

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

Key Features

Linear polarization

Narrow linewidth (<math><0.25\text{nm}</math>)

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

For more info

Please contact us at:

North America: **514.748.4848**
888.922.1044

Europe & Asia: **+33 (0) 2 96 04 20 00**
or via e-mail at sales@3spgroup.com

GEVEL Product Line

1.0 μm CW PM Fiber Lasers for Optical Tweezing

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 allfibre 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.



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1.0µm CW PM Fiber Lasers
for Optical Tweezing



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

SPECIFICATIONS* STANDARD CONFIGURATIONS

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 10					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/e ²	2.2		5			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 AC	88 to 264					V
Typ. power consumption (@ 25°C)	< 40	< 50	< 180	< 320	< 450	W

Ordering Information:
MLxx-CW-P-TKS-OTS
xx = Average output
power in Watts

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
3SPGroup Fibre Lasers
comply with CE, FDA & RoHS.
All 3SPGroup Fibre Lasers are
patent pending.
Mechanical drawings:
The 3SPGroup Fibre Lasers
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.

Revised March 2012



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SPECIFICATIONS* STANDARD CONFIGURATIONS

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 available)					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/e ²	2.2		5			mm
Beam quality M ²	< 1.1					-
Dimensions	178 x 230 x 65			285 x 215 x 120		m ³
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

Ordering Information:
MLxx-CW-P-OEM-OTS
xx = Average output
power in Watts

Options:

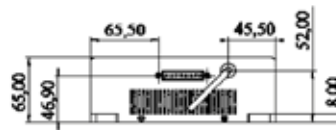
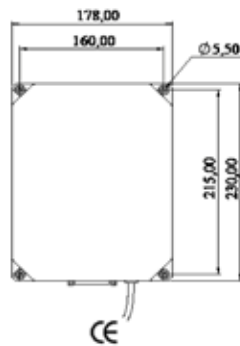
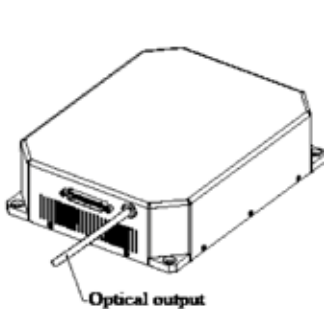
- Variety of fibre lengths
- Different collimation optics
- Back reflection output isolator
- Variety of output terminations
- Customised specs on request
- Extended warranty
- 12V power supply

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Please note: information in this document is typical and must be specifically confirmed in writing by your supplier before it becomes applicable to any order or contract. Information is subject to change without notice.
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ORDERING INFO

Please contact your Sales Manager. 3SPGroup can also develop custom products to meet a wide range of technical requirements.

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