FINEPLACER® lambda
Flexible Sub- micron Die Bonder

The FINEPLACER® lambda is a flexible sub-micron bonder used for precise placement, die attach and advanced packaging. The system offers outstanding flexibility with a modular design and can be easily reconfigured for different applications.

The system offers outstanding flexibility with a modular design and can be easily reconfigured for different applications. It is the ideal choice for low volume production, prototyping, education and R&D where process flexibility is the key.

This cost-effective die bonder handles a wide range of sophisticated processes, including Indium bonding as well as extremely sensitive materials such as GaAs or GaP.

Highlights

- Sub-micron placement accuracy
- Unique optical resolution
- Handles ultra small components
- Special tools allow object sizes down to 5 µm*
- Supported substrate size up to 6”*
- Closed loop force control*
- Small footprint and compact design
- Optics movement with programmable positions

* depending on configuration and application
### Features
- Automated processes
- Overlay vision alignment system (VAS) with fixed beam splitter
- Robust construction and modular design
- Integrated Process Management (IPM)
- Real time process observation camera
- Adaptive process library
- Process transfer from system to system
- Virtually unlimited range of advanced bonding technologies

### Benefits
- Hands-off die placement, user independent process operation
- Outstanding placement accuracy and instant operation without adjustments
- Provides high level of reproducibility and application flexibility
- Synchronized control of all process related parameters: force, temperature, time, flow, power, process environment, light and vision
- Immediate visual feedback reduces process development time
- Fast and easy process development
- Process transfer from R&D to production saves time, guarantees reliable results
- ROI savings - one machine for all applications

### Technologies
- Thermocompression
- Thermosonic
- Ultrasonic
- Soldering (AuSn, C4, Indium, eutectic)
- Adhesive technologies
- Curing (UV, thermal)
- Mechanical assembly

### Applications
- Laser diode, laser bar bonding
- VCSEL, photo diode assembly
- LED bonding
- Micro optics assembly
- MEMS packaging
- Sensor packaging
- 3D packaging
- Wafer level packaging (W2W, C2W)
- Chip on glass, chip on flex
- Flip chip (face down)
- Precise die bonding (face up)

### Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement accuracy</td>
<td>± 0.5 µm</td>
</tr>
<tr>
<td>Field of view (min)</td>
<td>0.4 mm x 0.3 mm</td>
</tr>
<tr>
<td>Field of view (max)</td>
<td>6 mm x 4.5 mm</td>
</tr>
<tr>
<td>Component size (min)</td>
<td>0.1 mm x 0.1 mm</td>
</tr>
<tr>
<td>Component size (max)</td>
<td>15 mm x 15 mm</td>
</tr>
<tr>
<td>Theta fine travel</td>
<td>± 5°</td>
</tr>
<tr>
<td>Z- travel</td>
<td>10 mm</td>
</tr>
<tr>
<td>Working area (1)</td>
<td>190 mm x 52 mm</td>
</tr>
<tr>
<td>Bonding force range (2)</td>
<td>0.1 N - 400 N</td>
</tr>
<tr>
<td>Heating temperature (max)</td>
<td>400 °C</td>
</tr>
</tbody>
</table>

### Modules & Options
- Bonding Force Module (manual)
- Bonding Force Module (automatic)
- Chip Heating Module
- Die Flip Module
- Die Pick-up Module
- Dispenser Module
- Formic Acid Module
- Optics Shifting
- Process Gas Module
- Process Video Module
- Substrate Heating Module
- Ultrasonic Module
- UV Curing Module

---

Finetech GmbH & Co. KG | Wolfener Str. 32/34, Haus L | 12681 Berlin, Germany | Phone: +49 (30) 936681-0 | Fax: +49 (30) 936681-144 | Web: www.finetech.de

* depending on configuration/application, (1) standard value, other values on request, (2) optional modules
Technical information are subject to change without prior notice.