TechSearch
INTERNATIONAL

PRESS RELEASE

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TechSearch International Analyzes AI and CPO Trends

Growth in artificial intelligence (AI) hardware continues to drive revenue growth in the semiconductor industry and other segments of the electronics industry. In its latest Advanced Packaging Update, TechSearch International provides an update on developments in AI for data centers and edge computing, including package trends. A forecast is provided for AI packages.

Momentum in the adoption of co-packaged optics (CPO), specifically silicon photonics, is being driven by the need for optical I/O to support the bandwidth, power, and scale requirements of AI and machine learning (ML) workloads, and system architectures with an overall reduction in power consumption per bit transmitted. Companies such as TSMC have been preparing for CPO demand since 2017, but each year the timeline has shifted out. Demand in the last two years, driven by the deployment of AI training and inferencing models, appears to be making the market a reality by 2026 or 2027 at the latest. TechSearch International examines the drivers for CPO and the package trends as the industry moves from pluggables to land grid array (LGA) formats. Substrate trends are discussed. Challenges for CPO are highlighted.

The recent surge in satellite communications technology for consumers goes beyond the traditional applications of satellite phones and internet access. New advancements are under development and companies are emerging to make satellite connectivity pervasive, and in particular for enabling standard 4G/5G smartphones to access satellite-based services. A special section of the Update analyzes developments in satellite connectivity, highlighting packages.

The report also includes OSAT financials as reported at the end of Q3 2024.

The latest Advanced Packaging Update is a 54-page report with full references and an accompanying set of ~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.