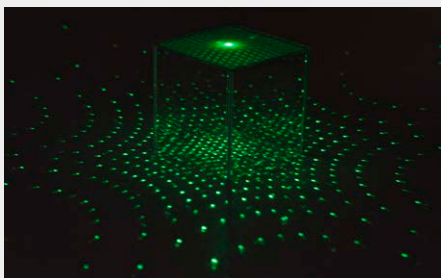


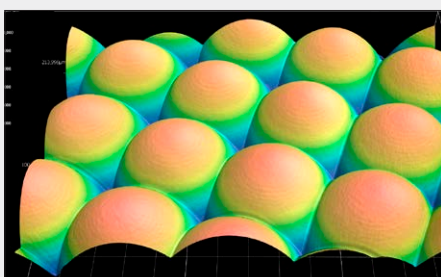
For 3D-sensing applications, MLA-based structured light projectors are used to generate a designed light pattern onto objects. This (usually NIR) light pattern, consisting of up to tens of thousands single dots, is distorted by the 3D geometry of the object. Subsequently, a camera records the distorted light pattern and algorithms calculate depth information about the object. temicon provides MLA-based structured light projectors in a variety of lens geometries and chip designs.



Structured Light Projectors in Gel-Pak® vacuum release packaging



MLA creates point cloud pattern



Laser Scanning Confocal Microscopy (LSCM) image of a rectangular gapless MLA

Advantages

- 10+ years of experience in MLA fabrication
- Highly precise galvanic processing of any lens geometry
- Competent consulting from lens & chip design to volume production
- Highest accuracy down to $\approx 5\mu\text{m}$ lens diameter
- Surface roughness $R_a < 10\text{nm}$
- Production conditions at clean room standard
- Confocal Microscopy and SEM available for Quality Control
- High vertical range of manufacture of all process steps
- High volume wafer-level-optics based production methods
- Fast and flexible throughput time

Technical specifications

Lens Shape	Spherical / Aspherical
Lens Diameter	$5\mu\text{m} < D < 250\mu\text{m}$
Lens Height	$5\mu\text{m} < h < 70\mu\text{m}$
Lens Layout	Square / Hexagonal / Random
Fill Factor	Up to 100%
Materials	Polymer on Glass, PMMA