

[OEPLS-FS-100-1550-low cost]

## 1550 nm Low-cost Pulsed Laser Sources (Femtoseconds)

### Features:

- Compact Size and robust
- PM Femtosecond Pulsed fiber laser
- Operation wavelength, 1550nm
- Maintenance-free and self-starting
- High pulse to pulse stability
- Lower operating costs
- Turnkey solution

### Applications:

- Research and Development (R&D)
- Seed laser for fiber laser and fiber amplifier
- Time precision detection
- Second Harmonic Generation Microscopy
- Third Harmonic Generation Microscopy
- Multiple photon Microscopy
- Laser imaging, detection, and ranging (LiDAR)
- Supercontinuum generation
- Terahertz wave
- Ultrafast laser phenomenon

### Product description:

The turnkey source Erbium-Doped Ultrafast Fiber Laser provides ultra-short pulses (>50 fs) in the 1550 nm wavelength range. With the fundamental oscillator repetition rate of 70±5 MHz, this laser produces an average power of more than 50 mW. It is the perfect source for nonlinear optics tasks like terahertz generation and supercontinuum generation, and the high repetition rate makes it work with Fourier-Transform Infrared (FTIR) spectrometers. With no open space or moving parts, this laser has an all-PM-fiber architecture that maximizes environmental stability.

### Product specifications:

| Parameter                                     | Unit | OEPLS-FS-100-1550-low cost  |
|---|------|-----------------------------|
| Center Wavelength (CWL)                       | nm   | 1550 ± 10                   |
| Pulse Width (min)                             | fs   | 50                          |
| Average Output Power                          | mW   | > 50                        |
| Power stability over 2 hours                  | %    | < 2                         |
| Repetition Rate                               | MHz  | 70 ± 5                      |
| Polarization Extinction Ratio                 | dB   | > 20                        |
| Pulse to pulse stability over 1million pulses | %    | 1.5                         |
| Operation Temperature                         | °C   | -20 to +50                  |
| Laser Output                                  | -    | PM1550 Fiber, FC/PC, FC/APC |
| Laser Output (optional)                       | -    | Free space, collimated beam |
| Dimensions:                                   | mm   | 320x320x90                  |

**Package includes:** OEPLS-FS-100 Unit, Power Cable, User manual.

Performance spectrum:

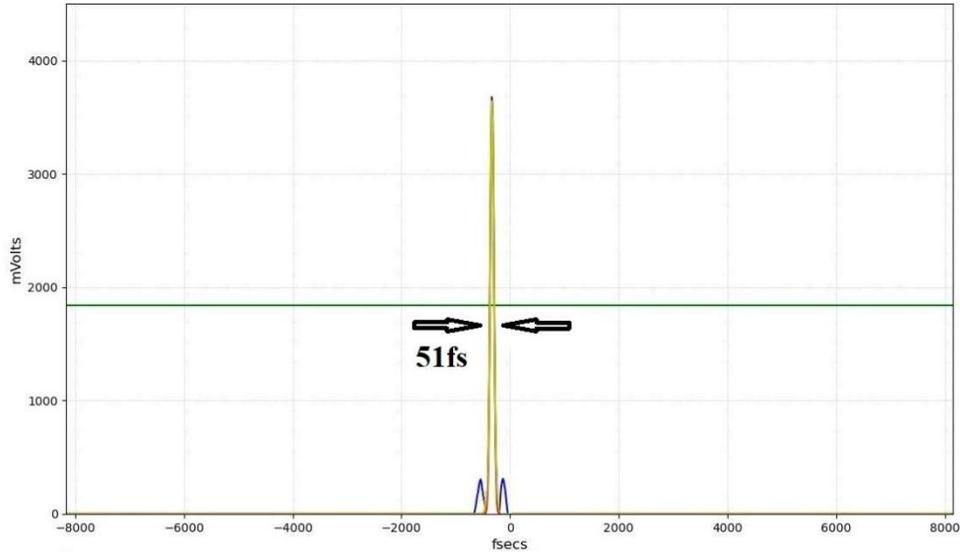


Fig. 1. Pulse width

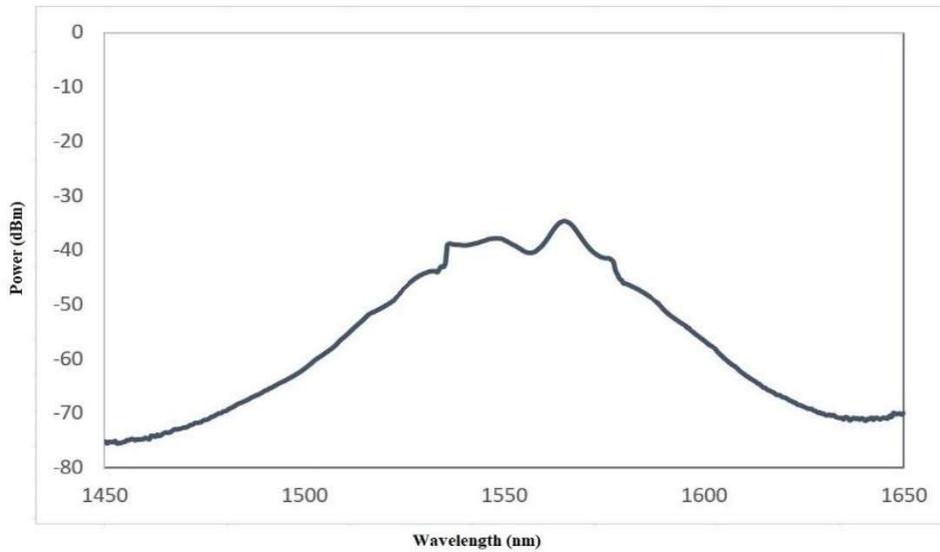


Fig. 2. Optical spectrum (spectral width of >12nm @ 3dB level)

Ordering information:

| Model number                      | OEPLS  | FS          | WL         | Low-cost |
|-----------------------------------|--------|-------------|------------|----------|
|                                   | Type   | Pulse width | Wavelength | Option   |
| <b>OEPLS-FS-100-1550-low cost</b> | Pulsed | Femtosecond | 1550 nm    | Low-cost |