

HIGH RESOLUTION FULL-FORMAT CMOS HIGH SPEED CAMERA



AOI:
PCB Inspection



AUTOMOTIVE
Exterior / Interior Quality



RAILWAY
Obstacle Recognition



FILM SCANNING
Wet and Dry Processing

General

Type	35mm Full Frame CMOS, Global shutter
	Sensor: GPixel GMAX 4651
Free run frame rate, full resolution	24 frames / sec. @ 8 bit / 10 GigE connection
Optical area	38.75 (h) x 27.75 (v) mm – 48mm diag.
Pixel Size	4.6µ, square, CDS, mono and Bayer RGB
Active Pixels	8.424 (h) x 6032 (v)
Read-out modes	1x2*, 2x1*, 2x2*, 4x4*, 8x8* subsampling (mono and color*)

EMVA 1288 Parameters

Absolute Responsivity (mono)	tbm.
Maximum SNR (mono)	tbm.

Sensor parameter

Max. Frame Rate	30 fps. @ 12 bit
SNR	43 dB (134:1)
Full well capacity	18 ke-
Dark noise	7.6 e-@ gain
Dark current	9 e/s @ 50°C, 4e-/s @ 10°C
Dynamic Range	65.8 dB @ gain 3.5x
Quantum Efficiency	67.1% @ 510nm
PLS	1/40.000 / -92dB @ 0°CRA
FPN	<20 e-
PRNU	1.7%
CRA	15°

Pixelpipeline output

mono	8bit, 10bit, 12bit monochrome
color	8bit, 10bit, 12bit, 14bit*, 16bit*
	Bayer RAW / YUV422* / RGB24/30/36*

Gain | Offset

digital	Master Gain (0 .. ~24dB), 48dB Bitshift*
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Exposure

30µs –2s (10µs* - 30s*)

I/O interface

Input, Trigger, Shaft encoder,
TTL, RS422, HTL, dHTL
Output, strobe, 2 open drain, 1 fast TTL

Trigger modes

Single, bulk (burst), level controlled exposure

Exposure modes

Freerun, interleave, single timed and single
trigger level controlled

MV8-D8424-G01-GT

51MP High Resolution Camera with 24fps.

Full Format Global Shutter CMOS Sensor with large 4.6µ square Pixels.

Fast readout with a cost effective standard 10GigE Interface and up to 300m long cables.

Robust Industrie 4.0 design for an excellent total cost of ownership.

Modular design for fast integration in your application

Internal data processing and embedded solutions available.

Ready for Edge FoG, Cloud.

Main Interface

- | 10 GigE, Auto Negotiation*,
- | Backwards compatible to NBase T, 1GigE

Software features

- | GigE Vision 1.2 | 2.2*
- | PTP Precision timing protocol (IEEE1588)*
- | Auto Gain*, Exposure*, White Balance*
- | Single ROI, Multi ROI*, Flip*, Mirror, Sequencer*
- | Readout optical black area*
- | Sensor and camera temperature

Housing

- | Lens Mount M58 x 0.75, adjustable back flange*
- | Dimensions Front 80 mm x 80 mm x < 120mm
- | Mounting 4x M5
- | Weight: 885g (31.22 Ounces), 235h without housing (8.2 Ounces)
- | Mono: Protection glass | Color: IR Cut @ 660nm

Power

- | 12 – 24V ± 10%, ~ 19W, 17 Pin M12
- | PoE 802.3af Class 4 (25W)

Temperature

- | Operating 0 to 45°C Surrounding (*Extended temp.)
- | Storage -20 to 70°C Surrounding

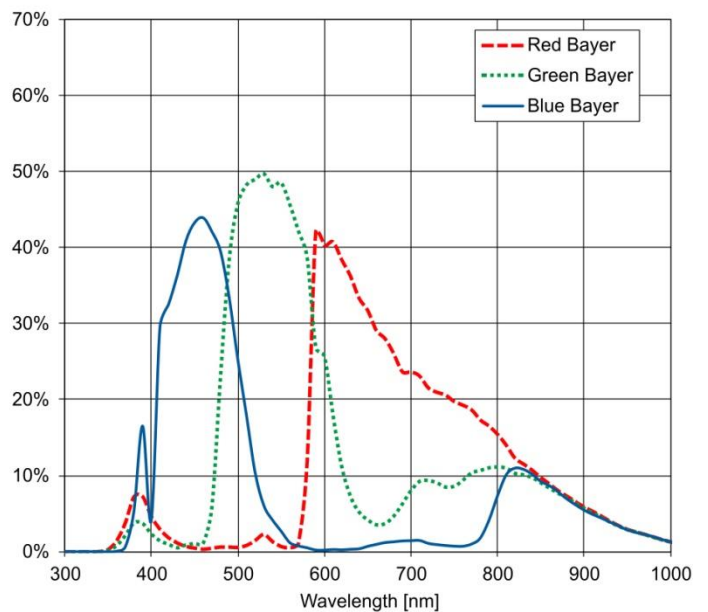
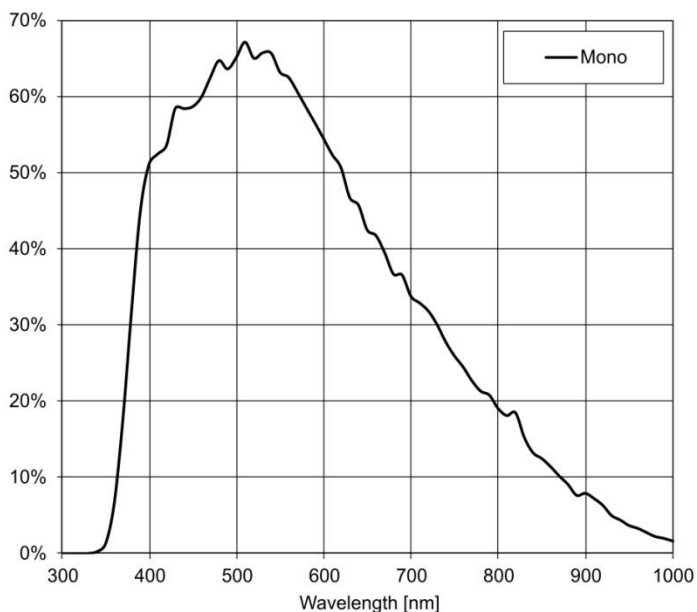
Humidity

- | 20 – 80% Non-condensing

Regulations

- | CE Class A (B*), FCC Class A (B*), RoHS, UL, WEEE

Quantum Efficiency vs. Wavelength (Typical Spectral response) – Ta = 25°C



*On demand / customer project

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This specification may change without notice