User Manual

Supoin S30 Series Products

Hello!

Thanks for choosing our S30 series products.

Before use, please read the user manual carefully to learn more about our products' features. The products are subject to upgrade from time to time, so please contact us for the latest version. This manual is for reference only.

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Chapter 1 Introduction to S30 Series Products

1.1 Overview

S30 series products are industrial grade handheld terminals independently researched, developed, designed and produced according to the characteristics of each industry, and feature ergonomic design, compact size, anti-shock and anti-fall design, long standby time and stable operation. Moreover, the S30 series boasts IP65-rated robustness against adverse environments because it is waterproof, dustproof, shatter-resistant, electrostatic prevention and anti-high and low temperature.

1.2 Scope of Application

Mainly used in the fields of shoes, clothes, channels, logistics, drug supervision and etc.

1.3 Technical Specifications

| Currently, we | have two | solutions | available: | 2416 and PXA. |
|---------------|----------|-----------|------------|---------------|
| | | 001010110 | aranasiei | |

| Product Model | | \$30 | |
|-----------------------|--|----------------------------------|--|
| CPU | Samsung S3C2416 ARM9 400MHz | Marvell PXA310 XScale 533MHz | |
| Operating System | Windows Embedded CE 5.0 | Windows Embedded CE 6.0 | |
| Memory | 128MB ROM 128MB RAM | 256MB ROM 256RAM RAM | |
| Display | 3.2-inch QVGA (240x320), TFT-LCD | 3.2-inch QVGA (240x320), TFT-LCD | |
| Camera(Optional) | | 5.0 mega pixels, auto focus | |
| Scanner | 1D Laser Scanner 2D CMOS laser scanner | | |
| Symbologies | All major 1D barcode All major 2D barcodes | | |
| Reading Accuracy | ≥3mil ≥4mil | | |
| Scan Depth of Field | 3.81 cm - 60.98 cm 7.4 cm - 20.3 cm | | |
| Scan Angle | 47°± 3° (Standard) | Omnidirectional | |
| Scan Speed | 114 ± 10 scans/sec. | 300 scans/sec. | |
| Communication | Wi-Fi 802.11b/g WCDMA Bluetooth 2.0 | | |
| Transmission | | | |
| Operating Environment | Operating Temp15°C ~ 45°C ; 5 ~ 95% RH ; Drop Spec. 2.5-meter drops to concrete ground | | |
| Dimensions (LxWxD) | 191 . 8mm x 72 mm x 37.7 mm ; | | |

| Weight | 320 g (standard battery included) |
|-----------------|---|
| Battery | 3.7V 3200 mAh polymer lithium batteries |
| Expansion Slot | Mini SD card, up to 32 GB, Micro SD slot |
| Vibration Motor | Built-in programmable vibration motor |
| USB Port | 1 (Mini USB port) |
| Charger Port | 1 (Charging interface at the bottom) |
| Keypad | 26-key |
| Accessories | Universal adapter Battery, USB Cable, Touch pen, Hand strap, MicroSD (TF) Card of 4G |
| Programming | Tool : Microsoft Visual Studio 2005/2008 ; Language : C++ / C# / VB.NET |
| Environment | |
| Qualification | CE, RoHS IP65, ISO9001 |

1.4 Battery Life (hours)

| Test Item | S3C2416 | PXA310 |
|---|-----------|-----------|
| Continuous 1D scan+sound | 12 | 12.04 |
| Continuous 1D scan +WI-FI (powermode=1) upload +sound | 11.24 | 10 |
| Continuous 1D scan +WI-FI (powermode=0) upload +sound | 7.5 | 6.5 |
| Continuous 1D scan +GPRS upload +sound | 12.7 | 9.83 |
| Continuous 1D scan +EVDO upload +sound | 11.5 | 8.85 |
| Continuous 1D scan +WCDMA upload +sound | 9.5 | 7.1 |
| Continuous 2D scan+sound | | 11.66 |
| Continuous 2D scan +WI-FI (powermode=1) upload +sound | | 9.41 |
| Continuous 2D scan +GPRS upload +sound | | 10.2 |
| Continuous 2D scan +EVDO upload +sound | | 8.23 |
| Continuous 2D scan +WCDMA upload +sound | | 10.13 |
| Dormancy and standby (GPRS Off) | About 300 | About 300 |
| Dormancy and standby (GPRS On) | About 100 | About 100 |

