

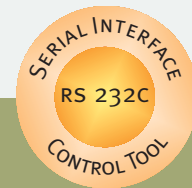
CV-A2
Progressive Scan



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electronic solutions

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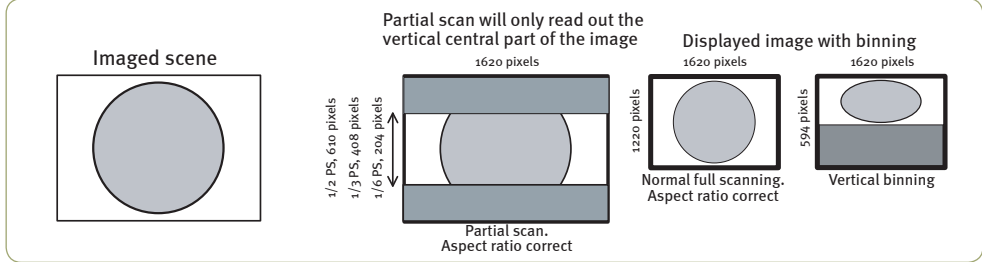


- *Compact 1/1.8" monochrome progressive scan camera*
- *1620 (h) x 1220 (v) 4.4 μ m square pixels*
- *15 frames/second with full resolution in continuous operation*
- *Increased frame rate with partial scan and vertical binning*
- *Increased sensitivity with vertical binning*
- *Exposure time from 53.1 μ s to 108.7 ms using Pulse Width Control mode*
- *Programmable exposure from 76.5 μ s to 66.5 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-A2

Specifications	CV-A2
Sensor	1/1.8" progressive scan
Pixel Clock	36.15 MHz
Frame rate full frame	15 frames/second (1252 lines per frame)
Active area	7.12 (h) x 5.36 (v) mm
Cell size	4.4 x 4.4 pixels
Active pixels	1620 x 1220
Read-out modes	Full 1620 (h) x 1220 (v) 15 fps 1/2 partial scan 1620 (h) x 610 (v) 28 fps 1/3 partial scan 1620 (h) x 408 (v) 40 fps 1/6 partial scan 1620 (h) x 204 (v) 70 fps Vertical binning 1620 (h) x 594 (v) 30 fps Smear-less Frame-delay readout For multi-camera read-out
Sensitivity	0.3 Lux (On sensor, max. gain, shutter off, 50% video)
S/N ratio	>50dB (0dB gain)
Video output	Composite VS signal, 1Vp-p, 75Ω Video signal, 0.7Vp-p (selectable)
Auto-iris lens video output	0.7Vp-p
Gain	Manual, -3 to +12 dB Automatic, -3 to +12dB
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 1/15 to 1/200,000 in 16 steps Programmable exposure (PE) 1.44H to 1252.44H (76.5 μs to 66.5 ms) Pulse Width 1H to 2047H (53.1 μs to 108.7 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
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% 2.3W
Lens mount	C-mount
Dimensions (H x W x L)	29 x 44 x 66 mm
Weight	150 g

Readout formats



Connector pin-out

DC-In / Trigger / Sync

HIROSE HR10A-10R-12PB-01

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

(Pin configuration compatible with EIAJ standard)

RS 232C/Trigger

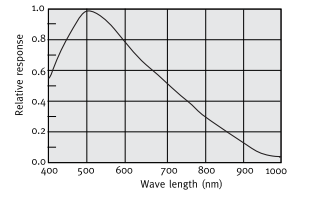
HIROSE HR10A-1R-6PB

Pin 1 TXD
2 RXD
3 Ground
4 Ground
5 Trigger input
6 EEN/WEN output*

*) Configurable

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

Spectral Response



Dimensions

Front view

Side view

Bottom view

Top view

Rear view

Ordering Information

CV-A2 1/1.8" Monochrome Progressive Scan Camera

MP40 Tripod 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

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Datasheet_CVA2-0608 P1m-1000