Atid

All that Identification

AT880

Guide for Customer

ATID Co., Ltd

Disclaimer

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Before using manual for AT880

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There are some differences between user guide and actual function of device.
User guide can be adjusted by ATID CO.LTD without consent of user discretionally.

User guide is written for users who want to use and maintain the AT880. Please read and understand these instruction prior to operating this unit.

Safety information

Your safety is extremely important. Read and follow all warnings and cautions in this document before you handle and operate ATID equipment. If you do not follow the safety warnings and cautions, you might be seriously injured, and the equipment and data also might be damaged.

■ WARNIING
A warning requires you must pay attention to the operating procedure practice, condition, and statement strictly, or might be injured seriously.

◆ CAUTION
A caution alerts you that you must be observe strictly when you operating procedure, practicing, configuring, for preventing from damage and destruction of equipment, and loss of data.

● NOTICE
A notice provide you the information which you must needs while you using AT880.

Caution when using AT880

Please aware of the manual contents in advance before you handle and operate your AT880 and other ATID Products.

How to use battery correctly

- In case that you dropped the main body or battery in water, please do not put into the stove or heater for drying. Just keep it in natural drying or contact purchase place.
- Please note that the battery terminal doesn't have to be contacted to metallic object.
- If you do not use the battery for a long time, please keep it at room temperature after charging.
- Operating time of battery can be shorter than usual in accordance with loss of battery and use time. In this case, please contact us.
- You have to use provided adaptor when charging the device.
- Turn off the device properly then detach or replace the battery.

Caution when using AT880

- User careless or products repair would damage the stored data. Manufacturer is not responsible for this damage, so please do back-up the important data separately.
- If you have a problem on product, do not try to repair or disassemble it by yourself, please contact our customer service center.
- Do not use your product at the specific places such as hospital, plane and so on where electromagnetic wave or the risk may occur.
- Please note that using the device in environment of high temperature and humidity for long hours can make a malfunction of device.
- In case of that noise, smoke and odor occur at the device while using product, please disconnect the charger with device and off the power immediately, then please contact our customer service center.
- If you have any other questions on use of device, please contact our customer service center.

Product Composition

This is built on the Windows Embedded Handheld 6.5. The PDA could equip with Barcode Scanner and so on devices as optional items.
Its various function applied to Industry, Enterprise, Logistics and so on, can be used extensively in many fields.

Product composition

Open the packing box and confirm the items as below.

1. AT880 main body

2. Power Adapter and AC cable

3. Standard battery

4. USB sync cable

5. Protect film

6. Hand strap

7. Stylus pen

*   Please contact our customer service in defect of product composition and need to be changed.

Name of each part

Camera (option)

1D/2D Scanner (option)

Camera flash (option)

Earphone jack

Charger jack

Sync cable connector

Cradle connector

Phone receiver

WLAN LED (option)

Internal HF

Hand strap hole

UHF

Charge LED

Touch Screen

getting started

phone
voicemail

9:12 PM 1/27/16
Phone Off

text
e-mail
calendar

Contacts   Set

SCAN

Scan key

Keypad

Reset button

Microphone

Speaker

UHF Connecting port

Battery

Battery latch

Volume button

Scan button

Gun handle

Function of each part

NAME	FUNCTION
Camera (option)	It is possible to image capture and save.
Camera flash (option)	You can use the camera with flash
1D/2D Scanner (option)	Laser beam emitted through this window. Please be careful the foreign substances and preventing from the damage. ◆Warning! Do not look at the laser beam directly.
Charger jack	Enable you to connect to adaptor which provided from factory.
Cradle connector	Enable you to connect to PC or charging the battery while using cradle.
Earphone jack	Enable you to connect to earphone.
Sync cable connector	Enable you to connect and send data to PC via USB sync cable.
Charger LED	Charger LED will be Red when the battery is charging, or will be green when it is charged completely.
Touch screen	Display running programs, and could execute, use, and exit programs via to touch the screen.
Keypad	Enable you to input key value (number, alphabets, symbol), or executing assigned programs.
Reset button	Enable you to perform a warm Reset, Press <Power>button simultaneously, Enable you to perform a hard Reset
WLAN LED (option)	Displays whether the wireless WLAN power supply
Scan key	It is possible to scan barcode or RFID tag
Microphone	Enable you to conduct communication
Internal HF	HF 13.56MHz Embedded module mounting location.
Hand strap hole	Enable you to attach a hand strap or a stylus for the convenience of using, while need to use the device for a long period time.
Speaker	Build-in speaker, which could emit various sound effects.
UHF Connecting port	Enable you to install a UHF 900MHz tag reader module.
Battery	Enable to supply the power to the product.
Battery latch	Enable you to detaching and attaching the main battery.
Scan button (F7, F8)	It is possible to scan barcode or RFID tag

Basic Function

PDA battery is composed of main battery and backup battery. A main battery supplies the power to the system and RAM which could keep save the data.
A backup battery could keep save the data of RAM when the main battery discharged completely.

Main Battery: 3.7V 2,970mAh Lithium – polymer
Backup Battery: 3.7V 80mAh Lithium – polymer

◆   Note:
    Switch on the backup battery at first beginning of using PDA, and then install the main battery, charge it completely.

Switch On Backup Battery

The image as blow shows the battery compartment, which already removed the main battery.
Slide the lever to right to start to supplying power to the system.

Backup Battery Switch

To attaching main battery to the back battery compartment of the PDA.

To confirm the battery latch locked firmly.
"Refer to 1.2 Battery attaching and detaching"

Connecting adaptor to the PDA adaptor connecting jack, and check if the "Power LED" is Red, and then charging the power completely until it get into Green.

◆   Note:
    If the window wallpaper has shown on the screen, press the <power> button for a couple of seconds, so that could shorten the charging times.

Attaching and Detaching the battery

▶ **Battery detachment**

These images as below, shows the back bottom of the PDA.
Slide the battery latch to the right (UNLOCK side), and then lift the main battery out of the compartment along both sides of groove.

Battery latch

Both sides of groove

▶ **Battery attachment**

Put the top part of battery into the upward groove, and then press down the bottom of battery into the battery compartment, slide battery latch to the left (LOCK side) to attach battery firmly.

R/L Battery Attaching Groove

Charging battery

You have to charge the battery via dedicated adapter, which provided from the factory. "Power LED" is Red while charging or is Green when charged completely.

▶ Connecting Adapter

1. Plug the adapter cable to 220V socket.

2. Connect adapter DC cable to the "Power connecting jack" of the main body.

3. "Power LED" is Red while charging.

◆ Caution:
   You must to charge the battery by using dedicated adapter, which provided from factory, or your device might get damage.

Power On and Off

Press <Power> button one time, the device will enter low-Power mode (Sleep Mode) Under the system is started and the following window is displayed on the desktop or other Programs is running in the system, press <Power> button once again could activated the system

Icon

Start button

Icon : Display the currently running programs.
Start button : Activates the start menu and then execute a program.

▶ Power On and Off via <Power> Button

Power Button

Power Off:
    1. When the system is in booting status, press <Power> button for a couple of seconds,
       then the backlight will be turned off and enter the low-power mode (sleep mode).
    2. You can also press <Start Button> -> <Suspend> button to turn the device off.

Power On:
    1. When the system power is in the off status, press <Power> button quickly,
       then backlight will be turned on and start the system.
    2. Connect to the ActiveSync USB cable : the power will be turned on automatically.

◆   Note:
    Even though the power is in off state, if there was a tiny battery gauge remained, the data of RAM will be saved,
    and those programs which have been running for sometime before the power turned off, will be recover rapidly.
    If the main battery and backup battery are both in the discharge state, the RAM data will disappear, and the system
    will be starting if the power is charged again.

▶ Automatic Power OFF

The device has been powered but has not been used for a period of time, then the system will enter low-power mode (sleep mode) automatically.
You could set the sleep mode time at the power management so that could save power and prolog the battery life.

Power Icon
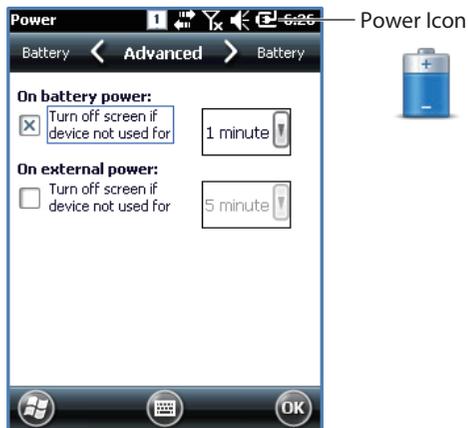
[Start Button] -> [Setting] -> [Power] -> [advanced]

● You can also double click <Power> Icon to enter this interface.

● You can also press the <Power> button to activate the system,
   when the device turned off cause get into the sleep mode.

▶ Battery Discharging

If the main battery discharge completely, the system will not turned on, the device will get into low-power mode (sleep mode) automatically, and even press the <Power> button, the system will not be turned on. In this case, you should charge the main battery or connect the adaptor to the adaptor connecting jack of main body, then press the <Power> button to turn on the system.

Checking Battery Gauge

● Note :
Battery life is largely affected from the user using method and surrounding environments.
A 2,970mAh battery is usually needs 6 ~ 12 hours to get charged completely.

▶ Checking Battery Gauge

[Start button] -> [setting] -> [Power] -> [Battery]
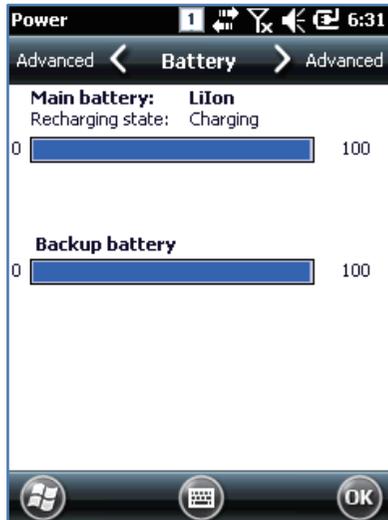
▶ Low Power Warning

If the remaining battery gauge cannot support the system running any more, a low power warning message window will be popped up on the screen. In this case, you need to press the <Power> button to turn off the power, and to charge the battery as soon as possible.

