



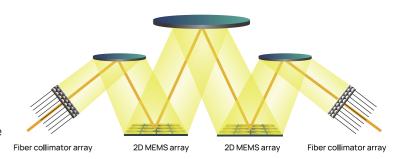
Microlenses are at the heart of optical communication systems. They support efficient data transfer between key optical components. Micro-optics by Focuslight come with multiple benefits:

- Customization of optical and mechanical design features to address systems requirements at the maximum performance
- Wafer-level manufacturing for cost-effective production
- Integration features for reliable and fast handling in production environment, such as recessed lenses, fiducials, v-grooves, prisms and glue pockets



WSS / OCS

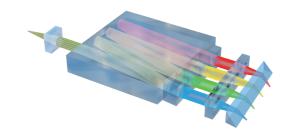
Wavelength selective switches (WSS) are key systems for reconfigurable optical telecom networks space. Optical circuit switches (OCS) enable scalable networks by supporting heterogeneous data-rack generations. Micro-optics are the enabling technology to reduce the size of optical switches and expand their bandwidth by increasing the number of optical channels.



Optical circuit switch

Optical Transceivers

Our products effectively couple light between laser diodes, detectors, and fibers within the optical transceivers. Micro-optics optimize data transmission and enable energy-efficient communication in high-speed networks.



Single lenses and microlens arrays for light coupling in CWDM-based optical sub-assemblies

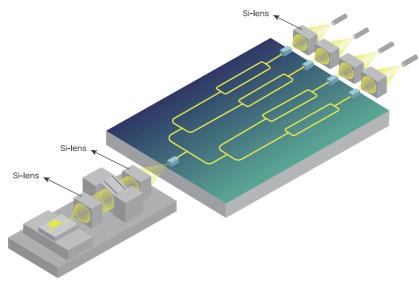
Microlens arrays for fiber collimation and extended beam connectors

Fiber Connectors

Fiber connectors route hardware in telecom and datacom networks and allow seamless and high-quality transmission of information. We design and manufacture microlens arrays to achieve optimal collimation and coupling of light from single and multimode fiber arrays.

Photonic Integrated Circuits

Micro-optics in silicon and InP photonics are key components for 800Gb and 1.6Tb optical transceivers utilized in data centers supporting AI technology. These transceivers rely on precise microlenses and microprisms for low-loss coupling of light between laser diodes, PIC waveguides and optical fibers, enhancing the efficiency of the data transfer.



Efficient laser diode to PIC coupling

Focuslight Solutions for Optical Communication

Microlens Features	Value	
Material	Fused silica, Silicon, Molded glass	
Туре	Aspherical	
Center thickness	0.25 – 3.0mm	
Diameter	0.02 – 1.5mm	
Configuration	Singlets, 1D and 2D Arrays	
Pitch	127, 250, 500, 750 µm and customized	
Coatings	Low loss ARC and metallization	

