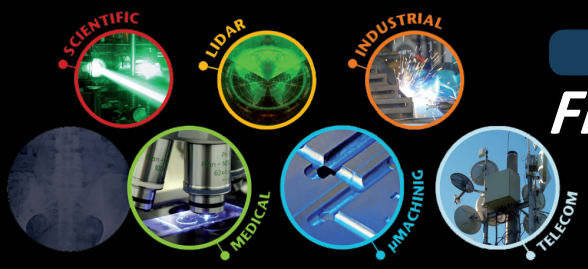


HIGH Power
Fiber Technology

MANLIGHT
Fiber Power

1µm Pulsed Fiber Laser

Features:

- Up to 0.5 mJ
- Below 50 ns pulse width
- Additional CW operation mode
- Optical power feedback detectior
- Back reflection output isolator
- Highly reliable laser diode pumps
- Excellent beam quality (M^2<1.5)
- Maintenance free operation
- Compact & rugged design
- Including heat sink & fan
- Safety Interlock
- Air cooled
- Cables included
- USB

ML10-PL-R-TKS

Applications:

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

The ML10-PL-R-TKS “TurnKey system“ is a 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 10kW of peak power due to a pulse duration lower than 50ns. One of the key features is the possibility to operate the Fibre Laser in Pulsed or CW mode. Pulse repetition rate or output power can be controlled through an user friendly interface. 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. The simple integration of the system requires no after-installation service. The ML10-PL-R-TKS is the ideal solution for a broad range of industrial applications.

ML10-PL-R-TKS-124-0904-Rev.01

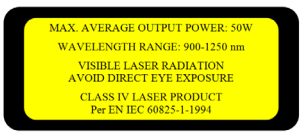
HIGH Power Fiber Technology

ML10-PL-R-TKS

Options:
- Beam expander
- Variety of fibre lengths
- Red pilot beam for tracking
- Variety of output terminations
- Wavelength range 1060-1090nm
- Customised specs on request
- 8 bits TTL or Analog Interfaces
- Extended warranty

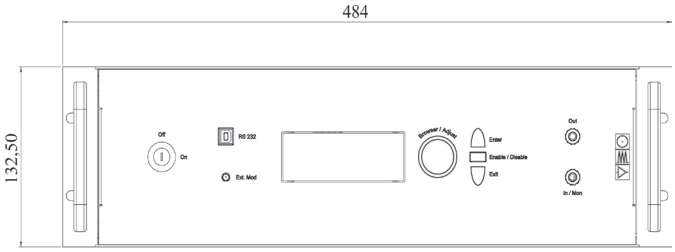
Operating and safety considerations
Manlight Fibre Amplifiers comply with CE, FDA & RoHS. All Manlight Fibre Lasers are patent pending.

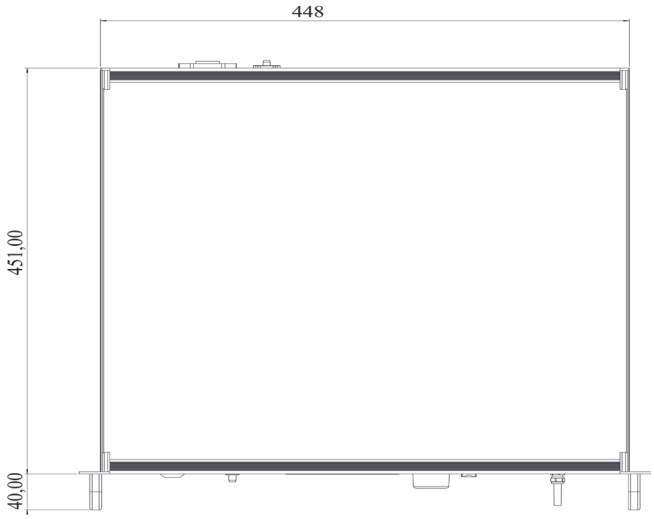
The Manlight Fibre Amplifiers emit both invisible Class IV and visible Class II radiations. Direct and scattered radiation can be harmful to the human eye. Proper laser safety eyewear must be worn during operation. Information in this document is subject to change without notice.



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 1h@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/e²	0.5	mm
Beam quality M²	<1.5	-
Dimensions	448 x 451 x 132	mm^3
Weight	< 13	Kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 40	°C
Control interface	Front panel & USB	-
Operating voltage VAC	88-264	V
Typical power consumption (10W @ 25°C)	< 180	W

Mechanical drawings:





Ordering Information: ML10-PL-R-TKS
Product Code: 124