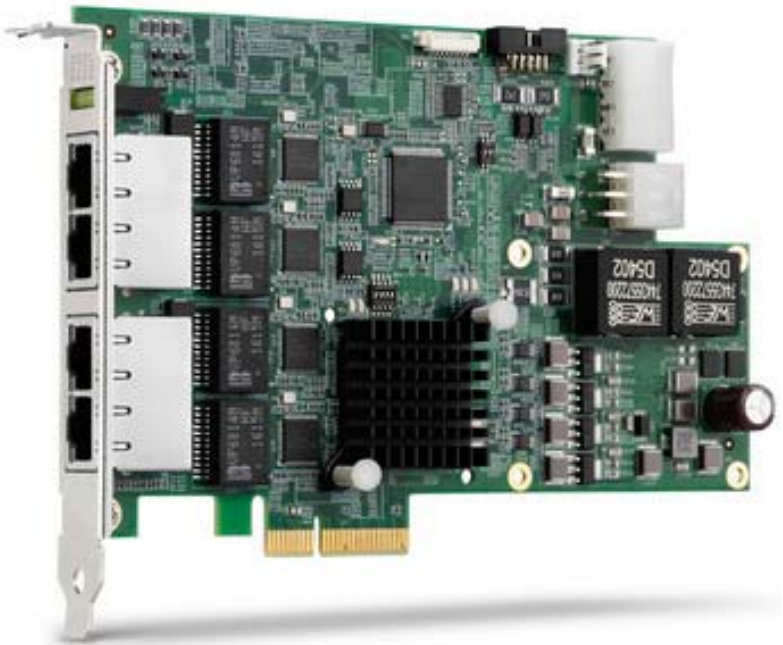# PCIe-GIE7x Series

## PCIe-GIE72/PCIe-GIE72 Pro/
## PCIe-GIE74/PCIe-GIE74 Pro

2/4CH PCI Express®
GigE Vision PoE+ Frame Grabber



| | |
|---|---|
| **Manual Rev.:** | 2.00 |
| **Revision Date:** | Oct. 26, 2016 |
| **Part No:** | 50-11177-2000 |

# Advance Technologies; Automate the World.

# Revision History

| Revision | Release Date | Description of Change(s) |
|:---:|:---:|:---:|
| 2.00 | Oct. 26, 2016 | Initial release |

# Preface

**Copyright 2016 ADLINK Technology, Inc.**

This document contains proprietary information protected by copyright. All rights are reserved. No part of this manual may be reproduced by any mechanical, electronic, or other means in any form without prior written permission of the manufacturer.

**Disclaimer**

The information in this document is subject to change without prior notice in order to improve reliability, design, and function and does not represent a commitment on the part of the manufacturer.

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

**Environmental Responsibility**

ADLINK is committed to fulfill its social responsibility to global environmental preservation through compliance with the European Union's Restriction of Hazardous Substances (RoHS) directive and Waste Electrical and Electronic Equipment (WEEE) directive. Environmental protection is a top priority for ADLINK. We have enforced measures to ensure that our products, manufacturing processes, components, and raw materials have as little impact on the environment as possible. When products are at their end of life, our customers are encouraged to dispose of them in accordance with the product disposal and/or recovery programs prescribed by their nation or company.

**Trademarks**

Product names mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies.

## Conventions

Take note of the following conventions used throughout this manual to make sure that users perform certain tasks and instructions properly.

| | |
|---|---|
| NOTE: | Additional information, aids, and tips that help users perform tasks. |

| | |
|---|---|
| CAUTION: | Information to prevent *minor* physical injury, component damage, data loss, and/or program corruption when trying to complete a task. |

| | |
|---|---|
| WARNING: | Information to prevent *serious* physical injury, component damage, data loss, and/or program corruption when trying to complete a specific task. |

# Table of Contents

# List of Figures

This page intentionally left blank.

# List of Tables

This page intentionally left blank.

# 1   Introduction

## 1.1   Overview

ADLINK's PCIe-GIE7x Series features PCI Express® x4 lane GigE Vision PoE+ (Power Over Ethernet Plus, IEEE 802.3at) frame grabbers supporting 2/4CH independent Gigabit Ethernet ports for multiple GigE Vision connections with data transfer up to 1 Gb/s per port.

The PCIe-GIE7x's PoE+ offers up to 30W PoE power and automatic detection for stable and reliable connection between PoE, PoE+, or non-PoE cameras and frame grabbers, reducing costs, simplifying installation, and easing maintenance burdens. The series further enhances PoE protection to protect against undervoltage, overvoltage, overcurrent, and overheating, programmable to not only switch PoE on and off, but also monitor PoE power consumption and automatically manage power budget according to the power source (PCIe or 4/6 pin Molex connector). Available power is directed to higher priority ports if a situation arises in which there is insufficient power for all PoE ports.

