

# Sepcification of Smart Mobile Data Terminals User Manual

HT380A



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# Chapter 1 Product Introduction

HT380A is the first Quad-core Android smart handheld terminal in China, Using Android 4.2.2 operating system, CPU frequency up to 1.4GHz, powerful processing capabilities, 4 times faster than traditional single-core products. With 3.5inch IPS capacitive touch screen, smooth operation, ultra-wide viewing angle, clear display.

Complete data collection methods, a collection of NFC, RFID, 1D/2D barcode scanner, infrared, camera, and other ways. Integration of the common types of data transmission methods, including GPRS, 3G, WiFi, Bluetooth, and so on. HT380A can achieve data acquisition, data transfer, phone calls, SMS, and all other functions. It can be widely used in express logistics, warehouse inventory, inventory management, water and electricity meter reading, costume ordering, mobile sales, product traceability, hospital care, wholesale management, production management and other industries.

## ◆ Strong Performance, Strong Endurance

Samsung Quad-core 1.4GHz processor, 1G DDR3 memory, Android 4.2.2 system, 4 times faster than traditional single-core products. Using high-capacity 4000mAh lithium polymer battery, standby time for more than 250 hours, sustainable using for more than 12 hours. And optional 6000mAh large-capacity lithium battery, has the incomparable endurance time.

## ◆ Almighty Data Acquisition

Fast, accurate 1D or 2D barcode scanner, which can read all common barcodes on market; support NFC or RFID, with infrared and 8 million pixel high-definition camera and other data acquisition modules.

## ◆ Almighty Data Transmission

WiFi support Dual-band 2.4GHz and 5GHz IEEE 802.11a/b/g/n, PHY layer rates up to 150 Mbps. Equiped with high-speed 3G communication module and Bluetooth 4.0. Bottom with multi touch interface, support USB 2.0 cable for charging and data transfer, support RS232, RS485 and other data transmission.

## ◆ Stable and Clear Conversation Quality

Using high-quality audio output module, stereo surround technology, loud speaker volume up to 90dB, with noise suppression microphone, suitable for using in noisy environments.

High Protection Grade, Rugged and Durable: IP65 protection grade, rugged design ensures that 6

◆ surfaces are able to withstand drop from 1.5m height. With dustproof and waterproof features, easy to deal with all kinds of bad environments.

## Intimate Customization

the product adopts the modular design which can be flexibly customized according to the individual needs of the customers to provide customers with the highest cost-effective products and services.

## ◆ Strong Service Support Team

We has over ten years of research experience and a wealth of experience in project implementation, is able to provide customers with professional technical support services and timely professional service support for any development problem.

