The VPLED series of LEDs provide variable width pulses from ns to ms, as well as CW operation with powers in the mW range.

They are optimised for long photoluminescence lifetime measurements using the Multi-Channel Scaling (MCS) detection method. The width of the excitation pulses is easily controlled from the VPLED allowing quick optimisation of the measurement conditions.

The VPLED diodes are compact, maintenance free, and user-friendly. Although they are designed to match Edinburgh Instruments spectrometers, they can be incorporated into any experiment thanks to their external trigger capability.

**KEY FEATURES**

- Optimised for MCS
- 14 Pre-set pulse widths from 50 ns to 1 ms
- External trigger capability
- Adjust pulse width and repetition rate with input trigger pulse
- Operation in CW mode
- Spectrally purified output
- Compact plug-and-play design
- Extremely low RF radiation
**SPECIFICATIONS**

**Available Wavelengths (± 10 nm)**


**Typical Spectral Width (FWHM) (nm)**

10 ± 4 to 50 ± 5

**Typical Average Power in CW Mode (mW)**

0.1 – 2.0

**Typical Peak Power at Min. Pulse Width (mW)**

0.4 – 5.0

**Laser Class**

Class 3R (410 nm – 770 nm) or Class 3B (others)

**Pulse Widths**

ns: <70, 100, 200, 500      μs: 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000

**External Trigger Width Mode**

Pulse width and repetition rate defined by external trigger input
Max. duty cycle 50%

**CW Mode**

Yes

**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 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**

750 g

* Wavelength dependent. Please contact Edinburgh Instruments for wavelength-specific data.

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**CLASS 3B/3R 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.

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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.
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