ISO 9001:2008
UNE-EN-ISO 9001
DNV
EMPRESA CERTIFICADA

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monocrom
LASER DIODE DEVICES

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Product division	SSL Solid State Lasers
Part number	**MP 532-5W**
Description	**Diode pumped Solid State Green Laser 5W CW**
Some Applications	• Ophthalmology • Dermatology • Entertainment • Industrial
Main Features	• Up to 5W CW@532 nm. • Clamping technology mounted laser diode bar for pumping. • Power on demand (switching On-Off). • Multi-Path® technology. • Low cooling requirements. • High power stability. • Fibre coupling and focusable collimator optionally. • Shutter head with monitor photodiode and pilot laser on request. • OEM driver also available
Picture	

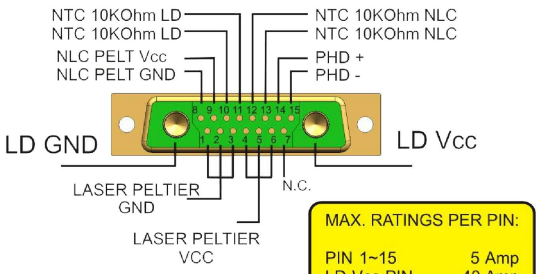
General Specs

GENERAL SPECIFICATIONS	
Laser head	Diode-Pumped Solid-State Laser (DPSSL) with NLC for green conversion
Product number	**MP532-5W**
Operation mode	Pulsed and CW
CW Output Power, typical @ 25ºC	5 W
Monitor photo diode, type Voltage[1]	1,5-2 V @ 3W (measured on 10kΩ)
Wavelength	532 nm
Output beam size	120x80 µm
Divergence	<10mrd
Operation Current, typ.	30 A
Laser Threshold, typ.	10 A
Laser Diode Voltage	1,7 V
Laser pulse duration	From 10ms to CW
Repetition rate	From single pulse to CW; with no limitations
Duty cycle	No limitations
M^2, typical [2]	< 4, TEM00
Power stability, short time (Peak to Peak) [3]	< 1 %
Rise and fall time [4]	Cooled housing: < 0,5 ms Non-cooled housing: < 2 ms in pulsed conditions and around 5 ms for single pulse
Warm up time [5]	seconds
Laser Beam High	22 mm
Operation temperature (housing) [6]	15 to 30°C
Dimensions	60 x 42 x 167 mm^3
Cooling	LD TEC: 14V / 8A NLC TEC : 4.8V / 2A
Weight	900 g
Expected Lifetime	> 10.000 h
Laser class product (EN-60825)	4

1. Suitable for APC
2. For the typical output power
3. With PID from monitor photodiode signal, and cooled housing
4. Rise time for pulsed conditions, measured at 25Hz and 50%DC
5. Defined as the time required for laser stabilization (time to establish LD and NLC operation temperature and crystal thermal lens). In pulsed mode, the warm up time only affects the first pulses.
6. Laser head should be mounted on a cooled surface with a capacity to remove 60 W waste heat at max. housing temperature. Within the temperature range, optical power could vary +/- 10%, to be compensated from the monitor photodiode signal through PID.

