M970D Rugged Tablet PC

(Intel® Atom Duo Core N2600 Based Tablet PC)

USERS MANUAL

Version: 1.2

9.7″ 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

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 it's 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 1W08Axxxxxxxx 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：

? ❿ Product serial number
? ❿ Peripheral attachments
? ❿ Software (OS, version, application software, etc.)
? ❿ Description of complete problem
? ❿ 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

⑩ 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.

⑩ 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.

FEDERAL COMMUNICATIONS COMMISSION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

RF exposure warning

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.
The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

RF exposure information (SAR)

This Rugged Table PC meets the government's requirements for exposure to radio waves. This Rugged Table PC 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 Rugged Table PC employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 2.0 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the Rugged Table PC transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the Rugged Table PC while operating can be well below the maximum value. This is because the Rugged Table PC is designed to operate at multiple power levels so as to use only the poser required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output. The highest SAR value for US model Rugged Table PC as reported to the FCC when tested for use at the body, as described in this user guide, is 0.35 W/kg.

Industry Canada Class B Statement

This Class [B] digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

This device complies with Industry Canada licence-exempt RSS standard(s).Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

IEEE 802.11b or 802.11g operation of this product in the Canada is firmware-limited to channels 1 through 11.

Déclarations d'exposition aux RF liéesAvertissement d'exposition RF: L'équipement est conforme aux limites d'exposition aux RF établies pour un environnement non contrôlé. L'antenne (s) utilisée pour ce transmetteur ne doit pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.

Ce dispositif est conforme à la norme de l'industrie Candada exempts de licence RSS (s). L'opération est soumise aux deux conditions suivantes: (1) Cet appareil ne peut causer d'interférences nuisibles, et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences qui peuvent causer un mauvais fonctionnement de l'appareil.

Packaging 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 Rugged Tablet PC Quick Start Guide.	
2	1 piece of CD for Recovery CD for Operation System (Windows embedded standard 7).	
3	1 piece of CD for M970D Manual.	
4	1 piece of 12V Adapter w/ Standard Power Cord. **(Euro / U.S. Std type, 1.8m)**	
5	LAN (female) Adapter cable	
6		
Optional Accessories		
1	Table Stand	
2	HDMI (female) Adapter cable	
3	Hand Strap	
4	Capacitive Touch Stylus	
5	VESA Mounting Kit	
6	Vehicle charger	

1	Power Button	**Press 2 seconds continuous** to turn-on the PC. Press	
2	LED Indicator	once to turn off backlight when PC is on. Press once to tune on backlight when backlight is off Need **8 seconds** continuous push to force the Tablet PC turn-off immediately. From right to left shows the status about Power mode, Battery mode, Storage and WiFi status mode.	
3	Menu	Push Menu function to show Brightness, Volume,Battery status and WiFi/ Bluetooth on/off.	Chapter 2.2.1
4	Hotkey (F1)	1 programmable Hot-key for user to define by application	Chapter 2.2.2

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
1 DC-in	Connect wit ___ ___ adapte f	

Contents

CHAPTER 1

Getting Started

CHAPTER 1 GETTING STARTED

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

1.1 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. Plug the DC cord of the AC   adapter to the
    power connector of the   tablet PC.

DC-Jack

2. Plug the female end of the   AC power cord to
    the AC adapter and the male end to the power electrical outlet.

3. 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 on the right side by 2-3 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.

Power

1.3 The Optimized Use for Sunlight Readable Touch screen.

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 fourty-five degree. And the optimized distance of view is 30cm.

**Caution

Although transflective 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 transflective 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 9.7 inch 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.

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LED Indicator Status Description

LED Term	Power mode	Battery Status	Storage Status	Wi Fi Status

LED Indicator

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.

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Right side Input

Power Button

LAN / HDMI

#	Components	Function Description	See Other Intro.

Item	Description	
Default Packing Accessories		
1	1 piece of Rugged Tablet PC Quick Start Guide.	

Item	Description	No
Default Packing Accessories		
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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.

1.5 Product Features and Specification

1.5.2 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. The 9.7″ rugged tablet provides an alternative solution for those between general consumer and extremely rugged application.

