

Long Pulse Single-Frequency Erbium Fiber Amplifier Module

AMP-EFA-NSSF-00-M

Features

- * Energy per pulse up to 150 μ J
- * Peak power up to 700W
- * Build-in isolator
- * Maintenance free
- * Polarization-maintaining
- * Pump trigger function to reduce ASE
- * RS-232/USB interface for local supervision.

Applications

- * Coherent LIDAR
- * Wind detection system
- * Weather detection system
- * Aerosol detection
- * 2D/3D wind profiler

Description

GIP Technology Long Pulse Single-Frequency Fiber Amplifier Module (AMP-EFA-NSSF-00-M) is a range of 1.5 μ m pulsed fiber amplifier designed for coherent LIDAR system, amplifying Fourier transform limited pulses with high energy and high peak power. Shorter pulse durations with higher peak power are ideal for mid-range systems with high spatial resolution, while longer high-energy pulses are ideal for long-range applications.



The compact, robust, and reliable package design are flexible and easy to be integrated with any complicated system. The wide operating temperature can work in the harsh environment. Via the friendly user-interface, the customer can quickly access and set all pulsed EFA data.



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Specifications

Optical Information		Unit	Description		
Pulse energy ^{*1,2}	Max.	μJ	10	40	150
Mode of operation			Pulsed		
Center wavelength ^{*3}	Typ.	nm	1543		
Average input power	Typ.	μW	16		
Peak power	Max.	Watt	50	200	700
Pulse repetition rate ^{*4}		kHz	10 ~ 20	5 ~ 20	5 ~ 20
Pulse duration ^{*5}		ns	100 ~ 2000		
Beam quality	Max.	M ²	1.1	1.4	1.5
Polarization			Linear		
Polarization extinction ratio	Min.	dB	20	17	
Output fiber length	Min.	M	0.35		
Connector			FC/APC		
Electrical Information					
Operating voltage ^{*6}	Typ.	Volt	DC +24		
Control mode			ACC		
Control interface			RS-232/USB		
Pump trigger interface			TTL 3.3V		
Environmental Information					
Operating case temperature		°C	0 ~ 50		
Storage temperature		°C	-20 ~ +70		
Relative humidity (non-condense)		%	5 ~ 85 (operating)		
Cooling			Air cooling		
Mechanical Information					
Dimension (W x L x H)		mm	200 x 150 x 35	200 x 220 x 50	

*1. Measured at 200ns, 25°C

*2. Higher pulse energy on request

*3. Other wavelength on request, such as 1545nm, and 1550nm

*4. Low and high repetition rate operation on request, such as 2.5 kHz, 1kHz, 50kHz, and 100kHz...etc.

*5. Calculated by full width at half maximum (FWHM).

*6. Other operating voltage on request, such as DC+12V