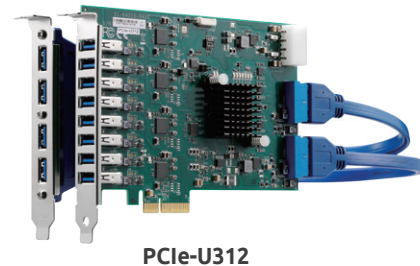
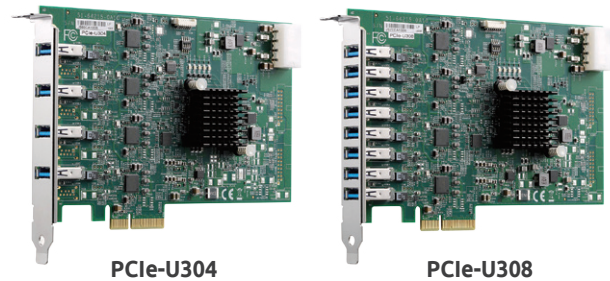


PCIe-U300 Series

4/8/12-ch PCI Express x4 Gen2 USB3 Vision Top Performing Frame Grabbers

Features

- PCI Express x4 Gen2 compliant
- Compliant with USB 3.1 Gen 1 (identical to USB 3.0)
- Host Controller, Fresco FL1100
- 4/8 USB Type-A external ports (PCIe-U304/U308)
- 4 additional internal USB 3.0 ports by pin headers (PCIe-U312 only)
- Up to 20W USB power from PCIe bus (default)
- Up to 60W USB power supported by 4-pin Molex power connector
- Up to 1500mA max. current per port
- Multiple cards, multiple cameras in a single system
- Easy-to-use API provided for software-programmable per-port power on/off



Introduction

ADLINK's PCIe-U300 Series is a PCI Express x4 Gen2 USB3 Vision frame grabber supporting 4/8/12 USB 3.1 Gen 1 ports for multiple USB3 Vision device connections with data transfer up to 5 Gb/s per port.

The PCIe-U300 Series supports 5V and up to max. 1500mA current per port for external USB3 Vision industrial cameras. To guarantee industrial-grade high-bandwidth performance for each port, four independent Fresco FL1100 USB 3.1 Gen 1 host controllers with PCI Express x4 Gen2 interface allow each USB port to provide up to 5Gbps bandwidth when operating four ports simultaneously. It also supports software-programmable per-port power on/off control for fault recovery operations.

ADLINK's PCIe-U300 Series provides excellent capability to interface with USB 3.0 devices for machine vision, factory automation, quality assurance, logistics, medicine, and security and traffic surveillance applications.

Software Support

- **OS Information**
Windows® 7/10, Linux
- **Software Compatibility**
C#/VB.NET/VC++

Ordering Information

- **PCIe-U304**
4-ch PCI Express x4 Gen2 USB3 Vision frame grabber
- **PCIe-U308**
8-ch PCI Express x4 Gen2 USB3 Vision frame grabber
- **PCIe-U312**
12-ch PCI Express x4 Gen2 USB3 Vision frame grabber

Optional Accessories

- **CB-USB3-A/microB-3LS**
USB 3.0 cable, 3 meters with locking screws
- **CB-USB5-A/microB-5LS**
USB 3.0 cable, 5 meters with locking screws

Specifications

| | PCIe-U304 | PCIe-U308 | PCIe-U312 | |
|--|--|-----------------------|---|---|
| PCI Express Specification | 4-lane PCI Express Gen 2.1 (5 GT/s), 1 slot | | | |
| Differential Output Peak to Peak Voltage | +0.8 V to +1.2 V | | | |
| Differential Input Peak to Peak Voltage | +0.175 V to +1.2 V | | | |
| Input voltage for PERST#, WAKE#, and SMBus | -0.75 V to +4.05 V | | | |
| USB | | | | |
| USB Port Number (on Bracket) | 4 | 8 | 12 (4 via extension) | |
| USB Port Connector (on Bracket) | USB Type A Connector | | | |
| USB Host Controller | 4 x Fresco FL1100 Host Controller | | | |
| | Compliant with USB 3.0 Specification and Intel® xHCI Specification, Revision 1.0 | | | |
| Data Transfer Rate | SuperSpeed (5.0 Gbps), High Speed (480.0 Mbps) Full Speed (12.0 Mbps), Low Speed (1.5 Mbps) | | | |
| USB Power | | | | |
| Output Voltage (at PSE) | 5V ± 5% | | 5V of 4-Pin cable minus 0.25V | |
| Current Limit Range (Per Port) | 1700 mA ± 7% | | Port 1-8: 1700 mA ± 7% Port 9-12: 1100 mA ± 7% | |
| USB Power Management | Software-programmable per-port power on/off | | | |
| | Voltage, current overload and short circuit protection | | | |
| PCBA max. Power Requirement w/o USB Power Delivery | | +3.3V 2A, +12V @ 0.1A | | |
| USB Power Delivery Capacity (at PSE) | PCIe Slot only w/o 4-pin Molex Connector | Max. 20W USB Power | | 4-pin Molex connector req'd for extension ports |
| | PCIe Slot w/ 4-pin Molex Connector | Max. 30W USB Power | Max. 60W USB Power | Max. 78W USB Power |
| Physical | | | | |
| Dimensions (W x L) | 167.65 mm x 111.15 mm (6.59" x 4.37") | | | |
| Operating Temperature | 0°C to 60°C (32°F to 140°F) | | | |
| Humidity | 5% to 90% RHNC | | | |
| Storage Temperature | -40°C to 85°C (-40°F to 185°F) | | | |
| Safety Compliance | CE/FCC, Class A | | | |

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