



SMARTER IMAGING FOR BETTER LIVES

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## INDUSTRIAL/MACHINE VISION APPLICATIONS

# FLIR BLACKFLY<sup>®</sup> S

P/N: BFS-U3-244S8

## 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](http://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



GEN*i*CAM

Pregius

| SPECS                   | BFS-U3-244S8M-C  | BFS-U3-244S8C-C   |
|-------------------------|--|---|
| Resolution              | 5320 x 4600  |   |
| Frame Rate*             | 15 FPS   |   |
| Megapixels              | 24.5 MP  |   |
| Chroma                  | Mono   | Color   |
| Sensor                  | Sony IMX540, CMOS, 1.2"  |   |
| Readout Method          | Global shutter   |   |
| Pixel Size              | 2.74 µm  |   |
| Lens Mount              | C-mount  |   |
| ADC                     | 12-bit   |   |
| Minimum Frame Rate**    | 1 FPS  |   |
| Gain Range**            | 0 to 47 dB   |   |
| Exposure Range**        | 20 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, KCC, RoHS, REACH. The ECCN for this product is: EAR099.                 |   |
| Temperature             | Operating: 0°C to 65°C (case)<br>Storage: -30°C to 60°C (ambient)                |   |
| Humidity                | Operating: 20% to 80% (no condensation)<br>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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FOR YOUR NEEDS



The World's Sixth Sense®