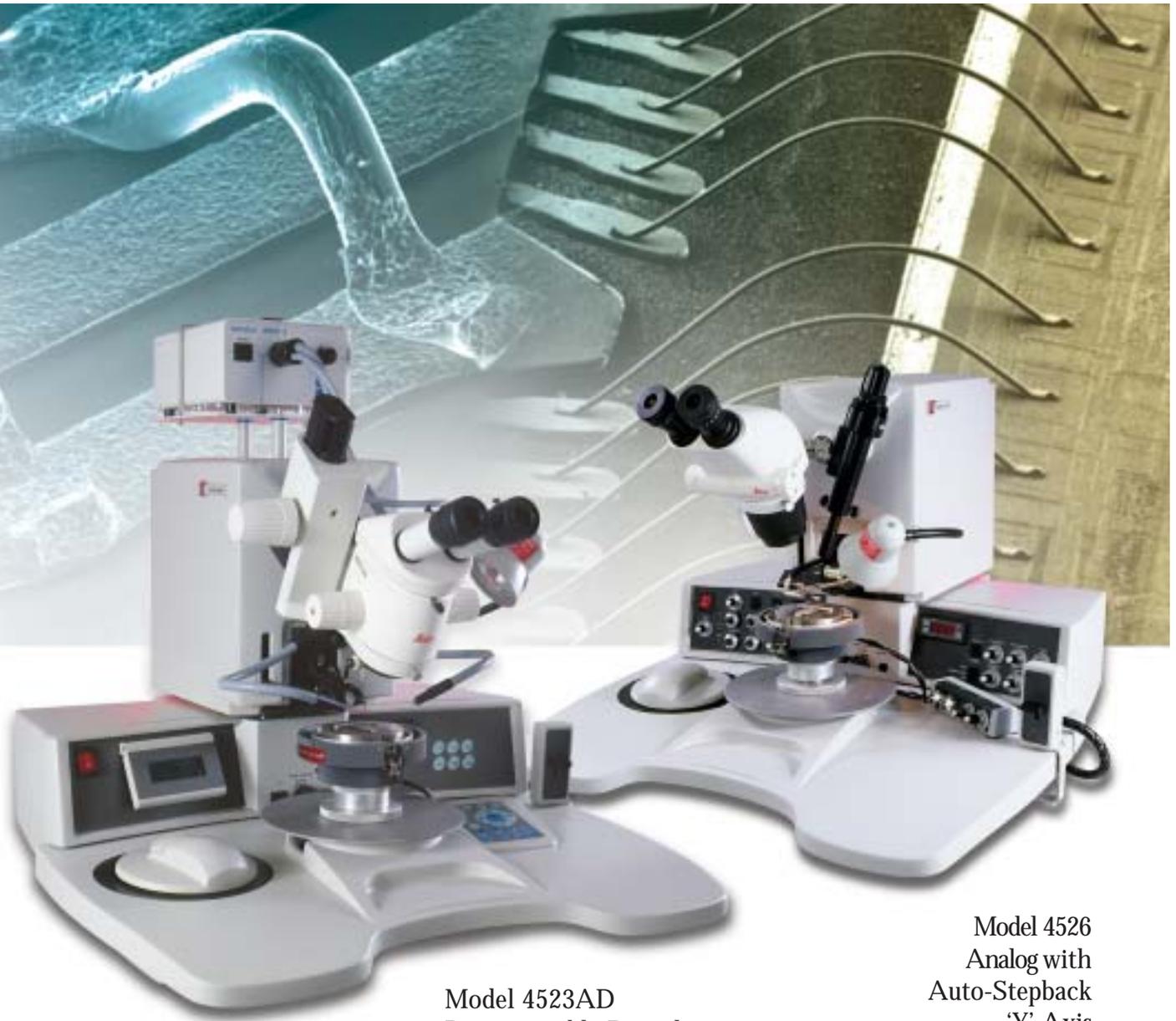


4500 Series Wedge Bonders

Digital / Analog Systems



Model 4523AD
Programmable Digital
with Auto-Stepback 'Y' Axis

Model 4526
