GOT610-837

10.4” XGA TFT
For Heavy-Duty Vehicle
Touch Panel Computer

User’s Manual
Disclaimers

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CAUTION

Wrong type of batteries may cause explosion. It is recommended that users only replace with the same or equivalent type of batteries as suggested by the manufacturer once properly disposing of any used ones.

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Safety Precautions

Before getting started, read the following important precautions.

1. 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.

2. Disconnect the power cords from the GOT600 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 GOT600 series is properly grounded.

3. Do not open the top cover of the system. 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 a human body.
   - When handling boards and components, wear a grounding wrist strap, available from most electronic component stores.

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Chapter 1
Introduction

This chapter contains general information and detailed specifications of the GOT610-837, including the following sections:

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

1.1 General Description

GOT610-837 is a fanless and compact-size touch panel computer, equipped with a 10.4” XGA LCD display and low power consumption Intel® Atom® E3845 1.91GHz processor. The GOT610-837 supports Windows® 7, Windows® 8.1, Windows® 10 and Linux Yocto OSs. In addition, this panel computer provides two Mini card slots of full-size for extension. Its excellent ID and friendly user interface make it a professional yet easy-to-use panel computer. The GOT610-837 is ideal for vehicle-mounted terminal applications in heavy-duty vehicles, especially suited for forklift and fleet management systems.

Sunlight readable design
Its sunlight readable technology with LED tech high brightness 500 nits color display allows the screen legible even strong sunlight.

Wide operating temperature
The Intel® Atom®-based Vehicle panel PC, GOT610-837, applies unique extended temperature technology with wide temperature range support as well as fanless operation. It also has a compact design for heavy-duty transport environment.

Designed for vehicle markets
The Axiomtek GOT610-837 is particularly suitable for demanding HMI applications in the vehicle-mounted sector, including arranging stocks and picking goods up and away.
1.2 Specifications

1.2.1 Main CPU Board

- **CPU**
  - Intel® Atom™ E3845 1.91GHz processor onboard (Bay Trail).

- **System memory**
  - One DDR3L-1333 MHz (Bay Trail-I) 4GB
  - Maximum onboard memory up to 8 GB

- **BIOS**
  - America Megatrends UEFI BIOS

1.2.2 I/O System

- **Standard I/O**
  - 1 x RS-232/422/485 with isolated 1.5KV (default RS-232)
  - 4 x USB 2.0 (three in I/O line, one in top side)
  - 1 x DIO with isolated 1.5KV D-Sub connector (6 input / 2 output)
  - 1 x CAN bus with isolated D-Sub connector

- **Ethernet**
  - One Intel® i-210IT Gigabit Ethernet (PXE and LAN wake up)

- **Audio**
  - 1 x Audio: Line out, MIC in

- **Expansion**
  - 2 x Mini PCI-E card with full-size

- **Storage**
  - 16 GB flash onboard
  - 1 x mSATA
1.2.3 System Specifications

- **10.4” TFT LCD**
  - 10.4” XGA 500 nits, resolution 1024 x 768
- **5 wired resistive touch**
- **IP65/ NEMA 4 protection, plastic front bezel**
- **Net weight**
  - 2.05 Kgs (4.52 lb)
- **Dimension (main body size)**
  - 291 mm x 266 mm x 50 mm
- **Operation temperature**
  - -30°C to +55°C
- **Relative humidity**
  - 10% to 95% @ 40°C, Non-Condensing
- **Power input**
  - Typical 24/48VDC
  - Working range: 18-60VDC
- **Vibration**
  - Refer to IEC60721-3-5 Class 5M3
  - 10 to 500 Hz, 3.38G, random for 2.5" SSD

**NOTE**

1. All specifications and images are subject to change without notice.
2. The GOT610-837 has been designed particularly for operation in harsh environments; please choose a wide-temperature SSD.
3. It is recommended to use a wide-temperature SSD if the operation temperature is higher than 45°C.
1.3 Dimensions

The following diagrams show the dimensions and outlines of the GOT610-837.
1.4 I/O Outlets

Please refer to the following illustration for I/O locations of the GOT610-837.

