

# FLIR **BLACKFLY<sup>®</sup>S**

P/N: *BFS-U3-23S3 USB3 VISION*



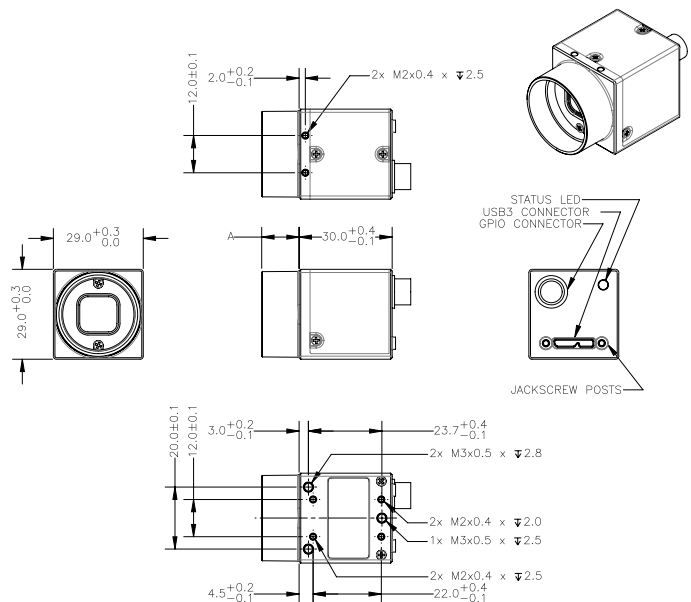
## SMALL PACKAGE, POWERFUL RESULTS

The Blackfly S combines the newest CMOS image sensors with our new and intuitive Spinnaker software development kit. The many new advanced camera features are designed to meet your complex imaging needs and speed up development time.

## KEY FEATURES

- Leverage the latest **CMOS sensors** and new on-camera image processing features. Harness increased **binning** flexibility, powerful **auto-exposure** controls and robust **color transformation** tools.
- Improve cycle time using advanced camera controls and programmable logic. Utilize **sequencer**, **chunk data**, **event notification**, **counters**, **timers** and **logic blocks**.
- Accelerate your time to market using our **GenICam3 API**, **GUI API library**, detailed **API logging** and comprehensive **documentation**.

**USB** VISION **GEN*<i>*CAM**



## Specifications

	BFS-U3-23S3M-C	BFS-U3-23S3C-C
Resolution	1920 x 1200	
Frame Rate*	163 FPS	
Megapixels	2.3 MP	
Chroma	Mono	Color
Sensor	Sony IMX392, CMOS, 1/2.3"	
Readout Method	Global shutter	
Pixel Size	3.45 µm	
Lens Mount	C-mount	
ADC	10-bit / 12-bit	
Minimum Frame Rate**	1 FPS	
Gain Range**	0 to 47 dB	
Exposure Range**	5 µs to 30 s	
Acquisition Modes	Continuous, Single Frame, Multi Frame	
Partial Image Modes	Pixel binning, decimation, ROI	
Image Processing	Gamma, lookup table, and sharpness	Color correction matrix, gamma, lookup table, saturation, and sharpness
Sequencer	Up to 8 sets using 6 features	
Image Buffer	240 MB	
User Sets	2 user configuration sets for custom camera settings	
Flash Memory	6 MB non-volatile memory	
Opto-isolated I/O	1 input, 1 output	
Non-isolated I/O	1 bi-directional, 1 input	
Auxiliary Output	3.3 V, 120 mA maximum	
Interface	USB 3.1 Gen 1	
Power Requirements	8 - 24 V via GPIO or 5 V via USB3 interface	
Power Consumption	3 W maximum	
Dimensions/Mass	29 mm x 29 mm x 30 mm / 36 g	
Machine Vision Standard	USB3 Vision v1.0	
Compliance	CE, FCC, KCC, RoHS, REACH. The ECCN for this product is: EAR099.	
Temperature	Operating: 0°C to 50°C Storage: -30°C to 60°C	
Humidity	Operating: 20% to 80% (no condensation) Storage: 30% to 95% (no condensation)	
Warranty	3 years	

\*Frame rates are measured with Device Link Throughput Limit of 380 MBps and Acquisition Frame Rate disabled. Values are rounded down to whole numbers.

\*\*Values are the same in binning and no binning modes.

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