



ID83 Rugged Tablet PC

**(Intel® Atom™ Dual Core N2800 Based
Tablet PC)**

USERS MANUAL

Version: 1.4

| | |
|----------------|-----------------------------------|
| R10ID8M-RTXXGP | 10.4 inch Mobile Rugged Tablet PC |
| R12ID8M-RTXXGP | 12.1 inch Mobile Rugged Tablet PC |
| R10ID8M-RTXXCA | 10.4 inch Mobile Rugged Tablet PC |
| R12ID8M-RTXXCA | 12.1 inch Mobile Rugged Tablet PC |



IMPORTANT SAFETY INSTRUCTIONS

Please read these instructions carefully before using the product and save for later reference.

Follow all warnings and instructions marked on the product.

Unplug this product from the wall outlet before cleaning. Clean the product with a damp soft cloth. Do not use liquid or aerosol cleaners as it may cause permanent damage to the screen.

Do not use this product near water.

Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. (For AC version only)
Do not defeat the purpose of the grounding-type plug.

Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

Do not attempt to service this product by yourself, as opening or removing covers may expose you to dangerous voltage points or other risks and will void the warranty. Refer all servicing to qualified service personnel.

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

When the power cord or plug is damaged or frayed.

If liquid has been spilled into the product.

If rainy or water has been exposed to the product.

If the product does not operate normally that the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

If the product has been dropped or the cabinet has been damaged.

If the product exhibited a distinct change in the performance, that indicates a need for service.



Copyright Notice

Copyright © 2008 Winmate Communication Inc., ALL RIGHTS RESERVED. No part of this document may be reproduced, copied, translated, or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the prior written permission of the original manufacturer.

Trademark Acknowledgement

Brand and product names are trademarks or registered trademarks of their respective owners.

Disclaimer

Winmate Communication Inc. reserves the right to make any product changes without notice, including circuits and/or software described or contained in this manual in order to improve design and/or performance. Winmate Communication assumes no responsibility or liability for the use of the described product(s), conveys no license or title under any patent, copyright, or masks work rights to these products, and makes no representations or warranties that these products are free from patent, copyright, or mask work right infringement, unless otherwise specified. Applications that are described in this manual are for illustration purposes only. Winmate Communication Inc. makes no representation or warranty that such application will be suitable for the specified use without further testing or modification.

Warranty

Winmate warrants that each of its products will be free from material and workmanship defects for a period of one year from the invoice date. If the customer discovers a defect, Winmate will, at its option, repair or replace the defective product at no charge to the customer, provided it is returned during the warranty period of one year, with transportation charges prepaid. The returned product must be properly packaged in its original packaging to obtain warranty service.

If the serial number and the product shipping data differ by over 30 days, the in-warranty service will be made according to the shipping date. In the serial numbers the third and fourth two digits give the year of manufacture, and the fifth digit means the month (e. g., with A for October, B for November and C for December).

For example, the serial number 1W08Axxxxxxx means October of year 2008.



Customer Service

We provide service guide for any problem as follow steps : First, visit the website at <http://www.winmate.com.tw> to find the update information about the product. Second, contact with your distributor, sales representative, or our customer service center for technical support if you need additional assistance. You may have the following information ready before you call :

- Product serial number
- Peripheral attachments
- Software (OS, version, application software, etc.)
- Description of complete problem
- The exact wording of any error messages

In addition, free technical support is available from our engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products. Please do not hesitate to call or e-mail us.

Notice

1. Do not touch the LCD panel surface with sharp or hard objects.
2. Do not use abrasive cleaners, waxes or solvents for cleaning, use only a dry or damp, soft cloth.
3. Use only with a high quality, safety-approved, AC/DC power adapter.



Safety Precautions

- **Warning!**



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

- **Caution!**



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.



7Packaging List

This product is shipped with the items list below. Please make sure that all are in your package.

| Item | Description | Note |
|------------------------------------|---|---|
| Default Packing Accessories | | |
| 1 | 1 piece of 6 Cell Li-Ion Battery Pack | |
| 2 | 1 piece of Rugged Tablet PC Quick Start Guide | |
| 3 | 1 piece DVD for System Driver Utility. | |
| 4 | 1 piece of 19V Adapter w/ Standard Power Cord. (Euro / U.S. Std type, 1.8m) | |
| 5 | 1 piece of Stylus | |
| 6 | 1 piece of Slim Handheld Bag | |
| Optional Accessories | | |
| 1 | 1 piece of Recovery DVD for Operation System (Windows 7 Embedded/Windows 7 Pro Embedded). | Optional with Windows 7 Embedded pre-installed. |
| 2 | 1 piece of Win 7 Recovery Users Guide. | Optional with Windows 7 Embedded pre-installed. |
| 3 | 1 piece of Handstrip with 4 pieces M3x5 screws | |
| 4 | 1 piece of Handle Belt can lock on the side of the Tablet PC to carry on. | |
| 5 | 1 piece of Carry Bag, the Carry Bag is convenient and easy for user to carry with the Tablet PC. | |
| 6 | 1 piece of Carry Belt, can use with Carry Bag or use stand-alone to click with the four corners of Tablet PC to carry on. | |
| 7 | 1 pieces of Desktop Docking Stand with a battery charger station | |
| 8 | 1 pieces of Car power charger adapter | |



Rugged Computing

| | | |
|---|-------------------------------------|--|
| 9 | Other battery if necessary in order | |
|---|-------------------------------------|--|



Contents

| | |
|---|-----------|
| IMPORTANT SAFETY INSTRUCTIONS..... | 2 |
| 7PACKAGING LIST..... | 6 |
| CHAPTER 1 GETTING STARTED | 11 |
| 1.2 CONNECTING THE AC POWER..... | 11 |
| 1.2 TURNING ON AND OFF THE TABLET PC | 12 |
| 1.2.1 TURNING ON THE TABLET PC | 12 |
| 1.2.2 TURNING OFF THE TABLET PC..... | 12 |
| 1.3 THE OPTIMIZED USE FOR SUNLIGHT READABLE TOUCHSCREEN..... | 13 |
| 1.4 TAKING A LOOK AT I/O FUNCTIONS (FOR 10.4 INCH RUGGED TABLET PC)..... | 14 |
| 1.5 TAKING A LOOK AT I/O FUNCTIONS (FOR 12.1 INCH RUGGED TABLET PC)..... | 19 |
| 1.6 PRODUCT FEATURES AND SPECIFICATION | 25 |
| 1.6.1 <i>Product Features</i> | <i>25</i> |
| 1.6.2 <i>Product Specification</i> | <i>26</i> |
| CHAPTER 2 OPERATING TABLET PC AND HOTTAB HOTKEY UTILITY | 29 |
| 2.1 STARTING AND STOPPING THE TABLET PC..... | 29 |
| 2.2 QUICK TO KNOW MENU AND HOTTAB HOTKEY FUNCTION..... | 30 |
| 2.2.1 <i>How to use Menu Function</i> | <i>30</i> |
| 2.2.2 <i>How to use HotTab Hotkey Function</i> | <i>33</i> |
| 2.2.3 <i>Connecting to a Wireless Network and Bluetooth</i> | <i>41</i> |
| 2.2.4 <i>Using the Bluetooth Wireless Feature.....</i> | <i>42</i> |
| 2.2.5 <i>Using the 3G Feature.....</i> | <i>45</i> |
| 2.2.6 <i>Using the GPS Feature.....</i> | <i>46</i> |
| 2.2.7 <i>Using the Camera Feature (Optional)</i> | <i>49</i> |
| CHAPTER 3 TABLET PC POWER MANAGEMENT..... | 53 |
| 3.1 ABOUT AC ADAPTER..... | 53 |
| 3.2 CHARGING AND CHECKING CHARGING STATUS..... | 54 |
| 3.2.1 <i>Charging the Battery Pack.....</i> | <i>54</i> |
| 3.2.2 <i>Charging Approaches.....</i> | <i>55</i> |
| 3.2.3 <i>Checking the Battery Level.....</i> | <i>57</i> |
| 3.2.4 <i>Battery Low Signals and Actions.....</i> | <i>58</i> |
| 3.3 REPLACING THE BATTERY PACK..... | 59 |
| 3.4 POWER-SAVING TIPS..... | 61 |
| CHAPTER 4 EXPANDING YOUR TABLET PC | 63 |
| 4.1 HOW AND WHEN TO USE BIOS SETUP | 63 |
| 4.2 BIOS FUNCTIONS..... | 64 |
| 4.2.1 <i>Main Menu.....</i> | <i>64</i> |
| 4.2.2 <i>Advanced Menu.....</i> | <i>64</i> |
| 4.2.3 <i>Boot Menu.....</i> | <i>65</i> |
| 4.2.4 <i>Exit Menu</i> | <i>66</i> |



CHAPTER 5 DRIVER INSTALLATION68

- 5.1 INSTALLATION OF CHIPSET DRIVER INSTALLATION 68**
- 5.2 GRAPHIC DRIVER INSTALLATION..... 72**
- 5.3 AUDIO DRIVER INSTALLATION 75**
- 5.4 LAN DRIVER INSTALLATION..... 78**
- 5.5 HOTTAB UTILITY DRIVER INSTALLATIONS 80**
- 5.6 HOTTAB DRIVER INSTALLATION 82**
- 5.7 WIRELESS LAN DRIVER INSTALLATION 83**
- 5.8 BLUETOOTH DRIVER INSTALLATIONS 86**
- 5.9 3G MODULE DRIVER INSTALLATIONS..... 88**
- 5.10 GPS MODULE DRIVER INSTALLATIONS..... 90**
- 5.11 TOUCH DRIVER INSTALLATION..... 93**

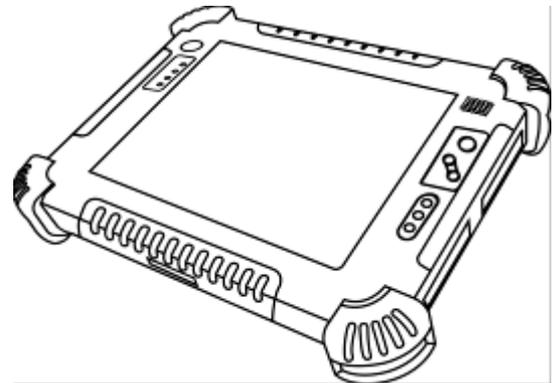
CHAPTER 6 CARING YOUR TABLET PC 99

- 6.1 GENERAL PROTECTION TIPS FOR TABLET PC 99**
- 6.2 CLEANING THE TABLET PC..... 99**
- 6.3 BATTERY PROTECTION TIPS..... 101**
- 6.4 TOUCH SCREEN PROTECTION TIPS 102**
- 6.5 TROUBLE SHOOTING FROM A TO L..... 103**
 - A. Battery Problem 103*
 - B. Bluetooth Transmission Problem 103*
 - C. Display Problem 103*
 - D. Date/Time Problems 103*
 - E. Hardware Driver Problem 104*
 - F. Hard Drive Problem..... 104*
 - G. LAN Problem 105*
 - H. Power Management Problems 105*
 - I. Startup Problems..... 105*
 - J. Sound Problems..... 106*
 - K. Wireless LAN Problem..... 107*



CHAPTER 1

Getting Started





CHAPTER 1 GETTING STARTED

This chapter guides you to get the Rugged Tablet PC ready for operating.

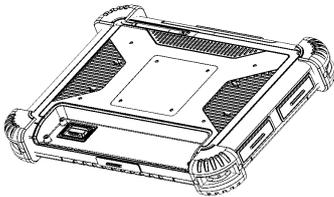
1.2 Connecting the AC Power

Our tablet PC can operate either on the external AC power adapter or internal battery power. It is suggested that you use AC power when you start up the tablet PC first time.

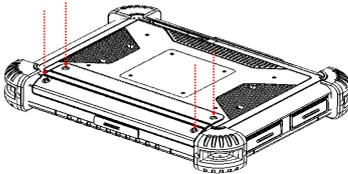
****Caution**

Use only the AC adapter included with your tablet PC. Using other AC adapters may damage the tablet PC.

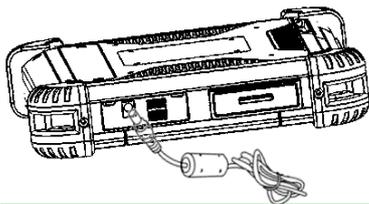
1. Make sure that the tablet PC is turned off.
2. Place the tablet PC upside down.



3. Put Battery Pack into the battery slot and screw tightly with four screws.



4. Plug the DC cord of the AC adapter to the power connector of the tablet PC.
5. Plug the female end of the AC power cord to the AC adapter and the male end to the power electrical outlet.



6. Turn on the Tablet PC few seconds later after power is being supplied from the electrical outlet to the AC adapter.
7. When the AC adapter is connected, the Battery Pack is also under charging. You can check the Battery Status LED indicator to see the currently progress. The indicator turns to green when is fully charged.

(For information on using battery power, see "Chapter 3 The Power Management")

****Caution**

When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the tablet PC. A reverse procedure may damage the AC adapter or the tablet PC.

When unplugging the connector, always hold the plug head. Never pull on the cord.



1.2 Turning On and Off the Tablet PC

1.2.1 Turning on the Tablet PC

1. Place your tablet PC on a flat and stable surface or holding the tablet PC on your hand.



2. Make sure that the tablet PC is either connected to AC power or the battery pack with power.

3. Press the power button by 4 seconds to start it.

1.2.2 Turning off the Tablet PC

To turn off the tablet PC power, use the "Shut Down" command of your operating system.

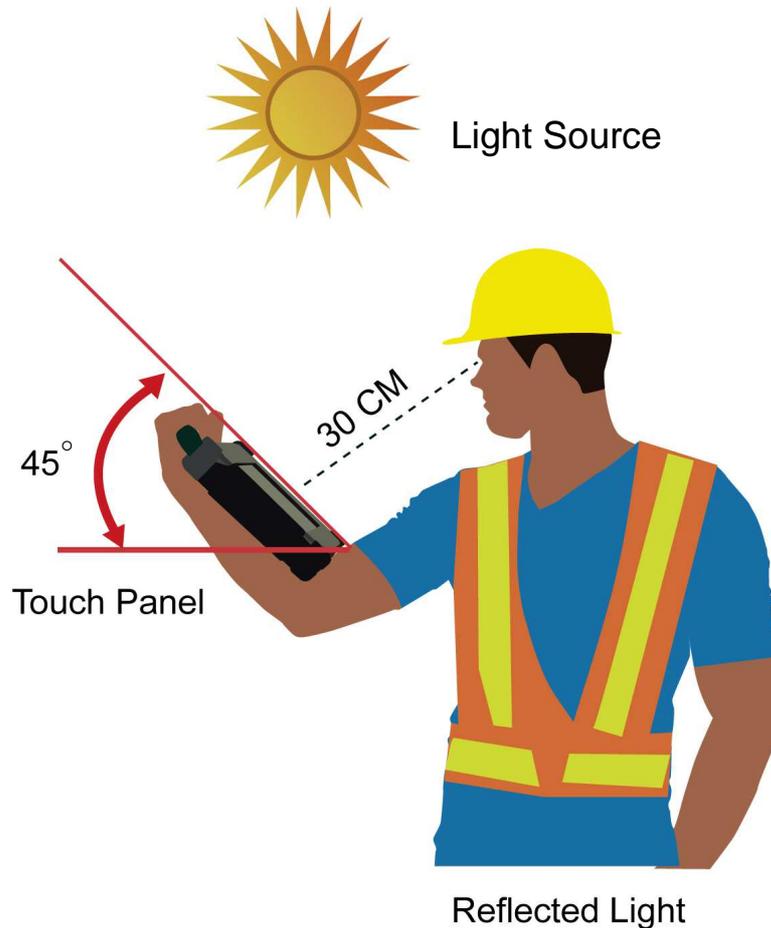
****Caution**

If you have to turn the tablet PC on again immediately after turning it off, wait for at least five seconds. Turning the tablet PC off and on rapidly can damage it.



1.3 The Optimized Use for Sunlight Readable Touchscreen.

With the imposed reflective function, the modified LCD can reflect the ambient light passing the LCD cell and utilize the reflected light beams as its illumination. The stronger the ambient light is, the brighter the LCD will appear. As a result, the modified LCD is viewable under lighting conditions. The optimized angle of view is forty-five degree. And the optimized distance of view is 30cm.



****Caution**

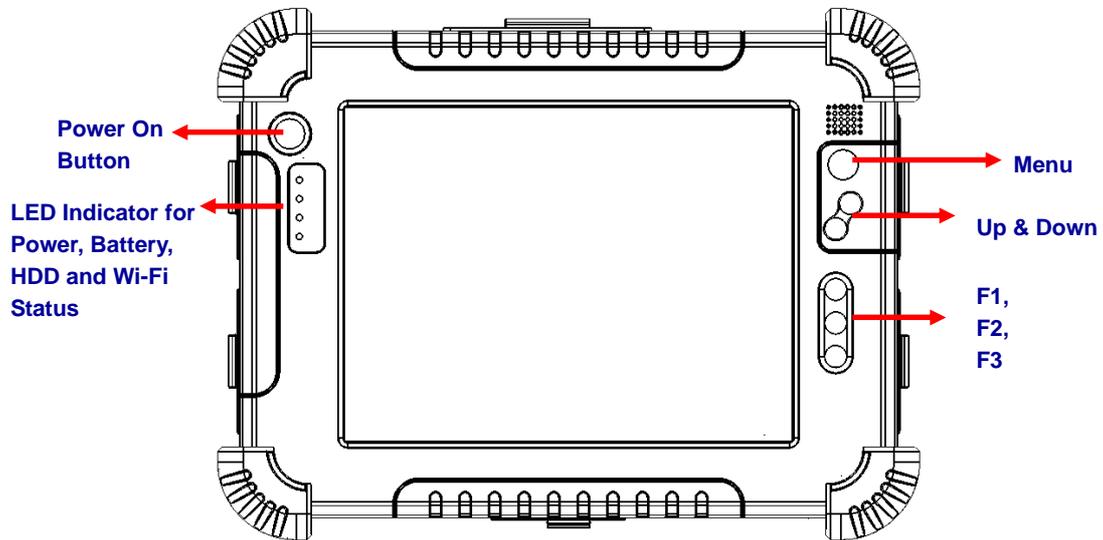
Although transfective LCD is mainly used in outdoor environment and it may increase the reflective lights under sunlight, it is suggested that you should keep the LCD in appropriate temperature for operation and storage, and avoid direct sunlight if possible. To ensure the transfective LCD work stably, 0~50°C (32-121°F) operation and storage temperature is suitable.



1.4 Taking a Look at I/O Functions (for 10.4 inch Rugged Tablet PC)

This section we will show the Tablet PC external connection parts and their functions.

Front side Control Functions



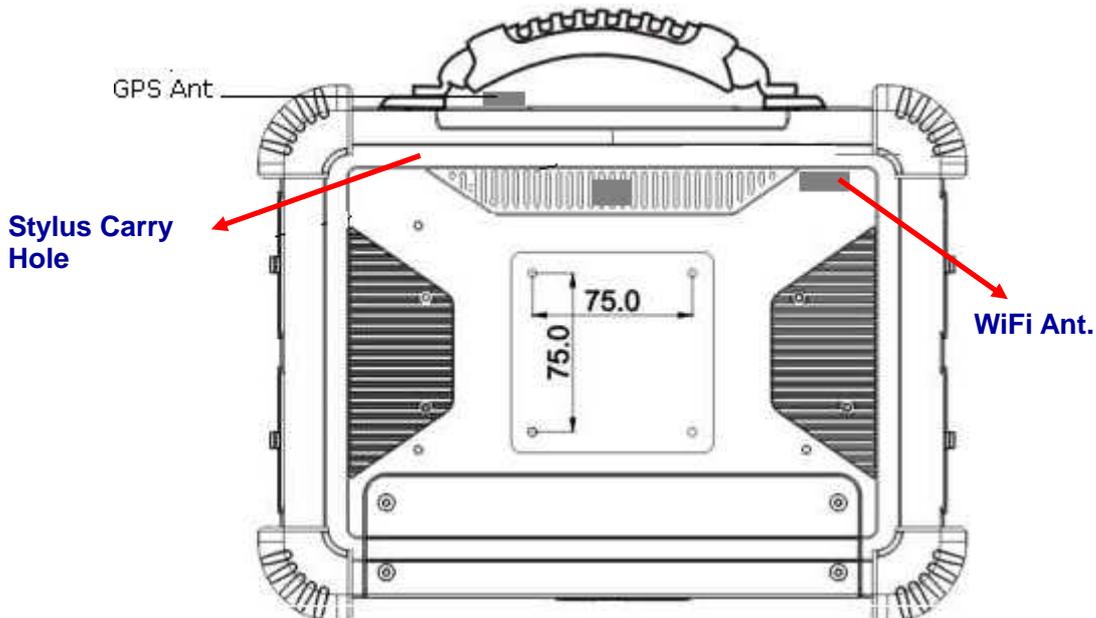
| # | Components | Function Description | See Other Intro. |
|---|---------------|---|------------------|
| 1 | Power Button | On <u>Push 4 seconds continuous</u> to turn-on the PC. Need 8 seconds continuous push to force the Tablet PC turn-off immediately. | |
| 2 | LED Indicator | From left to right shows the status about Power mode, Battery mode, Storage and Wi-Fi status mode. | |
| 3 | Menu | Push Menu function to show Brightness, Volume, Battery status and WiFi/Bluetooth on/off. | Chapter 2.2.1 |
| 4 | Up | Push Up key to increase Brightness or Volume under Menu function. | Chapter 2.2.1 |
| 5 | Down | Push Down key to decrease Brightness or Volume under Menu function. | Chapter 2.2.1 |
| 6 | Hotkey | 6 programmable Hot-key for user to define by application, default first short push key (F1 short) will turn-on Hot TAB AP Utility. | Chapter 2.2.2 |



LED Indicator Status Description

| LED Term | Power mode | Battery Status | Storage Status | Wi-Fi Status |
|------------------------------|--|---|--|--|
| LED Indicator | | | | |
| Indicator Status Description | <p>Green light : when Power On.</p> <p>No light when Power Off.</p> | <p>Orange Light : Under charging</p> <p>Red Blinking Light : Low Battery</p> <p>Check Chapter 3.2.3/ 2.4 for low battery and replacing battery</p> | <p>Green light : when storage under operation.</p> <p>No light when storage stop operation.</p> | <p>Green light : when Wi-Fi under operation.</p> <p>No light when Wi-Fi stop operation.</p> |

Rear side Stylus



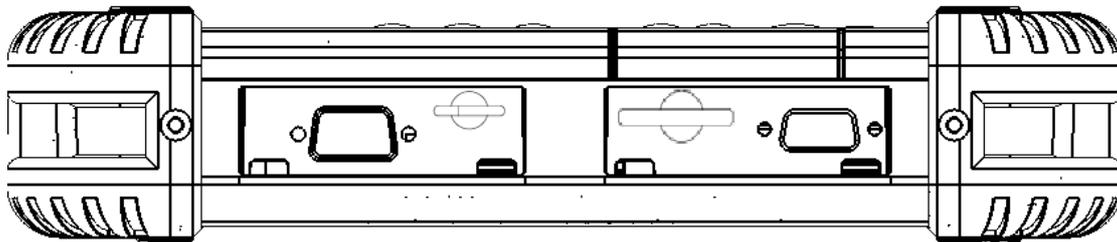


| # | Components | Function Description | See Other Intro. |
|---|-------------|--|------------------|
| 1 | Stylus Slot | Easy to take out and plug in the stylus pen. | |

The Tablet PC has one stylus pen in accessory. Our default stylus is only recommended for use in our Tablet PC.