The PCIe-GIE72/74, in Pro configuration, fulfills even more application requirements with software license management integrating a Licensed Security EEPROM for third party software, eliminating the need for secure license dongles or other hardware, providing SDK and utilities to license software safely and easily. As well, ToE (Trigger over Ethernet) transmits trigger commands via Ethernet for full synchronization of multi-camera acquisition.

## 1.2 Features

▶ PCI Express® x4 compliant
▶ Supports 2/4 independent Gigabit Ethernet ports
▶ IEEE 802.3at for PoE+ (Power over Ethernet Plus) 50 to 57V, 30W per port
▶ Up to 20/61.6/120W PoE power supply from PCIe bus or 4-pin/6-pin Molex connector
▶ Powered Device (PD) auto detection and classification
▶ Link Aggregation/jumbo frame (9 Kb)
▶ LED connectivity indicators
▶ IEEE 1588 (PTP technology, hardware only)
▶ Multiple card and camera support
▶ PoE protection from protect against undervoltage, overvoltage, overcurrent, and overheating
▶ PoE power management, programmable PoE on/off, monitoring POE power consumption and POE budget and priority control
▶ ToE (Trigger over Ethernet) (Pro only)
▶ License management (Pro only)
▶ Windows® 7/8.1/10 OS compatible
▶ C#, VB.NET/VC++ compatible

## 1.3 Applications

The PCIe-GIE7x Series is ideally suited to frame grab functions in a wide variety of applications, including:

▶ Machine Vision Inspection systems
▶ Scientific research instrumentation
▶ Medical research instrumentation

NOTE: The PCIe-GIE7x Series Function Library Reference can be downloaded from the product's pages at http://www.adlink-tech.com

NOTE: Support for total PoE power up to 120W is only available on the PCIe-GIE74 Pro

## 1.4 Specifications

| | PCIe-GIE72 | PCIe-GIE72 Pro | PCIe-GIE74 | PCIe-GIE74 Pro |
|---|---|---|---|---|
| **PCI Express** | | | | |
| PCIe X4 ports | PCIe v2.1 (2.5 GT/s) 1 slot | | | |
| Differential Output Peak to Peak Voltage | +0.8V to +1.2V | | | |
| Differential Input Peak to Peak Voltage | +0.175V to +1.2V | | | |
| Input voltage for PERST#, WAKE#, and SMBus | -0.75V to +4.05V | | | |
| **Gigabit Ethernet** | | | | |
| LAN Chip | Intel® I210, PCIe v2.1 (2.5GT/s) | | | |
| Gigabit Ethernet Ports | 2/4 | | | |
| **PoE Signal** | | | | |
| Max Output Power | PoE+, Power over Ethernet plus, 30W per port, IEEE 802.3at compliant | | | |
| PoE Output Voltage | 50 to 57V, PoE port positive voltage feed | | | |

| | PCIe-GIE72 | PCIe-GIE72 Pro | PCIe-GIE74 | PCIe-GIE74 Pro |
|---|---|---|---|---|
| **Physical** | | | | |
| Dimensions | 167.6 W x 106.6 H mm (6.6 x 4.2 in.) | | | |
| Operating Temperature | ▶ 0°C to 70°C when PoE power is 20W and 61.6W<br>▶ 0°C to 40°C when PoE power is 120W | | | |
| Storage Temperature | -40°C to 85°C | | | |
| Safety Compliance | CE/FCC Class B; RoHS | | | |
| **Advanced** | | | | |
| Jumbo Frame | 9 KB | | | |
| IEEE 1588 (Hardware Only) | Yes | | | |
| Link Aggregation | Yes | | | |
| Multiple cards | Yes | | | |
| PoE+, Power over Ethernet Plus, IEEE 802.3at | Yes | | | |
| PoE Protection | Yes | | | |
| PoE Power Management | Yes | | | |
| License Management | No | Yes | No | Yes |
| ToE, Trigger over Ethernet | No | Yes | No | Yes |
| **Power Requirements** | | | | |
| Input Voltage | 3.3VDC and 12VDC, (w/ PC system power) | | | |
| PoE Power w/ PCIe Slot | Max. 20W (+12V@2.1A) | | | |

| | PCIe-GIE72 | PCIe-GIE72 Pro | PCIe-GIE74 | PCIe-GIE74 Pro |
|---|---|---|---|---|
| PoE Power w/ Molex Connector | Max 61.6W for 4-pin (+12V@6A) or 6-pin (+12V@6A) | | | Max 120W for both 4-pin (+12V@6A) and 6-pin (+12V@6A) |

### 1.4.1 Power over Ethernet

The PCIe-GIE7x Series' PoE (Power over Ethernet) specification enables the PCIe-GIE7x to act as power sourcing equipment (PSE), providing power through a twisted-pair Ethernet connection to a powered device (PD), such as a GigE Vision camera, IP phone, or wireless access points.

