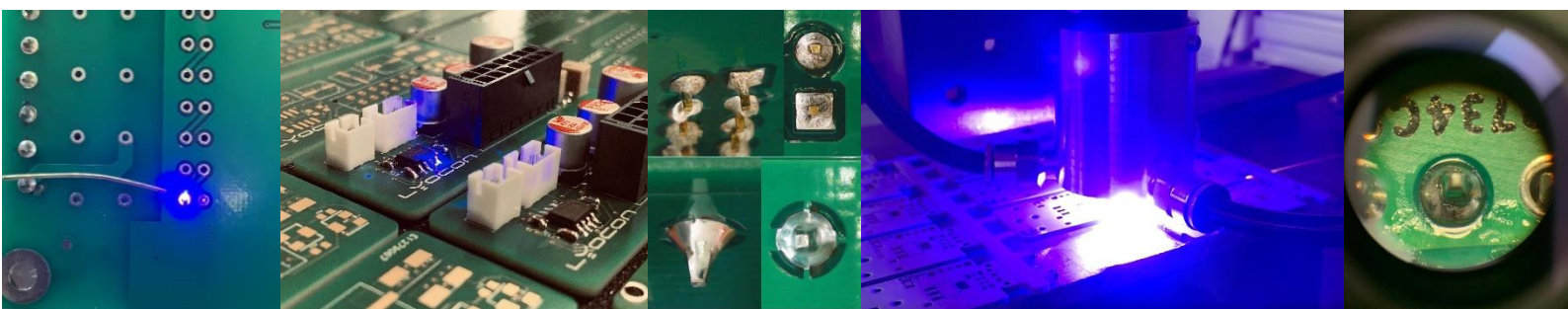


# ZEPHYRUS

## 35W FIBER COUPLED BLUE 450nm LASER SYSTEM



ZEPHYRUS is a fiber coupled laser system able to deliver up to **35W CW @450nm** in a 100µm optical fiber. It includes the ZEPHYRUS PLATFORM **BLUE** module, plus the laser driver, the cooling plate for water cooling and the optical fiber. Thanks to the strong absorption of the **BLUE 450nm** radiation by the highly reflective materials used in the **PCB manufacturing** process - up to 20x compared to IR wavelengths - ZEPHYRUS is the state-of-the-art solution for **soldering** of THT and SMD components, **depaneling** and **trimming**.

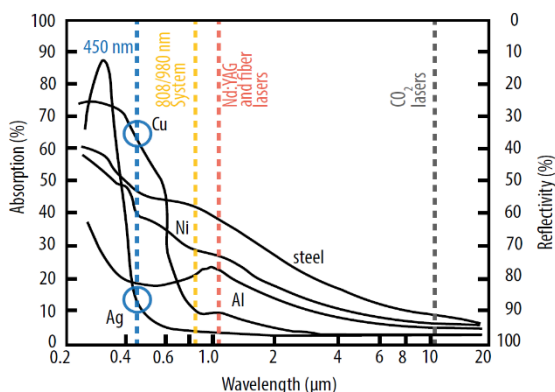
The high absorption grants lower power and time required to perform the job, as well as minimum unwanted back reflections from the solder pad, thus leading to a fast and safe process.

### FEATURES AND BENEFITS

- Valid substitute to actual IR laser
  - -50% power required to solder
  - -60% time required to solder
- Reduced thermal stress on solder pad
- Minimum unwanted back reflections
- Ready for integration
- Long lifetime > 30,000 hours

### APPLICATIONS

- SOLDERING OF THT, SMD COMPONENTS
- DEPANELING
- TRIMMING
- WELDING OF THIN WIRES



## TECHNICAL SPECIFICATIONS

Wavelength (nominal)	nm	450
Wavelength range	nm	440 / 460
Output power	W	35
Operating mode	-	CW
Fiber core (min)	µm	100
Fiber NA	-	0.22
Fiber connector	-	FC
Operating voltage (Current Driver)	VDC	48.0 (max 3.0A)
Operating voltage (Control Logic)	VDC	24.0 (max 1.0A)
Operating temperature (*)	°C	+10 / +30
Storage temperature (*)	°C	-20 / +60
Cooling	-	Tap water
Available options:		
- Aiming beam – 5V, max 40mA	nm	640
- Fiber detect sensor		

Conditions unless otherwise stated: typical parameters at 25°C. Output power may deviate from specified data with different water temperature.

\* Not-condensing environment

## ACCESSORIES

Available/customized accessories for ZEPHYRUS System are:

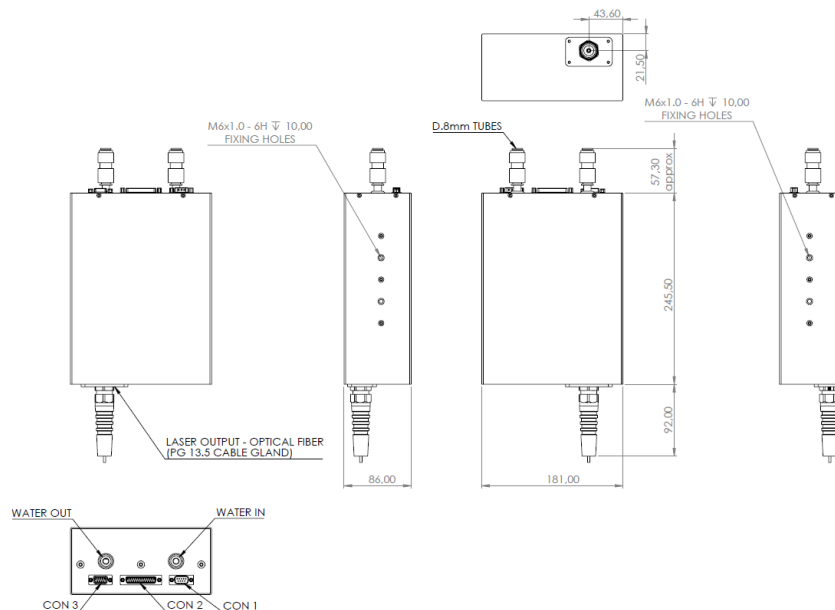
- Fixed or zoom focusing head
- Collimation optics for scan head interface
- In-line pyrometer and/or camera module for focusing head

## APPLICATION TIPS

Find our application tips and insights at the following links:

- <https://www.lyocon.com/applications/blue-welding-soldering/>
- <https://onlinelibrary.wiley.com/doi/epdf/10.1002/phvs.202100036>

## MECHANICAL INTERFACE



Lyocon aims to continuous improvement of its products, so specifications may change without notice. Class 4 Laser Product.

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