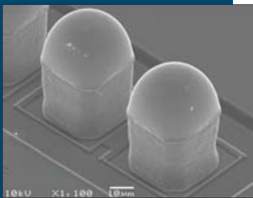
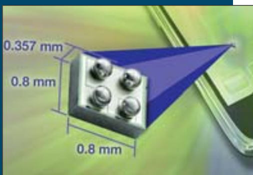
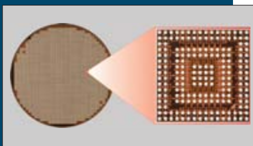
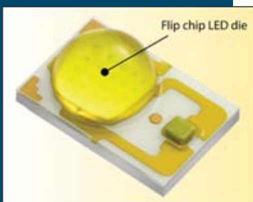
2010 Flip Chip and WLP:

Market Projections and New Developments









Flip chip devices continue to see strong growth as an increasing number of new designs are converting from wire bond. Wireless products continue to be one of the volume growth applications for flip chip. Copper pillar is expected to see greater demand as companies move to fine pitch solutions. Growth in wafer level packages (WLPs) continues to be driven by the strong preference for small form factor, low profile packages for use in mobile phones. WLPs are also found in watches, MP3 players, digital cameras, laptops and tablet computers such as the iPad. Fan-out WLPs are seeing increased demand for large die with high I/Os. New processes to make WLPs more reliable are enabling greater adoption. This study updates major developments in flip chip and WLP. Updated forecasts for the flip chip and WLP markets in number of die and wafers are provided. Trends in Pb-free, copper pillar, micro bump, UBM developments, 300mm capacity, and ultra low-k dielectrics are included. Major players in the infrastructure are listed and contact information is provided.

Executive Summary

1 Technology Developments
- 1.1 WLP Process and Material Trends
- 1.2 Fan-out Wafer Level Packages
  - ADL Engineering, Amkor, ASE, Casio Micronics, Fujikura, Infineon, King Dragon, Nepes, Renesas, STATS ChipPAC, STMicroelectronics
- 1.3 Copper Pillar
- 1.4 Pb-Free Bumping
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- 1.6 Issues with Low-k Dielectrics
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- 1.11 Flip Chip Substrate Trends
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