

## LASOS Sales Partner Locations

Please visit [www.lasos.com](http://www.lasos.com) for contact details



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# LASOS<sup>®</sup> LDM-XT laser series



Next generation laser diode modules





### LASOS® LDM-XT laser series

The LASOS® LDM-XT laser series is the latest generation of laser diode modules designed to fulfil specific customer's needs for a particular application. Its modular concept allows adapting different requirements regarding optical and electrical properties. Whether it is delivered as an OEM component for instrumentation or for stand alone applications in science or research. The customer has the choice between several options which ensure always the best price-performance ratio. With its compact and robust housing, easy setup and intelligent control the LASOS® LDM-XT laser series is the ideal choice when reliability and accuracy matter.

The laser diode modules are available in a free beam version or with a permanently aligned coupling into a single mode polarization maintaining fiber. The fiber patchcord can be designed by the customer choosing from various options regarding jacket and connectors. Additionally, the customer can choose from a range of optomechanical components like precision fiber plugs and sockets for adjustment free docking to an instrument or beam combining to transfer several beams into one collinear beam or (one) fiber. Based on these features the new LASOS LDM-XT series is the best choice for

- Microscopy
- Flow Cytometry
- Bioanalytical Research
- Industrial Measurement
- Testing
- Science and Education

Wavelength <sup>1)</sup> [nm]	Model key	Free beam (TS version)		Fiber coupled (FS version)		
		Max. output power [mW]	Max. output power [mW]	Available options		
▶ 375	DLD-XT 37560	50	n/a	C	H	
▶ 395	DLD-XT 395100	100	60	C	H	
▶ 405	VLD-XT 405300	250	150	C	E	H
▶ 415	VLD-XT 415120	100	60	C	E	H
▶ 425	VLD-XT 425120	100	60	C	E	H
▶ 445	VLD-XT 445100	80	50	C	E	H
▶ 457	BLD-XT 457100	80	50	C	E	H
▶ 473	BLD-XT 473100	80	50	C	E	H
▶ 488	BLD-XT 48830	30	20	C	E	N
▶ 488	BLD-XT 488100	100	60	C	E	N
▶ 488	BLD-XT 488200	160	100	C	E	H
▶ 505	GLD-XT 50580	65	40	C	E	H
▶ 515	GLD-XT 51540	35	20	C	E	N
▶ 515	GLD-XT 51580	65	40	C	E	H
▶ 520	GLD-XT 52050	40	25	C	H	
▶ 633	RLD-XT 63390	85	50	C	E	H
▶ 638	RLD-XT 638200	170	100	C	E	H
▶ 660	RLD-XT 66035	30	20			L
▶ 660	RLD-XT 660120	100	60	C	E	H
▶ 685	RLD-XT 68545	40	25			L
▶ 685	RLD-XT 68550	40	25	C	E	H
▶ 705	SLD-XT 70540	35	20	C	E	H
▶ 730	SLD-XT 73040	35	20	C	E	H
▶ 785	SLD-XT 78590	90	55			L
▶ 785	SLD-XT 785200	170	100	C	E	H
▶ 808	TLD-XT 808150	120	70	C	E	H
▶ 830	TLD-XT 830260	220	120	C	E	H
▶ 980	WLD-XT 98020	20	16			

<sup>1)</sup> without option N or L: typically ± 5 nm (selection on request)

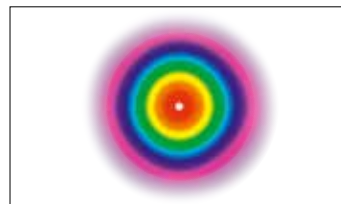
For enquiries specify: Model key Version Options, Example VLD-XT 405300 TS CH, BLD-XT 48850 FS N

#### Available matching options:

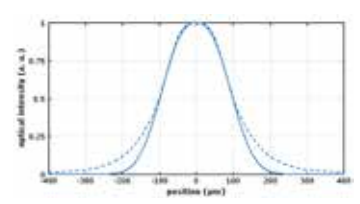
**FS** Fiber coupling



**C** Circular beam



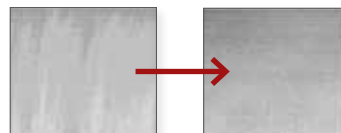
**E** Enhanced beam quality



**N** Narrow bandwidth  
(Reduced spectral width)



**H** SHINE (Speckle Homogenizer  
and Image Noise Eraser)



**L** Longitudinal singlemode  
(High coherence length)





General specifications:

