The Worldwide Semiconductor and Manufacturing Assembly Markets - 2012 Edition

A Unique Database of the Semiconductor and PCB Manufacturing Assembly Value for 47 Unique Product Applications, Forecasted from 2011 - 2016

Database Highlights - Published February, 2012

- Product Segment Analysis, 2011
 - Automotive
 - Communications
 - Computer/Peripherals
 - Consumer Electronics
 - Industrial
 - Medical
 - Aerospace/Military/Other Transportation
- Revenue Level Analysis, 2011 2016
 - Semiconductor Units, ICs per Unit, Total ICs
 - ICs Value per Unit, IC Revenue, IC ASPs
 - Passives/Discretes/ Non-IC Assembly Value
 - PCB and Box Assembly Value
 - Total Assembly Value (COGS)
 - IC/Non-IC/PCB/Box Assembly Value Percentages

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The Worldwide Semiconductor and Manufacturing Assembly Markets

Synopsis

The Worldwide Semiconductor and Manufacturing Assembly Markets - 2012 Edition is a special report consisting of an Excel database and Word document discussion. The report examines the total assembly costs of 47 different electronics products starting with their semiconductor value, non-IC related costs, assembly of printed circuit board (PCB) and final box assembly. As such, it provides a unique understanding of the total cost of goods sold (COGS) for leading electronics products.

New Venture Research (NVR) has followed the electronics assembly industry for over 20 years with numerous research reports that focus on semiconductor packaging, printed circuit board assembly, as well as the EMS subcontracting markets. This latestreport, The Worldwide Semiconductor and Manufacturing Assembly Markets - 2012 Edition, is designed to help our customers understand the true cost of electronics manufacturing within seven critical electronics market segments including:

- Automotive
- Communications
- Computers /Peripherals
- Consumer Electronics
- Industrial
- Medical
- Aerospace/Military/Other Transportation

Within these seven market segments are 47 unique product categories (detailed next page) that are quantified for their electronics assembly value. The following production data is provided for each individual product category in terms of units shipped, average selling prices (ASPs), and assembly revenue:

- Semiconductor ICs
- Passives/Discretes
- Non-PCB Assembly
- PCB Assembly
- Box Assembly
- Total Assembly

A separate Word document provides a discussion of each market segment, leading and emerging products, and dominant trends. High growth products are examined for their market leadership and impact on the semiconductor, PCB and Box assembly markets.

The Worldwide Semiconductor and Manufacturing Assembly Markets - 2012 Edition will provide the critical information you need to understand electronics COGS assembly. The Excel and Word files are delivered by email with a single-user license priced at \$2,995. An extra single user license is \$250 and a corporate license is \$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 performed his undergraduate work in Astrophysics and holds an MSEE from the University of Colorado and an MBA from the Edinburgh School of Business.

The Worldwide Semiconductor and Manufacturing Assembly Markets

Spreadsheet Table Metrics: Units (M), ASP (\$), Rev. (\$M)

Segment 1: Automotive

Automotive Engine Controls

Automotive Instruments

Automotive Safety

Automotive Entertainment

Total Automotive

Automotive OEM Summary (Word file)

Total ICs, passives/discretes, labor/overhead (e.g. PCB assembly value) & box assembly

Segment 2: Communications

Mobile Phones (smart and dumb)

Mobile Phone Infrastructure

Other Phones (cordless 7 standard)

Enterprise LANs

Wireless LANs

DSL/Cable Modems

PBX/Key Systems

Carrier-Class Equipment

Other Communications (satellite, etc.)

Total Communications

Communications OEM Summary (Word file)

Total ICs, passives/discretes, labor/overhead (e.g. PCB assembly value) & box assembly

Segment 3: Computer/Peripherals

Notebooks

Desktops

Tablets

Servers

Workstations

ESS

Monitors

Printers

E-Readers

Other Computer

Total Computer

Computer OEM Summary (Word file)

Total ICs, passives/discretes, labor/overhead (e.g. PCB assembly value) & box assembly

Segment 4: Consumer Electronics

Analog TV

Digital TV MP3

Other Audio

Video Console Games

Set-Top Boxes

Camcorders

DVD/DVRs

Digital Cameras

Personal Navigation

Other Consumer (Appliances)

Total Consumer

Consumer OEM Summary (Word file)

Total ICs, passives/discretes, labor/overhead (e.g. PCB assembly value) & box assembly

Segment 5: Industrial

Process Control

Test & Measurement

Other Industrial

Clean Energy

Total Industrial

Total Industrial OEM Summary (Word file)

Total ICs, passives/discretes, labor/overhead

(e.g. PCB assembly value) & box assembly

Segment 6: Medical

Monitoring

Therapeutic

Diagnostics/Surgical

Total Medical

Medical OEM Summary (Word file)

Total ICs, passives/discretes, labor/overhead (e.g. PCB assembly value) & box assembly

Segment 7: Aerospace/Military/Other Transportation

In-Flight Entertainment

Navigation Systems

Weapons

C3 Systems

Other Military

Other Aerospace/Other Transportation

Total Aerospace/Other Transportation

Aerospace/Other OEM Summary (Word file)

Total ICs, passives/discretes, labor/overhead

(e.g. PCB assembly value) & box assembly

Each product segment contains revenue, unit and ASP product-level information for ICs, PCB, and Box Assembly COGS.

The Worldwide Semiconductor and Manufacturing Assembly Markets

Sample Summary Database Table for Computer/Peripherals Products

Computer/Peripherals	2011	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	CAGR
Product Units (M)	XXX	XXX	XXX	XXX	XXX	XXX	12.7%
Total ICs (M)	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	15.9%
IC\$ Per Unit	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	6.9%
IC Rev (\$M)	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	13.1%
ICs Per Unit (M)	XX	XX	XX	XX	XX	XX	5.5%
ICs (M)	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	15.3%
PCB AssyIC Value Per Unit (\$)	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	12.8%
PCB AssyIC Value (\$)	\$\$	\$\$	\$\$	\$\$	\$\$	\$\$	12.7%
PCB AssyNon-IC Value Per Unit (\$)	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	11.8%
PCB AssyNon-IC Value (\$)	\$\$	\$\$	\$\$	\$\$	\$\$	\$\$	11.7%
PCB Assy Value (\$M)	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$	13.3%
PCB Assy % of Total Assy	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	N/A
Box Assy Value Per Unit (\$)	\$\$	\$\$	\$\$	\$\$	\$\$	\$\$	11.7%
Box Assy Value (\$M)	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	11.6%
Total Assy Value (\$M)	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	\$\$\$\$\$	13.2%
% of Total Assy Value	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	N/A
Box Assy/Total Assy Value	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	N/A
Total Assy Value Per Unit (\$)	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	12%
PCB AssyNon-IC Value (%)	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	XX.X%	N/A
PCB AssyNon-IC Value (\$)	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	10.8%

Published February, 2012 - Excel Database & Word File Discussion (32 pages)

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