

Manufacturing Market™ INSIDER

inside the contract manufacturing industry

Vol. 19, No. 2

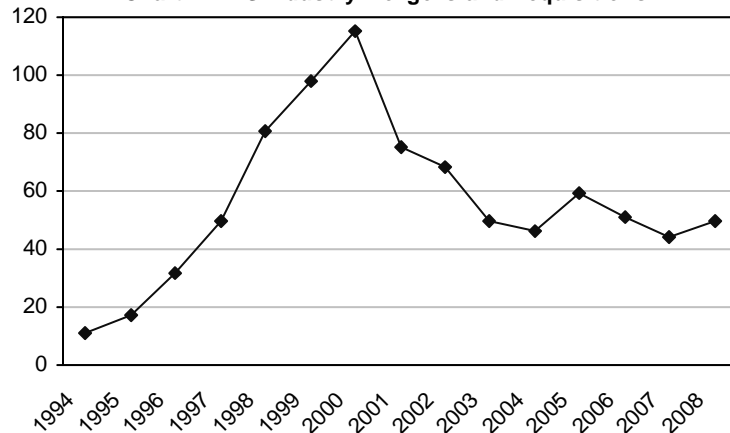
February 2009

M&A Up by 14% in 2008

In 2008, the number of EMS industry mergers and acquisitions increased by 14%, reversing the downward trend of the previous two years. *MMI's* annual Scorecard, or summary, of EMS industry M&A shows 50 transactions closed in 2008, up from a revised total of 44 completed in 2007. The 2008 total of 50 nearly matches the 51 deals tallied in 2006 and falls within the range of annual counts made over the last six years. From 2003 onward, the number of transactions has gone no higher than 59 and no lower than 44 (Chart 1).

The annual Scorecard on pages 2 and 3 lists each of the 50 M&A deals done last year. Scorecard analysis reveals that the number of M&A transactions increased in three out of the five categories that *MMI* tracks. One category, in particular, posted the largest increase in deals over 2007 and hence accounted for the greatest contribution to M&A growth in 2008. This is the case, marked C on the Scorecard, where one EMS provider acquires an operation from another provider. In 2008, 24 deals of this type occurred, compared with 17 in the prior year (Chart 2, p. 5). That's an increase of 41%. What's more, the number of competitor operations acquired in 2008 was greater than any prior count in this category since the year 2000, when overall deal making reached an all-time high (Chart 3, p. 5).

Chart 1: EMS Industry Mergers and Acquisitions



Such deals are attractive because they typically add capacity, revenue and customers and often expand the acquirer's reach. These transactions appeal most to small and medium-sized providers seeking growth and geographic expansion through acquisition. Top-five providers accounted for only three of these transactions in 2008. They are often not a good fit for the largest providers, because such deals have little or no impact on foot-

print or revenue, unless a major competitor is on the block.

For the second year in a row, acquisitions of competitor operations comprised the most common type of deal made in 2008. These acquisitions represented 48% of M&A transactions in 2008, up from 39% in 2007.

In 2008, 21 independent EMS providers were sold to competitors, compared with 14 the year before. The

continued on p. 3

Some articles in this issue

Cover story.....	1
Acquisitions of competitor operations jumped in 2008.	
MMI Scorecard of mergers and acquisitions.....	2-3
Summary of alliances and equity partnerships.....	4
Bleak Estimates for Q1.....	6
JDSU to Divest Shenzhen Operations to Sanmina-SCI.....	7

