

GigE-Connect™ A2G-D6/S6/D12

Connectivity between analog cameras and PCs over gigabit Ethernet

General Description

GigaLinx's GigE-Connect A2G-D6/S6/D12 provides connectivity for up to twelve analog cameras to a PC over a high-performance Gigabit Ethernet (GigE) network, thereby cutting cost, extending the reach and improving system flexibility.

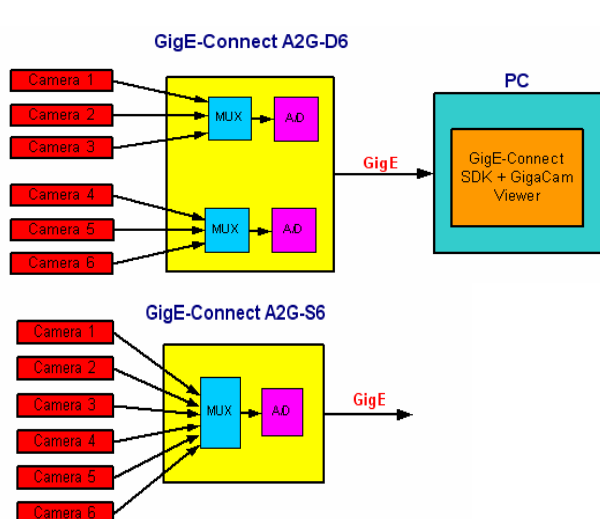
The GigE-Connect A2G can grab video from up to two cameras simultaneously, or can multiplex up to twelve camera streams.

GigE-Connect A2G is bundled with two innovative and field-proven applications:

- **GigaLinx's BroadLinx™ and TurboLinx™ Drivers:** significantly reducing the PC's CPU load required for handling of the high-bandwidth data traffic.
- **GigE-Connect Software Development Kit (SDK):** A GenICam compliant API for camera enumeration, image capture and camera control including easy to follow code examples. The SDK also comes with GigaCam viewer application for viewing and controlling the camera.

System Block Diagram

The following diagram illustrates GigE-Connect A2G:



Applications

- Industrial vision
- Security/ surveillance
- Traffic monitoring
- Medical imaging

Key Features

- Camera-to-PC cable separation of 100 meters (further with switches)
- Use of standard, low cost Ethernet infrastructure (cables, switches, etc.)
- Ultra-high efficiency FPGA implementation
- Over 950Mb/s NET video bandwidth
- Full compliance with both GigE Vision and GenICam standards
- Bundled with GigE-Connect SDK for rapid development
- Low cost

For more information on GigaLinx's Connectivity Solutions, please visit www.GigaLinx.net



Specifications

Video

- **Data Formats:** NTSC, PAL, RS-170/CCIR
- **Progressive scan / interlaced**
- **Optional camera synchronization**
- **Automatic clamp control**
- **High-quality video decoder (ADV7180)**
- **Support for region-of-interest extraction**

Communication

- **Error Correction:** Built-in error correction mechanism
- **Support for unicast and multicast**
- **Supported Protocols:** UDP, IP, ICMP, ARP, DHCP, GigE Vision
- **On-board Frame Buffer:** 32MB
- **Bandwidth:** More than 950Mb/s net video bandwidth

Software

- **Comprehensive GenCam-Compliant SDK:** For image grabbing and camera control. **Supports both GenAPI AND GenTL**
- **GigE-Connect BroadLinx and TurboLinx Offloading Engines:** dramatically reducing CPU utilization

Mechanical / Electrical

- **Power Supply:** 8V to 15V
- **Power Connector:** Hirose 6-pin (HR10A-7R-6P)
- **GPIO Connector:** Hirose 12-pin (HR10A-10R-12S)
- **Video connectors:** 6 X BNC (A2G-S6/A2G-D6) or 24-pin 100 mil header (A2G-D12).
- **LAN connector:** RJ45
- **Operating Temperature:** 0° to 50°
- **Power consumption:** <4.5W



GEN<i>CAM