

Geek Land

Think Design Build

ST700 - Industrial Tablet PC

User Manual

V2.0

Brief Introduction

First and foremost, thanks for buying this rugged tablet PC. This user manual includes module introduction, maintenance, wiring and operation as well as the solutions to module problems. In order to guarantee the proper operation of this tablet PC, please read this manual in detail before using; keep the manual in a safe and convenient place for quick response when problems appear.

Note:

- Due to the continuous improvement and refinement of the industrial tablet PC, please kindly forgive us not to inform you of the modified manual.
- Guaranteeing the accuracy, we will try to update the manual. If you find any mistakes, please inform us via the contact information in the back cover.
- Without permission from supplier in writing, it is forbidden to copy all or part of the manual.

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Chapter I

Summary and System Structure

1. Summary

This tablet PC is portable and digital data acquisition equipment with the functions of 1D /2D bar-code scanning, RFID label, Infrared meter reading, GPS positioning and smart phone function. It can be widely used in the area of fashion industrial, industrial manufacturing, logistics management, assets management and routing inspection, etc.

This tablet PC has the wireless voice and communication module, which can log on the Internet through wireless network, and help you finish the work more quickly. According to different module, user can acquire the information of 1D bar-code, 2D bar-code, and RFID information, and at the same time, transfer the information through LAN, GPRS, 3G, WIFI, Bluetooth, and such wireless more quickly and efficiently. This portable, one hand operation terminal meets IP-67 protection grade; it can be used under any environment; it can help simplify the working process, improve working efficiency, and reduce the business operating cost.

This tablet PC adopts 1280*800 capacitance touch screen, and embedded with Android 4.1.2 JB operating system. With the features of user friendly, easy to operation,

visual scanning and recognizing result, it can meet your different needs, and transfer the data at real time, as well as improve your working efficiency. It is really your powerful working assist.

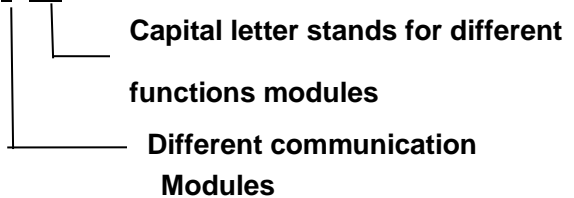
2. Checking the Package

Please open the packing box to make sure the accessories are correct before operation. Once there are some incorrect items or any need of optional accessories, please contact with us.

Essential Components:

According to the following table, please check the model name and suffix code of the name plate on the back of the tablet.

Model: Tablet PC * _***



Communication Module	W	WCDMA/GSM
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Function modules of Tablet PC:

Function Module	Module code	Module classification	Note
RFID	H	High frequency 13.56Mhz RFID	
Fingerprint	F	Fingerprint Module	
GPS	G	GPS positioning	
	B	GPS+BD Module (optional)	
	P	High GPS positioning (optional)	
Bar code	R	1D infrared bar code	
	J	1D laser bar code	Jacket, optional
	2	2D bar code	Jacket, optional
UHF	1	RLM100 Module	Jacket, optional
	3	RLM307 Module	Jacket, optional
	K	HIK-RFM101E-S DXT Module	Jacket, optional
	M	M2600 Module	Jacket, optional
	O	European standard RLM307	Jacket, optional
	E	European standard M2600	Jacket, optional

ID Card	S	ID Card Module	Jacket, optional
Infrared	T	Infrared communication module	Jacket, optional

Standard Accessories:

Please make sure all the following accessories are in good condition:



Charger



USB Line



User Manual

Other optional Accessories:

(Users can choose according to different modules.)



Earphone



USB-OTG cable



USB-Serial port line

3. Safety Warning and Attentions

In order to use the tester safely and efficiently, please read the following information before using.

- Please use the tester according to the rules when you in the hospital.
- Please keep far away from the precision instrument
- Do not use chemical solvent to clean the equipment.
- Do not throw away the waste battery. Put it into the battery recycling bins.
- Please do not use or store the equipment as well as its accessories under the environment of high temperature, low temperature, high humidity or dust.
- Please put the equipment and its battery in a safety place and avoid strong shake and impact.
- When use the equipment for the first time, please charge the battery completely.
- Don't disassemble the equipment by yourself. If you need, please go to the appointed professional organization to mend it.
- Please put the equipment and its accessories in the

place out of children's reach.

- Please take care of the UIM card and avoid static, scratch, as well as bending.
- Please use the original accessories of the product.
- Please use the standard battery, charger and other accessories. We will not be responsible for anything if you use the accessories from the third party.
- This product is Class A type and may cause radio interference in daily life. So it needs you to take practical methods to avoid such interference.
- Same as other mobile equipment, with built-in antenna on the bottom of the product, there is some radiation and interface of this product. If you want to operate the product in light-hearted, as well as take of your personal safety, any part of your body do not too close to the antenna.
- Please use the equipment within network coverage range.
- The LCD display effect will change a little in the temperature severely-changed and long-time conversation environment.

4. General Operation Standards and

Attentions

4.1. Operation Standards

- **Test Interface**

Please firstly connect the test cord to test interface and then connect to the test line. Please don't touch the metal parts of clamps to avoid the high dangerous voltage.

➤ **USB port**

Please do not short the port with metal; otherwise the internal circuit will be damaged.

➤ **Cleaning**

The shell of this instrument is mainly made of plastic, when cleaning, use dry and soft cloth, and do not use volatile chemicals, otherwise, it will cause discoloring and deformation.

➤ **Protecting the case and operating panel**

Do not pour volatile agents on the case or operation panel, and avoid prolonged contacting with rubber and PVC; otherwise, it may result malfunctioning.

➤ **When moving the instrument**

Please make sure the power cord and connection cables are removed before shift the instrument. And unplug all the connecting cables from socket after using.

➤ **When the instrument is unused for a long time**

If the instrument is unused for a long time, the battery characteristics may have deteriorated. And it will also take a longer time to charge. If it take a very short time to charge and the operating time is extremely short, please replace the battery.

➤ **Faults**

If there is strange sound, smell, or smoke coming from the instrument, please turn off the instrument and unplug of the

power, and then contact with us immediately.

4.2. Attentions

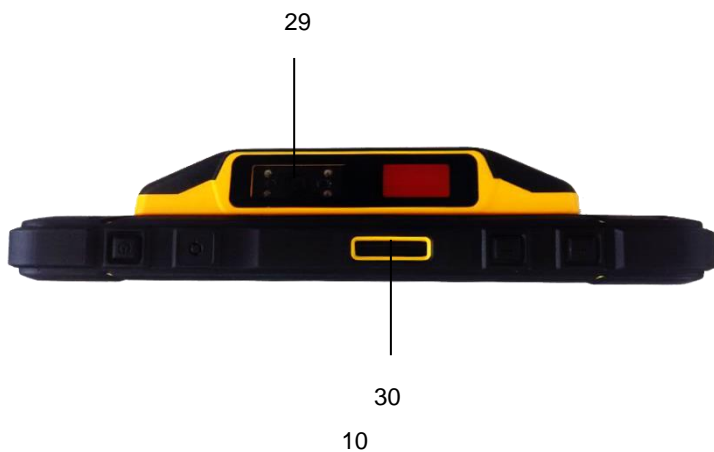
- Please charge the battery full when using it for the first time as well as each time.
- Please use touch pen and click the screen gently to operate function keys, do not click it roughly, otherwise, the LCD may be damaged.
- If there is any abnormal phenomenon during the process of operating, please turn off and restart it.
- Please don't put the instrument under the strong direct sunlight or put it near the origin of heat. Or else, there will be bad effect to internal circuit as well as the shell.
- Condensation may occur if the instrument is moved to another place where the temperature is higher or the room temperature change rapidly. In such situation, let the instrument adjust to the new environment for at least one hour before using the instrument.
- Using the instrument near strong magnetic field sources will have adverse affects on the internal circuit of the instrument. That because the electromagnetic wave from the mobile may effect the normal identification. If you are using a portable phone to transmit measured data, move the portable phone at least 1m away from the instrument.

