

Low-Cost EDFA - Model OTEB-CO-B Series

Features and Benefits

Compact high performance 1RU 19" EDFA

Specifically for distribution of 1550nm CATV/video/data in HFC, PON/AON or FTTH systems

Typically used in a launch or mid-span application. Optimized for use with Olson fiber DCM.

Low optical input level requirements with excellent low noise performance at high output

90-254 Volts AC power supply. DC option not available.

RS232 or RS485 network interface connectors available.

1540nm to 1560nm wavelength range

LED indicators and LCD display for easy setup and maintenance.

Single, dual and quad optical output options

SC/APC optical connector standard.



The Olson Technology Model OTEB-CO-B Series EDFA incorporates a reliable optical output drive circuit, and laser TEC to provide a highly reliable Erbium-doped optical amplifier. Built-in microprocessor software allows the user to monitor a number of system parameters, including: laser status, systems alarm, network management, TEC circuit operation, etc. If a critical problem is detected, the power supply for the laser will shut down automatically, a red LED indicator will light, and the front panel display will show the nature of the problem. The microprocessor software allows interconnection to a computer using either an optional RS232 or an RS485 interface. The EDFA is housed in a 1RU 19" rack mount configuration with an integrated 90-254 Volts AC power supply.

This rugged, low-profile, high-efficiency EDFA design utilizes highly reliable pump lasers for maximum reliability. The unit accepts a wide optical input range (-10dBm to +10dBm) and provides a total composite/saturated output power from +13dBm to +26dBm, depending on the specific model. The *LaserLite* Model OTEB-CO-B Series erbium doped fiber amplifier is the perfect companion to the Olson *LaserPlus* and *LaserLite* families of 1550nm EM and DM transmitters and *MetroNode* and *PremiseNode* families of receiver/nodes. It is also designed to operate seamlessly with optical transmitters, receivers and nodes from most leading manufacturers.

System Specifications

Optical Characteristics (with SM 9/125µm Fiber)

	Min	Typ	Max	Units
Optical Output Power	+16		+26	dBm
Optical Input Power	-10	+3	+10	dBm
Wavelength	1540		1560	nm
Output Stability		±0.3		dB
Noise Figure (0dBm in)		5.0		dB
Noise Figure (+6dBm in)		6.0		dB
Pump Power Leakage			-30	dBm
Reflection Loss			-40	dB
Optical Connector		SC/APC		
Network Connector		RS-232		
Network Connector		RS-485		

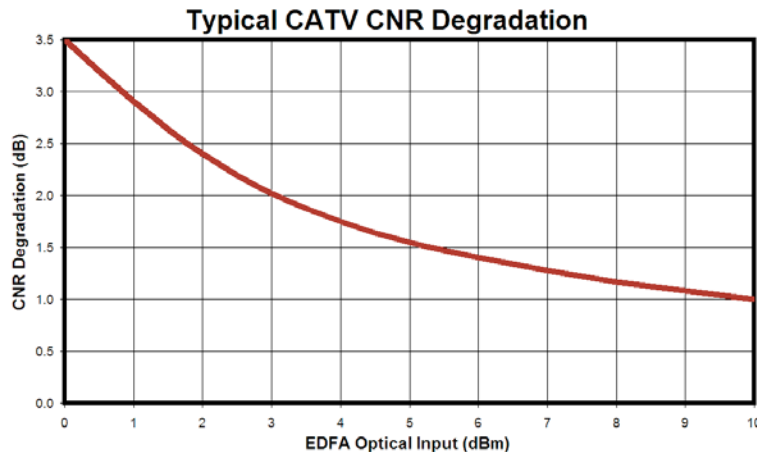
Electrical and Environmental Characteristics

	Min	Typ	Max	Units
Power Supply Voltage	90		254	V _{AC}
Operating Temp. Range	0		+50	°C
Storage Temp. Range	-20		+65	°C
Humidity ¹	5		90	%

Notes: 1) Non-condensing conditions only

Physical Characteristics

	Min	Typ	Max	Units
Weight		12		lb.
		5.5		kg
Dimensions (W x L x H)	19	14.2	1.75	in.
	483	361	44	mm



Ordering Information

Model OTEB-CO-B113-SA-AC	EDFA, 1 Output, +13dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B114-SA-AC	EDFA, 1 Output, +14dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B115-SA-AC	EDFA, 1 Output, +15dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B116-SA-AC	EDFA, 1 Output, +16dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B117-SA-AC	EDFA, 1 Output, +17dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B118-SA-AC	EDFA, 1 Output, +18dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B119-SA-AC	EDFA, 1 Output, +19dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B120-SA-AC	EDFA, 1 Output, +20dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B121-SA-AC	EDFA, 1 Output, +21dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B122-SA-AC	EDFA, 1 Output, +22dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B123-SA-AC	EDFA, 1 Output, +23dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B124-SA-AC	EDFA, 1 Output, +24dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B221-SA-AC	EDFA, 2 Outputs, +21dBm Optical Output per Port, SC/APC Connector, AC Power
Model OTEB-CO-B419-SA-AC	EDFA, 4 Outputs, +19dBm Optical Output per Port, SC/APC Connector, AC Power

Notes: 1) The list above are common configurations. Other configurations are available. Call factory with questions.

2) Maximum optical output power per port is +24dBm

3) Maximum total optical output power for the OTEB-CO series is +26dBm.

Generalized Part Numbering System

Model OTEB-CO-Byzz-SA-AC EDFA, "y" Outputs, "zz" dBm per Output, SC/APC Connector, AC Power