M&A 2008

MMI Scorecard: EMS Industry Mergers and Acquisitions in 2008					
Deal Maker	Home Base	Type	Target	Location	Some Details
ASTEEL	Neuilly Plaisance, France	C*	Flash Electronics	Fremont, CA	Europe-based provider gained EMS operations in California and China. Combined company will have a run rate over \$750 M, about 4,500 people and over 1 M sq ft. Gained UK presence.
		C*	MRP Electronics	Bedford, UK	
BAVARIA Industriekapital	Munich, Germany	N	Elcoteq's German subsidiary	Offenburg, Germany	Elcoteq divested its German unit, whose sales were about 120 M euros in 2007.
Catalyst Manufacturing Services	Endicott, NY	C*	Assets of Ramp Industries	Binghamton, NY	
CDR Manufacturing	Louisville, KY	C*	ACT Electronics operation	Corinth, MS	Acquired 350,000-sq ft facility with more than 200 employees. ACT was undergoing liquidation.
CEI Contract Manufacturing Limited	Singapore	S	IC Equipment Pte Ltd	Singapore	Acquired designer and manufacturer of electromechanical modules and machines for S\$5.1 M (\$3.5 M).
Cicor Technologies	Zurich, Switzerland	C*	ESG Holding PTE Ltd.	Singapore	Purchased a 60% stake in ESG with about 380 employees and production in Singapore, Indonesia and Vietnam. Deal gave Cicor an EMS presence in Asia.
Codan	Newton, Australia	N	Minelab Electronics	Adelaide, Australia	Minelab acquisition included an EMS provider, Parketronics.
Computrol	Meridian, ID	C*	Wolf Electronix	Orem, UT	Deal expands Computrol's service market in the Salt Lake City area and increases capacity and flexibility.
Creation Technologies	Burnaby, B.C., Canada	C*	Circuit Service, Inc. and its China unit	Wheeling, IL Changzhou, China	CSI employed 255 people in its 53,000-sq ft facility in Wheeling. 56 people worked in the 36,000-sq ft China plant, which became Creation's first production site in Asia. Creation planned to move its San Jose operation into ProWorks' facilities totaling 50,000 sq ft.
		C*	ProWorks	Santa Clara, CA	
CTS	Elkhart, IN	C*	Orion Manufacturing	San Jose, CA	Paid about \$10 M plus earnout of up to \$1.75 M for Orion, which had 2007 sales of about \$27 M and 30,000 sq ft.
Delta Group	Albuquerque, NM	C*	Bitworks	Prairie Grove, AR	
Elcoteq	Luxembourg	O	Philips LCD-TV operation	Juarez, Mexico	Planned to pay about \$32 M for this LCD-TV final assembly operation, which employed about 740 people. Annual revenue of \$250 M expected in subsequent years.
Enigma Interconnect	Vancouver, B.C., Canada	C*	Certain EMS assets of Lyrtech	Montreal, Canada	Acquired manufacturing assets by assuming leasing and debt obligations of Can\$1.2 M. Also bought inventory for Can\$344 K, took on other liabilities of Can\$1.2 M, and paid Can\$500 K in a private placement with Lyrtech.
Flextronics	Singapore	S	Avail Medical Products	Fort Worth, TX	Acquired privately held manufacturer of disposable medical devices with operations in the U.S., Mexico and China. Bought Arima's ODM activities in notebooks and servers. Arima listed the price as \$191.5 M. Flextronics valued the purchase at \$180 M in a later disclosure.
		S	Arima operations	WuJiang, China, plant and other locations	
		O	ECI Telecom operations	Israel	ECI makes networking infrastructure equipment.
		S	CEAG's FRMO Mobile Power unit	China	Paid about 56 M euros, subject to adjustment, for maker of mobile-phone power supplies and chargers. Added about 18,000 employees and 700 K sq ft of capacity.
		S	ColdWatt	Texas	Purchased maker of high-efficiency power supplies.
HANZA	Stocksund, Sweden	C*	Arotronic	Zukowo, Poland	Acquired Polish EMS provider.
		S	Tarkon	Tartu, Estonia	Acquired mechanical subcontractor.
		S	Molift Supply	Svärta, Sweden	Bought a welding operation from a maker of hospital equipment. Deal included a supply contract.
Hon Hai Precision Industry (Foxconn)	Tucheng City, Taiwan	C	Operations within Sanmina-SCI's PC business	Australia, Hungary, Mexico, U.S.	Sanmina-SCI divested a portion of its PC business to Hon Hai's Foxteq affiliate. Proceeds of between \$80 and \$90 M were expected.
		C	FIC plant	Rudna, Czech Republic	First International Computer plant produces PCs, LCD and plasma TVs, monitors and other devices.
IEC Electronics	Newark, NY	S	Val-U-Tech	Victor, NY	The purchase price was about \$10 M for the cable assembler with 2007 sales of \$11.0 M.

C = CM acquiring or merging with CM operation. O = OEM divesting OEM operation.
S = service or supply chain extension. N = new player. *Consolidation deal.

