

## Line Scan Cameras

# Piranha2 P2-2x

*Piranha2 is smaller,  
faster, and more  
responsive than the  
original...and it has  
Camera Link™ too.*

*Line Scan imagers use a  
single line of sensor  
pixels to build up a two-  
dimensional image. Fax  
machines are low-  
resolution examples.*

### The best gets better.

Piranha2 takes performance to a higher level. Two 8 or 10-bit outputs at 40MHz deliver 80MHz throughput, and boosted responsivity means the Piranha2 needs less light than the original, even at higher speed.

Available in resolutions from 1k to 8k, the camera is small, light, and uses a single power supply. The compact design is shallower than previous cameras for the 6k and 8k models, and smaller in every dimension for 1, 2, and 4k models. Cabling and interface are simplified with the Camera Link™ high-speed serial standard. The camera is more sensitive, but still provides quieter, more uniform output thanks to CDS (correlated double sampling) and embedded flat-field correction algorithms. Gain and offset are fully programmable for each output channel, and the camera can output test patterns for cable/system troubleshooting. All resolutions provide appropriate, readily-available standard lens options (c-mount, f-mount, and M72x0.75 photography standards).

Piranha2 is the most powerful linescan camera in the world. Set it loose on your toughest imaging challenge.



## Features

- 80 MHz throughput
- Resolutions from 1k to 8k
- High responsivity
- Programmable pixel-to-pixel correction, integration time, line rate, gain, offset, bit depth, test pattern, and diagnostics
- High speed serial output (Camera Link™)
- Single 12V to 15V power supply

## Specifications

<b>Resolution</b>	1024/2048/4096/6144/8192
<b>Pixel Size</b>	10 / 10 / 7 / 7 / 7μm
<b>Aperture</b>	10.2 / 20.5 / 28.7 43.0 / 57.4mm
<b>Lens Mount</b>	See Chart
<b>Max. Line/Frame Rate</b>	65 / 35 / 18 / 12 / 9kHz
<b>Data Rate</b>	2x40MHz
<b>Data Format</b>	2x8 or 2x10-bit via Camera Link
<b>Responsivity</b>	64DN/(nJ/cm <sup>2</sup> ) @10dB
<b>Dynamic Range</b>	up to 492:1
<b>Nominal Gain Range</b>	±10dB
<b>Size</b>	50x85x50 or 85x85x50mm
<b>Mass</b>	< 450g
<b>Operating Temp</b>	front plate: 10-50°C
<b>Power Supply</b>	12 to 15V
<b>Power Dissipation</b>	< 7.5W
<b>Regulatory Compliance</b>	CE, MIL-STD-810E
<b>Example Part Number</b>	P2-22-04K40

## Applications

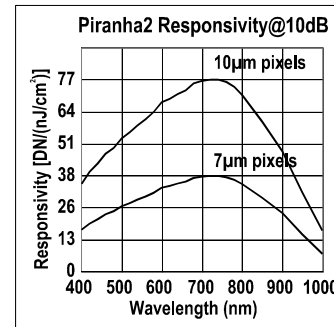
- Printed circuit board inspection
- High performance document scanning/image lift
- Postal/parcel sorting
- Flat panel display inspection

## Sensor

The P2-2x uses DALSA's latest sensor with advanced "pinned photodiode" pixels using DALSA advanced surface gated photodiode technology. Contact DALSA for more information.

## Connectors

<b>Control</b>	MDR26 Camera Link
<b>Data</b>	MDR26 Camera Link
<b>Power</b>	Hirose HR10 6-pin
<b>Other</b>	none



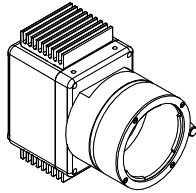
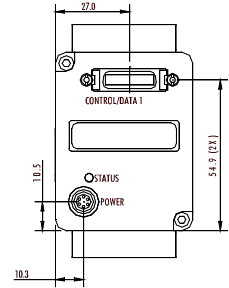
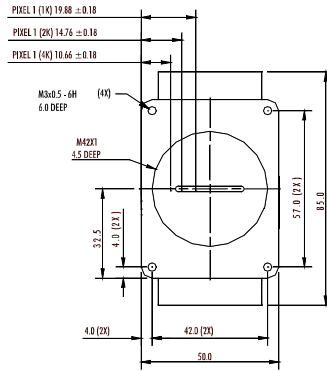
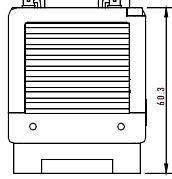
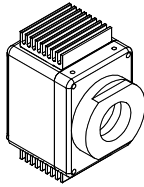
**DALSA**  
Technology with vision

