Nano-second Pulse EDFA

Amonics
Specialist in Optical Amplifiers

1550nm - Pulsed

Key Features

- High output power
- High gain
- Wide operation range
- Highly reliable and durable

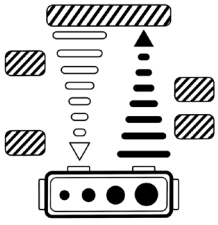
Benchtop Casing

Description

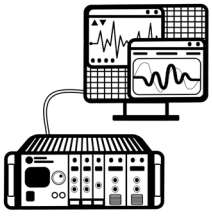
Amonics' Pulse EDFA is designed for amplifying optical short pulse to high pulse energy level. Amonics' engineers have a lot of knowledge in designing pulse optical amplifier, especially handling the nonlinearity in optical fiber due to high pulse peak power of the optical short pulse. We can design custom pulsed EDFA for different applications, such as fiber optic sensing and free space optical sensing. Our pulse EDFA has been widely used in industrial fiber laser based Lidar systems for wind velocity detection.

Application

- Laboratory



- Fiber Optic Sensing



- High power ultrashort pulse amplification
- High-resolution optical time domain reflectometry(OTDR)

ISO 9001 : 2015
Certificate No.: CC 5346

Our product is manufactured under a HKQAA ISO 9001 certified quality management system. The ISO 9001:2015 certification applies to the Hong Kong production site only.

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Nanosecond Pulse Amplifier Specifications

Model	AEDFA-NS	AEDFA-PM-NS
Operating wavelength	Typ. 1540 nm to 1560 nm	Typ. 1540 nm to 1560 nm
Pulse Width	Typ. 10 ns to 1000 ns	Typ. 10 ns to 1000 ns
Saturated Output Power up to (at 10 mW peak input power)	Typ. 2 W	Typ. 2 W
Pulse peak power up to (No distortion)	Typ. 1 kW	Typ. 1 kW
Input Signal Peak Level	Typ. 10 dBm	Typ. 10 dBm
Pulse Repetition Rate	Typ. 100 kHz to 100 MHz	Typ. 100 kHz to 100 MHz
Input / Output isolation	Min. 30 dB	Min. 30 dB
Polarization dependent gain	Typ. 0.3 dB, Max. 0.5 dB	NA
Polarization mode dispersion	Typ. 0.3 dB, Max. 0.5 ps	NA
Polarization Extinction Ratio	NA	Typ. 23 dB, Min. 20 dB
Optical Fiber	SMF-28	PM 1550 Panda Fiber

Different output power models are available upon request

Option: Optical bandpass filter

10ns Pulse Amplifier Specifications

Model	AEDFA-NS-10	AEDFA-PM-NS-10
Operating wavelength	Typ. 1540 nm to 1560 nm	Typ. 1540 nm to 1560 nm
Pulse Width	Typ. 5 ns to 10 ns	Typ. 5 ns to 10 ns
Saturated Output Power up to (at 10mW peak input power)	Typ. 10 W	Typ. 10 W
Pulse peak power up to (No distortion)	Typ. 10 kW	Typ. 10 kW
Input Signal Peak Level	Typ. 10 dBm	Typ. 10 dBm
Pulse Repetition Rate	Typ. 100 kHz to 100 MHz	Typ. 100 kHz to 100 MHz
Input / Output isolation	Min. 30 dB	Min. 30 dB
Polarization dependent gain	Typ. 0.3 dB, Max. 0.5 dB	NA
Polarization mode dispersion	Typ. 0.3 dB, Max. 0.5 ps	NA
Polarization Extinction Ratio	NA	Typ. 23 dB, Min. 20 dB
Optical Input Fiber	SMF-28	PM 1550 Panda Fiber
Optical Output Fiber	LMA 25/300 GDF	PM LMA 25/300 GDF

Different output power models are available upon request

Option: Optical bandpass filter

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General Parameters

	Value
Operation Temperature	0 to 40 ˚C
Storage Temperature	-10 to 70 ˚C
Power Supply	90 – 240 VAC, 47 – 63 Hz
Benchtop Dimensions	260(W) x 330(D) x 120(H) mm
Control	Keylock switch, Pump laser current
LCD Display	Output power, Pump laser current, Input power (Optional)
Computer Interface	RS232 (Control software & connection cable included) / Ethernet (Option)
Protection	Pump laser overheat warning
Optical Connector	FC/APC, collimator or bare fiber (No output connectors for output power >2W)

Ordering Information

Product Code	AEDFA(-PM)-NS-aaa-bb-cc-B-dd	aaa: Pulse Width in ns bb : Repetition Rate in kHz cc : Average Output Power in dBm dd : FA for FC/APC, CL for collimator, NC for bare fiber

Amonics undertakes continuous and intensive product development to ensure its product performance at the highest technical standards. As a result, the specifications in this document are subject to change without notice.

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