

# SA5800A, SA5800B FTTx PON Optical Amplifier (1540~1563nm)



## Product description

SA5800 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 multiplexes 1310/1490nm's data stream, in order to reduce the quantity of the component and improve the datasheet and reliability of the system. SA5800 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.

SA5800 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).

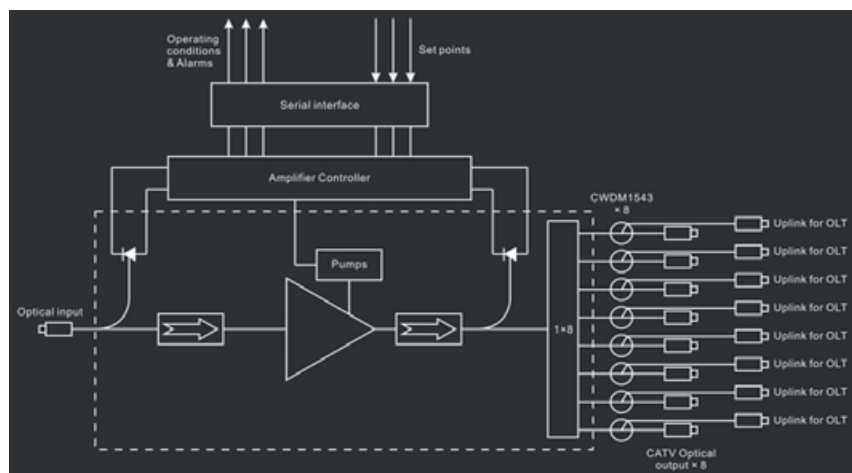
Our optical amplifier product, for its high quality, high reliable and high cost performance, electrical grade safe reliability and network management, is the ideal choice of the system integration and system operation.

SA5800A optical amplifier: 1RU chassis, total output power up to 33dBm (2000mW), use LC/APC, offers 16 optical outputs at most, 16pcs uplink optical ports.

SA5800B optical amplifier: 2RU chassis, total output power up to 40dBm (10000mW), use LC/APC, offers 64 optical outputs at most, 64pcs uplink optical ports.

## Opto-electrical diagram

Optical port mode 08 (8 ways optical output)



## Product features

- 1540~1563nm operating bandwidth for optical amplifier
- 500~10000mW (27~40dBm) high output power
- Low noise subnumber (Typ  $\leq 4.5$ dB, Max  $\leq 5.0$ dB)
- high performance, high reliability
- 8~64 uplink optical port, used in OLT
- 8~64 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

## Main application

- FTTx PON
- RFOG

### Model explanation

**SA-58**[Saturation output power][Exterior]-  
[Number of optical port]-[Connector]-[Power supply]

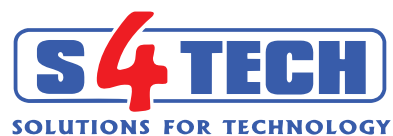
Product series	SA	Amplifier of communication class
Operating bandwidth	5	1540~1563 nm CATV
	4	C-Band 1528~1565 nm
	6	L-Band 1570~1610 nm
	7	C+L-Band
	8	Bi-direction EDFA
Product type	1	BA
	2	LA
	3	PA
	4	High Power
	5	VGA
	7	MSA
	8	FTTP with CWDM for FTTx PON
	Saturation output power	27
28		28 dBm
29		29 dBm
30		30 dBm
31		31 dBm
32		32 dBm
33		33 dBm
34		34 dBm
35		35 dBm
36		36 dBm
37		37 dBm
38		38 dBm
39		39 dBm
Exterior	A	19" 1 RU
	B	19" 2 RU
Number of optical port	02	2 ports
	04	4 ports
	08	8 ports
	16	16 ports
Connector	FA	FC/APC
	FP	FC/UPC
	SA	SC/APC
	SP	SC/UPC
	LA	LC/APC
	LP	LC/UPC
Power supply	22	220VAC
	11	110VAC
	48	-48VDC

