

### Features

- \* Average power up to 40W
- \* All-fiber design, industrial reliability
- \* High peak power up to 120kW
- \* Maintenance free
- \* Random or linear polarization
- \* RS-232/USB interface for local supervision

### Applications

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

### Description

**GIP Technology** Picosecond Ytterbium Fiber Amplifier Unit (AMP-YFA-PS-HP-U) is the 1 $\mu$ 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).



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## Specifications

Optical Information		Unit	Description			
Saturated output power*1	Max.	Watt	1	5	20	40
Mode of operation			Pulsed			
Center wavelength*2		nm	1035, 1055 or 1064			
Input average power		mW	1 ~ 50			
Input pulse duration		ps	1 ~ 100			
Pulse repetition rate*3		MHz	10 ~ 400			
Peak power	Max.	kW	5	15	25	120
Beam quality	Max.	M <sup>2</sup>	1.2	1.3	1.5	1.3
Polarization			Random or Linear			
Polarization extinction ratio*4	Min.	dB	20	17		
Input fiber type			Hi-1060 or PM980			
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						
Dimensions (W x L x H)		mm	Benchtop or 19" 2U	19" 2U	19" 3U	19" 5U

\*1. Higher average power on request.

\*2. Other wavelength on request

\*3. Lower and higher repetition rate operation on request.

\*4. For PM version only.