

# Manufacturing Market™ INSIDER

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## EMS Providers Overtake ODMs

### Hon Hai makes the difference

In the past, when a group of the largest EMS providers was compared with a group of the largest ODMs, the ODMs would invariably win the growth contest. Suspicions arose that the ODM model might be a better engine for growth. But the era of higher ODM growth is over, at least for now. Combined sales of 10 of the largest EMS providers outgrew revenue for a group of 10 of the largest ODMs, whether you're looking at the third quarter or the first nine months of 2010.

For the first nine months, the 10 EMS providers achieved an aggregate growth rate of 37.5%, compared with a 31.5% increase for the 10 ODMs (Chart 1). The EMS group not only closed the growth gap, but also opened up a lead of six percentage points.

With both the EMS providers and ODMs scoring above 30% growth for the period, it should come as no surprise that the overall growth rate for these 20 large contract manufacturers amounted to 34.6%. This result sets the stage for a 2010 growth rate likely above 30%, in line with this year's 31.5% growth in semiconductor revenue as estimated by **Gartner**. Nine-month sales of these CMs totaled \$209.0 billion, of which the EMS providers contributed \$112.9 billion and the ODMs \$96.1 billion (Table 1, p. 2).

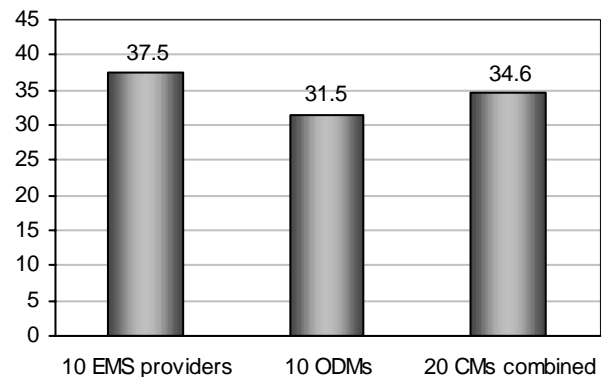
The difference between EMS and

ODM growth was even more pronounced in the third quarter. On a year-over-year basis, EMS group sales in Q3 rose 44% versus 11.4% for the ODMs. Likewise, Q3 sequential growth for the EMS providers was 20.7%, compared with almost no growth for the ODMs (Table 1). Indeed,

the EMS group's superior growth in Q3 made all the difference since the EMS providers trailed their ODM counterparts by 11.5 percentage points after six months, a lead that was wiped out and then some in the span of just the third quarter.

In Q3, the EMS group also outperformed the ODM side with regard to net profit margin. Net margin for the EMS providers came in at 2.39%, 68 basis points above the ODM group's

Chart 1: Nine-Month Growth Percentage Year Over Year



margin. In light of results such as these, it can no longer be assumed that ODM work is by definition the more profitable business. Clearly, margin pressure in the notebook space took its toll on ODM margins.

The EMS group owes its nine-month growth advantage to **Hon Hai Precision Industry**, by far the world's largest contract manufacturer. Without Hon Hai's contribution, the growth rate of the EMS side would have

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

No. of companies	Primary business	Q3 '10 sales	Q2 '10 sales	Qtr.-qtr. chg.	Q3 '09 sales	Yr.-yr. chg.	Q3 '10 net profit	Q3 '10 net margin	Q2 '10 net profit	Q3 '09 net profit	Q1-3 '10 sales	Q1-3 '09 sales	Yr.-yr. chg.	Q1-3 '10 net profit	Q1-3 '09 net profit
10	EMS	44,337	36,745	20.7	30,782	44.0	1,058	2.39	824	640	112,931	82,136	37.5	2,667	273
10	ODM	32,941	32,637	0.9	29,582	11.4	564	1.71	659	671	96,097	73,104	31.5	1,959	1,364
20		77,278	69,382	11.4	60,364	28.0	1,622	2.10	1,483	1,311	209,028	155,240	34.6	4,626	1,637

dropped to 17.6%, 13.9 percentage points below ODM growth (Chart 2).

Together, 20 of the largest CMs generated Q3 revenue of \$77.3 billion, up 11.4% sequentially and 28% year over year. In the quarter, they earned an aggregate net profit of \$1.6 billion, up 9.4% sequentially and 23.7% year over year, not quite in line with the sales increases. Composite net margin for all 20 CMs equaled 2.10% in Q3, down 4 basis points from the prior quarter.

The CMs' net profit for the first nine months totaled \$4.6 billion, up dramatically from \$1.6 billion in the year-earlier period. Net margin for the first three quarters was 2.21%, 116 basis points higher than in the comparable period of dismal 2009. However, note that the nine-month margin was also 11 basis points above the Q3 level and that net margin has slipped from 2.45% in Q1 to 2.10% in Q3.