## 1.1 Technical Parameters

Basic Parameters					
CPU	Samsung Exynos4412 Quad-Core 1.4GHz				
Operating System	Android 4.2.2				
Memory	RAM: DDR3 1GB NandFlash: 4GB				
Extended Memory	Micro SD(TF)32G at most				
Display	3.5inch Multi-touch Capacitive IPS Screen, 320×480				
Keyboard	24 keys physical keyboard (including numeric keys, function keys and the power button), two custom features side-buttons				
Battery	3.8V 4000mAh rechargeable polymer lithium battery (optional 6000mAh large-capacity polymer lithium battery)				
Dimension	156mm(length)×72mm(width)×31mm(thickness)				
Weight	312g (including 4000mAh battery)				
Camera	8 Megapixels with Auto-Focus and Flashlight				
Expansion Slot	Micro SD(TF)×1, SIM×1, PSAM×1				
Indicator	Power Indicator×1				
Accessories	USB 2.0×1, Headphone×1, Multifunction contactless interface (can expand RS232, RS485 function)×1				
Audio	Speaker×1, Mic×1, Earphone×1, Headphone×1				
Phone feature	Support for mobile HD voice calls				
Vibrating alert	Support				
Volume	Loud speaker volume up to 90dB, easy to deal with noisy environment				
Data Acquisition Parameters					
Symbolologies	<table border="1"> <tr> <td>1D barcode</td><td>Support: Code 39, Codabar, Code 128, Discrete 2 of 5, Interleaved 2 of 5, Code 93, UPC A, UPC E, EAN 8, EAN 13, MSI, EAN 128, ISBN/ISSN, etc.</td></tr> <tr> <td>2D barcode</td><td>Support: PDF417, QRCode(QR1,QR2, MicroQR), DataMatrix, GS1-DataBarTM(RSS-Limited, RSS-14, RSS-14 Stacked, RSS-Expand), etc.</td></tr> </table>	1D barcode	Support: Code 39, Codabar, Code 128, Discrete 2 of 5, Interleaved 2 of 5, Code 93, UPC A, UPC E, EAN 8, EAN 13, MSI, EAN 128, ISBN/ISSN, etc.	2D barcode	Support: PDF417, QRCode(QR1,QR2, MicroQR), DataMatrix, GS1-DataBarTM(RSS-Limited, RSS-14, RSS-14 Stacked, RSS-Expand), etc.
1D barcode	Support: Code 39, Codabar, Code 128, Discrete 2 of 5, Interleaved 2 of 5, Code 93, UPC A, UPC E, EAN 8, EAN 13, MSI, EAN 128, ISBN/ISSN, etc.				
2D barcode	Support: PDF417, QRCode(QR1,QR2, MicroQR), DataMatrix, GS1-DataBarTM(RSS-Limited, RSS-14, RSS-14 Stacked, RSS-Expand), etc.				
NFC	Support ISO/IEC 18092, ISO/IEC 21481, ISO/IEC 14443 Types A, B, B', JIS(X)6319-4, ISO/IEC 15693, etc.				
WiFi	IEEE 802.11a/b/g/n, support 2.4GHz, 5.0GHz dual-band				
Bluetooth	Bluetooth4.0+EDR				
Satellite positioning	Support GPS function				
Infrared Communication	38K Infrared Communication				
GPRS/3G	WCDMA, Support voice calls, data communication and message function				
Operating Environment					
Operating Temperature	-10~+50°C				
Storage Temperature	-25~+70°C				
Relative Humidity	5% RH-95% RH (non-condensing)				
Protection Grade	IP65, 6 sides could undertake the impact by falling from 1.5m to the cement ground for may times within the scope of operating temperature				
Accessories					
Accessories	Charger ×1, Rechargeable polymer lithium battery ×1, USB Cable ×1, Software Disc ×1, Wrist rope×1				

## 1.2 External Structure



# Chapter 2 Getting Started

## 2.1 Install Battery

Procedure: (Figure 2-1-1)

- 1) Pull the battery lock button to unlock key as shown in the figure  and hold it.
- 2) Open the back cover.
- 3) Place the battery into the battery compartment with the contacts inside down.
- 4) Close the back cover and pull the battery lock button to lock key as shown in the figure .



Step1



Step2



Battery contacts



Step4

Figure 2-1-1

## 2.2 Install TF Card

Procedure:

- 1) Ensure that the device is turned off and in uncharged state;
- 2) Remove the battery cover;
- 3) Remove the battery;
- 4) Push the SIM Card slot to indicate direction of 'OPEN', and open the lid (Position: as shown in Figure 2-2-1);
- 5) Push the TF card cover to indicate direction of 'OPEN', open the cover, put the card at the right place (Figure 2-2-2) and push the slot back to fasten it, then push the SIM card slot back to fasten it (Figure 2-2-3);
- 6) Insert the battery into the battery compartment and close the back cover;
- 7) Pull the battery lock button to lock key as shown in the figure .

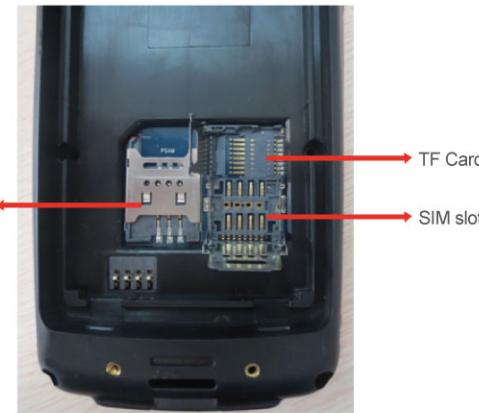


Figure 2-2-1



Figure 2-2-2



Figure 2-2-3

## 2.3 Battery Charging

The device has two charging methods: use an adapter or a USB data cable.

- 1) By using an adapter, the device is directly connected to 220V AC power for charging;
- 2) By using a USB cable, the device can be directly inserted into a USB port of computer for charging.



