

LASOS

For worldwide photonics

LASOS[®] DPSS laser series



Single frequency diode-pumped
solid state laser modules

Distribution in the UK & Ireland

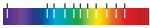


**Characterisation,
Measurement &
Analysis**

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Single frequency diode-pumped solid-state laser modules



LASOS® DPSS laser series

The LASOS® DPSS laser series is the best choice when reliability and long lifetime matters. The special optical design and an intelligent power and temperature control guarantee

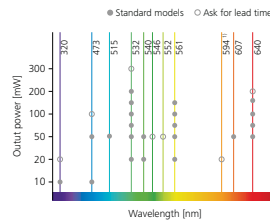
- Excellent long-term stability
- Low noise
- Exceptional good beam quality
- Long lifetime

These characteristics are ideal for a variety of applications as in DNA sequencing, flow cytometry, digital imaging, analytical chemistry, fast-flow-rate particle measurements or confocal microscopy. Since all laser models emit only a single longitudinal mode they are also an ideal choice for application in Raman-spectroscopy. Housed in compact and robust packages, these lasers are the perfect choice for design in and integration into OEM instrumentation and systems and also for end user applications in research and development. The lasers will be provided as self-contained laser modules, as OEM-component modules or as fully integratable subsystems, with a compact controller as OEM or stand alone version with computer interfacing.

Model key	DLK▼	BLK▼	GLK▼▼▼	YLK▼▼▼	RLK▼▼
Wavelength [nm]	320	473	515 532 540 546	552 561 594 ¹⁾	607 640
Max. output power [mW] ²⁾	20	100	50 300 50 50	50 150 20	50 200
Max. beam divergence [mrad]	1	1.1	1.2 1.2 1.2 1.2	1.3 1.3 1.3	1.4 1.4
Beam diameter [mm]	0.7 (0.32 on request)				
Beam ellipticity	0.8...1.2		0.9...1.1		0.9...1.1
Beam quality M ² (TEM ₀₀)	< 1.2				< 1.2
Power stability (8 h) [%]	< ± 1				< ± 1
Wavelength stability (8 h) [nm]	< ± 0.002				< ± 0.002
Pointing stability [μrad/K]	< 6				< 6
Line width [MHz] ³⁾	< 1				< 1
RMS noise (30 Hz-10 MHz) [%]	< 2		< 0.5		< 2
Polarization ratio (vertical)	> 200:1				> 200:1
Warm up time [min]	< 10				< 10

For enquiries specify:

Model key Wavelength (last two digits) Output power (mW) TS
(Example for GLK 532 nm with 50 mW output power: GLK 3250 TS)



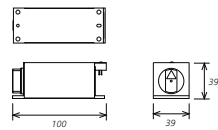
Customized solutions for specific applications are possible. All laser models can be provided with a polarization maintaining, adjustment free fiber coupling.

¹⁾ Longitudinal multimode operation

²⁾ Output power available for different wavelengths (see figure to the right)

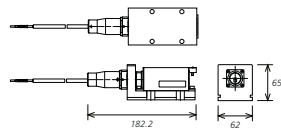
³⁾ Allan Deviation for sample period < 0.5 s

Dimensions laser head [mm]:



The laser head is available with shutter for stand alone application and without shutter as OEM version.

Dimensions laser head fiber coupled [mm]:



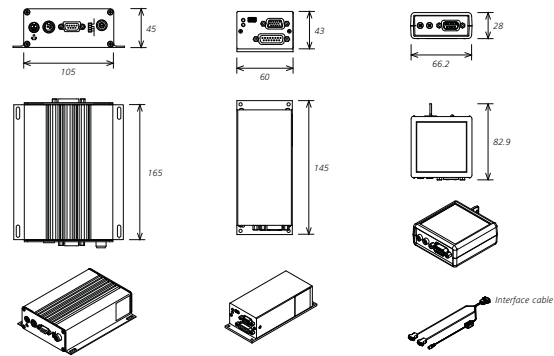
Option:

- Fiber coupling single mode, polarization maintaining or multi-mode
- Coupling efficiency > 70%
- For details refer to the LASOS Fiber series catalogue

Controller

	CXL 2400 / 2405 / 2440	CKL 1000 / 1005	CKL 1000 / 1005 with stand alone kit
Interface	RS232	USB 2.0	USB 2.0 and RS232
Options	CDRH and OEM versions	OEM versions	CDRH compliant
	Available as PCB in eurocard size		Switch Box, cable and power supply
Operating voltage	12 or 24 VDC	12 or 24 VDC	12 or 24 VDC
Controller cable length	1 or 2 m	1 or 2 m	1 or 2 m
Operating current (at 24 V input voltage):			
Typical	< 0.6 A	< 0.6 A	< 0.6 A
Maximum	2 A	2 A	2 A

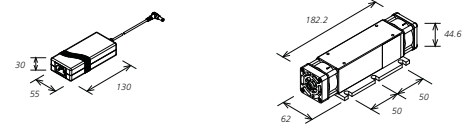
Dimensions [mm]:



Optional accessory

	Power supply 24 V / 3 A	Heat sink LHA 2400
Operating voltage	100-240 VAC	24 VDC
Operating current	1.5 A	84 mA
Remark	Part of CKL 1000 / 1005 with stand alone kit	Recommended for all laser heads
Optional accessory for CXL 2400 / 2405 / 2440		

Dimensions [mm]:



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