5. Structures and Functions

Host:




Jacket:











	Name	Functions
1	Seal Cover	Protect the tablet from dust and water.
2	Screen	Display
3	Function Button	Set functions of the program.
4	Main Menu Button	Quickly go back to the main page.
5	Return Button	Back to last operation
6	F2 Button	Scan test and press to start scan.
7	MIC	MIC
8	Indicator	To indicate the device status.
9	Front Camera	Take pictures
10	Motor	Motor
11	Loudspeaker	Loudspeaker
12	Jacket Connector	To connect with the jacket.
13	HF RFID Scanning Area	HF RFID scanning area
14	Rear Camera	Take pictures and video
15	Flashlight	Flashlight
16	Fingerprint Reader	Fingerprint reader
17	SIM Card Slot	To take SIM card
18	TF Card Slot	To take TF card
19	Charging Hole	For charging

20	USB Port	USB Port
21	Earphone Hole	To connect with earphone
22	Power Button	Power button
23	Reset Button	Reset
24	Barcode Scanner	Barcode scanner
25	Volume Button -	Volume Button -
26	Volume Button +	Volume Button +
27	Scan window of ultra-high frequency scanning area	It is used for scanning ultra-high frequency card.
28	Stents	Fixed the tablet
29	2D Laser Barcode Scanner	Barcode scanner
30	Infrared Window	Copy meter data

Buttons:

Buttons	Name	Functions
	Power button	Under power-on state, shortly pressing the button can close or light the screen; long pressing the button can pop up an operating menu of "Phone Options". Under power-on state, long pressing the button can close the tester.

	Return Button	Return back to the previous page.
	Main Screen Button	Pressing this button to return back to the main screen window.
	Reset button	Long press 5 seconds to reset the device
	Volume Adjust Button	Can adjust the volume for calling and make the loudspeaker louder.
	Volume Adjust Button	Can adjust the volume for calling and make the loudspeaker lower.
	Extension Button	Customized button
	Attribute Button	Edit menu attribute
	Bar Code Scan Button	Shortly pressing the button can start to scan the bar code.

Indicator lights:

The meaning of the 2 indicator lights from left to right is as following:

Indicator light 1: Equipment light, indicating the equipment state, which have 3 glittering state.

1) Normal state: 0.5s on, 4.5s off


2) Incoming call state: 0.5s on, 0.5s off


3) Receive the message or missed call: 0.5s on, 1.5s


Indicator light 2: Unused

Standby shortcut icon is as following:



: Click to enter into main menu interface.




















: Click to enter into dialing plate interface.






: Click to enter into message interface.

: Click to enter into browser interface.

: Click to enter into contacts

6. Instructions of Fixed Icon Display Area

 	<p>Display the current signal intensity of WCDMA network and GSM: the more column bar is, the better the signal intensity will be;  means GSM signal intensity;  means the 3G signal intensity.</p>
	<p>Means that there is unread multimedia message</p>
	<p>Means the signal intensity of the WLAN.</p>
	<p>Means Bluetooth function has been opened.</p>
	<p>Means uploading or downloading files.</p>
	<p>Means that there is unread short message.</p>
	<p>Means it is in vibration mode</p>
	<p>Means it is in the flight mode.</p>
	<p>Means that the alarm clock has been set</p>
	<p>Means that TF card has been inserted into the equipment.</p>
	<p>Means that TF card hasn't been inserted into the equipment.</p>
	<p>Means the current battery power.</p>
	<p>Means the battery is charging.</p>
	<p>Means it is on the phone.</p>
	<p>Means there is missed call.</p>
	<p>Means it is using data service currently.</p>

	Means it is under silent mode.
	Means the network card is open.
	Means the PPPoE link has been built.
	Means GPS is open.
	Means the bar code scan function is on.

7. Charging Battery Icon



: The battery is in low power and needs to charge.



: The battery is charging and displays in motion.



: The battery has already been full.

8. Install TF Card and SIM Card

Open the closures on the top of the device, find TF card slot and adjust the TF card gap to be at the bottom left. Insert TF card into the slot, you hear a click sound, the other end of TF card will flush with the slot.

Open the closures on the top of the device, find SIM card slot and adjust the SIM card gap to be at the bottom left. Insert SIM card into the slot, you hear a click sound, the

other end of SIM card will flush with the slot.

Take TF card, open the closures on the top of the device , press the TF card slot direction, TF card pops up, remove the TF card.

Take SIM card, open the closures on the top of the device , press the SIM card slot direction, SIM card pops up, remove the SIM card.

9. Battery Usage

Battery performance

The standby time will be affected by system environment, system setting, service test, taking photos and using data service.

Calling or opening a backlight will consume more power than standby and standby time will shorten.

The standby time of no service area will be short than the normal standby time.

The battery performance will change with the charging status, temperature, local network as well as the background light status.

	7000mAh(Standard Battery)
Standby Time*	About 67 hours
Talking Time*	About 9 hours

More accurate time will depend on the local network status, using conditions and equipment card.

Charging

This equipment can only be charged by power adapter

and the USB port can't be used to charge the equipment.

Insert the charger into the power socket with 100~240V, 50/60Hz. When it is charging, the battery power icon on the screen will shine; after charging finished, the battery power icon on the screen will stop shining.

After charging finished, pull the charger out of the equipment and then pull the charger out of the power socket.

Charging time

If the AC voltage is very low, you should charge the battery in a long time.

The charging time is about 6 hours. (More accurate time will depend on the battery condition.)

The environment temperature of normally charging should be 0°C~40°C. Charging under below 0°C or above 40°C, the battery performance will descend and the battery life will shorten. When charging under too high or too low temperature for a long time, it will cause damage to the battery. For example, the battery can't charge fully and cause the battery inflation.

It will lengthen the charging time to use nonstandard charger.

It will also lengthen the charging time to operate the tester when charging.

Note:

■ You should fully charge the tester before the first usage; please disconnect the charger in time after charging finished because the long-time charging will damage the battery

performance.

- When it is not charging, please take the charger from the outlet.
- When it is charging in very low battery, the tester will not start immediately and will display low battery prompt if you do booting operation. After charging for a while, the tester will start normally.
- Charger is safety device, please use our specialized charger. Meanwhile, please be careful during the usage.

10. Main Specification of the Equipment

- It adopts 7" 1280×800 capacitance touch screen
- It adopts the built-in Android 4.1.2 JB operation system.
- Rechargeable 3.7V 7000mAh polymer battery and the max power is 3W.
- Host supports an make a phone call in earphone and listen to music. (needs earphone)
- Host supports 1D Infrared bar code scan (optional)
- Host supports HF RFID 13.56MHz
- Camera with 8 million pixels and front camera with 2 million pixels; support auto focus and flash function.
- Support flash light function
- Dimension: 208*140*20mm
- Weight: 616g (without fingerprint function)

Chapter II

Specifications and Functions

1. Technical Specifications

1.1 RFID High Frequency Index

- Working frequency:13.56MHZ
- Profile: Support ISO/IEC 15693, ISO/IEC 14443A profile
- Support Cards: SR176, SRIX4K (TYPE-B), I- Code2, TI RFID label-it HF-I, EM4034, Mifare Classic ETC
- Identification distance: more than 3cm

1.2 1D Infrared Scanner Index

- Scanning mode: CCD
- Optical resolution: 5mil
- Scanning speed: 50 times/second
- Scanning distance: 5.7cm-61.0cm
- Scanning angle: $53.3^{\circ} \pm 3^{\circ}$
- Turning Angle from right to left: $\pm 30^{\circ}$
- Turning Angle from front to back: $\pm 65^{\circ}$
- Horizontal Angle: $\pm 25^{\circ}$

1.3 1D Laser Scanner Index(Optional)

- Light source: visible laser diode
- Identification ability: 1D

- Scanning speed: 104 times/second+12 times/second (two way scanning)
- Scanning distance: 2.5cm-114.3cm
- Scanning angle: $47\pm 3^\circ$ (default) / $35\pm 3^\circ$ (reduced code)

1.4 2D Infrared Light Scanner Index (Optional)

- Identification ability: 1D, 2D, OCR
- Image sensor: 752*480 CMOS
- Scanning precision: ≥ 5 mil
- Scanning angle: rotate 360° , incline $\pm 50^\circ$, deflection $\pm 50^\circ$
- Field of View: Horizontal 36° , vertical 23°
- Depth of field: 4cm-23.5cm
- Exercise tolerance ability: horizontal speed 12.7cm/s
- Light intensity: LED 350LUX(13cm)
- Environmental luminance: 0~100,000 LUX

1.5 RFID Ultrahigh Frequency Index (Optional)

- Working frequency: 865-868MHz/920-925MHz
- Support agreement: EPC C1 GEN2/ISO 18000-6C
- Output power: 10dBm-30dBm
- Identification distance:
920-925MHz 50cm/200cm/350cm
865-868MHz 150cm/300cm

2.General Functions

2.1. On/Off

Open the tester

Under the "off" condition and there is electricity in the battery, long press the power key to start the equipment.

