

GOT3157W-834-PCT

All-in-One 15.6" WXGA TFT Fanless Multi-Touch PANEL PC

User's Manual



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CAUTION

If you replace wrong batteries, it causes the danger of explosion. It is recommended by the manufacturer that you follow the manufacturer's instructions to only replace the same or equivalent type of battery, and dispose of used ones.

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Safety Precautions

Before getting started, read the following important cautions.

- 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 cords from the GOT3157W-834-PCT Series before making any installation. Be sure both the system and the external devices are turned OFF. Sudden surge of power could ruin sensitive components. Make sure the GOT3157W-834-PCT Series is properly grounded.
- 3. Do not open the system's rear 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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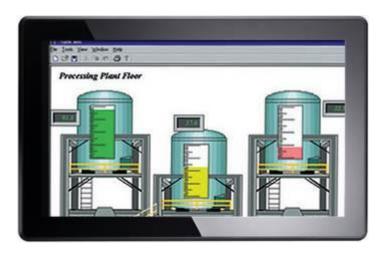
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Chapter 1 Introduction

This chapter contains general information and detailed specifications of the GOT3157W-834-PCT. Chapter 1 includes the following sections:



- General Description
- Specifications
- Dimensions and outlines
- I/O Outlets
- Package List

1.1 General Description

The GOT3157W-834-PCT adopts a 15.6-inch WXGA TFT LCD with 400-nit brightness and an Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz) to provide excellent computing performance and thermal resistance. This fanless platform is especially designed for operating under harsh environment including steel refinery, oil pipe, ship, machine maker operating systems and many more. Having below abilities makes GOT3157W-834-PCT surely a most robust and cost-effective solution.

Extended Operating Temperature Range with Fanless & IP65 front design

GOT3157W-834-PCT features a technology of extended operating temperature range which allows it to work between -10°C to +50°C. It incorporates compact ID and fanless cooling system with a low power Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz), IP65 front bezel to prevent from liquid or dust, making the platform a power-efficient solution.

Reliable and Stable Design

The GOT3157W-834-PCT adopts a fan-less cooling system, which makes it especially suitable for vibration-heavy environments, best for the transportation, ship, and industrial machinery markets. For high capacity storage requirement, GOT3157W-834-PCT can work under 2.0G ($10 \sim 500$ Hz, random for CFastTM) in operation mode with a patent of anti-vibration design. The patent improves the system reliability and sustainability.(Note: Sometimes heavy-vibration may cause the LCD screen flash with white color. It won't affect product function.)

WLAN Antenna Supported (optional)

GOT3157W-834-PCT has 2 PCI Express Mini Card slots for optional add-on such as wireless LAN card for 802.11 a/b/g/n connections, 3G/GPRS application, and more. These slots also provide 3 optional fixed rotational WLAN/3G antennas for wireless network connection.

Multi-Touch PCAP touch with 7H surface hardness

It is designed with user friendly multi-touch PCAP touch. Users can operation it directly. The surface hardness is up to 7H and is good for anti-scratch purpose applications.

More Features

GOT3157W-834-PCT utilizes one 204-pin DDR3L SODIMM system memory max. up to 8GB, one SATA HDD and one CFast™ or mSATA. It provides over-current protection-fuse and a full set of I/O including RS-232/422/485, USB 2.0, USB 3.0, audio (line-out), and Gigabit Ethernet. Additionally, this slim unit supports panel mount, wall mount (optional), VESA mount (optional) and desktop stand (optional).

1.2 Specifications

Main CPU Board

- CPU
 - Intel® Celeron® Processor J1900 (2M Cache, up to 2.42 GHz) onboard
- System Memory
 - One 204-pin DDR3L SO-DIMM socket
 - Maximum memory up to 8GB
- BIOS
 - America Megatrends BIOS

I/O System

- Standard I/O
 - 2 x RS-232/422/485
 - 2 x USB 2.0
 - 2 x USB 3.0
- Ethernet
 - 2 x RJ45 for Giga Ethernet (Intel i210IT)
- Audio
 - 1x Line-out
- Expansion
 - 1 x Mini-card slot (w/SIM slot)
 - 1 x Mini-card slot (supports mSATA, optional)
- Storage
 - 1 x 2.5" SATA
 - 1 x CFastTM slot or mSATA

Power connector

Phoenix power connector or Screw power connector

System Specification

- 15.6" WXGA (1366x768) LCD with LED backlight
- **Multi-touch PCAP touch**
- Fanless Heat Dispensing Design
- IP65 front bezel
- Disk drive housing:
 - One 2.5" SATA drive
- **Net Weight**
 - 5.0 Kgs
- Dimension (Main Body Size)
 - 396.8 x 53.9x 247.1 mm
- Operation Temperature
 - -10°C to 50°C
- Relative Humidity
 - 20% to 90% @ 40°C, Non-Condensing
- System Power input
 - DC power input: 9~36VDC with phoenix power connector
 - AC power input : 12VDC, 60W power adapter



NOTE: All specifications and images are subject to change without notice.

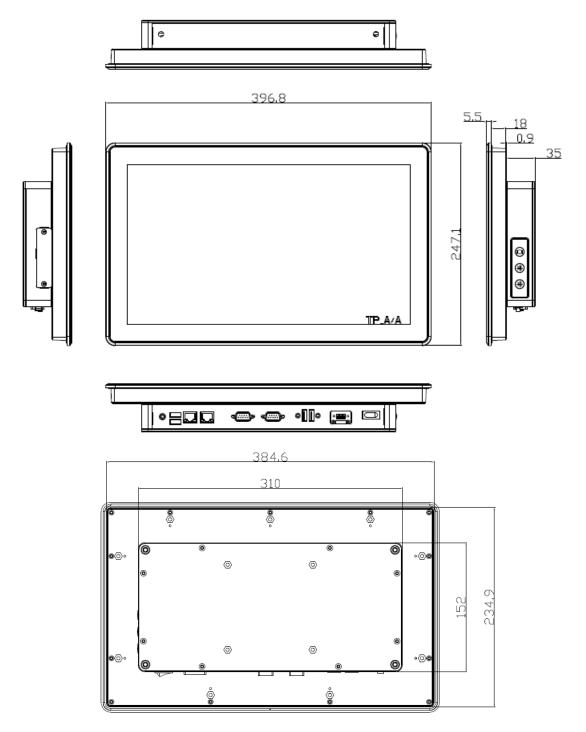
If the operation temperature is higher than 40 $^{\circ}$ C, the wide temperature HDD/ CFast[™] are recommended to be used on the device.

