

HIGH Power Fiber Technology

1 μ m Polarized Fiber Laser for Optical Tweezing

Features:

- Linear polarization
- Narrow linewidth (<0.25nm)
- Up to 5W CW of output power
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- USB



Applications:

- Research
- Measurement
- Optical Tweezing

ML5-CW-P-TKS-OTS

The ML5-CW-P-TKS-OTS "TurnKey system" is a compact CW Fibre Laser delivering up to 5W of output power, through a near diffraction limited linear polarized beam ($M^2 < 1.1$). The narrow linewidth of the ML5-CW-P-TKS-OTS makes this laser unique and optimized light source for all optical tweezing applications. 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. With either a connectorised FC/APC or a collimated output termination the ML5-CW-P-TKS-OTS is the ideal solution for a broad range of industrial and scientific applications.

ML5-CW-P-TKS-OTS

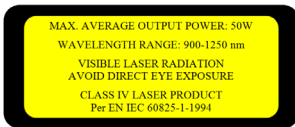
Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

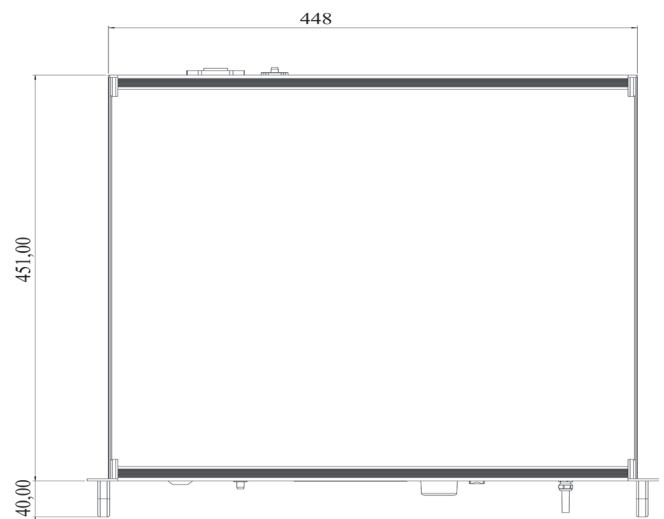
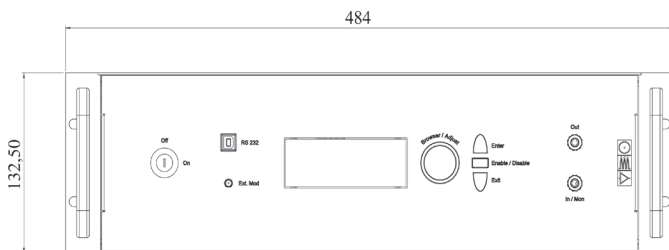
Operating and safety considerations
 Manlight Fibre Amplifiers comply with CE, FDA & RoHS. All Manlight Fibre Lasers are patent pending.

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 | CW - modulated | - |
| Nominal output power | Up to 5 | W |
| Output power tunability | 10 – 100 | % |
| Long term stability (RMS, over 1h@20°C) | <+/-2 | % |
| Laser wavelength | 1060 – 1100 | nm |
| Emission bandwidth (FWHM) | < 0.25 | nm |
| Polarization | Linear | - |
| PER (Polarization Extinction Ratio) | > 18 | dB |
| Laser output configuration | Gaussian profile | - |
| Output fibre length | 3 | m |
| Typical beam diameter @1/e ² | 2.2 | mm |
| Beam quality M ² | < 1.1 | - |
| Dimensions | 3U 19" (448 x 451 x 132) | mm ³ |
| Weight | < 13 | kg |
| Storage / Operation Temperature | 0 to +55 / +15 to +35 | °C |
| Control Interface | Front panel or USB | - |
| Operating voltage VAC | 85-264 | V |
| Typical power consumption (5W @ 25°C) | <50 | W |



Mechanical drawings:



Ordering Information: ML5-CW-P-TKS-OTS
 Product Code: 146