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.

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.

Benefits Include:
- Noise Figure less than 4.5 dB at +6dBm input power
- Wide Input Operating Power Range from -20dBm 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

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## Specifications

### General
- **Source Power Voltage**
  - DC Version: –36 to –72VDC
  - AC Version: 100 to 240VAC
- **Power Consumption**: 80 Watts maximum
- **Operating Temperature**: –10°C to +55°C
- **Storage Temperature**: –40°C to +85°C
- **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, 10/100 Base-T

### 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

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>N2U-OA300N21X16-2D/SCA</td>
<td>Amplifier, optical, +21dBm/port, 16 ports, dual DC power supplies, SC/APC optical connector, RoHS compliant</td>
</tr>
<tr>
<td>N2U-OA300N18X8-2D/SCA</td>
<td>Amplifier, optical, +18dBm/port, 8 ports, dual DC power supplies, SC/APC optical connector, RoHS compliant</td>
</tr>
<tr>
<td>N2U-OA300N10X16-2D/SCA</td>
<td>Amplifier, optical, +10dBm/port, 16 ports, dual DC power supplies, SC/APC optical connector, RoHS compliant</td>
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<td>Amplifier, optical, +20dBm/port, 16 ports, RFoG WDMs, dual DC power supplies, SC/APC optical connector, RoHS compliant</td>
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<td>Amplifier, optical, +17dBm/port, 8 ports, RFoG WDMs, dual DC power supplies, SC/APC optical connector, RoHS compliant</td>
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<tr>
<td>N2U-OA300P20X16-2D/SCA</td>
<td>Amplifier, optical, +20dBm/port, 16 ports, PON WDMs, dual DC power supplies, SC/APC optical connector, RoHS compliant</td>
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For E2000 Optical Connector options, replace the "/SCA" with "/E".