

SP PMFA Series

SHORT PULSE POLARIZATION MAINTAINING 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 23 dBm saturated output. Contact PriTel for information about certified performance to **600 fs** for models from 24 dBm to 30 dBm saturated output.

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

*SP PMFA-xx model without
power monitor option*



*SP PMFA-xx model with
power monitor option*

Specifications

	<u>SP PMFA-15</u>	<u>SP PMFA-18</u>	<u>SP PMFA-20</u>	<u>SP PMFA-23</u>
Saturated output power	15 dBm	18 dBm	20 dBm	23 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 SP PMFA-XX-03 << 70 fs/nm of spectral bandwidth for SP PMFA-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 Extinction	> 22 dB	> 22 dB	> 22 dB	> 22 dB
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	PM - FC/APC, slow axis (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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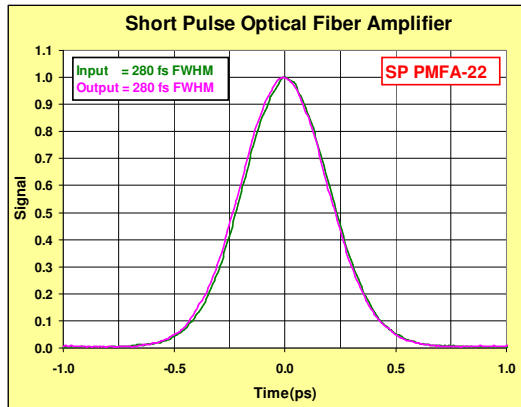
Ph: 630-983-2200, Fx: 630-983-2260 (USA)

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

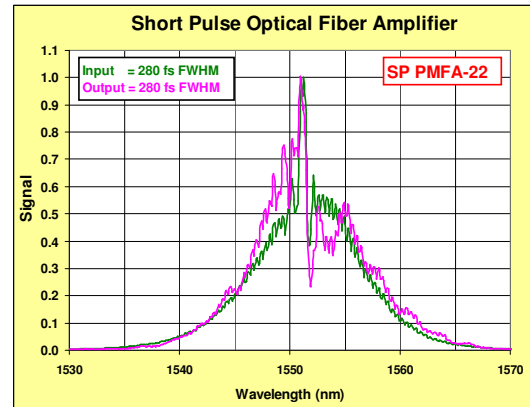
Typical Performance of PriTel's Short Pulse PM Optical Fiber Amplifiers

Amplification of Femtosecond Pulses in Model SP PMFA-22-300

Autocorrelation Traces
(10 GHz, 1550 nm)

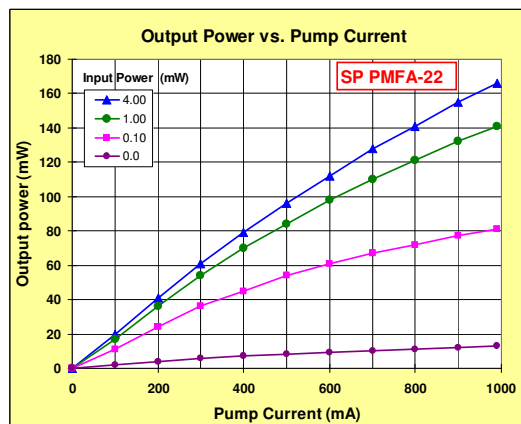


Optical Spectra
(10 GHz, 1550 nm)

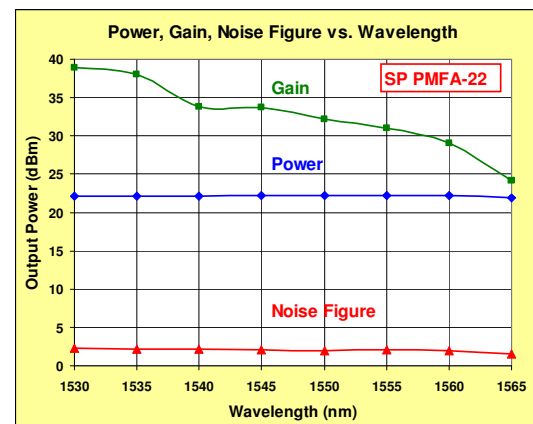


Output Power, Gain, Noise Figure in Model SP PMFA-22-300

Output Power vs. Pump Current



Gain, Output Power, Noise Figure vs. Wavelength



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