- Definitions of the front hot keys:

- Definitions of the rear I/O functions:

<table>
<thead>
<tr>
<th>No</th>
<th>Function</th>
<th>No</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DC-in</td>
<td>6</td>
<td>3 x USB 2.0 type A</td>
</tr>
<tr>
<td>2</td>
<td>AX/ATX mode switch</td>
<td>7</td>
<td>DIO (6-in/2-out)</td>
</tr>
<tr>
<td>3</td>
<td>CANBus</td>
<td>8</td>
<td>1 x RS-232/422/485</td>
</tr>
<tr>
<td>4</td>
<td>1 x Line-out</td>
<td>9</td>
<td>1 x LAN</td>
</tr>
<tr>
<td>5</td>
<td>1 x Mic-in</td>
<td>10</td>
<td>2 x Wireless antenna hole</td>
</tr>
</tbody>
</table>
Definitions of the top side USB / SIM card slot / Antenna:

<table>
<thead>
<tr>
<th>No</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>3G/LTE/WIFI antenna hole</td>
</tr>
<tr>
<td>12</td>
<td>3G/LTE SIM slot</td>
</tr>
<tr>
<td>13</td>
<td>USB 2.0 A type</td>
</tr>
</tbody>
</table>

### 1.5 Packing List

A complete bundled package of the GOT610-837 should contain the following items:

- GOT610-837 unit x 1
- Driver CD x1
- Phoenix connector x 2 (Power 4Pin x 1 / DIO 12Pin x 1)

Please contact an Axiomtek distributor immediately if you cannot find the package or any of the above-mentioned items is missing.
Chapter 2
Hardware and Installation

The GOT610-837 provides rich I/O ports and flexible expansions for you to meet different demands. The chapter explains how to install the hardware parts, including:

- Open cover: I/O cover, and back cover
- Vin 18-60VDC
- Serial ports
- USB ports
- Ethernet
- DIO
- Audio
- CANBus
- DC power
- Mini card
- System jumper setting
- System panel header
- Hard keys on front bezel
- LED indicators
- Auto-dimming
2.1 Open cover
This section tells users how to open back covers. Please follow the steps below.

- Open I/O Cover
  Unscrew eight screws on the I/O cover. Please refer the photo below.

- Open back cover
  Unscrew six screws on the back cover. Please refer to the photo below.
2.2 Vin 18-60VDC

The DC-in connector has four pins, as shown in the pin assignment table below.

<table>
<thead>
<tr>
<th>Pin</th>
<th>Description</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>V+</td>
<td>For DC power in V+</td>
</tr>
<tr>
<td>2</td>
<td>ACC</td>
<td>For ACC (Ignition)</td>
</tr>
<tr>
<td>3</td>
<td>V-</td>
<td>For DC power in V-</td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td>Chassis GND</td>
</tr>
</tbody>
</table>

2.3 CANBus

This system supports one CANBus with isolated 1.5KV. The pin assignments are listed in the table below.

<table>
<thead>
<tr>
<th>Pin</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NA</td>
</tr>
<tr>
<td>2</td>
<td>CAN_LO</td>
</tr>
<tr>
<td>3</td>
<td>ISO3_GND</td>
</tr>
<tr>
<td>4</td>
<td>NA</td>
</tr>
<tr>
<td>5</td>
<td>NA</td>
</tr>
<tr>
<td>6</td>
<td>ISO3_GND</td>
</tr>
<tr>
<td>7</td>
<td>CAN_HO</td>
</tr>
<tr>
<td>8</td>
<td>NA</td>
</tr>
<tr>
<td>9</td>
<td>NA</td>
</tr>
</tbody>
</table>
2.4 COM 1 (Serial Port Connector)

The COM1 connector is a standard DB-9 connector. The pin assignments of RS-232/RS-422/RS-485 are listed on the following table. If you need COM port to support RS-422 or RS-485, please select the matching COM port type from the BIOS items.

