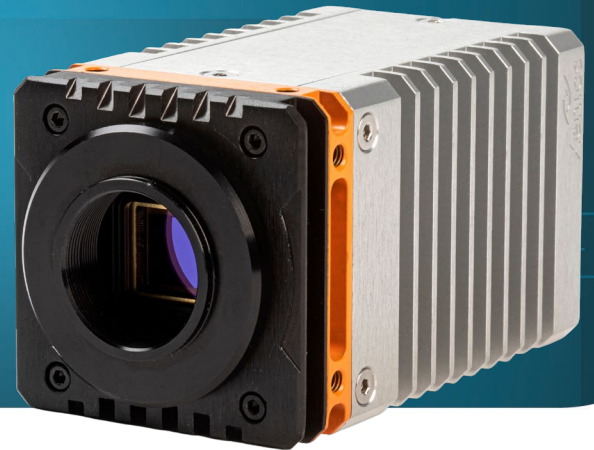


# Wildcat+ 640 TE0 and WL Series



*HIGH-RESOLUTION SWIR CAMERA*

## KEY FEATURES



**HIGH-RESOLUTION SWIR IMAGING**



**INDUSTRY PROVEN CAMERA DESIGN**



**FLEXIBLE OPTICAL MOUNT &  
LENS OPTIONS**

The Wildcat+ 640 TE0 and WL series is based upon a state-of-the-art uncooled InGaAs detector with 640x512 pixels and 20  $\mu\text{m}$  pixel pitch. The WL version uses a special windowless sensor package for laser beam analysis applications.

The camera offers superior, high-resolution SWIR imaging capabilities, comes in a versatile and industry-proven Wildcat camera package (GenICam compliant) and offers advanced on-board image processing. The Wildcat+ 640 TE0 and WL cameras output full frame images at 220 Hz via either a CameraLink or USB3 Vision interface.



Camera Specifications	Wildcat+ 640 TE0 CL 200	Wildcat+ 640 WL CL 200	Wildcat+ 640 TE0 U3V 200	Wildcat+ 640 WL U3V 300
<b>Mechanical specifications</b>				
Dimensions (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	NA		USB 3.0 type micro-B	
Connector CameraLink	standard SDR		NA	
Connector power	Lemo 1B.308 (unified connector)			
Connector trigger	Lemo 1B.308 (unified connector)			
Connector serial command	Lemo 1B.308 (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]	< 7			
Power supply voltage	DC 12 V			
Shock	40g, 11ms, according to MIL-STD810G			
Vibration	5g (20 to 2000 Hz), according to MIL-STD810G			
IP rating	IP40			
Regulatory compliance	CE			
<b>Electro-optical specifications</b>				
Image format [pixels]	640x512			
Pixel pitch [µm]	20			
Detector type	InGaAs photodiode array with CTIA ROIC (WL version comes without detector cover glass)			
Sensor temperature stabilization	NA (uncooled)			
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]	65k (HG) & 550k (HDR)			
Read noise [electrons]	45 (HG) & 200 (HDR)			
Dark current [electrons/second]	< 100k			
Read out modes	ITR/IWR			
Pixel operability	>99.5%			
Preconfigured exposure time range [ms]	HDR ITR: 0.5 ms; HG ITR: 0.5 ms & 5 ms; HG IWR 0.5 ms & 3 ms			
Max frame rate [Hz] (full frame)	220			
Region of interest	Yes			
Min region size [pixels]	48 x 48 (step size 8 pixels in X & 8 pixels in Y)			
Max frame rate [Hz] (min region size)	>10 kHz			
Command and control	CameraLink Base		USB3 Vision	
Digital output format	CameraLink Base (16 bit)		USB3 Vision (16 bit)	
Trigger	Connector: 2 trigger in & 2 trigger out - LVCMOS 3.3 V; CameraLink trigger in			
<b>Product selector guide</b>				
Part number	XEN-000721	XEN-000722	XEN-000719	XEN-000720

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