

# HT-HA

## High power fiber amplifier



### Overview

As the all optical network's spread, especially FTTH construction high-tide's coming, ultra-high power fiber amplifier will play an increasingly important role in all optical network process continuously to extend and expand. Since the output optical power of common used erbium-doped fiber amplifier can be up to about 25dBm(316mW) at most, the general use range is 13~23dBm (20~200mW), but MIC-HA series fiber amplifier adopts multi-mode pumping laser and double-clad Erbium/ Ytterbium co-doped technology, which makes fiber amplifier output power up to 37dBm(5000mW), in theory equivalent to 30pcs 20dBm EDFA, to fully drive the thousands of hundreds of user's requirement in large size FTTH distribution network.

SHG HT-HA series high power fiber amplifier adopts high-reliability multi-mode PUMP laser and double-clad fiber in core component. It adopts unique APC (automatic power control) and ATC (automatic temperature control) circuit to make output power keep high stability, good reliability. Unique optical path design to ensure the excellent optical path index; And adopted high-stability and high-precision MPU (micro-processing unit) system is very convenient, reliable and intelligent to use, adjust and display.

HT-HA series high power fiber amplifier adopts unique intelligent temperature-control system; Adopted special temperature-control chip can make the equipment heating volume reduce by 30% compared with conventional circuit. Special heat-dissipating fan channel design can ensure the perfect temperature stability, meanwhile powerful fan will start to work when the whole machine temperature is higher than 45°C, and will stop when temperature is lower than 40°C, which ensure the heat-stability of the system and long-life of fan.

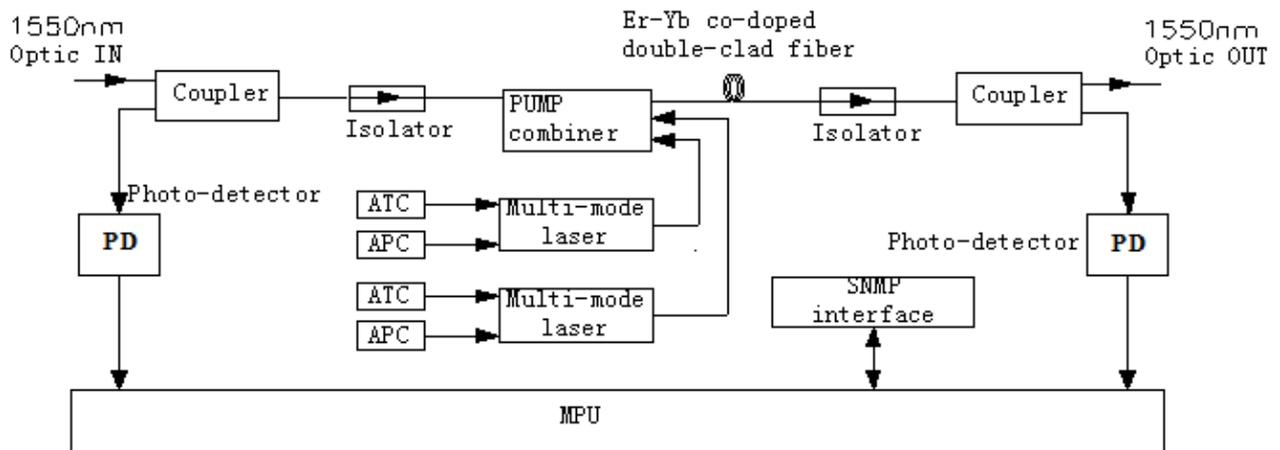
HT-HA series high power fiber amplifier is characterized by intelligent monitoring and management system. With Ethernet network management interface which is open to ensure that has connectivity with any network management system.

HT-HA series high power fiber amplifier can be widely used in CATV optical transmission system, as well as FTTH required high power distribution system and access system.

## Feature

- 2U, 19" standard container, easy to install.
- Ultra-high power output, up to 5W of total output power, one can carry 2000~4000 pcs optical nodes.
- Low noise figure, lower than 5.5dB in +5dBm input.
- Very low CSO deterioration: <-70 dBc
- 23dBm×N output, 20dBm×N or 17dBm×N output
- Large LCD display screen
- Perfect network management interface: Ethernet and RS-232 network interface.
- Intelligent Temperature Control System: adopts special temperature control chip, heat-dissipating and power consumption reduce by 30% compared with conventional products.
- Adjustable output power
- 1310nm、1490nm、1550nm WDM (Optional) can be integrated.

## Block diagram



## Specifications

Items		Units	Technical parameters				
Operation bandwidth		nm	1540~1565				
Input optical power range		dBm	-3~+10				
Output optical power		dBm	27	30	33	35	37
Noise figure (note 1)		dB	≤5.5			≤6.0	
Output power stability		dB	≤±0.2				
Return loss		dB	≥45				
Pumping leakage power	Input	dBm	≤-30				
	Output	dBm	≤-45				
Polarization related gain		dB	≤0.3				
PMD		ps	≤0.5				
Optical connector type			SC/APC or FC/APC				



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Power voltage	V	AC110~265 (50~60Hz) or DC48V	
Power consumption	W	≤60	≤100
Operation temperature range	℃	-5~+50	
Max. Operation relative humidity	%	Max. 85%, non-condensation	
Storage temperature range	℃	-40~+80	
Outer dimension	mm	483×420×88	

Note 1: Input optical power to test the value 5dBm.



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