The EPL Series

Picosecond Pulsed Diode Lasers

EPL-375, EPL-405, EPL-445, EPL-470, EPL-485, EPL-515
EPL-635, EPL-640, EPL-655, EPL-670, EPL-785, EPL-805.

EDINBURGH PHOTONICS

A division of
Edinburgh Instruments Ltd.

The EPL picosecond pulsed diode lasers, are a new 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.

The EPL lasers are pre-adjusted for an optimum pulse width, with particular attention paid to reducing a secondary shoulder. The output has a pulse width of less than 100ps.

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

EPL Product Features:

- Optimised for TCSPC
- 10 Pre-set Repetition Frequencies from 20KHz to 20MHz
- Spectrally Purified Output
- Fully Integrated, Compact Design
- Extremely Low RF Radiation
- Optimised Collimated Beam
- Drive Electronics Included

theLaneagency
Client: **Edinburgh Instruments**
Project: **Photonic Flyers**
CMYK
Doc: **110838 EPL Series Flyer**
Size: **210x297**
Date: **12.10.11**
A/C: **KF**
AW: **BG**
Proof: **8**

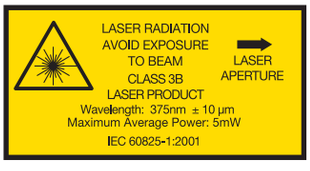
Technical Specifications

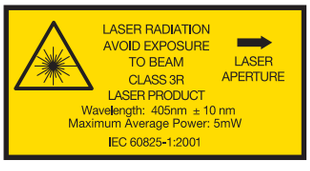
	EPL-375	EPL-405	EPL-445	EPL-470	EPL-485	EPL-515	EPL-635*	EPL-640	EPL-655	EPL-670	EPL-785	EPL-805
Nominal Wavelength (nm)	375	405	445	471	485	512	635	641	654	670	785	805
Wavelength Range (nm)	369-381	398-412	437-453	462-476	477-492	500-520	630-640	636-646	647-661	663-677	775-791	795-815
Linewidth (nm)	<2.0	<2.5	<4.5	<5.0	<7.0	<10.0	<2.5	<2.5	<2.5	<2.5	<8.0	<10.0
Max. Pulse Width @10 MHz (ps)	90	90	100	100	105	180	95	100	90	90	110	150
Typical Pulse Width @10 MHz (ps)	55	80	95	85	85	150	80	85	70	75	75	120
Typical Average Power @ 20 MHz (mW)	0.10	0.11	0.12	0.15	0.15	0.15	0.125	0.25	0.20	0.15	0.25	0.15
Min. Average Power @ 20 MHz (mW)	0.085	0.085	0.085	0.10	0.10	0.09	0.075	0.15	0.12	0.09	0.085	0.10
Typical Peak Power @10 MHz (mW)	90	110	65	100	100	50	80	140	120	100	150	100
Min. Peak Power @10 MHz (mW)	70	80	50	80	80	40	60	100	80	75	70	55

Pulse Repetition Frequencies (MHz)	20	10	5	2	1	(KHz)	500	200	100	50	20
Pulse Period [ns]	50	100	200	00	1000	(µs)	2	5	10	20	50

Bias Supply	15 – 18V dc, 15W (2.1mm DC jack)	
Trigger Output	SMA, NIM Standard	
Interlock Input	Binder 712 (RS464-454), (short circuit – interlock healthy)	
Key Switch	Yes	
Cooling	Yes, actively controlled	
Beam Quality	Standard lasers	*EPL635 - Improved Beam Circularity
Near Field Dimensions	≤4.75mm (fast axis), ≤1.75mm (slow axis)	≤3.5mm (fast axis), ≤2.6mm (slow axis)
Divergence	≤1.5mrad (fats axis), ≤0.75mrad (slow axis)	≤1.25mrad (fast axis), ≤0.75mrad (slow axis)
Spectral Conditioning	by interference filter	
Physical Dimensions	Overall: 168mm length x 64mm x 64mm. collimator tube: ø30mm x 38mm	
Tapped Holes for Stud Mount	2 off M6	
Weight	800g	
Laser Safety	The EPL 375, 785 and 805 are Class 3B lasers. All other EPL Lasers are Class 3R	

Edinburgh Photonics has a policy of continuing product development and reserve the right to amend specification without prior notice.





CLASS 3R/3B LASER PRODUCT.

Avoid exposure to beam. Light emitted by the laser 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.

Customer support is available worldwide, from the moment you enquire through to our post sales installation support.

For more information contact us at **sales@edinst.com** or visit **www.edinburghphotonics.com**
T: +44(0) 1506 425 300
F: +44(0) 1506 425 320

Edinburgh Photonics
2 Bain Square,
Kirkton Campus,
Livingston,
EH54 7DQ
United Kingdom

Telephone
+44(0) 1506 425 300
Facsimile
+44(0) 1506 425 320

Email
sales@edinst.com
Website
www.edinburghphotonics.com

EDINBURGH PHOTONICS
A division of
Edinburgh Instruments Ltd.