Backup Battery

A backup battery could safely keep the RAM data, even the main battery discharged completely.

◆ Caution:
If the main battery and the backup battery are both discharged, the RAM date will disappear. Among the running programs, the RAM data will disappear in which are using, and the system will not be restore to previous state, but rebooting system after start charging.

Battery replacement

You need to purchase a new one if the battery damaged or reached its end of life.

◆ Warning!
Please dispose the used batteries in a designated place.

If there is no response from the system or an application is locked up and stops responding, and when you want to upgrade the firmware, reset the system is maybe necessary.

Soft Reset

When do you need to perform Soft Reset?

If there is no response for your command from the system, it calls (Hang-up). In this case, you need to perform a soft reset.
Soft reset will end programs and the user memory region will be deleted, but installed programs and data, and so on, are not affected.

[Process of Soft Reset]

Using the stylus pen to press <Reset> button briefly, the system will restarting again, after the screen turns off shortly.

[Result of Soft Reset]

- - System will be restarting.
- - Operating System will be restarting (Windows CE).
- - Desktop will appear in about ten seconds.
- - User's changed registry information, copied files and Installed programs will be restored.

Power Button

Reset button

Hard reset

When do you need to perform Hard Reset?

Hard Reset, which is also called Cold Reset, enables to initialize hardware completely. User's installed programs,
copied files and registry values will keep remained even performed Hard Reset, but the real time and date will be initialized.
So you need to reset the time and date after performed Hard Reset.
You need perform Hard Reset when the Soft Reset cannot restore the system.

[Process of hard reset]

Using stylus pen to Press <Power> Button and <Reset> Button simultaneously, the system will restarting again after the screen turns off shortly.

[Result of Hard Reset]

- - System will be restarting.
- - Operating System (Windows CE) will be loading and restarting.
- - Desktop will appear in about ten seconds.
- - Time and date window will be popped up and need to reset it.

Initializing System

Enter [Boot Menu] and do what you want, when in the situations as below :

1. When you need to restore the original registry information, which has been changed.
2. When you need to initialize "My device" storage spaces.
3. When you need to initialize "Flash Disk" storage spaces.
4. When you need to initialize system to factory default settings.

When you are pressing the <Fnc>button and press the [Reset] button shortly

Power Button

Fnc Button

Reset button

[Boot Menu] window would appear in a couple of seconds.

◆ Caution:
Except for [Clean System], please do not use other functions.
The system might be work not properly if you use other functions on the [Boot Menu].

[Boot Menu]
0. SD Image Update
1. Clean On Exit(No)
2. Factory Reset
3. Exit
Menu Select : Enter No.

[Boot Menu] Start-up Screen

- SD Image Update
  It is for the image (BOOT, OS) update by SD Card

- Format
  My Device and Registry area recover as shipped

- Factory Reset
  My Device, Registry and Flash Disk area recover as shipped

- Exit
  Finish the Boot Menu

The image as below is battery compartment of , and there are 1EA SIM Card Slot, 1EA SAM Card Slot and 1EA Micro SD Card Slot.

Micro SD card slot

SAM card slot

SIM card slot
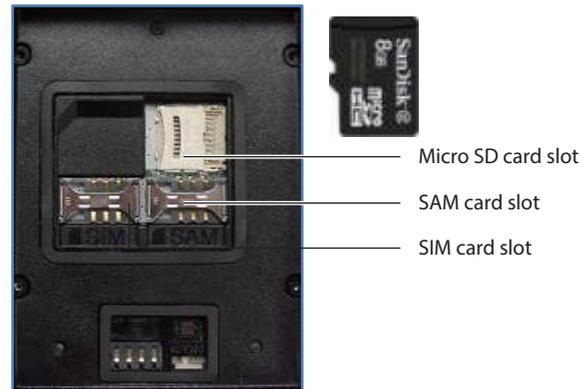
Attaching Micro SD card
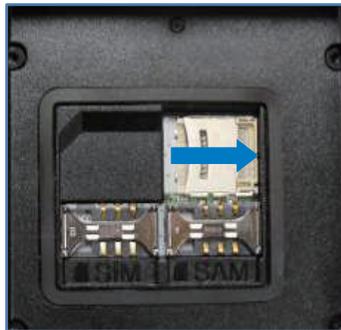
Push the cover to the right along arrow direction to open it.

Lift the cover up along arrow direction.

Put Micro SD card into Slot and press down the cover as arrow direction.

Push the cover up as arrow direction to lock it, and attach the main battery and turn on the power.

You can find the Micro SD Memory Card icon when executing the file explorer, after inserted the Micro SD card.

[Start] -> [File explorer]
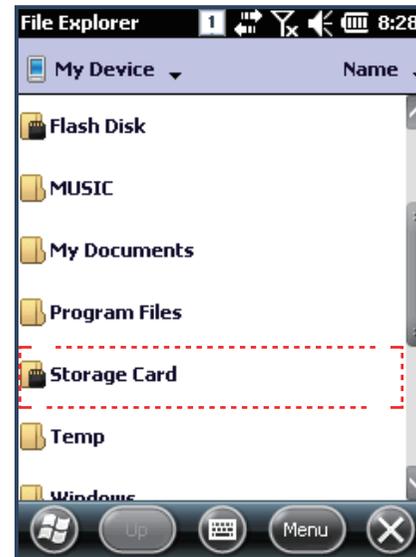
Attaching SIM Card and SAM Card

SIM Card and SAM Card can easily insert and pull out along arrow direction.
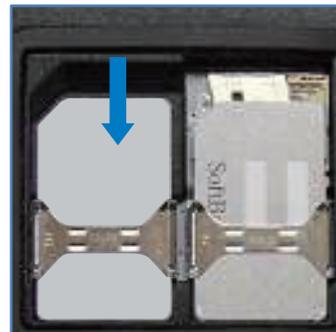
Shortcuts setting

You want to quickly run frequently used programs You can set the shortcuts function

[Start button] -> [setting] -> [Personal] -> [Button]

Select the button you want to assign as the shortcut, And select the desired program from the program assigned
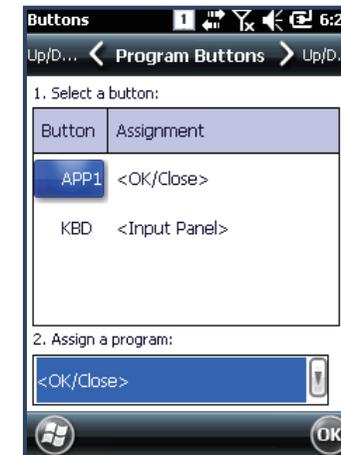
Set up phone password

If the SIM card is lost or stolen, USIM card in order to prevent the use of others by setting as password

[Start button] -> [setting] -> [Personal] -> [Phone] -> [Security]

Use the password

Change the PIN number

When you use the password and select the "Phone using the PIN (personal identification Number) password input window is displayed and required to enter the four digit password and select the 'key' <Enter>'

◆ Caution:
PIN Code is '0000" for protecting USIM card information You can change to own your password.
PUK code is that PIN Code entered incorrectly three times identification Number (PIN) consecutive USIM unlock code. (8digit).
It will be on the USIM card's envelope or the body Entered incorrectly 10 times in a row when not able to use the USIM card, please note

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Owner information

It can set up the owner information (Name, company, address, Telephone, E-mail and Notes

[Start button] -> [setting] -> [personal] -> [owner information]
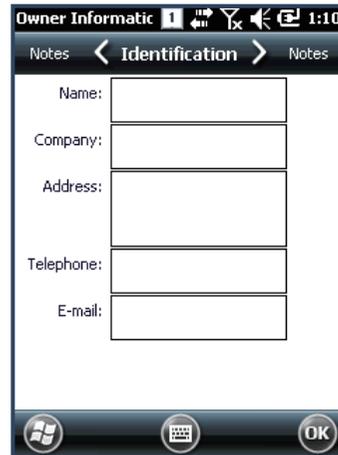
LOCK

It is for the PDA's data,
If the handset is not in use for a certain period of time and the switch to the lock status,
You suppose to enter a password to unlock it.

[Start button] -> [setting] -> [LOCK]
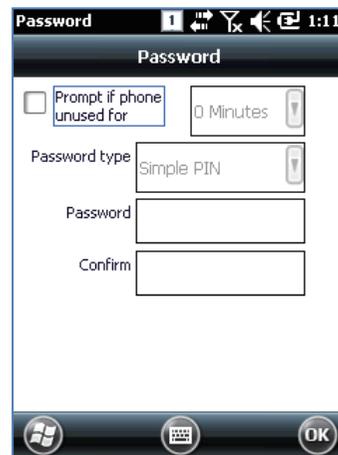
Set up the LOCK screen   LOCK screen   Input the password

Memory

You can check the capacity of the memory

[Start button] -> [setting] -> [System] -> [Memory]

Main memory : Usage and remaining capacity can check
Storage card : it can check Flash area or SD care capacity

Task Manager

You can see a list of programs currently being used and the
Amount of memory you have

[Start button] -> [setting] -> [system] -> [Task manager]

You can be stopped by selecting the program
You are using form the list.
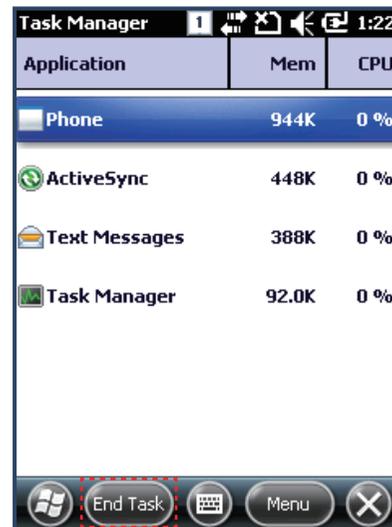
Remove the program

This will display a list of programs installed in addition to the Preinstalled programs

[Start button] -> [setting] -> [system] -> [Remove program]

