

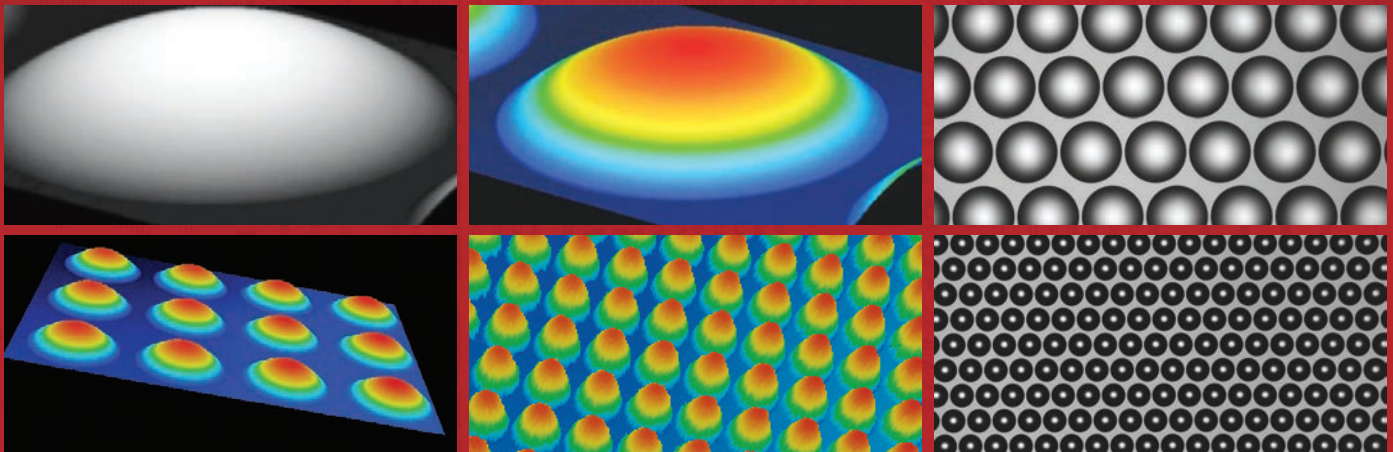
Micro Lens Array & DOE

Micro lens array cover a range of 1 μm to 500 μm lens diameters.

Micro lens array is an interesting alternative for all applications where miniaturization and reduction of alignment and packaging costs are necessary.

Micro lens array is manufactured in Fused Silica using standard semiconductor technologies like photo-lithography, resist processing and ICP Etching. These wafer-based manufacturing technologies allow a very accurate shaping of the lens profile and a precise positioning of the lenses within an array.

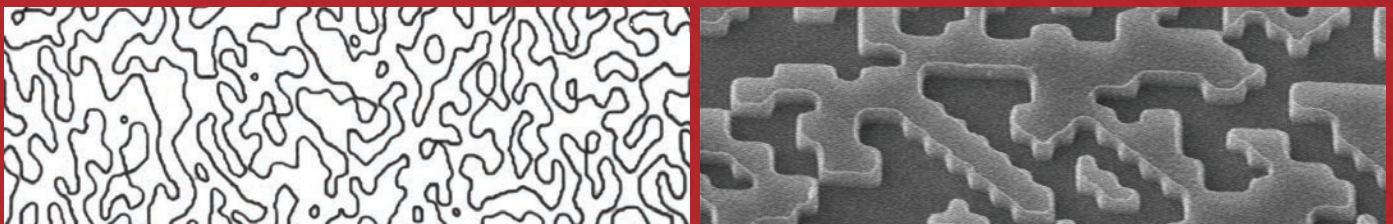
 Circled **MLA**



 Square **MLA**



 **DOE Lens**



 **SEMITECH**

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Excellence

- Direct quartz etching technology
- High performance Fig-PV
- Custom design
- Size up to 200mm circle

Applications

- Fiber coupling and optical switching
- Collimation of lasers diodes
- Imaging systems and sensors
- Illumination
- Biomedical

MLA Specification

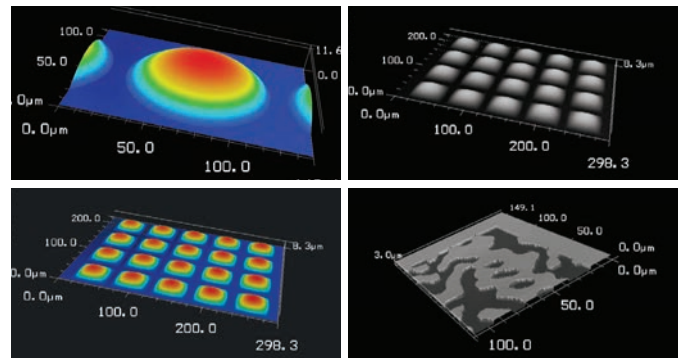
Parameter	Specification	Remark
Material	Quartz (Fused Silica)	
MLA size	200mm circle wafer	
Lens type	Circle, Square Plano-convex	
Lens diameter	1um ~ 500um	
Pitch accuracy	less than 0.5um	within 8inch wafer
Uniformity of ROC	less than 3%	within 8inch wafer
Curvature Fig-PV	less than 0.15um	within 8inch wafer

Circled MLA

Lens Size(um)	ROC(um)	Thickness(um)
500	1574	700
300	1600	700
300	534	700
200	672	700
200	218	700
190	452	700
190	197	700
170	392	700
150	306	700
150	136	700
120	200	700
120	95	700
100	140	700
65	61	700
50	37	700

Square MLA

Lens Size(um)	ROC(um)	Thickness(um)
250	372	700
200	557	700
100	136	700
300	450	700
200	225	700



DOE

- Resolution up to 0.45um



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