

A AXIOMTEK

GOT810-845

10.4" XGA TFT
Touch Panel Computer

User's Manual

IP69K certification distinguishes the highest level of reliability



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Safety Precautions

Before getting started, please read the following important safety precautions.

- The GOT810-845 does not come equipped with an operating system. An operating system must be loaded first before installing any software into the computer.
- 2. Be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and place all electronic components in any static-shielded devices. Most electronic components are sensitive to static electrical charge.
- Disconnect the power cord from the GOT810-845 before any installation. Be sure both the system and external devices are turned OFF. A sudden surge of power could ruin sensitive components that the GOT810-845 must be properly grounded.
- 4. The brightness of the flat panel display will be getting weaker as a result of frequent usage. However, the operating period varies depending on the application environment.
- 5. Turn OFF the system power before cleaning. Clean the system using a cloth only. Do not spray any liquid cleaner directly onto the screen. The GOT810-845 may come with or w/o a touchscreen. Although the touchscreen is chemical resistant, it is recommended that you spray the liquid cleaner on a cloth first before wiping the screen. In case your system comes without the touchscreen, you must follow the same procedure and not spray any cleaner on the flat panel directly.
- 6. Avoid using sharp objects to operate the touchscreen. Scratches on the touchscreen may cause malfunction or internal failure to the touchscreen.
- 7. The flat panel display is not susceptible to shock or vibration. When assembling the GOT810-845, make sure it is securely installed.
- 8. Do not open the system's back cover. If opening the cover for maintenance is a must, only a trained technician is allowed to do so. Integrated circuits on computer boards are sensitive to static electricity. To avoid damaging chips from electrostatic discharge, observe the following precautions:
 - ➤ Before handling a board or integrated circuit, touch an unpainted portion of the system unit chassis for a few seconds. This will help to discharge any static electricity on your body.
 - > When handling boards and components, wear a wrist-grounding strap, available from most electronic component stores.

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CHAPTER 1 Introduction

This chapter contains general information and detailed specifications of the GOT810-845. Chapter 1 includes the following sections:

- General Description
- Specification
- Dimensions
- I/O Outlets
- Package List

1.1 General Description

The GOT810-845 is a fan-less and compact-size touch panel computer, equipped with a 10.4" XGA TFT LCD display and an Intel® Pentium® Processor N3060 (2M Cache, 1.60 GHz), providing excellent computing performance and thermal resistance. This fanless platform is especially designed for space-limited applications in food and beverage industry.

- GOT810-845: 10.4" TFT XGA Fanless Touch Panel Computer
 - > Reliable and Stable Design
 - The GOT810-845 adopts a fanless cooling system which makes it suitable for vibration environments.
 - Embedded O.S. Supported
 - The GOT810-845 not only supports Windows 7, Windows 8.x and Windows 10, but also supports embedded OS,. For storage device, the GOT810-845 supports an optional half –slim SSD device and a mSATA..
 - > Industrial-grade Product Design
 - The GOT810-845 has an incredible design to be used in different industrial environments.
- The whole enclasure meets the IP66 standard.
- For connecting other devices, the GOT810-845 also features several interfaces: USB, Ethernet, and RS-232/422/485.

1.2 Specifications

1.2.1 Main CPU Board

- CPU
 - Intel® Pentium® Processor N3060 (2M Cache, 1.60 GHz) onboard
- System Memory
 - One 204-pin DDR3L SO-DIMM socket
 - Maximum memory up to 8GB
- BIOS
 - AMI UEFI BIOS
- Power
 - Wide range power 9V~36VDC

1.2.2 I/O System

- Standard I/O
 - 1 x RS-232/422/485(default RS-232) (M12 A-code connector)
 - 1 x RS-232 Only(M12 A-code connector)
 - 1 x M12 for USB 2.0 x 2 (M12 A-code connector)
- Ethernet
 - 1 x M12 for Ethernet (X-code)
- Expansion
 - 2 x PCle Mini-card slot
 - 1 x full size Mini-card for mSATA
 - 1 x full size Mini-card for WiFi
- Storage
 - 1 x mSATA
 - 1 x SATA

