



Acuros® CQD® SWIR and eSWIR cameras are designed for high resolution, broadband SWIR imaging, and come equipped with single-stage TECs for lower noise operation and greater image stability. Brilliant, high-resolution images are delivered with high frame rates, high dynamic range, and a broad range of exposure times. Our pioneering CQD® sensor technology enables 2.1 megapixel, full-HD resolution, the first commercially available SWIR product of its kind. Our 350-2000nm responsivity sensors deliver the broadest bandwidths for maximum utility, inherently lower cost CQD sensor processing enables lower costs per megapixel. Acuros cameras are GenICam compliant and come equipped with USB3 or GigE Vision interfaces. The cameras are designated EAR-99, requiring no license for lawful export.

Features

- 640 x 512, 1280 x 1024, 1920 x 1080
- TEC cooling for low noise
- Full Visible-to-eSWIR bandwidth
- USB3 Vision, GigE Vision interfaces
- C-, F-, M-42 Mount interfaces
- Compatible with range of SWIR lenses
- Software GUI for camera control
- Pixel non-uniformity correction
- SDK included for user development

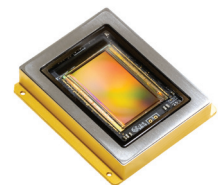
Applications

- Machine Vision
- Silicon Inspection
- Instrumentation
- Beam Profiling
- Surveillance
- Hyperspectral
- Chemical Sensing
- Agriculture
- Medical Imaging

Acuros® CQD® 640, 1280, 1920 SWIR/eSWIR Cameras













Sensor Technology

CQD sensors are fabricated via deposition of quantum dot semiconductor crystals directly upon the surface of the silicon wafer. The resulting CQD photodiode array enables higher resolution, smaller pixel pitch, broader bandwidth, low noise, and low inter-pixel crosstalk, eliminating the prohibitively expensive hybridization process inherent to InGaAs sensors. CQD sensor technology is silicon wafer-scale compatible, opening it's potential to very low cost, high-volume applications.



Acuros CQD Sensor

SWIR Cameras

Camera Model	Resolution	Megapixel	Interface	TEC	Shutter	Max Frame Rate (fps)	Pixels (µm)	Vis-SWIR (nm)	Lens Mounts
Acuros [®] CQD [®] 640/640L GigE SWIR Camera 	640 x 512	0.33		TEC	Global	270	15 x 15	400 - 1700	C, F, M-42
Acuros [®] CQD [®] 640/640L USB3 SWIR Camera 	640 x 512	0.33		TEC	Global	270	15 x 15	400 - 1700	C, F, M-42
Acuros [®] CQD [®] 1280/1280L GigE SWIR Camera 	1280 x 1024	1.31		TEC	Global	88	15 x 15	400 - 1700	C, F, M-42
Acuros [®] CQD [®] 1280/1280L USB3 SWIR Camera 	1280 x 1024	1.31		TEC	Global	88	15 x 15	400 - 1700	C, F, M-42
Acuros [®] CQD [®] 1920/1920L GigE SWIR Camera 	1920 x 1080	2.07		TEC	Global	58	15 x 15	400 - 1700	F, M-42
Acuros [®] CQD [®] 1920/1920L USB3 SWIR Camera 	1920 x 1080	2.07		TEC	Global	58	15 x 15	400 - 1700	F, M-42

The Acuros CQD 640L, 1280L and 1920L SWIR cameras are designed for use in laser beam diagnostics, laser alignment and interferometry applications.

Contact us:

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High Definition. SWIR Vision.

www.swirvisionsystems.com

eSWIR Cameras

Camera Model	Resolution	Megapixel	Interface	TEC	Shutter	Max Frame Rate (fps)	Pixels (µm)	Vis-eSWIR (nm)	Lens Mounts
Acuros [®] CQD [®] 640/640L GigE eSWIR Camera 	640 x 512	0.33		TEC	Global	270	15 x 15	350 - 2000	C, F, M-42
Acuros [®] CQD [®] 640/640L USB3 eSWIR Camera 	640 x 512	0.33		TEC	Global	270	15 x 15	350 - 2000	C, F, M-42
Acuros [®] CQD [®] 1280/1280L GigE eSWIR Camera 	1280 x 1024	1.31		TEC	Global	88	15 x 15	350 - 2000	C, F, M-42
Acuros [®] CQD [®] 1280/1280L USB3 eSWIR Camera 	1280 x 1024	1.31		TEC	Global	88	15 x 15	350 - 2000	C, F, M-42
Acuros [®] CQD [®] 1920/1920L GigE eSWIR Camera 	1920 x 1080	2.07		TEC	Global	58	15 x 15	350 - 2000	F, M-42
Acuros [®] CQD [®] 1920/1920L USB3 eSWIR Camera 	1920 x 1080	2.07		TEC	Global	58	15 x 15	350 - 2000	F, M-42

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