### 1.4.2 PoE vs. PoE+

Power over Ethernet (PoE), based on the IEEE 802.3af standard, delivers power over Ethernet up to 15.4W per port, and Power over Ethernet Plus (PoE+), based on IEEE 802.3at, up to 30W per port.

The PXIe-GIE7x Series supports both PoE and PoE+, automatically detecting which is supported by devices upon connection and supporting the requisite protocol.

| | PoE (IEEE 802.3af) | PoE+ (IEEE 802.3at) |
|---|---|---|
| Power available at PD | 12.95W | 25.5W |
| Maximum power from PSE | 15.4W | 30.0W |
| Voltage range (at PSE) | 44.0 to 57.0 V | 50.0 to 57.0 V |
| Voltage range (at PD) | 37.0 to 57.0 V | 42.5 to 57.0 V |
| Maximum current | 350 mA/mode | 600 mA/mode |

**Table 1-1: PoE and PoE+ Parameters**

### 1.4.3 PoE Protection

The PCIe-GIE7x provides PoE protection from undervoltage, over-voltage, overcurrent, overheating, and budget overages.

### Under- and Overvoltage

PoE output is monitored and power supply to the PD interrupted when any output exceeds OVP (Over Voltage Protection) or falls below UVP (Under Voltage Protection) limits.

| Normal PoE | 50 to 57V |
|------------|-----------|
| UVP        | 29V       |
| OVP        | 62V       |

**Table 1-2: Over- and Undervoltage Protection Parameters**

### Overcurrent Protection

Overcurrent defines a condition in which the current (in amperes) exceeds a rated value, or ICUT, caused by overload, short circuit, or ground fault. The PCIe-GIE7x protects the circuit by shutting down connection to the PD when the current achieves a value that can generate excessive or dangerous temperature rise in conductors.

| Class              | ICUT          |
|--------------------|---------------|
| Class 1            | 112mA +/- 5%  |
| Class 2            | 206mA +/- 5%  |
| Class 3 or Class 0 | 375mA +/- 5%  |
| Class 4            | 638mA +/- 5%  |

**Table 1-3: Icut Per PoE class**

## Overtemperature Protection

Two trigger temperatures, HT (High Temperature) and LT (Low Temperature) respectively can be preset. When HT is reached, the PCIe-GIE7x automatically shuts down PoE power until the temperature sensor falls below LT.

While default values of HT and LT are 130˚C and 90˚C respectively, they can be changed via PoE Power Management SDK or Utility, with available range of HT 80 to 130˚C, and LT 70 to 120˚C.

|  | HT | LT |
|---|---|---|
| Default Value | 130°C | 90°C |
| Range | 80 to 130°C | 70 to 120°C |

**Table 1-4: Overtemperature Protection (OTP) Parameters**

### 1.4.4 PoE Power Management

PoE device reliability is greatly enhanced with:

- ▸ Programmable PoE-based on/off switching for each port
- ▸ PoE power budget management based on power source, with monitoring and reporting of Total Power Budget, Reserved Power, Remaining Unused Budget, and Current Power Usage
- ▸ PoE status monitor including PoE classification and voltage/ current for each port
- ▸ PoE port priority of Port1/Port2/Port3/Port4
- ▸ PCIe-GIE7x Series board information Including available devices, PoE switch (SW3) status, board temperature, and firmware and MCU versions

## PoE Classification

Available power for the PCIe-GIE7x Series is as shown. If PCIe-GIE7x detects no classification of PD, default Class 0 power level is provided.

| NOTE: | Due to inherent cable resistance, voltage drops along the length of the cable result in power loss to the remote PD. For example, although the PCIe-GIE7x, upon detection of a Class 3 device, provides up to 15.4W of power, on a full 100m cable, a maximum of only 12.95W will be available to the remote PD. |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Power Class | 0 | 1 | 2 | 3 | 4 |
|-------------|-----|------|------|-------|-------|
| PSE Power over PoE | 15.4W | 4.0W | 7.0W | 15.4W | N/A |
| PSE Power over PoE+ | 15.4W | 4.0W | 7.0W | 15.4W | 30.0W |

**Table 1-5: Available Power per PoE Class**

## PoE Port Priority

PoE port priority, as shown, is fixed. Available power is diverted to the priority ports if insufficient power is available to all PoE ports.

|        | Priority |
|--------|----------|
| Port 1 | 1 |
| Port 2 | 2 |
| Port 3 | 3 |
| Port 4 | 4 |

**Table 1-6: PoE Port Priority**

## PoE Power Budget

The PCIe-GIE7x Series automatically manages power budget according to power source (PCIe or 4/6 pin Molex connector). When budget is exceeded, PoE power is interrupted to prevent damage to the PCIe-GIE7x and connected devices.

| PoE Power Source | PCIe slot | 4-pin 12V connector | 6-pin 12V connector | 4-pin 12V connector/ 6-pin 12V connector |
|---|---|---|---|---|
| **Budget** | 20W | 61.6W | 61.6W | 120W (PCIe-GIE74 Pro only) |

**Table 1-7: PoE Power Budget**

## Power Management SDK and Utility

The ADLINK Power Management SDK and Utility are standard and ready to use with the PCIe-GIE7x Series, with no additional licensing required. Applications are easily created with the SDK, requiring only a few lines of code. The Power Management Utility is an interactive Windows application for PoE configuration and status monitoring.

