

EMC-51

Global Shutter CMOS

8,424 x 6,032 4.6um pixels 35mm Format



EMC-51 with Canon EF lens mount
(with aperture & focus control) shown.



The **EMC-51** is a CMOS digital camera with an astounding 51 million pixels ! That is 24x the resolution of Full HD. The **EMC-51** is available in color, and mono versions and is designed for use in industrial machine vision, aerial imaging, and document imaging applications.

Using the GPIXEL GMAX4651 CMOS sensor, the **EMC-51** offers outstanding image quality. The image sensor has 14 digital outputs each running up to 50Mhz. This results in 10 fps at full resolution in camera link full mode. Higher frame rates can be achieved in ROI/windowing mode.

The **EMC-51** camera has all of the illunis “rugged” features, such as industrial design, military de-rated components, and a CNC machined case. The active (fan) cooling insures minimum dark current and excellent image quality.

EMC-51 Highlights:

- 8,424 x 6,032 = 51M pixels with 4.6um pixel (including optical black)
- 38.75 x 27.73 mm imaging area ~ > 35mm Full Frame
- Monochrome, and RGB Bayer versions
- Global Shutter CMOS
- Dynamic range 65.8dB
- Windowing ROI capability
- Field-updatable firmware and extensive Built In Test (BIT)
- Camera Link output: Medium (12Bit), Full (8Bbit) and Deca (80bit 8x10)
- USB3, Gigabit Ethernet
- F-Mount, Canon EF mount, M#, other lens mounts available
- OEM module available

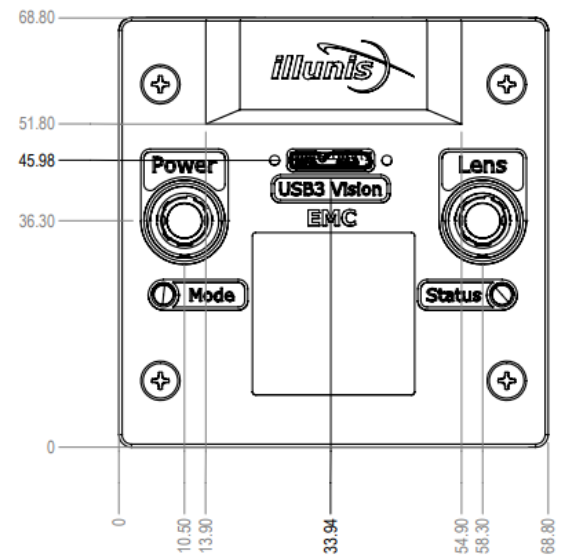
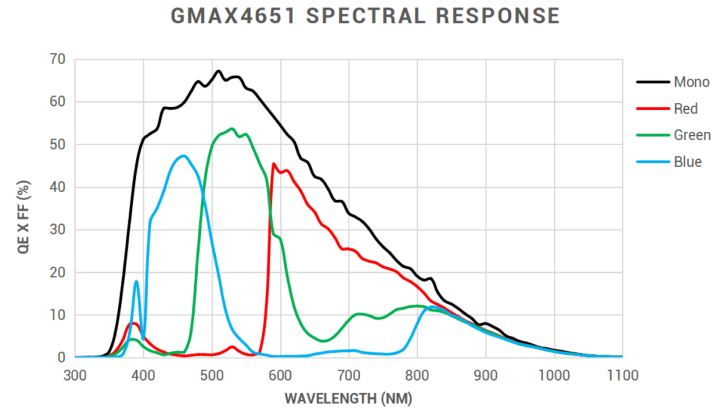
EMC-51 Specifications

Sensor	Gpixel GMAX4651 Mono, Bayer Color
Architecture	Global Shutter CMOS Charge Domain Pixel
Configuration	Progressive scan
Active pixels	8,424 (H) x 6,032 (V), 51Mpix
Pixel	4.6 x 4.6 μm with CDS
Active image size	37.75 x 27.75 mm (35mm)
Outputs	14 lvds outputs from sensor. Digitized 12bits, Output 8/10/12bits
Frame rates (Camera link limited)	10 fps: Full 8/8bit, Deca 8x10bit 5.0fps: Medium
Dynamic range	65.5 dB @ gain x3.5
Pixel Clock speed	Up to 50Mhz, 14 channels
Full well charge	18,000e
Global shutter	Min exposure TBD PLS < -92dB (1/40,000)
Dark Noise	7.6e rms @ gain x5
Peak QE	67.1%
Power	7-12VDC at 8W Reverse power protected
Exposure modes	Free Run, Triggered Program, Triggered Pulse Width
Mount options	F-mount, Canon-Mount, M#, OEM configuration
Defect Correction Built In	Pixel, Hot Pixel, Shading
Options	OEM Module, Gigabit Ethernet USB3, Embedded Camera Link
Operating Temperature	-40 to +70 C

Software

All illunis cameras come with our free camera control software, which allows interactive setup of all camera parameters.

Performance



Applications

Aerial Imaging
Biometric and DNA Sequencing
Document Scanning
Scientific Imaging
WAMI Persistent Surveillance
PCB Inspection

illunis specializes in custom OEM camera designs

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