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EMS-ODM Gap in Nine-Month Sales Results

Table 1: Comparing Results Where Companies are Grouped by Primary Business (M US\$ or %)

No. of companies	Primary business	Q3 '09 sales	Q2 '09 sales	Qtr.-qtr. chg.	Q3 '08 sales	Yr.-yr. chg.	Q3 '09 net profit	Q3 '08 net profit	Q1-3 '09 sales	Q1-3 '08 sales	Yr.-yr. chg.	Q1-3 '09 net profit	Q1-3 '08 net profit
11	EMS	31,257	27,310	14.5	38,811	-19.5	631	305	83,723	103,869	-19.4	159	1,506
9	ODM	26,204	21,320	22.9	24,218	8.2	575	479	66,041	68,383	-3.4	1,086	1,594

One might surmise that EMS providers would be in a better position to weather a global downturn than ODMs would. After all, ODMs are generally far less diversified than their EMS counterparts. But when a downturn drags all end markets down with it, as happened after last year's financial crisis, diversification offers no refuge against a broad-based loss of demand. Moreover, diversification actually worked against the 11 largest EMS providers when measured against a group of nine major ODMs. For the first nine months of 2009, combined U.S.-dollar sales for the top-11 EMS providers fell 19.4% from a year earlier, compared with a 3.4% slide for the ODM group (Table 1). The gap in revenue results between the two groups amounted to a substantial 16 percentage points.

If these results, which represent the lion's share of outsourcing revenue, can be generalized, then sales performance of the EMS industry lagged well behind that of the ODM sector for the first nine months.

EMS diversification lost out to ODM specialization, particularly in notebooks. The single greatest contrib-

utor to ODM performance in the period was the portable PC market, where ODMs hold a commanding share of production. ODMs benefited from the resilience of the portable PC market, driven by a seemingly unstoppable demand for notebooks and now netbooks.

Together, the 11 EMS providers and nine Taiwan-based ODMs generated nine-month sales of \$149.8 billion, down 13.1% from \$172.3 billion in the year-ago period (Table 2, p. 2). If this rate holds up through Q4, the 20 large contract manufacturers will have posted an aggregate decline in the low double digits for the year. Considering how the year started, this would not be a terrible result.

Q3 sales for the 20 CMs were up

smartly on sequential basis. Their Q3 sales totaled \$57.5 billion, 18.2% higher than in the prior quarter. Compared with a year earlier, Q3 revenue declined by 8.8%.

For the first nine months, the 20 CMs collectively earned a net profit of \$1.25 billion, or 0.8% of sales. Net margin for the period was down by 100 basis points year over year.

However, Q3 net margin came in at 2.1%, an improvement of 90 basis points from a year ago. As a group, the 20 CMs produced a net profit of \$1.21 billion in the quarter, up 54% from \$784 million in the year-earlier period. **Hon Hai** accounted for 46% of the group's profit in Q3.

As measured by Q3 data, recovery in the ODM subset is taking place fast-

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Table 2: Q3 and Nine-Month 2009 Results for Twenty of the Largest Contract Manufacturers (M US\$ or %)

