FLIR

FLIR BLACKFLY® S

P/N: BFS-U3-19S4

SMALL PACKAGE, POWERFUL RESULTS

The Blackfly S is a compact, high performance machine vision camera that allows designers to easily produce the exact images they need. With both automatic and precise manual control over image capture and on-camera pre-processing, the Blackfly S accelerates application development.

www.flir.com/products/blackfly-s-usb3

FEATURES

THE LATEST CMOS SENSORS
Switch between high sensitivity and low noise, and high saturation capacity and dynamic range with selectable conversion gain.

IMPROVE CYCLE TIMES
Automate more with advanced camera controls, event notifications, chunk data, counters and timers.

ACCELERATE YOUR TIME TO MARKET
FLIR's GenICam3 API with GUI library, and detailed event logging is supported by comprehensive documentation.

APPLICATIONS

AUTOMATED OPTICAL INSPECTION

MICROSCOPY

ROBOT GUIDANCE

LASER BEAM PROFILING

AUTONOMOUS VEHICLE GUIDANCE

US3 VISION   GEN‹i›CAM   Pregius

SPECS	BFS-U3-19S4M-C	BFS-U3-19S4C-C
Resolution	1616 x 1240	
Frame Rate*	131 FPS	
Megapixels	1.9 MP	
Chroma	Mono	Color
Sensor	Sony IMX430, CMOS, 1/1.7"	
Readout Method	Global shutter	
Pixel Size	4.5 µm	
Lens Mount	C-mount	
ADC	12-bit	
Minimum Frame Rate**	1 FPS	
Gain Range**	0 to 47 dB	
Exposure Range**	11 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	4.2 W maximum	
Dimensions/Mass	29 mm x 29 mm x 39 mm / 53 g	
Machine Vision Standard	USB3 Vision v1.0	
Compliance	CE, FCC, RoHS, REACH. The ECCN for this product is: EAR099.	
Temperature	Operating: 0℃ to 50℃ Storage: -30℃ to 60℃	
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.

FIND THE BEST BLACKFLY S
FOR YOUR NEEDS

◆FLIR® | The World's Sixth Sense®