DOE - Laser Pattern Generators

Holoeye provides customized pattern generators (like dot matrix, multi line patterns...) for laser based industrial machine vision / 3D measurement.

Capabilities

- Geometrical correction and generation of straight lines
- Distribution of noise
- Definition of region of interest
- Use of different design and modelling software
- Structured field size typically a few mm in diagonal, covering the beam profile of a collimated laser beam
- Up to 140 mm O field size for expanded laser sources
- Different materials: fused silica, structured acrylate layer on glass substrate, Polycarbonate, PMMA, COC and COP for injection molding
- Optional AR coating or moth-eye structures on back side of component
- Scratch protection

Performance Example Solid Line Pattern

DE-R 283: Optimized to show no distinct zero order spot for wave-length range 630-670 nm
Description: Solid Line - 20 diffraction angle
Material: Polymethyl Methacrylate (PMMA), Ø 8 mm

Fast track prototyping and high volume replication

CDA and HOLOEYE have developed dedicated processing chains for polymer DOE’s. We offer very short development cycles for first-iteration prototypes. In addition, we offer high-volume production after completion of the full development process, which may involve several design, tooling and process optimization iterations.