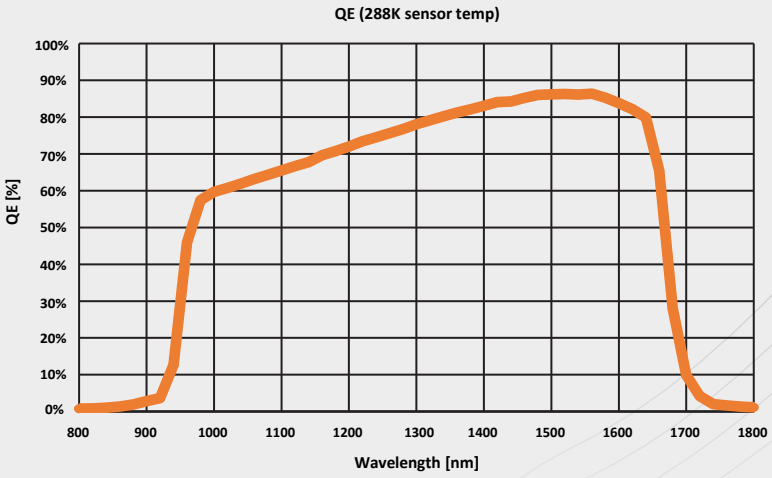
Wildcat 640 Series

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 220 Hz (or 110 Hz).

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

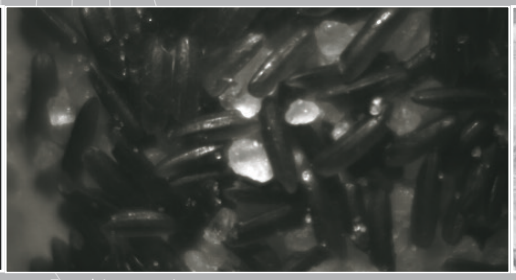
Designed for use in

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

Advantages

- Frame rate up to 220 Hz or (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	Wildcat 640 CL 200	Wildcat 640 U3V 200
Mechanical specifications				
Approximate dimensions - excluding lens [width x height x length] [mm]	55 x 55 x 72	55 x 55 x 91.5	55 x 55 x 72	55 x 55 x 91.5
Weight [gr] - excluding lens	316	358	316	358
Optical interface	C-mount or M42			
Connector USB	-	USB 3.0 type micro-B	-	USB 3.0 type micro-B
Connector CameraLink	Standard SDR	-	Standard SDR	-
Connector trigger	Lemo 1B.310 [unified connector]			
Environmental & power specifications				
Operating case temperature [°C]	From -40 to +70			
Storage temperature [°C]	From -40 to +85			
Power consumption [W]	<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			
Electro-optical specifications				
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 [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		220	
Region of interest	Yes			
Min region size [pixels]	min 1032			
Max frame rate [Hz] [min region size]	>1 kHz			
Command and control	CameraLink	USB3 Vision	CameraLink	USB3 Vision
Digital output format	CameraLink	USB3 Vision	CameraLink	USB3 Vision
Trigger	Trigger connector: 2 trigger in & 2 trigger out - LVCMOS 3.3 V			
Product selector guide				
Part Number	XEN-000676	XEN-000662	XEN-000680	XEN-000679