

GS3-U3-89S6M-C 1" FLIR Grasshopper®3 High Performance USB 3.0 Monochrome Camera

A black FLIR thermal camera is shown from a three-quarter perspective. The camera has a prominent lens on the right side that is glowing with a bright blue light. The FLIR logo is visible on the top left of the camera's body. The camera is placed on a dark, reflective surface, which creates a clear reflection of the device below it. The background is a dark, gradient grey.



 Similar Cameras

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! Prices shown are exclusive of VAT/local taxes

Product Downloads

General	
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Monochrome Camera	Type:
GS3-U3-89S6M-C	Model Number:
FLIR	Manufacturer:
Grasshopper®3	Camera Series:
Dimensions: Exclude ¼-20 Tripod Adapter and Lens Holder	Note:

Physical & Mechanical Properties

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

Sensor

128MB	Image Buffer:
1"	Sensor Format:
8.90	Resolution (Megapixels):
43.00	Frame Rate (fps):
4,096 x 2,160	Pixels (H x V):
3.45 x 3.45	Pixel Size, H x V (µm):
14.13 x 7.45	Sensing Area, H x V (mm):
Sony IMX255	Imaging Sensor:
Progressive Scan CMOS	Type of Sensor:
Global	Shutter Type:
10/12 bit	Pixel Depth:
10µs - 32s	Exposure Time:
66.15 (Mbde 0) / 71.03 (Mode 7)	Dynamic Range (dB):
USB3 Vision v1.0	Machine Vision Standard:

Electrical

4.5	Power Consumption (W):
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Hardware & Interface Connectivity

USB 3.0	Interface:
USB 3.1 Gen 1, Micro-B with Screw Locks	Connector:
Power over USB (required for operation) #86-770 or via GPIO with #86-784	Power Supply:
1 opto-isolated input, 2 opto-isolated outputs, 2 non-isolated bi-directional ports	GPIOs:
Hardware Trigger (GPIO) or Software Trigger	Synchronization:
Back Panel	Interface Port Orientation:
8-pin Hirose (HR25)	GPIO Connector Type:

Threading & Mounting

C-Mount	Mount:
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Mounting Threads:
1/4-20 with Tripod Mount Adapter [#88-057](#)

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

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



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