

MV8-D8424-G01-GT

The MV8 CMOS camera series was developed for advanced machine vision applications, motion analysis and demanding applications of optical metrology.

Features

- Gpixel GMAX4651 CMOS image sensor
- 8424 x 6032 pixel resolution
- 24fps
- Global shutter
- Extended sensor and camera features
- 4x Isolated inputs or shaft encoder
- 3x Isolated outputs
- GigEVision interface
- PoE (Power Over Ethernet) (IEEE 802.3bt standard Class 4) or Wall adapter (+12VDC (-10%) ... +24VDC (+10%))



Quantum Efficiency Image Sensor

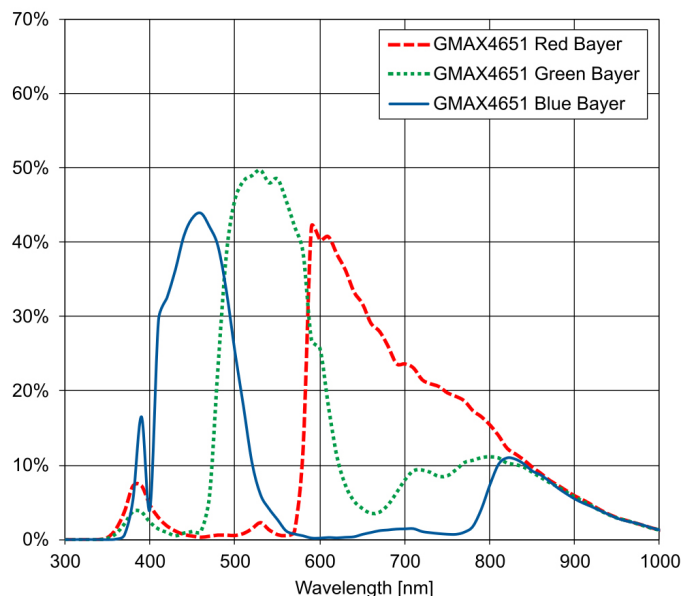
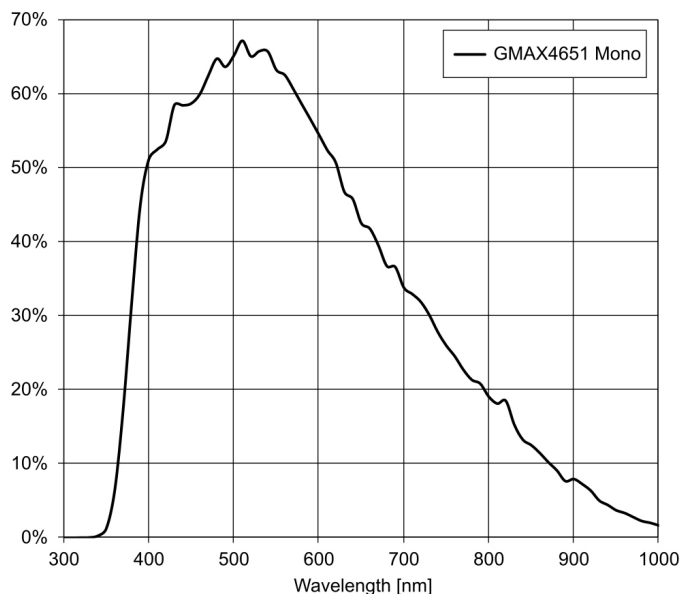


