

## 1.5um CW Single Frequency Polarization Maintaining Fiber Amplifier Module

### Product Description:

Connet 1550nm CW single frequency polarization maintaining fiber amplifiers are suitable for amplifying the single frequency narrow-linewidth light source. The linewidth can be narrow to kHz level. Through the multi-stage optical amplification in the optimized design, this series of amplifiers can suppress the nonlinear effects, such as the stimulated Brillouin scattering (SBS), realize the high power output, 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 coherent communication and Doppler Lidar system.



### Applications:

- Space laser communication
- Interferometric sensors
- Coherent Lidar
- Cold Atomic Physics
- Scientific research

### Features:

- Eye safety output wavelength: 1550nm
- Output power up to 10W
- Suitable for kHz-level signal amplification
- No SBS
- Near diffraction-limit beam quality  $M^2 < 1.5$

### Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		MFAP-1550-M-SF		
Center wavelength	nm	1540	1545/1550	1565
Output power	W	-	-	10
Input power	mW	0	-	200
Input linewidth	kHz	0.01	-	-
Output beam quality	M <sup>2</sup>	-	1.05	1.5
Polarization Extinction Ratio (PER)	dB	17	20	-
Output power stability	%	-	-	±1
Optical isolation	dB	35	-	-
Power supply	V <sub>DC</sub>	12-24		
Control mode		ACC/APC		
Communication control interface		RS232		
Control software		Yes		
Built-in circulator		Optional		
Operating temperature	°C	-35	-	+65
Storage temperature	°C	-40	-	+85
Input/output fiber type		SM, PM or PLMA fiber		
Input/output fiber length	m	>0.3		
Optical connector		FC/APC or Collimator (other optional)		
Dimension	mm	200x135x41		

### Specifications:

- Please specify the input power.
- High power optical circulator can be integrated on request.

### Ordering Information:

- MFAP-1550-M-SF-<P>-FA (-COL)
- P: Output power, 5-5W, 10-10W
- FA: FC/APC connector, COL: Collimator