Company (in order of 9-mo. sales)	Primary busi- ness	Head- quarters	Reports in US\$	Q3 '09 sales	Q2 '09 sales	Qtr.- qtr. chg.	Q3 '08 sales	Yr.-yr. chg.	Q3 '09 net profit	Q3 '08 net profit	Q1-3 '09 sales	Q1-3 '08 sales	Yr.-yr. chg.	Q1-3 '09 net profit	Q1-3 '08 net profit
Hon Hai (Foxconn)	EMS	Tucheng City,, Taiwan	No	16,435	13,113	25.3	18,379	-10.6	559	571	40,591	44,587	-9.0	1,403	1,476
Flextronics	EMS	Singapore	Yes	5,832	5,783	0.8	8,863	-34.2	20	39	17,197	24,988	-31.2	(384)	76
Quanta Computer	ODM	Gueishan, Taoyuan, Taiwan	No	6,465	5,474	18.1	6,539	-1.1	187	231	16,801	20,011	-16.0	463	523
Compal Electronics	ODM	Taipei, Taiwan	No	5,699	4,036	41.2	4,179	36.4	157	111	13,232	11,502	15.0	336	319
Wistron	ODM	Hsinchu, Taiwan	No	4,471	3,846	16.2	3,899	14.7	83	71	11,609	9,679	19.9	181	171
Inventec	ODM	Taipei, Taiwan	No	3,805	3,228	17.9	3,660	4.0	33	61	9,929	8,496	16.9	103	125
Jabil	EMS	St. Petersburg, FL	Yes	2,800	2,615	7.1	3,265	-14.3	6	58	8,302	9,412	-11.8	(889)	72
TPV Technology	ODM	Taipei, Taiwan	Yes	2,263	1,716	31.8	2,364	-4.3	40	31	5,359	7,280	-26.4	94	128
Celestica	EMS	Toronto, Canada	Yes	1,556	1,402	11.0	2,031	-23.4	(1)	32	4,428	5,743	-22.9	24	102
Sanmina-SCI	EMS	San Jose, CA	Yes	1,354	1,209	12.0	1,704	-20.5	(32)	(474)*	3,758	5,424	-30.7	(111)	(502)*
Innolux Display	ODM	Miao-Li, Taiwan	No	1,459	1,207	20.9	1,339	9.0	33	3	3,551	4,118	-13.8	(89)	221
Qisda	ODM	Gueishan, Taoyuan, Taiwan	No	1,244	1,113	11.8	1,230	1.1	26	(60)	3,333	3,890	-14.3	(52)	15
Cal-Comp Electronics	EMS	Bangkok, Thailand	No	833	797	4.5	1,113	-25.2	13	19	2,314	2,706	-14.5	29	58
Venture	EMS	Singapore	No	645	575	12.3	691	-6.6	27	29	1,695	2,069	-18.0	86	117
Elcoteq	EMS	Luxembourg	No	475	594	-20.1	1,112	-57.3	(10)	(16)	1,690	3,886	-56.5	(102)	(53)
Benchmark Electronics	EMS	Angleton, TX	Yes	511	482	6.0	642	-20.4	16	24	1,489	2,008	-25.9	37	68
AmTRAN Technology	ODM	Chong He City, Taiwan	No	443	469	-5.5	417	6.2	16	6	1,408	1,555	-9.5	44	23
Plexus	EMS	Neenah, WI	Yes	393	379	3.8	476	-17.4	15	17	1,161	1,383	-16.1	29	57
Universal Scien- tific Industrial	EMS	Nantou, Taiwan	No	424	362	17.1	536	-21.0	18	7	1,099	1,663	-33.9	37	36
Inventec Appliances	ODM	Taipei, Taiwan	No	355	231	53.8	591	-40.0	1	23	819	1,852	-55.8	7	69
Total/avg.				57,461	48,630	18.2	63,028	-8.8	1,206	784	149,764	172,252	-13.1	1,245	3,100

Results in non-U.S. currencies were converted to U.S. dollars by applying a three- or nine-month average exchange rate for the corresponding period. Average exchange rates were based on monthly 2008 and 2009 data from the U.S. Federal Reserve. *From continuing operations.

er than in the EMS side of the contract manufacturing group. Q3 revenue for the ODMs rose 22.9% sequentially versus 14.5% for the EMS companies. Only one EMS provider generated a quarter-to-quarter increase over 20%, yet four out of nine ODMs accomplished this feat. Perhaps more telling, the ODMs together achieved year-over-year growth of 8.2% in Q3 sales, while the EMS providers were still mired in an overall double-digit decline for the quarter (Table 1).

With the year-end approaching, it is

natural to wonder whether there will be changes in the order of CMs by revenue when 2009 sales are tallied. Obviously, Hon Hai has a lock on the top spot. For second place, **Flextronics** leads **Quanta Computer** by about \$400 million through the first nine months. The loser in that race will end up in third position. **Compal Electronics** has a commanding \$1.6-billion lead over **Wistron** for fourth place through three quarters.

Editor's note: This analysis presents a rough approximation of EMS

versus ODM sales since a number of the contract manufacturers listed here do both EMS and ODM work. Companies were classified as EMS or ODM based on which model represents their primary business. Note that this group of 20 large CMs cannot be termed a top 20 because at least one company that belongs in the top 20 – **Pegatron** – was not included in this analysis. The company, a unit of **Asustek Computer**, has not posted its consolidated Q3 results as of this writing.

Stabilization for North America-Based Group

On a sequential basis, third-quarter sales barely increased for a group of ten mid-tier and smaller EMS providers based in North America. Group revenue edged upward by 0.7%. This marked the second quarter in a row in which sales of this group showed little or no change from the previous quarter. In Q2, group sales declined at a nearly flat rate of 0.2% quarter to quarter. The lack of movement in aggregate sales over the past two quarters indicates that overall business levels stabilized during the six-month period for this group of ten providers based in North America. Seven of the providers in this mid-tier and smaller group are U.S.-traded, and the remaining three consist of EMS units within larger companies whose stock is listed in the U.S. (Table 1A).

