

■ 5120 x 5120

■ 150 fps

Spark Series  

❖ SP-25000-CXP4A

26 megapixel CMOS area scan

CoaXPress®



- **High resolution 26.2 megapixel CMOS image sensor (global shutter)**
- **Up to 150 fps for 8-bit output at full resolution (5120 x 5120)**
- **Two models - monochrome or raw Bayer color output provided**
- **Compact 1.1-inch optical format (18.1 mm diagonal) with 2.5 μ m square pixels**
- **Horizontal / vertical image flip function, single ROI and multi-ROI modes**
- **Excellent shock and vibration resistance (80G shock / 10G vibration)**
- **4-channel, GenICam-compliant CoaXPress 2.0 interface**
- **4 micro-BNC connectors support CXP-12 or CXP-6 lane speeds**
- **Can share processing across multiple PCs with the CXP link sharing function**
- **C-mount lens mount**

Specifications for SP-25000-CXP4A

Spark Series

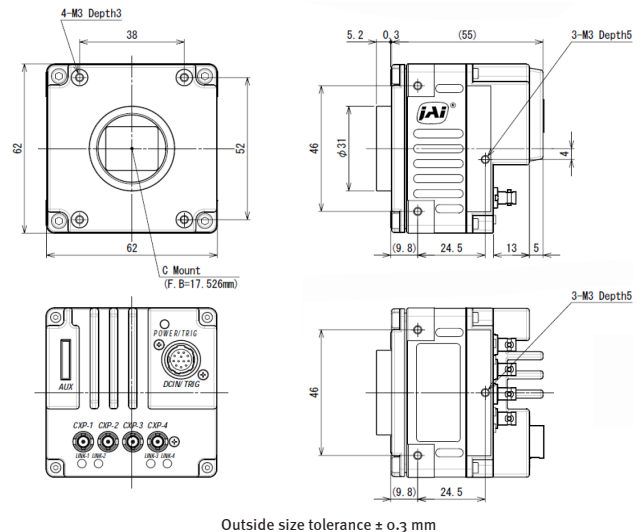
Specifications	SP-25000-CXP4A
Sensor	26.2 MP, 1.1-inch CMOS global shutter (GMAX0505)
Active pixels	5120 (h) x 5120 (v)
Frame rate Full frame	150 frames/sec. @ 8-bit mono/Bayer
Active area	12.8 mm (h) x 12.8 mm (v) - 18.1 mm diagonal
Pixel size	2.5 µm x 2.5 µm
Read-out modes Full ROI (single) Binning	5120 (h) x 5120 (v) up to 150 fps H: 128 - 5120 pixels in 128-pixel steps V: 8 to 5120 lines in 4-line steps 1x2, 2x1, 2x2 (mono only)
EMVA 1288 Parameters Absolute sensitivity Maximum SNR	12-bit output format Mono: TBD p Color: TBD p ($\lambda = 531 \text{ nm}$) Mono: TBD dB Color: TBD dB
Traditional SNR*	>47 dB mono, >47 dB color (0 dB gain, 150 fps, 8-bit)
Video signal output	Monochrome: mono8 Color: BayerRG8, BayerGB8, BayerGR8, BayerBG8
Video modes	Normal/Single ROI, Multi ROI, Sequencer (Trigger & Command)
Interface	CoaXPress v2.0 (CXP-12, micro-BNC4) Link Configurations: CXP-12 or CXP-6 over 4, 3, 2, or 1-lane configurations
Gain	Manual/auto 0 dB to +24 dB
White balance	Off, presets (4000K, 4600K, 5000K, 6500K, 7500K), or one-push/continuous AWB (3000K to 9000K)
Gamma/LUT	0.45 to 1.0 (9 steps) or 257-point programmable LUT
Image correction & enhancement	Flat shading, color shading (color model only), edge enhancement
Trigger input	Opto In, TTL In (2), Pulse Generators (4), Software, NAND Out (2), User Output (4)
Exposure modes	Timed/EPS, Trigger Width, Auto
Electronic shutter	Timed: 9 µs to 8 s Trigger width: 9 µs to ∞ s
Auto Level Control (ALC)	Shutter range from 100 µs to ~6.6 ms, gain range from 0 dB to +24 dB. Tracking speeds and max. values adjustable.
Operating temp. (ambient)	-5°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	CE (EN 55032:2015, EN 55035:2017) FCC Part 15 Class B, RoHS/WEEE
Power 12-pin PoCXP	+10V to +25V DC. 16.5 W typical @ +12 V Some limitations apply. See manual for details.
Lens mount	C-mount (17.526 mm FBD)
Lens control	Signals available via 10-pin Aux connector
Dimensions (H x W x L)	62 mm x 62 mm x 60.5 mm (incl. lens mount)
Weight	305 g

*Traditional SNR is based on random noise in a single frame, where EMVA SNR measurements consider more comprehensive noise sources and variance over time.

Ordering Information

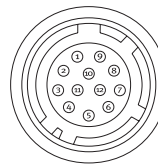
SP-25000M-CXP4A	25 megapixel monochrome camera with CoaXPress
SP-25000C-CXP4A	25 megapixel color camera with CoaXPress

Dimensions



Connector pin-out

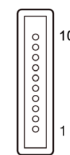
DC In / Trigger



HIROSE HR10A-10R-12PB(71)

Pin	Signal
1	Ground
2	DC in +10V to +25V
3	Ground
4	NC
5	Opto In 1-
6	Opto In 1+
7	Opto Out 1-
8	Opto Out 1+
9	TTL Out 1
10	TTL In 1
11	DC in +10V to +25 V
12	Ground

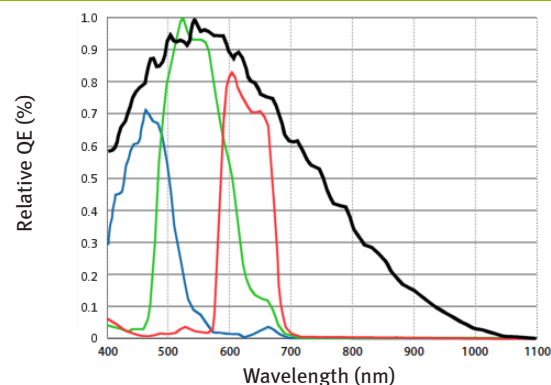
Auxiliary Connector



Type: 3260-10S3(55) HIROSE or equivalent

Pin	Signal	Note
1	TTL Out 2	Line 8
2	NC	
3	TTL In 2	Line 10
4	NC	
5	GND	GND
6	Lens Power	DC 9V
7	RS-232C Tx	For lens control
8	RS-232C Rx	For lens control
9	GND	
10	GND	

Spectral response



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