



- ▶ 1 Megapixel EMCCD
- ▶ 10µm Pixel Size
- ▶ 30 Frames Per Second
- ▶ 14.5mm Field of View
- ▶ 95% Quantum Efficiency

evolve⁻®10

Specifications	Camera Performance
Sensor	Teledyne e2V CCD351 EMCCD Sensor
Active Array Size	1024 x 1024 (1 Megapixel)
Pixel Area	10µm x 10µm (100µm ²)
Sensor Area	10.2mm x 10.2mm 14.48mm diagonal
Peak QE%	95%
Full-Well Capacity	30,000e ⁻ (Single Pixel) 150,000e ⁻ (EM Output Amplifier)
Bit-Depth	16-bit
Cooling Options	Air Cooled
Linearity	>99%
Binning	2-32x Horizontal Binning 1-1024x Vertical Binning
Vertical Shift Rate	800 nsec/row (Variable)
Clock Induced Charge	0.002e ⁻ /pixel/frame
EM Gain Range	1-100X linearized

Camera Modes		
Specifications	Fast Mode (30MHz)	Slow Mode (10MHz)
Frame Rate (Full Frame)	30 fps	10 fps
Read Noise	80e ⁻ 0.23e ⁻ @ 350x EM Gain	26e ⁻ 0.26e ⁻ @ 100x EM Gain
Cooling	-70°C @ 20°C ambient	
Dark Current	Dark Current: 0.002e/p/s @ -70°C	

Specification	Camera Interface
Digital Interface	Gigabyte Ethernet (GigE)
Lens Interface	C-Mount
Mounting Points	2 x ¼" -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.



Binning	1024 x 1024	512 x 512	256 x 256	128 x 128	64 x 64	1024 x 100	1024 x 32	1024 x 1
1 x 1	30	56	103	175	268	207	366	546
2 x 2	56	103	175	268	366	303	446	
4 x 4	103	176	268	366	446	398	502	

Technical drawings of the Proton 100W CO2 Laser system, including front, side, and rear views with dimensions and callouts.

Front View Dimensions:

- 1.00-32 UN THREAD (C-MOUNT ADJUSTABLE)
- 4.063-20 UN MALE/FEMALE THREAD
- 2.66 (67.5)
- 2.11 (53.5)
- 0.26 (6.7)
- 1.07 (27.2)
- 2.59 (65.8)
- 3.14 (79.9)
- 2.89 (73.5)
- 2.35 (59.7)
- 1.13 (28.6)
- 2.35 (59.7)
- 1.13 (28.6)
- 0.90 (22.9)
- 1.15 (29.2)
- TRIPOD HOLES ALL FOUR SIDE

Side View Dimensions:

- SHUTTER LOCATION
- 0.34 (8.62)
- 0.485 (12.3)
- WINDOW LOCATION
- 10-32 UNF ± 0.13
- 0.65 (17.5)
- C/O D NORMAL LOCATION 1.15 (29.2)
- 3.40 (86.2)
- 7.89 (200.3)
- 8.00 (203.2)
- INLET/OUTLET COOLANT PORTS 3/8" QUICK DISCONNECT FITTINGS

Rear View Dimensions:

- 2 PHILBRO EXTERNAL SHUTTER
- STATUS LED
- 1.49 (37.8)
- 1.26 (31.9)
- 0.51 (12.8)
- 0.31 (7.9)
- 1.76 (44.6)
- 0.42 (10.7)
- 0.62 (15.7)
- 0.03 (0.8)
- 0.03 (0.8)
- MXC CONNECTORS

Notes:

- 25mm INTERNAL SHUTTER.
- WINDOW MATERIAL FUSED SILICA 0.125" (3.18mm) THICK.
- UNIVERSAL TRIPOD ADAPTER SUPPLIED.
- MXC TO BNC ADAPTERS SUPPLIED.
- POWER CONSUMPTION 80 WATTS.
- (2) 10 FOOT TUBE AND QUICK DISCONNECT LIQUID FITTING ASSEMBLIES ARE SUPPLIED.
- WEIGHT 4.2kg (9.2lbs.)



www.photometrics.com
photometrics.info@teledyne.com/ tel: +1 520.889.9933



TELEDYNE IMAGING
Everywhereyoulook™