THE WORLDWIDE ELECTRONICS MANUFACTURING SERVICES MARKET

2019 Edition

The Most Comprehensive Study Available on the Worldwide EMS Market

Report Highlights

- Worldwide Electronics Market Analysis, 2018–2023
 - 52 Product Segments by Region and Supplier
 - Total Assembly Value (OEM, EMS and ODM)
- Worldwide EMS Market Analysis, 2018–2023
 - OEM vs. Outsourced (EMS and ODM Subcontractors)
 - EMS, ODM, and OEM Production Market Share by Region, Market Segment, and Product (52 products and 900+ manufacturing facilities)
 - Regional Manufacturing Distribution by 52 Countries
 - Product Analysis by EMS, ODM, OEM, and Country
- Financial Benchmarks
 - Market Segment Metrics Revenue/Margin/Earnings
 - Revenue per Sq. Ft./ per SMT Line/ per Employee
 - WW Labor Rates, ROA/ROE Highest Performers
- In-Depth Company Profiles (Highest Performing EMS and ODM Companies from \$100+ Million - Total 102)

New Venture Research Corp.	A Technology Market Research Company
337 Clay St., Suite 101	info@newventureresearch.com
Nevada City, CA 95959	www.newventureresearch.com
Tel: (530) 265-2004	Fax: (530) 265-1998

Synopsis

The worldwide electronics manufacturing services (EMS) market is a determining force in production of electronics products and now accounts for 42 percent of all assembly. While the rate of growth for outsourcing experienced a burst in 2018, confirming that it is the most desired manufacturing model for the assembly of advanced electronics products available to OEM companies. The EMS industry increased approximately 18.1 percent in 2018 as a result of the growing of sales for communications infrastructure and internet storage.

New Venture Research (NVR) has followed this industry for over 25 years and is pleased to offer our latest update on this continually expanding market. Our report, *The Worldwide Electronics Manufacturing Services Market – 2019 Edition* is the most comprehensive market research report on the EMS industry. This analysis focuses on the leading players, growing market segments, total available market (TAM), and emerging manufacturing opportunities and technologies by numerous product and country.

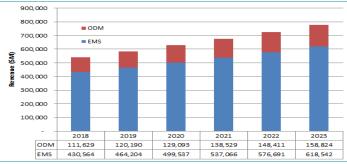
The report begins with an analysis of the worldwide electronics assembly market in terms of cost of goods sold, thus providing a baseline for the manufacturing value of electronics product assemblies. This forecast is checked against 52 individual product segments, including for the second time, The Internet of Things. The IoTs is looked at by industry segment (automotive, consumer, industrial, medical, aviation and aerospace and defense industries) as well as applications in home, commercial and government. NVR estimates that total electronics assembly value was \$1.3 trillion in 2018 and will grow to approximately \$1.5 trillion in 2023. Fueled by the demand for EMS services, the contract manufacturing industry will grow from \$542 billion in 2018 to \$777 billion in 2023 - approximately at a 7.5 percent CAGR.

To support this conclusion, the report analyzes the EMS industry in a variety of ways. First, it reviews the worldwide market for EMS and OEM electronics assembly by individual product. Second, the report

analyzes the EMS industry, including a breakdown of the market leaders and relative share by industry and region. Third, the market opportunity for emerging growth is presented by product and country across 52 product segments and 900+ manufacturing sites. No other report gives such detail by country wage rate and regional product assembly. The data can also be purchased as an Excel file to allow for easy analysis of the hundreds of variables collected in the report.

The report also includes an EMS financial performance analysis for the best-performing companies and examines a variety of critical financial metrics. Another chapter reviews EMS mergers and acquisitions for the past few years and the impact on the growth of the industry and its competitiveness.

The report concludes with profiles of the largest EMS and ODM firms (102 companies–83 EMS and 19 ODM) from all over the world. These reviews summarize the market focus of each company, its leading customers, and each company's financial production performance statistics. The intent of these profiles is to serve as a global directory and competitive analysis tool for industry participants.