It can be removed from the list, select the program you want to Remove
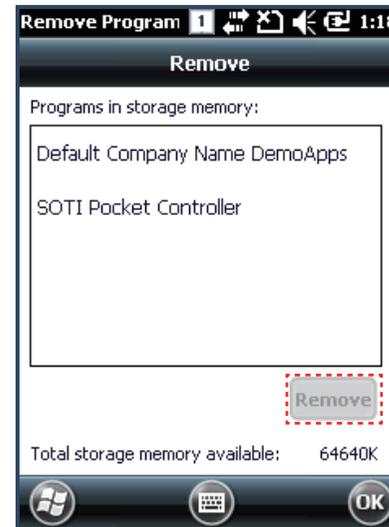
GPS

You can set the GPS port within the terminal

[Start button] -> [System] -> [GPS]

Do not need to be set separately because it is set by default to the port terminals are used in GPS.
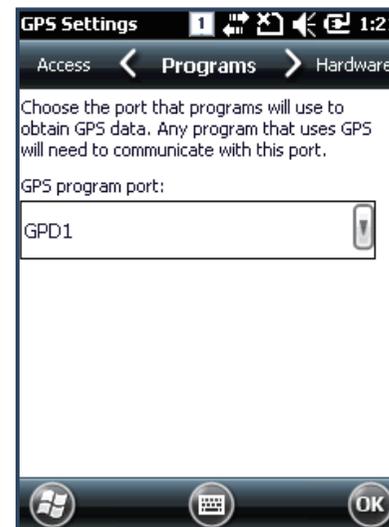
Set screen brightness

Screen brightness is set to the factory in approximately 70%

[Start button] -> [setting] -> [system] -> [Contrast]

Brightness: you can adjust the brightness of the screen
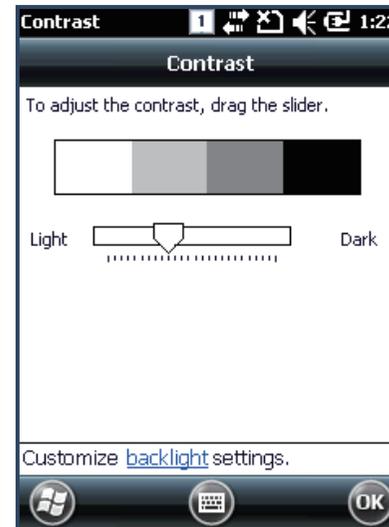
Backlight ON/OFF set up

Screen brightness, the power consumption is most affected
Because it can be set up suit the user's needs.
Off screen timeout time can be set

[Start button] -> [Setting] -> [system] -> [Backlight]

Battery Power : When using the Battery power, set up the brightness On/Off.
External power : the brightness of the screen when using an external Power on/ off settings
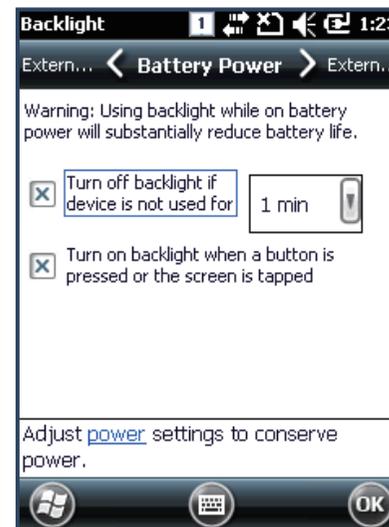
Screen adjustment

At first beginning of using the device after purchasing or need to use the device for a long period time, if you cannot select the place where you touched with stylus, you need to reset the coordinate calibration values.

[Start button] -> [setting] -> [system] -> [Screen] -> [align screen]
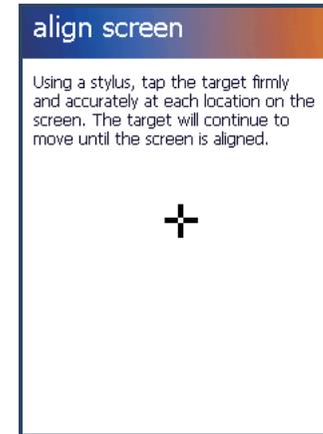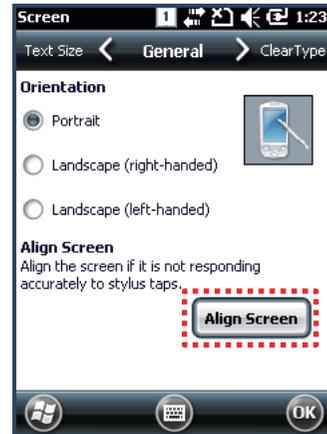
Volume and sounds setting

You can set up the Volume and sounds.
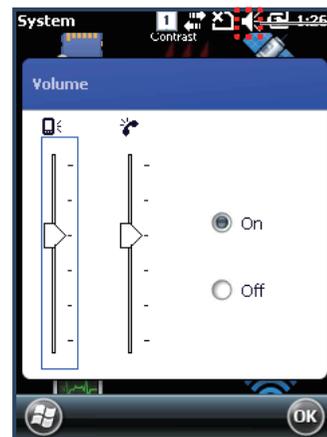
Set up the volume's ICON

● You can adjust the volume with products left volume button (hardware)

Sounds and notification

You can set up the ringing one and vibration and bell sound notification On/OFF.

[Start button] –> [setting] -> [Sounds and notification]

Vibration : Set the vibration amplitude set
Sound : Set the sound notification
Notification : Select the ring type
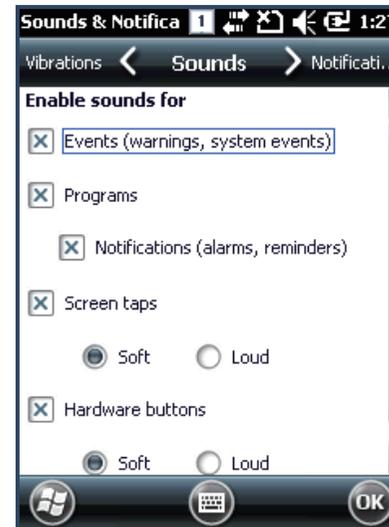
Set up the Clock and Alarms

Set up the date, time and Alarms

[Start button]-> [setting] -> [Clock and Alarms]

Time : Set the Date and Time
Alarms : Set the Alarms

Wireless Manager

You can control the Bluetooth, Wi-Fi, Phone's function On/Off.

[Start button] -> [Setting] -> [connect] -> [Wireless manage]

All : It can control the all ON/OFF of WIFI, Bluetooth, and PHONE
Separately : when you click the Buttons (Wi-Fi, Bluetooth, and Phone) It is possible to ON/OFF

● It can be expressed differently depending on the product option
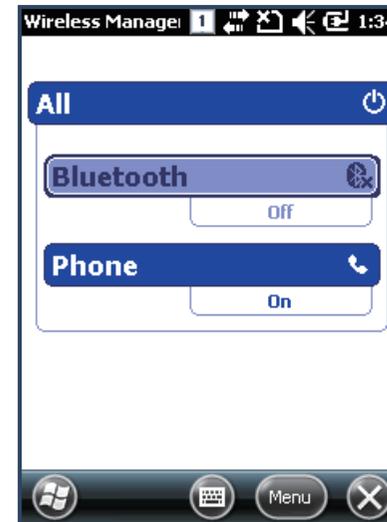
Keypad enables you to input numbers, alphabets and special symbols. And can also execute other set function with <Fnc> button.

Using keypad

When you change the current input language, please press <1<=>ALP> button.

[Number] -> [Lowercase alphabetic characters] –> [Uppercase alphabetic characters]
Order transition.

Inputting Data

Numeric Keypad Mode : Press<1<=>ALP> button or keypad icon on the taskbar to change to the numeric mode and directly press number on the keypad.

Alphabet Keypad Mode : Press <1<=>ALP> button or keypad icon on the taskbar to change to the Lowercase or Uppercase and directly press alphabets or special symbols on the keypad. Each button has 2 ~ 3 letters or symbols. Press the button once, the first letter or symbol will be inputted, press twice continuously, then the second letter or symbol will be inputted, and the third letter or symbol need to press button three times continuously.

Using <Fnc> Button

Press <Fnc> button and other buttons simultaneously can activate functions as below :

Fnc + button	Function description
<Left>, <Light> Cursor Key On the Keypad & Left Side <Up>, <Down>	Increase or decrease the sound.
<Up>, <Down> Cursor Key on the Keypad	Perform Page Up or Page Down.
<1> ~ <9>	Perform F1 ~ F9 Function Key
<Back Space>	Delete a letter which located after the cursor.
<.>,<0>,<_>	Enable you to input <+> <000> < – > symbols.

Use of stylus

You can tie the stylus to the hand strap hole, so that enable you to use the stylus as like a mouse on a PC

Use of stylus:

- ● Select a letter on the soft keypad.

- ● Select a program on the desktop or taskbar.

- ● Select button, zone or tab bar in a window box or program.

◆ Caution:
Please do not use sharp objects on the touch screen. Use only supplied stylus, otherwise would bring seriously damage to the touch screen.

ActiveSync program could synchronize between the PC and PDA device, so that enable you to perform program installing, copy, transition, delete and so on operations.

Connecting PDA to PC

Download the latest version of ActiveSync program from Microsoft Windows CE. Website, and install it to your PC.

ActiveSync: Windows XP

Download Address : http://www.microsoft.com/downloads/.