If the combined Q4 sales of the 20 CMs turn out to be consistent with Q3 sales, then the companies' 2010 sales would reach \$286 billion. In that case, the contract manufacturing market as a whole would likely approach the \$300-

billion mark if not surpass it.

Five of the contract manufacturers posted nine-month sales gains above 50% in U.S. dollars. All of them are based in Taiwan, and four out of five are ODMs (Table 2, p. 3). Of the 20 CMs, 13 produced nine-month increases of greater than 19%. Sales declines appeared at only two companies, **Inventec** and **Venture**.

In Q3, 12 of the CMs achieved year-on-year sales growth above 20%, when measured in U.S. dollars. Massive Hon Hai defied the law of large numbers with the highest growth rate at an improbable 61.7%. Still, on a year-over-year basis Q3 growth rates were not healthy across the board. In particular, revenue of four CMs decreased from the year-ago quarter, and three of the sales declines were in double digits (Table 2).

Sequential growth rates in Q3 also varied widely among the 20 CMs. Growth ranged from 33% at **Qisda** to -6.2% at **Quanta Computer**, the largest ODM. For the quarter, all 20 CMs produced positive bottom lines. Net margins ranged from 7.17% at Venture to 0.81% at Inventec. Four EMS providers – **Benchmark Electronics**, **Plexus**, **Universal Scientific Industrial** and **Venture** – and only one ODM, **Ability Enterprise**, recorded net margins above 3%.

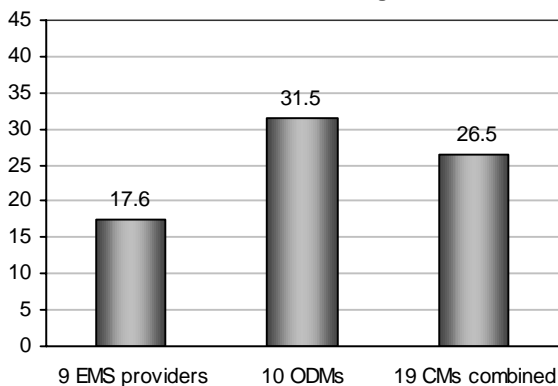
When companies were ranked by nine-month sales, Hon Hai displayed a first-place lead that is effectively insurmountable for the foreseeable future. What's more, Hon Hai's \$64.2 bil-

lion in revenue represented 30.7% of the nine-month total for the 20 CMs. Coming in second was Quanta, which is likely to maintain that position for the full year. Quanta was also in second place for 2009. **Compal Electronics** and **Flextronics** ranked third and fourth respectively after three quarters, with Compal ahead by \$1.1 billion. If Flextronics does not overcome this lead in Q4, it will fall to fourth place for 2010 from third in 2009. **Wistron** appears to be ensconced in fifth position for the full year based on nine-month standings. **Pegatron** and **Jabil Circuit** were just \$16 million apart after nine months, as Pegatron edged out Jabil for sixth place. As a result, Jabil took seventh for the period. Inventec claimed eighth position, followed by **TPV Technology** in ninth. **Sanmina-SCI** rounded out the top 10 (Table 2).

*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. In addition, a few of them have their own brands, which generate sales that fall outside of contract manufacturing but were included in this analysis.

The group of 20 CMs listed here involves one change from a nearly identical list used for a Q2 analysis (September, p. 3). **Inventec Appliances** was added to the current list, while **Elcoteq** dropped off as Inventec Appliances' nine-month sales squeaked by those of Elcoteq.

