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ADVANCED IC PACKAGING TECHNOLOGIES, MATERIALS AND MARKETS

2016 EDITION

A Strategic Report Covering the Latest Technologies in IC Packaging, Enabling Portable and Other Electronics

Report Coverage

- Stacked Packages
- System-in-Packages
- Interconnection Technologies
- Through-Silicon-Vias (TSV)
- 2.5D and 3D Integration
- Multi-row QFNs
- Fan-out WLPs

Report Highlights

- Industry Outlook
- Market Analysis and Forecasts, 2014–2020
- Multichip Packaging Technology Trends
- Key Application Forecasts
- Company Profiles

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Advanced IC Packaging Technologies, Materials and Markets, 2016 Edition

Synopsis

The demand for consumer electronics and mobile communications devices that keep us connected is driving electronics manufacturers to deliver ever-more compact and portable products. Today's users ask for solutions that deliver more functionality, added performance, higher speed, and smaller form factors. Software systems and billions of networked devices are rapidly coalescing into a vast Internet of Things.

All of these forces are driving semiconductor companies to develop new advanced IC packaging technologies to provide greater silicon integration in increasingly miniaturized packages. The last decade has seen an explosion of new products including fan-out wafer-level packaging (FOWLPs), stacked IC packages and complex system-in-packages (SiPs), as well as advances in package substrates, flip chip interconnection and through-silicon vias. All these advances are enabling significant improvements in packaging density and opening new market opportunities for manufacturers.

This latest report from **New Venture Research (NVR)**, ***Advanced IC Packaging Technologies, Materials and Markets, 2016 Edition***, reveals the latest technology and market trends in the IC packaging industry by focusing on the most advanced packaging products and solutions-those critical to success in developing cutting-edge products and in maintaining technological leadership. Every market or application segment discussed in the report includes quantitative analysis based on the most current historical years, 2014 and 2015, as well as forecasts from 2016 through 2020. Each of the eight chapters covers a different topic and market segment.

Chapter 3: Overview of Worldwide IC Packaging Markets, outlines the major IC packaging families and the latest market and application trends. Total market forecasts include units, prices, packaging revenue, package types and device types.

Chapter 4: Advanced Single Chip IC Packaging, provides an in-depth discussion of the two leading advanced packages: Fan-Out Wafer Level and Multi-Row QFN packages in terms of market overview, market trends and forecasts.

Chapter 5: Multichip Packaging Markets analyzes multichip packages from a number of points of view-their characteristics, applications, functions, and interconnection trends. This chapter then digs deeper into the stacked packages category, comprised of vertically stacked TSOPs, QFNs, FBGAs, and WLPs. Tables and figures provide market data and forecasts for unit shipments, revenues, prices, I/O-count and die usage.

Chapter 6: System-in-Package Solutions and Substrate Materials continues the data and forecast analysis of multichip packages, focusing on system-in-package (SiP) market segments, specifically package-on-packages, package-in-packages, multichip modules and a subgroup of stacked WLPs used as components in SiPs. This chapter also examines the substrate materials and embedded components used in SiP assembly. Forecasts include package units and material area shipped, as well as revenue impact of substrate material trends.

Chapter 7: Interconnection Technologies and Solutions, provides an in-depth explanation of wire bonding and flip chip markets, as well as leading-edge technologies, such as 2.5D and 3D packaging using through silicon vias (TSVs). Units and revenue forecasts are provided.

Chapter 8: Company Profiles leads off with an overview of recent competitor trends, specifically the recent surge in mergers and acquisitions. It then presents profiles of twenty advanced packaging companies from across the IC packaging spectrum, including large and small competitors from among OSATs and IDMs. Each profile gives a short company background and presents examples of their advanced packaging products.

Advanced IC Packaging Technologies, Materials and Markets, 2016 Edition is an effective tool for companies determined to stay informed about the latest advances in IC packaging technologies, and in assessing the future of this important segment of the semiconductor manufacturing industry. The report sells for $3995 and is delivered by email as a single-user license PDF file. Additional single-user licenses are available for $350 each and a corporate license is $1000. With the purchase of the report, an Excel spreadsheet of all tables may be obtained for an additional $1000, or a printed copy may be purchased for $250.

About the Author

Jerry Watkins is an independent senior analyst with more than 25 years of experience in the field of market research and consulting. He has worked for leading research companies such as **Frost & Sullivan**, **Lucid Information Services**, and **NSI Research** both in management and as a writer. Mr. Watkins has authored many syndicated reports, previously in the telecommunications sector and more recently in the computing and merchant embedded computing industry. He holds three university degrees, including a B.A. in History, as well as a M.A. in International Studies.

