

Optical Fiber Amplifier (MINI EDFA)

The LiComm OFA-TC0 series are a complete EDFA module with electric control part. It is designed for single wavelength and narrow band fiber optic communication system of core networks, access networks and CATV networks.

The OFA-TC0 series provide very stable output power up to 17dBm and a noise figure of less than 5.5dB in C-band over a wide operating temperature range.

MSA compatible compact size and extremely low power consumption make the OFA-TC0 series a promising module for power equalization and pre-emphasis in DWDM systems or access networks and CATV



Features

- ▶ Uncooled 980nm pump laser module
- ▶ Extremely low power consumption over wide operating temperature range
- ▶ EDFA module including electric control part
- ▶ High output power up to 17dBm
- ▶ MSA compatible compact size (90x70x12mm)
- ▶ Wide input dynamic range
- ▶ Low noise figure
- ▶ APC (Automatic power control) or AGC (Automatic gain control)
- ▶ Control & monitor w/ RS232
- ▶ LVTTTL Alarm
- ▶ Single +3.3V power supply (+5V optional)

Applications

- ▶ Narrow band amplification in C-band
- ▶ CATV network
- ▶ DWDM metro & long haul system
 - Power equalization
 - Pre-emphasis
- ▶ Signal loss compensation in switch matrix
- ▶ SONET/SDH systems
- ▶ OADM access networks

Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Signal wavelength range	λ	1528	1550	1562	nm
Input power	P_{IN}	-	0	-	dBm
Output power	P_{OUT}	-	-	17	dBm
Small signal gain ¹⁾	G	-	30	-	dB
Noise figure ²⁾	NF	-	4.5	5.0	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

Note 1) Input Power = -30dBm(@1550nm)

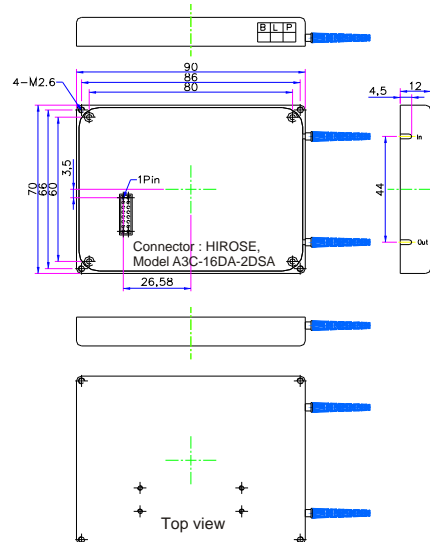
2) Input Power = 0dBm(@1550nm)

Electrical & Environmental

Parameter	Typical value
Power supply voltage	+3.3V (5V optional)
Interface	RS232
Alarm	LVTTTL
Operating temperature	-20 ~ 70 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	0 ~ 95% R.H
Power consumption*	1.4 W

* Output power = 17dBm (@25 °C)

Mechanical Dimension (90 x 70 x 12mm)



Ordering Information

OFA - TC0 - X₁XX₂X₃

