

GS3-U3-51S5M-C 2/3" FLIR Grasshopper®3 High Performance USB 3.0 Monochrome Camera

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Stock #33-538 **4 In Stock** [Similar Cameras](#)

1 **MRP ₹1,84,788**

Price inclusive of all taxes

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Teledyne FLIR IIS Grasshopper®3 USB 3.0 Cameras (Front)



Volume Pricing	
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Product Downloads	
PDF Drawing	User Manual
EO Spec Sheet	

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

Spectrum: Monochrome

General

Type: Monochrome Camera	Model Number: GS3-U3-51S5M-C
Manufacturer: FLIR	Camera Series: Grasshopper®3

Physical & Mechanical Properties

Dimensions (mm): 44 x 29 x 57.5 (excludes connectors and lens mount)	Weight (g): 90
Housing: Full	

Sensor

Image Buffer: 128MB	Sensor Format: 2/3"
Resolution (Megapixels): 5.00	Frame Rate (fps): 75.00
Pixels (H x V): 2,448 x 2,048	Pixel Size, H x V (µm): 3.45 x 3.45
Sensing Area, H x V (mm): 8.45 x 7.07	Imaging Sensor: Sony IMX250
Type of Sensor: Progressive Scan CMOS	Shutter Type: Global
Pixel Depth: 10/12 bit	Exposure Time: 6µs - 32s
Dynamic Range (dB): 65.20 (Mode 0) / 71.15 (Mode 7)	Machine Vision Standard: USB3 Vision v1.0

Electrical

Power Consumption (W): 4.5

Hardware & Interface Connectivity

Interface: USB 3.0

Connector: USB 3.1 Gen 1, Micro-B with Screw Locks

Power Supply: Power over USB (required for operation) [#86-770](#) or via GPIO with [#86-784](#)

GPIOs: 1 opto-isolated input, 2 opto-isolated outputs, 2 non-isolated bi-directional ports

Synchronization: Hardware Trigger (GPIO) or Software Trigger

Interface Port Orientation: Back Panel

GPIO Connector Type: 8-pin Hirose (HR25)

Transfer Speed (Gbit/s): 5.00

Threading & Mounting

Mount: C-Mount

Mounting Threads: ¼-20 with Tripod Mount Adapter [#88-057](#)

Environmental & Durability Factors

Operating Temperature (°C): 0 to +50

Storage Temperature (°C): -30 to +60

Regulatory Compliance

RoHS 2015: [Exempt](#)

Certificate of Conformance: [View](#)

Reach 240: [Contains SVHC\(s\)](#)

Country of Origin: Canada

Imported By: Edmund Optics India Private Limited
267, Greystone Building,
Second Floor,
6th Cross Rd,
Binnamangala,
Stage 1,
Indiranagar,
Bengaluru,
Karnataka,
India 560038
Phone: +91-80-6845 0000

Product Details

- Feature High Resolution, High Sensitivity Sensors
- High Frame Rates Driven by USB 3.0 Interface
- Includes Image Capture Software and SDK



Teledyne
Authorized
Distributor

Teledyne FLIR IIS Grasshopper®3: Machine Vision area scan camera

The Grasshopper®3 offers a cost-effective, powerful and easy-to-use alternative to Camera Link and dual GigE LAG solutions.

The **Grasshopper@3** camera line combines the benefits of CCD with the affordability and data throughput of either USB 3.0 or GigE interfaces. This high-performance camera model provides a range of characteristics with either CMOS or CCD sensors. Its FPGA and frame buffer-based architecture provides optimal reliability, a rich set of features, and a full image processing pipeline including color interpolation, gamma, and lookup table functionality.

Note: USB 3.0 cable (sold separately) is required for operation. Optional power supply ([#86-784](#)) available. Software available for [download](#). FLIR was previously known as Point Grey.

Features

- Compact form factor
- USB 3.0 models with resolutions from 2.3 to 12 Megapixel sensors
- GigE interface model at 2.3 Megapixel for high bandwidth performance
- Various high-resolution, large format CCD and CMOS sensor options
- Color transformation tools for true-to-life color
- GigE models feature PoE for simplified setup and maintenance
- Spinnaker SDK and code samples

Applications

- Factory automation
- 3D Measurement
- Flat Panel Inspection
- Life science instrumentation
- Biometrics kiosk solutions
- Ophthalmology
- Intelligent traffic systems

Accessories

Note: Compatible accessories for individual stock numbers may vary. If unsure about which accessories work with your products, please contact us [here](#).