13-Apr-04  
03-70-00105-09  
www.dalsa.com

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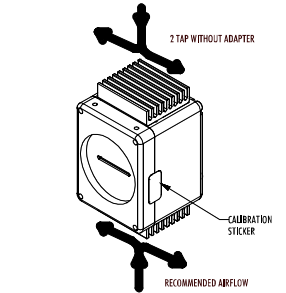
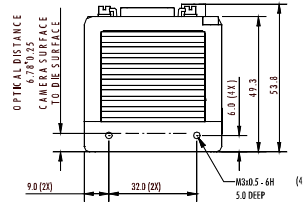
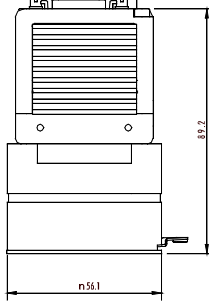
## Mechanical Dimensions

1K/2K/4K 2 TAP WITH C-MOUNT

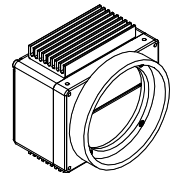
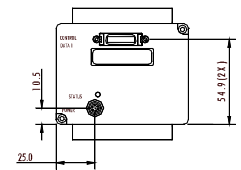
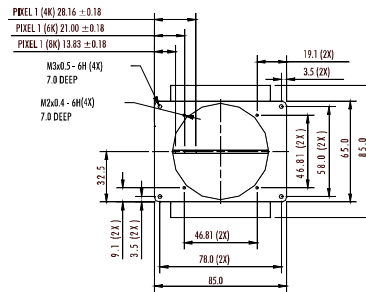
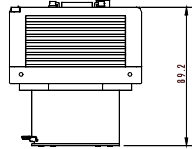
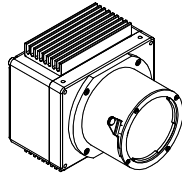


1K/2K/4K 2 TAP WITH F-MOUNT

All units in mm.

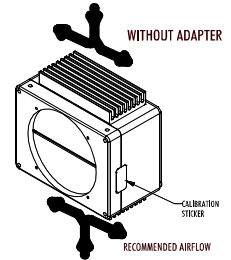
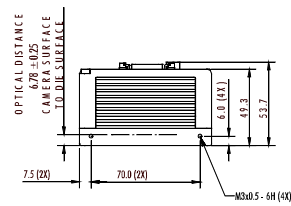
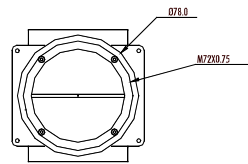


6K/8K 2 TAP WITH F-MOUNT



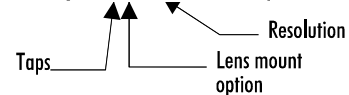
6K/8K 2 TAP WITH LARGE FORMAT ADAPTER

All units in mm.



Camera Configuration	Available Lens Mount Options	Order Option	Lens Mount Configuration
1K, 2 Tap	M42x1, C-mount and F-mount	P2-x0-0xk40	No mount or adapter
2K, 2 Tap	M42x1, C-mount and F-mount	P2-x1-0xk40	C-mount
4K, 2 Tap	M42x1 and F-mount	P2-x2-0xk40	F-mount
6K, 2 Tap	No mount, F-mount and M72x0.75	P2-x3-0xk40	M72x0.75 adapter
8K, 2 Tap	No mount, and M72x0.75		

E.g. P2-22-02k40 is a 2 Tap, 2k camera with an F-mount



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## For More Information

For more detailed information on this and other products, including pinouts, timing, and signal descriptions, see the user manual. Contact your local rep or visit our website at <http://vfm.dalsa.com/piranha2>.

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This information subject to change without notice.