

BLACKFLY® S USB

Industrial Machine Vision Camera | BFS-U3-23S6M/C-C

KEY FEATURES

Field Proven Sensor

Harness the power of a field proven sensor with the Sony IMX249 global shutter sensor for scientific imaging and medical applications. Experience its large 5.86 μm pixel size, large full well capacity with superior dynamic range.

Advanced Camera Control

Explore the capabilities of advanced camera control through the sophisticated features offered on the camera. Automate tasks effortlessly with tools like the Sequencer, Logic Blocks, Counters and Timers, enhancing efficiency and precision.

Lens Shading Correction

Correct the imaging artifact of lens shading with our proprietary lens shading correction feature. It utilizes a calibrated image based on the optics and lighting used in the application, ensuring uniform and flawless visuals without any unwanted shading.

APPLICATIONS

- Food and Beverage
- Lens Inspection
- Microscopy
- Scientific imaging

Small Package, Powerful Results

Introducing the Blackfly S camera from Teledyne FLIR, now equipped with the well-regarded Sony IMX249 sensor, renowned for its exceptional imaging performance even in challenging light conditions, as well as its versatile Near-IR performance under the right lighting conditions. This potent combination delivers unparalleled image quality, empowering system designers to effortlessly capture precise images tailored to their specific project needs from industrial automation to scientific imaging.

The Blackfly S camera is valued for its compact ice-cube form factor and superior performance in machine vision technology. It is packed with powerful features enabling system designers to easily produce the exact images needed and accelerate their application development. This includes both automatic and manual control over image capture and on-camera processing.

Additionally, the Blackfly S camera ensures a smooth transition for system designers upgrading from previous models, offering enhanced functionalities while maintaining compatibility and form factor. This approach enables an easy upgrade, making it the ideal choice for upgrading your imaging capabilities without the hassle of major system adjustments.



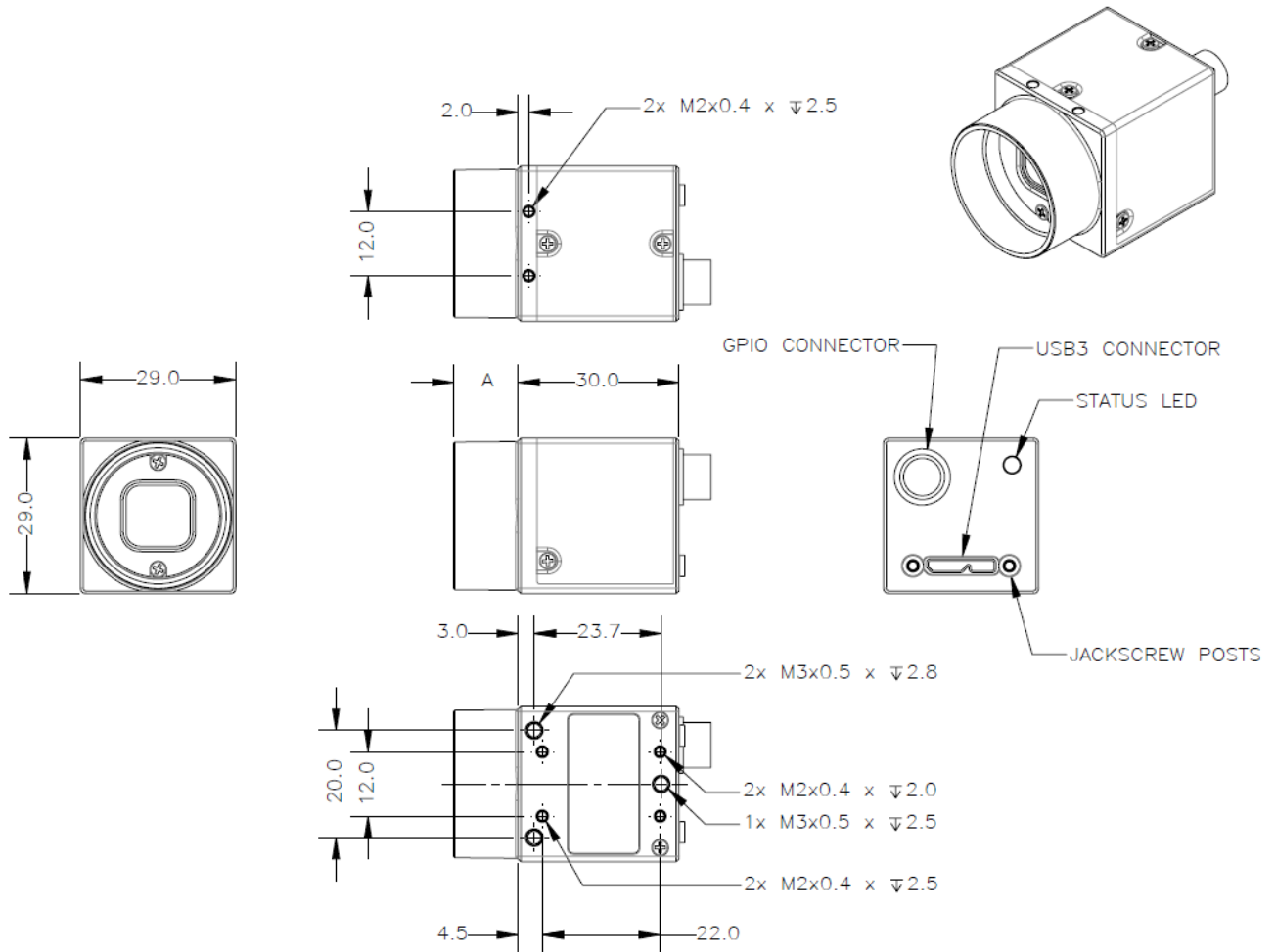
Product appearance and specifications are subject to change without notice

SPECIFICATIONS

	BFS-U3-23S6M	BFS-U3-23S6C
Resolution	1920 x 1200	
Base Frame Rate	41 FPS	
Megapixels	2.3 MP	
Sensor	Sony IMX249, CMOS, 1/1.2"	
Readout Method	Global Shutter	
Pixel Size	5.86 μ m	
Spectrum	Mono	Color
Lens Mount	C-mount	
ADC	10-bit / 12-bit	
Minimum Frame Rate*	1 FPS	
Gain Range*	0 – 47 dB	
Exposure Range*	33 μ s to 30 seconds	
Acquisition Modes	Continuous, Single Frame, Multi Frame	
Partial Image Modes	Pixel binning, Region of Interest	
Image Processing	Gamma, lookup table, and sharpness	Color correction matrix, gamma, lookup table, saturation, and sharpness
Image Buffer	240 MB	
Sequencer	Up to 8 sets using 6 features	
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	
Serial Port	1 over non-isolated I/O	
Auxiliary Output	3.3 V 120 mA maximum	
Interface	USB 3.1	
Power Requirements	8 - 24 V via GPIO or 5 V via USB3 interface	
Power Consumption	2.8 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° / Storage: -30°C to 60°C	
Humidity (no condensation)	Operating: 20% - 80% / Storage: 20% - 95%	
Warranty	3 years	

*Values are the same in binning and no binning modes

DRAWING


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