

# VX-25MG-M 5

Aerial Imaging / Surveillance Camera



The VX-25MG-5 camera is ideal for aerial imaging and ground surveillance applications which require Photographic Quality resolution and easy-to-use system integration. The VX-25MG-5, the new member of the VX series, uses the industrial proven CMOS image sensor technology and performs as fast as 5 fps with 25 million pixel resolution. Taking pictures with this camera is made easy with features such as; auto exposure, auto gain, auto focus, lens aperture control, and several innovative features to manage network bandwidth when connecting multiple cameras together on a gigabit Ethernet network.

**VIEWORKS**

[www.vieworks.com](http://www.vieworks.com)

# VX-25MG-M 5

Aerial Imaging / Surveillance Camera

## Main Features

- 25 Megapixel Resolution (ON Semiconductor)
- Extended Operating Temperature: -50°C ~ 80°C
- Auto Controls (Exposure, Gain, Aperture, Focus)
- Canon-EF Adapter Control
- Pixel Defect Correction
- Non-uniformity Correction (DSNU and PRNU)
- IEEE 802.3 (Pause Frame Control) and Inter-packet Delay
- Internal Frame Buffer
- Stream Hold

## Applications

- Aerial Imaging
- Ground Surveillance
- Research and Scientific Imaging

## Specifications

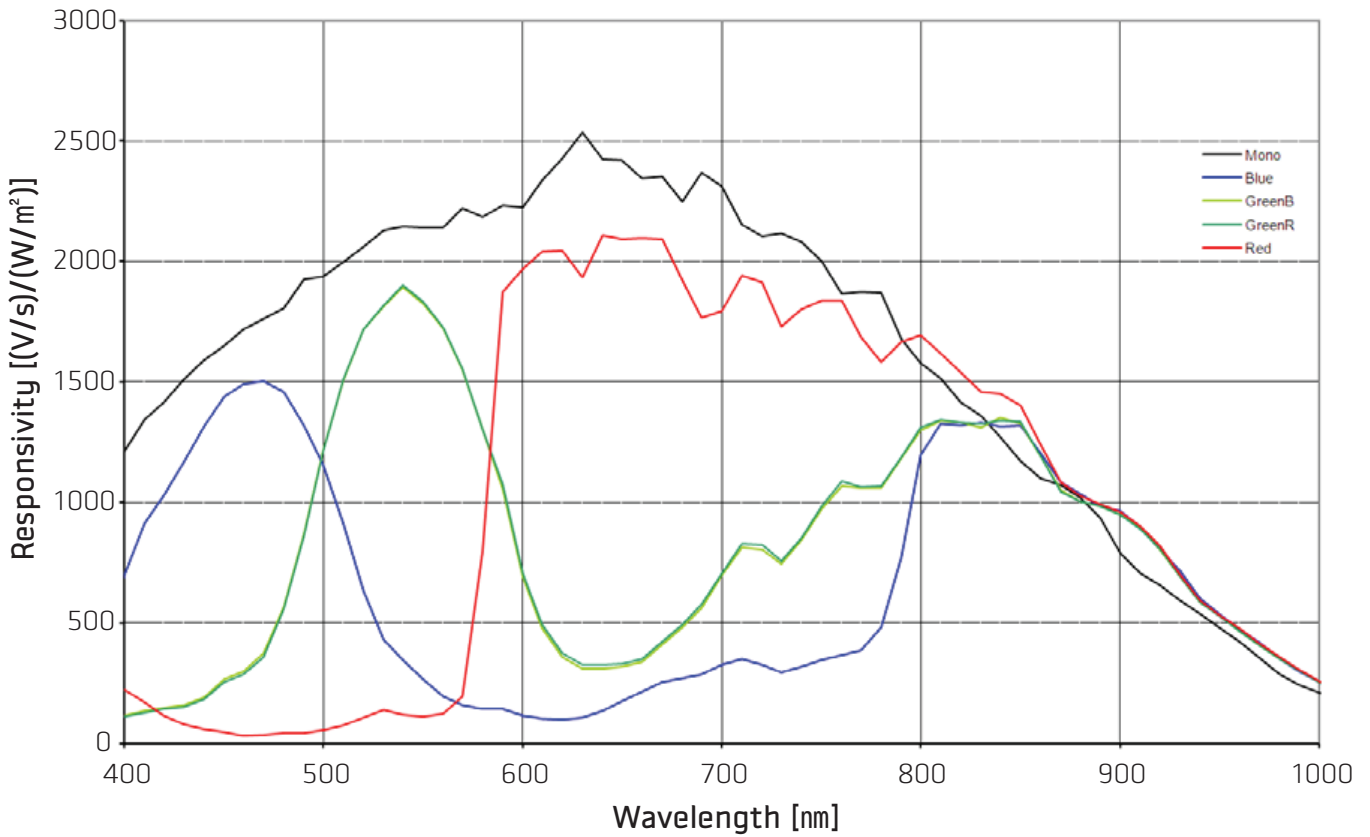
Model	VX-25MG-M 5	
Resolution (H × V)	5120 × 5120	
Sensor	ON Semiconductor VITA-25K	
Sensor Size (Optical Format)	23.04 mm × 23.04 mm (35 mm)	
Sensor Type	High Speed CMOS Image Sensor	
Pixel Size	4.5 μm × 4.5 μm	
Sensor Output	32 CH LVDS	
Interface	Gigabit Ethernet	
Max. Frame Rate	4.7 fps / 25 fps (Burst Mode)	
Exposure Time	1/1,000,000 – 60 s	
Partial Scan (Max. Speed)	13,888 fps at 1 Line (H: 256)	
Pixel Data Format	8 bit	
Electronic Shutter	Global Shutter	
Trigger Synchronization	Free-Run, Hardware Trigger or Software Trigger	
Dynamic Range	54 dB	
Binning	1 ×, 2 × (Horizontal and Vertical Independent)	
Black Level Control	0 ~ 16 LSB (16 steps)	
Gain Control	Digital Gain: 1.0 × ~ 4.0 × (1/128 step)	
Camera Image Memory	2 Gb	
Dimension / Weight	68 mm × 68 mm × 80 mm / 420 g (with F-mount) 68 mm × 68 mm × 77 mm / 578 g (with Canon-EF Adapter)	
Temperature	Operating: -50°C ~ 80°C, Storage: -50°C ~ 90°C	
Vibration / Shock	10G (20 ~ 200 Hz) XYZ / 70G 10 ms	
Lens Mount	F-mount or Interface for Canon-EF Adapter	
Power	External	10 ~ 36 V DC
	Dissipation	Typ. 7.5 W
Compliance	CE, FCC, KC	
API SDK	Vieworks Imaging Solution 7.X	

