

VIAVI

Microlens Arrays

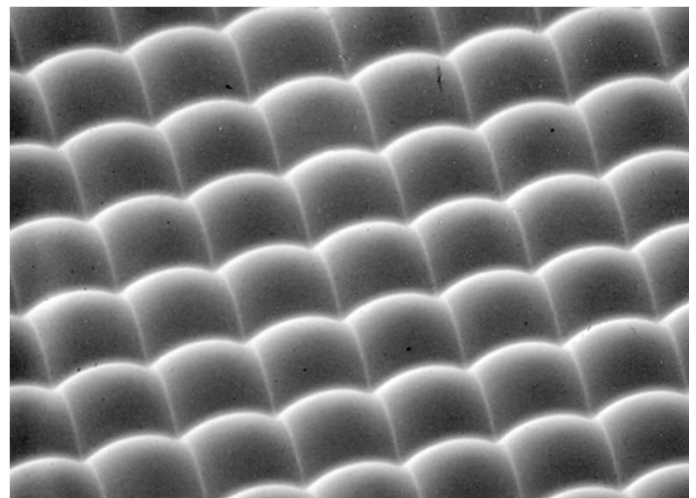
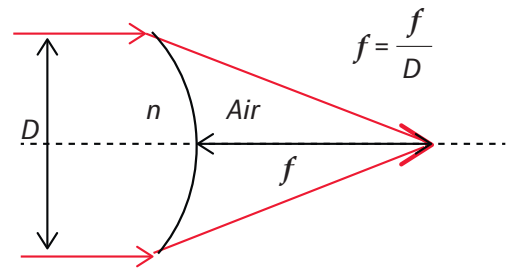
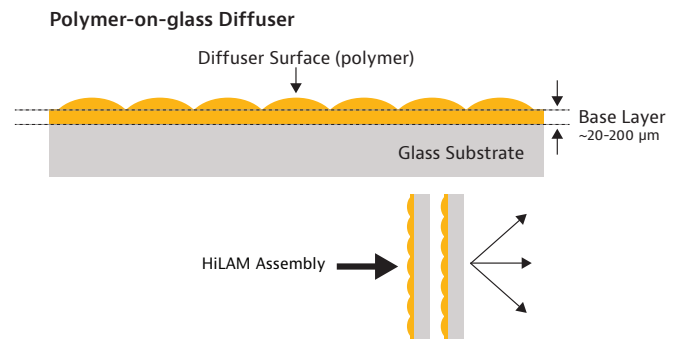
RPC Photonics Microlens Arrays

Physical Properties	
Material	Polymer-on-glass
Index of refraction	1.56 @ 633nm
Maximum size	50.8 x 50.8mm ²
Clear aperture (CA)	Central 90% of part
Nominal fill factor	100%
Transmission spectrum	400-2000 nm
Temperature range	-50°C to 120°C
Damage threshold	> 20J/cm ²

Nomenclature for standard microlens arrays: MLA-GS-fN
G designates geometry: S (square), H (hexagonal), C (circular)
S designates lens size in μm
N designates f/number as defined in the diagram

Technical Notes:

- Standard microlens arrays available in various lens sizes and geometries (see next page).
- For custom microlens arrays design and /or materials, such as Fused Silica and Silicon, please contact us.
- Handling and cleaning:
 - Avoid touching microlens surface
 - To clean just blow dry compressed air
- Operational recommendations are for informational purposes only. Your specific operating conditions may be distinct depending on other system and environmental variables.



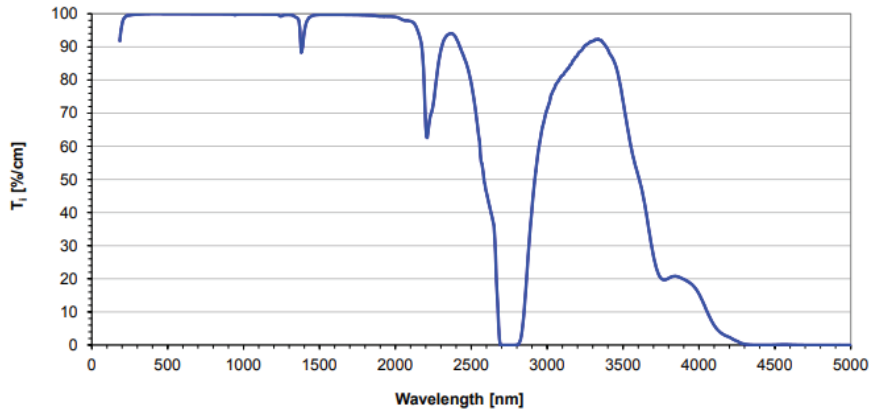
Microlens Arrays Standard Models

Model	Geometry	Lens size (mm)	Fill factor	f/#
MLA-S1000-f5.5	Square	1000 x 1000	100%	5.5
MLA-H1000-f75	Hexagonal	1000	100%	75
MLA-S600-f28	Square	600 x 600	100%	28
MLA-S125-f10	Square	125 x 125	100%	10
MLA-S125-f15	Square	125 x 125	100%	15
MLA-S125-f20	Square	125 x 125	100%	20
MLA-S125-f25	Square	125 x 125	100%	25
MLA-S125-f30	Square	125 x 125	100%	30
MLA-S100-f4	Square	100 x 100	100%	4.2
MLA-S100-f8	Square	100 x 100	100%	7.8
MLA-S100-f10	Square	100 x 100	100%	9.5
MLA-S100-f11	Square	100 x 100	100%	11
MLA-S100-f12	Square	100 x 100	100%	12.5
MLA-S100-f15	Square	100 x 100	100%	15
MLA-S100-f17	Square	100 x 100	100%	17
MLA-S100-f21	Square	100 x 100	100%	21
MLA-S100-f28	Square	100 x 100	100%	28
MLA-S250-f10	Square	250 x 250	100%	10
MLA-S250-f15	Square	250 x 250	100%	15
MLA-S250-f20	Square	250 x 250	100%	20
MLA-S250-f25	Square	250 x 250	100%	25
MLA-S250-f30	Square	250 x 250	100%	30

Notes:

1. Maximum pattern size: 50.8 x 50.8 mm²
2. Standard substrates available at 50.8 x 50.8 mm² or 25.4 mm diameter, 2 mm thick
3. Lens size is defined as the size of the square aperture (square geometry), diameter of circumscribing circle (hexagonal geometry), lens diameter (circular geometry)
4. Handling and cleaning:
 - Avoid touching microlens surface
 - To clean just blow dry compressed air

Transmission Spectrum



- Diffuser angles measured in the far-field @ 633 nm. Input beam size ~5 mm, detector subtense 0.25°. Actual angles may vary depending on wavelength or degree of collimation.
- For best uniformity, input beam should be many times larger than diffuser feature size.
- When used with coherent sources the diffuser produces speckle.
- Handle with gloves by edges and avoid touching diffuser surface. Blow with air/N₂ to clean. The plano side may be cleaned by wiping with an alcohol wipe.
- Edges are “fire polished” quality.
- Information subject to change without notice.