◆   Caution:
        You must use ActiveSync v3.7 version or above.
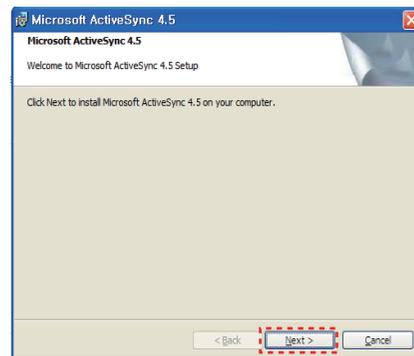
Click the [Next] Button
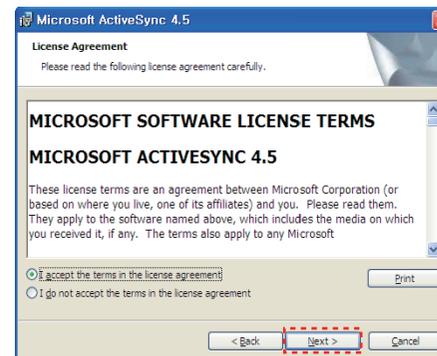
Select the license agreement and then, click the [Next] Button
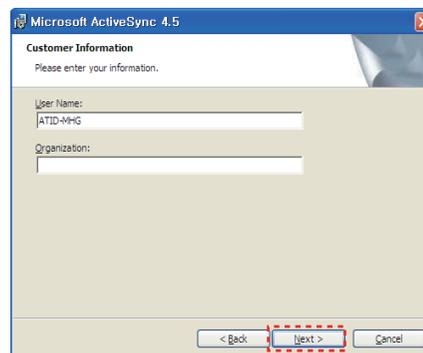
Input the name of user and group and then, click the Next Button
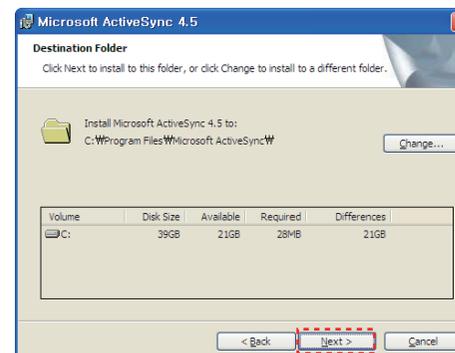
Select the license agreement and then, click the [Next] Button
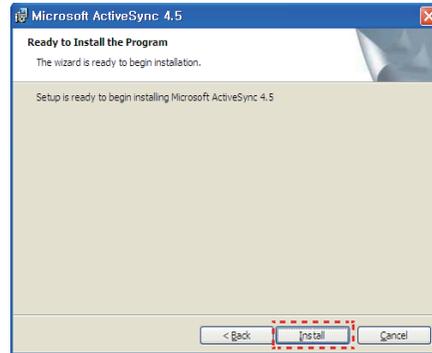
Click the Installation button
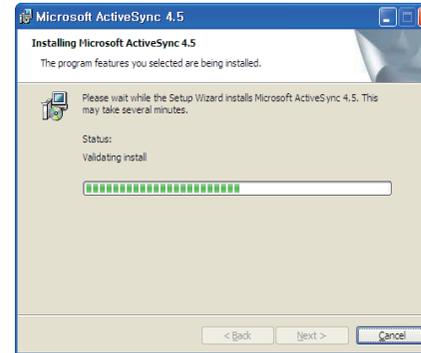
ActiveSync are installing
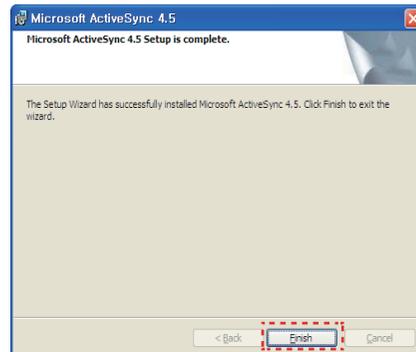
Press End button for termination of installation

Setting PC

[Start button] -> [Programs] -> [Microsoft ActiveSync]

< Windows Xp >   < Win7 / Vista >
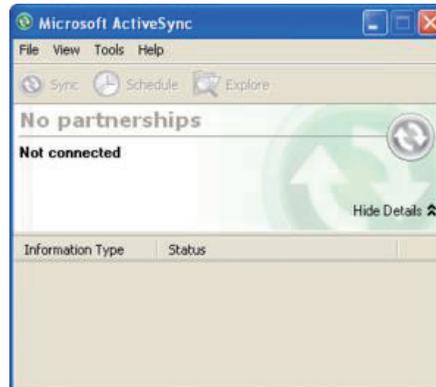
Click on the install button

File connection settings, Click the button.

< Windows Xp >   < Win7 / Vista >
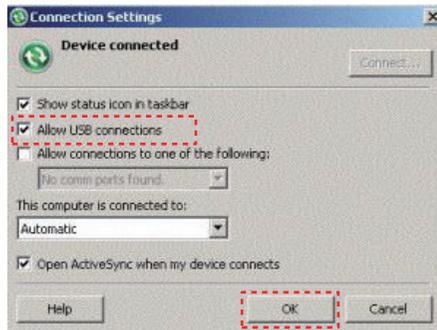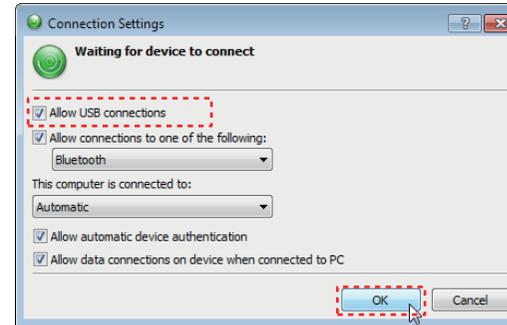
USB sync cable connection, select Allow, and then click the OK button.

[Start buttons] -> [setting] -> [connect] -> [USB-PC]

Even connect to PC, synchronization is not good
Please select the Enable advanced network functionality
To use a VPN you can connect your computer to your device
Using the RNDIS.
In this case, please try to connect and after you turn off the
'Enable advanced network functionality'
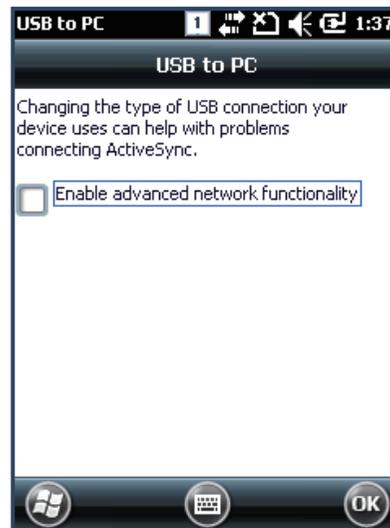
Data transfer

Using the USB cable to connect PC and the device.

Connecting state

Disconnecting state

You can check the ActiveSync connecting state on the taskbar.
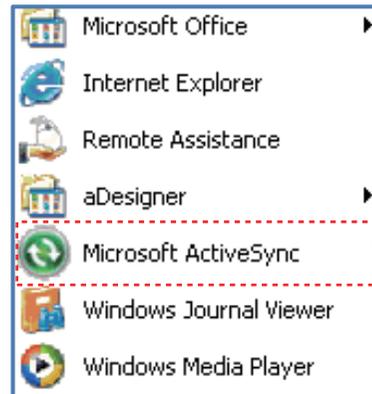
< Windows XP >

Start - Program– Click Microsoft ActiveSync

< Win7 / Vista >
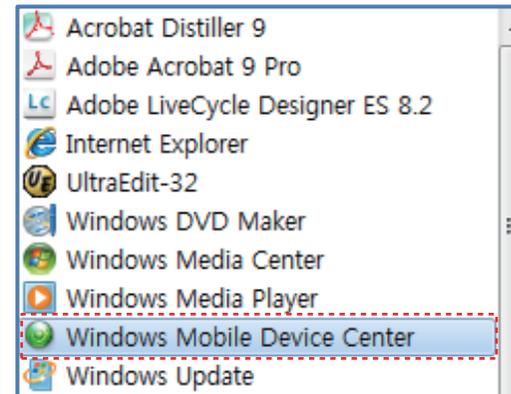
Start – Program – Click Windows Mobile Device
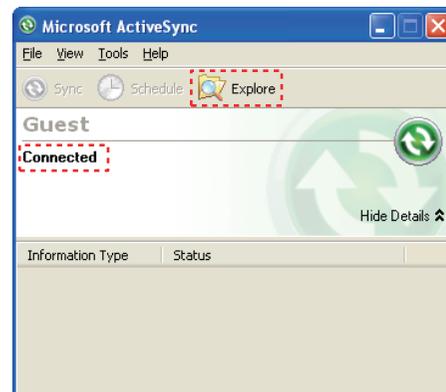
When you connect ActiveSync Click the explorer menu.

Content on the device when Active sync Connected, click the browse ICON.

< Windows XP >
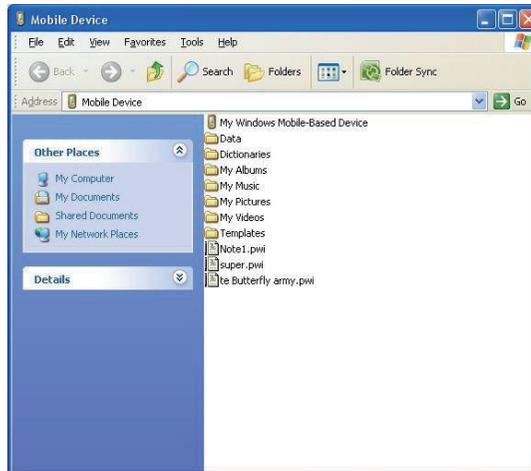
File/ directory device's screen
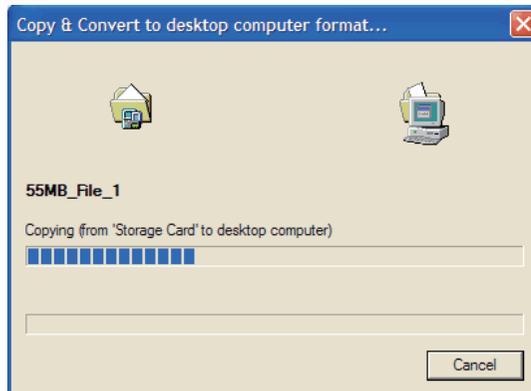
Data transfer screen

Optional module

provided variety of optional modules and in this chapter will provide you the information of each module.

Various optional modules for AT880

1) Barcode reader
  -. 1D Laser Barcode Scanner
  -. 2D Imager Barcode Scanner (2D Long Range Barcode Option)
2) Wireless LAN – IEEE 802.11 a/b/g/n (Option)
3) Bluetooth
4) UHF 900MHz – GEN2, ISO/IEC 18000-6C
5) HF 13.56MHz – ISO15693, MIFARE, ISO14443 A/B (Option)
6) GPS Module
7) Phone
8) Camera

Enable to equip with a compact image engine, which could recognize all the 1D and 2D barcodes.

