



Making the connected world possible™



8100 WIRE BONDER

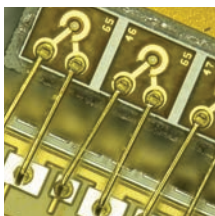
BALL (STUD) BUMPER

Taking fine wire bonding to new levels of productivity and efficiency for both operators and engineers.

8100 WIRE BONDER

BALL (STUD) BUMPER

The newest Palomar fully automated, thermosonic high-speed, ball-and-stitch fine wire bonder capable of ball bumping and customized looping profiles. Based on Palomar's proven wire bonder design and incorporating the latest productivity technology and operator ergonomics, making it the next generation of fine wire bonders.



VISIONPILOT® WITH RADAR REFERENCING®

Utilizes advanced geometric pattern matching technology to reliably and accurately locate parts that are randomly oriented or have greyscale variations by using a set of boundary curves that are not tied to a traditional pixel-grid.

INTELLIGENT INTERACTIVE GRAPHICAL INTERFACE® (i2Gi)

Supports advanced wire bond control through an intuitive interface that simplifies programming and provides real time graphical feedback to the user of bonding performance

BOND DATA MINER™

A comprehensive and centralized data management and analysis system that provides machine and process trend monitoring for increased yields and predictive maintenance.

• Bond Data Miner

An all-inclusive and centralized data management and analysis system that is a powerful tool to improve yield and utilization.

• VisionPilot®

VisionPilot with Radar Referencing pattern recognition software to maximize throughput.

• NEW Palomar Vision Standardization™

Standardizes the vision system across bonding platforms, allowing for seamless transfer of programs between systems.

• i2Gi® Software

Designed to enable technicians to work smarter, faster and with more control.

• NEW Ergonomic Design

Select from a wide range of motion for optimum operator comfort.

• Based on a Proven Design

Compatible with legacy programs and processes

• NEW NEFO Generator

Digitally controlled for precise parameter adjustments, real-time feedback and logging for readily available and simple process control and optimization.

• NEW Bondhead Design

Restructured key user interaction points for optimal efficiency and ease of use

• Patented Dual Z-Axis

Unique bond-head motion; Zr (rotary), Zi (linear). 20mm deep access allows the formation of precise gold ball bumps. Patent # 6,102,275

• NEW Integrated Inline Conveyor

Palomar designed inline conveyor for volume production.

• Magazine Feeder

Magazine feeder keeps your process flowing.

• Service Contract

Achieve maximum ROI by adding a service contract complete with preventative maintenance visits.

• NEW Easy Access

Redesigned electronics bay for easy service access.

• Industry 4.0

Engineered to enable Industry 4.0 communications.



TYPICAL APPLICATIONS

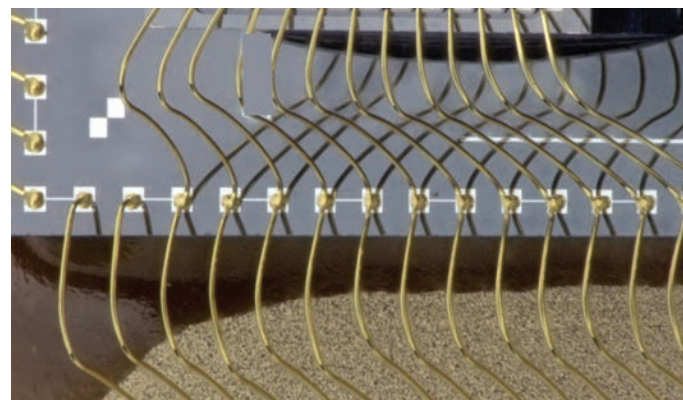
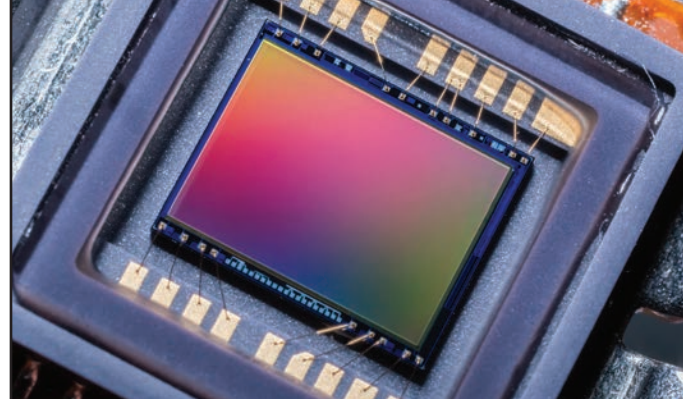
- Large complex hybrids
- Optoelectronic packaging
- System in packages (SiPs)
- Automotive assemblies
- Multi-chip modules (MCMs)
- LEDs with running stitch
- HB/HP LED arrays
- Chip-on-board (COB)
- Specialty lead frames
- Flex circuits
- Fine pitch devices

STAGES & HANDLING	SOFTWARE	ACCESSORIES
• Heated Stages: - 6" x 4" (152.4 x 101.6 mm) - 6" x 6" (152.4 x 152.4 mm)* - 6" x 10" (152.4 x 254 mm) - 6" x 12" (152.4 x 304.8 mm) - 8" x 8" (203.2 x 203.2 mm)* - 8" x 12" (203.2 x 304.8 mm) • Heated Wafer Stage • Dual Heated Wafer Stage • Variable Wafer Stage • Custom Stages • Conveyors • Magazine Feeders	• Adaptive Bond Deformation • Part Mapping • Process Controller • Tab Bond Software (TAB) • CAD Download • RAM Stats Software • Auto Focus • Auto Bond Set Layout • SECS/GEM	• Ultrasonic Monitor • Wire Bonder Spare Parts Kit • Coil Heater • Ionizer • Production Lens Kit