## 1.5 Layout, I/O and Indicators

<table>
<tr><td>NOTE:</td><td>All dimensions shown are in mm</td></tr>
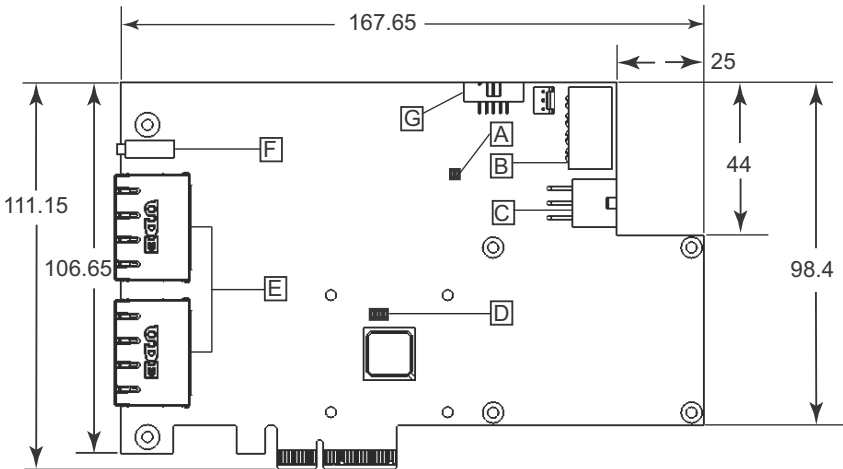</table>

### 1.5.1 PCIe-GIE74/PCIe-GIE74 Pro
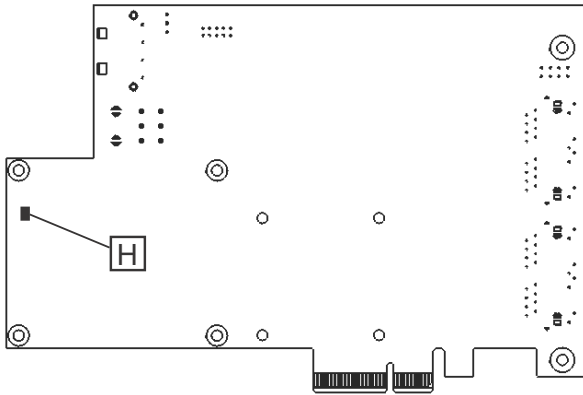


**Figure 1-1: PCIe-GIE74/PCIe-GIE74 Pro PCB Top Layout**

**Figure 1-2: PCIe-GIE74/PCIe-GIE74 Pro PCB Underside Layout**

| | |
|---|---|
| **A** | POE switch (SW3) |
| **B** | 4-pin 12V connector |
| **C** | 6-pin 12V connector |
| **D** | Card ID switch (SW1) |
| **E** | RJ45 connectors x2 |
| **F** | POE LED |
| **G** | Trigger In connector |
| **H** | Temperature sensor |

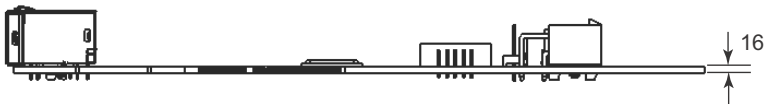**Table  1-8: PCIe-GIE74/PCIe-GIE74 Pro PCB Layout Legend**



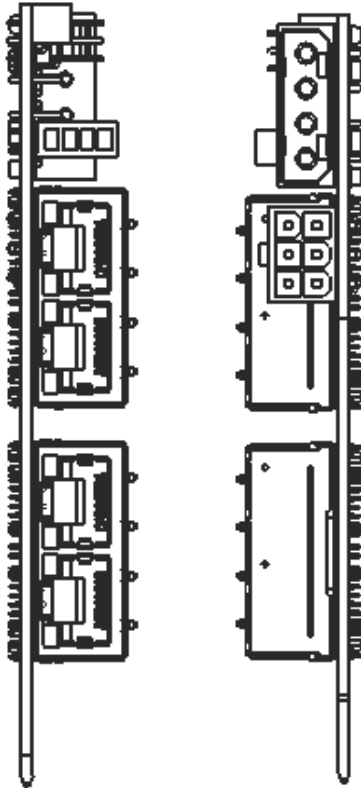**Figure 1-3: PCIe-GIE74/PCIe-GIE74 Pro Side View**

