

## 780/1560nm Femto-second Fiber Laser (OEFSFL)

Oelabs developed a new type of ultrafast fiber laser FL7808 series and it can provide OEM module or integrated system. It can export high quality femto-second laser pulse and the output wavelength can be switched between 100nm and 200nm.

The pulse width is less than 100fs and the typical repetition frequency is 80MHz. Based on perfect pump protection technology, automatic mode-locked pulse technology, low non-linearity and low noise fiber amplifier technology, the light source has very high reliability and stability which can meet customers' demand at low maintenance cost. The cost-effective products can replace solid titanium sapphire laser in THz generation, optical nonlinear research, biological photonics imaging, sensitive spectrum detection.

### KEY FEATURES

- Ultrafast fiber laser @ 780 nm/1560 nm
- Robust and reliable design & Long-life time
- Auto mode-locking technology
- Low-noise ultrafast pulse amplification
- Free maintenance

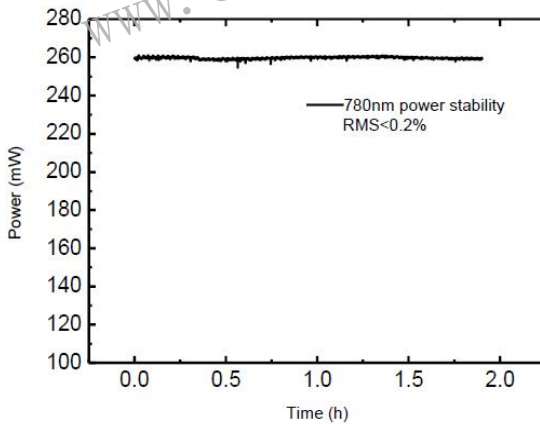
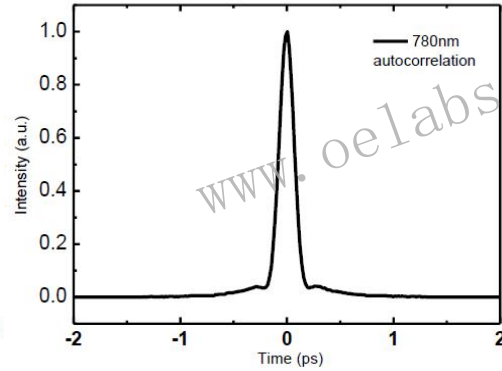
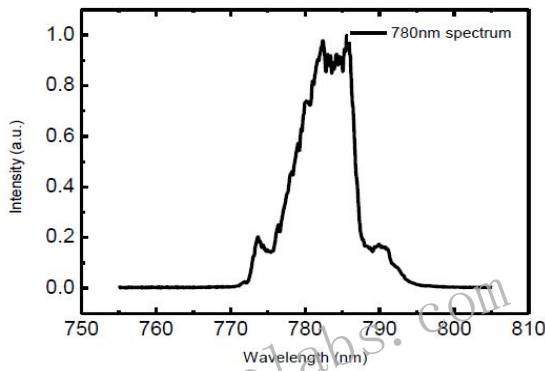
### Application

- Terahertz Generation & Terahertz Physics
- Optical Non-linearity
- Multiple-photon Excitation
- Optical Coherence Tomography
- Biological Imaging

Characteristic	Min	Typical	Max	Unit
Center wavelength		780		nm
Pulse width (sec <sup>2</sup> )		< 100		fs
Rated output power (FL7808A)		> 100		mW
Rated output power (FL7808B)		> 200		mW
Repetition frequency		80		MHz
Energy per pulse@200 mW		2.5		nJ
Peak power		25		kW
Polarization		Linearity		

<b>Polarization extinction ratio</b>		25		dB
<b>Auxiliary output</b>		1560nm, >400mW		
<b>Line width</b>		10		nm
<b>Output power fluctuations</b>		<1%		
<b>Beam shape</b>		Gaussian beam		
<b>Output beam diameter</b>		1		mm
<b>Output mode</b>		Free-space or Fiber pigtail		
<b>Operating voltage/current</b>		5 V/8 A		
<b>PC interface</b>		RS232		
<b>Operating temperature range</b>		15-35°C		
<b>Dimensions</b>		400×160×120		mm

**Samples Data:**



**Ordering information:**

Part No: LF7808-XX-XXX

XX: (A: rated output power>100mW; B: rated output power>200mW)

XXX: (FS: Free space)

Notes: 780nm laser is fabricated in frequency doubling, only working in free space. It can work at 780/1560nm ( switchable from different export)

Part No: LF3710-XX-XXX ( working wavelength: 1550nm)

XX: (A: rated output power>200mW; B: rated output power>500mW)

XXX: (FS: Free space, FP: fiber pigtail)

Part No: LM5810-XX

1550nm femto-second laser module , power >80mW, pulse width<100fs, repetition frequency: 80MHz

XX: (FS: Free space, FP: fiber pigtail)