# VX-25MG-M 5

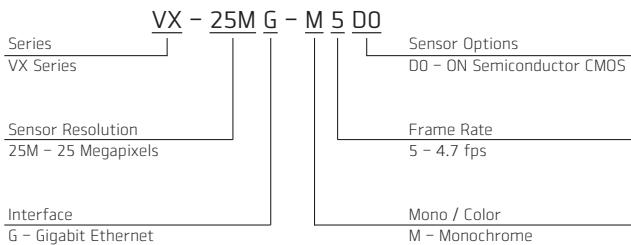
Aerial Imaging / Surveillance Camera

## Quantum Efficiency

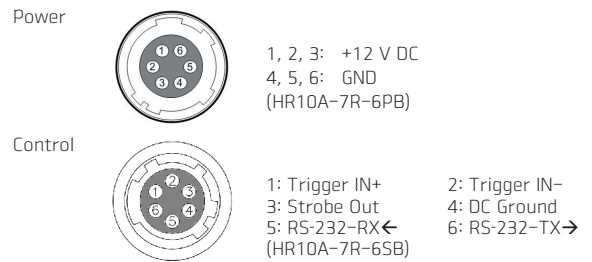
VX-25MG



## Ordering Scheme



## Connector Specification



Connectors on camera body

# VX-25MG-M 5

Aerial Imaging / Surveillance Camera

For more information please contact:



