

High Energy Picosecond Ytterbium Fiber Laser Unit

LAS-YFL-PS-HE-U

Features

- * Pulse energy up to 30 μ J
- * Average power up to 60W
- * All-fiber design, industrial reliability
- * High peak power up to 120kW
- * Maintenance free
- * Polarization-maintaining
- * 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 Energy Picosecond Ytterbium Fiber Laser Unit (LAS-YFL-PS-HE-U) is the 1 μ m band picosecond fiber laser source, delivering high pulse energy and (up to 30 μ J) and 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	2	5	20
Mode of operation			Pulsed		
Center wavelength* ¹		nm	1030 or 1064		
Pulse repetition rate* ²		kHz	50 ~ 2000		
Pulse duration* ³	Max.	ps	50		
Pulse energy	Max.	μJ	1.5	3	30
Beam quality	Max.	M ²	1.2	1.3	1.3
Polarization			Linear		
Polarization extinction ratio	Min.	dB	20	17	
Termination			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" 3U	
Optical Head Dimensions (W x L x H)		mm	19" 2U	550 x 450 x 230	

*1. Other wavelength on request

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

*3. Other pulse duration on request.