

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 13 dBm to 22 dBm saturated output. Contact PriTel for information about certified performance to **700 fs** for models from 23 dBm to 30 dBm saturated output.

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



Shown with power monitor option

Specifications

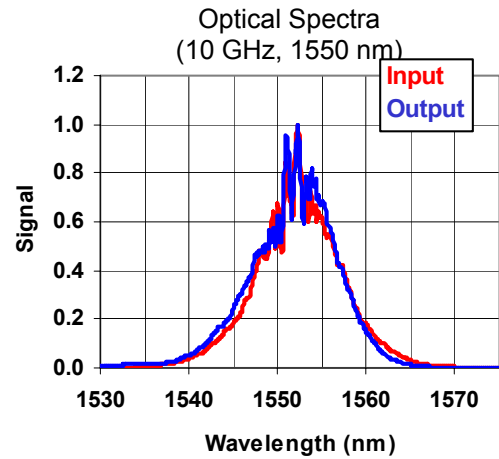
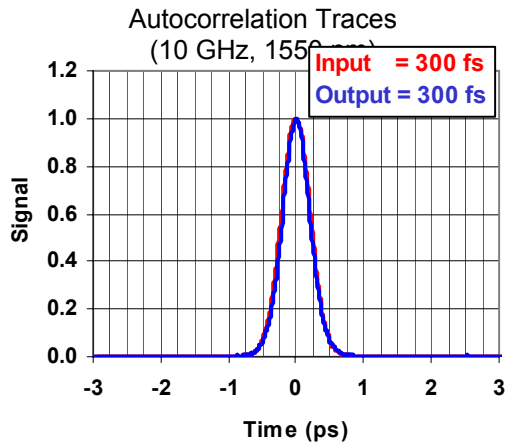
| | SPFA-15 | SPFA-18 | SPFA-20 | SPFA-22 |
|---|--|--------------------------|--------------------------|--------------------------|
| Saturated output power | 15 dBm | 18 dBm | 20 dBm | 22 dBm |
| Shortest input pulsewidth without output pulse broadening | 300 fs (specify SPFA-XX-03 when ordering, 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 | >35 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 channel 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 | | | |

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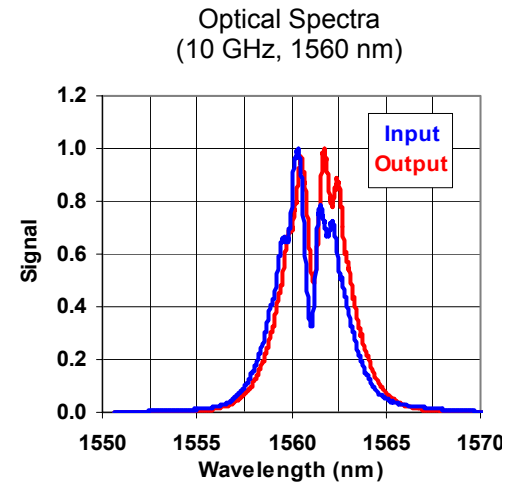
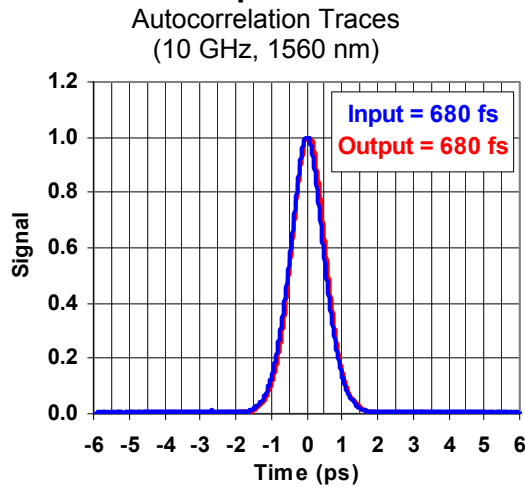
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Typical Performance of PriTel's Short Pulse Optical Fiber Amplifiers

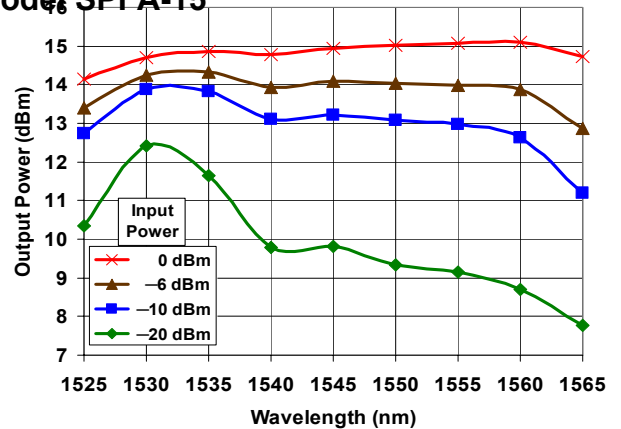
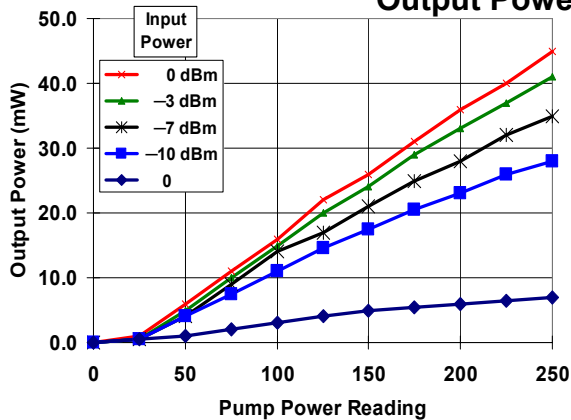
Amplification of Femtosecond Pulses in Model SPFA-15-300



Amplification of Femtosecond Pulses in Model SPFA-30-700



Output Power from Model SPFA-15



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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