## BOCK OPTRONICS INC.

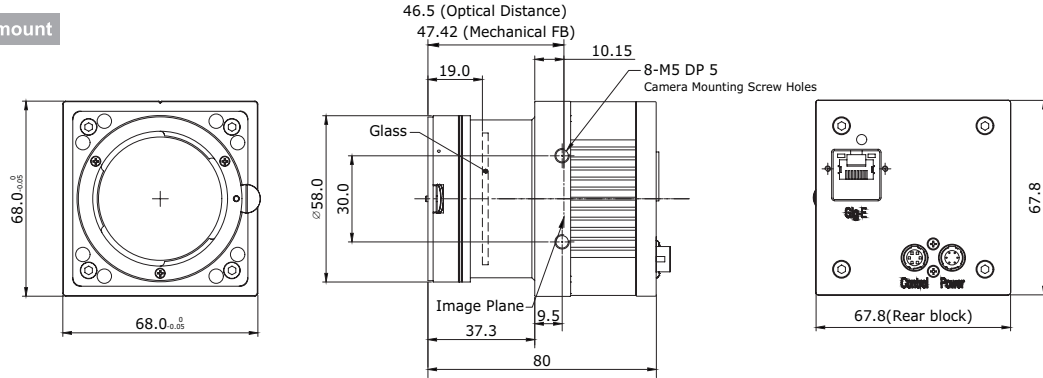
14 Steinway Blvd., Unit 7  
Toronto, Ontario M9W 6M6

Tel: (416) 674-2804  
[sales@bockoptronics.ca](mailto:sales@bockoptronics.ca)  
[www.bockoptronics.ca](http://www.bockoptronics.ca)

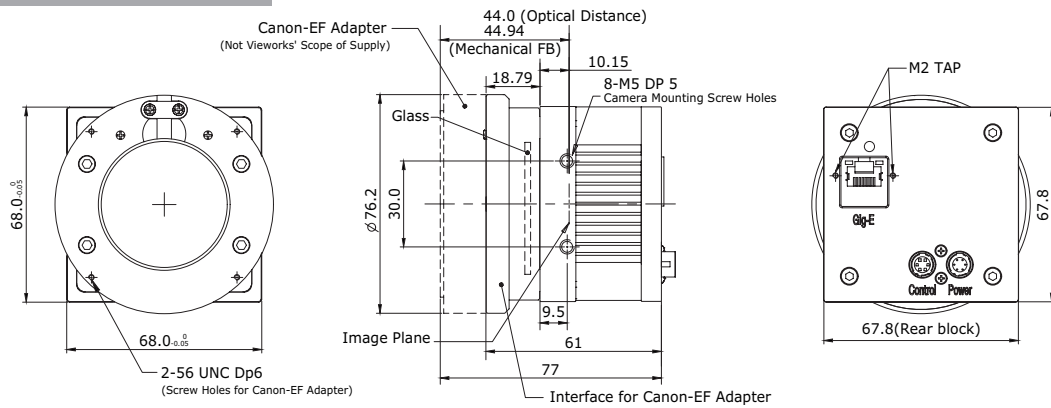
## Mechanical Dimensions

Unit: mm

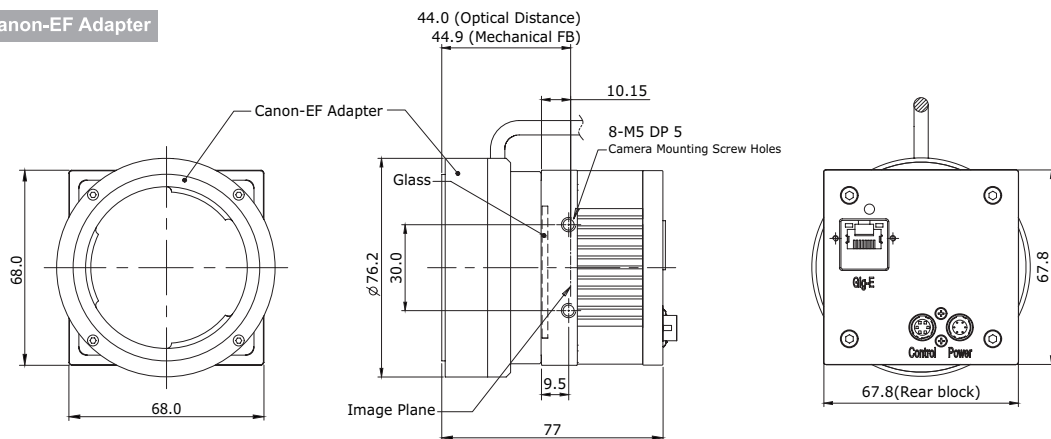
### VX-25MG F-mount



### VX-25MG Interface for Canon-EF Adapter



### VX-25MG Canon-EF Adapter



\*. Vieworks does not provide a Canon-EF Adapter (Birger Mount).

