Xeva 640 Series

Areascan SWIR Camera

- SWIR cooled camera with 640 x 512 resolution
- In-house developed InGaAs sensor

Versatile, high resolution InGaAs camera for high dynamic range imaging

The Xeva 640 series is based on an in-house manufactured InGaAs detector with a 640 x 512 pixel resolution.

The Xeva 640 cameras are offered with frame rates of 90 Hz.

The camera comes with a CameraLink interface. Sensor cooling is available for increased exposure time range.

Quantum Efficiency (QE)

*QE at 306 K sensor temperature
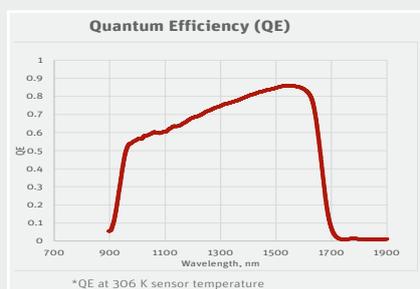
Designed for use in

- Machine Vision
- Safety & Security
- Scientific & Advanced research
- Medical

Advantages

- High dynamic range
- Sensor cooling available for increased exposure time range
- Low dark current
- CameraLink interfacing option
- Versatility with gain modes
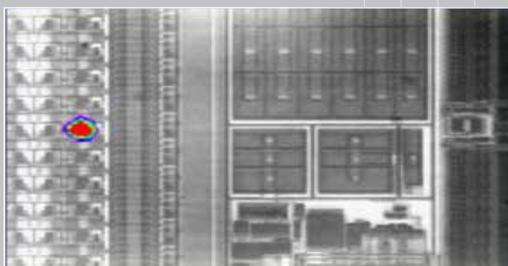
Semiconductor inspection

Art inspection

Food sorting

Camera Specifications	Xeva 1.7 640 TE1	Xeva 1.7 640 TE3
Mechanical specifications		
Approximate Dimensions - excluding lens [width x height x length] [mm]	88 X 111 X 107	88 X 111 X 114
Weight [gr] - excluding lens	1300	
Camera cooling	Forced convection [fan]	
Optical interface	C-mount or M42	
Connector USB	Mini-USB	
Connector CameraLink	Standard MDR	
Connector power	7-pin TRIAD 01	
Connector trigger	5-pin TRIAD 01	
Environmental & power specifications		
Ambient operating temperature range [°C]	From 0 to +50	
Storage temperature [°C]	From -40 to +80	
Power consumption [W]	-	Up to 30
Power supply voltage	DC 12 V	
Regulatory compliance	CE, RoHS	
Electro-optical specifications		
Image format [pixels]	640 x 512	
Pixel pitch [µm]	20	
Detector type	InGaAs photodiode array with DI ROIC	
Sensor cooling	TE cooler	3-stage TE cooler
Integration type	Snapshot - global shutter	
Active area and diagonal [mm]	12.8 x 10.24 [diagonal 16.4]	
Optical fill factor	100%	
Spectral range [nm]	900 - 1700	
Quantum efficiency	~80% [typical peak value]	
Gain modes	4 gain modes	
Dark current [electrons/second]	<200k at 280K sensor temperature	<20k at 233K sensor temperature
Read out mode	ITR	
Pixel operability	>99%	
Preconfigured exposure time range [ms]	1 - 50	1 - 100; max exposure time >10 seconds
Max frame rate [Hz] [full frame]	90	
Region of interest	Yes	
Min region size [pixels]	128 x 8	
Max frame rate [Hz] [min region size]	>930	
Analog-to-Digital [ADC] [bits]	14	
Command and control	USB 2.0	
Digital output format	CameraLink [14 bit] [max 25 Hz frame rate with USB 2.0]	
Trigger	In or out via trigger connector [Configurable] - only recommended with CameraLink data interface	
Product selector guide		
Part number	XEN-000112	XEN-000114

For more information on our products please scan the QR code.

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