CONCORD POE GIGABIT ETHERNET FRAME GRABBER CARD

CONP2
Concord PoE dual-port



- 2 or 4 port versions available
- PoE, 15,4W/port
- Trigger-over-Ethernet function (optional)
- MIL ja Design Assistant compatible

PRODUCT DESCRIPTION

Matrox® Concord PoE is a new generation of Gigabit Ethernet adaptors for interfacing one or more GigE Vision® cameras supporting power-over-Ethernet (PoE). Available with two or four Gigabit Ethernet ports, these network interface cards (NICs) simplify system configuration, not only by handling command and streaming protocols but also providing power over a single standard Cat 5e/6 cable per camera connection. An isolated PoE implementation protects cameras, board, and host computer from damage due to electrical faults and stray current that adversely affects camera detection.

Matrox Concord PoE also provides, as an option, a useful trigger-over-Ethernet (ToE) capability for multiple cameras working together. The hardware-assisted ToE capability allows the sending of a software trigger or an action-command to one or more cameras based on an external input event. The ToE applies to camera(s) on the same or multiple Ethernet ports for a given trigger event. Moreover, this ToE feature helps reduce trigger latency and remove jitter brought on by a non-deterministic host environment.

The ToE option includes digital I/Os that are managed by a dedicated hardware-assisted mechanism for real-time performance. The mechanism enables output events to occur at precise moments in time, based on elapsed time, or for specific input events. An input event can come directly from a discrete input—including from a rotary encoder—or be count-derived from a discrete input. Programmed output events are stored in a hardware list, which is traversed based on a clock or an input event. The carrying out of an output event results in a state transition, pulse, or pulse train on a specific discrete output. Multiple cascadable hardware timers are available to count or generate specific events.

The Matrox Concord PoE board gives access to the GigE Vision support in Matrox Imaging software, thus removing the need for an additional feature license. The card also acts as a license fingerprint and can store a supplemental license for Matrox Imaging software, avoiding the need for a separate hardware key.

Specification:

Host interface	
Interconnect	PCIe® 2.1 x4
Camera/video interface	
Standard	GigE Vision
Configuration	Two (2) or four (4) ports
Speeds	10 / 100 / 1,000 Mbps
Controllers	Intel® Ethernet Controller I210-IT

Connectors	RJ-45
Power output	PoE 15.4W maximum per port Electrically isolated Source power from PCIe + 12V rail or optionally from PC power supply via 6-pin connector
General purpose I/Os	
Types	Six (6) isolated inputs Two (2) isolated outputs
Connectors	One (1) mDP connector accessed through a mDP-to-HD15 adaptor
Physical	
Form factor	Half-length, full-height, PCIe add-in card
Product dimensions	167.65 x 111.15 x 18.7 mm (6.6 x 4.38 x 0.74 in)
Power consumption	4.6 W typical (excluding PoE) 37.5 W maximum (from PCIe +12V rail) 68.5 W maximum (from aux. 6-pin connector)
Environmental	
Operating temperature	0°C to 55°C (32°F to 131°F)
Operating relative humidity	Up to 95% (non-condensing)
Certifications	
	• FCC Class A • CE Class A (EN55011, EN61326-1 industrial environment, EN61010-1, EN61010-2-201) • ICES-003 / NMB-003 Class A • RCM Class A • KC Class A • CSA certified
Software	
Compatible software	Matrox Imaging Library (MIL) 104 Matrox Design Assistant 5.1
Operating system support	Windows 7 (325 - / 64-bit) Windows 10 (325 - / 64-bit) Linux®
Licensing provisions	MIL and Matrox Design Assistant license fingerprint and storage

SPECIFICATIONS

Bustyp	PCI Express 2.1 x4
Height	18.7 mm
Length	167.65 mm
Temperature range from	0 °C
Temperature range to	55 °C
User interface	GigE
Width	111.15 mm