

ASSEMBLY OF COMPLEX OPTOELECTRONIC MODULES

INTEGRATED OPTICAL COMPONENTS WITH SMART ELECTRONIC SYSTEMS

The combination of opto and microelectronics and advanced processing & production methods leads to new integrated micro-optics.

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 micro-system integration.

ELECTRONICS

- State of the art and cutting edge assembly techniques
- Advanced packaging (Flip Chip, COB, SMD)
- High precision placement <math><1\mu</math>
- In-house test engineering department
- Epoxy application by jetting, dispensing, stamping and dipping
- Full automated wafer dicing capability 200mm/300mm
- Customized BurnIn solutions

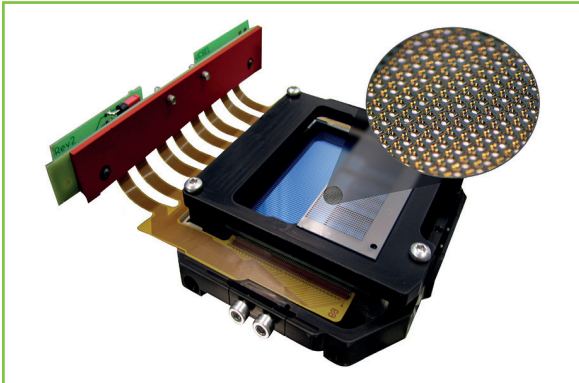
OPTICS

- Active automated alignment of opto-electronic 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 (sub-micron 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

High performance optoelectronic components



SERVICES

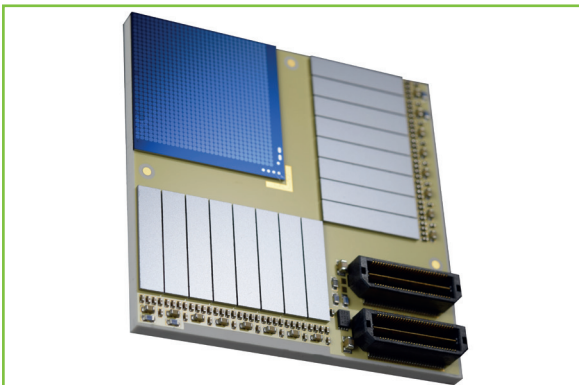
Package Technology • Life Time Testing • Thermal-Mechanical Simulation (Finite Element Method FEM) • Industrialization

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

60x60x5 mm³ / 60 g • All ICs mounted as Flip Chips • 28 x 28 mm MEMS mirror array • 29 layer ceramic substrate

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