

HA5800/O

Outdoor Multi-Port CATV EDFA for FTTH, RFoG & XGS-PON Networks

PRODUCT DESCRIPTION

HA5800/O is a carrier-grade outdoor 1550nm EDFA designed for FTTH Video Overlay, RFoG and next-generation GPON/XGS-PON access networks.

Featuring a Dual-Stage Amplification Architecture combining ultra-low-noise EDFA pre-amplification and high-power EYDFA booster amplification, the HA5800/O delivers output power up to 37dBm with noise figure ≤ 5.5 dB.

Built-in CWDM technology enables simultaneous transmission of 1550nm video services and PON data signals over a single fiber, reducing fiber usage and simplifying network deployment.

Its IP65 aluminum enclosure, passive cooling structure, anti-corrosion design and anti-RF interference protection ensure reliable long-term outdoor operation.



PRODUCT FEATURE

- ▶ Dual-Stage EDFA + EYDFA Amplification Architecture
- ▶ Built-in CWDM Multiplexing Technology
- ▶ Compatible with GPON, EPON, XG-PON and XGS-PON
- ▶ Total Output Power up to 37dBm (5000mW)
- ▶ Ultra-Low Noise Figure ≤ 5.5 dB
- ▶ Up to 16 Optical Outputs with Integrated PON Uplink Ports
- ▶ Optional Dual Optical Input Protection Switching
- ▶ Optional 1+1 Redundant Power Supply
- ▶ SNMP Remote Management Support
- ▶ Carrier-Grade Reliability

OUTDOOR DEPLOYMENT BENEFITS

- ▶ IP65 Weatherproof Aluminum Housing
- ▶ Anti-RF Interference Protection
- ▶ Anti-Corrosion Design
- ▶ Fanless Passive Cooling
- ▶ Pole, Wall and Outdoor Cabinet Installation
- ▶ Built-in Lightning and Surge Protection
- ▶ No Equipment Room Required
- ▶ Lower OPEX and Simplified Network Architecture

MAIN APPLICATION

- ▶ FTTH Video Overlay Networks
- ▶ RFoG (Radio Frequency over Glass) Deployments
- ▶ GPON, EPON, XG-PON and XGS-PON Access Networks
- ▶ CATV and IPTV Distribution Systems
- ▶ Outdoor Optical Access Nodes
- ▶ Rural Broadband Expansion Projects
- ▶ Smart City Fiber Infrastructure

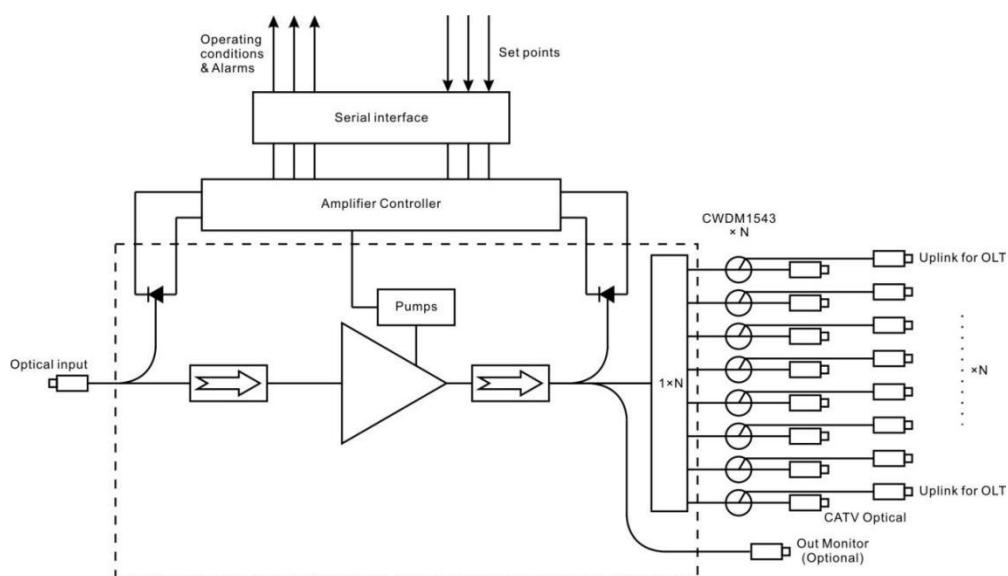
TECHNIQUE INDEX

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical Feature	Catv Operation Wavelength	(nm)	1540		1563	CATV
	OLT Pass Wavelength	(nm)	1310/1490			HA5800/O-WD1
			1270,1310,1490,1577			HA5800/O-WD2
	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	
	CATV Input Power (Pi)	(dBm)	-10		+10	
	Total Output Power ¹⁾	(dBm)			37	
	Number of Output Ports	(pcs)			16	
	Each Port Output Power	(dBm)		16~22		
	Difference of Each Output Power	(dB)	-0.5		+0.5	
	Output Optical Power Monitoring	(dB)		-20		Optional
	Output Power Adjustable Range	(dBm)	-6		0	Optional
	Noise Figure	(dB)			5.5	HA5800/O-1x □□□
					6.0	HA5800/O-2x □□□
	Switch Time	(ms)			8.0	HA5800/O-2x □□□
	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	Network Management Interface		SNMP,WEB supported			

