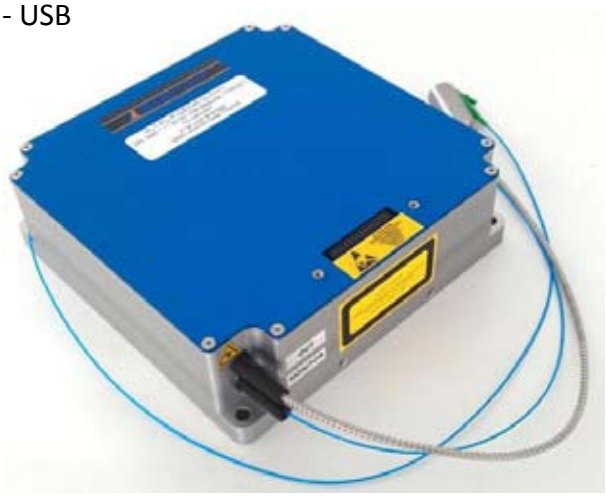
MANLIGHT
3S PHOTONICS Group

GEVEL Product Line

1.0µm CW PM Fiber Lasers for Optical Tweezing

Features:

- Linear polarization
- Narrow linewidth (<0.25nm)
- Up to 30W CW of output power
- Excellent beam quality (M^2<1.1)
- Highly reliable laser diode pumps
- Maintenance free operation
- Benchtop or OEM format
- Compact & rugged design
- Forced air cooled
- Cables included
- USB



Applications:

- Research
- Measurement
- Optical Tweezing

ML-CW-P-OEM/TKS-OTS Series

The ML-CW-P-OEM/TKS-OTS is a compact CW fibre Laser delivering up to 30W of output power, through a near diffraction limited linear polarized beam (M^2<1.1). The narrow linewidth of the ML-CW-P-OEM/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. The ML-CW-P-OEM/TKS-OTS is the ideal solution for a broad range of scientific applications.

Manlight, based in Brittany, has chosen words in local Celt language, the Breton, to personalize its product portfolio. Each of the eight fiber laser and amplifier product lines starts with a letter of Manlight. **GEVEL** in Breton stands for *Tweezers.* Thus perfectly adapted to our 1.0µm high power CW PM fiber laser range for optical tweezing application.

www.manlight.com

GEVEL Product Line
ML**-CW-P-TKS-OTS Series

Ordering Information: MLxx-CW-P-TKS-OTS

xx = Average output power in Watts

Technical Specification:

Parameter	Value					Unit
Operation mode	CW - modulated					-
Nominal output power	1	5	10	20	30	W
Output power tunability	10 – 100					%
Long term stability (RMS, over 1h@20°C)	<+/- 2					%
External TTL modulation frequency	Up to 5.0					kHz
Laser wavelength	1064 or 1080 (other wavelength on request 1060 to 1100)					nm
Emission bandwidth (FWHM)	< 0.25					nm
Polarization	Linear					-
PER (Polarization Extinction Ratio)	>20	>18	>17	>15	>15	dB
Laser output configuration	Gaussian profile					-
Output fibre length	3					m
Typical beam diameter @1/e²	2.2					mm
Beam quality M²	< 1.1					-
Dimensions	3U 19“ (448 x 451 x 132)					mm³
Weight	< 13					kg
Storage / Operation Temperature	0 to +55 / + 15 to + 35					°C
Control interface	Front panel or USB					-
Operating voltage AC	88 to 264					V
Typ. power consumption (@ 25°C)	<40	<50	<180	<320	<450	W

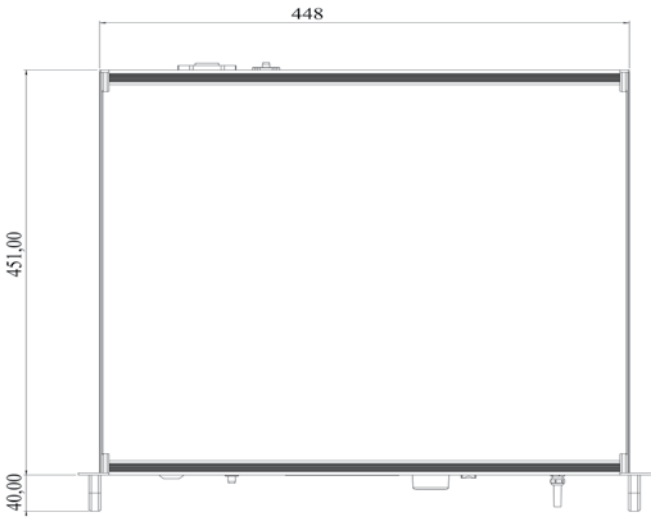
Options:
- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty

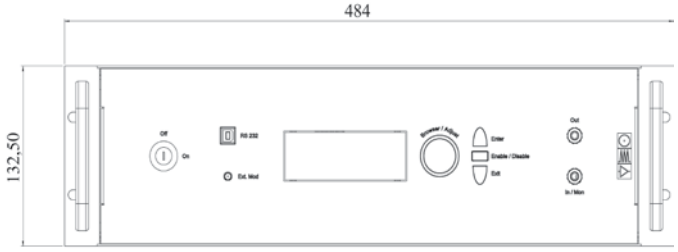
Operating and safety considerations

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.

