Overview

12k resolution, 1.08 gigapixels per second throughput, and a fast 90 kHz line rate

The Piranha HS 12k high sensitivity camera heralds a breakthrough in TDI digital imaging technology. With a maximum line rate of 90 kHz, a throughput of 1.08 gigapixels per second, and 12,000 pixel resolution, the Piranha HS 12k camera provides optimal system performance in a compact form factor.

Using our new HSLink interface technology, this HS 12k camera is the first standard product in the marketplace capable of transmitting over 1 gigapixel per second throughput.

The camera is capable of bidirectional operation with up to 256 stages of selectability, while preventing overexposure with antiblooming features. Camera configuration is flexible and all software is controllable.

Key Features

- 12,000 pixels
- 5.2 µm pixel size
- Max 90 kHz line rate
- Up to 1.08 Gpix/s
- Responsivity 300 DN/(nJ/cm²) @ 0 dB, 8 bit
- Bidirectional
- Antiblooming
- HSLink interface

Programmability

- Up to 256 TDI stages selectable
- Selectable area mode of operation for ease of alignment
- Up to four sets of flat field correction coefficients
- Mirroring and forward/reverse control
- Flat field corrections

Typical Applications

- Flat panel display inspection
- PCB/electronics inspection
- Large web applications
- High performance document scanning
- Low light applications

Specifications

- Resolution 12000 x 256 pixels TDI
- Data Rate Up to 1.08 Gpix/s
- Max. Line/Frame Rate 90 kHz
- Pixel Size 5.2 µm x 5.2 µm
- Data Format 8 bit
- Output HSLink
- Lens Mount M72 x 0.75
- Responsivity 300 DN/(nJ/cm²) at 0 dB, 8 bit
- Dynamic Range 500:1
- Nominal Gain Range 0 dB to 20 dB
- Size 180 mm (H) x 90 mm (W) x 92.1 mm (D)
- Mass < 1500 g
- Operating Temp 0 °C to 50 °C
- Power Supply 24 VDC
- Power Dissipation < 39 W
- Regulatory Compliance RoHS and CE
- Control HSLink
- Data Shared with Control
- Power Lemo 2 pin
- Example Part Number HS-S0-12k40-00-R
A breakthrough High Sensitivity TDI camera.

Notes:
1) Imaging area aligned in X-Y with respect to datums B and C.
2) Rotation of the CCD imaging area is ±0.6 degrees.
3) Lens mount position with respect to imaging area X-Y ±0.175 MM.
4) Imaging area position tolerances are to be determined.
5) Units: MM.

www.teledynedalsa.com

Teledyne DALSA is an international leader in digital imaging and semiconductors and has its corporate offices in Waterloo, Ontario, Canada.