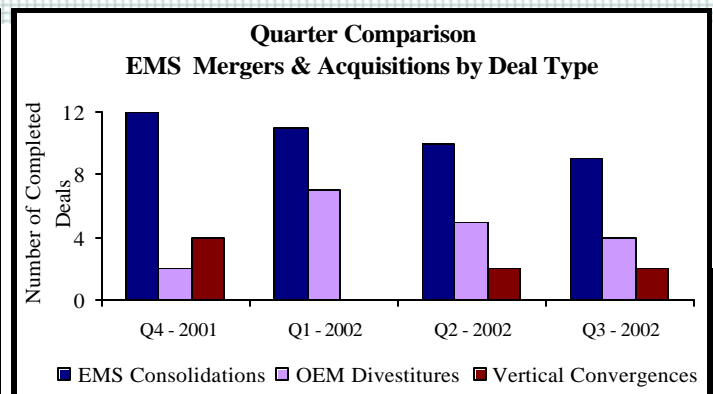
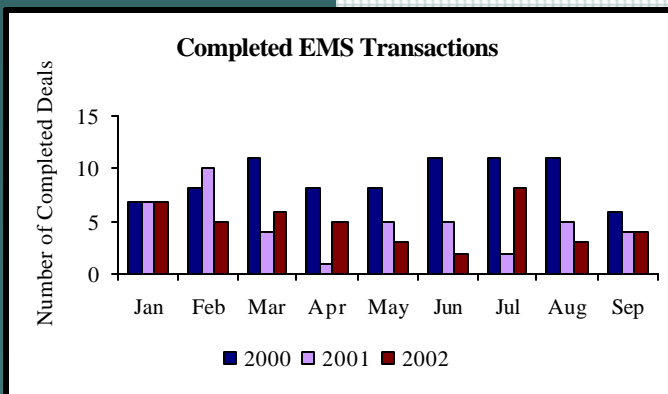


# EMS DEALREADER

**Our Mission...**

To provide the highest quality, results oriented merger & acquisition, strategic consulting and capital raising advisory services to EMS companies, OEMs, and private equity groups.

## Q3-2002 DEAL VOLUME COMPARISON



### Announcements

- Wistron, a subsidiary of major ODM Acer, has been selected as the second EMS source for Microsoft's Xbox video game system. (9/02)
- ITN Technology Corp. has acquired Solecron's Greenville, SC based Carolina Circuits division. (9/02)
- Flextronics has acquired a South African company called Azisa, which provides hardware and software engineering services. (10/02)
- Everett Smith Group, Ltd., an investment company, has acquired OEM Worldwide, an EMS provider located in Watertown, SD. (10/02)
- Mack Technologies has acquired two Solecron plants in Melbourne, FL and Juarez, Mexico. (10/02)

As demand fails to regain momentum and the underutilization of facilities begins to take its toll, EMS companies are facing a never-been-seen-before situation. As a result, they are selling off facilities, unwinding deals with OEMs, becoming increasingly leery of OEM divestitures and are acquiring companies that broaden their capabilities.

Solecron, in particular, has recently experienced a flurry of divestitures. The company has recently sold two plants to Mack Technologies and Carolina Circuits to ITN Technology Corp. It is also in the process of unwinding a deal with Lucent which involved a three year contract worth \$2 billion for Lucent's optical networking products.

Because of situations like Solecron's, EMS companies have beefed up their negotiation skills with regard to OEM divestitures. Due to the fixed cost risk associated with acquiring an OEM's facility, it is now common for outsourcing deals to take on a hybrid form and exclude the facility. Additionally, EMS companies are requiring OEMs to meet specific volume targets and

are limiting the amount of equipment, inventory and employees that are part of the deal.

Many EMS providers are also exploring capabilities outside the realm of the traditional EMS model. These capabilities may include design, repair and various after-sales services. This movement of EMS companies toward becoming "full-service" providers is threatening the once distinct line between ODMs and EMS companies. For example, Flextronics recently acquired a hardware and software engineering services company called Ariza. This acquisition not only broadens its capabilities, but moves Flextronics closer to becoming a full-service electronics design and manufacturing provider or EDM (see article on back).

Fifteen transactions closed this quarter, down slightly from last quarter's toll of seventeen. Transactions classified as EMS consolidations, OEM divestitures and vertical convergences have remained relatively flat, respectively, as compared to last quarter. Acquisitions by Micro and Large EMS providers have comprised the majority of all transactions this quarter, with 6 in each category. Whereas, Small and Mid EMS companies only accounted for 20% of all closed transactions this quarter with 1 and 2, respectively.

