

VP-50MX-M/C 30

50 Megapixel Thermoelectric Peltier Cooled Camera



CoaXPress®

The VP-50MX, the latest member of the industrial proven VP series, is a 50 megapixel resolution CMOS camera with the CoaXPress interface. The VP-50MX uses the latest 50 megapixel CMOS image sensor (CMV50000) technology from AMS CMOSIS, and offers up to 30.9 frames per second at 7920 × 6004 resolution. This camera uses thermo-electric Peltier (TEC) cooling technology developed for, and used by, many demanding medical market customers. The TEC maintains the operating temperature of the CMOS image sensor at up to about 12 degrees below ambient temperature. This camera provides a stable operating condition or the ability to expose for a long period of time to increase camera sensitivity. Featuring the stable operating capability and high resolution, this camera is ideal for demanding applications such as FPD, PCB and semiconductor inspections.

VIEWWORKS

www.viewworks.com

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Main Features

- 50 Megapixel Resolution (AMS CMOSIS)
- Thermoelectric Peltier Cooled
 - about 12°C below ambient temperature
- Minimizing the number of hot pixels with TEC
- CoaXPress Interface up to 30 fps at 25 Gbps using 4 CH
- Defective Pixel Correction
- Flat Field Correction
- DSNU and PRNU Correction

Applications

- Flat Panel Display Inspection
- PCB Inspection
- Machine Vision Inspection
- Microscopy and Metrology

