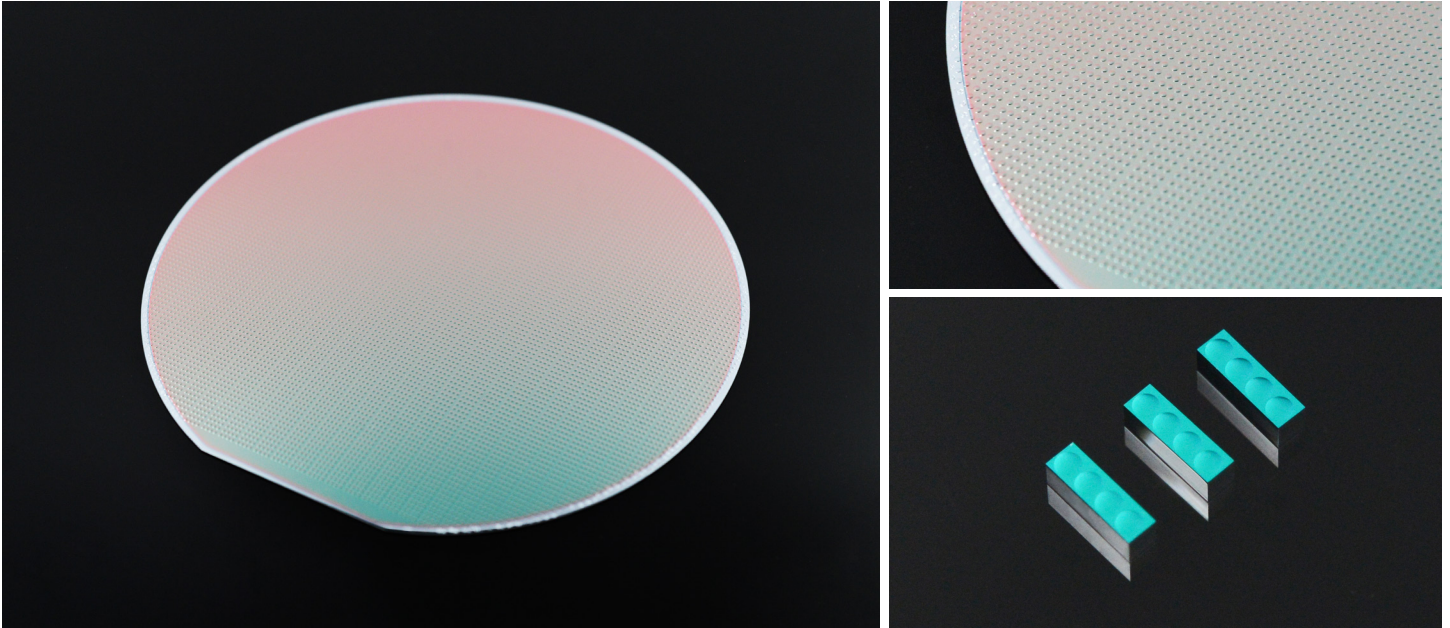


# MICRO LENS ARRAY

A microlens array (MLA) is a one- or two-dimensional array of microlenses. In most cases, the lenslets form a periodic pattern, either square or hexagonal, where the lens pitch is a few hundred micrometers. An MLA is a good option for beam collimation or beam focus. Coherent has many platforms, including nanoimprinting, photolithography, and glass molding, for manufacturing MLAs with customized materials, diameters, and ROC.



## FEATURES

- One- or two-dimensional array
- High uniformity, +/-2% ROC
- Good surface roughness, RMS <5 nm
- Volume production based on 6 inch Si wafer

## APPLICATIONS

- Beam collimation and focus
- Fiber coupling
- Wavefront optimization
- Improved CCD/CMOS sensor efficiency

**Specifications**

Material Specification		Control Device
Material	Silicon	Certificate of material
Reflective index	≈ 3.42	Certificate of material
Transparency	R <0.2% T >99% @ 1260-1340 nm	Spectrometer
Fabrication Specification		
Diameter	600 ±5 μm	Micrometer
Thickness	400 ±10 μm	Micrometer
Pitch	750 ±1 μm	White light interferometer
CA (clear aperture)	>510 nm	White light interferometer
ROC (radius of curvature)	3.0 mm	White light interferometer
Conic	0	White light interferometer
Surface roughness	<5 nm RMS	White light interferometer
Lens surface profile deviation	<35 nm RMS	White light interferometer
Surface quality	Scratch-dig: 5/1x0.025 base on ISO 10110-7	Microscope
Chipping	<100 μm	Microscope
Edge verticality	90 ±2°	Microscope