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Vision Technologies

SEEING IS BELIEVING

GX2300

Description

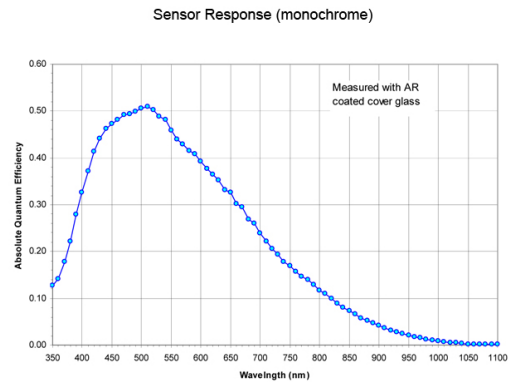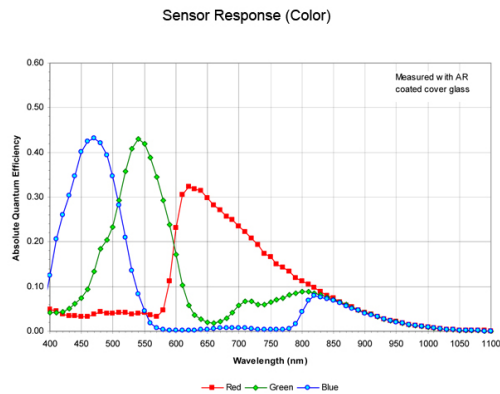### 4 Megapixel CCD camera with high frame rate - Dual port GigE

The 4 Megapixel Prosilica GX2300 is a very high-resolution CCD camera with Gigabit Ethernet output (GigE Vision®). The GX2300 features the high-quality Kokak KAI-04050 image sensor that provides superior image quality, excellent sensitivity and low noise. The GX2300 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 Prosilica GX2300 can also work at half the bandwidth (120 MB/s) using a single cable.

- 3-axis Motorized lens controls
- Video auto-iris
- Single or dual Ethernet port operation
- Thermal management enclosure

- **Models:**
    - GX2300, 2336x1752, 32 fps (dual port) - 28 fps (single port), CCD, mono
    - GX2300C, 2336x1752, 32 fps (dual port) - 28 fps (single port), CCD, color

- **Modular Options:**
    - Nikon F-mount (Factory conversion)
    - Canon EF Lens Mount (Factory conversion via RS232 I/O)
    - IRC Filter on Monochrome cameras (Factory installation)
    - Taped glass and microlens (Factory built)
    - Taped glass No microlens (Factory built)

Specifications

Prosilica GX	2300
Interface	IEEE 802.3 1000baseT
Resolution	2336 x 1752
Sensor	Kodak KAI-04050
Type	CCD Progressive
Sensor Size	Type 1
Cell size	5.5 µm
Lens mount	C/F
Max frame rate at full resolution	32 fps
A/D	14 bit
On-board FIFO	128 MB
Output	
Bit depth	8/14 (mono) - 8/12 (color) bit
Mono modes	Mono8, Mono12Packed, Mono16
Color modes YUV	YUV411, YUV422, YUV444
Color modes RGB	RGB24, BGR24, RGBA24, BGRA24
Raw modes	Bayer8, Bayer12Packed, Bayer16
General purpose inputs/outputs (GPIOs)	
TTL I/Os	0
Opto-coupled I/Os	2 inputs, 4 outputs
RS-232	1
Power/Mass/Dimensions/Regulations	
Power requirements (DC)	5V - 24V
Power consumption (12 V)	5.8W (1 port) - 6.9W (2 ports)
Mass	269 g
Body Dimensions (L x W x H in mm)	107.2 x 53.3 x 33 (including connectors, w/o tripod and lens)
Regulations	CE, FCC, Class A, RoHS

Download Prosilica GX2300 technical drawing (click here)

Sensor Response (Color)

Sensor Response (monochrome)

Smart features

The Prosilica GX2300 features include:

- Auto Exposure
- Auto Gain
- Auto White balance
- Flexible Binning
- Region of Interest readout (AOI partial scan)
- StreamBytesPerSecond (easy bandwidth control)
- Stream hold
- Asynchronous external trigger and sync I/O
- Global shutter (digital shutter)
- Recorder and Multiframe Acquisition Modes
- 3-axis motorized lens control
- Video-type autoiris

White Papers & Application Notes:

Prosilica GX Image Height Vs. Frame Rate (PDF - 241 KB)

Integrating Motorized Lenses with Prosilica GX Cameras (PDF - 461KB)

Canon EF Adapter on Prosilica GE and Prosilica GX Cameras (PDF - 466KB)

Applications

The GX2300 is ideal for a wide range of applications including:

- LCD panel inspection
- high-resolution industrial inspection
- 3-D metrology
- general machine vision
- public security
- military surveillance
- traffic imaging (Intelligent Traffic Systems)
- embedded systems
- OEM applications