Right side Input/ Output

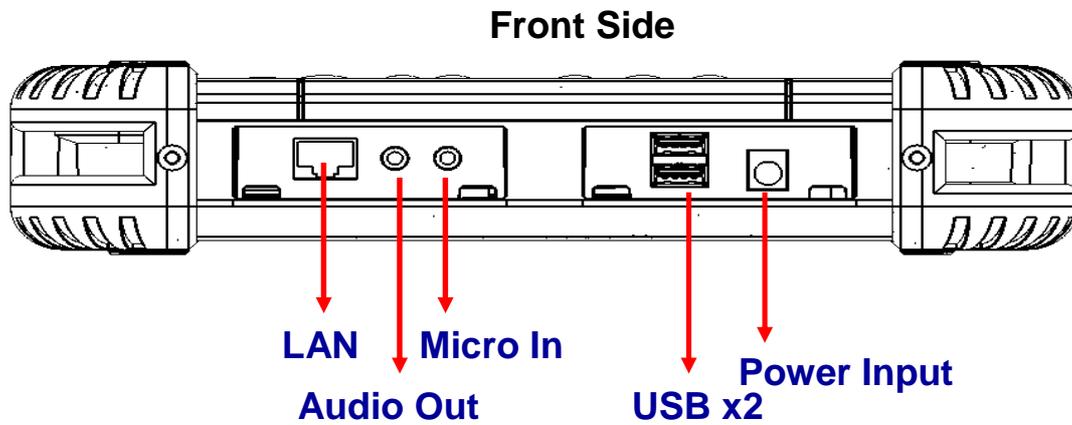
Front Side



| # | Components | Function Description | See Other Intro. |
|---|---------------|--|------------------|
| 1 | RS232 Port | Connect RS232 cable D-SUB 9pin to the RS232 port. | |
| 2 | Sim Card Slot | | |
| 3 | SD Card Slot | | |
| 4 | VGA Port | Connect VGA cable to the VGA output port, and the other side connect to monitor VGA input. | |



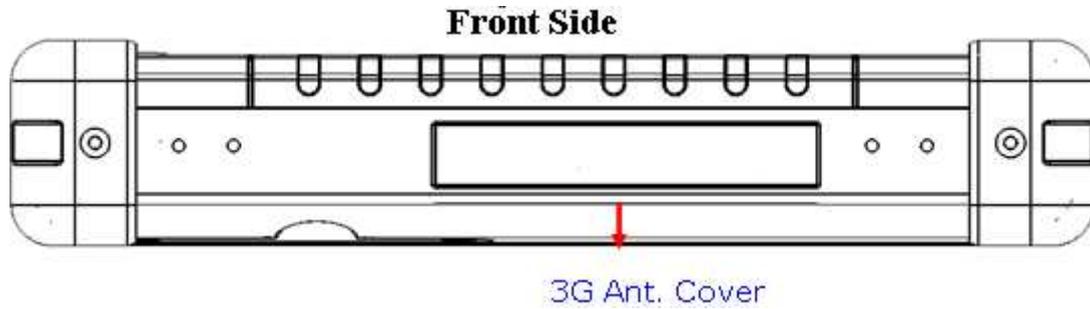
Left side Input/ Output



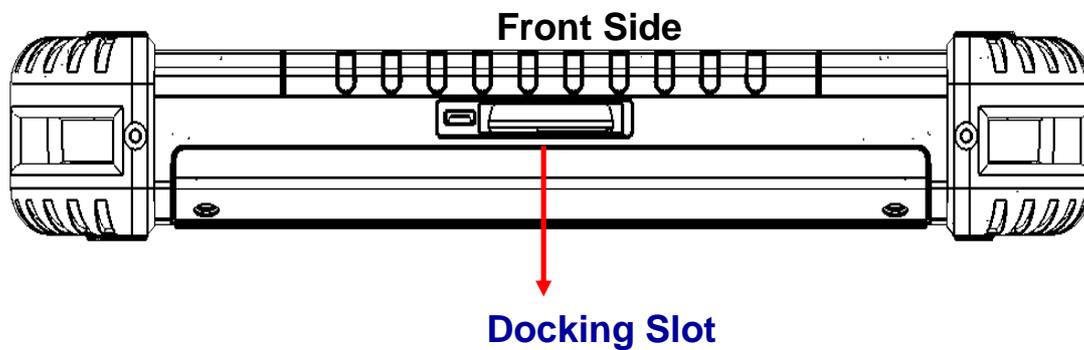
| # | Components | Function Description | See Other Intro. |
|---|------------|--|------------------|
| 1 | LAN Port | The product can support 10/100/1000 Mbit Giga LAN ethernet, connect RJ-45 LAN cable to LAN port. | |
| 2 | Audio Port | Audio output, Microphone input | |
| 3 | USB | Two USB2.0 compliance ports for user to connect any USB device. | |
| 4 | Power Jack | Connect 19V Adapter to the Power jack. | |



Top side Input/ Output



Button side Input/ Output



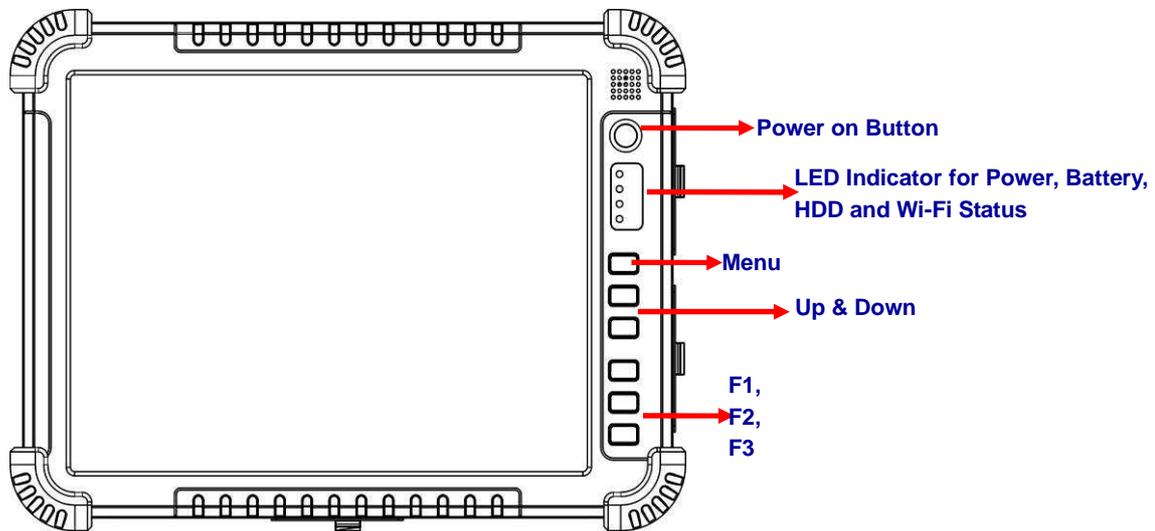
| # | Components | Function Description | See Other Intro. |
|---|--------------|---|------------------|
| 1 | Docking Slot | The Docking slot can connect to docking device as docking cradle, the maximum function of the docking connector can support 1x power input, 4 USB2.0 ports. | |



1.5 Taking a Look at I/O Functions (for 12.1 inch Rugged Tablet PC)

This section we will show the Tablet PC external connection parts and their functions.

Front side Control Functions



| # | Components | Function Description | See Other Intro. |
|---|---------------|---|------------------|
| 1 | Power Button | On <u>Push 4 seconds continuous</u> to turn-on the PC. Need 8 seconds continuous push to force the Tablet PC turn-off immediately. | |
| 2 | LED Indicator | From left to right shows the status about Power mode, Battery mode, Storage and Wi-Fi status mode. | |
| 3 | Menu | Push Menu function to show Brightness, Volume, Battery status and WiFi/Bluetooth on/off. | Chapter 2.2.1 |
| 4 | Up | Push Up key to increase Brightness or Volume under Menu function. | Chapter 2.2.1 |
| 5 | Down | Push Down key to decrease Brightness or Volume under Menu function. | Chapter 2.2.1 |
| 6 | Hotkey | 6 programmable Hot-key for user to define by application, default first short push key (F1 short) will turn-on Hot TAB AP Utility. | Chapter 2.2.2 |



LED Indicator Status Description

| LED Term | Power mode | Battery Status | Storage Status | Wi-Fi Status |
|---------------|------------|----------------|----------------|--------------|
| LED Indicator | | | | |

Indicator Status Description

Green light : when Power On.

No light when Power Off.

Orange Light : Under charging

Red Blinking Light : Low Battery

Check **Chapter 3.2.3/ 2.4** for low battery and replacing battery

Green light : when storage under operation.

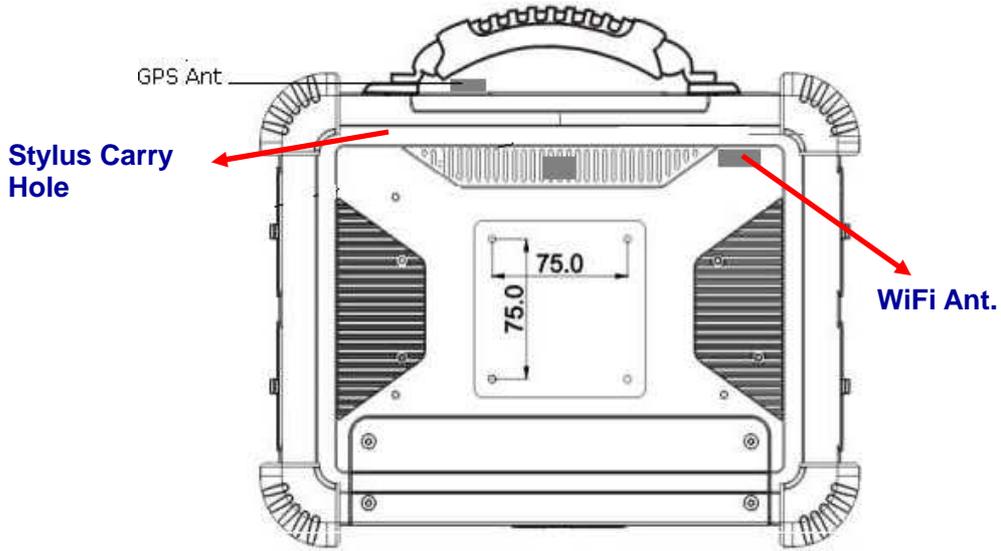
No light when storage stop operation.

Green light : when Wi-Fi under operation.

No light when Wi-Fi stop operation.



Rear side Stylus

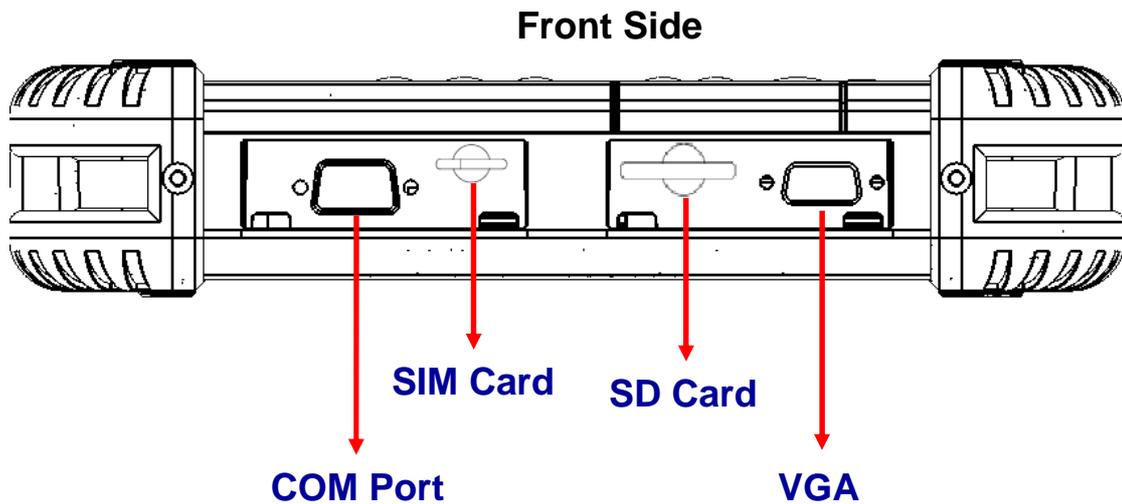


| # | Components | Function Description | See Other Intro. |
|---|------------|----------------------|------------------|
|---|------------|----------------------|------------------|

| | | | |
|---|-------------|--|--|
| 1 | Stylus Slot | Easy to take out and plug in the stylus pen. | |
|---|-------------|--|--|

The Tablet PC has one stylus pen in accessory. Our default stylus is only recommended for use in our Tablet PC.

Right side Input/ Output

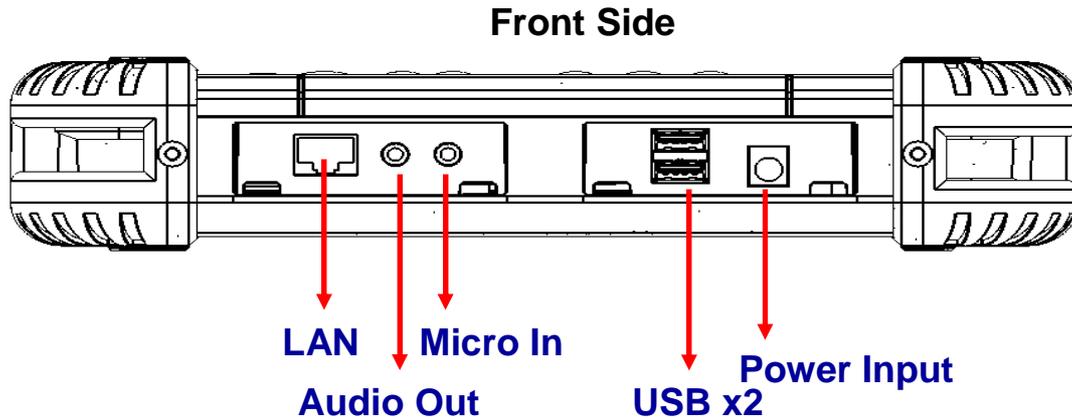




| # | Components | Function Description | See Other Intro. |
|---|---------------|--|------------------|
| 1 | COM Port | Connect RS232 cable D-SUB 9pin to the RS232 port. | |
| 2 | Sim Card Slot | | |
| 3 | SD Card Slot | | |
| 4 | VGA Port | Connect VGA cable to the VGA output port, and the other side connect to monitor VGA input. | |

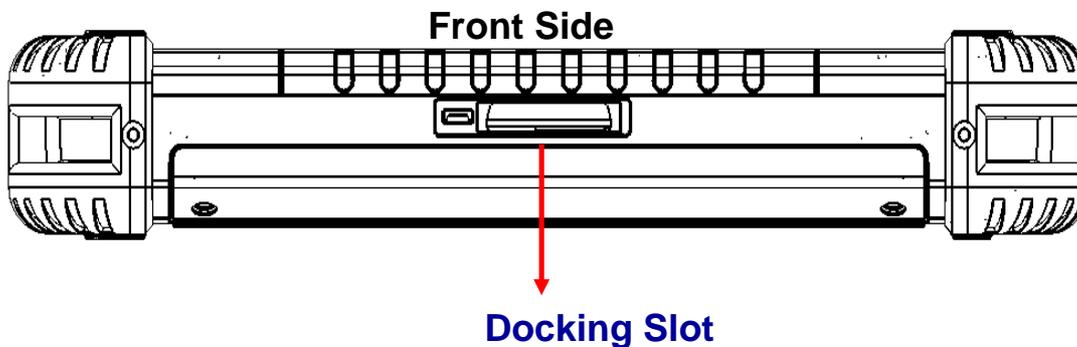


Left side Input/ Output



| # | Components | Function Description | See Other Intro. |
|---|------------|--|------------------|
| 1 | LAN Port | The product can support 10/100/1000 Mbit Giga LAN ethernet, connect RJ-45 LAN cable to LAN port. | |
| 2 | Audio Port | Audio ouput, Microphone input | |
| 3 | USB | Two USB2.0 compliance ports for user to connect any USB device. | |
| 4 | Power Jack | Connect 19V Adapter to the Power jack. | |

Button side Input/ Output

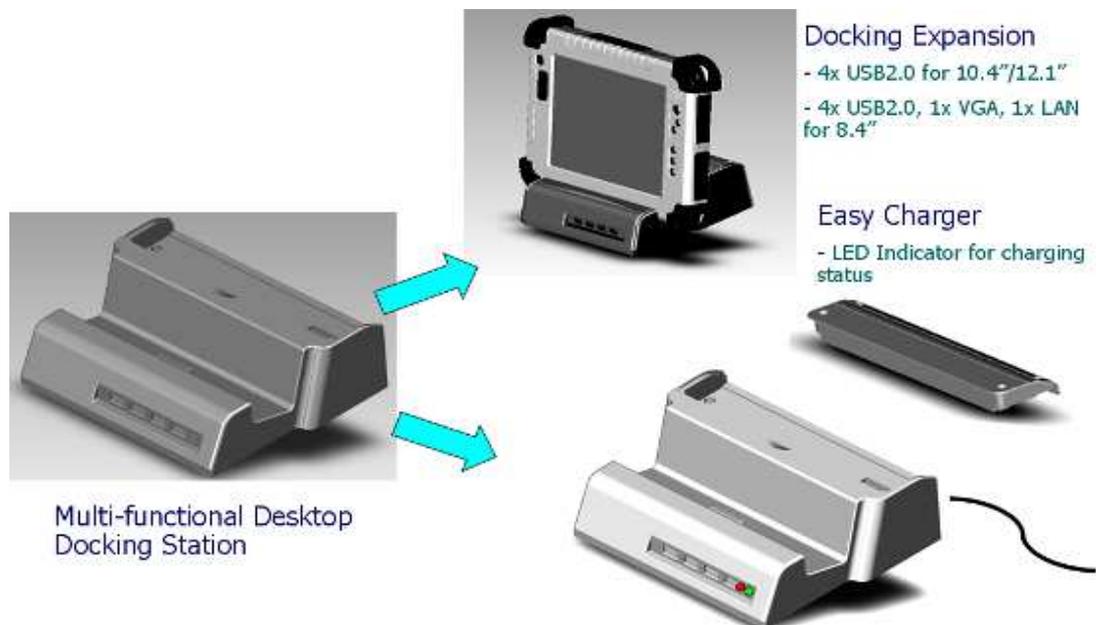




Rugged Computing

| # | Components | Function Description | See Other Intro. |
|---|--------------|---|------------------|
| 1 | Docking Slot | The Docking slot can connect to docking device as docking cradle, the maximum function of the docking connector can support 1x power input, 4 USB2.0 ports. | |

Our Tablet PC can support one **Multi-functional Desktop Docking Station** for optional accessory. The Desktop Docking Station have one charger for other battery packs and expansion slots as one RS232 and four USB ports.



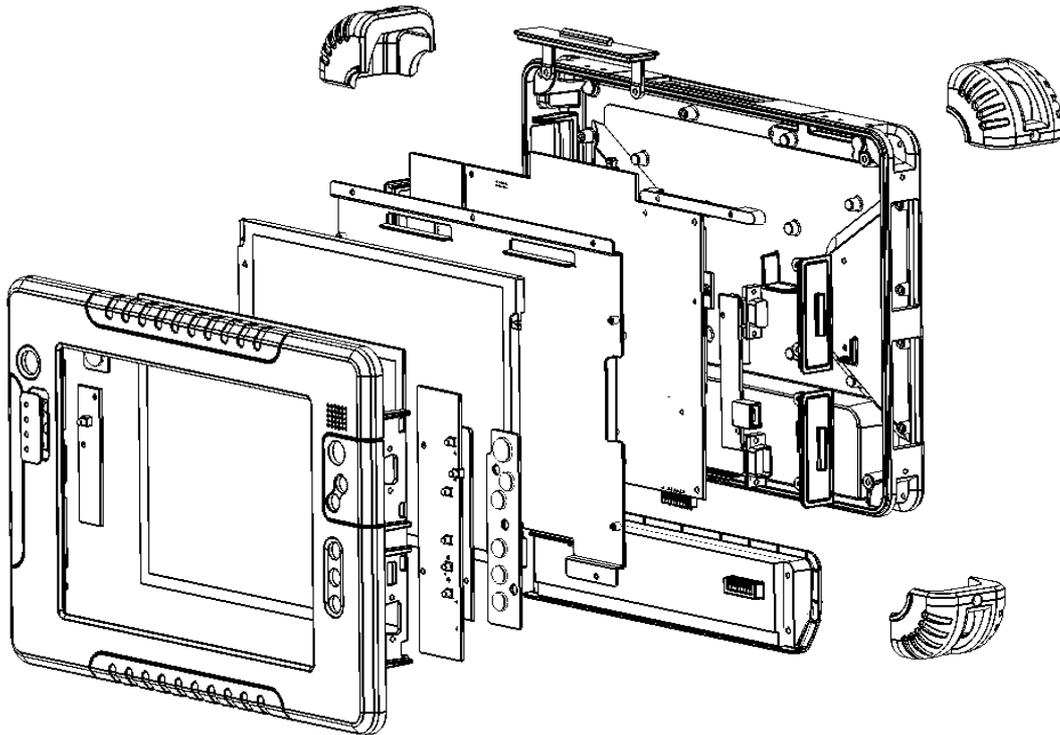
Through the first Chapter 1.1 to 1.4, you can understand the basic information when you own the machine, in next Chapter you will understand more detail about how to operate the tablet PC. Between this, you can check our product function and specification.



1.6 Product Features and Specification

1.6.1 Product Features

Our Rugged Tablet PCs are designed with state of the art industrial use, versatile functionality and solid products. With great mobility support and battery management, our products can fulfill most of outdoor tablet applications. Great thermal conduction and solid mechanical design make our products great reliability in harsh, highly-shock and vibration environment.



