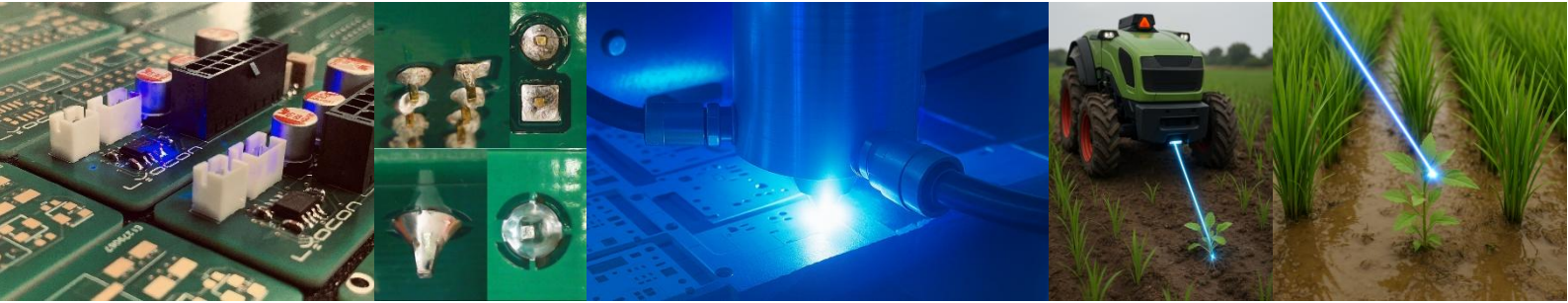


ZEPHYRUS Blue

HIGH POWER FIBER COUPLED BLUE 450nm LASER SYSTEM



ZEPHYRUS is a fiber coupled laser system that delivers up to **250W CW @450nm**.

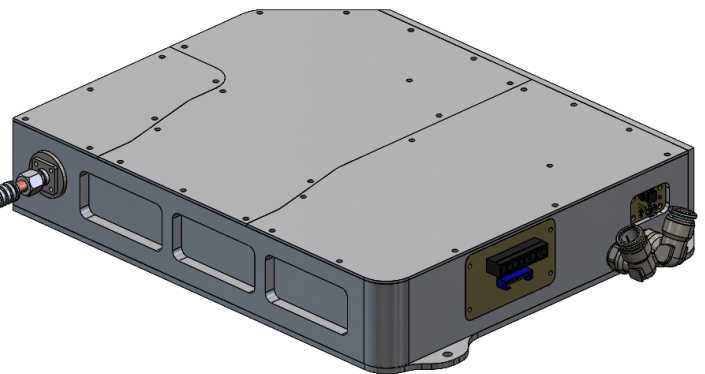
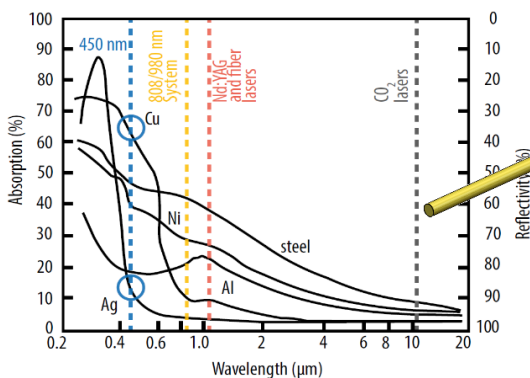
Thanks to the strong absorption of blue radiation by many materials, such as highly reflective solder compound, organic tissues and substrates, it represents a breakthrough in laser technology and opens to new and **sustainable** applications and markets, such as improvements in PCB manufacturing or weeding in the agricultural market and many more.

The **blue 450nm** radiation is strongly absorbed by the highly reflective materials used in PCB manufacturing process - up to 20x compared to IR wavelengths - ZEPHYRUS delivers unmatched performance in soldering THT and SMD components and trimming. The high absorption grants lower power and time required to perform the job, as well as minimum unwanted reflections from the solder pad, thus leading to a fast and safe process.