Outline

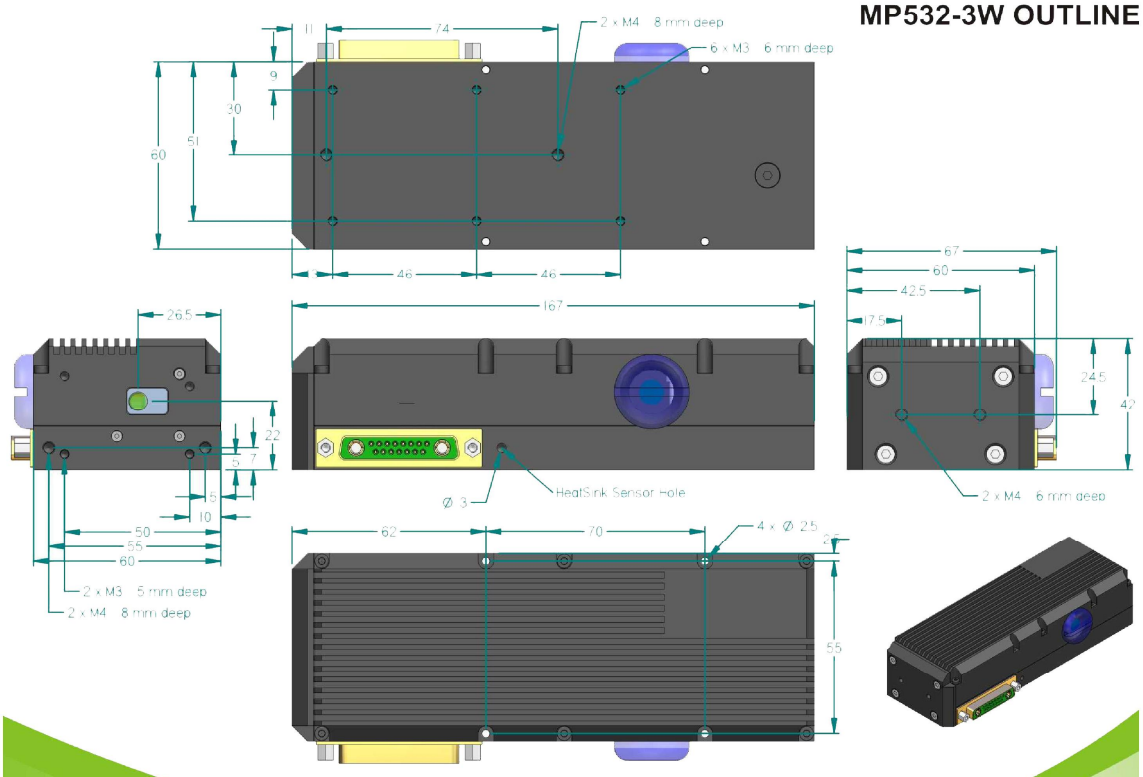
MULTICONNECTOR 17W2 PINOUT



MAX. RATINGS PER PIN:	
PIN 1~15	5 Amp
LD Vcc PIN	40 Amp
LD GND	40 Amp

OUTPUT WINDOW

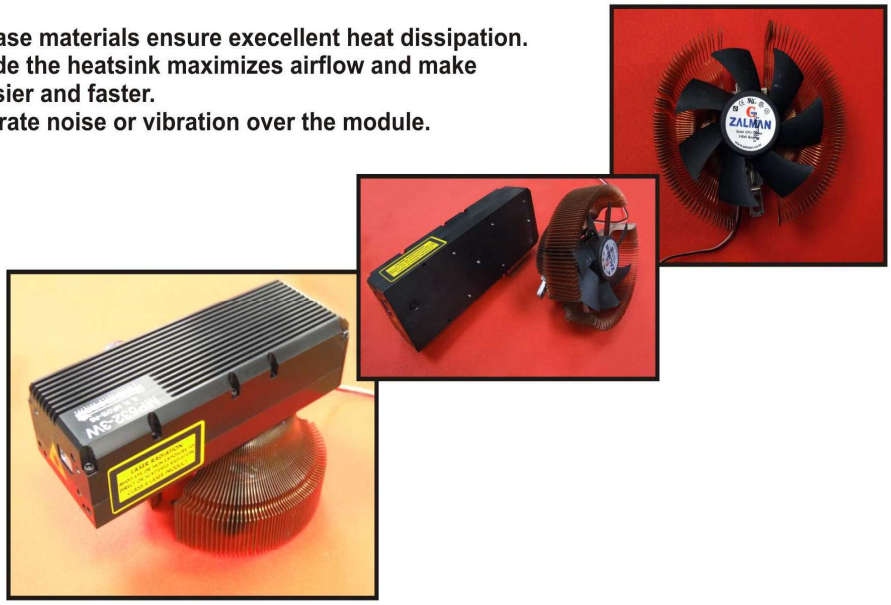
MP532-3W OUTLINE



ACESSORIES

CONDUCTIVE COOLING. Ref. CNPS7000B-CU

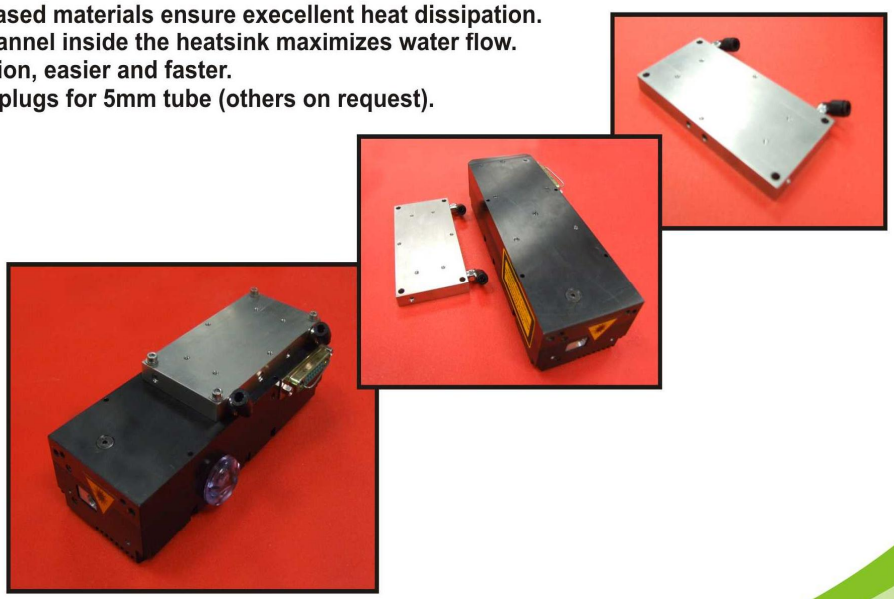
- Pure copper base materials ensure execellent heat dissipation.
- 92mm fan inside the heatsink maximizes airflow and make installation easier and faster.
- Does not generate noise or vibration over the module.



Optional Acessories

WATER COOLING. Ref. WHS50100-CUNI

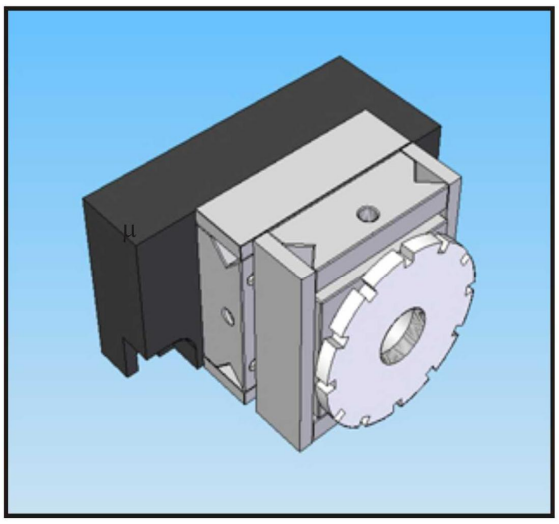
- Pure copper based materials ensure execellent heat dissipation.
- 4mm macrochannel inside the heatsink maximizes water flow.
- Quick installation, easier and faster.
- Standar water plugs for 5mm tube (others on request).



ACESSORIES

FIBER COUPLING. Ref. LFO

· Highly stable fiber launcher with XYZ adjustment



OPTICAL FIBER. Ref. FC50SMA-AR532