**Chart 2: Nine-Month Growth Percentage Year Over Year Excluding Hon Hai**



**Table 2: Q3 and Nine-Month 2010 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 '10 sales	Q2 '10 sales	Qtr.- qtr. chg.	Q3 '09 sales	Yr.-yr. chg.	Q3 '10 net profit	Q2 '10 net profit	Q3 '09 net profit	Q1-3 '10 sales	Q1-3 '09 sales	Yr.-yr. chg.	Q1-3 '10 net profit	Q1-3 '09 net profit
Hon Hai (Foxconn)	EMS	Taiwan	No	26,569	20,542	29.3	16,435	61.7	658	526	559	64,166	40,684	57.7	1,748	1,406
Quanta Computer	ODM	Taiwan	No	8,691	9,267	-6.2	6,465	34.4	183	160	187	25,872	16,828	53.7	510	464
Compal Electronics	ODM	Taiwan	No	6,719	7,132	-5.8	5,699	17.9	121	202	157	21,024	13,268	58.5	590	337
Flextronics	EMS	Singapore	Yes	7,422	6,566	13.0	5,832	27.3	144	118	20	19,928	17,197	15.9	323	(374)
Wistron	ODM	Taiwan	No	5,088	4,678	8.8	4,471	13.8	103	93	83	14,257	11,630	22.6	280	182
Pegatron*	ODM	Taiwan	No	3,621	3,263	11.0	4,496	-19.5	45	53	108	10,337	9,787	5.6	154	138
Jabil Circuit	EMS	Florida	Yes	3,861	3,456	11.7	2,800	37.9	59	52	6	10,321	8,302	24.3	141	(889)
Inventec	ODM	Taiwan	No	3,076	2,908	5.8	3,805	-19.2	25	36	33	8,793	9,945	-11.6	97	103
TPV Technology	ODM	Taiwan	Yes	2,950	3,063	-3.7	2,263	30.4	32	40	39	8,399	5,359	56.7	112	94
Sanmina-SCI	EMS	California	Yes	1,688	1,625	3.9	1,354	24.7	31	22	(33)	4,841	3,758	28.8	63	(112)
Celestica	EMS	Canada	Yes	1,547	1,585	-2.5	1,556	-0.6	35	(6)	(0.6)	4,650	4,428	5.0	55	24
Qisda	ODM	Taiwan	No	1,359	1,022	33.0	1,244	9.2	14	28	26	3,554	3,338	6.5	96	(51)
Cal-Comp Electronics	EMS	Thailand	No	1,031	913	12.9	833	23.8	16	17	13	2,775	2,316	19.8	44	29
Benchmark Electronics	EMS	Texas	Yes	614	589	4.2	511	20.3	23	21	16	1,775	1,489	19.2	62	37
AmTRAN Technology	ODM	Taiwan	No	636	512	24.3	443	43.5	15	16	16	1,587	1,407	12.8	43	44
Plexus	EMS	Wisconsin	Yes	556	536	3.6	393	41.4	27	24	15	1,583	1,161	36.4	72	29
Universal Scien- tific Industrial	EMS	Taiwan	No	549	463	18.6	424	29.4	28	17	19	1,466	1,101	33.2	62	37
Venture	EMS	Singapore	No	500	469	6.6	645	-22.4	36	33	27	1,426	1,700	-16.1	97	86
Ability Enterprise	ODM	Taiwan	No	435	434	0.2	341	27.6	23	23	21	1,221	721	69.2	64	46
Inventec Appliances	ODM	Taiwan	No	366	357	2.7	355	3.3	3	7	1	1,055	821	28.5	12	7
<b>Total/avg.</b>				<b>77,278</b>	<b>69,382</b>	<b>11.4</b>	<b>60,364</b>	<b>28.0</b>	<b>1,622</b>	<b>1,483</b>	<b>1,311</b>	<b>209,028</b>	<b>155,240</b>	<b>34.6</b>	<b>4,626</b>	<b>1,637</b>

Results in non-U.S. currencies were converted to U.S. dollars by applying a three-month average exchange rate for the corresponding quarter. Average exchange rates were based on monthly 2009 and 2010 data from the U.S. Federal Reserve. \*Results correspond to Pegatron's core DMS business.

## North American Group Nearly in Step with Larger Players

Nine-month results indicate that a group of 10 mid-tier and smaller EMS providers based in North America is nearly keeping up with the aggregate growth of the six largest U.S.-traded providers so far this year. For the first three quarters, sales of the 10 mid-tier and smaller providers totaled \$1.8 billion, representing composite growth of 16.8% from the year-ago period. This growth rate was only 1.8 percentage points below the nine-month gain of 18.6% collectively achieved by the six largest U.S.-traded providers (Nov., p.

2). Based on these results, the mid and smaller providers as a whole are benefiting from the 2010 recovery of the EMS industry almost as much as their large U.S.-traded competitors are.

If the group of 10 mid-tier and smaller EMS providers can maintain their nine-month growth rate of 16.8% through the fourth quarter or come close, then the group will end up with strong growth for 2010 well into double-digit territory.

The leaders in nine-month sales growth were **SMTC** and **IEC Elec-**

**tronics** with increases of 54.3% and 51.3% respectively. Seven out of 10 providers reported revenue increases above 20% for the nine-month period. Both **Sparton** and **CTS Electronics Manufacturing Solutions**, the EMS unit of publicly-held **CTS**, recorded double-digit sales declines for the period (table, p. 4).