If the operation temperature is higher than 45 $^{\circ}$ C, the wide temperature DRAM is recommended to be used on the device.

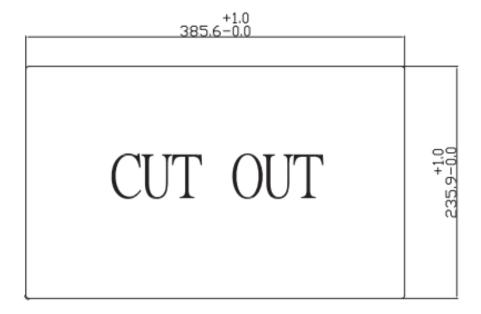
1.3 Dimensions and Outlines

The following diagrams show the dimensions and outlines of GOT3157W-834-PCT

Outline dimension: 396.8 x 59.4x 247.1 mm

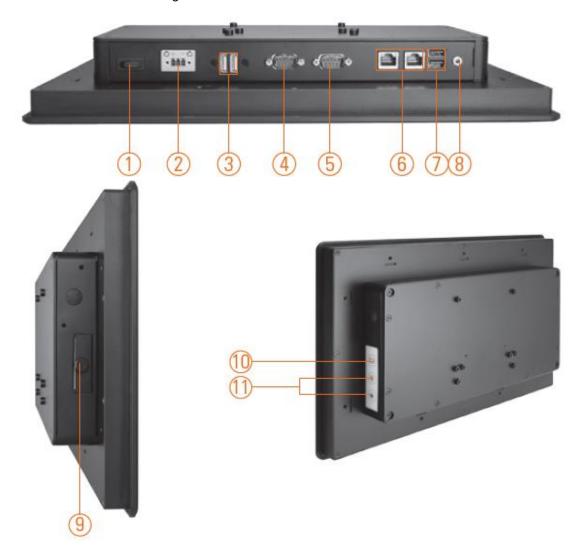


Cut Out dimensions: 385.6 x 235.9 mm



1.4 I/O Outlets

Please refer to the following illustration for I/O locations of the GOT3157W-834-PCT.



- 1. Power switch
- 2. Terminal block for DC porwer input
- 3. USB 2.0 x 2
- 4. COM 1 (RS-232/422/485)
- 5. COM 2 (RS-232/422/485)
- 6. Ethernet x 2

- 7. USB 3.0 x 2
- 8. Audio(Line-out)
- 9. CFast slot
- 10. Backlight switch
- 11. Brightness adjustment

1.5 Packing List

When you receive the GOT3157W-834-PCT, the bundled package should contain the following items:

- GOT3157W-834-PCT unit x 1
- Driver Disc x1
- Phoenix connector x 1 (DC power version only)
- Panel mount kit x 9
- Screws for HDD x 4
- SATA data cable x 1
- SATA power cable x 1

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

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Chapter 2 Hardware and Installation

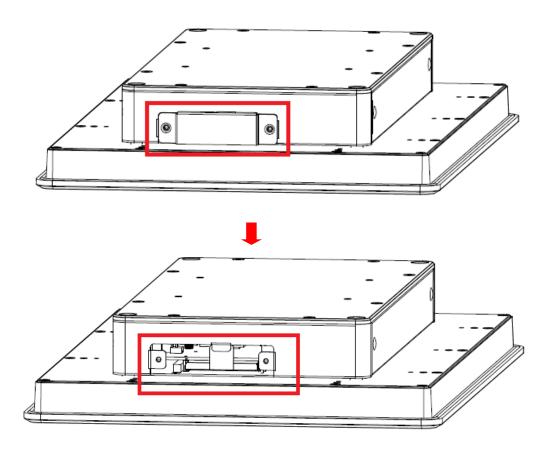
The GOT3157W-834-PCT provides rich I/O ports and flexible expansions for you to meet different demand, for example CF card. The chapter will show you how to install the hardware. It includes:

- CFastTM Card
- Open Back Cover
- Jumper and Switch Setting
- Ethernet
- Mounting Method
- Hard disk
- DRAM
- Wireless LAN Card
- Power Input

2.1 CFast[™] card Installation

The GOT3157W-834-PCT provides one CFast[™] slot for users to install CFast[™] card. Please refer to the following instructions for installation:

Step 1 Open the CFast card slot cover, unscrew 2 screws on the chassis.



Step 2 Install the CFast card to the CFast card slot.

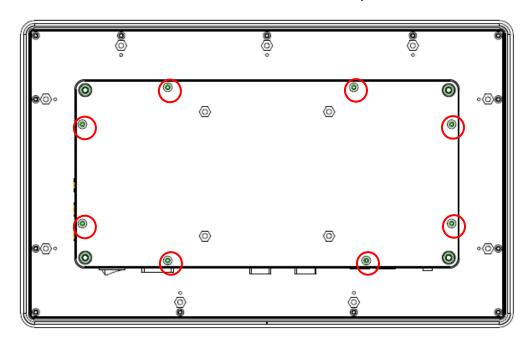


Step 3 Screw the CFast cover slot cover with 2 screws..

2.2 Open back cover

This section tells users how to open back cover. Please follow the steps below.

Step 1 Unscrew 8 screws on the back cover. Please refer the photo below.

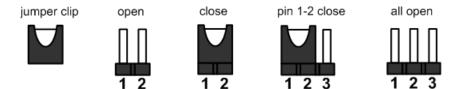


Step 2 Remove the back cover.



