# Narrow Spectrum Bandwidth Ultrafast Fiber Laser

## *– Passive Mode-locking*


### Applications

- Amplifier seeding
- Materials characterization
- Diagnostics in biology and medicine
- Optical sampling
- Lidar

### Features

- Narrow spectral bandwidth of 0.2 nm typical
- Wavelength selectable over 1 µm band
- Pulse width ~ 20 ps
- Average output power greater than 100 mW
- Linearly polarized output
- Transform-limited output
- Low timing jitter
- Minimal pulse pedestal

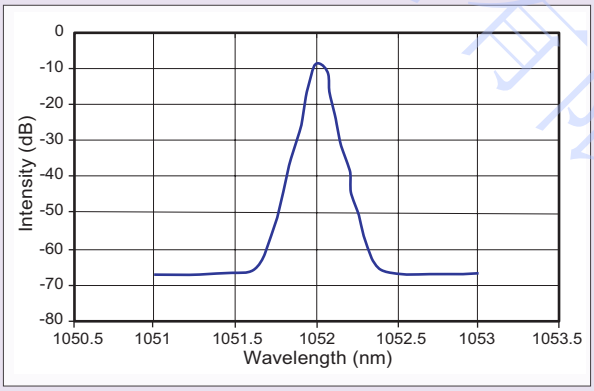
The 1 µm band narrow spectrum bandwidth ultrafast fiber laser (FPLNB) is a passively mode-locked fiber laser that utilizes saturable absorbers to deliver narrow spectral bandwidth of typical 0.2 nm. The FPLNB laser has excellent stability and reliability with turnkey operation. The wavelength is factory selectable throughout 1 µm band. The pulse width can be ~ 20 ps with near transform-limited pulse shape and a better than -20 dB pedestal. The timing jitter is as low as 100 fs. The repetition rate can be specified from 10 to 100 MHz with either a polarization-maintaining (PM) or non-PM fiber output. With > 100 mW output power, the FPLNB series is an ideal narrow bandwidth source for seeding applications. An RF synchronization output is provided as a trigger signal.

## Technical Specifications

| Model Number | FPLNB-03UFF |
|---|---|
| Pulse Width (ps) | ~ 20 |
| Output Wavelength (nm)* | 1030 ~ 1064 (selectable) |
| Output Spectral Bandwidth (nm) | ~ 0.2 |
| Repetition Rate (MHz) | 30 |
| Timing Jitter (fs) | <100 (carrier offset 100 Hz ~ 1 MHz) |
| Amplitude Noise (%) | <1 |
| Output Power (mW) | >100 |
| Operating Temp (°C) | 10 ~ 35 |
| Operating Voltage (VAC) | 85 ~ 264 |
| Dimensions (cm) | 34(w) x 40(d) x 9(h) |

* *780 nm band is available.*

*Due to our continuous improvement program, specifications are subject to change without notice.*




**Optical Spectrum Corresponding to a Pulse Width of 20 ps**


CALMAR LASER