

# REDWOOD™

## 65MP CAMERAS



CoaXPress

### Video Cameras with Gpixel GMAX3265 Sensors

#### APPLICATIONS

Automated Optical Inspection

Wide Area Observation

Virtual Reality and Special Effects

Scientific Research



#### FEATURES INCLUDE:

- Monochrome and Color Models
- High Resolution with High Speed Output
- Charge-Domain Global Shutter CMOS Sensor
- Fast CoaXPress 2.0 Video Output
- Selectable 8/10/12-bit Data Formats
- Multiple Lens Mount Options
- Multi-ROI with up to 16 Separate Windows
- Flexible Image Adjustment and Enhancement

**IOI**  
IO INDUSTRIES

# SPECIFICATIONS

<b>Camera Model</b>	<b>Redwood 65MP CXP</b>
<b>Sensor Size (H x V)</b>	9344 x 7000 (65.4 MP)
<b>Frame rate (full resolution)</b>	71 fps
<b>Optical Format</b>	35mm Full Frame (37.4 mm diagonal)
<b>Sensor Type</b>	CMOS w. global electronic shutter
<b>Sensor Options</b>	Monochrome or color (Bayer)
<b>Pixel Size</b>	3.2 x 3.2 $\mu$ m
<b>Dynamic Range</b>	66 dB (12-bit ADC mode), 62.3dB (10-bit ADC mode)
<b>Output Configurations</b>	1/2/4 links at 3.125 / 5.0 / 6.25 / 10.0 / 12.5 Gbps (4x HD-BNC connectors)
<b>Multiple ROI / Binning</b>	Up to 16 windows with optional 2x2 binning, or with full-size window 1/2 subsampling can be used
<b>Pixel Bit Depth</b>	Selectable 8/10/12-bit output from 10-bit (high-speed) or 12-bit (high dynamic range) ADC modes
<b>Exposure Control</b>	Trigger width, timed, auto-exposure or row-interleaved HDR
<b>Image Correction</b>	Black level, FPN/PRNU, bad pixel replacement, FFC, denoise filter, detail enhancement filter
<b>Color Processing</b>	White balance (Auto one-shot, tracking, or manual), Black balance (auto or manual), Gamma LUTs
<b>Camera Configuration</b>	GenICam or Redwood Control software
<b>Mechanical/Electrical</b>	
<b>Dimensions</b>	62.0 mm x 62.0 mm x 154.7 mm (WxHxD, with F-mount)
<b>Lens Mount</b>	F-mount, M52 x 0.75 or Active Canon EF-mount
<b>Weight</b>	715 g (with F-mount, no lens)
<b>Power Requirements</b>	Approx. 12W @ 12V DC via Hirose 6-pin or 13.5W @ 24V via PoCXP (2 PoCXP links required)
<b>Additional I/O (Hirose 12-pin)</b>	TTL-level trigger input/output
<b>Operating Temperature</b>	-10°C to 50°C, 20-85% humidity (non-condensing)
<b>Storage Temperature</b>	-40°C to 85°C, 10-90% humidity (non-condensing)

## ORDERING

Example: 654G71MCX-F

Camera  
654G71

Sensor Type  
M - Monochrome  
C - Color (with IR filter)

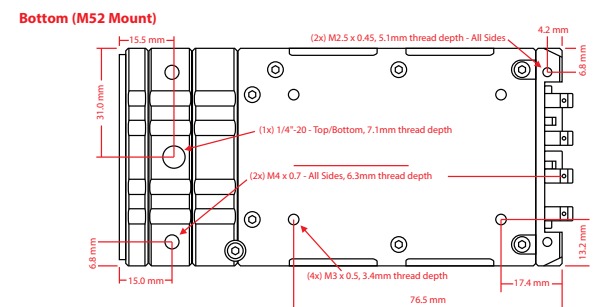
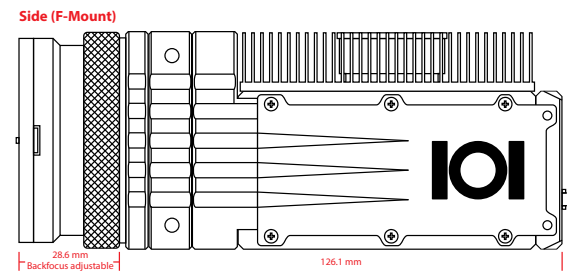
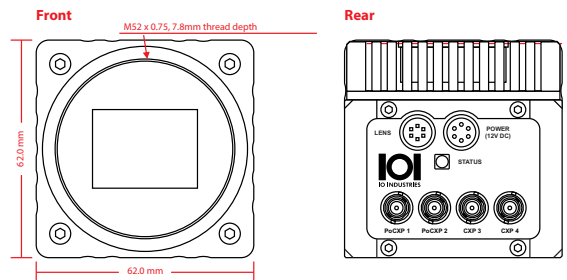
Lens Type  
F - F-mount  
M - M52 x 0.75 (18.08mm flange focal distance)  
A - Active EF-mount

Interface  
CX - CoaXPRESS

## FRAME RATE CHART

Example Output Resolution:	CXP Connection:	ADC Mode: Output:	10-bit		12-bit		
			8-bit	10-bit	8-bit	10-bit	12-bit
Maximum (9344 x 7000)	4x CXP-12		71	57	31	31	31
	2x CXP-12 / 4x CXP-6		35	28	31	28	23
	1x CXP-12 / 2x CXP-6 / 4x CXP-3		26	20	25	20	17
	2x CXP-10 / 4x CXP-5		17	14	17	14	11
	1x CXP-10 / 2x CXP-5		13	10	13	10	8
	1x CXP-6 / 2x CXP-3		8	7	8	7	5
8K UHDV2 (7680 x 4320)	4x CXP-12		114	92	51	51	51
	2x CXP-12 / 4x CXP-6		57	46	51	45	38
	1x CXP-12 / 2x CXP-6 / 4x CXP-3		42	33	41	33	28
	2x CXP-10 / 4x CXP-5		28	23	28	23	19
	1x CXP-10 / 2x CXP-5		21	16	21	16	14
	1x CXP-6 / 2x CXP-3		14	11	14	11	9
	1x CXP-5		10	8	10	8	7

## MECHANICAL DIAGRAMS



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## LET'S STAY CONNECTED!



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