MMI Scorecard: EMS Industry Mergers and Acquisitions in 2008					
Deal Maker	Home Base	Type	Target	Location	Some Details
Jaltek Group	Luton, UK	S	Hidalgo	Swavesey, UK	Acquired a design and development services company specializing in RF telecom and physiological monitoring.
Jurong Technologies	Singapore	S	Priver Electric	Dongguan, China (factory)	Bought a company in the metal stamping and mechanical contract manufacturing business.
KA Elektronik	Åtvidaberg, Sweden	C	PartnerTech operation	Åtvidaberg, Sweden	PartnerTech divested this PCBA operation to a local manufacturer.
Kimball Electronics Group	Jasper, IN	C*	Genesis Electronics Manufacturing	Tampa, FL	Genesis had 2007 sales of about \$16 M. Purchase price totaled \$5.4 M including liabilities of \$2.3 M. Goodwill was about \$2.0 M. KEG planned to move the Genesis operation into KEG's Tampa facility.
LaBarge	St. Louis, MO	C*	Pensar Electronic Solutions	Appleton, WI	Paid about \$45 M, subject to adjustments, for Pensar with projected 2008 sales of about \$55 M. Price was in the neighborhood of six times 2008 EBITDA.
LACROIX Electronique (division of LACROIX Group)	Vern sur Seiche, France	C*	PrehTronics	Willich, Germany	In 2007, Prehtronics achieved sales of 29.6 M euros with 130 workers. LACROIX Electronique had sales of 105 M euros with 1,273 employees in fiscal 2007.
MAP Technology Holdings	Singapore	S	THARSYS	near Toulouse, France	Purchased a design and development firm whose expertise includes aviation electronics.
MAP Technology Holdings	Singapore	S	Plastics and metal operations of Jurong Technologies	Singapore, Malaysia and China	Jurong divested plastics and metal operations to MAP, a provider of EMS and components for disk drives.
Neways Electronics International	Son, The Netherlands	S	i-Products	Leende, The Netherlands	Acquired firm strengthens Neways' development capabilities.
NOTE	Danderyd, Sweden	C*	Proqual	Tetbury, UK	Acquired prototyping/low-volume house with annualized sales of about SEK 45 M (\$7 M), 40 people and 20 K sq ft.
		S	Kjell Tengmo	Järfälla, Sweden	Acquired a mechanical engineering company with annualized sales of about SEK 25 M (\$4.1 M).
		C*	Norteam Electronics	Oslo, Norway	Added prototyping/low-volume operation with annual sales of about NOK 50 M (\$7.1 M) and 40 people.
Optimum Design Associates	Pleasanton, CA	S	RockSolid Design	Mountain View, CA	Optimum, a PCB design house and quick-turn EMS provider, acquired another PCB design house.
Parker Hannifin	Cleveland, OH	N	Vansco Electronics	Winnipeg, Canada	Acquired an EMS business as part of Vansco.
PartnerTech plant management	Åbo, Finland	N	PartnerTech plant	Åbo, Finland	PartnerTech sold its PCBA plant in Åbo to plant management.
Probe Manufacturing	Lake Forest, CA	Other	Solar Masters	U.S.	Acquired importer and distributor of solar-powered products.
RAD Electronics	Sun Valley, CA	C*	RPM Technology	Fort Collins, CO	RPM had around 120 employees.
Rimaster	Rimforsa, Sweden	N	ElectroSystem	Söderhamn, Sweden	Contract manufacturer of electrical and mechanical systems bought a company with electrical and EMS capabilities.
SMS Electronics	Beeston, UK	O, S	Siemens operation	Beeston, UK	Siemens Enterprise Communications sold an operation providing after-sales services.
Stadium Group	Hartlepool, UK	C*	Zirkon	Rugby, UK	Paid £2.5 M for provider with 84 employees, 6,000 sq m, and annual sales over £7 M.
Sunburst EMS	West Bridgewater, MA	S	New England Wire Assemblies	Salem, MA	Purchased provider of custom wire harnesses and cable assemblies.
TES Electronic Solutions	Langon, France	S	Assystem design center	Quimper, France	Deal adds mechanical design and product certification.
Triton Electronik	Pointe-Claire, Quebec, Canada	C*	Positron Technologies	Kirkland, Quebec, Canada	Acquired Positron, which had been operating under court supervision. Positron was a Can\$60 M-a-year business.
TS3 Technology	Franklin, TN	C*	Alpha Circuits	Stafford, TX	Deal will expand TS3's footprint and product capabilities. Facility space will increase to over 200,000 sq ft.

C = CM acquiring or merging with CM operation. O = OEM divesting OEM operation.
S = service or supply chain extension. N = new player. *Consolidation deal.

resulting increase is 50%, reflecting a greater abundance of both buyers and sellers of independent operations. By joining a larger organization, sellers gain capabilities, financial resources

for growth, purchasing power and a larger footprint. As the industry consolidates, these sellers have come to the conclusion that operating alone is no longer in their best interests.

The 21 operations sold amount to a loss of 21 independent providers to consolidation in 2008. (These transactions are designated C* on the Scorecard.) The number of consolidation