2.3 Jumper and Switch Setting

Jumper is a small component consisting of jumper clip and jumper pins. Install jumper clip on 2 jumper pins to close. And remove jumper clip from 2 jumper pins to open. The following illustration shows how to set up jumper.



Before applying power to GOT3157W-834-PCT, please make sure all of the jumpers and switch are in factory default position. Below you can find a summary table and onboard default settings.

Jumper	Description	Setting
JP7	Auto Power On Default: Disable	2-3 close
JP8	Restore BIOS Optimal Defaults (Clear CMOS) Default: Normal Operation	1-2 close
JP6	Switches mSATA or CFast TM setting. Default: 1-2 = CFast [™] , 2-3 = mSATA	1-2 close

2.3.1 Auto Power On (JP7)

If JP7 is enabled for power input, the system will be automatically power on without pressing soft power button. If JP7 is disabled for power input, it is necessary to manually press soft power button to power on the system.

Function	Setting
Enable auto power on	1-2 close
Disable auto power on (Default)	2-3 close



2.3.2 Restore BIOS Optimal Defaults (JP8)

Put jumper clip to pin 2-3 for a few seconds then move it back to pin 1-2. Doing this procedure can restore BIOS optimal defaults.

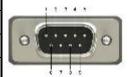
Function	Setting	
Normal operation (Default)	1-2 close	
Restore BIOS optimal defaults	2-3 close	



2.3.3 COM port Connector

The pin assignment of RS-232/RS-422/RS-485 is listed on the following table.

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
5	GND	GND	GND
6	DSR	No use	No use
7	RTS	No use	No use
8	CTS	No use	No use
9	RI	No use	No use

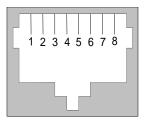


2.4 Ethernet

The GOT3157W-834-PCT is equipped with a high performance Plug and Play Ethernet interface, full compliant with IEEE 802.3 standard, and can be connected with a RJ-45 LAN connector.

Please refer to detailed pin assignment list below:

Pin	Signal
1	TX+ (Data transmission positive
2	TX- (Data transmission negative)
3	Rx+(Data reception positive)
4	RJ45 termination
5	RJ45 termination
6	Rx- (Data reception negative)
7	RJ45 termination
8	RJ45 termination



RJ-45

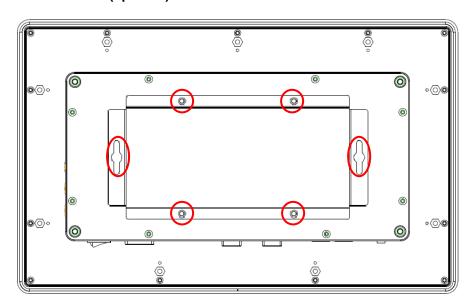
2.5 Mountings: Panel / Wall / Desktop / VESA

There are 4 application options for the GOT3157W-834-PCT, Panel/Wall/Desktop/VESA mountings.

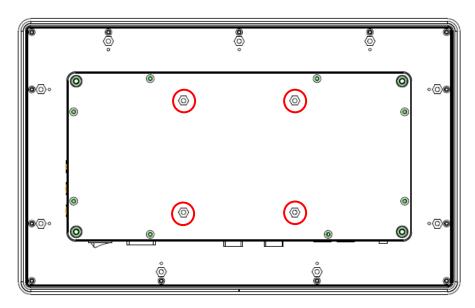
2.5.1 VESA-ARM/Wall-Mount

The GOT3157W-834-PCT provides VESA mount: 100x100 mm. Screw four screws to fix the kit in the back chassis.

Wall mount kit (optional):

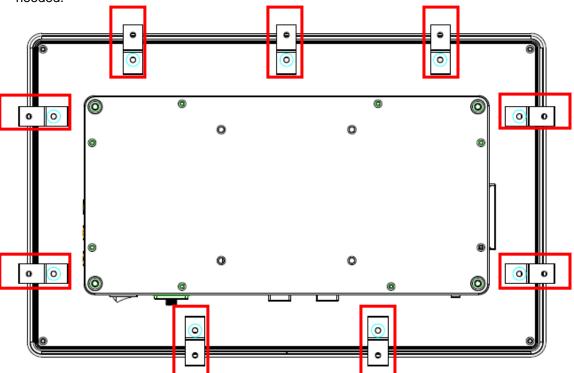


VESA mount:



2.5.2 Panel-mount Kit Assembly

The GOT3157W-834-PCT is designed for panel mount application. To mount the GOT3157W-834-PCT, the standard set of mounting kit (included in the system packaging) is needed.



2.6 HDD Installation

The GOT3157W-834-PCT provides a convenient Hard Disk Drive (HDD) bracket for users to install 2.5" SATA HDD. Please follow the steps:

Step 1 Refer section 2.2 to open the back cover & dissemble the HDD tray by un-screw 4 screws.



Step 2 Fix the HDD on the HDD tray by 4 screws.







Step 3 Plug the cables to connectors and screw the HDD tray on the bracket. Installation completes.





2.7 DRAM Installation

The GOT3157W-834-PCT provides one 204-pin DDR3L SODIMM socket that supports system memory up to 8GB. Please follow steps below to install the memory modules:

- Step 1 Refer to section 2.2 to open the back cover.
- Step 2 Find out DIMM socket on mainboard (SBC87834).



Step 3 Insert the DRAM to the DIMM socket, and then push it down firmly until it is clipped by the socket.



Installation completed

2.8 Wireless LAN Card Installation

The GOT3157W-834-PCT provides one Mini card slot for user to install one wireless LAN card. When installing the wireless LAN card, refer to the following instructions and illustration:

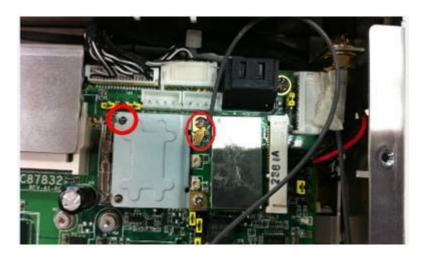
Step 1 Refer to section 2.2 to open the back cover and find out mini-card slot on mainboard.



