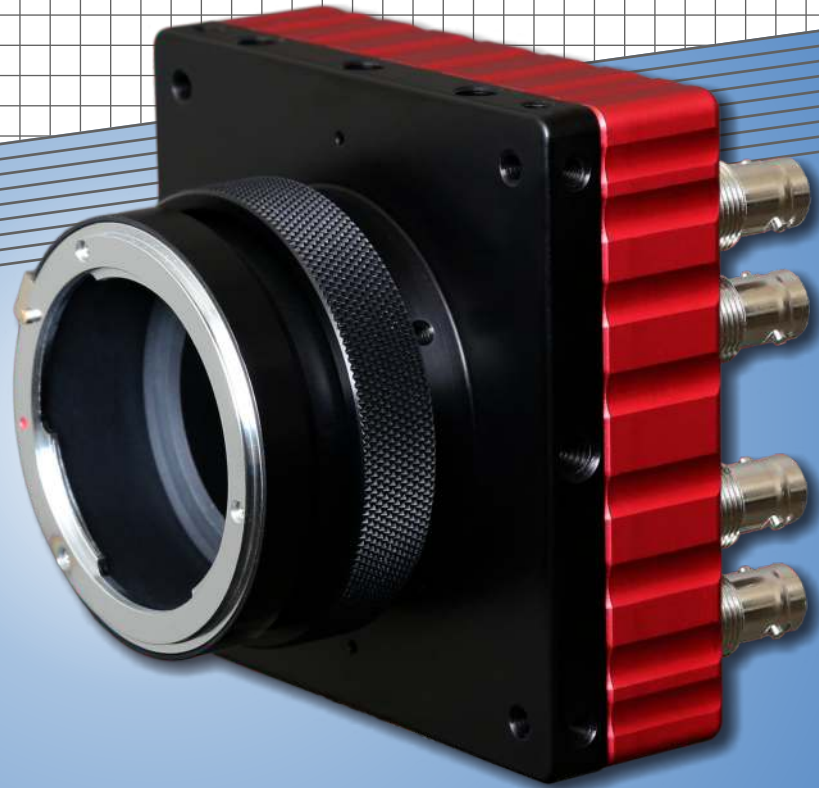


# Flare™

High Resolution  
Fast Frame Rate  
12 Megapixels

12M180  
12M125



CoaXPRESS  
CAMERA  
Link

4K x 3K @ 187fps (CXP)  
4K x 3K @ 124fps (CL)

## Features

- Monochrome, Color and Near-IR Models
- Global Shutter CMOS with Correlated Double Sampling
- CoaXPRESS or Camera Link Output
- Multiple Lens Mount Options (F, C, and Active EF)
- Selectable 8-bit or 10-bit Data Formats
- High Sensitivity with Low Noise
- Advanced Auto Exposure Control and Auto White Balance

## Applications

- Automated Inspection
- High Speed Motion Analysis
- Research Imaging
- Specialty Video Production



**IOI**  
IO INDUSTRIES

# Specifications

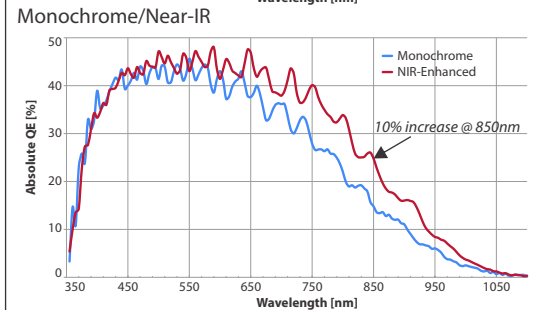
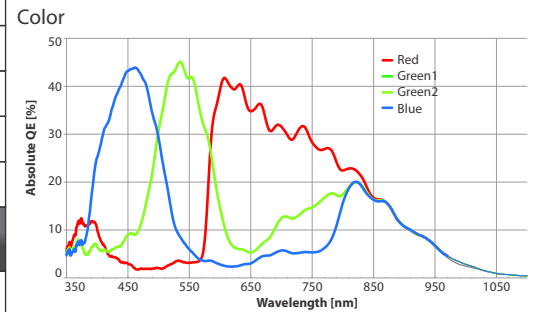
## Camera Specifications

