

# CHEETAH

## RUGGEDIZED CAMERA SERIES

### C2020 CMOS 3.1 MP Camera Link®



#### Imperx: C2020

The CLF-C2020 camera features the Sony Pregius IMX252 Global Shutter CMOS sensor with a native resolution of 2064 x 1544 in a 1/1.8" optical format delivering up to 148 frames per second with Camera Link® Full, PoCL output. The Sony Pregius image sensor delivers outstanding sensitivity and excellent image quality. Imperx puts you in control by providing full access to raw data without corrections. Using the simple intuitive graphical user interface, you can quickly apply or remove image corrections. The C2020's flexibility, image quality, and speed make it suitable for a broad range of diverse and demanding applications, but "one size doesn't fit all," and Imperx can help optimize the camera to your exact requirements.

#### Specifications

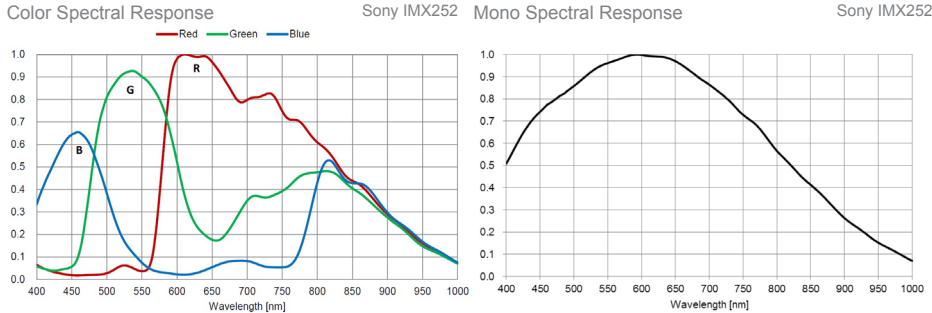
Feature	Description	Feature	Description
Output Interface	Camera Link® Base, Medium, Full w/PoCL	Strobe Output	2 strobes, programmable position and duration
Resolution	2064 (H) x 1544 (V)	Pulse Generator	Yes, programmable
Sensor	Sony Pregius IMX252 CMOS Color/Mono	Data Correction	4 LUTs pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic)
Sensor Format	7.0 mm (H) x 5.3 mm (V), 1/1.8" diagonal	Lens Mount	C-Mount (default)
Pixel Size	3.45 microns square	P-IRIS	Optional
Shutter	Global shutter (GS)	P-IRIS Control	Auto, Programmable
Sensor Digitization	8, 10, 12-bit	Supply Voltage Range	12 V DC (5 V – 30 V), 1.5 A inrush
Frame Rate	148 fps (8-bit), 121 fps (10-bit), 54 fps (12-bit)	Power Consumption	Typical: 2.4 W
Dynamic Range	71 dB	Camera Current	Typical: 200 mA @ 12 V
Output Bit Depth	8, 10, 12-bit	PoCL	PoCL capable in Base /Medium/Full mode
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps	Size - Width/Height/Length	37.0 mm (W) x 37.0 mm (H) x 48.6 mm (L)
Digital Gain	1x (0 dB) to 4x (12 dB) with a precision of 0.001x	Weight	91.8g
Black Level Offset	Manual (0 – 255), Auto	Vibration, Shock	Complies with IEC60068-2-64 and IEC60068-2-27
White Balance	Manual, Auto, Once, Off	Environmental	-30 °C to +75 °C Operating; -40 °C to +85 °C Storage
Shutter Speed	1 µs/step, 14 µs to 16.0 s	Humidity	10% to 90% non-condensing
Exposure Control	Off, Manual, External, Auto	MTBF	TBD
Regions of Interest (ROI)	2 ROI	Military Standard	MIL-STD-810G
Binning	1x2, 2x1, 2x2	Regulatory	FCC Part 15 Class A, CE, RoHS
Sub-sampling	1x2, 2x1, 2x2		
Trigger Inputs	External, Pulse generator, Software, Computer		
Trigger Options	Edge, Pulse width, Trigger filter, Trigger delay, Debounce		
Trigger Modes	Free run, Standard, Fast		
External Inputs/Outputs	2 IN (OPTO, LVTTTL) / 2 OUT (OPTO, TTL)		

