

## FFL Series

# PICOSECOND and FEMTOSECOND FIBER LASERS

PriTel's FFL Series of 1550 nm Picosecond and Femtosecond Fiber Lasers are designed for R&D applications in telecommunications, fiber lasers, optical switching, measurement of optical fiber dispersion and nonlinearities, and others.

Primary optical output of the FFL is PM.

The FFL is self-starting, easy to use and requires no ancillary equipment for operation. This FFL is a "turnkey" source.

The **Quick-Change Pulseswidth** feature is standard on every FFL model. This design enables the user to change the operating pulseswidth of the FFL within minutes just by replacing a self-aligning cartridge.



## Specifications

### **FFL**

|                                 |                                                                                    |                                |                       |
|---------------------------------|------------------------------------------------------------------------------------|--------------------------------|-----------------------|
| Pulse repetition rate           | 5-100 MHz, fixed                                                                   |                                |                       |
| Average output power            | Varies with pulseswidth and pulse repetition rate (e.g., >4 mW at 2 ps and 20 MHz) |                                |                       |
| Timing jitter*                  | <1 ps                                                                              |                                |                       |
| <i>Pulseswidths available**</i> | <i>Spectral width (nm)</i>                                                         | <i>Tunable wavelength (nm)</i> | <i>Peak Power (W)</i> |
| <10 ps                          | >0.3                                                                               | 1530-1560                      | >50                   |
| <5 ps                           | >0.4                                                                               | 1530-1560                      | >50                   |
| <2 ps                           | >1.0                                                                               | 1530-1560                      | >100                  |
| <600 fs                         | >3.5                                                                               | 1530-1560                      | >100                  |
| <100 fs                         | >25                                                                                | Fixed wavelength               | >100                  |

### **Optical**

|             |                                                |
|-------------|------------------------------------------------|
| Gain medium | Er-doped silica fiber                          |
| Pump source | 980 nm diode laser                             |
| Connectors  | FC/APC (other connectors available on 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                 |
| Dimensions (2U)   | 10 cm x 26 cm x 36 cm  |
| Weight            | 9 kg                   |

**Note:** The FFL Series offers front-panel electrical sync pulse output for synchronizing the optical pulse train to an external system.