Q3 sales of the ten providers totaled \$516.2 million, slightly above the prior quarter's sum of \$512.8 million. In contrast, the top-11 EMS pro-

viders produced a healthy sequential increase of 14.5% in combined Q3 revenue (Nov., p. 2). Does this difference in Q3 results mean that the group of mid-tier and smaller providers is trailing behind the top-11 players through the first nine months of 2009? Not necessarily. In fact, a case can be made that just the opposite is true. For the first nine months, sales of the mid-tier and smaller providers declined by a collective 16.8%, whereas top-11 sales in the period fell by a greater rate – 19.4%.

While combined Q3 sales of the ten North America-based providers barely bettered the prior quarter's total, sequential results varied widely among the members of this group. Quarter-to-quarter growth ranged from -18.1% for **Sparton** to 16.1% for **SigmaTron International**.

On a year-over-year basis, only one provider, **IEC Electronics**, achieved sales growth in Q3. Group sales for the

quarter dropped by 15.5% from the year-earlier period.

Some Highlights

When providers are taken in order of quarterly sales, a review of some highlights starts with **Kimball Electronics Group**, a subsidiary of Kimball International. For the fiscal Q1 ended Sept. 30, Kimball Electronics recorded its second straight quarter of sequential sales growth. Sales in the September quarter rose 8.6% from the prior quarter due to increased sales from the automotive, medical and industrial control sectors. Kimball's gross margin for its fiscal Q1 remained flat compared with the year-earlier period. Selling and administrative costs in the September quarter declined 16% year over year.

At **CTS**, EMS segment sales in Q3 were flat versus Q2 as improved demand levels in medical, communications, and defense and aerospace

Table 1A: Q3 and Nine-Month 2009 GAAP Results for Ten Mid-tier and Smaller EMS Providers Based in North America (M\$ or %)

Organization	Q3 '09 sales	Q2 '09 sales	Qtr.-qtr. chg.	Q3 '08 sales	Yr.-yr. chg.	Q3 '09 profit	Q2 '09 profit	Q3 '08 profit	Q1-3 '09 sales	Q1-3 '08 sales	Yr.-yr. chg.	Q1-3 '09 profit	Q1-3 '08 profit
Stand-Alone EMS Providers													
LaBarge	63.2	64.8	-2.5	68.2	-7.4	3.1	2.6	3.7	200.1	221.4	-9.6	9.5	12.6
Sparton	48.1	58.8	-18.1	54.0	-10.9	1.4	(8.8)	(3.4)	161.5	170.0	-5.0	(8.2)	(13.2)
Key Tronic	41.3	45.5	-9.1	48.2	-14.4	0.3	0.3	0.4	131.0	157.0	-16.5	0.8	4.2
SMTC ¹	44.2	39.2	12.8	53.1	-16.8	0.5	0.4	1.0	128.3	152.1	-15.7	(0.0)	0.7
SigmaTron International ⁴	30.6	26.3	16.1	41.1	-25.7	0.5	(0.4)	1.5	84.1	123.6	-32.0	0.3	(6.2)
Nortech Systems	18.7	19.9	-6.2	31.7	-41.1	(0.9)	(1.5)	0.5	60.1	94.9	-36.7	(3.7)	1.7
IEC Electronics	18.3	17.3	5.3	16.1	13.5	0.9	0.9	8.5	52.0	39.9	30.1	4.4	10.1
Subtotal/avg.	264.2	271.7	-2.7	312.4	-15.4	5.8	(6.6)	12.2	817.0	958.9	-14.8	3.1	9.8
EMS Units of Larger Public Companies													
Kimball Electronics Group	165.5	152.3	8.6	182.9	-9.5	(0.2)	(0.7)	(0.8)	458.5	554.6	-17.3	(10.5)	(14.7)
CTS Electronics Manufacturing Solutions	70.8	70.8	0.0	97.5	-27.4	2.2 ²	1.1 ²	2.7 ³	217.4	294.5	-26.2	6.6 ³	8.4 ³
Raven Industries' Electronic Systems Div. ⁴	15.7	17.9	-12.5	17.9	-12.5	1.6 ⁵	3.0 ⁵	1.8 ⁵	49.7	45.9	8.3	7.0 ⁵	3.7 ⁵
Total/avg	516.2	512.8	0.7	610.7	-15.5				1,542.6	1,854.0	-16.8		

Profit is net income unless otherwise noted. ¹Net income results are for continuing operations. ²Segment operating income.

³Segment operating income excluding charges not allocated to business segments. ⁴Q3 results are for the quarter ended Oct. 31.

