

Optical Fiber Amplifier OADM EDFA OFA-WL3 Series



The LiComm OFA-WL3 series is designed for use in high-performance and wide bandwidth DWDM or CWDM system of access networks and metropolitan networks. The OFA-WL3 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-WL3 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-WL3 reliability test results assure an excellent long-term EDFA performance needed in most of network applications.

Features

- Fast transient suppression
- Mid-stage access (optional)
- Integrated electric control circuit
- Input/Output optical power monitoring (optional)
- High output power up to 22dBm
- Built-in supervisory device (optional)
- Wide flat wavelength range and excellent gain flatness
- APC (Automatic Power Control) or AGC (Automatic Gain Control)
- Wide input dynamic range
- Convenient system interface (RS232 or Parallel)
- Low noise figure
- Single +5V power supply

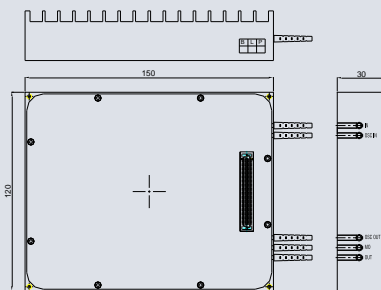
Applications

- 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
- In-line DWDM amplifier with mid-stage access for dispersion compensating module (DCM) or optical add/drop multiplexer (optional)
- LANs and MANs

Optical Fiber Amplifier

OADM EDFA

Mechanical Dimension (150 X 120 X 30mm)



Optical Characteristics

Parameter	Symbol	OFA-WL3	Unit
Signal wavelength range	λ	1571 ~ 1604	nm
Saturated output power	P_{OUT}	<22	dBm
Signal gain	G	25	dB
Noise figure (at Gain : 25dB)	NF	<5.0	dB
Noise figure w/ MSA(1)	NF	<6.0	dB
Gain flatness	ΔG	<1.5	dB
Input dynamic range	P_{ID}	16	dB
Mid-stage access loss (optional)	L_M	10	dB
Channel gain variation	G_C	-0.5 ~ +0.5	dB
Transient suppression(2)	T_G	0.5	dB
Optical isolation	ISO	>30	dB
Return loss	RL	>40	dB
Polarization mode dispersion	PMD	<0.4	ps
Polarization dependent gain	PDG	<0.4	dB

(1) Gain = 25dB, P_{OUT} = 20dBm, Mid-stage access loss = 10dB

(2) 3dB Add/Drop at output power of 22dBm, for two stage amplifier


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	9.5W

*Output power = 22dBm, at 25 °C

Ordering Information

OFA - WL3 - XX₁XX₂



 XX₁ : Saturated Output Power
 XX₂ : Control Method
 - AG: Automatic Gain Control
 - VG: Variable Gain Control

LiComm Co., Ltd.

Korea Head Office

908-1, Seo-Ri, Idong-Myeon, Yongin-Si, Gyeonggi-Do,
 449-834, S.Korea
 Tel: +82-31-323-1926,1936 Fax: +82-31-323-2447
 E-mail: sale@licomm.com Website : www.licomm.com

Korea Factory

708, Seo-Ri, Idong-Myeon, Yongin-Si, Gyeonggi-Do,
 449-834, S.Korea

U.S.A. Branch Office

206 Woodcliff Blvd, Morganville, USA,
 Tel: +1-732-526-7019