Bobcat 320 Series

Areascan SWIR Camera

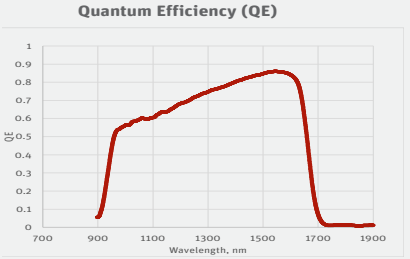
- SWIR cooled camera with 320 x 256 resolution
- In-house developed InGaAs sensor

Small, high performance InGaAs camera

The Bobcat 320 series is based on an in-house developed, temperature stabilised InGaAs detector with a 320 x 256 pixel resolution.

The Bobcat 320 cameras are offered with frame rates of either 100 Hz or 400 Hz.

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



*QE at 306 K sensor temperature

Learn more:

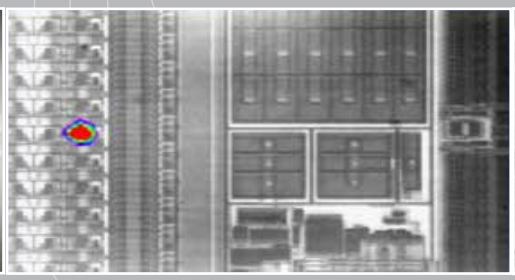
Designed for use in

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

Advantages

- Flexible and easy-to-use
- CameraLink or GigE Vision interfacing options
- Low dark current
- Small SWIR areascan camera

Semiconductor inspection



Semiconductor inspection

Art inspection

Camera Specifications

Camera Specifications	Bobcat 320 CL 100	Bobcat 320 CL 400	Bobcat 320 GigE 100	Bobcat 320 GigE 400
Mechanical specifications				
Approximate dimensions - excluding lens [width x height x length] [mm]	55 x 55 x 72	55 x 55 x 72	55 x 55 x 82	55 x 55 x 82
Weight [gr] - excluding lens	285	285	334	334
Optical interface	C-mount or M42			
Connector GigE	-	-	RJ-45	RJ-45
Connector CameraLink	Standard SDR	Standard SDR	-	-
Connector power	Hirose HR10-7R-SA[73]			
Connector trigger	SMA			
Environmental & power specifications				
Operating case temperature [°C]	From -40 to +70			
Storage temperature [°C]	From -45 to +85			
Power consumption [W]	2.8 [no TE cooler]	2.8 [no TE cooler]	4 [no TE cooler]	4 [no TE cooler]
Power supply voltage	DC 12 V			
Shock	IEC60068-2-27 Ed4.0; half-sine; terminal saw tooth; 50 g [11 ms]			
Vibration	Random: IEC60068-2-64 Ed2.0; 4.3 g [20 - 1000 Hz]. Sine: IEC60068-2-6 Ed7.0; 1 g [10 - 2000 Hz]			
IP rating	IP40			
Regulatory compliance	CE, RoHS			
Electro-optical specifications				
Image format [pixels]	320 x 256			
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]	6.4 x 5.12 [diagonal 8.2]			
Optical fill factor	100%			
Spectral range [nm]	900 - 1700			
Quantum efficiency	~80% [typical peak value]			
Gain modes	Single Gain			
Full well capacities [electrons]	70k			
Read noise [electrons]	110			
Dark current [electrons/second]	<100k [at 288K sensor temp and 150 mV reverse bias]			
Read out mode	ITR			
Pixel operability	>99%			
Preconfigured exposure time range [ms]	0.5 to 10	0.01 to 40	0.5 to 10	0.01 to 40
Max frame rate [Hz] [full frame]	100	400	100	400
Region of interest	No	Yes	No	Yes
Min region size [pixels]	-	32 x 4 [step 4 x 1]	-	32 x 4 [step 4 x 1]
Max frame rate [Hz] [min region size]	-	>10000	-	>10000
Analog-to-Digital [ADC] [bits]	14			
Command and control	CameraLink	CameraLink	GigE Vision	GigE Vision
Digital output format	CameraLink [16 bit]	CameraLink [16 bit]	GigE Vision [16 bit]	GigE Vision [16 bit]
Trigger	In or out via SMA or in via CL-CC1 [Configurable]	In or out via SMA or in via CL-CC1 [Configurable]	In or out via SMA [Configurable]	In or out via SMA [Configurable]
Product selector guide				
Part number	XEN-000584	XEN-000526	XEN-000583	XEN-000524

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