⁵Segment operating income excluding corporate expenses.

**Table 2A: Q3 GAAP Margins for Seven EMS Providers
Based in North America (M\$ or %)**

Company	Q3 '09 gross profit	Q3 '09 gross marg.	Q3 '08 gross profit	Q3 '08 gross marg.	Q3 '09 oper. profit	Q3 '09 oper. marg.	Q3 '08 oper. profit	Q3 '08 oper. marg.
LaBarge	12.2	19.4	14.3	20.9	4.1	6.6	6.0	8.8
Sparton	7.4	15.4	2.7	4.9	1.8	3.8	(2.9)	-5.3
Key Tronic	2.7	6.5	3.4	7.1	0.4	0.9	0.6	1.3
SMTC	3.7	8.5	5.3	9.9	1.0	2.2	1.6	3.0
SigmaTron	3.3	10.7	5.9	14.4	0.9	3.0	2.4	5.9
Nortech	1.6	8.7	4.3	13.6	(1.1)	-6.2	0.9	3.0
IEC	3.2	17.5	2.3	14.1	1.4	7.7	1.0	6.4
Total/avg.	34.2	12.9	38.1	12.2	8.5	3.2	9.8	3.1

markets were offset by lower industrial sales and previously announced end-of-life sales reductions to **HP**. Segment operating earnings increased by \$1.1 million from the prior quarter to \$2.2 million, primarily due to improved gross margins driven by favorable product mix. While segment revenue in Q3 fell 27% from the same period a year ago, higher EMS sales from the defense and aerospace markets partially offset declines in other markets.

For the fiscal Q1 ended Sept. 27, **LaBarge's** sales from the medical sector grew 44% year over year, due to its **Appleton** acquisition, which contributed about 52% of fiscal Q1 sales in the sector. Sales from the defense market were flat versus the year-earlier period, while the company's natural resources and industrial businesses declined. Gross margin in the quarter was 19.4%, down from 20.9% in the year-earlier period, primarily due to lower sales volume in fiscal Q1. Still, LaBarge posted the highest quarterly gross margin among the seven stand-alone providers analyzed (Table 2A). Based on visibility at the time results were announced, LaBarge said it believes fiscal Q1 sales will be the weakest quarterly results of the 2010 fiscal year.

Sparton reported a pretax profit of \$1.4 million for the fiscal Q1 ended Sept. 30, its first such profit since the June 2006 quarter. Gross profit for

fiscal Q1 increased to \$7.4 million from \$2.7 million in the year-earlier period, despite a sales decrease of \$5.9 million (Table 2A). On a year-over-year basis, sales in the medical devices and defense & security systems segments climbed by 39% and 63% respectively, while EMS sales dropped by 44%, primarily due to decreased sales from three customers. Due to the inability to achieve acceptable levels of profitability, Sparton disengaged with two of these customers as of June 30 and expects to end its **Honeywell** relationship in the current quarter.

Counting the fiscal Q1 ended Sept. 26, **Key Tronic** has delivered 23 quarters of consecutive profitability. As of the end of the quarter, the company had paid down all debt. During the quarter, Key Tronic won new programs involving specialty printers and data storage systems. The provider expects to see growth in the second half of its fiscal year. This month, Key Tronic raised fiscal Q2 sales guidance to a range of \$42 million to \$44 million, up from the previous estimate of \$38 million to \$43 million, and increased EPS guidance to a range of \$0.10 to \$0.13, up significantly from the previous \$0.02 to \$0.05.

SMTC achieved a sequential increase of 12.8% in Q3 sales. Q3 net income amounted to \$165,000 including a net loss of \$297,000 from the discontinued operations of the company's Boston facility. As a result, Q3

net income from continuing operations was \$462,000 versus \$393,000 for Q2 and \$1.0 million for the year-ago period. The company said it reduced its break-even point to remain profitable at a much lower revenue level. Gross margin for Q3 was 8.5% versus 10.2% for the prior quarter and 9.9% for the year-ago period, reflecting changes in customer and product mix. SMTC expects sequential sales growth in Q4.

For the fiscal Q2 ended Oct. 31, SigmaTron International reported sales of \$30.6 million, down 25.7% year over year but up 16.1% sequentially. Net income was \$515,298, compared with a net loss of \$402,475 for the prior quarter and net income of \$1.5 million for the year-earlier period. SigmaTron said that it was profitable for each month of its Q2 and that, as long as the economy has stabilized, it has been successfully downsized. The company continues to experience strong short-term demand from virtually all of its customers and has seen more new quoting opportunities than in several years.

