Imperx: **C2010**

The POE-C2010 camera features the Sony Pregius IMX265 Global Shutter CMOS sensor with a native resolution of 2064 x 1544 in a 1/1.8” optical format delivering up to 36 frames per second with GigE Vision Power over Ethernet output. The Sony Pregius image sensor delivers outstanding sensitivity and excellent image quality. Imperx puts you in control by providing full access to raw data without corrections. Using the simple intuitive graphical user interface, you can quickly apply image corrections, if desired. The C2010’s flexibility, image quality, and speed make 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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output Interface</strong></td>
<td>GigE Vision® with Power over Ethernet (PoE)</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>2064 (H) x 1544 (V)</td>
</tr>
<tr>
<td><strong>Sensor</strong></td>
<td>Sony Pregius IMX264 CMOS Color/Mono</td>
</tr>
<tr>
<td><strong>Sensor Format</strong></td>
<td>7.0 mm (H) x 5.3 mm (V), 1/1.8” optical format, 7.7 mm diagonal</td>
</tr>
<tr>
<td><strong>Pixel Size</strong></td>
<td>3.45 microns square</td>
</tr>
<tr>
<td><strong>Shutter</strong></td>
<td>Global shutter (GS)</td>
</tr>
<tr>
<td><strong>Sensor Digitization</strong></td>
<td>12-bit</td>
</tr>
<tr>
<td><strong>Frame Rate</strong></td>
<td>36 fps (8-bit), 18 fps (10-bit/12-bit unpacked), 24 fps (10-bit/12-bit packed)</td>
</tr>
<tr>
<td><strong>Dynamic Range</strong></td>
<td>71 dB</td>
</tr>
<tr>
<td><strong>Output Bit Depth</strong></td>
<td>8, 10, 12-bit</td>
</tr>
<tr>
<td><strong>Analog/Digital Gain</strong></td>
<td>Manual, Auto; 0 dB – 48 dB, 480 steps</td>
</tr>
<tr>
<td><strong>Digital Gain</strong></td>
<td>1x (0 dB) to 4x (12 dB) with a precision of 0.001x</td>
</tr>
<tr>
<td><strong>Black Level Offset</strong></td>
<td>Manual (0 – 255), Auto</td>
</tr>
<tr>
<td><strong>White Balance</strong></td>
<td>Manual, Auto, Once, Off</td>
</tr>
<tr>
<td><strong>Shutter Speed</strong></td>
<td>1 μs/step, 14 μs to 16 s</td>
</tr>
<tr>
<td><strong>Exposure Control</strong></td>
<td>Off, Manual, Auto, External</td>
</tr>
<tr>
<td><strong>Regions of Interest (ROI)</strong></td>
<td>2 ROI</td>
</tr>
<tr>
<td><strong>Sub-sampling</strong></td>
<td>1x2, 2x1, 2x2</td>
</tr>
<tr>
<td><strong>Trigger Inputs</strong></td>
<td>External, Pulse generator, Software</td>
</tr>
<tr>
<td><strong>Trigger Options</strong></td>
<td>Edge, Pulse width, Trigger filter, Trigger delay, Debounce</td>
</tr>
<tr>
<td><strong>Trigger Modes</strong></td>
<td>Free run, Standard, Fast</td>
</tr>
<tr>
<td><strong>External Inputs/Outputs</strong></td>
<td>2 IN (OPTO, LVTTL) / 2 OUT (OPTO, TTL)</td>
</tr>
</tbody>
</table>

### Additional Features

- **Strobe Output**: 2 strobes, programmable position and duration
- **Pulse Generator**: Yes, programmable
- **Data Correction**: 4 LUTs pre-programmed with Gamma 0.45; Bad pixel correction (static, dynamic)
- **Lens Mount**: C-Mount
- **P-Iris**: Optional
- **P-Iris Control**: Auto, Programmable
- **Supply Voltage Range**: 12 VDC (6 V-30 V), 1.5 A inrush
- **Power Consumption**: 3.84 W (EST)
- **Camera Current**: Typical: 320 mA/12 V (EST)
- **PoE Capable**: Yes
- **Size - Width/Height/Length**: 37 mm (W) x 37 mm (H) x 61.5 mm (L)
- **Weight**: ~100 g
- **Vibration, Shock**: 20G/100G
- **Environmental**: -30 °C to +75 °C
- **Humidity**: 10% to 90% non-condensing
- **MTBF**: TBD
- **Military Standard**: MIL-STD-810G
- **Regulatory**: FCC Part 15 Class A, CE, RoHs
Imperx: C2010 Applications

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

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

Relative Quantum Efficiency

![Relative Quantum Efficiency Graph](image)

Dimensions

**FRONT**

![Front Dimensions](image)

**BACK**

![Back Dimensions](image)

**TOP**

![Top Dimensions](image)

Ordering Information

**Output Interface**

GigE Vision® with PoE® (PoE)

**Sensor Types available**

Monochrome

Bayer Color

**Lens Mounts**

C-Mount (Default)

P-Iris (Optional)

**Accessories (Sold separately)**

PS12V04A-Power Supply w/ 1 input and 1 output

Hirose Connectors

**Power and I/O Interface**

1. 12 VDC Return
2. +12 VDC Power
3. Reserved
4. Reserved
5. OUT2 RTN (OPTO)
6. OUT1 RTN
7. OUT1 (TTL)
8. IN1 (OPTO)
9. IN2 (LVTTL)
10. IN1 RTN
11. IN2 RTN
12. OUT2 (OPTO)

Gen\\(<i\\)>Cam Compliant Camera Configurator

WWW.IMPERX.COM

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