Figure 2-3-1

## 2.4 Power on or off

### 2.4.1 Power on

Use an electric battery, press the  button for 2-4 seconds, feel the device vibrate, then release the switch button, the device enters the boot interface, LCD screen light up, wait for 30-50 seconds, the device will enter the main menu interface, boot completed.

### 2.4.2 Power off

Long press the  switch button for 2-4 seconds, the device main menu pop-up dialog, and select 'Off', the device enters shutdown mode. Shutdown process will be vibrating alert, the backlight is off, said the shutdown is complete.

Note: Please note that, when the device vibrate, should release the switch button, if has long press, the device will continue to enter the restart state, or the device may be damaged or data may lose.

## 2.5 Sleep and Wake-up

### 2.5.1 Sleep

When the device is in open state, if you need it to enter the sleep state to save power, you can tap  side key once, and the device screen will immediately be turned off. The device has entered the sleep state and the keyboard and touch screen will stop responding until being waked up.

When the device is in open state, if it is not operated for a long time, the device will automatically enter the sleep state to reduce power consumption.

### 2.5.2 Wake-up

When the device is in sleep state, if the device needs to be waked up, you just need to tap  the side key once, the device will wake up immediately and you can perform normal operations after the wake-up of the device.

Note: Be careful not to press the  key several times in a short time for frequent sleep/wake-up operation, or the device may be damaged or data may lose.

## 2.6 Status Bar

A toolbar at the top of the screen is the taskbar of the system, as shown in Figure 2-6-1:



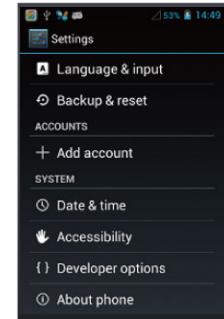
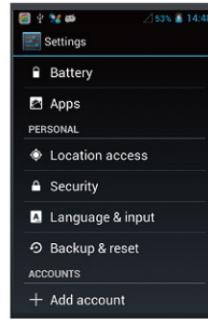
Figure 2-6-1

The status bar is at the top of the screen

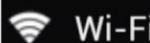
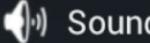
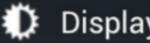
- ◆ The top left displays T-Flash card, USB connection status and other information.
- ◆ The top right displays silent mode, WiFi connection status, 3G signal, battery power/battery charge status and current time. (Depending on whether the device turns it on or not, the icon displayed will increase or decrease).

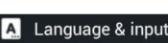
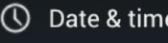
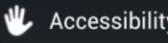
# Chapter 3 System Settings

Click the button  (Settings button) to enter 'Wireless and network', 'device', 'individual', 'System' and other system settings.



The following table lists the main function setting items:

Item	Description
 Wi-Fi	WiFi option setting, WiFi function can be 'turned on' or 'turned off' by this option.
 Bluetooth	Bluetooth option setting, Bluetooth function can be 'turned on' or 'turned off' by this option. (Note: Bluetooth and GPS cannot be turned on simultaneously).
 Data usage	View the current traffic usage, so that the users can control the traffic.
 More...	Enter this option to open the flight mode, set the VPN, share network, and make mobile network related settings.
 Sound	Apply this option to set the device volume and sound.
 Display	This option can adjust the volume, select a ring tone and make a variety of prompt tone settings.
 Storage	Display the storage status of the device and install, uninstall and format the SD card.

 Battery	Display the battery status, and display the power management properties.
 Apps	Check and view the downloaded applications and delete unwanted applications.
 Accounts & sync	Start up and Shut down 'Accounts & Synchronization' to synchronize the device with the device account.
 Location services	Open and close Google Location Services or GPS satellites.
 Security	Set lock screen mode, encrypt the device, lock SIM card, check the device manager, manage unknown source data, and use and install applications. (Note: GPS and Bluetooth cannot be turned on simultaneously).
 Language & input	Select the system language and input method.
 Backup & reset	Restore factory settings. (Warning: restoring factory settings will erase all data on the device).
 Date & time	Manually set the date, time and time zone and automatically set the date, time and time zone, and set the time display format.
 Accessibility	Open and close some special functions.

Note: avoid making any operation on any item with no function description.

### 3.1 WiFi Options

By selecting 'Settings >  Wi-Fi > open', the wireless network near the user will appear. As shown in Figure 3-1-1, select the WiFi network you need and connect it after entering the password, as shown in Figure 3-1-2.