Step 2 Insert the wireless LAN card to the slot. Push it down firmly until it is clipped by the slot.



Step 3 Find the Antenna cable and connect it on wireless LAN card.











Remove the antenna plug from the top of back cover, and then install the Step 4 antenna on the antenna connector



NOTE: Please have the extended bracket when using half-size mini card.

Power Input 2.9

GOT3157W-834-PCT equips with a phoenix type power connector. It adopts 9VDC to 36VDC. Please follow the signs on power connector to connect DC power source.

- +: Power positive
- G: Safety ground
- -: Power negative



NOTE: The safety ground must be connected to ensure the unit working appropriately.

Chapter 3 AMI BIOS Setup Utility

This chapter provides users with detailed description how to set up basic system configuration through the AMIBIOS8 BIOS setup utility.

3.1 Navigation Keys

The BIOS setup/utility uses a key-based navigation system called hot keys. Most of the BIOS setup utility hot keys can be used at any time during the setup navigation process. These keys include <F1>, <F2>, <F3>, <F4>, <Enter>, <ESC>, <Arrow> keys, and so on.

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

← Left/Right	- Left/Right The Left and Right <arrow> keys allow you to select a setup screen.</arrow>	
↑↓ Up/Down	The Up and Down <arrow> keys allow you to select a setup screen or sub-screen.</arrow>	
+- Plus/Minus The Plus and Minus <arrow> keys allow you to change the field value of a pa setup item.</arrow>		
Tab	Tab The <tab> key allows you to select setup fields.</tab>	
F1	F1 The <f1> key allows you to display the General Help screen.</f1>	
F2 The <f2> key allows you to load previous value</f2>		
F3 The <f3> key allows you to Load Optimized Defaults.</f3>		
The <f4> key allows you to save any changes you have made and e Press the <f4> key to save your changes.</f4></f4>		
Esc	The <esc> key allows you to discard any changes you have made and exit the Setup. Press the <esc> key to exit the setup without saving your changes.</esc></esc>	
Enter The <enter> key allows you to display or change the setup option list particular setup item. The <enter> key can also allow you to display t screens.</enter></enter>		

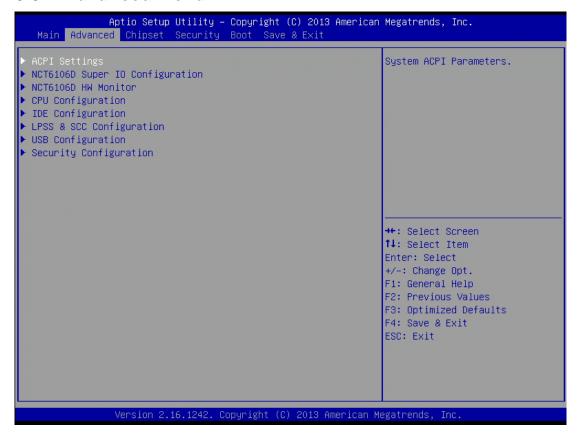
3.2 Main Menu



System Date / Time

Use this option to change the system time and date. Highlight *System Time* or *System Date* using the <Arrow> keys. Enter new values through the keyboard. Press the <Tab> key or the <Arrow> keys to move between fields. The date must be entered in MM/DD/YY format. The time is entered in HH:MM:SS format.

3.3 Advanced Menu



The Advanced menu allows users to set configuration of the CPU and other system devices. You can select any of the items in the left frame of the screen to go to the sub menus:

- ACPI Settings
- NCT6106D Super IO Configuration
- NCT6106D H/W Monitor
- CPU Configuration
- IDE Configuration
- LPSS & SCC Configuration
- USB Configuration
- Security Configuration

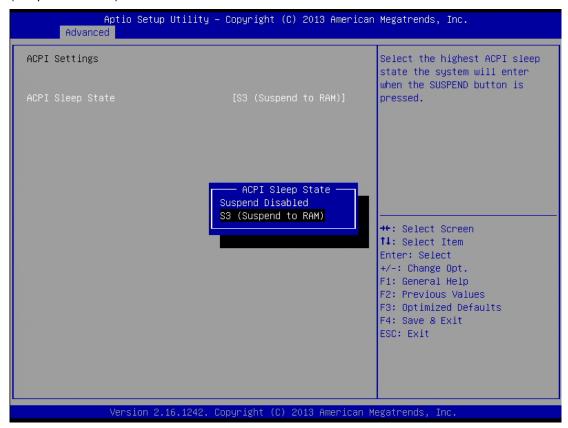
For items marked with "▶", please press <Enter> for more options.'

ACPI Settings

You can use this screen to select options for 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.

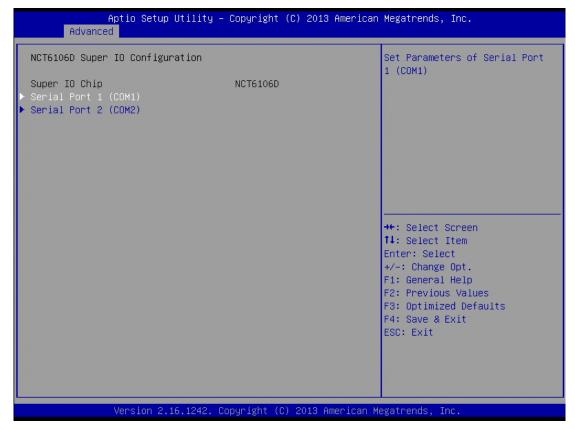
ACPI Sleep State

Allow you to select the Advanced Configuration and Power Interface (ACPI) state to be used for system suspend. Here are the options for your selection, Suspend disable and S3 (Suspend to RAM).



