

# O-LASE SERIES

**kW OEM FIBER LASER MODULES**





# O-LASE FIBER LASER SERIES

## KW-POWER

O-LASE fiber laser module is based on up to 2 kW single oscillator. **Scalable output powers** up to 8 kW with **full power range** (1–100%) provide functionality and flexibility needed in high precision processing with wide range of materials.

## EASY INTEGRATION

**Clear modular structure and interfaces** allow customers to make optimized application specific laser systems for high power welding, cutting and drilling applications. Modular structure also enables easy and cost effective power level upgrading.

## HIGH PERFORMANCE

The new OEM series is providing **high beam quality** (BPP < 0.4 single mode) and **high optical to optical conversion efficiency** (typical > 80%) in a **very robust design**. All-fiber design with excellent reliability enables minimal maintenance costs and maximal up-times.

## SPECIFICATIONS

Model	O-LASE 1500	O-LASE 2000 SM	O-LASE 2000 MM	O-LASE 4000	O-LASE 6000	O-LASE 8000
<b>Optical output</b>						
Power rating (max)	1500 W	2000 W	2000 W	4000 W	6000 W	8000 W
Output power tunability	1–100%					
Number of FLMs	1	1	1	2	3	4
Center wavelength	1070 ± 5 nm					
Beam Parameter Product <sup>1</sup>	< 0.4	< 0.4	< 2.5 / < 4	< 2.5 / < 4	< 4	< 4
Optical-optical efficiency	> 77% (typical > 80%)					
Delivery Fiber Core	20 µm	20 µm	50 µm / 100 µm	50 µm / 100 µm	100 µm	100 µm
Fiber optic cable	QBH	QBH	QBH	QBH	QBH	QD
Fiber Length <sup>2</sup>	10 m	5 m	20 m	20 m	20 m	20 m
<b>Pumping interface</b>						
Number of ports	12	12	12	24	36	48
Pump fibers	225/240 0.22 NA, pig tailed					
Center wavelength <sup>3</sup>	976 nm					
<b>Cooling interface</b>						
Fiber Laser Module (FLM)	Water cooling, 8 liter / minute / module, +25 °C					
Fiber Laser Combiner (FLC)	Water cooling, 5 liter / minute / module, +25 °C					
QBH fiber optic cable	Water cooling, 1.7 liter / minute, +25 °C					
QD fiber optic cable	Water cooling, 2.0 liter / minute, +25 °C					
<b>Dimensions<sup>4</sup></b>						
Fiber Laser Module (FLM)	1U and 440 mm deep, 19" rack					
Fiber Laser Combiner (FLC)	1U and 440 mm deep, 19" rack					
<b>Options</b>						
Optics	External optics and coupling units (Optoskand)					

<sup>1</sup> Typical value, check details from factory

<sup>2</sup> With Optoskand QBH or QD connector; other lengths available as option, check details from factory

<sup>3</sup> Check details from factory

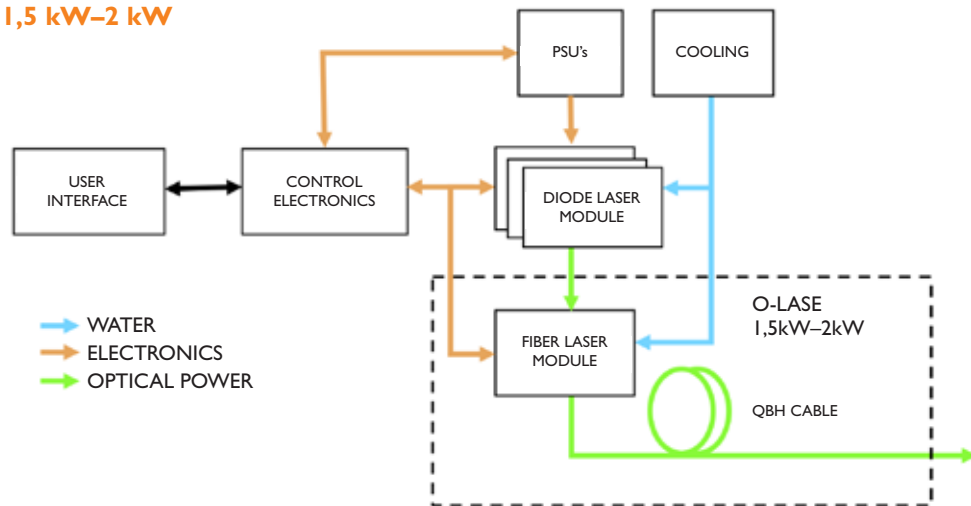
<sup>4</sup> Single units available separately, integrated modules delivered in 19" rack