- 10.4" and 12.1" High Quality SVGA /XGA Resolution LED Panel
- High Performance, Low Power Intel Atom N2800 1.86GHz + NM10 Chipset
- 1 x SO-DIMM Max. 4GB DDR3 1066 RAM
- Supports Mini PCI-e SATA SSD up to 256GB
- 4 Wire Resistive with High Visible Transmittance touch for the best optical performance.
- Optical Bonding enhances better contrast visibility (for Optional)
- Rugged Alu-Mg Alloy Housing Design with Protection Rubber for MIL-810G Shock, Vibration and Drop Std.
- Built-in 802.11a/b/g/n Wireless and 2T2R Class 1 Bluetooth combo card
- Built- in GPS Module
- Built- in 3G Modem(for Optional)
- Integrate 2M Pixels Camera. (for Optional)
- 5200mAh Lithium-Ion Battery Pack



1.6.2 Product Specification

The product specification as the following table description:

System Specification

| System | |
|-----------------------|---|
| Processor | Intel® Atom™ Dual Core N2800 1.86GHz (CedarView-D) |
| BIOS | AMI System BIOS |
| System Chipset | Intel® NM10 express chipset |
| System Memory | 1 x SODIMM, Max 4GB DDR3-1066 RAM |
| LAN Controller | Broadcom 10/100/1000 Mbps |
| Storage | mSATA SSD (Default 32GB), max. up to 256GB |
| Audio | Audio out for headset, Micro-in for microphone jack, 1.5W Speaker (Internal) |
| I/O Connectors | |
| Left I/O Port | 1x RJ-45 10/100/1000 Mps LAN ,2x USB 2.0, 1x Audio out, Micro-in Jack, 1x Power Input Jack |
| Right I/O Port | 1x COM, 1x VGA,1xSim Card Slot,1x SD Card Slot |
| Downside Docking Conn | 4x USB, and Docking Stand Power input |
| In Front Control | |
| Control Button | 1x Power button, Menu Key, Up Key, Down Key Down Key to change Brightness, Volume and Battery Status Volume 3x Programmable Hotkey / Function Keys |
| LED indicator | Power On/ Off / Battery / HDD Access / Wi-Fi On -Off |
| Display Specification | |
| Size | 10.4 inch / 12.1 inch |
| Resolution | 10.4 inch : 800x600 / 1024x768 pixels 12.1 inch : 1024x768 pixels |
| Touch | 4 Wire Resistive with High Visible Transmittance touch for the best optical performance. |



Rugged Computing

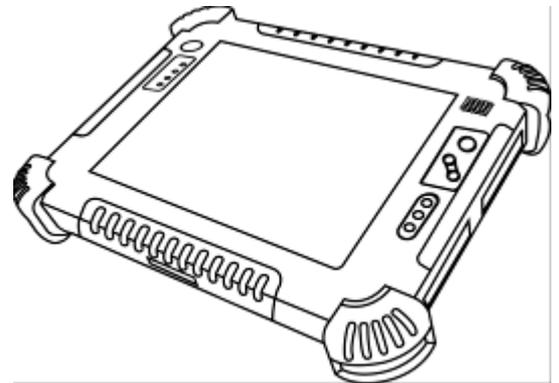
System Specification (continues)

| Mechanical and Environment | |
|-----------------------------------|---|
| Weight | 2.2 Kg (w/o accessories) |
| Operating Temperature | Charging : 0°C ~40°C Discharging : -20°C ~60°C |
| Operating Humidity | 10% to 90% (non condensing) |
| IP Proof | IP54 |
| Mounting | VESA mount, Vehicle mount |
| Shock | MIL-STD-810G Method 516.6 [By request] |
| Vibration | MIL-STD-810G Method 514.6 |
| Drop | MIL-STD-810G Method 516.5, 4 ft, Free to concrete |
| Certifications | CE, FCC Class B MIL810G for Vibration /Shock / Drop / Temp. |
| Power Management | |
| Power Input | 19V DC |
| Battery | Li-Ion battery 5200mAh, 11.1V |
| Charging time | 2.5 Hours |
| Adapter | 100-240V, 50-60Hz, 19VDC |
| Wireless Communication | |
| WLAN+ Bluetooth | 802.11 a/b/g/n Wireless and 2T2R Class 1 Bluetooth combo card |
| WWAN | PCI Express® full size (Type F1) mini-card form factor 3G Modem This module offer tri-band or dual-band HSPA+ connectivity for global deployments, as well as quad-band GSM/GPRS/EDGE. |
| GPS | Stand-alone GPS receivers featuring the high performance positioning engine. |



CHAPTER 2

Operating Tablet PC and HotTab Hotkey Utility





CHAPTER 2 OPERATING TABLET PC AND HOTTAB HOTKEY UTILITY

This Chapter will guide you how to operate the Tablet PC, including start / stop the PC, and how to use menu function including basic hardware function adjustment and the HotTab hotkey utility software that is very easy & helpful for operating the computer.

2.1 Starting and Stopping the Tablet PC

Starting the Tablet PC

You always start the tablet PC using the power button (), **push the Power Button continuously by 4 second to turn on the Tablet PC.**

Our Tablet PC will starts up with an operating system (OS) existing on the storage device like the hard disk or compact flash card. The computer will automatically load the OS after you turn it on. This is normal booting process.

NOTE: The operating system is the platform for all software application programs to run on. The Tablet computer is recommended to use the Microsoft Windows 7 embedded operating system for default solution.

Stopping the Tablet PC

When you finish your work, you can stop the tablet PC by turning off the power or leaving the tablet PC in Standby mode:

| # | Stop mode | How to do | Start or Resume again |
|---|------------|--|-----------------------|
| 1 | Power Off | Following the shutdown process during operating system. The standard process can prevent unsave data loss or damage your software programs. | |
| 2 | Sleep (S3) | Under normal operating system, Push the Power Button Continuously 4 seconds to show the inquiry action window and choose Sleep option to standby the use. | |

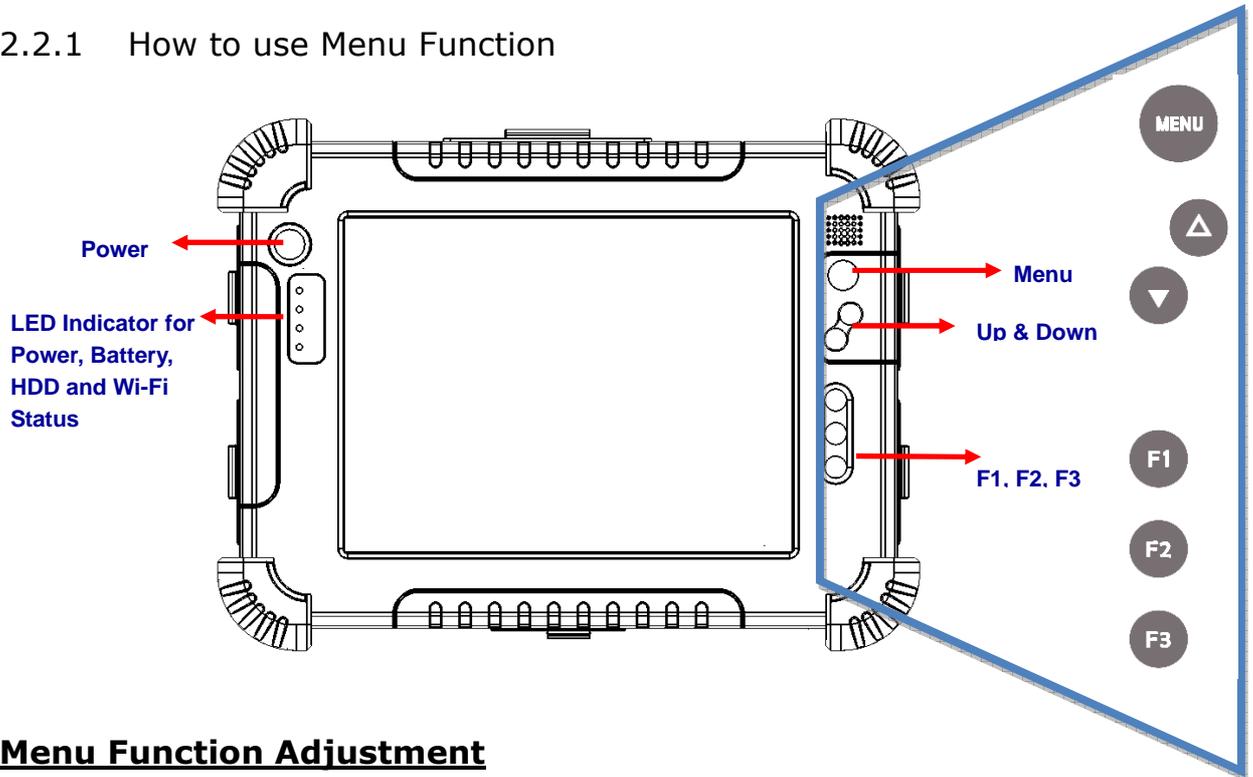
If you choose to stop in Standby mode, you can return to where you left off the next time you start up the tablet PC. ([See "Power Management" in Chapter 3 for more information.](#))



2.2 Quick to Know Menu and HotTab Hotkey Function

This section will introduce you about our easy-of-use front panel functionality. Our Tablet PC front panel buttons support very easy way and useful function to adjust Brightness, Volume and watch Battery current status. For six programmable Hotkey function can also be defined by user to control by their common use application.

2.2.1 How to use Menu Function



Menu Function Adjustment

| # | Action | Function Description | Funtion Adjustment |
|---|--|--|--|
| 1 | Push "Menu" button 1 st Time |  Show Current Brightness |   Click "Up" button to increase brightness (Or Drag by Touch) Click "Down" to decrease brightness(Or Drag by Touch) |
| 2 | Push "Menu" button 2 nd Time |  Show current Volume |   Click "Up" button to increase volume(Or Drag by Touch) Click "Down" to decrease volume(Or Drag by Touch) |



Rugged Computing

3 Push
"Menu"
button



3rd Time

Show current Battery status



Menu Function Adjustment

| # | Action | Function Description | Funtion Adjustment |
|---|---|--|--|
| 4 | <p>Push "Menu" button 4th Time</p> | | <p>Show current on/off of Wireless\ Bluetooth \3G \ GPS\ and Camera mode.</p> <ol style="list-style-type: none"> 1. WiFi on/off 2. Bluetooth on/off 3. 3G on/off 4. GPS on/off 5. Camera On/Off |
| 5 | <p>Push "Menu" button continuously 4 seconds</p> | <p>Lock/Unlock all button function</p> | <p>Push 4 seconds to Lock all button** (not including Touch)</p> <p>Push 4 seconds to Unlock back to normal operation</p> |



Rugged Computing

2.2.2 How to use HotTab Hotkey Function

From the operation system installation, we will provide you Hot-tab Hotkey software utility. After installation, you can see the shortcut on desktop of computer.

Click the shortcut and you can see the software application at center of desktop.



The HotTab Hotkey software program is the six key programmable application software; we choose some usual applied function for default setup. For example, User can choose his own application program very easy by setting up the function from the setup window.

Hot-Tab Hotkey Function

Use the HotTab software utility to make it easy to program and define hot keys by customer's usual application.

| # | Action | Function Description | Function Adjustment | See Other Intro. |
|---|------------|-----------------------------|--|------------------|
| 1 | Press "F1" | Default : Hot TAB functions | | |
| 2 | Hold "F1" | Default : Outlook Express | Use "Browse" and choose the execution program file | Long Push: 4sec. |
| 3 | Press "F2" | Default : Internet Explorer | | |
| 4 | Hold "F2" | Default : Media Player | | Long Push: 4sec. |



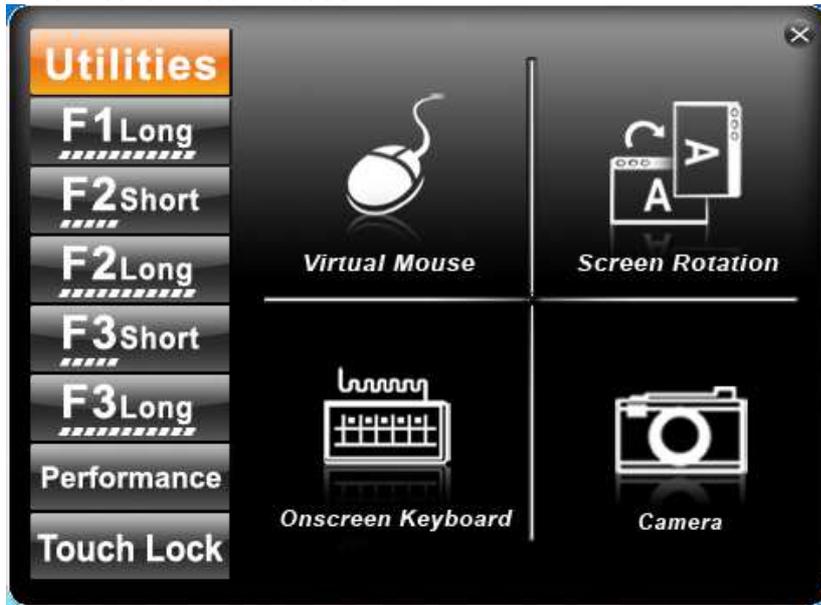
Rugged Computing

- 5 Press "F3" Default : My Document
- 6 Hold "F3"*** Default Calculator(Standard) : Use "Browse" and choose the execution program file Long Push: 4sec.

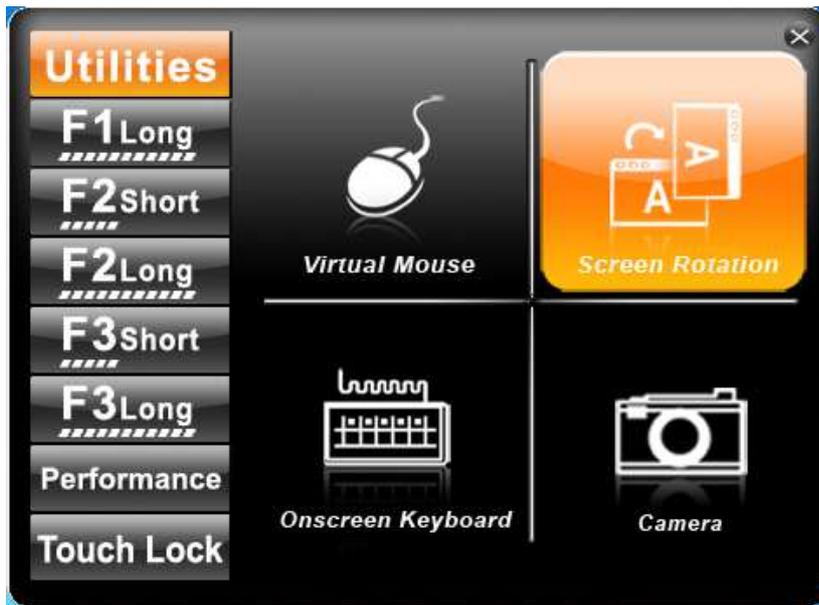


Rugged Computing

1. F1 Hot TAB functions will show four functions
 - A. The first is virtual mouse



- B. Screen rotation





Rugged Computing

C. Onscreen Keyboard





Rugged Computing

2. F2 to F3 function key
You can use "Browse" and choose the execution program file.



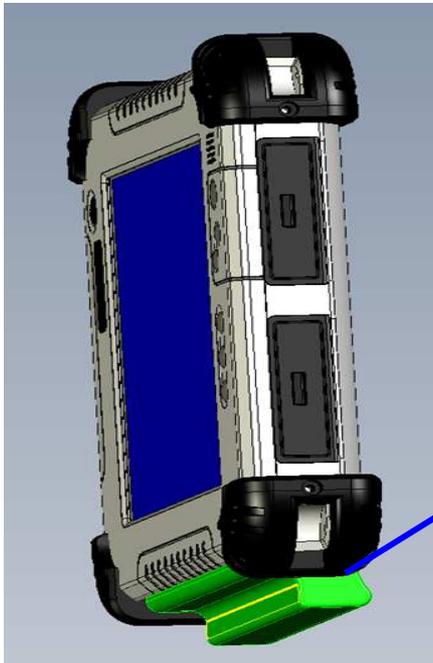


※Hot-swap function operation manual

Hot-Swap Second Battery Operation (Optional)

A. Second Battery Specification

The second Li-Ion 2600mAh back-up battery support half operating time of main battery.



Second Battery Specification:
-Li-Ion 2600mAh Battery Cell, 11.1V

B. Installed Hot-Swap Battery

- i. Plug the second battery while the Main battery in low power status.





Rugged Computing

- ii. Use the two Thumb screws to tighten the second battery.



- iii. Push Menu button that will show the Main/ Second Battery Status.



****NOTE**

When the Hot-Swap battery low, **PUSH F3** to change battery back to Main battery power, and swap other Hot-swap battery.**Step1.** When the main battery pack status in lower than 20% you will see the warning red light blinking in LED.(See detail at Chapter 1.3). You can hold "F3" button for 4sec to turn the Windows System into S3 (sleep) mode.



Rugged Computing

3. Power Manage function



4. System Information

When you press menu 5th time, you can see the system information.



5. Low battery warning:

When the battery under 10%, system will show the battery low to remind you to change the new battery or insert adapter to charge.





Rugged Computing

2.2.3 Connecting to a Wireless Network and Bluetooth

We apply IEEE 802.11 a/b/g/n WiFi + Bluetooth 4.0 HS Standard (ClassII) Half mini card for default function of the Tablet PC series.

1. Push Menu function and making sure the Wireless function is "On".



2. By using the default build-in module, the Windows **Wireless Network Connection** will be enabled.





Rugged Computing

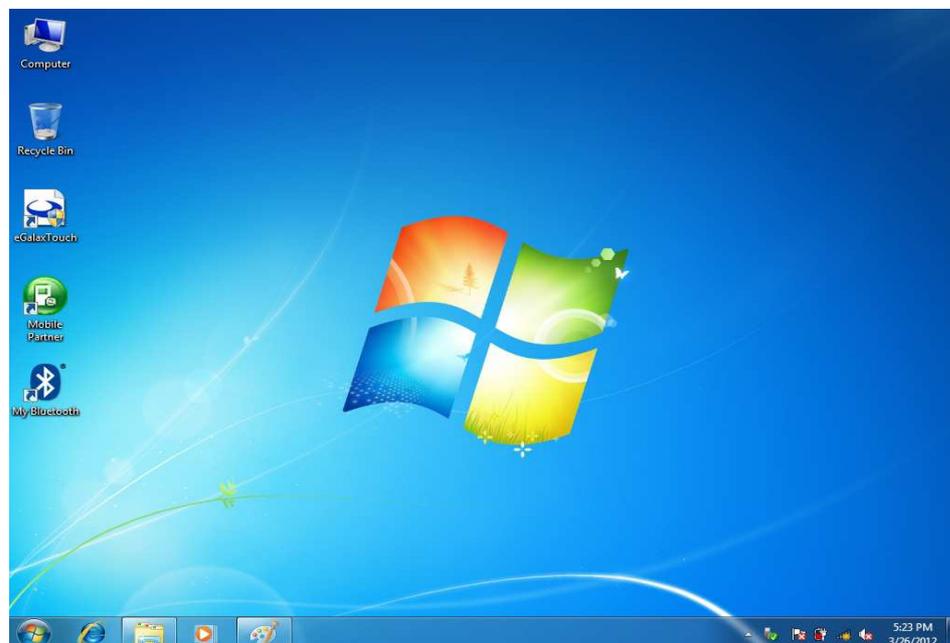
2.2.4 Using the Bluetooth Wireless Feature

Depending on your application, the Bluetooth module can give you capability for short-range wireless communications between devices without requiring a cable connection. The transmission can go through walls, pockets and briefcases as long as two devices are within range around 10 meters. Following the easy step to connect to the Bluetooth communication.

1. Choose **HotTab AP** Menu function and making sure the Bluetooth function is "On".



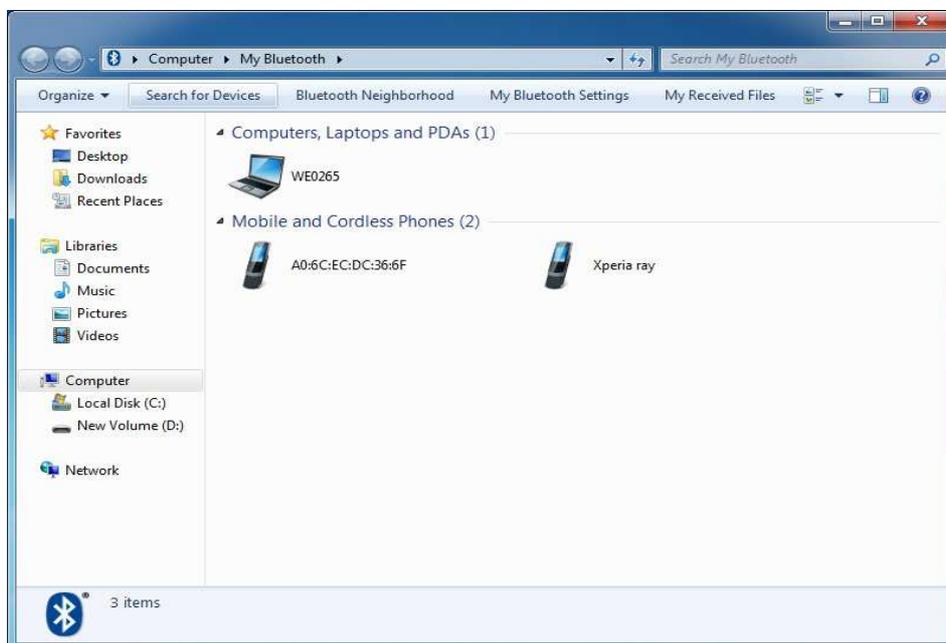
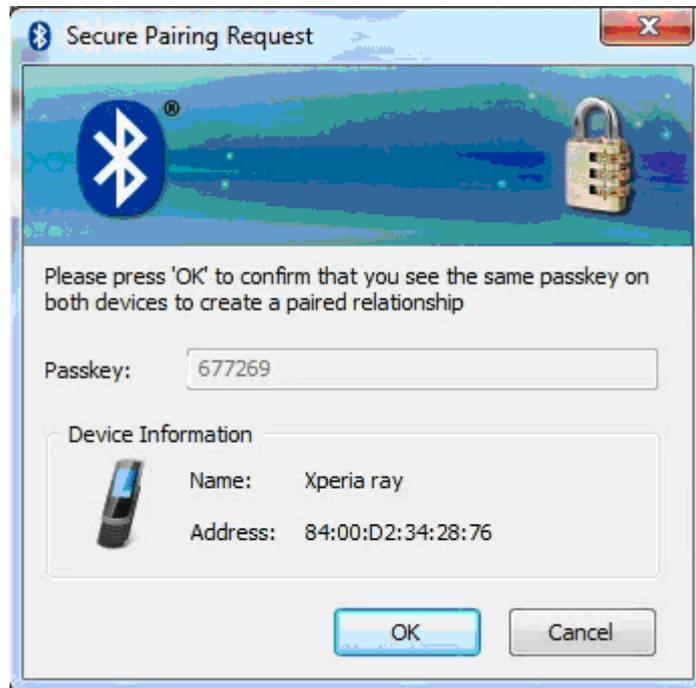
2. After installing the driver utility, the Bluetooth shortcut will shown on screen, double click the shortcut and it will search any bluetooth device automatically. Or double click "**Search Devices**" to search again.





Rugged Computing

3. Choose the bluetooth device you want to connect, and left click to choose **"Connect"**. Then the device will be connected to the module.





Rugged Computing

4. When under connecting, you can choose **“Send”** to send a data to the pair device. connection.





2.2.5 Using the 3G Feature

✘ Please insert SIM card before power on.

