

High Power Picosecond Ytterbium Fiber Laser Unit

LAS-YFL-PS-HP-U

Features

- * Average power up to 40W
- * All-fiber design, industrial reliability
- * High peak power up to 120kW
- * Maintenance free
- * Random or linear polarization
- * Front panel LCD display and status LED indicators for quick access of unit's status
- * RS-232 interface for local supervision.

Applications

- * Material processing
- * Semiconductor inspection
- * Harmonic generation
- * OPO pumping
- * Pump-probe

Description

GIP Technology High Power Picosecond Ytterbium Fiber Laser Unit (LAS-YFL-PS-HP-U) is the 1 μ m band picosecond fiber laser source, delivering high peak power (up to 120 kW) in standalone size for material processing, semiconductor inspection, and supercontinuum generation applications.

All-fiber design and splicing technology make the laser more compact compared to traditional



rod or disc DPSS lasers. The peak intensity of a laser pulse with a duration of only a few picoseconds is so high that nonlinear/multi-photon absorption occurs, resulting in a very precise "cold" process with little thermal effect.

In addition, these units also provide a user-friendly status monitoring via an LCD display, LED indicators, and various communication interfaces (RS232/USB).



GIP Technology Corporation

6F., No. 112, Xinmin St., Zhonghe Dist.,
New Taipei City 235, Taiwan (R.O.C.)
T:+886-2-8226-7855 www.giptek.com
F:+886-2-8226-7955 sales@giptek.com

Specifications

Optical Information		Unit	Description			
Saturated output power	Max.	Watt	1	5	20	40
Mode of operation			Pulsed			
Center wavelength ^{*1}		nm	1030 or 1064			
Pulse repetition rate ^{*2}		kHz	10 ~ 400			
Pulse duration ^{*3}			50			
Pulse power	Max.	kW	5	15	25	120
Beam quality	Max.	M ²	1.1	1.3	1.5	1.3
Polarization			Random or Linear			
Polarization extinction ratio ^{*4}	Min.	dB	20	17		
Termination			FC/APC or Collimator			Collimated beam
Electrical Information						
Operating voltage		Volt	100 ~ 240VAC, 50/60Hz			
Control mode			ACC or APC			
Control interface			RS-232/USB			
Pulse timing			External trigger, TTL			
Environmental Information						
Operating ambient temperature		°C	15 ~ 35			
Storage temperature		°C	0 ~ 60			
Relative humidity (non-condense)		%	5 ~ 85 (operating)			
Cooling			Air cooling or water cooling			
Mechanical Information						
Control Unit Dimensions (W x L x H)	mm	Benchtop or 19" 2U	19" 2U	19" 3U		
Optical Head Dimensions (W x L x H)	mm			470 x 470 x 150		

*1. Other wavelength on request

*2. Lower and higher repetition rate operation on request.

*3. Other pulse duration on request.

*4. For PM version only