

CHEETAH

RUGGEDIZED CAMERA SERIES

Front View

Rear View

SDI-C1911 CMOS 2 MP

Imperx: SDI-C1911

The SDI-C1911 camera features the Sony Pregius IMX429 Global Shutter CMOS sensor with a resolution of 1920x 1080 in a 1/1.58" optical format delivering up to 60 fps with selectable 3G-SDI (SMPTE® 424-1) or HD-SDI (SMPTE® 292M) output. The Imperx Cheetah C1911 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

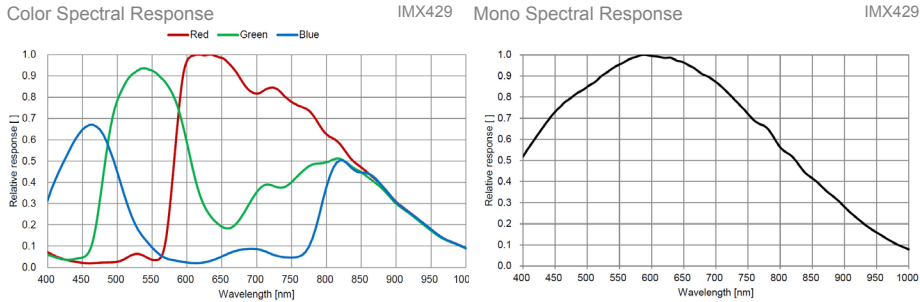
Feature	Description	Feature	Description
Video Output	HD-SDI (SMPTE 292M), 3G-SDI (SMPTE-424-1)	Power Consumption	3.6 W
Resolution	1920 (H) x 1080 (V)	Camera Current	Typical: 300 mA @ 12 V
Sensor	Sony Pregius IMX429 CMOS Color/Mono	Size - Width/Height/Length	37.0 mm (W) x 37.0 mm (H) x 47.2 mm (L)
Sensor Format	1/1.58" optical format, 10.1mm diagonal	Weight	109 g
Pixel Size	4.5 microns square	Vibration, Shock	Complies with IEC60068-2-64 and IEC60068-2-27
Shutter	Global Shutter (GS)	Environmental	-30 °C to +75 °C Operating -40 °C to +85 °C Storage
Sensor Digitization	12-bit	Humidity	10% to 90% non-condensing
Frame Rate	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p	MTBF	>406,000 hours @ 40°C (Telcordia SR-332)
Dynamic Range	77 dB	Military Standard	MIL-STD-810G
Output Format	10-bit, 4:2:2 (YCrCb)	Regulatory	FCC Part 15 Class A, CE, RoHS, UKCA
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps		
Black Level Offset	0-511		
White Balance	Auto, Once, Manual 3200k, 5600k, Off		
Exposure Range	29 µs to 16.1 ms / 60 fps		
Exposure Control	Manual, Auto, Off		
Regions of Interest (ROI)	1 ROI		
External Inputs/Outputs	1 Tri-Level Sync IN (TTL) / 2 OUT (OPTO, TTL)		
Strobe Output	1 strobe (2nd strobe optional), programmable position and duration		
Camera Control	RS-232		
Image Overlay	Optical center, programmable H & V lines		
Test Image	HD SMPTE color bars, static/moving ramp		
Data Correction	4 user LUTs, 8 Gamma LUTs, and 8 Black Gamma LUTs; Defective/Hot pixel correction; Threshold, Contrast enhancement, Knee correction		
Lens Mount	C-Mount		
P-Iris, Video Iris	Optional		
P-Iris Control	Auto, Programmable		
Sensor Temperature Monitor	Supported		
Supply Voltage Range	12 VDC (8 V – 32 V), 1.5 A inrush 8 V - 12 V ± 20%, 1.5 A inrush (for models having Video Iris)		

Imperx: SDI-C1911 Applications

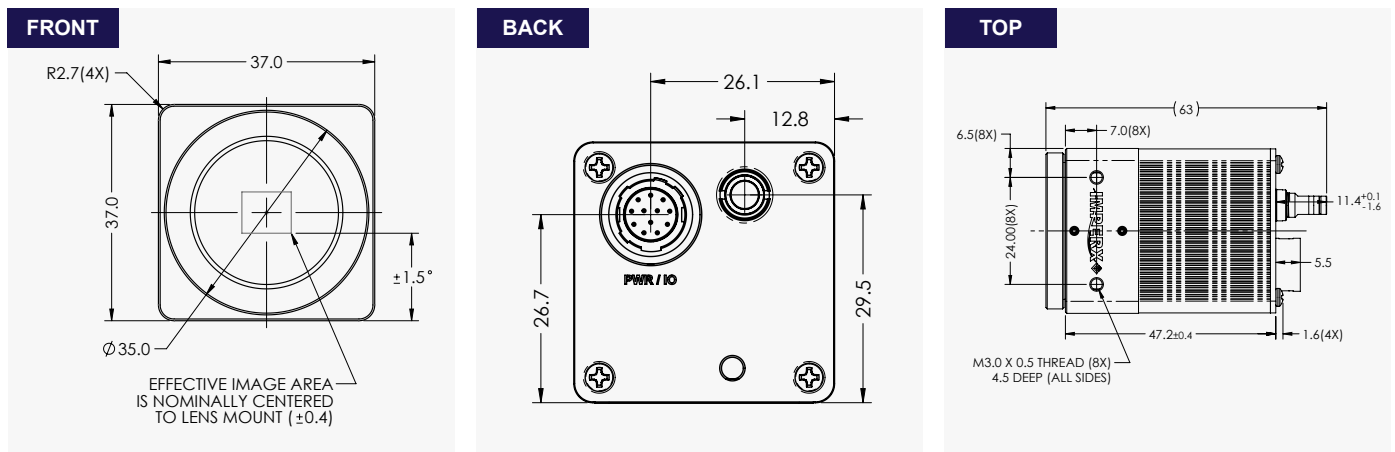
The SDI-C1911 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

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



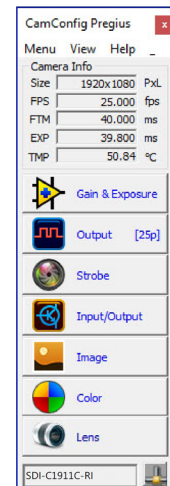
Dimensions



Ordering Information

Output Interface 3G-SDI / HD-SDI Selectable (SMPTE 424-1 / 292M Selectable)	Lens Mounts C-Mount (Default) P-Iris (Optional) Video Iris (Optional)
Sensor Types available Monochrome Color	Accessories (Sold separately) PS12V16A - Power Supply w/1 input and 1 output PS12V19A - Power Supply w/1 input and Video/P-Iris connector

Software/Drivers/Interface



Hirose Connectors

Power and I/O Interface 	1. 12V DC Return 2. +12 VDC Power 3. RS232 RX 4. RS232 TX 5. OUT2 RTN (OPTO) 6. RS232 RTN 7. OUT1 (TTL) 8. IN1 (TTL) 9. IN2 (TTL) 10. IN1//OUT1 RTN 11. IN2 RTN 12. OUT2 (OPTO)
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Connector: Hirose HR10A-10R-12PB(71)
 3G-SDI output: Amphenol-RF Division 75 Ohm coaxial connector ACX1785-ND #282121-75
 Rev: sdi_c1911_r5_2021

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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