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GS3-U3-89S6C-C 1" FLIR Grasshopper®3 High Performance USB 3.0 Color Camera

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



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Color **Spectrum:**

General

Color Camera **Type:**

GS3-U3-89S6C-C **Model Number:**

FLIR **Manufacturer:**

Grasshopper®3 **Camera Series:**

Note:
Dimensions: Exclude ¼-20 Tripod Adapter and Lens Holder

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:
1"

Resolution (Megapixels):
8.90

Frame Rate (fps):
43.00

Pixels (H x V):
4,096 x 2,160

Pixel Size, H x V (µm):
3.45 x 3.45

Sensing Area, H x V (mm):
14.13 x 7.45

Imaging Sensor:
Sony IMX255

Type of Sensor:
Progressive Scan CMOS

Shutter Type:
Global

Pixel Depth:
10/12 bit

Exposure Time:
10µs - 32s

Dynamic Range (dB):
66.15 (Mode 0) / 71.13 (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)

Threading & Mounting

Mount:
C-Mount

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

Environmental & Durability Factors

Operating Temperature (°C):
0 to +50

-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