EMS Industry Alliances and Equity Partnerships in 2008				
Company	Home Base	Partner	Location	Some Details
Alco Holdings	Hong Kong	BOE Hydix Technologies	South Korea	Alco Electronics parent is one of three investors that bought a 95% stake in BOE, a producer of LCD panels.
Brantham Engineering	Witham, UK	ATM Electronics	Sofia, Bulgaria	Joint venture allows Brantham to offer manufacturing in a low-cost region.
BreconRidge	Ottawa, Canada	AFORE Solutions	Ottawa, Canada	Alliance expands BreconRidge's offerings to include embedded software and systems development.
Cal-Comp Electronics	Bangkok, Thailand	Unnamed	not available	Invested \$5 M for a 40% interest in a joint venture to set up a new plant in India.
		Doctor Mobile	British Virgin Islands	Took a 10% stake in Doctor Mobile to expand Cal-Comp's business in mobile phones and related devices.
Flextronics	Singapore	SKY MobileMedia	San Diego, CA	Flextronics partnered with software firm to develop a reference handset based on a TI single-chip platform.
Foxconn International Holdings (a Hon Hai subsidiary)	Shenzhen, China (head office)	Diabell	South Korea	This Hon Hai subsidiary (see also Hon Hai below) bought a 20% interest in a manufacturer of handset components.
		Ways Technical	Dayuan, Taiwan	FIH purchased 24% stake in Ways Technical, which specializes in plastic surface finishing.
Hon Hai Precision Industry (Foxconn)	Tucheng City, Taiwan	Infinia	Kennewick, WA	Foxconn group invested in a developer of a system that converts concentrated solar energy into electricity.
		Advanced Microelectronic Products	Hsinchu, Taiwan	Through subsidiaries, Hon Hai acquired a 16% stake in a silicon foundry.
Hunter Technology	Santa Clara, CA	Hallmark Circuits	Poway, CA	Hunter, an EMS company with board fab capabilities, launched a joint market campaign with Hallmark, a board fabricator.
Jurong Technologies	Singapore	Smart entry phone alliance	NA	Jurong will produce a smart entry phone to be developed by an alliance of hardware and software vendors.
		European partner	Europe	The partners' joint venture, IsunU, will manufacture compact fluorescent light bulbs.
		SemIndia	Bangalore, India	Joint venture will provide ODM and EMS services in India for networking products. Jurong's stake is about 60%. Venture will also supply box build for SemIndia.
		Spirit Solutions	Dayton, OH	Venture will develop a breast cancer screening system, to be manufactured and marketed by Jurong subsidiaries.
Prism	St. Ives, UK	South African EMS provider	South Africa	Prism is offering higher volume production through this alliance.
		Heber	Chalford, UK	Alliance with Heber, a designer of control systems, offers an end-to-end service from design through assembly.
Rommens Instrumenten en Apparatenbouw	Halsteren, The Netherlands	Security Smart Systems	Bulgaria	EMS provider Rommens and partner set up a contract manufacturing joint venture in Vratza, Bulgaria.
Silicon Forest Electronics	Vancouver, WA	ACW Technology	Southampton, UK	SFE gains access to ACW's manufacturing services in China and serves as a U.S.-based provider for ACW customers.
TES Electronic Solutions	Langon, France	ProSyst	Cologne, Germany	TES partnered with a company involved in OSGi technology and remote device management software.
Ultraflex International	Ronkonkoma, NY	Touch screen partnership	NA	Partnership offers LCD touch-screen solutions focused on the design cycle.

deals grew by four, or 24%, from 17 in the previous year. After a falloff in 2006, consolidation deals have increased in the two most recent years (Chart 4, p. 5).

In 2007, the 17 consolidation deals that were counted included three OEM divestitures of EMS operations. No transactions of this type took place in 2008 (Chart 2, p. 5). When these divestitures are stripped away, the in-

crease in consolidation as measured by independent providers becomes a more dramatic 50%.

The second most popular kind of deal in 2008 was the service or supply-chain extension (marked S on the Scorecard). Transactions of this type occur when a provider makes an acquisition to augment its service offering or expand its capabilities for vertical integration. In 2008, 18 deals

of this kind were completed, representing an increase of 29% from 14 comparable transactions in 2007 (Chart 2, p. 5). It is far faster to add a capability by acquisition than by internal development. Capability extensions made up 36% of 2008 deals, up from 32% a year earlier. While second in popularity last year, these deals remain an important part of the M&A mix.

Another type of M&A transaction

Chart 2: Deal Breakdown 2008 Versus 2007

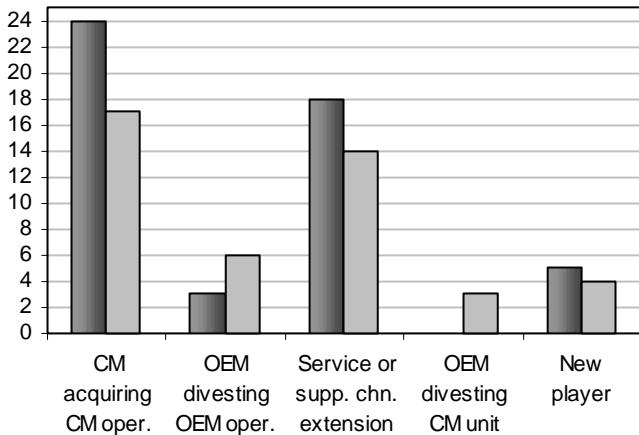
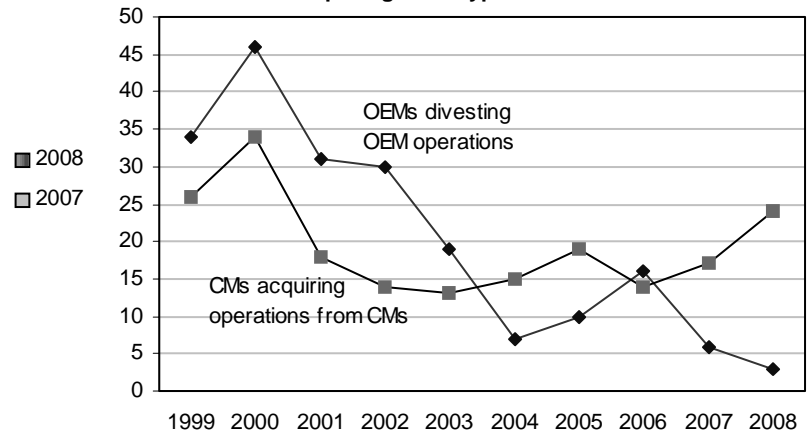


