

LDBA Description

monocrom has developed a new concept of mounting high power diode bars. In the patented technology, exclusive from monocrom, the laser bars are clamped without soldering within two copper blocks which serve as electrodes as well as heat sinks.

The main features of our laser diodes are:

- Long LIFETIME. >20.000 hours. No mechanical stress. No maintenance required.
- Widest OPERATION MODE RANGE: from nanoseconds to CW.
- High BRIGHTNESS with minimum "SMILE" <0.5µm.
- High EFFICIENCY >50% and compact size.
- High ENERGY per laser pulse at LOW COST per Watt.
- Custom BEAM DELIVERY. Fiber-coupled, direct irradiation, collimated modules.
- Efficient COOLING. Conduction-cooled, Water cooled (tap water compatible). No problems of micro-channel degradation.
- Broad range of WAVELENGTHS, 635-2000 nm.
- Wide STORAGE temperature, -60°C to +85 °C.
- High FLEXIBILITY, for a wide range of applications.

If we do not have it,
we can create it...

We are creating and manufacturing laser modules to our customers for more than fifteen years, thanks to the effort of a highly qualified, creative and motivated team. **Our courage, creativity and dynamism make us different.** We have demonstrated the applicability of new concepts in laser physics and technology, like our patented **clamped high power diode laser**, or our Q-Switched green SSL, capable of providing microseconds pulses and considered the most important development in Eye surgery from the last years. **Our present challenge is to design an ultra lightweight and resistant green laser device for a space mission to MARS.**

...and make it
come true

Our in-house facilities, including a wide machinery park together with Optics Labs allow us to keep all the development and manufacturing processes inside, at monocrom.

We design, manufacture and guarantee all our products. We also offer to our customers an After-Sales service in order to make sure that we meet our customers' expectations.

www.monocrom.com

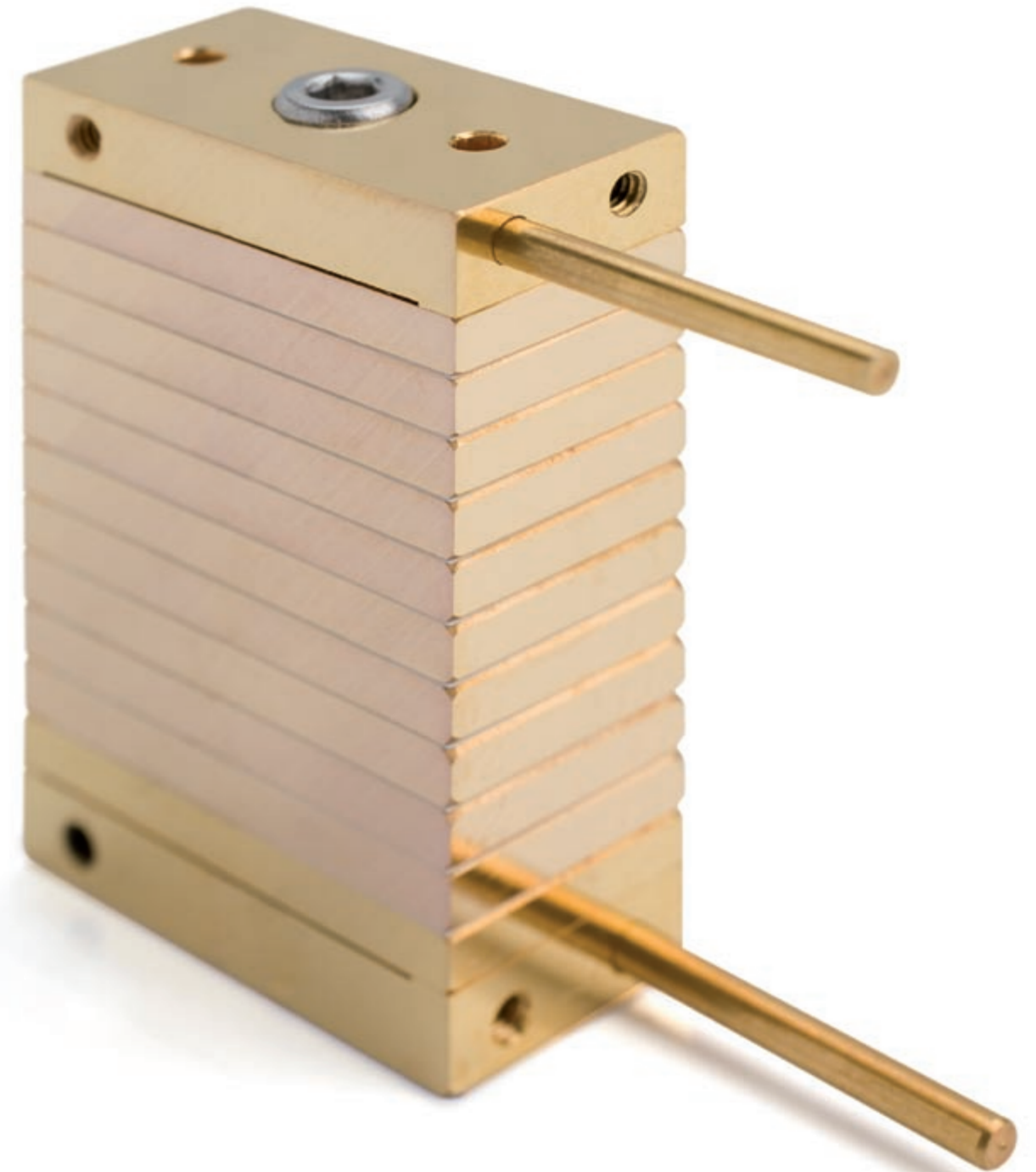
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monocrom ●
LASER DIODE DEVICES

● LDBA

Laser Diode **Bar Assemblies**



monocrom ●
LASER DIODE DEVICES

monocrom has developed a new concept of mounting high power diode lasers bars. In the patented technology, the laser bars are clamped without soldering within two copper blocks. This technology allows us to offer you the most reliable high power diode lasers.

