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THE WORLDWIDE CONVENTIONAL AND ADVANCED PACKAGING MARKET FOR IC DEVICES

2019 EDITION

**The Most Comprehensive Report Available On The Global IC
Packaging Industry**

Report Highlights

- **Worldwide Integrated Circuit Market Forecasts, 2018–2023**
 - ◆ By Device Type and Function
 - ◆ By Packaging Type
 - ◆ By Major World Region
- **Worldwide IC Packaging Market Forecasts, 2018-2023**
 - ◆ By Package Type
 - ◆ By IC Type
 - ◆ By I/O Range
- **Advanced Packaging Market Forecasts, 2018-2023**
 - ◆ For Fan-Out WLPs
 - ◆ For Multi-Row QFNs
 - ◆ For Stacked Multi-Chip Packaging
 - ◆ For System-in-Package Solutions
- **Interconnection Technologies Forecasts, 2018-2023**
 - ◆ For Wire Bonding by IC Packaging Type
 - ◆ For Flip Chip by IC Device Type and Packaging Type
 - ◆ For Through-Silicon Vias

New Venture Research Corp.

337 Clay St., Suite 101

Nevada City, CA 95959

www.newventureresearch.com

A Technology Market Research Company

info@newventureresearch.com

Tel: (530) 265-2004

Fax: (530) 265-1998

The Worldwide Conventional and Advanced Packaging Market for IC Devices, 2019 Edition

Synopsis

The Worldwide Conventional and Advanced Packaging Market for IC Devices, 2019 Edition, a new report from **New Venture Research (NVR)**, examines the global marketplace of integrated circuits (ICs) and the many packaging designs developed for ICs. This comprehensive report presents detailed analysis of a vast and vibrant IC market that is expected to reach \$425 billion by 2023. The 385-page report provides insightful analysis of major market trends affecting the IC industry, and presents more than 170 tables quantifying both the IC devices and IC packaging markets. In addition, dozens of graphical figures provide an alternative perspective for understanding the underlying data. The report provides extensive and detailed quantitative analysis with forecasts for unit shipments, revenues and package pricing for 30 separate IC device types as well as 14 major packaging categories comprising 44 IC packaging market segments. Also covered are advanced IC packaging market segments and interconnection solutions. Virtually every table presents year-end data for 2018, plus five-year forecasts from 2019 through 2023.

The report is arranged into six chapters. An Introductory chapter (Chapter 1) and the Executive Summary (Chapter 2) present a short overview of the report with a description of its major conclusions and methodology. The remaining chapters focus on four major topics of discussion.

Chapter 3, Integrated Circuit Device Market Analysis, starts with a top-level view of the IC devices market with tables and figures detailing the market in terms of 30 distinct IC devices, plus additional segmentation by device functions

(processors, logic, memory and analog), and major world regions. The chapter then presents unit shipment and revenue forecasts of each device type in terms of the packaging types used for each.

Chapter 4, IC Packaging Market Analysis, examines the IC packaging market in deep granular detail. Tables provide historical data and forecasts of unit shipments, revenues and package ASP for 14 packaging "families" with additional segmentation based on the number of I/Os for the packaging types. Altogether, there are 44 market segments analyzed, each in terms of the IC devices embedded in the package.

Chapter 5: Advanced Packaging Markets, provides an in-depth discussion of the technologies and market trends of advanced packaging solutions:

- Fan-out wafer-level packaging (FOWLP)
- Multi-row QFN packaging (MRQFN)
- Vertically stacked multichip packages: TSOPs, QFNs, FBGAs, and WLPs
- System-in-packages (SiPs): package-on-packages, package-in-packages and multichip modules

Chapter 6: Interconnection Technologies and Solutions, provides a comprehensive examination of wire bonding and flip chip technology, in terms of both unit shipments and revenues. The analysis of flip chip markets includes forecasts of specific devices and packaging types. The chapter also examines the market potential of through-silicon vias (TSVs) for 2.5D and 3D packaging.

The Worldwide Conventional and Advanced Packaging Market for IC Devices, 2019 Edition continues NVR's leadership position in analyzing IC device markets and IC packaging products and technologies. This report is an effective and economical tool for any company interested in competing in the semiconductor industry or who may be simply looking for an aid in assessing the present and future of this dynamic industry. The report sells for \$3995 and is delivered by email as a single-user PDF file. Extra single-user licenses sell for \$500 each and a corporate license is available for an additional \$1500. With the purchase of the report, an Excel spreadsheet containing every table and graphic may be obtained for an additional \$1000 and a printed copy for \$250.

Worldwide IC Device Revenues, by Function, 2018-2023



About The Author

Jerry Watkins is an independent senior analyst with more than 20 years of direct 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 and office automation sectors and more recently in the semiconductor industry, writing on subjects that include IC packaging and merchant embedded computing. He holds two university degrees, including a B.A. in History and an M.A. in International Studies, but he feels that market research best fulfills his lifelong passion for inquiry into difficult subject matter and making it comprehensible to a wide audience. Mr. Watkins has lived and worked in Silicon Valley for most of his career.

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Chapter 2: Executive Summary

Chapter 3: Integrated Circuit Device Market Analysis

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Processor Devices: MPUs, MCUs (4-bit, 8-bit, 16-bit, 32+-bit), DSPs

Memory Devices: DRAM, SRAM, Flash, ROM/EPROM, EEPROM and Other

Logic Devices: Digital Bipolar Devices, Standard Logic, Gate Arrays, Standard Cell and PLDs, Display Drivers and Touch Screen Controllers, Special-Purpose Logic (Consumer, Computers, Communications, Automotive, Multipurpose and Other)

Analog Devices: Amplifiers and Comparators, Interfaces, Voltage Regulators and References, Data Converters, Application-Specific Analog (Consumer, Computers, Communications, Automotive, Industrial and Other)

Chapter 4 IC Packaging Market Analysis

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- Quad Flat Pack (QFP) Market

- Dual Flat Pack No-Lead Packaging (DFN) Market

- Quad Flat Pack No-Lead Packaging (QFN) Market

- Pin Grid Array Packaging (PGA) Market

- Ball Grid Array Packaging (BGA) Market

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Topic covers: Types of Multichip Packages, Benefits and Shortcomings, Multichip Packaging Challenges and Solutions, Techniques for Wafer Thinning

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The Worldwide Conventional and Advanced Packaging Market for IC Devices, 2019 Edition

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Forecasts of the Through-Silicon Via Market Segment

Appendix Glossary of IC Packaging Terms

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New Venture Research Corp.

337 Clay St., Suite 101

Nevada City, CA 95959

Tel: (530) 265-2004 Fax: (530) 9265-1998

www.newventureresearch.com; info@newventureresearch.com

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