



Soft Touch™

MODEL 522A

THERMOSONIC BALL BONDER

0.7 to 2.0mil (18 to 50um) Gold Wire



STANDARD FEATURES:

- HYBOND *Soft Touch™* energy system.
- Front panel ultrasonic test button.
- Deep vertical access of 0.59 in. (15mm) with Option 18 (OP-18).
- Horizontal reach of 3.5 in. (89mm).
- 0.5 inch and 2 inch spool mounts standard.
- Loop height control adjustment.
- 1-2-2 stitch capability standard.
- Swing away clamps for easier wire threading.
- Electronic ball size control.
- Audio and visual bond fault indicators.
- Independent 1st and 2nd bond controls.
- Motorized vertical wire feed.
- 6 x 8.5in. (15,2 x 21,6cm) X-Y work platform.
- LED display for monitoring temperature.
- Independent lever for Z bond head control.
- Infinite angle mounting for microscope.
- Tail length is adjustable by a front panel control.
- Wedge Bond capable with OP-18.

Model 522A is a Thermosonic Ball Bonder for wires from 0.7mil (18um) to 2.0mil (50um) in diameter featuring HYBOND's exclusive *Soft Touch™* force ramping system. Imitated but never duplicated, the *Soft Touch* system bonds effectively with less trauma to sensitive materials like GaAs and InP. Wire control is provided by a motorized feed system which features front panel adjustment for tail length and a swing away clamp assembly which makes threading wire easier. Front panel controls include independent 1st and 2nd bond dials for U/S, Time & Force as well as a built in work stage temperature controller. The 522A has a proven track record of safe and effective wire bonding worldwide.

Partial List of Available Options:

- **OP-06B:** Nikon SMZ745 Stereo Microscope.
- **CCTV-XX:** Microscope, Camera, Monitor, etc.
- **OP-08A-LED:** Dual Fiber Optic Illuminator.
- **OP-08R1-LED:** White LED Ring Illuminator.
- **OP-12:** 240VAC 50/60Hz Input Wiring.
- **OP-13:** Board for Bump Bonding.
- **OP-17:** Motorized de-spooler.
- **OP-18:** Deep Access/Wedge Bond Capability.
- **OP-30:** 8:1 X-Y Manipulator (4:1 Standard).
- **OP-31:** Tool Heater and Temp. Controller.
- **OP-47:** Beam Lead/Die Pick, Place & Bond.
- **OP-81:** Heated Transducer for Tool Heat.
- **WST-15A:** Heated Work Stage, 2.125in. top.
- **WST-15B:** Heated Work Stage, 3.3in. top.
- **WST-15CM:** Heated Work Stage, rotating top.
- **Wire & Capillary** as ordered per application.

Specifications for Model 522A:

- Ultrasonic (U/S) System: PLL self tuning 62.5KHz (nominal) system (± 2.5 KHz).
- U/S Power Range: 0-1 watt on low setting & 0-2 watts on high.
- Bond Time Range: 10mSec. to 400mSec.
- Bond Force Range: 15gr. to 150gr.
- Temperature Control Range: Ambient to 250 degrees Celsius.
- Bondable Wire Diameters: 0.7 to 2.0mil (18 to 50 μ m) diameter.
- Bondable Wire Materials: Au & Pt in ball bonding mode; Au, Al, Cu, Ag & Ag in wedge.
- Bonding Capillary Used: 0.437in. length capillary (0.750in -19mm- length with OP-18).
- Bond Head Movement: Manual.
- Bond Actuation: Switch at fixed height. Activated by lever.
- Z Travel: 0.5in. (127mm) maximum bond head travel.
- Vertical Bonding Window: 60-100mils (1,52-2,54mm) maximum height difference between 1st and 2nd bond height for proper bonding.
- Table Motion / Max Travel: 4:1 manual manipulator / 0.9 x 0.9in (22,8 x 22,8mm), Standard.
- Input Power Requirements: 110VAC 50/60Hz @ 10A max. standard or 240VAC with OP-12.
- Minimum Bench Space Required: Width: 20in., Depth: 20in. (50,8 x 50,8cm).
- Unit Weight/Shipping Weight: 55 lbs. (24,9Kg)/135 lbs. (61,4Kg). Shipping weight may vary.
- Vacuum Requirement: Vacuum = 20 inHg minimum.
- Industry Standards: CE.

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