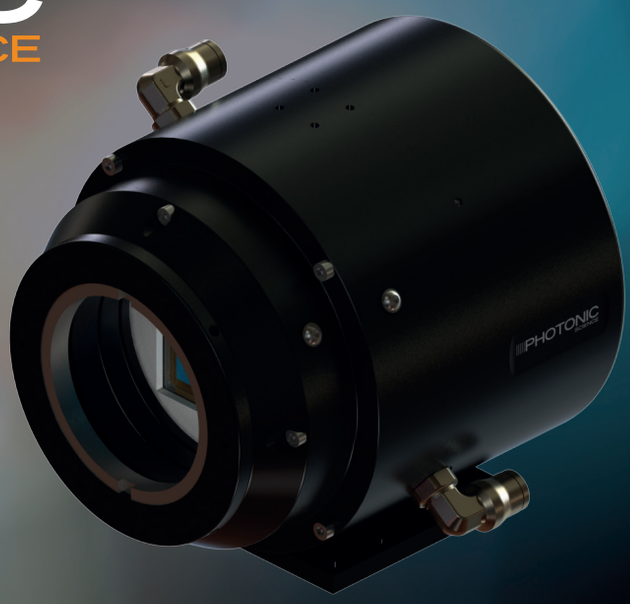
PHOTONIC SCIENCE

Cooled sCMOS 16MP Camera



Large area high sensitivity imaging

This camera has a 36.9mm x 36.9mm imaging area, The high sensitivity of this camera is achieved by the large (9µm) pixels having a high quantum efficiency, peaking at 74%.

Compliance with Gigabit Ethernet Vision (GEV) standard allows operation with multiple platforms (Windows, Linux). A GEV compliant SDK is available for creation of bespoke software solutions. Camera Link version available.

Different cooling options are available to allow increased exposure times and suitability for a variety of applications.

OEM versions with special form factors / cooling options are available for integration into specific instruments / systems. Demonstration cameras can be loaned on request.

Key Features

- Realtime acquisition of 16-bit digitised image
- Typical read out noise of 4.5 electrons
- Typical dynamic range of 14000:1
- Genicam compliant
- Large front side illuminated (FSI) sensor
- Peak Quantum Efficiency of 74%
- Up to 20 fps full area
- Supports hardware binning 2x2
- Supplied with imaging software (GUI) allowing real-time, fully corrected image acquisition
- Simultaneous integration while readout enables 100% duty cycle acquisition

Applications

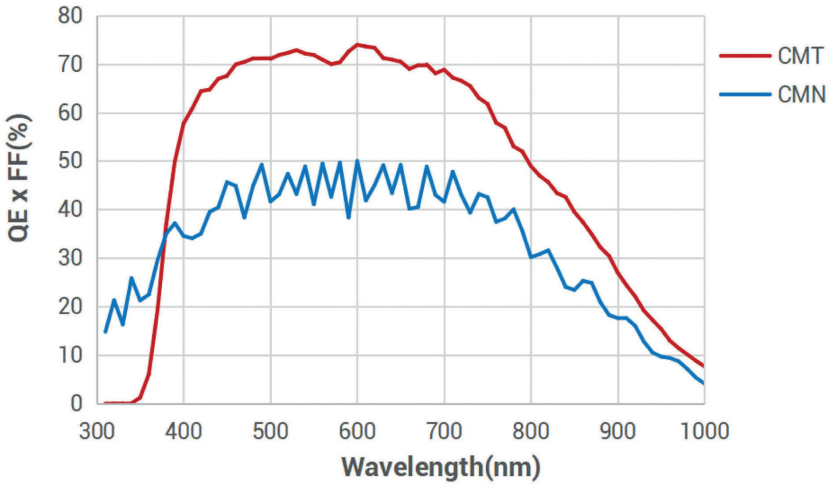
Solar astronomy
Photometry
Photovoltaic inspection
Laser induced breakdown spectroscopy
Fluorescence lifetime detection
Confocal microscopy
Single molecule detection / TIRF
Colour calibration
Hyperspectral imaging
Ophthalmology
Particle imaging velocimetry
Optically coupled X-ray/Gamma/Neutron cameras

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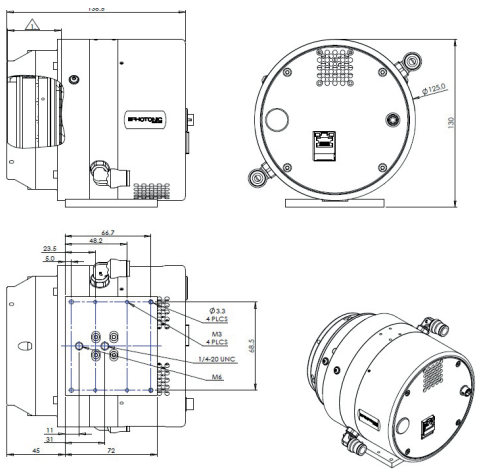
PRECISOMETER
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Cooled sCMOS 16MP Camera

Characteristics	Camera Link	1GigE	5GigE
Resolution	4096 x 4096		
Pixel Size (µm)	9 x 9		
Frame Rate	9.5 fps	4.5 fps	20 fps
Full Well Capacity	70,000 electrons		
Read Out Noise	4.5 electrons rms		
Dark Current	<1 electron/pixel/second (air cooled)		
Sensor Temperature (°C)	Operating at -10°C (active air cooling)		
Digital Output	16-bit		
Peak QE	74%		
Exposure	60 µs to 60 minutes		25 µs to 60 minutes
Software Corrections	Non-uniform corrections including bright pixel, flat-field, and dark current corrections		
Camera Interfaces	Camera Link Base	Gigabit Ethernet (1GigE)	Gigabith Ethernet (5GigE)
Type of Shutter	Rolling shutter		
Optical Interface	F-Mount as standard, other formats available on request		



Quantum Efficiency Cooled sCMOS 16MP Camera



Camera Drawing/Dimensions

Please Note: All specifications in this document are typical and subject to change without notice.

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