Web Ranger™: Smart Cameras

Wintriss Engineering's OPSIS Smart Vision family of video processing smart cameras are designed for industrial users that demand high-speed and/or high-resolution inspection. The cameras, an integral part of the Wintriss Engineering's Web Ranger™ System, provide a complete surface inspection system solution that enhances your quality control and process control systems.

On-Camera Vision Processing

Web Inspection Applications

- Film, Sheet, Metallized Film
- PCB *(Woven glass thru Pre-Preg)*
- Nonwovens
- Paper
- Glass
- Metal / Copper Foil

Designed for Web Inspection

Wintriss Engineering's video processing smart line scan camera can acquire and process video data in real time before an image ever leaves the camera. The FPGA coprocessor uses up to five two-dimensional filters running in parallel to process images seen during web inspection. Processed image data from multiple cameras can be networked via an Ethernet connection to a host PC without any requirements for an intermediate frame grabber.

With a built-in FPGA, this vision system can be used for the applications shown and many more. Using the embedded PowerPC processor, the vision system can stand alone or share processing tasks with a host computer to boost system performance.

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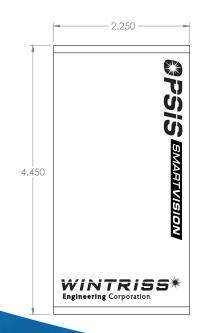
OPSIS SMARTVISION

Web Ranger™: Smart Cameras

Camera Features

- Designed specifically for web inspection

- Promotes system scalability

- Defect information to host computer directly from OPSIS camera
  - Flaw parameters
  - Flaw images

- Made in USA

Sensor Features

- 8192 Pixel CMOS sensor
  - 7um x 7um pixels

- Up to 640 Megapixel per second scan rate

- Up to 80,000 lines per second

- Sync-to-line encoder

- Complete exposure control

Dimensions *(inches)*

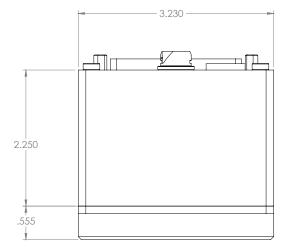## On-board Pipelined Processing Features

- Digitally corrected video
  - Digital gain per pixel
  - Digital offset per pixel

- Programmable look-up table for non-linear video correction

- Multi-level thresholder and streak encoder (32-groups)

- 1GB video buffer

Ports

- Ethernet

- RS232

- 4 digital inputs

- 2 differential clock signals (RS422)

- 12 digital outputs

Software

- VxWorks RTOS on OPSIS 8000 Camera System

- Web Ranger™ vision processing / camera control application software

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