Winmate S430T2-NKC PDA

Windows CE 6.0

User Guide

Version 1.1
February 2017

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Chapter 1: Safety Information

Exposure to Radio Use

S430T2-NKC is equipped with Bluetooth, WI-Fi and Cellular modem radio. In some situation or area, user may be required to turn off the radios. For example;

- User's needs to turn the phone OFF when in an area posted "TURN OFF RADIO SIGNAL." to avoid interfering with blasting operations.
- User needs to turn OFF the radio signal in health care facilities. Hospitals or health care facilities may be using devices that sensitive to Radio Frequency energy.
- Aviation authority regulations prohibit user from using phone while in the aircraft.

In order to prevent the handheld from emitting radio signals, do the following step:

- To turn off the device:

  Press and hold Power OFF button to display the *Power OFF* menu then tap it
- To turn off the Communication options e.g. Bluetooth, Wi-Fi, cellular modem radio: Go to control panel, select Network and Dial-up Connections, tap and hold to disable the connection

RF Exposure Information

This Handheld device meets the government's requirement for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate (SAR). The SAR limit set by the FCC is 1.6W/Kg. Test for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. Although SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. This is because the device is designed to operate at multiple power levels so as to use only the poser required to reach the network. In general, the closer user to a wireless base station antenna, the lower the power output.

For body worn operation, this PDA has been tested and meets the FCC RF exposure guidelines for use with an accessory that contains no metal and the positions of the handset minimum of 1.5 cm from the body. User of other enhancements may not ensure compliance with FCC RF exposure guidelines. If user do not use a body-worn accessory and are not

holding the PDA at the ear, position the handset a minimum of 1.5 cm from your body when the device is switched on.

Battery Safety Information

WARNING	Do not use other battery which is not intended for the product. Use only the battery compatible for the device and follow battery usage, storage, and charging guidelines in this user guide.

WARNING	A damage rechargeable Lithium-ion polymer battery can cause explosion or fire. To prevent personal injury and/or property damage: • Do not open, disassemble, puncture, or crush the battery • Do not leave or store the PDA in an area which is near a heat source such as vehicle dashboard, dryer or other heat source. • Do not attempt to insert foreign object into the battery or allow conductive objects to contact the battery In the event of battery leak: • Do not have any contact with the battery fluid • If battery fluid leaks onto the skin or cloth, wash the affected area with clean water

WARNING	Please contact your current Winmate distributor or local Winmate vendor if you suspect damage to your PDA or battery for inspection and reparation.

Electrostatic Discharge

WARNING	Please follow proper electrostatic discharge precaution to prevent static damage that can harm electronic components inside your device

Driving

WARNING	Using mobile device or accessory while driving may cause distraction and maybe illegal in some areas where you drive. Please obey the laws and regulations on the use of mobile device

Chapter 2: About Winmate S430T2-NKC

About S430T2-NKC

Winmate's S430T2 rugged handheld PDA integrates the latest Windows CE 6.0 operating system, along with increased processing power and storage to streamline workflow efficiencies. The new S430T2 maintains the same popular form factor as the first-generation model, runs on a 1.0 GHz TI Cortex A8 processor. The 4.3-inch capacitive multi-touch display offers 480 x 800 pixel WVGA resolution. Other new era tech includes dual cameras, a micro-SD card slot, speedy 802.11 Wi-Fi, integrated GPS and optional 3G mobile broadband. This model is equipped with QWERTY Keypad to increase users' ease of use.

Features

This section provides the features of the S430T2-NKC series and describes how to set this device for the first time

Features

1	Audio Phone	Emit Sounds
2	Light sensor	Light sensor detect the availability of light and automatically control the brightness of a screen backlight intensity
3	Proximity sensor	Proximity function is used specifically towards near field proximity applications. In mobile phones, the proximity detection can detect when the user positions of mobile phone is close to their ear
4	Touch Screen	Resistive touch screen
5.	F1 Button	Go to menu
6	Tab	Barcode trigger
7	ALPHA	Numbers and letters shift key
8	Power	Power switch
9	Battery Indicator	LED indicator indicates the battery power or charging status
10	Notification Indicator	to notify the user about the received message / text or any updates
11	Keypad Button	Numeric Keypad
12	F2 Button	Return Function
13	Backspace	backspace function
14	Enter	Confirm input
15	1D/2D Barcode	Barcode Scanner for reading of 1D/2D barcode.
16	Audio Jack	Headset or Headphone can be connected
17	Flash	Camera flash for additional light during camera capture
18	Camera	8 megapixel camera
19/22	Hand Strap Fixing Hole	To improve usability and ease of use when using the product
20	Speaker	Audio speaker provides a variety of sounds when user operating the device
21	Battery Latch screw	To secure the battery
23	RS232	RS232 Connector
24	Mini USB	Use for data transfer via Mini USB cable
25	DC Jack	Use for charging
26	DC Dock	Use it for docking

