



❖ WA-1000D CL

Dual SWIR Line Scan Camera



- **Simultaneous dual-band imaging in the Short Wave InfraRed (SWIR) light spectrum**
- **Wavelength band : 900 nm to 1700 nm**
- **Enables you to acquire images that R-G-B and NIR will not be able to identify**
- **Active pixels : 1024 pixels x 2**
- **Line rate : 39 kHz (39,230 line/second)**
- **Cell size : 25.0 μm x 25.0 μm**
- **Video output : 2 x 8-bit, 2 x 10-bit, 2 x 12-bit through Camera Link interface (available with Dual-Base configuration or 2-tap Medium configuration)**
- **Pixel gain correction, Flat-field correction, LUT/Gamma function**
- **M52 lens mount**

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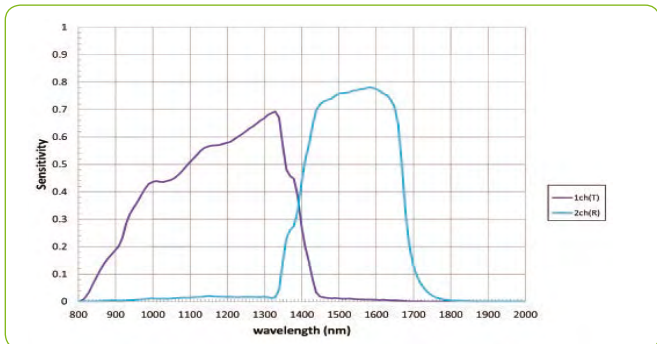


See the possibilities

Specifications for WA-1000D CL

| Specifications | WA-1000D CL |
|------------------------|---|
| Sensor | 2 InGaAs Line sensors |
| Active pixels | 1024 pixels x 2 |
| Cell size | 25.0 μm x 25.0 μm |
| Pixel clock | 6.67 MHz |
| Line rate (max) | 39kHz (39,230 line/sec) |
| Sensor sensitivity | 280nV/e- (conversion gain) |
| Sensor width | 25.6 mm |
| Synchronization | Internal X-tal or external trigger |
| S/N ratio | >50 dB on green with gain = 0 dB |
| Digital video output | Dual Base Configuration: 2x8-bit, 2x10-bit, 2x12-bit 2-Tap Medium Configuration: 2x8-bit, 2x10-bit, 2x12-bit |
| Input signal | Trigger (Camera Link, TTL/75 Ω) |
| Output signal | Camera Link: LVAL - DVAL - EEN Hirose 12-pin: XEEN |
| Gain | Master mode: 1ch: 0dB to +11dB 2ch: -3dB to +3dB Individual mode: 1ch/2ch: 0dB to +11dB |
| Correction | Pixel gain correction, Flat shading correction, LUT/Gamma correction |
| Trigger modes | Pulse width control, No-Shutter, Shutter select |
| Programmable exposure | 20.38 μs to 1.995ms in 149.9ns increments |
| Pulse width control | 20.38μs to 1 s (Camera Link) 50μs to 1 s (12-Pin connector) |
| Lens mount | M52 Mount |
| Operating temperature | -5°C to +45°C |
| Operating humidity | +20 to +80% non-condensing |
| Vibration | 3G (20Hz to 200Hz, XYZ direction) |
| Shock | 50G |
| Regulations | CE (EN61000-6-2, EN61000-6-3), RoHS/WEEE, IEC/EN61000-4-3 FCC Part15 Class B IEC61000-4-2 Level 4 (contact discharge = 8 kV, air discharge = 15 kV) |
| Power | DC+12V to 24V ± 10% 820 mA ±10% +12V |
| Dimensions (H x W x D) | 90 mm x 90 mm x 117 mm (without connector and lens mount protrusion) |
| Weight | 910 g |

Spectral Response



Connection Pin-out

DC In / Trigger

12-pin Connector

| Pin | Signal |
|-----|-------------------|
| 1 | Ground |
| 2 | +12V DC in |
| 3 | Ground |
| 4 | Reserved |
| 5 | Ground |
| 6 | RXD in RS232C* |
| 7 | TXD out RS232C* |
| 8 | Ground |
| 9 | XEEN out |
| 10 | Trigger IN (TTL)* |
| 11 | +12V DC IN |
| 12 | Ground |

* In Camera Link or 12 pin Hirose

Camera Link Interface

Camera Link Interface

| Pin No | In/Out | Name | Note |
|-------------|--------|---------------|---------------------|
| 1,14 | | Shield | GND |
| 2(-),15(+) | O | TxOUT0 | Data out |
| 3(-),16(+) | O | TxOUT1 | |
| 4(-),17(+) | O | TxOUT2 | |
| 5(-),18(+) | O | TxClk | CL clock |
| 6(-),19(+) | O | TxOUT3 | Data out |
| 7(+),20(-) | I | SerTC (Rx/D) | LVDS Serial Control |
| 8(-),21(+) | O | SerTFG (Tx/D) | |
| 9(-),22(+) | I | CC1 (Trigger) | Trigger |
| 10(+),23(-) | I | CC2(Reserved) | |
| 11,24 | | N.C | |
| 12,25 | | N.C | |
| 13,26 | | Shield | GND |

Note:
Camera Link base configuration shown.
For medium configuration refer to Camera Link specifications or operation manual.

Dimensions

Front view

Side view

Bottom view

Rear view

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See the possibilities