

Optical Fiber Amplifier Mini ROADM EDFA OFA-WCM-VM Series



The LiComm OFA-WCM-VM series is designed for use in high-performance and wide bandwidth ROADM system of core networks and metropolitan networks. The OFA-WCM-VM offers high saturated output power, wide flat gain range, high gain, low noise figure, and AGC (Automatic gain Control) or VGC (Variable Gain Control)/VTC (Variable Tilt Control) features with low power consumption. This feature allows great flexibility to system engineers in designing ROADM or OADM systems in metro or core networks. DSP (Digital Signal Processor) controlled circuitry facilitates convenient monitoring and controlling of various EDFA characteristics, such as input power, output power, pump LD bias, temperature, and so on. In addition, OFA-WCM-VM reliability test results assure an excellent long-term EDFA performance needed in most of network applications.

Features

- Compact Size (130x90x16mm)
- Low Power Consumption
- Mid-Stage Accessible
- Integrated electric control circuit
- High output power up to 223dBm
- Wide flat wavelength range and excellent gain flatness
- Wide input dynamic range
- Low noise figure
- Drop/Add OSC is optional
- In/Out Optical Monitor port is optional
- Input/Output optical power monitoring
- APC (Automatic Power Control) or AGC (Automatic Gain Control) or VGC (Variable Gain Control) /VTC (Variable Tilt Control)
- Convenient system interface (RS232)
- Single 5.0V power supply

Applications

- 2.5G DWDM ROADM & long haul networks
 - Booster, In-line, Pre-Amp.
- 10G DWDM ROADM & long haul networks
 - Booster, In-line, Pre-Amp.
- ROADM access network
- LANs and MANs

Optical Fiber Amplifier

Mini ROADM EDFA

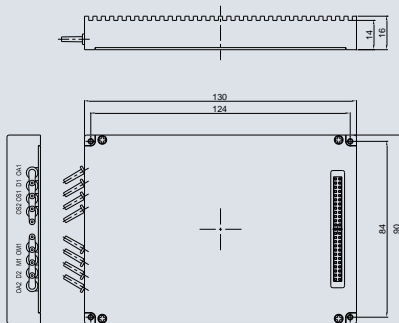
Optical Characteristics

Parameter	Symbol	WCM-21VM	Unit
Signal wavelength range	λ	1528 ~ 1565	nm
Saturated output power	P_{OUT}	21	dBm
Signal gain	G	Typ.15~25	dB
Noise figure ⁽¹⁾	NF	Typ.5.5	dB
Gain flatness	ΔG	Typ.1.0	dB
Variable Gain Range	VG	10	dB
Variable Tilt Range	VT	-4 ~ 0	dB
Input dynamic range	P_{ID}	27	dB
Channel gain variation	G_C	-0.5 ~ 0.5	dB
Mid-stage Loss	MD	0 ~ 10	dB
Transient suppression ⁽²⁾	T_G	0.2	dB
Optical isolation	ISO	>30	dB
Return loss	RL	>40	dB
Polarization mode dispersion	PMD	<0.5	ps
Polarization dependent gain	PDG	<0.3	dB

(1) Gain = Max. Gain, P_{OUT} = Max. output, Normal Tilt

(2) 3dB Add/Drop at output power of Max. Output

Mechanical Dimension (130 X 90 X 16mm)



Electric & Environmental Characteristics

Parameter	Typical Value
Power supply voltage	5.0V
Interface	RS232
Operating temperature	-10 ~ 60 °C
Storage temperature	-40 ~ 85 °C
Storage humidity	5 ~ 90% R.H
Power consumption*	10W

*Output power = 21dBm, at 25 °C

Ordering Information

OFA - WCM - XX₁VM

XX₁ : Saturated Output Power (dBm)

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