### Technical index

Performance		Index			Supplement
		Min	Typ	Max	
Optic feature	CATV Operation wavelength (nm)	1540		1563	CATV
	OLT pass wavelength (nm)	1310/1490			
	CATV pass wavelength loss (dB)			0.8	1550nm
	LT 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		64	2U
	CATV input power (dBm)	-10	≥+3	+10	
	Total output power1) (dBm)	27		33	1U
		28		40	2U
	Number of output port (pcs)	8		16	1U
		16		64	2U
	Each port output power (dB)	10		22	
	Difference of each output power (dB)	-0.5		+0.5	
	Output power adjustable range (dB)	-6		0	SA5800/P
	Noise figure (Pin=0dBm) (dB)		4.5	5.0	
	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	SNMP network management interface	RJ45			
	Communication interface	RS232			
	Power supply (V)	90		265	220VAC
		30		72	-48VDC
	Power Consume (W)			150	
	Work temp. (°C)	-5		65	
	Storage temp. (°C)	-40		80	
	Operating relative humidity (%)	5		95	
	Size (W)×(D)×(H) (mm)	19×14.5×1.75 (") 483×368×44 (mm)			1RU (19")
		19×14.5×3.5 (") 483×368×89 (mm)			2RU (19")

Remark: Output power of SA5800 Optical Amplifier can be customized by user.

# SA5800A, SA5800B FTTx PON Optical Amplifier (1540~1563nm)



## Product series

Model	Total output power	Number of output port	Each port output power	Connector
SA5826A-08	≥26dBm(400mw)	8	15.0dBm	SC/APC, LC/APC
SA5827A-08	≥27dBm(500mw)	8	16.0dBm	SC/APC, LC/APC
SA5828A-08	≥28dBm(630mw)	8	17.0dBm	SC/APC, LC/APC
SA5829A-08	≥29dBm(800mw)	8	18.0dBm	SC/APC, LC/APC
SA5830B-08	≥30dBm(1000mw)	8	19.0dBm	SC/APC, LC/APC
SA5830B-16		16	15.5dBm	SC/APC, LC/APC
SA5831B-08	≥31dBm(1260mW)	8	20.0dBm	SC/APC, LC/APC
SA5831B-16		16	16.5dBm	SC/APC, LC/APC
SA5831B-32		32	13.0dBm	LC/APC
SA5832B-08	≥32dBm(1580mW)	8	21.0dBm	SC/APC, LC/APC
SA5832B-16		16	17.5dBm	SC/APC, LC/APC
SA5832B-32		32	14.0dBm	LC/APC
SA5833B-08	≥33dBm(2000mW)	8	22.0dBm	SC/APC, LC/APC
SA5833B-16		16	18.5dBm	SC/APC, LC/APC
SA5833B-32		32	15.0dBm	LC/APC
SA5834B-16	≥34dBm(2510mW)	16	19.5dBm	SC/APC, LC/APC
SA5834B-32		32	16.5dBm	LC/APC
SA5835B-16	≥35dBm(3160mW)	16	20.5dBm	SC/APC, LC/APC
SA5835B-32		32	17.0dBm	LC/APC
SA5836B-16	≥36dBm(4000mW)	16	21.5dBm	SC/APC, LC/APC
SA5836B-32		32	18.0dBm	LC/APC
SA5837B-16	≥37dBm(5000mW)	16	22.5dBm	SC/APC, LC/APC
SA5837B-32		32	19.0dBm	LC/APC
SA5838B-16	≥38dBm(6000mW)	16	23.5dBm	SC/APC, LC/APC
SA5838B-32		32	20.5dBm	LC/APC
SA5839B-16	≥39dBm(8000mW)	16	24.5dBm	SC/APC, LC/APC
SA5839B-32		32	21.5dBm	LC/APC
SA5840B-16	≥40dBm(10000mW)	16	25.5dBm	SC/APC, LC/APC
SA5840B-32		32	22.5dBm	LC/APC