

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

### KeyFeatures

Single mode operation TEM00

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

### For moreInfo

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or via e-mail at [sales@3spgroup.com](mailto:sales@3spgroup.com)

## AMPLAAT Product Line

### 1.0µm CW Fiber Power Amplifiers

The ML-YFA-CW-R-TKS, „Turn Key System“ is a compact 1.0µm 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)



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1.0µm CW Fiber Power Amplifiers



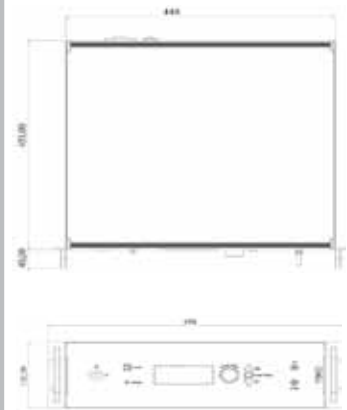
### ML-YFA-CW-P-OEM/TKS ML-YFA-CW-R-OEM/TKS Series

### SPECIFICATIONS\* STANDARD CONFIGURATIONS

| 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    |     |                 |
| 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               |

Ordering Information:  
MLxx-YFA-CW-y-TKS  
xx = Output power  
in Watts  
y = R for Random,  
P for Polarized

Mechanical drawings:



\*Specifications subject to change without notice.

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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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