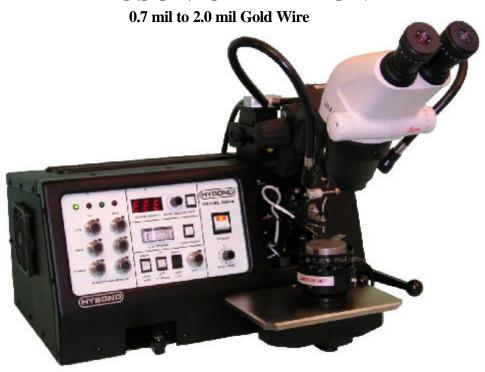


Soft Touch TM

# MODEL 522A

## THERMOSONIC BALL BONDER



#### **STANDARD FEATURES:**

- ! HYBOND *Soft Touch* $^{TM}$  energy system.
- ! Front panel ultrasonic test button.
- ! Independent control of first and second bond parameters.
- ! Motorized vertical wire feed.
- ! Loop height control adjustment.
- ! Swing away clamp assembly.
- ! 1-2-2 stitch capability standard.
- ! Electronic ball size control.
- ! Tail length is adjustable by a front panel control.
- ! Independent Z lever for control of bonding tool.

- ! Horizontal reach of 3.5 inches.
- ! Deep vertical access of 0.59 inch with option 18 (OP-18).
- ! Audio and visual bond sequence fault indicators.
- ! 0.5 inch and 2 inch spool mounts.
- ! LED readout for setting and monitoring work stage temperature.
- ! 6 x 8.5 inch work plate supports various heated work stages.
- ! Infinite angle mounting for microscope.

Model 522A is a Thermosonic Ball Bonder for wires from 0.7mil (18Fm) to 2.0mil (50Fm) in diameter featuring HYBOND's exclusive *Soft Touch* <sup>TM</sup> force ramping system. Imitated but never duplicated, the *Soft Touch* <sup>TM</sup> 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 1<sup>st</sup> and 2<sup>nd</sup> 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-06S6: Leica Stereo Zoom Microscope.
 OP-06A: Nikon Smz660 Microscope.
 OP-08A: Dual Fiber Optic Illuminator.
 OP-12: 240VAC 50/60Hz Input Wiring.

! OP-13: Board for Bump Bonding.

! OP-18: Deep Access Capability.

OP-44: High & Low Ultrasonic Power.
 WST-15A: Heated Workstage, 2.125 in. Top.
 WST-19B: Heated Workstage, 4 x 4 in. Top.

! Capillary and wire as ordered per application.

### **Specifications for Model 522A:**

! Ultrasonic (U/S) System: PLL self tuning 62.5 KHz (nominal) system (±2.5KHz).

! U/S Power Range: 0-1 Watt on low setting (default), 0-2 Watts on high with OP-44.

! 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 2.0 mils (18 to 50Fm).

! Bondable Wire Materials: Gold wire.

! Bonding Capillary Used: 0.437in. length capillary (0.750in. length with OP-18).

! Bond Head Movement: Manual.

! Bond Actuation: Switch at fixed height activated by lever.
! Z Travel 0.5"(1.27cm) maximum bond head travel.

! Vertical Bonding Window: 60-100mils (152-254Fm) maximum height difference between 1st and 2nd

bond height for proper bonding.

! Table Motion: 4:1, manual.

! Input Power Requirements: 120 VAC 50/60 Hz @ 10A max. (Standard). For 240VAC, the bonder

must have OP-12.

! Min. Bench Space Required: 20 x 20 in. (50.8 x 50.8 cm).

! Unit Weight/Shipping Weight: 55 lbs (24.9 Kg)/135 lbs (61.4Kg). Shipping weight may vary.

! Industry Standards: CE.

#### For more information contact us:



330 State Place, Escondido, CA. 92029, USA Tel. 760-746-7105 Fax. 760-746-1408

e-mail: mailus@hybond.com or visit us online at: www.hybond.com