<table>
<thead>
<tr>
<th>Pin</th>
<th>RS-232</th>
<th>RS-422</th>
<th>RS-485</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DCD, Data carrier detect</td>
<td>TX-</td>
<td>Data-</td>
</tr>
<tr>
<td>2</td>
<td>RXD, Receive data</td>
<td>TX+</td>
<td>Data+</td>
</tr>
<tr>
<td>3</td>
<td>TXD, Transmit data</td>
<td>RX+</td>
<td>NC</td>
</tr>
<tr>
<td>4</td>
<td>DTR, Data terminal ready</td>
<td>RX-</td>
<td>NC</td>
</tr>
<tr>
<td>5</td>
<td>GND, ground</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>6</td>
<td>DSR, Data set ready</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>7</td>
<td>RTS, Request to send</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>8</td>
<td>CTS, Clear to send</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>9</td>
<td>RI, Ring indicator</td>
<td>NC</td>
<td>NC</td>
</tr>
</tbody>
</table>

2.5 USB 2.0

This system supports four USB ports which are located in the rear side and the top side. The pin assignments are listed in the table below.

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal USB Port 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>USB VCC</td>
</tr>
<tr>
<td>2</td>
<td>USB #0_D-</td>
</tr>
<tr>
<td>3</td>
<td>USB #0_D+</td>
</tr>
<tr>
<td>4</td>
<td>Ground (GND)</td>
</tr>
</tbody>
</table>
2.6 LAN

The system is equipped with an RJ-45 connector for Gigabit LAN. To connect the board to a 10/100/1000 Base-T hub, just plug one end of the cable into LAN, and connect the other end to a 10/100/1000 Base-T hub.

<table>
<thead>
<tr>
<th>Pin</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MDI0+</td>
</tr>
<tr>
<td>2</td>
<td>MDI0-</td>
</tr>
<tr>
<td>3</td>
<td>MDI1+</td>
</tr>
<tr>
<td>4</td>
<td>MDI2+</td>
</tr>
<tr>
<td>5</td>
<td>MDI2-</td>
</tr>
<tr>
<td>6</td>
<td>MDI1-</td>
</tr>
<tr>
<td>7</td>
<td>MDI3+</td>
</tr>
<tr>
<td>8</td>
<td>MDI3-</td>
</tr>
</tbody>
</table>
2.7 DIO

2.7.1 Digital I/O Specification

This system supports one DIO (6 input and 2 output) with isolated 1.5KV. The pin assignments are listed in the table below.

**Digital Input:**
Input channels: 6, Dry/Wet type  
Input voltage: 0 to 30VDC at 25Hz  
Input level for dry contacts:  
Logic level 0: close to ground  
Logic level 1: open  
Input level for wet contacts:  
Logic level 1: +/-3VDC max.  
Logic level 0: +/- 10VDC min. to +/-30VDC max. (source to digital input)

**Digital output:**
Output channels: 2, sink type  
Output current: 200mA max. per channel  
On-state voltage: 12~24VDC nominal  
Max. voltage on COM+: 30VDC

<table>
<thead>
<tr>
<th>Pin</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Common PWR+</td>
</tr>
<tr>
<td>2</td>
<td>DI4</td>
</tr>
<tr>
<td>3</td>
<td>DI5</td>
</tr>
<tr>
<td>4</td>
<td>DO0</td>
</tr>
<tr>
<td>5</td>
<td>DO1</td>
</tr>
<tr>
<td>6</td>
<td>Common PWR-</td>
</tr>
<tr>
<td>7</td>
<td>EXT_POWER</td>
</tr>
<tr>
<td>8</td>
<td>DI0</td>
</tr>
<tr>
<td>9</td>
<td>DI1</td>
</tr>
<tr>
<td>10</td>
<td>DI2</td>
</tr>
<tr>
<td>11</td>
<td>DI3</td>
</tr>
<tr>
<td>12</td>
<td>Isolation GND</td>
</tr>
</tbody>
</table>
2.7.2 Digital I/O Software Programming

- I2C to GPIO PCA9554PW GPIO Group0[3:0] is Output, Group0[7:4] is Input.
- I2C address: 0b0100100x.
- Registers:

Register 0: Input Group0 register.

<table>
<thead>
<tr>
<th>Bit</th>
<th>Symbol</th>
<th>Access</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>I7</td>
<td>read only</td>
<td>X</td>
<td>determined by externally applied logic level</td>
</tr>
<tr>
<td>6</td>
<td>I6</td>
<td>read only</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>I5</td>
<td>read only</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I4</td>
<td>read only</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>I3</td>
<td>read only</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>I2</td>
<td>read only</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>I1</td>
<td>read only</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>I0</td>
<td>read only</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Register 2: Output Group0 register.

