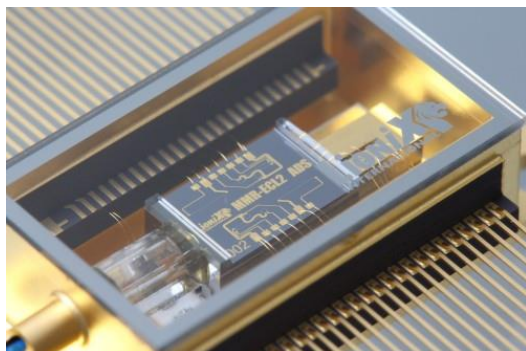


## Tunable laser element added to TriPleX Multi Project Wafer

### Introduction.

To enable you a low cost and easy access to our photonic integrated circuit technology, we offer regular scheduled Multi Project Wafer (MPW) runs in the TriPleX® technology. This Photonic Integration platform is suitable for components for telecom/datacom in the infrared (1550nm) region, as well as in life science applications in the visible range.



### MPW Technology – 1550 nm

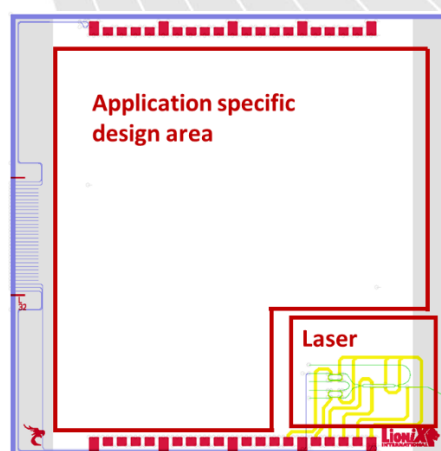
The TriPleX® waveguides offered within the infrared MPW are designed for single polarization (TE) applications to operate at the telecom wavelength (1.55  $\mu\text{m}$ ). The waveguide however is also transparent for lower wavelengths. The TriPleX® technology has applications from 405nm to 2.35 $\mu\text{m}$ . In addition, these waveguides show a low propagation loss. The high contrast waveguide allows bend radii of 125 micron, which makes large scale integration (VLSI) on chip possible. The coupling to and from a fiber from this high contrast waveguide is optimized by the addition of spot size converters, which expand the mode profile to the size of a standard telecom fiber, allowing low loss fiber chip coupling.

### Planning MPW runs

We have several MPW runs every year, with different tapeout dates. To view our current MPW runs schedule and reserve your spot, please visit:  
<https://www.lionix-international.com/photonics/mpw-services/lionix-mpw-dates/>

### PDK and building blocks

The MPW offering includes a process design kit (PDK) containing validated and specified building blocks. This building blocks are a good start to a design and allow the user to create many new functionalities.



### Tunable laser building block

Now our MPW offering has been extended with a tunable laser building block. The building block provides the user with a narrow linewidth source with specifications given in the table below. As with all other building blocks offered in our PDK, it allows the user to easily connect the items together and create a customized or application specific design.

	Wavelength tuning range	On-chip power	Linewidth
Tunable laser building block	C-band	>1 mW	< 100 kHz

### Hybrid assembly

By offering the tunable laser building block, the MPW user can get access not only to our well known low-loss waveguide platform TriPleX®. Also our unique hybrid assembly method of attaching InP gain section to our PICs become now easily available for designers using the PDK.

Our chips drive your business

### Lionix International

PO Box 456

7500 AL Enschede

The Netherlands

Email: [info@lionix-int.com](mailto:info@lionix-int.com)

Phone: +31 53 20 30 053

[www.lionix-international.com](http://www.lionix-international.com)



[www.lionix-international.com](http://www.lionix-international.com)