

## Compact, Two-Stage Amplifier with Mid-Stage Access

### OA 1000 Amplifier Series



#### Key Features

- Saturated output power up to 21 dBm
- Mid-stage access
- Cost-effective gain flatness of  $\pm 0.75$  dB
- Compact size with the option of integrated PIN receiver/erbium doped fiber amplifier (EDFA)
- Wide dynamic range

#### Applications

- Long haul and metro networks
- Tunable laser booster
- Full C-band amplification
- Power equalization and flexible pre-emphasis
- Overcoming channel add/drop losses
- Overcoming dispersion compensating filter and variable optical attenuator (VOA) losses

The OA 1000 Amplifier Series provides the highly desired features and functionality of custom-designed EDFAs in a compact and economical package. It has been designed to address the new, higher capacity (higher channel count or 40 Gb/s) long haul system designs as well as the low cost metro add/drop amplification requirements.

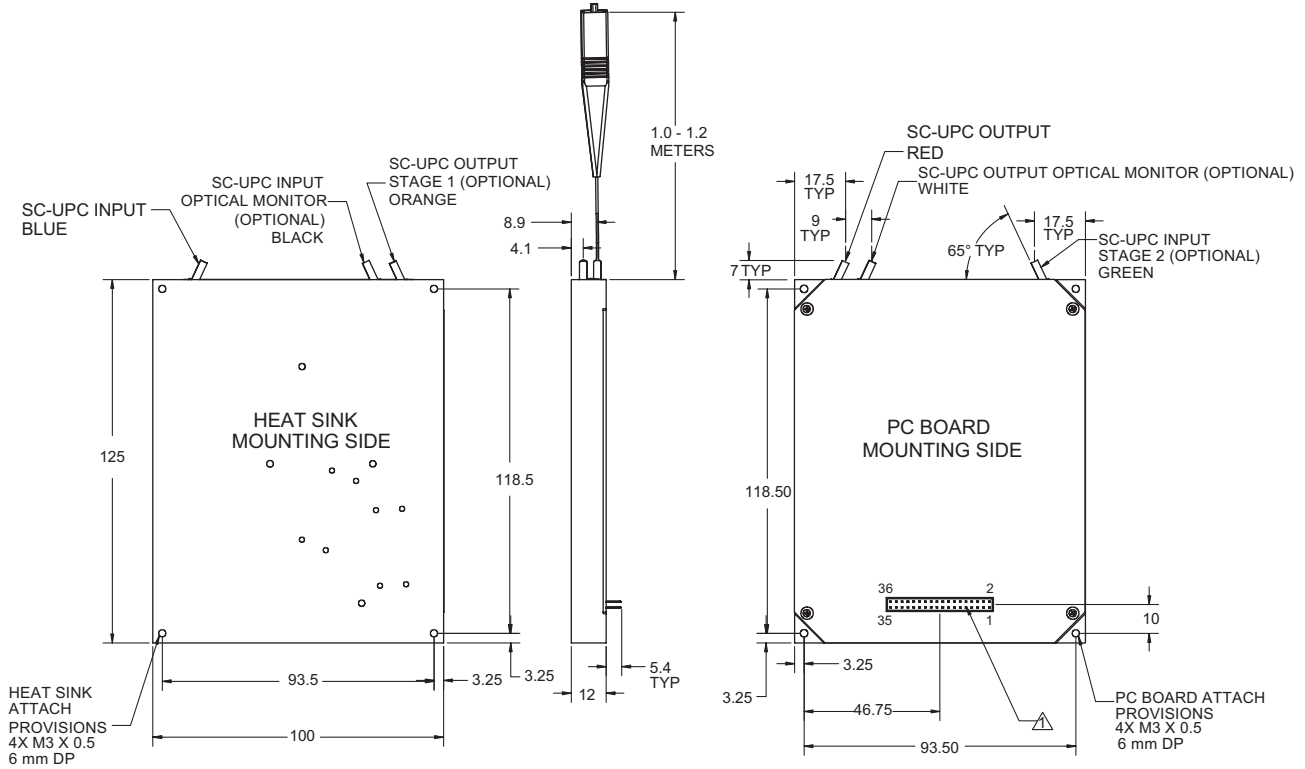
The JDSU OA 1000 amplifier features a 25 dB gain and a saturated output power of 18 dBm. The module, which contains an erbium-doped fiber coil heater, also provides mid-stage access and 0.75 dB gain flatness.

The flexible OA 1000 platform supports these variations: output power and gain ranges; mid-stage loss; monitor ports; gain flattening filters; and erbium doped fiber coil heater. It uses the variations to modify optical functionality to within specifications, creating a cost effective solution per system requirements.

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

OA 1000 Series Amplifier Detail

(Specifications in mm unless otherwise noted.)



△ OTHER CONNECTOR OPTIONS AVAILABLE  
CENTERED AS SHOWN

Pinout

Pin	Function	Pin	Function	Pin	Function
1	Heater +	13	LD B +	25	LD A +
2	Heater +	14	LD B -	26	LD A -
3	MPD 3 -	15	Thermistor B	27	Thermistor A
4	MPD 3 +	16	MON B +	28	MON A +
5	MPD 2 -	17	Thermistor B	29	Thermistor A
6	MPD 2 +	18	MON B -	30	MON A -
7	MPD 1 -	19	TEC B +	31	TEC A +
8	MPD 1 +	20	TEC B +	32	TEC A +
9	TEC B -	21	TEC A -	33	Thermistor
10	TEC B -	22	TEC A -	34	Thermistor
11	NC	23	NC	35	Heater -
12	GND	24	GND	36	Heater -

# 3

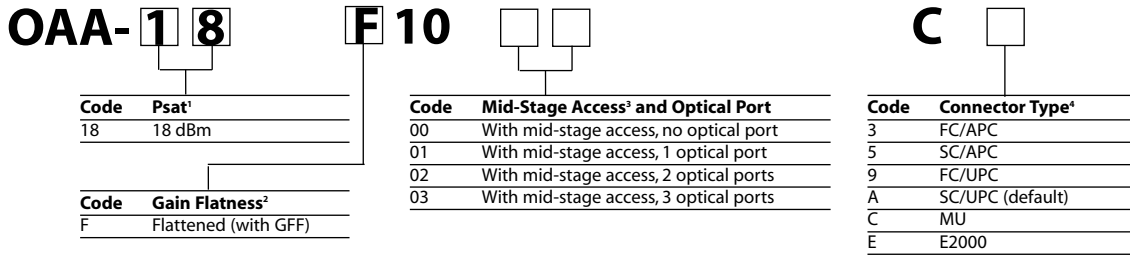
## Specifications

Parameter	OAA-15U1000Cx
Optical	
Signal wavelength	1529 to 1562 nm
Total input signal power	-7 dBm
Total output signal power	18 dBm
Signal gain	25 dB
Noise figure	6.0 dB
Gain flatness	0.75 dB
Dimensions (W x H x D)	100 x 125 x 12 mm
Operating temperature	0 to 70 °C

## 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](mailto:customer.service@jdsu.com).

### Sample: OAA-18F1001CA

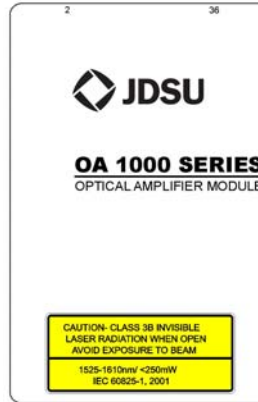


1. Other powers available upon request.
2. Non-gain flattened version available upon request.
3. Version without mid-stage access available upon request.
4. More connector options are available upon request.

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## 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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