In the third quarter, however, the group of 10 mid-tier and smaller providers lagged appreciably behind the six largest U.S.-traded providers when it came to sales growth. The 10 pro-

**Q3 and Nine-Month 2010 GAAP Results for Ten Mid-tier and Smaller EMS Providers  
Based in North America (M\$ or %)**

Organization	Q3 '10 sales	Q2 '10 sales	Qtr.-qtr. chg.	Q3 '09 sales	Yr.-yr. chg.	Q3 '10 gross marg.	Q2 '10 gross marg.	Q3 '09 gross marg.	Q3 '10 oper. marg.	Q2 '10 oper. marg.	Q3 '09 oper. marg.	Q3 '10 net in-come	Q2 '10 net in-come	Q3 '09 net in-come	Q1-3 '10 sales	Q1-3 '09 sales	Yr.-yr. chg.	Q1-3 '10 net inc.	Q1-3 '09 net inc.
Stand-Alone EMS Providers																			
LaBarge	85.4	82.4	3.7	63.2	35.3	20.4	19.8	19.4	9.4	9.4	6.6	4.9	4.8	3.1	242.6	200.1	21.2	13.9	9.5
SMTC	65.4	71.2	-8.2	44.2	48.0	12.0	11.7	8.5	4.8	5.2	2.2	2.6	3.2	0.5 <sup>1</sup>	198.0	128.3	54.3	7.8	(0.03) <sup>1</sup>
Key Tronic	63.3	61.9	2.4	41.3	53.3	9.4	10.7	6.5	4.1	4.9	0.9	1.7	2.3	0.3	176.9	131.0	35.0	8.5	0.8
Sparton	45.8 <sup>2</sup>	40.0	14.4	48.1	-4.9	15.4	13.8	15.3	9.0	5.6	3.3	4.1	2.1	1.4	124.4	161.5	-22.9	6.9	(8.2)
SigmaTron International <sup>3</sup>	38.2	38.1	0.4	30.6	25.0	11.1	12.2	10.7	3.2	4.2	3.0	0.6	0.9	0.5	111.2	84.1	32.3	3.2	0.3
IEC Electronics	27.3	26.1	4.6	18.3	49.3	17.5	17.8	17.5	7.8	8.7	7.7	1.6	1.2	0.9	78.6	52.0	51.3	3.9	4.4
Nortech Systems	26.0	24.7	5.1	18.7	39.2	11.1	12.6	8.7	0.6	2.0	-6.2	0.1	0.1	(0.9)	72.4	60.1	20.5	0.4	(3.7)
<b>Subtotal/avg.</b>	<b>351.4</b>	<b>344.4</b>	<b>2.0</b>	<b>264.2</b>	<b>33.0</b>	<b>14.3</b>	<b>14.3</b>	<b>12.9</b>	<b>6.1</b>	<b>6.1</b>	<b>3.1</b>	<b>15.7</b>	<b>14.6</b>	<b>5.8</b>	<b>1,004.1</b>	<b>817.0</b>	<b>22.9</b>	<b>44.5</b>	<b>3.1</b>
EMS Units of Larger Public Companies																			
Kimball Electronics Group	177.9	186.5	-4.6	165.5	7.5				0.1	1.5	-0.5	(0.2)	2.5	(0.2)	554.5	458.5	21.0	13.0	(10.5)
CTS Electronics Mfg. Solutions	67.6	66.6	1.5	70.7	-4.4				0.1	-0.3	3.1				190.2	217.4	-12.5		
Raven Industries unit (EMS) <sup>3</sup>	17.8	18.1	-1.7	15.7	13.3				12.9 <sup>4</sup>	15.6 <sup>4</sup>	10.0 <sup>4</sup>				52.1	49.7	4.8		
<b>Total/avg.</b>	<b>614.6</b>	<b>615.6</b>	<b>-0.2</b>	<b>516.1</b>	<b>19.1</b>										<b>1,800.9</b>	<b>1,542.5</b>	<b>16.8</b>		

<sup>1</sup> Net income results are for continuing operations. <sup>2</sup> Sparton's Defense and Security Systems (non-EMS) represented about 38% of Q3 '10 sales. <sup>3</sup> Q3 results are for the quarter ended October 31. <sup>4</sup> Segment operating income excluded corporate expenses.

viders together generated year-over-year sales growth of 19.1%, seven percentage points behind the 26.1% overall gain produced by the six large competitors in the quarter (Nov., p. 2). **Key Tronic** posted the highest Q3 increase at 53.3% from a year earlier. Five providers reported Q3 growth above 35%. Combined Q3 revenue for the group was \$615 million.

Compared with the prior quarter, the group of ten's Q3 revenue fell slightly by 0.2%. Sequential growth ranged from -8.2% for SMTC to 14.4% for Sparton (table above).

The group of ten mid-tier and smaller providers consists of seven stand-alone EMS companies, all publicly traded, and three EMS units within larger publicly-held corporations. The seven stand-alone providers report gross profit, while the three EMS units do not. Composite gross margin for the seven stand-alone providers amounted to 14.3% in Q3, flat with the prior quarter but up 140 basis points year over year. Six out of seven pro-

viders achieved double-digit gross margins for Q3, once again led by **LaBarge** at 20.4% (table).

Q3 operating margin for the seven stand-alone providers came in at 6.1%, flat with Q2 but 300 basis points above the year-earlier result. LaBarge also posted the highest operating margin at 9.4%, followed by Sparton at 9.0% (table).

