

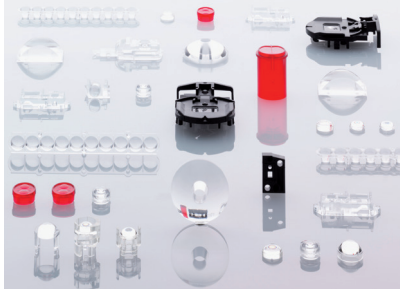
MORE LIGHT

## Optoelectronic modules

From concept through mass production – we are your partner.

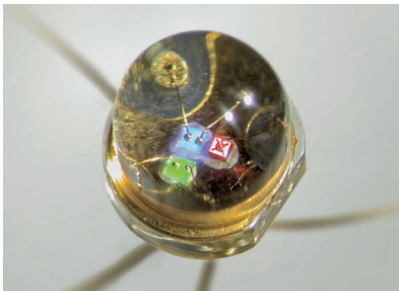
We offer the complete development of components and complex optoelectronic and opto-mechanical modules. Innovative assembly processes guarantee cost effective development and production of your products. Our supply chain management enables worldwide supply as well as quick response to your needs.

## Optoelectronic modules



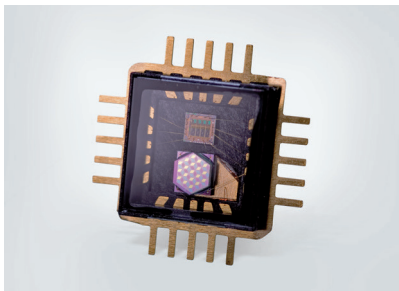
### From components to modules, we are your supplier for:

- Optical, mechanical and system design
- Prototypes
- Tool construction and production of customer specific injection molds
- Injection molding
- Micro injection molding
- 2-component injection molding
- Coating of optical components



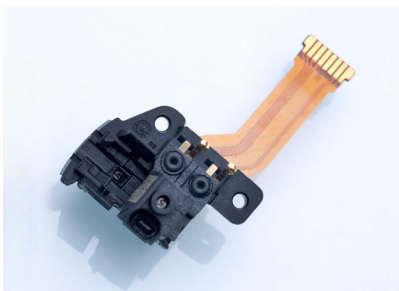
### From chip design to LED modules

- Customer specific chip layout
- LED chips in the spectral range 360 nm - 1750 nm
- High-speed chips, High-power chips, Point source chips, monolithic display chips
- Photodiodes with sensitivity 150 nm - 2600 nm
- Excellent signal-to-noise-ratio
- LED and photodiode modules for standard and custom designs
- Flexible production of small to medium production runs



### From board to optical packaging

- Assembly of optoelectronic modules
- Wafer dicing
- Chip bonding
- Wire bonding (Gold and Aluminium)
- Filter assembly
- Potting
- COB, SMT, Flipchip and optical packaging
- Cleanroom class 100



### Mass production of optoelectronic modules

- Fully and partially automated assembly processes
- Manual assembly
- Laser joining and laser welding
- Ultrasonic welding, bonding technologies
- Micro and compensation assembly
- Cleanroom class 100,000 and 10,000
- Traceability
- Quality management and assurance according to FDA recommendation

### Certification according to DIN EN ISO 9001, ISO 13485, ISO 14001, IATF 16949

It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.