

1 μm High Power Sub-watt Femtosecond Fiber Laser



Applications

- Both of benchtop and module for OEM integration
- Biomedical instrumentation
- Terahertz radiation
- Materials characterization
- Micro machining and materials processing

Features

- Wavelength selectable from 1030 to 1065 nm
- Pulse width selectable from 0.2 to >6 ps
- Average power from 20 mW to 400 mW
- Pulse width tunability
- Linearly polarized output
- Minimal pulse pedestal
- Long term reliability
- RF synchronization output

The 1 μm sub-watt femtosecond fiber laser is a high quality and reliable passively mode-locked fiber laser with output power of a few hundreds of mW. This serie features a robust architecture that is insensitive to shock and vibration and provides exceptional stability and reliability for demanding applications. Advanced engineering design and consistent manufacturing process ensure the highest quality standards for OEM volume production. The wavelength can be selected from 1030 to 1065 nm. The pulse width is factory selectable from 0.2 to >6 ps. The timing jitter is as low as 60 fs. The repetition rate can be specified from 10 to 50 MHz. An RF synchronization output is provided as a trigger signal. The module serie can be used either as a stand-alone laser source with a 5 VDC power supply or separate driver, or for integration as an OEM module.

Mendocino 1030 - 1065 nm Technical Specifications

Specifications	Medium Power with compression	High Power / Sub-watt
Central Wavelength (nm)	1030, 1064	1030 - 1065
Average Power (mW)	20 - 50	Up to 400
Pulse Width (ps) *	0.2	>6 (compressible to 0.15)
Repetition Rate (MHz)	25 - 50	40 typical (10 - 50 available)
Spectral Width (nm)	20	30 - 40
Timing Jitter (fs)	60 (carrier offset 100 Hz - 1 MHz)	
Polarization Extinction Ratio (dB)	> 20	
Beam Quality	$M^2 < 1.2$	
Beam Diameter (mm)	~ 1.5	
Termination	Collimated beam in free space	Collimated beam in free space or pigtail fiber with FC/APC connector
Operating Voltage	Desktop: 85 - 264 VAC Module: 5 VDC	
Dimensions (cm)	Desktop: 34(w) x 40(d) x 9(h) Module: 20.3(w)x 12.7(d) x 4.3(h)	

* A Gaussian pulse shape (convolution factor of 0.7) is used to determine the pulse width for the second harmonic autocorrelation trace.

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