We apply a built-in Mini PCIe 3G module for Tablet PC to perform the 3G function. Depending on your application, the 3G module can datacard and host PC software combination deliver multiband HSPA/UMTS , EDGE/GPRS , WCDMA/GSM connectivity in a single hardware configuration.

1. Choose **HotTab AP** Menu function and making sure the 3G Module is "On".



2. After installing the driver utility, the shortcut of 3G application program will shown on screen, then to executive "AirCard Watcher" connection management application.



Note: No additional driver installation is required for 3G module.



Rugged Computing

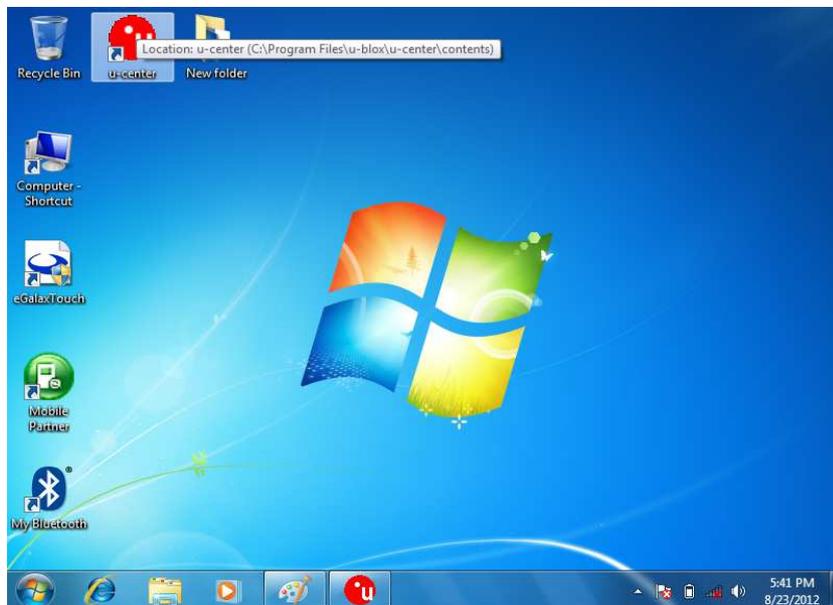
2.2.6 Using the GPS Feature

We apply a on board GPS module for default function of the Tablet PC series.

1. Choose **HotTab AP** Menu function and making sure the GPS Module is "On".

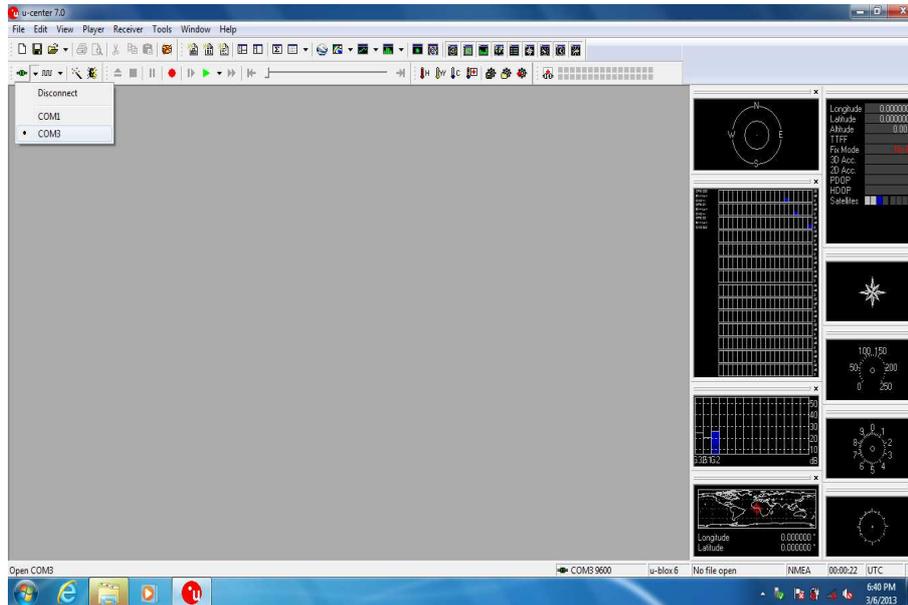


2. Click the u-center icon to start the GPS function settings.

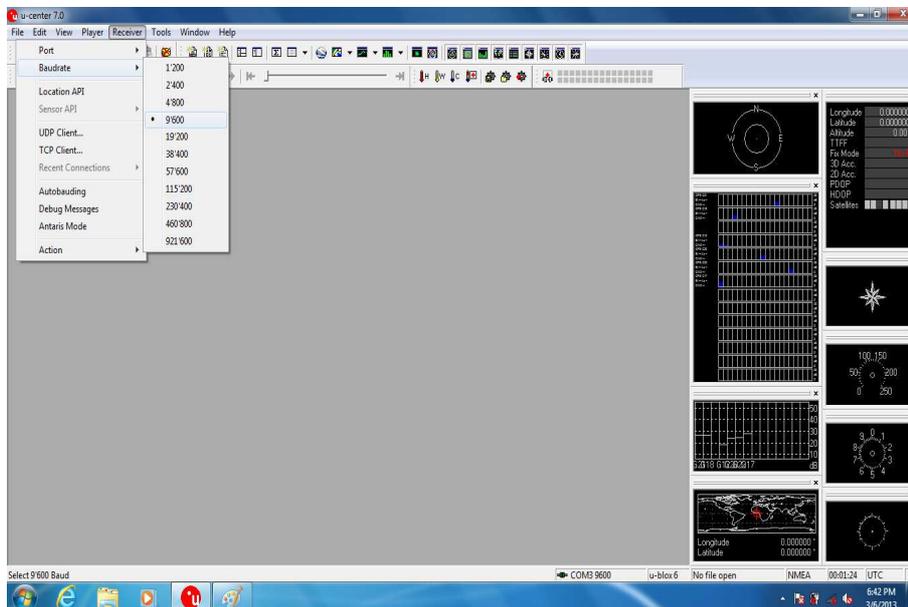




3. Setting the Receiver Port to COM9



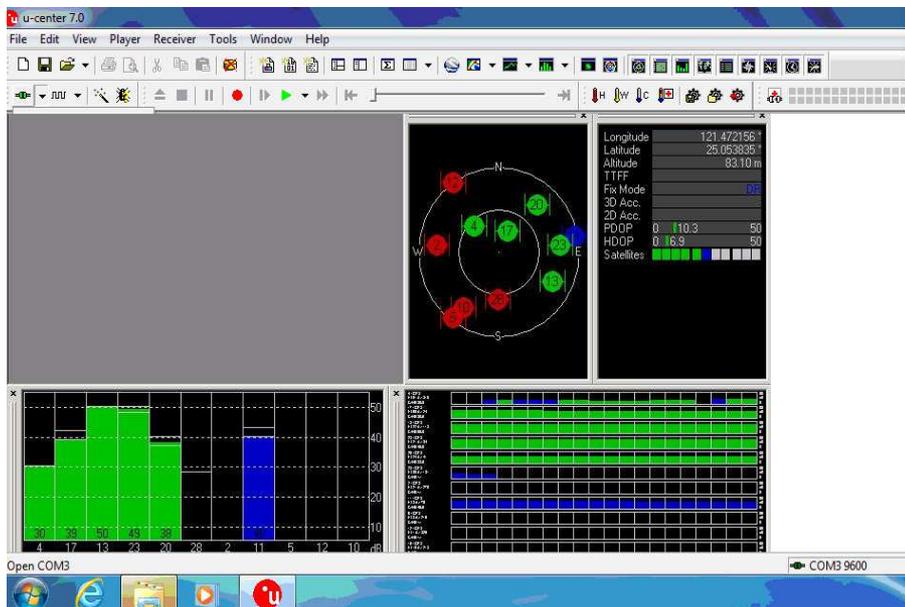
4. Setting the Receiver Baudrate to 9600



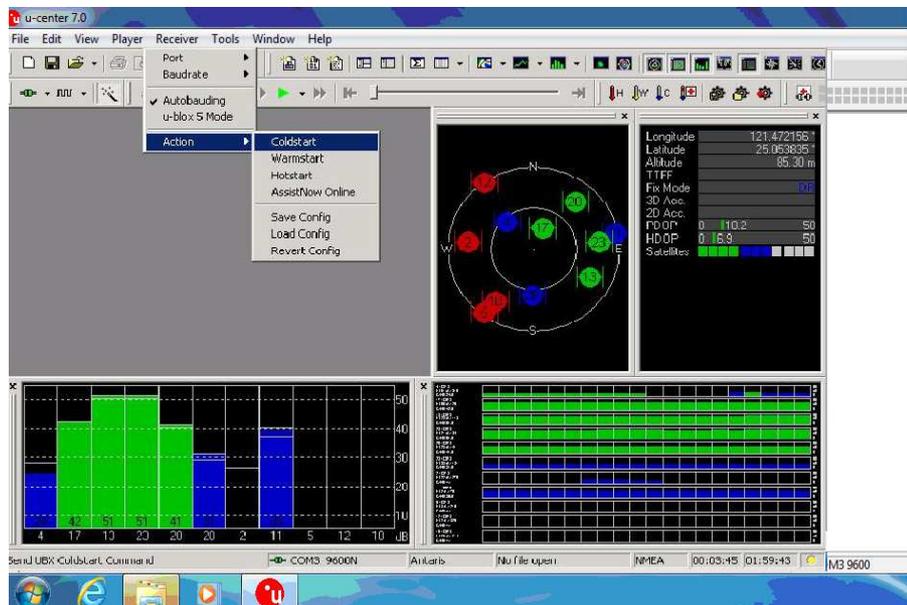


Rugged Computing

5. GPS Module will start Cold Start. When the positioning is complete, the Fix Mode will appear as DR



6. You can choose coldstart, warmstart or Hotstart from Receiver Action





Rugged Computing

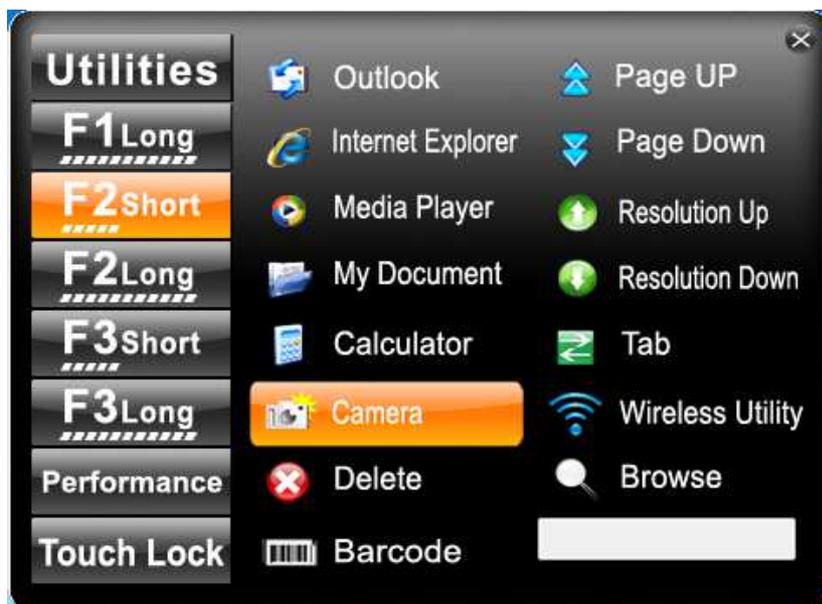
2.2.7 Using the Camera Feature (Optional)

We apply a internal 2M Pixels Camera module for default function of the Tablet PC series.

1. Choose **HotTab AP** Menu function and making sure the Camera Module is "On".



2. Press F1 button to into the functional hot key setting. You can choose any functional key as a shortcut to open the camera function. For example,you can set "F2 Short" as the camera function.



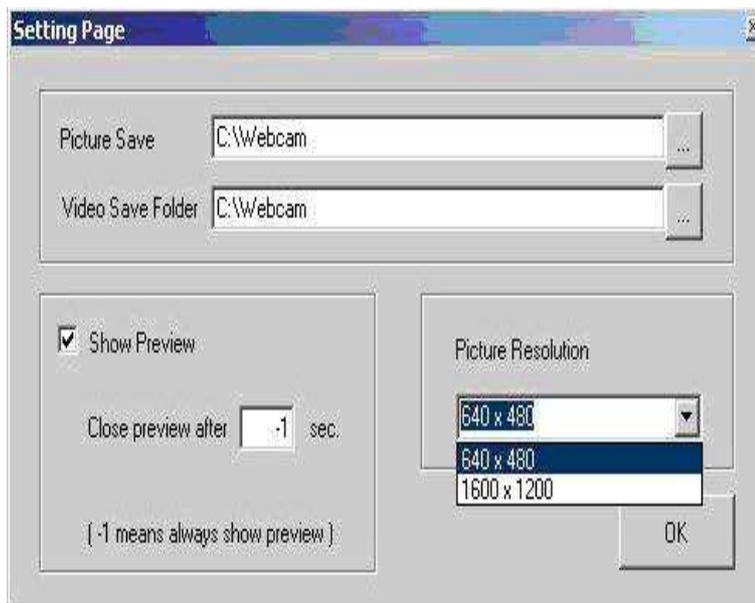


Rugged Computing

3. Setting the image pre-view resolution .



4. When you set the pre-view resolution to 640*480,the final picture resolution is also 640*480..





Rugged Computing

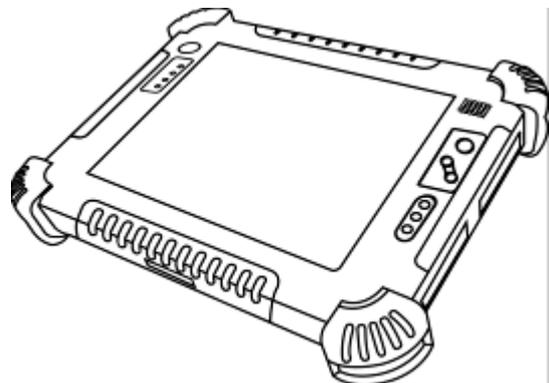
5. Click the  icon to take a picture.





CHAPTER 3

Tablet PC Power Management





CHAPTER 3 TABLET PC POWER MANAGEMENT

3.1 About AC Adapter

Our Tablet PC support one set of AC adapter and power code by country area. Please confirm with your dealer for appropriate power code if necessary.



****Caution**

- 1. When you disconnect the AC adapter, disconnect from the electrical outlet first and then from the tablet PC. A reverse procedure may damage the AC adapter or tablet PC.**
- 2. Always hold the plug head when you unplug the connector, Never pull on the cord.**
- 3. The AC adapter is designed for use with your tablet PC only. Connecting the AC adapter to another device can damage the adapter.**

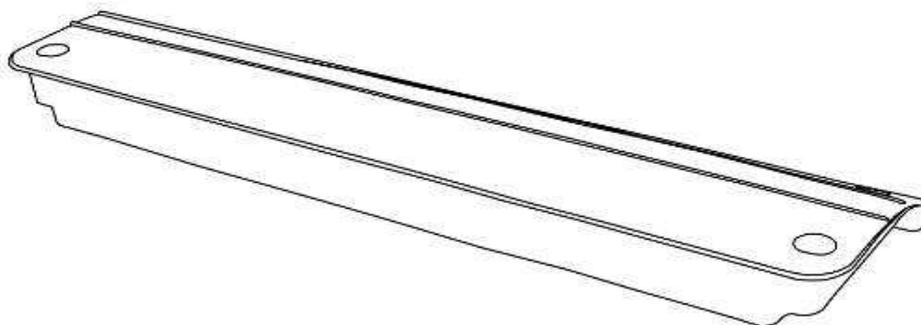
The adapter operates on any voltage in the range of 100~240 V AC. The AC adapter serves as a converter from AC (Alternating Current) to DC (Direct Current) power because the tablet PC runs on DC power input, but an electrical outlet usually provides AC power. It also charges the battery pack when connected to AC power.



3.2 Charging and Checking Charging Status

3.2.1 Charging the Battery Pack

The battery pack is the internal power source for the tablet PC. It is rechargeable using the AC adapter. The operating time of a fully charged battery pack depends on how you are using the tablet PC. When your applications often access peripherals, you will experience a shorter operating time.

**NOTE:**

- 1. Charging will not start if the battery's temperature is below 0 °C (32 °F). It is also recommended not to charge the battery when temperature is above 45 °C (113 °F)**
- 2. To prevent damage, the charging process may stop and the Battery Charge Indicator flashes red when the environmental temperature gets above 55 °C (131°F)**
- 3. The battery level may automatically lessen due to the self-discharge process (0.21 % per day), even when the battery pack is fully charged (100 %). This happens no matter if the battery pack is installed in the tablet PC.**



3.2.2 Charging Approaches

There are two ways recommended to charge the battery pack.

1. By connecting the AC adapter to the tablet PC and an electrical outlet. The Battery Charge Indicator on the tablet PC glowed orange to indicate that charging is in progress. You are advised to keep the tablet PC power off while the battery is being charged. When the battery is fully charged, the Battery Charge Indicator glows green.



2. By using Multi-functional Docking Station charger, connect power code to the electrical outlet and power connector to the Docking Station. Put battery pack on rear side of charger slot. When the battery is fully charged, the Battery Charge Indicator glows green.



It takes approximately 3 hours to fully charge the Li-Ion battery pack at a room temperature of 25 °C (may need a longer charging time at lower temperatures).

CAUTION:

1. **After the tablet PC has been fully recharged, do not immediately disconnect and reconnect the AC adapter to charge it again. The above-mentioned may damage the battery.**
2. **During charging, do not disconnect the AC adapter before the battery**



Rugged Computing

has been fully charged; otherwise you will get a prematurely charged battery.



Rugged Computing

3.2.3 Checking the Battery Level

Any battery level indication is an estimated result. The actual operating time can be different from the estimated time, depending on how you are using the tablet PC.

In Windows operating system, you can check the approximate battery level using the battery meter function. To read the battery level in Windows, click the icon on the taskbar. (Click the icon if the tablet PC is using AC power.)

Or just push the **HotTab Menu Utility** Function three times to show the battery status. (Check Chapter 2.2.1)





3.2.4 Battery Low Signals and Actions

Battery Low occurs when the battery has approximately 10 % (Windows default setting) of its charge remaining. The tablet PC's Battery Charge Indicator () **blinks red to alert you take actions.**

NOTICE:

- 1. You can set up the Battery Low threshold and signals under Windows. Immediately save your data upon Battery Low. The remaining operating time depends on how you are using the tablet PC. If you are using the audio subsystem, PC card, hard or USB flash disk, the battery might run out of charge very quickly.**
- 2. Always respond to Battery Low by placing your tablet PC on the Standby or Hibernation mode, turning off the tablet PC, or connecting the AC adapter.**

CAUTION:

- 1. If you do not take any action, the tablet PC will automatically hibernate and turn off.**
- 2. If you are using a PC card, do not access the card during battery low periods. The access may take longer time than battery to run out of charge, thus making your access to the card fail.**
- 3. If you fail to save your data when the battery completely runs out of charge, then you will lose your data.**



3.3 Replacing the Battery Pack

CAUTION:

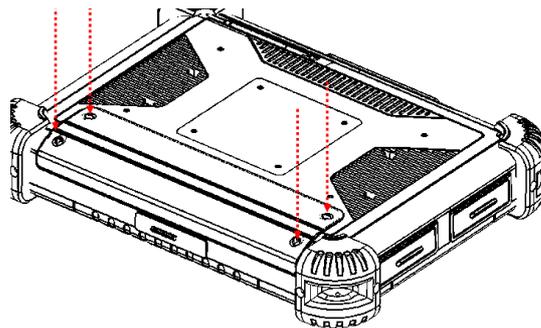
1. There is danger of explosion if the battery is incorrectly replaced. The Battery only can replace with the tablet PC manufacturer's optional battery packs. Discard used batteries according to the dealer's instructions.

2. Do not attempt to disassemble the battery pack.

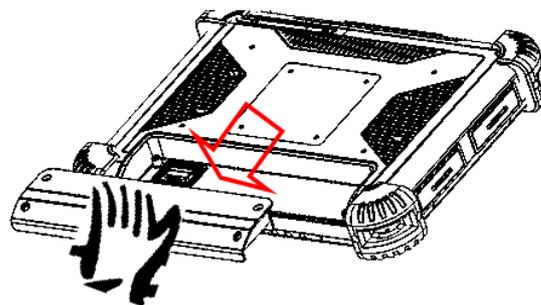
If you often rely on battery power for a long period of time while traveling, you may consider to purchase of an additional battery pack from your dealer and keep it with you in a fully charged state as a backup.

To replace the battery pack, follow these steps:

1. Make sure that the tablet PC is not turned on or connected to AC power. Place the tablet PC upside down.
2. Remove the four screws securing the battery compartment cover and remove it.



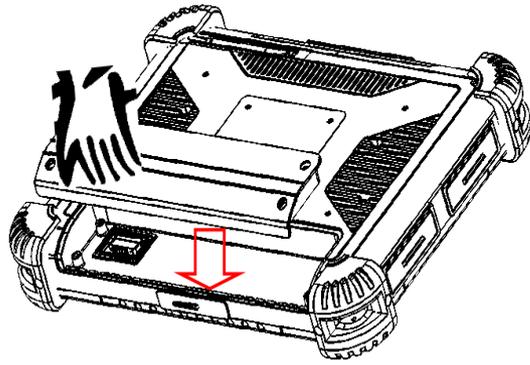
3. Pull back from the rear cover horizontally to lift the battery pack off the tablet PC.



4. Fit another battery pack into place and secure with four screws.



Rugged Computing





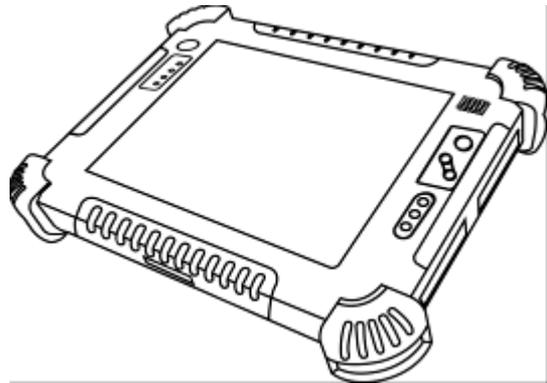
3.4 Power-Saving Tips

The following are some Power-Saving Tips suggestions to maximize the battery's operating time.

- Do not disable Power Management.
- Decrease the LCD brightness to the lowest comfortable level.
- Shorten the length of time before Windows turn off the display.
- USB devices use power just by being connected. If you use a USB mouse, you can save power by disconnecting the mouse and using the optional touchscreen pen.
- If you use a USB flash drive, unplug it when you are not using it.
- Deactivate the Wireless LAN function if you are not using it (see Chapter 2).
- Deactivate the Bluetooth wireless feature if you are not using it (see Chapter 2)
- Turn off the tablet PC when you are not using it.

