



## INDUSTRIAL/MACHINE VISION APPLICATIONS

# FLIR BLACKFLY<sup>®</sup> S

P/N BFS-PGE- 27S5

### 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/mv](http://www.flir.com/mv)

### 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-PGE-27S5M-C  | BFS-PGE-27S5C-C   |
|-------------------------------|--|---|
| Resolution                    | 1936 x 1464  |   |
| Frame Rate*                   | 43 FPS   |   |
| Megapixels                    | 2.8 MP   |   |
| Chroma                        | Mono   | Color   |
| Sensor                        | Sony IMX429, CMOS, 2/3"  |   |
| 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**              | 15 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, exposure and gain                                 |   |
| 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                     | GigE PoE   |   |
| Power Requirements            | Power over Ethernet (PoE), or 12 V nominal (8 - 24 V) via GPIO                   |   |
| Power Consumption             | 4.2 W maximum  |   |
| Dimensions/Mass               | 29 mm x 29 mm x 39 mm / 53 g   |   |
| Machine Vision Standard       | Gige Vision v1.2   |   |
| Time Synchronization Protocol | IEEE 1588 Precision Time Protocol  |   |
| Compliance                    | CE, FCC, KCC, RoHS, REACH. The ECCN for this product is: EAR099.                 |   |
| Temperature                   | Operating: 0°C to 50°C<br>Storage: -30°C to 60°C                                 |   |
| 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 125 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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VN: BFS-PGE-27S5-v2

FIND THE BEST BLACKFLY S FOR YOUR NEEDS



The World's Sixth Sense®