

1550nm CATV Erbium Doped Fiber  
Amplifier • HA5800 Series

Technical Specification

## CONTENT

1.0	PRODUCT DESCRIPTION.....	1
2.0	PRODUCT FEATURE.....	2
3.0	MAIN APPLICATION .....	2
4.0	TECHNIQUE INDEX .....	3
5.0	OPTIC/ELECTRICAL SCHEMA .....	4
6.0	PRODUCT SERIES .....	5

## 1.0 PRODUCT DESCRIPTION

HA5800 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 1310/1490nm's data stream, in order to reduce the quantity of the component and improve the datasheet and reliability of the system. HA5800 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.

HA5800 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.

HA5800A optical amplifier: 1RU chassis, total output power>1000mW, offers 16 optical outputs at most.

HA5800B optical amplifier: 2RU chassis, total output power>5000mW, offers 64 optical outputs at most.

## **2.0 PRODUCT FEATURE**

- 1540~1563nm operating bandwidth
- 500~5000mW (27~37mW) high output power
- Low noise, high performance, high reliability
- 8~32 uplink optical port, used in OLT
- 8~32 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

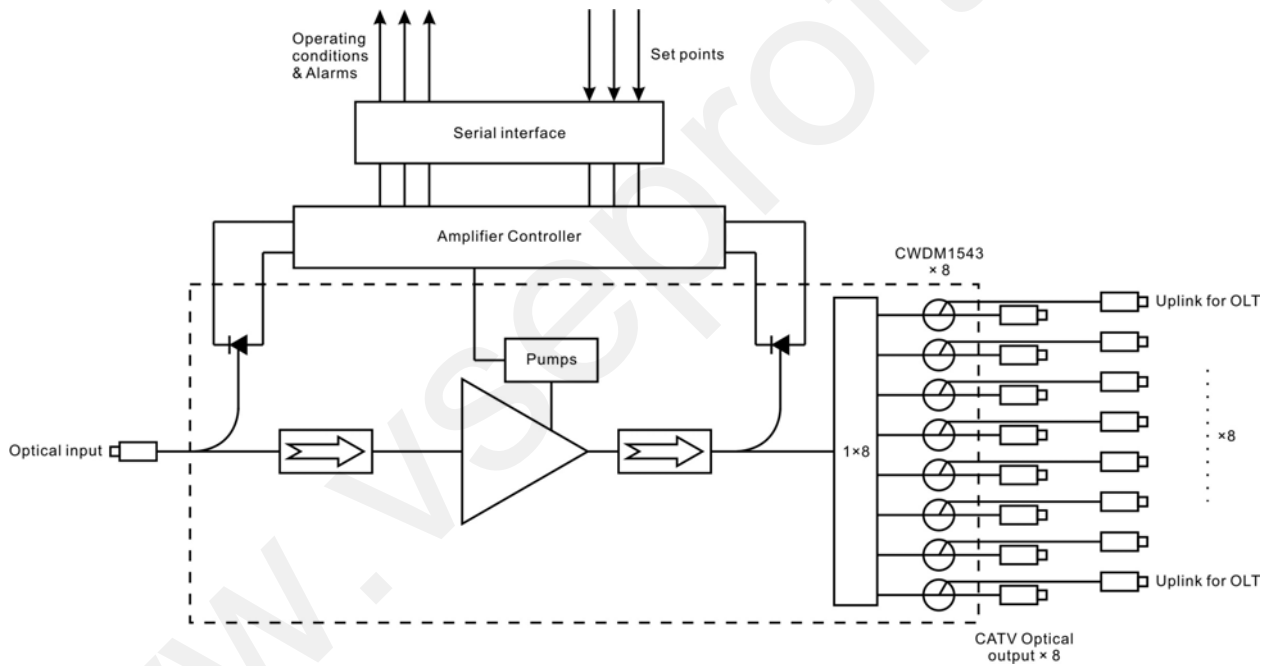
Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical feature	CATV operation wavelength	(nm)	1540		1563	CATV
	OLT pass wavelength	(nm)		1310/1490		
	CATV pass wavelength loss	(dB)			0.8	1550nm
	OLT pass wavelength loss	(dB)			0.8	1310/1490nm
	CATV & OLT isolation	(dB)	40			
	Number of uplink optical ports (for OLT)	(pcs)		8	16	1U
				16	32	2U
	CATV input power (Pi)	(dBm)	-10	≥+3	+10	
	Total output power <sup>1)</sup>	(dBm)	27		32	1U
			28		37	2U
	Number of output ports	(pcs)		8	16	1U
				16	32	2U
	Each port output power	(dBm)	10		22	
	Difference of each output power	(dB)	-0.5		+0.5	
	Output power adjustable range	(dBm)	-6		0	HA5800/P
	Noise figure (Pin=0dBm)	(dB)			6.3	
	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)			150	
Operation temp.	(°C)	-5		65	
Storage temp.	(°C)	-40		80	
Operation relative humidity	(%)	5		95	
Size (W)x(D)x(H)	(")	19×14.5×1.75			1RU (19")
	(")	19×15.4×3.5			2RU (19")

Remark: Output power of HA5800 Optical Amplifier can be customized by user.

## 5.0 OPTIC/ELECTRICAL SCHEMA

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



## 6.0 Product series

Model number	Total output power	Number of output port	Each port output power	Connector
HA5826A-08	26dBm(400mW)	8	15.0	SC/APC, LC/APC
HA5827A-08	27dBm(500mW)	8	16.0	SC/APC, LC/APC
HA5828A-08	28dBm(630mW)	8	17.0	SC/APC, LC/APC
HA5829A-08	29dBm(800mW)	8	18.0	SC/APC, LC/APC
HA5830B-08	30dBm(1000mW)	8	19.0	SC/APC, LC/APC
HA5830B-16		16	15.5	
HA5831B-08	31dBm(1260mW)	8	20.0	SC/APC, LC/APC
HA5831B-16		16	16.5	
HA5831B-32		32	13.0	
HA5832B-08	32dBm(1600mW)	8	21.0	SC/APC, LC/APC
HA5832B-16		16	17.5	
HA5832B-32		32	14.0	
HA5833B-08	33dBm(2000mW)	8	22.0	SC/APC, LC/APC
HA5833B-16		16	18.5	
HA5833B-32		32	15.0	
HA5834B-16	34dBm(2500mW)	16	19.5	SC/APC, LC/APC
HA5834B-32		32	16.0	LC/APC
HA5835B-16	35dBm(3200mW)	16	20.5	SC/APC, LC/APC
HA5835B-32		32	17.0	LC/APC
HA5836B-16	36dBm(4000mW)	16	21.5	SC/APC, LC/APC
HA5836B-32		32	18.0	LC/APC
HA5837B-16	37dBm(5000mW)	16	22.5	SC/APC, LC/APC
HA5837B-32		32	19.0	LC/APC

Remark: 1. All optical amplifiers in HA5800 series with specified output power and output ports can be in 2U casing.

2. Please contact us for detailed datasheet of optical amplifier if special output power and output ports configuration is required.