

# Wildcat 640 Series

## Areascan SWIR Camera

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

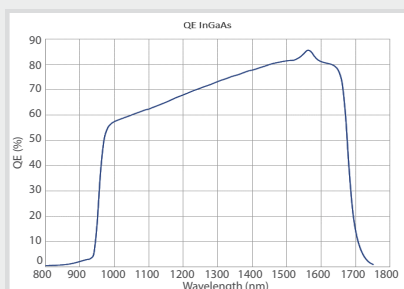


### Small, high performance InGaAs camera with low noise and high dynamic range

The Wildcat 640 series is based on an in-house developed, temperature stabilized InGaAs detector with a 640 x 512 pixel resolution.

The Wildcat 640 cameras are offered with high frame rate of 110 Hz.

The camera comes with a CameraLink or USB3 Vision interface and features low weight and power.

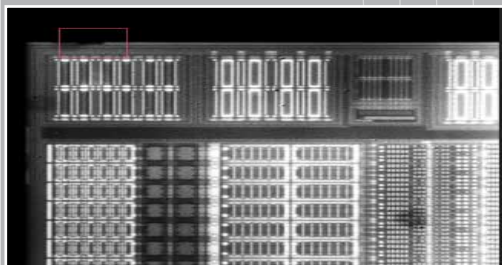


### Designed for use in

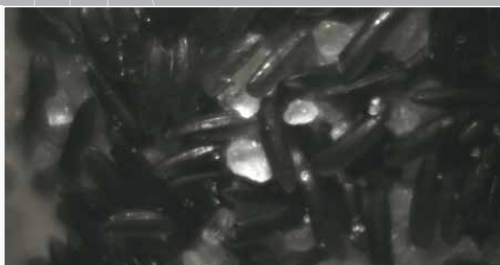
- Machine Vision
- Safety & Security
- Scientific & Advanced research
- Process Monitoring

### Advantages

- Frame rate up to 110 Hz
- Low noise and high dynamic range
- CameraLink or USB3 Vision interfacing options
- Small SWIR areascan camera



• Semiconductor inspection



• Food inspection



• Art inspection

## ► Camera Specifications

Camera Specifications	Wildcat 640 CL 100	Wildcat 640 U3V 100
<b>Mechanical specifications</b>		
Approximate dimensions - excluding lens [width x height x length] [mm]	55 x 55 x 72	55 x 55 x 91.5
Weight [gr] - excluding lens	316	358
Optical interface	C-mount or M42	
Connector USB	-	USB 3.0 type micro-B
Connector CameraLink	Standard SDR	-
Connector trigger	Lemo [unified connector]	
<b>Environmental &amp; power specifications</b>		
Operating case temperature [°C]	From -40 to +70	
Storage temperature [°C]	From -40 to +85	
Power consumption [W]	<5	<6
Power supply voltage	DC 12 V	
Shock	40 g, 11 ms, according to MIL-STD810G	
Vibration	5 g [20 to 2000 Hz], according to MIL-STD810G	
IP rating	IP40	
Regulatory compliance	CE	
<b>Electro-optical specifications</b>		
Image format [pixels]	640 x 512	
Pixel pitch [µm]	20	
Detector type	InGaAs photodiode array with CTIA ROIC	
Sensor temperature stabilization	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	High Gain [HG] & High Dynamic Range mode [HDR]	
Full well capacities [electrons]	110k [HG] & 600k [HDR]	
Read noise [electrons]	80 [HG] & 250 [HDR]	
Dark current [electrons/second]	<100k [at 288K sensor temp]	
Read out mode	ITR	
Pixel operability	>99%	
Preconfigured exposure time range [ms]	HG: 0.5 ms & 5 ms; HDR: 0.5 ms & 5 ms	
Max frame rate [Hz] [full frame]	110	
Region of interest	Yes	
Min region size [pixels]	8 x 8 [step size 4 pixels in X & 1 pixel in Y]	
Max frame rate [Hz] [min region size]	>7 kHz	
Command and control	CameraLink	USB3 Vision
Digital output format	CameraLink	USB3 Vision
Trigger	Trigger connector: 2 trigger in & 2 trigger out - LVCMOS 3.3 V	
<b>Product selector guide</b>		
Part Number	XEN-000676	XEN-000662

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