Front View | Rear View

SDI-C1911
CMOS 2 MP

Imperx: *SDI-C1911*

The SDI-C1911 camera features the Sony Pregius IMX429Global 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.
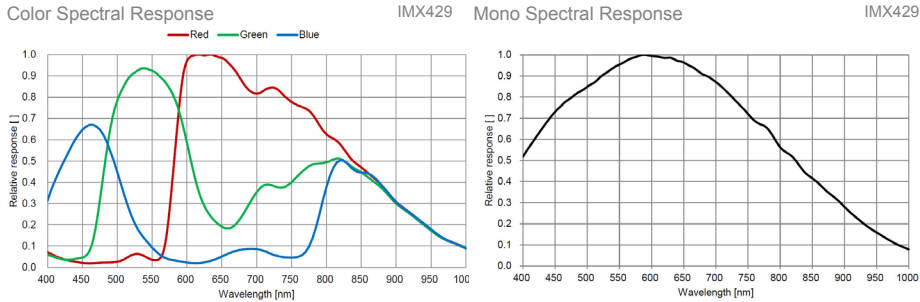
Specifications

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 IMX429CMOS 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)		
Sensor Digitization	12-bit	Environmental	-30 °C to +75 °C Operating -40 °C to +85 °C Storage
Frame Rate	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p	Humidity	10% to 90% non-condensing
Dynamic Range	77 dB	MTBF	>406,000 hours @ 40°C (Telcordia SR-332)
Output Format	10-bit, 4:2:2 (YCrCb)	Military Standard	MIL-STD-810G
Analog/Digital Gain	Manual, Auto; 0 dB – 48 dB, 480 steps	Regulatory	FCC Part 15 Class A, CE, RoHS, UKCA
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)		

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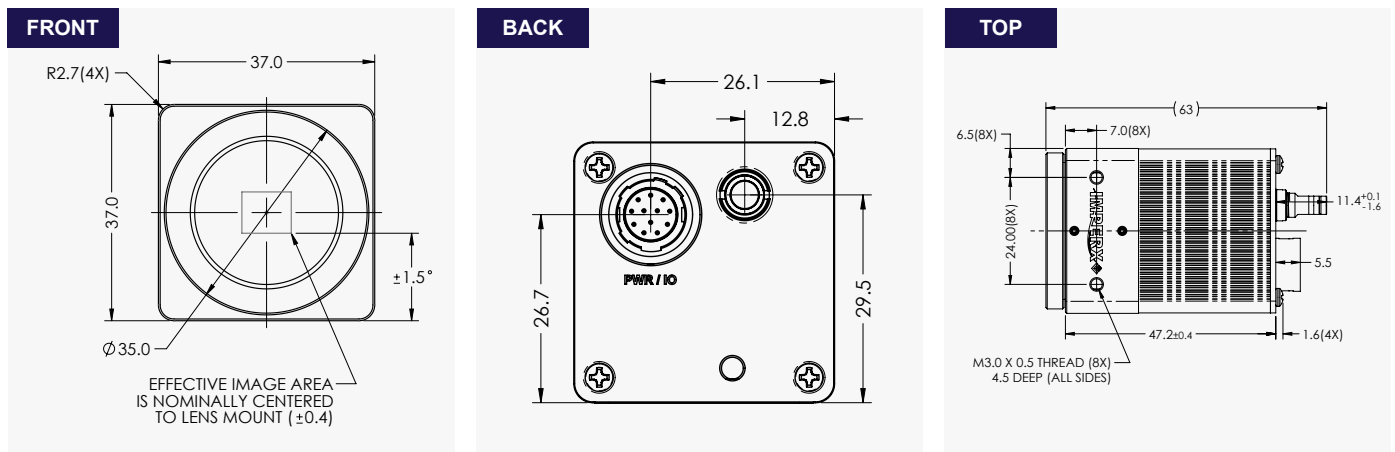Industrial Cameras & Imaging Systems

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
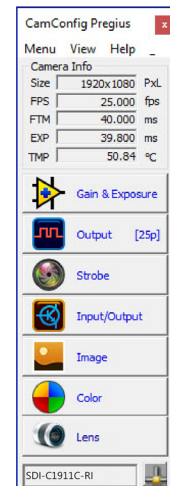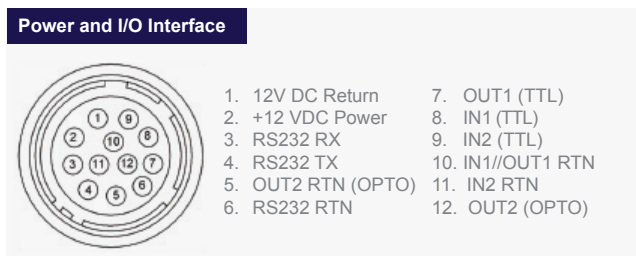
Relative Quantum Efficiency

Color Spectral Response — IMX429

Mono Spectral Response — IMX429

Dimensions

FRONT

R2.7(4X)
37.0
37.0
±1.5°
Ø 35.0
EFFECTIVE IMAGE AREA IS NOMINALLY CENTERED TO LENS MOUNT (±0.4)

BACK

26.1
12.8
26.7
29.5
PWR / IO

TOP

(63)
6.5(8X)
7.0(8X)
24.00(8X)
11.4 +0.1 -1.6
5.5
47.2±0.4
1.6(4X)
M3.0 X 0.5 THREAD (8X) 4.5 DEEP (ALL SIDES)

Ordering Information

Output Interface
3G-SDI / HD-SDI Selectable
(SMPTE 424-1 / 292M Selectable)

Sensor Types available
Monochrome
Color

Lens Mounts
C-Mount (Default)
P-Iris (Optional)
Video Iris (Optional)

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

CamConfig Pregius
Menu   View   Help   _
Camera Info
Size   1920x1080   PxL
FPS   25.000   fps
FTM   40.000   ms
EXP   39.800   ms
TMP   50.84   °C

Gain & Exposure
Output   [25p]
Strobe
Input/Output
Image
Color
Lens

SDI-C1911C-RI

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)

Connector: Hirose HR10A-10R-12PB(71)
3G-SDI output: Amphenol-RF Division 75 Ohm coaxial connector ACX1785-ND #282121-75

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