



## PRESS RELEASE

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### **TechSearch International Analysis Predicts Growth for Fan-in and FO-WLP**

TechSearch International predicts strong market growth for fan-in wafer level packages (WLPs) and fan-out WLPs (FO-WLPs). Despite lower growth for smartphones, growth continues as the number of WLPs per handset increase. WLPs are increasingly adopted in tablets, and wearable devices such as smart watches, fitness bands, and virtual reality headsets. Fan-in WLPs are projected to grow at an 8.5% CAGR from 2018 to 2022. FO-WLP's adoption continues in products ranging from smartphones to automotive and the package shows a growth rate of almost 37% over the four-year period. Cost-reduction pressures are driving the development of alternatives to reconstituted wafer FO-WLP in the form of large area panel processing and the first product can be seen in the new Samsung smart watch. An analysis of the market growth in units, wafers, and panels is provided for fan-in and fan-out. The market is divided into standard-density, high-density, and panel.

TechSearch International's new study, **2019 Flip Chip and WLP: Trends and Market Projections**, provides detailed analysis of the drivers for fan-in WLP, FO-WLP, and flip chip. The detailed analysis is based on the company's 31-year history of studying markets and critical technology and infrastructure issues.

Demand for flip chip in applications ranging from large die for AI accelerators to small die for amplifiers and filters is provided. Cu pillar is increasingly used for many devices. Demand continues for both 300mm and 200mm bumping. Market projections in units and wafers are provided. Flip chip growth shows an 8.3% CAGR in unit volume from 2018 to 2022. Growth in gold bumping is also included. A critical analysis of planned capacity and utilization is provided for each geographic region, showing projections for strong growth in China.

The 124-page report with full references provides forecasts for the flip chip wafer bumping market by application, device type, number of wafers, and die shipments. Merchant and captive capacity is included. Forecasts for fan-in and FO-WLP demand are projected in number of die and wafer shipments. A set of 90 PowerPoint slides accompanies the report.

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 18,000 contacts in North America, Asia, and Europe. For more information, contact TechSearch at tel: 512-372-8887 or see [www.techsearchinc.com](http://www.techsearchinc.com). Follow us on twitter @Jan\_TechSearch