The Worldwide Electronics Manufacturing Services Market, 2019 Edition is the product of hundreds of hours of research. The report sells for \$3995, with extra single-user licenses at \$500 and a corporate license at \$1500. This report is available in PDF format and is delivered by email (print at extra cost). An Excel spreadsheet of all data and tables may also be obtained for an additional \$1000.

About the Author

Randall Sherman is the president and principal analyst of New Venture Research Corp., a technology market research and business consulting firm focused on the EMS and OEM electronics manufacturing industries. Mr. Sherman has more than 25 years' experience in technology and business research. He began his career as a telecom network design engineer and holds an undergraduate degree in Astrophysics. He has held senior positions at various market research firms, including Creative Strategies, Frost and Sullivan, and BIS Strategic Decisions. Mr. Sherman holds an MSEE from the University of Colorado and an MBA from the Edinburgh School of Business.

Table of Contents

Chapter 1: Introduction

Objectives Organization Methodology

Chapter 2: Executive Summary

Worldwide Market Forecast Regional Market Share Application Market Share EMS Market Share EMS Performance

Chapter 3: Worldwide Electronics Industry

Forecast, 2018 - 2023

Overview World Economic Outlook **Summary Forecast Industry Forecasts Communications (9 product segments) Computers (10 product segments) Consumer (10 product segments)** Industrial (4 product segments) Medical (4 product segments) Automotive (5 product segments) Aviation, Defense, Other Transportation (9 product segments)

Chapter 4: EMS Industry Structure, 2018

The Worldwide OEM Market for Electronic Products Manufacturing Sources for Electronics Products **OEM Market by Seven Market Segments** EMS Market by Manufacturing Source (OEM, EMS) EMS Statistics by Company Size (large/med/small) **Regional Production Market Share (52 Countries)** Americas (7 countries) **EMEA (30 countries)** APAC (15 countries) Industry Production by Market Share (52 products) **Communications (9 product segments) Computer (10 product segments) Consumer (10 product segments)** Industrial (4 product segments) Medical (4 product segments) Automotive (5 product segments) **Commercial Aviation (5 product segments)** Military/Defense, Other Transportation (9 product segments) Worldwide EMS Supplier Market Share

Chapter 5: Industry Forecast, 2018-2023

Worldwide OEM Market for all Electronic Products Manufacturing Source for Electronics Assembly **OEM Market by Product and Market Segment** EMS Market by Production Source (OEM, EMS) **Regional Production Share by Country/Segment** Product Application Forecast (EMS, ODM) **Total WW Available Market by Product/Country**

Chapter 6: Financial Benchmarks

Overview

Financial Performance Benchmarks 5-Year Sales Growth Rankings Net Income Averages by Market Segment Gross Margins by Market Segment Return on Assets (Average plus Leaders) Return on Equity (Averages plus Leaders) Revenue per Employee (Average plus Leaders) Revenue per Square Foot of Manufacturing Space **Other Performance Metrics - Earnings per Share** Growth (Average plus Leaders) Average Base Wage Rate by 52 Countries Summary Performance Rankings by Leading Supplier

Chapter 7: Mergers and Acquisitions

Past Activity, 2013 - 2018 - Largest and Best Deals by Year **Acquisition Classes and Valuations - Methods Best OEM Divestment Opportunities by Region** M/A activity by OEM, EMS, ODM, OSAT and IDM

Chapter 8: Company Profiles of Leading Suppliers

3CEMS Accton Alco Electronics ALL CIRCUITS AmTRAN Asteelflash ATA IMS Berhad **Benchmark Bitron Electronics BMK** Celestica Cicor **Compal Electronics** Computime Connect Creation **Delta Electronics Di-Nikko** Ducommun Elemaster ECS Enics eolane **ESCATEC** Fabrinet Fideltronik Firstronic Flex Foxconn-Hon Hai Gemtek Technology Gigabyte Global Brands Mfg. **GPV** Group Hana Micro

HANZA Group IEC Electronics IMI Inventec Jabil **Kaga Electronics** Katek Katolec **KeyTronicEMS** Kimball Kitron LACROIX Leesvs Lite-On **Mack Technologies Sumitronics** Melecs Micro-Star MITAC **NEO Technology** New Kinpo Group Neways Nippon Mfg. Norautron Nortech Systems NOTE **Orbit One** OSE Pan-International PC Partner PCI, Ltd. Pegatron Plexus **Prettl Electronics** Providence