# VX-29MG-M/C 2

Aerial Imaging / Surveillance Camera



**GIG**  
VISION

The VX Series cameras are ideal for aerial imaging and ground surveillance applications which require Photographic Quality resolution and easy-to-use system integration. The VX-29M camera incorporates a 29 million pixel interline transfer CCD with resolution of 6,576 × 4,384. Taking pictures with this camera is made easy with features such as: auto exposure, auto gain, auto focus, lens aperture control, and several innovative features to manage network bandwidth when connecting multiple cameras together on a Gigabit Ethernet network.

**VIEWWORKS**

[www.vieworks.com](http://www.vieworks.com)

# VX-29MG-M/C 2

Aerial Imaging / Surveillance Camera

## Main Features

- Extended Operating Temperature: -40°C ~ 85°C
- Auto Controls (Exposure, Gain, Aperture, Focus)
- Canon-EF Adapter Control
- Smear Correction
- Flexible Binning
- Internal Frame Buffer
- IEEE 802.3 (Pause Frame Control) and Inter-packet delay
- User Adjustable Back Focus
- Excellent Anti-blooming and Anti-smear

## Applications

- Aerial Imaging
- Ground Surveillance
- Research and Scientific Imaging

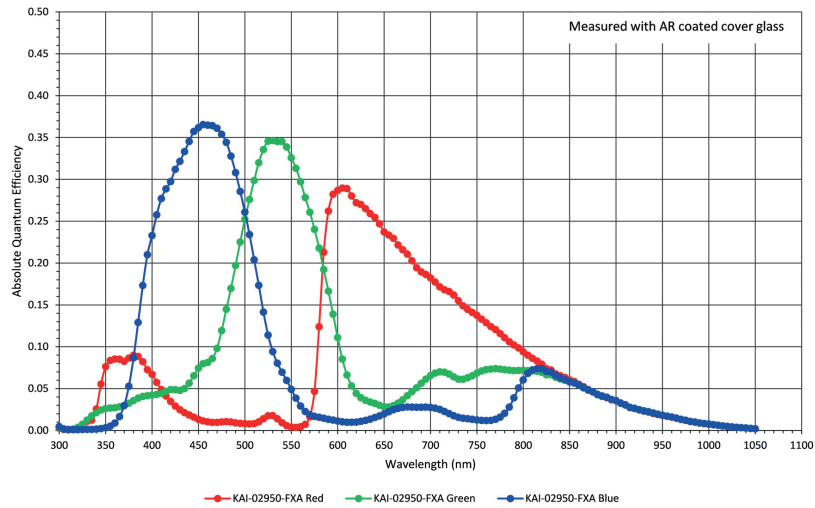
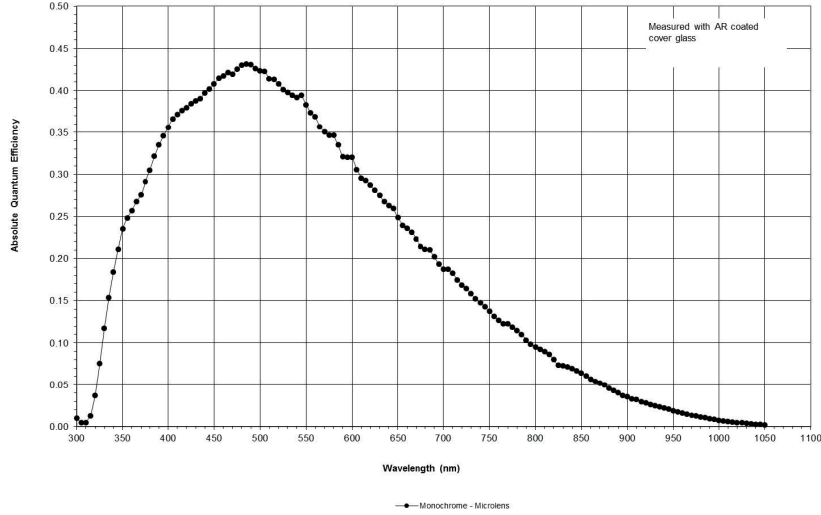
## Specifications

