
VX-29MG

AERIAL IMAGING / SURVEILLANCE CAMERA



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 $6,576 \times 4,384$. 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.

VX-29MG

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Main Features

- * 29 Megapixel Resolution (ON Semiconductor IT Progressive)
- * 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

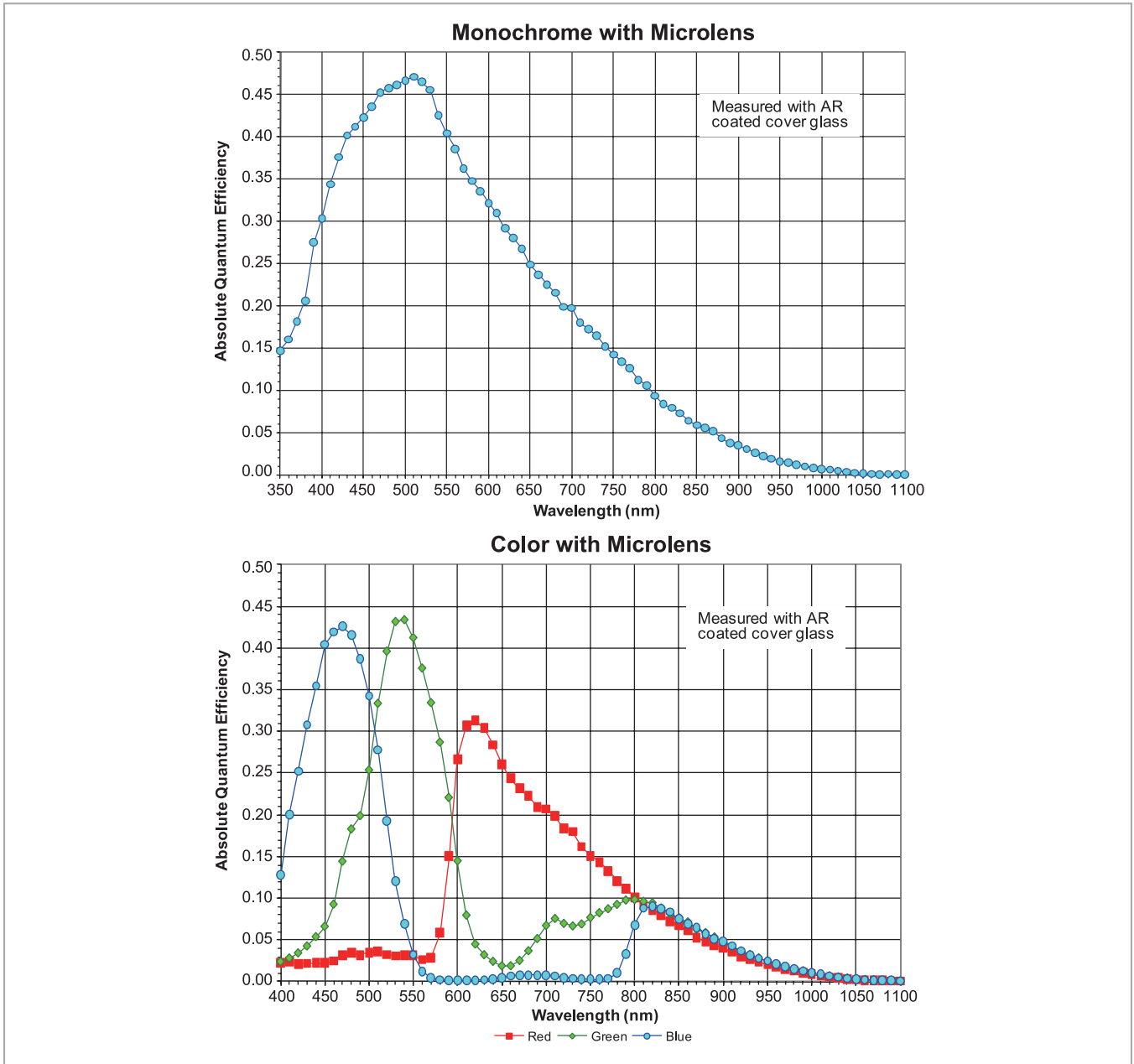
Applications

- * Aerial Imaging
- * Ground Surveillance
- * Research and Scientific Imaging

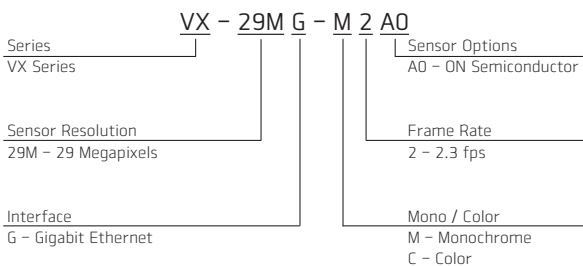
Specifications

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	Viewworks Imaging Solution 6.X or above	

