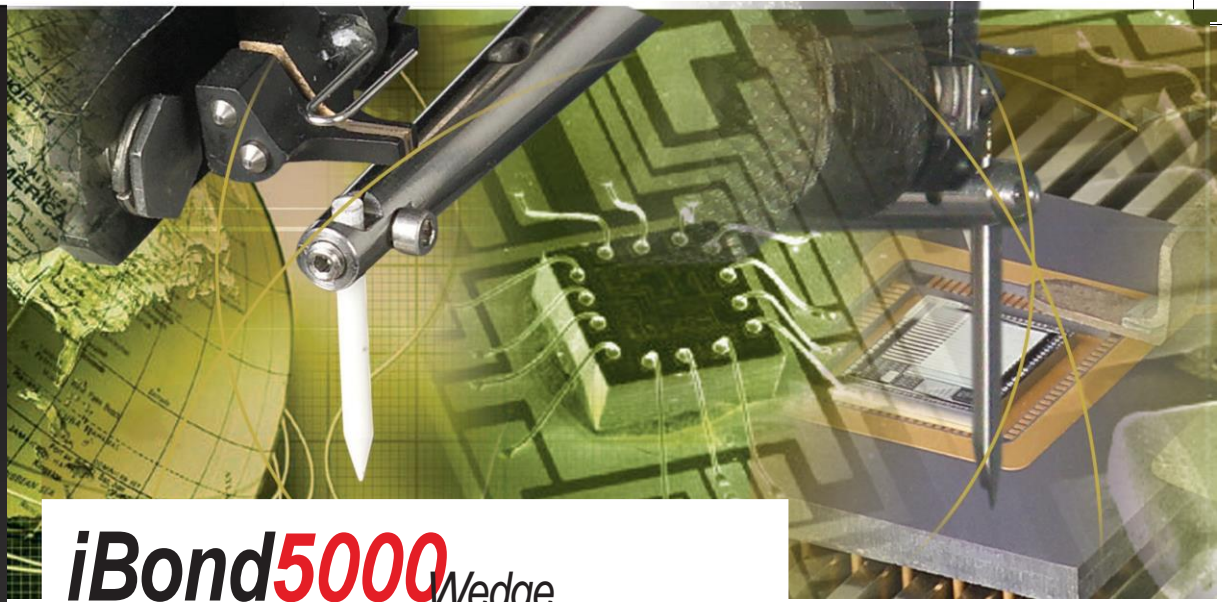


# iBond5000



## iBond5000 Wedge

*The iBond5000 series integrates the proven MPP MWB mechanical design with an advanced graphic user interface..*

*The iBond5000 Wire Bonder series is based on the proven MPP 4500 Series, the market leader for nearly a decade.*

*The iBond5000 series include 3 basic models, Wedge, Ball and Dual. The basic machine has a TFT touch screen control interface and has the ability to attach an analog panel for those that prefer working with analog knobs.*

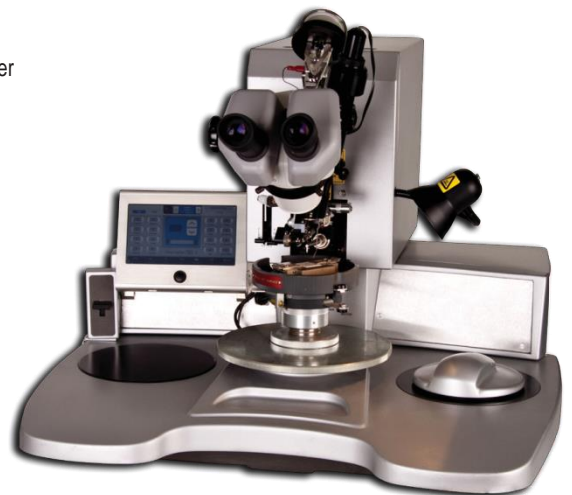
*iBond5000 main control board is based on Cortex A9 Dual core CPU that runs at a speed of 1GHz, the operation system is Windows CE based and the system is controlled using a 7" 600X800 TFT touch screen.*

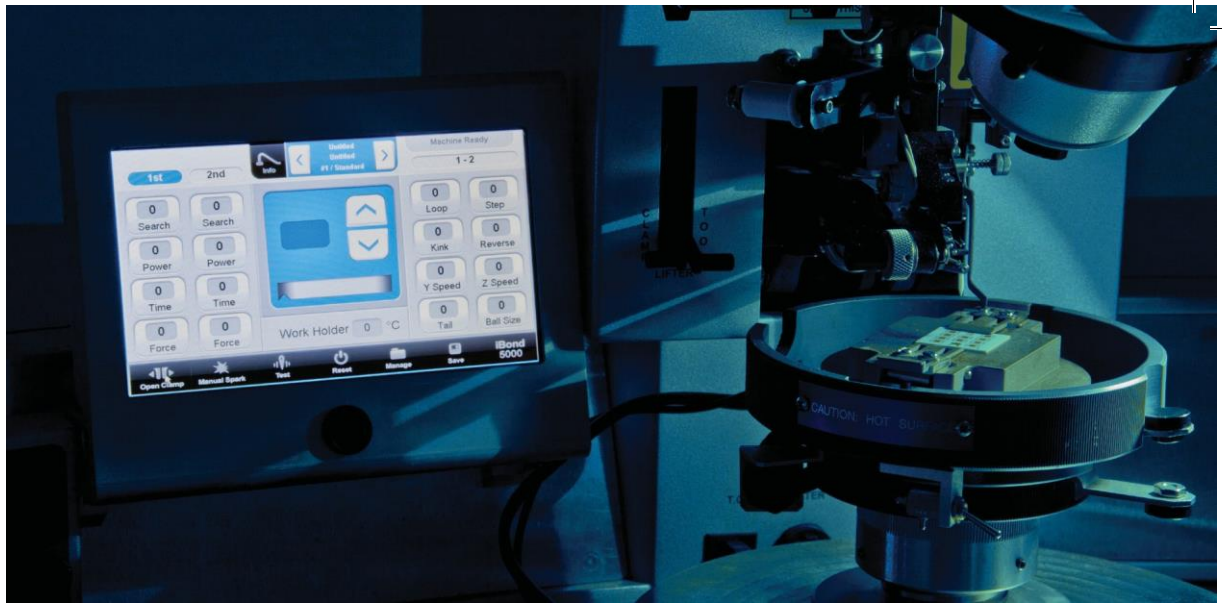
*The system enables you, the user, to save and load profiles; it comes with factory preconfigured profiles to ease usage*

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
    - 17 micron to 75 micron diameter
  - Copper Wire
    - 0.7mil to 2mil
    - 17 micron to 50 micron
- Gold ribbon
  - Wedge bonding
    - Up to 1 x 10 mil
    - Up to 25 x 250 micron
- Aluminum wire diameter
  - Wedge bonding
    - 0.8 mil to 3.0 mil diameter
    - 20 micron to 75 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"
    - 0.828"
    - 1"

## **Machine Specifications**

### **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 (Selectable 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](http://www.mpptools.com)

For any assistance please contact us at

[mwb@mpptools.com](mailto:mwb@mpptools.com)

### **Options and Accessories**

Single-Point TAB Kit w/Programmable Z Axis