SDI-C2010
CMOS 2 MP

Imperx: *SDI-C2010*

The SDI-C2010 incorporates the Sony IMX-265 CMOS image sensor in a ½" 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 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.
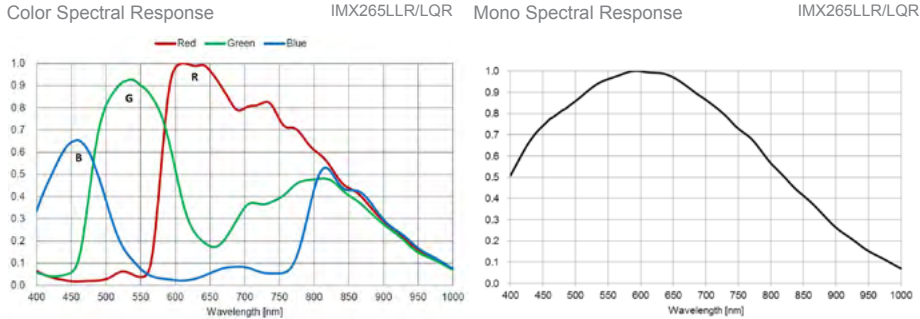
Specifications

Feature	Description
Video Output	HD-SDI (SMPTE 292M), 3G-SDI (SMPTE-424-1)
Resolution	1920 (H) x 1080 (V)
Sensor	IMX-265 CMOS
Sensor Format	1/2", 7.7mm diagonal
Pixel Size	3.45 microns square
Lens Mount	C-Mount
Frame Rates	24p, 25p, 30p, 50p, 60p
Digitization	12-bit
Output Format	10-bit, 4:2:2 (YCrCb)
Dynamic Range	71dB
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, 2nd 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	0.2 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

Feature	Description
Power Consumption	3.6W
Camera Current	Typical: 300mA/12V
Size - Width/Height/Length	37mm (W), 37mm (H), 48.6mm (L)
Weight	91.8g
Vibration, Shock	TBD
Environmental	-40°C to +85°C Operating, -50°C to +90°C Storage
Humidity	10% to 90% non-condensing
MTBF	>406,000 hours @ 40°C (Telcordia SR-332)
Military Standard	MIL-STD-810F
Regulatory	FCC Part 15 Class A, CE, RoHS

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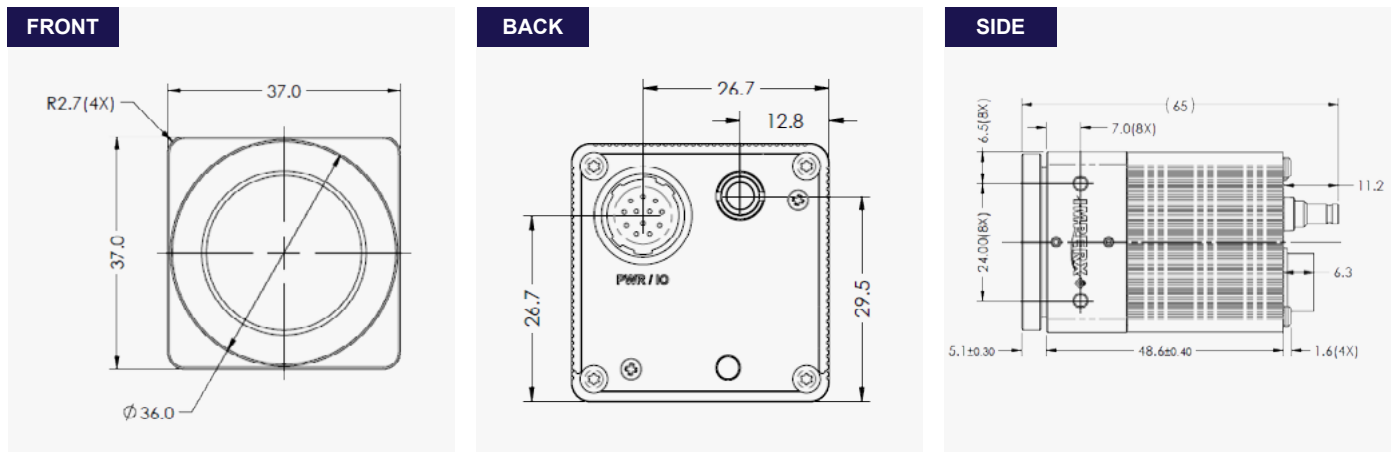
Imperx: *SDI-C2010 Applications*

The 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
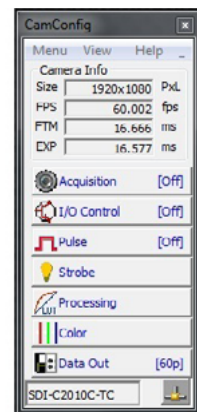
Relative Quantum Efficiency

Color Spectral Response   IMX265LLR/LQR   Mono Spectral Response   IMX265LLR/LQR

Dimensions

FRONT	BACK	SIDE

Ordering Information

Interface Available

3G-SDI / HD-SDI Selectable (SMPTE 425-1/292 Selectable)

Sensor Types available

Color

Monochrome

Lens Mounts

C-Mount

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
3. RS232 RX
4. RS232 TX
5. GPIO_1B (LVTTL)
6. RS232 RTN
7. Strobe1 (TTL)
8. Tri-Level Sync In (TTL)
9. GPIO_2A (LVTTL)
10. TLS/OUT1 RTN
11. GPIO_2B (LVTTL)
12. GPIO_1A (LVTTL)

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