

# BFS-U3-51S5PC-C USB 3.1 Blackfly® S, Polarized Color Camera

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FLIR Blackfly® S USB3 Camera (front)



Stock **#13-928** 10 TO 12 DAYS

-

1

+

₹2,40,000

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**Note:** This item requires accessories for use | [Learn More](#)

Product Downloads

## SPECIFICATIONS

General

|                        |                |
|------------------------|----------------|
| Polarized Color Camera | Type:          |
| FLIR                   | Manufacturer:  |
| Blackfly® S            | Camera Family: |
| BFS-U3-51S5PC-C        | Model Number:  |

Physical & Mechanical Properties

|                                                   |                  |
|---------------------------------------------------|------------------|
| 29 x 29 x 30 (excludes connectors and lens mount) | Dimensions (mm): |
| 36                                                | Weight (g):      |
| Full                                              | Housing:         |

Sensor

|                       |                           |
|-----------------------|---------------------------|
| 240MB                 | Image Buffer:             |
| Sony IMX250MYR        | Imaging Sensor:           |
| Progressive Scan CMOS | Type of Sensor:           |
| Global                | Type of Shutter:          |
| 2/3"                  | Camera Sensor Format:     |
| 5.00                  | Resolution (MegaPixels):  |
| 2,448 x 2,048         | Pixels (H x V):           |
| 3.45 x 3.45           | Pixel Size, H x V (µm):   |
| 8.45 x 7.07           | Sensing Area, H x V (mm): |
| 75.00                 | Frame Rate (fps):         |
| 10/12 bit             | Pixel Depth:              |
| 6µs - 30s             | Exposure Time:            |
| 71.31                 | Dynamic Range (dB):       |
| USB3 Vision v1.0      | Machine Vision Standard:  |

Electrical

|         |                        |
|---------|------------------------|
| 3 (max) | Power Consumption (W): |
|---------|------------------------|

Hardware & Interface Connectivity

|                                                                                                    |                             |
|----------------------------------------------------------------------------------------------------|-----------------------------|
| USB 3.1 Gen 1                                                                                      | Video Output:               |
| USB 3.1 Gen 1, Micro-B with Screw Locks                                                            | Connector:                  |
| Power over USB or via GPIO with <a href="#">#88-063</a>                                            | Power Supply:               |
| 1 opto-isolated input, 1 opto-isolated output, 1 non-isolated bi-directional, 1 non-isolated input | GPIOs:                      |
| Hardware Trigger (GPIO) or Software Trigger                                                        | Synchronization:            |
| Back Panel                                                                                         | Interface Port Orientation: |
| 6-pin Hirose (HR10)                                                                                | GPIO Connector Type:        |

Threading & Mounting

|                                                        |                   |
|--------------------------------------------------------|-------------------|
| ¼-20 with Tripod Mbunt Adapter <a href="#">#88-210</a> | Mounting Threads: |
| C-Mbunt                                                | Mount:            |

Environmental & Durability Factors

|                       |                             |
|-----------------------|-----------------------------|
| 0 to +50              | Operating Temperature (°C): |
| -30 to +60            | Storage Temperature (°C):   |
| Regulatory Compliance |                             |
| Exempt                | RoHS 2015:                  |
| View                  | Certificate of Conformance: |
| Contains SVHC(s)      | Reach 240:                  |

## PRODUCT DETAILS

- Ultra-Compact Design
- USB3 Vision and GenICam Compliant
- Includes Image Capture Software and Spinnaker SDK



### Teledyne Imaging FLIR/IS Blackfly S: Advanced Machine Vision Cameras with powerful features

Capture the images you need from advanced sensors in enclosed or board-level configurations

The **Blackfly® S** is a versatile and compact machine vision camera series that leverages the industry's most advanced area scan sensors in an ultra-compact form factor. It combines powerful features that easily produce the exact images required, accelerating application development. Combining both automatic and precise manual controls over image capture and on-camera pre-processing. With options ranging from high-speed performance, high-resolution images, polarization, or low-light sensitivity, the Blackfly® S series of cameras can deliver the required results.

With the selection of camera variations all sharing the same form factor, it makes it easy to develop once, deploy anywhere. On camera features include IEEE1588 clock synchronization and full compatibility with popular third-party software supporting either GigE Vision or USB3 Vision interfaces. The Blackfly® S is available in GigE, USB3, cased, and board-level versions.

**Note:** USB3 cable sold separately. Use ([#03-618](#)) 5mm Spacer to convert CS-Mount Cameras to C-Mount. Software available for [download](#).

#### Blackfly® S USB3 color / monochrome cameras

- Compatible with third-party software and hardware, and supports a wide range of operating systems and host system architectures.

#### Features

- Ultra-compact form factor (29mm x29mm x39mm)
- Leverage the latest CMOS sensors and new on-camera image processing features
- Harness increased binning flexibility, powerful auto-exposure controls and robust color transformation tools
- Improve cycle time using advanced camera controls and programmable logic
- Utilize sequencer, chunk data, event notification, counters, timers and logic blocks
- Choice of CMOS global shutter, polarization, and high-sensitivity BSI sensors
- Data interface options: GigE, USB3
- Color transformation tools for true-to-life color
- Advanced auto-algorithms or precise manual control over image capture and on-camera pre-processing
- On-camera features such as IEEE1588 clock synchronization, lossless compression, and deep learning inference
- Compatible with third-party software and hardware
- Support for a wide range of operating systems and host system architectures
- Rich sample code and descriptive API logging
- Simplified product iteration with consistent form factor across sensor sizes
- Camera control via FlyCapture SDK or 3rd-party USB3 Vision software

#### Applications

- Intelligent Transportation Systems
- Factory automation
- Bar code reading
- 3D scanning
- Life science instrumentation
- Biometrics kiosk solutions
- Ophthalmoscopy
- Automated optical inspection
- Food & Beverage industry