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Power Series

The **Power Series** for Kulicke & Soffa - a new generation of semiconductor assembly equipment for today's most challenging applications. In continuation of our tradition of innovation and technology leadership, **Power Series** products set new standards for performance, productivity, reliability, and ease of use

Driven by the most powerful X-Y-Z motion control system available on the market, **Power Series** products deliver the highest levels of speed, accuracy, and throughput for reduced cost of ownership

Power Series from Kulicke & Soffa - the most **Powerful** name in assembly equipment.

ConnX^{PS}

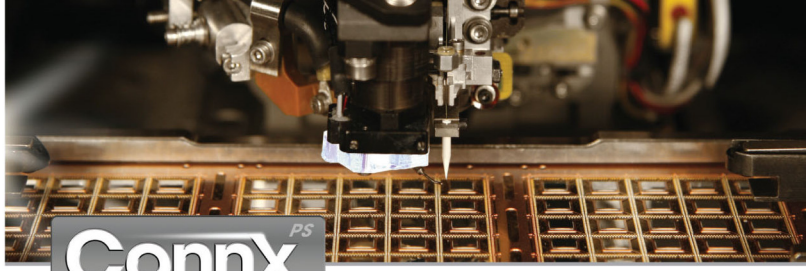
High Speed Wire Bonder

The **ConnX^{PS} High Speed Wire Bonder** establishes new benchmarks for net productivity in low pin count, LED, discrete, and Cost Performance markets.

Features

- Extra large 56mm x 80mm bond area
- +/- 3.0 μ m accuracy
- High Speed X-Y-Z motion control system
- Programmable look-ahead vision algorithms for parallel bonding and vision functions
- Dual-frequency transducer allows two selectable frequencies for each bond
- Automatic recovery paths for common production stoppages
- Auto-BITS self-teach and optimization
- WAVI (Wide Angle Vertical Illumination) system with programmable red and blue lighting
- Single magnification optics at 2X
- Optional copper wire bonding kit





Connx^{PS}

High Speed Wire Bonder

Power Series Wire Bonders include:

- 力** User interface that retains the familiar K&S look and feel; minimal training needed to become familiar with new performance enhancing and productivity increasing features
- 力** CE Certification
- 力** Semi S2 Safety Certification*
- 力** Semi S8 Ergonomic Certification*
- 力** Semi E10 Compliance for Run Time Statistics and MTBA /MTBF calculations
- 力** Upgradeability with Power Pack Upgrade Kits
- 力** Programmable Power Supply System to bond through factory power spikes or dips
- 力** Industry leading K&S Tray and Gripper Magazine Handling system
- 力** Full KNet compatibility and readiness

* Tested to SEMI S2-0706 (Environmental, Health, and Safety Guideline for Semiconductor Manufacturing Equipment) and S8-0705 (Safety Guidelines for Ergonomics Engineering of Semiconductor Manufacturing Equipment)

WIRE BONDING CAPABILITY

Bonding Area

X Axis: 56 mm
Y Axis: 80 mm

Total Bond Placement Accuracy

± 3.0 µm

Pattern Recognition/Optics/Vision

Progressive Scan Vision Engine
CCD Video Camera
- 2X Magnification Optics

Standard User Processes

Power Series is compatible with all K&S legacy bonder processes.
KLoop: Up through KLoop4
ULL: Up through ULL4

Optional Premium Processes

Power Series Advanced Loop
Power Series Low Loop
SSB Suite, AccuBump, 25,000 wires

LOOPING CAPABILITY (with 25.4 µm wire diameter)

Maximum Wire Length

7.6 mm

Minimum Loop Height

100 µm standard & worked loops
70 µm folded & reverse loops
50 µm ultra-low loop with Power Series Low Loop

Wire Sway

Wire length < 2.54 mm: 25 µm @ 3 sigma
Wire length > 2.54 mm: ±1% wire diameter @ 3 sigma

CONVERSION TIMES

Same Leadframe Type: < 4 min
(Heat block insert & clamp changes, program load from disk)

Different Leadframe Types: < 8 min
(Leadframe width & length changes, magazine size change, heat block insert & clamp change, program load from disk)

KNET ASSEMBLY EQUIPMENT NETWORK

KNet enhances efficiency and productivity, and reduces yield loss. KNet monitors equipment status in real-time, collects data, and controls process programs locally or from anywhere on a customer's network.

MATERIAL HANDLING CAPABILITY

PACKAGE/LEADFRAME DIMENSIONS

Length: 90 to 300 mm
(L/F shorter than 100 mm will require optional injector kit)

Width: 15 to 92 mm

Thickness: 0.10 to 1.1 mm

Die Pad Downset: Up to 2.3 mm

MAGAZINE DIMENSIONS

Width: 20 mm to 98 mm

Length: 127 mm to 305 mm

Height: 50 mm to 178 mm

Slot Pitch: 1.27 mm to 25mm

Max. Weight: 5.22 Kg

MAN-MACHINE INTERFACE

Monitor
17" color LCD display

Durable Control Panel
with function keys and dedicated buttons, and user-friendly mouse

Compatibility
Maxµm Series bond programs are upwardly compatible with **Power Series** Bonders

Industry-Recognized User Interface
Simple pull-down menus. Color-overlays of wire groups for easy programming and teach

FACILITY REQUIREMENTS

Minimum Air Pressure
3.52 Kg/sq.cm. (50 psi)

Nominal Air Consumption (flow rate)
185 liters/min @ 4.6 Kg/sq.cm (6.5 CFM @ 65 psi)

Input Voltage
Standard
200 to 240 VAC; -15% to +10%
Single Phase 50/60 Hz (+/-3 Hz)

Optional
100 to 115 VAC; -15% to +10%
Single Phase 50/60 Hz (+/-3 Hz)

Power Consumption
1.5 KVA (nominal), 2.6 KVA (max.)

Footprint
Base machine with MHS
889 mm wide X 990 mm deep (35" x 39")

Weight (estimated)
Machine 556 Kg (1250 lbs)
Machine & Crate 670 Kg (1474 lbs)



For sales, service and manufacturing locations, visit:

www.kns.com

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