Optional Acessories

· Suitable for high power
· Different core diameters, 50μm, 100μm... NA0,22
· Different lengths, standards 1 and 2 meters.
. Metal protection tubes to prevent bending, with PVC jacket of Φ3mm
. AR coating @ 532nm

BEAM SHAPING OPTICS

· High quality collimator heads, with very simple adjustment of the focussing distance

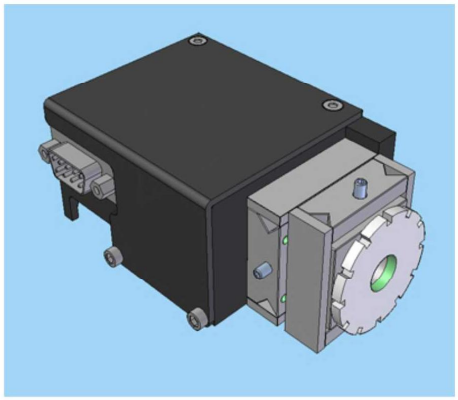
FOCUSABLE COLLIMATORS HEADS FC CONNECTORIZED

OPTICS HEADS	Focal Length	Max. CA Effective. Do[x]	Lens type	N.A. max.	Typ. eff	Standard Focusing range [mm]
-TxA10-532	10mm @ 670nm	from 2 to 6 mm	Glass aspheric lens	0.33	95 %	50 to infinite
-TLxx-532	Full angle aperture: 5,10,20,50 & 99°		Glass asph.+ cylind.	-	90 %	50 to infinite
Housing [mm] dimensions : diam.14x55						

ACESSORIES

SHUTTER HEAD. Ref. SH-RG-SMA

. Including mechanical shutter, red pilot laser, output power monitor photodiode and fibre coupling unit with optical fiber requested by customer (fiber core: from 50 μm. available)

