

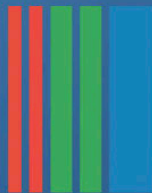
# 1030nm – 1083nm High Power Fiber Amplifier

**HIGH POWER  
FIBER AMPLIFIER**

1 $\mu$ m Wavelength Range  
Output Power up to 50 W  
Polarization Maintaining



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## 1.0 $\mu$ m high power single frequency polarization maintaining fiber amplifiers



### Product Description:

Techwin high power single frequency polarization maintaining fiber amplifiers are designed specifically for the ultra-narrow line width single frequency laser source, such as the fiber lasers based on the principle of DFB or DBR. This kind of amplifiers has the capability of boosting the low power optical signal at kHz magnitude up to 50W output power and preserves the spectral property of the input signal. Techwin amplifiers use high power high performance multi-mode pump internally, employ the technology of double cladding fiber amplification, and have the integrated design of all polarization-maintaining structure. The output power can be continuously tuning. Techwin fiber amplifiers are integral Turn-Key system with the microprocessor inside for controlling. The front panel is equipped with the switch to start the laser, the LCD to display the state of the power and the knob to adjust the output power.

Thanks to the extensive experience of handling the double cladding fiber, Techwin conducts proper optimal design to the high power polarization maintaining fiber amplifiers, thus achieving high efficiency output while suppressing the nonlinear effects of the fiber. The unique thermal treatment technology guarantees that the desktop fiber amplifier can operate stably for a long time. The high-speed response protection circuit monitor the power of input and output signal automatically so that it can cut down the operation of the high power pump in case of the falling off of the input signal, thus ensures the safety of the whole system.

Techwin high power desktop polarization-maintaining fiber amplifiers can be widely used in scientific research, coherent beam combining, coherent detection sensing system, etc.

### Features:

- High output power: 0.5~50W
- Low noise figure
- Turn-Key system
- Total PM fiber structure, high PER
- High stability, high reliability

## Techwin (China) Industry Co., Ltd

### Applications:

- Coherent detection
- Coherent combining
- Atomic trapping
- Fiber sensing
- Frequency doubler

### Specifications:

Parameter	Unit	Specification		
		Min	Typ.	Max
Part NO.		CKAP-Yb-10xx-SF		
Operating wavelength <sup>1</sup>	nm	1030	1064	1083
Input power <sup>2</sup>	mW	1~10	10~50	50~200
Output power <sup>3</sup>	W	0.5	-	50
Input Isolation	dB	30	-	-
Output Isolation	dB	30	-	-
Output power tunable range	%	2	-	100
Polarization Extinction Ratio(PER)	dB	15	20	-
Output power stability <sup>4</sup> (8h)	%	-	±1	±2
Beam quality	M <sup>2</sup>	<1.2		
Input fiber type		PM980		
Output fiber type		PM980 or other		
Length of the output fiber	m	>1		
Optical connectors		FC/APC((other options available)		
Power supply	VAC	170	220	260
Power consumption	W	-	-	150
Operation temperature	°C	0	-	30
Storage temperature	°C	-40	-	+85
Dimension	mm	420(L)×485(W)×105(H)		
Cooling mode		Air-Cooled		

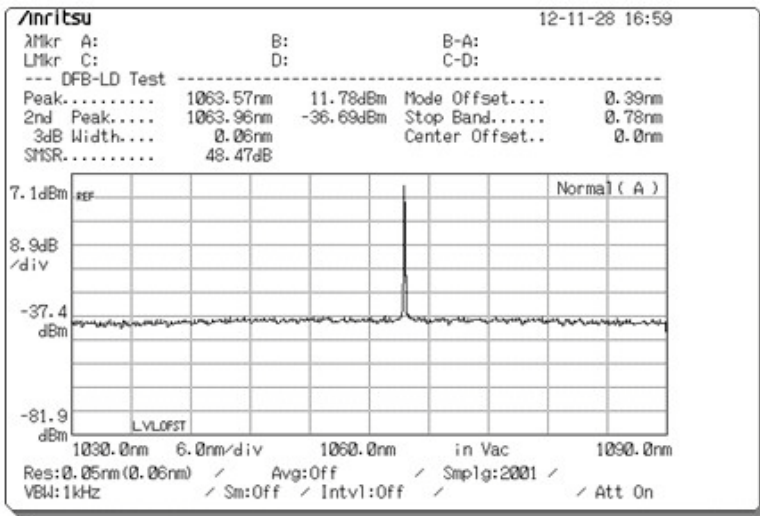
1. Typical operating wavelength: 1030nm、1053nm、1064nm、1083nm;

2. The input power is related to the output power,;

3. Typical Output power: 27dBm、30dBm、33dBm、40dBm;

4. The output power stability is measured under 25°C, 30 minutes after warm-up.

**Spectrum:**



**Ordering information:**

CKAP-Yb-10xx-B-PW-SF: PM

10xx:Operating wavelength in nm, Typical wavelength: 1030nm 1053nm、1064nm、1083nm

B: Bench top

PW: Output power in W, Example: 0.5-0.5W、1-1W、10-10W

SF: Single Frequency