



## 5650

### Semi-automatic Heavy Wire-Wedge- Bonder

The semi-automatic Wedge-Wedge Bonder 5650 fills the gap between the to the automatic bonder.

On basis of the 5600-series the bonder is fully PC controlled and allows any number of bonds to be programmed.

Pre-programmed adjust points are targeted through the camera's cross hair targeting system and the programmed bonds are executed automatically.

Two operating modes are available: Single bond for repair of various samples in order to perform a single bond.(manual-automatic) Multi wire for teaching and bonding of single chips or various samples (semi and fully automatic).

The 5650 can also be used as a Au Wire or AL Thin Wire Bonder as well as pull-/shear tester by simply replacing the bond head and loading the appropriate software.

change over time: approx. 3 minutes.  
Ask us for more information !

#### Specifications

##### Mechanics

<i>X, Y table</i>	Working area 100 x 115 mm Resolution 0,25 µm, repeatability < 2 µm
<i>Z-axis</i>	60 mm
<i>Speed</i>	up to ≤20 wires / min.
<i>Bond head</i>	Wedge-Wedge Al - Heavy wire Axis of rotation ± 360° 90° quick-change wire guide and cutter Bondforce programmable 100 to 1800cN

*Ultrasonic system*

57KHz

*Wire size*

Aluminium wire 100... 500 µm and  
Copper wire 100...300µm

*Loop Forms*

Triangular, rectangular, reverse, stitch bond programmable

#### Controls

*Computer*

Dual Core PC, 1,6 GHz processor,  
4 GB RAM, Ethernet, USB 4x + 4x frontside

*Monitor*

TFT flat screen

*Operation system*

Windows 7

*Printer*

All Windows-compatible printers can be installed  
All bonding parameters can be printed

*Work holder*

2x2" standard with mechanical clamping  
4x4" optional, as well with vacuum

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## Other features

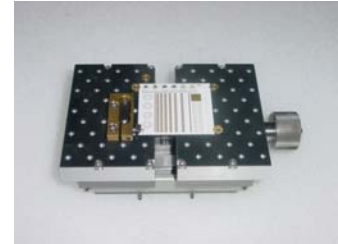
### Programming:

Automatic bonding of hybrids, power modules or others with programmable X/Y table

## Work holders



For components up to 4 x 4"  
Vacuum and mechanical clamping



For components up to 4 x 4"  
Vacuum and mechanical clamping



Vacuum and mechanical clamping  
clamping



Vacuum and mechanical

Customised work holders are available on request.

**Head Parking System** For storing of temporary not required bondheads (5610/563/5632/5650) or pull- and shear-heads  
Can be mounted on the left or right side of the machine

## General

### Camera

With cross hair targeting for positioning of bonds

### Microscope

Stereoskop Standard 40x, other

Microscopes optional

### Lighting

20 W halogen spot light, optional LED direct light

Incident light optional, ringlight, spotlight

programmable

### Dimensions

Height 70 cm, width 70 cm, depth 65 cm; approx. 70

kg

### Supplies

100...240 VAC, single-phase, 50/60 Hz, max.500VA

### Connections

Air 6 bar, vacuum - 0,7 bar  $\varnothing$  6 mm