YLPN Adjustable Pulse Duration

Ytterbium Nanosecond Pulse Fiber Lasers

NEW PRODUCT

Applications

- Microcutting
- Scribing
- Trimming
- Hole drilling
- Ablation and cleaning
- Coating removal
- Precision marking
- Texturing

Features

- Adjustable Pulse Duration from 1 to 350 ns
- Pulse Energy up to 1 mJ
- Average Power up to 100 W
- Pulse Repetition Rates 2-10000 kHz
- Fast Modulation Response
- Full Flexibility in Operation Parameters

IPG Photonics offers YLPN Ytterbium Nanosecond Pulse Fiber Lasers with adjustable pulse waveforms in the range of 1 to 350 ns. The output powers range up to 100 W with pulse energies up to 1 mJ. Pulse repetition rates range from 2 kHz to 10 MHz. The laser power can be adjusted in a wide range of pulse repetition rates independent of the pulse energy. An output isolator ensures high output power stability and allows to process highly reflective materials.

These compact air-cooled, maintenance-free modules are designed for OEM applications. The robust all-fiber design packaged into a rugged case allows operation in harsh industrial environments. The all-fiber format allows for the adjustment of peak power and/or pulse repetition rate without affecting any of the output beam parameters. These fiber lasers are much more efficient and compact than conventional solid state pulsed lasers.

Fine processing of thin foils and coating as well as treatment of surfaces can be optimized using wide range of operating parameters. They are ideal for applications in micromachining, scribing, hole drilling, ablation, resistor trimming, photovoltaics, texturing and marking.

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Optical Characteristics	1×350-20	1×350-30	1×350-50	1×350-100	20×120-100
Wavelength, nm	1064				
Mode of Operation	Pulsed				
Average Power, W	20	30	50	100	
Output Power Adjustment Range, %	10-100				
Pulse Energy, mJ	Up to 1 mJ				
Pulse Duration, ns	1.5; 2.5; 4; 8; 16; 30; 50; 120; 200; 350				20; 30; 60; 120
Repetition Rate, kHz	2-4000			2-10000	10-1000
Beam Quality, M^2	<2				

General Characteristics	1×350-20	1×350-30	1×350-50	1×350-100	20×120-100
Control Unit Dimensions, mm	215 × 286 × 95			215 × 260 × 140	
Optical Head Dimensions, mm	Ø × Length: 46 × 247				
Cooling	Air				
Supply Voltage, VDC	24				
Typical Power Consumption, W	<85	<105	<160	<310	<330

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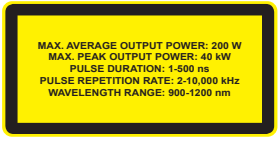

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