Close the tester

Under standby interface and there is electricity in the battery, long press the power key to pop up an option menu and then choose "Power Off" to close the tester.

2.2. Standby and Wake up

Under the "on" condition, the system will enter into standby state or shortly press on/off key to enter into standby state. Under standby condition, shortly press on/off key to wake up the system. (The time entering into standby is relevant with the backlight time setting in setup options. If the setting is "Light Forever", the system will not standby automatically. But you still can realize the standby by pressing on/off key.)

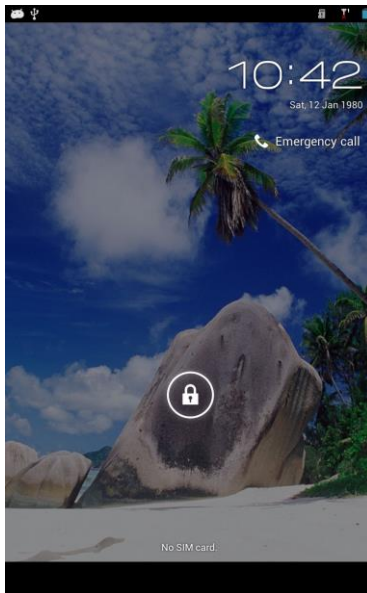
After waking up, the system will restore to the interface before the standby and the program will restore to the state before the standby.

2.3. Table Management

There are five default pages of the table screen and it can display different screens by sliding with finger.


Lock or Unlock

If there is no equipment operation, after some time the keypad will automatically locked. Press the power button to wake up the screen, click the lock icon, you can slide in different directions respectively, into different functional, as shown below:



In main menu "Settings> Display> Sleep" can set time delay before the device sleep.

Add Desktop Icons

Click  to enter menu interface, find out the program which you want to create a desktop shortcut. Keep pressing the icon, when icon vibrate, you can move, and then drag the icon to where you want to let go on desktop (note please

keep pressing the icon during the operate)

Delete the desktop icon

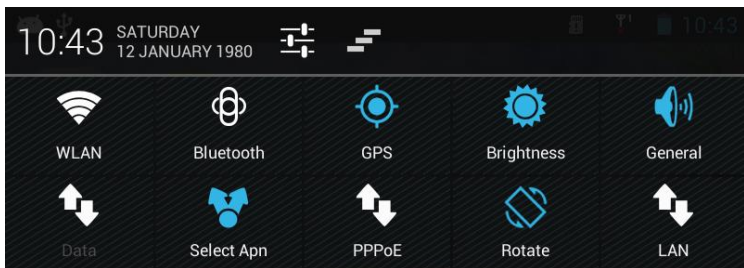
Keep pressing the desktop icon, after icon vibrate, the top of the screen appears "x Remove", move the icon to "x Remove" place , release after the icon turns red , the target can be deleted.

Change wallpaper

Keep pressing the desktop space will pop up the following menu: Wallpapers, Live wallpapers and Gallery, you can also set a picture as wallpaper when you browse the pictures.

System prompt bar

System prompt bar (the top row of the screen) displays the current notification system (such as unread messages or missed calls, etc.).

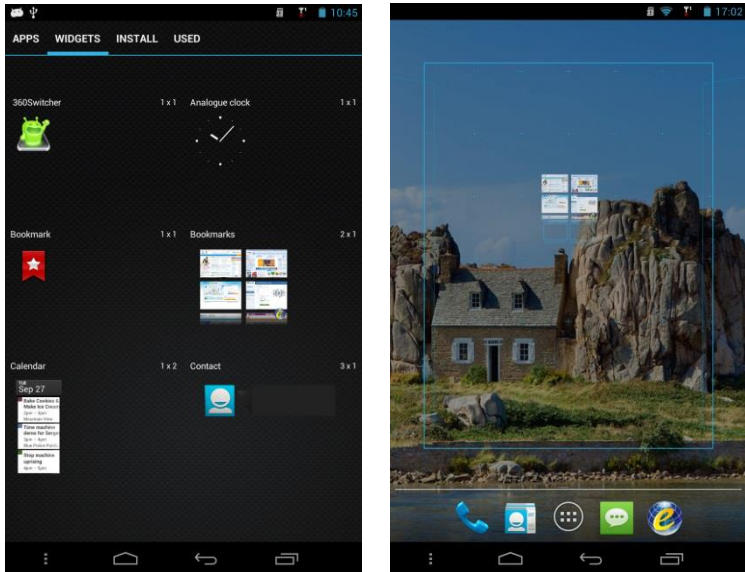


Open the prompt bar: press the screen with a finger drag down the status bar.

Add /Remove desktop plug-ins

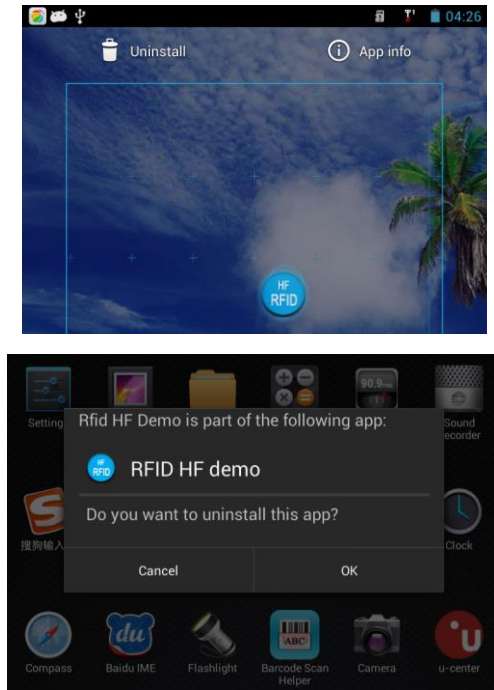
To add desktop clock and other desktop plug, you need to enter the menu, and then click on the Widgets, Keep pressing the icon of plug-ins, plug-in icon vibrate, you can

move, and then drag the icon to your plug-ins want placement can let go (note that during the operation to hold the plug-in icon do not put). As shown below:



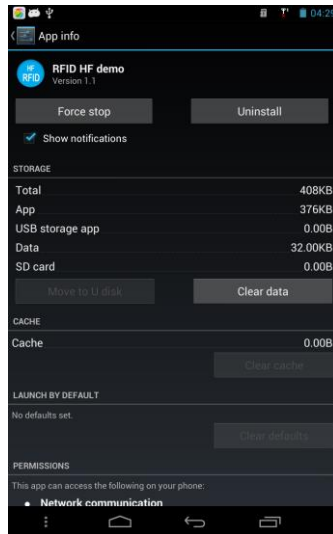
Quick uninstall installed programs

Enter the menu screen, select the program icon you want to uninstall, keep pressing the icon, icons vibrate, you can move, move to the desktop uninstall icon will pop uninstall interface, click OK to start the uninstall program, and then click OK to complete uninstall.



