PRESS RELEASE

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TechSearch International Analyzes Growth in Chiplet Package and HBM Markets Plus Trends for RDL Interposers and Status of Glass Core Research

In its latest Advanced Packaging Update, TechSearch International projects a 69% CAGR from 2023 to 2029 for packages using chiplet architectures. Packages shipping in volume production include silicon interposers, fan-out/redistribution layer (RDL) with both chip-first and chip-last designs, and chiplets attached to laminate build-up substrates, including embedded bridge such as Intel's Embedded Multi-die Interconnect Bridge (EMIB). While some industry participants consider high bandwidth memory (HBM) to be a chiplet application, TechSearch International does not classify it as such, but it is a critical piece of the high-performance AI packaging solution. Strong growth of 73% CAGR is projected for DRAM wafers used in HBM from 2023 to 2028. Key players including SK hynix, Samsung, and Micron are working to develop hybrid bonding in the future, and many challenges remain. The report presents drivers, timelines, and plans for adoption. High-performance packages, including those for AI training and inferencing, typically use a silicon interposer, but demand for an increased number of HBM stacks is driving the industry to adopt RDL interposers to support 8, 12, or more HBMs. The report describes RDL interposer technology options and suppliers. Alternatives to glass core substrates are discussed.

While there is great interest in the use of glass core substrates, many challenges remain before the technology sees widespread adoption. TechSearch International's latest analysis highlights the progress with the technology and identifies remaining challenges.

TechSearch International's annual survey on substrate design rules is presented, with special coverage of suppliers of laminate flip chip BGA and CSP substrates worldwide. The design rules include body size, core thickness, via and pad diameter, minimum bump pitch supported, and substrate finish. Recent work to manage warpage in large substrates is included. OSAT financials are highlighted in the report.

The latest Advanced Packaging Update is a 117-page report with full references and an accompanying set of 98 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 more than 22,000 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.