NCT6106D Super IO Configuration

Use this screen to select options for the Super IO Configuration, and change the value of the selected option



Serial Port 1-2 configuration

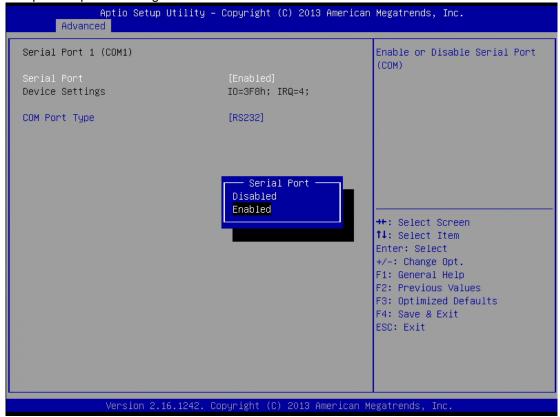
Serial port:

This option used to enable or disable the serial port.

Device Setting:

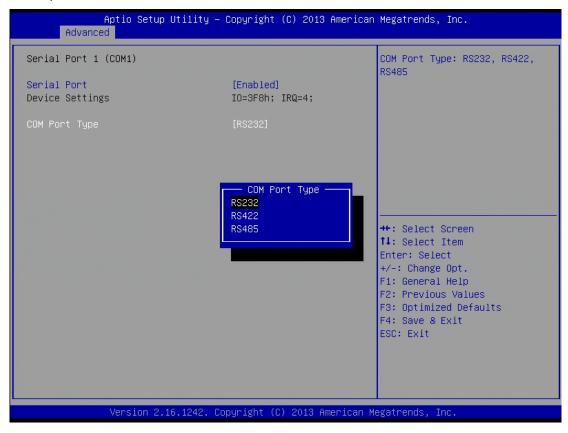
This item specifies the base I/O port address and Interrupt Request address of serial port. The port 0 Optimal setting is *3F8/IRQ4*.

The port 1 Optimal setting is 2F8/IRQ3.



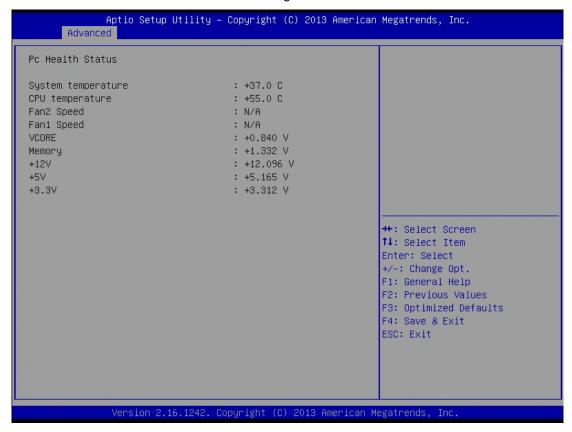
Serial type:

This option used to select RS232/422/485 function.



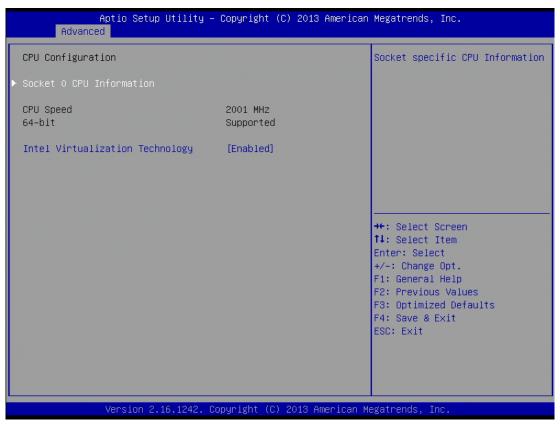
NCT6106D H/W Monitor

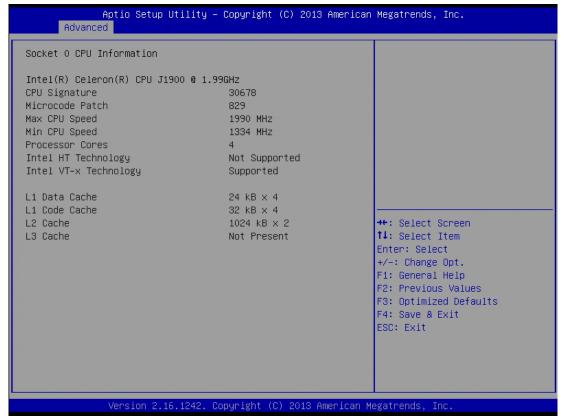
This screen shows the Hardware Health Configuration.

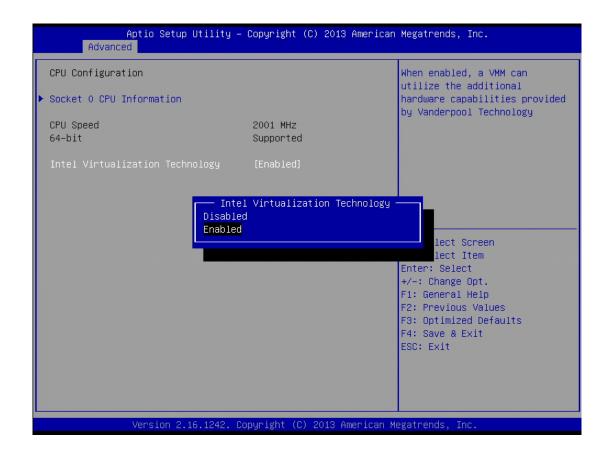


CPU Configuration

These screens show the CPU Configuration, CPU information and Intel virtualization technology enable/disable selected







IDE Configuration

You can use this screen to select options for the SATA Configuration, and change the value of the selected option.

SATA Mode

Use this item to choose the SATA operation mode. Here are the options for your selection, IDE Mode, AHCI Mode.



