SWIR® VISION SYSTEMS

Transforming Infrared Imaging



Acuros® CQD® 1920L USB3 SWIR Camera

The Acuros® CQD® L-Series SWIR cameras feature large sensor area, low angular dependence and a short working distance for highly divergent emitters and collimated beams. Acuros cameras deliver high resolution, high dynamic range and very high detectivity imaging from 400 to 1700 nm.

The L-Series cameras are designed for use in laser beam diagnostics, laser beam imaging and laser alignment applications.

Specifications:

Electro-Optical Specifications:	
Sensor	Acuros® CQD® sensor
Temperature stabilization	Single-stage thermo-electric cooler
Sensor array format	1920 x 1080
Resolution	2.07 megapixels
Spectral band	400 nm - 1700 nm
Array size	28.8 mm x 16.2mm, 33 mm diagonal
Pixel pitch	15 µm x 15µm
Max frame rate at full resolution	58 fps (8, 10, 12, 14 bit)
Pixel operability	99.9% typical, 99.75% min
Bit depth	8, 10, 12, 14 bit selectable
Integration type	Snapshot global shutter
Trigger	External TTL
Integration time	10 µsec to 4 sec
Dynamic range	70 dB typical
Windowing & windowing frame rate	Array centered. Scales inversely to window size
Laser beam fringeless operation	Yes
Binning arrays	2 x 2, 4 x 4
Non-uniformity correction	2-point non-uniformity correction
Temporal dark noise	65e^- typical (high gain)
Quantum efficiency	See typical QE curve.

Features:

- Large sensor size
- Short working distance for highly divergent beams
- Low angular dependence
- Dynamic Range up to 70 dB
- Linear photoresponse
- 2.07 mp resolution
- TEC Cooling
- Low noise
- GigE Vision
- Visible-SWIR

Applications:

- Laser beam diagnostics
- Laser beam imaging
- Laser alignment

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Specifications:

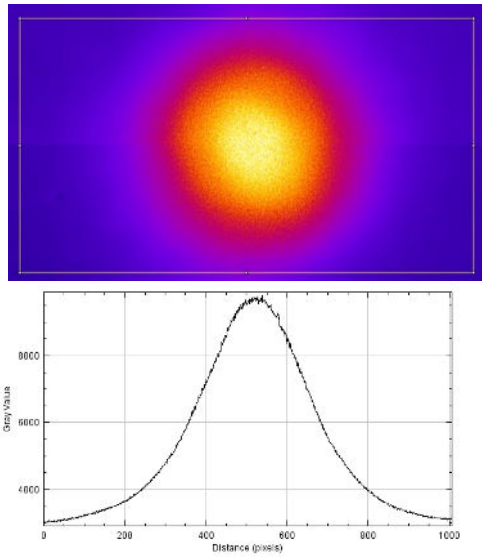
Environmental & power specifications, typical performance	
Operating case temperature	-20 °C to +55 °C
Power consumption	6.5 - 12 W depending on TEC settings
Power supply voltage	6-16 VDC
Regulatory compliance	CE mark
Mechanical specifications	
Dimensions excluding lens	6.1 x 6.1 x 8.2 cm
Weight excluding lens	508 grams
Lens mounts	Standard mount. Inquire for other options.
Power connector	Hirose 12-pin, HR10A-10R-12PB (71)
Trigger connector	BNC
Software and user interface	
Software development kit	Windows GUI & Pleora eBUS SDK (Linux, Windows, MacOS)
GenICam compliance	Yes
Interface	USB3 Vision
Export compliance	
US export designation	EAR-99. No license required for lawful export
Ordering	
Part numbers	1920L: Acuros-1920-USB-003



