

Booster 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, RFoG or FTTH systems

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

Low optical input level require-
ments with excellent low noise
performance at high output

Standard Universal 90-265 Volt AC
power supply.

48 Volt DC power supply (30-72
Volts DC) option is available.

Optional SNMP monitoring.

1540nm to 1560nm operating
wavelength range

LED indicators and LCD display for
easy setup and maintenance.

Single, dual and quad optical
output options

SC/APC optical connector stan-
dard can be located on the front or
rear of the unit.



The Olson Technology Model OTEB-CO-B Series Booster EDFA incorporates reliable optical output drive circuitry, and laser TEC (Thermo-Electric Cooler) 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, and TEC circuit operation. 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. Optional SNMP network management is available through the RJ45 interface. The EDFA is housed in a 1RU 19" rack mount configuration with an integrated AC or DC power supply. The pump laser is controlled by a front panel key switch that can only be removed in the "Off" position to prevent tampering.

This rugged, low-profile, high-efficiency Booster EDFA design utilizes highly reliable pump lasers for maximum reliability. The unit accepts a very wide optical input range from -10dBm to +10dBm (+3dBm nominal) and provides a total composite/saturated output power from +13dBm to +26dBm, depending on the specific model. The 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 (Total)* | +13 | | +26 | dBm |
| Optical Input Power | -10 | +3 | +10 | dBm |
| Wavelength | 1540 | | 1560 | nm |
| Output Stability | | ±0.3 | | dB |
| Noise Figure (0dBm in) | | 5.0 | 6.3 | dB |
| Noise Figure (+6dBm in) | | 6.0 | | dB |
| Pump Power Leakage | | | -30 | dBm |
| Reflection Loss | | | -40 | dB |
| Optical Connector | | SC/APC | | |
| SNMP Network Management Interface ** | | RJ45 | | |
| Communication Interface | | RS-232 | | |

* With 0dBm optical input

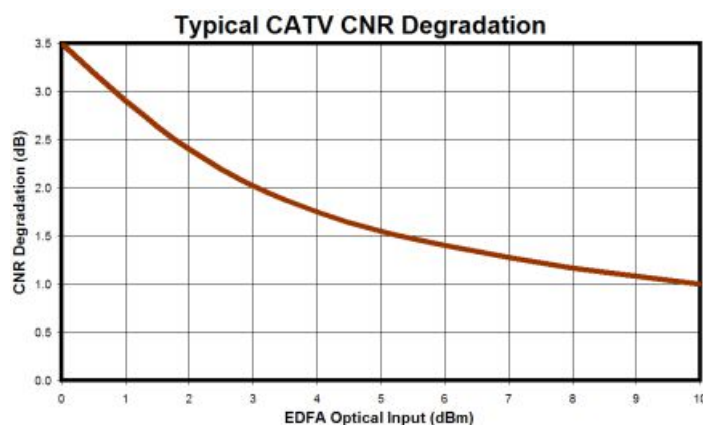
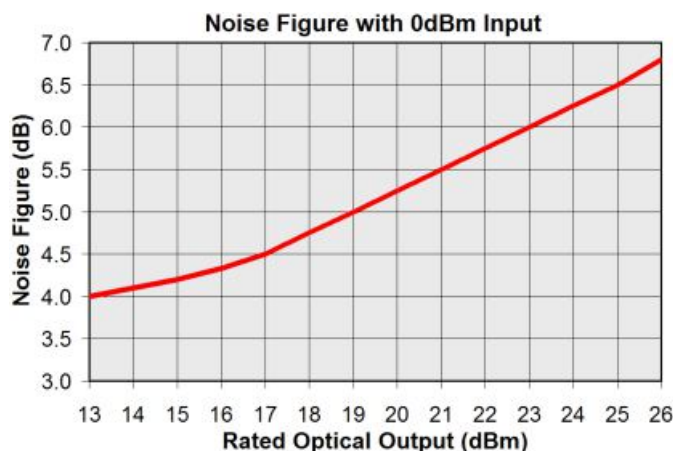
** SNMP is optional at the time of ordering

Electrical and Environmental Characteristics

| | Min | Typ | Max | Units |
|---------------------------|-----|-----|-----|-----------------|
| AC Power Supply Voltage | 90 | | 265 | V _{AC} |
| DC Power Supply Voltage | 30 | 48 | 72 | V _{DC} |
| Operating Temp. Range | 0 | | +50 | °C |
| Storage Temp. Range | -20 | | +65 | °C |
| Humidity (Non condensing) | 5 | | 90 | % |

Physical Characteristics

| | Min | Typ | Max | Units |
|------------------------|-----|------|------|-------|
| Weight | | 12 | | lb. |
| | | 5.5 | | kg |
| Dimensions (W x L x H) | 19 | 14.5 | 1.75 | in. |
| | 483 | 368 | 44 | mm |



Ordering Information

| | |
|------------------------------|---|
| Model OTEB-CO-B113-yy-pp-z/S | EDFA, 1 Output, +13dBm Optical Output per Port |
| Model OTEB-CO-B114-yy-pp-z/S | EDFA, 1 Output, +14dBm Optical Output per Port |
| Model OTEB-CO-B115-yy-pp-z/S | EDFA, 1 Output, +15dBm Optical Output per Port |
| Model OTEB-CO-B116-yy-pp-z/S | EDFA, 1 Output, +16dBm Optical Output per Port |
| Model OTEB-CO-B117-yy-pp-z/S | EDFA, 1 Output, +17dBm Optical Output per Port |
| Model OTEB-CO-B118-yy-pp-z/S | EDFA, 1 Output, +18dBm Optical Output per Port |
| Model OTEB-CO-B119-yy-pp-z/S | EDFA, 1 Output, +19dBm Optical Output per Port |
| Model OTEB-CO-B120-yy-pp-z/S | EDFA, 1 Output, +20dBm Optical Output per Port |
| Model OTEB-CO-B121-yy-pp-z/S | EDFA, 1 Output, +21dBm Optical Output per Port |
| Model OTEB-CO-B122-yy-pp-z/S | EDFA, 1 Output, +22dBm Optical Output per Port |
| Model OTEB-CO-B123-yy-pp-z/S | EDFA, 1 Output, +23dBm Optical Output per Port |
| Model OTEB-CO-B124-yy-pp-z/S | EDFA, 1 Output, +24dBm Optical Output per Port |
| Model OTEB-CO-B221-yy-pp-z/S | EDFA, 2 Outputs, +21dBm Optical Output per Port |
| Model OTEB-CO-B419-yy-pp-z/S | EDFA, 4 Outputs, +19dBm Optical Output per Port |

Where

yy Optical connector type; SA = SC/APC (Standard), FA = FC/APC (Optional)

pp Power; AC = AC power (universal AC), DC = DC power (48VDC)

z Optical Connector Position (Omit = Back, F = Front)

/S Designates unit with SNMP. Omit for no SNMP