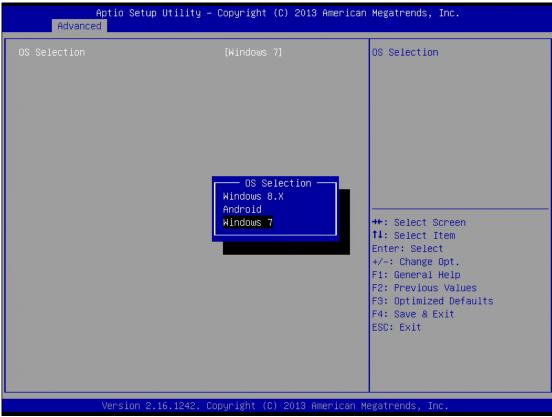
Intel TXE Configuration

The Advanced menu allows users to update the TXE firmware.



LPSS & SCC Configuration

You can select any of the items in the frame of the screen to change the OS, the default setting is Windows 7.

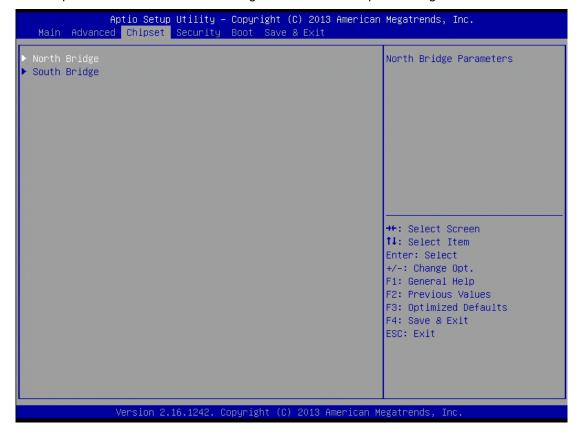


Please be informed to select the Windows 8.x when installing Win 8 or Win 8.1.

If using the Android OS, please refer to https://01.org/android-ia.

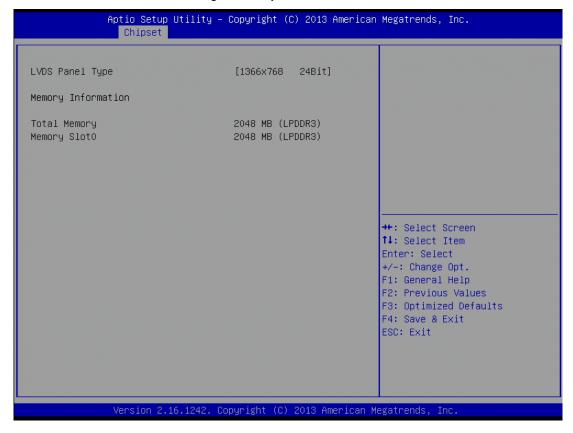
3.4 Chipset Menu

The Chipset menu allows users to change the advanced chipset settings.

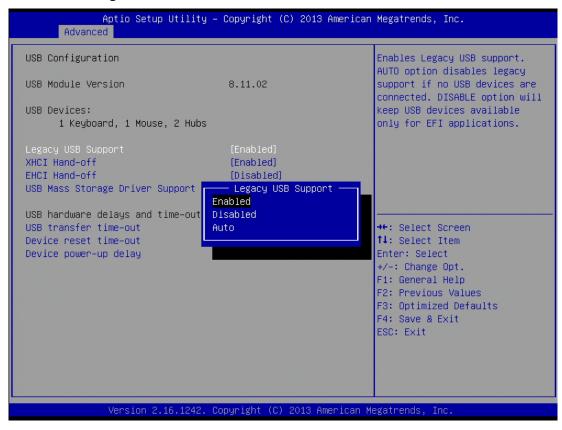


North Bridge

This screen shows the North Bridge memory information.

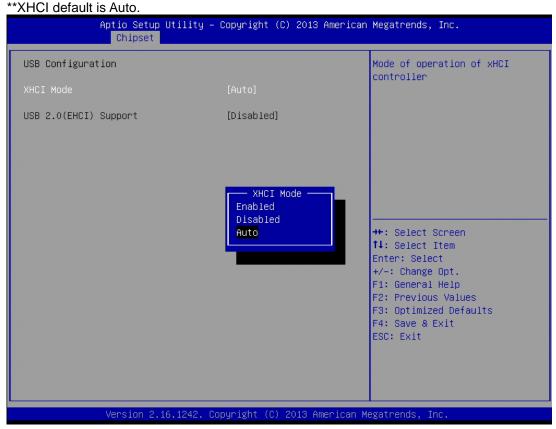


• South Bridge

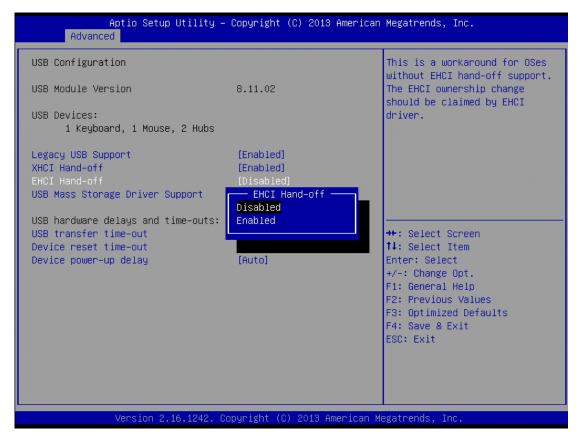


• USB Configuration

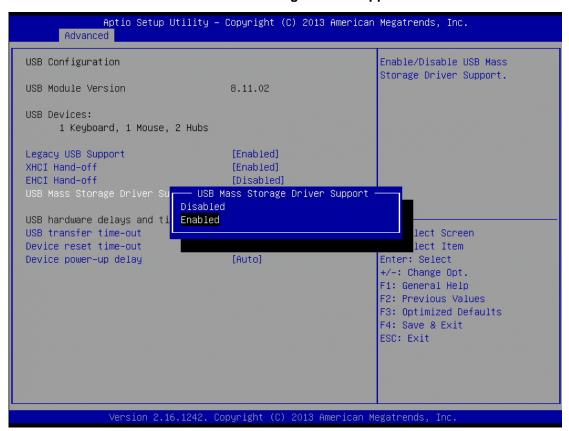
You can use this screen to select options for the USB Configuration, If USB3.0 function used, XHCI Mode must enable and EHCI must disable.



