



- ▶ 512 x 512 EMCCD
- ▶ 16µm Pixel Size
- ▶ 61 Frames Per Second
- ▶ 11.6mm Field of View
- ▶ 95% Quantum Efficiency

evolve[®]16

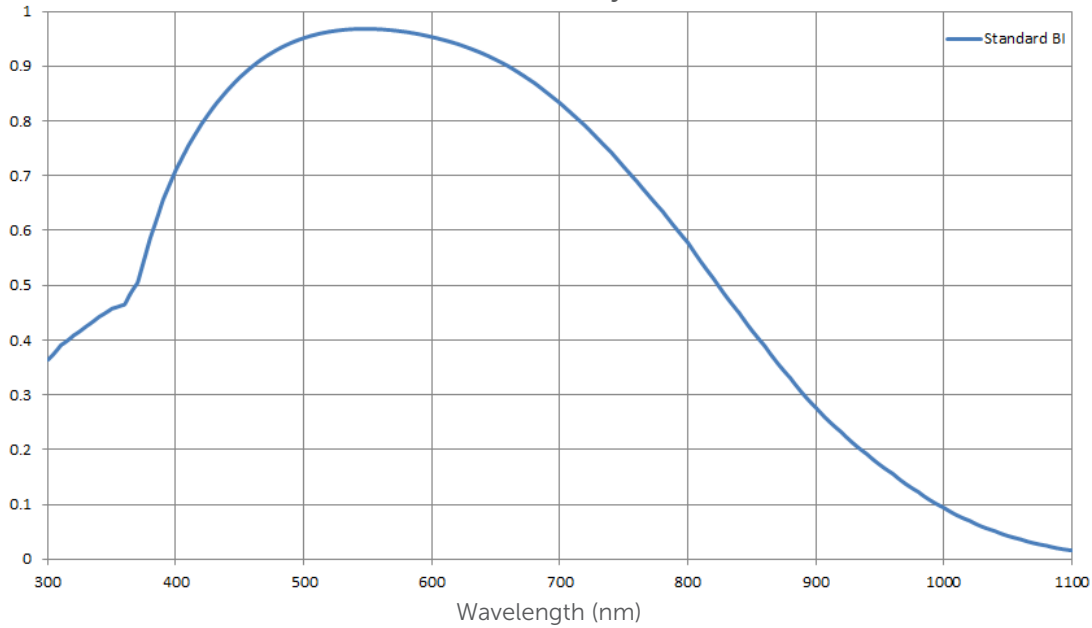
Specifications	Camera Performance
Sensor	Teledyne e2V CCD97 EMCCD Sensor
Active Array Size	512 x 512 (0.26 Megapixel)
Pixel Area	16 μ m x 16 μ m (256 μ m ²)
Sensor Area	8.2mm x 8.2mm 11.58mm diagonal
Peak QE%	95%
Full-Well Capacity	200,000e- (Single Pixel) 800,000e- (EM Output Amplifier)
Bit-Depth	16-bit
Cooling Options	Air Cooled Liquid Cooled
Linearity	>99%
Binning	2-32x Horizontal Binning 1-512x Vertical Binning
Vertical Shift Rate	300 nsec/row (Variable)
Clock Induced Charge	0.002e-/pixel/frame
EM Gain Range	1-1000x linearized

Camera Modes

Specifications	Fast Mode (20MHz)	Slow Mode (5MHz)
Frame Rate (Full Frame)	61 fps	15 fps
Read Noise	120e- 0.24e- @ 500x EM Gain	25e- 0.25e- @ 100x EM Gain
Cooling	Cooling: -70°C @ 20°C Ambient	
Dark Current	Dark Current: 0.001e/p/s @ -70°C	

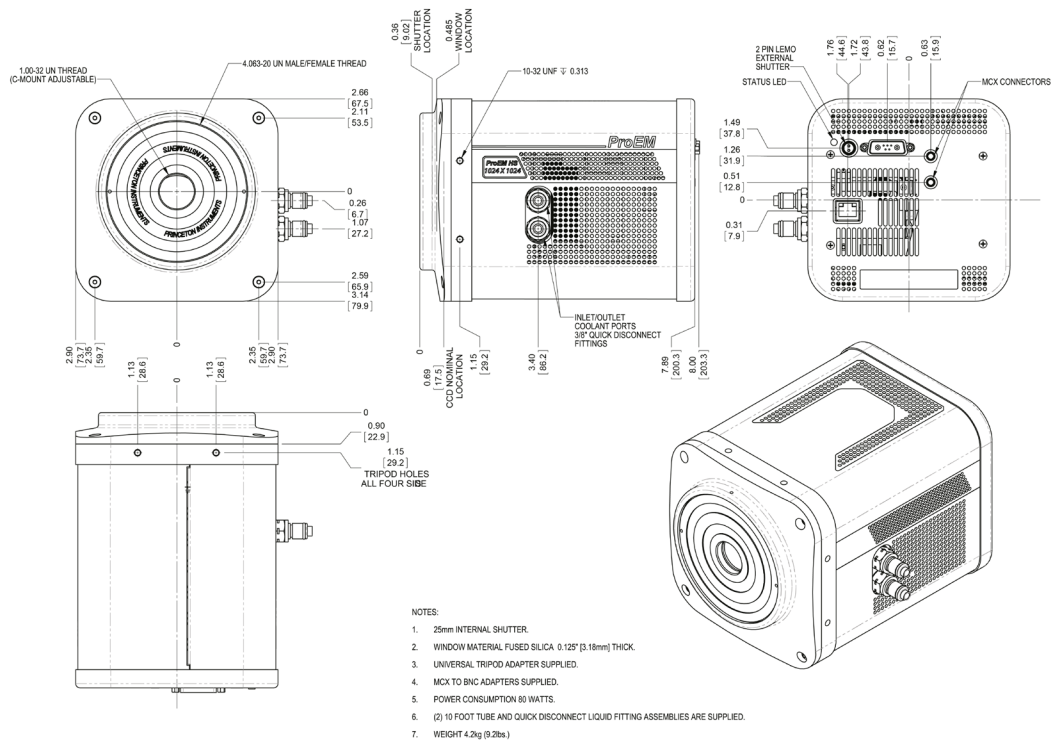
Specification	Camera Interface
Digital Interface	Gigabyte Ethernet (GigE)
Lens Interface	C-Mount
Mounting Points	2 x 1/4" -20 mounting points per side
Trigger Modes	External Trigger, Bulb Mode, Single Trigger
Trigger Signals	Exposure, Read Out, Trigger Ready, Trigger In
optiCAL	On-camera EM Gain linear calibration
Built in Shutter	Acquire reference dark frames and protect sensor from dust
Vacuum Guarantee	Lifetime vacuum guarantee, built using all-metal, hermetic vacuum design.

Quantum Efficiency Curve



Frame Rate - Standard Mode (fps)

Binning	512 x 512	256 x 256	128 x 128	64 x 64	32 x 32
1 x 1	61	120	228	416	711
2 x 2	120	228	416	711	1099
4 x 4	228	416	711	1099	1506
8 x 8	416	711	1099	1506	1851



Specifications in this datasheet are subject to change. Refer to the Teledyne Photometrics website for most current specifications.

