HSA4300 (With SNMP)

C-Band Single Channel Pre-Amplifier EDFA (SBA)

PRODUCT DESCRIPTION

HSA4300 series is a low noise pre-EDFA which designed specifically for single wavelength optic transmission system. It is installed in the front of optical receiver, used for improving the receiving sensitivity of the optical receiver, and extending the signal transmission distance.

HSA4300 adopts the world's top class pump laser. Its excellent optic performance, advanced eletronic circuit and low consumption greatly reduced the heat power consumption of whole unit. Perfect FGC, ATC control, excellent design in the ventilation and heat-dissipation, ensures the long life and high reliability work of pump laser. The LCD at the front panel offers the work index and warning alarm of all equipment. RS232 and RJ45 offer serial commutation and SNMP network management port. The laser will switch off automatically if optical power is missing, which offers security protection for the laser. All the optical port can be installed in the front panel, also can be in the back panel if customers specify.

PRODUCT FEATURES

- ▶Covered full C-Band.
- ▶High gain, low noise.
- ▶Telecommunication-grade security and reliability, and network management function.
- ▶The LCD, LED at the front panel offers the work index and warning alarm of all equipment.
- ▶Standard RS232 communication interface.
- ▶10/100M Ethernet interface supports SNMP and WEB remote network management.
- ▶1+1 powers supply back up ,hot-plug function available.
- ▶Low power consumption.
- ▶Excellent P/P ratio in area.

MAIN APPLICATION

- ▶Long distance trunk network
- ▶MAN or access network
- ▶All kinds of SDH/PDH transmission system
- ▶FTTx PON

TECHNICAL INDEX

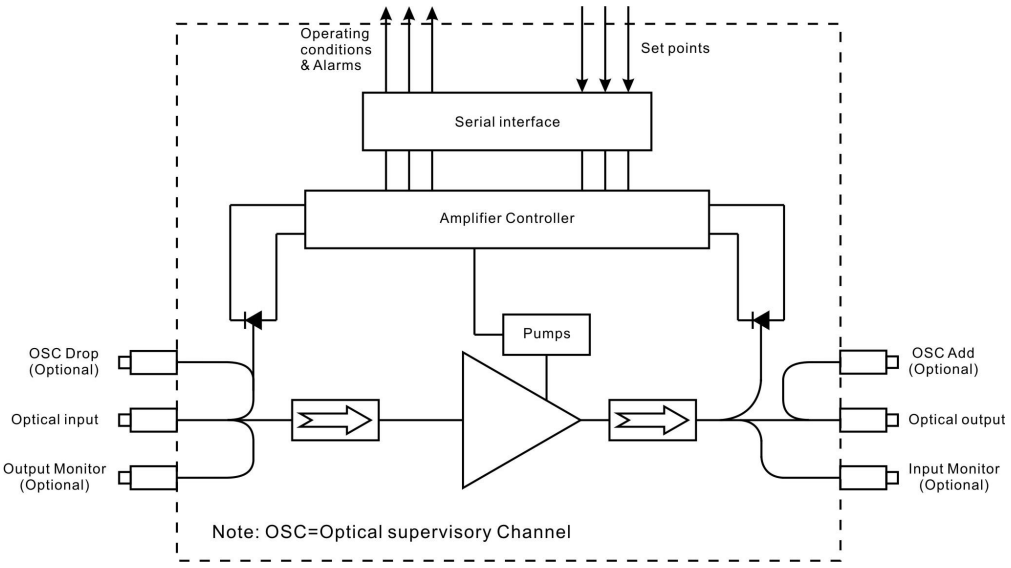
Performance			Index			Supplement
			Min.	Typ.	Max.	
Optic feature	Working wavelength range	(nm)	1528		1564	C-Band
	Input optical power (Pi)	(dBm)	-45	-30	-20	
	Signal gain(Pin=-30dBm)	(dBm)		20		HSA4320
				25		HSA4325
				30		HSA4330
				35		HSA4335
				40		HSA4340
	Noise figure	(dB)		4.5		Max output, max gain
	Polarization dependence loss (PDL)	(dB)			0.3	
	Polarization dependence gain (PDG)	(ps)			0.3	
	Polarization mode dispersion (PMD)	(dB)			0.3	
	Input/output optical isolation	(dB)	30			
	Pump power leakage	(dBm)			-30	
	Echo loss	(dB)	45			UPC
			55			APC
	Optical supervisory channel wavelength ranges	(nm)	1500	1510	1520	
General feature	SNMP network management interface		RJ45			
	Communication interface		RS232			
	Power supply	(V)	90		265	220VAC
			30		72	-48VDC
	Power consumption	(W)			30	
	Working temp.	(°C)	-5		+70	
	Storage temp.	(°C)	-40		+85	
	Working relative humidity	(%)	+5		+95	
	Size (W)×(D)×(H)	(mm)	483×205×44			

Remark: 1. Output power can be customized by user.

SOFTWARE FUNCTION MONITORING AND ALARM

Functions	In-Service Firm ware Upgrades
	Auto Shut Down
	Fixed Gain Control mode and Power limiting (AGC)
	Output Power Control Mode (APC)
	Pump Current Control Mode (ACC)
	Pump Maximum Working Current limit Protection
Monitors	Total Input Power
	Total Output Power
	Pump Status
	Chassis Temperature
Alarms	Loss-of-Signal Alarm
	Chassis Temperature Alarm
	Pump Temperature Alarm
	Pump Bias Alarm

OPTO-ELECTRICAL DIAGRAM



PRODUCT SERIES

Model	Max Output power(dBm) (Pin=0dBm)	Output optical power (Pin=-30dBm)	Monitor optical port mode	OSC Optical port mode
HSA4320-M00-O00	20	-10dBm	Without	Without
HSA4325-M00-O00	25	-5dBm		
HSA4330-M00-O00	30	0dBm		
HSA4335-M00-O00	35	+5dBm		
HSA4340-M00-O00	40	+10dBm		

Note :1) Monitor optical port mode options :1 . MO (With output monitor optical port)

2 . MI (With input monitor optical port)

3 . MIO (With input and ouput monitor optical port)

2) OSC Channel optical port light management: 1 . OD (OSC / Drop)

2 . OA (OSC / Add)

3 . ODA (OSC / Drop & Add)

MODEL EXPLANATION

HSA 4 3 □□ – □□□ – D20 – □□ – □ / □□ – M□□ – O□□

Telecom single-channel EDFA	Operating wavelength		Product type		Signal gain (Pin=-30dBm)		Fixed filter		Chassis Length		Connector		Power mode		Power supply		Monitor optical port options		OSC Optical port options	
	4	C-Band (1528~1564)	3	Pre-Amplifier	20	20dB	OOO	No	D20	205mm	SP	SC/UPC	S	Single PS	22	220VAC	M00	No monitor optical port	O00	No OSC
					25	25dB	C34	1550.12nm Applicable SDH network	D25	250mm	SA	SC/APC	P	Dual PS, Hot plug	48	-48VDC			OD	OSC/Drop
					30	30dB			D30	300mm	LP	LC/UPC			42	-48VDC &220VAC	MO	With output optical port monitor	OA	OSC/Add
					35	35dB	CXX	100G ITU Standard wavelength			LA	LC/APC					MI	With input optical port monitor	ODA	OSC/Drop & Add
					40	40dB					FP	FC/UPC								
							HXX	50G ITU Standard wavelength			FA	FC/APC					MIO	With input,output optical port monitor		
							CBL	1528~1543nm												
							CRe	1547~1563nm												