

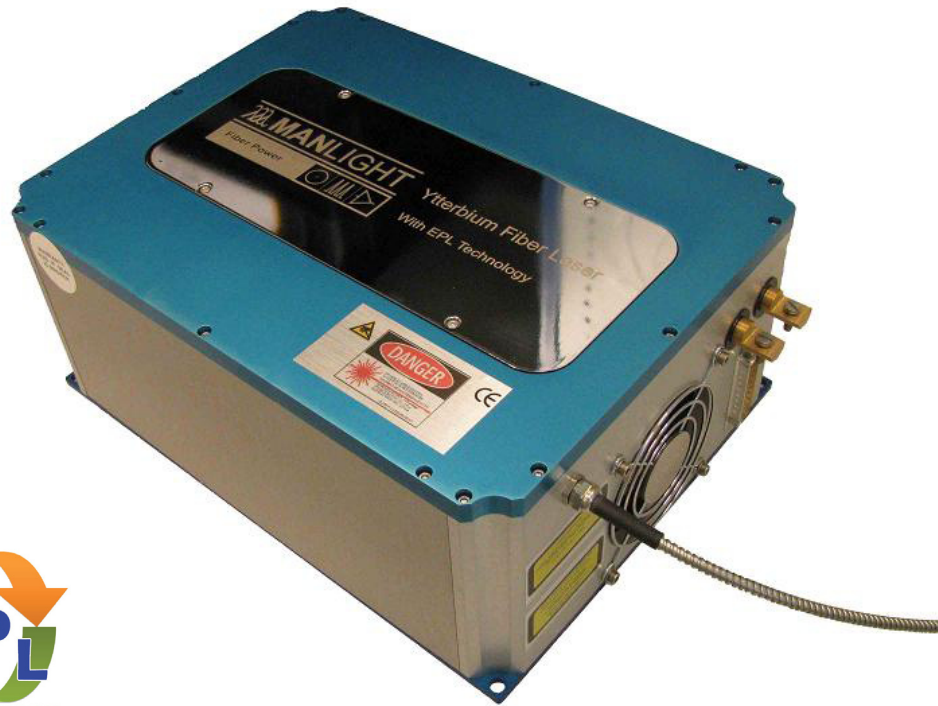


HIGH Power Fiber Technology

1µm Pulsed Fiber Laser

Features:

- Up to 0.5 mJ
- Below 50 ns pulse width
- Exchangeable pump laser
- Additional CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Excellent beam quality ($M^2 < 1.5$)
- Maintenance free operation
- RS 232 / 8 bits TTL / Analo
- Compact & rugged design
- Including heat sink & fan
- Safety Interlock
- Air cooled



ML10-PL-R-OEM

Applications:

- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving

The ML10-PL-R-OEM Module is a compact Pulsed Ytterbium Fibre Laser delivering up to 10W of average output power, through a near diffraction limited beam ($M^2 < 1.5$). It allows to obtain more than 10 kW of peak power due to a pulse duration lower than 50 ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate and output power can be controlled either by 8-bits TTL signal or RS232 or Analog. The excellent beam quality and power stability make the Manlight Fibre Laser a multi-purpose tool. Our patented "Injection Technology" allows the use of highly reliable broad area laser diode pumps, for a cost-effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilise. Designed under the proprietary „EPL“ technology (Exchangeable Pump Laser), there is no need to send back the ML10-PL-R-OEM to Manlight for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product is no more an issue. The simple integration of the system requires no after-installation service. The ML10-PL-R-OEM is the ideal solution for a broad range of industrial applications.

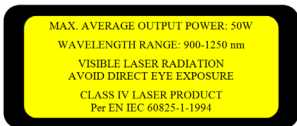
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Options:

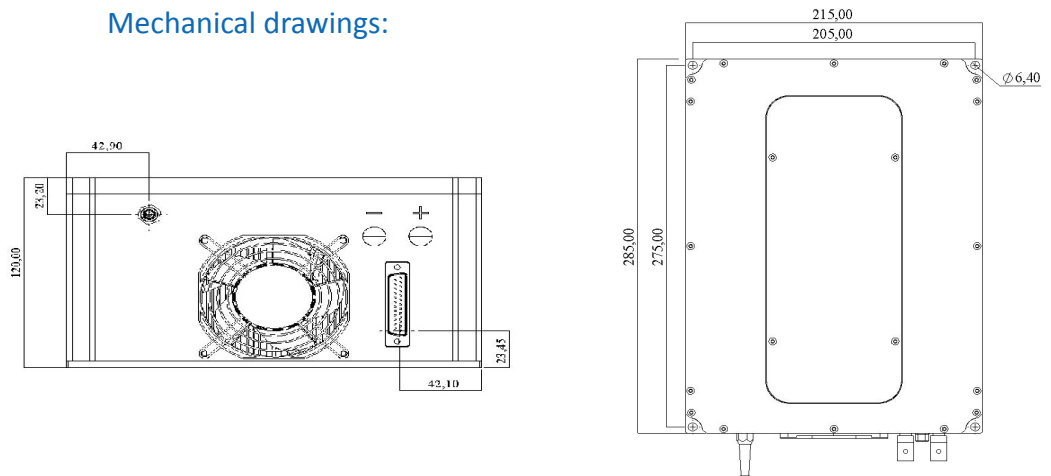
- Beam expander
- Variety of fibre lengths
- Red pilot beam for tracking
- Variety of output terminations
- Wavelength range 1060-1090nm
- Customised specs on request
- "REMO" Remote control unit
- Extended warranty
- 12 V power supply
- Rack 19" version

Operating and safety considerations
Manlight Fibre Amplifiers comply with CE, FDA & RoHS. All Manlight Fibre Lasers are patent pending.
The Manlight Fibre Amplifiers emit both invisible Class IV and visible Class II radiations. Direct and scattered radiation can be harmful to the human eye. Proper laser safety eyewear must be worn during operation. Information in this document is subject to change without notice.



Parameter	Value	Unit
Operation mode	Pulsed or CW	-
Nominal average output power	10	W
Energy per pulse (at 20 kHz)	0.5	mJ
Pulse duration	<50	nsec
Pulse peak power (at 20 kHz)	>10	kW
Pulse repetition rate	20 to 100	kHz
Output power tunability	10 – 100	%
Output power stability (RMS, over 1 hour@20°C)	<+/- 2	%
External TTL modulation frequency	Up to 5.0	kHz
Laser wavelength	1080	nm
Emission bandwidth (FWHM)	< 3	nm
Polarization	Random	-
Laser output configuration	Gaussian profile	-
Output fibre length	3	m
Typical beam diameter @1/e ²	0.5	mm
Beam quality M ²	<1.5	-
Dimensions (heatsink included)	285 x 215 x 120	mm ³
Weight (heatsink included)	< 11	Kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 40	°C
Control interface includes RS232	& add. 8 bits TTL or Analog	-
Operating voltage DC	12	V
Typical power consumption (10W @ 25°C)	< 180	W

Mechanical drawings:



Ordering Information: ML10-PL-R-OEM
Product Code: 114