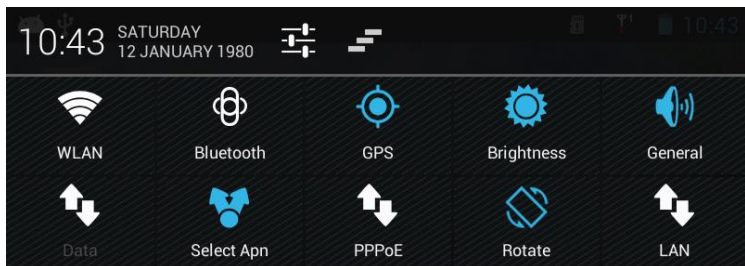
View program information

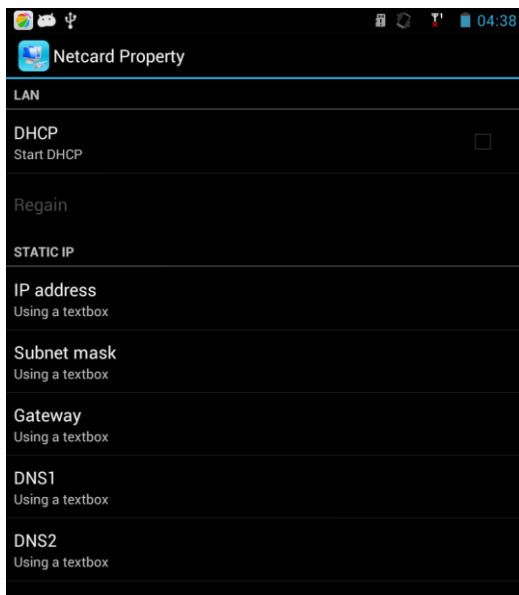
Enter the menu screen, select the icon for the program you want to view, keep pressing the icon, icons vibrate, you can move, move to the desktop App info, the application will pop up the relevant information. As shown below:



2.4 Open / Close Net Card (Connect OTG Cable)


Connect the USB-OTG cable to the USB interface of device, and open the net card, pull down the prompt bar and click the LAN icon. (The icon is blue card means turned on,) the system pop-up card properties window, as shown below:




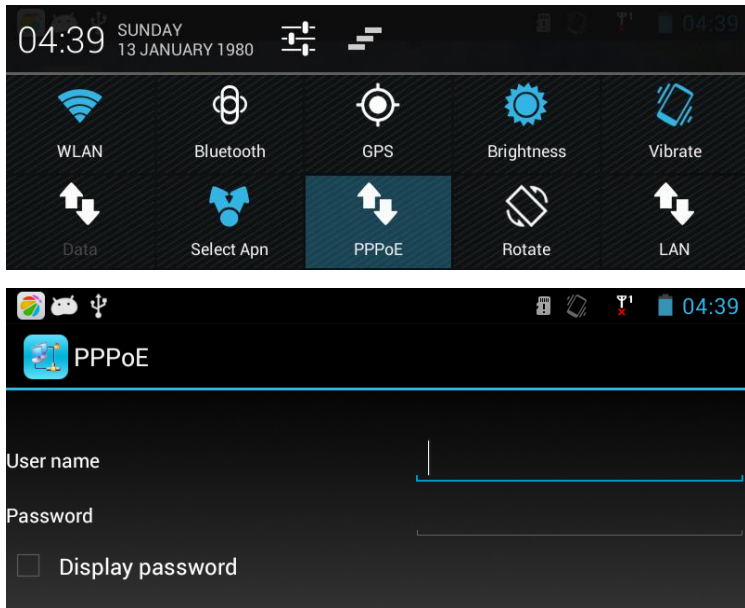


Select Using LAN, you can choose to open DHCP or fixed IP mode, the DHCP mode, you can click again to reacquire to make the device to obtain an IP address from a DHCP server. In the static IP status, you can modify the NIC's IP address, subnet mask, gateway, and DNS, DNS is divided into two, namely DNS1 and DNS2, should first set the DNS1.

2.5 PPPoE Dial (Connect OTG Cable)

Connect OTG line to the OTG interface of the device to connect with Ethernet. Icon  will appear on the status bar. To make the network port PPPoE dial, pull-down prompt


bar, select PPPoE icon  (the icon is blue means PPPoE dial is connected, the icon is white means PPPoE dial not connected), PPPoE Properties window pops up, as shown below:

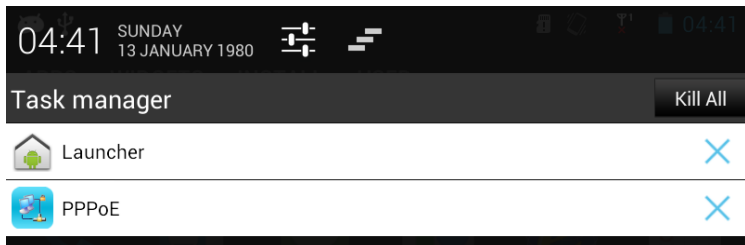


In the dial-up interface to enter a user name and password, click CONNECT to establish PPPOE link.

2.6 Task Manager

Equipment system has Task Manager, you can close opened programs to release program memory, improve system efficiency.

Pull down prompt bar, single click , Task Manager will appear, as shown below:






Enter into a running program menu; click on the stop button corresponding to the task, which can close the current task and free the occupied memory space. (The Launcher is desktop manager, so it can not be turned off)

2.7 Input Method

Click the application's text box; the system will automatically bring up the built-in input method. As shown below:



System using Baidu input method, Click  on the keyboard to hide input method, Click  can switch to Pinyin, and click again becomes English input method. Keep pressing the on-screen keyboard to the left or right button; it will switch the input keyboard layout. Click  on your keyboard to switch to digital / character input method, which includes English characters, facial expressions, network, digital, Greek, Latin, mathematics and other options, as shown below:



Where you can select the desired input mode, (You can also install other input methods, such as stroke, etc.) devices also support install other input methods, such as, Sogou input method, Baidu input method.

Change the text input method




In the system settings have language & input options.

All installed input method are contained, as shown above, you can click the check box in front to set the default input method.

2.8 Flashlight

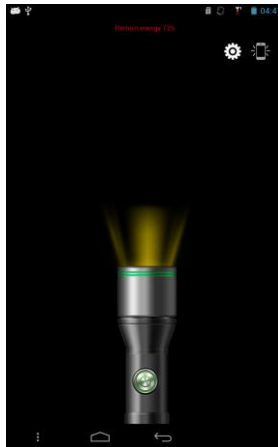
This device supports flashlight, camera fill light can be used as lighting. In the state of power on, open the main menu, (When the system standby, flashlight will remain its state before the system standby. So please close flashlight

to save power.) Click  into the Flashlight interface,

Icon  is grey, that means the flashlight is turned off, and

 is green, means the flashlight is turned on. Click 

can switch the flashlight and screen light,




Keep pressing the screen to the left or right to change

color of the screen light.

2.9 Camera



Click  under the main menu and enter into the Camera function, click the Camera , it can be auto-focus, switch the mode from video to panoramic at the left bottom of the screen.

2.10 Breathing Indicator

When device in the boot and standby state, breathing light gap flashes to indicate that the device is in working condition In calls or missed calls, received messages have different breathing light blinking to alert customers, and the meaning of 2 indicator as following;

Indicator light 1: Equipment light, indicating the equipment state, which have 3 glittering state.

- 1) Normal state: 0.5s on, 4.5s off
- 2) Incoming call state: 0.5s on, 0.5s off
- 3) Receive the message or missed call: 0.5s on, 1.5s off

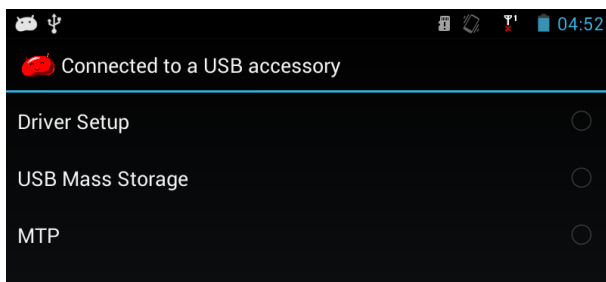
Indicator light 2: Unused

2.11 Mass Storage Mode

Mass storage mode is USB data cable connect with the PC, the device will be a virtual mass storage U disk, via a PC can be copied or deleted U disk file.

Through Mini USB data cable to connect the device with the PC, the device prompts bar prompts a USB

connection, pull down the prompt bar, click the USB connection, select USB Mass storage, PC machine will find U disk, which can be operated via a PC U disk content. As shown below:



If there is no TF card, will virtual a U disk, if have TF card, will virtual 2 U disk. (Drive letter will vary on how many different devices) as shown below:



2.12 Headset


Device supports headset, listening to music, the device's headphones as an ordinary hole, the device is equipped with a headset plugged into the headphone jack, that is to meet the needs of calls and listening to music, the headset supports off-hook and on-hook operation. (Dedicated headphone headset, other headphones may not be used)




No	Name	Specification
1	plug	3.5mm
2	Hook button	ABS Black
3	horn	$\varnothing 10$ 32 Ω
4	shell	ABS black sequins plating

2.13 Vibration

Device supports two vibration modes, one is only vibration, the other is ringing & vibrations. Setting only

vibration mode: Pull down prompt bar, click  until it

changes to , it will be ok. Or you can also long press the

power button and click  icon on the pop-up screen to enter the vibration modes

Ring & vibration modes need to enter the Setting> Sound to select Vibrate and ring.