Mechanical drawings:





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GEVEL Product Line
ML**-CW-P-OEM-OTS Series

Ordering Information: MLxx-CW-P-OEM-OTS

xx = Average output power in Watts

Technical Specification:

Parameter	Value					Unit
Operation mode	CW - modulated					-
Nominal output power	1	5	10	20	30	W
Output power tunability	10 – 100					%
Long term stability (RMS, over 1h@20°C)	<+/- 2					%
External TTL modulation frequency	Up to 5.0					kHz
Laser wavelength	1060 – 1100					nm
Emission bandwidth (FWHM)	< 0.25					nm
Polarization	Linear					-
PER (Polarization Extinction Ratio)	>20	>18	>17	>15	>15	dB
Laser output configuration	Gaussian profile					-
Output fibre length	3					m
Typical beam diameter @1/e²	2.2					mm
Beam quality M²	< 1.1					-
Dimensions	178 x 230 x 65			285 x 215 x 120		mm³
Weight	< 10					kg
Storage / Operation Temperature	-20 to +60 / + 15 to + 45					°C
Control interface	RS-232					-
Operating voltage DC	12					V
Typ. power consumption (@ 25°C)	<30	<30	<150	<320	<450	W

Options:

- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty
- 12V power supply

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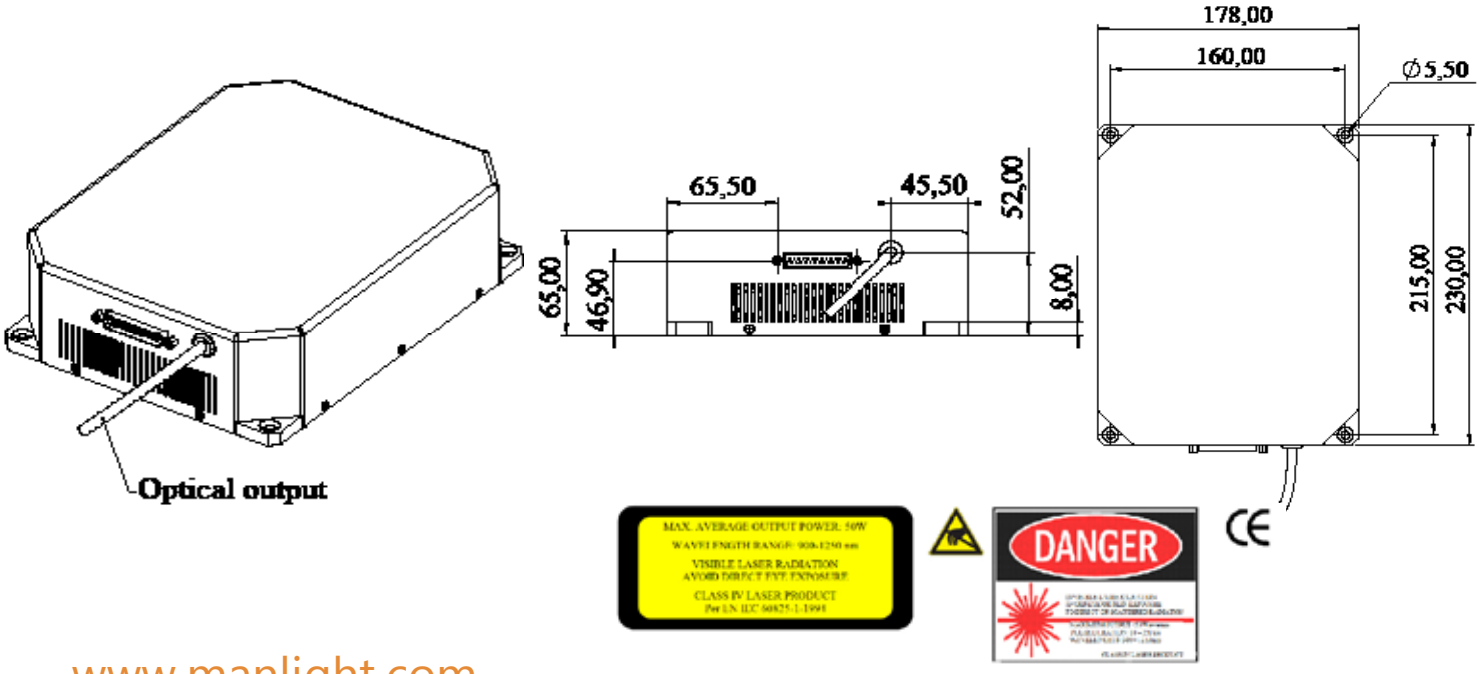

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