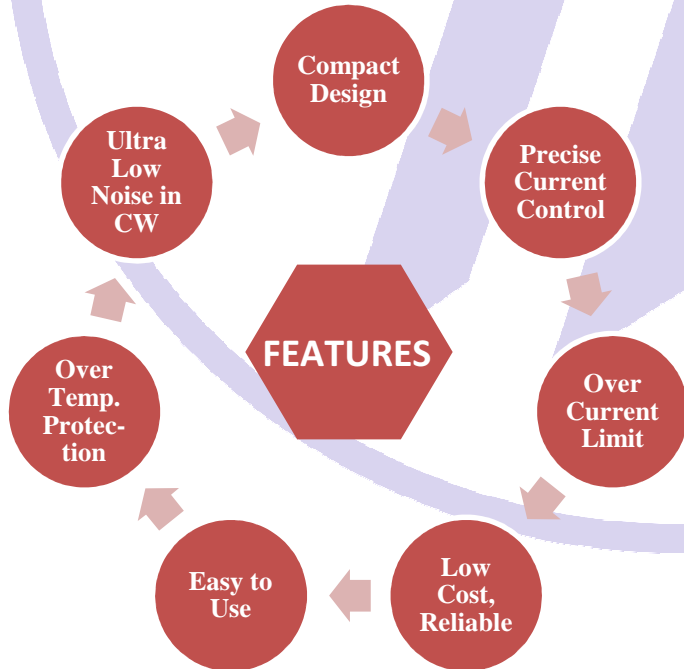


IB Photonics Ltd.

LDS Series LASER DIODE SYSTEMS



The **LDS series** are complete, turn-key solutions that combine a diode laser, power supply and TEC driver in one package. They offer wide range of output powers in the near-infrared wavelengths, flexible operation conditions and reliability. The integrated TEC cooler ensures stability of 0.1 C, thus minimizing fluctuations in wavelength, making **LDS** the ideal tool for a broad range of demanding applications such as:

- **Pumping** of solid-state and fiber lasers;
- **Material processing:** welding of plastics, metal soldering and annealing;
- **Medical equipment:** hair removal, surgery, dentistry and ophthalmology;
- **Lighting;**
- **Measurement equipment;**
- **Science and research.**

SPECIFICATIONS		
Model:	LDS-QCW	LDS-CW
Operation Regime:	QCW/CW	CW
Maximum Optical Output Power	Depending on the laser diode (see selection chart)	
Maximum Pulse Length / Duty Cycle	$\leq 0.3 \text{ ms} / \leq 20 \%$	100 %
Noise & Ripple	$\sim 2\text{A} (<2\% \text{ @ } 125\text{A})$	$<0.1\%$
Pulse Width	10 μs - 65 ms	n/a
Pulse Rise/Fall Time	50 ns – 2.5 μs	n/a
Center wavelength	Depending on the laser diode (see selection chart)	
Center Wavelength Variation	$\pm 3 \text{ nm}$ (depending on wavelength and type of diode)	
Typical Slope (Watt/A)	0.7-1.4 (depending on the laser diode)	
Typical Spectral Bandwidth (FWHM) (nm)	$\sim 5 \text{ nm}$	$\sim 3 \text{ nm}$
Operation Current	Depending on the selected laser diode	
Typical Threshold	Depending on the selected laser diode	
Operating Voltage	Depending on the selected laser diode	
Fiber Core Diameter, Numerical Aperture	Depending on the selected laser diode Free standing fiber inside F-SMA 905 on laser diode module, standard SMA 905 connector on the exit	
Fiber Length	3 m (other lengths available on request)	
Expected Lifetime	$> 1 \text{ GShot}$	$> 20,000 \text{ h}$
Diode Mounting	Via thermally conductive foil on cooled surface	
Current Slow Start	Yes	
Current Limit	Yes	
Over-temperature Shut-down	Yes	
Temperature Stability	$\pm 0.1^\circ\text{C}$	
Diode Temperature Setting Range	15-35 $^\circ\text{C}$	
Power Supply	110-220V / 50-60 Hz	
Dimensions	470x320x160 mm ³	
Humidity	20-80% RH, no condensation	