1.2.3 System Specification

- 10.4" TFT LCD
 - 10.4" XGA 350nits, resolution: 1024x768
- Heat Dispensing Design
- Disk drive housing
 - One 2.5" SATA drive (optional)
- Net Weight
 - 2.8Kgs (6.17 lb)
- Dimension (Main Body Size)
 - 284mm x 241mm x 56mm
- Operation Temperature
 - -10°C to 50°C
- Relative Humidity
 - 20% to 90% @ 40°C, Non-Condensing
- Vibration
 - 2G / 10 ~ 500Hz / operation (SSD/mSATA, random)



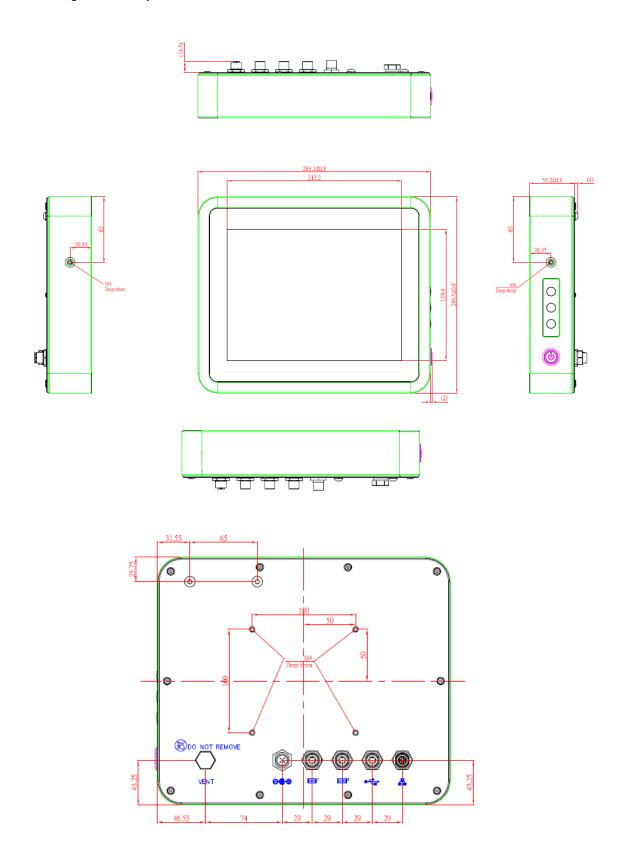
Note

- 1. All specifications and images are subject to change without notice.
- 2. The GOT810-845 is suited on serious environment; please choose the wide temperature DRAM and SSD.
- 3. If the operation temperature is higher than 35 $\mathcal C$, the wide temperature HDD is recommended to be used on the device.
- 4. If the operation temperature is higher than 45 $\mathcal C$, the wide temperature SSD is recommended to be used on the device.

Warning: According to the warrantee is adopt for the IP66 guarantee, please choose SSD and RAM by Axiomtek, also please kindly don't disassemble the system by vouself.

1.3 Dimensions

This diagram shows you dimensions and outlines of the GOT810-845.



1.4 I/O Outlets

Please refer to the following illustration for I/O locations of the GOT810-845.



No	Function
1	Backlight ON/OFF
2	Brightness Adjust
3	Power Switch(ATX)
4	Ventilation valve
5	DC power connector (A-coded)
6	COM1(configure RS422/485, default RS-232, A-code)
7	COM2(RS232 Only, A-code)
8	USB2.0 × 2 (A-code)
9	Ethernet (X-code)

1.5 Antenna installation (optional)

If you have the optional wireless module, you will find the antenna in the accessory box. The installation instructions are as follows



1.6 Package List

When you receive the GOT810-845, the bundled package should contain the following items:

- GOT810-845 x 1
- Driver CD x1
- DC cable x1
- Power Adapter (optional)
- Water-proof Power / USB / LAN / RS-232 cables (optional)
- Water-proof Antenna for Wifi or UMTS/HSPA+ (optional)
- VESA ARM(optional)

If you can not find the package or any items are missing, please contact Axiomtek distributors immediately.

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CHAPTER 2 System Configurations

The GOT810-845 provides rich I/O ports and flexible expansions for you to meet different demand, for example, CF. The chapter will show you how to install the hardware. It includes:

- I/O Pin Assignment
- Hard Disk and DRAM
- Wireless LAN Card (Optional)
- Water-proof cables (Optional)
- Hanging and VESA mounting (Optional)

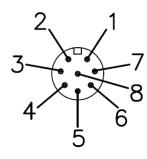
2.1 I/O Pin Assignment

The GOT810-845 has two serial ports, COM1(RS-232/422/485, default RS-232) and COM2 (RS-232 Only), Ethernet, USB, and DC-in 9~36V connecter.

