PRESS RELEASE

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TechSearch International Analyzes Large Body Size Package Challenges

Larger substrate sizes for AI, network switch, and server CPUs are driving the development of new package structures as well as materials and processes for substrate fabrication. One of the major concerns with a large substrate is warpage, other concerns include material sets to support the larger body size including thermal interface materials to help dissipate heat. TechSearch International's latest Advanced Packaging Update examines these trends and includes a section on thermal interface materials (TIMs) under development for large body packages.

The Update also examines substrate material shortages including, glass fiber for the core and Bismaleimide Triazine (BT) resin for a variety of substrate types. Underlying causes for the shortages are discussed, along with alternatives for these materials.

An update on glass core substrates examines progress and highlights challenges in developing the technology. Trade-offs are examined. A particular advantage of the glass core is the potential for a thinner core than with existing glass cloth materials, but a core thickness of 1.0 mm may be necessary to meet reliability requirements. High-performance applications will require 11 or more build-up layers, and so far only three or four build-up layers on each side have been fabricated in test vehicles. There is little published reliability data for glass core substrates, and cost compared to alternatives is unavailable.

TechSearch International's annual survey on substrate design rules is presented, featuring coverage of laminate flip chip BGA and CSP substrate suppliers worldwide. The design rules include body size, core thickness, via and pad diameter, minimum bump pitch supported, and substrate finish. Core and resin materials offered by each substrate supplier are listed. OSAT financials are highlighted.

The Update is a 100-page report with full references and a set of more than 90 PowerPoint slides.

TechSearch International, Inc., founded in 1987, is a market research leader specializing in technology trends in microelectronics packaging and assembly. Multi- and single-client services encompass technology licensing, strategic planning, and market and technology analysis. TechSearch International professionals have an extensive network of ~20,000 contacts in North America, Asia, and Europe. For more information, contact TechSearch International at tel: 512-372-8887 or see www.techsearchinc.com. Follow us on LinkedIn.

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