

Raman Amplifier
**C+L-band Raman
2U-Shelf
ORA-BFD Series**

The LiComm ORA-BFD 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-BFD series offer flat gain bandwidth over C-band, L-band and C+L-band. Alternative wavelengths are possible for specific application. These provide high output pump power using wavelength-combining high power 14x(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-BFD. The ORA-BFD series do not effect on polarization and monitor the optical pump power.

Features

- Wide flat wavelength range over C+L-band
- 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)

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

C+L-band Raman

Mechanical Dimension

Optical Characteristics

Parameter	Symbol	ORA-BFD	Unit
Signal wavelength range	λ	1528 ~ 1605	nm
Pump output power	P_{OUT}	1000	mW
Number of pumps	P_N	8	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	<0.7	dB
Effective noise figure in AWF	NF_A	<1.2	dB
Effective noise figure in TW-RS	NF_T	<1.2	dB

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

Electric & Environmental Characteristics

Parameter	Typical Value
Power supply voltage	AC 110 ~ 220V
Interface	RS232, Parallel
Operating temperature	0 ~ 50 °C
Storage temperature	- 40 ~ 85 °C
Storage humidity	10 ~ 85% R.H
Power consumption*	30W

*Pump output power = 1000mW, at 25 °C

Ordering Information

ORA - BFD - XX₁XX₂

XX₁ : Maximum Pump Output (100mW)

XX₂ : AP(APC), AG(AGC), AC(ACC)

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