



# Acuros<sup>®</sup> CQD<sup>®</sup> 1920L USB3 eSWIR Camera

The Acuros<sup>®</sup> CQD<sup>®</sup> L-Series SWIR cameras feature large sensor area, low angular dependence and a short working distance for highly divergent emitters. Acuros cameras deliver high resolution, high dynamic range and very high detectivity imaging to 2000 nm.

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

## Specifications:

### Electro-Optical Specifications:

Sensor	Acuros <sup>®</sup> CQD <sup>®</sup> sensor
Temperature stabilization	Single-stage thermo-electric cooler
Sensor array format	1920 x 1080
Resolution	2.07 megapixels
Spectral band	350 nm - 2000 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	65 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 <sup>-</sup> 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
- Strong linearity
- VGA Resolution
- TEC Cooling
- Low noise
- GigE Vision
- Visible SWIR

## Applications:

- Laser beam diagnostics
- Laser beam imaging
- Laser alignment



# SWIR<sup>®</sup>

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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 13.2 cm (F-Mount), or 6.1 x 6.1 x 9.7 (M-42)
Weight excluding lens	594g with F-Mount, 508 grams with M-42 mount
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
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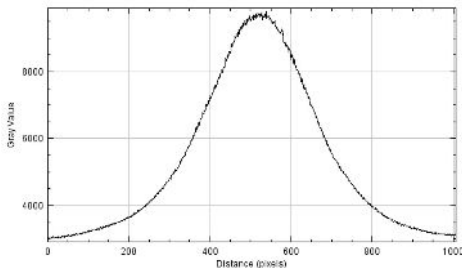
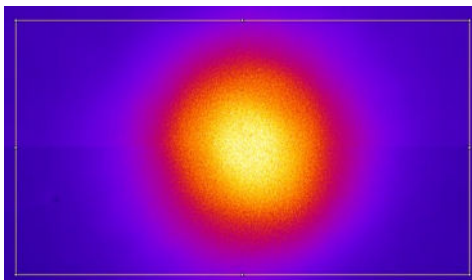
### Ordering

Part numbers	1920L: Acuros-1920-USB3-004
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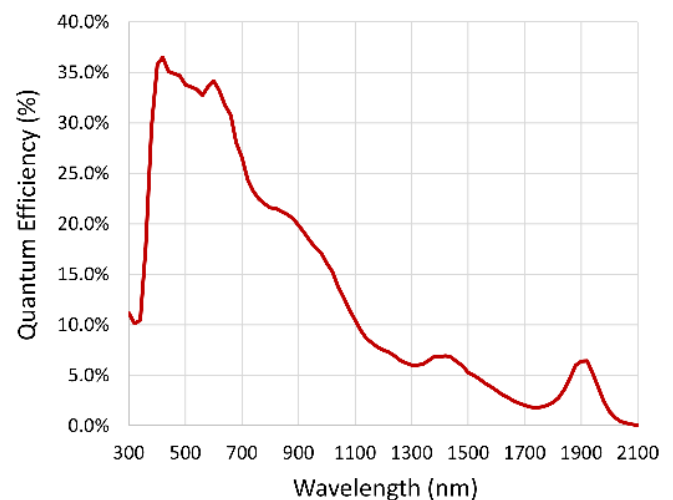
USB Vision Interface

### Acuros CQD SWIR camera image of Laser



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

Typical QE Performance





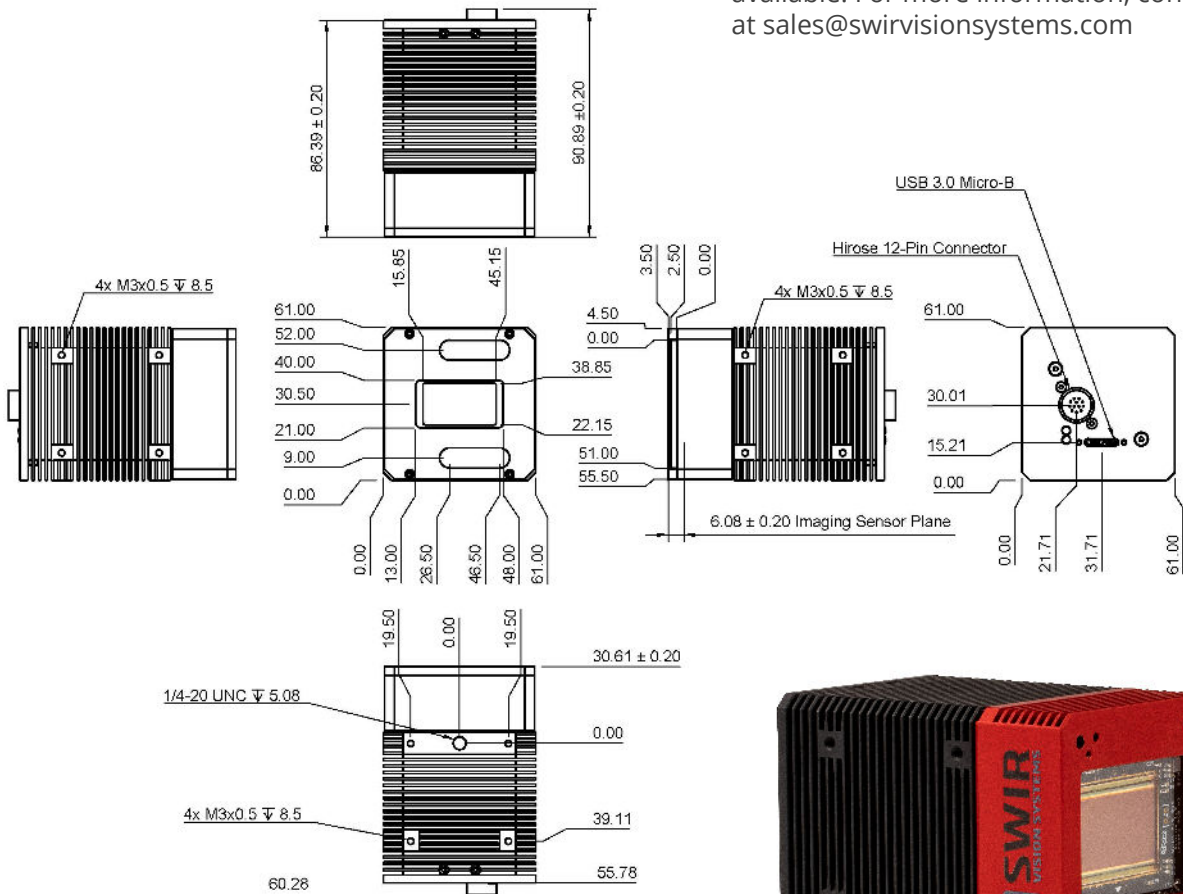
# SWIR<sup>®</sup>

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### Mechanical Drawings

\*\*Additional ND filter mounting options are available. For more information, contact us at [sales@swirvisionsystems.com](mailto: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:

[sales@swirvisionsystems.com](mailto:sales@swirvisionsystems.com)

+1 919.248.0032



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