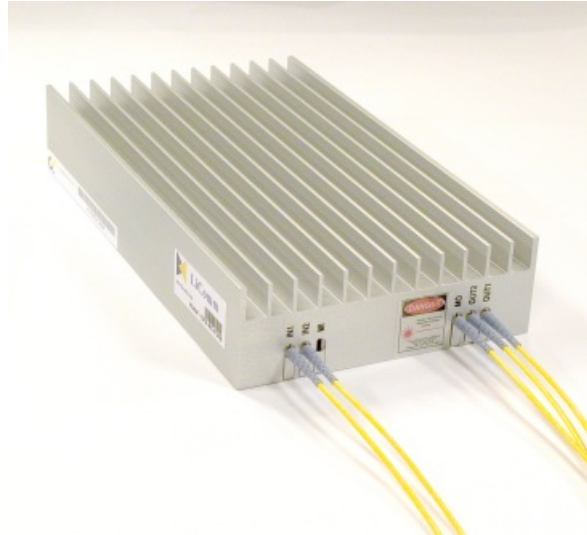


# Optical Fiber Amplifier (L-band LONG HAUL EDFA)

The LiComm Optical Fiber Amplifier OFA-WL5 series are designed for high performance and wide bandwidth DWDM system of long haul and ultra long haul networks in L-band. It offers high saturated output power, wide flat range, high gain, low noise figure and variable gain.

LiComm developed the intelligent amplifier which has superior optical performance with gain flatness in each stage and optimized gain tilt. These advanced series provide variable gain and fast transient suppression with large mid-stage access loss. It improves robustness on the input variations in long cascade and also offers great flexibility in DWDM system. The built-in digital signal processor provides control and monitoring of amplifier. It also transmits information of amplifier to system via RS232 and parallel interface.



## Features

- ▶ **Fast gain transient suppression**
- ▶ Integrated electric control (full function EDFA)
- ▶ High output power up to 24dBm
- ▶ Wide flat wavelength range and excellent gain flatness
- ▶ Variable gain
- ▶ Large mid-stage access loss (optional)
- ▶ Wide input dynamic range
- ▶ Low noise figure
- ▶ Input / Output optical monitoring (optional)
- ▶ Built-in supervisory devices (optional)
- ▶ Automatic power control or Automatic gain control
- ▶ Convenient system interface (RS232 or Parallel)
- ▶ Single +5V power supply

## Applications

- ▶ 2.5G DWDM long haul & ultra long haul networks
  - Booster, In-line, Pre- Amp.
- ▶ 10G DWDM long haul & ultra long haul networks
  - Booster, In-line, Pre- Amp.
- ▶ In-line DWDM amplifier with interstage access for dispersion compensating module (DCM) or optical add / drop multiplexer
- ▶ LANs and MANs
- ▶ SONET/SDH systems

## Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Signal wavelength range	$\lambda$	1570	-	1605	nm
Saturated output power	$P_{OUT}$	-	-	24	dBm
Signal gain	G	-	25	-	dB
Variable signal gain <sup>1)</sup>	$G_V$	-	5	-	dB
Noise figure (@ Gain : 25dB)	NF	-	5.5	6.0	dB
Noise figure w/interstage loss <sup>2)</sup>	NF	-	6.5	7.0	dB
Gain flatness	$\Delta G$	-	1	-	dB
Gain tilt <sup>1)</sup>	$G_T$	-0.5	0	0.5	dB
Input dynamic range	$P_{ID}$	-	21	-	dB
Interstage loss (optional)	$L_M$	-	15	-	dB
Channel gain variation	$G_C$	-0.5	-	0.5	dB
Transient suppression <sup>3)</sup>	$T_G$	-	1	-	dB
Optical isolation	ISO	30	-	-	dB
Return loss	RL	40	-	-	dB
Polarization mode dispersion	PMD	-	-	0.6	ps
Polarization dependent gain	PDG	-	-	0.6	dB

Note 1) The range should be defined at ordering.

2) @Gain = 30dB,  $P_{OUT}$  = 24dBm, Interstage loss = 15dB

3) @3dB Add/Drop Case (@24dB including two stages)

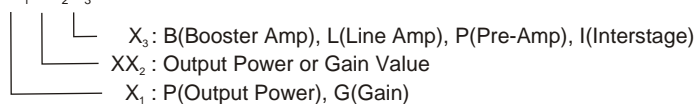
## Electrical & Environmental

Parameter	Typical value
Power supply voltage	+5V
Interface	RS232, Parallel
Operating temperature	-20 ~ 75 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	0 ~ 95% R.H
Power consumption*	14.7 W

\*Output power = 24dBm (@25 °C)

## Ordering Information

OFA - WL5 - X<sub>1</sub>XX<sub>2</sub>X<sub>3</sub>



## Mechanical Dimension ( 210 x 120 x 40mm with heat sink)

