Overview

**NEXUS Smart Bridge**

BOA NEXUS works in conjunction with BOA smart cameras to expand their information sharing capabilities. It allows users to quickly realize a runtime monitoring system that will display inspection images and application specific information from multiple BOA cameras. The operator interface can be displayed on a standard monitor using the BOA NEXUS hardware, thus eliminating the need for expensive HMIs. BOA NEXUS offers a convenient means to setup and maintain BOA cameras online and supports methods to collect and share information between cameras, system components and the factory enterprise.

BOA NEXUS is equipped with a low power, dual core processor to effectively manage communication between BOA cameras, display and other system resources. Each of the six (6) Gigabit compliant Ethernet ports internally connect through independent data lanes to alleviate bandwidth bottlenecks. Network ports can be configured for isolated or bridged system configurations and each can be expanded using external switches to accommodate larger camera installations.

In addition to Ethernet, BOA NEXUS provides standard external interfaces for system integration, including display, 3 USB ports and an RS-232 serial port. The display port is compatible with standard monitors and capable of supporting resolutions up to 2048x1536.

Built-in software automatically discovers BOA cameras on the network (either directly or indirectly via Ethernet switches) and helps manage any IP address and firmware version conflicts. The NEXUS software interface provides easy access to setup, maintenance and operational features of the BOA INS and IDR cameras. BOA PRO users can setup cameras using client software installed on the device and utilize prebuilt Win32 compatible operator interfaces customized for their application needs.

BOA NEXUS is a complementary device that offers convenience, cost-effective integration and sharing of information between system components and operators.

**Benefits**

• Display interface eliminates need for expensive HMIs
• Convenient access for online setup and maintenance
• Supports isolated or bridged network configurations
• Simplifies camera network setup
• Manages access to cameras with dissimilar firmware versions
• Tracks user access and changes to camera solutions
• Supports results logging capability to CSV file
• Includes software emulator for offline solution editing
• DIN mountable hardware platform
• Provides storage for runtime image logging
BOA NEXUS

Specifications

- Storage: 40GB SSD
- Program: 2GB
- CPU: 1.8 Ghz Dual Core
- OS: Windows 7 Embedded
- Camera/Network Ports: GigE x6
- Serial Communication: USB 2.0 (x3), RS232
- Display: VGA to QXGA (2048x1536/75Hz)
- Power: 12V (50W) via supplied adapter
- Temp: 0-40C Operating
- Cooling: Fanless via passive heatsink
- Size: 200x42x144 mm
- Mount: DIN rail
- Certifications: CE, FCC Class A, RoHS

Supported Software Interfaces

iNspect Express
BOA INS and IDR cameras are based on the iNspect Express software. This software provides a number of interfaces for application setup, display, data collection and maintenance. These interfaces are exposed on BOA NEXUS using the built-in navigator tool.

Sherlock
BOA PRO cameras are based on the Sherlock Embedded software. This software offers programming flexibility over iNspect Express, but is not supported by the NEXUS navigator tool. BOA PRO cameras are setup and maintained on NEXUS using the Sherlock Embedded client software.

BOA NEXUS Navigator

The NEXUS navigator program is invoked by clicking on the desktop icon. It provides easy access to setup, control and emulation programs associated with BOA INS and IDR cameras. The Navigator is an interface that provides convenient access to BOA utilities and programs that assist with setup, runtime and maintenance aspects of BOA installations.