

## CoLIA 1550nm Long Pulse Single Frequency PM Fiber Amplifier



### Product Description:

The CoLIA 1550nm long pulse single frequency polarization maintaining fiber amplifiers of Connet are designed for long pulse (100ns-2us) application. This modularized fiber amplifier is an eye-safe wavelength amplifier and the max pulse energy can be up to 120uJ.

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

### Applications:

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

### Features:

- Eye-safe wavelength: 1550nm
- Pulse energy: up to 120uJ
- Repetition rate adjustable: 10-20KHz
- Pulse width: 200-2000ns



**Specifications:**

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		<b>CoLIA-1550-M-SF-LP</b>		
Center wavelength	nm	1530	1550	1561
Peak power @200ns pulse width	W	-	-	600
Pulse energy @200ns pulse width	uJ	-	-	120
Pulse width	ns	200	-	2000
Repetition rate	kHz	10	-	20
Input average power	uW	20	-	-
Beam quality <sup>1</sup>	M <sup>2</sup>	1.05	1.2	1.3
Polarization Extinction Ratio (PER) <sup>2</sup>	dB	17	-	-
Output power stability (15mins)	%	-	±0.5	-
Output power stability <sup>3</sup> (8hrs)	%	-	±1	±1.5
Output isolation	dB	30	-	-
Power supply	V <sub>DC</sub>	12-24		
Operating temperature	°C	-35	-	+50
Storage temperature	°C	-40	-	+85
Output fiber type		PLMA fiber		
Output fiber length	m	>0.3		
Optical connector		FC/APC (other options available)		
Communication interface		RS232		
Cooling mode		Air-cooling		
Dimension	mm	200(L)x135(W)x41(H)		

**Specifications:**

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

**Ordering Information:**

- CoLIA-1550-M-SF-LP-XX-YY-ZZ
- XX: Pulse width in ns
- YY: Repetition rate in kHz
- XX: Peak power in W
- Example: CoLIA-1550-M-SF-LP-200-10-100  
 Pulse width: 200ns  
 Repetition rate: 10KHz  
 Peak power: 100W