EMC2-152
Global Shutter CMOS

16,556 x 9,200 3.2um pixels 16x9 Medium Format

illunis

10-GigE Vision model

Embedded & camera link model

The **EMC2-152** is a Global Shutter CMOS digital camera with an astounding 152 million pixels!   That is 75x the resolution of Full HD. The **EMC2-152** is available in color, and mono versions and is designed for use in industrial machine vision, aerial imaging, and document imaging applications.

The **EMC2-152** offers outstanding quality by using the GPIXEL GMAX32152 CMOS sensor. The sensor has 14 digital outputs each running up to 50Mhz. This results in 4.0 fps at full resolution in Camera Link full mode. Higher frame rates can be achieved in ROI/windowing mode. (Frame rate is limited by Camera Link).

Interface the **EMC2-152** camera to NUC, Jetson NX, Etc. using EPIX mf-2280+ M.2 PCIe frame grabber.
Camera link, and 10-GigE Vision interfaces are also available.

EMC2-152 cameras have all of the illunis "rugged" camera 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.

EMC2-152 Highlights:

- 16,556 x 9.200 = 152M pixels with 3.2um pixel (including optical black)
- Charge Domain Global Shutter CMOS Pixel Technology with light pipe.
- 53.0 x 29.4 mm imaging area ~ Large Format
- Monochrome, and RGB Bayer versions
- Sensors are 3-point mounted for back focus and flatness
- Dynamic range 65.5dB, FWC = 9.3Ke
- Field-updatable firmware and extensive Built In Test (BIT)
- Camera Link output: Medium, Full (8Bit) and Deca (80bit 8x10)
- M72 or OEM mount
- All Sensor features supported (HFLIP,VFLIP, ROI, PGAGain, etc.)
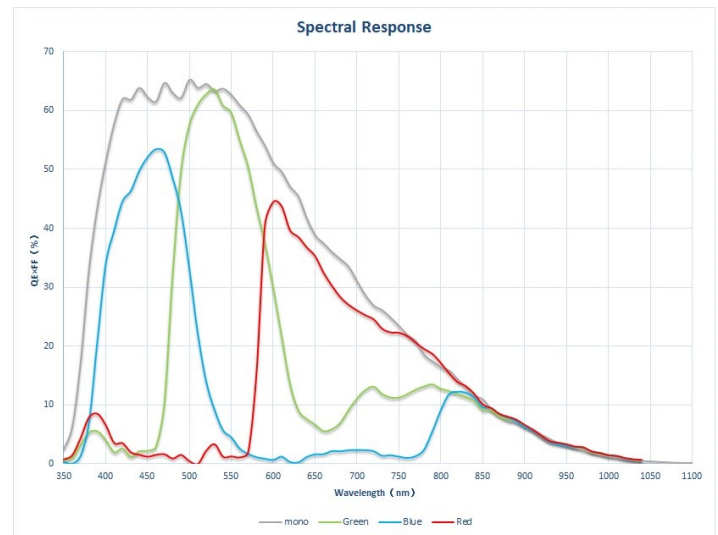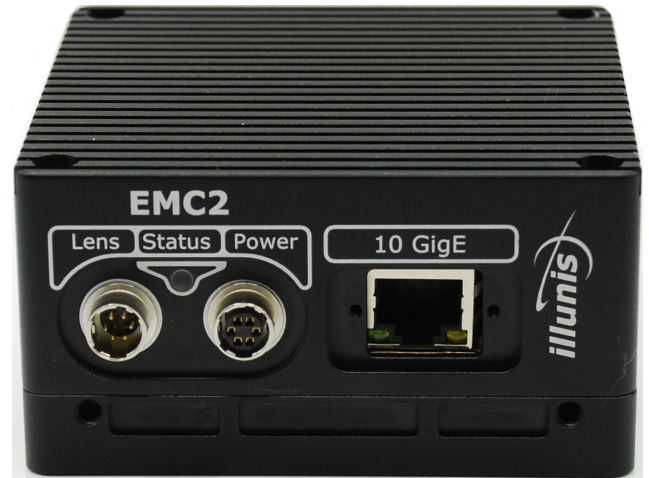- Optical Black Clamp

EMC2-152 Specifications

Sensor	Gpixel GMAX32152 Mono, Bayer Color
Architecture	**Global Shutter CMOS** Charge Domain Pixel
Configuration	Progressive scan
Active pixels	16,556 (H) x 9,200 (V), 152Mpix
Pixel	3.2 x 3.2 µm with CDS
Active image size	53.0 x 29.4 mm (Medium Format)
Outputs	14 lvds outputs from sensor. Digitized 12bits, Output 8/10/12bits
Camera Link Frame rates	4.0 fps: Full 8/8bit, Deca 8x10bit 2.0 fps: Medium, 12/10/8 bits 1.0 fps: Base 12/10/8 bits
10GigE Frame rates	4.2 fps 12 bits
Dynamic range	65dB @ gain x 1.25
Pixel Clock speed	Up to 50Mhz, 14 channels
Full well charge	9,300e @ gain x1.4
Global shutter	Min exposure TBD PLS < -83.5dB (1/15,000)
Dark Noise	1.4e/s
Peak QE	66.9% (with µ-Lens)
Power	7-12VDC at up to 9W Reverse power protected
Exposure modes	Free Run, Triggered Program, Triggered Pulse Width
Mount options	OEM or M72 mount
Defect Correction Built In	Pixel, Hot Pixel, Shading
Options	OEM Module, TEC Cooler
Operating Temperature	0 to +70 C (TBC)

Software

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

Configurations

Spectral Response

Applications

Aerial Imaging
LCD/FPD Inspection
   Greater than 8K FPD resolution
Biometric and DNA Sequencing
Document Scanning
Scientific Imaging
Security Applications
Persistent Surveillance
PCB Inspection

illunis specializes in custom OEM camera designs

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