Chapter 2 Appearance and Hardware

2.1 Appearance (需修改视图,以下为修改视图所需中英文对照内容)

S30 handheld mobile terminal

扫描头 Scan head 指示灯 LED indicator 开机键 Power key 扫描键 Scan key 删除键 Delete key 退出键 Return key 用户自定义功能键 User-defined function keys 扫描键 Scan key 充电接口 USB & Charging Port Enter key 确定键 方向键 Arrow key 复位键 Reset *#特殊功能键 * and # (special function keys) 充电接口 USB & Charging Port key Speaker 喇叭 Battery cover lock 电池仓盖 Strap joint 表带 Camera 照相机 Flashlight 曝光灯 SD card slot SD/TF 卡卡槽 SIM card slot SIM 卡槽 Figure 1-1 Front view of Supoin S30 Figure 1-2 Lateral view of Supoin S30 Figure 1-3 Rear view of iData 95 Figure 1-4 Inserting an SD card/ a SIM card



2.2 Functions of Buttons

Power key: Long press the ON/OFF button to power the terminal on or off. If you want to leave your terminal unused but powered on for a long time, tap the red ON/OFF button in the upper left corner of the display area. Then, the screen will turn black, indicating that the terminal has been in a standby state (shallow dormancy). To make it standby, tap the red button again.

Reset key: If you want a program, circuit, etc. to run in its initial state, press the Reset button, which is a small red button on the lower left of the Arrow button.. Note: Pressing the Reset button of PXA 310 will reset the terminal, while pressing this button of S3C 2416 series will turn it off.

Scan key: Press the Scan button to scan barcodes.

Enter key: Press OK to execute the selected function. It is equal to the ENTER key, with the decimal key value of 13.

Return key: Press this button to return or exit the current interface. It is equal to the ESC key, with the decimal key value 27

Delete key: It functions the same as the Backspace button when you are typing a barcode and characters. Its decimal key value is 8.

Arrow key: Press the Arrow buttons to move up, down, left, and right.

Up: Decimal key value 38 Down: Decimal value 40

Left: Decimal key value 37

Right: Decimal key value 39

User-defined function keys: Function buttons, which can be defined as shortcut buttons by user programs.

- F1: Decimal key value 112
- F2: Decimal key value 113
- F3: Decimal key value 114
- F4: Decimal key value 115

* and # (special function keys): Press the * button to enter ".", and the # button to change an input method.

USB and Charging Port: Through this port, you can use a USB cable to connect the terminal and a computer for data transmission, or connect the terminal to a charger for charging.

Loudspeaker Orifice: The loudspeaker will make a warning sound and tone towards an operation error or barcode scan.

Battery Cover: Fix the battery cover.

2.3 TF Card Slot and SIM Card Slot

Installing a TF Card:

Open the battery cover and remove the battery, and insert the TF card into the slot on a lower part of the back and push it inward. Then you can connect the terminal with a computer via the USB port to store information in the TF card.

Installing a SIM Card:

The installation of a SIM card is similar to that of a TF card, but you should make sure that the SIM card is properly loaded and it has been registered. After installing the SIM card, install the battery

6 / 20

and make the terminal read the SIM card for dial-up access and download, which will be detailed below.

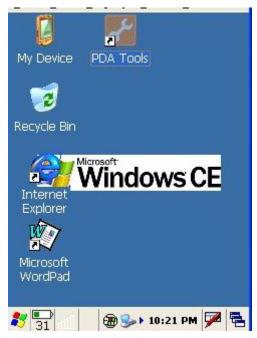
Chapter 3 Use Instructions

Then we will introduce the software function of S30 series devices in detail, mainly on the use of PDA configuration tool.

3.1 PDA Desktop

The terminal will be turned on by pressing the power button for 3 to 5 seconds after putting in

the battery; the following interface will be displayed:



Of all the three indicating lights in the top right corner, the one in the leftmost will light after turning on, the middle one will turn to red after plugging in power, and turn to green after the battery is filled. For example, the red marker box in the above picture displays battery level and signal strength. Battery level indicate: Normal above 30%; insufficient 10%-30%; low power less than 10%.

Note: you shall charge at once at low power, please turn off the terminal if you can't charge immediately, otherwise it will cause the battery can't be charged then.

