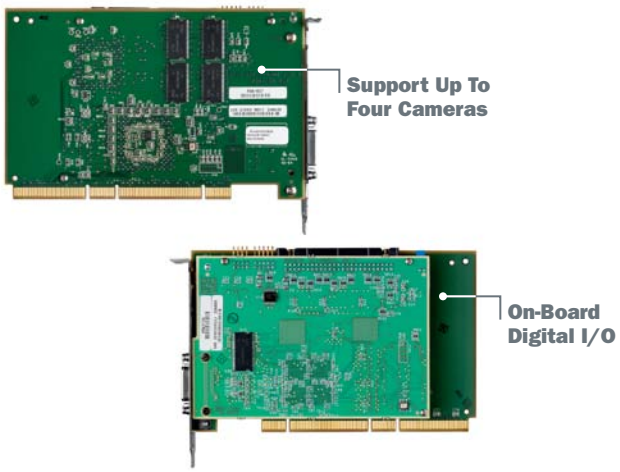
VISIONSCAPE® BOARDS



Scalable PC-Based Machine Vision

Visionscape boards offer a flexible interface for a complete range of analog and digital CameraLink cameras. These boards interface directly with Visionscape® software, providing access to an extensive range of intelligent tools for sophisticated machine vision applications. With Visionscape boards, manufacturers receive a consistent development environment for PC-based and smart camera based vision systems.

Visionscape Boards: At a Glance

- *High Speed, High Resolution Image Processing*
- *Supports Variety of Analog or Digital Cameras*
- *Integrated Digital I/O*

Frame Grabber: 0740
Supports up to four progressive scan cameras

Frame Grabber: 0800
Supports one digital CameraLink camera

For more information on this product, visit www.microscan.com.

Visionscape Boards: Capabilites

- Barcode and symbol decoding
- Optical Character Recognition
- Image rotation and warping
- Robust edge finding
- Blob analysis
- Object location and orientation
- Optical Character Verification
- Template and pattern recognition
- Calibrated dimensional measurements
- Ball Grid Array inspection
- User-defined expressions and math

Performance and Flexibility
Visionscape boards are designed for extremely fast applications that require multiple camera or high performance image processing. Whether as a standalone or integrated system, installing one or more boards in an industrial PC provides both flexibility and extensibility.

Frame Grabbers
Frame grabbers are used to capture images from a variety of analog (interlaced or progressive scan) or digital machine vision cameras into the host PC memory. These boards offer on-board dedicated digital I/O for triggering, strobe control and general purpose I/O.

Camera Support
Visionscape boards support a variety of analog or digital cameras, as well as special camera features and complex multi-camera applications.

Powerful Software
Powerful Visionscape software environment ships with all Visionscape boards for fast application development and deployment. Easy set-up and monitoring is enabled without any conventional programming.

Application Examples
Used in all industries where machine vision is applied:

- Automotive
- Packaging inspection in pharmaceutical, food and beverage, and other
- Electronics
- Semiconductor packaging (backend production)
- Medical device inspection
- General manufacturing assembly and inspection

MICROSCAN®

VISIONSCAPE® BOARDS SPECIFICATIONS AND OPTIONS

FRAME GRABBER: 0740

DESIGN:
PCI 2.2-compatible bus board, 5 V, occupies one half-length slot; 5.5 x 4.2 in. (140 x 107 mm)

VIDEO INPUT:
4 independent channels; simultaneous, asynchronous imaging on all 4 channels; interlaced or progressive scan analog cameras; progressive scan with image sizes up to 2K x 2K; supports shutter, frame-reset, partial-scan cameras as well as double- speed and multiple-speed cameras; supports simultaneous capture by different types of camera on one board; external camera synchronization

VIDEO CONTROL:
4 H_{sync} ; 4 V_{sync} ; 4 inputs or outputs for camera control

FRAME GRABBER: 0800

DESIGN:
Universal PCI 2.3-compatible bus board, occupies one half-length slot; 6.6 x 4.2 in. (168 x 107 mm)

VIDEO INPUT:
1 CameraLink Base Level channel as standard; high-resolution area scan; line-scan (up to 16K pixels/line); TDI cameras (time delay and integration); 32 MB SDRAM FIFO buffer; 1 tap 8 to 24 bit/pixel or 2 taps 8 to 12 bit/pixel (configurable, taps can be overlapping or consecutive); pixels can be scaled down to 8 places; 20 to 85 MHz pixel cycle

VIDEO CONTROL:
4 LVDS control outputs; Serial LVDS communication; Asynchronous reset, lighting control (PRIN) & ROI capture; Multiple triggering modes

ENCODER INTERFACE:
Selection of 3 RS-422 or TTL inputs on the encoder connection or 4 TTL inputs for 24 V sensor inputs; 2 phases for 1x, 2x, 4x spacing plus index input with direction sensing ; 8 bit distributor

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DIGITAL I/O
- 4 sensor inputs with application-specific reference-voltage thresholds; input range from 5 to 24 V
- 4 flash outputs
- 16 programmable, bi-directional I/O
- Standard 50-pin I/O plug connector for connecting 1 of 2 optional I/O accessory boards
- PC-internal board with 10 I/O for up to 2 cameras
- External I/O board with 16 slots for up to 4 cameras

ANALOG OUTPUT
- Serial 12C bus on board
- 8 analog channels through external I/O board

ENVIRONMENTAL
Operating Temperature: 0° to 50°C (32° to 122°F)
Humidity: 10% to 90% (non-condensing)

SAFETY CERTIFICATIONS
FCC, UL/cUL, CE, CB

ISO CERTIFICATION
Certified ISO 9001:2008 Quality Management System

Warranty–One year limited warranty on parts and labor. Free extended 3 year warranty upon online product registration.

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