

## Semiconductor Spend Analysis

## Discover the Hotbeds of Global Chip Spending Activity

By Min-Sun Moon, Senior Analyst

**Lead Analyst****Min-Sun Moon, Senior Analyst**

At iSuppli, Min-Sun is responsible for the Semiconductor Spend Analysis tool and the Design Activity Tool (DAT)<sup>™</sup>.

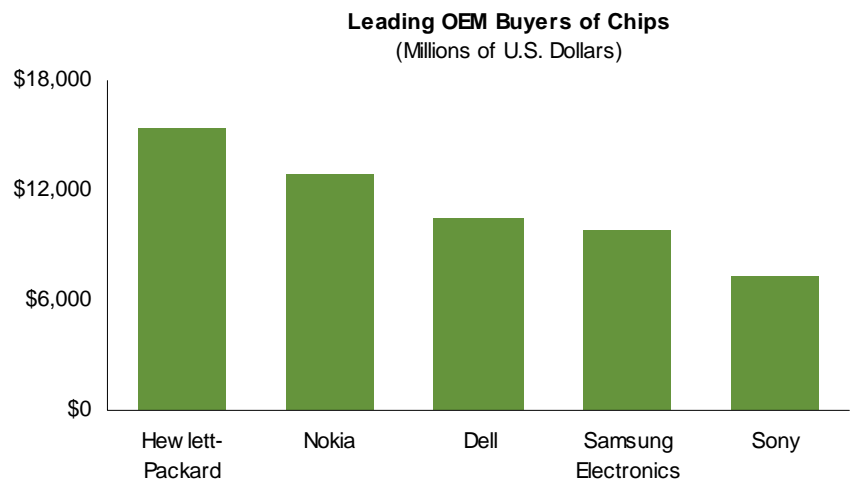
Prior to joining iSuppli, Min-Sun was an international sales and marketing manager at DAWIN Technology, a semiconductor design firm based in Seoul, where she developed international marketing strategies, conducted sales activities with international semiconductor and electronics customers, and worked with semiconductor manufacturers. Min-Sun was also a senior business consultant at SourceBlue Consulting and a network engineer at Schlumberger Network Solutions.

Min-Sun earned a Bachelor of Science degree in Mathematics from Chosun University in Korea and a Master of Business Administration degree from the University of Houston.

The semiconductor Spend Analysis Tool provides three databases\* (1) OEM Semiconductor Spend Analysis, (2) ODM Semiconductor Spend Analysis and (3) EMS Semiconductor Spend Analysis. The tool examines the semiconductor spending of top 186 OEMs, top 28 ODMs, and top 10 EMS firms.

Each database includes direct dollar spending by device type, application, and geography. In addition, OEM semiconductor Spend database displays indirect spending via outsourced services, such as ODMs and EMS companies, as part of their service to the OEM. The databases are updated semi-annually, and the regional versions for the OEM semiconductor spend data can be purchased separately.

\*The three databases are only available with the "WW" or "WW + 4 Regions" versions. Individual Regions only contain the OEM database.

**Critical Questions Answered**

- On which customers should I focus my selling resources?
- As a buyer of semiconductors, how does my market power compare to other OEMs?
- To what degree does my OEM customer outsource, and how does that affect my selling process?
- Who are the top prospects in the various regions?
- Who are the top prospects for various types of chips (30 categories)?
- Where should we align our resources – technical support, sales support or customer service?

**Who Should Use This Tool?**

- OEMs
  - Supply chain management
  - Strategic sourcing
- Semiconductor suppliers and distributors
  - Marketing, planning and sales management
  - Market research, market strategy
  - Sales operations
- ODM / EMS providers
  - Business development
  - Supply chain management
- Financial community
  - Fund management
  - Value assessment

**Methodology**

iSuppli analysts employ a two step "Model and Validate" process to determine the spending levels. We first create modeled estimates of what the spending should be based on systems revenues (and units in certain cases) and semiconductor content. We then validate this through primary research surveys and expert interviews.

**Systems Data**

The OEM system hardware data is sourced from iSuppli's databases and surveys, public financial data, and analyst estimates.

**Double Counting**

In order to properly account for chip consumption by certain companies, iSuppli eliminated the double accounting of purchased "branded" subsystems such as storage systems, monitors, mice, keyboards, etc. Also, many companies engage in buy-resell activities to round out product lines. For this study, purchases of notebook computers, PC motherboards, and handsets from ODMs are considered as part of the OEM supply chain.

**Semiconductor Spend Estimates**

iSuppli used its extensive databases on semiconductor content of various system types as the primary first pass method of determining the chip spend by account. These numbers were modified by various primary research methods (primarily interviews). iSuppli analysts who are experts in systems markets, EMS/ODM outsourcing, and semiconductor devices were also utilized to assure quality.

**Variability**

In the process of conducting the research, iSuppli learned that even large OEMs, in some cases, had trouble knowing their own spend because of complex contractual relationships. iSuppli's methodology attempts to help OEMs determine their spend.

**Regional and ODM/EMS Estimates**

Inputs for these estimates were obtained from the actual companies and from analyst disclosures and various secondary sources. iSuppli also used its own Competitive Landscape Tool and Application Market Forecast Tool to provide regional chip shipment guidelines. Using research and data on the semiconductor spending from iSuppli's EMS/ODM service, we were able to create regional spend guidelines.

**Forecasts and Features**

OEM Semiconductor Spend, ODM Semiconductor Spend, and EMS semiconductor Spend provide same frequency, time period, measures and regions and markets covered.

- Executive Summary PDF (included only in the Worldwide or full regions version)
- Frequency, Time Period
  - 2007 & 2008 Actual
  - 2009, 2010, 2011 forecast
  - Semi-annual updates
- Measures: Spending in US dollars
- Regions and Markets Covered
  - Worldwide
  - Americas\*
  - Asia-Pacific\*
  - EMEA\*
  - Japan\*
- Content on each database
  - 38 semiconductor device categories
  - 10 applications
  - Total revenues, hardware electronic revenues, net system electronic revenues
  - Highlights
- Extra features on OEM semiconductor Spend
  - 7 sub application for computer application and 3 sub application for wireless application (worldwide only)
  - Point of consumption by OEM and OEM/EMS
- Extra feature for ODM semiconductor Spend
  - Spend by Business Type (ODM or OEM business)

\* Revenues only in worldwide version.

**Applications / Markets**

- Automotive Electronics
- Computer Platforms
- Computer Peripherals
- Consumer Electronics
- Industrial Electronics
- Medical Electronics
- Military/Aerospace Electronics
- Power
- Wireless Communications
- Wired Communications

**Semiconductor Segments**

- Total Semiconductor
- Total IC
- Memory IC
  - DRAM
  - SRAM
  - Flash
  - NAND/NOR
  - Other Non-Volatile
  - Other Memory
- Microcomponent IC
  - MPU
  - MCU
  - DSP
- Logic IC
  - Standard Logic
  - Display Drivers
  - PLD/FPGA
  - Logic ASSP
  - ASIC
- Analog IC
  - Standard Linear
  - Amplifier/Comparator
  - Voltage Regulator/Reference
  - Data Converters
  - Interface
  - Analog ASSP
- Discrete
  - Power Transistors & Thyristor
  - RF and Microwave
  - Rectifier & Power Diodes
  - Small Signal & Other Discretes
- Optical Semiconductors
  - Image Sensors
  - Laser Diodes
  - LEDs
  - Other Optical
- Sensors and Actuators