2.14 WIFI Hotspot

The device support WIFI hotspot, providing 3G network links WIFI connection to other devices.

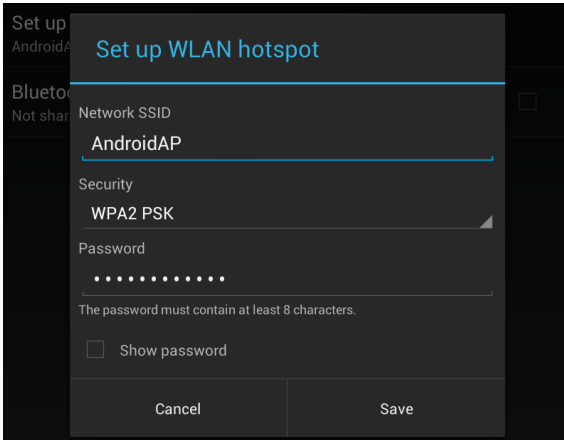
Connect 3G data connection, and then enter system settings>wirless&networks>more...Click

“Tethering&portable hotspot”, the interface as shown below:




Selecting the Portable WLAN hotspot. You can open WIFI portable hotspot.Through other devices with WIFI hotspot that can search the AP and login networks.

Click the set up WLAN hotspot, you can set up WIFI hotspot SSID, security, passwords and other content, as shown below:



2.15 USB-OTG Function (Connect OTG Cable)

The device has OTG function, and can connect to mouse, keyboard and Ethernet. Connect to the mouse or keyboard: the mouse is connected to the OTG cable, you can select, confirm, or move on the PC.

Connect with the Ethernet: Connect one end of OTG line to the OTG interface, and the other end to Ethernet, and the  icon will pop up on the status bar, then you can operate PPOE and LAN setting.

2.16 Fingerprint Unlock Function(optional)

Fingerprint register: enter the main menu and choose Setting > Security > Screen lock> Fingerprint unlock. Click continue to input the fingerprint, as following:



During the procedure of fingerprint registering, slightly touch the fingerprint scanner on the back of the device 3 times. When it display that the fingerprint is registered successfully on the screen, it is finished. After fingerprint is registered, the interface of graph unlock setting will pop out. Setting the graphic unlock can help to unlock the screen by graphic when the fingerprint unlock dose not work.

Fingerprint unlock: when the device is under unlock status as following:



Put the finger on the fingerprint scanning area and finish the fingerprint unlock, and when the fingerprint unlock is failed, you can use graphic unlock.


2.17 Compass Function

The device has compass function. When using the compass function, firstly calibrate the device, calibration method: stand in a open place (without magnets around for the best), the screen upward, in front of your body, with mobile phone draw the figure of "8" twice, the device screen for yourself, draw the figure of "8" twice. Figure "8" as shown in the picture on the right. If the compass display is inaccurate, repeat operation.



Chapter III

Usage of Main Functions

Click on the bottom  of the standby screen, pop up the main menu. As shown below:

Slide left or right to view more menu items, press the Back button to close the main menu, you can directly click the application or widget to switch applications and widgets options. You can also put your own favorite features onto the desktop, keep pressing the icon you want to move and hold, after a brief vibration to move, drag it to where you want the icon placement can let go (Note: during operation to keep pressing the icon and not loose).

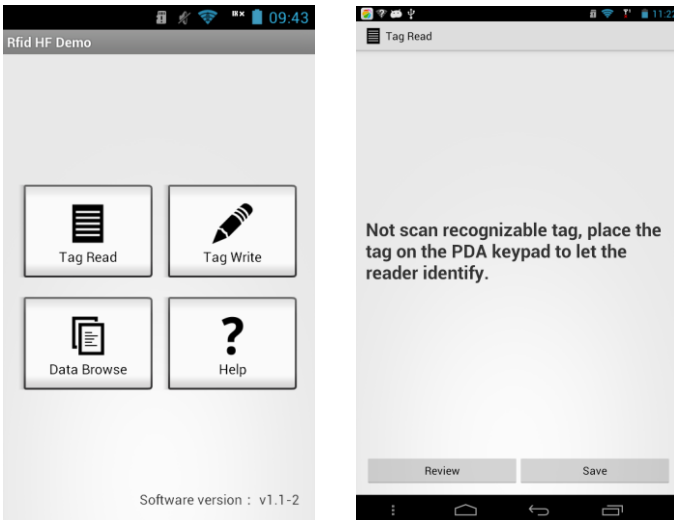


1. RFID HF (High Frequency) Card

Identification

Reading recognizable RFID HF card, support for common standards such as: ISO 14443-3A, ISO 15693. Can write to the card, and provides a convenient data storage function, can be used for future viewing.

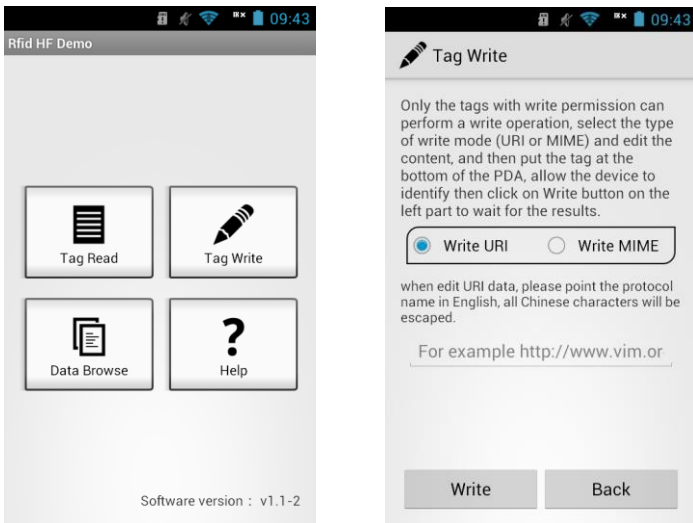
label Read: After installing RFID HF demo equipment, you should put the card under the equipment RFID scanning area. If the device recognizes the card, reader option will automatically pop up; select the read and write button, Interface as shown below:



Click on "Review" to visit the software all card

information current scanned; clicking "Save" will permanently save the current scan results to the database for viewing the record.

label Write: In the main menu, click on HF demo program, enter the RFID HF Demo presentation interface, and then click on the "label Write" into the label write interface or click on the label write button in above picture. label Write interface is shown below:



After entering the interface, the user can choose to write URI or MIME. URI type only needs to fill specific data to support Chinese and English, in writing, please use English URI specified protocol name such as: <http://www.vim.org>. Click the Write button to complete input; there will be a corresponding message.

Write MIME needs to indicate the MIME type name;

name should not exceed 255 bytes; content supports in Chinese and English, you can also directly edit the raw bytes to facilitate the input, the decimal value of each byte is marked with minus sign segmentation, numerical overflow section will automatically discarded.

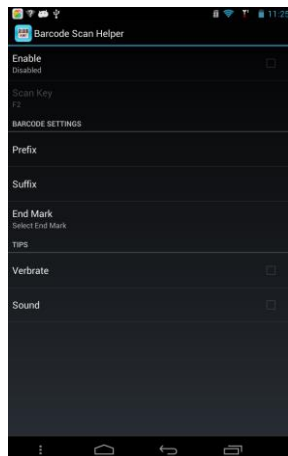
Raw bytes: When editing the right box, you can input audio and other information at the bottom hexadecimal code. Then click write to.

When the device according to the card when the card contacts within the URI and MIME start different functions, such as phone calls, open web pages, etc.

Note: URI is the uniform resource descriptor; MIME is Multipurpose Internet Mail Extensions.

2. Barcode Scan Helper

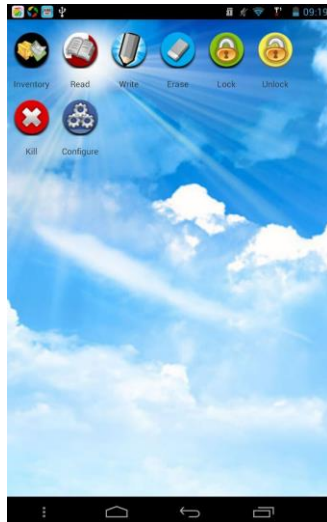
Barcode scan test interface is shown as below:



In the "Barcode Scan Helper" interface, press F2, it can work, now open website, document or email. Then aim at bar code with CCD scanner, the test result will show on website, document or email.

