



## INDUSTRIAL/MACHINE VISION APPLICATIONS

# FLIR BLACKFLY<sup>®</sup> S

P/N BFS-PGE-50S5

### SMALL PACKAGE, POWERFUL RESULTS

The FLIR Blackfly S is a compact, high performance machine vision camera that enables system designers to easily generate the exact images they need.

FLIR GigE cameras featuring Lossless Compression (LLC) are designed to deliver higher maximum frame rates and lower data transmission over the link, without compromising on image quality. With both automatic and precise manual control over image capture and on-camera pre-processing, the FLIR 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, or high saturation capacity and dynamic range with selectable conversion gain.

#### IMPROVE CYCLE TIMES & OUTPUT

Automate more with advanced camera controls, event notifications, chunk data, counters and timers. Increase system output without compromising quality using our Lossless Compression (LLC) feature.

#### 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

| SPECS                   | BFS-PGE-50S5M-C  | BFS-PGE-50S5C-C  |
|-------------------------|--|--|
| Resolution              | 2448 x 2048  |  |
| Frame Rate              | 24 FPS / 33 FPS with Lossless Compression  |  |
| Megapixels              | 5.0 MP   |  |
| Chroma                  | Mono   | Color  |
| Sensor                  | Sony IMX264, CMOS, 2/3"  |  |
| Readout Method          | Global shutter   |  |
| Pixel Size              | 3.45 $\mu$ m   |  |
| Lens Mount              | C-mount  |  |
| ADC                     | 12-bit   |  |
| Minimum Frame Rate*     | 1 FPS  |  |
| Gain Range*             | 0 to 48 dB   |  |
| Exposure Range*         | 13 $\mu$ s 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, hue, saturation, and sharpness |
| Sequencer               | Up to 8 sets using 2 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       | 3 W maximum  |  |
| Dimensions/Mass         | 29 mm x 29 mm x 30 mm / 36 g   |  |
| Machine Vision Standard | Gige Vision v1.2   |  |
| 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  |  |

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



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FOR YOUR NEEDS