**Figure 1-4: PCIe-GIE74/PCIe-GIE74 Pro I/O**
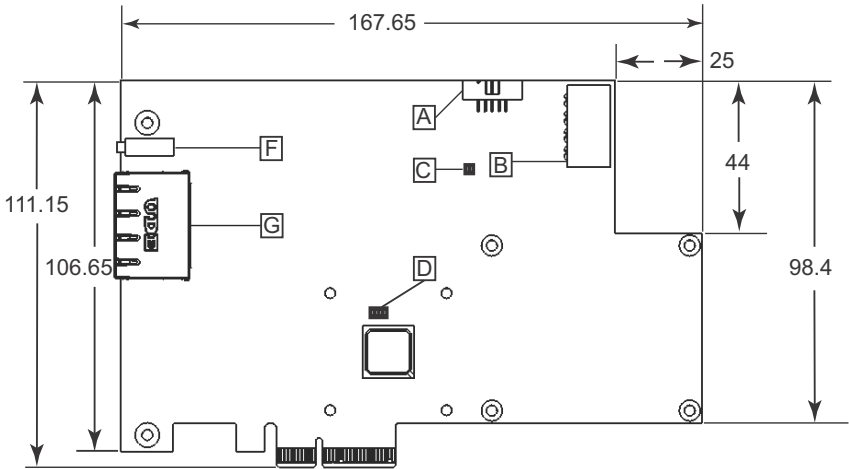
## 1.5.2 PCIe-GIE72/PCIe-GIE72 Pro



**Figure 1-5: PCIe-GIE72/PCIe-GIE72 Pro PCB Top Layout**
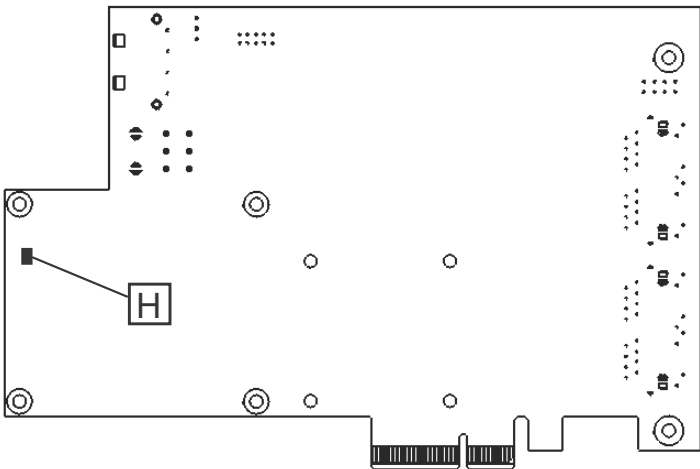


**Figure 1-6: PCIe-GIE72/PCIe-GIE72 Pro PCB Underside Layout**

| A | Trigger In connector |
|---|---|
| B | 4-pin 12V connector |
| C | POE switch (SW3) |
| D | Card ID switch (SW1) |
| E | RJ45 connector |
| F | POE LED |
| G | Temperature sensor |

**Table 1-9: PCIe-GIE72/PCIe-GIE72 Pro PCB Layout Legend**
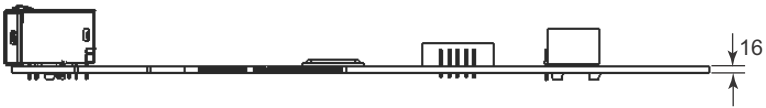


**Figure 1-7: PCIe-GIE72/PCIe-GIE72 Pro Side View**
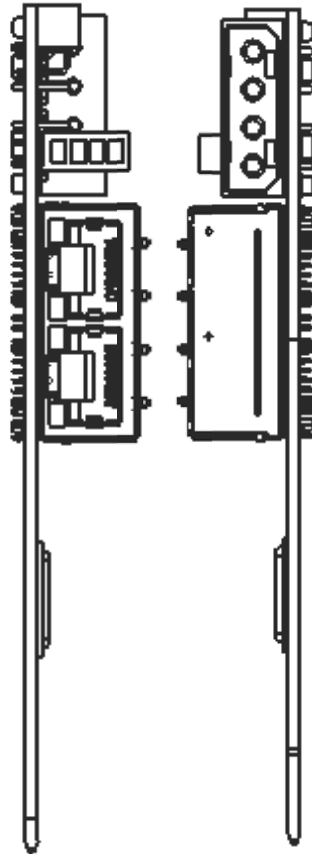
**Figure 1-8: PCIe-GIE72/PCIe-GIE72 Pro I/O**

