

❖ **SW-4005BL-CXP**
❖ **SW-4005M-CXP**
Compact CMOS line scan camera

■ 2 x 4096 pixels
■ 1 x 4096 pixels

■ 42 kHz
■ 84 kHz

Sweep Series  

CoaXPress[®]

Preliminary Version



- **Compact and light weight line scan camera**
- **CoaXPress v2.0 standard with CXP-6 speed**
- **SW-4005BL-CXP: 2 x 4096 pixel output (RB-G) up to 42 kHz**
- **SW-4005M-CXP: 1 x 4096 pixel output up to 84 kHz**
- **14.336mm wide sensor with 3.5 μm x 3.5 μm pixels**
- **Supports direct encoder connection to camera, with the ImageOutputDelay function**
- **Large variety of trigger options**
- **PRNU, DSNU, Master and Individual Gain mode*, White Balance*, Shading**
- **LUT, Color Space Conversion*, Spatial Compensations*, Horizontal Binning**
- **8/10/12-bit output**
- **Excellent shock and vibration resistance**
- **Accepts power over CoaXPress interface**
- **C-mount lens mount**

**Supported only on SW-4005BL-CXP.*

Specifications for SW-4005BL-CXP / SW-4005M-CXP

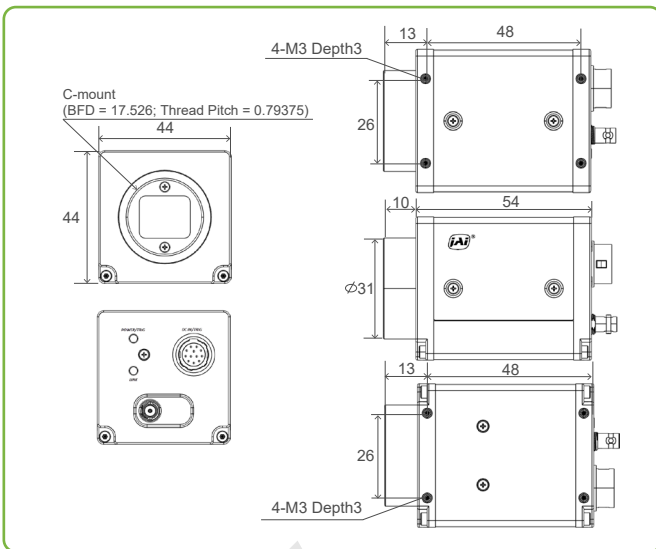
Sweep Series

| Specifications | SW-4005BL-CXP / SW-4005M-CXP |
|--|---|
| Scanning system | SW-4005BL-CXP: Bilinear CMOS line scan SW-4005M-CXP: Monochrome CMOS line scan |
| Active pixels | SW-4005BL-CXP: 4096 x 2 pixels (RB-G) SW-4005M-CXP: 4096 x 1 pixels |
| Line rate (when Width = 4096) | SW-4005BL-CXP: Up to 42 kHz, variable SW-4005M-CXP: Up to 84 kHz, variable |
| Sensor width | 14.336 mm |
| Pixel size | 3.5 μm x 3.5 μm |
| Video output SW-4005BL-CXP | RGB8, RGB10, RGB12, BiColorRGBG8, BiColorRGBG10, BiColorRGBG10p, BiColorRGBG12, BiColorRGBG12p |
| Video output SW-4005M-CXP | Mono8, Mono10, Mono12 |
| Trigger Inputs | 2 TTL In, Opto In, CXP In, Software, 4 Pulse Generators, 4 Logic Blocks, 1 Encoder Trigger |
| Outputs | 2 TTL Out |
| Gain SW-4005BL-CXP | Master Mode: DigitalAll odB + 30dB, Digital RB -7.9dB + 12dB Individual Mode: DigitalGBR odB + 36dB |
| Gain SW-4005M-CXP | DigitalAll odB + 36dB |
| Gamma | 0.45 to 1.0 (9 steps) or 256-point LUT |
| Image processing | PRNU/DSNU, black level, white balance*, shading, chromatic aberration*, spatial compensation* |
| Color space conversion* | RGB to XYZ (CIE) or Color Correction Matrix |
| Exposure modes | Off, Timed, and TriggerWidth |
| Exposure time** (ExposureMode = Timed) | SW-4005BL-CXP: 3.22 μs ~ 15.148 ms SW-4005M-CXP: 2.17 μs ~ 15.148 ms step: 0.01 μs; Exposure time can be longer at slower line rates. |
| Trigger width control | SW-4005BL-CXP: 3.22 μs ~ 1 sec SW-4005M-CXP: 2.17 μs ~ 1 sec |
| Interface | Connector: Micro-BNC, CoaXPress v2.0, CXP-6 Link Configs: CXP-6_X1, CXP-3_X1 |
| Lens mount | C-mount (back flange distance 17.526 mm) |
| 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 | CE (EN55032, EN55035) FCC Part15 Subpart B, RoHS/WEEE, KC |
| Power (12-pin) | Input: 10.8V ~ 26.4V Consumption: TBDW typical @ +12V, TBDW Max |
| Power (PoCXP) | Input: 18.5V ~ 26V Consumption: TBDW typical, TBDW Max |
| Dimensions (H x W x L) | 44 mm x 44 mm x 54 mm (without lens mount protrusions and connectors) |
| Weight | SW-4005BL-CXP: 154g; SW-4005M-CXP: 153g |