<table>
<thead>
<tr>
<th>Bit</th>
<th>Symbol</th>
<th>Access</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>O7</td>
<td>R</td>
<td>1*</td>
<td>reflects outgoing logic levels of pins defined as outputs by Register 3</td>
</tr>
<tr>
<td>6</td>
<td>O6</td>
<td>R</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>O5</td>
<td>R</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>O4</td>
<td>R</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>O3</td>
<td>R</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>O2</td>
<td>R</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>O1</td>
<td>R</td>
<td>1*</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>O0</td>
<td>R</td>
<td>1*</td>
<td></td>
</tr>
</tbody>
</table>
2.7.3 Digital Input Wiring

**DRY contact**
Logic level 0: close to ground  
Logic level 1: open

```
EXT_POWER
XIN1  SW1
XIN2  SW2
XIN3  SW3
XIN4  SW4
XIN5  SW5
XIN6  SW6
DIO_GND
```

**WET contact**
Logic level 1: +/-3VDC max.
Logic level 0: +/- 10VDC min. to +/-30VDC max

```
EXT_POWER
XIN1  SW1
XIN2  SW2
XIN3  SW3
XIN4  SW4
XIN5  SW5
XIN6  SW6
DIO_GND
```

$+ \text{Vdc} \quad -$

Max: +30V
2.7.4 Digital Output Wiring

- Vdc +
Max: +30V

I max=200mA
Sink type
2.8 Mini card Installation

The GOT610-837 comes with two Mini Card slots for users to install a WiFi/3G module and mSATA card respectively.

2.8.1 WiFi/3G Module Installation

The GOT610-837 provides one Mini Card slot for users to install a WiFi/3G module. Please choose slot 1 when installing a WiFi/3G module and refer to the following instructions and illustrations to install the module:

Step 1 Open the back cover and locate the Mini Card slot (slot 1) on the main board.

Step 2 Insert a wireless LAN card to slot 1. Screw it firmly on the slot.

Step 3 There are two connectors on the wireless LAN card. One is the main connector; the other is the auxiliary connector. Connect the antenna cable to the main connector on the wireless LAN card.
2.8.2 mSATA Card Installation

The GOT610-837 provides one Mini Card slot for users to install mSATA. Please choose slot 2 when installing an mSATA card and refer to the following instructions and illustration. In addition, please set up the BIOS IDE Configuration to mSATA.

Step 1  Open the back cover and locate the Mini Card slot (slot 2) on the main board.

Step 2  Insert an mSATA card to slot 2. Screw it firmly on the slot.
## 2.9 System jumper settings

Please see the jumper settings below for your requirements.

- **Jumper settings on the main board:**

<table>
<thead>
<tr>
<th>Jumper</th>
<th>★ Default Setting</th>
<th>Jumper Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP5</td>
<td>★ Normal</td>
<td>Short 1-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear CMOS</td>
</tr>
</tbody>
</table>

- **Jumper settings on the I/O board:**

<table>
<thead>
<tr>
<th>Jumper</th>
<th>★ Default Setting</th>
<th>Jumper Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>JP1</td>
<td>★ CAN BUS 120Ω</td>
<td>Short 1-2</td>
</tr>
<tr>
<td></td>
<td>terminal Enable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAN BUS 120Ω</td>
<td>Short 2-3</td>
</tr>
<tr>
<td></td>
<td>terminal Disable</td>
<td></td>
</tr>
</tbody>
</table>
2.10 Hard keys Management

The hard keys on front panel can be managed by the API Programming Library, or by the Apps provided by Axiomtek.

2.10.1 API Programming Library

Definitions of the front panel hard keys can be set as follows:

- A front hard key can be defined by detecting the key code through the customized program.

- For CAN BUS, Light / Temperature sensor, and backlight / dimming control, please access the programming library manual included in the user’s DVD used to call the API DLL.

1. GOT710_API.dll: AXIOMTEK API DLL file
2. GOT710_API_V1.2.pdf: AXIOMTEK API programming library user manual for CAN BUS, Light / Temperature sensor, Backlight & Dimming control.

2.10.2 APP_Configuration Center

Axiomtek has written an APP to provide an easy management interface for the configuration of hard keys. After accessing the AXIOMTEK AP folder in the driver’s CD, press “setup” to install the Configuration Center.

