

Metro-Access Single Channel Erbium Doped Fiber Amplifier

BrightAmp



Key Features

- Protocol and data rate independent – including 10 G/OC-192 applications
- Simple-to-install, rugged, plug-and-play module
- Deployable in central office and customer premise locations
- Front panel switch allows configuration as a booster, an inline, or a pre-amplifier
- Typical 14 dBm saturated output power; 26 dB small signal gain; 6 dB noise figure

Applications

- Single-channel optical amplification
- Reach extension

Compliance

- NEBS 3 compliant
- GR-1312 compliant
- FDA Class 1M laser device
- FCC Class A device
- UL 60950 Third Edition

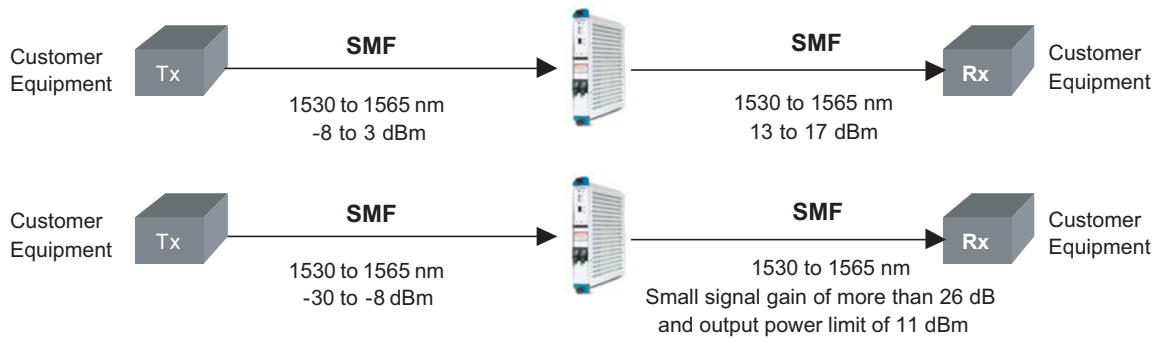
The WaveReady™ 3000 series BrightAmp configurable single-channel optical amplifier is designed to provide simple and economical C-band optical amplification for single-channel applications, in a flexible and ready-to-use package. This erbium-doped fiber amplifier (EDFA) is network-ready and includes a switch on the front panel that enables field personnel to install and configure the module in seconds as a booster or inline/pre-amplifier.

Front panel LEDs indicate module status, while integrated electronics provide simple alarm and control functionality. An RS-232 interface and Ethernet port (through a communications module) allow for remote management.

A flexible package design allows the module to be deployed in either the WaveReady 3500 or 3100 systems which mount onto 19- or 23-inch telecommunications racks.

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Reach Extension



Performance Specifications¹

Parameter	Minimum	Typical	Maximum
Optical Characteristics			
Operating wavelength range	1530 nm	-	1560 nm
Return loss	-40 dB	-45 dB	-
Booster Optical Characteristics			
Output power ($-8 \text{ dBm} < P_{in} < 3 \text{ dBm}$)	13 dBm	14 dBm	17 dBm
Output power stability over temperature and lifetime	-	-	0.5 dB
Pre/Inline Amplifier Optical Characteristics			
Maximum output power (including Amplified Spontaneous Emission) at input of -30 to -8 dBm	-	-	11 dBm
Gain (input $-30 \leq P_{in} \leq -26 \text{ dBm}$) ²	25 dB	26 dB	-
Polarization ratio (E-vector is vertical)	>100:1	-	-
Noise figure ($P_{in} \leq -15 \text{ dBm}$) ²	-	6 dB	6.5 dB
Electrical Characteristics			
DC supply voltage	-	-48 V	-
Alarm relay signals	-	Dry contact	-
Physical Dimensions			
Size (H x W x L)	-	6.8 x 1.0 x 8.8 inches (17.27 x 2.54 x 22.35 cm)	-
Weight	-	1.5 lbs (0.68 kg)	-
Environmental Characteristics			
Operating ambient temperature	-5°C	-	55°C
Storage temperature	-40°C	-	85°C
Relative humidity (non-condensing)	5 %	-	95 %

Note: This product should be deployed in accordance with your company's deployment directives.

1. Unless otherwise noted, all specifications are guaranteed over the life, operating temperatures, wavelength range, and input voltage range specified.

2. BrightAmp can be used over the wavelength range of 1530 to 1565 nm. The performance specifications remain the same except for the following:

Gain (input $-30 \leq P_{in} \leq -26 \text{ dBm}$): 22 dB (Minimum), 23 dB (Typical)

Noise figure ($P_{in} \leq -15 \text{ dBm}$): 6 dB (Typical), 7 dB (Maximum)

Interface Specifications

Parameter

Specification

Optical (physical)	SC/PC bulkheads. SMF on input A and output B
Electrical (physical)	96-pin connector (power, alarms, craft)
Craft	Menu and TL1 interfaces. Accessibility to craft interfaces depends on the mounting solution
Alarms	Relay, dry contact, MAJ (major; unit fail and LOS), MIN (minor; pump current threshold). Relay closed when alarm is active
Front panel LEDs	Power (CARD); Major Alarm (MAJ); Minor Alarm (MIN); Loss of input signal (LOS A)
Front panel configuration switch	2 positions (booster-amp and inline/pre-amp)

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: 10129127

Associated Parts

Product Code	Description
10129127	BrightAmp Configurable Single-Channel Optical Amplifier

Product Code	Description
10129126	DenseMount Shelf
10132805	COMM Module

Safety Information

The BrightAmp is an FDA Class 1M Laser Product and requires no special eye safety precautions.



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