CHEETAH

RUGGEDIZED CAMERA SERIES

SDI-C2010
CMOS 2 MP

Imperx: *SDI-C2010*

The SDI-C2010 camera features the Sony Pregius IMX265 Global Shutter CMOS sensor with a resolution of 1920 x 1080 in a 1/2.35” optical format delivering up to 60 fps with selectable 3G-SDI (SMPTE® 424-1) or HD-SDI (SMPTE® 292M) output. The Imperx Cheetah C2010 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
Video Output	HD-SDI (SMPTE 292M), 3G-SDI (SMPTE-424-1)
Resolution	1920 (H) x 1080 (V)
Sensor	Sony Pregius IMX265 CMOS Color/Mono
Sensor Format	1/2.35” optical format, 7.7 mm diagonal
Pixel Size	3.45 microns square
Shutter	Global Shutter (GS)
Sensor Digitization	12-bit
Frame Rate	23.98p, 24p, 25p, 29.97p, 30p, 50p, 59.94p, 60p
Dynamic Range	71 dB
Output Format	10-bit, 4:2:2 (YCrCb)
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	Optional
P-Iris Control	Auto, Programmable
Supply Voltage Range	12 VDC (8 V – 30 V), 1.5 A inrush

Feature	Description
Power Consumption	3.6 W
Camera Current	Typical: 300 mA @ 12 V
Size - Width/Height/Length	37.0 mm (W) x 37.0 mm (H) x 48.6 mm (L)
Weight	91.8 g
Vibration, Shock	Complies with IEC60068-2-64 and IEC60068-2-27
Environmental	-30 °C to +75 °C Operating -40 °C to +85 °C Storage
Humidity	10% to 90% non-condensing
MTBF	>406,000 hours @ 40°C (Telcordia SR-332)
Military Standard	MIL-STD-810G
Regulatory	FCC Part 15 Class A, CE, RoHS

IMPERX
Industrial Cameras & Imaging Systems

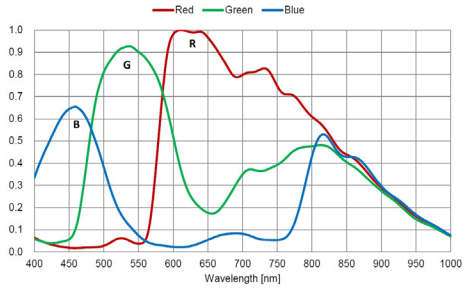
Imperx: *SDI-C2010 Applications*

The SDI-C2010 incorporates a number of unique features tailored to reduce system complexity, maximize interface bandwidth, and expand the usable operational range.

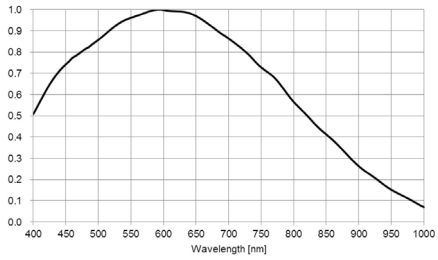
Aerospace ● Satellites ● Surveillance ● Military and Non-Military Ground Vehicles ● Ball Grid Array ● Printed Circuit Board Inspection ● Motion Analysis ● Broadcast Television ● Telepresence ● Unmanned Aerial Vehicles ● Machine Vision ● Reconnaissance ● Aerospace ● Intelligent Traffic Systems ● Aerial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

Relative Quantum Efficiency

Color Spectral Response IMX265

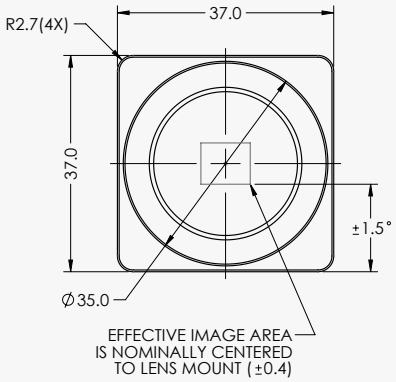


Mono Spectral Response IMX265

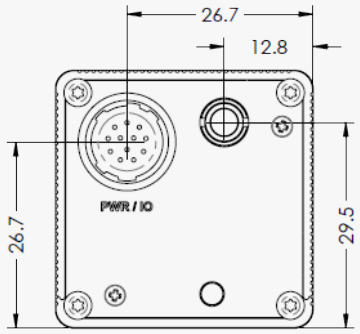


Dimensions

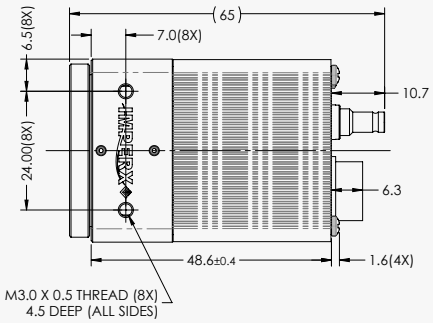
FRONT



BACK



TOP



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)

Accessories (Sold separately)

PS12V06A - Power Supply w/1 input and 1 output

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 (LVTTL)
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

Rev: sdi_c2010_r1_2019

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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