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# VP-50MX

50 MEGAPIXEL THERMOELECTRIC PELTIER COOLED CAMERA



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. Featured with the stable operating capability and high resolution, this camera is ideal for demanding applications such as FPD, PCB and semiconductor inspections.

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## Main Features

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

## Applications

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

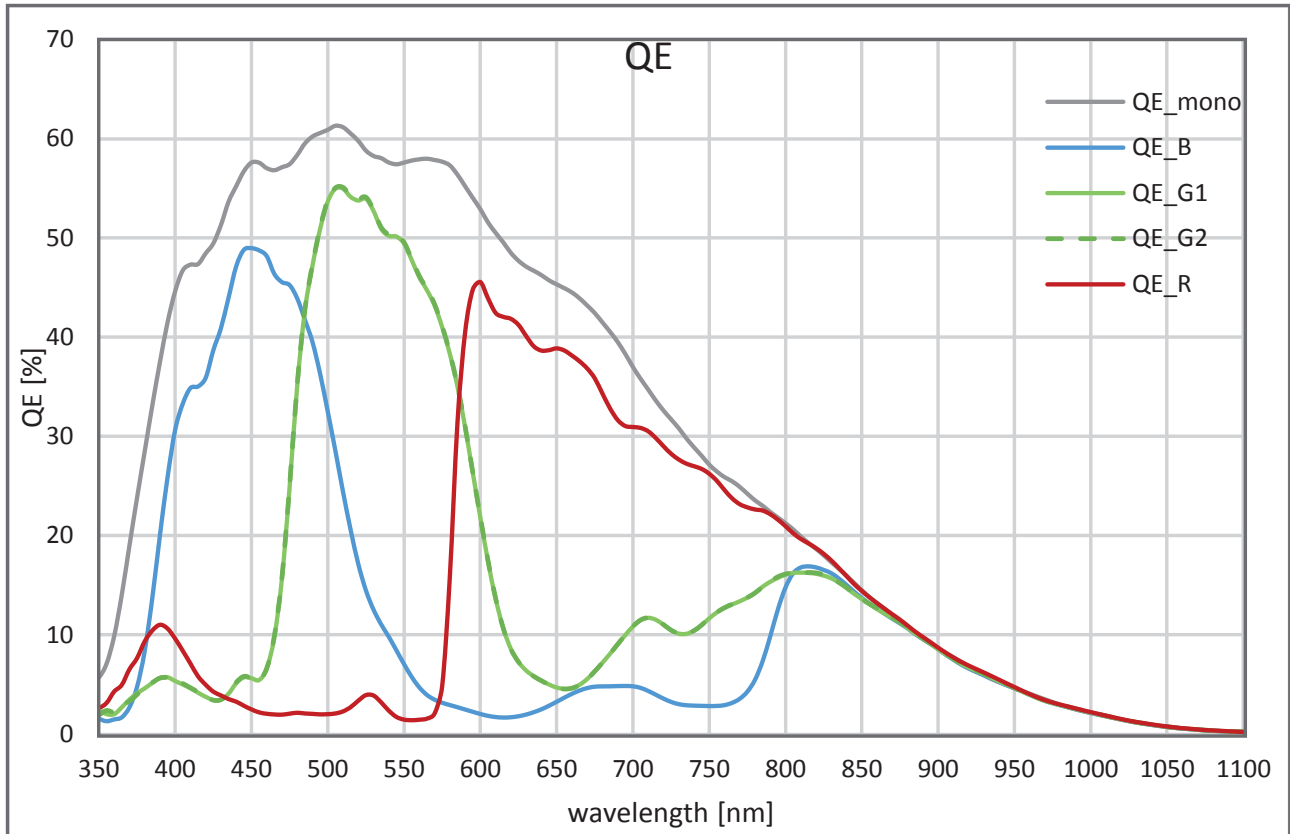
## Specifications

Model	VP-50MX-M/C 30		
Resolution (H × V)	7920 × 6004		
Sensor	AMS CMOSIS CMV 50000		
Sensor Size (Optical 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	1CH: 7.7 fps @ 6.25 Gbps	2CH: 15.5 fps @ 6.25 Gbps	4CH: 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		
Exposure Mode	Free-Run, Timed and Trigger Width		
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		
Temperature	Operating: -5°C ~ 40°C, Storage: -40°C ~ 70°C		
Vibration / Shock	3G (20 ~ 200 Hz) XYZ / 10G 6 ms		
Lens Mount	F-mount, Custom mount available upon request		
Power	External	10 ~ 24 V DC, Typ. 24.0 W	
	PoCXP	Not supported	
Compliance	CE, FCC, KC		
API SDK	Viewworks Imaging Solution 7.X		