Nortech Systems reported Q3 sales of \$18.7 million, down 41.1% from the same period a year ago. After restructuring costs, the operating loss for Q3 was \$1.1 million, compared with operating income of \$946,000 a year earlier. But excluding restructuring costs, Q3 operating profits improved sequentially by 49%. Leaving out these costs, the Q3 net loss would have been \$0.23 per share, up from a loss of \$0.42 per share in the prior quarter, on 6% lower revenue. Restructuring-related benefits and savings only started to accrue in September. Nortech said its Q3 sales appear to represent the trough of the economic downturn for the company.

IEC Electronics was the only provider in the group of ten to post both sequential and year-over-year increases in quarterly revenue. Sales for IEC's fiscal Q4 ended Sept. 30 rose 5.3% from the prior quarter and 13.5%

from the year-earlier period. The company also recorded the highest quarterly operating margin among the seven stand-alone providers. For the September quarter, IEC attained an operating margin of 7.7%, 130 basis points higher than the year-earlier figure (Table 2A). Operating profit for the quarter amounted to \$1.4 million, up 36% year over year. Net income was \$903,000, compared with the year-earlier bottom

line of \$8.5 million including a tax benefit of \$7.7 million.

At **Raven Industries'** Electronic Systems Division, sales for the fiscal Q3 ended Oct. 31 totaled \$15.7 million, 12.5% lower than in the year-ago period. Operating income (sans corporate expenses) was \$1.6 million, down 13.1% year over year. But for the first nine months of the fiscal year, sales were up 8.3% from the year-earlier

period, and operating income grew by 90.7%. Raven said the division stepped up its performance in the first half of the fiscal year, but the momentum subsided in fiscal Q3 when supply issues slowed manufacturing throughput and reduced efficiencies. Additional parts inspection and sorting and parts shortages were responsible for about \$500,000 of lost margin in the quarter.

Q3 Results for European Group

How are European EMS providers doing this year? To find out, *MMI* tabulated third-quarter and nine-month results for a group of six publicly held providers based in Europe. These companies can be classified as either mid-tier or smaller. The data show that the sequential change for Q3 sales was negative in all cases. For half of the companies, the decline was slight, less than 2%, and in the other half the drop was more appreciable, ranging from -7.9% to -20.7% (table). Given the three pronounced declines, it would be a stretch to find an overall stabilization trend in the Q3 sales results of this group.

While all six companies reported double-digit decreases in Q3 sales compared with the year-earlier period, two of them, **EPIQ** and **Scanfil**, still earned net profits in the quarter. Both companies also recorded net profits for the first nine months of 2009, albeit at lower levels than in the year-earlier period.

Here are a few other results that stood out to *MMI*. **Incap** posted a third-quarter operating loss of 0.3 million euros, but the company improved this metric sequentially in all three quarters of 2009. In Q3, **Kitron** saw the largest year-over-year decline in its industry segment, where sales fell by

50.6%, but revenue in its medical segment rose 14.5%. **NOTE's** Q3 operating loss of SEK 61.4 million included nonrecurring costs of SEK 55.7 million in connection with a decision by NOTE's largest telecom customer to cease producing a significant product. **PartnerTech** improved its bottom-line from a net loss of SEK 13.8 million in Q2 to a loss of SEK 3.6 million in Q3.

Scanfil produced a Q3 net profit of \$3.8 million euros, up from \$3.5 million euros in the year-earlier period but down from \$6.6 million euros in the prior quarter. EPIQ, on the other hand, recorded a Q3 net profit of 1.2 million euros, down from the year-earlier result of 1.3 million euros but above the Q2 figure of 0.8 million euros.

Q3 2009 and Nine-Month Results for Six Mid-Tier and Smaller EMS Providers Based in Europe

Company (in alphabetical order)	Home base	Currency	Q3 '09 sales	Q2 '09 sales	Qtr.-qtr. chg.%	Q3 '08 sales	Yr.-yr. chg.%	Q3 '09 net profit	Q2 '09 net profit	Q3 '08 net profit	Q1-3 '09 sales	Q1-3 '08 sales	Yr.-yr. chg.%	Q1-3 '09 net profit	Q1-3 '08 net profit
EPIQ	Belgium	M EUR	41.2	42.0	-1.7	50.6	-18.5	1.2	0.8	1.3	120.3	157.7	-23.7	2.0	3.4
Incap	Finland	M EUR	16.6	16.9	-1.9	21.4	-22.4	(0.8)	(1.0)	(0.8)	52.0	68.1	-23.7	(2.8)	(3.5)
Kitron*	Norway	M NOK	338.6	427.0	-20.7	454.3	-25.5	(0.3)	(1.0)	93.4	1,321.6	1,483.5	-10.9	16.3	147.8
NOTE	Sweden	M SEK	267.4	312.1	-14.3	398.5	-32.9	(46.6)	(16.0)	7.7	908.6	1,295.0	-29.8	(71.1)	23.4
PartnerTech	Sweden	M SEK	478.3	519.5	-7.9	571.1	-16.2	(3.6)	(13.8)	4.7	1,592.0	1,877.8	-15.2	(16.8)	(1.4)
Scanfil	Finland	M EUR	49.6	49.9	-0.6	56.0	-11.4	3.8	6.6	3.5	149.2	164.7	-9.4	11.6	13.4

