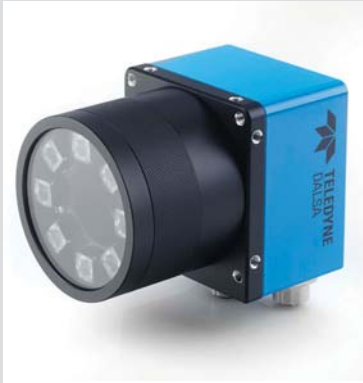


BOA2 Vision System

High Resolution Smart Camera For Industrial Automation



BOA2 Vision System

Product Features:

- High resolution global shutter CMOS sensor
- 3 resolution models – 2M, 3M and 5M
- Dual core 1.5 GHz processor
- Embedded application software
- Ease-to-use setup for new vision adopters
- Built-in vision capabilities for most applications
- Standard factory protocols (EthernetIP, Modbus, Profinet)
- Operator interface flexibility
- Gigabit Ethernet and RS232 communications
- Isolated I/O and direct lamp connections
- Integrated ring light (optional on 2M version only)
- IP67 enclosure with lens cap
- Convenient mounting options
- Standard M12 cables

Overview

Easy-to-use, Industrial Vision System for Automated Inspection Applications

BOA2 is a highly integrated machine vision system designed primarily for automated inspection and control applications. Packaged as an industrial smart camera, BOA2 combines a high resolution image sensor with powerful processing, flexible communications and easy-to-use embedded software that has been designed to satisfy a variety of factory floor vision applications.

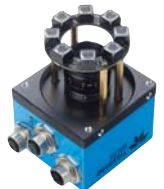
TYPICAL APPLICATIONS

- Precision part measuring – BOA2 can image up to 2560 horizontal 5 µm pixels for repeatable and reliable measuring
- Defect detection – BOA2 can detect minute defects that are lost or difficult to distinguish with lower resolution sensors
- Assembly verification - BOA2 systems can image and inspect large parts or large surface areas, thus reducing the number of sensors and overall cost of deployment

The BOA2 image sensor supports C mount lenses which, together with an optional LED light, can be enclosed within a protective cover to safeguard against accidental damage or tampering. The product is rated for use in harsh industrial environments and provides several mounting options on the front, back and sides.

LIGHTING OPTIONS

BOA2 provides a direct connection to external 24V light sources with built-in strobe control. The BOA2 XA2 model can optionally be fitted with a high intensity ring light. This light has built-in collimators that provide uniform illumination across the target.



USER INTERFACE

BOA2 vision systems can be quickly configured and deployed using the embedded iNspec Express software. Users typically connect and setup an application through a web browser connection running on a networked PC. After a solution is developed, the PC can be removed or remain on the network for online monitoring.

ACCESSORIES

BOA2 is offered with a DIN mountable panel link module that provides convenient wiring and I/O isolation at the control panel. The system connects to this device through a standard M12 cable. Other optional accessories include lenses, lens protection caps, filters, lights, interface cables, power supplies, display controllers and HMI touch panels.

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EMBEDDED SOFTWARE

BOA2 vision systems include a full license to setup and run the embedded iNspec Express software. This easy-to-use application provides extensive vision tools and capabilities that satisfy a range of inspection needs, from part positioning, identification and measuring, to verification and flaw detection.



iNspec Express capabilities include the following:

- Preprocessors
- Calibration
- Pattern matching
- 1D/2D code reading
- Character recognition (OCR)
- Feature counting tools
- Measurement tools
- Verification tools
- Tracing tools
- Specialty tools for beads, threads and springs
- Scripting
- History viewing
- Runtime editing
- Communication protocols for interacting with 3rd party PLCs, robots and the factory enterprise
- User password control and access data collection

For deployment, iNspec Express provides several options for runtime visualization, including support for custom HMIs.

Included with BOA2 vision systems is a fully functional PC emulator for offline solution development.

Specifications	Model		
	BOA2 XA2	BOA2 XA3	BOA2 XA5
Memory	Storage 2 GB, Program 1 GB		
Speed	1.5 GHz Dual Core		
Sensor	1664 x 1216	1920 x 1440	2560 x 2048
Pixel Size	5 µm	5 µm	5 µm
Max Frame rate	up to 80 fps	up to 60 fps	up to 40 fps
Lens	C-mount 2/3"	C-mount 1"	C-mount 1"
Lamp Internal	Optional ring	N/A	N/A
Lamp External	Direct connect		
Trigger	1 opto-isolated input or via software		
Inputs	3 opto-isolated inputs (including trigger)		
Outputs	3 opto-isolated outputs		
Strobe	1 strobe output for external lamp		
Status	1 LAN + 2 application LEDs		
Interfaces	Ethernet: 1000 BaseT, Serial: RS-232		
Power	24V @ 300mA		
Environment	Operating: 0-50°C, IP67 protection		
Dimensions	83 mm x 66 mm x 48 mm (without lens cover)		