However, the composite operating margin for Q3 dropped to 3.5% when operating results for two of the EMS units were added. (**Kimball International** and CTS report operating income of their EMS units, while **Raven Industries** does not provide a comparable figure.) Still, the 3.5% operating margin, representing nine out of the ten mid-tier and smaller providers, was 80 basis points above what the six largest U.S.-traded providers were able to achieve as a group.

Net income is recorded for eight out of ten providers in the mid-tier and smaller group (the seven stand-alone companies plus Kimball Electronics

Group). In Q3, the eight providers together earned net income of \$15.4 million on sales of \$529 million for a net margin of 2.91%, down from 3.23% in Q2.

### **Results for Seven Asia-Based Providers**

For the first time, *MMI* has compiled results for a group of seven Asia-based EMS providers, all publicly listed and ranked among the Top 50 EMS providers in 2009 (Table 1A, p. 5).

In the first nine months of 2010, the seven Asia-based providers generated combined sales of \$3.1 billion, up 21.4% from the year-ago period. This rate was well below the comparable 34.6% increase collectively attained by 20 of the largest contract manufacturers. However, sales growth for the Asia-based group came in 3.8 percentage points above the composite rate of 17.6% for the nine EMS providers in the group of 20 excluding **Hon Hai Precision Industry** (see Chart 2, p. 2).

Company (in order of 9-mo. sales)	Head- quarters	Reports in US\$	Q3 '10 sales	Q2 '10 sales	Qtr.- qtr. chg.	Q3 '09 sales	Yr.-yr. chg.	Q3 '10 net profit	Q2 '10 net profit	Q3 '09 net profit	Q1-3 '10 sales	Q1-3 '09 sales	Yr.-yr. chg.	Q1-3 '10 net profit	Q1-3 '09 net profit
Beyonics <sup>1</sup>	Singapore	No	269	268	0.2	274	-2.0	(2)	0	1	812	779	4.2	(2)	0.2
Kinpo Electronics	Taiwan	No	329	206	59.9	199	65.2	2	17	(12)	719	582	23.5	29	(27)
Fabrinet	Thailand <sup>2</sup>	Yes	174	157	10.4	97	79.1	15	14	6	468	264	77.1	42	14
Nam Tai Electronics	China	Yes	175	114	53.4	110	58.3	8	3	5	368	314	17.0	10	1
Integrated Micro-Elec- tronics, Inc.	Philippines	Yes	104	98	6.1	112	-7.2	0.3	1	3	293	282	4.0	5	9
Surface Mount Technology (Holdings)	Hong Kong	No	76	84	-9.4	56	36	(2)	(1)	(2)	227	163	38.9	(4)	(7)
SVI	Thailand	No	65	57	13.5	43	50	6	5	4	177	139	27.7	17	12
<b>Total/avg.</b>			<b>1191</b>	<b>984</b>	<b>21.0</b>	<b>892</b>	<b>33.5</b>	<b>27</b>	<b>40</b>	<b>5</b>	<b>3,063</b>	<b>2,523</b>	<b>21.4</b>	<b>97</b>	<b>2</b>

<sup>1</sup>Q3 results are for the quarter ended Oct. 30. <sup>2</sup>Fabrinet's manufacturing headquarters are in Thailand. Results in non-U.S. currencies were converted to U.S. dollars by applying a three-month average exchange rate for the corresponding quarter. Average exchange rates were based on monthly 2009 and 2010 data from the U.S. Federal Reserve, except for SVI, whose results were converted using average exchange rates reported by SVI.

With a nine-month sales increase of 77%, **Fabrinet** was by far the fastest-growing company in the Asia-based group for the period (Table 1A).

Q3 was a stellar quarter on the whole for the seven Asia-based providers. In U.S. dollars, they produced combined revenue growth of 21% sequentially and 33.5% year over year.

Four providers had year-over-year growth of 50% or more in the quarter. Still, two providers experienced year-over-year sales declines (Table 1A).

The Asian-based group achieved an overall net profit margin of 2.29% for the quarter, 19 basis points higher than what the 20 large CMs produced. But net margins varied greatly, ranging

from -2.34% to 9.25%.

*Editor's note:* Not all the sales tabulated here may be strictly counted as EMS. For example **Beyonics** has a Precision Engineering Services division; **Fabrinet's** business includes passive optical components; and **Nam Tai Electronics** derives a portion of its sales from LCD products.

## Forecasts Blended

Armed with a blending of the latest forecast data, the EMS industry can still present itself as a double-digit growth business. When EMS revenue forecasts from **IDC**, **InForum** and **New Venture Research** were combined, the result was a compound annual growth rate of 10.8% over the period 2009 to 2014. IDC and NVR forecasted CAGRs of 11.4% and 12.0% respectively, which are higher than the blended rate, while InForum's CAGR of 8.0% is lower (Table 1B).

