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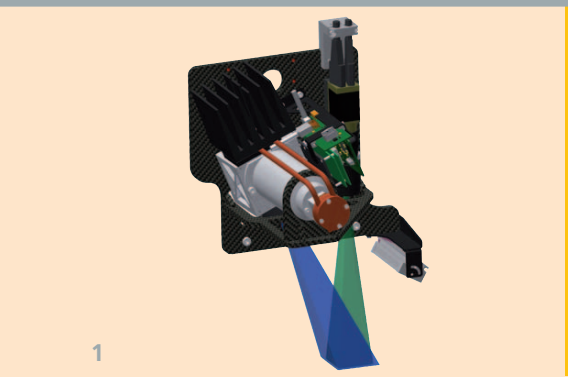
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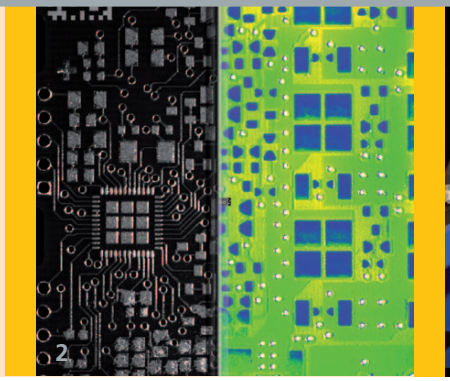
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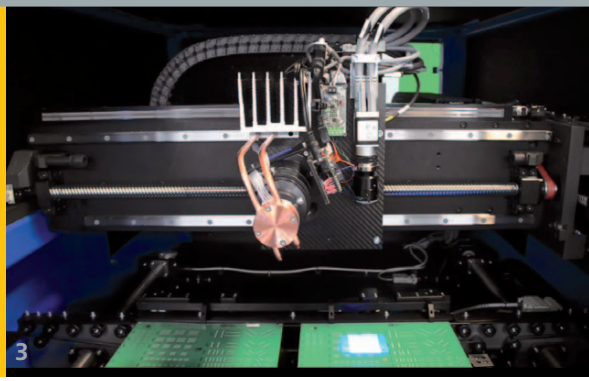
3

1 *Schematic diagram of the measurement principle.*
2 *Image of circuit board / measurement values (heights color-coded).*
3 *Sensor in an automated inspection system.*

IN-LINE 3D MEASUREMENT

Fraunhofer Institute for Applied Optics and Precision Engineering IOF

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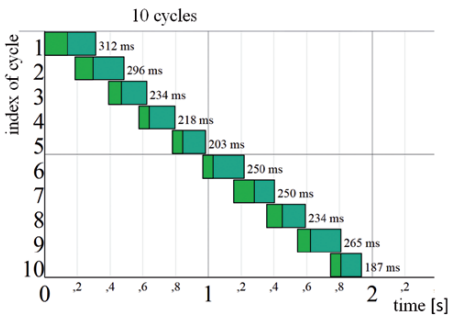
Measurement Principle

- Non-contact optical 3D metrology
- Simultaneous fringe projection and image acquisition
- Time-optimized computation of phase values and 3D coordinates using known system geometry parameters
- Parallelized 3D algorithms to utilize multi processor systems



Permanent measurement cycle
Duty cycle: 0.18 s
Measurement speed: 80 cm²/s
22.2 Mio. pixel/s

Our Offer

- In-line inspection of industrial products with high precision
- Measurement systems for application at assembly-line
- Continuous measurement of large objects with short duty cycle
- Preparation of measurement with respect to the specifications for effective evaluation and processing
- Implementation of sensors in automated inspection systems
- Possibility of remote diagnostic and automated recalibration

System Parameters

Measurement point pitch: 20 / 15 / 10 µm
Camera: 4 Mio. pixel
Single measurement field: 40 mm x 40 mm / 30 mm x 30 mm / 20 mm x 20 mm
Measurement uncertainty: 5 µm ... 10 µm