Using 1D or 2D barcode scanner

Running application
[Start Button] -> [DEMO_BarcodeScan] performing
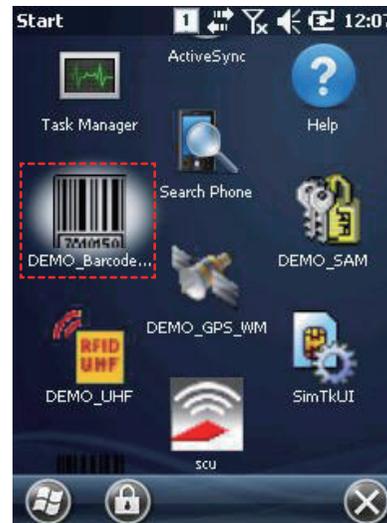
Main window

Start Scan : start reading barcode.
Stop Scan : stop reading barcode
Symbol : Read barcode type name
Length : length of the barcode read
Menu : application pop-up menu.
Exit : Exit the application.

Pop-up menu

Option : Set up the application options
Capturing : image capture by 2D Scanner module
Symbology Config : Set up the Barcode decoding options
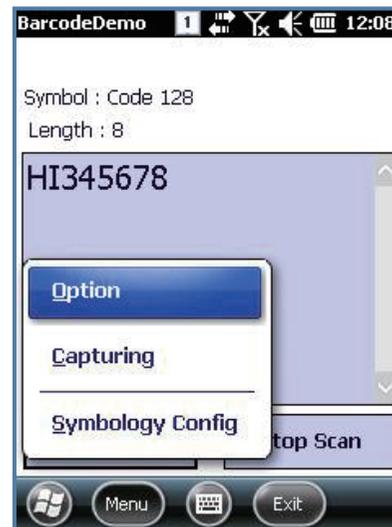
Option window

Beep : Success the Barcode scanner, beep sound output.
Vibrator : Success the Barcode scanner, working vibrator.
Enable "SCAN" key : Enable "SCAN" key
Enable F7 key on right side : Enable F7 key
Enable F8 key on right side : Enable F9 key
Enable trigger : Enable Gun Trigger key
RAW Data : To set the scan results in the form of raw data
            2D scanners only support.
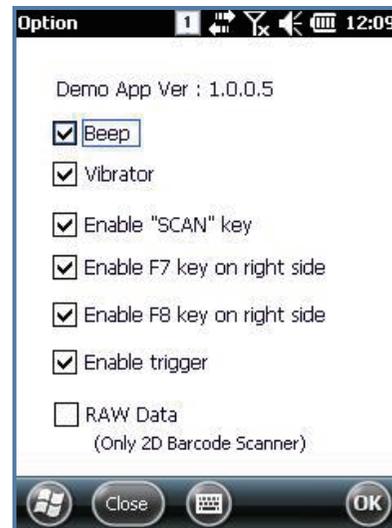
Capturing window

Start Preview : Start preview by 2D scanner
Stop Preview : Stop preview
Do Capture : current screen and save it as a file

Symbology Config window

Symbology Selection: Set up the specific decoding options
Set Enable Status: Enable/Disable status of all symbology.
Default All Symbologies: All symbology set as default
Disable All Symbologies : All Symbology Disable.
Enable All Symbologies : All Symbology Enable
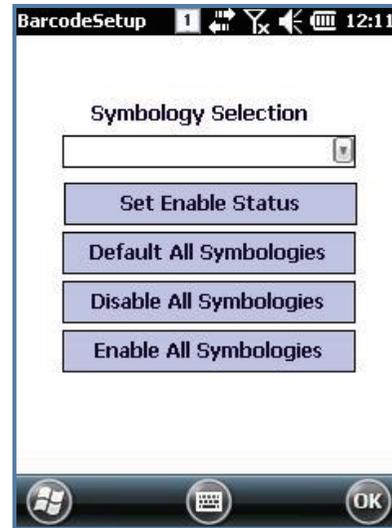
Barcode emulator setting

Barcode Emulator program enables you to set the barcode value input type scan button, scan sound (Notes , internet explorer)
When user running the barcode Emulator, who should finish the previous running program.

Running application
[Start Button] -> [File Explorer] -> [My Device] -> [Program Files] -> [ATID_DemoApps] -> BarcodeEmulatorWM.exe

Application run complete.

Once the run is complete, the barcode icon on the bottom right of the screen is registered and can be scan
When user clidk the barcode icon , pop up the main menu and Can change the settings
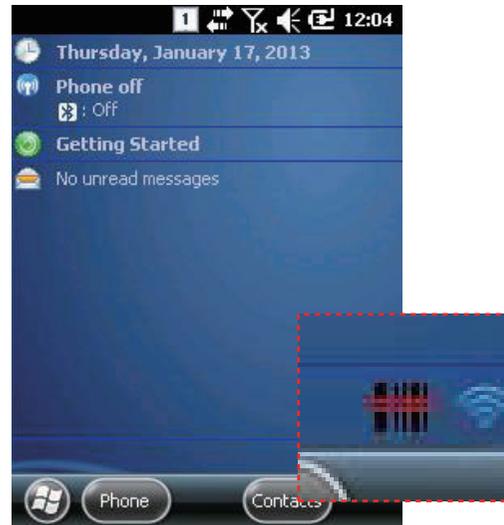
Emulator Main Menu

Exit : Exit the application
Vibrator : Upon successful barcode scanning vibrator action
Beep : success the barcode scanning and beep sound output
Key Setup: set up the start barcode scan key
Terminator : select barcode value to be added to the special
                    Character
Result Type : select how to output barcode value

Key Setup

Below keys can set multiple
F1 : Set up for starting when the F1 key is pressed
F2 : Set up for starting when the F2 key is pressed
F7 : Set up for starting when the F7 key is pressed
F8 : Set up for starting when the F8 key is pressed
SCAN : Set up for starting when the SCAN key is pressed
Gun Trigger : Set up for starting when the Gun Trigger is Pressed

Terminator

Set up the special character to add the output barcode value
Select one of the values below value
None : Do not use the Terminator.
CRLF : Add Carriage Return/Line Feed at the end of the Barcode
        value
Space : Add the space at the end of the barcode value
Tab : Add the tap character at the end of the barcode value

Result Type

Set output barcode form
Select the type of the one of the following types
Keyboard Event : Output barcode value on the screen by using
Keyboard Event.
Copy and Paste : Copy to clipboard and then copy to screen .

◆   Warning!
Please do not look directly into the laser beam of barcode, or it may do harm to your vision.

Barcode scanning

1. Remove the protective film from the window of barcode.

2. Executing the BarcodeDemo program.

3. Emit laser beam to the barcode.

   - Adjust the distance according to the size of barcode.

   - Barcode will stop automatically in five minutes if out of the Barcode reading range.

[Correct barcode reading]

1. The more small size of barcode, needs the more close to barcode. The effective scanning rang of is from 40 ~ 300mm. if failed to scan barcode, please try to adjust scan angle and distance.

2. The laser beam is a red thick line, when scanning a barcode.

Correct Scanning Positions

Ideal positioning   A bit high, will read correctly   A bit angled, will read correctly
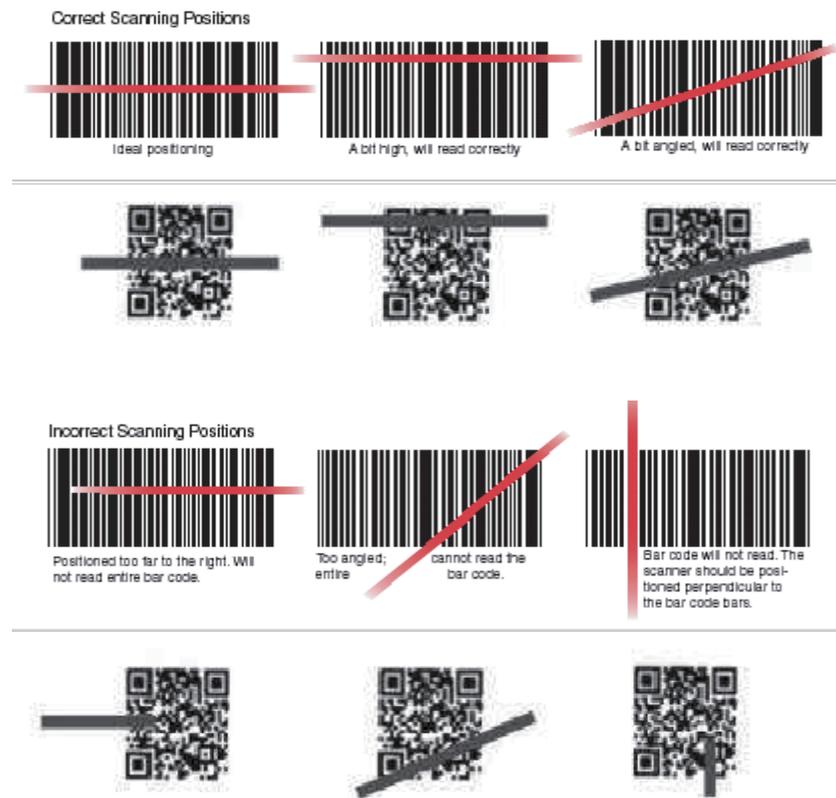
[Incorrect barcode reading]

1. The laser beam must across the barcode.

2. It will couldn't scan barcode if the laser beam across only a fraction of barcode.

Incorrect Scanning Positions

Positioned too far to the right. Will not read entire bar code.   Too angled; cannot read the entire bar code.   Bar code will not read. The scanner should be positioned perpendicular to the bar code bars.

WiFi Power On /Off Wireless Zero Configuration

WiFi is always set to the OFF state, when products ship from factory Customer needs to ON for using WiFi
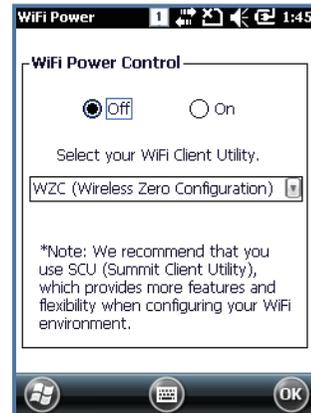
[Start button] -> [Setting]
-> [System] -> [WiFi POWER]

ON: WiFi ON
OFF: WiFi OFF

When you want to turn off
the WiFi function.
 please turn off WiFi

When you want to turn on
the WiFi function.
Please turn on WiFi

How to connect AP (1)

When you turn on Wi-Fi, AP list up automatically. .

