

## AMPLAAT Product Line

1.0 $\mu$ m CW Fiber Power Amplifiers

### Features:

- Single mode operation TEM<sub>00</sub>
- Up to 50W CW of output power
- Up to 30W in PM version
- Highly reliable laser diode pumps
- Convenient front panel control
- Maintenance free operation
- Compact & rugged design
- Including heat sink & fan
- Cables including
- Safety interlock
- Air cooled
- USB
- OEM version available



### Applications:

- Research
- Components testing
- Material processing



## ML-YFA-CW-R-OEM/TKS Series ML-YFA-CW-P-OEM/TKS Series

The ML-YFA-CW-R-TKS, „Turn Key System“ is a compact 1.0 $\mu$ m CW Fibre Amplifier delivering up to 50W of output power through a diffraction limited linearly polarized beam ( $M^2 < 1.1$ ). The polarization maintaining version, the ML-YFA-CW-P-TKS, can reach output power of 30W. The ML-YFA-CW-R-TKS and ML-YFA-CW-P-TKS are optimised for the amplification of laser sources of more than 100MHz Full Width at Half Maximum (FWHM). The design and configuration of these amplifiers render it unique and reliable. The power is delivered through a randomly polarized beam and with excellent power stability. 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 amplifier, without any optical parts to align or to stabilise. The simple integration of the Bench Top system requires no after-installation service. Both versions are available in OEM format (-OEM)

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. **AMPLAAT** in Breton stands for *Amplify*. Thus adapted to our 1.0 $\mu$ m high power CW fiber amplifiers range.

[www.manlight.com](http://www.manlight.com)

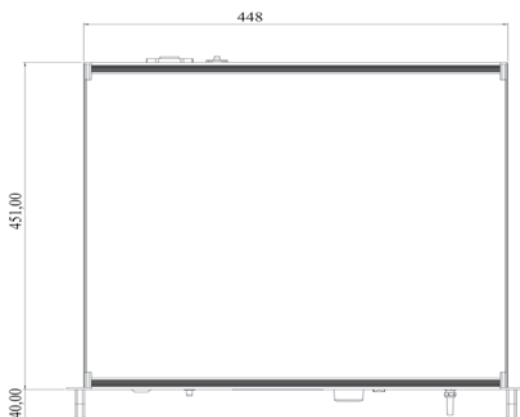
## Ordering Information: MLxx-YFA-CW-y-TKS

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

### Technical Specification:

Parameter	Value										Unit
Operation mode	CW										-
Seed Laser nominal wavelength	1064					>1070					nm
Seed Laser wavelength range	1060-1090										nm
Seed laser linewidth	> 100										MHz
Nominal input power	10										mW
Input power range	10-100										mW
Nominal output power (@ 10mW input)	1	3	5	10	15	20	30	40	50	W	
Output power tunability	30 – 100										%
Polarization Extinction Ratio	>20	>20	>17	>17	>15	>15	>15	NA	NA	dB	
Long term stability (RMS, over 1h@25°C)	<+/- 2										%
Polarization	Random / Polarized										-
Input fiber type	HI1060 / Panda										-
Input fiber length	1 typ.										m
Input fiber connector	FC/APC										-
Output fiber type	HI1060 / Panda										-
Output fiber length	1 typ.										m
Output fiber connector	FC/APC					Collimated Beam					-
Beam quality M <sup>2</sup>	1.1 (TEM <sub>00</sub> )										-
Max. optical return loss of external system	-21	-26	-28	-30	-33	-35				dB	
Dimensions	3U 19" (448 x 451 x 132)										mm <sup>3</sup>
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)	<80	<120	<120	<150	<200	<250	<450	<750	<1000	W	

### Mechanical drawings:



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Input fiber connector	FC/APC									-
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Output fiber length	1 typ.									m
Output fiber connector	FC/APC				Collimated Beam					-
Beam quality M <sup>2</sup>	1.1 (TEM <sub>00</sub> )									-
Max. optical return loss of external system	-21	-26	-28	-30	-33	-35			dB	
Dimensions	230 x 178 x 65				285 x 215 x 120			285 x 285 x 150		mm <sup>3</sup>
Weight	< 18									kg
Storage / Operation Temperature	-20 to + 60 / + 15 to + 40									°C
Control mode	RS-232									-
Operating voltage DC	12									V
Typ. power consumption (@ 25°C)	<80	<120	<120	<150	<200	<250	<450	<750	<1000	W

### Mechanical drawings:

