YLR-HPP Series
High Peak Power Option

Applications

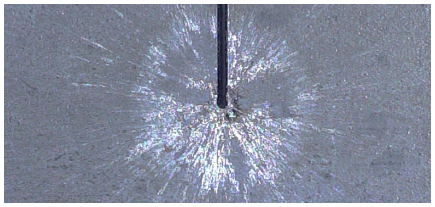
- 2D and 3D Cutting of Metals
- Cutting High Reflectivity Metals
- Drilling

Features & Benefits

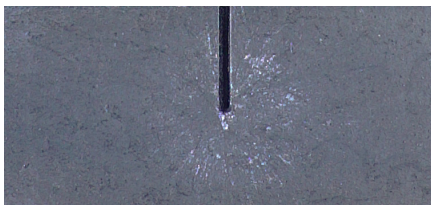
- Up to 2x Peak Power Increase in Pulsed Mode
- Faster Piercing
- Increased Output Quality
- Repeatable Processing
- Material Waste Reduction
- Enhanced Drilling Capabilitie
- Maintains the Throughput Benefits of CW Lasers During Cutting
- IPG Diodes Provide Reliable Peak Power for Short Duty Cycles and Real-Time Switching to QCW Mode

6 mm Mild Steel Piercing Example

Regular Laser
2 kW CW
Spatter is Permanently Fused to Surface



HPP Option
4 kW HPP
Limited or No Spatter



NEW FEATURE

High Peak Power for Faster Piercing, Increased Quality and Repeatability

Introducing the NEW **High Peak Power (HPP) Option** on the latest YLR lasers. The HPP option enables you to run a CW laser in pulsed mode with up to 2x increase in peak power in comparison with CW average power. High Peak Power provides advanced processing capabilities for faster piercing, increased output quality, repeatability and waste reduction. HPP increases overall processing speeds, repeatedly drills clean holes and delivers high quality cuts of intricate parts with fine features while reducing overall laser power requirements. HPP also enhances drilling capabilities by allowing clean, controlled drilling in thicker materials. For cutting applications this means shorter lead-ins and denser part nesting, which reduces material cost and waste. Available exclusively from IPG, High Peak Power will provide improved cutting and drilling quality and increased overall throughput, while saving material, time and operating costs.

YLR-HPP Series
High Peak Power Option

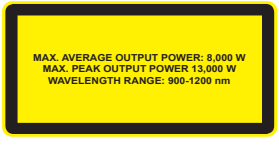
Optical Characteristics	YLR-2000/4000-HPP		YLR-3000/5000-HPP		YLR-4000/6500-HPP	
Central Wavelength, nm	1070 ±5					
Mode of Operation	CW/Pulsed QCW					
Modulation Frequency, kHz	10					
Max. Average Power in CW Mode, W	2000		3000		4000	
Max. Peak Power in Pulsed Mode, W	4000		5000		6500	
Duty Cycle, %	10	20	10	20	10	20
Max Average Power in Peak Mode, W	400	800	500	1000	650	1300
Max. Pulse Energy, J	8		10		13	
Minimum Pulse Width, ms	0.05					
Power Stability*, %	± 0.1 typ.					
Output Fiber Core Diameter, µm	50, 100, 200					
Beam Parameter Product, mm × mrad	2.1, 4.2, 8.4				2.4, 4.8, 9.6	

*Over 4 hrs T= const, max. output power CW & Pulsed modes

General Characteristics						
Dimensions (W × D × H), mm	449 × 800 × 177					
Weight, kg	70		80			
Cooling	Water					
Supply Voltage, 3-phase, 50/60 Hz, VAC	400-480					
Wall-plug Effiiciency, %	38% typ.				40 % typ.	

The data presented in the table illustrate typical specifications available with the QCW 2x PeakPower Boost option. The option is available on the latest models of YLR and YLS lasers.
Please discuss you needs with IPG representative.

+1 (508) 373-1100;
+49 2736 44200; sales.europe@ipgphotonics.com (European Inquiries)
www.ipgphotonics.com



The Power to Transform®