Choose the AP what you want to use and click

Click for connecting

Input the network key.
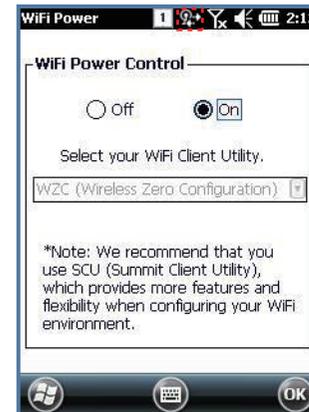
If it connect well you will be able to see mark as screen

How to connect AP (2)

You can connect using the wireless AP management program

[Start button] -> [Setting] -> [Connections] -> [Network cards]
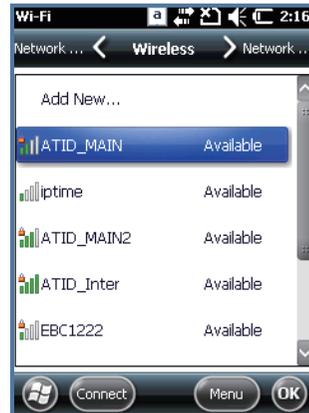
AP or Router captured automatically, Click on the appropriate device form the list
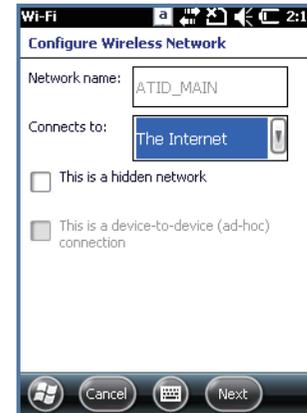
Click as picture
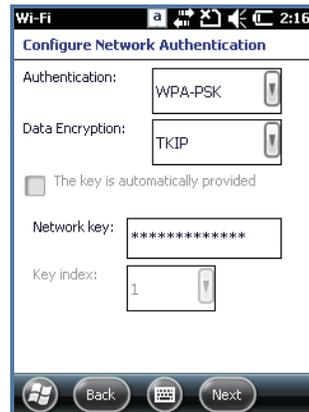
Input the Network key
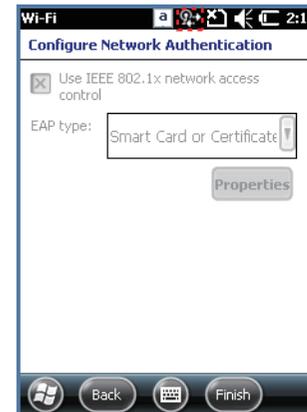
You will be able to see connect Wireless

WiFi Power On /Off Summit client utility

WiFi is always set to the OFF state, when products ship from factory
Customer needs to ON for using WiFi

[Start button] -> [Setting] -> [System] -> [WiFi POWER]

Click WiFi Power Tray Icon

Click on the WiFi

If the summit of the setting
is the only default profile,
SCU will execute automatically

Click the "Scan"
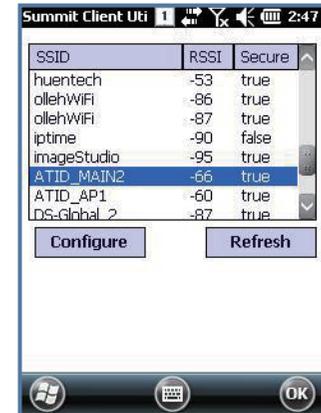
Click the "Configure"
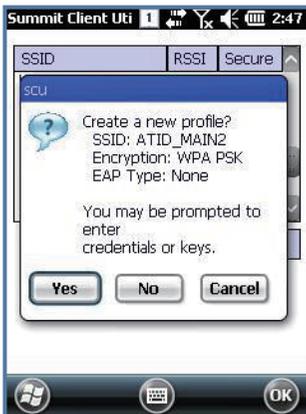
Click the "Yes"
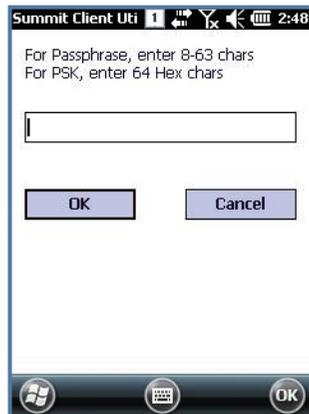
Input the password

Click the "Commit"

If you choose a list of registered
AP WiFi connection,
turn on the WiFi

This User Guide described how to Pairing and Disconnecting between AT880 and Bluetooth devices, and also described basic testing method of Mobile Printer SPR-R203, which launched by Bixolon, as a sample device.

** It could pairing with maximum 6ea devices, but assign COM Port only to COM2 and COM7.

Bluetooth connection and termination

[Start button] -> [Setting] -> [Bluetooth] -> [MODE]

1. Start Bluetooth function

Turn on the "Bluetooth"
: Depends on checking check box user can control the Bluetooth power.
● Select : Bluetooth On
● No select : Bluetooth Off

Set up for searching this device by other devices
: Depends on checking check box, user can set up for Bluetooth
● Select: Allow to searching this device by other devices
● No select: Do not allow to searching this device by other devices.

Checking
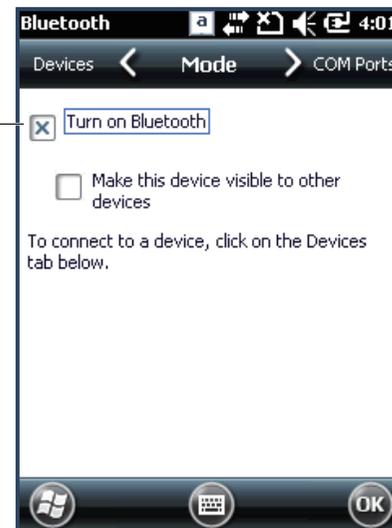
Bluetooth Pairing

After connecting each other through pairing way, Bluetooth devices could do its function properly.

[Start button] -> [Setting] -> [Bluetooth] -> [Devices]

Press the 'Add new device' for searching devices which could paring	Choose the devices on searching list for paring and click the next Depending on the situation, maybe need to input password for some devices, then could	Input the PIN code and click the next button. *Basically SPP-R200's printer pin code is "0000".	Click the SPP-R200 on the list
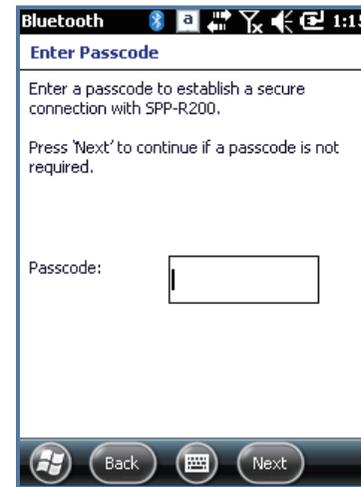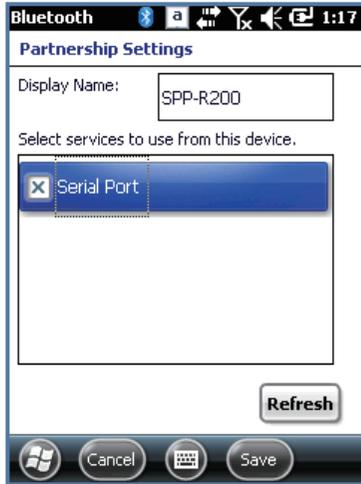
Choose the serial port.
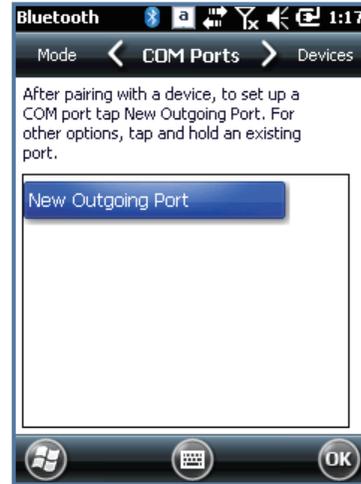
"choose the"COM port" tap and click the new serial port

Click the SPP-R200 on the list.
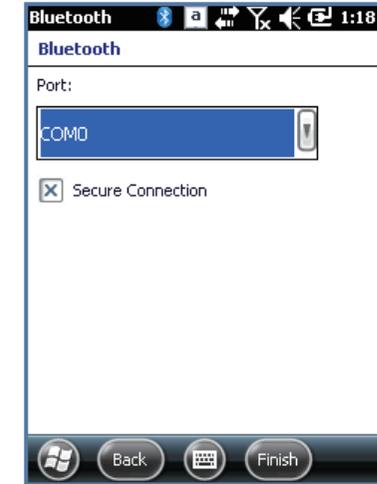
Choose the communications Port (COM2), and then click the finish button.
After that it is possible to transmission and reception of data by COM2 port

*when you add a new device, the equipment information is not normally displayed
Please try again

* Password that should be used to Pairing (authentication code), the unit can be set by mutual

* After the paring is normally achieved, User can use SDK for Bluetooth service. The SDK should be by manufacture of the Bluetooth devices

Bixolon SPP-R200 Printer Demo

SPP-R200 is typical Mobile Printer of the Bixolon, you can using its App which get from Bixolon website to perform print through Bluetooth.
**the Printer program and SDK, which described in this User Guide is based on the 5th Aug, 2011, and it's would be a little different from homepage contents according to the Bixolon policy.