2.1.1 Serial Port Interface

The following table shows you the pin assignments of this connector:

Pin	RS-232	RS-422	RS-485
1	DCD	TX-	Data-
2	RXD	TX+	Data+
3	TXD	RX+	No use
4	DTR	RX-	No use
	GND	GND	GND
5	DSR	No use	No use
6	RTS	No use	No use
7	CTS	No use	No use
8	RI	No use	No use





Each port +5V Maximum: 2A, +12V Maximum: 1A.

Note

Warning: According the warrantee is adopt for the IP66 guarantee, please inform the COM1 setting when ordering, also please kindly don't disassemble the system by youself.

When receiving information via RS422/485, if there appear some wrong codes, please check whether to connect to GND at both ends. The standard method of RS422/485 is to connect GND at both end and make sure that receiver and transmitter have the common ground.

2.1.2 Ethernet

The GOT810-845 is equipped with a high performance Plug and Play Ethernet interface, full compliant with IEEE 802.3 standard, and can be connected with a M12 X-CODE LAN connector.

Please refer to detailed pin assignment list below:

Pin	Signal	Pin	Signal
L1	MDI0P	L5	MDI2P
L2	MDION	L6	MDI2N
L3	MDI1P	L7	MDI3P
L4	MDI1N	L8	MDI3N



2.1.3 USB Port

The USB is a Universal Serial Bus (compliant with USB 2.0 (480Mbps)) connector on the rear I/O. It is commonly used for installing USB peripherals such as keyboard, mouse, scanner, etc.

Pin	Signal	Pin	Signal
1	USB VCC (+5V level)	5	USB VCC (+5V level)
2	USB #0_D-	6	USB #1_D-
3	USB #0_D+	7	USB #1_D+
4	GND	8	GND

2.1.4 DC Power Jack w/ M12 connector

Pin	Signal
1	+9~36V
2	+9~36V
3	GND
4	GND
5	Earth Gound

10



2.2 Water-proof Cables

GOT-800 series uses specific M12 connector for water-proof. Therefore you will order each cable base on application.

There are four kind cables of GOT810, by the optional, if you will apply the USB, COM or Etherent then you can select a cable for the package.

The Power cable included in the accessory box, when you will need the power adapter, also it can be sesected by optional.

2.2.1 Power cable

Please follow pin assignement for the power input.



Pin	Signal
V+	DC 9~36V power input
\bigoplus	Earth Ground
GND	GND
GND	GND



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2.2.2 Power adapter for GOT810-845

If you order the power adapter, you should choose the power cord type for your location.

The power adapter is +24VDC(90W), 110-240V which is combined M12 connector.



The power adapter is +24VDC(60W), 110-240V which is combined M12 connector. The adapter is all waterproof with EU cable



2.2.3 COM

There are two COM cables which are combined M12 connector. Also, you can refer 2.1.1 for the Series port pin assignement.



2.2.4 USB cables

The USB cable is combined M12 connector for water-proof. It is extended two USB ports for application.



2.3 Mounting Method

There are two mounting ways for the ${\sf GOT810\text{-}845}$. One is suspension, the other is VESA mount.

2.3.1 VESA mounting

The GOT810 can accept VESA 100.



2.3.2 VESA-ARM Mounting

Step 1 Find out the 4 screws as marked on the back side of chassis.



Step 2 Assemble the VESA-ARM to the back side of the chassis, and fix the screws.





Step 3 VESA mounting Installation completed.



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CHAPTER 3 AMI BIOS Setup Utility

This Section provides users with detailed descriptions about how to set up basic system configurations through the AMI BIOS setup utility.

3.1 Navigation Keys

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the hot keys for the BIOS setup utility can be used at any time during the setup navigation process. These hot keys include <F1>, <F2>, <F3>, <F4>, <Enter>, <ESC>, arrow keys, and so on (as listed in Table 3-1).

