



❖ CV-L107 CL

3 CCD RGB Line Scan Camera



- 3 CCD line scan camera with Camera Link output
- Dichroic RGB beam splitter prism with 3 sensors
- 3 sensors with 2048 pixels, 14 μm x 14 μm
- 28.7 mm scanning width
- Video output in Camera Link: 24 bit in base configuration. 30 bit in medium
- Scan rate up to 19048 lines per second at 40 MHz pixel clock
- Edge pre-select and pulse width trigger modes
- One-push auto white balance
- Two point flat-field and shading correction
- Knee and binning functions for extended dynamic
- Built-in diagnostics
- Lens adapter for Nikon F-mount
- Short ASCII commands set-up via RS 232C or Camera Link
- Setup by Windows NT/2000/XP software



Specifications for CV-L107 CL

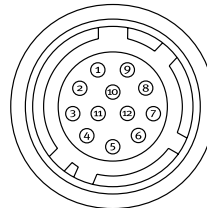
Specifications	CV-L107 CL
Scanning system	Line sensor with internal clock
Pixel clock	40.00 MHz
Scan rate	Max. 19048 lines/second (2100 pixels per line)
Sensor	3 line sensors mounted on RGB beam splitter prism
Sensor scanning width	28.7 mm
Cell size	14 (h) x 14 (v) μm
Active pixels	3 x 2048 (h) 3 x 1024 (h) with 2:1 binning
Sensitivity	7.5 mV/n/cm ² (Gain 0 dB, 525 μs exp., 100% video on G)
Sensitivity	162 Lux (Gain 0 dB, 525 μs exp., 100% video on G)
S/N ratio	58 dB on green with gain = -3 dB
Video output	24 bit in CL base configuration 30 bit in CL medium configuration
Gain	Master (G). -3 dB to +12 dB R and B. -9 dB to +9 dB
White balance	Manual, fixed or one-push Adjustable range 2800 K to 9000 K Fixed: 3900 K, 4600 K or 5600 K
Knee function	Individual RGB knee point and slope
Shading correction	Individual RGB flat or RB to G (One-push. Range -20%)
Flat-field correction	Two point pixel-to-pixel correction
Synchronization	Internal X-tal or external trigger
Trigger modes	No-shutter, shutter-select and pulse width control
Scan rate	Internal generator 18.6 to 19048 lines/sec. in 1024 steps. External trigger pulse up to 19048 lines/sec.
Programmable exposure	50 nsec. to 53.8 msec. in 25 ns increments
Functions controlled by RS 232C or CL	Trigger modes, scan rate, exposure time, gain/black level, shading correction, flat-field correction, white balance, knee-function, diagnostics
Diagnostics	Test pattern. (Color bar, gray pattern and white) LED for power
Lens mount	Nikon F-mount
Sensor alignment	Better than ± 0.1 pixel
Operating temperature	-5°C to +45°C
Humidity	20 – 80% non-condensing
Storage temp./humidity	-25°C to +60°C/20 – 80% non-condensing
Vibration	3G (20Hz to 200Hz, XYZ direction)
Shock	50G
Regulations	CE (EN50081-1 and EN50082-2) IEC61000-4-2 Conforming level 4 FCC Part15 Class B RoHS
Power	12V DC \pm 10%. 15W
Dimensions (H x W x D)	90 mm x 90 mm x 90 mm
Weight	860 g

Ordering Information

CV-L107 CL 3 CCD RGB Line Scan Camera. F-mount.

Connection Pin-out

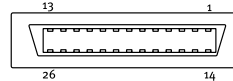
DC In / Trigger



HIROSE HR10A-10R-12PB-01

- Pin 1 Ground
- 2 +12V DC
- 3 Ground
- 4 Reserved
- 5 Ground
- 6 RXD RS 232C*
- 7 TXD RS 232C*
- 8 Ground
- 9 XEEN output
- 10 Trigger input (TTL)*
- 11 +12V DC
- 12 Ground

Camera Link Interface



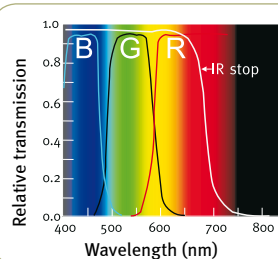
- | Pin | Signal | Function | |
|-----|--------|-----------------------------------|--------------|
| 1 | 14 | GND | |
| 2 | 15 | X ₀ -/X ₀ + | CL Data |
| 3 | 16 | X ₁ -/X ₁ + | CL Data |
| 4 | 17 | X ₂ -/X ₂ + | CL Data |
| 5 | 18 | Xclk-/Xclk+ | CL Clk |
| 6 | 19 | X ₃ -/X ₃ + | CL Data |
| 7 | 20 | SerTC+/SerTC- | Serial in * |
| 8 | 21 | SerTFG-/SerTFG+ | Serial out * |
| 9 | 22 | CC1-/CC1+ | Trigger * |
| 10 | 23 | CC2-/CC2+ | Not used |
| 11 | 24 | CC3-/CC3+ | Not used |
| 12 | 25 | CC4-/CC4+ | Not used |
| 13 | 26 | GND | |

* In Camera Link or 12 pin Hirose

Note:

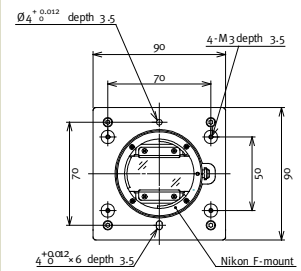
Camera Link base configuration shown.
For medium configuration refer to Camera Link specifications or operation manual.

Spectral Response

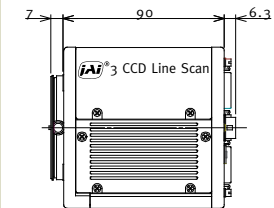


Dimensions

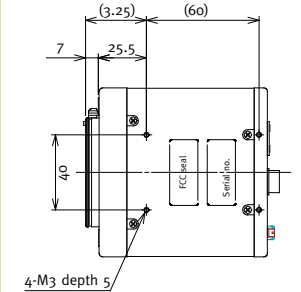
Front view



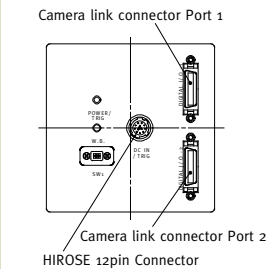
Side view



Bottom view



Rear view



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