Chart 3: Comparing Two Types of Deals Over Time



arises when an OEM divests assets to an EMS provider. Unlike capability extensions and acquisitions of competitor operations, OEM divestitures (labeled O on the Scorecard) have ended up with a minor role on the M&A stage. In the late 1990s and at the turn of the turn of the century, OEM divestitures received star treatment as a strategy for winning OEM business. In 2000, these divestitures reached their peak of 46 deals (Chart 3). But the subsequent need to close former OEM plants in high-cost locations made providers wary of taking on more OEM facilities. Last year, just three divestiture deals were reported, a stark reminder of how far the divestiture strategy has fallen. That number amounts to a decrease of 50% from the six divestitures counted for 2007.

But it's not just that providers are less willing to make deals of this kind.

As outsourcing penetration rises in the various market segments, there are fewer and fewer OEM operations to be divested. This type of deal may not go extinct, however, if there are still cases where a provider would need the capacity and capabilities of an OEM operation, especially in a desirable location (see News, p. 7).

The final category in this analysis applies to transactions where a new EMS player emerges from the sale of a manufacturing business. The 2008 Scorecard contains five new-player deals (marked N), up from four in 2007. Despite the maturity of the EMS industry, it continues to attract some new players each year for various reasons. A divested EMS operation might be purchased by management or a non-EMS company. An EMS operation might be part of a larger acquisition made by a firm outside the

industry. Or a provider of electrical and mechanical services might want to gain EMS capability by acquisition. All three scenarios are represented among the new-player deals on the Scorecard.

Any measure of consolidation must factor in these new-player deals, which obviously offset to some extent the loss of independent providers by acquisition. Of the five new-player deals, three involve the sale of independent EMS operations to outside buyers and thus do not add to the number of EMS players. But in two others, divested EMS assets went to new owners, creating two new independent providers. Subtracting these two deals from the 21 consolidation deals described earlier yields a net loss of 19 providers through M&A. That's up from a net loss of 17 in 2007.

When Scorecard deals are sorted by

Chart 4: Consolidation Deals

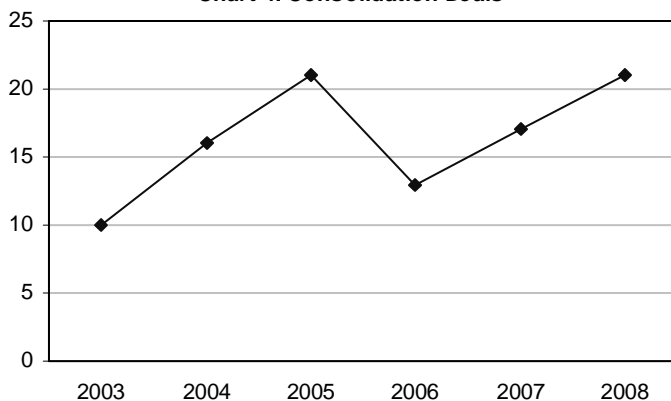
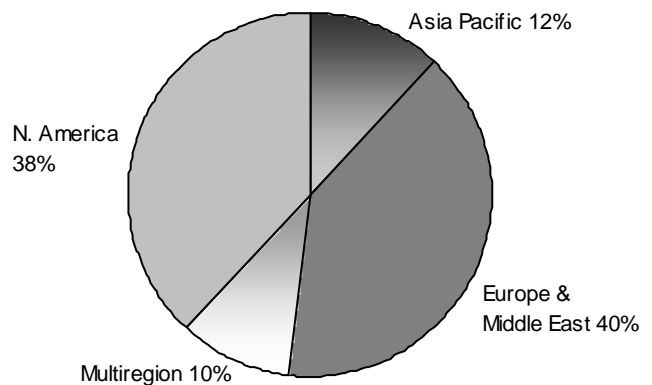


Chart 5: Percentage of Deals by Target's Region



the region in which the acquired operations are located, North America and Europe/Middle East end up with almost equal shares. Europe/Middle East contained 20, or 40%, of the acquired operations, while North America accounted for 19, or 38% (Chart 5, p. 5). It is interesting that Europe/Middle East, a much smaller EMS market than North America, contributed a slightly larger number of acquisition targets. Possible causes of this phenomenon are restructuring in Europe and the relatively immature state of the EMS industry there. (See July, p. 5 for further discussion.) The Asia Pacific region claimed 12% of acquisitions, and the remaining 10% of the acquired operations were located in more than one region.