3. RFID UHF Card Identification

RFID UHF module supports working frequency and international common RFID UHF standards, including all rate and coding options. Users can choose required configuration according to demand, demo program interface is shown as below:



Configure Description: Card access password is eight hexadecimal digits and letters, the program defaults to 8 0, if the relevant area of the test label has been set read

protection, shall be provided to the measured actual label access password. In the absence of a read-write protected card, no real access password can also read and write data. In addition to read and write the same password and lock password, use the following functions, you need to specify an arbitrary matching cards or after operational. Starting address for the selected four BANK any address within the read is not greater than the number of the remaining space of the BANK. Read data word (2 bytes) for the unit.

Click read button to read the read configuration in accordance with the information in each BANK, Reserved in the first two bytes for the destruction of passwords, access codes after two bytes; EPC area store EPC number; TID area store identification label number, each TID number is unique; User zone is a user-defined data area. Moreover module can also be equipped with a high reading and writing data in a BANK.

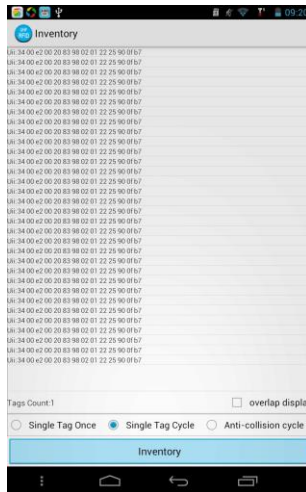
Note: Tid area can be read only, write and unlock functions can not be operated.

Different module option is different.

Main features are described as below:

Recognition:

Click the "recognition", enter recognition interface, and then click counts. When the device correctly identify the card will display the card data. Recognition interface is shown as follows:



Single label each time identifies one, single label looply identifies continuous recognitional label, Loop identification to prevent collisions is suitable for a lot of labels. After the user select "overlapping display", it will be merge and show all information in the display area, the number of occurrences is given.

Data Read:

Read specified label or any label, In addition to high distribution module can also specify the matching conditions. Click Find, and can automatically find identification card within the region, access password is eight hexadecimal random numbers and combinations of numbers and letters, initially eight zero (do not rule out a special white card with other values). Read data in word units, set to be read Bank, the starting position and the number of reads, you can click

the Read button to read. Data read interface is shown as below:



Data Write:

Input the access password after choosing the BANK to write in. Set the starting address as the written starting word address, the written data is the actual data to be written, word is the units. After completing the setting, you can click “write” button to write. After writing successfully, the interface is shown as below:



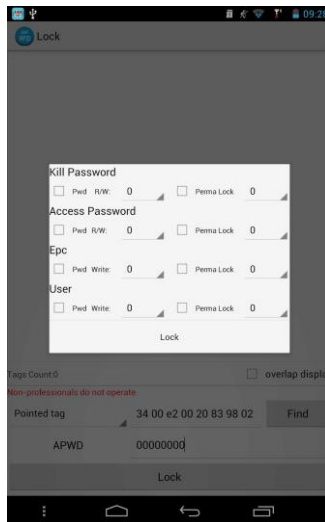
Data Erase:

After finding the tags, users can erase the data in designated area. Generally, it can only operate in user area. Data erasing interface is shown as below:



Data Lock:

The user can only specify a label to be locked. Entering the user password to click the lock button, the lock interface is shown as below:



The user can lock one or several related areas at one time, if a permanent lock is chosen, it will not be able to unlock. R/W are required to provide real access password for both read and write. Perma lock indicates permanent lock. In the back of the check box, select 1 to click lock, then the Bank will be locked; there will be corresponding information after lock successfully.

Unlock:

The user enters the data unlock interface, specify the label and enter the real access password, click on complete

unlock, you can unlock a locked area. This demo provides all presentations include Kill Password, Access Password, Epc, User Area. If either of these areas has been permanently locked, the operation will fail. The unlock interface is shown as below:



Kill:

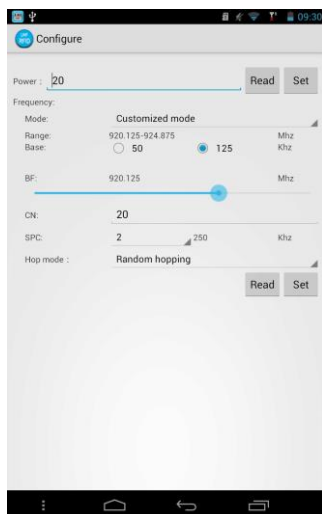
Kill function is to destroy discarded cards or inapplicable cards. Also specify a label or clicking the Find function to find the read card. Kill password is eight hexadecimal numbers and letters, the program defaults to eight zero. In actual operation, set to the actual kill password of the measured label password. Enter kill password and click Kill button you can destroy cards. Label kill interface is shown as below:



Note: The card can not be restored after destruction!

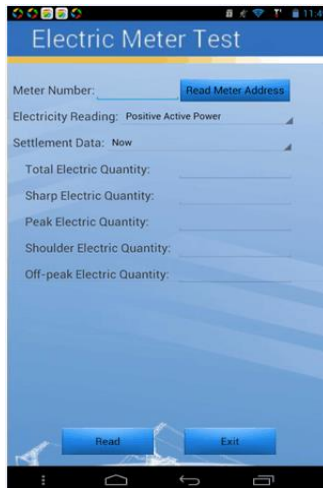
Configure options:

Power can be configured to 10-27, including high model up to 30, working frequency should be set to match with the operating label. Currently, it supports four standard frequency settings and custom settings. Configure interface is shown as below:



4. Infrared meter reading

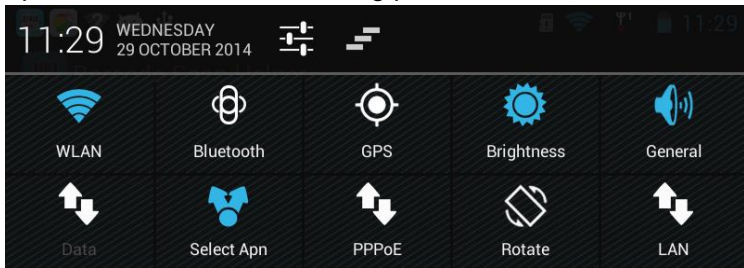
Open Electric Meter Test program, and then click “Electricity Reading” ,enter into meter reading interface, align jacket IRDA to electronic meter IRDA. Click “Read” , can read the total power. Reading interface is shown as below:




5. Control of the Electric Quality and Wireless Dial


Control of the electric quality and wireless dial is in



setting, and the tester provides the quick way to control. Pulling down the prompt column, system will display the shortcut control icon; click the shortcut icon can open or close the corresponding option, white is close and blue is open. Please see the following picture:




Description of the control item is as follows:

 **Settings:** shortcut icon of setting open, click it can open the setting quickly.

 **Task Manager:** Shortcut icon of task manager and click it can open the task manager quickly.

 **WLAN icon:** the switch for WIFI, if use a router for the first time, user need to enter into setting, searching WIFI router at first, and enter the password to connect with the router.  icon will be shown in the prompt bar after connection.

 **Bluetooth icon:** the switch for Bluetooth, user should search and pair with it when searching other Bluetooth user.



GPS icon: the switch for GPS



Brightness icon: Adjust the brightness of the screen, click it to adjust the brightness, which includes low, middle, high, user can adjust the brightness continuously in setting.



Voice icon: adjust the voice mode, which includes voice mode, silent mode and vibration mode.



Data: switch for 3G wireless. SIM/UIM card is needed, flow and cost will be generated after clicking, and please close the link when do not use.



PPPoE icon: switch for PPPoE.



Rotate Icon: open or close the auto Screen revolve mode.

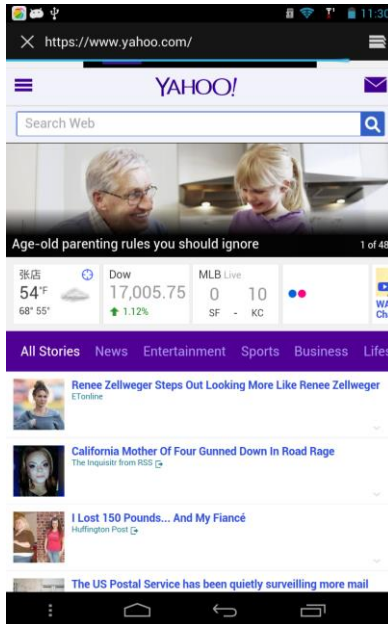


LAN icon: switch for the LAN network card.

