



SMARTER IMAGING FOR BETTER LIVES

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Prosilica GX-Series: 240MB/s The Fastest GigE Cameras in the World



Description

The 1 Megapixel GX1050 is a high-resolution CCD camera with Gigabit Ethernet interface (GigE Vision™) with very fast frame rate. The GX1050 has two screw-captivated Gigabit Ethernet ports configured as a Link Aggregation Group (LAG) to provide a sustained maximum data rate of 240 MBytes per second.

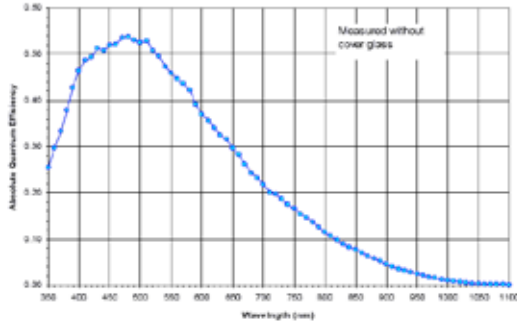
The GX1050 incorporates the 1024x1024 Kodak KAI-01050 CCD running 120 frames per second at megapixel resolution and even faster with region of interest readout. The progressive scan architecture and global electronic shutter provide excellent image quality for full motion video and still image capture.

The GX1050 works with standard gigabit Ethernet hardware and cables and can have cable lengths up to 100 meters (300 ft) long using conventional Cat5e.

Highlights

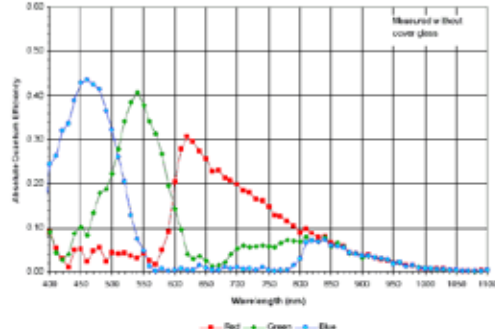
- Fast frame rate - 120 fps
- High resolution - 1 megapixels (1024 x 1024)
- Kodak KAI-01050 1/2" Progressive scan CCD
- Gigabit Ethernet interface - 240 MB/s Dual Port
- Global shutter (Snapshot shutter)
- GigE Vision compliant
- Long cables up to 100m on network cabling
- Region of Interest readout (AOI partial scan)
- Motorized lens controls - 3-axis
- Video-type autoiris controls
- Asynchronous external trigger and sync I/O
- 128 MB resend/image buffer
- Screw-captivated power connection
- Software development Kit

Sensor specification b/w



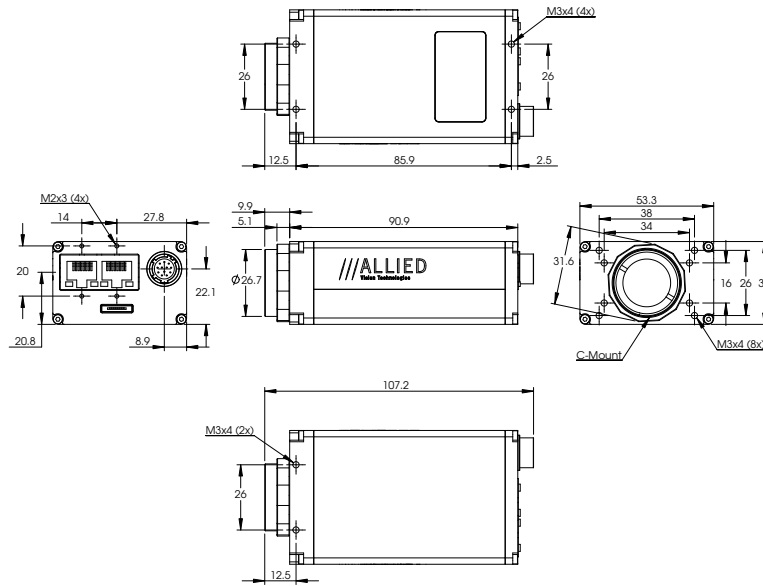
monochrome with microlens

Sensor specification color



color with microlens

Dimensions



Interface: Dual Gigabit Ethernet Ports Featuring LAG Technology



Camera Specifications	GX1050 / GX1050C
Resolution	1024 x1024
Sensor Type	1/2" CCD progressive scan Kodak KAI-01050
Pixel Size (µm)	5.5 x 5.5
Maximum Frame Rate (full resolution)	112 fps
Lens Mount	C-mount with adjustable back focus (optional CS-mount)
Digital Interface*	GigE Vision 1.0
Interface Type	Double Speed IEEE 802.3 1000baseT
Exposure Range	10µs to 60s
Gain Range	TBD
Region of Interest (ROI)	Independent x and y control; 1 pixel resolution
Frame Rate at 100 x 100 ROI**	TBD
Binning	Independent H and V control; 1 pixel resolution
Horizontal Binning Range	1 to 8 pixels
Vertical Binning Range	1 to 1024 pixels
2x2 binning max. framerate	TBD
Imaging Modes	Free-running, External Trigger, Fixed frame rate, Software trigger
Fixed Frame Rate Control	0.001 fps to maximum frame rate
External Trigger Modes	Rising edge, Falling edge, Any edge, Level high, Level low
External Sync Modes	Trigger ready, Trigger input, Exposing, Readout, Imaging, Strobe, GPO
Trigger Delay Control Range	0 to 60s in 1 us increments
Trigger Latency	5 µs
Trigger Jitter	+/-10ns
External Trigger/Sync Connection	mini-SMB and 12-pin Hirose
Monochrome Modes	Mono8, Mono16†
Color Modes	Bayer8, Bayer16, RGB24, YUV411, YUV422, YUV444, BGR24, RGBA24, BGRA24
GPIO	1 isolated TTL input, 3 isolated TTL outputs, RS232 I/O, motorized lens control, video autoiris
Max. Power Consumption	6.2 W (12 V)
Max. Operating Temperature	50 C
Housing Size (not including lens mount and connectors)	39x51x63 mm
Total Size Envelope (HxWxL)	39x51x80 mm
Nom. Weight	178g
Conformity	CE, FCC, RoHS
Digitization	12 bits
Spectral Sensitivity Range	350 - 1000nm

Specifications are subject to change without notice.

*GigE Vision™ is a trademark of the Automated Imaging Association.

**These figures are given as an example. There are a wide range of settings and speeds possible. Smaller ROI and/or higher binning modes will give even faster maximum framerates.

†Mono16 is available on monochrome models only.