Imperx: C1911

The P67-C1911 provides the same robust camera design as the POE-C1911 with an IP67 enclosure. The P67-C1911 camera features the Sony Pregius IMX429 Global Shutter CMOS sensor with a native resolution of 1944 x 1472 in a 2/3” optical format delivering up to 40 frames per second with GigE Vision®, Power over Ethernet (PoE)® output. Imperx puts you in control by providing the user the ability to set the camera up very easily. Using the simple Gen<�>Cam™ compliant user interface, you can quickly apply image corrections to enhance recognition or quality. The C1911’s flexibility, outstanding sensitivity, image quality, and speed make it suitable for a broad range of diverse and demanding applications. By combining the powerful Imperx camera control with an IP67 rated enclosure protecting the camera from dust, water and other contaminants, the P67-C1911 can be utilized in harsh environments.

Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output Interface</td>
<td>GigE Vision® with Power over Ethernet (PoE)</td>
</tr>
<tr>
<td>Resolution</td>
<td>1944 (H) x 1472 (V)</td>
</tr>
<tr>
<td>Sensor</td>
<td>Sony Pregius IMX429 CMOS Color/Mono</td>
</tr>
<tr>
<td>Sensor Format</td>
<td>8.7 mm (H) x 6.6 mm (V), 2/3” optical format, 11.0 mm diagonal</td>
</tr>
<tr>
<td>Pixel Size</td>
<td>4.5 microns square</td>
</tr>
<tr>
<td>Shutter</td>
<td>Global shutter (GS)</td>
</tr>
<tr>
<td>Sensor Digitization</td>
<td>12-bit</td>
</tr>
<tr>
<td>Frame Rate</td>
<td>40 fps (8-bit), 20 fps (10-bit/12-bit unpacked), 26 fps (10-bit/12-bit packed)</td>
</tr>
<tr>
<td>Dynamic Range</td>
<td>73 dB</td>
</tr>
<tr>
<td>Output Bit Depth</td>
<td>8, 10, 12-bit</td>
</tr>
<tr>
<td>Analog/Digital Gain</td>
<td>Manual, Auto; 0 dB – 48 dB, 480 steps</td>
</tr>
<tr>
<td>Digital Gain</td>
<td>1x (0 dB) to 4x (12 dB) with a precision of 0.001x</td>
</tr>
<tr>
<td>Black Level Offset</td>
<td>Manual (0 – 255), Auto</td>
</tr>
<tr>
<td>White Balance</td>
<td>Manual, Auto, Once, Off</td>
</tr>
<tr>
<td>Shutter Speed</td>
<td>1 μs/step, 5 μs to 16 s</td>
</tr>
<tr>
<td>Exposure Control</td>
<td>Off, Manual, Auto, External</td>
</tr>
<tr>
<td>Regions of Interest (ROI)</td>
<td>2 ROI</td>
</tr>
<tr>
<td>Sub-sampling</td>
<td>N/A</td>
</tr>
<tr>
<td>Trigger Inputs</td>
<td>External, Pulse generator, Software</td>
</tr>
<tr>
<td>Trigger Options</td>
<td>Edge, Pulse width, Trigger filter, Trigger delay, Debounce</td>
</tr>
<tr>
<td>Trigger Modes</td>
<td>Free run, Standard, Fast</td>
</tr>
<tr>
<td>External Inputs/Outputs</td>
<td>1 IN (OPTO) / 2 OUT (OPTO, TTL)</td>
</tr>
</tbody>
</table>

- Strobe Output: 2 strobes, programmable position and duration
- Pulse Generator: Yes, programmable
- Data Correction: 2 LUTs pre-programmed with Gamma 0.45, 2 LUTs pre-programmed with Negative LUT
- Bad pixel correction (static, dynamic)
- Lens Mount: C-Mount
- Supply Voltage Range: 12 V DC (6 V-30 V), 1.5 A inrush @ 12 V
- PoE (IEEE 802.3af / IEEE 802.3at)
- Power Consumption: Typical: 3.84 W @ 12 V, PoE: 5 W
- Typical: 320 mA @ 12 V
- Camera Current: 48.5 mm (W) x 42.0 mm (H) x 61 mm (L) (without lens tube and connectors)
- Lens Tube Dimensions: 44 mm Lens tube:
  - Inner diameter 44 mm
  - Outer diameter 50 mm
  - Length varies (see IP67 lens tubes spec sheet)
- 64 mm Lens tube:
  - Inner diameter 64 mm
  - Outer diameter 70 mm
  - Length varies (see IP67 lens tubes spec sheet)
- Weight: 196 g (without a lens tube)
- Vibration, Shock: 20G (20 – 200 Hz XYZ) / 100G
- Environmental:
  - -30 °C to +75 °C Operating (-40 °C to +85 °C tested), -40 °C to +85 °C Storage
- Humidity: 10% to 90% non-condensing
- MTBF: TBD
- Military Standard: MIL-STD-810G
- Regulatory: FCC Part 15 Class A, CE, RoHs
**Imperx: C1911 Applications**

The P67-C1911 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

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**Absolute Quantum Efficiency**

<table>
<thead>
<tr>
<th>Color Spectral Response</th>
<th>Sony IMX429</th>
<th>Mono Spectral Response</th>
<th>Sony IMX429</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavelength (nm)</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Absolute Quantum Efficiency</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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**Dimensions**

**FRONT**
- R2.75
- 48.50
- 42

**BACK**
- 13
- 27
- 32
- 16.45

**TOP**
- 61 ±0.30
- 87.88
- 17.7
- 3.80
- 2.50
- 28

**Ordering Information**

Please specify the camera model code and select an IP67 lens tube (see IP67 lens tubes spec sheet).

**Output Interface**
- GigE Vision® with Power over Ethernet (PoE)® in IP67 enclosure (P67)

**Sensor Types available**
- Monochrome
- Bayer Color

**Lens Mounts**
- C-Mount

**Connectors**

**Power and I/O Interface**
- 1. Reserved
- 2. +12 VDC
- 3. IN1 (OPTO)
- 4. IN1/OUT1 RETURN
- 5. OUT2 RETURN
- 6. OUT1 (OPTO)
- 7. +12 VDC RETURN
- 8. OUT2 (TTL)

**1000BASE-T Ethernet Interface**
- 1. TDO+
- 2. TDO-
- 3. TD1+
- 4. TD1-
- 5. TDO3+
- 6. TDO3-
- 7. TDO2+
- 8. TDO2-

**Accessories (Sold separately)**
- CBL-ID08-0001 – Cable, 8 pin I/O, BULGIN CONN to Pigtail, 2 m
- CBL-XRJ45-0002 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 2 m
- CBL-XRJ45-0003 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 3 m
- CBL-XRJ45-0005 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 5 m
- CBL-XRJ45-0010 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 10 m
- CBL-XRJ45-0015 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 15 m
- CBL-XRJ45-0020 – Cable, RJ45 to 8 position M12/Xcode (IP67 METZ CONN), 20 m

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**Imperx Camera Configurator**

[Imperx Camera Configurator Image]

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**Connectors**

**Power and I/O Interface**
- Connector: BULGIN PXMBN12RPM08APCM12

**1000BASE-T Ethernet Interface**
- Connector: MACOM MMT361AJ15

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**Imperx: Applications**

Road Tolling Systems ● Situational Awareness


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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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