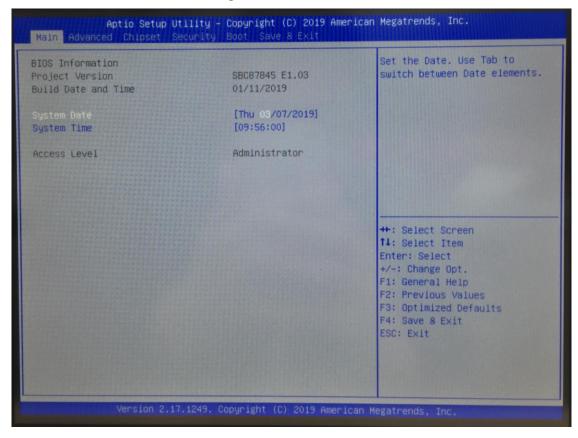
NOTE: Some of navigation keys may differ from one screen to another.

Table 3-1 Descriptions of hot keys

Hot Keys	Descriptions	
<→> and <←> Left/Right	The <→> and <←> keys are used to select a setup screen.	
<∱> and <√> Up/Down	The $< \uparrow >$ and $< \psi >$ keys are used to select a setup screen or subscreen.	
<+> and <-> Plus/Minus	The <+> and <-> keys you are used to change the field value of a particular setup item.	
<tab></tab>	The <tab> key is used to select setup fields.</tab>	
<f1></f1>	The <f1> key is used to display the general help screen.</f1>	
<f2></f2>	The <f2> key is used to load previous values.</f2>	
<f3></f3>	The <f3> key is used to load optimized defaults.</f3>	
<f4></f4>	The <f4> key is used to save any changes made then exit the setup. Press the <f4> key to save any changes.</f4></f4>	
<esc></esc>	The <esc> key is used to discard any changes made then exit the setup. Press the <esc> key to exit the setup without saving your changes.</esc></esc>	
<enter></enter>	The <enter> key is used to display or change the setup option listed for a particular setup item. The <enter> key is also used to display the setup sub- screens.</enter></enter>	

3.2 Main Menu

Figure 3-1 Main menu

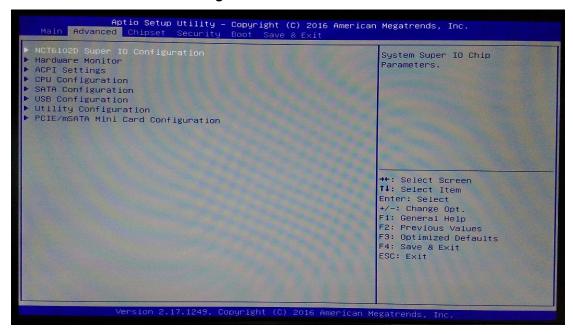


• System Date / Time

Use this option to change the system time and date. Highlight *System Time* or *System Date* using the up/ down/ left and right arrow keys (see Figure 3-1). Enter new values through the keyboard. Press the <Tab> key or the arrow keys to move between fields. The date entered must be in the MM/DD/YY format. The time is entered in HH:MM:SS format.

3.3 Advanced Menu

Figure 3-2 Advanced Menu



The Advanced menu allows users to set configurations of the CPU and other system devices. Select any item on the left to go to the sub-menus (as shown in Figure 3-2).

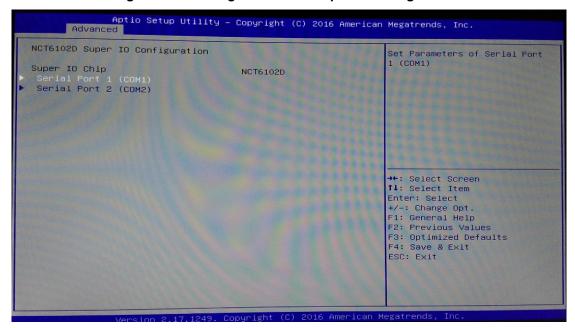
- ► NCT6106D Super IO Configuration
- ► Hardware Monitor
- ▶ ACPI Settings
- ► CPU Configuration
- ► SATA Configuration
- USB Configuration
- Utility Configuration
- ► PCIE/mSATA Mini Card Configuration

Simply highlight the item of choice, then press <Enter> to go to sub-menus for more specific options.

3.3.1 NCT6106D Super IO Configuration

The 'NCT6106D Super IO Configuration' page is to change the value of the Super IO Configuration. The description of the selected item will appear on the right side of the screen (as shown in Figure 3-3). For items marked with "▶", please press <Enter> for further options (as shown in Figure 3-4).

Figure 3-3 Entering 'NCT6106D Super IO Configuration'



► Serial Port 1 (COM1) / Serial Port 2 (COM2)

Serial port

This option is used to enable or disable serial port COM1/COM2.