Choose Start > Programs, and the following shortcut will appear: IE browser, Media Player,

Microsoft WordPad, Windows Resource Manager, Command Prompt, Synchronous and Remote Desktop Connection.

3.2 Use Instructions for PDA Tools



3.2.1 Main Menu of PDA Device



3.2.2 Wi-Fi Setting

WIF

Turn on/off the Wi-Fi module: Set whether the Wi-Fi module runs on startup of the terminal.

A) An icon will appear in the taskbar after Wi-Fi access is enabled.

 $\rm B)\,$ If "Run on Startup" is selected, the Wi-Fi module will be loaded automatically in the boot

process of your terminal.

| 🝙 🗾 💽 | JAGUARGSP1 OK 🔀 |
|----------------------------|--|
| | Wireless Information |
| Barcode Barcode K | Select a network and press connect or right-click for more options. To add a new network, double-click WIFI Set |
| Open WIFI Close WIFI | Open WIFI Close WIFI |
| Not connect 🔄 Autorun | Not connect Autorun |
| | |
| Factory Quit VER 1.09 | ✓ Notify when new networks available WEI is open Connect Ad anced Log |
| 🏷 🔁 📶 📖 🍘 🍛 > 10:28 PM 🏓 🔁 | 🍂 🌄 📖 🛃 🌚 > 10:30 PM 🏓 😤 |

3.2.3 3G and GPRS Test (Optional)

GPRS

AT instruction test is usually used in 3G or GPRS module dial test.

A) Obtain current signal value

B) If "Run on Startup" is selected, the current 3G or GPRS module will be started automatically in the boot process. (Note: Automatic dial-up access is unavailable.)

| GPRS/3G OK 🗙 | GPRS/3G OK 🗙 | |
|--|---------------------------------------|---|
| Common Module Test | Common Module Test | _ |
| Dial GPRS Signal 0 Poweron module after boot | Open Close AT Signal IMSI Register | |
| Status Dial | Please click open module first? ? | |
| IP 220.181.111.147 Ping | | |
| | | |

3.2.4 Bluetooth Setting

ВТН

Turning On/Off Bluetooth

A) Open or close the window of Bluetooth Manager

B) The bluetooth icon will appear in the taskbar after opening.

C) Double click the icon in the taskbar in; the Bluetooth Manager window will

be activated.

D) Click the in Bluetooth Manager window, the window will be minimized to the

taskbar.

E) Click "close bluetooth", quit Bluetooth Manager, the icon 🛄 in the taskbar will

disappear.

| 💼 🗾 💦 💽 | BluetoothManager | |
|----------------------------------|---------------------|------------------|
| Gprs BTH Gamera | option | test |
| | connect | pair clear |
| BlueTooth 🛛 🛛 🔀 🕽 | Not connecte to any | device |
| Open | Search for avai | lable equipment |
| BTH Close | Equipm | nent list |
| Modular Run Method Info | | |
| Restore Factory Quit VER 1.09 | BlugT | ooth is open |
| 💐 🏪 📖 💀 🌚 🏎 11:29 PM 🏓 🖷 | 🥙 🕶 📶 🔤 🗖 | 💮 🕨 11:31 РМ 🏓 🔁 |

3.2.5 Camera Setting(Optional)

Gamera Activate camera program

A) "Take OK": Focus and take pictures.

B) "Show F3": Preview the photos.

C) "Set F1": set the path of the photos; flashlight open/close (closed in default); brightness; resolution ratio and etc.

D) "Exit R": close the camera.

| | CameraSetting 🛛 🗙 |
|-------------------------------------|---|
| | Save path: \Temp\ |
| Charles and | Flashlight Open Oclose |
| | ۰ <u>ــــــــــــــــــــــــــــــــــــ</u> |
| | |
| Take[OK] show [F3] Set [F1] Exit[R] | Advanced |

3.2.6 Barcode 1D Setting

| | code |
|--------|-------|
| 100.00 | - |
| 1111 | D'''' |

Open/close and various parameter setting of barcode 1D auto scanning tools

- A) "Open scan head": open the autoscan function, input barcode in the focal position of other application program. After opening this function, this function will be automatically launched at each boot.
- B) "Advance options": set the code system and output model of Barcode 1D.
- C) "The initialization of scan head": restore factory setting of the scan head.