CHAPTER 4

Expanding Your Tablet PC





CHAPTER 4 EXPANDING YOUR TABLET PC

4.1 How and When to Use BIOS Setup

For enter to the Tablet PC BIOS setup, you need connect to external usb keyboard, press “**Del**” key when the prompt appears on the screen during start up. The prompt screen shows only few seconds so need press Del key quickly.

****NOTICE**

Updated BIOS version may be published after the manual is released. Check with the latest version of BIOS on website.

You may need to run BIOS setup utility when the below status.

1. Error message on sreen indicate to check BIOS setup.
2. Restoring the factory default settings.
3. Modifying the specific hardware specification
4. Want to optimize the specification.

To control the keyboard to select BIOS utility setup, you need

| Keyboard Icon | Function Description |
|---|---|
|  | Selects a menu title |
|  | Selects an item or option |
| Enter | Go to the sub-menu when available Opens or closes the option window when an item is selected |
| Esc | To leave sub-menu and return to main menu. |

****NOTICE**

You can press the F1, F9, F10, -/+, and Esc keys by connecting a USB keyboard to your tablet PC. Make sure that the item “**Legacy USB Support**” under the Main menu is set at Enabled (default).



4.2 BIOS Functions

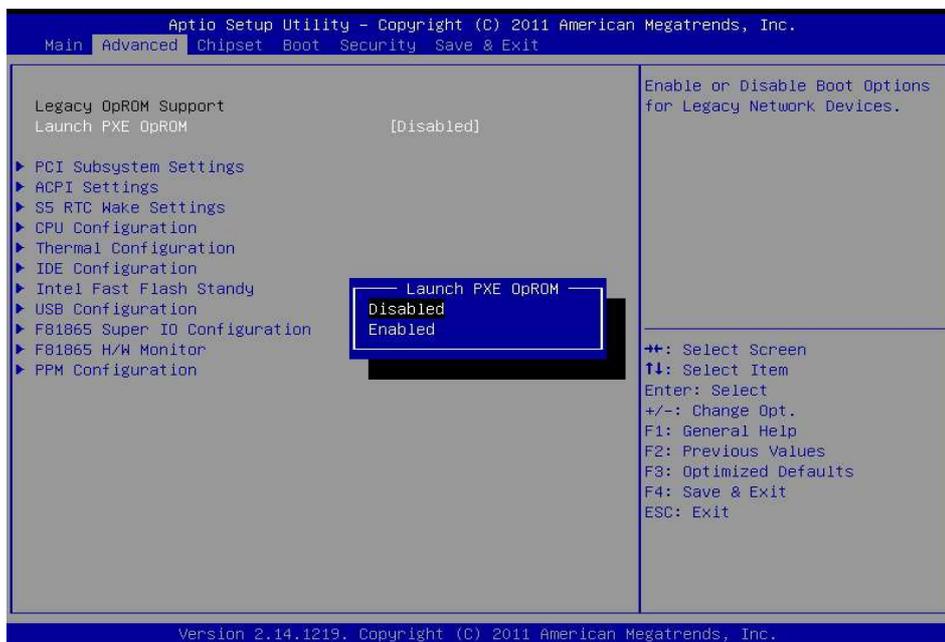
4.2.1 Main Menu

The main menu contains the information of the Tablet system including BIOS version, processor, system memory, time, and date.



4.2.2 Advanced Menu

The advanced menu contains the configuration information of CPU.

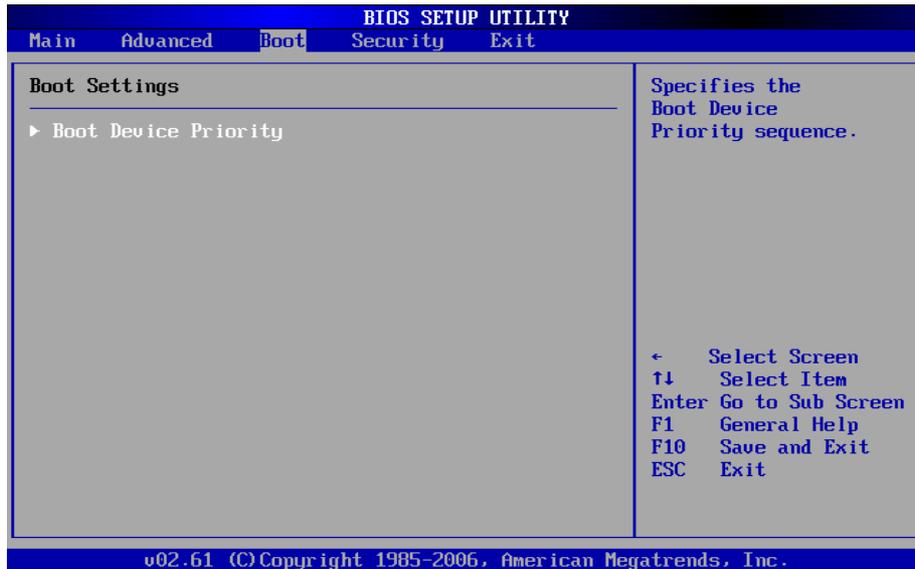




4.2.3 Boot Menu

The Boot menu sets the sequence of the devices to be searched for the operating system.

The bootable devices will be automatically detected during POST and shown here, allowing you to set the sequence that the BIOS uses to look for a boot device from which to load the operating system. A brief description of button usage is listed next:



Check the Hard Disk Device in **Hard Disk Drives**.



4.2.4 Exit Menu

The Exit menu displays ways of exiting BIOS Setup utility. After finishing with your settings, you must save and exit so that the changes can take effect.

Save Changes and Exit saves the changes you have made and exits BIOS Setup utility.

Discarding Changes and Exit exits BIOS Setup utility without saving the changes you have made.

Discard Changes restores the previous values for all the items.

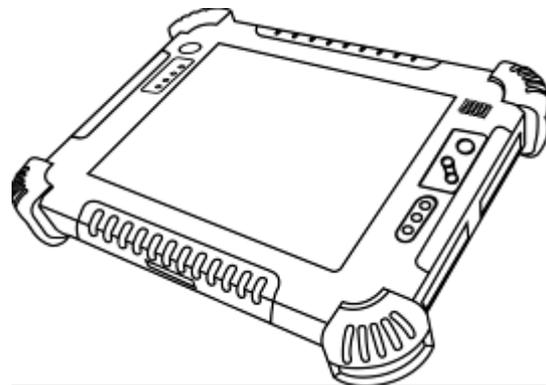
Load Optimal Default loads the factory default values for all the items.





CHAPTER 5

Driver Installation



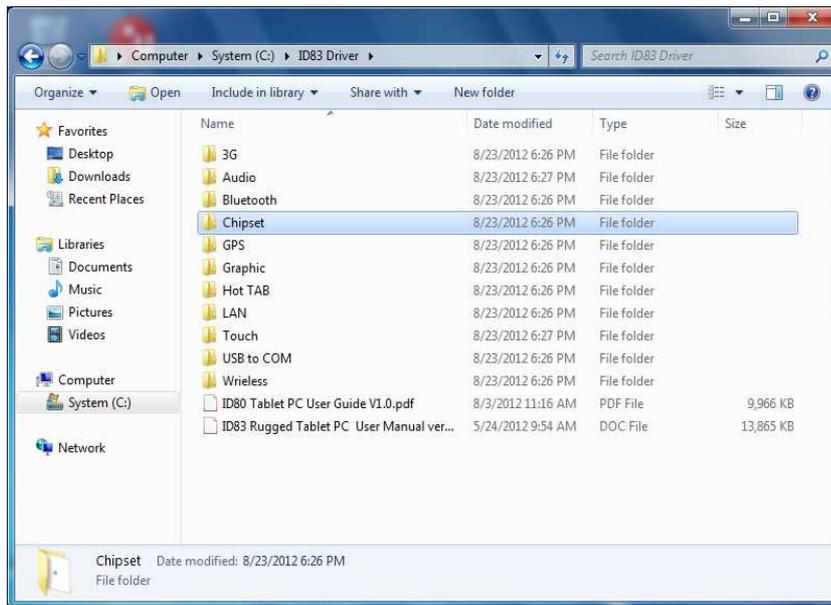


CHAPTER 5 DRIVER INSTALLATION

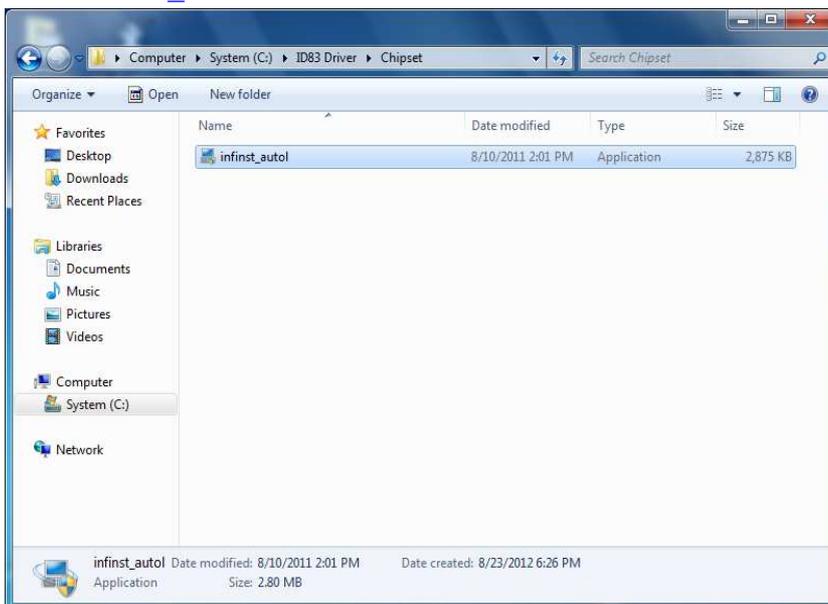
Through Chapter 5 to go further for Rugged Tablet PC driver installation guide, you can easily install all related drivers if with out operation system by yourself. **The default system will include operation system and you do need to install any of drivers at first time use.**

5.1 Installation of Chipset Driver Installation

Step.1 Insert the Driver Utility DVD. Open the file document "Chipset".



Click on "infinst_ auto" to install driver.





Step.2 Click on "Next" to install driver.



Step.3 Click on "Yes " to agree License





Step.4 Click on "Next" to install driver.





Step.5 Click on "Yes, I want to restart this computer now" to go on.

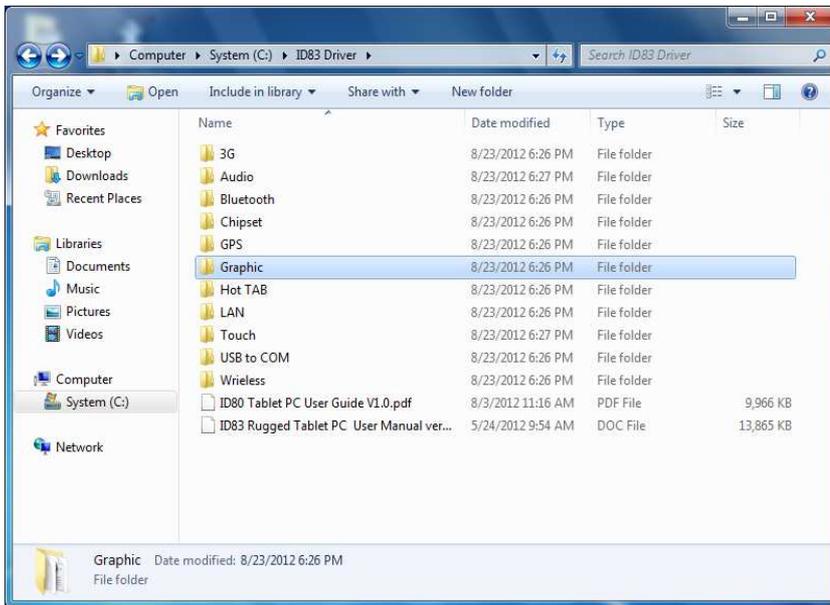




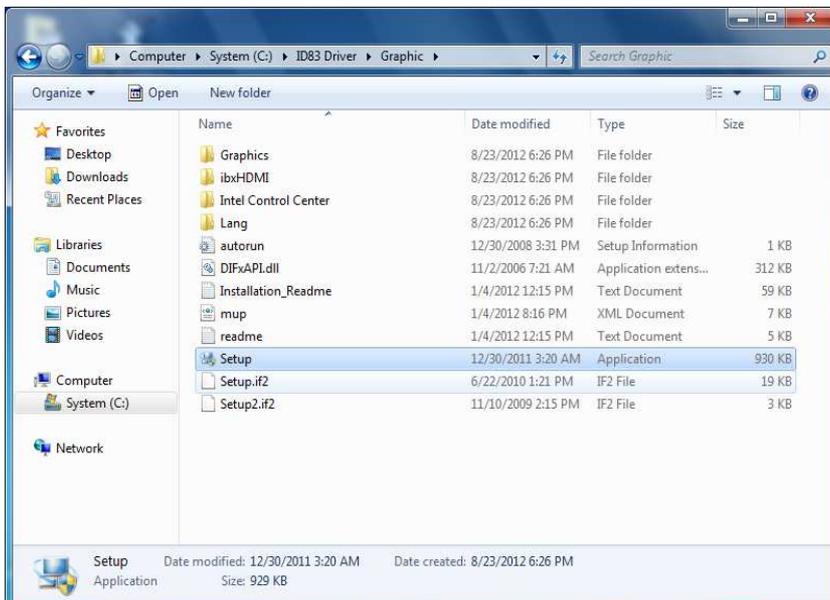
5.2 Graphic Driver Installation

The system is equipped with Intel NM10 Chipset. The Intel Graphic Drivers should be installed first, and it will enable “Video Controller (VGA compatible)”. Follow the instructions below to complete the installation. You will quickly complete the installation.

Step.1 Insert the Driver Utility DVD. Open the file document “Graphic”.



Step.2 Click on “Setup.exe” to execute the setup.



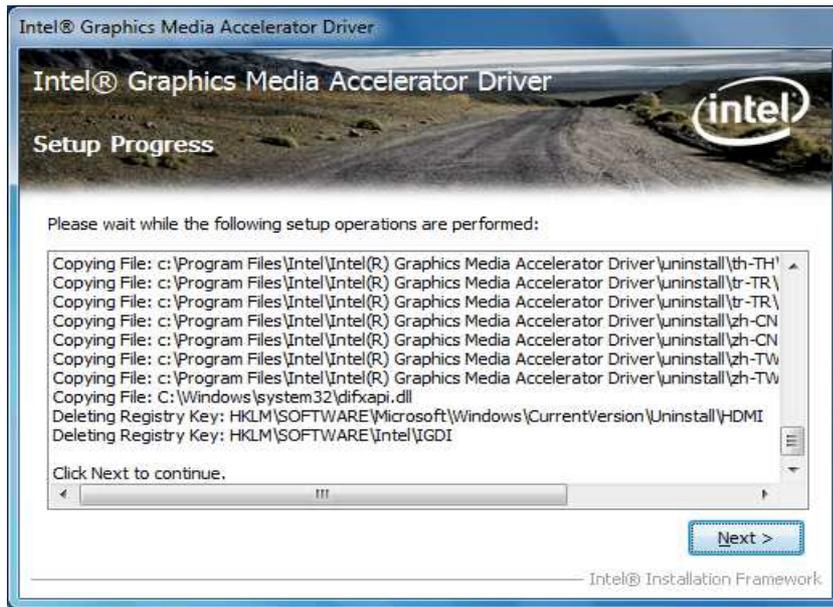


Step.3 Click on "Next "to install Driver.

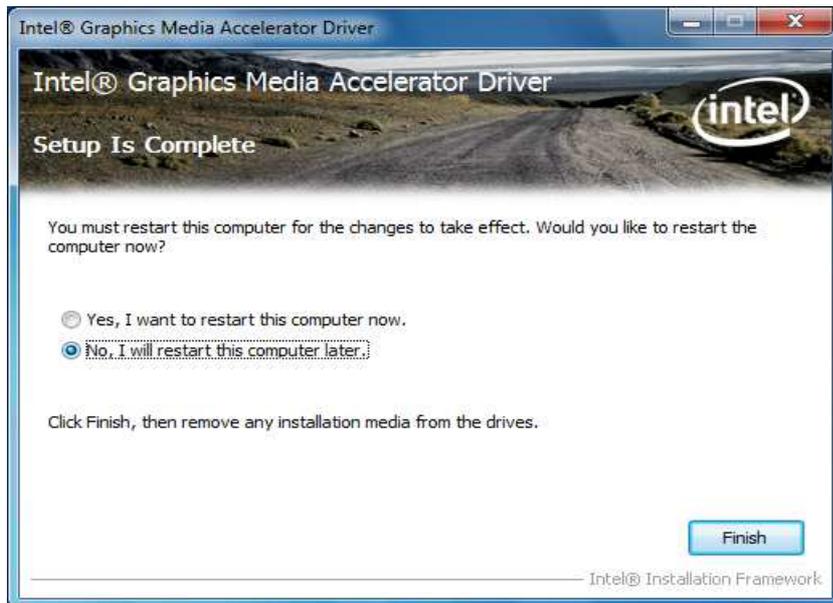


Step.4





Step.5 Click on "Yes, I want to restart this computer now" to go on.

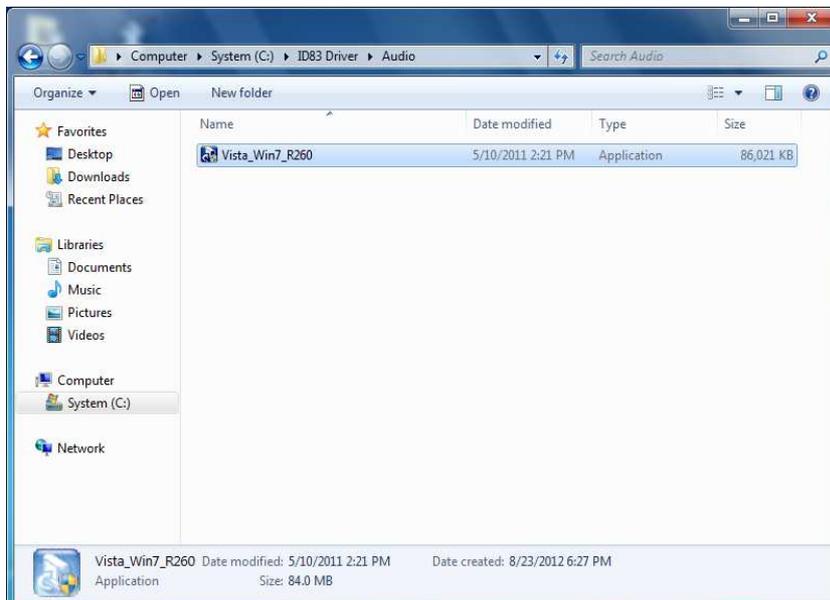
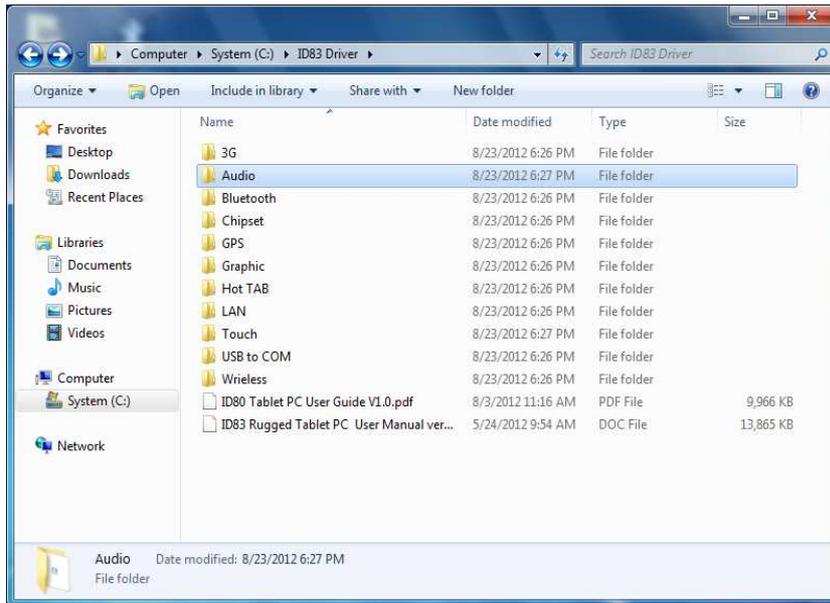




5.3 Audio Driver Installation

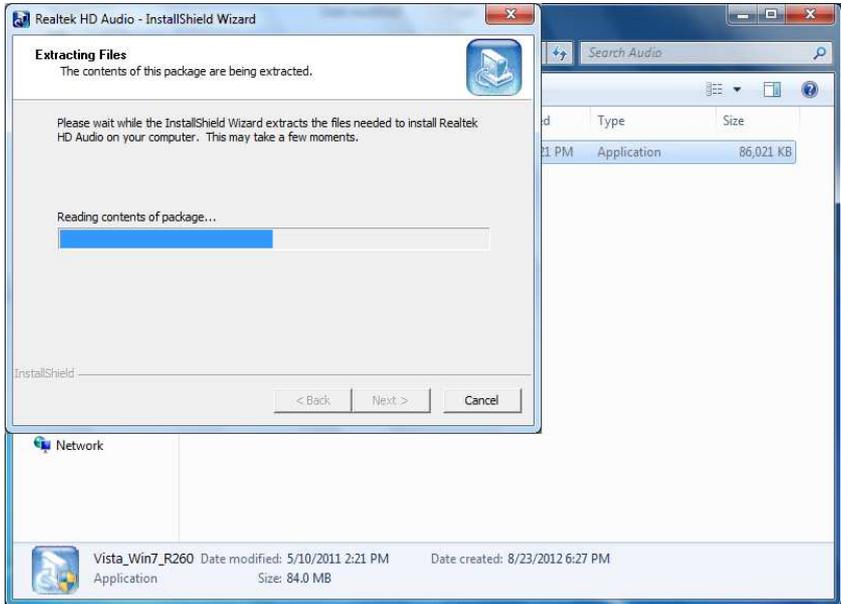
The system is equipped with the Realtek ALC886 HD Audio Codec designed for PC multimedia systems, including host/soft audio and AMR/CNR-based designs.

Step.1 Insert the Driver Utility DVD . Open the file document “Audio” and click on “Vista_Win7_R260.exe” to execute the setup.