1. Download "SPP-R200 Windows SDK" from the Bixolon homepage (www.bixolon.com) to a suitable directory and unzip the file.
2. Bluetooth Power ON.
3. Executing "Bluetooth Device Properties" programs which located in Control Panel.
4. SPP-R200 printer power ON.
5. Setting the SPP-R200 printer to be in the status of pairing. (Please refer to the User Guide of SPP-R200 Printer)
6. Press "Scan Device" button to searching printer device nearby.
7. In the status of pairing, the factory setting password is "0000" usually.
8. If connected successfully, "COM2 port connected" message will be confirmed. (If had connected one time, maybe not show the message.)
9. Copy and paste the DLL and executable file, which located at bin\ce5\MobileCompia_M3Plus\ within the printer SDK, to SI203x Flash Disk.
10. Executing the Sample.exe program in the SI203X Flash Disk.
11. Change the COM8 to COM2, then press "Open" button to testing printer.
12. Please check to click Printing button and sample printing button. it is working well or not
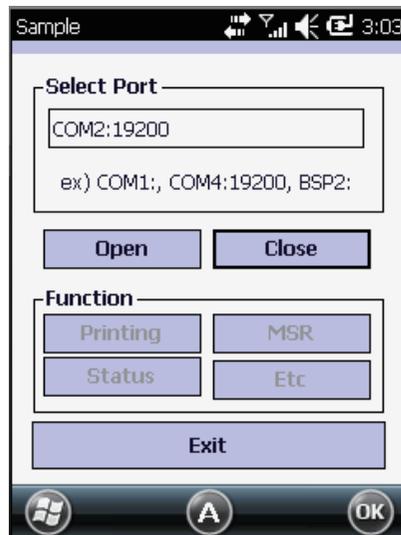
Change from COM8 to COM2   Click Open button and Printing button   Click the Sample Printing button
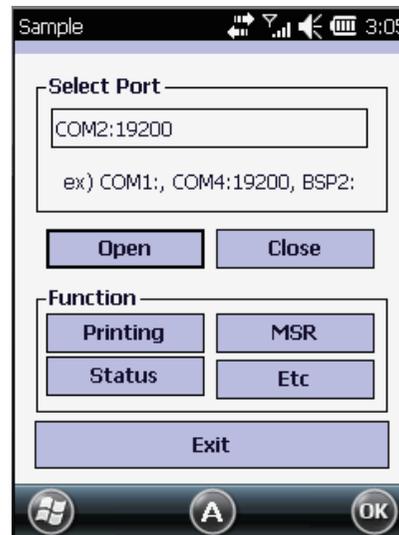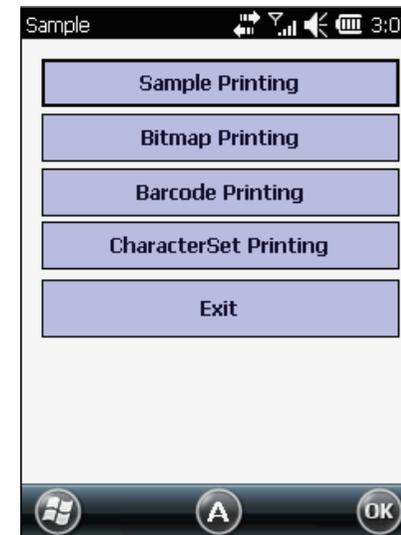
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How to use Phone

1. [Home] -> [Phone]
2. [Start Button]->[Phone]
3. Press Keyboard 📞 button.
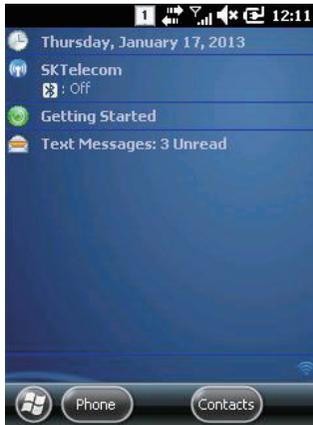
Dialing

Function Key	Descriptions
⬅	Delete number one by one.
Speed Dial	Enable add/edit/delete/ speed dial number and make phone call. (Save maximum 98ea speed dial numbers.)
Call History	Enable to looking for recent Call History.
📞 Talk	After input phone number, press "Talk" button to dialing.

● Press and hold relevent Speed Dial number for a while to make phone call, when you the speed dial number has been already registered.

Receiving Phone Call

Function Key	Descriptions
	Press this button to receive incoming phone call.
	Press this button to reject a phone call.

● Received message inforamtion maybe different.

Hang off Phone Call

Function Key	Descriptions
Speaker On	Communicate via Speaking Key.
Mute	Mute microphone during a phone call.
Hold	Switch active phone call on holding status.
Add Call	Switch on holding phone call to active status.
Contacts	Enable to Search/add/delete contacts. Enable to add a phone call while looking for contacts,
End	End a phone call.

Contact List

1. [Home] -> [Contacts]
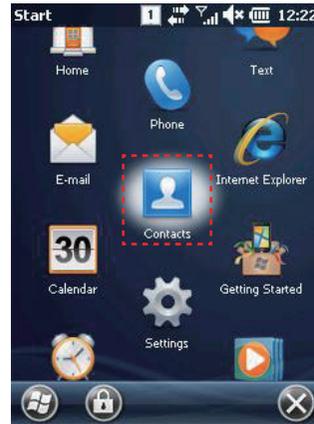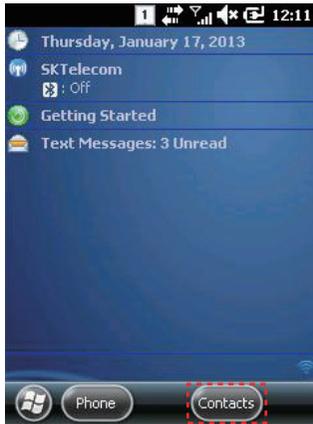
How to search a contact information

Enter the contacts number
or name into the searching box.

Add to contact list

Press this button to add a new contact information

Select new contact information type.

Select items which will add new contact information.

Enable to add name and company information.
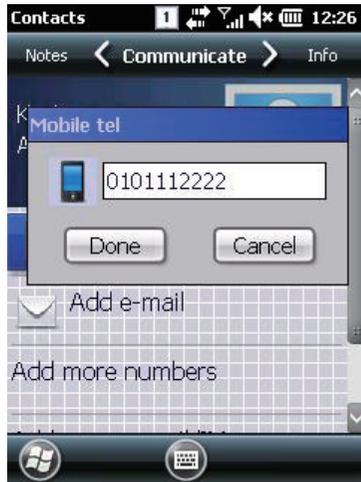
Enable to add mobile phone number.

Enable to add new Email information.
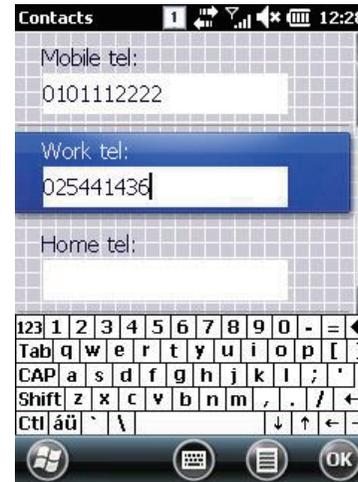
Except for mobile number, Enable to add other phone number.

Except for basic e-mail address, enable to add other e-mail information.

How to use Text Message

1. [Home] -> [Text Message]
2. [Start Button]->[Text Message]
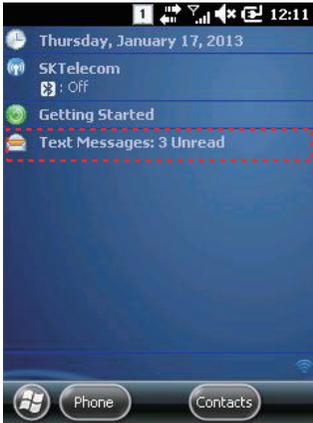
Sending Message

 Press this button to make a new message.
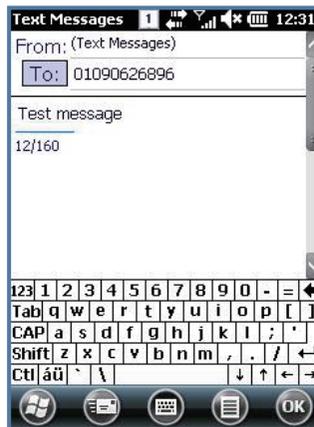
 Press this button to send a message.

Receiving Message

Press this button to check new message.
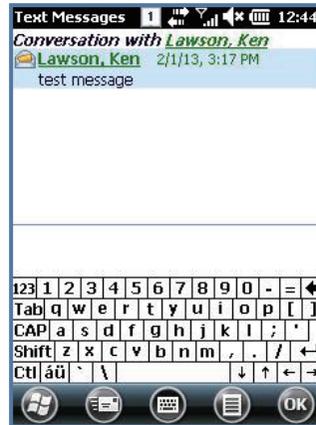
Check message in detail.

● Received message may expressed differently.

Replying Message

Click the relevant message in received message box.

Press "Reply/Forward(R)" button and then choose Reply(R) item.
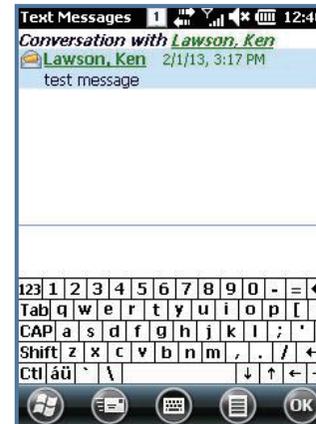
Press this button to send replly message, after done text.

This product enable to install GPS module and comes out internal type.
GPS program port : GPD1
GPS hardware port : COM6, 9600

GPS demo application execution

[Start Button] -> [DEMO_GPS_WM]

Execute DEMO_GPS_WM
Application.

Main window button description :

Start : press "Start" button to start to receiving GPS data.
Stop : press "Stop" button to stop receiving GPS data.

Confirm GPS receiving Data:
1. GPS data should be received effectively in open field.
2. GPS Data receiving time is depended on actual using environment. (around 3~10minutes)
   After received GPS data once, then next GPS connection will be very fast.

This product comes out with 3.0 Mega pixel camera with flash and enable to adjust screen brightness, resolution, screenshot capture, and record video and so on functions.

Use of camera

[Start Button] -> [Pictures&Videos] -> [Camera]
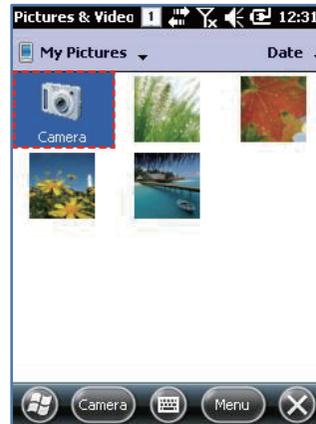
Execute Camera Application.

Main Window button description :

Thumb… : end the main window and switch to Pictures&Videos screen.
Menu : main Manu list
press "Enter" button to save current screen picture.