Device Setting

This item specifies the base I/O port address and the Interrupt Request (IRQ) address of the serial ports.

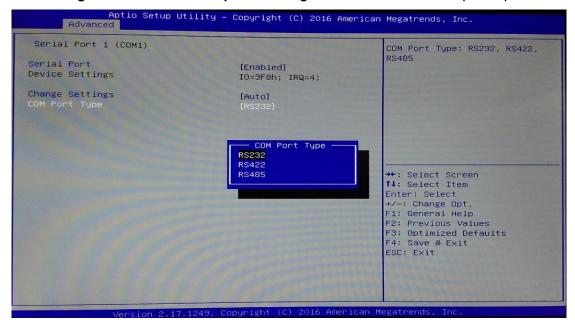
Optimal setting for Port 1 is 3F8/IRQ4.

Optimal setting for Port 2 is 2E8/IRQ3.

COM Port Type

This option is used to select COM Port Type: RS-232/422/ or 485.

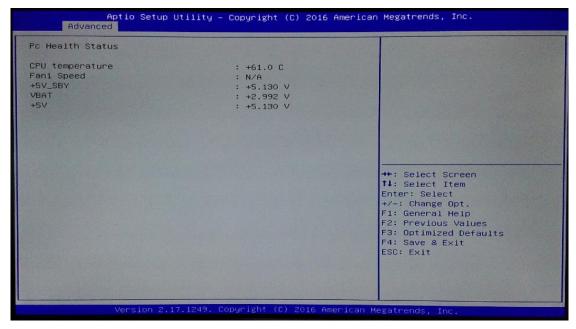
Figure 3-4 'NCT6106D Super IO Configuration' -> 'Serial Port 1 (COM1)'



3.3.2 Hardware Monitor

Figure 3-5 shows a screen reflecting the health status of the hardware in real time.

Figure 3-5 Entering 'Hardware Monitor'



3.3.3 ACPI Settings

This screen is used to select options of the ACPI Configuration, and change the value of the

selected option. A description of the selected item appears on the right side of the screen.

ACPI Sleep State

This item allows users to select the *Advanced Configuration and Power Interface* (ACPI) state to be used for system suspension. There are two choices under this selection: *Suspend Disable* and *S3 (Suspend to RAM)* (as shown in Figure 3-6).

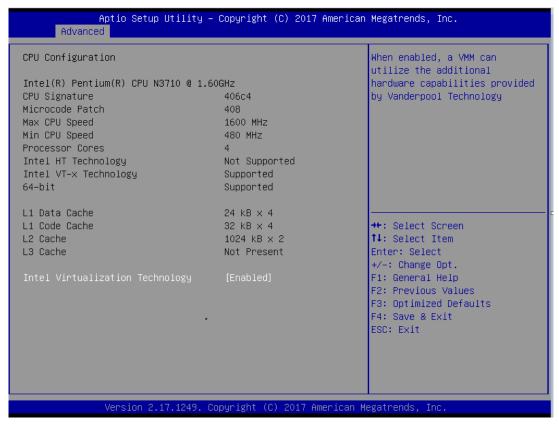
Figure 3-6 Entering 'ACPI Settings'



3.3.4 CPU Configuration

Figure 3-7 shows a page of CPU configuration with item *Intel Virtualization Technology* [enable/disable] highlighted.

Figure 3-7 Entering 'CPU Configuration'



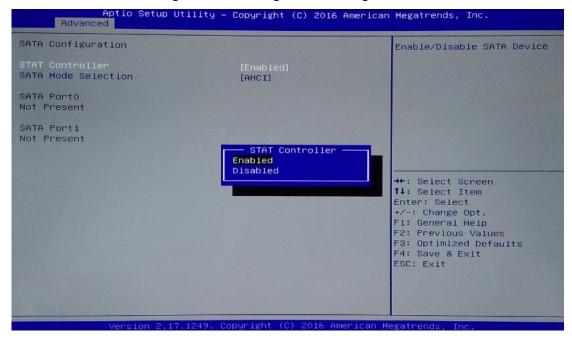
3.3.5 SATA Configuration

This screen allows users to select options for SATA Configuration, and change the value of the selected option (see Figure 3-8).

SATA Controller

Highlight this item to set up SATA Controller to be Enable or Disable.