Image Sensor Specifications

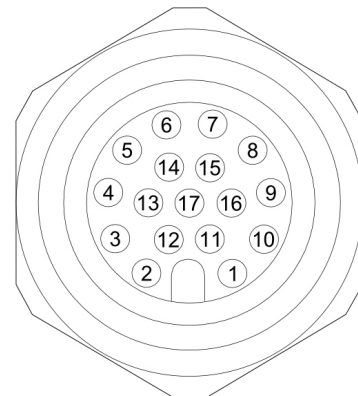
Manufacturer / Type	Gpixel, GMAX4651
Technology	CMOS
Optical format	35mm
Optical diagonal	47.7mm
Resolution	8424 x 6032
Pixel size	4.6µm x 4.6µm
Active optical area	38.75mm x 27.75mm
Dark current	6e-/s
Read out noise	7.6e-
Full well capacity / SNR	18 ke- / 134:1
Spectral range	Monochrome: 360 to 920nm (to 10% peak sensitivity)
Responsivity	Monochrome: 500 x 103 DN / (J/m ²) @ 510nm / 8bit
Quantum Efficiency	Monochrome: < 67%
Optical fill factor	n/a
Dynamic range	66dB
Characteristic curve	Linear
Shutter mode	Global shutter

Camera Specifications

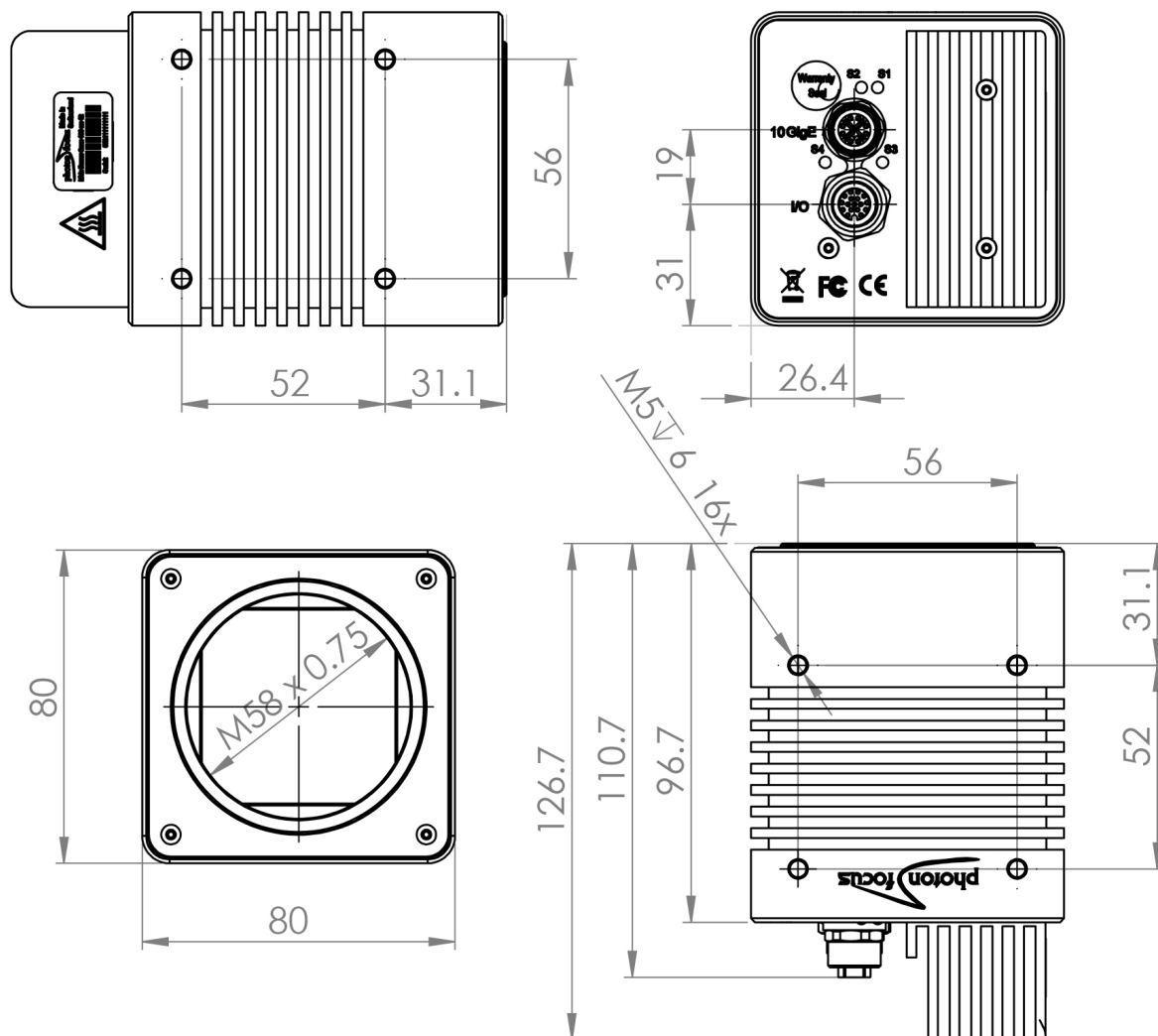
Interface	10GigE
Frame rate	24fps
Pixel clock	n/a
Camera taps	n/a
Greyscale resolution	8, 10 and 12 Bit
Fixed pattern noise (FPN)	< 1DN RMS @ 8Bit
Exposure time range	15.9µm - 466ms
Analog gain	yes
Digital gain	0.1 to 15.99 (FineGain)
Trigger Modes	Free running (non triggered), external Trigger, SWTrigger, Encoder
Features	Linear Mode, Configurable region of interest (ROI), up to 16 MROI, Two crosshairs overlays for measurements and adjustments, Temperature monitoring of camera, Low trigger delay and low trigger jitter, Extended trigger input and strobe output functionality, 4x Isolated inputs or shaft encoder A, B, Z, Y interface (RS422, TTL, D-HTL, HTL), 3x Isolated outputs (2x open drain, 1x TTL highspeed)
Operation temperature / moisture	0°C ... 50°C / 20 ... 80%
Storage temperature / moisture	-25°C ... 60°C / 20 ... 95%
Power supply	PoE (IEEE 802.3bt standard Class 4) or Wall adapter (+12VDC (-10%) ... +24VDC (+10%))
Power consumption	<18W
Lens mount	M58
I/O Inputs	4x Isolated inputs or shaft encoder A, B, Z, Y interface (RS422, TTL, D-HTL, HTL)
I/O Outputs	3x Isolated outputs (2x open drain, 1x TTL highspeed)
Dimensions	80 x 80 x 126.7mm ³
Mass	890g
Connector I/O (Power)	17-pol. M12
Connector Interface	X-coded M12
Conformity	CE / RoHS / WEEE
IP Code	IP40