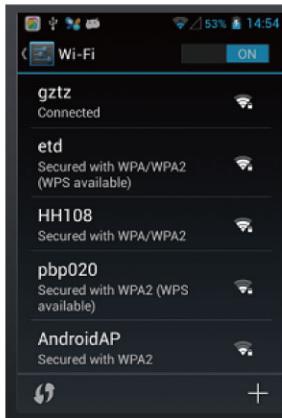


Figure 3-1-1

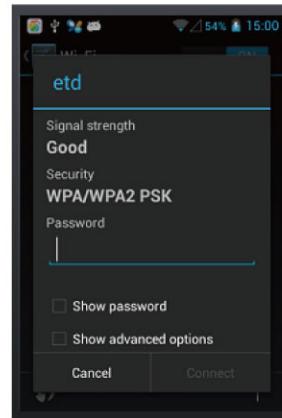


Figure 3-1-2

### 3.2 Bluetooth Options

Select 'Settings >  蓝牙 > Open > Search Device', as shown in Figure 3-2-1, and then pair it with the device to be connected and complete the pairing in accordance with the prompts for data transmission, as shown in Figure 3-2-2.

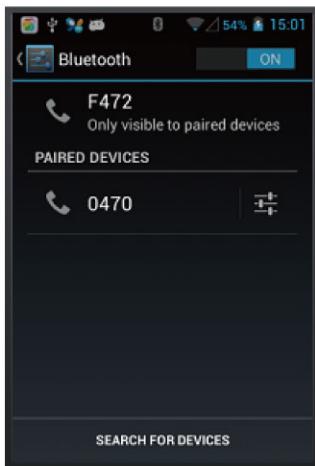


Figure 3-2-1



Figure 3-2-2

### 3.3 Volume and Sound

Select  Settings >  声音 > enter the sound settings interface', as shown in Figure 3-3-1. Sound settings include silent mode, and silent mode includes 'off 'vibration' and 'Silent'; ringtone settings, select  Android System to enter and choose your favorite ringtone and then press OK. If you do not want to save the settings, click 'Cancel' button to cancel (as shown in Figure 3-3-2).

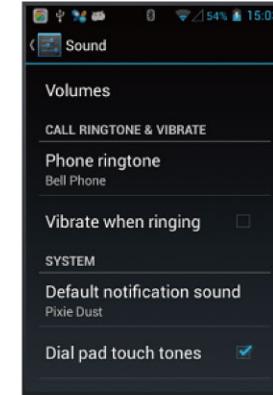


Figure 3-3-1

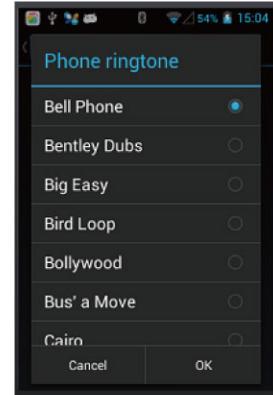


Figure 3-3-2

### 3.4 Date and Time Settings

Select  Settings >  Date & time > enter (as shown in Figure 3-4-1) the setting interface to set date, time, time zone and other properties (Figure 3-4-2, Figure 3-4-3).

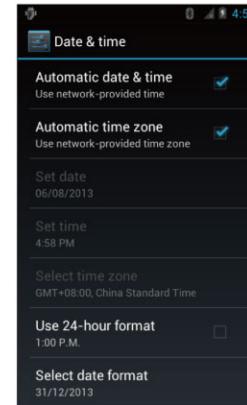


Figure 3-4-1

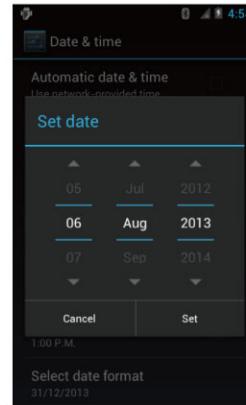


Figure 3-4-2

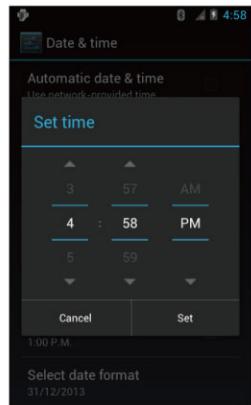


Figure 3-4-3

After configuration, click button  on the bottom right corner to save settings. If do not want to save the settings, click the button  to cancel.