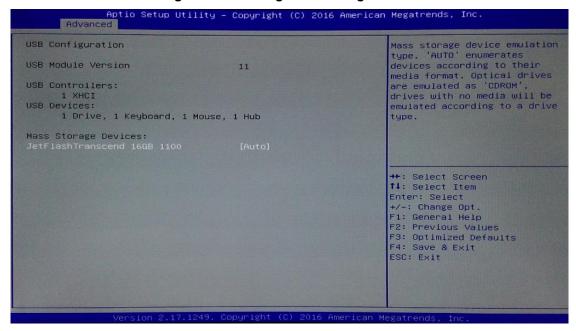
Figure 3-8 Entering 'SATA Configuration'



3.3.6 USB Configuration

Please see Figure 3-9 to see what items can be set up under the page of USB Configuration.

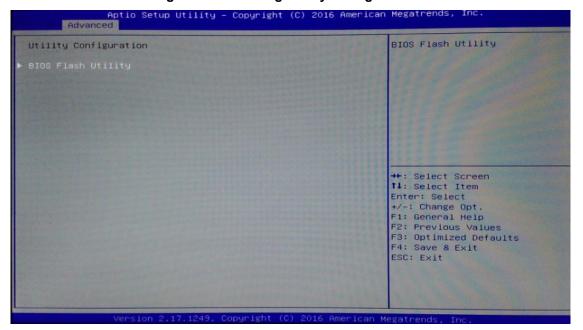
Figure 3-9 Entering 'USB Configuration'



3.3.7 Utility Configuration

Figure 3-10 shows the page once entering Utility Configuration.

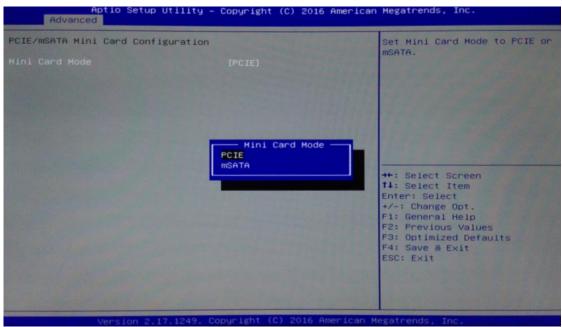
Figure 3-10 Entering 'Utility Configuration'



3.3.8 PCIE/mSATA Mini Card Configuration

Highlighting item *PCIE/mSATA Mini Card Configuration* under the Advanced Menu, hit <Enter> to enter a sub-screen as shown in Figure 3-11. There are two choices for *Mino Card Mode*: PCIE and mSATA.

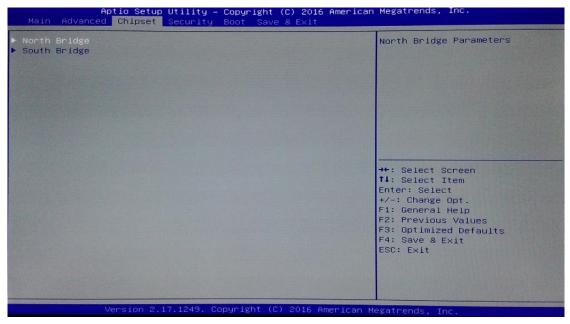
Figure 3-11 Entering 'PCIE/mSATA Mini Card Configuration'



3.4 Chipset Menu

The Chipset menu gives memory information about the *North Bridge* and TXE information about the *South Bridge* (see Figure 3-12).

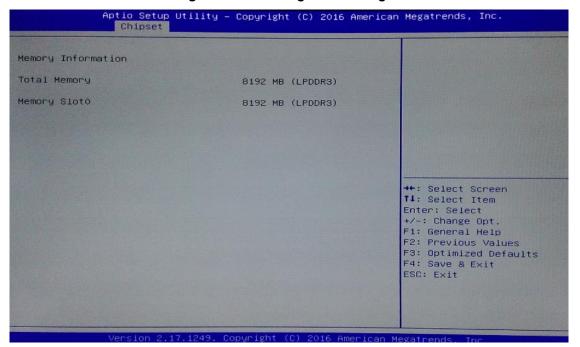
Figure 3-12 Chipset Menu



3.4.1 North Bridge

Memory information about the North Bridge is show in Figure 3-13.