Flextronics was the most prolific deal maker with five transactions listed on the Scorecard. Two European providers, **HANZA** and **NOTE**, came in second with three apiece.

But as has been written here before, acquisitions are not the only means for achieving a provider's end. A compa-

ny can gain access to another's capabilities, technology or footprint through an alliance or equity partnership. In *MMI's* lexicon, no money changes hands in an alliance, whereas an investment takes place to cement the relationship in an equity partnership. With this form of partnership, either one partner takes a minority stake in the other, or the two companies form a joint venture. Whatever the arrangement, it will cost less than acquiring a partner. Still, there are drawbacks: these combinations lack the permanence and control afforded by an acquisition.

M&A deals continued to outnumber alliances and equity partnerships by a wide margin in 2008. But the number of these partnerships reached a new high of 22 last year, up from 18 in 2007. (This peak is based on data from 1999 to 2008.) Alliances and equity partnerships made in 2008 appear in the table on page 4.

Jurong Technologies formed five partnerships, the greatest number achieved in 2008. Next in line was the

combination of **Hon Hai Precision Industry** and its **Foxconn International Holdings** subsidiary with a total of four.

Scorecard ground rules. *MMI's* Scorecard lists only M&A transactions. It does not include divestitures by EMS companies unless the divested assets were purchased by another EMS provider or a company entering the EMS business. In general, the Scorecard will exclude private equity investments, and none were on the 2008 list.

Transactions are traditionally classified according to five categories, four of which were operative for 2008. (No deals took place in the category of OEM divestitures of EMS operations.) One transaction did not fit any category and was listed as "other."

It is *MMI's* practice to update historical statistics when the newsletter discovers transactions that were not listed on Scorecards of previous years. After the 2007 Scorecard was published, *MMI* found two additional transactions closed that year, which have been added to 2007 data.

Market Data

Bleak Estimates for Q1

Based on first-quarter estimates for the six largest U.S.-traded providers, this public sector of the EMS industry is off to a miserable start in 2009. When combined, *MMI's* Q1 estimates for the six companies yield a group revenue decline of 19.1% year over year (Table 1). A contraction of this magnitude puts the sector in hole that will be difficult to climb out of unless demand somehow snaps back in the second half of the year.

Five out of six providers will experience double-digit drops in sales for Q1, compared with the year-earlier period, if these estimates prove true. The lone exception is **Jabil Circuit**, for whom *MMI* has estimated a decline of only 5.2%.

In all cases but one, *MMI* took the midpoint of revenue guidance for its estimate of Q1 sales. For **Sanmina-SCI**, which did not offer any guidance for the quarter, the estimate became the company's internal target for sales.

The five companies supplying Q1 guidance expect a sequential decrease

in non-GAAP EPS for the quarter (Table 1). In four out of five instances, the decline is greater than 50% when measured by the midpoint of EPS guidance.

Some Q4 GAAP results

Fourth-quarter 2008 sales for this group of six were down 6.2% quarter

Table 1 : Q1 2009 Guidance and Revenue Estimates for the Six Largest US-Traded EMS Providers (sales in B\$ except as noted)

Company	Q1 '09 guidance	Q1 '09 estimate	Q1 '08 sales	% estimated growth	Q4 '08 EPS Non-GAAP \$	Q1 '09 Guidance Non-GAAP \$
Flextronics	5.5 - 6.5	6.0	7.78	-22.8	0.16	0.02 - 0.07
Jabil	2.8 - 3.0	2.9	3.06	-5.2	0.30	0.12 - 0.16
Celestica	1.4 - 1.6	1.5	1.84	-18.3	0.26	0.07 - 0.13
Sanmina-SCI	not given	1.3*	1.82	-28.5	0.00	not given
Benchmark	525 - 570 M	548 M	0.68	-19.9	0.27	0.16 - 0.26
Plexus	375 - 405 M	390 M	0.45	-13.5	0.44	0.17 - 0.24
Total		12.6	15.62	-19.1		

Non-GAAP EPS may not be comparable from company to company.

Q1 '09 sales estimates equal the midpoint of sales guidance, except as noted.

*Estimate is the company's internal target.

