

# CHEETAH

## RUGGEDIZED CAMERA SERIES

### SDI-C1920 CMOS 2 MP



#### Imperx: SDI-C1920

The SDI-C1920 incorporates the Sony IMX-174 CMOS image sensor in a 1/1.2" optical format delivering up to 1080p resolution at 60 frames per second with selectable 3G-SDI (SMPTE® 424-1) or HD-SDI (SMPTE® 292M) output. The Imperx Cheetah C1920 provides excellent sensitivity and amazing dynamic range, making 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

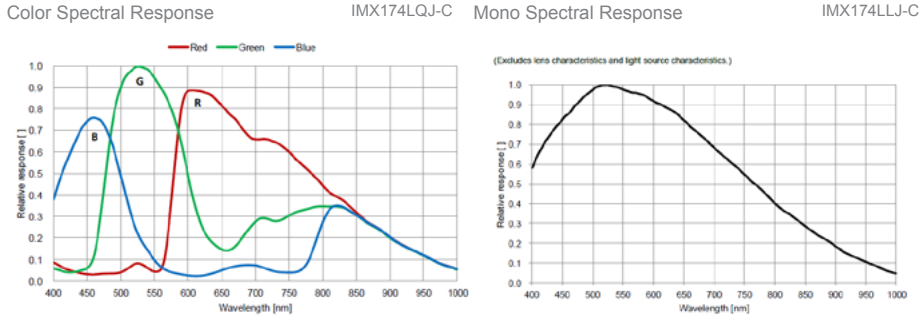
Feature	Description	Feature	Description
Video Output	HD-SDI (SMPTE 292M), 3G-SDI (SMPTE-424-1)	Power Consumption	3.6W
Resolution	1920 (H) x 1080 (V)	Camera Current	Typical: 300mA/12V
Sensor	IMX-174 CMOS	Size - Width/Height/Length	37mm (W), 37mm (H), 48.6mm (L)
Sensor Format	1/1.2", 13.4mm diagonal	Weight	91.8g
Pixel Size	5.86µm	Vibration, Shock	TBD
Lens Mount	C-Mount	Environmental	1.5G: -40°C to +75°C 3.0G: -30°C to +75°C Storage: -40°C to +85°C
Frame Rates	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p	Humidity	10% to 90% non-condensing
Digitization	12-bit	MTBF	>406,000 hours @ 40°C (Telcordia SR-332)
Output Format	10-bit, 4:2:2 (YCrCb)	Military Standard	MIL-STD-810F
Dynamic Range	73dB	Regulatory	FCC Part 15 Class A, CE, RoHS
Gain Control	Manual, Automatic: 0 - 48dB, 480 steps		
Black Level Offset	0-511		
Shutter	Global Shutter		
Exposure Range	29 µs to 16.1 ms / 60 fps		
Exposure Control	Manual, Automatic		
Inputs	External tri-level sync		
Outputs	Strobe, 2 <sup>nd</sup> strobe (optional), P-Iris (optional)		
Camera Control	RS-232		
Image Overlay	Optical center, programmable H & V lines		
Image Enhancement	Threshold, contrast enhancement, knee correction		
LUT (Look Up Tables)	4 user LUTs, 8 Gamma LUTs, and 8 Black Gamma LUTs		
Minimum Illumination	0.4 Lux, F1.2		
Test Image	HD SMPTE color bars, static/moving ramp		
White Balance	Auto, once, manual, 3200k, 5600k		
P-Iris Control (optional)	Auto, programmable		
Supply Voltage Range	12VDC (8V-30V), 1.5 A inrush		

## Imperx: SDI-C1920 Applications

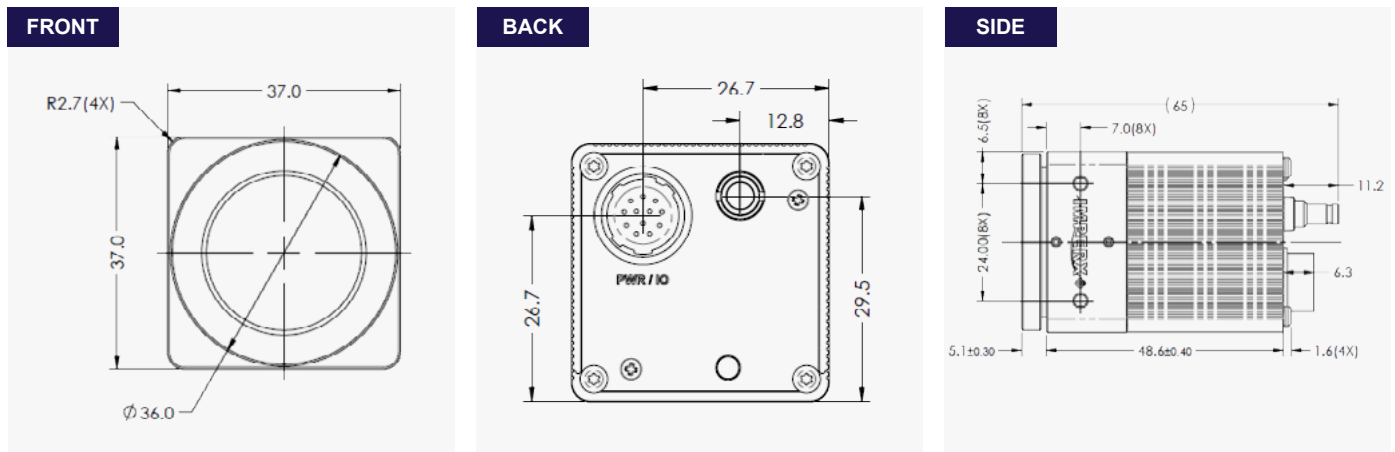
The C1920 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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

## Relative Quantum Efficiency



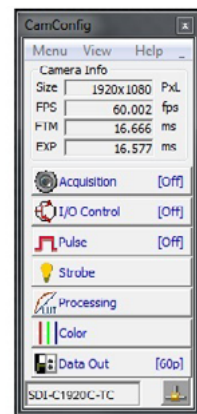
## Dimensions



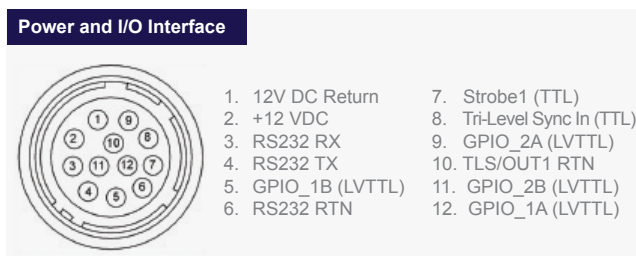
## Ordering Information

<b>Interface Available</b>	3G-SDI / HD-SDI Selectable (SMPTE 425-1/292 Selectable)
<b>Sensor Types available</b>	Color Monochrome
<b>Lens Mounts</b>	C-Mount
<b>Accessories (Sold separately)</b>	PS12V06A - Power Supply w/1 input and 1 output

## Software/Drivers/Interface



## Hirose Connectors



Quality Management System ISO 9001:2015 Registered  
Environmental Management System ISO 14001:2015 Registered  
DDTC Registered (Directorate of Defense Trade Controls, US Department of State)



**IMPERX**  
Industrial Cameras & Imaging Systems

IMPERX 6421 Congress Ave., Boca Raton, FL 33487, USA  
Tel: +1-561-989-0006. Email: sales@imperx.com

WWW.IMPERX.COM

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