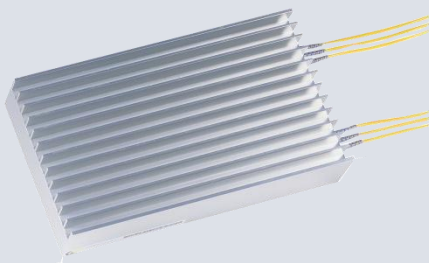


Optical Fiber Amplifier

ROADM EDFA

OFA-WC4-VM Series



The LiComm OFA-WC4-VM series is designed for high performance and wide bandwidth DWDM system of long haul and ultra long haul network in C band. The OFA-WC4-VM series offers high saturated output power, wide flat range, high gain, low noise figure and variable gain. LiComm developed the intelligent amplifier with superior optical performance with gain flatness in each stage and optimized gain tilt. This series provides variable gain and fast transient suppression with large mid-stage access loss. It improves robustness on the input variations in long cascade networks and also offers great flexibility in DWDM system design. The built-in DSP (Digital Signal Processor) provides flexible and versatile monitoring and controlling of various optical amplifier characteristics. In addition, OFA-WC4-VM series reliability test results assure an excellent long-term EDFA performance needed in most of network applications.

Features

- Fast gain transient suppression
- Integrated electric control circuit
- High output power up to 24dBm
- Wide flat wavelength range and excellent gain flatness
- Variable gain
- Large mid stage access loss (optional)
- Wide input dynamic range
- Low noise figure
- Input/Output optical power monitoring (optional)
- Built-in supervisory device (optional)
- APC (Automatic Power Control) or AGC (Automatic Gain Control)
- Convenient system interface (RS232 or Parallel)
- Single +5V power supply

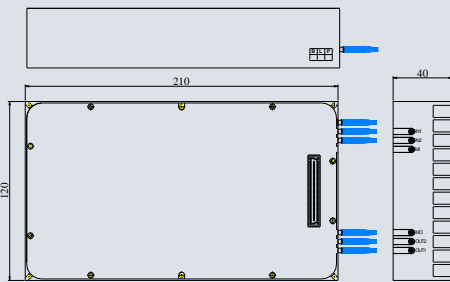
Applications

- 2.5G DWDM long haul & ultra long haul networks
 - Booster, In-line, Pre-Amp.
- 10G DWDM long haul & ultra long haul networks
 - Booster, In-line, Pre-Amp.
- In-line DWDM amplifier with mid-stage access for dispersion compensating module (DCM) or optical add/drop multiplexer (optional)
- LANs and MANs
- SONET/SDH systems

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Mechanical Dimension
(210 X 120 X 40mm)



Optical Characteristics

Parameter	Symbol	OFA-WC4-VM	Unit
Signal wavelength range	λ	1530 ~ 1562	nm
Saturated output power	P_{OUT}	<24	dBm
Signal gain	G	25	dB
Variable signal gain(1)	G_V	10	dB
Noise figure(@25dB gain)	NF	<5.5	dB
Noise figure w/ MSA(2)	NF	<6.5	dB
Gain flatness	ΔG	<1.5	dB
Gain tilt(1)	G_T	± 0.5	dB
Input dynamic range	P_{ID}	21	dB
Mid-stage access loss (MSA)	L_M	15	dB
Channel gain variation	G_C	<1	dB
Transient suppression(3)	T_G	1	ps
Return loss	RL	>30	dB
Polarization mode dispersion	PMD	<0.5	dB
Polarization dependent gain	PDG	<0.5	dB

(1)The range should be defined at ordering

(2)Gain = 25dB, P_{OUT} = 24dBm, Mid-stage access loss = 15dB

(3)3dB Add/Drop at output power of 24dBm, 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	17.7W

*Output power = 24dBm, at 25 °C

Ordering Information

OFA - WC4 - XX₁VM

XX₁ : Saturated Output Power

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