Getting started

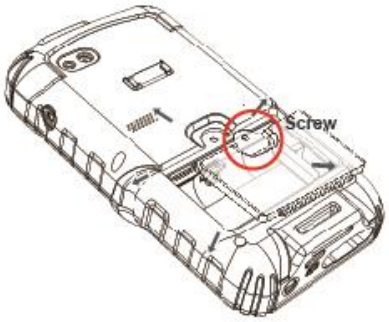
To start using the S430T2-NKC for the first time:

- Install SD Card
- Install the battery
- Charging the Battery

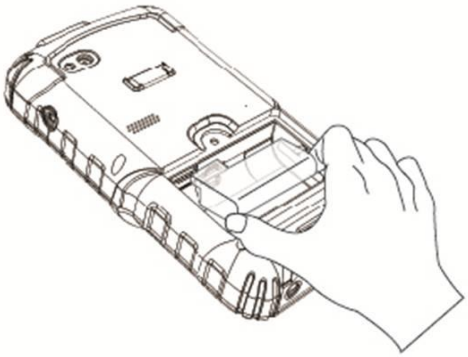
SIM Card and SD Card Installation

To Install the SIM Card and SD Card:

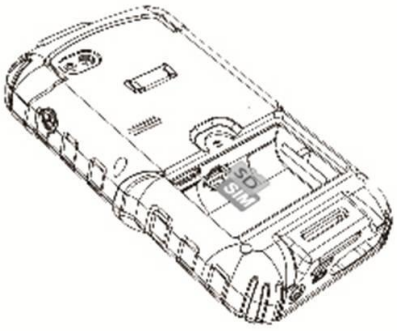
1. Place the S430T2-NKC facing down and then locate the screws on the backside
2. Unscrew the screws and gently pull the back cover

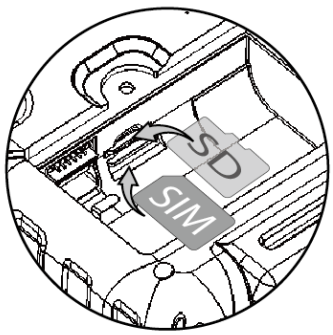


3. Pull the battery to remove it



4. Locate the SD and SIM card holder
5. Insert the SIM and SD card accordingly as shown in the figure

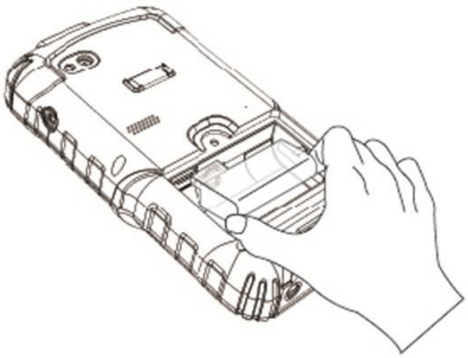




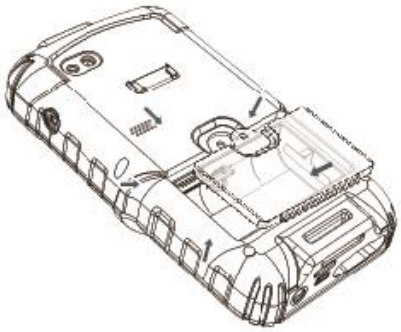
6. Locate the SD and SIM card holder
7. Push the SD and SIM card holder in the direction of the arrow

Battery Installation

1. Reinsert the battery by latching the bottom first and then push it down.



2. After battery installation, put back the back cover and make sure all the screw fit with the hole. Screw and fix the back cover.



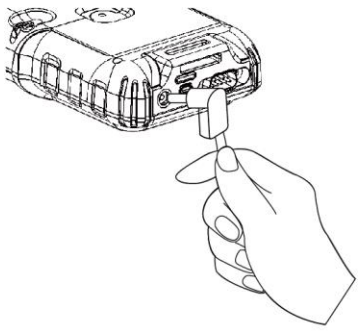
Battery charging

Please charge the battery before using the device for the first time, charge the battery until the LED indicator turns solid green. To charge the S430T2-NKC, use a cable or a docking with appropriate power supply. For more information about the S430T2-NKC accessories, see chapter 6.

To charge the battery using USB/ Charge cable:

1. Connect the power supply output connector to the input power port on the USB/Charge cable.
2. Connect the USB/ Charge cable to the bottom of S430T2-NKC. The battery charge LED indicates the battery charging status

LED Status	Indication
OFF	S430T2-NKC is not charging S430T2-NKC is not properly connected to power source
Solid orange	S430T2-NKC is in charging process
Solid Green	Charging complete



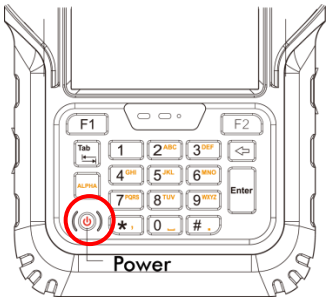
WARNING

This product uses a non-removable battery. The battery should only be removed when you want to change the SD Card

Turning On and Off the Device

Turning the S430T2-NKC On

1. Press and hold the power button for 3 seconds, located on the right side of the unit



2. When the device vibrates and the indicator light flashes green, release the power button. The desktop screen is displayed

Turning the S430T2-NKC Off

1. Select windows > programs > Power Off. Tap Power Off button to turn it off
2. To turn off the device, press and hold the power button until the indicator light flashes green,

Resetting to Factory Defaults

1. Make sure the SD card has no image file inside.
2. To reset to factory default, long press and hold the power button for 8 second, until the resetting page is up.

