# Briefings

### LIONIX INTERNATIONAL

# Ultra-Narrow Linewidth Tunable Lasers Tailored to Your Wavelength

#### A tunable laser for any application

LioniX International manufactures narrow linewidth tunable lasers at wavelength ranges around 1550nm, 850nm, 780nm, and 680nm. With our hybrid photonic IC technology, we develop custom lasers with tailored specifications.



#### Optimized for performance

We implement spot size converters on our waveguides to ensure that the interfaces preserve the low losses of our platform, whether chip-to-chip or chip-to-fiber.



#### **Power your own photonic circuit design** Additional functionality, like filtering, switching, delay lines, and more, can be added to the same TriPleX<sup>®</sup> chip without additional assembly cost.

Our platform is transparent from 405nm to 2350nm, suitable for many different applications.

The unique design features a long external cavity acting as a tunable mirror for one or more gain chips. The TriPleX<sup>®</sup> cavity material, based on silicon nitride (Si<sub>3</sub>N<sub>4</sub>), offers ultra-low losses and broad transparency for very high Q cavities and a wide range of possible laser wavelengths.



#### Available with your 1550nm MPW design

Our tunable lasers are available as a building block in our infrared multi-project wafer (MPW) runs. Simply add the block to your design and use a narrow linewidth tunable laser in your own design.



#### Packaged and ready

Interested in a standard, packaged laser? 14-pin butterfly lasers with preset performance features are available via our partners. We are happy to discuss any adjustments or customizations with you!

Typical laser specifications	1550nm	850nm	780nm	680nm
Fiber output	> 20 dBm	> 5 dBm	> 5 dBm	> 6.8 dBm
Wavelength range (nm)	1530-1565	825-880	770-820	670-690
Lorentz linewidth	< 10 kHz	< 10 kHz	< 10 kHz	< 10 kHz
SMSR	50 dB	50 dB	40 dB	30 dB
Package	14 pins butterfly	14 pins butterfly	14 pins butterfly	14 pins butterfly

## Our chips drive your business

#### LioniX International

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