Different solutions are available, from direct irradiation to fiber-coupled, from single bars to laser bar stacks of kW of power, from CW to nanosecond pulses, from visible to near-infrared, from conductive to water-cooled housing, and all adapted to our customers needs.

Laser Diode Bar Assemblies

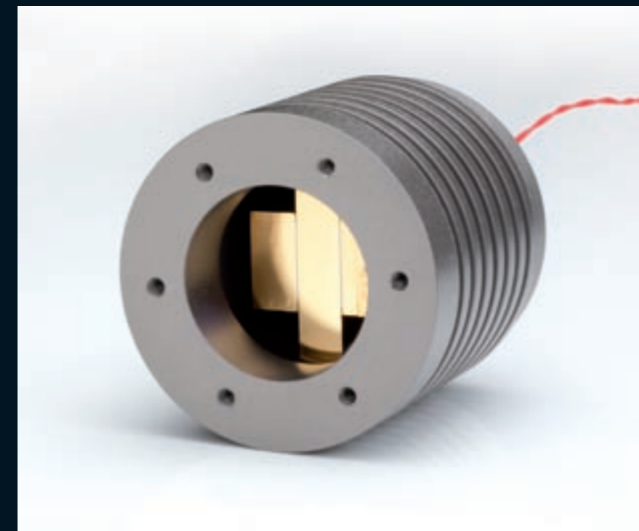
OPEN PACKAGING

Reference:	LB-VVWXY-ZZMMM WW: Wavelength; X: Cooling, P for passive, A for water; YY:number or bars, from 01 to 10; ZZ:number of emitters; MMM: operation mode, p, cw of qcw
Laser bars:	20-90 % fill factor. 0,6 to 3mm resonator
Wavelength:	635, 780, 810, 850, 880, 915, 940, 980, 1060 nm
Optical power:	up to kW
Operation mode:	pulsed (nanoseconds-milliseconds), QCW, CW
Housing:	standard, customised
Cooling system:	Conductive, Active (tap water can be used)
Beam delivery:	Non-collimated, FAC, FSAC collimated, fibre-delivery



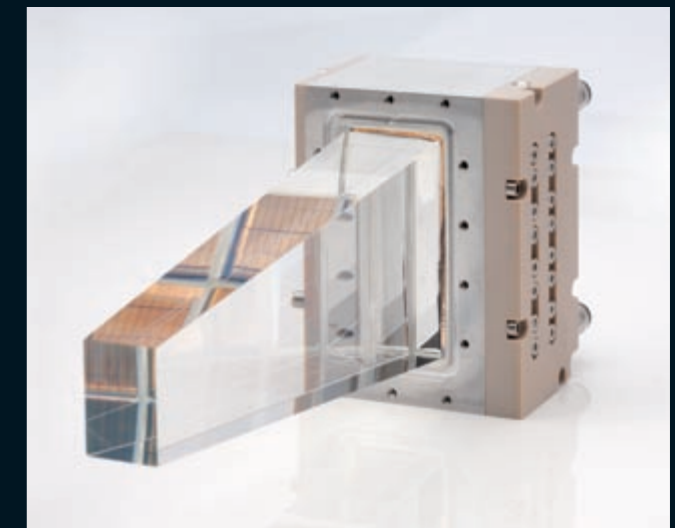
DIODE LASER PUMPING HEADS

Reference:	PH-PPP-MM PP: Peak power; MM: operation mode CW or QCW
Wavelength:	1064nm – Nd:YAG 3mm 808nm– Diode Laser Pumping
Operation mode:	CW.
Optical power:	<100W @ CW / <300W @ CW <600W @ QCW / <1800W @ QCW
Housing:	A10, A15, S35, LLL.
Cooling system:	Water cooled, without micro-channels



CONDUCTIVE DIODE LASER HEADS

Reference:	LBS-VVWPXX-ZZMMM-PPP-OO (WW: wavelength; XX: number of bars; ZZ: number of emitters; MMM: operation mode; PPP: peak power; OO: optics)
Wavelength:	780, 810, 915, 940, 980 ... nm
Operation mode:	QCW.
Optical power:	< 5000 W
Housing:	Customized
Cooling system:	TEC
Beam delivery:	Direct irradiation, FAC-SAC, customized



WATER COOLED DIODE LASER HEADS

Reference:	LBS-VVWXX-SXS WW: Wavelength; XX: number or bars, from 01 to 50; SXS: output spot size)
Wavelength:	780, 810, 915, 940, 980 nm
Optical power:	< 5000 W
Operation mode:	QCW.
Housing:	Customized
Cooling system:	Water cooled, high cooling eff. without micro-channels
Beam delivery:	Free or lens duct 6x6, 8x8, 10x10, 12x12.
Main application:	skin treatment, 40 J/cm ² from pulses of 20ms

FIBER-COUPLED DIODE LASER HEAD

Reference:	LBS-VVWPXX-ZZMMM-PPP-OOO (WW: wavelength; XX: number of bars; ZZ: number of emitters; MM: operation mode; PPP: peak power; OOO: fiber output)
Wavelength:	780, 810, 915, 940, 980 ... nm
Operation mode:	CW, QCW
Optical power:	< 500 W
Housing:	Compact and light-weight
Cooling system:	Water or conduction cooled
Beam delivery:	100-600µm fibre

NEW
no photo available