Quantum Efficiency Curves



Ordering Scheme



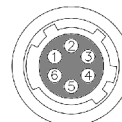
Connector Specification

Power



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

Control



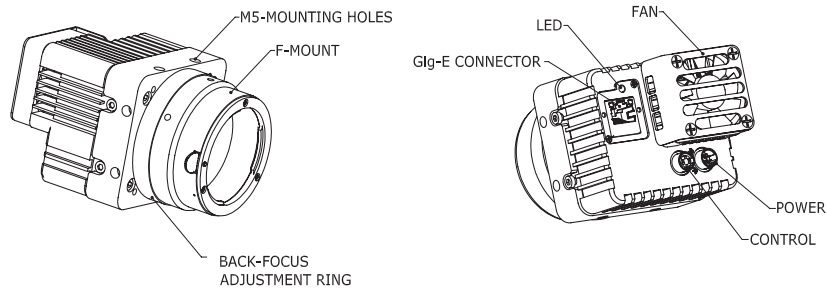
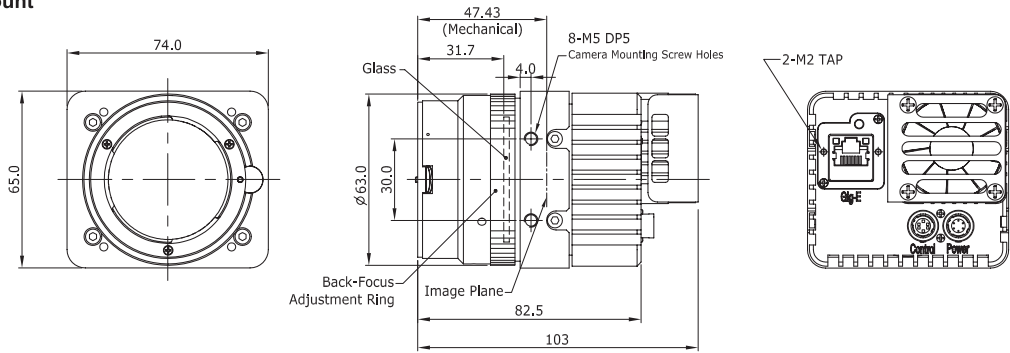
1: Trigger IN+, 2: Trigger IN-
3: Strobe Out, 4: DC Ground
5: RS-232-RX←, 6: RS-232 TX→
(HR10A-7R-6SB)

Connectors on camera body

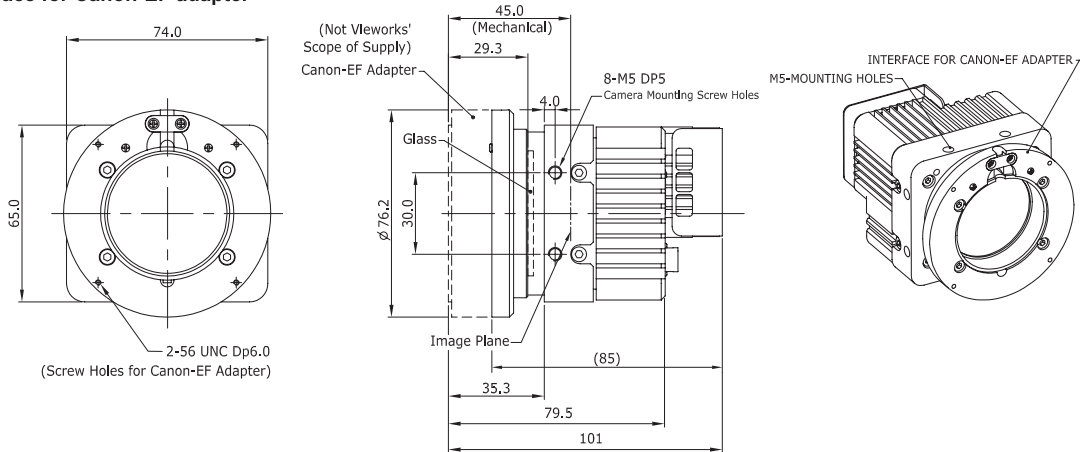
Mechanical Dimensions

Unit: mm

F-mount



Interface for Canon-EF adapter



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