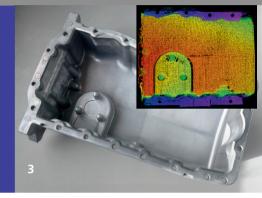


#### FRAUNHOFER INSTITUTE FOR APPLIED OPTICS AND PRECISION ENGINEERING IOF







- 1 Array projection unit.
- 2 Sensor head.
- 3 Measurement example cast part.

# HIGH- SPEED 3D-MEASUREMENT WITH LED-BASED MULTI-APERTURE FRINGE PROJECTION

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#### Measurement principle

- LED-based multi-aperture fringe projection and stereoscopic image acquisition
- High-speed pattern projection due to LED switching time in µs range

### Features

- Robust measurement system due to monolithic setup of the projection system
- Application dependent different kinds of pattern projection possible
- Application dependent size increase/ decrease of multiaperture projection system possible, combined with adjustment of luminous power

#### Our Offer

- Realization of custom-specific high-speed
   3D measurement systems
- High-speed pattern projection due to LED In-line 3D measurement techniques
  - Process integration
  - Execution of 3D measurement tasks, also in high dynamic situations

#### **System Parameters**

- Projector size: 105 x 80 x 45 mm<sup>3</sup>

- Power consumption < 100 W

- Measurement field: 300 x 300 mm<sup>2</sup>

- Measurement distance: currently 1000 mm (other on request)

Pattern refresh rate: up to 3 kHz3D frame rate: up to 500 Hz