Connectors

Pin	I/O Type	Name	Description
1	PWR	CAMERA_GND	Camera GND, 0V
2	PWR	CAMERA_PWR	Camera Power
3	I	ISO_INC0_P / ISO_IN0	Isolated RS422/HTL positive differential or Isolated TTL/HTL single ended input
4	I	ISO_INC0_N / ISO_GND	Isolated RS422/HTL negativ differential input or ground
5	I	ISO_INC1_P / ISO_IN1	Isolated RS422/HTL positive differential or Isolated TTL/HTL single ended input
6	I	ISO_INC1_N / ISO_GND	Isolated RS422/HTL negativ differential input or ground
7	I	ISO_INC2_P / ISO_IN2	Isolated RS422/HTL positive differential or Isolated TTL/HTL single ended input
8	I	ISO_INC2_N / ISO_GND	Isolated RS422/HTL negativ differential input or ground
9	I	ISO_IN3	Isolated TTL input
10	O	ISO_OUT2	Isolated TTL output
11	PWR	CAMERA_GND	Camera GND, 0V
12	PWR	CAMERA_PWR	Camera Power
13	O	ISO_OUT0	Isolated open drain output
14	O	ISO_OUT1	Isolated open drain output
15	IO	RS485_DATA_P	RS485 interface data positive polarity
16	IO	RS485_DATA_N	RS485 interface data negative polarity
17	PWR	ISO_GND	Isolated I/O GND



Dimensions



Explanation

DN DigitalNumber (equals to LSB)

e⁻ Electrons

Order Information

MV8-D8424-G01-GT	BW model
MV8-D8424C-G01-GT	Color model

Compatibility



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