6. Web

Click web to enter into the browser interface for all functions. Enter into the website or IP address in the address bar to login the webpage.

Internet setting menu will pop up when clicking the menu key.



Includes stop, forward, bookmarks, save to bookmarks, share page, find on page and so on.

Click "Save to bookmark" to store the current page into the bookmark, and then user can open the webpage quickly.

Click "Settings", the setting interface will pop up which includes General, Privacy & Security, Accessibility, Advanced and so on.

User can set the homepage of the browser in "General", the tester will connect with it automatically when login.

"Settings--Advanced---Save Location" can set the storage position of the download files, and user can store it in the inner memory or SD card.

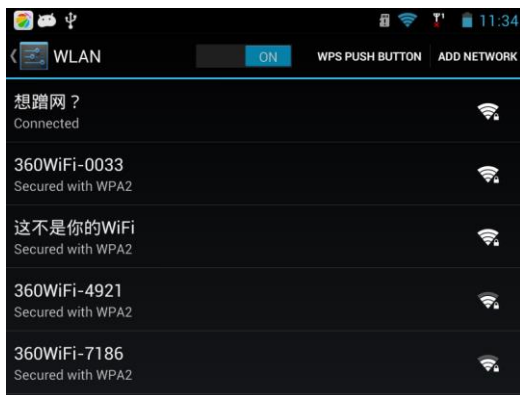
7. Settings

"Settings" includes all the content needed to be set, detail see the following:

7.1 Wireless & Networks

WLAN

Slide the switch from left to right to open or close WLAN and click the icon into WLAN setting, as follows:

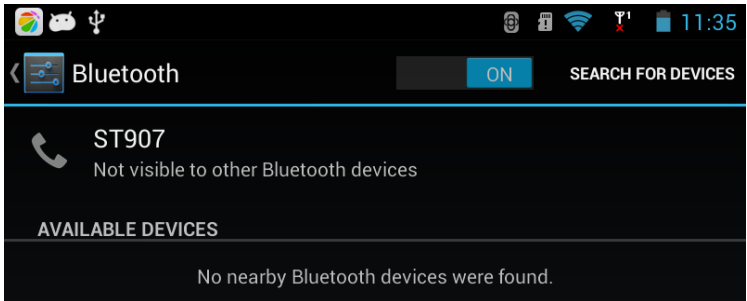


Tester will search WLAN router automatically after entering into WLAN setting, and the result will be shown in list. Click the router can connect with it and some of the connection needs password. Click "WPS Push Button" or "Add Network" to search other internet

Bluetooth

Slide switch from left or right to open or close Bluetooth and click the icon into Bluetooth setting, as follows:

When open Bluetooth, click "device name" can make the device be found, and detect all the devices around.



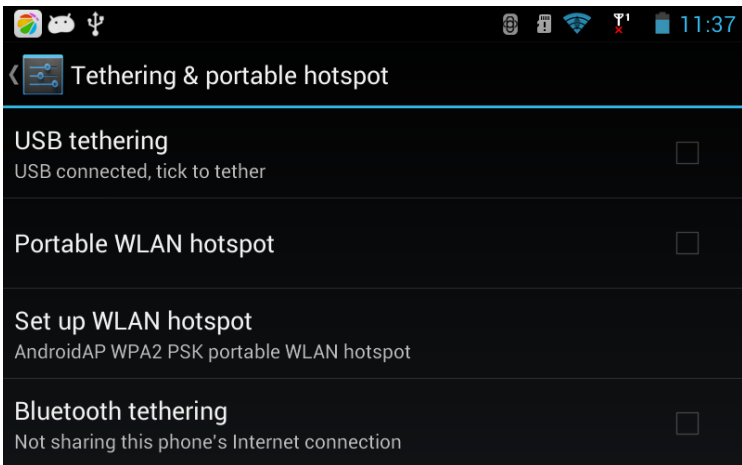
Click "Search for Devices", the device will search and show Bluetooth list. Press to rename device, set visibility timeout, show received files.

Data usage

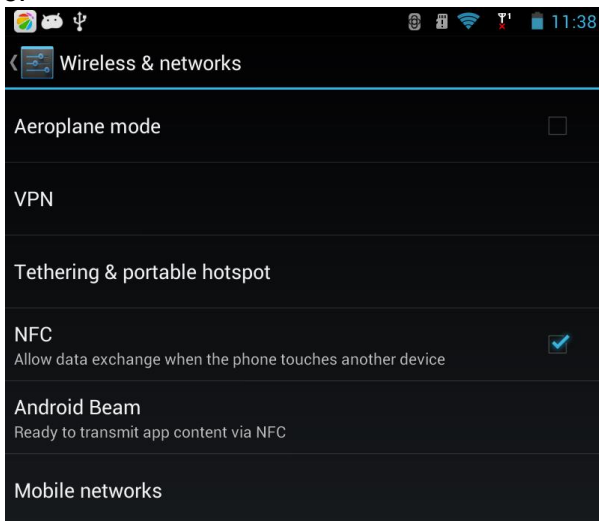
Open or close the data usage function; check the usage of data.

More:

Do the operation of airplane mode, Virtual private network, Equipment network sharing, NFC, Android Beam, mobile networks. Equipment network sharing including USB sharing network, Portable WLAN hotspot, Set the WLAN hotspot, Bluetooth network sharing. Equipment network sharing interface is the following picture:



Notice: When using RFID HF, please choose NFC, which in Setting Wireless & Networks >More>NFC, As the following picture:



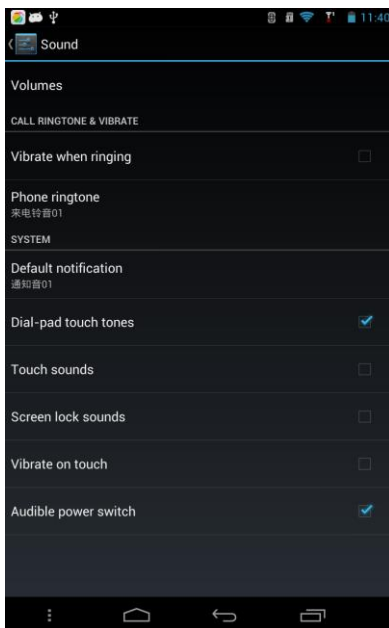
7.2 Device

Sound

Open or close the silent mode.

Set the volume, ring tone, default notification and so on.

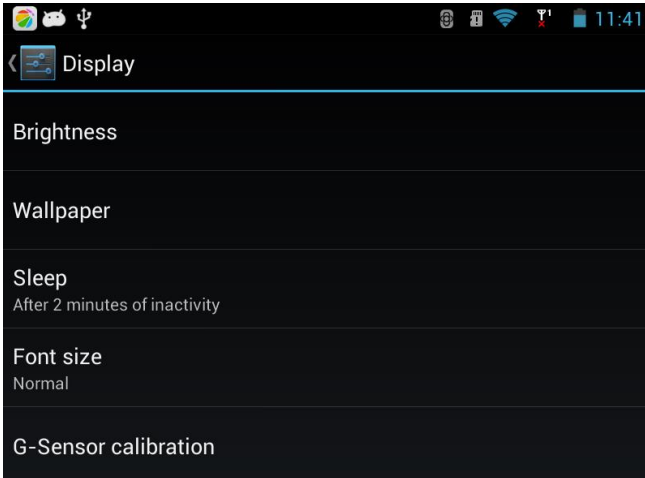
Open or close the vibration and ring, dial pad touch tones, touch sound, screen lock sound, vibrate on touch and emergency tone. As follows:



Note: Adjust the volume of the loudspeaker through the up and down key.

