

Raman Fiber Amplifier (C+L band)

The LiComm OFA-RFS series are designed for use in ultra-long haul, long haul and wide bandwidth DWDM systems of core network and metropolitan network. The standard OFA-RFS 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 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-RFS. The OFA-RFS 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



LiComm



RFA

Specifications

Parameter	Symbol	Min	Typ	Max	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	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

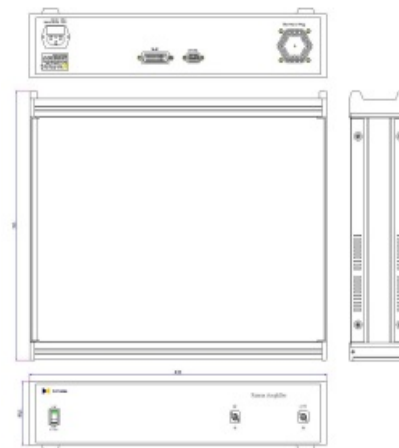
2) True wave reduced slope

Electrical & Environmental

Parameter	Typical value
Power supply voltage	AC 110 ~ 220 V
Interface	RS232, Parallel
Operating temperature	-20 ~ 75 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	0 ~ 95% R.H
Power consumption	15.8 W

* Pump output power = 1000mW (@25 °C)

Mechanical Dimension



Ordering Information

OFA - RFS - X₁XX₂X₃

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)

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