iBond5000Ball

The **iBond5000-Ball** is an advance ball bonder used for process development production, research or added manufacturing support, the iBond5000 provide s the high yield and excellent repeatability needed for every gold ball bonding application Optoelectronic Modules, Hybrids/MCMs, Microwave Products, Discrete Devices/Lasers 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
- 800MB Capacity
- MPP Bonding profiles internal library
- On-Line Manual
- Analog Pots Kit Optional
- Internal Tools database
- Semi-automatic/manual mode with Z option
- Consistent ball size via Negative Electronic Flame-Off
- Missing ball detection and auto-stop
- Large 6" x 6" bonding area
- Consistent tail length with fine adjustment on operator panel
- Deep access capability
- Z axis DC servo motion with closed loop control
- Phase Locked Loop (PLL) ultrasonic generator and high-Q transducer
- Built-in temperature controller
- Various microscope and spotlight targeting options available
- Variety of wire types: Gold and Copper (with Copper kit option)
- Chessman/Mouse & Manual Z convertible Right or Left
- Ball bonding, Bumping, Coining, Security Bond and Tab
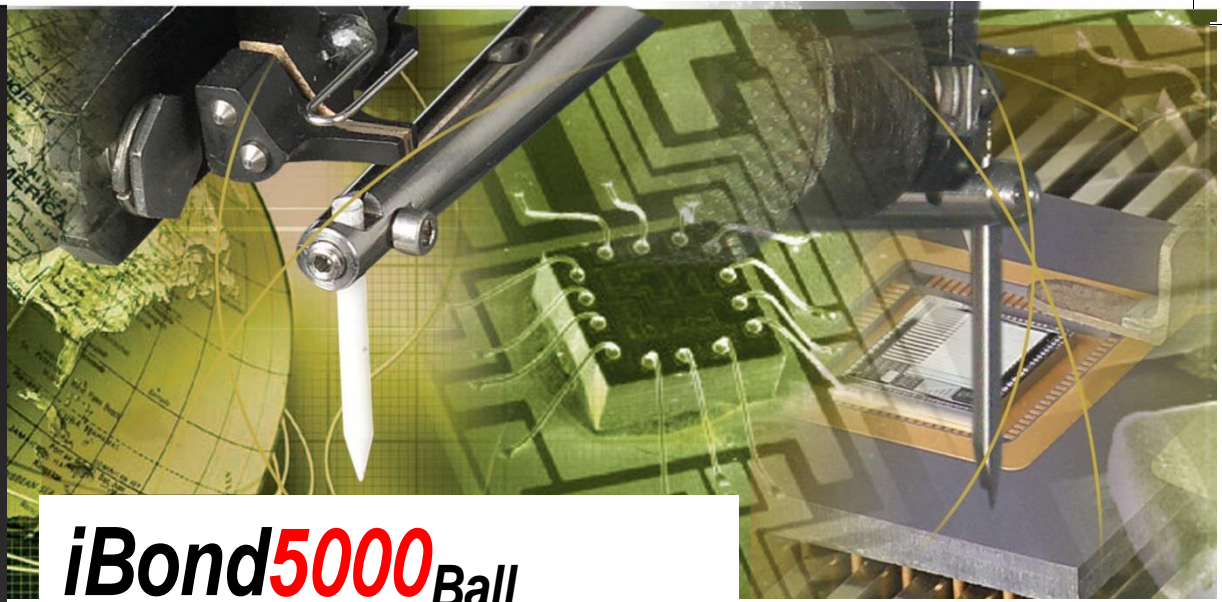
The MPP **iBond5000** series integrates the MWB mechanical design with an advanced graphic user interface.

