

Compact, Low Cost Single-Channel or Narrow Band Amplifiers

OA 400 Amplifier Series



Key Features

- Compact, MSA compatible package size, 70 x 90 x 12 mm
- Small signal gain, ~24 dB
- Saturated output power, ~15 dBm
- Wide dynamic range

Applications

- Single-channel and narrowband amplification
- Boost tunable laser sources
- Power equalization and flexible pre-emphasis
- Compensation of switching and signal grooming loss

The JDSU OA 400 Amplifier Series provides C-band optical amplification in an economical and compact package. It is designed for use in dense wavelength division multiplexing (DWDM) telecommunication systems, at points where the signal is not multiplexed. It can also be used in edge or access networks, where gain flattening is not required.

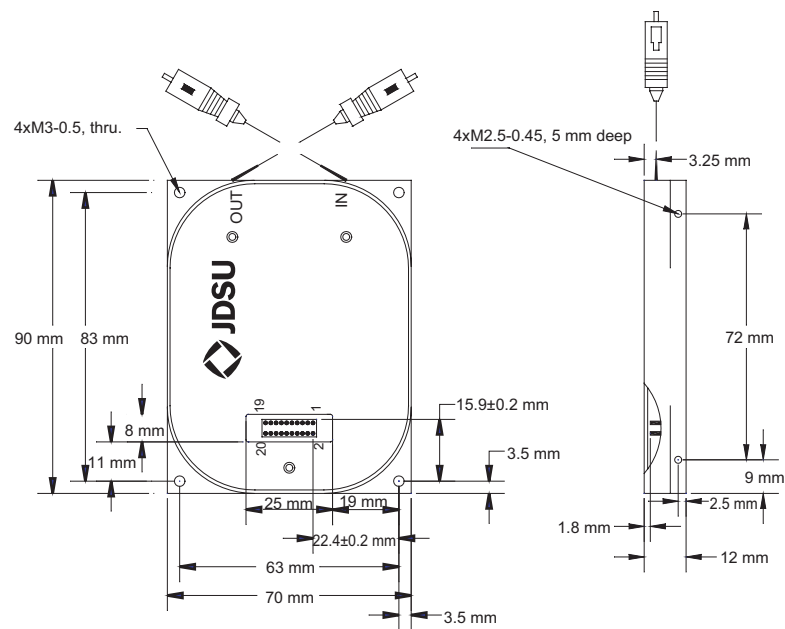
Fully qualified JDSU grating-stabilized 980 nm pump lasers provide the stability of operation and reliability required by today's highest speed DWDM systems.

The OA 400 can provide up to 24 dB small signal gain and up to 15 dB saturated output power, with a noise figure of less than 6 dB across the entire C band. The amplifier is delivered in a 70 x 90 x 12 mm platform, which supports a Multi-Source Agreement. The OA 400 performs as a preamplifier, a line amplifier, and a booster amplifier.

JDSU has extensive experience with the development of fully functioning erbium doped fiber amplifiers (EDFAs), and can design high-performance optical amplifier products that meet your time-to-market requirements.

OA 400 Series Amplifier Detail

(Specifications in mm unless otherwise noted.)



Pinout

Pin Description

1	Ground, monitor photodiode (MPD)
2	Input MPD cathode
3	Input MPD anode
4	Output MPD cathode
5	Output MPD anode
6	No connector (NC)
7	Laser diode anode
8	Laser diode anode
9	NC
10	NC
11	NC
12	NC
13	NC
14	NC
15	NC
16	NC
17	Ground, laser diode
18	NC
19	Laser diode cathode
20	Laser diode cathode

Electrical pins will be 0.5 x 0.5 mm.
Pin pitch will be 2.0 mm, center to center.

3

Specifications

Parameter OAA-15U0400Cx

Signal wavelength	1529 to 1562 nm
Total input signal power	-30 to 0 dBm
Total output signal power	15 dBm
Signal gain	24 dB
Noise figure	6.0 dB
Gain flatness	N/A
Dimensions (W x H x D)	70 x 90 x 12 mm
Operating temperature	0 to 70 °C
Power consumption	4.5 W

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Sample: OAA-15U0400CA

OA

A

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Code	Classification
A	Active

1

5

Code	Power Out ¹
15	15 dBm

U0400

C

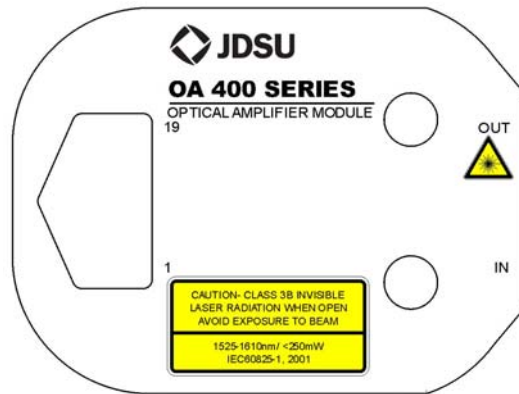
Code	Band
C	C band

Code	Connector Type ²
3	FC/APC
5	SC/APC
9	FC/UPC
A	SC/UPC (default)
C	MU
E	E2000

1. Higher powers available upon request.
2. More connector options available upon request.

User Safety

The invisible laser light emitted from this module is harmful to the human eye. Proper laser safety eyewear must be worn during operation.



ESD Protection

The laser diodes and photodiodes contained in this module are very reliable under normal operating conditions. However, they are easily destroyed by inadvertent electrostatic discharge (ESD). Take extreme precaution to prevent ESD. Use wrist straps, grounded work surfaces, and antistatic techniques when operating this module. When not in use, the fiber amplifier must be kept in a static-free environment with the shorting plug covering the connector.



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