

# Femtosecond Erbium Fiber Amplifier Unit

## AMP-EFA-FS-HP-U

### Features

- \* Average power up to 10W
- \* High peak power up to 20kW
- \* All-fiber design, industrial reliability
- \* Maintenance free
- \* Random or linear polarization
- \* RS-232 interface for local supervision

### Applications

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

### Description

**GIP Technology** Femtosecond Erbium Fiber Amplifier Unit (AMP-EFA-FS-HP-U) is the 1.5μm band pulsed fiber amplifier, delivering high average power (up to 10W), and high peak power per pulse (up to 20kW) in standalone or compact modules size for a wide range of applications

The AMP-EFA-FS-HP-U provides a variety of models that can operate under various operating conditions, such as pulse duration, pulse repetition frequency and energy, suitable for airborne 3D scanning and mapping, telemetry, harmonic, development (R&D) environments, material processing and supercontinuum generation applications



The AMP-EFA-FS-HP-U does not need water cooling or replacement parts, only 110/220V AC power supply is needed to obtain high energy and high peak power pulsed laser.

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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# **Femtosecond Erbium Fiber Amplifier Unit**

## **AMP-EFA-FS-HP-U**

### **Specifications**

<b>Optical Information</b>		<b>Unit</b>	<b>Description</b>		
Saturated output power <sup>*1</sup>	Max.	Watt	2	4	10
Mode of operation			Pulsed		
Center wavelength <sup>*2</sup>		nm		1550±10	
Input average power		µW		10 ~ 30	
Input pulse duration <sup>*3</sup>		ps		0.3 ~ 50	
Pulse repetition rate <sup>*4</sup>		MHz		10 ~ 100	
Peak power	Max.	kW	5	10	20
Beam quality	Max.	M <sup>2</sup>		1.3	
Polarization			Random or Linear		
Polarization extinction ratio <sup>*4</sup>	Min.	dB		17	
Power tunability				10 ~ 100	
Output fiber length	Min.	M		0.5	
Termination			FC/APC or Collimator		
<b>Electrical Information</b>					
Operating voltage		Volt	100 ~ 240VAC, 50/60Hz		
Control mode			ACC or APC		
Control interface			RS-232		
Pulse timing			External trigger, TTL		
<b>Environmental Information</b>					
Operating ambient temperature		°C	15 ~ 35		
Storage temperature		°C	0 ~ 60		
Relative humidity (non-condense)		%	5 ~ 85 (operating)		
Cooling			Air cooling		
<b>Mechanical Information</b>					
Dimensions (W x L x H)		mm	Benchtop	19" 2U	19" 3U

\*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.