

GRASSHOPPER EXPRESS

 POINT GREY
Innovation in Imaging



FireWire

1.0 MP CCD Camera

1024 x 1024 at 70 FPS

Kodak KAI-01050 CCD, 1/2", 5.5 μ m

Quad-Tap CCD

FireWire IEEE 1394b 800 Mbit/s interface

Compact 44 x 29 x 58 mm case

Complies with IIDC 1.32



Grasshopper Express™



Innovation in Imaging

HIGH-PERFORMANCE + QUAD-TAP CCD's + COMPACT

- Kodak and Sony quad-tap progressive scan CCD image sensors
- High speed 1394b 800 Mb/s digital interface
- Compact 44 x 29 x 58 mm case with C-mount lens holder
- Opto-isolated GPIO for industrial trigger and strobe

The new Grasshopper Express camera series features a completely new hardware platform designed to accommodate a wide range of high speed quad-tap Kodak and Sony image sensors. The Grasshopper Express is housed in the same compact metal case as the original Grasshopper. The camera also comes complete with a variety of new features, including enhanced opto-isolated GPIO, new hardware trigger modes, and improved imaging performance.



IEEE 1394b FireWire Models

GX-FW-10K3M-C	1.0 MP	Kodak KAI-01050 CCD, mono, 1/2", 5.5 x 5.5 μm	1024 x 1024 at 70 FPS
GX-FW-28S5C/M-C	2.8 MP	Sony ICX674 CCD, mono or color 2/3", 4.54 x 4.54 μm	1932 x 1452 at 25 FPS

Available Now

Coming soon



Analog-to-Digital Converter	Analog Devices 14-bit ADC
Video Data Output	8, 12, 16 and 24-bit digital data
Image Data Formats	Y8, Y16, Mono8, Mono12, Mono16, (all models) RGB, YUV411, YUV422, YUV444, Raw8, Raw12, Raw16 (color model)
Digital Interface	IEEE 1394b 800 Mbit/s interface with screw locks for camera control, data, and power
Partial Image Modes	Pixel binning and region of interest modes available via Format_7
General Purpose I/O Ports	8-pin GPIO connector for power; trigger; strobe; PWM, and serial I/O 1 opto-isolated input, 1 opto-isolated output, 2 bi-directional I/O pins
Gamma	0.50 to 4.00
Gain Control	automatic / manual / one-push gain modes, programmable via software, 0dB to 24dB
Shutter Speed	automatic / manual / one-push modes, programmable via software, 0.04ms to > 1.5s (extended shutter mode)
Synchronization	via external trigger; software trigger (on same bus) or free running
External Trigger Modes	External hardware or software trigger Multiple exposure, bulb shutter; skip-frames; multi-shot, and overlapped trigger modes (IIDCTrigger Modes 0, 1, 3, 14 and 15)
Voltage / Power	Voltage: 8-30V Power: ~5W
Dimensions (W x H x L)	44mm x 29mm x 58mm (not including lens holder and GPIO connector)
Mass	104 grams (without optics)
Memory Storage	32MB frame buffer; 1 MB non-volatile data flash
Memory Channels	2 memory channels for custom camera settings
Camera Specification	Complies with IIDC 1.32
Lens Mount	C-mount
Emissions Compliance	CE, FCC, RoHS
Operating Temperature	0° to 40°C
Storage Temperature	-30° to 60°C
Vibration Resistance	10 G (14 Hz to 200 Hz)
Status Monitoring	Bi-color LED
Special Features	Embedded image information (timestamp, frame counter, shutter, gain, ROI offset); image mirror (x-axis); HDR mode (cycle 4 gain and shutter presets); sharpness; test pattern; pixel defect correction
Warranty	2 Years