

Optical Fiber Amplifier (COMA EDFA)

The LiComm OFA-TCM 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-TCM series provide very stable output power up to 15dBm and a noise figure of less than 6dB in C-band over a wide operating temperature range.

Ultra compact size and extremely low power consumption make the OFA-TCM Series a promising module for power equalization and pre-emphasis in DWDM systems or access networks and CATV networks.



Features

- ▶ Ultra compact size (64x40x12mm)
- ▶ 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 15dBm
- ▶ Wide input dynamic range
- ▶ Low noise figure
- ▶ APC (Automatic power control) or AGC (Automatic gain control)
- ▶ Control & monitor by RS232
- ▶ LVTTL Alarm
- ▶ Single +3.3V power supply

Applications

- ▶ Narrow band amplification in C-band
- ▶ CATV networks
- ▶ 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}	-	-	15	dBm
Small signal gain ¹⁾	G	-	30	-	dB
Noise figure ²⁾	NF	-	5	5.5	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

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

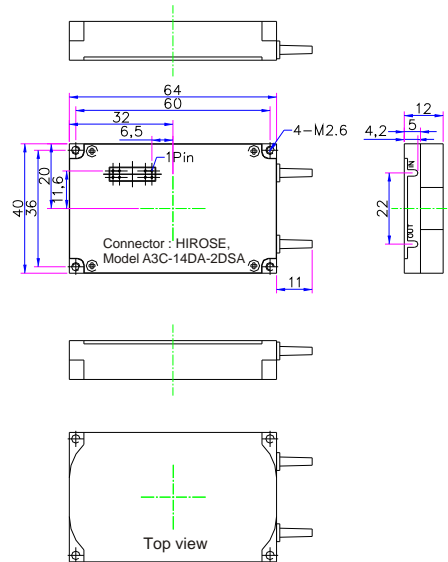
2) Input Power = 0dBm(@1550nm)

Electrical & Environmental

Parameter	Typical value
Power supply voltage	+3.3V
Interface	RS232
Alarm	LVTTL
Operating temperature	-20 ~ 70°C
Storage temperature	-40 ~ 85°C
Storage humidity	0 ~ 95% R.H
Power consumption*	1.0 W

* Output power = 15dBm (@25°C)

Mechanical Dimension (64 x 40 x 12mm)



Ordering Information

OFA - TCM - X₁XX₂X₃

