

High Energy Femtosecond Erbium Fiber Laser Unit

LAS-EFL-FS-HE-U

Features

- * Energy per pulse up to 2μJ
- * Average power up to 2W
- * All-fiber design, industrial reliability
- * High peak power up to 3MW
- * Polarization-maintaining
- * RS-232 interface for local supervision.

Applications

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

Description

GIP Technology High Energy Femtosecond Erbium Fiber Laser Unit (LAS-EFL-FS-HE-U) is the 1.5μm band femtosecond fiber laser transmitters, delivering high peak power in standalone size for material processing, semiconductor inspection, and supercontinuum generation applications.

Our integral all-fiber design and splicing technology enable compact lasers.



Compared with the traditional rod or disc DPSS laser. 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).



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Specifications

Optical Information		Unit	Description	
Saturated output power	Max.	Watt	1	2
Mode of operation			Pulsed	
Center wavelength* ¹		nm	1550±20	
Pulse repetition rate		kHz	100 ~ 2000	
Pulse duration* ²	Max.	fs	600	
Pulse energy	Max.	μJ	1.5	2
Beam quality	Max.	M ²	1.4	
Polarization			Linear	
Polarization extinction ratio	Min.	dB	20	
Power tunability		%	10 ~ 100	
Termination			Free space, collimated beam	
Electrical Information				
Operating voltage		Volt	100 ~ 240VAC, 50/60Hz	
Control mode			ACC	
Control interface			RS-232	
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	
Mechanical Information				
Control Unit Dimensions (W x L x H)		mm	19" 3U	
Optical Head Dimensions (W x L x H)		mm	550 x 850 x 220	

*1. Other wavelength on request.

*2. A Gaussian pulse shape is used to determine the pulse width from the autocorrelation trace.