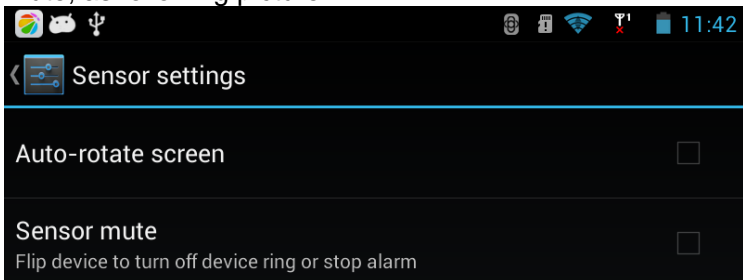
Display

Adjust screen brightness, wallpaper, sleep time and G-sensor calibration. As follows:



Sensor settings

You can set the automatic rotary screen and inductive mute, as following picture:



Storage

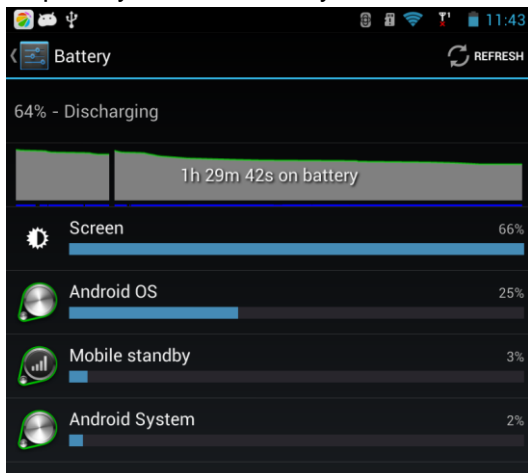
Check TF card space capacity, available system space and

format internal U disk, as follows:



Battery

Check the quantity of the electricity.



Application program

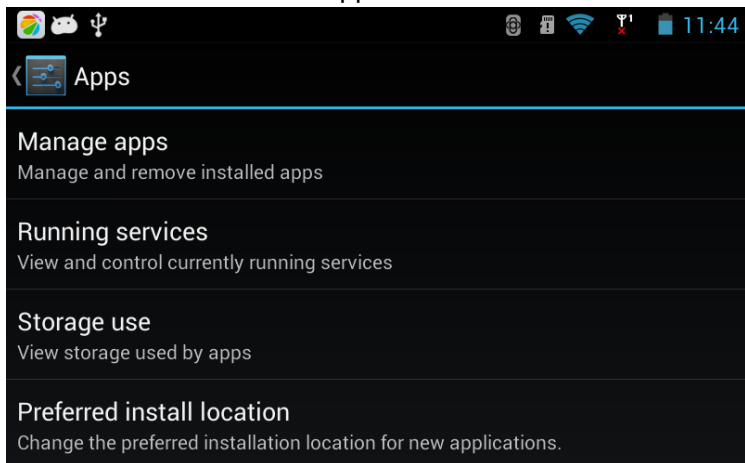
You can manage the application program.

Application management: manage and delete installed applications.

Running service: view and control the currently running services.

Storage: check the storage space of the application program.

Preferred install location: changing prefer install location when install new apps.



7.3 Personal

Includes the settings related to personal:

Location Access:

Click to choose the different location modes such as GPS satellite.

Security:

- Choose the screen lock mode;
- Owner info;
- Open or close the password visible function;
- Choose the device administrators;
- Set application password and the default password is 1234;
- Install the unknown sources with default password 1234 and you can change the password in "Application Password".
- Choose the trusted evidence.
- Install from the SD card;
- Clear credentials

Language and input

- Select the display language
- Open or close the spelling correction
- Choose different input method

Factory data reset

Factory reset function will clear all the information. Please copy the important information such as: Contacts and message etc.

7.4 Accounts

After opening the function, add the account to keep the synchronization of the equipment and account.

7.5 System

Date and time

- Open or close the automatic date & time which is provided

by network.

- When closed, you need to set the date, time zone and time.
- Choose the time or date format.

Accessibility

- Press power key to end the phone call.
- Choose the touch and hold delay time.
- Choose whether install the network script or not.

Developer Options:

Choose the options for develop person.

Auto power on/off

Set the time of auto power on/off.

About phone

View basic device information such as status, legal information, model number, Android version and so on.

6. How to Install and Uninstall Software

Install

In the "My Files" interface, please find the downloaded installation package (apk file).

After clicking installation package, if pop "installation is forbidden", please following up the instruction to set: open "Settings--Security--Unknown Sources" and then input password (default password is 1234); then returned to the "Settings--apps" to click "Install".

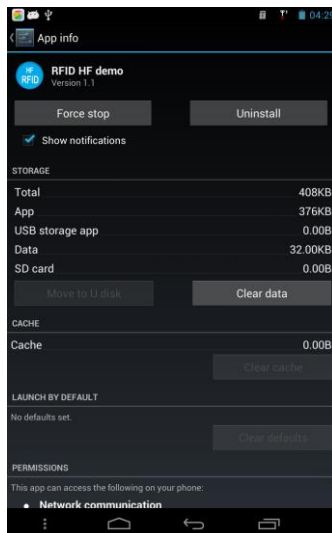
After successful installation, go back to the main menu to run the installed application.

Uninstall

Enter " Settings > apps > Manage apps".

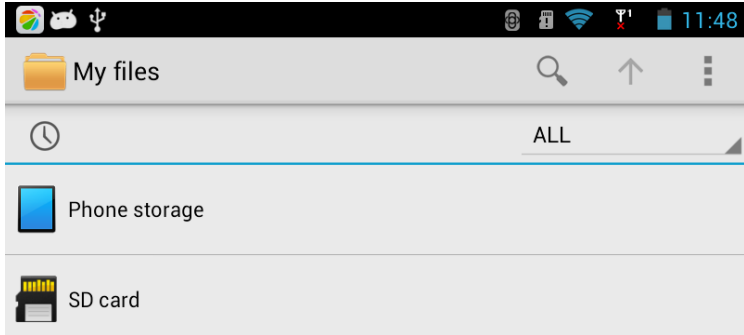
Choose the application; click "uninstall". Or enter into the menu interface and choose the programme need to be uninstalled and keep pressing until shake, then you can move the icon to the desktop and a uninstalled interface will pop up. Click "OK" to uninstall the programme, and then click "OK" again to finish uninstall.

Note: The intelligent device has open application software; this feature is only used by personal but not for commercial purposes. For commercial purposes, it must need professional adaptation and test.



7. My Files

When insert SD cards(TF card), click Menu > My files, You can read the contents of the SD Card.



Chapter IV Usage and Maintenance

The following suggestions are helpful for the users to use and maintain this tester.

- Put the tester and all the accessories in the place where the children can't reach.
- Please keep the equipment dry. Because there may be mineral substance in the rain, moisture and various liquids which can corrode the circuits.
- Please keep the tester far away from the magnetic equipment like magnetic card and floppy; don't put the tester, battery and charger in the electromagnetic field like electromagnetic oven and microwave oven.

- Don't put the tester in the high temperature place. Because the high temperature may shorten the lifespan of the electronic equipment, damage the battery and make the plastic accessories deform or melt.
- Don't put the tester in the low temperature place. Because when you move the tester from lower temperature place to the normal temperature place, there will be moisture inside of the tester, which may damage the circuits board.
- Please don't try to uninstall the tester because the improper operation of the nonprofessional person may lead to the damage of the tester.
- Please don't throw, hit or shake the tester because all rude using method break the inside main board.
- Please don't use the irritant chemicals, irritant cleanser or caustic cleanser to clean the tester. When cleaning the tester, please use rag with mild soap water to wipe gently.
- Please don't spread the pigment for the tester. Because the pigment may obstruct the usage of the active accessories.

Note: The max SAR is 2.0W/Kg, which meets the requirement of the national standard GB 21288.

Chapter V

Faults and Solutions

If you meet the following problems during the using process, please try to use the "Faults and Solutions" first to do the relative operation. If the problems still exist, please Scontact the professional maintenance person.

Problem	Reason	Solution
Unable to switch on the tester	The time of pressing the power key is not enough.	Press the power key for over 2 seconds and more.
	Low Battery	Charge the tester
Some programs can't be used normally.	The storage space is not enough.	Clean the messages of built-in multimedia promptly and other application programs as well as the download application records.
The standby time is not enough.	The battery performance declines.	Change the battery.
	Play games and music for a long time.	Limit the time of playing games and music.

Charging fault	Poor contact	Check the contacts or change plug.
	Low battery vollabele	There will be no charging display. Charging for about half an hour and then unplug it to recharge.
	Battery fault	Change battery.
	Wrong charger type	Change proper charger.
	Charger fault	Change or mend the charger.
The equipment is automatically closed	The battery electricity is severely not enough.	Please charge.
	Setting reason	Check whether setting the auto power-off or not.
	Get accident interference.	Restart