Table 2: Q4 and 2008 GAAP Results for Six Large EMS Providers, US Traded (M\$ or %)

Company (in order of 2008 sales)	Q4 '08 sales	Q3 '08 sales	Qtr.- qtr. chg.	Q4 '07 sales	Yr.-yr. chg.	Q4 '08 gross marg.	Q4 '07 gross marg.	Good- will writ- ten off	Q4 '08 net inc.	Q3 '08 net inc.	Q4 '07 net inc.	2008 sales	2007 sales	Yr.-yr. chg.	2008 net inc.	2007 net inc.
Flextronics	8,153.3	8,862.5	-8.0	9,068.7	-10.1	3.6	3.5	5,950.0	(6,015.1)	38.5	(774.4)	33,141.4	24,459.6	35.5	(5,939.1)	(425.9)
Jabil	3,382.5	3,264.9	3.6	3,367.9	0.4	6.6	7.1	317.7	(275.9)	57.5	62.0	12,794.3	12,434.5	2.9	(204.0)	93.8
Celestica	1,935.4	2,030.8	-4.7	2,210.5	-12.4	7.3	6.0	850.5	(822.2)	32.1	(11.7)	7,678.2	8,070.4	-4.9	(720.5)	(13.7)
Sanmina-SCI	1,419.3	1,703.6	-16.7	1,778.1	-20.2	5.9	7.2	0.0	(25.3)	(11.2)*	7.9*	6,843.6	6,993.3	-2.1	(45.6)	(1,154.9)
Benchmark	581.8	641.7	-9.3	734.5	-20.8	7.0	7.0	247.5	(203.7)	23.9	20.6	2,590.2	2,915.9	-11.2	(135.6)	92.4
Plexus	456.1	476.0	-4.2	458.3	-0.5	10.2	12.1	0.0	17.0	17.3	27.3	1,839.5	1,623.8	13.3	73.8	77.9
Total/avg.	15,928.4	16,979.5	-6.2	17,618.0	-9.6	5.2	5.3	7,365.7	(7,325.2)	158.1	(668.3)	64,887.2	56,497.5	14.8	(6,971.0)	(1,330.4)

*Company's net income includes discontinued operations of PC business.

to quarter and 9.6% year over year (Table 2). Despite the latter decline, the group's GAAP gross margin was off by only 2 basis points versus the year-ago period if the numbers are run to two decimal places (as opposed to Table 2).

Four out of six providers took write-offs totaling \$7.37 billion for goodwill impairment. These charges resulted in substantial GAAP net losses.

The six providers combined for 2008 sales of \$64.89 billion, amounting to an increase of 14.8% over 2007. But as has been noted here previously, reported revenue for **Flextronics** does not include 2007 sales of **Solectron**, which Flextronics acquired on Oct. 1, 2007. When Solectron's 2007 sales, estimated at \$8.89 billion, are added in, the group's 2008 revenue shows a slippage of 0.8%.

iSuppli Now Expects Outsourcing Business To Shrink in 2009

Market research firm **iSuppli** (El Segundo, CA) now predicts that combined sales of EMS and ODM providers will fall by 9.9% to \$270.8 billion in 2009 from \$300.7 billion in 2008. In the firm's previous forecast, iSuppli

had lowered its growth projection to 2.2% for this year, (Dec. 2008, p. 1).

The firm said it further cut its short- and long-term growth expectations for the contract manufacturing business (EMS + ODM) because conditions in this industry are continuing to deteriorate.

According to iSuppli's latest forecast, contract manufacturing revenue will rise at a compound annual growth rate (CAGR) of only 1.3% from 2006 to 2012, down from the previous outlook of 5.3%. However, projected 2012 sales of \$286.0 billion are below the 2007 level estimated at \$308.1 billion. The iSuppli forecast over the period 2007 to 2012 yields a CAGR of -1.5% for contract manufacturing sales, *MMI* calculated.

The five-year outlook for the EMS industry is even worse. EMS revenue will go from \$186.5 billion in 2007 to \$160.8 billion in 2012, predicts iSuppli (table below). From these start and end points, *MMI* computed a CAGR of -2.9%. Over this period, ODM revenue is expected to grow slightly.

Recently, iSuppli completed a broad survey of supply-chain participants regarding January demand levels. "The qualitative and quantitative inputs captured during those inter-

views compelled us to further reduce our EMS/ODM forecast," stated Adam Pick, principal analyst, EMS/ODM for iSuppli.

News

JDSU to Divest Shenzhen Operations to Sanmina-SCI

JDSU (Milpitas, CA), a provider of communications test and measurement solutions and optical products, has signed a definitive agreement to outsource its Shenzhen, China, manufacturing to **Sanmina-SCI** (San Jose, CA). Under this agreement, Sanmina-SCI will acquire certain manufacturing assets, inventories and employees related to JDSU's operations in Shenzhen. The site, which manufactures a variety of optical products, employs about 2,000 people. Subject to certain customary closing conditions, including regulatory approval, the transaction is expected to close before April 6.