Sensor Type	CMOS w. Global Electronic Shutter (CMOSIS CMV12000)
Sensor Size (H x V)	4096 x 3072 (5.5µm square pixels)
Optical Format	Super 35mm / APS-C (28.1mm image circle at full resolution)
Dynamic Range / Sensitivity	60dB, 4.64 V/lux.s
Frame Rate (Full Resolution)	CX: 187 fps (8-bit), 149 fps (10-bit) CL: 124 fps (8-bit), 100 fps (10-bit)
Output Configurations	CX: 1/2/4 channels at 3.125Gb/s (CXP-3) or 6.25Gb/s (CXP-6) CL: Base, Medium, Single Full, Dual Full (80MHz Pixel Clock)
Additional I/O (Hirose 12-pin)	TTL-level trigger input/output, EF-mount lens control interface
Exposure Control	Programmable, edge-triggered, or auto-exposure control
Image Correction	Black level, column and row FPN, bad pixel replacement
Color Processing	Auto white balance (tracking or manual), programmable LUTs
Camera Configuration	GenICam (CX), ASCII commands (CL), or Flare Control software

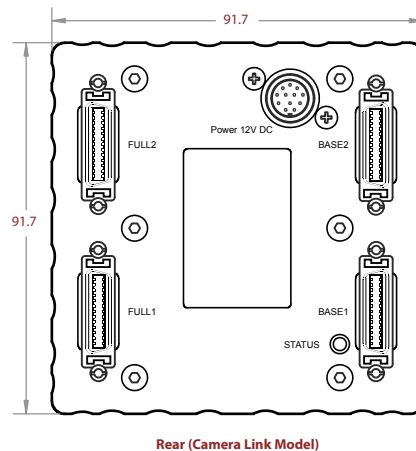
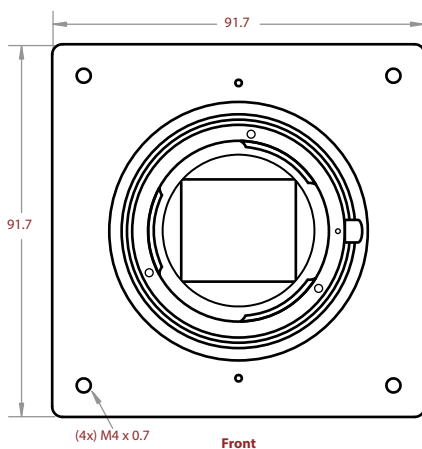
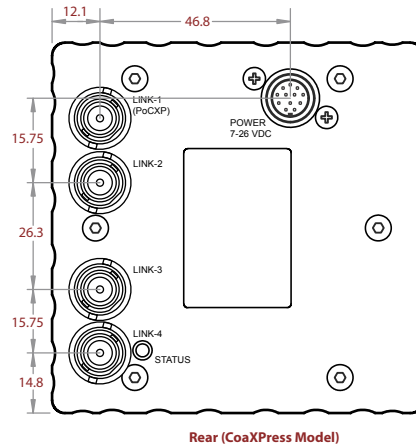
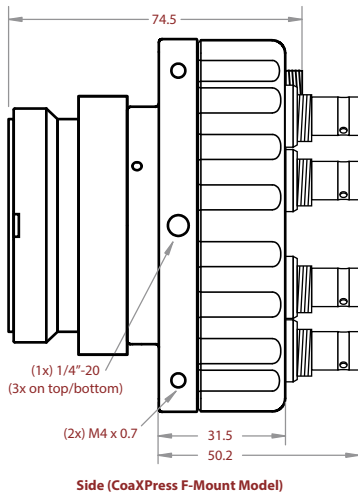
**Mechanical/Electrical**

**Lens Mount:** M42 x 0.75 with F, EF and C-Mount adapters  
**Dimensions (no lens adapter):** 91.7 x 91.7 x 44.5mm  
**Dimensions (with F-mount):** 91.7 x 91.7 x 74.5mm  
**Operating Temperature:** -30° to 45°C  
**Power Requirements:**  
 CX: 12-24V DC or PoCXP, approx. 9.5W  
 CL: 12V DC, approx. 7.5W  
**Weight (typical):** 490g (600g with F-mount)

### Spectral Response



## Mechanical Diagrams



### Frame Rate Chart

Frame Rates by Resolution and Bit Depth	12M180xCX (4x CXP-6)		12M125xCL (2x CL-Full)	
	8-bit	10-bit	8-bit	10-bit
<b>4096 x 3072</b>	187	149	124	100
<b>4096 x 2160 (4K)</b>	266	212	175	141
<b>3360 x 2496</b>	231	184	152	122
<b>2048 x 2048</b>	500	447	370	296
<b>1920 x 1080</b>	935	838	692	555
<b>1000 x 1000</b>	1009	904	924	598
<b>512 x 512</b>	1912	1718	1753	1139

### Ordering

Example: 12M180MCX-F

Camera	Lens Type
12M180 (CX)	F - F-mount
12M125 (CL)	C - C-mount
Sensor Type	Interface
M - Monochrome	CX - CoaXPress
C - Color (with IR filter)	CL - Camera Link
N - Near-IR Enhanced Monochrome	