

Features:

- Up to 30 W CW of output power
- PM version available up to 20W
- Excellent beam quality ($M^2 < 1.1$)
- Highly reliable laser diode pumps
- Maintenance free operation
- Benchtop or OEM format
- RS 232
- Compact & rugged design
- Safety interlock
- Air cooled

ISRUZ Product Line

1.5 μ m CW High Power Fiber Lasers



Applications:

- Micromachining
- Measurement
- Telecom
- Component testing
- R&D
- Medical

ML-CW-R-OEM/TKS-1550 Series
ML-CW-P-OEM/TKS-1550 Series

The ML-CW-R-OEM-1550 or ML-CW-R-TKS-1550 is a compact CW Fibre Laser at 1.5 μ m delivering up to 30W of output power, through a near diffraction limited beam ($M^2 < 1.1$). 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 unit is available in polarization maintaining version (ML-CW-P-OEM-1550 and ML-CW-P-TKS-1550 series) with optical output power up to 20W. These lasers are ideal solutions for a broad range of industrial, medical and 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. **ISRUZ** in Breton stands for *Infra-Red*. Thus adapted to our 1.5 μ m high power CW fiber laser range.

www.manlight.com

Ordering Information: MLxx-CW-y-TKS-1550

xx = Output power in Watts
y = R for Random, P for Polarized

Technical Specification:

Parameter	Value	Unit
Operation mode	CW - modulated	-
Nominal output power	1 3 5 10 15 20 30	W
Output power tunability	10 – 100	%
Long term stability (RMS, over 1h@20°C)	< +/- 2	%
External TTL modulation frequency	Up to 3.0	kHz
Laser wavelength	typical 1550	nm
Signal linewidth (FWHM)	< 3	nm
Laser output configuration	Gaussian profile	-
Polarization Extinction Ratio	>20 >20 >18 >18 >15 >15 NA	dB
Output fibre length	1	m
Output connector	Collimated	-
Output isolation	Optional	-
Typical beam diameter @1/e 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 + 50 / + 15 to + 35	°C
Control mode	ACC	-
Control interface	Front panel or USB	-
Operating voltage AC	88 to 264	V
Typ. power consumption (@ 25°C)	< 500	W

Options:

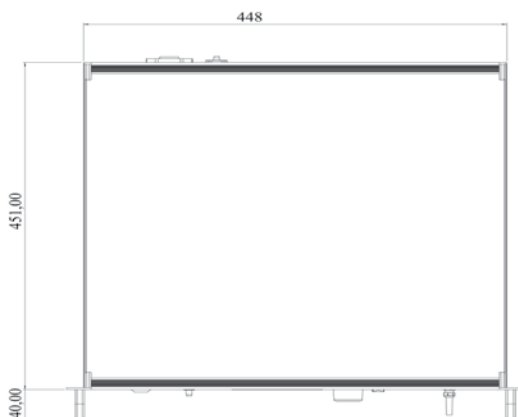
- Different collimating optics
- Back reflection output isolator
- Customised specs on request
- Extended warranty

Operating and safety considerations

Manlight Fibre lasers comply with CE, FDA & RoHS. All Manlight Fibre Lasers are patent pending.

The Manlight 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.

Mechanical drawings:



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xx = Output power in Watts

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Technical Specification:

Parameter	Value							Unit
Operation mode	CW - modulated							-
Nominal output power	1	3	5	10	15	20	30	W
Output power tunability	10 – 100							%
Long term stability (RMS, over 4h@20°C)	1.5							%
External TTL modulation frequency	Up to 3.0							kHz
Laser wavelength	typical 1550							nm
Signal linewidth (FWHM)	0.2							nm
Laser output configuration	Gaussian profile							-
Polarization Extinction Ratio	>20	>20	>18	>18	>15	>15	NA	dB
Output fibre length	5							m
Output connector	Collimated							-
Output isolation	Optional							-
Typical beam diameter @1/e ²	5,5							mm
Beam quality M ²	< 1.1							-
Dimensions	108x70 x20	150 x 150 x 45	200x148 x45	230x178x65				mm ³
Weight	0.2	<1	<1.5	<2.5				kg
Storage / Operation Temperature	-20 to + 55 / + 10 to + 40							°C
Control mode	ACC							-
Control interface	RS-232 & Analog							
Operating voltage DC	5	12-36						V
Typ. power consumption (20W @ 25°C)	<25	<50	<150	<250			W	

Options:

- Different collimating optics
- Back reflection output isolator
- Customised specs on request
- Extended warranty

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Mechanical drawings:

