4523 Wedge Bonder

The Model 4523 Wedge Bonder, designed for Aluminum wire, Gold wire and Ribbon.

It is versatile enough to bond simple discrete devices up to complex hybrid, microwave and deep cavity devices.

The 4523 offers control of individual bond parameters, loop height and force, along with the capability of using a wide range of wire dia.

4523 Benefits

- One bonding head for deep access & standard bonding
- Consistent tail length with real-time fine adjust
- Large bonding area
- Easy operation (semi-auto, manual)
- Hybrid/MCM, Chip On Board, Microwave and Discrete devices

The new bonding head with the deep access option and tail adjust system, makes it ideal for deep cavity microwave applications where tight control over the tail length is required.

4523 Wedge Bonder is designed for the following applications: Hybrid/MCM, Chip On Board, Microwave and Discrete devices

Technical Specifications

Wire

<table>
<thead>
<tr>
<th>Diameter range</th>
<th>Gold (0.5 to 3 mil)</th>
<th>Aluminum (.8 to 3 mil)</th>
<th>Gold ribbon (1 x 10 mil)</th>
<th>Spool option</th>
<th>4523 Manual Wedge Bonder</th>
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</thead>
<tbody>
<tr>
<td>Gold</td>
<td>12.7 to 76 µm</td>
<td>20 to 76 µm</td>
<td>option up to 25 x 250 µm</td>
<td>12.7 mm (0.5 inch)</td>
<td>50.8 mm (2 inch)</td>
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Machine Specifications

- Bonding area: 134 x 134 mm (5.3 x 5.3 inch)
- Throat depth: 143 mm (5.6 inch)
- Gross table motion: 140 mm (5.5 inch)
- Fine table motion: 14 mm (0.55 inch)
- Mouse ratio: 6:1
- "Z" motion system: DC servo/LVDT control
- "Z" travel: Low reset 6.6 mm (260 mil)
- "Z" travel: High reset 12.7 mm (500 mil)
- Ultrasonic system: high Q 60 kHz transducer PLL ultrasonic generator
- Low ultrasonic power: 1.3 W
- High ultrasonic power: 2.5 W
- Bond time: 10-100 mSec/10-1000 mSec
- Bond force: force coil 10-160 gr.
- Wire termination: clamp tear
- Wire feed angle: 30/45° option 90°
- Modes of operation: Semi-Auto, Manual "Z", Stitch
- Temperature controller: up to 250° ± 0.5°C
Options
• Microscopes and eyepieces
• Fiber optic illumination and spotlight
• 90° wire feed angle kit for deep access
• Manual adjustable height, heated workholders
• Spot light target
• Motorized index workholders
• 3rd channel kit
• Mini-heater kit
• Height adjustable rotary table
• Positioning control kit (left hand chessman)
• ESD protection kit

Electrical Requirements
100-120/220-240 V + 10% 50/60 Hz 250 VA max.

Physical Dimensions
680 mm (27") W x 700 mm (27.5") D x 530 mm (21") H

Weight (basic machine)
Shipping 55kg (122 lb.)
Net 31 kg (69 lb.)

Industry Standards
Complies with UL and CE standards

Other specifications required by customer are possible. Specifications are subject to change without prior notice.

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