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CVS-1459RT

Real-Time Compact Vision System for USB3 Vision Cameras

- 1.91 GHz Intel Atom quad core processor
- Fanless vision system with rugged, industrial design
- Reliable NI Linux Real-Time OS
- Dual USB3 Vision ports with dedicated bandwidth per port
- FPGA-based isolated and TTL digital I/O
- USB, serial, Ethernet, and VGA ports



Overview

The CVS-1459RT is a compact and rugged machine vision system that withstands the harsh environments common in vision-guided robotics, industrial inspection, and OEM vision applications.

This compact vision system uses USB3 Vision technology to connect with off-the-shelf cameras, giving you options with a wide range of functionality, performance, and price. In addition, you can connect two cameras (or more using hubs) to one compact vision system for multicamera inspections to significantly lower the price of your deployed system.

The CVS-1459RT offers unprecedented FPGA-based I/O capabilities and network connectivity for distributed machine vision applications. The advanced features include the ability to synchronize your inspection results with industrial I/O and configure hardware-timed network triggers to trigger camera acquisition. Use the advanced FPGA personality that is shipped with the system or customize the FPGA functionality using LabVIEW FPGA.

The NI Linux Real-Time OS gives developers access to the Linux community's massive software ecosystem. The new embedded user interface capability of NI Linux Real-Time enables the implementation of a local human machine interface (HMI) to simplify your application development.

To program the CVS-1459RT, you have the choice of configuring your machine vision application quickly with Vision Builder for Automated Inspection (AI) or programming your application with the LabVIEW Real-Time Vision Development Bundle. Vision Builder AI is an easy-to-use stand-alone programming environment for creating full visual inspection applications. If you prefer a more customized solution, you can program the CVS-1459RT with LabVIEW software and the LabVIEW Real-Time Vision Development Bundle, which includes the three modules you need for programming LabVIEW vision applications on real-time targets (LabVIEW Real-Time Module, LabVIEW Application Builder, Vision Development Module).

Specifications

Specifications Documents

- Specifications

Specifications Summary

General

Product Family	Vision Systems
Smart Camera	
Processor	1.9GHz Quad Core Intel Atom Processor E3845
System Memory	4 GB
Video Out	VGA
Digital I / O	
Number of Isolated Input Channels	8
Number of Isolated Output Channels	8
Number of Bidirectional TTL Channels	8
Number of Quadrature Encoder (RS-422) Inputs	1
Port Information	
Serial Ports	Yes
Number of USB Ports	4
Number of Ethernet Ports	1