### 3.5 Browse TF Card

In the standby status, select the 'ES File Explorer' in the interface icon '()' (as shown in Figure 3-5-1) to enter the following interface (as shown in Figure 3-5-2).



Figure 3-5-1



Figure 3-5-2

You can browse all files in the TF card after entering the interface. In addition, you can perform the operations such as creating files and folders, searching, refreshing, view settings and window switching in accordance with the options in the menu bar.

## 3.6 Calls and SMS

### 3.6.1 Calls

In the standby status, select the interface icon '()' > '()' to enter the call interface, as shown in Figure 3-6-1. Select '()' option in the call interface to check the call records and select '()' option to find the contact saved in the device.



Figure 3-6-1

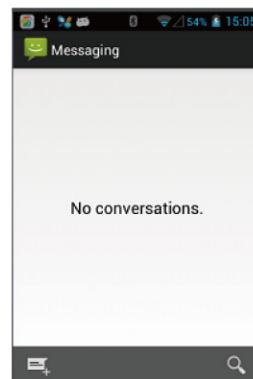


Figure 3-6-2

### 3.6.2 SMS

In the standby status, select the interface icon '()' > '()' to enter the SMS interface, as shown in Figure 3-6-2; select '()' option to enter the text editing interface, as shown in Figure 3-6-3; select '()' to add photos, videos and other attachments in SMS. As shown in Figure 3-6-4, you can view, replace and delete the attachments and make other operations to the added attachments.

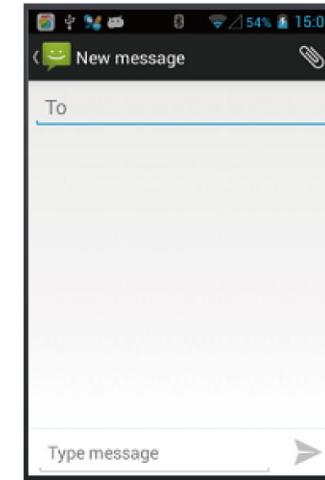


Figure 3-6-3

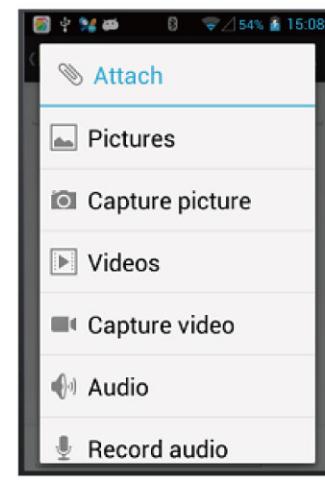


Figure 3-6-4

## 3.7 USB Connection

When the USB data cable is connected to the computer, the status bar icon '()' indicating the proper connection with the computer will appear on the upper left corner.

# Chapter 4 Usage of Functions

## 4.1 Barcode Scanning

This scanner of the device is located on the top of the device. When used, you need to align the reading head with the bar code to allow the laser emitted by the scanner to completely cover the bar. When the reading head is tilted or cannot cover the whole bar code, the contents cannot be accurately be scanned.



Figure 4-1-1

When used, select the interface icon '  >'HT380A Tester' to enter HT380A test interface (as shown in Figure 4-1-2). HT380A test contains the functions such as 'Scan', 'Psam', 'NFC',etc. Click 'Scan' to enter the barcode scanning interface (as shown in Figure 4-1-3). press the screen 'Scan' button or the scan button on keyboard to scan, scan the bar code to display the results list (see Figure 4-1-4) , barcode scanning success will send reminder tone.

