

1550nm wide Pulse Single-Frequency polarization maintaining (PM)Fiber Amplifier



Description

The 1550nm wide pulse single frequency polarization maintaining fiber amplifiers of Idealphotonics Laser are designed for long pulse (200ns-2us) application. These modularized fiber amplifiers are an eye-safe wavelength amplifier and the max pulse energy is up to 400uJ.

The 1550nm long pulse single frequency polarization maintaining fiber amplifiers of Idealphotonics Laser are suitable for amplifying single frequency narrow-linewidth source. The linewidth can be narrowed to kHz level. By multi-stage optical amplification of optimized design, this series of amplifiers suppress nonlinear effects such as stimulated Brillouin scattering (SBS), realize high pulse energy, maintain spectral character of the signal light and obtain near diffraction-limited beam quality at the same time, which are ideal amplifiers for Doppler wind-measurement LiDAR.

Feature

- Doppler wind-measurement
- Aerosol detection
- Pollution monitoring
- Other scientific research

Application

- Eye-safe wavelength: 1550nm
- Pulse energy :up to 400uJ
- Repetition rate adjustable: 10-20kHz
- Pulse width: 200-2000ns

Specification

Parameter	unit	Specification		
		Min	Typ.	Max
Part No		IDP-1550-M-SF-LP		
Center wavelength	nm	1540	1550	1565
Peak power	W	-	-	500
Pulse energy	uJ		100	400
Pulse width	ns	200		2000
Repetition rate	kHz	-	10	20
Beam quality ¹	M ²	1.05	1.3	1.5
Output power stability ² (15mins)	dB	-	±0.005	±0.01
Output power stability ² (8hours)	dB	-	±0.05	±0.1
Output isolation	dB	35	-	-
Power supply	VDC	24		
Operating temperature	°C	-25	-	50
Storage temperature	°C	-40	-	85
Output fiber type		PM or PLMA		
Output fiber length	m	>0.3		
Output fiber connector		FC/APC or collimator		
Dimension	mm	300(L)×170(W)×25(H)		

- 1.The beam quality is related to the output power;
- 2.The output power stability is measured under 25°C , 30 minutes after warm-up

Ordering Information :

IDP-1550-M-SF-LP-XX-YY-ZZ

XX: Pulse width in ns

YY: Repetition rate in kHz

XX: Peak power in W;

Example: IDP-1550-M-SF-LP-200-10-100

Pulse width=200ns

Repetition rate=10kHz

Peak power=100W.