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Find the *JAI / Pulnix CV-M40* at our website: *Click HERE*

CV-M40

Double Speed Progressive Scan Monochrome Camera



SERIAL INTERFACE
RS 232C
CONTROL TOOL

- *1/2" Hyper HAD CCD with 659 (h) x 494 (v) square pixels*
- *60 full progressive frames every second*
- *120 frames readout every second with vertical binning*
- *Partial scan from frame rate up to 233 Hz*
- *Partial scan from 30 to 480 lines controlled by RS 232C*
- *Internal, external, HD, VD, or random synchronization*
- *Edge and pulse width external trigger modes*
- *Frame-delay readout*
- *Shutter speed 1/250 to 1/12,000 second*
- *24.5 MHz pixel frequency and 31.468 kHz line frequency*
- *Video output with or without synchronization*
- *Setup by RS 232C or switches*
- *Windows 95/98/NT setup software*

The leading manufacturer of high performance camera solutions

Specifications for CV-M40

Specifications	CV-M40
Scanning system	Progressive 525 lines, 60 frames/sec.
Frame rate:	
Normal	60 Hz, 648 (h) x 492 (v) pixels
Vertical binning	120 Hz, 648 (h) x 242 (v) pixels
Partial 1/2	106 Hz, 648 (h) x 240 (v) pixels
Partial 1/4	156 Hz, 648 (h) x 120 (v) pixels
Partial 1/8	200 Hz, 648 (h) x 60 (v) pixels
Partial 1/16	233 Hz, 648 (h) x 30 (v) pixels
Line frequency	31.468 kHz
Pixel frequency	24.54 MHz
CCD sensor	Monochrome 1/2" Hyper HAD IT progressive scan CCD
Sensing area	6.4 (h) x 4.8 (v) mm
Picture elements	659 (h) x 494 (v)
Effective pixels	648 (h) x 486 (v)
Cell size	9.9 x 9.9 µm
Resolution (horizontal)	480 TV lines
Resolution (vertical)	486 TV lines
Sensitivity on sensor	0.23 Lux, Max gain, 50% video
S/N ratio	>48 dB (AGC off, Gamma 1)
Gamma	0.45 or 1.0
Gain	Auto or manual (0 to +12 dB)
Video output	Composite VS signal 1.0 Vpp, 75 Ohm or Video without sync. 0.7 Vpp, 75 Ohm
Readout system:	
Normal	1 progr. frame 1/60 sec. 525 lines
Vertical binning	1 progr. frame 1/120 sec. 262 lines
Partial scan	Full, 1/2, 1/4, 1/8, 1/16
With RS 232C	From 30 to 480 lines
Synchronization	Int. X-tal. or Ext HD/VD or random trigger
HD/VD sync. input/output	4V, 75 Ohm or TTL
Trigger /readout modes	Normal, Edge, Pulse width, Frame-delay readout
Trigger input	>2 µsec. <1 msec. 4V, 75 Ohm or TTL
Shutter	Off, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/12,000 sec.
WEN output	TTL
Pixel clock output	TTL
Serial control	RS 232C
Controls and functions:	
Gamma	0.45 – 1.0
Gain	Fixed, Manual, Auto
Scanning format	Full, 1/2, 1/4, 1/8, 1/16
Readout mode	Normal, Vertical binning
Trigger/Readout modes	Normal, Edge, Pulse width, Frame-delay readout
Shutter	Off to 1/12,000 sec. in 8 steps
Manual gain	Potentiometer on rear plate
Gain	Relative 0 – 255
Setup	Relative 0 – 255
White clip	Relative 0 – 255
File	Load to and from file
Memory	Restore and store user setup
Memory	Restore factory setup
Operating temperature	-5°C to +45°C
Humidity	20 – 80% non-condensing
Power	12V DC ±10%. 0.5 Amp.
Lens mount	C-mount
Dimensions	40 x 50 x 80 mm (HxWxD)
Weight	245 g

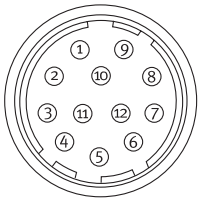
Ordering Information

CV-M40 1/2" Double Speed Progressive Scan Monochrome Camera. EIA
6s Hirose Plug*
12s Hirose Plug*
Cable for RS 232C Interface*

* Must be ordered separately

Connection Description

DC-IN/SYNC.



Hirose HR 10A-10P-12P. Male

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

RS 232C/TRIGGER

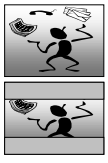


Hirose HR 10A-7P-6S. Male

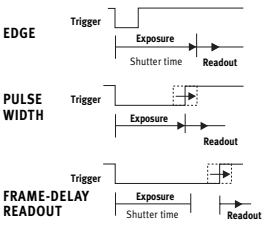
Pin	1	TXD
	2	RXD
	3	Ground
	4	Ground
	5	Trigger input
	6	WEN output

*** Pixel clock output by internal jumper setting.*

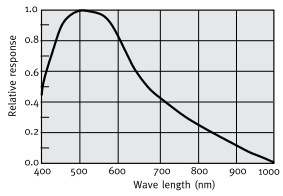
Partial Scan Example



Trigger/Readout Modes

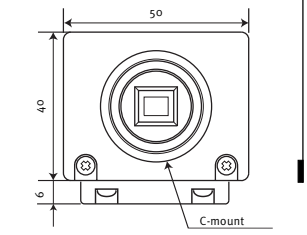


Spectral Sensitivity

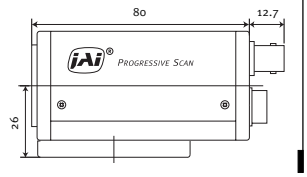


Dimensions

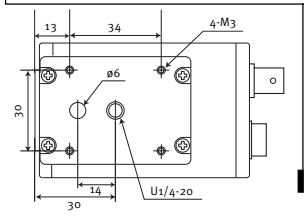
Front view



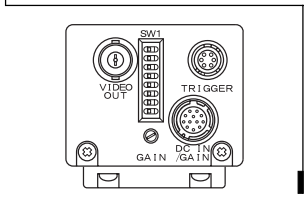
Side view



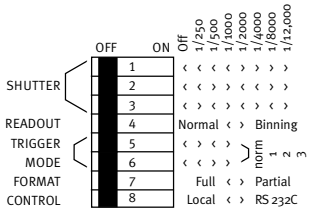
Bottom view



Rear view



Switch Setting



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