HDA5100A Series ・

C-Band DWDM
Gain Flattened Booster EDFA (WBA)

Technical Specification

CONTENT

1.0   PRODUCT DESCRIPTION

HDA5100A series, is designed for C-Band 44 waves or 88 waves DWDM system design power fiber amplifier gain flatness. Products using the most excellent optical performance, the most advanced electronic control technology and comprehensive software features, has a wide operating wavelength range, low noise and excellent gain flatness characteristics.

HDA5100A mainly installed in the output end of the optical transmitter, for increasing the output power of the transmitter, to extend the signal transmission distance.

HDA5100A the world's top brands of pump lasers, advanced electronic circuit design and low power consumption, which greatly reduces the overall thermal power, to ensure long life and high reliability PUMP Laser work. Front panel LCD, LED offers the work parameters and alarms. RS232 and RJ45 provides serial communications and SNMP network management interface. Optical loss, laser automatically shut down, provides laser safety protection.

HDA5100A has two kinds of function versions are available:

   1. Standard version: provides a fixed gain control mode (FGA), the pump current control mode (ACC)

   2. Enhanced version: In addition to the standard version with the control functions, increasing the variable gain control mode (VGA, AGC), Variable output power control mode (VPA, APC).

HDA5100A enhanced version, for 44 wave DWDM systems, providing a flexible, high-performance, low-cost networking applications.

2.0   PRODUCT FEATURE

- Wide working wavelength: 1546.12~1558.98nm

- Accord with the communication technology requirements of 44 channels DWDM system

- Excellent gain flattened feature (GF<1.0dB)

- Excellent Transient feature

- Low noise figure

- Carrier-class 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 optional, hot-plug function available

- Low power consumption.

- Excellent P/P ratio in area.

3.0   MAIN APPLICATION

- 44 channels DWDM system

- Long distance trunk network

- MAN or access network

- All kinds of SDH/PDH transmission system

- FTTx PON

4.0   SOFTWARE FUNCTION MONITORING AND ALARM

	Function, Monitoring, Alarm	Standard version	Enhanced version
Functions	In-Service Firm ware Upgrades	√	√
	Auto Shut Down	√	√
	Fixed Gain Mode (FGA)	√	√
	Variable Gain Control Mode (VGA, AGC)	�×	√
	Variable output power control mode (VPA, 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	√	√

5.0   TECHNICAL INDEX

Performance			Index			Supplement
			Min.	Typ.	Max.	
Optical feature	Work wavelength range(λ)	(nm)	1546.12		1558.98	ITU 88CH
	No. of Working channel	(CH)	1	44		
	Input optical power range (Pi)	(dB)	-10		+10	
	Saturation output power(Po)	(dBm)	13		24	Customer selection
			26		28	High Power BA
	Variable Output Power Range	(dB)	-6		0	Enhanced version
	Signal gain	(dB)	13		30	Customer selection
	Variable Gain Range	(dB)	-12		0	Enhanced version
	Gain Flattened	(dB)		0.7	1.0	Peak to Peak
	Noise Figure	(dB)		5.0		Max output, max gain
	Polarization dependence gain (PDG)	(dB)			0.3	
	Polarization mode dispersion (PMD)	(ps)			0.3	
	Polarization dependence loss (PDL)	(dB)			0.3	
	Input/output optic isolation	(dB)	30			
	Pump leakage power	(dBm)			-30	
	Echo loss	(dB)	45			UPC
			55			APC
	Optical Supervisory Channel Wavelength	(nm)	1500	1510	1520	
Transient feature	Transient setting time	(dB)			700	(16 dB Add / Drop)
	Transient Overshoot	(dB)	-1.5		+1.5	(16 dB Add / Drop)
	Transient offset	(dB)	-0.5		+0.5	
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			

6.0   OPTICAL/ELECTRICAL SCHEMATIC