HA7300 C+L-Band Erbium Doped Fiber Amplifier

PRODUCT DESCRIPTION

HA7300 series is a C+L-Band (1528~1565nm & 1570~1605nm) Pre-amplifier EDFA. According to the gain flatness feature, this series product can be divided into 2 types:

HA7300/SCH: single-channel pre-amplifier, do not fix on gain flatness, suitable for the application of single channel or 1~8 continuous ribbon channels (ITU wavelength).

HA7300/F05: gain-flattened pre-amplifier, realizing gain flatness (F05, ≤±0.5dB) at gain spectrum <1.0dB (Typ.<0.8dB) within whole C+L-Band, as adopting the high-quality GFF and optimization of optical route. Meet requirement of DWDM system C+L-Band pre-amplifier on gain flatness and high output power totally.

HA7300 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 can be installed in the front panel (also can be in the back panel if customers specify).

PRODUCT FEATURE

- Wide operating bandwidth (1528~1565nm & 1570~1605nm)
- SCH: single channel or 1~8 continuous ribbon channels (ITU wavelength)
- F05: gain flatness ≤±0. 5dB
- Low noise, high gain
- APC, AGC, ACC controlled selection
- Powerful RS232 supervisory instruction
- Three exterior option: 1U (19” stander), 3D (12.4”, 3U, Desk-type), OD (out-door) and modulator
- 1U and 3D exterior, offering status appearance and diagnosing fault with LCD, standard RS232 communication interface, SNMP network management function
- OD out-door rainproof type, it is no need for generator room so that it is very convenient for the project design and operation cost.
- Application of 3D models to adapt to laboratory
- Excellent P/P ratio.

MAIN APPLICATION

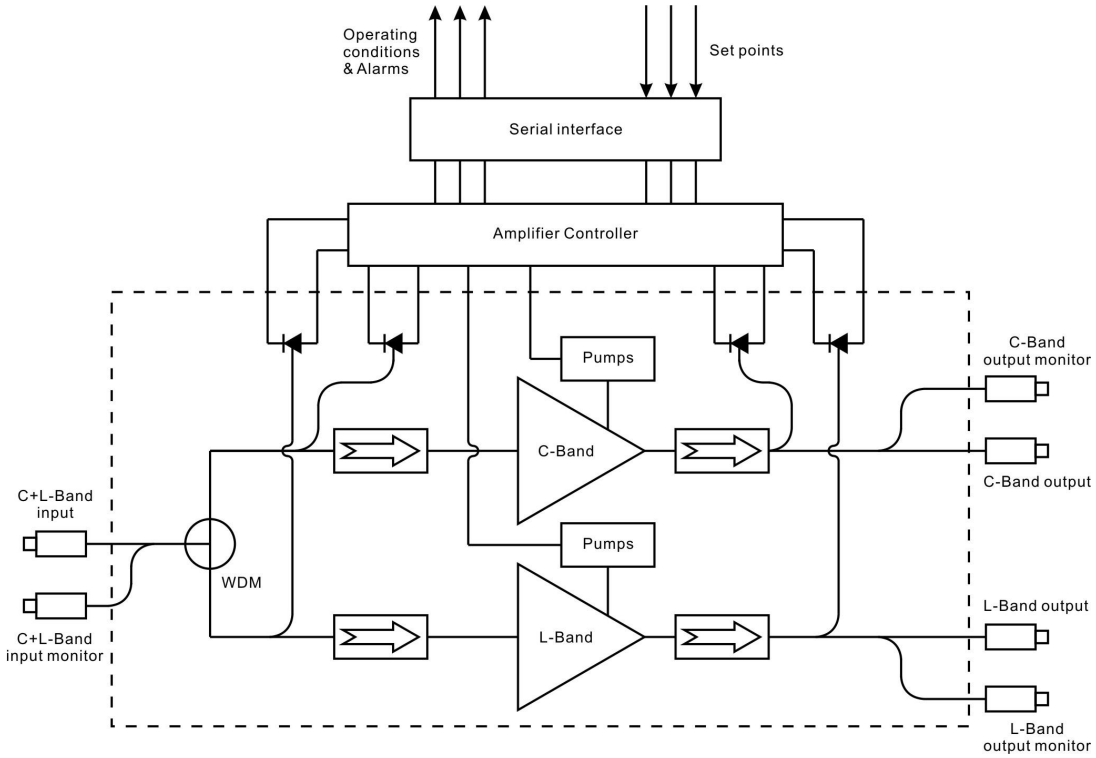
- C+L-Band single channel pre amplification
- C+L-Band DWDM pre amplification
- WDM fiber CATV system pre amplification
- Laboratory application

