

# HAPM4000 1.0μm PM Fiber Amplifier ( PM YDFA )

## PRODUCT DESCRIPTION

HAPM4000 is a Polarization Maintaining Optical Amplifier which working in 1528~1563nm operating wavelength. Adopt Polarization Maintaining Erbium-doped fiber (PM-EDF), output optical power range 13~26dBm, extinction ratio >20dB.

HAPM4000 input and output both adopt single-polarized optical isolator and PM optical component. This equipment is used to ensure the high extinction ratio and the stability of amplified output polarization. Mainly maintained by narrow linewidth,

single channel seed laser source's power amplification and PM in 1540~1570nm wavelength range.



## PRODUCT FEATURES

- ▶ Single mode, TEM<sub>00</sub> Gaussian spectrum, linear polarization output
- ▶ Keep single channel seed light source linewidth, frequency stability and RIN
- ▶ High extinction ratio
- ▶ Low noise figure
- ▶ Stable output polarization
- ▶ High power stability
- ▶ Single-polarized input/output optical isolation
- ▶ Input output and echo reflection monitoring function, offer automatic system protection
- ▶ ACC, APC working mode
- ▶ RS232 control interface
- ▶ SNMP network management function, support remote control
- ▶ Rack-mounted type, desktop type, modular type (OEM) optional
- ▶ Excellent P/P ratio

## MAIN APPLICATION

- ▶ Narrow linewidth, single channel seed laser source regeneration amplification
- ▶ Laser radar
- ▶ Optical fiber sensing
- ▶ Spectral analysis
- ▶ Coherent detection
- ▶ Frequency generation
- ▶ Coherent combination high precision

## TECHNICAL INDEX

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optic feature	Operating wavelength range	(nm)	1528		1563	
	Work mode		CW			
	Polarization output		Linear polarization			
	Optical quality		Single mode, TEM <sub>00</sub>			
	Input optical power	(dBm)	-10		+10	
	Output optical power	(dBm)	13		26	
	Output power adjustable range	(%)	10		100	
	Output power stability	(dB)			0.2	8 hours
	Extinction ratio	(dB)	15	20		
	Noise figure	(dB)		5.0		
	Input / output optical isolation	(dB)	30			
	Return loss	(dB)	50			
	Optical connector		FC/APC			
	SNMP network management interface		RJ45			
General feature	Communication interface		RS232			
	Power supply	(V)	90	220	265	AC, stander type, desktop
			30	-48	70	DC, stander type
	Power consume	(W)			60	
	Operating temp.	(°C)	-5		65	
	Store temp.	(°C)	-40		80	
	Relative humidity	(%)	5		95	
	Size (W)×(D)×(H)	(mm)	483 × 363 × 44			1U stander
			483 × 373 × 89			2U stander
			279 × 356 × 89			2D desktop
			279 × 356 × 133			3D desktop
			125×150×31			Modulator OEM

## PRODUCT SERIES

Model	Wavelength	Type	Output optical power	Optical connector
HAPM4113-FA	1528~1563nm PM-EDFA	Single stage power amplifier	13dBm	FC/APC
HAPM4117-FA			17dBm	
HAPM4120-FA			20dBm	
HAPM4122FA			22dBm	
HAPM4123-FA			23dBm	
HAPM4126-FA			26dBm	

## MODEL EXPLANATION

HAPM

4

1

□□

-

□□

-

□□

-

□□

Guangtai PM Optical Amplifier	Work Wavelength		Type		Output Power		Connector		Exterior		Power Supply	
4	1528~1563nm PM-EDFA	1	Single Stage Power Amplifier	13	13dBm	FA	FC/APC	1U	1U Stander	22	220VAC	
				17	17dBm			2U	2U Stander	48	-48VDC	
1	1050~1080nm PM-YDFA	2	Double Stage Power Amplifier	20	20dBm			2D	2U Desktop	05	5~7VDC	
				22	22dBm			3D	3U Desktop			
5	1540~1570nm PM-EYDFA			23	23dBm			MD	Modular OEM			
				26	26dBm							