Analog with
Auto-Stepback
'Y' Axis

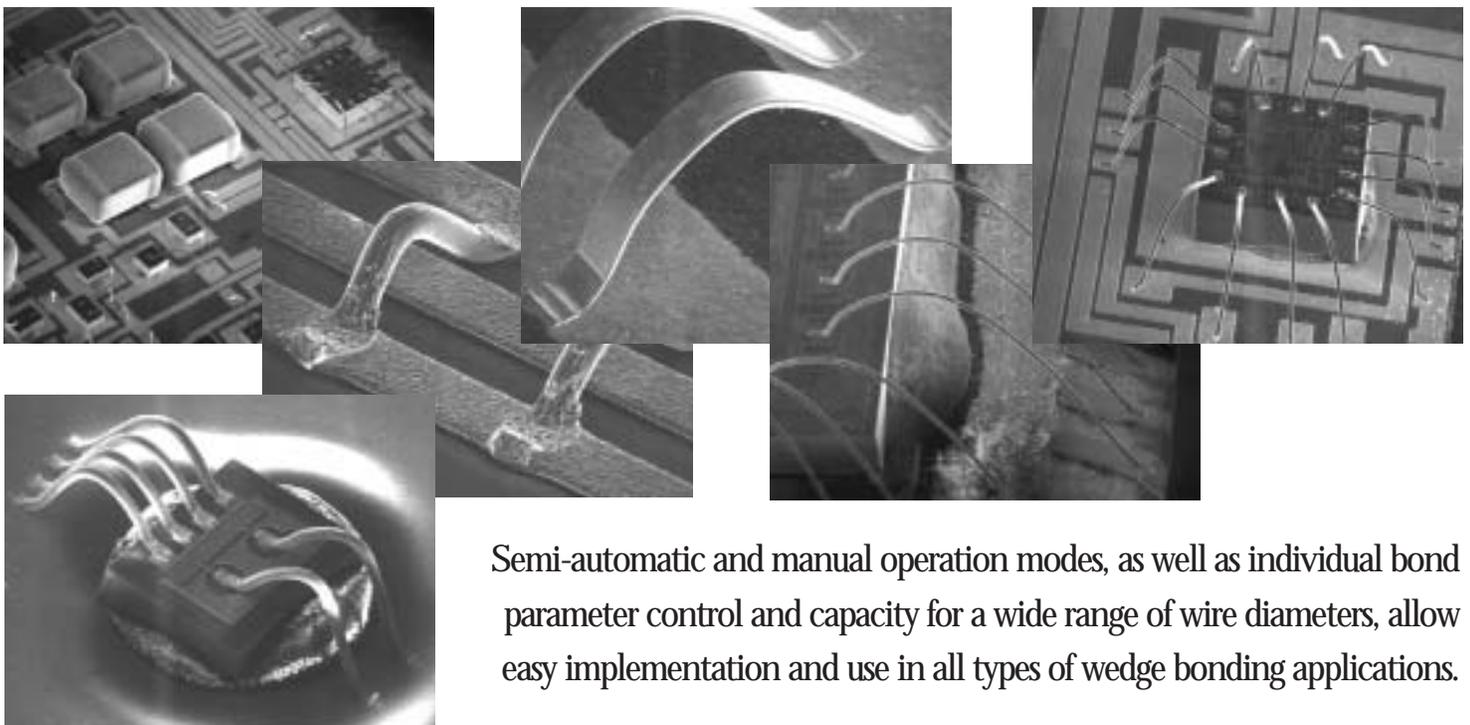
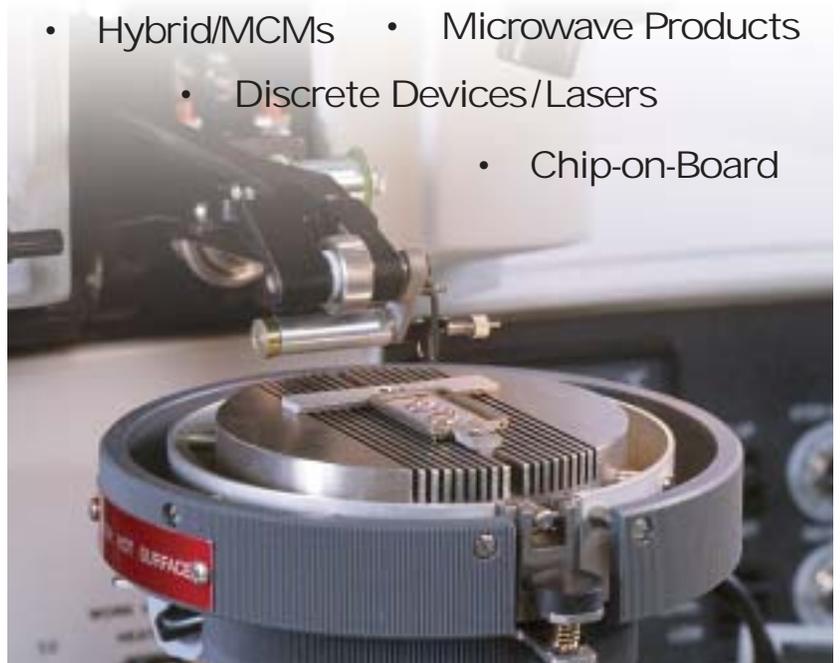
The precision and reliability of full automation.