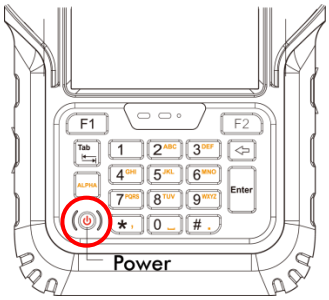
3. Wait until the process is finished. The device will reset to factory default.

Chapter 3: Using Windows CE 6.0 Operating System

Desktop

If you do not use the phone for a while, the screen dims and then darkens to conserve the battery. To wake up the phone:

1. Press the **Power** button located on the keypad.



Desktop is used as a shortcut to launch activities such as using My Device, Camera, Internet Explorer.

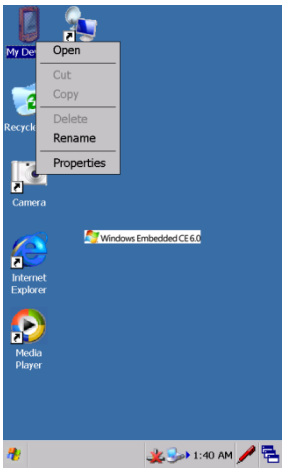
Desktop Icon

There are 6 icons on Desktop such as My Device, Recycle Bin, Camera, Internet Explorer, Media Player and Remote Desktop connection

	Show all folders in S430T2-NKC such as Documents and Setting, My Documents, Program Files, and Storage Card.
	The deleted files will be located here, user can restore it or delete it permanently
	Select and open camera application to take a picture. Detail content about camera feature and application will be available in chapter 3
	To launch the Internet Explorer
	To launch or play Video or music
	To communicate with a remote desktop PC

To Generate Left / Right Click

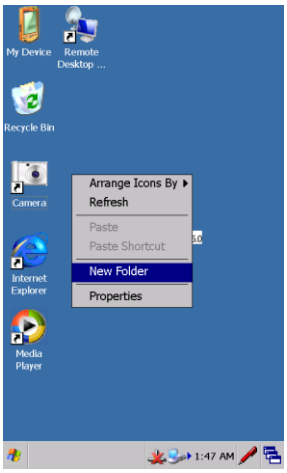
To generate Right Click press anywhere on the screen and leave it there for a few seconds. Opens a menu specific to what you are doing



Adding New Folder

To add a new folder on desktop:

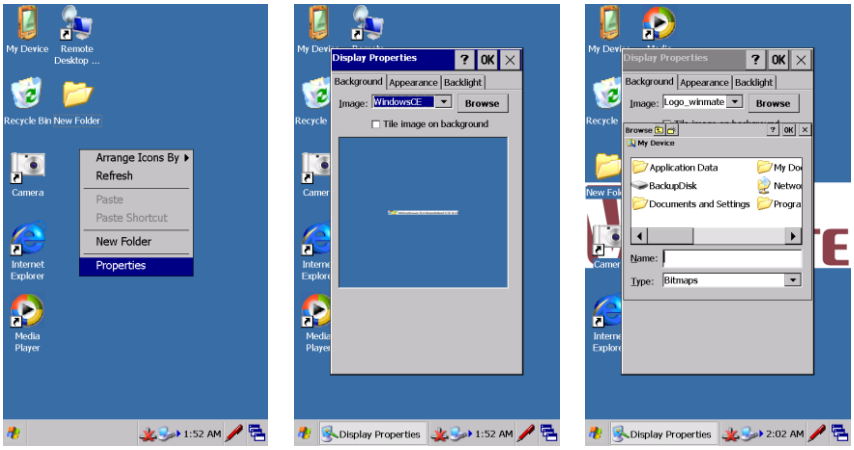
1. Generate Right click and select New Folder
2. Rename the folder

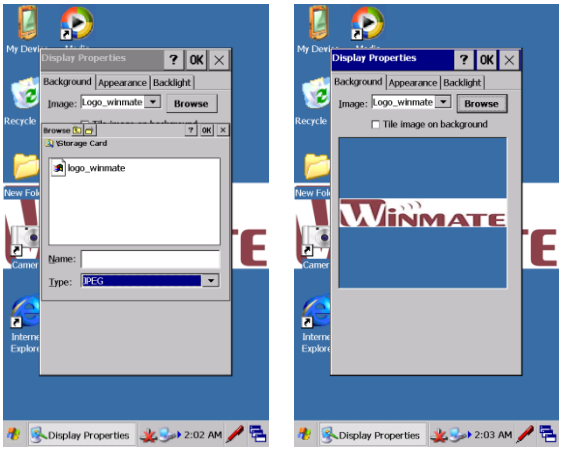


Personalizing Home Screen

User can personalize their home screen and change the wallpaper, to change it:

