

# CATV Erbium Doped Fiber Amplifier - WA-5800



## 1.0 - Product Description:

WA5800 series is a low noise, high performance, FTTP high power multi-ports optical amplifier with gain spectrum band within 1540~1563nm. Each output port for optical amplifier has built-in well-performed CWDM. Every external up-link optical port of optical amplifier can connect with OLT very conveniently. Each 1550nm (CATV)'s out-put optical port multiplex 1310/1490n's data stream, in order to reduce the quantity of the component and improve the datasheet and reliability of the system. WA5800 optical amplifier can be compatible with any FTTx PON Technology. It offers a flexible and low-cost solution for CATV large area coverage of metropolises and medium-sized cities.

WA5800 optical amplifier adopts the world's top class pump laser and America OFS erbium-doped optical fiber. Perfect APC, ACC and ATC control, excellent design in the ventilation and heat-dissipation ensure the long life and high reliable work of pump laser. RS232 and RJ45 offer serial commutation and SNMP network management port. The LCD at the front panel offers the work index of all equipment and warning alarm. The laser will switch off automatically if optical power is missing, which offers security protection for the laser. All the optical port of optical amplifier can be installed in the front panel (also can be in the back panel if customers specify).

Optical amplifier product, for its high quality, high reliable and high cost performance, is the ideal choice of the system integration and system operation.

WA5800A optical amplifier: 1RU chassis, total output power>1000mW, offers 16 optical outputs at most.

WA5800B optical amplifier: 2RU chassis, total output power>10000mW, offers 64 optical outputs at most.

WA5800C optical amplifier: 3RU chassis, total output power>30000mW, offers 128 optical outputs at most.

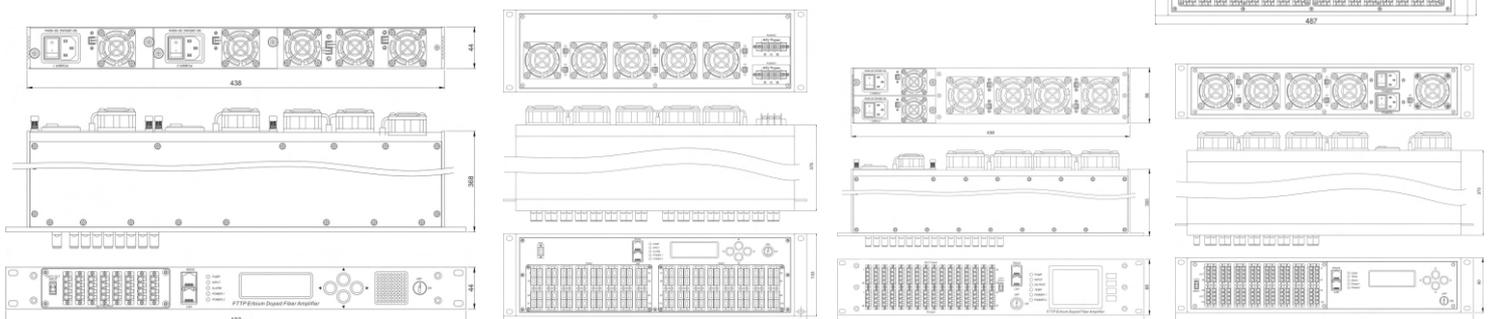
WA5800E optical amplifier: 5RU chassis, total output power>80000mW, offers 256 optical outputs at most.

## 2.0 - Product Feature :

- 1540~1563nm operating bandwidth
- 500~80000mW (27~49dBm) high output power
- Low noise, high performance, high reliability
- 8~256 uplink optical port, used in OLT
- 8~256 1550nm output optical port, multiplex 1310/1490nm data stream.
- Can be compatible with any FTTx PON Technology: EPON/GEAPON, GPON, BPON, DPON
- Perfect RS232, SNMP
- Efficient space, flexible installation and easy operation
- Excellent P/P ratio

## 3.0 - Main Application:

- FTTx PON
- RFoG



## 4.0 - Technique index:

Performance		Index			Supplement
		Min.	Typ.	Max.	
Optical feature	CATV operation wavelength (nm)	1540		1563	CATV
	OLT pass wavelength (nm)		1310/1490		
	CATV pass wavelength loss (dB)			0.8	1550nm
	OLT pass wavelength loss (dB)			0.8	1310/1490nm
	CATV & OLT isolation (dB)	40			
	Number of uplink optical ports (for OLT) (pcs)			16	1U
				64	2U
				128	3U
				256	5U
	CATV input power (Pi) (dBm)	-10		+10	
	Typical output power (dBm)	0			
	Noise figure (dB)		4.5	5.0	Pin=0dBm
	Total output power <sup>1)</sup> (dBm)			35	1U
				38	2U
				45	3U
			49	5U	
Number of output ports (pcs)			16	1U	
			64	2U	
			128	3U	
			256	5U	
Each port output power (dBm)	10		22		
Difference of each output power (dB)	-0.5		+0.5		
Output power adjustable range (dBm)	-6		0		
Polarization dependence loss (dB)			0.3		
Polarization dependence gain (dB)			0.4		
Polarization mode dispersion (ps)			0.3		
Input/output isolation (dB)	30				
Pump power leakage (dBm)			-30		
Echo loss (dB)	55			APC	
General feature	Network management interface		RJ45		SNMP
	Serial interface		RS232		
	Power supply (V)	90		265	220VAC
		30		72	-48VDC
	Power consume (W)			360	
	Operation temp. (°C)	-5		65	
	Storage temp. (°C)	-40		80	
	Operation relative humidity (%)	5		95	
	Size (W)×(D)×(H) (")		19×14.5×1.75		WA5800A (1U)
			19×14.7×3.5		WA5800B (2U)
		19×14.7×5.25		WA5800C (3U)	
		19×14.7×8.75		WA5800E (5U)	

Note: the above is the standard options, the output port number or each port output power can be customized.

## 5.0 - Optic/Electrical Schema

### 1. Optical mode 08 (8 ways optical output)

