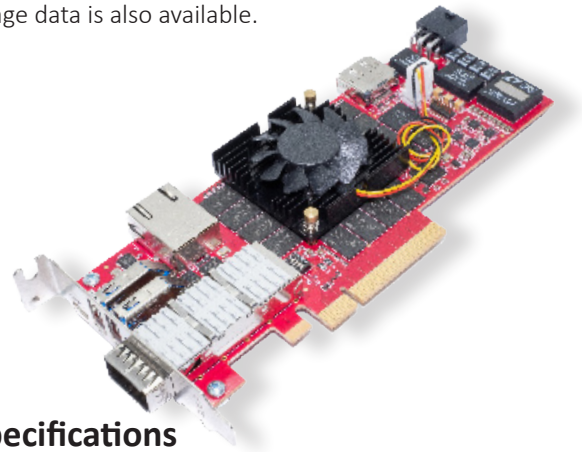
PGC-1000
High-performance data logging

The PLC2 Grabber Card PGC-1000 is a high-performance PCIe video acquisition card with up to 40 Gb Ethernet via a QSFP+ connector. It is ideally suited to enable high-end multi-camera video data logging and replaying on mid range PCs, to avoid the need for costly very high end multi-processor computers. The board offers up to 24 GB of DDR4 memory which can be used for frame buffering. PGC-1000 significantly relieves CPU processing by (un-)packing image data frames on programmable hardware and passing it on by PCIe. On the fly lossless or lossy (de-)compressions of image data is also available.



Features

- 4x 10 GbE or 1x 40 GbE
- PCIe Gen3 x8 half-length card (up to 64 GT/s)
- 1 GbE interface for debugging or remote updates
- 8 GB of eMMC for firmware updates or data storage
- 24 GB DDR4 memory
- Two UART debug interfaces
- PCIe powered (for up to 60 W) with additional 6 pin PEG connectors (12V) for additional power
- Recording and Replay features
- Lossless image (de-)compression
- Host PC interface for card configuration and status
- Driver support for Windows and Linux
- Embedded standard NIC (Network Interface Adapter) functionalities
- Additional high-speed data path to host PC
- Custom protocol implementation possible, e.g. adoption of Ethernet-based protocol layers
- Operating environment temperature from 0 °C to 45 °C
- Real-time synchronization of the individual streams
- Data integrity (CRC)
- PTP (IEEE 1588) as an option

Specifications

Form Factor	PCI Express card
Format	low profile, half length, 8-lane PCI Express card
Cooling method	Air cooling, fan-cooled heatsink
Mounting	For insertion in a standard height, 8-lane or higher, PCI Express card slot
Connectors	1x QSFP+ Connector for 4 channels of 10 GbE optic or 40 GbE, 2x USB 3.0, RJ45, Display Port, UART, Xilinx Programming cable interface
Dimensions	L 167.65 mm x H 68.9 mm x THK 1.8 mm
Weight	135 g with Heatsink/Fan installed
Host bus	
Standard	PCI Express 3.0
Link width	8 lanes, 1, 2 or 4 lanes with reduced performance
Link speed	8.0 GT/s (PCIe 3.0) per lane 5.0 GT/s (PCIe 2.0) per lane (with reduced performance)
DMA	32, 64, 128 bit Scatter gather support Physical address support (GPU transfers)
Memory	Up to 24 GB DDR4
Environmental conditions	
Operating ambient air temperature	0 °C to +45 °C / +32 °F to +113 °F
Operating ambient air humidity	10 % to 90 % RH non-condensing
Storage ambient air temperature	-25 °C to +60 °C /-13 °F to +140 °F
Storage ambient air humidity	10 % to 90 % RH non-condensing

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PLC2 PRODUCTS

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