



CV-M50IR

Near IR Industrial CCD Camera



- *High resolution monochrome 1/2" EXview HAD CCD™ sensor*
- *CCIR: 752 (h) x 582 (v) pixels. EIA: 768 (h) x 494 (v) pixels*
- *Extended near infrared sensitivity*
- *Improved sensitivity, dynamic range and smear performance*
- *High S/N ratio >59 dB*
- *Interlaced or non-interlaced scanning*
- *Field or frame integration mode*
- *Internal, external HD/VD or random synchronization*
- *HD/VD synchronization input/output - TTL or 75 Ohm*
- *Edge pre-select, pulse width control and start/stop trigger modes*
- *Long time exposure with external VD pulses*
- *Exposure enable EEN, write enable WEN and pixel clock output*
- *Frame grabber friendly interface*
- *Rugged and compact construction*

The leading manufacturer of high performance camera solutions

Specifications for CV-M50IR

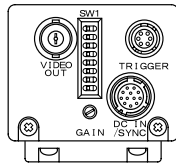
Specifications	CV-M50IR C	CV-M50IR E
Scanning system	625 lines 25 frames/sec.	525 lines 30 frames/sec.
CCD sensor	Monochrome 1/2" EXview HAD CCD™	
Sensing area	6.4 mm (h) x 4.8 mm (v)	
Effective pixels	752 (h) x 582 (v)	768 (h) x 494 (v)
Elements in video output	737 (h) x 575 (v)	758 (h) x 486 (v)
Cell size	8.6 (h) x 8.3 (v) μm	8.4 (h) x 9.8 (v) μm
Resolution		
Horizontal	560 TV lines	570 TV lines
Vertical	575 TV lines	485 TV lines
Sensitivity on sensor	0.02 Lux, Max. gain, 50% video	
S/N ratio	>59 dB (AGC off, Gamma 1)	
Video output	Composite VS signal, 1.0 Vpp, 75 ohm	
Gamma	1.0 - 0.45	
Gain	Manual - Automatic 0 to +15 dB	
Scanning	2:1 interlaced - non-interlaced	
Accumulation	Field - Frame	
Synchronization	Int. X-tal. Ext HD/VD or random trigger	
HD sync. input/output	4Vpp ± 0.2V, 75 Ohm or TTL*	
VD sync. input/output	4Vpp ± 0.2V, 75 Ohm or TTL*	
Trigger input	4Vpp ± 0.2V, 75 Ohm or TTL*	
Trigger input duration	>64 μsec.	
WEN out (write enable)	4V, 75 Ohm	
EEN out (exposure enable)	4V, 75 Ohm	
Pixel clock output (optional)	4V, 75 Ohm, sine	
Shutter speed	off, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4500, 1/10,000 second	
Edge pre-select	1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4500, 1/10,000 second	
Pulse width control	<1000 H	
Start/stop trigger	1/77 to 1/10,000 second	
Long time exposure	1 field to ∞ Duration between ext. VD pulses	
Operating temperature	-5°C to +45°C	
Humidity	20 - 80% non-condensing	
Power	12V DC ±10%. 2.5W	
Lens mount	C-mount	
Dimensions	40 x 50 x 80 mm (HxWxD)	
Weight	230 g	

* HD sync., VD sync./Trigger input or output by internal jumpers. Factory setting: HD/VD input. Inputs TTL or 75 Ohm terminated by internal jumpers. Factory setting: 75 Ohm terminated.

Switch Setting

	OFF	ON		
SHUTTER	1	1/60	1/60	Seconds
	2	1/125	1/125	
	3	1/250	1/250	
TRIGGER	4	Normal	External	
	5	Field	Frame	
INTERLACE	6	Interlaced	Non-interlaced	
GAMMA	7	1.0	0.45	
	8	Manual	Auto	

Rear view

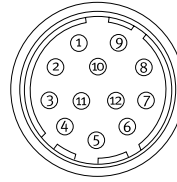


Ordering Information

CV-M50IR C 1/2" Near IR Industrial CCD Camera. CCIR
CV-M50IR E 1/2" Near IR Industrial CCD Camera. EIA

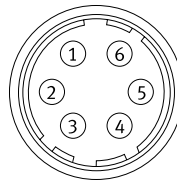
Connection Description

DC-IN/SYNC.



- Pin 1 Ground
- 2 +12V DC
- 3 Ground
- 4 Video output
- 5 Ground
- 6 HD in/HD output
- 7 VD in/VD output
- 8 Ground
- 9 Pixel clock output (Optional)
- 10 Ground
- 11 +12V DC
- 12 Ground

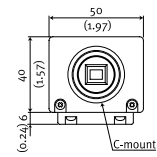
TRIGGER



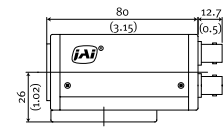
- Pin 1 N.C.
- 2 EEN output
- 3 Ground
- 4 N.C.
- 5 Trigger input
- 6 WEN output

Dimensions

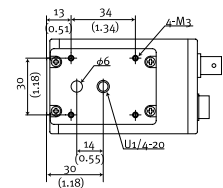
Front view



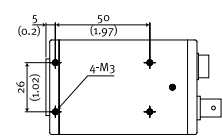
Side view



Bottom view



Top view



Spectral Sensitivity

Comparison of spectral sensitivity between CV-M50IR and CV-M50.