Blue laser radiation is strongly absorbed by organic materials, thus being a breakthrough solution in the weeding process in the agricultural market.

It's available as an OEM laser module or as an integrated unit, that includes the ZEPHYRUS PLATFORM BLUE module, plus the laser driver, the cooling plate for water cooling and the optical fiber.

- SOLDERING OF THT, SMD COMPONENTS
 - Up to 50% less power consumption than traditional IR lasers
 - Up to 60% faster soldering of THT and SMD components
 - Lower thermal stress on solder pads
 - Minimized unwanted reflections from highly reflective solder surfaces
 - TRIMMING / WELDING
 - CARDBOARD / PAPER / WOOD / LEATHER MARKING & CUTTING
 - LASER WEEDING 
 - Strong absorption by chlorophyll a and b
 - THIN COATING ABLATION
 - ILLUMINATION
-
- Ready for integration, OEM module or Integrated Unit
 - Focusing head or scan head for various beam shaping
 - Multi-wavelength /custom specifications available



TECHNICAL SPECIFICATIONS

		ZPH40	ZPH60	ZPH125	ZPH250
Wavelength (nominal)	nm	450nm			
Wavelength range	nm	440 / 460			
Output power	W	40	60	125	250
Fiber core (min)	µm	100	200	200	200
Fiber NA	-	0.22	0.22	0.22	0.22
Fiber connector	-	D80	D80	D80	D80
Operating current	A	< 3.8	< 3.8	< 3.8	< 3.8
Operating voltage (1 channel)	V	< 40	< 30	< 30	< 30
N° of channels		1	2	4	8
Operating temperature (*)	°C	+15 / +30			
Storage temperature (*)	°C	-20 / +60			
Cooling (module only)		Air/Water	Water	Water	Water
Cooling (system)		Water	Water	Water	Water
Available or customizable Options		Different fiber types Fixed or variable focusing heads Coupling into scanning head			
		PCB soldering Plastic Welding Pumping Surgery	PCB soldering Plastic Welding Pumping Surgery	PCB soldering Soldering / Welding Stereolithography Weeding	Cutting Soldering / Welding Stereolithography Weeding
		Electronics Analysis Medical	Electronics Analysis Medical	Electronics Agricultural Jewelry 3D printing	Electronics Agricultural Jewelry Battery

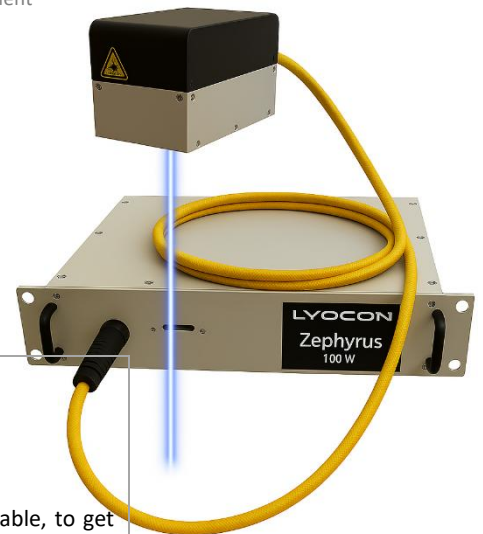
Conditions unless otherwise stated: typical parameters at 25°C.

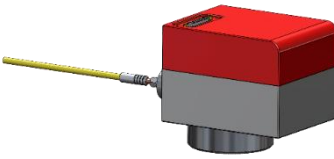
* Not-condensing environment

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



	Standard design: 1- inch optics Spot size from 0,1 to 2mm Working distance from 40 to 200mm The optics of the focusing head are fully customizable, to get the best match in terms of spot size and distance for your application.
	Standard design: Scan head aperture 20mm Spot size from 0,2 to 2mm Scan area from 30x30 to 300x300mm Scan head aperture and optics are fully customizable, to get the best match in terms of spot size and distance for your application.

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