* Net profit results correspond to continuing operations.

Forecasts Differ

Last month on page 1, *MMI* presented a new forecast of no EMS growth from 2008 to 2013. But not everyone sees it that way. Two other forecasts of EMS revenue call for compound annual growth over the period. Indeed, there are marked differ-

ences among the forecasts made by **Electronic Trend Publications** (ETP), **IDC** and **InForum**.

The aforementioned no-growth forecast, issued by InForum, is at one end of the spectrum. At the other end is the moderate-growth outlook of ETP, which has projected a five-year CAGR of 7.8% for the EMS sector. In

between lies IDC's low-growth forecast of EMS revenue, with CAGR estimated at 1.8%.

Despite the lack of agreement among these prognosticators, their forecasts can be blended mathematically. Averaging the start and end values of the three forecasts yields a five-year composite CAGR of 4.0%

Three Firms' EMS Revenue Forecasts 2008-2013 (billions of US\$)							
Firm	2008	2009	2010	2011	2012	2013	CAGR %
ETP	199.2	182.4	198.9	219.6	250.2	290.1	7.8
IDC	167.3	131.6	140.3	153.0	167.0	182.7	1.8
InForum	126.7	103.1	107.8	114.4	120.3	126.9	0.0
Average	164.4	139.0	149.0	162.3	179.2	199.9	4.0*
Yr.-yr. %		-15.4	7.2	8.9	10.4	11.6	
Three Firms' ODM Revenue Forecasts 2008-2013 (billions of US\$)							
Firm	2008	2009	2010	2011	2012	2013	CAGR %
ETP	94.8	92.3	98.3	108.3	124.9	144.7	8.8
IDC	113.0	101.4	108.5	120.7	133.5	145.8	5.2
InForum	115.8	106.6	113.2	121.8	128.5	135.3	3.2
Average	107.9	100.1	106.7	116.9	129.0	141.9	5.6*
Yr.-yr. %		-7.2	6.6	9.6	10.3	10.0	
Three Firms' Outsourcing Revenue Forecasts 2008-2013 (billions of US\$)							
Firm	2008	2009	2010	2011	2012	2013	CAGR %
ETP	294.0	274.6	297.2	327.9	375.1	434.8	8.1
IDC	280.3	233.0	248.8	273.7	300.5	328.5	3.2
InForum	242.6	209.7	221.0	236.2	248.8	262.2	1.6
Average	272.3	239.1	255.7	279.3	308.1	341.8	4.7*
Yr.-yr. %		-12.2	6.9	9.2	10.3	10.9	

* Based on average revenue for 2008 and 2013. Forecasts supplied by Electronic Trend Publications, IDC and InForum.

for EMS revenue. This result points to a low-growth scenario for the EMS sector over the forecast period 2008 to 2013. However, if 2008 is dropped from the period, the blended four-year CAGR becomes a more encouraging 9.5%.

There is also no consensus regarding the size of the EMS market. At the low end of the range, for example, InForum estimates the size of the EMS sector at \$103.1 billion for 2009, while at the high end ETP pegs this year's EMS market at \$182.4 billion. (IDC is in between with an estimate of \$131.6 billion.) That's a spread of \$79.3 billion. InForum has noted that its current forecast splits **Foxconn's** revenue between the EMS and ODM sectors in contrast with InForum's past practice of counting all of it as EMS (Nov., p. 1). This change might explain some of the difference between the two forecasts but not the majority of it.

The three forecasts for EMS revenue in 2009 average \$139.0 billion, down 15.4% from the 2008 average. For 2010, the forecast mean is \$149.0 billion, representing growth of 7.2%.

The average growth rate then increases to 8.9% in 2011, followed by double-digit growth of 10.4% and 11.6% in 2012 and 2013 respectively. These averages paint a picture of annual EMS growth accelerating moderately from 2010 through 2013. At the end of the forecast period in 2013, EMS projections average \$199.9 billion (table).