Model	VX-29MG-M/C 2	
Resolution (H × V)	6576 × 4384, 28.8M	
Sensor	ON Semiconductor KAI-29050	
Sensor Size (Optical Format)	35 mm	
Sensor Type	Progressive Scan Interline Transfer CCD	
Pixel Size	5.5 μm × 5.5 μm	
Sensor Output	1 or 2 Tap	
Interface	Gigabit Ethernet	
Max. Frame Rate (40 MHz)	2.3 fps (2 Tap) / 1.2 fps (1 Tap)	
Exposure Time	23/1,000,000 - 7 s	
Partial Scan (Max. Speed)	8.8 fps at 500 Lines	
Pixel Data Format	8 / 10 / 12 bit	
Output Format	Mono	Mono8, Mono10, Mono10 packed, Mono12, Mono12 packed
	Color	Bayer8, Bayer10, Bayer10 packed, Bayer12, Bayer12 packed
Electronic Shutter	Global Shutter	
Data Output Pixel Clock	30/40 MHz	
Exposure Mode	Timed Exposure, Trigger Width Exposure, Double Exposure	
Dynamic Range	64 dB	
Binning	×1, ×2, ×3, ×4, ×8 (Horizontal and Vertical Independent)	
Smear	-100 dB (Enhanced Correction Supported)	
Lookup Table	G = 1.0, Knee Control - User Defined Lookup Table (LUT)	
Black Level	Adjustable (0 ~ 127 LSB at 12 bit, 256 steps)	
Analog Gain	×1 ~ ×40 (0 ~ 32 dB)	
Digital Gain	×1 ~ ×64 (1/1024 step)	
Dimension / Weight	74 mm × 65 mm × 103 mm, 550 g (with F-mount) 74 mm × 65 mm × 101 mm, 550 g (with Canon -EF Adapter)	
Temperature	Operating: -40°C ~ 85°C, Storage: -40°C ~ 90°C	
Vibration / Shock	10G (20 ~ 200 Hz) XYZ / 70G 10 ms	
Lens Mount	F-mount or Interface for Canon-EF Adapter	
Power	10~15 V DC, Typ. 8 W	
API SDK	Vieworks Imaging Solution 6.X or above	

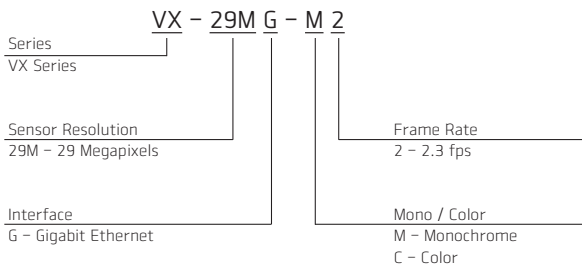
# VX-29MG-M/C 2

Aerial Imaging / Surveillance Camera

## Quantum Efficiency Curves



## Ordering Scheme



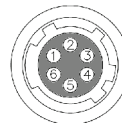
## Connector Specification

Power



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

Control



1: Trigger IN+  
2: Trigger IN-  
3: Strobe OUT  
4: DC Ground  
5: RS-232 RX←  
6: RS-232 TX→  
(HR10A-7R-6SB)

Connectors on camera body

# VX-29MG-M/C 2

Aerial Imaging / Surveillance Camera

For more information please contact:



