Fast 100 kHz in TDI mode and 200 kHz in area mode!

Teledyne DALSA expands its Piranha4 dual line CMOS camera family with 4K and 2K resolution models. The new Piranha4 models offer higher speeds and more responsive pixels in a choice of sizes and resolutions. Programmable features include multiple region-of-interest, high dynamic range operation, and rapid bi-directional switching, and are designed to meet today’s demanding imaging applications.

Specifications

- **Resolution**: 4096 x 2 and 2048 x 2 pixels
- **Line Rate**: Up to 100 kHz in TDI mode (200 kHz in area mode)
- **Pixel Size**: 10.56 µm x 10.56 µm
- **Data Format**: 8, 10 or 12 bit selectable
- **Output**: Base, Medium, Full and Deca Camera Link
- **Lens Mount**: M58 x 0.75 (4k) and M42 x 1 (2k)
- **Responsivity**: 1400 DN / (nJ / cm²) in 12 bit at 1x gain
- **Dynamic Range**: > 60 dB
- **Nominal Gain Range**: 1x to 10x
- **Size**: 62 mm x 62 mm x 48 mm
- **Mass**: < 340 g
- **Operating Temp**: 0 °C to 65 °C (front plate)
- **Power**: Hirose 6-pin male
- **Power Dissipation**: < 11 W (4k) and < 8.3 W (2k)
- **Control & Data**: SDR-26 mini Camera Link

Typical Applications

- Automated optical inspection
- Transportation safety and security systems
- High performance sorting systems
- Materials grading and inspection systems
- Web inspection
- General purpose machine vision

Regulatory Compliance

- CE, FCC and RoHS

### Key Features

- High speed: up to 100 kHz in TDI mode and 200 kHz in area mode
- Independent exposure control for each line (HDR)
- Permits longer Camera Link cables
- Compact camera body

### Programmability

- Multiple Regions of Interest for calibration and data reduction
- 8, 10 or 12 bit output
- Smart flat field and lens shading correction
- 8 programmable coefficient sets
- GenICam or ASCII compliant interfacing

### Typical Applications

Piranha4 Dual Line Models

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Resolution</th>
<th>Maximum Line Rates</th>
<th>Pixel Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>TDI mode (area mode)</td>
<td></td>
</tr>
<tr>
<td>P4-CM-04K10D-00-R</td>
<td>4096 x 2 pixels</td>
<td>100 kHz (200 kHz)</td>
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</tr>
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<td>2048 x 2 pixels</td>
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</tbody>
</table>
Piranha4 4K and 2K
High Speed Dual Line CMOS Cameras

NOTES:
1. UNITS: MILLIMETERS.
2. IMAGE AREA IS ALIGNED TO DATUMS A, B, & C.

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