

➤ SW-8001TL-MCL ➤ SW-8001M-MCL

High performance line scan camera

■ 3 x 8192 pixels
■ 2 x 8192 pixels

■ 33 kHz
■ 100 kHz

Sweep Series 



Preliminary Version



- High-performance line scan camera with CameraLink interface (trilinear and monochrome models)
- SW-8001TL-MCL (trilinear model): 3 x 8192 pixel output up to 33kHz
- SW-8001M-MCL (monochrome model): 2 x 8192 pixel output up to 100kHz
- 57.344mm wide sensor with 7 μ m square pixels
- CameraLink interface with CL pixel clock 40, 50, 60, 66, 70, 80, and 85MHz
- Supports ROI, horizontal binning, and horizontal image flip
- Video output: 8 bit for SW-8001TL-MCL; 8/10/12-bit for SW-8001M-MCL
- Gain control includes digital gain, and digital shift
- IPS: FFC, black level control, gamma, and LUT (with preset options for mono models)
- The monochrome model supports 2-Step TDI (Time Delayed Integration)
- The trilinear model supports tilted view correction, white balance, color correction matrix
- Supports the counter controls for monitoring trigger and signal events
- Lens mount: M72



Specifications for SW-8001TL-MCL / SW-8001M-MCL

Sweep Series

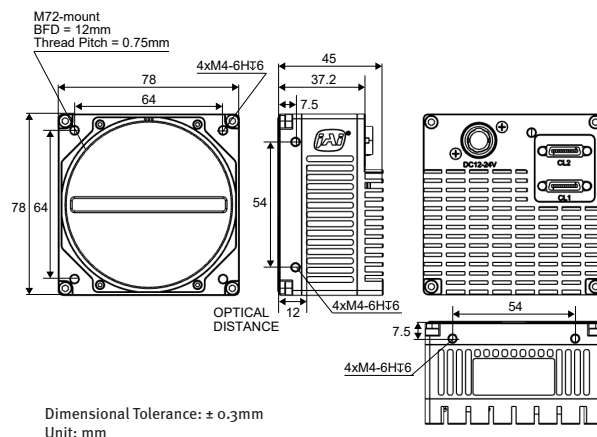
Specifications	SW-8001TL-MCL, SW-8001M-MCL
Scanning system	CMOS line scan (global shutter) SW-8001TL-MCL: Trilinear SW-8001M-MCL: Monochrome
Effective Pixels	SW-8001TL-MCL: 3 x 8192 SW-8001M-MCL: 2 x 8192
Line rate	SW-8001TL-MCL: up to 33kHz (RGB8/EightyBit) SW-8001M-MCL: up to 100kHz (Mono8/EightyBit)
Sensor width	57.344mm
Pixel size	7 μm x 7 μm
Interface	CameraLink (v2.0), 2 x Mini CameraLink connector
CL Pixel Clock (MHz)	40, 50, 60, 66, 70, 80, 85
Video output	Configuration: Base, Full**, Eighty Bit (Deca) SW-8001TL: RGB8, Mono8*** SW-8001M: Mono8, Mono10, Mono10p, Mono12p
Gain	Digital Gain (x0.1 to x15.9) Digital Shift (x1, x2, x4, x8, x16)
2-Step TDI (SW-8001M only)	Sum, Average
Binning	Horizontal Binning (Sum, Average)
Trigger source	CC1, CC2, CC3, CC4
Line Trigger Divider	1 to 8
Exposure Mode	Timed, TriggerWidth
Exposure Time	3.1 μs ~ 4.997 ms Exposure time can be longer at slower line rates.
Pulse width control	3.1 μs ~ 4.997 ms
IPS (Image processing settings)	FFC (FNC/PRNU), Black level, spatial compensation*, tilted view correction*, white balance*, color correction matrix*
Gamma	0.1 to 7.0
LUT	1 user-defined (0 to 4095), 3 preset options
Lens mount	M72 x 0.75mm (BFD: 12mm)
Operating temp. (ambient)	0°C to +45°C (20 to 80% non-condensing)
Storage temp. (ambient)	-25°C to +60°C (20 to 80% non-condensing)
Vibration	10G (20 Hz to 200 Hz, XYZ directions)
Shock	80G
Regulations	EN 55032:2015+A1+A11, EN 55035:2017+A11, EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019, FCC Part 15 Subpart A, RoHS, KC
Power supply	12-pin: 12 to 24V DC +/-15% PoCL: not supported
Power consumption	SW-8001TL-MCL: TBDW Max @ 24V DC SW-8001M-MCL: 12W Max @ 24V DC
Dimensions (H x W x D)	78mm x 78 mm x 45 mm
Weight	360 g (TBD)

* SW-8001TL-MCL model only.

** SW-8001M-MCL model only.

***Mono8 uses the Green channel for output.

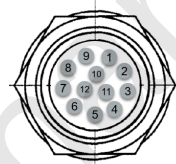
Dimensions



Connector pin-out

12-pin Connector (Power)

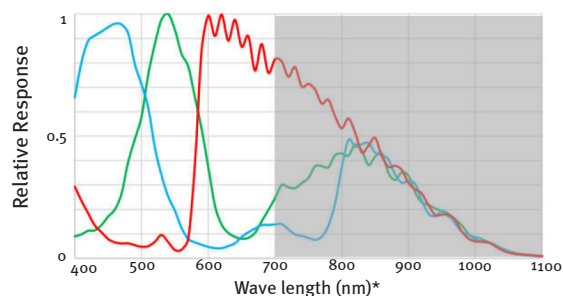
HR-10A-10R-12PB (71)



Pin	1	Ground
	2	DC in +12V to +24V
	3 to 12	Disabled

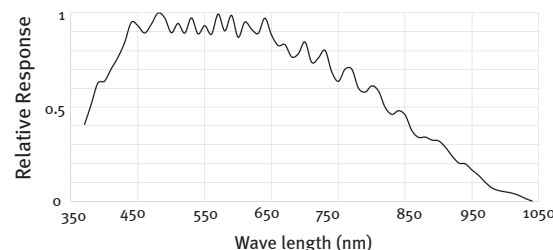
Spectral Response

SW-8001TL-MCL Sensitivity



*The IR cut filter blocks wavelengths exceeding 700 nm.

SW-8001M-MCL Sensitivity



Ordering Information

SW-8001TL-MCL-M72	8K High performance trilinear line scan camera
SW-8001M-MCL-M72	8K High performance monochrome line scan camera

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