



QCW Option on High Power Lasers

2x Peak Power Boost in Pulsed Mode

NEW FEATURE


Applications

- ▶ 2D and 3D Cutting of Metals
- ▶ Welding
- ▶ Cutting High Reflectivity Metals
- ▶ Heat Treating
- ▶ Additive Manufacturing
- ▶ Drilling

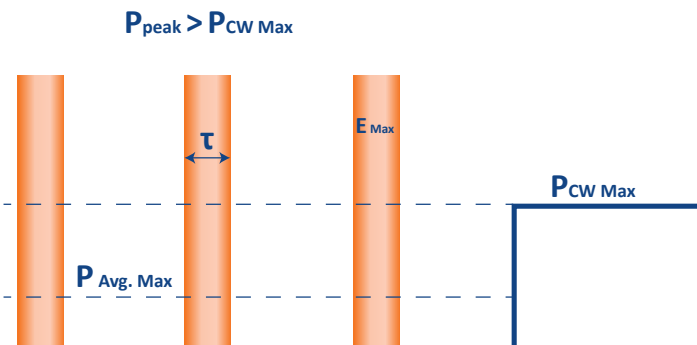
Features & Benefits

- ▶ 2x Peak Power Increase in Pulsed Mode
- ▶ Higher Piercing Quality
- ▶ Reduced Heat Input
- ▶ Shorter Piercing Time
- ▶ Higher Quality Cuts of Fine Features
- ▶ Piercing of Thicker Materials
- ▶ Improved Quality of Heat-sensitive Parts
- ▶ Enhanced Welding and Drilling Capabilities

High Peak Power Pulsed Mode for Challenging & Heat-sensitive Applications



IPG Photonics introduces **NEW 2x PeakPower Boost QCW option** on the latest YLR and YLS High Power Lasers. The QCW option enables the user to run a CW laser in pulsed mode with 2x increase in peak power in comparison with CW average power. The PeakPower Boost mode improves the performance customers receive in their laser cutting applications, allowing increase in piercing speed, improvement in piercing quality and piercing of thicker materials. The reduced heat input in the PeakPower mode results in higher quality cuts of intricate parts with fine features in the corners while reducing overall laser power requirements. The boost PeakPower also enhances drilling capabilities by allowing clean, controlled drilling in thicker materials. Available exclusively from IPG, the PeakPower will provide improved cutting and drilling quality and increased overall throughput, while saving material, time and operating costs.



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Optical Characteristics*	YLR-2000/4000-QCW	YLR-3000/5000-QCW
Central Wavelength, nm	1070 ±10	
Mode of Operation	CW/Pulsed QCW	
Modulation Frequency, kHz	0-50	
Max. Average Power in CW Mode, W	2000	3000
Max. Peak Power in Pulsed Mode, W	4000	5000
Max. Average Power in Pulsed Mode, W	400	500
Max. Pulse Energy, J	8	10
Minimum Pulse Width, ms	0.05	
Power Stability, %	± 0.5	
Power Tunability, %	10-100	
Output Fiber Core Diameter, μm	50, 100 and 200	
Beam Parameter Product, mm × mrad	2.5, 5, 10	

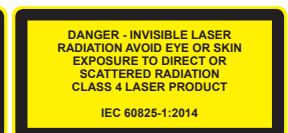
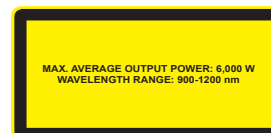
General Characteristics	
Dimensions (W × D × H), mm	449 × 800 × 177
Weight, kg	<70
Cooling	Water
Supply Voltage, 3-phase, 50/60 Hz, VAC	400-480 VAC
Wall-plug Efficiency, %	>45

* 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 your needs with IPG representative.

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