*Supported only on SW-4005BL-CXP.
**Including Exposure offset time

| Ordering Information | |
|----------------------|----------------------------------|
| SW-4005BL-CXP | CMOS bilinear RB-G camera |
| SW-4005M-CXP | CMOS monochrome line scan camera |

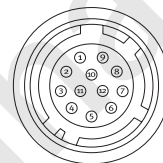
Dimensions



Connector pin-out

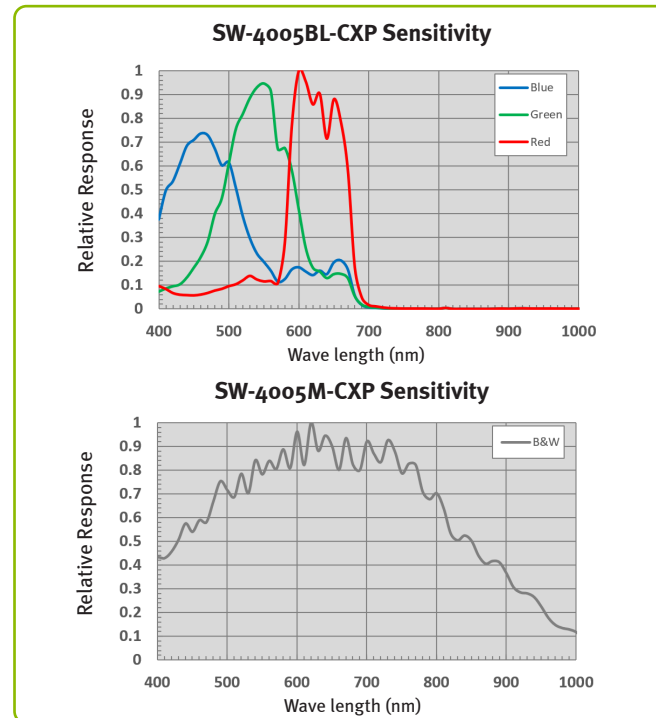
| Pin | Signal |
|-----|------------------------|
| 1 | Ground |
| 2 | DC in +10.8V to +26.4V |
| 3 | Ground |
| 4 | TTL in 4 |
| 5 | Opto in 1- |
| 6 | Opto in 1+ |
| 7 | TTL out 4 |
| 8 | NC |
| 9 | TTL out 1 |
| 10 | TTL in 1 |
| 11 | DC in +10.8V to +26.4V |
| 12 | Ground |

DC In / Trigger (12-pin)



HR10A-10R-12PB(71)

Spectral response



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