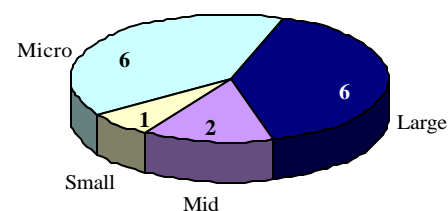
*Sources: All information contained in this newsletter including the charts was obtained from Bloomberg, company websites, Deutsche Bank research, EBN News, Lincoln Partners' internal data, Manufacturing Market Insider and Manufacturing News.*

### EMS Size Guide

(Sales Dollars)

- Large (Tier I)** - Greater than \$4 billion
- Mid (Tier II)** - \$1 billion to \$4 billion
- Small (Tier III)** - \$100 million to \$1 billion
- Micro (Tier IV)** - Below \$100 million

### Q3 - 2002 Mergers and Acquisitions by Size



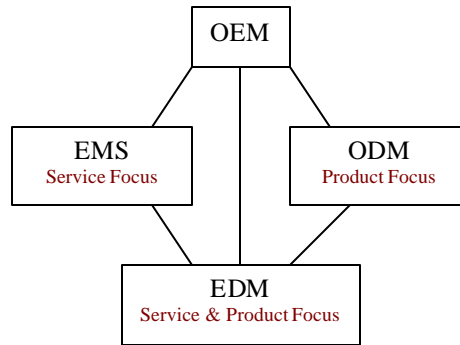
# EMS + ODM = EDM

In the world of electronics, a battle ground is emerging in China. As both EMS providers and ODMs stake claims in Chinese territory while simultaneously building design and manufacturing capabilities, a competitive clash will occur.

In years to come, the EMS and ODM models will most likely collide to form the EDM (electronics, design and manufacturing) model. This collision is a result of the development of skills over many years, and consequently the ability to take on additional capabilities. This trend is apparent in both models. EMS companies are realizing the necessity of adding value to many of their services. As a result, many larger EMS companies have evolved into "full service" providers by providing design, supply-chain management, testing and assembly services to OEMs.

Similarly, ODMs are becoming service providers as their model becomes increasingly attractive to OEMs. OEMs are purchasing commodity products from ODMs and focusing internal resources for R&D on more technologically complex products. Historically, the ideal product for the ODM model is where most of the technological R&D is at the chip level and done by the major semiconductor companies. The product level design is less "technological" and relatively "simple." This shift to procure designed commodity products has resulted in more outsourcing for ODMs, many of which have experi-

ditionally, ODMs have been moving production to China. While they will continue to use Taiwan as a design center, labor-intensive production will shift to China. ODMs are also attempting to diversify their customer focus and increase the level of design complexity by entering other markets such as telecom, networking and industrial equipment. These fundamental changes in the ODM model are narrowing the separation between EMS providers and ODMs.



In past years, Quanta Computer Inc., an ODM in Taiwan, has focused on manufacturing PC notebooks. However, Quanta is presently expanding into the wireless, server and other high-end computing markets. Furthermore, the company is moving production to Shanghai in order to capitalize on China's lower labor costs. This movement strategically places Quanta in the ever-expanding "gray area" between EMS providers and ODMs. Quanta will become an electronics, design and manufacturing provider or ("EDM") by effec-

tively combining the strengths of an ODM in Taiwan with low cost EMS in China. Nevertheless, ODMs still lack the manufacturing capabilities and global footprint of EMS providers.

On the other side of the battle ground, EMS companies are continuously expanding design capability and adding new services to their portfolio. Flextronics International Ltd. (Singapore), is on track to become a competitor to the ODM model. Flextronics' substantial Asian footprint and strong design capabilities make it an adept challenger. Much like an ODM, the company has developed a cell phone for Motorola.

Venture, a Singapore-based EMS company, recently raised its "EDM" status by developing and launching a digital color label printer. However, Venture, Flextronics and other EMS companies still have distance to cover in the realms of original product design.

Needless to say, both sides are continuously taking on additional capabilities and a few new competitors are emerging. The weak economy has sped up the impending battle between EMS providers and ODMs, as the majority of companies are striving to win market share and maintain profitability. Nevertheless, as the battle inches closer, the victory remains uncertain for both contenders.

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	EMS Providers	ODMs	EDM Providers
Design Capabilities	+/-	+	+
Low Cost Production	+	+	+
Supply Chain Mgmt./Control	+/-	-/+	+
Time to Market	-	+	+
Extent of Service/Product Offerings	+	-	+
Global Footprint	+	-	+
Diversity of Customer Base	+	-	+
Protection from Inventory Risk	+	-	+

## About Lincoln Partners

Lincoln Partners is an investment bank headquartered in Chicago providing advisory and transactional services to companies involved in manufacturing, distribution, branded products, and business services. The firm has an EMS practice, led by a former CEO of a public EMS company. The EMS team provides transactional, financial and strategic advisory services to OEMs, EMS providers, and private equity groups.