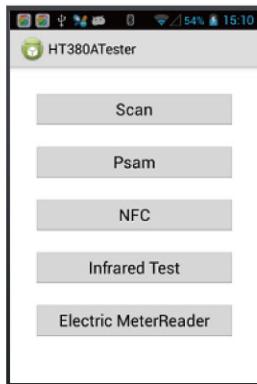


Figure 4-1-2

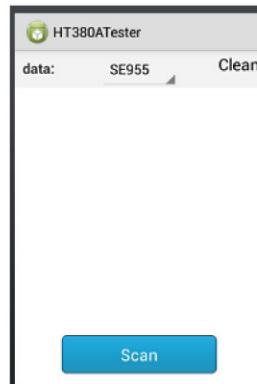


Figure 4-1-3

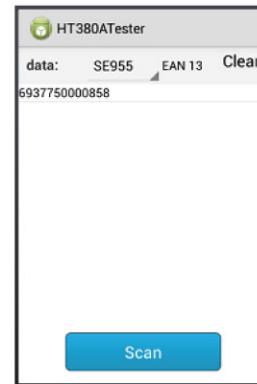


Figure 4-1-4

## 4.2 Psam Card Function

Psam features of this device, need to install Psam card, install position (Figure 2-2-1). When used, select the interface icon '  >'HT380A Tester' to enter HT380A test interface (as shown in Figure 4-1-2), click 'Psam' into the test interface (Figure 4-2-1), click 'Reset Sam Card', 'Create Random Number' and other operations, then will show the operating results.

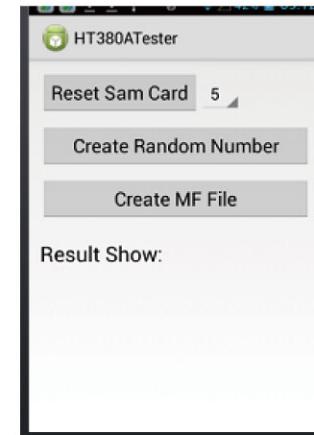


Figure 4-2-1

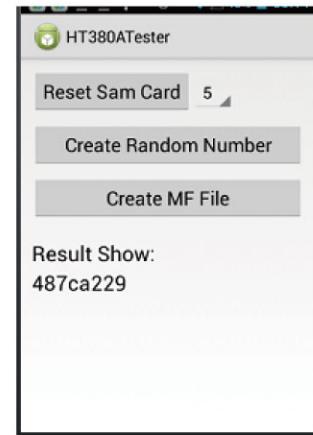


Figure 4-2-2

## 4.3 NFC Function

NFC capabilities of this device, swipe area just above the keyboard (Figure 4-3-1).



Figure 4-3-1

Select the interface icon '  ' > 'HT380A Tester' to enter HT380A test interface (as shown in Figure 4-1-2), click 'NFC' into the test interface (Figure 4-3-2), placed the card in the NFC swipe area, can read the card type and ID number (Figure 4-3-3).

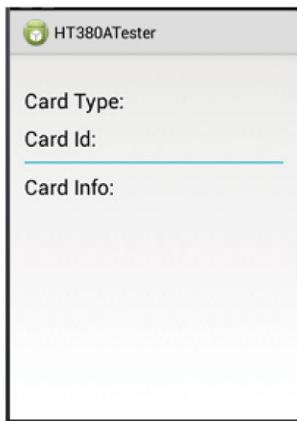


Figure 4-3-2

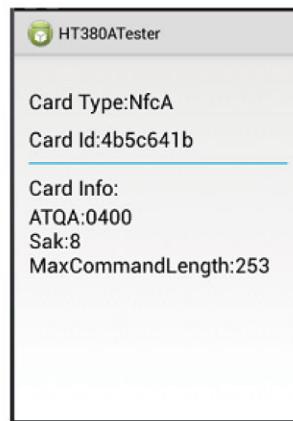


Figure 4-3-3

#### 4.4 Infrared (1D/2D/Infrared, only chose one of three)

The infrared window of the device is located on the top of the device; when used, you should install the corresponding infrared testing demo, when you start to test, you should make the window to be aligned with the meter.

Select the interface icon '  ' > 'HT380A Tester' to enter HT380A test interface. HT380A test contains the functions such as 'Infrared Test' and 'Electric Meter Reader'. Click 'Infrared Test' to enter the infrared function test interface (as shown in Figure 4-4-1). You can choose 'Baudrate' and enter the information you want to send on a blue horizontal line, then click 'Send Data'. If you want to receive data, align the transmitter of sending data to the infrared receiver, and the list of 'Data Received' will display the received data.

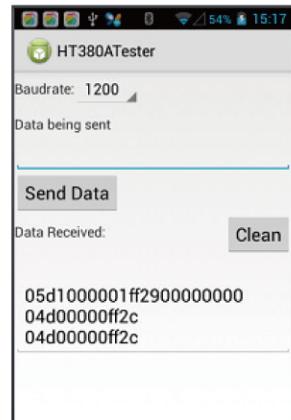


Figure 4-4-1

#### 4.5 Infrared Meter Reading

Click 'Electric Meter Reader' to enter test interface, as shown in Figure 4-5-1. Enter the address of the corresponding meter in accordance with the prompts. There are two types of meters, i.e. '97 statute' and '07 statute'. Select 97 statute to correspond to the selection of the left; 07 statute, the selection of the right. So we must check the type of the meter before meter reading.

