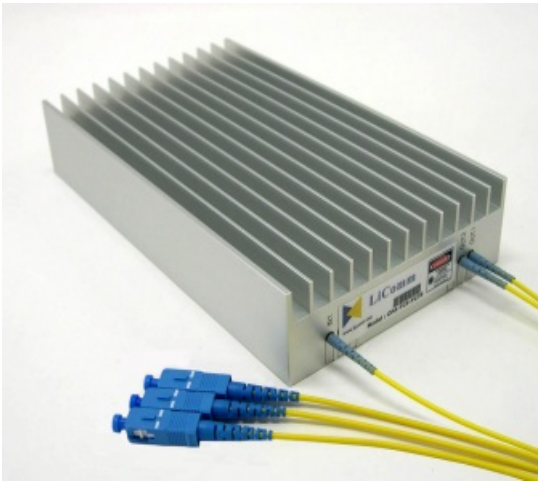
Raman Fiber Amplifier (C-band)

The LiComm OFA-RC4 series are designed for use in ultra-long haul, long haul and wide bandwidth DWDM system of core networks and metropolitan networks. The standard OFA-RC4 series offer flat gain bandwidth over C-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 OFA-RC4. The OFA-RC4 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 Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Signal wavelength range	λ	1528	-	1562	nm
Pump output power	P_{OUT}	-	1000	-	mW
Number of pumps	P_N	-	-	4	ea
Gain flatness	ΔG	-	1	-	dB
Interstage loss	L	-	1	1.2	dB
Pump degree of polarization	PDP	-	5	7	%
Polarization dependent loss	PDL	-	0.1	0.2	dB
Raman gain in SMF 28	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 SMF 28	NF_S	-	-1.2	-0.7	dB
Effective noise figure in AWF [1)]	NF_A	-	-1.7	-1.2	dB
Effective noise figure in TW-RS [2)]	NF_T	-	-1.7	-1.2	dB

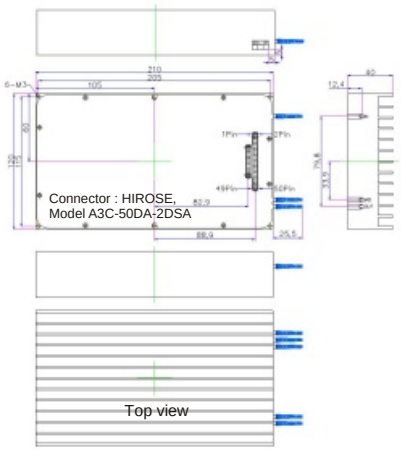
Note 1) All wave fiber
2) True wave reduced slope

Electrical & Environmental

Parameter	Typical value
Power supply voltage	+5V
Interface	RS232, Parallel
Operating temperature	-20 ~ 75℃
Storage temperature	-40 ~ 85℃
Storage humidity	0 ~ 95% R.H
Power consumption*	15.8 W

* Pump output power = 1000mW (@25℃)

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



Ordering Information

OFA - RC4 - $X_1XX_2X_3$

X_3 : B(Backward Pumping), F(Forward Pumping)
XX_2 : Output Power(05:500mW, 10:1000mW), Gain Value
X_1 : P(Output Power), G(Gain)

LiComm Co., Ltd. www.licomm.com
Cheongmyung Towntel 3F
1021-4 Yeongtong-Dong, Yeongtong-Gu, Suwon-Si, Kyunggi-Do, 442-813, South Korea
Tel. : +82-31-206-6823 Fax. : +82-31-206-6827

http://www.LiComm.com
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