# O-LASE INTEGRATION

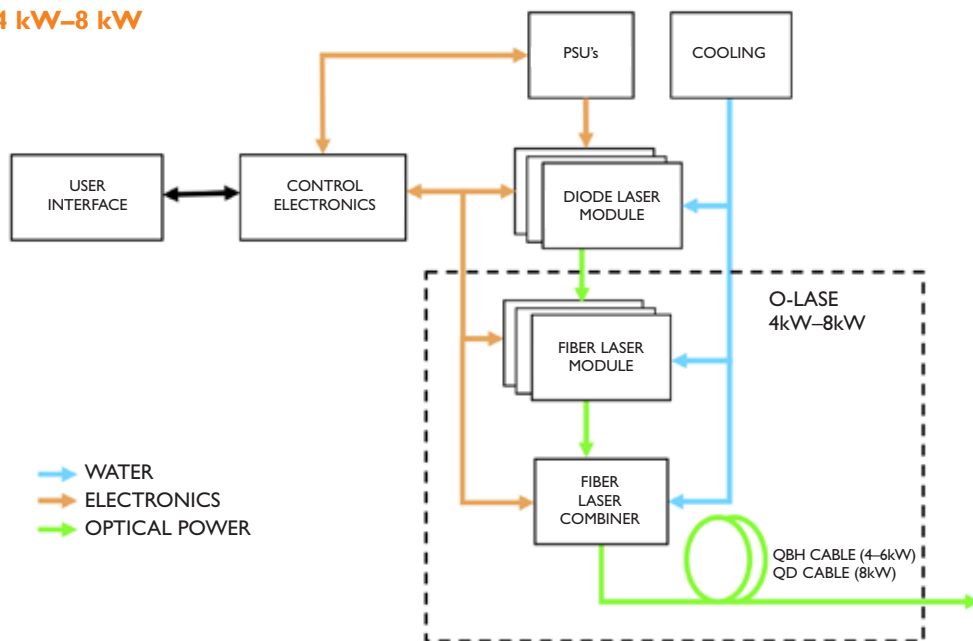
## O-LASE WITHIN CUSTOMER'S SYSTEM

PROCESS AUTOMATION SYSTEM e.g CUTTING SYSTEM

### O-LASE 1,5 kW-2 kW



### O-LASE 4 kW-8 kW



# O-LASE SERIES

## APPLICATIONS

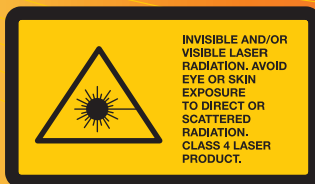
- Welding
- Cutting
- Drilling
- Cladding
- Annealing
- Heat treatment

## BENEFITS

- Easy optical, electrical and mechanical integration to laser system
- Industry leading operating power range 1–100%.
- Modular concept with scalable output powers
- Allows true real time closed loop power control
- Enables processing of sensitive and tough materials including bright metals

## FEATURES

- High power OEM configuration, up to 8 kW
- Based on up to 2 kW single oscillator
- High beam quality
- High optical-optical efficiency over full range of output powers
- High back reflection resistance
- Integrated power and temperature monitoring sensors



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*We reserve the right to introduce improvements to the product without prior notice.*