4500 Series Features

- Designed for aluminum wire, gold wire and ribbon
- Large 5.3" x 5.3" bonding area
- Consistent tail length with fine adjustment on operator panel
- Deep access capability (optional)
- Z axis DC servo motion with closed-loop control
- Phase Locked Loop (PLL) ultrasonic generator and high-Q transducer
- Built-in temperature controller
- Leica™ microscope and spotlight targeting options available
- Ergonomic design with choice of left or right-hand mouse options

For process development, production, research or added manufacturing support, the versatile 4500 Series Manual Wedge Bonding Systems provide the high yield and excellent repeatability needed for every wedge bonding application, including:

- Optoelectronic Modules
- Hybrid/MCMs
- Microwave Products
- Discrete Devices/Lasers
- Chip-on-Board

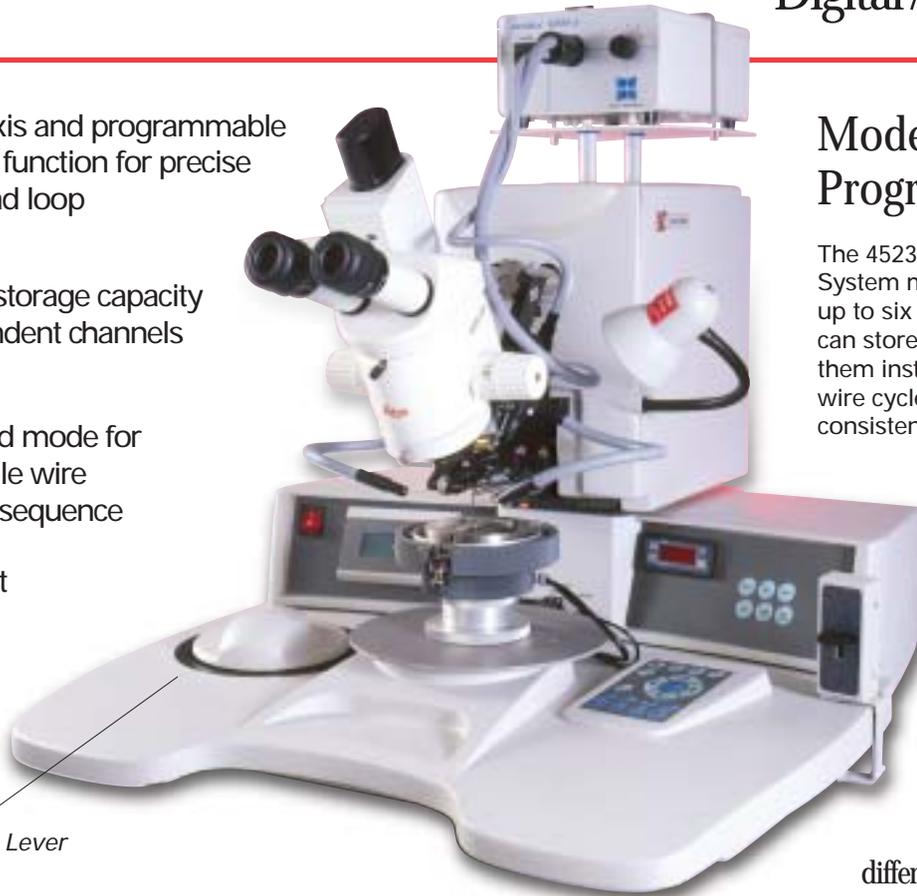


Semi-automatic and manual operation modes, as well as individual bond parameter control and capacity for a wide range of wire diameters, allow easy implementation and use in all types of wedge bonding applications.