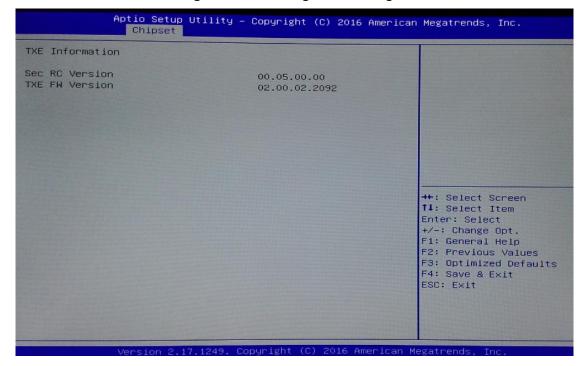
Figure 3-13 Entering 'North Bridge'



3.4.2 South Bridge

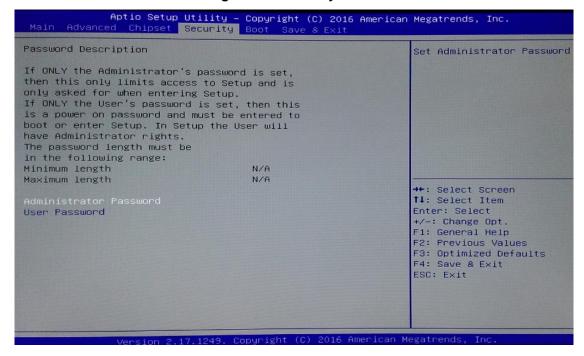
TXE information about the South Bridge is show in Figure 3-14.

Figure 3-14 Entering 'South Bridge'



3.5 Security Menu

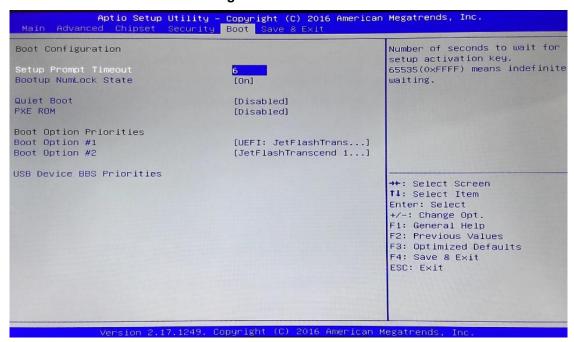
Figure 3-15 Security Menu



3.6 Boot Menu

The Boot menu allows users to change boot options of the system. Users can highlight any of the items on the left frame of the screen to go to any particular sub menus (as shown in Figure 3-16).

Figure 3-16 Boot Menu



Setup Prompt Timeout

Enter a numeric value here as the length for timeout.

Bootup NumLock State

Use this item to select the power-on state for NumLock. The default setting is [On].

Quiet Boot

Use this item to enable or disable the Quite Boot state. The default setting is [Disabled].

PXE ROM

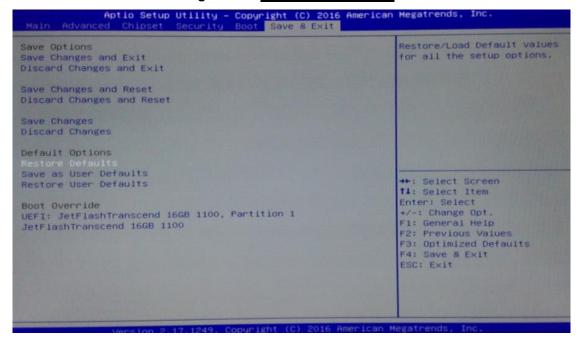
Use this item to enable or disable the Pre-boot Execution Environment (PXE). The default setting is [Disabled].

Boot Option Priorities

Use this item to specify the overall boot order among the available devices.

3.7 Save & Exit Menu

Figure 3-17 Save & Exit Menu



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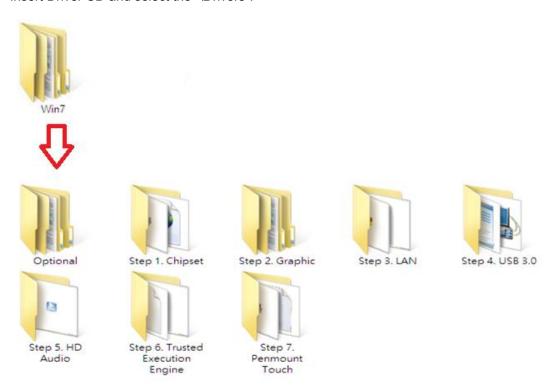
CHAPTER 4 Drivers Installation

4.1 System

GOT810-845 supports Windows 7, Windows 8/8.1,WES 7 and WE8S. To facilitate the installation of system driver, please carefully read the instructions in this chapter before start installing.

