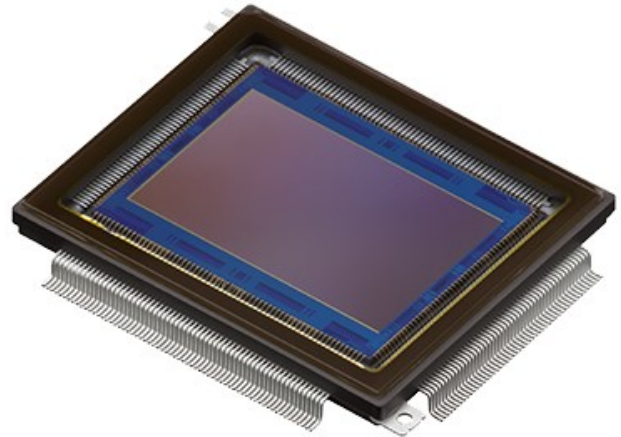# CMV-250 CL
Rolling Shutter CMOS

19,568 x 12,588 1.5um pixels APS-H Format
Shown with Canon EF mount

illunis

The **CMV-250** is a CMOS digital camera with an astounding 246 million effective pixels!   That is 125x the resolution of Full HD. The CMV-250 is available in color and mono versions and is designed for use in industrial machine vision, high end surveillance, and document imaging applications.

The **CMV-250** offers outstanding quality by using the Canon LI8020SA CMOS sensor. The image sensor has 16 digital outputs each running at 756 Mhz. This results in 2.4 fps at full resolution. The sensor is operated in 12bit mode witch results in true 10bit data output. (Note 10bit mode is only ~8 bits effective data due to the black offset of the internal ADC operation).

The **CMV-250** camera has all of the illunis "rugged" RMV features, such as high temperature range, military de-rated components, and a CNC machined case. The active (fan) cooling insures minimum dark current and excellent image quality.

CMV-250 CL Highlights:

- 19,568 x 12,588 = 250M pixels (including optical black)
- 1.5um x 1.5um super low noise pixel
- 12bit operation mode results in true 10bit data output (10.5 ENOB performance @ 25C)
- 29.35 x 18.88mm imaging area ~ APS-H
- Monochrome and RGB Bayer versions
- Rolling Shutter CMOS : Dynamic range 63dB
- Field-updatable firmware and extensive Built In Test (BIT)
- Camera Link output: Full (8x8 bit) and Deca (80bit 8x10 bit)
- F-Mount, C-Mount, M#, other lens mounts available
- OEM module available
- Built in test and performance analytics (SNR/Brightness/Sharpness/Optical Black)

CMV-250-CL Specifications

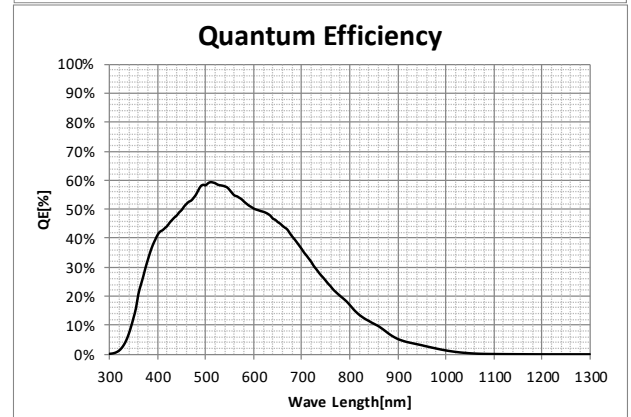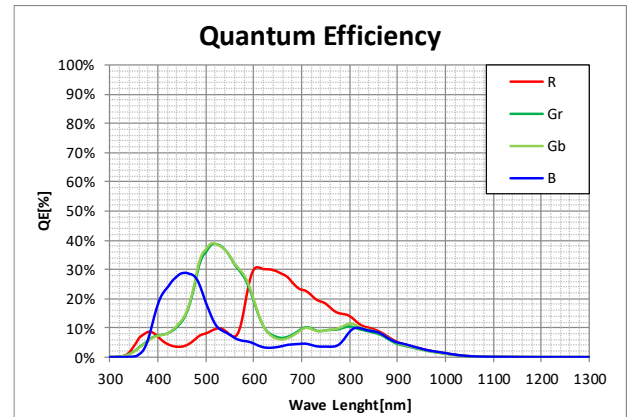|	
Sensor	Canon LI8020SAC/M Bayer Color. Mono
Architecture	**Rolling Shutter CMOS**
Configuration	Progressive scan
Active pixels	19,568 (H) x 12,588 (V), 246 Mpix 250Mpix with optical black
Pixel	1.5 x 1.5 µm with CDS
Active image size	29.35 x 18.88mm (APS-H)
Outputs	16 lvds outputs from sensor. Digitized 12bits, Output 8/10bits
Frame rates (Camera link limited)	2.4: Full 8/8bit 2.4: Deca 8x10bit
Dynamic range	63 dB
Pixel Clock speed	756Mhz DDR (12bit sensor mode)
Full well charge	5,400e
Sensitivity (e/lx/sec)	4,600 (Green), 11,000 (Mono)
Rolling shutter	Min exposure 1ms
Dark Noise	3.8e-rms @ 12 dB
Dark current	0.1e-/s at 0C, 13 e-/s @ 60C
Power	7-12VDC at 6.5W Reverse power protected
Exposure modes	Free Run, Triggered Program, Triggered Pulse Width Max exposure = 65sec
Mount options	Canon-EF Mount, F-mount, M58 OEM configuration
Defect Correction Built In	Pixel, Hot Pixel, Shading
Options Please Call*	OEM Module, Mechanical shutter, 5/10GigE Vision
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.

Performance

Applications

3D metrology
Aerial mapping
Aeronautic imaging
Digital Archiving
Document scanning
Flat panel display inspection
Intelligent traffic systems (ITS)
Machine vision
Medical imaging
Packaging & inspection
Scientific research
Security
Wide area surveillance

illunis specializes in custom OEM camera designs

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