

Optical Fiber Amplifier

Standard EDFA

OFA-TC3 Series

The LiComm Standard EDFA OFA-TC3 series is a full-functioning EDFA module with control circuitry packaged inside. It is designed for a single wavelength and narrow band fiber optic communications system in core networks, access networks, or CATV networks. The OFA-TC3 series provides very stable output power up to 25 dBm and noise figure of less than 5 dB in C-band over wide operating temperature range. Compact size (200 x 120 x 30 mm), combined with extremely low power consumption, allows the OFA-TC3 series to be highly suitable for applications of power equalization or pre-emphasis in very crowded telecom and CATV transmission systems.

Features

- Compact size (200 x 120 x 30 mm)
- CATV-network-proven low noise figure and superb non-linearity performance
- Extremely low power consumption over wide operating temperature range
- EDFA module including electric control circuit
- High output power up to 25 dBm
- Wide input dynamic range
- Low noise figure
- APC (Automatic Power Control) or AGC (Automatic Gain Control)
- Control & monitor by RS232
- LVTTTL Alarm
- Single + 5 V power supply

Applications

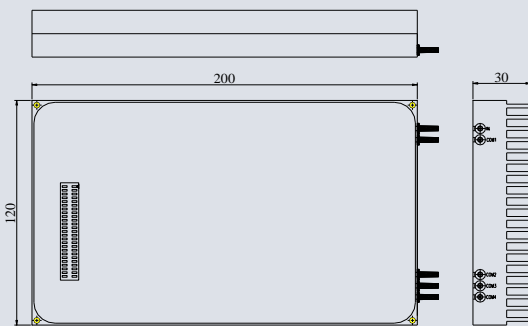
- 2.5 G/10 G single channel amplification
 - Booster, In-line, Pre-Amp
- Narrow band amplification in C-band
- CATV network
 - Power booster, Line Amp
 - Distribution, Supertrunking
- LANs and MANs
- SONET/SDH system



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Mechanical Dimension (200 X 120 X 30 mm)



Optical Characteristics

Parameter	Symbol	OFA-TC3	Unit
Signal wavelength range	λ	1528 ~ 1563	nm
Input power	P_{IN}	-30~0	dBm
Saturation Output power ⁽¹⁾	P_{OUT}	25	dBm
Small signal gain ⁽²⁾	G	40	dB
Noise figure	NF	Typ. 5	dB
Optical isolation	ISO	>30	dB
Return loss	RL	>40	dB
Polarization mode dispersion	PMD	<0.3	ps
Polarization dependent gain	PDG	<0.3	dB

(1) Input Power = 0 dBm

(2) Input Power = -30 dBm at 1545 nm

Electric & Environmental Characteristics

Parameter	Typical Value
Power supply voltage	+5 V
Interface	RS232
Alarm	TTL
Operating temperature	- 10 ~ 60 °C
Storage temperature	- 40 ~ 85 °C
Storage humidity	5 ~ 90 % R.H
Power consumption*	12.6 W

*At maximum output power, at 25 °C

Ordering Information

OFA - XC3 - XX₁XX₂

$\begin{cases} T : \text{Digital} \\ C : \text{Analog (CATV)} \end{cases}$
 $\begin{cases} XX_1 : \text{Max. Output Power (dBm)} \\ XX_2 : \text{AP(APC), AG(AGC), AC(ACC)} \end{cases}$

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