

# The EPLED Series

Picosecond Pulsed UV & VIS LEDs



EDINBURGH  
INSTRUMENTS

Photonics Division



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.

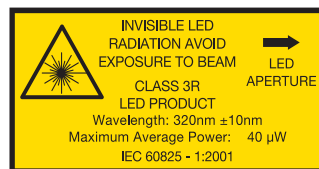
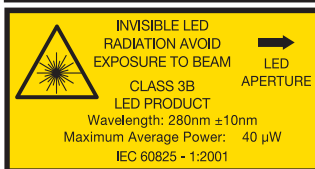
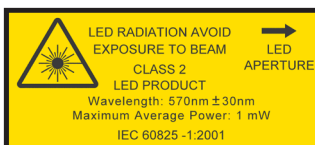
The EPLEDs are robust, maintenance free, easy to operate and have proprietary beam conditioning optics.

## 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	Wavelength (nm ±10 nm)	Pulse Width (typical) (FWHM) (ps)	Pulse Width (Maximum) (FWHM) (ps)	Spectral Width (FWHM) (nm)	Average Power @20 MHz (typical) (µW)						
EPLED 250	250	900	950	10.5	2.0						
EPLED 255	255	900	950	11.0	2.0						
EPLED 260	260	900	950	10.5	2.0						
EPLED 265	265	900	950	10.5	2.0						
EPLED 270	270	900	950	10.0	2.0						
EPLED 280	280	900	950	10.0	2.0						
EPLED 295	295	900	950	10.0	2.0						
EPLED 300	300	900	950	10.0	2.0						
EPLED 310	310	900	950	10.5	2.0						
EPLED 320	320	900	950	11.0	2.0						
EPLED 340	340	1200	1300	12.5	2.0						
EPLED 365	365	900	950	13.0	2.0						
EPLED 380	380	850	950	10.0	2.0						
<b>VIS Series</b>											
EPLED 560	563	1,500	1,750	10.5	0.09						
EPLED 570	572	1,350	1,600	12.5	0.10						
EPLED 590	590	1,300	1,600	10.0	0.25						
EPLED 610	610	1,250	1,400	15.0	0.30						
Pulse Repetition Frequencies [MHz]	20	10	5	2	1	(KHz)	500	200	100	50	20
Pulse Period [ns]	50	100	200	500	1000	(µs)	2	5	10	20	50
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										
Tapped Holes for Stud Mount	2 off M6										
Weight	800 g										



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

Avoid exposure to beam. Light emitted by the LED maybe 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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