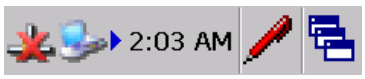
1. Generate Right click and select properties
2. In the background tab select browse to find the picture file that user want to change
3. Select the image and then apply it





Task Bar

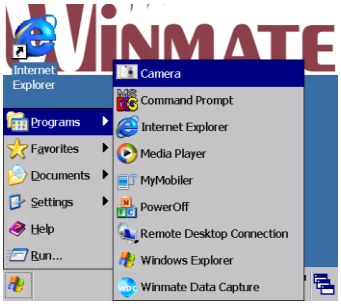
Task Bar is located at the bottom of the screen and these icons will provides user quick view and links to the Wi-Fi, Bluetooth and Clock settings. It also gives short cut to window selection



Start Menu

The left Windows icon is Start menu which contains **Programs, Favorites, Documents, Settings, Help** and **Run.**

a. Programs



- Camera
  Select Camera icon in the programs or in the desktop to open camera application

	Shutter	to take a picture
	Menu	to open the menu to change photo resolution: • 2560 x 1920 in 5 MP • 2560 x 1536 in 4 MP (wide) • 2048 x 1536 in 3.2 MP • 1600 x 1200 in 2 MP • 1600 x 960 in 2 MP (wide) • 800 x 480 in 0.4 MP • 640 x 480 in 0.3 MP to change the flash setting: • On : Always turn on flash when capture a picture • OFF: Always turn off flash when capture a picture • Auto: adjust automatically to the environment brightness when capture a picture to select the folder to save the file
	Exit	to close camera application

- Command Prompt
  To access the DOS command prompt, at the prompt user can type DOS commands such as *dir* to display all the directories in the drive.

- Internet Explorer
  This device is equipped with Internet Explorer for Windows CE 6.0. User can access it through the Start menu under the control panel or double tap the Internet Explorer icon

- Remote Desktop Connection
  To connect to a Windows Terminal server so user can run a session on the server using the Windows CE 6.0 device

- Power Off
  To turn off the device

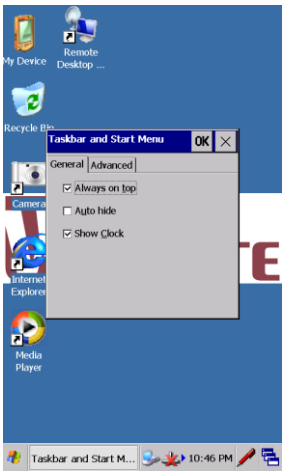
- Winmate Data Capture
  This data capture only for S430T2-NKC with Barcode reader or RFID

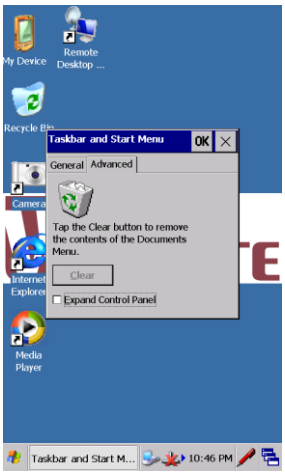
b. Favorites

The favorites list which has been added in the IE will be listed here

c. Settings

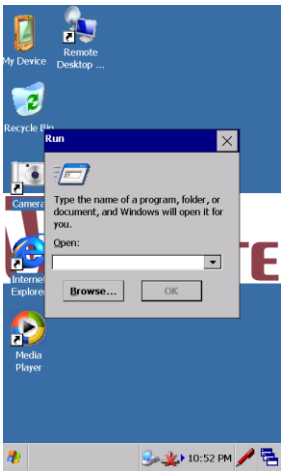
There are 3 items in settings such as *Control Panel, Network and Dial-up connections, Taskbar and Start Menu*. The Taskbar and start menu is able to set some properties. In General tab, choose Auto Hide to hide the taskbar and choose Show clock to turn on / off the clock. In advance tab user can remove the contents of the documents menu by tapping the clear button





d. Run

To open the name of the program, folder, or document by typing the keywords



Status Icon

On the right side of taskbar shows some status icon as below:

This icon shows the internet is not connected

This icon shows the device is in charging mode

This icon shows the device is connecting to PC

Clock

The clock shows on the right side of taskbar, double click the clock to open Date/Time. User can also set the Time Zone.

Return to Desktop

User can switch to another window by tapping icon on the taskbar and tap desktop

Chapter 4: Configuration

Remote Desktop Connection

Remote desktop connection is a Windows application which enable user to connect to PC through internet using S430T2-NKC with WinCE 6.0. Please refer to the following link from Microsoft Windows for step by step information to set up this connection.

http://www.microsoft.com/windowsxp/using/mobility/getstarted/remoteintro.mspx

Control Panel

Control panel is the center of Windows CE 6.0. To open control panel

1. Tap My Device on the Desktop and select control panel, or
2. Tap Start menu on the task bar and then tap settings, select control panel

Control Panel Icon

Bluetooth Device ...	**Bluetooth Devices** Manage Bluetooth pairing and devices.
BSP Information	**BSP Information** CPU speed, Memory size, OS version, Eboot version, XLDR version and MCU version information.
Certificates	**Certificates** The public key is transmitted as part of Certificate. In Certificates client can check the certificates which has been digitally signed by a certification authority that the client explicitly trust.
Date/Time	**Date/Time** Setting Year, Month, Date, Time and Time Zone.
Dialing	**Dialing** Dialing Properties setting such as local area code, country code and region code.

