

## LaserLite: 1550nm Optical Amplifier (OTEA-CO-M Series)

### Mid-Stage Access 1550nm EDFA for Dispersion Compensation

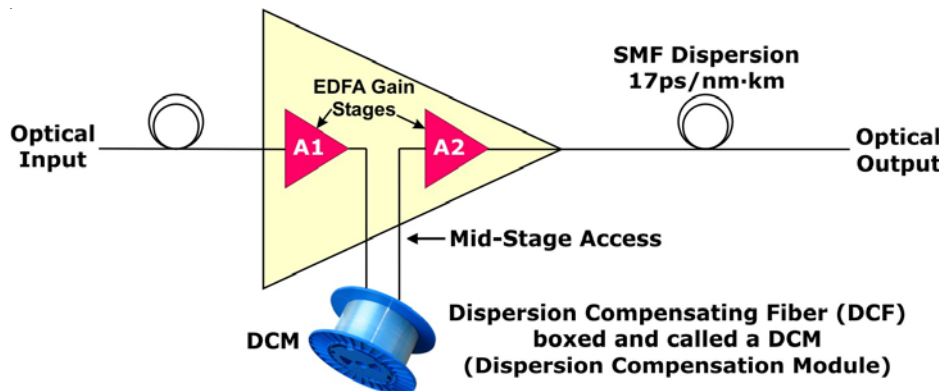
#### Features / Benefits

- Single output from **+16dBm/40mW to +25dBm/310mW**
- 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 100km fiber DCM.
- Low optical input level requirements with excellent low noise performance at high output
- 110/220 V<sub>AC</sub> and -48 V<sub>DC</sub> powering options
- RS-232 craft serial interface (optional)
- SNMP Option Available

The **Olson Technology, Inc. Model OTEA-CO-M Series** 1550nm Erbium Doped Fiber Amplifier is a 1RU high, rack-mount EDFA package designed to allow dispersion compensation to be added to long fiber spans. It is engineered to meet the requirements for a high-density solution for the distribution of broadband CATV video.



The **Model OTEA-CO-M Series** provides a convenient means of performing dispersion compensation in a system incorporating very long fiber runs. The OTEA-CO-M series can be thought of as two EDFA's in one box. The dispersion compensation 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 (0dBm to +6dBm) and provides a total composite/saturated output power from +16dBm/40mW to 310mW/+25dBm, depending upon the desired configuration.

The **LaserLite Model OTEA-CO-M 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. Optional SNMP is available.

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Quality / Engineering / Innovation

## Specifications

### OPTICAL PARAMETERS:

Wavelength	1540 nm to 1560 nm
Gain flatness for DWDM	< ±0.5 dB
Noise Figure	5.0 dB (typical); 5.5 dB (typical) @ 6dBm Input
Isolation	> 30 dB
Optical Input Range	0 dBm to +6 dBm
Optical Input Power (typical)	+1 dBm to +3 dBm
Output Power	Up to +25 dBm/310mW Output (@ 0 dBm input) * (In CATV applications, no more than 16-19 dBm launch level per fiber 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.

### ELECTRICAL, ENVIRONMENTAL & MECHANICAL PARAMETERS:

Dimensions	1.75" H x 19.0" W x 9.0" D
Weight	12.1 lb. (5.5 kg)
Air Inlet Operating Temperature Range	0°C to +50°C (+32 to +122°F)
Humidity Range	to 90% non-condensing (For use only in non-condensing environments)
AC Input Range (Standard)	100-240 V <sub>AC</sub> (@ 47-63 Hz)
DC Input Range (Optional)	-48 V <sub>DC</sub>

### EDFA INTERFACES:

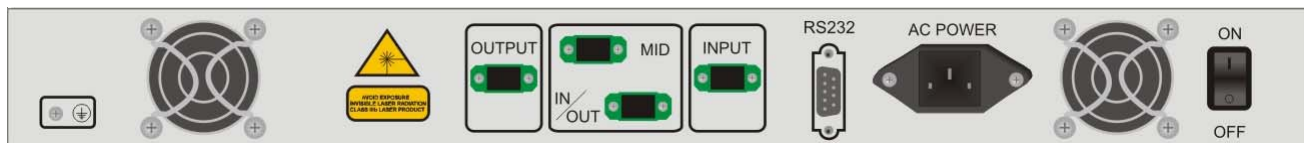
Optical Connectors	SC/APC standard; FC/APC optional
LED Indicators (Green/Red)	Alarms: Pump Temperature; Pump Bias Current; Input Power; Output Power
Unit Operating Parameters	RS232 interface (Optional)
Pump Enable/Disable	Key Switch (key not removable in "on" position)

### ORDERING INFORMATION:

<u>Model Number</u>	<u>Description</u>
OTEA-CO-M-1xx-yy-pp/S	EDFA; 1RU Mid-Stage Access, 100km, +16dBm to +25dBm total power

Where

xx	Total EDFA power in dBm
yy	Optical connector type; SA = SC/APC (Standard), FC/APC (Optional)
pp	Power; AC = AC power (universal AC), DC = DC power (48V <sub>DC</sub> )
/S	Designates unit with SNMP



Typical Mid-Stage EDFA Rear Panel

All specifications are subject to change without notice

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