? 9.7″ 1024x768 Resolution IPS LED Panel
? Low-power system with Intel® Atom N2600 processor
? 2GB SODIMM DDR3-800 memory
? Built-in Wi-Fi/ Bluetooth Module
? Support 3G&GPS function (optional)
? Standard Battery 5300 mAh
? Mobile Rugged-Shock, Vibration, and transit drop
? 4 points Projective-capacity touch

1.5.2 Product Specification The product specification as the following table description:

System Specification

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System Specification (continues)

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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.

2.2 Starting and Stopping the Tablet PC

Starting the Tablet PC You always start the tablet PC using the power button, <u>**push the Power Button continuously by 2 seconds to turn on the Tablet PC.**</u>

Our Tablet PC will starts up with an operating system (OS) existing on the storage device like the hard disk. 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 XP 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:

1 Power Off Following the shutdown process during operating system. The standard process can prevent

#	Stop mode	How to do	Start or Resume again

unsave data loss or damage your software programs.

2 Sleep (S3) Under normal operating system, **Push the Power Button 0.5 second** to go to sleep mode.

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 function buttons. Our Tablet PC function buttons support very easy way and useful function to adjust Brightness, Volume and watch Battery current status. For 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 1st Time	Show Current Brightness	Click "**Vol+**" button to increase brightness (Or Drag by Touch)	Click "**Vol-**" to decrease brightness(Or Drag by Touch)	
2	Push "Menu" button 2nd Time	Show current Volume	Click "**Vol+**" button to increase volume(Or Drag by Touch)	Click " **Vol-**" to decrease volume(Or Drag by Touch)	
3	Push "Menu" button 3rd Time	Show current Battery status			

Menu Function Adjustment

4 **Push "Menu"**
   button

   4ᵗʰ Time

#	Action	Function Description	Funtion Adjustment
4	Push "Menu" button 4ᵗʰ Time	☑ Wi-Fi ☑ Bluetooth ☑ Camera ☑ 3G	Show current on/off of Wireless\ Bluetooth \ Camera and 3G\GPS mode. 1. WiFi on/off 2. Bluetooth on/off 3. Camera on/off
5	Push "Menu" button continuously 5 seconds	Lock Lock UnLock	

**NOTICE
 If you
     shutdown
     the Tablet
     PC during
     operating
     system(B
     y Touch)
     under

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5	LAN (female) Adapter cable	
6		

function

Push 5

Push 5 seconds to seconds to Unlock back t

o

normal Lock all operation button (not including Touch)**

2.2.2 How to use Hotkey Function

Hotkey Function

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

Long press (3~4 seconds) the "F1" button on the top of your M970D and you can see the software application at center of desktop.

Choose one software application as your hotkey function. After that, the software application which you set will open immediately when you short press "F1" button.

The Hotkey software program is the programmable application software for the Hotkey; 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.

Utilities Function

A. The first is virtual mouse

B. Screen rotation

C. Onscreen Keyboard

D. Camera Function

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1   F1 Short function key You can set F1 button as a hotkey to open the programs listed on menu or use "Browse" and choose the   execution program file.

2   Power Manage function

3   System Information When   you press "menu button"

4   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.

2.2.3 Connecting to a Wireless Network To connect to a wireless network:

1. Push "Menu" button 4 times and making sure the   Wireless function is "On".

2. Please using the defult Windows **Wireless Network**   **Connection** utility.

2.2.4 Using the Bluetooth Wireless Feature We apply Bluetooth 2.1+ EDR module for default function of the Tablet PC series. Depending on your application, the Bluetooth module can give you capability for short-range wireless communicaitons 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. Push "Menu" button 4 times and making   sure the Bluetooth function is "On".

2. Double click the Bluetooth shortcut and   it will search any bluetooth device automatically. Or double click "**Search Devices**" to search again.

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

2. When under connecting, left   click to check the connection status, or choose "**Unplug**" to remove the connection.

2.2.4 Using the 3G Feature (Optional) We apply a PCI Express® full size 3G module for optional function of the Tablet PC series. Depending on your application, the 3G module can datacard and host PC software combination deliver multiband CDMA2000® 1xEV-DO, UMTS, and GSM wireless wide area network (WWAN) connectivity in a single hardware configuration.

1. Push "Menu" button 4 times and   making sure the 3G Module is "On".

2. The shortcut of 3G application   program shown on screen, then
   to executive Mobile Partner Internet   connection management
   application.

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3. Confirm whether to detect the telecommunications system operators, then press the "Connect" connect to 3G networks.

