



Calm Laser: Eureka



The fiber-based picosecond laser (PSL) is an actively mode-locked fiber laser with repetition rates available from 0.4 to 40 GHz.

This laser provides a stable and reliable optical clock with turnkey operation. Along with a portable design, the Eureka series offers user-friendly front panel control knobs for flexible adjustment of wavelength and output power. The pulse width is factory selectable from 1.2 to 10ps, with transform-limited spectral width and better than -20dB pedestal. An option to adjust the pulse width from 1.5 to 10 ps is available in the C band with the PSL-10-TT model. The timing jitter is as low as 50 fs and the side mode suppression is larger than 75dB. An output power of greater than 20 mW obviates the need for an additional optical amplification stage. Options for 780 nm or 1 μ m wavelength emission are also available.

An optional automatic mode-locking function is achieved by a built-in computer with proprietary software design. It provides a stable and reliable optical clock with turnkey operation. A front panel switch allows the selection of either automatic mode-locking (by computer) or manual mode-locking. The automatic mode-locking feature is especially advantageous for users not familiar with the operational requirements of actively mode-locked fiber lasers. Once the required parameters such as wavelength, pulse width and repetition rate are set by end users, the laser itself will execute mode locking automatically. The remote control software ensures ease of use via readily accessible graphical controls viewable on the computer monitor.

Specifications:

1530 ~ 1565 nm

Product Tunable Rep Rate Pulse width Avg. Power Option

Product	Tunable turn rate	Pulse width	Avg power	Option
PSL-10-xT	5-20 GHz	1.2 ~ 6 ps	>20 mW	Fixed Pulse Width
PSL-10-TT	5-20 GHz	1.5 ~ 10 ps	>20 mW	Tunable Pulse Width
PSL-10-AUTO	5-11 GHz	1.5 ~ 10 ps	>20 mW	Auto Mode-locking
PSL-25-xT	22-28 GHz	1.5 ~ 10 ps	>20 mW	Fixed Pulse Width
PSL-40-xT	38-42 GHz	1 ~ 5 ps	>20 mW	Fixed Pulse Width
PSL-40-TT	38-42 GHz	0.8 ~ 5ps	>20 mW	Tunable Pulse Width
PSL-40-AUTO	38-42 GHz	1 ~ 5ps	>20 mW	Auto Mode-locking

If you would like more information, please do not hesitate to [contact us](#).