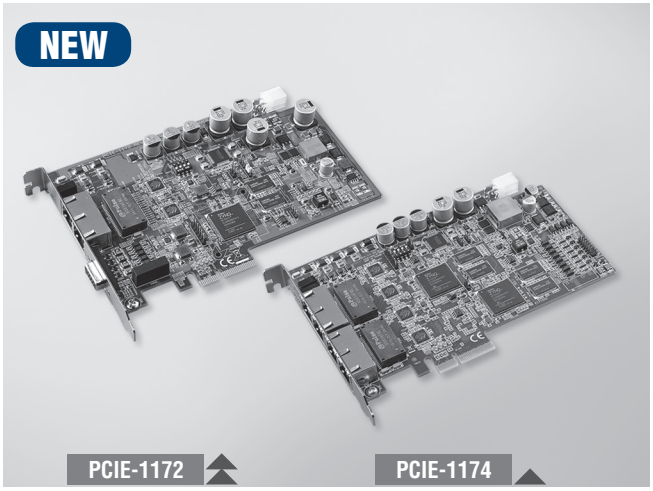
PCIE-1172
PCIE-1174

2-Port PCI Express Intelligent GigE Vision Frame Grabber

4-Port PCI Express Intelligent GigE Vision Frame Grabber



GEN<i>CAM GiGE VISION

Features

- PCI Express® x4 compliant
- GoE(GigE Vision Offload Engine), FPGA image reconstruction, No packet loss, No CPU workload
- GigE Vision, GENiCAM and GENTL compliant
- Automatic IP configuration
- 100 m cable length
- PoE, IEEE 802.3af compliant
- Direct power from PCIe slot (Total Max. 18W)
- ToE (Trigger over Ethernet)

Introduction

The PCIE-1172/1174 series is a PCI Express® dual/quad channel frame grabber for two/four independent GigE Vision cameras. They feature GoE (GigE Vision Offload Engine), PoE (Power over Ethernet) and ToE (Trigger over Ethernet) for high performance, robust and reliable machine vision applications. Unlike conventional NICs (network interface controller) GigE Vision protocol is implemented in software and executed on the host CPU, the processor must spend more resource to handle the network traffic and incoming frames rather than the machine vision algorithms, especially in high bandwidth, multiple camera applications. The GoE feature significantly off-loads the GigE Vision protocols into dedicated FPGA (Field Programmable Gate Array), reconstruct the image then transmit to the Host PC via DMA (Direct Memory Access) in real time, release the host processor resource to execute algorithm and applications and there is no frame or packet loss during the image acquisition. The comprehensive ToE/PoE features can lower the installation/maintenance effort through the single cable connection, and reduce image acquisition latency, with the Ad hoc network feature, the connection between GigE Vision cameras and frame grabber are self-configuring, the user define IP address is no longer necessary, and significantly reduces the installation and maintenance cost and effort.

Specifications

GigE Vision

- **Compatibility** IEEE802.3af
- **Speed** 1000 Mbps
- **No. of Ports** 2 or 4
- **Port Connector** 8-pin RJ45
- **Bus Interface** PCI Express® x4
- **Jumbo Frame** 9KB

Digital Input/Output

- **No. of Channels** 2 or 4 input and output
- **Input/Output range** 0-30V opto-isolated
- **Max. frequency** 1KHz
- **Digital input interrupt** Falling and Rising edge, normal and invert

Power Requirements

- **Input Voltage** 12 VDC direct from PCIe slot, total Max. 18W or AT/ATX System power input
- **Overload Current Protection** Present
- **Connection** AT/ATX Power Jack
- **Output PoE Power** 48 V_{DC} PoE Power output

Environment

- **Operating Temperature** 0 ~ 50°C (32 ~ 122°F)
- **Storage Temperature** -20 ~ 80°C (-4 ~ 176°F)
- **Operating Humidity** 5 ~ 95% RH

Mechanics

- **Dimensions (W x D)** 185 x 110 mm (7.3" x 3.9")

Certification

- **Patent** http://www.advantech.com/legal/patent

Ordering Information

- **PCIE-1172-AE** 2-port PCI Express Intelligent GigE Vision Frame Grabber
- **PCIE-1174-AE** 4-port PCI Express Intelligent GigE Vision Frame Grabber