The Photonics division of Edinburgh Instruments is proud to present the EPLED range of sub-nanosecond pulsed LED light sources. These picosecond pulsed LEDs are ideal excitation sources for a wide range of spectroscopy applications as well as being stand-alone modules. Standard wavelengths are available from 250 nm – 610 nm.

The EPLED picosecond pulsed LEDs are an excitation source for fluorescence lifetime measurements. In Time Correlated Single Photon Counting (TCSPC), they bridge the gap between the nanosecond flashlamp and expensive mode-locked titanium sapphire femtosecond lasers in the UV and visible region.

The EPLEDs are pre-adjusted for an optimum pulse width, with particular attention paid to reducing a long tail in the temporal profile.

The EPLEDs are robust, maintenance free, easy to operate and have proprietary beam conditioning optics.

**EPLED Product Features:**
- Optimised for TCSPC
- Pre-set Repetition Frequencies from 20 KHz to 20 MHz
- External Trigger Facility
- Spectrally Purified Output
- Fully Integrated & Compact Design
- Extremely Low RF Radiation
- Optimised Collimated Beam
## Technical Specifications

### UV Series

<table>
<thead>
<tr>
<th>Wavelength (nm ±10 nm)</th>
<th>Pulse Width (typical) (FWHM) (ps)</th>
<th>Pulse Width (Maximum) (FWHM) (ps)</th>
<th>Spectral Width (FWHM) (nm)</th>
<th>Average Power @20 MHz (typical) (µW)</th>
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<tbody>
<tr>
<td>EPLED 250</td>
<td>250</td>
<td>900</td>
<td>950</td>
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<tr>
<td>EPLED 255</td>
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<td>950</td>
<td>11.0</td>
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<tr>
<td>EPLED 260</td>
<td>260</td>
<td>900</td>
<td>950</td>
<td>10.5</td>
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<td>EPLED 320</td>
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<td>1200</td>
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<td>EPLED 365</td>
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<tr>
<td>EPLED 380</td>
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<td>850</td>
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### VIS Series

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<th>Wavelength (nm ±10 nm)</th>
<th>Pulse Width (typical) (FWHM) (ps)</th>
<th>Pulse Width (Maximum) (FWHM) (ps)</th>
<th>Spectral Width (FWHM) (nm)</th>
<th>Average Power @20 MHz (typical) (µW)</th>
</tr>
</thead>
<tbody>
<tr>
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<td>EPLED 570</td>
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<tr>
<td>EPLED 590</td>
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<td>1,600</td>
<td>10.0</td>
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<tr>
<td>EPLED 610</td>
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<td>1,250</td>
<td>1,400</td>
<td>15.0</td>
</tr>
</tbody>
</table>

### Pulse Repetition Frequencies [MHz]
- 20
- 10
- 5
- 2
- 1

### Pulse Period [ns]
- 50
- 100
- 200
- 500
- 1000

### Bias Supply
- 15 – 18 Vdc, 15 W (2.1 mm DC jack)

### Trigger Input
- Hirose HR 10A-7P-4P(73), +3.3V

### Trigger Output
- SMA, NIM Standard

### Interlock Input
- Hirose HR10-7P-4P(73), +3.3V, (short circuit – interlock healthy)

### Key Switch
- Yes

### Spectral Conditioning
- Colour glass filter (interference filter on request)

### Physical Dimensions
- Overall: 168 mm length x 64 mm x 64 mm. collimator tube: ø30 mm x 38 mm
- 2 off M6
- 2 off N6
- 800 g

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**CLASS 2/3R/3B EPLED PRODUCT.**

Avoid exposure to beam. Light emitted by the LED may be harmful to the human eye and to skin. Please obey laser safety regulations.

This product complies with the US federal laser product performance standards.

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- www.edinst.com

Customer support is available worldwide

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All specifications are correct at the time of production. We reserve the right to change our specifications without notice.