Sanmina-SCI said the deal fulfills its long-term goal to expand and solidify its position in the optical communications field.

The agreement resulted in a strike at the Shenzhen facility, reported *Light Reading*, an online source for the communications industry. A spokesperson for JDSU told *MMI* that "the employee issues have been resolved." According to a JDSU statement, full operations have resumed at the site.

Forecast of EMS and ODM Revenue by iSuppli (billions US\$)							
	2006	2007	2008	2009	2010	2011	2012
EMS	161.3	186.5	177.4	156.1	157.7	156.1	160.8
ODM	102.7	121.6	123.3	114.7	120.4	119.2	125.2

Source: iSuppli.

News

Meanwhile, a transfer of production is underway from an operation within JDSU's communications test and measurement business to **Benchmark Electronics** (Angleton, TX). This production supplies some of JDSU's field-service products in North America. Benchmark is not acquiring any employees from JDSU. The company decided late last year to outsource this manufacturing to Benchmark and expects the transfer to be complete by the end of 2009.

More new business... The group anchored by **Hon Hai Precision Industry** (Tucheng City, Taiwan) will build desktop PCs for **HP** in Wuhan, China, according to two unconfirmed online reports from Asia. Reportedly, HP is expected to order 16 million desktops a year from the Wuhan plant...**Ixia** (Calabasas, CA), a provider of IP test systems, has selected **Plexus** (Neenah, WI) to manufacture Ixia's test, measurement and service verification solutions for its global customer base. During the latter part of 2008, Ixia engaged **Riverwood Solutions** (Menlo Park, CA) to help choose the right EMS partner. Also, Plexus' Kelso, Scotland, facility will manufacture for the UK's **Games Warehouse**, a maker of gaming products...**Northrop Grumman** has

awarded **LaBarge** (St. Louis, MO) a \$1.6-million contract to continue to product electronic equipment for a system designed to protect military aircraft from infrared-guided missiles. In addition, LaBarge has received \$3.4 million in follow-on orders from **BAE Systems** to manufacture ruggedized circuit card assemblies used in military applications...A unit of **CTS** (Elkhart, IN) will also supply BAE. Under this contract valued at about \$24 million in revenue, CTS Electronics Manufacturing Solutions will provide multiple complex electronic assemblies for the A3 Bradley Fighting Vehicle...In an expanded relationship, **NOTE** (Danderyd, Sweden) will serve as partner for the volume production of cards for a new generation of hotel TV systems supplied by **OTRUM** of Norway.

Medical business expansion... During Medical Design & Manufacturing West held this month, **Jabil Circuit** (St. Petersburg, FL) announced that it has set up a single-use device business, expanding Jabil's activities in the medical segment.

Entry into Eastern Europe... Plexus intends to begin operations in Oradea, Romania, and has entered into an agreement to lease a facility there with about 72,000 ft². This new facility will

give Plexus its first European facility in a lower-cost location. Production in Oradea is expected to start in the second half of Plexus' fiscal 2009.

Plant closures... Jabil will close its plant in Billerica, MA, the *Boston Globe* reported. Last month, the company said it plans to cut its manufacturing capacity in certain geographies and to shrink its global workforce of 85,000 by about 3,000...According to local media reports, Sanmina-SCI will shutter its plant in Rapid City, SD.

Editor and Publisher: John Tuck
Circulation Director: Ann Connors
Board of Advisors: Michael Thompson, CEO, I. Technical Services; Andy Leung, CEO, VTech Communications Ltd.

Manufacturing Market Insider is a monthly newsletter published by JBT Communications, 43 Summit Ridge, Burlington, VT 05401-3911. Phone (802) 651-9334. Fax (802) 651-9336. © Copyright 2009 by JBT Communications™. ISSN 1072-8651

The information and analysis presented here are based on sources believed to be reliable, but content accuracy is not guaranteed. The publisher shall not be held liable for any business decisions influenced by this publication.

E-mail: jbt@mfgmkt.com
Web site: www.mfgmkt.com

Subscription Form

I want 12 monthly issues of **MMI** at the annual rate of US\$485. For subscriptions outside North America, add \$50 for the print edition or \$25 for the electronic edition.

Sign me up for two years. I'll receive 24 issues for US\$875, which is \$95 off the annual rate. Outside North America, add \$100 for the print edition or \$50 for the electronic edition.

Send the print edition. Or send the electronic edition (pdf).

Payment is enclosed to JBT Communications.

Please bill me. Charge my credit card (see below).

Mail or fax to: JBT Communications, 43 Summit Ridge, Burlington, VT 05401-3911. Fax (802) 651-9336.

Name _____ Title _____

Company _____ Phone _____

Street Address _____ Fax _____

City/State/ZIP _____ Email _____

MasterCard _____ Visa _____ Amex no. _____ Expires _____