The **iBond5000-Wedge** is an advanced wedge bonder used for process development, production, research or added manufacturing support. iBond5000 provides the high yield and excellent repeatability needed for every wedge bonding application including: Optoelectronic Modules, Hybrids/MCMs, Microwave Products, Discrete Devices/Lasers, Chip-on-Boards, Leads, Sensors, High Power Devices and much more.

**Features**

- 7” TFT Touch Screen Management
- Cortex A9 Dual Core CPU based hardware system
- Windows CE based management software
- USB connectivity - External Mouse, Keyboard, Disk on Key
- Load/Store wire bonding profiles, Disk on Key backup
- MPP Bonding profiles internal library
- 800MB Capacity
- On-Line Manual
- Analog Pots Kit Optional
- Internal Tools database
- Semi automatic/manual mode with Z option
- Designed for aluminum wire, gold wire, ribbon and copper
- Large 5.3” x 5.3” bonding area
- Consistent tail length with fine adjustment on 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
- Wide range of microscopes and optical accessories available
- RoHS compliance
- Chessman/Mouse & Manual Z convertible left or right
- Bonding Types: Wedge, Tab, Stitch and Ribbon
- Advanced Wedge Automatic Wire Re-Feed
iBond5000-Wedge
Technical Specifications

• Wire feed angle 90 degrees, vertical feed / wedge 30 degrees, 45 degrees

• Gold wire diameter
  • Wedge bonding
    - 0.7 mil to 3.0 mil diameter
    - 0.7 mil to 2mil
  • Copper Wire
    - 0.7 micron to 50 micron diameter

• Gold ribbon
  • Wedge bonding
    - Up to 1 x 10 mil
  • Aluminum wire diameter
    - Up to 25 x 250 micron diameter

• Spool size
  • Wedge bonding
    - 2" x 1" double flange spool
    - 1/2" spool (type TS-1)
    - 2" x 1" spool holder for ribbon

• Bonding tool specification
  • Wedge bonding wedge length
    - 0.750"
    - 0.825"
    - 1"

XY Table
• Bonding Area
  135 mm x 135 mm (5.3" x 5.3")

• Throat Depth
  143 mm (5.6")

• Gross Table Motion
  140 mm (5.5")

• Fine Table Motion
  14 mm (0.55")

• Mouse Ratio 6:1 (Choose Mouse Type)
  • Left side mouse with right side manual 'Z' lever
  • Recommend optional 'Portable Dials Kit'
  • Locates critical dials on right side
  • For operator comfort (Search 1st, Search 2nd, Loop and Tail)
  • Right side mouse with left side manual 'Z' lever
  • Right side mouse with integrated manual 'Z' lever

• Motorized Y
  • Stepback up to 4 mm (160 mil)
  • Reverse up to 0.25 mm (10 mil)
  • Kink height up to 0.5 mm (20 mil)

• Z Axis Control
  DC Servo with closed loop tachometer feedback

• Z Axis Travel
  • 0.500" (12.5 mm) 'Z' travel
  • Increased travel range
  • Full range of control with the 'Z' motor

• Ultrasonic System
  • High Q 60kHz MPP transducer
  • Phase Lock Loop self-tuning ultrasonic generator

Parameters
• Low Ultrasonic Power
  1.3 watts

• High Ultrasonic Power
  2.5 watts

• Bond Time (Selectible range)
  • 10-100 milliseconds
  • 10-1000 milliseconds

• Bond Force (Static force adjust)
  • 10-250 grams (requires added weights >80 grams)
  • No springs
  • Bond Force Coil Range -
  • Added 3-80 grams (depends on Force parameter setting)
  • Separate 1st bond and 2nd bond parameters
  • No springs

• Wire Termination
  • Clamp Tear, adjustable 'Tear' parameter and 'Tail' parameter
  • Wire tail feed
  • Programmable clamp motion for wedge bonding

Temperature Controller
• Built-In
• Range up to 250 o C, +/- 5 oC

Facility Requirements
• Electrical: 100 - 240V, 50 / 60Hz
• Dimensions in mm: 680 (27") W x 700 (27.5") D x 530 (21") H
• Weight in kg: Shipping: 55 (122 lb), Net: 31 (69 lb)

For Sales and Services locations, please visit www.mpptools.com

For any assistance please contact us at mwb@mpptools.com

Options and Accessories
Single-Point TAB Kit w/Programmable Z Axis