

Costar SI-M400

1/2" Compact Mega-Pixel Progressive Scan Camera



This new Costar mega-pixel progressive scan monochrome CCD camera provides excellent imaging for high speed video applications. The SI-M400 provides full resolution at 16 frames per second, thus achieving superior direct digital output to computer-based processing systems. Advanced features such as programmable exposure, frame-delay readout, flexible trigger mode and Windows-based set-up software give the user maximum flexibility for a variety of applications.

Product Features

- New compact size 29 (H) x 29 (V) x 45 (D) mm
1/2" progressive scan monochrome CCD camera
- 1392 (h) x 1040 (v) 4.65 μm square pixels
- 16 frames per second with full resolution
- V binning supported
- Internal, external HD/VD or random trigger synchronization
- Edge pre-select, pulse width control and start/stop trigger modes
- Shutter speeds from 1/16 to 1/400,000 second continuous
- Programmable exposure
- Frame-delay readout in combination with pulse width controlled shutter
- Exposure enable EEN, write enable WEN and pixel clock output
- Short ASCII commands for fast mode setup via serial port
- Setup by Windows 98/NT/2000/XP/VISTA software via RS232C
- RS232C supports 9600, 19,200, 38,400 bps
- Support flexible trigger mode for customer defines



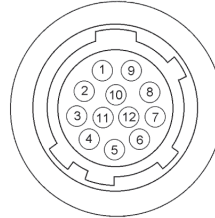
SI-M400 Specifications

Specifications

Scanning system	Progressive scan
Pixel clock	26.636Mhz
Line frequency	17.127Khz
Frame rate (full)	16 frames/sec.
Effective pixel	1392x1040
Chip size	7.60(H) x 6.20(V) mm
Cell size	4.65(H) x 4.65(V) μ m
Pixels in video	
Full	1392(H) x 1040(V) 16 frames/sec.
V binning	1392(H) x 520(V) 32 frames/sec.
Sensitivity	0.3 Lux
S/N ratio	>56db
Video output	Composite VS signal 1Vpp 75 Ω Video signal 0.7 Vpp
Gamma	0.45 / 1
HD/VD sync input/ output	4V, 75 Ω
WEN output	4V, 75 Ω
EEN output	4V, 75 Ω
Pixel clock out.	4V, 75 Ω
Trigger mode	Continuous, single trigger, Pulse width control, Start/stop Frame delay readout mode
Shutter	Continuous by software (1/40k sec. to ∞ frames)
RS232C control function	Trigger mode, Shutter speed, HD input/output, VD input/output, HD/VD input termination, Trigger input termination, WEN/EEN/PCLK output enable, Gamma/AGC/Manual Gain, Setup level, White clip level, Async/Sync trigger select, Double/Normal Speed, Read out mode,
Operating temperature	- 5° C to + 45° C (23° F to 113° F)
Storage temperature	- 25° C to + 60° C (- 13° F to +140° F)
Humidity	20 % to 80 %, non-condensing
Power	12VDC \pm 1.8W
Lens mount	C-mount
Dimensions	29 (H) x 29 (V) x 45 (D) mm
Weight	70g

Connection Description

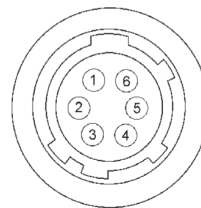
DC-IN/ SYNC/Video out



HIROSE HR10A-10R-12PB-01

- Pin 1 Ground
2 +12V DC
3 Ground
4 Video out
5 Ground
6 HD/EEN/VD/WEN in/out, Trigger in
7 HD/VD/WEN in/out, Trigger in
8 Ground
9 Trigger in/Pixel clock
10 WEN out
11 Trigger in/Pixel clock
12 Ground

RS232C/Trigger IN

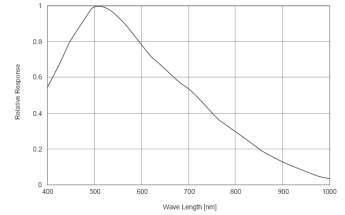


HIROSE HR 10A-7A-7R-6PB

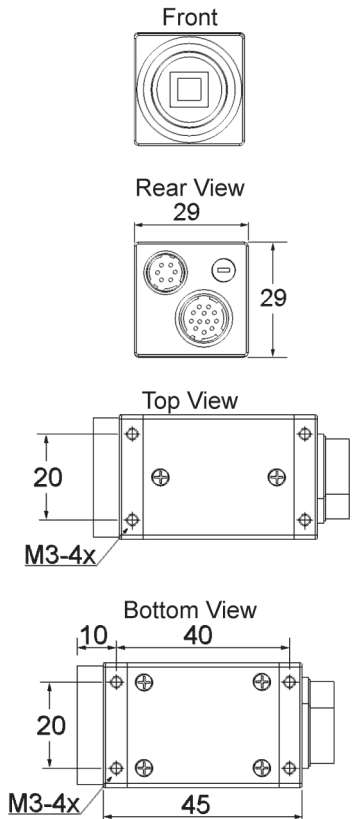
- Pin 1 TXD
2 RXD
3 Ground
4 Trigger 1
5 Trigger 2
6 EEN/WEN/SYNC

- Plugs for cable
12 pin: Hirose HR 10A-10P-12S
6 pin: Hirose HR10A-7P-6S

Spectral Sensitivity



Dimensions



Design and specifications subject to change without notice. Conversion: 1" = 25.4mm
Measurement conversions are approximate.