



# YLR-1030 Series

# Ytterbium Single-mode Fiber Lasers

# -20 -30 -30 -40 -40 -40 -50 -50 -60 -70 -80 -90 1000 1010 1020 1030 1040 1050 1060 1070 Wavelength, nm



# **Applications**

- Micromachining
   Applications Requiring
   1010-1030 nm
   Wavelength Range
- Pumping
- ▶ Advanced Applications



# **Features**

- ▶ Any Power up to 1 kW
- ▶ Excellent Beam Quality
- ➤ Constant BPP over Entire Power Range
- ➤ Small Focus over Large Working Distance
- ► Over 40% Wall-plug Efficiency
- ▶ Modulation up to 50 kHz

- Maintenance-freeOperation
- ➤ Compact, Rugged and Easy to Install
- ➤ Smallest Power to Volume Ratio
- ► Wide Range of Beam Delivery Options

### **NEW PRODUCT**



**IPG Photonics' YLR-1030 Series** represents a new generation of diode-pumped CW fiber lasers in world leading small form factor, with a unique combination of high power, ideal beam quality, fiber delivery and high wall-plug efficiency. The YLR is offered as a cost effective, adaptable solution for a clean room system or for integration into a production line.

Featuring a touch panel display or rear control via Analog, RS-232 or Ethernet interfaced, the rack mount configuration is ideal for a multitude of applications benefitting from 1030 nm wavelength range such as silicon processing, optical pumping, and advanced applications. Output powers up to 1 kW are available. Beam delivery options include coupler, beam switch (time or energy share) and delivery optics such as cutting and welding heads.



# YLR-1030 Series

# Ytterbium Single-mode Fiber Lasers

Optical Characteristics	YLR-500*	YLR-700	YLR-1000
Central Wavelength**, nm		1010-1030	
Mode of Operation		CW/Modulated	
Modulation Frequency, kHz		0-50	
Max. Average Power, W	500	700	1000
Power Tunability, %		10-100	
Beam Mode Quality,*** M²		<1.1	

<sup>\*</sup>Available at 100, 200, 300 or 400 W

<sup>\*\*\*</sup>Multi-mode lasers are available up to 2 kW output power

General Characteristics				
Cabinet Dimensions (W $\times$ D $\times$ H), mm	448 × 580 × 133	448 × 680 × 177		
Weight, kg	<40	<70		
Cooling	Air- or Water-cooled	Water-cooled		

**Single-mode lasers** are equipped with a 5 mm beam diameter affixed collimator for powers up to 400 Watts; 500 - 1,000 Watt lasers terminate to an HLC-8 connector. Affixed collimator options include beam diameters in either 2.5 or 7.5 mm.

IPG manufactures a complete suite of optical beam delivery components including delivery fiber and optics, collimators, beam couplers, switches and sharers, and processing heads and scanners, as well as process control and tooling solutions. Interchangeable collimators and processing heads connect easily to the HLC-8.

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DANGER - INVISIBLE LASER
RADIATION AVOID EYE OR SKIN
EXPOSURE TO DIRECT OR
SCATTERED RADIATION
CLASS 4 LASER PRODUCT

IEC 60825-1:2014

<sup>\*\*</sup>Available at 1030 nm up to 1000 W