	Title	Compare	Stock Number	Price	Buy
MORE+	Type-A to Micro-B, USB 3.1 Locking Cable, 3m		#86-770	₹2,655 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	Type-A to Micro-B, USB 3.1 Locking Cable, 5m		#88-058	₹4,036 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	Flea3/Grasshopper3 12V, 1.5A Power Supply		#86-784	₹9,346 Request Quote	2 In Stock <input type="text" value="1"/>
MORE+	Flea3/Grasshopper3 8-pin GPIO Hirose Connector		#86-771	₹3,398 Request Quote	2 In Stock <input type="text" value="1"/>
MORE+	Flea3/Grasshopper3 8-pin GPIO Hirose Connector Cable, 1m		#88-059	₹5,310 Request Quote	CONTACT US <input type="text" value="1"/>
MORE+	Flea3/Grasshopper3 8-pin GPIO Hirose Connector Cable, 4.5m		#88-060	₹6,053 Request Quote	2 In Stock <input type="text" value="1"/>
MORE+	Grasshopper3 Tripod Adapter		#88-057	₹1,274 Request Quote	4 In Stock <input type="text" value="1"/>
MORE+	USB 3.1 PCIe 2.0x1 2 Port Interface Card		#86-769	₹3,717 Request Quote	3 In Stock <input type="text" value="1"/>
MORE+	USB 3.1 PCIe 2.0x1 4 Port Interface Card		#89-539	₹8,496 Request Quote	9 In Stock <input type="text" value="1"/>
MORE+	USB 3.1 Hub 4 Port with Locking Screws and Power Supply		#89-540	₹16,992 Request Quote	3 In Stock <input type="text" value="1"/>
MORE+	8.5mm C Series Fixed Focal Length Lens		#58-000	₹20,709 Request Quote	CONTACT US <input type="text" value="1"/>
MORE+	12mm C Series Fixed Focal Length Lens		#58-001	₹20,709	CONTACT US <input type="text" value="1"/>

	Title	Compare	Stock Number	Price	Buy
				<input type="checkbox"/>	
				Request Quote	
MORE+	16mm C Series Fixed Focal Length Lens		#59-870	₹19,419 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	25mm C Series Fixed Focal Length Lens		#59-871	₹19,419 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	35mm C Series Fixed Focal Length Lens		#59-872	₹19,419 Request Quote	20+ In Stock <input type="text" value="1"/>
MORE+	50mm C Series Fixed Focal Length Lens		#59-873	₹26,019 Request Quote	7 In Stock <input type="text" value="1"/>
MORE+	100mm C Series Fixed Focal Length Lens		#86-410	₹32,315 Request Quote	1 In Stock <input type="text" value="1"/>

Imaging Lens Selector

Imaging

Factory Automation
 Telecentric
 M12

Custom Sensor
 Camera Model

Number of Horizontal Pixels:

1

Number of Vertical Pixels:

2

Pixel Size (µm):

3

Working Distance (mm):

4

Horizontal Field of View (mm):

5

Disclaimer: Values represent theoretical values from lens design software. Actual lens performance varies due to manufacturing tolerances.

Frequently Purchased Together



#03-618 - 5mm Spacer to convert CS-Mount Cameras to C-Mount
₹3,080

Qty



#03-627 - C-Mount Male to Olympus (RMS/DIN) Female Step-Down Adapter
₹5,246

Qty



#33-432 - BFLY-U3-23S6M-C USB 3.0 Blackfly®, Monochrome Camera
₹63,189

Qty



#33-534 - GS3-U3-32S4M-C 1/1.8" FLIR Grasshopper@3 High Performance USB 3.0 Monochrome Camera
₹1,22,661

Qty

Resources

Media Type

- Application Note
- Video
- Published Article
- FAQ
- Glossary
- Technical Tool

APPLICATION NOTE
Sensor Performance and Limitations

APPLICATION NOTE
Imaging Electronics 101: Basics of Digital...

APPLICATION NOTE
Imaging Electronics 101: Camera Resolution fo...

APPLICATION NOTE
Imaging Electronics 101: Understandi...

VIDEO
How Do Cameras Work?

PUBLISHED ARTICLE
Advancements in Short Wave Infrared Sensors

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