For example, if we need to read a 07 statute meter, first, we need to input the address of the meter over the underline, then select the meter type in the options of 07 statute. If you choose 'combined active power' option, the infrared receiver shall be aligned with the infrared transmitter of the meter. Click OK and then the received data will be displayed in the 'Received data' area. As shown in Figure 4-5-1, follow the above steps for other reading types.



Figure 4-5-1

# Chapter 5 Troubleshooting

## 5.1 Device and System failures

Problems	Solutions
Terminal does not start	<ul style="list-style-type: none"><li>● Make sure the battery is installed correctly (refer to Section 2.1).</li><li>● Replace with a fully charged battery.</li><li>● Remove the battery and re-install the battery.</li></ul>
Touch screen does not respond	<ul style="list-style-type: none"><li>● Clean the touch screen.</li><li>● Restart the device.</li></ul>
The screen does not display	<ul style="list-style-type: none"><li>● Confirm whether the device is in standby mode.</li><li>● Restart the device.</li><li>● Replace with a fully charged battery.</li></ul>
Keyboard does not respond	<ul style="list-style-type: none"><li>● Confirm whether the device is in standby mode.</li><li>● Restart the device.</li><li>● Replace with a fully charged battery.</li></ul>
TF card can not be recognized	<ul style="list-style-type: none"><li>● Confirm whether the TF card is inserted upside.</li><li>● Confirm whether the TF card is inserted firmly.</li><li>● Confirm whether the TF card is damaged.</li><li>● Restart the device.</li><li>● Replace with a fully charged battery.</li></ul>
Battery cannot charge	<ul style="list-style-type: none"><li>● Check whether the adapter is damaged.</li><li>● Check whether the USB cable is damaged.</li><li>● Check whether the adapter has been connected to utility power (220V).</li><li>● Check whether the adapter is inserted firmly.</li></ul>

## 5.2 Scan Failures

Problems	Solutions
No respond after pressing the Scan button	<ul style="list-style-type: none"><li>● Check whether the scanning head is damaged.</li><li>● Check whether the program is correct. (Please refer to DEMO for the specific code).</li><li>● Replace with a fully charged battery.</li></ul>
No data is returned after scanning.	<ul style="list-style-type: none"><li>● Check whether the scanning head is damaged.</li><li>● Check whether the program is correct. (Please refer to DEMO for the specific code).</li><li>● Check whether the bar code is damaged.</li><li>● Check whether the bar code is in the right scanning range and distance.</li><li>● Check whether the bar code belongs to the barcode types that can be recognized by the device.</li><li>● Check whether the scanning window is clean and free of dirt.</li><li>● Replace with a fully charged battery.</li></ul>

## 5.3 Network and Communication Failures

Problems	Solutions
USB connection is not recognized	<ul style="list-style-type: none"><li>● Check whether the USB cable is plugged properly.</li><li>● Check whether the USB cable is damaged.</li><li>● Restart the device.</li><li>● Re-connect the USB connection cable.</li><li>● Check whether the PC Connection settings are correct.</li></ul>

# Chapter 6 Warranty and Maintenance Practice

## 6.1 Warranty Scope

For the users buying our data collector, any machine damage or malfunction due to the manufacturing quality or quality of components within one year from the date of delivery is within the warranty scope of the company. Specific warranty period is as follows:

Warranty period of machine: one year

Warranty period of parts: one year for communication cables

Note: Any machine malfunction due to improper use or unauthorized disassembly or other human factors does not belong to free warranty.

## 6.2 Warranty and Maintenance Practice

When the products need to be repaired, users can contact the agent or the company for repair.

Users can first call our hotline to reflect the situation to our customer service engineer and the engineer will propose the solutions and determine whether the product needs to be mailed to the company for repair.

# Appendix

## Warranty Card

Model		Number
User	Name of Institution:	
	Name of Contact Person:	
	Tel:	
	Address:	
	Postal Code:	
Warranty period	Since the purchase date _____ (Year/Month/Day).	
Maintenance Records		
Maintenance Records		
Maintenance Records		