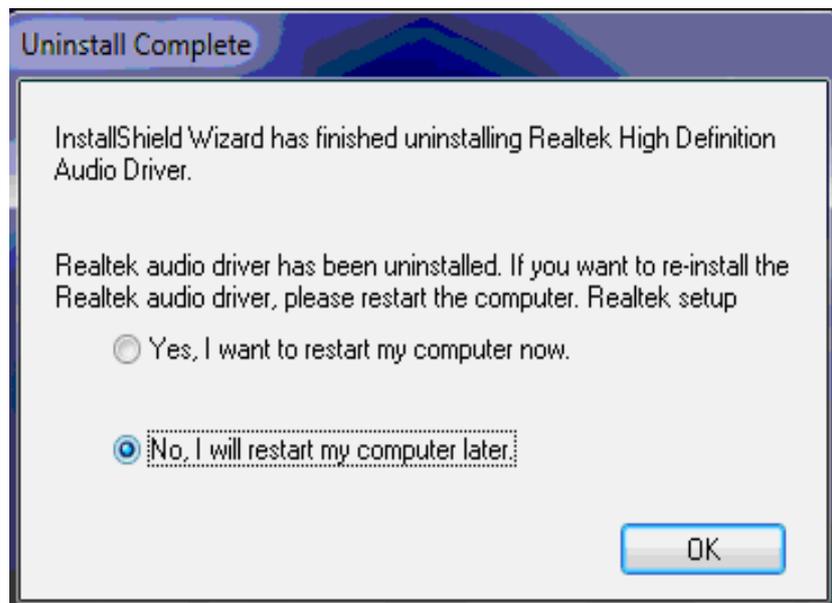
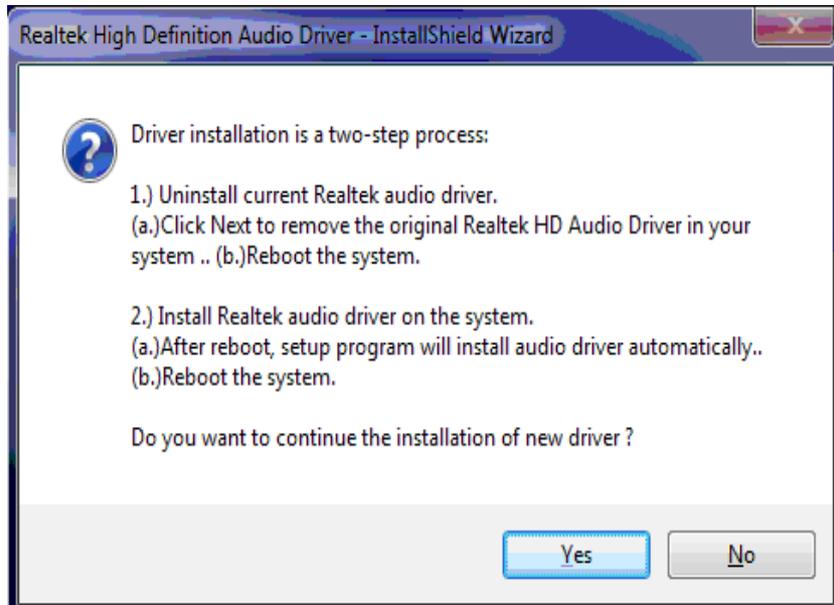


Step.2 Click on "Next" to install driver.





Step.3 Click on “Yes, to continue the installation and then click on” Yes, I want to restart my computer now” to finish installation.

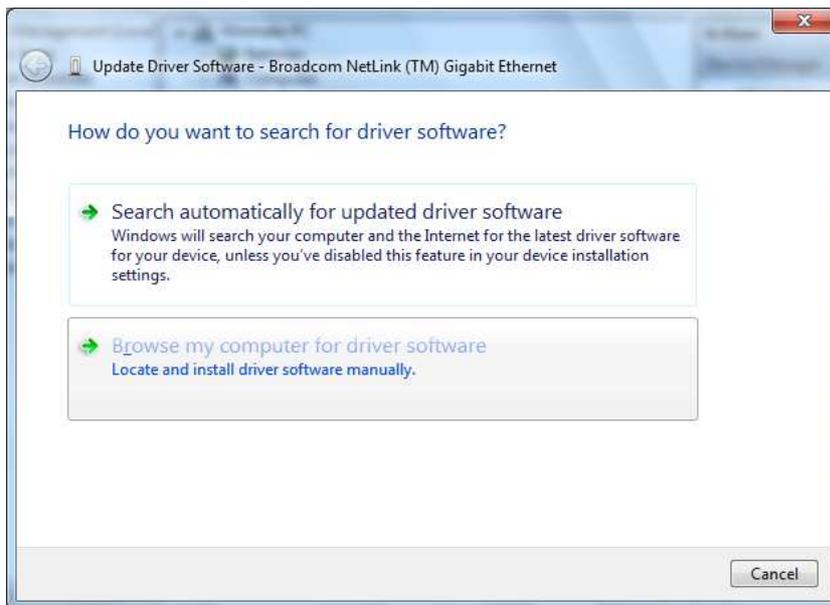
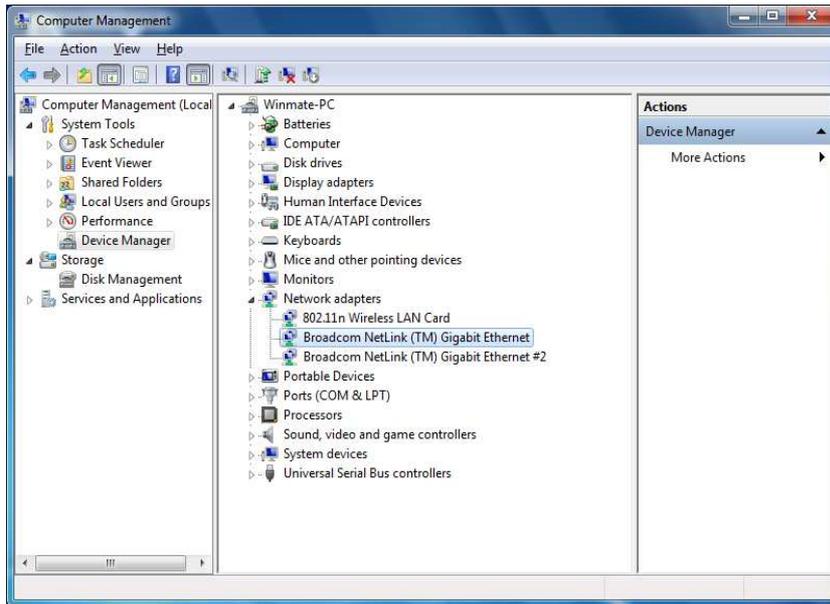




5.4 LAN Driver Installation

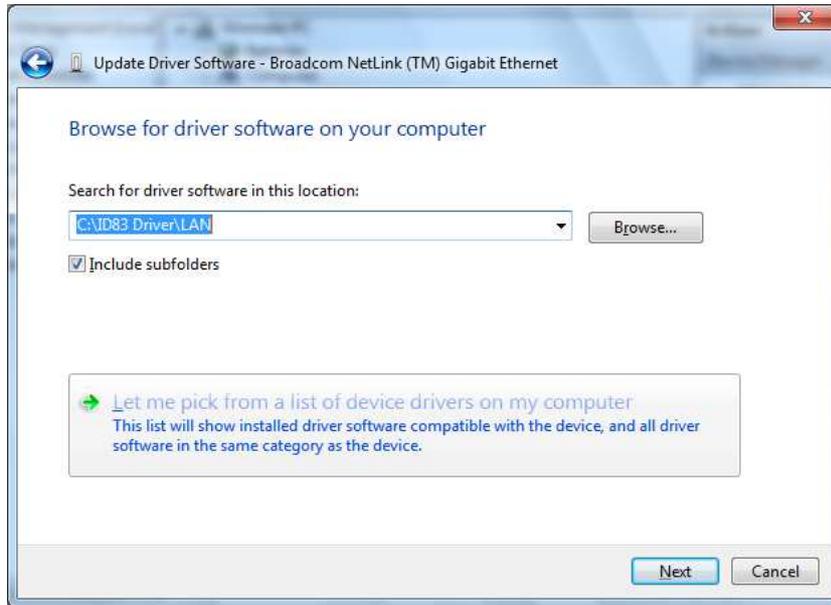
Follow the steps below to complete the installation of the LAN drivers. You will quickly complete the installation.

Step.1 In the Device Manager menu, select LAN device, and right click select update driver

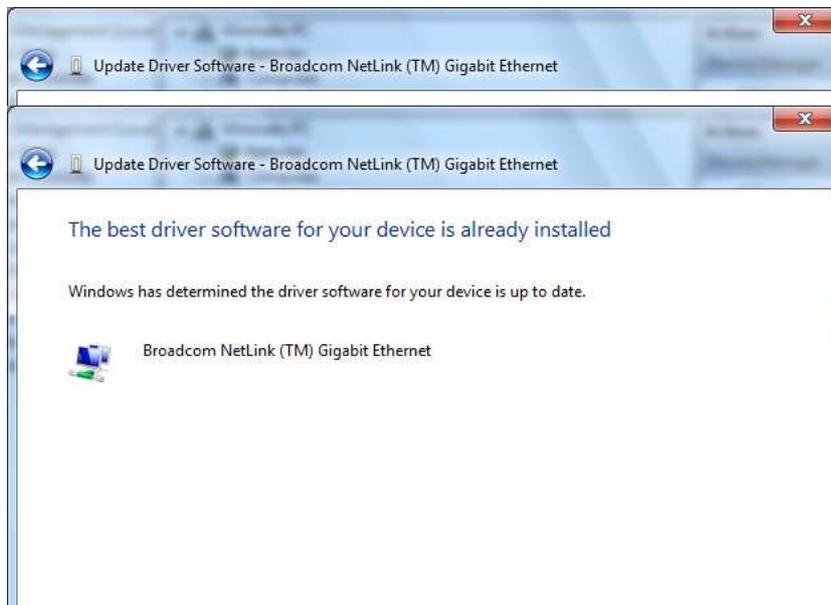




Step.2 Insert the Driver Utility DVD. Open the file document "LAN".



Step.3 Select the correct file in the document and click on open to execute the setup.

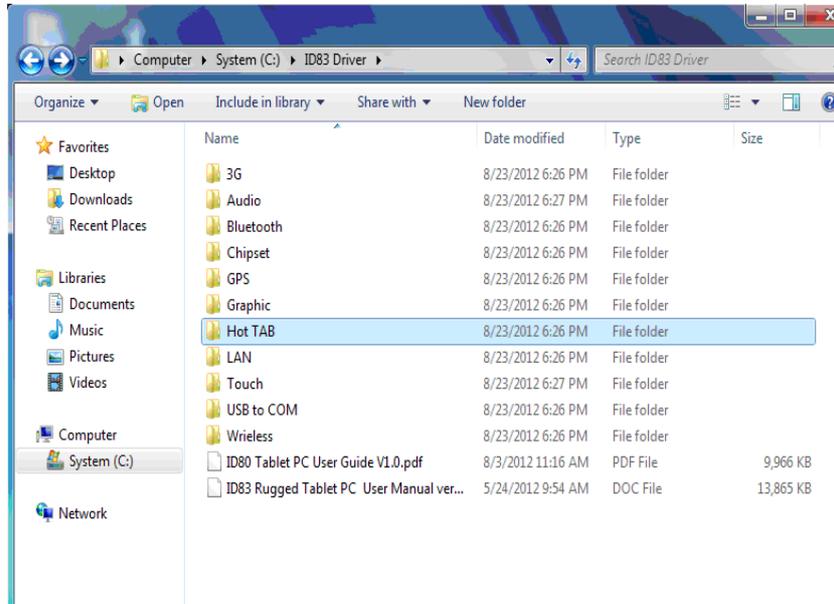




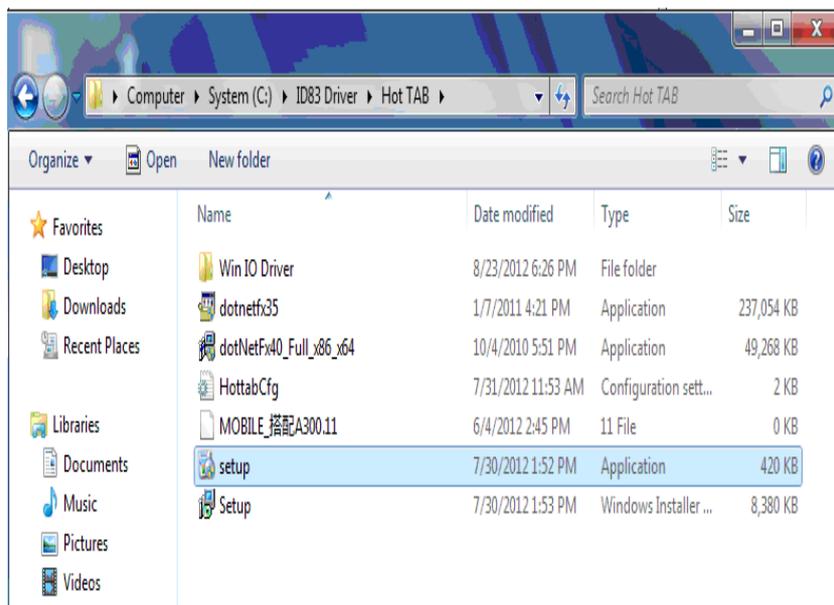
5.5 HotTab Utility Driver Installations

With our HotTab software application utility, user can very easy to control and program their usual hotkey for help their job.

Step.1 Insert the Driver Utility DVD. Open the file document "Hot TAB". Press the Setup.exe to execute the installation program.

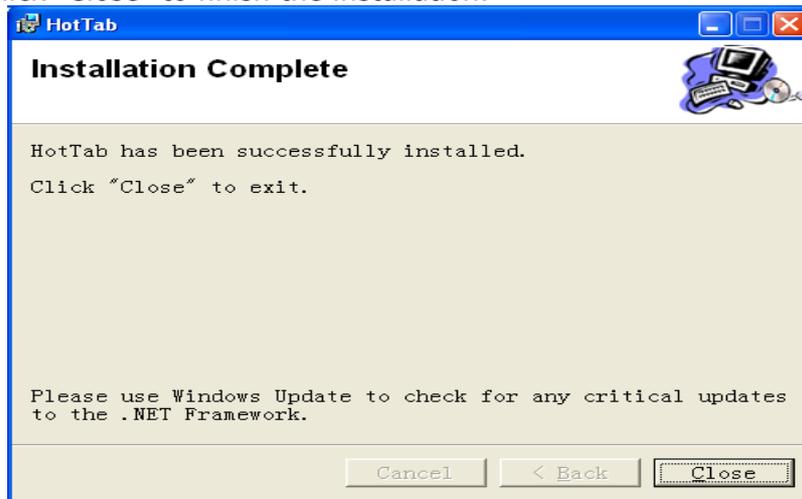


Step.2 Click on "Setup.exe" to start to the installation.





Step.3 Click "Close" to finish the installation.

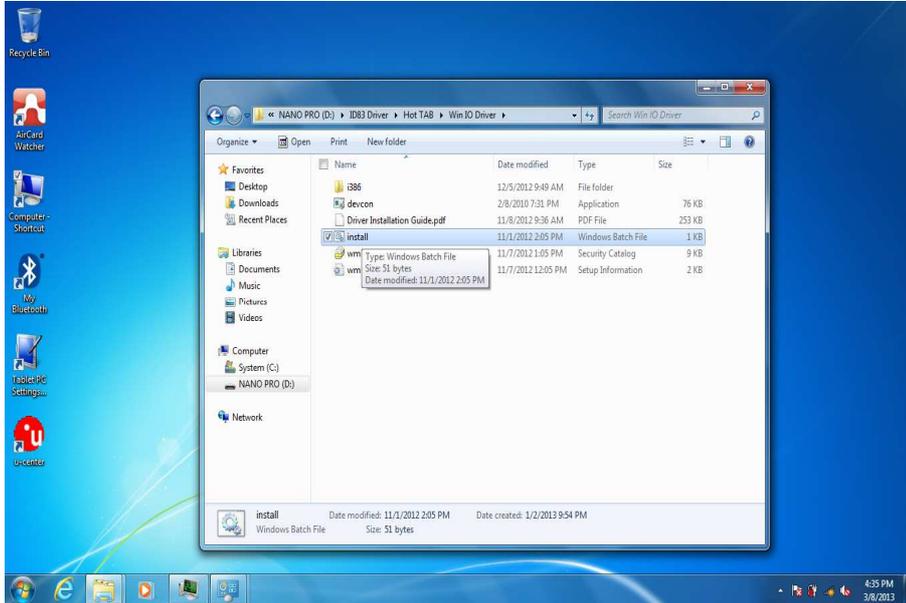




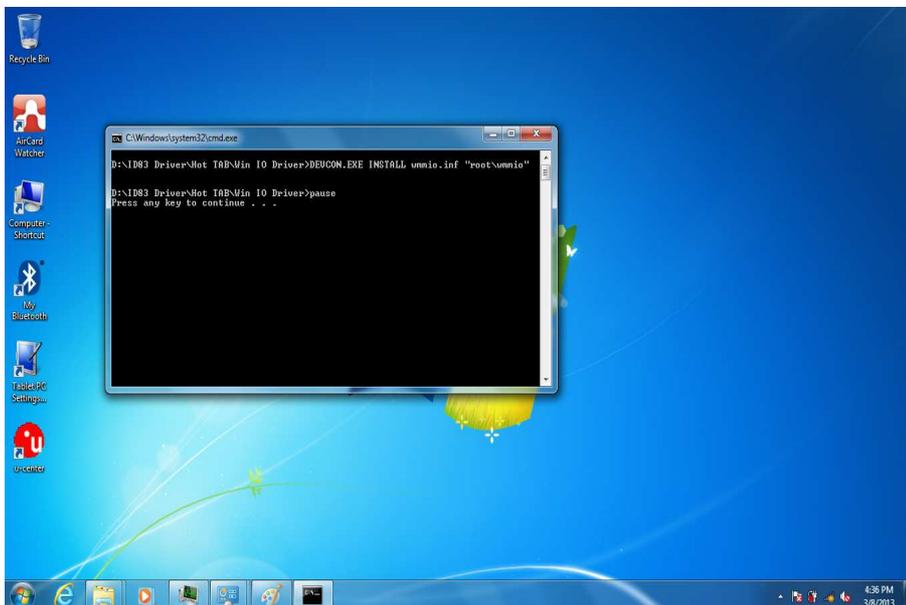
5.6 HotTab Driver Installation

Following the step by step to finish the driver installation

1. Open the file document Win IO Driver” the Driver DVD . Press the Install.bat to execute the installation program.



2. Press any key to complete the driver installation.

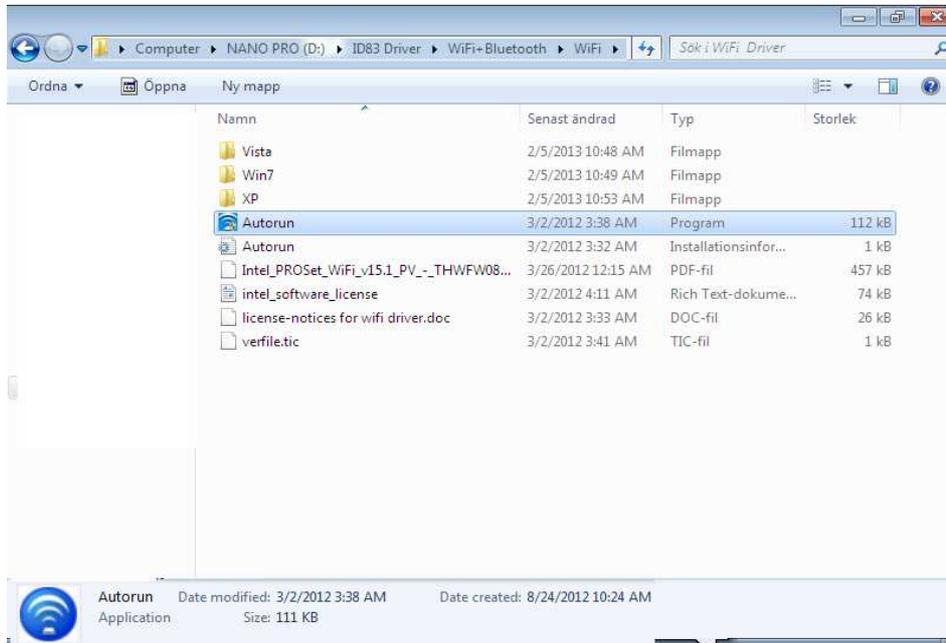




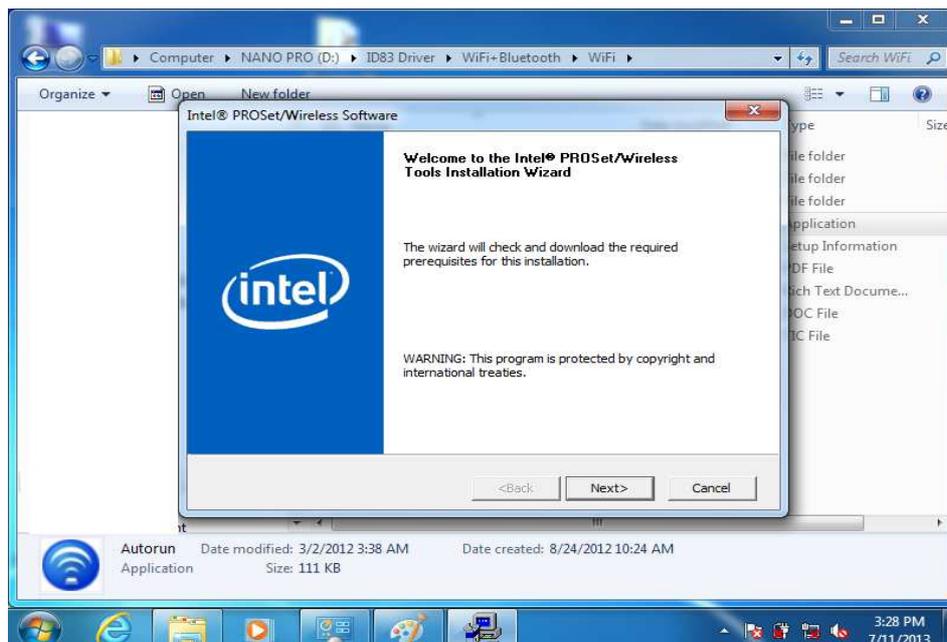
5.7 Wireless LAN Driver Installation

Following the step by step to finish the driver installation

Step.1 Insert the Driver Utility DVD. Open the file document "Wireless". Execute "Autorun" to start the installation program.



Step.2 Follow the step by step and click "Next" to start the driver installation.

