

SPFA Series

SHORT PULSE OPTICAL FIBER AMPLIFIERS

PriTel manufactures EDFAs with excellent sub-picosecond pulse performance—with very low dispersion and low PMD without the use of dispersion-compensating fiber that cause high nonlinearities. As seen on the next page, these amplifiers do not significantly change the input pulsewidth.

Certified shortpulse performance to **300 fs** or to **600 fs** is available in models from 15 dBm to 24 dBm saturated output. Contact PriTel for information about certified performance to **600 fs** for models from 24 dBm to 33 dBm saturated output.

In the SPFA Series, input power and output power are monitored internally and are displayed on the front information panel.

*SPFA-xx model without
power monitor option*



*SPFA-xx model with
power monitor option*

Specifications

	<u>SPFA-15</u>	<u>SPFA-18</u>	<u>SPFA-20</u>	<u>SPFA-24</u>
Saturated output power	15 dBm	18 dBm	20 dBm	24 dBm
Shortest input pulsewidth without output pulse broadening	300 fs (specify SPFA-XX-03 when ordering, XX = Sat'd P _{out} in dBm) or 600 fs (specify SPFA-XX-06 when ordering)			
Dispersion	<< 35 fs/nm of spectral bandwidth for SPFA-XX-03 << 70 fs/nm of spectral bandwidth for SPFA-XX-06			
Small signal gain	>30 dB	>32 dB	>35 dB	>35 dB
Optical noise figure	<4.2 dB	<5 dB	<5.5 dB	<6 dB
Polarization sensitivity	<0.2 dB	<0.2 dB	<0.2 dB	<0.2 dB
PMD	< 0.2 ps	< 0.2 ps	< 0.2 ps	< 0.2 ps
Input power range	-30 to +10 dBm	-30 to +10 dBm	-15 to +10 dBm	-15 to +10 dBm
Wavelength range	1528-1565 nm	1528-1565 nm	1528-1565 nm	1528-1565 nm
Spectral gain flatness with single ch. Input	0.5 dB typical	0.5 dB typical	0.5 dB typical	0.5 dB typical
Dimensions	10 cm x 26 cm x 28 cm	10 cm x 26 cm x 28 cm	10 cm x 26 cm x 28 cm	10 cm x 26 cm x 28 cm
Optical				
Gain medium	Er-doped silica fiber			
Pump source	980-nm diode laser			
Connectors	FC/APC (other connectors available upon request)			
Environmental				
Operating temperature	+15 to 30 °C			
Storage temperature	-20 to 50 °C			
Electrical/ Mechanical				
Operating Voltage	85-264 VAC at 47-63 Hz			
Power consumption	<125 W			



PriTel, Inc.

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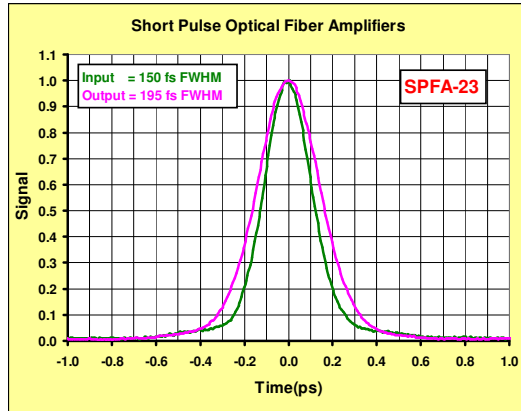
Ph: 630-983-2200, Fx: 630-983-2260 (USA)

E-mail: PriTel@PriTel.com, Internet: www.PriTel.com

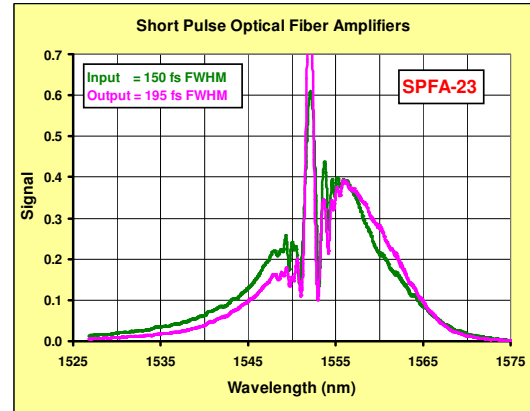
Typical Performance of PriTel's Short Pulse Optical Fiber Amplifiers