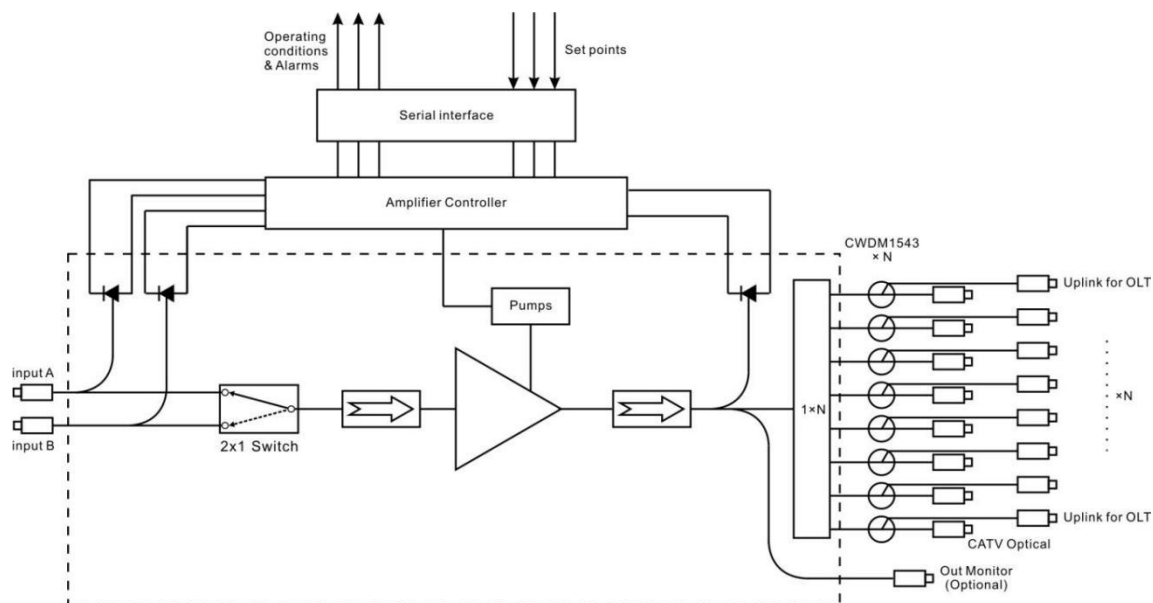
Power Supply	(V)	90		265	AC
		50		70	AC
Power Consumption	(W)			50	
Operation Temp.	(°C)	-40		85	
Size (W)×(D)×(H)	(mm)	453×374×153			L、W、H
Weight	Kg	15			

OPTIC/ELECTRICAL SCHEMA

HA5800/O-1x □□□ (conventional)



HA5800/O-2x □□□ (Built-in Optical Switch)



PRODUCT SERIES

Model number	Total output power	Number of output port	Each port output power	Connector
HA5827/O-1×008	27dBm (500mW)	8	16.0	SC/APC, LC/APC
HA5827/O-2×008				
HA5828/O-1×008	28dBm (630mW)	8	17.0	SC/APC, LC/APC
HA5828/O-2×008				
HA5829/O-1×008	29dBm (800mW)	8	18.0	SC/APC, LC/APC
HA5829/O-2×008				
HA5830/O-1×008	30dBm (1000mW)	8	19.0	SC/APC, LC/APC
HA5830/O-2×008		16	15.5	LC/APC
HA5830/O-1×016				
HA5830/O-2×016				
HA5831/O-1×008	31dBm (1260mW)	8	20.0	SC/APC, LC/APC
HA5831/O-2×008		16	16.5	LC/APC
HA5831/O-1×016				
HA5831/O-2×016				
HA5832/O-1×008	32dBm (1600mW)	8	21.0	SC/APC, LC/APC
HA5832/O-2×008		16	17.5	LC/APC
HA5832/O-1×016				
HA5832/O-2×016				
HA5833/O-1×008	33dBm (2000mW)	8	22.0	SC/APC, LC/APC
HA5833/O-2×008		16	18.5	LC/APC
HA5833/O-1×016				
HA5833/O-2×016				
HA5834/O-1×008	34dBm (2500mW)	8	23	SC/APC, LC/APC
HA5834/O-2×008		16	19.5	LC/APC
HA5834/O-1×016				
HA5834/O-2×016				
HA5835/O-1×008	35dBm (3200mW)	8	24	SC/APC, LC/APC
HA5835/O-2×008		16	20.5	LC/APC
HA5835/O-1×016				
HA5835/O-2×016				
HA5836/O-1×008	36dBm(4000mW)	8	25	SC/APC, LC/APC
HA5836/O-2×008		16	21.5	LC/APC
HA5836/O-1×016				
HA5836/O-2×016				
HA5837/O-1×008	37dBm(5000mW)	8	26	SC/APC, LC/APC
HA5837/O-2×008		16	22.5	LC/APC
HA5837/O-1×016				
HA5837/O-2×016				

MODEL EXPLANATION

Product series		Operating Wavelength		Product Type		Total Output Power(dBm)		Exterior		Enter the Port Number		The Output Port Number		Connector		Power Mode		Power Supply		Output Optical Port Monitoring	
Amplifier of communication class	5	1540~1563nm	8	FTTx PON EDFA	27	27	A	1RU	1	Single input (Without Switch)	008	8 ports	LA	LC/APC	S	Single PS	22	220VAC	00	Without	
					28	28	B	2RU			016	16 ports	LP	LC/UPC	D	Dual PS	48	-48VDC			
					29	29	C	3RU	2	Dual input (With Switch)	SA	SC/APC	P	Dual PS Hot plug	42	-48VDC & 220VAC	MO	With Output Optical Port Monitoring			
					30	30	E	5RU													
					31	31	O	Out Door													
					32	32															
					33	33															
					34	34															
					35	35															
					36	36															
					37	37															

Note: WD1:Pass wavelength 1310/1490nm
WD2:Pass wavelength 1270/1310/1490/1577nm