SW-4000M-PMCL
SW-8000M-PMCL

CMOS Monochrome Line Scan Cameras

- 4096 pixels
- 8192 pixels
- 200 kHz
- 100 kHz

Sweep Series

- With M-42x1 mount

- *Monochrome CMOS Line Scan Camera*
- *Resolution: 4096 pixels in a line (SW-4000M-PMCL)*
  8192 pixels in a line (SW-8000M-PMCL)
- *Scan rate: 200,000 lines per second - 200 kHz (SW-4000M-PMCL)*
  100,000 lines per second - 100 kHz (SW-8000M-PMCL)
- *Sensor scanning width: 30.72 mm*
- *Video signal output: 8-bit or 10-bit via Mini Camera Link*
- *Interface: Power over Mini Camera Link*
- *JAI SDK and GenICam compliant*
- *F-mount and M-42x1 mount*

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See the possibilities

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Specifications for Sweep SW-4000M-PMCL and SW-8000M-PMCL

Specifications

Scanning system	CMOS line scan sensor
Sensors type	JAI custom made sensor (APS-C)
Sensor resolution (effective pixels)	**SW-4000M:** 4096 pixels horizontal **SW-8000M:** 8192 pixels horizontal
Scan rate (max)	**SW-4000M:** 200 kHz (Full Camera Link 8-bit config.) **SW-8000M:** 100 kHz (Full Camera Link 8-bit config.)
Sensor scanning width	**SW-4000M:** 30.72 mm (Mode-A, Small well) 30.72 mm (Mode-B, Large well) **SW-8000M:** 30.72 mm
Cell size	**SW-4000M:** 7.5 um (H) x 7.5 um (V) (Mode-A, Small well) 7.5 um (H) x 10.5 um (V) (Mode-B, Large well) **SW-8000M:** 3.75 um (H) x 5.78 um (V)
Responsivity	**SW-4000M:** 58 DN/(nJ/cm2) (Mode-A, Small well) (@10bits, gain= 1x, λ = 650nm) 53 DN/(nJ/cm2) (Mode-B, Large well) (@10bits, gain= 1x, λ = 650nm) **SW-8000M:** 23 DN/(nJ/cm2) (@10bits, gain= 1x, λ = 650nm)
S/N ratio	60 dB @10bit (Typical)
Pixel clock	31.875 to 85MHz adjustable
Video signal output	8-bit or 10-bit via Mini Camera Link connector
Inputs/Outputs	GPIO in/out via 12-pin connector
Trigger mode	Line start
Exposure mode (Exposure time)	Off: Line period -3.08µs Timed: 4µs to 15.148ms Trigger Width: 4µs~
Shading correction	Flat shading
Gain	Manual/Auto (Digital All: odB ~ +24dB (x1~x16) 1-Step = x0.01)
Gamma	9 Step 1.0 ~ 0.45
LUT	256 point
Auto Level Control (ALC)	Exposure time (Exposure auto): 4µs~1s Digital All (Gain auto): odB ~ +24dB(x1~x16) 1STEP = x0.01
Interface	Power over Mini Camera Link NB: Running Power over Camera Link requires 2 cables
Operating temperature	-5°C to +45°C
Storage temperature	-25°C to +60°C
Humidity	20 - 80% non-condensing
Vibration	10G (20 Hz to 200 Hz XYZ direction)
Shock	80G
Regulations	CE (EN 61000-6-2, EN 61000-6-3), FCC part 15 class B
Power and power consumption	PoCL or 12pin (12V to 24V DC ± 10%). 435 mA/ 5.22W max. (full frame @ 12V) NB: Running Power over Camera Link requires 2 lines

Lens mounts			
	Mount type:	**F-Mount** Bayonet	**M-42x1 mount** Metric screw thred
	Diameter:	44 mm	42 mm
	Flange Back Distance:	46.5 mm	16 mm

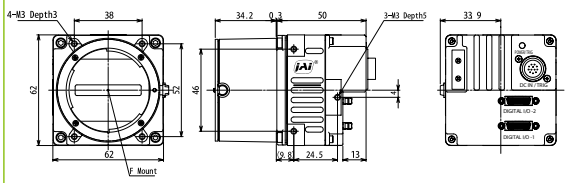
Dimensions (H x W x L)	62 x 62 x 53 mm (w/o projection part)
Weight	320 g

Ordering Information

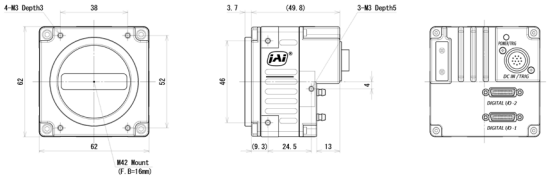
SW-4000M-PMCL	CMOS Monochrome Line Scan Camera (4096 pixels)
SW-8000M-PMCL	CMOS Monochrome Line Scan Camera (8192 pixels)

Dimensions

F-mount

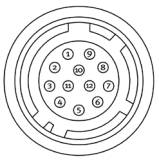


M-42x1 mount



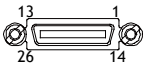
Connector pin-out

DC In / Trigger



12-pin connector

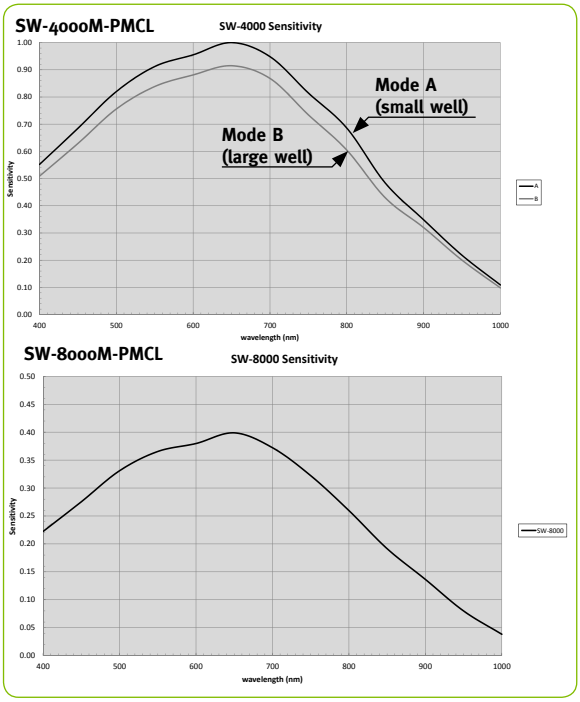
Mini-CL interface



Pin no.	Attribute	Signal	Remarks
1		GND	
2	Power In	DC(+12V) in	DC+24 V+/-10%
3		GND	
4		RESERVED	
5		GND	
6	I	RxD in	
7	O	TxD out	
8		GND	
9	O	TTL Out1	
10	I	TTL In1	
11	POo	DC(+12V) in	DC+24 V+/-10%
12		GND	

Pin no.	In/Out	Name	Note
1,14		Power	DC in
2(-),15(+)	O	TxOUTo	Data output
3(-),16(+)	O	TxOUT1	
4(-),17(+)	O	TxOUT2	
5(-),18(+)	O	TxClk	CL Clock
6(-),19(+)	O	TxOUT3	Data output
7(+),20(-)	I	SerTC (RxD)	LVDS serial control (CC1 only)
8(-),21(+)	O	SerTFG (TxD)	
9(-),22(+)	I	CC1 (Trigger)	Trigger input (CC1 only)
10(+),23(-)		CC1 (Reserved)	(CC1 only)
11,24		NC	
12,25		NC	
13,26		Shield	GND

Spectral Response



Spectral response without lens

See the possibilities