For 2009, ODM revenue estimates range from \$92.3 billion for ETP to \$106.6 billion for InForum. Interestingly, the spread of ODM forecasts is much less than what was found in the EMS projections. ODM revenue forecasts for 2009 average \$100.1 billion, down 7.2% from the comparable 2008 figure. For 2010, the ODM mean is \$106.7 billion, up 6.6% versus the prior-year average. In subsequent years, average year-to-year growth rates range from 9.6% to 10.3%.

Here's another interesting observation: after 2009, the differences between ODM and EMS average growth rates are not great, less than one percent point each year except 2013 when the difference is 1.6 percentage points. As a result, the composite CAGRs for

ODM and EMS revenue from 2009 to 2013 are close, with the four-year EMS rate of 9.5% just 40 basis points higher than the ODM CAGR. So according to the blended forecasts, the EMS and ODM sectors will grow at nearly the same rate over the next four years.

But the EMS and ODM blended forecasts part company when 2008 is included in the forecast period. The composite forecasts show the ODM sector declining by 7.2% from 2008 to 2009, far less than the EMS drop of 15.4%. When 2008 is factored in, the blended CAGR for ODM revenue becomes 5.6%, 1.6 percentage points higher than the EMS rate (table).

ODM forecasts of five-year CAGR vary from 3.2% for InForum to 5.2% for IDC to 8.8% for ETP.

As for total outsourcing revenue (EMS + ODM), the three forecasts average \$272.3 billion for 2008, falling to \$239.1 billion this year and then reaching \$341.8 billion at the end of the forecast period in 2013. The start and end values correspond to a blended CAGR of 4.7%.

According to blended data, the EMS sector represented 60.4% of total outsourcing revenue in 2008. The EMS industry will retain a majority share over the period of the composite forecast and end up with 58.5% of the total market.

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Dell To Sell Poland Plant to Foxconn

This month, **Dell** said it plans to transfer ownership of its manufacturing operation in Lodz, Poland, to **Foxconn Technology Group**, which is anchored by **Hon Hai Precision Industry** (Tucheng City, Taiwan). Following the transfer, the Lodz operation will continue to supply Dell with desktop and notebook computers, servers and storage systems for customers in

Europe, the Middle East and Africa.

The move will further simplify Dell's global operations and make them more efficient, according to a statement from Dell.

Dell had invested about \$292 million in the Lodz plant when it officially opened in January 2008 with 37,000 m² of space.

In January 2009, Dell announced that it would move production for EMEA from Limerick, Ireland, to the Lodz operation and manufacturing partners.

The transaction is subject to EU regulatory approval and closing processes. According to a Hon Hai filing with the Taiwan Stock Exchange, closing is expected to occur by the second half of 2010.

Current Dell employees in Lodz will continue in their roles when Foxconn assumes management of the operation.

Dell has been working toward a goal of achieving \$4 billion in cost reductions by the end of its fiscal 2011 or sooner.

Recently, the company said it will close its desktop computer plant in Winston-Salem, NC (Oct., p. 4-5).

IEC Acquires Provider in New Mexico

IEC Electronics (Newark, NY), a publicly held EMS company, has purchased **General Technology Corporation**, an EMS provider in Albuquerque, NM, from **Crane Co.** IEC paid \$14.2 million in cash for GTC, an indirect, wholly owned subsidiary of Crane.

With revenue of about \$25 million, GTC serves a number of leading customers in the military and defense market. The provider also builds high-reliability electronics for other applications.

"GTC is a well-run company with strong margins that occupies an important niche in the military and defense

market. Its expertise is in helping its customers, primarily military 'primes,' manage their legacy products and programs. This is a unique niche market for which we envision continued growth. GTC not only supports our customers' emerging needs, but also provides us with an opportunity to diversify our customer base," stated W. Barry Gilbert, IEC's chairman and CEO.

The transaction will be accretive to IEC shareholders.

For Crane, which is a diversified manufacturer of engineered industrial products with about 10,000 employees, the transaction is a divestiture. Crane acquired GTC in 2002.

Other deals done... Flextronics (Singapore) has completed the previously announced acquisition of **SloMedical S.R.O.**, a Slovakian manufacturer of disposable medical devices (Oct., p. 5-6)... **LongWater Opportunities**, a private equity firm, has acquired **Circuitronics**, an EMS provider in Irving, TX, according to a report by the *Dallas Business Journal*.

Deal not done... SIIX (Osaka, Japan) has decided not to acquire two manufacturers of LCD signal processing modules from **FDK** (Nov., p. 7).