## 1.5.3  RJ-45 Ethernet Port
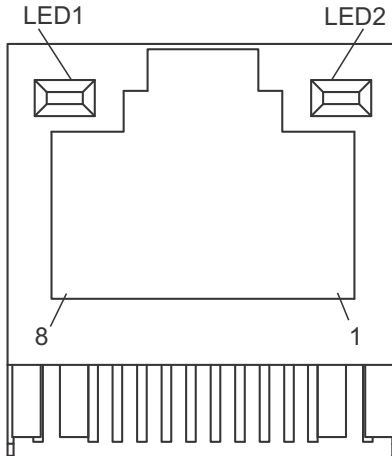


**Figure 1-9: RJ-45 Ethernet Connector**

| Pin | Signal |
|-----|--------|
| 1 | MDI0+ (PoE_DCV+) |
| 2 | MDI0- (PoE_DCV+) |
| 3 | MDI1+ (PoE_DCV-) |
| 4 | MDI2+ (PoE_DCV+) |
| 5 | MDI2- (PoE_DCV+) |
| 6 | MDI1- (PoE_DCV-) |
| 7 | MDI3+ (PoE_DCV-) |
| 8 | MDI3- (PoE_DCV-) |

**Table  1-10: RJ-45 Ethernet Port Connector Signals**

| | Activity | Status |
|---|---|---|
| LED1 10/100/1000 | Off | 10 Mbps |
| | Green | 100Mpbs |
| | Yellow | 1000Mbps |
| LED2 ACT/LINK | Off | No link |
| | Green | Linked |
| | Flashing green | Data activity |

**Table 1-11: RJ-45 Ethernet Port LED Indicators**

### 1.5.4    PoE Status LEDs

Port4
Port3
Port2
Port1

**Figure 1-10: Status LEDs**

Four yellow LEDs, when lit, indicate PoE activity for the respectively labeled port.

## 1.5.5    4 Pin 12V Power Connector (CN3)
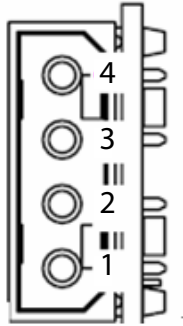


**Figure 1-11: 4 Pin 12V Power Connector**

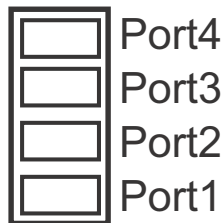| Pin | Signal |
|:---:|:------:|
| 1 | +12V |
| 2 | GND |
| 3 | GND |
| 4 | +5 |

**Table  1-12: 4 Pin 12V Power Connector Pin Assignment**

## 1.5.6    6 Pin 12V Power Connector (CN4)
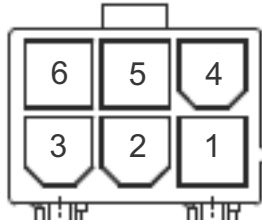


**Figure 1-12: 6 Pin 12V Power Connector**

| Pin | Signal | Pin | Signal |
|-----|--------|-----|--------|
| 1 | +12V | 4 | +5 |
| 2 | GND | 5 | Sense |
| 3 | GND | 6 | GND |

**Table  1-13: 6 Pin 12V Power Connector Pin Assignment**

## 1.5.7    Card ID Switch (SW1)

Card ID default setting is 15 (0x1111).
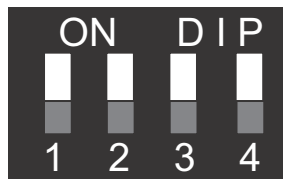


**Figure 1-13: Card ID Switch**

|     | Definition |
|-----|------------|
| ON | 1 (Default) |
| OFF | 0 |

**Table  1-14: Card ID Switch Settings**

| Card ID | 1 | 2 | 3 | 4 |
|---------|-----|-----|-----|-----|
| 0 | OFF | OFF | OFF | OFF |
| 1 | ON | OFF | OFF | OFF |
| 2 | OFF | ON | OFF | OFF |
| 3 | ON | ON | OFF | OFF |
| 4 | OFF | OFF | ON | OFF |
| 5 | ON | OFF | ON | OFF |
| 6 | OFF | ON | ON | OFF |
| 7 | ON | ON | ON | OFF |
| 8 | OFF | OFF | OFF | ON |
| 9 | ON | OFF | OFF | ON |
| 10 | OFF | ON | OFF | ON |
| 11 | ON | ON | OFF | ON |
| 12 | OFF | OFF | ON | ON |
| 13 | ON | OFF | ON | ON |
| 14 | OFF | ON | ON | ON |
| 15 | ON | ON | ON | ON |

**Table 1-15: Card ID Switch Legend**

## 1.5.8    PoE Switch (SW3)
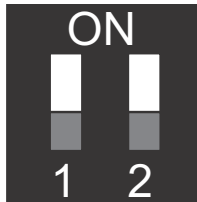


**Figure 1-14: PoE Switch**

| Bit | Definition | |
|-----|------------|---|
| 1 | PoE HW Switch | Switch ON: PoE Disable |
| | | Switch OFF: PoE Enable (Default) |
| 2 | PoE Initial State | Switch ON: PoE OFF @ Power On |
| | | Switch OFF: PoE ON @ Power On (Default) |

**Table 1-16: PoE Switch Settings**

This page intentionally left blank.