The user manual for this APP will be enclosed in the driver CD as well for your reference.
2.11 LED indicators

LED lights provide indications for users to make sure that whether the MCU is working properly, facilitating debug in the phase of research and development. It is not necessarily the actual system mounting LED lights.

The following table summarizes the LED indications of the device:

<table>
<thead>
<tr>
<th>Status</th>
<th>Power LED(Green)</th>
<th>LED Red</th>
<th>LED Yellow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power up</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>Device working properly</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>Over-temperature warning</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>Over-temperature LCD - saving</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>Over-temperature Power off reached</td>
<td>Blink</td>
<td>Blink</td>
<td>OFF</td>
</tr>
<tr>
<td>HDD access</td>
<td>Blink</td>
<td></td>
<td>Blink</td>
</tr>
</tbody>
</table>

2.12 Auto-dimming

Because the human eye perceiving brightness is nonlinear, PWM duty must be set percentage at each stage of opening and closing.

LCD Backlight:
- Level 10 = 100%
- Level 9 = 91%
- Level 8 = 82%
- Level 7 = 73%
- Level 6 = 64%
- Level 5 = 55%
- Level 4 = 46%
- Level 3 = 37%
- Level 2 = 28%
- Level 1 = 19%
- Level 0 = 10%

Auto dimming level

<table>
<thead>
<tr>
<th>Surrounding environment</th>
<th>Light Sensor value</th>
<th>LCD dimming level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tunnel (0~26 Lux)</td>
<td>0~50</td>
<td>23%~37%</td>
</tr>
<tr>
<td>Indoor (200~300 Lux)</td>
<td>200~300</td>
<td>72%~80%</td>
</tr>
<tr>
<td>Outdoor cloudy (1000 Lux)</td>
<td>1000</td>
<td>88%~100%</td>
</tr>
<tr>
<td>Outdoor sunny (2000 Lux up)</td>
<td>1200 up</td>
<td>100%</td>
</tr>
</tbody>
</table>
Chapter 3
AMI BIOS Setup Utility

The AMI UEFI BIOS provides users with a built-in setup program to modify basic system configuration. All configured parameters are stored in a flash chip to save the setup information whenever the power is turned off. This chapter provides users with detailed descriptions about how to set up basic system configuration through the AMI BIOS setup utility.

3.1 Starting

To enter the setup screens, follow the steps below:

1. Turn on the computer and press <F2> or <Del> during the Power On Self Test (POST) to enter BIOS setup, otherwise POST will continue with its test routines.
2. After you press the <Del> key, the main BIOS setup menu displays. You can access the other setup screens from the main BIOS setup menu, such as the Advanced and Chipset menus.

If you wish to enter BIOS setup after POST, you can restart the system by pressing <Ctrl>+<Alt>+<Delete>, or by pressing the reset button on the system chassis. You may also restart by turning the system off and then back on.

It is strongly recommended that you should avoid changing the chipset’s defaults. Both AMI and your system manufacturer have carefully set up these defaults that provide the best performance and reliability.

**NOTE** Because the BIOS setup software is constantly being updated, the following setup screens and descriptions are for reference purpose only, and they may not exactly match what you see on your screen.
3.2 Menu Bar

The top of the screen has a menu bar with the following selections:

<table>
<thead>
<tr>
<th>Menu Bar</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>To set up the system time/date information.</td>
</tr>
<tr>
<td>Advanced</td>
<td>To set up the advanced BIOS features.</td>
</tr>
<tr>
<td>Chipset</td>
<td>To display the North &amp; South bridge (USB configuration) status.</td>
</tr>
<tr>
<td>Security</td>
<td>To set up the security features.</td>
</tr>
<tr>
<td>Boot</td>
<td>To set up the default system device to locate and load the operating system.</td>
</tr>
<tr>
<td>Exit</td>
<td>To exit the current screen or the BIOS setup utility.</td>
</tr>
</tbody>
</table>

Use <←> key or <→> key to choose among the selections on the menu bar, and then press <Enter> to get into the sub screen. You can also use the mouse to click your required item.

3.3 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>, <F7>, <Enter>, <ESC>, <Arrow> keys, and so on.

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

Please check the following table for the function description of each navigation key.