Display	**Display** Change background, Appearance and Backlight on S430T2-NKC.
Input Panel	**Input Panel** Change input method and option setting.
Internet Options	**Internet Options** Settings about IE browser such as Start Page, Privacy, Security and Search Page.
Keyboard	**Keyboard** Setting about character repeat, repeat delay and repeat rate.
Mouse	**Mouse** Setting the double-click sensitivity for both the speed and physical distance between clicks.
Network and Dial-...	**Network and Dial-up Connections** Some setting about Wi-Fi connection and USB serial connection.
Owner	**Owner** User can specify owner information in here. In Notes User can see and add additional information. In Network ID, Win CE uses this information to gain access to network resources. Enter the user name, password and domain provided by network administrator.
Password	**Password** User can assign a password to restrict access to elements of S430T2-NKC. Note that after user assigned the password, it can't be circumvented.
PC Connection	**PC Connection** Setting direct connections to desktop computer. Press Change Connection to change the type of direct connection to PC.
Power	**Power** Here shows some information about remaining power and device power level status. In schemes User can adjust power settings.
Regional Settings	**Regional Settings** Setting the region, language and input for S430T2-NKC.
Remove Programs	**Remove Programs** Here shows all the programs can be removed. Select it and press Remove to remove it.
Storage Manager	**Storage Manager** Shows information about storage and some function to format, dismount and change partitions.
Stylus	**Stylus** Includes the function in Mouse and with Calibration function which can recalibrate screen.
System	**System** User can see system information here such as processor, memory. In Memory menu User can allocate memory between storage and program memory. In Device Name menu User can change device name and description.

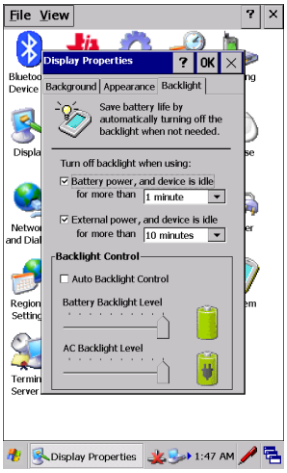
Terminal Server...	**Terminal Server Client Licenses** User can see all the stored licenses here. User can store or delete it from this list.
Volume & Sounds	**Volume & Sounds** User can change the volume and the sounds to indicate events like menu pop, menu selection.

Basic Setup

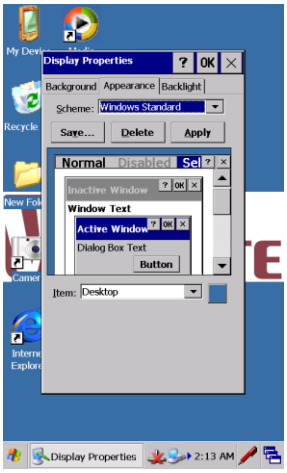
Display Properties

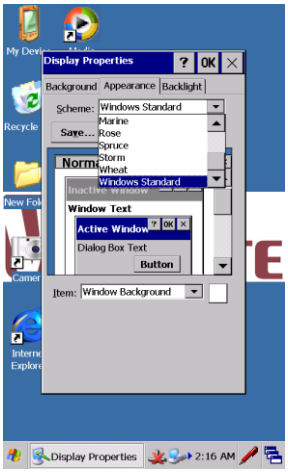
Go to Control Panel and tap Display icon and then open Display properties, user can obtains

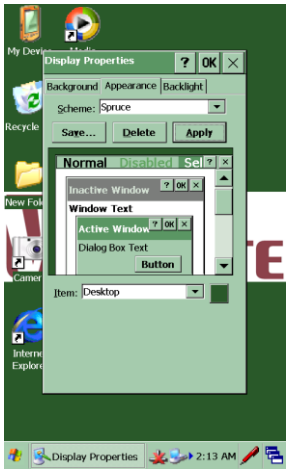
- Display Backlight
  User can set the condition to turn off backlight to save battery life, these conditions are depend on using battery power or external power



- Display Appearance
  At appearance tab user can change the scheme and select the scheme, tap apply to change the display appearance







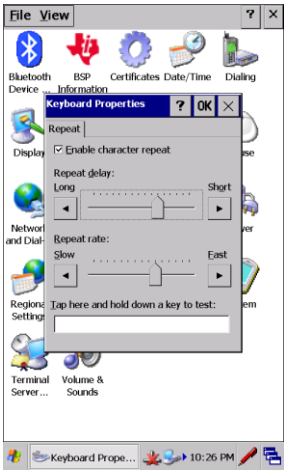
Keyboard Properties

To set character repeat rate and repeat delay, tap keyboard icon in setting panel

Key Repeat

Select Enable character repeat to enable it.