# 2 Getting Started

## 2.1 Unpacking Checklist

Before unpacking, check the shipping carton for any damage. If the shipping carton and/or contents are damaged, inform your dealer immediately. Retain the shipping carton and packing materials for inspection. Obtain authorization from your dealer before returning any product to ADLINK. Ensure that the following items are included in the package.

▶ PCIe-GIE7x unit (PCIe-GIE72, PCIe-GIE72 Pro, PCIe-GIE74 or PCIe-GIE74 Pro)

▶ Quick Start Guide

| | OEM versions with non-standard configuration, functionality, or packaging may vary according to individual requirements. |
|---|---|
| NOTE: | |

## 2.2 Installation

The following describes installation of the PCIe-GIE7x Series module on the PCI express bus.

1. Remove the computer cover according to the computer manual.

---

NOTE: A vacant PCI express slot is required for installation of the PCIe-GIE7x Series module; if none is available, remove a PCI express board and note the slot number.

---

2. Remove the slot cover (if any).

3. Carefully position the PCIe-GIE7x in the selected PCI express slot. If installing in a tower computer, align the board with the board slots.

4. Press the board firmly but carefully into the connector.

5. Anchor the board with the screw.

6. Plug the cable into the PoE power connector.

7. Connect the device via a Gigabit Ethernet connector.

8. Power up the computer.

---

NOTE: The PCIe-GIE7x can be installed in a PCI Express x4, x8, or x16 slot. Please download the Intel® I210 driver from ADLINK (www.adlinktech.com) or Intel (downloadcenter.intel.com)

---

# Important Safety Instructions

For user safety, please read and follow all instructions, Warnings, Cautions, and Notes marked in this manual and on the associated device before handling/operating the device, to avoid injury or damage.

*S'il vous plaît prêter attention stricte à tous les avertissements et mises en garde figurant sur l'appareil , pour éviter des blessures ou des dommages.*

- ▶ Read these safety instructions carefully
- ▶ Keep the User's Manual for future reference
- ▶ Read the Specifications section of this manual for detailed information on the recommended operating environment
- ▶ The device can be operated at an ambient temperature of 50ºC
- ▶ When installing/mounting or uninstalling/removing device; or when removal of a chassis cover is required for user servicing (See "Getting Started" on page 23.):
    - ▷ Turn off power and unplug any power cords/cables
    - ▷ Reinstall all chassis covers before restoring power
- ▶ To avoid electrical shock and/or damage to device:
    - ▷ Keep device away from water or liquid sources
    - ▷ Keep device away from high heat or humidity
    - ▷ Keep device properly ventilated (do not block or cover ventilation openings)
    - ▷ Always use recommended voltage and power source settings
    - ▷ Always install and operate device near an easily accessible electrical outlet
    - ▷ Secure the power cord (do not place any object on/over the power cord)
    - ▷ Only install/attach and operate device on stable surfaces and/or recommended mountings
- ▶ If the device will not be used for long periods of time, turn off and unplug from its power source

▶ Never attempt to repair the device, which should only be serviced by qualified technical personnel using suitable tools

▶ A Lithium-type battery may be provided for uninterrupted backup or emergency power.

---

**CAUTION:** Risk of explosion if battery is replaced with one of an incorrect type; please dispose of used batteries appropriately.
*Risque d'explosion si la pile est remplacée par une autre de type incorrect. Veuillez jeter les piles usagées de façon appropriée.*

---

▶ The device must be serviced by authorized technicians when:
  ▷ The power cord or plug is damaged
  ▷ Liquid has entered the device interior
  ▷ The device has been exposed to high humidity and/or moisture
  ▷ The device is not functioning or does not function according to the User's Manual
  ▷ The device has been dropped and/or damaged and/or shows obvious signs of breakage

▶ Disconnect the power supply cord before loosening the thumbscrews and always fasten the thumbscrews with a screwdriver before starting the system up

▶ It is recommended that the device be installed only in a server room or computer room where access is:
  ▷ Restricted to qualified service personnel or users familiar with restrictions applied to the location, reasons therefor, and any precautions required
  ▷ Only afforded by the use of a tool or lock and key, or other means of security, and controlled by the authority responsible for the location

▶ If PoE (Power over Ethernet) is enabled for the device, the system can ONLY be deployed indoors. Unless otherwise noted, the PoE system is NOT designed to withstand the rigors of outdoor use.

| | **BURN HAZARD** |
|---|---|
|  | Touching this surface could result in bodily injury. To reduce risk, allow the surface to cool before touching.<br>***RISQUE DE BRÛLURES***<br>*Ne touchez pas cette surface, cela pourrait entraîner des blessures.*<br>*Pour éviter tout danger, laissez la surface refroidir avant de la toucher.* |

This page intentionally left blank.