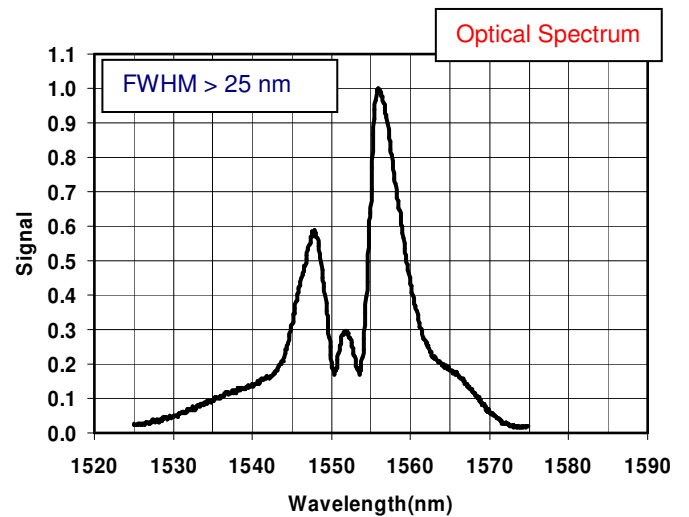
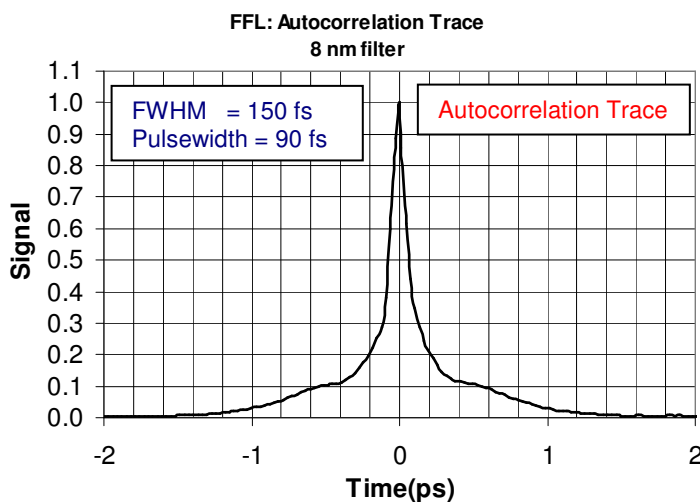
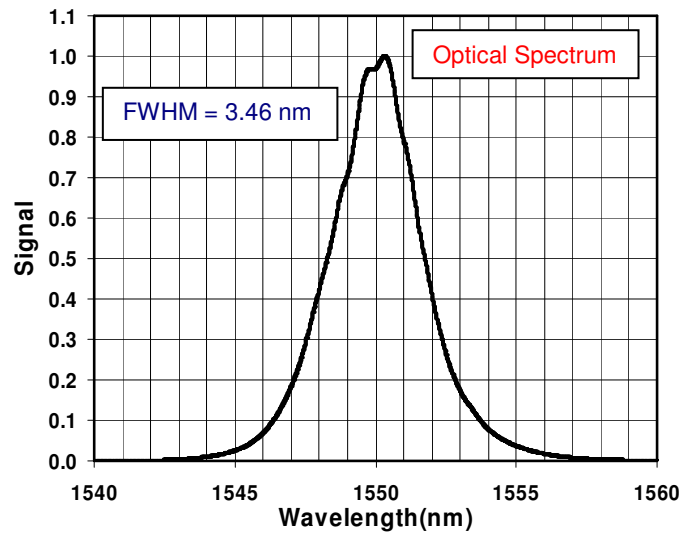
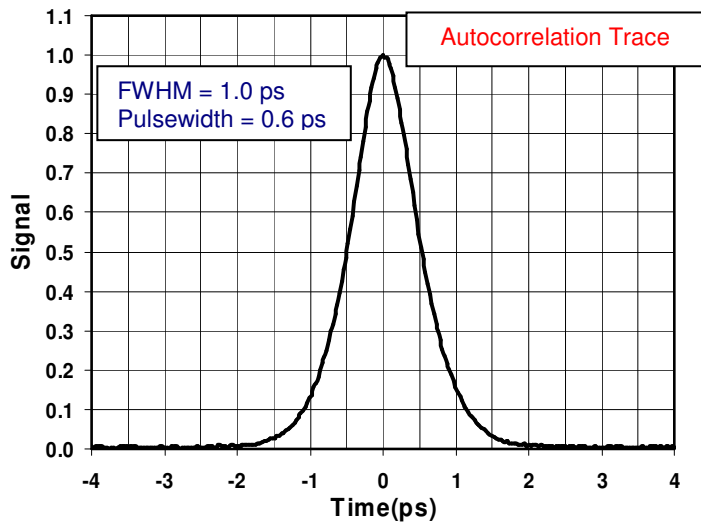
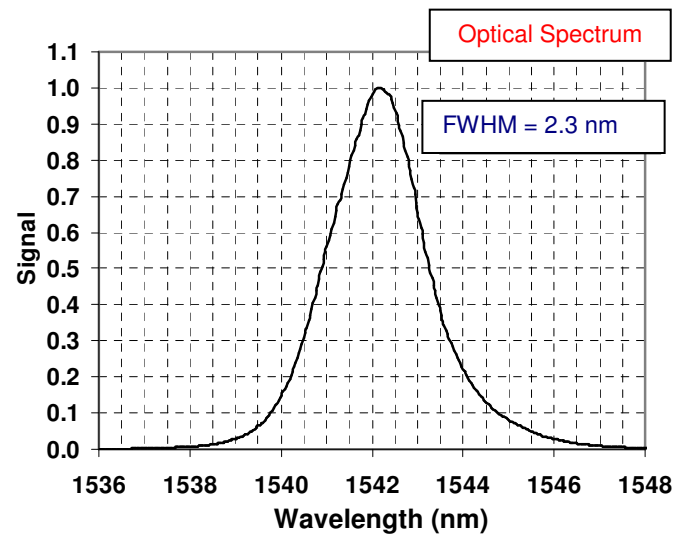
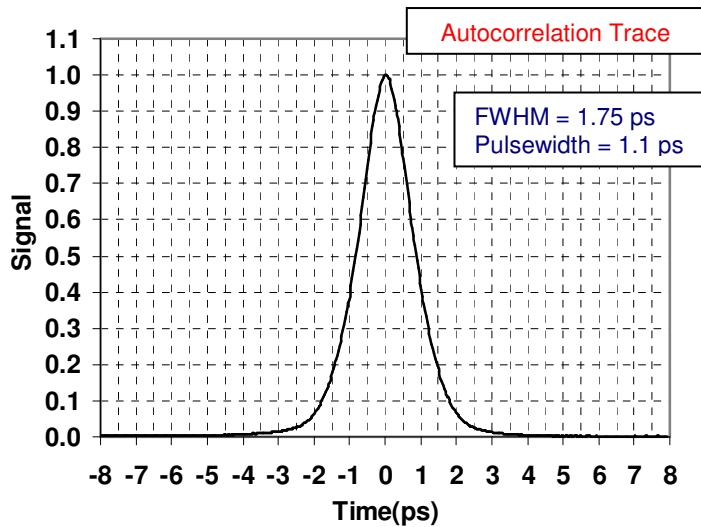
\* Defined as short-term, pulse-to-pulse jitter.

\*\* Inquire about special pulseswidths.

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## Typical Performance of PriTel's Picosecond and Femtosecond Fiber Lasers



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