

Piranha ES ES-S0-12Kxx

Enhanced Sensitivity Line Scan Cameras



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) @ 0 dB, 8 bit
- 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

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

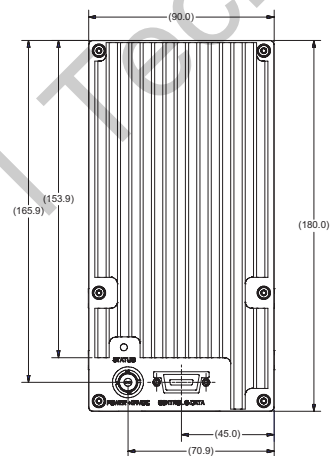
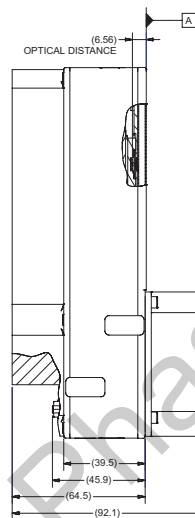
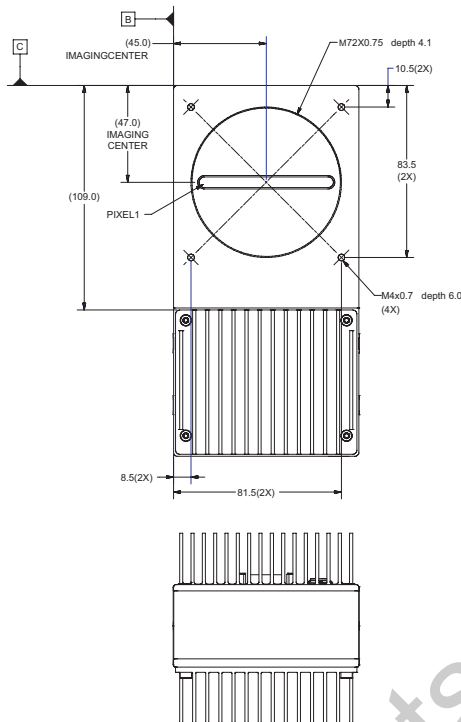
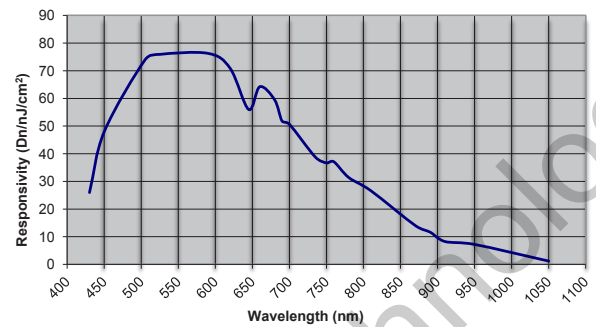
Resolution	12000 x 64 pixels TDI
Data Rate	Up to 1.08 Gpix/s
Max. Line/Frame Rate	90 kHz
Pixel Size	5.2 μm x 5.2 μm
Data Format	8 bit
Output	HSLink
Lens Mount	M72 x 0.75
Responsivity	75 DN/(nJ/cm ²) @ 0 dB, 8 bit
Dynamic Range	500:1
Nominal Gain Range	0 dB to 20 dB
Size	180 mm (H) x 90 mm (W) x 92.1 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

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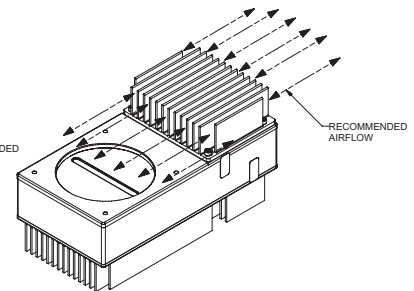
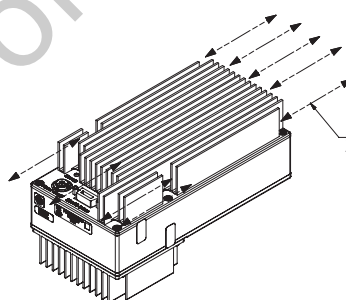
A breakthrough Enhanced Sensitivity TDI camera.

ES12K Responsivity @ 0 dB



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.



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

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