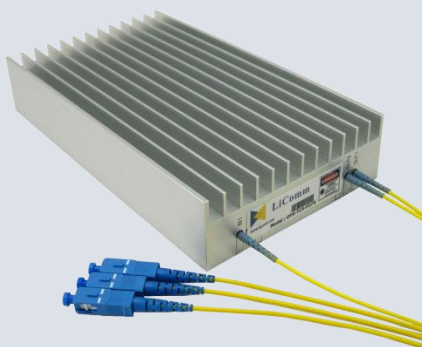


Raman Amplifier

L-band Raman ORA-BL4 Series

The LiComm ORA-BL4 series are designed for use in ultra-long haul, long haul and wide bandwidth DWDM system of core networks and metropolitan networks. The standard ORA-BL4 series offer flat gain bandwidth over L-band. Alternative wavelengths are possible for specific application. These provide high output pump power using wavelength-combining high power 14xx(nm) pump laser diodes and integrated pump/signal multiplexer with optical output monitor for easy operation. The GUI can be supported to control Raman amplification pump unit for optimizing the ORA-BL4. The ORA-BL4 series do not effect on polarization and monitor the optical pump power.



Features

- High output power/Flat Raman gain
- Integrated pump/signal multiplexer
- Included optical output power monitor
- Low effective noise figure
- Incorporate polarization
- Optical pump power monitor
- User friendly controlled interface
- Separately control pumps to optimize RFA
- GUI for controlling RFA (optional)
- Single +5V power supply

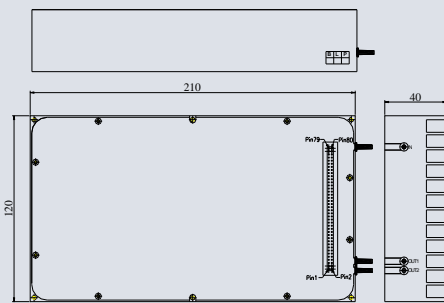
Applications

- Ultra-long haul DWDM systems
- Long haul systems
- 10Gb/s & 40Gb/s transmission systems
- High channel count systems
- Increased length of spans between signal regeneration
- Remote amplifier pumping

Optical Fiber Amplifier

L-band Raman

Mechanical Dimension (210 X 120 X 40mm)



Optical Characteristics

Parameter	Symbol	ORA-BL4	Unit
Signal wavelength range	λ	1570 ~ 1605	nm
Pump output power	P_{OUT}	1000	mW
Number of pumps	P_N	4	ea
Gain flatness	ΔG	1	dB
Interstage loss	L	<1.2	dB
Pump degree of polarization	PDP	<7	%
Polarization dependent loss	PDL	<0.2	dB
Raman gain in SMF28	G_S	15	dB
Raman gain in AWF(1)	G_A	18	dB
Raman gain in TW-RS(2)	G_T	25	dB
Effective noise figure in SMF28	NF_S	<-1	dB
Effective noise figure in AWF	NF_A	<-1.5	dB
Effective noise figure in TW-RS	NF_T	<-1.5	dB

(1) All wave fiber (2) True wave reduced slope

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*	20W

*Pump output power = 1000mW, at 25 °C

Ordering Information

ORA - BL4 - XX₁XX₂

XX₁ : Maximum Pump Output (100mW)

XX₂ : AP(APC), AG(AGC), AC(ACC)

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