

❖ SW-2000M-CL-80

Monochrome CMOS line scan camera



- *Monochrome CMOS line scan camera with Camera Link output*
- *Large 20 μ m square pixels for high line rates with less light*
- *Resolution: 2048 pixels*
- *Maximum scan rate: 80,000 lines per second*
- *Selectable sensor mode: high responsivity or high dynamic range*
- *8/10/12-bit output via Camera Link Base configuration*
- *Selectable pixel clock rate*
- *Single, dual, and triple data formats*
- *DSNU correction as factory default*
- *Flat field correction (FFC)*
- *ROI and binning modes*
- *Normal and reversed output*
- *Test pattern generator for set-up and troubleshooting*
- *Ethernet port for control and monitoring, FW updates, and download of files from camera*
- *Short ASCII commands for set-up via Camera Link or Ethernet port using the Telnet protocol*
-Windows user interface
- *JAI SDK and GenICam compliant*

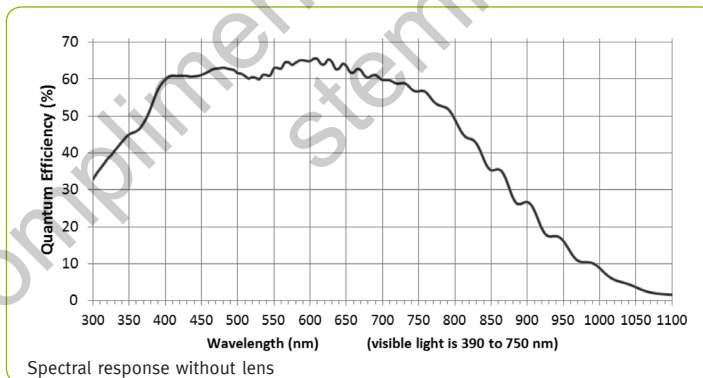


Specifications for SW-2000M-CL-80

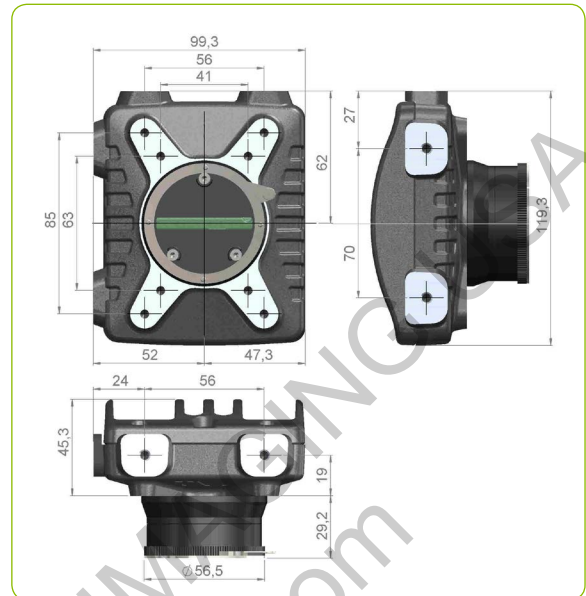
Specifications

Scanning system	CMOS line sensor with internal clock
Pixel clock	20 MHz to 85 MHz adjustable
Sensor resolution	2048 pixels
Cell size	20.0 μm (h) x 20.0 μm (v)
Imager length	40.96 mm
Line scan period	12.5 μs to 0.1 s
Line rate	10 Hz to 80 kHz
Read-out modes	Camera Link Base configuration 8, 10 or 12 bits x1 8, 10 or 12 bits x2 8 bits x3
Quantum well size	60 or 360 ke ⁻
Responsivity	480 DN/nl/cm ² (DN as 12-bits, small well, gain = 1x, λ = 625 nm) @ 60 kHz
Maximum SNR	55 dB (large well, EMVA 1288) @ 60 kHz
Temporal dark noise	1.9 DN (DN as 12-bits, large well, gain=1x)
Dynamic range	66dB
Analog gain	1x, 2x, 6x or 12x
Digital gain	0.1x to 32x
Operating modes	External (external trigger/shutter), Internal (internal trigger/shutter), Mixed (external trigger, internal shutter) Pulse width control (external trigger/shutter)
Programmable exposure	2 μs to 0.1 s (internal shutter)
Camera control	Camera Link or 10/100 Mbps Ethernet CL baud rates: 9600, 19200, 38400, 57600, or 115200 bps
Lens mount	Nikon F-mount
Lens protrusion	27 mm, max.
Flange back distance	46.5 mm
Input window	1 mm BK7 glass, AR coated
Sensor alignment	± 0.2 mm (± 0.1 mm typical)
Operating temperature	+5°C to +50°C
Storage temperature	-10°C to +60°C
Humidity	5 - 80% relative, non-condensing
Vibration	3G (IEC 60068-2-6)
Shock	25G (IEC 60068-2-27)
Regulations	EMC emissions: EN 61000-6-4. EMC immunity: EN 61000-6-2. FFC part 15, subpart B
Power	12V to 26V DC, 5W, max.
Dimensions (H x W x L)	99.3 mm x 119.3 mm x 45.3 mm
Weight	620 g

Spectral Response

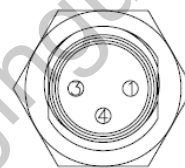


Dimensions



Connector pin-out

DC In



3-pin M8 male connector
(viewed looking toward camera)

Connector pin-out

- Pin 1 +12V to +24V DC input
Pin 3 GND (pwr supply negative)
Pin 4 CHGND (chassis ground)

Ordering Information

SW-2000M-CL-80 Monochrome camera with Camera Link 80 kHz



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