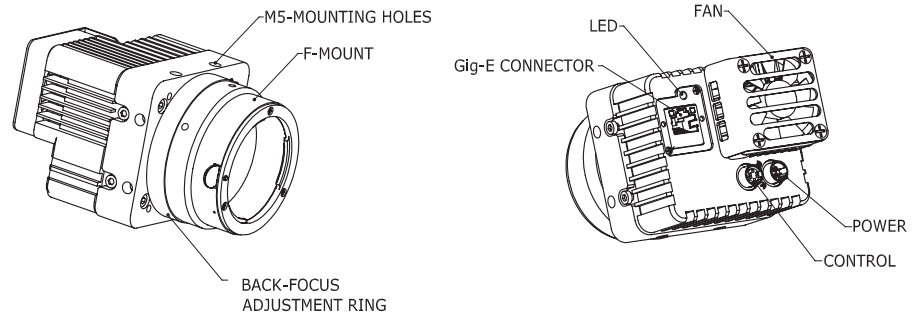
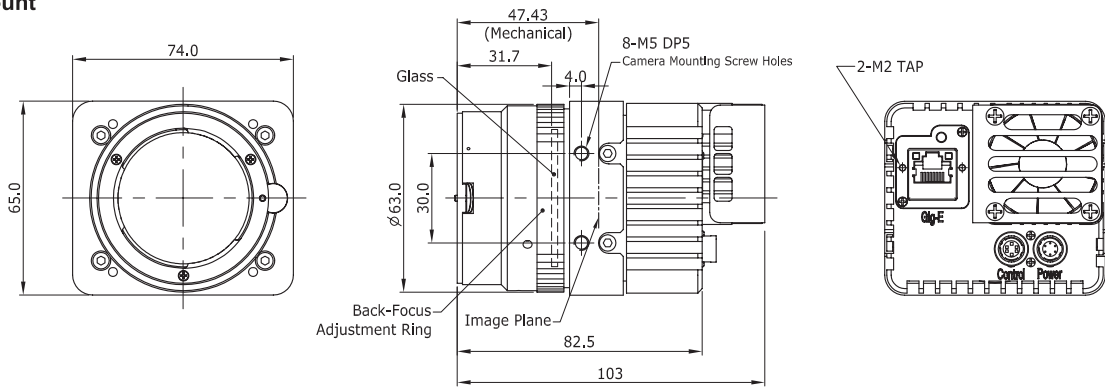
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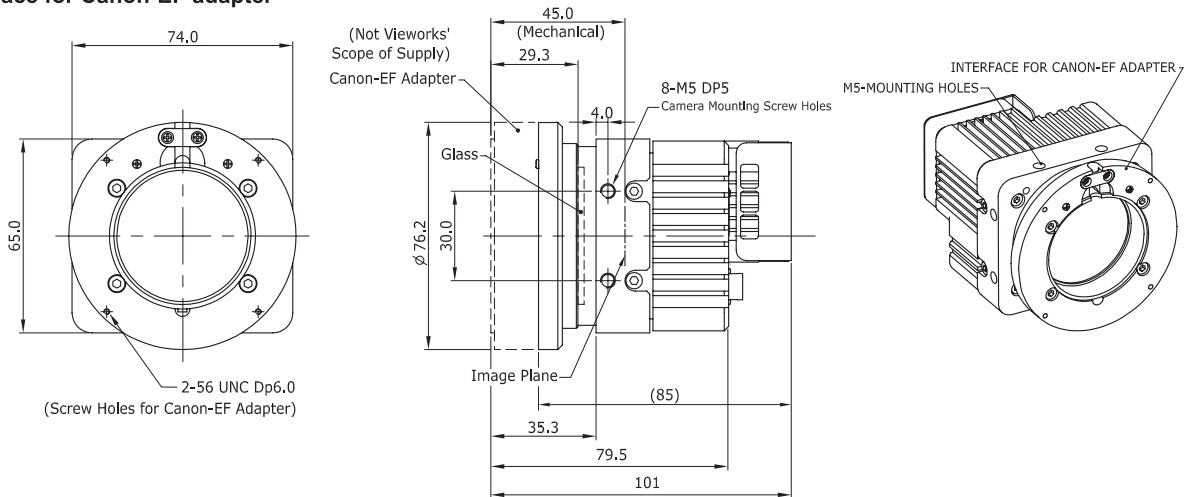
## Mechanical Dimensions

Unit: mm

### F-mount



### Interface for Canon-EF adapter





# VX-29MC-M/C 5

Aerial Imaging / Surveillance Camera



The VX-29MC is a Camera Link version of VX series proving an extremely robust and powerful interface. It is ideal for aerial imaging and high-end surveillance applications which require highest attention to detail. The VX-29M camera incorporates a 29 million pixel interline transfer CCD with resolution of  $6,576 \times 4,384$ . Taking pictures with this camera is made easy with features such as; Automatic Exposure, Automatic Gain and Automatic Iris (optional lens control mount) control.

