

❖ **SW-2000T-CL**

❖ **SW-2000Q-CL**

3CMOS / 4CMOS color line scan cameras

▪ 3X 2048 pixels (RGB)

▪ 4X 2048 pixels (RGB/NIR) ▪ 80 kHz Sweep+ Series



- **Industrial color line scan cameras based on beam splitter prism technology**
- **Selectable resolution with Region of Interest (ROI)**
- **Large, sensitive 20 μm x 20 μm pixels**
- **Large 400 μm^2 photon collection area and large quantum wells for high image quality**
- **Scan rate up to 80,000 lines/s**
- **Binning function for increased sensitivity**
- **Normal and reversed readout**
- **Excellent sensor alignment accuracy**
- **Color switch to link sensors to output channels**
- **Real time optical calibrations: Flat Field Correction (FFC), White Balance and Chromatic Aberration**
- **Telnet communication via Camera Link and Ethernet port**
- **Ethernet port for Control, monitoring and updates**
- **Test pattern generation for interfacing**
- **Camera Link Interface (Base, Medium and Full), selectable pixel clock rate**
- **Nikon F-mount or JAI Direct Mount with JAI designed lenses**
- **Supported by Windows user interface**
- **JAI SDK and GenICam compliant**



Specifications for Sweep+ SW-2000T-CL and SW-2000Q-CL

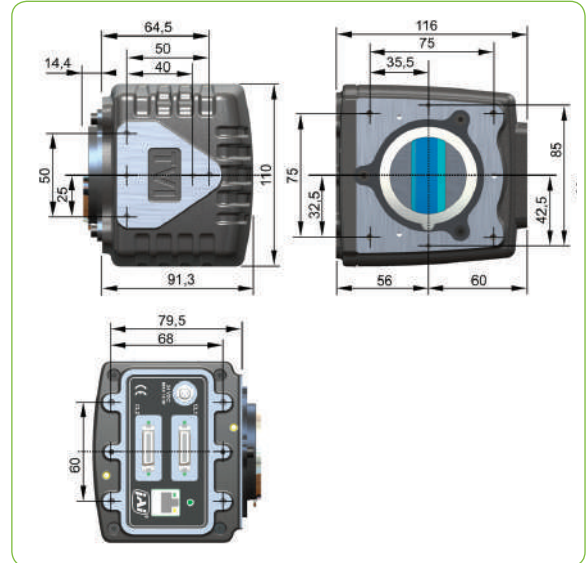
Specifications

Scanning system	CMOS line scan sensors with a beam splitter prism
Sensors	SW-2000T-CL: 3 x CMOS (R-G-B) SW-2000Q-CL: 4 x CMOS (R-G-B / NIR)
Sensor resolution	2048 pixels on each sensor
Pixel clock	20 to 85 MHz, adjustable
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
Data interface and read-out modes	Camera Link Base, Medium or Full Configuration SW-2000T-CL: 24-bit RGB: Base 30-bit RGB: Medium 36-bit RGB: Medium 24-bit RGB, two sets in parallel: Medium SW-2000Q-CL: 32-bit RGB/NIR: Medium 40-bit RGB/NIR: Medium 48-bit RGB/NIR: Medium 32-bit RGB/NIR: two sets in parallel: Full
Quantum Well Size	60 or 360 ke ⁻
Responsivity	480 DN/nj/cm ² (DN as 12-bits, small well, gains = 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, gains=1x)
Dynamic range	66dB
Analog gain	1x, 2x, 6x or 12x
Digital gain	0.1x to 32x
Operating modes	External trigger/shutters, internal trigger/shutters, external trigger/internal shutters or Pulse Width Control
Programmable exposure	2 μs to 0.1 s (internal shutters)
Camera control	Camera Link or 10/100 Mbps Ethernet Camera Link baud rates: 9600, 19200, 38400, 57600, or 115200 bps
Lens mount	Nikon F-mount or JAI Direct Mount
Lens protrusion	15mm, max
Flange back distance	46.5 mm
Operating temperature	+5°C to +40°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	18V to 26V DC (Warning: Overvoltage may damage the camera)
Power consumption	18 W, max.
Dimensions (H x W x L)	116.0 mm x 110.0 mm x 91.3 mm
Weight	1200 g

Ordering Information

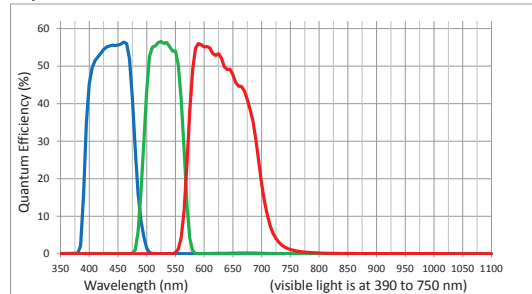
SW-2000T-CL. (3-CMOS color line scan camera)
SW-2000Q-CL. (4-CMOS color line scan camera)

Dimensions

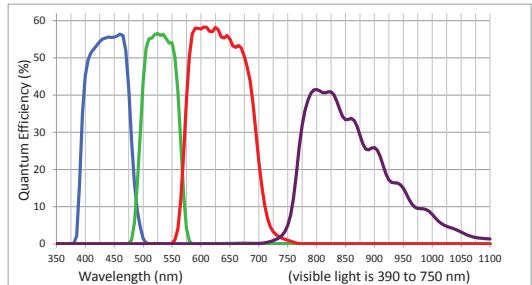


Spectral Response

Sweep+ SW-2000T-CL



Sweep+ SW-2000Q-CL



Spectral response without lens

Europe, Middle East & Africa
Phone +45 4457 8888
Fax +45 4491 8880

Asia Pacific
Phone +81 45 440 0154
Fax +81 45 440 0166

Americas
Phone (Toll-Free) 1 800 445 5444
Phone +1 408 383 0300



See the possibilities

Visit our web site on www.jai.com