4500 Series Wedge Bonders

Digital / Analog Systems

- Motorized Y axis and programmable auto-stepback function for precise wire length and loop formation
- 200 program storage capacity w/ six independent channels per program
- Auto-2nd bond mode for complete single wire programmed sequence
- Digital readout of all bonding parameters



*Left-hand Mouse
(includes Manual Z Lever
on right-hand side)*

Model 4523AD Programmable Digital

The 4523AD Programmable Digital System manages 200 programs, with up to six channels per program. You can store process programs and load them instantly. The programmable wire cycle combines flexibility and consistency for high yields.

Choose from three (3) different mouse configurations to provide your operators the maximum in comfort and process control.

Model 4526

The 4526 analog model includes motorized Y axis auto-stepback.



*Portable
Dials Option
(4526 only)*

*Manual
Z Lever*



*Right-hand Mouse
(includes Manual Z Lever on left-hand side)*

Right-hand Mouse w/ Integrated Z Switch



4500 Series Wedge Bonders

Digital / Analog Systems

Functional Comparison

Model 4526

Model 4523AD

Modes of Operation

Full Manual Mode (Manual Z Control and Manual X-Y Positioning)	•	•
Semi-automatic Z Mode (Semi-automatic Z control and Manual X-Y)	•	•
Semi-automatic Z & Auto-Stepback Mode (Semi-automatic Z and Auto-Stepback)	•	•
Automatic Mode (Fully Automatic Single Bond Cycle)		•

Motorized Y Axis and Auto-Stepback

for controlled, highly repeatable wire length and loop formation	•	•
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4500 Series Technical Specifications

Gold Wire Diameter	0.5 mil (min) 3 mil (max)	12.7 µm (min) 76 µm (max)
Aluminum Wire Diameter	0.8 mil (min) 3 mil (max)	20 µm (min) 76 µm (max)
Ribbon	Up to 1 mil x 10 mil (25 µm x 250 µm)	
Spool Size	1/2" std. (2" optional)	Note: Requires 2" x 1" double-flange spool
Bonding Area	5.3" x 5.3"	135 mm x 135 mm
Throat Depth	5.6"	143 mm
Gross Table Motion	5.5"	140 mm
Fine Table Motion	0.55"	14 mm
Mouse Ratio	6:1	
Motorized "Y" Axis	Stepback up to 160 mil (4 mm) Reverse up to 10 mil (0.25 mm) Kink height up to 20 mil (0.5 mm)	
"Z" Axis Movement	DC Servo w/ closed-loop control	
"Z" Axis Travel		
Low Reset	0.260"	6.6 mm
High Reset	0.500"	12.7 mm
Ultrasonic System	high Q 60 kHz transducer PLL ultrasonic generator	
Low Ultrasonic Power	1.3 W	
High Ultrasonic Power	2.5 W	
Bond Time		
Wedge Bonding	10-100 ms 10-1000 ms	
Bond Force Force Coil	10-160 g	
Wire Termination	clamp/tear; table tear; adjustable tail	
Wire Feed Angle	30°/45° (90° optional)	
Temperature Controller	up to 250° ± 5°C	
Electrical Requirements	100-120/220-240 VAC, 50/60 Hz, 250 VA max.	
Physical Dimensions	27" (680 mm) W x 27.5" (700 mm) D x 21" (530 mm) H	
Weight		
Shipping	122 lbs	55 kg
Net	69 lbs	31 kg

Options and Accessories

Single-Point TAB Kit w/
Programmable Z Axis
ESD Protection Kit
Portable Dials Kit (4526 Only)



For sales, service and manufacturing locations, visit:

www.kns.com

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