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. 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. Automated process modules are available.

**HIGHLIGHTS**

- Placement accuracy 0.5 µm
- Component sizes down to 0.07 mm*
- 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
**FEATURES**

1. Automated processes
2. Overlay vision alignment system (VAS) with fixed beam splitter
3. Robust construction and modular design
4. Integrated Process Management (IPM)
5. Real-time process observation camera
6. Adaptive process library
7. Process transfer from system to system
8. Virtually unlimited range of advanced bonding technologies

**BENEFITS**

1. Hands-off die placement, user independent process operation
2. Outstanding placement accuracy and instant operation without adjustments
3. Provides high level of reproducibility and application flexibility
4. Synchronized control of all process related parameters: force, temperature, time, power, process environment, light and vision
5. Immediate visual feedback reduces process development time
6. Fast and easy process development
7. Process transfer from R&D to production saves time, guarantees reliable results
8. 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/MOEMS 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 (min)</td>
<td>0.5 µm</td>
</tr>
<tr>
<td>Field of view (min)</td>
<td>0.4 mm x 0.3 mm</td>
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<tr>
<td>Field of view (max)</td>
<td>6 mm x 4.5 mm</td>
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<tr>
<td>Component size (min)</td>
<td>0.15 mm x 0.15 mm</td>
</tr>
<tr>
<td>Component size (max)</td>
<td>15 mm x 15 mm</td>
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<tr>
<td>Working area</td>
<td>190 mm x 52 mm</td>
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<tr>
<td>Bonding force (max)*</td>
<td>400 N</td>
</tr>
<tr>
<td>Heating temperature (max)*</td>
<td>450°C</td>
</tr>
<tr>
<td>Theta fine travel</td>
<td>± 5°</td>
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<tr>
<td>Z- travel</td>
<td>10 mm</td>
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</tbody>
</table>

* depending on configuration
1 standard value, other values on request

**OPTIONAL MODULES**

- Bonding Force Module
- Chip Heating Module
- Die Flip Module
- Die Pick-up Module
- Dispenser Support
- Formic Acid Module
- Optics Shifting
- Process Gas Module
- Process Video Module
- Substrate Heating Module
- Ultrasonic Module
- UV Curing Module

**Notes:**