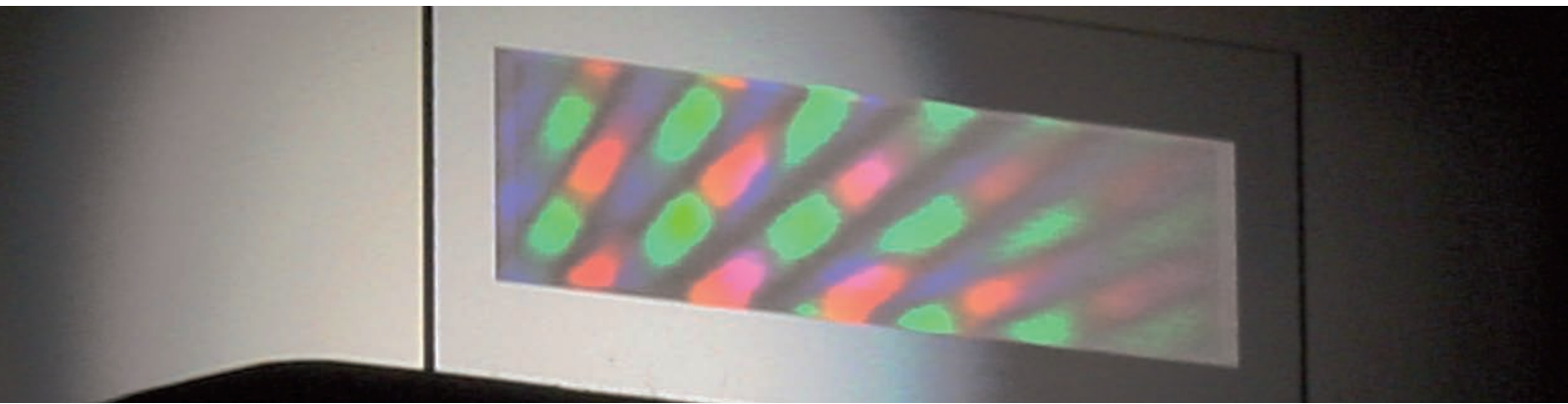




Microlens Arrays for Fill Factor Enhancement



Microlens arrays are used to increase focal plane array optical fill factor by up to three times. These tiny lens systems serve to focus and concentrate the light onto the photodiode surface instead of allowing it to fall on non-photosensitive areas of the pixel device.

Using a microlens array will enhance the sensitivity and dynamic range of the photodiode.

Jenoptik designs custom microlens arrays to increase the fill factor yielding improved performance of the focal plane array.

Features:

- Increases signal to noise ratio
- Increases sensitivity
- For back illumination
- GaP designs available
- Thin lens designs
- Aspheric designs

Applications:

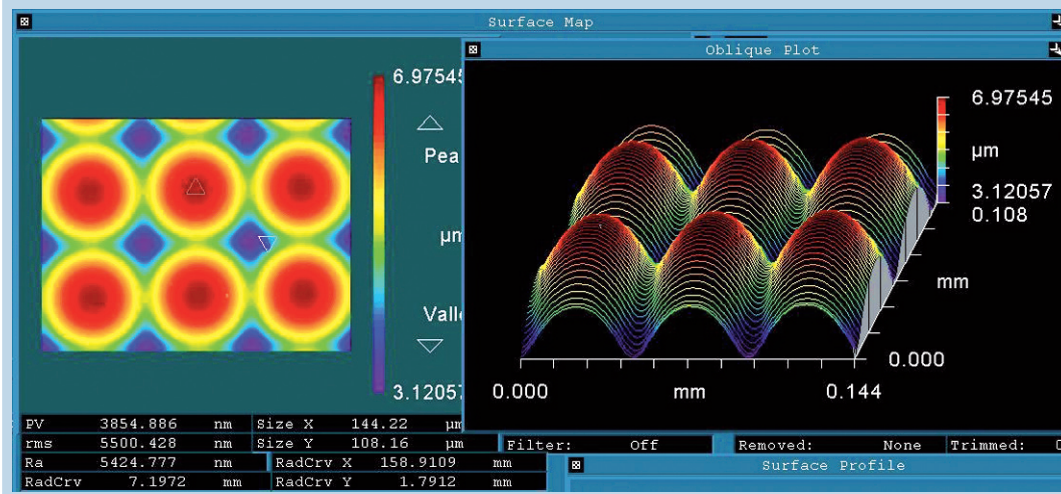
- LCD based projectors
- Backlight homogenizers
- 3D displays
- Compound eyes
- CCD and CMOS arrays
- IR focal plane arrays
- Bolometers

Microlens Arrays for Fill Factor Enhancement

Specifications

| | |
|-------------------|--|
| Lens aperture: | 15 μm to 1000 μm |
| Fill factor: | up to 100 % |
| F-number (F / #): | > 0.65 |
| Materials: | Fused Silica, Si, Ge, ZnS, ZnSe, GaP, GaAs |
| Thickness: | 1 mm to 6 mm |
| AR-Coating: | Laser line or broadband |
| Product number: | 029144 |

Microlens array surface profile



It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.



JENOPTIK | Optical Systems
Microoptics Business Unit
JENOPTIK Laser, Optik, Systeme GmbH
Goeschwitzer Strasse 25 | 07745 Jena | Germany
Phone +49 3641 65-2442 | Fax -2443
microoptics@jenoptik.com | www.jenoptik-los.com

MEMS Optical, Inc.
205 Import Circle | Huntsville | AL 35806 | USA
Phone +1 256 859-1886 | Fax +1 256 859-5890
info@memsoptical.com | www.memsoptical.com

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