This product comes out with internal type of HF13.56MHz reader as optional item, and card reading distance around 3~8.5cm compliant with ISO Standards, and in the case of Mifare tag, the reading distance around between 1~3.5cm.

HF13.56 demo application execution

[Start Button] -> [DEMO_HF]

Mifare tag recognition
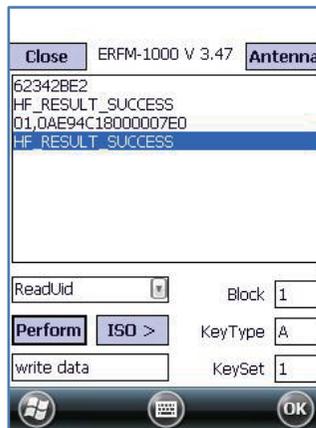
Mifare:

Open : Open HF device
Close : Close HF device
Antenna : Stop emit antenna power.
Perform : Send command which selected from above combo box.
ISO > : Switch ISO-15693 command screen.
Block : Block number which will be accessed
Key Type : Key type of block which will be accessed.
Key Set : Key set of block which will be accessed.

ISO15693 tag recognition
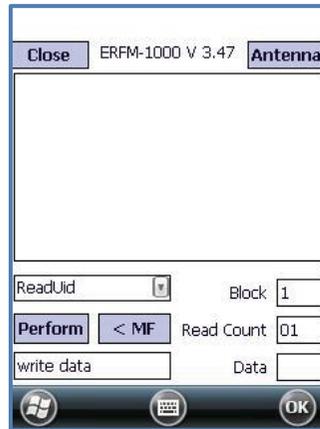
ISO15693:

< MF : switch to Mifare command window.
Block : start number of block which will be accessed.
Read Count : number of block which be accessed.

This product enable to communicate with IC Card which compliant with ISO-7816.

SmartCard demo application execution

[Start Button] -> [DEMO_SAM]
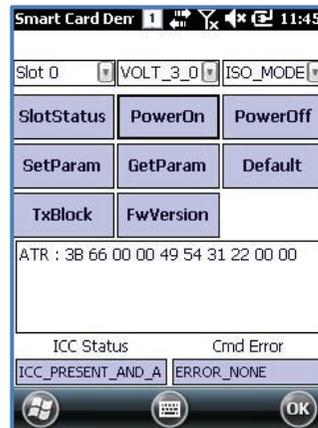
Main window button description :

Slot Status : check card status whether inserted into sloct.
PowerOn : power on IC Card reader module.
PowerOff : power off IC Card reader module.
SetParam : set or change Card reader's protocol type, clock rate,
                bit rate and so on data.
GetParam : get Card reader's protocol type, clock rate,
                 bit rate and so on data.
Default : initialize Card reader's set value to default values.
TxBlock : send APDU Command to Card reader.
FwVersion : get the firmware version of Card reader.

This product enable to install UHF module as optional item, and read&write RFID tag based on GEN2, ISO/IEC 18000-6C Protocol, performance frequency CE 865~868MHz, FCC 902~928MHz

UHF Reader

UHF 900MHz demo application execution

[Start Button] -> [DEMO_UHF]
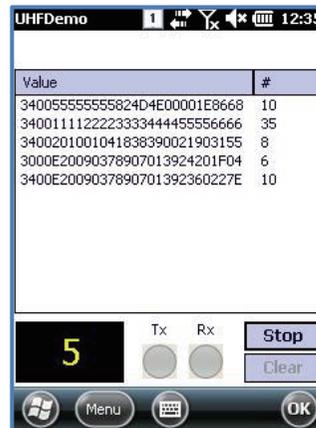
Demo Main window button description :
Select a tag that will perform "Access" command.

Start : press Start button to perform "Inventory",
        and button changed into "Stop" icon.
Clear : delete all tag values on the screen.
Menu : Main Manu

Demo Application optional Manu :

Read/Write : Read/Write tag.
Lock/Kill : Lock/Kill tag.
Option : Application option.
Version : Version infroamtion.
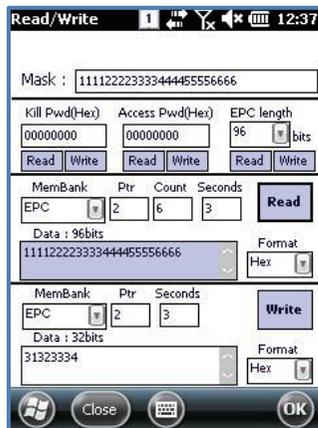
Read/Write window button description :

Mask : if selected a tag value on main window, then the tag value also showed on Read/Write window,
      and used as masking pattern while performing Read/Write tag.
        It means even there are a great many of tags around the reader,
        Read/Write command only apply those tag that set as masking pattern,
Kill Pwd, Access Pwd : Read/Write tag's Kill password, access
EPC length : Read/Write Tag's EPC length.
           Even though using 128bits tag, but if EPC length set as 96bits,
           then only identify 96bits if performance Inventory command.
           Please refer to EPC Class1 Gen2 specification for further information.
Read/Write : Read/Write tag to designated Memory Bank.
MemBank : read/write의 target memory bank.
Ptr : Memory Bank offset which would be read/write.
Seconds : read/write time(seconds)
Format : read/write data format.

Lock/Kill window button description :

Mask : if selected a tag value on main window, then the tag value also showed on Read/Write
     window and used as masking pattern while performing Lock/Kill tag.
     It means even there are a great many of tags around the reader,
     Lock/Kill tag command only apply those tag that set as masking pattern.
Kill Pwd, Access Pwd : Read/Write tag's Kill password, access password.
EPC length : Read/Write Tag's EPC length.
        Even though using 128bits tag, but if EPC length set as 96bits,
        then only identify 96bits if performance Inventory command.
        Please refer to EPC Class1 Gen2 specification for further information.
Do Lock : performance command according to check marks on box.
Kill : Kill tag. The tag will be never restore if kill a tag, please think twice before perform kill tag.
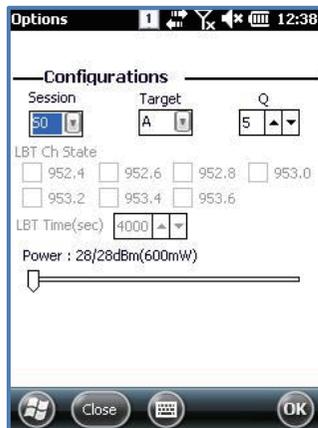
Options Window button description :

Session : change Session when operating Tag.
Target : change target when operating tag.
Q : change Q in Tag operation
LBT Ch State/Time : change LBT option for Europe, Japan type(forbidden)
Power : change Tx Power level of Reader.
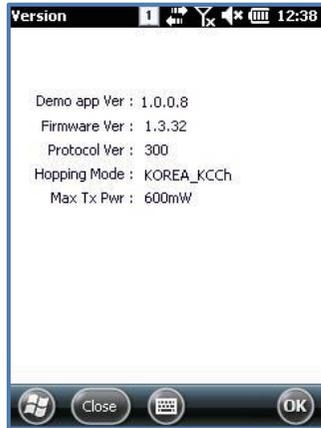
Version Window button description :

Demo app Ver : Demo application Version.
Firmware Ver : UHF module firmware Version.
Protocol Ver : UHF module library Version.
Hopping Mode : UHF module country Version.
Max Tx Pwr : UHF module maximum output.

Appendix

Product specification

PHYSICAL CHARACTERISTICS	
Dimensions (L x W x H)	159 x 79 x 27.7 (35.2)mm
Weight	280g (PDA only, without battery)
Operating Temp.	-20℃ ~ 60℃
Storage Temp.	-30℃ ~ 70℃
Humidity	95% non-condensing
Drop Spec.	1.5M Drop to concrete
Dust & Water Proof	IP65
PERFORMANCE CHARACTERISTICS	
Processor	Marvell™ PXA320 806MHz
Operating System	Windows CE 5.0 / Windows Embedded handheld 6.5 (Option)
Memory	256MB (512MB Option) RAM / 512MB ROM
Display	3.5" QVGA with Backlight, TFT LCD, 240 x 320Pixel, 262K Color
Audio	Phone Receiver, Speaker, Ear Jack, Microphone
Standard I/O Port	USB 1.1 Client / USB Host & Serial (RS-232) via gender cable or Cradle
Expansion Slot	1Micro SD Slot (SDHC), 1SIM Slot, 1SAM Slot
Notification	Vibrator and LED, Speaker
BATTERY SUPPLY	
Main Battery	Lithium Polymer 3.7V 2,970mAh (Rechargeable)
Backup Battery	Lithium Polymer 3.7V 80mAh (Rechargeable)
Power Adapter	Input AC100V ~ 240V / Output DC 5V 3A

NETWORK CHARACTERISTICS	
WLAN	IEEE 802.11 a/b/g Compliant (a/b/g/n Option)
Bluetooth	Bluetooth Class II, 2.1 + EDR
Radio	MODEM 3G (GSM / GPRS / EDGE / WCDMA / HSPA+)
GPS	Internal Antenna (GPS + Glonass Option)
DATA CAPTURE & DATA PROCESSING DEVICE	
Barcode Engine	1D Laser or 2D Imager Barcode Scanner (2D Long Range Barcode Option)
Camera	3.0 Mega Pixel Auto Focus with Flash
UHF 900MHZ RFID READER/WRITER	
Frequency	CE 865MHz ~ 868MHz
	FCC 902MHz ~ 928MHz
Reading range	0M ~ 5M (According to Tag & Environment)
Writing range	0M ~ 0.5M (According to Tag & Environment)
RF output	1W (MAX)
Protocol	GEN2, ISO/IEC 18000-6C
Special function	Anti-Collision
HF 13.56MHZ RFID READER/WRITER	
Applied RFID Tag	ISO15693, MIFARE, ISO14443 A/B (Option)
Reading range	According to Tag : 0Cm ~ 5Cm (Internal or External)
ACCESSORIES(OPTION)	
Gun Handle Grip (Pistol Grip)	Body, UHF / HF Available
Gun Handle Battery	Lithium-Ion 3.7V 5,200mAh (Rechargeable) Option

* All Features and specifications described are subject to change without notice.