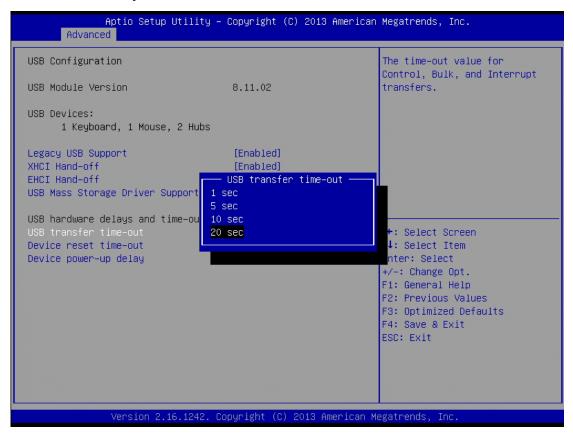


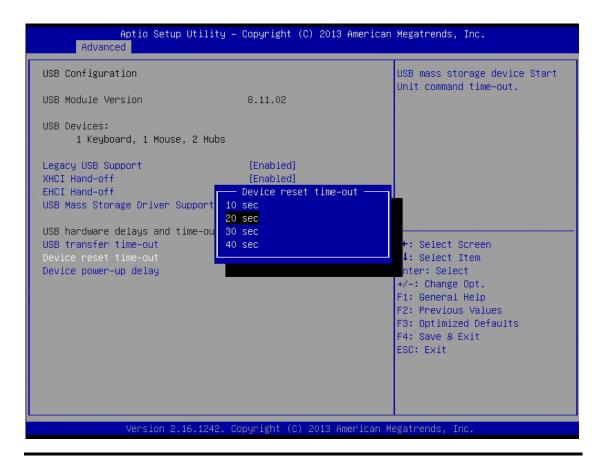


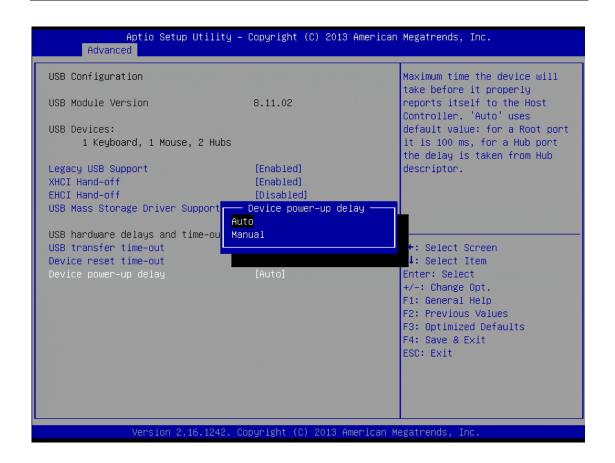
To "Enabled" or "Disabled" USB Mass Storage Driver Support

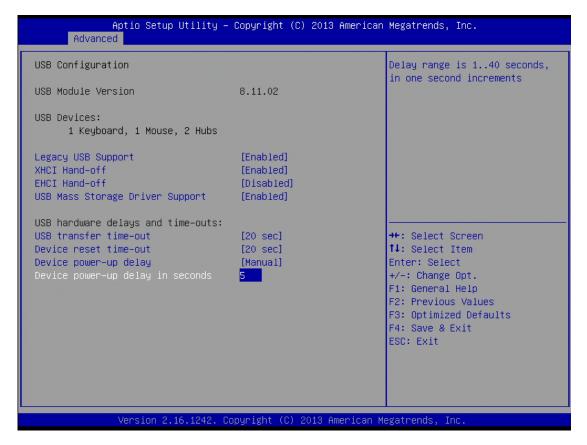


USB hardware delays and time-outs:



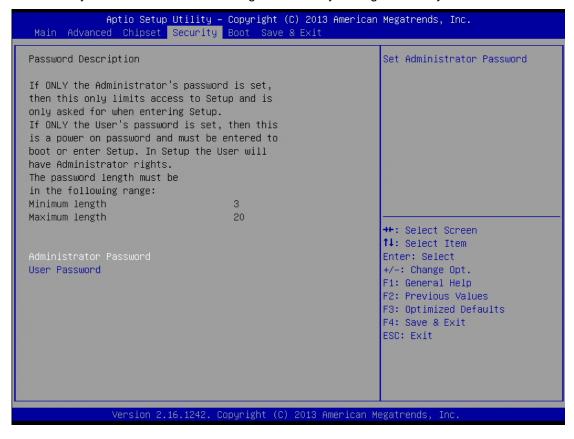






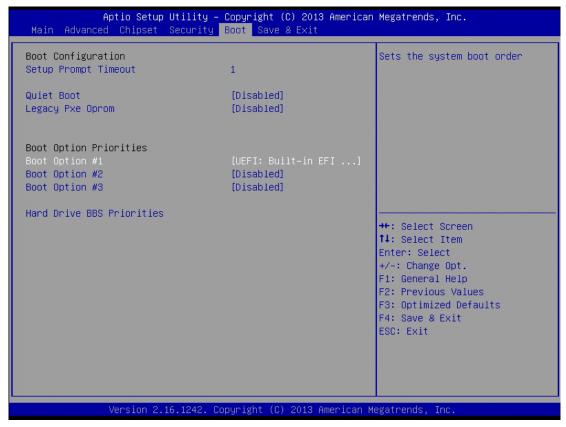
3.5 Security

The Security menu allows users to change the security settings for the system.



3.6 Boot Menu

The Boot menu allows users to change boot options of the system. You can select any of the items in the left frame of the screen to go to the sub menus:



Setup Prompt Timeout

Set the Timeout for wait press key to enter Setup Menu.

