

## Optical Fiber Amplifier **METRO EDFA** **OFA-WC2 Series**



The LiComm OFA-WC2 series is designed for use in high-performance and wide bandwidth DWDM or CWDM system of access networks and metropolitan networks. The OFA-WC2 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-WC2 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 OADMs (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-WC2 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 20dBm
- 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

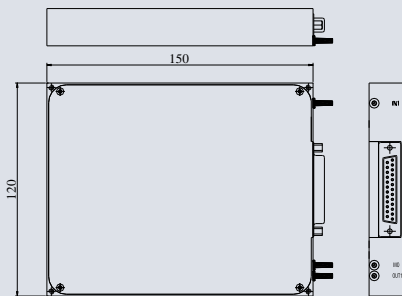
### Applications

- 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

# METRO EDFA

### Mechanical Dimension (150 X 120 X 21mm)



### Optical Characteristics

Parameter	Symbol	OFA-WC2	Unit
Signal wavelength range	$\lambda$	1530 ~ 1562	nm
Saturated output power	$P_{OUT}$	<20	dBm
Signal gain	G	23	dB
Noise figure (1)	NF	<5.5	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)	$T_G$	??	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) Input power = -4dBm/tot,  $P_{OUT}$  = 20dBm

(2) 3dB Add/Drop at output power of 20dBm

### Electric & Environmental Characteristics

Parameter	Typical Value
Power supply voltage	+5V
Interface	RS232, Parallel
Operating temperature	-10 ~ 60 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	5 ~ 90% R.H
Power consumption	7.3W

\*Output power = 20dBm, at 25 °C

### Ordering Information

OFA - WC2 - 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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