



ULPF-30-750-30-R

Ultraviolet Femtosecond Hybrid Laser

PRELIMINARY

30 W, 600 - 900 fs





Applications

- ▶ Precision Micromachining
- ▶ Microdrilling
- ▶ Thin Film Ablation
- ▶ Photomask Cutting
- Medical DeviceManufacturing
- ▶ LED Dicing
- ▶ Solar Cell Structuring
- ▶ Fine Tube Cutting
- ► Glass, Silicon, Ceramics, Polymer and Composite Material Processing



Features

- ▶ Wavelength 343 nm
- ▶ Output Power up to 30 W
- ▶ Pulse Energy up to 30 µJ
- ► High Peak Power up to 50 MW
- ► Pulse Duration Options 600-900 fs
- ▶ Repetition Rate up to 2 MHz
- ▶ Low-maintenance
- Rugged Design

IPG Photonics NEW **ULPF-30-750-30** ultraviolet hybrid-fiber picosecond laser provides high peak power with scalable average output power of 30 W and customer selected pulse durations in the range of 600 to 900 fs at full operational repetition rate range of 50-2000 kHz.

The fiber design allows for the adjustment of peak power and/or pulse repetition rate without affecting any of the output beam parameters. IPG's novel fiber laser is much more efficient, compact and easy to integrate into OEM equipment than conventional lasers now on the market. It is ideal for applications in precision micromachining.

The excellent beam quality, ultrashort pulse duration and high pulse energy combine to provide peak power densities suitable for micromachining virtually any material: metal, glass, ceramic, silicon, plastics. The ultrashort pulse duration and ultraviolet wavelength result in a very small heat affected zone.



ULPF-30-750-30-R

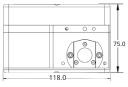
Ultraviolet Femtosecond Hybrid Laser

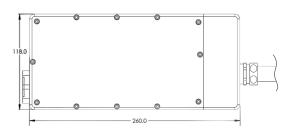
Optical Characteristics*	
Wavelength, nm	343
Max. Average Power, W	Up to 30
Pulse Energy, μJ	Up to 30
Pulse Duration, fs	600-900, Typ. 750
Peak Power, MW	Up to 50
Repetition Rate, kHz	50-2000
Beam Quality, M ²	<1.3

^{*} Customer can select models within specified maximum power, pulse energy and pulse durations in 600 to 900 fs range. Shorter pulsed durations and pulse energies are available upon request.

General Characteristics	
Control Unit Dimensions (W \times D \times H), mm	448×580×133
Optical Head Dimensions (W \times D \times H), mm	75×260×118
Cooling	Water-cooled
Supply Voltage, VAC	100-240, 50/60 Hz
Power Consumption, W	<1000 W







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MAX. AVERAGE OUTPUT POWER: 60 W
MAX. PEAK OUTPUT POWER: 100 MW
PULSE DURATION: 1-5 ps
PULSE REPETITION RATE: 50-2000 kHz
WAVELENGTH RANGE: 330-1200 nm

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