

1.0um High Power Pulsed Fiber Amplifier



Product Description:

The MARS series 1.0um high power pulsed fiber amplifiers of Connet are specially designed for short pulse (<50ns) amplification. These amplifiers employ the optimized double cladding fiber amplification technology. Therefore, it can guarantee the maximum optical-optical conversion efficiency and the minimum nonlinear effects and meanwhile avoid the spectral broadening of the pulse signal during the process of amplifying. The output peak power is up to 50kW.

The unique thermal treatment technology guarantees that the amplifiers can be operated stably for a long time. The high-speed response protection circuit monitors the power of the input and the output signals automatically to ensure the safety of the whole system.

The MARS series high-power pulsed fiber amplifiers include the single-mode and the polarization-maintaining outputs. Different types of packages are available for option such as benchtop, rack-mount and module. This series of amplifiers can be widely used in the areas of optical fiber sensing, coherent combination and laser processing, etc.

Applications:

- Fiber Optic Sensing
- LiDAR & LADAR
- Biological and Medical
- Laser Processing
- Research & Development

Features:

- High peak output: up to 50kW
- High stability, high reliability
- Output power tunable
- Customized versions available



Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part no.		MFAS-Yb-10xx-PL: SM		MFAP-Yb-10xx-PL: PM
Wavelength range ¹	nm	1040	1064	1083
Average power	W	-	5	-
Peak power	kW	-	-	50
Pulse width	ns	1	-	50
Repetition rate	kHz	10	-	500
Operation mode		Pulse		
Output power tunable range	%	10	-	100
Polarization		Random or Linear Polarization		
Polarization Extinction Ratio (PER)	dB	15	20	-
Output power stability ² (8hrs)	%	-	±1	±2
Beam quality	M ²	<1.2		
Input isolation	dB	30	-	-
Output isolation	dB	30	-	-
Output fiber type (SM)		SM or LMA fiber		
Output fiber type (PM)		PM Fiber		
Output fiber length	m	>1		
Optical connector		FC/APC (other options available)		
Power supply	V _{AC}	100-240		
Operating temperature	°C	0	-	+30
Storage temperature	°C	-40	-	+85
Cooling mode		Air-cooling		
Dimension		19" 2U or 19" 3U		

Specifications:

- Typical operating wavelength: 1053nm, 1064nm, 1083nm
- The output power stability is measured under 25°C after 30 minutes' warm-up.

Ordering Information:

- MFAS-Yb-10xx-<P>-PL: SM
- MFAP-Yb-10xx-<P>-PL: PM
- 10xx: Operating wavelength in nm
- P: Package: B-Benchtop, R-Rack-mount, M-Module