

# HIGH Power Fiber Technology

## 1 $\mu$ 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
- Cables included
- Air cooled



### Applications:

- Research
- Measurement
- Medical
- Optical tweezing

## ML5-CW-P-OEM-OTS

The ML5-CW-P-OEM-OTS Module 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-OEM-OTS makes this laser unique and optimized light source for all optical tweezing applications. 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. With either a connectorised FC/APC or a collimated output termination the ML5-CW-P-OEM-OTS is the ideal solution for a broad range of industrial and scientific applications

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## ML5-CW-P-OEM-OTS

### Options:

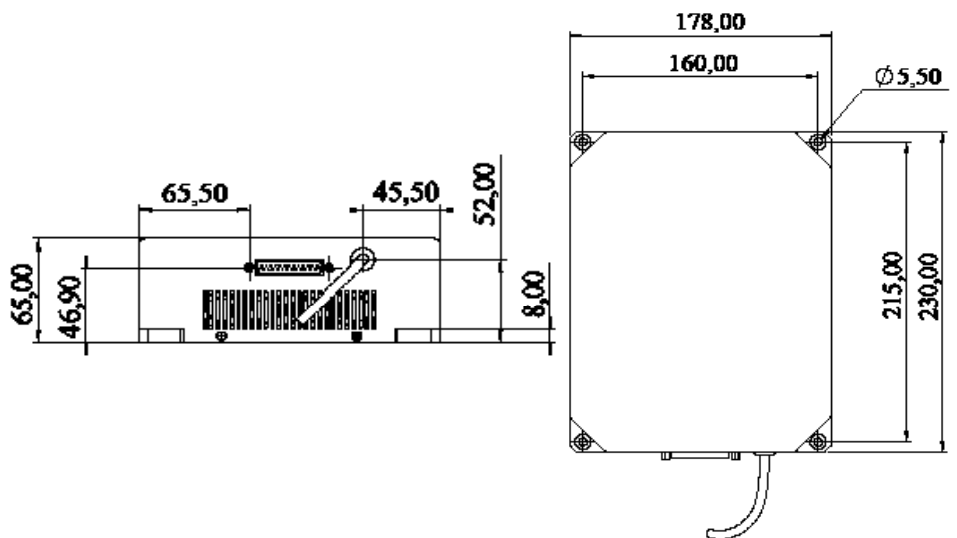
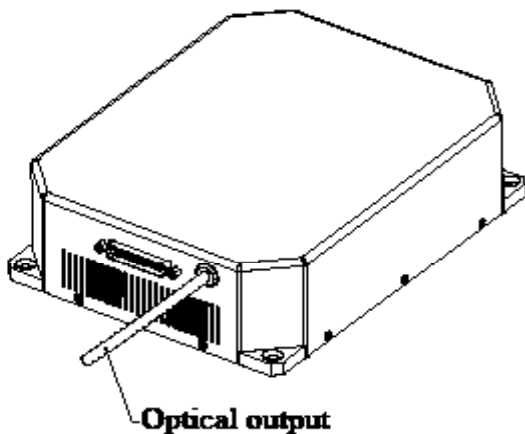
- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- "REMO" Remote control unit
- Extended warranty
- 12 V power supply
- RS232 control

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.



### Mechanical drawings:



Ordering Information: ML5-CW-P-OEM-OTS  
Product Code: 111

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 <sup>2</sup>	2.2	mm
Beam quality M <sup>2</sup>	< 1.1	-
Dimensions (without heatsink)	178 x 230 x 65	mm <sup>3</sup>
Weight	< 3	kg
Storage / Operation Temperature	- 20 to + 60 / + 10 to + 45	°C
Control Interface	RS232	-
Operating voltage DC	12	V
Typical power consumption (5W @ 25°C)	<30	W