Note:

When you click "open the scan head", the auto scan function will remain scan when you exit the program, press the scan button, and the focus of the current input box will output barcode. If you want to call API in the program to achieve the barcode output, you must "shut down the scan head", otherwise it will have a impact on the program barcode output.

| Scanner Set | Advance OK 🔀 |
|--------------------------|---|
| Notice Sound+Vibrati Set | Encoding Set Type UTF-8 Save Output Simulated keyboard output Compatible with the RDP mode Add after barcode: Enter Tab Save |
| Clear | Barcode Set |
| Power On Power Off | CODE39 EAN8 CODABAR CODE93 ITF-25 |
| Advance Initialize | UPC-A UFC-E Unlock CODE128 EAN13 |

3.2.7 Barcode 2D Setting

Dpen/close and various parameter setting of Barcode 2D auto scanning tools

A)"Open scan head": open the autoscan function, input barcode in the focal position of other application program. After opening this function, this function will be automatically launched at each boot.

B)"Advance options": set the code system and output model of barcode 2D.

C)"The initialization of scan head": restore factory setting of the scan head.

Note:

When you click "open the scan head", the auto scan function will remain scan when you exit the program, press the scan button, and the focus of the current input box will output barcode. If you want to call API in the program to achieve the barcode output, you must "shut down the scan head", otherwise it will have a impact on the program barcode output.

| Scanner Set: | Advance OK 🗙 |
|---|---|
| Notice Sound+Vibrati Set Test | Encoding Set Type UTF-8 Save Output Simulated keyboard output Compatible with the RDP mode Add after barcode: Enter Tab |
| Clear Power On Power Off Advance Initialize | Barcode Set CODE39 EAN8 CODE93 ITF-25 UPC-A UPC-E Unlock CODE128 EAN13 |

3.2.8 USB Setting

Set data synchronization or USB disc loading (note: this item is only existed in 2416 plan device, remember not to connect with the USB line before setting, or the setting is invalid)

- A) Synchronization: The PC shall install Microsoft ActiveSync, and the PC taskbar will appear of the ronnecting USB line, and then the data can be updated.
- B) U Disc Mode

 \textcircled Use FLASH as U disc: will be displayed as "local disc" in the PC.

② Use TF card as U disc: will be displayed as "movable disc" in the PC.

C) Operating Mode:

Step 1: Pull the USB line, and restart PDA. Step 2: Set in the USB Set interface.

Step 3: Restart PDA.



3.2.9 Serial Port Setting

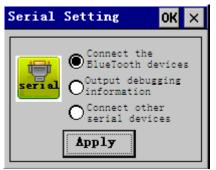
Set the application mode of the serial, and it will come into force after restarting.(note:

the devices of PXA310 plan has no this function)

A) "Connect the BlueTooth devices": connect buletooth printer.

B) "Output debugging information": output the debugging information of the application program to PC through serial.

C)"Connect other serial devices": use the customized serial tool wire to connect other serial devices.

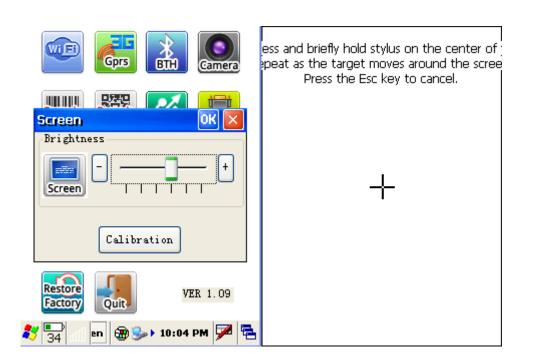


3.2.10 Screen Setting



Screen Set the brightness and calibration of the screen.

- A) Adjust the brightness through shift the scroll bar.
- B) Press the center of "+", and click OK button to store the brightness after finishing the setting.



3.2.11 Sound Setting

Set the volume and sounds

- A) Adjust the volume through shift the scroll bar.
- B) Set the sound plan of the system

| Volume & Sounds Pro ? OK 🗙 |
|--|
| Volume Sounds |
| Soft |
| Enable sounds for: |
| Events (warnings, system events) Applications Notifications (alarms, reminders) Key clicks: Soft Loud Screen taps: Soft Loud |
| 🦹 🄜 📖 🍘 🍛 10:05 PM 🏓 🖷 |

3.2.12 Dormancy Setting



Set dormancy and wake up parameter of the system

A)"Auto close screen" time: the screen will close automatically when the system is in idle status, and the time interval reaches.

