Overview

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

The Piranha ES 12k enhanced 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 ES 12k camera provides optimal system performance in a compact form factor.

This camera is capable of bidirectional operation with 64 stages and avoids overexposure through the use of antiblooming features. Camera configuration is flexible and all software is controllable.

Specifications

Resolution 12000 x 64 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 75 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 ES-S0-12K40-00-R

Key Features

- 12,000 pixels
- 5.2 µm pixel size
- Max 90 kHz line rate
- Up to 1.08 Gpix/s
- Responsivity 75 DN/(nJ/cm²)
- Bidirectional
- Antiblooming
- HSLink interface

Programmability

- 64 TDI stages
- 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
A breakthrough Enhanced Sensitivity TDI camera.

Notes:
1) Imaging area aligned in X-Y with respect to datums B and C.
2) Resolution 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.

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