Quiet Boot

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

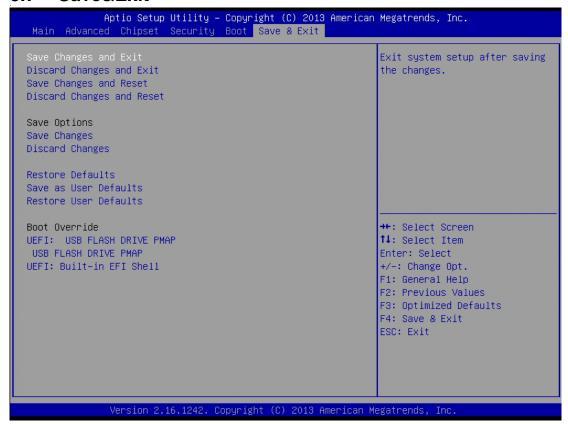
Legacy Pxe OPROM

Use this item to enable or disable the Preboot Execution Environment. The default setting is disable.

Boot Option Priorities

Specifies the overall boot order from the available devices.

3.7 Save&Exit



Save Changes and Exit

When you have completed the system configuration changes, select this option to leave Setup and reboot the computer so the new system configuration parameters can take effect. Select Save Changes and Exit from the Exit menu and press <Enter>. Select Ok to save changes and exit.

Discard Changes and Exit

Select this option to quit Setup without making any permanent changes to the system configuration. Select Discard Changes and Exit from the Exit menu and press <Enter>. Select Ok to discard changes and exit.

Save Changes and Reset

When you have completed the system configuration changes, select this option to leave Setup and reboot the computer so the new system configuration parameters can take effect. Select Save Changes and Reset from the Save & Exit menu and press <Enter>. Select Yes to save changes and reset.

Discard Changes and Reset

Select this option to quit Setup without making any permanent changes to the system configuration and reboot the computer. Select Discard Changes and Reset from the Save & Exit menu and press <Enter>. Select Yes to discard changes and reset.

Save Changes

When you have completed the system configuration changes, select this option to save changes. Select Save Changes from the Save & Exit menu and press <Enter>. Select yes to save changes.

Discard Changes

Select this option to quit Setup without making any permanent changes to the system configuration. Select Discard Changes from the Save & Exit menu and press <Enter>. Select Yes to discard changes.

Restore Defaults

It automatically sets all Setup options to a complete set of default settings when you select this option. Select Restore Defaults from the Save & Exit menu and press <Enter>.

Save as User Defaults

Select this option to save system configuration changes done so far as User Defaults. Select Save as User Defaults from the Save & Exit menu and press <Enter>.

Restore User Defaults

It automatically sets all Setup options to a complete set of User Defaults when you select this option. Select Restore User Defaults from the Save & Exit menu and press <Enter>.

Boot Override

Select a drive to immediately boot that device regardless of the current boot order.

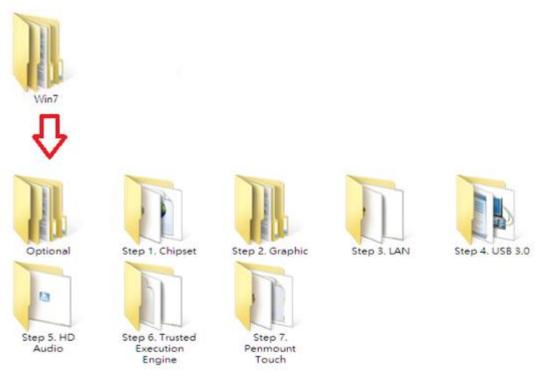
Chapter 4 Drivers Installation

4.1 System

GOT3157W-834-PCT 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

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



Select all files and follow the installing procedure. Please don't run Step 7 that is driver for resistive touch screen.

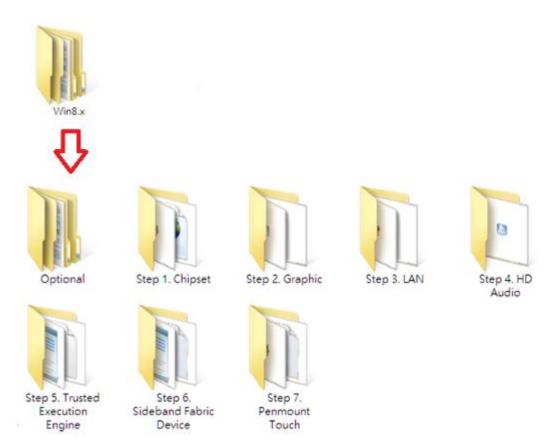


NOTE: Please install Microsoft KB2685811 before TXE installation under Windows 7, then installing the drivers.

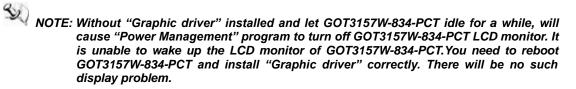
NOTE: Without "Graphic driver" installed and let GOT3157W-834-PCT idle for a while, will cause "Power Management" program to turn off GOT3157W-834-PCT LCD monitor. It is unable to wake up the LCD monitor of GOT3157W-834-PCT. You need to reboot GOT3157W-834-PCT and install "Graphic driver" correctly. There will be no such display problem.

4.1.2 Win 8/8.x

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



2. Select all files and follow the installing procedure. Please don't run Step 7 that is driver for resistive touch screen.



4.2 Touch Screen

The GOT3157W-834-PCT uses the projected capacitive multi-touch. The specification is listed below. The touch driver will be installed automatically and can drive the touch panel to get two fingers touch function that based on the Windows 7 and Windows 8.x support.

Specification

Touch Screen	Projected capacitive multi-touch
Touch Screen Controller	Mastouch_USB Touch Screen Controller IC
Communications	USB interface
Power Supply	5V
Power Consumption	40mA
Input Method	Finger or Cap.Stylus
Resolution	25ppi(Min.)_ Note: Base on WIN7 definition, ppi(Pixcel per inch)
Win7 USB Driver	Non-Driver
Calibration	Non-Calibration

4.3 Embedded O.S.

The GOT3157W-834-PCT 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
- LCD display
- 10/100/1000 base-T Ethernet
- CFast[™] or mSATA
- **Onboard Audio**



NOTE: Causing of OS limitation, only single touch function is supported under WES 7E.