



OA300 SERIES

Rack Mounted Optical Amplifiers

Motorola's RoHS compliant, low-noise, high-power, multiple output, Erbium-Doped Fiber Amplifier is optimized for Passive Optical Networks and Large Distribution Systems applications.

Benefits Include:

Noise Figure less than 4.5dB at +6dBm input power

Wide Input Operating Power Range from 0dBm to +12dBm

RoHS Compliant

Isolated optical input and output

Optical input and output monitor ports

Front panel status LEDs

AC and DC powering options

NEBS compliant

Highly reliable telecom grade optical components

Versions with integrated WDMs for PON or RFOG networks

Low power capability (output power per port can be reduced from the front panel display)

Field-replaceable fan assembly

Field-replaceable power supplies

The N2U-OA300 family of Erbium-Doped Fiber Amplifiers (EDFAs) is optimized for Passive Optical Networks (PON) and Large Distribution Systems applications. These high-performance, RoHS compliant optical amplifiers provide a low noise figure and an optimal output power at the operating wavelengths between 1544nm and 1562nm.

The OA300 series is a 2RU rack-mount NEBS Level 1 certified unit. Powering options include integrated, dual redundant 110/220VAC or integrated, dual redundant -48VDC power supplies. It is available with several power levels per port options with 8 or 16 output ports. Monitor ports for both the input and the output allow testing and monitoring while in operation.

For additional ease of use and space savings, versions with integrated WDMs are available. These models allow customers to optimize either their PON or RFOG networks using the same 2RU footprint.

Reliable Optical Performance

The OA300 utilizes multimode side-pump technology which increases output power capability while reducing component count. The pumps are combined in a high-power, redundant design which enables multi-layered reliability. The cooler-free pump design also enhances reliability and lowers power consumption.

Embedded Intelligence and Network Management

The OA300 is SNMP-capable and equipped with an RJ-45 Port for 10/100Base-T Ethernet communications and control.

DATA SHEET

OA300 Series
Rack Mounted Optical Amplifiers

Specifications

GENERAL

Source Power Voltage	
DC Version	-36 to -72VDC
AC Version	100 to 240VAC
Power Consumption	80 Watts maximum
Operating Temperature	-10C to +55C
Storage Temperature	-40C to +85C
Dimensions	91mm H (2RU) x 483mm W x 382mm D (including handles)
Weight	Less than 22lbs (10kgs)

COMMUNICATIONS

Local Interface	RS-232 Port
Network Interface	RJ-45 Port, 10/100 Base-T
Alarm Contact	RJ-45 Port

OPTICAL

Optical Power per Port	Various (see product table for details)
Wavelength Range	1544nm to 1562nm
Noise Figure	
Maximum	4.5dB at +6dBm
Optical Input Monitor Port	-23 ± 1 dB from main input port
Optical Output Monitor Port	-20 ± 2 dB from main output port
Optical Return Loss	>40dB
Polarization Sensitivity	<0.3dB
Optical Connector Types	SC/APC, E2000/APC SC/UPC (PON WDM Ports)

Product Table

Model	Description
N2U-OA300N21X16-2D/SCA	Amplifier, optical, +21dBm/port, 16 ports, dual DC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300N18X8-2D/SCA	Amplifier, optical, +18dBm/port, 8 ports, dual DC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300N10X16-2D/SCA	Amplifier, optical, +10dBm/port, 16 ports, dual DC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300N21X16-2A/SCA	Amplifier, optical, +21dBm/port, 16 ports, dual AC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300N18X8-2A/SCA	Amplifier, optical, +18dBm/port, 8 ports, dual AC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300N10X16-2A/SCA	Amplifier, optical, +10dBm/port, 16 ports, dual AC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300R20X16-2D/SCA	Amplifier, optical, +20dBm/port, 16 ports, RFoG WDMs, dual DC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300R17X8-2D/SCA	Amplifier, optical, +17dBm/port, 8 ports, RFoG WDMs, dual DC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300R20X16-2A/SCA	Amplifier, optical, +20dBm/port, 16 ports, RFoG WDMs, dual AC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300R17X8-2A/SCA	Amplifier, optical, +17dBm/port, 8 ports, RFoG WDMs, dual AC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300P20X16-2D/SCA	Amplifier, optical, +20dBm/port, 16 ports, PON WDMs, dual DC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300P17X8-2D/SCA	Amplifier, optical, +17dBm/port, 8 ports, PON WDMs, dual DC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300P20X16-2A/SCA	Amplifier, optical, +20dBm/port, 16 ports, PON WDMs, dual AC power supplies, SC/APC optical connector, RoHS compliant
N2U-OA300P17X8-2A/SCA	Amplifier, optical, +17dBm/port, 8 ports, PON WDMs, dual AC power supplies, SC/APC optical connector, RoHS compliant

For E2000 Optical Connector options, replace the "SCA" with "/E"



MOTOROLA

Motorola, Inc. www.motorola.com

MOTOROLA and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. All other product or service names are the property of their respective owners. © Motorola, Inc. 2009. All rights reserved.

571896-001-a 0609 6010 - 0K