▪ 3 x 2048 ▪ 19KHz ▪ CL ▪ 3CCD

CV-L107 CL

3 CCD RGB Line Scan Camera

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- *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 or P-mount (M42x1)*
- *Short ASCII commands set-up via RS 232C or Camera Link*
- *Setup by Windows NT/2000/XP software*

Serial Interface RS 232C Control Tool

Specifications for CV-L107 CL

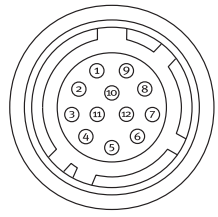
Specifications	CV-L107 CL
Scanning system	Line sensor with internal clock
Pixel clock	40.00 MHz
Scan rate	Max. 19048 lines/second (2100 pixels per line)
Sensor	3 line sensors mounted on RGB beam splitter prism
Sensor scanning width	28.7 mm
Cell size	14 (h) x 14 (v) µm
Active pixels	3 x 2048 (h) 3 x 1024 (h) with 2:1 binning
Sensitivity	7.5 mV/nJ/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. (Standard) P-mount (M42x1) (Optional)
Sensor allignment	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 ± 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.
CV-L107 CL. 3 CCD RGB Line Scan Camera. P-mount (M42 x 1 thread).

Connection Pin-out

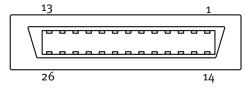
DC In / Trigger



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

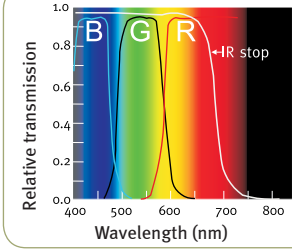
Camera Link Interface



Pin		Signal	Function
1	14	GND	
2	15	X0-/X0+	CL Data
3	16	X1-/X1+	CL Data
4	17	X2-/X2+	CL Data
5	18	Xclk-/Xclk+	CL Clk
6	19	X3-/X3+	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	

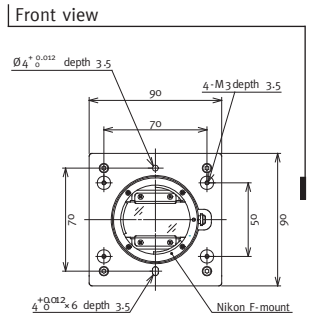
*) In Camera Link or 12 pin Hirose
Note:
Camera Link base configuration shown. For medium configuration refer to Camera Link specifications or operation manual.

Spectral Response

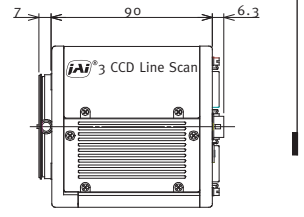


Dimensions

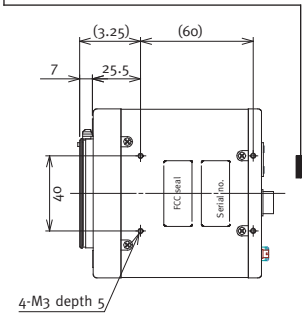
Front view



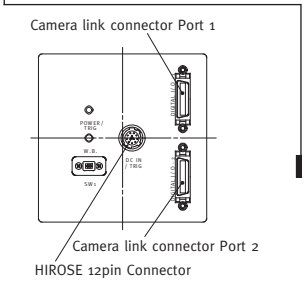
Side view



Bottom view



Rear view



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