# EPLED SERIES



Picosecond Pulsed UV & Vis LEDs



## The EPLED picosecond pulsed LEDs are ideal excitation sources for fluorescence lifetime measurements providing coverage in the UV and visible ranges.

In Time-Correlated Single Photon Counting (TCSPC) they bridge the gap between the nanosecond flashlamp and expensive mode-locked Titanium sapphire femtosecond lasers. In addition, their external trigger capability makes them suitable for standalone operation in a wide range of spectroscopy applications.

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

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

# **KEY FEATURES**

- Optimised for TCSPC
- 15 pre-set repetition frequencies from 2.5 KHz to 20 MHz
- External trigger capability
- Spectrally purified output
- Fully integrated & compact design
- Extremely low RF radiation
- Beam conditioning optimised for Edinburgh Instruments spectrometers
- Drive electronics included

# SPECIFICATIONS

UV Series	Wavelength (nm ±10 nm)	Typical Pulse Width (FWHM) (ps)	Maximum Pulse Width (FWHM) (ps)	Spectral Width (FWHM) (nm)	Typical Average Power @20 MHz (µW
EPLED-250	250	900	950	10.5	3.5
EPLED-255	255	900	950	10.5	3.5
EPLED-260	260	850	950	10.5	3.5
EPLED-265	265	850	950	10.5	3.5
EPLED-270	270	900	950	10.0	5.0
EPLED-280	280	900	950	10.0	5.0
EPLED-295	295	1000	1150	10.0	4.0
EPLED-300	300	1000	1150	10.0	4.0
EPLED-310	310	910	980	10.5	2.0
EPLED-320	320	880	950	11.0	3.0
EPLED-340	340	1050	1300	10.0	1.0
EPLED-365	365	900	950	13.0	4.0
EPLED-380	380	990	1050	10.0	2.0
VIS Series					
EPLED-560	563	1500	1750	10.5	0.15
EPLED-570	572	1350	1600	12.5	0.35
EPLED-590	590	1300	1600	12.5	0.35
EPLED-610	610	1250	1400	15.0	2.00

Laser Class	Class 3B (EPLED-250 to EPLED-310), Class 3R (EPLED-320 to EPLED-380) or Class 2 (EPLED-500 to EPLED-610)		
Repetition Rate	MHz: 20, 10, 5, 2 kHz: 1000, 500, 200, 100, 50, 25, 20, 12.5, 10, 5, 2.5		
Bias Supply	15 Vdc +/- 5%, 15W (2.1mm DC jack)		
Trigger Output	SMA, NIM Standard		
Interlock Input	Hirose HR10A-7P-4P(73), (Link pin 1 and pin 2 to ground – interlock healthy)		
Trigger Input	Hirose HR10A-7P-4P(73), (Signal pin 4 and ground pin 3)		
Trigger Input Signal	TTL > 50 ns pulse. Trigger on rising edge. 0.0 V < Low level < 0.5 V, 2.5 V < High level < 5 V		
Key Switch	Yes		
Spectral Conditioning	Built-in filter to minimise out-of-band emission (no external spectral filtering needed)		
Physical Dimensions	Overall: 168 mm length x 64 mm x 64 mm Collimator tube: ø 30 mm x 38 mm		
Tapped Holes for Stud Mount	2 x M6		
Weight	800 g		

Other wavelengths available upon request.

#### CLASS 2/3R/3B LED PRODUCT

Avoid exposure to beam. Light emitted by the source 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.



Customer support is available worldwide.

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