

## ► 1.4 Megapixel 3-CCD RGB Colour Camera

The 3-CCD colour camera AT-140 CL is based on JAI's unique prism technology, with three 1/2" CCD-sensors being aligned on the same optical path with an accuracy of one quarter pixel. At full resolution of 1392 x 1040 pixel per channel, the camera operates at 25 frames/s, higher frame rates are possible using partial scan or binning.

The cameras offer chromatic shading reduction, which in combination with their compact prism, allows a wide range of standard, un-corrected lenses to be used. With its high image quality (36 bit output) and 78 mm length, the camera is especially suited for applications requiring a high colour fidelity. Dual CameraLink interfaces allow to choose between 8, 10, or 12 bit output per channel using a CameraLink base or medium configuration.

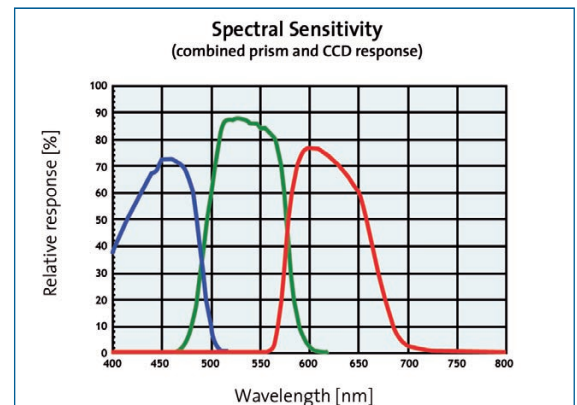


## ► Examples of possible applications

- Printing industry
- Electronics and semiconductor manufacturing
- Food inspection
- Biomedical screening/classification

## ► Technical highlights

- 3x 1/2" progressive scan CCD-sensors
- 1392 (H) x 1040 (V) effective pixels for each CCD (4.65 µm square)
- Compact RGB prism for C-mount lenses
- 25.2 frames/s with full resolution, 71.3 frames with partial scan (1392x131), programmable
- Pre-set or variable partial scan
- Vertical binning for higher sensitivity and frame rate
- 24-, 30- or 36-bit RGB output via CameraLink
- Edge pre-select or pulse width control trigger modes
- Linear matrix circuit with manual control or sRGB or Adobe RGB pre-sets
- Knee function available for knee-point and knee-slope settings
- Pre-set shutter from Off (1/25) to 1/53.000 in 12 steps
- Individually programmable shutter/exposure for R, G and B
- Manual, continuous, one-push auto, or pre-set white balance

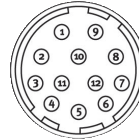




► Technical Data

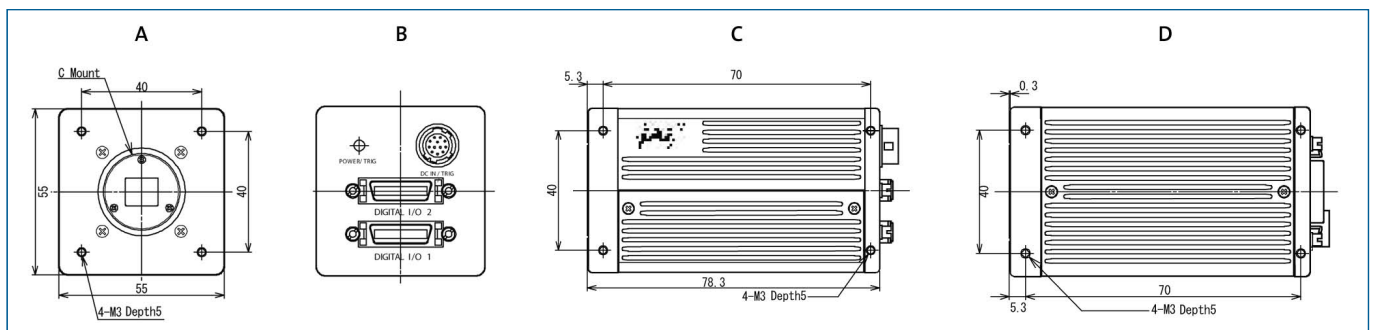
Specification	JAI AT-140 CL
Camera class	Area scan camera, Colour
Sensor class	1.2"-CCD, Non Interlaced (Progressive Scan)
Sensor type	Sony 3 x ICX267AL
Colour technology	RGB prism
Sensing area	6.4 x 4.8 (W x H in mm)
Resolution (effective)	1,392 x 1,040 (H x V)
Pixel size	4.65 x 4.65 (W x H in $\mu\text{m}$ )
Frame rate (standard)	25.21 Hz
Pixel clock (max.)	50 MHz
Tap number (max.)	11
Shutter	1/60 - 1/53,000 s 11 steps
Sensitivity	1.25 lx (max. gain, 50% video)
S/N ratio	50 dB
Gain	-3 to +12 dB (R + B: -6 to +6 dB)
Output format	RGB
Trigger modes	Frame-Delay readout, Edge Pre-Select, Pulse Width Control, Reset Continuous
Digital interface	CameraLink-Base, CameraLink-Medium
Supply voltage	12 - 24 V
Power consumption	6.1 W
Connectors	CameraLink, Hirose (12 pins)
Features	Partial Scan, Binning, Knee function, Shading correction, White Balance, Look up tables
Lens mount	C-Mount
Dimensions	55 x 55 x 78.3 (W x H x L in mm)
Weight	290 g
Operating temperature	-5 - +45 °C
Humidity	20 - 80 % (non-condensing)
Shock resistance	50 G
Vibration stress	3 G
Regulations	CE, FCC part 15 class B, RoHs

12 pin Hirose



- | Pin | Signal     |
|-----|------------|
| 1   | Ground     |
| 2   | +12 VDC    |
| 3   | Ground     |
| 4   | Iris Video |
| 5   | Ground     |
| 6   | NC         |
| 7   | NC         |
| 8   | Ground     |
| 9   | XEEN out   |
| 10  | Trigger in |
| 11  | NC         |
| 12  | Ground     |

► Dimensions



Front view (A), rear view (B), side view (C), bottom view (D), all dimensions in mm

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