4.1.1 Win 7

Insert Driver CD and select the "\Drivers".



2. Select all files and follow the installing procedure.

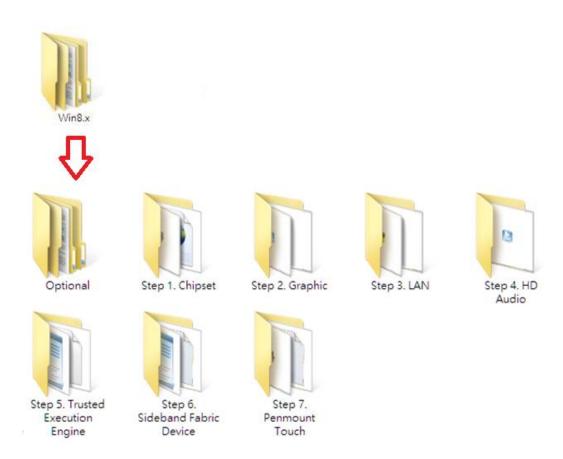


If you didn't install graphics driver, it only can be resumed via VGA display when VGA and DP go to sleep mode.

Note

4.1.2 Win 8/8.x

1. Insert Driver CD and select the "\Drivers".



2. Select all files and follow the installing procedure.



If you didn't install graphics driver, it only can be resumed via VGA display when VGA and DP go to sleep mode.

Note

4.2 Touch Screen

The GOT810-845 uses the 5-wire analog resistive (flat front bezel type). There are the specification and driver installation which are listed below.

4.2.1 Specification

Touch Screen	5-wire Analog Resistive type
Touch Screen Controller	PenMount 6000 USB Touch Screen Controller IC
Communications	USB interface
Resolution	1024 x 1024
Power Input	5V
Power Consumption	Active: 24.6mA / Idle Mode: 13.4mA

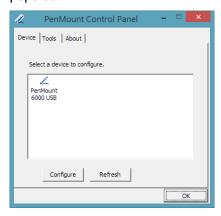
4.2.2 Driver Installation- Windows 7/8.x

The GOT810-845 provides a touch screen driver that users can install it under the operating system Windows 7/8.x. To facilitate installation of the touch screen driver, you should read the instructions in this chapter carefully before you attempt installation.

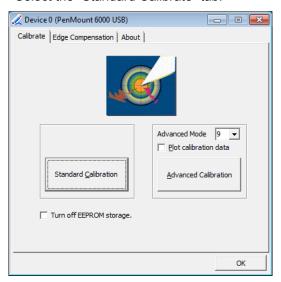
1. Insert Driver CD and follow the path to select the "\Drivers\Step 7 - Touch".



- 2. Follow the installing procedure and press OK.
- 3. Click Start menu and select "PenMount Utilties"; and then, a "PenMount Control Panel" pops out.

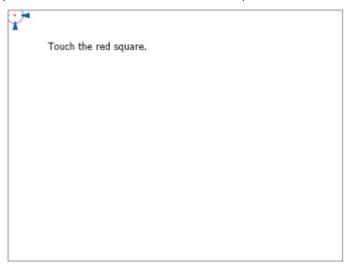


4. Select the "Standard Calibrate" tab.



5. Calibration:

To adjust the display with touch panel, click "Calibration" and follow the calibrate point to do calibration; there are five points on screen for calibration.



6. Press OK.

4.3 Embedded O.S.

The GOT810-845 provides the WES 7 and WE8S Embedded. The O.S. is supported devices which are listed below.

4.3.1 WES 7 & WE8S

Here are supported onboard devices:

- Onboard Multi I/O
- SATA HDD
- USB
- CRT/LCD display
- 10/100/1000 base-T Ethernet
- CFastTM or mSATA
- Onboard Audio
- Touch Screen

PenMount Touch screen

Before you can use and calibrate it, here is what you should do:

- Set up Penmount touch device driver by executing C:\Penmount\ Windows 2000-XP V5.0\setup.exe. When the installation is finished, an icon "PM" appears on the Taskbar.
- 2. Calibrate Penmount touch by clicking on the "PM" icon, and the go on the calibration.
- 3. Restart the computer.

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