LC-2Q252

High-Speed, High-Precision CO2 Laser Drilling Machine
for HDI/BGA Package PCBs

The global standard in laser drilling machines
Greater improvements to total productivity through reduction of non-processing time
LC-2Q252 High-Speed, High-Precision CO2 Laser Drilling Machine for HDI/BGA Package PCBs

**Improved productivity through the pursuit of better stability and reduction of non-processing time**

- **Solving HDI PCB small diameter and high precision needs using package processing technologies**
  
  Equipped with a high rigidity machine structure and a variety of correction systems to provide the strict precision required for miniaturization and higher density. Also incorporates a variety of proprietary heat countermeasures to achieve more stable drilling precision.

- **New technologies which contribute to increased productivity**
  
  Introduction of a new laser pulse control method allows for a reduction in the number of shots to achieve both increased productivity and higher quality processing. The development of a new type of power sensor has also made it possible to greatly reduce measurement time (an 80% reduction compared to our previous model), and a new application has made it possible to reduce preparation time by 50%. These reductions in non-processing time contribute to the improvement of total productivity.

  ![Diagram of installation floor plan](image)

- **The industry’s top class processing speed**
  
  Processing speed has been dramatically improved (a 125% improvement compared to our previous model) by installing our new, in-house designed high-speed galvano scanners in addition to a proprietary XY table and galvano synchronization.

**LC-2Q252/Major specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Max. drilling area</td>
<td>635 x 813mm 2 panels</td>
</tr>
<tr>
<td>XY positioning speed</td>
<td>50m/min</td>
</tr>
<tr>
<td>Number of beams</td>
<td>2</td>
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<tr>
<td>Laser output</td>
<td>500W</td>
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<tr>
<td>Galvano scan area</td>
<td>¥70mm (OP ¥30mm, ¥50mm)</td>
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<tr>
<td>Drilling accuracy</td>
<td>±0.010mm</td>
</tr>
<tr>
<td>CNC</td>
<td>MARK-55L</td>
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</tbody>
</table>

**3 layer processing**

- Front top view
- Front bottom view
- Cross section
- Back top view
- Back bottom view
- Direct drilling of unprocessed Cu
- Top view
- Bottom view
- Cross section

**Hole diameter 35μm**

**Installation floor plan**

- A: Loader
- B: Unloader
- C: Blower motor
- D: Vacuum unit
- E: Cooling unit
- F: Air dryer
- G: Laser power supply

*This space can be eliminated for 2nd and later machines*