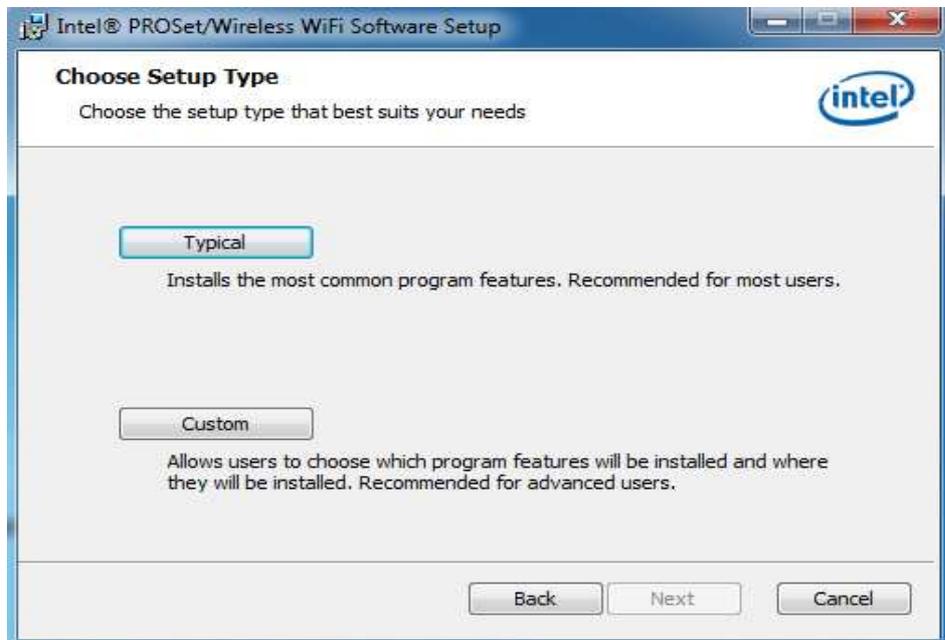




Step.3 Check the box then choose "Next".



Step.4 Choose "Typical".

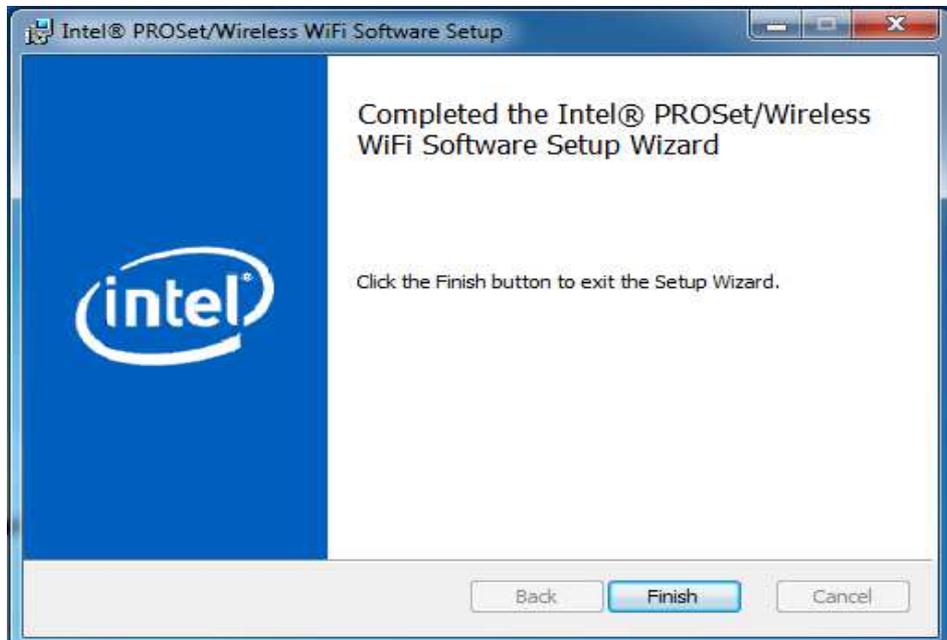




Step.5 Press "Install" to start the driver installation.



Step.6 Press "Finish" to complete the driver installation.

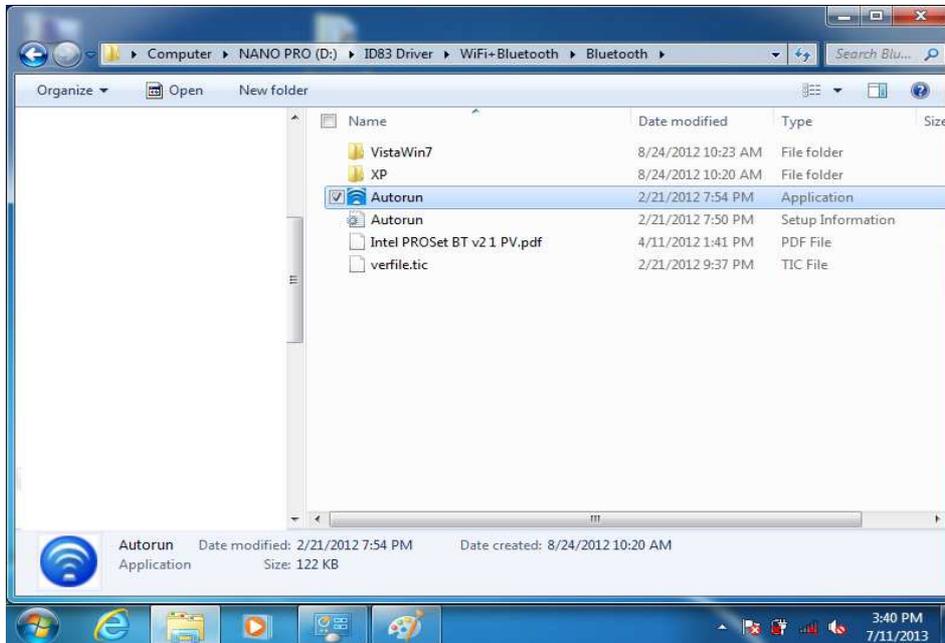




5.8 Bluetooth Driver Installations

Following the step by step to finish the driver installation

Step.1 Insert the Driver Utility DVD. Open the file document "Bluetooth". Press "Autorun" to execute the installation program.

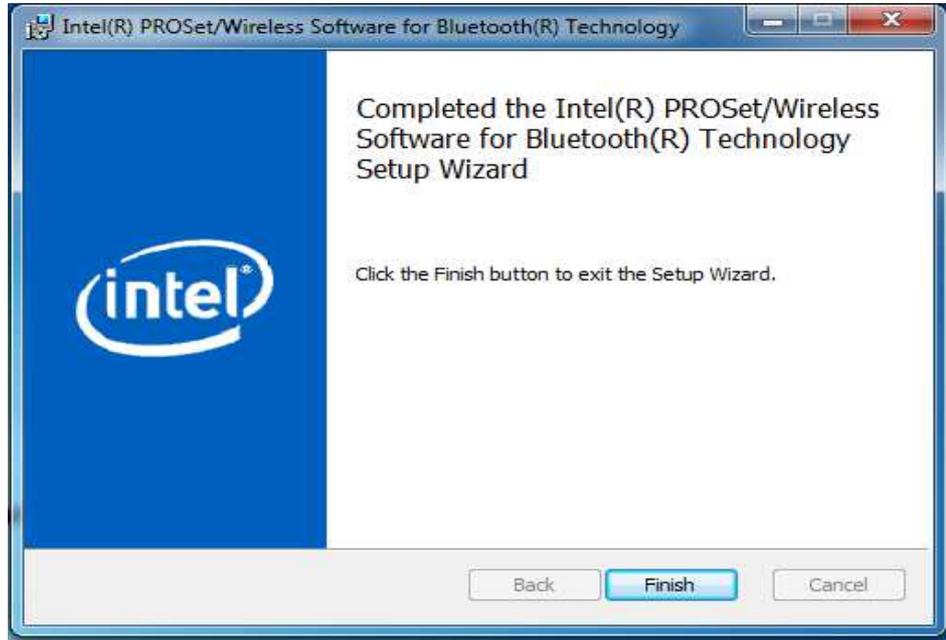


Step.2 Follow the step by step and click "Next" to start the driver installation.





Step.3 Press "Finish" to complete the driver installation

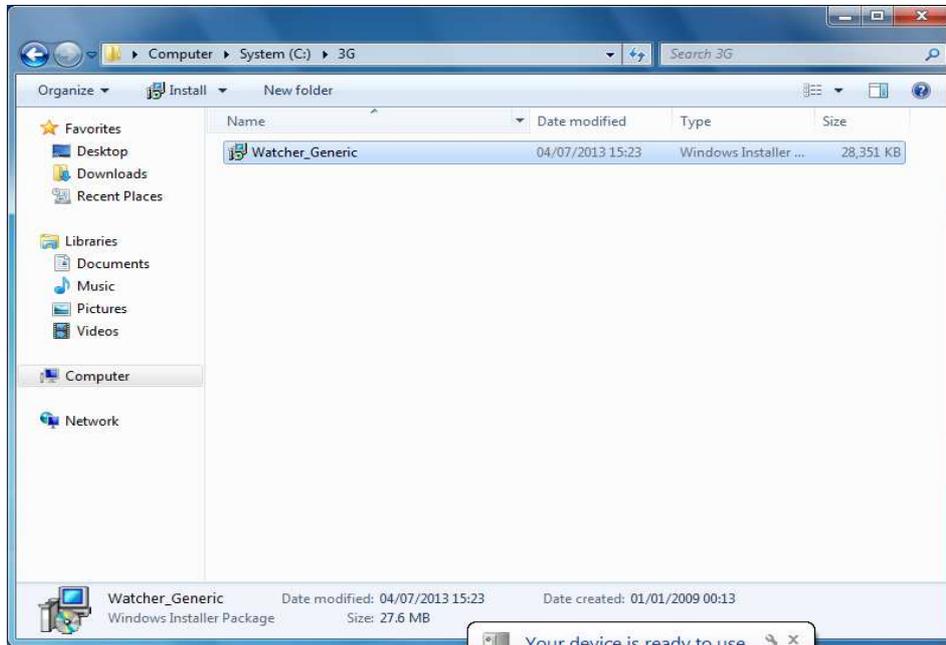




5.9 3G Module Driver Installations

Following the step by step to finish the driver installation

Step.1 Insert the Driver Utility DVD. Open the file document "3G". Press "Watcher_Generic" to execute the installation program.



Step.2 Follow the step by step and click "Next" to start the driver installation.



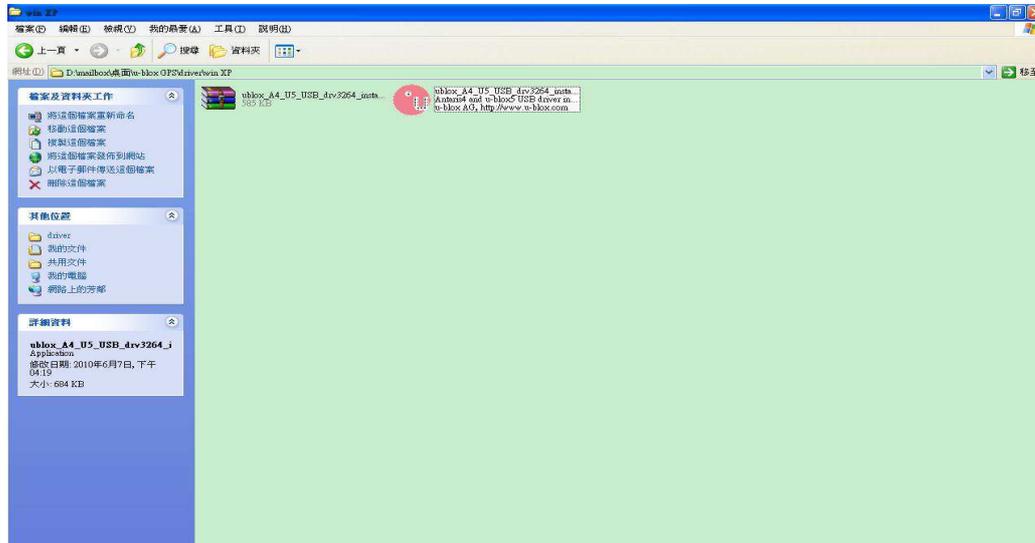




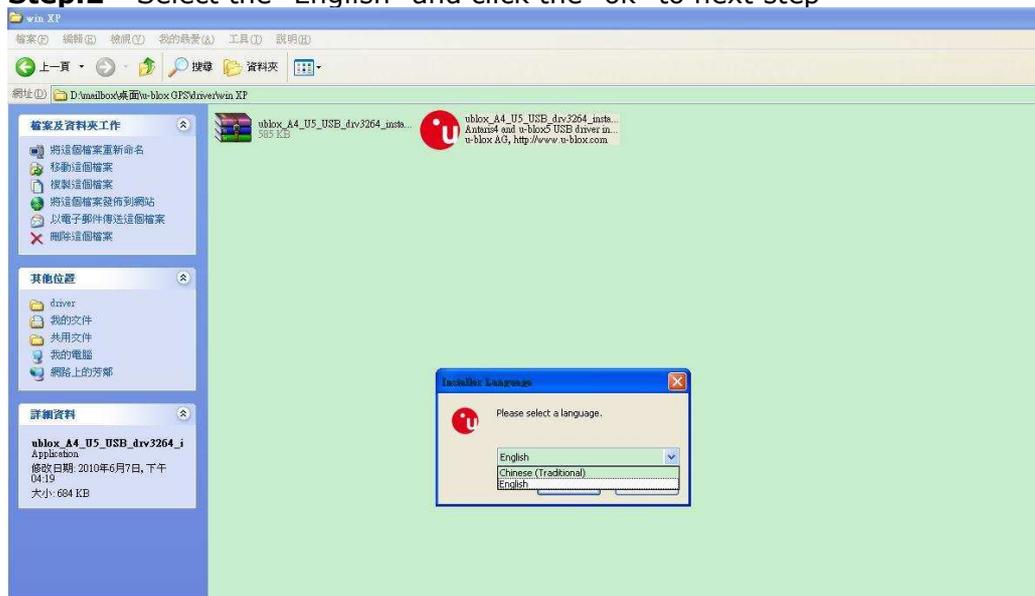
5.10 GPS Module Driver Installations

Following the step by step to finish the driver installation

Step.1 Insert the Driver Utility DVD. Open the file document “GPS”. Press “ublox_A4_U5_USB_drv3264_install_UI” to execute the installation program.

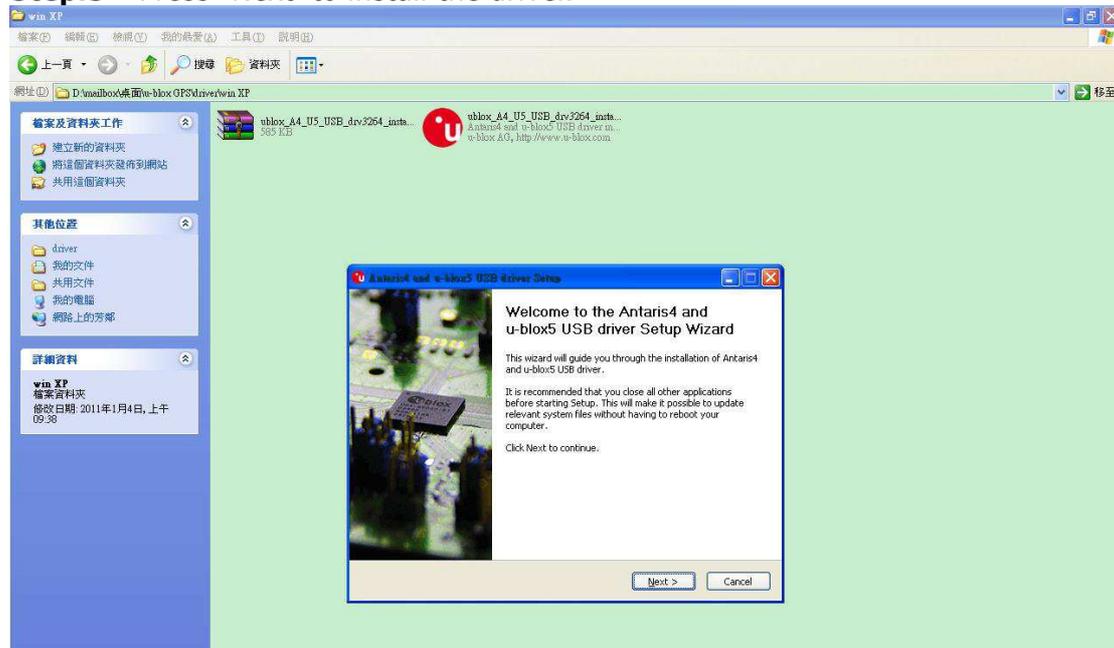


Step.2 Select the “English” and click the “ok” to next step

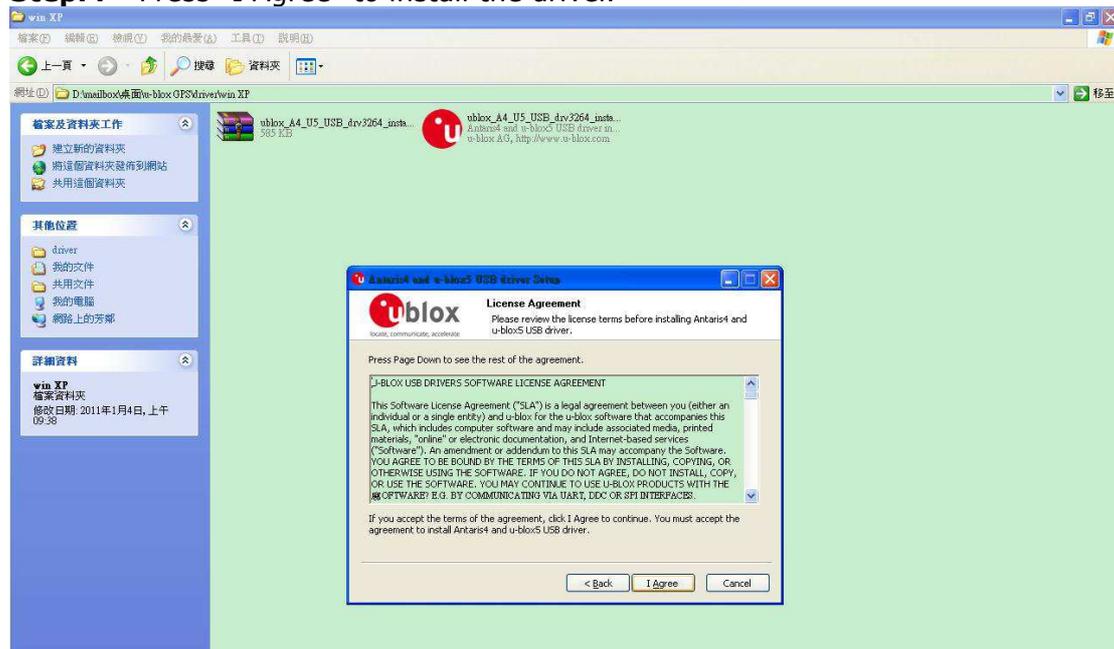




Step.3 Press "Next" to install the driver.

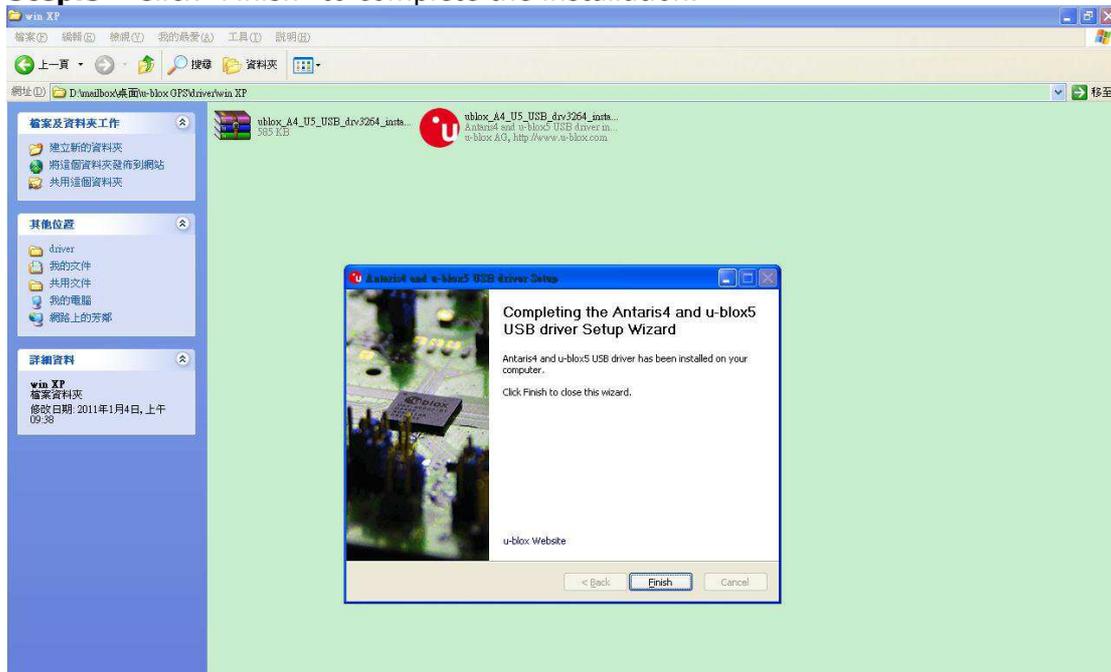


Step.4 Press "I Agree" to install the driver.





Step.5 Click "Finish" to complete the installation.





5.11 Touch Driver Installation

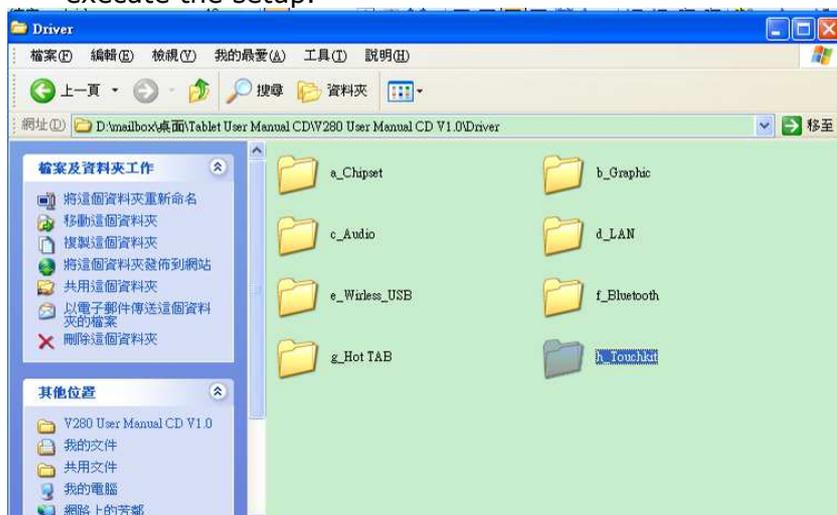
TouchKit is the Touch software, which contains drivers of the touch panel controllers for the specified communication connectors, RS232, PS/2 and USB, and the other two utilities.

The two utilities are as follows:

- Touch Tray support
This is utility for emulating the right and left button of mouse through controlling touch panel. Users can toggle between right or left mouse buttons by this utility.
- Configuration support
The calibration and draw test of touch panel are done by this utility. Besides, users can add or remove for new RS-232 or PS/2 touch panel devices.

Follow these steps to install TouchKit.

Step.1 Insert the Driver Utility DVD. Open the file document “TouchKit” to execute the setup.

