

[OEFDML-100]

Fourier-Domain Mode-Locked Laser (Dispersive Tunable Laser)



Features:

- All-fiber based structure
- High speed tuning (up to 4MHz)
- TEM₀₀ beam profile
- narrow linewidth
- Custom wavelength
- SM or PM-fibers

Applications:

- Spectroscopy
- Biomedical imaging
- Fiber Sensor Interrogation
- Remote sensing
- Optical coherence tomography (OCT)

Product description:

The Dispersive Tunable Laser or Fourier-Domain Mode-Locked (FDML) Laser is an ultra-fast, high-performance swept source laser designed for applications requiring rapid and precise wavelength tuning. Operating in 1060, 1310 and 1550 nm spectral range, it delivers a broad tuning range with sweeping rates up to world record breaking of 4 MHz, ensuring exceptional speed and resolution. The FDML laser is optimized for use in optical coherence tomography (OCT), high speed Fiber Bragg Grating sensor interrogation, spectroscopy, and metrology, providing high coherence length and low phase noise. It features stable long-term operation, medium and high output power, and flexible control interfaces, making it suitable for both industrial and research environments. The laser's compact design and robust fiber-based architecture offer reliability and ease of integration into various photonic systems.

Product specifications:

Parameter*	Unit	Value
Type		FDML (Dispersive Tunable) Swept source
Wavelength	nm	1030; 1064; 1310; 1550; 2000
Sweep rate	kHz	100 - 4000
Coherent length	mm	7
Tuning range	nm	± 50
Average output power	mW	> 50
Wavelength accuracy	pm	< ± 5
Wavelength tuning repeatability:	pm	< ± 5
Laser tuning step resolution	pm	8
Fiber type		SM; PM

*Customized specifications available on request.

Ordering number for OEFDML-100:

Model	CWL (nm)	SW (kHz)	TR (nm)	P (mW)	FT
OEFDML-100-CWL-SW-TR-P-FT	Center Wavelength	Sweep range	Tuning range	Average power	Fiber type
Example:	OEFDML-100-1550-100-30-50-SM				