

ASSEMBLY OF COMPLEX OPTOELECTRONIC MODULES

INTEGRATED OPTICAL COMPONENTS WITH SMART ELECTRONIC SYSTEMS

The technical combination of optics with microelectronics and advanced processing & production methods leads to new integrated microoptics.

With over 25 years of experience in the field of optoelectronics and a network of highly experienced partners, AEMtec offers comprehensive expertise along the entire value chain. From the design of optical components and systems all the way to microsystem integration.

ELECTRONICS

- State of the art and cutting edge assembly techniques
- Advanced packaging (Wafer Back-End, Flip Chip, COB, SMD)
- High precision placement <math><1\mu</math>
- In-house test engineering department
- Epoxy application by jetting, dispensing, stamping and dipping
- Customized BurnIn solutions

OPTICS

- Active automated alignment of optoelectronic modules
- Development & maintenance of customized tools
- Assembly of precision optics in complex mechanical modules
- Assembly in clean room class down to ISO-5 (class 100)

MECHANICS

- Mechanical assembly with high standards regarding planarity and parallelism
- Precise mechanical alignment (submicron accuracy)
- Tolerance compensating gluing with defined layer thicknesses
- In-house CAD design of mechanics
- Incoming inspection of material with high accuracy, automated 3D measurement system

CERTIFICATIONS

ISO
9001

ISO
13485

ISO
14001

HIGH PERFORMANCE OPTOELECTRONIC COMPONENTS



SERVICES

Packaging Technology • Life Time Testing • Thermal-Mechanical Simulation (Finite Element Method FEM) • Industrialization

TECHNOLOGIES

64x64 VCSELS • Lens array to focus the beams glued with UV-glue
• Glass substrate with 2 alignment marks at each VCSEL position • VCSEL dimensions 0.2x0.2x0.15mm³

VOLUME SUPPLY

Worldwide delivers • All common logistic models • Complete Supply Chain Management



SERVICES

Feasibility study • Layout and design • Prototyping • Life Time Testing
• Thermal-Mechanical Simulation (Finite Element Method FEM) • Industrialization

TECHNOLOGIES

60 x 60 x 5 mm³ / 60 g • All ICs mounted as Flip Chips • 28 x 28 mm MEMS mirror array • 29 layer ceramic substrate

VOLUME SUPPLY

Worldwide delivers • All common logistic models • Complete Supply Chain Management



AEMtec GmbH
James-Franck- Str. 10
12489 Berlin
Germany

Phone: +49 30 6392 7300
Fax: +49 30 6392 7302
Email: info@AEMtec.com
Web: www.AEMtec.com
FOM_v01.03/09-23



TO OUR FOLDERS

