

GEVA 4000 Vision System



GEVA 4000

Benefits

- Turbo charged Core i7 processor for demanding applications
- PoE powered camera ports for single cable solutions
- Expandable camera solution drives down system cost
- 16GB memory for multiple high resolution cameras
- Choice of application software suits user need and experience
- Full complement of vision capabilities for tackling challenging tasks
- Flexible camera interface supports area and line scan imaging
- Integrated factory communication protocols simplify 3rd party connections
- Compact industrial fanless enclosure allows operation in harsh environments

Overview

Flexible Machine Vision for the Factory Floor

GEVA 4000 is a compact industrial vision system with excellent performance for applications that need to inspect multiple features of a part or assembly. GEVA 4000 leverages expandable Gigabit Ethernet camera technology to significantly drive down system cost. The product's rugged, fanless design reduces downtime and maintenance costs associated with deploying standard PC solutions in harsh industrial environments.

GEVA 4000 is equipped with a low power, Gen6 Core i7 processor and high-speed system resources to effectively manage multi-camera applications. Each of the four (4) Gigabit compliant Ethernet ports internally connect through independent data lanes to alleviate bandwidth bottlenecks often associated with multi-camera acquisition. In addition, each of the two (2) network ports can be configured for either camera or network use. Both camera and network ports can be expanded using external switches to accommodate larger camera or network configurations. GEVA 4000 camera ports are compatible with a resolution range of mono or color area scan GigE cameras, line cameras or IR cameras and support PoE (power over ethernet) for single cable solutions.

In addition to Ethernet, GEVA 4000 provides standard external interfaces for system integration, including display, 6 USB ports and a serial port. Camera triggering, I/O and lighting control is supported using a companion breakout module. The PL-USB module provides an easy and safe way to connect factory I/O to the GEVA 4000 and associated cameras.

Vision solutions on GEVA 4000 are setup using Teledyne DALSA's iInspect Express or Sherlock application software. The iInspect Express software is easy to use and requires little or no prior vision experience, while the Sherlock software offers greater flexibility to tackle more challenging inspection tasks. Both packages offer a full complement of tools, together with interfacing and control options for both users and equipment. For performance migration, applications built on other GEVA platforms with the same camera set up will also run on the GEVA 4000.

Fully functional software emulators are installed on the GEVA 4000 to allow users to develop or debug applications offline. The emulator maximizes machine up time during application development and maintenance.

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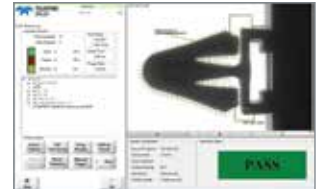
Specifications

- OS: Windows 10 Embedded
- Storage: 128GB SSD
- Program: 16GB
- Processor: 2.6 Ghz i7-6600u
- Camera/Network Ports: GigE x6 (4 with PoE)
- Serial Communication: USB 2.0 (x2), USB 3.0 (x4) RS232 (x2)
- I/O: 8 IN/12 OUT via PL-USB companion module
- Display: VGA + 2xHDMI
- Power: 24V (60W) via screw terminal connector
- Temp: 0-55C Operating
- Cooling: Fanless via passive heatsink
- Size: 240 x 60 x 173 mm
- Mounting: Panel mount
- Certifications: CE, FCC Class A, RoHS

Choice of Application Software

iNspec Express

iNspec Express offers a simple point and click interface that allows users to rapidly setup and deploy vision solutions. iNspec's logical navigation and practical features appeal to both experienced and new users alike.



Sherlock

Sherlock offers additional flexibility and advanced features for tackling challenging applications. Sherlock's programmability appeals to the more experienced vision integrators, allowing mixing of camera technologies within the same application, advanced scripting and GUI customization.



General

Both software products offer a full suite of vision tools and capabilities to satisfy a broad range of automated tasks.

I/O Interfacing using the PL-USB

The PL-USB is an external I/O module that provides trigger and power (if not using PoE) to the connected Genie cameras as well as I/O for discrete application control. The PL-USB module simplifies hardware setup and provides a consistent I/O solution for iNspec Express and Sherlock application software. The product is DIN mountable and connects to the GEVA 4000 through a single USB cable.

Typical GEVA 4000 configuration with the PL-USB

