

Optical Fiber Amplifier (MICRO EDFA)



The LiComm OFA-TC1 series are complete Erbium Doped Fiber Amplifier (EDFA) module and designed for single channel and narrow band amplification in fiber optic communication system of core networks and access networks. These series offer the low noise figure and wide operating temperature range to meet the CATV application. It offers compact size, light, low noise figure and high reliability. This maintains the constant output power which is selected a preset output power by remote control via RS232. The OFA-TC1 series are promising module to provide the convenience of system design in real field.

Features

- ▶ Integrated electric control (full function EDFA)
- ▶ CATV-field-proven low noise figure
- ▶ High saturation output power up to 20dBm
- ▶ Wide operating temperature range for outdoor condition
- ▶ Selectable preset output power via RS232
- ▶ Wide input dynamic range
- ▶ Low power consumption
- ▶ APC (Automatic power control) or AGC (Automatic gain control)
- ▶ Control & monitor w/ RS232
- ▶ TTL Alarm
- ▶ Single +5V power supply

Applications

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

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}	-	-	20	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)

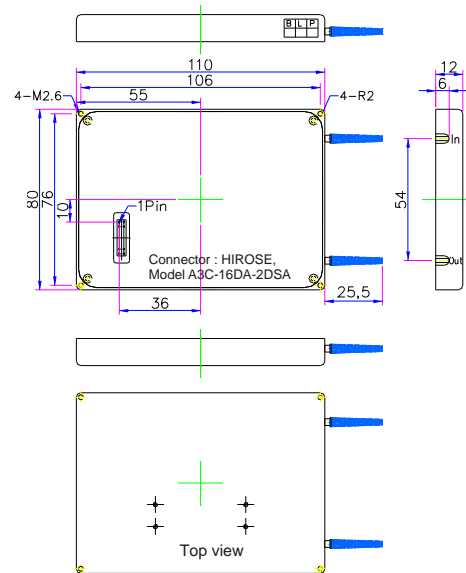
2) Input Power = 0dBm(@1550nm)

Electrical & Environmental

Parameter	Typical value
Power supply voltage	+5V
Interface	RS232
Alarm	TTL
Operating temperature	-20 ~ 75 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	0 ~ 95% R.H
Power consumption*	4.2 W

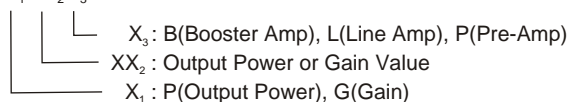
*Output power = 20dBm (@25 °C)

Mechanical Dimension (110 x 80 x 12mm)



Ordering Information

OFA - TC1 - X₁XX₂X₃



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