

4524

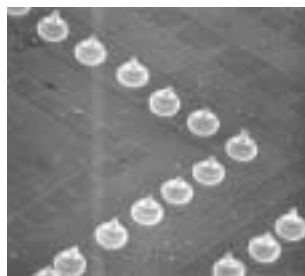
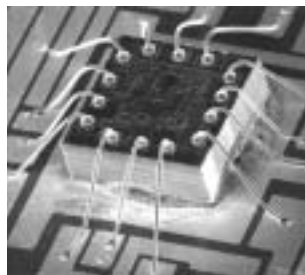
Manual Ball Bonder



Offering versatile production capabilities with the industry's best value, K&S' Model 4524 Manual Ball Bonder supports a variety of wire bonding applications including Hybrid/MCMs, Opto-Type, Microwave, Chip-On Board, Laser and Discrete devices.

Ball Bonder Offers Reliability and Precision In Variety of Applications

Ideal for use in process development, production, research or as added manufacturing support, the Model 4524 Ball Bonder for gold wire offers versatile production capabilities for bonding applications from simple discrete devices up to complex hybrid, microwave devices. Offering operator control over looping and wire length, the bonder provides excellent results in tight spaces or for unusual loop requirements. A built-in programmable Negative Electronic Flame-Off system provides ball size fine control and consistency. The Model 4524 also allows for separate adjustment of wire parameters, with individual channels for 1st and 2nd bonds. With its capacity for a wide range of wire diameters, individual bond parameters and semi-auto and manual operational modes, the Model 4524 supports a variety of applications including Hybrid/MCM, Opto-devices, Microwave and Discrete devices.



- Large 6" x 6" (152 mm x 152 mm) bonding area
- One bond head for deep access & standard bonding
- Missing ball detector system
- Consistent ball size
- Wide range of work stage options
- Digital logic controls all machine functions, including ball size and tail length
- Olympus or Leica microscope for precise viewing
- Complies with UL and CE standards

Machine Specifications

XY TABLE

Bonding Area
152 mm x 152 mm (6" x 6")

Throat Depth
143 mm (5.6")

Gross Table Motion
140 mm (5.5")

Fine Table Motion
14 mm (0.55")

Mouse Ratio
6:1

Z Motion System
DC servo/LVDT control

Z Travel: Low Reset
9.1 mm (360 mil)

Z Travel: Deep Access Option
12.7 mm (500 mil)

Ultrasonic System
High Q 60 kHz transducer,
PLL Ultrasonic Generator
Separate 1st and 2nd
Bond Controls

PARAMETERS

Low Ultrasonic Power
1.3 W

High Ultrasonic Power
2.5 W

Bond Time
10-100 mSec/10 - 1000 mSec

Bond Force (no springs used)
Force Coil 10 – 160 grams
Counterweight to 50 grams
Separate 1st and 2nd
Bond Controls

Wire Termination
Clamp Tear

Ball Formation System
Negative E.F.O.
High-End Digital System

Missing Ball System
Indication and auto-stop for
'Open' and 'Short' Error

Temperature Controller
250°C ± 5°C maximum

PROCESS CAPABILITY

Wire Diameter Range
Gold: 18 to 76 um (0.7 to 3 mil)
Spool: 2" x 1" double flange

FACILITY REQUIREMENTS

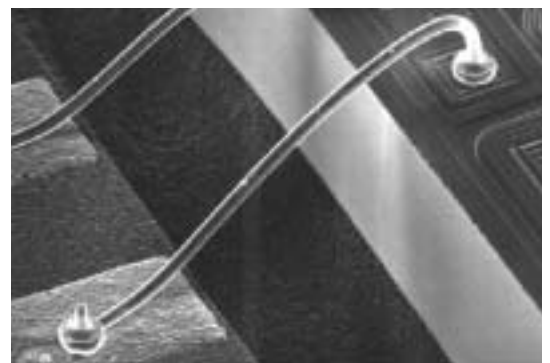
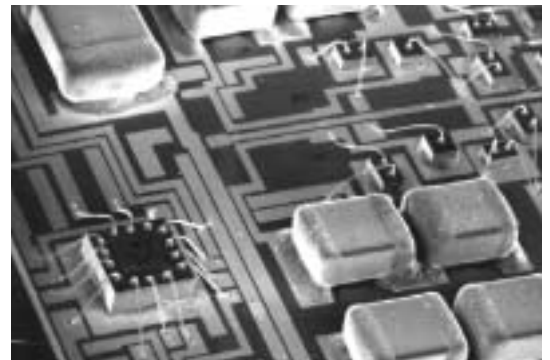
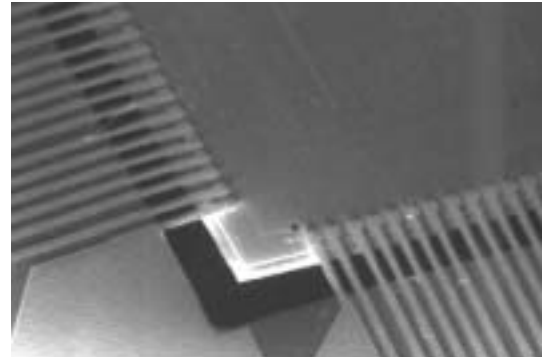
Electrical
100 – 120/220 – 240V + 10%
50/60 Hz 250 VA max.

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

Weight (basic model)
Shipping: 55 kg (122 lb)
Net: 31 kg (69 lb)

OPTIONS

- Leica and Olympus Microscopes and eyepieces
- LED ring illumination
- Spotlight target
- Deep access kit for 500 mil (12.5 mm) "Z" travel
- Manual adjustable height, heated workholders up to 6" x 6" and 4" or 6" wafer type
- Mini heater kit for heated capillary or thermocompression bonding
- Left or right mouse (no charge option)
- ESD protection kit for static sensitive work
- CCTV color monitor kit
- Electronic crosshair kit



For sales, service and
manufacturing locations, visit:

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