

EMV-103 CL

Global Shutter CMOS

11,276 x 9,200 3.2um pixels Full Frame Format



The **EMC-103** is a lightweight CMOS digital camera with an astounding 103 million pixels! That is 50x the resolution of Full HD. The EMC-103 is available in color, and mono versions and is designed for use in industrial machine vision, aerial imaging, and document imaging applications.

The **EMC-103** offers outstanding quality by using the GPIXEL GMAX32103 CMOS sensor. The image sensor has 14 digital outputs each running up to 50Mhz. This results in 6.5 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).

The **EMC-103** 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-103 Highlights:

- 11,276 x 9,200 = 103M pixels with 3.2um pixel (including optical black)
- Charge Domain Global Shutter CMOS Pixel Technology with light pipe.
- 36.1 x 29.4 mm imaging area ~ 35mm Full Frame
- approx. 210 grams without lens mount
- Monochrome, and RGB Bayer versions
- Dynamic range 65dB, FWC = 9.5Ke
- Windowing ROI capability
- Field-updatable firmware and extensive Built In Test (BIT)
- Camera Link output: Medium, Full (8Bbit) and Deca (80bit 8x10)
- F-Mount, C-Mount, M58, other lens mounts available
- OEM module available
- All Sensor features supported

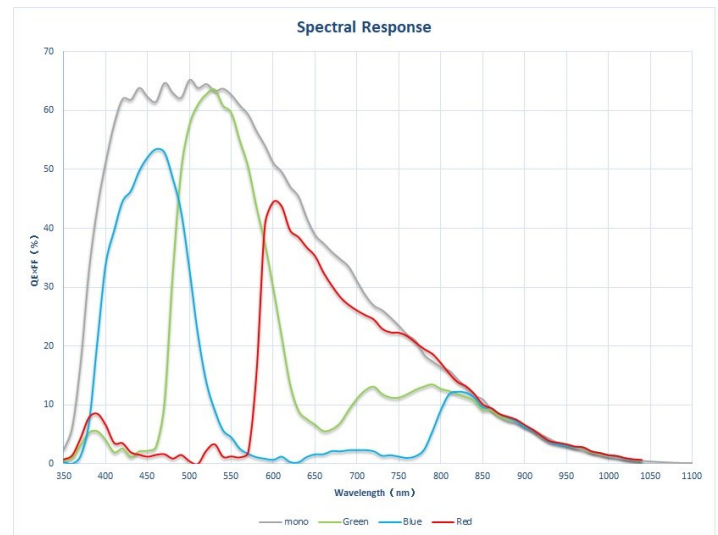
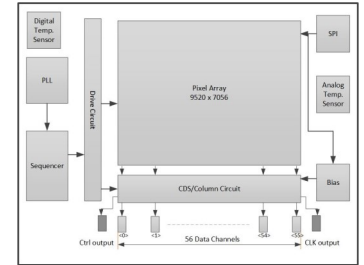
EMC-103 Specifications

Sensor	Gpixel GMAX32103 Mono, Bayer Color
Architecture	Global Shutter CMOS Charge Domain Pixel
Configuration	Progressive scan
Active pixels	11,276 (H) x 9,200 (V), 103Mpix
Pixel	3.2 x 3.2 μm with CDS
Active image size	36.1 x 29.4 mm (35mm)
Outputs	14 lvds outputs from sensor. Digitized 12bits, Output 8/10/12bits
Frame rates (Camera link limited)	6.5 fps: Full 8/8bit, Deca 8x10bit 3.0fps: Medium, 12/10/8 bits 1.5fps: Base, 12/10/8 bits
Dynamic range	65dB @ gain x 1.25
Pixel Clock speed	50Mhz, 14 channels
Full well charge	9,500e @ gain x0.75
Global shutter	Min exposure TBD PLS < -83.5dB (1/15,000)
Dark Noise	5.3e/s
Peak QE	65.3%
Power	7-12VDC at 6W Reverse power protected
Exposure modes	Free Run, Triggered Program, Triggered Pulse Width
Mount options	F-mount, Canon-Mount, M#, OEM configuration Mamiya/Phase1
Defect Correction Built In	Pixel, Hot Pixel, Shading
Options	OEM Module, TEC Cooler USB3. NBaseT5G
Operating Temperature	0 to +70 C (TBD)

Software

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

Configurations



Applications

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

illunis specializes in custom OEM camera designs

illunis, LLC
14700 Excelsior Blvd.
Minnetonka, MN 55345
USA

Phone: 952.975.9203
Fax: 952.294.8308
email: info@illunis.com
web: www.illunis.com

