Driven by demand for thin, low-profile packages in smartphones, tablets, and wearable devices such as smart watches, fitness bands, and virtual reality headsets, fan-in WLPs are projected to have a >10% growth rate from 2015 to 2020. FO-WLP shows a staggering growth rate of 82% over the same five-year period. FO-WLP growth is driven by the use in RF, audio CODEC, and power management ICs, and automotive radar, coupled with Apple’s adoption of TSMC’s InFO FO-WLP as the bottom package-on-package (PoP) in the iPhone 7. An update on FO-WLP panel processing and alternatives in the form of flip chip on coreless or thin core substrates is provided. Driven by small size devices such as filters, low noise amplifiers, power amplifiers, and switches found in smartphones, flip chip growth shows >13% CAGR in unit volume. Flip chip applications, pitch trends, and assembly options are presented and the trends in Cu pillar are analyzed. The report explores chip package interaction issues and discusses solutions. The 115-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 WLP, FO-WLP, and flip chip demand are projected in number of die and wafer shipments. A set of 85 PowerPoint slides accompanies the report.

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