Overview

The new Piranha3 16k CMOS line scan cameras have arrived delivering greater speed and more resolution than ever before.

The Piranha3 16k CMOS line scan camera raises resolution and speed to a new level. The 16k pixel resolution and fast 72 kHz maximum line rate is ideally suited for the inspection of large-area flat-panel displays and printed circuit boards.

With the Piranha3 16k camera you can experience more throughput than ever before in the same amount of time, plus our new HSLink or Camera Link interface enables higher speeds and a simpler system design overall.

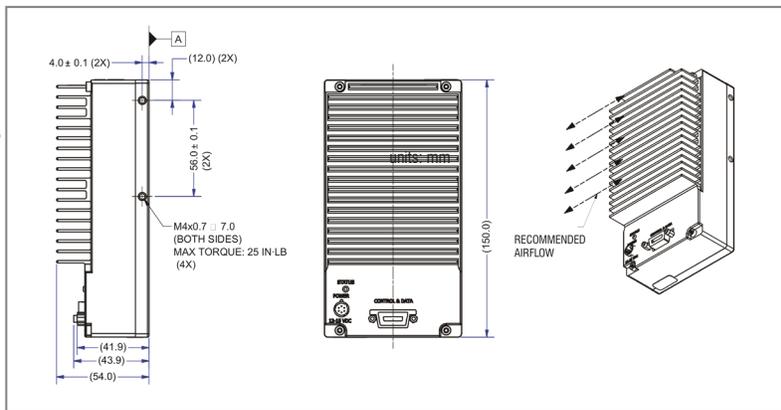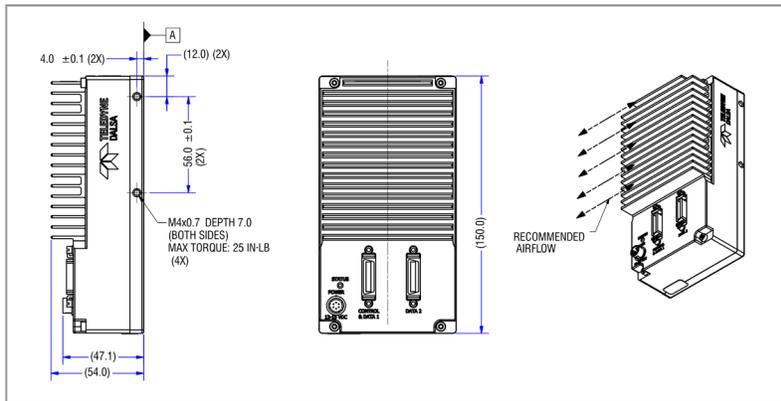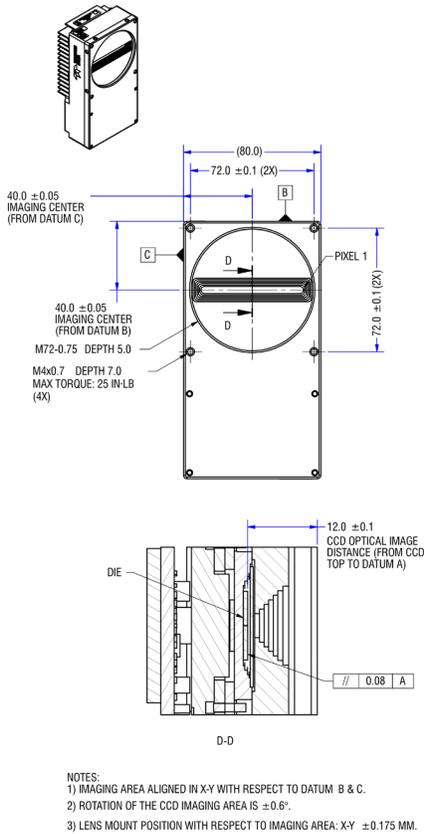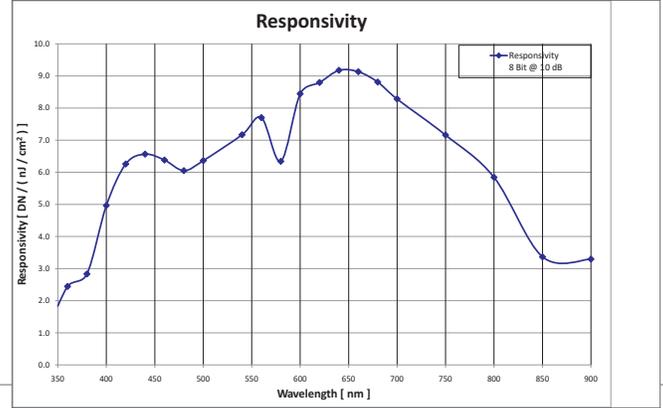The Piranha3 cameras are our largest resolution and highest throughput line scan cameras.

Key Features
• CMOS line scan
• 16k pixel resolution
• Line rates up to 72 kHz and 1,179 MPix/s throughput
• 100% fill factor
• Exposure control
• 100x antiblooming
• On-chip ADC
• HSLink or Camera Link interface

Programmability
• Can save up to four sets of flat-field correction coefficients
• Adjustable gain and offset
• Test pattern and diagnostics

Typical Applications
• Flat-panel display inspection
• Printed circuit board inspection
• Parcel sorting
• High performance document scanning
• High throughput applications

Specifications

Resolution	16, 384 pixels
Data Rate	1,179 MPix/s (HSLink model)
	680 Mpix/s (Camera Link model)
Line Rate	72 kHz Max (HS Link model)
	40 kHz Max (Camera Link model)
Pixel Size	3.5 μm x 3.5 μm
Data Format	8 bit, 10 bit
Output	HSLink / Camera Link
Lens Mount	M72 x 0.75
Responsivity	2.80 DN/(nJ/cm²) broadband @ 0 dB, 8 bit
Dynamic Range	65 dB
Nominal Gain Range	0 dB to +20 dB
Size	80 mm (W) x 150 mm (H) x 54 mm (D)
Mass	TBD
Operating Temp	0 °C to 50 °C, measured at the front plate
Power Supply	Hirose 12 V to 15 V DC
Power Dissipation	20 W (HSLink model)
	18 W (Camera Link model)
Regulatory Compliance	CE and RoHS
Control	HSLink / Camera Link
Data	Shared with Control
Part Number	P3-S0-16K40-00-R (HSLink model)
	P3-80-16K40-00-R (Camera Link model)

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Piranha3 P3-S0-16Kx0 and P3-80-16K40
CMOS Line Scan Cameras

With up to 1,179 MPix/s throughput and 16k of resolution, these cameras inspect and detect with unrivalled precision and speed.

The new Piranha3 cameras allow you to take your inspection system to the next level.

Responsivity

Camera Link Interface

HSLink Interface

D-D

NOTES:
1) IMAGING AREA ALIGNED IN X-Y WITH RESPECT TO DATUM B & C.
2) ROTATION OF THE CCD IMAGING AREA IS ±0.6°.
3) LENS MOUNT POSITION WITH RESPECT TO IMAGING AREA: X-Y ±0.175 MM.

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