

## Optical Fiber Amplifier **ACCESS EDFA** OFA-WL1 Series



The LiComm OFA-WL1 series is designed for use in high-performance and wide bandwidth DWDM or CWDM system of access networks and metropolitan networks. The OFA-WL1 offers high saturated output power, wide flat gain range, high gain, low noise figure, and AGC (Automatic gain Control) features. Excellent transient suppression capability of the OFA-WL1 series, developed by LiComm's EDFA control circuit experts, provides sub milli second over-shoot and under-shoot gain control in order to prevent degradation of transmission quality in OADM's (Optical Add/Drop Multiplexers). This feature allows great flexibility to system engineers in designing WDM or OADM systems in metro or core networks. DSP (Digital Signal Processor) controlled circuitry facilitates convenient monitoring and controlling of various EDFA characteristics, such as input power, output power, pump LD bias, temperature, and so on. In addition, OFA-WL1 reliability test results assure an excellent long-term EDFA performance needed in most of network applications.

### Features

- Fast transient suppression
- Integrated electric control circuit
- High output power up to 17dBm
- Wide flat wavelength range and excellent gain flatness
- Wide input dynamic range
- Low noise figure
- Input/Output optical power monitoring (optional)
- Built-in supervisory device (optional)
- APC (Automatic Power Control) or AGC (Automatic Gain Control)
- Convenient system interface (RS232 or Parallel)
- Single +5V power supply

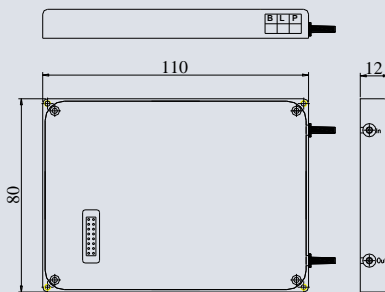
### Applications

- 2.5G DWDM OADM & long haul networks
  - Booster, In-line, Pre-Amp.
- 10G DWDM OADM & long haul networks
  - Booster, In-line, Pre-Amp.
- OADM access network
- LANs and MANs

## Optical Fiber Amplifier

# ACCESS EDFA

### Mechanical Dimension (110 X 80 X 12mm)



### Optical Characteristics

Parameter	Symbol	OFA-WL1	Unit
Signal wavelength range	$\lambda$	1571 ~ 1604	nm
Saturated output power	$P_{OUT}$	<17	dBm
Signal gain	G	25	dB
Noise figure (1)	NF	<5.0	dB
Gain flatness	$\Delta G$	<1.5	dB
Input dynamic range	$P_{ID}$	16	dB
Channel gain variation	$G_C$	-0.5 ~ +0.5	dB
Transient suppression(2)	$T_G$	0.2	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) Gain = 25dB,  $P_{OUT}$  = 17dBm

(2) 3dB Add/Drop at output power of 17dBm

### Electric & Environmental Characteristics

Parameter	Typical Value
Power supply voltage	+5V
Interface	RS232, Parallel
Operating temperature	-5 ~ 65 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	5 ~ 90% R.H
Power consumption	4.5W

\*Output power = 17dBm, at 25 °C

OFA - WL1 - XX<sub>1</sub>XX<sub>2</sub>

$XX_1$  : Saturated Output Power  
 $XX_2$  : Control Method  
 - AG: Automatic Gain Control  
 - VG: Variable Gain Control

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