

WILDCAT 640 SERIES

Area-scan 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.

The cameras have standard on-board image correction featuring non-uniformity correction (NUC), bad pixel replacement (BPR) and automatic gain control (AGC). For more info on other image enhancement features, contact our sales department.

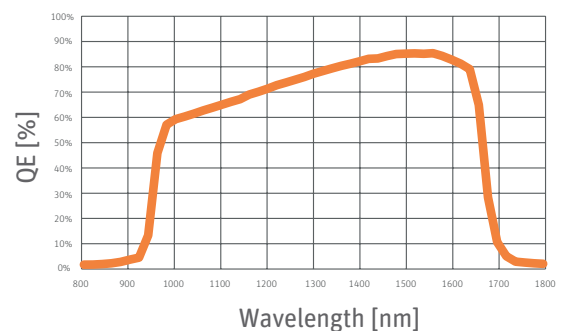
DESIGNED FOR USE IN

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

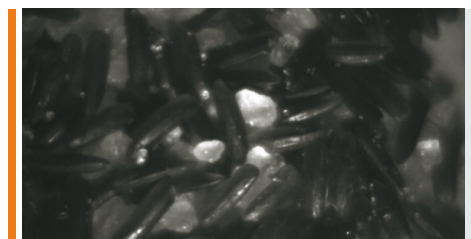
ADVANTAGES

- Frame rate up to 220 Hz or (110 Hz)
- Low noise and high dynamic range
- CameraLink or USB3 Vision interfacing options
- Small SWIR area-scan camera

QE (288K sensor temp)



Semiconductor inspection



Food inspection



Art inspection

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



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