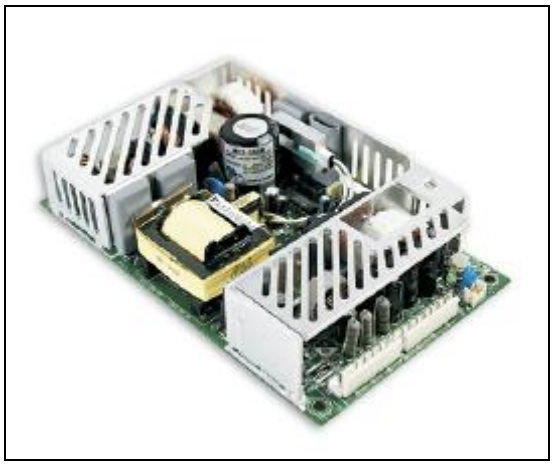


SUB D9

1	Red pilot laser: +5 Vdc input
2	Red pilot laser: 0Vdc input
3	Red pilot laser: power control 0,5 – 2,8 V
4	Shutter: +5 Vdc input
5	Shutter: 0 Vdc input
6	NC
7	Monitor PD anode
8	Monitor PD cathode
9	NC

Optional Acessories

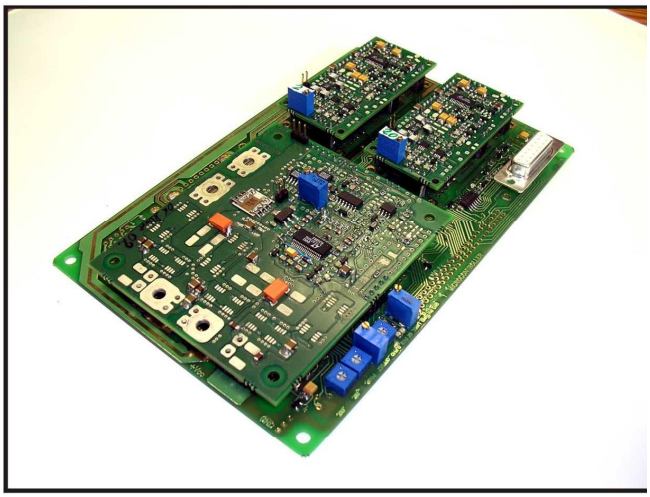
POWER SUPPLY FOR MEDICAL APPLICATIONS REF. MPS-300-12 OR EQUIVALENT

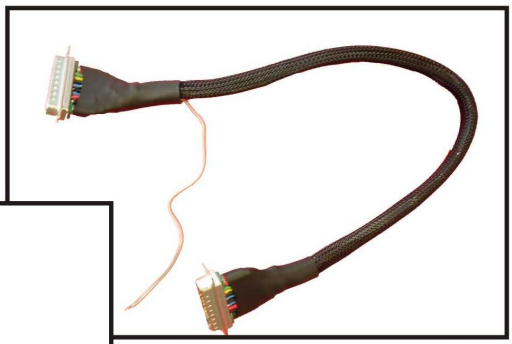


ACESSORIES

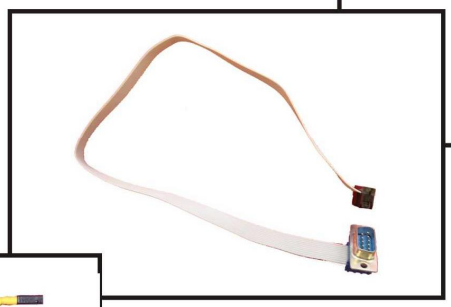
LASER DRIVER. Ref. LDR-MP5323W

- Switching technology: high efficient drivers
- Driver for Laser diode, up to 60A output
- <100s rise time
- QCW and CW operation
- Drivers for 2 TECs
- Driver for security shutter
- Safety interlocks
- PID for optical feedback
- PIDs for temperature control

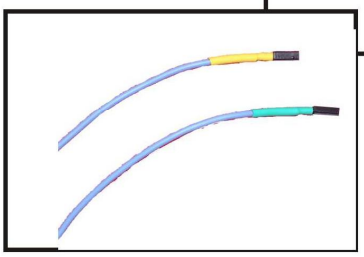




Cable for the laser head feed



Cable for the shutter head



Test cables

Ordering Information:

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Fax orders to: 800-878-7282

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