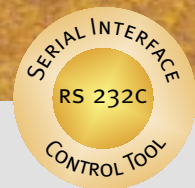




# **CV-M10 SX**

## **Progressive Scan Monochrome Camera**



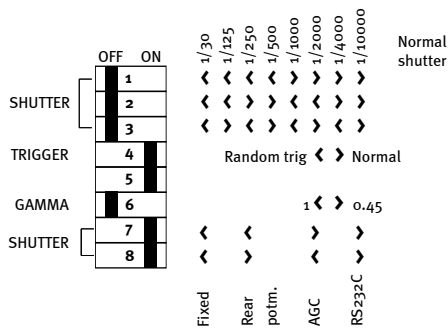
- *1/2" progressive scan monochrome CCIR (SVGA) and EIA (VGA) camera*
- *Successor of the popular CV-M10BX/RS series*
- *Improved sensitivity and smear performance*
- *782 (h) x 582 (v) square pixels for CCIR (SVGA) version*
- *659 (h) x 494 (v) square pixels for EIA (VGA) version*
- *Single channel video output*
- *Extremely short shutter speed, down to 1/917 000 sec. for CCIR (SVGA)*
- *Internal, external HD/VD or random trigger synchronization*
- *Edge pre-select (EPS) and pulse width control (PWC) trigger modes*
- *Frame-delay readout*
- *H reset and H non-reset trigger*
- *Long time integration modes*
- *WEN and Pixel clock output for easy interfacing*
- *Setup by Windows 98/NT/2000 setup software via RS-232C*

**The leading manufacturer of high performance camera solutions**

# Specifications for CV-M10 SX

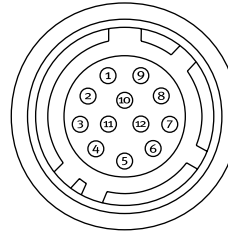
Specifications	CV-M10 SX CCIR	CV-M10 SX EIA
Scanning system	Progressive scan	
CCD sensor	Monochrome 1/2" IT CCD	
Sensing area	6.61 (h) x 4.97 (v) mm	
Frame rate (progressive)	25 frames/sec (625 lines/frame)	29.97 frames/sec. (525 lines/frame)
Line frequency	15.625 kHz	15.734 kHz
Pixel frequency	14.75 MHz	12.2727 MHz
Effective Pixels	782 (h) x 582 (v)	659 (h) x 494 (v)
Pixels in video output	737 (h) x 575 (v)	648 (h) x 486 (v)
Cell size	8.3 (h) x 8.3 (v) $\mu$ m	9.9 (h) x 9.9 (v) $\mu$ m
Sensitivity on sensor	0.05 Lux, Max gain, 50% video	
S/N ratio	>56 dB (AGC off, Gamma 1)	
Video output	Composite 1.0 Vpp, 75 Ohm	
Gamma	0.45 or 1.0	
Gain	Manual - automatic	
Gain range	0 to +15 dB	
Synchronization	Int. X-tal., Ext HD/VD or random trigger	
Scanning	Progressive	
HD/VD input	4V, TTL or 75 Ohm terminated	
HD/VD output	4V from 75 Ohm source	
Trigger input	4V, TTL or 75 Ohm terminated	
EEN and WEN output	4V from 75 Ohm source	
Pixel clock output	4V from 75 Ohm source	
Trigger modes	Continuous, Edge pre-select (EPS), Pulse width control (PWC)	
Trigger	HD synchronous or H reset	
Shutter (EPS mode)	EIA: 16 steps 1/30 to 1/800,000 CCIR: 16 steps 1/25 to 1/917,000	
Shutter (PWC mode)	1 H to 625 H	
Long time exposure	8 steps, 2 to 16 fields	
Functions controlled by RS-232C	Shutter, Trigger, Black level, Gain AGC level, White clip	
Camera rear panel controls	Shutter, Trigger, Scan, Gamma, Gain	
Vibration	10 G (20 to 200 Hz in XYZ)	
Shock	70 G	
Regulations	CE (EN50081-1, EN50082-1), FCC part 15	
Operating temperature	-5°C to +45°C	
Humidity	20 - 80% non-condensing	
Power	12V DC $\pm$ 10%, 5 W	
Lens mount	C-mount	
Dimensions	40 x 50 x 80 mm (HxWxD)	
Weight	245 g	

## Switch Setting



## Connection Description

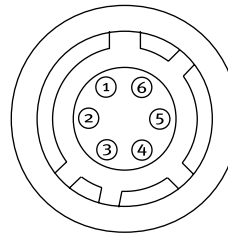
### DC-IN/Trigger



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

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

### RS 232C/TRIGGER

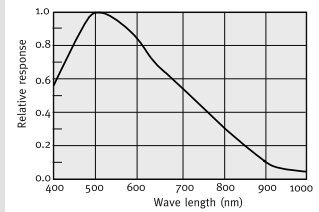


Hirose HR 10A-7R-6P. Male

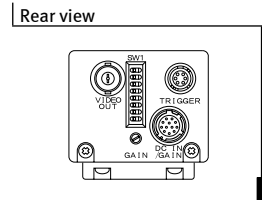
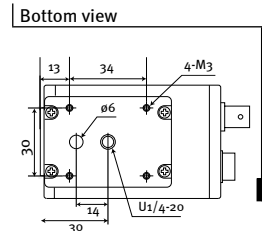
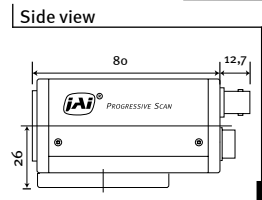
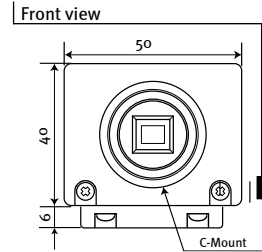
- Pin 1 TXD
- 2 RXD
- 3 Ground
- 4 N.C.
- 5 Trigger input
- 6 WEN output

\* Pixel clock output by internal jumper setting.

## Spectral Sensitivity



## Dimensions



## Ordering Information

CV-M10SX C 1/2" Monochrome Progressive Scan Camera. CCIR (SVGA)

CV-M10SX E 1/2" Monochrome Progressive Scan Camera. EIA (VGA)

JAI A-S, Denmark  
 Phone +45 4457 8888  
 Fax +45 4491 3252  
 www.jai.com

JAI Corporation, Japan  
 Phone +81 45 933 5400  
 Fax +81 45 931 6142  
 www.jai-corp.co.jp

JAI UK Ltd., England  
 Phone +44 1895 821481  
 Fax +44 1895 824433  
 www.jai.com

JAI PULNiX Inc., USA  
 Phone (Toll-Free) +1 877 472 5909  
 Phone +1 408 747 0300  
 www.jai.com



THE MECHADEMIC COMPANY

Visit our web site on [www.jai.com](http://www.jai.com)