Kitron To Expand into Germany

Kitron (Billingstad, Norway) has agreed to acquire all of the shares in German EMS provider **Veru Electronic GmbH** at a price of 700,000 euros on a debt-free basis. The deal's closing is subject to reaching an agreement about the debt financing of the company. Kitron's intention is to complete the deal in early 2010 and make Veru a wholly owned German subsidiary.

Established in 1996, Veru has about 20 employees and generated 2008 sales of 1.4 million euros. It is located in Grossbottlingen in the mid-

dle of the industrial area of southern Germany.

Establishing a presence in Germany is part of Kitron's strategy to enter new geographical markets. According to Kitron, Germany is the European country with the highest potential for further outsourcing of electronics manufacturing. It is also the largest EMS market in Europe. Kitron said having a local entity gives a company credibility and shows its long-term commitment.

Kitron will use the German operation to market Kitron's services and to provide NPI and small series manufacturing in Germany.

New player in Germany... Under a realignment program, the **Electronic-Network** group, a German EMS provider, has sold the shares of its site in Limburg, Germany, to the site's two general managers, Rüdiger Hornhardt and Gerd Ohl. Starting in January, the divested site will operate under its own name.

New business... Flextronics and **Lenovo** have agreed to expand their EMS relationship to include European manufacturing and more services to be provided by Flextronics. As part of the new arrangement, Flextronics' Sarvar facility will manufacture computing products for Lenovo including commercial desktop, server and workstation products. Flextronics will also expand its capabilities in Hungary. In another new program, Flextronics will provide EMS, forward and reverse logistics, and aftermarket services support for a satellite-terrestrial smartphone designed by **Elektrobit** for **TerreStar**. In addition, Flextronics will produce two million netbooks for **HP**, according to a *Digitimes* report, which cited a Chinese-language newspaper.... Another *Digitimes* report relying on the same newspaper stated that Hon Hai will produce smartphones for Dell. In addition, Hon Hai Group is engaged in smartphone man-

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ufacturing for **Sony**, reported *CENS.com*. Finally, a cell phone using software developed by the Joint Innovation Lab will be produced by Hon Hai for **China Mobile**, according to *IDG News Service*. In a filing, Hon Hai stated that since customers of the group are likely to be involved in the JIL, the group is required for such outsourcing services....**Sanmina-SCI** (San Jose, CA) is handling final production engineering for a Tablet Analyser being developed by **T-Ray Science** (Vancouver, Canada) for pharmaceutical applications such as drug authentication. This product utilizes terahertz radiation....Germany's **Draeger** has awarded **Kimball Electronics Group** (Jasper, IN) a North American contract to manufacture assemblies for Draeger's newly developed PEX 3300 program that includes gas, electrochemical and explosion detection devices. First-year volume is estimated at between 2,000 and 5,000 units....Kitron has received orders totaling NOK 23 million (\$3.9 million) from the **Kongsberg Group**. The products ordered are part of a Kongsberg weapon control system called Protector. Also, **Otrum** (Oslo, Norway), a provider of interactive TV solutions and content to the hospitality industry, has chosen Kitron as supplier for Otrum's new ODM product. The

three-year program will bring in revenue of about NOK 35 million (\$6 million) for Kitron....**PartnerTech** (Malmö, Sweden) has landed a three-year contract from Sweden's **Opcon** for NPI and production of Opcon Powerboxes, which convert waste heat into electricity....**Sikorsky Aircraft** has awarded **LaBarge** (St. Louis, MO) a contract to produce electronic assemblies for various models of the Black Hawk helicopter. Valued at about \$18.9 million, the contract runs through 2014.

*Proposed public listings...***Fabrinet** (Cayman Islands), a Top 50 EMS provider, has filed a registration statement with the Securities and Exchange Commission in the U.S. for an initial public offering. The company provides precision optical, electro-mechanical and electronics manufacturing services for complex products such as optical communications components, modules and subsystems. Fabrinet also supplies customized optics and glass. The majority of Fabrinet's facility space is located in Thailand....The Philippines' Securities and Exchange Commission has approved the application of **Integrated Microelectronics, Inc.** (Laguna, Philippines) for listing of its common shares on the Philippine Stock Exchange by way of introduc-

tion. This form of listing would not involve an IPO, but a public offering must be made within one year of listing. The listing also requires approval from the PSE. IMI is another Top 50 EMS provider.

*New plants...*PartnerTech will open a new production unit for enclosures and system integration in Myslowice, Poland....Kitron has decided to begin manufacturing in China with a plant to be located in the Greater Shanghai region.

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