



INDUSTRIAL/MACHINE VISION APPLICATIONS

FLIR BLACKFLY® S

P/N BFS-PGE-161S7

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

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-161S7M-C	BFS-PGE-161S7C-C
Resolution	5320 x 3032	
Frame Rate	7 FPS / 12 FPS with Lossless Compression	
Megapixels	16.1 MP	
Chroma	Mono	Color
Sensor	Sony IMX542, CMOS, 1.1"	
Readout Method	Global shutter	
Pixel Size	2.74 μ m	
Lens Mount	C-mount	
ADC	8-bit / 10-bit / 12-bit	
Minimum Frame Rate*	1 FPS	
Gain Range*	0 to 47 dB	
Exposure Range*	26 μ 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, 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	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	
Compliance	CE, FCC, KCC, RoHS, REACH. The ECCN for this product is: EAR099.	
Temperature	Operating: 0°C to 50°C Storage: -30°C to 60°C	
Humidity	Operating: 20% to 80% (no condensation) Storage: 30% to 95% (no condensation)	
Warranty	3 years	

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



Teledyne FLIR Integrated Imaging Solutions

CANADA

12051 Riverside Way
Richmond, BC, Canada
V6W 1K7
T: +1 866.765.0827 (toll free)
T: +1 604.242.9937
F: +1 604.242.9938
E: mv-sales@flir.com
www.flir.com/mv

USA

T: +1 866.765.0827 (toll free)
E: mv-na-sales@flir.com

EUROPE

T: +49 7141 488817-0
F: +49 7141 488817-99
E: mv-eusales@flir.com

CHINA

T: +86 10 8215 9938
F: +86 10 8215 9936
E: mv-chinasales@flir.com

ASIA

E: mv-asiasales@flir.com

www.teledyneflir.com

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VN: 21-0687-OEM-BFS-PGE-161S7-LTR

FIND THE BEST BLACKFLY S
FOR YOUR NEEDS