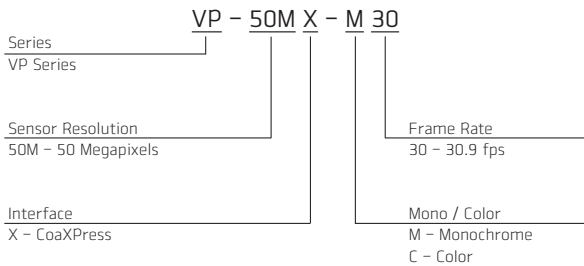
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50 MEGAPIXEL THERMOELECTRIC PELTIER COOLED CAMERA

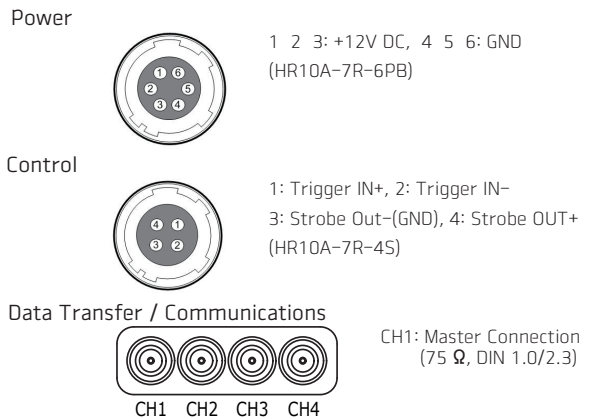
## Quantum Efficiency Curves



## Ordering Scheme



## Connector Specification



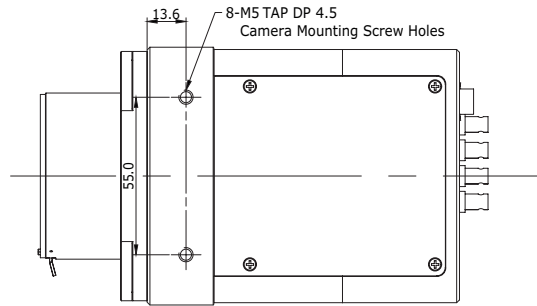
Connectors on camera body

# VP-50MX

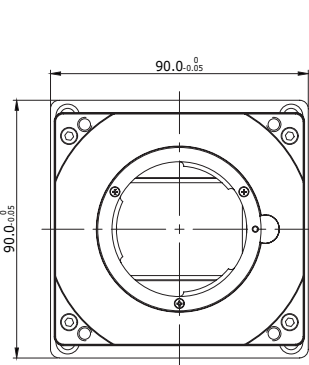
50 MEGA PIXEL THERMOELECTRIC PELTIER COOLED CAMERA

## Mechanical Dimensions

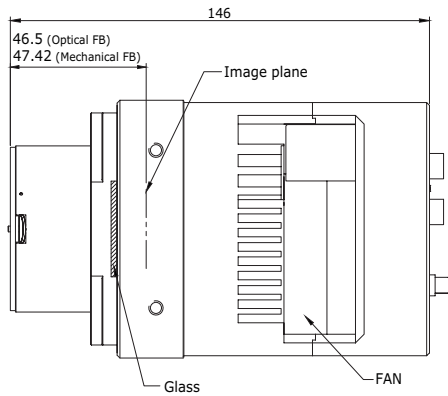
Unit: mm



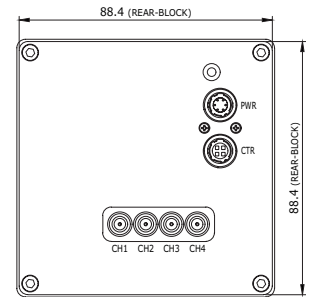
<Top View>



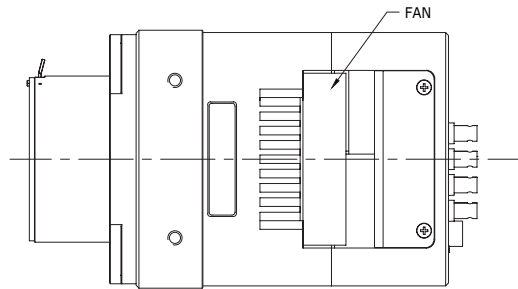
<Front View>



<Side View>



<Back View>



<Bottom View>

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