How large is the EMS industry today? Estimates for 2010 vary widely. At the low end of the range, InForum puts the size of the EMS industry at \$124.6 billion for the current year, while at the high end NVR pegs indus-

**Table 1B: Three Firms' EMS Revenue Forecasts 2009-2014 (billions of US\$)**

Firm	2009	2010	2011	2012	2013	2014	CAGR
IDC	136.8	168.6	185.0	200.9	218.3	234.3	11.4%
InForum	108.4	124.6	138.8	144.9	152.2	158.9	8.0%
NVR	169.6	192.2	213.2	239.0	268.8	299.0	12.0%
Average	138.3	161.8	179.0	194.9	213.1	230.7	10.8%*
Yr.-yr. chg.		17.0%	10.6%	8.9%	9.3%	8.3%	
<b>Three Firms' ODM Revenue Forecasts 2009-2014 (billions of US\$)</b>							
Firm	2009	2010	2011	2012	2013	2014	CAGR
IDC	106.3	129.9	139.3	147.7	156.1	165.6	9.3%
InForum	124.2	151.1	161.3	169.1	176.4	181.8	7.9%
NVR	100.1	111.4	124.4	140.0	159.0	179.9	12.4%
Average	110.2	130.8	141.7	152.2	163.8	175.8	9.8%*
Yr.-yr. chg.		18.6%	8.3%	7.5%	7.6%	7.3%	
<b>Three Firms' Outsourcing Revenue Forecasts 2009-2014 (billions of US\$)</b>							
Firm	2009	2010	2011	2012	2013	2014	CAGR
IDC	243.2	298.5	324.4	348.5	374.4	399.9	10.5%
InForum	232.6	275.7	300.1	313.9	328.6	340.7	7.9%
NVR	269.7	303.6	337.7	378.9	427.7	478.9	12.2%
Average	248.5	292.6	320.7	347.1	376.9	406.5	10.3%*
Yr.-yr. chg.		17.7%	9.6%	8.2%	8.6%	7.9%	
*Calculated from average revenue for 2009 and 2014. Forecasts supplied by IDC, InForum and New Venture Research.							

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try revenue at \$192.2 billion. IDC is in between with an estimate of \$168.6 billion. Averaging the three estimates yields an EMS market size of \$161.8 billion for 2010. Compared with an estimate mean of \$138.3 billion for 2009, the 2010 average represents EMS sales growth of 17.0% this year (Table 1B, p. 5).

The blended forecast shows annual growth falling to 10.6% in 2011, corresponding to an average estimate of \$179.0 billion for next year's EMS revenue. In subsequent years, blended annual growth rates remain fairly constant, ranging from 8.3% to 9.3%. At the end of the forecast period in 2014, EMS projections average \$230.7 billion.

In the blended forecast, the ODM sector has a five-year CAGR of 9.8%, one percentage point below that of the

EMS industry. Projected CAGRs for ODM revenue range from 7.9% for InForum to 12.4% for NVR. According to blended data, the EMS industry will increase its market share to 56.8% in 2014 from 55.6% in 2009, while the ODM share will slip to 43.2% in 2014 from 44.4% in 2009.

Still, the combined data show ODM sales outgrowing EMS sales this year, 18.6% to 17.0%. Estimates for ODM revenue in 2010 vary from \$111.4 billion for NVR to \$151.1 billion for InForum. The forecasts for 2010 average \$130.8 billion.

But after 2010, blended annual growth rates for the ODM sector are lower than those of the EMS industry (Table 1B). For 2011, the ODM mean is \$141.7 billion, up 8.3% from the comparable 2010 figure. In the three following years, composite annual

growth rates for the ODM side are nearly the same, ranging from 7.3% to 7.6%.

As for total outsourcing revenue (EMS + ODM), the three forecasts average \$248.5 billion for 2009, increasing to \$292.6 billion this year for a 17.7% gain and later reaching \$406.5 billion at the end of the forecast period in 2014. The start and end values correspond to a blended CAGR of 10.3%.

For 2010, estimates of total outsourcing revenue are closer together than either the spread in EMS forecasts or the spread in ODM forecasts. Outsourcing revenue projections differ by a maximum of \$27.9 billion, less than 10% of the forecast average, with InForum projecting \$275.7 billion at the low end and NVR estimating \$303.6 billion at the high end.

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## News

### ***GM Unit's Kokomo Site Enters EMS Business***

With business growth as the goal, the Kokomo, Indiana, site of **General Motors Components Holdings** is making the site's manufacturing capabilities available to customers outside the automotive industry. GMCH is a wholly owned subsidiary of **General Motors**. Under this new business model, Kokomo Electronics Assembly, a unit within GMCH's Kokomo Operations, has opened for business as an EMS provider.