4. After initialization is completed, it will automatically connect to 3G networks.

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

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

1. Push "Menu" button 4 times and   making sure the Camera function
   is "On".

2. Press "F1" button about 5 seconds to   into the HotTab utilities menu.
   Then choose the camera function.

3. Click the

   icon to take a   picture.

* Picture & video save path: C:\Webcam

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 cord by country area. Please contact with your dealer for appropriate power cord 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 out 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.

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.

<center>**NOTE:**</center>

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)**

3.2.3 Charging Approaches There is one way recommended to charge the battery pack. 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.

<center>**CAUTION:**</center>

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

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.)

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:
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, hard or USB flash disk, the battery might run out of charge very quickly.

CAUTION:
1. If you do not take any action, the tablet PC will automatically hibernate and turn off.
2. If you fail to save your data when the battery completely runs out of charge, then you will lose your data.
3.3 Power Management

The Tablet PC supports ACPI (Advanced Configuration and Power Interface) for power management. The power management feature allows you to reduce the power consumption for energy saving. With an ACPI-compliant operating system such as Windows XP, power supply to different tablet PC components is controlled on an as-needed basis. This allows maximum power conservation and performance at the same time. In general, Windows' power management works in following state:

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* Depends on

your settings in

Windows. For detailed information on power management, see Windows'

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 to connect with an 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. Modifing the specific hardware specification
4. Want to optimize the specification.

In order to control the keyboard to select BIOS utility setup, you need

**NOTICE You can press the F1, F2, F3, F4, −/+ and Esc keys by connecting a USB keyboard to your tablet PC. Make sure that the item

Item	Description	Note
Default Packing Accessories		
1	1 piece of Rugged Tablet PC Quick Start Guide.	
2	1 piece of CD for Recovery CD for Operation System (Windows embedded standard 7).	
3	1 piece of CD for M970D Manual.	
4	1 piece of 12V Adapter w/ Standard Power Cord. **(Euro / U.S. Std type, 1.8m)**	
5	LAN (female) Adapter cable	
6		
Optional Accessories		
1	Table Stand	
2	HDMI (female) Adapter cable	

"**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 RC version, system language, time, and date.

4.2.2 Advanced Menu The Advanced menu contains the selections of PXE OpROM and Watch Dog Timer, and the settings of PCI Subsystem, ACPI, and S5 RTC Wake. Besides, it also contains the configuration information of CPU, Thermal, IDE/SATA, USB, and PPM Configuration.

```
                    Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.
  Main  Advanced  Chipset  Boot  Security  Save & Exit

  BIOS Information                                              Intel Reference Code version
  BIOS Vendor                    American Megatrends
  Core Version                   4.6.5.1
  Compliancy                     UEFI 2.3; PI 1.2
  Project Version                ID90_102
  EC Version                     ID90P003
  VBIOS Vendor                   1024x768 18bit SC
  Build Date and Time            01/13/2012 16:06:32
► Intel RC Version

  System Language                [English]

  System Date                    [Mon 01/16/2012]
  System Time                    [13:30:55]                    →←: Select Screen
                                                               ↑↓: Select Item
  Access Level                   User                          Enter: Select
  Access Level                   Administrator                 +/-: Change Opt.
►                                                              F1: General Help
                                                               F2: Previous Values
                                                               F3: Optimized Defaults
                                                               F4: Save & Exit
                                                               ESC: Exit

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```

```
                    Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.
   Main  Advanced  Chipset  Boot  Security  Save & Exit
                                                               Enable or Disable Boot Options
  Legacy OpROM Support                                         for Legacy Network Devices.
  Launch PXE OpROM               [Disabled]
  Launch Storage OpROM           [Enabled]
  WARNING: Do not disable this option
  unless you have video device with UEFI driver.
  The option will be automatically re-enabled
  if no UEFI video device available.
  If you are seeing a black screen after
  disabling this option, reset the system.
  Launch Video OpROM             [Enabled]
  Watch Dog Timer Select         [Disabled]

► PCI Subsystem Settings                                       →←: Select Screen
► ACPI Settings                                                ↑↓: Select Item
► S5 RTC Wake Settings                                         Enter: Select
► CPU Configuration                                            +/-: Change Opt.
► Thermal Configuration                                        F1: General Help
► IDE Configuration                                            F2: Previous Values
► Intel Fast Flash Standy                                      F3: Optimized Defaults
► USB Configuration                                            F4: Save & Exit
► PPM Configuration                                            ESC: Exit

