

## EDFA Optical Amplification Subsystem

The main function of the EDFA optical amplification subsystem by Diamond Optics Pty Ltd is to compensate the signal's optical power in the transmission link, which allows the extension the optical signal transmission distance. There are two main product types BA (Booster Amplifier) and PA (Preamplifier) based on the application requirement. BA is usually used at the transmitting end to boost the output optical power of the system. PA is usually used at the receiving end of the system to improve the input optical power. The EDFA can amplify all the input optical signals by using the erbium-doped fiber as the gain medium and using the 980nm or 1480nm pump laser as the pump source with one-stage or two-stage amplification. It's one of the most indispensable and important part of the DWDM system, high speed transmission system and all optical network in the future.

### Product Feature

- Support the unified amplification of 48CH/96CH DWDM signal of C band
- Automatic gain control (AGC)
- Flat gain and low noise figure
- Support built-in VOA and automatic adjustment of Input optical power
- Support two-stage amplification with OADM or DCF modules to be configured in the line
- 1U pluggable rack, flexible capacity configuration
- Support AC power 240V, DC power -48V, and 1+1 power input protection, low power consumption.
- Free of configuration installation and support plug and play
- Support multi-kinds of graphical interface network management, such as SNMP, Web
- Class 1M Laser product.



### Product Specification

Item	Parameter		Remark
Working wavelength range	Stand type: 1529nm~1561nm, extended type: 1528nm~1568nm		
EDFA type	Booster-amp (B2020N)	Pre-amp (P1625N)	P/N
Input power range (total power)	-20dBm ~ 0dBm	-28dBm ~ -9dBm	
Saturation output power (typical)	+20dBm	+16dBm	
Rated gain (typical)	20dB	25dB	To be customized
Gain flatness	≤1.5dB		
Noise figure	≤5.5 dB		
Working temperature range	-10℃~60℃		
Working humidity range	5%~95% no condensation		
Storage temperature	-40℃~85℃		
Equipment dimension	1U: 44 mm (H)x442 mm (W)x220 mm (D)		
Network management	Supports multi-kinds of graphical interface network management, such as SNMP and Web		Optional
Optical interface	LC/UPC or LC/APC		
Power supply	AC: 90 ~ 260V or DC: -36 ~ -72 V (1+1 power input backup)		
Typical power consumption	Full configuration <40W, EDFA card <5w		
Heat dissipation	Fan cooling		
MTBF	>100000 hours		