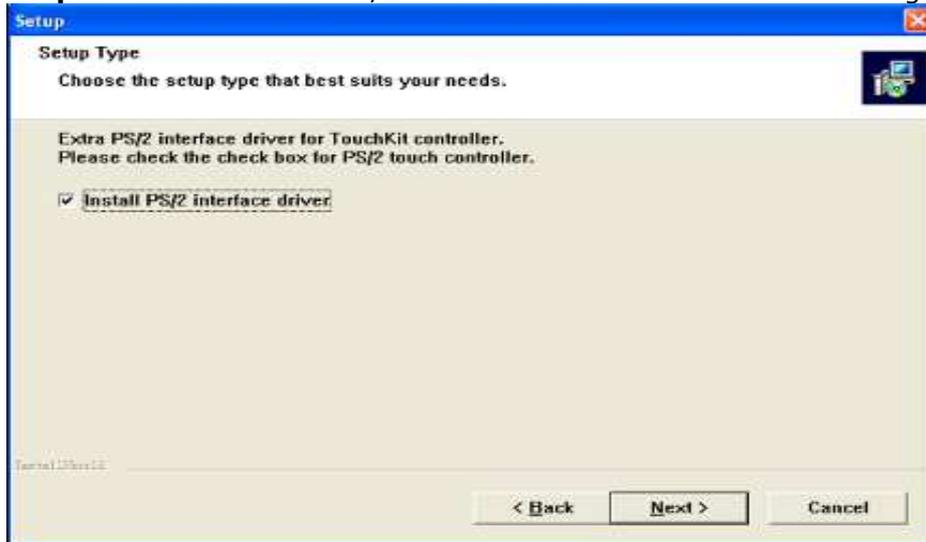


Step.2 Click on “Setup.exe” to execute the setup.

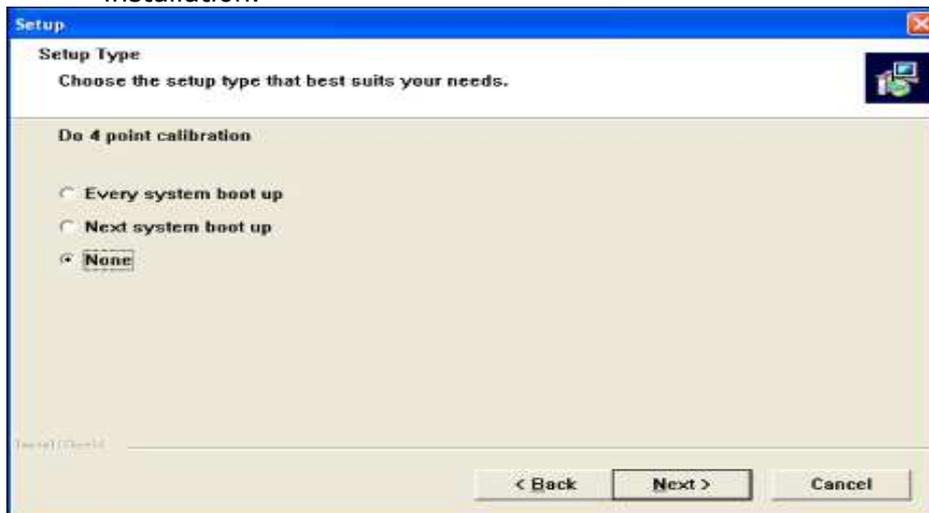




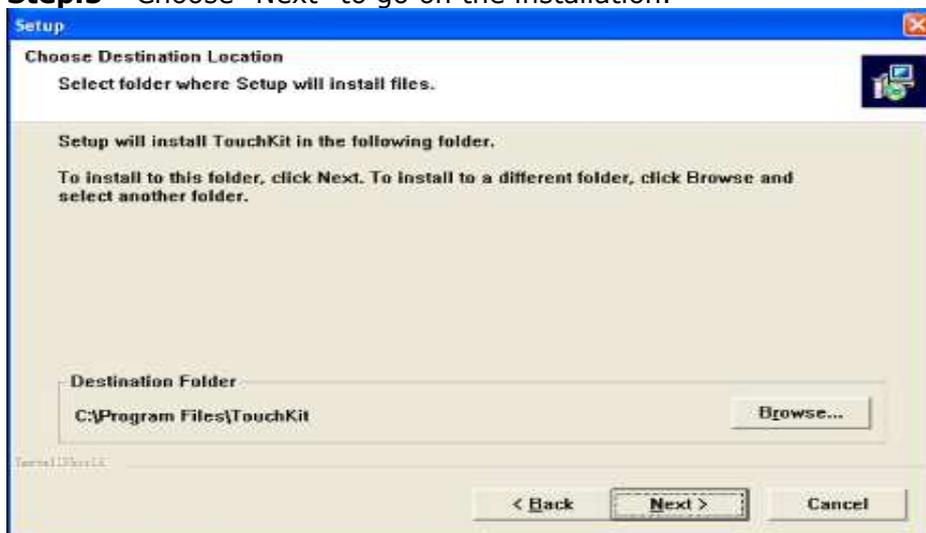
Step.3 Choose Install PS/2 interface driver and select “Next” to go on.



Step.4 Choose “No” for 4 point calibration and click “Next” to continue installation.



Step.5 Choose “Next” to go on the installation.





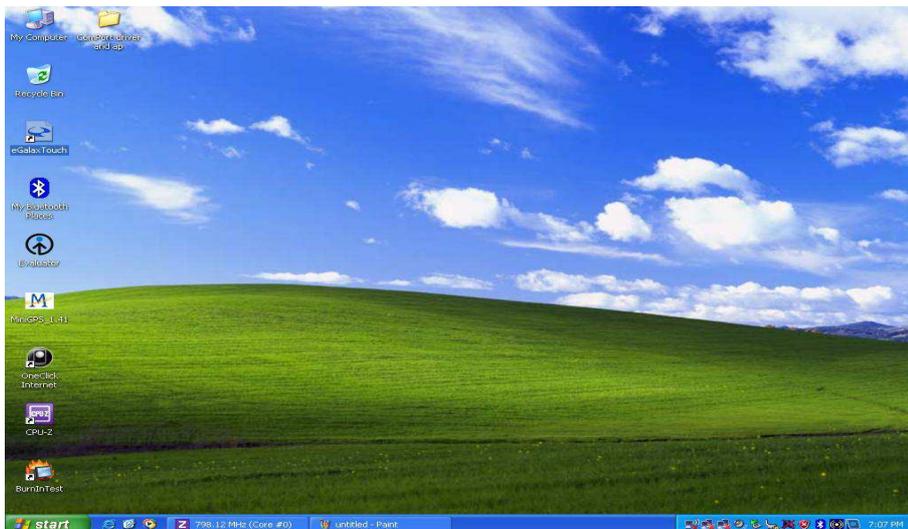
Step.6 After few seconds of installation, click on “Finish” and choose restart computer to final the installation.



Note: Configuration Utility

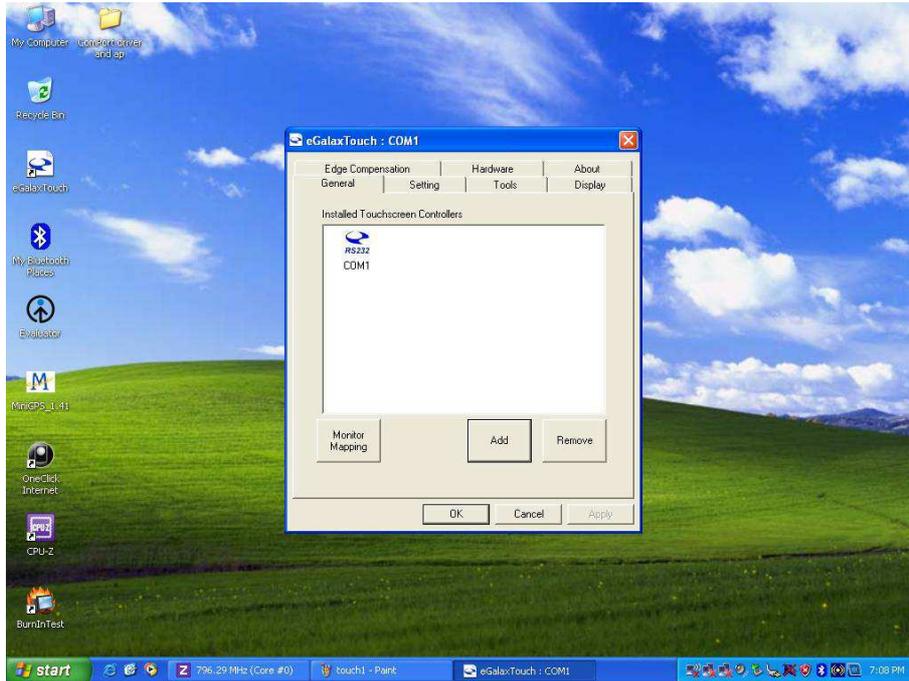
After finishing the installation, please follow the steps to test the **configuration utility**.

Step.1 Click the “TouchKit” shortcut function in the desktop.

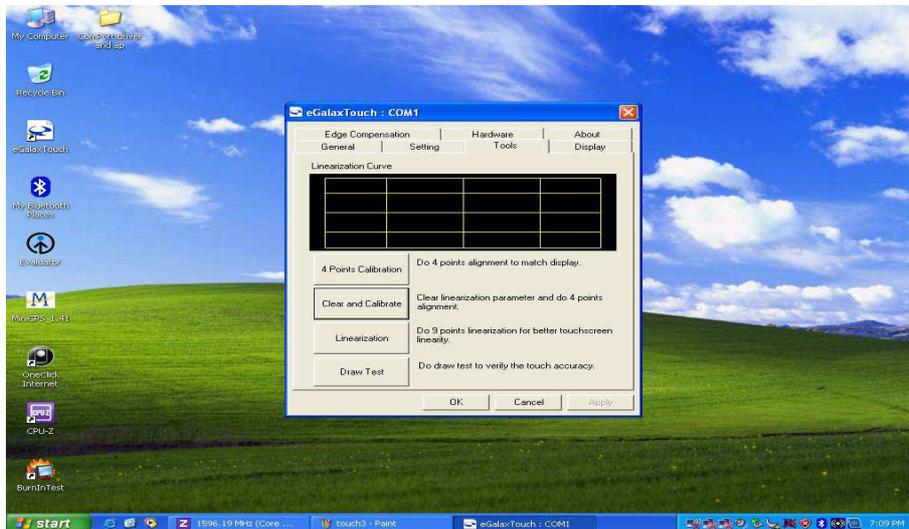




Step.2 To make sure the touch controller is in the com1.

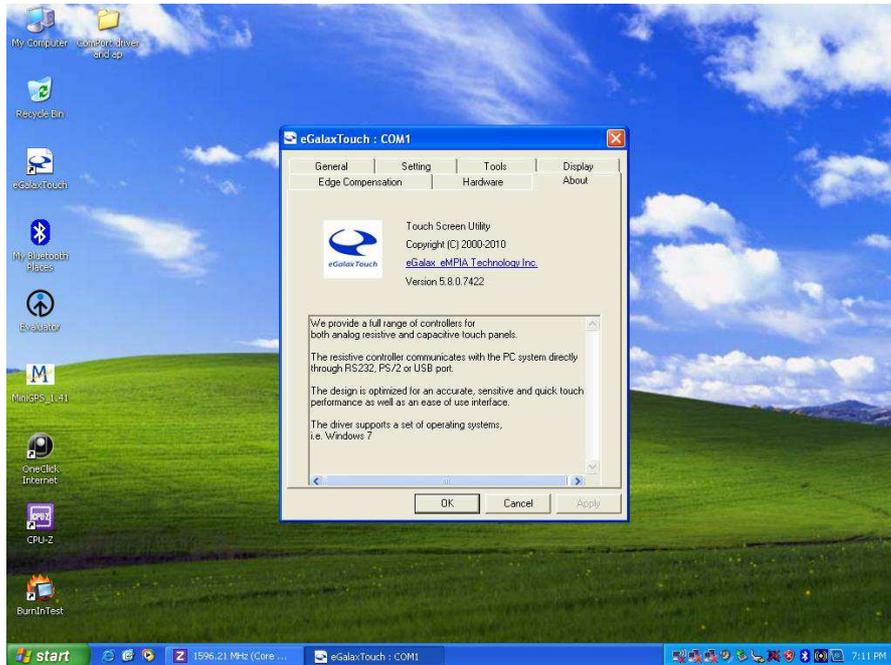


Step.3 Correct 4 point locations on screen with the Panel. Screen display as follows





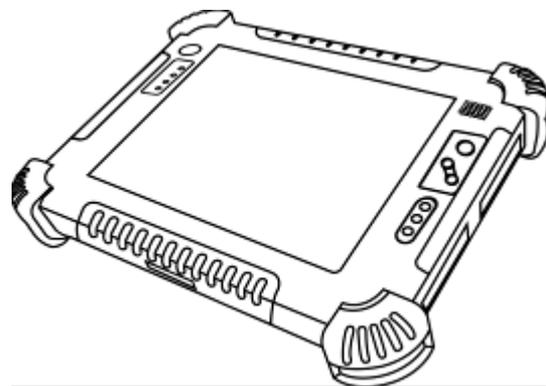
Step.4 If 4 point's calibration tests are fine, push "yes" to finish the test.





CHAPTER 6

Caring Your Tablet PC





CHAPTER 6 CARING YOUR TABLET PC

There are few tips for location, cleaning guideline, and for take care of battery pack and touch-screen. Please follow these tips for safeguarding the integrity of your tablet PC data as well as the tablet PC itself.

6.1 General Protection Tips for Tablet PC

Please check the general protection tips for Tablet PC location and normal operating.

- Please do not put heavy objects on top of the tablet PC as this may damage the display.
- Do not use paper towels to clean the display but use the included soft cloth. Avoid touching it with your fingers, pen, or pencil.
- Allowing the backlight to automatically turn off as a result of power management is recommended rather than using a screen saver or other software that prevents the power management from working.
- 10 °C (50 °F) and 35 °C (95 °F) is our recommended temperature for operating the tablet pc– actual operating temperature depending on product specifications.
- Avoid placing the tablet PC in a high humidity, highly change temperatures, mechanical vibration, direct sunlight, or heavy dust environment.
- Keeping the tablet PC at least 15 cm (5 inches) away from electrical appliances that can generate a strong magnetic field such as a TV, refrigerator, motor, or a large audio speaker.
- Avoid moving the tablet PC from a cold to a warm place in sudden time. A temperature difference of more than 10 °C (18 °F) may cause condensation inside the unit, which may damage the storage media.
- Please do not place the tablet PC on an unsteady surface.

6.2 Cleaning the Tablet PC

- Make sure the tablet pc is turned off.
- Never spray or pour any liquid directly onto the screen or case.
- Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
- The display area is highly prone to scratching. Do not use ketene



type material (ex. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It might permanently damage the panel.

- If still not clean, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen



6.3 Battery Protection Tips

- It is recommended temperature range for charging the battery pack between 5°C ~ 45 °C.
- To avoid harm to the battery, recharge the battery pack when it is nearly discharged. When recharging, make sure that the battery pack is fully charged.
- The battery pack is a consumable product and the following conditions will shorten its life:
 - ◆ Frequently charging the battery pack
 - ◆ When using, charging, or storing the battery in high temperature condition
- To avoid hastening the deterioration of the battery pack thereby prolonging its useful life, minimize the number of times you charge it so as not to frequently increase its internal temperature.
- A higher environment temperature will cause the battery pack's temperature to rise. Avoid charging the battery pack inside a closed vehicle and in hot weather condition. Also, charging will not start if the battery pack is not within the allowed temperature range.
- It is recommended that you do not charge the battery pack more than once a day.
- Charging the battery pack with the system's power off is recommended.
- To maintain the battery pack's operating efficiency, store it in a cool dark place removed from the tablet PC and with 30 % ~ 40 % charge remaining.
- Avoid installing or removing the battery pack when the tablet PC is in Standby mode.
- Charging time will be prolonged when the tablet PC is turned on.



6.4 Touch screen Protection Tips

- Avoid using excessive force to the display, when use the finger or the included touch screen stylus pen on the display, **the recommended force can not over 200gf.**
- Besides the included stylus, using a sharp or metallic object may cause scratches and damage the display, thereby causing errors.
- Wipe the touch screen with a clean, soft, lint-free cloth.
- Using the touch screen during low temperature (less than 5 °C) may cause a slower response time, this is normal. A normal response time may be restored upon returning to room temperature.
- When there is noticeable discrepancy in the operation of the touch screen function (wrong location on intended operation or improper display resolution), refer to the Windows operating system for instructions on recalibrating the touch screen display.



6.5 Trouble shooting from A to L

A. Battery Problem

| Condition | Check Point |
|---|---|
| The battery does not charge (Battery Charge indicator does not light orange). | <ul style="list-style-type: none"> ● Make sure that the AC adapter is properly connected. ● Make sure that the battery is not too hot or cold. Allow time for the battery pack to return to room temperature. ● Make sure that the battery pack is installed correctly. ● Make sure that the battery terminals are clean. |

B. Bluetooth Transmission Problem

| Condition | Check Point |
|--|--|
| I cannot connect to another device with Bluetooth wireless technology. | <ul style="list-style-type: none"> ● Make sure that both devices have activated Bluetooth feature. ● Make sure that the distance between the two devices are not over 10 meters or that there are no walls or other obstructions between the devices. ● Make sure that the other device is not in "Hidden" mode. ● Make sure that both devices are compatible. |

C. Display Problem

| Condition | Check Point |
|--------------------------------|---|
| Nothing appears on the screen. | <ul style="list-style-type: none"> ● During operation, the screen may automatically turn off as a result of power management. Press any key to see if the screen comes back. ● The brightness level might be too low. Increase brightness by pressing the button. |

D. Date/Time Problems

| Condition | Check Point |
|-----------------------------|--|
| The date/time is incorrect. | <p>Correct the date and time via the operating system or BIOS Setup program.</p> <p>After you have performed everything as described above and still have the incorrect date and time every time you turn on the tablet PC, the RTC (Real-Time Clock) battery is at the end of its life. Call an authorized dealer to replace the RTC battery.</p> |



E. Hardware Driver Problem

| Condition | Check Point |
|---|---|
| <p>The tablet PC does not recognize a newly installed device.</p> | <ul style="list-style-type: none"> ● The device may not be correctly configured in the BIOS Setup program. Run the BIOS Setup program to identify the new type. ● Make sure if any device driver needs to be installed. (Refer to the documentation that came with the device.) ● Make sure if the device needs any jumper or switch settings. (Refer to the documentation that came with the device.) ● Check the cables or power cords for correct connections. ● For an external device that has its own power switch, make sure that the power is turned on. |

F. Hard Drive Problem

| Condition | Check Point |
|---|--|
| <p>The hard disk drive error message appears on the screen.</p> | <ul style="list-style-type: none"> ● The hard disk drive has defects. Ask your dealer for help. |
| <p>The hard drive operations seem slow.</p> | <ul style="list-style-type: none"> ● The data files stored on the hard disk drive may be fragmented. Use a tool such as Window's Disk Defragmenter to defragment the files. |
| <p>The hard drive indicator glows without blinking.</p> | <ul style="list-style-type: none"> ● The data files stored on the hard disk drive may be fragmented. Use a tool such as Window's Disk Defragmenter to defragment the files. |



G. LAN Problem

| Condition | Check Point |
|------------------------------|--|
| I cannot access the network. | <ul style="list-style-type: none"> ● Make sure that the LAN cable is properly connected to the RJ-45 connector and the network hub. ● Make sure that the network configuration is appropriate. ● Make sure that the user name or password is correct. |

H. Power Management Problems

| Condition | Check Point |
|---|--|
| The tablet PC does not enter Standby or Hibernation mode automatically. | <ul style="list-style-type: none"> ● If you have a connection to another computer, the tablet PC does not enter Standby or Hibernation mode if the connection is actively in use. ● Make sure that the Standby or Hibernation time-out is enabled. |
| The tablet PC does not enter Standby or Hibernation mode immediately. | <ul style="list-style-type: none"> ● If the tablet PC is performing an operation, it normally waits for the operation to finish. |
| The tablet PC does not resume from Standby or Hibernation mode. | <ul style="list-style-type: none"> ● The tablet PC automatically enters Standby or Hibernation mode when the battery pack is empty. ● Do any one of the following: <ul style="list-style-type: none"> - Connect the AC adapter to the tablet PC. - Replace the empty battery pack with a fully charged one. |

I. Startup Problems

| Condition | Check Point |
|---|--|
| When you turn on the tablet PC, it does not respond and the Power indicator does not light green. | <ul style="list-style-type: none"> ● If you are using an external AC power, make sure that the AC adapter is correctly and securely connected. If so, make sure that the electrical outlet works properly. ● If you are using the battery power, make sure that the battery is not discharged. ● Wait awhile. |
| When you turn on the tablet PC, it stops after POST. | <ul style="list-style-type: none"> ● Restart your tablet PC. |



J. Sound Problems

| Condition | Check Point |
|--|--|
| No sound is produced. | <ul style="list-style-type: none">● Make sure that the volume control is not set too low. Increase volume by pressing the button.● Make sure that the tablet PC is not in Standby mode.● If using an external speaker, make sure that the speaker is properly connected. |
| Distorted sound is produced. | <ul style="list-style-type: none">● Make sure that the volume control is not set too high or too low. In most cases, a high setting can cause the audio electronics to distort the sound. |
| The external audio device does not work. | <ul style="list-style-type: none">● Make sure that your tablet PC is equipped with the driver needed.● Click the speaker symbol on the taskbar and check the Windows volume control.● Check the volume control of your tablet PC. |



K. Wireless LAN Problem

| Condition | Check Point |
|---|---|
| I cannot use the wireless LAN feature. | <ul style="list-style-type: none"> ● Make sure that the wireless LAN feature is turned on. |
| Transmission quality is poor. | <ul style="list-style-type: none"> ● Your tablet PC may be in an out-of-range situation. Move your tablet PC closer to the Access Point or another wireless LAN device it is associated with. ● Check if there is high interference around the environment and solve the problem as described next. |
| Radio interference exists. | <ul style="list-style-type: none"> ● Move your tablet PC away from the device causing the radio interference such as microwave oven and large metal objects. ● Plug your tablet PC into an outlet on a different branch circuit from that used by the affecting device. ● Consult your dealer or an experienced radio technician for help. |
| I cannot connect to another wireless LAN device. | <ul style="list-style-type: none"> ● Make sure that the wireless LAN feature is turned on. ● Make sure that the SSID setting is the same for every wireless LAN device in the network. ● Your tablet PC is not recognizing changes. Restart the tablet PC. ● Make sure that the IP address or subnet mask setting is correct. |
| I cannot communicate with the computer in the network when Infrastructure mode is configured. | <ul style="list-style-type: none"> ● Make sure that the Access Point your tablet PC is associated with is powered on and all the LEDs are working properly. ● If the operating radio channel is in poor quality, change the Access Point and all the wireless station(s) within the BSSID to another radio channel. ● Your tablet PC may be in an out-of-range situation. Move your tablet PC closer to the Access Point it is associated with. ● Make sure that your tablet PC is configured with the same security option (encryption) to the Access Point. ● Use the Web Manager/Telnet of the Access Point to check whether it is connected to the network. ● Reconfigure and reset the Access Point. |



I cannot access the network.

- Make sure that the network configuration is appropriate.
- Make sure that the user name or password is correct.
- You have moved out of range of the network.
- Turn off power management.