Parameter	Unit	Specification	Option	Specification	Remark
Beam diameter	mm	0.8			other diameter on request
Spot roundness		0.5 ... 1	C	0.9 ... 1	
Spectral width	nm	<3	N	<1	center wavelength $\pm$ 1 nm
	pm		L	<0.1	typical
Beam quality	M <sup>2</sup>	$\leq$ 1.3	E	<1.2	TEM <sub>00</sub>
Power stability	%	< $\pm$ 2			over 8 h
Pointing stability	$\mu$ rad/K	<6			free beam
Optical noise	% rms	<0.5			30 Hz ... 10 MHz
Polarization ratio		>100:1	FS	>80:1	

Operation voltage 12 V  $\pm$  0.1 V, operation temperature 15°C ... 40°C, storage temperature -10°C ... 55°C

Modulation in power control mode

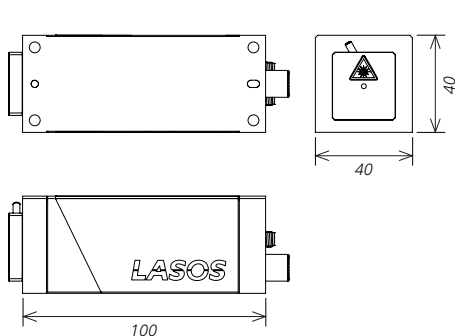
	Analog	Digital
Rise/Fall time	<1 $\mu$ s	<1 $\mu$ s
Max. bandwidth	1 MHz	1 MHz
Max. modulation depth	1:100 (1MHz)	1:infinity
SHINE option	Available	Available

Modulation in current control mode

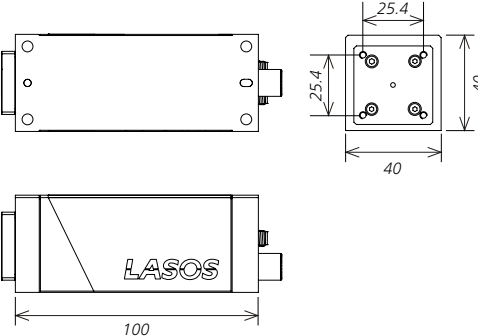
	Analog	Digital
Rise/Fall time	< 10 ns	< 10 ns
Max. bandwidth	100 MHz	1 MHz
Max. modulation depth*	1:25 (50 MHz)	1:25 (50 MHz)
SHINE option	Not available	Not available

\* higher bandwidth on request.

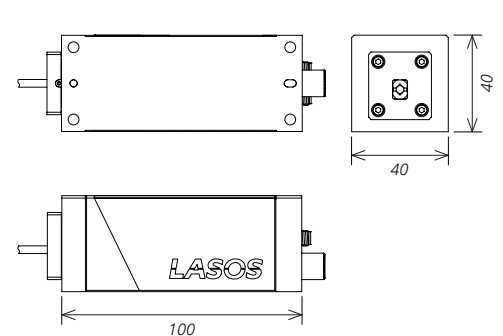
Free beam with shutter (TS version)



Free beam with adapter plate (A version)

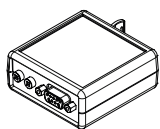


Fiber coupled with shutter (FS version)

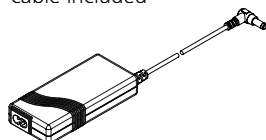


Accessory: Stand alone kit for LASOS LDM-XT laser series:

SwitchBox SSL 1000, CDRH compliant

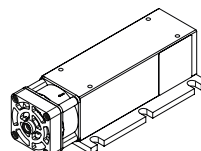


Power supply 12 V, power cord and interface cable included



Heat sink LHA 1200:

Operating voltage: 12 V DC  
Operating current: 80 mA



Software:

LASOS Commander