LOOP MODES

- Chain Bonding
- Auxiliary Wire
- Tailless Bump Mode
- V-Bond
- Stand-off-Stitch
- Security Bond

*Wafer Stages

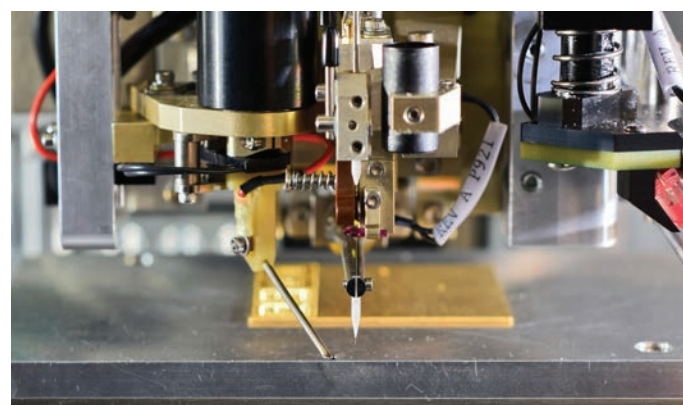


MOTION SYSTEM	PATTERN RECOGNITION
Resolution: 0.10 μ m X/Y axis	Vision System: Cognex® Series 8000
Repeatability: +/- 2.5 μ m, 3 σ	PR Theta: +/- 7° from taught angle VisionPilot™: +/- 180° from taught angle
Control system: Linear motor/encoder (X/Y), voice coil/encoder (Z linear / Z rotary), Servo EFO/encoder	Focus Range (Depth of Focus): Programmable focus across 15.24 mm (0.600") - focal lens floats on Z linear axis
Z Axis Stroke: 20 mm (0.80")	Capture Range: 760-1300 μ m (30-50 mils), magnification dependent

PERFORMANCE AND SPECIFICATIONS		
Cycle Times	0.115 sec/wire	0.075 sec/bump
Bond Type	Thermosonic ball and wire bonding, ball bumping	
Wire Pitch	50 μ m (0.0019") using 20 μ m (0.00078") wire	
Placement Accuracy	+/- 2.5 μ m, 3 σ	
Deep Access Capillary	Standard: 11.10 mm (0.437") / 11.94 mm (0.470") / 15.88 mm (0.625") Optional: 19.05 mm (0.750")	
Bond Area	330.2 x 152.4 mm (13" x 6")	
Wire	Spool Size (diameter): 50.8 mm (2") double flanged spool Wire Diameter: 17.8 to 50.8 μ m (0.7 to 2.0 mil)	

HARDWARE AND FACILITY REQUIREMENTS	
Power	230 VAC +/- 10% (207-253), 50/60 Hz, 15AMP, single phase
Vacuum	-25 inHg (85 kPa)
Air at Bonder Inlet	CDA: 60 psig @ 4 SCFM
Dimensions	Height: 1,737 mm (68.4") Footprint: 1,197 x 1,073 mm (47" x 42.3")
Weight	1,930 lbs. (8.59 kN)
Flooring	102 mm (4") Thick concrete continuous slab

Technical Specifications are subject to change by application.

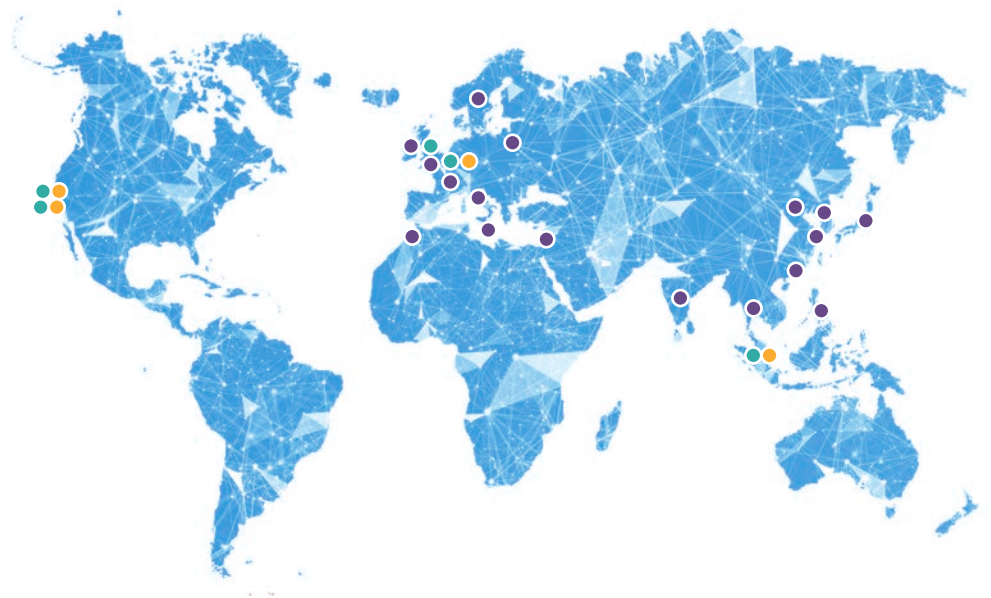




Making the connected world possible™

Making the connected world possible by delivering a Total Process Solution™ for advanced photonic and microelectronic device assembly processes utilized in today's smart, connected devices. With a focus on flexibility, speed, and accuracy, Palomar's Total Process Solution includes die bonders, wire and wedge bonders, vacuum reflow systems, along with Innovation Centers for outsourced manufacturing and assembly, and Customer Support services, that together deliver improved production quality and yield, reduced assembly times, and rapid ROI.

Follow us on Social Media



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