## Imperx: C2020 Applications

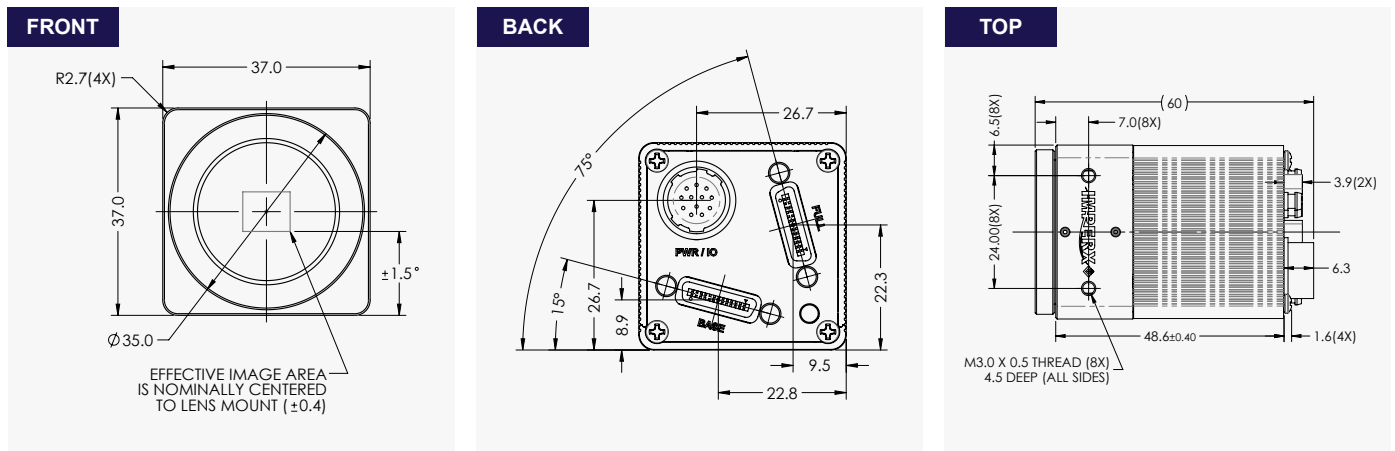
The CLF-C2020 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

Aerospace • Satellites • Surveillance • Ball Grid Array • Printed Circuit Board Inspection • Motion Analysis • Broadcast Television • Telepresence • Unmanned Aerial Vehicles • Machine Vision • Intelligent Traffic Systems • Aerial Imaging • Open Road Tolling Systems • Situational Awareness

## Absolute Quantum Efficiency



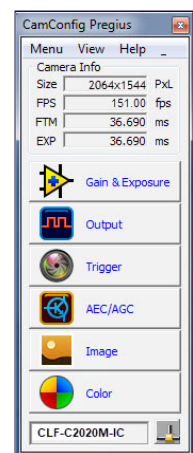
## Dimensions



## Ordering Information

<b>Output Interface</b>	Camera Link® Full (CLF) w/PoCL®	<b>Lens Mounts</b>	C-Mount (Default) P-Iris (Optional)
<b>Sensor Types available</b>	Monochrome Bayer Color	<b>Accessories (Sold separately)</b>	PS12V04A-Power Supply w/ 1 input and 1 output

## Software/Drivers/Interface



## Hirose Connectors

<b>Power and I/O Interface</b>	<ol style="list-style-type: none"> <li>12 VDC Return</li> <li>+12 VDC</li> <li>Reserved</li> <li>Reserved</li> <li>OUT2 RTN (OPTO)</li> <li>OUT1 RTN</li> <li>OUT1 (TTL)</li> <li>IN1 (OPTO)</li> <li>IN2 (LVTTL)</li> <li>IN1 RTN</li> <li>IN2 RTN</li> <li>OUT2 (OPTO)</li> </ol>
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Connector: Hirose HR10A-10R-12PB(71)

Rev: cl\_c2020\_r1\_2019

Quality Management System ISO 9001:2015 Registered  
Environmental Management System ISO 14001:2015 Registered  
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