

For Immediate Release
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Wedge Emulation on a Ball Bonder from Palomar Technologies

Maximizes bonding speed for high density packages

Carlsbad, Calif. – July 11, 2007 – Palomar Technologies, provider of precision automation equipment and process development for microelectronic assembly, announces its new wedge emulation technology for low-profile interconnects, fine pitch, running-stitch interconnects, and die-to-die bonding in high-density packages such as LEDs and RF packages. Wedge emulation uses Palomar Technologies' Model 8000 ball bonder to maximize the bonding speed, reliability, and reduced keep-out space of a ball bonder for high density packages that previously required a wedge bonder. Using a specially developed chain bonding stitch-stitch interconnect, this technique bonds 7 to 12 wires per second instead of the 1-2 wires per second you get with a wedge bonder.

Software allows the user to program an interconnect beginning with a stitch instead of ball, as in wedge bonding, and complies with the visual standards defined per Mil-Std-883, Method 2017. Since there is no ball, the user can use a wire other than gold, such as aluminum or copper, for the interconnect. This truly makes the ball bonder a viable and flexible alternative to a wedge bonder.

“There is little debate that ball bonding is faster and more robust,” said Don Beck, applications engineering manager for Palomar Technologies. “However, due to a need for low profile interconnects or fine pitch, wedge has continued to dominate key market segments. Wedge bonding is also typically used when a design requires a running stitch interconnect or die to die bonding. With Palomar's new wedge emulation technology, these processes can now be achieved on Palomar's Model 8000 ball bonder. With the high cost of capital equipment, the need to conserve manufacturing floor space, reduced personnel, efforts to streamline operations, and increased time-to-market pressures, being able to perform almost all bonding operations on a ball bonder is an advantage. By adding chain bonding to a ball bonder, manufacturers can support applications that

require higher frequencies and denser packages without sacrificing throughput and yield.”

About Palomar Technologies

Palomar Technologies (formerly part of Hughes Aircraft Company) is one of the world’s principal suppliers of automated high-precision wire bonders and component placement systems to increase yield and lower costs for manufacturers of optoelectronic, RF, and microelectronic packages in the photonics, wireless, microwave, automotive, aerospace, medical, and life sciences industries.

For more information on **Palomar Technologies and Palomar Microelectronics**, visit <http://www.palomartechnologies.com> or contact 760-931-3600.

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