Amplification of Femtosecond Pulses in Model SPFA-23-300

Autocorrelation Traces
(10 GHz, 1550 nm)

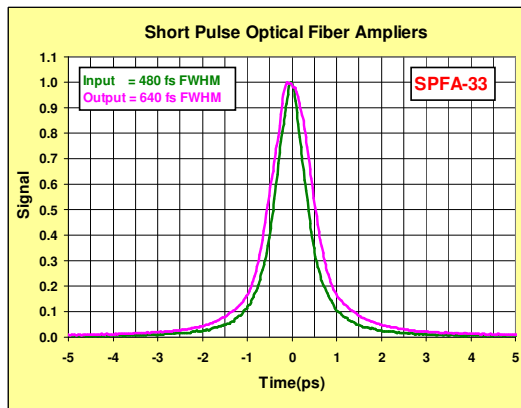


Optical Spectra
(10 GHz, 1550 nm)

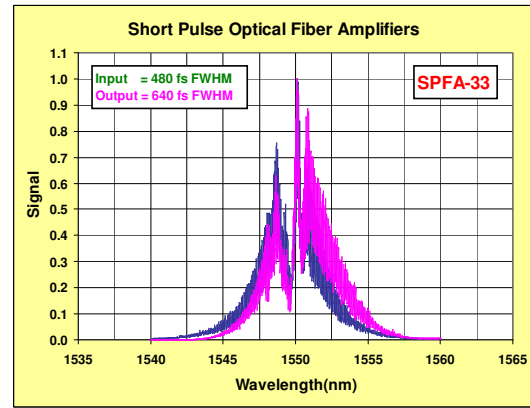


Amplification of Femtosecond Pulses in Model SPFA-33-700

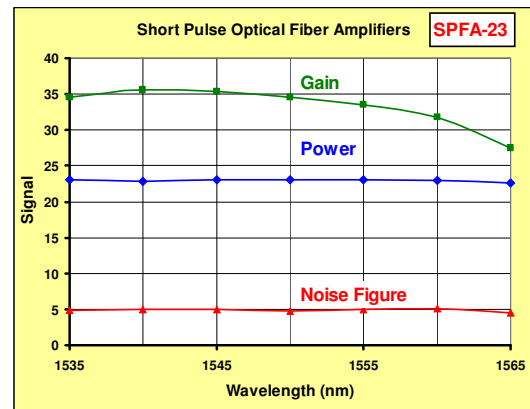
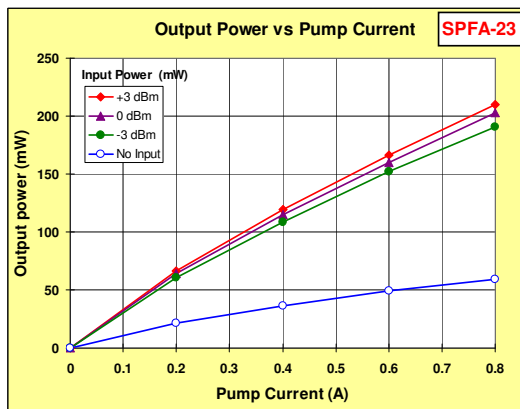
Autocorrelation Traces
(10 GHz, 1550 nm)



Optical Spectra
(10 GHz, 1550 nm)



Output Power from Model SPFA-23



Information contained herein is deemed to be reliable and accurate. PriTel, Inc. assumes no responsibility and shall have no liability relating to its use. PriTel, Inc. reserves the right to change product specifications at any time without notice.



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