B)"System dormancy" time: the terminal will enter into system dormancy when the system is in idle status, and the time interval reaches, at this point, the system is working in low power consumption, and most of the hardwares are in standby status.

C)"Allow power button to close screen": If the choice is selected, the screen will be closed by pressing the left upper button of the device.

D)"Prohibit dormancy when synchronous": If the choice is selected, the system will not enter into dormancy status when synchronizing data by plugging in USB wire.

E)"Allow keyboard to wake up system" : if the choice is selected, any button can wake up the system when the system is in close status or dormancy, or only the power button in the upper left can wake up the system.



3.2.13 Lock Setting



Set relevant parameter when locking the screen

A)"Lock screen": if the choice is selected, the screen will be locked automatically if you press * and # key in order, a picture of a lock will appear in the screen, and then the screen will be unlocked if you press * and # key in order.

B)"Close screen when screen is lock": if the choice is selected, the screen will close automatically when locking.

C)"OK button is valid when screen is lock": if the choice is selected, OK button is valid when locking the screen, but other buttons are invalid.

| Lock Screen OK 🔀 | Lock Screen |
|---|--|
| Lock screen (Press * and # key in order) Close screen when screen is lock OK button is valid when screen is lock | Notice OK × ress * rder) hen Successful! screen is lock |
| Apply | Apply |
| Restore Factory Quit VER 1.09 | Restore Factory Quit VER 1.09 |
| 鸄 🌄 📶 🍘 🅪 10:05 PM 🏓 🔁 | 鸄 🚘 🔄 🍘 🅪 10:48 PM 🏓 🖷 |

3.2.14 On and off Setting of the Modular

Modular Set on or off of each hardware modular in PDA

- A) WI-FI: turn on or turn off WI-FI modular, WI-FI Manager icon will appear in the taskbar after turning on
- B) GSM/3G Power: Turn on or turn off GSM Modular or 3G Modular.
- C) Barcode 1D: turn on or turn off the autoscan program of barcode 1D scan head..
- D) Barcode 2D: turn on or turn off the autoscan program of barcode 2D scan head.

| Input Method | <u> </u> |
|-------------------------|--|
| Triput | keyboard oard input er |
| Apply Hand | in input od -writing t method |
| Restore Factory Quit | VER 1.09 |

3.2.15 Autorun Setting



Set the operating programs and shortcuts of autorun.

A)"Desktop shortcut": set up shortcut in the desktop.

B)Start menu shortcut": set up shortcut in the start menu.

C)"Delete shorcut": all shortcuts setted in A and B.

D)"Publish autorun app": publish application program, which will autorun in the boot after successful setting.

E)"Cancel autorun app": cancel autorun software published in D.

| Shotcut and autorun set | 0K | × |
|-------------------------|----|---|
| desktop shortcut | | |
| start menu shortcut | | |
| delete shortcut | | |
| publish autorun app | | |
| cancle autorun app | | |
| exit | | |
| | | |

3.2.16 Input Method Setting

Method Set "#" to change the input method

A) "Soft keyboard": allow"#" key to activate the input panel of soft keyboard

- B) "Keyboard input letter": allow"#" to activate keyboard to input letter.
- C) "Pinyin input method": allow"#" to activate Pinyin input method.
- D) "Hand-writing input method": allow"#" to activate Chinese hand-writing input method.



3.2.17 Setting Information

Display all informatin of the current device.

| Device Info OK 🔀 |
|----------------------------------|
| SerialNum: |
| 26CXXXXX3W22A0DaGXX11XX2900838 |
| NK version: |
| XB-26-3WLXXX-W2-2014-06-25-15:20 |
| |
| Type:26 |
| CPU: S3C2416 |
| RAM:128M |
| Module:WIFI |
| |
| Info |
| |
| |

3.2.18 Restore Factory



Restore Factory setting (note: all data in the device will be emptied, please operate

carefully, this function is used under the circumstance of abnormal condition in the customers device, and normal method can't solve.)

A) For device of S3C 2146 plan, can restore by putting password in the interface.

B)For device of PXA310 plan, according to the indication of the interface, press F3 in the boot, when "Recover system?" appears in the top left corner, press [OK] key at once, and then the system will appear "Please wait.....", which means in the process of restore factory, and the system will be restored successfully within about 3 minutes, then please carry on touch calibration according to the indications.

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