Qisda Quanta Computer Sanmina Scanfil Season Group Selcom SERCOMM Shenzhen Kaifa **Shenzhen Zowee** SigmaTron SIIX SMT Technologies SMTC Sparton Technology Supermicro Suzhou Etron SVI Topscom TPV **TQ-Systems TT Electronics** UMC USI Valuetronics Venture Vexos VIDEOTON V.S. Industry Vtech EMS Wistron **WKK** Wona's Zollner

Table of Contents (continued)

Partial List of Figures and Tables

Product Industry and Market Segments Nominal GDP of Major Countries and Regions **Real GDP Growth Rates for Selected Countries** Electronics Assembly Market, 2018–2023 Computer Products, 2018–2023 **Communications Products. 2018–2023** Consumer Products, 2018–2023 Industrial Products, 2018–2023 Medical Products, 2018–2023 Automotive Products, 2018–2023 **Commercial Aviation, Defense, Other Transportation** Products, 2018–2023 Worldwide EMS Market, 2018–2023 Worldwide OEM Market by Mfg. Source, 2018–2023 Worldwide OEM Market by Industry Segment, 2018–2023 Worldwide EMS Market by EMS Size, 2018–2023 Key EMS Statistics by Company Size, 2018 Worldwide EMS Market by Region, 2018 Large EMS Manufacturing Facilities by Country, 2018 Worldwide EMS Market by Country, 2018 - 52 Countries/Regions Worldwide EMS Market by Industry Segment, 2018 - 7 Market Segments, 52 Products - EMS and ODM Rankings EMS Market Share, 2018 **ODM Market Share, 2018** Top Ten CM Market Share, 2018 Worldwide OEM Market by Industry Segment, 2023 Worldwide EMS Market by Company Size, 2018–2023 Worldwide EMS Market by Country and CAGR - 2018 and 2023

Worldwide Total Market by Country and CAGR - 2018 and 2023 Worldwide EMS Market by Region and Industry Segment, 2018-2023 Worldwide Total Market by Region and Industry Segment, 2018-2023 Worldwide EMS and Total Market by Product - 52 Product Segments - Forecasts from 2018 to 2023 Summary Financial Performance Metrics for Large Public EMS Companies, 2018 **Key Financial Performance Metrics for Large** Public EMS Companies, 2018 Worldwide EMS Margins by Industry Segment, 2018 EMS Companies by Revenue Growth Rate, 2013–2018 EMS Companies by Net Income, 2018 EMS Companies by Gross Margin, 2018 EMS Companies by Return on Assets, 2018 EMS Companies by Return on Equity, 2018 EMS Companies by Revenue per Employee, 2018 EMS Companies by Revenue per Square Foot, 2018 EMS Companies by Average Days Collection, 2018 EMS Companies by Inventory Turns, 2018 EMS Companies by Available Cash, 2018 EMS Companies by Debt to Equity, 2018 EMS Companies by 5-Year EPS Growth, 2018 Worldwide Performance Ranking for Leading EMS Companies, 2018 Worldwide EMS Wage Rates by Country, 2018 Merger and Acquisition Activity, 2013–2018 Leading Merger and Acquisition Activity by Company, 2013-2018

Publish Date July 2019 ~600 Pages

Payment Method	Name	
Check in the amount of \$is enclosed. Invoice per P.O. # Please charge: Visa MasterCard American Express Card #Exp Name On Card	Title Company Address City/State/Zip Telephone Fax	
SignatureDate	E-mail	
The Worldwide EMS Market, 2019 Edition (Single Use Add Extra Single User License (\$500 each) or Corpor		\$3995
Returns: No return privileges. International Orders: Must be prepaid,	Subtotal	
please contact us for payment arrangements. New Venture Research Corp. 337 Clay St., Suite 101 Nevada City, CA 95959 Tel: (530) 265-2004 Fax: (530) 265-1998	Add Excel Spreadsheet of all tables (\$1000)	
www.newventureresearch.com; info@newventureresearch.com	TOTAL	

Order Form

Average Merger and Acquisition Valuations by Company, 2013–2018