<table>
<thead>
<tr>
<th>Hot Keys</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;←&gt; Left/Right</td>
<td>The Left and Right &lt;Arrow&gt; keys allow you to select a setup screen.</td>
</tr>
<tr>
<td>↑↓ Up/Down</td>
<td>The Up and Down &lt;Arrow&gt; keys allow you to select a setup screen or sub-screen.</td>
</tr>
<tr>
<td>← Plus/Minus</td>
<td>The Plus and Minus &lt;Arrow&gt; keys allow you to change the field value of a particular setup item.</td>
</tr>
<tr>
<td>Enter</td>
<td>The &lt;Enter&gt; key allows you to display or change the setup option listed for a particular setup item. The &lt;Enter&gt; key can also allow you to display the setup sub-screens.</td>
</tr>
<tr>
<td>F1</td>
<td>The &lt;F1&gt; key allows you to display the General Help screen.</td>
</tr>
<tr>
<td>F7</td>
<td>Discard changes.</td>
</tr>
<tr>
<td>F9</td>
<td>The &lt;F9&gt; key allows you to load optimal default values for all the settings.</td>
</tr>
<tr>
<td>F10</td>
<td>The &lt;F10&gt; key allows you to save any changes you have made and exit Setup. Press the &lt;F10&gt; key to save your changes.</td>
</tr>
<tr>
<td>Esc</td>
<td>The &lt;Esc&gt; key allows you to discard any changes you have made and exit the Setup. Press the &lt;Esc&gt; key to exit the setup without saving your changes.</td>
</tr>
</tbody>
</table>
3.4 Main Menu

When you first enter the setup utility, you will enter the Main setup screen. You can always return to the Main setup screen by selecting the Main tab. System Time/Date can be set up as described below. The Main BIOS setup screen is shown below.

**BIOS Information**
Display the auto-detected BIOS information.

**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.
3.5 Advanced Menu

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

- NCT6106D Super IO Configuration
- NCT6106D H/W Monitor
- CPU Configuration
- IDE Configuration
- Miscellaneous Configuration
- CSM Configuration
- USB Configuration

For items marked with “►”, please press <Enter> for more options.

![AMI BIOS Setup Utility - Copyright (C) 2013 American Megatrends, Inc.]

**NOTE** Setting wrong values in this section may cause the system to malfunction.
NCT6106D Super IO Configuration

Use this screen to select options for the Super IO Configuration, and change the value of the selected option.
NCT6106D H/W Monitor
This screen shows the hardware health configurations.
CPU Configuration
This screen shows the CPU Configuration and Intel virtualization technology enable/disable selected.

![CPU Configuration Screen]

- Select Screen
- Select Item
- Enter: Select
- +/-: Change Opt.
- F1: General Help
- F2: Previous Values
- F3: Optimized Defaults
- F4: Save & Exit
- ESC: Exit
IDE Configuration
You can use this screen to select options for SATA configurations, 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 and AHCI Mode.
**Miscellaneous Configuration**

Use this screen to select options for different OS: Windows 8.X, Android, and Windows 7.
CSM Configuration
Enable is Legacy mode; Disable is UEFI mode.

USB Configuration
Display USB device configurations.
3.6 Chipset Menu

The Chipset menu will display the available devices on your system for you to configure the boot settings and the boot priority.

**North Bridge**

This screen shows the North Bridge memory information. You can use this screen to monitor the memory status of slot 0 and slot 2.
South Bridge

USB Configuration
Only supports USB2.0 (EHCI).
3.7 Security Menu

In this section, you may set, change or clear the supervisor/user password for the system.

In this section, you may set, change or clear the supervisor/user password for the system.
### 3.8 Boot Menu

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

<table>
<thead>
<tr>
<th>Boot Configuration</th>
<th>Setup Prompt Timeout</th>
<th>Quiet Boot</th>
<th>Boot Option Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[On]</td>
<td>[Disabled]</td>
<td>[UEFI: UFD 2.0 Silicon]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Disabled]</td>
<td>[UEFI: UFD 2.0 Silicon]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Disabled]</td>
<td>[UEFI: UFD 2.0 Silicon]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Disabled]</td>
<td>[UEFI: UFD 2.0 Silicon]</td>
</tr>
</tbody>
</table>

**Setup Prompt Timeout**  
Enter the number of seconds to wait for the setup activation key

**Bootup NumLock State**  
Use this item to select the power-on state for the NumLock. The default setting is on.

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

**Legacy Pxe OPROM**  
Use this item to enable or disable the Preboot Execution Environment. The default setting is [Disabled].

