

AP-5100T-CXPA

5.1 megapixel 3CMOS prism area scan



Preliminary Version



- *High resolution prism-based 3CMOS camera*
- *Full spatial resolution and true RGB color values with no interpolation*
- *Up to 75 fps at 5.1MP resolution with true color data from 3 sensors*
- *1/1.8" 4th gen. Sony Pregius S sensors feature backside illuminated pixel technology*
- *2.74µm square pixels*
- *CoaXPress 2.0 (CXP-12) with all standard functionalities including trigger over CoaXPress*
- *Individual analog gain and exposure control for R, G, and B channels*
- *Flexible ROI & rescaling function (Xscale) for sub-pixel binning and resolution matching, traditional 1x2, 2x1, or 2x2 binning*
- *Chromatic aberration correction, color space conversion, Auto Level Control (ALC), blemish compensation, shading correction*
- *4 inputs and 4 output options on DC In/TRIGGER (12-pin) and AUX (6-pin) connectors*
- *Excellent shock and vibration resistance*
- *C-mount lens mount*
- *Accepts power over CoaXPress interface or via separate 12-pin connector*

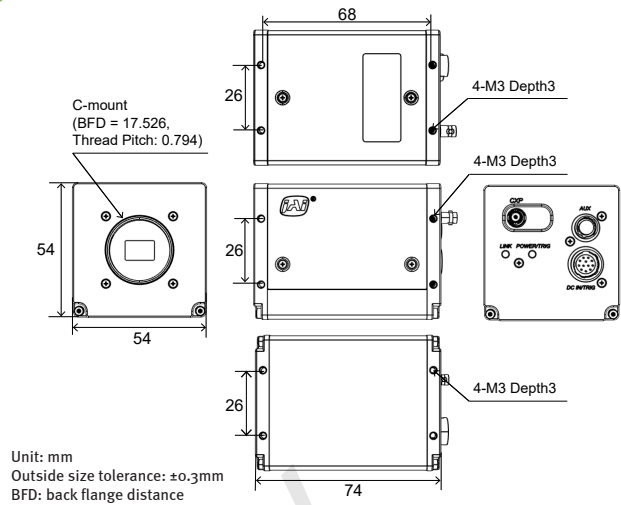


Specifications for AP-5100T-CXPA

Apex Series

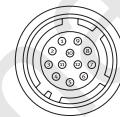
Specifications	AP-5100T-CXPA
Sensor	1/1.8" 3CMOS global shutter (IMX548)
Active pixels	3x 2472 (H) x 2064 (V) pixels
Frame rate	75 fps (RGB8, Full Frame)
Active area	6.77mm(H)x5.66mm(V), 8.82mm (diagonal)
Pixel size	2.74 μm x 2.74 μm
Interface	CoaXpress v2.0 (Micro-BNC) CXP12_x1, CXP6_x1, CXP3_x1
Read-out modes	Full: 2464(H) x 2056 (V) pixels ROI (Single): (H) 96 ~ 2464 pixels, step: 8 (V) 8 ~ 2056 lines, step: 2 ROI (Multi): Up to 64 scanning areas (no overlap) Binning: 1x2, 2x1, 2x2
Image scaling (Xscale)	Supports independent, sub-pixel rescaling of H and/or V resolution (1/16 max.), compatible with ROI settings
Pixel formats	RGB8, RGB10, RGB12
Gain	Manual control - master or individual R/G/B Auto gain control - off, continuous, once
White balance	Off, 4 presets (3200K, 5000K, 6500K, 7500K) once / continuous AWB using Gain or Exposure
Gamma / LUT	0.45 to 1.0 (9 steps) or 257-point programmable LUT
Shading correction	FlatShading, ColorShading
Chromatic aberration correction	-128 to +127 with 3 presets
Trigger input	Opto In (2), TTL In (2), CXP In, Pulse Generators (4), Software, NAND Out (2), User Output (4)
Output	Opto out (2), TTL out (2)
Exposure Mode	Off (free-run), Timed, TriggerWidth
Exposure Time	3.47 μs ~ TBD (can be set independently for R/G/B channels)
Auto Level Control (ALC)	Exposure range: 100 μs ~ TBD Gain range: 0 dB ~ +18 dB Tracking speeds and max. values adjustable.
Video processing functions	H & V flip (ReverseX/Y), blemish compensation, color enhancement, color conversion
Lens mount	C-mount (back flange distance: 17.526mm)
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	3G (20 Hz to 200 Hz, XYZ directions)
Shock	50G
Regulations	CE (EN55032:2015/A11:2020, EN 55035:2017 (CISPR35:2016)), FCC Part 15 Subpart B, RoHS/WEEE, KC
Power	12-pin: 10.8 to 26.4V DC 12-pin: 8.4W (typ) @12V, 10.3W Max PoCXP: 8.4W (typ) @12V, 10.3W Max
Dimensions (H x W x D)	54mm x 54 mm x 74 mm (excluding connectors)
Weight	210 g

Dimensions



Connector pin-out

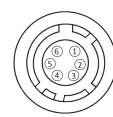
DC In / Trigger (12-pin)



HR10A-10R-12PB(71)

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

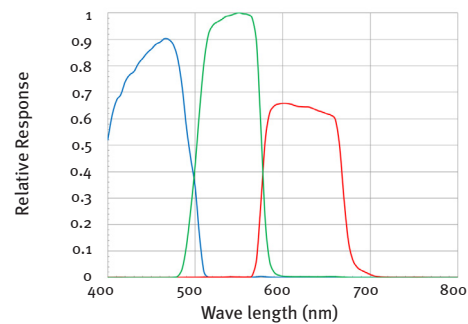
AUX (6-pin)



HR10A-7R-6SB

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|-----|----|-----------|----------|-------------|-------------|--------|
| Pin | 1 | 2 | 3 | 4 | 5 | 6 |
| | NC | TTL out 2 | TTL in 2 | Opto out 2- | Opto out 2+ | Ground |

Spectral Response



Ordering Information

AP-5100T-CXPA

3-CMOS prism color camera with CoaXPress interface

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