

Model: NCM-10271-XX

Features

- EDFA Technology
- 26dBm~42dBm Output Power
- 4, 8,16, 32, 64 Output Options
- Wide Input Optical Power Range
- Built in CWDM per each Port
- Unique "PUMP" Heat Dissipation design
- Special design iron box cooling down and Protecting Laser/Pump
- Modular Fans with superior ventilation design for perfect temperature control
- Modular Power Supply
- Noise figure <6dB
- Microcomputer built-in
- Front Panel Switch allow easy Status monitoring and configuration
- RJ45, Console Port
- LCD Display shows Status and Alarm
- Redundant power supply option



EDFA Optical Amplifier (1550nm)

Unless otherwise noted, the above specifications reflect typical device performance at stated reference levels in the recommended operating configuration(s). Specifications are subject to change without notice.

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Description

The NCM-10271 series High Power 1550nm Optical Amplifier is a high performance 1550nm EDFA Technology Optical Amplifier. With a JDSU pump lasers, providing 26dBm~42dBm output power with built in CWDM per each port. It has an option of 4, 8,16, 32 or 64 outputs to save you space on extra external splitters.

This NCM-10271 can be applied on GPON Network and make Triple Play, FTTH easily implemented in your network. To make CATV operators run their system easily, NCM-10271 also designed with a built-in Microcomputer. It allows engineer to monitor the parameters using front panel switch button or via RS232, RS485, RJ45 interface come with the equipment.

NCM-10271 EYDFA has a unique design that makes the light being amplified in an absolute clean and low noise environment.

Specifications

Optical Performance	
CATV Wavelength nm	1545 - 1563
OLT Wavelength nm	1310(1270-1350)/1490(1480-1505)
Input Optical power dBm	-10 ~ + 10 (recommend from -5 to +10)
Constant Optical Power dBm	Input range -10 to +10
Output Optical Power dBm	26 – 42 Laser Pump is JDSU or Oclaro from USA
Output Adjustable Power dBm	4dB
Laser Cooler	TEC
Port Loss dBm	≤0.8
WDM Port Isolation	≥40
Optical connector	SC/APC or FC/APC or LC/APC
Output port	4 or 8 or 16 or 32 or 64
Stability dB	+/- 0.2
Polarization dependent loss dB	<0.1
PMD ps	<0.1
Return loss dB	>50
Noise figure dB	<Noise Figure: ≤ 6 dB@0 dBm input (1dBm input port and include 1dB loss of optical switch built-in).
Operation Mode	Support constant output, constant gain and constant current pump

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Built IN WDM Performance	
Built in WDM for GPON Input	Yes 32/64 Ports EDFA include 32/64 OLT Input Ports with WDM
Wavelength nm	Transmission Band: 1550/1490, Reflection: 1310
Insertion Loss dB	Transmission band: ≤ 0.8 dB; Reflection Band ≤ 0.6 dB
PON signal pass-through	When EDFA is OFF Yes
Maximum Power dBm	26
CNR	>47
Built IN OPTICAL SWITCH Performance	
Number of Inputs	2
Insertion Loss dB	Transmission band: ≤ 0.8 dB; Reflection Band ≤ 0.6 dB
Switching time second	<0.5
Switching Mode:	Switching when main input is below pre-defined level; Signal pass through when equipment is down; When both main and protection inputs is below the threshold, the EDFA select the higher input; Automatic back to main input when main input is turned on again
Built IN RF RECEIVER Performance	
RF LEVEL @-6 to 0 dBm	Minimum 70dBuV Manual Adjustable
CNR	>47

Electrical/Physical Performance	
Supply voltage VAC	110~260
Supply Voltage Vdc	-40 ~ -70VDC
Other Supply Voltage Vdc	5VDC output for external load, max 2A, terminal block connection
Power consumption W	50~ 200
Dimensions mm	242(L) \times 483(W) \times 88(H)
Weight kg	10
Operating temperature ($^{\circ}$ F)	Min 0(32) ~ Max 65(149)
Storage temperature ($^{\circ}$ F)	Min -20(-4) ~ Max 65(149)
Humidity %	95, non-condensing
Management can be done via Front Panel, web (10/100Mbps Ethernet port) and SNMP: Input level, output level, power supply module status, bias current, laser temperature can be monitored. Set Alarm Alert: Input power, output power, bias current, laser temperature.	

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Total Optical Output Power (dBm)	Total Optical Output Power (mW)	# Output	Output Per Port (dBm)
26	400	4	18.5
		8	15.0
27	500	4	19.5
		8	16.0
28	630	4	20.5
		8	17.0
29	800	4	21.5
		8	18.0
30	1000	8	19.0
		1	15.5
31	1250	8	20.0
		1	16.5
32	1600	8	21.0
		1	17.5
33	2000	8	22.0
		1	18.5
34	2500	1	19.5
		3	16.0
35	3200	1	16
		3	17.0
36	4000	1	21.5
		3	18.0
37	5000	1	22.5
		3	19.0
41	13000	6	18.0
42	16000	3	19.0

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NCM-10271	X	XX	X
X= Connection port		Output power Per Port:	Number of Ports:
15 = 29dBm		15 = 15dBm	1=4 ports w 4 OLT Input Port
16= 30dBm		16 = 16dBm	2=8 ports w 8 OLT Input Port
17 = 31dBm		17 = 17dBm	3=16 ports w 16 OLD Input Port
18 = 32dBm		18 = 18dBm	4=32 ports w 32 OLT Input Port
19 = 33dBm		19 = 19dBm	5=64 ports w 64 OLT Input Port
20 = 34dBm		20 = 20dBm	
21 = 35dBm		21 = 21dBm	
22 = 36dBm		22 = 22dBm	
23 = 37dBm		23 = 23dBm	
		Note: Measured after the WDM	

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