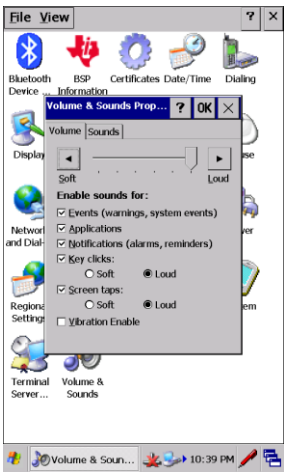
In repeat delay, the value bar means delay in milliseconds between repeated characters. Slide to the left to increase delay for key repetition and slide to right to decrease delay for key repeats. In repeat rate, the value bar indicates how quick is the repetition in pressing key in characters per second (cps).



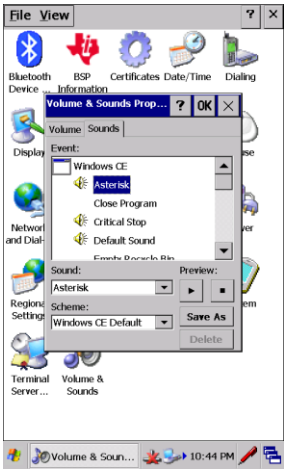
Volume and Sound Properties

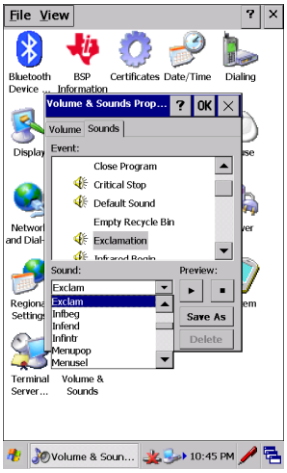
In Control Panel, tap the Volume and Sound Properties to adjust volume and sound

- Volume Adjustments
  Slide the volume bar to the left to lower the volume or to the right to increase the volume



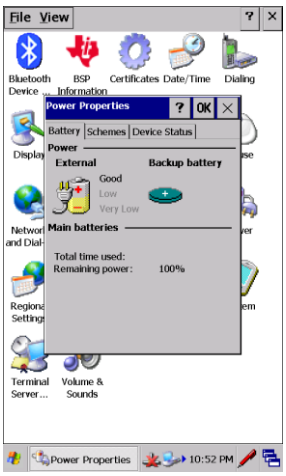
- Sound Adjustments
  User can change the sound referring to particular event, choose the option in Event box and select the sound from the sound box.



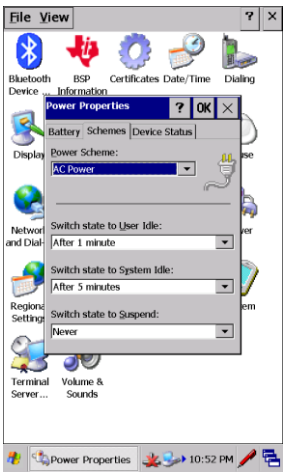


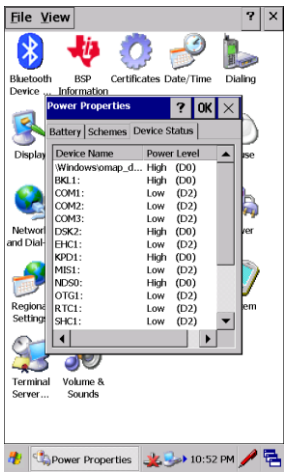
Power Management Properties

To manage battery use for S430T2-NKC, tap Power icon in control panel. In battery tab user can monitor the power status.



In the schemes user can change adjust the time to switch state to User Idle, System Idle, or Switch to suspend. The other Device Status tab shows the power level for each device such as COM, OTG and so on

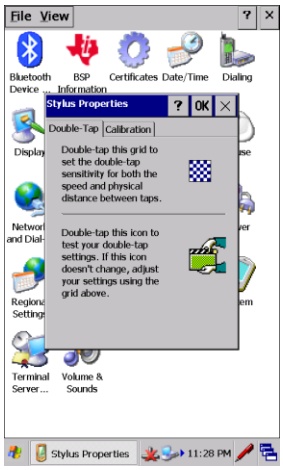




Stylus Properties

Tap Stylus Icon in Control Panel to enter stylus setting dialog box

- Double-Tap
  In the Double-Tap tab, user can change the sensitivity for both the speed and physical distance between taps. After change the setting, user can double tap the icon to test it.



Calibration

If the panel did not responsive, user need to recalibrate S430T2-NKC screen. To recalibrate the screen please press the button to begin recalibration process.

Storage Manager

Select Storage Manager Icon in Control Panel to open it. User can see storage information here.

