

Model OTEB-CO-M Series Optical Amplifier **Mid-Stage Access 1550nm EDFA for Dispersion Compensation**

Features / Benefits

Single optical output from +17dBm/50mW to +26dBm/400mW.

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

Typically used in a launch or a mid-span application. Optimized for Olson 10-100km fiber dispersion compensation module (DCM).

Mid-Stage loss can range from 0dB to 15dB

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

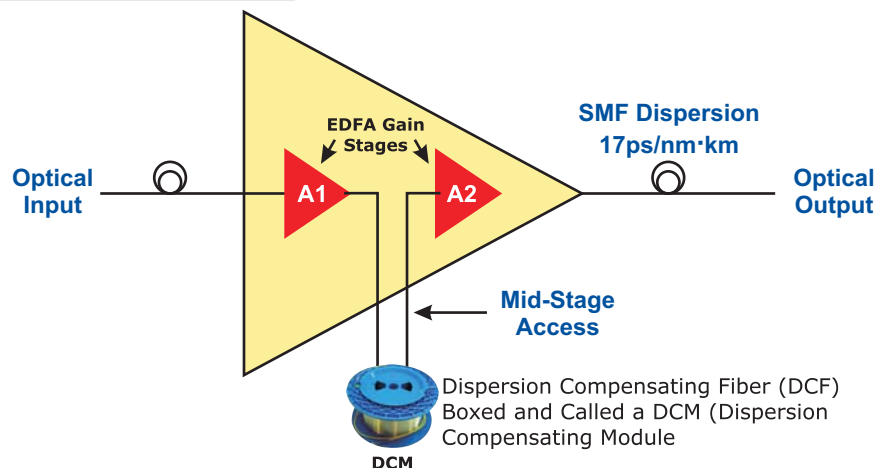
Powering options for 110/220 Volts AC and -48 Volts DC.

RS232 craft serial interface (optional).



The **Model OTEB-CO-M** Series provides a convenient means of performing dispersion compensation and optical amplification in a system incorporating very long fiber runs. The OTEB-CO-M series can be thought of as two EDFA's in one box. The dispersion compensation module (DCM) is typically inserted between the two amplifier stages.

This rugged, low-profile, high-efficiency EDFA design utilizes reliable pump lasers for maximum reliability. The unit's wide optical input range accepts a single optical input (-2dBm to +6dBm) and provides a total composite/saturated output power from +17dBm/50mW to +26dBm/400mW, depending upon the desired configuration. The Model OTEB-CO-M Series EDFA 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. Optional SNMP is available.



System Specifications

Optical Characteristics (with SM 9/125µm Fiber)

	Min	Typ	Max	Units
Wavelength	1540		1560	nm
Gain Range	3		33	dB
Mid-Stage Access Loss Range	0		15	dB
Noise Figure (0dBm In)		5.0	6.8	dB
Pump Power Leakage			-30	dBm
Optical Input Range	-2		+6	dBm
*Optical Output Power (0dBm In)	+17		+26	dBm

* In CATV applications, typically no more than +16-19dBm launch level per wavelength should be launched into the fiber to avoid excessive Stimulated Brillouin Scattering (SBS). SBS can negatively impact link CNR and CSO performance. The exact limit is set by the optical transmitter being used.

Physical Characteristics

	Min	Typ	Max	Units
Dimensions (H x W x D)	1.75 x 19.0 x 14.5			in.
	44 x 483 x 368			mm
Weight		12.1		lbs.
		5.5		kg

Electrical and Environmental Characteristics

	Min	Typ	Max	Units
Power Supply Voltage (Std)	+90		+264	V _{AC}
Power Supply Voltage (Option)		-48		V _{DC}
Power Dissipation			50	W
Operating Temp. Range	0		+50	°C
	+32		+122	°F
Storage Temp. Range	-20		+65	°C
	-4		+149	°F
Humidity (RH Non Con.)	10		90	%

EDFA Interfaces

Optical Output Connector	SC/APC Standard, FC/PC Optional
LED Indicators (Red/Green)	Alarms: Pump Temp., Pump Bias Current, Input Power, Output Power
SNMP Network Interface	RJ45 (with SNMP option only)
Pump Enable/Disable	Key switch (key cannot be removed when in the ON position)
Comm. Interface	RS232 Interface RJ-45 (SNMP Option Only)

Ordering Information

Part Numbers

Model OTEB-CO-M-1xx-yy-pp/S EDFA, 1RU Mid-Stage Access, 0-100km, +17dBm to +26dBm total output power

Where

xx = Total EDFA power in dBm (+17 to +26).

yy = Optical connector type: SA = SC/APC Standard; FA = FC/APC Option

pp = Power: AC specifies universal AC input; DC specifies 48 Volts DC input

z = Optical connector position: F = Front; B = Back

/S Designates unit with SNMP. Omit for no SNMP.

Contact Olson Technology, Inc. to verify part numbers.