectal, axillary, oral, frontal, auricular) will give different readings. Therefore it is wrong to compare the measurement taken from different sites.
- Here below are typical temperatures for adults, based on different measurement sites:  
 -Rectal: 36.6°C to 38°C/97.9°F-99.1°F  
 -Axillary: 34.7°C to 37.3°C/94.5°F-99.1°F

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ASTM laboratory accuracy requirements in the display range of 37°C(98°F to 102°F) for IR thermometers is  $\pm 0.2^{\circ}\text{C}$ ( $\pm 0.4^{\circ}\text{F}$ ), whereas for mercury in-glass and electronic thermometers, the requirement per ASTM Standards E667-86 and E1112-86 is  $\pm 0.1^{\circ}\text{C}$ ( $\pm 0.2^{\circ}\text{F}$ ).

**Caution:** This infrared thermometer meets requirements established in ASTM Standard (E1965-98) Except of clause 5.2.2. It displays subject's temperature over a range of 34.0~43.0°C. Full responsibility for the conformance of this product to the standard is assumed by (Hetaida Technology Co., Ltd. Adds: Room 801, 802,803,804,901, 2# Building Scientific Research Center, Songhu Intelligent Valley, No.6 Minfu Road, Liaobu Town, Dongguan City, Guangdong Province, P.R.China

## 10-FCC Regulatory Compliance

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.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.