TECHNIQUE INDEX

Performance				Index			Supplement
				Min.	Typ.	Max.	
Optical Feature	Operating Wavelength Range		(nm)	1528		1563	C-Band
				1570		1605	L-Band
	Input Power		(dBm)	-30		+3	
	Signal Gain (Pin=-30dbm)		(dB)	20			HA7320
				25			HA7325
				30			HA7330
	Output Power (Pin=-30dbm)		(dBm)		-10		HA7320
					-5		HA7325
					0		HA7330
	Noise Figure	Pin=-30dbm	(dB)		5.0		HA7320
					4.8		HA7325
					4.5		HA7330
		Pin=-10dbm	(dB)		5.2		HA7320
					5.0		HA7325
					4.8		HA7330
	Gain Flatness		(dB)	Single channel			SCH
				-0.5	±0.4	+0.5	F05
	Polarization Dependence Loss		(dB)			0.3	
	Polarization Dependence Gain		(dB)			0.5	
	Polarization Mode Dispersion		(ps)			0.3	
	Input/Output Isolation		(dB)	30			
	Pump Power Leakage		(dBm)			-30	
	Echo Loss		(dB)	40			UPC
				55			APC
General Feature	Snmp Network Management Interface			RJ45			
	Series Interface			RS232			
	Power Supplement		(V)	90		265	220VAC
				30		72	-48VDC
	Power Consume		(W)			25	
	Operating Temp.		(°C)	-5		65	
	Storage Temp.		(°C)	-40		80	
	Operating Relative Humidity		(%)	5		95	
	Size (W)×(D)×(H)		(")	19×14.5×1.75			1RU (19")
			(")	12.4×15.4×5.25			3D(12.4", desk-type)
			(mm)	150×125×22			Modulator

OPTICAL/ELECTRICAL SCHEMA

Optical port mode M12 (1×C+L-Band input, 1×C-Band output, 1×L-Band output. With input & output monitor port



PRODUCT SERIES

Model	Signal gain (Pin=-30dBm)	Output power (Pin=-30dBm)	Noise figure		Flatness
			Pin=-10dBm	Pin=-30dBm	
HA7320/SCH	20dB	-10dBm	5.2	5.0	Single channel
HA7325/SCH	25dB	-5dBm	5.0	4.8	
HA7330/SCH	30dB	0dBm	4.8	4.5	
HA7320/F05	20dB	-10dBm	5.0	4.8	±0.5dB
HA7325/F05	25dB	-5dBm	4.8	4.6	
HA7330/F05	30dB	0dBm	4.6	4.4	

MODEL EXPLANATION

HA 7 [3] [2][5] / [S][C][H] – [0] [N]– [M][2] – [1][U] – [F] / [S][A] – [2][2]

Product series	Operating bandwidth		Product type		Gain		Gain flatness (dB)		Function		Network management		Number of optical port		Exterior		Optical port position		Connector		Power supply	
Amplifier of communication class	5	1540~1563nm CATV	1	BA	20	20dB	SCH	Single-channel	0	Without	0	Without	M2	2 ports, without input & output monitor	1U	19" 1RU	F	Front panel	FA	FC/APC	22	220VAC
			2	LA	25	25dB	F05	FL≤ ±0.5 GP-P≤1.0	G	Gain adj.	N	With			3D	Desk-type	B	Back panel	FP	FC/UPC	11	110VAC
	4	C-Band 1528~1565nm	3	PA	30	30dB							M4	4 ports, with input & output monitor	OD	Out-door			SA	SC/APC	48	-48VDC
			4	High Power	35	35dB									OEM	Appearance user customized			SP	SC/UPC		
	6	L-Band 1570~1610nm	5	VGA															LA	LC/APC		
			7	MSA															LP	LC/UPC		
	7	C+L-Band	8	FTTP with CWDM, for FTTx PON											ML	Modulator						
	8	Bi-direction EDFA																				