

# HYBOND

*Soft Touch™*

## MODEL 522A

### THERMOSONIC BALL BONDER

0.7 mil to 2.0 mil Gold Wire



#### STANDARD FEATURES:

- ! HYBOND *Soft Touch™* 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™* 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 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 ( $\pm 2.5$ KHz).
- ! 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 1<sup>st</sup> and 2<sup>nd</sup> 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:

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