Formatting memory card

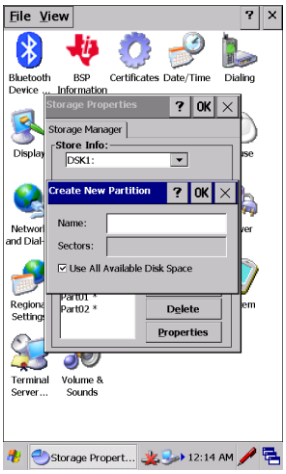
After formatting memory card, all the files in memory card will be erased. User can create a new partition on it. To format an entire memory card select the memory card in Store Info

Box. Select dismount and all partitions on this memory card will be dismounted. Select the Format button to format memory card.

Creating Partitions

After formatting memory card, user can create new partition on it. The default is to create one partition however it can be divided into more partitions. To create new partition:

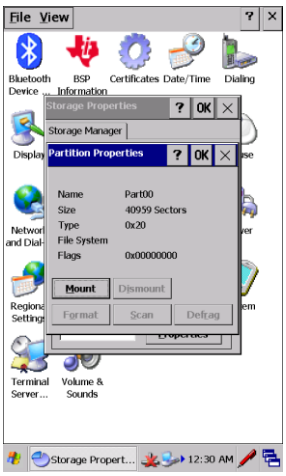
- Tap new button in partition list box
- Type a name for the partition in the Create New Partition dialog box. After select OK and it will show a new partition in Partition list.



Partition Management

Partition can be individually dismounted, mounted, deleted or formatted as well. To open partition properties dialog box:

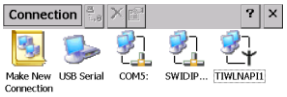
- In Storage Properties dialog box select properties button located beside partition properties dialog box: there are five buttons such as: Mount, Dismount. Format, Scan and Defrag

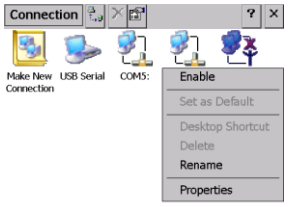


Chapter 5: Connecting to Network and Device

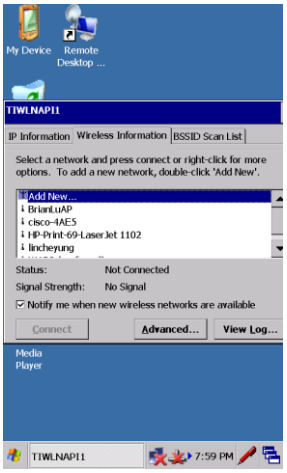
Connecting to WLAN

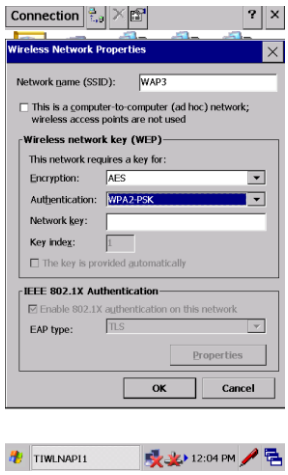
Open Network and Dial-Up connections to set connection to WLAN. Press and hold TIWLNAPI1 then select Enable to turn on Wi-Fi Radio





After turn on Wi-Fi radio, the selecting list will appear select one of the available options and select connect. User need to choose the Authentication network e.g WPA, WPA2, WPA, 2-PSK, WPA-PSK and key in the password.





Bluetooth

Bluetooth is a wireless technology standard for exchanging data over short distances from fixed and mobile devices, creating personal area networks (PANs) with high levels of security. It can connect several devices, overcoming problems of synchronization.

S430T2 support Bluetooth v2.1+EDR. It is fully backward compatible with 1.2. The headline feature of 2.1 is securing simple pairing (SSP): this improves the pairing experience for Bluetooth devices, while increasing the use and strength of security. 2.1 allows various other

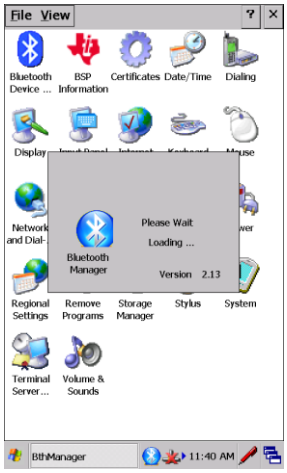
improvements, including "Extended inquiry response" (EIR), which provides more information during the inquiry procedure to allow better filtering of devices before connection and reduces the power consumption in low-power mode.

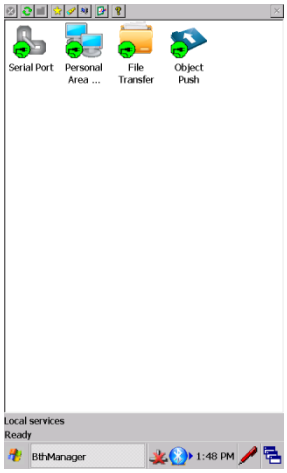
Enhanced Data Rate (EDR) is for faster data transfer. The nominal rate of EDR is about 3 Mbit/s, although the practical data transfer rate is 2.1 Mbit/s. EDR can provide lower power consumption through a reduced duty cycle.