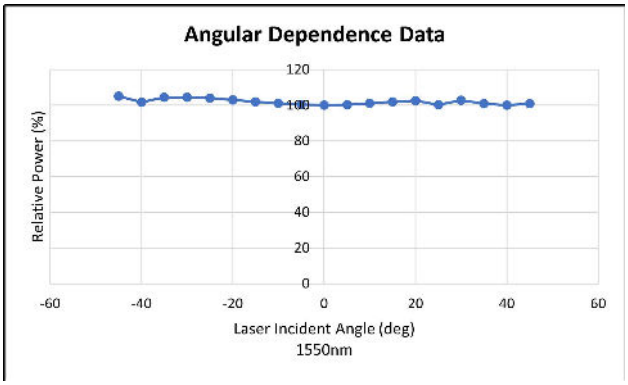


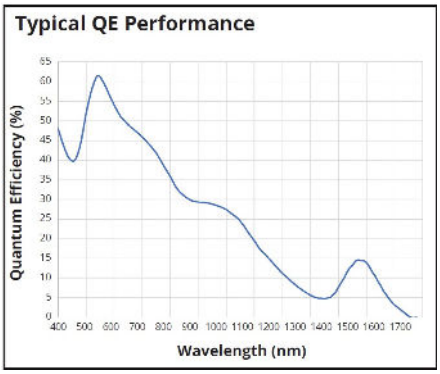
USB Vision Interface

Acuros CQD SWIR camera image of Laser



1550 NM Laser image and corresponding line file (false color added post image)



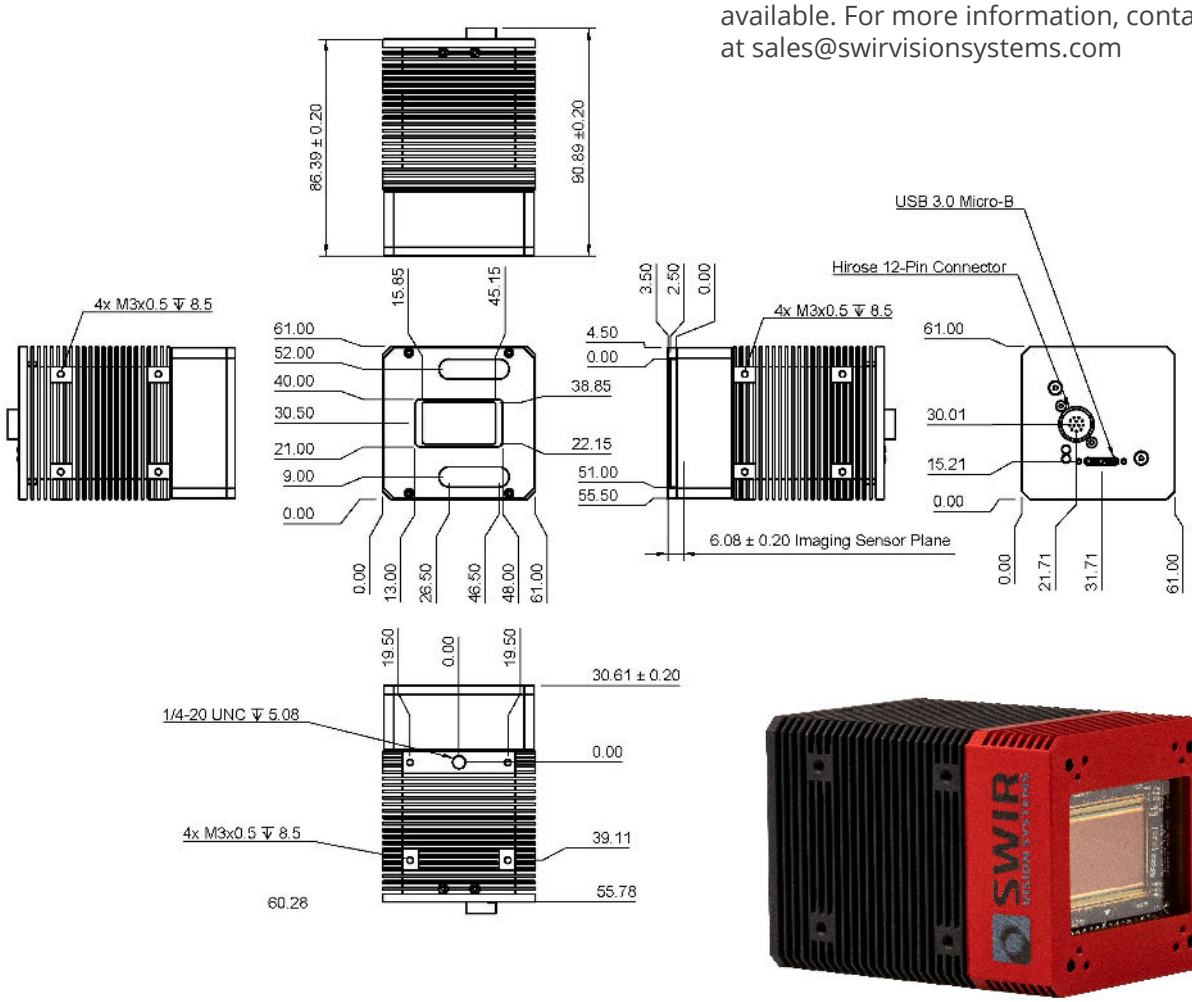


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Mechanical Drawings

**Additional ND filter mounting options are available. For more information, contact us at sales@swirvisionsystems.com



Contact Us:

For technical, pricing, and sales information, or to learn more about Acuros cameras or CQD sensor technology, please contact us at:



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