Advanced IC Packaging Technologies, Materials and Markets, 2016 Edition

Table of Contents

Chapter 1: Introduction

Chapter 2: Executive Summary

Chapter 3: Overview of Worldwide IC Packaging Markets

3.1 IC Package Families

3.2 IC Packaging Market and Unit and Revenue Forecasts
Covers: Worldwide IC Packaging by I/O Count and by Device Type

3.3 Key Applications Market for IC Devices
Includes: Cellular Handsets, Tablets, PCs, Servers, Workstations, Set-Top Boxes, and others

Chapter 4: Advanced Single Chip IC Packaging

4.1 Overview of Advanced IC Packaging
Covers: Product and Competitor Trends, Internet of Things and Global Economic Trends

4.2 Fan-Out Wafer Level Packages
Covers: Market Overview, Trends and Forecasts

4.3 Multi-Row QFN Packages
Covers: Market Overview, Trends and Forecasts

Chapter 5: Multichip Packaging Markets

5.1 Overview of Multichip Packaging Technology

5.1.1 Types of Multichip Packages
5.1.2 Benefits and Shortcoming of Stacked Packages
5.1.3 Multichip Packages Challenges and Solutions
5.1.4 Wafer Thinning - Dice Before Grinding Process

5.2 MCP Market Trends and Forecasts
Covers: Covers: Market Overview, Trends and Forecasts by MCP Type, Application, Device Function and Interconnection Trends

5.3 Stacked Multichip Packaging Market Segments

5.3.1 Stacked TSOP Market Trends and Forecasts
5.3.2 Stacked QFN Packaging Market Trends and Forecasts
5.3.3 FBGA Packaging Market Trends and Forecasts
5.3.4 Stacked WLP Market Trends and Forecasts

Chapter 6: System-in-Package Solutions & Substrate Materials

6.1 System-in-Packaging Market Overview

6.1.1 Types of System-in-Packages
6.1.2 Key Features of System-in-Packages
6.1.3 System-in-Packages versus System-on-Chip Solutions
6.1.4 Challenges for System-in-Packages

6.2 System-in-Packages Market Trends and Forecasts

6.3 Substrates
Includes: Ceramic, Laminate, High-Density Interconnect, Polyimide Flex Tape, Embedded Components

Chapter 7: Interconnection Technologies and Solutions

7.1 Interconnection Techniques Overview

7.2 Wire Bonding

7.2.1 The Benefit and Problem with Wire Bonding

7.2.2 Wire Bonding Methods
Includes: Ball Bonding, Reverse Wire Bonding, Wedge Bonding, and others

7.3 Tape Automated Bonding

7.4 Flip Chip
Covers: Total Market by Packaging Form Factors, Pricing, and includes Device Types

7.5 Through-Silicon Vias
Covers: Characteristics, Interposers, Challenges and Forecasts

7.6 Quilt Packaging

7.7 Panel Level Packaging

Chapter 8: Advanced IC Packaging Company Profiles

8.1 Chapter Overview
8.2 Changing Competitive Landscape
8.3 3D Plus, Inc.
8.4 Advanced Semiconductor Engineering, Inc.
8.5 Amkor Technology, Inc.
8.6 Carsem, Inc.
8.7 ChipMOS Technologies (Bermuda), Ltd.
8.8 CONNECTEC Japan Corporation
8.9 Deca Technologies
8.10 FlipChip International, LLC
8.11 HANA Micron Co., Ltd.
8.12 Interconnect Systems Inc. (ISI)
8.13 NANIUM, S.A.
8.15 Palomar Technologies
8.15 Powertech Technology, Inc.
8.17 Shinko Electric Industries Co, Ltd
8.18 Signetics Corporation
8.19 Siliconware Precision Industries Co.
8.20 SPEL Semiconductor, Ltd.
8.21 STATS ChipPAC, Ltd
8.22 United Test and Assembly Center, Ltd.
8.23 Xintec, Inc.

Glossary of Terms

Advanced IC Packaging Technologies, Materials and Markets, 2016 Edition

Partial List of Tables (all tables provide data for 2014 through 2020)

Chapter 3 Tables: Worldwide IC Packaging Overview

Worldwide IC Packaging Unit Shipments by Market Segment

Worldwide IC Packaging Annual Revenue by Market Segment

Average IC Packaging Prices by Market Segment

IC Units, Revenue & Price of various application markets, including: Cellular phones, Tablets, PCs, Set-Top Boxes, Digital Cameras and Camcorders, and GPS Devices

Chapter 4 Tables: Advanced Single Chip IC Packaging

Wafer-Level Packages Unit Shipments by I/O Count

Wafer-Level Packages Unit Shipments by Pitch

Fan-Out WLPs by Units, Price, and Revenue

Multi-Row QFNs by Units, Price, and Revenue

Chapter 5 Tables: Multichip Packaging Markets

MCP Market by Unit Shipments, IC Shipments, and Revenue

Total MCP Unit Shipments by Market Segment

Total MCP Revenue by Market Segment

Total Die in MCPs by Market Segment

MCP Unit Shipments by Application

MCP Units by Device Function

MCP Units by Interconnection Method

Chapter 5 Tables (continued):

Stacked TSOP Market by Unit Shipments, Price, and Revenue

Stacked FBGA Market by Unit Shipments, Price, and Revenue

Stacked QFN Market by Unit Shipments, Price, and Revenue

Stacked WLP Market by Unit Shipments, Price, and Revenue

Chapter 6 Tables: SiP Solutions and Substrate Materials

System-in-package Market by Units, Price, Revenue, and Total ICs

System-in-package Market Units, ICs, and Revenue by Market Segment

Package-on-Packages by Units, Price, Revenue and Total ICs

Package-in-Packages by Units, Price, Revenue and Total ICs

Multichip Modules by Units, Price, Revenue and Total ICs

Stacked WLPs Used in SiPs by Units, Price, and Revenue

Total Substrate Package Units and Revenue by Type of Substrate

Embedded Components in SiPs by Type of Device

Chapter 7 Tables: Interconnection Technologies and Solutions

Wire Bonded Units by Device Type and I/O Count

Flip Chip Package Units and Revenue by Packaging Type and I/O Count

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