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```

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1. CPU Configuration

```
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     Advanced

     CPU Configuration                                       Enabled for Windows XP and
                                                             Linux (OS optimized for
     Processor Type            Intel(R) Atom(TM) CPU         Hyper-Threading Technology)
     EMT64                     Supported                     and Disabled for other OS (OS
     Processor Speed           1600 MHz                      not optimized for
     System Bus Speed          400 MHz                       Hyper-Threading Technology).
     Ratio Status              16
     Actual Ratio              16
     System Bus Speed          400 MHz
     Processor Stepping        30661
     Microcode Revision        262
     L1 Cache RAM              2x56 k
     L2 Cache RAM              2x512 k
     Processor Core            Dual                          →←: Select Screen
     Hyper-Threading           Supported                     ↑↓: Select Item
                                                             Enter: Select
     Hyper-Threading           [Enabled]                     +/-: Change Opt.
     Core-Multi Processing     [Enabled]                     F1: General Help
     Execute Disable Bit       [Enabled]                     F2: Previous Values
     Limit CPUID Maximum       [Disabled]                    F3: Optimized Defaults
     Intel Virtualization Technology  [Disabled]             F4: Save & Exit
                                                             ESC: Exit




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```

2. Thermal Configuration

```
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     Advanced

     Thermal Configuration                                   CPU Thermal Configuration
                                                             options
   ▶ CPU Thermal Configuration
   ▶ Platform Thermal Configuration







                                                             →←: Select Screen
                                                             ↑↓: Select Item
                                                             Enter: Select
                                                             +/-: Change Opt.
                                                             F1: General Help
                                                             F2: Previous Values
                                                             F3: Optimized Defaults
                                                             F4: Save & Exit
                                                             ESC: Exit



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```

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1. IDE / SATA Configuration

```
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         Advanced

    SATA Port0                        S-Module III-S (64.0G      SATA Ports (0-3) Device Names
                                                                 if Present and Enabled.
      SATA Controller(s)              [Enabled]

    Configure SATA as                 [AHCI]
      Port0 Speed Limit               [No Limit]

      SATA Port 0                     [Enabled]
      SATA Port 0 Hot Plug            [Enabled]

    Misc Configuration for hard disk
                                                                 →←: Select Screen
                                                                 ↑↓: Select Item
                                                                 Enter: Select
                                                                 +/-: Change Opt.
                                                                 F1: General Help
                                                                 F2: Previous Values
                                                                 F3: Optimized Defaults
                                                                 F4: Save & Exit
                                                                 ESC: Exit



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```

2. USB Configuration

```
                Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.
         Advanced

    USB Configuration                                    ▲       Enables Legacy USB support.
                                                                 AUTO option disables legacy
    USB Devices:                                                 support if no USB devices are
         1 Drive, 1 Keyboard, 1 Hub                              connected. DISABLE option will
                                                                 keep USB devices available
    USB Support                       [Enabled]                  only for EFI applications.
    Legacy USB Support                [Enabled]
    EHCI Hand-off                     [Disabled]

    USB hardware delays and time-outs:
    USB transfer time-out             [20 sec]
    Device reset time-out             [20 sec]
    Device power-up delay             [Auto]
    Device power-up delay in seconds   5                         →←: Select Screen
                                                                 ↑↓: Select Item
    Mass Storage Devices:                                        Enter: Select
    KingstonDataTraveler 2.0PMAP      [Auto]                     +/-: Change Opt.
    N/A                               [Auto]                     F1: General Help
    N/A                               [Auto]                     F2: Previous Values
    N/A                               [Auto]                     F3: Optimized Defaults
    N/A                               [Auto]                     F4: Save & Exit
    N/A                               [Auto]                     ESC: Exit
    N/A                               [Auto]
    N/A                               [Auto]
    N/A                               [Auto]                ▼

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```

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5. PPM Configuration

4.2.3 Chipset Menu
The Chipset menu
contains the
information of Host
Bridge and South
Bridge.

```
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     Advanced

   PPM Configuration                                         Enable/Disable Intel SpeedStep

   EIST                           [Enabled]
   CPU C state Report             [Enabled]
      Enhanced C state            [Enabled]
      CPU Hard C4E                [Enabled]
      CPU C6 state                [Enabled]
   C4 Exit Timing                 [Fast]
   C-state POPDOWN                [Enabled]
   C-state POPUP                  [Enabled]

                                                            →←: Select Screen
                                                            ↑↓: Select Item
                                                            Enter: Select
                                                            +/-: Change Opt.
                                                            F1: General Help
                                                            F2: Previous Values
                                                            F3: Optimized Defaults
                                                            F4: Save & Exit
                                                            ESC: Exit

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```

