

❖ SW-2001T-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 pixel size**
- **28.7 mm sensor scanning width**
- **Scan rate up to 19048 lines per second at 40 MHz pixel clock**
- **Video output via Camera Link: 3 x 8-bit in Base Configuration or 3 x 10-bit in Medium**
- **No-shutter, shutter select, and pulse width (PWC) trigger modes**
- **One-push auto white balance**
- **Flat field correction (pixel gain) and two-point shading correction**
- **Horizontal binning, plus slope and knee point functions**
- **Available with Nikon F-mount or M52-mount (option)**

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Specifications for SW-2001T-CL

Sweep+ Series

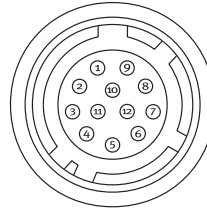
Specifications	SW-2001T-CL
Scanning system	CCD line sensors with internal clock
Pixel clock	40.00 MHz
Line rate	No shutter mode: 19 kHz - 18.6 Hz Shutter select mode: 18.6 kHz - 18.6 Hz
Sensor scanning width	28.672
Cell size	14 μm x 14 μm
Active pixels	3 sensors: 3 x 2048 (h) mounted on RGB beam splitter prism
Object illuminance (std.)	162 lx @ 4000 K (Gain 0 dB, 525 μs exp., 100% video on G)
Responsivity	56 V/μJ/cm² (@ 600 nm)
S/N ratio	58 dB on green with gain = -3 dB
Video output	24-bit RGB in Camera Link base configuration 30-bit RGB Camera Link medium configuration
Gain	Master G: -3 dB to +12 dB R, B: -6 dB to +6 dB
White balance	Manual, preset, or one-push Adjustable range: 2800 K to 9000 K Standard temperature: 4000 K
Image correction	Flat-field (PRNU/DSNU), flat shading, color shading, noise reduction
Synchronization	Internal clock
Input signal	Trigger (Camera Link, TTL/75Ω)
Output signal(s)	LVAL, FVAL, DVAL, EEN, XEEN (TTL)
Trigger modes	No-shutter, shutter select, and pulse width control
Programmable exposure	2.0 μs to 51.23 μs in 25 ns increments at fastest line rate. Exposure time can be longer at slower line rates.
Pulse width control	1.2 μs to 2 sec (via Camera Link) 50 μs - 2 sec (via 12-pin connector)
Control interface	Camera Link RS-232C
Lens mount	Nikon F mount (standard) or M52-mount (option)
Operating temperature	-5°C to +45°C/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 (EN61000-6-2, EN61000-6-3) IEC61000-4-2 Conforming level 4 FCC Part 15 Class B, RoHS/WEEE
Power	12V DC ± 10%. 1000 mA at +12V
Power consumption	12 W typical at +12V
Dimensions (H x W x D)	90 mm x 90 mm x 90 mm (without connector and lens mount protrusion)
Weight	830 g

Ordering Information

SW-2001T-CL-F	3 CCD RGB Line Scan Camera with F-mount
SW-2001T-CL-M52	3 CCD RGB Line Scan Camera with M52-mount

Connection Pin-out

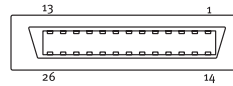
DC In / Trigger



HIROSE HR10A-10R-12PB-71

Pin 1	Ground
Pin 2	+12V DC
Pin 3	Ground
Pin 4	Reserved
Pin 5	Ground
Pin 6	RXD RS 232C*
Pin 7	TXD RS 232C*
Pin 8	Ground
Pin 9	XEEN output
Pin 10	Trigger input (TTL)*
Pin 11	DC in +12V to +24V
Pin 12	Ground

Camera Link Interface

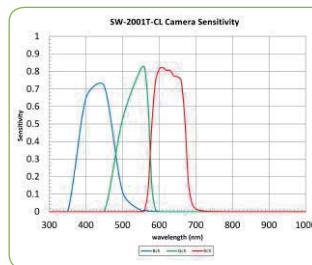


Pin	Signal	Function	
1	14	GND	
2	15	X0-/X0+	CL Data
3	16	X1-/X1+	CL Data
4	17	X2-/X2+	CL Data
5	18	Xclk-/Xclk+	CL Clk
6	19	X3-/X3+	CL Data
7	20	SerTC+/SerTC-	Serial in *
8	21	SerTFG-/SerTFG+	Serial out *
9	22	CC1-/CC1+	Trigger *
10	23	CC2+/CC2-	Reserved
11	24	CC3-/CC3+	Not used
12	25	CC4+/CC4-	Not used
13	26	GND	

* In Camera Link or 12 pin Hirose

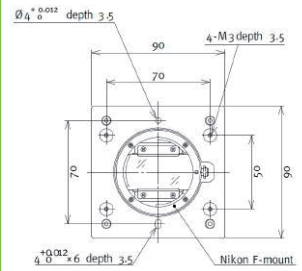
Note:
Camera Link base configuration shown.
For medium configuration refer to Camera Link specifications or operation manual.

Spectral Response

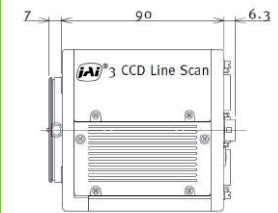


Dimensions

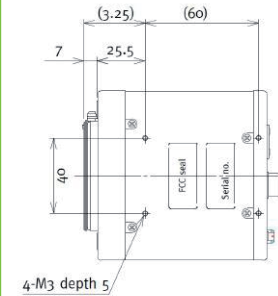
Front view



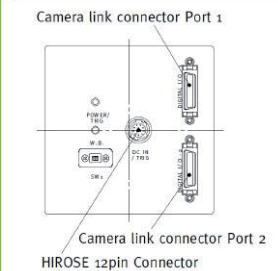
Side view



Bottom view



Rear view



See the possibilities