Kokomo Operations also include two other units: Kokomo Semiconductors and Kokomo Thick-Film Printing. Both of them are seeking new customers as well, with the thick-film unit also presenting itself as an EMS provider.

Together with the thick-film unit, Kokomo Electronics Assembly occupies a facility with 2.5 million ft<sup>2</sup> of manufacturing floor space. "We're not floor space constrained," said Tim

Guse, who serves as business development manager for both Kokomo Electronics Assembly and Kokomo Thick-Film Printing.

In the past, Kokomo Operations provided product exclusively to GM and **Delphi**. It continues to produce components including semiconductors, engine and transmission control modules, crash sensing and diagnostics modules, pressure sensors for engine management and occupant detection, body computer modules and power electronics modules primarily for the automotive industry. Today, the Kokomo site, which employs over 1,000 people, builds products for many customers with GM being its largest.

Although the Kokomo site, with its history of medium- to high-volume manufacturing, would like to be flooded with high-volume opportunities, site management realizes that this is not necessarily where the market is today in the U.S. The site's progress in lean manufacturing gives it the flexibility to adjust quickly to a variety of customer demands. "We also have the advantage of owning and operating our

own tooling center with extensive fabrication and modeling capability, which allows us to quickly reconfigure our surface mount and assembly operations to meet customer requirements regardless of order volumes," according to an emailed statement from Brian King, GMCH Kokomo Site new business development manager.

Over the years, a number of OEMs seeking higher plant loading entered the EMS business only to withdraw later on. Is Kokomo Electronics Assembly committed to be in the EMS business for the long term? "Our plans extend for several years into the future, and there is no reason to believe we would not remain in the EMS industry," King stated.

He reported that the Kokomo site has been pleased with the reception it has received from its launch as both an EMS and semiconductor provider.

The Electronics Assembly unit is in the unusual position of being able to access an in-house wafer fabrication facility, which can be a competitive advantage from a financial and lead-time reduction standpoint, according

to King. However, he pointed out that the unit performs a make-versus-buy analysis when sourcing ICs.

*Two more new players...* **Segue Manufacturing Services** (Lowell, MA), an electromechanical contract manufacturer, has expanded into the EMS domain with its acquisition of **Sanbor Interconnect** in Xiamen, China. SMT assembly and box build are among the capabilities that Segue gained from this acquisition.

In addition, **Solutions Group (UK) plc**, a UK wholesaler for professional installers, has created a new EMS provider, **Precision Manufacturing Ltd**, in Northampton, UK.

### *IEC Augments Wire and Cable Business*

**IEC Electronics** (Newark, NY), a publicly held EMS provider, has expanded its wire and cable business by acquiring **Southern California Braiding Company** (Bell Gardens, CA), a privately owned company focused on supplying high-reliability wire and cable products to the military and defense market.

IEC paid \$25.0 million for SCB, whose annual sales amount to about \$20 million. The purchase price has been financed by a \$24.4-million credit facility and \$600,000 in equity. The acquisition is expected to be immediately accretive.

Described by IEC as a well-run company with strong margins, SCB specializes in providing customers, primarily military prime contractors and NASA, with complex and highly reliable cables and wire harnesses built to withstand the demands of extreme environments. "With this acquisition, IEC has strengthened the foundation of achieving its objective to become one of the premier providers to high-reliability contract manufacturing markets," stated W. Barry Gilbert, IEC's chairman of the board and CEO.

"Despite forecasted military cutbacks, SCB supports programs that should be maintained and continue to grow. This acquisition further diversifies IEC's customer base and introduces us to new opportunities with existing customers. SCB complements our existing wire and cable business, IEC Electronics Wire and Cable, developed from our Val-U-Tech acquisition in June 2008," Gilbert noted.

### *Finnish Firms To Merge*

**Scanfil EMS Oy**, a Top 50 EMS provider based in Sievi, Finland, and **Ojala-Yhtymä Oy**, a mechanics-oriented contract manufacturer also based in Sievi, have entered into a merger agreement whereby Ojala-Yhtymä will merge into Scanfil EMS. Scanfil EMS is a wholly owned subsidiary of Scanfil plc. Following the merger, which is planned for the first half of 2011, Scanfil plc will have a 79% holding in Scanfil EMS, and former owners of Ojala-Yhtymä a 21% holding.

In Sievi, the merger will create Finland's largest contract manufacturing center for professional electronics and telecom, according to Scanfil. The company noted that Ojala-Yhtymä's foreign units in Slovakia and India complement Scanfil EMS's international operations. Besides Finland, Scanfil EMS has plants in China, Estonia and Hungary. In addition, the merger will result in synergy benefits in manufacturing, procurement and logistics, Scanfil stated.

