

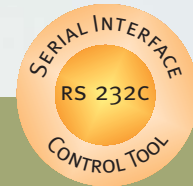
CV-A11 Progressive Scan



adept
electronic solutions

The Machine Vision and
Imaging Specialists

Perth: +61 (08) 9242 5411
Sydney: +61 (02) 9979 2599
Melbourne: +61 (03) 9555 5621
Email: adept@adept.net.au
Web: <http://www.adept.net.au>

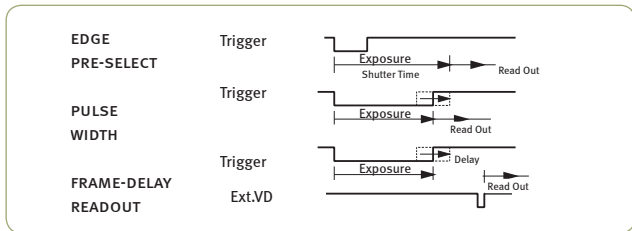


- *Compact 1/3" monochrome progressive scan camera*
- *648 (h) x 492 (v) 7.4 μ m square pixels*
- *30 frames/second with full resolution in continuous operation*
- *High S/N ratio \gt 56 dB*
- *Increased frame rate with partial scan*
- *Exposure time from 76 μ s to 116 ms using Pulse Width Control mode*
- *Programmable exposure from 76 μ s to 60 ms*
- *Frame-delay readout mode for multiplexed readout of up to 3 cameras*
- *Internal, external HD/VD or random trigger synchronization*
- *Smear reduction readout mode*
- *LVAL-synchronous/-asynchronous operation (auto-detect)*
- *Exposure enable (EEN), Write enable (WEN) and Pixel Clock output*
- *Setup by Windows NT/2000/XP via serial communication*

Specifications for CV-A11

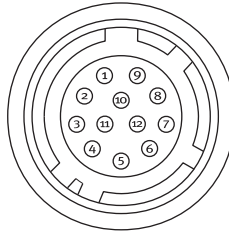
Specifications	CV-11
Sensor	1/3" progressive scan
Pixel Clock	12.2727 MHz
Frame rate full frame	29.96 frames/second (525 lines per frame)
Active area	4.8 (h) x 3.6 (v) mm
Cell size	7.4 x 7.4 pixels
Active pixels	648 x 492
Read-out modes	Full 648 (h) x 492 (v) 30 fps 1/2 partial scan 648 (h) x 240 (v) 58 fps 1/3 partial scan 648 (h) x 160 (v) 73 fps 1/6 partial scan 648 (h) x 80 (v) 124 fps Smear-less Smear reduction Frame-delay readout For multi-camera read-out
Sensitivity	0.05 Lux (On sensor, max. gain, shutter off, 50% video)
S/N ratio	>56dB (odB gain)
Video output	Composite VS signal, 1Vp-p, 75Ω Video signal, 0.7Vp-p (selectable)
Gain	Manual, -3 to +12 dB Automatic, 0 to +12dB
Gamma	0.45 or 1.0
Synchronization	Int. X-tal, Ext. HD/VD or random trigger
Inputs	Trigger 4V, TTL HD/VD sync 4V, 75Ω or High Z (switchable)
Outputs	HD / VD sync. 4V, 75Ω WEN (Write Enable) 4V, 75Ω EEN (Exposure Enable) 4V, 75Ω Pixel clock 4V, 75Ω
Trigger modes	Continuous, EPS (Edge Pre-Select), PWC (Pulse Width Control), Long time exposure, Smear reduction and Frame-delay readout
Electronic shutter	Pre-set shutter 1/30 to 1/200,000 in 16 steps Programmable exposure(PE) 1.3H to 1000H (75.9 μs to 59.8 ms) Pulse Width 1.3H to 2000H (75.9 μs to 116 ms) Long time exposure 2 frames to ∞
Accumulation	HD synchronous or HD asynchronous
Control interface	RS-232C, short ASCII commands
Functions controlled by RS-232C	Scanning format, Trigger modes, Readout modes, Programmable exposure, Shutter, Gain, Pixel clock output, Sync on/off, Black level, Manual gain, AGC, Gamma
Functions controlled by internal DIP-switches	VD input/output, HD input/output, HD/VD 75Ω termination on/off
Operating Temperature	-5°C to +45°C
Humidity (operation)	20 - 90% non-condensing
Storage temp./humidity	-25°C to +60°C / 20 to 90%
Vibration	10G (20Hz to 200 Hz XYZ)
Shock	70G
Regulations	CE (EN 61000-6-2, EN-61000-6-3), FCC part 15 class B, RoHS/WEEE
Power	12V DC +/-10%. 1.5W
Lens mount	C-mount
Dimensions (H x W x L)	29 x 44 x 66 mm
Weight	150 g

Trigger/Readout mode



Connector pin-out

DC-IN / Trigger / SYNC.



HIROSE HR10A-10R-12P-01

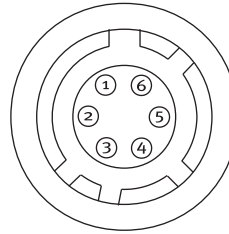
Connector Pin-out

- | | |
|--------|---------------------|
| Pin 1 | GND |
| Pin 2 | +12V DC |
| Pin 3 | Ground |
| Pin 4 | Video output |
| Pin 5 | Ground |
| Pin 6 | HD input/HD output* |
| Pin 7 | VD input/VD output* |
| Pin 8 | Ground |
| Pin 9 | Pixel clock output |
| Pin 10 | WEN output |
| Pin 11 | Trigger input |
| Pin 12 | GND |

(Pin configuration compatible with EIA standard)

*Selectable by internal switch

RS-232C / Trigger

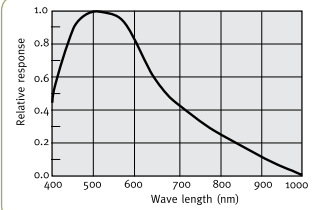


HIROSE HR10A-7R-6P

- | | |
|-------|---------------|
| Pin 1 | TXD |
| Pin 2 | RXD |
| Pin 3 | Ground |
| Pin 4 | Ground |
| Pin 5 | Trigger input |
| Pin 6 | EEN output |

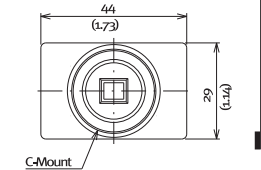
Plugs for cable:
12 pin: HIROSE HR10A-10P-12S
6 pin: HIROSE HR10A-7P-6S

Spectral Response

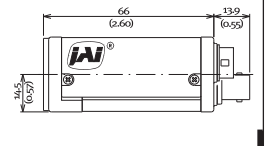


Dimensions

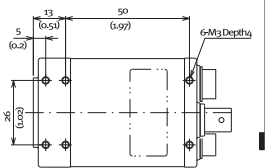
Front view



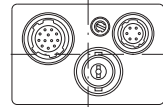
Side view



Bottom view



Rear view



Ordering Information

- CV-A11 1/3" Monochrome Progressive Scan Camera
- MP-40 Tripod Adapter (must be ordered separately)
- MP-70 Right Angle Adapter (must be ordered separately)

Europe, Middle East & Africa
Phone +45 4457 8888
Fax +45 4491 3252

Asia Pacific
Phone +81 45 440 0154
Fax +81 45 440 0166

Americas
Phone (Toll-Free) 1 800 445 5444
Phone +1 408 383 0300

