



iPORT™ CL-Ten Dual Medium IP Engines

Ultra-high-performance GigE Vision® connectivity for Camera Link® medium cameras using 10 GigE links

Applications

- Web inspection systems
- Military imaging systems
- Medical imaging systems
- Flat-panel inspection systems
- Infrared imaging systems

Features

- Aggregation of two Camera Link medium cameras over a single link
- High-speed video transmission using widely available components
- Combine 1 GigE and 10 GigE IP engines on a single network switch
- Re-use existing GigE Vision-compliant software applications

Pleora's iPORT CL-Ten IP engines deliver video data from high-throughput Camera Link Medium cameras to PCs, using innovative, cost-saving 10 GigE technology. The CL-Ten transmitter can send imaging data to remote PCs using only modest amounts of CPU resources while ensuring consistent latency — ideal for ultra-high-performance semiconductor, flat-panel, web, and other quality inspection systems, as well as medical and military imaging. Faster inspection times, through increased frame rates and maximum resolutions, mean further cost-savings.

iPORT CL-Ten IP engines transport the imaging data over industry-standard copper or fiber-based links using an SFP+ (small form-factor pluggable) connector for easy integration into off-the-shelf 10 GigE infrastructure. This allows you to limit the use of expensive and bulky Camera Link cables, extenders, and frame grabbers — and to locate PCs safely away from inspection areas.

Compatible with the open GigE Vision and GenICam standards, the IP engines leverage Ethernet's flexible networking capabilities, such as multicasting and mesh architecture.

The IP engines can be connected through one or more switches along with a range of other system elements, such as cameras, computers, processing devices, displays, and controllers — in meshed, real-time video networks.

Signals from system elements, connected to the CL-Ten IP engine's GPIO (general purpose inputs and outputs) allow you to accurately synchronize and control the operation of conveyors, encoders, cameras, sorting mechanisms, and other components — either independently from* or in conjunction with the host PC on the network.

Compatible with Pleora's feature-rich application toolkit, the eBUS™ SDK, iPORT CL-Ten IP engines enable Camera Link Medium cameras to become part of a complete networked video connectivity solution.

*Available mid-2012.

For more information, visit
www.pleora.com



iPORT™ CL-Ten Dual Medium IP Engines

Networked Video Connectivity Solutions

iPORT™ IP engines	- Highly reliable, 8.16 Gb/s data transfer rate with low, end-to-end latency - Enclosed unit or OEM, in-system board set
eBUS™ SDK	- eBUS Universal Pro driver - Support for CLProtocol (version 2.1 and higher) - Sample applications, including NetCommand™ sample application, a demonstration of multi-device network connectivity - Driver installation tool - Documentation
GigE Vision®	- Fully-compatible firmware load - Guarantees delivery of all packets - Comprehensive data transfer diagnostics

Camera Compatibility

Camera Link® cameras	- Compatible with Base and Medium mode cameras at up to 85 MHz - Supports Power over Camera Link (PoCL) - Supports CLProtocol
Hardware tap reconstruction	- Supports interleaved 2-tap and 4-tap configurations - Support for key non-interleaved tap configurations
Pixel formats	- Mono8, Mono12, Mono14 - RGB - Bayer

Connectors

Power	6-pin circular, male
Network	Enhanced small form-factor pluggable (SFP+) cage
Video interface	Four Mini Camera Link®
Inputs/Outputs and serial control interface	12-pin circular, female

Programmable Logic Features

2 x TTL inputs	- Provides a flexible, general-purpose interface - Allows synchronization of multiple devices or system elements - Flexible triggering capabilities - Built-in debouncers
2 x TTL outputs	
4 x TTL inputs/outputs (configurable)	
UART and RS-232 serial links (LVCMOS/LVTTL)	Serial control of camera and other devices via PC application over the GigE link

Networking Features

10 Gigabit Ethernet-based	- Industry standard, easy-to-use equipment - Supports IGMPv2 and ICMP
Multicast capability	- Standards-based, IGMPv2 - Enables advanced distributed processing and control architectures

Characteristics

Size (L x W x H)	117mm x 100mm x 83.5mm
Operating temperature	0-45°C
Storage temperature	-40°C to 85°C
Power supply	12 V
Power consumption	Approximately 11.5 W (not including PoCL)