# Getting Service

**Ask an Expert:** http://askanexpert.adlinktech.com

**ADLINK Technology, Inc.**
Address: 9F, No.166 Jian Yi Road, Zhonghe District
New Taipei City 235, Taiwan
新北市中和區建一路 166 號 9 樓
Tel: +886-2-8226-5877
Fax: +886-2-8226-5717
Email: service@adlinktech.com

**Ampro ADLINK Technology, Inc.**
Address: 5215 Hellyer Avenue, #110
San Jose, CA 95138, USA
Tel: +1-408-360-0200
Toll Free: +1-800-966-5200 (USA only)
Fax: +1-408-360-0222
Email: info@adlinktech.com

**ADLINK Technology (China) Co., Ltd.**
Address: 上海市浦东新区张江高科技园区芳春路 300 号 (201203)
300 Fang Chun Rd., Zhangjiang Hi-Tech Park
Pudong New Area, Shanghai, 201203 China
Tel: +86-21-5132-8988
Fax: +86-21-5132-3588
Email: market@adlinktech.com

**ADLINK Technology Beijing**
Address: 北京市海淀区上地东路 1 号盈创动力大厦 E 座 801 室(100085)
Rm. 801, Power Creative E, No. 1 Shang Di East Rd.
Beijing, 100085 China
Tel: +86-10-5885-8666
Fax: +86-10-5885-8626
Email: market@adlinktech.com

**ADLINK Technology Shenzhen**
Address: 深圳市南山区科技园南区高新南七道 数字技术园
A1 栋 2 楼 C 区 (518057)
2F, C Block, Bldg. A1, Cyber-Tech Zone, Gao Xin Ave. Sec. 7
High-Tech Industrial Park S., Shenzhen, 518054 China
Tel: +86-755-2643-4858
Fax: +86-755-2664-6353
Email: market@adlinktech.com

**LiPPERT ADLINK Technology GmbH**
Address: Hans-Thoma-Strasse 11
D-68163 Mannheim, Germany
Tel: +49-621-43214-0
Fax: +49-621 43214-30
Email: emea@adlinktech.com

**PENTA ADLINK Technology GmbH**
Ulrichsbergerstrasse 17
94469 Deggendorf, Germany
Tel: +49 (0) 991 290 94 – 10
Fax: +49 (0) 991 290 94 - 29
Email: emea@adlinktech.com

**ADLINK Technology, Inc. (French Liaison Office)**
Address:    6 allée de Londres, Immeuble Ceylan
            91940 Les Ulis, France
Tel:        +33 (0) 1 60 12 35 66
Fax:        +33 (0) 1 60 12 35 66
Email:      france@adlinktech.com

**ADLINK Technology Japan Corporation**
Address:    〒101-0045 東京都千代田区神田鍛冶町 3-7-4
            神田 374 ビル 4F
            KANDA374 Bldg. 4F, 3-7-4 Kanda Kajicho,
            Chiyoda-ku, Tokyo 101-0045, Japan
Tel:        +81-3-4455-3722
Fax:        +81-3-5209-6013
Email:      japan@adlinktech.com

**ADLINK Technology, Inc. (Korean Liaison Office)**
Address:    경기도 성남시 분당구 수내로 46 번길 4 경동빌딩 2 층
            (수내동 4-4 번지) (우) 463-825
            2F, Kyungdong B/D, 4 Sunae-ro 46 beon-gil
            Bundang-gu, Seongnam-si, Gyeonggi-do, Korea, 463-825
Toll Free   +82-80-800-0585
Tel         +82-31-786-0585
Fax         +82-31-786-0583
Email:      korea@adlinktech.com

**ADLINK Technology Singapore Pte. Ltd.**
Address:    84 Genting Lane #07-02A, Cityneon Design Centre
            Singapore 349584
Tel:        +65-6844-2261
Fax:        +65-6844-2263
Email:      singapore@adlinktech.com

**ADLINK Technology Singapore Pte. Ltd. (Indian Liaison Office)**
Address:    #50-56, First Floor, Spearhead Towers
            Margosa Main Road (between 16th/17th Cross)
            Malleswaram, Bangalore - 560 055, India
Tel:        +91-80-65605817, +91-80-42246107
Fax:        +91-80-23464606
Email:      india@adlinktech.com

**ADLINK Technology, Inc. (Israeli Liaison Office)**
Address:    27 Maskit St., Corex Building
            PO Box 12777
            Herzliya 4673300, Israel
Tel:        +972-54-632-5251
Fax:        +972-77-208-0230
Email:      israel@adlinktech.com

**ADLINK Technology, Inc. (UK Liaison Office)**
Tel:        +44 774 010 59 65
Email:      UK@adlinktech.com