For the first nine months of 2010, Ojala-Yhtymä achieved an operating profit margin of 8.8% on sales of 34.1 million euros. On a pro forma basis, the two contract manufacturers together would have generated sales of 191.0 million euros and an operating margin of 5.8% for the period.

Ojala-Yhtymä's main customers are international players in the electricity, telecom and automation industries.

This announcement follows Scan-

fil's purchase of a 32.96% stake in **Kitron**, a Top 50 EMS provider based in Norway (Oct., p. 6).

### *German Provider Acquires EMS Site*

**EN ElectronicNetwork** (Bornheim-Hersel, Germany), another Top 50 EMS provider, has acquired the Schwandorf, Germany, site of **Görmiller Electronic GmbH**, an EMS company that filed for insolvency in October.

Through the addition of the Görmiller site in Schwandorf, EN ElectronicNetwork continues developing its selling proposition, which is regional proximity to its customers in different parts of Germany. The Schwandorf location in the Upper Palatinate region of Bavaria gives the provider five sites in Germany.

"Our task is now to gain the trust of the existing Görmiller customers and to continue developing the customer relationships," explained Klaus Kroesen, chairman of the board of EN ElectronicNetwork.

*Some new business...* Two new solar programs won by **Flextronics** (Singapore) reached the public eye this month. First, **SunEdison**, a subsidiary of **MEMC Electronic Materials**, announced that its affiliate, MEMC Singapore, is partnering with Flextronics to produce solar photovoltaic (PV) panels at Flextronics' facility in Newmarket, Ontario, Canada. Flextronics will produce MEMC branded solar panels that will be used by SunEdison for its solar PV projects. This way, SunEdison and its project partners will exceed the 60% domestic content requirement of Ontario's feed-in-tariff program, while SunEdison gains support for its anticipated growth in the region. The program will provide an initial 50 megawatts of annual panel capacity. In the second program,

# News

**Amonix** (Seal Beach, CA) has selected Flextronics as a manufacturing partner for Amonix's concentrated photovoltaic solar power systems. Amonix said Flextronics' manufacturing capabilities in California and Nevada will enable it to reduce time-to-market and rapidly scale its business to meet the needs of customers in California, Nevada and other Southwestern U.S. states with sunny and dry climates. . . . **Sarantel Group**, a manufacturer of miniature antennas for mobile and wireless devices, is outsourcing its manufacturing operations to **Elcoteq's** factory in Tallinn, Estonia. . . . **CTS** (Elkhart, IN) has landed a three-year manufacturing contract from **Thales e-Security, Ltd.** (Long Crendon, UK). CTS's Scotland facility will provide Thales with turnkey services, including PCB and mid-plane assembly and high-level integration for data encryption devices. . . . **SMTC's** regional manufacturing center in Toronto, Canada, will provide PCBA and subassembly manufacturing services for a line of air-cooled RF generators from **MKS Instruments**, an existing customer of SMTC. The RF generator program targets renewable energy markets. . . . **LaBarge** (St. Louis, MO) recently announced contract awards from five customers: \$8.4 million in contracts from **Kaman Aerospace** for helicopter cockpit wiring harnesses, a

\$3.5-million order from **General Dynamics Armament and Technical Products** for high-level electronic assemblies used in a naval weapon system, \$4 million in contracts from **Goodrich's Atlantic Inertial Systems** for high-reliability PCB assemblies used in missile navigation and guidance systems, a \$5.6-million award from **L-3 Communication Systems – West** for complex electronic assemblies used in military data link systems, and a contract of undisclosed value from **Moog** for PCB assemblies used in the F-35 Joint Strike Fighter. . . . **ET Water Systems** (Novato, CA) is relocating the production and assembly of its entire line of smart irrigation management products to Silicon Valley from Asia. ET Water's U.S.-based manufacturing partner is **General Electronics Assembly** (Santa Clara, CA).

*New facilities...* **Plexus** (Neenah, WI) has signed an agreement to purchase land for the construction of a new manufacturing facility in China's Xiamen Xiangyu Free Trade Zone, adjacent to its current facility. This new facility will add about 180,000 ft<sup>2</sup> of manufacturing capacity, with production to begin in the second half of 2012. In addition, Plexus plans to open a design center in Darmstadt, Germany. The company expects the center to

be operational in March 2011. . . . Growing demand for low-cost North American assembly has led CTS to establish a dedicated EMS facility in Matamoros, Mexico. The new facility, which will be fully operational by Q1 2011, will increase manufacturing space by 55,000 ft<sup>2</sup>.

*Alliance...* Taiwan's **Hon Hai Precision Industry** will collaborate with Silicon Valley venture capital firms **NEA**, **Onset** and **DCM** as well as 12 of their IT ventures to build a technology exchange and incubation platform.

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

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**E-mail:** jbt@mfgmkt.com  
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