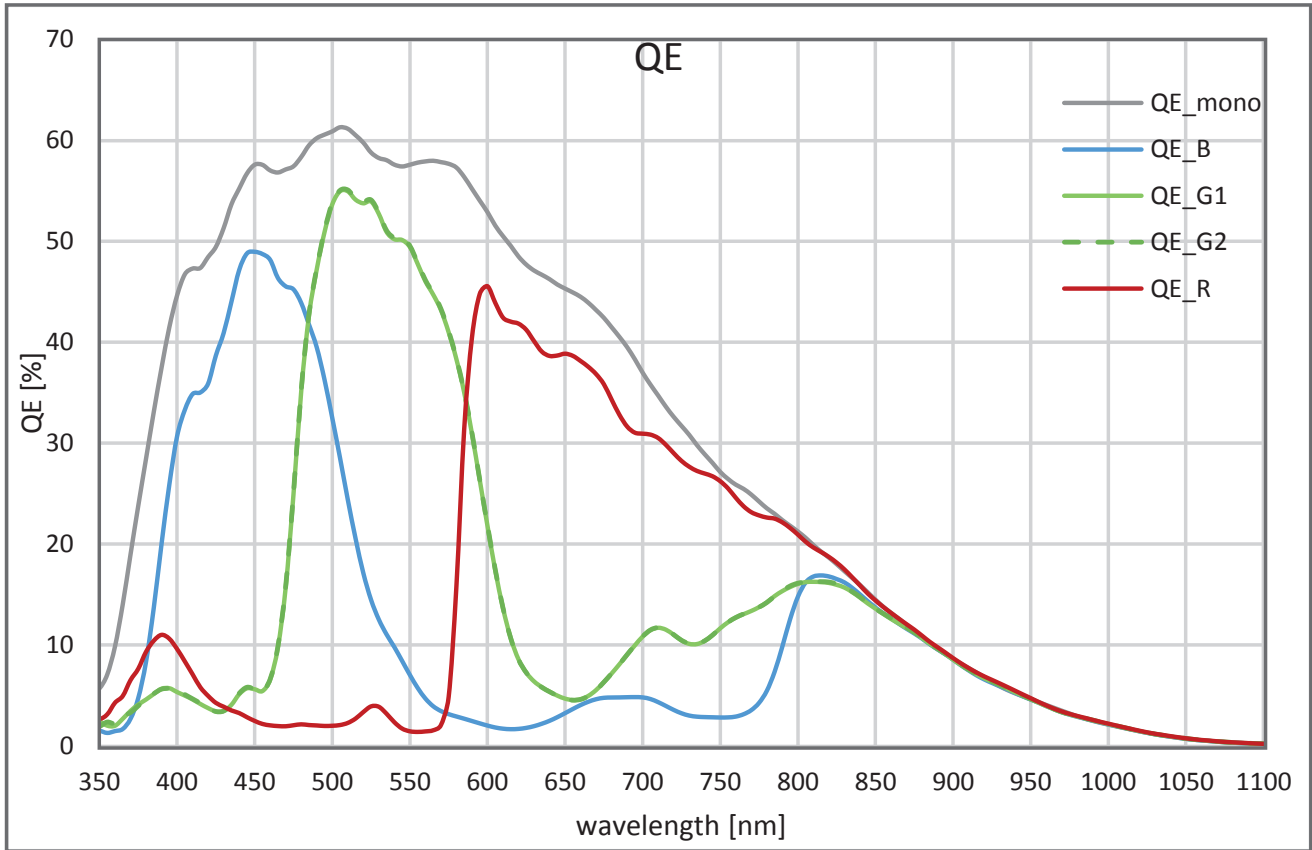
Specifications

Model	VP-50MX-M/C 30	
Resolution (H × V)	7920 × 6004	
Sensor	AMS CMOSIS CMV 50000	
Sensor Size (Diagonal)	35 mm (45.72 mm)	
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	4.6 μm × 4.6 μm	
Interface	CoaXPress	
Max. Frame Rate	1 CH	7.7 fps @ 6.25 Gbps
	2 CH	15.5 fps @ 6.25 Gbps
	4 CH	30.9 fps @ 6.25 Gbps
Exposure Time (1 μs step)	1 μs – 60 s	
Partial Scan (Max. Speed)	3968 fps at 4 Lines	
Pixel Data Format	Mono	Mono 8 / Mono 10 / Mono 12
	Color	BG Bayer 8 / BG Bayer 10 / BG Bayer 12
Electronic Shutter	Global Shutter	
Trigger Synchronization	Free-Run, Hardware Trigger, Software Trigger or CXP	
External Trigger	3.3 V ~ 24.0 V, 10 mA, Logical Level Input, Optically Isolated	
Software Trigger	Asynchronous, Programmable via Camera API	
Dynamic Range	64 dB	
Gain Control	1 × ~ 30 × (1/1024 step)	
Black Level Control	0 ~ 256 LSB at 12 bit (1 LSB step)	
Cooling Method	Thermoelectric Peltier Cooling	
Cooling Performance	12°C below ambient temperature – Standard cooling with a fan	
Dimension / Weight	90 mm × 90 mm × 146 mm, 1,400 g (with F-mount)	
Temperature	Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C	
Lens Mount	F-mount, Custom mount available upon request	
Vibration / Shock	3G (20 ~ 200 Hz) XYZ / 10G 6 ms	
Power	External	10 ~ 24 V DC
	Dissipation	Typ. 24.0 W
Compliance	CE, FCC, KC	
API SDK	Vieworks Imaging Solution 7.X	

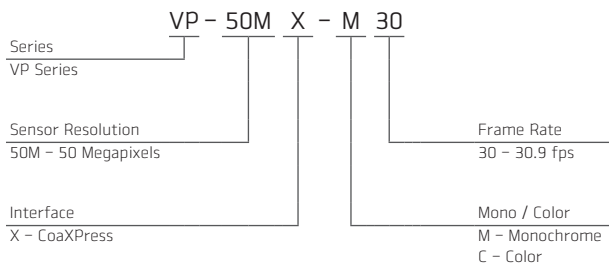
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Spectral Response

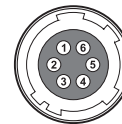


Ordering Scheme



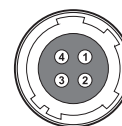
Connector Specification

Power



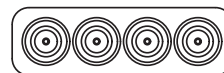
1, 2, 3: +12V DC
4, 5, 6: GND
(HR10A-7R-6PB)

Control



1: Trigger IN+
2: Trigger IN-
3: Strobe Out-(GND)
4: Strobe Out+
(HR10A-7R-4S)

Data Transfer / Communications



CH1 CH2 CH3 CH4

CH1: Master Connection
75 Ω, DIN 1.0/2.3

Connectors on camera body

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Mechanical Dimensions

Unit: mm