**VIEWWORKS**

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# VX-29MC-M/C 5

Aerial Imaging / Surveillance Camera

## Main Features

- Extended Operating Temperature: -40°C ~ 85°C
- Auto Controls (Exposure, Gain, Aperture, Focus)
- Canon-EF Adapter Control
- Smear Correction
- Flexible Binning
- Internal Frame Buffer
- User Adjustable Back Focus
- Field Upgradable Firmware
- Pixel Defect Correction
- Excellent Anti-blooming and Anti-smear

## Applications

- Aerial Imaging
- Ground Surveillance
- Research and Scientific Imaging

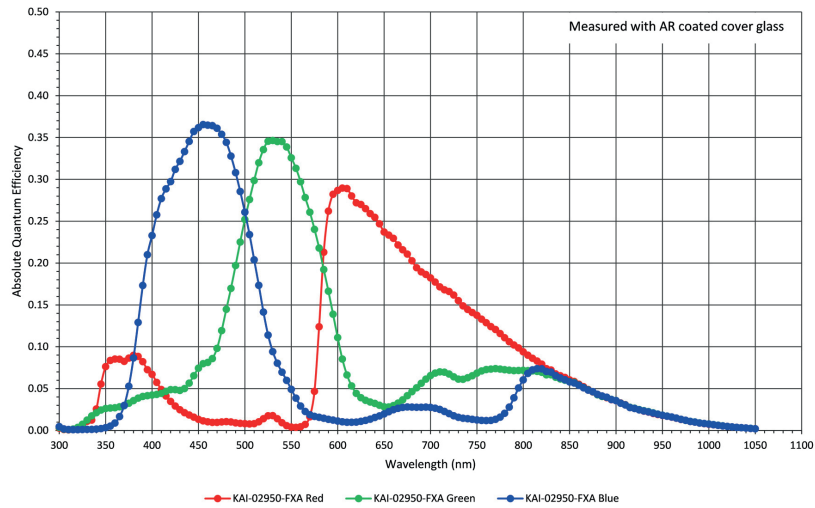
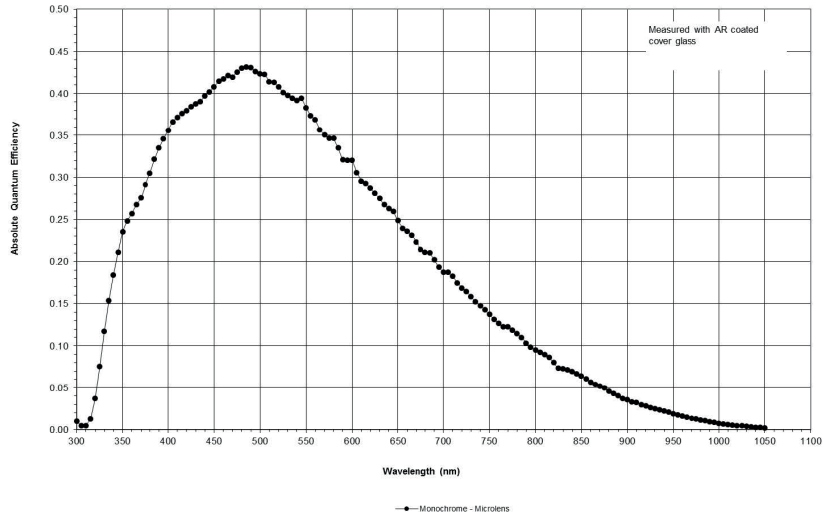
## Specifications

Model	VX-29MC-M/C 5
Resolution (H × V)	6576 × 4384, 28.8M
Sensor	ON Semiconductor KAI-29050
Sensor Size (Optical Format)	35 mm
Sensor Type	Progressive Scan Interline Transfer CCD
Pixel Size	5.5 μm × 5.5 μm
Sensor Output	1, 2 or 4 Tap
Interface	Camera Link (SDR)
Max. Frame Rate (40 MHz)	4.6 fps (4 Tap) / 2.3 fps (2 Tap) / 1.2 fps (1 Tap)
Exposure Time	14/1,000,000 - 7 s
Partial Scan (Max. Speed)	17.3 fps at 500 Lines
Pixel Data Format	8 / 10 / 12 bit
Electronic Shutter	Global Shutter
Data Output Pixel Clock	30/40 MHz
Exposure Mode	Timed Exposure, Trigger Width Exposure, Double Exposure
Dynamic Range	64 dB
Binning	×1, ×2, ×3, ×4, ×8 (Horizontal and Vertical Independent)
Smear	-100 dB (Enhanced Correction Supported)
Lookup Table	G = 1.0, Knee Control - User Defined Lookup Table (LUT)
Black Level	Adjustable (0 ~ 127 LSB at 12 bit, 256 steps)
Analog Gain	×1 ~ ×40 (0 ~ 32 dB)
Digital Gain	×1 ~ ×64 (1/1024 step)
Dimension / Weight	74 mm × 65 mm × 103 mm, 570 g (with F-mount) 74 mm × 65 mm × 101 mm, 570 g (with Canon -EF Adapter)
Temperature	Operating: -40°C ~ 85°C, Storage: -40°C ~ 90°C
Vibration / Shock	10G (20 ~ 200 Hz) XYZ / 70G 10 ms
Lens Mount	F-mount or Interface for Canon-EF Adapter
Power	10~15 V DC, Typ. 9 W
Configuration Software	Configurator

