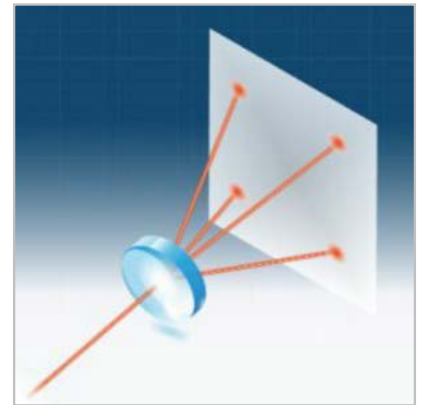


Polymer on Glass Beam Shaping Solutions

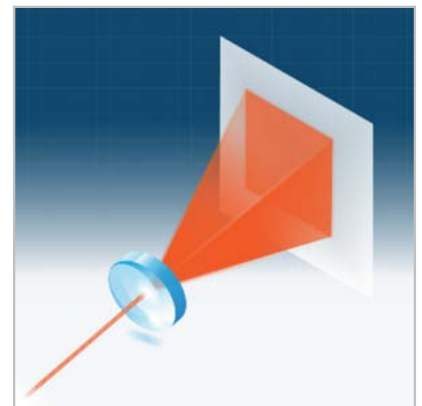
In the past few years, a sharp decline in laser power density prices, allowed for many new laser applications to emerge. Processes and equipment that were once blocked from using lasers due to their high cost entry barriers, are now thriving. Amongst those, the most prominent is the rapidly growing 3D sensing segment including mobile, automobile, metrology, surface inspection and mapping systems, robotics and home appliance applications.

To meet the beam shaping needs of these new and exciting applications, Holo/Or has developed a brand-new line of products, fabricated on Polymer on Glass instead of pure Fused Silica which is offered to the more high-end, high-power applications.



A Unique Cost Effective Solution

Holo/Or's Polymer on Glass (POG) elements are the most accurate beam shaping solutions available for the **low to medium power-range applications**. They are cost effective and can be produced in high-volumes as per customer requirements. POG elements can be either beam splitting dot / line generators, or beam shaping products including homogenizers / diffusers with flat-top distribution, broad band diffusers and micro-lens arrays.



Material Compatibility

- LDT > 10 J/cm² laser pulses at 8 ns, 1064 nm
- Low angle tolerance < 2%
- High transparency between 450 nm to 1080 nm
- High environmental stability -40 to +120 deg C, no yellowing in most common use scenarios
- Reflow soldering compatible at 260 deg C
- Flat, thin and lightweight components
- Cost effective, high volume production capabilities
- Delivery available on wafer, diced or un-diced, and as single parts

Specifications Range

	Beam Splitter Elements (Dot or Line Generator)	Diffuser/Homogenizer Elements	Microlens Array
Output pattern and arrangement	Random spots, Spot array (1xM), Spot matrix (MxN), Multi-line, Grid	Round, Square, Rectangle, Line, Custom	Round lenses in square/ hex/linear grid; Square lenses; Cylindrical lenses
Wavelength	450 – 1080 nm	450 – 1080 nm; Broadband available as well	450 – 1080 nm
Full angle (e ⁻²) @ 850 nm	up to 60x60 degrees	up to 80x80 degrees	SAG 1–15 µm, ROC 0.03 – 10 mm +/-5%
Zero Order	angle dependent, can be optimized for eye-safety	angle dependent, can be optimized for eye-safety	not applicable
Material	Polymer on Glass (BK-7/FS)	Polymer on Glass (BK-7/FS)	Polymer on Glass (BK-7/FS)
Dimensions	2X2 mm to 100X100 mm square, 4", 6" round wafers	2X2 mm to 100X100 mm square, 4", 6" round wafers	2X2 mm to 100X100 mm square, 4", 6" round wafers
Coating	optional AR coating (1 side)	optional AR coating (1 side)	optional AR coating (1 side)

Standard samples are the fastest way to test your concepts and our POG compatibility with your product and processes.

Contact us with your specs or order an off-the-shelf standard sample.