**Boot Option Priorities**  
Specify the overall boot order from the available devices.
3.9 Exit Menu

NOTE Load default before updating TXE firmware and restart.
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Chapter 4

Drivers and Installation

4.1 System

The GOT610-837 supports Windows 7, Windows 8.1, and Windows 10. To facilitate the installation of system drivers, please carefully read the instructions in this chapter before installation.

Step 1 Insert the driver CD and select “Drivers”.

Step 2 Select all files and follow the installing procedure.

4.2 Touch Screen

The GOT610-837 adopts a 5-wire analog resistive touch screen. The specification and driver installation are listed below.

- Specification

<table>
<thead>
<tr>
<th>Touch Screen</th>
<th>5-wire Analog Resistive type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Screen Controller</td>
<td>PenMount 6500 Touch Screen Controller IC</td>
</tr>
<tr>
<td>Communications</td>
<td>COM interface</td>
</tr>
<tr>
<td>Baud Rate</td>
<td>19200 baud rate fixed</td>
</tr>
<tr>
<td>Resolution</td>
<td>1024 X 1024</td>
</tr>
</tbody>
</table>
Driver Installation - Windows OS

The GOT610-837 provides a touch screen driver that users can install under the operating system Windows OS. To facilitate installation of the touch screen driver, you should read the instructions in this chapter carefully before you start installation.

Step 1  Insert the driver CD and follow the path to select “Win7\Step 6. Penmount Touch”.

Step 2  Follow the installing procedure and press OK.

Step 3  Click Start menu and select “PenMount Utilities”. Then a “PenMount Control Panel” pops out.
Step 4  
Select the “Standard Calibrate” tab.

![Image of calibration tab]

Step 5  
**Calibrations:**
To adjust the display of the touch panel, click “Calibration” and follow the calibrating point to do calibration; there are five points on the screen for calibration.

![Image of touch panel calibration]

Touch the red square.

Step 6  
Press OK.
4.3  Configuration Center Software

This section will guide you to install the Configuration Center Software. Just follow the on-screen instructions step by step. Before you start, please be reminded to run the installer as administrator.

4.3.1 Started Install Configuration

Step 1 Double click “Setup.exe” and click “Next” to continue installing.
Step 2  Confirm installation and click "Next" to continue installing.

Step 3  Please wait when you see the following screen.

Step 4  When installation is completed, click "Close" to exit.
Step 5  After installation completed, please reboot your system to activate the software.

4.3.2  Configuration Center

Homepage
You can double check the icon in notification area to show homepage.

System Information:
This page provides the information about system and network interface.
Ignition Key Function
Enable/Disable custom action when the engine is turned off.(Ignition Off)

Action
What action do you want to execute when the engine is turned off.

Timeout(Seconds)
If the action does not execute successfully in timeout seconds, the system will be shut down.(Hardware Shutdown)
**Watchdog:**

**Configuration Center**

*Watchdog Timer*

**Watchdog**

**Enable / Disable**

**Timer:** 30 [10~225]

**Mode**

- Second
- Minute

**Timer**

Watchdog timer Time-out value. (10~225)

**Mode**

Watchdog timer count mode. (second / minute)
Volume & Brightness:

Volume and Brightness
Set the system volume and brightness.

Automatic Brightness Dimming
Enable / Disable auto-dim feature.
(If you enable this feature, you will not be able to adjust the system brightness manually.)
Front Key:

**Action**
What action do you want to execute when front key click.
(Execute program / Custom key / Default action)

**Execute Program**
Select the program you want to execute when front key click.

**Custom Key**
1. Click “Detect” button to start to record keys you want to simulate when front key click.
2. Click “Stop” to complete the recording.

*NOTE: Because of Windows security issue, some simulation key combinations will not be effective. (“ctrl + alt + delete”, “Win + L”)
Battery:

**Custom Action**
Enable / Disable battery custom action.

**When battery is lower than**
The lower limit value of battery capacity percent.

**Action**
What action do you want to execute when battery is lower than lower limit.

**Timeout**
If the action does not execute successfully in timeout seconds, the system will be shut down. (Hardware Shutdown)
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