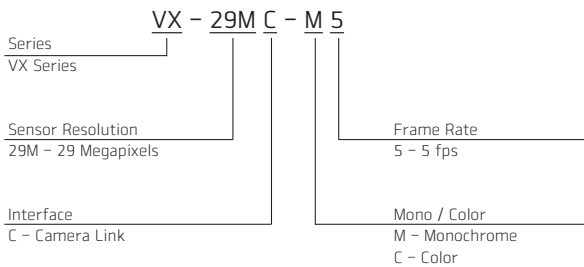
# VX-29MC-M/C 5

Aerial Imaging / Surveillance Camera

## Quantum Efficiency Curves



## Ordering Scheme



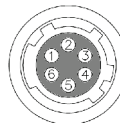
## Connector Specification

Power



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

Control



1: Trigger IN+  
2: Trigger IN-  
3: Strobe OUT  
4: DC Ground  
5: RS-232 RX←  
6: RS-232 TX→  
(HR10A-7R-6SB)

Connectors on camera body

# VX-29MC-M/C 5

Aerial Imaging / Surveillance Camera

For more information please contact:



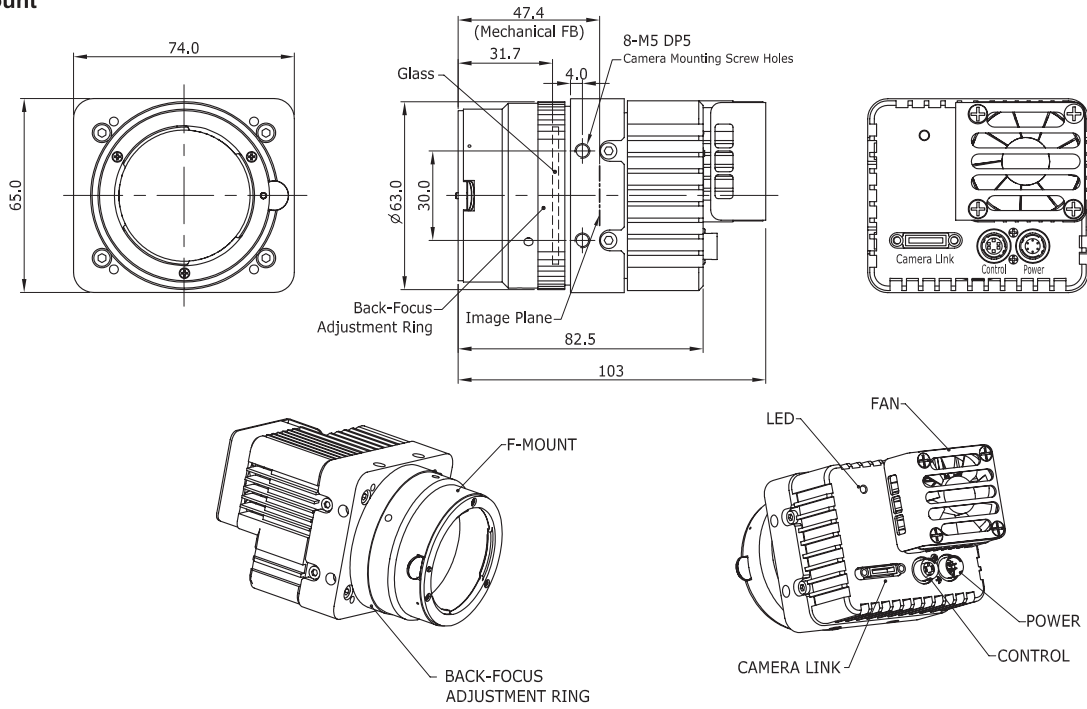
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## Mechanical Dimensions

Unit: mm

### F-mount



### Interface for Canon-EF adapter

