

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

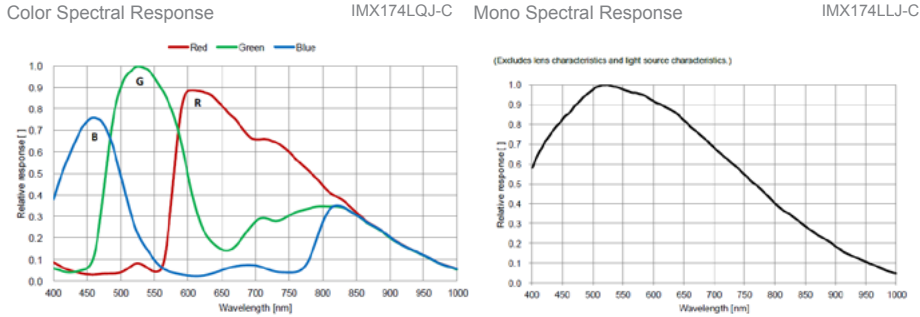
Feature	Description	Feature	Description
Video Output	HD-SDI (SMPTE 292M), 3G-SDI (SMPTE-424-1)	Power Consumption	3.6W
Resolution	1920 (H) x 1080 (V)	Camera Current	Typical: 300mA/12V
Sensor	IMX-174 CMOS	Size - Width/Height/Length	37mm (W), 37mm (H), 48.6mm (L)
Sensor Format	1/1.2", 13.4mm diagonal	Weight	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 nd 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

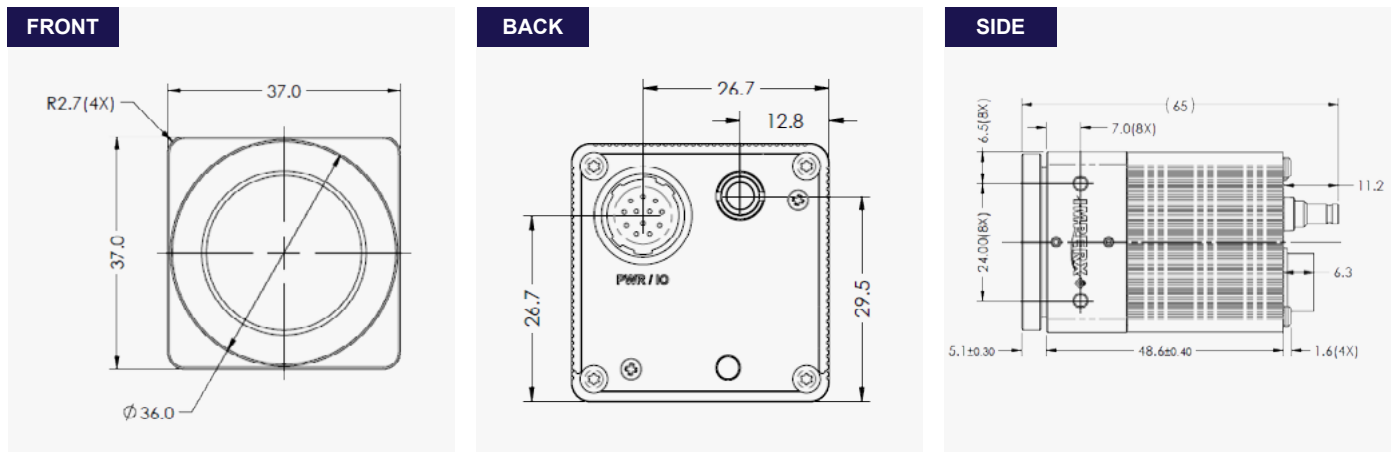
The C1920 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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



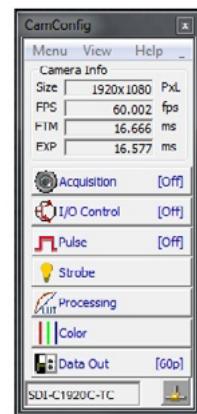
Dimensions



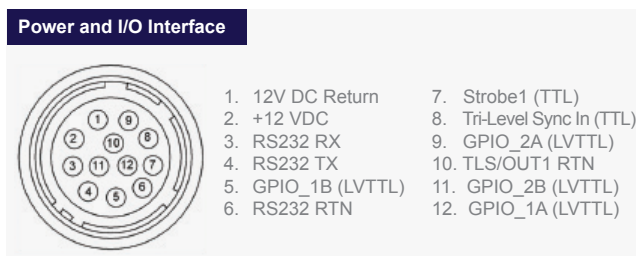
Ordering Information

Interface Available	3G-SDI / HD-SDI Selectable (SMPTE 425-1/292 Selectable)	Lens Mounts	C-Mount
Sensor Types available	Color Monochrome	Accessories (Sold separately)	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)



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