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

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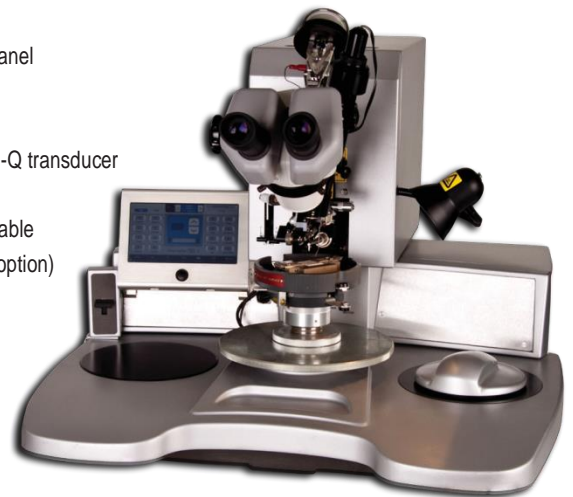
MPP iBond5000 main control board is based on Cortex A9 Dual core CPU that runs at a speed of 1GHz, the operation system is Windows CE based and the system is controlled using a 7"
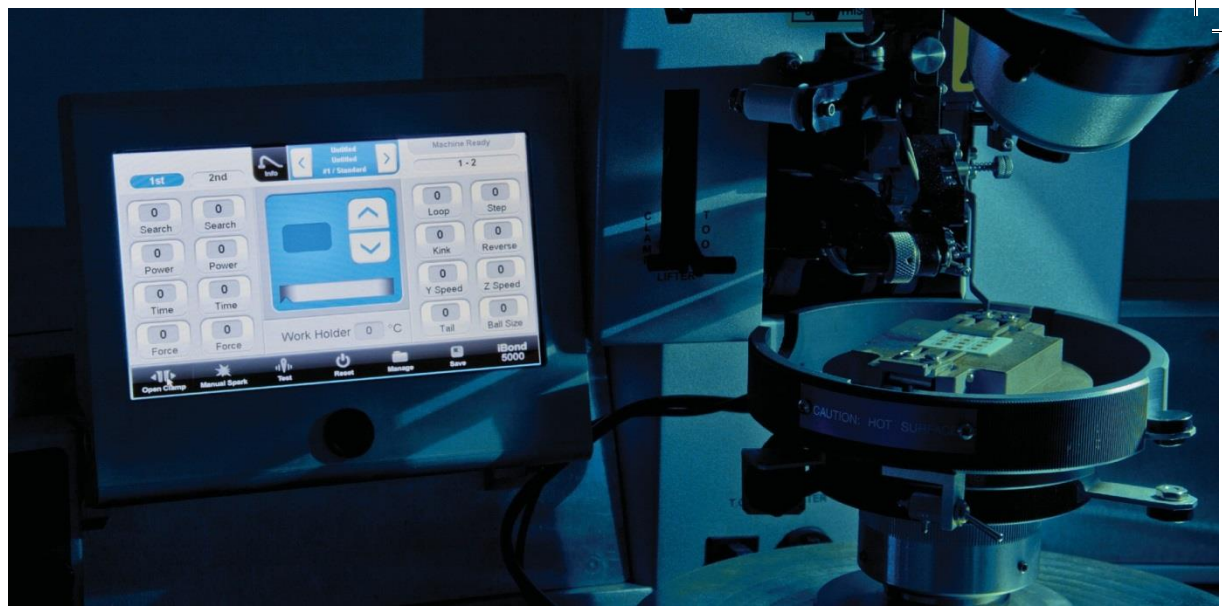600X800 TFT touch screen.

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

Micro Point Pro

iBond5000-Ball

Technical Specifications

- Ball-wedge bonding capability

- Wire feed angle 90 degrees, vertical feed

- Gold wire diameter
  - Ball bonding and 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

- Spool size
  - Ball bonding 2" x 1" double flange spool

- Bonding tool specification
  - Ball bonding capillary lengths
    - 0.375"
    - 0.437"
    - 0.625"

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
  - Programmable tail pull for ball 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 more information please visit us at
www.mpptools.com

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