Features and Benefits

Erbium-Doped Fiber Amplifier

The Antronix EDFA-B series is a family of low noise, high-power, 1550 nm Erbium-Doped Fiber Amplifier (EDFA). Available in various output powers (31dBm ~ 41 dBm) and port configurations the Antronix EDFA-B allows operators to combine the OLT optical signal XPON/XG(S)-PON and 1550 nm CATV signal to deliver high-quality broadcast and digital narrowcast content over long distances allowing for easy deployment of traditional HFC, passive HFC, and fiber to the home (FTTH) networks. The Antronix EDFA-B series high-performance optical amplifier is equipped with dual power supply, 2 redundant CATV inputs, + 32 PON input ports. 32 outputs ports that combine 1550 nm + 1490 nm/1310 nm & 1270/1577 nm thus allowing operators to offer the latest state-of-the art FTTX architecture.

The Antronix EDA-B is equipped with many features that include but not limited to

- **High Power Lasers**
  Available optical output power from 1260~13000 mW (31~41dBm)
- **Optical Outputs**
  Up to 64 outputs with various configurations and connector types
- **Dual Optical Input**
  Built-in 2 ×1 optical switch can be used for self-healing ring network or redundant backup network
- **Carrier-class**
  High quality, high reliability and excellent cost performance is ideal for system integrators and operators
- **Power Supply**
  Dual power supply optional, 1+1 backup
- **Communication**
  RS232/RJ45 for SNMP web network management Interface and controls
- **Automatic Laser Shutoff**
  Circuitry deactivates the laser for enhanced protection
- **Integrated Internal CWDM Splitter**
  Eliminates the need for additional equipment and shelf space; thus, allowing GPON/XGS-PON wavelengths to be routed from the OLT to the ONU through the EDFA, reducing component count, powering requirements, lowering CAPEX and OPEX while balancing system performance

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ANTRONIX®

Specifications
Erbium-Doped Fiber Amplifier

Advanced Optical Components				
Performance		**Index**		
	Min	**Typical**	**Max**	**Supplement**
CATV Operation Wavelength (nm)	1545		1563	CATV
OLT Pass Wavelength (nm)		1310,1490,1270,1577 nm		
CATV Pass Wavelength Loss (dB)			0.8	1550 nm
OLT Pass Wavelength Loss (dB)			0.8	1310,1490,1270,1577 nm
CATV & OLT Isolation (dB)	40			
Number of Uplink Optical Ports (for OLT) (pcs)			64	
CATV Input Power (Pi) (dBm)	-10		+10	
Total Output Power (dBm)			41	
Number of Output Ports (pcs)			64	
Each Port Output Power (dBm)	0		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)		5.0	6.0	OTEB-CW-B-1x
		5.5	6.5	OTEB-CW-B-2x
Switch Time (ms)			8.0	
Polarization Dependence Loss (dB)			0.3	
Polarization Dependence Gain (dB)			0.4	
Polarization Mode Dispersion (ps)			0.3	
Input/Output Isolation	30			
Pump Power Leakage (dBm)			-30	
Echo Loss (dB)	55			APC
Network Management Interface		RJ45		SNMP
Serial interface		RS232		
Power Supply (V)	90		265	220 VAC
Power Supply (V)	30		72	-48 VDC
Power Consume (W)			84	
Operation Temp. (°C)	-5		65	
Storage Temp. (°C)	-40		80	
Relative Humidity (%)	5		95	
Size (W)×(D)×(H) (")		19×14.7×3.5	OTEB-CW-B(2U)	

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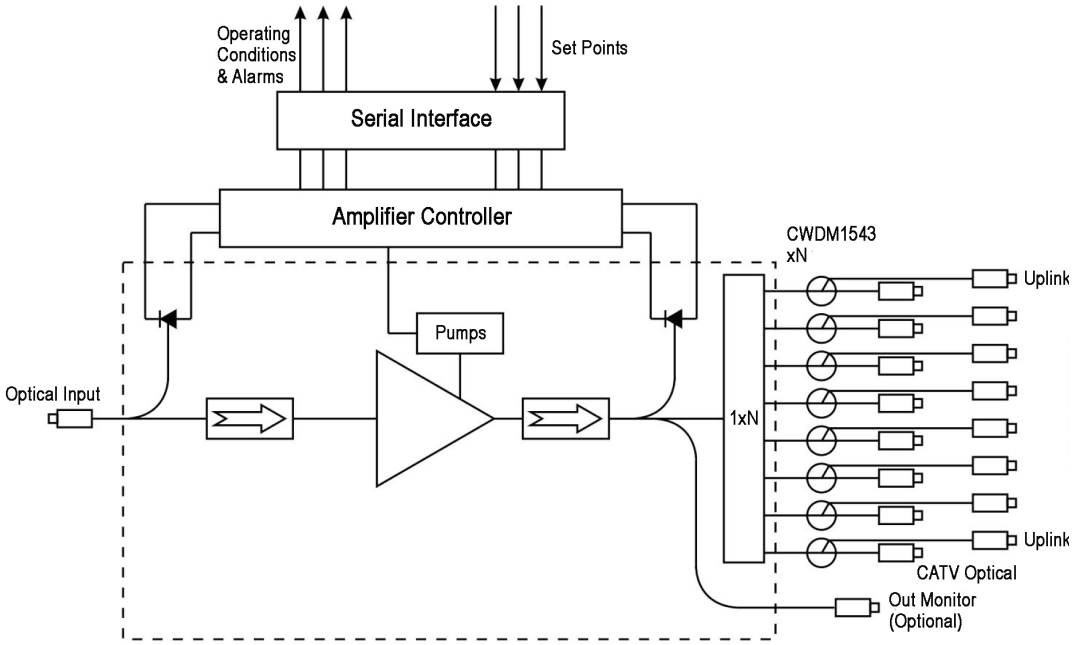
Erbium-Doped Fiber Amplifier
Optical/Electrical Scheme

EDA-B-CW-B-1x (conventional)



EDA-B-CW-B-2x (Built-in Optical Switch)