Bluetooth Setup

To turn on Bluetooth:

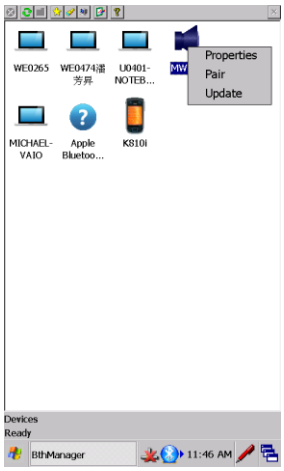
1. Go to Control Panel
2. Tap the Bluetooth icon to turn on Bluetooth

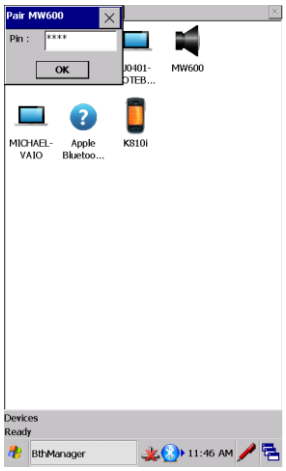




To pair Bluetooth:

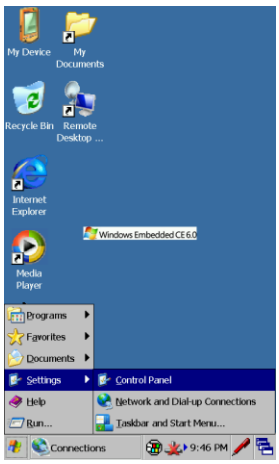
1. Tap the icon and search available Bluetooth device nearby.
2. e.g. if user want to pair the S430T2-NKC with Bluetooth headset device, Tap and hold the device icon
3. Select Pair on the menu
4. Type in the pairing password for this device (refer to the manual from certain device)
5. The pairing is done, tap OK to receive the file





GPS Setup

1. Click the Start bottom in desktop and select Settings to open the Control Panel



2. Select the GPS Switch icon.

3. Check the GPS Enable item to power on the GPS module.

4. Open your terminal tool to open the GPS COM.
   COM port : COM2
   Baud rate : 9600
   Data Bits : 8
   Parity : None
   Stop Bits : 1
   And you can receive the GPS data as below.

```
$GPVTG,,,,,,,,,N*30
$GPGGA,,,,,,0,00,99.99,,,,,,*48
$GPGSA,A,1,,,,,,,,,,,,,99.99,99.99,99.99*30
$GPGSV,1,1,00*79
$GPGLL,,,,,,V,N*64
$GPRMC,,V,,,,,,,,,,N*53
$GPVTG,,,,,,,,,N*30
$GPGGA,,,,,,0,00,99.99,,,,,,*48
$GPGSA,A,1,,,,,,,,,,,,,99.99,99.99,99.99*30
$GPGSV,1,1,00*79
$GPGLL,,,,,,V,N*64
$GPRMC,,V,,,,,,,,,,N*53
$GPVTG,,,,,,,,,N*30
$GPGGA,,,,,,0,00,99.99,,,,,,*48
$GPGSA,A,1,,,,,,,,,,,,,99.99,99.99,99.99*30
$GPGSV,1,1,01,22,,,25*7F
$GPGLL,,,,,,V,N*64
$GPRMC,,V,,,,,,,,,,N*53
$GPVTG,,,,,,,,,N*30
$GPGGA,,,,,,0,00,99.99,,,,,,*48
$GPGSA,A,1,,,,,,,,,,,,,99.99,99.99,99.99*30
```

Chapter 6: Accessories

S430T2-NKC Standard Accessories

Standard Accessory	Part Number	Details
Universal Adapter	9220015W05V0	Input : AC 100-240V Output : 5V-3A
Mini USB Cable	9487047050P0	Provides power to the S430T2 and USB communication with a host computer
Hand Strap	9B0000000256	Provides an ease of use interface for managing the Bluetooth
Micro SD Card	76G004300000	4GB Micro SD Card
Quick Start Guide		

S430T2-NKC Optional Accessories

Optional Accessory	Part Number	Details
Micro SD Card		Provides capacity size from 8-32G
Vehicle Adapter	9260005W05V0	Input 5V DC cigarette lighter socket USB car charger
Stand mounting kit	98K000A0001G	Fix the S430T2
Bluetooth printer	9B0000000266	• Mobile thermal receipt printer • Quick and efficient printing • Withstands drop up to 1.2 m • Long lasting battery • Supports wireless communication • Easy to store setup parameters
Stand docking	98K000A001G	1 x DC Jack 1 x Mini USB PC Sync 5V Charge
Standard Spare Battery	320403704001	3.7V , 5000mAh
Touch Stylus	9B0000000329	For Windows CE/ Mobile Resistive 75mm-105mm PenPoint Ø2mm, Body Ø4mm
Mobile Power Station	9A0000000222	5V / 9V / 12V DC Out Capacity : 12000 mAh / 3.7 V