```
            Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.
     Main  Advanced  Chipset  Boot  Security  Save & Exit

   ▶ Host Bridge                                            Host Bridge Parameters
   ▶ South Bridge

                                                            →←: Select Screen
                                                            ↑↓: Select Item
                                                            Enter: Select
                                                            +/-: Change Opt.
                                                            F1: General Help
                                                            F2: Previous Values
                                                            F3: Optimized Defaults
                                                            F4: Save & Exit
                                                            ESC: Exit

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```

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4.2.4 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:

4.2.5 Security Menu In the Security menu, users can set Administrator Password, User Passwaord, and HDD Security Configuration.

```
          Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.
  Main  Advanced  Chipset  Boot  Security  Save & Exit

  Boot Configuration                                       Set display mode for Option ROM
  Setup Prompt Timeout              1
  Bootup NumLock State              [On]

  Quiet Boot                        [Disabled]
  Fast Boot                         [Enabled]
   Skip VGA                         [Disabled]
   Skip USB                         [Disabled]
   Skip PS2                         [Disabled]

  CSM16 Module Version              07.65

  GateA20 Active                    [Upon Request]
  Option ROM Messages               [Force BIOS]       ↔: Select Screen
  Interrupt 19 Capture              [Disabled]         ↑↓: Select Item
                                                       Enter: Select
  Boot Option Priorities                               +/-: Change Opt.
  Boot Option #1                    [UEFI: KingstonData...]  F1: General Help
  Boot Option #2                    [UEFI: Built-in EFI...]  F2: Previous Values
  Boot Option #3                    [SATA PM: S-Module...]   F3: Optimized Defaults
                                                       F4: Save & Exit
  Hard Drive BBS Priorities                            ESC: Exit



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```

```
          Aptio Setup Utility - Copyright (C) 2011 American Megatrends, Inc.
  Main  Advanced  Chipset  Boot  Security  Save & Exit

  Password Description                                      Set Administrator Password

  If ONLY the Administrator's password is set,
  then this only limits access to Setup and is
  only asked for when entering Setup.
  If ONLY the User's password is set, then this
  is a power on password and must be entered to
  boot or enter Setup. In Setup the User will
  have Administrator rights.
  The password length must be
  in the following range:
  Minimum length                    3
  Maximum length                    20
                                                       ↔: Select Screen
                                                       ↑↓: Select Item
  Administrator Password                               Enter: Select
  User Password                                        +/-: Change Opt.
                                                       F1: General Help
                                                       F2: Previous Values
  HDD Security Configuration:                          F3: Optimized Defaults
  HDD 0:S-Module III                                   F4: Save & Exit
                                                       ESC: Exit



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```

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4.2.6 Save & 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 Canges 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. **Save Canges and Rest** saves the changes you have made and resets BIOS system. **Discarding Changes and Reset** resets BIOS system without saving the changes you have made. **Save Changes** done so far to any of the setup options. **Discard Changes** done so far to any of the setup options. **Resotre Defaults** loads/restore the factory default values for all the items. **Save as User Defaults** saves the changes one so far as User Defaults. **Restore User Defaults** loads/restore the User default values for all the items.

```
            Aptio Setup Utility – Copyright (C) 2011 American Megatrends, Inc.
     Main  Advanced  Chipset  Boot  Security  Save & Exit

   Save Changes and Exit                              Exit system setup after saving
   Discard Changes and Exit                           the changes.
   Save Changes and Reset
   Discard Changes and Reset

   Save Options
   Save Changes
   Discard Changes

   Restore Defaults
   Save as User Defaults
   Restore User Defaults

   Boot Override                                      →←: Select Screen
   UEFI: Built-in EFI Shell                           ↑↓: Select Item
   UEFI: KingstonDataTraveler 2.0PMAP                 Enter: Select
   SATA  PM: S-Module III-S3                          +/-: Change Opt.
   KingstonDataTraveler 2.0PMAP                       F1: General Help
                                                      F2: Previous Values
                                                      F3: Optimized Defaults
                                                      F4: Save & Exit
                                                      ESC: Exit

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```

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